

22 August 2018

Mr. Joshua Keller
Environmental Manager
Indiana Department of Environmental Management
100 North Senate Ave.
Indianapolis, IN 46204-2251

**RE: Report of the Eighth Performance Groundwater Monitoring Event
TORX Facility, 4366 North Old US Highway 31, Rochester, Indiana
Facility Cleanup ID 7100149
Wood Project Number 3359-15-1040**

Dear Mr. Keller:

Enclosed is the *Report of the Eighth Performance Groundwater Monitoring Event* performed at the TORX Facility located in Rochester, Indiana prepared by Wood Environment & Infrastructure Solutions, Inc. (Wood). The work was completed as described in the *Remediation Work Plan* dated 24 June 2014.

This report details the results of the 2017 polishing injections and the eighth performance groundwater monitoring event, which subsequently occurred in February and March of 2018. The groundwater data indicates chlorinated compound degradation is continuing in the treatment zones. The overall total site-wide mass of chlorinated compounds in the treatment areas has been reduced by 87% from baseline concentrations. This reduction is depicted on the following page, which presents the contaminant mass isopleths from the baseline (2013) and eighth performance groundwater (2018) sampling events.

Following two additional performance monitoring events, Wood plans to initiate stability groundwater monitoring in 2019. If you have any questions or comments following your review of this report, please call our office at 937-859-3600.

Sincerely,
Wood Environment & Infrastructure Solutions, Inc.

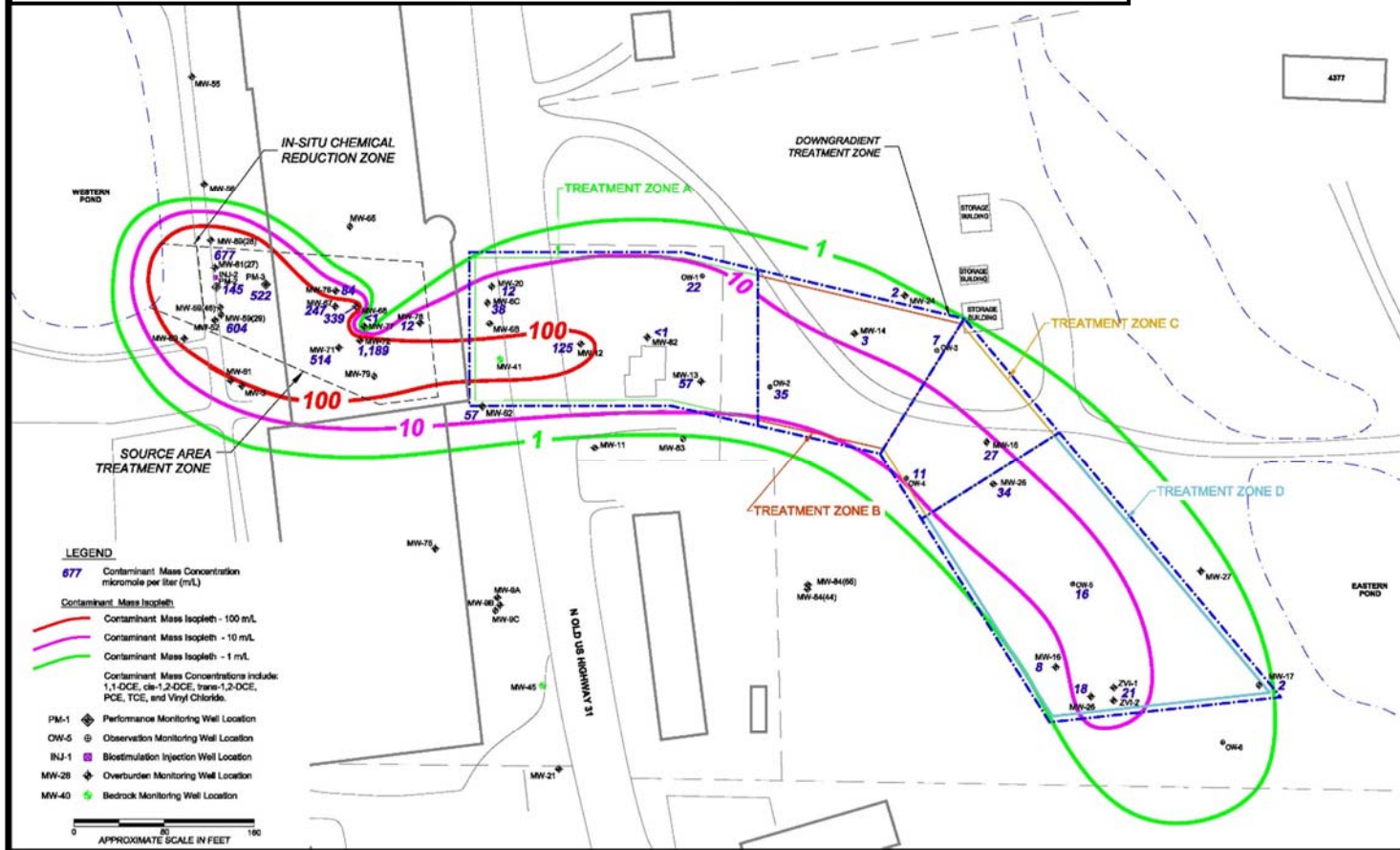

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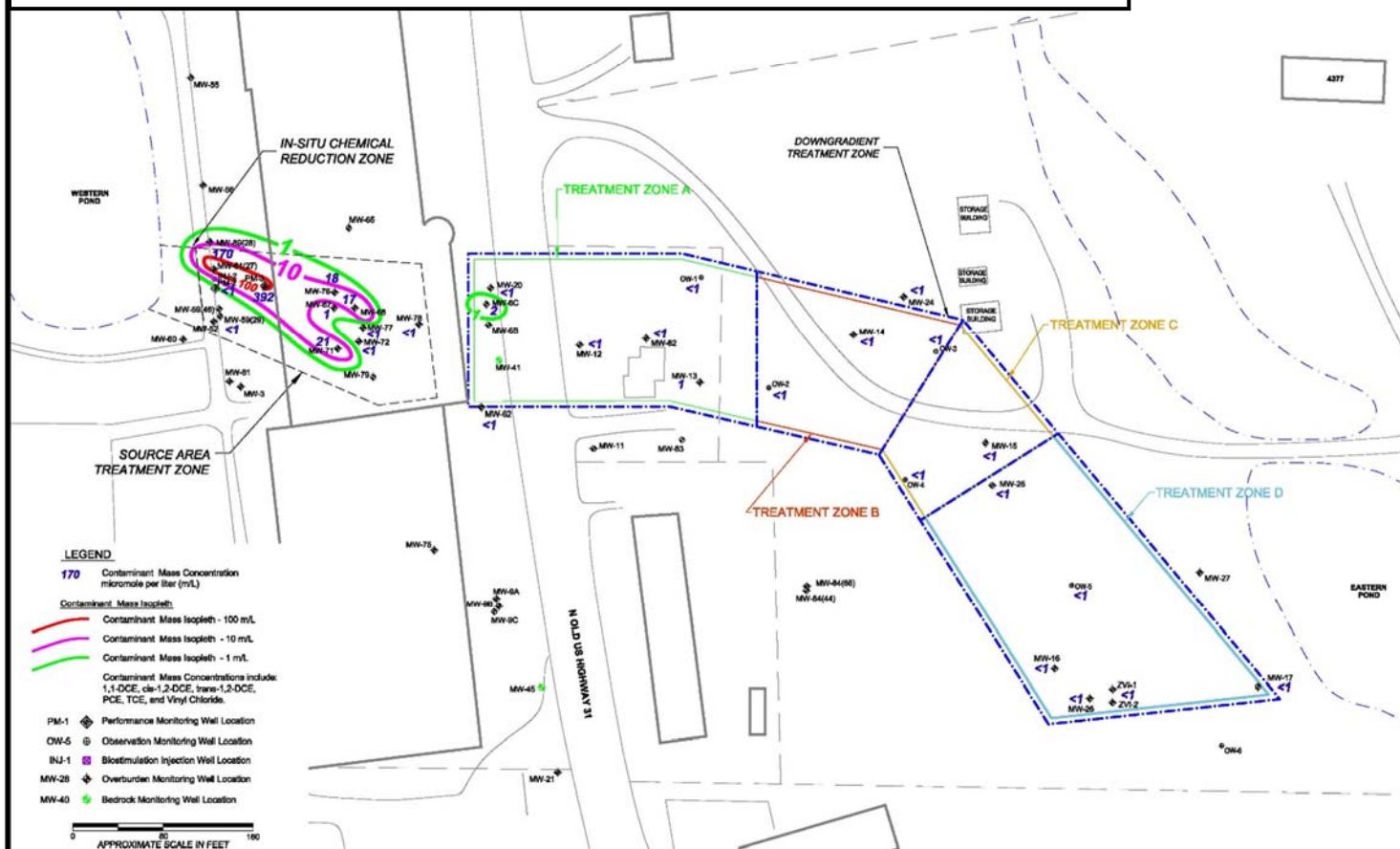
Enclosure

cc: Jamison Schiff, Textron, Inc.

2013 Baseline Groundwater Contaminant Mass Isopleths



February/March 2018 Groundwater Contaminant Mass Isopleths



REPORT OF THE POLISHING REMEDIAL INJECTIONS AND THE EIGHTH PERFORMANCE GROUNDWATER MONITORING EVENT

Former TORX Facility

4366 North Old US Highway 31
Rochester, Indiana

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August 2018

Project No. 3359-15-1040

IMPORTANT NOTICE

This report was prepared exclusively for Textron, Inc. by Wood Environment & Infrastructure Solutions, Inc. (Wood), formerly Amec Foster Wheeler. The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in Wood's services and based on: i) information available at the time of preparation, ii) data supplied by outside sources and iii) the assumptions, conditions and qualifications set forth in this report. This report is intended to be used by Textron, Inc. only, subject to the terms and conditions of its contract with Wood. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

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ACRONYMS

µg/L	micrograms per liter
ABC	Anaerobic Biochem (ABC®)
Amec Foster Wheeler	Amec Foster Wheeler Environment & Infrastructure, Inc.
BGS	below ground surface
cells/mL	cells per milliliter
CVOC	chlorinated volatile organic compounds
DCE	dichloroethene
DHC	Dehalococcoides bacteria
DO	dissolved oxygen
ERD	Enhanced Reductive Dechlorination
HDPE	high density polyethylene
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
O&M	Operation and Maintenance
QAPP	Quality Assurance Project Plan
qPCR	Quantitative Polymerase Chain Reaction
RWP	Remediation Work Plan
TCE	trichloroethene
TOC	total organic carbon
Site	former TORX facility
SSD	Sub-Slab Depressurization
USEPA	U.S. Environmental Protection Agency
VFA	volatile fatty acid
VOC	Volatile organic compound
Wood	Wood Environment & Infrastructure Solutions, Inc.
ZVI	zero valent iron

1.0 Introduction

Wood Environment & Infrastructure Solutions, Inc. (Wood), formerly Amec Foster Wheeler Environment and Infrastructure, Inc., has prepared this report to document the polishing remedial injections and performance monitoring that occurred during the 2017 fourth and 2018 first quarters, respectively. These events are 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 Remediation Background

Wood 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. Wood 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 25 January 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 designated as the ISCR treatment zone located behind the building in June and July 2015. ERD injections were implemented in the source area behind and beneath 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 locations are shown on Figure 3. Figure 4 presents the locations of the initial full-scale remediation ISCR injection points.

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. Based upon the results of the Performance Groundwater Monitoring events completed in 2015 and 2016, a polishing injection program was implemented. The first polishing injection event was 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. ABC® is supplied by Redox Tech, LLC (Redox Tech) and is referred to as “ABC” hereinafter.

As part of the 2016 polishing injection program, 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 2016 polishing injections were documented in Amec Foster Wheeler’s *Report of Polishing Remedial Injections and the Fifth Performance Groundwater Monitoring Event*, dated August 2017.

Performance groundwater monitoring has been completed at regular intervals to evaluate the progress of the ERD process at the Site. 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.
- The sixth performance monitoring event was conducted in June 2017 and is documented in Amec Foster Wheeler's *Report of the Sixth Performance Groundwater Monitoring Event* dated November 2017.
- The seventh performance monitoring event was conducted in October 2017 and is documented in Amec Foster Wheeler's *Report of the Seventh Performance Groundwater Monitoring Event* dated February 2018.

3.0 2017 Polishing Injections

As a result of the full-scale injection certain areas in the treatment zones at the site exhibited desorption of CVOCs from the aquifer matrix. A second ERD polishing injection program was implemented in 2017 to target these areas.

3.1 Polishing Injections Overview

Polishing injections were designed to use a combination of existing injection wells in combination with injections through tooling using Direct Push Technology (DPT). Wood performed the second polishing injection event in November and December 2017. The 2017 injection locations within the source and downgradient treatment areas are shown in Figures 2, 7, and 8. In addition to the ERD polishing injections, the source area at the pond

and certain areas within Treatment Zone B were selected to receive additional treatment using ISCR. The ISCR injections were completed using DPT.

3.2 2017 Injection Activities

The ERD injections used an amendment that consisted of mid-range fatty acid and ethyl lactate based formulas designed by Wood and supplied by Redox Tech. Several different formulations of ABC were selected for use depending upon the characteristics of the aquifer and aquifer matrix. The various ABC product blends were diluted approximately 10:1 to 6:1 with water to create the final injection amendment. Overall the polishing injections utilized approximately 8,715 gallons of various ABC amendments, 10,104 pounds of zero valent iron (ZVI), and 2,240 pounds of dipotassium phosphate (DKP) as a buffering agent to keep groundwater pH within optimal conditions for biological activity. The material mixing process consisted of two 1,700- gallon, high density polyethylene (HDPE) tanks, transfer/mixing pumps, injection pump, flow and pressure instrumentation and control valves.

Details of the polishing injections for each treatment area are described in the subsequent sections.

3.2.1 Source Area at Western Pond

The Source Area ISCR treatment zone directly east of the Western Pond and west of the access road behind the manufacturing plant was previously treated in 2015 and 2016 using ISCR and EDR technology. Figure 7 presents the location of injection points for the initial injection and both polishing events. For the 2017 injection program, ABC-Ole was combined with zero valent iron (ZVI) to provide ISCR as a longer lasting bio-stimulant treatment. The second round polishing injections in the ISCR treatment zone were performed from 14 November 2017 through 1 December 2017. There were 12 DPT injection points (SP2-1 through SP2-12) on two rows (Figure 7 and 8). The injections were generally conducted using a bottom-up injection sequence. Each injection point treated five intervals ranging from the following depths: 13-16, 16-19, 19-22, 22-25, and 25-28 feet below ground surface (BGS).

A total of 672 gallons of ABC-Ole and 5,400 pounds of ZVI were diluted with 5,170 gallons of water. Each injection interval received approximately 97.5 gallons of amendment. The slurry was mixed in a batch fashion and pumped through a grout plant. Approximately three batches

per interval were required. Table 1 presents a summary of the quantities of ABC-Ole/ZVI injected into each point.

Daylighting occurred at a limited number of interval locations during the injection, primarily when injecting into the top two injection intervals. In each case, the injection was terminated, and the point was filled with bentonite and the top 10 feet grouted. The area around the point was allowed to equilibrate for at least 12 hours, and the injection point was off-set no more than three feet, and reinstalled to the injection interval where daylighting occurred. The remaining volume required for that interval and subsequent intervals was then injected.

Array A

Array A is located within the source area east of ISCR treatment zone and the access road behind the manufacturing plant (Figure 8). Array A was treated by injecting amendments in two rows through 16 angled DPT injection points from 1 December 2017 through 12 December 2017. Figure 8 presents the injection point surface locations and the inferred angled horizontal injection zones.

Prior to installing the angled DPT injection points, an exploratory boring was drilled at 20 degrees from vertical to determine the depth of the confining silt layer. The silt layer was encountered at approximately 21-23.5 feet BGS. Figure 9 presents a cross section depicting the location of this silt layer and the angled injection points. The total depth of the injection borings was adjusted to 22 feet BGS to prevent drilling into the silt layer.

The first row consisted of 10 injection points (SP2-13 through SP2-22) spaced approximately 7.5-feet apart running north to south along the access road, and installed at a 20° angle (from vertical). Each injection point consisted of three injection intervals ranging from 14-17, 17-20, and 20-22 feet BGS. Table 2 presents a summary of the quantities and types of amendments that were applied in the first row. A total volume injected for the first row was 5,486 gallons consisting of 559 gallons of high fatty acid blend ABC, 4,704 lbs of ZVI, and approximately 4,604 gallons of water. Each injection point was to receive 57 gallons of high fatty acid blend ABC, 480 lbs of ZVI, and 460 gallons of water. The slurry included approximately 34 lbs of guar, which was used as a thickener to suspend the ZVI. The slurry was mixed in a batch fashion and pumped through the grout plant. Approximately five batches per interval were required.

Due to amendment surfacing which occurred at SP2-22, only a fraction of the amendment was injected into the 14-17 foot zone. The injection point was terminated and grouted closed. The remaining batch of amendment was injected into the 14-17 foot zone of SP2-18. See Table 2 for injection volumes.

The second row in Array A consisted of six (6) injection points (SP2-23 through SP2-28) spaced approximately 10 feet apart running north to south along the access road, and installed at a 30° angle (from vertical). Each injection point consisted of three injection intervals ranging from 14-17, 17-20, and 20-22 feet BGS. Table 3 summarizes the injected volumes at each injection location. Injection intervals were injected simultaneously at each location, and included the application of high fatty acid blend ABC, as well as, DKP at certain intervals.

A total of 176 gallons of ABC solution, 820 pounds of DKP, and 3,443 gallons of solution were injected. The first (bottom) and third (top) intervals at each injection location received approximately 68 pounds of DKP solution before 9.8 gallons ABC amendment were injected. The second interval received 9.8 gallons of ABC only.

Surfacing occurred around the DPT rods at SP2-24 when pulling the point up the second interval. The rods were pushed back down to the total depth, and the entire volume designated for the point was injected at the deeper interval.

Array B

Injections at Array B, immediately east of Array A, were performed using the existing injection wells (B-5 through B-9) on 30 November 2017. The type of amendments and volumes injected in these wells are summarized in Table 4, and included high ethyl lactate based ABC and DKP. Injections were performed at all five wells simultaneously using 410 pounds of DKP mixed in 560 gallons of water and 302 gallons of ABC diluted in 2,416 gallons of water. Each well received 112 gallons of DKP solution followed by 543 gallons of ABC solution. No surfacing was encountered during injections in Array B. The injection locations are shown on Figure 3 and Figure 8.

3.2.2 Source Area Beneath Building

The Source Area beneath the Building is shown in Figure 2. A total of 45 individual existing injection wells were previously installed in six arrays (Arrays C through H) in order to address

the CVOC plume beneath the building (Figure 3). The 2017 polishing injections utilized existing injection wells C-1, C-2, C-4, C-5, C-6, D-10, D-11, D-12, D-13, D-14, E-20 and E-21 (Figure 10). Table 5 presents the quantities of ABC injected into each injection well. Wells were injected in two sets of six wells a piece.

Approximately 200 gallons of ABC was diluted with 2,000 gallons of water (10:1 ratio) and injected into the above referenced injection wells to promote additional reductive dechlorination in this area. Additionally, prior to injection of ABC amendment, 410 pounds of DKP were mixed with 540 gallons of water and each well received 45 gallons of DKP solution followed by 183 gallons of ABC solution.

3.2.3 Downgradient Treatment Zone A

The area east of the manufacturing plant is divided into four downgradient treatment zones (Zones A through D) as shown in Figure 2.

Array I

The Array I area in Treatment Zone A is shown on Figure 2. Injections at Array I were performed using DPT. Two separate injections were conducted at Array I using eight angled injection points, four at 20° and four at 30° from vertical. Figure 11 presents the surface locations and the inferred angled injection intervals for each injection point. The angled injection intervals are shown on a cross section in Figure 12.

The first line of injections were made up of four injection points (AP01 through AP04) advanced at 30° from vertical, and contained three injection intervals. The DPT tooling was advanced to approximately 39 feet at 30°, and retracted two feet for the first interval. Tooling was retracted three feet for the second interval, and an additional three feet for the third interval. The top of the third interval was approximately 26 feet BGS. Injection locations ran north to south, and were located approximately 10-feet apart.

The total volume for the first line of injections (1,250 gallons) was comprised of approximately 125 gallons of high fatty acid blend of ABC and 1,125 gallons of water. Each boring received approximately 312 gallons of amendment, and each interval approximately 104 gallons of amendment. Injections occurred simultaneously at the four 30° injection points.

The second injection line consisted of four injection points (AP05-AP08) off-set from the first line borings by three to five feet. The points were installed using angled boring at 20° from vertical and consisted of the aforementioned three injection intervals. The DPT tooling was advanced to approximately 37 feet at 20°, and retracted two feet for the first interval. Tooling was retracted three feet for the second interval, and an additional three feet for the third interval. The top of the third interval was approximately 27 feet BGS.

The total volume (2,496 gallons) of ABC solution comprised of approximately 250 gallons of high fatty acid blend ABC and 2,250 gallons of water. Each boring received approximately 625 gallons of amendment, and each interval approximately 208 gallons of amendment. Injections occurred simultaneously at the four 20° injection points.

The volumes of amendments injected into the eight points are summarized on Table 6.

Array M

The Array M area in Treatment Zone A is shown on Figure 2. Three DPT injection points (AP09 – AP11) installed parallel to Array M, and approximately 15 feet up-gradient of MW-13 were used for the polishing injections (Figure 13). High fatty acid ABC formulation was used to promote reductive dechlorination in this area. Injections points were divided into three intervals of 24-27, 27-30, and 30-33 feet BGS.

The polishing injections occurred on 30 November 2017. Table 7 presents a summary of the quantities of ABC amendment injected into each well. The injection points received a total of 130 gallons of high fatty acid ABC that was diluted with 1,300 gallons of water. Each injection point received approximately 476 gallons of amendment, and each interval received 158 gallons of amendment. The three injection points were injected into simultaneously.

3.2.4 Downgradient Treatment Zone B

Injections at and north of Treatment Zone B were conducted using six DPT injection points labeled BP-14 through BP-19. The points were located at offset locations along the perimeter of the 2016 injection locations. The up-gradient points were approximately 14-feet up-gradient of MW-24, and the second set of points were approximately 7-feet up-gradient of MW-24. Injection points contained four injection intervals of 42-45, 45-48, 48-51, and 51-54 feet BGS. Injections were performed top-down requiring two bore holes per injection location:

1) for injection intervals 45-48 and 51-54 feet BGS, and 2) for injection intervals 42-45 and 48-51 feet BGS.

Table 8 presents a summary of the volumes of amendment injected into each location. A total of approximately 170 gallons of standard ABC blend was diluted in 1,700 gallons of water. Each injection location received approximately 311 gallons, with each interval receiving approximately 78 gallons of amendment.

3.2.5 Downgradient Treatment Zone D

Eight direct push injection points were installed in Treatment Zone D near Array Z as part of the polishing injection design. Figure 13 presents the locations of the injection wells and direct push injection points. These injection points are up and down-gradient of the 2016 polishing injection points. The first row contained five points (DP28 through DP32) located approximately 10 feet down-gradient of Array Z. The second row contained three points (DP33 through DP35) located approximately 10 feet down-gradient of the first set, and approximately 5 to 7 feet up-gradient of MW-17. Both injection point rows were spaced approximately 10 feet apart in a southeast direction.

Injection intervals for the DPT injection points were 36-39, 39-43, 43-46, and 46-49 feet. The injections used 225 gallons of ABC Ole blended with 2,160 gallons of water. Table 9 summarizes the volumes injected at each location. Surfacing occurred near DP-31 while injecting into the second interval (43-46 ft-bgs). The injections at this location were terminated, and the full volume was not injected into the location.

4.0 Performance Groundwater Monitoring Objectives

Wood conducted the eighth groundwater performance monitoring sampling event in February and March 2018. 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.

The performance monitoring results were also used to identify refinements to the biostimulant and ISCR amendment polish injections plans in order to optimize remedy effectiveness.

4.1 Scope of Work

Wood conducted groundwater monitoring and sampling at 43 monitoring wells located within and downgradient of the treatment zones. The eighth groundwater performance monitoring event took place between 26 February and 2 March 2018.

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 VOCs, total organic carbon (TOC), and dissolved gases (methane, ethane, and ethene).

5.0 Baseline Groundwater Monitoring 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, Dehalococcoides bacteria (DHC), dissolved gases (methane, ethane, and ethene), volatile fatty acids (VFAs), and select metals (arsenic, selenium, iron, and manganese). The analytical methods used are presented in Table 10. The results of this baseline sampling, supplemented with results of routine groundwater monitoring conducted from 2012 through 2014, are included on Tables 11 through 13. 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).

6.0 Performance Monitoring Field Activities

In response to a 27 November 2017 IDEM e-mail request regarding potential methane generation and mitigation considerations, on 3 January 2018 Wood implemented vapor monitoring which consisted of measuring for methane vapors from the facility's sub-slab and

indoor air. Measurements for methane and other gases (i.e. oxygen) were collected during an operation and maintenance (O&M) visit for the Sub-Slab Depressurization (SSD) system using a Landtech GEM5000 instrument. Wood collected measurements of percent methane gas below the facility sub-slab and from inside the facility near existing vapor monitoring point VP-6. The SSD system was in operation during the methane monitoring.

Sub-slab vapors were measured for percent methane and percent oxygen from the six SSD system extraction sumps (D20, D23, G19, G22, H19, H22) and from existing vapor points VP-1, VP-4 through VP-10. None of the extraction sumps or vapor points contained methane. In addition, no methane vapors were detected from air inside the facility or from the SSD system discharge on the facility roof. The SSD extraction sumps and vapor points VP-5 through VP-10 are located within the source are treatment zone. Figure 14 presents the location of the SSD system and vapor monitoring points.

The methane response at all locations was 0.0 percent (%). Percent oxygen measured at these locations ranged between 19.1% and 20.7%.

On 26 February 2018, 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 14). Groundwater contour maps of the remediation areas were prepared for the shallow overburden zone (Figure 15) and intermediate overburden zone (Figure 16).

Performance monitoring wells, identified in Table 10, were sampled between 26 February 2018 and 2 March 2018. 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 modified 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 sampling information. Quality control samples including field blanks, equipment blanks, and trip blanks were also submitted. Equipment blanks were collected by pumping distilled 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. Samples for dissolved gas analyses were shipped under chain-of-custody to Microseeps, a division of Pace Analytical, in Pittsburgh, Pennsylvania.

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.

7.0 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 10.

7.1 Amendment Distribution Indicators – 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.

7.2 Redox Conditions

7.2.1 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.

7.2.2 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).

7.3 Buffering

7.3.1 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.

7.3.2 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.

7.4 Degradation of Chlorinated 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.

7.4.1 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.

8.0 Data Evaluation

Tables 11 through 13 present the analytical results. The measured field parameters referenced in Section 4.0 are included in Table 11. Figures 17 through 19 present a summary of the results of the VOC 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.

8.1 Source Zone Behind (West of) Building

Four monitoring wells located in the source zone behind the plant were sampled for performance monitoring: MW-81(27), MW-59(29), PM-2, and PM-3. The contaminant mass has been fully reduced at PM-2, and therefore this well is not included in the subsequent discussions on indicator parameters (i.e., TOC). TOC concentrations were well above 20

mg/L in MW-81(27) and PM-3, indicating continued presence of amendment. The TOC concentration in MW-59(29) has been gradually decreasing since December 2016, and the February 2018 sample TOC result was 13 mg/L.

The pH in the four performance monitoring wells ranged from 5.28 to 6.43, which is generally adequate for biological-based treatment. The ORP was negative in all four wells, which indicates reducing conditions. The dissolved oxygen readings at MW-81(27), MW-59(29), and PM-3 were less than 0.5 mg/L, which indicates anaerobic conditions. The dissolved oxygen reading at PM-2 was 0.73 mg/L.

Trichloroethene (TCE) was below reporting limits in all wells, indicating remediation of the parent contaminant has occurred at this area. No primary CVOCs were detected in the sample from PM-2, indicating the remedial measures may be complete at this well. CVOC concentrations are nearly 100% reduced at MW-59(29). For MW-81(27), the cis-1,2-DCE and vinyl chloride concentrations decreased relative to the October 2017 monitoring event results. For PM-3, the cis-1,2-DCE concentration increased slightly but the vinyl chloride concentration decreased moderately relative to the October 2017 monitoring event results, indicating continued ERD.

Methane concentrations for the wells remain high, indicating anaerobic fermentation is occurring. Except at MW-59(29), ethene concentrations were elevated, indicating complete dechlorination of contaminant mass is occurring.

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

Source Zone Behind Plant Performance Monitoring Wells	Contaminant Mass % Reduction Relative to Baseline				Amendment Indicator	Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW81(27)	75%	100%	91%	-20%	YES	YES	-	YES
MW59(29)	100%	--	100%	100%	NO	NO	-	YES
PM2	100%	100%	100%	100%	YES	YES	-	NO
PM3	25%	--	89%	-165%	YES	YES	-	YES
Total (4 wells)	71%							

Conclusions

- Total CVOC mass has decreased by 71% relative to baseline.
- Contaminant mass is fully reduced at PM-2 and MW-59(29).
- Contaminant mass is substantially reduced in MW-81(27) and moderately reduced at PM-3, where conditions remain favorable for continued mass reduction.

8.2 Source Zone Inside (Beneath) Building

Seven monitoring wells located in the source zone beneath the plant 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-77 and MW-78, and therefore these wells are not included in the subsequent discussions on indicator parameters (i.e., TOC).

TOC concentrations were above 20 mg/L in MW-67, MW-68, MW-71, MW-72, and MW-76. The pH ranged from 5.75 to 7.26, which is adequate for biological-based treatment. The ORP was negative except in MW-71. The dissolved oxygen readings at MW-76, MW-77, and MW-78 were less than 0.5 mg/L indicating anaerobic conditions. The dissolved oxygen readings at MW-67, MW-68, MW-71, and MW-72 were above 1 mg/L, but may be biased high due to the sampling technique used (i.e., bailing).

A significant reduction in CVOC mass is observed in all the wells when compared to baseline results. TCE was below reporting limits in all the wells. Cis-1,2-DCE at MW-68 was higher than the October 2017 monitoring event result but decreased at MW-67, MW-71 and MW-76 and was similar in MW-72 in comparison to the October 2017 monitoring event results. The vinyl chloride concentrations at MW-67, MW-71, and MW-76 increased relative to the October 2017 results but decreased relative to the October 2017 results in MW-68, MW-72, and MW-77.

Methane concentrations remain high, indicating anaerobic fermentation is occurring. Ethene concentrations were high except at MW-78. High ethene concentrations are 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 Plant is provided below:

Source Zone Inside (Beneath) Plant Performance Monitoring Wells	Contaminant Mass % Reduction Relative to Baseline				Amendment Indicator TOC > 20 mg/L	Gases Ethene > 10 µg/L	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride			ORP (+) or (-)	DO < 0.5 mg/L
MW67	99.5%	--	99.98%	96%	YES	YES	-	NO
MW68	95%	--	99.5%	68%	YES	YES	-	NO
MW71	96%	--	99.98%	83%	YES	YES	+	NO
MW72	99.9%	--	100%	99.99%	YES	YES	-	NO
MW76	79%	--	99%	-69%	YES	YES	-	YES
MW77	100%	--	100%	100%	NO	YES	-	YES
MW78	100%	--	100%	100%	YES	NO	-	YES
Total (7 wells)	98%							

Conclusions

- The total contaminant mass for the primary CVOCs has thus far been reduced by 98% in the Source Zone Inside (Beneath) the Plant based upon data from the seven performance monitoring wells relative to baseline.
- Contaminant mass has been fully reduced at MW-77 and MW-78 and is close to being fully reduced at MW-72.

8.3 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(58), OW-1(28), and OW-1(39). The contaminant mass at MW-12, MW-62(36), MW-20(35), MW-20(51), MW-82(58), OW-1(28), and OW-1(39) has been reduced by 100%, and therefore these wells are not included in the subsequent discussions on indicator parameters (i.e., TOC).

The TOC concentration in MW-13 was above 20 mg/L, while the TOC concentration at MW-6C was 9.6 mg/L. The pH ranged from 6.71 to 7.24, which is in the ideal range for biological-based treatment. ORP was negative in all the performance monitoring wells,

indicating reducing conditions. The dissolved oxygen readings at MW-6C, MW-62, MW-20(35), MW-82(58), OW-1(28), and OW-1(39) were less than 0.5 mg/L, indicating anaerobic conditions. The dissolved oxygen reading at MW-13 was greater than 1 mg/L but may be biased high due to the sampling technique used (i.e., bailing).

TCE was below reporting limits in all the wells; although the replicate sample for MW-6C had TCE detected at 1 µg/L whereas it was non-detect (<1 µg/L) in the primary MW-6C sample. Cis-1,2-DCE and vinyl chloride were below reporting limits in all wells except MW-6C and MW-13. In MW-6C and MW-13, the cis-1,2-DCE and vinyl chloride concentrations decreased relative to the October 2017 monitoring event results.

Methane concentrations were high in the wells except OW-1(28), indicating anaerobic fermentation is occurring. For the two wells still containing CVOCs (MW-6C and MW-13), ethene was substantially present indicating complete reductive dechlorination is occurring.

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

Treatment Zone A Performance Monitoring Well	Contaminant Mass % Reduction Relative to Baseline				Amendment Indicator	Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW6C	95%	--	94%	96%	NO	YES	-	YES
MW12	100%	--	100%	100%	NO	NO	-	NO
MW13	98%	--	99%	98%	YES	YES	-	NO
MW62(36)	100%	--	100%	100%	YES	NO	-	YES
MW20(35)	100%	--	100%	100%	NO	NO	-	YES
MW20(51)	100%	--	100%	100%	NO	NO	-	NO
MW82(58)	100%	100%	100%	100%	NO	NO	-	YES
OW1(28)	100%	--	100%	100%	NO	NO	-	YES
OW1(39)	100%	--	100%	100%	NO	YES	-	YES
Total (9 wells)	99%							

Conclusions

- The total contaminant mass for the primary CVOCs has thus far been reduced by 99% in Treatment Zone A based upon data from the nine performance monitoring wells relative to baseline.
- Contaminant mass has been fully reduced in MW-12, MW-62(36), MW-20(35), MW-20(51), MW-82(58), OW-1(28), and OW-1(39)
- CVOC mass reduction has been observed in all wells. Cis-1,2-DCE and vinyl chloride concentrations at MW-6C and MW-13 decreased significantly relative to the October 2017 monitoring event.

8.4 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 all the other performance monitoring wells in Treatment Zone B has been reduced by 100%.

TOC concentrations at MW-24(55.4) and OW-3(55) remain above 20 mg/L. The pH ranged from 6.86 to 7.27, which is within the ideal range for biological-based treatment. The ORP was negative, which indicates reducing conditions. Dissolved oxygen readings were less than 0.5 mg/L, indicating anaerobic conditions.

No CVOCs were detected in the February 2018 groundwater samples from Treatment Zone B, the first time this has occurred at well MW-24. A summary of the pertinent results for the performance monitoring wells in Treatment Zone B is provided below:

Treatment Zone B Performance Monitoring Well	Contaminant Mass % Reduction Relative to Baseline				Amendment Indicator	Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW14	100%	100%	100%	100%	NO	YES	-	YES
MW24(24.9)	--	--	--	--	NO	NO	-	YES
MW24(55.4)	100%	100%	100%	100%	YES	NO	-	YES
OW2(33)	100%	--	100%	100%	NO	NO	-	YES
OW2(53)	100%	--	100%	100%	NO	NO	-	YES
OW3(35)	100%	100%	100%	100%	NO	YES	-	YES
OW3(55)	100%	100%	100%	100%	YES	YES	-	YES
Total (7 wells)	100%							

Conclusions

- Based on the 2017 amendment addition near MW-24, the total contaminant mass for the primary CVOCs has been reduced by 100% in Treatment Zone B when compared to baseline results.

8.5 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(16.4), MW-25(32.6), MW-25(45.2), and OW-4(35); therefore, these wells are not included in the subsequent discussion on indicator parameters (i.e., TOC).

TOC concentrations were above 20 mg/L at MW-15 and OW-4(54). The pH ranged from 6.55 to 7.00, which is within the ideal range for biological-based treatment. ORP indicates reducing conditions in the wells. Dissolved oxygen readings were less than 1 mg/L.

A reduction in CVOC mass is observed in all the wells, and all CVOCs are below regulatory criteria. TCE was below reporting limits in all the wells. Cis-1,2-DCE was detected only in MW-15 and OW-4(54) with concentrations comparable to the previous sample event results and below criteria. Vinyl chloride was detected only in MW-15 at a concentration equivalent to the previous sample event result and below criteria.

Methane concentrations were very high in the wells, indicating anaerobic fermentation is occurring. Ethene was substantially present at MW-15 indicating complete reductive dechlorination is occurring in this location. Ethene concentrations in the other performance monitoring wells were low, although there is little to no CVOC mass in these wells to reduce to ethene.

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

Treatment Zone C Performance Monitoring Well	Contaminant Mass % Reduction Relative to Baseline				Amendment Indicator	Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW15	99.6%	100%	99.9%	99.1%	YES	YES	-	NO
MW25(16.4)	100%	--	100%	100%	NO	NO	-	YES
MW25(32.6)	100%	100%	100%	100%	NO	NO	-	YES
MW25(45.2)	100%	100%	100%	100%	YES	NO	-	NO
OW4(35)	100%	100%	100%	100%	YES	NO	-	YES
OW4(54)	52%	--	52%	--	YES	NO	-	NO
Total (6 wells)	99.9%							

Conclusions

- The total contaminant mass for the primary CVOCs has thus far been reduced by 99.9% 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.
- Contaminant mass has been fully reduced at MW-25(16.4), MW-25(32.6), MW-25(45.2), and OW-4(35) and detected CVOCs in MW15 and OW54 are below regulatory criteria.

8.6 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 has been reduced 100% in all the performance monitoring wells except MW-17, therefore only MW-17 is included in the subsequent discussion on indicator parameters (i.e, TOC). The TOC level at MW-17 is 16 mg/L.

The pH ranged from 6.62 to 7.23, which is in the ideal range for biological-based treatment. ORP was negative in all wells, indicating reducing conditions.

Except at MW-17, CVOCs were not detected in the February 2018 groundwater samples from Treatment Zone D. The TCE concentration in MW17 was similar to the October 2017 monitoring event result. The cis-1,2-DCE concentration at MW-17 increased relative to the October 2017 monitoring event results. Vinyl chloride was not detected in MW-17.

Methane concentrations were high, indicating that anaerobic fermentation is occurring. Ethene was not substantially present in MW-17.

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

Treatment Zone D Performance Monitoring Well	Contaminant Mass % Reduction Relative to Baseline				Amendment Indicator	Gases	Geochemical Environment	
	Total CVOC	TCE	cis-1,2-DCE	Vinyl Chloride	TOC > 20 mg/L	Ethene > 10 µg/L	ORP (+) or (-)	DO < 0.5 mg/L
MW16	100%	100%	100%	100%	YES	YES	-	NO
MW17	61%	70%	35%	--	NO	NO	-	NO
MW26(17.5)	100%	--	100%	100%	NO	YES	-	NO
MW26(28.8)	100%	100%	100%	100%	NO	NO	-	NO
MW26(58.8)	100%	--	100%	100%	NO	NO	-	NO
ZVI2(17.5)	100%	--	100%	100%	NO	NO	-	YES
ZVI2(32.5)	100%	--	100%	100%	NO	NO	-	YES
OW5(16)	100%	100%	100%	100%	NO	NO	-	YES
OW5(35)	100%	100%	100%	100%	NO	NO	-	NO
OW5(45)	100%	100%	100%	100%	YES	NO	-	NO
Total (10 wells)	99%							

Conclusions

- The total contaminant mass for the primary CVOCs has thus far been reduced by 99% in Treatment Zone D based upon data from the 10 performance monitoring wells relative to baseline.
- Total CVOC mass has decreased from baseline in all the performance monitoring wells.
- Contaminant mass has been fully reduced at MW-16, 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).
- TCE was detected at MW-17 at a concentration similar to that reported for the previous sampling event while cis-1,2-DCE increased slightly. Reducing conditions are present at MW-17 based on ORP.

8.7 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 continuing calibration for bromomethane indicated potential low bias, but bromomethane was not detected in the associated samples. In consequence, the bromomethane reporting limits were qualified as estimated (UJ) for the associated samples. Some vinyl chloride results were qualified estimated due to low recovery in the laboratory control sample. Matrix spike and/or matrix spike duplicate recovery for a subset of the samples were outside the control limits for bromomethane, cis-1,2-dichloroethene, and vinyl chloride, therefore the associated concentrations were J (estimated) or UJ (undetected and reporting limit is estimated) flagged. In the replicate pair from location MW-81(27), chloroethane was reported as non-detected in the original sample and a detection slightly above the reporting limit in the field replicate. Therefore, the results for the original and replicate sample were qualified as estimated (J/UJ). Dibromofluoromethane surrogate recovery was low in the sample from MW-82(58). No target compounds were detected in the sample from MW-

82(58), and the reporting limits were qualified as estimated. Lastly, the preservation pH for samples from MW-82(58), PM-3, OW-4(35), and MW-67 were higher than the goal of two; therefore, reporting limits and detected concentrations of aromatic VOCs were qualified as estimated for these samples. No data was rejected during validation. Though the data validation identified some data qualifications, the majority of the data was deemed acceptable as reported by the laboratory and all data is considered usable.

Seven equipment blanks and three field replicates were submitted and analyzed for VOCs. Three trip blanks were also submitted and analyzed for VOCs. Chloroform was detected in two of the trip blank samples. No other VOCs were detected in the trip blank samples. No VOCs were detected in the equipment blanks. The replicate results generally showed good correlation although chloroethane was flagged for one replicate pair, as described above.

8.8 Trend Evaluations and Correlations

As requested by IDEM in a 27 November 2017 email, charts showing time series CVOC concentrations relative to depth to water, dissolved oxygen, and ORP were prepared for the performance groundwater monitoring wells, excluding performance groundwater monitoring wells for which the CVOCs have been non-detect for the previous three or more events. Results qualified with a U, indicating the compound was not detected at or above the reporting limit, are plotted at the reporting limit. Results qualified with a J as estimated below the reporting limit are plotted at the estimated concentration. The charts are provided in Appendix C. The following observations were generated from review of the charts:

- Changes in CVOC concentrations do not appear to correlate with water levels; although any correlation would be overwhelmed by CVOC changes attributed to the remediation.
- Over the last three performance monitoring events, reductions in vinyl chloride concentrations at PM-3 appear to correlate with reductions of ORP.
- The overall decline in TCE observed at MW-17 appears to coincide with overall reductions in ORP, which is expected under ERD (i.e. 2016/2017 polishing events).

Figures (C-1, C-2) showing the total CVOC concentrations, dissolved oxygen, ORP, and groundwater contours by water bearing zone are also provided in Appendix C. All ORP readings taken during the February/March 2018 event were negative except at well MW-71. Excluding the dissolved oxygen readings taken during bailing, dissolved oxygen readings were below or just marginally above 1.0 mg/L.

Elevated levels of methane are an indicator that fermentation is occurring under anaerobic conditions. Dissolved methane was detected in groundwater samples during the February/March 2018 monitoring event at concentrations up to 30 mg/L. The highest concentrations were observed in the intermediate groundwater unit. Dissolved methane concentrations in the shallow overburden wells were at or below 26 mg/L. Isoleth figures (D-3, D-4) for dissolved methane are included in Appendix C.

9.0 Conclusions

Based on the ISCR and ERD injections and subsequent performance monitoring results, Wood 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 87% from baseline concentrations. Presented in Appendix D, are contaminant mass isopleths for baseline results (2013) and current results (Feb/March 2018). Based on current contaminant mass concentrations, most of the remaining mass is limited to the source area west and beneath the Acument facility. Considering the levels of TOC within these areas, continued reduction of contaminant mass via ERD is expected.
- Contaminant mass has been fully reduced in several performance monitoring wells that previously showed increases in dechlorination by-products (1,2-cis DCE and/or vinyl chloride). These include PM-2, MW-77(41), MW-12, MW-14, and MW-24(55.4).

- Methane concentrations in groundwater samples collected from numerous wells situated in the source area and down-gradient treatment zones exceeded the dissolved-phase methane screening level of 10 mg/L (see Table 13). Due to the exceedance at one or more wells, Wood has implemented vapor monitoring beneath and inside the Acument facility (See Section 6). Based on the vapor monitoring conducted in January 2018, methane vapors were not detected beneath the facility's sub-slab or in indoor air. Wood will continue to monitor for potential methane vapors on a semi-annual basis through 2018 as long as dissolved methane concentrations in monitoring wells remain above 10 mg/L. Wood anticipates a decline in dissolved methane concentrations as no more polishing injections are proposed at the site. If sub-slab methane vapors are detected and exceed 10% of the lower explosive limit (LEL), Wood will notify IDEM and develop a methane gas mitigation plan.

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

- The overall total site-wide treatment area mass has been reduced by 87% from baseline concentrations.
- The source area mass (beneath building and west of building) has been reduced 86% 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 the performance monitoring wells except: MW-17 at a concentration of 57 µg/L, and the replicate sample for MW-6C at a concentration of 1 µg/L.

10.0 Upcoming Activities

The performance monitoring results show significant and substantial reduction in CVOCs at and in the vicinity of the site. Per the Remediation Work Plan, performance groundwater monitoring can cease and stability monitoring initiate once plume concentration at the perimeter of compliance wells have reached stable or decreasing concentrations. Based upon the performance monitoring results, no further polishing injections are planned. Performance monitoring will continue through 2018 to establish four quarters of performance monitoring following the 2017 polishing injections. The next performance monitoring event is planned during the third quarter of 2018.



Textron, Inc.
TORX Facility Remediation
Report of Polishing Remedial Injections Performance Monitoring

TABLES

**Table 1. Volume of ABC-Ole Combined with ZVI Injected in the Source Area at Western Pond
Former Torx Facility
Rochester, Indiana**

Location	Date	Injection Interval (feet)	ABC-Ole (gals)	ZVI (lbs)	Slurry Vol. (gals)	Comments
SP 2-1	11/14/2017	25-28	11.2	90	97.5	
	11/14/2017	22-25	11.2	90	97.5	
	11/15/2017	19-22	11.2	90	97.5	
	11/29/2017	16-19	11.2	90	97.5	
	11/30/2017	13-16	11.2	90	97.5	
SP 2-2	11/17/2017	25-28	11.2	90	97.5	
	11/17/2017	22-25	11.2	90	97.5	
	11/17/2017	19-22	11.2	90	97.5	
	11/18/2017	16-19	11.2	90	97.5	
	11/19/2017	13-16	11.2	90	97.5	
SP 2-3	11/15/2017	25-28	11.2	90	97.5	
	11/16/2017	22-25	11.2	90	97.5	Surfacing around rods
	11/28/2017	19-22	11.2	90	97.5	
	11/29/2017	16-19	11.2	90	97.5	
	11/30/2017	13-16	11.2	90	97.5	
SP 2-4	11/21/2017	25-28	11.2	90	97.5	
	11/22/2017	22-25	11.2	90	97.5	
	11/28/2017	19-22	11.2	90	97.5	
	11/29/2017	16-19	11.2	90	97.5	
	11/30/2017	13-16	11.2	90	97.5	
SP 2-5	11/16/2017	25-28	11.2	90	97.5	
	11/16/2017	22-25	11.2	90	97.5	
	11/16/2017	19-22	11.2	90	97.5	
	11/16/2017	16-19	11.2	90	97.5	
	11/20/2017	13-16	11.2	90	97.5	Surfacing approximately 7 feet northeast of point.
SP 2-6	11/15/2017	25-28	11.2	90	97.5	
	11/15/2017	22-25	11.2	90	97.5	
	11/15/2017	19-22	11.2	90	97.5	Surfacing approximately 8 feet northeast of point.
	11/18/2017	16-19	11.2	90	97.5	
	11/19/2017	13-16	11.2	90	97.5	
SP 2-7	11/28/2017	25-28	11.2	90	97.5	
	11/29/2017	22-25	11.2	90	97.5	
	11/29/2017	19-22	11.2	90	97.5	
	11/30/2017	16-19	11.2	90	97.5	
	11/30/2017	13-16	11.2	90	97.5	
SP 2-8	11/18/2017	25-28	11.2	90	97.5	
	11/19/2017	22-25	11.2	90	97.5	
	11/20/2017	19-22	11.2	90	97.5	
	11/21/2017	16-19	11.2	90	97.5	Surfacing approximately 8 feet southwest of point.
	11/17/2017	13-16	11.2	90	97.5	
SP 2-9	11/20/2017	25-28	11.2	90	97.5	
	11/21/2017	22-25	11.2	90	97.5	
	11/22/2017	19-22	11.2	90	97.5	
	11/21/2017	16-19	11.2	90	97.5	
	11/19/2017	13-16	11.2	90	97.5	
SP 2-10	11/21/2017	25-28	11.2	90	97.5	
	11/27/2017	22-25	11.2	90	97.5	
	11/28/2017	19-22	11.2	90	97.5	
	11/29/2017	16-19	11.2	90	97.5	
	11/30/2017	13-16	11.2	90	97.5	
SP 2-11	11/18/2017	25-28	11.2	90	97.5	
	11/29/2017	22-25	11.2	90	97.5	
	11/29/2017	19-22	11.2	90	97.5	
	11/30/2017	16-19	11.2	90	97.5	
	12/1/2017	13-16	11.2	90	97.5	
SP 2-12	11/21/2017	25-28	11.2	90	97.5	
	11/22/2017	22-25	11.2	90	97.5	
	11/28/2017	19-22	11.2	90	97.5	
	11/19/2017	16-19	11.2	90	97.5	
	11/20/2017	13-16	11.2	90	97.5	
		Total	672	5,400	5,850	

**Table 2. Volume of ABC-Ole Combined with ZVI Injected in the Source Area - Array A: Row 1
Former Torx Facility
Rochester, Indiana**

Injection Location	Date	Interval (feet BGS)	ABC-Ole (gals)	ZVI (lbs)	Slurry Vol. (gals)	Comments
SP 2-13	12/1/2017	20-22	19	160	180	
	12/2/2017	17-20	19	160	180	
	12/3/2017	14-17	19	160	180	
SP 2-14	12/5/2017	20-22	19	160	180	
	12/6/2017	17-20	19	160	180	
	12/12/2017	14-17	19	160	180	
SP 2-15	12/1/2017	20-22	19	160	180	
	12/2/2017	17-20	19	160	180	
	12/4/2017	14-17	19	160	180	Surfacing around rods
SP 2-16	12/5/2017	20-22	19	160	180	
	12/11/2017	17-20	19	160	180	
	12/12/2017	14-17	19	160	180	
SP 2-17	12/1/2017	20-22	19	160	180	
	12/2/2017	17-20	19	160	180	
	12/3/2017	14-17	19	160	180	
SP 2-18	12/4/2017	20-22	19	160	180	
	12/5/2017	17-20	19	160	180	
	12/11/2017	14-17	21.4	176	197	Second half of a batch from SP 2-22 (14-17) injected
SP 2-19	12/2/2017	20-22	19	160	180	
	12/2/2017	17-20	19	160	180	
	12/3/2017	14-17	19	160	180	
SP 2-20	12/4/2017	20-22	19	160	180	
	12/4/2017	17-20	19	160	180	
	12/11/2017	14-17	19	160	180	
SP 2-21	12/4/2017	20-22	19	160	180	
	12/11/2017	17-20	19	160	180	
	12/12/2017	14-17	19	160	180	Surfacing approximately 6 feet east of point
SP 2-22	12/6/2017	20-22	19	160	180	
	12/12/2017	17-20	19	160	180	
	12/12/2017	14-17	5.7	48	52	Surfacing approximately 6 feet east of point. Final three batches of interval not injected.
		Total	559.1	4,704	5,289	

Note: Injection points were installed at a 20-degree angle from vertical.

**Table 3. Volume of ABC High Fatty Acid Combined with DKP Injected in the Source Area - Array A: Row 2
Former Torx Facility
Rochester, Indiana**

Injection Location	Date	Interval (feet BGS)	DKP (lbs)	ABC-High Fatty (gals)	Slurry Vol. (gals)	Comments
SP 2-23	12/5/2017	20-22	68.3	9.8	191.3	
	12/4/2017	17-20	-	9.8	191.3	
	12/4/2017	14-17	68.3	9.8	191.3	
SP 2-24	12/5/2017	20-22	68.3	9.8	191.3	
	12/4/2017	17-20	-	0.0	191.3	Surfacing around rods occurred*
	12/4/2017	14-17	68.3	19.6	191.3	* = Rods advanced to this depth for re-injection.
SP 2-25	12/5/2017	20-22	68.3	9.8	191.3	
	12/4/2017	17-20	-	9.8	191.3	
	12/4/2017	14-17	68.3	9.8	191.3	
SP 2-26	12/5/2017	20-22	68.3	9.8	191.3	
	12/4/2017	17-20	-	9.8	191.3	
	12/4/2017	14-17	68.3	9.8	191.3	
SP 2-27	12/5/2017	20-22	68.3	9.8	191.3	
	12/4/2017	17-20	-	9.8	191.3	
	12/4/2017	14-17	68.3	9.8	191.3	
SP 2-28	12/5/2017	20-22	68.3	9.8	191.3	
	12/4/2017	17-20	-	9.8	191.3	
	12/4/2017	14-17	68.3	9.8	191.3	
		Total	820	176	3,443	

Note: Injection points were installed at a 30-degree angle from vertical.

**Table 4. Volume of ABC High Fatty Acid Combined with DKP Injected in the Source Area - Array B
Former Torx Facility
Rochester, Indiana**

Injection Location	Date	Interval (feet BGS)	DKP (lbs)	ABC-Ethyl Lactate (gals)	Slurry Vol. (gals)
B-5	11/30/2017	26.25-31.25	82	60.4	655
B-6	11/30/2017	26.25-31.25	82	60.4	655
B-7	11/30/2017	26.25-31.25	82	60.4	655
B-8	11/30/2017	26.25-31.25	82	60.4	655
B-9	11/30/2017	26.25-31.25	82	60.4	655
		Total	410	302	3,275

**Table 5. Volume of ABC Standard Combined with DKP Injected in the Source Area Beneath Building
Former Torx Facility
Rochester, Indiana**

Injection Location	Date	Interval (feet BGS)	DKP (lbs)	ABC-Standard (gals)	Total Vol. (gals)
C-1	12/12/2017	27-31	34.2	16.7	230
C-2	12/12/2017	27-31	34.2	16.7	230
C-4	12/13/2017	27-31	34.2	16.7	230
C-5	12/12/2017	27-31	34.2	16.7	230
C-6	12/12/2017	27-31	34.2	16.7	230
D-10	12/12/2017	27-31	34.2	16.7	230
D-11	12/12/2017	27-31	34.2	16.7	230
D-12	12/13/2017	27-31	34.2	16.7	230
D-13	12/13/2017	27-31	34.2	16.7	230
D-14	12/13/2017	27-31	34.2	16.7	230
E-20	12/13/2017	27-31	34.2	16.7	230
E-21	12/13/2017	27-31	34.2	16.7	230
		Total	410	200	2,760

**Table 6. Volume of ABC High Fatty Acid Injected in Treatment Zone A - Array I
Former Torx Facility
Rochester, Indiana**

Injection Location	Date	Interval (feet BGS)	ABC-High Fatty (gals)	Slurry Vol. (gals)
AP-01 ¹	11/28/2017	33-35	10.4	104
	11/28/2017	31-33	10.4	104
	11/28/2017	28-31	10.4	104
AP-02 ¹	11/28/2017	33-35	10.4	104
	11/28/2017	31-33	10.4	104
	11/28/2017	28-31	10.4	104
AP-03 ¹	11/28/2017	33-35	10.4	104
	11/28/2017	31-33	10.4	104
	11/28/2017	28-31	10.4	104
AP-04 ¹	11/28/2017	33-35	10.4	104
	11/28/2017	31-33	10.4	104
	11/28/2017	28-31	10.4	104
		Total	125	1,248
AP-05 ²	11/29/2017	33-35	20.8	208
	11/29/2017	30-33	20.8	208
	11/29/2017	27-30	20.8	208
AP-06 ²	11/29/2017	33-35	20.8	208
	11/29/2017	30-33	20.8	208
	11/29/2017	27-30	20.8	208
AP-07 ²	11/29/2017	33-35	20.8	208
	11/29/2017	30-33	20.8	208
	11/29/2017	27-30	20.8	208
AP-08 ²	11/29/2017	33-35	20.8	208
	11/29/2017	30-33	20.8	208
	11/29/2017	27-30	20.8	208
		Total	250	2,496

¹ - Injection point installed at 30 degree angle from vertical

² - Injection point installed at 20 degree angle from vertical

**Table 7. Volume of ABC High Fatty Acid Injected in Treatment Zone A - Array M
Former Torx Facility
Rochester, Indiana**

Injection Location	Date	Interval (feet BGS)	ABC-High Fatty (gals)	Slurry Vol. (gals)
AP-09	11/30/2017	30-33	14.4	158
	11/30/2017	27-30	14.4	158
	11/30/2017	24-27	14.4	158
AP-10	11/30/2017	30-33	14.4	158
	11/30/2017	27-30	14.4	158
	11/30/2017	24-27	14.4	158
AP-11	11/30/2017	30-33	14.4	158
	11/30/2017	27-30	14.4	158
	11/30/2017	24-27	14.4	158
		Total	130	1,422

**Table 8. Volume of ABC Standard Injected in Downgradient Treatment Zone B - MW24
Former Torx Facility
Rochester, Indiana**

Injection Location	Date	Interval (feet BGS)	ABC-Standard (gals)	Slurry Vol. (gals)
BP-14	12/3/2017	51-54	7.1	78
	12/3/2017	48-51	7.1	78
	12/3/2017	45-48	7.1	78
	12/3/2017	42-45	7.1	78
BP-15	12/3/2017	51-54	7.1	78
	12/3/2017	48-51	7.1	78
	12/3/2017	45-48	7.1	78
	12/3/2017	42-45	7.1	78
BP-16	12/3/2017	51-54	7.1	78
	12/3/2017	48-51	7.1	78
	12/3/2017	45-48	7.1	78
	12/3/2017	42-45	7.1	78
BP-17	12/3/2017	51-54	7.1	78
	12/3/2017	48-51	7.1	78
	12/3/2017	45-48	7.1	78
	12/3/2017	42-45	7.1	78
BP-18	12/3/2017	51-54	7.1	78
	12/3/2017	48-51	7.1	78
	12/3/2017	45-48	7.1	78
	12/3/2017	42-45	7.1	78
BP-19	12/3/2017	51-54	7.1	78
	12/3/2017	48-51	7.1	78
	12/3/2017	45-48	7.1	78
	12/3/2017	42-45	7.1	78
		Total	170	1,872

**Table 9. Volume of ABC-Ole Injected in Downgradient Treatment Zone D- MW-17
Former Torx Facility
Rochester, Indiana**

Injection Location	Date	Interval (feet BGS)	ABC-Ole (gals)	Slurry Vol. (gals)	Comments
DP-28	12/1/2017	46-49	7.5	68	
	12/1/2017	43-46	7.5	68	
	12/1/2017	39-43	7.5	68	
	12/1/2017	36-39	7.5	68	
DP-29	12/1/2017	46-49	7.5	68	
	12/1/2017	43-46	7.5	68	
	12/1/2017	39-43	7.5	68	
	12/1/2017	36-39	7.5	68	
DP-30	12/1/2017	46-49	7.5	68	
	12/1/2017	43-46	7.5	68	
	12/1/2017	39-43	7.5	68	
	12/1/2017	36-39	7.5	68	
DP-31	12/1/2017	46-49	7.5	68	
	12/1/2017	43-46	7.5	65	Surfacing; Injection point not completed with total volume.
	-	39-43	0	0	
	-	36-39	0	0	
DP-32	12/2/2017	46-49	7.5	68	
	12/2/2017	43-46	7.5	68	
	12/2/2017	39-43	7.5	68	
	12/2/2017	36-39	7.5	68	
DP-33	12/2/2017	46-49	7.5	68	
	12/2/2017	43-46	7.5	68	
	12/2/2017	39-43	7.5	68	
	12/2/2017	36-39	7.5	68	
DP-34	12/2/2017	46-49	7.5	68	
	12/2/2017	43-46	7.5	68	
	12/2/2017	39-43	7.5	68	
	12/2/2017	36-39	7.5	68	
DP-35	12/2/2017	46-49	7.5	68	
	12/2/2017	43-46	7.5	68	
	12/2/2017	39-43	7.5	68	
	12/2/2017	36-39	7.5	68	
		Total	225	2,037	

Table 10
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 11
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-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-MW81(27)-G101117	10/11/2017	6.13	1.349	16.41	9.3	0.89	-87.9	NA	NA	120	NA	NA	NA	NA	NA
	ATR-MW-81(27)-G022818	2/28/2018	6.09	1.380	13.75	0.0*	0.34	-56.2	NA	NA	310	NA	NA	NA	NA	NA
	ATR-MW-81(27)-G022818R	2/28/2018	NA	NA	NA	NA	NA	NA	NA	NA	340	NA	NA	NA	NA	NA
	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
Source - Behind	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-MW59(29)-G101117	10/11/2017	6.09	1.801	15.06	5.8	0.39	-78.8	NA	NA	39	NA	NA	NA	NA	NA
	ATR-MW-59(29)-G022818	2/28/2018	6.43	1.465	13.68	0.0*	0.34	-56.2	NA	NA	13	NA	NA	NA	NA	NA
	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
	ATR-PM2-G101217	10/12/2017	6.41	1.193	16.49	<1.0	0.64	-96.7	NA	NA	11	NA	NA	NA	NA	NA
	ATR-PM2-G032918	3/29/2018	6.65	1.075	11.84	164	0.73	-28.6	NA	NA	130	NA	NA	NA	NA	NA

Table 11 (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
	ATR-PM3-G101217	10/12/2017	4.95	2.267	15.11	1,046.8	0.74	43.1	NA	NA	730	NA	NA	NA	NA	NA
ATR-PM-3-G030118	3/1/2018	5.28	3.907	7.33	1,141.4	0.26	-26.7	NA	NA	1,800	NA	NA	NA	NA	NA	
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	1,040.4	-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	1,211	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-MW67-G101217	10/12/2017	6.48	2.068	17.75	9,784.5	8.07	-65.0	NA	NA	84	NA	NA	NA	NA	NA
	ATR-MW-67-G030118	3/1/2018	6.78	2.165	17.52	0.0*	4.04	-38.4	NA	NA	210	NA	NA	NA	NA	NA
	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-MW68-G101217	10/12/17	NM	NM	NM	NM	NM	NM	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-68-G030118	3/1/18	6.50	2.421	17.20	0.0*	5.06	-14.2	NA	NA	350	NA	NA	NA	NA	NA
	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-MW71-G101217	10/12/2017	5.73	2.312	17.21	108.1	4.88	-31.3	NA	NA	430	NA	NA	NA	NA	NA
	ATR-MW-71-G030118	3/1/2018	6.17	3.341	16.80	0.0*	6.21	20.6	NA	NA	1,100	NA	NA	NA	NA	NA
	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	1,321.2	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-MW72-G101217	10/12/2017	6.19	2.412	17.71	142.6	4.21	-100.6	NA	NA	160	NA	NA	NA	NA	NA	
ATR-MW-72-G030118	3/1/2018	7.00	2.752	17.55	0.0*	4.24	-86.1	NA	NA	68	NA	NA	NA	NA	NA	

Table 11 (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-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
	ATR-MW76-G101217	10/12/2017	6.16	2.117	18.69	19.6	0.86	-53.1	NA	NA	420	NA	NA	NA	NA	NA
	ATR-MW-76(30)-G030118	3/1/2018	5.75	1.675	17.83	11.7	0.28	-35.4	NA	NA	340	NA	NA	NA	NA	NA
	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-MW77-G101217	10/12/2017	6.93	0.518	17.21	0.0	0.21	-119.6	NA	NA	48	NA	NA	NA	NA	NA
	ATR-MW-77(41)-G030118	3/1/2018	7.26	0.483	16.36	0.0*	0.36	-46.8	NA	NA	16	NA	NA	NA	NA	NA
	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	
ATR-MW78-G101217	10/12/2017	6.48	1.209	16.27	1.6	0.48	-59.6	NA	NA	130	NA	NA	NA	NA	NA	
ATR-MW-78(35)-G030118	3/1/2018	6.66	0.858	16.54	0.0	0.39	-51.7	NA	NA	22	NA	NA	NA	NA	NA	
ATR-MW-78(35)-G030118R	3/1/2018	NM	NM	NM	NM	NM	NM	NA	NA	22	NA	NA	NA	NA	NA	
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-MW6C-G101117	10/11/2017	6.59	0.938	15.66	0.0	0.74	-75.7	NA	NA	8.7	NA	NA	NA	NA	NA
	ATR-MW6C-G101117R	10/11/2017	NA	NA	NA	NA	NA	NA	NA	NA	8.2	NA	NA	NA	NA	NA
	ATR-MW-6C-G022818	2/28/2018	6.71	2.145	15.52	21.8	0.42	-70.3	NA	NA	9.6	NA	NA	NA	NA	NA
	ATR-MW-6C-G022818R	2/28/2018	NA	NA	NA	NA	NA	NA	NA	NA	9.4	NA	NA	NA	NA	NA
	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-MW12-G101117	10/11/2017	NA	NA	NA	NA	NA	NA	NA	NA	23	NA	NA	NA	NA	NA	
ATR-MW-12-G022818	2/28/2018	7.22	1.399	15.32	10.9	0.56	-101.7	NA	NA	9.7	NA	NA	NA	NA	NA	

Table 11 (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 A	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-MW13-G101117	10/11/2017	6.91	1.608	14.78	307.3	4.02	-88.3	NA	NA	6.2	NA	NA	NA	NA	NA
	ATR-MW-13-G022818	2/28/2018	6.97	2.663	14.51	0.0*	4.48	-84.6	NA	NA	73	NA	NA	NA	NA	NA
	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
	ATR-MW62-G101117	10/11/2017	6.66	0.889	15.02	7.3	0.09	-129.3	NA	NA	25	NA	NA	NA	NA	NA
	ATR-MW-62(36)-G022818	2/28/2018	7.04	0.887	14.26	0.0*	0.34	-152.2	NA	NA	36	NA	NA	NA	NA	NA
	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(35)-G101117	10/11/2017	6.67	1.010	15.73	<1.0	0.72	-99.6	NA	NA	7.3	NA	NA	NA	NA	NA
ATR-MW-20(35)-G022818	2/28/2018	6.74	1.968	15.26	19.0	0.30	-92.5	NA	NA	6.3	NA	NA	NA	NA	NA	
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-MW20(51)-G101117	10/11/2017	7.04	0.718	15.79	<1.0	0.84	-148.3	NA	NA	6.2	NA	NA	NA	NA	NA	
ATR-MW-20(51)-G022818	2/28/2018	7.07	1.795	14.80	9.8	1.09	-129.6	NA	NA	5.8	NA	NA	NA	NA	NA	

Table 11 (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 A	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-MW82-G101117	10/11/2017	6.67	0.845	15.55	4.2	0.11	-128.5	NA	NA	6.3	NA	NA	NA	NA	NA
	ATR-MW-82(58)-G022818	2/28/2018	6.90	0.815	14.79	0.0*	0.26	-121.2	NA	NA	4.3	NA	NA	NA	NA	NA
	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(28)-G101117	10/11/2017	7.02	1.149	14.70	<1.0	0.71	-149.2	NA	NA	5.7	NA	NA	NA	NA	NA
	ATR-OW-1(28)-G022818	2/28/2018	7.00	0.920	14.01	1.0	0.33	-136.7	NA	NA	5.7	NA	NA	NA	NA	NA
	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	
ATR-OW1(39)-G101117	10/11/2017	7.05	0.926	14.85	<1.0	0.97	-142.5	NA	NA	6.3	NA	NA	NA	NA	NA	
ATR-OW-1(39)-G022818	2/28/2018	7.24	0.689	13.62	0.7	0.37	-133.9	NA	NA	5.1	NA	NA	NA	NA	NA	
Zone B	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
	ATR-MW14-G101017	10/10/2017	7.11	0.841	15.26	1.0	0.09	-165.2	NA	NA	13	NA	NA	NA	NA	NA
	ATR-MW-14-G022818	2/28/2018	7.15	0.623	12.99	4.2	0.34	-144.1	NA	NA	2.3	NA	NA	NA	NA	NA
	MTR-MW24(24.9)-G082213	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(24.9)-G101017	10/10/2017	7.07	0.694	16.31	0.2	0.30	-95.6	NA	NA	3.8	NA	NA	NA	NA	NA
ATR-MW-24(24.9)-G022718	2/27/2018	7.12	0.645	12.92	0.0*	0.27	-193.5	NA	NA	8.1	NA	NA	NA	NA	NA	

Table 11 (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-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-MW24(55.4)-G101017	10/10/2017	7.21	0.846	15.61	0.1	0.19	-147.3	NA	NA	31	NA	NA	NA	NA	NA
	ATR-MW-24(55.4)-G022718	2/27/2018	7.27	0.883	13.65	0.0*	0.21	-219.0	NA	NA	49	NA	NA	NA	NA	NA
	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(33)-G101117	10/11/2017	6.97	1.175	14.53	1.4	0.84	-141.8	NA	NA	10	NA	NA	NA	NA	NA
	ATR-OW-2(33)-G022718	2/27/2018	6.88	0.861	14.61	2.2	0.18	-166.1	NA	NA	6.0	NA	NA	NA	NA	NA
	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
	ATR-OW2(53)-G101117	10/11/2017	6.85	0.991	14.53	<1.0	1.01	-141.5	NA	NA	5.8	NA	NA	NA	NA	NA
	ATR-OW-2(53)-G022718	2/27/2018	6.86	0.634	14.64	0.0*	0.36	-163.2	NA	NA	18	NA	NA	NA	NA	NA
	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(35)-G101117	10/11/2017	7.06	0.870	14.31	0.0	0.16	-182.9	NA	NA	5.2	NA	NA	NA	NA	NA
	ATR-OW-3(35)-G022718	2/27/2018	7.10	0.799	13.49	0.0*	0.27	-196.2	NA	NA	3.8	NA	NA	NA	NA	NA
	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
	ATR-OW3(55)-G101017	10/10/2017	6.95	1.642	14.83	22.9	0.49	-218.7	NA	NA	350	NA	NA	NA	NA	NA
	ATR-OW-3(55)-G022718	2/27/2018	6.88	1.089	12.69	0.0*	0.37	-189.3	NA	NA	220	NA	NA	NA	NA	NA

Table 11 (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-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-MW15-G101017	10/10/2017	6.60	2.571	16.52	1.4	0.09	-133.5	NA	NA	710	NA	NA	NA	NA	NA
	ATR-MW-15-G022818	2/28/2018	6.55	3.752	11.01	19.8	0.94	-99.5	NA	NA	450	NA	NA	NA	NA	NA
	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
	ATR-MW25(16.4)-G101017	10/10/2017	6.91	1.112	16.09	1.0	0.28	-136.1	NA	NA	7.1	NA	NA	NA	NA	NA
	ATR-MW-25(16.4)-G022718	2/27/2018	6.98	5.062	12.10	27.0	0.42	-116.6	NA	NA	5.3	NA	NA	NA	NA	NA
	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
	ATR-MW25(32.6)-G101017	10/10/2017	6.69	1.280	15.91	0.2	0.20	-99.8	NA	NA	10	NA	NA	NA	NA	NA
	ATR-MW-25(32.6)-G022718	2/27/2018	6.76	5.135	13.37	27.3	0.49	-96.7	NA	NA	5.6	NA	NA	NA	NA	NA
	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-MW25(45.2)-G101017	10/10/2017	6.63	2.364	16.23	0.9	0.15	-115.0	NA	NA	520	NA	NA	NA	NA	NA
	ATR-MW-25(45.2)-G0022718	2/27/2018	6.67	9.300	13.34	27.5	0.83	-111.8	NA	NA	250	NA	NA	NA	NA	NA

Table 11 (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 C	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(35)-G101017	10/10/2017	6.61	2.639	16.92	1.7	0.11	-145.9	NA	NA	300	NA	NA	NA	NA	NA
	ATR-OW-4(35)-G022818	2/28/2018	6.63	4.529	13.80	19.5	0.43	-132.6	NA	NA	82	NA	NA	NA	NA	NA
	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
	ATR-OW4(54)-G101017	10/10/2017	7.02	1.774	16.95	1.6	0.09	-149.8	NA	NA	320	NA	NA	NA	NA	NA
ATR-OW-4(54)-G022818	2/28/2018	7.00	3.520	13.13	20.0	0.52	-118.0	NA	NA	200	NA	NA	NA	NA	NA	
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
	ATR-MW16-G101017	10/10/2017	6.92	2.563	14.68	2.1	0.60	-171.4	NA	NA	230	NA	NA	NA	NA	NA
	ATR-MW-16-G022718	2/27/2018	6.94	10.736	12.74	27.4	0.55	-136.1	NA	NA	200	NA	NA	NA	NA	NA
	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-MW17-G101017	10/10/2017	6.95	0.975	14.03	<1.0	0.80	-81.4	NA	NA	3.4	NA	NA	NA	NA	NA	
ATR-MW-17-G022718	2/27/2018	7.17	4.139	10.52	27.0	0.70	-133.1	NA	NA	16	NA	NA	NA	NA	NA	

Table 11 (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(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(17.5)-G100917	10/9/2017	7.13	1.126	15.24	1.8	0.62	-204.8	NA	NA	5.6	NA	NA	NA	NA	NA
	ATR-MW26(17.5)-G022618	2/26/2018	6.99	0.669	12.24	3.7	0.66	-113.7	NA	NA	4.1	NA	NA	NA	NA	NA
	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
	ATR-MW26(28.8)-G100917	10/9/2017	6.78	1.640	15.27	0.9	0.87	-166.5	NA	NA	13	NA	NA	NA	NA	NA
	ATR-MW-26(28.8)-G022618	2/26/2018	6.76	0.875	12.84	64.5	0.55	-86.9	NA	NA	7.1	NA	NA	NA	NA	NA
	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-MW26(58.2)-G101017	10/10/2017	7.21	0.863	14.14	2.4	0.59	-193.8	NA	NA	14	NA	NA	NA	NA	NA	
ATR-MW-26(58.8)-G022618	2/26/2018	7.15	0.454	12.96	84.4	0.68	-128.7	NA	NA	2.1	NA	NA	NA	NA	NA	

Table 11 (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-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-MWZV12(17.5)-G100917	10/9/2017	7.31	1.086	15.43	85.5	0.41	-226.1	NA	NA	5.5	NA	NA	NA	NA	NA
	ATR-ZVI-2(17.5)-G022618	2/26/2018	7.09	0.591	11.53	2.8	0.28	-147.8	NA	NA	4.0	NA	NA	NA	NA	NA
	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-MWZV12(32.5)-G100917	10/9/2017	6.96	1.544	15.17	5.4	0.86	-167.7	NA	NA	12	NA	NA	NA	NA	NA
	ATR-ZVI-2(32.5)-G022618	2/26/2018	6.70	0.943	13.05	4.1	0.42	-82.9	NA	NA	5.1	NA	NA	NA	NA	NA
	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	
ATR-MWOW05(16)-G101017	10/10/2017	7.13	0.905	16.69	1.7	0.63	-171.4	NA	NA	5.6	NA	NA	NA	NA	NA	
ATR-OW-5(16)-G022718	2/27/2018	7.23	4.340	11.89	26.9	0.35	-128.9	NA	NA	4.4	NA	NA	NA	NA	NA	

Table 11 (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-MWOW2(35)-G101017	10/10/2017	6.86	0.986	15.76	1.4	0.61	-159.2	NA	NA	6.7	NA	NA	NA	NA	NA
	ATR-OW-5(35)-G022718	2/27/2018	6.99	5.320	13.48	27.3	1.06	-115.5	NA	NA	5.1	NA	NA	NA	NA	NA
	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
	ATR-MWOW2(44)-G101017	10/10/2017	6.50	2.377	16.13	5.5	0.53	-140.0	NA	NA	200	NA	NA	NA	NA	NA
	ATR-OW-5(44)-G022718	2/27/2018	6.62	8.826	13.80	26.8	0.58	-99.8	NA	NA	44	NA	NA	NA	NA	NA

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 12
Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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	100 U		100 U		100 U		24,000	384	456
	ATR-MW81(27)-G101117	10/11/17	25 U		5,200	54	25 U		25 U		25 U		10,000	160	214
	ATR-MW-81(27)-G022818	2/28/18	20 U		4,000	41	33	0.34	20 U		20 U		8,300 J	133	174
	ATR-MW-81(27)-G022818R	2/28/18	25 U		4,000	41	32	0.33	25 U		25 U		8,000 J	128	170
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
	ATR-MW59(29)-G101117	10/11/17	1 U		6.6	0.07	1 U		1 U		1 U		5.3	0.08	0.15
	ATR-MW59(29)-G101117R	10/11/17	1 U		5.6	0.06	1 U		1 U		1 U		4.8	0.08	0.13
ATR-MW-59(29)-G022818	2/28/18	1 U		1.1	0.01	1 U		1 U		1 U		1 U		0.01	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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
	ATR-PM2-G101217	10/12/17	1 U		1 U		1 U		1 U		1 U		4.8	0.08	0.08
ATR-PM-2-G032918	3/29/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-PM3-G101217	10/12/17	20	0.2	3,000	31	110	1.1	1 U		1 U		34,000	544	576
ATR-PM-3-G030118	3/1/18	100 U		3,900	40	100 U		100 U		100 U		22,000 J	352	392	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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*	
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
	ATR-MW67-G101217	10/12/17	1 U		13	0.13	1 U		1 U		1 U		13	0.21	0.34
ATR-MW-67-G030118	3/1/18	1 U		4.0	0.04	1 U		1 U		1 U		73	1.2	1.2	
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
	ATR-MW68-G101217	10/12/17	5 U		40	0.41	5 U		5 U		5 U		2,500	40	40
ATR-MW-68-G030118	3/1/18	5 U		140 J	1.4	5 U		5 U		5 U		960 J	15	17	
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
	ATR-MW71-G101217	10/12/17	1 U		12	0.12	1 U		1 U		1 U		120	1.9	2.0
ATR-MW-71-G030118	3/1/18	5 U		7.1	0.07	5 U		5 U		5 U		1,300 J	21	21	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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*	
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
	ATR-MW72-G101217	10/12/17	1 U		2.5	0.03	1 U		1 U		1 U		4.5	0.07	0.10
	ATR-MW72-G101217R	10/12/17	1 U		2.0	0.02	1 U		1 U		1 U		4.5	0.07	0.09
ATR-MW-72-G030118	3/1/18	1 U		2.8	0.03	1 U		1 U		1 U		1.4	0.02	0.05	
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
	ATR-MW76-G101217	10/12/17	1 U		97	1.0	1 U		1 U		1 U		170	2.7	3.7
	ATR-MW-76-G030118	3/1/18	5 U		41	0.42	5 U		5 U		5 U		1,100 J	18	18
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
	ATR-MW77-G101217	10/12/17	1 U		1.7	0.02	1 U		1 U		1 U		26	0.42	0.43
	ATR-MW-77(41)-G030118	3/1/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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*	
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
	ATR-MW78-G101217	10/12/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW-78(35)-G030118	3/1/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-78(35)-G030118R	3/1/18	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
	ATR-MW6C-G101117	10/11/17	5 U		1,000	10	5 U		5 U		5 U		560	9.0	19
	ATR-MW6C-G101117R	10/11/17	5 U		950	9.8	5 U		5 U		5 U		510	8.2	18
ATR-MW-6C-G022818	2/28/18	1 U		100	1.0	1 U		1 U		1 U		52	0.83	1.9	
ATR-MW-6C-G022818R	2/28/18	1 U		100	1.0	1 U		1 U		1	0.01	54 J	0.86	1.9	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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
	ATR-MW12-G101117	10/11/17	1 U		1.3	0.01	1 U		1 U		1 U		1 U		0.01
ATR-MW-12-G022818	2/28/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-MW13-G101117	10/11/17	1 U		130	1.3	1 U		1 U		1 U		160	2.6	3.9
ATR-MW-13-G022818	2/28/18	1 U		44	0.45	1 U		1 U		1 U		39	0.62	1.1	
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 UJ		2.5 J	0.03	1 UJ		1 UJ		1 UJ		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
	ATR-MW62-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW-62(36)-G022818	2/28/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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
	ATR-MW20(35)-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-20(35)-G022818	2/28/18	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
	ATR-MW20(51)-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-20(51)-G022818	2/28/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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 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
	ATR-MW82-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-82(58)-G022818	2/28/18	1 UJ		1 UJ		1 UJ		1 UJ		1 UJ		1 UJ		0.00	
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
	ATR-OW1(28)-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-1(28)-G022818	2/28/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-OW1(39)-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-1(39)-G022818	2/28/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 12 (continued)
Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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 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
	ATR-MW14-G101017	10/10/17	1 U		1.0	0.01	1 U		1 U		1 U		1 U		0.01
ATR-MW-14-G022818	2/28/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-MW24(24.9)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-24(24.9)-G022718	2/27/18	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
	ATR-MW24(55.4)-G101017	10/10/17	1 U		1.5	0.02	1 U		1 U		1 U		1 U		0.02
ATR-MW-24(55.4)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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-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
	ATR-OW2(33)-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-2(33)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-OW2(53)-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-2(53)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-OW3(35)-G101117	10/11/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-3(35)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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 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
	ATR-OW3(55)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-3(55)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-MW15-G101017	10/10/17	1 U		1.4	0.01	9.1	0.09	1 U		1 U		1.8	0.03	0.14
ATR-MW-15-G022818	2/28/18	1 U		1.3	0.01	5.4	0.06	1 U		1 U		1.8	0.03	0.10	

Table 12 (continued)
Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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 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
	ATR-MW25(16.4)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-25(16.4)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-MW25(32.6)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-25(32.6)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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 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
	ATR-MW25(45.2)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-25(45.2)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-OW4(35)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-4(35)-G022818	2/28/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-OW4(54)-G101017	10/10/17	1 U		1.3	0.01	1 U		1 U		1 U		1 U		0.01
ATR-OW-4(54)-G022818	2/28/18	1 U		1.2	0.01	1 U		1 U		1 U		1 U		0.01	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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-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
	ATR-MW16-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-16-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 UJ		0.00	
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
	ATR-MW17-G101017	10/10/17	1 U		20	0.21	1 U		1 U		52	0.40	1 U		0.60
ATR-MW-17-G022718	2/27/18	1 U		33	0.34	1 U		1 U		57	0.43	1 U		0.77	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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(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
	ATR-MW26(17.5)-G100917	10/9/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
	ATR-MW-26(17.5)-G022618	2/26/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00
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
	ATR-MW26(28.8)-G100917	10/9/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-26(28.8)-G022618	2/26/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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(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
	ATR-MW26(58.2)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-MW-26(58.2)-G022618	2/26/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-MWZV12(17.5)-G100917	10/9/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-ZVI-2(17.5)-G022618	2/26/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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-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
	ATR-MWZV12(32.5)-G100917	10/9/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-ZVI-2(32.5)-G022618	2/26/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	
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
	ATR-MWOW05(16)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-05(16)-G022718	2/27/18	1 U		1 U		1 U		1 U		1 U		1 U		0.00	

Table 12 (continued)

**Summary of Target VOC Concentrations and Contaminant 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 Contaminant 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(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
	ATR-MWOW2(35)-G101017	10/10/17	1 U		1 U		1 U		1 U		1 U		1 U		0.00
ATR-OW-5(35)-G022718	2/27/18	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
	ATR-MWOW2(44)-G101017	10/10/17	1 U		1.8	0.02	1 U		1 U		1 U		5.0	0.08	0.10
ATR-OW-5(44)-G022718	2/27/18	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 13
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	Dissolved Gases			Volatile Fatty Acids									
			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
			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	11,000	170	550	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW81(27)-G020413	2/4/13	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	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	11,000	230	760	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW81(27)-G082715	8/27/15	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	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	20,000	310	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW81(27)-G092916	9/29/16	21,000	280	1,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW81(27)-G121316	12/13/16	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	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
	ATR-MW81(27)-G101117	10/11/17	22,000	340	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-81(27)-G022818	2/28/18	21,000	420	1,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-81(27)-G022818R	2/28/18	18,000	380	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MTR-MW59(29)-G092712	9/27/12	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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MTR-MW59(29)-G020413	2/4/13	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	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	13,000	250	4,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G082715	8/27/15	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	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	24,000	170	13,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G061716R	6/17/16	19,000	140	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G093016	9/30/16	16,000	130	7,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G093016R	9/30/16	18,000	140	8,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW59(29)-G121316	12/13/16	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	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	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	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-MW59(29)-G101117	10/11/17	24,000	560	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-59(29)-G022818	2/28/18	19,000	500	0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM2-G110512	11/5/12	10,000	180	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM2-G020413	2/4/13	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	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	7,800	120	620	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM2-G082715	8/27/15	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	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	22,000	280	10,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM2-G092916	9/29/16	21,000	360	7,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM2-G121316	12/13/16	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	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-PM2-G101217	10/12/17	18,000	370	1,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-PM-2-G032918	3/29/18	21,000	420	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 13 (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	Dissolved Gases			Volatile Fatty Acids									
			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
			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-PM3-G110512	11/5/12	11,000	260	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM3-G020413	2/4/13	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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM3-G050313	5/3/13	10,000	260	680	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM3-G082715	8/27/15	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	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	17,000	170	4,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM3-G092916	9/29/16	17,000	180	4,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM3-G121316	12/13/16	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	19,000	240	5,300	20 U	840	120	14 J	150	50	4.1	33	0.9	36
	ATR-PM3-G101217	10/12/17	20,000	250	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-PM-3-G030118	3/1/18	11,000	230	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Source - Inside	ATR-MW67(30)-G110712	11/7/12	1,700	75	6.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW67-G031516	3/15/16	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	3,000	130	3,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW67-G092916	9/29/16	3,800	170	4,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW67-G121216	12/12/16	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	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-MW67-G101217	10/12/17	9,000	44	2,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-67-G030118	3/1/18	10,000	54	2,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW68-G031516	3/15/16	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	5,000	96	6,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW68-G092916	9/29/16	11,000	80	6,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW68-G121316	12/13/16	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	6,500	17	3,400	2 U	580	77	9.9	60	12	2.5	10	0.69	11
	ATR-MW68-G101217	10/12/17	12,000	37	3,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-68-G030118	3/1/18	11,000	35	2,800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW71-G031516	3/15/16	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	9,100	66	6,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW71-G092916	9/29/16	9,400	70	5,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW71-G121216	12/12/16	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	7,600	110	550	20 U	380	210	20	270	40	3.6	38	0.8	71
	ATR-MW71-G101217	10/12/17	6,800	180	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-71-G030118	3/1/18	4,900	46	460	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW72(32)-G030613	3/6/13	6,100	130	770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW72-G031516	3/15/16	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	6,600	81	790	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW72-G092916	9/29/16	7,900	60	8,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW72-G121316	12/13/16	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	8,500	9.9	690	2 U	390	240	17	110	17	3.3	42	0.55	28
	ATR-MW72-G101217	10/12/17	9,800	31	72	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-72-G030118	3/1/18	8,800	110	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW76-G031516	3/15/16	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	2,700	87	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-MW76-G092916	9/29/16	6,000	110	2,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW76-G121416	12/14/16	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	12,000	91	5,800	2 U	800	53	14	110	15	3.2	12	0.61	31	
ATR-MW76-G101217	10/12/17	4,100	17	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW-76-G030118	3/1/18	12,000	61	3,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 13 (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	Dissolved Gases			Volatile Fatty Acids									
			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
			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-MW77-G031516	3/15/16	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	6,900	18	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW77-G092916	9/29/16	4,200	19	6.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW77-G121416	12/14/16	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	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-MW77-G101217	10/12/17	6,600	66	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-71(41)-G030118	3/1/18	8,400	140	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW78-G031516	3/15/16	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	18,000	170	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW78-G092916	9/29/16	22,000	38	0.85	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW78-G121416	12/14/16	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	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
	ATR-MW78-G101217	10/12/17	26,000	2.5	0.028 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-78(35)-G030118	3/1/18	26,000	11	0.019 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-MW-78(35)-G030118R	3/1/18	21,000	9.3	0.028 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Zone A	MTR-MW6C-G030513	3/5/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G082615	8/26/15	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	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	11,000	81	68	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G092816	9/28/16	17,000	270	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G020117	2/1/17	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	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
	ATR-MW6C-G101117	10/11/17	22,000	62	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW6C-G101117R	10/11/17	20,000	58	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-6C-G022818	2/28/18	21,000	82	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-6C-G022818R	2/28/18	20,000	85	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW12-G082615	8/26/15	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	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	18,000	37	1,600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW12-G092816	9/28/16	19,000	110	410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW12-G020117	2/1/17	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	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
	ATR-MW12-G101117	10/11/17	17,000	22	0.064 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-12-G022818	2/28/18	17,000	22	0.078 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MTR-MW13-G092712	9/27/12	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	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	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	18,000	130	1,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW13-G092816	9/28/16	20,000	310	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW13-G020117	2/1/17	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	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-MW13-G101117	10/11/17	15,000	62	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-13-G022818	2/28/18	17,000	56	46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW62-G082715	8/27/15	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	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	17,000	140	3,400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW62-G092916	9/29/16	17,000	250	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-MW62-G020117	2/1/17	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	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-MW62-G101117	10/11/17	21,000	78	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW-62(36)-G022818	2/28/18	21,000	80	0.061 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 13 (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	Dissolved Gases			Volatile Fatty Acids									
			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
			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-MW20(35)-G082715	8/27/15	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	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	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	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	18,000	130	320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G061616R	6/16/16	18,000	130	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G092816	9/28/16	16,000	500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G092816R	9/28/16	17,000	510	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(35)-G020117	2/1/17	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	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	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	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(35)-G101117	10/11/17	20,000	60	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-20(35)-G022818	2/28/18	17,000	44	0.054 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(51)-G082715	8/27/15	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	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	23,000	7.5	0.078	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(51)-G092816	9/28/16	23,000	19	0.022 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW20(51)-G020117	2/1/17	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	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-MW20(51)-G101117	10/11/17	28,000	110	0.0057 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-20(51)-G022818	2/28/18	19,000	83	0.023 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW82-G082615	8/26/15	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	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	25,000	81	0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW82-G092816	9/28/16	27,000	34	0.024 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW82-G020117	2/1/17	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	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
	ATR-MW82-G101117	10/11/17	29,000	81	0.0059 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-82(58)-G022818	2/28/18	28,000	99	0.033 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1S-G082715	8/27/15	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	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	14,000	58	320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1(28)-G092816	9/28/16	12,000	67	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1(28)-G013117	1/31/17	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	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-OW1(28)-G101117	10/11/17	18,000	170	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW-1(28)-G022818	2/28/18	12	0.26	0.014 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW1D-G082715	8/27/15	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	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	20,000	160	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW1(39)-G092816	9/28/16	10,000	210	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW1(39)-G020117	2/1/17	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	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	
ATR-OW1(39)-G101117	10/11/17	7,600	230	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW-1(39)-G022818	2/28/18	3,500	300	93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 13 (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	Dissolved Gases			Volatile Fatty Acids									
			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
			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	MTR-MW14-G092712	9/27/12	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	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	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	3,800	1.1	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW14-G092816	9/28/16	6,400	10	950	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW14-G020117	2/1/17	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	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-MW14-G101017	10/10/17	30,000	160	5.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-14-G022818	2/28/18	17,000	340	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24 (24.9)-G100815	10/8/15	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	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	13	0.0069	0.0083	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(24.9)-G092816	9/28/16	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	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	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(24.9)-G101017	10/10/17	49	0.039 J	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-24(24.9)-G022718	2/27/18	5,500	0.078 J	0.032 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24 (55.9)-G100815	10/8/15	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	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	19	0.15	0.089	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(55.4)-G092816	9/28/16	22	0.17	0.086 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW24(55.4)-G013117	1/31/17	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	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-MW24(55.4)-G101017	10/10/17	20,000	56	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-24(55.4)-G022718	2/27/18	24,000	76	5.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW2 (33)-G100815	10/8/15	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	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	11,000	51	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW2(33)-G92716	9/27/16	22,000	200	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW2(33)-G013117	1/31/17	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	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(33)-G101117	10/11/17	24,000	120	0.016 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW-2(33)-G022718	2/27/18	22,000	76	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-OW2 (53)-G100815	10/8/15	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)-022916	2/29/16	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	24,000	110	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW2(53)-G092716	9/27/16	28,000	150	9.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW2(53)-G013117	1/31/17	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	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	
ATR-OW2(53)-G101117	10/11/17	30,000	14	0.005 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-OW-2(53)-G022718	2/27/18	22,000	9.9	0.0090 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 13 (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	Dissolved Gases			Volatile Fatty Acids									
			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
			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	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	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	13,000	24	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3(35)-G092716	9/27/16	12,000	48	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3(35)-G013117	1/31/17	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	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-G101117	10/11/17	4,200	36	22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW-3(35)-G022718	2/27/18	6,300	55	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3 (55)-G100715	10/7/15	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	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	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	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	24,000	33	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3(55)-G092716	9/27/16	24,000	66	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW3(55)-G060717	6/7/17	30,000	120	210	20 U	740	190	5.9	28	17	3.6	12	0.3	6.3
	ATR-OW3(55)-G101017	10/10/17	27,000	230	490	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-OW-3(55)-G022718	2/27/18	28,000	290	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Zone C	ATR-MW15-G101315	10/13/15	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	1,500	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	4,200	9.2	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G092716	9/27/16	11,000	20	1,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW15-G013117	1/31/17	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	20,000	96	4,200	20 U	850	250	3.6 J	55	39	3.3	25	0.31	7.6
	ATR-MW15-G101017	10/10/17	32,000	120	3,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-15-G022818	2/28/18	21,000	110	2,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MTR-MW25(16.4)-G092712	9/27/12	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	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	1,700	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	12,000	140	920	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(16.4)-G092716	9/27/16	18,000	370	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(16.4)-G013117	1/31/17	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	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	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(16.4)-G101017	10/10/17	25,000	150	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-25(16.4)-G022718	2/27/18	20,000	100	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G101315	10/13/15	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	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	18,000	70	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G092716	9/27/16	24,000	450	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(32.6)-G013117	1/31/17	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	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(32.6)-G101017	10/10/17	28,000	49	0.0067 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-25(32.6)-G022718	2/27/18	23,000	78	0.011 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G101315	10/13/15	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	1,100	10	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G061516	6/15/16	3,000	8.6	96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G092716	9/27/16	9,800	12	1,900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW25(45.2)-G013117	1/31/17	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	18,000	310	400	20 U	830	130	4.8	17	11	3.6	8.4	0.24	1.3
ATR-MW25(45.2)-G101017	10/10/17	31,000	400	71	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW-25(45.2)-G022718	2/27/18	26,000	320	0.027 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 13 (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	Dissolved Gases			Volatile Fatty Acids									
			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
			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(35)-G101315	10/13/15	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	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	30,000	7.5	730	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(35)-G092716	9/27/16	20,000	8.4	760	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(35)-G013117	1/31/17	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	23,000	39	8.3	2 U	500	170	5.5 J	39	28	5.2	14	0.7	9.8
	ATR-OW4(35)-G101017	10/10/17	29,000	64	0.34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW-4(35)-G022818	2/28/18	23,000	18	0.092 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(54)-G101315	10/13/15	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	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	730	0.24	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(54)-G092716	9/27/16	6,800	0.25	0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW4(54)-G013117	1/31/17	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	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
	ATR-OW4(54)-G101017	10/10/17	30,000	1.1	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-OW-4(54)-G022818	2/28/18	28,000	2.2	0.91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Zone D	ATR-MW16-G100715	10/7/15	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	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	12,000	100	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW16-G092616	9/26/16	22,000	84	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW16-G013017	1/30/17	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	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-MW16-G101017	10/10/17	30,000	200	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-16-G022718	2/27/18	13,000	190	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G100715	10/7/15	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	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	3.1	0.046	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G092616	9/26/16	2.2	0.023 J	0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW17-G013017	1/30/17	1.3	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	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
	ATR-MW17-G101017	10/10/17	410	0.027 J	0.036 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-17-G022718	2/27/18	3,400	0.24	0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MTR-MW26(17.5)-G092712	9/27/12	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	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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26 (17.5)-G100715	10/7/15	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	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	20,000	340	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(17.5)-G092616	9/26/16	16,000	250	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-MW26(17.5)-G013017	1/30/17	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	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	
ATR-MW26(17.5)-G100917	10/9/17	21,000	150	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-MW-26(17.5)-G022618	2/26/18	19,000	140	0.015 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 13 (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	Dissolved Gases			Volatile Fatty Acids									
			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
			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 D	MTR-MW26(28.8)-G092712	9/27/12	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	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	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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26 (28.8)-G100715	10/7/15	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)-030116	3/1/16	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	28,000	57	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(28.8)-G092616	9/26/16	22,000	90	0.10 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(28.8)-G013017	1/30/17	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	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(28.8)-G100917	10/9/17	28,000	30	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-26(28.8)-G022618	2/26/18	30,000	77	0.021 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26 (58.8)-G100715	10/7/15	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	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	810	2.2	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(58.2)-G092616	9/26/16	9,500	3.1	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW26(58.8)-G013017	1/30/17	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	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	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
	ATR-MW26(58.2)-G101017	10/10/17	26,000	39	33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-MW-26(58.2)-G022618	2/26/18	11,000	21	0.025 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ZVI-2(17.5)-G121812	12/18/12	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	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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2 (17.5)-G100715	10/7/15	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	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	18,000	350	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2(17.5)-G092616	9/26/16	19,000	380	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI2(17.5)-G013117	1/31/17	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	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
	ATR-MWZVI2(17.5)-G100917	10/9/17	23,000	170	0.0072 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-ZVI-2(17.5)-G022618	2/26/18	21,000	170	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ZVI-2(32.5)-G121812	12/18/12	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	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	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-ZVI2 (32.5)-G100715	10/7/15	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	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	8,300	44	54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-ZVI2(32.5)-G092616	9/26/16	5,200	31	180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-ZVI2(32.5)-G013117	1/31/17	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	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-MWZVI2(32.5)-G100917	10/9/17	31,000	100	0.0087 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
ATR-ZVI-2(32.5)-G022618	2/26/18	22,000	120	0.021 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 13 (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	Dissolved Gases			Volatile Fatty Acids									
			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
			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 D	ATR-OW5 (16)-G100715	10/7/15	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)-G030116	3/1/16	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	5,200	2.9	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(16)-G092716	9/27/16	17,000	60	74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(16)-G013017	1/30/17	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	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-MWOW5(16)-G101017	10/10/17	17,000	31	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW-5(16)-G022718	2/27/18	19,000	49	0.22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5 (35)-G100715	10/7/15	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	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	22,000	71	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(35)-G092616	9/26/16	22,000	110	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(35)-G013017	1/30/17	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	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-MWOW2(35)-G101017	10/10/17	33,000	250	0.1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW-5(35)-G022718	2/27/18	23,000	170	0.0094 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5 (54)-G100715	10/7/15	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	1,100	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	2,900	14	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(45)-G092616	9/26/16	16,000	19	860	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	ATR-OW5(45)-G013017	1/30/17	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	25,000	120	1.5	2 U	420	230	20 U	19	4.3	3.0	5.8	0.5	0.52
	ATR-MWOW2(44)-G101017	10/10/17	32,000	140	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ATR-OW-5(44)-G022718	2/27/18	25,000	150	0.074 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

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

Prepared by: R;B
 Checked by: PJS

Table 14
Surveyed Elevation Data and Depth to Water for Monitoring Wells Used
for Groundwater Elevation Contour Mapping - 26 February 2018
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	39.72	800.76
MW-3	805.45	20.83	784.62
MW-5	807.89	20.45	787.44
MW-6C	810.40	NM	NM
MW-9C	808.16	23.70	784.46
MW-12	808.46	24.04	784.42
MW-13	806.67	22.26	784.41
MW-14	802.70	18.43	784.27
MW-17	784.41	2.90	781.51
MW-20(35)	810.42	25.92	784.50
MW-21(40.2)	810.33	26.11	784.22
MW-23(39.9)	816.67	31.95	784.72
MW-24(24.9)	804.92	20.68	784.24
MW-25(16.4)	791.93	8.12	783.81
MW-26(17.5)	792.16	10.35	781.81
MW-27(18)	785.82	4.30	781.52
MW-30(41.1)	794.57	19.54	775.03
MW-31(30.9)	781.48	7.90	773.58
MW-53(41)	809.87	25.09	NM
MW-57(38)	795.51	8.14	787.37
MW-59(29)	799.57	14.85	784.72
MW-60(38)	798.51	13.46	785.05
MW-62(36)	810.71	26.23	784.48
MW-65(32)	809.40	24.86	784.54
MW-67(30)	809.53	25.00	784.53
MW-68(32)	809.46	NM	NM
MW-71(33)	809.15	24.63	784.52
MW-72(32)	808.92	24.45	784.47
MW-75(32)	809.39	24.91	784.48
MW-76(30)	809.28	24.74	784.54
MW-77(41)	809.39	24.81	784.58
MW-78(35)	809.30	24.79	784.51
MW-79(30)	809.26	NM	NM
MW-81(27)	798.34	13.18	785.16
MW-84(44)	824.91	40.76	784.15
MW-85(39)	796.49	12.29	784.20
MW-89(28)	797.77	12.95	784.82
OW-1(28)	805.18	20.77	784.41
OW-2(33)	805.54	21.23	784.31
OW-3(35)	801.72	17.58	784.14
OW-4(35)	801.35	17.64	783.71
OW-5(16)	790.72	8.63	782.09
OW-6(38)	789.27	8.58	780.69
PM-2	798.45	13.08	785.37
PM-3	808.40	23.87	784.53
ZVI-2(17.5)	791.17	9.40	781.77

Table 14
Surveyed Elevation Data and Depth to Water for Monitoring Wells Used
for Groundwater Elevation Contour Mapping - 26 February 2018
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	23.67	784.40
MW-15	792.90	9.38	783.52
MW-19(53)	809.56	24.98	784.58
MW-20(51)	810.41	25.91	784.50
MW-24(55.4)	804.94	20.69	784.25
MW-25(45.2)	791.91	8.41	783.50
MW-26(58.2)	792.17	9.80	782.37
MW-27(53.05)	785.84	3.44	782.40
MW-29(82.5)	801.45	25.19	776.26
MW-31(55.5)	781.47	8.30	773.17
MW-52(55)	798.84	14.58	784.26
MW-55(49)	799.24	12.99	786.25
MW-56(50)	797.23	11.31	785.92
MW-82(58)	807.38	22.91	784.47
MW-83(64)	807.67	23.25	784.42
MW-84(65)	824.56	40.60	783.96
OW-1(39)	805.15	20.74	784.41
OW-2(53)	805.50	21.18	784.32
OW-3(55)	801.66	17.64	784.02
OW-4(54)	801.33	17.55	783.78
OW-5(35)	790.76	7.83	782.93
OW-6(63)	789.27	8.03	781.24
ZVI-2(32.5)	791.19	10.30	780.89

NM - Not Measured

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

⁽²⁾ Below top of casing (feet)

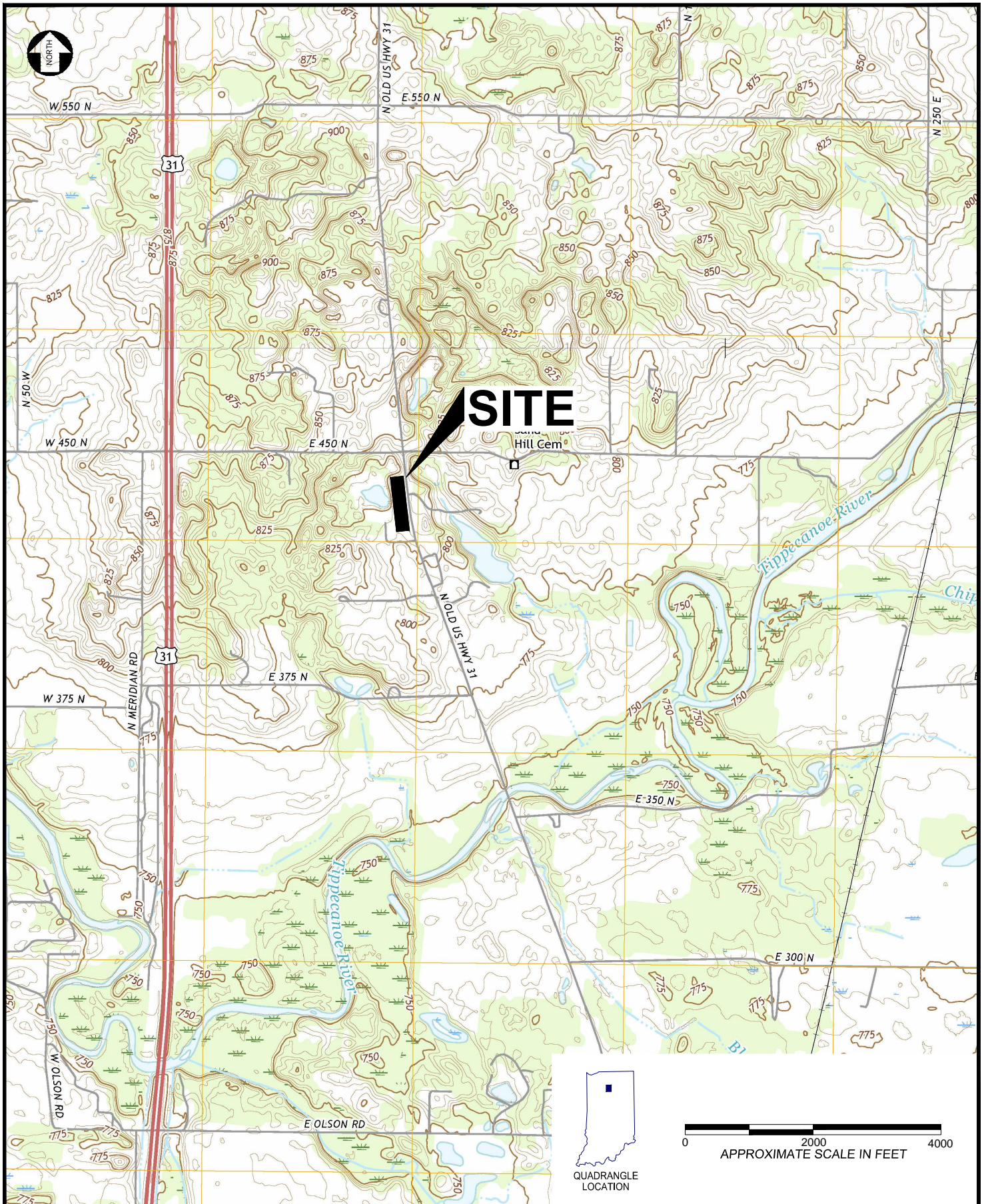
Prepared By: RLB

Checked By: PJS



Textron, Inc.
TORX Facility Remediation
Report of Polishing Remedial Injections Performance Monitoring

FIGURES



QUADRANGLE LOCATION



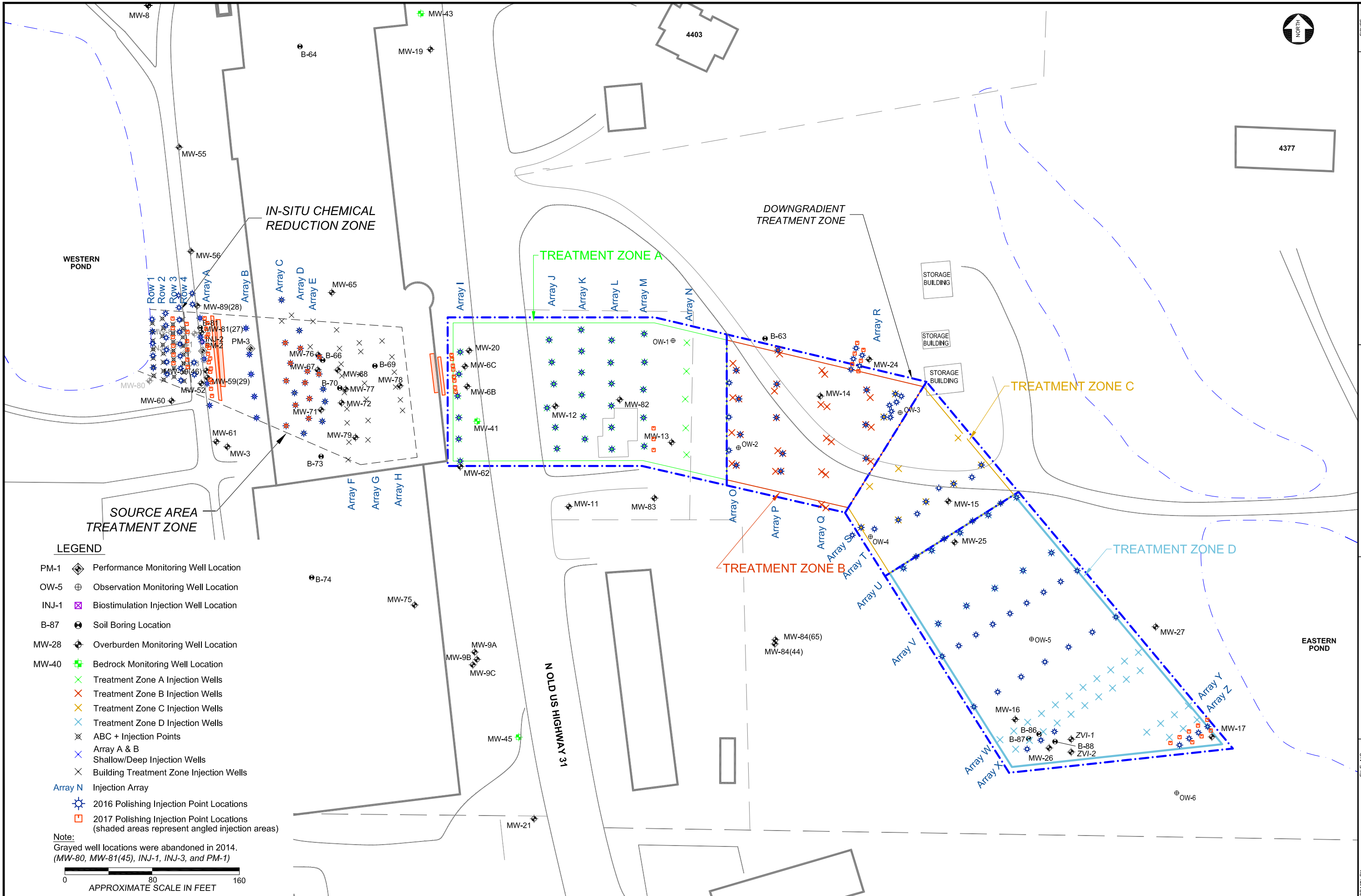
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APPROVED BY DATE
PJS 07/13/2018
SOURCE USGS 7.5 minute topographic survey maps of Argos and Rochester, IN, 2016.
PROJECT NO. SCALE
3359 15 1040 SEE ABOVE

TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA



SITE
LOCATION
MAP

FIGURE
1
SHEET 1 of 1

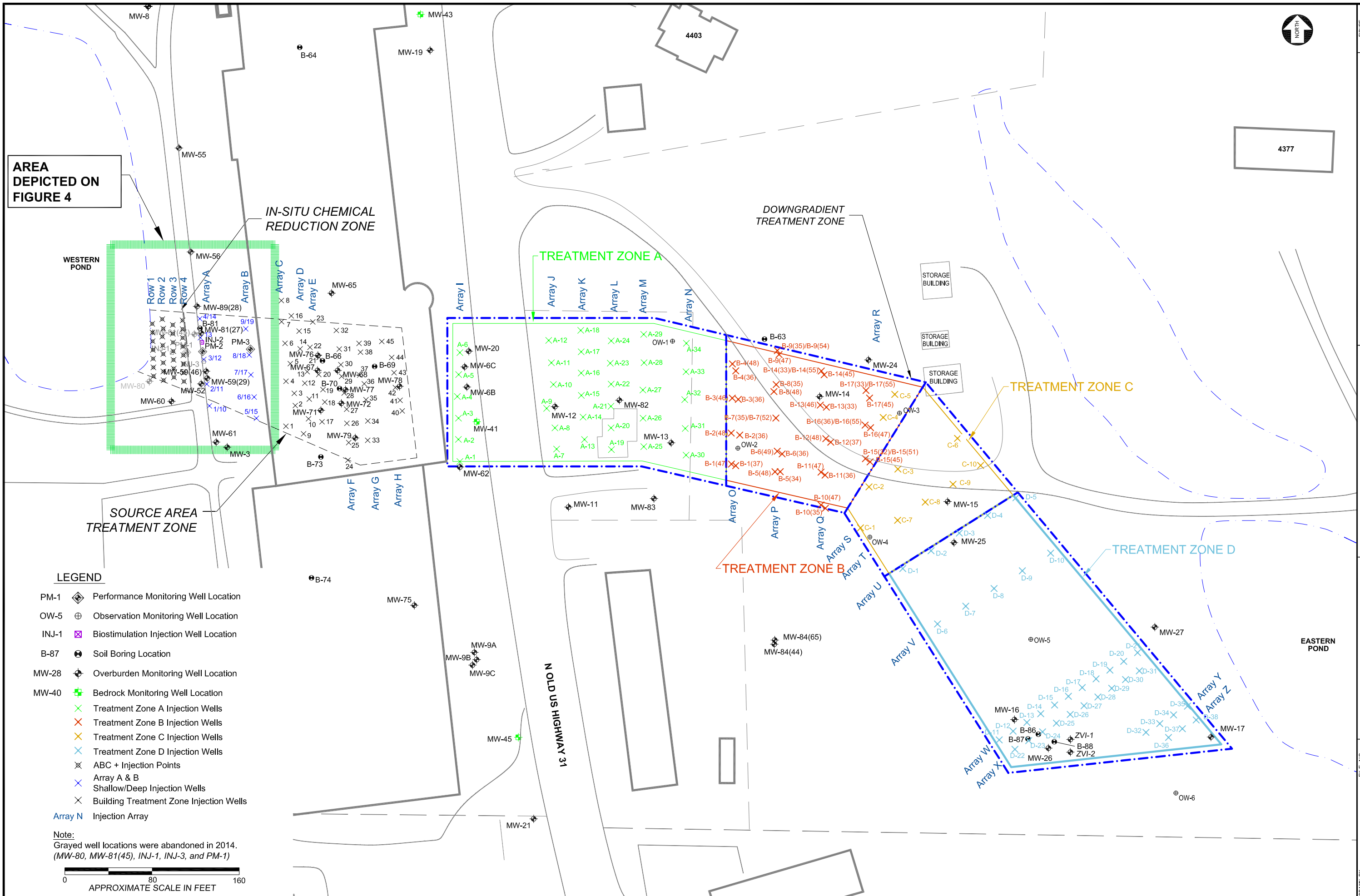


LEGEND

- 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
- 2016 Polishing Injection Point Locations
- 2017 Polishing Injection Point Locations (shaded areas represent angled injection areas)

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

DOWNGRADIENT
TREATMENT ZONE

TREATMENT ZONE A

TREATMENT ZONE C

SOURCE AREA
TREATMENT ZONE

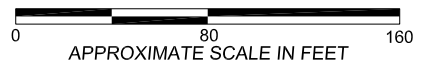
TREATMENT ZONE B

TREATMENT ZONE D

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)

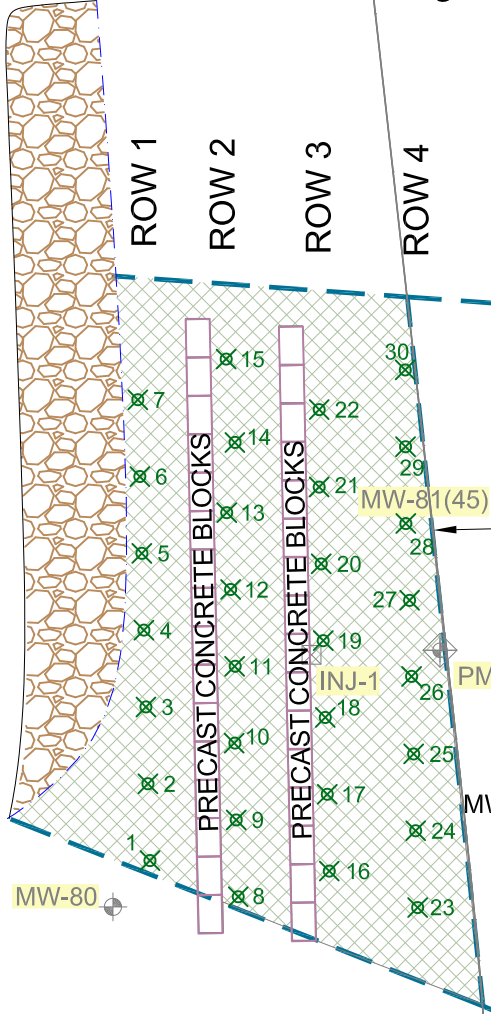




WESTERN POND

ACCESS ROAD

ROW 1
ROW 2
ROW 3
ROW 4



MW-56

MW-89

B-81
MW-81(27)
MW-81(45)

INJ-2
PM-2

IN-SITU CHEMICAL REDUCTION TREATMENT ZONE

PM-3

PM-1

INJ-3

MW-59(46)

MW-59(29)

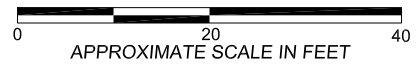
MW-52

MW-80

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

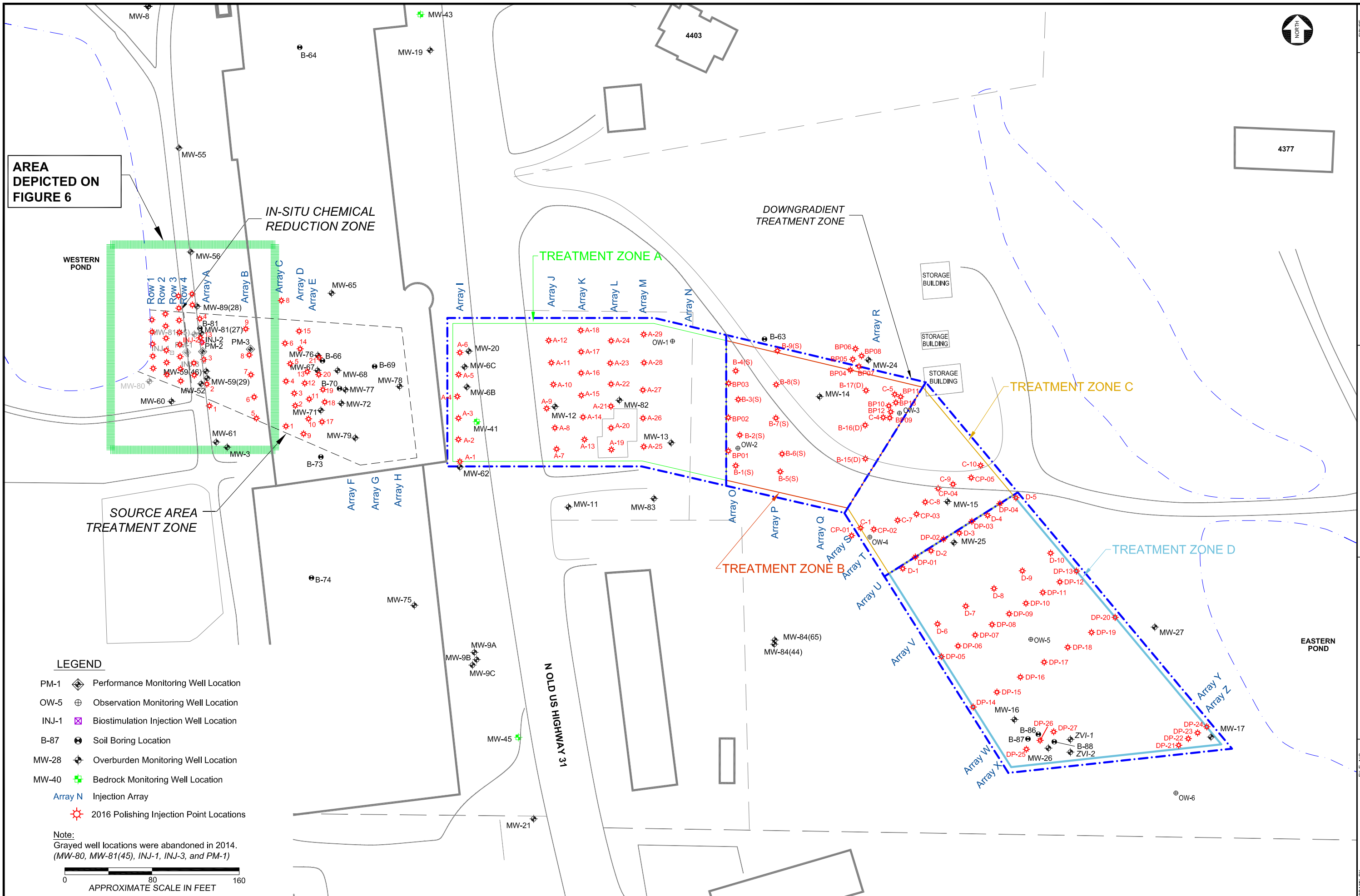
DRAWN BY P:\Textron\FFS\ FILE NO.
 RLB Drawings\PM Source Area 2017.dwg
 APPROVED BY DATE
 PJS 07/13/2018
 SOURCE Wells surveyed by Territorial Engineering, 2009;
 Fulton County, IN GIS, 2005; historical maps from Textron
 PROJECT NO. SCALE
 3359 15 1040 SEE ABOVE

TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA



SOURCE AREA INITIAL
IN-SITU CHEMICAL
REDUCTION
INJECTION POINTS

FIGURE
4
 SHEET 1 of 1



AREA
DEPICTED ON
FIGURE 6

IN-SITU CHEMICAL
REDUCTION ZONE

DOWNGRADIENT
TREATMENT ZONE

TREATMENT ZONE A

TREATMENT ZONE C

TREATMENT ZONE B

TREATMENT ZONE D

SOURCE AREA
TREATMENT ZONE

EASTERN
POND

N OLD US HIGHWAY 31

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
- Array N Injection Array
- 2016 Polishing Injection Point Locations

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

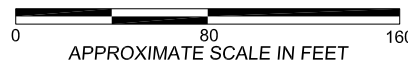


FIGURE
5
SHEET 1 of 1

**2016 POLISHING
INJECTION LOCATIONS**

WOOD.

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

DRAWN BY RLB	FILE NO. P:\Tetraon\TFS\Drawings\PM_2017_Site_Plan.dwg	DATE 07/13/2018	SCALE SEE ABOVE
APPROVED BY PJS		SOURCE Wells surveyed by Territorial Engineering, Fulton County, IN GIS, 2005.	PROJECT NO. 3.359.15.1040



WESTERN POND

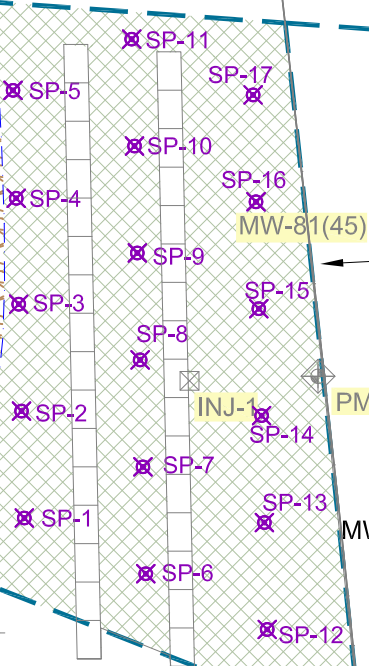
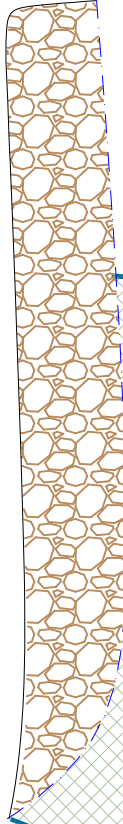
ROW 1

ROW 2

ROW 3

ROW 4

ACCESS ROAD



MW-56

SP-23

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

INJ-1

SP-2

SP-7

SP-14

SP-1

SP-6

SP-13

B-81

MW-81(27)

MW-81(45)

INJ-2

IN-SITU CHEMICAL REDUCTION TREATMENT ZONE

PM-3

PM-2

PM-1

SP-21

INJ-3

MW-59(46)

SP-20

MW-59(29)

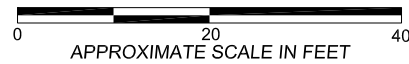
MW-52

MW-80

MW-60

MW-61

EQUIPMENT STAGING AREA

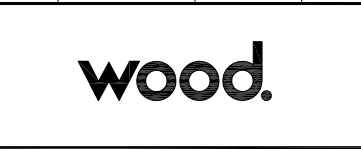


LEGEND

- PM-1 PERFORMANCE MONITORING WELL LOCATION
- INJ-1 BIOSTIMULATION INJECTION WELL LOCATION
- B-87 SOIL BORING LOCATION OVERBURDEN
- MW-28 MONITORING WELL LOCATION
- ABANDONED WELL LOCATION
- 2016 SOURCE POLISHING (SP) INJECTION POINTS
- GRAVEL BACKFILL AREA
- THREE LEVEL INJECTION BENCH

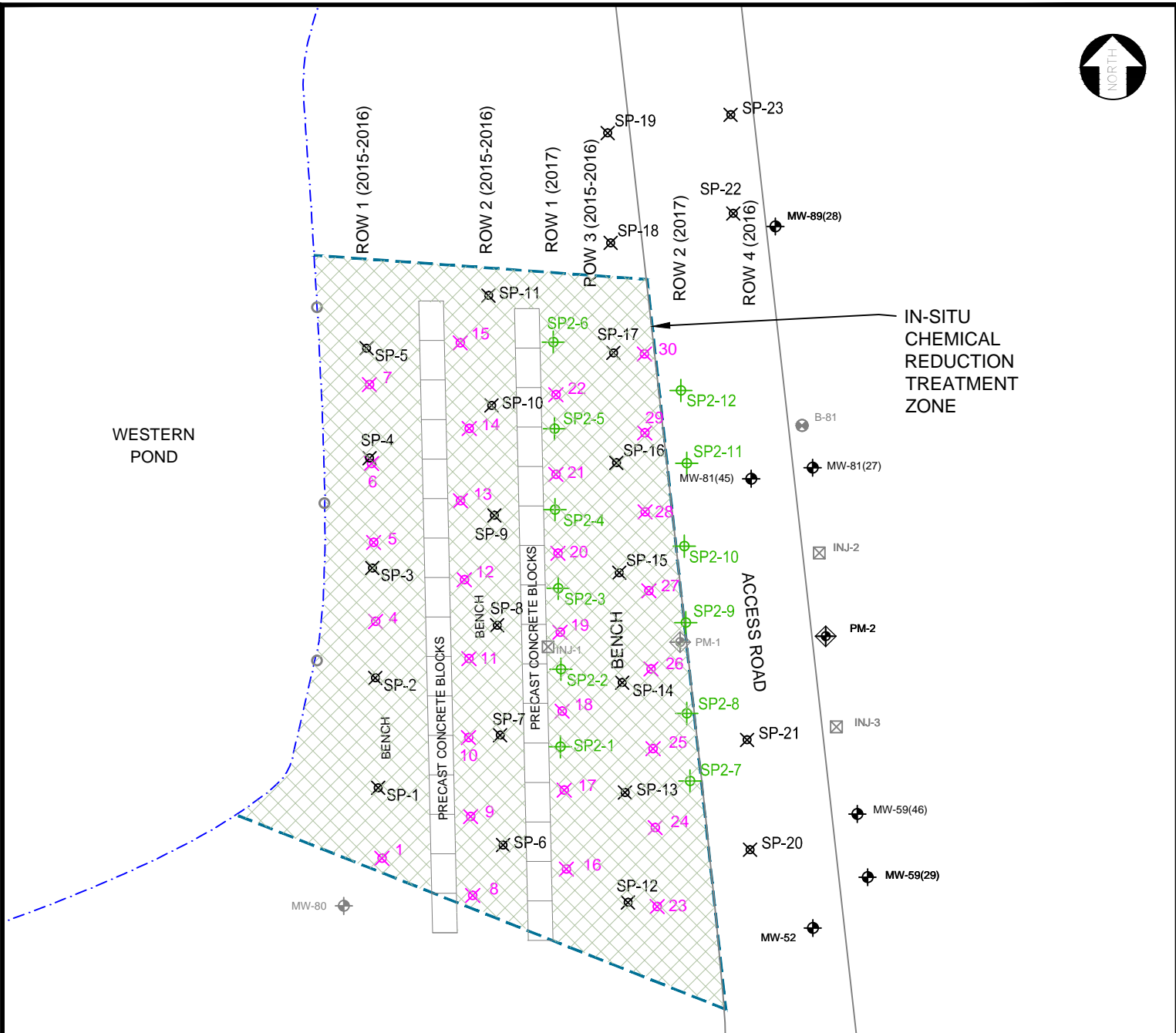
DRAWN BY P:\Textron\TFS\ FILE NO.
 RLB Drawings\PM Source Area 2017.dwg
 APPROVED BY DATE
 PJS 07/13/2018
 SOURCE Wells surveyed by Territorial Engineering, 2009;
 Fulton County, IN GIS, 2005; historical maps from Textron
 PROJECT NO. SCALE
 3359 15 1040 SEE ABOVE

TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA



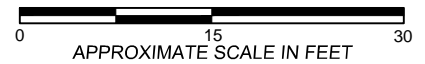
SOURCE AREA
POLISHING ABC-OLE
2016 INJECTION POINTS

FIGURE
6
 SHEET 1 of 1



LEGEND

- PM-2 PERFORMANCE MONITORING WELL LOCATION
- INJ-1 BIOSTIMULATION INJECTION WELL LOCATION
- B-81 SOIL BORING LOCATION OVERBURDEN
- MW-28 MONITORING WELL LOCATION
- CLOSED WELL LOCATIONS
- SP2-1 ABC & ZVI POLISHING INJECTION LOCATIONS (2017)
- 16 ABC & ZVI INJECTION LOCATIONS - INITIAL INJECTION (2015)
- SP-6 SOURCE POLISHING INJECTION LOCATIONS - ABC-OLE (2016)
- POND MONITORING LOCATION
- THREE LEVEL INJECTION BENCH



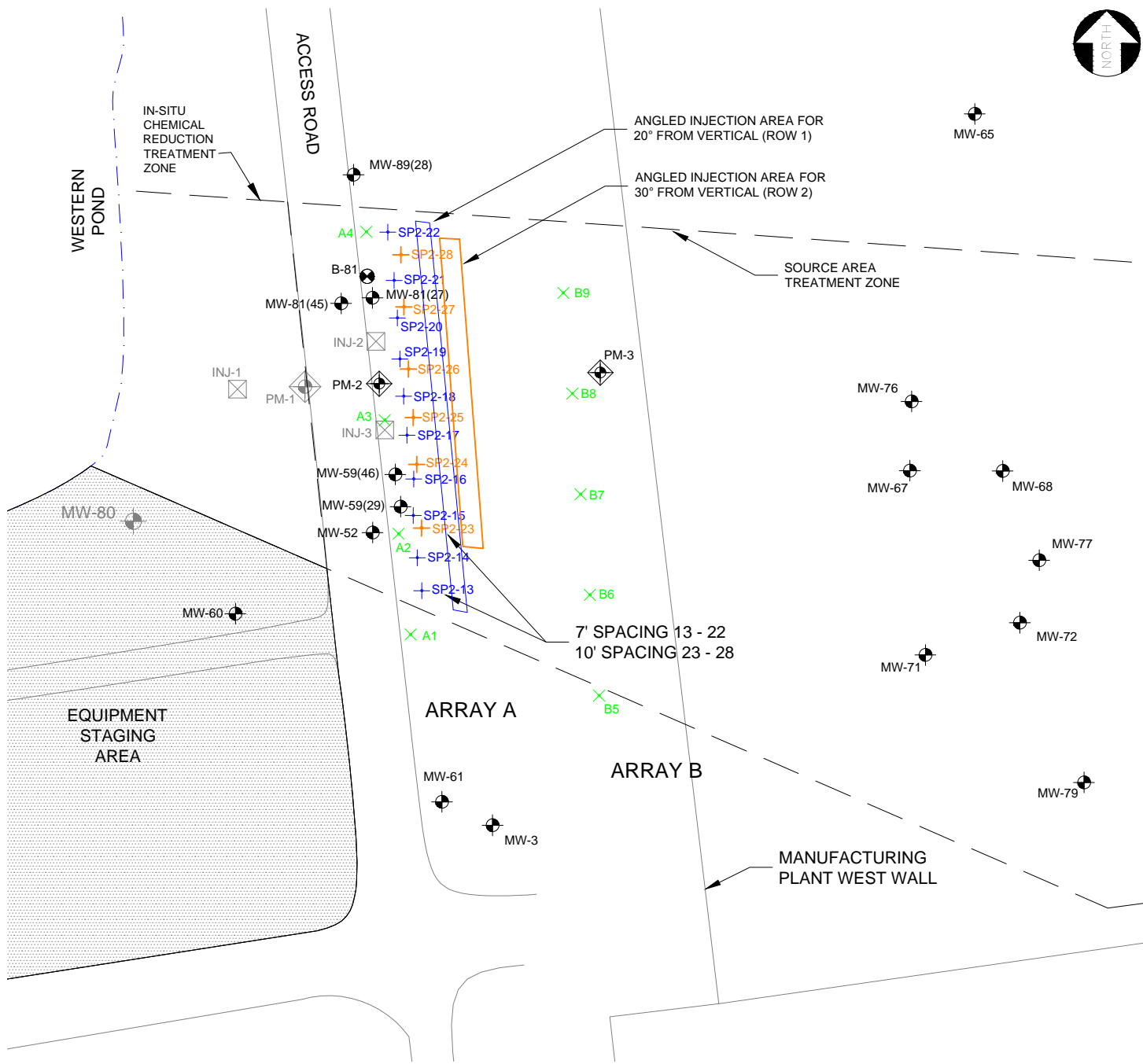
DRAWN BY APT	P:\Textron\TFS\ Drawings\F07 Plan View ABC 2017.dwg
APPROVED BY WPT	DATE 07/13/2018
SOURCE Wells surveyed by Territorial Engineering, 2009; Fulton County, IN GIS, 2005; historical maps from Textron	
PROJECT NO. 3359 15 1040	SCALE SEE ABOVE

TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA



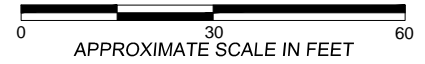
PLAN VIEW
ABC-Ole & ZVI
2017 INJECTION POINTS
RELATIVE TO PRIOR POINTS

FIGURE
7
SHEET 1 of 1



LEGEND

- PM-2 PERFORMANCE MONITORING WELL LOCATION
- INJ-1 BIOSTIMULATION PILOT INJECTION WELL LOCATION
- B-87 SOIL BORING LOCATION OVERBURDEN
- MW-28 MONITORING WELL LOCATION
- SHALLOW REMEDIAL ERD INJECTION WELL
- CLOSED WELL LOCATIONS
- SP2-13 - SP2-22 ROW 1 ARRAY A 2017 POLISHING INJECTION POINTS 7' SPACING
- ANGLED INJECTION AREA ROW 1, ARRAY 1 2017 POLISH INJECTION
- SP2-22 - SP2-28 ROW 2 ARRAY A 2017 POLISHING INJECTION POINTS 10' SPACING
- ANGLED INJECTION AREA ROW 2, ARRAY A 2017 POLISH INJECTION

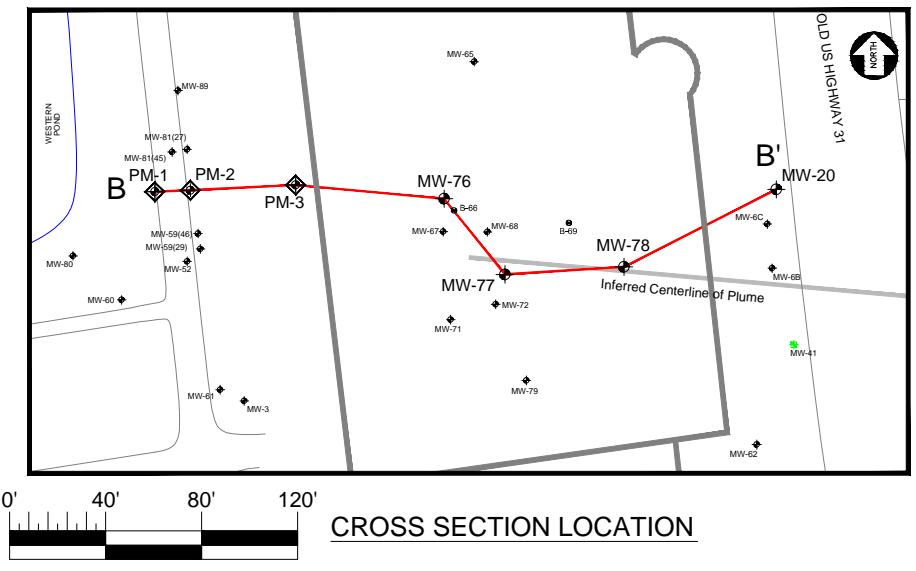
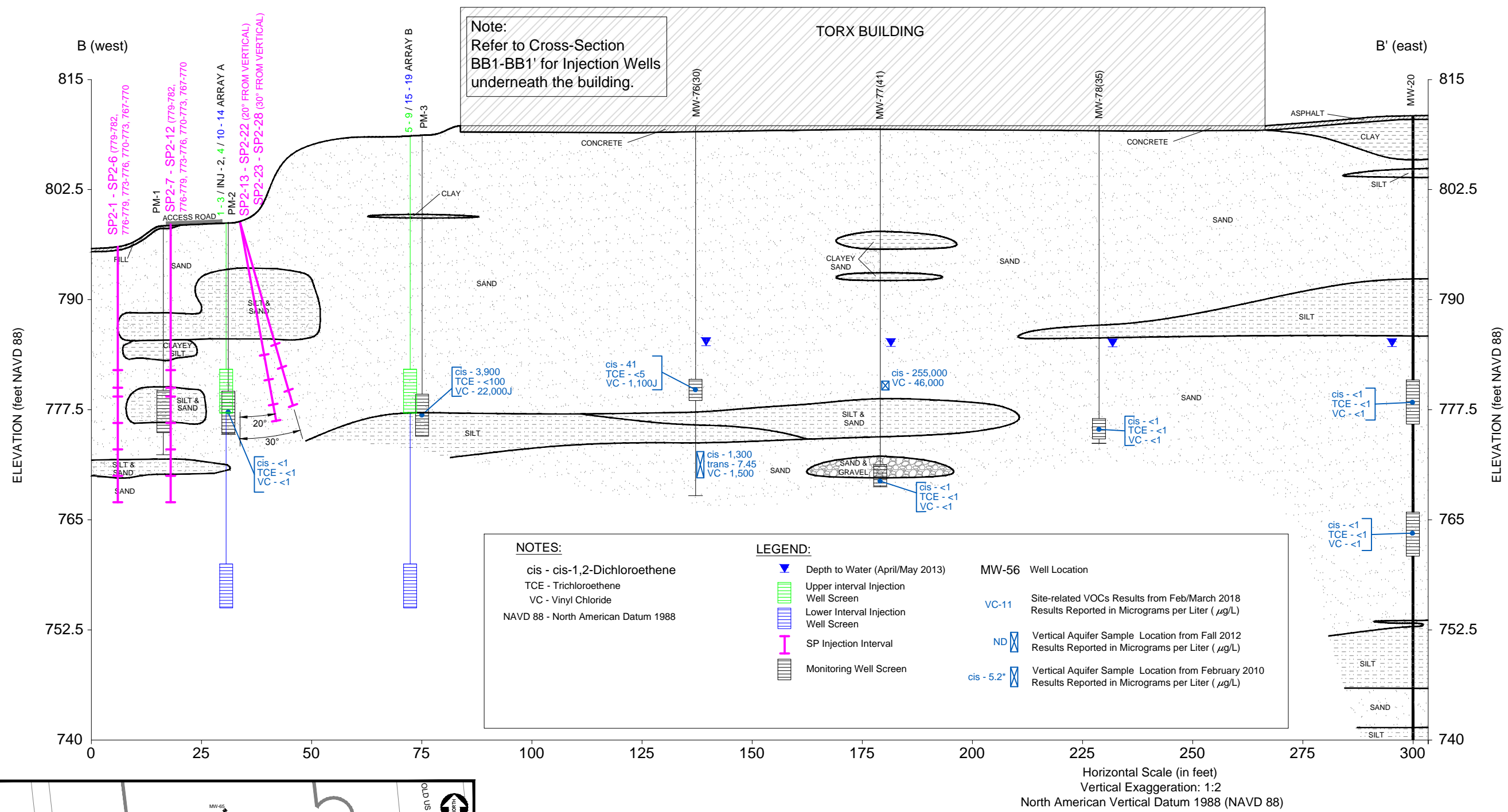


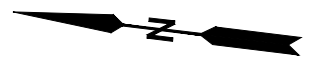
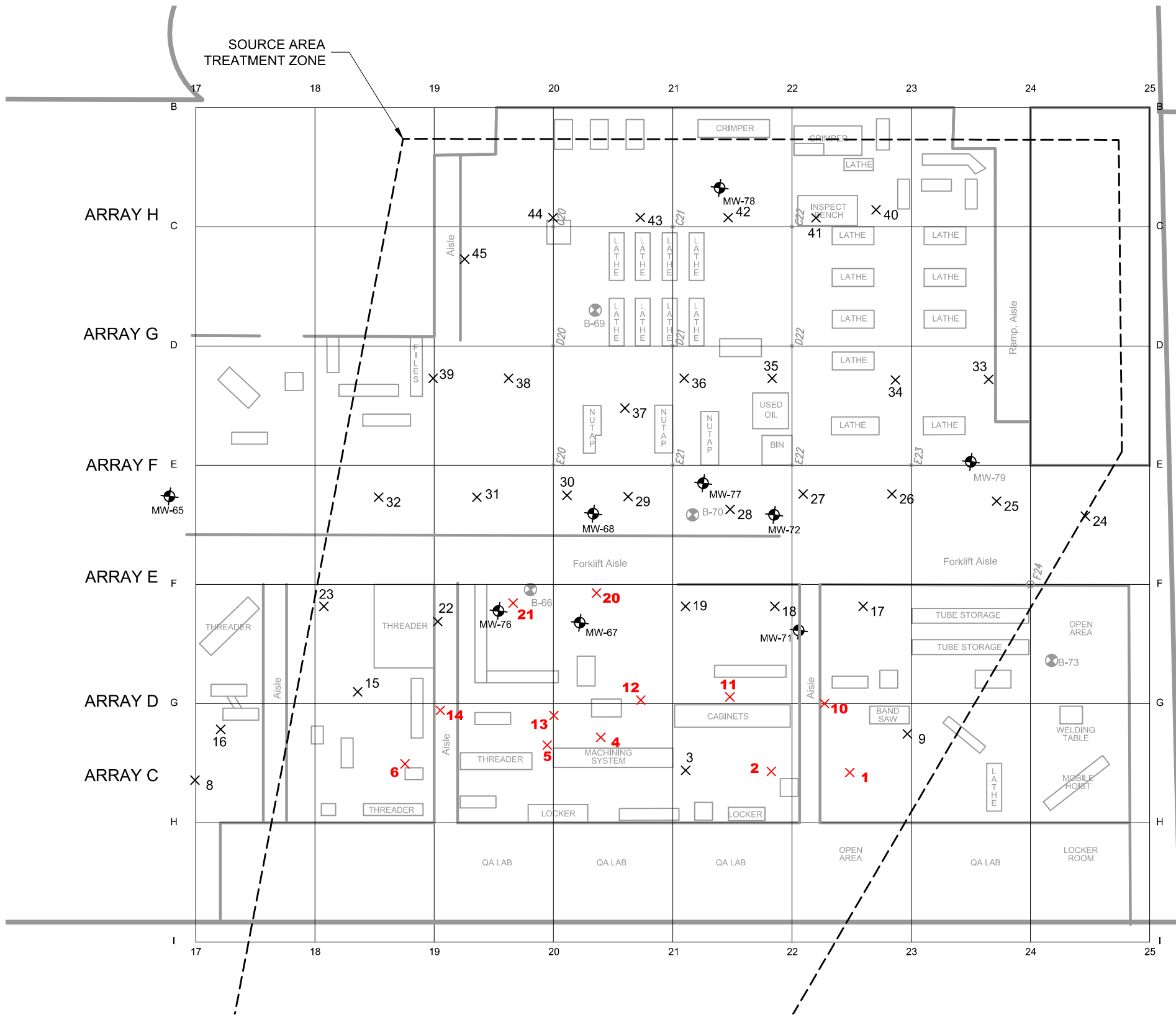
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APPROVED BY WPT	07/13/2018	DATE
SOURCE Wells surveyed by Territorial Engineering, 2009; Fulton County, IN GIS, 2005; historical maps from Textron		SCALE
PROJECT NO. 3359 15 1040	SEE ABOVE	

TORX FACILITY
4366 NORTH OLD US HIGHWAY 31
ROCHESTER, INDIANA



SOURCE AREA
ARRAY A
ANGLE POLISHING
2017 INJECTION POINTS





- LEGEND**
- X 24 INJECTION WELLS
 - B-87 SOIL BORING LOCATION OVERBURDEN
 - MW-28 MONITORING WELL LOCATION
 - X 20 WELLS USED IN POLISHING INJECTION

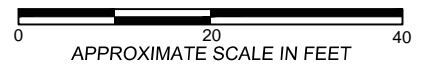
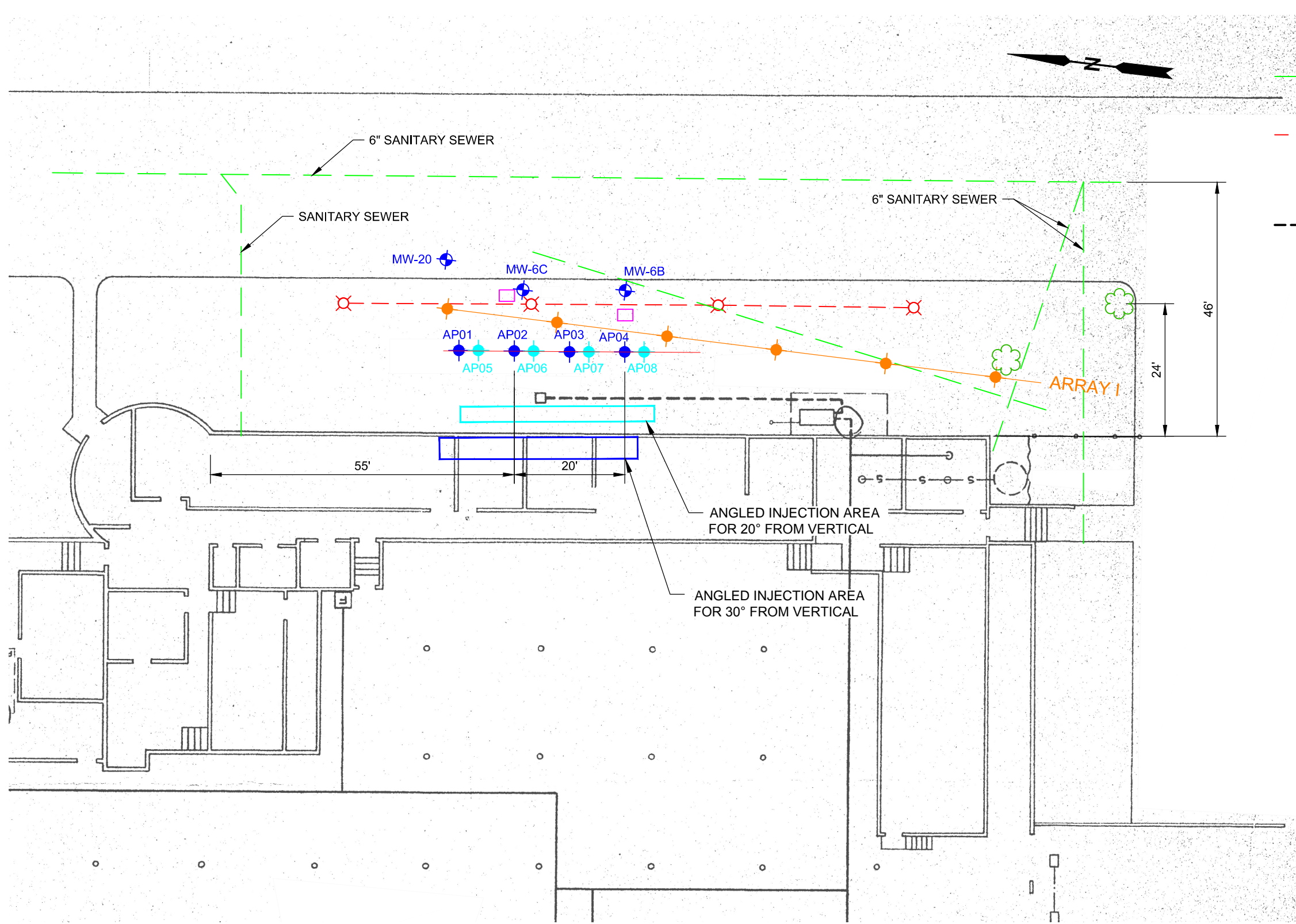
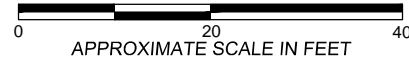








FIGURE	10	SOURCE AREA ARRAY C-H INJECTION WELL LOCATIONS	SHEET 1 of 1
wood.			
TORX FACILITY 4366 NORTH OLD US HIGHWAY 31 ROCHESTER, INDIANA			
DRAWN BY	FILE NO.	APPROVED BY	DATE
P.J.S.	P:\Textron\TFS\Drawings\F10 Treatment Zone Bldg.dwg	P.J.S.	07/13/2018
SOURCE Wells surveyed by Territorial Engineering, Fulton County, IN GIS, 2005.			
PROJECT NO.	SCALE	SEE ABOVE	
3359 15 1040			



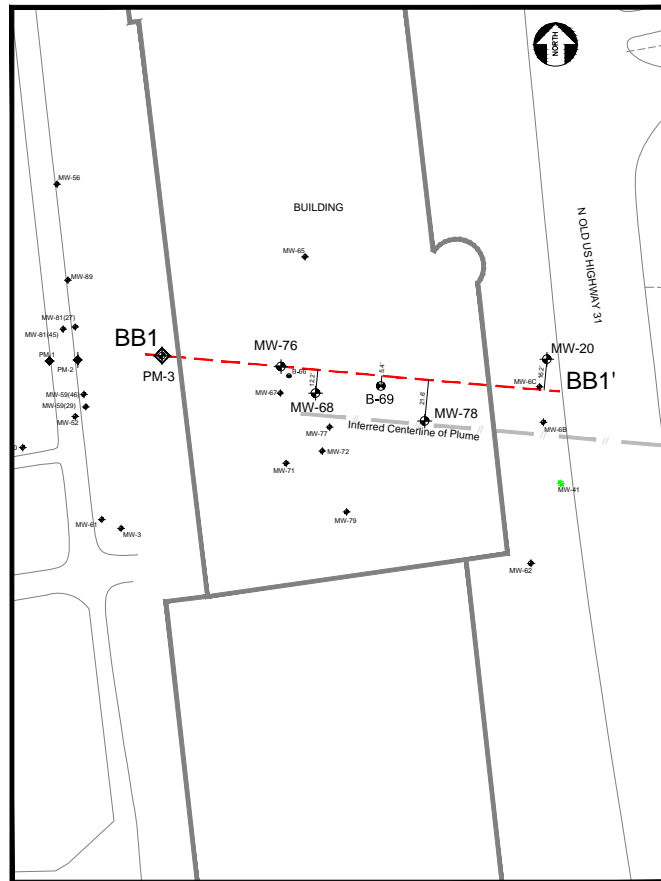
- LEGEND**
- GROUND LIGHTING
 - SANITARY SEWER
 - FORMER (ABANDONED) PRODUCTION WELL
 - ELECTRICAL CONDUIT
 - TREE
 - MONITORING WELL
 - UNDERGROUND PIPE
 - ARRAY I INJECTION WELL
 - AP01 - AP04 2017 DPT INJECTION LOCATION BORING AT 30° OFF VERTICAL
 - AP05 - AP08 2017 DPT INJECTION LOCATION BORING AT 20° OFF VERTICAL



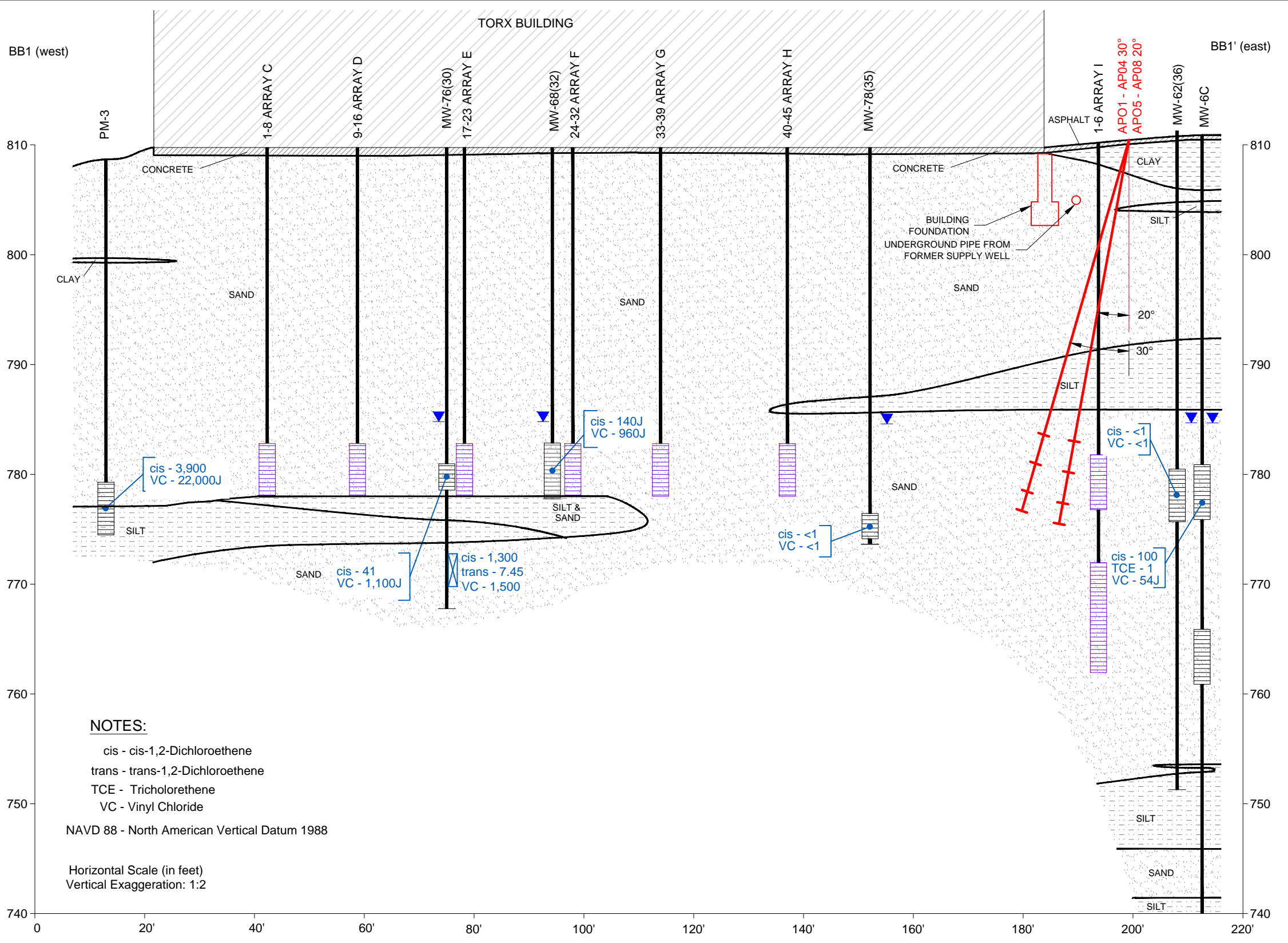
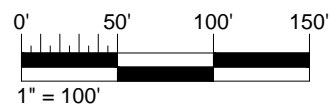
LEGEND:

-  Depth to Water (April/May 2013)
-  Injection Well Screen
-  Monitoring Well Screen
- MW-56** Well Location
- VC-11** Site-related VOCs Results from Feb/March 2018 Results Reported in Micrograms per Liter ($\mu\text{g/L}$)
- ND**  Vertical Aquifer Sample Location from Fall 2012 Results Reported in Micrograms per Liter ($\mu\text{g/L}$)
- cis - 5.2***  Vertical Aquifer Sample Location from February 2010 Results Reported in Micrograms per Liter ($\mu\text{g/L}$)
-  2017 DPT INJECTIONS

NOTE:
 1. FOUNDATION DEPTH IS APPROXIMATE.
 2. UNDERGROUND PIPE DEPTH ESTIMATED.



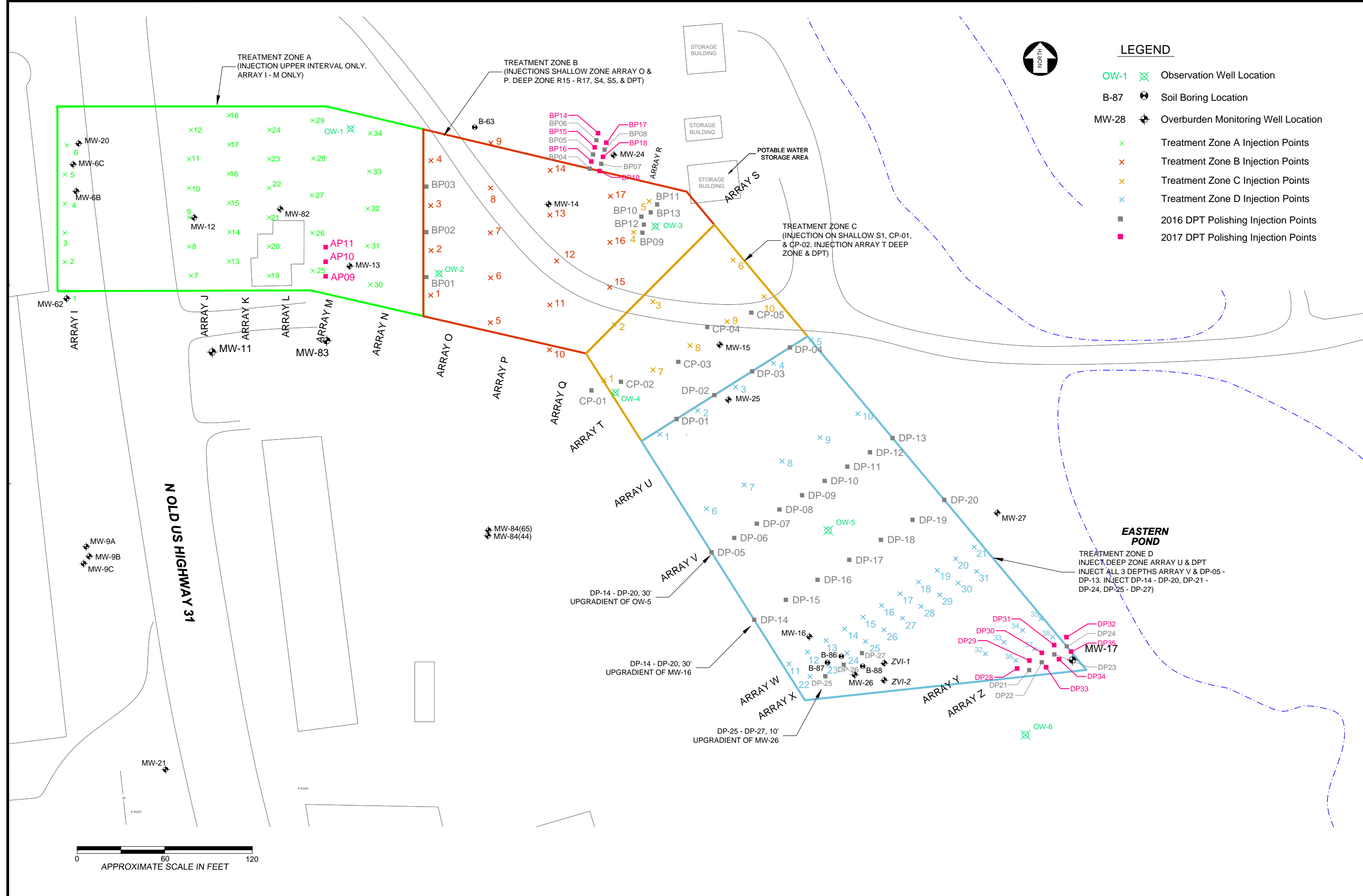
PROJECTED CROSS SECTION LOCATION

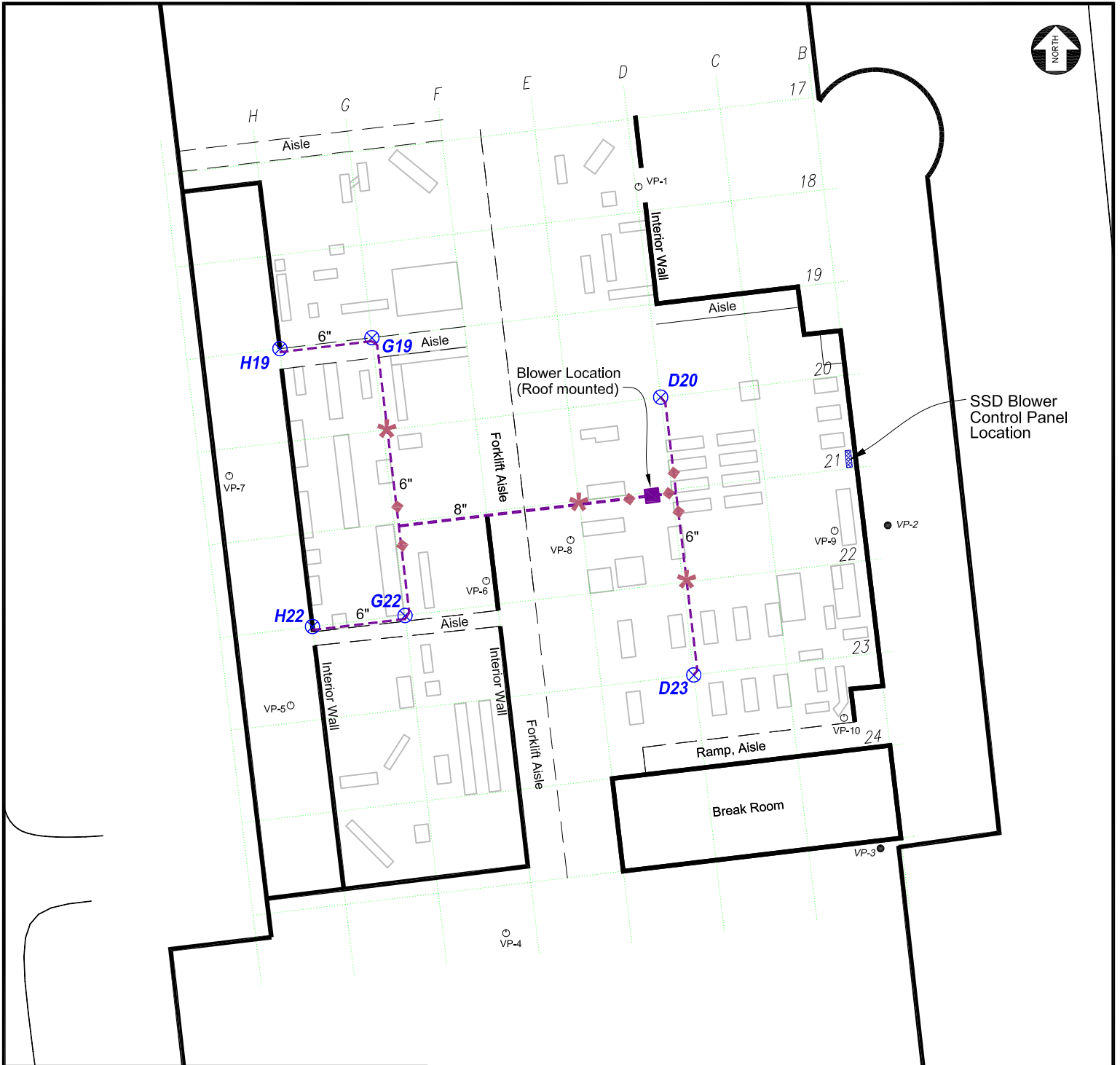


NOTES:
 cis - cis-1,2-Dichloroethene
 trans - trans-1,2-Dichloroethene
 TCE - Trichloroethene
 VC - Vinyl Chloride
 NAVD 88 - North American Vertical Datum 1988

Horizontal Scale (in feet)
 Vertical Exaggeration: 1:2

FIGURE	12	INJECTION POINT CROSS SECTION ARRAY I ANGLE INJECTIONS
WOOD.		
TORX FACILITY 4366 NORTH OLD US HIGHWAY 31 ROCHESTER, INDIANA		
DRAWN BY	FILE NO.	SCALE
APPROVED BY	DRAWINGS	DATE
SOURCE	08/16/2018	SEE ABOVE
PROJECT NO.	3359 15 1040	

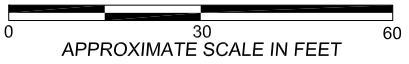




SSD Blower Control Panel Location

LEGEND

- OVERHEAD PIPING LOCATION
- ◆ LATERAL PIPE MAIN CONTROL VALVE LOCATION
- ✱ EXPANSION JOINT LOCATION
- ⊗ SUB-SLAB VAPOR EXTRACTION SUMP LOCATION
- SUB-SLAB VAPOR PROBE LOCATION
- INACCESSIBLE SUB-SLAB VAPOR PROBE LOCATION



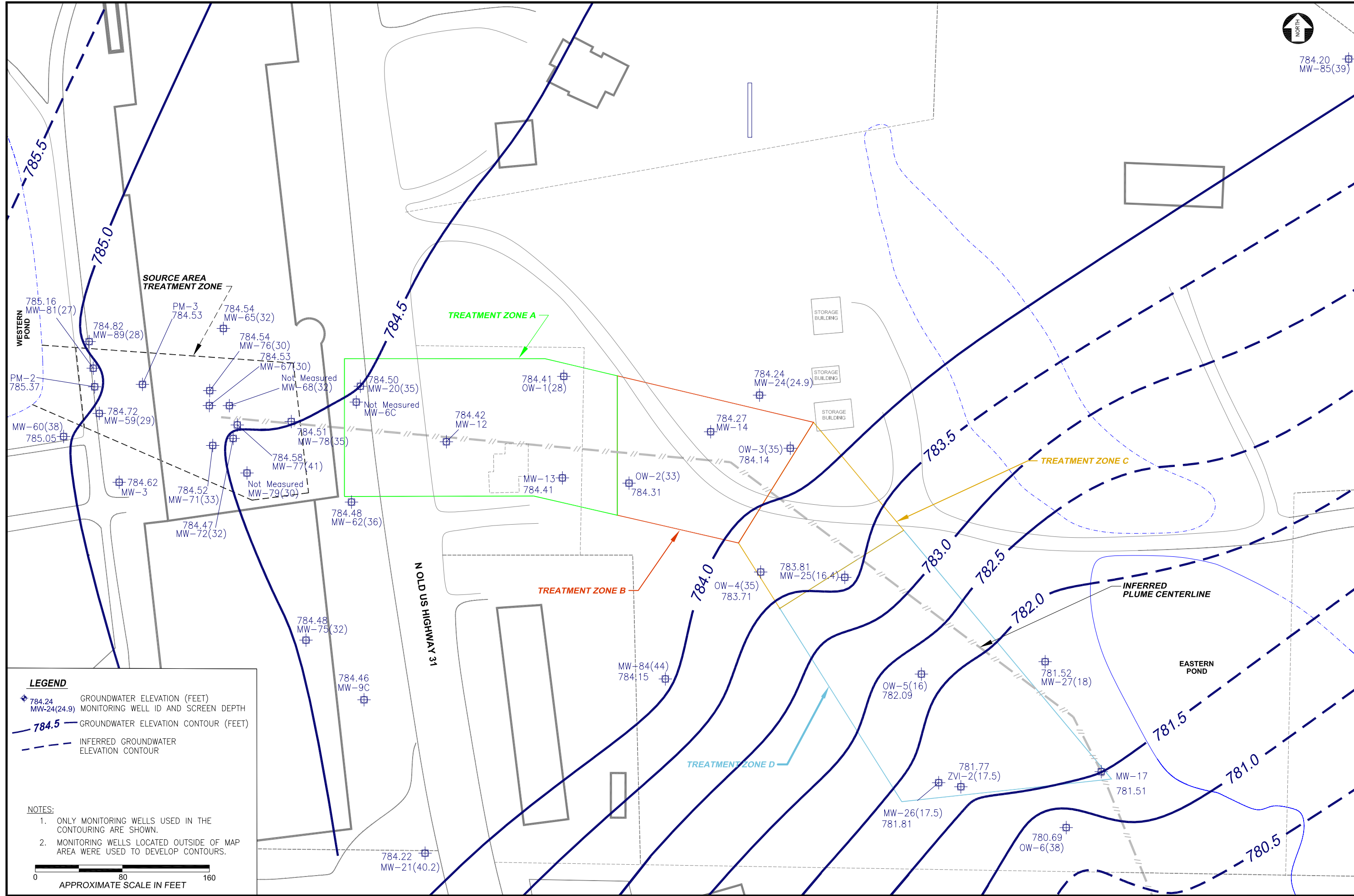
DRAWN BY P:\Textron\TFS\ RLB
 FILE NO. Drawings\Sub Slab 2013.dwg
 APPROVED BY PJS DATE 07/14/2018
 SOURCE Wells surveyed by Territorial Engineering; Fulton County, IN GIS, 2005; historical maps from Textron
 PROJECT NO. 3359 15 1040 SCALE SEE ABOVE

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



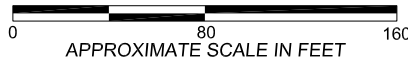
SUB-SLAB DEPRESSURIZATION SYSTEM SUMPS & PIPING

FIGURE
14
 SHEET 1 of 1

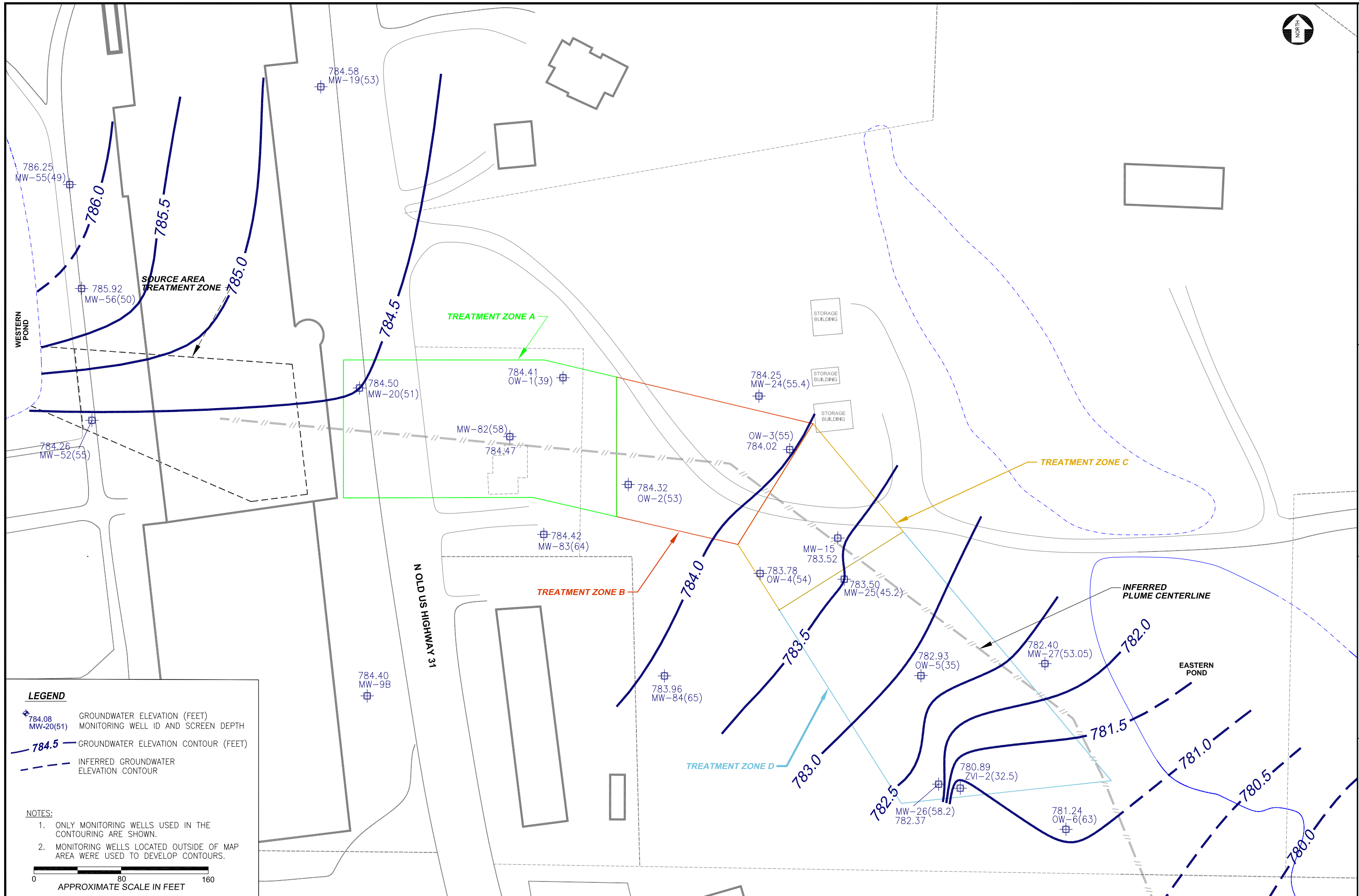


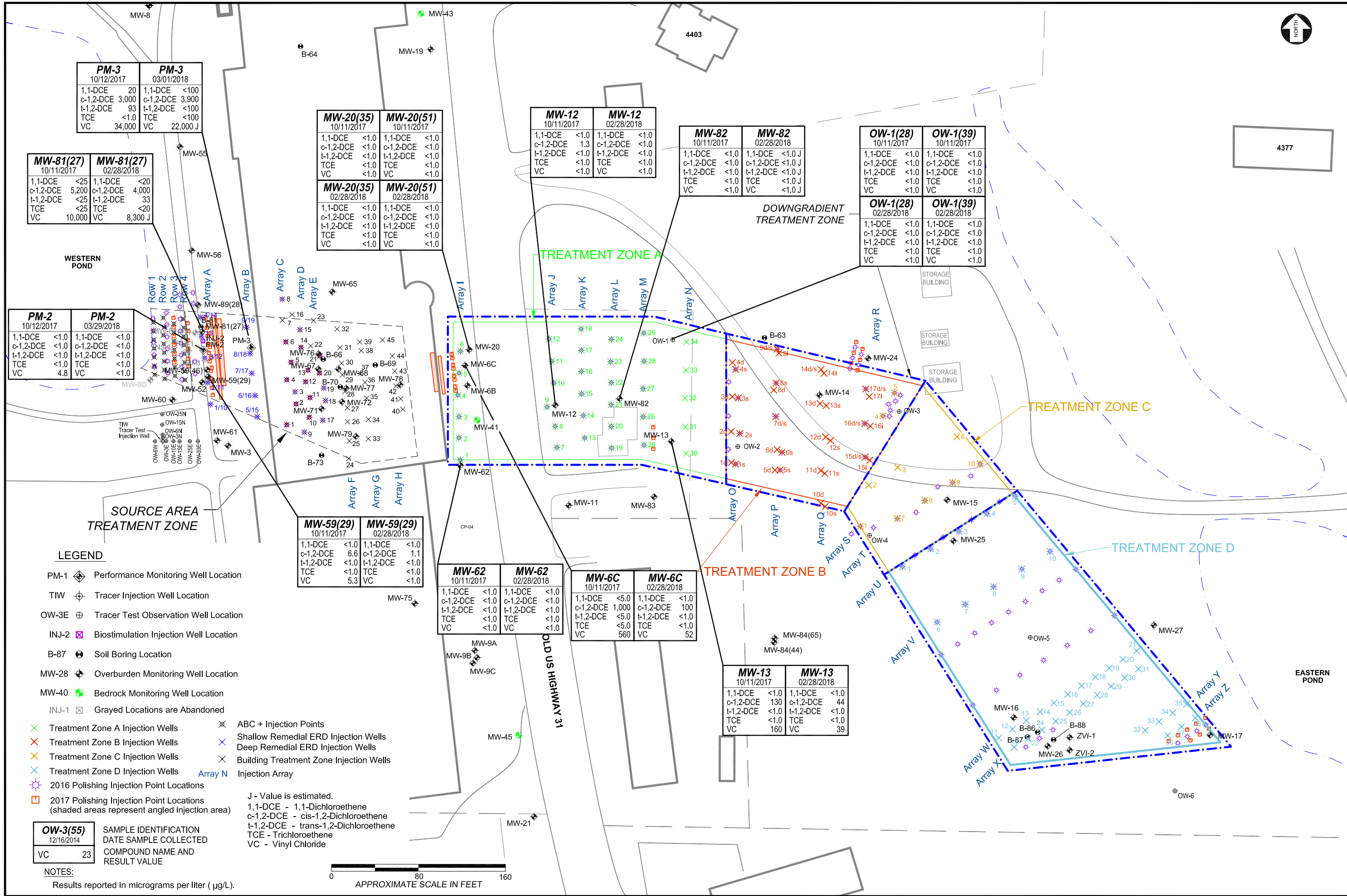
LEGEND
 784.24
MW-24(24.9) GROUNDWATER ELEVATION (FEET)
MONITORING WELL ID AND SCREEN DEPTH
 784.5 GROUNDWATER ELEVATION CONTOUR (FEET)
 INFERRED GROUNDWATER ELEVATION CONTOUR

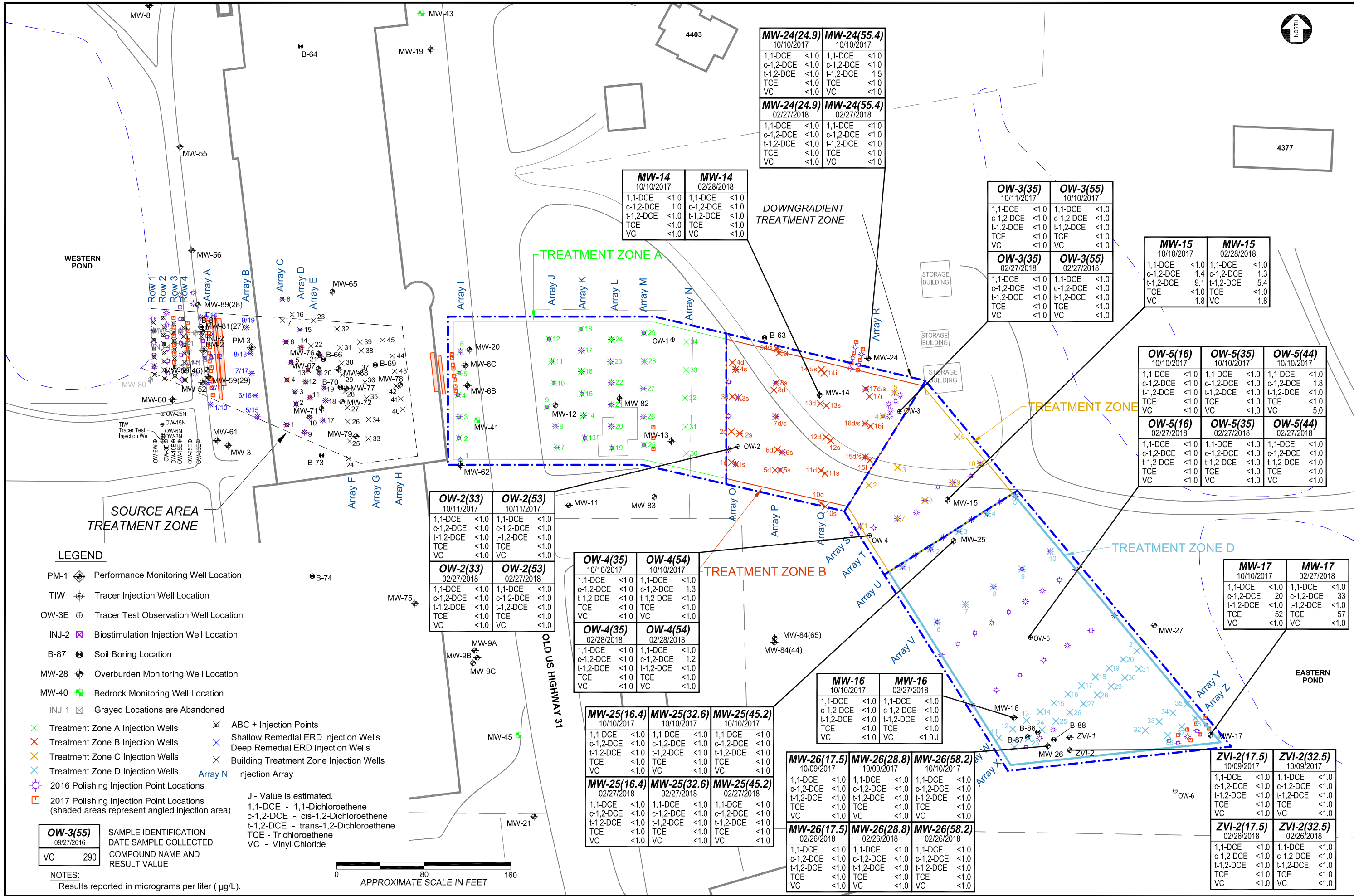
NOTES:
1. ONLY MONITORING WELLS USED IN THE CONTOURING ARE SHOWN.
2. MONITORING WELLS LOCATED OUTSIDE OF MAP AREA WERE USED TO DEVELOP CONTOURS.



APPROXIMATE SCALE IN FEET







MW-24(24.9)	MW-24(55.4)
10/10/2017	10/10/2017
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

MW-24(24.9)	MW-24(55.4)
02/27/2018	02/27/2018
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

MW-14	MW-14
10/10/2017	02/28/2018
1,1-DCE	<1.0
c-1,2-DCE	1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

OW-3(35)	OW-3(55)
10/11/2017	10/10/2017
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

OW-3(35)	OW-3(55)
02/27/2018	02/27/2018
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

MW-15	MW-15
10/10/2017	02/28/2018
1,1-DCE	<1.0
c-1,2-DCE	1.4
t-1,2-DCE	9.1
TCE	<1.0
VC	1.8

OW-5(16)	OW-5(35)	OW-5(44)
10/10/2017	10/10/2017	10/10/2017
1,1-DCE	<1.0	<1.0
c-1,2-DCE	<1.0	<1.0
t-1,2-DCE	<1.0	<1.0
TCE	<1.0	<1.0
VC	<1.0	5.0

OW-5(16)	OW-5(35)	OW-5(44)
02/27/2018	02/27/2018	02/27/2018
1,1-DCE	<1.0	<1.0
c-1,2-DCE	<1.0	<1.0
t-1,2-DCE	<1.0	<1.0
TCE	<1.0	<1.0
VC	<1.0	<1.0

OW-2(33)	OW-2(53)
10/11/2017	10/11/2017
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

OW-2(33)	OW-2(53)
02/27/2018	02/27/2018
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

OW-4(35)	OW-4(54)
10/10/2017	10/10/2017
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

OW-4(35)	OW-4(54)
02/28/2018	02/28/2018
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

MW-16	MW-16
10/10/2017	02/27/2018
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

MW-25(16.4)	MW-25(32.6)	MW-25(45.2)
10/10/2017	10/10/2017	10/10/2017
1,1-DCE	<1.0	<1.0
c-1,2-DCE	<1.0	<1.0
t-1,2-DCE	<1.0	<1.0
TCE	<1.0	<1.0
VC	<1.0	<1.0

MW-25(16.4)	MW-25(32.6)	MW-25(45.2)
02/27/2018	02/27/2018	02/27/2018
1,1-DCE	<1.0	<1.0
c-1,2-DCE	<1.0	<1.0
t-1,2-DCE	<1.0	<1.0
TCE	<1.0	<1.0
VC	<1.0	<1.0

MW-26(17.5)	MW-26(28.8)	MW-26(58.2)
10/09/2017	10/09/2017	10/10/2017
1,1-DCE	<1.0	<1.0
c-1,2-DCE	<1.0	<1.0
t-1,2-DCE	<1.0	<1.0
TCE	<1.0	<1.0
VC	<1.0	<1.0

MW-26(17.5)	MW-26(28.8)	MW-26(58.2)
02/26/2018	02/26/2018	02/26/2018
1,1-DCE	<1.0	<1.0
c-1,2-DCE	<1.0	<1.0
t-1,2-DCE	<1.0	<1.0
TCE	<1.0	<1.0
VC	<1.0	<1.0

ZVI-2(17.5)	ZVI-2(32.5)
10/09/2017	10/09/2017
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0

ZVI-2(17.5)	ZVI-2(32.5)
02/26/2018	02/26/2018
1,1-DCE	<1.0
c-1,2-DCE	<1.0
t-1,2-DCE	<1.0
TCE	<1.0
VC	<1.0



MW-55

MW-76		MW-76	
10/12/2017		03/01/2018	
1,1-DCE	<1.0	1,1-DCE	<5.0
c-1,2-DCE	97	c-1,2-DCE	41
t-1,2-DCE	<1.0	t-1,2-DCE	<5.0
TCE	<1.0	TCE	<5.0
VC	170	VC	1,100 J

MW-68		MW-68	
10/12/2017		03/01/2018	
1,1-DCE	<5.0	1,1-DCE	<5.0
c-1,2-DCE	40	c-1,2-DCE	140 J
t-1,2-DCE	<5.0	t-1,2-DCE	<5.0
TCE	<5.0	TCE	<5.0
VC	2,500	VC	960 J

MW-78		MW-78	
10/12/2017		03/01/2018	
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	
10/12/2017		03/01/2018	
1,1-DCE	<1.0	1,1-DCE	<1.0
c-1,2-DCE	13	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	13	VC	73

MW-71		MW-71	
10/12/2017		03/01/2018	
1,1-DCE	<1.0	1,1-DCE	<5.0
c-1,2-DCE	12	c-1,2-DCE	7.1
t-1,2-DCE	<1.0	t-1,2-DCE	<5.0
TCE	<1.0	TCE	<5.0
VC	120	VC	1,300 J

MW-72		MW-72	
10/12/2017		03/01/2018	
1,1-DCE	<1.0	1,1-DCE	<1.0
c-1,2-DCE	2.5	c-1,2-DCE	2.8
t-1,2-DCE	<1.0	t-1,2-DCE	<1.0
TCE	<1.0	TCE	<1.0
VC	4.5	VC	1.4

MW-77		MW-77	
10/12/2017		03/01/2018	
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	26	VC	<1.0

WESTERN POND

LEGEND

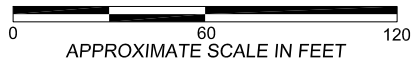
- PM-1 Performance Monitoring Well Location
- INJ-2 Biostimulation Injection Well Location
- B-87 Soil Boring Location
- MW-28 Overburden Monitoring Well Location
- MW-40 Bedrock Monitoring Well Location
- INJ-1 Grayed Locations are Abandoned
- Treatment Zone A Injection Wells
- ABC + Injection Points
- Shallow Remedial ERD Injection Wells
- Deep Remedial ERD Injection Wells
- Building Treatment Zone Injection Wells
- 2016 Polishing Injection Point Locations
- 2017 Polishing Injection Point Locations (shaded areas represent angled injection area)

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\ FILE NO. Drawings\Perf Mon 2015.dwg
APPROVED BY PJS	DATE 07/13/2018
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 Polishing Remedial Injections Performance Monitoring

APPENDIX A

GROUNDWATER SAMPLE COLLECTION FIELD LOGS

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 SR Date 04/26/18 Start Time 1325 Weather 43 to Sunny

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 10.28 Depth to Product _____ Product Thickness _____
 Total Casing Depth 28.8 Borehole Diameter _____ Approx. Pump Depth 25 Feet
 Screen Interval top 23 bottom 28.8 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1330 Pump Stopped 1514 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)
1340	6.76	0.834	12.61	88.5	400	10.28	0	0.71	-58.6
1345	6.74	0.854	12.77	65.1	400	10.28	0	0.71	-78.1
1350	6.77	0.863	12.83	64.0	400	10.28	0	0.61	-82.5
1355	6.76	0.872	12.87	62.9	400	10.28	0	0.54	-85.7
1355/1400	6.76	0.875	12.84	64.5	400	10.28	0	0.55	-86.9

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

Final:
 Time 1400 pH 6.76 SC 0.875 Temp 12.84 Turb. 64.5 Flow Rate 400 DTW 10.28 Drawdown 0 DO 0.55 ORP -86.9

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 229 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW-26(28.8)22612 Time 1400

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative	Bottle Type:
VOCs <input checked="" type="checkbox"/>	<u>3/0</u>	<u>SR</u>	<u>3/0</u>	<u>SR</u>	G = Glass
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1/P</u>	<u>63</u>	VFA <input type="checkbox"/>	_____	P = Poly
Fe/Mn <input type="checkbox"/>	_____	_____	DHC <input type="checkbox"/>	_____	Preservative Codes:
Alkalinity + Anions (Cl-, SO ₄) <input type="checkbox"/>	_____	_____	_____	_____	1 = HCL 4 = NaOH
Other: <input type="checkbox"/>	_____	_____	Other: <input type="checkbox"/>	_____	2 = HNO ₃ 5 = BAC
MS/MSD _____	Blind Dup _____	Blind Dup Name _____	TB _____	_____	3 = H ₂ SO ₄ 6 = Na ₃ PO ₄



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ~~ATR-MW~~ EB001
Project Number 3359-15-1040 Date 02/26/18 Start Time 1400 Weather 43 Sunny (Use: Well name)

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 _____ mV
SC Reference Solution _____ mS/cm Turbidity Cal. Solution _____ NTUs

Sample Name ATR-MW ATR-EB001-D022618 Time 1400

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

VOCs <input type="checkbox"/>	_____	_____	Dissolved Gases <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-, SO ₄) <input 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-MW-2607.5
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/26/10 Start Time 1425 Weather 43, Sunny

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 10.35 Depth to Product _____ Product Thickness _____
 Total Casing Depth 17.5 Borehole Diameter _____ Approx. Pump Depth 14 Feet
 Screen Interval top 12.5 bottom 17.5 Feet

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

Pump Started 1430 Pump Stopped 1515 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>7.11</u>	<u>0.605</u>	<u>12.34</u>	<u>142.9</u>	<u>400</u>	<u>10.35</u>	<u>0</u>	<u>1.74</u>	<u>-33.5</u>
<u>1440</u>	<u>6.96</u>	<u>0.672</u>	<u>12.28</u>	<u>19.0</u>	<u>400</u>	<u>10.35</u>	<u>0</u>	<u>0.79</u>	<u>-53.5</u>
<u>1445</u>	<u>6.98</u>	<u>0.666</u>	<u>12.25</u>	<u>36.0</u>	<u>400</u>	<u>10.40</u>	<u>0.05</u>	<u>0.74</u>	<u>-90.0</u>
<u>1450</u>	<u>6.97</u>	<u>0.665</u>	<u>12.25</u>	<u>41.3</u>	<u>400</u>	<u>10.40</u>	<u>0</u>	<u>0.63</u>	<u>-101.2</u>
<u>1455</u>	<u>6.97</u>	<u>0.668</u>	<u>12.24</u>	<u>25.3</u>	<u>400</u>	<u>10.40</u>	<u>0</u>	<u>0.67</u>	<u>-107.9</u>
<u>1500</u>	<u>6.97</u>	<u>0.669</u>	<u>12.24</u>	<u>10.9</u>	<u>400</u>	<u>10.40</u>	<u>0</u>	<u>0.67</u>	<u>-110.8</u>
<u>1505</u>	Talking to Paul								
<u>1510</u>	<u>6.99</u>	<u>0.669</u>	<u>12.24</u>	<u>3.7</u>	<u>400</u>	<u>10.40</u>	<u>0</u>	<u>0.66</u>	<u>-112.7</u>

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

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1510</u>	<u>6.99</u>	<u>0.669</u>	<u>12.24</u>	<u>3.7</u>	<u>400</u>	<u>10.40</u>	<u>0</u>	<u>0.66</u>	<u>-112.7</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 229 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW-2607.5-022618 Time 1510

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3/G</u>	<u>1</u>	Dissolved Gases <input checked="" type="checkbox"/>	<u>3/G 6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1/P</u>	<u>3</u>	VFA <input type="checkbox"/>	
Fe/Mn <input type="checkbox"/>			DHC <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(32.5)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel CR Date 04/26/18 Start Time 1530 Weather Sunny 45°

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 10.30 Depth to Product _____ Product Thickness _____
Total Casing Depth 32.5 Borehole Diameter _____ Approx. Pump Depth 29 Feet
Screen Interval top 27.5 bottom 32.5 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
Pump Started 1540 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)
1550	6.72	0.935	12.93	30.8	400	10.30	0	0.71	-51.0
1555	6.70	0.941	13.09	12.8	400	10.30	0	0.46	-67.5
1600	6.71	0.943	13.17	10.3	400	10.30	0	0.47	-76.7
1605	6.71	0.943	13.11	5.5	400	10.30	0	0.43	-81.1
1610	6.70	0.943	13.05	4.1	400	10.30	0	0.42	-82.4

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

Final:

1610 Time 6.70 pH 0.943 SC 13.05 Temp 4.1 Turb. 400 Flow Rate 10.30 DTW 0 Drawdown 0.42 DO -82.4 ORP

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 229 mV
SC Reference Solution 4.44 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW ZVI-2(32.5)26022618 Time 1610

Analyses (check)	VOCs	<u>A</u>	Bottle #/Type	<u>3/G</u>	Preservative	<u>1</u>	Dissolved Gases	<input checked="" type="checkbox"/>	Bottle #/Type	<u>3/G</u>	Preservative	<u>6</u>
	TOC + NO ₃	<input checked="" type="checkbox"/>	<u>1/P</u>	<u>3</u>	VFA	<input type="checkbox"/>						
	Fe/Mn	<input type="checkbox"/>				DHC	<input type="checkbox"/>					
	Alkalinity + Anions (Cl-, SO ₄)	<input 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-MW ZVI-2(17.5)**
 Project Number **3359-15-1040** (Use: Well name)
 Sampling Personnel **SR** Date **04/26/18** Start Time **1630** Weather **Sunny 43**

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 9.40 Depth to Product _____ Product Thickness _____
 Total Casing Depth 17.5 Borehole Diameter _____ Approx. Pump Depth 14 Feet
 Screen Interval top 12.5 bottom 17.5 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1635 Pump Stopped 1710 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)
1640	7.03	0.564	11.99	91.5	400	9.40	0	0.54	-111.4
1645	7.06	0.577	11.89	36.2	400	9.40	0	0.40	-128.9
1650	7.08	0.591	11.91	515.5	400	9.40	0	0.34	-138.8
1655	7.09	0.594	11.76	7.7	400	9.40	0	0.31	-144.7
1700	7.09	0.592	11.64	4.4	400	9.40	0	0.30	-146.0
1705	7.09	0.591	11.53	2.8	400	9.40	0	0.28	-147.8

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

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
1705	7.09	0.591	11.53	2.8	400	9.40	0	0.28	-147.8

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 229 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 9/100 NTUs

Sample Name ATR-MW ZVI-2(17.5)-6022618 Time 1705
 Analyses (check) Bottle #/Type Preservative Dissolved Gasses Bottle #/Type Preservative
 VOCs 3/0 1 3/0 6
 TOC + NO₃ 1/P 3 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-17
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/27/18 Start Time 0900 Weather Sunny + 32 F

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 2.9 Depth to Product _____ Product Thickness _____
 Total Casing Depth 44.425 Borehole Diameter _____ Approx. Pump Depth 40 Feet
 Screen Interval top 47.5 bottom 42.5 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0905 Pump Stopped 0940 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>7.10</u>	<u>3.901</u>	<u>10.16</u>	<u>27.1</u>	<u>400</u>	<u>2.9</u>	<u>0</u>	<u>9.61</u>	<u>-79.2</u>
<u>0920</u>	<u>7.04</u>	<u>4.034</u>	<u>10.35</u>	<u>21.9</u>	<u>400</u>	<u>2.9</u>	<u>0</u>	<u>1.08</u>	<u>-116.2</u>
<u>0925</u>	<u>7.14</u>	<u>4.094</u>	<u>10.42</u>	<u>24.4</u>	<u>400</u>	<u>2.9</u>	<u>0</u>	<u>0.80</u>	<u>-125.5</u>
<u>0930</u>	<u>7.15</u>	<u>4.123</u>	<u>10.48</u>	<u>24.0</u>	<u>400</u>	<u>2.9</u>	<u>0</u>	<u>0.73</u>	<u>-129.9</u>
<u>0935</u>	<u>7.17</u>	<u>4.139</u>	<u>10.52</u> ^{TR} 10.52	<u>27.0</u>	<u>400</u>	<u>2.9</u>	<u>0</u>	<u>0.70</u>	<u>-133.1</u>

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

Final:									
Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>0935</u>	<u>7.17</u>	<u>4.139</u>	<u>10.52</u> ^{TR} 10.52	<u>27.0</u>	<u>400</u>	<u>2.9</u>	<u>0</u>	<u>0.70</u>	<u>-133.1</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0.10 NTUs

Sample Name ATR-MW-17-6022718 Time 0935
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs 0/S Dissolved Gases 3/V
 TOC + NO₃ 1/P 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-16
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/27/18 Start Time 1000 Weather Sunny 32°

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 9.25 Depth to Product _____ Product Thickness _____
 Total Casing Depth 32.85 Borehole Diameter _____ Approx. Pump Depth 30 Feet
 Screen Interval top 29.85 bottom 32.85 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1030 Pump Stopped 1125 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>1035</u>	<u>7.07</u>	<u>9.756</u>	<u>11.74</u>	<u>26.5</u>	<u>300</u>	<u>9.25</u>	<u>0</u>	<u>0.64</u>	<u>-110.3</u>
<u>1040</u>	<u>7.02</u>	<u>10.384</u>	<u>12.20</u>	<u>25.6</u>	<u>300</u>	<u>9.25</u>	<u>0</u>	<u>0.91</u>	<u>-127.3</u>
<u>1045</u>	<u>6.99</u>	<u>10.692</u>	<u>12.55</u>	<u>27.3</u>	<u>300</u>	<u>9.25</u>	<u>0</u>	<u>0.59</u>	<u>-139.8</u>
<u>1050</u>	<u>6.97</u>	<u>10.930</u>	<u>12.65</u>	<u>27.4</u>	<u>300</u>	<u>9.75</u>	<u>0</u>	<u>0.44</u>	<u>-135.9</u>
<u>1055</u>	<u>6.95</u>	<u>10.734</u>	<u>12.70</u>	<u>27.4</u>	<u>300</u>	<u>9.75</u>	<u>0</u>	<u>0.44</u>	<u>-136.1</u>
<u>1100</u>	<u>6.94</u>	<u>10.736</u>	<u>12.74</u>	<u>27.4</u>	<u>300</u>	<u>9.25</u>	<u>0</u>	<u>0.55</u>	<u>-136.1</u>

Stabilization Criteria: pH ±3% SC ±3% Temp ±3% Turb. ±10% Flow Rate ±10% DTW ±10% Drawdown ±10% DO ±10% ORP ±10%

Final:
 Time 1100 pH 6.94 SC 10.736 Temp 12.74 Turb. 27.4 Flow Rate 300 DTW 9.25 Drawdown 0 DO 0.55 ORP -136.1

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/100 10 NTUs

Sample Name ATR-MW-16-022718 Time 1100 Bottle Type: _____
 Analyses (check) Bottle #/Type Preservative
 VOCs 3/0 Dissolved Gases 3/0 6
 TOC + NO₃ 1/P VFA _____
 Fe/Mn _____ DHC _____
 Alkalinity + Anions (Cl⁻, SO₄) _____
 Other: _____ Other: _____
 MS/MSD ATR-MW-16-022718 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



ATR-MW-16-022718 MS/D

GROUNDWATER/SURFACE WATER SAMPLING FORM

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW OW-5(44)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel SR Date 02/27/18 Start Time 1145 Weather Sunny 32-52

MEASUREMENT SUMMARY:
Measuring Point _____ Depth to Water 7.75 Depth to Product _____ Product Thickness _____
Total Casing Depth 44 Borehole Diameter _____ Approx. Pump Depth 41 Feet
Screen Interval top 39 bottom 44 Feet

SAMPLING SUMMARY:
Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailer
Pump Started 1155 Pump Stopped 1245 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>6.98</u>	<u>7.301</u>	<u>14.22</u>	<u>22.6</u>	<u>300</u>	<u>7.75</u>	<u>0</u>	<u>1.04</u>	<u>-60.9</u>
<u>1210</u>	<u>6.76</u>	<u>7.400</u>	<u>13.92</u>	<u>26.1</u>	<u>300</u>	<u>7.75</u>	<u>0</u>	<u>0.92</u>	<u>-75.5</u>
<u>1215</u>	<u>6.72</u>	<u>7.613</u>	<u>13.90</u>	<u>26.4</u>	<u>300</u>	<u>7.75</u>	<u>0</u>	<u>0.64</u>	<u>-83.9</u>
<u>1225</u>	<u>6.68</u>	<u>7.944</u>	<u>13.75</u>	<u>26.6</u>	<u>300</u>	<u>7.75</u>	<u>0</u>	<u>0.61</u>	<u>-90.4</u>
<u>1220</u>	<u>6.65</u>	<u>8.251</u>	<u>13.73</u>	<u>26.8</u>	<u>300</u>	<u>7.75</u>	<u>0</u>	<u>0.60</u>	<u>-93.9</u>
<u>1225</u>	<u>6.63</u>	<u>8.554</u>	<u>13.74</u>	<u>26.7</u>	<u>300</u>	<u>7.75</u>	<u>0</u>	<u>0.57</u>	<u>-97.4</u>
<u>1230</u>	<u>6.62</u>	<u>8.826</u>	<u>13.80</u>	<u>26.8</u>	<u>300</u>	<u>7.75</u>	<u>0</u>	<u>0.58</u>	<u>-99.8</u>

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

Final:
Time 1230 pH 6.62 SC 8.826 Temp 13.80 Turb. 26.8 Flow Rate 300 DTW 7.75 Drawdown 0 DO 0.58 ORP -99.8

Comments:

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/100 NTUs

Sample Name ATR-MW OW-5(44)-(D022718) Time 1230
Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
VOCs 5/6 1 Dissolved Gasses 3/6 6
TOC + NO₃ 1/P 3 VFA _____
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-MW OW-535
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/27/18 Start Time 1235 Weather Sunny + 50°

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 7.80 Depth to Product _____ Product Thickness _____
 Total Casing Depth 35 Borehole Diameter _____ Approx. Pump Depth 32 Feet
 Screen Interval 30 top 30 bottom 35 Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailer
 Pump Started 1300 Pump Stopped 1330 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>1310</u>	<u>7.06</u>	<u>5.406</u>	<u>13.76</u>	<u>27.4</u>	<u>300</u>	<u>7.80</u>	<u>0</u>	<u>1.00</u>	<u>-110.9</u>
<u>1315</u>	<u>7.01</u>	<u>5.388</u>	<u>13.66</u>	<u>27.5</u>	<u>300</u>	<u>7.80</u>	<u>0</u>	<u>0.97</u>	<u>-113.2</u>
<u>1320</u>	<u>6.99</u>	<u>5.349</u>	<u>13.56</u>	<u>27.3</u>	<u>300</u>	<u>7.80</u>	<u>0</u>	<u>0.97</u>	<u>-115.8</u>
<u>1325</u>	<u>6.99</u>	<u>5.320</u>	<u>13.48</u>	<u>27.3</u>	<u>300</u>	<u>7.80</u>	<u>0</u>	<u>1.00</u>	<u>-115.5</u>

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

Final:

Time <u>1325</u>	pH <u>6.99</u>	SC <u>5.320</u>	Temp <u>13.48</u>	Turb. <u>27.3</u>	Flow Rate <u>300</u>	DTW <u>7.80</u>	Drawdown <u>0</u>	DO <u>1.00</u>	ORP <u>-115.5</u>
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Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/0 NTUs

Sample Name ATR-MW OW-535 Time 1325

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3/0</u>	_____	Dissolved Gasses <input checked="" type="checkbox"/>	<u>3/0</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1/P</u>	<u>3</u>	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 <input type="checkbox"/>	_____	Blind Dup _____	Blind Dup Name _____	TB _____



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-OW-5(16)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel SR Date 2/27/10 Start Time 1345 Weather Sunny 60°F

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 8.55 Depth to Product _____ Product Thickness _____
Total Casing Depth 16 Borehole Diameter _____ Approx. Pump Depth 13 Feet
Screen Interval top 11 bottom 16 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)
1405	7.24	4.242	12.19	25.1	400	8.55	0	0.62	-117.1
1410	7.24	4.247	12.04	25.9	400	8.55	0	0.47	-122.1
1415	7.23	4.306	11.96	26.6	400	8.55	0	0.37	-127.3
1420	7.23	4.335	11.92	26.8	400	8.55	0	0.39	-127.9
1425	7.23	4.340	11.89	26.9	400	8.55	0	0.35	-128.9

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

Final:

Time 1425 pH 7.23 SC 4.340 Temp 11.89 Turb. 26.9 Flow Rate 400 DTW 8.55 Drawdown 0 DO 0.35 ORP -128.9

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-OW-5(16)-19022710 Time 1425

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3/10</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>3/10</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/>	<u>1/P</u>	<u>3</u>	VFA <input type="checkbox"/>	
Fe/Mn <input type="checkbox"/>			DHC <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 E001
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel STR Date 02/04/18 Start Time 1440 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 Bailer
 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 E001-6022718 Time 1440

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

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-25(45.2)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/27/16 Start Time 04:55 Weather Sunny 60°F

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 8.30 Depth to Product _____ Product Thickness _____
 Total Casing Depth 45.2 Borehole Diameter _____ Approx. Pump Depth 42 Feet
 Screen Interval top 40 bottom 45 Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1505 Pump Stopped 1550 Total Gallons _____

SR
1520

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)
1515	6.70	9.526	13.50	27.6	300	8.30	0	0.77	-109.7
1525	6.67	9.427	13.43	27.4	300	8.34	0.04	0.71	-110.2
1525	6.67	9.381	13.38	27.5	300	8.34	0	0.72	-111.3
1530	6.68	9.334	13.37	27.6	300	8.34	0	0.77	-112.5
1535	6.67	9.308	13.36	27.5	300	8.34	0	0.83	-111.3
1540	6.67	9.200	13.34	27.5	300	8.34	0	0.83	-111.6

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

Final:
 Time 1540 pH _____ SC _____ Temp _____ Turb. _____ Flow Rate _____ DTW _____ Drawdown _____ DO _____ ORP _____

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-25(45.2) LD022716 Time 1540

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative	Bottle Type: G = Glass P = Poly Preservative Codes: 1 = HCL 4 = NaOH 2 = HNO3 5 = BAC 3 = H2SO4 6 = Na3PO4
VOCs <input checked="" type="checkbox"/>	<u>3/10</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>3/10</u>	
TOC + NO3 <input checked="" type="checkbox"/>	<u>1/P</u>	<u>3</u>	VFA <input type="checkbox"/>	_____	
Fe/Mn <input type="checkbox"/>	_____	_____	DHC <input type="checkbox"/>	_____	
Other: <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-MW-25(32.6)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel SR Date 02/27/18 Start Time 1600 Weather Sunny, Clear

MEASUREMENT SUMMARY:
Measuring Point _____ Depth to Water 8.08 Depth to Product _____ Product Thickness _____
Total Casing Depth 32.6 Borehole Diameter _____ Approx. Pump Depth 29 Feet
Screen Interval top 27.6 bottom 32.6 Feet

SAMPLING SUMMARY:
Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
Pump Started 1605 Pump Stopped 1640 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>1610</u>	<u>7.06</u>	<u>4.801</u>	<u>13.47</u>	<u>27.1</u>	<u>300</u>	<u>8.05</u>	<u>0</u>	<u>1.76</u>	<u>-78.5</u>
<u>1615</u>	<u>6.91</u>	<u>4.837</u>	<u>13.39</u>	<u>27.6</u>	<u>300</u>	<u>8.05</u>	<u>0</u>	<u>0.77</u>	<u>-88.4</u>
<u>1620</u>	<u>6.79</u>	<u>4.949</u>	<u>13.37</u>	<u>27.7</u>	<u>300</u>	<u>8.05</u>	<u>0</u>	<u>0.57</u>	<u>-91.5</u>
<u>1625</u>	<u>6.77</u>	<u>4.5048</u>	<u>13.36</u>	<u>27.2</u>	<u>300</u>	<u>8.05</u>	<u>0</u>	<u>0.52</u>	<u>-94.0</u>
<u>1630</u>	<u>6.77</u>	<u>5.090</u>	<u>13.38</u>	<u>27.3</u>	<u>300</u>	<u>8.05</u>	<u>0</u>	<u>0.52</u>	<u>-95.5</u>
<u>1635</u>	<u>6.76</u>	<u>5.135</u>	<u>13.37</u>	<u>27.3</u>	<u>300</u>	<u>8.05</u>	<u>0</u>	<u>0.49</u>	<u>-96.2</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

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

Final:
Time 1635 pH 6.76 SC 5.135 Temp 13.37 Turb. 27.3 Flow Rate 300 DTW 8.05 Drawdown 0 DO 0.49 ORP -96.7

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 0/220 mV
SC Reference Solution 9.413 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-25(32.6)-1022718 Time 1635
Bottle Type: G = Glass P = Poly
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 _____

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(16.4)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/27/18 Start Time 1655 Weather Sunny, 60°

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 8.05 Depth to Product _____ Product Thickness _____
 Total Casing Depth 16.4 Borehole Diameter _____ Approx. Pump Depth 14 Feet
 Screen Interval top 11.4 bottom 16.4 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1700 Pump Stopped 1730 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>1705</u>	<u>7.14</u>	<u>5.142</u>	<u>12.37</u>	<u>27.6</u>	<u>300</u>	<u>8.05</u>	<u>0</u>	<u>0.52</u>	<u>-104.7</u>
<u>1710</u>	<u>7.00</u>	<u>5.114</u>	<u>12.11</u>	<u>26.2</u>	<u>300</u>	<u>8.07</u>	<u>0.02</u>	<u>0.54</u>	<u>-111.5</u>
<u>1715</u>	<u>6.99</u>	<u>5.092</u>	<u>12.14</u>	<u>26.8</u>	<u>300</u>	<u>8.07</u>	<u>0</u>	<u>0.45</u>	<u>-114.7</u>
<u>1720</u>	<u>6.99</u>	<u>5.094</u>	<u>12.11</u>	<u>26.9</u>	<u>300</u>	<u>8.07</u>	<u>0</u>	<u>0.42</u>	<u>-116.3</u>
<u>1725</u>	<u>6.98</u>	<u>5.062</u>	<u>12.10</u>	<u>27.0</u>	<u>300</u>	<u>8.07</u>	<u>0</u>	<u>0.42</u>	<u>-116.6</u>

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

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1725</u>	<u>6.98</u>	<u>5.062</u>	<u>12.10</u>	<u>27.0</u>	<u>300</u>	<u>8.07</u>	<u>0</u>	<u>0.42</u>	<u>-116.6</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.913 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-25(16.4)-18022718 Time 1725

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

VOCs 3/0 1 Dissolved Gasses 3/0 6

TOC + NO₃ 1/P 3 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-OW-3(55)6022718 (Use: Well name)
 Project Number 3359-15-1040 Date 2/27/18 Start Time 0930 Weather clear 31°F
 Sampling Personnel TAS

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 17.50 Depth to Product — Product Thickness —
 Total Casing Depth 54.83 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 0949 Pump Stopped 1041 Total Gallons ~3.8

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>0943</u>	<u>—</u>	<u>—</u>	<u>11.4</u>	<u>—</u>	<u>—</u>	<u>17.50</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>0955</u>	<u>6.58</u>	<u>1.102</u>	<u>12.04</u>	<u>21.7</u>	<u>200</u>	<u>17.65</u>	<u>0.15</u>	<u>1.85</u>	<u>-58.9</u>
<u>1000</u>	<u>6.53</u>	<u>1.112</u>	<u>12.34</u>	<u>23.7</u>	<u>180</u>	<u>17.60</u>	<u>0.10</u>	<u>0.89</u>	<u>-135.4</u>
<u>1005</u>	<u>6.64</u>	<u>1.122</u>	<u>12.39</u>	<u>27.2</u>	<u>240</u>	<u>17.62</u>	<u>0.12</u>	<u>0.52</u>	<u>-154.6</u>
<u>1010</u>	<u>6.69</u>	<u>1.121</u>	<u>12.46</u>	<u>27.0</u>	<u>240</u>	<u>17.65</u>	<u>0.15</u>	<u>0.45</u>	<u>-157.6</u>
<u>1015</u>	<u>6.77</u>	<u>1.107</u>	<u>12.57</u>	<u>26.2</u>	<u>260</u>	<u>17.66</u>	<u>0.16</u>	<u>0.37</u>	<u>-171.3</u>
<u>1020</u>	<u>6.81</u>	<u>1.101</u>	<u>12.59</u>	<u>32.3</u>	<u>240</u>	<u>17.65</u>	<u>0.15</u>	<u>0.38</u>	<u>-181.8</u>
<u>1025</u>	<u>6.84</u>	<u>1.095</u>	<u>12.62</u>	<u>31.9</u>	<u>220</u>	<u>17.65</u>	<u>0.15</u>	<u>0.32</u>	<u>-184.4</u>
<u>1030</u>	<u>6.88</u>	<u>1.089</u>	<u>12.69</u>	<u>35.8</u>	<u>200</u>	<u>17.65</u>	<u>0.15</u>	<u>0.37</u>	<u>-189.3</u>

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

Final:

Time 1030 pH 6.88 SC 1.089 Temp 12.69 Turb. 35.8 Flow Rate 200 DTW 17.65 Drawdown 0.15 DO 0.37 ORP -189.3

Comments: Purge H₂O transparent

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0 & 100 NTUs

Sample Name ATR-OW-3(55)6022718 Time 1035

Analyses (check) Bottle #/Type Preservative
 VOCs 6 1 Dissolved Gasses 6 6
 TOC + NO₃ — — VFA — —
 Fe/Mn — — 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

Other: — — Other: TOC P 3

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-3(35)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAS Date 2/27/18 Start Time 1120 Weather 35° Clear

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 17.55 Depth to Product — Product Thickness —
 Total Casing Depth 34.97 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 1123 Pump Stopped 1217 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)
1122			<i>Post pump placement before start</i>			<u>17.55</u>			
1130	<u>6.84</u>	<u>0.757</u>	<u>13.20</u>	<u>24.7</u>	<u>188</u>	<u>17.57</u>	<u>0.02</u>	<u>1.24</u>	<u>-41.7</u>
1135	<u>6.88</u>	<u>0.780</u>	<u>13.25</u>	<u>55.9</u>	<u>180</u>	<u>17.56</u>	<u>0.01</u>	<u>0.63</u>	<u>-117.6</u>
1140	<u>6.96</u>	<u>0.802</u>	<u>13.32</u>	<u>18.9</u>	<u>180</u>	<u>17.56</u>	<u>0.01</u>	<u>0.49</u>	<u>-153.6</u>
1145	<u>7.01</u>	<u>0.809</u>	<u>13.35</u>	<u>27.0</u>	<u>168</u>	<u>17.56</u>	<u>0.01</u>	<u>0.40</u>	<u>-172.6</u>
1150	<u>7.05</u>	<u>0.812</u>	<u>13.39</u>	<u>6.6</u>	<u>180</u>	<u>17.57</u>	<u>0.02</u>	<u>0.31</u>	<u>-184.0</u>
1155	<u>7.07</u>	<u>0.809</u>	<u>13.46</u>	<u>5.9</u>	<u>180</u>	<u>17.57</u>	<u>0.02</u>	<u>0.31</u>	<u>-189.8</u>
1200	<u>7.08</u>	<u>0.806</u>	<u>13.45</u>	<u>2.1</u>	<u>200</u>	<u>17.57</u>	<u>0.02</u>	<u>0.27</u>	<u>-193.7</u>
1205	<u>7.10</u>	<u>0.799</u>	<u>13.49</u>	<u>3.4</u>	<u>180</u>	<u>17.56</u>	<u>0.01</u>	<u>0.27</u>	<u>-196.2</u>

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

Final:
 Time 1205 pH 7.10 SC 0.799 Temp 13.49 Turb. 3.4 Flow Rate 180 DTW 17.56 Drawdown 0.01 DO 0.27 ORP -196.2

Comments: Purge H2O transparent

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.5100 NTUs

Sample Name ATR-OW-3(35)-G022718 Time 1210

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>G</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>G</u> <u>6</u>
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: TOC P 3

MS/MSD 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

2nd VOCs



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-GW-2(53)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAS Date 2/27/18 Start Time 12:58 Weather Mild 50° Clear

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 21.15 Depth to Product — Product Thickness —
 Total Casing Depth 52.62' Borehole Diameter — Approx. Pump Depth 51 Feet
 Screen Interval top bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1303 Pump Stopped 1343 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>1302</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>21.15</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>1310</u>	<u>6.94</u>	<u>0.641</u>	<u>14.76</u>	<u>19.5</u>	<u>176</u>	<u>21.15</u>	<u>0.00</u>	<u>1.09</u>	<u>-854</u>
<u>1315</u>	<u>6.82</u>	<u>0.639</u>	<u>14.69</u>	<u>16.3</u>	<u>180</u>	<u>21.15</u>	<u>—</u>	<u>0.55</u>	<u>-122.5</u>
<u>1320</u>	<u>6.80</u>	<u>0.641</u>	<u>14.70</u>	<u>-9.9</u>	<u>184</u>	<u>21.15</u>	<u>—</u>	<u>0.47</u>	<u>-143.9</u>
<u>1325</u>	<u>6.89</u>	<u>0.637</u>	<u>14.63</u>	<u>-25.1</u>	<u>180</u>	<u>21.15</u>	<u>—</u>	<u>0.39</u>	<u>-156.4</u>
<u>1330</u>	<u>6.84</u>	<u>0.632</u>	<u>14.52</u>	<u>-28.1</u>	<u>184</u>	<u>21.15</u>	<u>—</u>	<u>0.38</u>	<u>-160.3</u>
<u>1335</u>	<u>6.86</u>	<u>0.634</u>	<u>14.64</u>	<u>-33.6</u>	<u>184</u>	<u>21.15</u>	<u>0.00</u>	<u>0.36</u>	<u>-163.2</u>

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

Final:
 Time 1335 pH 6.86 SC 0.634 Temp 14.64 Turb. -33.6 Flow Rate 184 DTW 21.15 Drawdown 0.00 DO 0.36 ORP -163.2

Comments: Transparent Purge H₂O
- Bubbles stick to interior of dissolved gases VOA's - numerous bubbles

Calibration: pH Calibration Buffers: 4 7 10
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.0 / 100.0 NTUs
 ORP Calibration 240.0 mV

Sample Name ATR-GW-2(53)-G022718 Time 1340 Bottle Type: G
 Analyses (check) VOCs Bottle #/Type G Preservative 1 Dissolved Gasses Bottle #/Type G Preservative 6
 TOC + NO₃ VFA
 Fe/Mn DHC
 Alkalinity + Anions (Cl-, SO₄)
 Other: Other: P 3
 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-2/33/
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAS Date 2/27/18 Start Time 1358 Weather 60° Sunny

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 21.20 Depth to Product Product Thickness
 Total Casing Depth 32.67' Borehole Diameter Approx. Pump Depth 31 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1403 Pump Stopped 1525 Total Gallons ~4.75

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>1401</u>	<u>Measurement after pump placement</u>					<u>21.20</u>	<u>- before activation</u>	<u> </u>	<u> </u>
<u>1410</u>	<u>6.93</u>	<u>0.988</u>	<u>14.72</u>	<u>325.1</u>	<u>220</u>	<u>21.21</u>	<u>0.01</u>	<u>1.76</u>	<u>-58.5</u>
<u>1415</u>	<u>6.87</u>	<u>1.004</u>	<u>14.70</u>	<u>232.4</u>	<u>220</u>	<u>21.21</u>	<u>0.01</u>	<u>0.46</u>	<u>-142.0</u>
<u>1420</u>	<u>6.90</u>	<u>0.995</u>	<u>14.67</u>	<u>157.8</u>	<u>220</u>	<u>21.20</u>	<u>0.00</u>	<u>0.29</u>	<u>-149.2</u>
<u>1425</u>	<u>6.91</u>	<u>0.985</u>	<u>14.70</u>	<u>84.2</u>	<u>220</u>	<u>21.20</u>	<u> </u>	<u>0.24</u>	<u>-156.5</u>
<u>1430</u>	<u>6.91</u>	<u>0.969</u>	<u>14.63</u>	<u>73.8</u>	<u>220</u>	<u>21.20</u>	<u> </u>	<u>0.22</u>	<u>-159.4</u>
<u>1435</u>	<u>6.89</u>	<u>0.942</u>	<u>14.65</u>	<u>47.9</u>	<u>220</u>	<u>21.21</u>	<u>0.01</u>	<u>0.21</u>	<u>-161.4</u>
<u>1440</u>	<u>6.89</u>	<u>0.918</u>	<u>14.61</u>	<u>39.5</u>	<u>220</u>	<u>21.22</u>	<u>0.02</u>	<u>0.19</u>	<u>-163.4</u>
<u>1445</u>	<u>6.86</u>	<u>0.900</u>	<u>14.53</u>	<u>25.6</u>	<u>220</u>	<u>21.21</u>	<u>0.01</u>	<u>0.18</u>	<u>-162.6</u>
<u>1450</u>	<u>6.88</u>	<u>0.888</u>	<u>14.55</u>	<u>20.2</u>	<u>220</u>	<u>21.21</u>	<u>0.01</u>	<u>0.18</u>	<u>-164.3</u>
<u>1455</u>	<u>6.88</u>	<u>0.876</u>	<u>14.55</u>	<u>13.0</u>	<u>220</u>	<u>21.20</u>	<u> </u>	<u>0.26</u>	<u>-165.5</u>
<u>1500</u>	<u>6.86</u>	<u>0.870</u>	<u>14.56</u>	<u>10.3</u>	<u>200</u>	<u>21.21</u>	<u>0.01</u>	<u>0.18</u>	<u>-165.7</u>
<u>1505</u>	<u>6.86</u>	<u>0.865</u>	<u>14.57</u>	<u>4.6</u>	<u>200</u>	<u>21.21</u>	<u>0.01</u>	<u>0.18</u>	<u>-163.9</u>
<u>1510</u>	<u>6.88</u>	<u>0.861</u>	<u>14.61</u>	<u>2.2</u>	<u>200</u>	<u>21.20</u>	<u> </u>	<u>0.18</u>	<u>-166.1</u>

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

Final:
 Time 1510 pH 6.88 SC 0.861 Temp 14.61 Turb. 2.2 Flow Rate 200 DTW 21.20 Drawdown DO 0.18 ORP -166.1

Comments: Transparent Purple H₂O

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.100 NTUs

Sample Name ATR-OW-2(33)-G022718 Time 1515 Bottle Type:
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs 6 1 Dissolved Gasses 6 6
 TOC + NO₃ VFA
 Fe/Mn DHC
 Alkalinity + Anions (Cl-, SO₄)
 Other: Other: TOC P 3
 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-24(55.4)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAS Date 2/27/18 Start Time 1546 Weather 60° SUNNY

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 20.64 Depth to Product Product Thickness
 Total Casing Depth 55.4 Borehole Diameter Approx. Pump Depth ~53.5 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1550 Pump Stopped 1613 Total Gallons ~2.25

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>1548</u>	<u>Post pump placement / prior to pump start</u>					<u>20.64</u>			
<u>1555</u>	<u>7.29</u>	<u>0.849</u>	<u>14.04</u>	<u>-22.9</u>	<u>160</u>	<u>20.71</u>	<u>0.07</u>	<u>1.40</u>	<u>-83.4</u>
<u>1600</u>	<u>7.15</u>	<u>0.859</u>	<u>13.94</u>	<u>-26.4</u>	<u>156</u>	<u>20.72</u>	<u>0.08</u>	<u>0.52</u>	<u>-160.1</u>
<u>1605</u>	<u>7.19</u>	<u>0.868</u>	<u>13.84</u>	<u>-25.7</u>	<u>160</u>	<u>20.72</u>	<u>0.08</u>	<u>0.35</u>	<u>-189.6</u>
<u>1610</u>	<u>7.24</u>	<u>0.878</u>	<u>13.77</u>	<u>-36.8</u>	<u>160</u>	<u>20.72</u>	<u>0.08</u>	<u>0.28</u>	<u>-204.9</u>
<u>1615</u>	<u>7.25</u>	<u>0.880</u>	<u>13.80</u>	<u>-30.1</u>	<u>160</u>	<u>20.72</u>	<u>0.08</u>	<u>0.25</u>	<u>-211.5</u>
<u>1620</u>	<u>7.27</u>	<u>0.882</u>	<u>13.69</u>	<u>-31.4</u>	<u>160</u>	<u>20.71</u>	<u>0.07</u>	<u>0.23</u>	<u>-217.2</u>
<u>1625</u>	<u>7.28</u>	<u>0.882</u>	<u>13.74</u>	<u>-26.9</u>	<u>160</u>	<u>20.71</u>	<u>0.07</u>	<u>0.21</u>	<u>-218.1</u>
<u>1630</u>	<u>7.27</u>	<u>0.883</u>	<u>13.65</u>	<u>-28.6</u>	<u>160</u>	<u>20.72</u>	<u>0.08</u>	<u>0.21</u>	<u>-219.0</u>

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

Final:
 Time 1630 pH 7.27 SC 0.883 Temp 13.65 Turb. -21.6 Flow Rate 160 DTW 20.72 Drawdown 0.08 DO 0.21 ORP -219.0

Comments: Clear Purge H₂O - Bubbles (numerous) formed
Interfered with DO & ORP

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.99 mS/cm Turbidity Cal. Solution 0.03/1000 NTUs

Sample Name ATR-MW-24(55.4)-G022718 Time 1635 Bottle Type: G
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs G 1 Dissolved Gasses G 6
 TOC + NO₃ VFA
 Fe/Mn DHC
 Alkalinity + Anions (Cl⁻, SO₄²⁻)
 Other: Other: TOC P 3
 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-24(24.9)
 Project Number 3359-15-1040 Date 2/27/18 Start Time 1652 Weather 60°F Sunny
 Sampling Personnel JAS (Use: Well name)

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 20.66 Depth to Product Product Thickness
 Total Casing Depth 24.9 Borehole Diameter Approx. Pump Depth 23.5 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailer
 Pump Started 1657 Pump Stopped 1750 Total Gallons ~2.85

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>1655</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>20.66</u>	<u> </u>	<u> </u>	<u> </u>
<u>1705</u>	<u>7.14</u>	<u>0.660</u>	<u>13.35</u>	<u>-39.4</u>	<u>120</u>	<u>20.67</u>	<u>0.01</u>	<u>1.76</u>	<u>-103.1</u>
<u>1710</u>	<u>7.05</u>	<u>0.652</u>	<u>13.10</u>	<u>-55.6</u>	<u>120</u>	<u>20.67</u>	<u>0.01</u>	<u>0.66</u>	<u>-157.3</u>
<u>1715</u>	<u>7.06</u>	<u>0.647</u>	<u>12.97</u>	<u>-56.7</u>	<u>120</u>	<u>20.67</u>	<u>0.01</u>	<u>0.43</u>	<u>-173.9</u>
<u>1720</u>	<u>7.10</u>	<u>0.646</u>	<u>13.00</u>	<u>-58.7</u>	<u>128</u>	<u>20.67</u>	<u>0.01</u>	<u>0.32</u>	<u>-183.3</u>
<u>1725</u>	<u>7.10</u>	<u>0.646</u>	<u>12.94</u>	<u>-60.7</u>	<u>128</u>	<u>20.67</u>	<u>0.01</u>	<u>0.28</u>	<u>-190.2</u>
<u>1730</u>	<u>7.14</u>	<u>0.646</u>	<u>12.94</u>	<u>-61.4</u>	<u>128</u>	<u>20.67</u>	<u>0.01</u>	<u>0.27</u>	<u>-194.8</u>
<u>1735</u>	<u>7.12</u>	<u>0.645</u>	<u>12.92</u>	<u>-62.3</u>	<u>128</u>	<u>20.67</u>	<u>0.01</u>	<u>0.27</u>	<u>-193.5</u>

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

Final:
 Time 1735 pH 7.12 SC 0.645 Temp 12.92 Turb. -62.3 Flow Rate 128 DTW 20.67 Drawdown 0.01 DO 0.27 ORP -193.5

Comments: Clear Purple H₂O - Gross Colored pump on removal

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240.0 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.1000 NTUs

Sample Name ATR-MW-24(24.9)-G022718 Time 1740
 Analyses (check) Bottle #/Type Preservative
 VOCs 6 1 Dissolved Gasses 6 6
 TOC + NO₃ VFA
 Fe/Mn DHC
 Alkalinity + Anions (Cl-, SO₄)
 Other: Other: TOC P S
 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-14
 Project Number 3359-15-1040 Sampling Personnel IAS Date 2/28/18 Start Time 0838 Weather 45° Rainy
(Use: Well name)

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 18.38 Depth to Product — Product Thickness —
 Total Casing Depth — Borehole Diameter — Approx. Pump Depth 2' 04" TO Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0845 Pump Stopped 0945 Total Gallons ~3.75

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)
0845	6.77	0.621	12.77	110.9	240	18.38	—	1.17	55.3
0850	6.77	0.621	12.77	110.9	240	18.38	—	1.17	55.3
0855	6.95	0.621	12.79	81.1	248	18.38	—	0.82	-26.0
0900	6.95	0.623	12.88	49.0	248	18.38	—	0.54	-75.8
0905	7.03	0.625	12.89	27.5	240	18.38	—	0.42	-108.3
0910	7.06	0.624	12.92	21.2	240	18.38	—	0.38	-125.1
0915	7.11	0.621	12.91	13.1	240	18.38	—	0.36	-134.8
0920	7.14	0.623	12.92	11.2	200	18.38	—	0.37	-138.8
0925	7.14	0.621	12.97	7.8	180	18.38	—	0.36	-142.8
0930	7.15	0.623	12.99	4.2	184	18.38	—	0.34	-144.1

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

Final:
 Time 0930 pH 7.15 SC 0.623 Temp 12.99 Turb. 4.2 Flow Rate 184 DTW 18.38 Drawdown — DO 0.34 ORP -144.1

Comments: Clear Purge H₂O - Numerous Minute bubbles in diss. gas UOAs

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.0 & 10.0 NTUs

Sample Name ATR-MW-14-G022818 Time 0935

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

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-1(39)
 Project Number 3359-15-1040 Date 2/28/18 Start Time 1000 Weather 47°F cloudy
 Sampling Personnel JAS (Use: Well Name)

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 20.67 Depth to Product --- Product Thickness ---
 Total Casing Depth 38.65' Borehole Diameter --- Approx. Pump Depth ~36.5 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1005 Pump Stopped 1105 Total Gallons ~2.75

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>1004</u>	<u>Measurement After Pump Placement</u>					<u>20.67</u>	<u>- Bebe Pump Start</u>		
<u>1010</u>	<u>7.17</u>	<u>0.762</u>	<u>13.24</u>	<u>75.5</u>	<u>184</u>	<u>20.67</u>	<u>---</u>	<u>3.02</u>	<u>-11.9</u>
<u>1015</u>	<u>7.16</u>	<u>0.765</u>	<u>13.43</u>	<u>51.9</u>	<u>180</u>	<u>20.67</u>	<u>---</u>	<u>1.26</u>	<u>-85.4</u>
<u>1020</u>	<u>7.19</u>	<u>0.753</u>	<u>13.53</u>	<u>32.3</u>	<u>180</u>	<u>20.67</u>	<u>---</u>	<u>0.75</u>	<u>-107.9</u>
<u>1030</u>	<u>7.20</u>	<u>0.731</u>	<u>13.53</u>	<u>17.1</u>	<u>180</u>	<u>20.67</u>	<u>---</u>	<u>0.52</u>	<u>-120.8</u>
<u>1035</u>	<u>7.23</u>	<u>0.708</u>	<u>13.57</u>	<u>8.9</u>	<u>184</u>	<u>20.67</u>	<u>---</u>	<u>0.44</u>	<u>-128.3</u>
<u>1040</u>	<u>7.24</u>	<u>0.699</u>	<u>13.61</u>	<u>3.8</u>	<u>184</u>	<u>20.67</u>	<u>---</u>	<u>0.39</u>	<u>-131.9</u>
<u>1045</u>	<u>7.24</u>	<u>0.689</u>	<u>13.62</u>	<u>0.7</u>	<u>180</u>	<u>20.67</u>	<u>---</u>	<u>0.37</u>	<u>-133.9</u>

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

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1045</u>	<u>7.24</u>	<u>0.689</u>	<u>13.62</u>	<u>0.7</u>	<u>180</u>	<u>20.67</u>	<u>---</u>	<u>0.37</u>	<u>-133.9</u>

Comments: Clear Peristaltic - Small Red Floating Particles in H₂O

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.99 mS/cm Turbidity Cal. Solution 0 & 10 NTUs

Sample Name ATR-OW-1(39)-G022818 Time 1050
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs 6 1 Dissolved Gasses 6 6
 TOC + NO₃ VFA
 Fe/Mn DHC
 Alkalinity + Anions (Cl-, SO₄)
 Other: Other: TOC P 3

MS/MSD ATR-OW-1(39)-G022818MS Blind Dup _____ Blind Dup Name _____ TB _____
G022818MS



ATR-OW-1(39)-G022818MSD
 Amec Foster Wheeler Environment & Infrastructure, Inc.

GROUNDWATER/SURFACE WATER SAMPLING FORM

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-OW-1(28)
 Project Number 3359-15-1040 Date 2/28/18 Start Time 1120 Weather 45° overcast
 Sampling Personnel JAS (Use: Well name)

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 20.68 Depth to Product _____ Product Thickness _____
 Total Casing Depth 27.70 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 1123 Pump Stopped 1215 Total Gallons ~2.25

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>1122</u>	<u>7.05</u>	<u>0.884</u>	<u>13.34</u>	<u>91.2</u>	<u>194</u>	<u>20.68</u>	<u>- prior to Pump Start</u>	<u>1.89</u>	<u>-34.6</u>
<u>1130</u>	<u>7.01</u>	<u>0.903</u>	<u>13.58</u>	<u>49.0</u>	<u>188</u>	<u>20.72</u>	<u>0.03</u>	<u>0.91</u>	<u>-87.7</u>
<u>1140</u>	<u>6.99</u>	<u>0.912</u>	<u>13.73</u>	<u>33.1</u>	<u>188</u>	<u>20.71</u>	<u>0.03</u>	<u>0.62</u>	<u>-104.9</u>
<u>1145</u>	<u>6.99</u>	<u>0.918</u>	<u>13.89</u>	<u>16.9</u>	<u>192</u>	<u>20.72</u>	<u>0.04</u>	<u>0.47</u>	<u>-119.0</u>
<u>1150</u>	<u>7.00</u>	<u>0.920</u>	<u>13.95</u>	<u>8.1</u>	<u>192</u>	<u>20.72</u>	<u>0.04</u>	<u>0.46</u>	<u>-126.3</u>
<u>1155</u>	<u>6.99</u>	<u>0.921</u>	<u>14.02</u>	<u>6.2</u>	<u>192</u>	<u>20.72</u>	<u>0.04</u>	<u>0.36</u>	<u>-130.5</u>
<u>1200</u>	<u>7.00</u>	<u>0.921</u>	<u>14.02</u>	<u>3.2</u>	<u>192</u>	<u>20.72</u>	<u>0.04</u>	<u>0.35</u>	<u>-134.1</u>
<u>1205</u>	<u>7.00</u>	<u>0.920</u>	<u>14.01</u>	<u>1.0</u>	<u>192</u>	<u>20.72</u>	<u>0.04</u>	<u>0.33</u>	<u>-136.7</u>

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

Final:
 Time 1205 pH 7.00 SC 0.920 Temp 14.01 Turb. 1.0 Flow Rate 192 DTW 20.72 Drawdown 0.04 DO 0.33 ORP -136.7

Comments: Clear Purge H2O

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.99 mS/cm Turbidity Cal. Solution 0.10 NTUs

Sample Name ATR-OW-1(28)-G022818 Time 1210

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>6</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>6</u>
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"/>	_____
MS/MSD _____	Blind Dup _____	Blind Dup Name _____	Other: <u>TOC</u> <input checked="" type="checkbox"/>	<u>P</u> <u>3</u>

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-82(58)
 Project Number 3359-15-1040 Date 2/28/18 Start Time 1248 Weather 45° overcast
 Sampling Personnel JAS (Use: Well name)

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 22.81' Depth to Product --- Product Thickness ---
 Total Casing Depth 58' Borehole Diameter --- Approx. Pump Depth 56 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1250 Pump Stopped 1340 Total Gallons ~225

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)
1249	After Pump Placement - Before Pump Start					22.81	---	---	---
1255	7.05	0.771	14.76	3.7	180	22.81	---	1.10	-26.6
1300	6.96	0.772	14.85	1.1	180	22.81	---	0.59	-72.9
1305	6.93	0.781	14.89	-1.3	180	22.81	---	0.42	-96.0
1310	6.93	0.792	14.81	-2.4	176	22.81	---	0.33	-109.9
1315	6.90	0.806	14.82	-3.7	180	22.81	---	0.29	-115.1
1320	6.94	0.813	14.80	-2.3	180	22.81	---	0.27	-119.3
1325	6.90	0.815	14.79	-3.3	176	22.81	---	0.26	-121.2
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Stabilization Criteria: ±3% ±3% ±10 ±10 ±10 ±10

Final:
 Time 1325 pH 6.90 SC 0.815 Temp 14.79 Turb. -3.3 Flow Rate 176 DTW 22.81 Drawdown --- DO 0.26 ORP -121.2

Comments: Purge H2O Clear - Micro Bubbles still to UOA walk

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.10 NTUs

Sample Name ATR-MW-82(58)-G022818 Time 1330

Analyses (check) Bottle #/Type Preservative		Bottle #/Type Preservative	
VOCs <input checked="" type="checkbox"/>	<u>G</u> <u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>G</u> <u>6</u>
TOC + NO3 <input type="checkbox"/>	<u>---</u> <u>---</u>	VFA <input type="checkbox"/>	<u>---</u> <u>---</u>
Fe/Mn <input type="checkbox"/>	<u>---</u> <u>---</u>	DHC <input type="checkbox"/>	<u>---</u> <u>---</u>
Alkalinity + Anions (Cl-, SO4) <input type="checkbox"/>		Other: <u>TOC</u> <input checked="" type="checkbox"/> <u>P</u> <u>3</u>	

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-62(36)
 Project Number 3359-15-1040 Date 2/28/18 Start Time 1400 Weather 45° Overcast
 Sampling Personnel JAS (Use: Well name)

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 26.13 Depth to Product — Product Thickness —
 Total Casing Depth 36' Borehole Diameter — Approx. Pump Depth 34 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1403 Pump Stopped 1455 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>1407</u>	<u>Measurement Post - Pump Placement</u>					<u>26.13</u>	<u>Prior to pump start</u>		
<u>1410</u>	<u>7.10</u>	<u>0.897</u>	<u>14.45</u>	<u>18.5</u>	<u>184</u>	<u>26.14</u>	<u>0.01</u>	<u>1.39</u>	<u>-72.8</u>
<u>1415</u>	<u>7.01</u>	<u>0.901</u>	<u>14.39</u>	<u>9.6</u>	<u>180</u>	<u>26.14</u>	<u>0.01</u>	<u>0.83</u>	<u>-114.1</u>
<u>1420</u>	<u>7.01</u>	<u>0.908</u>	<u>14.33</u>	<u>4.7</u>	<u>184</u>	<u>26.14</u>	<u>0.01</u>	<u>0.59</u>	<u>-133.5</u>
<u>1425</u>	<u>7.05</u>	<u>0.905</u>	<u>14.32</u>	<u>2.5</u>	<u>184</u>	<u>26.14</u>	<u>0.01</u>	<u>0.45</u>	<u>-143.1</u>
<u>1430</u>	<u>7.06</u>	<u>0.899</u>	<u>14.26</u>	<u>1.6</u>	<u>180</u>	<u>26.14</u>	<u>0.01</u>	<u>0.37</u>	<u>-148.8</u>
<u>1435</u>	<u>7.06</u>	<u>0.897</u>	<u>14.24</u>	<u>0.1</u>	<u>184</u>	<u>26.14</u>	<u>0.01</u>	<u>0.35</u>	<u>-150.9</u>
<u>1440</u>	<u>7.04</u>	<u>0.887</u>	<u>14.26</u>	<u>-0.5</u>	<u>184</u>	<u>26.14</u>	<u>0.01</u>	<u>0.34</u>	<u>-152.2</u>

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

Final:
 Time 1440 pH 7.04 SC 0.887 Temp 14.26 Turb. -0.5 Flow Rate 184 DTW 26.14 Drawdown 0.01 DO 0.34 ORP -152.2

Comments: Clear Purge H₂O

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.10 NTUs

Sample Name ATR-MW-62(36)-G022818 Time 1445

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>6</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>6</u>
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: P 3

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-81(27)
 Project Number 3359-15-1040 Date 2/28/18 Start Time 1520 Weather 45° decast
 Sampling Personnel JAS (Use: Well name)

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 12.94 Depth to Product — Product Thickness —
 Total Casing Depth 27' Borehole Diameter — Approx. Pump Depth 25 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1523 Pump Stopped 1630 Total Gallons ~2.75

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>1522</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>12.75</u>	<u>—</u>	<u>—</u>	<u>—</u>
<u>1530</u>	<u>6.38</u>	<u>1.382</u>	<u>13.69</u>	<u>2.2</u>	<u>160</u>	<u>13.61</u>	<u>0.86</u>	<u>2.51</u>	<u>1.3</u>
<u>1535</u>	<u>6.09</u>	<u>1.390</u>	<u>13.64</u>	<u>0.3</u>	<u>160</u>	<u>13.62</u>	<u>0.87</u>	<u>0.95</u>	<u>-22.7</u>
<u>1540</u>	<u>6.16</u>	<u>1.385</u>	<u>13.69</u>	<u>-1.8</u>	<u>160</u>	<u>13.64</u>	<u>0.89</u>	<u>0.59</u>	<u>-38.6</u>
<u>1545</u>	<u>6.12</u>	<u>1.376</u>	<u>13.71</u>	<u>-3.8</u>	<u>160</u>	<u>13.65</u>	<u>0.90</u>	<u>0.43</u>	<u>-47.4</u>
<u>1550</u>	<u>6.09</u>	<u>1.380</u>	<u>13.73</u>	<u>-4.1</u>	<u>160</u>	<u>13.67</u>	<u>0.92</u>	<u>0.39</u>	<u>-49.9</u>
<u>1555</u>	<u>6.09</u>	<u>1.382</u>	<u>13.72</u>	<u>-4.3</u>	<u>160</u>	<u>13.68</u>	<u>0.93</u>	<u>0.37</u>	<u>-52.8</u>
<u>1600</u>	<u>6.08</u>	<u>1.381</u>	<u>13.74</u>	<u>-4.7</u>	<u>160</u>	<u>13.67</u>	<u>0.92</u>	<u>0.35</u>	<u>-54.7</u>
<u>1605</u>	<u>6.09</u>	<u>1.380</u>	<u>13.75</u>	<u>-4.8</u>	<u>160</u>	<u>13.65</u>	<u>0.90</u>	<u>0.34</u>	<u>-56.7</u>

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

Final:

Time 1605 pH 6.09 SC 1.380 Temp 13.75 Turb. -4.8 Flow Rate 160 DTW 13.65 Drawdown 0.90 DO 0.34 ORP -56.7

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.99 mS/cm Turbidity Cal. Solution 0.10 NTUs

Sample Name ATR-MW-81(27)-G022818 Time 1610 Bottle Type: _____

Analyses (check)	Bottle #/Type	Preservative	Dissolved Gasses	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>6</u>	<u>1</u>	<input checked="" type="checkbox"/>	<u>6</u>	<u>6</u>
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"/>		
MS/MSD _____	<input checked="" type="checkbox"/> Dup		Other: <u>TOC</u> <input checked="" type="checkbox"/> <u>P</u> <input checked="" type="checkbox"/> <u>3</u>		

Dup Name ATR-MW-81(27)-G022818R



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-59(29)
 Project Number 3359-15-10-40 (Use: Well name)
 Sampling Personnel JAS Date 2/28/18 Start Time 1720 Weather 45° Overcast

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 14.67 Depth to Product Product Thickness
 Total Casing Depth 29' Borehole Diameter Approx. Pump Depth 27' Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1724 Pump Stopped 1810 Total Gallons ~2.00

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>1722</u>	<u>Post Pump Placement - Prod. to Pump Start</u>					<u>14.67</u>			
<u>1730</u>	<u>6.37</u>	<u>1.466</u>	<u>13.67</u>	<u>2.2</u>	<u>160</u>	<u>14.68</u>	<u>0.01</u>	<u>1.46</u>	<u>18.4</u>
<u>1735</u>	<u>6.39</u>	<u>1.466</u>	<u>13.62</u>	<u>0.9</u>	<u>164</u>	<u>14.68</u>	<u>0.01</u>	<u>0.87</u>	<u>-18.4</u>
<u>1740</u>	<u>6.41</u>	<u>1.465</u>	<u>13.65</u>	<u>-1.0</u>	<u>164</u>	<u>14.68</u>	<u>0.01</u>	<u>0.61</u>	<u>-33.9</u>
<u>1745</u>	<u>6.42</u>	<u>1.464</u>	<u>13.66</u>	<u>-1.9</u>	<u>164</u>	<u>14.69</u>	<u>0.02</u>	<u>0.37</u>	<u>-48.4</u>
<u>1750</u>	<u>6.42</u>	<u>1.464</u>	<u>13.67</u>	<u>-2.5</u>	<u>160</u>	<u>14.69</u>	<u>0.02</u>	<u>0.35</u>	<u>-53.6</u>
<u>1755</u>	<u>6.45</u>	<u>1.465</u>	<u>13.68</u>	<u>-2.4</u>	<u>160</u>	<u>14.69</u>	<u>0.02</u>	<u>0.34</u>	<u>-56.2</u>

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

Final:

Time <u>1755</u>	pH <u>6.43</u>	SC <u>1.465</u>	Temp <u>13.68</u>	Turb. <u>-2.4</u>	Flow Rate <u>160</u>	DTW <u>14.69</u>	Drawdown <u>0.02</u>	DO <u>0.34</u>	ORP <u>-56.2</u>
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Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.810 NTUs

Sample Name ATR-MW-59(29)-G022818 Time 1800 Bottle Type: _____
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs G 1 Dissolved Gasses G 6
 TOC + NO₃ _____ _____ VFA _____ _____
 Fe/Mn _____ _____ DHC _____ _____
 Alkalinity + Anions (Cl-, SO₄) _____ _____
 Other: _____ Other: TOC P 3
 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 SR Date 02/20/18 Start Time 0815 Weather Rain + 47°

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 9.30 Depth to Product _____ Product Thickness _____
 Total Casing Depth 54.4 Borehole Diameter _____ Approx. Pump Depth 51 Feet
 Screen Interval top 49.4 bottom 54.4 Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0835 Pump Stopped 0925 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>0850</u>	<u>6.50</u>	<u>3.671</u>	<u>11.35</u>	<u>13.0</u>	<u>200</u>	<u>9.30</u>	<u>0</u>	<u>0.92</u>	<u>-90.7</u>
<u>0855</u>	<u>6.53</u>	<u>3.662</u>	<u>11.25</u>	<u>15.9</u>	<u>200</u>	<u>9.30</u>	<u>0</u>	<u>0.92</u>	<u>-96.6</u>
<u>0900</u>	<u>6.54</u>	<u>3.696</u>	<u>11.20</u>	<u>17.8</u>	<u>200</u>	<u>9.35</u>	<u>0.05</u>	<u>0.95</u>	<u>-96.5</u>
<u>0905</u>	<u>6.55</u>	<u>3.723</u>	<u>11.10</u>	<u>19.4</u>	<u>200</u>	<u>9.35</u>	<u>0</u>	<u>0.95</u>	<u>-99.0</u>
<u>0910</u>	<u>6.55</u>	<u>3.752</u>	<u>11.01</u>	<u>19.8</u>	<u>200</u>	<u>9.35</u>	<u>0</u>	<u>0.94</u>	<u>-99.5</u>

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

Final:
 Time 0910 pH 6.55 SC 3.752 Temp 11.01 Turb. 19.8 Flow Rate 200 DTW 9.35 Drawdown 0 DO 0.94 ORP -99.5

Comments: Unable to get rid of all bubbles out of dissolved gases vials.

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 200 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 2/10 NTUs

Sample Name ATR-MW-15-17022810 Time 0910

Analyses (check) Bottle #/Type Preservative	Bottle #/Type Preservative
VOCs <input checked="" type="checkbox"/> <u>3/10</u> <u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/> <u>3/10</u> <u>6</u>
TOC + NO ₃ <input checked="" type="checkbox"/> <u>SR</u>	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: <u>TOC</u> <input checked="" type="checkbox"/> <u>1/1</u> <u>3</u>
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

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-OW-4(54)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/20/10 Start Time 0940 Weather Rain, 48°

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 17.45 Depth to Product _____ Product Thickness _____
 Total Casing Depth 54 Borehole Diameter _____ Approx. Pump Depth 51 Feet
 Screen Interval top 49 bottom 54 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 0955 Pump Stopped 1050 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)
1000	7.00	3.194	12.20	20.0	200	17.45	0	0.90	-76.9
1005	7.02	3.299	12.41	19.6	200	17.45	0	0.77	-96.1
1010	7.02	3.208	12.62	20.3	200	17.45	0	0.62	-105.5
1015	7.02	3.352	12.76	20.5	200	17.45	0	0.58	-111.2
1020	7.02	3.400	12.82	20.4	200	17.45	0	0.55	-114.3
1025	7.02	3.433	12.83	20.4	200	17.45	0	0.56	-116.1
1030	7.02	3.452	12.92	20.6	200	17.45	0	0.52	-117.0
1035	7.00	3.497	12.99	20.7	200	17.45	0	0.52	-117.8
1040	7.00	3.520	13.13	20.0	200	17.45	0	0.52	-118.0

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

Final:

Time 1040 pH 7.00 SC 3.520 Temp 13.13 Turb. 20.0 Flow Rate 200 DTW 17.45 Drawdown 0 DO 0.52 ORP -118.0

Comments: Bubbles in Dissolved gases vials

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/0 NTUs

Sample Name ATR-MW-OW-4(54)6022B18 Time 1040 Bottle Type: _____

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

VOCs 3/6 1 Dissolved Gases 3/6 6

TOC + NO₃ _____ _____ VFA _____ _____

Fe/Mn _____ _____ DHC _____ _____

Alkalinity + Anions (Cl-, SO₄) _____ _____

Other: _____ Other: TOC 1/p 3

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-0W-4(35)
 Project Number 3359-15-1040 Date 6/22/18 Start Time 1100 Weather Cloudy 47°A
 Sampling Personnel SR (Use: Well name)

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 17.55 Depth to Product _____ Product Thickness _____
 Total Casing Depth 35 Borehole Diameter _____ Approx. Pump Depth 36 Feet
 Screen Interval top 30 bottom 35 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1105 Pump Stopped 1130 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>1110</u>	<u>6.73</u>	<u>4.693</u>	<u>13.72</u>	<u>16.8</u>	<u>400</u>	<u>17.80</u>	<u>0.25</u>	<u>0.88</u>	<u>-131.9</u>
<u>1115</u>	<u>6.69</u>	<u>4.632</u>	<u>13.70</u>	<u>19.1</u>	<u>400</u>	<u>17.80</u>	<u>0</u>	<u>0.54</u>	<u>-133.2</u>
<u>1120</u>	<u>6.66</u>	<u>4.557</u>	<u>13.74</u>	<u>19.5</u>	<u>400</u>	<u>17.80</u>	<u>0</u>	<u>0.59</u>	<u>-131.4</u>
<u>1125</u>	<u>6.63</u>	<u>4.529</u>	<u>13.80</u>	<u>19.5</u>	<u>400</u>	<u>17.80</u>	<u>0</u>	<u>0.43</u>	<u>-132.6</u>

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

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
<u>1125</u>	<u>6.63</u>	<u>4.529</u>	<u>13.80</u>	<u>19.5</u>	<u>400</u>	<u>17.80</u>	<u>0</u>	<u>0.43</u>	<u>-132.6</u>

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 910 NTUs

Sample Name ATR-MW-0W-4(35)-17022018 Time 1125

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3/0</u>	<u>1</u>	Dissolved Gases <input checked="" type="checkbox"/>	<u>3/0</u> <u>6</u>
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"/>	
Other: <u>TOC</u> <input checked="" type="checkbox"/>	<u>1/P</u>	<u>3</u>		

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 _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-20(51)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/28/18 Start Time 1150 Weather Sunny 54°

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 25.75 Depth to Product _____ Product Thickness _____
 Total Casing Depth 51 Borehole Diameter _____ Approx. Pump Depth 48 Feet
 Screen Interval top 46 bottom 51 Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Baller
 Pump Started 1206 Pump Stopped 1250 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)
1210	7.47	2.875	15.08	11.1	300	25.75	0	0.63	-154.8
1215	7.37	2.493	15.08	9.0	300	25.75	0	0.45	-155.7
1220	7.20	2.318	15.03	2.8	300	25.75	0	0.53	-149.9
1225	7.17	2.120	15.00	3	300	25.75	0	0.73	-142.1
1230	7.15	1.867 1.986	14.87	7.8	300	25.75	0	0.92	-174.8
1235	7.11	1.867	14.84	10.6	300	25.75	0	1.06	-132.5
1240	7.07	1.795	14.80	9.0	300	25.75	0	1.09	-129.6

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

Final:
 Time 1240 pH 7.07 SC 1.795 Temp 14.80 Turb. 9.0 Flow Rate 300 DTW 25.75 Drawdown 0 DO 1.09 ORP -129.6

Comments: Well caps dirty & standing water in well casing
Only 2 VOC vials as 1 dropped & broke after sample collection

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 9/10 NTUs

Sample Name ATR-MW-20(51)-(0222018) Time 1240
 Bottle Type: G = Glass P = Poly
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs 3/0 1 Dissolved Gasses 3/0 6
 TOC + NO₃ _____ VFA _____
 Fe/Mn _____ DHC _____
 Alkalinity + Anions (Cl-, SO₄) _____
 Other: _____ Other: TOC 1/0 3
 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-20(35)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/28/18 Start Time 1330 Weather cloudy 47°F

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 25.75 Depth to Product _____ Product Thickness _____
 Total Casing Depth 35 Borehole Diameter _____ Approx. Pump Depth 32 Feet
 Screen Interval top 30 bottom 35 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1340 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>1345</u>	<u>7.06</u>	<u>2.335</u>	<u>15.36</u>	<u>18.9</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>1.64</u>	<u>-54.8</u>
<u>1350</u>	<u>6.81</u>	<u>2.118</u>	<u>15.29</u>	<u>3.9</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.58</u>	<u>-70.2</u>
<u>1355</u>	<u>6.72</u>	<u>2.062</u>	<u>15.25</u>	<u>9.08</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.44</u>	<u>-77.2</u>
<u>1400</u>	<u>6.75</u>	<u>2.065</u>	<u>15.30</u>	<u>13.0</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.40</u>	<u>-82.9</u>
<u>1405</u>	<u>6.74</u>	<u>2.038</u>	<u>15.28</u>	<u>15.5</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.36</u>	<u>-87.9</u>
<u>1410</u>	<u>6.73</u>	<u>1.994</u>	<u>15.28</u>	<u>18.0</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.32</u>	<u>-90.4</u>
<u>1415</u>	<u>6.74</u>	<u>1.908</u>	<u>15.26</u>	<u>19.0</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.30</u>	<u>-92.5</u>
<u>SR</u>									

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

Final:

Time 1415 pH 6.74 SC 1.908 Temp 15.26 Turb. 19.0 Flow Rate 400 DTW 25.75 Drawdown 0 DO 0.30 ORP -92.5

Comments: well caps dirty + standing water in well casing

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-20(35)-1022818 Time 1415 Bottle Type: _____

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3/10</u>	<u>1</u>	Dissolved Gases <input checked="" type="checkbox"/>	<u>6</u>
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"/>	_____
MS/MSD _____	Blind Dup <input checked="" type="checkbox"/>	Blind Dup Name <u>ATR-MW-20(35)-SR</u>	_____	_____

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-ER001
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/26/10 Start Time 1435 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 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-ER001-1022010 Time 1435 Bottle Type:

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



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-66
 Project Number 3359-15-1040 Date 02/28/19 Start Time 1440 Weather Cloudy & 58°F
 Sampling Personnel SR (Use: Well name)

MEASUREMENT SUMMARY:

Measuring Point _____ Depth to Water 25.75 Depth to Product _____ Product Thickness _____
 Total Casing Depth 38.4 Borehole Diameter _____ Approx. Pump Depth 35 Feet
 Screen Interval top 33.4 bottom 38.4 Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor

Pump Started 1450 Pump Stopped 1530 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>1514.5</u>	<u>6.76</u>	<u>2.196</u>	<u>15.43</u>	<u>20.8</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.94</u>	<u>-44.2</u>
<u>1500</u>	<u>6.75</u>	<u>2.190</u>	<u>15.43</u>	<u>21.9</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.58</u>	<u>-57.9</u>
<u>1505</u>	<u>6.75</u>	<u>2.160</u>	<u>15.50</u>	<u>21.7</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.39</u>	<u>-68.4</u>
<u>1510</u>	<u>6.71</u>	<u>2.156</u>	<u>15.51</u>	<u>21.8</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.40</u>	<u>-68.3</u>
<u>1515</u>	<u>6.71</u>	<u>2.145</u>	<u>15.52</u>	<u>21.8</u>	<u>400</u>	<u>25.75</u>	<u>0</u>	<u>0.42</u>	<u>-70.3</u>

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

Final:
 Time 1515 pH 6.71 SC 2.145 Temp 15.52 Turb. 21.8 Flow Rate 400 DTW 25.75 Drawdown 0 DO 0.42 ORP -70.3

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-66-17022819 Time 1515 Bottle Type: _____
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative G = Glass
 VOCs 3/10 1 Dissolved Gasses 3/10 6 P = Poly
 TOC + NO₃ _____ _____ _____ _____ _____ Preservative Codes:
 Fe/Mn _____ _____ _____ _____ _____ 1 = HCL 4 = NaOH
 Alkalinity + Anions (Cl-, SO₄) _____ _____ _____ _____ _____ 2 = HNO₃ 5 = BAC
 Other: _____ Other: TOC 1/10 3 _____ _____ 3 = H₂SO₄ 6 = Na₃PO₄

MS/MSD _____ Blind Dup Blind Dup Name ATR-MW-66-17022819

GROUND-WATER/SURFACE WATER SAMPLING FORM

0.04
3.43

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-12
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 02/28/18 Start Time 1550 Weather cloudy 59°F

0.5

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 23.85 Depth to Product _____ Product Thickness _____
 Total Casing Depth 27.28 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>1620</u>	<u>7.31</u>	<u>0.846</u>	<u>15.68</u>	<u>21.8</u>	—	—	—	<u>0.42</u>	<u>-54.0</u>
<u>1625</u>	<u>7.23</u>	<u>0.758</u>	<u>15.37</u>	<u>9.7</u>	—	—	—	<u>0.55</u>	<u>-104.5</u>
<u>1630</u>	<u>7.22</u>	<u>0.7399</u>	<u>15.32</u>	<u>10.9</u>	—	—	—	<u>0.56</u>	<u>-101.7</u>

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

Final:
 Time 1630 pH 7.22 SC 1.399 Temp 15.32 Turb. 10.9 Flow Rate — DTW — Drawdown — DO 0.56 ORP -101.7

Comments: 3PV = 0.5 gal

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration _____ mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution _____ NTUs

Sample Name ATR-MW-12-022818 Time 1630

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

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

0.04
C.11

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 SR Date 02/19/18 Start Time 1650 Weather Cloudy 58°F

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 22.1 Depth to Product _____ Product Thickness _____
 Total Casing Depth 28.21 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>1720</u>	<u>7.21</u>	<u>2.567</u>	<u>14.74</u>	<u>3.8</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>4.72</u>	<u>-61.3</u>
<u>1725</u>	<u>6.91</u>	<u>2.646</u>	<u>14.57</u>	<u>-11.0</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>3.93</u>	<u>-83.9</u>
<u>1730</u>	<u>6.97</u>	<u>2.651</u>	<u>14.55</u>	<u>-11.0</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>3.54</u>	<u>-83.6</u>
<u>1735</u>	<u>6.97</u>	<u>2.663</u>	<u>14.51</u>	<u>-27.0</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>4.48</u>	<u>-84.6</u>

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

Final:
 Time 1735 pH 6.97 SC 2.663 Temp 14.51 Turb. -27.0 Flow Rate — DTW — Drawdown — DO 4.48 ORP -84.6

Comments: 3PV = 1 gal

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 2HSA mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-13-6022818 Time 1735

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3/0</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>3/0</u> <u>6</u>
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"/>	
MS/MSD	Blind Dup	Blind Dup Name	Other: <u>TOL</u> <input checked="" type="checkbox"/>	<u>1/P</u> <u>3</u>

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-008
 Project Number 3359-15-1040 Date 03/01/18 Start Time 0900 Weather Indians
 Sampling Personnel SR (Use: Well name)

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 24.7 Depth to Product _____ Product Thickness _____
 Total Casing Depth 37 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>0920</u>	<u>7.18</u>	<u>2.139</u>	<u>17.05</u>	<u>-0.3</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>8.17</u>	<u>183.7</u>
<u>0925</u>	<u>6.74</u>	<u>2.300</u>	<u>17.18</u>	<u>-15.3</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4.46</u>	<u>120.8</u>
<u>0930</u>	<u>6.67</u>	<u>2.358</u>	<u>17.23</u>	<u>-25.0</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4.32</u>	<u>26.9</u>
<u>0935</u>	<u>6.72</u>	<u>2.205</u>	<u>17.25</u>	<u>-23.9</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>6.17</u>	<u>-10.6</u>
<u>0940</u>	<u>6.50</u>	<u>2.399</u>	<u>17.24</u>	<u>-22.6</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5.65</u>	<u>-16.1</u>
<u>0945</u>	<u>6.50</u>	<u>2.421</u>	<u>17.10</u>	<u>-22.4</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5.06</u>	<u>-14.2</u>

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

Final:
 Time 0945 pH _____ SC _____ Temp _____ Turb. _____ Flow Rate _____ DTW _____ Drawdown _____ DO _____ ORP _____

Comments: 3PV = 1.5 gal

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-0080301/18 Time 0945 Bottle Type: _____

Analyses (check) Bottle #/Type Preservative
 VOCs 9/10 1 Dissolved Gases 3/10 6
 TOC + NO₃ SR VFA _____
 Fe/Mn _____ DHC _____
 Alkalinity + Anions (Cl-, SO₄) _____
 Other: TDC 1/2 3

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 _____



GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-72
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel SR Date 03/01/10 Start Time 1020 Weather Indoors

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 24.2 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 _____

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>1040</u>	<u>7.08</u>	<u>2.962</u>	<u>18.20</u>	<u>-15.7</u>	—	—	—	<u>4.63</u>	<u>-118.2</u>
<u>1045</u>	<u>7.17</u>	<u>2.846</u>	<u>17.72</u>	<u>-14.9</u>	—	—	—	<u>4.22</u>	<u>-117.1</u>
<u>1050</u>	<u>7.00</u>	<u>2.752</u>	<u>17.55</u>	<u>-14.9</u>	—	—	—	<u>4.24</u>	<u>-86.1</u>

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

Final:
 Time 1050 pH _____ SC _____ Temp _____ Turb. _____ Flow Rate _____ DTW _____ Drawdown _____ DO _____ ORP _____

Comments: 3 PV = 1 gal

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/10 NTUs

Sample Name ATR-MW-72-10030110 Time 1050

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>3/10</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>3/10</u>
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 _____	Other: <u>TOC</u> <input checked="" type="checkbox"/>	<u>1/0</u> <u>3</u>

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 SR Date 03/01/18 Start Time 1120 Weather Indoors

MEASUREMENT SUMMARY:
 Measuring Point _____ Depth to Water 24.75 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 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)
1135	7.83	2.370	17.81	-118.9	-	-	-	5.93	-35.0
1140	7.16	2.310	17.57	-118.9	-	-	-	5.21	-51.4
1150	6.89	2.310	17.54	-118.8	-	-	-	5.12	-33.9
1155	6.65	2.288	17.46	-122.4	-	-	-	4.85	-38.5
1200	6.68	2.260	17.44	-122.9	-	-	-	4.10	-37.2
1205	6.78	2.165	17.52	-120.1	-	-	-	4.09	-38.4

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

Final:

Time	pH	SC	Temp	Turb.	Flow Rate	DTW	Drawdown	DO	ORP
1205									

Comments: 3PV = 1 gal SR 1.5 Only have 2 DC bottles as 1 broke during storage

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/0 NTUs

Sample Name ATR-MW-67-1030118 Time 1205 Bottle Type: _____
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs 3/0 1 Dissolved Gasses 3/0 6
 TOC + NO₃ _____ VFA _____
 Fe/Mn _____ DHC _____
 Alkalinity + Anions (Cl-, SO₄) _____
 Other: _____ Other: TOC 1/P 3
 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 E8001
 Project Number 3359-15-1040 Date 03/01/10 Start Time 1410 Weather Rain 42°F
 Sampling Personnel SR (Use: Well name)

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 _____

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 220 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 0/60 NTUs

Sample Name ATR-MW E8001-030110 Time 1410 Bottle Type: _____
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs 3/10 1 Dissolved Gasses 3/10 6
 TOC + NO₃ _____ VFA _____
 Fe/Mn _____ DHC _____
 Alkalinity + Anions (Cl-, SO₄) _____
 Other: Other: 106 1/P 3
 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-76(30)
Project Number 3359-15-1040 (Use: Well name)
Sampling Personnel JAS/SCR Date 03/01/18 Start Time 1535 Weather Indoor Well

MEASUREMENT SUMMARY:
Measuring Point TOC Depth to Water 24.55 Depth to Product _____ Product Thickness _____
Total Casing Depth 30 Borehole Diameter _____ Approx. Pump Depth 27 Feet
Screen Interval top SCR 2025 bottom 30 Feet

SAMPLING SUMMARY:
Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
Pump Started 1539 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)
1600
1536 Reaching Prior to Pump Start/After Pump Placement 24.55 _____
1550 5.77 2.006 18.05 31.5 160 24.55 0 0.79 32.0
1555 5.77 2.001 17.95 18.0 160 24.60 0.1 0.43 -3.4
1600 5.78 2.000 17.71 17.3 160 24.60 0 0.35 -18.4
1605 5.74 1.981 17.87 11.5 160 24.60 0 0.29 -29.4
1610 5.75 1.975 17.83 11.7 160 24.60 0 0.28 -35.4

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

Final:
Time 1610 pH _____ SC _____ Temp _____ Turb. _____ Flow Rate _____ DTW _____ Drawdown _____ DO _____ ORP _____

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
SC Reference Solution 4.99 mS/cm Turbidity Cal. Solution 0.10 NTUs
Sample Name ATR-MW-76(30)-G030118 Time 1610
Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
VOCs G I Dissolved Gasses G 6
TOC + NO₃ _____ VFA _____
Fe/Mn _____ DHC _____
Alkalinity + Anions (Cl-, SO₄) _____
Other: _____ Other: TOC P 3
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-PM-3
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel TAS Date 03/01/18 Start Time 0935 Weather 40°F (raining)

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 23.63 Depth to Product _____ Product Thickness _____
 Total Casing Depth _____ Borehole Diameter _____ Approx. Pump Depth 1' off TD Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 0940 Pump Stopped 1000 Total Gallons ~3.75

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>0939</u>	<u>The pump start / post pump placement</u>					<u>23.55</u>			
<u>0945</u>	<u>5.37</u>	<u>5.042</u>	<u>9.67</u>	<u>1162.9</u>	<u>280</u>	<u>24.35</u>	<u>0.80</u>	<u>3.34</u>	<u>166.5</u>
<u>0950</u>	<u>5.30</u>	<u>4.927</u>	<u>9.13</u>	<u>1152.0</u>	<u>180</u>	<u>24.25</u>	<u>0.70</u>	<u>1.23</u>	<u>54.3</u>
<u>0955</u>	<u>5.29</u>	<u>4.816</u>	<u>8.77</u>	<u>1154.3</u>	<u>180</u>	<u>24.23</u>	<u>0.68</u>	<u>0.91</u>	<u>22.3</u>
<u>1000</u>	<u>5.28</u>	<u>4.634</u>	<u>8.43</u>	<u>1151.1</u>	<u>180</u>	<u>24.23</u>	<u>0.68</u>	<u>0.55</u>	<u>-0.6</u>
<u>1005</u>	<u>5.28</u>	<u>4.541</u>	<u>8.22</u>	<u>1149.6</u>	<u>180</u>	<u>24.23</u>	<u>0.68</u>	<u>0.43</u>	<u>-8.5</u>
<u>1010</u>	<u>5.28</u>	<u>4.431</u>	<u>8.13</u>	<u>1148.4</u>	<u>180</u>	<u>24.23</u>	<u>0.67</u>	<u>0.51</u>	<u>-13.4</u>
<u>1015</u>	<u>5.28</u>	<u>4.357</u>	<u>7.87</u>	<u>1145.5</u>	<u>176</u>	<u>24.20</u>	<u>0.65</u>	<u>0.48</u>	<u>-17.0</u>
<u>1020</u>	<u>5.28</u>	<u>4.220</u>	<u>7.43</u>	<u>1147.2</u>	<u>176</u>	<u>24.18</u>	<u>0.63</u>	<u>0.42</u>	<u>-19.9</u>
<u>1025</u>	<u>5.28</u>	<u>4.111</u>	<u>7.87</u>	<u>1141.4</u>	<u>174</u>	<u>24.15</u>	<u>0.60</u>	<u>0.29</u>	<u>-22.1</u>
<u>1030</u>	<u>5.28</u>	<u>4.045</u>	<u>7.29</u>	<u>1140.7</u>	<u>174</u>	<u>24.15</u>	<u>0.60</u>	<u>0.30</u>	<u>-23.5</u>
<u>1035</u>	<u>5.28</u>	<u>3.985</u>	<u>7.25</u>	<u>1141.2</u>	<u>170</u>	<u>24.15</u>	<u>0.60</u>	<u>0.29</u>	<u>-25.0</u>
<u>1040</u>	<u>5.28</u>	<u>3.946</u>	<u>7.31</u>	<u>1140.9</u>	<u>170</u>	<u>24.15</u>	<u>0.60</u>	<u>0.27</u>	<u>-26.1</u>
<u>1045</u>	<u>5.28</u>	<u>3.907</u>	<u>7.33</u>	<u>1141.4</u>	<u>170</u>	<u>24.15</u>	<u>0.60</u>	<u>0.26</u>	<u>-26.7</u>

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

Final:
 Time 1045 pH 5.28 SC 3.907 Temp 7.33 Turb. 1141.4 Flow Rate 170 DTW 24.15 Drawdown 0.60 DO 0.26 ORP -26.7

Comments: Surface Bioremediation - DTW measures difficult to consistently obtain
Purge H₂O Milky-white - slightly translucent; ASC odor

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 200 mV
 SC Reference Solution 4.99 mS/cm Turbidity Cal. Solution 0 & 10 NTUs

Sample Name ATR-PM-3-G030118 Time 1050

Analyses (check)	Bottle #/Type	Preservative	Bottle #/Type	Preservative
VOCs <input checked="" type="checkbox"/>	<u>6</u>	<u>1</u>	Dissolved Gasses <input checked="" type="checkbox"/>	<u>6</u> <u>6</u>
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"/>	
MS/MSD <input type="checkbox"/>			Other: <u>TOC</u> <input checked="" type="checkbox"/>	<u>P</u> <u>3</u>

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

Blind Dup _____ Blind Dup Name _____ TB _____

GROUND-WATER/SURFACE WATER SAMPLING FORM

Project Location TFS Rochester Surface Water Groundwater Sample ID ATR-MW-78(35)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel AFS Date 03/01/18 Start Time 1212 Weather Indoor Well

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 24.65 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 1222 Pump Stopped 1332 Total Gallons ~2.00

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)
1221	<u>Post Pump Placement - Pre - Pump Start</u>					<u>24.65</u>			
1230	<u>6.45</u>	<u>1.015</u>	<u>16.51</u>	<u>21.3</u>	<u>160</u>	<u>24.66</u>	<u>0.01</u>	<u>1.78</u>	<u>7.7</u>
1235	<u>6.54</u>	<u>0.958</u>	<u>16.50</u>	<u>8.8</u>	<u>152</u>	<u>24.66</u>	<u>0.01</u>	<u>0.93</u>	<u>-9.3</u>
1240	<u>6.59</u>	<u>0.920</u>	<u>16.51</u>	<u>5.0</u>	<u>152</u>	<u>24.66</u>	<u>0.01</u>	<u>0.76</u>	<u>-20.6</u>
1245	<u>6.63</u>	<u>0.888</u>	<u>16.53</u>	<u>3.9</u>	<u>148</u>	<u>24.66</u>	<u>0.01</u>	<u>0.50</u>	<u>-31.4</u>
1250	<u>6.65</u>	<u>0.871</u>	<u>16.53</u>	<u>1.5</u>	<u>148</u>	<u>24.66</u>	<u>0.01</u>	<u>0.44</u>	<u>-37.6</u>
1255	<u>6.66</u>	<u>0.858</u>	<u>16.52</u>	<u>1.5</u>	<u>144</u>	<u>24.66</u>	<u>0.01</u>	<u>0.56</u>	<u>-42.5</u>
1300	<u>6.67</u>	<u>0.855</u>	<u>16.53</u>	<u>0.9</u>	<u>140</u>	<u>24.66</u>	<u>0.01</u>	<u>0.43</u>	<u>-46.1</u>
1305	<u>6.68</u>	<u>0.855</u>	<u>16.55</u>	<u>0.3</u>	<u>140</u>	<u>24.66</u>	<u>0.01</u>	<u>0.41</u>	<u>-50.3</u>
1310	<u>6.66</u>	<u>0.858</u>	<u>16.54</u>	<u>0.0</u>	<u>140</u>	<u>24.66</u>	<u>0.01</u>	<u>0.39</u>	<u>-51.7</u>

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

Final:

Time 1310 pH 6.66 SC 0.858 Temp 16.54 Turb. 0.0 Flow Rate 140 DTW 24.66 Drawdown 0.01 DO 0.39 ORP -51.7

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.10 NTUs

Sample Name ATR-MW-78(35)-6030118 Time 1315

Analyses (check) Bottle #/Type Preservative

VOCs G 1 Dissolved Gasses G 6

TOC + NO₃ _____ VFA _____

Fe/Mn _____ DHC _____

Alkalinity + Anions (Cl-, SO₄) _____

Other: _____ Other: TOC P 3

MS/MSD

Dup Duplicate Taken Dup Name ATR-MW-78(35)-6030118

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-77(41)
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel JAS Date 03/01/18 Start Time 1410 Weather Factor Well

MEASUREMENT SUMMARY:
 Measuring Point TOC Depth to Water 24.71 Depth to Product — Product Thickness —
 Total Casing Depth 41 Borehole Diameter — Approx. Pump Depth 39 Feet
 Screen Interval top bottom Feet

SAMPLING SUMMARY:
 Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Bailor
 Pump Started 1414 Pump Stopped 1510 Total Gallons ~3.25

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>1413</u>	<u>Pre-Rmp Start/Post Rmp Placement</u>					<u>24.70</u>			
<u>1420</u>	<u>7.09</u>	<u>0.425</u>	<u>17.18</u>	<u>0.9</u>	<u>280</u>	<u>24.71</u>	<u>0.01</u>	<u>1.59</u>	<u>22.8</u>
<u>1425</u>	<u>7.08</u>	<u>0.425</u>	<u>16.62</u>	<u>-2.8</u>	<u>280</u>	<u>24.71</u>	<u>0.01</u>	<u>0.66</u>	<u>15.9</u>
<u>1430</u>	<u>7.10</u>	<u>0.492</u>	<u>16.52</u>	<u>-4.1</u>	<u>280</u>	<u>24.71</u>	<u>0.01</u>	<u>0.53</u>	<u>8.8</u>
<u>1435</u>	<u>7.16</u>	<u>0.463</u>	<u>16.43</u>	<u>-5.2</u>	<u>280</u>	<u>24.71</u>	<u>0.01</u>	<u>0.44</u>	<u>-3.1</u>
<u>1440</u>	<u>7.21</u>	<u>0.474</u>	<u>16.38</u>	<u>-5.8</u>	<u>200</u>	<u>24.71</u>	<u>0.01</u>	<u>0.34</u>	<u>-20.4</u>
<u>1445</u>	<u>7.25</u>	<u>0.483</u>	<u>16.37</u>	<u>-6.3</u>	<u>180</u>	<u>24.71</u>	<u>0.01</u>	<u>0.32</u>	<u>-37.5</u>
<u>1450</u>	<u>7.26</u>	<u>0.487</u>	<u>16.37</u>	<u>-6.5</u>	<u>180</u>	<u>24.71</u>	<u>0.01</u>	<u>0.35</u>	<u>-39.2</u>
<u>1455</u>	<u>7.26</u>	<u>0.483</u>	<u>16.36</u>	<u>-6.6</u>	<u>180</u>	<u>24.71</u>	<u>0.01</u>	<u>0.36</u>	<u>-46.8</u>

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

Final:
 Time 1455 pH 7.26 SC 0.483 Temp 16.36 Turb. -6.6 Flow Rate 180 DTW 24.71 Drawdown 0.01 DO 0.36 ORP -46.8

Comments: Clear Pore H₂O

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 220 mV
 SC Reference Solution 4.49 mS/cm Turbidity Cal. Solution 0.410 NTUs

Sample Name ATR-MW-77(41)-G030128 Time 1500 Bottle Type: G
 Analyses (check) Bottle #/Type Preservative Bottle #/Type Preservative
 VOCs G 1 Dissolved Gasses G 6
 TOC + NO₃ — — VFA — —
 Fe/Mn — — DHC — —
 Alkalinity + Anions (Cl-, SO₄) — —
 Other: — — Other: TOC P 3
 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 7M-2
 Project Number 3359-15-1040 (Use: Well name)
 Sampling Personnel RJC Date 3/29/18 Start Time 926 Weather _____

MEASUREMENT SUMMARY:

Measuring Point TOC Depth to Water 12.65 Depth to Product NA Product Thickness NA
 Total Casing Depth _____ Borehole Diameter 2 Approx. Pump Depth 18 Feet
 Screen Interval top _____ bottom _____ Feet

SAMPLING SUMMARY:

Sampling Method: Grab Composite Grundfos Bladder Pump Peristaltic Pump Baller
 Pump Started 926 Pump Stopped 1010 Total Gallons 1.7

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>935</u>	_____	_____	_____	_____	<u>120</u>	<u>12.83</u>	_____	_____	_____
<u>940</u>	_____	_____	_____	_____	<u>100</u>	<u>12.83</u>	_____	_____	_____
<u>945</u>	<u>6.82</u>	<u>1.040</u>	<u>11.51</u>	<u>345</u>	<u>100</u>	<u>12.83</u>	<u>0.18</u>	<u>1.05</u>	<u>-4.6</u>
<u>950</u>	<u>6.68</u>	<u>1.051</u>	<u>10.99</u>	<u>319</u>	<u>200</u>	<u>12.95</u>	<u>0.30</u>	<u>1.14</u>	<u>-13.2</u>
<u>955</u>	<u>6.66</u>	<u>1.050</u>	<u>11.70</u>	<u>231</u>	<u>200</u>	<u>13.00</u>	<u>0.35</u>	<u>0.97</u>	<u>-21.5</u>
<u>1000</u>	<u>6.65</u>	<u>1.066</u>	<u>11.77</u>	<u>189</u>	<u>200</u>	<u>13.04</u>	<u>0.35</u>	<u>0.88</u>	<u>-24.1</u>
<u>1005</u>	<u>6.61</u>	<u>1.073</u>	<u>11.82</u>	<u>167</u>	<u>200</u>	<u>13.04</u>	<u>0.35</u>	<u>0.73</u>	<u>-28.9</u>
<u>1010</u>	<u>6.65</u>	<u>1.075</u>	<u>11.84</u>	<u>164</u>	<u>200</u>	<u>13.04</u>	<u>0.35</u>	<u>0.73</u>	<u>-28.6</u>
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____	_____

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

Final:

Time 1010 pH 6.65 SC 1.075 Temp 11.84 Turb. 164 Flow Rate 200 DTW 13.04 Drawdown 0.35 DO 0.73 ORP -28.6

Comments: _____

Calibration: pH Calibration Buffers: 4 7 10 ORP Calibration 240 mV
 SC Reference Solution 1.413 mS/cm Turbidity Cal. Solution 800 NTUs

Sample Name ATR-MW 7M2-632918 Time 1010 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"/>	<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 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 _____



Textron, Inc.
TORX Facility Remediation
Report of Polishing Remedial Injections Performance Monitoring

APPENDIX B

LABORATORY REPORTS AND DATA VALIDATION REPORTS



12-Mar-2018

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

Re: **TFS Rochester (3359-15-1040)**

Work Order: **1803205**

Dear Paul,

ALS Environmental received 54 samples on 03-Mar-2018 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland 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 152.

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

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Beamish".

Electronically approved by: Tom Beamish

Tom Beamish
Senior Project Manager

Report of Laboratory Analysis

Certificate No: IN: C-MI-08

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental ALS

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Work Order: 1803205

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>
1803205-01	ATR-OW-3 (55) - G022718	Water		02/27/18 10:35	03/03/18 10:30	<input type="checkbox"/>
1803205-02	ATR-OW-3 (35) - G022718	Water		02/27/18 12:10	03/03/18 10:30	<input type="checkbox"/>
1803205-03	ATR-OW-2 (53) - G022718	Water		02/27/18 13:40	03/03/18 10:30	<input type="checkbox"/>
1803205-04	ATR-OW-2 (33) - G022718	Water		02/27/18 15:15	03/03/18 10:30	<input type="checkbox"/>
1803205-05	ATR-MW-24 (55.4) - G022718	Water		02/27/18 16:35	03/03/18 10:30	<input type="checkbox"/>
1803205-06	ATR-MW-24 (24.9) - G022718	Water		02/27/18 17:40	03/03/18 10:30	<input type="checkbox"/>
1803205-07	ATR-MW-14 - G022818	Water		02/28/18 09:35	03/03/18 10:30	<input type="checkbox"/>
1803205-08	ATR-OW-1 (39) - G022818	Water		02/28/18 10:50	03/03/18 10:30	<input type="checkbox"/>
1803205-09	ATR-OW-1 (28) - G022818	Water		02/28/18 12:10	03/03/18 10:30	<input type="checkbox"/>
1803205-10	ATR-MW-82 (58) - G022818	Water		02/28/18 13:30	03/03/18 10:30	<input type="checkbox"/>
1803205-11	ATR-MW-62 (36) - G022818	Water		02/28/18 14:45	03/03/18 10:30	<input type="checkbox"/>
1803205-12	ATR-MW-81 (27) - G022818	Water		02/28/18 16:10	03/03/18 10:30	<input type="checkbox"/>
1803205-13	ATR-MW-59 (29) - G022818	Water		02/28/18 18:00	03/03/18 10:30	<input type="checkbox"/>
1803205-14	ATR-PM-3-G030118	Water		03/01/18 10:50	03/03/18 10:30	<input type="checkbox"/>
1803205-15	ATR-MW-78 (35) - G030118	Water		03/01/18 13:15	03/03/18 10:30	<input type="checkbox"/>
1803205-16	ATR-MW-78 (35) - G030118R	Water		03/01/18 13:15	03/03/18 10:30	<input type="checkbox"/>
1803205-17	ATR-MW-77 (41) - G030118	Water		03/01/18 15:00	03/03/18 10:30	<input type="checkbox"/>
1803205-18	ATR-EB-002-022718	Water		02/27/18 17:15	03/03/18 10:30	<input type="checkbox"/>
1803205-19	ATR-EB-002-022818	Water		02/28/18 17:00	03/03/18 10:30	<input type="checkbox"/>
1803205-20	ATR-EB-002-030118	Water		03/01/18 18:10	03/03/18 10:30	<input type="checkbox"/>
1803205-21	ATR-MW-81 (27) - G022818R	Water		02/28/18 16:10	03/03/18 10:30	<input type="checkbox"/>
1803205-22	ATR-MW-26 (58.2) - G022618	Water		02/26/18 13:10	03/03/18 10:30	<input type="checkbox"/>
1803205-23	ATR-MW-26 (28.8) - G022618	Water		02/26/18 14:00	03/03/18 10:30	<input type="checkbox"/>
1803205-24	ATR-EB-001-022618	Water		02/26/18 14:00	03/03/18 10:30	<input type="checkbox"/>
1803205-25	ATR-MW-26 (17.5) - G022618	Water		02/26/18 15:10	03/03/18 10:30	<input type="checkbox"/>
1803205-26	ATR-ZVI-2 (32.5) - G022618	Water		02/26/18 16:10	03/03/18 10:30	<input type="checkbox"/>
1803205-27	ATR-ZVI-2 (17.5) - G022618	Water		02/26/18 17:05	03/03/18 10:30	<input type="checkbox"/>
1803205-28	ATR-MW-17 - G022718	Water		02/27/18 09:35	03/03/18 10:30	<input type="checkbox"/>
1803205-29	ATR-MW-16 - G022718	Water		02/27/18 11:00	03/03/18 10:30	<input type="checkbox"/>
1803205-30	ATR-OW-5 (44) - G022718	Water		02/27/18 12:30	03/03/18 10:30	<input type="checkbox"/>
1803205-31	ATR-OW-5 (35) - G022718	Water		02/27/18 13:25	03/03/18 10:30	<input type="checkbox"/>
1803205-32	ATR-OW-5 (16) - G022718	Water		02/27/18 14:25	03/03/18 10:30	<input type="checkbox"/>
1803205-33	ATR-EB-001 - 022718	Water		02/27/18 14:40	03/03/18 10:30	<input type="checkbox"/>
1803205-34	ATR-MW-25 (45.1) - G022718	Water		02/27/18 15:40	03/03/18 10:30	<input type="checkbox"/>
1803205-35	ATR-MW-25 (32.6) - G022718	Water		02/27/18 16:35	03/03/18 10:30	<input type="checkbox"/>
1803205-36	ATR-MW-25 (16.4) - G022718	Water		02/27/18 17:25	03/03/18 10:30	<input type="checkbox"/>
1803205-37	ATR-MW-15 - G022818	Water		02/28/18 09:10	03/03/18 10:30	<input type="checkbox"/>
1803205-38	ATR-OW-4 (54) - G022818	Water		02/28/18 10:40	03/03/18 10:30	<input type="checkbox"/>
1803205-39	ATR-OW-4 (35) - G022818	Water		02/28/18 11:25	03/03/18 10:30	<input type="checkbox"/>

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Work Order: 1803205

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>
1803205-40	ATR-MW-20 (51) - G022818	Water		02/28/18 12:40	03/03/18 10:30	<input type="checkbox"/>
1803205-41	ATR-MW-20 (35) - G022818	Water		02/28/18 14:15	03/03/18 10:30	<input type="checkbox"/>
1803205-42	ATR-EB-001 - 022818	Water		02/28/18 14:35	03/03/18 10:30	<input type="checkbox"/>
1803205-43	ATR-MW-6C - G022818	Water		02/28/18 15:15	03/03/18 10:30	<input type="checkbox"/>
1803205-44	ATR-MW-6C - G022818R	Water		02/28/18 15:15	03/03/18 10:30	<input type="checkbox"/>
1803205-45	ATR-MW-12 - G022818	Water		02/28/18 16:30	03/03/18 10:30	<input type="checkbox"/>
1803205-46	ATR-MW-13 - G022818	Water		02/28/18 17:35	03/03/18 10:30	<input type="checkbox"/>
1803205-47	ATR-MW-68 - G030118	Water		03/01/18 09:45	03/03/18 10:30	<input type="checkbox"/>
1803205-48	ATR-MW-72 - G030118	Water		03/01/18 10:50	03/03/18 10:30	<input type="checkbox"/>
1803205-49	ATR-MW-67 - G030118	Water		03/01/18 12:05	03/03/18 10:30	<input type="checkbox"/>
1803205-50	ATR-MW-71 - G030118	Water		03/01/18 13:30	03/03/18 10:30	<input type="checkbox"/>
1803205-51	ATR-MW-76 - G030118	Water		03/01/18 16:10	03/03/18 10:30	<input type="checkbox"/>
1803205-52	ATR-EB-001 - 030118	Water		03/01/18 14:10	03/03/18 10:30	<input type="checkbox"/>
1803205-53	ATR-TB-001 - 030218	Water		03/02/18 08:00	03/03/18 10:30	<input type="checkbox"/>
1803205-54	ATR-TB-002 - 030218	Water		03/02/18 08:00	03/03/18 10:30	<input type="checkbox"/>

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
WorkOrder: 1803205

**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
Project: TFS Rochester (3359-15-1040)
Work Order: 1803205

Case Narrative

Samples for the above noted Work Order were received on 03/03/18. 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.

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

Volatile Organics:

Batch R231282, Method VOC_8260_W, Sample 1803205-02A MS and -02A MSD: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for Chloroethane.

Batch R231310, Method VOC_8260_W, Sample 1803205-08A MS and -08A MSD: The MS and/or MSD recovery was above the upper control limit. The corresponding result in the parent sample may be biased high for Chloroethane.

Batch R231349, Method VOC_8260_W, Sample 1803205-47A MSD: The MSD recovery was above the upper control limit. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary for Chloromethane.

Batch R231241, Method VOC_8260_W, Sample 1803205-10A: Verification of sample preservation indicated a pH >2.

Batch R231241, Method VOC_8260_W, Sample 1803205-14A: Verification of sample preservation indicated a pH >2.

Batch R231282, Method VOC_8260_W, Sample 1803205-39A: Verification of sample preservation indicated a pH >2.

Batch R231310, Method VOC_8260_W, Sample 1803205-49A: Verification of sample preservation indicated a pH >2.

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Work Order: 1803205

Case Narrative

Batch R231392, Method VOC_8260_W, Sample 1803205-10A: One or more VOC surrogate recoveries were low due to matrix interference (confirmed by reanalysis).

No other deviations or anomalies were noted.

Extractable Organics:

No deviations or anomalies were noted.

Metals:

No other deviations or anomalies were noted.

Wet Chemistry:

No other deviations or anomalies were noted.

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-3 (55) - G022718
Collection Date: 02/27/18 10:35 AM

Work Order: 1803205
Lab ID: 1803205-01
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	03/08/18 05:55 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:55 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 05:55 PM
2-Butanone	97		5.0	µg/L	1	03/08/18 05:55 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 05:55 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 05:55 PM
Acetone	ND		10	µg/L	1	03/08/18 05:55 PM
Benzene	ND		1.0	µg/L	1	03/08/18 05:55 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 05:55 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 05:55 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 05:55 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 05:55 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 05:55 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:55 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 05:55 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 05:55 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 05:55 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 05:55 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 05:55 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 05:55 PM
Styrene	ND		1.0	µg/L	1	03/08/18 05:55 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 05:55 PM
Toluene	ND		1.0	µg/L	1	03/08/18 05:55 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:55 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 05:55 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 05:55 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 05:55 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 05:55 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	03/08/18 05:55 PM
Surr: 4-Bromofluorobenzene	97.9		80-110	%REC	1	03/08/18 05:55 PM
Surr: Dibromofluoromethane	98.2		85-115	%REC	1	03/08/18 05:55 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-3 (55) - G022718
Collection Date: 02/27/18 10:35 AM

Work Order: 1803205
Lab ID: 1803205-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.2		85-110	%REC	1	03/08/18 05:55 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	220		20	mg/L	40	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-3 (35) - G022718
Collection Date: 02/27/18 12:10 PM

Work Order: 1803205
Lab ID: 1803205-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LSY	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/07/18 10:23 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/07/18 10:23 PM
2-Butanone	ND		5.0	µg/L	1	03/07/18 10:23 PM
2-Hexanone	ND		5.0	µg/L	1	03/07/18 10:23 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/07/18 10:23 PM
Acetone	ND		10	µg/L	1	03/07/18 10:23 PM
Benzene	ND		1.0	µg/L	1	03/07/18 10:23 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
Bromoform	ND		1.0	µg/L	1	03/07/18 10:23 PM
Bromomethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
Carbon disulfide	ND		1.0	µg/L	1	03/07/18 10:23 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/07/18 10:23 PM
Chlorobenzene	ND		1.0	µg/L	1	03/07/18 10:23 PM
Chloroethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
Chloroform	ND		1.0	µg/L	1	03/07/18 10:23 PM
Chloromethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 10:23 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 10:23 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/07/18 10:23 PM
Ethylbenzene	ND		1.0	µg/L	1	03/07/18 10:23 PM
m,p-Xylene	ND		2.0	µg/L	1	03/07/18 10:23 PM
Methylene chloride	ND		5.0	µg/L	1	03/07/18 10:23 PM
o-Xylene	ND		1.0	µg/L	1	03/07/18 10:23 PM
Styrene	ND		1.0	µg/L	1	03/07/18 10:23 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/07/18 10:23 PM
Toluene	ND		1.0	µg/L	1	03/07/18 10:23 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 10:23 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 10:23 PM
Trichloroethene	ND		1.0	µg/L	1	03/07/18 10:23 PM
Vinyl chloride	ND		1.0	µg/L	1	03/07/18 10:23 PM
Xylenes, Total	ND		3.0	µg/L	1	03/07/18 10:23 PM
Surr: 1,2-Dichloroethane-d4	99.6		75-120	%REC	1	03/07/18 10:23 PM
Surr: 4-Bromofluorobenzene	97.0		80-110	%REC	1	03/07/18 10:23 PM
Surr: Dibromofluoromethane	97.8		85-115	%REC	1	03/07/18 10:23 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-3 (35) - G022718
Collection Date: 02/27/18 12:10 PM

Work Order: 1803205
Lab ID: 1803205-02
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	98.1		85-110	%REC	1	03/07/18 10:23 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	3.8		0.50	mg/L	1	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-2 (53) - G022718
Collection Date: 02/27/18 01:40 PM

Work Order: 1803205
Lab ID: 1803205-03
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	03/08/18 01:48 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:48 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 01:48 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 01:48 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 01:48 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 01:48 PM
Acetone	ND		10	µg/L	1	03/08/18 01:48 PM
Benzene	ND		1.0	µg/L	1	03/08/18 01:48 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 01:48 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 01:48 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 01:48 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 01:48 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 01:48 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:48 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 01:48 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 01:48 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 01:48 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 01:48 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 01:48 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 01:48 PM
Styrene	ND		1.0	µg/L	1	03/08/18 01:48 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 01:48 PM
Toluene	ND		1.0	µg/L	1	03/08/18 01:48 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:48 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 01:48 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 01:48 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 01:48 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 01:48 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 01:48 PM
Surr: 4-Bromofluorobenzene	95.5		80-110	%REC	1	03/08/18 01:48 PM
Surr: Dibromofluoromethane	97.5		85-115	%REC	1	03/08/18 01:48 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-2 (53) - G022718
Collection Date: 02/27/18 01:40 PM

Work Order: 1803205
Lab ID: 1803205-03
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.7		85-110	%REC	1	03/08/18 01:48 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	18		2.0	mg/L	4	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-OW-2 (33) - G022718
 Collection Date: 02/27/18 03:15 PM

Work Order: 1803205
 Lab ID: 1803205-04
 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	03/08/18 02:03 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:03 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 02:03 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 02:03 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 02:03 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 02:03 PM
Acetone	ND		10	µg/L	1	03/08/18 02:03 PM
Benzene	ND		1.0	µg/L	1	03/08/18 02:03 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 02:03 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 02:03 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 02:03 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 02:03 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 02:03 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:03 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:03 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 02:03 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 02:03 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 02:03 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 02:03 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 02:03 PM
Styrene	ND		1.0	µg/L	1	03/08/18 02:03 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 02:03 PM
Toluene	ND		1.0	µg/L	1	03/08/18 02:03 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:03 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:03 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 02:03 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 02:03 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 02:03 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 02:03 PM
Surr: 4-Bromofluorobenzene	95.9		80-110	%REC	1	03/08/18 02:03 PM
Surr: Dibromofluoromethane	100		85-115	%REC	1	03/08/18 02:03 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-2 (33) - G022718
Collection Date: 02/27/18 03:15 PM

Work Order: 1803205
Lab ID: 1803205-04
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.1		85-110	%REC	1	03/08/18 02:03 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	6.0		5.0	mg/L	10	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-24 (55.4) - G022718
Collection Date: 02/27/18 04:35 PM

Work Order: 1803205
Lab ID: 1803205-05
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	03/08/18 02:19 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:19 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 02:19 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 02:19 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 02:19 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 02:19 PM
Acetone	15		10	µg/L	1	03/08/18 02:19 PM
Benzene	ND		1.0	µg/L	1	03/08/18 02:19 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 02:19 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 02:19 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 02:19 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 02:19 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 02:19 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:19 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:19 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 02:19 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 02:19 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 02:19 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 02:19 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 02:19 PM
Styrene	ND		1.0	µg/L	1	03/08/18 02:19 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 02:19 PM
Toluene	ND		1.0	µg/L	1	03/08/18 02:19 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:19 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:19 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 02:19 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 02:19 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 02:19 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 02:19 PM
Surr: 4-Bromofluorobenzene	95.6		80-110	%REC	1	03/08/18 02:19 PM
Surr: Dibromofluoromethane	98.0		85-115	%REC	1	03/08/18 02:19 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-24 (55.4) - G022718
Collection Date: 02/27/18 04:35 PM

Work Order: 1803205
Lab ID: 1803205-05
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	98.0		85-110	%REC	1	03/08/18 02:19 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	49		20	mg/L	40	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-24 (24.9) - G022718
Collection Date: 02/27/18 05:40 PM

Work Order: 1803205
Lab ID: 1803205-06
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	03/08/18 02:34 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:34 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 02:34 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 02:34 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 02:34 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 02:34 PM
Acetone	ND		10	µg/L	1	03/08/18 02:34 PM
Benzene	ND		1.0	µg/L	1	03/08/18 02:34 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 02:34 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 02:34 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 02:34 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 02:34 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 02:34 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:34 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:34 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 02:34 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 02:34 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 02:34 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 02:34 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 02:34 PM
Styrene	ND		1.0	µg/L	1	03/08/18 02:34 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 02:34 PM
Toluene	ND		1.0	µg/L	1	03/08/18 02:34 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:34 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:34 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 02:34 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 02:34 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 02:34 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 02:34 PM
Surr: 4-Bromofluorobenzene	96.6		80-110	%REC	1	03/08/18 02:34 PM
Surr: Dibromofluoromethane	98.6		85-115	%REC	1	03/08/18 02:34 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-24 (24.9) - G022718
Collection Date: 02/27/18 05:40 PM

Work Order: 1803205
Lab ID: 1803205-06
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.5		85-110	%REC	1	03/08/18 02:34 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	8.1		0.50	mg/L	1	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-14 - G022818
Collection Date: 02/28/18 09:35 AM

Work Order: 1803205
Lab ID: 1803205-07
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	03/08/18 02:50 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:50 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 02:50 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 02:50 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 02:50 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 02:50 PM
Acetone	ND		10	µg/L	1	03/08/18 02:50 PM
Benzene	ND		1.0	µg/L	1	03/08/18 02:50 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 02:50 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 02:50 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 02:50 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 02:50 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 02:50 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:50 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:50 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 02:50 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 02:50 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 02:50 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 02:50 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 02:50 PM
Styrene	ND		1.0	µg/L	1	03/08/18 02:50 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 02:50 PM
Toluene	ND		1.0	µg/L	1	03/08/18 02:50 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:50 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:50 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 02:50 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 02:50 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 02:50 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 02:50 PM
Surr: 4-Bromofluorobenzene	96.0		80-110	%REC	1	03/08/18 02:50 PM
Surr: Dibromofluoromethane	99.4		85-115	%REC	1	03/08/18 02:50 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-14 - G022818
Collection Date: 02/28/18 09:35 AM

Work Order: 1803205
Lab ID: 1803205-07
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.4		85-110	%REC	1	03/08/18 02:50 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	2.3		0.50	mg/L	1	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-1 (39) - G022818
Collection Date: 02/28/18 10:50 AM

Work Order: 1803205
Lab ID: 1803205-08
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	03/08/18 03:05 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:05 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 03:05 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 03:05 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 03:05 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 03:05 PM
Acetone	ND		10	µg/L	1	03/08/18 03:05 PM
Benzene	ND		1.0	µg/L	1	03/08/18 03:05 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 03:05 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 03:05 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 03:05 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 03:05 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 03:05 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:05 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 03:05 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 03:05 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 03:05 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 03:05 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 03:05 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 03:05 PM
Styrene	ND		1.0	µg/L	1	03/08/18 03:05 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 03:05 PM
Toluene	ND		1.0	µg/L	1	03/08/18 03:05 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:05 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 03:05 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 03:05 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 03:05 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 03:05 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	03/08/18 03:05 PM
Surr: 4-Bromofluorobenzene	97.0		80-110	%REC	1	03/08/18 03:05 PM
Surr: Dibromofluoromethane	100		85-115	%REC	1	03/08/18 03:05 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-1 (39) - G022818
Collection Date: 02/28/18 10:50 AM

Work Order: 1803205
Lab ID: 1803205-08
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.8		85-110	%REC	1	03/08/18 03:05 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	5.1		0.50	mg/L	1	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-1 (28) - G022818
Collection Date: 02/28/18 12:10 PM

Work Order: 1803205
Lab ID: 1803205-09
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	03/08/18 03:21 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:21 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 03:21 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 03:21 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 03:21 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 03:21 PM
Acetone	ND		10	µg/L	1	03/08/18 03:21 PM
Benzene	ND		1.0	µg/L	1	03/08/18 03:21 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 03:21 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 03:21 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 03:21 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 03:21 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 03:21 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:21 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 03:21 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 03:21 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 03:21 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 03:21 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 03:21 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 03:21 PM
Styrene	ND		1.0	µg/L	1	03/08/18 03:21 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 03:21 PM
Toluene	ND		1.0	µg/L	1	03/08/18 03:21 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:21 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 03:21 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 03:21 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 03:21 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 03:21 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 03:21 PM
Surr: 4-Bromofluorobenzene	96.5		80-110	%REC	1	03/08/18 03:21 PM
Surr: Dibromofluoromethane	99.7		85-115	%REC	1	03/08/18 03:21 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-1 (28) - G022818
Collection Date: 02/28/18 12:10 PM

Work Order: 1803205
Lab ID: 1803205-09
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.1		85-110	%REC	1	03/08/18 03:21 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	5.7		0.50	mg/L	1	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-82 (58) - G022818
 Collection Date: 02/28/18 01:30 PM

Work Order: 1803205
 Lab ID: 1803205-10
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: AK
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 02:30 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 02:30 PM
2-Butanone	ND		5.0	µg/L	1	03/09/18 02:30 PM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 02:30 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 02:30 PM
Acetone	ND		10	µg/L	1	03/09/18 02:30 PM
Benzene	ND		1.0	µg/L	1	03/09/18 02:30 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
Bromoform	ND		1.0	µg/L	1	03/09/18 02:30 PM
Bromomethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 02:30 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 02:30 PM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 02:30 PM
Chloroethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
Chloroform	ND		1.0	µg/L	1	03/09/18 02:30 PM
Chloromethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 02:30 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 02:30 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 02:30 PM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 02:30 PM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 02:30 PM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 02:30 PM
o-Xylene	ND		1.0	µg/L	1	03/09/18 02:30 PM
Styrene	ND		1.0	µg/L	1	03/09/18 02:30 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 02:30 PM
Toluene	ND		1.0	µg/L	1	03/09/18 02:30 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 02:30 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 02:30 PM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 02:30 PM
Vinyl chloride	ND		1.0	µg/L	1	03/09/18 02:30 PM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 02:30 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/09/18 02:30 PM
Surr: 4-Bromofluorobenzene	94.8		80-110	%REC	1	03/09/18 02:30 PM
Surr: Dibromofluoromethane	72.3	S	85-115	%REC	1	03/09/18 02:30 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-82 (58) - G022818
Collection Date: 02/28/18 01:30 PM

Work Order: 1803205
Lab ID: 1803205-10
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.6		85-110	%REC	1	03/09/18 02:30 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	4.3		0.50	mg/L	1	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-62 (36) - G022818
Collection Date: 02/28/18 02:45 PM

Work Order: 1803205
Lab ID: 1803205-11
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	03/08/18 03:52 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:52 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 03:52 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 03:52 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 03:52 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 03:52 PM
Acetone	ND		10	µg/L	1	03/08/18 03:52 PM
Benzene	ND		1.0	µg/L	1	03/08/18 03:52 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 03:52 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 03:52 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 03:52 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 03:52 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 03:52 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:52 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 03:52 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 03:52 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 03:52 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 03:52 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 03:52 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 03:52 PM
Styrene	ND		1.0	µg/L	1	03/08/18 03:52 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 03:52 PM
Toluene	ND		1.0	µg/L	1	03/08/18 03:52 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:52 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 03:52 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 03:52 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 03:52 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 03:52 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 03:52 PM
Surr: 4-Bromofluorobenzene	94.5		80-110	%REC	1	03/08/18 03:52 PM
Surr: Dibromofluoromethane	97.8		85-115	%REC	1	03/08/18 03:52 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-62 (36) - G022818
Collection Date: 02/28/18 02:45 PM

Work Order: 1803205
Lab ID: 1803205-11
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.0		85-110	%REC	1	03/08/18 03:52 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	36		20	mg/L	40	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-81 (27) - G022818
Collection Date: 02/28/18 04:10 PM

Work Order: 1803205
Lab ID: 1803205-12
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: AK	
1,1,1-Trichloroethane	ND		20	µg/L	20	03/09/18 04:49 PM
1,1,2,2-Tetrachloroethane	ND		20	µg/L	20	03/09/18 04:49 PM
1,1,2-Trichloroethane	ND		20	µg/L	20	03/09/18 04:49 PM
1,1-Dichloroethane	ND		20	µg/L	20	03/09/18 04:49 PM
1,1-Dichloroethene	ND		20	µg/L	20	03/09/18 04:49 PM
1,2-Dichloroethane	ND		20	µg/L	20	03/09/18 04:49 PM
1,2-Dichloropropane	ND		20	µg/L	20	03/09/18 04:49 PM
2-Butanone	ND		100	µg/L	20	03/09/18 04:49 PM
2-Hexanone	ND		100	µg/L	20	03/09/18 04:49 PM
4-Methyl-2-pentanone	ND		20	µg/L	20	03/09/18 04:49 PM
Acetone	ND		200	µg/L	20	03/09/18 04:49 PM
Benzene	ND		20	µg/L	20	03/09/18 04:49 PM
Bromodichloromethane	ND		20	µg/L	20	03/09/18 04:49 PM
Bromoform	ND		20	µg/L	20	03/09/18 04:49 PM
Bromomethane	ND		20	µg/L	20	03/09/18 04:49 PM
Carbon disulfide	ND		20	µg/L	20	03/09/18 04:49 PM
Carbon tetrachloride	ND		20	µg/L	20	03/09/18 04:49 PM
Chlorobenzene	ND		20	µg/L	20	03/09/18 04:49 PM
Chloroethane	ND		20	µg/L	20	03/09/18 04:49 PM
Chloroform	ND		20	µg/L	20	03/09/18 04:49 PM
Chloromethane	ND		20	µg/L	20	03/09/18 04:49 PM
cis-1,2-Dichloroethene	4,000		200	µg/L	200	03/09/18 05:59 AM
cis-1,3-Dichloropropene	ND		20	µg/L	20	03/09/18 04:49 PM
Dibromochloromethane	ND		20	µg/L	20	03/09/18 04:49 PM
Ethylbenzene	ND		20	µg/L	20	03/09/18 04:49 PM
m,p-Xylene	ND		40	µg/L	20	03/09/18 04:49 PM
Methylene chloride	ND		100	µg/L	20	03/09/18 04:49 PM
o-Xylene	ND		20	µg/L	20	03/09/18 04:49 PM
Styrene	ND		20	µg/L	20	03/09/18 04:49 PM
Tetrachloroethene	ND		20	µg/L	20	03/09/18 04:49 PM
Toluene	ND		20	µg/L	20	03/09/18 04:49 PM
trans-1,2-Dichloroethene	33		20	µg/L	20	03/09/18 04:49 PM
trans-1,3-Dichloropropene	ND		20	µg/L	20	03/09/18 04:49 PM
Trichloroethene	ND		20	µg/L	20	03/09/18 04:49 PM
Vinyl chloride	8,300		200	µg/L	200	03/09/18 05:59 AM
Xylenes, Total	ND		60	µg/L	20	03/09/18 04:49 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	20	03/09/18 04:49 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	200	03/09/18 05:59 AM
Surr: 4-Bromofluorobenzene	94.2		80-110	%REC	20	03/09/18 04:49 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-81 (27) - G022818
Collection Date: 02/28/18 04:10 PM

Work Order: 1803205
Lab ID: 1803205-12
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	93.0		80-110	%REC	200	03/09/18 05:59 AM
Surr: Dibromofluoromethane	101		85-115	%REC	20	03/09/18 04:49 PM
Surr: Dibromofluoromethane	100		85-115	%REC	200	03/09/18 05:59 AM
Surr: Toluene-d8	95.5		85-110	%REC	200	03/09/18 05:59 AM
Surr: Toluene-d8	98.5		85-110	%REC	20	03/09/18 04:49 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	310		20	mg/L	40	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-59 (29) - G022818
 Collection Date: 02/28/18 06:00 PM

Work Order: 1803205
 Lab ID: 1803205-13
 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	03/08/18 04:07 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:07 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 04:07 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 04:07 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 04:07 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 04:07 PM
Acetone	ND		10	µg/L	1	03/08/18 04:07 PM
Benzene	ND		1.0	µg/L	1	03/08/18 04:07 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 04:07 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 04:07 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 04:07 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 04:07 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 04:07 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
cis-1,2-Dichloroethene	1.1		1.0	µg/L	1	03/08/18 04:07 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 04:07 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 04:07 PM
Ethylbenzene	3.0		1.0	µg/L	1	03/08/18 04:07 PM
m,p-Xylene	5.2		2.0	µg/L	1	03/08/18 04:07 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 04:07 PM
o-Xylene	3.0		1.0	µg/L	1	03/08/18 04:07 PM
Styrene	ND		1.0	µg/L	1	03/08/18 04:07 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 04:07 PM
Toluene	13		1.0	µg/L	1	03/08/18 04:07 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:07 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 04:07 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 04:07 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 04:07 PM
Xylenes, Total	8.2		3.0	µg/L	1	03/08/18 04:07 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 04:07 PM
Surr: 4-Bromofluorobenzene	96.6		80-110	%REC	1	03/08/18 04:07 PM
Surr: Dibromofluoromethane	101		85-115	%REC	1	03/08/18 04:07 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-59 (29) - G022818
Collection Date: 02/28/18 06:00 PM

Work Order: 1803205
Lab ID: 1803205-13
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.8		85-110	%REC	1	03/08/18 04:07 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	13		10	mg/L	20	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-PM-3-G030118
 Collection Date: 03/01/18 10:50 AM

Work Order: 1803205
 Lab ID: 1803205-14
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: AK	
1,1,1-Trichloroethane	ND		100	µg/L	100	03/09/18 04:03 PM
1,1,2,2-Tetrachloroethane	ND		100	µg/L	100	03/09/18 04:03 PM
1,1,2-Trichloroethane	ND		100	µg/L	100	03/09/18 04:03 PM
1,1-Dichloroethane	ND		100	µg/L	100	03/09/18 04:03 PM
1,1-Dichloroethene	ND		100	µg/L	100	03/09/18 04:03 PM
1,2-Dichloroethane	ND		100	µg/L	100	03/09/18 04:03 PM
1,2-Dichloropropane	ND		100	µg/L	100	03/09/18 04:03 PM
2-Butanone	ND		500	µg/L	100	03/09/18 04:03 PM
2-Hexanone	ND		500	µg/L	100	03/09/18 04:03 PM
4-Methyl-2-pentanone	ND		100	µg/L	100	03/09/18 04:03 PM
Acetone	ND		1,000	µg/L	100	03/09/18 04:03 PM
Benzene	ND		100	µg/L	100	03/09/18 04:03 PM
Bromodichloromethane	ND		100	µg/L	100	03/09/18 04:03 PM
Bromoform	ND		100	µg/L	100	03/09/18 04:03 PM
Bromomethane	ND		100	µg/L	100	03/09/18 04:03 PM
Carbon disulfide	ND		100	µg/L	100	03/09/18 04:03 PM
Carbon tetrachloride	ND		100	µg/L	100	03/09/18 04:03 PM
Chlorobenzene	ND		100	µg/L	100	03/09/18 04:03 PM
Chloroethane	ND		100	µg/L	100	03/09/18 04:03 PM
Chloroform	ND		100	µg/L	100	03/09/18 04:03 PM
Chloromethane	ND		100	µg/L	100	03/09/18 04:03 PM
cis-1,2-Dichloroethene	3,900		100	µg/L	100	03/09/18 04:03 PM
cis-1,3-Dichloropropene	ND		100	µg/L	100	03/09/18 04:03 PM
Dibromochloromethane	ND		100	µg/L	100	03/09/18 04:03 PM
Ethylbenzene	ND		100	µg/L	100	03/09/18 04:03 PM
m,p-Xylene	ND		200	µg/L	100	03/09/18 04:03 PM
Methylene chloride	ND		500	µg/L	100	03/09/18 04:03 PM
o-Xylene	ND		100	µg/L	100	03/09/18 04:03 PM
Styrene	ND		100	µg/L	100	03/09/18 04:03 PM
Tetrachloroethene	ND		100	µg/L	100	03/09/18 04:03 PM
Toluene	ND		100	µg/L	100	03/09/18 04:03 PM
trans-1,2-Dichloroethene	ND		100	µg/L	100	03/09/18 04:03 PM
trans-1,3-Dichloropropene	ND		100	µg/L	100	03/09/18 04:03 PM
Trichloroethene	ND		100	µg/L	100	03/09/18 04:03 PM
Vinyl chloride	22,000		500	µg/L	500	03/09/18 06:14 AM
Xylenes, Total	ND		300	µg/L	100	03/09/18 04:03 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	100	03/09/18 04:03 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	500	03/09/18 06:14 AM
Surr: 4-Bromofluorobenzene	96.0		80-110	%REC	100	03/09/18 04:03 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-PM-3-G030118
Collection Date: 03/01/18 10:50 AM

Work Order: 1803205
Lab ID: 1803205-14
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	93.7		80-110	%REC	500	03/09/18 06:14 AM
Surr: Dibromofluoromethane	101		85-115	%REC	100	03/09/18 04:03 PM
Surr: Dibromofluoromethane	103		85-115	%REC	500	03/09/18 06:14 AM
Surr: Toluene-d8	96.7		85-110	%REC	500	03/09/18 06:14 AM
Surr: Toluene-d8	96.2		85-110	%REC	100	03/09/18 04:03 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	1,800		1,000	mg/L	2000	03/06/18 01:40 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-78 (35) - G030118
 Collection Date: 03/01/18 01:15 PM

Work Order: 1803205
 Lab ID: 1803205-15
 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	03/08/18 04:23 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:23 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 04:23 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 04:23 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 04:23 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 04:23 PM
Acetone	ND		10	µg/L	1	03/08/18 04:23 PM
Benzene	ND		1.0	µg/L	1	03/08/18 04:23 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 04:23 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 04:23 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 04:23 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 04:23 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 04:23 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:23 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 04:23 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 04:23 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 04:23 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 04:23 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 04:23 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 04:23 PM
Styrene	ND		1.0	µg/L	1	03/08/18 04:23 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 04:23 PM
Toluene	ND		1.0	µg/L	1	03/08/18 04:23 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:23 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 04:23 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 04:23 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 04:23 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 04:23 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/08/18 04:23 PM
Surr: 4-Bromofluorobenzene	96.2		80-110	%REC	1	03/08/18 04:23 PM
Surr: Dibromofluoromethane	98.8		85-115	%REC	1	03/08/18 04:23 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-78 (35) - G030118
Collection Date: 03/01/18 01:15 PM

Work Order: 1803205
Lab ID: 1803205-15
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.9		85-110	%REC	1	03/08/18 04:23 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	22		5.0	mg/L	10	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-78 (35) - G030118R
Collection Date: 03/01/18 01:15 PM

Work Order: 1803205
Lab ID: 1803205-16
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	03/08/18 04:38 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:38 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 04:38 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 04:38 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 04:38 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 04:38 PM
Acetone	ND		10	µg/L	1	03/08/18 04:38 PM
Benzene	ND		1.0	µg/L	1	03/08/18 04:38 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 04:38 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 04:38 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 04:38 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 04:38 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 04:38 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:38 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 04:38 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 04:38 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 04:38 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 04:38 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 04:38 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 04:38 PM
Styrene	ND		1.0	µg/L	1	03/08/18 04:38 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 04:38 PM
Toluene	ND		1.0	µg/L	1	03/08/18 04:38 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:38 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 04:38 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 04:38 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 04:38 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 04:38 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 04:38 PM
Surr: 4-Bromofluorobenzene	94.2		80-110	%REC	1	03/08/18 04:38 PM
Surr: Dibromofluoromethane	99.3		85-115	%REC	1	03/08/18 04:38 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-78 (35) - G030118R
Collection Date: 03/01/18 01:15 PM

Work Order: 1803205
Lab ID: 1803205-16
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.5		85-110	%REC	1	03/08/18 04:38 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	22		5.0	mg/L	10	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-77 (41) - G030118
Collection Date: 03/01/18 03:00 PM

Work Order: 1803205
Lab ID: 1803205-17
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	03/08/18 04:54 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:54 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 04:54 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 04:54 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 04:54 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 04:54 PM
Acetone	ND		10	µg/L	1	03/08/18 04:54 PM
Benzene	ND		1.0	µg/L	1	03/08/18 04:54 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 04:54 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 04:54 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 04:54 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 04:54 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 04:54 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:54 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 04:54 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 04:54 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 04:54 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 04:54 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 04:54 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 04:54 PM
Styrene	ND		1.0	µg/L	1	03/08/18 04:54 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 04:54 PM
Toluene	ND		1.0	µg/L	1	03/08/18 04:54 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 04:54 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 04:54 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 04:54 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 04:54 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 04:54 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 04:54 PM
Surr: 4-Bromofluorobenzene	96.8		80-110	%REC	1	03/08/18 04:54 PM
Surr: Dibromofluoromethane	100		85-115	%REC	1	03/08/18 04:54 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-77 (41) - G030118
Collection Date: 03/01/18 03:00 PM

Work Order: 1803205
Lab ID: 1803205-17
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.0		85-110	%REC	1	03/08/18 04:54 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	16		5.0	mg/L	10	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler

Project: TFS Rochester (3359-15-1040)

Work Order: 1803205

Sample ID: ATR-EB-002-022718

Lab ID: 1803205-18

Collection Date: 02/27/18 05:15 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	03/08/18 09:29 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 09:29 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 09:29 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 09:29 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 09:29 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 09:29 PM
Acetone	ND		10	µg/L	1	03/08/18 09:29 PM
Benzene	ND		1.0	µg/L	1	03/08/18 09:29 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 09:29 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 09:29 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 09:29 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 09:29 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 09:29 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 09:29 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 09:29 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 09:29 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 09:29 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 09:29 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 09:29 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 09:29 PM
Styrene	ND		1.0	µg/L	1	03/08/18 09:29 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 09:29 PM
Toluene	ND		1.0	µg/L	1	03/08/18 09:29 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 09:29 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 09:29 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 09:29 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 09:29 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 09:29 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 09:29 PM
Surr: 4-Bromofluorobenzene	96.2		80-110	%REC	1	03/08/18 09:29 PM
Surr: Dibromofluoromethane	96.2		85-115	%REC	1	03/08/18 09:29 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-002-022718
Collection Date: 02/27/18 05:15 PM

Work Order: 1803205
Lab ID: 1803205-18
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.6		85-110	%REC	1	03/08/18 09:29 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-002-022818
Collection Date: 02/28/18 05:00 PM

Work Order: 1803205
Lab ID: 1803205-19
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	03/08/18 09:44 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 09:44 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 09:44 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 09:44 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 09:44 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 09:44 PM
Acetone	ND		10	µg/L	1	03/08/18 09:44 PM
Benzene	ND		1.0	µg/L	1	03/08/18 09:44 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 09:44 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 09:44 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 09:44 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 09:44 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 09:44 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 09:44 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 09:44 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 09:44 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 09:44 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 09:44 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 09:44 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 09:44 PM
Styrene	ND		1.0	µg/L	1	03/08/18 09:44 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 09:44 PM
Toluene	ND		1.0	µg/L	1	03/08/18 09:44 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 09:44 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 09:44 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 09:44 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 09:44 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 09:44 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 09:44 PM
Surr: 4-Bromofluorobenzene	94.4		80-110	%REC	1	03/08/18 09:44 PM
Surr: Dibromofluoromethane	97.6		85-115	%REC	1	03/08/18 09:44 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-002-022818
Collection Date: 02/28/18 05:00 PM

Work Order: 1803205
Lab ID: 1803205-19
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.9		85-110	%REC	1	03/08/18 09:44 PM

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

Client: AMEC Foster Wheeler

Project: TFS Rochester (3359-15-1040)

Work Order: 1803205

Sample ID: ATR-EB-002-030118

Lab ID: 1803205-20

Collection Date: 03/01/18 06:10 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	03/08/18 10:00 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:00 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 10:00 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 10:00 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 10:00 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 10:00 PM
Acetone	ND		10	µg/L	1	03/08/18 10:00 PM
Benzene	ND		1.0	µg/L	1	03/08/18 10:00 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 10:00 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 10:00 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 10:00 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 10:00 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 10:00 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:00 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 10:00 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 10:00 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 10:00 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 10:00 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 10:00 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 10:00 PM
Styrene	ND		1.0	µg/L	1	03/08/18 10:00 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 10:00 PM
Toluene	ND		1.0	µg/L	1	03/08/18 10:00 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:00 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 10:00 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 10:00 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 10:00 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 10:00 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 10:00 PM
Surr: 4-Bromofluorobenzene	94.3		80-110	%REC	1	03/08/18 10:00 PM
Surr: Dibromofluoromethane	97.0		85-115	%REC	1	03/08/18 10:00 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-002-030118
Collection Date: 03/01/18 06:10 PM

Work Order: 1803205
Lab ID: 1803205-20
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.4		85-110	%REC	1	03/08/18 10:00 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-81 (27) - G022818R
Collection Date: 02/28/18 04:10 PM

Work Order: 1803205
Lab ID: 1803205-21
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		25	µg/L	25	03/08/18 06:11 PM
1,1,2,2-Tetrachloroethane	ND		25	µg/L	25	03/08/18 06:11 PM
1,1,2-Trichloroethane	ND		25	µg/L	25	03/08/18 06:11 PM
1,1-Dichloroethane	ND		25	µg/L	25	03/08/18 06:11 PM
1,1-Dichloroethene	ND		25	µg/L	25	03/08/18 06:11 PM
1,2-Dichloroethane	ND		25	µg/L	25	03/08/18 06:11 PM
1,2-Dichloropropane	ND		25	µg/L	25	03/08/18 06:11 PM
2-Butanone	ND		120	µg/L	25	03/08/18 06:11 PM
2-Hexanone	ND		120	µg/L	25	03/08/18 06:11 PM
4-Methyl-2-pentanone	ND		25	µg/L	25	03/08/18 06:11 PM
Acetone	ND		250	µg/L	25	03/08/18 06:11 PM
Benzene	ND		25	µg/L	25	03/08/18 06:11 PM
Bromodichloromethane	ND		25	µg/L	25	03/08/18 06:11 PM
Bromoform	ND		25	µg/L	25	03/08/18 06:11 PM
Bromomethane	ND		25	µg/L	25	03/08/18 06:11 PM
Carbon disulfide	ND		25	µg/L	25	03/08/18 06:11 PM
Carbon tetrachloride	ND		25	µg/L	25	03/08/18 06:11 PM
Chlorobenzene	ND		25	µg/L	25	03/08/18 06:11 PM
Chloroethane	28		25	µg/L	25	03/08/18 06:11 PM
Chloroform	ND		25	µg/L	25	03/08/18 06:11 PM
Chloromethane	ND		25	µg/L	25	03/08/18 06:11 PM
cis-1,2-Dichloroethene	4,000		200	µg/L	200	03/09/18 06:30 AM
cis-1,3-Dichloropropene	ND		25	µg/L	25	03/08/18 06:11 PM
Dibromochloromethane	ND		25	µg/L	25	03/08/18 06:11 PM
Ethylbenzene	ND		25	µg/L	25	03/08/18 06:11 PM
m,p-Xylene	ND		50	µg/L	25	03/08/18 06:11 PM
Methylene chloride	ND		120	µg/L	25	03/08/18 06:11 PM
o-Xylene	ND		25	µg/L	25	03/08/18 06:11 PM
Styrene	ND		25	µg/L	25	03/08/18 06:11 PM
Tetrachloroethene	ND		25	µg/L	25	03/08/18 06:11 PM
Toluene	ND		25	µg/L	25	03/08/18 06:11 PM
trans-1,2-Dichloroethene	32		25	µg/L	25	03/08/18 06:11 PM
trans-1,3-Dichloropropene	ND		25	µg/L	25	03/08/18 06:11 PM
Trichloroethene	ND		25	µg/L	25	03/08/18 06:11 PM
Vinyl chloride	8,000		200	µg/L	200	03/09/18 06:30 AM
Xylenes, Total	ND		75	µg/L	25	03/08/18 06:11 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	25	03/08/18 06:11 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	200	03/09/18 06:30 AM
Surr: 4-Bromofluorobenzene	96.4		80-110	%REC	25	03/08/18 06:11 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-81 (27) - G022818R
Collection Date: 02/28/18 04:10 PM

Work Order: 1803205
Lab ID: 1803205-21
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	95.8		80-110	%REC	200	03/09/18 06:30 AM
Surr: Dibromofluoromethane	101		85-115	%REC	25	03/08/18 06:11 PM
Surr: Dibromofluoromethane	100		85-115	%REC	200	03/09/18 06:30 AM
Surr: Toluene-d8	97.0		85-110	%REC	200	03/09/18 06:30 AM
Surr: Toluene-d8	96.4		85-110	%REC	25	03/08/18 06:11 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	340		20	mg/L	40	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-26 (58.2) - G022618
 Collection Date: 02/26/18 01:10 PM

Work Order: 1803205
 Lab ID: 1803205-22
 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	03/08/18 05:09 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:09 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 05:09 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 05:09 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 05:09 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 05:09 PM
Acetone	ND		10	µg/L	1	03/08/18 05:09 PM
Benzene	ND		1.0	µg/L	1	03/08/18 05:09 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 05:09 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 05:09 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 05:09 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 05:09 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 05:09 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:09 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 05:09 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 05:09 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 05:09 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 05:09 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 05:09 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 05:09 PM
Styrene	ND		1.0	µg/L	1	03/08/18 05:09 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 05:09 PM
Toluene	ND		1.0	µg/L	1	03/08/18 05:09 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:09 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 05:09 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 05:09 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 05:09 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 05:09 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 05:09 PM
Surr: 4-Bromofluorobenzene	95.3		80-110	%REC	1	03/08/18 05:09 PM
Surr: Dibromofluoromethane	98.9		85-115	%REC	1	03/08/18 05:09 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-26 (58.2) - G022618
Collection Date: 02/26/18 01:10 PM

Work Order: 1803205
Lab ID: 1803205-22
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.6		85-110	%REC	1	03/08/18 05:09 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	2.1		0.50	mg/L	1	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-26 (28.8) - G022618
Collection Date: 02/26/18 02:00 PM

Work Order: 1803205
Lab ID: 1803205-23
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	03/08/18 05:24 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:24 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 05:24 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 05:24 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 05:24 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 05:24 PM
Acetone	ND		10	µg/L	1	03/08/18 05:24 PM
Benzene	ND		1.0	µg/L	1	03/08/18 05:24 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 05:24 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 05:24 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 05:24 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 05:24 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 05:24 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:24 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 05:24 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 05:24 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 05:24 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 05:24 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 05:24 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 05:24 PM
Styrene	ND		1.0	µg/L	1	03/08/18 05:24 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 05:24 PM
Toluene	7.8		1.0	µg/L	1	03/08/18 05:24 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:24 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 05:24 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 05:24 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 05:24 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 05:24 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/08/18 05:24 PM
Surr: 4-Bromofluorobenzene	96.2		80-110	%REC	1	03/08/18 05:24 PM
Surr: Dibromofluoromethane	101		85-115	%REC	1	03/08/18 05:24 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-26 (28.8) - G022618
Collection Date: 02/26/18 02:00 PM

Work Order: 1803205
Lab ID: 1803205-23
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.4		85-110	%REC	1	03/08/18 05:24 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	7.1		0.50	mg/L	1	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler

Project: TFS Rochester (3359-15-1040)

Work Order: 1803205

Sample ID: ATR-EB-001-022618

Lab ID: 1803205-24

Collection Date: 02/26/18 02:00 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	03/08/18 10:15 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:15 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 10:15 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 10:15 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 10:15 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 10:15 PM
Acetone	ND		10	µg/L	1	03/08/18 10:15 PM
Benzene	ND		1.0	µg/L	1	03/08/18 10:15 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 10:15 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 10:15 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 10:15 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 10:15 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 10:15 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:15 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 10:15 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 10:15 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 10:15 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 10:15 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 10:15 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 10:15 PM
Styrene	ND		1.0	µg/L	1	03/08/18 10:15 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 10:15 PM
Toluene	ND		1.0	µg/L	1	03/08/18 10:15 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:15 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 10:15 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 10:15 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 10:15 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 10:15 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 10:15 PM
Surr: 4-Bromofluorobenzene	95.7		80-110	%REC	1	03/08/18 10:15 PM
Surr: Dibromofluoromethane	97.6		85-115	%REC	1	03/08/18 10:15 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-001-022618
Collection Date: 02/26/18 02:00 PM

Work Order: 1803205
Lab ID: 1803205-24
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.2		85-110	%REC	1	03/08/18 10:15 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-26 (17.5) - G022618
 Collection Date: 02/26/18 03:10 PM

Work Order: 1803205
 Lab ID: 1803205-25
 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	03/08/18 05:40 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:40 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 05:40 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 05:40 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 05:40 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 05:40 PM
Acetone	ND		10	µg/L	1	03/08/18 05:40 PM
Benzene	ND		1.0	µg/L	1	03/08/18 05:40 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 05:40 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 05:40 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 05:40 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 05:40 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 05:40 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:40 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 05:40 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 05:40 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 05:40 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 05:40 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 05:40 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 05:40 PM
Styrene	ND		1.0	µg/L	1	03/08/18 05:40 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 05:40 PM
Toluene	ND		1.0	µg/L	1	03/08/18 05:40 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 05:40 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 05:40 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 05:40 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 05:40 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 05:40 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 05:40 PM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	03/08/18 05:40 PM
Surr: Dibromofluoromethane	101		85-115	%REC	1	03/08/18 05:40 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-26 (17.5) - G022618
Collection Date: 02/26/18 03:10 PM

Work Order: 1803205
Lab ID: 1803205-25
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.0		85-110	%REC	1	03/08/18 05:40 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	4.1		0.50	mg/L	1	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-ZVI-2 (32.5) - G022618
Collection Date: 02/26/18 04:10 PM

Work Order: 1803205
Lab ID: 1803205-26
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	03/08/18 11:48 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:48 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 11:48 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 11:48 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 11:48 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 11:48 PM
Acetone	ND		10	µg/L	1	03/08/18 11:48 PM
Benzene	ND		1.0	µg/L	1	03/08/18 11:48 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 11:48 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 11:48 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 11:48 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 11:48 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 11:48 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:48 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 11:48 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 11:48 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 11:48 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 11:48 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 11:48 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 11:48 PM
Styrene	ND		1.0	µg/L	1	03/08/18 11:48 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 11:48 PM
Toluene	ND		1.0	µg/L	1	03/08/18 11:48 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:48 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 11:48 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 11:48 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 11:48 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 11:48 PM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	03/08/18 11:48 PM
Surr: 4-Bromofluorobenzene	96.2		80-110	%REC	1	03/08/18 11:48 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	03/08/18 11:48 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-ZVI-2 (32.5) - G022618
Collection Date: 02/26/18 04:10 PM

Work Order: 1803205
Lab ID: 1803205-26
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.0		85-110	%REC	1	03/08/18 11:48 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	5.1		0.50	mg/L	1	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-ZVI-2 (17.5) - G022618
Collection Date: 02/26/18 05:05 PM

Work Order: 1803205
Lab ID: 1803205-27
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LSY	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/07/18 10:54 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/07/18 10:54 PM
2-Butanone	ND		5.0	µg/L	1	03/07/18 10:54 PM
2-Hexanone	ND		5.0	µg/L	1	03/07/18 10:54 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/07/18 10:54 PM
Acetone	ND		10	µg/L	1	03/07/18 10:54 PM
Benzene	ND		1.0	µg/L	1	03/07/18 10:54 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
Bromoform	ND		1.0	µg/L	1	03/07/18 10:54 PM
Bromomethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
Carbon disulfide	ND		1.0	µg/L	1	03/07/18 10:54 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/07/18 10:54 PM
Chlorobenzene	ND		1.0	µg/L	1	03/07/18 10:54 PM
Chloroethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
Chloroform	ND		1.0	µg/L	1	03/07/18 10:54 PM
Chloromethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 10:54 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 10:54 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/07/18 10:54 PM
Ethylbenzene	ND		1.0	µg/L	1	03/07/18 10:54 PM
m,p-Xylene	ND		2.0	µg/L	1	03/07/18 10:54 PM
Methylene chloride	ND		5.0	µg/L	1	03/07/18 10:54 PM
o-Xylene	ND		1.0	µg/L	1	03/07/18 10:54 PM
Styrene	ND		1.0	µg/L	1	03/07/18 10:54 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/07/18 10:54 PM
Toluene	ND		1.0	µg/L	1	03/07/18 10:54 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 10:54 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 10:54 PM
Trichloroethene	ND		1.0	µg/L	1	03/07/18 10:54 PM
Vinyl chloride	ND		1.0	µg/L	1	03/07/18 10:54 PM
Xylenes, Total	ND		3.0	µg/L	1	03/07/18 10:54 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	03/07/18 10:54 PM
Surr: 4-Bromofluorobenzene	96.4		80-110	%REC	1	03/07/18 10:54 PM
Surr: Dibromofluoromethane	94.8		85-115	%REC	1	03/07/18 10:54 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-ZVI-2 (17.5) - G022618
Collection Date: 02/26/18 05:05 PM

Work Order: 1803205
Lab ID: 1803205-27
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.8		85-110	%REC	1	03/07/18 10:54 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	4.0		2.0	mg/L	4	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-17 - G022718
 Collection Date: 02/27/18 09:35 AM

Work Order: 1803205
 Lab ID: 1803205-28
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LSY	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/07/18 11:10 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/07/18 11:10 PM
2-Butanone	ND		5.0	µg/L	1	03/07/18 11:10 PM
2-Hexanone	ND		5.0	µg/L	1	03/07/18 11:10 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/07/18 11:10 PM
Acetone	ND		10	µg/L	1	03/07/18 11:10 PM
Benzene	ND		1.0	µg/L	1	03/07/18 11:10 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
Bromoform	ND		1.0	µg/L	1	03/07/18 11:10 PM
Bromomethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
Carbon disulfide	ND		1.0	µg/L	1	03/07/18 11:10 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/07/18 11:10 PM
Chlorobenzene	ND		1.0	µg/L	1	03/07/18 11:10 PM
Chloroethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
Chloroform	ND		1.0	µg/L	1	03/07/18 11:10 PM
Chloromethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
cis-1,2-Dichloroethene	33		1.0	µg/L	1	03/07/18 11:10 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 11:10 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/07/18 11:10 PM
Ethylbenzene	ND		1.0	µg/L	1	03/07/18 11:10 PM
m,p-Xylene	ND		2.0	µg/L	1	03/07/18 11:10 PM
Methylene chloride	ND		5.0	µg/L	1	03/07/18 11:10 PM
o-Xylene	ND		1.0	µg/L	1	03/07/18 11:10 PM
Styrene	ND		1.0	µg/L	1	03/07/18 11:10 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/07/18 11:10 PM
Toluene	ND		1.0	µg/L	1	03/07/18 11:10 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 11:10 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 11:10 PM
Trichloroethene	57		1.0	µg/L	1	03/07/18 11:10 PM
Vinyl chloride	ND		1.0	µg/L	1	03/07/18 11:10 PM
Xylenes, Total	ND		3.0	µg/L	1	03/07/18 11:10 PM
Surr: 1,2-Dichloroethane-d4	99.7		75-120	%REC	1	03/07/18 11:10 PM
Surr: 4-Bromofluorobenzene	94.0		80-110	%REC	1	03/07/18 11:10 PM
Surr: Dibromofluoromethane	95.8		85-115	%REC	1	03/07/18 11:10 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-17 - G022718
Collection Date: 02/27/18 09:35 AM

Work Order: 1803205
Lab ID: 1803205-28
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.4		85-110	%REC	1	03/07/18 11:10 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	16		2.0	mg/L	4	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-16 - G022718
 Collection Date: 02/27/18 11:00 AM

Work Order: 1803205
 Lab ID: 1803205-29
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: AK	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 03:47 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 03:47 PM
2-Butanone	180		25	µg/L	5	03/09/18 05:28 AM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 03:47 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 03:47 PM
Acetone	19		10	µg/L	1	03/09/18 03:47 PM
Benzene	ND		1.0	µg/L	1	03/09/18 03:47 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
Bromoform	ND		1.0	µg/L	1	03/09/18 03:47 PM
Bromomethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 03:47 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 03:47 PM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 03:47 PM
Chloroethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
Chloroform	ND		1.0	µg/L	1	03/09/18 03:47 PM
Chloromethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 03:47 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 03:47 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 03:47 PM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 03:47 PM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 03:47 PM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 03:47 PM
o-Xylene	ND		1.0	µg/L	1	03/09/18 03:47 PM
Styrene	ND		1.0	µg/L	1	03/09/18 03:47 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 03:47 PM
Toluene	ND		1.0	µg/L	1	03/09/18 03:47 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 03:47 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 03:47 PM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 03:47 PM
Vinyl chloride	ND		1.0	µg/L	1	03/09/18 03:47 PM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 03:47 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/09/18 03:47 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	5	03/09/18 05:28 AM
Surr: 4-Bromofluorobenzene	95.6		80-110	%REC	1	03/09/18 03:47 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-16 - G022718
Collection Date: 02/27/18 11:00 AM

Work Order: 1803205
Lab ID: 1803205-29
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	93.0		80-110	%REC	5	03/09/18 05:28 AM
Surr: Dibromofluoromethane	96.2		85-115	%REC	1	03/09/18 03:47 PM
Surr: Dibromofluoromethane	100		85-115	%REC	5	03/09/18 05:28 AM
Surr: Toluene-d8	98.8		85-110	%REC	5	03/09/18 05:28 AM
Surr: Toluene-d8	98.6		85-110	%REC	1	03/09/18 03:47 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	200		10	mg/L	20	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-5 (44) - G022718
Collection Date: 02/27/18 12:30 PM

Work Order: 1803205
Lab ID: 1803205-30
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	03/09/18 12:04 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:04 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 12:04 PM
2-Butanone	29		5.0	µg/L	1	03/09/18 12:04 PM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 12:04 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 12:04 PM
Acetone	12		10	µg/L	1	03/09/18 12:04 PM
Benzene	ND		1.0	µg/L	1	03/09/18 12:04 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
Bromoform	ND		1.0	µg/L	1	03/09/18 12:04 PM
Bromomethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 12:04 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 12:04 PM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 12:04 PM
Chloroethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
Chloroform	ND		1.0	µg/L	1	03/09/18 12:04 PM
Chloromethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:04 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 12:04 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 12:04 PM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 12:04 PM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 12:04 PM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 12:04 PM
o-Xylene	ND		1.0	µg/L	1	03/09/18 12:04 PM
Styrene	ND		1.0	µg/L	1	03/09/18 12:04 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 12:04 PM
Toluene	ND		1.0	µg/L	1	03/09/18 12:04 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:04 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 12:04 PM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 12:04 PM
Vinyl chloride	ND		1.0	µg/L	1	03/09/18 12:04 PM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 12:04 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/09/18 12:04 PM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	03/09/18 12:04 PM
Surr: Dibromofluoromethane	101		85-115	%REC	1	03/09/18 12:04 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-5 (44) - G022718
Collection Date: 02/27/18 12:30 PM

Work Order: 1803205
Lab ID: 1803205-30
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.6		85-110	%REC	1	03/09/18 12:04 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	44		5.0	mg/L	10	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-5 (35) - G022718
Collection Date: 02/27/18 01:25 PM

Work Order: 1803205
Lab ID: 1803205-31
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B			Analyst: LSY
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/07/18 11:41 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/07/18 11:41 PM
2-Butanone	ND		5.0	µg/L	1	03/07/18 11:41 PM
2-Hexanone	ND		5.0	µg/L	1	03/07/18 11:41 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/07/18 11:41 PM
Acetone	ND		10	µg/L	1	03/07/18 11:41 PM
Benzene	ND		1.0	µg/L	1	03/07/18 11:41 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
Bromoform	ND		1.0	µg/L	1	03/07/18 11:41 PM
Bromomethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
Carbon disulfide	ND		1.0	µg/L	1	03/07/18 11:41 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/07/18 11:41 PM
Chlorobenzene	ND		1.0	µg/L	1	03/07/18 11:41 PM
Chloroethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
Chloroform	ND		1.0	µg/L	1	03/07/18 11:41 PM
Chloromethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 11:41 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 11:41 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/07/18 11:41 PM
Ethylbenzene	ND		1.0	µg/L	1	03/07/18 11:41 PM
m,p-Xylene	ND		2.0	µg/L	1	03/07/18 11:41 PM
Methylene chloride	ND		5.0	µg/L	1	03/07/18 11:41 PM
o-Xylene	ND		1.0	µg/L	1	03/07/18 11:41 PM
Styrene	ND		1.0	µg/L	1	03/07/18 11:41 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/07/18 11:41 PM
Toluene	ND		1.0	µg/L	1	03/07/18 11:41 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 11:41 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 11:41 PM
Trichloroethene	ND		1.0	µg/L	1	03/07/18 11:41 PM
Vinyl chloride	ND		1.0	µg/L	1	03/07/18 11:41 PM
Xylenes, Total	ND		3.0	µg/L	1	03/07/18 11:41 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	03/07/18 11:41 PM
Surr: 4-Bromofluorobenzene	97.4		80-110	%REC	1	03/07/18 11:41 PM
Surr: Dibromofluoromethane	101		85-115	%REC	1	03/07/18 11:41 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-5 (35) - G022718
Collection Date: 02/27/18 01:25 PM

Work Order: 1803205
Lab ID: 1803205-31
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.0		85-110	%REC	1	03/07/18 11:41 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	5.1		0.50	mg/L	1	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-5 (16) - G022718
Collection Date: 02/27/18 02:25 PM

Work Order: 1803205
Lab ID: 1803205-32
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LSY	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/07/18 11:56 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/07/18 11:56 PM
2-Butanone	ND		5.0	µg/L	1	03/07/18 11:56 PM
2-Hexanone	ND		5.0	µg/L	1	03/07/18 11:56 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/07/18 11:56 PM
Acetone	ND		10	µg/L	1	03/07/18 11:56 PM
Benzene	ND		1.0	µg/L	1	03/07/18 11:56 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
Bromoform	ND		1.0	µg/L	1	03/07/18 11:56 PM
Bromomethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
Carbon disulfide	ND		1.0	µg/L	1	03/07/18 11:56 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/07/18 11:56 PM
Chlorobenzene	ND		1.0	µg/L	1	03/07/18 11:56 PM
Chloroethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
Chloroform	ND		1.0	µg/L	1	03/07/18 11:56 PM
Chloromethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 11:56 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 11:56 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/07/18 11:56 PM
Ethylbenzene	ND		1.0	µg/L	1	03/07/18 11:56 PM
m,p-Xylene	ND		2.0	µg/L	1	03/07/18 11:56 PM
Methylene chloride	ND		5.0	µg/L	1	03/07/18 11:56 PM
o-Xylene	ND		1.0	µg/L	1	03/07/18 11:56 PM
Styrene	ND		1.0	µg/L	1	03/07/18 11:56 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/07/18 11:56 PM
Toluene	ND		1.0	µg/L	1	03/07/18 11:56 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/07/18 11:56 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/07/18 11:56 PM
Trichloroethene	ND		1.0	µg/L	1	03/07/18 11:56 PM
Vinyl chloride	ND		1.0	µg/L	1	03/07/18 11:56 PM
Xylenes, Total	ND		3.0	µg/L	1	03/07/18 11:56 PM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/07/18 11:56 PM
Surr: 4-Bromofluorobenzene	98.1		80-110	%REC	1	03/07/18 11:56 PM
Surr: Dibromofluoromethane	96.4		85-115	%REC	1	03/07/18 11:56 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-5 (16) - G022718
Collection Date: 02/27/18 02:25 PM

Work Order: 1803205
Lab ID: 1803205-32
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.8		85-110	%REC	1	03/07/18 11:56 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	4.4		0.50	mg/L	1	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-001 - 022718
Collection Date: 02/27/18 02:40 PM

Work Order: 1803205
Lab ID: 1803205-33
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	03/08/18 10:31 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:31 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 10:31 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 10:31 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 10:31 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 10:31 PM
Acetone	ND		10	µg/L	1	03/08/18 10:31 PM
Benzene	ND		1.0	µg/L	1	03/08/18 10:31 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 10:31 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 10:31 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 10:31 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 10:31 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 10:31 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:31 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 10:31 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 10:31 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 10:31 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 10:31 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 10:31 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 10:31 PM
Styrene	ND		1.0	µg/L	1	03/08/18 10:31 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 10:31 PM
Toluene	ND		1.0	µg/L	1	03/08/18 10:31 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:31 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 10:31 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 10:31 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 10:31 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 10:31 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/08/18 10:31 PM
Surr: 4-Bromofluorobenzene	94.0		80-110	%REC	1	03/08/18 10:31 PM
Surr: Dibromofluoromethane	96.9		85-115	%REC	1	03/08/18 10:31 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-001 - 022718
Collection Date: 02/27/18 02:40 PM

Work Order: 1803205
Lab ID: 1803205-33
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.1		85-110	%REC	1	03/08/18 10:31 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-25 (45.1) - G022718
Collection Date: 02/27/18 03:40 PM

Work Order: 1803205
Lab ID: 1803205-34
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	03/09/18 01:21 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 01:21 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 01:21 AM
2-Butanone	190		25	µg/L	5	03/08/18 12:11 PM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 01:21 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 01:21 AM
Acetone	10		10	µg/L	1	03/09/18 01:21 AM
Benzene	ND		1.0	µg/L	1	03/09/18 01:21 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
Bromoform	ND		1.0	µg/L	1	03/09/18 01:21 AM
Bromomethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 01:21 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 01:21 AM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 01:21 AM
Chloroethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
Chloroform	ND		1.0	µg/L	1	03/09/18 01:21 AM
Chloromethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 01:21 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 01:21 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 01:21 AM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 01:21 AM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 01:21 AM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 01:21 AM
o-Xylene	ND		1.0	µg/L	1	03/09/18 01:21 AM
Styrene	ND		1.0	µg/L	1	03/09/18 01:21 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 01:21 AM
Toluene	ND		1.0	µg/L	1	03/09/18 01:21 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 01:21 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 01:21 AM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 01:21 AM
Vinyl chloride	ND		1.0	µg/L	1	03/09/18 01:21 AM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 01:21 AM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	03/09/18 01:21 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	5	03/08/18 12:11 PM
Surr: 4-Bromofluorobenzene	96.2		80-110	%REC	1	03/09/18 01:21 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-25 (45.1) - G022718
Collection Date: 02/27/18 03:40 PM

Work Order: 1803205
Lab ID: 1803205-34
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	94.5		80-110	%REC	5	03/08/18 12:11 PM
Surr: Dibromofluoromethane	105		85-115	%REC	1	03/09/18 01:21 AM
Surr: Dibromofluoromethane	97.2		85-115	%REC	5	03/08/18 12:11 PM
Surr: Toluene-d8	97.4		85-110	%REC	5	03/08/18 12:11 PM
Surr: Toluene-d8	98.0		85-110	%REC	1	03/09/18 01:21 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	250		50	mg/L	100	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-25 (32.6) - G022718
Collection Date: 02/27/18 04:35 PM

Work Order: 1803205
Lab ID: 1803205-35
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS

SW8260B

Analyst: **LSY**

1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 12:27 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 12:27 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 12:27 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 12:27 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 12:27 PM
Acetone	ND		10	µg/L	1	03/08/18 12:27 PM
Benzene	ND		1.0	µg/L	1	03/08/18 12:27 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 12:27 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 12:27 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 12:27 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 12:27 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 12:27 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 12:27 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 12:27 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 12:27 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 12:27 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 12:27 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 12:27 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 12:27 PM
Styrene	ND		1.0	µg/L	1	03/08/18 12:27 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 12:27 PM
Toluene	ND		1.0	µg/L	1	03/08/18 12:27 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 12:27 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 12:27 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 12:27 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 12:27 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 12:27 PM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	1	03/08/18 12:27 PM
Surr: 4-Bromofluorobenzene	97.8		80-110	%REC	1	03/08/18 12:27 PM
Surr: Dibromofluoromethane	96.4		85-115	%REC	1	03/08/18 12:27 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-25 (32.6) - G022718
Collection Date: 02/27/18 04:35 PM

Work Order: 1803205
Lab ID: 1803205-35
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.6		85-110	%REC	1	03/08/18 12:27 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	5.6		5.0	mg/L	10	03/07/18 12:39 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-25 (16.4) - G022718
Collection Date: 02/27/18 05:25 PM

Work Order: 1803205
Lab ID: 1803205-36
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	03/09/18 12:19 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:19 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 12:19 PM
2-Butanone	ND		5.0	µg/L	1	03/09/18 12:19 PM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 12:19 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 12:19 PM
Acetone	ND		10	µg/L	1	03/09/18 12:19 PM
Benzene	ND		1.0	µg/L	1	03/09/18 12:19 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
Bromoform	ND		1.0	µg/L	1	03/09/18 12:19 PM
Bromomethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 12:19 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 12:19 PM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 12:19 PM
Chloroethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
Chloroform	ND		1.0	µg/L	1	03/09/18 12:19 PM
Chloromethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:19 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 12:19 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 12:19 PM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 12:19 PM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 12:19 PM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 12:19 PM
o-Xylene	ND		1.0	µg/L	1	03/09/18 12:19 PM
Styrene	ND		1.0	µg/L	1	03/09/18 12:19 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 12:19 PM
Toluene	ND		1.0	µg/L	1	03/09/18 12:19 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:19 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 12:19 PM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 12:19 PM
Vinyl chloride	ND		1.0	µg/L	1	03/09/18 12:19 PM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 12:19 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/09/18 12:19 PM
Surr: 4-Bromofluorobenzene	94.3		80-110	%REC	1	03/09/18 12:19 PM
Surr: Dibromofluoromethane	102		85-115	%REC	1	03/09/18 12:19 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-25 (16.4) - G022718
Collection Date: 02/27/18 05:25 PM

Work Order: 1803205
Lab ID: 1803205-36
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.4		85-110	%REC	1	03/09/18 12:19 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	5.3		0.50	mg/L	1	03/09/18 11:05 AM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-15 - G022818
Collection Date: 02/28/18 09:10 AM

Work Order: 1803205
Lab ID: 1803205-37
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	03/09/18 01:36 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 01:36 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 01:36 AM
2-Butanone	140		25	µg/L	5	03/08/18 12:58 PM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 01:36 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 01:36 AM
Acetone	24		10	µg/L	1	03/09/18 01:36 AM
Benzene	ND		1.0	µg/L	1	03/09/18 01:36 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
Bromoform	ND		1.0	µg/L	1	03/09/18 01:36 AM
Bromomethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 01:36 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 01:36 AM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 01:36 AM
Chloroethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
Chloroform	ND		1.0	µg/L	1	03/09/18 01:36 AM
Chloromethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
cis-1,2-Dichloroethene	1.3		1.0	µg/L	1	03/09/18 01:36 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 01:36 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 01:36 AM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 01:36 AM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 01:36 AM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 01:36 AM
o-Xylene	ND		1.0	µg/L	1	03/09/18 01:36 AM
Styrene	ND		1.0	µg/L	1	03/09/18 01:36 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 01:36 AM
Toluene	ND		1.0	µg/L	1	03/09/18 01:36 AM
trans-1,2-Dichloroethene	5.4		1.0	µg/L	1	03/09/18 01:36 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 01:36 AM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 01:36 AM
Vinyl chloride	1.8		1.0	µg/L	1	03/09/18 01:36 AM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 01:36 AM
Surr: 1,2-Dichloroethane-d4	104		75-120	%REC	1	03/09/18 01:36 AM
Surr: 1,2-Dichloroethane-d4	100		75-120	%REC	5	03/08/18 12:58 PM
Surr: 4-Bromofluorobenzene	103		80-110	%REC	1	03/09/18 01:36 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-15 - G022818
Collection Date: 02/28/18 09:10 AM

Work Order: 1803205
Lab ID: 1803205-37
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	95.3		80-110	%REC	5	03/08/18 12:58 PM
Surr: Dibromofluoromethane	110		85-115	%REC	1	03/09/18 01:36 AM
Surr: Dibromofluoromethane	95.3		85-115	%REC	5	03/08/18 12:58 PM
Surr: Toluene-d8	97.0		85-110	%REC	5	03/08/18 12:58 PM
Surr: Toluene-d8	95.0		85-110	%REC	1	03/09/18 01:36 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	450		50	mg/L	100	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-4 (54) - G022818
Collection Date: 02/28/18 10:40 AM

Work Order: 1803205
Lab ID: 1803205-38
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LSY	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:13 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 01:13 AM
2-Butanone	84		5.0	µg/L	1	03/08/18 01:13 AM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 01:13 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 01:13 AM
Acetone	ND		10	µg/L	1	03/08/18 01:13 AM
Benzene	ND		1.0	µg/L	1	03/08/18 01:13 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
Bromoform	ND		1.0	µg/L	1	03/08/18 01:13 AM
Bromomethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 01:13 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 01:13 AM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 01:13 AM
Chloroethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
Chloroform	ND		1.0	µg/L	1	03/08/18 01:13 AM
Chloromethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
cis-1,2-Dichloroethene	1.2		1.0	µg/L	1	03/08/18 01:13 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 01:13 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 01:13 AM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 01:13 AM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 01:13 AM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 01:13 AM
o-Xylene	ND		1.0	µg/L	1	03/08/18 01:13 AM
Styrene	ND		1.0	µg/L	1	03/08/18 01:13 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 01:13 AM
Toluene	ND		1.0	µg/L	1	03/08/18 01:13 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:13 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 01:13 AM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 01:13 AM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 01:13 AM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 01:13 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 01:13 AM
Surr: 4-Bromofluorobenzene	98.4		80-110	%REC	1	03/08/18 01:13 AM
Surr: Dibromofluoromethane	98.8		85-115	%REC	1	03/08/18 01:13 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-4 (54) - G022818
Collection Date: 02/28/18 10:40 AM

Work Order: 1803205
Lab ID: 1803205-38
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.8		85-110	%REC	1	03/08/18 01:13 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	200		20	mg/L	40	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-4 (35) - G022818
Collection Date: 02/28/18 11:25 AM

Work Order: 1803205
Lab ID: 1803205-39
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	03/09/18 12:35 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:35 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 12:35 PM
2-Butanone	70		5.0	µg/L	1	03/09/18 12:35 PM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 12:35 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 12:35 PM
Acetone	22		10	µg/L	1	03/09/18 12:35 PM
Benzene	ND		1.0	µg/L	1	03/09/18 12:35 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
Bromoform	ND		1.0	µg/L	1	03/09/18 12:35 PM
Bromomethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 12:35 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 12:35 PM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 12:35 PM
Chloroethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
Chloroform	ND		1.0	µg/L	1	03/09/18 12:35 PM
Chloromethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:35 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 12:35 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 12:35 PM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 12:35 PM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 12:35 PM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 12:35 PM
o-Xylene	ND		1.0	µg/L	1	03/09/18 12:35 PM
Styrene	ND		1.0	µg/L	1	03/09/18 12:35 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 12:35 PM
Toluene	1.4		1.0	µg/L	1	03/09/18 12:35 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:35 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 12:35 PM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 12:35 PM
Vinyl chloride	ND		1.0	µg/L	1	03/09/18 12:35 PM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 12:35 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/09/18 12:35 PM
Surr: 4-Bromofluorobenzene	94.6		80-110	%REC	1	03/09/18 12:35 PM
Surr: Dibromofluoromethane	104		85-115	%REC	1	03/09/18 12:35 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-OW-4 (35) - G022818
Collection Date: 02/28/18 11:25 AM

Work Order: 1803205
Lab ID: 1803205-39
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.6		85-110	%REC	1	03/09/18 12:35 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	82		10	mg/L	20	03/09/18 11:05 AM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-20 (51) - G022818
 Collection Date: 02/28/18 12:40 PM

Work Order: 1803205
 Lab ID: 1803205-40
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LSY	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:44 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 01:44 AM
2-Butanone	ND		5.0	µg/L	1	03/08/18 01:44 AM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 01:44 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 01:44 AM
Acetone	23		10	µg/L	1	03/08/18 01:44 AM
Benzene	ND		1.0	µg/L	1	03/08/18 01:44 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
Bromoform	ND		1.0	µg/L	1	03/08/18 01:44 AM
Bromomethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 01:44 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 01:44 AM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 01:44 AM
Chloroethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
Chloroform	ND		1.0	µg/L	1	03/08/18 01:44 AM
Chloromethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:44 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 01:44 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 01:44 AM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 01:44 AM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 01:44 AM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 01:44 AM
o-Xylene	ND		1.0	µg/L	1	03/08/18 01:44 AM
Styrene	ND		1.0	µg/L	1	03/08/18 01:44 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 01:44 AM
Toluene	ND		1.0	µg/L	1	03/08/18 01:44 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:44 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 01:44 AM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 01:44 AM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 01:44 AM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 01:44 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 01:44 AM
Surr: 4-Bromofluorobenzene	96.0		80-110	%REC	1	03/08/18 01:44 AM
Surr: Dibromofluoromethane	96.6		85-115	%REC	1	03/08/18 01:44 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-20 (51) - G022818
Collection Date: 02/28/18 12:40 PM

Work Order: 1803205
Lab ID: 1803205-40
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.0		85-110	%REC	1	03/08/18 01:44 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	5.8		5.0	mg/L	10	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-20 (35) - G022818
Collection Date: 02/28/18 02:15 PM

Work Order: 1803205
Lab ID: 1803205-41
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LSY	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:00 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 02:00 AM
2-Butanone	ND		5.0	µg/L	1	03/08/18 02:00 AM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 02:00 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 02:00 AM
Acetone	ND		10	µg/L	1	03/08/18 02:00 AM
Benzene	ND		1.0	µg/L	1	03/08/18 02:00 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
Bromoform	ND		1.0	µg/L	1	03/08/18 02:00 AM
Bromomethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 02:00 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 02:00 AM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 02:00 AM
Chloroethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
Chloroform	ND		1.0	µg/L	1	03/08/18 02:00 AM
Chloromethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:00 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:00 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 02:00 AM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 02:00 AM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 02:00 AM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 02:00 AM
o-Xylene	ND		1.0	µg/L	1	03/08/18 02:00 AM
Styrene	ND		1.0	µg/L	1	03/08/18 02:00 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 02:00 AM
Toluene	ND		1.0	µg/L	1	03/08/18 02:00 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 02:00 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 02:00 AM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 02:00 AM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 02:00 AM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 02:00 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 02:00 AM
Surr: 4-Bromofluorobenzene	96.7		80-110	%REC	1	03/08/18 02:00 AM
Surr: Dibromofluoromethane	96.4		85-115	%REC	1	03/08/18 02:00 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-20 (35) - G022818
Collection Date: 02/28/18 02:15 PM

Work Order: 1803205
Lab ID: 1803205-41
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.9		85-110	%REC	1	03/08/18 02:00 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	6.3		5.0	mg/L	10	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-EB-001 - 022818
 Collection Date: 02/28/18 02:35 PM

Work Order: 1803205
 Lab ID: 1803205-42
 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	03/08/18 10:46 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:46 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 10:46 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 10:46 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 10:46 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 10:46 PM
Acetone	ND		10	µg/L	1	03/08/18 10:46 PM
Benzene	ND		1.0	µg/L	1	03/08/18 10:46 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 10:46 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 10:46 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 10:46 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 10:46 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 10:46 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:46 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 10:46 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 10:46 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 10:46 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 10:46 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 10:46 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 10:46 PM
Styrene	ND		1.0	µg/L	1	03/08/18 10:46 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 10:46 PM
Toluene	ND		1.0	µg/L	1	03/08/18 10:46 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 10:46 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 10:46 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 10:46 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 10:46 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 10:46 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 10:46 PM
Surr: 4-Bromofluorobenzene	94.8		80-110	%REC	1	03/08/18 10:46 PM
Surr: Dibromofluoromethane	98.3		85-115	%REC	1	03/08/18 10:46 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-001 - 022818
Collection Date: 02/28/18 02:35 PM

Work Order: 1803205
Lab ID: 1803205-42
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.5		85-110	%REC	1	03/08/18 10:46 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-6C - G022818
 Collection Date: 02/28/18 03:15 PM

Work Order: 1803205
 Lab ID: 1803205-43
 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	03/09/18 12:50 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:50 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 12:50 PM
2-Butanone	ND		5.0	µg/L	1	03/09/18 12:50 PM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 12:50 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 12:50 PM
Acetone	ND		10	µg/L	1	03/09/18 12:50 PM
Benzene	ND		1.0	µg/L	1	03/09/18 12:50 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
Bromoform	ND		1.0	µg/L	1	03/09/18 12:50 PM
Bromomethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 12:50 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 12:50 PM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 12:50 PM
Chloroethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
Chloroform	ND		1.0	µg/L	1	03/09/18 12:50 PM
Chloromethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
cis-1,2-Dichloroethene	100		5.0	µg/L	5	03/09/18 03:32 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 12:50 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 12:50 PM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 12:50 PM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 12:50 PM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 12:50 PM
o-Xylene	ND		1.0	µg/L	1	03/09/18 12:50 PM
Styrene	ND		1.0	µg/L	1	03/09/18 12:50 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 12:50 PM
Toluene	ND		1.0	µg/L	1	03/09/18 12:50 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 12:50 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 12:50 PM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 12:50 PM
Vinyl chloride	52		1.0	µg/L	1	03/09/18 12:50 PM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 12:50 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	5	03/09/18 03:32 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/09/18 12:50 PM
Surr: 4-Bromofluorobenzene	93.2		80-110	%REC	5	03/09/18 03:32 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-6C - G022818
 Collection Date: 02/28/18 03:15 PM

Work Order: 1803205
 Lab ID: 1803205-43
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	94.8		80-110	%REC	1	03/09/18 12:50 PM
Surr: Dibromofluoromethane	99.6		85-115	%REC	5	03/09/18 03:32 PM
Surr: Dibromofluoromethane	103		85-115	%REC	1	03/09/18 12:50 PM
Surr: Toluene-d8	95.0		85-110	%REC	1	03/09/18 12:50 PM
Surr: Toluene-d8	97.9		85-110	%REC	5	03/09/18 03:32 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	9.6		2.0	mg/L	4	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-6C - G022818R
 Collection Date: 02/28/18 03:15 PM

Work Order: 1803205
 Lab ID: 1803205-44
 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	03/09/18 02:07 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 02:07 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 02:07 AM
2-Butanone	ND		5.0	µg/L	1	03/09/18 02:07 AM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 02:07 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 02:07 AM
Acetone	ND		10	µg/L	1	03/09/18 02:07 AM
Benzene	ND		1.0	µg/L	1	03/09/18 02:07 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
Bromoform	ND		1.0	µg/L	1	03/09/18 02:07 AM
Bromomethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 02:07 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 02:07 AM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 02:07 AM
Chloroethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
Chloroform	ND		1.0	µg/L	1	03/09/18 02:07 AM
Chloromethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
cis-1,2-Dichloroethene	100		5.0	µg/L	5	03/09/18 05:44 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 02:07 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 02:07 AM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 02:07 AM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 02:07 AM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 02:07 AM
o-Xylene	ND		1.0	µg/L	1	03/09/18 02:07 AM
Styrene	ND		1.0	µg/L	1	03/09/18 02:07 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 02:07 AM
Toluene	ND		1.0	µg/L	1	03/09/18 02:07 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 02:07 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 02:07 AM
Trichloroethene	1.0		1.0	µg/L	1	03/09/18 02:07 AM
Vinyl chloride	54		1.0	µg/L	1	03/09/18 02:07 AM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 02:07 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/09/18 02:07 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	5	03/09/18 05:44 AM
Surr: 4-Bromofluorobenzene	96.8		80-110	%REC	1	03/09/18 02:07 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-6C - G022818R
Collection Date: 02/28/18 03:15 PM

Work Order: 1803205
Lab ID: 1803205-44
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	92.1		80-110	%REC	5	03/09/18 05:44 AM
Surr: Dibromofluoromethane	101		85-115	%REC	1	03/09/18 02:07 AM
Surr: Dibromofluoromethane	98.6		85-115	%REC	5	03/09/18 05:44 AM
Surr: Toluene-d8	97.6		85-110	%REC	5	03/09/18 05:44 AM
Surr: Toluene-d8	98.3		85-110	%REC	1	03/09/18 02:07 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	9.4		2.0	mg/L	4	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-12 - G022818
 Collection Date: 02/28/18 04:30 PM

Work Order: 1803205
 Lab ID: 1803205-45
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: LSY	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:02 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 03:02 AM
2-Butanone	ND		5.0	µg/L	1	03/08/18 03:02 AM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 03:02 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 03:02 AM
Acetone	ND		10	µg/L	1	03/08/18 03:02 AM
Benzene	ND		1.0	µg/L	1	03/08/18 03:02 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
Bromoform	ND		1.0	µg/L	1	03/08/18 03:02 AM
Bromomethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 03:02 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 03:02 AM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 03:02 AM
Chloroethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
Chloroform	ND		1.0	µg/L	1	03/08/18 03:02 AM
Chloromethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:02 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 03:02 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 03:02 AM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 03:02 AM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 03:02 AM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 03:02 AM
o-Xylene	ND		1.0	µg/L	1	03/08/18 03:02 AM
Styrene	ND		1.0	µg/L	1	03/08/18 03:02 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 03:02 AM
Toluene	1.3		1.0	µg/L	1	03/08/18 03:02 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 03:02 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 03:02 AM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 03:02 AM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 03:02 AM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 03:02 AM
Surr: 1,2-Dichloroethane-d4	101		75-120	%REC	1	03/08/18 03:02 AM
Surr: 4-Bromofluorobenzene	94.8		80-110	%REC	1	03/08/18 03:02 AM
Surr: Dibromofluoromethane	98.2		85-115	%REC	1	03/08/18 03:02 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-12 - G022818
Collection Date: 02/28/18 04:30 PM

Work Order: 1803205
Lab ID: 1803205-45
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.5		85-110	%REC	1	03/08/18 03:02 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	9.7		0.50	mg/L	1	03/09/18 11:05 AM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-13 - G022818
 Collection Date: 02/28/18 05:35 PM

Work Order: 1803205
 Lab ID: 1803205-46
 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	03/09/18 01:06 AM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/09/18 01:06 AM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/09/18 01:06 AM
2-Butanone	ND		5.0	µg/L	1	03/09/18 01:06 AM
2-Hexanone	ND		5.0	µg/L	1	03/09/18 01:06 AM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/09/18 01:06 AM
Acetone	ND		10	µg/L	1	03/09/18 01:06 AM
Benzene	ND		1.0	µg/L	1	03/09/18 01:06 AM
Bromodichloromethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
Bromoform	ND		1.0	µg/L	1	03/09/18 01:06 AM
Bromomethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
Carbon disulfide	ND		1.0	µg/L	1	03/09/18 01:06 AM
Carbon tetrachloride	ND		1.0	µg/L	1	03/09/18 01:06 AM
Chlorobenzene	ND		1.0	µg/L	1	03/09/18 01:06 AM
Chloroethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
Chloroform	ND		1.0	µg/L	1	03/09/18 01:06 AM
Chloromethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
cis-1,2-Dichloroethene	44		1.0	µg/L	1	03/09/18 01:06 AM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 01:06 AM
Dibromochloromethane	ND		1.0	µg/L	1	03/09/18 01:06 AM
Ethylbenzene	ND		1.0	µg/L	1	03/09/18 01:06 AM
m,p-Xylene	ND		2.0	µg/L	1	03/09/18 01:06 AM
Methylene chloride	ND		5.0	µg/L	1	03/09/18 01:06 AM
o-Xylene	ND		1.0	µg/L	1	03/09/18 01:06 AM
Styrene	ND		1.0	µg/L	1	03/09/18 01:06 AM
Tetrachloroethene	ND		1.0	µg/L	1	03/09/18 01:06 AM
Toluene	ND		1.0	µg/L	1	03/09/18 01:06 AM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/09/18 01:06 AM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/09/18 01:06 AM
Trichloroethene	ND		1.0	µg/L	1	03/09/18 01:06 AM
Vinyl chloride	39		1.0	µg/L	1	03/09/18 01:06 AM
Xylenes, Total	ND		3.0	µg/L	1	03/09/18 01:06 AM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/09/18 01:06 AM
Surr: 4-Bromofluorobenzene	95.6		80-110	%REC	1	03/09/18 01:06 AM
Surr: Dibromofluoromethane	102		85-115	%REC	1	03/09/18 01:06 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-13 - G022818
Collection Date: 02/28/18 05:35 PM

Work Order: 1803205
Lab ID: 1803205-46
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.7		85-110	%REC	1	03/09/18 01:06 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	73		5.0	mg/L	10	03/09/18 11:05 AM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-68 - G030118
Collection Date: 03/01/18 09:45 AM

Work Order: 1803205
Lab ID: 1803205-47
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: BG	
1,1,1-Trichloroethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
1,1,2-Trichloroethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
1,1-Dichloroethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
1,1-Dichloroethene	ND		5.0	µg/L	5	03/09/18 02:23 AM
1,2-Dichloroethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
1,2-Dichloropropane	ND		5.0	µg/L	5	03/09/18 02:23 AM
2-Butanone	88		25	µg/L	5	03/09/18 02:23 AM
2-Hexanone	ND		25	µg/L	5	03/09/18 02:23 AM
4-Methyl-2-pentanone	ND		5.0	µg/L	5	03/09/18 02:23 AM
Acetone	57		50	µg/L	5	03/09/18 02:23 AM
Benzene	ND		5.0	µg/L	5	03/09/18 02:23 AM
Bromodichloromethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
Bromoform	ND		5.0	µg/L	5	03/09/18 02:23 AM
Bromomethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
Carbon disulfide	ND		5.0	µg/L	5	03/09/18 02:23 AM
Carbon tetrachloride	ND		5.0	µg/L	5	03/09/18 02:23 AM
Chlorobenzene	ND		5.0	µg/L	5	03/09/18 02:23 AM
Chloroethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
Chloroform	ND		5.0	µg/L	5	03/09/18 02:23 AM
Chloromethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
cis-1,2-Dichloroethene	140		5.0	µg/L	5	03/09/18 02:23 AM
cis-1,3-Dichloropropene	ND		5.0	µg/L	5	03/09/18 02:23 AM
Dibromochloromethane	ND		5.0	µg/L	5	03/09/18 02:23 AM
Ethylbenzene	ND		5.0	µg/L	5	03/09/18 02:23 AM
m,p-Xylene	ND		10	µg/L	5	03/09/18 02:23 AM
Methylene chloride	ND		25	µg/L	5	03/09/18 02:23 AM
o-Xylene	ND		5.0	µg/L	5	03/09/18 02:23 AM
Styrene	ND		5.0	µg/L	5	03/09/18 02:23 AM
Tetrachloroethene	ND		5.0	µg/L	5	03/09/18 02:23 AM
Toluene	ND		5.0	µg/L	5	03/09/18 02:23 AM
trans-1,2-Dichloroethene	ND		5.0	µg/L	5	03/09/18 02:23 AM
trans-1,3-Dichloropropene	ND		5.0	µg/L	5	03/09/18 02:23 AM
Trichloroethene	ND		5.0	µg/L	5	03/09/18 02:23 AM
Vinyl chloride	960		20	µg/L	20	03/08/18 03:17 AM
Xylenes, Total	ND		15	µg/L	5	03/09/18 02:23 AM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	5	03/09/18 02:23 AM
Surr: 1,2-Dichloroethane-d4	99.2		75-120	%REC	20	03/08/18 03:17 AM
Surr: 4-Bromofluorobenzene	98.3		80-110	%REC	5	03/09/18 02:23 AM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-68 - G030118
Collection Date: 03/01/18 09:45 AM

Work Order: 1803205
Lab ID: 1803205-47
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	93.6		80-110	%REC	20	03/08/18 03:17 AM
Surr: Dibromofluoromethane	101		85-115	%REC	5	03/09/18 02:23 AM
Surr: Dibromofluoromethane	94.2		85-115	%REC	20	03/08/18 03:17 AM
Surr: Toluene-d8	97.4		85-110	%REC	20	03/08/18 03:17 AM
Surr: Toluene-d8	98.6		85-110	%REC	5	03/09/18 02:23 AM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	350		50	mg/L	100	03/08/18 12:22 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-72 - G030118
 Collection Date: 03/01/18 10:50 AM

Work Order: 1803205
 Lab ID: 1803205-48
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: AK	
1,1,1-Trichloroethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/12/18 02:31 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/12/18 02:31 PM
2-Butanone	7.2		5.0	µg/L	1	03/12/18 02:31 PM
2-Hexanone	ND		5.0	µg/L	1	03/12/18 02:31 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/12/18 02:31 PM
Acetone	81		10	µg/L	1	03/12/18 02:31 PM
Benzene	ND		1.0	µg/L	1	03/12/18 02:31 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
Bromoform	ND		1.0	µg/L	1	03/12/18 02:31 PM
Bromomethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
Carbon disulfide	ND		1.0	µg/L	1	03/12/18 02:31 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/12/18 02:31 PM
Chlorobenzene	ND		1.0	µg/L	1	03/12/18 02:31 PM
Chloroethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
Chloroform	ND		1.0	µg/L	1	03/12/18 02:31 PM
Chloromethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
cis-1,2-Dichloroethene	2.8		1.0	µg/L	1	03/12/18 02:31 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/12/18 02:31 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/12/18 02:31 PM
Ethylbenzene	ND		1.0	µg/L	1	03/12/18 02:31 PM
m,p-Xylene	ND		2.0	µg/L	1	03/12/18 02:31 PM
Methylene chloride	ND		5.0	µg/L	1	03/12/18 02:31 PM
o-Xylene	ND		1.0	µg/L	1	03/12/18 02:31 PM
Styrene	ND		1.0	µg/L	1	03/12/18 02:31 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/12/18 02:31 PM
Toluene	4.2		1.0	µg/L	1	03/12/18 02:31 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/12/18 02:31 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/12/18 02:31 PM
Trichloroethene	ND		1.0	µg/L	1	03/12/18 02:31 PM
Vinyl chloride	1.4		1.0	µg/L	1	03/12/18 02:31 PM
Xylenes, Total	ND		3.0	µg/L	1	03/12/18 02:31 PM
Surr: 1,2-Dichloroethane-d4	99.9		75-120	%REC	1	03/12/18 02:31 PM
Surr: 4-Bromofluorobenzene	99.2		80-110	%REC	1	03/12/18 02:31 PM
Surr: Dibromofluoromethane	100		85-115	%REC	1	03/12/18 02:31 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-72 - G030118
Collection Date: 03/01/18 10:50 AM

Work Order: 1803205
Lab ID: 1803205-48
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	95.8		85-110	%REC	1	03/12/18 02:31 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	68		5.0	mg/L	10	03/11/18 12:31 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-67 - G030118
 Collection Date: 03/01/18 12:05 PM

Work Order: 1803205
 Lab ID: 1803205-49
 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	03/08/18 01:32 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:32 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 01:32 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 01:32 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 01:32 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 01:32 PM
Acetone	92		10	µg/L	1	03/08/18 01:32 PM
Benzene	ND		1.0	µg/L	1	03/08/18 01:32 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 01:32 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 01:32 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 01:32 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 01:32 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 01:32 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
cis-1,2-Dichloroethene	4.0		1.0	µg/L	1	03/08/18 01:32 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 01:32 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 01:32 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 01:32 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 01:32 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 01:32 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 01:32 PM
Styrene	ND		1.0	µg/L	1	03/08/18 01:32 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 01:32 PM
Toluene	ND		1.0	µg/L	1	03/08/18 01:32 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 01:32 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 01:32 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 01:32 PM
Vinyl chloride	73		1.0	µg/L	1	03/08/18 01:32 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 01:32 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 01:32 PM
Surr: 4-Bromofluorobenzene	97.8		80-110	%REC	1	03/08/18 01:32 PM
Surr: Dibromofluoromethane	96.8		85-115	%REC	1	03/08/18 01:32 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-67 - G030118
Collection Date: 03/01/18 12:05 PM

Work Order: 1803205
Lab ID: 1803205-49
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.2		85-110	%REC	1	03/08/18 01:32 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	210		20	mg/L	40	03/09/18 11:05 AM

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

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-71 - G030118
Collection Date: 03/01/18 01:30 PM

Work Order: 1803205
Lab ID: 1803205-50
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: AK	
1,1,1-Trichloroethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
1,1-Dichloroethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
1,1-Dichloroethene	ND		5.0	µg/L	5	03/09/18 04:18 PM
1,2-Dichloroethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
1,2-Dichloropropane	ND		5.0	µg/L	5	03/09/18 04:18 PM
2-Butanone	110		25	µg/L	5	03/09/18 04:18 PM
2-Hexanone	ND		25	µg/L	5	03/09/18 04:18 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	5	03/09/18 04:18 PM
Acetone	230		50	µg/L	5	03/09/18 04:18 PM
Benzene	ND		5.0	µg/L	5	03/09/18 04:18 PM
Bromodichloromethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
Bromoform	ND		5.0	µg/L	5	03/09/18 04:18 PM
Bromomethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
Carbon disulfide	ND		5.0	µg/L	5	03/09/18 04:18 PM
Carbon tetrachloride	ND		5.0	µg/L	5	03/09/18 04:18 PM
Chlorobenzene	ND		5.0	µg/L	5	03/09/18 04:18 PM
Chloroethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
Chloroform	ND		5.0	µg/L	5	03/09/18 04:18 PM
Chloromethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
cis-1,2-Dichloroethene	7.1		5.0	µg/L	5	03/09/18 04:18 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	5	03/09/18 04:18 PM
Dibromochloromethane	ND		5.0	µg/L	5	03/09/18 04:18 PM
Ethylbenzene	ND		5.0	µg/L	5	03/09/18 04:18 PM
m,p-Xylene	ND		10	µg/L	5	03/09/18 04:18 PM
Methylene chloride	ND		25	µg/L	5	03/09/18 04:18 PM
o-Xylene	ND		5.0	µg/L	5	03/09/18 04:18 PM
Styrene	ND		5.0	µg/L	5	03/09/18 04:18 PM
Tetrachloroethene	ND		5.0	µg/L	5	03/09/18 04:18 PM
Toluene	66		5.0	µg/L	5	03/09/18 04:18 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	5	03/09/18 04:18 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	5	03/09/18 04:18 PM
Trichloroethene	ND		5.0	µg/L	5	03/09/18 04:18 PM
Vinyl chloride	1,300		25	µg/L	25	03/09/18 03:01 PM
Xylenes, Total	ND		15	µg/L	5	03/09/18 04:18 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	25	03/09/18 03:01 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	5	03/09/18 04:18 PM
Surr: 4-Bromofluorobenzene	95.4		80-110	%REC	25	03/09/18 03:01 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-71 - G030118
Collection Date: 03/01/18 01:30 PM

Work Order: 1803205
Lab ID: 1803205-50
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	97.5		80-110	%REC	5	03/09/18 04:18 PM
Surr: Dibromofluoromethane	99.5		85-115	%REC	25	03/09/18 03:01 PM
Surr: Dibromofluoromethane	101		85-115	%REC	5	03/09/18 04:18 PM
Surr: Toluene-d8	97.4		85-110	%REC	5	03/09/18 04:18 PM
Surr: Toluene-d8	97.6		85-110	%REC	25	03/09/18 03:01 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	1,100		120	mg/L	250	03/09/18 11:05 AM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-MW-76 - G030118
 Collection Date: 03/01/18 04:10 PM

Work Order: 1803205
 Lab ID: 1803205-51
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
VOLATILE ORGANIC COMPOUNDS			SW8260B		Analyst: AK	
1,1,1-Trichloroethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
1,1-Dichloroethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
1,1-Dichloroethene	ND		5.0	µg/L	5	03/09/18 04:34 PM
1,2-Dichloroethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
1,2-Dichloropropane	ND		5.0	µg/L	5	03/09/18 04:34 PM
2-Butanone	36		25	µg/L	5	03/09/18 04:34 PM
2-Hexanone	ND		25	µg/L	5	03/09/18 04:34 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	5	03/09/18 04:34 PM
Acetone	ND		50	µg/L	5	03/09/18 04:34 PM
Benzene	ND		5.0	µg/L	5	03/09/18 04:34 PM
Bromodichloromethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
Bromoform	ND		5.0	µg/L	5	03/09/18 04:34 PM
Bromomethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
Carbon disulfide	ND		5.0	µg/L	5	03/09/18 04:34 PM
Carbon tetrachloride	ND		5.0	µg/L	5	03/09/18 04:34 PM
Chlorobenzene	ND		5.0	µg/L	5	03/09/18 04:34 PM
Chloroethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
Chloroform	ND		5.0	µg/L	5	03/09/18 04:34 PM
Chloromethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
cis-1,2-Dichloroethene	41		5.0	µg/L	5	03/09/18 04:34 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	5	03/09/18 04:34 PM
Dibromochloromethane	ND		5.0	µg/L	5	03/09/18 04:34 PM
Ethylbenzene	ND		5.0	µg/L	5	03/09/18 04:34 PM
m,p-Xylene	ND		10	µg/L	5	03/09/18 04:34 PM
Methylene chloride	ND		25	µg/L	5	03/09/18 04:34 PM
o-Xylene	ND		5.0	µg/L	5	03/09/18 04:34 PM
Styrene	ND		5.0	µg/L	5	03/09/18 04:34 PM
Tetrachloroethene	ND		5.0	µg/L	5	03/09/18 04:34 PM
Toluene	ND		5.0	µg/L	5	03/09/18 04:34 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	5	03/09/18 04:34 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	5	03/09/18 04:34 PM
Trichloroethene	ND		5.0	µg/L	5	03/09/18 04:34 PM
Vinyl chloride	1,100		20	µg/L	20	03/09/18 03:16 PM
Xylenes, Total	ND		15	µg/L	5	03/09/18 04:34 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	20	03/09/18 03:16 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	5	03/09/18 04:34 PM
Surr: 4-Bromofluorobenzene	94.8		80-110	%REC	20	03/09/18 03:16 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-MW-76 - G030118
Collection Date: 03/01/18 04:10 PM

Work Order: 1803205
Lab ID: 1803205-51
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	97.0		80-110	%REC	5	03/09/18 04:34 PM
Surr: Dibromofluoromethane	97.5		85-115	%REC	20	03/09/18 03:16 PM
Surr: Dibromofluoromethane	102		85-115	%REC	5	03/09/18 04:34 PM
Surr: Toluene-d8	95.9		85-110	%REC	5	03/09/18 04:34 PM
Surr: Toluene-d8	98.6		85-110	%REC	20	03/09/18 03:16 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	340		50	mg/L	100	03/09/18 11:05 AM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-EB-001 - 030118
 Collection Date: 03/01/18 02:10 PM

Work Order: 1803205
 Lab ID: 1803205-52
 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	03/08/18 11:02 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:02 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 11:02 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 11:02 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 11:02 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 11:02 PM
Acetone	ND		10	µg/L	1	03/08/18 11:02 PM
Benzene	ND		1.0	µg/L	1	03/08/18 11:02 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 11:02 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 11:02 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 11:02 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 11:02 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
Chloroform	ND		1.0	µg/L	1	03/08/18 11:02 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:02 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 11:02 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 11:02 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 11:02 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 11:02 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 11:02 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 11:02 PM
Styrene	ND		1.0	µg/L	1	03/08/18 11:02 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 11:02 PM
Toluene	ND		1.0	µg/L	1	03/08/18 11:02 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:02 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 11:02 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 11:02 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 11:02 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 11:02 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/08/18 11:02 PM
Surr: 4-Bromofluorobenzene	96.1		80-110	%REC	1	03/08/18 11:02 PM
Surr: Dibromofluoromethane	97.4		85-115	%REC	1	03/08/18 11:02 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-EB-001 - 030118
Collection Date: 03/01/18 02:10 PM

Work Order: 1803205
Lab ID: 1803205-52
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	98.0		85-110	%REC	1	03/08/18 11:02 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-TB-001 - 030218
 Collection Date: 03/02/18 08:00 AM

Work Order: 1803205
 Lab ID: 1803205-53
 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	03/08/18 11:17 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:17 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 11:17 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 11:17 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 11:17 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 11:17 PM
Acetone	ND		10	µg/L	1	03/08/18 11:17 PM
Benzene	ND		1.0	µg/L	1	03/08/18 11:17 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 11:17 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 11:17 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 11:17 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 11:17 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
Chloroform	1.4		1.0	µg/L	1	03/08/18 11:17 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:17 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 11:17 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 11:17 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 11:17 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 11:17 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 11:17 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 11:17 PM
Styrene	ND		1.0	µg/L	1	03/08/18 11:17 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 11:17 PM
Toluene	ND		1.0	µg/L	1	03/08/18 11:17 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:17 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 11:17 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 11:17 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 11:17 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 11:17 PM
Surr: 1,2-Dichloroethane-d4	103		75-120	%REC	1	03/08/18 11:17 PM
Surr: 4-Bromofluorobenzene	95.6		80-110	%REC	1	03/08/18 11:17 PM
Surr: Dibromofluoromethane	100		85-115	%REC	1	03/08/18 11:17 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-TB-001 - 030218
Collection Date: 03/02/18 08:00 AM

Work Order: 1803205
Lab ID: 1803205-53
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	96.6		85-110	%REC	1	03/08/18 11:17 PM

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

Client: AMEC Foster Wheeler
 Project: TFS Rochester (3359-15-1040)
 Sample ID: ATR-TB-002 - 030218
 Collection Date: 03/02/18 08:00 AM

Work Order: 1803205
 Lab ID: 1803205-54
 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	03/08/18 11:33 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:33 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	03/08/18 11:33 PM
2-Butanone	ND		5.0	µg/L	1	03/08/18 11:33 PM
2-Hexanone	ND		5.0	µg/L	1	03/08/18 11:33 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	03/08/18 11:33 PM
Acetone	ND		10	µg/L	1	03/08/18 11:33 PM
Benzene	ND		1.0	µg/L	1	03/08/18 11:33 PM
Bromodichloromethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
Bromoform	ND		1.0	µg/L	1	03/08/18 11:33 PM
Bromomethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
Carbon disulfide	ND		1.0	µg/L	1	03/08/18 11:33 PM
Carbon tetrachloride	ND		1.0	µg/L	1	03/08/18 11:33 PM
Chlorobenzene	ND		1.0	µg/L	1	03/08/18 11:33 PM
Chloroethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
Chloroform	1.4		1.0	µg/L	1	03/08/18 11:33 PM
Chloromethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:33 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 11:33 PM
Dibromochloromethane	ND		1.0	µg/L	1	03/08/18 11:33 PM
Ethylbenzene	ND		1.0	µg/L	1	03/08/18 11:33 PM
m,p-Xylene	ND		2.0	µg/L	1	03/08/18 11:33 PM
Methylene chloride	ND		5.0	µg/L	1	03/08/18 11:33 PM
o-Xylene	ND		1.0	µg/L	1	03/08/18 11:33 PM
Styrene	ND		1.0	µg/L	1	03/08/18 11:33 PM
Tetrachloroethene	ND		1.0	µg/L	1	03/08/18 11:33 PM
Toluene	ND		1.0	µg/L	1	03/08/18 11:33 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	03/08/18 11:33 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	03/08/18 11:33 PM
Trichloroethene	ND		1.0	µg/L	1	03/08/18 11:33 PM
Vinyl chloride	ND		1.0	µg/L	1	03/08/18 11:33 PM
Xylenes, Total	ND		3.0	µg/L	1	03/08/18 11:33 PM
Surr: 1,2-Dichloroethane-d4	102		75-120	%REC	1	03/08/18 11:33 PM
Surr: 4-Bromofluorobenzene	94.8		80-110	%REC	1	03/08/18 11:33 PM
Surr: Dibromofluoromethane	103		85-115	%REC	1	03/08/18 11:33 PM

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

ALS Group, USA

Date: 12-Mar-18

Client: AMEC Foster Wheeler
Project: TFS Rochester (3359-15-1040)
Sample ID: ATR-TB-002 - 030218
Collection Date: 03/02/18 08:00 AM

Work Order: 1803205
Lab ID: 1803205-54
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<i>Surr: Toluene-d8</i>	97.6		85-110	%REC	1	03/08/18 11:33 PM

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

Client: AMEC Foster Wheeler
Work Order: 1803205
Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231282** Instrument ID **VMS10** Method: **SW8260B**

MBLK		Sample ID: VBLKW2-180307-R231282				Units: µg/L		Analysis Date: 03/07/18 10:08 PM		
Client ID:		Run ID: VMS10_180307A		SeqNo: 4925331		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>19.86</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.3</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.22</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.1</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>19.38</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.9</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.85</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.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231282** Instrument ID **VMS10** Method: **SW8260B**

LCS		Sample ID: VLCSW1-180307-R231282				Units: µg/L		Analysis Date: 03/07/18 09:21 PM		
Client ID:		Run ID: VMS10_180307A			SeqNo: 4925330		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	22.64	1.0	20	0	113	75-130	0			
1,1,2,2-Tetrachloroethane	22.31	1.0	20	0	112	75-130	0			
1,1,2-Trichloroethane	21.84	1.0	20	0	109	75-125	0			
1,1-Dichloroethane	21.49	1.0	20	0	107	75-133	0			
1,1-Dichloroethene	22.88	1.0	20	0	114	70-145	0			
1,2-Dichloroethane	20.5	1.0	20	0	102	78-125	0			
1,2-Dichloropropane	20.94	1.0	20	0	105	75-125	0			
2-Butanone	19.8	5.0	20	0	99	55-150	0			
2-Hexanone	19.69	5.0	20	0	98.4	60-135	0			
4-Methyl-2-pentanone	28.88	1.0	20	0	144	77-178	0			
Acetone	20.77	10	20	0	104	60-160	0			
Benzene	21.17	1.0	20	0	106	85-125	0			
Bromodichloromethane	19.46	1.0	20	0	97.3	75-125	0			
Bromoform	17.92	1.0	20	0	89.6	60-125	0			
Bromomethane	20.69	1.0	20	0	103	30-185	0			
Carbon disulfide	21.99	1.0	20	0	110	60-165	0			
Carbon tetrachloride	21.98	1.0	20	0	110	65-140	0			
Chlorobenzene	21.79	1.0	20	0	109	80-120	0			
Chloroethane	21.51	1.0	20	0	108	50-140	0			
Chloroform	22.09	1.0	20	0	110	80-130	0			
Chloromethane	19.84	1.0	20	0	99.2	46-148	0			
cis-1,2-Dichloroethene	22.05	1.0	20	0	110	75-134	0			
cis-1,3-Dichloropropene	18.99	1.0	20	0	95	70-130	0			
Dibromochloromethane	17.38	1.0	20	0	86.9	60-115	0			
Ethylbenzene	21.23	1.0	20	0	106	76-123	0			
m,p-Xylene	43.44	2.0	40	0	109	75-130	0			
Methylene chloride	19.47	5.0	20	0	97.4	75-140	0			
o-Xylene	21.78	1.0	20	0	109	80-125	0			
Styrene	20.16	1.0	20	0	101	83-137	0			
Tetrachloroethene	22.23	1.0	20	0	111	68-166	0			
Toluene	21.35	1.0	20	0	107	85-125	0			
trans-1,2-Dichloroethene	22.18	1.0	20	0	111	80-140	0			
trans-1,3-Dichloropropene	17.53	1.0	20	0	87.6	56-132	0			
Trichloroethene	21.49	1.0	20	0	107	84-130	0			
Vinyl chloride	18.34	1.0	20	0	91.7	50-136	0			
Xylenes, Total	65.22	3.0	60	0	109	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.84</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>20.35</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>20.51</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>20</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231282** Instrument ID **VMS10** Method: **SW8260B**

MS		Sample ID: 1803205-02A MS				Units: µg/L		Analysis Date: 03/08/18 03:32 AM		
Client ID: ATR-OW-3 (35) - G022718		Run ID: VMS10_180307A		SeqNo: 4925348		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	24.31	1.0	20	0	122	75-130	0			
1,1,2,2-Tetrachloroethane	23.61	1.0	20	0	118	75-130	0			
1,1,2-Trichloroethane	22.45	1.0	20	0	112	75-125	0			
1,1-Dichloroethane	24	1.0	20	0	120	75-133	0			
1,1-Dichloroethene	26.7	1.0	20	0	134	70-145	0			
1,2-Dichloroethane	21.18	1.0	20	0	106	78-125	0			
1,2-Dichloropropane	22.5	1.0	20	0	112	75-125	0			
2-Butanone	18.86	5.0	20	0	94.3	55-150	0			
2-Hexanone	19.1	5.0	20	0	95.5	60-135	0			
4-Methyl-2-pentanone	26.35	1.0	20	0	132	77-178	0			
Acetone	22.3	10	20	0	112	60-160	0			
Benzene	23.52	1.0	20	0	118	85-125	0			
Bromodichloromethane	20.16	1.0	20	0	101	75-125	0			
Bromoform	18	1.0	20	0	90	60-125	0			
Bromomethane	15.52	1.0	20	0	77.6	30-185	0			
Carbon disulfide	23.03	1.0	20	0	115	60-165	0			
Carbon tetrachloride	24.41	1.0	20	0	122	65-140	0			
Chlorobenzene	23.22	1.0	20	0	116	80-120	0			
Chloroethane	28.53	1.0	20	0	143	50-140	0			S
Chloroform	24.37	1.0	20	0	122	80-130	0			
Chloromethane	21.21	1.0	20	0	106	46-148	0			
cis-1,2-Dichloroethene	24.06	1.0	20	0	120	75-134	0			
cis-1,3-Dichloropropene	18.58	1.0	20	0	92.9	70-130	0			
Dibromochloromethane	17.59	1.0	20	0	88	60-115	0			
Ethylbenzene	22.8	1.0	20	0	114	76-123	0			
m,p-Xylene	46.32	2.0	40	0	116	75-130	0			
Methylene chloride	21.89	5.0	20	0	109	75-140	0			
o-Xylene	23.08	1.0	20	0	115	80-125	0			
Styrene	21.23	1.0	20	0	106	83-137	0			
Tetrachloroethene	24.38	1.0	20	0	122	68-166	0			
Toluene	23.07	1.0	20	0	115	85-125	0			
trans-1,2-Dichloroethene	25.16	1.0	20	0	126	80-140	0			
trans-1,3-Dichloropropene	17.13	1.0	20	0	85.6	56-132	0			
Trichloroethene	22.94	1.0	20	0	115	84-130	0			
Vinyl chloride	21.2	1.0	20	0.95	101	50-136	0			
Xylenes, Total	69.4	3.0	60	0	116	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.68	0	20	0	98.4	75-120	0			
Surr: 4-Bromofluorobenzene	19.78	0	20	0	98.9	80-110	0			
Surr: Dibromofluoromethane	20.64	0	20	0	103	85-115	0			
Surr: Toluene-d8	19.99	0	20	0	100	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231282** Instrument ID **VMS10** Method: **SW8260B**

MSD		Sample ID: 1803205-02A MSD				Units: µg/L		Analysis Date: 03/08/18 03:48 AM		
Client ID: ATR-OW-3 (35) - G022718		Run ID: VMS10_180307A		SeqNo: 4925349		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	23.47	1.0	20	0	117	75-130	24.31	3.52	30	
1,1,2,2-Tetrachloroethane	22.17	1.0	20	0	111	75-130	23.61	6.29	30	
1,1,2-Trichloroethane	21.44	1.0	20	0	107	75-125	22.45	4.6	30	
1,1-Dichloroethane	23.08	1.0	20	0	115	75-133	24	3.91	30	
1,1-Dichloroethene	25.03	1.0	20	0	125	70-145	26.7	6.46	30	
1,2-Dichloroethane	20.82	1.0	20	0	104	78-125	21.18	1.71	30	
1,2-Dichloropropane	21.98	1.0	20	0	110	75-125	22.5	2.34	30	
2-Butanone	19.17	5.0	20	0	95.8	55-150	18.86	1.63	30	
2-Hexanone	19.73	5.0	20	0	98.6	60-135	19.1	3.24	30	
4-Methyl-2-pentanone	27.45	1.0	20	0	137	77-178	26.35	4.09	30	
Acetone	22.53	10	20	0	113	60-160	22.3	1.03	30	
Benzene	22.19	1.0	20	0	111	85-125	23.52	5.82	30	
Bromodichloromethane	19.75	1.0	20	0	98.8	75-125	20.16	2.05	30	
Bromoform	17.46	1.0	20	0	87.3	60-125	18	3.05	30	
Bromomethane	15.16	1.0	20	0	75.8	30-185	15.52	2.35	30	
Carbon disulfide	22.41	1.0	20	0	112	60-165	23.03	2.73	30	
Carbon tetrachloride	23.67	1.0	20	0	118	65-140	24.41	3.08	30	
Chlorobenzene	21.73	1.0	20	0	109	80-120	23.22	6.63	30	
Chloroethane	28.35	1.0	20	0	142	50-140	28.53	0.633	30	S
Chloroform	23.03	1.0	20	0	115	80-130	24.37	5.65	30	
Chloromethane	21.08	1.0	20	0	105	46-148	21.21	0.615	30	
cis-1,2-Dichloroethene	22.72	1.0	20	0	114	75-134	24.06	5.73	30	
cis-1,3-Dichloropropene	17.79	1.0	20	0	89	70-130	18.58	4.34	30	
Dibromochloromethane	16.83	1.0	20	0	84.2	60-115	17.59	4.42	30	
Ethylbenzene	21.5	1.0	20	0	108	76-123	22.8	5.87	30	
m,p-Xylene	44.22	2.0	40	0	111	75-130	46.32	4.64	30	
Methylene chloride	20.36	5.0	20	0	102	75-140	21.89	7.24	30	
o-Xylene	21.91	1.0	20	0	110	80-125	23.08	5.2	30	
Styrene	20.28	1.0	20	0	101	83-137	21.23	4.58	30	
Tetrachloroethene	22.85	1.0	20	0	114	68-166	24.38	6.48	30	
Toluene	21.66	1.0	20	0	108	85-125	23.07	6.3	30	
trans-1,2-Dichloroethene	23.93	1.0	20	0	120	80-140	25.16	5.01	30	
trans-1,3-Dichloropropene	16.35	1.0	20	0	81.8	56-132	17.13	4.66	30	
Trichloroethene	21.89	1.0	20	0	109	84-130	22.94	4.68	30	
Vinyl chloride	21.2	1.0	20	0.95	101	50-136	21.2	0	30	
Xylenes, Total	66.13	3.0	60	0	110	80-126	69.4	4.83	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.05</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>75-120</i>	<i>19.68</i>	<i>1.86</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>19.77</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.8</i>	<i>80-110</i>	<i>19.78</i>	<i>0.0506</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>20.76</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>20.64</i>	<i>0.58</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>20</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>85-110</i>	<i>19.99</i>	<i>0.05</i>	<i>30</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
Work Order: 1803205
Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231282** Instrument ID **VMS10** Method: **SW8260B**

The following samples were analyzed in this batch:

1803205-02A	1803205-26A	1803205-27A
1803205-28A	1803205-30A	1803205-31A
1803205-32A	1803205-34A	1803205-35A
1803205-36A	1803205-37A	1803205-38A
1803205-39A	1803205-40A	1803205-41A
1803205-43A	1803205-44A	1803205-45A
1803205-46A	1803205-47A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231310** Instrument ID **VMS10** Method: **SW8260B**

MBLK		Sample ID: VBLKW1-180308-R231310				Units: µg/L		Analysis Date: 03/08/18 12:44 PM		
Client ID:		Run ID: VMS10_180308A		SeqNo: 4926274		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>20.25</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>19.17</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>95.8</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>19.35</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.8</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231310** Instrument ID **VMS10** Method: **SW8260B**

LCS		Sample ID: VLCSW1-180308-R231310				Units: µg/L		Analysis Date: 03/08/18 11:51 AM		
Client ID:		Run ID: VMS10_180308A		SeqNo: 4926272		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	22.21	1.0	20	0	111	75-130	0			
1,1,2,2-Tetrachloroethane	21.92	1.0	20	0	110	75-130	0			
1,1,2-Trichloroethane	21.43	1.0	20	0	107	75-125	0			
1,1-Dichloroethane	21.63	1.0	20	0	108	75-133	0			
1,1-Dichloroethene	23.39	1.0	20	0	117	70-145	0			
1,2-Dichloroethane	20.5	1.0	20	0	102	78-125	0			
1,2-Dichloropropane	21.26	1.0	20	0	106	75-125	0			
2-Butanone	17.69	5.0	20	0	88.4	55-150	0			
2-Hexanone	17.92	5.0	20	0	89.6	60-135	0			
4-Methyl-2-pentanone	26.34	1.0	20	0	132	77-178	0			
Acetone	18.87	10	20	0	94.4	60-160	0			
Benzene	20.85	1.0	20	0	104	85-125	0			
Bromodichloromethane	19.71	1.0	20	0	98.6	75-125	0			
Bromoform	18.91	1.0	20	0	94.6	60-125	0			
Bromomethane	18.86	1.0	20	0	94.3	30-185	0			
Carbon disulfide	23.08	1.0	20	0	115	60-165	0			
Carbon tetrachloride	21.65	1.0	20	0	108	65-140	0			
Chlorobenzene	20.54	1.0	20	0	103	80-120	0			
Chloroethane	21.48	1.0	20	0	107	50-140	0			
Chloroform	22	1.0	20	0	110	80-130	0			
Chloromethane	20.46	1.0	20	0	102	46-148	0			
cis-1,2-Dichloroethene	22.44	1.0	20	0	112	75-134	0			
cis-1,3-Dichloropropene	19.55	1.0	20	0	97.8	70-130	0			
Dibromochloromethane	17.63	1.0	20	0	88.2	60-115	0			
Ethylbenzene	20.4	1.0	20	0	102	76-123	0			
m,p-Xylene	41.51	2.0	40	0	104	75-130	0			
Methylene chloride	19.72	5.0	20	0	98.6	75-140	0			
o-Xylene	20.86	1.0	20	0	104	80-125	0			
Styrene	19.55	1.0	20	0	97.8	83-137	0			
Tetrachloroethene	21.43	1.0	20	0	107	68-166	0			
Toluene	20.18	1.0	20	0	101	85-125	0			
trans-1,2-Dichloroethene	22.27	1.0	20	0	111	80-140	0			
trans-1,3-Dichloropropene	17.79	1.0	20	0	89	56-132	0			
Trichloroethene	20.82	1.0	20	0	104	84-130	0			
Vinyl chloride	18.35	1.0	20	0	91.8	50-136	0			
Xylenes, Total	62.37	3.0	60	0	104	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	19.76	0	20	0	98.8	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	19.87	0	20	0	99.4	80-110	0			
<i>Surr: Dibromofluoromethane</i>	20.61	0	20	0	103	85-115	0			
<i>Surr: Toluene-d8</i>	19.74	0	20	0	98.7	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231310** Instrument ID **VMS10** Method: **SW8260B**

MS		Sample ID: 1803205-08A MS				Units: µg/L		Analysis Date: 03/08/18 06:26 PM		
Client ID: ATR-OW-1 (39) - G022818		Run ID: VMS10_180308A		SeqNo: 4926313		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	24.31	1.0	20	0	122	75-130	0			
1,1,2,2-Tetrachloroethane	22.95	1.0	20	0	115	75-130	0			
1,1,2-Trichloroethane	22.48	1.0	20	0	112	75-125	0			
1,1-Dichloroethane	23.79	1.0	20	0	119	75-133	0			
1,1-Dichloroethene	26.57	1.0	20	0	133	70-145	0			
1,2-Dichloroethane	20.94	1.0	20	0	105	78-125	0			
1,2-Dichloropropane	22.55	1.0	20	0	113	75-125	0			
2-Butanone	19.58	5.0	20	0	97.9	55-150	0			
2-Hexanone	20.04	5.0	20	0	100	60-135	0			
4-Methyl-2-pentanone	29.18	1.0	20	0	146	77-178	0			
Acetone	21.61	10	20	0	108	60-160	0			
Benzene	22.82	1.0	20	0	114	85-125	0			
Bromodichloromethane	21.1	1.0	20	0	106	75-125	0			
Bromoform	18.97	1.0	20	0	94.8	60-125	0			
Bromomethane	14.68	1.0	20	0	73.4	30-185	0			
Carbon disulfide	24.69	1.0	20	0	123	60-165	0			
Carbon tetrachloride	24.36	1.0	20	0	122	65-140	0			
Chlorobenzene	22.4	1.0	20	0	112	80-120	0			
Chloroethane	35.19	1.0	20	0	176	50-140	0			S
Chloroform	23.8	1.0	20	0	119	80-130	0			
Chloromethane	24.52	1.0	20	0	123	46-148	0			
cis-1,2-Dichloroethene	23.89	1.0	20	0	119	75-134	0			
cis-1,3-Dichloropropene	19.14	1.0	20	0	95.7	70-130	0			
Dibromochloromethane	18.28	1.0	20	0	91.4	60-115	0			
Ethylbenzene	22.34	1.0	20	0	112	76-123	0			
m,p-Xylene	45.1	2.0	40	0	113	75-130	0			
Methylene chloride	21.46	5.0	20	0	107	75-140	0			
o-Xylene	22.56	1.0	20	0	113	80-125	0			
Styrene	20.88	1.0	20	0	104	83-137	0			
Tetrachloroethene	23.25	1.0	20	0	116	68-166	0			
Toluene	22.45	1.0	20	0	112	85-125	0			
trans-1,2-Dichloroethene	24.98	1.0	20	0	125	80-140	0			
trans-1,3-Dichloropropene	17.86	1.0	20	0	89.3	56-132	0			
Trichloroethene	22.69	1.0	20	0	113	84-130	0			
Vinyl chloride	23.3	1.0	20	0	116	50-136	0			
Xylenes, Total	67.66	3.0	60	0	113	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.04</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.22</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>20.72</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>19.93</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.6</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231310** Instrument ID **VMS10** Method: **SW8260B**

MSD		Sample ID: 1803205-08A MSD				Units: µg/L		Analysis Date: 03/08/18 06:42 PM		
Client ID: ATR-OW-1 (39) - G022818		Run ID: VMS10_180308A		SeqNo: 4926314		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	24.24	1.0	20	0	121	75-130	24.31	0.288	30	
1,1,2,2-Tetrachloroethane	22.49	1.0	20	0	112	75-130	22.95	2.02	30	
1,1,2-Trichloroethane	22.1	1.0	20	0	110	75-125	22.48	1.7	30	
1,1-Dichloroethane	23.24	1.0	20	0	116	75-133	23.79	2.34	30	
1,1-Dichloroethene	25.58	1.0	20	0	128	70-145	26.57	3.8	30	
1,2-Dichloroethane	20.62	1.0	20	0	103	78-125	20.94	1.54	30	
1,2-Dichloropropane	21.93	1.0	20	0	110	75-125	22.55	2.79	30	
2-Butanone	19.62	5.0	20	0	98.1	55-150	19.58	0.204	30	
2-Hexanone	19.91	5.0	20	0	99.6	60-135	20.04	0.651	30	
4-Methyl-2-pentanone	28.51	1.0	20	0	143	77-178	29.18	2.32	30	
Acetone	21.39	10	20	0	107	60-160	21.61	1.02	30	
Benzene	22.56	1.0	20	0	113	85-125	22.82	1.15	30	
Bromodichloromethane	20.62	1.0	20	0	103	75-125	21.1	2.3	30	
Bromoform	18.35	1.0	20	0	91.8	60-125	18.97	3.32	30	
Bromomethane	13.68	1.0	20	0	68.4	30-185	14.68	7.05	30	
Carbon disulfide	25.01	1.0	20	0	125	60-165	24.69	1.29	30	
Carbon tetrachloride	24.34	1.0	20	0	122	65-140	24.36	0.0821	30	
Chlorobenzene	22.29	1.0	20	0	111	80-120	22.4	0.492	30	
Chloroethane	33.38	1.0	20	0	167	50-140	35.19	5.28	30	S
Chloroform	23.08	1.0	20	0	115	80-130	23.8	3.07	30	
Chloromethane	23.27	1.0	20	0	116	46-148	24.52	5.23	30	
cis-1,2-Dichloroethene	23.58	1.0	20	0	118	75-134	23.89	1.31	30	
cis-1,3-Dichloropropene	18.94	1.0	20	0	94.7	70-130	19.14	1.05	30	
Dibromochloromethane	17.66	1.0	20	0	88.3	60-115	18.28	3.45	30	
Ethylbenzene	22.42	1.0	20	0	112	76-123	22.34	0.357	30	
m,p-Xylene	44.84	2.0	40	0	112	75-130	45.1	0.578	30	
Methylene chloride	20.74	5.0	20	0	104	75-140	21.46	3.41	30	
o-Xylene	22.11	1.0	20	0	111	80-125	22.56	2.01	30	
Styrene	20.47	1.0	20	0	102	83-137	20.88	1.98	30	
Tetrachloroethene	23.22	1.0	20	0	116	68-166	23.25	0.129	30	
Toluene	22.23	1.0	20	0	111	85-125	22.45	0.985	30	
trans-1,2-Dichloroethene	24.76	1.0	20	0	124	80-140	24.98	0.885	30	
trans-1,3-Dichloropropene	17.71	1.0	20	0	88.6	56-132	17.86	0.843	30	
Trichloroethene	22.42	1.0	20	0	112	84-130	22.69	1.2	30	
Vinyl chloride	22.55	1.0	20	0	113	50-136	23.3	3.27	30	
Xylenes, Total	66.95	3.0	60	0	112	80-126	67.66	1.05	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>20.19</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>75-120</i>	<i>20.04</i>	<i>0.746</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.27</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>101</i>	<i>80-110</i>	<i>20.22</i>	<i>0.247</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>20.78</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>85-115</i>	<i>20.72</i>	<i>0.289</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>19.93</i>	<i>0.451</i>	<i>30</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
Work Order: 1803205
Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231310** Instrument ID **VMS10** Method: **SW8260B**

The following samples were analyzed in this batch:

1803205-01A	1803205-03A	1803205-04A
1803205-05A	1803205-06A	1803205-07A
1803205-08A	1803205-09A	1803205-10A
1803205-11A	1803205-13A	1803205-15A
1803205-16A	1803205-17A	1803205-21A
1803205-22A	1803205-23A	1803205-25A
1803205-48A	1803205-49A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231349** Instrument ID **VMS10** Method: **SW8260B**

MBLK		Sample ID: VBLKW2-180308-R231349				Units: µg/L		Analysis Date: 03/08/18 08:58 PM		
Client ID:		Run ID: VMS10_180308B		SeqNo: 4926543		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>20.3</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>19.54</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.7</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>19.64</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>98.2</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.36</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.8</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231349** Instrument ID **VMS10** Method: **SW8260B**

LCS		Sample ID: VLCSW2-180308-R231349				Units: µg/L		Analysis Date: 03/08/18 08:01 PM		
Client ID:		Run ID: VMS10_180308B		SeqNo: 4926542		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	23.09	1.0	20	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	23.87	1.0	20	0	119	75-130	0			
1,1,2-Trichloroethane	22.41	1.0	20	0	112	75-125	0			
1,1-Dichloroethane	22.53	1.0	20	0	113	75-133	0			
1,1-Dichloroethene	24.49	1.0	20	0	122	70-145	0			
1,2-Dichloroethane	20.84	1.0	20	0	104	78-125	0			
1,2-Dichloropropane	22.06	1.0	20	0	110	75-125	0			
2-Butanone	21.05	5.0	20	0	105	55-150	0			
2-Hexanone	19.97	5.0	20	0	99.8	60-135	0			
4-Methyl-2-pentanone	29.94	1.0	20	0	150	77-178	0			
Acetone	22.36	10	20	0	112	60-160	0			
Benzene	21.87	1.0	20	0	109	85-125	0			
Bromodichloromethane	20.88	1.0	20	0	104	75-125	0			
Bromoform	19.44	1.0	20	0	97.2	60-125	0			
Bromomethane	17.22	1.0	20	0	86.1	30-185	0			
Carbon disulfide	23.77	1.0	20	0	119	60-165	0			
Carbon tetrachloride	22.53	1.0	20	0	113	65-140	0			
Chlorobenzene	22	1.0	20	0	110	80-120	0			
Chloroethane	23.49	1.0	20	0	117	50-140	0			
Chloroform	23.13	1.0	20	0	116	80-130	0			
Chloromethane	21.8	1.0	20	0	109	46-148	0			
cis-1,2-Dichloroethene	23.31	1.0	20	0	117	75-134	0			
cis-1,3-Dichloropropene	19.5	1.0	20	0	97.5	70-130	0			
Dibromochloromethane	18.8	1.0	20	0	94	60-115	0			
Ethylbenzene	21.24	1.0	20	0	106	76-123	0			
m,p-Xylene	43.9	2.0	40	0	110	75-130	0			
Methylene chloride	20.67	5.0	20	0	103	75-140	0			
o-Xylene	21.83	1.0	20	0	109	80-125	0			
Styrene	20.77	1.0	20	0	104	83-137	0			
Tetrachloroethene	22.13	1.0	20	0	111	68-166	0			
Toluene	21.52	1.0	20	0	108	85-125	0			
trans-1,2-Dichloroethene	23.64	1.0	20	0	118	80-140	0			
trans-1,3-Dichloropropene	18.02	1.0	20	0	90.1	56-132	0			
Trichloroethene	21.49	1.0	20	0	107	84-130	0			
Vinyl chloride	20.14	1.0	20	0	101	50-136	0			
Xylenes, Total	65.73	3.0	60	0	110	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	19.99	0	20	0	100	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	19.86	0	20	0	99.3	80-110	0			
<i>Surr: Dibromofluoromethane</i>	20.76	0	20	0	104	85-115	0			
<i>Surr: Toluene-d8</i>	19.99	0	20	0	100	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231349** Instrument ID **VMS10** Method: **SW8260B**

MS		Sample ID: 1803205-47A MS				Units: µg/L		Analysis Date: 03/09/18 02:38 AM		
Client ID: ATR-MW-68 - G030118		Run ID: VMS10_180308B		SeqNo: 4926562		Prep Date:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	121.8	5.0	100	0	122	75-130	0			
1,1,2,2-Tetrachloroethane	111.9	5.0	100	0	112	75-130	0			
1,1,2-Trichloroethane	105.2	5.0	100	0	105	75-125	0			
1,1-Dichloroethane	117.2	5.0	100	0	117	75-133	0			
1,1-Dichloroethene	135.4	5.0	100	0	135	70-145	0			
1,2-Dichloroethane	103.4	5.0	100	0	103	78-125	0			
1,2-Dichloropropane	110.2	5.0	100	0	110	75-125	0			
2-Butanone	193.6	25	100	88.5	105	55-150	0			
2-Hexanone	94.6	25	100	0	94.6	60-135	0			
4-Methyl-2-pentanone	138	5.0	100	0	138	77-178	0			
Acetone	172.1	50	100	56.55	116	60-160	0			
Benzene	112.4	5.0	100	0	112	85-125	0			
Bromodichloromethane	104.7	5.0	100	0	105	75-125	0			
Bromoform	87.3	5.0	100	0	87.3	60-125	0			
Bromomethane	50.2	5.0	100	0	50.2	30-185	0			
Carbon disulfide	118.4	5.0	100	0	118	60-165	0			
Carbon tetrachloride	122.1	5.0	100	0	122	65-140	0			
Chlorobenzene	108.1	5.0	100	0	108	80-120	0			
Chloroethane	120.3	5.0	100	0	120	50-140	0			
Chloroform	118.2	5.0	100	0	118	80-130	0			
Chloromethane	145	5.0	100	0	145	46-148	0			
cis-1,2-Dichloroethene	272.1	5.0	100	141.2	131	75-134	0			
cis-1,3-Dichloropropene	91.55	5.0	100	0	91.6	70-130	0			
Dibromochloromethane	87	5.0	100	0	87	60-115	0			
Ethylbenzene	105.3	5.0	100	0	105	76-123	0			
m,p-Xylene	213.6	10	200	0	107	75-130	0			
Methylene chloride	109.2	25	100	0	109	75-140	0			
o-Xylene	107	5.0	100	0	107	80-125	0			
Styrene	98.45	5.0	100	0	98.4	83-137	0			
Tetrachloroethene	111.4	5.0	100	0	111	68-166	0			
Toluene	108.6	5.0	100	0	109	85-125	0			
trans-1,2-Dichloroethene	121.5	5.0	100	0	122	80-140	0			
trans-1,3-Dichloropropene	84.95	5.0	100	0	85	56-132	0			
Trichloroethene	109.7	5.0	100	0	110	84-130	0			
Vinyl chloride	1282	5.0	100	1065	216	50-136	0			SEO
Xylenes, Total	320.6	15	300	0	107	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>103.8</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>104</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>99.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>99.4</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>105.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>105</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231349** Instrument ID **VMS10** Method: **SW8260B**

MSD		Sample ID: 1803205-47A MSD				Units: µg/L		Analysis Date: 03/09/18 02:54 AM		
Client ID: ATR-MW-68 - G030118		Run ID: VMS10_180308B		SeqNo: 4926563		Prep Date:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	117	5.0	100	0	117	75-130	121.8	4.06	30	
1,1,2,2-Tetrachloroethane	111.4	5.0	100	0	111	75-130	111.9	0.493	30	
1,1,2-Trichloroethane	106	5.0	100	0	106	75-125	105.2	0.805	30	
1,1-Dichloroethane	113.6	5.0	100	0	114	75-133	117.2	3.08	30	
1,1-Dichloroethene	131.4	5.0	100	0	131	70-145	135.4	3	30	
1,2-Dichloroethane	100.3	5.0	100	0	100	78-125	103.4	3	30	
1,2-Dichloropropane	107.4	5.0	100	0	107	75-125	110.2	2.53	30	
2-Butanone	196.8	25	100	88.5	108	55-150	193.6	1.69	30	
2-Hexanone	96.85	25	100	0	96.8	60-135	94.6	2.35	30	
4-Methyl-2-pentanone	136.3	5.0	100	0	136	77-178	138	1.24	30	
Acetone	170.4	50	100	56.55	114	60-160	172.1	0.963	30	
Benzene	109	5.0	100	0	109	85-125	112.4	3.07	30	
Bromodichloromethane	99.5	5.0	100	0	99.5	75-125	104.7	5.09	30	
Bromoform	84.7	5.0	100	0	84.7	60-125	87.3	3.02	30	
Bromomethane	53.85	5.0	100	0	53.8	30-185	50.2	7.02	30	
Carbon disulfide	120.6	5.0	100	0	121	60-165	118.4	1.8	30	
Carbon tetrachloride	116.2	5.0	100	0	116	65-140	122.1	4.91	30	
Chlorobenzene	105.6	5.0	100	0	106	80-120	108.1	2.39	30	
Chloroethane	121.7	5.0	100	0	122	50-140	120.3	1.16	30	
Chloroform	115	5.0	100	0	115	80-130	118.2	2.74	30	
Chloromethane	152.1	5.0	100	0	152	46-148	145	4.75	30	S
cis-1,2-Dichloroethene	255.7	5.0	100	141.2	114	75-134	272.1	6.21	30	
cis-1,3-Dichloropropene	88.8	5.0	100	0	88.8	70-130	91.55	3.05	30	
Dibromochloromethane	83.65	5.0	100	0	83.6	60-115	87	3.93	30	
Ethylbenzene	104.2	5.0	100	0	104	76-123	105.3	1	30	
m,p-Xylene	211.8	10	200	0	106	75-130	213.6	0.846	30	
Methylene chloride	106.6	25	100	0	107	75-140	109.2	2.46	30	
o-Xylene	104.4	5.0	100	0	104	80-125	107	2.51	30	
Styrene	96.3	5.0	100	0	96.3	83-137	98.45	2.21	30	
Tetrachloroethene	106.9	5.0	100	0	107	68-166	111.4	4.17	30	
Toluene	104.2	5.0	100	0	104	85-125	108.6	4.09	30	
trans-1,2-Dichloroethene	120.4	5.0	100	0	120	80-140	121.5	0.909	30	
trans-1,3-Dichloropropene	80.45	5.0	100	0	80.4	56-132	84.95	5.44	30	
Trichloroethene	106.8	5.0	100	0	107	84-130	109.7	2.68	30	
Vinyl chloride	1136	5.0	100	1065	70.4	50-136	1282	12.1	30	EO
Xylenes, Total	316.2	15	300	0	105	80-126	320.6	1.4	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>101.8</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>102</i>	<i>75-120</i>	<i>103.8</i>	<i>1.85</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>100.2</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>80-110</i>	<i>99.4</i>	<i>0.802</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>105.9</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>106</i>	<i>85-115</i>	<i>105.4</i>	<i>0.426</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>98.9</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>98.9</i>	<i>85-110</i>	<i>100</i>	<i>1.11</i>	<i>30</i>	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
Work Order: 1803205
Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231349** Instrument ID **VMS10** Method: **SW8260B**

The following samples were analyzed in this batch:

1803205-01A	1803205-18A	1803205-19A
1803205-20A	1803205-24A	1803205-26A
1803205-30A	1803205-33A	1803205-34A
1803205-36A	1803205-37A	1803205-39A
1803205-42A	1803205-43A	1803205-44A
1803205-46A	1803205-47A	1803205-52A
1803205-53A	1803205-54A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231380** Instrument ID **VMS10** Method: **SW8260B**

MBLK		Sample ID: VBLKW3-180308-R231380				Units: µg/L		Analysis Date: 03/09/18 04:57 AM		
Client ID:		Run ID: VMS10_180308C		SeqNo: 4929403		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	ND	5.0								
cis-1,2-Dichloroethene	ND	1.0								
Vinyl chloride	ND	1.0								
<i>Surr: 1,2-Dichloroethane-d4</i>	20.27	0	20	0	101	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	18.88	0	20	0	94.4	80-110	0			
<i>Surr: Dibromofluoromethane</i>	19.95	0	20	0	99.8	85-115	0			
<i>Surr: Toluene-d8</i>	19.4	0	20	0	97	85-110	0			

LCS		Sample ID: VLCSW3-180308-R231380				Units: µg/L		Analysis Date: 03/09/18 04:26 AM		
Client ID:		Run ID: VMS10_180308C		SeqNo: 4929402		Prep Date:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	19.09	5.0	20	0	95.4	55-150	0			
cis-1,2-Dichloroethene	20.19	1.0	20	0	101	75-134	0			
Vinyl chloride	13.34	1.0	20	0	66.7	50-136	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	20.31	0	20	0	102	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	19.76	0	20	0	98.8	80-110	0			
<i>Surr: Dibromofluoromethane</i>	20.76	0	20	0	104	85-115	0			
<i>Surr: Toluene-d8</i>	19.84	0	20	0	99.2	85-110	0			

MS		Sample ID: 1803205-29A MS				Units: µg/L		Analysis Date: 03/09/18 08:18 AM		
Client ID: ATR-MW-16 - G022718		Run ID: VMS10_180308C		SeqNo: 4929416		Prep Date:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	284.2	25	100	185	99.2	55-150	0			
cis-1,2-Dichloroethene	112.2	5.0	100	0	112	75-134	0			
Vinyl chloride	105.8	5.0	100	0	106	50-136	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	103	0	100	0	103	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	102.3	0	100	0	102	80-110	0			
<i>Surr: Dibromofluoromethane</i>	103.4	0	100	0	103	85-115	0			
<i>Surr: Toluene-d8</i>	99.95	0	100	0	100	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231380** Instrument ID **VMS10** Method: **SW8260B**

MSD		Sample ID: 1803205-29A MSD				Units: µg/L		Analysis Date: 03/09/18 08:34 AM		
Client ID: ATR-MW-16 - G022718		Run ID: VMS10_180308C		SeqNo: 4929417		Prep Date:		DF: 5		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	276.1	25	100	185	91.1	55-150	284.2	2.91	30	
cis-1,2-Dichloroethene	108.6	5.0	100	0	109	75-134	112.2	3.22	30	
Vinyl chloride	106.8	5.0	100	0	107	50-136	105.8	0.847	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>103.4</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>103</i>	<i>75-120</i>	<i>103</i>	<i>0.436</i>	<i>30</i>	
<i>Surr: 4-Bromofluorobenzene</i>	<i>100.2</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>80-110</i>	<i>102.3</i>	<i>2.12</i>	<i>30</i>	
<i>Surr: Dibromofluoromethane</i>	<i>105.8</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>106</i>	<i>85-115</i>	<i>103.4</i>	<i>2.3</i>	<i>30</i>	
<i>Surr: Toluene-d8</i>	<i>100.1</i>	<i>0</i>	<i>100</i>	<i>0</i>	<i>100</i>	<i>85-110</i>	<i>99.95</i>	<i>0.15</i>	<i>30</i>	

The following samples were analyzed in this batch:

1803205-12A	1803205-14A	1803205-21A
1803205-29A	1803205-44A	1803205-50A
1803205-51A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231392** Instrument ID **VMS10** Method: **SW8260B**

MBLK		Sample ID: VBLKW1-180309-R231392				Units: µg/L		Analysis Date: 03/09/18 01:58 PM		
Client ID:		Run ID: VMS10_180309A		SeqNo: 4928778		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>20.01</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>100</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>18.89</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>94.4</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>19.95</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>19.2</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.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231392** Instrument ID **VMS10** Method: **SW8260B**

LCS		Sample ID: VLCSW1-180309-R231392				Units: µg/L		Analysis Date: 03/09/18 01:11 PM		
Client ID:		Run ID: VMS10_180309A		SeqNo: 4928777		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	22.26	1.0	20	0	111	75-130	0			
1,1,2,2-Tetrachloroethane	21.69	1.0	20	0	108	75-130	0			
1,1,2-Trichloroethane	20.33	1.0	20	0	102	75-125	0			
1,1-Dichloroethane	21.1	1.0	20	0	106	75-133	0			
1,1-Dichloroethene	27.27	1.0	20	0	136	70-145	0			
1,2-Dichloroethane	19.77	1.0	20	0	98.8	78-125	0			
1,2-Dichloropropane	20.29	1.0	20	0	101	75-125	0			
2-Butanone	17.23	5.0	20	0	86.2	55-150	0			
2-Hexanone	17.39	5.0	20	0	87	60-135	0			
4-Methyl-2-pentanone	25.28	1.0	20	0	126	77-178	0			
Acetone	18.23	10	20	0	91.2	60-160	0			
Benzene	20.41	1.0	20	0	102	85-125	0			
Bromodichloromethane	20.13	1.0	20	0	101	75-125	0			
Bromoform	18.26	1.0	20	0	91.3	60-125	0			
Bromomethane	14.75	1.0	20	0	73.8	30-185	0			
Carbon disulfide	23.77	1.0	20	0	119	60-165	0			
Carbon tetrachloride	22.01	1.0	20	0	110	65-140	0			
Chlorobenzene	20.5	1.0	20	0	102	80-120	0			
Chloroethane	21.28	1.0	20	0	106	50-140	0			
Chloroform	21.39	1.0	20	0	107	80-130	0			
Chloromethane	24.26	1.0	20	0	121	46-148	0			
cis-1,2-Dichloroethene	21.82	1.0	20	0	109	75-134	0			
cis-1,3-Dichloropropene	18.79	1.0	20	0	94	70-130	0			
Dibromochloromethane	17.57	1.0	20	0	87.8	60-115	0			
Ethylbenzene	20.02	1.0	20	0	100	76-123	0			
m,p-Xylene	40.71	2.0	40	0	102	75-130	0			
Methylene chloride	19.48	5.0	20	0	97.4	75-140	0			
o-Xylene	20.12	1.0	20	0	101	80-125	0			
Styrene	19.23	1.0	20	0	96.2	83-137	0			
Tetrachloroethene	21.15	1.0	20	0	106	68-166	0			
Toluene	20.11	1.0	20	0	101	85-125	0			
trans-1,2-Dichloroethene	22.14	1.0	20	0	111	80-140	0			
trans-1,3-Dichloropropene	17.37	1.0	20	0	86.8	56-132	0			
Trichloroethene	20.17	1.0	20	0	101	84-130	0			
Vinyl chloride	18.84	1.0	20	0	94.2	50-136	0			
Xylenes, Total	60.83	3.0	60	0	101	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	20	0	20	0	100	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	20.28	0	20	0	101	80-110	0			
<i>Surr: Dibromofluoromethane</i>	21.12	0	20	0	106	85-115	0			
<i>Surr: Toluene-d8</i>	19.9	0	20	0	99.5	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231392** Instrument ID **VMS10** Method: **SW8260B**

MS		Sample ID: 1803205-50A MS				Units: µg/L		Analysis Date: 03/09/18 07:39 PM		
Client ID: ATR-MW-71 - G030118		Run ID: VMS10_180309A		SeqNo: 4928801		Prep Date:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	586.5	25	500	0	117	75-130	0			
1,1,2,2-Tetrachloroethane	555.8	25	500	0	111	75-130	0			
1,1,2-Trichloroethane	535.5	25	500	0	107	75-125	0			
1,1-Dichloroethane	580	25	500	0	116	75-133	0			
1,1-Dichloroethene	652.5	25	500	0	130	70-145	0			
1,2-Dichloroethane	522.8	25	500	0	105	78-125	0			
1,2-Dichloropropane	548.5	25	500	0	110	75-125	0			
2-Butanone	664.8	120	500	96.25	114	55-150	0			
2-Hexanone	465.2	120	500	0	93	60-135	0			
4-Methyl-2-pentanone	671.2	25	500	0	134	77-178	0			
Acetone	798.5	250	500	238.5	112	60-160	0			
Benzene	573	25	500	0	115	85-125	0			
Bromodichloromethane	491.2	25	500	0	98.2	75-125	0			
Bromoform	410.8	25	500	0	82.2	60-125	0			
Bromomethane	447	25	500	0	89.4	30-185	0			
Carbon disulfide	572	25	500	0	114	60-165	0			
Carbon tetrachloride	584.2	25	500	0	117	65-140	0			
Chlorobenzene	546	25	500	0	109	80-120	0			
Chloroethane	608.5	25	500	0	122	50-140	0			
Chloroform	579.8	25	500	0	116	80-130	0			
Chloromethane	579.8	25	500	0	116	46-148	0			
cis-1,2-Dichloroethene	590.5	25	500	0	118	75-134	0			
cis-1,3-Dichloropropene	452.2	25	500	0	90.4	70-130	0			
Dibromochloromethane	408.8	25	500	0	81.8	60-115	0			
Ethylbenzene	540	25	500	0	108	76-123	0			
m,p-Xylene	1103	50	1000	0	110	75-130	0			
Methylene chloride	538.2	120	500	0	108	75-140	0			
o-Xylene	541.5	25	500	0	108	80-125	0			
Styrene	503.5	25	500	0	101	83-137	0			
Tetrachloroethene	572.2	25	500	0	114	68-166	0			
Toluene	598.5	25	500	56	108	85-125	0			
trans-1,2-Dichloroethene	612.2	25	500	0	122	80-140	0			
trans-1,3-Dichloropropene	392.5	25	500	0	78.5	56-132	0			
Trichloroethene	547.8	25	500	0	110	84-130	0			
Vinyl chloride	1670	25	500	1297	74.5	50-136	0			
Xylenes, Total	1644	75	1500	0	110	80-126	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	516.2	0	500	0	103	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	496.5	0	500	0	99.3	80-110	0			
<i>Surr: Dibromofluoromethane</i>	536.8	0	500	0	107	85-115	0			
<i>Surr: Toluene-d8</i>	502.5	0	500	0	100	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231392** Instrument ID **VMS10** Method: **SW8260B**

MSD		Sample ID: 1803205-50A MSD				Units: µg/L		Analysis Date: 03/09/18 07:55 PM		
Client ID: ATR-MW-71 - G030118		Run ID: VMS10_180309A		SeqNo: 4928802		Prep Date:		DF: 25		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	604.5	25	500	0	121	75-130	586.5	3.02	30	
1,1,2,2-Tetrachloroethane	571.8	25	500	0	114	75-130	555.8	2.84	30	
1,1,2-Trichloroethane	542.8	25	500	0	109	75-125	535.5	1.34	30	
1,1-Dichloroethane	588.2	25	500	0	118	75-133	580	1.41	30	
1,1-Dichloroethene	650	25	500	0	130	70-145	652.5	0.384	30	
1,2-Dichloroethane	525.5	25	500	0	105	78-125	522.8	0.525	30	
1,2-Dichloropropane	562.2	25	500	0	112	75-125	548.5	2.48	30	
2-Butanone	604.8	120	500	96.25	102	55-150	664.8	9.45	30	
2-Hexanone	490	120	500	0	98	60-135	465.2	5.18	30	
4-Methyl-2-pentanone	701.8	25	500	0	140	77-178	671.2	4.44	30	
Acetone	773.2	250	500	238.5	107	60-160	798.5	3.21	30	
Benzene	570.8	25	500	0	114	85-125	573	0.393	30	
Bromodichloromethane	508	25	500	0	102	75-125	491.2	3.35	30	
Bromoform	439.5	25	500	0	87.9	60-125	410.8	6.76	30	
Bromomethane	460.2	25	500	0	92	30-185	447	2.92	30	
Carbon disulfide	614	25	500	0	123	60-165	572	7.08	30	
Carbon tetrachloride	599.5	25	500	0	120	65-140	584.2	2.58	30	
Chlorobenzene	552.2	25	500	0	110	80-120	546	1.14	30	
Chloroethane	605	25	500	0	121	50-140	608.5	0.577	30	
Chloroform	595.2	25	500	0	119	80-130	579.8	2.64	30	
Chloromethane	654	25	500	0	131	46-148	579.8	12	30	
cis-1,2-Dichloroethene	591.8	25	500	0	118	75-134	590.5	0.211	30	
cis-1,3-Dichloropropene	462.8	25	500	0	92.6	70-130	452.2	2.3	30	
Dibromochloromethane	432.2	25	500	0	86.4	60-115	408.8	5.59	30	
Ethylbenzene	547	25	500	0	109	76-123	540	1.29	30	
m,p-Xylene	1114	50	1000	0	111	75-130	1103	1.04	30	
Methylene chloride	534.2	120	500	0	107	75-140	538.2	0.746	30	
o-Xylene	553.8	25	500	0	111	80-125	541.5	2.24	30	
Styrene	521.2	25	500	0	104	83-137	503.5	3.46	30	
Tetrachloroethene	577.2	25	500	0	115	68-166	572.2	0.87	30	
Toluene	603.2	25	500	56	109	85-125	598.5	0.791	30	
trans-1,2-Dichloroethene	604.8	25	500	0	121	80-140	612.2	1.23	30	
trans-1,3-Dichloropropene	416.8	25	500	0	83.4	56-132	392.5	5.99	30	
Trichloroethene	560.8	25	500	0	112	84-130	547.8	2.35	30	
Vinyl chloride	1748	25	500	1297	90.2	50-136	1670	4.61	30	
Xylenes, Total	1668	75	1500	0	111	80-126	1644	1.43	30	
Surr: 1,2-Dichloroethane-d4	509	0	500	0	102	75-120	516.2	1.41	30	
Surr: 4-Bromofluorobenzene	505	0	500	0	101	80-110	496.5	1.7	30	
Surr: Dibromofluoromethane	523.2	0	500	0	105	85-115	536.8	2.55	30	
Surr: Toluene-d8	492.5	0	500	0	98.5	85-110	502.5	2.01	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
Work Order: 1803205
Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231392** Instrument ID **VMS10** Method: **SW8260B**

The following samples were analyzed in this batch:

1803205-10A	1803205-12A	1803205-14A
1803205-29A	1803205-43A	1803205-48A
1803205-50A	1803205-51A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231499a** Instrument ID **VMS10** Method: **SW8260B**

MBLK		Sample ID: VBLKW1-180312-R231499a				Units: µg/L		Analysis Date: 03/12/18 11:48 AM		
Client ID:		Run ID: VMS10_180312A		SeqNo: 4929760		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>20.31</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>19.23</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.2</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>19.55</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>97.8</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>19.23</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>96.2</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231499a** Instrument ID **VMS10** Method: **SW8260B**

LCS		Sample ID: VLCSW2-180312-R231499a				Units: µg/L		Analysis Date: 03/12/18 12:26 PM		
Client ID:		Run ID: VMS10_180312A		SeqNo: 4929761		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	19.81	1.0	20	0	99	75-130	0			
1,1,2,2-Tetrachloroethane	20.5	1.0	20	0	102	75-130	0			
1,1,2-Trichloroethane	20.12	1.0	20	0	101	75-125	0			
1,1-Dichloroethane	19.99	1.0	20	0	100	75-133	0			
1,1-Dichloroethene	21.41	1.0	20	0	107	70-145	0			
1,2-Dichloroethane	18.74	1.0	20	0	93.7	78-125	0			
1,2-Dichloropropane	19.17	1.0	20	0	95.8	75-125	0			
2-Butanone	17.9	5.0	20	0	89.5	55-150	0			
2-Hexanone	17.56	5.0	20	0	87.8	60-135	0			
4-Methyl-2-pentanone	25.43	1.0	20	0	127	77-178	0			
Acetone	18.43	10	20	0	92.2	60-160	0			
Benzene	19.15	1.0	20	0	95.8	85-125	0			
Bromodichloromethane	17.73	1.0	20	0	88.6	75-125	0			
Bromoform	15.86	1.0	20	0	79.3	60-125	0			
Bromomethane	17	1.0	20	0	85	30-185	0			
Carbon disulfide	20.32	1.0	20	0	102	60-165	0			
Carbon tetrachloride	18.94	1.0	20	0	94.7	65-140	0			
Chlorobenzene	19.58	1.0	20	0	97.9	80-120	0			
Chloroethane	20.55	1.0	20	0	103	50-140	0			
Chloroform	20.43	1.0	20	0	102	80-130	0			
Chloromethane	22	1.0	20	0	110	46-148	0			
cis-1,2-Dichloroethene	20.22	1.0	20	0	101	75-134	0			
cis-1,3-Dichloropropene	17.39	1.0	20	0	87	70-130	0			
Dibromochloromethane	15.76	1.0	20	0	78.8	60-115	0			
Ethylbenzene	19.07	1.0	20	0	95.4	76-123	0			
m,p-Xylene	39.15	2.0	40	0	97.9	75-130	0			
Methylene chloride	18.34	5.0	20	0	91.7	75-140	0			
o-Xylene	19.51	1.0	20	0	97.6	80-125	0			
Styrene	18.42	1.0	20	0	92.1	83-137	0			
Tetrachloroethene	20.2	1.0	20	0	101	68-166	0			
Toluene	18.86	1.0	20	0	94.3	85-125	0			
trans-1,2-Dichloroethene	20.92	1.0	20	0	105	80-140	0			
trans-1,3-Dichloropropene	16.25	1.0	20	0	81.2	56-132	0			
Trichloroethene	18.99	1.0	20	0	95	84-130	0			
Vinyl chloride	17.87	1.0	20	0	89.4	50-136	0			
Xylenes, Total	58.66	3.0	60	0	97.8	80-126	0			
Surr: 1,2-Dichloroethane-d4	19.93	0	20	0	99.6	75-120	0			
Surr: 4-Bromofluorobenzene	19.96	0	20	0	99.8	80-110	0			
Surr: Dibromofluoromethane	20.6	0	20	0	103	85-115	0			
Surr: Toluene-d8	19.87	0	20	0	99.4	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231499a** Instrument ID **VMS10** Method: **SW8260B**

MS		Sample ID: 1803457-01A MS				Units: µg/L		Analysis Date: 03/12/18 02:46 PM		
Client ID:		Run ID: VMS10_180312A		SeqNo: 4929763		Prep Date: 03/09/18		DF: 20		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	474.2	20	400	0	119	75-130	0			
1,1,2,2-Tetrachloroethane	426.6	20	400	0	107	75-130	0			
1,1,2-Trichloroethane	432.2	20	400	0	108	75-125	0			
1,1-Dichloroethane	456	20	400	0	114	75-133	0			
1,1-Dichloroethene	572	20	400	0	143	70-145	0			
1,2-Dichloroethane	402	20	400	0	100	78-125	0			
1,2-Dichloropropane	429.4	20	400	0	107	75-125	0			
2-Butanone	418.4	100	400	0	105	55-150	0			
2-Hexanone	386.6	100	400	0	96.6	60-135	0			
4-Methyl-2-pentanone	547.8	20	400	0	137	77-178	0			
Acetone	458	200	400	0	114	60-160	0			
Benzene	432.8	20	400	0	108	85-125	0			
Bromodichloromethane	402.8	20	400	0	101	75-125	0			
Bromoform	351.6	20	400	0	87.9	60-125	0			
Bromomethane	371.6	20	400	0	92.9	30-185	0			
Carbon disulfide	527.2	20	400	0	132	60-165	0			
Carbon tetrachloride	475.8	20	400	0	119	65-140	0			
Chlorobenzene	430.4	20	400	0	108	80-120	0			
Chloroethane	475	20	400	0	119	50-140	0			
Chloroform	458.6	20	400	0	115	80-130	0			
Chloromethane	485.4	20	400	0	121	46-148	0			
cis-1,2-Dichloroethene	467.2	20	400	0	117	75-134	0			
cis-1,3-Dichloropropene	386.2	20	400	0	96.6	70-130	0			
Dibromochloromethane	343.6	20	400	0	85.9	60-115	0			
Ethylbenzene	431.8	20	400	0	108	76-123	0			
m,p-Xylene	885.8	40	800	0	111	75-130	0			
Methylene chloride	409.2	100	400	0	102	75-140	0			
o-Xylene	436.6	20	400	0	109	80-125	0			
Styrene	405.2	20	400	0	101	83-137	0			
Tetrachloroethene	471.4	20	400	0	118	68-166	0			
Toluene	429.8	20	400	0	107	85-125	0			
trans-1,2-Dichloroethene	476.8	20	400	0	119	80-140	0			
trans-1,3-Dichloropropene	361.2	20	400	0	90.3	56-132	0			
Trichloroethene	984.2	20	400	529.4	114	84-130	0			
Vinyl chloride	424.4	20	400	0	106	50-136	0			
Xylenes, Total	1322	60	1200	0	110	80-126	0			
Surr: 1,2-Dichloroethane-d4	401.6	0	400	0	100	75-120	0			
Surr: 4-Bromofluorobenzene	398.4	0	400	0	99.6	80-110	0			
Surr: Dibromofluoromethane	416.4	0	400	0	104	85-115	0			
Surr: Toluene-d8	397	0	400	0	99.2	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231499a** Instrument ID **VMS10** Method: **SW8260B**

MSD		Sample ID: 1803457-01A MSD				Units: µg/L		Analysis Date: 03/12/18 03:02 PM		
Client ID:		Run ID: VMS10_180312A		SeqNo: 4929764		Prep Date: 03/09/18		DF: 20		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	482	20	400	0	120	75-130	474.2	1.63	30	
1,1,2,2-Tetrachloroethane	428.6	20	400	0	107	75-130	426.6	0.468	30	
1,1,2-Trichloroethane	435.6	20	400	0	109	75-125	432.2	0.784	30	
1,1-Dichloroethane	467.4	20	400	0	117	75-133	456	2.47	30	
1,1-Dichloroethene	534.8	20	400	0	134	70-145	572	6.72	30	
1,2-Dichloroethane	408	20	400	0	102	78-125	402	1.48	30	
1,2-Dichloropropane	440	20	400	0	110	75-125	429.4	2.44	30	
2-Butanone	608.2	100	400	0	152	55-150	418.4	37	30	SR
2-Hexanone	457.2	100	400	0	114	60-135	386.6	16.7	30	
4-Methyl-2-pentanone	554.6	20	400	0	139	77-178	547.8	1.23	30	
Acetone	854	200	400	0	214	60-160	458	60.4	30	SR
Benzene	437.8	20	400	0	109	85-125	432.8	1.15	30	
Bromodichloromethane	407	20	400	0	102	75-125	402.8	1.04	30	
Bromoform	353.8	20	400	0	88.4	60-125	351.6	0.624	30	
Bromomethane	385.2	20	400	0	96.3	30-185	371.6	3.59	30	
Carbon disulfide	530.8	20	400	0	133	60-165	527.2	0.681	30	
Carbon tetrachloride	485.4	20	400	0	121	65-140	475.8	2	30	
Chlorobenzene	435.6	20	400	0	109	80-120	430.4	1.2	30	
Chloroethane	487.6	20	400	0	122	50-140	475	2.62	30	
Chloroform	462	20	400	0	116	80-130	458.6	0.739	30	
Chloromethane	498	20	400	0	124	46-148	485.4	2.56	30	
cis-1,2-Dichloroethene	480.8	20	400	0	120	75-134	467.2	2.87	30	
cis-1,3-Dichloropropene	390.6	20	400	0	97.6	70-130	386.2	1.13	30	
Dibromochloromethane	354	20	400	0	88.5	60-115	343.6	2.98	30	
Ethylbenzene	435	20	400	0	109	76-123	431.8	0.738	30	
m,p-Xylene	885.6	40	800	0	111	75-130	885.8	0.0226	30	
Methylene chloride	419.2	100	400	0	105	75-140	409.2	2.41	30	
o-Xylene	436	20	400	0	109	80-125	436.6	0.138	30	
Styrene	413.8	20	400	0	103	83-137	405.2	2.1	30	
Tetrachloroethene	516.6	20	400	0	129	68-166	471.4	9.15	30	
Toluene	434.8	20	400	0	109	85-125	429.8	1.16	30	
trans-1,2-Dichloroethene	485.6	20	400	0	121	80-140	476.8	1.83	30	
trans-1,3-Dichloropropene	360.8	20	400	0	90.2	56-132	361.2	0.111	30	
Trichloroethene	1008	20	400	529.4	120	84-130	984.2	2.43	30	
Vinyl chloride	434.4	20	400	0	109	50-136	424.4	2.33	30	
Xylenes, Total	1322	60	1200	0	110	80-126	1322	0.0605	30	
Surr: 1,2-Dichloroethane-d4	398	0	400	0	99.5	75-120	401.6	0.9	30	
Surr: 4-Bromofluorobenzene	402	0	400	0	100	80-110	398.4	0.9	30	
Surr: Dibromofluoromethane	418	0	400	0	104	85-115	416.4	0.384	30	
Surr: Toluene-d8	395.2	0	400	0	98.8	85-110	397	0.454	30	

The following samples were analyzed in this batch: | 1803205-48A |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231203B** Instrument ID **TOC3** Method: **SW9060A**

MBLK	Sample ID: MBLK-R231203B		Units: mg/L		Analysis Date: 03/06/18 01:40 PM					
Client ID:	Run ID: TOC3_180306A		SeqNo: 4923189		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-R231203B		Units: mg/L		Analysis Date: 03/06/18 01:40 PM					
Client ID:	Run ID: TOC3_180306A		SeqNo: 4923190		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 5.068 0.50 5 0 101 91-110 0

MS	Sample ID: 1803205-02BMS		Units: mg/L		Analysis Date: 03/06/18 01:40 PM					
Client ID: ATR-OW-3 (35) - G022718	Run ID: TOC3_180306A		SeqNo: 4923060		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 25.09 2.0 20 3.825 106 87-120 0

MS	Sample ID: 1803205-08BMS		Units: mg/L		Analysis Date: 03/06/18 01:40 PM					
Client ID: ATR-OW-1 (39) - G022818	Run ID: TOC3_180306A		SeqNo: 4923176		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 26.05 2.0 20 5.109 105 87-120 0

MSD	Sample ID: 1803205-02BMSD		Units: mg/L		Analysis Date: 03/06/18 01:40 PM					
Client ID: ATR-OW-3 (35) - G022718	Run ID: TOC3_180306A		SeqNo: 4923061		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 24.19 2.0 20 3.825 102 87-120 25.09 3.65 10

MSD	Sample ID: 1803205-08BMSD		Units: mg/L		Analysis Date: 03/06/18 01:40 PM					
Client ID: ATR-OW-1 (39) - G022818	Run ID: TOC3_180306A		SeqNo: 4923177		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 25.23 2.0 20 5.109 101 87-120 26.05 3.18 10

The following samples were analyzed in this batch:

1803205-01B	1803205-02B	1803205-03B
1803205-04B	1803205-05B	1803205-06B
1803205-07B	1803205-08B	1803205-09B
1803205-10B	1803205-11B	1803205-12B
1803205-13B	1803205-14B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231285** Instrument ID **TOC3** Method: **SW9060A**

MBLK		Sample ID: MBLK-R231285				Units: mg/L		Analysis Date: 03/07/18 12:39 PM		
Client ID:		Run ID: TOC3_180307A		SeqNo: 4924681		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-R231285				Units: mg/L		Analysis Date: 03/07/18 12:39 PM		
Client ID:		Run ID: TOC3_180307A		SeqNo: 4924682		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	5.116	0.50	5	0	102	91-110	0			

MS		Sample ID: 1803205-29BMS				Units: mg/L		Analysis Date: 03/07/18 12:39 PM		
Client ID: ATR-MW-16 - G022718		Run ID: TOC3_180307A		SeqNo: 4924702		Prep Date:		DF: 20		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	296.2	10	100	195.8	100	87-120	0			E

MSD		Sample ID: 1803205-29BMSD				Units: mg/L		Analysis Date: 03/07/18 12:39 PM		
Client ID: ATR-MW-16 - G022718		Run ID: TOC3_180307A		SeqNo: 4924703		Prep Date:		DF: 20		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Organic Carbon, Total	290.5	10	100	195.8	94.8	87-120	296.2	1.94	10	E

The following samples were analyzed in this batch:

1803205-01B	1803205-03B	1803205-07B
1803205-10B	1803205-15B	1803205-16B
1803205-17B	1803205-21B	1803205-22B
1803205-23B	1803205-25B	1803205-26B
1803205-27B	1803205-28B	1803205-29B
1803205-30B	1803205-31B	1803205-32B
1803205-34B	1803205-35B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 1803205
 Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231348A** Instrument ID **TOC3** Method: **SW9060A**

MBLK		Sample ID: MBLK-R231348A				Units: mg/L		Analysis Date: 03/08/18 12:22 PM		
Client ID:		Run ID: TOC3_180308A		SeqNo: 4926161		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-R231348A				Units: mg/L		Analysis Date: 03/08/18 12:22 PM		
Client ID:		Run ID: TOC3_180308A		SeqNo: 4926162		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	5.114	0.50	5	0	102	91-110		0		

The following samples were analyzed in this batch:

1803205-15B	1803205-16B	1803205-22B
1803205-23B	1803205-26B	1803205-30B
1803205-31B	1803205-32B	1803205-36B
1803205-37B	1803205-38B	1803205-39B
1803205-40B	1803205-41B	1803205-43B
1803205-44B	1803205-45B	1803205-46B
1803205-47B		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
Work Order: 1803205
Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231462A** Instrument ID **TOC3** Method: **SW9060A**

MBLK		Sample ID: MBLK-R231462A				Units: mg/L		Analysis Date: 03/09/18 11:05 AM		
Client ID:		Run ID: TOC3_180309A		SeqNo: 4928425		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-R231462A				Units: mg/L		Analysis Date: 03/09/18 11:05 AM		
Client ID:		Run ID: TOC3_180309A		SeqNo: 4928426		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	5.221	0.50	5	0	104	91-110		0		

The following samples were analyzed in this batch:

1803205-36B	1803205-39B	1803205-45B
1803205-46B	1803205-48B	1803205-49B
1803205-50B	1803205-51B	1803205-52B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
Work Order: 1803205
Project: TFS Rochester (3359-15-1040)

QC BATCH REPORT

Batch ID: **R231470A** Instrument ID **TOC3** Method: **SW9060A**

MBLK		Sample ID: MBLK-R231470A				Units: mg/L		Analysis Date: 03/11/18 12:31 PM		
Client ID:		Run ID: TOC3_180311A		SeqNo: 4928609		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-R231470A				Units: mg/L		Analysis Date: 03/11/18 12:31 PM		
Client ID:		Run ID: TOC3_180311A		SeqNo: 4928610		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	5.286	0.50	5	0	106	91-110		0		

The following samples were analyzed in this batch: 1803205-48B



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COC ID: 46999

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+1 801 266 7700

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+1 304 356 3168

York, PA
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ALS Project Manager: TSS

ALS Work Order #: 1803203

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order		Project Name		A	VOCs										
Work Order		Project Number	<u>3359151040</u>	B	TOC										
Company Name	<u>AMEC Foster Wheeler</u>	Bill To Company	<u>AMEC Foster Wheeler</u>	C	Nitrate/Nitrite										
Send Report To		Invoice Attn	<u>Accounts Payable</u>	D	Iron & Manganese										
Address	<u>521 Byers Road, Suite 204</u>	Address	<u>521 Byers Road, Suite 204</u>	E	Chloride, Sulfate, Alkalinity (Total & Bicarbonate)										
City/State/Zip	<u>Miamisburg, OH 45342</u>	City/State/Zip	<u>Miamisburg, OH 45342</u>	F											
Phone	<u>(937) 859-3600</u>	Phone	<u>(937) 859-3600</u>	G											
Fax	<u>(937) 859-7951</u>	Fax	<u>(937) 859-7951</u>	H											
e-Mail Address		e-Mail Address		I											
				J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>ATR-OW-3(55)-G022718</u>	<u>02/27/18</u>	<u>1035</u>	<u>W</u>	<u>1:3</u>	<u>4</u>	<u>X</u>	<u>X</u>									
2	<u>ATR-OW-3(35)-G022718</u>		<u>1210</u>		<u>1:3</u>	<u>4</u>		<u>X</u>									
3	<u>ATR-OW-3(35)-G022718MS</u>		<u>1210</u>			<u>3</u>											
4	<u>ATR-OW-3(35)-G022718MSD</u>		<u>1210</u>			<u>3</u>											
5	<u>ATR-OW-2(53)-G022718</u>		<u>1340</u>		<u>1:3</u>	<u>4</u>		<u>X</u>									
6	<u>ATR-OW-2(33)-G022718</u>		<u>1515</u>														
7	<u>ATR-MW-24(55.4)-G022718</u>		<u>1635</u>														
8	<u>ATR-MW-24(24.9)-G022718</u>		<u>1740</u>														
9	<u>ATR-MW-14-G022818</u>	<u>02/28/18</u>	<u>0935</u>														
10	<u>ATR-OW-1(39)-G022818</u>		<u>1050</u>														

Sampler(s) Please Print & Sign _____ Shipment Method _____ Turnaround Time in Business Days (BD) 10 BD 5 BD 3 BD 2 BD 1 BD Other _____ Results Due Date: _____

Relinquished by: <u>[Signature]</u>	Date: <u>03/02/18</u>	Time: <u>1015</u>	Received by: <u>[Signature]</u>	Notes:
Relinquished by: <u>[Signature]</u>	Date: <u>3/2/18</u>	Time: <u>1400</u>	Received by (Laboratory): <u>[Signature]</u>	Cooler ID: <u>240</u>
Logged by (Laboratory): <u>[Signature]</u>	Date: <u>3/5/18</u>	Time: <u>0900</u>	Checked by (Laboratory): <u>[Signature]</u>	Cooler Temp: <u>3.4°C</u>
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				Cooler ID: <u>240</u>
				Cooler Temp: <u>3.2°C</u>
				Cooler Temp: <u>2.8°C</u>



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York, PA
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ALS Project Manager: TJB

ALS Work Order #: 1803205

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name		A	VOCs											
Work Order		Project Number	<u>335915040</u>	B	TOC											
Company Name	<u>AMEC Foster Wheeler</u>	Bill To Company	<u>AMEC Foster Wheeler</u>	C	Nitrate/Nitrite											
Send Report To		Invoice Attn	<u>Accounts Payable</u>	D	Iron & Manganese											
Address	<u>521 Byers Road, Suite 204</u>	Address	<u>521 Byers Road, Suite 204</u>	E	Chloride, Sulfate, Alkalinity (Total & Bicarbonate)											
City/State/Zip	<u>Miamisburg, OH 45342</u>	City/State/Zip	<u>Miamisburg, OH 45342</u>	F												
Phone	<u>(937) 859-3600</u>	Phone	<u>(937) 859-3600</u>	G												
Fax	<u>(937) 859-7951</u>	Fax	<u>(937) 859-7951</u>	H												
e-Mail Address		e-Mail Address		I												
				J												

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>ATR - OW - 1 (39) - G022818 MS</u>	<u>02/28/18</u>	<u>1050</u>	<u>W</u>	<u>1</u>	<u>3</u>	<u>X</u>										
2	<u>ATR - OW - 1 (39) - G022818 MS0</u>		<u>1050</u>			<u>3</u>											
3	<u>ATR - OW - 1 (28) - G022818</u>		<u>1210</u>		<u>3</u>	<u>4</u>		<u>X</u>									
4	<u>ATR - MW - 82 (58) - G022818</u>		<u>1330</u>														
5	<u>ATR - MW - 62 (36) - G022818</u>		<u>1445</u>														
6	<u>ATR - MW - 81 (27) - G022818</u>		<u>1610</u>														
7	<u>ATR - MW - 59 (29) - G022818</u>		<u>1800</u>														
8	<u>ATR - PM - 3 - G030118</u>	<u>03/01/18</u>	<u>1050</u>														
9	<u>ATR - MW - 78 (35) - G030118</u>		<u>1315</u>														
10	<u>ATR - MW - 78 (35) - G030118R</u>		<u>1315</u>														

Sampler(s) Please Print & Sign	Shipment Method	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:
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Relinquished by: <u>[Signature]</u>	Date: <u>03/02/18</u>	Time: <u>1015</u>	Received by: <u>[Signature]</u>	Notes:
Relinquished by: <u>[Signature]</u>	Date: <u>3/2/18</u>	Time: <u>1400</u>	Received by (Laboratory): <u>[Signature]</u>	Cooler ID
Logged by (Laboratory): <u>[Signature]</u>	Date: <u>3/5/18</u>	Time: <u>0900</u>	Checked by (Laboratory): <u>[Signature]</u>	Cooler Temp
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₈ 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"/> Level III Std QC/Raw Data
				<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.
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ALS Project Manager: TBB

ALS Work Order #: 1803205

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order		Project Name		A	VOCs										
Work Order		Project Number	<u>3359151040</u>	B	TOC										
Company Name	<u>AMEC Foster Wheeler</u>	Bill To Company	<u>AMEC Foster Wheeler</u>	C	Nitrate/Nitrite										
Send Report To		Invoice Attn	<u>Accounts Payable</u>	D	Iron & Manganese										
Address	<u>521 Byers Road, Suite 204</u>	Address	<u>521 Byers Road, Suite 204</u>	E	Chloride, Sulfate, Alkalinity (Total & Bicarbonate)										
City/State/Zip	<u>Miamileburg, OH 45342</u>	City/State/Zip	<u>Miamileburg, OH 45342</u>	F											
Phone	<u>(937) 859-3600</u>	Phone	<u>(937) 859-3600</u>	G											
Fax	<u>(937) 859-7951</u>	Fax	<u>(937) 859-7951</u>	H											
e-Mail Address		e-Mail Address		I											
				J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>ATR - MW-77(41)-G030118</u>	<u>03/01/18</u>	<u>1500</u>	<u>W</u>	<u>1 & 3</u>	<u>4</u>	<u>X</u>	<u>X</u>									
2	<u>ATR - EB-002 - 022718</u>	<u>02/27/18</u>	<u>1715</u>			<u>3</u>											
3	<u>ATR - EB-002 - 022818</u>	<u>02/28/18</u>	<u>1700</u>			<u>3</u>											
4	<u>ATR - EB-002 - 030118</u>	<u>03/01/18</u>	<u>1810</u>			<u>3</u>											
5	<u>ATR - MW-81(27)-G022818R</u>	<u>02/28/18</u>	<u>1616</u>		<u>3</u>	<u>4</u>		<u>X</u>									
6	<u>ATR - MW-26(58.2)-G022618</u>	<u>02/26/18</u>	<u>1310</u>					<u>X</u>									
7	<u>ATR - MW-26(28.8)-G022618</u>		<u>1400</u>					<u>X</u>									
8	<u>ATR - EB-001-022618</u>		<u>1400</u>			<u>3</u>											
9	<u>ATR - MW-26(17.5)-G022618</u>		<u>1510</u>		<u>3</u>	<u>4</u>		<u>X</u>									
10	<u>ATR - ZVI-2(32.5)-G022618</u>		<u>1610</u>					<u>X</u>									

Sampler(s) Please Print & Sign		Shipment Method		Turnaround Time in Business Days (BD) <input type="checkbox"/> Other _____				Results Due Date:			
				<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							
Requisitioned by: <u>[Signature]</u>	Date: <u>03/02/18</u>	Time: <u>1015</u>	Received by: <u>[Signature]</u>	Notes:							
Requisitioned by: <u>[Signature]</u>	Date: <u>3/2/18</u>	Time: <u>1400</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>3/5/18</u>	Time: <u>0900</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 ₈ 6-NaHSO ₄ 7-Other 8-4°C 9-6035						<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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+1 304 356 3168

York, PA
+1 717 505 5280

ALS Project Manager: JBB

ALS Work Order #: 1803205

Customer Information		Project Information		Parameter/Method Request for Analysis												
Purchase Order		Project Name		A	VOCs											
Work Order		Project Number	<u>3359151040</u>	B	TOC											
Company Name	<u>AMEC Foster Wheeler</u>	Bill To Company	<u>AMEC Foster Wheeler</u>	C	Nitrate/Nitrite											
Send Report To		Invoice Attn	<u>Accounts Payable</u>	D	Iron & Manganese											
Address	<u>521 Byers Road, Suite 204</u>	Address	<u>521 Byers Road, Suite 204</u>	E	Chloride, Sulfate, Alkalinity (Total & Bicarbonate)											
City/State/Zip	<u>Miamisburg, OH 45342</u>	City/State/Zip	<u>Miamisburg, OH 45342</u>	F												
Phone	<u>(937) 859-3600</u>	Phone	<u>(937) 859-3600</u>	G												
Fax	<u>(937) 859-7851</u>	Fax	<u>(937) 859-7851</u>	H												
e-Mail Address		e-Mail Address		I												
				J												

No.	Sample Description	Date	Time	Matrix	Pres.	F/Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>ATR - ZVI-2(17.5) - G022618</u>	<u>02/26/18</u>	<u>1705</u>	<u>W</u>	<u>1 & 3</u>	<u>4</u>	<u>X</u>	<u>X</u>									
2	<u>ATR - MW-17 - G022718</u>	<u>02/27/18</u>	<u>0935</u>														
3	<u>ATR - MW-16 - G022718</u>		<u>1106</u>														
4	<u>ATR - OW-5(44) - G022718</u>		<u>1230</u>														
5	<u>ATR - OW-5(35) - G022718</u>		<u>1325</u>														
6	<u>ATR - OW-5(16) - G022718</u>		<u>1425</u>														
7	<u>ATR - EB-001 - 022718</u>		<u>1446</u>			<u>3</u>											
8	<u>ATR - MW-25(45.1) - G022718</u>		<u>1546</u>		<u>3</u>	<u>4</u>											
9	<u>ATR - MW-25(32.6) - G022718</u>		<u>1635</u>														
10	<u>ATR - MW-25(16.4) - G022718</u>		<u>1725</u>														

Sampler(s) Please Print & Sign	Shipment Method	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:
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Relinquished by: <u>[Signature]</u>	Date: <u>03/02/18</u>	Time: <u>1015</u>	Received by: <u>[Signature]</u>	Notes:
Relinquished by: <u>[Signature]</u>	Date: <u>3/2/18</u>	Time: <u>1400</u>	Received by (Laboratory): <u>[Signature]</u>	Cooler ID
Logged by (Laboratory): <u>[Signature]</u>	Date: <u>3/5/18</u>	Time: <u>0900</u>	Checked by (Laboratory): <u>[Signature]</u>	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"/> Level III Std QC/Raw Data
				<input type="checkbox"/> Level IV SW846/CLP
				<input type="checkbox"/> Other
				<input type="checkbox"/> TRRP Checklist
				<input type="checkbox"/> TRRP Level IV



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Chain of Custody Form

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Houston, TX
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Spring City, PA
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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

COC ID: 46993

ALS Project Manager: TJB

ALS Work Order #: 1803205

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order		Project Name		A	VOCs										
Work Order		Project Number	<u>3359151040</u>	B	TOC										
Company Name	<u>AMEC Foster Wheeler</u>	Bill To Company	<u>AMEC Foster Wheeler</u>	C	Nitrate/Nitrite										
Send Report To		Invoice Attn	<u>Accounts Payable</u>	D	Iron & Manganese										
Address	<u>521 Byers Road, Suite 204</u>	Address	<u>521 Byers Road, Suite 204</u>	E	Chloride, Sulfate, Alkalinity (Total & Bicarbonate)										
City/State/Zip	<u>Miamisburg, OH 45342</u>	City/State/Zip	<u>Miamisburg, OH 45342</u>	F											
Phone	<u>(937) 859-3600</u>	Phone	<u>(937) 859-3600</u>	G											
Fax	<u>(937) 859-7951</u>	Fax	<u>(937) 859-7951</u>	H											
e-Mail Address		e-Mail Address		I											
				J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ATR - MW-16-G022718 MS	02/27/18	1100	W	1	3	X	AS									
2	ATR - MW-16-G022718 MSO	↓	1100	↓	↓	3	↓	AS									
3	ATR - MW-15-G022818	02/28/18	0910	↓	3	4	↓	X									
4	ATR - OW-4 (54) - G022818	↓	1040	↓	↓	↓	↓	↓									
5	ATR - OW-4 (35) - G022818	↓	1125	↓	↓	↓	↓	↓									
6	ATR - MW-20 (51) - G022818	↓	1246	↓	↓	↓	↓	↓									
7	ATR - MW-20 (35) - G022818	↓	1415	↓	↓	↓	↓	X									
8	ATR - EB-001-022818	↓	1435	↓	↓	3	↓	↓									
9	ATR - MW-6C-G022818	↓	1515	↓	3	4	↓	X									
10	ATR - MW-6C-G022818R	↓	1515	↓	3	4	↓	X									

Sampler(s) Please Print & Sign		Shipment Method		Turnaround Time in Business Days (BD)				Results Due Date:		
				<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						
Relinquished by: <u>TJB</u>	Date: <u>03/02/18</u>	Time: <u>1015</u>	Received by: <u>Rebecca Weston</u>	Notes:						
Relinquished by: <u>A. Miller</u>	Date: <u>3/2/18</u>	Time: <u>1400</u>	Received by (Laboratory): <u>TJB</u>	Cooler ID:	Cooler Temp:	QC Package: (Check One Box Below)				
Logged by (Laboratory): <u>KW</u>	Date: <u>3/5/18</u>	Time: <u>0900</u>	Checked by (Laboratory): <u>TJB</u>			<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other _____				
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										

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.



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Chain of Custody Form

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COC ID: 46992

Houston, TX
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Middletown, PA
+1 717 944 5541

Salt Lake City, UT
+1 801 266 7700

York, PA
+1 717 505 5280

ALS Project Manager: TJB

ALS Work Order #: 1803205

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order		Project Name		A	VOCs										
Work Order		Project Number	<u>3359151040</u>	B	TOC										
Company Name	<u>AMEC Foster Wheeler</u>	Bill To Company	<u>AMEC Foster Wheeler</u>	C	Nitrate/Nitrite										
Send Report To		Invoice Attn	<u>Accounts Payable</u>	D	Iron & Manganese										
Address	<u>521 Byers Road, Suite 204</u>	Address	<u>521 Byers Road, Suite 204</u>	E	Chloride, Sulfate, Alkalinity (Total & Bicarbonate)										
City/State/Zip	<u>Miamisburg, OH 45342</u>	City/State/Zip	<u>Miamisburg, OH 45342</u>	F											
Phone	<u>(937) 859-3600</u>	Phone	<u>(937) 859-3600</u>	G											
Fax	<u>(937) 859-7951</u>	Fax	<u>(937) 859-7951</u>	H											
e-Mail Address		e-Mail Address		I											
				J											

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	<u>ATR-MW-12-G022818</u>	<u>02/28/18</u>	<u>1630</u>	<u>W</u>	<u>1,3</u>	<u>4</u>	<u>X</u>	<u>X</u>									
2	<u>ATR-MW-13-G022818</u>	<u>↓</u>	<u>1735</u>														
3	<u>ATR-MW-68-G030118</u>	<u>03/01/18</u>	<u>0945</u>														
4	<u>ATR-MW-72-G030118</u>	<u>↓</u>	<u>1050</u>														
5	<u>ATR-MW-67-G030118</u>	<u>↓</u>	<u>1205</u>														
6	<u>ATR-MW-71-G030118</u>	<u>↓</u>	<u>1330</u>														
7	<u>ATR-MW-76-G030118</u>	<u>↓</u>	<u>1610</u>														
8	<u>ATR-EB-001-030118</u>	<u>↓</u>	<u>1410</u>			<u>3</u>											
9	<u>ATR-TB-001-030218</u>	<u>03/02/18</u>	<u>0800</u>			<u>1</u>											
10	<u>ATR-TB-002-030218</u>	<u>03/02/18</u>	<u>0800</u>			<u>1</u>											

Sampler(s) Please Print & Sign	Shipment Method	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:
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Relinquished by: <u>[Signature]</u>	Date: <u>03/02/18</u>	Time: <u>1015</u>	Received by: <u>[Signature]</u>	Notes:
Relinquished by: <u>[Signature]</u>	Date: <u>3/3/18</u>	Time: <u>1030</u>	Received by (Laboratory): <u>[Signature]</u>	Cooler ID
Logged by (Laboratory): <u>[Signature]</u>	Date: <u>3/5/18</u>	Time: <u>0900</u>	Checked by (Laboratory): <u>[Signature]</u>	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 9-6035				QC Package: (Check One Box Below)
				<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
				<input type="checkbox"/> TRRP Checklist
				<input type="checkbox"/> TRRP Level IV

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Sample Receipt Checklist

Client Name: **AMEC - DAYTON**

Date/Time Received: **03-Mar-18 10:30**

Work Order: **1803205**

Received by: **KRW**

Checklist completed by Keith Wierenga 05-Mar-18
eSignature Date

Reviewed by: Alex Coaszar 05-Mar-18
eSignature Date

Matrices: Water

Carrier name: FedEx

- 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):

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage:

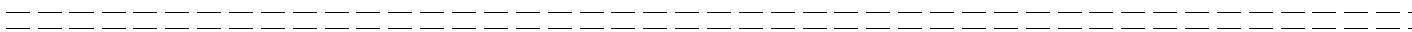
Water - VOA vials have zero headspace? Yes No No VOA vials submitted

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:



10-Apr-2018

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

Re: **3359-15-1040**

Work Order: **18031874**

Dear Paul,

ALS Environmental received 2 samples on 30-Mar-2018 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland 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 19.

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

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

A handwritten signature in black ink, appearing to read "Tom Beamish".

Electronically approved by: Tom Beamish

Tom Beamish
Senior Project Manager

Report of Laboratory Analysis

Certificate No: IN: C-MI-08

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RIGHT SOLUTIONS RIGHT PARTNER

Client: AMEC Foster Wheeler
Project: 3359-15-1040
Work Order: 18031874

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>
18031874-01	ATR-PM2-G032918	Water		03/29/18 10:10	03/30/18 09:30	<input type="checkbox"/>
18031874-02	VOC Trip Blank	Water		03/29/18	03/30/18 09:30	<input type="checkbox"/>

Client: AMEC Foster Wheeler
Project: 3359-15-1040
WorkOrder: 18031874

**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
Project: 3359-15-1040
Work Order: 18031874

Case Narrative

Samples for the above noted Work Order were received on 03/30/18. 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.

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

Volatile Organics:

No deviations or anomalies were noted.

Wet Chemistry:

No deviations or anomalies were noted.

Client: AMEC Foster Wheeler

Project: 3359-15-1040

Work Order: 18031874

Sample ID: ATR-PM2-G032918

Lab ID: 18031874-01

Collection Date: 03/29/18 10:10 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	04/06/18 02:14 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	04/06/18 02:14 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	04/06/18 02:14 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	04/06/18 02:14 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	04/06/18 02:14 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	04/06/18 02:14 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	04/06/18 02:14 PM
2-Butanone	50		5.0	µg/L	1	04/06/18 02:14 PM
2-Hexanone	ND		5.0	µg/L	1	04/06/18 02:14 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	04/06/18 02:14 PM
Acetone	150		100	µg/L	10	04/05/18 08:31 PM
Benzene	ND		1.0	µg/L	1	04/06/18 02:14 PM
Bromodichloromethane	ND		1.0	µg/L	1	04/06/18 02:14 PM
Bromoform	ND		1.0	µg/L	1	04/06/18 02:14 PM
Bromomethane	ND		1.0	µg/L	1	04/06/18 02:14 PM
Carbon disulfide	ND		1.0	µg/L	1	04/06/18 02:14 PM
Carbon tetrachloride	ND		1.0	µg/L	1	04/06/18 02:14 PM
Chlorobenzene	ND		1.0	µg/L	1	04/06/18 02:14 PM
Chloroethane	1.8		1.0	µg/L	1	04/06/18 02:14 PM
Chloroform	ND		1.0	µg/L	1	04/06/18 02:14 PM
Chloromethane	ND		1.0	µg/L	1	04/06/18 02:14 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	04/06/18 02:14 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	04/06/18 02:14 PM
Dibromochloromethane	ND		1.0	µg/L	1	04/06/18 02:14 PM
Ethylbenzene	8.1		1.0	µg/L	1	04/06/18 02:14 PM
m,p-Xylene	12		2.0	µg/L	1	04/06/18 02:14 PM
Methylene chloride	ND		5.0	µg/L	1	04/06/18 02:14 PM
o-Xylene	2.9		1.0	µg/L	1	04/06/18 02:14 PM
Styrene	ND		1.0	µg/L	1	04/06/18 02:14 PM
Tetrachloroethene	ND		1.0	µg/L	1	04/06/18 02:14 PM
Toluene	8.5		1.0	µg/L	1	04/06/18 02:14 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	04/06/18 02:14 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	04/06/18 02:14 PM
Trichloroethene	ND		1.0	µg/L	1	04/06/18 02:14 PM
Vinyl chloride	ND		1.0	µg/L	1	04/06/18 02:14 PM
Xylenes, Total	15		3.0	µg/L	1	04/06/18 02:14 PM
Surr: 1,2-Dichloroethane-d4	98.9		75-120	%REC	10	04/05/18 08:31 PM
Surr: 1,2-Dichloroethane-d4	105		75-120	%REC	1	04/06/18 02:14 PM
Surr: 4-Bromofluorobenzene	95.6		80-110	%REC	10	04/05/18 08:31 PM

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

ALS Group, USA

Date: 10-Apr-18

Client: AMEC Foster Wheeler
Project: 3359-15-1040
Sample ID: ATR-PM2-G032918
Collection Date: 03/29/18 10:10 AM

Work Order: 18031874
Lab ID: 18031874-01
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	102		80-110	%REC	1	04/06/18 02:14 PM
Surr: Dibromofluoromethane	93.4		85-115	%REC	10	04/05/18 08:31 PM
Surr: Dibromofluoromethane	103		85-115	%REC	1	04/06/18 02:14 PM
Surr: Toluene-d8	97.2		85-110	%REC	1	04/06/18 02:14 PM
Surr: Toluene-d8	88.4		85-110	%REC	10	04/05/18 08:31 PM
ORGANIC CARBON, TOTAL			SW9060A			Analyst: JJG
Organic Carbon, Total	130		10	mg/L	20	04/03/18 03:53 PM

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

Client: AMEC Foster Wheeler

Project: 3359-15-1040

Work Order: 18031874

Sample ID: VOC Trip Blank

Lab ID: 18031874-02

Collection Date: 03/29/18

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	04/05/18 04:37 PM
1,1,2,2-Tetrachloroethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
1,1,2-Trichloroethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
1,1-Dichloroethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
1,1-Dichloroethene	ND		1.0	µg/L	1	04/05/18 04:37 PM
1,2-Dichloroethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
1,2-Dichloropropane	ND		1.0	µg/L	1	04/05/18 04:37 PM
2-Butanone	ND		5.0	µg/L	1	04/05/18 04:37 PM
2-Hexanone	ND		5.0	µg/L	1	04/05/18 04:37 PM
4-Methyl-2-pentanone	ND		1.0	µg/L	1	04/05/18 04:37 PM
Acetone	ND		10	µg/L	1	04/05/18 04:37 PM
Benzene	ND		1.0	µg/L	1	04/05/18 04:37 PM
Bromodichloromethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
Bromoform	ND		1.0	µg/L	1	04/05/18 04:37 PM
Bromomethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
Carbon disulfide	ND		1.0	µg/L	1	04/05/18 04:37 PM
Carbon tetrachloride	ND		1.0	µg/L	1	04/05/18 04:37 PM
Chlorobenzene	ND		1.0	µg/L	1	04/05/18 04:37 PM
Chloroethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
Chloroform	ND		1.0	µg/L	1	04/05/18 04:37 PM
Chloromethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
cis-1,2-Dichloroethene	ND		1.0	µg/L	1	04/05/18 04:37 PM
cis-1,3-Dichloropropene	ND		1.0	µg/L	1	04/05/18 04:37 PM
Dibromochloromethane	ND		1.0	µg/L	1	04/05/18 04:37 PM
Ethylbenzene	ND		1.0	µg/L	1	04/05/18 04:37 PM
m,p-Xylene	ND		2.0	µg/L	1	04/05/18 04:37 PM
Methylene chloride	ND		5.0	µg/L	1	04/05/18 04:37 PM
o-Xylene	ND		1.0	µg/L	1	04/05/18 04:37 PM
Styrene	ND		1.0	µg/L	1	04/05/18 04:37 PM
Tetrachloroethene	ND		1.0	µg/L	1	04/05/18 04:37 PM
Toluene	ND		1.0	µg/L	1	04/05/18 04:37 PM
trans-1,2-Dichloroethene	ND		1.0	µg/L	1	04/05/18 04:37 PM
trans-1,3-Dichloropropene	ND		1.0	µg/L	1	04/05/18 04:37 PM
Trichloroethene	ND		1.0	µg/L	1	04/05/18 04:37 PM
Vinyl chloride	ND		1.0	µg/L	1	04/05/18 04:37 PM
Xylenes, Total	ND		3.0	µg/L	1	04/05/18 04:37 PM
Surr: 1,2-Dichloroethane-d4	99.7		75-120	%REC	1	04/05/18 04:37 PM
Surr: 4-Bromofluorobenzene	89.4		80-110	%REC	1	04/05/18 04:37 PM
Surr: Dibromofluoromethane	108		85-115	%REC	1	04/05/18 04:37 PM

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

ALS Group, USA

Date: 10-Apr-18

Client: AMEC Foster Wheeler

Project: 3359-15-1040

Work Order: 18031874

Sample ID: VOC Trip Blank

Lab ID: 18031874-02

Collection Date: 03/29/18

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Toluene-d8	90.6		85-110	%REC	1	04/05/18 04:37 PM

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

Client: AMEC Foster Wheeler
Work Order: 18031874
Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233157** Instrument ID **VMS10** Method: **SW8260B**

MBLK		Sample ID: VBK1-180405-R233157				Units: µg/L		Analysis Date: 04/05/18 02:33 PM		
Client ID:		Run ID: VMS10_180405A		SeqNo: 4969644		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								
Surr: 1,2-Dichloroethane-d4	20.15	0	20	0	101	75-120	0			
Surr: 4-Bromofluorobenzene	18.58	0	20	0	92.9	80-110	0			
Surr: Dibromofluoromethane	19.91	0	20	0	99.6	85-115	0			
Surr: Toluene-d8	18.96	0	20	0	94.8	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 18031874
 Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233157** Instrument ID **VMS10** Method: **SW8260B**

LCS		Sample ID: VLCSW1-180405-R233157				Units: µg/L		Analysis Date: 04/05/18 01:46 PM		
Client ID:		Run ID: VMS10_180405A			SeqNo: 4969643		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	23.59	1.0	20	0	118	75-130	0			
1,1,2,2-Tetrachloroethane	20.88	1.0	20	0	104	75-130	0			
1,1,2-Trichloroethane	20.06	1.0	20	0	100	75-125	0			
1,1-Dichloroethane	23.1	1.0	20	0	116	75-133	0			
1,1-Dichloroethene	24.18	1.0	20	0	121	70-145	0			
1,2-Dichloroethane	21.87	1.0	20	0	109	78-125	0			
1,2-Dichloropropane	22.15	1.0	20	0	111	75-125	0			
2-Butanone	20.4	5.0	20	0	102	55-150	0			
2-Hexanone	18.87	5.0	20	0	94.4	60-135	0			
4-Methyl-2-pentanone	26.92	1.0	20	0	135	77-178	0			
Acetone	21.16	10	20	0	106	60-160	0			
Benzene	22.48	1.0	20	0	112	85-125	0			
Bromodichloromethane	23.51	1.0	20	0	118	75-125	0			
Bromoform	18.72	1.0	20	0	93.6	60-125	0			
Bromomethane	19.62	1.0	20	0	98.1	30-185	0			
Carbon disulfide	24.37	1.0	20	0	122	60-165	0			
Carbon tetrachloride	23.58	1.0	20	0	118	65-140	0			
Chlorobenzene	19.22	1.0	20	0	96.1	80-120	0			
Chloroethane	18.53	1.0	20	0	92.6	50-140	0			
Chloroform	22.53	1.0	20	0	113	80-130	0			
Chloromethane	14.42	1.0	20	0	72.1	46-148	0			
cis-1,2-Dichloroethene	22.56	1.0	20	0	113	75-134	0			
cis-1,3-Dichloropropene	23.57	1.0	20	0	118	70-130	0			
Dibromochloromethane	20.46	1.0	20	0	102	60-115	0			
Ethylbenzene	19.91	1.0	20	0	99.6	76-123	0			
m,p-Xylene	41.96	2.0	40	0	105	75-130	0			
Methylene chloride	24.43	5.0	20	0	122	75-140	0			
o-Xylene	20.62	1.0	20	0	103	76-127	0			
Styrene	21.26	1.0	20	0	106	83-137	0			
Tetrachloroethene	20.3	1.0	20	0	102	68-166	0			
Toluene	20.19	1.0	20	0	101	85-125	0			
trans-1,2-Dichloroethene	24.99	1.0	20	0	125	80-140	0			
trans-1,3-Dichloropropene	18.61	1.0	20	0	93	56-132	0			
Trichloroethene	22.46	1.0	20	0	112	84-130	0			
Vinyl chloride	15.98	1.0	20	0	79.9	50-136	0			
Xylenes, Total	62.58	3.0	60	0	104	76-127	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	20.57	0	20	0	103	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	20.5	0	20	0	102	80-110	0			
<i>Surr: Dibromofluoromethane</i>	21.74	0	20	0	109	85-115	0			
<i>Surr: Toluene-d8</i>	18.29	0	20	0	91.4	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 18031874
 Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233157** Instrument ID **VMS10** Method: **SW8260B**

MS		Sample ID: 18031874-01A MS				Units: µg/L		Analysis Date: 04/05/18 08:47 PM		
Client ID: ATR-PM2-G032918		Run ID: VMS10_180405A		SeqNo: 4969654		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	230.5	10	200	0	115	75-130	0			
1,1,2,2-Tetrachloroethane	190.2	10	200	0	95.1	75-130	0			
1,1,2-Trichloroethane	195.6	10	200	0	97.8	75-125	0			
1,1-Dichloroethane	245.6	10	200	0	123	75-133	0			
1,1-Dichloroethene	274.2	10	200	0	137	70-145	0			
1,2-Dichloroethane	207.5	10	200	0	104	78-125	0			
1,2-Dichloropropane	213.5	10	200	0	107	75-125	0			
2-Butanone	274.7	50	200	47.7	114	55-150	0			
2-Hexanone	180.2	50	200	0	90.1	60-135	0			
4-Methyl-2-pentanone	243.4	10	200	0	122	77-178	0			
Acetone	373	100	200	154.7	109	60-160	0			
Benzene	217.8	10	200	0	109	85-125	0			
Bromodichloromethane	204.3	10	200	0	102	75-125	0			
Bromoform	161.9	10	200	0	81	60-125	0			
Bromomethane	263.1	10	200	0	132	30-185	0			
Carbon disulfide	250.6	10	200	0	125	60-165	0			
Carbon tetrachloride	232.5	10	200	0	116	65-140	0			
Chlorobenzene	189.5	10	200	0	94.8	80-120	0			
Chloroethane	221.8	10	200	0	111	50-140	0			
Chloroform	235.5	10	200	0	118	80-130	0			
Chloromethane	173.6	10	200	0	86.8	46-148	0			
cis-1,2-Dichloroethene	233.2	10	200	0	117	75-134	0			
cis-1,3-Dichloropropene	202.6	10	200	0	101	70-130	0			
Dibromochloromethane	182.1	10	200	0	91	60-115	0			
Ethylbenzene	208.6	10	200	8.1	100	76-123	0			
m,p-Xylene	421.9	20	400	12.7	102	75-130	0			
Methylene chloride	253.7	50	200	0	127	75-140	0			
o-Xylene	207.6	10	200	0	104	76-127	0			
Styrene	211.4	10	200	0	106	83-137	0			
Tetrachloroethene	212.9	10	200	0	106	68-166	0			
Toluene	211.9	10	200	9.1	101	85-125	0			
trans-1,2-Dichloroethene	264.5	10	200	0	132	80-140	0			
trans-1,3-Dichloropropene	167.2	10	200	0	83.6	56-132	0			
Trichloroethene	221.1	10	200	0	111	84-130	0			
Vinyl chloride	215.3	10	200	0	108	50-136	0			
Xylenes, Total	629.5	30	600	12.7	103	76-127	0			
Surr: 1,2-Dichloroethane-d4	193.9	0	200	0	97	75-120	0			
Surr: 4-Bromofluorobenzene	210	0	200	0	105	80-110	0			
Surr: Dibromofluoromethane	206	0	200	0	103	85-115	0			
Surr: Toluene-d8	183	0	200	0	91.5	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 18031874
 Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233157** Instrument ID **VMS10** Method: **SW8260B**

MSD		Sample ID: 18031874-01A MSD				Units: µg/L		Analysis Date: 04/05/18 09:02 PM		
Client ID: ATR-PM2-G032918		Run ID: VMS10_180405A		SeqNo: 4969655		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	253.1	10	200	0	127	75-130	230.5	9.35	30	
1,1,2,2-Tetrachloroethane	201.3	10	200	0	101	75-130	190.2	5.67	30	
1,1,2-Trichloroethane	204.8	10	200	0	102	75-125	195.6	4.6	30	
1,1-Dichloroethane	258	10	200	0	129	75-133	245.6	4.92	30	
1,1-Dichloroethene	288.4	10	200	0	144	70-145	274.2	5.05	30	
1,2-Dichloroethane	228	10	200	0	114	78-125	207.5	9.41	30	
1,2-Dichloropropane	232.2	10	200	0	116	75-125	213.5	8.39	30	
2-Butanone	280	50	200	47.7	116	55-150	274.7	1.91	30	
2-Hexanone	190.9	50	200	0	95.4	60-135	180.2	5.77	30	
4-Methyl-2-pentanone	257.5	10	200	0	129	77-178	243.4	5.63	30	
Acetone	397.8	100	200	154.7	122	60-160	373	6.43	30	
Benzene	237.8	10	200	0	119	85-125	217.8	8.78	30	
Bromodichloromethane	231.4	10	200	0	116	75-125	204.3	12.4	30	
Bromoform	175.3	10	200	0	87.6	60-125	161.9	7.95	30	
Bromomethane	276.5	10	200	0	138	30-185	263.1	4.97	30	
Carbon disulfide	272.4	10	200	0	136	60-165	250.6	8.34	30	
Carbon tetrachloride	258.2	10	200	0	129	65-140	232.5	10.5	30	
Chlorobenzene	197.7	10	200	0	98.8	80-120	189.5	4.24	30	
Chloroethane	225.6	10	200	0	113	50-140	221.8	1.7	30	
Chloroform	243.9	10	200	0	122	80-130	235.5	3.5	30	
Chloromethane	176.6	10	200	0	88.3	46-148	173.6	1.71	30	
cis-1,2-Dichloroethene	241.3	10	200	0	121	75-134	233.2	3.41	30	
cis-1,3-Dichloropropene	228.1	10	200	0	114	70-130	202.6	11.8	30	
Dibromochloromethane	197.1	10	200	0	98.6	60-115	182.1	7.91	30	
Ethylbenzene	221.7	10	200	8.1	107	76-123	208.6	6.09	30	
m,p-Xylene	442.1	20	400	12.7	107	75-130	421.9	4.68	30	
Methylene chloride	265.9	50	200	0	133	75-140	253.7	4.7	30	
o-Xylene	211.9	10	200	0	106	76-127	207.6	2.05	30	
Styrene	219.2	10	200	0	110	83-137	211.4	3.62	30	
Tetrachloroethene	220.8	10	200	0	110	68-166	212.9	3.64	30	
Toluene	219.3	10	200	9.1	105	85-125	211.9	3.43	30	
trans-1,2-Dichloroethene	275.5	10	200	0	138	80-140	264.5	4.07	30	
trans-1,3-Dichloropropene	176.8	10	200	0	88.4	56-132	167.2	5.58	30	
Trichloroethene	240.7	10	200	0	120	84-130	221.1	8.49	30	
Vinyl chloride	224.9	10	200	0	112	50-136	215.3	4.36	30	
Xylenes, Total	654	30	600	12.7	107	76-127	629.5	3.82	30	
Surr: 1,2-Dichloroethane-d4	196.9	0	200	0	98.4	75-120	193.9	1.54	30	
Surr: 4-Bromofluorobenzene	203.2	0	200	0	102	80-110	210	3.29	30	
Surr: Dibromofluoromethane	219	0	200	0	110	85-115	206	6.12	30	
Surr: Toluene-d8	179.3	0	200	0	89.6	85-110	183	2.04	30	

The following samples were analyzed in this batch:

18031874-01A	18031874-02A
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 18031874
 Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233231a** Instrument ID **VMS6** Method: **SW8260B**

MBLK		Sample ID: VBLKW2-180406-R233231a				Units: µg/L		Analysis Date: 04/06/18 01:49 PM		
Client ID:		Run ID: VMS6_180406A		SeqNo: 4972068		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								
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>20.47</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>18.25</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>91.2</i>	<i>80-110</i>	<i>0</i>			
<i>Surr: Dibromofluoromethane</i>	<i>20.46</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>19.56</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.

Client: AMEC Foster Wheeler
 Work Order: 18031874
 Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233231a** Instrument ID **VMS6** Method: **SW8260B**

LCS		Sample ID: VLCSW1-180406-R233231a				Units: µg/L		Analysis Date: 04/06/18 12:59 PM		
Client ID:		Run ID: VMS6_180406A			SeqNo: 4972067		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	21.96	1.0	20	0	110	75-130	0			
1,1,2,2-Tetrachloroethane	19.82	1.0	20	0	99.1	75-130	0			
1,1,2-Trichloroethane	19.45	1.0	20	0	97.2	75-125	0			
1,1-Dichloroethane	21.55	1.0	20	0	108	75-133	0			
1,1-Dichloroethene	22.89	1.0	20	0	114	70-145	0			
1,2-Dichloroethane	19.77	1.0	20	0	98.8	78-125	0			
1,2-Dichloropropane	19.98	1.0	20	0	99.9	75-125	0			
2-Butanone	17.58	5.0	20	0	87.9	55-150	0			
2-Hexanone	15.7	5.0	20	0	78.5	60-135	0			
4-Methyl-2-pentanone	21.19	1.0	20	0	106	77-178	0			
Benzene	21.07	1.0	20	0	105	85-125	0			
Bromodichloromethane	19.82	1.0	20	0	99.1	75-125	0			
Bromoform	19.72	1.0	20	0	98.6	60-125	0			
Bromomethane	21.57	1.0	20	0	108	30-185	0			
Carbon disulfide	22.75	1.0	20	0	114	60-165	0			
Carbon tetrachloride	20.54	1.0	20	0	103	65-140	0			
Chlorobenzene	19.56	1.0	20	0	97.8	80-120	0			
Chloroethane	19.04	1.0	20	0	95.2	50-140	0			
Chloroform	20.81	1.0	20	0	104	80-130	0			
Chloromethane	15.94	1.0	20	0	79.7	46-148	0			
cis-1,2-Dichloroethene	21.11	1.0	20	0	106	75-134	0			
cis-1,3-Dichloropropene	19.96	1.0	20	0	99.8	70-130	0			
Dibromochloromethane	19.96	1.0	20	0	99.8	60-115	0			
Ethylbenzene	20.61	1.0	20	0	103	76-123	0			
m,p-Xylene	43.38	2.0	40	0	108	75-130	0			
Methylene chloride	22.79	5.0	20	0	114	75-140	0			
o-Xylene	21.18	1.0	20	0	106	76-127	0			
Styrene	22.1	1.0	20	0	110	83-137	0			
Tetrachloroethene	20.43	1.0	20	0	102	68-166	0			
Toluene	20.24	1.0	20	0	101	85-125	0			
trans-1,2-Dichloroethene	21.93	1.0	20	0	110	80-140	0			
trans-1,3-Dichloropropene	19.13	1.0	20	0	95.6	56-132	0			
Trichloroethene	20.37	1.0	20	0	102	84-130	0			
Vinyl chloride	17.96	1.0	20	0	89.8	50-136	0			
Xylenes, Total	64.56	3.0	60	0	108	76-127	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	19.33	0	20	0	96.6	75-120	0			
<i>Surr: 4-Bromofluorobenzene</i>	20.32	0	20	0	102	80-110	0			
<i>Surr: Dibromofluoromethane</i>	20.03	0	20	0	100	85-115	0			
<i>Surr: Toluene-d8</i>	19.9	0	20	0	99.5	85-110	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 18031874
 Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233231a** Instrument ID **VMS6** Method: **SW8260B**

MS		Sample ID: 1804022-01A MS				Units: µg/L		Analysis Date: 04/06/18 10:38 PM		
Client ID:		Run ID: VMS6_180406A		SeqNo: 4972084		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	208.4	10	200	0	104	75-130	0			
1,1,2,2-Tetrachloroethane	183.9	10	200	0	92	75-130	0			
1,1,2-Trichloroethane	180.5	10	200	0	90.2	75-125	0			
1,1-Dichloroethane	198.3	10	200	0	99.2	75-133	0			
1,1-Dichloroethene	218	10	200	0	109	70-145	0			
1,2-Dichloroethane	182.2	10	200	0	91.1	78-125	0			
1,2-Dichloropropane	186.7	10	200	0	93.4	75-125	0			
2-Butanone	217.9	50	200	0	109	55-150	0			
2-Hexanone	177.2	50	200	0	88.6	60-135	0			
4-Methyl-2-pentanone	189.1	10	200	0	94.6	77-178	0			
Benzene	196.1	10	200	0	98	85-125	0			
Bromodichloromethane	180.4	10	200	0	90.2	75-125	0			
Bromoform	174.2	10	200	0	87.1	60-125	0			
Bromomethane	146	10	200	0	73	30-185	0			
Carbon disulfide	218.7	10	200	0	109	60-165	0			
Carbon tetrachloride	195.5	10	200	0	97.8	65-140	0			
Chlorobenzene	184.1	10	200	0	92	80-120	0			
Chloroethane	172.8	10	200	0	86.4	50-140	0			
Chloroform	196.1	10	200	0	98	80-130	0			
Chloromethane	109.9	10	200	0	55	46-148	0			
cis-1,2-Dichloroethene	196.2	10	200	0	98.1	75-134	0			
cis-1,3-Dichloropropene	177.5	10	200	0	88.8	70-130	0			
Dibromochloromethane	180.8	10	200	0	90.4	60-115	0			
Ethylbenzene	192.3	10	200	0	96.2	76-123	0			
m,p-Xylene	405.8	20	400	2	101	75-130	0			
Methylene chloride	210	50	200	0	105	75-140	0			
o-Xylene	199.4	10	200	0	99.7	76-127	0			
Styrene	205.8	10	200	0	103	83-137	0			
Tetrachloroethene	199.9	10	200	0	100	68-166	0			
Toluene	187.6	10	200	0	93.8	85-125	0			
trans-1,2-Dichloroethene	204.4	10	200	0	102	80-140	0			
trans-1,3-Dichloropropene	170.9	10	200	0	85.4	56-132	0			
Trichloroethene	189.7	10	200	0	94.8	84-130	0			
Vinyl chloride	155.3	10	200	0	77.6	50-136	0			
Xylenes, Total	605.2	30	600	0	101	76-127	0			
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>194.7</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>97.4</i>	<i>75-120</i>	<i>0</i>			
<i>Surr: 4-Bromofluorobenzene</i>	<i>204.8</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>197.2</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>98.6</i>	<i>85-115</i>	<i>0</i>			
<i>Surr: Toluene-d8</i>	<i>199.2</i>	<i>0</i>	<i>200</i>	<i>0</i>	<i>99.6</i>	<i>85-110</i>	<i>0</i>			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 18031874
 Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233231a** Instrument ID **VMS6** Method: **SW8260B**

MSD		Sample ID: 1804022-01A MSD				Units: µg/L		Analysis Date: 04/06/18 11:03 PM		
Client ID:		Run ID: VMS6_180406A			SeqNo: 4972087		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	213.5	10	200	0	107	75-130	208.4	2.42	30	
1,1,2,2-Tetrachloroethane	185.2	10	200	0	92.6	75-130	183.9	0.704	30	
1,1,2-Trichloroethane	184.7	10	200	0	92.4	75-125	180.5	2.3	30	
1,1-Dichloroethane	207.1	10	200	0	104	75-133	198.3	4.34	30	
1,1-Dichloroethene	225.1	10	200	0	113	70-145	218	3.2	30	
1,2-Dichloroethane	187.8	10	200	0	93.9	78-125	182.2	3.03	30	
1,2-Dichloropropane	193.1	10	200	0	96.6	75-125	186.7	3.37	30	
2-Butanone	220.2	50	200	0	110	55-150	217.9	1.05	30	
2-Hexanone	178.7	50	200	0	89.4	60-135	177.2	0.843	30	
4-Methyl-2-pentanone	194.1	10	200	0	97	77-178	189.1	2.61	30	
Benzene	202.2	10	200	0	101	85-125	196.1	3.06	30	
Bromodichloromethane	188.1	10	200	0	94	75-125	180.4	4.18	30	
Bromoform	179.1	10	200	0	89.6	60-125	174.2	2.77	30	
Bromomethane	168.6	10	200	0	84.3	30-185	146	14.4	30	
Carbon disulfide	226.6	10	200	0	113	60-165	218.7	3.55	30	
Carbon tetrachloride	201.8	10	200	0	101	65-140	195.5	3.17	30	
Chlorobenzene	191.6	10	200	0	95.8	80-120	184.1	3.99	30	
Chloroethane	176.3	10	200	0	88.2	50-140	172.8	2.01	30	
Chloroform	203.9	10	200	0	102	80-130	196.1	3.9	30	
Chloromethane	120.5	10	200	0	60.2	46-148	109.9	9.2	30	
cis-1,2-Dichloroethene	199.6	10	200	0	99.8	75-134	196.2	1.72	30	
cis-1,3-Dichloropropene	185.6	10	200	0	92.8	70-130	177.5	4.46	30	
Dibromochloromethane	183	10	200	0	91.5	60-115	180.8	1.21	30	
Ethylbenzene	199.2	10	200	0	99.6	76-123	192.3	3.52	30	
m,p-Xylene	415	20	400	2	103	75-130	405.8	2.24	30	
Methylene chloride	213.4	50	200	0	107	75-140	210	1.61	30	
o-Xylene	205.5	10	200	0	103	76-127	199.4	3.01	30	
Styrene	211.1	10	200	0	106	83-137	205.8	2.54	30	
Tetrachloroethene	206.5	10	200	0	103	68-166	199.9	3.25	30	
Toluene	191.8	10	200	0	95.9	85-125	187.6	2.21	30	
trans-1,2-Dichloroethene	213.2	10	200	0	107	80-140	204.4	4.21	30	
trans-1,3-Dichloropropene	179.5	10	200	0	89.8	56-132	170.9	4.91	30	
Trichloroethene	193.6	10	200	0	96.8	84-130	189.7	2.03	30	
Vinyl chloride	160.4	10	200	0	80.2	50-136	155.3	3.23	30	
Xylenes, Total	620.5	30	600	0	103	76-127	605.2	2.5	30	
<i>Surr: 1,2-Dichloroethane-d4</i>	193	0	200	0	96.5	75-120	194.7	0.877	30	
<i>Surr: 4-Bromofluorobenzene</i>	205.4	0	200	0	103	80-110	204.8	0.293	30	
<i>Surr: Dibromofluoromethane</i>	201.3	0	200	0	101	85-115	197.2	2.06	30	
<i>Surr: Toluene-d8</i>	198.6	0	200	0	99.3	85-110	199.2	0.302	30	

The following samples were analyzed in this batch:

18031874-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: AMEC Foster Wheeler
 Work Order: 18031874
 Project: 3359-15-1040

QC BATCH REPORT

Batch ID: **R233033A** Instrument ID **TOC3** Method: **SW9060A**

MBLK	Sample ID: MBLK-R233033A		Units: mg/L		Analysis Date: 04/03/18 03:53 PM					
Client ID:	Run ID: TOC3_180403A		SeqNo: 4964728		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-R233033A		Units: mg/L		Analysis Date: 04/03/18 03:53 PM					
Client ID:	Run ID: TOC3_180403A		SeqNo: 4964729		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 5.125 0.50 5 0 102 91-110 0

MS	Sample ID: 18031853-01B MS		Units: mg/L		Analysis Date: 04/03/18 03:53 PM					
Client ID:	Run ID: TOC3_180403A		SeqNo: 4964732		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 27.78 2.0 20 5.469 112 87-120 0

MSD	Sample ID: 18031853-01B MSD		Units: mg/L		Analysis Date: 04/03/18 03:53 PM					
Client ID:	Run ID: TOC3_180403A		SeqNo: 4964733		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 27.36 2.0 20 5.469 109 87-120 27.78 1.52 10

The following samples were analyzed in this batch:

18031874-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



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

Page 1 of 1

COC ID: **48148**

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: **T93**

ALS Work Order #: **18031874**

Customer Information		Project Information		Parameter/Method Request for Analysis											
Purchase Order		Project Name		A	VOCs										
Work Order		Project Number	3359151040	B	TOC										
Company Name	AMEC Foster Wheeler	Bill To Company	AMEC Foster Wheeler	C											
Send Report To		Invoice Attn	Accounts Payable	D											
Address	521 Byers Road, Suite 204	Address	521 Byers Road, Suite 204	E											
City/State/Zip	Miamisburg, OH 45342	City/State/Zip	Miamisburg, OH 45342	F											
Phone	(937) 859-3600	Phone	(937) 859-3600	G											
Fax	(937) 859-7851	Fax	(937) 859-7851	H											
e-Mail Address		e-Mail Address		I											
				J											

No.	Sample Description	Date	Time	Matrix	Pkts	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	ATR-PM2-G032918	03/29/18	1010	Water	193		X	X									
2	VOC Trip Blank				1		X										
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign Rich Chercio		Shipment Method		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				Other _____		Results Due Date:			
Relinquished by: RC	Date: 3/29/18	Time: 7:00	Received by: FCD EX		Notes:								
Relinquished by: FCD EX	Date: 3/30/18	Time: 0930	Received by (Laboratory): [Signature]		Cooler ID: SR2	Cooler Temp: 4.4°C	QC Package: (Check One Box Below)						
Logged by (Laboratory): DES	Date: 3/30/18	Time: 1215	Checked by (Laboratory): T93		<input type="checkbox"/> Level II Std QC <input type="checkbox"/> TRRP Checklist <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other _____								
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													

Sample Receipt Checklist

Client Name: **AMEC - DAYTON**

Date/Time Received: **30-Mar-18 09:30**

Work Order: **18031874**

Received by: **DS**

Checklist completed by Diane Shaw 30-Mar-18
eSignature Date

Reviewed by: Tom Bramish 30-Mar-18
eSignature Date

Matrices: Water

Carrier name: FedEx

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): 4.4/4.4 c SR2

Cooler(s)/Kit(s):

Date/Time sample(s) sent to storage: 3/30/2018 12:19:21 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

March 16, 2018

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

RE: **3359151040**

Pace Workorder: 25896

Dear Paul Stork:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 06, 2018. 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 03/16/2018
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 69

Report ID: 25896 - 1030646

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CERTIFICATE OF ANALYSIS

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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
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:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
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: 25896 3359151040

Lab ID	Sample ID	Matrix	Date Collected	Date Received
258960001	ATR-MW-26(58.2)-G022618	Water	2/26/2018 13:10	3/6/2018 11:00
258960002	ATR-MW-26(28.8)-G022618	Water	2/26/2018 14:00	3/6/2018 11:00
258960003	ATR-MW-26(17.5)-G022618	Water	2/26/2018 15:10	3/6/2018 11:00
258960004	ATR-ZVI-2(32.5)-G022618	Water	2/26/2018 16:10	3/6/2018 11:00
258960005	ATR-ZVI-2(17.5)-G022618	Water	2/26/2018 17:05	3/6/2018 11:00
258960006	ATR-MW-17-G022718	Water	2/27/2018 09:35	3/6/2018 11:00
258960007	ATR-MW-16-G022718	Water	2/27/2018 11:00	3/6/2018 11:00
258960008	ATR-OW-5(44)-G022718	Water	2/27/2018 12:30	3/6/2018 11:00
258960009	ATR-OW-5(35)-G022718	Water	2/27/2018 13:25	3/6/2018 11:00
258960010	ATR-OW-5(16)-G022718	Water	2/27/2018 14:25	3/6/2018 11:00
258960011	ATR-MW-25(45.2)-G022718	Water	2/27/2018 15:40	3/6/2018 11:00
258960012	ATR-MW-25(32.6)-G022718	Water	2/27/2018 16:35	3/6/2018 11:00
258960013	ATR-MW-25(16.4)-G022718	Water	2/27/2018 17:25	3/6/2018 11:00
258960014	ATR-OW-3(55)-G022718	Water	2/27/2018 10:35	3/6/2018 11:00
258960015	ATR-OW-3(35)-G022718	Water	2/27/2018 12:10	3/6/2018 11:00
258960016	ATR-OW-2(53)-G022718	Water	2/27/2018 13:40	3/6/2018 11:00
258960017	ATR-OW-2(33)-G022718	Water	2/27/2018 15:15	3/6/2018 11:00
258960018	ATR-MW-24(55.4)-G022718	Water	2/27/2018 16:35	3/6/2018 11:00
258960019	ATR-MW-24(24.9)-G022718	Water	2/27/2018 17:40	3/6/2018 11:00
258960020	ATR-MW-14-G022818	Water	2/28/2018 09:35	3/6/2018 11:00
258960021	ATR-OW-1(39)-G022818	Water	2/28/2018 10:50	3/6/2018 11:00
258960022	ATR-OW-1(28)-G022818	Water	2/28/2018 12:10	3/6/2018 11:00
258960023	ATR-MW-82(58)-G022818	Water	2/28/2018 13:30	3/6/2018 11:00
258960024	ATR-MW-62(36)-G022818	Water	2/28/2018 14:45	3/6/2018 11:00
258960025	ATR-MW-81(27)-G022818	Water	2/28/2018 16:10	3/6/2018 11:00
258960026	ATR-MW-59(29)-G022818	Water	2/28/2018 18:00	3/6/2018 11:00
258960027	ATR-MW-15-G022818	Water	2/28/2018 09:10	3/6/2018 11:00
258960028	ATR-OW-4(54)-G022818	Water	2/28/2018 10:40	3/6/2018 11:00
258960029	ATR-OW-4(35)-G022818	Water	2/28/2018 11:25	3/6/2018 11:00
258960030	ATR-MW-20(51)-G022818	Water	2/28/2018 12:40	3/6/2018 11:00
258960031	ATR-MW-20(35)-G022818	Water	2/28/2018 14:15	3/6/2018 11:00
258960032	ATR-6C-G022818	Water	2/28/2018 15:15	3/6/2018 11:00
258960033	ATR-12-G022818	Water	2/28/2018 16:30	3/6/2018 11:00
258960034	ATR-13-G022818	Water	2/28/2018 17:35	3/6/2018 11:00
258960035	ATR-MW-68-G030118	Water	3/1/2018 09:45	3/6/2018 11:00



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SAMPLE SUMMARY

Workorder: 25896 3359151040

Lab ID	Sample ID	Matrix	Date Collected	Date Received
258960036	ATR-MW-72-G030118	Water	3/1/2018 10:50	3/6/2018 11:00
258960037	ATR-MW-67-G030118	Water	3/1/2018 12:05	3/6/2018 11:00
258960038	ATR-MW-71-G030118	Water	3/1/2018 13:30	3/6/2018 11:00
258960039	ATR-MW-76-G030118	Water	3/1/2018 16:10	3/6/2018 11:00
258960040	ATR-PM-3-G030118	Water	3/1/2018 10:50	3/6/2018 11:00
258960041	ATR-MW-78(35)-G030118	Water	3/1/2018 13:15	3/6/2018 11:00
258960042	ATR-MW-71(41)-G030118	Water	3/1/2018 15:00	3/6/2018 11:00
258960043	EB001-G030118	Water	3/1/2018 14:10	3/6/2018 11:00
258960044	ATR-6C-G022818R	Water	2/28/2018 15:15	3/6/2018 11:00
258960045	ATR-MW-81(27)-G022818R	Water	2/28/2018 16:10	3/6/2018 11:00
258960046	ATR-MW-78(35)-G030118R	Water	3/1/2018 13:15	3/6/2018 11:00



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PROJECT SUMMARY

Workorder: 25896 3359151040

Workorder Comments

The sample 25896 (0023) was collected in an alternate container type, than that assigned to PAES method AM20GAX. Sample container was hydrochloric acid preserved.

The container pH for samples 25896 (0007-0009, 0027, 0035-0036, 0038-0040) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAX.

Batch Comments

Batch: DISG/6708 - AM20GAX Water QC

The matrix spike and/or spike duplicate, recovery or relative percent difference; accuracy influenced by the concentration of the reference sample 259230006. Analyte Methane, Ethane and Ethene. Batch acceptance based on laboratory control sample recovery.

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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960001** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-26(58.2)-G022618** Date Collected: 2/26/2018 13:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	11000	ug/l	0.50	0.020	1	3/9/2018 08:02	BW	n
Ethane	21	ug/l	0.10	0.0070	1	3/9/2018 08:02	BW	n
Ethene	0.025J	ug/l	0.10	0.0050	1	3/9/2018 08:02	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960002** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-26(28.8)-G022618** Date Collected: 2/26/2018 14:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	30000	ug/l	0.50	0.020	1	3/9/2018 08:12	BW	n
Ethane	77	ug/l	0.10	0.0070	1	3/9/2018 08:12	BW	n
Ethene	0.021J	ug/l	0.10	0.0050	1	3/9/2018 08:12	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960003** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-26(17.5)-G022618** Date Collected: 2/26/2018 15:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	19000	ug/l	0.50	0.020	1	3/9/2018 08:22	BW	n
Ethane	140	ug/l	0.10	0.0070	1	3/9/2018 08:22	BW	n
Ethene	0.015J	ug/l	0.10	0.0050	1	3/9/2018 08:22	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960004** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-ZVI-2(32.5)-G022618** Date Collected: 2/26/2018 16:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	22000	ug/l	0.50	0.020	1	3/9/2018 08:32	BW	n
Ethane	120	ug/l	0.10	0.0070	1	3/9/2018 08:32	BW	n
Ethene	0.021J	ug/l	0.10	0.0050	1	3/9/2018 08:32	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960005** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-ZVI-2(17.5)-G022618** Date Collected: 2/26/2018 17:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.020	1	3/9/2018 08:49	BW	n
Ethane	170	ug/l	0.10	0.0070	1	3/9/2018 08:49	BW	n
Ethene	0.10 U	ug/l	0.10	0.0050	1	3/9/2018 08:49	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960006** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-17-G022718** Date Collected: 2/27/2018 09:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	3400	ug/l	0.50	0.020	1	3/9/2018 09:01	BW	n
Ethane	0.24	ug/l	0.10	0.0070	1	3/9/2018 09:01	BW	n
Ethene	0.16	ug/l	0.10	0.0050	1	3/9/2018 09:01	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960007** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-16-G022718** Date Collected: 2/27/2018 11:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	13000	ug/l	0.50	0.020	1	3/9/2018 09:11	BW	n
Ethane	190	ug/l	0.10	0.0070	1	3/9/2018 09:11	BW	n
Ethene	160	ug/l	0.10	0.0050	1	3/9/2018 09:11	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960008** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-5(44)-G022718** Date Collected: 2/27/2018 12:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	25000	ug/l	0.50	0.020	1	3/9/2018 09:30	BW	n
Ethane	150	ug/l	0.10	0.0070	1	3/9/2018 09:30	BW	n
Ethene	0.074J	ug/l	0.10	0.0050	1	3/9/2018 09:30	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960009** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-5(35)-G022718** Date Collected: 2/27/2018 13:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	23000	ug/l	0.50	0.020	1	3/9/2018 09:40	BW	n
Ethane	170	ug/l	0.10	0.0070	1	3/9/2018 09:40	BW	n
Ethene	0.0094J	ug/l	0.10	0.0050	1	3/9/2018 09:40	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960010** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-5(16)-G022718** Date Collected: 2/27/2018 14:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	19000	ug/l	0.50	0.020	1	3/9/2018 09:54	BW	n
Ethane	49	ug/l	0.10	0.0070	1	3/9/2018 09:54	BW	n
Ethene	0.22	ug/l	0.10	0.0050	1	3/9/2018 09:54	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960011** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-25(45.2)-G022718** Date Collected: 2/27/2018 15:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	26000	ug/l	0.50	0.020	1	3/9/2018 10:05	BW	n
Ethane	320	ug/l	0.10	0.0070	1	3/9/2018 10:05	BW	n
Ethene	0.027J	ug/l	0.10	0.0050	1	3/9/2018 10:05	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960012** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-25(32.6)-G022718** Date Collected: 2/27/2018 16:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	23000	ug/l	0.50	0.020	1	3/9/2018 10:22	BW	n
Ethane	78	ug/l	0.10	0.0070	1	3/9/2018 10:22	BW	n
Ethene	0.011J	ug/l	0.10	0.0050	1	3/9/2018 10:22	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960013** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-25(16.4)-G022718** Date Collected: 2/27/2018 17:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	20000	ug/l	0.50	0.020	1	3/9/2018 11:41	BW	n
Ethane	100	ug/l	0.10	0.0070	1	3/9/2018 11:41	BW	n
Ethene	0.24	ug/l	0.10	0.0050	1	3/9/2018 11:41	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960014** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-3(55)-G022718** Date Collected: 2/27/2018 10:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	28000	ug/l	0.50	0.020	1	3/9/2018 11:51	BW	n
Ethane	290	ug/l	0.10	0.0070	1	3/9/2018 11:51	BW	n
Ethene	280	ug/l	0.10	0.0050	1	3/9/2018 11:51	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960015** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-3(35)-G022718** Date Collected: 2/27/2018 12:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	6300	ug/l	0.50	0.020	1	3/9/2018 12:03	BW	n
Ethane	55	ug/l	0.10	0.0070	1	3/9/2018 12:03	BW	n
Ethene	20	ug/l	0.10	0.0050	1	3/9/2018 12:03	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960016** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-2(53)-G022718** Date Collected: 2/27/2018 13:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	22000	ug/l	0.50	0.020	1	3/9/2018 12:15	BW	n
Ethane	9.9	ug/l	0.10	0.0070	1	3/9/2018 12:15	BW	n
Ethene	0.0090J	ug/l	0.10	0.0050	1	3/9/2018 12:15	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960017** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-2(33)-G022718** Date Collected: 2/27/2018 15:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	22000	ug/l	0.50	0.020	1	3/9/2018 12:25	BW	n
Ethane	76	ug/l	0.10	0.0070	1	3/9/2018 12:25	BW	n
Ethene	0.62	ug/l	0.10	0.0050	1	3/9/2018 12:25	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960018** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-24(55.4)-G022718** Date Collected: 2/27/2018 16:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	24000	ug/l	0.50	0.020	1	3/9/2018 12:34	BW	n
Ethane	76	ug/l	0.10	0.0070	1	3/9/2018 12:34	BW	n
Ethene	5.4	ug/l	0.10	0.0050	1	3/9/2018 12:34	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960019** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-24(24.9)-G022718** Date Collected: 2/27/2018 17:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	5500	ug/l	0.50	0.020	1	3/9/2018 12:45	BW	n
Ethane	0.078J	ug/l	0.10	0.0070	1	3/9/2018 12:45	BW	n
Ethene	0.032J	ug/l	0.10	0.0050	1	3/9/2018 12:45	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960020** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-14-G022818** Date Collected: 2/28/2018 09:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	17000	ug/l	0.50	0.020	1	3/9/2018 12:54	BW	n
Ethane	340	ug/l	0.10	0.0070	1	3/9/2018 12:54	BW	n
Ethene	120	ug/l	0.10	0.0050	1	3/9/2018 12:54	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960021** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-1(39)-G022818** Date Collected: 2/28/2018 10:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	3500	ug/l	0.50	0.020	1	3/13/2018 08:06	BW	n
Ethane	300	ug/l	0.10	0.0070	1	3/13/2018 08:06	BW	n
Ethene	93	ug/l	0.10	0.0050	1	3/13/2018 08:06	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960022** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-1(28)-G022818** Date Collected: 2/28/2018 12:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	12	ug/l	0.50	0.020	1	3/13/2018 08:17	BW	n
Ethane	0.26	ug/l	0.10	0.0070	1	3/13/2018 08:17	BW	n
Ethene	0.014J	ug/l	0.10	0.0050	1	3/13/2018 08:17	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960023** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-82(58)-G022818** Date Collected: 2/28/2018 13:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	28000	ug/l	0.50	0.020	1	3/13/2018 08:27	BW	n
Ethane	99	ug/l	0.10	0.0070	1	3/13/2018 08:27	BW	n
Ethene	0.033J	ug/l	0.10	0.0050	1	3/13/2018 08:27	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960024** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-62(36)-G022818** Date Collected: 2/28/2018 14:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.020	1	3/13/2018 08:42	BW	n
Ethane	80	ug/l	0.10	0.0070	1	3/13/2018 08:42	BW	n
Ethene	0.061J	ug/l	0.10	0.0050	1	3/13/2018 08:42	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960025** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-81(27)-G022818** Date Collected: 2/28/2018 16:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.020	1	3/13/2018 08:51	BW	n
Ethane	420	ug/l	0.10	0.0070	1	3/13/2018 08:51	BW	n
Ethene	1800	ug/l	0.10	0.0050	1	3/13/2018 08:51	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960026** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-59(29)-G022818** Date Collected: 2/28/2018 18:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	19000	ug/l	0.50	0.020	1	3/13/2018 09:02	BW	n
Ethane	500	ug/l	0.10	0.0070	1	3/13/2018 09:02	BW	n
Ethene	0.42	ug/l	0.10	0.0050	1	3/13/2018 09:02	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960027** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-15-G022818** Date Collected: 2/28/2018 09:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.020	1	3/13/2018 09:13	BW	n
Ethane	110	ug/l	0.10	0.0070	1	3/13/2018 09:13	BW	n
Ethene	2700	ug/l	0.10	0.0050	1	3/13/2018 09:13	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960028** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-4(54)-G022818** Date Collected: 2/28/2018 10:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	28000	ug/l	0.50	0.020	1	3/13/2018 09:25	BW	n
Ethane	2.2	ug/l	0.10	0.0070	1	3/13/2018 09:25	BW	n
Ethene	0.91	ug/l	0.10	0.0050	1	3/13/2018 09:25	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960029** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-OW-4(35)-G022818** Date Collected: 2/28/2018 11:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	23000	ug/l	0.50	0.020	1	3/13/2018 09:36	BW	n
Ethane	18	ug/l	0.10	0.0070	1	3/13/2018 09:36	BW	n
Ethene	0.092J	ug/l	0.10	0.0050	1	3/13/2018 09:36	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960030** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-20(51)-G022818** Date Collected: 2/28/2018 12:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	19000	ug/l	0.50	0.020	1	3/13/2018 09:45	BW	n
Ethane	83	ug/l	0.10	0.0070	1	3/13/2018 09:45	BW	n
Ethene	0.023J	ug/l	0.10	0.0050	1	3/13/2018 09:45	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960031** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-20(35)-G022818** Date Collected: 2/28/2018 14:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	17000	ug/l	0.50	0.020	1	3/13/2018 09:57	BW	n
Ethane	44	ug/l	0.10	0.0070	1	3/13/2018 09:57	BW	n
Ethene	0.054J	ug/l	0.10	0.0050	1	3/13/2018 09:57	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960032** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-6C-G022818** Date Collected: 2/28/2018 15:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.020	1	3/13/2018 10:07	BW	n
Ethane	82	ug/l	0.10	0.0070	1	3/13/2018 10:07	BW	n
Ethene	35	ug/l	0.10	0.0050	1	3/13/2018 10:07	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960033** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-12-G022818** Date Collected: 2/28/2018 16:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	17000	ug/l	0.50	0.020	1	3/13/2018 11:54	BW	n
Ethane	22	ug/l	0.10	0.0070	1	3/13/2018 11:54	BW	n
Ethene	0.078J	ug/l	0.10	0.0050	1	3/13/2018 11:54	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960034** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-13-G022818** Date Collected: 2/28/2018 17:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	17000	ug/l	0.50	0.020	1	3/13/2018 12:05	BW	n
Ethane	56	ug/l	0.10	0.0070	1	3/13/2018 12:05	BW	n
Ethene	46	ug/l	0.10	0.0050	1	3/13/2018 12:05	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960035** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-68-G030118** Date Collected: 3/1/2018 09:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	11000	ug/l	0.50	0.020	1	3/13/2018 12:16	BW	n
Ethane	35	ug/l	0.10	0.0070	1	3/13/2018 12:16	BW	n
Ethene	2800	ug/l	0.10	0.0050	1	3/13/2018 12:16	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960036** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-72-G030118** Date Collected: 3/1/2018 10:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	8800	ug/l	0.50	0.020	1	3/13/2018 12:26	BW	n
Ethane	110	ug/l	0.10	0.0070	1	3/13/2018 12:26	BW	n
Ethene	12	ug/l	0.10	0.0050	1	3/13/2018 12:26	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960037** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-67-G030118** Date Collected: 3/1/2018 12:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	10000	ug/l	0.50	0.020	1	3/13/2018 12:35	BW	n
Ethane	54	ug/l	0.10	0.0070	1	3/13/2018 12:35	BW	n
Ethene	2000	ug/l	0.10	0.0050	1	3/13/2018 12:35	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960038** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-71-G030118** Date Collected: 3/1/2018 13:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	4900	ug/l	0.50	0.020	1	3/13/2018 12:46	BW	n
Ethane	46	ug/l	0.10	0.0070	1	3/13/2018 12:46	BW	n
Ethene	460	ug/l	0.10	0.0050	1	3/13/2018 12:46	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960039** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-76-G030118** Date Collected: 3/1/2018 16:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	12000	ug/l	0.50	0.020	1	3/13/2018 12:55	BW	n
Ethane	61	ug/l	0.10	0.0070	1	3/13/2018 12:55	BW	n
Ethene	3900	ug/l	0.10	0.0050	1	3/13/2018 12:55	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960040** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-PM-3-G030118** Date Collected: 3/1/2018 10:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	11000	ug/l	0.50	0.020	1	3/13/2018 13:06	BW	n
Ethane	230	ug/l	0.10	0.0070	1	3/13/2018 13:06	BW	n
Ethene	1100	ug/l	0.10	0.0050	1	3/13/2018 13:06	BW	n



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960041** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-78(35)-G030118** Date Collected: 3/1/2018 13:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX	Analytical Method: AM20GAX							
Methane	26000	ug/l	0.50	0.020	1	3/14/2018 08:23	BW	n,M5
Ethane	11	ug/l	0.10	0.0070	1	3/14/2018 08:23	BW	M3,n,M5
Ethene	0.019J	ug/l	0.10	0.0050	1	3/14/2018 08:23	BW	D3,n,M5



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960042** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-71(41)-G030118** Date Collected: 3/1/2018 15:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	8400	ug/l	0.50	0.020	1	3/14/2018 08:33	BW	n,M5
Ethane	140	ug/l	0.10	0.0070	1	3/14/2018 08:33	BW	M3,n,M5
Ethene	160	ug/l	0.10	0.0050	1	3/14/2018 08:33	BW	D3,n,M5



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960043** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **EB001-G030118** Date Collected: 3/1/2018 14:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	0.10J	ug/l	0.50	0.020	1	3/14/2018 08:43	BW	n,M5
Ethane	0.0077J	ug/l	0.10	0.0070	1	3/14/2018 08:43	BW	M3,n,M5
Ethene	0.013J	ug/l	0.10	0.0050	1	3/14/2018 08:43	BW	D3,n,M5



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960044** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-6C-G022818R** Date Collected: 2/28/2018 15:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	20000	ug/l	0.50	0.020	1	3/14/2018 08:54	BW	n,M5
Ethane	85	ug/l	0.10	0.0070	1	3/14/2018 08:54	BW	M3,n,M5
Ethene	36	ug/l	0.10	0.0050	1	3/14/2018 08:54	BW	D3,n,M5



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960045** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-81(27)-G022818R** Date Collected: 2/28/2018 16:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	18000	ug/l	0.50	0.020	1	3/14/2018 09:04	BW	n,M5
Ethane	380	ug/l	0.10	0.0070	1	3/14/2018 09:04	BW	M3,n,M5
Ethene	1700	ug/l	0.10	0.0050	1	3/14/2018 09:04	BW	D3,n,M5



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ANALYTICAL RESULTS

Workorder: 25896 3359151040

Lab ID: **258960046** Date Received: 3/6/2018 11:00 Matrix: Water
 Sample ID: **ATR-MW-78(35)-G030118R** Date Collected: 3/1/2018 13:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
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RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.020	1	3/14/2018 09:21	BW	n,M5
Ethane	9.3	ug/l	0.10	0.0070	1	3/14/2018 09:21	BW	M3,n,M5
Ethene	0.028J	ug/l	0.10	0.0050	1	3/14/2018 09:21	BW	D3,n,M5



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 25896 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.
D3	The matrix spike duplicate relative percent difference (RPD) exceeded 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.

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QUALITY CONTROL DATA

Workorder: 25896 3359151040

QC Batch: DISG/6700 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 258960001, 258960002, 258960003, 258960004, 258960005, 258960006, 258960007, 258960008, 258960009, 258960010, 258960011, 258960012, 258960013, 258960014, 258960015, 258960016, 258960017, 258960018, 258960019, 258960020

METHOD BLANK: 54078

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: 54079 54080

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	770	750	103	100	80-120	2.5	20	n
Ethane	ug/l	38	39	40	103	105	80-120	2.1	20	n
Ethene	ug/l	35	36	37	103	106	80-120	2.4	20	n



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QUALITY CONTROL DATA

Workorder: 25896 3359151040

QC Batch: DISG/6702 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 258960021, 258960022, 258960023, 258960024, 258960025, 258960026, 258960027, 258960028, 258960029, 258960030, 258960031, 258960032, 258960033, 258960034, 258960035, 258960036, 258960037, 258960038, 258960039, 258960040

METHOD BLANK: 54093

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: 54094 54095

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	680	680	91	91	80-120	0.8	20	n
Ethane	ug/l	38	39	40	103	106	80-120	2.6	20	n
Ethene	ug/l	35	37	38	105	107	80-120	1.7	20	n



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QUALITY CONTROL DATA

Workorder: 25896 3359151040

QC Batch: DISG/6708 Analysis Method: AM20GAX
 QC Batch Method: AM20GAX
 Associated Lab Samples: 258960041, 258960042, 258960043, 258960044, 258960045, 258960046

METHOD BLANK: 54139

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.50 U	0.50	n,M5
Ethane	ug/l	0.10 U	0.10	M3,n,M5
Ethene	ug/l	0.10 U	0.10	D3,n,M5

LABORATORY CONTROL SAMPLE & LCSD: 54140 54141

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	680	720	91	96	80-120	5.8	20	M5,n
Ethane	ug/l	38	39	41	102	109	80-120	6.7	20	M3,M5,n
Ethene	ug/l	35	36	39	103	110	80-120	7.1	20	M5,D3,n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 54193 54194 Original: 259230006

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	6600	1500	8300	7400	113	54	70-130	11	20	d,n,M5
Ethane	ug/l	960	76	890	960	-102	-5.1	70-130	7.9	20	d,M3,n,M5
Ethene	ug/l	290	71	370	490	121	288	70-130	27	20	d,D3,n,M5



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QUALITY CONTROL DATA QUALIFIERS

Workorder: 25896 3359151040

QUALITY CONTROL PARAMETER QUALIFIERS

- D3 The matrix spike duplicate relative percent difference (RPD) exceeded 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.
- d The analyte concentration was determined from a dilution.
- 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: 25896 3359151040

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
258960001	ATR-MW-26(58.2)-G022618			AM20GAX	DISG/6700
258960002	ATR-MW-26(28.8)-G022618			AM20GAX	DISG/6700
258960003	ATR-MW-26(17.5)-G022618			AM20GAX	DISG/6700
258960004	ATR-ZVI-2(32.5)-G022618			AM20GAX	DISG/6700
258960005	ATR-ZVI-2(17.5)-G022618			AM20GAX	DISG/6700
258960006	ATR-MW-17-G022718			AM20GAX	DISG/6700
258960007	ATR-MW-16-G022718			AM20GAX	DISG/6700
258960008	ATR-OW-5(44)-G022718			AM20GAX	DISG/6700
258960009	ATR-OW-5(35)-G022718			AM20GAX	DISG/6700
258960010	ATR-OW-5(16)-G022718			AM20GAX	DISG/6700
258960011	ATR-MW-25(45.2)-G022718			AM20GAX	DISG/6700
258960012	ATR-MW-25(32.6)-G022718			AM20GAX	DISG/6700
258960013	ATR-MW-25(16.4)-G022718			AM20GAX	DISG/6700
258960014	ATR-OW-3(55)-G022718			AM20GAX	DISG/6700
258960015	ATR-OW-3(35)-G022718			AM20GAX	DISG/6700
258960016	ATR-OW-2(53)-G022718			AM20GAX	DISG/6700
258960017	ATR-OW-2(33)-G022718			AM20GAX	DISG/6700
258960018	ATR-MW-24(55.4)-G022718			AM20GAX	DISG/6700
258960019	ATR-MW-24(24.9)-G022718			AM20GAX	DISG/6700
258960020	ATR-MW-14-G022818			AM20GAX	DISG/6700
258960021	ATR-OW-1(39)-G022818			AM20GAX	DISG/6702
258960022	ATR-OW-1(28)-G022818			AM20GAX	DISG/6702
258960023	ATR-MW-82(58)-G022818			AM20GAX	DISG/6702
258960024	ATR-MW-62(36)-G022818			AM20GAX	DISG/6702
258960025	ATR-MW-81(27)-G022818			AM20GAX	DISG/6702
258960026	ATR-MW-59(29)-G022818			AM20GAX	DISG/6702
258960027	ATR-MW-15-G022818			AM20GAX	DISG/6702
258960028	ATR-OW-4(54)-G022818			AM20GAX	DISG/6702
258960029	ATR-OW-4(35)-G022818			AM20GAX	DISG/6702
258960030	ATR-MW-20(51)-G022818			AM20GAX	DISG/6702
258960031	ATR-MW-20(35)-G022818			AM20GAX	DISG/6702
258960032	ATR-6C-G022818			AM20GAX	DISG/6702
258960033	ATR-12-G022818			AM20GAX	DISG/6702



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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 25896 3359151040

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
258960034	ATR-13-G022818			AM20GAX	DISG/6702
258960035	ATR-MW-68-G030118			AM20GAX	DISG/6702
258960036	ATR-MW-72-G030118			AM20GAX	DISG/6702
258960037	ATR-MW-67-G030118			AM20GAX	DISG/6702
258960038	ATR-MW-71-G030118			AM20GAX	DISG/6702
258960039	ATR-MW-76-G030118			AM20GAX	DISG/6702
258960040	ATR-PM-3-G030118			AM20GAX	DISG/6702
258960041	ATR-MW-78(35)-G030118			AM20GAX	DISG/6708
258960042	ATR-MW-71(41)-G030118			AM20GAX	DISG/6708
258960043	EB001-G030118			AM20GAX	DISG/6708
258960044	ATR-6C-G022818R			AM20GAX	DISG/6708
258960045	ATR-MW-81(27)-G022818R			AM20GAX	DISG/6708
258960046	ATR-MW-78(35)-G030118R			AM20GAX	DISG/6708



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



25896

Page: 1 of 5
010675

Section A
Required Client Information:
Company: Anee Foster Wheeler
Address: Anee Foster Wheeler
Purchase Order No.: 3359157040
Project Name: 3359157040
Requested Due Date/TAT:

Section B
Required Project Information:
Report To: Anee Foster Wheeler
Copy To:
Purchase Order No.:
Project Name:
Project Number: 3359157040

Section C
Invoice Information:
Attention: Anee Paul Stark
Company Name: Anee Foster Wheeler
Address: 521 Byes Rd. (604)
Place Order Reference: Mining Off
Project Manager: 45342
Place Profile #:
REGULATORY AGENCY: NPDES
UST
GROUND WATER
RCRA
DRINKING WATER
OTHER
Site Location: IN
STATE: IN

ITEM #	Section D Required Client Information	Section E Matrix Codes	Section F Matrix Code	Section G Sample Type (G=GRAB C=COMP)	Section H Collected		Section I Sample Temp at Collection	Section J # of Containers	Section K Preservatives	Section L Requested Analysis Filtered (Y/N)	Section M Temp in °C	Section N Received on Ice (Y/N)	Section O Custody Sealed Cooler (Y/N)	Section P Samples Intact (Y/N)	
					Section G COMPOSITE START	Section H COMPOSITE END/GRAB									
1	ATR-MW-26 (58.2) - 022618	Water	WT	3	02/16/18	1310			Unpreserved						
2	ATR-MW-26 (18.8) - 022618	Water	WT	3	1400				Zinc Acetate & NaOH						
3	ATR-MW-26 (17.5) - 022618	Water	WT	3	1510				HCl						
4	ATR-EVI-2 (325) - 022618	Water	WT	3	1610				HNO ₃						
5	ATR-EVI-2 (17.5) - 022618	Water	WT	3	1705				H ₂ SO ₄						
6	ATR-MW-17 - 022718	Water	WT	3	02/27/18	0935			Other						
7	ATR-MW-16 - 022718	Water	WT	3	1100				BAK						
8	ATR-OW-5 (44) - 022718	Water	WT	3	1230				TSP						
9	ATR-OW-5 (35) - 022718	Water	WT	3	1325				HCl						
10	ATR-OW-5 (16) - 022718	Water	WT	3	1425				HNO ₃						
11	ATR-MW-25 (46.7) - 022718	Water	WT	3	1450				Unpreserved						
12	ATR-MW-25 (32.6) - 022718	Water	WT	3	1605				Other						

Section Q
Additional Comments: discuss with client

Section R
Relinquished by / Affiliation: DOE Date: 3.6.18 Time: 1100

Section S
Accepted by / Affiliation: DOE Date: 3.6.18 Time: 1100

Section T
Temp in °C: 2

Section U
Received on Ice (Y/N): Y

Section V
Custody Sealed Cooler (Y/N): Y

Section W
Samples Intact (Y/N): Y

Section X
Sampler Name and Signature:
Print Name of Sampler: Spencer Both
Signature of Sampler: [Signature]
Date Signed (MM/DD/YY): 03/05/18

ORIGINAL

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



25896

Section A
Required Client Information:
Company: Pace Analytical
Address: 220 William Pitt Way, Pittsburgh, PA 15238
Phone: 412-826-5245 Fax: 412-826-5245
Requested Due Date/TAT:

Section B
Required Project Information:
Report To: Aneec Foster Wheeler
Copy To:
Purchase Order No.:
Project Name:
Project Number: 3359151040

Section C
Invoice Information:
Attention: Paul Stark
Company Name: Aneec Foster Wheeler
Address: 541 Byers Rd (West) Maristown NJ 07052
Place Order Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY
NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER
Site Location: IN STATE:

Page: 2 of 5
010676

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					Temp in °C	Received on	Sealed Cooler	Samples Intact	
1	ATR-MW-25(16.4) - (2022718)	DW	0	DATE	TIME									
2	ATR-OW-3(55) - (2022718)	WT	0	DATE	TIME									
3	ATR-OW-3(35) - (2022718)	WW	0	DATE	TIME									
4	ATR-OW-2(53) - (2022718)	P	0	DATE	TIME									
5	ATR-OW-2(33) - (2022718)	SL	0	DATE	TIME									
6	ATR-MW-24(55.4) - (2022718)	OL	0	DATE	TIME									
7	ATR-MW-24(24.9) - (2022718)	WP	0	DATE	TIME									
8	ATR-MW-14 - (2022818)	AR	0	DATE	TIME									
9	ATR-OW-1(39) - (2022818)	TS	0	DATE	TIME									
10	ATR-OW-1(26) - (2022818)	OT	0	DATE	TIME									
11	ATR-MW-82(58) - (2022818)		0	DATE	TIME									
12	ATR-MW-82(36) - (2022818)		0	DATE	TIME									

ADDITIONAL COMMENTS

RELINQUISHED BY / AFFILIATION

DATE

TIME

ACCEPTED BY / AFFILIATION

DATE

TIME

SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Spencer Kofel
SIGNATURE of SAMPLER: [Signature]
DATE Signed (MM/DD/YY): 03/05/18

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25896

Page: 3 of 5
010677

REGULATORY AGENCY
NPDES: GROUND WATER
UST: RCRA
OTHER: DRINKING WATER

Site Location: IN STATE: IN

Section C
Invoices Information:
Attention: Paul Stark
Company Name: Arec Foster Wheeler
Address: 521 Byers Rd. (204) Miamisburg
Pace Quote: OH 45342
Reference: Pace Project Manager:
Pace Profile #:

Section B
Required Project Information:
Report To: Arec Foster Wheeler
Copy To:
Purchase Order No.:
Project Name:
Project Number: 335915 16up

Section A
Required Client Information:
Company:
Address:
Email To: Paul.Stark@paceanalytical.com
Phone: 412-826-5245
Fax:
Requested Due Date/TAT:

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	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							DATE	TIME	
1	ATR-MW-8(27)-(2022)18	DW WT WW P SL OL WP AR TS OT			WT		02/28/18 1610	3	Unpreserved H ₂ SO ₄ HCl TSP BAK Zinc Acetate & NaOH Other	Method Acretox			
2	ATR-MW-8(29)-(2022)18						02/28/18 1800						
3	ATR-MW-15-(2022)18						02/28/18 0910						
4	ATR-OW-4(54)-(2022)18						02/28/18 1010						
5	ATR-OW-4(35)-(2022)18						02/28/18 1125						
6	ATR-MW-20(51)-(2022)18						02/28/18 1240						
7	ATR-MW-20(35)-(2022)18						02/28/18 SR 1415						
8	ATR-GL-(2022)18						02/28/18 1055						
9	ATR-12-(2022)18						02/28/18 1620						
10	ATR-13-(2022)18						02/28/18 1735						
11	ATR-MW-68-(2030)18						02/28/18 0945						
12	ATR-MW-72-(2030)18						02/28/18 1650						

Section B
Relinquished By / Affiliation: Arec Foster Wheeler
Date: 3.6.8.18
Time: 1002
Accepted By / Affiliation: [Signature]
Date: 3/6/18
Time: [Blank]

Section C
Requested Analysis Filtered (Y/N): [Blank]

Section D
Matrix Code: WT

Section E
Additional Comments: [Blank]

Section F
Temperature: [Blank]
Received on: [Blank]
Ice (Y/N): [Blank]
Custody Sealed Cooler (Y/N): [Blank]
Samples Intact (Y/N): [Blank]

Section G
Sampler Name and Signature: Spence Both
Print Name of Sampler: [Blank]
Signature of Sampler: [Signature]
Date Signed (MM/DD/YY): 03/07/18

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25896

Section A
 Required Client Information:
 Company: _____
 Address: _____
 Email To: _____
 Phone: _____
 Fax: _____
 Requested Due Date/TAT: _____

Section B
 Required Project Information:
 Report To: Alice Foster Winkle
 Copy To: _____
 Purchase Order No.: _____
 Project Name: _____
 Project Number: 339957040

Section C
 Invoice Information:
 Attention: Paul Stark
 Company Name: _____
 Address: _____
 Pace Quote Reference: _____
 Pace Project Manager: _____
 Pace Profile #: _____

REGULATORY AGENCY
 NPDES: _____
 UST: _____
 RCRA: _____
 OTHER: _____

GROUND WATER DRINKING WATER
 Site Location: _____
 STATE: IN

ITEM #	Section D Required Client Information	Section E Matrix Codes	MATRIX / CODE	SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
						COMPOSITE START	COMPOSITE END/GRAB							
1	ATR-MW-67-1030116	Drinking Water	DW	G	WT	DATE	TIME		3	Unpreserved				
2	ATR-MW-71-1030116	Water	WT	G	WT	08/29/10	1205			Zinc Acetate & NaOH				
3	ATR-MW-76-1030116	Waste Water Product	WWP	G	WT		1330			Other				
4	ATR-MW-3-1030116	Oil	OL	G	WT		1610							
5	ATR-MW-78(35)-1030116	Wipe	WP	G	WT		1050							
6	ATR-MW-71(41)-1030116	Air	AR	G	WT		1500							
7	EBoo1-1022616	Soil/Solid	SS	G	WT	07/26/10	1400							
8	EBoo1-1022716	Other	OT	G	WT	08/27/10	1440							
9	EBoo1-1022816			G	WT	07/26/10	1435							
10	EBoo1-1030116			G	WT	08/04/10	1410							
11	ATR-EBoo1-1022716			G	WT	08/23/10	1715							
12	ATR-EBoo1-1022816			G	WT	08/23/10	1700							
ADDITIONAL COMMENTS														
								DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	
											3.6.10	1002	Y N	

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Spencer
 SIGNATURE of SAMPLER: _____
 DATE Signed (MM/DD/YY): 08/04/10

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

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

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



25896

Page: 5 of 5
010679

Section A

Required Client Information:
Company: Pace Analytical
Address: 220 William Pitt Way, Pittsburgh, PA 15238
Phone: 412-826-5245 Fax: 412-826-5245
Requested Due Date/TAT: _____

Section B

Required Project Information:
Report To: Paul Stark
Copy To: Alec Foster
Purchase Order No.: _____
Project Name: _____
Project Number: _____

Section C

Invoice Information:
Attention: Paul Stark
Company Name: Alec Foster
Address: 531 Byers Rd. near Morningside
City: OH 45342
State: IN
Site Location: _____
State: _____

REGULATORY AGENCY: _____
NPDES: _____
UST: _____
RCRA: _____
OTHER: _____
GROUND WATER: _____
DRINKING WATER: _____

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE ID (A-Z, 0-9 / -)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Temp in °C	Received on	Custody	Sealed Cooler	Samples Intact
					DATE	TIME										
1	ATR-EB002--030118	DW		U	03/29/18	1810		3	Unpreserved	Analysis Test						
2	ATR-MW-16-(2022)18MS	WT		U	03/27/18	1100			Zinc Acetate & NaOH							
3	ATR-MW-16-(2022)18MS	WV		U		1210			BAK							
4	ATR-MW-3(35)-(2022)18MS	P		U		140			TSP							
5	ATR-MW-3(35)-(2022)18MS	SL		U	04/18/18	1050			HCl							
6	ATR-MW-1(39)-(2022)18MS	OL		U		1575			HNO3							
7	ATR-MW-1(39)-(2022)18MS	WP		U		1610			H2SO4							
8	ATR-MW-81(27)18MS	AR		U	03/29/18	1345			Other							
9	ATR-MW-78(35)-(2022)18MS	TS		U												
10	ATR-MW-78(35)-(2022)18MS	OT		U												
11																
12																

ADDITIONAL COMMENTS: _____

RELINQUISHED BY / AFFILIATION: _____ DATE: _____ TIME: _____

ACCEPTED BY / AFFILIATION: [Signature] DATE: 3/28/18 TIME: 2:30

SAMPLER NAME AND SIGNATURE: [Signature]

PRINT Name of SAMPLER: Spence Roth DATE Signed (MM/DD/YY): 03/05/18

SIGNATURE of SAMPLER: _____

Cooler Receipt Form

Client Name: Amec Project: 3359151040 Lab Work Order: 25896

A. Shipping/Container Information (circle appropriate response)

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

Tracking Number: 7899 0112 0570

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

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

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

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

Comments: _____

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

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

Comments: _____

Cooler contents examined/received by: ly Date: 3.6.18

Project Manager Review: [Signature] Date: 3/7/18

25896

NON-CONFORMANCE FORM

PAES Work Order #: _____

Date: 3.6.18 Time of Receipt: 11:00 Receiver: LY

Client: Amec

REASON FOR NON-CONFORMANCE:

- 1. ATR-OW-3(55)-022708: Vials time was 10:30.
- 2. ATR-MV-59(29)-6022818. One vial ID was ATR-MW-59(28)-6022818
- 3. ATR-MW-67-6030118: One vial broke
- 4. ATR-MW-76-6030118: Vials ID was ATR-MW-76(30)-6030118.
- 5. ATR-MW-71(41)-6030118: Vials ID was ATR-MW-77(41)-6030118.
- 6. Received a set of 3 unlabeled.
- 7. Didn't receive No. 10 of COC 3; No. 7 -> No. 9 & No. 11 -> No. 12 of COC 4; No. 1 -> No. 7 of COC 5.

ACTION TAKEN:

Client name: Amec Date: 3/7/18 Time: 15:00

Client was informed

Customer Service Initials: [Signature] Date: 3/7/18

NON-CONFORMANCE FORM

PAES Work Order #: 25896

Date: _____ Time of Receipt: _____ Receiver: LY

Client: _____

REASON FOR NON-CONFORMANCE: Updated 3/7/18

1. Did receive ATR-MW-13-G022818
2. The unlabeled set was EB001-6036118
(the writing smeared away but seen with
a closer check)

ACTION TAKEN:

Client name: _____ Date: _____ Time: _____

Client was informed

Customer Service Initials: _____ Date: _____

Lauren McGrath - RE: 3359151040 NCM

From: "Stork, Paul J." <paul.stork@woodplc.com>
To: Lauren McGrath <Lauren.McGrath@pacelabs.com>
Date: 3/6/2018 4:06 PM
Subject: RE: 3359151040 NCM

25896

Lauren,

Sorry for the messy COC.

The majority of discrepancies are due to QA/QC samples. The COC you received had QA/QC samples that were part of the VOC QA/QC analyses, not for the dissolved gases.

I will answer your questions on the NCF below:

NON-CONFORMANCE FORM

PAES Work Order #: _____

Date: 3.6.18 Time of Receipt: 11:00 Receiver: LY

Client: Amec

REASON FOR NON-CONFORMANCE:

1. ATR-QW-3(55)-022708: Vials time was 10:30
2. ATR-MW-59(29)-G022818: One vial ID was
ATR-MW-59(28)-G022818
3. ATR-MW-67-G030118: One vial broke
4. ATR-MW-76-G030118: Vial ID was ATR-MW-76(30)-G030118
5. ATR-MW-77(41)-G030118: Vial ID was ATR-MW-77(41)-G030118
6. Received a set of 3 unlabeled.
7. Didn't receive No. 10 of COC 3; No 7 → No 9 & No 11 →
No 12 of COC 4; No 1 → No 2 of COC 5.

#1 Okay, note in case narrative

#2 Both samples should be ATR-MW-59(29)

#3 Okay

#4 Please log in as ATR-MW-76-G030118

#5 Please log in as ATR-MW-77(41) G030118

#6 We believe the 3 unlabeled sample correspond to ATR-MW-13-G022818. The samples in the vials should contain a slight bit of sediment.

#7 As mentioned above, these samples that are missing were not collected as part of the QA/QC process for the dissolved gas analyses. The COC was erroneously filled out following the COC for the VOC analyses.

I believe this addresses all of the discrepancies.

Please let me know if you have any questions.

Thanks, Paul

25896

Paul Stork

Principal Project Manager

Environment & Infrastructure Solutions

Office 937 859 3600

Direct: 937 353 7210

Mobile: 937 671 7573

Note: Amec Foster Wheeler E&I is now part of Wood

www.woodplc.com



From: Lauren McGrath [Lauren.McGrath@pacelabs.com]

Sent: Tuesday, March 06, 2018 1:50 PM

To: Stork, Paul J. <Paul.Stork@amecfw.com>

Subject: 3359151040 NCM

We have received your samples but noticed multiple NCMs as well as numerous samples that were not received. I have attached the NCM below. Please let me know how to proceed. Thank you.

Lauren McGrath

Project Coordinator

Pace Analytical Energy Services, LLC

220 William Pitt Way

Pittsburgh, PA 15238

412-826-2378 (D) | 412-826-5245 (O)

Lauren.McGrath@pacelabs.com

www.pacelabs.com

25896

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

April 9, 2018

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

RE: **3359151040**

Pace Workorder: 26229

Dear Paul Stork:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, March 30, 2018. 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,

A handwritten signature in black ink that reads "Ruth Welsh".

Ruth Welsh 04/09/2018
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 10

Report ID: 26229 - 1037663

Page 1 of 8



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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
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:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
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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Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 26229 3359151040

Lab ID	Sample ID	Matrix	Date Collected	Date Received
262290001	ATR-PM2-G032918	Water	3/29/2018 10:10	3/30/2018 11:30



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ANALYTICAL RESULTS

Workorder: 26229 3359151040

Lab ID: **262290001** Date Received: 3/30/2018 11:30 Matrix: Water
 Sample ID: **ATR-PM2-G032918** Date Collected: 3/29/2018 10:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
------------	---------	-------	-----	-----	----	----------	----	------------

RISK - PAES

Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	21000	ug/l	0.50	0.016	1	4/2/2018 07:27	TD	n
Ethane	420	ug/l	0.10	0.0030	1	4/2/2018 07:27	TD	n
Ethene	110	ug/l	0.10	0.0040	1	4/2/2018 07:27	TD	n



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 26229 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.

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QUALITY CONTROL DATA

Workorder: 26229 3359151040

QC Batch: DISG/6745 Analysis Method: AM20GAX
 QC Batch Method: AM20GAX
 Associated Lab Samples: 262290001

METHOD BLANK: 54504

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: 54506 54508

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	770	720	720	94	94	80-120	0.047	20	n
Ethane	ug/l	76	75	72	99	95	80-120	4.1	20	n
Ethene	ug/l	71	70	68	99	97	80-120	2.3	20	n



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

QUALITY CONTROL DATA QUALIFIERS

Workorder: 26229 3359151040

QUALITY CONTROL PARAMETER QUALIFIERS

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: 26229 3359151040

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
262290001	ATR-PM2-G032918			AM20GAX	DISG/6745



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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
26229



Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:	
Company:	Report To:	Attention:	Page: <u>1</u> of <u>1</u>
Address:	Copy To:	Company Name:	010919
Email To:	Purchase Order No.:	Address:	REGULATORY AGENCY
Phone:	Project Name:	RCRA	NPDES
Requested Due Date/TAT:	Project Number:	UST	GROUND WATER
		RCRA	OTHER
		STATE:	IN

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Y/N	Requested Analysis Filtered (Y/N)	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)	
					Grab Composite Start	COMPOSITE END/GRAB										
		Drinking Water DW Waste Water WW Water Product P Soil/Solid SL Oil OL Wipe WP Air AR Tissue TS Other OT			DATE	TIME	DATE	TIME	Unpreserved H ₂ SO ₄ HNO ₃ HCl TSP BAK Zinc Acetate & NaOH Other							
1	ATR-PM2 - G032A18		WT G-349		3/25/18	10:00	3/25/18	10:00			X	1.4	3/25/18	PAES	3/25/18	Y
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION
	RCD
	3/25/18 10:00
	PAES
	3/25/18 1:45
SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER: Rick Charo	
SIGNATURE of SAMPLER:	
DATE Signed (MM/DD/YY): 3/25/18	

Cooler Receipt Form

Client Name: Amec Project: 3359157040 Lab Work Order: 26229

A. Shipping/Container Information (circle appropriate response)

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

Tracking Number: 780301946534

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: 1.40C Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments: _____

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

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

Comments: _____

Cooler contents examined/received by: LY Date: 3-30-18

Project Manager Review: [Signature] Date: 3/30/18

**DATA VALIDATION REPORT
FEBRUARY 2018 GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA**

1.0 INTRODUCTION

Groundwater samples were collected during monitoring well sampling completed in February 2018 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

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 1803205. 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

Final sample results are presented in Table 3. A summary of qualification actions is presented on Table 4. Table 4 includes listings of validation reason codes to document the reason for the validation qualification. 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 4. 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.

- instrument tuning
- initial calibration
- continuing calibration*
- calculation checks specified in USEPA guidelines
- analyte identification and quantitation

Sample Preservation and Holding Times

The lab reported that the sample preservation pH for samples ATR-MW-82 (58) - G022818, ATR-PM-3-G030118, ATR-OW-4 (35) - G022818, and ATR-MW-67 - G030118 was greater than the preservation goal of 2. Samples were analyzed greater than 7 days from collection. Reporting limits and detected concentrations of aromatic VOCs were qualified as estimated (J/UJ) with reason code HTA.

Continuing Calibration

In the continuing calibration for work order 1803205, the percent difference for bromomethane exceeded the project goal of 20 in several sample batches indicating potential low bias. Bromomethane was not detected in associated samples and reporting limits were qualified as estimated (UJ). Qualified results are summarized on Table 4 with reason code CCVL.

LCS

In the LCS associated with batch R231380 the recovery of vinyl chloride (67) was less than the limit of 70. Results for vinyl chloride in associated samples and reporting limits were qualified estimate (J/UJ) with reason code LCS-L. Results may be biased low.

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 4 and were assigned reason code MS-L or MS-H.

- bromomethane
- cis-1,2-dichloroethene
- vinyl chloride

In the MS/MSD associated with sample ATR-MW-68 - G030118, one or more percent recoveries for bromomethane (50, 54), cis-1,2-dichloroethene (131), and vinyl chloride (216) were outside of the control limits. The reporting limit for bromomethane in sample ATR-MW-68 - G030118 was qualified estimated (UJ). Results for cis-1,2-dichloroethene and vinyl chloride were qualified estimated and may be biased high.

In the MSD analyzed with sample ATR-OW-1 (39) - G022818 percent recovery for bromomethane (68) was less than the control limit of 70 percent indicating potential low bias. Bromomethane was not detected and the reporting limit was qualified estimated (UJ).

Field Duplicates

Field duplicates were collected at locations MW-78(35), MW-81(27), and MW-6C. Good agreement was observed for the majority of results reported in these samples. In the duplicate pair from location MW-

81(27), chloroethane was reported as non-detected in the original sample and a detection slightly greater than the RL in the field duplicate. Results were qualified as estimated (J/UJ) with reason code FD.

Surrogate Recovery

Percent recovery of the surrogate dibromofluoromethane (72) in sample ATR-MW-82 (58) - G022818 was less than the 85-115 control limits. No target compounds were detected in sample ATR-MW-82 (58) - G022818 and reporting limits were qualified as estimated (UJ) with reason code SS-L.

Data Validator: Chris Ricardi, NRCC_EAC



Date: April 26, 2018

Report Reviewed by: Julie Ricardi



Date: April 26, 2018

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 AND ANALYSIS SUMMARY
DATA VALIDATION REPORT
FEBRUARY 2018 GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA

SDG	Lab ID	Location	Field Sample ID	Date	Matrix	Type	SW8260B VOC
1803205	1803205-01	OW-03(55)	ATR-OW-3 (55) - G022718	2/27/2018	GW	FS	36
1803205	1803205-02	OW-03(35)	ATR-OW-3 (35) - G022718	2/27/2018	GW	FS	36
1803205	1803205-03	OW-02(53)	ATR-OW-2 (53) - G022718	2/27/2018	GW	FS	36
1803205	1803205-04	OW-02(33)	ATR-OW-2 (33) - G022718	2/27/2018	GW	FS	36
1803205	1803205-05	MW-24(55.9)	ATR-MW-24 (55.4) - G022718	2/27/2018	GW	FS	36
1803205	1803205-06	MW-24(24.9)	ATR-MW-24 (24.9) - G022718	2/27/2018	GW	FS	36
1803205	1803205-07	MW-14	ATR-MW-14 - G022818	2/28/2018	GW	FS	36
1803205	1803205-08	OW-01(39)	ATR-OW-1 (39) - G022818	2/28/2018	GW	FS	36
1803205	1803205-09	OW-01(28)	ATR-OW-1 (28) - G022818	2/28/2018	GW	FS	36
1803205	1803205-10	MW-82(58)	ATR-MW-82 (58) - G022818	2/28/2018	GW	FS	36
1803205	1803205-11	MW-62(36)	ATR-MW-62 (36) - G022818	2/28/2018	GW	FS	36
1803205	1803205-12	MW-81(27)	ATR-MW-81 (27) - G022818	2/28/2018	GW	FS	36
1803205	1803205-13	MW-59(29)	ATR-MW-59 (29) - G022818	2/28/2018	GW	FS	36
1803205	1803205-14	PM-3	ATR-PM-3-G030118	3/1/2018	GW	FS	36
1803205	1803205-15	MW-78(35)	ATR-MW-78 (35) - G030118	3/1/2018	GW	FS	36
1803205	1803205-16	MW-78(35)	ATR-MW-78 (35) - G030118R	3/1/2018	GW	FD	36
1803205	1803205-17	MW-77(41)	ATR-MW-77 (41) - G030118	3/1/2018	GW	FS	36
1803205	1803205-18	QC	ATR-EB-002-022718	2/27/2018	BW	EB	36
1803205	1803205-19	QC	ATR-EB-002-022818	2/28/2018	BW	EB	36
1803205	1803205-20	QC	ATR-EB-002-030118	3/1/2018	BW	EB	36
1803205	1803205-21	MW-81(27)	ATR-MW-81 (27) - G022818R	2/28/2018	GW	FD	36
1803205	1803205-22	MW-26(58.8)	ATR-MW-26 (58.2) - G022618	2/26/2018	GW	FS	36
1803205	1803205-23	MW-26(28.8)	ATR-MW-26 (28.8) - G022618	2/26/2018	GW	FS	36
1803205	1803205-24	QC	ATR-EB-001-022618	2/26/2018	BW	EB	36
1803205	1803205-25	MW-26(17.5)	ATR-MW-26 (17.5) - G022618	2/26/2018	GW	FS	36
1803205	1803205-26	ZVI-2(32.5)	ATR-ZVI-2 (32.5) - G022618	2/26/2018	GW	FS	36
1803205	1803205-27	ZVI-2(17.5)	ATR-ZVI-2 (17.5) - G022618	2/26/2018	GW	FS	36
1803205	1803205-28	MW-17	ATR-MW-17 - G022718	2/27/2018	GW	FS	36
1803205	1803205-29	MW-16	ATR-MW-16 - G022718	2/27/2018	GW	FS	36
1803205	1803205-30	OW-05(54)	ATR-OW-5 (44) - G022718	2/27/2018	GW	FS	36
1803205	1803205-31	OW-05(35)	ATR-OW-5 (35) - G022718	2/27/2018	GW	FS	36
1803205	1803205-32	OW-05(16)	ATR-OW-5 (16) - G022718	2/27/2018	GW	FS	36
1803205	1803205-33	QC	ATR-EB-001 - 022718	2/27/2018	BW	EB	36
1803205	1803205-34	MW-25(45.2)	ATR-MW-25 (45.1) - G022718	2/27/2018	GW	FS	36
1803205	1803205-35	MW-25(32.6)	ATR-MW-25 (32.6) - G022718	2/27/2018	GW	FS	36
1803205	1803205-36	MW-25(16.4)	ATR-MW-25 (16.4) - G022718	2/27/2018	GW	FS	36
1803205	1803205-37	MW-15	ATR-MW-15 - G022818	2/28/2018	GW	FS	36
1803205	1803205-38	OW-04(54)	ATR-OW-4 (54) - G022818	2/28/2018	GW	FS	36
1803205	1803205-39	OW-04(35)	ATR-OW-4 (35) - G022818	2/28/2018	GW	FS	36
1803205	1803205-40	MW-20(51)	ATR-MW-20 (51) - G022818	2/28/2018	GW	FS	36
1803205	1803205-41	MW-20(35)	ATR-MW-20 (35) - G022818	2/28/2018	GW	FS	36

TABLE 1 - SAMPLE AND ANALYSIS SUMMARY
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG	Lab ID	Location	Field Sample ID	Date	Matrix	Type	SW8260B VOC
1803205	1803205-42	QC	ATR-EB-001 - 022818	2/28/2018	BW	EB	36
1803205	1803205-43	MW-6C	ATR-MW-6C - G022818	2/28/2018	GW	FS	36
1803205	1803205-44	MW-6C	ATR-MW-6C - G022818R	2/28/2018	GW	FD	36
1803205	1803205-45	MW-12	ATR-MW-12 - G022818	2/28/2018	GW	FS	36
1803205	1803205-46	MW-13	ATR-MW-13 - G022818	2/28/2018	GW	FS	36
1803205	1803205-47	MW-68(32)	ATR-MW-68 - G030118	3/1/2018	GW	FS	36
1803205	1803205-48	MW-72(32)	ATR-MW-72 - G030118	3/1/2018	GW	FS	36
1803205	1803205-49	MW-67(30)	ATR-MW-67 - G030118	3/1/2018	GW	FS	36
1803205	1803205-50	MW-71(33)	ATR-MW-71 - G030118	3/1/2018	GW	FS	36
1803205	1803205-51	MW-76	ATR-MW-76 - G030118	3/1/2018	GW	FS	36
1803205	1803205-52	QC	ATR-EB-001 - 030118	3/1/2018	BW	EB	36
1803205	1803205-53	QC	ATR-TB-001 - 030218	3/2/2018	BW	TB	36
1803205	1803205-54	QC	ATR-TB-002 - 030218	3/2/2018	BW	TB	36
18031874	18031874-01	PM-2	ATR-PM2-G032918	3/29/2018	GW	FS	36
18031874	18031874-02	QC	VOC Trip Blank	3/29/2018	BW	TB	36

Notes:

- BW = blank water
- EB = equipment blank
- FD = field duplicate
- FS = field sample
- GW = groundwater
- TB = trip blank

**TABLE 2 - QC LIMITS
DATA VALIDATION REPORT
FEBRUARY 2018 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 - SAMPLE RESULTS
DATA VALIDATION REPORT
FEBRUARY 2018 GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA

SDG:	18031874	18031874	1803205	1803205	1803205
Location:	PM-2	QC	MW-12	MW-13	MW-14
Date Collected:	03/29/18	03/29/18	02/28/18	02/28/18	02/28/18
Field Sample ID:	ATR-PM2-G032918	VOC Trip Blank	ATR-MW-12 - G022818	ATR-MW-13 - G022818	ATR-MW-14 - G022818
Type:	FS	TB	FS	FS	FS

Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	1,1,2,2-Tetrachloroethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	1,1,2-Trichloroethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	1,1-Dichloroethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	1,1-Dichloroethene	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	1,2-Dichloroethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	1,2-Dichloropropane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	2-Butanone	50		5	U	5	U	5	U	5	U
SW8260B	UG/L	2-Hexanone	5	U	5	U	5	U	5	U	5	U
SW8260B	UG/L	4-Methyl-2-pentanone	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Acetone	150		10	U	10	U	10	U	10	U
SW8260B	UG/L	Benzene	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Bromodichloromethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Bromoform	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Bromomethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Carbon disulfide	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Carbon tetrachloride	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Chlorobenzene	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Chloroethane	1.8		1	U	1	U	1	U	1	U
SW8260B	UG/L	Chloroform	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Chloromethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Cis-1,2-Dichloroethene	1	U	1	U	1	U	44		1	U
SW8260B	UG/L	Cis-1,3-Dichloropropene	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Dibromochloromethane	1	U	1	U	1	U	1	U	1	U
SW8260B	UG/L	Ethylbenzene	8.1		1	U	1	U	1	U	1	U
SW8260B	UG/L	Methylene chloride	5	U	5	U	5	U	5	U	5	U

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	18031874	18031874	1803205	1803205	1803205
Location:	PM-2	QC	MW-12	MW-13	MW-14
Date Collected:	03/29/18	03/29/18	02/28/18	02/28/18	02/28/18
Field Sample ID:	ATR-PM2-G032918	VOC Trip Blank	ATR-MW-12 - G022818	ATR-MW-13 - G022818	ATR-MW-14 - G022818
Type:	FS	TB	FS	FS	FS

Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Tetrachloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Toluene	8.5		1 U		1.3		1 U		1 U	
SW8260B	UG/L	trans-1,2-Dichloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,3-Dichloropropene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Trichloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Vinyl chloride	1 U		1 U		1 U		39		1 U	
SW8260B	UG/L	Xylene, o	2.9		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Xylenes (m&p)	12		2 U		2 U		2 U		2 U	
SW8260B	UG/L	Xylenes, Total	15		3 U		3 U		3 U		3 U	

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-15	MW-16	MW-17	MW-20(35)	MW-20(51)
Date Collected:	02/28/18	02/27/18	02/27/18	02/28/18	02/28/18
Field Sample ID:	ATR-MW-15 - G022818	ATR-MW-16 - G022718	ATR-MW-17 - G022718	ATR-MW-20 (35) - G022818	ATR-MW-20 (51) - G022818

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS
			Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2-Trichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloropropane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	2-Butanone		140	180	5 U	5 U	5 U
SW8260B	UG/L	2-Hexanone		5 U	5 U	5 U	5 U	5 U
SW8260B	UG/L	4-Methyl-2-pentanone		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Acetone		24	19	10 U	10 U	23
SW8260B	UG/L	Benzene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromodichloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromoform		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromomethane		1 UJ	1 UJ	1 U	1 U	1 U
SW8260B	UG/L	Carbon disulfide		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Carbon tetrachloride		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chlorobenzene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroform		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Cis-1,2-Dichloroethene		1.3	1 U	33	1 U	1 U
SW8260B	UG/L	Cis-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Dibromochloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Ethylbenzene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Methylene chloride		5 U	5 U	5 U	5 U	5 U

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-15	MW-16	MW-17	MW-20(35)	MW-20(51)
Date Collected:	02/28/18	02/27/18	02/27/18	02/28/18	02/28/18
Field Sample ID:	ATR-MW-15 - G022818	ATR-MW-16 - G022718	ATR-MW-17 - G022718	ATR-MW-20 (35) - G022818	ATR-MW-20 (51) - G022818
Type:	FS	FS	FS	FS	FS

Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Tetrachloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Toluene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,2-Dichloroethene	5.4		1 U		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,3-Dichloropropene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Trichloroethene	1 U		1 U		57		1 U		1 U	
SW8260B	UG/L	Vinyl chloride	1.8		1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	Xylene, o	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Xylenes (m&p)	2 U		2 U		2 U		2 U		2 U	
SW8260B	UG/L	Xylenes, Total	3 U		3 U		3 U		3 U		3 U	

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-24(24.9)	MW-24(55.9)	MW-25(16.4)	MW-25(32.6)	MW-25(45.2)
Date Collected:	02/27/18	02/27/18	02/27/18	02/27/18	02/27/18
Field Sample ID:	ATR-MW-24 (24.9) - G0227: ATR-MW-24 (55.4) - G0227: ATR-MW-25 (16.4) - G0227: ATR-MW-25 (32.6) - G0227: ATR-MW-25 (45.1) - G0227:				

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS
			Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2-Trichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloropropane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	2-Butanone		5 U	5 U	5 U	5 U	190
SW8260B	UG/L	2-Hexanone		5 U	5 U	5 U	5 U	5 U
SW8260B	UG/L	4-Methyl-2-pentanone		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Acetone		10 U	15	10 U	10 U	10
SW8260B	UG/L	Benzene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromodichloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromoform		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromomethane		1 U	1 U	1 UJ	1 U	1 UJ
SW8260B	UG/L	Carbon disulfide		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Carbon tetrachloride		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chlorobenzene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroform		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Cis-1,2-Dichloroethene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Cis-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Dibromochloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Ethylbenzene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Methylene chloride		5 U	5 U	5 U	5 U	5 U

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-24(24.9)	MW-24(55.9)	MW-25(16.4)	MW-25(32.6)	MW-25(45.2)
Date Collected:	02/27/18	02/27/18	02/27/18	02/27/18	02/27/18
Field Sample ID:	ATR-MW-24 (24.9) - G0227: ATR-MW-24 (55.4) - G0227: ATR-MW-25 (16.4) - G0227: ATR-MW-25 (32.6) - G0227: ATR-MW-25 (45.1) - G0227:				

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
				Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Tetrachloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Toluene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	trans-1,2-Dichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	trans-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Trichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Vinyl chloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Xylene, o		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Xylenes (m&p)		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
SW8260B	UG/L	Xylenes, Total		3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-26(17.5)	MW-26(28.8)	MW-26(58.8)	MW-59(29)	MW-62(36)
Date Collected:	02/26/18	02/26/18	02/26/18	02/28/18	02/28/18
Field Sample ID:	ATR-MW-26 (17.5) - G0226: ATR-MW-26 (28.8) - G0226: ATR-MW-26 (58.2) - G0226: ATR-MW-59 (29) - G022818 ATR-MW-62 (36) - G022818				

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS
			Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2-Trichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloropropane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	2-Butanone		5 U	5 U	5 U	5 U	5 U
SW8260B	UG/L	2-Hexanone		5 U	5 U	5 U	5 U	5 U
SW8260B	UG/L	4-Methyl-2-pentanone		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Acetone		10 U	10 U	10 U	10 U	10 U
SW8260B	UG/L	Benzene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromodichloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromoform		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromomethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Carbon disulfide		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Carbon tetrachloride		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chlorobenzene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroform		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Cis-1,2-Dichloroethene		1 U	1 U	1 U	1.1	1 U
SW8260B	UG/L	Cis-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Dibromochloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Ethylbenzene		1 U	1 U	1 U	3	1 U
SW8260B	UG/L	Methylene chloride		5 U	5 U	5 U	5 U	5 U

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-26(17.5)	MW-26(28.8)	MW-26(58.8)	MW-59(29)	MW-62(36)
Date Collected:	02/26/18	02/26/18	02/26/18	02/28/18	02/28/18
Field Sample ID:	ATR-MW-26 (17.5) - G0226: ATR-MW-26 (28.8) - G0226: ATR-MW-26 (58.2) - G0226: ATR-MW-59 (29) - G022818 ATR-MW-62 (36) - G022818				

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
				Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Tetrachloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Toluene		1 U	7.8	1 U	1 U	13	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	trans-1,2-Dichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	trans-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Trichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Vinyl chloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Xylene, o		1 U	1 U	1 U	1 U	3	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Xylenes (m&p)		2 U	2 U	2 U	2 U	5.2	2 U	2 U	2 U	2 U	2 U
SW8260B	UG/L	Xylenes, Total		3 U	3 U	3 U	3 U	8.2	3 U	3 U	3 U	3 U	3 U

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-67(30)	MW-68(32)	MW-6C	MW-6C	MW-71(33)
Date Collected:	03/01/18	03/01/18	02/28/18	02/28/18	03/01/18
Field Sample ID:	ATR-MW-67 - G030118	ATR-MW-68 - G030118	ATR-MW-6C - G022818	ATR-MW-6C - G022818R	ATR-MW-71 - G030118
Type:	FS	FS	FS	FD	FS

Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	1,1,2,2-Tetrachloroethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	1,1,2-Trichloroethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	1,1-Dichloroethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	1,1-Dichloroethene	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	1,2-Dichloroethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	1,2-Dichloropropane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	2-Butanone	5 U		88		5 U		5 U		110	
SW8260B	UG/L	2-Hexanone	5 U		25 U		5 U		5 U		25 U	
SW8260B	UG/L	4-Methyl-2-pentanone	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Acetone	92		57		10 U		10 U		230	
SW8260B	UG/L	Benzene	1 UJ		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Bromodichloromethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Bromoform	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Bromomethane	1 U		5 UJ		1 UJ		1 UJ		5 UJ	
SW8260B	UG/L	Carbon disulfide	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Carbon tetrachloride	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Chlorobenzene	1 UJ		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Chloroethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Chloroform	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Chloromethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Cis-1,2-Dichloroethene	4		140 J		100		100		7.1	
SW8260B	UG/L	Cis-1,3-Dichloropropene	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Dibromochloromethane	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Ethylbenzene	1 UJ		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Methylene chloride	5 U		25 U		5 U		5 U		25 U	

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-67(30)	MW-68(32)	MW-6C	MW-6C	MW-71(33)
Date Collected:	03/01/18	03/01/18	02/28/18	02/28/18	03/01/18
Field Sample ID:	ATR-MW-67 - G030118	ATR-MW-68 - G030118	ATR-MW-6C - G022818	ATR-MW-6C - G022818R	ATR-MW-71 - G030118
Type:	FS	FS	FS	FD	FS

Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene	1 UJ		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Tetrachloroethene	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Toluene	1 UJ		5 U		1 U		1 U		66	
SW8260B	UG/L	trans-1,2-Dichloroethene	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	trans-1,3-Dichloropropene	1 U		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Trichloroethene	1 U		5 U		1 U		1		5 U	
SW8260B	UG/L	Vinyl chloride	73		960 J		52		54 J		1300 J	
SW8260B	UG/L	Xylene, o	1 UJ		5 U		1 U		1 U		5 U	
SW8260B	UG/L	Xylenes (m&p)	2 UJ		10 U		2 U		2 U		10 U	
SW8260B	UG/L	Xylenes, Total	3 UJ		15 U		3 U		3 U		15 U	

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-72(32)	MW-76	MW-77(41)	MW-78(35)	MW-78(35)
Date Collected:	03/01/18	03/01/18	03/01/18	03/01/18	03/01/18
Field Sample ID:	ATR-MW-72 - G030118	ATR-MW-76 - G030118	ATR-MW-77 (41) - G030118	ATR-MW-78 (35) - G030118	ATR-MW-78 (35) - G030118

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FD
			Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2,2-Tetrachloroethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2-Trichloroethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethene		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloroethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloropropane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	2-Butanone		7.2	36	5 U	5 U	5 U
SW8260B	UG/L	2-Hexanone		5 U	25 U	5 U	5 U	5 U
SW8260B	UG/L	4-Methyl-2-pentanone		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Acetone		81	50 U	10 U	10 U	10 U
SW8260B	UG/L	Benzene		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Bromodichloromethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Bromoform		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Bromomethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Carbon disulfide		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Carbon tetrachloride		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Chlorobenzene		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroform		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Chloromethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Cis-1,2-Dichloroethene		2.8	41	1 U	1 U	1 U
SW8260B	UG/L	Cis-1,3-Dichloropropene		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Dibromochloromethane		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Ethylbenzene		1 U	5 U	1 U	1 U	1 U
SW8260B	UG/L	Methylene chloride		5 U	25 U	5 U	5 U	5 U

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-72(32)	MW-76	MW-77(41)	MW-78(35)	MW-78(35)
Date Collected:	03/01/18	03/01/18	03/01/18	03/01/18	03/01/18
Field Sample ID:	ATR-MW-72 - G030118	ATR-MW-76 - G030118	ATR-MW-77 (41) - G030118	ATR-MW-78 (35) - G030118	ATR-MW-78 (35) - G030118

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS	FS	FD	FD	FD	FD
				Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene		1 U		5 U		1 U		1 U		1 U	
SW8260B	UG/L	Tetrachloroethene		1 U		5 U		1 U		1 U		1 U	
SW8260B	UG/L	Toluene		4.2		5 U		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,2-Dichloroethene		1 U		5 U		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,3-Dichloropropene		1 U		5 U		1 U		1 U		1 U	
SW8260B	UG/L	Trichloroethene		1 U		5 U		1 U		1 U		1 U	
SW8260B	UG/L	Vinyl chloride		1.4		1100 J		1 U		1 U		1 U	
SW8260B	UG/L	Xylene, o		1 U		5 U		1 U		1 U		1 U	
SW8260B	UG/L	Xylenes (m&p)		2 U		10 U		2 U		2 U		2 U	
SW8260B	UG/L	Xylenes, Total		3 U		15 U		3 U		3 U		3 U	

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-81(27)	MW-81(27)	MW-82(58)	OW-01(28)	OW-01(39)
Date Collected:	02/28/18	02/28/18	02/28/18	02/28/18	02/28/18
Field Sample ID:	ATR-MW-81 (27) - G022818 ATR-MW-81 (27) - G022818 ATR-MW-82 (58) - G022818 ATR-OW-1 (28) - G022818 ATR-OW-1 (39) - G022818				

Method	Unit	Parameter	Type:	FS	FD	FS	FS	FS
			Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	1,1,2,2-Tetrachloroethane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	1,1,2-Trichloroethane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethene		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	1,2-Dichloroethane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	1,2-Dichloropropane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	2-Butanone		100 U	120 U	5 UJ	5 U	5 U
SW8260B	UG/L	2-Hexanone		100 U	120 U	5 UJ	5 U	5 U
SW8260B	UG/L	4-Methyl-2-pentanone		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Acetone		200 U	250 U	10 UJ	10 U	10 U
SW8260B	UG/L	Benzene		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Bromodichloromethane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Bromoform		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Bromomethane		20 UJ	25 U	1 UJ	1 U	1 UJ
SW8260B	UG/L	Carbon disulfide		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Carbon tetrachloride		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Chlorobenzene		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Chloroethane		20 UJ	28 J	1 UJ	1 U	1 U
SW8260B	UG/L	Chloroform		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Chloromethane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Cis-1,2-Dichloroethene		4000	4000	1 UJ	1 U	1 U
SW8260B	UG/L	Cis-1,3-Dichloropropene		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Dibromochloromethane		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Ethylbenzene		20 U	25 U	1 UJ	1 U	1 U
SW8260B	UG/L	Methylene chloride		100 U	120 U	5 UJ	5 U	5 U

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	MW-81(27)	MW-81(27)	MW-82(58)	OW-01(28)	OW-01(39)
Date Collected:	02/28/18	02/28/18	02/28/18	02/28/18	02/28/18
Field Sample ID:	ATR-MW-81 (27) - G022818 ATR-MW-81 (27) - G022818 ATR-MW-82 (58) - G022818 ATR-OW-1 (28) - G022818 ATR-OW-1 (39) - G022818				

Method	Unit	Parameter	Type:	FS	FD	FS	FS	FS	FS	FS	FS	FS	FS
				Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene		20 U	25 U	1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	Tetrachloroethene		20 U	25 U	1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	Toluene		20 U	25 U	1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,2-Dichloroethene		33	32	1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,3-Dichloropropene		20 U	25 U	1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	Trichloroethene		20 U	25 U	1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	Vinyl chloride		8300 J	8000 J	1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	Xylene, o		20 U	25 U	1 UJ		1 U		1 U		1 U	
SW8260B	UG/L	Xylenes (m&p)		40 U	50 U	2 UJ		2 U		2 U		2 U	
SW8260B	UG/L	Xylenes, Total		60 U	75 U	3 UJ		3 U		3 U		3 U	

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	OW-02(33)	OW-02(53)	OW-03(35)	OW-03(55)	OW-04(35)
Date Collected:	02/27/18	02/27/18	02/27/18	02/27/18	02/28/18
Field Sample ID:	ATR-OW-2 (33) - G022718	ATR-OW-2 (53) - G022718	ATR-OW-3 (35) - G022718	ATR-OW-3 (55) - G022718	ATR-OW-4 (35) - G022818

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS
			Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1,2-Trichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,1-Dichloroethene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	1,2-Dichloropropane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	2-Butanone		5 U	5 U	5 U	97	70
SW8260B	UG/L	2-Hexanone		5 U	5 U	5 U	5 U	5 U
SW8260B	UG/L	4-Methyl-2-pentanone		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Acetone		10 U	10 U	10 U	10 U	22
SW8260B	UG/L	Benzene		1 U	1 U	1 U	1 U	1 UJ
SW8260B	UG/L	Bromodichloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromoform		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Bromomethane		1 U	1 U	1 U	1 U	1 UJ
SW8260B	UG/L	Carbon disulfide		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Carbon tetrachloride		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chlorobenzene		1 U	1 U	1 U	1 U	1 UJ
SW8260B	UG/L	Chloroethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloroform		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Chloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Cis-1,2-Dichloroethene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Cis-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Dibromochloromethane		1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Ethylbenzene		1 U	1 U	1 U	1 U	1 UJ
SW8260B	UG/L	Methylene chloride		5 U	5 U	5 U	5 U	5 U

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

			SDG: 1803205	1803205	1803205	1803205	1803205	
			Location: OW-02(33)	OW-02(53)	OW-03(35)	OW-03(55)	OW-04(35)	
			Date Collected: 02/27/18	02/27/18	02/27/18	02/27/18	02/28/18	
			Field Sample ID: ATR-OW-2 (33) - G022718	ATR-OW-2 (53) - G022718	ATR-OW-3 (35) - G022718	ATR-OW-3 (55) - G022718	ATR-OW-4 (35) - G022818	
			Type: FS	FS	FS	FS	FS	
Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Toluene	1 U	1 U	1 U	1 U	1.4 J	1 U
SW8260B	UG/L	trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Vinyl chloride	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Xylene, o	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Xylenes (m&p)	2 U	2 U	2 U	2 U	2 U	2 U
SW8260B	UG/L	Xylenes, Total	3 U	3 U	3 U	3 U	3 U	3 U

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	OW-04(54)	OW-05(16)	OW-05(35)	OW-05(54)	PM-3
Date Collected:	02/28/18	02/27/18	02/27/18	02/27/18	03/01/18
Field Sample ID:	ATR-OW-4 (54) - G022818	ATR-OW-5 (16) - G022718	ATR-OW-5 (35) - G022718	ATR-OW-5 (44) - G022718	ATR-PM-3-G030118

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
				Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	1,1,2,2-Tetrachloroethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	1,1,2-Trichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	1,1-Dichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	1,1-Dichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	1,2-Dichloroethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	1,2-Dichloropropane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	2-Butanone		84	5 U	5 U	5 U	29	5 U	500 U			
SW8260B	UG/L	2-Hexanone		5 U	5 U	5 U	5 U	5 U	5 U	500 U			
SW8260B	UG/L	4-Methyl-2-pentanone		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Acetone		10 U	10 U	10 U	10 U	12	10 U	1000 U			
SW8260B	UG/L	Benzene		1 U	1 U	1 U	1 U	1 U	1 U	100 UJ			
SW8260B	UG/L	Bromodichloromethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Bromoform		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Bromomethane		1 U	1 U	1 U	1 U	1 U	1 UJ	100 UJ			
SW8260B	UG/L	Carbon disulfide		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Carbon tetrachloride		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Chlorobenzene		1 U	1 U	1 U	1 U	1 U	1 U	100 UJ			
SW8260B	UG/L	Chloroethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Chloroform		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Chloromethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Cis-1,2-Dichloroethene		1.2	1 U	1 U	1 U	1 U	1 U	3900			
SW8260B	UG/L	Cis-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Dibromochloromethane		1 U	1 U	1 U	1 U	1 U	1 U	100 U			
SW8260B	UG/L	Ethylbenzene		1 U	1 U	1 U	1 U	1 U	1 U	100 UJ			
SW8260B	UG/L	Methylene chloride		5 U	5 U	5 U	5 U	5 U	5 U	500 U			

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	OW-04(54)	OW-05(16)	OW-05(35)	OW-05(54)	PM-3
Date Collected:	02/28/18	02/27/18	02/27/18	02/27/18	03/01/18
Field Sample ID:	ATR-OW-4 (54) - G022818	ATR-OW-5 (16) - G022718	ATR-OW-5 (35) - G022718	ATR-OW-5 (44) - G022718	ATR-PM-3-G030118

Method	Unit	Parameter	Type:	FS	FS	FS	FS	FS	FS	FS	FS	FS	FS
				Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	100 UJ	
SW8260B	UG/L	Tetrachloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	100 U	
SW8260B	UG/L	Toluene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	100 UJ	
SW8260B	UG/L	trans-1,2-Dichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	100 U	
SW8260B	UG/L	trans-1,3-Dichloropropene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	100 U	
SW8260B	UG/L	Trichloroethene		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	100 U	
SW8260B	UG/L	Vinyl chloride		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	22000 J	
SW8260B	UG/L	Xylene, o		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	100 UJ	
SW8260B	UG/L	Xylenes (m&p)		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	200 UJ	
SW8260B	UG/L	Xylenes, Total		3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	300 UJ	

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	QC	QC	QC	QC	QC
Date Collected:	02/26/18	02/27/18	02/27/18	02/28/18	02/28/18
Field Sample ID:	ATR-EB-001-022618	ATR-EB-001 - 022718	ATR-EB-002-022718	ATR-EB-001 - 022818	ATR-EB-002-022818
Type:	EB	EB	EB	EB	EB

Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,1,2,2-Tetrachloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,1,2-Trichloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,1-Dichloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,1-Dichloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,2-Dichloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,2-Dichloropropane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	2-Butanone	5 U		5 U		5 U		5 U		5 U	
SW8260B	UG/L	2-Hexanone	5 U		5 U		5 U		5 U		5 U	
SW8260B	UG/L	4-Methyl-2-pentanone	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Acetone	10 U		10 U		10 U		10 U		10 U	
SW8260B	UG/L	Benzene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Bromodichloromethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Bromoform	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Bromomethane	1 UJ		1 UJ		1 UJ		1 UJ		1 UJ	
SW8260B	UG/L	Carbon disulfide	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Carbon tetrachloride	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Chlorobenzene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Chloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Chloroform	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Chloromethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Cis-1,2-Dichloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Cis-1,3-Dichloropropene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Dibromochloromethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Ethylbenzene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Methylene chloride	5 U		5 U		5 U		5 U		5 U	

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	QC	QC	QC	QC	QC
Date Collected:	02/26/18	02/27/18	02/27/18	02/28/18	02/28/18
Field Sample ID:	ATR-EB-001-022618	ATR-EB-001 - 022718	ATR-EB-002-022718	ATR-EB-001 - 022818	ATR-EB-002-022818
Type:	EB	EB	EB	EB	EB

Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Tetrachloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Toluene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,2-Dichloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	trans-1,3-Dichloropropene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Trichloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Vinyl chloride	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Xylene, o	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Xylenes (m&p)	2 U		2 U		2 U		2 U		2 U	
SW8260B	UG/L	Xylenes, Total	3 U		3 U		3 U		3 U		3 U	

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG:	1803205	1803205	1803205	1803205	1803205
Location:	QC	QC	QC	QC	ZVI-2(17.5)
Date Collected:	03/01/18	03/01/18	03/02/18	03/02/18	02/26/18
Field Sample ID:	ATR-EB-001 - 030118	ATR-EB-002-030118	ATR-TB-001 - 030218	ATR-TB-002 - 030218	ATR-ZVI-2 (17.5) - G022618
Type:	EB	EB	TB	TB	FS

Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,1,2,2-Tetrachloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,1,2-Trichloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,1-Dichloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,1-Dichloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,2-Dichloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	1,2-Dichloropropane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	2-Butanone	5 U		5 U		5 U		5 U		5 U	
SW8260B	UG/L	2-Hexanone	5 U		5 U		5 U		5 U		5 U	
SW8260B	UG/L	4-Methyl-2-pentanone	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Acetone	10 U		10 U		10 U		10 U		10 U	
SW8260B	UG/L	Benzene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Bromodichloromethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Bromoform	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Bromomethane	1 UJ		1 UJ		1 UJ		1 UJ		1 U	
SW8260B	UG/L	Carbon disulfide	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Carbon tetrachloride	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Chlorobenzene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Chloroethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Chloroform	1 U		1 U		1.4		1.4		1 U	
SW8260B	UG/L	Chloromethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Cis-1,2-Dichloroethene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Cis-1,3-Dichloropropene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Dibromochloromethane	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Ethylbenzene	1 U		1 U		1 U		1 U		1 U	
SW8260B	UG/L	Methylene chloride	5 U		5 U		5 U		5 U		5 U	

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

			SDG: 1803205	1803205	1803205	1803205	1803205	
			Location: QC	QC	QC	QC	ZVI-2(17.5)	
			Date Collected: 03/01/18	03/01/18	03/02/18	03/02/18	02/26/18	
			Field Sample ID: ATR-EB-001 - 030118	ATR-EB-002-030118	ATR-TB-001 - 030218	ATR-TB-002 - 030218	ATR-ZVI-2 (17.5) - G022618	
			Type: EB	EB	TB	TB	FS	
Method	Unit	Parameter	Final Resul	Final Quali	Final Resul	Final Quali	Final Resul	Final Quali
SW8260B	UG/L	Styrene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Tetrachloroethene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Toluene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	trans-1,2-Dichloroethene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	trans-1,3-Dichloropropene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Trichloroethene	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Vinyl chloride	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Xylene, o	1 U	1 U	1 U	1 U	1 U	1 U
SW8260B	UG/L	Xylenes (m&p)	2 U	2 U	2 U	2 U	2 U	2 U
SW8260B	UG/L	Xylenes, Total	3 U	3 U	3 U	3 U	3 U	3 U

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG: 1803205
Location: ZVI-2(32.5)
Date Collected: 02/26/18
Field Sample ID: ATR-ZVI-2 (32.5) - G022618
Type: FS

Method	Unit	Parameter	Final Resul	Final Quali
SW8260B	UG/L	1,1,1-Trichloroethane	1	U
SW8260B	UG/L	1,1,2,2-Tetrachloroethane	1	U
SW8260B	UG/L	1,1,2-Trichloroethane	1	U
SW8260B	UG/L	1,1-Dichloroethane	1	U
SW8260B	UG/L	1,1-Dichloroethene	1	U
SW8260B	UG/L	1,2-Dichloroethane	1	U
SW8260B	UG/L	1,2-Dichloropropane	1	U
SW8260B	UG/L	2-Butanone	5	U
SW8260B	UG/L	2-Hexanone	5	U
SW8260B	UG/L	4-Methyl-2-pentanone	1	U
SW8260B	UG/L	Acetone	10	U
SW8260B	UG/L	Benzene	1	U
SW8260B	UG/L	Bromodichloromethane	1	U
SW8260B	UG/L	Bromoform	1	U
SW8260B	UG/L	Bromomethane	1	UJ
SW8260B	UG/L	Carbon disulfide	1	U
SW8260B	UG/L	Carbon tetrachloride	1	U
SW8260B	UG/L	Chlorobenzene	1	U
SW8260B	UG/L	Chloroethane	1	U
SW8260B	UG/L	Chloroform	1	U
SW8260B	UG/L	Chloromethane	1	U
SW8260B	UG/L	Cis-1,2-Dichloroethene	1	U
SW8260B	UG/L	Cis-1,3-Dichloropropene	1	U
SW8260B	UG/L	Dibromochloromethane	1	U
SW8260B	UG/L	Ethylbenzene	1	U
SW8260B	UG/L	Methylene chloride	5	U

TABLE 3 - SAMPLE RESULTS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG: 1803205
Location: ZVI-2(32.5)
Date Collected: 02/26/18
Field Sample ID: ATR-ZVI-2 (32.5) - G022618

Type: FS

Method	Unit	Parameter	Final Resul	Final Quali
SW8260B	UG/L	Styrene	1	U
SW8260B	UG/L	Tetrachloroethene	1	U
SW8260B	UG/L	Toluene	1	U
SW8260B	UG/L	trans-1,2-Dichloroethene	1	U
SW8260B	UG/L	trans-1,3-Dichloropropene	1	U
SW8260B	UG/L	Trichloroethene	1	U
SW8260B	UG/L	Vinyl chloride	1	U
SW8260B	UG/L	Xylene, o	1	U
SW8260B	UG/L	Xylenes (m&p)	2	U
SW8260B	UG/L	Xylenes, Total	3	U

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

MG/L = milligram per liter

FS = Field Sample

TB = Trip Blank

EB = Equipment Blank

FB = Field Blank

TABLE 4 - DATA VALIDATION ACTIONS
DATA VALIDATION REPORT
FEBRUARY 2018 GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA

SDG	Analysis Method	Lab Sample Id	Sample Date	Field Sample Id	Param Name	Lab Result Text	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Result Uom
1803205	SW8260B	1803205-33A	2/27/2018	ATR-EB-001 - 022718	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-42A	2/28/2018	ATR-EB-001 - 022818	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-52A	3/1/2018	ATR-EB-001 - 030118	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-24A	2/26/2018	ATR-EB-001-022618	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-18A	2/27/2018	ATR-EB-002-022718	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-19A	2/28/2018	ATR-EB-002-022818	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-20A	3/1/2018	ATR-EB-002-030118	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-46A	2/28/2018	ATR-MW-13 - G022818	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-37A	2/28/2018	ATR-MW-15 - G022818	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-29A	2/27/2018	ATR-MW-16 - G022718	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-29A	2/27/2018	ATR-MW-16 - G022718	Vinyl chloride	1	U	1	UJ	LCS-L	UG/L
1803205	SW8260B	1803205-36A	2/27/2018	ATR-MW-25 (16.4) - G022718	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-34A	2/27/2018	ATR-MW-25 (45.1) - G022718	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-49A	3/1/2018	ATR-MW-67 - G030118	Benzene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-49A	3/1/2018	ATR-MW-67 - G030118	Chlorobenzene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-49A	3/1/2018	ATR-MW-67 - G030118	Ethylbenzene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-49A	3/1/2018	ATR-MW-67 - G030118	Styrene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-49A	3/1/2018	ATR-MW-67 - G030118	Toluene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-49A	3/1/2018	ATR-MW-67 - G030118	Xylene, o	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-49A	3/1/2018	ATR-MW-67 - G030118	Xylenes (m&p)	2	U	2	UJ	HTA	UG/L
1803205	SW8260B	1803205-49A	3/1/2018	ATR-MW-67 - G030118	Xylenes, Total	3	U	3	UJ	HTA	UG/L
1803205	SW8260B	1803205-47A	3/1/2018	ATR-MW-68 - G030118	Bromomethane	5	U	5	UJ	CCVL, MS-L	UG/L
1803205	SW8260B	1803205-47A	3/1/2018	ATR-MW-68 - G030118	Cis-1,2-Dichloroethene	140		140	J	MS-H	UG/L
1803205	SW8260B	1803205-47A	3/1/2018	ATR-MW-68 - G030118	Vinyl chloride	960		960	J	MS-H	UG/L
1803205	SW8260B	1803205-43A	2/28/2018	ATR-MW-6C - G022818	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-44A	2/28/2018	ATR-MW-6C - G022818R	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-44A	2/28/2018	ATR-MW-6C - G022818R	Vinyl chloride	54		54	J	LCS-L	UG/L
1803205	SW8260B	1803205-50A	3/1/2018	ATR-MW-71 - G030118	Bromomethane	5	U	5	UJ	CCVL	UG/L
1803205	SW8260B	1803205-50A	3/1/2018	ATR-MW-71 - G030118	Vinyl chloride	1300		1,300	J	LCS-L	UG/L
1803205	SW8260B	1803205-51A	3/1/2018	ATR-MW-76 - G030118	Bromomethane	5	U	5	UJ	CCVL	UG/L
1803205	SW8260B	1803205-51A	3/1/2018	ATR-MW-76 - G030118	Vinyl chloride	1100		1,100	J	LCS-L	UG/L

TABLE 4 - DATA VALIDATION ACTIONS
DATA VALIDATION REPORT
FEBRUARY 2018 GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA

SDG	Analysis Method	Lab Sample Id	Sample Date	Field Sample Id	Param Name	Lab Result Text	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Result Uom
1803205	SW8260B	1803205-12A	2/28/2018	ATR-MW-81 (27) - G022818	Bromomethane	20	U	20	UJ	CCVL	UG/L
1803205	SW8260B	1803205-12A	2/28/2018	ATR-MW-81 (27) - G022818	Chloroethane	20	U	20	UJ	FD	UG/L
1803205	SW8260B	1803205-12A	2/28/2018	ATR-MW-81 (27) - G022818	Vinyl chloride	8300		8,300	J	LCS-L	UG/L
1803205	SW8260B	1803205-21A	2/28/2018	ATR-MW-81 (27) - G022818R	Chloroethane	28		28	J	FD	UG/L
1803205	SW8260B	1803205-21A	2/28/2018	ATR-MW-81 (27) - G022818R	Vinyl chloride	8000		8,000	J	LCS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	1,1,1-Trichloroethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	1,1,2,2-Tetrachloroethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	1,1,2-Trichloroethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	1,1-Dichloroethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	1,1-Dichloroethene	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	1,2-Dichloroethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	1,2-Dichloropropane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	2-Butanone	5	U	5	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	2-Hexanone	5	U	5	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	4-Methyl-2-pentanone	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Acetone	10	U	10	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Benzene	1	U	1	UJ	HTA, SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Bromodichloromethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Bromoform	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Bromomethane	1	U	1	UJ	CCV-L, SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Carbon disulfide	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Carbon tetrachloride	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Chlorobenzene	1	U	1	UJ	HTA, SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Chloroethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Chloroform	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Chloromethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Cis-1,2-Dichloroethene	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Cis-1,3-Dichloropropene	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Dibromochloromethane	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Ethylbenzene	1	U	1	UJ	HTA, SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Methylene chloride	5	U	5	UJ	SS-L	UG/L

TABLE 4 - DATA VALIDATION ACTIONS
DATA VALIDATION REPORT
FEBRUARY 2018 GROUNDWATER SAMPLING
TEXTRON FORMER TORX FACILITY
ROCHESTER, INDIANA

SDG	Analysis Method	Lab Sample Id	Sample Date	Field Sample Id	Param Name	Lab Result Text	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Result Uom
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Styrene	1	U	1	UJ	HTA, SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Tetrachloroethene	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Toluene	1	U	1	UJ	HTA, SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	trans-1,2-Dichloroethene	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	trans-1,3-Dichloropropen	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Trichloroethene	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Vinyl chloride	1	U	1	UJ	SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Xylene, o	1	U	1	UJ	HTA, SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Xylenes (m&p)	2	U	2	UJ	HTA, SS-L	UG/L
1803205	SW8260B	1803205-10A	2/28/2018	ATR-MW-82 (58) - G022818	Xylenes, Total	3	U	3	UJ	HTA, SS-L	UG/L
1803205	SW8260B	1803205-08A	2/28/2018	ATR-OW-1 (39) - G022818	Bromomethane	1	U	1	UJ	MS-L	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Benzene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Chlorobenzene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Ethylbenzene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Styrene	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Toluene	1.4		1.4	J	HTA	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Xylene, o	1	U	1	UJ	HTA	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Xylenes (m&p)	2	U	2	UJ	HTA	UG/L
1803205	SW8260B	1803205-39A	2/28/2018	ATR-OW-4 (35) - G022818	Xylenes, Total	3	U	3	UJ	HTA	UG/L
1803205	SW8260B	1803205-30A	2/27/2018	ATR-OW-5 (44) - G022718	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Benzene	100	U	100	UJ	HTA	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Bromomethane	100	U	100	UJ	CCVL	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Chlorobenzene	100	U	100	UJ	HTA	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Ethylbenzene	100	U	100	UJ	HTA	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Styrene	100	U	100	UJ	HTA	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Toluene	100	U	100	UJ	HTA	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Vinyl chloride	22000		22,000	J	LCS-L	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Xylene, o	100	U	100	UJ	HTA	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Xylenes (m&p)	200	U	200	UJ	HTA	UG/L
1803205	SW8260B	1803205-14A	3/1/2018	ATR-PM-3-G030118	Xylenes, Total	300	U	300	UJ	HTA	UG/L

TABLE 4 - DATA VALIDATION ACTIONS
 DATA VALIDATION REPORT
 FEBRUARY 2018 GROUNDWATER SAMPLING
 TEXTRON FORMER TORX FACILITY
 ROCHESTER, INDIANA

SDG	Analysis Method	Lab Sample Id	Sample Date	Field Sample Id	Param Name	Lab Result Text	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Result Uom
1803205	SW8260B	1803205-53A	3/2/2018	ATR-TB-001 - 030218	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-54A	3/2/2018	ATR-TB-002 - 030218	Bromomethane	1	U	1	UJ	CCVL	UG/L
1803205	SW8260B	1803205-26A	2/26/2018	ATR-ZVI-2 (32.5) - G022618	Bromomethane	1	U	1	UJ	CCVL	UG/L

U = not detected, value is the detection limit

J = value is estimated

UG/L = microgram per liter

CCVL = continuing calibration low

HTA = analysis holding time exceeded

LCS-L = lab control sample recovery low

SS-L = surrogate recovery low

MS-L = matrix spike recovery low

MS-H = matrix spike recovery high

FD = field duplicate RPD exceeds project goal

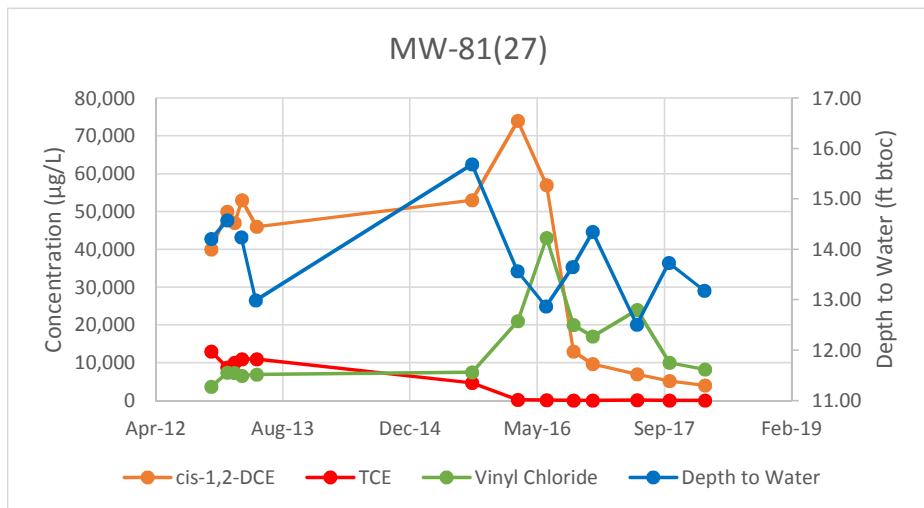


Textron, Inc.
TORX Facility Remediation
Report of Polishing Remedial Injections Performance Monitoring

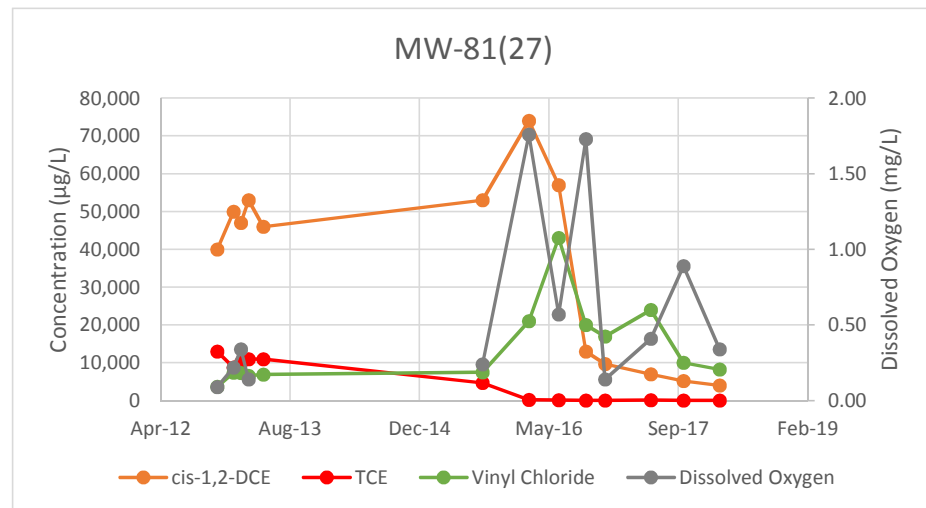
APPENDIX C

TREND EVALUATION CHARTS AND FIGURES

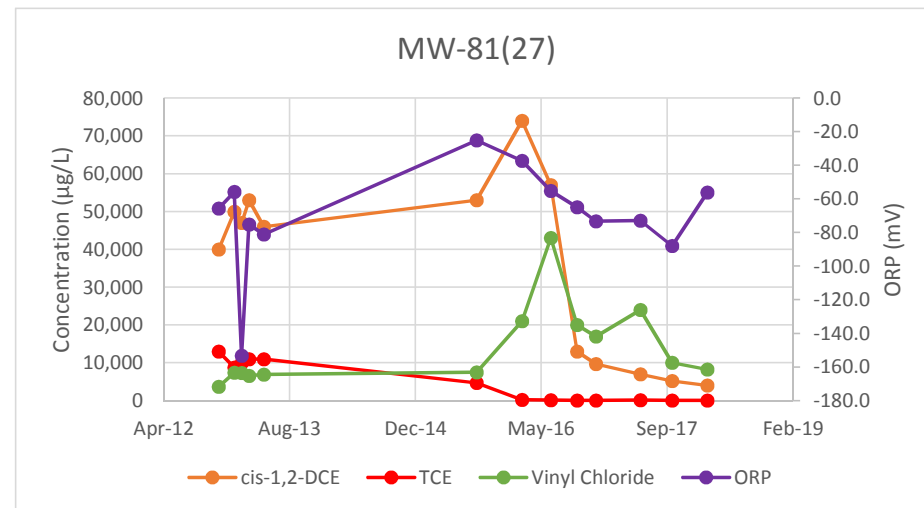
CVOC Concentrations and Depth to Water



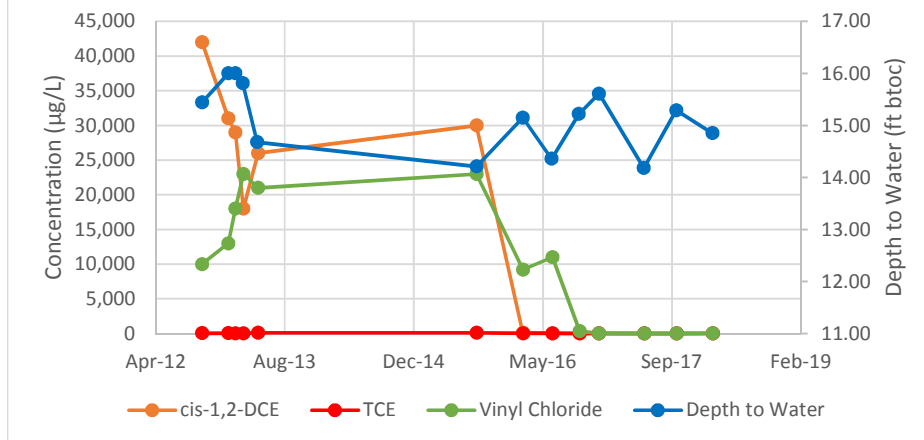
CVOC Concentrations and Dissolved Oxygen



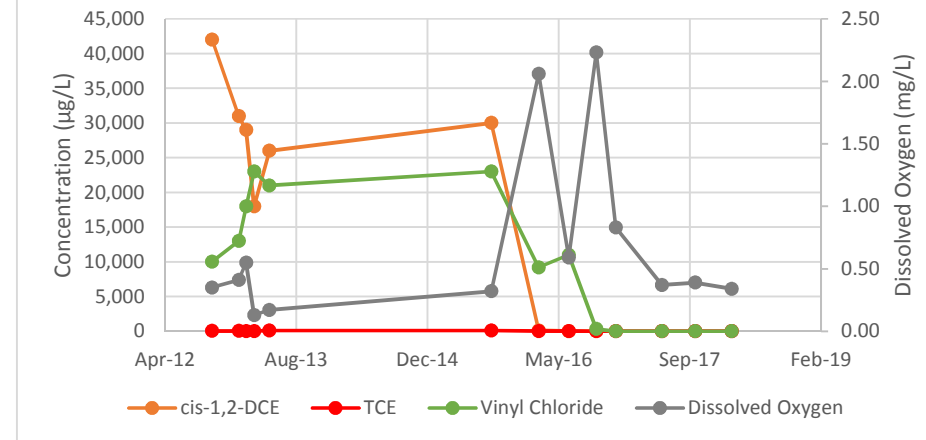
CVOC Concentrations and ORP



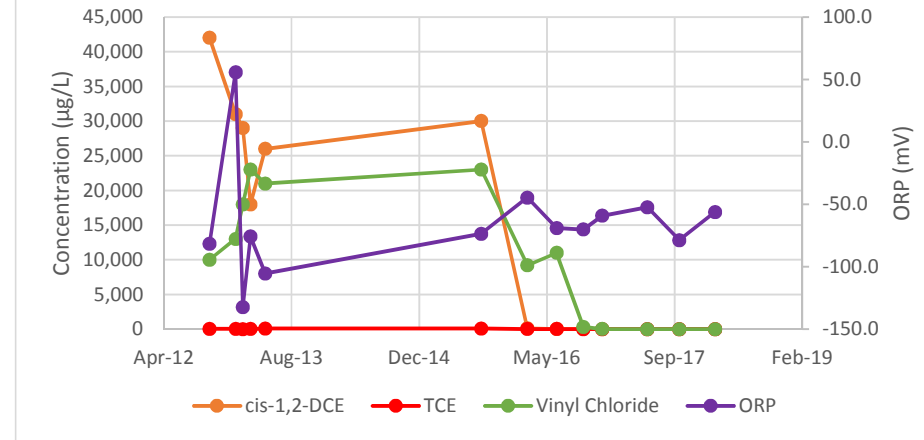
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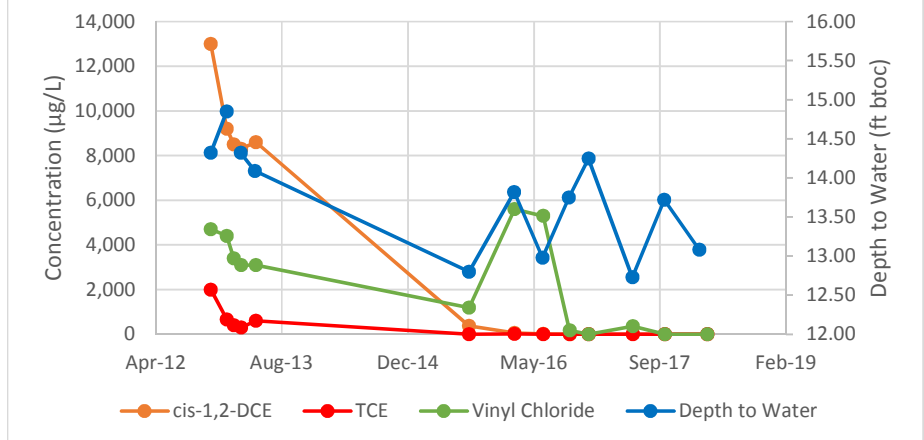
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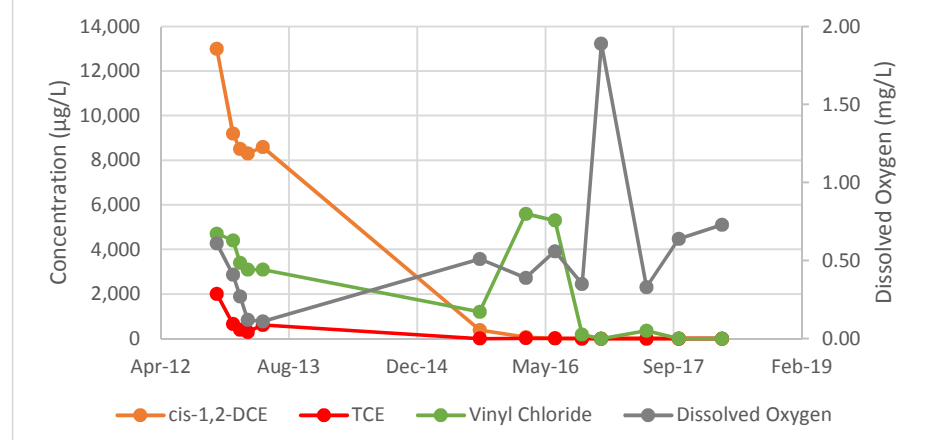
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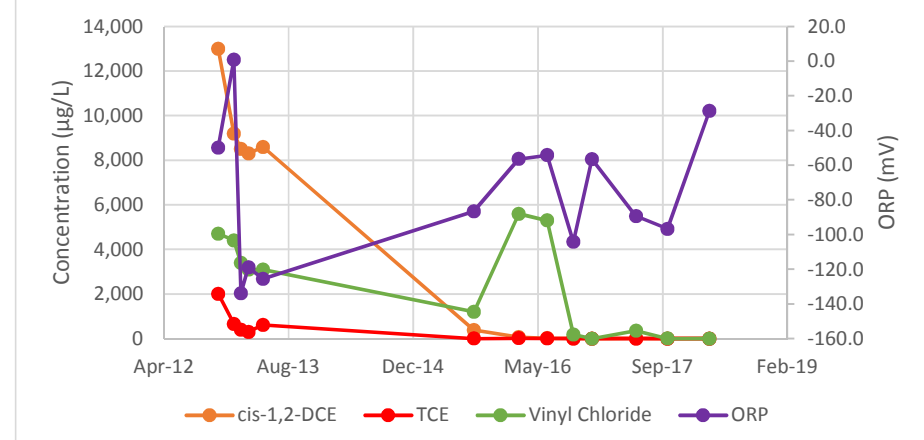
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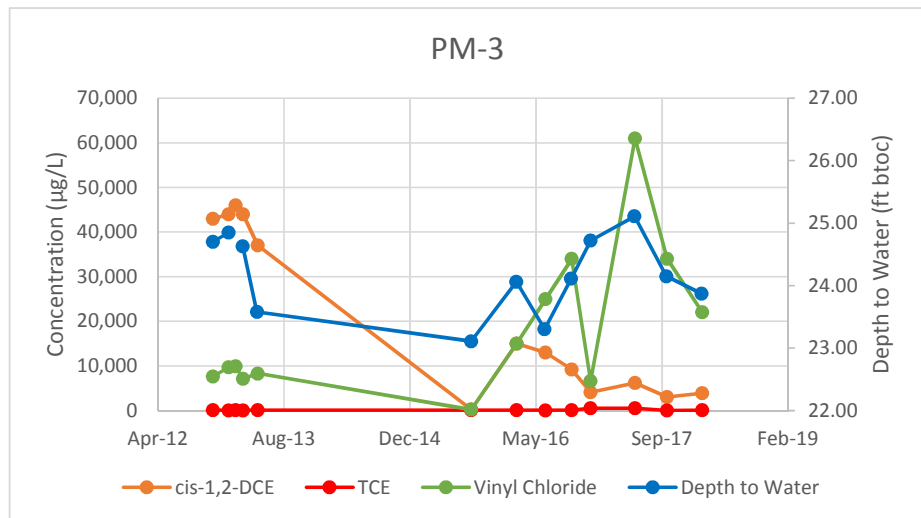
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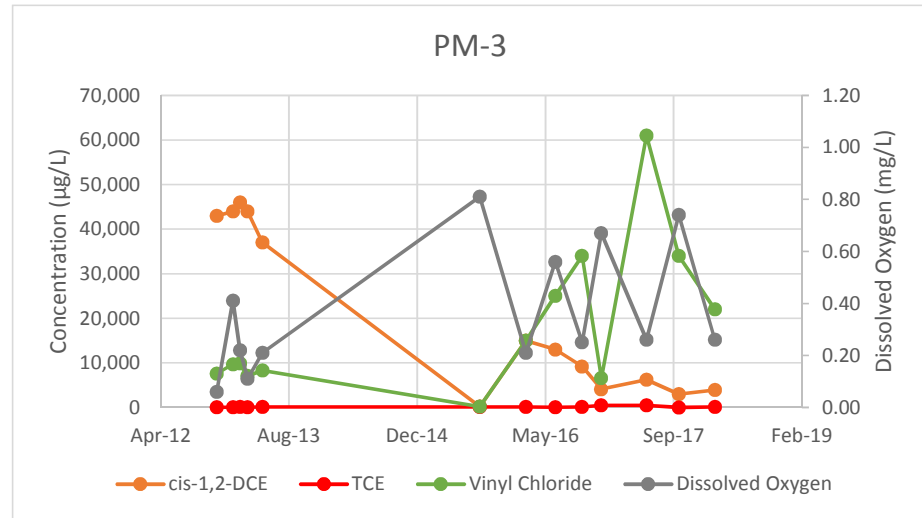
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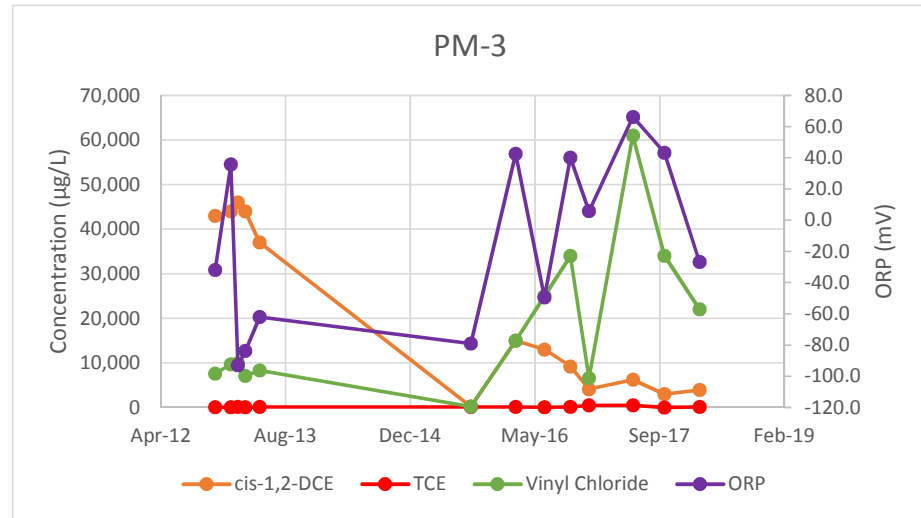
CVOC Concentrations and Depth to Water



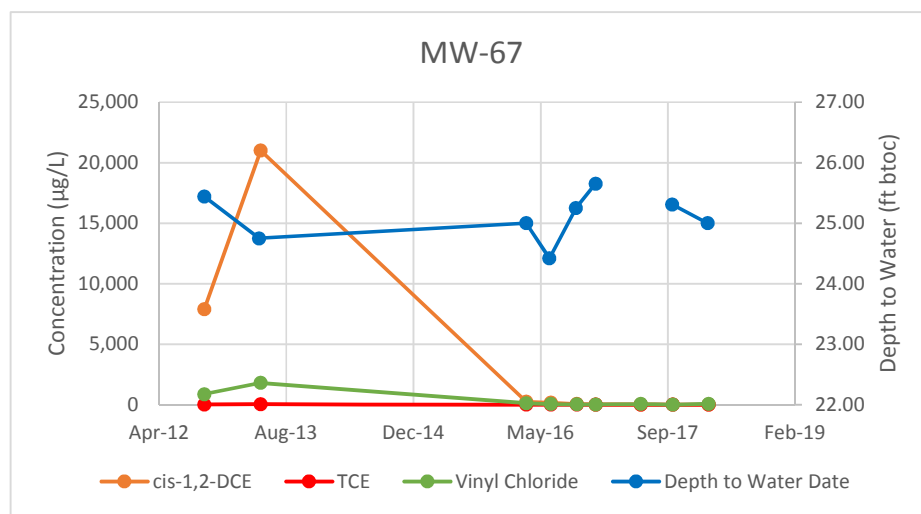
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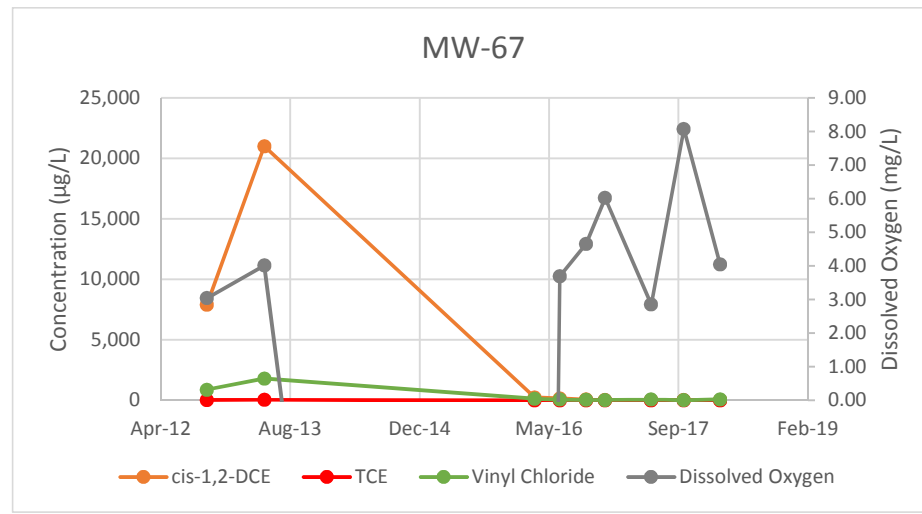
CVOC Concentrations and ORP



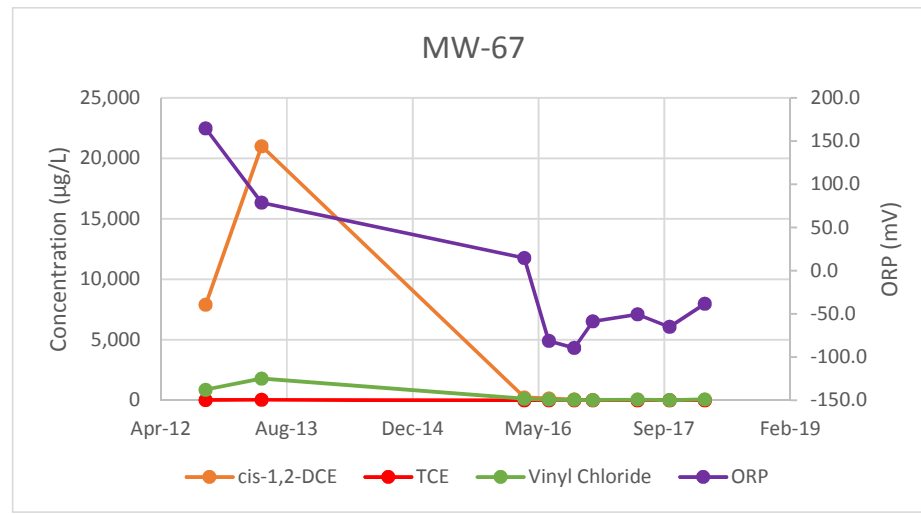
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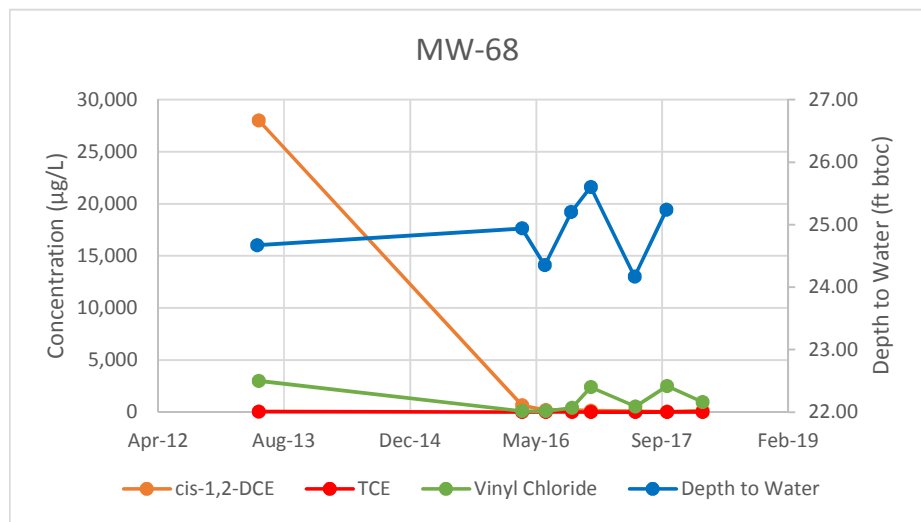
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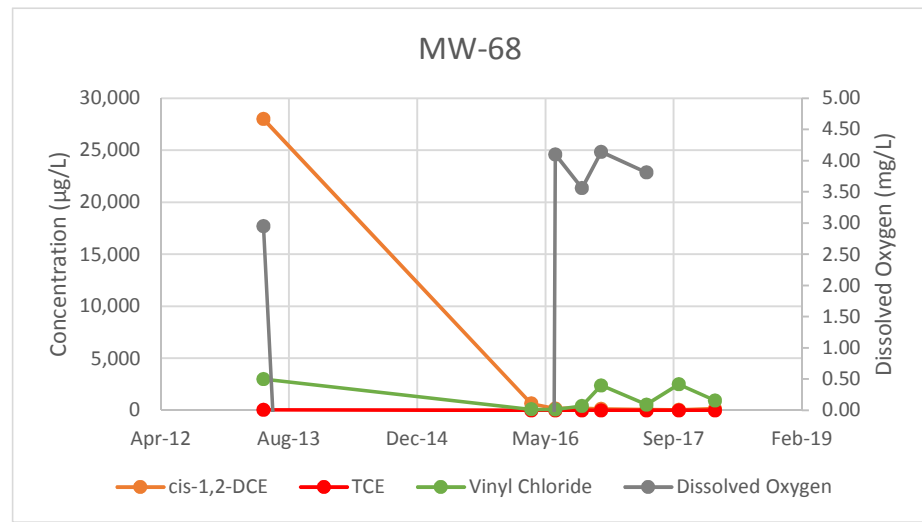
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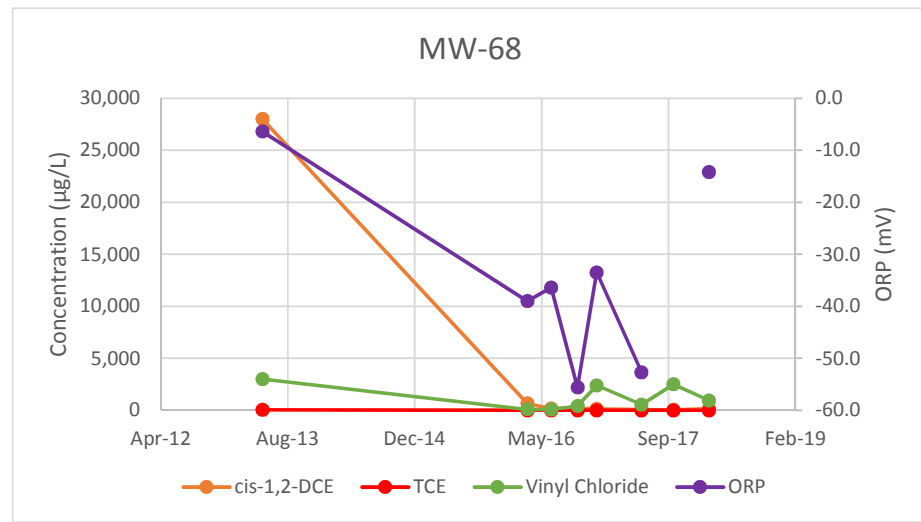
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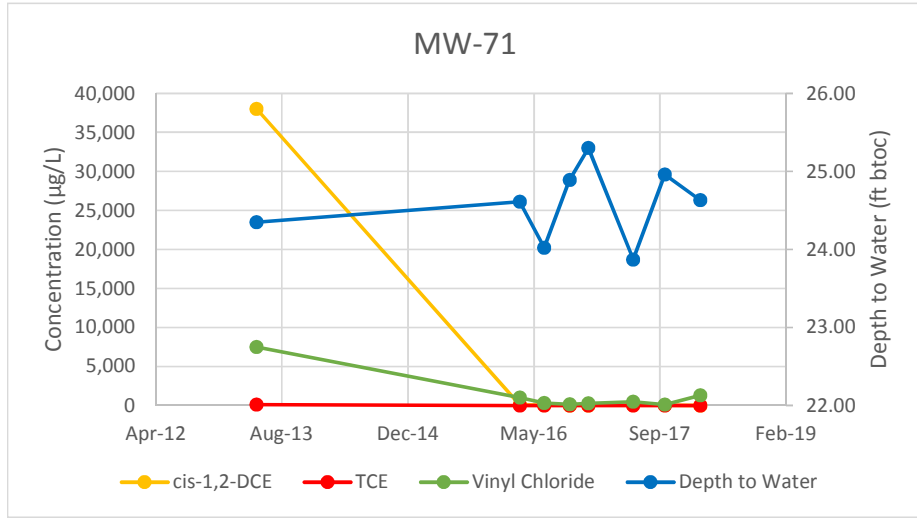
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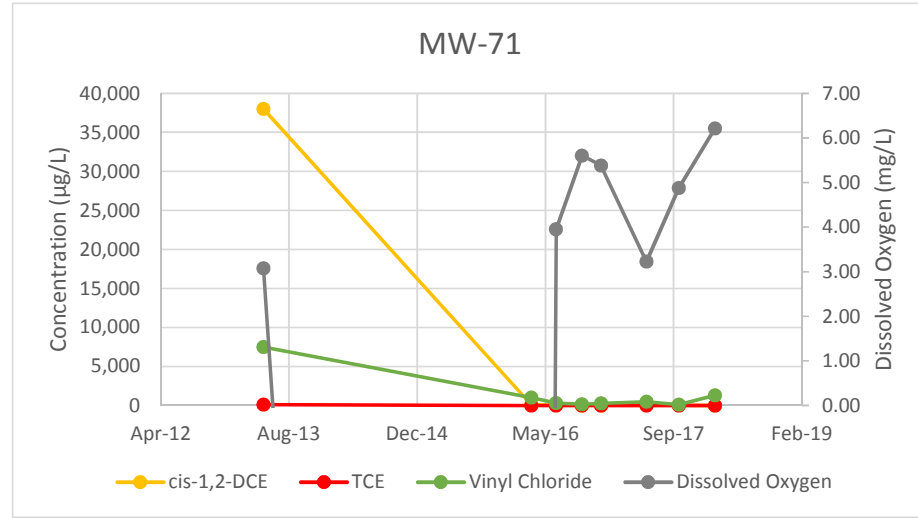
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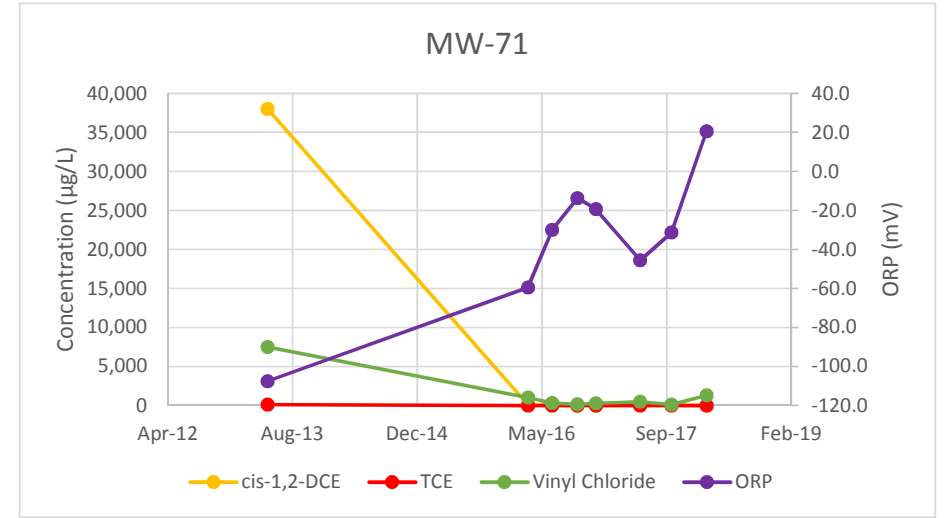
CVOC Concentrations and Depth to Water



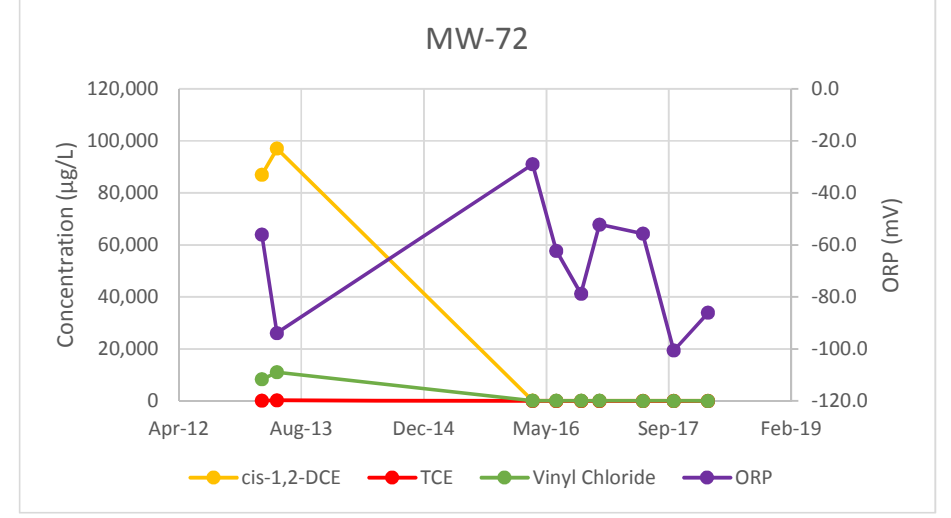
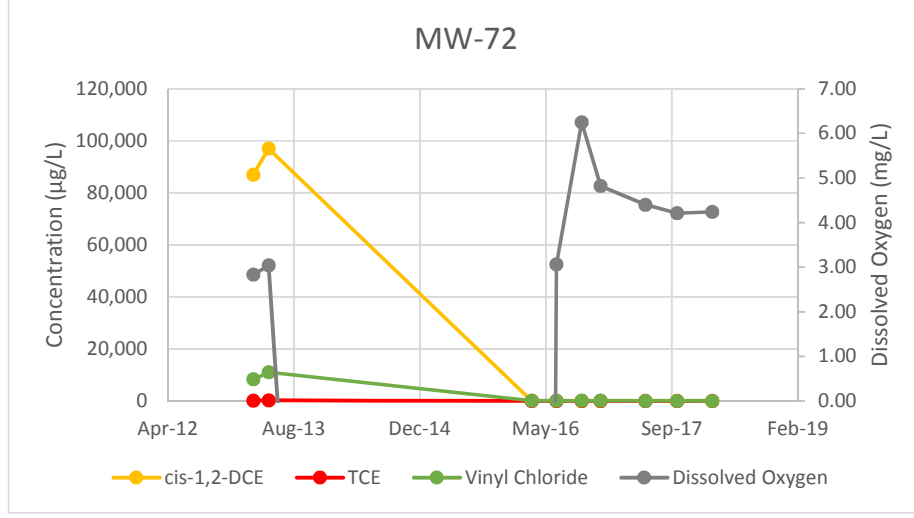
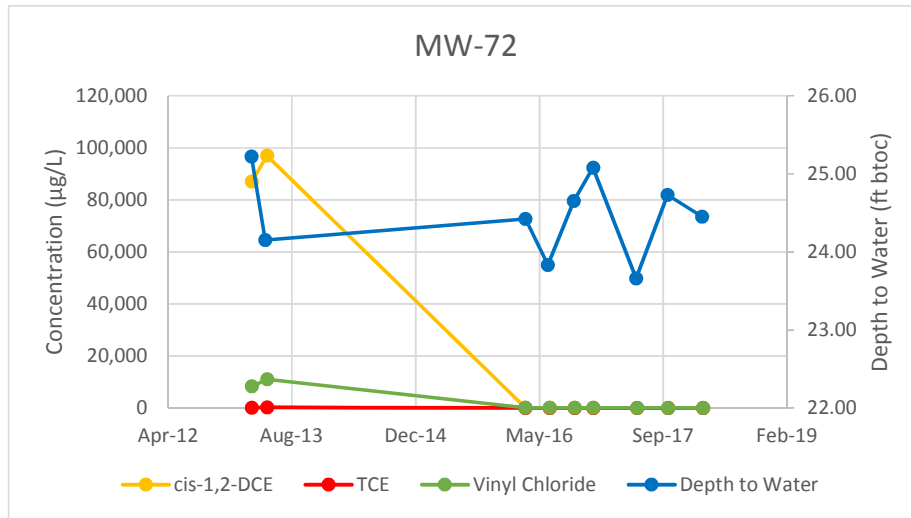
CVOC Concentrations and Dissolved Oxygen



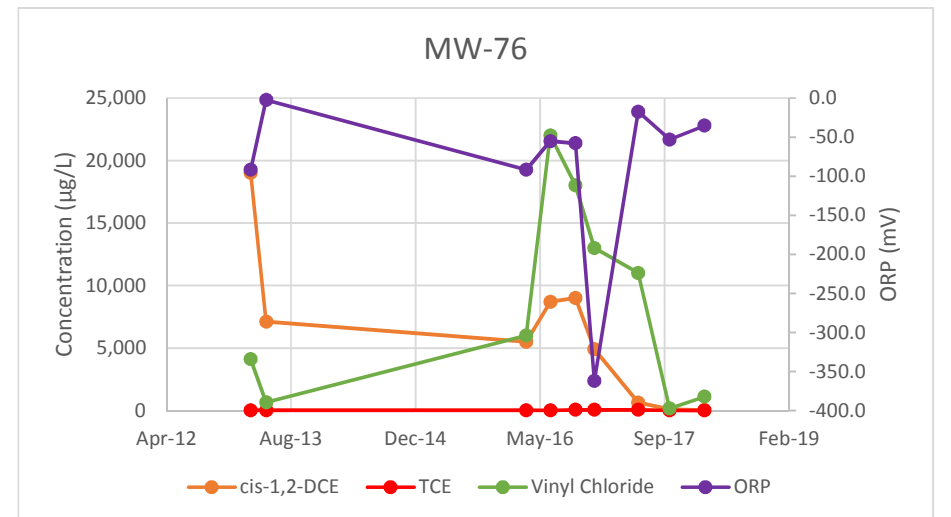
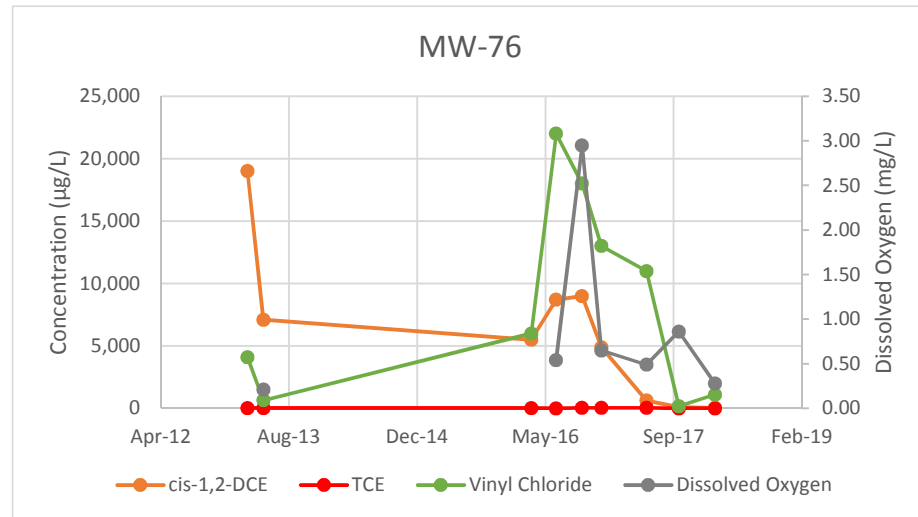
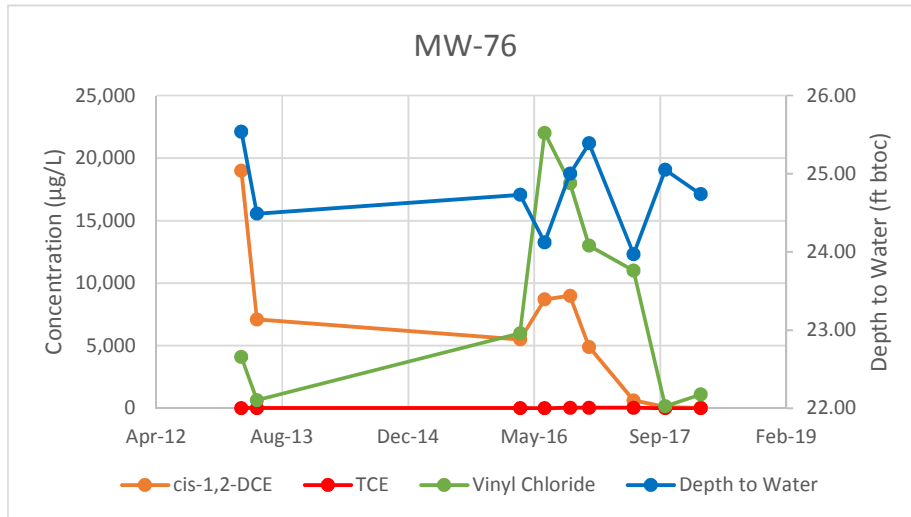
CVOC Concentrations and ORP



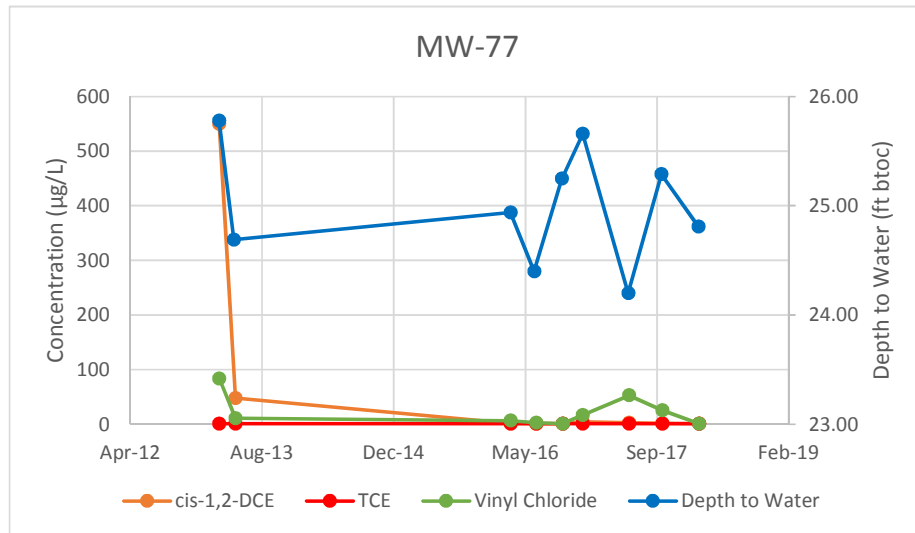
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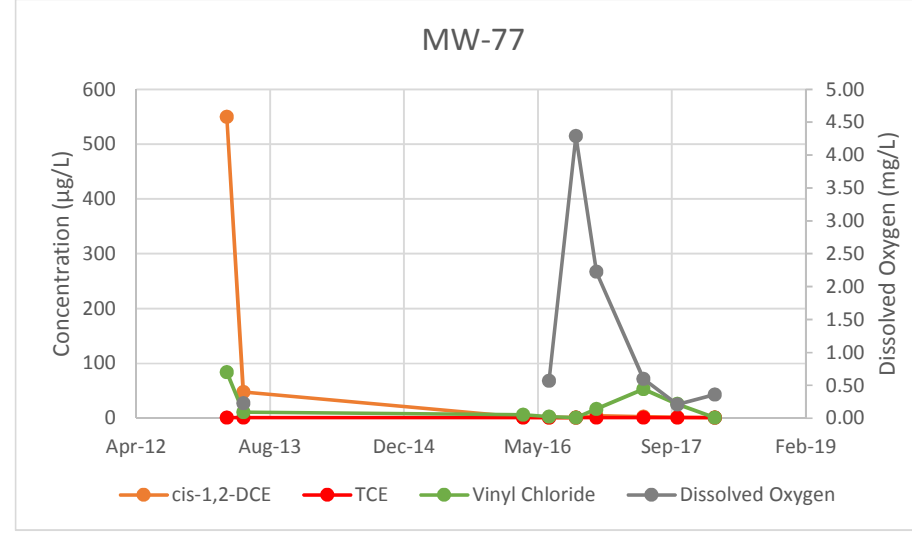
MW-76



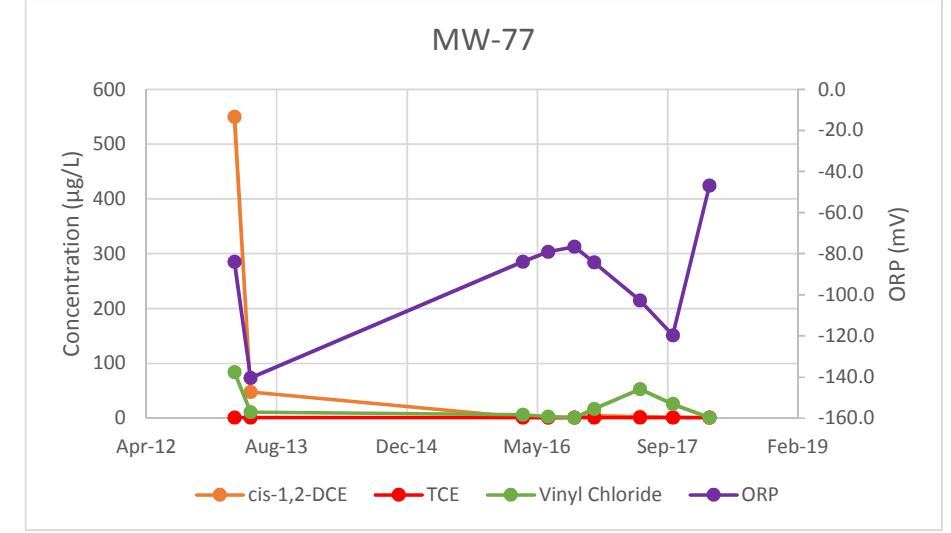
CVOC Concentrations and Depth to Water



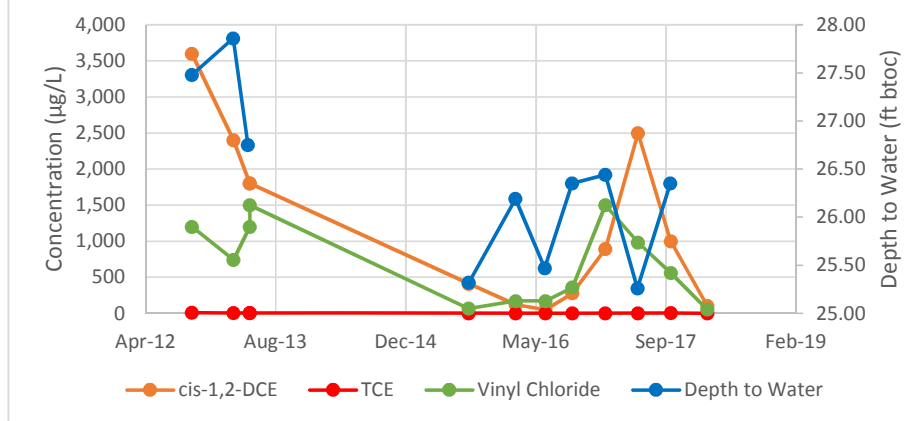
CVOC Concentrations and Dissolved Oxygen



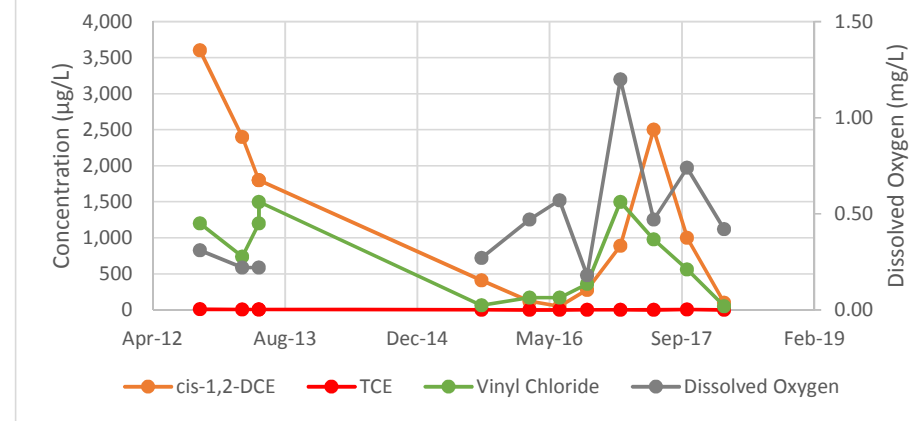
CVOC Concentrations and ORP



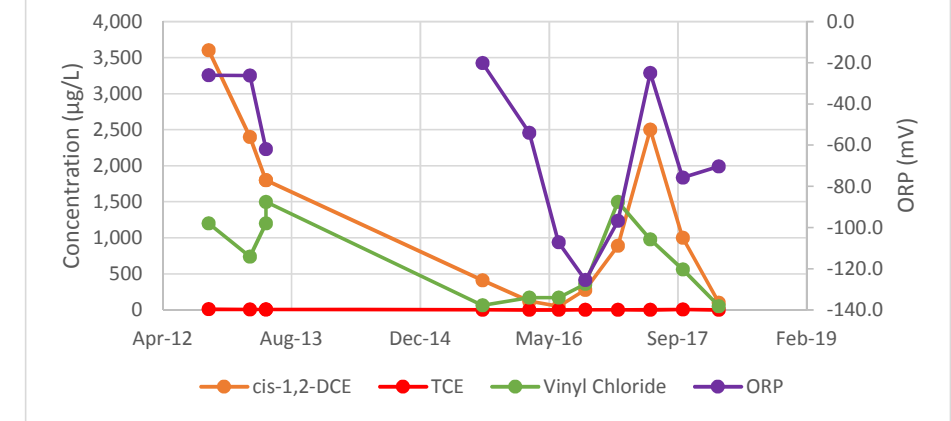
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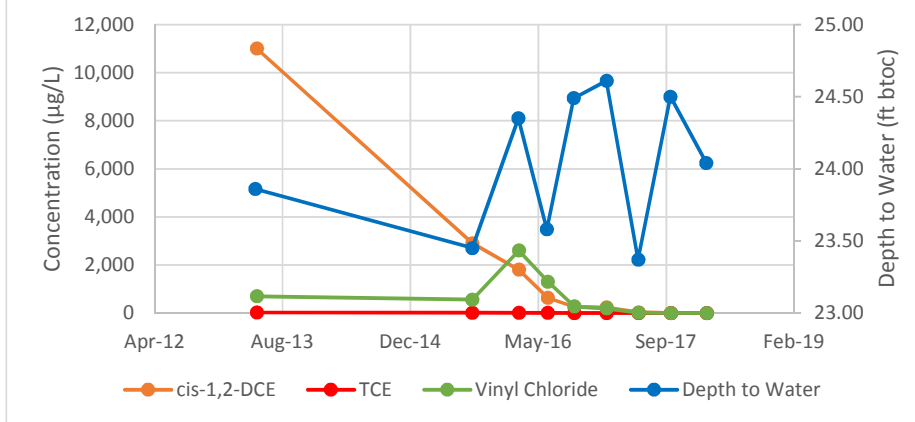
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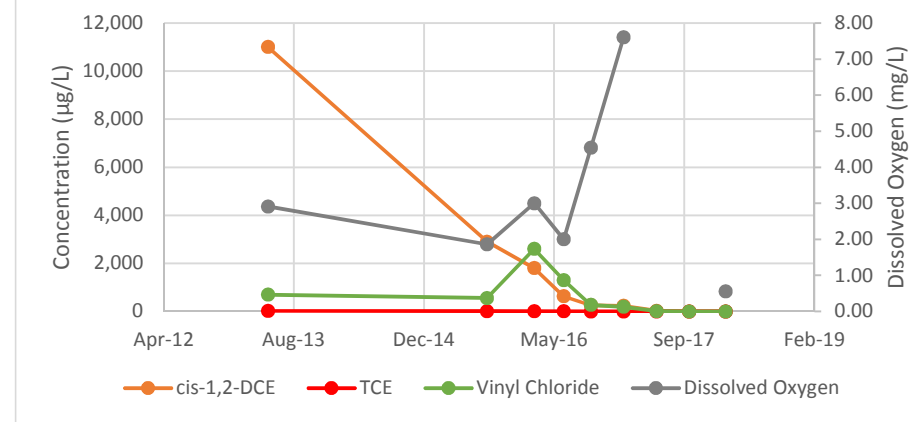
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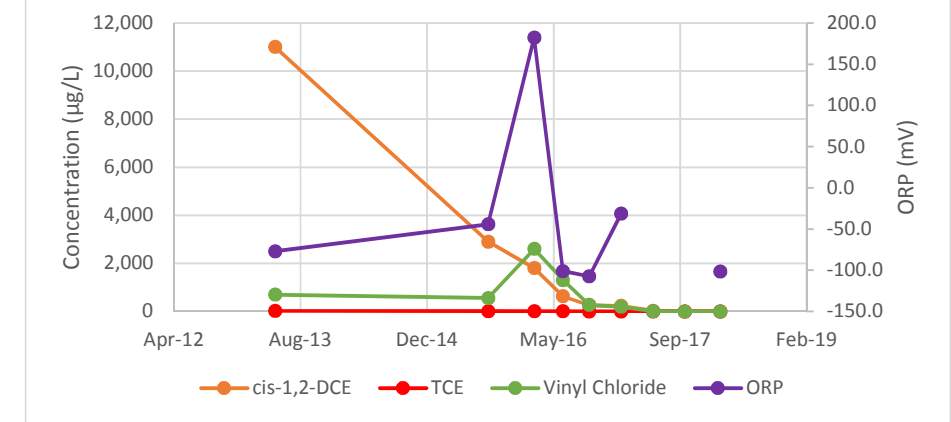
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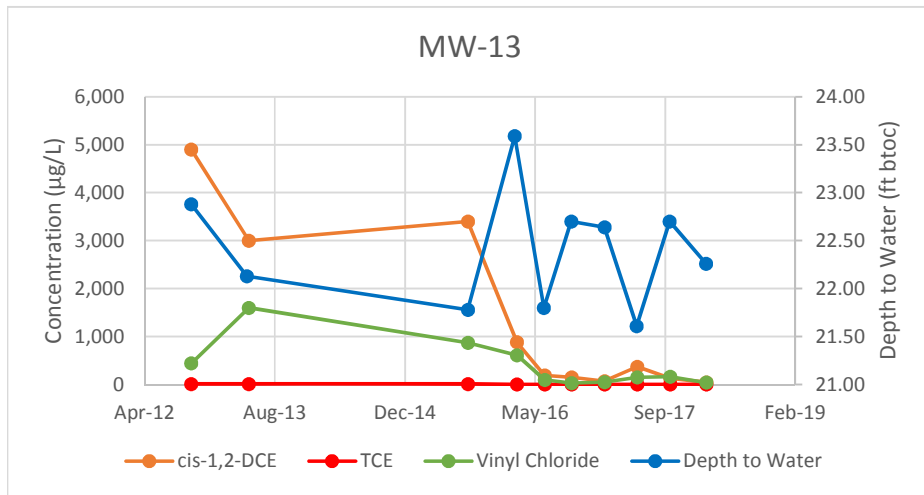
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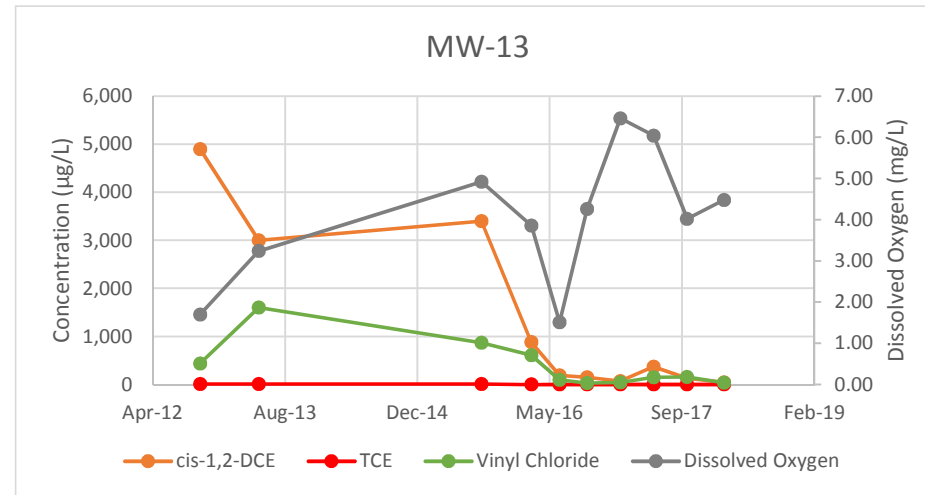
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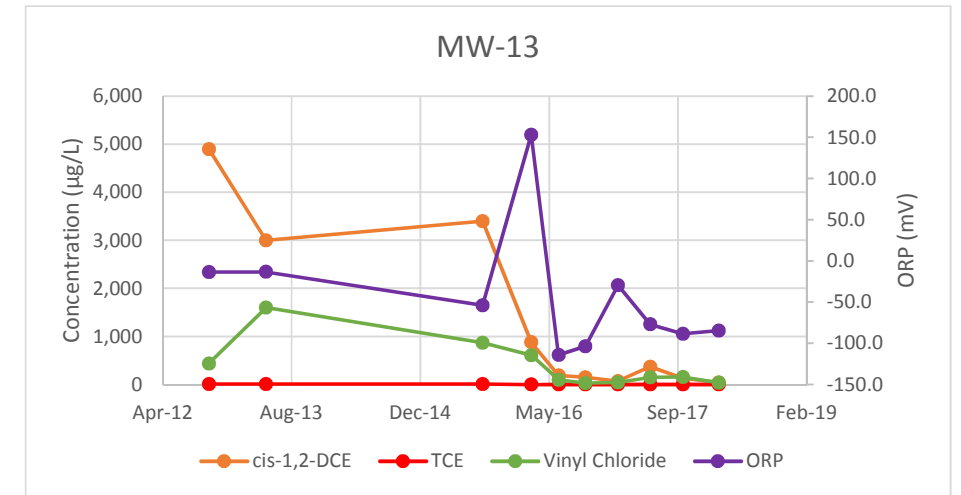
CVOC Concentrations and Depth to Water



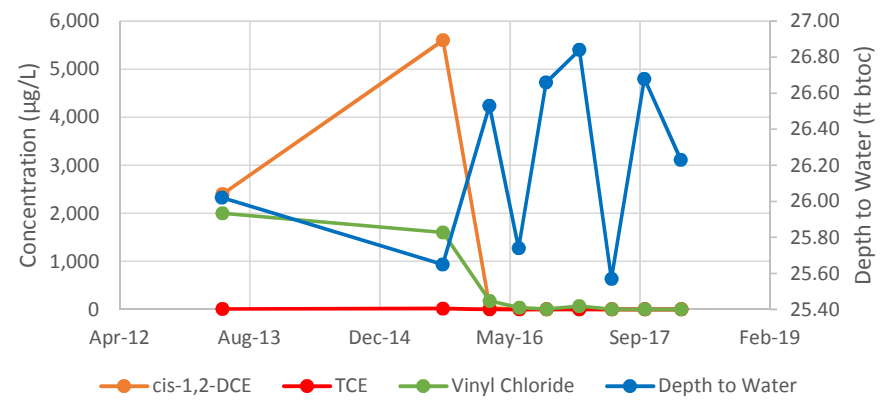
CVOC Concentrations and Dissolved Oxygen



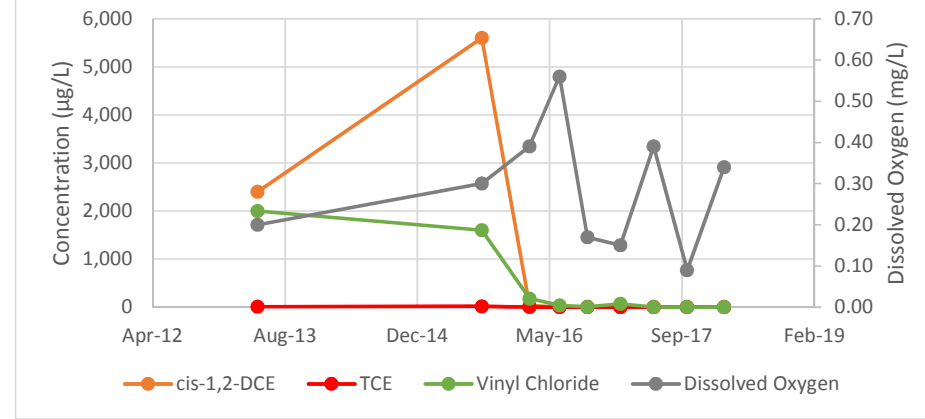
CVOC Concentrations and ORP



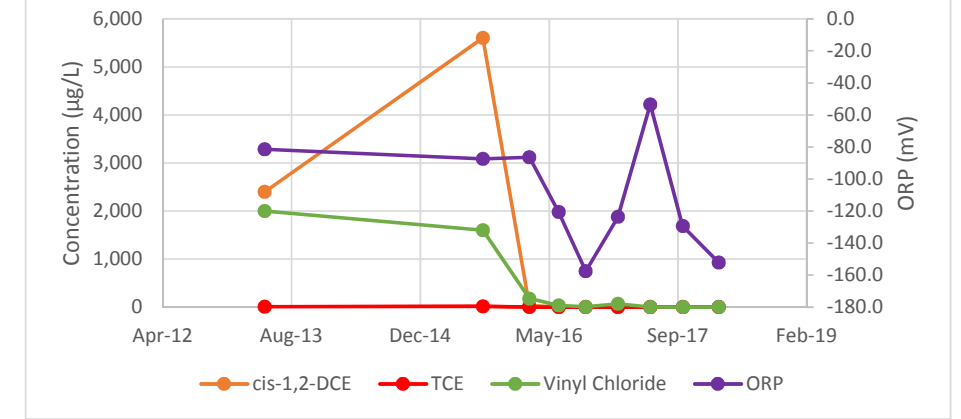
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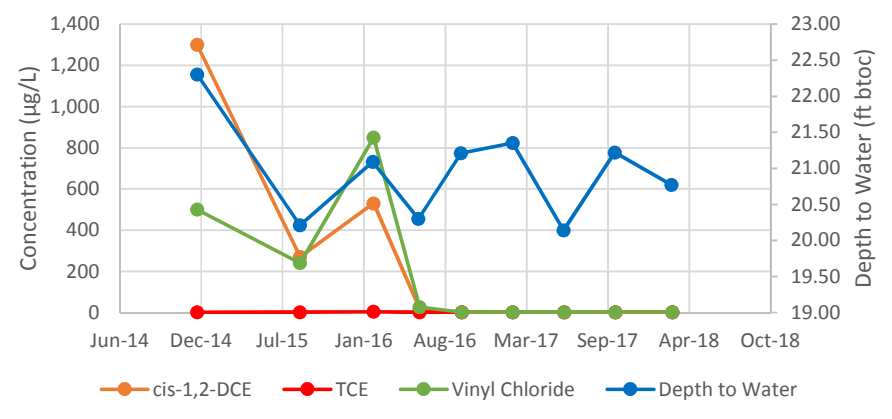
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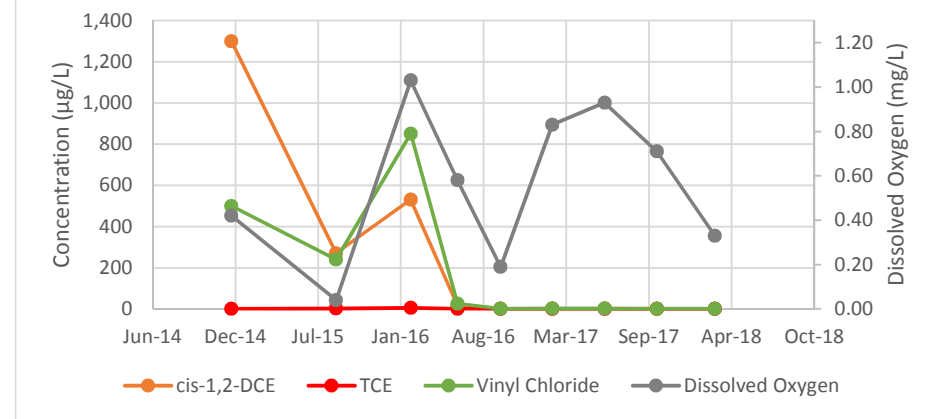
MW-62



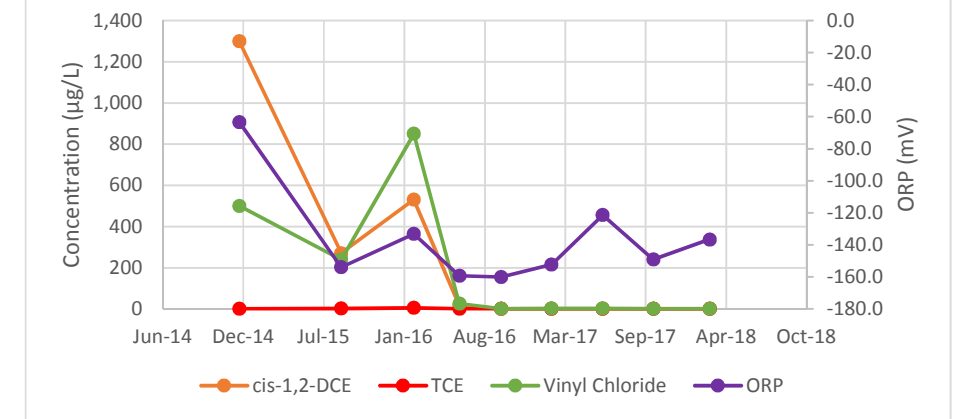
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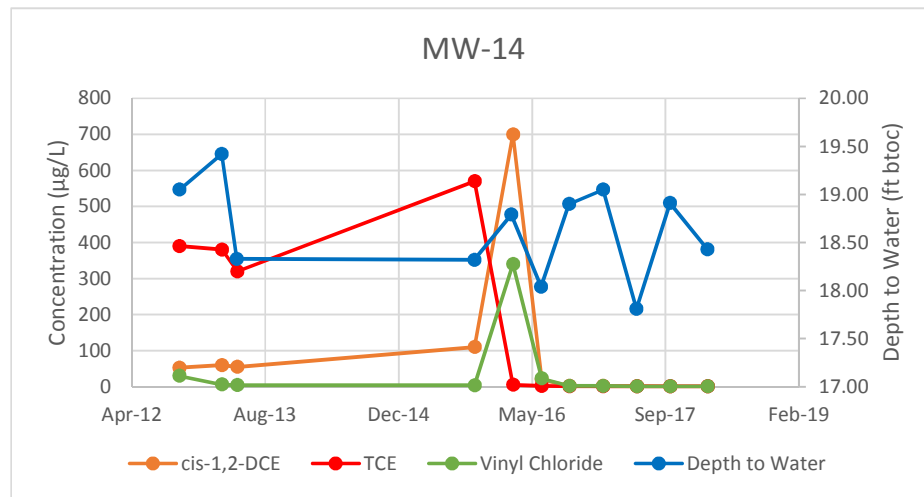
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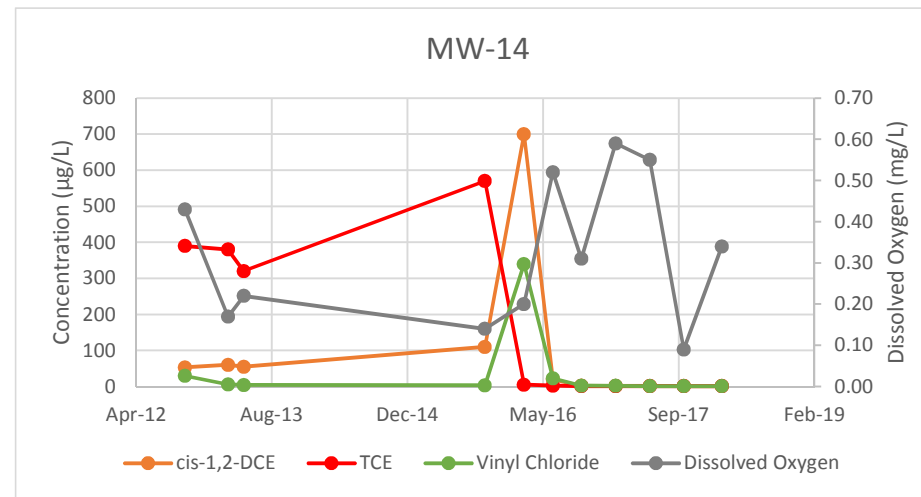
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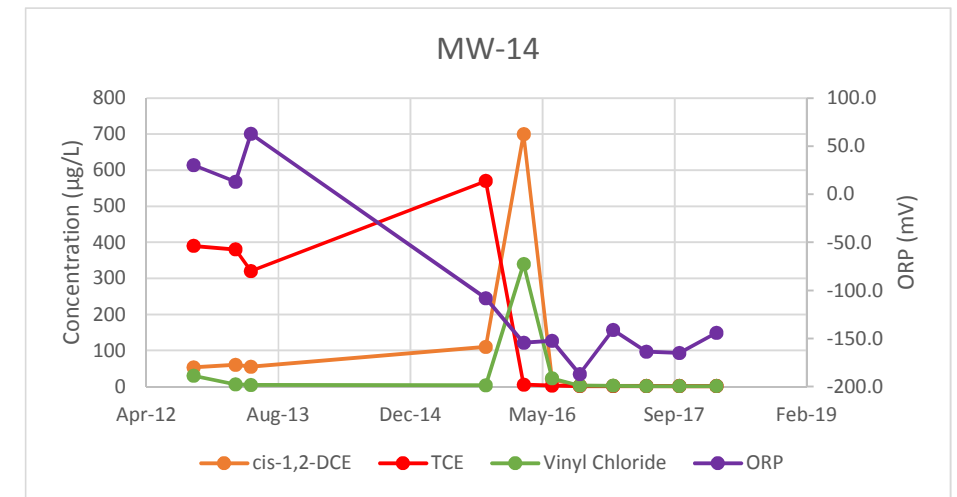
CVOC Concentrations and Depth to Water



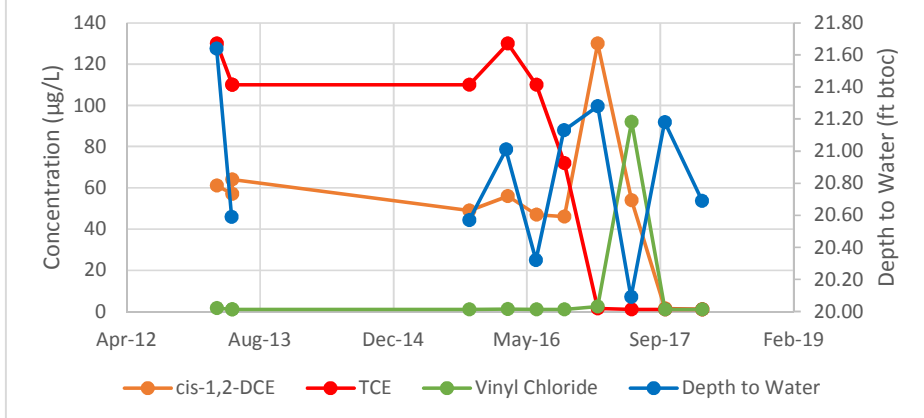
CVOC Concentrations and Dissolved Oxygen



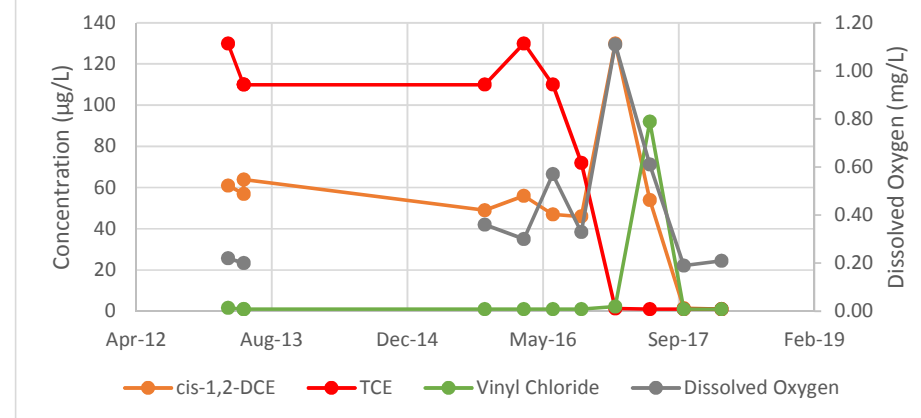
CVOC Concentrations and ORP



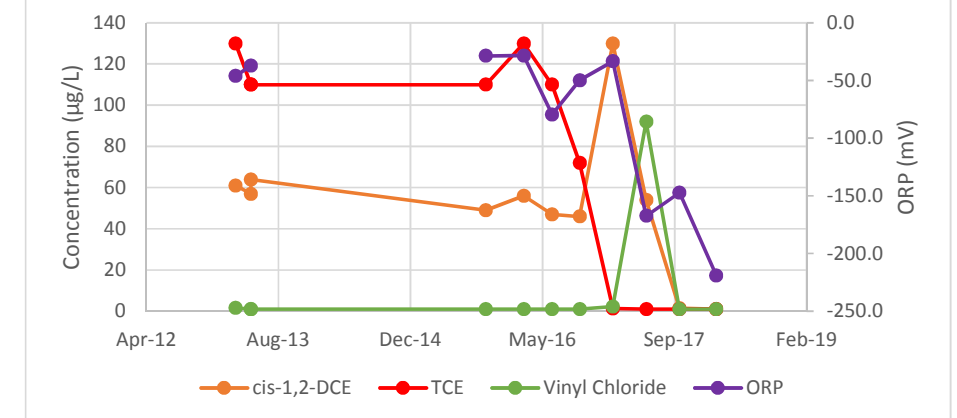
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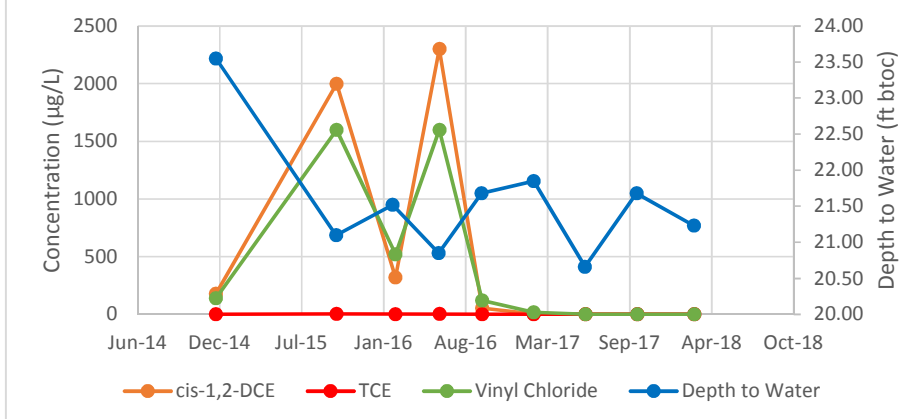
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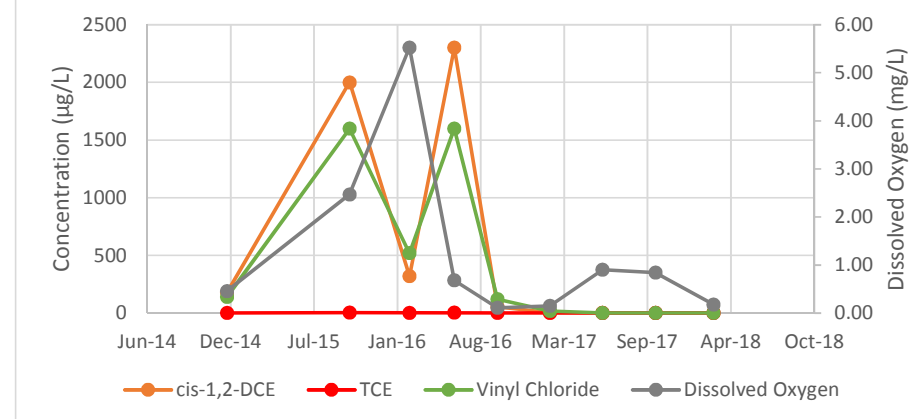
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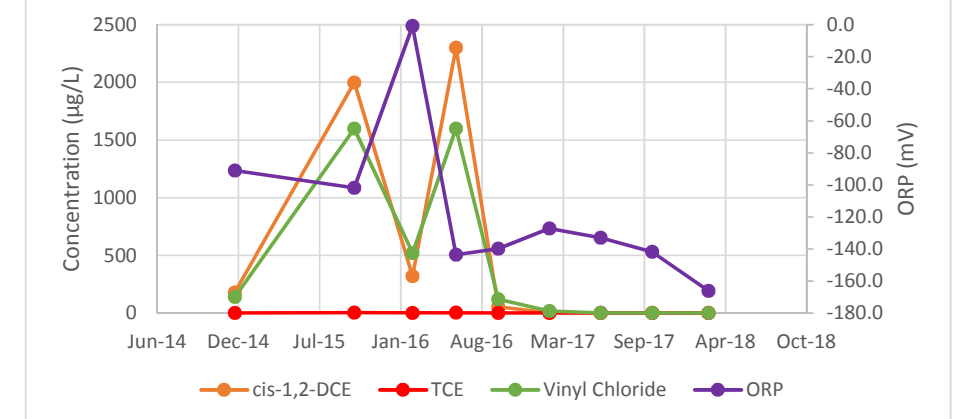
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OW-2(33)



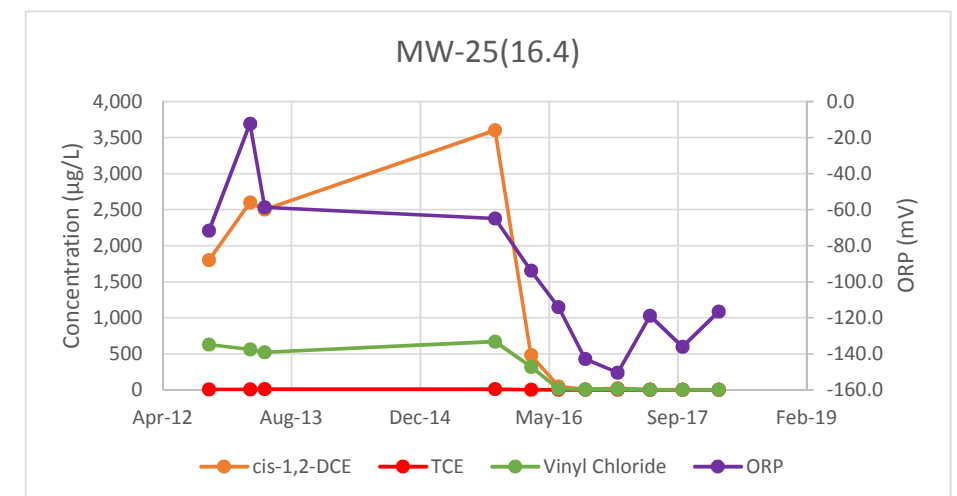
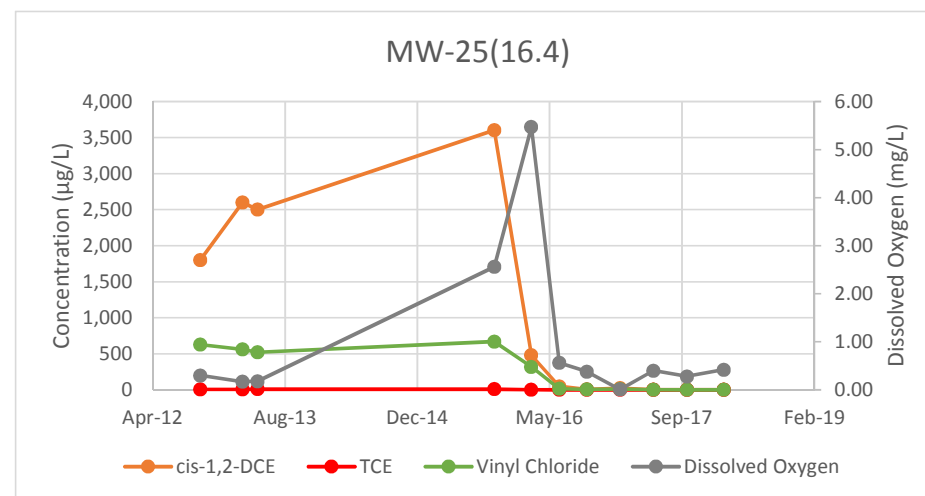
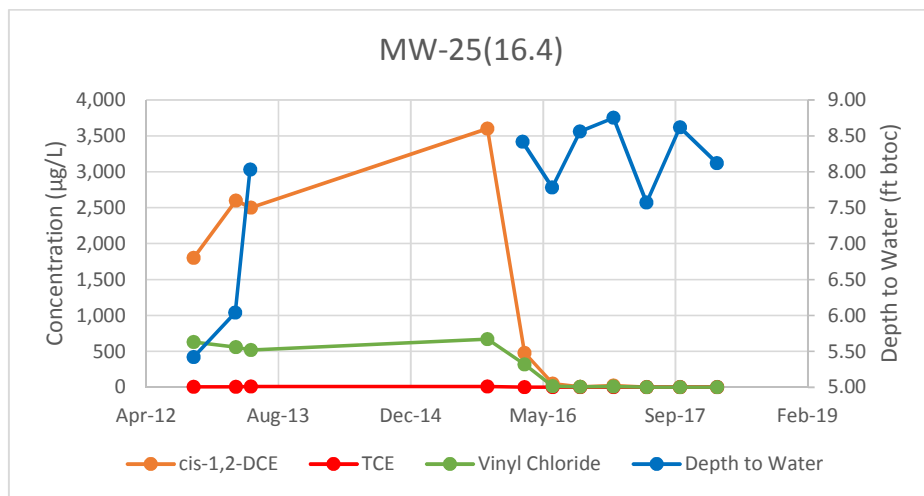
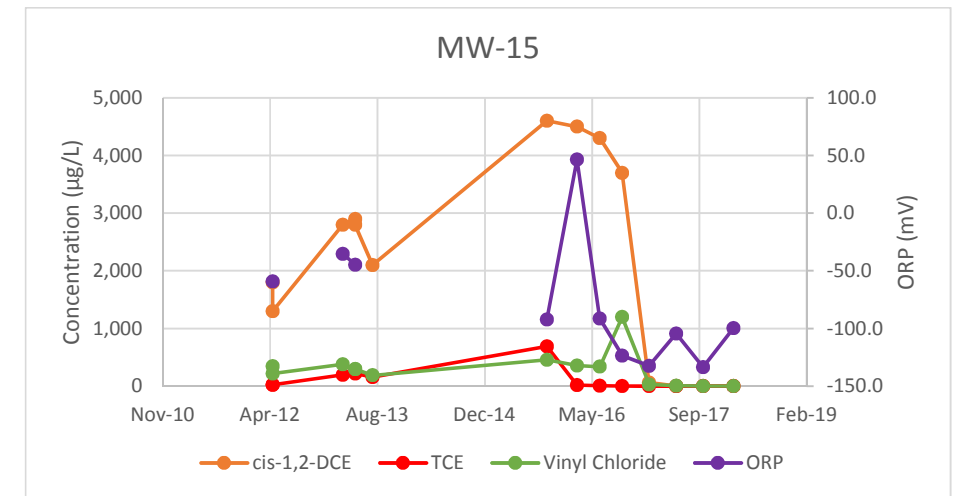
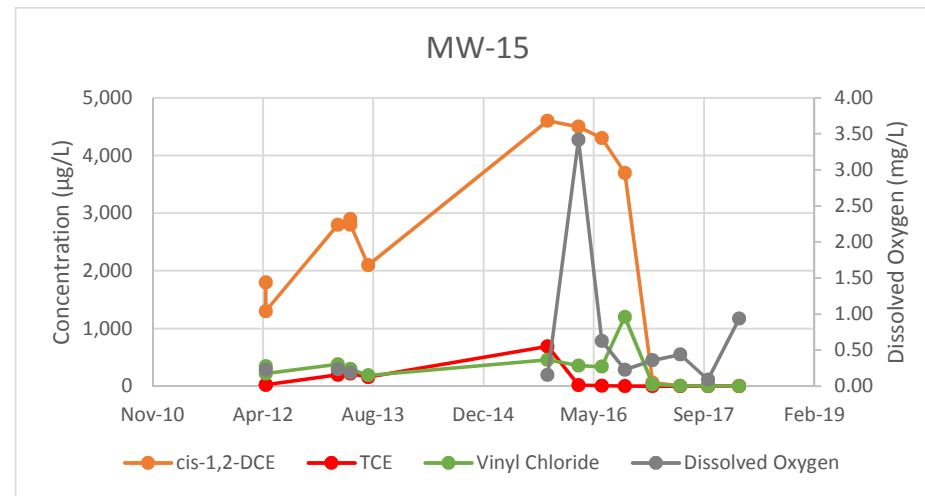
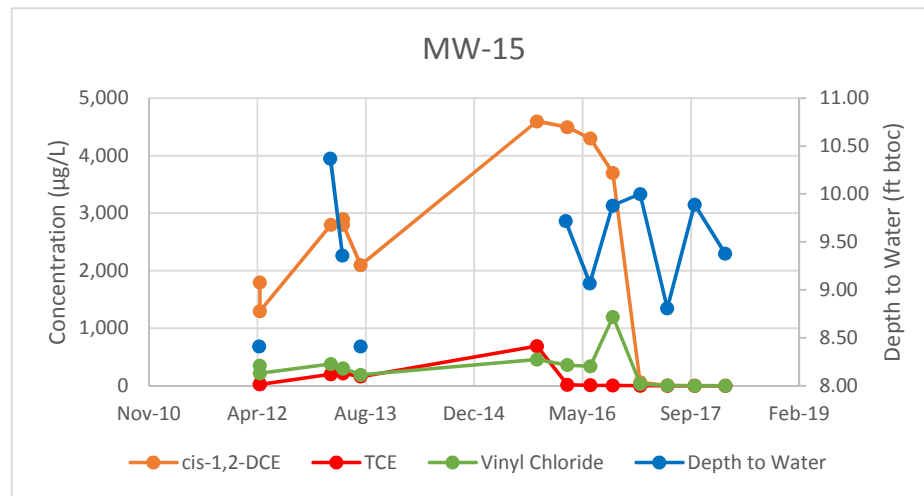
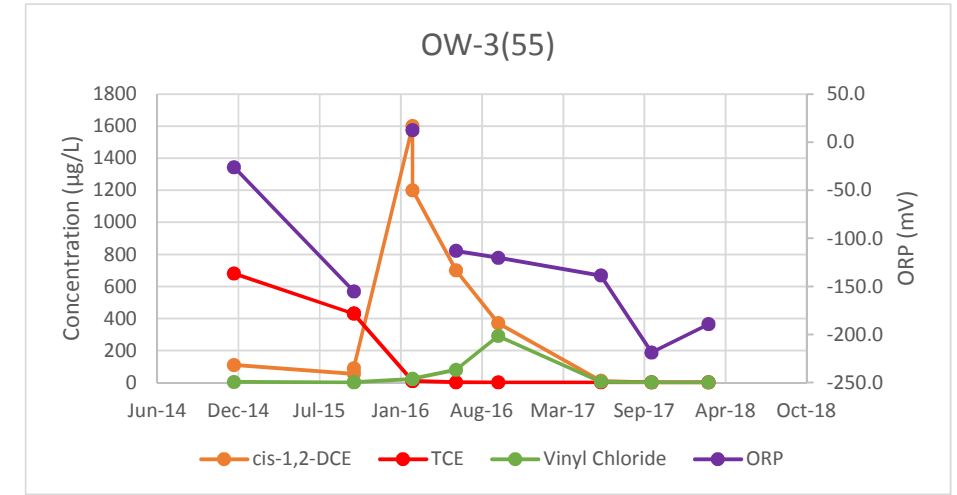
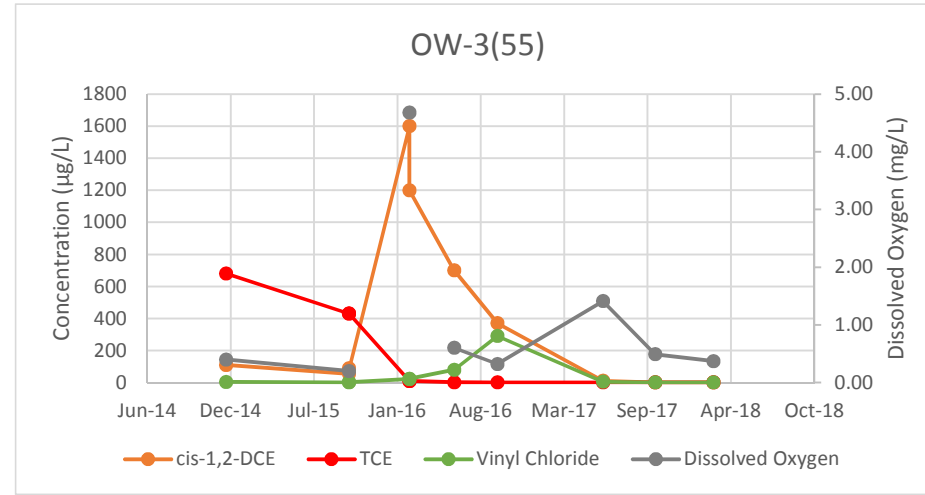
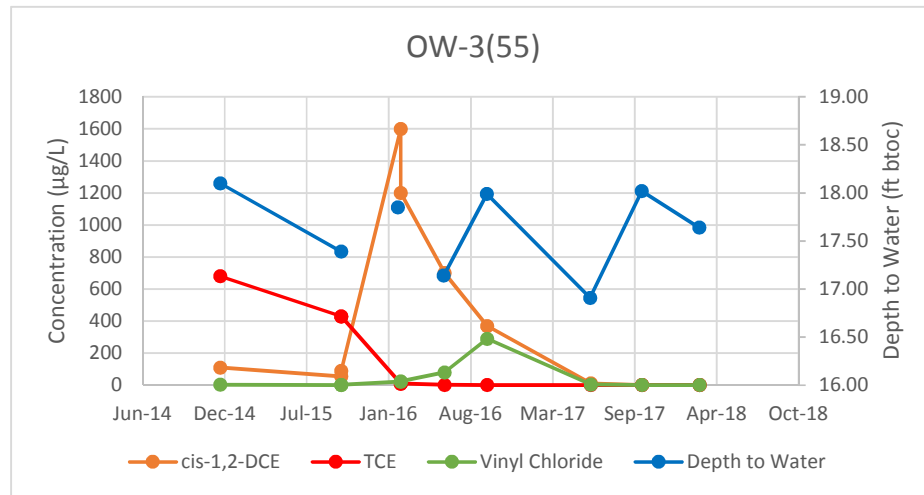
OW-2(33)



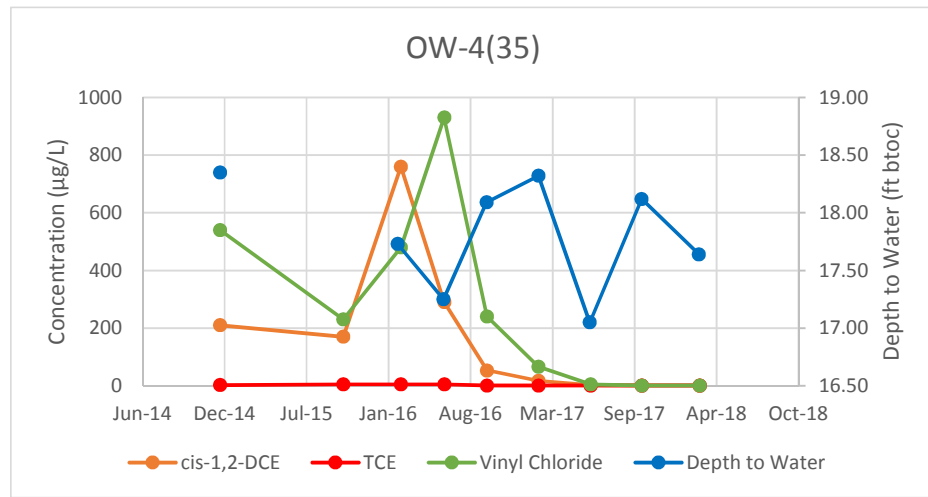
CVOC Concentrations and Depth to Water

CVOC Concentrations and Dissolved Oxygen

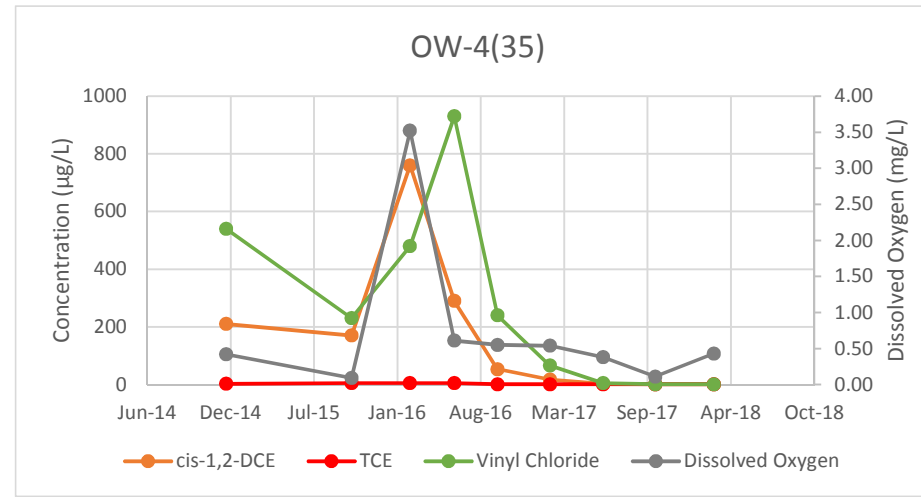
CVOC Concentrations and ORP



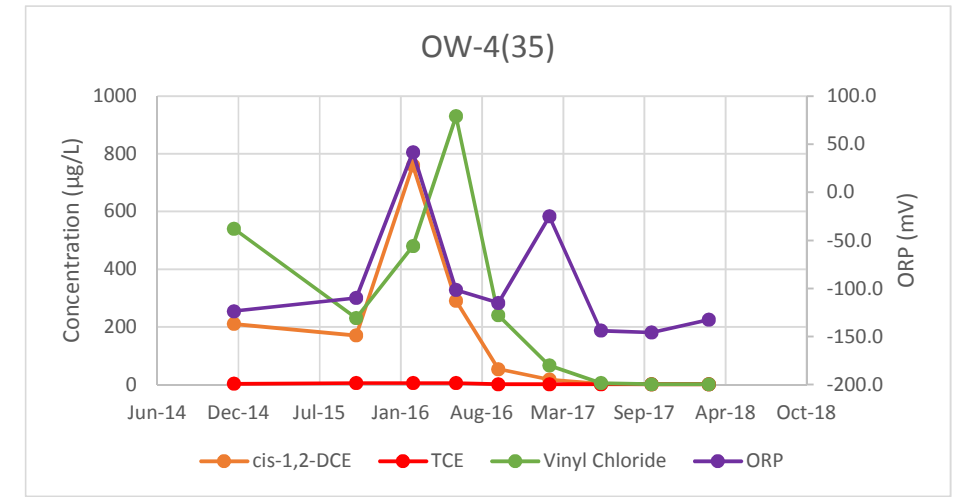
CVOC Concentrations and Depth to Water



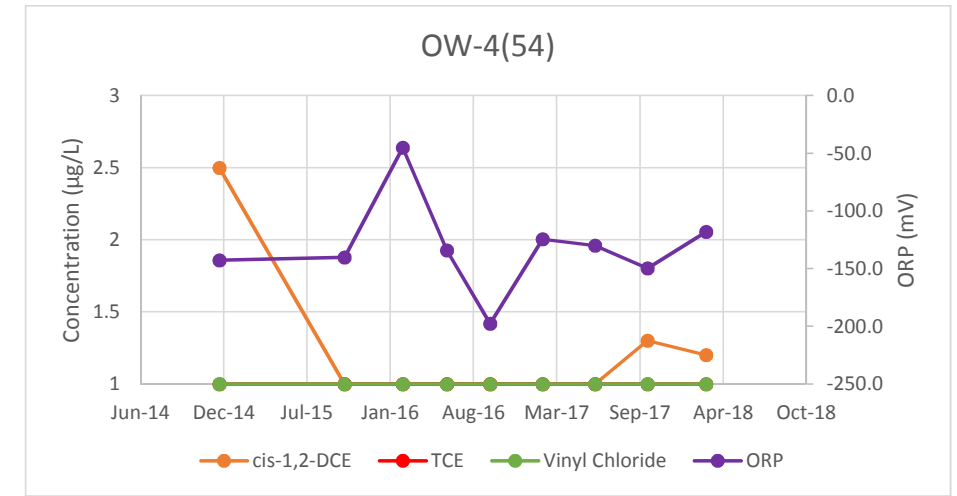
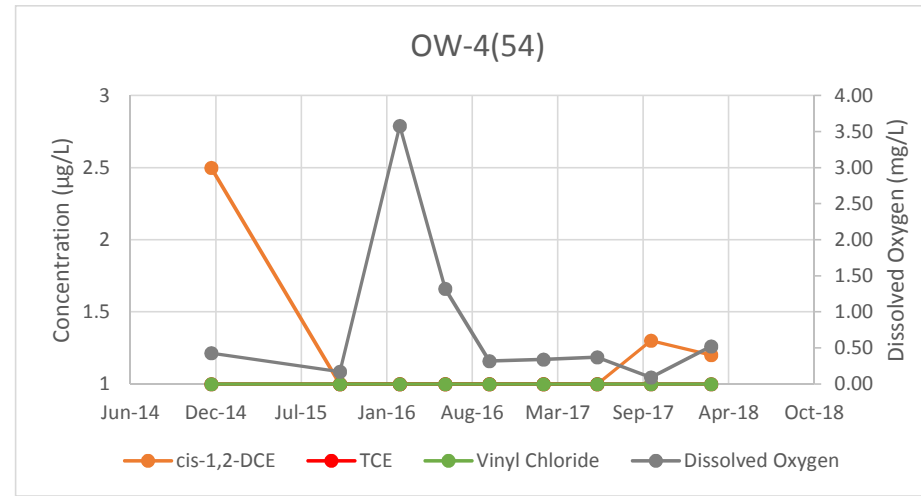
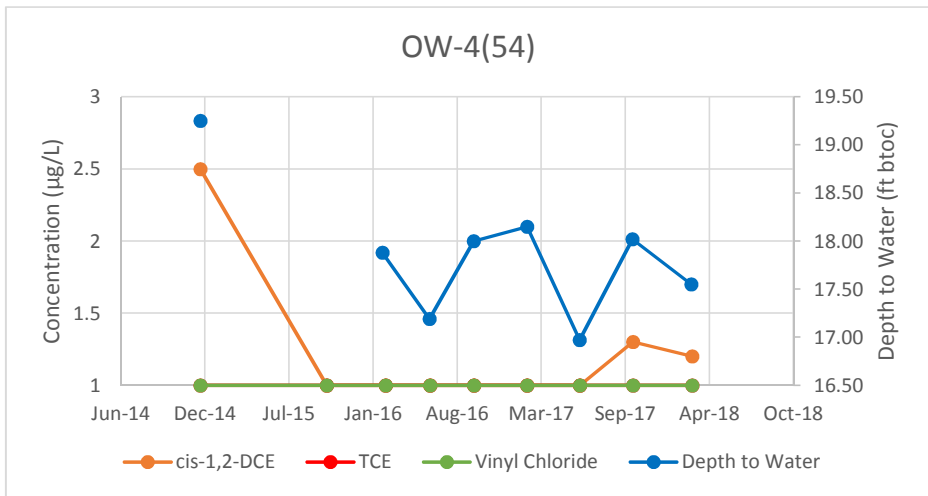
CVOC Concentrations and Dissolved Oxygen



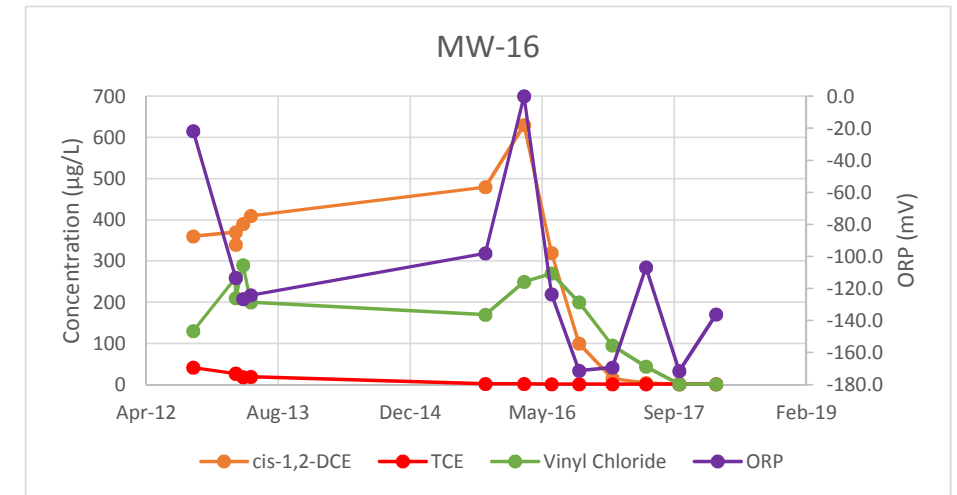
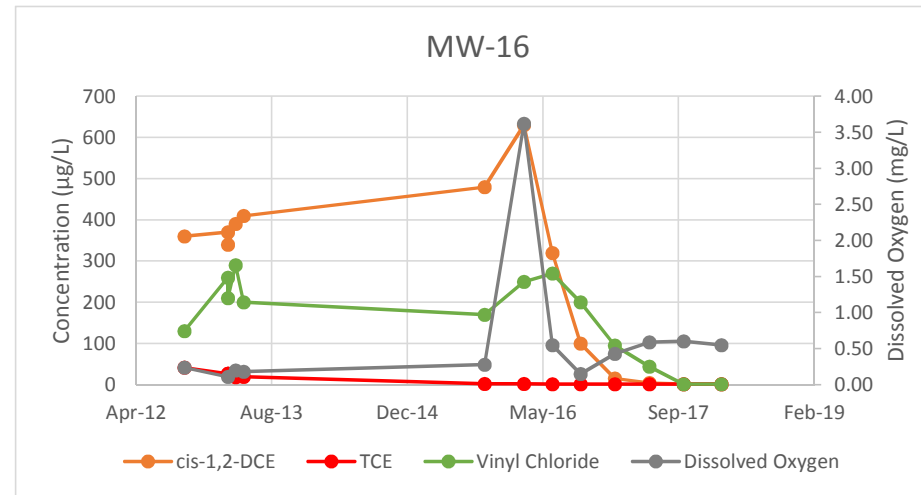
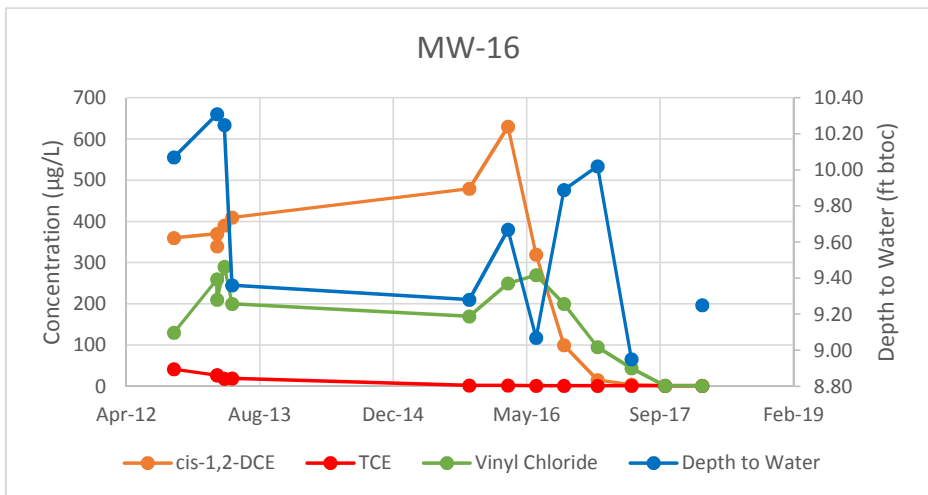
CVOC Concentrations and ORP



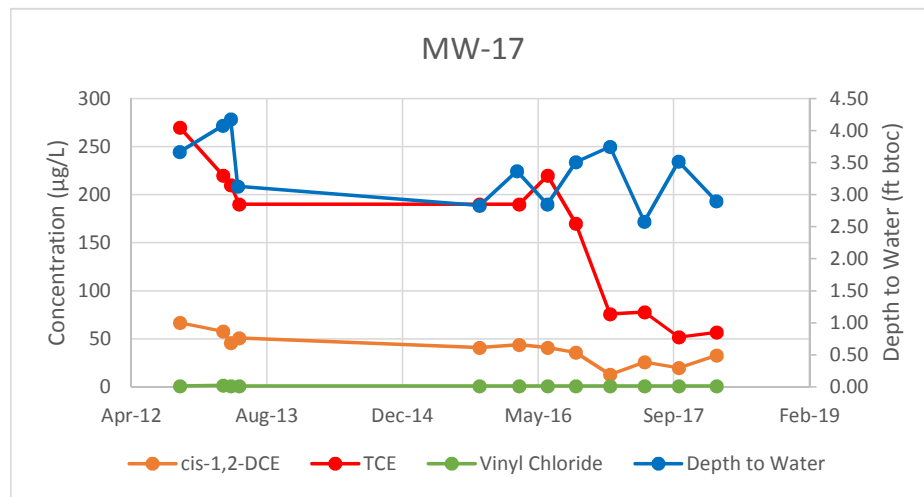
OW-4(54)



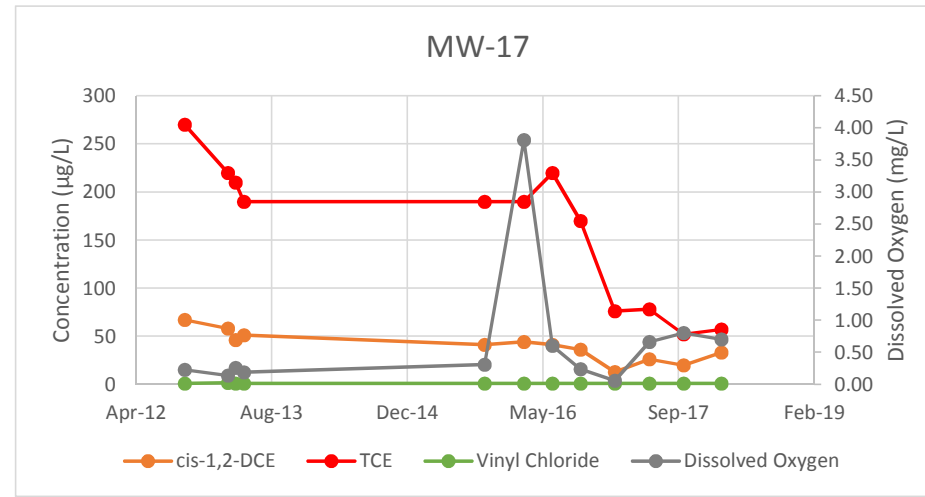
MW-16



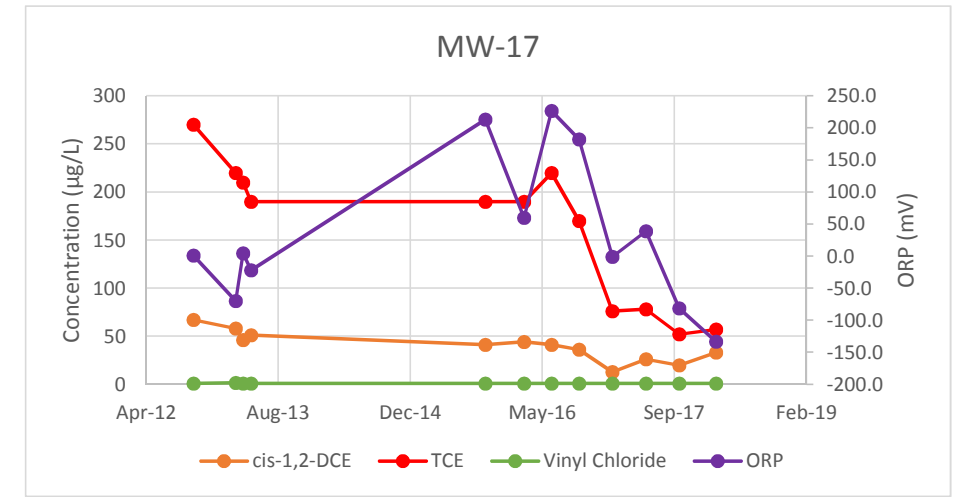
CVOC Concentrations and Depth to Water



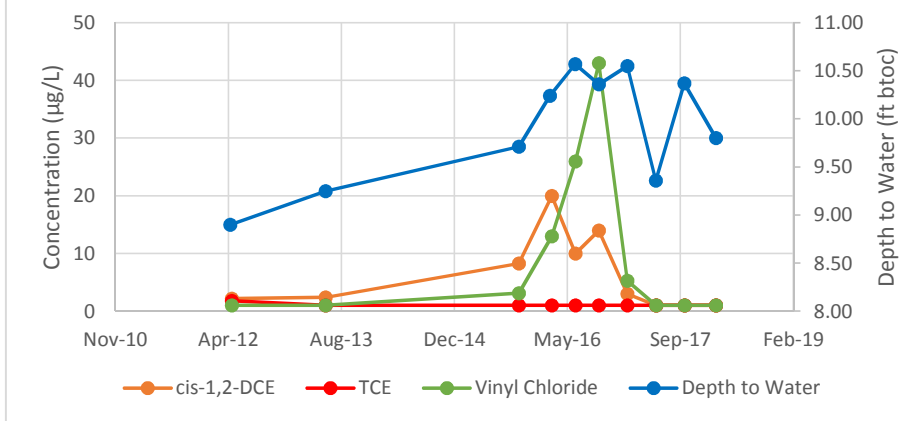
CVOC Concentrations and Dissolved Oxygen



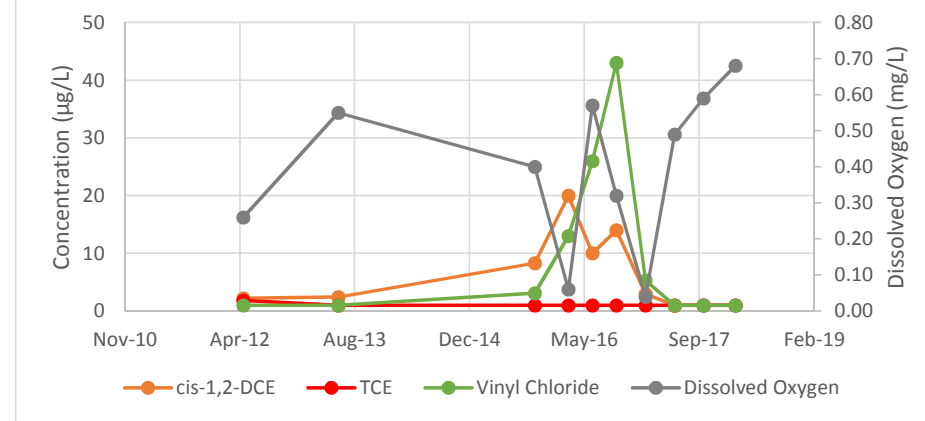
CVOC Concentrations and ORP



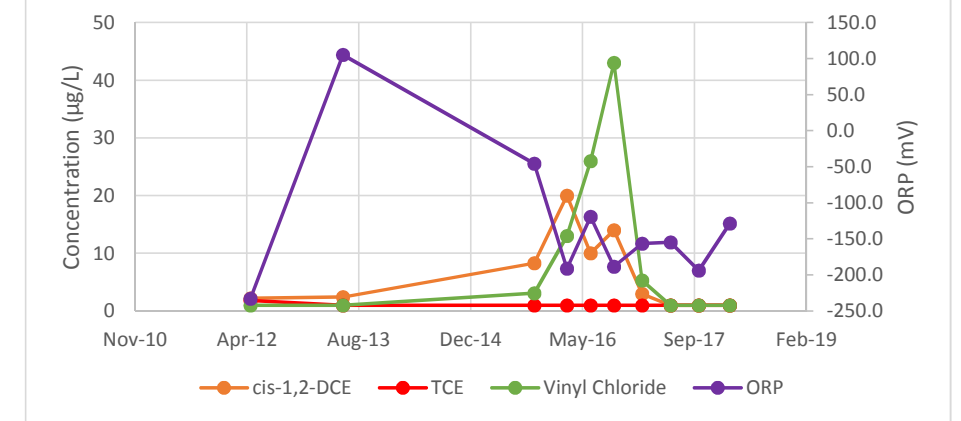
MW-26(58.2)



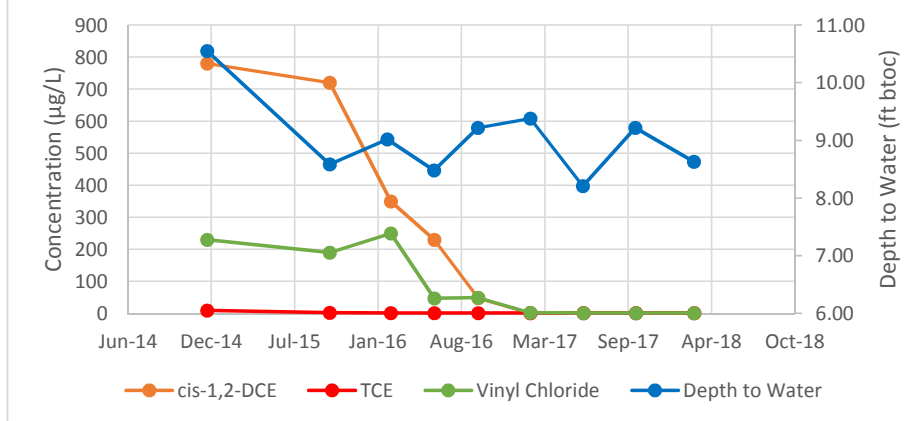
MW-26(58.2)



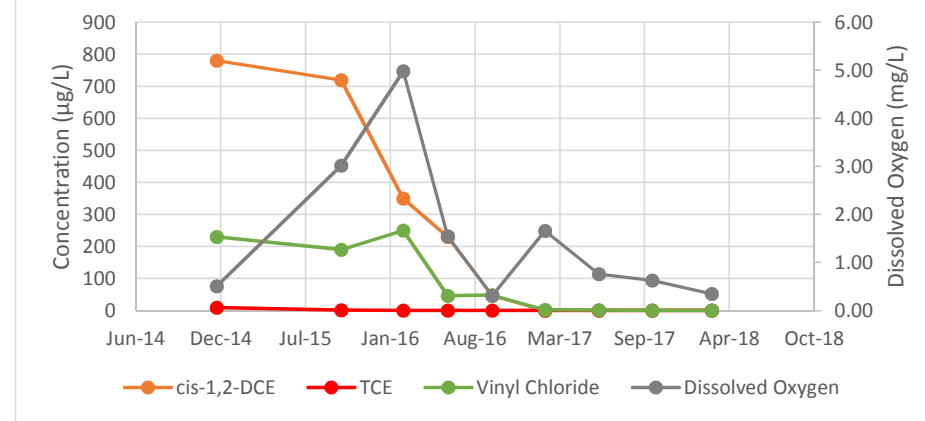
MW-26(58.2)



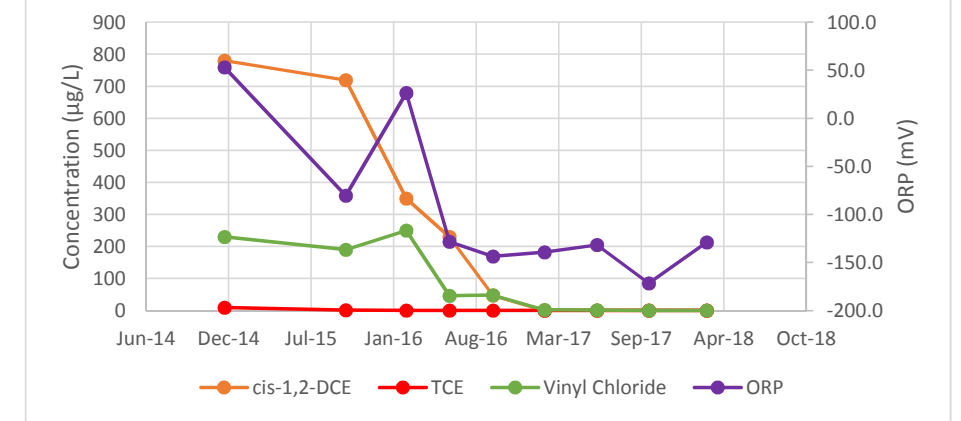
OW-5(16)



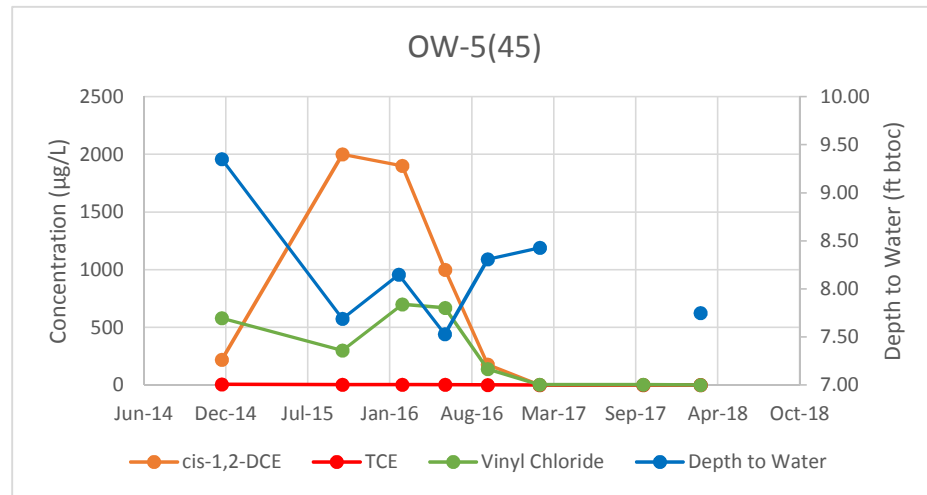
OW-5(16)



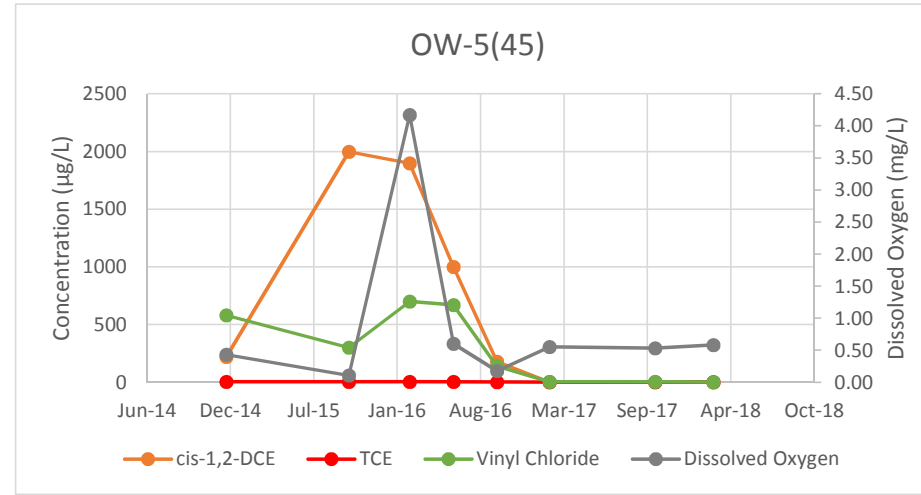
OW-5(16)



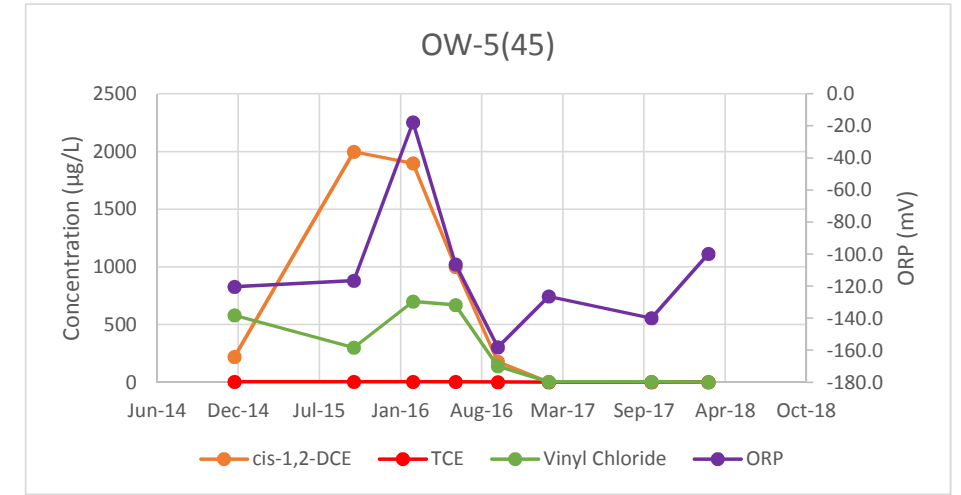
CVOC Concentrations and Depth to Water



CVOC Concentrations and Dissolved Oxygen



CVOC Concentrations and ORP





784.20
MW-85(39)

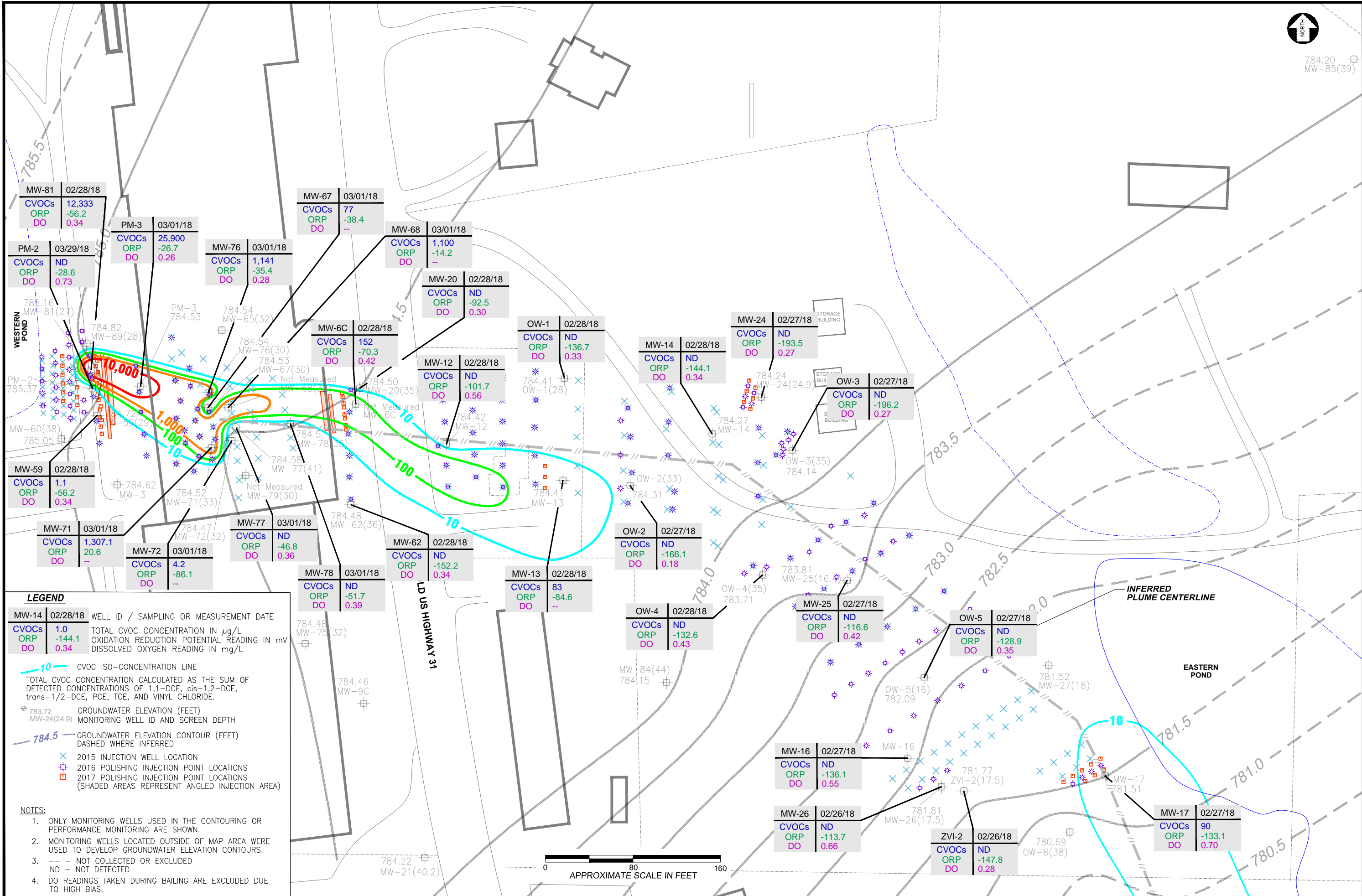
FIGURE
C-1
SHEET 1 of 1

**TOTAL CVOC / DO / ORP
SHALLOW OVERBURDEN WELLS
SOURCE TREATMENT AREA
February 2018**



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

FILE NO. P:\Textora\IFS\ Drawings\GM Contours_2018_Radwg
DATE 08/05/2018
APPROVED BY PJS
SOURCE Wells surveyed by Territorial Engineering; Fulton County, IN GIS, 2005.
PROJECT NO. 3359.15.1040
SCALE SEE ABOVE

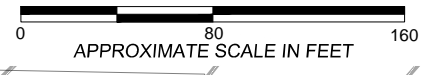


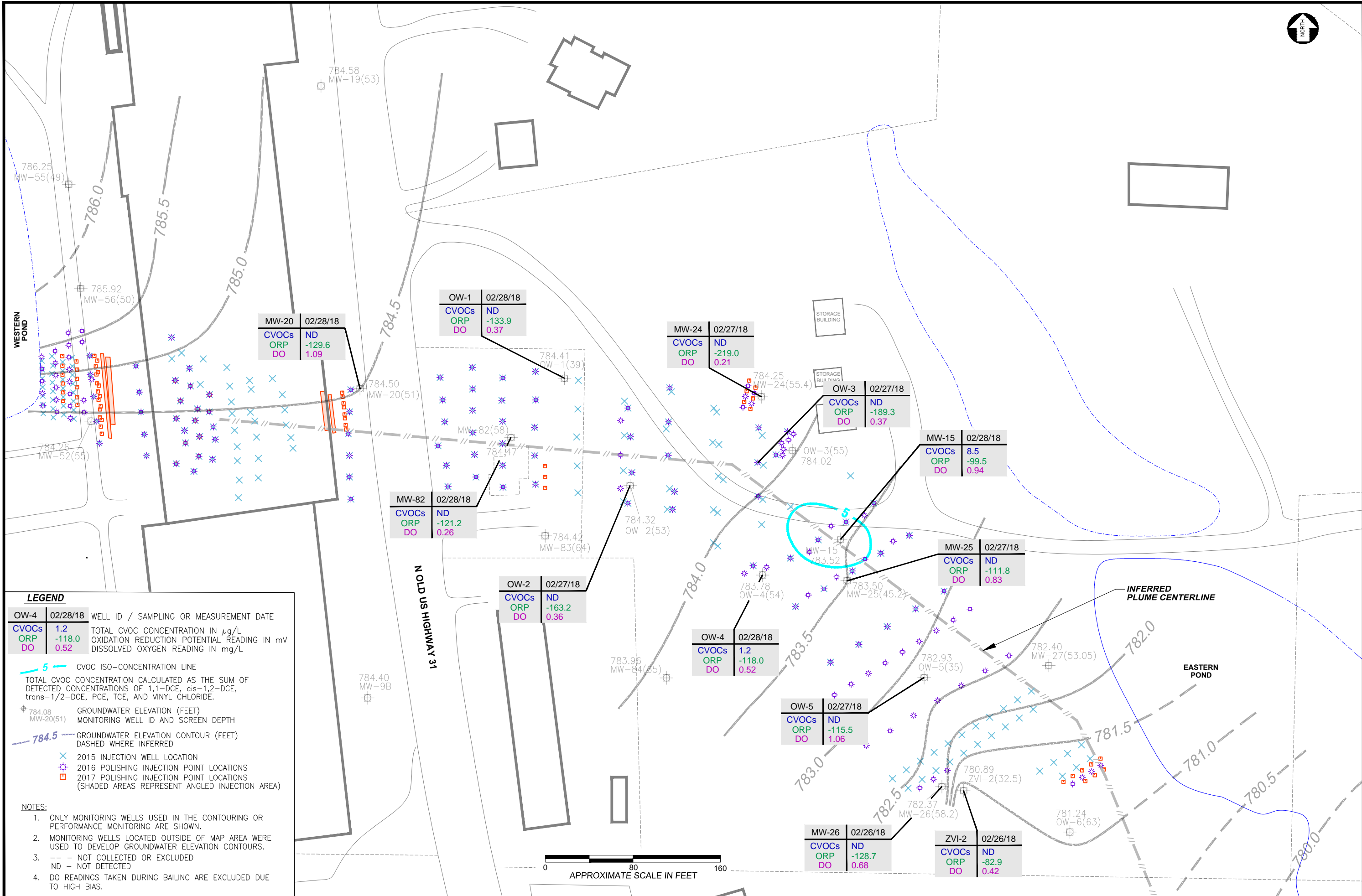
LEGEND

MW-14	02/28/18	WELL ID / SAMPLING OR MEASUREMENT DATE
CVOCs	1.0	TOTAL CVOC CONCENTRATION IN µg/L
ORP	-144.1	OXIDATION REDUCTION POTENTIAL READING IN mV
DO	0.34	DISSOLVED OXYGEN READING IN mg/L

- CVOC ISO-CONCENTRATION LINE
- TOTAL CVOC CONCENTRATION CALCULATED AS THE SUM OF DETECTED CONCENTRATIONS OF 1,1-DCE, cis-1,2-DCE, trans-1/2-DCE, PCE, TCE, AND VINYL CHLORIDE.
- GROUNDWATER ELEVATION (FEET)
- MONITORING WELL ID AND SCREEN DEPTH
- GROUNDWATER ELEVATION CONTOUR (FEET) DASHED WHERE INFERRED
- 2015 INJECTION WELL LOCATION
- 2016 POLISHING INJECTION POINT LOCATIONS
- 2017 POLISHING INJECTION POINT LOCATIONS (SHADED AREAS REPRESENT ANGLED INJECTION AREA)

- NOTES:**
- ONLY MONITORING WELLS USED IN THE CONTOURING OR PERFORMANCE MONITORING ARE SHOWN.
 - MONITORING WELLS LOCATED OUTSIDE OF MAP AREA WERE USED TO DEVELOP GROUNDWATER ELEVATION CONTOURS.
 - NOT COLLECTED OR EXCLUDED
ND - NOT DETECTED
 - DO READINGS TAKEN DURING BAILING ARE EXCLUDED DUE TO HIGH BIAS.





LEGEND

OW-4	02/28/18	WELL ID / SAMPLING OR MEASUREMENT DATE
CVOCs	1.2	TOTAL CVOC CONCENTRATION IN µg/L
ORP	-118.0	OXIDATION REDUCTION POTENTIAL READING IN mV
DO	0.52	DISSOLVED OXYGEN READING IN mg/L

5 CVOC ISO-CONCENTRATION LINE
TOTAL CVOC CONCENTRATION CALCULATED AS THE SUM OF DETECTED CONCENTRATIONS OF 1,1-DCE, cis-1,2-DCE, trans-1/2-DCE, PCE, TCE, AND VINYL CHLORIDE.

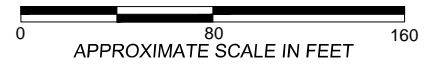
784.08 MW-20(51) GROUNDWATER ELEVATION (FEET)
MONITORING WELL ID AND SCREEN DEPTH

784.5 GROUNDWATER ELEVATION CONTOUR (FEET)
DASHED WHERE INFERRED

X 2015 INJECTION WELL LOCATION
* 2016 POLISHING INJECTION POINT LOCATIONS
□ 2017 POLISHING INJECTION POINT LOCATIONS
(SHADED AREAS REPRESENT ANGLED INJECTION AREA)

NOTES:

- ONLY MONITORING WELLS USED IN THE CONTOURING OR PERFORMANCE MONITORING ARE SHOWN.
- MONITORING WELLS LOCATED OUTSIDE OF MAP AREA WERE USED TO DEVELOP GROUNDWATER ELEVATION CONTOURS.
- NOT COLLECTED OR EXCLUDED
ND - NOT DETECTED
- DO READINGS TAKEN DURING BAILING ARE EXCLUDED DUE TO HIGH BIAS.



OW-1	02/28/18
CVOCs	ND
ORP	-133.9
DO	0.37

MW-24	02/27/18
CVOCs	ND
ORP	-219.0
DO	0.21

OW-3	02/27/18
CVOCs	ND
ORP	-189.3
DO	0.37

MW-15	02/28/18
CVOCs	8.5
ORP	-99.5
DO	0.94

MW-82	02/28/18
CVOCs	ND
ORP	-121.2
DO	0.26

OW-2	02/27/18
CVOCs	ND
ORP	-163.2
DO	0.36

OW-4	02/28/18
CVOCs	1.2
ORP	-118.0
DO	0.52

MW-25	02/27/18
CVOCs	ND
ORP	-111.8
DO	0.83

OW-5	02/27/18
CVOCs	ND
ORP	-115.5
DO	1.06

MW-26	02/26/18
CVOCs	ND
ORP	-128.7
DO	0.68

ZVI-2	02/26/18
CVOCs	ND
ORP	-82.9
DO	0.42



784.20
MW-85(39)

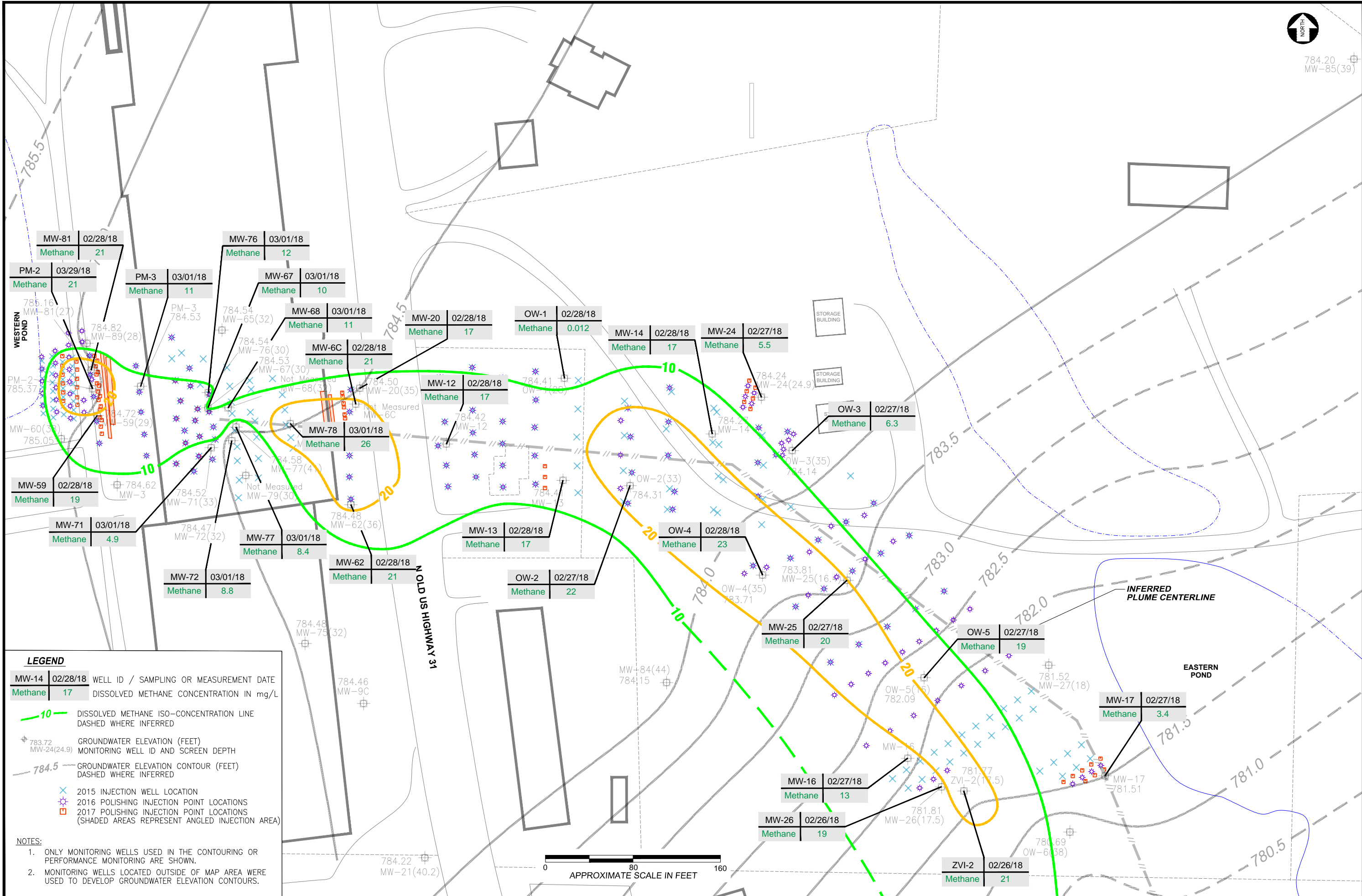
FIGURE
C-3
SHEET 1 of 1

**DISSOLVED METHANE
SHALLOW OVERBURDEN WELLS
SOURCE TREATMENT AREA
February 2018**



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

FILE NO. 3359.15.1040
SCALE SEE ABOVE
DATE 08/05/2018
DRAWN BY P:\Text\Drawings\GIS\Contours_2018_RAD.dwg
APPROVED BY PJS
SOURCE Wells surveyed by Territorial Engineering, Fulton County, IN GIS, 2005.
PROJECT NO. 3359.15.1040



LEGEND

MW-14	02/28/18	WELL ID / SAMPLING OR MEASUREMENT DATE
Methane	17	DISSOLVED METHANE CONCENTRATION IN mg/L

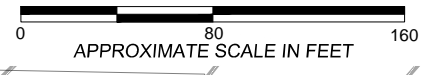
10 DISSOLVED METHANE ISO-CONCENTRATION LINE
DASHED WHERE INFERRED

783.72 GROUNDWATER ELEVATION (FEET)
MW-24(24.9) MONITORING WELL ID AND SCREEN DEPTH

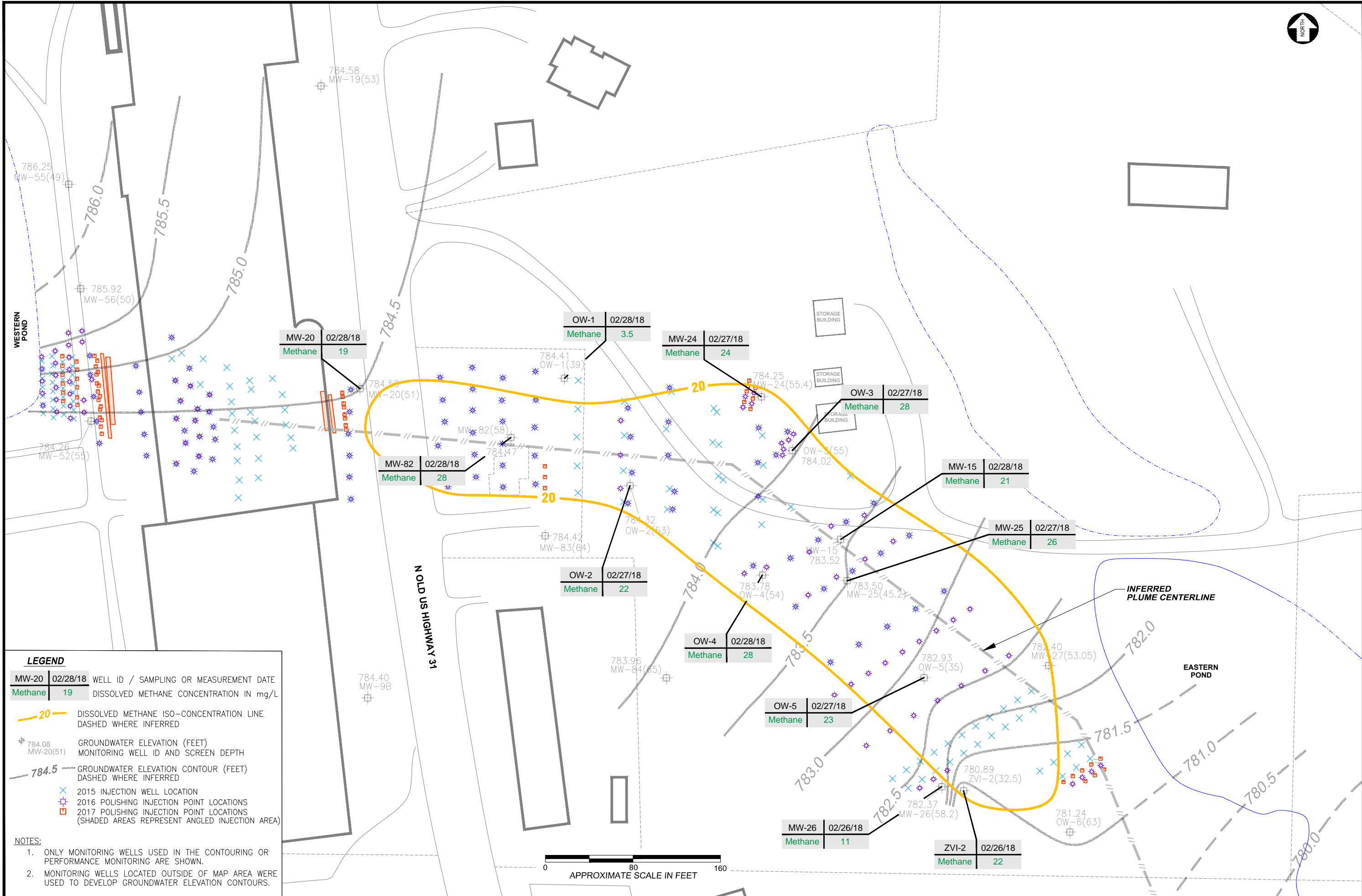
784.5 GROUNDWATER ELEVATION CONTOUR (FEET)
DASHED WHERE INFERRED

X 2015 INJECTION WELL LOCATION
* 2016 POLISHING INJECTION POINT LOCATIONS
□ 2017 POLISHING INJECTION POINT LOCATIONS
(SHADED AREAS REPRESENT ANGLED INJECTION AREA)

- NOTES:**
- ONLY MONITORING WELLS USED IN THE CONTOURING OR PERFORMANCE MONITORING ARE SHOWN.
 - MONITORING WELLS LOCATED OUTSIDE OF MAP AREA WERE USED TO DEVELOP GROUNDWATER ELEVATION CONTOURS.



APPROXIMATE SCALE IN FEET



LEGEND

MW-20	02/28/18	WELL ID / SAMPLING OR MEASUREMENT DATE
Methane	19	DISSOLVED METHANE CONCENTRATION IN mg/L

20 DISSOLVED METHANE ISO-CONCENTRATION LINE
DASHED WHERE INFERRED

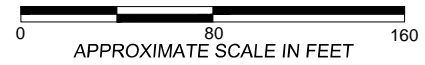
784.08
MW-20(51) GROUNDWATER ELEVATION (FEET)
MONITORING WELL ID AND SCREEN DEPTH

784.5 GROUNDWATER ELEVATION CONTOUR (FEET)
DASHED WHERE INFERRED

X 2015 INJECTION WELL LOCATION
* 2016 POLISHING INJECTION POINT LOCATIONS
□ 2017 POLISHING INJECTION POINT LOCATIONS
(SHADED AREAS REPRESENT ANGLED INJECTION AREA)

NOTES:

- ONLY MONITORING WELLS USED IN THE CONTOURING OR PERFORMANCE MONITORING ARE SHOWN.
- MONITORING WELLS LOCATED OUTSIDE OF MAP AREA WERE USED TO DEVELOP GROUNDWATER ELEVATION CONTOURS.

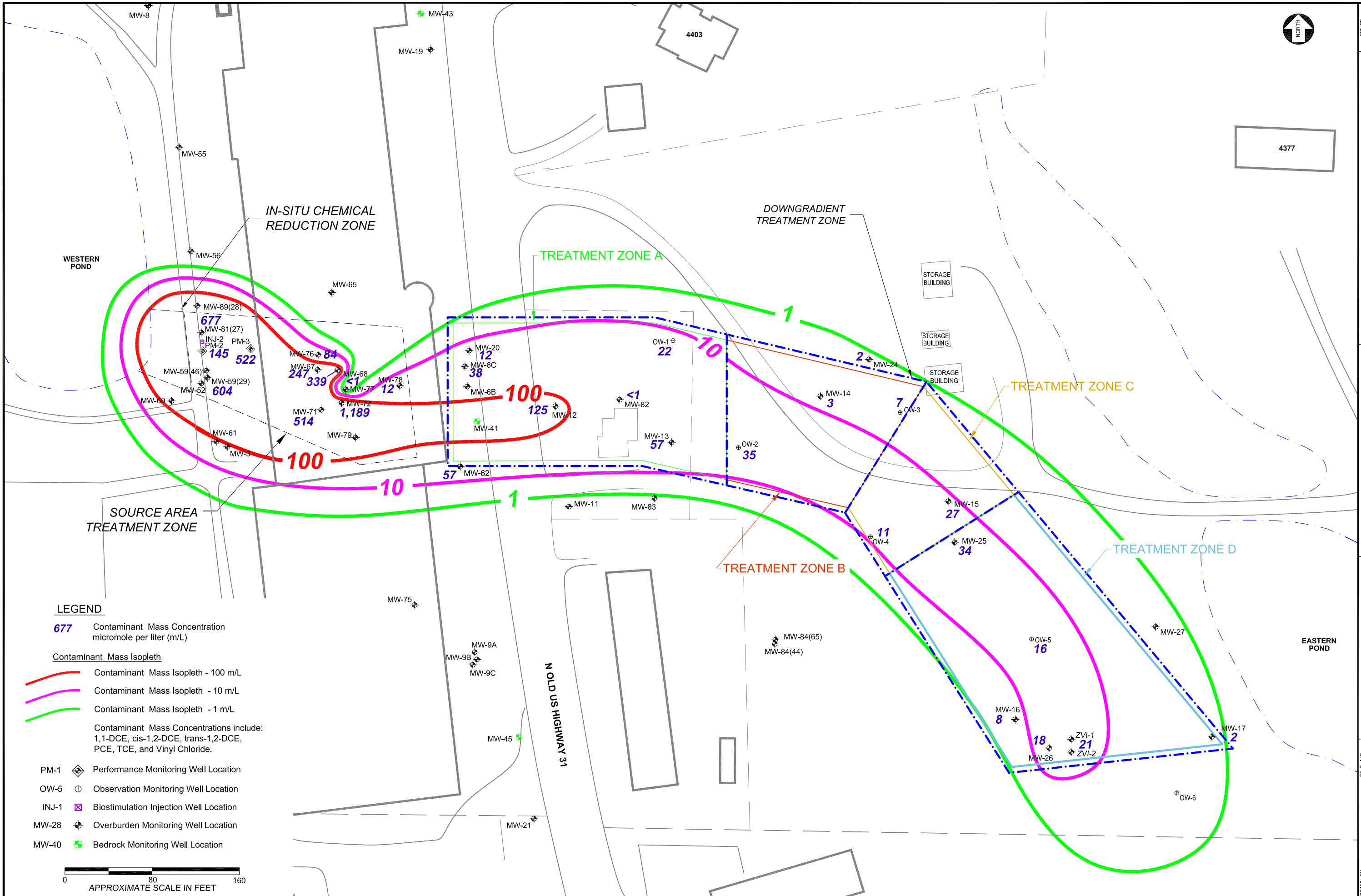




Textron, Inc.
TORX Facility Remediation
Report of Polishing Remedial Injections Performance Monitoring

APPENDIX D

CONTAMINANT MASS ISOPLETHS



- LEGEND**
- 677** Contaminant Mass Concentration micromole per liter (m/L)
 - Contaminant Mass Isopleth**
 - Contaminant Mass Isopleth - 100 m/L
 - Contaminant Mass Isopleth - 10 m/L
 - Contaminant Mass Isopleth - 1 m/L
 - Contaminant Mass Concentrations include: 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, PCE, TCE, and Vinyl Chloride.
 - PM-1 Performance Monitoring Well Location
 - OW-5 Observation Monitoring Well Location
 - INJ-1 Biostimulation Injection Well Location
 - MW-28 Overburden Monitoring Well Location
 - MW-40 Bedrock Monitoring Well Location

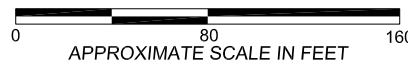


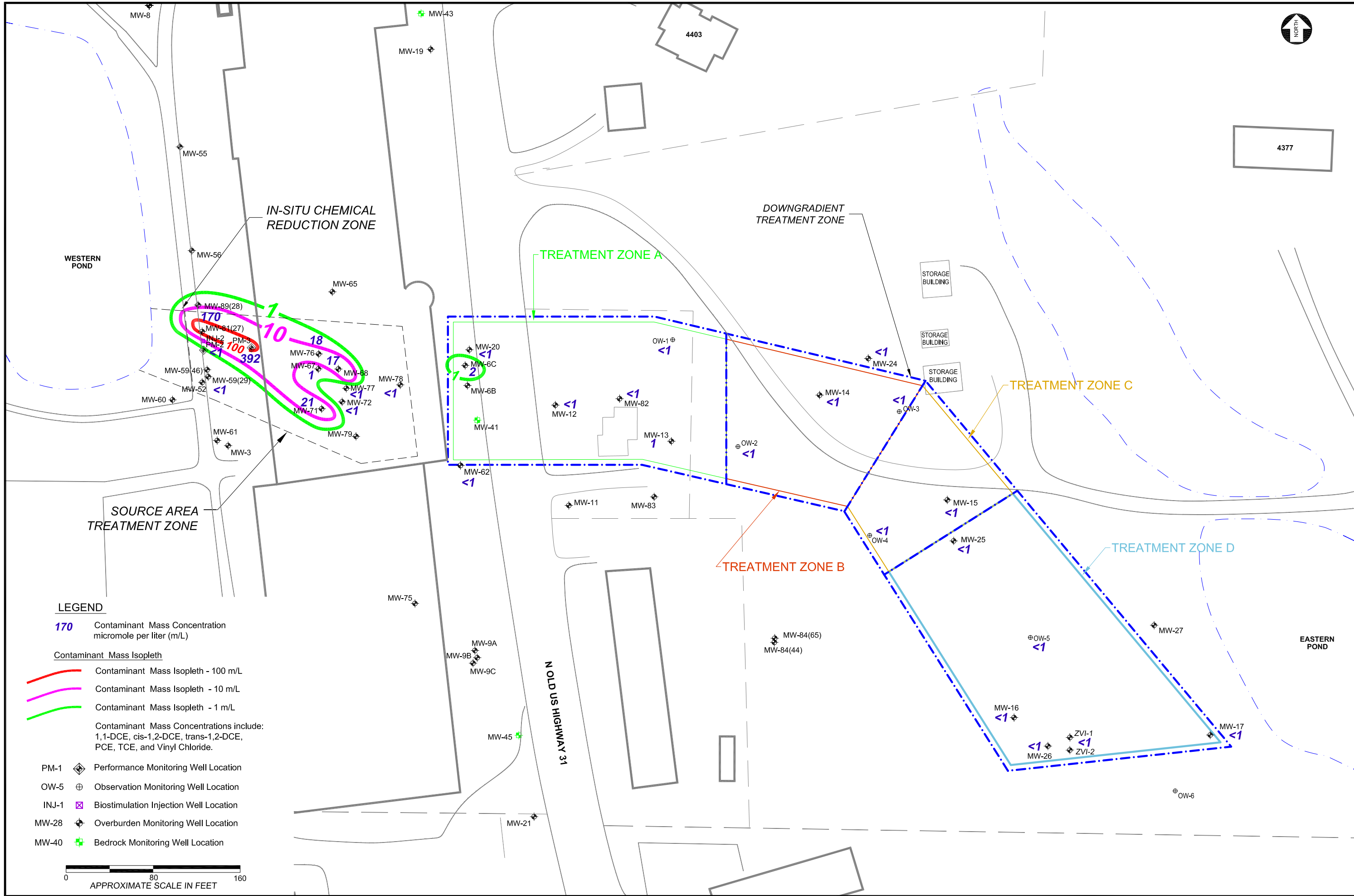
FIGURE **D-1**
SHEET 1 of 1

**BASELINE (2013)
CONTAMINANT MASS ISOPLETHS**

wood.

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

DRAWN BY RLB	FILE NO. P:\Tetraon\TFS\Drawings\PM_2017_Site_Plan.dwg	SCALE SEE ABOVE
APPROVED BY PJS	DATE 08/22/2018	
SOURCE Wells surveyed by Territorial Engineering, Fulton County, IN GIS, 2005.		
PROJECT NO. 3359_15_1040		



- LEGEND**
- 170** Contaminant Mass Concentration micromole per liter (m/L)
 - Contaminant Mass Isopleth**
 - Contaminant Mass Isopleth - 100 m/L
 - Contaminant Mass Isopleth - 10 m/L
 - Contaminant Mass Isopleth - 1 m/L
 - Contaminant Mass Concentrations include: 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, PCE, TCE, and Vinyl Chloride.
 - PM-1 Performance Monitoring Well Location
 - OW-5 Observation Monitoring Well Location
 - INJ-1 Biostimulation Injection Well Location
 - MW-28 Overburden Monitoring Well Location
 - MW-40 Bedrock Monitoring Well Location

