

# Operation and Maintenance Report No. 56

**N.W. Mauthe Superfund Site  
Appleton, Wisconsin**

October 27, 2017

Terracon Project No. 58117057

WDNR BRRTS No. 02-45-000127



**Prepared for:**

Wisconsin Department of Natural Resources  
Oshkosh, Wisconsin

**Prepared by:**

Terracon Consultants, Inc.  
Franklin, Wisconsin

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October 27, 2017



Wisconsin Department of Natural Resources  
Remediation and Redevelopment Program  
625 East County Road Y, Suite 700  
Oshkosh, Wisconsin 54901-9731

Attn: Ms. Jennifer Borski

Re: Operation and Maintenance Report No. 56  
N.W. Mauthe Superfund Site  
725 South Outagamie Street  
Appleton, Wisconsin  
WDNR BRRTS No. 02-45-000127  
Terracon Project No. 58117057

Dear Ms. Borski:

Terracon Consultants, Inc. (Terracon) has prepared this Operation and Maintenance Report to summarize the activities that took place at the above-referenced site from April 1, 2017, through September 30, 2017. The report documents system operations and site conditions through the reporting period and recommends continued system operation without change.

Sincerely,  
**Terracon Consultants, Inc.**

Scott A. Hodgson, P.G.  
Senior Project Manager

Blaine R. Schroyer, P.E.  
Principal/Office Manager

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Copy to: File  
Brian Kreski (City of Appleton Department of Utilities Environmental Programs Coordinator)



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## OPERATION AND MAINTENANCE REPORT NO. 56

### N.W. MAUTHE SUPERFUND SITE 725 SOUTH OUTAGAMIE STREET APPLETON, WISCONSIN

October 27, 2017  
Terracon Project No. 58117057

## 1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) was retained by the Wisconsin Department of Natural Resources (WDNR) to perform remedial system operation and maintenance services at the above-referenced site. The WDNR project contact is Ms. Jennifer Borski, Oshkosh Service Center.

## 2.0 BACKGROUND

### 2.1 Site Location

The N.W. Mauthe (Mauthe) property is located at 725 South Outagamie Street, Appleton, Wisconsin 54914-5072. The project is located in the NE $\frac{1}{4}$  of the NW $\frac{1}{4}$  of Section 34, T21N, R17E, Outagamie County (Figure 1 – Site Location Map, Appendix A).

### 2.2 Site History

The Mauthe site is a former electroplating facility. The facility consisted of a zinc building and a chromium building. Zinc, cadmium, copper, and possibly silver were electroplated in the zinc building from 1978 to 1987. Hard chromium plating was conducted in the chromium building from 1960 to 1976. In 1982, the WDNR received a report that yellowish-green water was observed south of the chromium building. Apparently, for several years plating solutions and waste solvents had leaked from holding vats and tanks, and sump pumps allegedly discharged plating tank solutions onto the ground outside the facility.

The WDNR began an investigation of the site in April 1982. A shallow groundwater collection system was installed parallel to the railroad tracks in May 1982, where groundwater and surface water were collected for two years. The Mauthe site was added to the National Priorities List in 1989.

From November 1991 to May 1992, CH2M HILL performed a Remedial Investigation (RI) for the WDNR. The RI showed the greatest concentrations of soil and groundwater contamination in the area around the zinc and chromium buildings. The chemicals most often detected above

background levels or state standards included total chromium, hexavalent chromium, zinc, cadmium, cyanide, trichloroethene, 1,1,1-trichloroethane, 1,1-dichloroethene, and toluene. Subsurface soil contamination was detected up to 25 feet deep near the former buildings. Groundwater contamination extended over most of the block bordered by Melvin, Outagamie, and Second Streets.

CH2M HILL conducted a feasibility study for the WDNR. A Record of Decision (ROD) was signed in March 1994. Remedial design/remedial action activities took place at the Mauthe site in a phased approach. Phase I, which took place in 1995, included the following.

- n Demolition and removal of the buildings on the Mauthe property
- n Excavation and off-site treatment of soils with a total chromium concentration of greater than 500 milligrams per kilogram (mg/kg)
- n Backfilling of the excavation with clean soils, capping the site with 2 feet of clay and topsoil, and the establishment of vegetative cover
- n Installation of groundwater collection trenches and construction and operation of a groundwater treatment facility to contain and/or control groundwater contamination with ultimate compliance with groundwater Applicable or Relevant and Appropriate Requirements (ARARs)
- n Improvement or installation of foundation drain systems and cleaning, painting or sealing of basement walls and floors, as needed, for homes or businesses in the area of the site, to prevent seepage of contaminated water into the buildings

Phase II, which took place in 1996, involved the construction of a groundwater treatment system, which began operation in February 1997.

Midwest Contract Operations, Inc. (MCO) began operating the groundwater treatment system in February 1997. CH2M HILL, the site engineer and project manager for the United States Environmental Protection Agency (EPA), retained responsibility for the overall site operations and the groundwater monitoring wells associated with the treatment system.

In October 1998, after the first year of operation and maintenance of the remediation system, the WDNR assumed the responsibility from the EPA for all operation and maintenance at the site. MCO was retained by the WDNR for the operation and maintenance of the groundwater treatment system, including the groundwater monitoring wells.

In January 2005, the WDNR requested OMNNI Associates, Inc. (OMNNI) provide an evaluation of the groundwater collection and treatment system at the Mauthe site. The installation of four piezometers (PZ-5, PZ-6, PZ-7, and PZ-8) was part of the evaluation to understand the extent of contaminants in the soil and groundwater. OMNNI installed five additional observation wells (MW-

109 through MW-113) on May 24, 2006, to further understand the extent of contaminants in the soil and groundwater in the former source area.

The results of the additional investigation showed contamination remained in the soil above ch. NR 720 Wisconsin Administrative Code (WAC) levels, in the groundwater above ch. NR 140 WAC enforcement standards, and in the groundwater above the applicable or relevant and appropriate requirements (ARARs) established for the Mauthe site. Groundwater did not appear to be impacted at depth based on the piezometer groundwater analysis.

Active treatment of collected groundwater ended on April 18, 2006, with approval for direct discharge by the City of Appleton. Collected groundwater is now discharged directly to the sanitary sewer system for treatment at the City of Appleton wastewater treatment facility.

On October 13, 2007, MCO discontinued operational responsibilities of the system. OMNI began operational responsibilities on October 14, 2007, and maintained responsibility through September 30, 2011. Terracon assumed system operation responsibilities on October 1, 2011.

## **2.3 Site Description**

The site is located within the City of Appleton limits in an area of mixed commercial, light industrial, and residential properties. The property is approximately one acre in size and triangular in shape (Figure 2 – Site Detail Map, Appendix A). Melvin Street borders the site to the north, a parking lot owned by Miller Electric and Manufacturing Company is on the west, and railroad tracks are on the southeast. Private residences are located north of Melvin Street and south of the railroad tracks. The former zinc building was located on the northeast portion of the property. The former chromium building was located on the southwest portion of the property. The current building onsite houses the treatment facility. Approximately half of the land immediately surrounding the site contains impervious structures or paved roads and parking areas.

## **2.4 Groundwater Collection System**

The groundwater collection system consists of three trenches. The west trench crosses the Miller Electric property to the west of the site and is approximately 200 feet in length. The central trench runs south of the site parallel to the railroad and is approximately 280 feet in length. The southeast trench runs along Second and Outagamie streets and is approximately 600 feet in length (Figure 2 – Site Detail Map, Appendix A).

The groundwater treatment system was designed to capture groundwater containing contaminants at concentrations greater than 1992 Chapter NR 140, WAC preventive action limits (PALs) as approved in the ROD. The west trench and southeast trench were located outside the estimated extent of the groundwater contamination and are designed to prevent further migration

of groundwater contamination. The central trench was designed to collect contaminated groundwater and prevent further migration of the groundwater contamination off-site.

Groundwater enters the trenches based on the head differential between the local water table and the level maintained in the trench. The trenches are backfilled with coarse sand. A 6-inch perforated high-density polyethylene collection pipe in the bottom of the trench drains water from the trench to manholes where the water is collected and pumped to the groundwater treatment facility.

Under normal operation, water levels are maintained at or near the bottom of the trenches. The trenches can provide storage and continue to act as a hydraulic barrier until the water in the trenches rises to the level of the water table. This storage capacity allows the hydraulic barrier to continue even when the collection/treatment system needs to be shut down for repair or maintenance for a short period of time.

Three properties south and southeast of the facility have foundation drain systems that are connected to the groundwater collection system via gravity piping (801 S. Outagamie Street, 1410 W. Second Street, and 1414 W. Second Street). Additionally, the sump pump discharge at 1428 W. Second Street is connected to the collection system.

Groundwater collected in the west trench flows by gravity to Manhole 1 where the maximum depth of the manhole/trench extends approximately 32 feet below ground surface (fbgs). Groundwater in the central and southeast trenches flows by gravity to Manhole 2, where the maximum depth of the manhole/trench extends approximately 31 fbgs. Groundwater from the manholes is piped to the treatment facility (Figure 2 – Site Detail Map, Appendix A).

## **2.5 Groundwater Treatment System**

From February 1997 through April 18, 2006, the treatment system operated in a manual batch system mode. The groundwater treatment system was designed to be a fully automated batch treatment process designed for control of total chromium. Each batch operation was capable of treating 2,700 gallons of influent groundwater and took approximately 6 hours to complete a cycle (i.e., from the start of filling the reaction tank to finishing the discharge to the City of Appleton sanitary system). The system was capable of treating 10,800 gallons in a 24-hour period.

Pumps located in the two manholes convey groundwater from the collection trenches into the storage tank. Float switches control water levels in the manholes. The pumps have a pumping capacity of approximately 43 gallons per minute (gpm) each.

A storage tank stores water from the collection system to provide equalization of the groundwater. The storage tank has a 9,000-gallon capacity. A top-mounted, turbine type, constant speed mixer,



for mixing the tank contents and keeping solids in suspension, is located on the tank. An ultrasonic level indicator monitors the water level in the tank. The water level of the storage tank is monitored by the programmable logic controller (PLC).

Prior to the start of direct discharge on April 18, 2006, the reaction tank feed pump transferred groundwater from the storage tank to the reaction tank. The reaction tank feed pump was an air-operated, double-diaphragm pump with an 86 gpm capacity. The reaction tank feed pump was sized to fill the reaction tank working volume (2,700 gallons) in approximately 30 minutes.

The reaction tank has a capacity of 6,100 gallons. The conical bottom of the tank allowed for the collection and transfer of sludge. The volume of water treated during a batch process was approximately 2,700 gallons. Chemical and physical processes for the groundwater treatment occurred in the reaction tank. The water was treated by batch process in the reaction tank as follows: decant, fill, ferrous sulfate addition, caustic addition, aeration, flocculation, settling, and sludge withdrawal.

The above systems were the primary parts in the treatment process. However, there were several other components necessary for the successful treatment of contaminated groundwater. They included a reaction tank mixer, reaction tank level detector, reaction tank air diffuser, reaction tank pH monitor, air compressor, ferrous sulfate feed system, caustic feed system, sludge transfer pump, sludge tank, and tanker truck feed pump. These components were monitored and/or controlled by the PLC in the master control panel. Only the tanker transfer pump and the air compressor were locally controlled. The system was designed to provide continuous batch process treatment, if required.

The master control panel includes failure annunciators, pH strip chart recorder, data access module, auto dialer, PLC system, and uninterruptible power supply. The master control panel also sounds an audible alarm if an upset in the process or a failure is detected.

Although the system was designed to be a fully automated batch treatment process, the City of Appleton industrial user permit formerly required treated groundwater to be tested for hexavalent chromium using a Hach hexavalent chromium test kit before discharge to the sanitary sewer system. The treatment system (batch treatment and manual discharge) met discharge permit conditions, but was labor intensive.

Groundwater brought into the treatment facility has contaminant concentrations below City of Appleton industrial user permit discharge limits. The WDNR received approval from the City of Appleton to perform direct discharge of untreated, collected groundwater beginning April 18, 2006, when influent meets discharge limits listed in the Appleton Industrial User (Wastewater Discharge) Permit No. 06-21. Since April 18, 2006, collected groundwater has been directly discharged without treatment to the City of Appleton sanitary sewer system.

The current Appleton Industrial User (Wastewater Discharge) permit was reissued on May 31, 2015 (Permit No. 15-21). The permit allows the continuation of groundwater direct discharge to the sanitary sewer as long as contaminant concentrations remain below discharge limits. Permit No. 15-21 expires at midnight, May 31, 2018.

## **2.6 Groundwater Monitoring Network**

The groundwater monitoring wells (water table observation wells and piezometers) were designed to provide information on containment of the groundwater plume and on water quality at the site and adjacent residential properties. The monitoring network is comprised of 11 observation wells constructed during the RI and the remedial action (RA) activities (W-2, W-8, W-15, and MW-101 through MW-108), 5 observation wells (MW-109 through MW-113) installed in May 2006, and 4 piezometers (PZ5 through PZ8) installed in May 2005 to evaluate the remaining source area (Figure 2 – Site Detail Map, Appendix A). The following descriptions are reflective of static groundwater conditions; however, pumping from the manholes/trenches affects site conditions such that static conditions are usually not observed.

Observation wells W-2 and MW-108 are located up-gradient of the site to monitor background conditions.

Observation well MW-101, which is located west of the site, is used to monitor the effectiveness of the west trench.

Three down-gradient observation wells, MW-102, MW-103, and MW-104, are used to monitor changes in groundwater quality down-gradient of the central trench and to monitor hydraulic gradient control.

Four observation wells, W-8, W-15, MW-105, and MW-106, are used to monitor changes in groundwater quality outside of the southeast trench. Observation wells MW-106 and W-15 are also used to monitor hydraulic gradient control of the southeast trench.

Observation well MW-107 is used to provide source area groundwater quality data and hydraulic gradient information up-gradient of the central trench.

Five observation wells (MW-109 through MW-113) installed in May 2006 are located at former source areas identified during the RI. They are described as follows.

- n MW-109 is located at the west edge of the former chromium building between two historical monitoring points (MW25R and MW26R) installed during the RI with significant concentrations of volatile organic compounds (VOCs) and chromium in groundwater.

- n MW-110 is located on the north edge of the former chromium building adjacent to a nest of three historical monitoring points (MW17, MW18, and MW19) installed during the RI with significant concentrations of VOCs and chromium in groundwater.
- n MW-111 is located near a historic monitoring point (MW13R) installed during the RI with significant concentrations of chromium in groundwater.
- n MW-112 is located within the former zinc building at the edge of the former trough adjacent to an historic soil sample (SB3A) installed during the RI with significant concentrations of metals (cadmium, chromium, zinc, and cyanide) in soil.
- n MW-113 is located on the southeast edge of the former chromium building adjacent to a nest of three historic monitoring points (MW14, MW15, and MW16) installed during the RI with significant concentrations of VOCs (MW14 only) and chromium in groundwater.

PZ5 and PZ6 are located on the north side of the central collection trench and PZ7 and PZ8 are located on the south side of the central collection trench to evaluate the vertical extent of groundwater contamination and verify vertical capture of the groundwater plume.

On May 10, 2004, four piezometers (PZ-01, PZ-02, PZ-03, and PZ-04) were removed. The bottoms of the piezometers were installed near the elevation of the collection trench piping and were within the trenches. The purpose of the piezometers was to determine whether the trenches were working properly. Since the trenches were functioning properly, the piezometers were abandoned.

### 3.0 INFLUENT/EFFLUENT MONITORING AND REPORTING

Prior to October 2012, effluent samples were collected at the Outfall 001<sup>1</sup> sample collection port. The discharge valve from the storage tank was closed, typically one to three days prior to sampling, depending on the anticipated groundwater infiltration into the collection system. The storage tank was allowed to accumulate pumped water until the sampling event, typically Thursday morning. The discharge valve was opened and water was allowed to discharge for approximately 5 minutes. The Outfall 001 sampling port was opened and approximately 10 gallons of water was allowed to discharge from the sampling port prior to collecting a sample.

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<sup>1</sup> Outfall 001 is the point where the groundwater leaves the facility and enters the City of Appleton sanitary sewer system. There is currently only one outfall.

On October 19, 2012, system plumbing changes were completed to improve the sampling method. Terracon contracted Ogden Plumbing to replumb the system effluent line so that a greater volume of water was retained within the equalization tank and to install a sampling port on the equalization tank Outfall 001 discharge pipe. Due to the improvement in the system plumbing, Terracon now collects a composite effluent sample from the sampling port on the equalization tank Outfall 001 discharge pipe. Samples are typically collected the first Thursday of the month.

### **3.1 Monthly Monitoring and Reporting**

During the monthly monitoring events for this reporting period, an unfiltered sample was collected from the equalization tank Outfall 001 sample port and analyzed for hexavalent chromium, and a filtered sample was collected from Outfall 001 and analyzed for total dissolved chromium. A pH value from the Outfall 001 sample was also determined on the samples collected by using an Oakton pHTestrs. Pace Analytical Services, Inc. (Pace) performed the laboratory analysis. Pace provided an electronic report of the analysis to Scott Hodgson, Terracon's project manager, who emailed the report to Jennifer Borski, WDNR project manager. A summary of the laboratory analysis can be found in Table 1 – Influent and Effluent Summary, Appendix B.

During the monthly monitoring events, an unfiltered sample was collected from the Manhole 1 influent sampling port and from the Manhole 2 influent sampling port. The presence of hexavalent chromium was measured in the Manhole 1 and 2 influent samples using a Hach test kit, model Pocket Colorimeter II, and pH values were determined using an Oakton pHTestrs. The pounds of total chromium removed by the system each month is shown in Table 1.

Total flows from Outfall 001, from Manhole 1, and from Manhole 2 were recorded on an Operator Log Sheet during the monthly sample collection. Total flows from Outfall 001, from Manhole 1, and from Manhole 2 are also recorded periodically throughout the month (Table 1 – Influent and Effluent Summary, Appendix B). A monthly email message was sent to the City of Appleton Department of Utilities Environmental Programs Coordinator and the WDNR project manager with the total flow that was recorded from Outfall 001.

The WDNR project manager was provided with a monthly status report summarizing operation and maintenance at the site. The monthly status reports included Terracon's invoice for services from the previous 28-day period, a copy of subcontractor invoices paid during the month, a copy of the Operator Log Sheets, a copy of the Inspection Sheet, and a copy of Table 1 – Influent and Effluent Summary Quarterly Monitoring and Reporting.

### **3.2 Quarterly Monitoring and Reporting**

A quarterly compliance report was submitted by email to the City of Appleton Department of Utilities Environmental Projects Coordinator, Brian Kreski, and the WDNR project manager, Jennifer Borski, on April 10, 2017 (First Quarter 2017) and July 5, 2017 (Second Quarter 2017). The quarterly compliance report included total metered discharge readings, pH measurements, and laboratory analytic test reports.

### **3.3 Semi-Annual Monitoring and Reporting**

The semi-annual reporting consists of this document, the Semi-Annual Operation and Maintenance Report, which is prepared for the WDNR project manager after receiving the laboratory data from the semi-annual groundwater sampling event. The Semi-Annual Operation and Maintenance Report includes the Operation, Maintenance, Monitoring and Optimization Reporting of Soil and Groundwater Remediation Systems, Form 4400-194 (see Form 4400-194, Appendix D).

## **4.0 COMPLIANCE SAMPLING**

Compliance sampling of the groundwater effluent is conducted twice per year by the City of Appleton and once per year by Terracon. The sample is collected at the sampling port for Outfall 001 at the storage tank. The effluent is analyzed for the parameters listed in Table 2 – City of Appleton Compliance Limits, Outfall 001, Appendix B. Compliance sampling was conducted by the City of Appleton on April 27, 2017, and by Terracon on June 8, 2017, during this reporting period.

A summary of the City of Appleton’s compliance sampling analysis and Terracon’s annual compliance sampling analysis can be found in Table 2 – City of Appleton Compliance Limits, Outfall 001, Appendix B. However, the results from the City of Appleton April 27, 2017, sampling have not yet been provided to Terracon.

In addition to the sampling events listed above, and as described in Section 3.0, total chromium and hexavalent chromium are currently analyzed monthly for a sample collected from the Outfall 001 sampling port on the equalizer tank (Table 1 – Influent and Effluent Summary, Appendix B).

## 5.0 GROUNDWATER SAMPLING

### 5.1 Groundwater Sampling Procedures

Two adjustments to the original monitoring plan have been requested since 1997. On December 3, 1999, Jennifer Huffman with the WDNR requested an adjustment that included the following.

1. Elimination of quarterly sampling for copper, zinc, mercury, and cyanide at all site wells
2. Reduction in VOC sampling frequency from quarterly to annual
3. Elimination of weekly testing for total suspended solids on the treated effluent

EPA approved the 1999 request on January 18, 2000, except for continued cyanide sampling in monitoring wells MW-110, MW-111, and MW-112 and semi-annual VOC sampling rather than annual VOC sampling as requested.

On March 24, 2003, Jennifer Borski with the WDNR requested the following adjustment to the monitoring plan.

1. Elimination of quarterly cadmium sampling at all site wells
2. Reduction in the frequency from quarterly to annual sampling of manganese at all site wells
3. Reduction in the frequency from quarterly to annual sampling of total dissolved chromium at W-2, W-8, W-15, MW-101, MW-102, MW-105, MW-106, and MW-108
4. Elimination of annual VOC sampling at W-2, W-8, W-15, MW-101, MW-102, MW-103, MW-104, MW-105, MW-106, and MW-108

EPA approved the 2003 request on April 17, 2003.

There are 20 groundwater monitoring wells including 16 water table observation wells and 4 piezometers associated with the Mauthe remediation system (see Figure 2 – Site Detail Map, Appendix A).

Groundwater samples were collected during this reporting period on October 3 and 4, 2017. During the sampling event, groundwater elevations were measured in each of the eight site monitoring wells sampled including observation wells MW-103, MW-104, MW-107, and MW-109 through MW-113 prior to sampling. Historical groundwater elevations for the site are summarized in Table 3 – Groundwater Elevations, Appendix B, and presented graphically on Figure 3 – Groundwater Hydrographs, Appendix A. The groundwater elevation data from the observation wells was used to develop a groundwater contour map (Figure 4 – Groundwater Table Contour Map—October 2016, Appendix A). Groundwater flow was generally towards the collection

trenches. The gradient immediately adjacent to the trenches is very steep because the groundwater elevation in the trench, in general, is at the elevation of the sump high float level (approximately 25 feet below surface grade) and low-conductivity clay soils exist in the area. As a result, the complex flow pattern and steep gradient near the trenches cannot be accurately depicted at the required map scale. As such, Terracon has used professional judgment to depict the groundwater elevation near the trench as an accessory contour on Figure 4, placed to show the general flow pattern near the trenches.

Down-well tubing was installed in monitoring points to be sampled. A peristaltic pump was attached to the down-well tubing and the monitoring points were micro-purged using low-flow techniques before collecting the sample(s). The sampling process utilized a flow-through cell where probes measured temperature, conductivity, pH, dissolved oxygen, and oxidation/reduction potential in each well. Flow through the cell was maintained at approximately 200 milliliters per minute (mL/min), utilizing a resistor to control pump flow. Purging proceeded until parameters were stable to within 10% for 3 consecutive readings taken a minimum of 2 minutes apart. Purged water from the monitoring points was collected, taken into the treatment building, dumped into the floor sump, and subsequently pumped into the equalizer tank to discharge to the Outfall 001 pipe leading to the City of Appleton sanitary sewer system.

Groundwater samples were collected for VOCs, total chromium, and cyanide in accordance with the site monitoring plan after the monitoring points were micro-purged as described above. Final temperature, conductivity (specific conductance), pH, dissolved oxygen, and oxidation/reduction potential were recorded just prior to sampling (see Table 4 – Groundwater Geochemical Parameters, Appendix B). The groundwater samples were collected in the order of VOC vials first (if applicable) and metal samples second. The chromium samples were field filtered with disposable 45-micron in-line filters. The cyanide samples were not filtered. The laboratory containers were supplied by Pace Analytical. The samples to be analyzed for VOCs were preserved with hydrochloric acid. The samples to be analyzed for (filtered) total chromium were preserved with nitric acid. The samples to be analyzed for total cyanide were preserved with sodium hydroxide. The samples were delivered to Pace Analytical Laboratory (Green Bay) by a Pace courier.

The groundwater elevations, purged groundwater volume, field testing data, and sample collection time for each well were recorded on a Groundwater Sampling Field Sheet (see Groundwater Sampling Field Sheets, Appendix C).

## **5.2 Groundwater Sampling Results**

During the October 2017 sampling event, field measurements were taken on groundwater samples collected from monitoring wells MW-103, MW-104, MW-107, and MW-109 through MW-113 for temperature, conductivity (specific conductance), pH, dissolved oxygen, and

oxidation/reduction potential. A summary of the final field measurements after stabilization are contained in Table 4 – Groundwater Geochemical Parameters, Appendix B.

Groundwater from observation wells MW-103, MW-104, MW-107, and MW-109 through MW-113 was analyzed for (filtered) total chromium. Groundwater from observation wells MW-107 and MW-109 through MW-113 was also analyzed for VOCs and groundwater from observation wells MW-110 and MW-112 was analyzed for total cyanide.

The laboratory analytical results indicated that levels of (filtered) total chromium exceeded the 1992 NR 140, WAC, groundwater PALs<sup>2</sup> in samples from monitoring wells MW-104 (5.8 µg/L), MW-107 (1,400 µg/L), MW-109 (384 µg/L), MW-110 (987 µg/L), MW-111 (480 µg/L), MW-112 (3,150 µg/L), and MW-113 (17,400 µg/L). The laboratory analytical results indicated that cyanide was detected in the sample from MW-112, but below its PAL (See Table 5 – Historical Groundwater Analytic Test Results -- Selected Metals, Appendix B, and laboratory report and chain-of-custody record, Appendix C). An isoconcentration map for (filtered) total chromium concentrations is shown on Figure 5 – Groundwater Table Total Chromium Isoconcentration Map—October 2017, Appendix A.

The laboratory analytical results indicate that levels of VOCs (at least one of the following analytes: 1,1-dichloroethene, cis-1,2-Dichloroethene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, and trichloroethene) exceed the 1992 NR 140, WAC, PALs in samples from monitoring wells MW-107 and MW-109 through MW-113 (see Table 6 – Historical Groundwater Analytic Test Results—Volatile Organic Compounds, Appendix B, and laboratory report and chain-of-custody record, Appendix C).

Groundwater hydrographs were prepared for monitoring wells MW-102, MW-103, MW-104, MW-107, MW-109, and MW-113 and are presented on Figure 3, Appendix A. Chromium concentration trend graphs were prepared for monitoring wells MW-103, MW-104, MW-107, and MW-109 through MW-113 and are presented as Figures 6 through 13, Appendix A. Chlorinated volatile organic compound (CVOC) concentration trend graphs for monitoring wells MW-107, MW-110, and MW-113 are presented as Figures 14 through 16, Appendix A.

## 6.0 ROUTINE OPERATION AND MAINTENANCE ACTIVITIES

Completed Operator Log Sheets and Inspection Sheets are kept on file at the facility. Copies of these forms were also sent to the WDNR project manager with the monthly status reports.

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<sup>2</sup> “Chemical-specific ARARs are laws and requirements that regulate the release to the environment of materials having certain chemical or physical characteristics or materials containing specific chemical compounds... Therefore, the applicable groundwater remedial action goals at this site are the PALs.” – Record of Decision Summary, N.W. Mauthe Site, March 1994, pages 36-37.



## **6.1 Monthly Operation and Maintenance Activities**

On a monthly basis, either during the monthly sampling event of Outfall 001 or another time, the grounds, truck bay, office area, bathroom, treatment process area, and sample preparation area were inspected. The Inspection Sheet contains a listing of items to be checked during the monthly inspection.

During the monthly sampling, general inspection of the building, grounds, and treatment equipment was conducted. Monthly building and grounds inspections were performed in April, May, June, July, August, and September 2017. On April 6, 2017, Appleton Parks & Recreation personnel informed Terracon that there had been another problem with the north garage door whereby again several hinges were found to be bent. The City of Appleton contacted American Overhead Door (AOD) directly to schedule the repairs, which had been undertaken before Terracon was onsite for the monthly sampling on April 6, 2017. We understand that AOD also performed an inspection while they were onsite.

A copy of the monthly inspection sheet was included with the corresponding monthly invoice status report.

## **6.2 Annual Operation and Maintenance Activities**

Typically, the annual garage door inspection would have occurred during this reporting period; however, because American Overhead Door was onsite to perform garage door repairs on April 6, 2017, we understand that an inspection was performed by them at that time directly for the City of Appleton. We understand that it is the responsibility of the City of Appleton to have any repairs completed.

## **6.3 Periodic Operation and Maintenance Activities**

The following operation and maintenance activities were performed on an as-needed basis during the reporting period.

1. The City of Appleton has taken over grounds maintenance at the N.W. Mauthe site through an intergovernmental agreement between the City of Appleton and WDNR. City staff provided lawn maintenance.
2. Outfall 001 flow meter/totalizer operation is checked during site visits. According to the factory representative, there are no operator performed calibration functions for the meter unless a hardware failure occurs.

3. General housekeeping activities included replacing cleaning supplies, bathroom supplies, and minor building components. General housekeeping activities also included keeping the facility and grounds clean and removing accumulated waste.
4. Terracon met City of Appleton personnel at the site on April 27, 2017, to collect their semi-annual effluent compliance sample. It was raining at the time of the site visit and there appeared to be a leak in the roof where the vent pipe for the northeast heater in the process room went through the roof. Terracon informed WDNR of the leak and WDNR arranged to have the leak fixed on May 1, 2017. The leak appeared to have been repaired by the time of the monthly inspection on May 4, 2017.

#### **6.4 Significant Operation and Maintenance Activities**

There were no significant operation and maintenance activities during this reporting period.

#### **6.5 Emergency Operations and Shut Downs**

There were no emergency operations or system shutdowns during this reporting period. There has not been a system alarm since September 30, 2015.

### **7.0 FACILITY MEETINGS/REVIEWS**

Jennifer Borski, WDNR project manager, has periodically communicated with the City of Appleton's Parks & Recreation Department to confirm the Cooperative Agreement conditions are being followed and the arrangement is still satisfactory to both parties. The existing Cooperative Agreement was renewed on May 4, 2017, and expires on May 4, 2022.

The City of Appleton Fire Department performed their annual inspection of the facility on May 8, 2017. No issues were noted.

### **8.0 CONCLUSIONS AND RECOMMENDATIONS**

The results of the laboratory analysis from the October 2017, sampling event indicate that the groundwater continues to exceed the 1992 NR 140, WAC, PALs for chromium and several VOCs.

The containment trenches appear to be operating as designed. The groundwater laboratory analysis and the groundwater elevations indicate that the groundwater plume is, in general, being controlled horizontally by the groundwater containment trenches.

Approximately 476,148 gallons of groundwater were extracted from the containment trenches from April 1, 2017, through September 30, 2017 (average 2,602 gallons per day). The groundwater was discharged to the City of Appleton sanitary sewer system under the Industrial User (Wastewater Discharge) Permit Number 15-21. There were no exceedances of the compliance limits during this reporting period.

Approximately 1.602 pounds of chromium were removed by the system during this reporting period.

Based on the laboratory analysis from the October 2017 semi-annual groundwater sampling event and the laboratory analysis from the Outfall 001 during the reporting period, Terracon recommends continued operation of the groundwater extraction system with direct discharge to the City of Appleton sanitary sewer system.

## **9.0 GENERAL COMMENTS**

The analysis and opinions expressed in this report are based upon data obtained from the system operation and maintenance activities and laboratory chemical analyses at the indicated locations or from other information discussed in this report. This report does not reflect variations in subsurface stratigraphy, hydrogeology, and contaminant distribution that may occur across the site. Actual subsurface conditions may vary and may not become evident without further assessment.

This report was prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted environmental engineering practices. No warranties, express or implied are intended or made. In the event any changes in the nature or location of suspected sources of contamination as outlined in this report are observed, the conclusions and recommendations contained in this report shall not be valid unless these changes are reviewed and the opinions of this report are modified or verified in writing by Terracon.

## 10.0 CERTIFICATIONS

I, Blaine R. Schroyer, P.E., hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

\_\_\_\_\_ E-31505

Signature and P.E. number

Project Engineer

Title

I, Scott A. Hodgson, P.G., hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. [GHSS 2](#), Wis. Adm. Code, or licensed in accordance with the requirements of ch. [GHSS 3](#), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

\_\_\_\_\_ PG-1229

Date 10/26/17

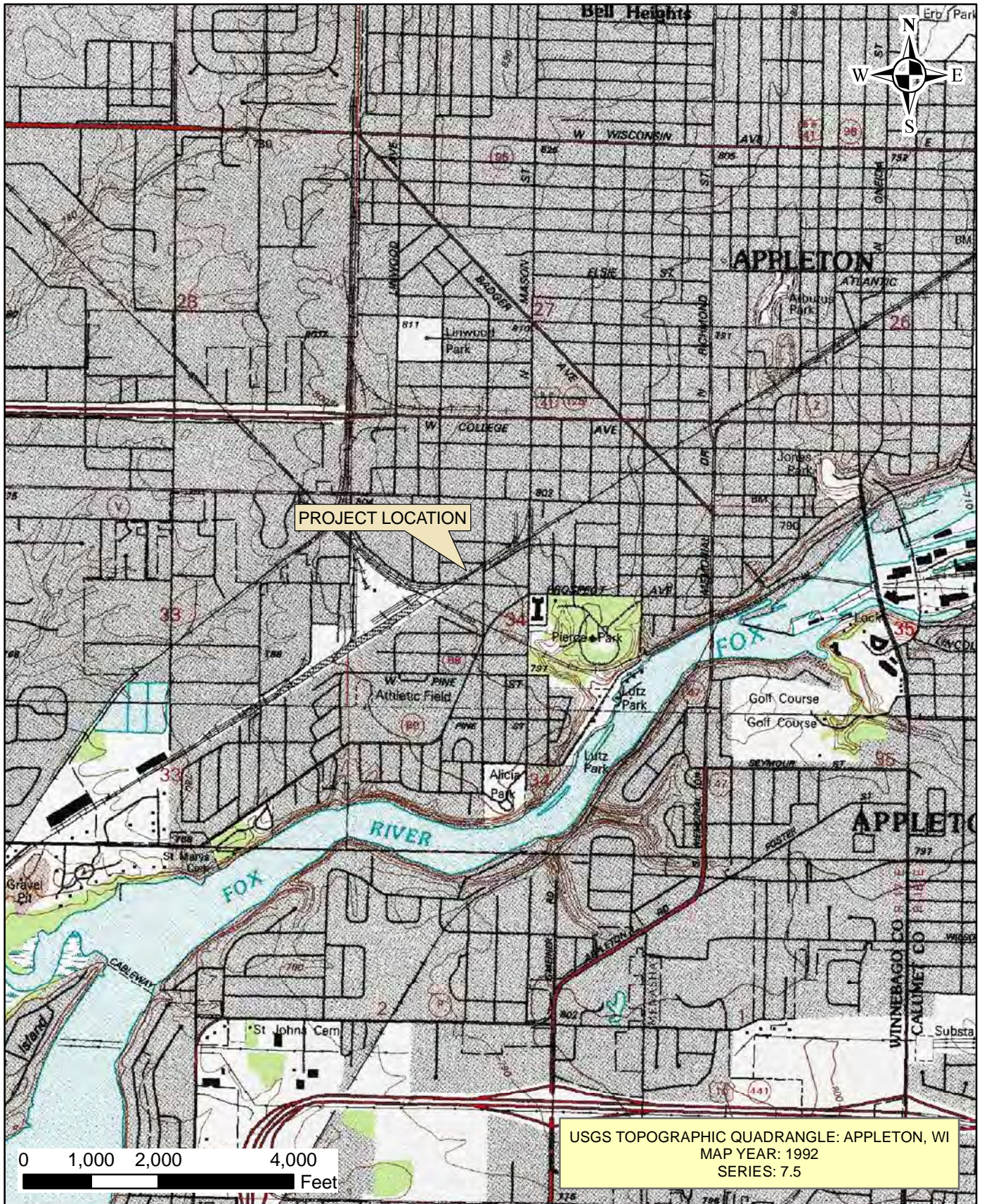
Signature and P.G. number

Project Geologist

Title

# **Appendix A**

Figures 1 to 16

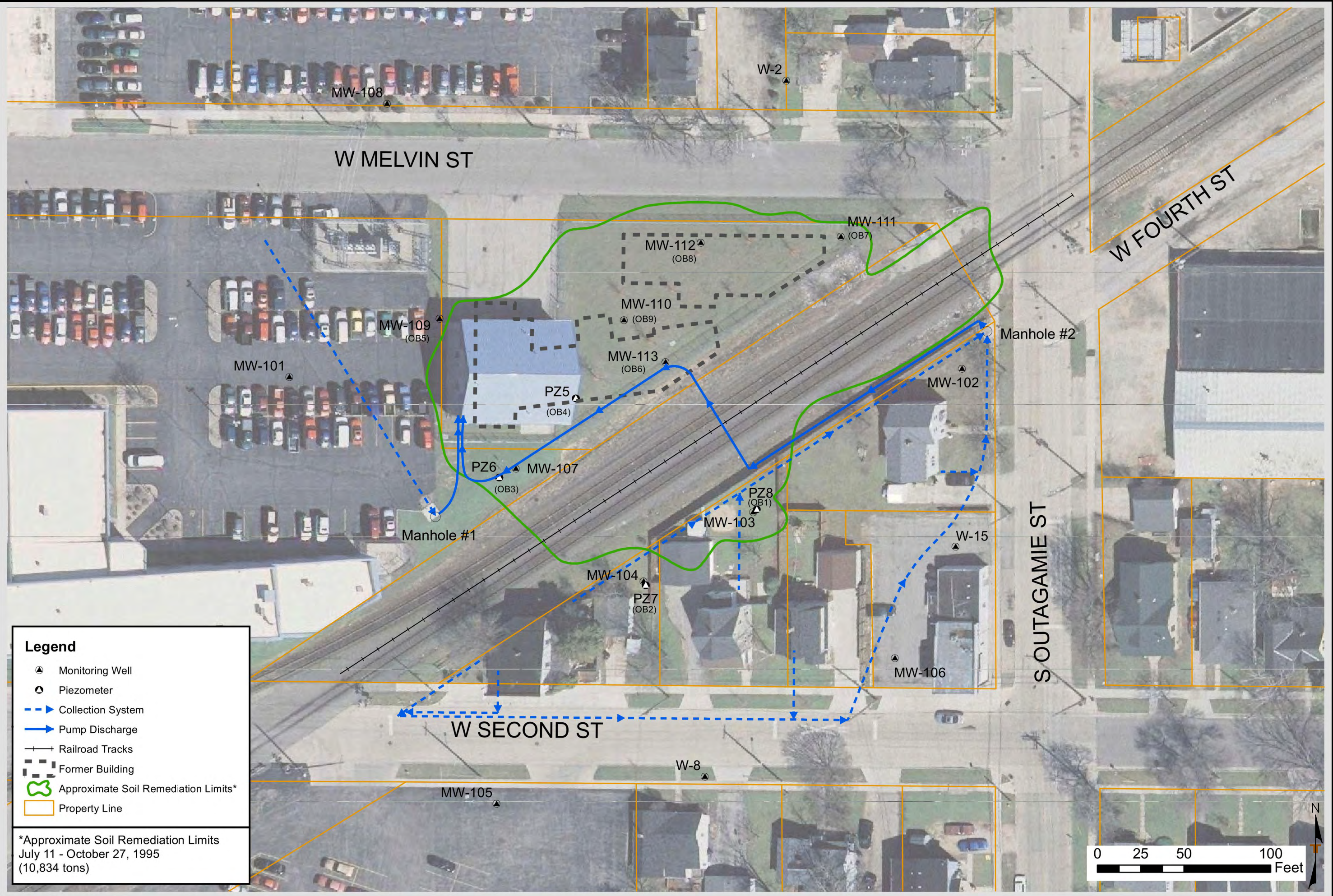


Project Mngr:	PAL
Drawn By:	LES
Checked By:	PAL
Project No:	58117057
Date:	03/21/2012

**Terracon**  
 Consulting Engineers & Scientists  
 9856 South 57th Street Franklin, WI 53132  
 (414) 423 0255 (414) 423 0566

**SITE LOCATION MAP**  
 N.W. MAUTHE SITE  
 725 SOUTH OUTAGAMIE STREET  
 APPLETON WISCONSIN

**FIGURE**  
 1



**Legend**

- ▲ Monitoring Well
- Piezometer
- > Collection System
- Pump Discharge
- +— Railroad Tracks
- - - - - Former Building
- Approximate Soil Remediation Limits\*
- Property Line

\*Approximate Soil Remediation Limits  
July 11 - October 27, 1995  
(10,834 tons)

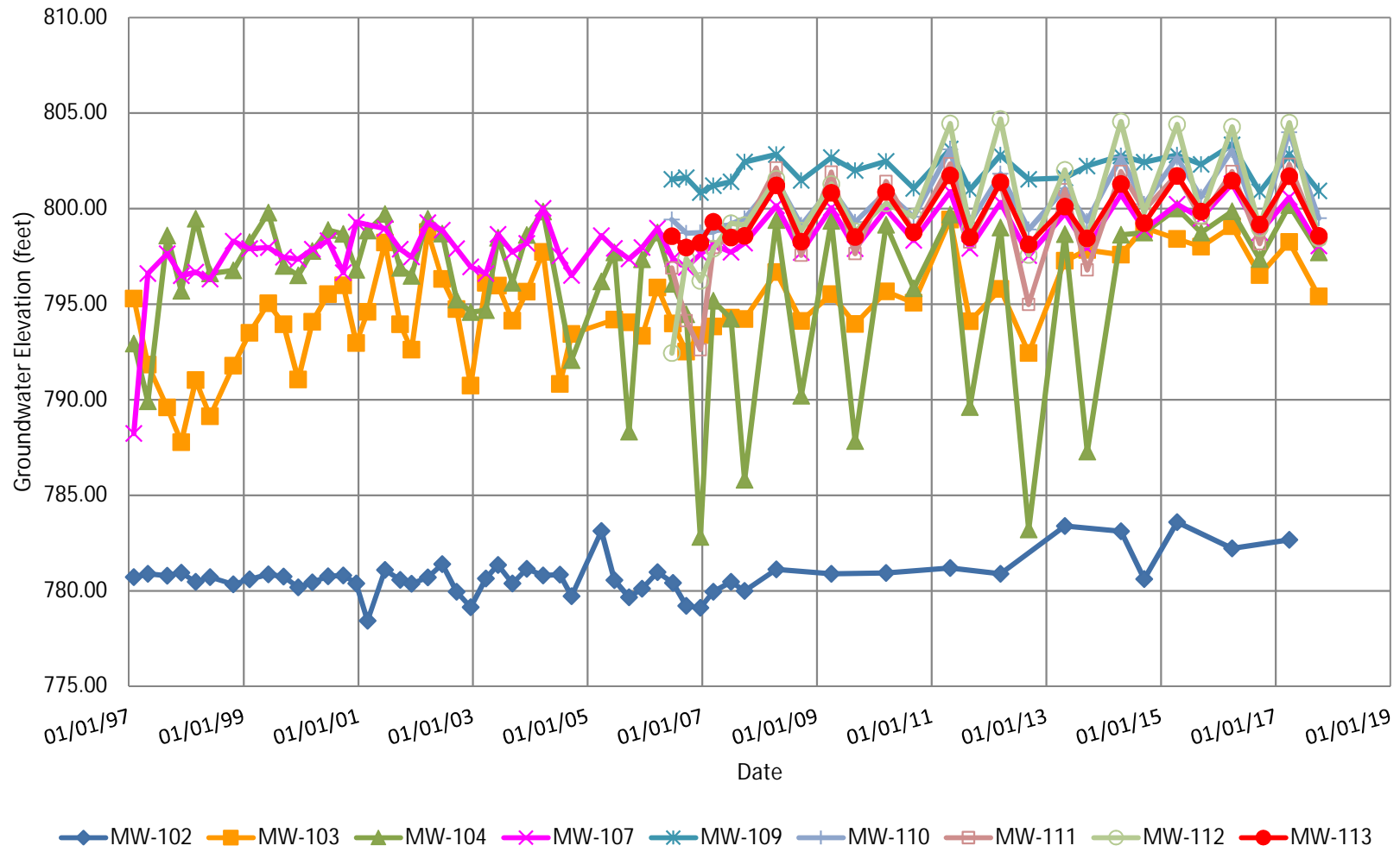
**Terracon**  
Consulting Engineers and Scientists  
9656 South 57th Street  
Franklin, WI 53132  
PH: (414) 423 0255  
FAX: (414) 423 0566

Project No:	58117057
Scale:	As Shown
File No:	58117057 MW Location Mapping
Date:	03/20/2012
Project Mgr:	PAL
Drawn By:	LES
Checked By:	PAL
Approved By:	PAL

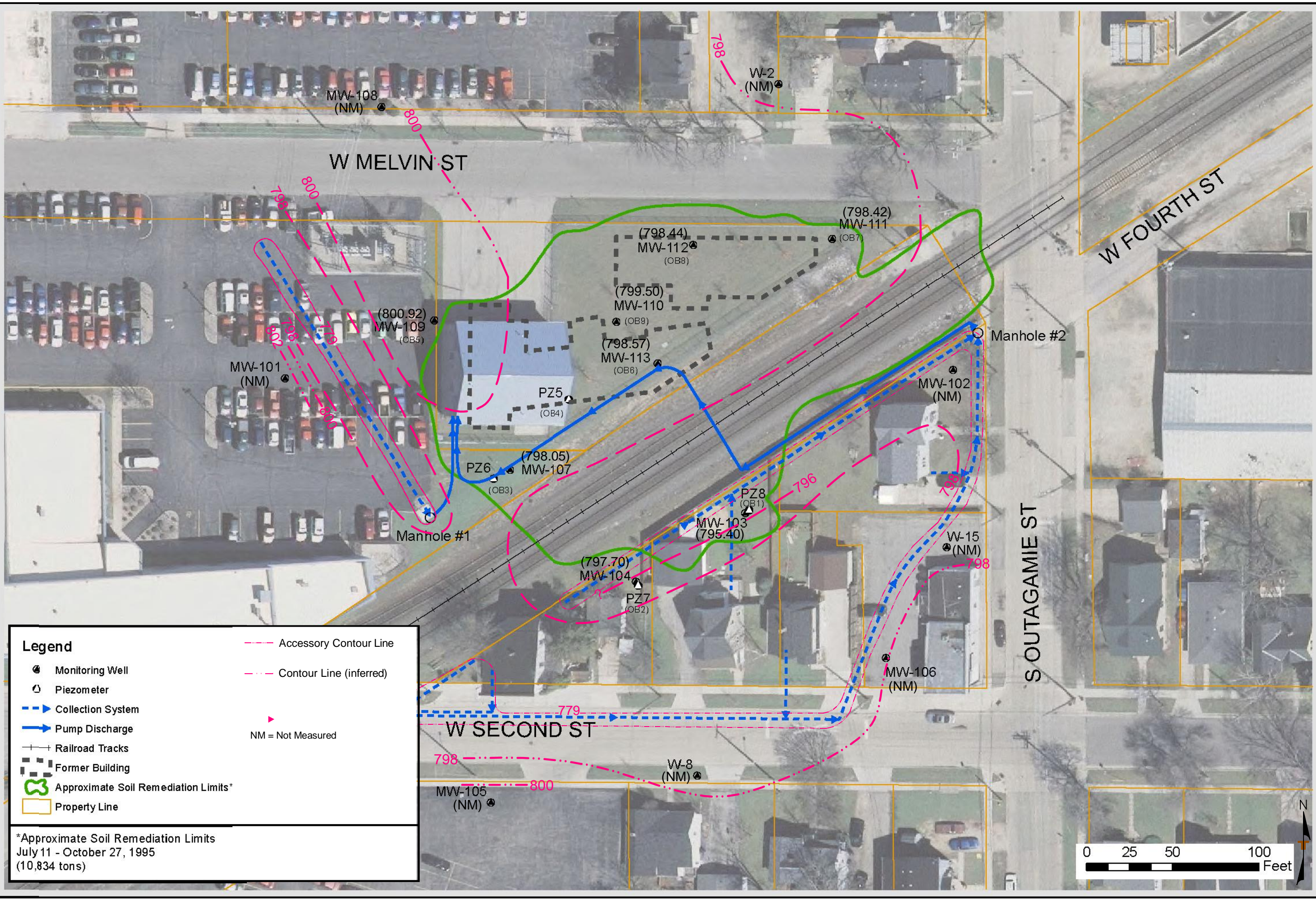
Note: Figure taken from Omni Site Detail Map, January 2011



FIGURE 3  
Groundwater Hydrographs  
N.W. Mauthe Superfund Site



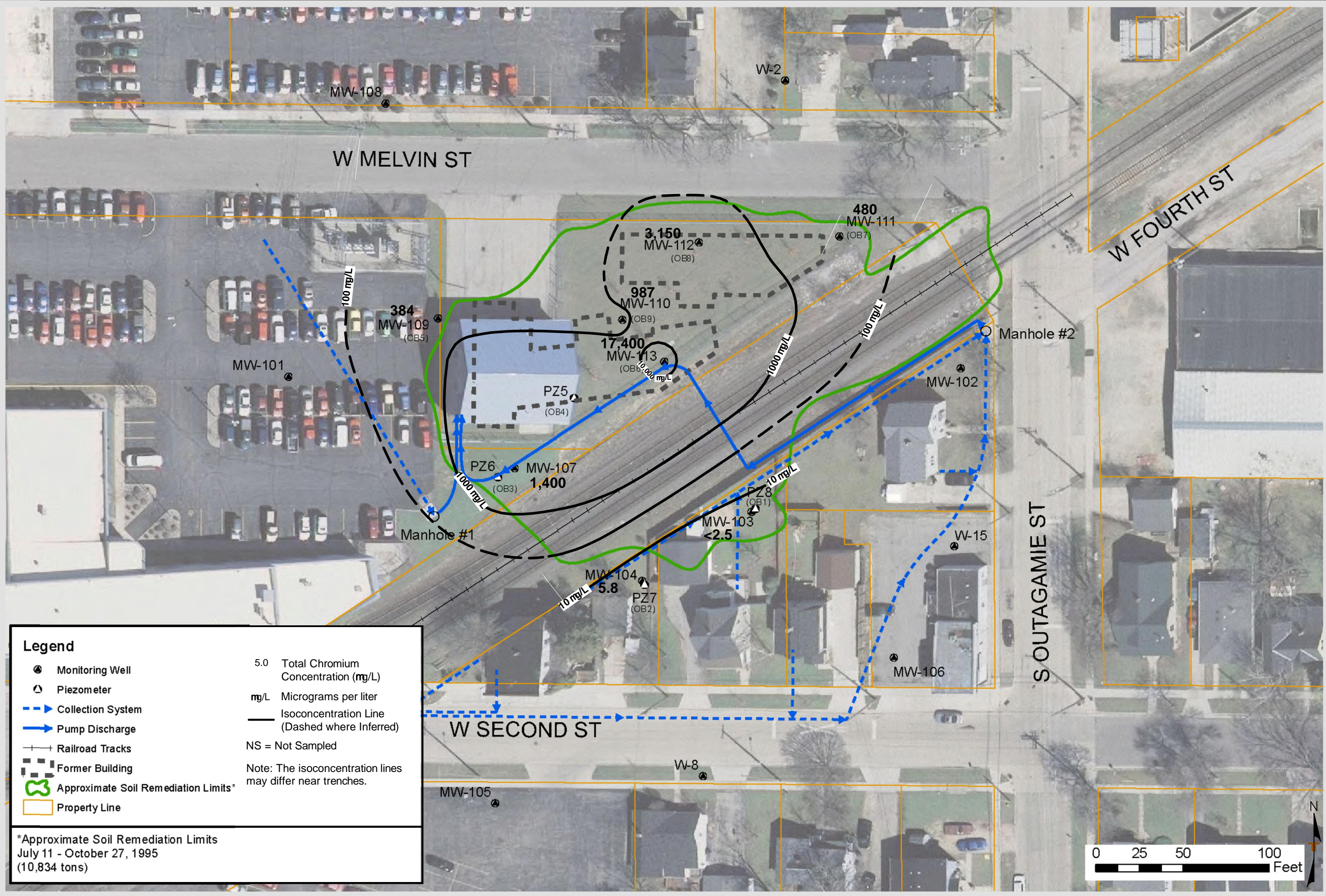




- Legend**
- Monitoring Well
  - Piezometer
  - Collection System
  - Pump Discharge
  - Railroad Tracks
  - Former Building
  - Approximate Soil Remediation Limits\*
  - Property Line
  - Accessory Contour Line
  - Contour Line (inferred)
  - NM = Not Measured

\*Approximate Soil Remediation Limits  
 July 11 - October 27, 1995  
 (10,834 tons)

FIGURE 4  
 GROUNDWATER TABLE CONTOUR MAP - OCTOBER 2017  
 N.W. MAUTHE SITE  
 725 SOUTH OUTAGAMIE STREET  
 APPLETON, WISCONSIN  
**Terracon**  
 Consulting Engineers and Scientists  
 9856 South 57th Street  
 Franklin, WI 53132  
 PH: (414) 423-0255 FAX: (414) 423-0566  
 Project No: 58117057  
 Scale: As Shown  
 File No: 58117057/C1R2  
 Date: 10/20/17  
 Project Mgr: SAH  
 Drawn By: JLM  
 Checked By: SAH  
 Approved By: SAH  
 Note: Figure taken from Omni Site Detail Map, January 2011



**Legend**

- Monitoring Well
  - Piezometer
  - Collection System
  - Pump Discharge
  - +— Railroad Tracks
  - Former Building
  - Approximate Soil Remediation Limits\*
  - Property Line
- 5.0 Total Chromium Concentration (mg/L)
  - mg/L Micrograms per liter
  - Isoconcentration Line (Dashed where Inferred)
  - NS = Not Sampled
  - Note: The isoconcentration lines may differ near trenches.

\*Approximate Soil Remediation Limits  
 July 11 - October 27, 1995  
 (10,834 tons)



Project No.	58117057
Scale	As Shown
File No.	58117057C2R1
Date	10/20/17

Note: Figure taken from Omni Site Detail Map, January 2011

FIGURE 6  
MW-103 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site

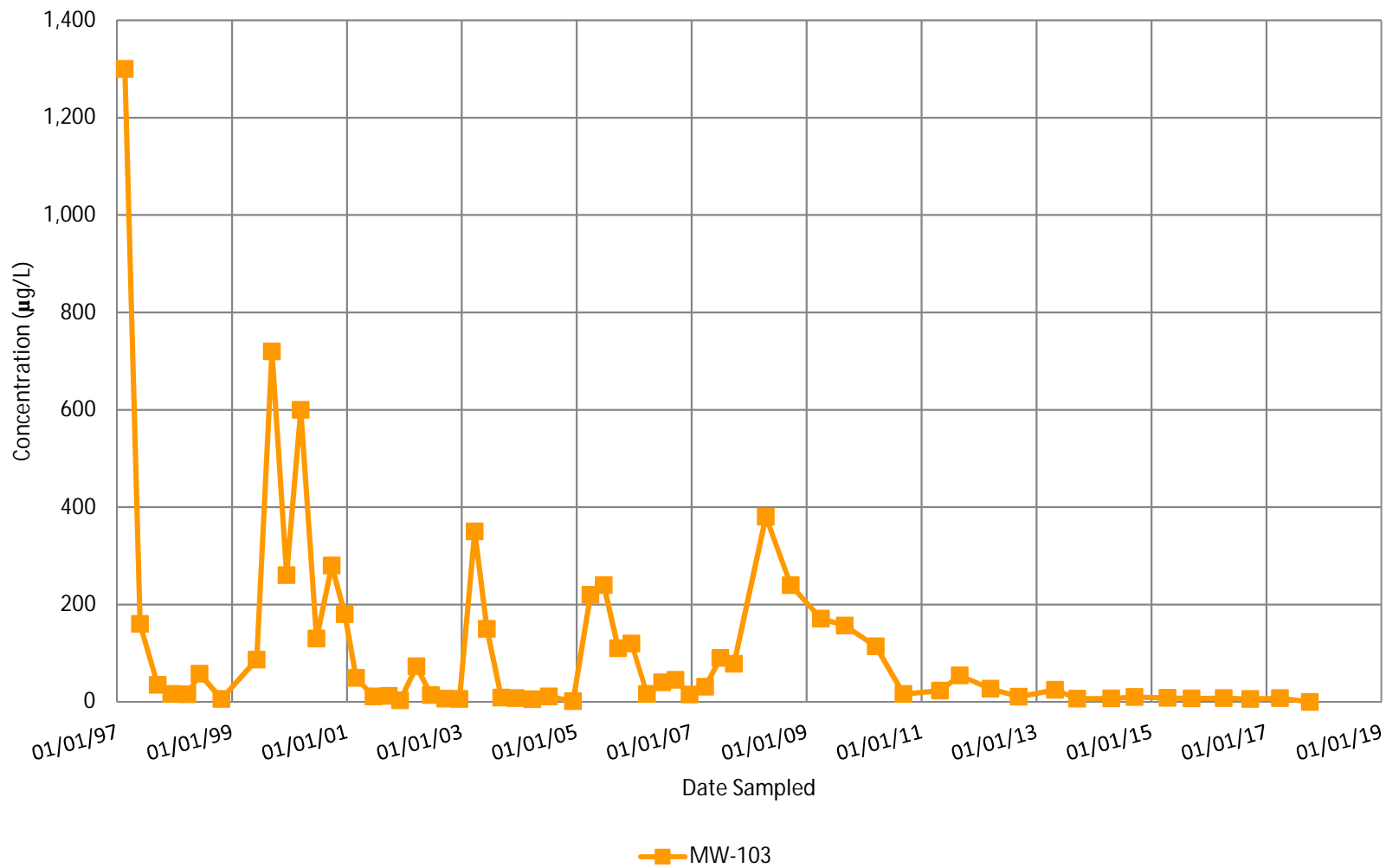


FIGURE 7  
MW-104 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site

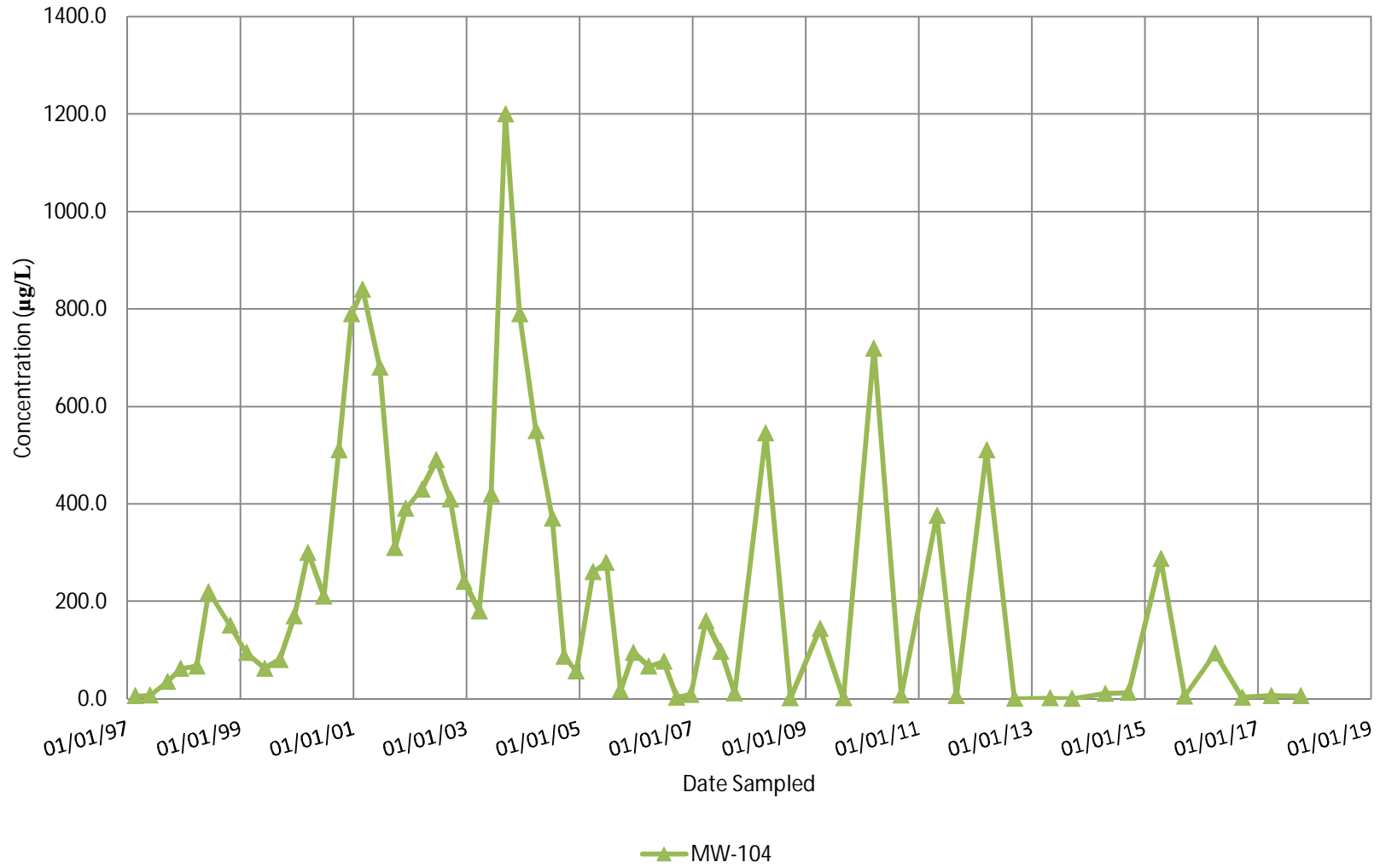


FIGURE 8  
MW-107 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site

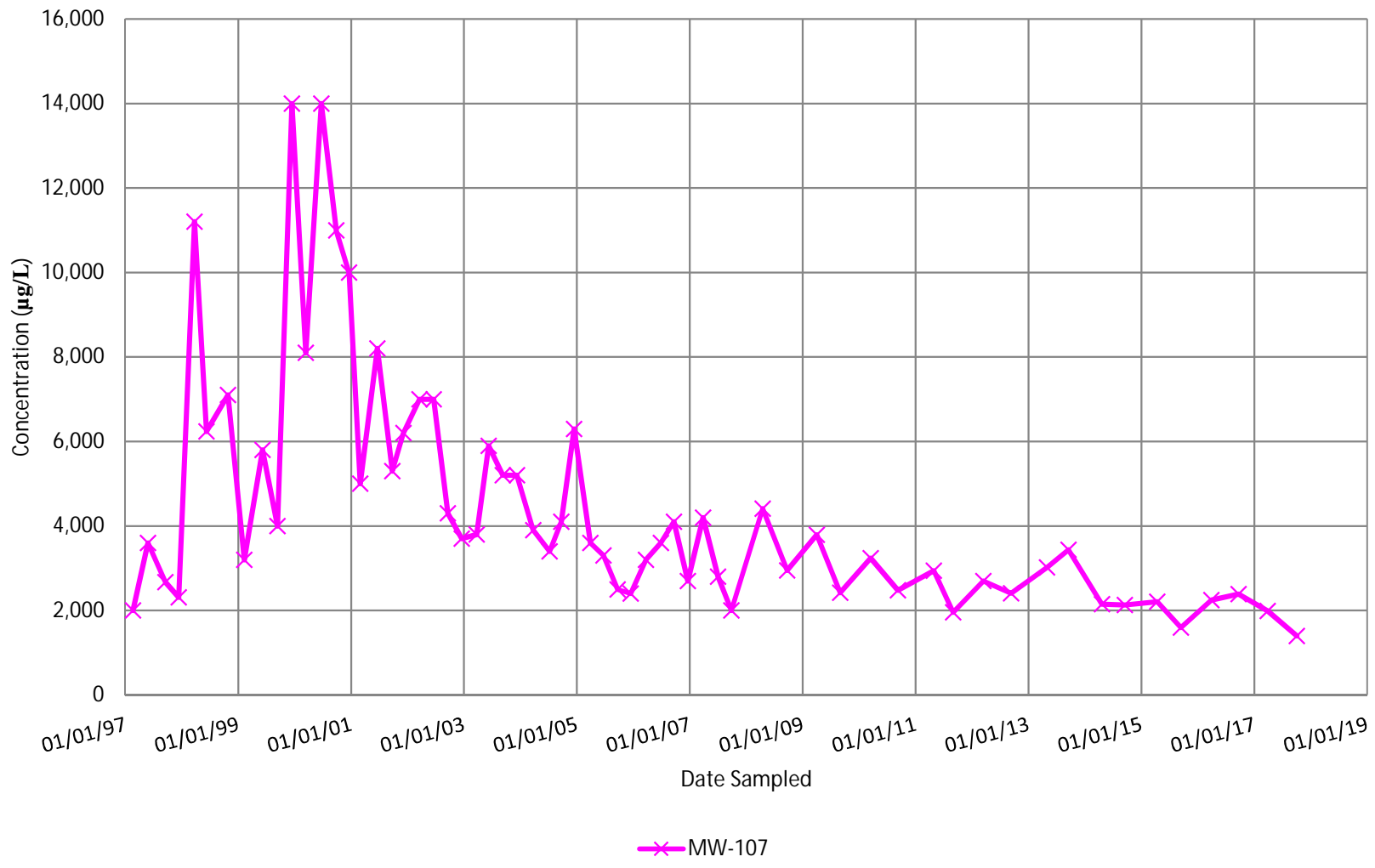


FIGURE 9  
MW-109 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site

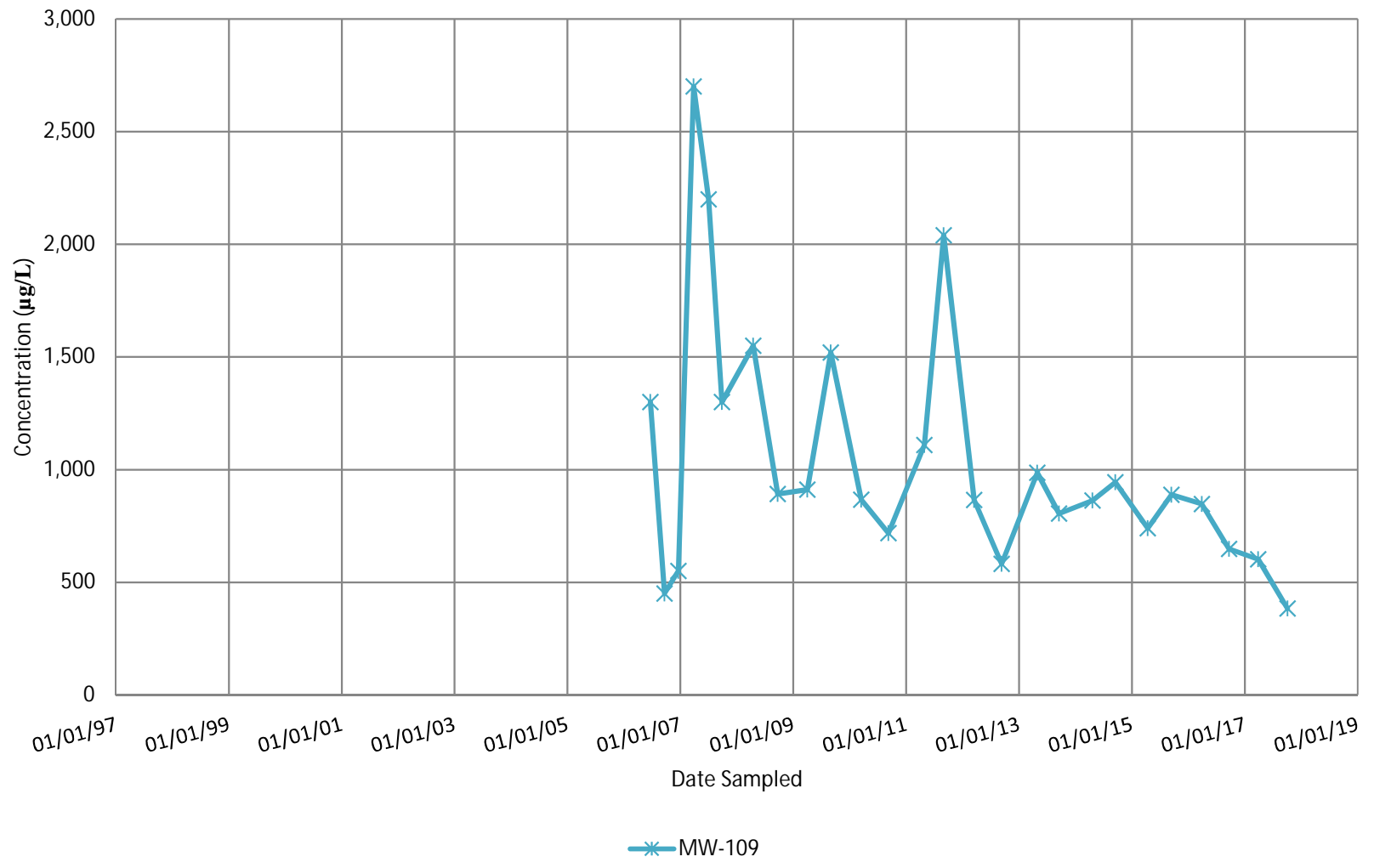


FIGURE 10  
MW-110 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site

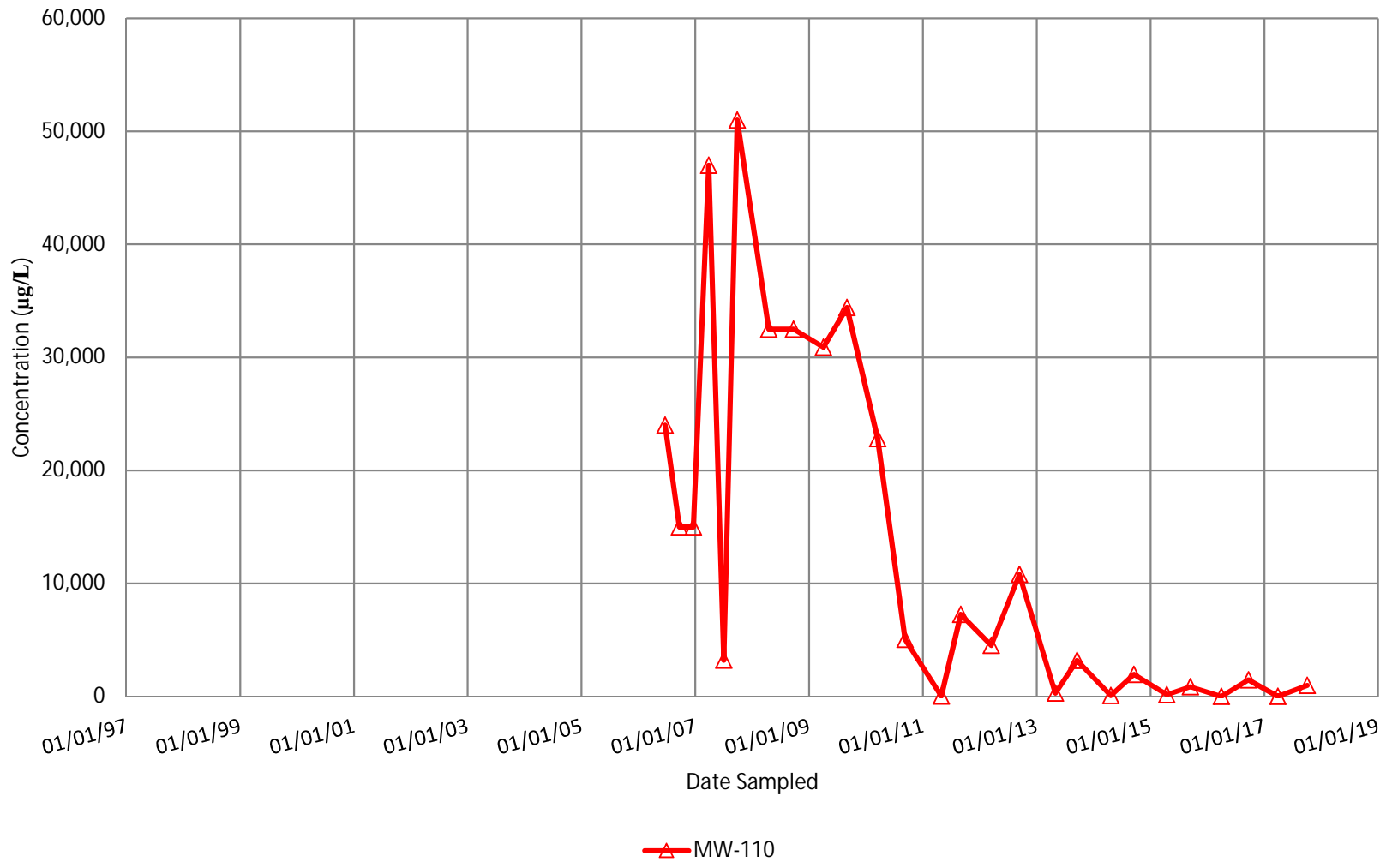


FIGURE 11  
MW-111 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site

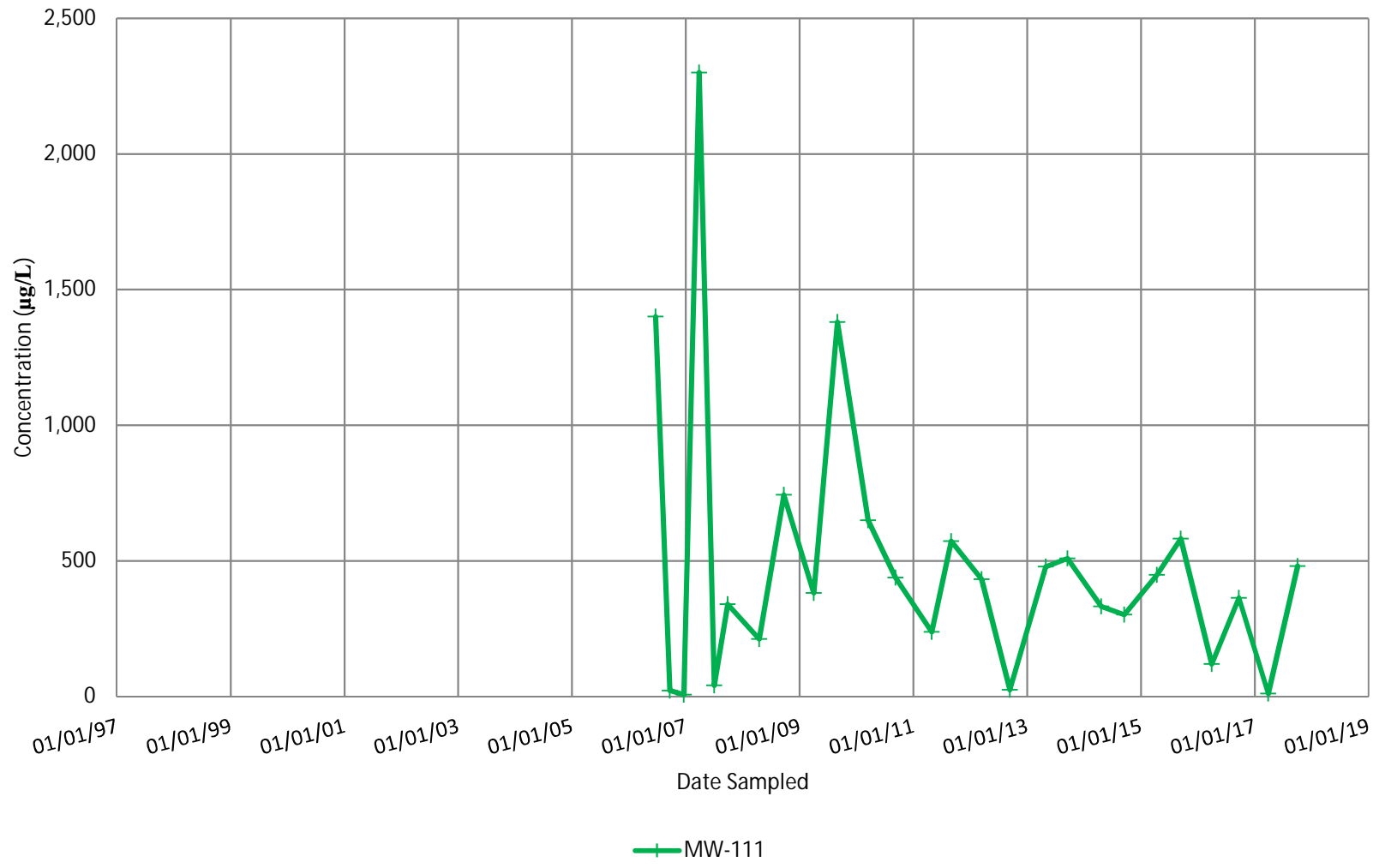




FIGURE 12  
MW-112 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site

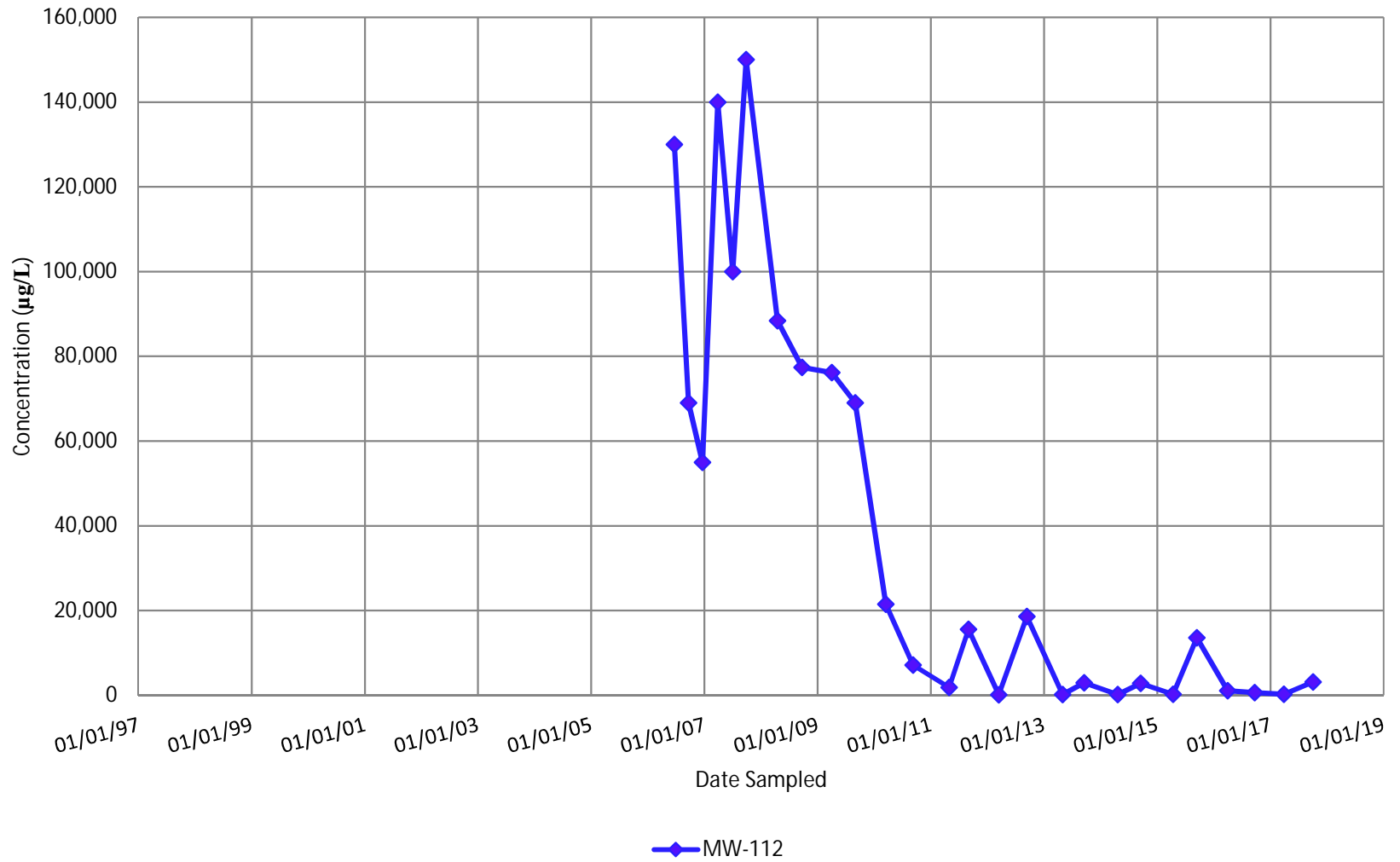


FIGURE 13  
MW-113 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site

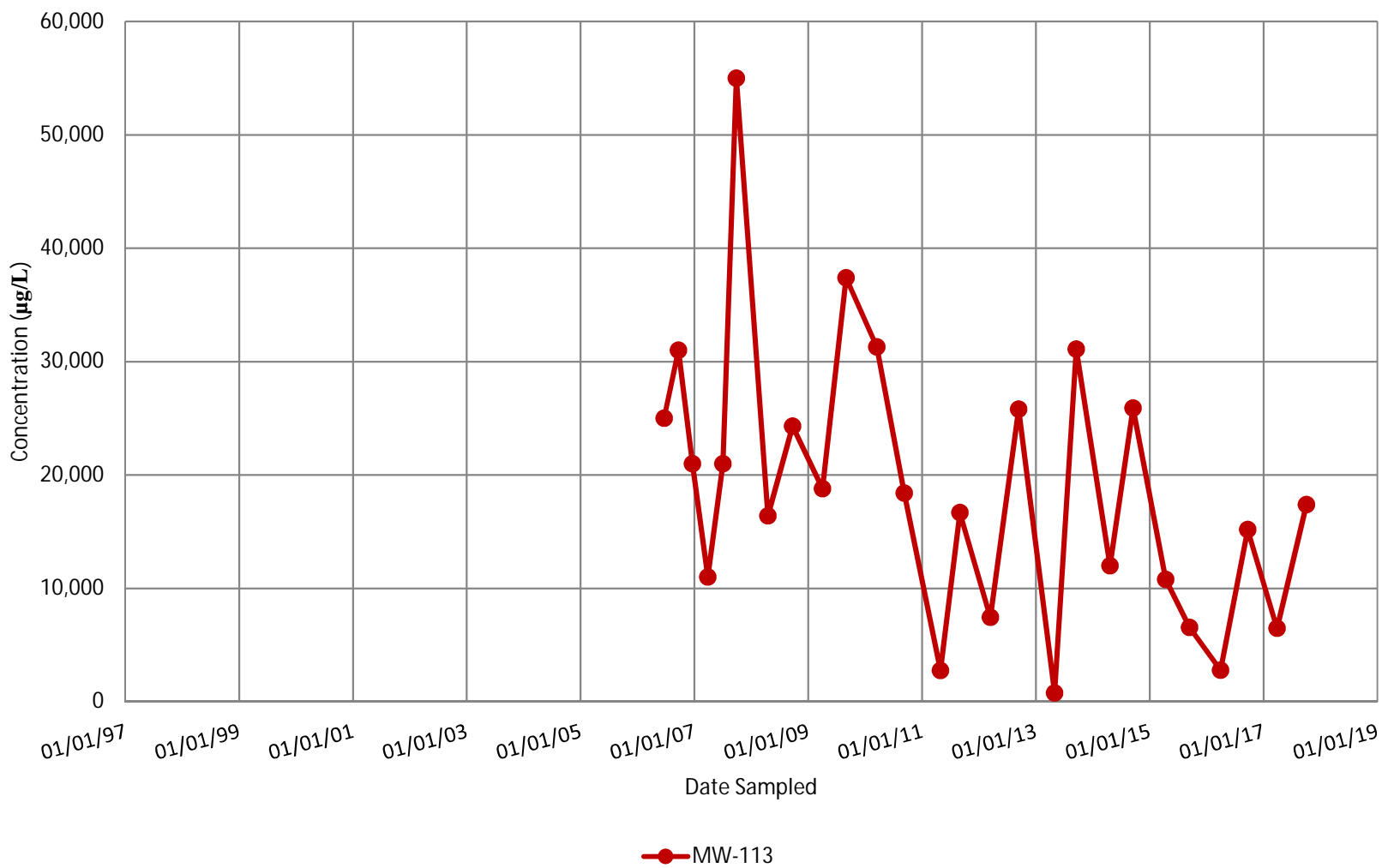


FIGURE 14  
MW-107 CVOC Concentration Trends  
N.W. Mauthe Superfund Site

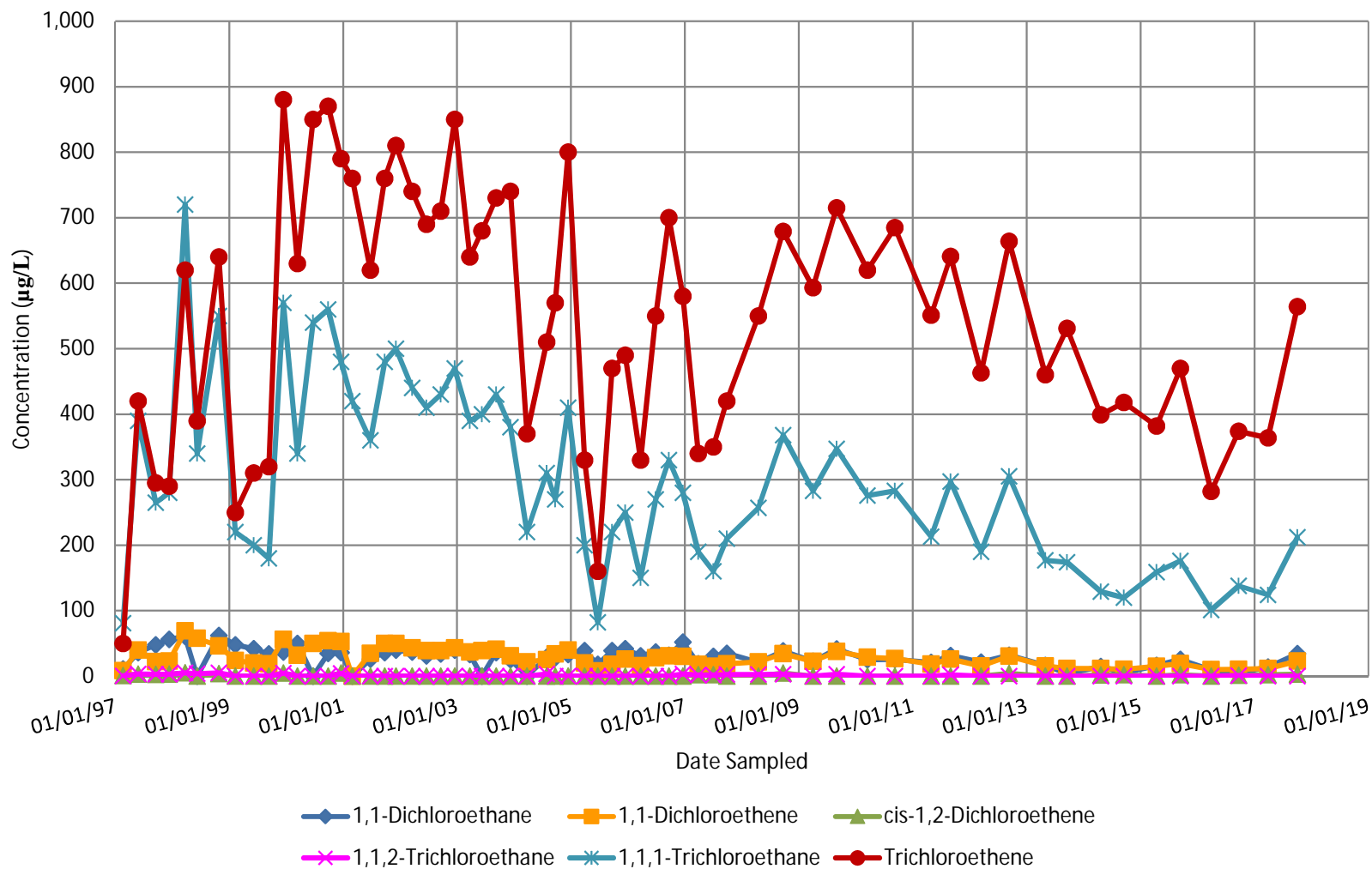


FIGURE 15  
 MW-110 CVOC Concentration Trends  
 N.W. Mauthe Superfund Site

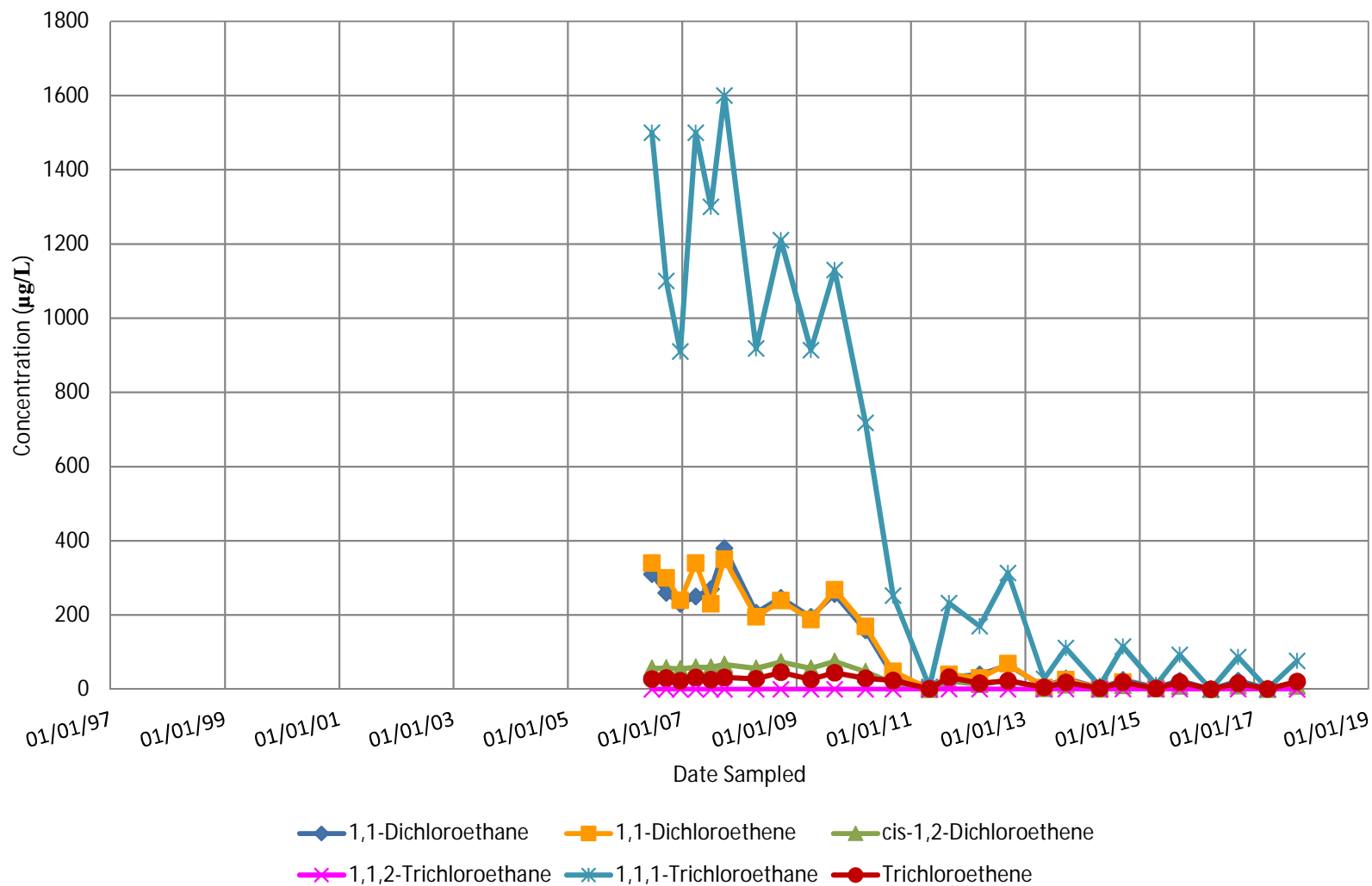
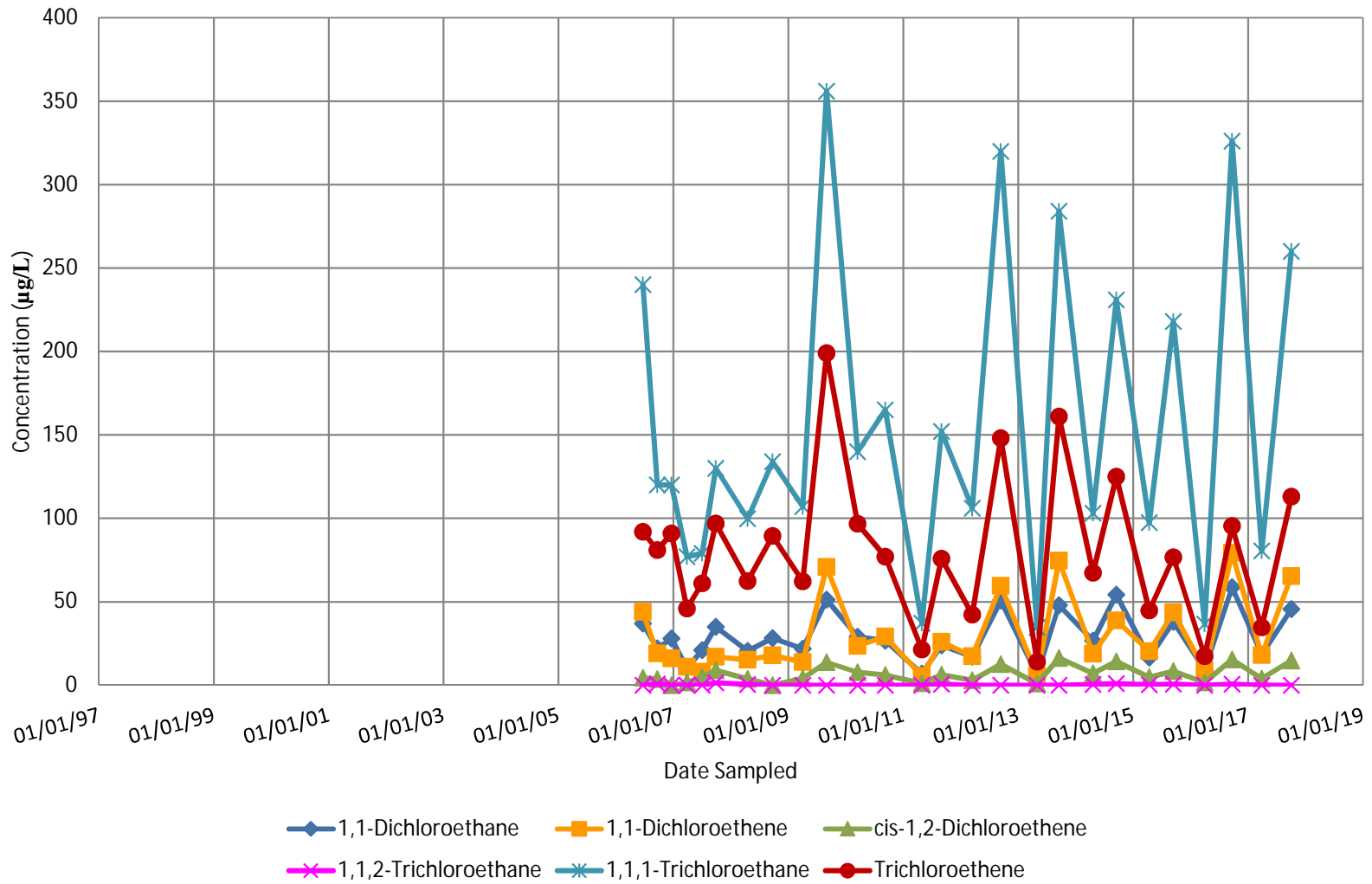


FIGURE 16  
MW-113 CVOC Concentration Trends  
N.W. Mauthe Superfund Site



## **Appendix B**

Tables 1 to 6

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
09/25/07		8,290,363											
	10/01/07	8,300,685											
10/01/07		8,301,251	10,888										
10/02/07		8,301,251	0		7.7								
10/15/07		8,324,675	23,424										
10/16/07		8,324,675	0		7.4	1.700			6.93	3.9		7.30	0.60
10/22/07		8,355,957	31,282										
10/23/07		8,355,957	0		7.5	1.500			7.04	3.75		NA	NA
10/29/07		8,370,413	14,456	October									
10/30/07		8,370,413	0	71,891	7.4	1.900			NA	NA		NA	NA
	11/01/07	8,372,575											
11/05/07		8,377,912	7,499										
11/06/07		8,377,912	0	November	8.3	1.900	1.300		7.8	4.30		8.2	0.18
11/16/07		8,386,583	8,671	21,587									
	12/01/07	8,394,162											
12/03/07		8,395,372	8,789										
12/04/07		8,395,372	0		8.6	3.100	2.500		8.4	4.60		8.6	0.16
12/12/07		8,399,522	4,150	December									
12/21/07		8,402,508	2,986	25,977									
	01/01/08	8,420,139											
01/01/08		8,420,868	18,360										
01/02/08		8,420,868	0		8.7	1.300	1.200		8.4	4.50		8.7	0.62
01/02/08		8,421,628	760										
01/10/08		8,459,333	37,705										
01/15/08		8,479,244	19,911	January									
01/25/08		8,497,063	17,819	84,612									
	02/01/08	8,504,750											
02/01/08		8,505,562	8,499										
02/03/08		8,507,408	1,846	February									
02/04/08		8,507,408	0	22,861	8.9	1.700	1.600		8.7	2.60		8.8	0.70
	03/01/08	8,527,611											
03/02/08		8,528,931	21,523	March	9.0	2.9	2.500		8.7	3.60		8.8	2.50
03/31/08		8,653,211	124,280	128,713									
	04/01/08	8,656,324											
04/01/08		8,657,629	4,418		9.0	1.6	1.530		8.7	1.60		8.9	1.45
04/01/08		8,661,298	3,669										
04/04/08		8,682,788	21,490										
04/07/08		8,697,084	14,296										
04/08/08		8,697,084	0		9.1	0.063			8.7	1.40		8.9	0.54
04/14/08		8,790,128	93,044										
04/15/08		8,790,128	0		9.1	0.36			8.7	0.90		8.8	0.17
04/15/08		8,797,710	7,582					Installed			Installed		
04/16/08		8,804,525	6,815					1,074			2,804		
04/16/08		8,806,972	2,447					1,589			3,661		
04/21/08		8,826,834	19,862					5,176			11,176		
04/22/08		8,826,834	0		9.1	0.87		5,649	8.8	0.95	12,292	8.9	0.55
04/28/08		8,860,276	33,442	April				13,291			36,802		
04/29/08		8,860,276	0	212,193	9.1	0.51		14,721	8.8	0.96	40,534	9.1	0.43
	05/01/08	8,868,517											
05/05/08		8,890,994	30,718					22,372			59,203		
05/06/08		8,890,994	0		9.1	0.95	0.679	22,844	8.7	1.14	60,259	8.8	0.62
05/12/08		8,907,573	16,579					28,018			70,853		
05/13/08		8,907,573	0		9.2	0.69		28,487	8.8	1.00	71,555	9.0	0.34
05/19/08		8,920,045	12,472					32,756			79,328		
05/20/08		8,920,045	0		9.1	0.74		33,225	8.8	0.96	80,376	8.9	0.27
05/26/08		8,929,582	9,537	May				36,557			85,277		
05/27/08		8,929,582	0	66,866	9.0	0.60		37,025	8.9	1.04	85,979	8.9	0.16
	06/01/08	8,935,384											

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
06/02/08		8,936,965	7,383					39,411			90,202		
06/03/08		8,936,965	0		9.3	0.90	0.824	39,876	9.0	1.06	90,901	9.0	0.54
06/09/08		8,951,078	14,113					43,187			101,102		
06/10/08		8,951,078	0		9.2	0.85		44,118	9.0	1.53	106,505	9.0	0.38
06/11/08		8,960,258	9,180					45,176			112,396		
06/16/08		8,999,813	39,555					52,865			140,673		
06/16/08		8,999,813	0					52,865			141,398		
06/17/08		8,999,813	0		9.2	1.4		53,808	9.1	3.40	143,560	9.1	0.33
06/18/08		9,007,718	7,905					54,790			146,825		
06/23/08		9,016,923	9,205					57,605			153,557		
06/24/08		9,016,923	0		9.3	0.20		58,074	9.1	2.50	154,613	9.0	0.14
06/30/08		9,026,850	9,927	<b>June</b>				61,392			160,227		
06/30/08		9,026,850	0	<b>91,466</b>				61,392			160,573		
	07/01/08	9,026,850											
07/01/08		9,026,850	0		9.3	1.4	1.290	61,861	9.0	2.45	161,266	9.1	0.58
07/07/08		9,035,952	9,102					64,701			166,481		
07/08/08		9,035,952	0		9.4	1.2		65,168	9.1	1.90	167,518	9.2	1.05
07/10/08		9,041,071	5,119					66,138			170,315		
07/14/08		9,054,932	13,861					68,973			182,057		
07/15/08		9,054,932	0		9.4	0.82		69,444	9.0	1.80	184,517	9.2	0.54
07/21/08		9,083,663	28,731					74,198			206,929		
07/22/08		9,083,663	0		9.4	0.74		75,898	9.2	2.52	211,453	9.2	0.31
07/25/08		9,114,297	30,634					81,242			230,374		
07/28/08		9,121,075	6,778					83,136			235,668		
07/29/08		9,121,075	0		7.4	0.70		83,609	7.2	3.30	237,073	7.2	0.30
07/29/08		9,123,409	2,334	<b>July</b>				83,646			237,455		
	08/01/08	9,127,730		<b>100,880</b>									
08/04/08		9,137,140	13,731					87,426			248,221		
08/05/08		9,137,140	0		7.6	1.30	1.260	87,426	7.2	2.72	250,342	7.2	0.41
08/05/08		9,141,581	4,441					87,938			252,120		
08/09/08		9,151,886	10,305					90,785			260,213		
08/11/08		9,154,723	2,837					91,732			262,298		
08/12/08		9,154,723	0		7.5	1.2		92,206	7.2	2.45	263,337	7.3	0.25
08/13/08		9,157,388	2,665					92,710			264,058		
08/18/08		9,162,704	5,316					94,604			267,897		
08/19/08		9,162,704	0		7.5	0.98		95,077	7.2	2.08	268,595	7.2	0.20
08/19/08		9,163,932	1,228					95,106			268,623		
08/21/08		9,166,109	2,177					96,049			270,020		
08/24/08		9,168,274	2,165					96,993			271,417		
08/26/08		9,168,274	0	<b>August</b>	7.5	1.1		97,465	7.1	2.25	272,112	7.1	0.22
	09/01/08	9,173,323		<b>45,593</b>									
09/01/08		9,173,586	5,312					99,390			274,587		
09/02/08		9,173,586	0		7.6	1.4	1.290	99,863	7.3	2.50	274,936	7.3	0.21
09/02/08		9,174,445	859					99,894			274,962		
09/06/08		9,176,960	2,515					100,837			276,718		
09/08/08		9,176,960	0		7.5	1.3		101,310	7.2	2.25	277,071	7.3	0.16
09/15/08		9,182,218	5,258					103,257			279,911		
09/16/08		9,182,218	0		7.6	1.3		103,731	7.3	2.60	280,611	7.6	0.37
09/18/08		9,185,245	3,027					104,715			281,689		
09/22/08		9,187,538	2,293					105,663			283,095		
09/23/08		9,187,538	0		7.5	1.6		106,137	7.3	3.05	283,475	7.5	0.17
09/28/08		9,191,553	4,015					107,560			285,589		
09/30/08		9,191,553	0	<b>September</b>	7.6	1.8		108,035	7.4	3.70	285,942	7.4	0.18
	10/01/08	9,192,867		<b>19,545</b>									



**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
10/05/08		9,195,280	3,727					109,500			287,383		
10/07/08		9,195,280	0		7.7	2.2	2.000	109,975	7.4	4.38	288,093	7.8	0.12
10/07/08		9,196,521	1,241					110,012			288,124		
10/10/08		9,200,017	3,496					110,965			290,943		
10/12/08		9,200,017	0					111,919			291,644		
10/14/08		9,200,017	0		7.8	1.9		112,396	7.5	3.48	292,698	7.8	0.27
10/16/08		9,204,404	4,387					112,906			293,436		
10/18/08		9,206,201	1,797					113,861			294,504		
10/21/08		9,206,201	0		7.8			114,337	7.5	4.02	295,563	7.9	0.28
10/22/08		9,208,980	2,779					114,848			296,250		
10/26/08		9,211,601	2,621					116,279			297,676		
10/28/08		9,211,601	0	<b>October</b>	7.9	2.0		116,756	7.7	3.96	298,743	8.2	0.26
	11/01/08	9,214,938		<b>22,071</b>									
11/01/08		9,215,379	3,778					117,743			300,201		
11/04/08		9,215,379	0		8.0	2.1	1.880	118,698	7.7	4.32	301,273	8.1	0.20
11/04/08		9,217,467	2,088					118,732			301,305		
11/07/08		9,219,330	1,863					119,685			302,376		
11/10/08		9,220,422	1,092					120,162			303,090		
11/20/08		9,229,031	8,609					123,506			309,112		
11/24/08		9,231,935	2,904					124,939			310,833		
11/24/08		9,232,260	325					124,939			311,189		
11/26/08		9,233,464	1,204					125,702			311,660		
11/28/08		9,234,926	1,462	<b>November</b>				126,192			312,744		
	12/01/08	9,234,926		<b>19,988</b>									
12/02/08		9,234,926	0		8.2	2.3	2.190	127,656	7.8	3.57	314,118	8.3	0.18
12/12/08		9,242,670	7,744					130,122			316,912		
12/17/08		9,247,587	4,917	<b>December</b>				131,563			320,808		
	01/01/09	9,266,230		<b>31,304</b>									
01/02/09		9,268,140	20,553					136,435			338,229		
01/06/09		9,268,140	0		7.8	2.5	2.430	137,894	7.7	4.48	341,351	7.8	1.05
01/12/09		9,277,419	9,279	<b>January</b>				139,384			344,897		
	02/01/09	9,287,182		<b>20,952</b>									
02/01/09		9,287,326	9,907					143,256			351,798		
02/03/09		9,287,326	0		7.8	3.3	2.900	143,738	7.9	4.69	352,143	8.2	0.34
02/05/09		9,288,848	1,522	<b>February</b>				143,772			352,912		
	03/01/09	9,334,332		<b>47,151</b>									
03/01/09		9,335,249	46,401					153,077			393,568		
03/03/09		9,335,249	0		7.6	2.4	1.970	153,561	7.9	4.24	394,973	8.2	0.87
03/11/09		9,355,734	20,485					156,519			412,282		
03/30/09		9,463,572	107,838					182,357			500,471		
03/31/09		9,463,572	0	<b>March</b>				183,323			501,935		
	04/01/09	9,467,680		<b>133,348</b>									
04/01/09		9,469,538	5,966					184,290			504,856		
04/03/09		9,478,305	8,767					187,194			511,375		
04/06/09		9,485,542	7,237					189,607			516,807		
04/07/09		9,485,542	0		7.7	0.84	0.730	190,569	7.9	1.14	518,251	8.1	0.52
04/13/09		9,498,358	12,816					194,432			525,799		
04/14/09		9,498,358	0		7.7	0.59		194,908	8.0	1.20	525,799	8.2	0.27
04/20/09		9,507,740	9,382					198,262			532,295		
04/21/09		9,507,740	0		7.8	1.0		198,262	8.0	0.96	533,364	8.3	1.74
04/27/09		9,545,303	37,563					208,646			561,846		
04/28/09		9,545,303	0		8.0	1.2		210,663	7.7	1.89	566,157	7.5	0.28

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	05/01/09	9,568,209		April									
05/01/09		9,574,025	28,722	100,528				217,567			582,471		
05/04/09		9,582,624	8,599					220,929			588,270		
05/05/09		9,582,624	0		7.6	0.76	0.724	221,884	8.0	1.29	589,714	8.0	0.33
05/11/09		9,599,171	16,547					227,170			599,566		
05/12/09		9,599,171	0		8.0	0.89		228,124	7.6	0.84	600,996	7.9	0.24
05/18/09		9,613,720	14,549					232,921			609,305		
05/19/09		9,613,720	0		7.4	0.79		233,874	7.0	0.84	610,378	7.2	0.38
05/19/09		9,615,798	2,078					233,908			610,421		
05/19/09		9,616,122	324					233,908			610,775		
05/25/09		9,624,219	8,097					237,697			615,786		
05/26/09		9,624,219	0		7.3	0.58		238,168	7.1	1.08	616,149	7.0	0.16
	06/01/09	9,650,519		May									
06/01/09		9,652,323	28,104	82,310				245,914			637,378		
06/02/09		9,652,323	0		7.3	0.23	0.648	246,871	6.9	1.05	638,835	7.2	0.26
06/03/09		9,658,104	5,781					248,350			641,072		
06/15/09		9,701,735	43,631					261,249			674,466		
	07/01/09	9,727,520		June									
07/01/09		9,727,975	26,240	77,001				272,082			691,914		
07/05/09		9,732,032	4,057					273,967			694,431		
07/07/09		9,732,032	0		7.4	0.96	0.878	274,443	7.1	2.20	695,508	7.1	0.20
07/20/09		9,742,289	10,257					278,743			700,527		
	08/01/09	9,748,231		July									
08/03/09		9,749,397	7,108	20,712				282,543			704,414		
08/04/09		9,749,397	0		7.5	1.9	1.680	283,019	7.1	2.80	704,768	7.3	0.14
08/08/09		9,752,139	2,742					284,005			706,115		
08/08/09		9,753,763	1,624					284,480			707,282		
08/09/09		9,757,508	3,745					284,962			710,677		
08/10/09		9,761,572	4,064					285,930			714,131		
08/10/09		9,762,328	756					286,411			714,491		
08/12/09		9,765,851	3,523					287,368			717,355		
08/13/09		9,767,253	1,402					287,846			718,430		
08/17/09		9,771,256	4,003					289,758			720,916		
08/30/09		9,785,737	14,481					295,976			730,538		
	09/01/09	9,787,043		August									
09/01/09		9,787,352	1,615	38,811	7.6	1.6	1.320	296,492	7.1	2.85	731,650	7.4	0.53
09/10/09		9,794,060	6,708					299,850			735,572		
09/21/09		9,800,194	6,134					303,204			738,803		
09/22/09		9,800,194	0					303,684			739,163		
	10/01/09	9,806,949		September									
10/01/09		9,807,491	7,297	19,906				306,569			743,395		
10/05/09		9,811,856	4,365					308,500			746,224		
10/06/09		9,811,856	0		6.9	1.8	1.700	308,983	6.8	2.48	746,576	7.1	0.55
10/15/09		9,827,819	15,963					314,838			757,329		
10/18/09		9,830,464	2,645					316,288			758,757		
	11/01/09	9,871,202		October									
11/02/09		9,875,106	44,642	64,253				329,981			793,417		
11/03/09		9,875,106	0		7.4	1.2	1.150	330,961	7.0	2.60	795,595	7.2	0.46
11/04/09		9,880,551	5,445					331,974			797,084		
11/05/09		9,882,809	2,258					332,950			798,526		
11/11/09		9,891,712	8,903					337,309			803,889		
11/12/09		9,893,927	2,215					338,274			805,324		
11/16/09		9,896,880	2,953					339,720			807,132		
11/17/09		9,897,695	815					340,200			807,495		
11/20/09		9,899,892	2,197					341,164			808,946		
11/30/09		9,914,595	14,703					346,476			819,664		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	12/01/09	9,914,595		<b>November</b>									
12/01/09		9,914,595	0	43,393	7.6	1.7	1.500	347,446	7.3	2.25	820,740	7.8	0.67
12/15/09		9,931,024	16,429					354,237			829,781		
12/18/09		9,933,254	2,230					355,200			831,213		
	01/01/10	9,956,004		<b>December</b>									
01/03/10		9,960,070	26,816	41,409				362,443			853,235		
01/05/10		9,960,070	0		6.9	2.3	2.220	362,924	7.2	5.36	855,045	7.2	0.68
01/14/10		9,969,979	9,909					365,847			860,488		
01/18/10		9,972,503	2,524					366,807			862,304		
01/31/10		9,991,034	18,531					370,664			878,832		
	02/01/10	9,991,034		<b>January</b>									
02/02/10		9,991,034	0	35,030	7.4	1.6	1.460	371,145	7.2	4.05	880,637	7.2	0.46
02/03/10		9,994,392	3,358					371,664			881,364		
02/16/10		10,002,996	8,604					374,543			887,937		
02/28/10		10,009,542	6,546					376,928			892,655		
	03/01/10	10,009,542		<b>February</b>									
03/02/10		10,009,542	0	18,508	7.6	1.6	1.340	376,928	7.4	2.70	893,732	7.4	1.41
03/06/10		10,015,341	5,799					377,919			898,085		
03/13/10		10,048,616	33,275					383,764			927,938		
03/17/10		10,065,891	17,275					388,140			942,069		
03/23/10		10,077,601	11,710					392,478			950,481		
03/31/10		10,088,487	10,886					396,786			958,091		
	04/01/10	10,088,725		<b>March</b>									
04/01/10		10,088,817	330	79,183				396,786			958,456		
04/04/10		10,092,465	3,648					398,207			961,014		
04/06/10		10,092,465	0		7.4	1.3	1.180	399,166	7.2	2.00	962,110	7.2	0.20
04/19/10		10,151,166	58,701					416,846			1,005,028		
	05/01/10	10,189,439		<b>April</b>									
05/03/10		10,196,869	45,703	100,715				432,284			1,038,553		
05/04/10		10,196,869	0		7.3	0.98	0.902	433,730	7.1	1.12	1,040,370	7.2	0.37
05/17/10		10,258,463	61,594					453,256			1,083,344		
06/01/10		10,294,510	36,047					466,168			1,109,480		
	06/01/10	10,294,510		<b>May</b>									
06/01/10		10,294,510	0	105,071	7.6	0.85	0.762	467,117	7.2	1.44	1,110,569	7.3	0.28
06/21/10		10,372,589	78,079					488,138			1,171,628		
06/30/10		10,400,340	27,751					495,720			1,193,925		
06/30/10		10,400,889	549					496,193			1,194,286		
	07/01/10	10,401,954		<b>June</b>									
07/01/10		10,402,536	1,647	107,444				496,664			1,195,375		
07/05/10		10,409,431	6,895					499,493			1,200,058		
07/06/10		10,409,431	0		7.3	1.1	0.988	499,963	7.3	1.92	1,200,783	7.5	0.41
07/12/10		10,426,614	17,183					504,247			1,213,873		
07/21/10		10,506,902	80,288					525,545			1,275,358		
07/22/10		10,515,567	8,665					527,488			1,282,668		
07/23/10		10,532,459	16,892					531,679			1,283,332		
	08/01/10	10,586,662		<b>July</b>									
08/02/10		10,594,781	62,322	184,709				549,129			1,283,332		
08/03/10		10,594,781	0		7.8	0.54	0.515	549,601	7.4	1.20	1,283,332	7.5	0.20
08/04/10		10,599,046	4,265					550,588			1,283,332		
08/04/10		10,599,046	0					550,588			1,283,358		
08/04/10		10,599,046	0					550,588			1,283,358		
08/05/10		10,600,937	1,891					551,531			1,284,413		
08/06/10		10,602,372	1,435					552,002			1,285,481		
08/07/10		10,604,242	1,870					552,943			1,286,560		
08/12/10		10,621,705	17,463					558,442			1,299,650		
08/18/10		10,644,322	22,617					565,095			1,317,296		

**TABLE 1  
Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	09/01/10	10,664,511		<b>August</b>									
09/06/10		10,672,363	28,041	<b>77,849</b>				575,879			1,336,978		
09/07/10		10,672,363	0		7.7	0.64	0.588	575,879	7.2	1.28	1,337,698	7.4	0.19
09/09/10		10,675,017	2,654					576,846			1,338,823		
09/09/10		10,675,348	331					576,846			1,339,184		
09/15/10		10,681,923	6,575					579,656			1,343,454		
09/20/10		10,688,747	6,824					582,004			1,348,431		
09/28/10		10,712,898	24,151					588,142			1,368,075		
09/28/10		10,713,225	327					588,142			1,368,432		
	10/01/10	10,717,803		<b>September</b>									
10/01/10		10,718,374	5,149	<b>53,291</b>				590,497			1,371,651		
10/03/10		10,721,339	2,965					591,909			1,373,451		
10/05/10		10,721,339	0		7.6	0.80	0.763	592,849	7.3	1.32	1,374,902	7.5	0.10
10/15/10		10,733,086	11,747					597,097			1,380,767		
10/17/10		10,734,957	1,871					598,030			1,381,848		
10/31/10		10,760,102	25,145					605,549			1,401,547		
	11/01/10	10,760,102		<b>October</b>									
11/02/10		10,760,102	0	<b>42,299</b>	7.8	0.65	0.639	606,486	7.6	1.44	1,403,369	7.9	0.20
11/11/10		10,773,294	13,192					611,203			1,410,005		
11/14/10		10,775,484	2,190					612,137			1,411,471		
11/17/10		10,778,424	2,940					613,539			1,413,301		
11/28/10		10,790,717	12,293					618,231			1,422,421		
	12/01/10	10,794,632		<b>November</b>									
12/04/10		10,800,013	9,296	<b>34,530</b>				622,006			1,428,648		
12/07/10		10,800,013	0		7.6	1.0	0.989	623,423	7.8	1.80	1,430,482	7.9	0.24
12/15/10		10,811,058	11,045					627,228			1,435,313		
12/20/10		10,814,659	3,601					628,621			1,437,887		
12/23/10		10,816,825	2,166					629,558			1,439,358		
	01/01/11	10,827,569		<b>December</b>									
01/02/11		10,829,348	12,523	<b>32,938</b>				632,850			1,449,967		
01/04/11		10,829,348	0		8.0	1.6	1.500	633,803	7.9	5.31	1,452,901	8.0	0.53
01/17/11		10,845,438	16,090					638,076			1,462,175		
01/28/11		10,852,203	6,765					640,437			1,467,352		
01/30/11		10,853,317	1,114					640,910			1,468,093		
	02/01/11	10,853,317		<b>January</b>									
02/01/11		10,853,317	0	<b>25,748</b>	7.9	2.1	2.100	641,382	7.7	4.90	1,468,834	7.6	0.18
02/02/11		10,854,899	1,582					641,426			1,469,273		
02/14/11		10,859,963	5,064					643,318			1,472,988		
02/21/11		10,876,100	16,137					646,167			1,488,233		
02/21/11		10,876,705	605					646,167			1,488,978		
02/24/11		10,880,277	3,572					647,105			1,491,974		
02/27/11		10,883,601	3,324					648,128			1,494,713		
	03/01/11	10,883,601		<b>February</b>									
03/01/11		10,883,601	0	<b>30,284</b>	7.8	1.8	1.530	648,594	7.7	4.95	1,496,572	7.8	0.52
03/21/11		10,957,602	74,001					664,834			1,558,957		
	04/01/11	11,023,291		<b>March</b>									
04/04/11		11,045,838	88,236	<b>139,690</b>				687,442			1,632,177		
04/05/11		11,045,838	0		8.0	0.40	0.380	688,903	7.8	1.10	1,637,351	7.7	0.21
04/16/11		11,138,592	92,754					710,138			1,708,997		
04/26/11		11,216,566	77,974					731,830			1,771,918		
04/29/11		11,258,391	41,825					743,289			1,804,105		
04/29/11		11,262,451	4,060					744,757			1,807,043		
	05/02/11	11,274,169		<b>April</b>									
05/02/11		11,277,586	15,135	<b>250,878</b>				750,559			1,818,009		
05/03/11		11,277,586	0		7.8	0.37	0.338	751,514	7.6	0.68	1,819,601	7.8	0.20
05/16/11		11,310,055	32,469					763,336			1,841,085		
05/17/11		11,311,520	1,465					763,807			1,842,263		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	06/01/11	11,344,383		May									
06/02/11		11,347,664	36,144	70,214				778,512			1,868,238		
06/06/11		11,354,057	6,393					781,832			1,872,152		
06/07/11		11,354,057	0		7.7	0.46	0.447	782,305	7.6	0.85	1,872,545	7.7	0.14
06/17/11		11,368,867	14,810					788,961			1,881,915		
06/20/11		11,373,134	4,267					790,860			1,884,626		
	07/01/11	11,419,112		June									
07/04/11		11,434,679	61,545	74,729				811,146			1,932,424		
07/05/11		11,434,679	0		7.9	0.78	0.752	811,621	7.6	1.50	1,933,199	7.5	0.19
07/18/11		11,450,616	15,937					818,915			1,942,544		
07/27/11		11,470,412	19,796					825,753			1,958,375		
07/28/11		11,473,213	2,801					826,666			1,960,688		
	08/01/11	11,483,192		July									
08/01/11		11,484,004	10,791	64,080				830,795			1,968,801		
08/02/11		11,484,004	0		7.9	0.86	0.800	831,711	7.5	1.26	1,970,342	7.5	0.42
08/04/11		11,492,474	8,470					834,025			1,975,014		
08/05/11		11,493,370	896					834,506			1,975,820		
08/15/11		11,509,618	16,248					841,800			1,986,618		
08/31/11		11,524,004	14,386					849,495			1,994,794		
	09/01/11	11,524,179		August									
09/01/11		11,524,431	427	40,987				849,948			1,994,794		
09/03/11								850,953			1,997,262		
09/05/11		11,533,935	9,504					852,322			2,003,014		
09/06/11		11,533,935	0		8.0	1.2	1.180	852,778	7.7	1.65	2,004,161	7.7	0.55
09/08/11		11,538,054	4,119					854,174			2,005,726		
09/19/11		11,547,336	9,282					859,158			2,011,134		
09/20/11		11,548,416	1,080					859,611			2,011,902		
09/28/11		11,562,993	14,577					863,696			2,024,247		
	10/01/11	11,568,104		September									
10/03/11		11,572,412	9,419	43,925				867,344			2,031,123		
10/04/11		11,574,566	2,154					868,253			2,032,650		
10/05/11		11,574,566	0					868,707			2,033,029		
10/06/11		11,574,566	0					869,161			2,033,785		
10/08/11		11,579,097	4,531					870,519			2,036,082		
10/10/11		11,579,097	0		7.5	1.2	1.090	870,972	7.4	2.15	2,036,082	7.5	0.22
10/26/11		11,603,315	24,218					879,056			2,054,141		
10/30/11		11,606,358	3,043					880,416			2,055,759		
	11/01/11	11,607,509		October									
11/01/11		11,608,102	1,744	39,405				881,323			2,055,759		
11/02/11		11,608,233	131					881,362			2,055,792		
11/03/11		11,608,233	0		8.2	1.3	1.220	881,378	8.1	2.46	2,055,818	8.0	0.03
11/05/11		11,611,395	3,162					882,340			2,059,467		
11/06/11		11,614,756	3,361					883,608			2,062,594		
11/07/11		11,616,924	2,168					883,718			2,063,343		
11/08/11		11,618,636	1,712					884,345			2,065,014		
11/12/11		11,651,616	32,980					890,384			2,094,235		
11/15/11		11,662,529	10,913					894,135			2,102,462		
11/23/11		11,677,899	15,370					900,936			2,112,833		
11/29/11		11,687,640	9,741					905,028			2,119,690		
	12/01/11	11,689,609		November									
12/01/11		11,687,640	0	82,100	7.4	1.7	1.700	905,938	7.8	2.65	2,119,690	8.0	0.72
12/06/11		11,706,691	19,051					910,893			2,134,888		
12/15/11		11,724,224	17,533					918,198			2,147,141		
12/26/11		11,737,368	13,144					924,102			2,155,863		
12/31/11		11,742,107	4,739					926,371			2,158,911		

**TABLE 1  
Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	<b>01/01/12</b>	<b>11,742,204</b>		<b>December</b>			<b>Pounds Cr</b>						
01/04/12		11,744,667	2,560	52,595			0.745	927,731			2,158,911		
01/05/12		11,744,667	0		6.9	0.98	0.862	928,184	7.5	1.84	2,161,198	7.3	0.27
01/19/12		11,754,619	9,952					932,303			2,166,977		
01/27/12		11,758,987	4,368					934,572			2,169,652		
01/31/12		11,761,124	2,137				<b>Pounds Cr</b>	935,480			2,171,180		
	<b>02/01/12</b>	<b>11,761,228</b>		<b>January</b>			<b>0.137</b>						
02/02/12		11,761,124	0	19,024	7.4	2.1	1.860	936,191	7.7	2.50	2,172,687	7.7	6.1
02/07/12		11,763,586	2,358					938,043		2.80	2,176,546		1.71
02/22/12		11,778,355	14,769					941,736			2,183,827		
02/24/12		11,780,157	16,571					942,642			2,184,964		
02/28/12		11,782,379	18,793				<b>Pounds Cr</b>	943,547			2,186,478		
	<b>03/01/12</b>	<b>11,783,379</b>		<b>February</b>			<b>0.329</b>						
03/01/12		11,782,379	0	21,255	7.1	2.6	2.560	944,002	7.3	3.45	2,186,478	7.6	2.04
03/14/12		11,824,851	41,472					956,400			2,221,364		
03/21/12		11,839,925	15,074					962,783			2,231,770		
03/25/12		11,848,965	9,040					965,591			2,239,149		
	<b>04/01/12</b>	<b>11,865,023</b>		<b>March</b>			<b>Pounds Cr</b>						
04/03/12		11,871,806	22,841	81,644			1.740	973,817			2,256,557		
04/05/12		11,871,806	6,783		7.6	0.83	0.730	975,189	7.9	1.28	2,258,866	7.8	0.48
04/18/12		11,896,899	25,093					984,322			2,273,887		
04/21/12		11,906,449	9,550					986,147			2,282,902		
	<b>05/01/12</b>	<b>11,923,538</b>		<b>April</b>			<b>Pounds Cr</b>						
05/02/12		11,930,935	24,486	58,515			0.356	996,194			2,300,258		
05/03/12		11,933,848	2,913					997,107			2,302,572		
05/09/12		11,989,964	56,116					1,010,822			2,349,979		
05/14/12		12,005,061	15,097					1,016,338			2,361,277		
05/16/12		12,005,061	0		6.5	0.67	0.581	1,018,169	7.4	0.63	2,363,951	7.6	0.15
05/20/12		12,016,709	11,648					1,021,100			2,368,989		
05/22/12		12,018,570	1,861					1,022,007			2,370,141		
05/24/12		12,021,249	2,679					1,023,245			2,372,066		
05/31/12		12,028,808	7,559					1,027,317			2,378,556		
	<b>06/01/12</b>	<b>12,029,342</b>		<b>May</b>			<b>Pounds Cr</b>						
06/02/12		12,030,994	2,186	105,804			0.512	1,027,317			2,378,556		
06/05/12		12,033,617	2,623					1,028,676			2,380,101		
06/07/12		12,033,617	0		6.8	0.55	0.507	1,029,581	7.4	0.99	2,381,259	7.7	0.17
06/19/12		12,046,851	13,234					1,034,134			2,389,253		
06/29/12		12,056,747	9,896					1,038,653			2,395,689		
	<b>07/01/12</b>	<b>12,057,998</b>		<b>June</b>			<b>Pounds Cr</b>						
07/03/12		12,059,332	1,334	28,656			0.121	1,040,009			2,397,210		
07/05/12		12,059,332	0		6.1	0.98	0.906	1,040,913	6.2	1.24	2,397,969	6.6	0.19
07/10/12		12,064,003	4,671					1,042,739			2,402,552		
07/20/12		12,069,263	5,260					1,045,446			2,402,552		
	<b>08/01/12</b>	<b>12,078,083</b>		<b>July</b>			<b>Pounds Cr</b>						
08/01/12		12,078,359	9,096	20,085			0.152	1,049,510			2,408,561		
08/02/12		12,078,359	0		6.2	1.20	1.120	1,049,969	6.2	1.72	2,408,954	6.0	0.56
08/07/12		12,082,510	4,151					1,051,808			2,410,869		
08/16/12		12,098,108	15,598					1,056,800			2,423,447		
	<b>09/01/12</b>	<b>12,111,167</b>		<b>August</b>			<b>Pounds Cr</b>						
09/01/12		12,111,772	13,664	33,084			0.309	1,063,135			2,432,088		
09/09/12		12,116,611	4,839					1,065,875			2,434,745		
09/11/12		12,117,783	1,172			1.70	1.520	1,066,747	6.4	0.72	2,435,127	6.3	0.21
09/18/12		12,121,226	3,443					1,068,577			2,437,061		
09/26/12		12,125,024	3,798					1,070,837			2,438,957		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	<b>10/01/12</b>	<b>12,126,164</b>		<b>September</b>			<b>Pounds Cr</b>						
10/04/12		12,127,304	2,280	<b>14,997</b>			<b>0.190</b>	1,072,193			2,440,091		
10/04/12		12,127,304	1,140			1.50	1.370	1,072,193	6.4	1.44	2,440,091	6.2	0.32
10/05/12		12,129,085	1,781					1,073,276			2,440,999		
10/09/12		12,129,791	706					1,073,696			2,441,370		
10/19/12		12,163,907	34,116					1,081,043			2,471,345		
10/30/12		12,189,653	25,746					1,092,239			1,289,448		
	<b>11/01/12</b>	<b>12,191,094</b>		<b>October</b>			<b>Pounds Cr</b>						
11/06/12		12,196,769	7,116	<b>64,930</b>			<b>0.741</b>	1,096,343			2,493,654		
11/09/12		12,198,437	1,668		NA	1.1	1.040	1,097,450	NA	1.34	2,494,750	NA	0.21
11/22/12		12,212,741	14,304					1,103,179			2,504,679		
11/30/12		12,218,011	5,270					1,106,155			2,507,598		
	<b>12/01/12</b>	<b>12,218,663</b>		<b>November</b>			<b>Pounds Cr</b>						
12/03/12		12,219,752	1,089	<b>27,569</b>			<b>0.239</b>	1,107,006			2,508,689		
12/10/12		12,223,289	3,537		8.0	1.00	1.100	1,109,121	7.7	1.60	2,510,506	8.0	0.27
12/26/12		12,234,632	11,343					1,114,683			2,517,462		
12/31/12		12,239,248	4,616					1,117,237			2,520,012		
	<b>01/01/13</b>	<b>12,239,543</b>		<b>December</b>			<b>Pounds Cr</b>						
01/01/13		12,239,958	710	<b>20,880</b>			<b>0.191</b>	1,117,663			2,520,377		
01/10/13		12,246,590	6,632			1.90	1.720	1,120,640	7.7	1.68	2,524,770	8.0	1.32
01/24/13		12,278,928	32,338					1,130,141			2,550,847		
01/28/13		12,282,035	3,107					1,131,414			2,553,042		
01/31/13		12,287,892	5,857					1,132,425			2,558,715		
	<b>02/01/13</b>	<b>12,288,247</b>		<b>January</b>			<b>Pounds Cr</b>						
02/01/13		12,289,018	1,126	<b>48,644</b>			<b>0.697</b>	1,132,680			2,559,456		
02/07/13		12,293,874	4,856		7.9	0.82	0.663	1,134,376	7.6	1.35	2,563,137	8.0	0.22
02/20/13		12,308,445	14,571					1,038,672			2,575,057		
02/27/13		12,313,181	19,307					1,140,359			2,578,725		
	<b>03/01/13</b>	<b>12,314,165</b>		<b>February</b>			<b>Pounds Cr</b>						
03/03/13		12,315,958	2,777	<b>25,918</b>			<b>0.143</b>	1,141,206			2,580,927		
03/07/13		12,318,024	2,066		7.9	0.83	0.753	1,142,054	7.7	1.44	2,582,395	7.8	0.27
03/18/13		12,361,201	43,177					1,151,536			2,619,703		
03/20/13		12,365,136	3,935					1,153,250			2,622,317		
03/27/13		12,378,442	13,306					1,159,233			2,630,884		
03/31/13		12,400,821	22,379					1,164,838			2,649,804		
	<b>04/01/13</b>	<b>12,403,728</b>		<b>March</b>			<b>Pounds Cr</b>						
04/01/13		12,407,465	3,737	<b>89,563</b>			<b>0.562</b>	1,165,570			2,655,346		
04/11/13		12,461,497	54,032		7.4	0.42	0.431	1,180,148	7.0	0.60	2,700,747	7.4	0.14
04/17/13		12,522,138	60,641					1,196,092			2,749,790		
	<b>05/01/13</b>	<b>12,570,545</b>		<b>April</b>			<b>Pounds Cr</b>						
05/01/13		---	---	<b>166,817</b>			<b>0.599</b>						
05/01/13		12,571,333	49,195		8.1	0.56	0.553	1,215,096	7.3	0.38	2,785,968	7.8	0.09
05/19/13		12,623,298	51,965					1,235,753			2,823,953		
	<b>06/01/13</b>	<b>12,647,282</b>		<b>May</b>			<b>Pounds Cr</b>						
				<b>76,737</b>			<b>0.353</b>						
06/06/13		12,657,605	34,307		7.6	0.96	0.826	1,251,551	7.4	0.47	2,849,502	7.8	0.73
06/12/13		12,669,485	11,880					1,256,351			2,857,966		
06/17/13		12,680,642	11,157					1,259,722			2,867,078		
	<b>07/01/13</b>	<b>12,727,950</b>		<b>June</b>			<b>Pounds Cr</b>						
				<b>80,668</b>			<b>0.555</b>						
07/18/13		12,767,116	86,474		7.4	0.73	0.694	1,286,165	6.7	0.73	2,938,280	7.5	0.07
07/31/13		12,780,876	13,760					1,293,015			2,947,351		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
 Appleton, Wisconsin  
 Terracon Project No. 58117057

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	08/01/13	12,781,814		<b>July</b>			<b>Pounds Cr</b>						
				53,864			0.311						
08/04/13		12,784,628	3,752					1,293,015			2,947,351		
08/07/13		12,786,184	1,556					1,295,588			2,951,110		
08/08/13		12,786,555	371		7.5	0.83	0.775	1,296,442	6.8	0.68	2,951,801	7.2	0.16
08/19/13		12,795,058	8,503					1,298,966			2,954,811		
08/21/13		12,795,638	580					1,300,287			2,956,243		
08/26/13		12,797,295	1,657					1,301,154			2,957,147		
08/28/13		12,800,434	3,139					1,302,541			2,958,987		
	09/01/13	12,803,511		<b>August</b>			<b>Pounds Cr</b>						
				21,697			0.140						
09/01/13		12,803,511	6,216					1,303,580			2,961,265		
09/05/13		12,808,096	4,585					1,305,282			2,964,435		
09/09/13		12,811,883	8,372					1,306,947			2,966,675		
09/11/13		12,815,166	7,070					1,309,139			2,968,968		
09/14/13		12,818,151	6,268					1,310,005			2,970,501		
09/18/13		12,822,283	7,117		7.3	1.3	1.170	1,311,729	7.1	0.99	2,973,533	7.3	0.19
09/30/13		12,833,637	11,354					1,317,815			2,980,475		
	10/01/13	12,834,025		<b>September</b>			<b>Pounds Cr</b>						
				30,514			0.297						
10/01/13		12,834,025	388					1,318,244			2,980,475		
10/08/13		12,843,796	9,771					1,321,693			2,988,064		
10/16/13		12,852,554	8,758					1,325,559			2,994,143		
10/18/13		12,855,027	2,473		7.7	1.20	1.120	1,326,419	7.5	1.04	2,996,041	7.8	0.14
	11/01/13	12,867,815		<b>October</b>			<b>Pounds Cr</b>						
				33,790			0.315						
11/01/13		12,867,815	12,788					1,332,902			3,004,777		
11/05/13		12,876,841	9,026					1,335,488			3,012,422		
11/13/13		12,903,367	26,526		7.8	1.00	0.920	1,345,039	8.1	0.66	3,033,152	7.9	0.11
11/20/13		12,924,566	21,199					1,350,740			3,051,316		
	12/01/13	12,940,971		<b>November</b>			<b>Pounds Cr</b>						
				73,156			0.560						
12/02/13		12,944,252	19,686					1,360,688			3,063,995		
12/10/13		12,954,971	10,719		7.6	1.4	1.320	1,365,411	7.4	2.70	3,071,689	7.1	0.07
12/12/13		12,957,411	2,440					1,366,744			3,073,244		
12/23/13		12,965,941	8,530					1,371,029			3,078,956		
12/31/13		12,970,459	4,518					1,373,592			3,081,611		
	01/01/14	12,970,599		<b>December</b>			<b>Pounds Cr</b>						
				29,628			0.326						
01/01/14		12,970,772	313					1,373,592			3,081,991		
01/15/14		12,976,884	6,112		7.5	1.2	1.050	1,376,582	7.1	2.20	3,086,176	7.6	0.11
01/31/14		12,983,061	6,177					1,379,605			3,090,406		
	02/01/14	12,983,265		<b>January</b>			<b>Pounds Cr</b>						
				12,666			0.111						
02/02/14		12,983,747	686					1,380,032			3,090,789		
02/13/14		12,987,155	3,408		8.0	1.8	1.610	1,381,726	8.1	2.88	3,093,093	8.3	0.19
02/28/14		12,993,603	6,448										
	03/01/14	12,993,783		<b>February</b>			<b>Pounds Cr</b>						
				10,518			0.141						
03/01/14		12,993,909	306										
03/13/14		13,005,882	11,973		7.6	0.38	0.434	1,385,639	7.7	5.80	3,112,477	8.0	0.30
03/31/14		13,059,539	53,657										
	04/01/14	13,059,979		<b>March</b>			<b>Pounds Cr</b>						
				66,196			0.239						
04/01/14		13,061,650	2,111					1,399,014			3,165,447		
04/12/14		13,091,485	29,835					1,411,117			3,187,701		
04/13/14		13,099,571	8,086					1,412,822			3,195,631		
04/15/14		13,135,912	36,341					1,424,711			3,224,028		
04/18/14		13,165,955	30,043					1,434,115			3,247,300		
04/22/14		13,210,016	44,061		7.6	0.44	0.377	1,440,204	7.4	0.72	3,258,396	7.5	0.31
	05/01/14	13,211,258		<b>April</b>			<b>Pounds Cr</b>						
				151,279			0.475						
05/01/14		13,211,345	1,329					1,451,524			3,282,450		
05/13/14		13,267,656	56,311		7.5	0.28	0.273	1,471,868	7.3	0.73	3,326,392	7.4	0.20
05/14/14		13,280,912	13,256					1,475,015			3,337,773		
05/15/14		13,286,754	5,842					1,476,780			3,342,511		
05/20/14		13,304,068	17,314					1,483,692			3,355,729		



**TABLE 1  
Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	<b>06/01/14</b>	<b>13,332,599</b>		<b>May</b>			<b>Pounds Cr</b>						
06/02/14		13,336,115	32,047	121,341			0.276	1,495,755			3,382,176		
06/12/14		13,372,027	35,912		7.9	0.40	0.381	1,508,756	7.6	0.60	3,410,073	7.8	0.20
06/14/14		13,374,936	2,909					1,510,080			3,412,070		
06/17/14		13,379,348	4,412					1,512,220			3,415,268		
06/19/14		13,394,274	14,926					1,514,826			3,429,626		
06/20/14		13,401,646	7,372					1,517,014			3,436,003		
06/30/14		13,444,046	42,400					1,531,745			3,470,067		
	<b>07/01/14</b>	<b>13,445,046</b>		<b>June</b>			<b>Pounds Cr</b>	1,532,601			3,472,302		
07/01/14		13,446,138	2,092	112,447			0.357						
07/02/14		13,449,088	2,950					1,533,460			3,475,127		
07/09/14		13,463,816	14,728		7.7	0.68	0.689	1,539,906	7.4	1.0	3,486,800	7.4	1.0
07/14/14		13,472,104	8,288					1,543,805			3,492,830		
07/28/14		13,480,642	8,538	<b>July</b>			<b>Pounds Cr</b>	1,551,065			3,501,179		
	<b>08/01/14</b>	<b>13,481,746</b>		<b>36,700</b>			<b>0.211</b>						
08/01/14		13,481,837	1,195					1,552,341			3,502,760		
08/13/14		13,495,032	13,195		7.9	0.681	0.72	1,557,877	7.5	1.16	3,511,069	7.7	0.92
08/17/14		13,502,593	7,561					1,560,483			3,517,406		
08/19/14		13,509,446	6,853					1,562,278			3,523,163		
08/20/14		13,517,300	7,854					1,563,989			3,530,111		
08/22/14		13,525,676	8,376					1,567,014			3,536,533		
08/25/14		13,534,424	8,748					1,571,333			3,542,173		
08/29/14		13,539,488	5,064					1,573,914			3,545,371		
08/30/14		13,542,314	2,826	<b>August</b>			<b>Pounds Cr</b>	1,575,198			3,547,361		
	<b>09/01/14</b>	<b>13,543,999</b>		<b>62,253</b>			<b>0.37</b>						
09/02/14		13,546,601	4,287					1,577,338			3,550,419		
09/05/14		13,550,482	3,881					1,579,481			3,553,370		
09/08/14		13,562,709	12,227					1,582,918			3,564,025		
09/17/14		13,579,703	16,994		7.9	0.60	0.546	1,589,348	7.6	1.16	3,577,644	7.3	0.36
09/24/14		13,593,114	13,411	<b>September</b>			<b>Pounds Cr</b>	1,595,011			3,577,644		
	<b>10/01/14</b>	<b>13,602,541</b>		<b>58,542</b>			<b>0.27</b>						
10/01/14		13,603,009	9,895					1,600,155			3,577,644		
10/16/14		13,633,400	30,391		7.3	0.67	0.596	1,610,440	7.8	1.28	3,619,044	7.4	0.36
10/28/14		13,658,462	25,062	<b>October</b>			<b>Pounds Cr</b>	1,621,724			3,636,660		
	<b>11/01/14</b>	<b>13,662,568</b>		<b>60,027</b>			<b>0.298</b>						
11/01/14		13,663,621	5,159					1,624,238			3,640,194		
11/12/14		13,672,756	9,135		8.1	1.1	0.980	1,629,780	7.6	1.62	3,648,121	8.1	1.08
11/30/14		13,695,977	23,221					1,640,533			3,663,353		
	<b>12/01/14</b>	<b>13,696,416</b>		<b>November</b>			<b>Pounds Cr</b>						
12/01/14		13,697,118	1,141	37,515			0.306	1,640,533			3,663,353		
12/04/14		13,701,386	4,268					1,643,108			3,666,947		
12/08/14		13,705,980	4,594					1,645,245			3,670,118		
12/12/14		13,709,486	3,506		8.1	1.5	1.320	1,646,957	7.7	2.72	3,672,490	8.5	0.35
12/31/14		13,768,265	58,779					1,666,522			3,720,581		
	<b>01/01/15</b>	<b>13,769,665</b>		<b>December</b>			<b>Pounds Cr</b>						
01/01/15		13,770,654	2,389	73,249			0.805	1,667,388			3,722,195		
01/12/15		13,785,790	15,136		8.2	0.65	0.597	1,674,271	7.8	1.36	3,733,018	7.3	0.20
01/31/15		13,798,407	12,617					1,679,866			3,742,191		
	<b>02/01/15</b>	<b>13,798,602</b>		<b>January</b>			<b>Pounds Cr</b>						
02/01/15		13,798,727	320	28,937			0.144	1,679,866			3,742,588		
02/04/15		13,800,127	1,400		8.1	0.74	0.721	1,680,719	7.9	1.48	3,743,379	7.1	0.17
02/16/15		13,804,943	4,816					1,682,892			3,746,962		
02/20/15		13,805,957	1,014					1,683,320			3,747,752		
02/24/15		13,806,974	1,017					1,683,745			3,748,542		
02/28/15		13,808,369	1,395					1,684,600			3,749,334		
	<b>03/01/15</b>	<b>13,808,507</b>		<b>February</b>			<b>Pounds Cr</b>						
03/01/15		13,808,690	321	9,905			0.059	1,684,600			3,749,728		
03/18/15		13,815,075	6,385		8.2	0.80	0.713	1,687,150	7.2	1.00	3,757,618	8.0	0.34

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**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
03/23/15		13,815,928	853					1,688,046			3,759,604		
03/25/15		13,816,332	404					1,688,901			3,759,889		
03/26/15		13,816,697	365					1,689,329			3,760,382		
	04/01/15	13,822,714		March			Pounds Cr						
04/07/15		13,823,071	6,374	14,207			0.084	1,694,467			3,765,931		
04/15/15		13,856,854	33,783		7.4	0.92	0.858	1,704,938	7.7	1.92	3,792,943	7.0	0.25
04/30/15		13,885,187	28,333					1,718,370			3,812,262		
	05/01/15	13,885,585		April			Pounds Cr						
05/04/15		13,889,467	4,280	62,871			0.449	1,720,520			3,815,063		
05/13/15		13,898,048	8,581		8.0	0.60	0.554	1,724,812	7.8	0.92	3,820,667	8.1	0.37
05/18/15		13,905,897	7,849					1,727,444			3,827,133		
05/19/15		13,909,365	3,468					1,728,740			3,830,304		
05/23/15		13,914,964	5,599					1,731,329			3,834,357		
05/25/15		13,920,921	5,957					1,733,052			3,839,818		
05/28/15		13,937,530	16,609					1,736,965			3,854,997		
	06/01/15	13,958,452		May			Pounds Cr						
06/02/15		13,967,174	29,644	72,867			0.336	1,746,201			3,878,793		
06/03/15		13,970,819	3,645					1,747,948			3,881,197		
06/10/15		13,986,712	15,893		7.4	0.60	0.547	1,755,299	7.1	0.66	3,892,044	7.2	0.27
06/16/15		14,018,102	31,390					1,765,062			3,917,649		
06/19/15		14,042,191	24,089					1,772,128			3,937,351		
06/28/15		14,066,780	24,589					1,781,741			3,956,167		
06/30/15		14,069,200	2,420					1,783,061			3,957,962		
	07/01/15	14,069,642		June			Pounds Cr						
07/01/15		14,069,914	714	111,190			0.506	1,783,061			3,957,962		
07/08/15		14,077,301	7,387		7.7	0.37	0.351	1,787,623	7.2	0.68	3,963,593	7.5	0.23
07/14/15		14,085,720	8,419					1,790,678			3,970,192		
07/29/15		14,114,029	28,309					1,804,056			3,993,110		
	08/01/15	14,115,454		July			Pounds Cr						
08/05/15		14,117,883	3,854	45,812			0.134	1,807,395			3,995,776		
08/12/15		14,131,529	13,646			0.41	0.371	1,812,749	7.2	0.51	4,006,460	7.1	0.19
08/17/15		14,137,372	5,843					1,816,582			4,010,201		
08/18/15		14,138,406	1,034					1,817,349			4,011,060		
08/27/15		14,145,800	7,394					1,822,802			4,016,771		
	09/01/15	14,151,425		August			Pounds Cr						
09/04/15		14,155,393	9,593	35,971			0.111	1,828,088			4,025,183		
09/09/15		14,175,870	20,477		7.6	0.23	0.208	1,833,613	7.2	0.72	4,041,266	7.0	0.14
09/18/15		14,191,902	16,032					1,843,839			4,055,798		
09/28/15		14,211,188	19,286					1,852,031			4,069,063		
09/29/15		14,211,559	371					1,852,459			4,069,894		
	10/01/15	14,212,577		September			Pounds Cr						
10/01/15		14,212,781	1,222	61,152			0.106	1,853,738			4,071,365		
10/07/15		14,220,473	7,692			0.72	0.661	1,856,721	7.2	1.26	4,071,365	7.3	0.16
10/13/15		14,226,617	6,144					1,859,329			4,079,148		
10/21/15		14,233,700	7,083					1,863,168			4,082,924		
10/27/15		14,241,197	7,497					1,865,726			4,088,517		
	11/01/15	14,260,606		October			Pounds Cr						
11/02/15		14,266,255	25,058	48,029			0.264	1,872,203			4,108,562		
11/12/15		14,288,543	22,288		7.7	0.73	0.700	1,882,551	7.3	1.20	4,122,107	7.6	0.26
11/30/15		14,334,387	45,844					1,898,090			4,155,815		
	12/01/15	14,336,677		November			Pounds Cr						
12/01/15		14,339,197	4,810	76,072			0.443	1,899,821			4,159,227		
12/10/15		14,364,604	25,407		7.9	0.69	0.627	1,910,218	7.4	0.66	4,176,267	7.3	0.30
12/21/15		14,458,622	94,018					1,937,179			4,246,823		
	01/01/16	14,487,544		December			Pounds Cr						
01/01/16		14,488,585	29,963	150,867			0.788	1,949,306			4,267,333		
01/07/16		14,499,288	10,703		7.9	0.62	0.572	1,954,033	7.4	0.87	4,274,451	7.6	0.40
	02/01/16	14,532,622		January			Pounds Cr						

**TABLE 1  
Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
02/01/16		14,533,138	33,850	45,078			0.215	1,971,254			4,316,580		
02/10/16		14,562,012	28,874		8.1	0.87	0.858	1,973,902	7.6	0.61	4,324,057	8.1	0.70
02/29/16		14,601,368	39,356					1,982,872			4,359,110		
	03/01/16	14,602,713		February			Pounds Cr						
03/01/16		14,603,747	2,379	70,091			0.501	1,983,300			4,361,401		
03/10/16		14,625,282	21,535		7.9	0.63	0.609	1,988,471	7.3	1.44	4,380,928	7.4	0.37
03/31/16		14,728,685	103,403					2,017,845			4,463,804		
	04/01/16	14,733,540		March			Pounds Cr						
04/02/16		14,751,888	23,203	130,827			0.663	2,023,638			4,482,114		
04/06/16		14,770,034	18,146		7.8	0.38	0.244	2,029,748	7.2	0.53	4,495,836	7.2	0.24
	05/01/16	14,827,634		April			Pounds Cr						
05/03/16		14,834,742	64,708	94,094			0.191	2,057,059			4,539,976		
05/12/16		14,846,704	19,070		7.6	0.70	0.645	2,062,615	7.2	0.47	4,547,811	7.1	0.69
05/17/16		14,856,181	9,477					2,067,406			4,553,472		
	06/01/16	14,889,570		May			Pounds Cr						
06/06/16		14,902,417	46,236	61,936			0.333	2,086,371			4,585,701		
06/08/16		14,906,067	3,650		7.5	0.43	0.406	2,088,096	7.1	0.69	4,587,959	7.1	0.25
06/19/16		14,946,108	40,041					2,101,451			4,617,396		
	07/01/16	14,980,911		June			Pounds Cr						
07/01/16		14,983,214	37,106	91,341			0.309	2,113,474			4,646,051		
07/07/16		14,998,455	15,241		7.4	0.50	0.430	2,119,487	7.0	0.87	4,656,766	7.1	0.20
07/31/16		15,036,518	38,063					2,138,364			4,681,191		
	08/01/16	15,036,760		July			Pounds Cr						
08/01/16		15,037,244	726	55,849			0.200	2,138,788			4,682,282		
08/11/16		15,047,013	9,769		7.4	0.61	0.583	2,144,319	7.1	0.98	4,687,103	7.1	0.12
08/24/16		15,065,460	18,447					2,152,060			4,700,186		
	09/01/16	15,080,715		August			Pounds Cr						
09/02/16		15,081,239	15,779	43,955			0.213	2,159,787			4,709,523		
09/08/16		15,093,858	12,619		7.2	0.41	0.355	2,164,508	7.1	0.60	4,718,876	6.9	0.17
09/15/16		15,117,114	23,256					2,173,196			4,734,824		
09/30/16		15,161,513	44,399					2,190,037			4,766,164		
	10/01/16	15,162,610		September			Pounds Cr						
10/01/16		15,162,976	1,463	81,895			0.242	2,190,896			4,766,917		
10/05/16		15,170,280	7,304		7.5	0.76	0.707	2,194,329	7.1	1.17	4,771,417	7.2	0.24
	11/01/16	15,218,316		October			Pounds Cr						
11/01/16		15,218,916	48,636	55,706			0.328	2,214,974			4,803,706		
11/09/16		15,231,072	12,156		7.7	0.58	0.550	2,221,415	7.3	1.02	4,810,434	7.2	0.17
11/30/16		15,257,768	26,696					2,231,705			4,829,512		
	12/01/16	15,259,593		November			Pounds Cr						
12/01/16		15,262,085	4,317	41,277			0.189	2,233,005			4,832,948		
12/08/16		15,278,159	16,074		7.7	0.90	0.832	2,240,348	7.4	1.41	4,843,138	7.3	0.26
	01/01/17	15,320,273		December			Pounds Cr						
01/05/17		15,328,203	50,044	60,680			0.420						
01/05/17		15,328,203	0			1.00	0.895	2,259,750	7.5	1.44	4,878,940	7.4	0.47
01/31/17		15,387,622	59,419					2,272,198			4,933,594		
	02/01/17	15,387,845		January			Pounds Cr						
02/01/17		15,388,387	765	67,572			0.504	2,272,625			4,933,971		
02/09/17		15,399,455	11,068		7.8	0.56	0.542	2,277,351	7.5	0.99	4,941,836	7.1	0.13
	03/01/17	15,452,749		February			Pounds Cr						
03/08/17		15,476,369	76,914	64,904			0.305						
03/08/17		15,476,369	0		7.8	0.59	0.539	2,302,121	7.3	1.14	5,002,178	7.3	0.26
03/14/17		15,497,125	20,756					2,309,539			5,016,906		
03/25/17		15,528,765	31,640					2,321,231			5,039,669		
03/29/17		15,542,291	13,526					2,325,638			5,049,699		
	04/01/17	15,558,808		March			Pounds Cr						
04/02/17		15,562,275	19,984	106,059			0.476	2,333,037			5,064,049		
04/06/17		15,582,526	20,251		7.7	0.43	0.405	2,340,089	7.3	0.57	5,064,049	7.3	0.27
04/27/17		15,676,954	94,428					2,372,953			5,146,405		

**TABLE 1**  
**Influent - Effluent Compliance Summary**

N.W. Mauthe Superfund Site  
Appleton, Wisconsin  
Terracon Project No. 58117057

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	<i>05/01/17</i>	<i>15,703,639</i>		<b>April</b>			<b>Pounds Cr</b>						
05/04/17		15,728,166	51,212	<b>144,831</b>			<b>0.488</b>						
05/04/17		15,728,166	0		7.6	0.28		2,387,552	7.1	0.36	5,185,807	6.8	0.21
	<i>06/01/17</i>	<i>15,796,047</i>		<b>May</b>			<b>Pounds Cr</b>						
06/08/17		15,812,038	83,872	<b>92,408</b>			<b>0.198</b>						
06/08/17		15,812,038	0		7.5	0.35		2,421,837	7.1	0.36	5,243,312	7.2	0.16
	<i>07/01/17</i>	<i>15,888,740</i>		<b>June</b>			<b>Pounds Cr</b>						
07/01/17		15,891,390	79,352	<b>92,693</b>			<b>0.251</b>						
07/06/17		15,902,647	11,257		7.5	0.57		2,453,044	7.1	0.69	5,309,639	7.0	0.50
07/31/17		15,945,154	42,507					2,472,011			5,337,122		
	<i>08/01/17</i>	<i>15,945,504</i>		<b>July</b>			<b>Pounds Cr</b>						
08/01/17		15,945,880	726	<b>56,764</b>			<b>0.248</b>	2,472,438			5,337,492		
08/09/17		15,958,437	12,557		7.4	0.68		2,478,016	7.0	0.66	5,347,291	6.9	0.38
	<i>09/01/17</i>	<i>15,992,489</i>		<b>August</b>			<b>Pounds Cr</b>						
09/07/17		16,001,926	43,489	<b>46,985</b>			<b>0.244</b>	2,472,438			5,337,492		
09/07/17		16,001,926	0		7.4	0.50		2,497,770	7.1	0.68	5,375,524	6.9	0.14
09/29/17		16,031,780	29,854					2,510,609			5,395,101		
	<i>10/01/17</i>	<i>16,034,956</i>		<b>September</b>			<b>Pounds Cr</b>						
10/03/17		16,035,404	3,624	<b>42,467</b>			<b>0.173</b>	2,512,318			5,397,338		
10/05/17		16,037,996	2,592		7.5			2,513,176	7.1	1.14	5,399,232	6.7	0.01

Italicized red type metered discharge reading was calculated by linear interpolation to 12 midnight.

Industrial User (Wastewater Discharge) Permit 12-21 Outfall 001 Effluent Limits		
pH	Hexavalent Chromium	Total Chromium
Between 5.0 and 12.4 s.u.	<4.5 mg/L	<7.0 mg/L

**TABLE 2**  
**City of Appleton Compliance Limits, Outfall 001**  
 N.W. Mauthe Superfund Site - Appleton, WI

		Aluminum (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Chromium Total (mg/L)	Copper (mg/L)	Cyanide (mg/L)	Lead (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Zinc (mg/L)	Hexavalent Chromium (mg/L)
Permit #12-21 Limits		70	1.0	0.3	7.0	3.5	1.0	2.0	0.002	2.0	10.0	4.5
Sampler	Sample Date											
CH2M Hill	02/20/97	<.02	<.003	<.00050	0.04	<.01	<.00001	<.005	<.0002	<.005	0.0051	<.01
CH2M Hill	03/24/98	0.0152	<.002	<.00004	0.0637	<.0095	<.0017	<.0006	<.000015	<.0095	0.0046	0.1000
Appleton	04/29/98	<.011	<.002	<.005	0.2200	<.05	0.0020	<.1	<.0002	<.04	<.005	NA
Appleton	10/07/98	<.011	<.002	0.0050	0.1700	<.05	<.001	<.1	<.0002	<.04	0.0250	NA
MCO	03/18/99	<.009	<.003	<.00031	NA	.00068****	<.00032	<.0024	<.00005	.00351****	<.012	<.0036
Appleton	03/18/99	<.011	<.002	<.005	<.05	<.05	0.0010	0.1000	<.00005	0.0400	0.0180	NA
Appleton	09/21/99	<.011	<.002	<.005	<.05	<.05	0.0030	<.1	<.00015	<.04	0.0080	NA
Appleton	02/15/00	<.015	<.0020	<.005	0.0900	<.05	<.001	<.1	<.00013	<.04	0.0280	NA
MCO	03/13/00	<.009	<.003	<.00031	0.1400	<.0006	<.0044	<.0024	<.00005	0.0012	<.012	NA
Appleton	02/21/01	<.015	<.002	<.005	0.11	<.05	0.001	<.1	<.00013	<.04	0.042	NA
MCO	03/01/01	<.034	<.0027	.012 ****	0.25	.0088 ****	<.0033	<.17	<.00005	.036 ****	0.015	<.0036
Appleton	10/02/01	0.016	<.002	<.005	0.14	<.05	<.001	<.1	<.00013	<.04	0.065	NA
MCO	03/19/02	<.034	<.0027	<.0075	0.36	<.0077	<.0027	<.17	<.00005	<.017	<.012	<.0036
Appleton	05/02/02	<.049	<.012	<.014	0.362	<.015	<.0014	<.060	<.00011	<.011	<.009	NA
Appleton	11/12/02	0.027	<.0082	<.00053	0.23	<.009	<.0007	<.00084	<.000028	0.0044	0.0081	NA
Appleton	02/11/03	<.027	<.0082	<.00053	0.086	<.0009	<.0014	<.0013	<.000028	0.0036	<.0025	NA
Appleton	03/24/03	<.045	<.0027	<.0088	0.13	0.075	<.0050	<.16	<.000050	<.019	<.0044	<.0036
Appleton	10/23/03	0.0045	0.0013	<.00001	0.221	<.0008	<.005	<.0006	0.0002	<.025	<.010	NA
Appleton	03/24/04	<.050	<.0026	<.010	0.15	<.0060	<.0050	<.16	<.000025	<.020	<.010	NA
Appleton	11/09/04	0.0071	<.0012	<.00001	0.04	0.0008	<.005	<.008	<.00002	0.0013	<.01	NA
MCO	08/08/05	0.023	<.0035	<.00003	0.039	0.0019	<.0037	<.0011	<.000026	<.0044	0.0024	<.0005
Appleton	11/05/06	0.0052	<.0012	<.00001	0.088	<.0005	<.005	<.0008	<.00002	0.0017	<.010	NA
Appleton	02/23/06	0.0021	<.0012	<.00001	0.08	<.0005	<.0005	<.0008	<.00002	0.0022	<.010	NA
MCO	03/23/06	<.20	<.0076	<.00074	0.32	0.0018	0.0043	<.0034	<.000026	0.0033	<.020	NA
Appleton	06/27/06	<.200	<.0076	<.00074	0.700	0.0016	<.0094	<.0034	<.000072	0.0021	<.020	<.350
Appleton	10/05/06	0.037	<.00011	<.00001	4.575	0.0068	0.01	<.001	<.0002	0.0026	<.010	NA
Appleton	03/22/07	<.07	<.07	<.01	1.9	3.5	<.004	<.03	<.0002	<.04	<.01	NA
MCO	04/02/07	0.0383	0.00024	0.000086	1.41	0.0041	<.0094	0.00013	<.000019	0.0035	0.009	NA
Appleton	12/04/07	<.07	<.001	<.01	3.4	<.01	0.008	<.03	<.0002	<.04	<.01	1.5
Appleton	01/16/08	0.21	<.0005	<.01	<.03	0.02	0.017	0.06	0.0003	<.04	0.04	NA
OMNNI	04/08/08	0.0114	0.00043	0.00011	0.864	0.0043	0.014 J	0.000095 J	<.00001	0.0024	0.0071	0.063
Appleton	08/19/08	<.08	<.001	<.01	0.95	<.01	0.005	<.03	0.0002	<.02	<.01	NA
Appleton	03/31/09	<.09	<.012	<.01	0.99	<.01	<.008	<.05	<.00002	<.02	<.01	NA
OMNNI	04/07/09	<.0151	0.003 J	0.00040 J	0.767	0.0024 J	<.0060	<.0014	<.000010	0.0016 J	0.0137 J	0.84
Appleton	09/22/09	<.08	<.006	<.01	2.3	<.01	<.008	<.05	<.00002	<.02	<.01	NA
Appleton	03/02/10	<.06	<.002	<.01	1.6	<.01	<.008	<.03	<.00002	<.01	<.01	NA
OMNNI	04/06/10	0.0501 J	<.0014	0.00043 J	1.16	0.0024 J	<.0061	<.00075	<.00001	0.0023 J	0.0046 J	1.3
Appleton	11/02/10	<.10	<.010	<.01	0.71	<.01	<.008	<.03	<.00002	<.01	<.01	NA
Appleton	02/24/11	<.08	<.001	<.01	1.5	<.01	0.008	<.04	<.00002	<.02	<.01	NA
OMNNI	04/05/11	0.0725 J	0.0025 J	<.000026	0.401	0.0028 J	<.0061	<.0014	<.000010	0.00053 J	0.0023 J	0.40
Appleton	10/26/11	<.08	<.0005	<.01	1.2	<.01	0.007	<.04	<.00002	<.02	<.01	NA
Appleton	03/21/12	<.11	<.004	<.01	1.3	0.01	0.007	<.04	<.00002	<.02	<.01	NA
Terracon	04/05/12	<.0695	<.0047	<.000039	0.696	0.014 J	<.0061	<.0014	<.000010	0.001 J	<.0053	0.83
Appleton	10/04/12	0.0865	0.0051	0.00049	1.43	0.0028 J	0.026	0.0022	0.0001	0.00019 J	<.0053	NA
Terracon	04/11/13	0.078	<.004	<.000048	0.431	0.0024 J	<.0038	<.027	<.000010	0.00013 J	<.0024	0.42
Appleton	04/17/13	<.0714	<.0042	<.000048	0.279	0.0029 J	<.0038	<.027	<.000010	0.00062 J	<.0024	NA
Appleton	11/20/13	<.0714	<.0042	<.000048	1.13	0.0018 J	0.0044 J	<.027	<.000010	0.00085 J	0.0034 J	NA
Appleton	04/15/14	0.119 J	<.0068	<.001	0.27	0.0036 J	<.060	<.0016	<.000010	<.0013	<.0058	NA
Terracon	05/13/14	0.116 J	<.0068	<.001	0.273	0.0034 J	<.060	0.0040 J	<.000010	<.0013	0.0064 J	0.28
Appleton	9/24/2014	<.0655	<.0068	<.001	0.757	<.0034	<.010	<.0016	<.000010	<.0013	<.0058	NA
Terracon	4/15/2015	0.054 J	<.0072	<.000060	0.858	0.0041 J	<.010	<.0030	<.000010	<.0014	0.0026 J	0.92
Appleton	6/3/2015	<.0655	<.0068	<.001	0.504	<.0034	<.020	<.0016	<.000010	<.0013 J	<.0058	NA
Appleton	10/21/2015	0.105 J	<.0068	<.0010	0.676	<.0034	<.010	0.0024 J	<.000010	<.0013	0.0078 J	NA
Terracon	5/12/2016	0.0637 J	<.0072	<.000060	0.645	<.0036	<.0068	<.0030	<.000013	0.0018 J	<.0013	0.70
Appleton	5/17/2016	<.090	<.001	<.010	0.530	<.010	<.007	<.030	<.00002	<.020	<.01	NA
Appleton	11/1/2016	<.090	<.010	<.010	0.560	<.010	<.007	<.030	<.00002	<.020	<.010	NA
Appleton	4/27/2017	Not Available										NA
Terracon	6/8/2017	<.0555	<.0083	<.0013	0.345	<.0063	<.0068	<.0043	<.000013	<.0026	<.0093	0.35

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
W-2	02/01/97	-		798.66
	05/01/97	-		801.01
	09/01/97	-		800.28
	12/01/97	-	804.66	797.69
	03/01/98	-		802.08
	06/01/98	-		799.38
	10/27/98	5.85		798.81
	02/08/99	4.50		800.16
	06/08/99	3.31		801.35
	09/13/99	5.78		798.88
	12/15/99	6.63		798.03
	03/13/00	1.60		803.06
	06/22/00	2.63		802.03
	09/27/00	3.28		801.38
	12/19/00	4.78		799.88
	03/01/01	5.93		798.73
	06/19/01	1.83		802.83
	09/24/01	5.94		798.72
	12/05/01	4.93		799.73
	03/19/02	1.08		803.58
	06/20/02	2.78		801.88
	09/18/02	6.38		798.28
	12/17/02	6.81		797.85
	03/24/03	4.31		800.35
	06/10/03	3.14		801.52
	09/10/03	6.11		798.55
	12/10/03	4.03		800.63
	03/24/04	1.26		803.40
	07/09/04	3.44		801.22
	09/21/04	6.79		797.87
	03/29/05	4.51		800.15
	06/20/05	4.83		799.83
	09/21/05	6.21		798.45
	12/14/05	5.51		799.15
	03/21/06	0.08		804.58
	06/28/06	6.02		798.64
	09/20/06	8.75		795.91
	12/09/06	6.20		798.46
	03/13/07	3.80		800.86
	07/03/07	6.16		798.50
	09/27/07	5.66		799.00
	04/16/08	5.91		798.75
	04/03/09	1.20		803.46
	03/17/10	1.37		803.29

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
W-2	04/29/11	0.65		804.01
	03/14/12	1.55		803.11
	04/29/13	1.68		802.98
	04/21/14	0.80		803.86
	09/16/14	7.19		797.47
	04/13/15	1.55		803.11
	03/30/16	1.41		803.25
	03/28/17	1.32		803.34
W-8	02/01/97	-		797.22
	05/01/97	-		797.66
	09/01/97	-		798.01
	12/01/97	-	803.36	796.52
	03/01/98	-		798.16
	06/01/98	-		797.31
	10/27/98	6.41		796.95
	02/08/99	5.49		797.87
	06/08/99	4.38		798.98
	09/13/99	6.71		796.65
	12/15/99	6.91		796.45
	03/13/00	6.25		797.11
	06/22/00	6.42		797.34
	09/27/00	5.66		797.70
	12/19/00	6.80		796.56
	03/01/01	5.41		797.95
	06/19/01	5.02		798.34
	09/24/01	3.38		799.98
	12/05/01	7.02		796.34
	03/19/02	3.63		799.73
	06/20/02	5.66		797.70
	09/18/02	6.93		796.43
	12/17/02	9.00		794.36
	03/24/03	6.18		797.18
	06/10/03	6.11		797.25
	09/10/03	6.71		796.65
	12/10/03	6.62		796.74
	03/23/04	6.55		796.81
	07/09/04	6.11		797.25
	09/21/04	7.08		796.28
03/29/05	6.24		797.12	
06/20/05	6.60		796.76	
09/21/05	6.84		796.52	
12/14/05	6.71		796.65	
03/21/06	6.57		796.79	

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
W-8	06/28/06	7.18		796.18
	09/20/06	7.07		796.29
	12/19/06	6.87		796.49
	03/13/07	6.48		796.88
	07/03/07	7.29		796.07
	09/27/07	6.52		796.84
	04/16/08	6.11		797.25
	04/03/09	6.16		797.20
	03/17/10	6.14		797.22
	04/29/11	5.92		797.44
	03/14/12	6.09		797.27
	04/29/13	6.46		796.90
	04/21/14	6.20		797.16
	09/16/14	6.27		797.09
	04/13/15	6.09		797.27
	03/30/16	6.08		797.28
	03/28/17	5.94		797.42
W-15	02/01/97	-		793.97
	05/01/97	-		796.92
	09/01/97	-		797.23
	12/01/97	-	803.76	795.52
	03/01/98	-		796.78
	06/01/98	-		796.32
	10/27/98	7.95		795.81
	02/08/99	9.19		794.57
	06/08/99	6.89		796.87
	09/13/99	7.85		795.91
	12/15/99	8.97		794.79
	03/13/00	7.80		795.96
	06/22/00	6.42		797.34
	09/27/00	6.30		797.46
	12/19/00	7.99		795.77
	03/01/01	9.52		794.24
	06/19/01	6.91		796.82
	09/24/01	6.65		797.11
	12/05/01	8.15		795.61
	03/19/02	7.22		796.54
	06/20/02	6.84		796.92
	09/18/02	7.28		796.48
	12/17/02	9.98		793.78
	03/24/03	9.77		793.99
	06/10/03	7.04		796.72
	09/10/03	7.06		796.70



**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
W-15	12/10/03	7.15		796.61
	03/23/04	6.58		797.18
	07/09/04	6.45	803.66 ****	797.21
	09/21/04	7.26		796.40
	03/29/05	7.50		796.16
	06/20/05	6.82		796.84
	09/21/05	7.05		796.61
	12/14/05	7.88		795.78
	03/21/06	6.95		796.71
	06/28/06	6.98	803.42 *****	796.44
	09/20/06	7.13		796.29
	12/19/06	8.02		795.40
	03/13/07	7.22		796.20
	07/03/07	7.00		796.42
	09/27/07	6.67		796.75
	04/16/08	-		-
	04/03/09	6.24		797.18
	03/17/10	7.19		796.23
	04/29/11	6.21		797.21
	03/14/12	6.62		796.80
	04/29/13	6.41		797.35
	04/21/14	ICE		#VALUE!
	09/16/14	6.40	803.96	797.56
	04/13/15	6.45		797.51
	03/30/16	6.41		797.55
	03/28/17	6.21		797.75
MW-101	02/01/97	-		797.16
	05/01/97	-		799.99
	09/01/97	-		798.67
	12/01/97	-	807.59	798.21
	03/01/98	-		803.43
	06/01/98	-		800.48
	10/27/98	10.26		797.33
	02/08/99	11.91		795.68
	06/08/99	9.79		797.80
	09/13/99	10.35		797.24
	12/15/99	9.01		798.58
	03/13/00	12.67		794.92
	06/22/00	6.28		801.31
	09/27/00	10.41		797.18
	12/19/00	10.73		796.86
	03/01/01	12.61		794.98
	06/19/01	8.43		799.16

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-101	09/24/01	10.50		797.09
	12/05/01	10.98		796.61
	03/19/02	8.10		799.49
	06/20/02	7.08		800.51
	09/18/02	10.23		797.36
	12/17/02	12.47		795.12
	03/24/03	10.00		797.59
	06/10/03	7.41		800.18
	09/10/03	9.53		798.06
	12/10/03	8.31		799.28
	03/23/04	5.95		801.64
	07/09/04	7.84		799.75
	09/21/04	10.50		797.09
	03/29/05	9.00		798.59
	06/20/05	9.28		798.31
	09/21/05	9.64		797.95
	12/14/05	8.93		798.66
	03/21/06	8.10		799.49
	06/28/06	8.88		798.71
	09/20/06	8.90		798.69
	12/19/06	8.95		798.64
	03/13/07	8.73		798.86
	07/03/07	7.39		800.20
	09/27/07	7.31		800.28
	04/16/08	3.76		803.83
	04/03/09	5.09		802.50
	03/17/10	7.27		800.32
	04/29/11	3.36		804.23
	03/14/12	6.55		801.04
	04/29/13	5.46		802.13
	04/21/14	3.64	807.60	803.95
	09/16/14	5.37		802.23
	04/13/15	3.80		803.80
	03/30/16	4.95		802.65
	03/28/17	4.65		802.95
MW-102	02/01/97	-		780.72
	05/01/97	-		780.89
	09/01/97	-		780.79
	12/01/97	-	804.45	780.95
	03/01/98	-		780.47
	06/01/98	-		780.72
	10/27/98	24.11		780.34
	02/08/99	23.84		780.61

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-102	06/08/99	23.59		780.86
	09/13/99	23.70		780.75
	12/15/99	24.27		780.18
	03/13/00	24.00		780.45
	06/22/00	23.69		780.76
	09/27/00	23.65		780.80
	12/19/00	24.06		780.39
	03/01/01	26.01		778.44
	06/19/01	23.35		781.10
	09/24/01	23.88		780.57
	12/05/01	24.08		780.37
	03/19/02	23.75		780.70
	06/20/02	23.05		781.40
	09/18/02	24.50		779.95
	12/17/02	25.30		779.15
	03/24/03	23.80		780.65
	06/10/03	23.09		781.36
	09/10/03	23.98	804.37 ***	780.39
	12/10/03	23.22		781.15
	03/23/04	23.56		780.81
	07/09/04	23.52		780.85
	09/21/04	24.65		779.72
	03/29/05	21.24		783.13
	06/20/05	23.81		780.56
	09/21/05	24.71		779.66
	12/14/05	24.25		780.12
	03/21/06	23.39		780.98
	06/28/06	23.95		780.42
	09/20/06	25.15		779.22
	12/19/06	25.26		779.11
	03/13/07	24.41		779.96
	07/03/07	23.89		780.48
	09/27/07	24.38		779.99
	04/16/08	23.20		781.13
	04/03/09	23.48		780.89
	03/17/10	23.44		780.93
	04/29/11	23.18		781.19
	03/14/12	23.48		780.89
	04/29/13	21.05		783.40
	04/21/14	21.33		783.12
	09/16/14	23.83		780.62
	04/13/15	20.85		783.60
	03/30/16	22.22		782.23
	03/28/17	21.78		782.67

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-103	02/01/97	-		795.29
	05/01/97	-		791.83
	09/01/97	-		789.60
	12/01/97	-	803.74	787.78
	03/01/98	-		791.03
	06/01/98	-		789.13
	10/27/98	11.96		791.78
	02/08/99	10.24		793.50
	06/08/99	8.69		795.05
	09/13/99	9.79		793.95
	12/15/99	12.68		791.06
	03/13/00	9.63		794.07
	06/22/00	8.22		795.52
	09/27/00	7.76		795.98
	12/19/00	10.78		792.96
	03/01/01	9.15		794.59
	06/19/01	5.52		798.22
	09/24/01	9.80		793.94
	12/05/01	11.13		792.61
	03/19/02	4.96		798.78
	06/20/02	7.42		796.32
	09/18/02	9.00		794.74
	12/17/02	13.01		790.73
	03/24/03	7.63		796.11
	06/10/03	7.77		795.97
	09/10/03	9.60		794.14
	12/10/03	8.09		795.65
	03/23/04	4.01		797.73
	07/09/04	12.91		790.83
	09/21/04	10.30		793.44
	03/29/05	NR		---
	06/20/05	9.55		794.19
	09/21/05	9.70		794.04
	12/14/05	10.40		793.34
	03/21/06	7.87		795.87
	06/28/06	9.75		793.99
	09/20/06	11.23		792.51
	12/20/06	10.36		793.38
	03/13/07	9.91		793.83
	07/03/07	9.45		794.29
	09/27/07	9.52		794.22
	04/16/08	7.06		796.68
	09/22/08	9.62		794.12

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-103	04/03/09	8.22		795.52
	09/01/09	9.78		793.96
	03/17/10	8.07		795.67
	09/09/10	8.66		795.08
	04/29/11	4.32		799.42
	09/01/11	9.63		794.11
	03/14/12	7.95		795.79
	09/11/12	11.30		792.44
	04/29/13	6.47		797.27
	09/18/13	5.91		797.83
	04/21/14	6.15		797.59
	09/16/14	4.74		799.00
	04/13/15	5.33		798.41
	09/14/15	5.73		798.01
	03/30/16	4.67		799.07
	09/21/16	7.22		796.52
	03/28/17	5.49		798.25
	10/03/17	8.34		795.40
MW-104	02/01/97	-		792.94
	05/01/97	-		789.91
	09/01/97	-		798.59
	12/01/97	-	807.28	795.70
	03/01/98	-		799.46
	06/01/98	-		796.60
	10/27/98	10.51		796.77
	02/08/99	9.04		798.24
	06/08/99	7.49		799.79
	09/13/99	10.28		797.00
	12/15/99	10.78		796.50
	03/13/00	9.51		797.77
	06/22/00	8.41		798.88
	09/27/00	8.61		798.67
	12/19/00	10.49		796.79
	03/01/01	8.44		798.84
	06/19/01	7.51		799.71
	09/24/01	10.39		796.89
	12/05/01	10.81		796.47
	03/19/02	7.82		799.46
	06/20/02	8.60		798.68
	09/18/02	12.05		795.23
	12/17/02	12.70		794.58
	03/24/03	12.60		794.68
	06/10/03	8.81		798.47

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-104	09/10/03	11.17		796.11
	12/10/03	8.66		798.62
	03/23/04	7.44		799.84
	09/21/04	15.21		792.07
	03/29/05	11.09		796.19
	06/20/05	9.57		797.71
	09/21/05	18.95		788.33
	12/14/05	9.94		797.34
	03/21/06	8.53		798.75
	06/28/06	11.23		796.05
	09/20/06	12.81		794.47
	12/20/06	24.46		782.82
	03/13/07	12.11		795.17
	07/03/07	13.04		794.24
	09/27/07	21.47		785.81
	04/16/08	7.88		799.40
	09/22/08	17.08		790.20
	04/03/09	7.93		799.35
	09/01/09	19.45		787.83
	03/17/10	8.13		799.15
	09/09/10	11.46		795.82
	04/29/11	7.60		799.68
	09/01/11	17.67		789.61
	03/14/12	8.28		799.00
	09/11/12	24.08		783.20
	04/29/13	8.62		798.66
	09/18/13	20.00		787.28
	04/21/14	8.65		798.63
	09/16/14	8.53		798.75
	04/13/15	7.28		800.00
	09/14/15	8.54		798.74
	03/30/16	7.42		799.86
	09/21/16	9.92		797.36
	03/28/17	7.11		800.17
	10/03/17	9.58		797.70
MW-105	02/01/97	-		793.74
	05/01/97	-		800.60
	09/01/97	-		800.37
	12/01/97	-	803.96	799.03
	03/01/98	-		800.08
	06/01/98	-		800.50
	10/27/98	5.41		798.55
	02/08/99	6.46		797.50

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-105	06/08/99	3.04		800.92
	09/13/99	4.60		799.36
	12/15/99	5.28		798.68
	03/13/00	4.97		798.99
	06/22/00	3.06		800.90
	09/27/00	3.38		800.58
	12/19/00	5.28		798.68
	03/01/01	7.24		796.72
	06/19/01	2.43		801.53
	09/24/01	3.87		800.09
	12/05/01	5.55		798.41
	03/19/02	3.94		800.02
	06/20/02	4.08		799.88
	09/18/02	5.40		798.56
	12/17/02	7.34		796.62
	03/24/03	6.81		797.15
	06/10/03	4.27		799.69
	09/10/03	4.88	803.84 ***	798.96
	12/10/03	4.36		799.24
	03/23/04	3.80		800.04
	07/09/04	3.61	803.74 ****	800.13
	09/21/04	4.92		798.82
	03/29/05	3.85		799.89
	06/20/05	4.15		799.59
	09/21/05	4.70		799.04
	12/14/05	5.25		798.49
	03/21/06	4.26		799.48
	06/28/06	4.81	803.54 *****	798.73
	09/20/06	4.51		799.03
	12/19/06	5.40		798.14
	03/13/07	6.46	803.46*****	797.08
	07/03/07	4.30		799.16
	09/27/07	3.81		799.65
	04/16/08	3.53		799.93
	04/03/09	3.29		800.17
	03/17/10	4.05		799.41
	04/29/11	2.30		801.16
	03/14/12	3.50		799.96
	04/29/13	3.41		800.55
	04/21/14	2.68		801.28
	09/16/14	3.40		800.56
	04/13/15	2.94		801.02
	03/30/16	3.29		800.67
	03/28/17	3.11		800.85

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

Well Name	Date Measured	Depth To Water (feet)	Reference Elevation (To Top PVC) (feet)	Groundwater Elevation (feet)
MW-106	02/01/97	-		794.75
	05/01/97	-		797.23
	09/01/97	-		796.91
	12/01/97	-	804.08	795.48
	03/01/98	-		797.37
	06/01/98	-		796.76
	10/27/98	8.12		795.96
	02/08/99	9.75		794.33
	06/08/99	6.72		797.36
	09/13/99	7.88		796.20
	12/15/99	8.71		795.37
	03/13/00	8.72		795.36
	06/22/00	6.87		797.21
	09/27/00	7.41		796.67
	12/19/00	8.55		795.53
	03/01/01	9.54		794.54
	06/19/01	6.30		797.78
	09/24/01	7.57		796.51
	12/05/01	8.72		795.36
	03/19/02	7.64		796.44
	06/20/02	7.21		796.87
	09/18/02	7.88		796.20
	12/17/02	10.49		793.59
	03/24/03	9.98		794.10
	06/10/03	7.54		796.54
	09/10/03	7.35	804.00 ***	796.65
	12/10/03	7.18		796.82
	03/23/04	7.54		796.46
	07/09/04	6.48	803.90 ****	797.42
	09/21/04	8.02		795.88
	03/29/05	8.26		795.64
	06/20/05	7.31		796.59
	09/21/05	7.85		796.05
	12/14/05	8.47		795.43
	03/21/06	7.41		796.49
	06/28/06	7.78	803.83 *****	796.05
	09/20/06	7.90		795.93
	12/19/06	8.39		795.44
	03/13/07	9.08		794.75
	07/03/07	7.35		796.48
	09/27/07	6.92		796.91
	04/16/08	5.65		798.18
	04/03/09	7.03		796.80



**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>	
MW-106	03/17/10	7.03		796.80	
	04/29/11	5.05		798.78	
	03/14/12	6.75		797.33	
	04/29/13	7.04		797.04	
	04/21/14	Inaccessible		#VALUE!	
	09/16/14	6.11	804.15	798.04	
	04/13/15	5.77	804.15	798.38	
	03/30/16	5.72		798.43	
	03/28/17	3.88		800.27	
MW-107	02/01/97	-		788.23	
	05/01/97	-		796.60	
	09/01/97	-		797.64	
	12/01/97	-	809.01	796.49	
	03/01/98	-		796.68	
	06/01/98	-		796.31	
	10/27/98	10.71		798.30	
	02/08/99	11.11		797.90	
	06/08/99	11.04		797.97	
	09/13/99	11.55		797.46	
	12/15/99	11.66		797.35	
	03/13/00	11.13		797.88	
	06/22/00	10.69		798.32	
	09/27/00	12.36		796.65	
	12/19/00	7.32		799.29	
	*	03/01/01	-		-
		06/19/01	10.10	809.06 **	798.96
		09/24/01	11.23		797.88
		12/05/01	11.59		797.47
		03/19/02	9.79		799.27
		06/20/02	10.18		798.88
		09/18/02	11.16		797.90
		12/17/02	12.11		796.95
		03/24/03	12.46		796.60
		06/10/03	10.40		798.66
		09/10/03	11.34		797.72
		12/10/03	10.88		798.18
	03/23/04	9.04		800.02	
	07/09/04	11.53		797.53	
	09/21/04	12.55		796.51	
	03/29/05	10.48		798.58	
	06/20/05	11.14		797.92	
	09/21/05	11.69		797.37	
	12/14/05	11.10		797.96	

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-107	03/21/06	10.09		798.97
	06/28/06	11.69		797.37
	09/20/06	12.14		796.92
	12/19/06	11.45		797.61
	03/13/07	10.95		798.11
	07/03/07	11.34		797.72
	09/27/07	10.86		798.20
	04/16/08	8.92		800.14
	09/22/08	11.35		797.71
	04/03/09	9.02		800.04
	09/01/09	11.15		797.91
	03/17/10	9.09		799.97
	09/09/10	10.72		798.34
	04/29/11	8.17		800.89
	09/01/11	11.14		797.92
	03/14/12	8.74		800.32
	09/11/12	11.51		797.55
	04/29/13	9.33		799.76
	09/17/13	11.15		797.94
	04/21/14	8.35		800.74
	09/16/14	10.19		798.90
	04/13/15	8.86		800.23
	09/14/15	9.60		799.49
	03/30/16	7.79		801.30
	09/21/16	10.34		798.75
	03/28/17	8.49		800.60
	10/03/17	11.04		798.05
MW-108	02/01/97	-		798.36
	05/01/97	-		793.32
	09/01/97	-		790.53
	12/01/97	-	806.61	788.65
	03/01/98	-		795.59
	06/01/98	-		789.30
	10/27/98	6.98		799.63
	02/08/99	6.72		799.89
	06/08/99	5.80		800.81
	09/13/99	6.68		799.93
	12/15/99	6.87		799.74
	03/13/00	6.84		799.77
	06/22/00	6.28		800.33
	09/27/00	6.31		800.30
	12/19/00	11.42		797.59
	03/01/01	7.04		799.57

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-108	06/19/01	5.87		800.74
	09/24/01	6.52		800.09
	12/05/01	7.70		798.91
	03/19/02	6.25		800.36
	06/20/02	6.43		800.18
	09/18/02	6.72		799.89
	12/17/02	7.78		798.83
	03/24/03	8.69		797.96
	06/10/03	7.00		799.61
	09/10/03	6.91		799.70
	12/10/03	5.18		801.43
	03/23/04	6.24		800.37
	07/09/04	6.12		800.49
	09/21/04	6.91		799.70
	03/29/05	6.64		799.97
	06/20/05	6.78		799.83
	09/21/05	6.66		799.95
	12/14/05	6.68		799.93
	03/21/06	6.71		799.90
	06/28/06	6.82		799.79
	09/20/06	6.75		799.86
	12/19/06	6.90		799.71
	03/13/07	6.75		799.86
	07/03/07	7.53		799.08
	09/27/07	6.55		800.06
	04/16/08	1.27		805.34
	04/03/09	6.04		800.57
	03/17/10	6.32		800.29
	04/29/11	6.76		799.85
	03/14/12	6.39		800.22
	04/29/13	6.58		800.03
	04/21/14	6.64		799.97
	09/16/14	6.57		800.04
	04/13/15	6.42		800.19
	03/30/16	6.02		800.59
	03/28/17	6.51		800.10
MW-109	06/21/06	8.98	810.52	801.54
	09/20/06	8.90		801.62
	12/19/06	9.68		800.84
	03/13/07	9.32		801.20
	07/03/07	9.11		801.41
	09/27/07	8.08		802.44
	04/16/08	7.68		802.84

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-109	09/22/08	9.04		801.48
	04/03/09	7.85		802.67
	09/01/09	8.53		801.99
	03/17/10	8.05		802.47
	09/09/10	9.46		801.06
	04/29/11	7.39		803.13
	09/01/11	9.54		800.98
	03/14/12	7.71		802.81
	09/11/12	8.99		801.53
	04/29/13	8.92		801.60
	09/17/13	8.29		802.23
	04/21/14	7.76		802.76
	09/16/14	8.09		802.43
	04/13/15	7.71		802.81
	09/14/15	8.20		802.32
	03/30/16	7.18		803.34
	09/21/16	9.64		800.88
	03/28/17	7.67		802.85
	10/03/17	9.60		800.92
MW-110	06/21/06	10.39	809.81	799.42
	09/20/06	11.09		798.72
	12/19/06	11.06		798.75
	03/13/07	11.04		798.77
	07/03/07	10.60		799.21
	09/27/07	10.33		799.48
	04/16/08	8.31		801.50
	09/22/08	10.67		799.14
	04/03/09	8.72		801.09
	09/01/09	10.52		799.29
	03/17/10	8.92		800.89
	09/09/10	10.24		799.57
	04/29/11	6.72		803.09
	09/01/11	10.57		799.24
	03/14/12	7.98		801.83
	09/11/12	10.91		798.90
	04/29/13	8.75		801.06
	09/17/13	10.47		799.34
	04/21/14	7.12		802.69
	09/16/14	9.57		800.24
	04/13/15	7.13		802.68
	09/14/15	9.20		800.61
	03/30/16	6.75		803.06
	09/21/16	10.86		798.95
	03/28/17	5.82		803.99

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
MW-110	10/03/17	10.31		799.50
MW-111	06/21/06	10.69	807.59	796.90
	09/20/06	13.45		794.14
	12/19/06	14.97		792.62
	03/13/07	9.63		797.96
	07/03/07	9.00		798.59
	09/27/07	8.66		798.93
	04/16/08	5.46		802.13
	09/22/08	10.03		797.56
	04/03/09	5.68		801.91
	09/01/09	9.95		797.64
	03/17/10	6.17		801.42
	09/09/10	8.83		798.76
	04/29/11	5.25		802.34
	09/01/11	9.33		798.26
	03/14/12	6.11		801.48
	09/11/12	12.61		794.98
	04/29/13	6.61		800.98
	09/18/13	10.80		796.79
	04/21/14	5.65		801.94
	09/16/14	7.66		799.93
	04/13/15	5.79		801.80
	09/14/15	8.10		799.49
	03/30/16	5.65		801.94
	09/21/16	9.43		798.16
	03/28/17	5.28		802.31
	10/03/17	9.17		798.42
MW-112	06/21/06	15.70	808.14	792.44
	09/20/06	10.75		797.39
	12/19/06	11.93		796.21
	03/13/07	10.23		797.91
	07/03/07	8.91		799.23
	09/27/07	9.01		799.13
	04/16/08	6.57		801.57
	09/22/08	9.29		798.85
	04/03/09	6.85		801.29
	09/01/09	9.32		798.82
	03/17/10	7.87		800.27
	09/09/10	8.57		799.57
	04/29/11	3.69		804.45
	09/01/11	9.19		798.95
	03/14/12	3.49		804.69

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>	
MW-112	09/11/12	10.57		797.57	
	04/29/13	6.11		802.03	
	09/17/13	9.72		798.42	
	04/21/14	3.58		804.56	
	09/16/14	8.34		799.80	
	04/13/15	3.73		804.41	
	09/14/15	8.50		799.64	
	03/30/16	3.86		804.28	
	09/21/16	9.16		798.98	
	03/28/17	3.64		804.50	
	10/03/17	9.70		798.44	
MW-113	06/21/06	9.69	808.24	798.55	
	09/20/06	10.27		797.97	
	12/19/06	10.03		798.21	
	03/13/07	8.93		799.31	
	07/03/07	9.75		798.49	
	09/27/07	9.67		798.57	
	04/16/08	7.03		801.21	
	09/22/08	9.97		798.27	
	04/03/09	7.41		800.83	
	09/01/09	9.72		798.52	
	03/17/10	7.37		800.87	
	09/09/10	9.48		798.76	
	04/29/11	6.50		801.74	
	09/01/11	9.74		798.50	
	03/14/12	6.86		801.38	
	09/11/12	10.11		798.13	
	04/29/13	8.14		800.10	
	09/17/13	9.80		798.44	
	04/21/14	6.95		801.29	
	09/16/14	9.00		799.24	
04/13/15	6.53		801.71		
09/14/15	8.40		799.84		
03/30/16	6.78		801.46		
09/21/16	9.07		799.17		
03/28/17	6.54		801.70		
10/03/17	9.67		798.57		
PZ5	07/19/05	37.39	810.88	773.49	
	09/21/05	28.56		782.32	
	12/19/06	27.98		782.90	
	03/13/07	28.61		782.27	
	07/03/07	28.00		782.88	

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>	
PZ5	09/27/07	28.06		782.82	
	04/16/08	27.83		810.88	
	04/03/09	28.00		782.88	
	03/17/10	28.33		782.55	
	04/29/11	27.33		783.55	
	03/14/12	27.68		783.20	
	04/29/13	27.40		783.48	
	04/21/14	27.88		783.00	
	09/16/14	27.40		783.48	
	04/13/15	28.78		782.10	
	03/30/16	26.86		784.02	
	03/28/17	26.74		784.14	
PZ6	07/19/05	36.31	809.77	773.46	
	09/21/05	29.79		779.98	
	12/19/06	29.49		780.28	
	03/13/07	29.93		779.84	
	07/03/07	30.03		779.74	
	09/27/07	29.54		780.23	
	04/16/08	28.97		809.77	
	04/03/09	29.15		780.62	
	03/17/10	29.72		780.05	
	04/29/11	28.37		781.40	
	03/14/12	28.85		780.92	
	04/29/13	28.40		781.37	
	04/21/14	28.91		780.86	
	09/16/14	28.80		780.97	
04/13/15	30.00		779.77		
03/30/16	28.04		781.73		
03/28/17	27.91		781.86		
PZ7	07/19/05	32.03	804.48	772.45	
	09/21/05	27.34		777.14	
	12/19/06	29.37		775.11	
	03/13/07	24.41		780.07	
	07/03/07	23.74		780.74	
	09/27/07	25.15		779.33	
	04/16/08	23.83		804.48	
	04/03/09	23.76		780.72	
	03/17/10	24.33		780.15	
	04/29/11	23.27		781.21	
	03/14/12	23.70		780.78	
	04/29/13	24.19		780.29	
	04/21/14	23.94		780.54	

**TABLE 3**  
**Groundwater Elevations**

N.W. Mauthe Superfund Site - Appleton, WI  
Terracon Project No. 58117057

<b>Well Name</b>	<b>Date Measured</b>	<b>Depth To Water (feet)</b>	<b>Reference Elevation (To Top PVC) (feet)</b>	<b>Groundwater Elevation (feet)</b>
PZ7	09/16/14	22.65		781.83
	04/13/15	23.21		781.27
	03/30/16	21.35		783.13
	03/28/17	21.49		782.99
PZ8	07/19/05	32.07	804.35	772.28
	09/21/05	24.47		779.88
	12/19/06	28.16		776.19
	03/13/07	21.90		782.45
	07/03/07	23.19		781.16
	09/27/07	22.47		781.88
	04/16/08	21.00		804.35
	04/03/09	20.63		783.72
	03/17/10	21.25		783.10
	04/29/11	20.65		783.70
	03/14/12	20.94		783.41
	04/29/13	20.25		784.10
	04/21/14	20.09		784.26
	09/16/14	20.71		783.64
	04/13/15	21.02		783.33
	03/30/16	19.67		784.68
	03/28/17	19.81		784.54

\* Casing for MW-107 was damaged. Groundwater elevation could not be determined.

\*\* Reflects new elevation of MW-107 after repair to well casing.

\*\*\* Monitoring wells re-surveyed after casings were shortened.

\*\*\*\* New elevation after the PVC casing was shortened after the March 23, 2004 sampling event.

\*\*\*\*\* New elevation after the PVC casing was shortened after the March 21, 2006 sampling event.

\*\*\*\*\* New elevation after PVC casing was shortened after the December 19, 2006 sampling event.



**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
W-2	02/20/97	NR	8.00	6.00	750 us	NA	NA	NA	NA
	05/27/97	NR	7.74	10.10	NA	NA	NA	NA	NA
	09/18/97	NR	7.01	14.50	910 us	NA	NA	NA	NA
	12/12/97	NR	7.33	9.50	820 us	NA	NA	NA	NA
	03/25/98	NR	7.96	7.90	1235 us	NA	NA	NA	NA
	06/10/98	NR	6.59	10.20	1057 us	NA	NA	NA	NA
	10/27/98	4	7.93	14.80	1278 us	1.40	119.00	12.00	0.00
	02/09/99	4	8.47	9.50	1278 us	2.10	146.00	16.00	0.20
	06/08/99	4	7.20	14.60	1234 us	1.00	85.00	11.20	1.00
	09/13/99	5.1	7.34	15.00	1254 us	1.90	(136.00)	9.60	0.00
	12/15/99	4.8	7.77	11.80	1199 us	1.50	(231.00)	4.80	0.00
	03/13/00	7	6.17	8.90	1278 us	1.30	59.00	7.60	0.00
	06/22/00	4.4	7.86	12.10	1240 us	1.50	59.00	7.60	0.00
	09/27/00	6.6	6.39	16.40	1140 us	1.90	(187.00)	9.60	0.00
	12/19/00	5	7.66	9.50	1171 us	1.85	(161.00)	11.20	0.00
	03/01/01	3.5	7.42	10.50	1084 us	1.41	(222.00)	9.20	0.00
	06/19/01	7	7.81	15.60	1980 us	1.10	(18.00)	8.40	0.00
	09/24/01	5	7.48	13.40	1712 us	0.90	(38.00)	6.60	0.00
	12/05/01	5	7.51	10.20	1244 us	1.10	(71.00)	9.60	0.00
	03/19/02	6	7.51	10.60	977 us	1.10	(210.00)	13.20	0.00
	06/20/02	6	7.40	15.00	1870 us	0.80	(88.00)	8.80	0.00
	09/18/02	5	7.18	14.80	1138 us	1.00	(99.00)	10.40	0.00
	12/17/02	4	7.34	10.30	1187 us	1.00	(103.00)	9.60	0.00
	03/24/03	4	7.30	10.30	1077 us	1.00	(310.00)	10.00	0.00
	06/10/03	6	7.21	14.90	1620 us	1.00	(110.00)	12.80	0.00
	09/10/03	4	7.09	14.60	1210 us	0.80	(111.00)	8.80	0.00
	03/24/04	4.5	7.30	7.40	1210 us	EM	6.00	NA	0.00
	03/29/05	4.5	7.20	6.30	1182 us	3.40	85.00	NA	0.00
	03/23/06	7	6.60	10.50	2470 us	2.65	191.00	NA	0.03
	03/27/07	4	7.4	9.0	1240 us	8.0	243	NA	0.04
	04/16/08	NA	NA	NA	NA	NA	NA	NA	NA
	09/22/08	NA	NA	NA	NA	NA	NA	NA	NA
	04/03/09	NA	NA	NA	NA	NA	NA	NA	NA
	03/17/10	NA	NA	NA	NA	NA	NA	NA	NA
	04/29/11	1.25	7.45	7.1	1276.0 µs	0.69	126.7	NA	0.17
	04/14/15	4	5.88	8.94	6.14 mS/cm	1.91	(194.0)	NA	2.44

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
W-8	02/20/97	NR	8.20	7.50	1000 us	NA	NA	NA	NA
	05/27/97	NR	7.30	10.40	NA	NA	NA	NA	NA
	09/18/97	NR	7.07	17.00	1250 us	NA	NA	NA	NA
	12/12/97	NR	7.32	11.20	1090 us	NA	NA	NA	NA
	03/25/98	NR	7.34	7.90	1590 us	NA	NA	NA	NA
	06/10/98	NR	6.95	11.50	1407 us	NA	NA	NA	NA
	10/27/98	5	7.42	16.70	1459 us	1.30	97.00	14.40	0.20
	02/09/99	3.9	8.08	11.20	1386 us	1.30	21.00	8.00	2.40
	06/08/99	5.5	7.23	14.80	1283 us	1.80	85.00	14.00	5.60
	09/13/99	5.2	7.12	16.30	1363 us	1.70	(143.00)	14.40	1.60
	12/15/99	5.1	7.25	10.30	1375 us	0.90	(288.00)	14.40	1.20
	03/13/00	5	7.06	8.80	1277 us	1.10	(33.00)	8.40	1.00
	06/22/00	5	8.58	14.60	1177 us	1.97	(120.00)	6.80	0.00
	09/27/00	6	7.60	18.10	1098 us	1.50	(178.00)	10.00	0.00
	12/19/00	4	7.67	8.30	1227 us	1.14	(267.00)	11.60	0.00
	03/01/01	5	7.51	11.10	1175 us	1.20	(311.00)	11.20	0.00
	06/19/01	6	7.93	14.80	1310 us	0.80	(24.00)	6.20	0.00
	09/24/01	6	7.37	13.10	1177 us	0.40	4.00	6.40	0.00
	12/05/01	5	7.30	10.40	1288 us	1.00	(163.00)	12.40	0.00
	03/19/02	6	7.44	10.90	1044 us	1.30	(280.00)	11.20	0.00
	06/20/02	6	7.51	14.20	1240 us	0.80	(90.00)	6.20	0.00
	09/18/02	5	7.31	15.60	1221 us	1.30	(104.00)	14.60	1.00
	12/17/03	3	7.28	10.60	1,155	1.10	(172.00)	12.40	0.40
	03/24/03	5	7.18	10.60	1131 us	0.80	(342.00)	11.20	0.00
	06/10/03	4	7.30	15.00	1133 us	0.80	(121.00)	8.80	0.00
	09/10/03	5	7.22	15.00	1240 us	1.00	(175.00)	11.60	0.80
	03/24/04	4.3	7.40	7.80	755 us	EM	(47.00)	NA	0.00
	03/29/05	4	7.10	7.80	1743 us	3.43	87.00	NA	0.00
	03/23/06	4	7.20	8.30	2560 us	4.00	227.00	NA	0.00
	03/27/07	3	7.3	10.3	1438 us	6.71	237	NA	0.03
	04/16/08	NA	NA	NA	NA	NA	NA	NA	NA
	09/22/08	NA	NA	NA	NA	NA	NA	NA	NA
	04/03/09	NA	NA	NA	NA	NA	NA	NA	NA
	03/17/10	NA	NA	NA	NA	NA	NA	NA	NA
	04/29/11	1.25	7.52	8.5	1510.0 µs	3.32	222	NA	0.03
	04/13/15	1.5	6.55	8.49	4.74 mS/cm	5.92	138	NA	<0.0129

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
W-15	02/20/97	NR	8.15	9.00	920 us	NA	NA	NA	NA
	05/27/97	NR	7.66	10.00	NA	NA	NA	NA	NA
	09/18/97	NR	7.22	16.00	1300 us	NA	NA	NA	NA
	12/12/97	NR	7.18	10.40	1180 us	NA	NA	NA	NA
	03/25/98	NR	7.70	8.40	1450 us	NA	NA	NA	NA
	06/10/98	NR	6.46	11.60	1496 us	NA	NA	NA	NA
	10/27/98	4	7.27	16.00	1551 us	0.80	137.00	14.40	0.00
	02/09/99	2.6	8.07	10.00	1418 us	1.30	7.00	12.00	0.60
	06/08/99	4.5	7.54	16.70	1465 us	1.50	75.00	12.00	1.40
	09/13/99	3.6	7.18	17.60	1647 us	1.90	(137.00)	10.40	0.80
	12/15/99	3.3	7.52	11.70	1544 us	1.50	(281.00)	12.40	1.00
	03/13/00	4	7.14	8.90	1266 us	1.40	(19.00)	7.60	0.40
	06/22/00	3	8.22	14.90	1546 us	1.63	36.00	7.30	0.00
	09/27/00	5	5.43	17.40	1711 us	1.30	(41.00)	12.40	0.00
	12/19/00	3	7.55	8.90	1628 us	3.23	(305.00)	15.20	1.60
	03/01/01	4	7.43	10.90	1435 us	2.10	(381.00)	16.00	0.80
	06/19/01	5	8.18	14.80	1380 us	1.40	(64.00)	6.00	0.00
	09/24/01	5	7.22	12.60	1160 us	1.00	(49.00)	8.00	0.00
	12/05/01	3	7.28	9.90	1544 us	2.00	(280.00)	12.80	1.20
	03/19/02	5	7.58	10.30	1284 us	1.80	(318.00)	12.20	0.40
	06/20/02	5	8.00	14.60	1280 us	1.00	(180.00)	12.40	0.00
	09/18/02	5	7.20	16.30	1399 us	1.60	(152.00)	13.60	0.40
	12/17/02	3	7.18	10.00	1234 US	2.00	(220.00)	8.80	1.00
	03/24/03	3	7.22	10.60	1294 us	1.40	(330.00)	12.40	0.20
	06/10/03	5	7.76	14.80	1148 us	1.20	(174.00)	11.20	0.00
	09/10/03	5	7.18	15.40	1317 us	1.20	(170.00)	10.40	0.60
	03/24/04	3.7	7.30	8.40	1516 us	EM	(32.00)	NA	0.00
	03/29/05	3	7.00	8.20	2240 us	3.81	85.00	NA	0.00
	03/23/06	4	7.00	7.50	1952 us	4.40	236.00	NA	0.00
	03/28/07	3	7.3	9.0	1420 us	3.28	213	NA	0.01
	04/16/08	NA	NA	NA	NA	NA	NA	NA	NA
	09/22/08	NA	NA	NA	NA	NA	NA	NA	NA
	04/03/09	NA	NA	NA	NA	NA	NA	NA	NA
	03/17/10	NA	NA	NA	NA	NA	NA	NA	NA
	04/29/11	1.25	7.43	7.9	1713.0 µs	3.68	219	NA	0.00
	04/13/15	1.5	6.38	11.85	5.29 mS/cm	8.82	140	NA	<0.0129

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-101	02/20/97	NR	7.12	8.00	1400 us	NA	NA	NA	NA
	05/27/97	NR	7.56	12.90	NA	NA	NA	NA	NA
	09/18/97	NR	6.54	14.00	1380 us	NA	NA	NA	NA
	12/12/97	NR	6.64	11.40	1390 us	NA	NA	NA	NA
	03/25/98	NR	7.58	10.50	2142 us	NA	NA	NA	NA
	06/10/98	NR	6.29	11.50	2116 us	NA	NA	NA	NA
	10/27/98	9	7.13	14.10	2.27 ms	0.50	116.00	12.00	0.00
	02/09/99	7	8.11	12.70	2.11 ms	1.10	165.00	8.80	0.20
	06/08/99	6	7.05	15.00	2.17 ms	0.70	161.00	8.00	0.20
	09/13/99	5.9	7.25	14.90	2.12 ms	0.90	(125.00)	13.60	0.00
	12/15/99	6	8.71	12.70	2.06 ms	1.00	(262.00)	8.80	0.00
	03/13/00	7	6.34	11.60	1939 us	1.10	44.00	8.00	0.00
	06/22/00	5	7.73	15.20	2.25 ms	0.96	50.00	8.00	0.00
	09/27/00	8.5	6.80	15.50	2.18 ms	0.70	3.00	12.80	0.00
	12/19/00	10.5	7.12	11.90	2.18 ms	1.48	(233.00)	14.40	0.00
	03/01/01	8	7.41	11.00	2.31 ms	1.32	(283.00)	12.20	0.00
	06/19/01	9	8.04	13.60	1265 us	1.00	10.00	7.20	0.00
	09/24/01	8	7.79	13.40	1304 us	1.00	(11.00)	11.20	0.00
	12/05/01	9	7.40	11.20	2240 us	1.20	(304.00)	8.40	0.00
	03/19/02	9	7.36	10.80	1984 us	1.40	(210.00)	12.20	0.00
	06/20/02	10	7.93	13.80	1190 us	0.80	(30.00)	14.00	0.00
	09/18/02	10	7.24	15.00	2248 us	0.80	(113.00)	8.80	0.00
	12/17/02	8	7.27	11.40	1988 us	1.60	(334.00)	8.40	0.00
	03/24/03	9	7.45	11.10	1033 us	0.60	(190.00)	11.20	0.00
	06/10/03	10	7.66	14.00	1121 us	1.00	(61.00)	13.20	0.00
	09/10/03	8	7.30	14.80	2104 us	0.80	(124.00)	7.20	0.00
	03/24/04	6.7	6.90	10.10	3160 us	EM	(69.00)	NA	0.00
	03/29/05	6	6.60	12.12	4730 us	1.27	83.00	NA	0.00
	03/23/06	7	6.60	10.50	2470 us	2.65	191.00	NA	0.03
	03/27/07	5	6.70	13.3	2440 us	3.64	187	NA	0.00
	04/16/08	1.25	6.94	10.5	NA	1.62	309	NA	NA
	09/22/08	NA	NA	NA	NA	NA	NA	NA	NA
	04/03/09	1.5	6.88	7.9	8.83 ms	2.23	NA	NA	NA
	03/17/10	1.5	6.90	9.1	7.30 ms	2.76	263	NA	NA
	04/29/11	1.25	7.06	10.2	5920 µs	2.57	293	NA	0.00
	03/16/12	2	6.20	10.1	0.47 S/m	1.90	212	NA	NA
	04/29/13	2.5	9.59	9.3	6.33 ms	2.09	(74.40)	NA	NA
	04/21/14	3.5	6.84	7.4	2.97 mS/cm	3.99	258.6	NA	NA
	04/14/15	2	5.87	8.17	19.5 mS/cm	5.42	144	NA	<0.0129
	03/30/16	1.5	6.86	8.90	4.56 mS/cm	2.43	58.7	NA	NA
	03/29/17	2	8.89	10.30	4.951 mS/cm	2.28	221.2	NA	NA

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-102	02/20/97	NR	8.00	10.50	700 us	NA	NA	NA	NA
	05/27/97	NR	7.47	10.50	NA	NA	NA	NA	NA
	09/18/97	NR	6.99	13.00	810 us	NA	NA	NA	NA
	12/12/97	NR	7.23	8.50	690 us	NA	NA	NA	NA
	03/25/98	NR	7.68	10.20	1145 us	NA	NA	NA	NA
	06/10/98	NR	6.97	10.30	1046 us	NA	NA	NA	NA
	10/27/98	2	8.07	13.00	1197 us	1.50	103.00	17.60	0.40
	02/09/99	0.5	7.48	11.00	1164 us	1.00	0.33	14.40	0.00
	06/08/99	0.5	7.89	18.60	1226 us	1.00	151.00	4.80	0.80
	09/13/99	0.5	7.84	13.30	1208 us	1.20	(246.00)	10.00	1.20
	12/15/99	0.5	7.78	9.00	1152 us	1.60	(288.00)	10.80	1.00
	03/13/00	0.5	6.74	9.70	1096 us	1.20	(260.00)	6.80	0.00
	06/22/00	0.5	8.01	12.30	1233 us	0.53	(13.00)	6.00	0.00
	09/27/00	0.5	8.25	12.50	1182 us	1.90	(241.00)	9.20	0.00
	12/19/00	0.5	7.59	8.70	1126 us	1.27	(454.00)	11.60	0.00
	03/01/01	0.5	7.30	10.90	1321 us	1.02	(521.00)	9.20	0.00
	06/19/01	0.5	8.64	13.20	1944 us	0.60	35.00	6.40	0.00
	09/24/01	0.5	7.63	13.40	1622 us	0.80	18.00	7.20	0.00
	12/05/01	0.5	7.59	9.40	1233 us	0.80	(110.00)	12.40	0.00
	03/19/02	0.5	7.41	10.80	1143 us	0.90	(503.00)	9.20	0.50
	06/20/02	0.5	8.18	13.80	1720 us	0.40	4.00	9.60	0.00
	09/18/02	0.5	7.04	13.50	1318 us	1.00	(212.00)	10.80	1.00
	12/17/02	0.5	7.55	10.00	1186 us	0.60	(94.00)	11.20	0.00
	03/24/03	0.5	7.38	10.40	972 us	0.40	(621.00)	8.40	0.00
	06/10/03	0.5	8.01	13.80	1530 us	0.40	(18.00)	8.60	0.00
	09/10/03	0.5	7.10	14.00	1313 us	0.80	(211.00)	8.00	0.80
	03/24/04	2.7	7.20	12.80	1112 us	EM	(26.00)	NA	0.00
	03/29/05	3	7.10	12.70	1199 us	2.71	85.00	NA	0.00
	03/23/06	2	7.50	9.20	1234 us	5.06	283.00	NA	0.00
	03/27/07	2	7.2	12.5	1093 us	1.73	86	NA	0.29
	04/16/08	1	7.10	14.1	NA	2.64	179.9	NA	NA
	09/22/08	NA	NA	NA	NA	NA	NA	NA	NA
	04/03/09	1	7.46	10.2	1275 us	4.90	NA	NA	NA
	03/17/10	1	7.35	11.6	1295 us	3.35	91.1	NA	NA
	04/29/11	1.25	7.40	11.5	1204 µs	2.33	234	NA	0.09
	03/14/12	1.5	6.50	12.7	0.12 S/m	5.50	97	NA	NA
	04/29/13	2.5	7.35	10.7	0.81 ms	4.15	(31.20)	NA	NA
	04/21/14	1	7.18	11.3	0.65 mS/cm	6.83	182.5	NA	NA
	04/13/15	1.5	6.51	14.57	2.59 mS/cm	7.01	133	NA	<0.0129
	03/30/16	1.5	7.20	9.70	0.64 mS/cm	4.87	52.6	NA	NA
	03/29/17	2	8.68	9.80	0.717 mS/cm	5.84	158.8	NA	NA

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-103	02/20/97	NR	6.30	6.00	700 us	NA	NA	NA	NA
	05/27/97	NR	7.67	11.60	NA	NA	NA	NA	NA
	09/18/97	NR	7.21	10.50	1030 us	NA	NA	NA	NA
	12/12/97	NR	7.43	9.00	970 us	NA	NA	NA	NA
	03/25/98	NR	7.82	9.40	1441 us	NA	NA	NA	NA
	06/10/98	NR	6.24	9.90	1356 us	NA	NA	NA	NA
	10/27/98	8	7.66	12.70	1566 us	0.70	147.00	12.00	0.20
	02/09/99	7.8	7.48	9.90	1443 us	1.40	53.00	11.20	0.80
	06/08/99	9.5	7.42	13.90	1350 us	0.70	109.00	7.20	0.00
	09/13/99	4.1	7.41	12.90	985 us	1.60	(165.00)	12.00	0.00
	12/15/99	4.6	7.82	10.60	2.58 ms	1.40	(294.00)	10.80	0.00
	03/13/00	4	6.57	9.40	1292 us	1.00	76.00	8.40	0.40
	06/22/00	4	8.43	11.50	1354 us	0.99	(90.00)	6.00	0.00
	09/27/00	11	7.48	13.70	1131 us	1.40	(302.00)	7.60	0.00
	12/19/00	9	7.90	6.60	1063 us	1.56	(344.00)	9.20	0.40
	03/01/01	8.5	7.68	11.20	1160 us	1.88	(374.00)	8.00	0.60
	06/19/01	13	7.81	14.10	1848 us	1.10	(28.00)	7.40	0.00
	09/24/01	2	7.32	12.70	1743 us	1.00	(47.00)	12.00	0.00
	12/05/01	11	7.18	9.00	1121 us	1.40	(291.00)	10.80	0.60
	03/19/02	11	7.60	11.40	1050 us	1.50	(311.00)	10.00	0.40
	06/20/02	12	7.47	14.40	1830 us	0.80	(62.00)	10.80	0.00
	09/18/02	10	7.18	13.00	748 us	1.40	(170.00)	11.20	0.00
	12/17/02	8	7.22	9.60	1134 us	1.20	(284.00)	10.00	0.40
	03/24/03	11	7.54	11.00	1262 us	1.20	(320.00)	10.00	0.60
	06/10/03	10	7.13	14.10	1644 us	0.60	(80.00)	10.00	0.20
	09/10/03	10	7.14	13.20	920 us	1.00	(165.00)	10.40	0.00
	12/10/03	10	7.28	10.40	1210 us	0.80	(310.00)	7.80	0.20
	03/24/04	8.6	7.30	10.20	656 us	EM	(126.00)	NA	0.00
	07/09/04	5	7.20	14.00	996 us	16.30	283.00	NA	0.00
	09/21/04	1.5	7.10	20.10	1004 us	EM	(19.00)	NA	0.00
	03/29/05	12	7.00	10.20	1164 us	1.16	84.00	NA	0.00
	06/21/05	7	7.10	13.30	1253 us	1.46	142.00	NA	0.00
	09/21/05	10	7.30	13.50	1233 us	3.40	225.00	NA	0.00
	12/14/05	7	7.20	9.90	1295 us	1.53	NA	NA	0.00
	03.23/06	7	7.00	11.50	1140 us	230.00	252.00	NA	0.00
	06/28/06	5	7.10	11.80	746 us	2.75	232.00	NA	0.00
	12/20/06	8	7.40	10.80	1207 us	2.89	241.00	NA	0.23
	03/28/07	8	7.2	10.8	1075 us	3.09	238.0	NA	0.05
	07/03/07	8	7.4	11.3	1154 us	3.54	126.0	NA	0.38
	09/28/07	8	7.2	13.7	1294 us	3.14	217.0	NA	0.00
	04/16/08	1	7.09	12.0	556 us	0.83	233	NA	NA
	09/22/08	1	7.27	13.8	1446 us	0.20	183.7	NA	NA
	04/03/09	1	7.40	9.4	1451 us	1.89	NA	NA	NA
	09/01/09	1	7.33	12.4	1409 µs	0.22	267	NA	NA
	03/17/10	1.5	7.30	10.8	1480 µs	0.89	231	NA	NA
	09/09/10	1.25	7.21	12.6	1468 µs	0.40	133.2	NA	NA
	04/29/11	1.25	7.36	10.2	1304 µs	2.17	244	NA	0.09
	09/01/11	1.5	7.36	13.5	1316 µs	0.63	89.7	NA	NA
	03/14/12	2	6.20	10.2	0.12 S/m	0.70	175.0	NA	NA
	09/11/12	2.5	7.03	15.9	1.15 ms	1.05	117.8	NA	NA
	04/29/13	1.5	12.45	9.3	0.97 ms	1.82	(102.50)	NA	NA
	09/18/13	2.5	6.40	14.00	0.12 ms	5.20	152.00	NA	NA
	04/21/14	1.5	7.02	9.2	0.63 mS/cm	2.64	219.5	NA	NA
	09/16/14	3.5	8.25	13.3	0.77 mS/cm	3.72	70.4	NA	NA
	04/14/15	2.5	5.90	7.62	3.51 mS/cm	5.80	118	NA	<0.0129
	09/14/15	1.5	7.15	14.62	1.007 mS/cm	0.51	69	NA	NA

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-103	04/05/16	1.5	7.26	8.30	0.63mS/cm	1.15	43.4	NA	NA
	09/21/16	3	7.01	13.95	0.819 mS/cm	0.70	247.2	NA	NA
	03/29/17	1.5	8.61	8.40	0.771 mS/cm	1.91	183.2	NA	NA
	10/04/17	3	7.38	13.57	1.006 mS/cm	0.20	181.5	NA	NA
MW-104	02/20/97	NR	7.43	8.00	1000 us	NA	NA	NA	NA
	05/27/97	NR	8.00	12.00	NA	NA	NA	NA	NA
	09/18/97	NR	7.13	10.50	1030 us	NA	NA	NA	NA
	12/12/97	NR	7.10	9.60	1000 us	NA	NA	NA	NA
	03/25/98	NR	7.94	8.30	1378 us	NA	NA	NA	NA
	06/10/98	NR	6.53	9.70	1101 us	NA	NA	NA	NA
	10/27/98	8	7.84	13.20	1272 us	0.90	103.00	16.40	0.40
	02/09/99	9.5	7.66	10.10	1126 us	1.50	193.00	11.20	0.00
	06/08/99	13	6.80	15.60	1259 us	1.60	103.00	6.40	0.00
	09/13/99	13.8	7.08	13.90	1334 us	1.80	(146.00)	10.80	0.00
	12/15/99	11.2	7.68	10.80	1172 us	2.00	(232.00)	11.20	0.00
	03/13/00	16.5	6.91	10.20	1121 us	0.40	69.00	11.20	0.60
	06/22/00	11	8.65	11.60	1137 us	0.71	(211.00)	6.80	0.00
	09/27/00	8	7.24	12.90	1130 us	1.70	(123.00)	13.20	0.00
	12/19/00	8	7.75	8.20	1144 us	1.05	(240.00)	12.40	0.00
	03/01/01	9.5	7.72	10.60	1230 us	0.90	(220.00)	12.40	0.20
	06/19/01	13	7.91	12.90	1581 us	0.80	(110.00)	6.80	0.00
	09/24/01	8	7.18	12.40	1580 us	0.80	(99.00)	9.60	0.20
	12/05/01	7	7.22	9.90	1300 us	1.00	(311.00)	9.60	0.00
	03/19/02	10	7.70	10.60	1110 us	0.70	(210.00)	11.60	0.20
	06/20/02	10	7.53	13.00	1420 us	0.80	(174.00)	12.40	0.20
	09/18/02	9	7.03	14.60	1275 us	1.60	(148.00)	12.40	0.00
	12/17/02	8	7.31	10.00	1264 us	0.80	(294.00)	8.80	0.00
	03/24/03	8	7.61	10.40	1031 us	0.80	(240.00)	10.80	0.00
	06/10/03	10	7.40	15.00	1374 us	0.60	(91.00)	11.20	0.40
	09/10/03	9	7.08	14.20	1144 us	1.20	(151.00)	8.80	0.00
	12/01/03	8	7.35	10.10	1177 us	0.80	(280.00)	8.80	0.00
	03/24/04	13.6	7.30	9.90	1496 us	EM	(91.00)	NA	0.00
	07/09/04	5	7.00	12.00	1648 us	2.90	EM	NA	0.00
	09/21/04	1	7.00	13.10	1648 us	EM	1.00	NA	0.00
	03/29/05	6	7.00	10.20	1939 us	2.69	86.00	NA	0.00
	06/21/05	7	7.10	12.50	1999 us	3.50	125.00	NA	0.00
	09/21/05	7	7.10	13.80	1926 us	2.78	213.00	NA	0.00
	12/14/05	7	6.90	10.90	2320 us	2.11	253.00	NA	NA **
	03/23/06	10	6.90	10.60	2250 us	1.73	209.00	NA	0.00
	06/28/06	5	6.80	11.30	2290 us	1.40	215.00	NA	0.26
	12/20/06	8	7.10	11.90	2120 us	2.08	248.00	NA	0.00
	03/28/07	8	6.9	10.1	2450 us	3.80	226.0	NA	0.07
	07/03/07	6	7.1	11.5	2180 us	1.51	247.0	NA	0.61
	09/28/07	6	6.9	14.7	2380 us	2.22	266.0	NA	0.05
	04/16/08	1	6.96	13.9	853 us	1.74	157.0	NA	NA
	09/22/08	1	7.06	13.1	3.43 ms	0.23	61.8	NA	NA
	04/03/09	1	7.25	8.1	2.88 ms	1.67	NA	NA	NA
	09/01/09	1	7.11	11.6	3110 µs	0.60	262	NA	NA
	03/17/10	1.5	7.14	9.9	3.07 ms	0.93	210	NA	NA
	09/09/10	1.25	7.07	12.4	3.05 ms	0.24	(156.2)	NA	NA
	04/29/11	1.25	7.32	10.2	2980 µs	1.34	243	NA	0.00
	09/01/11	1.5	7.31	13.4	2.58 ms	0.31	(150.80)	NA	NA
	03/14/12	2	6.20	10.1	0.16 S/m	1.00	165.00	NA	NA
	09/11/12	2	6.95	13.4	1.85 ms	0.25	84.90	NA	NA
	04/29/13	1.5	11.68	9.3	2.10 ms	0.24	(123.50)	NA	NA
	09/17/13	4.3	6.7	11.2	0.29ms	6.2	(84.00)	NA	NA

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-104	04/21/14	1	6.86	10.1	2.12 mS/cm	1.91	253.90	NA	NA
	09/16/14	2	7.77	12.4	2.73 mS/cm	0.41	(102.40)	NA	NA
	04/14/15	1.5	6.04	7.88	5.30 mS/cm	4.60	122	NA	<0.0129
	09/14/15	1.75	7.11	13.92	1.941 mS/cm	0.55	(12)	NA	NA
	03/30/16	1.5	7.13	8.30	0.98 mS/cm	0.76	35.6	NA	NA
	09/21/16	2.5	7.11	15.30	0.986 mS/cm	0.23	(22.0)	NA	NA
	03/29/17	1.5	8.57	8.50	1.085 mS/cm	0.91	187.7	NA	NA
	10/04/17	3	7.49	12.78	1.269 mS/cm	0.15	178.6	NA	NA
MW-105	02/20/97	NR	7.70	7.00	1600 us	NA	NA	NA	NA
	05/27/97	NR	7.44	10.50	NA	NA	NA	NA	NA
	09/18/98	NR	6.89	16.00	2150 us	NA	NA	NA	NA
	12/12/97	NR	7.04	12.00	2050 us	NA	NA	NA	NA
	03/25/98	NR	7.35	6.70	2878 us	NA	NA	NA	NA
	06/10/98	NR	6.25	11.10	2695 us	NA	NA	NA	NA
	10/27/98	5	7.57	16.80	2.87 ms	0.10	121.00	13.60	0.00
	02/09/99	5.9	7.34	10.60	2.76 ms	0.90	281.00	16.80	1.80
	06/08/99	5	7.32	17.80	2.87 ms	0.70	90.00	9.60	0.20
	09/13/99	3.5	7.00	17.20	2.74 ms	1.70	(182.00)	13.20	1.40
	12/15/99	3.6	7.36	13.00	2.62 ms	1.60	(255.00)	8.80	1.20
	03/13/00	4.5	6.58	8.40	2430 us	1.30	23.00	9.60	0.80
	06/22/00	3.2	8.44	14.30	2.71 ms	0.88	(304.00)	6.40	0.00
	09/27/00	6	6.62	17.90	2.53 ms	1.10	(198.00)	12.80	0.00
	12/19/00	6	7.42	9.60	2.32 ms	2.27	(167.00)	12.40	0.00
	03/01/01	5	7.24	10.80	2.45 ms	1.89	(184.00)	11.60	0.00
	06/19/01	7	8.19	12.80	1877 us	0.60	(200.00)	6.80	0.00
	09/24/01	6	7.41	13.80	1809 us	0.80	(183.00)	7.20	0.00
	12/05/01	6	7.34	10.00	2148 us	1.80	(188.00)	11.20	0.20
	03/19/02	5	6.94	10.20	1984 us	1.80	(169.00)	9.60	0.00
	06/20/02	6	8.04	13.00	1400 us	1.00	(310.00)	10.80	0.00
	09/18/02	6	7.21	17.20	2800 us	1.60	(183.00)	10.80	1.60
	12/17/02	5	7.08	10.40	2008 us	1.40	(194.00)	13.20	0.40
	03/24/03	5	7.04	10.60	1477 us	1.40	(99.00)	14.00	0.00
	06/10/03	6	7.81	14.80	1344 us	1.20	(280.00)	8.60	0.00
	09/10/03	6	7.30	16.40	2626 us	1.20	(177.00)	10.00	1.20
	03/24/04	4.9	6.80	5.90	2220 us	EM	(78.00)	NA	0.00
	03/29/05	4	6.80	8.90	2300 us	2.12	87.00	NA	0.00
	03/23/06	4	6.90	8.60	2170 us	3.54	256.00	NA	0.22
	03/27/07	4	6.8	9.2	2180 us	3.37	296	NA	0.08
	04/16/08	NA	NA	NA	NA	NA	NA	NA	NA
	09/22/08	NA	NA	NA	NA	NA	NA	NA	NA
04/03/09	NA	NA	NA	NA	NA	NA	NA	NA	
03/17/10	NA	NA	NA	NA	NA	NA	NA	NA	
04/29/11	1.25	7.25	9.8	1812 µs	2.98	242	NA	0.00	
04/13/15	4	6.32	8.66	6.76 mS/cm	6.91	152	NA	0.0226 J	



**TABLE 4**  
**Groundwater Geochemical Parameters**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-106	02/20/97	NR	7.75	10.00	1000 us	NA	NA	NA	NA
	05/27/97	NR	7.47	10.10	NA	NA	NA	NA	NA
	09/18/97	NR	7.19	15.00	1310 us	NA	NA	NA	NA
	12/12/97	NR	7.06	11.50	1260 us	NA	NA	NA	NA
	03/25/98	NR	7.61	8.70	1716 us	NA	NA	NA	NA
	06/10/98	NR	7.11	11.60	1604 us	NA	NA	NA	NA
	10/27/98	4	7.31	16.80	1824 us	1.20	138.00	12.80	0.00
	02/09/99	2.5	7.33	10.20	1605 us	1.10	197.00	20.80	0.00
	06/08/99	3.5	7.15	15.40	1332 us	0.70	17.00	6.40	0.20
	09/13/99	2.3	7.02	17.40	1357 us	1.00	(168.00)	11.60	0.00
	12/15/99	2	8.41	12.10	1445 us	0.80	(266.00)	10.00	0.00
	03/13/00	2.5	6.92	9.10	1513 us	1.60	18.00	10.40	0.00
	06/22/00	1.5	8.18	14.50	1736 us	2.02	38.00	7.20	0.00
	09/27/00	6	6.84	19.10	1715 us	1.60	(8.00)	12.00	0.00
	12/19/00	4	7.48	10.70	1694 us	1.43	(218.00)	10.80	0.00
	03/01/01	4	7.33	10.80	1722 us	1.50	(210.00)	9.20	0.00
	06/19/01	4	8.28	13.00	1361 us	1.10	(210.00)	6.40	0.00
	09/24/01	6	7.66	14.00	1220 us	0.80	(104.00)	11.20	0.00
	12/05/01	4	7.60	10.40	1702 us	0.90	(217.00)	12.80	0.00
	03/19/02	5	7.13	10.40	1630 us	1.70	(235.00)	9.20	0.00
	06/20/02	5	8.08	12.80	1288 us	1.20	(240.00)	8.80	0.00
	09/18/02	5	7.30	17.80	1438 us	1.00	(141.00)	8.80	0.00
	12/17/02	3	7.15	10.20	1788 us	0.80	(220.00)	11.20	0.00
	03/24/03	3	7.22	10.80	1250 us	1.10	(193.00)	10.00	0.00
	06/10/03	5	7.84	13.80	1310 us	1.20	(230.00)	10.20	0.00
	09/10/03	5	7.24	16.60	1303 us	0.80	(140.00)	12.00	0.00
	03/24/04	1.8	7.10	8.00	1761 us	EM	(57.00)	NA	0.00
	03/29/05	2.5	6.90	9.00	1995 us	2.24	85.00	NA	0.00
	03/23/06	4	7.00	9.40	2160 us	4.14	249.00	NA	0.00
	03/27/07	2	7.0	8.5	1887 us	5.04	249	NA	0.00
	04/16/08	NA	NA	NA	NA	NA	NA	NA	NA
	09/22/08	NA	NA	NA	NA	NA	NA	NA	NA
	04/03/09	NA	NA	NA	NA	NA	NA	NA	NA
	03/17/10	NA	NA	NA	NA	NA	NA	NA	NA
	04/29/11	1.25	7.19	8.9	4120 µs	4.12	211	NA	0.06
	04/13/15	4	6.68	8.06	4.50 mS/cm	9.30	132	NA	<0.0129

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-107	02/20/97	NR	7.46	9.00	650 us	NA	NA	NA	NA
	05/27/97	NR	7.12	10.80	NA	NA	NA	NA	NA
	09/18/97	NR	7.07	12.50	700 us	NA	NA	NA	NA
	12/12/97	NR	7.08	10.50	730 us	NA	NA	NA	NA
	03/25/98	NR	7.87	10.20	1081 us	NA	NA	NA	NA
	06/10/98	NR	7.17	10.60	1042 us	NA	NA	NA	NA
	10/27/98	10	7.41	12.10	1179 us	1.10	62.00	20.00	10.00
	02/09/99	9	8.10	12.00	1189 us	1.30	263.00	7.20	0.40
	06/08/99	9	7.48	15.60	1406 us	2.20	163.00	4.80	0.40
	09/13/99	8	7.30	12.90	1301 us	2.60	(114.00)	14.00	0.60
	12/15/99	10	7.63	11.30	1419 us	2.80	(42.00)	12.40	1.00
	03/13/00	14.50	5.76	10.90	1389 us	1.20	58.00	8.40	0.60
	06/22/00	10	8.75	12.40	1574 us	0.62	(120.00)	6.40	0.00
	09/27/00	10	7.42	14.20	1505 us	1.60	(114.00)	9.20	0.00
	12/19/00	13	7.69	9.50	1524 us	1.21	(38.00)	10.40	0.00
	03/01/01	16	7.81	9.90	1704 us	1.31	(93.00)	12.40	0.20
	06/19/01	15	7.64	13.40	1221 us	0.80	(80.00)	6.00	0.20
	09/24/01	9	7.04	12.40	977 us	0.60	(77.00)	12.00	0.40
	12/05/01	13	7.15	9.20	1611 us	0.80	(95.00)	8.40	0.00
	03/19/02	12	7.64	10.00	1730 us	1.30	8.00	9.60	0.20
	06/20/02	10	7.48	13.60	1304 us	0.60	(110.00)	9.60	0.40
	09/10/02	10	7.52	13.10	1403 us	2.00	(104.00)	12.40	0.40
	12/17/02	10	7.22	10.40	1593 us	0.80	(110.00)	7.80	0.00
	03/24/03	10	7.30	10.30	1362 us	1.00	(48.00)	10.80	0.00
	06/10/03	11	7.20	14.00	1277 us	0.80	(200.00)	9.20	1.00
	09/10/03	10	7.46	13.30	1121 us	1.30	(99.00)	8.00	0.20
	12/01/03	10	7.41	9.80	1360 us	1.00	(98.00)	8.40	0.00
	03/24/04	9	7.30	11.10	1704 us	EM	(109.00)	NA	0.00
	07/09/04	6	7.30	13.20	1704 us	4.59	166.00	NA	0.00
	09/21/04	3	7.10	14.30	1649 us	EM	7.00	NA	0.00
	03/29/05	9	7.20	11.50	1749 us	2.83	85.00	NA	0.00
	06/21/05	8	7.30	12.70	2010 us	1.85	119.00	NA	0.00
	09/21/05	8	7.50	15.20	1594 us	2.92	221.00	NA	0.00
	12/14/05	8	7.40	12.30	1708 us	1.80	250.00	NA	0.00
	03/27/06	10	7.30	11.90	1726 us	2.65	269.00	NA	0.00
	06/28/06	7	7.20	13.40	1696 us	3.76	212.00	NA	0.04
	12/20/06	8	7.20	11.80	1655 us	3.83	234.00	NA	0.08
	03/28/07	8	7.3	10.4	1599 us	7.14	240	NA	0.01
	07/03/07	7	7.5	11.8	1163 us	3.41	258	NA	0.00
	09/28/07	6	7.4	13.1	1642 us	2.64	238	NA	0.02
	04/16/08	1	7.30	13.5	NA	2.12	197.9	NA	NA
	09/22/08	1	7.47	15.4	1650 us	0.23	171.8	NA	NA
	04/03/09	1.5	7.63	10.0	1615 us	2.32	NA	NA	NA
	09/01/09	1.25	7.51	13.9	1586 µs	0.16	278	NA	NA
	03/17/10	1.5	7.61	11.2	1566 µs	2.09	258	NA	NA
	09/09/10	1.5	7.46	14.1	1532 µs	0.24	239	NA	NA
	04/29/11	1.25	7.63	11.0	1516 µs	1.66	274	NA	0.00
	09/01/11	1.5	7.63	15.0	1490 µs	0.28	184.1	NA	NA
	03/14/12	1	6.40	11.6	0.14 S/m	1.90	169.0	NA	NA
	09/11/12	2	7.27	16.8	1.27 ms	0.14	37.2	NA	NA
	04/30/13	2	10.66	9.7	1.11 ms	3.03	(70.4)	NA	NA
	09/17/13	3	7.0	15.0	0.14ms	4.0	65	NA	NA
	04/21/14	1	7.39	10.1	0.94 mS/cm	2.9	215.2	NA	NA
	09/16/14	3.5	7.95	14.7	0.86 mS/cm	2.29	(14.3)	NA	NA
	04/14/15	2	6.41	10.61	4.37 mS/cm	4.08	114	NA	<0.0129
	09/14/15	1.75	7.25	18.52	1.365 mS/cm	0.72	81	NA	NA

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-107	03/30/16	1.5	7.32	9.20	0.90 mS/cm	2.22	52.9	NA	NA
	09/21/16	3	7.31	16.95	0.959 mS/cm	0.68	43.8	NA	NA
	03/29/17	1.75	10.77	8.80	0.966 mS/cm	3.79	202.4	NA	NA
	10/03/17	2	7.67	16.09	1.214 mS/cm	0.18	230.6	NA	NA
MW-108	02/20/97	NR	8.10	10.00	100 us	NA	NA	NA	NA
	05/27/97	NR	6.02	11.40	NA	NA	NA	NA	NA
	09/18/97	NR	6.51	12.00	1160 us	NA	NA	NA	NA
	12/12/97	NR	6.98	10.40	1130 us	NA	NA	NA	NA
	03/25/98	NR	7.64	10.20	1568 us	NA	NA	NA	NA
	06/10/98	NR	6.54	10.70	1525 us	NA	NA	NA	NA
	10/27/98	10	7.95	14.30	1696 us	1.40	116.00	12.80	0.20
	02/09/99	8.1	7.51	11.00	1810 us	1.10	(65.00)	10.40	0.40
	06/08/99	12.5	7.60	15.00	1706 us	0.90	173.00	7.20	0.60
	09/13/99	13.5	7.29	13.60	1849 us	1.20	(180.00)	8.00	0.00
	12/15/99	12.8	7.68	11.80	1885 us	1.00	(286.00)	8.40	0.00
	03/13/00	14	6.25	10.20	1642 us	1.70	(4.00)	9.20	0.20
	06/22/00	11.5	7.62	14.10	1989 us	1.01	69.00	6.40	0.00
	09/27/00	12	7.43	13.10	1983 us	0.40	(73.00)	10.40	0.00
	12/19/00	10.5	7.60	10.10	2.01 ms	2.18	(184.00)	10.80	0.00
	03/01/01	9	7.49	11.20	2.38 ms	2.20	(211.00)	11.60	0.00
	06/19/01	8	8.20	13.80	1634 us	0.80	(90.00)	7.00	0.00
	09/24/01	9	7.59	14.20	1512 us	0.80	(83.00)	9.60	0.00
	12/05/01	10	7.49	10.50	2111 us	1.80	(199.00)	9.60	0.00
	03/19/02	12	7.30	10.80	2120 us	2.10	(170.00)	11.60	0.00
	06/20/02	12	7.92	14.00	1424 us	0.80	(120.00)	12.40	0.00
	09/18/02	12	7.13	13.40	1744 us	1.00	(132.00)	11.20	0.00
	12/17/02	10	7.36	10.40	1986 us	1.60	(174.00)	8.40	0.00
	03/24/03	10	7.31	10.40	2032 us	1.60	(190.00)	8.40	0.00
	06/10/03	11	7.64	14.60	1324 us	0.80	(144.00)	9.20	0.00
	09/10/03	11	7.15	13.30	1622 us	0.80	(124.00)	10.40	0.00
	03/24/04	10	7.70	12.30	1927 us	EM	(156.00)	NA	0.00
	03/29/05	9	7.30	10.80	2090 us	2.29	83.00	NA	0.00
	03/27/06	9	7.30	9.30	2880 us	1.72	2.69	NA	0.04
	03/27/07	9	7.2	12.9	3190 us	5.05	185	NA	0.04
04/16/08	NA	NA	NA	NA	NA	NA	NA	NA	
09/22/08	NA	NA	NA	NA	NA	NA	NA	NA	
04/03/09	NA	NA	NA	NA	NA	NA	NA	NA	
03/17/10	NA	NA	NA	NA	NA	NA	NA	NA	
04/29/11	1.25	7.27	10.2	3980 µs	1.03	224	NA	0.05	
04/14/15	2	5.98	10.79	11.4 mS/cm	3.75	135	NA	<0.0129	

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-109	06/21/06	2	6.42	14.80	1497 us	-	-	-	-
	09/20/06	2	6.66	14.60	1429 us	-	-	-	-
	12/20/06	8	7.10	11.00	2120 us	2.39	213.00	NA	0.16
	03/29/07	10	6.9	9.6	2050 us	7.71	284	NA	***
	07/03/07	9	7.2	12.8	2350 us	1.53	192	NA	0.04
	09/28/07	10	6.9	18.2	2170 us	9.53	240	NA	0.04
	04/16/08	1.25	7.10	12.4	NA	0.75	248	NA	NA
	09/22/08	1	7.14	15.7	2.88 ms	0.71	131.1	NA	NA
	04/03/09	1.5	7.29	8.4	2.40 ms	0.87	NA	NA	NA
	09/01/09	1	7.17	14.5	2650 µs	0.23	145.2	NA	NA
	03/17/10	1.5	7.37	8.3	2.31 ms	1.12	194.7	NA	NA
	09/09/10	1.5	7.09	15.3	2.73 ms	0.37	146.9	NA	NA
	04/29/11	1.25	7.27	8.4	2500 µs	0.81	164.6	NA	0.03
	09/01/11	1.5	7.28	15.2	2.56m	0.24	148.3	NA	NA
	03/16/12	1.5	6.40	9.6	0.20 S/m	1.50	200.0	NA	NA
	09/11/12	3	6.87	19.9	1.85 ms	1.00	70.5	NA	NA
	04/30/13	2.5	11.12	8.9	1.47 ms	2.53	(81.3)	NA	NA
	09/17/13	2.5	6.8	17.2	0	4.1	143	NA	NA
	04/21/14	1	7.02	9.0	1.36 mS/cm	2.22	220.1	NA	NA
	09/16/14	3.5	7.47	16.6	0.301 mS/cm	0.32	(80.0)	NA	NA
	04/14/15	4	5.95	7.80	8.54 mS/cm	5.35	136	NA	<0.0129
	09/14/15	1.5	6.82	20.51	4.269 mS/cm	0.80	103.3	NA	NA
	03/30/16	2	6.78	8.20	3.11 mS/cm	0.57	33.5	NA	NA
	09/21/16	2	6.81	18.90	3.581 mS/cm	0.37	41.8	NA	NA
	03/29/17	1.75	11.98	6.40	3.118 mS/cm	2.37	204.6	NA	NA
	10/04/17	3	7.26	16.38	3.899 mS/cm	1.07	222.8	NA	NA
MW-110	06/21/06	2	6.91	12.70	1178 us	-	-	-	-
	09/20/06	2	7.00	14.40	1248 us	-	-	-	-
	12/20/06	10	7.20	10.60	1757 us	2.07	234.00	NA	0.00
	03/29/07	10	7.2	8.1	1806 us	7.03	255	NA	0.03
	07/03/07	8	8.3	12.1	1752 us	2.96	227	NA	0.13
	09/28/07	11	7.2	15.6	1837 us	5.72	258	NA	0.00
	04/16/08	1.25	7.38	9.5	NA	2.25	285	NA	NA
	09/22/08	1	7.42	16.6	1892us	1.04	241	NA	NA
	04/03/09	1.5	7.57	7.5	2.24 ms	3.05	NA	NA	NA
	09/01/09	1.25	7.45	15.2	1849 µs	1.17	250	NA	NA
	03/17/10	1.5	7.53	8.3	2.62 ms	3.71	261	NA	NA
	09/09/10	1.5	7.32	15.4	2.34 ms	2.12	181.5	NA	NA
	04/29/11	1.25	7.54	8.2	1314 µs	3.91	272	NA	0.11
	09/01/11	1.5	7.50	17.3	1643 µs	2.67	181.4	NA	NA
	03/14/12	2	6.60	9.4	0.20 S/m	8.70	198.0	NA	NA
	09/12/12	2.5	7.13	18.5	1.64 ms	3.15	174.3	NA	NA
	04/30/13	3	8.29	7.7	2.44 ms	1.78	(66.9)	NA	NA
	09/17/13	2.8	6.8	15.1	0	4.0	107	NA	NA
	04/22/14	1	7.28	6.8	0.99 mS/cm	4.55	249.1	NA	NA
	04/15/15	2	6.58	5.88	5.99 mS/cm	10.28	104	NA	<0.0129
	09/17/14	3	7.50	15.3	1.45 mS/cm	0.14	(24.4)	NA	NA
	03/31/16	2	7.68	5.0	0.482 mS/cm	7.69	10.8	NA	NA
	09/21/16	2	7.00	17.0	1.238 mS/cm	1.90	85.9	NA	NA
	03/29/17	2	8.58	5.8	0.793 mS/cm	9.03	220.6	NA	NA
	10/03/17	3.5	7.27	16.51	1.323 mS/cm	0.42	213.3	NA	NA

**TABLE 4**  
**Groundwater Geochemical Parameters**  
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-111	06/21/06	2	7.01	12.40	1311 us	-	-	-	-
	09/20/06	1.75	6.99	14.00	1164 us	-	-	-	-
	12/20/06	6	7.20	11.00	1478 us	3.95	243.00	NA	0.01
	03/29/07	10	7.4	9.2	1908 us	9.29	209	NA	0.01
	07/03/07	6	7.4	12.1	1855 us	1.63	263	NA	0.28
	09/28/07	11	7.4	13.5	1672 us	6.08	256	NA	0.02
	04/16/08	1.25	7.40	11.6	NA	2.25	244	NA	NA
	09/22/08	1.25	7.48	16.1	1901 us	0.49	170	NA	NA
	04/03/09	1.5	7.64	7.5	1970 us	3.51	NA	NA	NA
	09/01/09	1.25	7.51	15.5	1777 µs	0.74	191.0	NA	NA
	03/17/10	1.5	7.61	8.3	1889 µs	3.05	287	NA	NA
	09/09/10	1.5	7.37	15.1	1900 µs	0.49	160.5	NA	NA
	04/29/11	1.25	7.60	9.1	2110 µs	1.95	286	NA	0.09
	09/01/11	1.5	7.57	15.0	1716 µs	0.85	159.6	NA	NA
	03/14/12	1.5	6.50	10.5	0.17 S/m	2.50	177.0	NA	NA
	09/12/12	3	7.26	16.1	1.47 ms	0.18	97.6	NA	NA
	04/30/13	2	8.75	8.0	1.43 ms	3.89	(43.7)	NA	NA
	09/17/13	2.8	7.0	15.5	0.18ms	3.5	106	NA	NA
	04/21/14	1	7.30	9.9	1.17 mS/cm	1.80	218.4	NA	NA
	09/17/14	2	7.72	14.1	1.23 mS/cm	0.16	20.4	NA	NA
	04/14/15	4	6.83	8.43	4.84 mS/cm	7.66	49	NA	<0.0129
	09/14/15	1.5	7.41	18.15	1.670 mS/cm	1.27	50.7	NA	NA
	03/31/16	2	7.38	6.00	0.82 mS/cm	1.84	(15.90)	NA	NA
	09/22/16	2	7.38	15.59	1.028 mS/cm	0.41	150.2	NA	NA
	03/29/17	1.75	8.76	7.30	0.876 mS/cm	3.32	190.3	NA	NA
	10/03/17	2.5	7.71	16.56	1.160 mS/cm	1.49	274.7	NA	NA
MW-112	06/21/06	2	7.21	12.40	1338 us	-	-	-	-
	09/20/06	2	7.28	14.60	1238 us	-	-	-	-
	12/20/06	8	7.50	10.70	1817 us	1.94	729.00	NA	0.00
	03/28/07	10	7.5	9.5	2050 us	7.93	228	NA	0.00
	07/03/07	9	7.6	13.7	1909 us	3.48	234	NA	0.28
	09/28/07	11	7.6	13.7	1921 us	6.80	267	NA	0.04
	04/16/08	1.25	7.50	12.9	NA	2.44	270	NA	NA
	09/22/08	1.25	7.71	15.9	2.34 ms	0.15	208	NA	NA
	04/03/09	1.5	7.79	7.6	2.5 ms	2.69	NA	NA	NA
	09/01/09	1.25	7.76	15.5	2320 µs	0.75	217	NA	NA
	03/17/10	1.5	7.81	8.5	1891 µs	3.02	264	NA	NA
	09/09/10	1.5	7.56	15.7	1921 µs	0.70	229	NA	NA
	04/29/11	1.25	7.75	8.4	1268 µs	2.92	252	NA	0.10
	09/01/11	1.5	7.83	15.0	1581µs	0.44	169.0	NA	NA
	03/14/12	1.5	6.60	8.4	0.076 S/m	9.40	215.0	NA	NA
	09/12/12	3	7.26	17.2	1.23 ms	0.22	219.7	NA	NA
	04/30/13	2	8.87	8.3	1.65 ms	0.55	(105.6)	NA	NA
	09/17/13	2.8	6.9	16.8	0.16ms	2.3	62	NA	NA
	04/21/14	3	7.27	8.5	0.72 mS/cm	1.67	194.4	NA	NA
	09/17/14	3	7.49	15.8	1.19 mS/cm	0.14	6.7	NA	NA
	04/14/15	2.5	6.18	10.27	4.00 mS/cm	6.39	107	NA	<0.0129
	09/14/15	1.5	7.50	18.31	1.993 mS/cm	0.79	59.8	NA	NA
	03/31/16	2.5	7.14	6.20	0.66 mS/cm	0.18	(35.30)	NA	NA
	03/22/16	2.1	7.19	16.21	1.088 mS/cm	0.41	130.2	NA	NA
	03/29/17	1.75	8.61	7.10	0.665 mS/cm	0.72	96.1	NA	NA
	10/03/17	3	7.53	17.16	1.132 mS/cm	0.20	243.3	NA	NA

**TABLE 4**  
**Groundwater Geochemical Parameters**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-113	06/21/06	2	6.91	12.90	1020 us	-	-	-	-
	09/20/06	2	7.11	14.60	900 us	-	-	-	-
	12/20/06	8	7.20	10.60	1757 us	2.07	234.00	NA	0.00
	03/29/07	10	7.3	8.0	1508 us	9.52	235	NA	***
	07/03/07	7	7.6	10.9	1552 us	2.05	262	NA	0.13
	09/28/07	13	7.4	14.4	1514 us	6.87	276	NA	0.00
	04/16/08	1.25	7.45	11.8	NA	1.85	267	NA	NA
	09/22/08	1.25	7.59	15.5	1711 us	0.22	218	NA	NA
	04/03/09	1.5	7.70	7.4	1749 us	3.50	NA	NA	NA
	09/01/09	1.25	7.56	15.6	1615 µs	0.57	270	NA	NA
	03/17/10	1.5	7.68	8.5	1800 µs	3.22	235	NA	NA
	09/09/10	1.5	7.49	15.5	1722 µs	0.37	223	NA	NA
	04/29/11	1.25	7.65	9.3	1660 µs	1.68	281	NA	0.00
	09/01/11	1.5	7.67	16.2	1552 µs	0.27	184.8	NA	NA
	03/14/12	2	6.60	8.8	0.15 S/m	4.50	236.0	NA	NA
	09/12/12	3	7.09	19.1	1.40 ms	1.40	55.0	NA	NA
	04/30/13	3	10.82	8.3	1.14 ms	0.30	(116.4)	NA	NA
	09/17/13	2.5	6.8	15.8	.018ms	3.9	142	NA	NA
	04/22/14	2	7.31	7.5	1.15 mS/cm	0.28	253.9	NA	NA
	09/17/14	2.5	7.78	15.7	1.28 mS/cm	0.31	(95.9)	NA	NA
	04/14/15	2	6.16	11.07	4.90 mS/cm	3.57	122	NA	<0.0129
	09/14/15	2	7.31	16.27	1.596 mS/cm	0.37	89.8	NA	NA
	03/31/16	2	7.15	6.70	0.80 mS/cm	1.75	15.11	NA	NA
	09/21/16	2.5	7.07	7.07	1.199 mS/cm	0.15	89.6	NA	NA
	03/29/17	2	8.56	7.00	1.143 mS/cm	3.02	209.6	NA	NA
	10/03/17	2.5	7.40	17.24	1.372 mS/cm	0.43	221.8	NA	NA

ppm = parts per million  
 us = microsiemens / centimeter  
 S/m = siemens / meter  
 mV = millivolts  
 gpg = grains per gallon  
 EM - Equipment malfunction.

Note: A different meter was used to test ferrous iron beginning on the March 2006 sampling event.

ms = millisiemens / centimeter  
 NA = not analyzed  
 NR = not recorded

( ) = Indicates a negative value.

\* = Each monitoring well was purged dry twice prior to sampling  
 The second purging was conducted approximately 3-hrs after initial purging. The volume of purge water collected represents the total of the two well purges. Purge volumes prior to 10/27/98 were not available.

\*\* = Not analyzed due to poor water clarity from recent piezometer installation nearby.

\*\*\* = Too cloudy for testing.

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
<b>W-2</b>	02/20/97	NA	15	NA	26	NA	460.0	NA	49
	05/27/97	0.43	8.5	NA	<10	NA	170.0	<.2	30
	09/18/97	0.27	4.5**	NA	9.5**	3**	116.0	<.03	16.9
	12/12/97	.13*	6.2	NA	<9.7	<.8	133.0	.06*	20.4
	03/25/98	0.08	<3.9	NA	<9.5	<1.7	83.8	.007*	18.6
	06/10/98	.31*	16.4	NA	18.6**	<1.7	466.0	.027*	40.8
	10/27/98	.51*	3.60	NA	4.7*	<.0032	69.0	<.05	170
	02/09/99	.46*	<.62	NA	4.0	<.0032	240.0	<.05	23
	06/08/99	<.31	<.62	NA	1.8*	<.0032	290.0	<.05	<12
	09/13/99	<.31	2.00	NA	3.2	<.0032	240.0	<.05	<12
	12/15/99	<.31	0.72 *	NA	NA	NA	2.8	NA	NA
	03/13/00	<.31	0.79 *	NA	NA	NA	7.8	NA	NA
	06/22/00	<.31	<.62	NA	NA	NA	<.42	NA	NA
	09/27/00	2.70	1.1*	NA	NA	NA	17.0	NA	NA
	12/19/00	.24*	0.91*	NA	NA	NA	8.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	<2.0	NA	NA
	06/19/01	<.17	0.55 *	NA	NA	NA	48.0	NA	NA
	09/24/01	<.17	<.34	NA	NA	NA	52	NA	NA
	12/05/01	<.23	<.57	NA	NA	NA	<2.0	NA	NA
	03/19/02	.27*	<.57	NA	NA	NA	<2.0	NA	NA
	06/20/02	<.23	<.44	NA	NA	NA	61.0	NA	NA
	09/18/02	<.23	<.44	NA	NA	NA	110.0	NA	NA
	12/17/02	<.23	<.44	NA	NA	NA	150.0	NA	NA
	03/24/03	<.17	<.43	NA	NA	NA	8.5	NA	NA
	03/24/04	NA	<.45	5.0	NA	NA	<1.0	NA	NA
	03/29/05	NA	1.2	<2.7	NA	NA	1.3	NA	NA
	03/23/06	NA	0.52	<5.0	NA	NA	4.1	NA	NA
	03/27/07	NA	<1.9	NA	NA	NA	4.7	NA	NA
	04/29/11	NA	0.51 J	NA	NA	NA	21.7	NA	NA
	04/14/15	NA	<2.1	NA	NA	NA	318	NA	NA
<b>W-8</b>	02/20/97	NA	17	NA	22	NA	320.0	NA	34
	05/27/97	1.6	37	NA	27	NA	670.0	<.2	54
	09/18/97	0.45	14.4	NA	14.6**	1**	338.0	.11**	31.8
	12/12/97	0.5*	5.7	NA	<9.7	<.8	147.0	.07*	17.1
	03/25/98	0.43	10.1	NA	15**	<1.7	205.0	.007*	21
	06/10/98	0.54	9.9	NA	12.6**	<1.7	264.0	.016*	21.6
	10/27/98	0.80	3.90	NA	4.8*	<.0032	64.0	<.05	85
	02/09/99	<.31	<.62	NA	<60	<.0032	850.0	<.05	12
	06/08/99	<.31	<.62	NA	2.6	<.0032	50.0	<.05	<12
	09/13/99	<.31	1.90	NA	2.7	<.0032	98.0	<.05	29
	12/15/99	<.31	2.80	NA	NA	NA	180.0	NA	NA
	03/13/00	<.31	1.4 *	NA	NA	NA	65.0	NA	NA
	06/22/00	<.31	3.10	NA	NA	NA	74.0	NA	NA
	09/27/00	.27*	.75*	NA	NA	NA	26.0	NA	NA
	12/19/00	<.23	.66*	NA	NA	NA	40.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	23.0	NA	NA
	06/19/01	<.17	1*	NA	NA	NA	100.0	NA	NA
	09/24/01	<.17	<.34	NA	NA	NA	380.0	NA	NA
	12/25/01	<.23	<.57	NA	NA	NA	<2.0	NA	NA
	03/19/02	<.23	<.57	NA	NA	NA	21.0	NA	NA
	06/20/02	<.23	.47*	NA	NA	NA	1400.0	NA	NA
	09/18/02	<.23	<.44	NA	NA	NA	620.0	NA	NA
	12/17/02	<.23	<.44	NA	NA	NA	34.0	NA	NA
	03/24/03	<.17	<.43	NA	NA	NA	27.0	NA	NA
	03/24/04	NA	0.76*	3.8	NA	NA	1.7*	NA	NA
	03/29/05	NA	<.52	<2.7	NA	NA	9.7	NA	NA
	03/23/06	NA	<.4	<5.0	NA	NA	5.5	NA	NA
	03/27/07	NA	<1.9	NA	NA	NA	6.0	NA	NA
	04/29/11	NA	0.63 J	NA	NA	NA	<.14	NA	NA
	04/13/15	NA	<2.1	NA	NA	NA	<1.4	NA	NA

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
<b>W-15</b>	02/20/97	NA	32	NA	52	NA	430.0	NA	88
	05/27/97	0.27	5.9	NA	15	NA	97.0	<.2	39
	09/18/97	0.31	13.9	NA	18.8**	<.78	325.0	<.03	35.5
	12/12/97	.12*	5.7	NA	9.7**	<.8	80.9	.03*	18.5
	03/25/98	.04*	<3.9	NA	<9.5	<1.7	85.7	.038*	13.7
	06/10/98	.11*	10	NA	13.2**	<1.7	147.0	.016*	18.8
	10/27/98	.41*	6.80	NA	7.40	<.0032	110.0	<.05	100
	02/09/99	<.31	<.62	NA	<.60	<.0032	320.0	<.05	<12
	06/08/99	<.31	2.40	NA	14.00	<.0032	130.0	<.05	66
	09/13/99	<.31	5.30	NA	6.40	<.0032	130.0	<.05	16
	12/15/99	<.31	5.00	NA	NA	NA	90.0	NA	NA
	03/13/00	<.31	7.00	NA	NA	NA	130.0	NA	NA
	06/22/00	<.31	1.80	NA	NA	NA	11.0	NA	NA
	09/27/00	<.23	4.20	NA	NA	NA	24.0	NA	NA
	12/19/00	<.23	1.4*	NA	NA	NA	930.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	<2.0	NA	NA
	06/19/01	<.17	<.34	NA	NA	NA	<2	NA	NA
	09/24/01	<.17	<.34	NA	NA	NA	290.0	NA	NA
	12/05/01	<.23	<.57	NA	NA	NA	2.5	NA	NA
	03/19/02	<.23	<.57	NA	NA	NA	22.0	NA	NA
	06/20/02	.36*	.47*	NA	NA	NA	3.1	NA	NA
	09/18/02	<.23	<.44	NA	NA	NA	110.0	NA	NA
	12/17/02	<.23	<.44	NA	NA	NA	31.0	NA	NA
	03/24/03	<0.17	0.47*	NA	NA	NA	27.0	NA	NA
	03/24/04	NA	1.80	3.8	NA	NA	1.1*	NA	NA
	03/29/05	NA	0.98	<2.7	NA	NA	24.0	NA	NA
	03/23/06	NA	1.60	<5.0	NA	NA	8.0	NA	NA
	03/28/07	NA	<1.9	NA	NA	NA	13	NA	NA
	04/29/11	NA	2.8 J	NA	NA	NA	8.3	NA	NA
	04/13/15	NA	2.8J	NA	NA	NA	<1.4	NA	NA
<b>MW-101</b>	02/20/97	NA	36	NA	41	NA	820.0	NA	49
	05/27/97	<.2	10	NA	11	NA	170.0	<.03	18
	09/18/97	.06**	11.9	NA	10.7**	1**	145.0	<.05	18.2
	12/12/97	.06*	12.8	NA	<9.7	<.8	176.0	.05*	20.7
	03/25/98	.04*	20.9	NA	21.6**	<1.7	239.0	.007*	32.7
	06/10/98	.27*	48.2	NA	46.8	<1.7	604.0	.044*	75.9
	10/27/98	<.16	3.20	NA	4.2*	<.0032	24.0	<.05	54
	02/09/99	<.31	<0.62	NA	<.60	<.0032	1900.0	<.05	14
	06/08/99	<.31	1.80	NA	8.2	<.0032	380.0	<.05	39
	09/13/99	<.31	2.90	NA	5.1	<.0032	31.0	<.05	<12
	12/15/99	<.31	2.50	NA	NA	NA	9.1	NA	NA
	03/13/00	<.31	2.30	NA	NA	NA	100.0	NA	NA
	06/22/00	<.31	1.4 *	NA	NA	NA	<4.2	NA	NA
	09/27/00	<.23	19.00	NA	NA	NA	37.0	NA	NA
	12/19/00	<.23	7.20	NA	NA	NA	18.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	13.0	NA	NA
	06/19/01	<.17	8.50	NA	NA	NA	9.1	NA	NA
	09/24/01	<.17	0.55 *	NA	NA	NA	<2.0	NA	NA
	12/05/01	<.23	0.90*	NA	NA	NA	<2.0	NA	NA
	03/19/02	<.23	0.66*	NA	NA	NA	<2.0	NA	NA
	06/20/02	<.23	0.58*	NA	NA	NA	2.2	NA	NA
	09/18/02	<.23	<0.44	NA	NA	NA	13.0	NA	NA
	12/17/02	<.23	<0.44	NA	NA	NA	33.0	NA	NA
	03/24/03	<.17	0.50*	NA	NA	NA	8.3	NA	NA
	03/24/04	NA	0.79*	<3.6	NA	NA	<1.0	NA	NA
	03/29/05	NA	1.10	<2.7	NA	NA	16.0	NA	NA
	03/23/06	NA	0.55	<5.0	NA	NA	45.0	NA	NA
	03/27/07	NA	<1.9	NA	NA	NA	14.0	NA	NA
	04/16/08	NA	2.4 J	NA	NA	NA	NA	NA	NA
	04/03/09	NA	1.9 J	NA	NA	NA	NA	NA	NA
	03/17/10	NA	2.5 J	NA	NA	NA	NA	NA	NA
	04/29/11	NA	1.4 J	NA	NA	NA	0.50 J	NA	NA
	03/16/12	NA	<2.0	NA	NA	NA	0.50 J	NA	NA
	04/29/13	NA	<2.0	NA	NA	NA	NA	NA	NA
	04/21/14	NA	2.2 J	NA	NA	NA	NA	NA	NA
	04/14/15	NA	<2.1	NA	NA	NA	<1.4	NA	NA
	03/30/16	NA	<2.1	NA	NA	NA	NA	NA	NA
	03/29/17	NA	<2.5	NA	NA	NA	NA	NA	NA



**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
<b>MW-102</b>	02/20/97	NA	26	NA	38	NA	570.0	NA	34
	05/27/97	0.21	48	NA	77	NA	920.0	<.2	73
	09/18/97	.08**	<3.92	NA	6.9**	2**	302.0	<.03	8.7
	12/12/97	.04*	<3.9	NA	<9.7	<.8	387.0	.04*	10.9
	03/25/98	.11*	<3.9	NA	9.5**	<1.7	302.0	.007*	7.4*
	06/10/98	.04*	<3.9	NA	<9.8	<1.7	318.0	.018*	9.5
	10/27/98	.27*	.98*	NA	3.2*	<.0032	340.0	<.05	24
	02/09/99	<.31	.73*	NA	<.60	<.0032	670.0	<.05	20
	06/08/99	<.31	1.2*	NA	5.8	<.0032	140.0	<.05	36
	09/13/99	<.31	4.00	NA	15.0	<.0032	160.0	<.05	73
	12/15/99	<.31	1.2 *	NA	NA	NA	550.0	NA	NA
	03/13/00	<.31	1.70	NA	NA	NA	580.0	NA	NA
	06/22/00	<.31	<.62	NA	NA	NA	310.0	NA	NA
	09/27/00	<.23	2.10	NA	NA	NA	130.0	NA	NA
	12/19/00	.33*	2.90	NA	NA	NA	110.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	<.20	NA	NA
	06/19/01	<.17	<.34	NA	NA	NA	<.2	NA	NA
	09/24/01	.48 *	1.40	NA	NA	NA	46.0	NA	NA
	12/05/01	<.23	<.57	NA	NA	NA	100.0	NA	NA
	03/19/02	<.23	<.57	NA	NA	NA	87.0	NA	NA
	06/20/02	<.17	1.80	NA	NA	NA	44.0	NA	NA
	09/18/02	<.23	1.4*	NA	NA	NA	<.20	NA	NA
	12/17/02	<.23	<.44	NA	NA	NA	38.0	NA	NA
	03/24/03	0.21*	<.43	NA	NA	NA	3.5	NA	NA
	03/24/04	NA	<.45	<3.6	NA	NA	65.0	NA	NA
	03/29/05	NA	0.71	<2.7	NA	NA	190.0	NA	NA
	03/23/06	NA	<.40	<5.0	NA	NA	100.0	NA	NA
	03/27/07	NA	<1.9	NA	NA	NA	230	NA	NA
	04/16/08	NA	<.57	NA	NA	NA	NA	NA	NA
	04/03/09	NA	<.57	NA	NA	NA	NA	NA	NA
	03/17/10	NA	0.74 J	NA	NA	NA	NA	NA	NA
	04/29/11	NA	6.1	NA	NA	NA	32.1	NA	NA
	03/14/12	NA	<2.0	NA	NA	NA	NA	NA	NA
	04/29/13	NA	130	NA	NA	NA	NA	NA	NA
	04/21/14	NA	128	NA	NA	NA	NA	NA	NA
	04/13/15	NA	98.2	NA	NA	NA	NA	NA	NA
	03/30/16	NA	116	NA	NA	NA	NA	NA	NA
	03/29/17	NA	90.5	NA	NA	NA	NA	NA	NA

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
<b>MW-103</b>	02/20/97	NA	1,300	NA	47	NA	800.0	NA	27
	05/27/97	<.2	160.0	NA	31	NA	900.0	<.2	29
	09/18/97	.06**	35.2	NA	13.5**	3**	287.0	<.03	13.7
	12/12/97	.04*	16.3	NA	<9.7	<.8	84.3	.09*	21.4
	03/25/98	.04*	15.5	NA	<9.5	<1.7	83.0	.007*	7.5*
	06/10/98	.15*	57.6	NA	27.5	<1.7	417.0	.02*	33.7
	10/27/98	<.16	6.30	NA	2.3*	<.0032	27.0	<.05	30.0
	06/08/99	<.31	87.00	NA	3.5	<.0032	810.0	<.05	30
	09/13/99	<.31	720.0	NA	5.9	<.0032	83.0	<.05	15
	12/15/99	<.31	260.0	NA	NA	NA	160.0	NA	NA
	03/13/00	<.31	600.0	NA	NA	NA	79.0	NA	NA
	06/22/00	<.31	130.0	NA	NA	NA	180.0	NA	NA
	09/27/00	<.23	280.0	NA	NA	NA	230.0	NA	NA
	12/19/00	<.23	180.0	NA	NA	NA	170.0	NA	NA
	03/01/01	<.23	49.0	NA	NA	NA	240.0	NA	NA
	06/19/01	<.17	11.0	NA	NA	NA	350.0	NA	NA
	09/24/01	<.17	12.0	NA	NA	NA	280.0	NA	NA
	12/05/01	<.23	2.9	NA	NA	NA	230.0	NA	NA
	03/19/02	<.23	73.0	NA	NA	NA	7.9	NA	NA
	06/20/02	<.23	14.0	NA	NA	NA	630.0	NA	NA
	09/18/02	<.23	6.5	NA	NA	NA	560.0	NA	NA
	12/17/02	<.23	6.2	NA	NA	NA	3.7	NA	NA
	03/24/03	.26*	350.0	NA	NA	NA	48.0	NA	NA
	06/10/03	NA	150.0	NA	NA	NA	NA	NA	NA
	09/10/03	NA	9.10	NA	NA	NA	NA	NA	NA
	12/10/03	NA	7.70	NA	NA	NA	NA	NA	NA
	12/15/03	NA	NA	<3.6	NA	NA	NA	NA	NA
	03/24/04	NA	5.60	6.3	NA	NA	7.6	NA	NA
	07/09/04	NA	11.00	16.0	NA	NA	NA	NA	NA
	12/09/04	NA	1.20	<3.6	NA	NA	NA	NA	NA
	03/29/05	NA	220.0	350.0	NA	NA	82.0	NA	NA
	06/22/05	NA	240.0	250.0	NA	NA	NA	NA	NA
	09/21/05	NA	110.0	69.0	NA	NA	NA	NA	NA
	12/15/05	NA	120.0	150.0	NA	NA	NA	NA	NA
	03/23/06	NA	16.0	270.0	NA	NA	8.4	NA	NA
	06/28/06	NA	40.0	29.0	NA	NA	NA	NA	NA
09/20/06	NA	45.0	35.0	NA	NA	NA	NA	NA	
12/20/06	NA	15.0	NA	NA	NA	NA	NA	NA	
03/28/07	NA	31	NA	NA	NA	38	NA	NA	
07/03/07	NA	90	NA	NA	NA	NA	NA	NA	
09/28/07	NA	78	NA	NA	NA	NA	NA	NA	
04/16/08	NA	380	NA	NA	NA	NA	NA	NA	
09/22/08	NA	240	NA	NA	NA	NA	NA	NA	
04/03/09	NA	171	NA	NA	NA	NA	NA	NA	
09/01/09	NA	157	NA	NA	NA	NA	NA	NA	
03/17/10	NA	114	NA	NA	NA	NA	NA	NA	
09/09/10	NA	16.4	NA	NA	NA	NA	NA	NA	
04/29/11	NA	23.1	NA	NA	NA	<0.14	NA	NA	
09/01/11	NA	54.5	NA	NA	NA	NA	NA	NA	
03/14/12	NA	27.0	NA	NA	NA	NA	NA	NA	
09/11/12	NA	10.8	NA	NA	NA	NA	NA	NA	
04/29/13	NA	24.8	NA	NA	NA	NA	NA	NA	
09/17/13	NA	6.4	NA	NA	NA	NA	NA	NA	
04/21/14	NA	6.9	NA	NA	NA	NA	NA	NA	
09/17/14	NA	10.0	NA	NA	NA	NA	NA	NA	
04/14/15	NA	8.2	NA	NA	NA	<1.4	NA	NA	
09/14/15	NA	6.9	NA	NA	NA	NA	NA	NA	
04/05/16	NA	7.8 J	NA	NA	NA	NA	NA	NA	
09/21/16	NA	5.8 J	NA	NA	NA	NA	NA	NA	
03/29/17	NA	7.5 J	NA	NA	NA	NA	NA	NA	
10/04/17	NA	<2.5	NA	NA	NA	NA	NA	NA	

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
MW-104	02/20/97	NA	5.9	NA	15	NA	550.0	NA	6.9
	05/27/97	<.02	6.9	NA	11	NA	470.0	<.2	5.2
	09/18/97	<.04	35.6	NA	5**	3**	235.0	<.03	4.74
	12/12/97	.04*	61.8	NA	9.8**	<.8	279.0	.05*	14
	03/25/98	.04*	66.8	NA	<9.5	<1.7	73.6	.008*	7.4*
	06/10/98	.04*	219.0	NA	<9.8	<1.7	107.0	.016*	12.8
	10/27/98	.29*	150.0	NA	2.3*	<.0032	25.0	<.05	30
	02/09/99	<.31	94.0	NA	1.4*	<.0032	1000.0	<.05	<12
	06/08/99	1*	62.0	NA	12.0	<.0032	620.0	<.05	17
	09/13/99	<.31	80.0	NA	3.2	<.0032	9.2	<.05	<12
	12/15/99	<.31	170.0	NA	NA	NA	1.6	NA	NA
	03/13/00	<.31	300.0	NA	NA	NA	13.0	NA	NA
	06/22/00	<.31	210.0	NA	NA	NA	41.0	NA	NA
	09/27/00	<.23	510.0	NA	NA	NA	3.9	NA	NA
	12/19/00	<.23	790.0	NA	NA	NA	<2	NA	NA
	03/01/01	<.23	840.0	NA	NA	NA	<2	NA	NA
	06/19/01	<.17	680.0	NA	NA	NA	2.3	NA	NA
	09/24/01	<.17	310.0	NA	NA	NA	17.0	NA	NA
	12/05/01	<.23	390.0	NA	NA	NA	2.2	NA	NA
	03/19/02	<.23	430.0	NA	NA	NA	<2.0	NA	NA
	06/20/02	<.23	490.0	NA	NA	NA	14.0	NA	NA
	09/18/02	<.23	410.0	NA	NA	NA	27.0	NA	NA
	12/17/02	<.23	240.0	NA	NA	NA	8.9	NA	NA
	03/24/03	<.17	180.0	NA	NA	NA	4.2	NA	NA
	06/10/03	NA	420.0	NA	NA	NA	NA	NA	NA
	09/10/03	NA	1,200.0	NA	NA	NA	NA	NA	NA
	12/10/03	NA	790.0	NA	NA	NA	NA	NA	NA
	12/15/03	NA	NA	700.0	NA	NA	NA	NA	NA
	03/24/04	NA	550.0	580.0	NA	NA	<1.0	NA	NA
	07/09/04	NA	370.0	380.0	NA	NA	NA	NA	NA
	09/22/04	NA	87.0	33.0	NA	NA	NA	NA	NA
	12/09/04	NA	56.0	57.0	NA	NA	NA	NA	NA
	03/29/05	NA	260.0	260.0	NA	NA	1.0	NA	NA
	06/22/05	NA	280.0	230.0	NA	NA	NA	NA	NA
	09/21/05	NA	17.0	25.0	NA	NA	NA	NA	NA
	12/15/05	NA	95.0	110.0	NA	NA	NA	NA	NA
	03/23/06	NA	66.0	200.0	NA	NA	6.3	NA	NA
	06/28/06	NA	76.0	58.0	NA	NA	NA	NA	NA
	09/20/06	NA	2.8	<6.8	NA	NA	NA	NA	NA
	12/20/06	NA	8.4	NA	NA	NA	NA	NA	NA
	03/28/07	NA	160	NA	NA	NA	130	NA	NA
	07/03/07	NA	97	NA	NA	NA	NA	NA	NA
09/28/07	NA	11.0	NA	NA	NA	NA	NA	NA	
04/16/08	NA	545	NA	NA	NA	NA	NA	NA	
09/22/08	NA	1.3 J	NA	NA	NA	NA	NA	NA	
04/03/09	NA	144	NA	NA	NA	NA	NA	NA	
09/01/09	NA	1.4 J	NA	NA	NA	NA	NA	NA	
03/17/10	NA	719	NA	NA	NA	NA	NA	NA	
09/09/10	NA	6.7	NA	NA	NA	NA	NA	NA	
04/29/11	NA	376	NA	NA	NA	7.7	NA	NA	
09/01/11	NA	5.4	NA	NA	NA	NA	NA	NA	
03/14/12	NA	510	NA	NA	NA	NA	NA	NA	
09/11/12	NA	<2.0	NA	NA	NA	NA	NA	NA	
04/29/13	NA	1.3 J	NA	NA	NA	NA	NA	NA	
09/17/13	NA	<2.0	NA	NA	NA	NA	NA	NA	
04/21/14	NA	10.5	NA	NA	NA	NA	NA	NA	
09/16/14	NA	12.5	NA	NA	NA	NA	NA	NA	
04/14/15	NA	287.0	NA	NA	NA	<1.4	NA	NA	
09/14/15	NA	5.0	NA	NA	NA	NA	NA	NA	
03/30/16	NA	93.5	NA	NA	NA	NA	NA	NA	
09/21/16	NA	2.6 J	NA	NA	NA	NA	NA	NA	
03/29/17	NA	6.2 J	NA	NA	NA	NA	NA	NA	
10/04/17	NA	5.8 J	NA	NA	NA	NA	NA	NA	

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
<b>MW-105</b>	02/20/97	NA	21	NA	22	NA	1100.0	NA	23
	05/27/97	<.2	5	NA	<10	NA	120.0	<.2	12
	09/18/97	.14**	29.5	NA	28.3	1**	532.0	<.03	46
	12/12/97	.36*	15.8	NA	12.5**	<.8	297.0	.03*	27.1
	03/25/98	.04*	30.8	NA	27.6	<1.7	518.0	.064*	44
	06/10/98	.048*	13.7	NA	15.3**	<1.7	217.0	.016*	22.1
	10/27/98	.29*	8.80	NA	8.20	<.0032	150.0	<.05	70
	02/09/99	<.31	1.3*	NA	4.30	<.0032	2000.0	<.05	19
	06/08/99	<.31	1*	NA	18.00	<.0032	1300.0	<.05	66
	09/13/99	<.31	.64*	NA	24.00	<.0032	1700.0	<.05	30
	12/15/99	<.31	<.62	NA	NA	NA	860.0	NA	NA
	03/13/00	<.31	4.80	NA	NA	NA	660.0	NA	NA
	06/22/00	<.31	1.0*	NA	NA	NA	600.0	NA	NA
	09/27/00	<.23	1.2*	NA	NA	NA	700.0	NA	NA
	12/19/00	<.23	<.4	NA	NA	NA	230.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	43.0	NA	NA
	06/19/01	<.17	.75*	NA	NA	NA	230.0	NA	NA
	09/24/01	<.17	.73*	NA	NA	NA	530.0	NA	NA
	12/05/01	<.23	<.57	NA	NA	NA	<2.0	NA	NA
	03/19/02	<.23	<.57	NA	NA	NA	22.0	NA	NA
	06/20/02	<.23	.60*	NA	NA	NA	1400.0	NA	NA
	09/18/02	<.23	<.44	NA	NA	NA	600.0	NA	NA
	12/17/02	<.23	<.44	NA	NA	NA	58.0	NA	NA
	03/24/03	.21*	<.43	NA	NA	NA	86.0	NA	NA
	03/24/04	NA	3.80	6.3	NA	NA	89.0	NA	NA
	03/29/05	NA	<.052	<2.7	NA	NA	82.0	NA	NA
	03/23/06	NA	0.42	<5.0	NA	NA	43.0	NA	NA
	03/27/07	NA	<1.9	NA	NA	NA	23	NA	NA
	04/29/11	NA	0.64 J	NA	NA	NA	1.8 J	NA	NA
	04/13/15	NA	<2.1	NA	NA	NA	2.5 J	NA	NA
<b>MW-106</b>	02/20/97	NA	21	NA	24	NA	320.0	NA	26
	05/27/97	<.02	40	NA	35	NA	590.0	<.2	68
	09/18/97	.05**	5.5	NA	6.2**	1**	56.9	<.03	35.6
	12/12/97	.04*	9.2	NA	9.7**	<.08	155.0	.03*	18.4
	03/25/98	NA	13.40	NA	14.4**	<1.7	150.0	.007*	18.5
	06/10/98	.04*	<3.9	NA	10.2**	<1.7	10.0	.016*	10.9
	10/27/98	.27*	3.20	NA	4.3*	<.0032	38.0	<.05	88
	02/09/99	<.31	<.62	NA	1.1*	<.0032	760.0	<.05	22
	06/08/99	<.31	.79*	NA	2.3	<.0032	900.0	<.05	<12
	09/13/99	<.31	1.80	NA	4.7	<.0032	1100.0	<.05	30
	12/15/99	<.31	1.3*	NA	NA	NA	130.0	NA	NA
	03/31/00	<.31	2.30	NA	NA	NA	270.0	NA	NA
	06/22/00	<.31	.73*	NA	NA	NA	<4.2	NA	NA
	09/27/00	<.23	.88*	NA	NA	NA	50.0	NA	NA
	12/19/00	<.23	.77*	NA	NA	NA	22.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	45.0	NA	NA
	06/19/01	.21*	.39*	NA	NA	NA	57.0	NA	NA
	09/24/01	<.17	<.34	NA	NA	NA	950.0	NA	NA
	12/05/01	<.23	<.57	NA	NA	NA	310.0	NA	NA
	03/19/02	<.23	<.57	NA	NA	NA	92.0	NA	NA
	06/20/02	<.23	<.44	NA	NA	NA	270.0	NA	NA
	09/18/02	<.23	<.44	NA	NA	NA	420.0	NA	NA
	12/17/02	<.23	<.44	NA	NA	NA	41.0	NA	NA
	03/24/03	<.17	<.43	NA	NA	NA	2.1	NA	NA
	03/24/04	NA	<.045	3.8	NA	NA	190.0	NA	NA
	03/29/05	NA	1.10	<2.7	NA	NA	15.0	NA	NA
	03/23/06	NA	0.45	<5.0	NA	NA	30.0	NA	NA
	03/27/07	NA	<1.9	NA	NA	NA	15	NA	NA
	04/29/11	NA	0.79 J	NA	NA	NA	0.16 J	NA	NA
	04/13/15	NA	<2.1	NA	NA	NA	<1.4	NA	NA

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
MW-107	02/20/97	NA	2,000	NA	13	NA	190.0	NA	6.9
	05/27/97	<.2	3,600	NA	<10	NA	91.0	<.2	10
	09/18/97	<.04	2,670	NA	<8.1	1**	59.3	<.03	33.5
	12/12/97	.04*	2,310	NA	<9.7	<.8	48.4	.1*	6.7
	03/25/98	.04*	11,200 J	NA	12.1**	<1.7	68.2	.041*	9.3*
	06/10/98	.11*	6,240	NA	13.8**	<1.7	161.0	.027*	17.3*
	10/27/98	<.16	7,100	NA	1.2*	<.0032	28.0	<.05	94
	02/09/99	<.31	3,200	NA	1.9*	<.0032	49.0	<.05	<12
	06/08/99	<.31	5,800	NA	3.0	<.0032	25.0	<.05	<12
	09/13/99	<.31	4,000	NA	1.9*	<.0032	18.0	<.05	<12
	12/15/99	<.31	14,000	NA	NA	NA	.83 *	NA	NA
	03/13/00	<.31	8,100	NA	NA	NA	22.0	NA	NA
	06/22/00	<.31	14,000	NA	NA	NA	<42	NA	NA
	09/27/00	<.23	11,000	NA	NA	NA	4.9	NA	NA
	12/19/00	<.23	10,000	NA	NA	NA	2.4	NA	NA
	03/01/01	<.23	5,000	NA	NA	NA	2.2	NA	NA
	06/19/01	<.17	8,200	NA	NA	NA	<2	NA	NA
	09/24/01	<.17	5,300	NA	NA	NA	270.0	NA	NA
	12/05/01	<.23	6,200	NA	NA	NA	10.0	NA	NA
	03/19/02	<.23	7,000	NA	NA	NA	<20	NA	NA
	06/20/02	<.23	7,000	NA	NA	NA	<20	NA	NA
	09/18/02	<.17	4,300	NA	NA	NA	24.0	NA	NA
	12/17/02	<.17	3,700	NA	NA	NA	15.0	NA	NA
	03/24/03	<10	3,800	NA	NA	NA	7.7	NA	NA
	06/10/03	NA	5,900	NA	NA	NA	NA	NA	NA
	09/10/03	NA	5,200	NA	NA	NA	NA	NA	NA
	12/10/03	NA	5,200	NA	NA	NA	NA	NA	NA
	12/15/03	NA	NA	5,500	NA	NA	NA	NA	NA
	03/24/04	NA	3,900	4,100	NA	NA	1.2*	NA	NA
	07/09/04	NA	3,400	5,000	NA	NA	NA	NA	NA
	09/22/04	NA	4,100	4,400	NA	NA	NA	NA	NA
	12/14/04	NA	6,300	5,800	NA	NA	NA	NA	NA
	03/29/05	NA	3,600	4,100	NA	NA	1.9	NA	NA
	06/22/05	NA	3,300	2,900	NA	NA	NA	NA	NA
	09/21/05	NA	2,500	2,500	NA	NA	NA	NA	NA
	12/15/05	NA	2,400	2,700	NA	NA	NA	NA	NA
	03/23/06	NA	3,200	3,600	NA	NA	1.90	NA	NA
	06/28/06	NA	3,600	3,000	NA	NA	NA	NA	NA
	09/20/06	NA	4,100	4,200	NA	NA	NA	NA	NA
	12/19/06	NA	2,700	NA	NA	NA	NA	NA	NA
03/28/07	NA	4,200	NA	NA	NA	1.7	NA	NA	
07/03/07	NA	2,800	NA	NA	NA	NA	NA	NA	
09/28/07	NA	2,000	NA	NA	NA	NA	NA	NA	
04/16/08	NA	4,410	NA	NA	NA	NA	NA	NA	
09/22/08	NA	2,950	NA	NA	NA	NA	NA	NA	
04/03/09	NA	3,790	NA	NA	NA	NA	NA	NA	
09/01/09	NA	2,420	NA	NA	NA	NA	NA	NA	
03/17/10	NA	3,240	NA	NA	NA	NA	NA	NA	
09/09/10	NA	2,480	NA	NA	NA	NA	NA	NA	
04/29/11	NA	2,940	NA	NA	NA	0.32 J	NA	NA	
09/01/11	NA	1,960	NA	NA	NA	NA	NA	NA	
03/14/12	NA	2,700	NA	NA	NA	NA	NA	NA	
09/11/12	NA	2,410	NA	NA	NA	NA	NA	NA	
04/30/13	NA	3,020	NA	NA	NA	NA	NA	NA	
09/17/13	NA	3,440	NA	NA	NA	NA	NA	NA	
04/21/14	NA	2,150	NA	NA	NA	NA	NA	NA	
09/16/14	NA	2,130	NA	NA	NA	NA	NA	NA	
04/14/15	NA	2,210	NA	NA	NA	2.0J	NA	NA	
09/14/15	NA	1,600	NA	NA	NA	NA	NA	NA	
03/30/16	NA	2,250	NA	NA	NA	NA	NA	NA	
09/21/16	NA	2,390	NA	NA	NA	NA	NA	NA	
03/29/17	NA	1,990	NA	NA	NA	NA	NA	NA	
10/03/17	NA	1,400	NA	NA	NA	NA	NA	NA	

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
<b>MW-108</b>	02/20/97	NA	25	NA	23	NA	490.0	NA	31
	05/27/97	<.2	11	NA	13	NA	210.0	<.2	15
	09/18/97	.14**	27.4	NA	22.4**	1**	462.0	<.03	36.6
	12/12/97	.04*	5.6	NA	<9.7	<.8	74.8	.03*	27.9
	03/25/98	.04*	9.4	NA	10.4**	<1.7	142.0	.007*	13.8
	06/10/98	.14*	28.4	NA	25.5	<1.7	478.0	.021*	40.5
	10/27/98	.26*	8.90	NA	7.40	<.0032	88.0	<0.5	44
	02/09/99	<.31	1.70	NA	3.90	<.0032	560.0	<.05	30
	06/08/99	<.31	3.10	NA	1.4*	<.0032	450.0	<.05	54
	09/13/99	<.31	4.50	NA	5.30	<.0032	100.0	<.05	<12
	12/15/99	<.31	6.10	NA	NA	NA	79.0	NA	NA
	03/13/00	<.31	3.6	NA	NA	NA	41.0	NA	NA
	06/22/00	<.31	6.5	NA	NA	NA	<4.2	NA	NA
	09/27/00	<.23	2.9	NA	NA	NA	29.0	NA	NA
	12/19/00	<.23	3.0	NA	NA	NA	22.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	<2.0	NA	NA
	06/19/01	<.17	2.40	NA	NA	NA	110.0	NA	NA
	09/24/01	<.17	<.34	NA	NA	NA	40.0	NA	NA
	12/05/01	<.23	<.57	NA	NA	NA	7.4	NA	NA
	03/19/02	<.23	<.57	NA	NA	NA	3.4	NA	NA
	06/20/02	<.23	0.85*	NA	NA	NA	39.0	NA	NA
	09/18/02	<.23	<.44	NA	NA	NA	150.0	NA	NA
	12/17/02	<.23	0.67*	NA	NA	NA	34.0	NA	NA
	03/24/03	<.17	0.67*	NA	NA	NA	3.3	NA	NA
	03/24/04	NA	0.79*	<36	NA	NA	83.0	NA	NA
	03/29/05	NA	0.65	<2.7	NA	NA	2.6	NA	NA
	03/27/06	NA	<0.40	<5.0	NA	NA	6.2	NA	NA
03/27/07	NA	<1.9	NA	NA	NA	1.4	NA	NA	
04/29/11	NA	1.8 J	NA	NA	NA	0.70 J	NA	NA	
04/14/15	NA	<2.1	NA	NA	NA	<1.4	NA	NA	
<b>MW-109</b> ****	06/21/06	<0.92	1,300	1,400	2.4*	<9.4	480.0	<0.072	<20
	09/20/06	NA	450	NA	-	<9.4	430.0	NA	<20
	12/19/06	NA	550	NA	NA	NA	NA	NA	NA
	03/29/07	NA	2,700	NA	NA	0.94	15	NA	<20
	07/03/07	NA	2,200	NA	NA	NA	NA	NA	NA
	09/28/07	NA	1,300	NA	NA	NA	NA	NA	NA
	04/16/08	NA	1,550	NA	NA	NA	NA	NA	NA
	09/22/08	NA	892	NA	NA	NA	NA	NA	NA
	04/03/09	NA	912	NA	NA	NA	NA	NA	NA
	09/01/09	NA	1,520	NA	NA	NA	NA	NA	NA
	03/17/10	NA	867	NA	NA	NA	NA	NA	NA
	09/09/10	NA	718	NA	NA	NA	NA	NA	NA
	04/29/11	NA	1,110	NA	NA	NA	3.8 J	NA	NA
	09/01/11	NA	2,040	NA	NA	NA	NA	NA	NA
	03/16/12	NA	866	NA	NA	NA	NA	NA	NA
	09/11/12	NA	582	NA	NA	NA	NA	NA	NA
	04/29/13	NA	986	NA	NA	NA	NA	NA	NA
	09/17/13	NA	805	NA	NA	NA	NA	NA	NA
	04/21/14	NA	863	NA	NA	NA	NA	NA	NA
	09/16/14	NA	944	NA	NA	NA	NA	NA	NA
	04/14/15	NA	740	NA	NA	NA	<1.4	NA	NA
09/14/15	NA	889	NA	NA	NA	NA	NA	NA	
03/30/16	NA	847	NA	NA	NA	NA	NA	NA	
09/21/16	NA	648	NA	NA	NA	NA	NA	NA	
03/29/17	NA	602	NA	NA	NA	NA	NA	NA	
10/04/17	NA	384	NA	NA	NA	NA	NA	NA	

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
<b>MW-110</b> ****	06/21/06	<0.92	24,000	26,000	2.9*	40	290.0	<0.072	<20
	09/20/06	NA	15,000	NA	NA	41	260.0	NA	<20
	12/19/06	NA	15,000	NA	NA	53	NA	NA	NA
	03/29/07	NA	47,000	NA	NA	6.6	84	NA	<20
	07/03/07	NA	3,200	NA	NA	79	NA	NA	NA
	09/28/07	NA	51,000	NA	NA	71	NA	NA	NA
	04/16/08	NA	32,500	NA	NA	55	NA	NA	NA
	09/22/08	NA	32,500	NA	NA	57	NA	NA	NA
	04/03/09	NA	30,900	NA	NA	42	NA	NA	NA
	09/01/09	NA	34,400	NA	NA	21	NA	NA	NA
	03/17/10	NA	22,800	NA	NA	39	NA	NA	NA
	09/09/10	NA	5,060	NA	NA	7.5 J	NA	NA	NA
	04/29/11	NA	27.2	NA	NA	<6.1	0.22 J	NA	NA
	09/01/11	NA	7,270	NA	NA	6.6 J	NA	NA	NA
	03/14/12	NA	4,530	NA	NA	6.6 J	NA	NA	NA
	09/12/12	NA	10,800	NA	NA	13 J	NA	NA	NA
	04/30/13	NA	294	NA	NA	4.3 J	NA	NA	NA
	09/17/13	NA	3,190	NA	NA	4.3 J	NA	NA	NA
	04/22/14	NA	76	NA	NA	<10	NA	NA	NA
	09/17/14	NA	1,960	NA	NA	<0.010	NA	NA	NA
	04/15/15	NA	156	NA	NA	10	2.7J	NA	NA
	09/14/15	NA	849	860	NA	<10	NA	NA	NA
	03/31/16	NA	3.5 J	NA	NA	<6.8	NA	NA	NA
	09/21/16	NA	1,460	NA	NA	<6.8	NA	NA	NA
	03/29/17	NA	6.7 J	NA	NA	<6.8	NA	NA	NA
	10/03/17	NA	987	NA	NA	<0.0068	NA	NA	NA
<b>MW-111</b> ****	06/21/06	<0.92	1,400	1,400	3.3*	27	190.0	<0.072	<20
	09/20/06	NA	22	NA	-	20*	210.0	NA	<20
	12/19/06	NA	6.7	NA	NA	NA	NA	NA	NA
	03/29/07	NA	2,300	NA	NA	31	11	NA	<20
	07/03/07	NA	41	NA	NA	NA	NA	NA	NA
	09/28/07	NA	340	NA	NA	NA	NA	NA	NA
	04/16/08	NA	212	NA	NA	16 J	NA	NA	NA
	09/22/08	NA	743	NA	NA	NA	NA	NA	NA
	04/03/09	NA	381	NA	NA	13 J	NA	NA	NA
	09/01/09	NA	1,380	NA	NA	NA	NA	NA	NA
	03/17/10	NA	649	NA	NA	17 J	NA	NA	NA
	09/09/10	NA	438	NA	NA	NA	NA	NA	NA
	04/29/11	NA	238	NA	NA	<6.1	<0.14	NA	NA
	09/01/11	NA	572	NA	NA	NA	NA	NA	NA
	03/14/12	NA	432	NA	NA	13	NA	NA	NA
	09/12/12	NA	24.5	NA	NA	NA	NA	NA	NA
	04/30/13	NA	478	NA	NA	11 J	NA	NA	NA
	09/17/13	NA	509	NA	NA	11 J	NA	NA	NA
	04/21/14	NA	332	NA	NA	12 J	NA	NA	NA
	09/17/14	NA	302	NA	NA	12 J	NA	NA	NA
	04/14/15	NA	448	NA	NA	11	<1.4	NA	NA
	09/14/15	NA	582	660	NA	11	NA	NA	NA
	03/31/16	NA	120	NA	NA	<6.8	NA	NA	NA
	09/22/16	NA	363	NA	NA	NA	NA	NA	NA
	03/29/17	NA	10.1	NA	NA	<6.8	NA	NA	NA
	10/03/17	NA	480	NA	NA	NA	NA	NA	NA
<b>MW-112</b> ****	06/21/06	<0.92	130,000	140,000	5.3	140	180.0	<0.072	34,000
	09/20/06	NA	69,000	NA	NA	84	130.0	NA	<20
	12/19/06	NA	55,000	NA	NA	88	NA	NA	<200
	03/28/07	NA	140,000	NA	NA	450	110	NA	<20
	07/03/07	NA	100,000	NA	NA	35	NA	NA	<200
	09/28/07	NA	150,000	NA	NA	320	NA	NA	34
	04/16/08	NA	88,400	NA	NA	380	NA	NA	NA
	09/22/08	NA	77,400	NA	NA	210	NA	NA	NA
	04/03/09	NA	76,200	NA	NA	210	NA	NA	NA
	09/01/09	NA	69,000	NA	NA	150	NA	NA	NA
	03/17/10	NA	21,500	NA	NA	110	NA	NA	NA
	09/09/10	NA	7,150	NA	NA	110	NA	NA	NA
	04/29/11	NA	1,840	NA	NA	<6.1	2.6 J	NA	NA
	09/01/11	NA	15,600	NA	NA	51	NA	NA	NA
	03/14/12	NA	149	NA	NA	<6.1	NA	NA	NA

**TABLE 5**  
**Historical Groundwater Analytic Test Results--Selected Metals**

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
MW-112	09/12/12	NA	18,600	NA	NA	32	NA	NA	NA
	04/30/13	NA	216	NA	NA	5.2 J	NA	NA	NA
	09/17/13	NA	2,940	NA	NA	5.2 J	NA	NA	NA
	04/21/14	NA	189	NA	NA	<10	NA	NA	NA
	09/17/14	NA	2,820	NA	NA	0.016	NA	NA	NA
	04/14/15	NA	274	NA	NA	10	<1.4	NA	NA
	09/14/15	NA	13,600	16,000	NA	21	NA	NA	NA
	03/31/16	NA	1,080	NA	NA	8.0 J	NA	NA	NA
	09/22/16	NA	638	NA	NA	7.0 J	NA	NA	NA
	03/29/17	NA	240	NA	NA	<14	NA	NA	NA
	10/03/17	NA	3,150	NA	NA	0.0089 J	NA	NA	NA
MW-113 ****	06/21/06	<0.92	25,000	26,000	3.4*	11	170.0	<0.072	<20
	09/20/06	NA	31,000	NA	NA	12*	85.0	NA	<20
	12/19/06	NA	21,000	NA	NA	NA	NA	NA	NA
	03/29/07	NA	11,000	NA	NA	<0.94	3.2	NA	<20
	07/03/07	NA	21,000	NA	NA	NA	NA	NA	NA
	09/28/07	NA	55,000	NA	NA	NA	NA	NA	NA
	04/16/08	NA	16,400	NA	NA	NA	NA	NA	NA
	09/22/08	NA	24,300	NA	NA	NA	NA	NA	NA
	04/03/09	NA	18,800	NA	NA	NA	NA	NA	NA
	09/01/09	NA	37,400	NA	NA	NA	NA	NA	NA
	03/17/10	NA	31,300	NA	NA	NA	NA	NA	NA
	09/09/10	NA	18,400	NA	NA	NA	NA	NA	NA
	04/29/11	NA	2,760	NA	NA	NA	<0.14	NA	NA
	09/01/11	NA	16,700	NA	NA	NA	NA	NA	NA
	03/14/12	NA	7,460	NA	NA	NA	NA	NA	NA
	09/12/12	NA	25,800	NA	NA	NA	NA	NA	NA
	04/30/13	NA	776	NA	NA	NA	NA	NA	NA
	09/17/13	NA	31,100	NA	NA	NA	NA	NA	NA
	04/22/14	NA	12,000	NA	NA	NA	NA	NA	NA
	09/17/14	NA	25,900	NA	NA	NA	NA	NA	NA
04/14/15	NA	10,800	NA	NA	NA	<1.4	NA	NA	
09/14/15	NA	6,560	7,400	NA	NA	NA	NA	NA	
03/31/16	NA	2,780	NA	NA	NA	NA	NA	NA	
09/21/16	NA	15,200	NA	NA	NA	NA	NA	NA	
03/29/17	NA	6,490	NA	NA	NA	NA	NA	NA	
	10/03/17	NA	17,400	NA	NA	NA	NA	NA	NA
PZ-5	07/19/05****	NA	1.3*	<5.0	NA	NA	NA	NA	NA
	09/21/05****	NA	0.41*	<5.0	NA	NA	NA	NA	NA
	03/31/16****	NA	<2.1	NA	NA	NA	NA	NA	NA
PZ-6	07/19/05****	NA	1.2*	<5.0	NA	NA	NA	NA	NA
	09/21/05****	NA	<0.40	<5.0	NA	NA	NA	NA	NA
	03/30/16****	NA	<2.1	NA	NA	NA	NA	NA	NA
PZ-7	07/19/05****	NA	<0.52	<5.0	NA	NA	NA	NA	NA
	09/21/05****	NA	0.55*	<5.0	NA	NA	NA	NA	NA
	03/30/16****	NA	<2.1	NA	NA	NA	NA	NA	NA
PZ-8	07/19/05****	NA	1.1*	<5.0	NA	NA	NA	NA	NA
	09/21/05****	NA	<0.40	<5.0	NA	NA	NA	NA	NA
	04/05/16	NA	<2.1	NA	NA	NA	NA	NA	NA

**EXPLANATION:**

Samples collected prior to 10/27/98 were collected by CH2M Hill.

\* = Analyte detected between limit of detection and limit of quantitation.

\*\* = Compound was found in sample and blank.

\*\*\* = Standard is for Total Chromium.

\*\*\*\* = OMNI Associates, Inc. collected groundwater samples from PZ-5 to PZ-8 on July 19, 2005 and September 21, 2005 and MW-109 to MW-113 on June 21, 2006 and September 20, 2006 using a peristaltic pump and dedicated tubing.

ND = Not detected above the analytical laboratories method detection limit

NA = Not Analyzed

J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MW-104 = Was tested for Aluminum, Nickel, Arsenic & Lead. No quantifiable detections were noted for any of the analytes.

ug/L = Microgram/Liter

mg/L = Milligram / Liter

  Indicates an exceedance of the 1992 NR 140 Groundwater Quality Enforcement Standard (ES)

  Indicates Exceedance of the 1992 NR 140 Groundwater Preventive Action Limit (PAL)

NOTE: The EPA Record of Decision establishes the 1992 PALS as the cleanup goals for the site.



**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												Total Xylenes
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
W-2	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<85	<.7	<.7	<.7	<124	<68	<40	<.5	<.5	<124	-
	12/12/97	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	03/25/98	<.5	<.6	<85	<.7	<.7	<.7	<.4	<68	<40	<.5	<.5	.4**	-
	06/10/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.27	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	.15*	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	06/08/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	<.14	<.15	<.16	<.17	***	.13*	<.14	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	<.36	<.35	<.15	<.39	***	<.37	<.33	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	<.37	<.42	<.32	<.42	***	<.43
W-8	02/20/97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<85	<40	<.7	<.7	<124	<68	<40	<.5	<.5	<124	-
	12/12/97	<.5	<.6	<85	<40	<.7	<.7	<.4	<68	<40	<.5	<.5	.4**	-
	03/25/98	<.5	<.6	<85	<40	<.7	<.7	<.3	<68	<40	<.5	<.5	.3**	-
	06/10/98	<.5	<.6	<85	<40	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.27	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	.19*	<.15	<.15	<.15	<.16	<.17	***	.15*	<.14	<.15	<.15	***	<.37
	06/08/99	<.13	<.15	<.14	<.15	<.16	<.17	***	0.13	<.14	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	<.36	<.35	<.15	<.39	***	<.37	<.33	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	<.37	<.42	<.32	<.42	***	<.43

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
W-15	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	0.22	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<85	<.7	<.7	<.7	<124	<68	<40	<.5	<.5	<124	-
	12/12/97	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	03/25/98	<.5	<.6	<85	<.7	<.7	<.7	<.4	<68	<40	<.5	<.5	.4**	-
	06/10/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.27	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	06/08/99	.16*	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	<.36	<.35	<.15	<.39	***	<.37	<.33	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	<.50*	<.42	<.32	<.42	***	<.43	
MW-101	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	.491*	0.353*	<.7	<.7	<124	<68	3.03	<.5	3.31	<124	-
	12/12/97	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	03/25/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	06/10/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.27	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	<.13	<.15	<.14	<.15	<.16	<.17	***	0.91	<.14	<.15	<.14	***	<.37
	06/08/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	<.36	<.35	<.15	<.39	***	<.37	<.33	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	<.40*	<.42	<.32	<.42	***	<.43

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-102	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<.85	<.85	<.7	<.7	<124	<.68	<.40	<.5	<.5	<124	-
	12/12/97	<.5	<.6	<.85	<.85	<.7	<.7	<120	<.68	<.40	<.5	<.5	<120	-
	03/25/98	<.5	<.6	<.85	<.85	<.7	<.7	<.4	<.68	<.40	<.5	<.5	.4*	-
	06/10/98	<.5	<.6	<.85	<.85	<.7	<.7	<120	<.68	<.40	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.27	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	<.13	<.15	<.14	<.15	<.16	<.17	***	0.65	<.14	<.15	<.14	***	<.37
	06/08/99	<.13	<.15	<.14	<.15	<.16	<.17	***	.21*	<.14	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	<.36	<.35	<.15	<.39	***	<.37	<.33	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	<.37	<.42	<.32	<.42	***	<.43
03/30/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	10.1	<0.20	<0.33	<1.0	<1.5	
MW-103	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<.85	<.7	<.7	<.7	<124	<.68	<.40	<.5	<.5	<124	-
	12/12/97	<.5	<.6	<.85	<.7	<.7	<.7	<120	<.68	<.40	<.5	<.5	<120	-
	03/25/98	<.5	<.6	<.85	<.7	<.7	<.7	<120	<.68	<.40	<.5	<.5	<120	-
	06/10/98	<.5	<.6	<.85	<.7	<.7	<.7	<120	<.68	<.40	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.27	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	<.13	<.15	<.14	<.15	<.16	<.17	***	.15*	<.14	<.15	<.14	***	<.37
	06/08/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	<.36	<.35	<.15	<.39	***	<.37	<.33	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	0.23*	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.39	***	<.37	<.42	<.32	<.42	***	<.42
04/05/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	<0.33	<1.0	<1.5	

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-104	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<85	<.7	<.7	<.7	<124	<68	.324*	<.5	<.5	<124	-
	12/12/97	<.5	<.6	0.4	<.7	<.7	<.7	<120	<68	1*	<.5	0.9	<120	-
	03/25/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	.8*	<.5	<.5	<120	-
	06/10/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	2*	<.5	<.5	<120	-
	10/27/98	<.24	<.23	.35*	<.28	<.27	<.26	<.17	<.21	1.8	<.23	<.29	<.36	-
	02/09/99	<.13	<.15	.38*	<.15	<.16	<.17	***	.17*	1.5	<.15	<.14	***	<.37
	06/08/99	<.13	<.15	.34*	<.15	<.16	<.17	***	.14*	1.4	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	.38*	<.15	<.16	<.17	***	.27*	1.6	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	.38*	<.35	<.15	<.39	***	<.37	1.6	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	2.8	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	2.4	<.25	<.23	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	<.37	1.3*	<.32	<.42	***	<.43
03/30/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	<0.33	<1.0	<1.5	
MW-105	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<85	<.7	<.7	<.7	<124	<68	<40	<.5	<.5	<124	-
	12/12/97	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	03/25/98	<.5	<.6	<85	<.7	<.7	<.7	<.4	<68	<40	<.5	<.5	.4*	-
	06/10/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.27	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	.16*	<.15	<.14	<.15	<.16	<.17	***	.3*	<.14	<.15	<.14	***	<.37
	06/08/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13*	<.14	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	<.36	<.35	<.15	<.39	***	<.37	<.33	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	****	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	0.64*	<.42	<.32	<.42	***	<.43

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-106	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<85	<.7	<.7	<.7	<124	<68	2.73*	<.5	<.5	<124	-
	12/12/97	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	03/25/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	06/10/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.27	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	.18*	<.15	<.14	<.15	<.16	<.17	***	<.17	<.14	<.15	<.14	***	<.37
	06/08/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	<.14	<.15	<.16	<.17	***	<.13	<.14	<.15	<.14	***	<.37
	03/13/00	<.32	<.28	<.36	<.35	<.15	0.39	***	<.37	<.33	<.11	<.34	***	<.71
	03/01/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	5.7	<.42	<.32	<.42	***	<.43
MW-107	02/20/97	<.5	0.3	11	8.4	0.7	<.7	<.5	<.5	81	0.6	50	<.5	-
	05/27/97	0.09	1.10	36	40	3.1	<3.1	<.5	0.34	390	3.5	420	<.5	-
	09/18/97	<10	<12	47.6 J	22.1	2.61 J	<2.61	<2480	<68	265 J	2.83	295	<2480	-
	12/12/97	<10	<12	56 J	23	3 J	<3	<2500	<68	280	3	290	<2500	-
	03/25/98	<25	<30	61 J	69	5 J	<5	<17	<68	720	5	620	17*	-
	06/10/98	<12	<15	59*	58	<3	<3	<3100	63*	340 J	4 J	390	<3100	-
	10/27/98	<.24	1.4	62	46 J	3.6	0.51 J	<.17	<.21	550	4.9	640	<.36	-
	02/09/99	<3.2	<3.8	48	24	<4.0	<4.2	***	<3.2	220	<.38	250	***	<9.2
	06/08/99	<2.6	<3.0	42	20	<3.2	<3.4	***	<2.6	200	<3.0	310	***	<7.4
	09/13/99	<2.6	<3.0	34	19	<.32	<3.4	***	<2.6	180	<3.0	320	***	<7.4
	12/15/99	<3.2	<3.8	37	56	4.6 J	<4.2	***	<3.2	570	4.5 J	880	***	<9.2
	03/13/00	<26	<23	50 J	32 J	<12	<31	***	<30	340	<.90	630	***	<57
	06/22/00	<26	<23	<29	50 J	<12	<31	***	<30	540	<.9	850	***	<57
	09/27/00	<26	<23	35 J	54 J	<12	<31	***	<30	560	<.9	870	***	<57
	12/19/00	<6.4	<5.6	36	53	4.5 J	<7.8	***	<7.5	480	4.1 J	790	***	<20
	03/01/01	<6.0	<7.4	<32	<6.7	<14	<6.5	***	<8.7	420	<13	760	***	<28
06/25/01	<6.5	<15	26	35	<9	<6.1	***	<6.2	360	<6.5	620	***	<32	
09/24/01	<6.5	<15	36	50	<9	<6.1	***	<6.2	480	<6.5	760	***	<32	
12/05/01	<6.5	<15	40	50	<9	<6.1	***	<6.2	500	<6.5	810	***	<32	

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-107	03/19/02	<6.0	<7.5	37 J	43	<14	<6.5	***	<8.7	440	<13	740	***	<28
(cont.)	06/20/02	<7.9	<11	31	39	<7.2	<8.9	***	<7.6	410	<6.8	690	***	<14
	09/18/02	<7.9	<11	34	39	<7.2	<8.9	***	<7.6	430	<6.8	710	***	<14
	12/17/02	<7.9	<11	40	43	<7.2	<8.9	***	<7.6	470	<6.8	850	***	<14
	03/24/03	<17	<18	33 J	37 J	<19	<19	***	<19	390	<16	640	***	<22
	06/10/03	<5.7	<8.0	<5.3	39	<11	<8.2	***	<7.2	400	<9.0	680	***	<17
	09/10/03	<17	<18	36 J	41 J	<19	<19	***	<19	430	<16	730	***	<22
	12/10/03	<17	<18	25 J	31 J	<19	<19	***	<19	380	<16	740	***	<22
	03/24/04	<7.5	<7.0	<7.1	22	<6.8	<6.0	***	<7.6	220	<8.1	370	***	<19
	07/29/04	<2.0	<1.8	29	25	<4.1	<4.4	***	<3.4	310	3.4	510	***	<13.1
	09/22/04	<7.5	<7.0	28	34	<6.8	<6.0	***	<7.6	270	<8.1	570	***	<19
	12/14/04	<7.5	<7.0	33	40	<6.8	<6.0	***	<7.6	410	<8.1	800	***	<19
	03/29/05	<2.0	<1.8	39	20	<4.1	<4.4	***	<3.4	200	0.21	330	***	<13.1
	06/22/05	<1.0	<0.92	18	8.2	<2.1	<2.2	***	<1.7	82	<1.0	160	***	<6.6
	09/21/05	<2.0	<1.8	39	18.0	<4.1	<4.4	***	<3.4	220	<2.1	470	***	<13.1
	12/15/05	<2.0	<1.8	42	26.0	<4.1	<4.4	***	<3.4	250	<2.1	490	***	<13.1
	03/23/06	<2.0	<1.8	31	16.0	<4.1	<4.4	***	<3.4	150	<2.1	330	***	<13.1
	06/28/06	<2.0	<1.8	37	28.0	<4.1	<4.4	***	<3.4	270	<2.1	550	***	<13.1
	09/20/06	<4.1	<3.7	32	31.0	<8.3	<8.9	***	<6.7	330	<4.2	700	***	<26.3
	12/19/06	<2.0	<1.8	52	30	<4.1	<4.4	***	<3.4	280	3.3 J	580	***	<13.1
	03/28/07	<0.82	<0.74	19	18	2.1	<1.8	***	<1.3	190	1.7	340	***	<5.3
	07/03/07	<1.0	<0.92	30	15	2.3	<2.2	***	<1.7	160	1.5	350	***	<6.6
	09/28/07	<2.0	<1.8	35	19	<4.1	<4.4	***	<3.4	210	2.4 J	420	***	<13.1
	04/16/08	<2.0	<1.8	20.8	21.8	<4.2	<4.4	***	<3.4	257	2.7 J	550	***	<13.2
	09/22/08	<2.0	<6.5	38.5	34.2	4.5 J	<4.4	***	<3.4	368	2.8 J	679	***	<13.2
	04/03/09	<2.0	<6.5	22.6	22.7	<4.2	<4.4	***	<3.4	283	<2.1	593	***	<13.2
	09/01/09	<2.0	<6.5	41.4	37.7	<4.2	<4.4	***	<3.4	347	2.8 J	715	***	<13.2
	03/17/10	<2.0	<6.5	25.3	29.0	<4.2	<4.4	***	<3.4	276	<2.1	620	***	<13.2
	09/09/10	<2.0	<6.5	25.8	26.7	<4.2	<4.4	***	<3.4	283	<2.1	685	***	<13.2
	04/29/11	<2.0	<6.5	21.0	18.3	<4.2	<4.4	***	<3.4	213	<2.1	551	***	<13.2
	09/01/11	<2.0	<6.5	31.5	26.1	<4.2	<4.4	***	5.2	297	2.3 J	641	***	<13.2
	03/14/12	<2.0	<6.5	21.4	15.6	<4.2	<4.4	***	<3.4	190	<2.1	463	***	<13.2
	09/11/12	<2.0	<6.5	32.0	30.5	4.2 J	<4.4	<4.2	<3.4	305	<2.1	664	<9.0	<13.2
	04/30/13	<2.5	<3.4	16.3	15.5	<2.1	<1.9	<2.5	<2.2	177	<1.9	460	<4.1	<6.6
	09/17/13	<5.0	<6.9	3.7	11.9	<4.2	<3.7	<5.0	<4.4	174	<3.9	531	<8.2	<13.2
	04/21/14	<2.5	<12.5	14.9	11.7	1.7 J	<1.2	<2.5	<2.5	129	<0.78	399	<5.0	<7.5
	09/16/14	<2.5	<12.5	5.2	10.7	2.2 J	<1.3	<2.5	<2.5	120	<0.78	418	<5.0	<7.5
	04/14/15	<2.5	<12.5	16.2	15.3	<1.3	<1.3	<2.5	<2.5	159	<0.99	382	<5.0	<7.5
	09/14/15	<2.5	<12.5	25.5	19.1	2.1 J	<1.3	***	<2.5	176	<0.99	470	***	<7.5

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-107	03/30/16	<2.5	<12.5	9.6	10.0	<1.3	<1.3	<2.5	<2.5	101	<0.99	282	<5.0	<7.5
(cont.)	09/21/16	<1.2	<6.2	4.9	10.5	1.4 J	<0.64	<1.2	<1.2	138	0.86 J	374	<2.5	<3.7
	03/29/17	<1.2	<6.2	14.0	11.7	2.3 J	<0.64	<1.2	<1.2	124	<0.49	364	<2.5	<3.7
	10/03/17	<1.2	<6.2	34.2	23.2	2.8	<0.64	<1.2	<1.2	212	<0.49	564	<2.5	<3.7
MW-108	02/20/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	05/27/97	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5	-
	09/18/97	<.5	<.6	<85	<.7	<.7	<.7	<124	<68	<40	<.5	<.5	<124	-
	12/12/97	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	03/25/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<40	<.5	<.5	<120	-
	06/10/98	<.5	<.6	<85	<.7	<.7	<.7	<120	<68	<44	<.5	<.5	<120	-
	10/27/98	<.24	<.23	<.22	<.28	<.27	<.26	<.17	<.21	<.26	<.23	<.29	<.36	-
	02/09/99	<.13	<.15	<.14	<.15	<.16	<.17	***	0.83	<.14	<.15	<.14	***	<.37
	06/08/99	<.13	<.15	<.14	<.15	<.16	<.17	***	.15*	<.14	<.15	<.14	***	<.37
	09/13/99	<.13	<.15	<.14	<.15	<.16	<.17	***	0.84	<.14	<.15	<.14	***	<.32
	03/13/00	<.32	<.28	<.36	<.35	<.15	<.39	***	<.37	<.33	<.11	<.36	***	<.71
	03/31/01	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/19/02	<.12	<.15	<.64	<.13	<.28	<.13	***	<.17	<.17	<.25	<.13	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	<.37	<.42	<.32	<.42	***	<.43
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.37	***	<.37	<.42	<.32	<.42	***	<.43
MW-109	06/21/06	-	0.40*	1.3*	1.9	<0.83	<0.89	***	-	37	0.45 J	46	***	-
	09/20/06	-	0.39*	1.7*	2.2	<0.83	<0.89	***	-	37	0.45 J	51	***	-
	12/19/06	<0.41	0.44*	2.7	1.1*	<0.83	<0.89	***	-	33	0.52 J	42	***	<2.63
	03/29/07	<0.41	<0.37	0.85	1.3	<0.83	<0.89	***	<13	27	<0.42	37	***	<2.63
	07/03/07	<0.41	0.38*	1.7	1.3	<0.83	<0.89	***	<0.67	34	0.54	47	***	<2.63
	09/28/07	<0.41	<0.37	<0.75	1.1*	<0.83	<0.89	***	<0.67	22	<0.42	35	***	<2.63
	04/16/08	<0.41	0.39 J	1.9	1.9	<0.83	<0.89	***	<0.67	31.9	0.45 J	39.4	***	<2.63
	09/22/08	<0.41	<1.3	0.98 J	1.4	<0.83	<0.89	***	<0.67	26.9	<0.42	38.8	***	<2.63
	04/03/09	<0.41	<1.3	2.4	1.1	<0.83	<0.89	***	<0.67	29.6	<0.42	36.3	***	<2.63
	09/01/09	<0.41	<1.3	1.4	2.2	<0.83	<0.89	***	<0.67	35.8	0.50 J	50.8	***	<2.63
	03/17/10	<0.41	<1.3	2.4	1.6	<0.83	<0.89	***	<0.67	27.4	<0.42	37.9	***	<2.63
	09/09/10	<0.41	<1.3	0.84 J	1.2	<0.83	<0.89	***	<0.67	23.5	<0.42	41.5	***	<2.63
	04/29/11	<0.41	<1.3	2.2	1.6	<0.83	<0.89	***	<0.67	27.1	0.43 J	38.6	***	<13.2
	09/01/11	<0.41	<1.3	2.7	2.6	<0.83	<0.89	***	<0.67	52.5	0.69 J	66.8	***	<2.63
	03/14/12	<0.41	<1.3	2.4	1.1	<0.83	<0.89	***	<0.67	22.3	<0.42	33.5	***	<2.63
	09/11/12	<0.41	<1.3	1.1	0.91 J	<0.83	<0.89	***	<0.67	19.5	<0.42	30.2	***	<2.63
	04/30/13	<0.50	<0.69	1.8	1.0	<0.42	<0.37	***	<0.44	16.7	<0.39	28.7	***	<1.32
	09/17/13	<0.50	<0.69	0.8	0.8	<0.42	<0.37	***	<0.44	12.6	<0.39	26.3	***	<1.32
	04/21/14	<0.50	<2.5	1.9	1.0	<0.26	<0.24	***	<0.50	18.9	0.27 J	28.6	***	<1.5
	09/16/14	<0.50	<2.5	1.0	0.89 J	<0.26	<0.26	<0.50	<0.50	21.4	<0.16	31.1	<1.0	<1.5

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2,-Dichloro ethene	Trans-1,2,-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-109	04/14/15	<0.50	<2.5	1.5	1.1	<0.26	<0.26	<0.50	<0.50	17.8	<0.20	23.5	<1.0	<1.5
(cont.)	09/14/15	<0.50	<2.5	1.4	1.1	<0.26	<0.26	***	<0.50	24.1	<0.20	38.3	***	<1.5
	03/30/16	<0.50	<2.5	0.94 J	1.0	<0.26	<0.26	<0.50	<0.50	15.1	<0.20	22.5	<1.0	<1.5
	09/21/16	<0.50	<2.5	1.8	1.8	0.28 J	<0.26	<0.50	<0.50	31.0	0.31 J	40.6	<1.0	<1.5
	03/29/17	<0.50	<2.5	1.2	1.2	<0.26	<0.26	<0.50	<0.50	17.4	<0.20	24.4	<1.0	<1.5
	10/04/17	<0.50	<2.5	1.9	1.5	0.37 J	<0.26	<0.50	<0.50	26.7	<0.20	39.1	<1.0	<1.5
MW-110	06/21/06	-	<3.7	310	340	56	19	***	-	1,500	<4.2	27	***	-
	09/20/06	-	<3.7	260	300	57	28 J	***	-	1,100	<4.2	30	***	-
	12/19/06	<4.1	<3.7	230	240	55	16 J	***	<6.7	910	<4.2	23	***	<2.63
	03/29/07	<8.2	<7.4	250	340	59	24	***	<13	1,500	<8.4	32	***	<53
	07/03/07	<8.2	<7.4	270	230	59	18	***	<13	1,300	<8.4	26	***	<53
	09/28/07	<10	<9.2	380	350	67 J	23 J	***	<17	1,600	<10	32 J	***	<2.63
	04/16/08	<8.2	<7.4	206	195	55.9	<17.8	***	<13.4	918	<8.4	28.2	***	<52.6
	09/22/08	<4.1	<13.0	246	239	73.5	29.1	***	<6.7	1,210	<4.2	45.5	***	<26.3
	04/03/09	<4.1	<13.0	195	188	56.5	14.0	***	<6.7	914	<4.2	26.2	***	<26.3
	09/01/09	<4.1	<13.0	257	268	74.9	16.3	***	<6.7	1,130	<4.2	44.2	***	<26.3
	03/17/10	<4.1	<13.0	159	169	47.3	9.8 J	***	<6.7	718	<4.2	29.8	***	<26.3
	09/09/10	<1.0	<3.2	36.3	47.7	17.2	3.3	***	<1.7	252	<1.0	23.5	***	<6.6
	04/29/11	<0.41	<1.3	0.84 J	0.62 J	<0.83	<0.89	***	<0.67	6.6	<0.42	1.0	***	<2.63
	09/01/11	<0.41	<1.3	32.5	40.0	22.2	3.0	***	<0.67	232	0.87 J	32.7	***	<2.63
	03/14/12	<1.6	<1.3	39.6	29.9	13.4	2.3	***	<0.67	170	0.46 J	15.8	***	<2.63
	09/12/12	<1.6	<5.2	65.3	68.9	24.4	5.2	***	<2.7	313	<1.7	22.7	***	<10.5
	04/30/13	<0.50	<0.69	6.8	4.4	1.9	0.38 J	***	<0.44	28.1	<0.39	4.7	***	<1.32
	09/17/13	<0.50	<0.69	28.5	25.6	11.4	1.9	***	<0.44	111	0.48	18	***	<1.32
	04/22/14	<0.50	<2.5	3.1	1.5	0.60 J	<0.24	***	<0.50	9.6	<0.16	2.4	***	<1.5
	09/17/14	<0.50	<2.5	24.7	19.1	10.4	1.5	<0.5	<0.50	115	0.38 J	19.3	<1.0	<1.5
	04/15/15	<0.50	<2.5	4.1	2.3	0.96 J	<0.26	<0.5	<0.50	11.5	<0.20	2.2	<1.0	<1.5
c	09/14/15	<0.50	<2.5	23.1	17.4	8.7	1.4	***	<0.50	92.9	0.38 J	19.1	***	<1.5
	03/31/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	<0.33	<1.0	<1.5
	09/21/16	<0.50	<2.5	23.1	19.3	9.6	1.5	<0.50	<0.50	86.8	0.31 J	16.5	<1.0	<1.5
	03/29/17	<0.50	<2.5	1.1	<0.41	<0.26	<0.26	<0.50	<0.50	1.3	<0.20	0.43 J	<1.0	<1.5
	10/03/17	<0.50	<2.5	18.3	17.1	9.0	1.6	<0.50	<0.50	76.0	<0.20	20.4	<1.0	<1.5



**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-111	06/21/06	-	0.59*	2.7	11	<0.83	<0.89	***	-	78	0.71	180	***	-
	09/20/06	-	<0.37	3.2	7.7	<0.83	<0.89	***	-	36	<0.42	97	***	-
	12/19/06	<0.41	<0.37	2.0*	1.5*	<0.83	<0.89	***	<0.67	7.9	<0.42	21	***	<2.63
	03/29/07	<0.41	0.77	1.7	7.3	<0.83	<0.89	***	<0.67	52	<0.42	120	***	<2.63
	07/03/07	<0.41	<0.37	<0.36	1.8	<0.83	<0.89	***	<0.67	14	<0.42	37	***	<2.63
	09/28/07	<0.41	<0.37	2.4*	2.8	<0.83	<0.89	***	<0.67	22	<0.42	55	***	<2.63
	04/16/08	<0.41	1.2	1.6	2.7	<0.83	<0.89	***	<0.67	20.3	<0.42	52.9	***	<2.63
	09/22/08	<0.41	<1.3	2.6	6.7	<0.83	<0.89	***	<0.67	59.0	0.53 J	142	***	<2.63
	04/03/09	<0.41	<1.3	1.6	2.7	<0.83	<0.89	***	<0.67	21.4	<0.42	57.7	***	<2.63
	09/01/09	<0.41	<1.3	2.5	7.5	<0.83	<0.89	***	<0.67	56.8	0.51 J	147	***	<2.63
	03/17/10	<0.41	<1.3	1.8	3.9	<0.83	<0.89	***	<0.67	27.5	<0.42	75.3	***	<2.63
	09/09/10	<0.41	<1.3	2.2	4.5	<0.83	<0.89	***	<0.67	37.5	<0.42	110	***	<2.63
	04/29/11	<0.41	<1.3	2.0	2.7	<0.83	<0.89	***	<0.67	21.1	<0.42	65.0	***	<2.63
	09/01/11	<0.41	<1.3	2.3	4.5	<0.83	<0.89	***	<0.67	39.7	<0.42	109	***	<2.63
	03/14/12	<0.41	<1.3	2.3	2.7	<0.83	<0.89	***	<0.67	23.9	<0.42	62.6	***	<2.63
	09/12/12	<0.41	<1.3	3.1	3.2	<0.83	<0.89	***	<0.67	24.1	<0.42	66.7	***	<2.63
	04/30/13	<0.50	<0.69	1.8	2.9	<0.42	<0.37	***	<0.44	19.8	<0.39	64.1	***	<1.32
	09/17/13	<0.50	<0.69	2.3	4.8	<0.42	<0.37	***	<0.44	32.1	<0.39	108	***	<1.32
	04/21/14	<0.50	<2.5	1.7	2.2	<0.26	<0.24	***	<0.50	18.4	0.20 J	60	***	<1.5
	09/17/14	<0.50	<2.5	2.7	3.9	<0.26	<0.26	<0.50	<0.50	36.9	0.30 J	110	<1.0	<1.5
	04/14/15	<0.50	<2.5	1.6	2.4	<0.26	<0.26	<0.50	<0.50	15.6	<0.20	44.2	<1.0	<1.5
	09/14/15	<0.50	<2.5	2.3	3.9	<0.26	<0.26	***	<0.50	32.1	<0.20	103	***	<1.5
	03/31/16	<0.50	<2.5	1.6	2.0	<0.26	<0.26	<0.50	<0.50	14.6	<0.20	45.7	<1.0	<1.5
E	09/22/16	<0.50	<2.5	1.8	2.7	<0.26	<0.26	<0.50	<0.50	24.7	<0.20	68.4	<1.0	<1.5
	03/29/17	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	1.9	<0.20	9.0	<1.0	<1.5
	10/04/17	<0.50	<2.5	1.7	2.8	<0.26	<0.26	<0.50	<0.50	21.6	<0.20	74.5	<1.0	<1.5

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2,-Dichloro ethene	Trans-1,2,-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-112	06/21/06	-	<1.8	<3.7	<3.8	<4.1	<4.4	***	-	7.9*	<2.1	450	***	-
	09/20/06	-	<0.37	<7.5	<5.7	<8.3	<8.9	***	-	<9.0	<4.2	540	***	-
	12/19/06	<2.0	<1.8	<3.8	<2.8	<4.1	<4.4	***	<3.4	<4.5	<2.1	240	***	<13.1
	03/29/07	<4.1	<3.7	<7.5	<5.7	<8.3	<8.9	***	<6.7	20	<4.2	940	***	<26.3
	07/03/07	<2.0	<1.8	<3.8	<2.8	<4.1	<4.4	***	<3.4	11	<2.1	750	***	<13.1
	09/28/07	<4.1	<3.7	<7.5	<5.7	<8.3	<8.9	***	<6.7	13*	<4.2	820	***	<2.63
	04/16/08	<4.1	<3.7	<7.5	<5.7	<8.3	<8.9	***	<6.7	20.1	<4.2	1130	***	<26.3
	09/22/08	<4.1	<13.0	<7.5	5.7 J	<8.3	<8.9	***	<6.7	19.0	<4.2	1160	***	<26.3
	04/03/09	<4.1	<13.0	<7.5	5.8 J	<8.3	<8.9	***	<6.7	20.6	<4.2	1250	***	<26.3
	09/01/09	<4.1	<13.0	<7.5	8.2 J	<8.3	<8.9	***	<6.7	25.8	<4.2	1600	***	<26.3
	03/17/10	<4.1	<13.0	<7.5	<5.7	<8.3	<8.9	***	<6.7	<9.0	<4.2	556	***	<26.3
	09/09/10	<4.1	<13.0	<7.5	<5.7	<8.3	<8.9	***	<6.7	<9.0	<4.2	546	***	<26.3
	04/29/11	<0.41	<1.3	<0.75	<0.57	<0.83	<0.89	***	<0.67	0.94 J	<0.42	111	***	<2.63
	09/01/11	<2.0	<6.5	<3.8	<2.8	<4.2	<4.4	***	<3.4	7.5	<2.1	557	***	<13.2
	09/01/11	<0.41	<1.3	<0.75	<0.57	<0.83	<0.89	***	<0.67	<0.90	<0.42	47.9	***	<2.63
	09/12/12	<2.0	<6.5	<3.8	<2.8	<4.2	<4.4	***	<3.4	7.8	<2.1	623	***	<13.2
	04/30/13	<0.50	<0.69	<0.28	<0.43	<0.43	<0.37	***	<0.44	<0.44	<0.39	75	***	<1.32
	09/17/13	<2.5	<3.4	1.9	<2.1	<2.1	<1.9	***	<2.2	3.4	<1.9	474	***	<6.6
	04/21/14	<0.50	<2.5	0.24 J	<0.41	<0.26	<0.24	***	<0.50	<0.50	<0.16	46	***	<1.5
	09/17/14	<2.5	<12.5	2.1 J	<2.1	<1.3	<1.3	<2.5	<2.5	3.8 J	<0.78	493	<5.0	<7.5
	04/14/15	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	52.4	<1.0	<1.5
	09/14/15	<0.50	<2.5	1.6	<0.41	0.61 J	<0.26	***	<0.50	2.5	<0.20	294	***	<1.5
	03/31/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	31.4	<1.0	<1.5
	09/22/16	<0.50	<2.5	2.2	1.6	1.7	<0.26	<0.50	<0.50	1.6	<0.20	281	<1.0	<1.5
	03/29/17	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	64.9	<1.0	<1.5
	10/04/17	<1.2	<6.2	1.3 J	1.1 J	0.96 J	<0.64	<1.2	<1.2	2.6	<0.49	292	<2.5	<3.7

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		Benzene	Chloroform	1,1-Dichloro ethane	1,1-Dichloro ethene	cis-1,2-Dichloro ethene	Trans-1,2-Dichloro ethene	Ortho-Xylene	Toluene	1,1,1-Trichloro ethane	1,1,2-Trichloro ethane	Trichloro ethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL		5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140		5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140		0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124
MW-113	06/21/06	-	<0.74	37	44	4.4 J	<1.8	***	-	240	<0.84	92	***	-
	09/20/06	-	<0.37	22	19	3.6	1.3 J	***	-	120	0.82 J	81	***	-
	12/19/06	<2.0	<1.8	28	16	5.2*	<4.4	***	<3.4	120	<2.1	91	***	<13.1
	03/29/07	<0.41	<0.37	10	11	1.6	<0.89	***	<0.67	77	<0.42	46	***	<2.63
	07/03/07	<2.0	<1.8	21	8.1	4.9	<4.4	***	<13.1	79	<2.1	61	***	<13.1
	A 09/28/07	<0.41	0.57	35	17	8.9	<0.89	***	<0.67	130	1.5	97	***	<2.63
	04/16/08	<0.41	<0.37	20.5	15.3	3.7	<0.89	***	<0.67	99.7	0.44 J	62.4	***	<2.63
	09/22/08	<4.1	<13.0	28.2	17.9	<8.3	<8.9	***	<6.7	134	<4.2	89.4	***	<26.3
	04/03/09	<0.41	<1.3	21.8	13.9	4.1	<0.89	***	<0.67	107	<0.42	62.2	***	<2.63
	09/01/09	<1.0	<3.2	51.2	70.8	13.8	4.0	***	<1.7	356	1.4 J	199	***	<6.6
	03/17/10	<1.0	<3.2	29.0	23.6	7.8	<2.2	***	<1.7	140	<1.0	96.8	***	<6.6
	09/09/10	<0.82	<2.6	26.7	29.1	6.1	<1.8	***	<1.3	165	<0.84	77	***	<5.3
	04/29/11	<0.50	<1.3	6.9	5.5	1.1	<0.89	***	<0.67	37.1	<0.42	21.3	***	<2.63
	09/01/11	<0.41	<1.3	23.8	26.0	6.3	1.2	***	<0.67	152	0.55 J	75.9	***	<2.63
	03/14/12	<0.41	<1.3	17.1	17.3	2.9	<0.89	***	<0.67	106	<0.42	42.3	***	<2.63
	09/12/12	<2.0	<6.5	50.8	59.6	12.6	<4.4	***	<3.4	320	<2.1	148	***	<13.2
	04/30/13	<5.0	<0.69	6.2	5.8	0.94	<0.37	***	<3.4	34.6	<2.1	14	***	<1.32
	09/17/13	<2.0	<2.8	47.9	74.6	16.3	4.2	***	<1.8	284	<1.6	161	***	<5.3
	B 04/22/14	<0.50	<2.5	26.7	18.8	7.1	1.3	***	<0.50	103	0.50 J	67.4	***	<1.5
	09/17/14	<0.50	<2.5	54.3	38.8	14.2	2.4	<0.50	<0.50	231	0.89 J	125	<1.0	<1.5
04/14/15	<0.50	<2.5	16.6	20.3	4.7	0.85 J	<0.50	<0.50	97.5	0.32 J	44.7	<1.0	<1.5	
D 09/14/15	<0.50	<2.5	38.0	43.6	8.4	1.7	***	<0.50	218	0.68 J	76.6	***	<1.5	
03/31/16	<0.50	<2.5	9.2	8.9	1.6	<0.26	<0.50	<0.50	36.7	<0.20	17.3	<1.0	<1.5	
09/21/16	<1.2	<6.2	58.7	79.3	15.4	3.4	<1.2	<1.2	326	0.58 J	95.5	<2.5	<3.7	
03/29/17	<0.50	<2.5	18.4	18.0	4.0	0.73 J	<0.50	<0.50	80.5	<0.20	34.6	<1.0	<1.5	
F 10/03/17	<0.50	<2.5	45.6	65.3	14.7	3.4	<0.50	<0.50	260	<0.20	113	<1.0	<1.5	
PZ-5	07/19/05	<0.37	<0.75	<0.57	<0.83	<0.89	NA	NA	1.7*	<0.42	<0.48	NA	NA	NA
	09/21/05	<0.37	<0.75	<0.57	<0.83	<0.89	NA	NA	<0.90	<0.42	<0.48	NA	NA	NA
	09/21/05	<0.37	<0.75	<0.57	<0.83	<0.89	NA	NA	<0.90	<0.42	<0.48	NA	NA	NA
	03/31/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	<0.33	<1.0	<1.5
PZ-6	07/19/05	<0.37	<0.75	<0.57	<0.83	<0.89	NA	NA	<0.90	<0.42	<0.48	NA	NA	NA
	09/21/05	<0.37	<0.75	<0.57	<0.83	<0.89	NA	NA	<0.90	<0.42	<0.48	NA	NA	NA
	09/21/05	<0.37	<0.75	<0.57	<0.83	<0.89	NA	NA	<0.90	<0.42	<0.48	NA	NA	NA
	03/30/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	<0.33	<1.0	<1.5
PZ-7	03/30/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	<0.33	<1.0	<1.5
PZ-8	04/05/16	<0.50	<2.5	<0.24	<0.41	<0.26	<0.26	<0.50	<0.50	<0.50	<0.20	<0.33	<1.0	<1.5

**TABLE 6**  
**Historical Groundwater Analytic Test Results--Volatile Organic Compounds**  
 N.W. Mauthe Superfund Site - Appleton, Wisconsin

	Detected Volatile Organic Compounds (µg/L)												
	Benzene	Chloroform	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trans-1,2-Dichloroethene	Ortho-Xylene	Toluene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Meta, para Xylene	Total Xylenes
1992 US EPA MCL	5.0	100	-	7.0	70	100	10,000	1,000	200	5.0	5.0	10,000**	10,000
1992 ES NR 140	5	6	850	7	100	100	620**	343	200	0.6	5	620**	620
1992 PAL NR 140	0.067	0.6	85	0.024	10	20	124**	68.6	40	0.06	0.18	124**	124

**EXPLANATION:**

Results prior to 10/27/98 for cis-1,2,-Dichloroethene and Trans-1,2 Dichloroethene were listed as Total Dichloroethene and were placed in this table under the heading cis-1,2,-Dichloroethene.

Results prior to 10/27/98 for Ortho Xylene and Meta, para Xylene were listed as Total Xylenes and were placed in this table under the heading Meta, para Xylene.

\* = Analyte detected between limit of detection and limit of quantitation.

J = Estimated Concentration above the adjusted method detection limit and below the adjusted reporting limit.

\*\* = Standard includes Ortho-, Meta, para-Xylenes

\*\*\* = As of 02/09/99 Xylene results are listed as "Total Xylenes".

WM Equipment Malfunction, no accurate measurement.

NOTE: The EPA Record of Decision establishes the 1992 PAL's as the clean-up goals for the site.

<sup>A</sup> = 1,2-Dichloroethane was detected at 0.87 µg/l.

<sup>B</sup> = Dichlorodifluoromethane detected at 0.17 µg/L and 1,2-Dichloroethane detected at 0.34 µg/L

<sup>C</sup> = 1,2-Dichloroethane was detected at 0.34 J µg/l.

<sup>D</sup> = 1,2-Dichloroethane was detected at 0.47 J µg/l.

<sup>E</sup> = chloromethane was detected at 0.55 J µg/l.

<sup>F</sup> = 1,2-Dichloroethane was detected at 0.63 J µg/l and Methylene Chloride detected at 0.24J µg/l

ND = Not Detected

NA = Not Analyzed

MCL = Maximum Contaminant Levels

ug/l = Microgram/Liter

= Indicates an exceedance of the 1992 NR 140 Groundwater Quality Enforcement Standards (ES)

= Indicates an exceedance of the 1992 NR 140 Groundwater Quality Preventive Action Limits (PAL)

## **Appendix C**

Laboratory Analytic Test Reports and Chain-of-  
Custody Record  
Groundwater Sampling Field Sheets

October 11, 2017

Scott Hodgson  
Terracon, Inc. - Franklin  
9856 South 57th Street  
Franklin, WI 53132

RE: Project: 58117057 MAUTHE  
Pace Project No.: 40157904

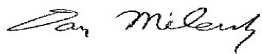
Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revised Report: The metals list has been corrected.

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

Sincerely,



Dan Milewsky  
dan.milewsky@pacelabs.com  
(920)469-2436  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

---

### Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: 58117057 MAUTHE

Pace Project No.: 40157904

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40157904001	MW-103	Water	10/04/17 10:55	10/04/17 14:35
40157904002	MW-104	Water	10/04/17 10:05	10/04/17 14:35
40157904003	MW-107	Water	10/03/17 14:59	10/04/17 14:35
40157904004	MW-109	Water	10/04/17 09:10	10/04/17 14:35
40157904005	MW-110	Water	10/03/17 12:58	10/04/17 14:35
40157904006	MW-111	Water	10/03/17 18:58	10/04/17 14:35
40157904007	MW-112	Water	10/03/17 15:29	10/04/17 14:35
40157904008	MW-113	Water	10/03/17 13:58	10/04/17 14:35
40157904009	DUP-01	Water	10/03/17 00:00	10/04/17 14:35
40157904010	TRIP BLANK	Water	10/03/17 00:00	10/04/17 14:35

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: 58117057 MAUTHE

Pace Project No.: 40157904

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40157904001	MW-103	EPA 6010	DLB	1	PASI-G
40157904002	MW-104	EPA 6010	DLB	1	PASI-G
40157904003	MW-107	EPA 6010	DLB	1	PASI-G
		EPA 8260	LAP	64	PASI-G
40157904004	MW-109	EPA 6010	DLB	1	PASI-G
		EPA 8260	LAP	64	PASI-G
40157904005	MW-110	EPA 6010	DLB	1	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
40157904006	MW-111	EPA 6010	DLB	1	PASI-G
		EPA 8260	LAP	64	PASI-G
40157904007	MW-112	EPA 6010	DLB	1	PASI-G
		EPA 8260	LAP	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
40157904008	MW-113	EPA 6010	DLB	1	PASI-G
		EPA 8260	LAP	64	PASI-G
40157904009	DUP-01	EPA 6010	DLB	1	PASI-G
		EPA 8260	LAP	64	PASI-G
40157904010	TRIP BLANK	EPA 8260	LAP	64	PASI-G

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 58117057 MAUTHE  
Pace Project No.: 40157904

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40157904002</b>	<b>MW-104</b>					
EPA 6010	Chromium, Dissolved	5.8J	ug/L	10.0	10/06/17 13:20	
<b>40157904003</b>	<b>MW-107</b>					
EPA 6010	Chromium, Dissolved	1400	ug/L	10.0	10/06/17 13:22	
EPA 8260	1,1-Dichloroethane	34.2	ug/L	2.5	10/05/17 14:01	
EPA 8260	1,1-Dichloroethene	23.2	ug/L	2.5	10/05/17 14:01	
EPA 8260	cis-1,2-Dichloroethene	2.8	ug/L	2.5	10/05/17 14:01	
EPA 8260	1,1,1-Trichloroethane	212	ug/L	2.5	10/05/17 14:01	
EPA 8260	Trichloroethene	564	ug/L	2.5	10/05/17 14:01	
<b>40157904004</b>	<b>MW-109</b>					
EPA 6010	Chromium, Dissolved	384	ug/L	10.0	10/06/17 13:25	
EPA 8260	1,1-Dichloroethane	1.9	ug/L	1.0	10/05/17 14:47	
EPA 8260	1,1-Dichloroethene	1.5	ug/L	1.0	10/05/17 14:47	
EPA 8260	cis-1,2-Dichloroethene	0.37J	ug/L	1.0	10/05/17 14:47	
EPA 8260	1,1,1-Trichloroethane	26.7	ug/L	1.0	10/05/17 14:47	
EPA 8260	Trichloroethene	39.1	ug/L	1.0	10/05/17 14:47	
<b>40157904005</b>	<b>MW-110</b>					
EPA 6010	Chromium, Dissolved	987	ug/L	10.0	10/06/17 13:27	
EPA 8260	1,1-Dichloroethane	18.3	ug/L	1.0	10/05/17 15:10	
EPA 8260	1,1-Dichloroethene	17.1	ug/L	1.0	10/05/17 15:10	
EPA 8260	cis-1,2-Dichloroethene	9.0	ug/L	1.0	10/05/17 15:10	
EPA 8260	trans-1,2-Dichloroethene	1.6	ug/L	1.0	10/05/17 15:10	
EPA 8260	1,1,1-Trichloroethane	76.0	ug/L	1.0	10/05/17 15:10	
EPA 8260	Trichloroethene	20.4	ug/L	1.0	10/05/17 15:10	
<b>40157904006</b>	<b>MW-111</b>					
EPA 6010	Chromium, Dissolved	480	ug/L	10.0	10/06/17 13:30	
EPA 8260	1,1-Dichloroethane	1.7	ug/L	1.0	10/05/17 15:32	
EPA 8260	1,1-Dichloroethene	2.8	ug/L	1.0	10/05/17 15:32	
EPA 8260	1,1,1-Trichloroethane	21.6	ug/L	1.0	10/05/17 15:32	
EPA 8260	Trichloroethene	74.5	ug/L	1.0	10/05/17 15:32	
<b>40157904007</b>	<b>MW-112</b>					
EPA 6010	Chromium, Dissolved	3150	ug/L	10.0	10/06/17 13:32	
EPA 8260	1,1-Dichloroethane	1.3J	ug/L	2.5	10/06/17 08:25	
EPA 8260	1,1-Dichloroethene	1.1J	ug/L	2.5	10/06/17 08:25	
EPA 8260	cis-1,2-Dichloroethene	0.96J	ug/L	2.5	10/06/17 08:25	
EPA 8260	1,1,1-Trichloroethane	2.6	ug/L	2.5	10/06/17 08:25	
EPA 8260	Trichloroethene	292	ug/L	2.5	10/06/17 08:25	
EPA 335.4	Cyanide	0.0089J	mg/L	0.023	10/09/17 14:50	
<b>40157904008</b>	<b>MW-113</b>					
EPA 6010	Chromium, Dissolved	17400	ug/L	10.0	10/06/17 13:34	
EPA 8260	1,1-Dichloroethane	45.6	ug/L	1.0	10/05/17 14:24	
EPA 8260	1,2-Dichloroethane	0.63J	ug/L	1.0	10/05/17 14:24	
EPA 8260	1,1-Dichloroethene	65.3	ug/L	1.0	10/05/17 14:24	
EPA 8260	cis-1,2-Dichloroethene	14.7	ug/L	1.0	10/05/17 14:24	
EPA 8260	trans-1,2-Dichloroethene	3.4	ug/L	1.0	10/05/17 14:24	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 58117057 MAUTHE

Pace Project No.: 40157904

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40157904008</b>	<b>MW-113</b>					
EPA 8260	Methylene Chloride	0.24J	ug/L	1.0	10/05/17 14:24	
EPA 8260	1,1,1-Trichloroethane	260	ug/L	1.0	10/05/17 14:24	
EPA 8260	Trichloroethene	113	ug/L	1.0	10/05/17 14:24	
<b>40157904009</b>	<b>DUP-01</b>					
EPA 6010	Chromium, Dissolved	438	ug/L	10.0	10/06/17 13:42	
EPA 8260	1,1-Dichloroethane	2.1	ug/L	1.0	10/09/17 09:33	
EPA 8260	1,1-Dichloroethene	3.3	ug/L	1.0	10/09/17 09:33	
EPA 8260	1,1,1-Trichloroethane	27.0	ug/L	1.0	10/09/17 09:33	
EPA 8260	Trichloroethene	72.4	ug/L	1.0	10/09/17 09:33	

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40157904

---

**Method:** EPA 6010

**Description:** 6010 MET ICP, Dissolved

**Client:** Terracon, Inc. - Franklin

**Date:** October 11, 2017

**General Information:**

9 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Initial Calibrations (including MS Tune as applicable):**

All criteria were within method requirements with any exceptions noted below.

**Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE  
Pace Project No.: 40157904

---

**Method:** EPA 8260  
**Description:** 8260 MSV  
**Client:** Terracon, Inc. - Franklin  
**Date:** October 11, 2017

### General Information:

8 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 269688

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40158027004

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MS (Lab ID: 1585393)
  - 1,2-Dibromo-3-chloropropane
  - Bromoform
  - Isopropylbenzene (Cumene)
  - Methylene Chloride
  - Styrene
- MSD (Lab ID: 1585394)
  - 1,2-Dibromo-3-chloropropane
  - Isopropylbenzene (Cumene)
  - Styrene

R1: RPD value was outside control limits.

- MSD (Lab ID: 1585394)
  - Chloroethane

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40157904

---

**Method:** EPA 8260

**Description:** 8260 MSV

**Client:** Terracon, Inc. - Franklin

**Date:** October 11, 2017

QC Batch: 269688

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 40158027004

R1: RPD value was outside control limits.

- Methylene Chloride

### Additional Comments:

Analyte Comments:

QC Batch: 269688

E: Analyte concentration exceeded the calibration range. The reported result is estimated.

- MS (Lab ID: 1585393)
  - Ethylbenzene
  - m&p-Xylene
  - o-Xylene
- MSD (Lab ID: 1585394)
  - Ethylbenzene
  - m&p-Xylene
  - o-Xylene

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## PROJECT NARRATIVE

Project: 58117057 MAUTHE

Pace Project No.: 40157904

---

**Method:** EPA 335.4

**Description:** 335.4 Cyanide, Total

**Client:** Terracon, Inc. - Franklin

**Date:** October 11, 2017

**General Information:**

2 samples were analyzed for EPA 335.4. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Sample Preparation:**

The samples were prepared in accordance with EPA 335.4 with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-103**      **Lab ID: 40157904001**      Collected: 10/04/17 10:55      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Chromium, Dissolved	<2.5	ug/L	10.0	2.5	1		10/06/17 13:18	7440-47-3	

**Sample: MW-104**      **Lab ID: 40157904002**      Collected: 10/04/17 10:05      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Chromium, Dissolved	5.8J	ug/L	10.0	2.5	1		10/06/17 13:20	7440-47-3	

**Sample: MW-107**      **Lab ID: 40157904003**      Collected: 10/03/17 14:59      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Chromium, Dissolved	1400	ug/L	10.0	2.5	1		10/06/17 13:22	7440-47-3	

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	71-43-2	
Bromobenzene	<0.58	ug/L	2.5	0.58	2.5		10/05/17 14:01	108-86-1	
Bromochloromethane	<0.85	ug/L	2.5	0.85	2.5		10/05/17 14:01	74-97-5	
Bromodichloromethane	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	75-27-4	
Bromoform	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	75-25-2	
Bromomethane	<6.1	ug/L	12.5	6.1	2.5		10/05/17 14:01	74-83-9	
n-Butylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	104-51-8	
sec-Butylbenzene	<5.5	ug/L	12.5	5.5	2.5		10/05/17 14:01	135-98-8	
tert-Butylbenzene	<0.45	ug/L	2.5	0.45	2.5		10/05/17 14:01	98-06-6	
Carbon tetrachloride	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	56-23-5	
Chlorobenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	108-90-7	
Chloroethane	<0.94	ug/L	2.5	0.94	2.5		10/05/17 14:01	75-00-3	
Chloroform	<6.2	ug/L	12.5	6.2	2.5		10/05/17 14:01	67-66-3	
Chloromethane	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	74-87-3	
2-Chlorotoluene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	95-49-8	
4-Chlorotoluene	<0.53	ug/L	2.5	0.53	2.5		10/05/17 14:01	106-43-4	
1,2-Dibromo-3-chloropropane	<5.4	ug/L	12.5	5.4	2.5		10/05/17 14:01	96-12-8	
Dibromochloromethane	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	124-48-1	
1,2-Dibromoethane (EDB)	<0.44	ug/L	2.5	0.44	2.5		10/05/17 14:01	106-93-4	
Dibromomethane	<1.1	ug/L	2.5	1.1	2.5		10/05/17 14:01	74-95-3	
1,2-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	95-50-1	
1,3-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	541-73-1	
1,4-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	106-46-7	
Dichlorodifluoromethane	<0.56	ug/L	2.5	0.56	2.5		10/05/17 14:01	75-71-8	
1,1-Dichloroethane	34.2	ug/L	2.5	0.60	2.5		10/05/17 14:01	75-34-3	

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### ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-107**      **Lab ID: 40157904003**      Collected: 10/03/17 14:59      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,2-Dichloroethane	<0.42	ug/L	2.5	0.42	2.5		10/05/17 14:01	107-06-2	
1,1-Dichloroethene	23.2	ug/L	2.5	1.0	2.5		10/05/17 14:01	75-35-4	
cis-1,2-Dichloroethene	2.8	ug/L	2.5	0.64	2.5		10/05/17 14:01	156-59-2	
trans-1,2-Dichloroethene	<0.64	ug/L	2.5	0.64	2.5		10/05/17 14:01	156-60-5	
1,2-Dichloropropane	<0.58	ug/L	2.5	0.58	2.5		10/05/17 14:01	78-87-5	
1,3-Dichloropropane	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	142-28-9	
2,2-Dichloropropane	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	594-20-7	
1,1-Dichloropropene	<1.1	ug/L	2.5	1.1	2.5		10/05/17 14:01	563-58-6	
cis-1,3-Dichloropropene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	10061-01-5	
trans-1,3-Dichloropropene	<0.57	ug/L	2.5	0.57	2.5		10/05/17 14:01	10061-02-6	
Diisopropyl ether	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	108-20-3	
Ethylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	100-41-4	
Hexachloro-1,3-butadiene	<5.3	ug/L	12.5	5.3	2.5		10/05/17 14:01	87-68-3	
Isopropylbenzene (Cumene)	<0.36	ug/L	2.5	0.36	2.5		10/05/17 14:01	98-82-8	
p-Isopropyltoluene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	99-87-6	
Methylene Chloride	<0.58	ug/L	2.5	0.58	2.5		10/05/17 14:01	75-09-2	
Methyl-tert-butyl ether	<0.44	ug/L	2.5	0.44	2.5		10/05/17 14:01	1634-04-4	
Naphthalene	<6.2	ug/L	12.5	6.2	2.5		10/05/17 14:01	91-20-3	
n-Propylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	103-65-1	
Styrene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	100-42-5	
1,1,1,2-Tetrachloroethane	<0.45	ug/L	2.5	0.45	2.5		10/05/17 14:01	630-20-6	
1,1,2,2-Tetrachloroethane	<0.62	ug/L	2.5	0.62	2.5		10/05/17 14:01	79-34-5	
Tetrachloroethene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	127-18-4	
Toluene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	108-88-3	
1,2,3-Trichlorobenzene	<5.3	ug/L	12.5	5.3	2.5		10/05/17 14:01	87-61-6	
1,2,4-Trichlorobenzene	<5.5	ug/L	12.5	5.5	2.5		10/05/17 14:01	120-82-1	
1,1,1-Trichloroethane	212	ug/L	2.5	1.2	2.5		10/05/17 14:01	71-55-6	
1,1,2-Trichloroethane	<0.49	ug/L	2.5	0.49	2.5		10/05/17 14:01	79-00-5	
Trichloroethene	564	ug/L	2.5	0.83	2.5		10/05/17 14:01	79-01-6	
Trichlorofluoromethane	<0.46	ug/L	2.5	0.46	2.5		10/05/17 14:01	75-69-4	
1,2,3-Trichloropropane	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	96-18-4	
1,2,4-Trimethylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	95-63-6	
1,3,5-Trimethylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	108-67-8	
Vinyl chloride	<0.44	ug/L	2.5	0.44	2.5		10/05/17 14:01	75-01-4	
m&p-Xylene	<2.5	ug/L	5.0	2.5	2.5		10/05/17 14:01	179601-23-1	
o-Xylene	<1.2	ug/L	2.5	1.2	2.5		10/05/17 14:01	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	86	%	61-130		2.5		10/05/17 14:01	460-00-4	
Dibromofluoromethane (S)	101	%	67-130		2.5		10/05/17 14:01	1868-53-7	
Toluene-d8 (S)	100	%	70-130		2.5		10/05/17 14:01	2037-26-5	

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-109**      **Lab ID: 40157904004**      Collected: 10/04/17 09:10      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Chromium, Dissolved	<b>384</b>	ug/L	10.0	2.5	1		10/06/17 13:25	7440-47-3	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Benzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		10/05/17 14:47	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		10/05/17 14:47	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		10/05/17 14:47	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 14:47	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		10/05/17 14:47	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		10/05/17 14:47	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		10/05/17 14:47	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		10/05/17 14:47	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		10/05/17 14:47	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		10/05/17 14:47	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		10/05/17 14:47	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		10/05/17 14:47	75-71-8	
1,1-Dichloroethane	1.9	ug/L	1.0	0.24	1		10/05/17 14:47	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/05/17 14:47	107-06-2	
1,1-Dichloroethene	1.5	ug/L	1.0	0.41	1		10/05/17 14:47	75-35-4	
cis-1,2-Dichloroethene	0.37J	ug/L	1.0	0.26	1		10/05/17 14:47	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		10/05/17 14:47	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		10/05/17 14:47	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		10/05/17 14:47	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		10/05/17 14:47	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		10/05/17 14:47	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		10/05/17 14:47	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		10/05/17 14:47	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		10/05/17 14:47	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		10/05/17 14:47	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		10/05/17 14:47	91-20-3	

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### ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-109**      **Lab ID: 40157904004**      Collected: 10/04/17 09:10      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		10/05/17 14:47	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		10/05/17 14:47	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		10/05/17 14:47	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 14:47	120-82-1	
1,1,1-Trichloroethane	26.7	ug/L	1.0	0.50	1		10/05/17 14:47	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		10/05/17 14:47	79-00-5	
Trichloroethene	39.1	ug/L	1.0	0.33	1		10/05/17 14:47	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		10/05/17 14:47	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		10/05/17 14:47	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		10/05/17 14:47	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:47	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	91	%	61-130		1		10/05/17 14:47	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		10/05/17 14:47	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/05/17 14:47	2037-26-5	

**Sample: MW-110**      **Lab ID: 40157904005**      Collected: 10/03/17 12:58      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Chromium, Dissolved	987	ug/L	10.0	2.5	1		10/06/17 13:27	7440-47-3	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		10/05/17 15:10	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		10/05/17 15:10	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		10/05/17 15:10	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 15:10	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		10/05/17 15:10	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		10/05/17 15:10	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		10/05/17 15:10	67-66-3	

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-110**      **Lab ID: 40157904005**      Collected: 10/03/17 12:58      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Chloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		10/05/17 15:10	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		10/05/17 15:10	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		10/05/17 15:10	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		10/05/17 15:10	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		10/05/17 15:10	75-71-8	
1,1-Dichloroethane	18.3	ug/L	1.0	0.24	1		10/05/17 15:10	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/05/17 15:10	107-06-2	
1,1-Dichloroethene	17.1	ug/L	1.0	0.41	1		10/05/17 15:10	75-35-4	
cis-1,2-Dichloroethene	9.0	ug/L	1.0	0.26	1		10/05/17 15:10	156-59-2	
trans-1,2-Dichloroethene	1.6	ug/L	1.0	0.26	1		10/05/17 15:10	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		10/05/17 15:10	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		10/05/17 15:10	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		10/05/17 15:10	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		10/05/17 15:10	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		10/05/17 15:10	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		10/05/17 15:10	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		10/05/17 15:10	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		10/05/17 15:10	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		10/05/17 15:10	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		10/05/17 15:10	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		10/05/17 15:10	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		10/05/17 15:10	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 15:10	120-82-1	
1,1,1-Trichloroethane	76.0	ug/L	1.0	0.50	1		10/05/17 15:10	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		10/05/17 15:10	79-00-5	
Trichloroethene	20.4	ug/L	1.0	0.33	1		10/05/17 15:10	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		10/05/17 15:10	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		10/05/17 15:10	75-01-4	

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### ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-110**      **Lab ID: 40157904005**      Collected: 10/03/17 12:58      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		10/05/17 15:10	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:10	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	87	%	61-130		1		10/05/17 15:10	460-00-4	
Dibromofluoromethane (S)	102	%	67-130		1		10/05/17 15:10	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/05/17 15:10	2037-26-5	
<b>335.4 Cyanide, Total</b> Analytical Method: EPA 335.4      Preparation Method: EPA 335.4									
Cyanide	<0.0068	mg/L	0.023	0.0068	1	10/09/17 11:25	10/09/17 14:47	57-12-5	

**Sample: MW-111**      **Lab ID: 40157904006**      Collected: 10/03/17 18:58      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Chromium, Dissolved	480	ug/L	10.0	2.5	1		10/06/17 13:30	7440-47-3	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		10/05/17 15:32	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		10/05/17 15:32	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		10/05/17 15:32	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 15:32	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		10/05/17 15:32	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		10/05/17 15:32	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		10/05/17 15:32	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		10/05/17 15:32	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		10/05/17 15:32	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		10/05/17 15:32	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		10/05/17 15:32	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		10/05/17 15:32	75-71-8	
1,1-Dichloroethane	1.7	ug/L	1.0	0.24	1		10/05/17 15:32	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/05/17 15:32	107-06-2	

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-111**      **Lab ID: 40157904006**      Collected: 10/03/17 18:58      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1-Dichloroethene	2.8	ug/L	1.0	0.41	1		10/05/17 15:32	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		10/05/17 15:32	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		10/05/17 15:32	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		10/05/17 15:32	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		10/05/17 15:32	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		10/05/17 15:32	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		10/05/17 15:32	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		10/05/17 15:32	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		10/05/17 15:32	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		10/05/17 15:32	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		10/05/17 15:32	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		10/05/17 15:32	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		10/05/17 15:32	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		10/05/17 15:32	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		10/05/17 15:32	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 15:32	120-82-1	
1,1,1-Trichloroethane	21.6	ug/L	1.0	0.50	1		10/05/17 15:32	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		10/05/17 15:32	79-00-5	
Trichloroethene	74.5	ug/L	1.0	0.33	1		10/05/17 15:32	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		10/05/17 15:32	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		10/05/17 15:32	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		10/05/17 15:32	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		10/05/17 15:32	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	61-130		1		10/05/17 15:32	460-00-4	
Dibromofluoromethane (S)	103	%	67-130		1		10/05/17 15:32	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		10/05/17 15:32	2037-26-5	

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-112**      **Lab ID: 40157904007**      Collected: 10/03/17 15:29      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b>		Analytical Method: EPA 6010							
Chromium, Dissolved	<b>3150</b>	ug/L	10.0	2.5	1		10/06/17 13:32	7440-47-3	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Benzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	71-43-2	
Bromobenzene	<0.58	ug/L	2.5	0.58	2.5		10/06/17 08:25	108-86-1	
Bromochloromethane	<0.85	ug/L	2.5	0.85	2.5		10/06/17 08:25	74-97-5	
Bromodichloromethane	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	75-27-4	
Bromoform	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	75-25-2	
Bromomethane	<6.1	ug/L	12.5	6.1	2.5		10/06/17 08:25	74-83-9	
n-Butylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	104-51-8	
sec-Butylbenzene	<5.5	ug/L	12.5	5.5	2.5		10/06/17 08:25	135-98-8	
tert-Butylbenzene	<0.45	ug/L	2.5	0.45	2.5		10/06/17 08:25	98-06-6	
Carbon tetrachloride	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	56-23-5	
Chlorobenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	108-90-7	
Chloroethane	<0.94	ug/L	2.5	0.94	2.5		10/06/17 08:25	75-00-3	
Chloroform	<6.2	ug/L	12.5	6.2	2.5		10/06/17 08:25	67-66-3	
Chloromethane	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	74-87-3	
2-Chlorotoluene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	95-49-8	
4-Chlorotoluene	<0.53	ug/L	2.5	0.53	2.5		10/06/17 08:25	106-43-4	
1,2-Dibromo-3-chloropropane	<5.4	ug/L	12.5	5.4	2.5		10/06/17 08:25	96-12-8	
Dibromochloromethane	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	124-48-1	
1,2-Dibromoethane (EDB)	<0.44	ug/L	2.5	0.44	2.5		10/06/17 08:25	106-93-4	
Dibromomethane	<1.1	ug/L	2.5	1.1	2.5		10/06/17 08:25	74-95-3	
1,2-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	95-50-1	
1,3-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	541-73-1	
1,4-Dichlorobenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	106-46-7	
Dichlorodifluoromethane	<0.56	ug/L	2.5	0.56	2.5		10/06/17 08:25	75-71-8	
1,1-Dichloroethane	1.3J	ug/L	2.5	0.60	2.5		10/06/17 08:25	75-34-3	
1,2-Dichloroethane	<0.42	ug/L	2.5	0.42	2.5		10/06/17 08:25	107-06-2	
1,1-Dichloroethene	1.1J	ug/L	2.5	1.0	2.5		10/06/17 08:25	75-35-4	
cis-1,2-Dichloroethene	0.96J	ug/L	2.5	0.64	2.5		10/06/17 08:25	156-59-2	
trans-1,2-Dichloroethene	<0.64	ug/L	2.5	0.64	2.5		10/06/17 08:25	156-60-5	
1,2-Dichloropropane	<0.58	ug/L	2.5	0.58	2.5		10/06/17 08:25	78-87-5	
1,3-Dichloropropane	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	142-28-9	
2,2-Dichloropropane	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	594-20-7	
1,1-Dichloropropene	<1.1	ug/L	2.5	1.1	2.5		10/06/17 08:25	563-58-6	
cis-1,3-Dichloropropene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	10061-01-5	
trans-1,3-Dichloropropene	<0.57	ug/L	2.5	0.57	2.5		10/06/17 08:25	10061-02-6	
Diisopropyl ether	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	108-20-3	
Ethylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	100-41-4	
Hexachloro-1,3-butadiene	<5.3	ug/L	12.5	5.3	2.5		10/06/17 08:25	87-68-3	
Isopropylbenzene (Cumene)	<0.36	ug/L	2.5	0.36	2.5		10/06/17 08:25	98-82-8	
p-Isopropyltoluene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	99-87-6	
Methylene Chloride	<0.58	ug/L	2.5	0.58	2.5		10/06/17 08:25	75-09-2	
Methyl-tert-butyl ether	<0.44	ug/L	2.5	0.44	2.5		10/06/17 08:25	1634-04-4	
Naphthalene	<6.2	ug/L	12.5	6.2	2.5		10/06/17 08:25	91-20-3	

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### ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

Sample: MW-112 Lab ID: 40157904007 Collected: 10/03/17 15:29 Received: 10/04/17 14:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
n-Propylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	103-65-1	
Styrene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	100-42-5	
1,1,1,2-Tetrachloroethane	<0.45	ug/L	2.5	0.45	2.5		10/06/17 08:25	630-20-6	
1,1,2,2-Tetrachloroethane	<0.62	ug/L	2.5	0.62	2.5		10/06/17 08:25	79-34-5	
Tetrachloroethene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	127-18-4	
Toluene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	108-88-3	
1,2,3-Trichlorobenzene	<5.3	ug/L	12.5	5.3	2.5		10/06/17 08:25	87-61-6	
1,2,4-Trichlorobenzene	<5.5	ug/L	12.5	5.5	2.5		10/06/17 08:25	120-82-1	
1,1,1-Trichloroethane	2.6	ug/L	2.5	1.2	2.5		10/06/17 08:25	71-55-6	
1,1,2-Trichloroethane	<0.49	ug/L	2.5	0.49	2.5		10/06/17 08:25	79-00-5	
Trichloroethene	292	ug/L	2.5	0.83	2.5		10/06/17 08:25	79-01-6	
Trichlorofluoromethane	<0.46	ug/L	2.5	0.46	2.5		10/06/17 08:25	75-69-4	
1,2,3-Trichloropropane	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	96-18-4	
1,2,4-Trimethylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	95-63-6	
1,3,5-Trimethylbenzene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	108-67-8	
Vinyl chloride	<0.44	ug/L	2.5	0.44	2.5		10/06/17 08:25	75-01-4	
m&p-Xylene	<2.5	ug/L	5.0	2.5	2.5		10/06/17 08:25	179601-23-1	
o-Xylene	<1.2	ug/L	2.5	1.2	2.5		10/06/17 08:25	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	90	%	61-130		2.5		10/06/17 08:25	460-00-4	
Dibromofluoromethane (S)	98	%	67-130		2.5		10/06/17 08:25	1868-53-7	
Toluene-d8 (S)	104	%	70-130		2.5		10/06/17 08:25	2037-26-5	

335.4 Cyanide, Total Analytical Method: EPA 335.4 Preparation Method: EPA 335.4

Cyanide 0.0089J mg/L 0.023 0.0068 1 10/09/17 11:25 10/09/17 14:50 57-12-5

Sample: MW-113 Lab ID: 40157904008 Collected: 10/03/17 13:58 Received: 10/04/17 14:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Chromium, Dissolved	17400	ug/L	10.0	2.5	1		10/06/17 13:34	7440-47-3	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		10/05/17 14:24	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		10/05/17 14:24	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		10/05/17 14:24	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 14:24	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		10/05/17 14:24	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	56-23-5	

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: MW-113**      **Lab ID: 40157904008**      Collected: 10/03/17 13:58      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		10/05/17 14:24	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		10/05/17 14:24	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		10/05/17 14:24	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		10/05/17 14:24	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		10/05/17 14:24	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		10/05/17 14:24	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		10/05/17 14:24	75-71-8	
1,1-Dichloroethane	45.6	ug/L	1.0	0.24	1		10/05/17 14:24	75-34-3	
1,2-Dichloroethane	0.63J	ug/L	1.0	0.17	1		10/05/17 14:24	107-06-2	
1,1-Dichloroethene	65.3	ug/L	1.0	0.41	1		10/05/17 14:24	75-35-4	
cis-1,2-Dichloroethene	14.7	ug/L	1.0	0.26	1		10/05/17 14:24	156-59-2	
trans-1,2-Dichloroethene	3.4	ug/L	1.0	0.26	1		10/05/17 14:24	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		10/05/17 14:24	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		10/05/17 14:24	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		10/05/17 14:24	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		10/05/17 14:24	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		10/05/17 14:24	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		10/05/17 14:24	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	99-87-6	
Methylene Chloride	0.24J	ug/L	1.0	0.23	1		10/05/17 14:24	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		10/05/17 14:24	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		10/05/17 14:24	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		10/05/17 14:24	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		10/05/17 14:24	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		10/05/17 14:24	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 14:24	120-82-1	
1,1,1-Trichloroethane	260	ug/L	1.0	0.50	1		10/05/17 14:24	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		10/05/17 14:24	79-00-5	
Trichloroethene	113	ug/L	1.0	0.33	1		10/05/17 14:24	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		10/05/17 14:24	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	96-18-4	

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### ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

Sample: **MW-113** Lab ID: **40157904008** Collected: 10/03/17 13:58 Received: 10/04/17 14:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		10/05/17 14:24	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		10/05/17 14:24	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		10/05/17 14:24	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	86	%	61-130		1		10/05/17 14:24	460-00-4	
Dibromofluoromethane (S)	104	%	67-130		1		10/05/17 14:24	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		10/05/17 14:24	2037-26-5	

Sample: **DUP-01** Lab ID: **40157904009** Collected: 10/03/17 00:00 Received: 10/04/17 14:35 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>6010 MET ICP, Dissolved</b> Analytical Method: EPA 6010									
Chromium, Dissolved	438	ug/L	10.0	2.5	1		10/06/17 13:42	7440-47-3	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		10/09/17 09:33	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		10/09/17 09:33	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		10/09/17 09:33	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		10/09/17 09:33	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		10/09/17 09:33	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		10/09/17 09:33	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		10/09/17 09:33	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		10/09/17 09:33	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		10/09/17 09:33	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		10/09/17 09:33	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		10/09/17 09:33	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		10/09/17 09:33	75-71-8	
1,1-Dichloroethane	2.1	ug/L	1.0	0.24	1		10/09/17 09:33	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/09/17 09:33	107-06-2	

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### ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: DUP-01**      **Lab ID: 40157904009**      Collected: 10/03/17 00:00      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1-Dichloroethene	3.3	ug/L	1.0	0.41	1		10/09/17 09:33	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		10/09/17 09:33	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		10/09/17 09:33	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		10/09/17 09:33	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		10/09/17 09:33	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		10/09/17 09:33	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		10/09/17 09:33	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		10/09/17 09:33	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		10/09/17 09:33	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		10/09/17 09:33	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		10/09/17 09:33	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		10/09/17 09:33	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		10/09/17 09:33	630-20-6	
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		10/09/17 09:33	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		10/09/17 09:33	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		10/09/17 09:33	120-82-1	
1,1,1-Trichloroethane	27.0	ug/L	1.0	0.50	1		10/09/17 09:33	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		10/09/17 09:33	79-00-5	
Trichloroethene	72.4	ug/L	1.0	0.33	1		10/09/17 09:33	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		10/09/17 09:33	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		10/09/17 09:33	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		10/09/17 09:33	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		10/09/17 09:33	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	89	%	61-130		1		10/09/17 09:33	460-00-4	
Dibromofluoromethane (S)	116	%	67-130		1		10/09/17 09:33	1868-53-7	
Toluene-d8 (S)	90	%	70-130		1		10/09/17 09:33	2037-26-5	

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: TRIP BLANK**      **Lab ID: 40157904010**      Collected: 10/03/17 00:00      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	71-43-2	
Bromobenzene	<0.23	ug/L	1.0	0.23	1		10/05/17 18:11	108-86-1	
Bromochloromethane	<0.34	ug/L	1.0	0.34	1		10/05/17 18:11	74-97-5	
Bromodichloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	75-27-4	
Bromoform	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	75-25-2	
Bromomethane	<2.4	ug/L	5.0	2.4	1		10/05/17 18:11	74-83-9	
n-Butylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	104-51-8	
sec-Butylbenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 18:11	135-98-8	
tert-Butylbenzene	<0.18	ug/L	1.0	0.18	1		10/05/17 18:11	98-06-6	
Carbon tetrachloride	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	56-23-5	
Chlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	108-90-7	
Chloroethane	<0.37	ug/L	1.0	0.37	1		10/05/17 18:11	75-00-3	
Chloroform	<2.5	ug/L	5.0	2.5	1		10/05/17 18:11	67-66-3	
Chloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	74-87-3	
2-Chlorotoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	95-49-8	
4-Chlorotoluene	<0.21	ug/L	1.0	0.21	1		10/05/17 18:11	106-43-4	
1,2-Dibromo-3-chloropropane	<2.2	ug/L	5.0	2.2	1		10/05/17 18:11	96-12-8	
Dibromochloromethane	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	124-48-1	
1,2-Dibromoethane (EDB)	<0.18	ug/L	1.0	0.18	1		10/05/17 18:11	106-93-4	
Dibromomethane	<0.43	ug/L	1.0	0.43	1		10/05/17 18:11	74-95-3	
1,2-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	95-50-1	
1,3-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	541-73-1	
1,4-Dichlorobenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	106-46-7	
Dichlorodifluoromethane	<0.22	ug/L	1.0	0.22	1		10/05/17 18:11	75-71-8	
1,1-Dichloroethane	<0.24	ug/L	1.0	0.24	1		10/05/17 18:11	75-34-3	
1,2-Dichloroethane	<0.17	ug/L	1.0	0.17	1		10/05/17 18:11	107-06-2	
1,1-Dichloroethene	<0.41	ug/L	1.0	0.41	1		10/05/17 18:11	75-35-4	
cis-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		10/05/17 18:11	156-59-2	
trans-1,2-Dichloroethene	<0.26	ug/L	1.0	0.26	1		10/05/17 18:11	156-60-5	
1,2-Dichloropropane	<0.23	ug/L	1.0	0.23	1		10/05/17 18:11	78-87-5	
1,3-Dichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	142-28-9	
2,2-Dichloropropane	<0.48	ug/L	1.0	0.48	1		10/05/17 18:11	594-20-7	
1,1-Dichloropropene	<0.44	ug/L	1.0	0.44	1		10/05/17 18:11	563-58-6	
cis-1,3-Dichloropropene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	10061-01-5	
trans-1,3-Dichloropropene	<0.23	ug/L	1.0	0.23	1		10/05/17 18:11	10061-02-6	
Diisopropyl ether	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	108-20-3	
Ethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	100-41-4	
Hexachloro-1,3-butadiene	<2.1	ug/L	5.0	2.1	1		10/05/17 18:11	87-68-3	
Isopropylbenzene (Cumene)	<0.14	ug/L	1.0	0.14	1		10/05/17 18:11	98-82-8	
p-Isopropyltoluene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	99-87-6	
Methylene Chloride	<0.23	ug/L	1.0	0.23	1		10/05/17 18:11	75-09-2	
Methyl-tert-butyl ether	<0.17	ug/L	1.0	0.17	1		10/05/17 18:11	1634-04-4	
Naphthalene	<2.5	ug/L	5.0	2.5	1		10/05/17 18:11	91-20-3	
n-Propylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	103-65-1	
Styrene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	100-42-5	
1,1,1,2-Tetrachloroethane	<0.18	ug/L	1.0	0.18	1		10/05/17 18:11	630-20-6	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 58117057 MAUTHE

Pace Project No.: 40157904

**Sample: TRIP BLANK**      **Lab ID: 40157904010**      Collected: 10/03/17 00:00      Received: 10/04/17 14:35      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
1,1,2,2-Tetrachloroethane	<0.25	ug/L	1.0	0.25	1		10/05/17 18:11	79-34-5	
Tetrachloroethene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	127-18-4	
Toluene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	108-88-3	
1,2,3-Trichlorobenzene	<2.1	ug/L	5.0	2.1	1		10/05/17 18:11	87-61-6	
1,2,4-Trichlorobenzene	<2.2	ug/L	5.0	2.2	1		10/05/17 18:11	120-82-1	
1,1,1-Trichloroethane	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	71-55-6	
1,1,2-Trichloroethane	<0.20	ug/L	1.0	0.20	1		10/05/17 18:11	79-00-5	
Trichloroethene	<0.33	ug/L	1.0	0.33	1		10/05/17 18:11	79-01-6	
Trichlorofluoromethane	<0.18	ug/L	1.0	0.18	1		10/05/17 18:11	75-69-4	
1,2,3-Trichloropropane	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	96-18-4	
1,2,4-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	95-63-6	
1,3,5-Trimethylbenzene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	108-67-8	
Vinyl chloride	<0.18	ug/L	1.0	0.18	1		10/05/17 18:11	75-01-4	
m&p-Xylene	<1.0	ug/L	2.0	1.0	1		10/05/17 18:11	179601-23-1	
o-Xylene	<0.50	ug/L	1.0	0.50	1		10/05/17 18:11	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	85	%	61-130		1		10/05/17 18:11	460-00-4	
Dibromofluoromethane (S)	95	%	67-130		1		10/05/17 18:11	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		10/05/17 18:11	2037-26-5	

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE  
Pace Project No.: 40157904

QC Batch: 269766 Analysis Method: EPA 6010  
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved  
Associated Lab Samples: 40157904001, 40157904002, 40157904003, 40157904004, 40157904005, 40157904006, 40157904007, 40157904008, 40157904009

METHOD BLANK: 1585467 Matrix: Water  
Associated Lab Samples: 40157904001, 40157904002, 40157904003, 40157904004, 40157904005, 40157904006, 40157904007, 40157904008, 40157904009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	10/06/17 12:44	

LABORATORY CONTROL SAMPLE: 1585468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	486	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1585469 1585470

Parameter	Units	40157988002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Dissolved	ug/L	<2.5	500	500	479	483	96	97	75-125	1	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE  
Pace Project No.: 40157904

QC Batch: 269526 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 40157904003, 40157904004, 40157904005, 40157904006, 40157904007, 40157904008, 40157904010

METHOD BLANK: 1583726 Matrix: Water  
Associated Lab Samples: 40157904003, 40157904004, 40157904005, 40157904006, 40157904007, 40157904008, 40157904010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	10/05/17 09:09	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	10/05/17 09:09	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	10/05/17 09:09	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	10/05/17 09:09	
1,1-Dichloroethane	ug/L	<0.24	1.0	10/05/17 09:09	
1,1-Dichloroethene	ug/L	<0.41	1.0	10/05/17 09:09	
1,1-Dichloropropene	ug/L	<0.44	1.0	10/05/17 09:09	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	10/05/17 09:09	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	10/05/17 09:09	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	10/05/17 09:09	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	10/05/17 09:09	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	10/05/17 09:09	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	10/05/17 09:09	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	10/05/17 09:09	
1,2-Dichloroethane	ug/L	<0.17	1.0	10/05/17 09:09	
1,2-Dichloropropane	ug/L	<0.23	1.0	10/05/17 09:09	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	10/05/17 09:09	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	10/05/17 09:09	
1,3-Dichloropropane	ug/L	<0.50	1.0	10/05/17 09:09	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	10/05/17 09:09	
2,2-Dichloropropane	ug/L	<0.48	1.0	10/05/17 09:09	
2-Chlorotoluene	ug/L	<0.50	1.0	10/05/17 09:09	
4-Chlorotoluene	ug/L	<0.21	1.0	10/05/17 09:09	
Benzene	ug/L	<0.50	1.0	10/05/17 09:09	
Bromobenzene	ug/L	<0.23	1.0	10/05/17 09:09	
Bromochloromethane	ug/L	<0.34	1.0	10/05/17 09:09	
Bromodichloromethane	ug/L	<0.50	1.0	10/05/17 09:09	
Bromoform	ug/L	<0.50	1.0	10/05/17 09:09	
Bromomethane	ug/L	<2.4	5.0	10/05/17 09:09	
Carbon tetrachloride	ug/L	<0.50	1.0	10/05/17 09:09	
Chlorobenzene	ug/L	<0.50	1.0	10/05/17 09:09	
Chloroethane	ug/L	<0.37	1.0	10/05/17 09:09	
Chloroform	ug/L	<2.5	5.0	10/05/17 09:09	
Chloromethane	ug/L	<0.50	1.0	10/05/17 09:09	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	10/05/17 09:09	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	10/05/17 09:09	
Dibromochloromethane	ug/L	<0.50	1.0	10/05/17 09:09	
Dibromomethane	ug/L	<0.43	1.0	10/05/17 09:09	
Dichlorodifluoromethane	ug/L	<0.22	1.0	10/05/17 09:09	
Diisopropyl ether	ug/L	<0.50	1.0	10/05/17 09:09	
Ethylbenzene	ug/L	<0.50	1.0	10/05/17 09:09	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40157904

METHOD BLANK: 1583726

Matrix: Water

Associated Lab Samples: 40157904003, 40157904004, 40157904005, 40157904006, 40157904007, 40157904008, 40157904010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	10/05/17 09:09	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	10/05/17 09:09	
m&p-Xylene	ug/L	<1.0	2.0	10/05/17 09:09	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	10/05/17 09:09	
Methylene Chloride	ug/L	<0.23	1.0	10/05/17 09:09	
n-Butylbenzene	ug/L	<0.50	1.0	10/05/17 09:09	
n-Propylbenzene	ug/L	<0.50	1.0	10/05/17 09:09	
Naphthalene	ug/L	<2.5	5.0	10/05/17 09:09	
o-Xylene	ug/L	<0.50	1.0	10/05/17 09:09	
p-Isopropyltoluene	ug/L	<0.50	1.0	10/05/17 09:09	
sec-Butylbenzene	ug/L	<2.2	5.0	10/05/17 09:09	
Styrene	ug/L	<0.50	1.0	10/05/17 09:09	
tert-Butylbenzene	ug/L	<0.18	1.0	10/05/17 09:09	
Tetrachloroethene	ug/L	<0.50	1.0	10/05/17 09:09	
Toluene	ug/L	<0.50	1.0	10/05/17 09:09	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	10/05/17 09:09	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	10/05/17 09:09	
Trichloroethene	ug/L	<0.33	1.0	10/05/17 09:09	
Trichlorofluoromethane	ug/L	<0.18	1.0	10/05/17 09:09	
Vinyl chloride	ug/L	<0.18	1.0	10/05/17 09:09	
4-Bromofluorobenzene (S)	%	85	61-130	10/05/17 09:09	
Dibromofluoromethane (S)	%	100	67-130	10/05/17 09:09	
Toluene-d8 (S)	%	97	70-130	10/05/17 09:09	

LABORATORY CONTROL SAMPLE: 1583727

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	53.9	108	70-130	
1,1,1,2-Tetrachloroethane	ug/L	50	50.5	101	70-130	
1,1,2-Trichloroethane	ug/L	50	50.2	100	70-130	
1,1-Dichloroethane	ug/L	50	56.1	112	71-132	
1,1-Dichloroethene	ug/L	50	54.1	108	75-130	
1,2,4-Trichlorobenzene	ug/L	50	48.8	98	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	45.6	91	63-123	
1,2-Dibromoethane (EDB)	ug/L	50	50.7	101	70-130	
1,2-Dichlorobenzene	ug/L	50	54.8	110	70-130	
1,2-Dichloroethane	ug/L	50	54.1	108	70-131	
1,2-Dichloropropane	ug/L	50	50.8	102	80-120	
1,3-Dichlorobenzene	ug/L	50	55.7	111	70-130	
1,4-Dichlorobenzene	ug/L	50	53.8	108	70-130	
Benzene	ug/L	50	53.7	107	73-145	
Bromodichloromethane	ug/L	50	52.3	105	70-130	
Bromoform	ug/L	50	42.1	84	67-130	
Bromomethane	ug/L	50	31.4	63	26-128	

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40157904

LABORATORY CONTROL SAMPLE: 1583727

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	55.1	110	70-133	
Chlorobenzene	ug/L	50	53.4	107	70-130	
Chloroethane	ug/L	50	45.4	91	58-120	
Chloroform	ug/L	50	54.6	109	80-121	
Chloromethane	ug/L	50	34.9	70	40-127	
cis-1,2-Dichloroethene	ug/L	50	55.6	111	70-130	
cis-1,3-Dichloropropene	ug/L	50	44.8	90	70-130	
Dibromochloromethane	ug/L	50	49.8	100	70-130	
Dichlorodifluoromethane	ug/L	50	32.2	64	20-135	
Ethylbenzene	ug/L	50	54.5	109	87-129	
Isopropylbenzene (Cumene)	ug/L	50	56.7	113	70-130	
m&p-Xylene	ug/L	100	109	109	70-130	
Methyl-tert-butyl ether	ug/L	50	51.4	103	66-143	
Methylene Chloride	ug/L	50	52.1	104	70-130	
o-Xylene	ug/L	50	55.2	110	70-130	
Styrene	ug/L	50	50.6	101	70-130	
Tetrachloroethene	ug/L	50	54.0	108	70-130	
Toluene	ug/L	50	51.9	104	82-130	
trans-1,2-Dichloroethene	ug/L	50	56.1	112	75-132	
trans-1,3-Dichloropropene	ug/L	50	43.2	86	70-130	
Trichloroethene	ug/L	50	55.5	111	70-130	
Trichlorofluoromethane	ug/L	50	52.2	104	76-133	
Vinyl chloride	ug/L	50	41.4	83	57-136	
4-Bromofluorobenzene (S)	%			91	61-130	
Dibromofluoromethane (S)	%			103	67-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1583728 1583729

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40157915003 Result	Spike Conc.	Spike Conc.	Result								
1,1,1-Trichloroethane	ug/L	<5.0	500	500	541	538	108	108	70-134	1	20		
1,1,2,2-Tetrachloroethane	ug/L	<2.5	500	500	516	497	103	99	70-130	4	20		
1,1,2-Trichloroethane	ug/L	<2.0	500	500	509	507	102	101	70-130	0	20		
1,1-Dichloroethane	ug/L	<2.4	500	500	551	541	110	108	71-133	2	20		
1,1-Dichloroethene	ug/L	<4.1	500	500	546	510	109	102	75-136	7	20		
1,2,4-Trichlorobenzene	ug/L	<22.1	500	500	505	502	101	100	70-130	1	20		
1,2-Dibromo-3-chloropropane	ug/L	<21.6	500	500	444	462	89	92	63-123	4	20		
1,2-Dibromoethane (EDB)	ug/L	<1.8	500	500	534	523	107	105	70-130	2	20		
1,2-Dichlorobenzene	ug/L	<5.0	500	500	554	555	111	111	70-130	0	20		
1,2-Dichloroethane	ug/L	<1.7	500	500	526	521	105	104	70-131	1	20		
1,2-Dichloropropane	ug/L	<2.3	500	500	543	521	109	104	80-120	4	20		
1,3-Dichlorobenzene	ug/L	<5.0	500	500	585	569	117	114	70-130	3	20		
1,4-Dichlorobenzene	ug/L	<5.0	500	500	561	553	112	111	70-130	1	20		

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40157904

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1583728 1583729												
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40157915003 Result	Spike Conc.	Spike Conc.	MS Result							
Benzene	ug/L	<5.0	500	500	524	530	105	106	73-145	1	20	
Bromodichloromethane	ug/L	<5.0	500	500	524	516	105	103	70-130	1	20	
Bromoform	ug/L	<5.0	500	500	443	443	89	89	67-130	0	20	
Bromomethane	ug/L	<24.3	500	500	349	373	70	75	26-129	7	20	
Carbon tetrachloride	ug/L	<5.0	500	500	552	542	110	108	70-134	2	20	
Chlorobenzene	ug/L	<5.0	500	500	555	544	111	109	70-130	2	20	
Chloroethane	ug/L	<3.7	500	500	446	445	89	89	58-120	0	20	
Chloroform	ug/L	<25.0	500	500	546	532	109	106	80-121	3	20	
Chloromethane	ug/L	<5.0	500	500	341	361	68	72	40-128	6	20	
cis-1,2-Dichloroethene	ug/L	<2.6	500	500	547	545	109	109	70-130	0	20	
cis-1,3-Dichloropropene	ug/L	<5.0	500	500	467	447	93	89	70-130	4	20	
Dibromochloromethane	ug/L	<5.0	500	500	495	487	99	97	70-130	2	20	
Dichlorodifluoromethane	ug/L	<2.2	500	500	304	310	61	62	20-146	2	20	
Ethylbenzene	ug/L	<5.0	500	500	571	566	114	113	87-129	1	20	
Isopropylbenzene (Cumene)	ug/L	<1.4	500	500	578	574	116	115	70-130	1	20	
m&p-Xylene	ug/L	<10.0	1000	1000	1140	1160	114	116	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.7	500	500	511	501	102	100	66-143	2	20	
Methylene Chloride	ug/L	<2.3	500	500	520	490	104	98	70-130	6	20	
o-Xylene	ug/L	<5.0	500	500	569	570	114	114	70-130	0	20	
Styrene	ug/L	<5.0	500	500	516	514	103	103	70-130	0	20	
Tetrachloroethene	ug/L	<5.0	500	500	547	548	109	110	70-130	0	20	
Toluene	ug/L	<5.0	500	500	537	524	107	105	82-131	3	20	
trans-1,2-Dichloroethene	ug/L	<2.6	500	500	565	543	113	109	75-135	4	20	
trans-1,3-Dichloropropene	ug/L	<2.3	500	500	438	434	88	87	70-130	1	20	
Trichloroethene	ug/L	<3.3	500	500	550	527	110	105	70-130	4	20	
Trichlorofluoromethane	ug/L	<1.8	500	500	515	516	103	103	76-150	0	20	
Vinyl chloride	ug/L	<1.8	500	500	407	401	81	80	56-143	2	20	
4-Bromofluorobenzene (S)	%						94	99	61-130			
Dibromofluoromethane (S)	%						100	97	67-130			pH
Toluene-d8 (S)	%						100	96	70-130			

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE  
Pace Project No.: 40157904

QC Batch: 269688 Analysis Method: EPA 8260  
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
Associated Lab Samples: 40157904009

METHOD BLANK: 1585110 Matrix: Water  
Associated Lab Samples: 40157904009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	10/06/17 10:30	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	10/06/17 10:30	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	10/06/17 10:30	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	10/06/17 10:30	
1,1-Dichloroethane	ug/L	<0.24	1.0	10/06/17 10:30	
1,1-Dichloroethene	ug/L	<0.41	1.0	10/06/17 10:30	
1,1-Dichloropropene	ug/L	<0.44	1.0	10/06/17 10:30	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	10/06/17 10:30	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	10/06/17 10:30	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	10/06/17 10:30	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	10/06/17 10:30	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	10/06/17 10:30	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	10/06/17 10:30	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	10/06/17 10:30	
1,2-Dichloroethane	ug/L	<0.17	1.0	10/06/17 10:30	
1,2-Dichloropropane	ug/L	<0.23	1.0	10/06/17 10:30	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	10/06/17 10:30	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	10/06/17 10:30	
1,3-Dichloropropane	ug/L	<0.50	1.0	10/06/17 10:30	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	10/06/17 10:30	
2,2-Dichloropropane	ug/L	<0.48	1.0	10/06/17 10:30	
2-Chlorotoluene	ug/L	<0.50	1.0	10/06/17 10:30	
4-Chlorotoluene	ug/L	<0.21	1.0	10/06/17 10:30	
Benzene	ug/L	<0.50	1.0	10/06/17 10:30	
Bromobenzene	ug/L	<0.23	1.0	10/06/17 10:30	
Bromochloromethane	ug/L	<0.34	1.0	10/06/17 10:30	
Bromodichloromethane	ug/L	<0.50	1.0	10/06/17 10:30	
Bromoform	ug/L	<0.50	1.0	10/06/17 10:30	
Bromomethane	ug/L	<2.4	5.0	10/06/17 10:30	
Carbon tetrachloride	ug/L	<0.50	1.0	10/06/17 10:30	
Chlorobenzene	ug/L	<0.50	1.0	10/06/17 10:30	
Chloroethane	ug/L	<0.37	1.0	10/06/17 10:30	
Chloroform	ug/L	<2.5	5.0	10/06/17 10:30	
Chloromethane	ug/L	<0.50	1.0	10/06/17 10:30	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	10/06/17 10:30	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	10/06/17 10:30	
Dibromochloromethane	ug/L	<0.50	1.0	10/06/17 10:30	
Dibromomethane	ug/L	<0.43	1.0	10/06/17 10:30	
Dichlorodifluoromethane	ug/L	<0.22	1.0	10/06/17 10:30	
Diisopropyl ether	ug/L	<0.50	1.0	10/06/17 10:30	
Ethylbenzene	ug/L	<0.50	1.0	10/06/17 10:30	

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40157904

METHOD BLANK: 1585110

Matrix: Water

Associated Lab Samples: 40157904009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	10/06/17 10:30	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	10/06/17 10:30	
m&p-Xylene	ug/L	<1.0	2.0	10/06/17 10:30	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	10/06/17 10:30	
Methylene Chloride	ug/L	<0.23	1.0	10/06/17 10:30	
n-Butylbenzene	ug/L	<0.50	1.0	10/06/17 10:30	
n-Propylbenzene	ug/L	<0.50	1.0	10/06/17 10:30	
Naphthalene	ug/L	<2.5	5.0	10/06/17 10:30	
o-Xylene	ug/L	<0.50	1.0	10/06/17 10:30	
p-Isopropyltoluene	ug/L	<0.50	1.0	10/06/17 10:30	
sec-Butylbenzene	ug/L	<2.2	5.0	10/06/17 10:30	
Styrene	ug/L	<0.50	1.0	10/06/17 10:30	
tert-Butylbenzene	ug/L	<0.18	1.0	10/06/17 10:30	
Tetrachloroethene	ug/L	<0.50	1.0	10/06/17 10:30	
Toluene	ug/L	<0.50	1.0	10/06/17 10:30	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	10/06/17 10:30	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	10/06/17 10:30	
Trichloroethene	ug/L	<0.33	1.0	10/06/17 10:30	
Trichlorofluoromethane	ug/L	<0.18	1.0	10/06/17 10:30	
Vinyl chloride	ug/L	<0.18	1.0	10/06/17 10:30	
4-Bromofluorobenzene (S)	%	92	61-130	10/06/17 10:30	
Dibromofluoromethane (S)	%	122	67-130	10/06/17 10:30	
Toluene-d8 (S)	%	90	70-130	10/06/17 10:30	

LABORATORY CONTROL SAMPLE: 1585111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	57.9	116	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	44.8	90	70-130	
1,1,2-Trichloroethane	ug/L	50	43.1	86	70-130	
1,1-Dichloroethane	ug/L	50	51.4	103	71-132	
1,1-Dichloroethene	ug/L	50	48.6	97	75-130	
1,2,4-Trichlorobenzene	ug/L	50	50.3	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	52.9	106	63-123	
1,2-Dibromoethane (EDB)	ug/L	50	48.6	97	70-130	
1,2-Dichlorobenzene	ug/L	50	52.5	105	70-130	
1,2-Dichloroethane	ug/L	50	56.0	112	70-131	
1,2-Dichloropropane	ug/L	50	46.6	93	80-120	
1,3-Dichlorobenzene	ug/L	50	53.5	107	70-130	
1,4-Dichlorobenzene	ug/L	50	53.4	107	70-130	
Benzene	ug/L	50	44.8	90	73-145	
Bromodichloromethane	ug/L	50	58.6	117	70-130	
Bromoform	ug/L	50	52.0	104	67-130	
Bromomethane	ug/L	50	38.0	76	26-128	

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40157904

LABORATORY CONTROL SAMPLE: 1585111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Carbon tetrachloride	ug/L	50	65.9	132	70-133	
Chlorobenzene	ug/L	50	50.5	101	70-130	
Chloroethane	ug/L	50	35.5	71	58-120	
Chloroform	ug/L	50	53.4	107	80-121	
Chloromethane	ug/L	50	40.7	81	40-127	
cis-1,2-Dichloroethene	ug/L	50	46.4	93	70-130	
cis-1,3-Dichloropropene	ug/L	50	50.1	100	70-130	
Dibromochloromethane	ug/L	50	57.4	115	70-130	
Dichlorodifluoromethane	ug/L	50	25.6	51	20-135	
Ethylbenzene	ug/L	50	50.6	101	87-129	
Isopropylbenzene (Cumene)	ug/L	50	54.9	110	70-130	
m&p-Xylene	ug/L	100	103	103	70-130	
Methyl-tert-butyl ether	ug/L	50	49.5	99	66-143	
Methylene Chloride	ug/L	50	50.7	101	70-130	
o-Xylene	ug/L	50	51.6	103	70-130	
Styrene	ug/L	50	51.9	104	70-130	
Tetrachloroethene	ug/L	50	50.4	101	70-130	
Toluene	ug/L	50	48.0	96	82-130	
trans-1,2-Dichloroethene	ug/L	50	50.2	100	75-132	
trans-1,3-Dichloropropene	ug/L	50	51.2	102	70-130	
Trichloroethene	ug/L	50	53.6	107	70-130	
Trichlorofluoromethane	ug/L	50	51.4	103	76-133	
Vinyl chloride	ug/L	50	32.1	64	57-136	
4-Bromofluorobenzene (S)	%			99	61-130	
Dibromofluoromethane (S)	%			108	67-130	
Toluene-d8 (S)	%			95	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1585393 1585394

Parameter	Units	40158027004		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	% Rec					
1,1,1-Trichloroethane	ug/L	<25.0	50	50	51.3	50.3	103	101	70-134	2	20		
1,1,2,2-Tetrachloroethane	ug/L	<12.5	50	50	46.8	51.7	94	103	70-130	10	20		
1,1,2-Trichloroethane	ug/L	<9.9	50	50	43.5	46.1	87	92	70-130	6	20		
1,1-Dichloroethane	ug/L	<12.1	50	50	45.8	47.6	92	95	71-133	4	20		
1,1-Dichloroethene	ug/L	<20.5	50	50	41.2	44.0	82	88	75-136	6	20		
1,2,4-Trichlorobenzene	ug/L	<110	50	50	53.1	52.7	106	105	70-130	1	20		
1,2-Dibromo-3-chloropropane	ug/L	<108	50	50	70.1	66.8	140	134	63-123	5	20 M1		
1,2-Dibromoethane (EDB)	ug/L	<8.9	50	50	47.9	49.3	96	99	70-130	3	20		
1,2-Dichlorobenzene	ug/L	<25.0	50	50	52.7	52.3	105	105	70-130	1	20		
1,2-Dichloroethane	ug/L	<8.4	50	50	48.4	43.9	97	88	70-131	10	20		
1,2-Dichloropropane	ug/L	<11.7	50	50	49.3	52.3	99	105	80-120	6	20		
1,3-Dichlorobenzene	ug/L	<25.0	50	50	53.9	54.9	108	110	70-130	2	20		
1,4-Dichlorobenzene	ug/L	<25.0	50	50	50.4	51.0	101	102	70-130	1	20		

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE

Pace Project No.: 40157904

Parameter	Units	1585393		1585394		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40158027004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Benzene	ug/L	<25.0	50	50	44.9	47.2	90	94	73-145	5	20	
Bromodichloromethane	ug/L	<25.0	50	50	51.7	50.5	103	101	70-130	2	20	
Bromoform	ug/L	<25.0	50	50	65.6	60.7	131	121	67-130	8	20	M1
Bromomethane	ug/L	<122	50	50	31.5	34.7	63	69	26-129	9	20	
Carbon tetrachloride	ug/L	<25.0	50	50	59.0	55.6	118	111	70-134	6	20	
Chlorobenzene	ug/L	<25.0	50	50	49.8	52.5	100	105	70-130	5	20	
Chloroethane	ug/L	<18.7	50	50	29.6	36.5	59	73	58-120	21	20	R1
Chloroform	ug/L	<125	50	50	47.3	47.4	95	95	80-121	0	20	
Chloromethane	ug/L	<25.0	50	50	32.8	33.6	66	67	40-128	2	20	
cis-1,2-Dichloroethene	ug/L	<12.8	50	50	46.0	49.8	92	100	70-130	8	20	
cis-1,3-Dichloropropene	ug/L	<25.0	50	50	50.5	53.3	101	107	70-130	5	20	
Dibromochloromethane	ug/L	<25.0	50	50	54.9	53.2	110	106	70-130	3	20	
Dichlorodifluoromethane	ug/L	<11.2	50	50	21.0	21.3	42	43	20-146	2	20	
Ethylbenzene	ug/L	2290	50	50	1460	1330	-1660	-1910	87-129	9	20	E
Isopropylbenzene (Cumene)	ug/L	73.2	50	50	153	151	160	157	70-130	1	20	M1
m&p-Xylene	ug/L	9220	100	100	4850	4380	-4360	-4830	70-130	10	20	E
Methyl-tert-butyl ether	ug/L	<8.7	50	50	47.5	49.6	95	99	66-143	4	20	
Methylene Chloride	ug/L	<11.6	50	50	29.8	47.9	60	96	70-130	47	20	M1,R1
o-Xylene	ug/L	3530	50	50	2780	2550	-1500	-1950	70-130	8	20	E
Styrene	ug/L	<25.0	50	50	186	183	372	365	70-130	2	20	M1
Tetrachloroethene	ug/L	<25.0	50	50	51.0	51.0	102	102	70-130	0	20	
Toluene	ug/L	122	50	50	174	185	104	126	82-131	6	20	
trans-1,2-Dichloroethene	ug/L	<12.8	50	50	42.3	46.4	85	93	75-135	9	20	
trans-1,3-Dichloropropene	ug/L	<11.5	50	50	47.0	47.2	94	94	70-130	0	20	
Trichloroethene	ug/L	<16.5	50	50	55.0	54.7	110	109	70-130	1	20	
Trichlorofluoromethane	ug/L	<9.2	50	50	43.6	42.9	87	86	76-150	2	20	
Vinyl chloride	ug/L	<8.8	50	50	28.8	28.4	58	57	56-143	1	20	
4-Bromofluorobenzene (S)	%						107	103	61-130			
Dibromofluoromethane (S)	%						95	93	67-130			
Toluene-d8 (S)	%						94	94	70-130			

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### QUALITY CONTROL DATA

Project: 58117057 MAUTHE  
Pace Project No.: 40157904

QC Batch: 269843 Analysis Method: EPA 335.4  
QC Batch Method: EPA 335.4 Analysis Description: 335.4 Cyanide, Total  
Associated Lab Samples: 40157904005, 40157904007

METHOD BLANK: 1586240 Matrix: Water  
Associated Lab Samples: 40157904005, 40157904007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	<0.0068	0.023	10/09/17 14:46	

LABORATORY CONTROL SAMPLE: 1586241

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.10	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1586242 1586243

Parameter	Units	40157853001		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Cyanide	mg/L	0.057J	.6	.6	0.60	0.64	90	96	90-110	6	20		

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## QUALIFIERS

Project: 58117057 MAUTHE  
Pace Project No.: 40157904

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### LABORATORIES

PASI-G Pace Analytical Services - Green Bay

### ANALYTE QUALIFIERS

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

R1 RPD value was outside control limits.

pH Post-analysis pH measurement indicates insufficient VOA sample preservation.

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 MAUTHE  
Pace Project No.: 40157904

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40157904001	MW-103	EPA 6010	269766		
40157904002	MW-104	EPA 6010	269766		
40157904003	MW-107	EPA 6010	269766		
40157904004	MW-109	EPA 6010	269766		
40157904005	MW-110	EPA 6010	269766		
40157904006	MW-111	EPA 6010	269766		
40157904007	MW-112	EPA 6010	269766		
40157904008	MW-113	EPA 6010	269766		
40157904009	DUP-01	EPA 6010	269766		
40157904003	MW-107	EPA 8260	269526		
40157904004	MW-109	EPA 8260	269526		
40157904005	MW-110	EPA 8260	269526		
40157904006	MW-111	EPA 8260	269526		
40157904007	MW-112	EPA 8260	269526		
40157904008	MW-113	EPA 8260	269526		
40157904009	DUP-01	EPA 8260	269688		
40157904010	TRIP BLANK	EPA 8260	269526		
40157904005	MW-110	EPA 335.4	269843	EPA 335.4	269927
40157904007	MW-112	EPA 335.4	269843	EPA 335.4	269927

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**CHAIN OF CUSTODY**

**Preservation Codes**  
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

**Filtered? (YES/NO)**  
**Preservation (CODE)\***

**Data Package Options (billable)**  
 EPA Level III  
 EPA Level IV  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 W = Water  
 DW = Drinking Water  
 GW = Ground Water  
 SW = Surface Water  
 WW = Waste Water  
 WP = Wipe

Company Name:	TERRACON
Branch/Location:	FRANKLIN, WI
Project Contact:	SCOTT HODGSON
Phone:	920.791.9206
Project Number:	58117057
Project Name:	MAUTHE
Project State:	WI
Sampled By (Print):	CHRIS VIGLAND
Sampled By (Sign):	
PO #:	
Regulatory Program:	

PACE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested	
							Y/N	Pick Letter
001	MW-103	10-4-17	1055	GW			N	Y
002	MW-104	10-4-17	1005	GW			N	D
003	MW-107	10-3-17	1459	GW			X	
004	MW-109	10-4-17	0910	GW			X	
005	MW-110	10-3-17	1258	GW			X	
006	MW-111		1858	GW			X	
007	MW-112		1529	GW			X	
008	MW-113		1358	GW			X	
009	DUP-01			GW			X	
010	TRIP BLANK			W				

Quote #:	
Mail To Contact:	SCOTT HODGSON
Mail To Company:	TERRACON
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	
CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
	1-250mlp 3-250
	3-40mlp B
	2-250mlp GD
	2-40mlp B

Y/N									

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge)  
 Date Needed:

Transmit Prelim Rush Results by (complete what you want):  
 Email #1:  
 Email #2:  
 Telephone:  
 Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:		Date/Time:	10-4-17 1334
Relinquished By:		Date/Time:	10-4-17 1435
Relinquished By:		Date/Time:	
Relinquished By:		Date/Time:	
Relinquished By:		Date/Time:	

Received By:		Date/Time:	10/4/17 1334
Received By:		Date/Time:	10/4/17 1435
Received By:		Date/Time:	
Received By:		Date/Time:	
Received By:		Date/Time:	

PACE Project No. 40157909  
 Receipt Temp = 10.1 °C

Sample Receipt pH OK / Adjusted  
 Cooler Custody Seal Present / Not Present Intact / Not Intact



Sample Condition Upon Receipt

Pace Analytical Services, LLC. - Green Bay WI
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Project #:

WO#: 40157904



Client Name: Terracon

Courier: Fed Ex UPS Client Pace Other:

Tracking #:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Custody Seal on Samples Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used Type of Ice: Blue Dry None Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ICorr: Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 10/4/17
Initials: SSN

Comments:

Table with 15 rows for Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis, Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, Headspace in VOA Vials, Trip Blank Present, Trip Blank Custody Seals Present, Pace Trip Blank Lot #.

Client Notification/ Resolution: If checked, see attached form for additional comments
Person Contacted: Date/Time:
Comments/ Resolution:

Project Manager Review: Date: 10/4/17

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: MAUTNG		PROJECT NO. 58117057
PROJECT LOCATION: APPLETON, WI		
SAMPLE POINT: MW-103	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2.0"		
WELL DEPTH:		
DATE: 10-4-17	TIME: 1015	DEPTH TO GROUND WATER (AM/PM) (FT): 8.34
SAMPLING METHOD: PERISTALTIC	FLOW RATE: ~ 200 ml/min	375-SAH 10/17/17
SAMPLE TIME: 1055	TOTAL PURGED: 3.0	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (µS/cm)	ORP ( )	DO (mg/L)
1020	9.10	12.59	7.57	0.990	175.8	1.80
1025	9.70	12.89	7.49	0.988	177.9	0.48
1030	10.42	13.22	7.42	0.996	179.8	0.38
1035	11.01	13.47	7.39	1.002	180.9	0.21
1040	11.17	13.54	7.39	1.003	181.1	0.20
1045	11.22	13.55	7.38	1.004	181.3	0.21
1050	11.31	13.57	7.38	1.006	181.5	0.20

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input type="checkbox"/> CLEAR <input checked="" type="checkbox"/>	ODOR: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT NOTED <input type="checkbox"/>	ANALYSES: TOTAL CF
--	--	--------------------

CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

COMMENTS:

SAMPLED BY: CRAIG VARLAND	DATE: 10-4-17
REVIEWED BY: Scott A. Hodgson	DATE: 10/17/17

# TERRACON

# GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: MAUTHE		PROJECT NO. 58117057
PROJECT LOCATION: APPLINGTON, WI		
SAMPLE POINT: MW-104	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2.0		
WELL DEPTH:		
DATE: 10-4-17	TIME: 0920	DEPTH TO GROUND WATER (FT): 9.58
SAMPLING METHOD: PERISTALTIC		325--SAH 10/17/17 FLOW RATE: ~200 ml/min
SAMPLE TIME: 1005	TOTAL PURGED: 3.0 GAL.	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (uS/cm)	ORP	DO (mg/L)
0927	10.23	12.08	7.51	1.512	219.1	1.07
0932	10.50	12.14	7.58	1.464	212.9	0.94
0937	10.87	12.24	7.55	1.432	208.4	0.41
0942	11.33	12.55	7.52	1.393	196.9	0.19
0947	11.57	12.62	7.51	1.389	189.9	0.15
0952	11.94	12.68	7.51	1.326	181.8	0.12
0957	12.39	12.76	7.50	1.275	178.5	0.15
1002	12.50	12.78	7.49	1.269	178.6	0.15

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID CLEAR	ODOR: YES NO NOT NOTED	ANALYSES: TOTAL CT
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*CRITICAL TO VERIFY OR NOTE OTHER CLEANING METHODS PERFORMED

*(CAV)*

COMMENTS:

SAMPLED BY: CRAIG VARLAND	DATE: 10-4-17
REVIEWED BY: Scott A. Hodgson	DATE: 10/17/17

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: MAUTHE		PROJECT NO. 58117057
PROJECT LOCATION: APPLETON, WI		
SAMPLE POINT: MW-107		SAMPLE POINT DESCRIPTION:
CASING DIAMETER: 2.0"		
WELL DEPTH:		
DATE: 10-3-17	TIME: 1415	DEPTH TO GROUND WATER (FT): 11.04
SAMPLING METHOD: PERISTALTIC		FLOW RATE: ~ <del>250</del> 250 ml/min
SAMPLE TIME: 1459		TOTAL PURGED: 2.0 GAL

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (µS/cm)	ORP ( )	DO (mg/L)
1419	11.59	15.48	7.70	1.213	226.3	2.62
1424	12.16	15.97	7.70	1.210	227.5	0.63
1429	12.25	16.01	7.70	1.210	227.6	0.62
1434	12.74	15.84	7.69	1.215	228.6	0.24
1439	12.83	15.80	7.69	1.216	228.7	0.23
1444	13.23	16.00	7.68	1.215	229.7	0.19
1449	13.35	16.03	7.68	1.214	230.0	0.18
1454	13.60	16.09	7.67	1.214	230.6	0.18

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID <u>CLEAR</u>	ODOR: YES NO <u>NOT NOTED</u>	ANALYSES: TOTAL CR, VOCs
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

CA

COMMENTS:

SAMPLED BY: CRAIG VARLAND	DATE: 10-3-17
REVIEWED BY: Scott A. Hodgson	DATE: 10/17/17

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: MAUTHS		PROJECT NO. 58117057	
PROJECT LOCATION: APPLETON, WI			
SAMPLE POINT: MW-109		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2.0"			
WELL DEPTH:			
DATE: 10-4-17	TIME: 0815	AM / PM	DEPTH TO GROUND WATER (FT): 9.60
SAMPLING METHOD: PERISTALTIC		FLOW RATE: ~ <del>100</del> 275-SAH 10/17/17 ml/min	
SAMPLE TIME: 0910		TOTAL PURGED: 3.0 GAL	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (µg/cm)	ORP ( )	DO (mg/L)
0828	9.63	15.69	7.51	3.819	218.7	6.18
0833	9.96	15.86	7.41	3.863	219.2	0.72
0838	10.22	16.06	7.32	3.887	220.0	0.38
0843	10.45	16.16	7.28	3.889	220.7	0.32
0848	10.62	16.22	7.27	3.889	221.2	0.51
0853	10.88	16.37	7.26	3.891	222.0	0.95
0858	11.06	16.43	7.26	3.894	222.6	1.00
0903	11.13	16.41	7.26	3.896	222.6	1.01
0908	11.17	16.38	7.26	3.899	222.8	1.07

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input type="checkbox"/> <u>CLEAR</u> <input checked="" type="checkbox"/>	ODOR: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT NOTED <input checked="" type="checkbox"/>	ANALYSES: TOTAL CR, <u>VOCs</u>
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

CAJ

COMMENTS:

SAMPLED BY: CRAIG VARLAND	DATE: 10-4-17
REVIEWED BY: Scott A. Hodgson	DATE: 10/17/17

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: MAUTHE		PROJECT NO. 58117057
PROJECT LOCATION: APLUSTON WI		
SAMPLE POINT: MW-110	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2.04		
WELL DEPTH:		
DATE: 10-3-17	TIME: 1212	DEPTH TO GROUND WATER (FT): 10.31
SAMPLING METHOD: PERISTALTIC PUMP	FLOW RATE: ~ 200 ml/min	375-SAH 10/17/17
SAMPLE TIME: 1258	TOTAL PURGED: 3.5 GAL	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (µS/cm)	ORP ( )	DO (mg/L)
1220	10.90	16.26	7.95	1.320	200.0	4.40
1225	11.06	16.46	7.64	1.314	203.1	2.60
1230	11.33	16.74	7.45	1.308	205.4	1.89
1235	11.91	16.85	7.36	1.307	207.1	1.66
1240	12.47	16.90	7.29	1.317	209.1	1.28
1245	12.61	16.62	7.29	1.318	210.4	1.03
1250	12.95	16.55	7.29	1.317	211.8	0.69
1255	13.32	16.51	7.27	1.323	213.3	0.42

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID <u>CLEAR</u>	ODOR: YES NO <u>NOT NOTED</u>	ANALYSES: <u>NOTED CR</u> <u>CYANIDE, VOCs</u>
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

CAT

COMMENTS:

SAMPLED BY: CRAIG VARLAND	DATE: 10-3-17
REVIEWED BY: Scott A. Hodgson	DATE: 10/17/17



# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: <u>MAJTAG</u>		PROJECT NO. <u>58117057</u>
PROJECT LOCATION: <u>APPLETON, WI</u>		
SAMPLE POINT: <u>MW-111</u>	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: <u>2.0</u>		
WELL DEPTH:		
DATE: <u>10-3-17</u>	TIME: <u>1810</u>	DEPTH TO GROUND WATER (FT): <u>9.17</u>
SAMPLING METHOD: <u>PERISTALTIC</u>	FLOW RATE: <u>~ 275 SAH, 10/47/17</u> <u>230 mL/min</u>	
SAMPLE TIME: <u>1858</u>	TOTAL PURGED: <u>3 gal-SAH 10/17/17</u>	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (mS/cm)	ORP	DO (mg/L)
1812	9.62	15.53	7.77	1.182	275.0	1.40
1817	10.22	16.21	7.78	1.187	272.4	0.85
1822	10.72	16.24	7.77	1.189	272.9	0.91
1827	11.10	16.36	7.76	1.179	273.2	0.79
1832	11.43	16.45	7.75	1.169	273.6	0.92
1837	11.81	16.47	7.73	1.161	274.2	1.20
1842	12.08	16.58	7.71	1.160	274.6	1.49
1847	12.13	16.55	7.71	1.161	274.6	1.50
1852	12.24	16.56	7.71	1.160	274.7	1.49

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input type="checkbox"/> <u>CLEAR</u>	ODOR: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> <u>(NOT NOTED)</u>	ANALYSES: TOTAL CF, <u>VOGS</u>
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

COMMENTS: \* DUP-01

SAMPLED BY: TRAIL VANCELAND DATE: 10-3-17

REVIEWED BY: Scott A. Hodgson DATE: 10/17/17

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: MAJTHE		PROJECT NO. 58117057
PROJECT LOCATION: APPLGTON, WI		
SAMPLE POINT: MW-112	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2.0"		
WELL DEPTH:		
DATE: 10-3-17	TIME 1529	DEPTH TO GROUND WATER (FT): 9.70
SAMPLING METHOD: PERISTALTIC PUMP	FLOW RATE: ~230 ml/min	375-SAH, 10/17/17
SAMPLE TIME: 1606	TOTAL PURGED: 3 GAL.	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (µm/cm)	ORP ( )	DO (mg/L)
1533	10.26	17.06	7.66	1.137	239.5	0.42
1538	10.68	17.36	7.59	1.124	238.9	0.81
1543	11.20	17.53	7.50	1.115	240.0	0.77
1548	11.78	17.46	7.49	1.123	241.1	0.46
1553	12.35	17.26	7.51	1.128	242.4	0.23
1558	12.48	17.26	7.51	1.128	242.5	0.22
1603	12.89	17.16	7.53	1.132	243.3	0.20

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input checked="" type="checkbox"/> CLEAR	ODOR: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT NOTED	ANALYSES: TOTAL CR, CYANIDE, VOLS
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

(CN)

COMMENTS:

\* VERY SLIGHT TINT

SAMPLED BY: CRAIG VAZLUND	DATE: 10-3-17
REVIEWED BY: Scott A. Hodgson	DATE: 10/17/17

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: MAUTHG		PROJECT NO. 58117057
PROJECT LOCATION: APPLETON, WI		
SAMPLE POINT: MW-113	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2.0"		
WELL DEPTH:		
DATE: 10-3-17	TIME 1320	DEPTH TO GROUND WATER (FT): 9.67
SAMPLING METHOD: PERISTALTIC		315-SAH 10/17/17 FLOW RATE: ~ 250 mL/min
SAMPLE TIME: 1358		TOTAL PURGED: 2.5 GAL

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (mS/cm)	ORP ( )	DO (mg/L)
1327	10.16	16.13	7.52	1.423	220.0	0.22
1332	10.54	16.66	7.54	1.421	220.0	0.18
1337	10.73	16.85	7.51	1.416	220.2	0.29
1342	11.03	16.92	7.47	1.403	220.9	0.23
1347	11.06	16.95	7.46	1.392	221.1	0.19
1352	11.23	17.05	7.42	1.383	221.5	0.34
1357	11.34	17.24	7.40	1.372	221.9	0.43

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input checked="" type="checkbox"/> CLEAR <input type="checkbox"/>	ODOR: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NOT NOTED <input type="checkbox"/>	ANALYSES: TOTAL CR, VOLs
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

**CAV**

COMMENTS:

\* CHROMIUM TINT YELLOW

SAMPLED BY: CRAIG VARELAND	DATE: 10-3-17
REVIEWED BY: Scott A. Hodgson	DATE: 10/17/17

# **Appendix D**

Form 4400-194

**Notice:** Pursuant to ss. NR 700.11(1) and 724.13(3), Wis. Adm. Code, this form is required to be completed or a narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation and is subject to the penalties as stated in s. 292.99, Wis. Stats. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.). *Unless otherwise noted, all citations refer to Wisconsin Administrative Code.*

**GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM:** Completion of this form is required under s. NR 700.11(1) and s. NR 724.13(3), Wis. Adm. Code. A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation of s. NR 700.11(1) and s. NR 724.13(3), Wis. Adm. Code, and is subject to the penalties in s. 292.99, Wis. Stats. This form must be submitted every six months for remediation projects that are regulated under the NR 700 series of Wis. Adm. Code. Specifically, for sites meeting any of the following criteria:

- Any site where a discharge has occurred that report progress in accordance with s. NR 700.11(1), Wis. Adm. Code until site closure is granted. This includes sites where no response activities occurred during the six month reporting period. **Attach, if applicable, a separate brief summary of the work completed during the reporting period and the anticipated future work.**
- Soil or groundwater remediation projects that report operation and maintenance progress in accordance with s. NR 724.13(3), Wis. Adm. Code.

Note: Long-term monitoring results submitted in accordance with s. NR 724.17(3), Wis. Adm. Code are required to be submitted within 10 business days of receiving sampling results and are not required to be submitted using this form. However, portions of this form require monitoring data summary information that may be based on information previously submitted in accordance with s. NR 724.17(3), Wis. Adm. Code.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if this form is required to be submitted at sites responded to under the Federal Comprehensive Environmental Response and Compensation Act (commonly known as Superfund) or an equivalent State lead Superfund response.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and obtain prior written approval for any omissions or changes.

Submittal of this form is not a substitute for reporting required by Department programs such as Waste Water or Air Management. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by the Bureau for Remediation and Redevelopment.

Only complete and submit all of page GI-1 and Section E on pages 3 and 4 for sites where a discharge has been reported but no response, monitoring or remediation has begun or occurred during the six month reporting period that are required to report only under s. NR 700.11(1), Wis. Adm. Code **and attach, if applicable, a summary of the anticipated future work.**

**Section GI - General Site Information**

**A. General Information**

1. Site name

N.W. Mauthe Superfund Site (BRRTS #02-45-000127)

2. Reporting period from:	04/01/2017	To:	09/30/2017	Days in period:	183
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3. Regulatory agency (enter DNR, DCOM, DATCP and/or other)	4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific)
WDNR/USEPA	02-45-000127

5. Site location

Region	County	Address						
Northeast Region	Outagamie	725 S. Outagamie Street, Appleton, Wisconsin						
Municipality name	<input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village		Township	Range	<input checked="" type="radio"/> E <input type="radio"/> W	Section	¼	¼ ¼
Appleton			21 N	17	OW	34	NE	NW

6. Responsible party

Name  
 Carol Mauthe

Mailing address  
 194 C S West Avenue, Appleton, Wisconsin 54915

Phone number

7. Consultant

Select if the following information has changed since the last submittal

Company name  
 Terracon Consultants, Inc.

Mailing address	Phone number
9856 S 57th Street, Franklin, WI 53132	(414) 423-0255

8. Contaminants

chromium, cyanide, chlorinated solvents

Site name: N.W. Mauthe Superfund Site (BRRTS #02-45-000127)

Reporting period from: 04/01/2017 To: 09/30/2017

Days in period: 183

# Remediation Site Progress and Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 1/14)

Page 2 of 29

## 9. Soil types (USCS or USDA)

lean clay (CL); silty clay (ML-CL)

## 10. Hydraulic conductivity(cm/sec):

3.90 E x 10-7

## 11. Average linear velocity of groundwater (ft/yr)

1.17

12. If soil is treated ex situ, is the treatment location off site?  Yes  No

If yes, give location: Region

County

Municipality name  City  Town  Village

Township

Range  E

Section

1/4

1/4

1/4

1/4

N

W

## B. Remediation Method

Only submit sections that apply to an individual site. Check all that apply:

- Groundwater extraction (submit a completed Section GW-1).
- Free product recovery (submit a completed Section GW-1).
- In situ air sparging (submit a completed Section GW-2).
- Groundwater natural attenuation (submit a completed Section GW-3).
- Other groundwater remediation method (submit a completed Section GW-4).
- Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- Soil natural attenuation (submit a completed Section IS-2).
- Other in situ soil remediation method (submit a completed Section IS-3).
- Biopiles (submit a completed Section ES-1).
- Landspreading/thinspreading of petroleum contaminated soil (submit a completed Section ES-2).
- Other ex situ remediation method (submit a completed Section ES-3).
- Site is a landfill (submit a completed Section LF-1).

## C. General Effectiveness Evaluation for All Active Systems

If the remediation is active (not natural attenuation), complete this subsection.

1. is the system operating at design rates and specifications?  Yes  No

If the answer is no, explain whether or not modifications are necessary to achieve the goal that was previously established in design.

2. Are modifications to the system warranted to improve effectiveness  Yes  No

If yes, explain:

3. Is natural attenuation an effective low cost option at this time?  Yes  No

4. Is closure sampling warranted at this time?  Yes  No

5. Are there any modifications that can be made to the remediation to improve cost effectiveness?  Yes  No

If yes, explain:

Site name: N.W. Mauthe Superfund Site (BRRTS #02-45-000127)

Reporting period from: 04/01/2017 To: 09/30/2017

Days in period: 183

## Remediation Site Progress and Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 1/14)

Page 3 of 29

### D. Economic and Cost Data to Date

1. Total investigation cost: \_\_\_\_\_
2. Implementation costs (design, capital and installation costs, excluding investigation costs): \_\_\_\_\_
3. Total costs during the previous reporting period: \$8,658.00
4. Total costs during this reporting period: \$13,682.00
5. Total anticipated costs for the next reporting period: \$10,360.00
6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above?  Yes  No

If yes, explain:

D4: Additional costs related to the annual fire extinguisher and emergency light inspection and exterior soil, basement sediment, and sump water hexavalent chromium sampling at 801 South Outagamie Street (Beardsley residence) as requested by WDNR.

7. If closure is anticipated within 12 months, estimated costs for project closeout: \_\_\_\_\_

### E. Name(s), Signature(s) and Date of Person(s) Submitting Form

Legibly print name, date and sign. Only persons qualified to submit reports under ch. NR 712 Wis. Adm. Code are to sign this form for sites with any ongoing active remediation, monitoring or an investigation. Other persons may sign this form for sites with no response activities during the six month reporting period.

#### Registered Professional Engineers:

I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Blaine R. Schroyer, P.E.	Principal/Office Manager
Signature	Date
	10/26/17

#### Hydrogeologists:

I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Scott A. Hodgson, P.G.	Senior Project Manager
Signature	Date
	10/26/17

#### Scientists:

I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

#### Other Persons:

Print name	Title
Signature	Date

Site name: N.W. Mauthe Superfund Site (BRRS #02-45-000127)

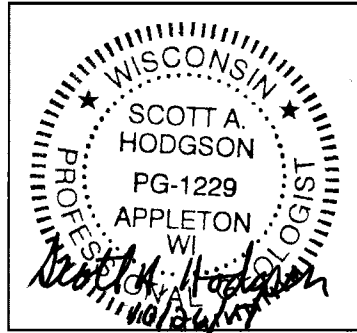
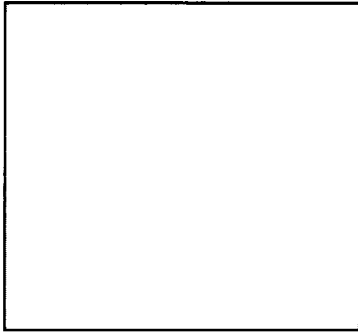
Reporting period from: 04/01/2017 To: 09/30/2017

Days in period: 183

**Remediation Site Progress and Operation,  
Maintenance, Monitoring & Optimization  
Report**

Form 4400-194 (R 1/14)

**Professional Seal(s), if applicable:**





Site name: N.W. Mauthe Superfund Site (BRRTS #02-45-000127)

Reporting period from: 04/01/2017 To: 09/30/2017

Days in period: 183

# Remediation Site Progress and Operation, Maintenance, Monitoring & Optimization Report

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## Section GW-1, Groundwater Pump and Treat Systems and Free Product Recovery Systems

### A. Groundwater Extraction System Operation:

1. Total number of groundwater extraction wells or trenches available: 3 and the number in use during period: 3

2. Number of days of operation (only list the number of days the system actually operated, if unknown explain:

183

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:

100

4. Quantity of groundwater extracted during this time period: 476,148 gallons

5. Average groundwater extraction rate: 2 gpm

6. Quantity of dissolved phase contaminants removed during this time period in pounds: 2 lbs

### B. Free Product Recovery System Operation

1. Is free product (nonaqueous phase liquid) being recovered at this site?  Yes  No

If yes, explain:

2. Quantity of free product extracted during this time period (enter none if none): \_\_\_\_\_ gallons

3. Average free product extraction rate: \_\_\_\_\_ gpm

### C. System Effectiveness Evaluation

1. Is a contaminated groundwater plume fully contained in the capture zone?  Yes  No

If no, explain:

System designed only for containment

2. If free product is present, is the free product fully contained in capture zone?  Yes  No

If no, explain:

3. If free product is present in any wells at the site, but free product was not recovered during reporting period, explain:

4. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in C.4.a.

a. Contaminant: chromium in MW-113: 99.71 % for ES, 99.97% for PAL

b. Percent reduction necessary to reach ch. NR 140 ES and PAL: 99.71 %

c. Maximum contaminant concentration level in any monitoring well of that contaminant: 17,400 µg/L

d. Maximum contaminant concentration level in any extraction well of that contaminant: 624 µg/L

Site name: N.W. Mauthe Superfund Site (BRRTS #02-45-000127)

Reporting period from: 04/01/2017 To: 09/30/2017

Days in period: 183

## Remediation Site Progress and Operation, Maintenance, Monitoring & Optimization Report

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e. If the maximum concentration in a monitoring well is more than one order of magnitude above the concentration measured in an extraction well, explain why the extracted groundwater contamination levels are significantly less than the levels at other locations within the aquifer.

System designed only for containment, not treatment.

### D. Additional Attachments

Attach the following to this form:

- Most recent report to the DNR Wastewater Program, if applicable.
- Groundwater contour map with capture zone indicated.
- Groundwater contaminant distribution map (may be combined with contour map).
- Graph of cumulative contaminant removal, if both free product recovery and ground water extraction are used, provide separate graphs.
- Time versus groundwater contaminant concentration graphs for the contaminant listed in C.4.a. (above), as follows:
  - Graph of contaminant concentrations versus time for each extraction well in use during the period.
  - Graph of contaminant concentrations versus time for the monitoring well with the greatest level of contamination.
- Groundwater contaminant chemistry table.
- Groundwater elevations table.
- System operational data table.