

# Operation and Maintenance Report

## No. 60

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

October 30, 2020

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

Offices Nationwide  
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# Terracon

October 30, 2020

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

Attn: Ms. Gwen Saliars

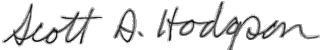
Re: Operation and Maintenance Report No. 60  
N.W. Mauthe Superfund Site  
725 South Outagamie Street  
Appleton, Wisconsin  
WDNR BRRTS No. 02-45-000127  
Terracon Project No. 58117057

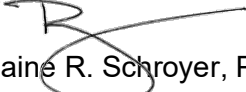
Dear Ms. Saliars:

Terracon Consultants, Inc. (Terracon) has prepared this Operation and Maintenance Report to summarize the activities that took place at the above-referenced site from October 1, 2019, through September 30, 2020. 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

KLK/SAH/BRS:sah\IP58WFS01\Data\Projects\2011\58117057\PROJECT DOCUMENTS (Reports-Letters-Drafts to Clients)\Semi-Annual O\_M Reports\58117057 O\_M60.Oct.2020.docx

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



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Geotechnical



Environmental



Construction Materials



Facilities

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## OPERATION AND MAINTENANCE REPORT NO. 60

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

October 30, 2020  
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 assigned Ms. Gwen Saliars, Oshkosh Service Center, as the new WDNR project contact midway through the reporting year. The former WDNR project contact was 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.

- Demolition and removal of the buildings on the Mauthe property
- Excavation and off-site treatment of soils with a total chromium concentration of greater than 500 milligrams per kilogram (mg/kg)
- Backfilling of the excavation with clean soils, capping the site with 2 feet of clay and topsoil, and the establishment of vegetative cover
- 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)
- 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. OMNNI 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 extends approximately 31 fbgs. The southeast trench collection piping enters Manhole 2 at a depth of approximately 17 fbgs, and the central trench collection piping enters Manhole 2 at a depth of approximately 28 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, 2018 (Permit No. 18-21). The permit allows the continuation of groundwater direct discharge to the sanitary sewer as long as contaminant concentrations remain below discharge limits. Permit No. 18-21 expires at midnight, May 31, 2021.

## **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) constructed in May 2006, and 4 piezometers (PZ5 through PZ8) constructed 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.

- 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.
- 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.
- MW-111 is located near a historic monitoring point (MW13R) installed during the RI with significant concentrations of chromium in groundwater.
- 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.
- 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

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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.

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.

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, unfiltered samples were collected from the equalization tank Outfall 001 sample port and analyzed for hexavalent chromium and 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 and/or Gwen Saliars, 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 and/or Gwen Saliars, on October 11, 2019 (Third Quarter 2019), January 10, 2020 (Fourth Quarter 2019), April 7, 2020 (First Quarter 2020), and July 9, 2020 (Second Quarter 2020). Each quarterly compliance report included total metered discharge readings, pH measurements, and laboratory analytic test reports. There were no effluent limit exceedances during this reporting period.

### **3.3 Annual Monitoring and Reporting**

Prior to 2019 the Monitoring Report was completed on a semi-annual basis, however, beginning in 2019 the two semi-annual monitoring reports were condensed into one annual report. The annual reporting consists of this document, the Annual Operation and Maintenance Report, which is prepared for the WDNR project manager after receiving the laboratory data from the annual groundwater sampling or water level measurement/inspection event. The 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 and Terracon on June 4, 2020, and by the City of Appleton on September 30, 2020, 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. The results from the September 2020 sampling event are not yet available.

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

Three 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.

On September 19, 2018, Jennifer Borski with the WDNR requested the following adjustment to the monitoring plan.

1. Total (dissolved) chromium will be analyzed every 2 years in September at MW-101, MW-102, MW-103, MW-104, MW-107, MW-109, MW-110, MW-111, MW-112, and MW-113;
2. Total (dissolved) chromium will continue to be analyzed every four years in September at perimeter wells W-2, W-8, W-15, MW-105, MW-106, and MW-108;
3. Cyanide will be analyzed every 2 years in September at MW-110, MW-111, and MW-112
4. VOCs will be analyzed every 2 years in September at MW-107, MW-109, MW-110, MW-111, MW-112, and MW-113.

EPA approved the 2018 request on November 13, 2018. EPA recommended that for the wells sampled only during the 4-year event, three well (casing) volumes should be purged and then the wells sampled using low-flow and stabilization parameters.

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 not collected during this reporting period. Groundwater samples were collected during the last reporting period on September 25 and 26, 2019, as part of the comprehensive 4-year sampling event. Static groundwater levels; however, were measured during this reporting period on August 31, 2020, in each of the 20 site monitoring wells. 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—August 2020, 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.

During odd years, the monitoring well network is sampled per the monitoring plan. Groundwater samples were last collected in September 2019, in which the following procedures were used. 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 (specific conductance), pH, dissolved oxygen (DO), and oxidation/reduction potential (ORP) 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. The six monitoring wells sampled only during the 4-year event that required purging of three well casing volumes were initially purged using a peristaltic pump set at the highest speed after first measuring the temperature, conductivity, pH, DO, and ORP under static conditions. The peristaltic pump speed was then reduced to approximately 200 mL/min to purge the last gallon prior to sampling. During purging of the final gallon, temperature, conductivity, pH, DO, and ORP were monitored and readings taken periodically. 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, dissolved iron, total chromium, manganese, and cyanide in accordance with the site monitoring plan after the monitoring points were 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 (metal) samples, dissolved iron, and manganese 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, dissolved iron, or manganese 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**

Groundwater sampling was not conducted during this reporting period. During the September 2019 sampling event, field measurements were taken on groundwater samples collected from monitoring wells W-2, W-8, W-15, MW-101, MW-103, MW-104, and MW-106 through MW-113 for temperature, conductivity (specific conductance), pH, dissolved oxygen, and oxidation/reduction potential. Observation wells MW-102 and MW-105 were not sampled because they could not be opened. A summary of the final field measurements after stabilization are contained in Table 4 – Groundwater Geochemical Parameters, Appendix B.

Groundwater from observation wells W-2, W-8, W-15, MW-101, MW-103, MW-104, and MW-106 through MW-113 was analyzed for (filtered) total (dissolved) chromium, dissolved iron, and manganese. Groundwater from observation wells MW-107 and MW-109 through MW-113 was also analyzed for VOCs and groundwater from observation wells MW-110 through MW-112 was analyzed for total cyanide.

The September 2019 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-107

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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...”



(1,300 µg/L), MW-109 (339 µg/L), MW-111 (76.3 µg/L), MW-112 (305 µg/L), and MW-113 (759 µg/L). The laboratory analytical results indicated that cyanide was not detected in any of the monitoring wells. The laboratory analytical results indicated that levels of manganese exceeded the 1992 NR 140, WAC, groundwater PALs<sup>3</sup> in samples from monitoring wells W-2 (271 µg/L), MW-104 (244 µg/L), MW-106 (55.2 µg/L), MW-108 (79.9 µg/L), MW-110 (542 µg/L), MW-112 (283 µg/L), and MW-113 (5,010 µg/L) (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 - September 2019, Appendix A.

The laboratory analytical results from September 2019 indicated that levels of VOCs (at least one of the following analytes: 1,1-dichloroethene, 1,1,1-trichloroethane, and trichloroethene) exceeded 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 the September 2019 laboratory report and chain-of-custody record, Appendix C, included for convenience).

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.

### 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.

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*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.*

<sup>3</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.*

During the monthly sampling, general inspection of the building, grounds, and treatment equipment was conducted. Monthly building and grounds inspections were performed each month from October 2019 through September 2020.

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

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

During this reporting period, annual operation and maintenance activities included the heater inspection (November 2019), backflow preventer inspection (March 2020), and fire extinguisher/emergency light inspection (March 2020).

The heater inspection was performed on November 7, 2019, by Ogden Plumbing & Heating (Ogden). The inspection revealed a cracked heat exchanger on the heater in the northeast part of the process room and a malfunctioning fan relay on the southeast heater in the process room. On December 6, 2019, Ogden replaced the northeast heater in the process room and used the fan relay from the old northeast heater to fix the southeast heater.

The backflow preventer inspection was performed by Ogden on March 18, 2020. No violations were found. Ogden filed the inspection report on March 26, 2020. The fire extinguisher/emergency light inspection was performed by Ahern on March 18, 2020. There were no issues identified.

## **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 June 4, 2020, and September 30, 2020, to collect their semi-annual effluent compliance samples.
5. Ogden diagnosed a problem with the northwest heater fan motor on February 7, 2020. They indicated that the problem was the fan motor on the northwest heater in the process room. Ogden repaired the heater on February 10, 2020.
6. Terracon noted that the small under-sink water heater at Mauthe was potentially periodically leaking. During Ogden's inspection they indicated that it should be replaced. Ogden replaced the under-sink water heater on February 10, 2020, in conjunction with the heater repair.
7. During the water heater replacement, Ogden noted a hole in the stainless steel sink and provided a quote for the repair. Ogden replaced the sink on February 28, 2020.
8. Observation wells W-15, MW-102, MW-105 and MW-106 were found to be damaged. On August 31, 2020, Terracon personnel arrived onsite to perform the necessary repairs to four flush mount monitoring wells, W-15, MW-102, MW-105, and MW-106. Terracon replaced the entire flushmount set in a new concrete pad for monitoring wells W-15 and MW-106 and replaced the broken bolts on monitoring wells MW-102 and MW-105. The PVC casing was cut down on monitoring wells MW-105, MW-106, and W-15 and each well was surveyed relative to the well network.

#### **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**

While onsite for the COA compliance sampling on September 30, 2020, Terracon observed that the "PLC Failure" alarm was triggered. Terracon personnel cleared the alarm and checked the system but found no immediate problem. Terracon also checked the water level in Manhole #2, which was approximately 28 feet bgs. The water level was well below the foundation drain tile elevation of the residences connected to the recovery trench and so did not indicate an urgent problem.

Terracon returned to the site the next day and confirmed that the system was running correctly.

## 7.0 FACILITY MEETINGS/REVIEWS

Jennifer Borski or Gwen Saliars, 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 March 18, 2020. No issues were noted.

On July 20, 2020, Terracon personnel met with Gwen Saliars, current WDNR project manager, and Jennifer Borski, previous WDNR project manager, onsite for the 5-year review site visit and inspection. Among the issues discussed included the following:

- Stray "well" in the Miller parking lot to the west and repaving that lot. Omni provided the City of Appleton-approved plans for the grading and pavement replacement work. The plans indicate that the flush-mount well covers for monitoring well MW-101 and the stray "well" will be replaced with new covers set at new grades in conformance with the plans.
- Well Repair-inspection indicated that, in addition to monitoring wells MW-102 and MW-105, monitoring wells MW-106 and W-15 in the parking lot of the bar also need the flush-mount protective cover replaced (repairs made on August 31, 2020).
- Obsolete programmable logic controller (PLC).
- Site restoration and issues at 801 South Outagamie Street including a new issue of new basement windows installed without window wells. After consultation with the City of Appleton, installation of the window wells will be the responsibility of the owner.

On September 2, 2020, Brian Kreski, City of Appleton Department of Utilities Program Environmental Programs Coordinator, met Terracon at the site to discuss operations and perform the annual inspection of the facility. No issues were noted.

## 8.0 CONCLUSIONS AND RECOMMENDATIONS

A 2020 sampling event was not performed: however, the results of the laboratory analysis from the September 2019 sampling event indicated that the groundwater continues to exceed the 1992 NR 140, WAC, PALs for chromium and several VOCs, although in general, concentrations have decreased compared to September 2018.

**Operation and Maintenance Report No. 60**

N.W. Mauthe Superfund Site ■ Appleton, Wisconsin

October 30, 2020 ■ Terracon Project No. 58117057



The containment trenches appear to be, in general, operating as designed, but as they have exceeded their design life, they appear to be less efficient at collecting and transmitting groundwater to the sumps than in the past. 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 962,404 gallons of groundwater were extracted from the containment trenches from October 1, 2019, through September 30, 2020 (average 2,637 gallons per day). The groundwater was discharged to the City of Appleton sanitary sewer system under the Industrial User (Wastewater Discharge) Permit Number 18-21. There were no exceedances of the compliance limits during this reporting period.

Approximately 2.969 pounds of chromium were removed by the system during this reporting period.

Based on the laboratory analysis from the September 2019 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. Terracon further recommends that WDNR continue to work with Suburban Electric to replace the current system controls with a modern system that is accessible remotely and more efficient.

Groundwater samples will be collected from each monitoring well at the Mauthe site and analyzed for per and polyfluoroalkyl substances (PFAS) as part of a separate contract in late 2020 or early 2021. If PFAS are detected, the current system may need to be modified to treat PFAS, and therefore, operation/maintenance/monitoring procedures and requirements may also be modified.

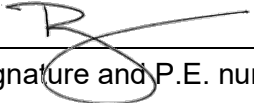
## **9.0 GENERAL COMMENTS**

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

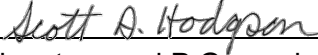
I, Blaine R. Schroyer, P.E., hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. 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.

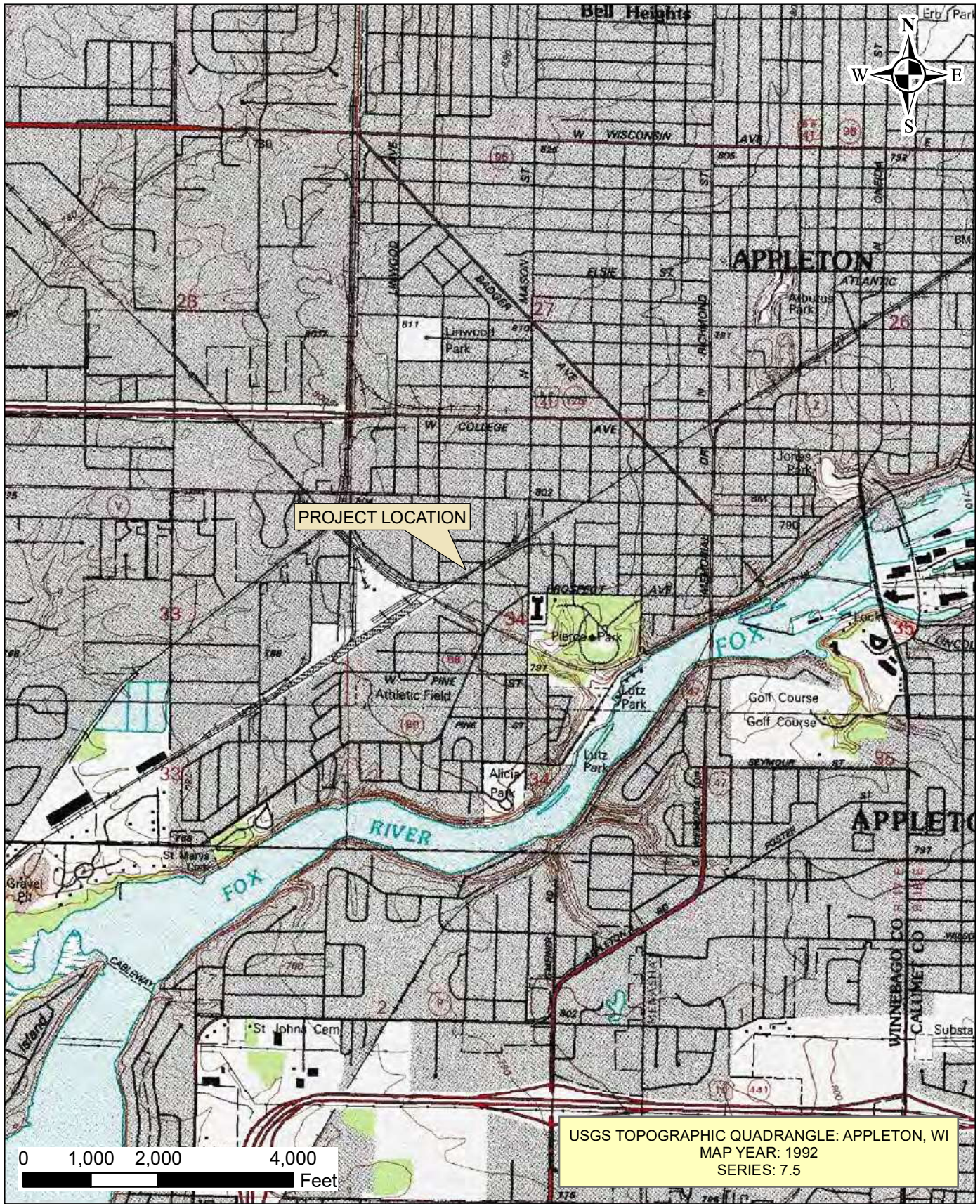
 PG-1229                      Date 10/30/20  
Signature and P.G. number

Project Geologist  
Title

## **Appendix A**

Figures 1 to 16



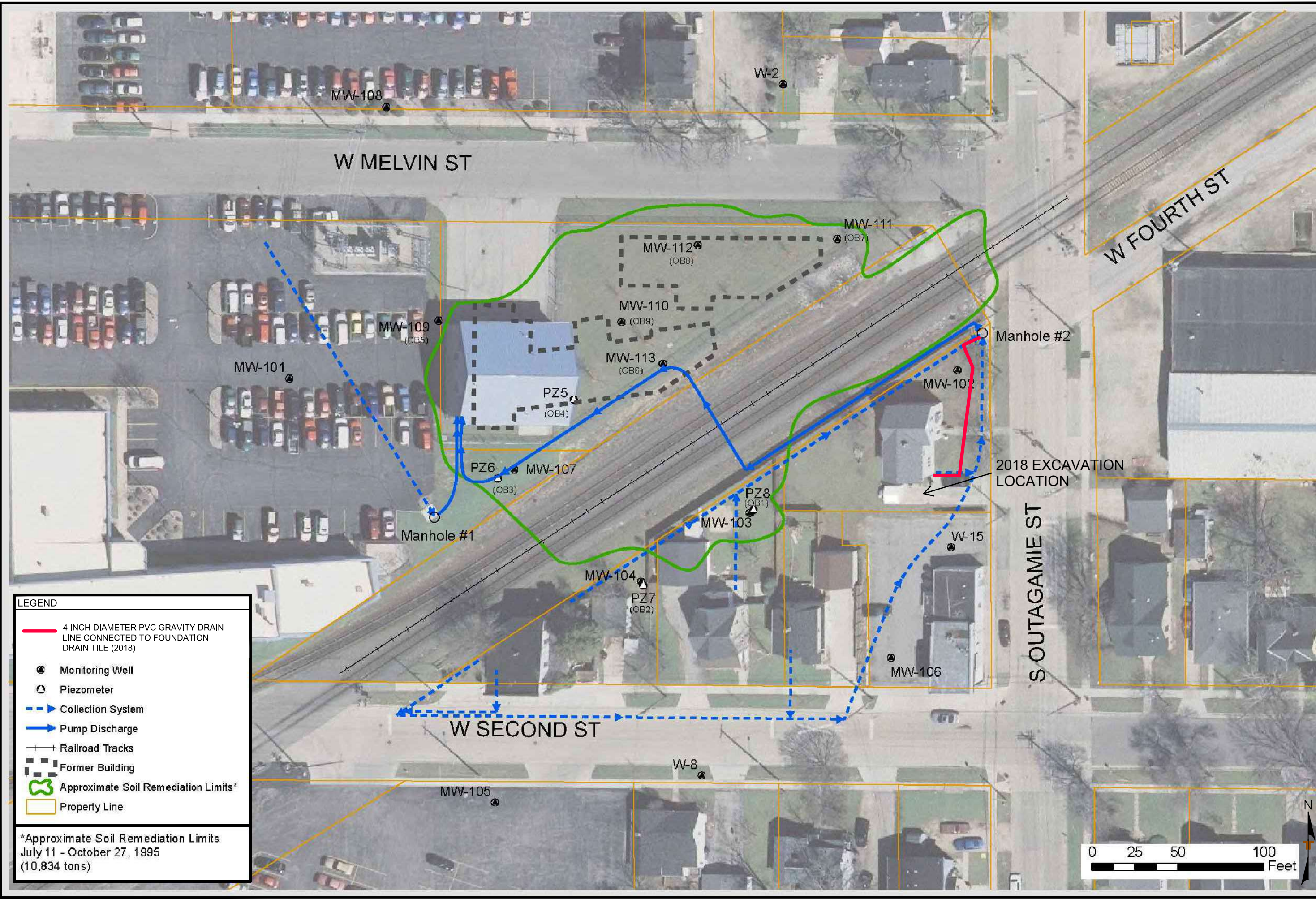


Project Mngr:	PAL
Drawn By:	LES
Checked By:	PAL
Project No:	58117057
Date:	03/21/2012

**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**

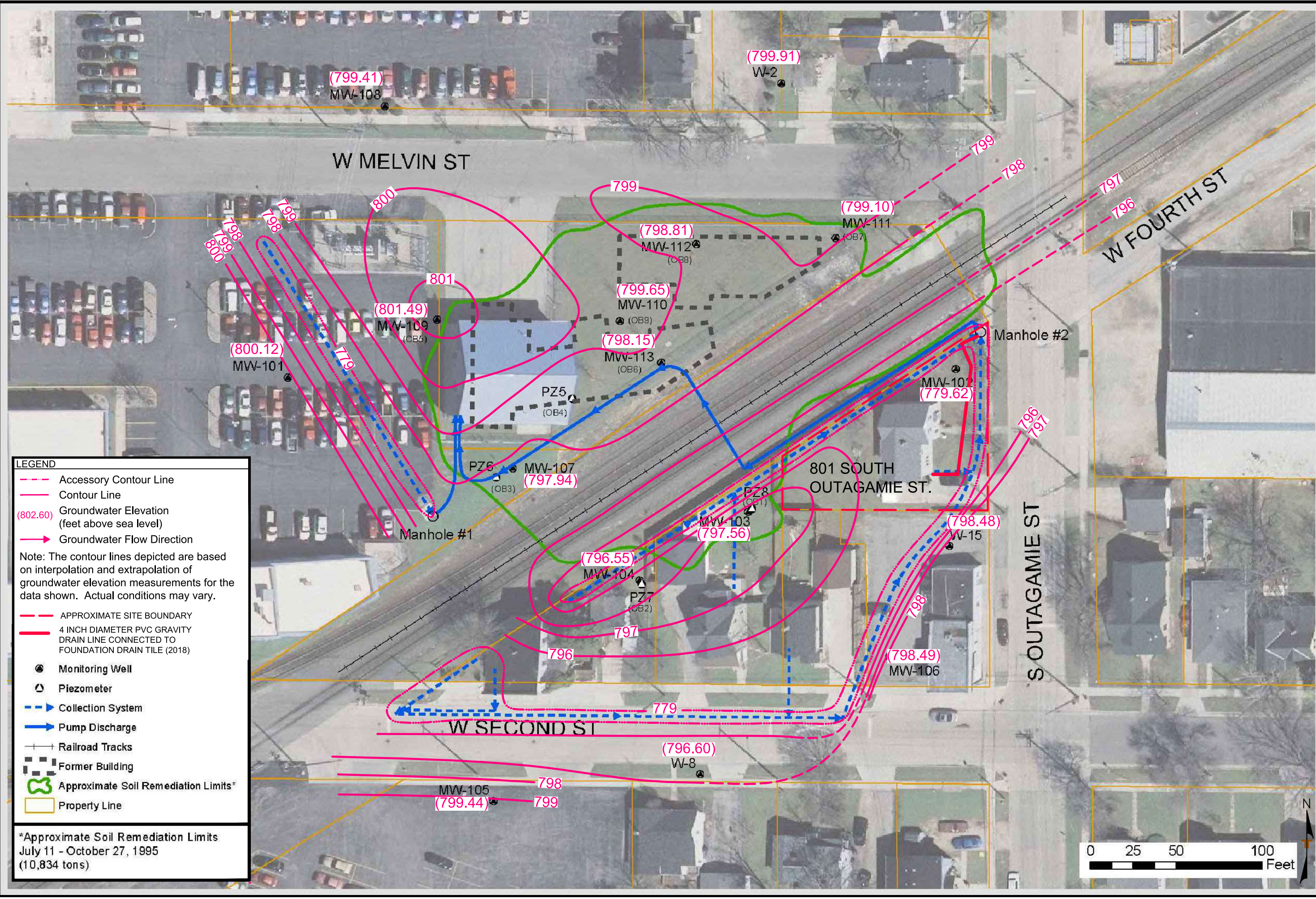
- 4 INCH DIAMETER PVC GRAVITY DRAIN LINE CONNECTED TO FOUNDATION DRAIN TILE (2018)
- Monitoring Well
- Piezometer
- - - - - Collection System
- — — — — Pump Discharge
- + + + + + Railroad Tracks
- ▤ Former Building
- ⬭ Approximate Soil Remediation Limits\*
- ▭ Property Line

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



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





**LEGEND**

- - - Accessory Contour Line
- Contour Line
- (802.60) Groundwater Elevation (feet above sea level)
- Groundwater Flow Direction

Note: The contour lines depicted are based on interpolation and extrapolation of groundwater elevation measurements for the data shown. Actual conditions may vary.

- - - APPROXIMATE SITE BOUNDARY
- 4 INCH DIAMETER PVC GRAVITY DRAIN LINE CONNECTED TO FOUNDATION DRAIN TILE (2018)
- Monitoring Well
- ▲ Piezometer
- Collection System
- Pump Discharge
- Railroad Tracks
- Former Building
- Approximate Soil Remediation Limits\*
- Property Line

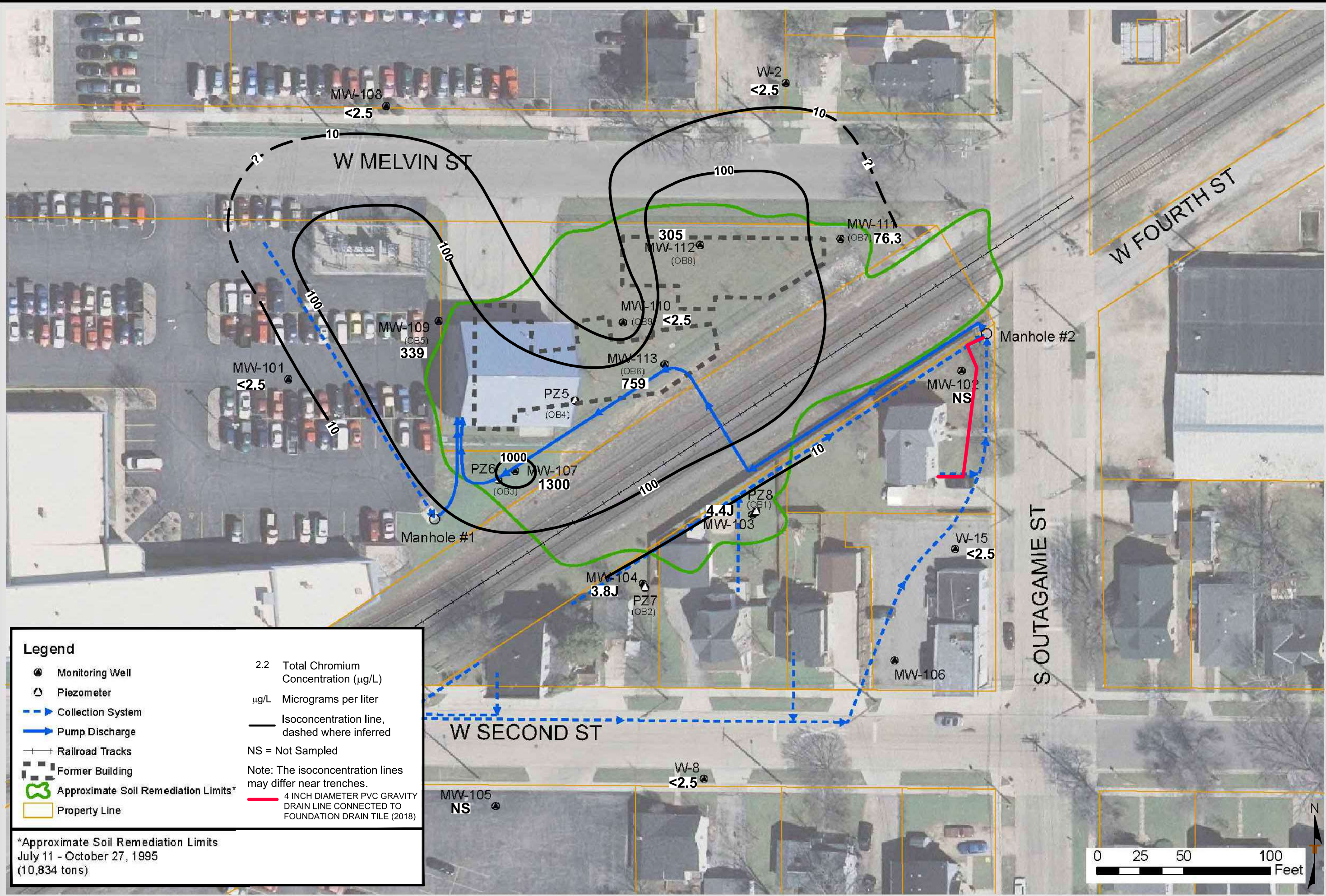
\*Approximate Soil Remediation Limits  
July 11 - October 27, 1995  
(10,834 tons)

Project No.	58117057
Scale	As Shown
File No.	58117057C2R2
Date	10/2020

Project Mgr:	SAH
Drawn By:	JMN
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
- 2.2 Total Chromium Concentration (µg/L)
  - µg/L Micrograms per liter
  - Isoconcentration line, dashed where inferred
  - NS = Not Sampled
  - Note: The isoconcentration lines may differ near trenches.
  - 4 INCH DIAMETER PVC GRAVITY DRAIN LINE CONNECTED TO FOUNDATION DRAIN TILE (2018)

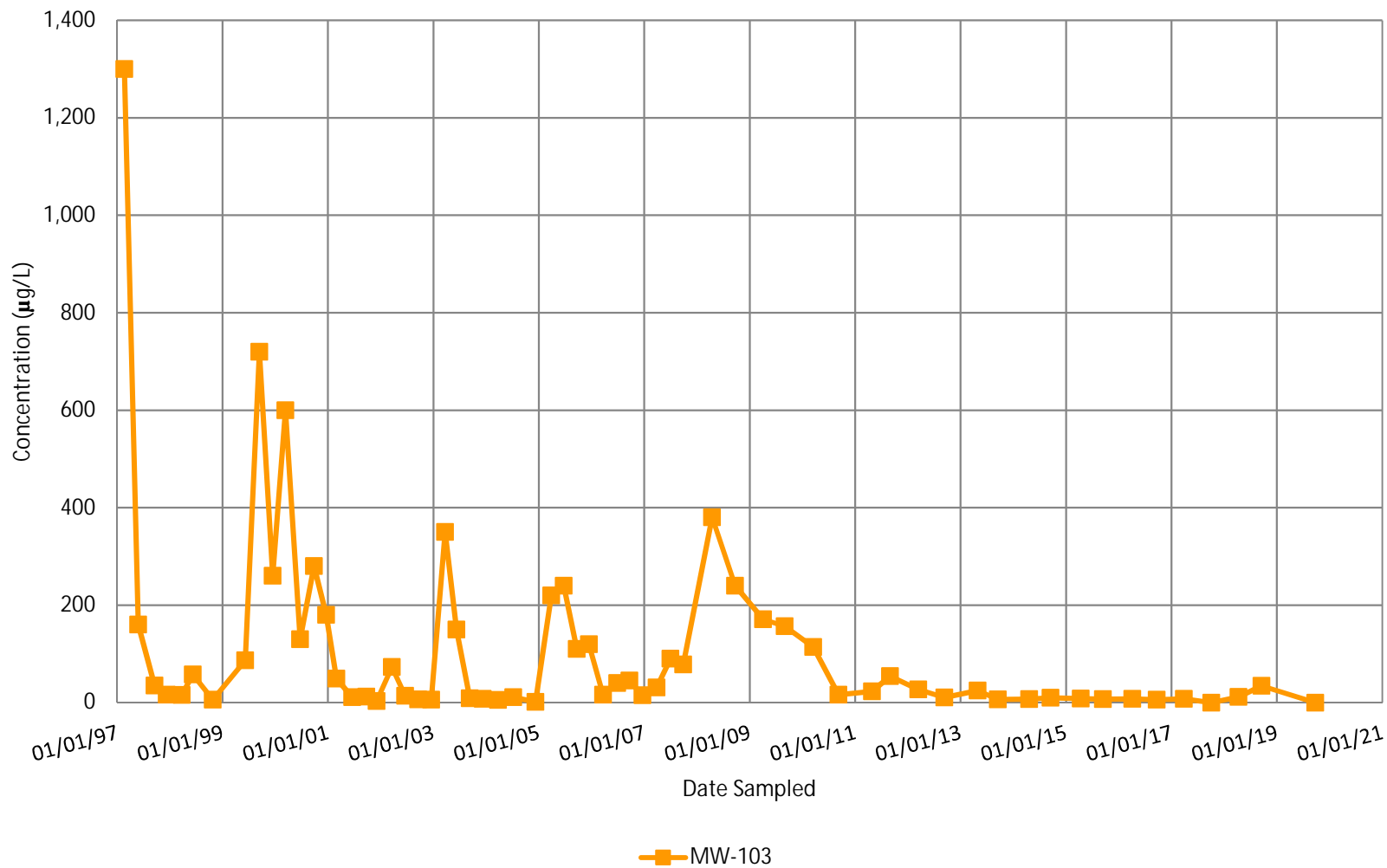
\*Approximate Soil Remediation Limits  
 July 11 - October 27, 1995  
 (10,834 tons)

Project No.	58117057
Scale	As Shown
File No.	58117057C2R2
Date	10/20/20

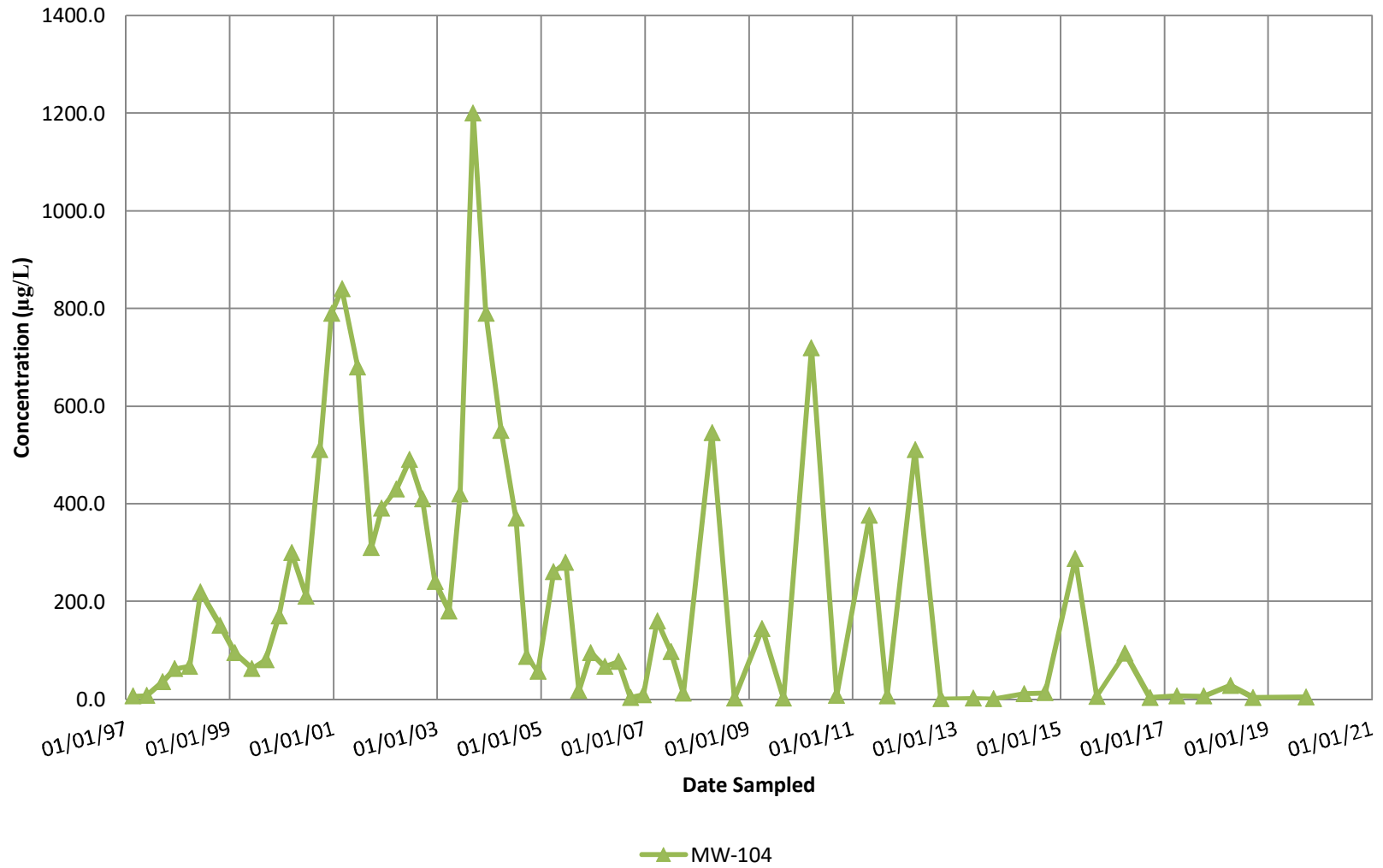
Project Mgr: SAH  
 Drawn By: JMN  
 Checked By: KLK  
 Approved By: SAH

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

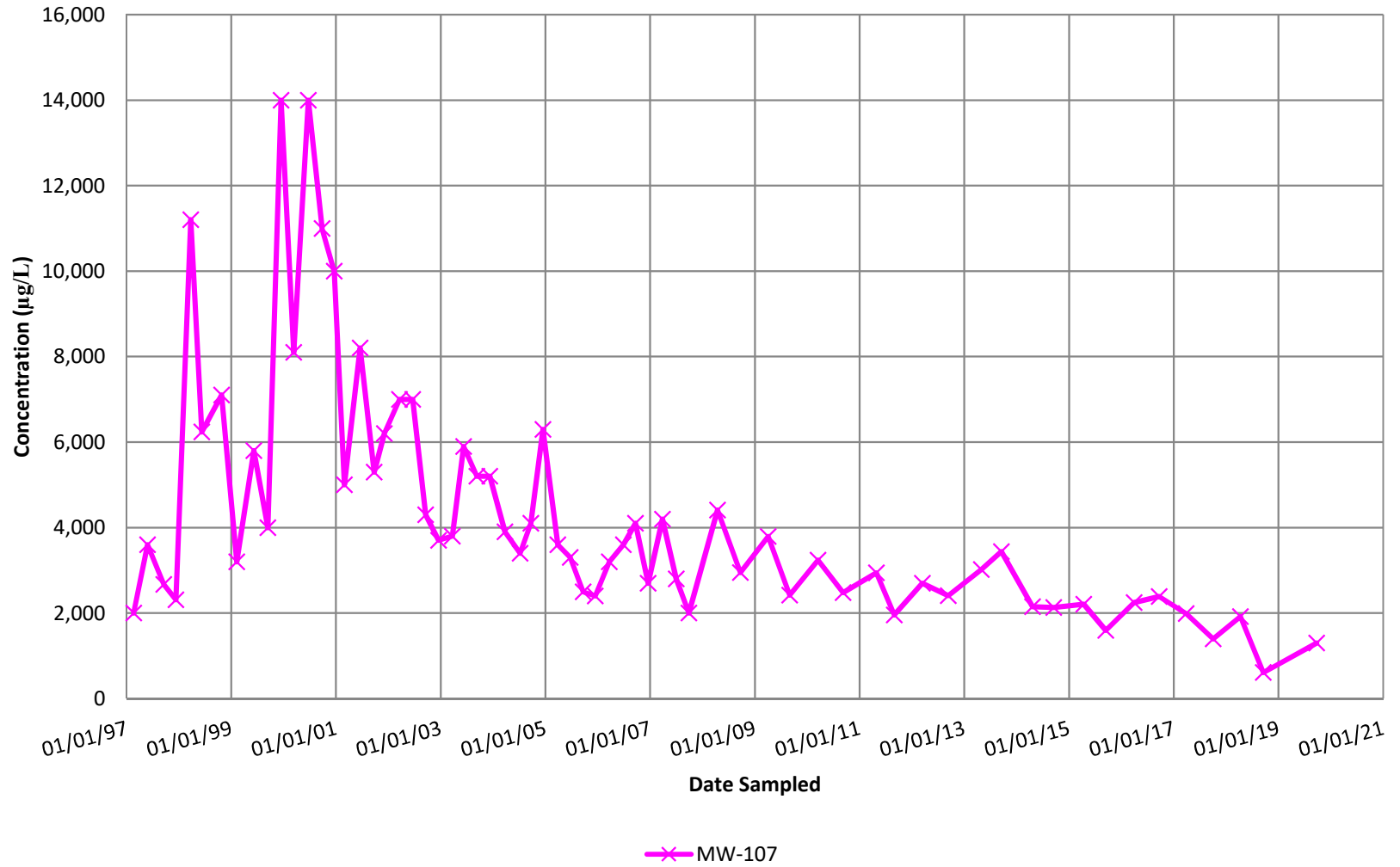
FIGURE 6  
MW-103 Total Chromium Concentration Trends  
N.W. Mauthe Superfund Site



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

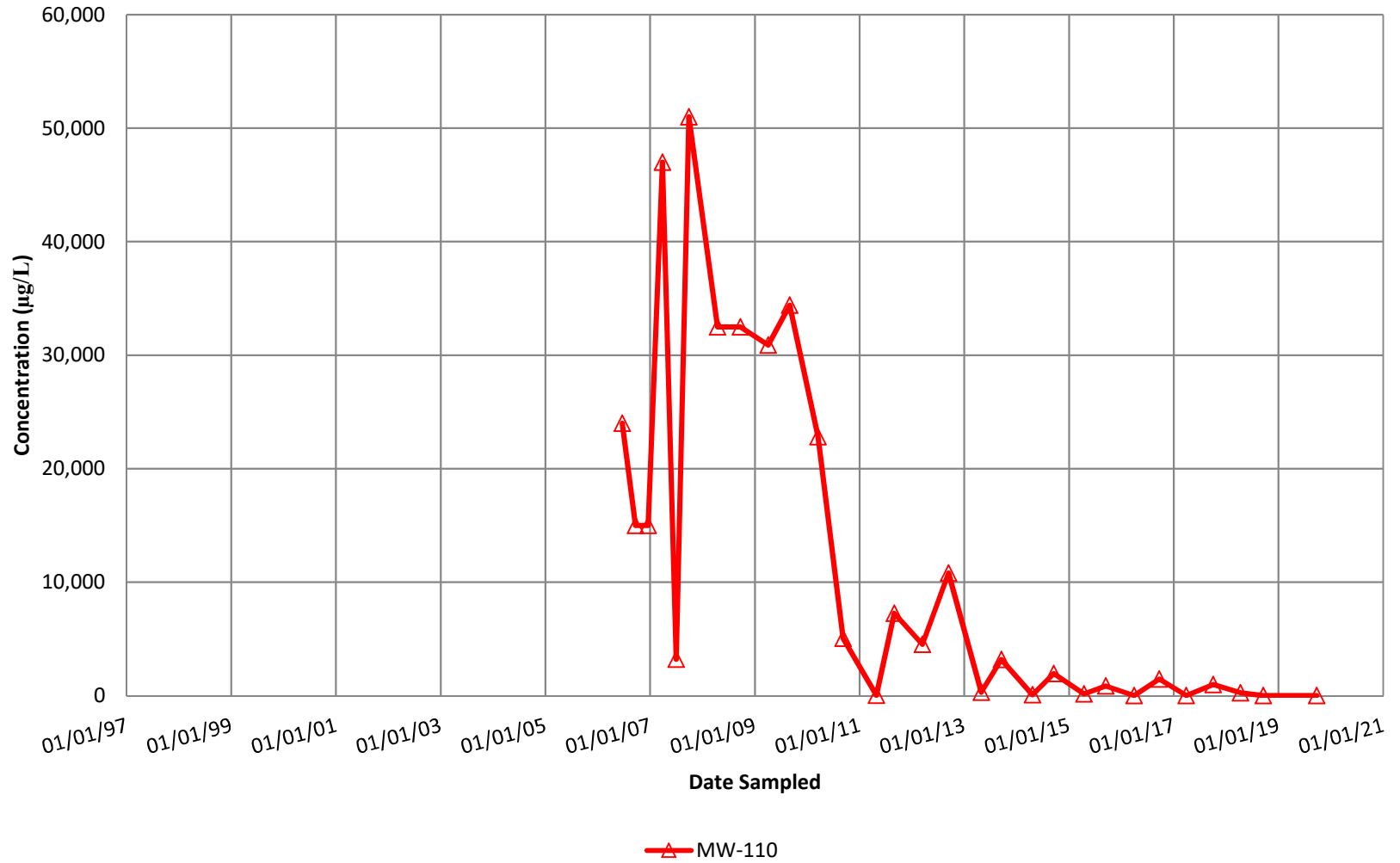


**FIGURE 8**  
**MW-107 Total Chromium Concentration Trends**  
**N.W. Mauthe Superfund Site**

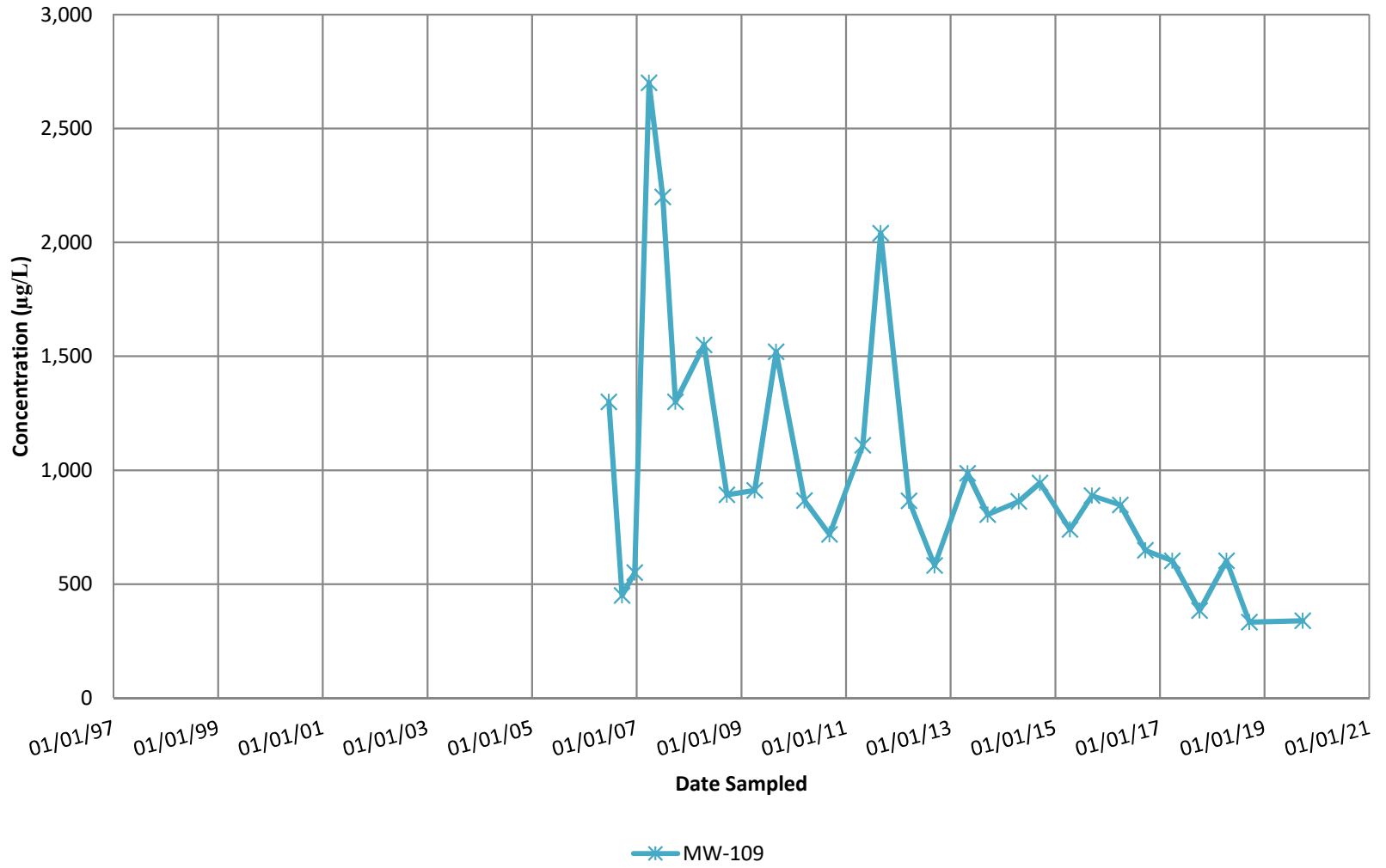




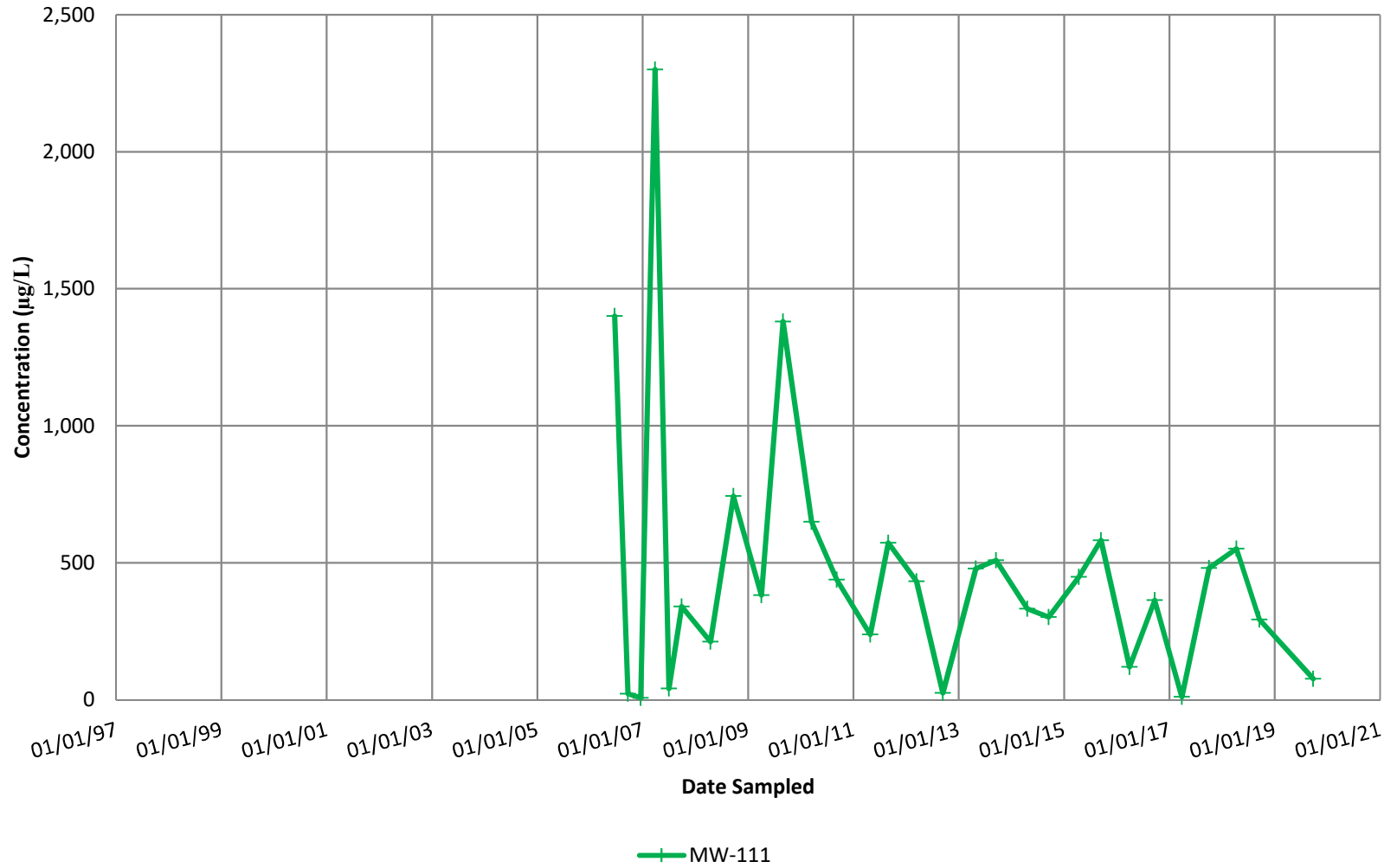
**FIGURE 10**  
**MW-110 Total Chromium Concentration Trends**  
**N.W. Mauthe Superfund Site**



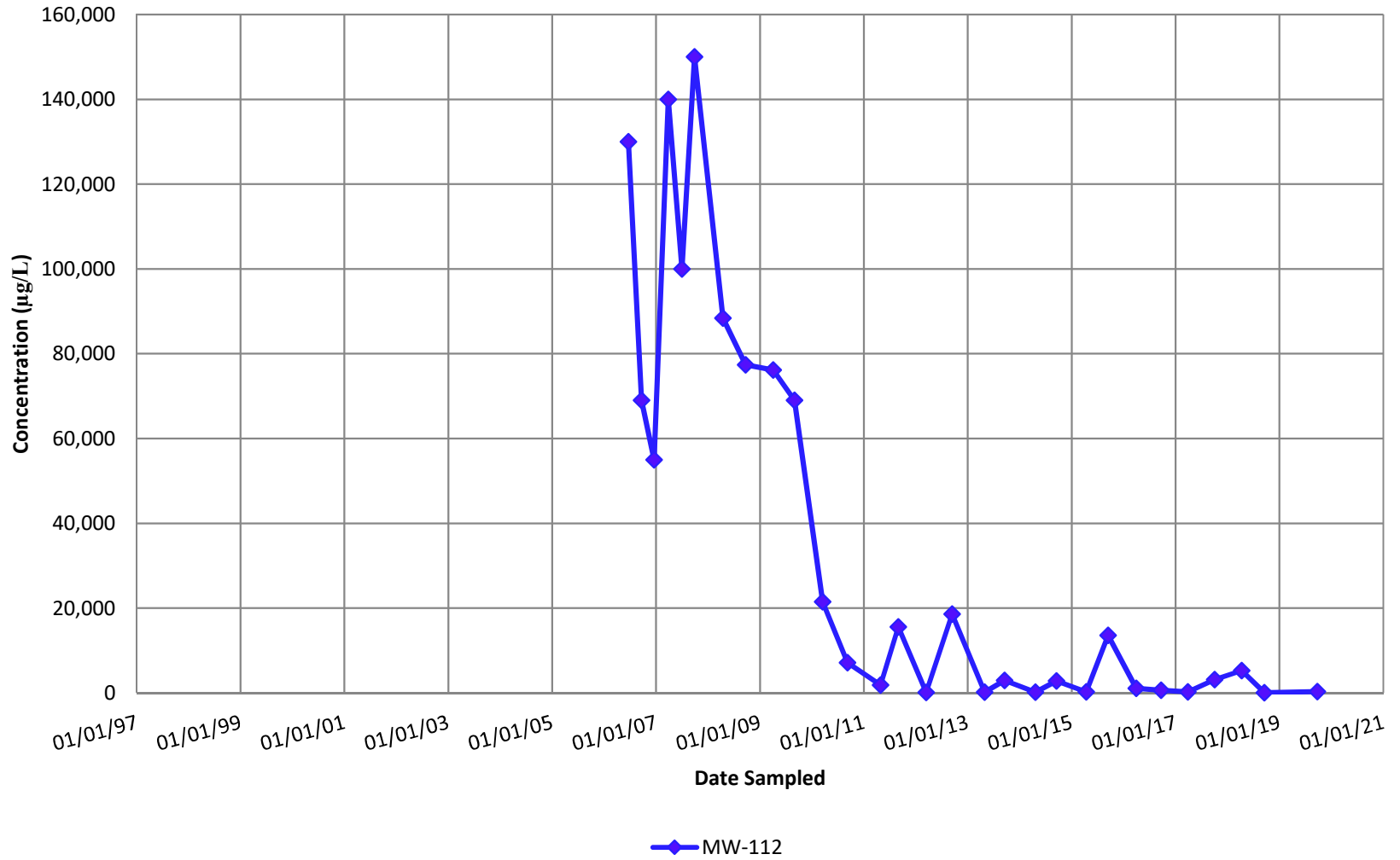
**FIGURE 9**  
**MW-109 Total Chromium Concentration Trends**  
**N.W. Mauthe Superfund Site**



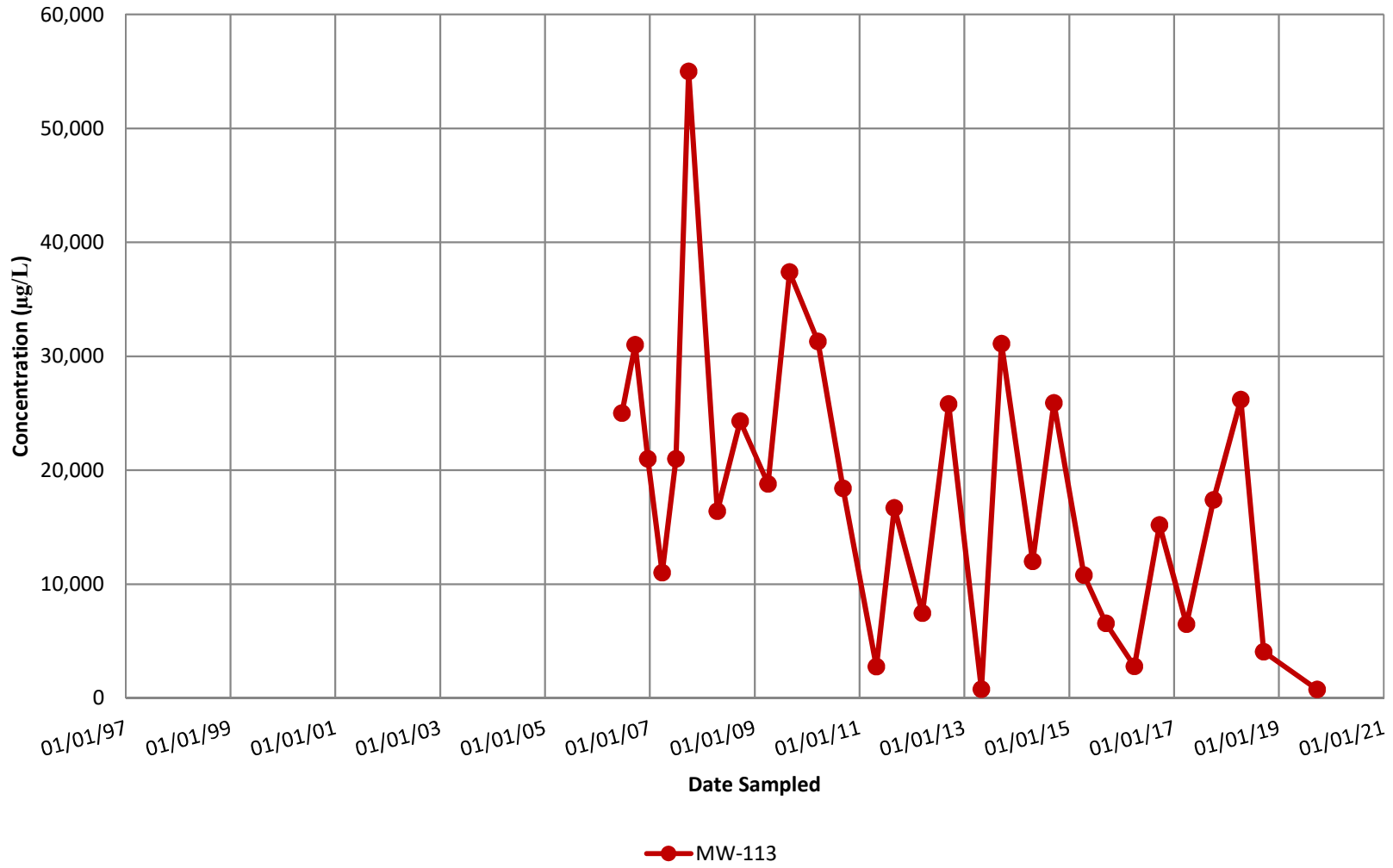
**FIGURE 11**  
**MW-111 Total Chromium Concentration Trends**  
**N.W. Mauthe Superfund Site**



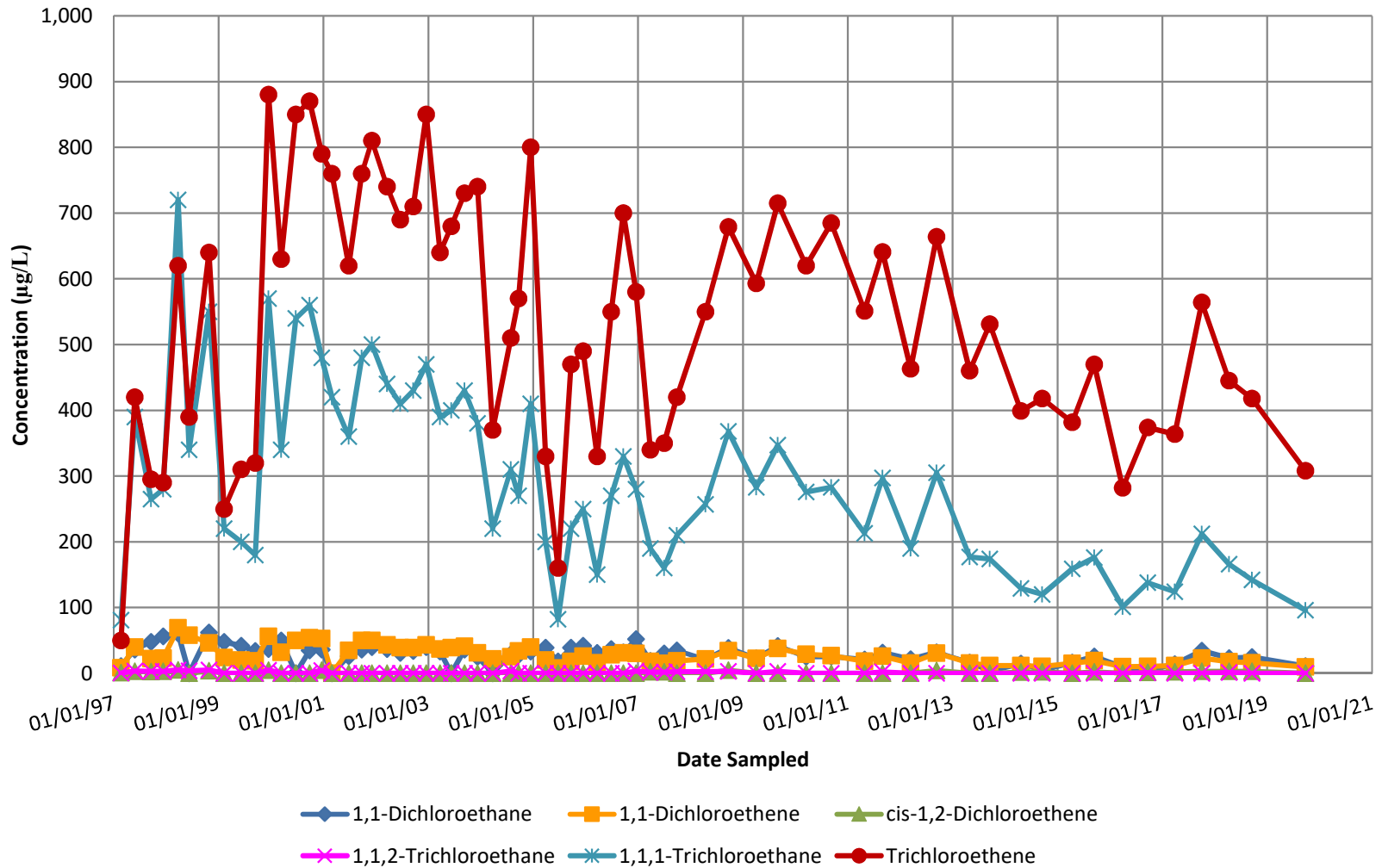
**FIGURE 12**  
**MW-112 Total Chromium Concentration Trends**  
**N.W. Mauthe Superfund Site**



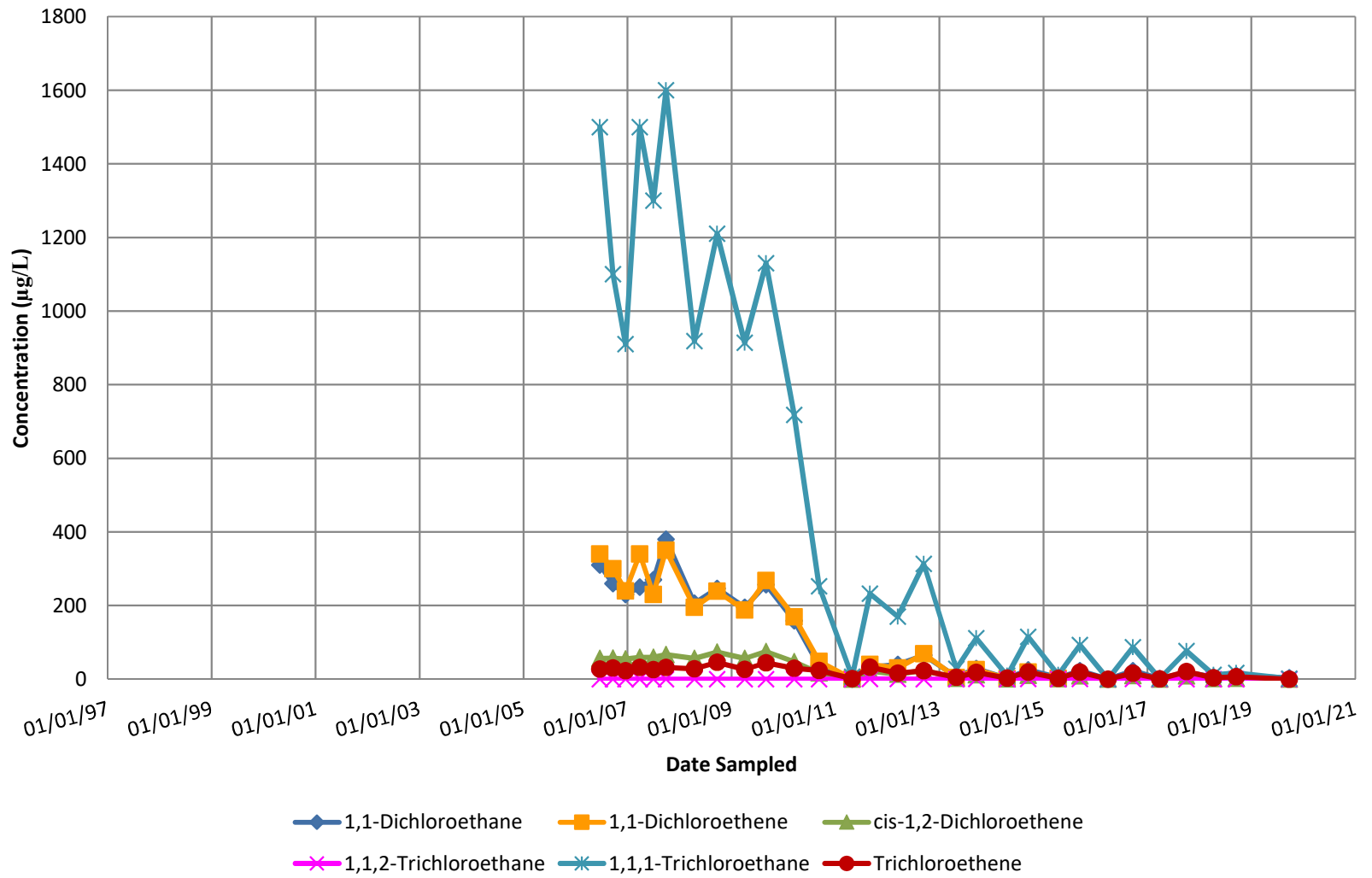
**FIGURE 13**  
**MW-113 Total Chromium Concentration Trends**  
**N.W. Mauthe Superfund Site**



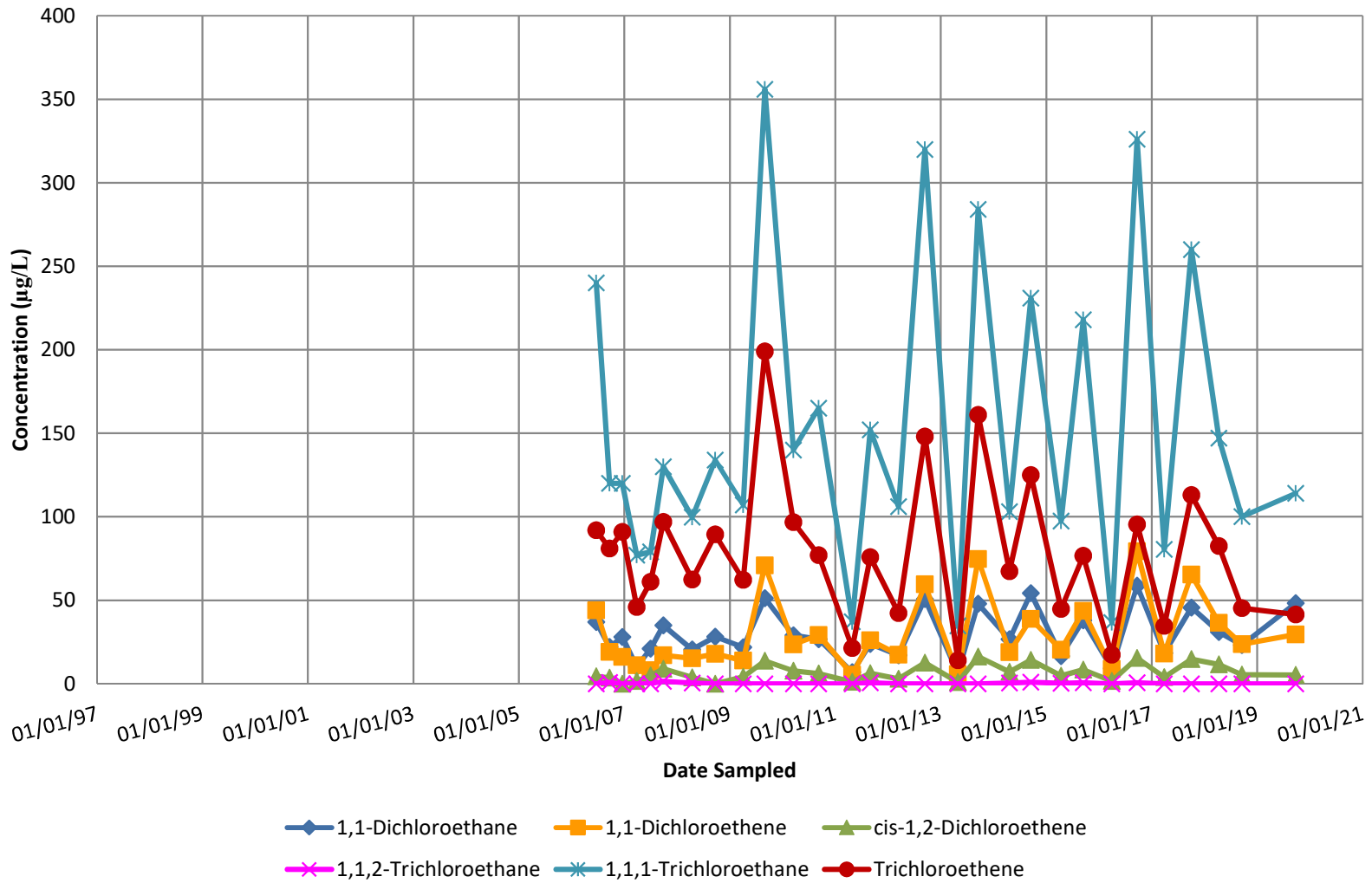
**FIGURE 14**  
**MW-107 CVOC Concentration Trends**  
**N.W. Mauthe Superfund Site**



**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 <sup>1</sup> (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 <sup>1</sup> (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>									

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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 <sup>1</sup> (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
	<b>11/01/08</b>	<b>9,214,938</b>		<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		
	<b>12/01/08</b>	<b>9,234,926</b>		<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		
	<b>01/01/09</b>	<b>9,266,230</b>		<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		
	<b>02/01/09</b>	<b>9,287,182</b>		<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		
	<b>03/01/09</b>	<b>9,334,332</b>		<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		
	<b>04/01/09</b>	<b>9,467,680</b>		<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

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	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 <sup>1</sup> (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		<b>April</b>									
05/01/09		9,574,025	28,722	<b>100,528</b>				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		<b>May</b>									
06/01/09		9,652,323	28,104	<b>82,310</b>				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		<b>June</b>									
07/01/09		9,727,975	26,240	<b>77,001</b>				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		<b>July</b>									
08/03/09		9,749,397	7,108	<b>20,712</b>				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		<b>August</b>									
09/01/09		9,787,352	1,615	<b>38,811</b>	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		<b>September</b>									
10/01/09		9,807,491	7,297	<b>19,906</b>				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		<b>October</b>									
11/02/09		9,875,106	44,642	<b>64,253</b>				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		

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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 <sup>1</sup> (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	<b>43,393</b>	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	<b>41,409</b>				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	<b>35,030</b>	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	<b>18,508</b>	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	<b>79,183</b>				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	<b>100,715</b>				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	<b>105,071</b>	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	<b>107,444</b>				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	<b>184,709</b>				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 <sup>1</sup> (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 <sup>1</sup> (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 <sup>1</sup> (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	<b>52,595</b>			<b>0.745</b>	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>11,761,124</b>		<b>January</b>			<b>0.137</b>						
02/02/12		11,761,124	0	<b>19,024</b>	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	<b>21,255</b>	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	<b>81,644</b>			<b>1.740</b>	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	<b>58,515</b>			<b>0.356</b>	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	<b>105,804</b>			<b>0.512</b>	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	<b>28,656</b>			<b>0.121</b>	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	<b>20,085</b>			<b>0.152</b>	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	<b>33,084</b>			<b>0.309</b>	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 <sup>1</sup> (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>						
06/06/13		12,657,605	34,307	<b>76,737</b>			<b>0.353</b>						
06/12/13		12,669,485	11,880		7.6	0.96	0.826	1,251,551	7.4	0.47	2,849,502	7.8	0.73
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>						
07/18/13		12,767,116	86,474	<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 <sup>1</sup> (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		July			Pounds Cr						
				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		August			Pounds Cr						
				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		September			Pounds Cr						
				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		October			Pounds Cr						
				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		November			Pounds Cr						
				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		December			Pounds Cr						
				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		January			Pounds Cr						
				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		February			Pounds Cr						
				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		March			Pounds Cr						
				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		April			Pounds Cr						
				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 <sup>1</sup> (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	<b>121,341</b>			<b>0.276</b>	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	<b>112,447</b>			<b>0.357</b>						
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	<b>37,515</b>			<b>0.306</b>	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	<b>73,249</b>			<b>0.805</b>	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	<b>28,937</b>			<b>0.144</b>	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	<b>9,905</b>			<b>0.059</b>	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

**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 <sup>1</sup> (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 <sup>1</sup> (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	<b>45,078</b>			<b>0.215</b>	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		
	<b>03/01/16</b>	<b>14,602,713</b>		<b>February</b>			<b>Pounds Cr</b>						
03/01/16		14,603,747	2,379	<b>70,091</b>			<b>0.501</b>	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		
	<b>04/01/16</b>	<b>14,733,540</b>		<b>March</b>			<b>Pounds Cr</b>						
04/02/16		14,751,888	23,203	<b>130,827</b>			<b>0.663</b>	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
	<b>05/01/16</b>	<b>14,827,634</b>		<b>April</b>			<b>Pounds Cr</b>						
05/03/16		14,834,742	64,708	<b>94,094</b>			<b>0.191</b>	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		
	<b>06/01/16</b>	<b>14,889,570</b>		<b>May</b>			<b>Pounds Cr</b>						
06/06/16		14,902,417	46,236	<b>61,936</b>			<b>0.333</b>	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		
	<b>07/01/16</b>	<b>14,980,911</b>		<b>June</b>			<b>Pounds Cr</b>						
07/01/16		14,983,214	37,106	<b>91,341</b>			<b>0.309</b>	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		
	<b>08/01/16</b>	<b>15,036,760</b>		<b>July</b>			<b>Pounds Cr</b>						
08/01/16		15,037,244	726	<b>55,849</b>			<b>0.200</b>	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		
	<b>09/01/16</b>	<b>15,080,715</b>		<b>August</b>			<b>Pounds Cr</b>						
09/02/16		15,081,239	15,779	<b>43,955</b>			<b>0.213</b>	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		
	<b>10/01/16</b>	<b>15,162,610</b>		<b>September</b>			<b>Pounds Cr</b>						
10/01/16		15,162,976	1,463	<b>81,895</b>			<b>0.242</b>	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
	<b>11/01/16</b>	<b>15,218,316</b>		<b>October</b>			<b>Pounds Cr</b>						
11/01/16		15,218,916	48,636	<b>55,706</b>			<b>0.328</b>	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		
	<b>12/01/16</b>	<b>15,259,593</b>		<b>November</b>			<b>Pounds Cr</b>						
12/01/16		15,262,085	4,317	<b>41,277</b>			<b>0.189</b>	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
	<b>01/01/17</b>	<b>15,320,273</b>		<b>December</b>			<b>Pounds Cr</b>						
01/05/17		15,328,203	50,044	<b>60,680</b>			<b>0.420</b>						
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		
	<b>02/01/17</b>	<b>15,387,845</b>		<b>January</b>			<b>Pounds Cr</b>						
02/01/17		15,388,387	765	<b>67,572</b>			<b>0.504</b>	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
	<b>03/01/17</b>	<b>15,452,749</b>		<b>February</b>			<b>Pounds Cr</b>						
03/08/17		15,476,369	76,914	<b>64,904</b>			<b>0.305</b>						
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		
	<b>04/01/17</b>	<b>15,558,808</b>		<b>March</b>			<b>Pounds Cr</b>						
04/02/17		15,562,275	19,984	<b>106,059</b>			<b>0.476</b>	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 <sup>1</sup> (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>05/01/17</b>	<b>15,703,639</b>		<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
	<b>06/01/17</b>	<b>15,796,047</b>		<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
	<b>07/01/17</b>	<b>15,888,740</b>		<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		
	<b>08/01/17</b>	<b>15,945,504</b>		<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
	<b>09/01/17</b>	<b>15,992,489</b>		<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		
	<b>10/01/17</b>	<b>16,034,956</b>		<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	0.44		2,513,176	7.1	1.14	5,399,232	6.7	0.12
	<b>11/01/17</b>	<b>16,080,246</b>		<b>October</b>			<b>Pounds Cr</b>						
11/07/17		16,090,463	52,467	<b>45,290</b>			<b>0.155</b>	2,536,891			5,436,850		
11/09/17		16,092,667	2,204		7.6	0.76		2,538,180	7.2	0.99	5,437,985	7.2	0.22
11/15/17		16,098,379	5,712					2,541,643			5,441,055		
11/30/17		16,109,689	11,310					2,549,030			5,450,173		
	<b>12/01/17</b>	<b>16,110,147</b>		<b>November</b>			<b>Pounds Cr</b>						
12/03/17		16,112,117	2,428	<b>29,901</b>			<b>0.179</b>	2,550,308			5,451,687		
12/07/17		16,115,265	3,148		7.4	0.82		2,551,590	7.4	1.29	5,453,973	7.4	0.20
12/14/17		16,121,000	5,735					2,551,590			5,453,973		
12/31/17		16,131,936	10,936					2,560,147			5,464,203		
	<b>01/01/18</b>	<b>16,132,116</b>		<b>December</b>			<b>Pounds Cr</b>						
01/01/18		16,132,328	392	<b>21,969</b>			<b>0.138</b>	2,560,571			5,464,203		
01/04/18		16,133,697	1,369		--	0.78		2,560,993	--	0.41	5,465,331	--	0.04
	<b>02/01/18</b>	<b>16,144,665</b>		<b>January</b>			<b>Pounds Cr</b>						
02/01/18		16,144,863	11,166	<b>12,549</b>			<b>0.077</b>	2,566,068			5,472,876		
02/08/18		16,147,315	2,452		7.8	0.75		2,567,326	7.4	1.68	5,474,376	7.2	0.16
02/28/18		16,155,889	8,574					2,570,306			5,481,207		
	<b>03/01/18</b>	<b>16,156,053</b>		<b>February</b>			<b>Pounds Cr</b>						
03/01/18		16,156,211	322	<b>11,388</b>			<b>0.086</b>	2,570,306			5,481,586		
03/08/18		16,163,746	7,535		7.7	0.52		2,574,570	7.4	0.78	5,485,747	7.2	0.20
03/27/18		16,183,153	19,407					2,585,717			5,495,623		
03/31/18		16,188,615	5,462					2,472,869*			5,499,048		
	<b>04/01/18</b>	<b>16,189,199</b>		<b>March</b>			<b>Pounds Cr</b>						
04/01/18		16,190,057	1,442	<b>33,146</b>			<b>0.145</b>	2,473,316			5,500,204		
04/05/18		16,195,349	5,292		7.7	0.60		2,476,332	7.3	0.84	5,502,874	7.4	0.35
04/10/18		16,203,721	8,372					2,480,242			5,508,217		
04/25/18		16,302,239	98,518					2,508,161			5,586,326		
04/30/18		16,328,835	26,596					2,516,938			5,606,361		
	<b>05/01/18</b>	<b>16,330,212</b>		<b>April</b>			<b>Pounds Cr</b>						
05/01/18		16,331,044	2,209	<b>141,013</b>			<b>0.687</b>	2,517,809			5,607,864		
05/04/18		16,360,268	29,224					2,526,963			5,630,632		
05/10/18		16,409,694	49,426		7.6	0.30		2,541,347	7.2	0.51	5,667,843	6.8	0.19
05/22/18		16,428,757	19,063					2,547,991			5,681,939		
05/24/18		16,455,003	26,246					2,557,801			5,698,300		
05/29/18		16,462,967	7,964					2,562,178			5,702,537		
	<b>06/01/18</b>	<b>16,466,594</b>		<b>May</b>			<b>Pounds Cr</b>						
06/01/18		16,467,299	4,332	<b>136,382</b>			<b>0.358</b>	2,563,476			5,705,975		
06/05/18		16,476,100	8,801					2,566,515			5,712,597		

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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 <sup>1</sup> (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)
06/07/18		16,480,044	3,944		7.6	0.38	0.382	2,568,258	7.1	0.53	5,715,101	7.3	0.21
06/30/18		16,537,167	57,123					2,588,614			5,756,117		
	07/01/18	16,537,690		June			Pounds Cr						
07/01/18		16,538,238	1,071	71,096			0.226	2,589,032			5,756,879		
07/05/18		16,542,427	4,189		7.6	0.31	0.311	2,591,176	7.2	0.57	5,759,920	7.1	0.16
07/12/18		16,545,145	2,718					2,594,639			5,763,368		
07/19/18		16,553,309	8,164					2,597,639			5,766,777		
07/31/18		16,571,725	18,416					2,604,452			5,779,752		
	08/01/18	16,571,996		July			Pounds Cr						
08/01/18		16,572,495	770	34,306			0.089	2,589,032			5,756,879		
08/08/18		16,581,462	8,967		--	0.43	0.438	2,608,818	7.1	0.55	5,785,813	7.0	0.27
08/31/18		16,637,913	56,451					2,629,840			5,828,591		
	09/01/18	16,640,165		August			Pounds Cr						
09/01/18		16,641,711	3,798	68,169			0.125	2,631,151			5,831,336		
09/06/18		16,695,169	53,458		7.5	0.24	0.256	2,646,502	7.1	0.59	5,871,311	6.7	0.08
09/17/18		16,734,724	39,555					2,659,921			5,899,762		
09/18/18		16,738,499	3,775					2,660,806			5,903,277		
09/30/18		16,775,825	37,326					2,672,955			5,932,062		
	10/01/18	16,776,168		September			Pounds Cr						
10/01/18		16,776,700	875	136,003			0.290	2,673,387			5,932,454		
10/03/18		16,785,853	9,153		7.8	0.30	0.303	2,675,556	7.3	0.60	5,940,463	7.1	0.22
10/25/18		16,899,216	113,363					2,709,668			6,027,153		
	11/01/18	16,908,245		October			Pounds Cr						
11/01/18		16,908,712	9,496	132,077			0.333	2,713,560			6,033,788		
11/07/18		16,921,099	12,387		7.7	0.38	0.424	2,717,458	7.1	0.36	6,044,211	6.8	0.34
11/12/18		16,936,140	15,041					2,723,181			6,054,634		
11/14/18		16,940,487	4,347					2,725,362			6,057,406		
11/16/18		16,944,318	3,831					2,727,099			6,059,771		
11/19/18		16,949,417	5,099					2,729,266			6,063,298		
	12/01/18	16,964,903		November			Pounds Cr						
12/06/18		16,972,133	22,716	56,658			0.200	2,738,784			6,080,566		
12/06/18		16,972,133	0		8.0	0.52	0.521	2,738,784	7.4	0.53	6,080,566	7.2	0.45
	01/01/19	17,020,007		December			Pounds Cr						
01/04/19		17,021,076	48,943	55,104			0.239	2,757,483			6,116,420		
01/10/19		17,051,054	29,978		7.8	0.26	0.246	2,765,903	7.2	0.41	6,140,244	7.0	0.18
	02/01/19	17,085,876		January			Pounds Cr						
02/01/19		17,086,762	35,708	65,869			0.135	2,779,438			6,166,376		
02/07/19		17,092,183	5,421		8.0	0.36	0.398	2,781,163	7.5	0.37	6,170,668	7.3	0.35
	03/01/19	17,108,085		February			Pounds Cr						
03/01/19		17,108,314	16,131	22,209			0.074	2,786,817			6,183,118		
03/07/19		17,112,149	3,835		7.9	0.29	0.296	2,788,121	7.4	--	6,186,219	7.4	--
03/26/19		17,201,867	89,718					2,810,744			6,261,318		
	04/01/19	17,220,303		March			Pounds Cr						
04/02/19		17,221,255	19,388	112,218			0.277	2,818,615			6,274,417		
04/02/19		17,221,255	0		7.7	0.40	0.408	2,818,615	7.2	0.53	6,274,417	7.2	0.15
04/18/19		17,270,735	49,480					2,834,848			6,312,336		
04/30/19		17,336,326	65,591					2,855,668			6,362,011		
	05/01/19	17,338,042		April			Pounds Cr						
05/01/19		17,340,509	4,183	117,739			0.400	2,856,981			6,365,212		
05/09/19		17,366,641	26,132		7.8	0.43	0.441	2,866,635	7.2	0.39	6,383,940	7.2	0.66
	06/01/19	17,467,893		May			Pounds Cr						
06/06/19		17,492,562	125,921	129,851			0.477	2,856,981			6,365,212		
06/06/19		17,492,562	0		7.6	0.23	0.249	2,908,632	7.2	0.32	6,478,871	7.0	0.22
06/11/19		17,502,105	9,543					2,912,952			6,486,321		
06/18/19		17,525,532	23,427					2,920,258			6,503,730		
	07/01/19	17,581,030		June			Pounds Cr						
07/08/19		17,613,923	88,391	113,137			0.235	2,947,437			6,572,415		
07/10/19		17,619,393	5,470		7.6	0.25	0.229	2,949,581	7.1	0.48	6,576,370	7.0	0.12



**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 <sup>1</sup> (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)
07/22/19		17,636,628	17,235					2,956,444			6,590,064		
07/23/19		17,644,137	7,509					2,958,908			6,596,369		
07/26/19		17,655,780	11,643					2,961,918			6,602,890		
07/31/19		17,662,536	6,756					2,965,324			6,606,751		
	08/01/19	17,662,953		July			Pounds Cr						
08/01/19		17,663,650	1,114	81,923			0.156	2,965,752			6,607,522		
08/07/19		17,674,432	10,782		7.7	0.37	0.383	2,969,223	7.3	0.38	6,615,773	7.5	0.30
08/31/19		17,712,769	38,337					2,984,986			6,643,285		
	09/01/19	17,713,001		August			Pounds Cr						
09/01/19		17,713,872	1,103	50,048			0.160	2,985,412			6,644,057		
09/05/19		17,719,385	5,513		7.8	0.48	0.489	2,987,590	7.3	0.50	6,644,933	7.3	0.43
09/18/19		17,790,650	71,265					3,009,066			6,701,147		
09/30/19		17,829,959	39,309					3,022,795			6,730,481		
	10/01/19	17,830,522		September			Pounds Cr						
10/01/19		17,831,112	1,153	117,521			0.479	2,985,412			6,644,057		
10/10/19		17,895,551	64,439		7.7	0.23	0.239	3,042,581	7.4	0.35	6,779,975	7.2	0.16
10/31/19		17,949,436	53,885					3,063,263			6,819,059		
	11/01/19	17,950,221		October			Pounds Cr						
11/01/19		17,950,822	1,386	119,699			0.238	3,063,964			6,819,849		
11/07/19		17,964,181	13,359		8.0	0.36	0.343	3,069,346	7.5	0.39	6,828,897	7.7	0.26
11/30/19		18,029,863	65,682					3,091,286			6,879,193		
	12/01/19	18,031,315		November			Pounds Cr						
12/01/19		18,032,559	2,696	81,094			0.232	3,091,718			6,881,218		
12/06/19		18,058,482	25,923		8.0	0.35	0.343	3,099,656	7.3	0.34	6,901,417	7.8	0.14
12/31/19		18,123,426	64,944					3,122,055			6,954,035		
	01/01/20	18,126,523		December			Pounds Cr						
01/01/20		18,127,980	4,554	95,208			0.272	3,122,936			6,954,035		
01/03/20		18,137,077	9,097		7.9	0.46	0.438	3,125,583	7.6	0.43	6,961,319	7.6	0.41
01/31/20		18,185,942	48,865					3,144,421			6,996,350		
	02/01/20	18,188,180		January			Pounds Cr						
02/03/20		18,188,411	2,469	61,657			0.225	3,145,281			6,998,288		
02/07/20		18,193,814	5,403		8.0	0.60	0.562	3,147,017	7.6	0.28	7,002,580	7.9	0.22
02/28/20		18,215,202	21,388					3,155,718			7,017,733		
	03/01/20	18,217,070		February			Pounds Cr						
03/02/20		18,218,425	3,223	28,890			0.135	3,157,017			7,020,060		
03/06/20		18,227,194	8,769		8.0	0.81	0.776	3,159,176	7.4	0.53	7,027,934	7.9	0.44
03/31/20		18,382,609	155,415					3,201,453			7,154,334		
	04/01/20	18,384,172		March			Pounds Cr						
04/01/20		18,388,797	6,188	167,102			1.080	3,203,232			7,159,271		
04/10/20		18,415,384	26,587		8.1	0.25	0.237	3,213,356	7.7	0.18	7,178,272	8.1	0.16
04/30/20		18,455,631	40,247					3,228,721			7,207,059		
	05/01/20	18,456,245		April			Pounds Cr						
05/01/20		18,457,479	1,848	72,073			0.142	3,229,593			7,208,236		
05/07/20		18,465,286	7,807		8.0	0.26	0.262	3,233,088	7.5	0.18	7,213,316	7.9	0.12
05/30/20		18,547,864	82,578					3,261,998			7,273,059		
	06/01/20	18,552,699		May			Pounds Cr						
06/01/20		18,555,721	7,857	96,454			0.210	3,264,658			7,279,075		
06/04/20		18,563,811	8,090		7.8	0.28	0.282	3,267,737	7.3	0.20	7,284,611	7.5	0.20
06/30/20		18,636,606	72,795					3,294,057			7,339,953		
	07/01/20	18,637,892		June			Pounds Cr						
07/01/20		18,638,722	2,116	85,193			0.200	3,294,931			7,341,133		
07/10/20		18,652,865	14,143		7.9	0.29	0.284	3,301,008	7.3	0.23	7,350,478	7.5	0.20
07/31/20		18,723,698	70,833					3,324,361			7,403,193		
	08/01/20	18,724,228		July			Pounds Cr						
08/03/20		18,728,205	4,507	86,336			0.204	3,326,528			7,405,919		
08/06/20		18,731,111	2,906		7.8	0.33	0.345	3,327,827	7.3	0.34	7,407,858	7.5	0.18
08/31/20		18,753,077	21,966					3,339,110			7,421,402		

**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 <sup>1</sup> (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>09/01/20</i>	<i>18,753,491</i>		<b>August</b>			<b>Pounds Cr</b>						
09/01/20		18,753,819	742	<b>29,263</b>			<b>0.084</b>	3,339,541			7,421,789		
09/11/20		18,760,472	6,653		8.1	0.57	0.544	3,343,863			7,427,984		
09/30/20		18,792,498	32,026					3,358,277			7,446,675		
	<i>10/01/20</i>	<i>18,792,926</i>		<b>September</b>			<b>Pounds Cr</b>						
10/01/20		18,793,222	724	<b>39,435</b>			<b>0.179</b>	3,358,711			7,427,060		

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

Industrial User (Wastewater Discharge) Permit 18-21 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

<sup>1</sup> Beginning in September 2018, the Total Chromium lab sample was not filtered. Previously, through August 2018, the sample was filtered (0.45 micron filter).

\* On 3/31/18, the MH1 flowmeter face was blank. Upon replacing the batteries, the totalizer reading reverted to 2,472,869 gallons, a difference of -112,848 gallons from the previous known total.



**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)
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
	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

**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	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
	04/10/18	4.66		800.00
	09/25/19	4.10		800.56
	08/31/20	4.75		799.91
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	
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	

**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)
W-8	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
	04/10/18	5.99		797.37
	09/25/19	6.12		797.24
	08/31/20	6.76		796.60
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
	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	

**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)
W-15	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
	04/10/18	7.38		796.58
	09/25/19	6.65		797.31
	08/31/20	5.76	804.24*****	798.48
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
	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

**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-101	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
	04/10/18	5.14		802.46
	09/25/19	5.68		801.92
	08/31/20	7.48		800.12
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
	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



**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-102	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
	04/10/18	25.02		779.43
	08/31/20	24.83		779.62
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

**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	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
	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

**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	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
	04/10/18	10.53		793.21
	09/17/18	6.75		796.99
	09/25/19	4.56		799.18
	08/31/20	6.18		797.56
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
	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

**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	09/27/07	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
	04/10/18	9.32		797.96
	09/17/18	13.71		793.57
	09/25/19	8.18		799.10
	08/31/20	10.73		796.55
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
	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

**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-105	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
	04/10/18	4.18		799.78
	08/31/20	4.61	804.05*****	799.44
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

**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	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
	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-106	04/10/18	7.31		796.84
	09/25/19	6.22		797.93
	08/31/20	5.04	803.53*****	798.49
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

**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	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
	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

**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	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
	04/10/18	10.96		798.13
	09/17/18	9.75		799.34
	09/25/19	8.68		800.41
	08/31/20	11.15		797.94
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
	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



**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	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
	04/10/18	6.92		799.69
09/25/19	6.40		800.21	
08/31/20	7.20		799.41	
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
	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	
04/10/18	7.92		802.60	
09/17/18	9.29		801.23	
09/25/19	8.37		802.15	

**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	08/31/20	9.08		801.44
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
	10/03/17	10.31		799.50
	04/10/18	7.61		802.20
	09/17/18	9.15		800.66
	09/25/19	5.80		804.01
	08/31/20	10.16		799.65
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

**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-111	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
	04/10/18	6.58		801.01
	09/17/18	7.76		799.83
	09/25/19	6.10		801.49
	08/31/20	8.49		799.10
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
	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
	04/10/18	4.19		803.95
	09/17/18	6.95		801.19
	09/25/19	3.40		804.74
	08/31/20	9.33		798.81
MW-113	06/21/06	9.69	808.24	798.55

**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-113	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
	04/10/18	8.87		799.37
	09/17/18	8.61		799.63
	09/25/19	7.00		801.24
	08/31/20	9.59		798.65
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
	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
	04/10/18	28.10		782.78

**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	09/25/19	25.10		-25.10
	08/31/20	26.21		784.67
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
	04/10/18	29.29		780.48
	09/25/19	27.43		782.34
	08/31/20	27.44		782.33
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
	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
	04/10/18	22.07		782.41
	09/25/19	21.67		782.81
	08/31/20	21.58		782.90
PZ8	07/19/05	32.07	804.35	772.28
	09/21/05	24.47		779.88
	12/19/06	28.16		776.19

**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>
PZ8	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
	04/10/18	21.27		783.08
	09/25/19	20.79		783.56
	08/31/20	20.49		783.86

\* 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, event.

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

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

\*\*\*\*\*New elevation after PVC casing was shortened after the August 31, 2020, 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
	09/25/19	7	6.91	13.51	1.475 mS/cm	0.36	(70.0)	NA	1.90

**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/cm	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
	09/25/19	5.5	7.13	16.96	1.07 mS/cm	0.00	108	NA	<0.0296



**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
	09/25/19	4.0	7.46	18.77	0.780 mS/cm	0.39	85	NA	<0.0296

**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
	04/11/18	1.5	6.74	9.90	5.369 mS/cm	2.65	133.8	NA	NA
	09/25/19	1.5	6.60	18.22	7.027 mS/cm	0.38	84.5	NA	<0.0296

**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
	04/11/18	1.5	7.06	10.10	0.846 mS/cm	1.30	(33.70)	NA	NA
	09/25/19	Unable to sample. Bent bolt over well							

**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
	04/11/18	1.5	7.00	9.20	0.909 mS/cm	2.07	56.2	NA	NA
	09/17/18	2	6.61	14.51	1.089 mS/cm	2.01	121.1	NA	NA
	09/25/19	3	6.83	13.88	0.606 mS/cm	4.61	82.3	NA	<0.0296
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

**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	04/29/13	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
	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
	04/11/18	1.5	7.01	9.60	1.161 mS/cm	2.33	81.5	NA	NA
	09/17/18	2	6.87	14.07	1.456 mS/cm	0.24	(3.3)	NA	NA
	09/25/19	2	7.06	14.34	1.20 mS/cm	0.00	(65.0)	NA	2.75
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
	09/25/19	Unable to sample. Bent bolt over well							

**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
	09/25/19	6.5	7.04	18.56	1201 µs	0.36	21.8	NA	<0.0296

**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 (pgp)	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
	04/11/18	1.5	7.35	9.50	1.006 mS/cm	2.68	97.8	NA	NA
	09/17/18	2.5	7.08	16.99	1.168 mS/cm	0.22	58.5	NA	NA
	09/25/19	2	7.33	16.08	0.934 mS/cm	0.77	62	NA	<0.0296
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
	09/25/19	2	7.07	17.20	2.65 mS/cm	0.49	88	NA	0.0379

**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
	04/10/18	1.5	6.78	6.20	3.540 mS/cm	2.55	150.7	NA	NA
	09/21/18	2.5	6.85	20.92	4.221 mS/cm	1.46	100.5	NA	NA
	09/26/19	2	7.08	12.45	5.0 mS/cm	2.16	167	NA	<0.0296
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
	04/10/18	1.5	7.09	4.90	2.636 mS/cm	7.79	129.9	NA	NA
	09/21/18	2.5	6.70	18.97	1.621 mS/cm	0.10	5.2	NA	NA
	09/26/19	2.0	6.92	15.44	0.949 mS/cm	0.00	(52.0)	NA	1.08

**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
	04/10/18	2	7.33	6.30	1.121 mS/cm	4.14	110.5	NA	NA
	09/21/18	2	7.27	19.78	1.098 mS/cm	0.73	77.1	NA	NA
	09/26/19	2	7.46	13.60	0.825 mS/cm	0.60	135	NA	<0.0296
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
	04/10/18	1.5	7.20	5.00	1.507 mS/cm	5.87	128.2	NA	NA
	09/21/18	2	6.96	20.54	1.512 mS/cm	0.16	63.2	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-112	09/26/19	2	7.16	14.82	1.04 mS/cm	0.00	119	NA	0.0306 J
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	
04/10/18	1.5	7.23	6.90	1.259 mS/cm	2.83	131.5	NA	NA	
09/21/18	2	7.08	17.29	1.374 mS/cm	0.18	53.0	NA	NA	
09/26/19	2	7.19	15.77	1.13 mS/cm	0.00	134.0	NA	0.855	

ppm = parts per million  
 us (old) = microsiemens / centimeter  
 µs = microsiemens / centimeter  
 S/m = siemens / meter  
 ms (old) = millisiemens / centimeter  
 mS/cm = millisiemens / centimeter  
 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.  
 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	<0.05	23
	06/08/99	<.31	<.62	NA	1.8*	<.0032	290.0	<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	<0.17	<0.43	NA	NA	NA	8.5	NA	NA
	03/24/04	NA	<0.45	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	
09/25/19	NA	<2.5	NA	NA	NA	271	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	<0.52	<2.7	NA	NA	9.7	NA	NA
03/23/06	NA	<0.4	<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	<0.14	NA	NA	
04/13/15	NA	<2.1	NA	NA	NA	<1.4	NA	NA	
09/25/19	NA	<2.5	NA	NA	NA	<1.1	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	<6.2	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	2.8 J	NA	NA	NA	<1.4	NA	NA
	09/25/19	NA	<2.5	NA	NA	NA	4.8 J	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	<6.2	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

**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-101	03/29/17	NA	<2.5	NA	NA	NA	NA	NA	NA
	04/11/18	NA	<2.5	NA	NA	NA	NA	NA	NA
	09/25/19	NA	<2.5	NA	NA	NA	3.0 J	NA	NA
MW-102	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	<2.0	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	<2.0	NA	NA
	12/17/02	<.23	<.44	NA	NA	NA	38.0	NA	NA
	03/24/03	0.21*	<0.43	NA	NA	NA	3.5	NA	NA
	03/24/04	NA	<0.45	<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	<0.40	<5.0	NA	NA	100.0	NA	NA
	03/27/07	NA	<1.9	NA	NA	NA	230	NA	NA
	04/16/08	NA	<0.57	NA	NA	NA	NA	NA	NA
	04/03/09	NA	<0.57	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	
04/11/18	NA	<2.5	NA	NA	NA	NA	NA	NA	
09/25/19	Unable to sample - Broken bolt over well								

**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
	04/11/18	NA	11.7	NA	NA	NA	NA	NA	NA
	09/17/18	NA	34.3	NA	NA	NA	NA	NA	NA
	09/25/19	NA	4.4 J	NA	NA	NA	4.1 J	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-104</b>	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
	04/11/18	NA	27.6	NA	NA	NA	NA	NA	NA
	09/17/18	NA	2.8 J	NA	NA	NA	NA	NA	NA
	09/25/19	NA	3.8 J	NA	NA	NA	244	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	<0.52	<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	2.5J	NA	NA
	09/25/19	Unable to sample - Broken bolt over well							
<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	<0.17	<.43	NA	NA	NA	2.1	NA	NA
	03/24/04	NA	<0.45	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
	09/25/19	NA	<2.5	NA	NA	NA	55.2	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-107</b>	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	2.0 J	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
	04/11/18	NA	1,920	NA	NA	NA	NA	NA	NA
	09/17/18	NA	609	NA	NA	NA	NA	NA	NA
	09/25/19	NA	1,300	NA	NA	NA	3.5 J	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
	09/25/19	NA	<2.5	NA	NA	NA	79.9	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
	04/10/18	NA	602	NA	NA	NA	NA	NA	NA
	09/17/18	NA	333	NA	NA	NA	NA	NA	NA
	09/26/19	NA	339	NA	NA	NA	18.3	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	<6.8	NA	NA	NA
		04/10/18	NA	251	NA	NA	<6.8	NA	NA	NA
		09/17/18	NA	6.2 J	NA	NA	<6.8	NA	NA	NA
		09/26/19	NA	<2.5	NA	NA	<6.8	542	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	2.7 J	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
		04/10/18	NA	551	NA	NA	9.9 J	NA	NA	NA
		09/17/18	NA	292	NA	NA	9.9 J	NA	NA	NA
		09/26/19	NA	76.3	NA	NA	<6.8	2.7 J	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

**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	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
	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	8.9 J	NA	NA	NA
	04/10/18	NA	5,310	NA	NA	14 J	NA	NA	NA
	09/17/18	NA	89.6	NA	NA	7.6 J	NA	NA	NA
	09/26/19	NA	305	NA	NA	<6.8	283	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	
04/10/18	NA	26,200	NA	NA	NA	NA	NA	NA	
09/17/18	NA	4,060	NA	NA	NA	NA	NA	NA	
09/26/19	NA	759	NA	NA	NA	5,010	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.

\*\*\*\* = OMNII 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.

**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

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)												
		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-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	<3.8	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
	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
	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
	04/11/18	<1.2	<6.2	23.1	17.6	3.0	<0.64	<1.2	<1.2	166	1.4 J	445	<2.5	<3.7
	09/17/18	<0.62	<3.2	24.7	16.1	2.8	<2.7	<0.65	<0.43	142	<1.4	418	<1.2	<1.85
	09/25/19	<0.62	<3.2	10.9	9.5	1.2 J	<2.7	<0.65	<0.43	96.2	<1.4	308	<1.2	<1.85
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

**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	04/21/14	<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	17.2	<0.16	31.1	<1.0	<1.5
	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
	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
	04/10/18	<0.50	1.2	1.9	1.1	<0.26	<0.26	<0.50	<0.50	26.7	0.25 J	25.8	<1.0	<1.5
	09/17/18	<0.25	<1.3	1.5	0.91 J	<0.27	<1.1	<0.26	<0.17	17.6	<0.55	27.3	<0.47	<0.73
09/26/19	<0.25	<1.3	2.3	1.3 J	<0.27	<1.1	<0.26	<0.17	23.2	<0.55	35.3	<0.47	<0.73	
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	
<sup>c</sup> 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	
04/10/18	<0.50	<2.5	5.8	2.8	1.5	0.28 J	<0.50	<0.50	11.4	<0.20	3.6	<1.0	<1.5	
09/17/18	<0.25	<1.3	10.3	3.1	1.7	<1.1	<0.26	<0.17	16.9	<0.55	6.7	<0.47	<0.73	
09/26/19	<0.25	<1.3	3.3	<0.24	<0.27	<1.1	<0.26	<0.17	1.6	<0.55	0.86 J	<0.47	<0.73	

**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
	04/10/18	<0.50	<2.5	1.5	1.9	<0.26	<0.26	<0.50	<0.50	14.1	<0.20	45.8	<1.0	<1.5
	09/17/18	<0.25	<1.3	1.7	2.2	<0.27	<1.1	<0.26	<0.17	17.2	<0.55	59.4	<0.47	<0.73
	09/26/19	<0.25	<1.3	0.72 J	0.82 J	<0.27	<1.1	<0.26	<0.17	5.1	<0.55	24.2	<0.47	<0.73



**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
	04/10/18	<0.50	<2.5	1.0	0.62 J	1.0	<0.26	<0.50	<0.50	1.9	<0.20	205	<1.0	<1.5
	09/17/18	<0.25	<1.3	1.3	0.88 J	0.99 J	<1.1	<0.26	<0.17	1.5	<0.55	237	<0.47	<0.73
	09/26/19	<0.25	<1.3	0.61 J	0.40 J	14.8	<1.1	<0.26	<0.17	0.58 J	<0.55	87.7	<0.47	<0.73

**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	<.50	<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
	04/10/18	<2.5	<12.5	31.0	36.5	11.5	2.2 J	<2.5	<2.5	147	<0.99	82.4	<5.0	<7.5
G	09/17/18	<0.25	<1.3	23.2	23.7	5.4	<1.1	<0.26	<0.17	100	<0.55	45.2	<0.47	<0.73
H	09/26/19	<0.25	<1.3	48.3	29.5	5.2	1.2 J	<0.26	<0.17	114	<0.55	41.4	<0.47	<0.73
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.

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

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

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

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

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

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

G = 1,2-Dichloroethane was detected at 0.28 J µg/l

H = 1,2-Dichloroethane was detected at 0.37 J 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, 2019

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


RE: Project: 58117057 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

Dear Scott Hodgson:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2019. 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.

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 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

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### 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 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40196093001	W-2	Water	09/25/19 12:48	09/27/19 13:30
40196093002	W-8	Water	09/25/19 14:40	09/27/19 13:30
40196093003	W-15	Water	09/25/19 14:10	09/27/19 13:30
40196093004	MW-101	Water	09/25/19 11:50	09/27/19 13:30
40196093005	MW-103	Water	09/25/19 15:38	09/27/19 13:30
40196093006	MW-104	Water	09/25/19 15:31	09/27/19 13:30
40196093007	MW-106	Water	09/25/19 14:30	09/27/19 13:30
40196093008	MW-107	Water	09/25/19 16:43	09/27/19 13:30
40196093009	MW-108	Water	09/25/19 12:43	09/27/19 13:30
40196093010	MW-109	Water	09/26/19 08:50	09/27/19 13:30
40196093011	MW-110	Water	09/26/19 12:03	09/27/19 13:30
40196093012	MW-111	Water	09/26/19 09:34	09/27/19 13:30
40196093013	MW-112	Water	09/26/19 10:28	09/27/19 13:30
40196093014	MW-113	Water	09/26/19 11:20	09/27/19 13:30
40196093015	BD-1	Water	09/26/19 09:34	09/27/19 13:30
40196093016	TB	Water	09/26/19 00:00	09/27/19 13:30

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### SAMPLE ANALYTE COUNT

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40196093001	W-2	EPA 6010	TXW	3	PASI-G
40196093002	W-8	EPA 6010	TXW	3	PASI-G
40196093003	W-15	EPA 6010	TXW	3	PASI-G
40196093004	MW-101	EPA 6010	TXW	3	PASI-G
40196093005	MW-103	EPA 6010	TXW	3	PASI-G
40196093006	MW-104	EPA 6010	TXW	3	PASI-G
40196093007	MW-106	EPA 6010	TXW	3	PASI-G
40196093008	MW-107	EPA 6010	TXW	3	PASI-G
		EPA 8260	SMT	64	PASI-G
40196093009	MW-108	EPA 6010	TXW	3	PASI-G
40196093010	MW-109	EPA 6010	TXW	3	PASI-G
		EPA 8260	SMT	64	PASI-G
40196093011	MW-110	EPA 6010	TXW	3	PASI-G
		EPA 8260	SMT	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
40196093012	MW-111	EPA 6010	TXW	3	PASI-G
		EPA 8260	SMT	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
40196093013	MW-112	EPA 6010	TXW	3	PASI-G
		EPA 8260	SMT	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
40196093014	MW-113	EPA 6010	TXW	3	PASI-G
		EPA 8260	SMT	64	PASI-G
40196093015	BD-1	EPA 6010	TXW	3	PASI-G
		EPA 8260	SMT	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
40196093016	TB	EPA 8260	SMT	64	PASI-G

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### SUMMARY OF DETECTION

Project: 58117057 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>40196093001</b>	<b>W-2</b>					
EPA 6010	Iron, Dissolved	1900	ug/L	100	10/02/19 00:47	
EPA 6010	Manganese, Dissolved	271	ug/L	5.0	10/02/19 00:47	
<b>40196093003</b>	<b>W-15</b>					
EPA 6010	Manganese, Dissolved	4.8J	ug/L	5.0	10/02/19 00:52	
<b>40196093004</b>	<b>MW-101</b>					
EPA 6010	Manganese, Dissolved	3.0J	ug/L	5.0	10/02/19 00:54	
<b>40196093005</b>	<b>MW-103</b>					
EPA 6010	Chromium, Dissolved	4.4J	ug/L	10.0	10/02/19 01:02	
EPA 6010	Manganese, Dissolved	4.1J	ug/L	5.0	10/02/19 01:02	
<b>40196093006</b>	<b>MW-104</b>					
EPA 6010	Chromium, Dissolved	3.8J	ug/L	10.0	10/02/19 01:04	
EPA 6010	Iron, Dissolved	2750	ug/L	100	10/02/19 01:04	
EPA 6010	Manganese, Dissolved	244	ug/L	5.0	10/02/19 01:04	
<b>40196093007</b>	<b>MW-106</b>					
EPA 6010	Manganese, Dissolved	55.2	ug/L	5.0	10/02/19 01:07	
<b>40196093008</b>	<b>MW-107</b>					
EPA 6010	Chromium, Dissolved	1300	ug/L	10.0	10/02/19 01:09	
EPA 6010	Manganese, Dissolved	3.5J	ug/L	5.0	10/02/19 01:09	
EPA 8260	1,1-Dichloroethane	10.9	ug/L	2.5	10/02/19 00:58	
EPA 8260	1,1-Dichloroethene	9.5	ug/L	2.5	10/02/19 00:58	
EPA 8260	cis-1,2-Dichloroethene	1.2J	ug/L	2.5	10/02/19 00:58	
EPA 8260	1,1,1-Trichloroethane	96.2	ug/L	2.5	10/02/19 00:58	
EPA 8260	Trichloroethene	308	ug/L	2.5	10/02/19 00:58	
<b>40196093009</b>	<b>MW-108</b>					
EPA 6010	Iron, Dissolved	37.9J	ug/L	100	10/02/19 01:12	
EPA 6010	Manganese, Dissolved	79.9	ug/L	5.0	10/02/19 01:12	
<b>40196093010</b>	<b>MW-109</b>					
EPA 6010	Chromium, Dissolved	339	ug/L	10.0	10/02/19 01:14	
EPA 6010	Manganese, Dissolved	18.3	ug/L	5.0	10/02/19 01:14	
EPA 8260	1,1-Dichloroethane	2.3	ug/L	1.0	10/01/19 23:00	
EPA 8260	1,1-Dichloroethene	1.3	ug/L	1.0	10/01/19 23:00	
EPA 8260	1,1,1-Trichloroethane	23.2	ug/L	1.0	10/01/19 23:00	
EPA 8260	Trichloroethene	35.3	ug/L	1.0	10/01/19 23:00	
<b>40196093011</b>	<b>MW-110</b>					
EPA 6010	Iron, Dissolved	1080	ug/L	100	10/02/19 02:35	
EPA 6010	Manganese, Dissolved	542	ug/L	5.0	10/02/19 02:35	
EPA 8260	1,1-Dichloroethane	3.3	ug/L	1.0	10/01/19 23:20	
EPA 8260	1,1,1-Trichloroethane	1.6	ug/L	1.0	10/01/19 23:20	
EPA 8260	Trichloroethene	0.86J	ug/L	1.0	10/01/19 23:20	
<b>40196093012</b>	<b>MW-111</b>					
EPA 6010	Chromium, Dissolved	76.3	ug/L	10.0	10/02/19 02:43	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: 58117057 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>40196093012</b>	<b>MW-111</b>					
EPA 6010	Manganese, Dissolved	2.7J	ug/L	5.0	10/02/19 02:43	
EPA 8260	1,1-Dichloroethane	0.72J	ug/L	1.0	10/01/19 23:40	
EPA 8260	1,1-Dichloroethene	0.82J	ug/L	1.0	10/01/19 23:40	
EPA 8260	1,1,1-Trichloroethane	5.1	ug/L	1.0	10/01/19 23:40	
EPA 8260	Trichloroethene	24.2	ug/L	1.0	10/01/19 23:40	
<b>40196093013</b>	<b>MW-112</b>					
EPA 6010	Chromium, Dissolved	305	ug/L	10.0	10/02/19 02:45	
EPA 6010	Iron, Dissolved	30.6J	ug/L	100	10/02/19 02:45	
EPA 6010	Manganese, Dissolved	283	ug/L	5.0	10/02/19 02:45	
EPA 8260	1,1-Dichloroethane	0.61J	ug/L	1.0	10/02/19 00:00	
EPA 8260	1,1-Dichloroethene	0.40J	ug/L	1.0	10/02/19 00:00	
EPA 8260	cis-1,2-Dichloroethene	14.8	ug/L	1.0	10/02/19 00:00	
EPA 8260	1,1,1-Trichloroethane	0.58J	ug/L	1.0	10/02/19 00:00	
EPA 8260	Trichloroethene	87.7	ug/L	1.0	10/02/19 00:00	
<b>40196093014</b>	<b>MW-113</b>					
EPA 6010	Chromium, Dissolved	759	ug/L	10.0	10/02/19 02:48	
EPA 6010	Iron, Dissolved	855	ug/L	100	10/02/19 02:48	
EPA 6010	Manganese, Dissolved	5010	ug/L	5.0	10/02/19 02:48	
EPA 8260	1,1-Dichloroethane	48.3	ug/L	1.0	10/02/19 00:39	
EPA 8260	1,2-Dichloroethane	0.37J	ug/L	1.0	10/02/19 00:39	
EPA 8260	1,1-Dichloroethene	29.5	ug/L	1.0	10/02/19 00:39	
EPA 8260	cis-1,2-Dichloroethene	5.2	ug/L	1.0	10/02/19 00:39	
EPA 8260	trans-1,2-Dichloroethene	1.2J	ug/L	3.6	10/02/19 00:39	
EPA 8260	1,1,1-Trichloroethane	114	ug/L	1.0	10/02/19 00:39	
EPA 8260	Trichloroethene	41.4	ug/L	1.0	10/02/19 00:39	
<b>40196093015</b>	<b>BD-1</b>					
EPA 6010	Chromium, Dissolved	63.3	ug/L	10.0	10/02/19 02:50	
EPA 6010	Manganese, Dissolved	1.5J	ug/L	5.0	10/02/19 02:50	
EPA 8260	1,1-Dichloroethane	1.0	ug/L	1.0	10/02/19 00:19	
EPA 8260	1,1-Dichloroethene	0.69J	ug/L	1.0	10/02/19 00:19	
EPA 8260	1,1,1-Trichloroethane	6.5	ug/L	1.0	10/02/19 00:19	
EPA 8260	Trichloroethene	27.9	ug/L	1.0	10/02/19 00:19	

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## PROJECT NARRATIVE

Project: 58117057 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

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**Method:** EPA 6010  
**Description:** 6010 MET ICP, Dissolved  
**Client:** Terracon, Inc. - Franklin  
**Date:** October 11, 2019

### General Information:

15 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 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

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**Method:** EPA 8260

**Description:** 8260 MSV

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

**Date:** October 11, 2019

**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.

**Additional Comments:**

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 58117057 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

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**Method:** EPA 335.4  
**Description:** 335.4 Cyanide, Total  
**Client:** Terracon, Inc. - Franklin  
**Date:** October 11, 2019

**General Information:**

4 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 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

Sample: W-2      Lab ID: 40196093001      Collected: 09/25/19 12:48      Received: 09/27/19 13:30      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		10/02/19 00:47	7440-47-3	
Iron, Dissolved	1900	ug/L	100	29.6	1		10/02/19 00:47	7439-89-6	
Manganese, Dissolved	271	ug/L	5.0	1.1	1		10/02/19 00:47	7439-96-5	

Sample: W-8      Lab ID: 40196093002      Collected: 09/25/19 14:40      Received: 09/27/19 13:30      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		10/02/19 00:49	7440-47-3	
Iron, Dissolved	<29.6	ug/L	100	29.6	1		10/02/19 00:49	7439-89-6	
Manganese, Dissolved	<1.1	ug/L	5.0	1.1	1		10/02/19 00:49	7439-96-5	

Sample: W-15      Lab ID: 40196093003      Collected: 09/25/19 14:10      Received: 09/27/19 13:30      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		10/02/19 00:52	7440-47-3	
Iron, Dissolved	<29.6	ug/L	100	29.6	1		10/02/19 00:52	7439-89-6	
Manganese, Dissolved	4.8J	ug/L	5.0	1.1	1		10/02/19 00:52	7439-96-5	

Sample: MW-101      Lab ID: 40196093004      Collected: 09/25/19 11:50      Received: 09/27/19 13:30      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		10/02/19 00:54	7440-47-3	
Iron, Dissolved	<29.6	ug/L	100	29.6	1		10/02/19 00:54	7439-89-6	
Manganese, Dissolved	3.0J	ug/L	5.0	1.1	1		10/02/19 00:54	7439-96-5	

Sample: MW-103      Lab ID: 40196093005      Collected: 09/25/19 15:38      Received: 09/27/19 13:30      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	4.4J	ug/L	10.0	2.5	1		10/02/19 01:02	7440-47-3	
Iron, Dissolved	<29.6	ug/L	100	29.6	1		10/02/19 01:02	7439-89-6	
Manganese, Dissolved	4.1J	ug/L	5.0	1.1	1		10/02/19 01:02	7439-96-5	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

**Sample: MW-104**      **Lab ID: 40196093006**      Collected: 09/25/19 15:31      Received: 09/27/19 13:30      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>3.8J</b>	ug/L	10.0	2.5	1		10/02/19 01:04	7440-47-3	
Iron, Dissolved	<b>2750</b>	ug/L	100	29.6	1		10/02/19 01:04	7439-89-6	
Manganese, Dissolved	<b>244</b>	ug/L	5.0	1.1	1		10/02/19 01:04	7439-96-5	

**Sample: MW-106**      **Lab ID: 40196093007**      Collected: 09/25/19 14:30      Received: 09/27/19 13:30      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>&lt;2.5</b>	ug/L	10.0	2.5	1		10/02/19 01:07	7440-47-3	
Iron, Dissolved	<b>&lt;29.6</b>	ug/L	100	29.6	1		10/02/19 01:07	7439-89-6	
Manganese, Dissolved	<b>55.2</b>	ug/L	5.0	1.1	1		10/02/19 01:07	7439-96-5	

**Sample: MW-107**      **Lab ID: 40196093008**      Collected: 09/25/19 16:43      Received: 09/27/19 13:30      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>1300</b>	ug/L	10.0	2.5	1		10/02/19 01:09	7440-47-3	
Iron, Dissolved	<b>&lt;29.6</b>	ug/L	100	29.6	1		10/02/19 01:09	7439-89-6	
Manganese, Dissolved	<b>3.5J</b>	ug/L	5.0	1.1	1		10/02/19 01:09	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Benzene	<b>&lt;0.62</b>	ug/L	2.5	0.62	2.5		10/02/19 00:58	71-43-2	
Bromobenzene	<b>&lt;0.60</b>	ug/L	2.5	0.60	2.5		10/02/19 00:58	108-86-1	
Bromochloromethane	<b>&lt;0.91</b>	ug/L	12.5	0.91	2.5		10/02/19 00:58	74-97-5	
Bromodichloromethane	<b>&lt;0.91</b>	ug/L	3.0	0.91	2.5		10/02/19 00:58	75-27-4	
Bromoform	<b>&lt;9.9</b>	ug/L	33.1	9.9	2.5		10/02/19 00:58	75-25-2	
Bromomethane	<b>&lt;2.4</b>	ug/L	12.5	2.4	2.5		10/02/19 00:58	74-83-9	
n-Butylbenzene	<b>&lt;1.8</b>	ug/L	5.9	1.8	2.5		10/02/19 00:58	104-51-8	
sec-Butylbenzene	<b>&lt;2.1</b>	ug/L	12.5	2.1	2.5		10/02/19 00:58	135-98-8	
tert-Butylbenzene	<b>&lt;0.76</b>	ug/L	2.5	0.76	2.5		10/02/19 00:58	98-06-6	
Carbon tetrachloride	<b>&lt;0.41</b>	ug/L	2.5	0.41	2.5		10/02/19 00:58	56-23-5	
Chlorobenzene	<b>&lt;1.8</b>	ug/L	5.9	1.8	2.5		10/02/19 00:58	108-90-7	
Chloroethane	<b>&lt;3.4</b>	ug/L	12.5	3.4	2.5		10/02/19 00:58	75-00-3	
Chloroform	<b>&lt;3.2</b>	ug/L	12.5	3.2	2.5		10/02/19 00:58	67-66-3	
Chloromethane	<b>&lt;5.5</b>	ug/L	18.2	5.5	2.5		10/02/19 00:58	74-87-3	
2-Chlorotoluene	<b>&lt;2.3</b>	ug/L	12.5	2.3	2.5		10/02/19 00:58	95-49-8	
4-Chlorotoluene	<b>&lt;1.9</b>	ug/L	6.3	1.9	2.5		10/02/19 00:58	106-43-4	
1,2-Dibromo-3-chloropropane	<b>&lt;4.4</b>	ug/L	14.7	4.4	2.5		10/02/19 00:58	96-12-8	
Dibromochloromethane	<b>&lt;6.5</b>	ug/L	21.7	6.5	2.5		10/02/19 00:58	124-48-1	
1,2-Dibromoethane (EDB)	<b>&lt;2.1</b>	ug/L	6.9	2.1	2.5		10/02/19 00:58	106-93-4	

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## ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

**Sample: MW-107**      **Lab ID: 40196093008**      Collected: 09/25/19 16:43      Received: 09/27/19 13:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Dibromomethane	<2.3	ug/L	7.8	2.3	2.5		10/02/19 00:58	74-95-3	
1,2-Dichlorobenzene	<1.8	ug/L	5.9	1.8	2.5		10/02/19 00:58	95-50-1	
1,3-Dichlorobenzene	<1.6	ug/L	5.2	1.6	2.5		10/02/19 00:58	541-73-1	
1,4-Dichlorobenzene	<2.4	ug/L	7.9	2.4	2.5		10/02/19 00:58	106-46-7	
Dichlorodifluoromethane	<1.2	ug/L	12.5	1.2	2.5		10/02/19 00:58	75-71-8	
1,1-Dichloroethane	10.9	ug/L	2.5	0.68	2.5		10/02/19 00:58	75-34-3	
1,2-Dichloroethane	<0.70	ug/L	2.5	0.70	2.5		10/02/19 00:58	107-06-2	
1,1-Dichloroethene	9.5	ug/L	2.5	0.61	2.5		10/02/19 00:58	75-35-4	
cis-1,2-Dichloroethene	1.2J	ug/L	2.5	0.68	2.5		10/02/19 00:58	156-59-2	
trans-1,2-Dichloroethene	<2.7	ug/L	9.1	2.7	2.5		10/02/19 00:58	156-60-5	
1,2-Dichloropropane	<0.71	ug/L	2.5	0.71	2.5		10/02/19 00:58	78-87-5	
1,3-Dichloropropane	<2.1	ug/L	6.9	2.1	2.5		10/02/19 00:58	142-28-9	
2,2-Dichloropropane	<5.7	ug/L	18.9	5.7	2.5		10/02/19 00:58	594-20-7	
1,1-Dichloropropene	<1.4	ug/L	4.5	1.4	2.5		10/02/19 00:58	563-58-6	
cis-1,3-Dichloropropene	<9.1	ug/L	30.2	9.1	2.5		10/02/19 00:58	10061-01-5	
trans-1,3-Dichloropropene	<10.9	ug/L	36.4	10.9	2.5		10/02/19 00:58	10061-02-6	
Diisopropyl ether	<4.7	ug/L	15.7	4.7	2.5		10/02/19 00:58	108-20-3	
Ethylbenzene	<0.55	ug/L	2.5	0.55	2.5		10/02/19 00:58	100-41-4	
Hexachloro-1,3-butadiene	<3.0	ug/L	12.5	3.0	2.5		10/02/19 00:58	87-68-3	
Isopropylbenzene (Cumene)	<0.98	ug/L	12.5	0.98	2.5		10/02/19 00:58	98-82-8	
p-Isopropyltoluene	<2.0	ug/L	6.7	2.0	2.5		10/02/19 00:58	99-87-6	
Methylene Chloride	<1.5	ug/L	12.5	1.5	2.5		10/02/19 00:58	75-09-2	
Methyl-tert-butyl ether	<3.1	ug/L	10.4	3.1	2.5		10/02/19 00:58	1634-04-4	
Naphthalene	<2.9	ug/L	12.5	2.9	2.5		10/02/19 00:58	91-20-3	
n-Propylbenzene	<2.0	ug/L	12.5	2.0	2.5		10/02/19 00:58	103-65-1	
Styrene	<1.2	ug/L	3.9	1.2	2.5		10/02/19 00:58	100-42-5	
1,1,1,2-Tetrachloroethane	<0.67	ug/L	2.5	0.67	2.5		10/02/19 00:58	630-20-6	
1,1,2,2-Tetrachloroethane	<0.69	ug/L	2.5	0.69	2.5		10/02/19 00:58	79-34-5	
Tetrachloroethene	<0.82	ug/L	2.7	0.82	2.5		10/02/19 00:58	127-18-4	
Toluene	<0.43	ug/L	12.5	0.43	2.5		10/02/19 00:58	108-88-3	
1,2,3-Trichlorobenzene	<1.6	ug/L	12.5	1.6	2.5		10/02/19 00:58	87-61-6	
1,2,4-Trichlorobenzene	<2.4	ug/L	12.5	2.4	2.5		10/02/19 00:58	120-82-1	
1,1,1-Trichloroethane	96.2	ug/L	2.5	0.61	2.5		10/02/19 00:58	71-55-6	
1,1,2-Trichloroethane	<1.4	ug/L	12.5	1.4	2.5		10/02/19 00:58	79-00-5	
Trichloroethene	308	ug/L	2.5	0.64	2.5		10/02/19 00:58	79-01-6	
Trichlorofluoromethane	<0.54	ug/L	2.5	0.54	2.5		10/02/19 00:58	75-69-4	
1,2,3-Trichloropropane	<1.5	ug/L	12.5	1.5	2.5		10/02/19 00:58	96-18-4	
1,2,4-Trimethylbenzene	<2.1	ug/L	7.0	2.1	2.5		10/02/19 00:58	95-63-6	
1,3,5-Trimethylbenzene	<2.2	ug/L	7.3	2.2	2.5		10/02/19 00:58	108-67-8	
Vinyl chloride	<0.44	ug/L	2.5	0.44	2.5		10/02/19 00:58	75-01-4	
m&p-Xylene	<1.2	ug/L	5.0	1.2	2.5		10/02/19 00:58	179601-23-1	
o-Xylene	<0.65	ug/L	2.5	0.65	2.5		10/02/19 00:58	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		2.5		10/02/19 00:58	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		2.5		10/02/19 00:58	1868-53-7	
Toluene-d8 (S)	101	%	70-130		2.5		10/02/19 00:58	2037-26-5	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

Sample: **MW-108** Lab ID: **40196093009** Collected: 09/25/19 12:43 Received: 09/27/19 13:30 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>&lt;2.5</b>	ug/L	10.0	2.5	1		10/02/19 01:12	7440-47-3	
Iron, Dissolved	<b>37.9J</b>	ug/L	100	29.6	1		10/02/19 01:12	7439-89-6	
Manganese, Dissolved	<b>79.9</b>	ug/L	5.0	1.1	1		10/02/19 01:12	7439-96-5	

Sample: **MW-109** Lab ID: **40196093010** Collected: 09/26/19 08:50 Received: 09/27/19 13:30 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>339</b>	ug/L	10.0	2.5	1		10/02/19 01:14	7440-47-3	
Iron, Dissolved	<b>&lt;29.6</b>	ug/L	100	29.6	1		10/02/19 01:14	7439-89-6	
Manganese, Dissolved	<b>18.3</b>	ug/L	5.0	1.1	1		10/02/19 01:14	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Benzene	<b>&lt;0.25</b>	ug/L	1.0	0.25	1		10/01/19 23:00	71-43-2	
Bromobenzene	<b>&lt;0.24</b>	ug/L	1.0	0.24	1		10/01/19 23:00	108-86-1	
Bromochloromethane	<b>&lt;0.36</b>	ug/L	5.0	0.36	1		10/01/19 23:00	74-97-5	
Bromodichloromethane	<b>&lt;0.36</b>	ug/L	1.2	0.36	1		10/01/19 23:00	75-27-4	
Bromoform	<b>&lt;4.0</b>	ug/L	13.2	4.0	1		10/01/19 23:00	75-25-2	
Bromomethane	<b>&lt;0.97</b>	ug/L	5.0	0.97	1		10/01/19 23:00	74-83-9	
n-Butylbenzene	<b>&lt;0.71</b>	ug/L	2.4	0.71	1		10/01/19 23:00	104-51-8	
sec-Butylbenzene	<b>&lt;0.85</b>	ug/L	5.0	0.85	1		10/01/19 23:00	135-98-8	
tert-Butylbenzene	<b>&lt;0.30</b>	ug/L	1.0	0.30	1		10/01/19 23:00	98-06-6	
Carbon tetrachloride	<b>&lt;0.17</b>	ug/L	1.0	0.17	1		10/01/19 23:00	56-23-5	
Chlorobenzene	<b>&lt;0.71</b>	ug/L	2.4	0.71	1		10/01/19 23:00	108-90-7	
Chloroethane	<b>&lt;1.3</b>	ug/L	5.0	1.3	1		10/01/19 23:00	75-00-3	
Chloroform	<b>&lt;1.3</b>	ug/L	5.0	1.3	1		10/01/19 23:00	67-66-3	
Chloromethane	<b>&lt;2.2</b>	ug/L	7.3	2.2	1		10/01/19 23:00	74-87-3	
2-Chlorotoluene	<b>&lt;0.93</b>	ug/L	5.0	0.93	1		10/01/19 23:00	95-49-8	
4-Chlorotoluene	<b>&lt;0.76</b>	ug/L	2.5	0.76	1		10/01/19 23:00	106-43-4	
1,2-Dibromo-3-chloropropane	<b>&lt;1.8</b>	ug/L	5.9	1.8	1		10/01/19 23:00	96-12-8	
Dibromochloromethane	<b>&lt;2.6</b>	ug/L	8.7	2.6	1		10/01/19 23:00	124-48-1	
1,2-Dibromoethane (EDB)	<b>&lt;0.83</b>	ug/L	2.8	0.83	1		10/01/19 23:00	106-93-4	
Dibromomethane	<b>&lt;0.94</b>	ug/L	3.1	0.94	1		10/01/19 23:00	74-95-3	
1,2-Dichlorobenzene	<b>&lt;0.71</b>	ug/L	2.4	0.71	1		10/01/19 23:00	95-50-1	
1,3-Dichlorobenzene	<b>&lt;0.63</b>	ug/L	2.1	0.63	1		10/01/19 23:00	541-73-1	
1,4-Dichlorobenzene	<b>&lt;0.94</b>	ug/L	3.1	0.94	1		10/01/19 23:00	106-46-7	
Dichlorodifluoromethane	<b>&lt;0.50</b>	ug/L	5.0	0.50	1		10/01/19 23:00	75-71-8	
1,1-Dichloroethane	<b>2.3</b>	ug/L	1.0	0.27	1		10/01/19 23:00	75-34-3	
1,2-Dichloroethane	<b>&lt;0.28</b>	ug/L	1.0	0.28	1		10/01/19 23:00	107-06-2	
1,1-Dichloroethene	<b>1.3</b>	ug/L	1.0	0.24	1		10/01/19 23:00	75-35-4	
cis-1,2-Dichloroethene	<b>&lt;0.27</b>	ug/L	1.0	0.27	1		10/01/19 23:00	156-59-2	
trans-1,2-Dichloroethene	<b>&lt;1.1</b>	ug/L	3.6	1.1	1		10/01/19 23:00	156-60-5	
1,2-Dichloropropane	<b>&lt;0.28</b>	ug/L	1.0	0.28	1		10/01/19 23:00	78-87-5	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

**Sample: MW-109**      **Lab ID: 40196093010**      Collected: 09/26/19 08:50      Received: 09/27/19 13:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/01/19 23:00	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/01/19 23:00	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/01/19 23:00	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/01/19 23:00	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/01/19 23:00	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/01/19 23:00	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/01/19 23:00	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/01/19 23:00	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/01/19 23:00	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/01/19 23:00	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/01/19 23:00	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/01/19 23:00	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/01/19 23:00	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/01/19 23:00	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/01/19 23:00	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/01/19 23:00	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/01/19 23:00	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/01/19 23:00	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/01/19 23:00	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/01/19 23:00	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/01/19 23:00	120-82-1	
1,1,1-Trichloroethane	23.2	ug/L	1.0	0.24	1		10/01/19 23:00	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/01/19 23:00	79-00-5	
Trichloroethene	35.3	ug/L	1.0	0.26	1		10/01/19 23:00	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/01/19 23:00	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/01/19 23:00	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/01/19 23:00	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/01/19 23:00	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/01/19 23:00	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/01/19 23:00	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/01/19 23:00	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/01/19 23:00	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		10/01/19 23:00	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		10/01/19 23:00	2037-26-5	

**Sample: MW-110**      **Lab ID: 40196093011**      Collected: 09/26/19 12:03      Received: 09/27/19 13:30      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		10/02/19 02:35	7440-47-3	
Iron, Dissolved	1080	ug/L	100	29.6	1		10/02/19 02:35	7439-89-6	
Manganese, Dissolved	542	ug/L	5.0	1.1	1		10/02/19 02:35	7439-96-5	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

**Sample: MW-110**      **Lab ID: 40196093011**      Collected: 09/26/19 12:03      Received: 09/27/19 13:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/01/19 23:20	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/01/19 23:20	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/01/19 23:20	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/01/19 23:20	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/01/19 23:20	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/01/19 23:20	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 23:20	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/01/19 23:20	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/01/19 23:20	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/01/19 23:20	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 23:20	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/01/19 23:20	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/01/19 23:20	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/01/19 23:20	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/01/19 23:20	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/01/19 23:20	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/01/19 23:20	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/01/19 23:20	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/01/19 23:20	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/01/19 23:20	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 23:20	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/01/19 23:20	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/01/19 23:20	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/01/19 23:20	75-71-8	
1,1-Dichloroethane	3.3	ug/L	1.0	0.27	1		10/01/19 23:20	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/01/19 23:20	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/01/19 23:20	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/01/19 23:20	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		10/01/19 23:20	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/01/19 23:20	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/01/19 23:20	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/01/19 23:20	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/01/19 23:20	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/01/19 23:20	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/01/19 23:20	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/01/19 23:20	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/01/19 23:20	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/01/19 23:20	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/01/19 23:20	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/01/19 23:20	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/01/19 23:20	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/01/19 23:20	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/01/19 23:20	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/01/19 23:20	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/01/19 23:20	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/01/19 23:20	630-20-6	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

**Sample: MW-110**      **Lab ID: 40196093011**      Collected: 09/26/19 12:03      Received: 09/27/19 13:30      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	<0.28	ug/L	1.0	0.28	1		10/01/19 23:20	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/01/19 23:20	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/01/19 23:20	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/01/19 23:20	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/01/19 23:20	120-82-1	
1,1,1-Trichloroethane	1.6	ug/L	1.0	0.24	1		10/01/19 23:20	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/01/19 23:20	79-00-5	
Trichloroethene	0.86J	ug/L	1.0	0.26	1		10/01/19 23:20	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/01/19 23:20	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/01/19 23:20	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/01/19 23:20	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/01/19 23:20	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/01/19 23:20	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/01/19 23:20	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/01/19 23:20	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		1		10/01/19 23:20	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		10/01/19 23:20	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		10/01/19 23:20	2037-26-5	

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

Cyanide      <0.0068      mg/L      0.023      0.0068      1      10/03/19 10:35      10/03/19 15:08      57-12-5

**Sample: MW-111**      **Lab ID: 40196093012**      Collected: 09/26/19 09:34      Received: 09/27/19 13:30      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	76.3	ug/L	10.0	2.5	1		10/02/19 02:43	7440-47-3	
Iron, Dissolved	<29.6	ug/L	100	29.6	1		10/02/19 02:43	7439-89-6	
Manganese, Dissolved	2.7J	ug/L	5.0	1.1	1		10/02/19 02:43	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		10/01/19 23:40	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/01/19 23:40	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/01/19 23:40	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/01/19 23:40	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/01/19 23:40	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/01/19 23:40	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 23:40	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/01/19 23:40	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/01/19 23:40	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/01/19 23:40	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 23:40	108-90-7	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

**Sample: MW-111**      **Lab ID: 40196093012**      Collected: 09/26/19 09:34      Received: 09/27/19 13:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/01/19 23:40	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/01/19 23:40	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/01/19 23:40	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/01/19 23:40	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/01/19 23:40	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/01/19 23:40	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/01/19 23:40	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/01/19 23:40	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/01/19 23:40	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 23:40	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/01/19 23:40	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/01/19 23:40	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/01/19 23:40	75-71-8	
1,1-Dichloroethane	0.72J	ug/L	1.0	0.27	1		10/01/19 23:40	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/01/19 23:40	107-06-2	
1,1-Dichloroethene	0.82J	ug/L	1.0	0.24	1		10/01/19 23:40	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/01/19 23:40	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		10/01/19 23:40	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/01/19 23:40	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/01/19 23:40	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/01/19 23:40	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/01/19 23:40	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/01/19 23:40	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/01/19 23:40	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/01/19 23:40	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/01/19 23:40	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/01/19 23:40	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/01/19 23:40	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/01/19 23:40	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/01/19 23:40	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/01/19 23:40	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/01/19 23:40	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/01/19 23:40	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/01/19 23:40	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/01/19 23:40	630-20-6	
1,1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/01/19 23:40	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/01/19 23:40	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/01/19 23:40	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/01/19 23:40	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/01/19 23:40	120-82-1	
1,1,1-Trichloroethane	5.1	ug/L	1.0	0.24	1		10/01/19 23:40	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/01/19 23:40	79-00-5	
Trichloroethene	24.2	ug/L	1.0	0.26	1		10/01/19 23:40	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/01/19 23:40	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/01/19 23:40	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/01/19 23:40	95-63-6	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

Sample: MW-111 Lab ID: 40196093012 Collected: 09/26/19 09:34 Received: 09/27/19 13:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/01/19 23:40	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/01/19 23:40	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/01/19 23:40	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/01/19 23:40	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/01/19 23:40	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		10/01/19 23:40	1868-53-7	
Toluene-d8 (S)	103	%	70-130		1		10/01/19 23:40	2037-26-5	

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

Cyanide	<0.0068	mg/L	0.023	0.0068	1	10/03/19 10:35	10/03/19 15:11	57-12-5	
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Sample: MW-112 Lab ID: 40196093013 Collected: 09/26/19 10:28 Received: 09/27/19 13:30 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	305	ug/L	10.0	2.5	1		10/02/19 02:45	7440-47-3	
Iron, Dissolved	30.6J	ug/L	100	29.6	1		10/02/19 02:45	7439-89-6	
Manganese, Dissolved	283	ug/L	5.0	1.1	1		10/02/19 02:45	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/02/19 00:00	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/02/19 00:00	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/02/19 00:00	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/02/19 00:00	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/02/19 00:00	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/02/19 00:00	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/02/19 00:00	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/02/19 00:00	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/02/19 00:00	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/02/19 00:00	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/02/19 00:00	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/02/19 00:00	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/02/19 00:00	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/02/19 00:00	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/02/19 00:00	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/02/19 00:00	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/02/19 00:00	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/02/19 00:00	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/02/19 00:00	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/02/19 00:00	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/02/19 00:00	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/02/19 00:00	541-73-1	

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## ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

**Sample: MW-112**      **Lab ID: 40196093013**      Collected: 09/26/19 10:28      Received: 09/27/19 13:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/02/19 00:00	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/02/19 00:00	75-71-8	
1,1-Dichloroethane	0.61J	ug/L	1.0	0.27	1		10/02/19 00:00	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/02/19 00:00	107-06-2	
1,1-Dichloroethene	0.40J	ug/L	1.0	0.24	1		10/02/19 00:00	75-35-4	
cis-1,2-Dichloroethene	14.8	ug/L	1.0	0.27	1		10/02/19 00:00	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		10/02/19 00:00	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/02/19 00:00	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/02/19 00:00	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/02/19 00:00	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/02/19 00:00	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/02/19 00:00	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/02/19 00:00	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/02/19 00:00	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/02/19 00:00	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/02/19 00:00	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/02/19 00:00	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/02/19 00:00	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/02/19 00:00	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/02/19 00:00	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/02/19 00:00	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/02/19 00:00	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/02/19 00:00	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/02/19 00:00	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/02/19 00:00	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/02/19 00:00	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/02/19 00:00	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/02/19 00:00	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/02/19 00:00	120-82-1	
1,1,1-Trichloroethane	0.58J	ug/L	1.0	0.24	1		10/02/19 00:00	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/02/19 00:00	79-00-5	
Trichloroethene	87.7	ug/L	1.0	0.26	1		10/02/19 00:00	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/02/19 00:00	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/02/19 00:00	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/02/19 00:00	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/02/19 00:00	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/02/19 00:00	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/02/19 00:00	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/02/19 00:00	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/02/19 00:00	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		1		10/02/19 00:00	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/02/19 00:00	2037-26-5	

**335.4 Cyanide, Total**

Analytical Method: EPA 335.4      Preparation Method: EPA 335.4

Cyanide	<0.0068	mg/L	0.023	0.0068	1	10/03/19 10:35	10/03/19 15:11	57-12-5	
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## ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

**Sample: MW-113**      **Lab ID: 40196093014**      Collected: 09/26/19 11:20      Received: 09/27/19 13:30      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>759</b>	ug/L	10.0	2.5	1		10/02/19 02:48	7440-47-3	
Iron, Dissolved	<b>855</b>	ug/L	100	29.6	1		10/02/19 02:48	7439-89-6	
Manganese, Dissolved	<b>5010</b>	ug/L	5.0	1.1	1		10/02/19 02:48	7439-96-5	
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Benzene	<b>&lt;0.25</b>	ug/L	1.0	0.25	1		10/02/19 00:39	71-43-2	
Bromobenzene	<b>&lt;0.24</b>	ug/L	1.0	0.24	1		10/02/19 00:39	108-86-1	
Bromochloromethane	<b>&lt;0.36</b>	ug/L	5.0	0.36	1		10/02/19 00:39	74-97-5	
Bromodichloromethane	<b>&lt;0.36</b>	ug/L	1.2	0.36	1		10/02/19 00:39	75-27-4	
Bromoform	<b>&lt;4.0</b>	ug/L	13.2	4.0	1		10/02/19 00:39	75-25-2	
Bromomethane	<b>&lt;0.97</b>	ug/L	5.0	0.97	1		10/02/19 00:39	74-83-9	
n-Butylbenzene	<b>&lt;0.71</b>	ug/L	2.4	0.71	1		10/02/19 00:39	104-51-8	
sec-Butylbenzene	<b>&lt;0.85</b>	ug/L	5.0	0.85	1		10/02/19 00:39	135-98-8	
tert-Butylbenzene	<b>&lt;0.30</b>	ug/L	1.0	0.30	1		10/02/19 00:39	98-06-6	
Carbon tetrachloride	<b>&lt;0.17</b>	ug/L	1.0	0.17	1		10/02/19 00:39	56-23-5	
Chlorobenzene	<b>&lt;0.71</b>	ug/L	2.4	0.71	1		10/02/19 00:39	108-90-7	
Chloroethane	<b>&lt;1.3</b>	ug/L	5.0	1.3	1		10/02/19 00:39	75-00-3	
Chloroform	<b>&lt;1.3</b>	ug/L	5.0	1.3	1		10/02/19 00:39	67-66-3	
Chloromethane	<b>&lt;2.2</b>	ug/L	7.3	2.2	1		10/02/19 00:39	74-87-3	
2-Chlorotoluene	<b>&lt;0.93</b>	ug/L	5.0	0.93	1		10/02/19 00:39	95-49-8	
4-Chlorotoluene	<b>&lt;0.76</b>	ug/L	2.5	0.76	1		10/02/19 00:39	106-43-4	
1,2-Dibromo-3-chloropropane	<b>&lt;1.8</b>	ug/L	5.9	1.8	1		10/02/19 00:39	96-12-8	
Dibromochloromethane	<b>&lt;2.6</b>	ug/L	8.7	2.6	1		10/02/19 00:39	124-48-1	
1,2-Dibromoethane (EDB)	<b>&lt;0.83</b>	ug/L	2.8	0.83	1		10/02/19 00:39	106-93-4	
Dibromomethane	<b>&lt;0.94</b>	ug/L	3.1	0.94	1		10/02/19 00:39	74-95-3	
1,2-Dichlorobenzene	<b>&lt;0.71</b>	ug/L	2.4	0.71	1		10/02/19 00:39	95-50-1	
1,3-Dichlorobenzene	<b>&lt;0.63</b>	ug/L	2.1	0.63	1		10/02/19 00:39	541-73-1	
1,4-Dichlorobenzene	<b>&lt;0.94</b>	ug/L	3.1	0.94	1		10/02/19 00:39	106-46-7	
Dichlorodifluoromethane	<b>&lt;0.50</b>	ug/L	5.0	0.50	1		10/02/19 00:39	75-71-8	
1,1-Dichloroethane	<b>48.3</b>	ug/L	1.0	0.27	1		10/02/19 00:39	75-34-3	
1,2-Dichloroethane	<b>0.37J</b>	ug/L	1.0	0.28	1		10/02/19 00:39	107-06-2	
1,1-Dichloroethene	<b>29.5</b>	ug/L	1.0	0.24	1		10/02/19 00:39	75-35-4	
cis-1,2-Dichloroethene	<b>5.2</b>	ug/L	1.0	0.27	1		10/02/19 00:39	156-59-2	
trans-1,2-Dichloroethene	<b>1.2J</b>	ug/L	3.6	1.1	1		10/02/19 00:39	156-60-5	
1,2-Dichloropropane	<b>&lt;0.28</b>	ug/L	1.0	0.28	1		10/02/19 00:39	78-87-5	
1,3-Dichloropropane	<b>&lt;0.83</b>	ug/L	2.8	0.83	1		10/02/19 00:39	142-28-9	
2,2-Dichloropropane	<b>&lt;2.3</b>	ug/L	7.6	2.3	1		10/02/19 00:39	594-20-7	
1,1-Dichloropropene	<b>&lt;0.54</b>	ug/L	1.8	0.54	1		10/02/19 00:39	563-58-6	
cis-1,3-Dichloropropene	<b>&lt;3.6</b>	ug/L	12.1	3.6	1		10/02/19 00:39	10061-01-5	
trans-1,3-Dichloropropene	<b>&lt;4.4</b>	ug/L	14.6	4.4	1		10/02/19 00:39	10061-02-6	
Diisopropyl ether	<b>&lt;1.9</b>	ug/L	6.3	1.9	1		10/02/19 00:39	108-20-3	
Ethylbenzene	<b>&lt;0.22</b>	ug/L	1.0	0.22	1		10/02/19 00:39	100-41-4	
Hexachloro-1,3-butadiene	<b>&lt;1.2</b>	ug/L	5.0	1.2	1		10/02/19 00:39	87-68-3	
Isopropylbenzene (Cumene)	<b>&lt;0.39</b>	ug/L	5.0	0.39	1		10/02/19 00:39	98-82-8	
p-Isopropyltoluene	<b>&lt;0.80</b>	ug/L	2.7	0.80	1		10/02/19 00:39	99-87-6	
Methylene Chloride	<b>&lt;0.58</b>	ug/L	5.0	0.58	1		10/02/19 00:39	75-09-2	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

Sample: **MW-113** Lab ID: **40196093014** Collected: 09/26/19 11:20 Received: 09/27/19 13:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/02/19 00:39	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/02/19 00:39	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/02/19 00:39	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/02/19 00:39	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/02/19 00:39	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/02/19 00:39	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/02/19 00:39	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/02/19 00:39	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/02/19 00:39	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/02/19 00:39	120-82-1	
1,1,1-Trichloroethane	114	ug/L	1.0	0.24	1		10/02/19 00:39	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/02/19 00:39	79-00-5	
Trichloroethene	41.4	ug/L	1.0	0.26	1		10/02/19 00:39	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/02/19 00:39	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/02/19 00:39	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/02/19 00:39	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/02/19 00:39	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/02/19 00:39	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/02/19 00:39	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/02/19 00:39	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	98	%	70-130		1		10/02/19 00:39	460-00-4	
Dibromofluoromethane (S)	111	%	70-130		1		10/02/19 00:39	1868-53-7	
Toluene-d8 (S)	103	%	70-130		1		10/02/19 00:39	2037-26-5	

Sample: **BD-1** Lab ID: **40196093015** Collected: 09/26/19 09:34 Received: 09/27/19 13:30 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	63.3	ug/L	10.0	2.5	1		10/02/19 02:50	7440-47-3	
Iron, Dissolved	<29.6	ug/L	100	29.6	1		10/02/19 02:50	7439-89-6	
Manganese, Dissolved	1.5J	ug/L	5.0	1.1	1		10/02/19 02:50	7439-96-5	
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/02/19 00:19	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/02/19 00:19	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/02/19 00:19	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/02/19 00:19	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/02/19 00:19	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/02/19 00:19	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/02/19 00:19	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/02/19 00:19	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/02/19 00:19	98-06-6	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

Sample: **BD-1** Lab ID: **40196093015** Collected: 09/26/19 09:34 Received: 09/27/19 13:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b>		Analytical Method: EPA 8260							
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/02/19 00:19	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/02/19 00:19	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/02/19 00:19	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/02/19 00:19	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/02/19 00:19	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/02/19 00:19	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/02/19 00:19	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/02/19 00:19	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/02/19 00:19	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/02/19 00:19	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/02/19 00:19	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/02/19 00:19	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/02/19 00:19	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/02/19 00:19	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/02/19 00:19	75-71-8	
1,1-Dichloroethane	1.0	ug/L	1.0	0.27	1		10/02/19 00:19	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/02/19 00:19	107-06-2	
1,1-Dichloroethene	0.69J	ug/L	1.0	0.24	1		10/02/19 00:19	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/02/19 00:19	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		10/02/19 00:19	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/02/19 00:19	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/02/19 00:19	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/02/19 00:19	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/02/19 00:19	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/02/19 00:19	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/02/19 00:19	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/02/19 00:19	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/02/19 00:19	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/02/19 00:19	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/02/19 00:19	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/02/19 00:19	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/02/19 00:19	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/02/19 00:19	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/02/19 00:19	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/02/19 00:19	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/02/19 00:19	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/02/19 00:19	630-20-6	
1,1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/02/19 00:19	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/02/19 00:19	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/02/19 00:19	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/02/19 00:19	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/02/19 00:19	120-82-1	
1,1,1-Trichloroethane	6.5	ug/L	1.0	0.24	1		10/02/19 00:19	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/02/19 00:19	79-00-5	
Trichloroethene	27.9	ug/L	1.0	0.26	1		10/02/19 00:19	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/02/19 00:19	75-69-4	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

Sample: **BD-1** Lab ID: **40196093015** Collected: 09/26/19 09:34 Received: 09/27/19 13:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/02/19 00:19	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/02/19 00:19	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/02/19 00:19	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/02/19 00:19	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/02/19 00:19	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/02/19 00:19	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	97	%	70-130		1		10/02/19 00:19	460-00-4	
Dibromofluoromethane (S)	106	%	70-130		1		10/02/19 00:19	1868-53-7	
Toluene-d8 (S)	103	%	70-130		1		10/02/19 00:19	2037-26-5	

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

Cyanide <0.0068 mg/L 0.023 0.0068 1 10/03/19 10:35 10/03/19 15:12 57-12-5

Sample: **TB** Lab ID: **40196093016** Collected: 09/26/19 00:00 Received: 09/27/19 13:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/01/19 18:45	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/01/19 18:45	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/01/19 18:45	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/01/19 18:45	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/01/19 18:45	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/01/19 18:45	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 18:45	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/01/19 18:45	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/01/19 18:45	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/01/19 18:45	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 18:45	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/01/19 18:45	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/01/19 18:45	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/01/19 18:45	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/01/19 18:45	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/01/19 18:45	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/01/19 18:45	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/01/19 18:45	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/01/19 18:45	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/01/19 18:45	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/01/19 18:45	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/01/19 18:45	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/01/19 18:45	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/01/19 18:45	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		10/01/19 18:45	75-34-3	

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### ANALYTICAL RESULTS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

**Sample: TB**      **Lab ID: 40196093016**      Collected: 09/26/19 00:00      Received: 09/27/19 13:30      Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8260 MSV</b> Analytical Method: EPA 8260									
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/01/19 18:45	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/01/19 18:45	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/01/19 18:45	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		10/01/19 18:45	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/01/19 18:45	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/01/19 18:45	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/01/19 18:45	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/01/19 18:45	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/01/19 18:45	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/01/19 18:45	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/01/19 18:45	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/01/19 18:45	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/01/19 18:45	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/01/19 18:45	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/01/19 18:45	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/01/19 18:45	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/01/19 18:45	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/01/19 18:45	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/01/19 18:45	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/01/19 18:45	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/01/19 18:45	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/01/19 18:45	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/01/19 18:45	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/01/19 18:45	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/01/19 18:45	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/01/19 18:45	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/01/19 18:45	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/01/19 18:45	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		10/01/19 18:45	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/01/19 18:45	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/01/19 18:45	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/01/19 18:45	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/01/19 18:45	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/01/19 18:45	75-01-4	
m&p-Xylene	<0.47	ug/L	2.0	0.47	1		10/01/19 18:45	179601-23-1	
o-Xylene	<0.26	ug/L	1.0	0.26	1		10/01/19 18:45	95-47-6	
<b>Surrogates</b>									
4-Bromofluorobenzene (S)	99	%	70-130		1		10/01/19 18:45	460-00-4	
Dibromofluoromethane (S)	109	%	70-130		1		10/01/19 18:45	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/01/19 18:45	2037-26-5	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

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QC Batch: 335948 Analysis Method: EPA 6010  
 QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved  
 Associated Lab Samples: 40196093001, 40196093002, 40196093003, 40196093004, 40196093005, 40196093006, 40196093007,  
 40196093008, 40196093009, 40196093010

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METHOD BLANK: 1950632 Matrix: Water  
 Associated Lab Samples: 40196093001, 40196093002, 40196093003, 40196093004, 40196093005, 40196093006, 40196093007,  
 40196093008, 40196093009, 40196093010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	10/02/19 00:08	
Iron, Dissolved	ug/L	<29.6	100	10/02/19 00:08	
Manganese, Dissolved	ug/L	<1.1	5.0	10/02/19 00:08	

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LABORATORY CONTROL SAMPLE: 1950633

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	473	95	80-120	
Iron, Dissolved	ug/L	5000	4930	99	80-120	
Manganese, Dissolved	ug/L	500	450	90	80-120	

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MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950634 1950635

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40196011016 Result	Spike Conc.	Spike Conc.	MS Result						
Chromium, Dissolved	ug/L	<2.5	500	500	477	479	95	96	75-125	1	20
Iron, Dissolved	ug/L	1440	5000	5000	6350	6340	98	98	75-125	0	20
Manganese, Dissolved	ug/L	2500	500	500	2880	2900	76	79	75-125	1	20

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### QUALITY CONTROL DATA

Project: 58117057 NW MAUTHE SUPERFUND  
Pace Project No.: 40196093

QC Batch: 335950 Analysis Method: EPA 6010  
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved  
Associated Lab Samples: 40196093011, 40196093012, 40196093013, 40196093014, 40196093015

METHOD BLANK: 1950639 Matrix: Water  
Associated Lab Samples: 40196093011, 40196093012, 40196093013, 40196093014, 40196093015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.5	10.0	10/02/19 02:30	
Iron, Dissolved	ug/L	<29.6	100	10/02/19 02:30	
Manganese, Dissolved	ug/L	<1.1	5.0	10/02/19 02:30	

LABORATORY CONTROL SAMPLE: 1950640

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	475	95	80-120	
Iron, Dissolved	ug/L	5000	4900	98	80-120	
Manganese, Dissolved	ug/L	500	448	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950641 1950642

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40196093011 Result	Spike Conc.	Spike Conc.	MS Result						
Chromium, Dissolved	ug/L	<2.5	500	500	491	482	98	96	75-125	2	20
Iron, Dissolved	ug/L	1080	5000	5000	6100	6100	100	100	75-125	0	20
Manganese, Dissolved	ug/L	542	500	500	989	986	89	89	75-125	0	20

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### QUALITY CONTROL DATA

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

QC Batch: 335810 Analysis Method: EPA 8260  
 QC Batch Method: EPA 8260 Analysis Description: 8260 MSV  
 Associated Lab Samples: 40196093008, 40196093010, 40196093011, 40196093012, 40196093013, 40196093014, 40196093015, 40196093016

METHOD BLANK: 1950094 Matrix: Water  
 Associated Lab Samples: 40196093008, 40196093010, 40196093011, 40196093012, 40196093013, 40196093014, 40196093015, 40196093016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	10/01/19 17:07	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/01/19 17:07	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	10/01/19 17:07	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/01/19 17:07	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/01/19 17:07	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/01/19 17:07	
1,1-Dichloropropene	ug/L	<0.54	1.8	10/01/19 17:07	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	10/01/19 17:07	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	10/01/19 17:07	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	10/01/19 17:07	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	10/01/19 17:07	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/01/19 17:07	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/01/19 17:07	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/01/19 17:07	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/01/19 17:07	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/01/19 17:07	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	10/01/19 17:07	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/01/19 17:07	
1,3-Dichloropropane	ug/L	<0.83	2.8	10/01/19 17:07	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/01/19 17:07	
2,2-Dichloropropane	ug/L	<2.3	7.6	10/01/19 17:07	
2-Chlorotoluene	ug/L	<0.93	5.0	10/01/19 17:07	
4-Chlorotoluene	ug/L	<0.76	2.5	10/01/19 17:07	
Benzene	ug/L	<0.25	1.0	10/01/19 17:07	
Bromobenzene	ug/L	<0.24	1.0	10/01/19 17:07	
Bromochloromethane	ug/L	<0.36	5.0	10/01/19 17:07	
Bromodichloromethane	ug/L	<0.36	1.2	10/01/19 17:07	
Bromoform	ug/L	<4.0	13.2	10/01/19 17:07	
Bromomethane	ug/L	<0.97	5.0	10/01/19 17:07	
Carbon tetrachloride	ug/L	<0.17	1.0	10/01/19 17:07	
Chlorobenzene	ug/L	<0.71	2.4	10/01/19 17:07	
Chloroethane	ug/L	<1.3	5.0	10/01/19 17:07	
Chloroform	ug/L	<1.3	5.0	10/01/19 17:07	
Chloromethane	ug/L	<2.2	7.3	10/01/19 17:07	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/01/19 17:07	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/01/19 17:07	
Dibromochloromethane	ug/L	<2.6	8.7	10/01/19 17:07	
Dibromomethane	ug/L	<0.94	3.1	10/01/19 17:07	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/01/19 17:07	
Diisopropyl ether	ug/L	<1.9	6.3	10/01/19 17:07	

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### QUALITY CONTROL DATA

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

METHOD BLANK: 1950094

Matrix: Water

Associated Lab Samples: 40196093008, 40196093010, 40196093011, 40196093012, 40196093013, 40196093014, 40196093015, 40196093016

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.22	1.0	10/01/19 17:07	
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	10/01/19 17:07	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	10/01/19 17:07	
m&p-Xylene	ug/L	<0.47	2.0	10/01/19 17:07	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/01/19 17:07	
Methylene Chloride	ug/L	<0.58	5.0	10/01/19 17:07	
n-Butylbenzene	ug/L	<0.71	2.4	10/01/19 17:07	
n-Propylbenzene	ug/L	<0.81	5.0	10/01/19 17:07	
Naphthalene	ug/L	<1.2	5.0	10/01/19 17:07	
o-Xylene	ug/L	<0.26	1.0	10/01/19 17:07	
p-Isopropyltoluene	ug/L	<0.80	2.7	10/01/19 17:07	
sec-Butylbenzene	ug/L	<0.85	5.0	10/01/19 17:07	
Styrene	ug/L	<0.47	1.6	10/01/19 17:07	
tert-Butylbenzene	ug/L	<0.30	1.0	10/01/19 17:07	
Tetrachloroethene	ug/L	<0.33	1.1	10/01/19 17:07	
Toluene	ug/L	<0.17	5.0	10/01/19 17:07	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/01/19 17:07	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/01/19 17:07	
Trichloroethene	ug/L	<0.26	1.0	10/01/19 17:07	
Trichlorofluoromethane	ug/L	<0.21	1.0	10/01/19 17:07	
Vinyl chloride	ug/L	<0.17	1.0	10/01/19 17:07	
4-Bromofluorobenzene (S)	%	99	70-130	10/01/19 17:07	
Dibromofluoromethane (S)	%	107	70-130	10/01/19 17:07	
Toluene-d8 (S)	%	103	70-130	10/01/19 17:07	

LABORATORY CONTROL SAMPLE: 1950095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.8	112	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	56.1	112	70-130	
1,1,2-Trichloroethane	ug/L	50	55.2	110	70-130	
1,1-Dichloroethane	ug/L	50	66.0	132	73-150	
1,1-Dichloroethene	ug/L	50	49.1	98	73-138	
1,2,4-Trichlorobenzene	ug/L	50	48.5	97	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	55.0	110	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	54.6	109	70-130	
1,2-Dichlorobenzene	ug/L	50	51.1	102	70-130	
1,2-Dichloroethane	ug/L	50	61.0	122	75-140	
1,2-Dichloropropane	ug/L	50	58.1	116	73-135	
1,3-Dichlorobenzene	ug/L	50	51.1	102	70-130	
1,4-Dichlorobenzene	ug/L	50	50.8	102	70-130	
Benzene	ug/L	50	58.6	117	70-130	
Bromodichloromethane	ug/L	50	53.6	107	70-130	

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### QUALITY CONTROL DATA

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

LABORATORY CONTROL SAMPLE: 1950095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	ug/L	50	44.5	89	68-129	
Bromomethane	ug/L	50	26.4	53	18-159	
Carbon tetrachloride	ug/L	50	57.4	115	70-130	
Chlorobenzene	ug/L	50	53.9	108	70-130	
Chloroethane	ug/L	50	40.3	81	53-147	
Chloroform	ug/L	50	57.4	115	74-136	
Chloromethane	ug/L	50	36.0	72	29-115	
cis-1,2-Dichloroethene	ug/L	50	54.0	108	70-130	
cis-1,3-Dichloropropene	ug/L	50	48.0	96	70-130	
Dibromochloromethane	ug/L	50	49.4	99	70-130	
Dichlorodifluoromethane	ug/L	50	38.1	76	10-130	
Ethylbenzene	ug/L	50	55.1	110	80-124	
Isopropylbenzene (Cumene)	ug/L	50	55.1	110	70-130	
m&p-Xylene	ug/L	100	106	106	70-130	
Methyl-tert-butyl ether	ug/L	50	56.0	112	54-137	
Methylene Chloride	ug/L	50	52.7	105	73-138	
o-Xylene	ug/L	50	54.6	109	70-130	
Styrene	ug/L	50	50.4	101	70-130	
Tetrachloroethene	ug/L	50	54.6	109	70-130	
Toluene	ug/L	50	55.5	111	80-126	
trans-1,2-Dichloroethene	ug/L	50	59.0	118	73-145	
trans-1,3-Dichloropropene	ug/L	50	50.7	101	70-130	
Trichloroethene	ug/L	50	55.7	111	70-130	
Trichlorofluoromethane	ug/L	50	42.0	84	76-147	
Vinyl chloride	ug/L	50	40.6	81	51-120	
4-Bromofluorobenzene (S)	%			109	70-130	
Dibromofluoromethane (S)	%			104	70-130	
Toluene-d8 (S)	%			104	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1950684 1950685

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40196093010 Result	Spike Conc.	Spike Conc.	Conc.								
1,1,1-Trichloroethane	ug/L	23.2	50	50	50	78.2	78.8	110	111	70-130	1	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	50	56.1	55.3	112	111	70-130	2	20	
1,1,2-Trichloroethane	ug/L	<0.55	50	50	50	55.9	56.1	111	111	70-137	0	20	
1,1-Dichloroethane	ug/L	2.3	50	50	50	65.0	64.7	125	125	73-153	0	20	
1,1-Dichloroethene	ug/L	1.3	50	50	50	48.4	47.7	94	93	73-138	2	20	
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	50	50.2	50.7	100	101	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	50	55.6	55.9	111	112	58-129	1	20	
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	50	53.6	55.4	107	111	70-130	3	20	
1,2-Dichlorobenzene	ug/L	<0.71	50	50	50	50.7	50.8	101	102	70-130	0	20	
1,2-Dichloroethane	ug/L	<0.28	50	50	50	60.1	60.3	120	121	75-140	0	20	
1,2-Dichloropropane	ug/L	<0.28	50	50	50	58.2	58.3	116	117	71-138	0	20	

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### QUALITY CONTROL DATA

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

Parameter	Units	1950684		1950685		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		40196093010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
1,3-Dichlorobenzene	ug/L	<0.63	50	50	51.4	51.7	103	103	70-130	1	20	
1,4-Dichlorobenzene	ug/L	<0.94	50	50	51.0	51.0	102	102	70-130	0	20	
Benzene	ug/L	<0.25	50	50	56.4	56.5	113	113	70-130	0	20	
Bromodichloromethane	ug/L	<0.36	50	50	55.5	54.5	111	109	70-130	2	20	
Bromoform	ug/L	<4.0	50	50	45.9	44.3	92	89	68-129	3	20	
Bromomethane	ug/L	<0.97	50	50	27.9	29.8	56	60	15-170	6	20	
Carbon tetrachloride	ug/L	<0.17	50	50	55.3	54.8	111	110	70-130	1	20	
Chlorobenzene	ug/L	<0.71	50	50	54.3	54.2	109	108	70-130	0	20	
Chloroethane	ug/L	<1.3	50	50	38.5	39.2	77	78	51-148	2	20	
Chloroform	ug/L	<1.3	50	50	55.5	55.1	110	109	74-136	1	20	
Chloromethane	ug/L	<2.2	50	50	34.1	34.0	68	68	23-115	0	20	
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	52.2	51.6	104	103	70-131	1	20	
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	49.7	49.0	99	98	70-130	1	20	
Dibromochloromethane	ug/L	<2.6	50	50	49.6	49.5	99	99	70-130	0	20	
Dichlorodifluoromethane	ug/L	<0.50	50	50	36.5	35.2	73	70	10-132	4	20	
Ethylbenzene	ug/L	<0.22	50	50	54.4	55.4	109	111	80-125	2	20	
Isopropylbenzene (Cumene)	ug/L	<0.39	50	50	53.8	55.3	108	111	70-130	3	20	
m&p-Xylene	ug/L	<0.47	100	100	106	109	106	109	70-130	2	20	
Methyl-tert-butyl ether	ug/L	<1.2	50	50	53.7	54.7	107	109	51-145	2	20	
Methylene Chloride	ug/L	<0.58	50	50	53.6	51.8	107	104	73-140	3	20	
o-Xylene	ug/L	<0.26	50	50	52.5	54.2	105	108	70-130	3	20	
Styrene	ug/L	<0.47	50	50	39.3	39.4	79	79	70-130	0	20	
Tetrachloroethene	ug/L	<0.33	50	50	53.3	54.1	107	108	70-130	2	20	
Toluene	ug/L	<0.17	50	50	54.6	56.1	109	112	80-131	3	20	
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	58.0	55.7	116	111	73-148	4	20	
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	50.7	50.9	101	102	70-130	1	20	
Trichloroethene	ug/L	35.3	50	50	88.9	91.2	107	112	70-130	3	20	
Trichlorofluoromethane	ug/L	<0.21	50	50	41.3	40.7	83	81	74-147	1	20	
Vinyl chloride	ug/L	<0.17	50	50	37.7	36.6	75	73	41-129	3	20	
4-Bromofluorobenzene (S)	%						104	105	70-130			
Dibromofluoromethane (S)	%						97	99	70-130			
Toluene-d8 (S)	%						100	102	70-130			

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### QUALITY CONTROL DATA

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

QC Batch: 336181

Analysis Method: EPA 335.4

QC Batch Method: EPA 335.4

Analysis Description: 335.4 Cyanide, Total

Associated Lab Samples: 40196093011, 40196093012, 40196093013, 40196093015

METHOD BLANK: 1951945

Matrix: Water

Associated Lab Samples: 40196093011, 40196093012, 40196093013, 40196093015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	0.0079J	0.023	10/03/19 15:00	

LABORATORY CONTROL SAMPLE: 1951946

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.10	104	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1951947 1951948

Parameter	Units	40196107001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Result						
Cyanide	mg/L	<0.0068	0.1	0.10	0.10	0.10	99	96	90-110	2	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1951949 1951950

Parameter	Units	40196343003 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Result						
Cyanide	mg/L	0.019J	0.2	0.20	0.20	0.20	91	91	90-110	0	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

## QUALIFIERS

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

---

### 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, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 NW MAUTHE SUPERFUND

Pace Project No.: 40196093

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40196093001	W-2	EPA 6010	335948		
40196093002	W-8	EPA 6010	335948		
40196093003	W-15	EPA 6010	335948		
40196093004	MW-101	EPA 6010	335948		
40196093005	MW-103	EPA 6010	335948		
40196093006	MW-104	EPA 6010	335948		
40196093007	MW-106	EPA 6010	335948		
40196093008	MW-107	EPA 6010	335948		
40196093009	MW-108	EPA 6010	335948		
40196093010	MW-109	EPA 6010	335948		
40196093011	MW-110	EPA 6010	335950		
40196093012	MW-111	EPA 6010	335950		
40196093013	MW-112	EPA 6010	335950		
40196093014	MW-113	EPA 6010	335950		
40196093015	BD-1	EPA 6010	335950		
40196093008	MW-107	EPA 8260	335810		
40196093010	MW-109	EPA 8260	335810		
40196093011	MW-110	EPA 8260	335810		
40196093012	MW-111	EPA 8260	335810		
40196093013	MW-112	EPA 8260	335810		
40196093014	MW-113	EPA 8260	335810		
40196093015	BD-1	EPA 8260	335810		
40196093016	TB	EPA 8260	335810		
40196093011	MW-110	EPA 335.4	336181	EPA 335.4	336240
40196093012	MW-111	EPA 335.4	336181	EPA 335.4	336240
40196093013	MW-112	EPA 335.4	336181	EPA 335.4	336240
40196093015	BD-1	EPA 335.4	336181	EPA 335.4	336240

### REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.

(Please Print Clearly)

**Company Name:** Terracon  
**Branch/Location:** Franklin  
**Project Contact:** Scott Hodgson  
**Phone:** 414-209-7640  
**Project Number:** 58117057  
**Project Name:** N.W. Mauthe Superfund  
**Project State:** Wisconsin  
**Sampled By (Print):** Krista Krueninger  
**Sampled By (Sign):** Krista Krueninger  
**PO #:** Regulatory Program:



**UPPER MIDWEST REGION**  
 MN: 612-607-1700 WI: 920-469-2436

### 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)\***

Y/N	Y	N	N						
Pick Letter	D	B	G						
Analyses Requested Metals - Diss. Cr, Fe, Mn VOCs Cyanide									

**Quote #:**  
**Mail To Contact:**  
**Mail To Company:** Terracon  
**Mail To Address:**  
**Invoice To Contact:**  
**Invoice To Company:** Terracon  
**Invoice To Address:**  
**Invoice To Phone:**

**Data Package Options (billable)**  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 SI = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
001	W-2	9/25/19	12:48	GW
002	W-8	9/25/19	1440	
003	W-15	9/25/19	1410	
004	MW-101	9/25/19	1150	
005	MW-103	9/25/19	1538	
006	MW-104	9/25/19	1531	
007	MW-106	9/25/19	1430	
008	MW-107	9/25/19	1643	
009	MW-108	9/25/19	1243	
010	MW-109	9/24/19	850	
011	MW-110	9/24/19	1203	
012	MW-111	9/24/19	934	
013	MW-112	9/24/19	1028	

**CLIENT COMMENTS**  
**LAB COMMENTS (Lab Use Only)**  
**Profile #**

9/27/19  
AS

<b>Rush Turnaround Time Requested - Prelims</b> (Rush TAT subject to approval/surcharge) <b>Date Needed:</b>	Relinquished By: <i>Krista Krueninger</i> Date/Time: 9/26/19 1240	Received By: <i>Scott A. Hodgson</i> Date/Time: 9/26/19 1240	<b>PACE Project No.</b> 40196093 Receipt Temp = 20.1 °C Sample Receipt pH (OK) Adjusted Cooler Custody Seal Present / Not Present Intact / Not Intact
	Relinquished By: <i>Scott A. Hodgson</i> Date/Time: 9/27/19 0830	Received By: <i>[Signature]</i> Date/Time: 9/27/19 0930	
	Relinquished By: <i>[Signature]</i> Date/Time: 9/27/19 1330	Received By: <i>[Signature]</i> Date/Time: 9/27/19 1330	
	Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	

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

(Please Print Clearly)

Company Name: Terracon  
 Branch/Location: Franklin  
 Project Contact: Scott Hodgson  
 Phone: 414-209-7640  
 Project Number: 58117057  
 Project Name: N.W. Mauthe Superfund  
 Project State: Wisconsin  
 Sampled By (Print): Krista Kroeninger  
 Sampled By (Sign): *Krista Kroeninger*  
 PO #: \_\_\_\_\_ Regulatory Program: \_\_\_\_\_

**Data Package Options** (billable)  
 EPA Level III  
 EPA Level IV

**MS/MSD**  
 On your sample (billable)  
 NOT needed on your sample

**Matrix Codes**  
 A = Air W = Water  
 B = Biota DW = Drinking Water  
 C = Charcoal GW = Ground Water  
 O = Oil SW = Surface Water  
 S = Soil WW = Waste Water  
 Sl = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
014	MW-113	9/24/19	1120	GW
015	BD-1	↓	934	GW
016	① TB			



UPPER MIDWEST REGION  
 MN: 612-607-1700 WI: 920-469-2436

Page 2 of 2  
 40196093  
 Page 35 of 37

### 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)\*

Y/N	Y	N	N							
Pick Letter	D	B	G							
Analyses Requested	Metals - Diss Cr, Fe, Mn	VOCs	Cyanide							
	1	3	X							
	1	3	1							

Quote #: \_\_\_\_\_  
 Mail To Contact: \_\_\_\_\_  
 Mail To Company: Terracon  
 Mail To Address: \_\_\_\_\_  
 Invoice To Contact: \_\_\_\_\_  
 Invoice To Company: Terracon  
 Invoice To Address: \_\_\_\_\_  
 Invoice To Phone: \_\_\_\_\_

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #

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: *Krista Kroeninger* Date/Time: 9/24/19 1240  
 Relinquished By: *Scott A. Hodgson* Date/Time: 9/27/19 0930  
 Relinquished By: *[Signature]* Date/Time: 9/27/19 1330

Received By: *Scott A. Hodgson* Date/Time: 9/26/19 1240  
 Received By: *[Signature]* Date/Time: 9/27/19 0930  
 Received By: *[Signature]* Date/Time: 9/27/19 1330

PACE Project No. 40196093  
 Receipt Temp = 20.1 °C  
 Sample Receipt pH OK / Adjusted  
 Cooler-Custody Seal Present / Not Present Intact / Not Intact

C019a(27Jun2006) ① TB added to coc by lw 9/27/19

# Sample Preservation Receipt Form

Client Name: Terracon

Project # 40196093

All containers needing preservation have been checked and noted below:  Yes  No  N/A

Lab Lot# of pH paper: 0450891

Lab Std #ID of preservation (if pH adjusted):

Initial when completed: DMC

Date/Time:

Pace Lab #	Glass						Plastic						Vials					Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)											
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU								SP5T	ZPLC	GN								
001																																									2.5 / 5 / 10
002																																									2.5 / 5 / 10
003																																									2.5 / 5 / 10
004																																									2.5 / 5 / 10
005																																									2.5 / 5 / 10
006																																									2.5 / 5 / 10
007																																									2.5 / 5 / 10
008																																									2.5 / 5 / 10
009																																									2.5 / 5 / 10
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016																																									2.5 / 5 / 10
017																																									2.5 / 5 / 10
018																																									2.5 / 5 / 10
019																																									2.5 / 5 / 10
020																																									2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: \_\_\_\_\_ Headspace in VOA Vials (>6mm):  Yes  No  N/A \*If yes look in headspace column

AG1U 1 liter amber glass	BP1U 1 liter plastic unpres	DG9A 40 mL amber ascorbic	JGFU 4 oz amber jar unpres
AG1H 1 liter amber glass HCL	BP2N 500 mL plastic HNO3	DG9T 40 mL amber Na Thio	WGFU 4 oz clear jar unpres
AG4S 125 mL amber glass H2SO4	BP2Z 500 mL plastic NaOH, Znact	VG9U 40 mL clear vial unpres	WPFU 4 oz plastic jar unpres
AG4U 120 mL amber glass unpres	BP3U 250 mL plastic unpres	VG9H 40 mL clear vial HCL	
AG5U 100 mL amber glass unpres	BP3B 250 mL plastic NaOH	VG9M 40 mL clear vial MeOH	SP5T 120 mL plastic Na Thiosulfate
AG2S 500 mL amber glass H2SO4	BP3N 250 mL plastic HNO3	VG9D 40 mL clear vial DI	ZPLC ziploc bag
BG3U 250 mL clear glass unpres	BP3S 250 mL plastic H2SO4		GN:





Document Name: Sample Condition Upon Receipt (SCUR)  
Document No.: F-GB-C-031-Rev.07

Document Revised: 25Apr2018  
Issuing Authority: Pace Green Bay Quality Office

### Sample Condition Upon Receipt Form (SCUR)

Project #: \_\_\_\_\_

Client Name: Terracon

**WO#: 40196093**



40196093

Courier:  CS Logistics  Fed Ex  Speedee  UPS  Waltco  
 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 SR - N/A Type of Ice: Wet Blue Dry None  Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT /Corr: \_\_\_\_\_

Temp Blank Present:  yes  no Biological Tissue is Frozen:  yes  no

Person examining contents:

Date: 9/25/19

Initials: [Signature]

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

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		<u>004 + 005 poly no times</u> <u>06/27/19</u>
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>433</u>		

Client Notification/ Resolution: \_\_\_\_\_ If checked, see attached form for additional comments

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: [Signature]

Date: 9/30/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057
PROJECT LOCATION: Appleton, Wisconsin		
SAMPLE POINT: <del>OW-2</del>	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"	(14.0 - 4.10) .49 = 4.851	
WELL DEPTH: 14.0		
DATE: <del>9/2/19</del> 9/25/19--SAH	TIME: 11:49	DEPTH TO GROUND WATER (FT): 4.10
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 mL/min.
SAMPLE TIME: 12:48		TOTAL PURGED: 7.0 gallons

Baseline initial

TIME	WATER LEVEL (ft)	TEMP. (°C)	pH	COND. (MS/CM)	ORP (mV)	DO (mg/L)
11:49	4.87	17.97	7.77	1.72	= 78	18.54
—	Purg					
12:20	11.26	14.49	7.30	1577	-88.5	3.01
<del>12:20</del>	11.71	14.14	7.02	1488	-81.6	2.27
12:30	12.01	13.89	6.95	1478	-74.6	0.64
12:35	12.38	13.83	6.92	1477	-71.6	0.39
12:40	<del>12.68</del> 12.68	13.61	6.90	1473	-70.9	0.39
12:45		13.07	6.91	1475	-70.0	0.36

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: Diss Cr, Diss Fe, Mn
--	--	--------------------------------

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

LEB

COMMENTS:

---

SAMPLED BY: LEB	DATE: 9/25/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: <del>W-8</del>	SAMPLE POINT DESCRIPTION:		
CASING DIAMETER: 2"	(14.80 - 6.12) .49 = 4.253		
WELL DEPTH: 14.80			
DATE: 9/25/19	TIME	AM / PM	DEPTH TO GROUND WATER (FT): 6.12
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 ml/min.	
SAMPLE TIME: 1440		TOTAL PURGED: ~5.5 gallons	

Baseline

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (mS/cm)	ORP	DO (mg/L)
13:31	6.81	17.71	7.43	1.13	62	1.33
	— purge ~4 gallons					
14:13	11.17	18.34	7.52	0.925	109	3.33
1418	11.50	17.64	7.28	0.905	108	0.33
1423	11.90	17.21	7.19	0.973	109	0.00
1428	12.32	17.15	7.17	0.992	109	0.00
1433	12.53	17.10	7.16	1.03	108	0.00
1438	12.64	16.96	7.13	1.07	108	0.00
1440	— sample					

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: Diss Cr, Diss Fe, Mn
--	--	--------------------------------

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

(Kek)

COMMENTS:

SAMPLED BY: Kek	DATE: 9/25/19
REVIEWED BY: Scott D. Hodgson	DATE: 10/31/19



# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: <del>W-15</del>		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH: 13.71		(13.71 - 6.65) #9 = 3.459	
DATE: 9/25/19	TIME	AM / PM	DEPTH TO GROUND WATER (FT): 6.65
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 mL/min.	
SAMPLE TIME: 1410		TOTAL PURGED: 4 gallons	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (µS/cm)	ORP ( )	DO (mg/L)
baseline 13:23	7.29	20.30	7.53	1.29	63	0.41
	purge ~3 gallons					
1341	10.55	18.43	7.57	0.712	90	1.78
1346	11.21	18.46	7.55	0.710	85	0.91
1351	11.49	18.67	7.51	0.729	85	0.46
1356	11.63	18.77	7.50	0.760	85	0.48
1401	11.82	18.78	7.47	0.771	85	0.42
1406	11.95	18.77	7.46	0.780	85	0.39
1410	sample					

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: Diss Cr, Diss Fe, Mn
--	--	--------------------------------

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

COMMENTS:

SAMPLED BY: KLR	DATE: 9/25/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: MW-101		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: <del>9/2/19</del>	TIME	AM / PM	DEPTH TO GROUND WATER (FT):
9/25/19--SAH			
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 ml/min.	
SAMPLE TIME: 11:50		TOTAL PURGED: 1.5 gallons	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (µs/cm <sup>3</sup> )	ORP ( )	DO (ml/l)
11:27	5.68	17.94	6.68	7094	106.3	0.58
11:32	7.83	17.94	6.61	7094	94.7	0.41
11:37	8.25	18.03	6.61	7063	90.5	0.35
11:42	8.31	17.66	6.60	7026	88.6	0.32
11:47	8.42	18.22	6.60	7027	84.5	0.38

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID CLEAR	ODOR: YES <input checked="" type="checkbox"/> NOT NOTED	ANALYSES: Diss Cr, Diss Fe, Mn
--	--	--------------------------------

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

COMMENTS:

SAMPLED BY: LEB	DATE: 9/25/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: <del>NW-03</del> NW-03		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: <del>9/2/19</del> 9/25/19--SAH	TIME: 15:05	AM/PM:	DEPTH TO GROUND WATER (FT):
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 mL/min.	
SAMPLE TIME: 15:38		TOTAL PURGED: 3 gallons	

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)
15:05	5.16	13.13	7.32	713	65.5	2.00
15:10	7.75	12.66	6.97	680	69.2	1.06
15:15	8.68	12.79	6.96	676	67.3	1.06
15:20	8.90	12.87	6.88	641	70.2	1.99
15:25	9.35	13.24	6.86	626	75.2	3.63
15:30	9.89	13.22	6.84	619	80.1	4.88
15:35	10.44	13.88	6.83	606	82.3	4.61

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input checked="" type="checkbox"/> CLEAR	ODOR: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NOT NOTED	ANALYSES: Diss Cr, Diss Fe, Mn
---	---	--------------------------------

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

LEB

COMMENTS:

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SAMPLED BY: LEB	DATE: 9/25/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: MW-104		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: 9/25/19	TIME:	AM / PM:	DEPTH TO GROUND WATER (FT): 8.18
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 mL/min.	
SAMPLE TIME: 1531		TOTAL PURGED: ~2 gallons	

TIME	WATER LEVEL	TEMP. (° C)	pH	COND. ( )	ORP ( )	DO ( )
1456	8.21	17.71	7.29	1.14	-67	0.05
1501	8.84	15.95	7.14	1.16	-66	0.00
1506	9.29	15.05	7.11	1.19	-62	0.00
1511	9.57	14.63	7.09	1.20	-61	0.00
1516	9.73	14.35	7.06	1.19	-65	0.00
1521	9.89	14.34	7.04	1.19	-66	0.00
1526	9.99	14.34	7.06	1.20	-65	0.00
1531	sample					

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input type="checkbox"/> CLEAR <input checked="" type="checkbox"/>	ODOR: YES <input checked="" type="checkbox"/> NOT NOTED <input type="checkbox"/>	ANALYSES: Diss Cr, Diss Fe, Mn
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

*[Signature]*

COMMENTS:

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SAMPLED BY: <i>KK</i>	DATE: 9/25/19
REVIEWED BY: <i>Scott A. Hodgson</i>	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057
PROJECT LOCATION: Appleton, Wisconsin		
SAMPLE POINT: MW-106	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"	(15.10 - 6.22) .49 = 4.3512	
WELL DEPTH: 15.10		
DATE: <del>9/2/19</del> 9/25/19	TIME	AM / PM
SAMPLING METHOD: low flow sampling		DEPTH TO GROUND WATER (FT): 6.22
FLOW RATE: ~200 ml/min.		
SAMPLE TIME: 14:30	TOTAL PURGED: 6.5 gallons	

Baseline

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (µg/cm)	ORP (mV)	DO (mg/L)
13:30	6.68	20.20	7.39	1467	-48.2	2.39
13:57	10.17	19.84	7.25	873	49.2	1.86
14:02	10.51	19.27	7.07	914	33.1	1.22
14:07	10.89	19.22	7.03	991	38.5	1.10
14:12	11.33	19.07	7.01	1085	40.6	0.89
14:17	12.70	18.86	7.01	1133	35.5	0.61
14:22	12.08	18.68	7.02	1181	20.2	0.47
14:27	12.50	18.56	7.04	1201	21.8	0.36

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: Diss Cr, Diss Fe, Mn
--	--	--------------------------------

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

LEB

COMMENTS:

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SAMPLED BY: LEB	DATE: 9/25/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19



# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: MW-107		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: 9/25/19	TIME	AM / PM	DEPTH TO GROUND WATER (FT): 8.68
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 ml/min.	
SAMPLE TIME: 1643		TOTAL PURGED: ~2 gallons	

TIME	WATER LEVEL	TEMP. (° C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
16:11	9.46	17.74	7.40	0.932	55	2.23
16:16	10.54	17.27	7.36	0.891	42	0.00
16:21	10.80	15.37	7.39	0.942	49	0.83
16:26	11.20	15.34	7.37	0.946	52	0.89
16:31	11.56	15.51	7.36	0.942	56	0.44
16:36	11.80	15.81	7.34	0.938	58	0.78
16:41	12.10	16.08	7.33	0.934	62	0.77
<del>16:46</del>						
1643	sample					

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: Diss Cr, Diss Fe, Mn, 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

*[Signature]*

COMMENTS:

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SAMPLED BY: <i>[Signature]</i>	DATE: 9/25/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: MW-108		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"		(28.0 - 6.4) * 49 = 10.584 gallons	
WELL DEPTH: 28.0			
DATE: 9/25/19	TIME	AM / PM	DEPTH TO GROUND WATER (FT): 6.4
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 ml/min.	
SAMPLE TIME: 12:43		TOTAL PURGED:	

Baseline  
initial

TIME	WATER LEVEL	TEMP. (° )	pH	COND. (ms/cm)	ORP (mV)	DO (mg/L)
11:15	6.7	14.96	7.41	2.961	2.30	↔ 70.4
— Purge 2/0 gallons —						
12:10	15.55	18.52	7.20	2.67	102	1.70
12:15	15.69	18.39	7.11	2.67	97	0.89
12:20	15.9	17.85	7.08	2.70	95	0.67
12:25	16.08	17.68	7.06	2.69	92	0.59
12:30	16.21	17.47	7.07	2.66	89	0.52
12:35	16.35	17.38	7.07	2.66	88	0.50
12:40	16.41	17.20	7.07	2.65	88	0.49
Sample 12:43						

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

*[Signature]*

COMMENTS:

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SAMPLED BY: <i>KUR</i>	DATE: 9/25/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: MW-109		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: <del>9/25/19</del>	TIME	AM / PM	DEPTH TO GROUND WATER (FT):
9/26/19--SAH			
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 ml/min.	
SAMPLE TIME: 8:50		TOTAL PURGED: ~2 gallons	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
8:15	8.73	11.83	7.23	4.94	166	5.32
8:20	9.09	12.03	7.02	4.96	168	3.61
8:25	9.31	12.19	7.05	4.99	169	3.30
8:30	9.57	12.33	7.05	4.99	168	2.86
8:35	9.74	12.37	7.08	5.00	167	2.60
8:40	9.89	12.44	7.09	5.00	167	2.18
8:45	9.99	12.45	7.08	5.00	167	2.16
8:50	Sample					

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: Diss Cr, Diss Fe, Mn, VOCs, <del>Microbes</del>
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CLEANING PERFORMED IN FIELD: Alconox and Distilled Water AND Disposable gloves \*INITIAL TO VERIFY OR NOTE OTHER CLEANING METHOD PERFORMED

*ALC*

COMMENTS:

SAMPLED BY: <i>ALC</i>	DATE: 9/26/19
REVIEWED BY: Scott D. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: MW-110		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: <del>9/25/19</del> 9/26/19--SAH	TIME: 10:47	AM/PM: AM	DEPTH TO GROUND WATER (FT): 5.8
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 ml/min.	
SAMPLE TIME: 12:03		TOTAL PURGED: ~2 gallons	

TIME	WATER LEVEL	TEMP. (°C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
11:29	7.3	15.62	6.97	1.12	59	0.00
11:34	8.52	15.56	6.86	1.10	15	0.00
11:39	9.21	15.16	6.90	0.937	-49	0.00
11:44	9.89	15.26	6.95	0.926	-51	0.00
11:49	10.41	15.34	6.95	0.932	-51	0.00
11:54	10.93	15.43	6.93	0.947	-52	0.00
11:59	<del>10.41</del> 11.41	15.44	6.92	0.949	-52	0.00
12:03						

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input type="checkbox"/> CLEAR <input checked="" type="checkbox"/>	ODOR: YES <input checked="" type="checkbox"/> NOT NOTED <input type="checkbox"/>	ANALYSES: Diss Cr, Diss Fe, Mn, VOCs, Cyanide
--	--	---

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

*[Signature]*

COMMENTS:

SAMPLED BY: KLK	DATE: 9/26/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: MW-111		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: <del>9/25/19</del> 9/26/19--SAH	TIME: 10:42	AM/PM:	DEPTH TO GROUND WATER (FT): <del>6.10</del> 6.10
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 ml/min.	
SAMPLE TIME: 9:34		TOTAL PURGED: ~2 gallons	

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (µS/cm)	ORP (mV)	DO (mg/L)
9:00	6.66	12.76	7.60	1.05	139	2.10
9:05	6.90	12.77	7.55	0.950	136	0.00
9:10	7.18	12.97	7.49	0.909	137	0.13
9:15	7.42	13.17	7.46	0.878	137	0.23
9:20	7.70	13.26	7.45	0.864	137	0.27
9:25	7.92	13.51	7.45	0.839	136	0.55
9:30	7.99	13.60	7.46	0.825	135	0.60
Sampled 9:34						

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID CLEAR	ODOR: YES NO NOT NOTED	ANALYSES: Diss Cr, Diss Fe, Mn VOC, cyanide
--	------------------------	--

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

*[Signature]*


COMMENTS:

DUP - BD-1

SAMPLED BY: <i>[Signature]</i>	DATE: <del>9/26/19</del> 9/26/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057
PROJECT LOCATION: Appleton, Wisconsin		
SAMPLE POINT: MW- <del>0118</del>	SAMPLE POINT DESCRIPTION: 	
CASING DIAMETER: 2"		
WELL DEPTH:		
DATE: <del>9/25/19</del>	TIME 10:39	AM / PM
9/26/19--SAH		DEPTH TO GROUND WATER (FT):
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 ml/min.
SAMPLE TIME: 10:28		TOTAL PURGED: ~2 gallon

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
9:54	4.25	13.65	7.52	1.14	121	0.30
9:59	4.94	13.92	7.36	1.09	108	0.00
10:04	5.41	14.05	7.22	1.08	112	0.00
10:09	5.98	14.22	7.16	1.07	115	0.00
10:14	6.14	14.35	7.16	1.05	118	0.00
10:19	6.28	14.81	7.15	1.04	119	0.00
10:24	6.42	14.82	7.16	1.04	119	0.00
10:28						

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: Diss. Cr, Diss Fe, Mn, VOCs, Chromium
---	---	---

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

*[Signature]*

COMMENTS:

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SAMPLED BY: KUK	DATE: 9/26/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

# TERRACON

## GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: NW. Maunthe Superfund Site		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, Wisconsin			
SAMPLE POINT: MW-113		SAMPLE POINT DESCRIPTION:	
CASING DIAMETER: 2"			
WELL DEPTH: 1			
DATE: <del>9/25/19</del> 9/26/19--SAH	TIME: 10:45	AM/PM:	DEPTH TO GROUND WATER (FT): 7.0
SAMPLING METHOD: low flow sampling		FLOW RATE: ~200 mL/min.	
SAMPLE TIME: 11:20		TOTAL PURGED:	

TIME	WATER LEVEL	TEMP.(° C)	pH	COND. (mS/cm)	ORP (mV)	DO (mg/L)
10:48	7.58	15.31	7.47	1.55	130	0.00
10:53	7.86	15.38	7.45	1.29	128	0.00
10:58	8.07	15.48	7.40	1.23	128	0.00
11:03	8.28	15.59	7.39	1.21	127	0.00
11:08	8.54	15.70	7.28	1.18	130	0.00
11:13	8.73	15.76	7.20	1.13	134	0.00
11:18	8.94	15.77	7.19	1.13	134	0.00
11:20						

SAMPLE APPEARANCE: VERY TURBID <input type="checkbox"/> TURBID <input type="checkbox"/> SLIGHTLY TURBID <input type="checkbox"/> CLEAR <input checked="" type="checkbox"/>	ODOR: YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> NOT NOTED <input type="checkbox"/>	ANALYSES: Diss Cr, Diss Fe, Mn Cyanid, vcs
--	--	---

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

*[Signature]*

COMMENTS:

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SAMPLED BY: KAC	DATE: 9/26/19
REVIEWED BY: Scott A. Hodgson	DATE: 10/31/19

## **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: 10/01/2019	To: 09/30/2020	Days in period: 365
--------------------------------------	----------------	---------------------

3. Regulatory agency (enter DNR, DCOM, DATCP and/or other) WDNR/USEPA	4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific) 02-45-000127
--	--

5. Site location

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

6. Responsible party	7. Consultant
----------------------	---------------

Name Carol Mauthe	<input type="checkbox"/> Select if the following information has changed since the last submittal
----------------------	---

Mailing address 194 C S West Avenue, Appleton, Wisconsin 54915	Company name Terracon Consultants, Inc.
---	--

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

8. Contaminants

chromium, cyanide, chlorinated solvents

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

Reporting period from: 10/01/2019 To: 09/30/2020

Days in period: 365

# 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

¼

¼ ¼

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: 10/01/2019 To: 09/30/2020

Days in period: 365

# 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: \$0.00
2. Implementation costs (design, capital and installation costs, excluding investigation costs): \$0.00
3. Total costs during the previous reporting period: \$76,192.94
4. Total costs during this reporting period: \$35,469.23
5. Total anticipated costs for the next reporting period: \$13,783.91
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:

D3: Installation of a gravity drain system for the sump pit at 801 South Outagamie Street, including additional soil management and reporting, and power failure response/PLC upgrade.

D4: General in house repairs and maintenance, including repairs on the heater, water heater, and sink. Repairing four damaged observation wells in the well network, and preparing a PFAS sampling QAPP.


7. If closure is anticipated within 12 months, estimated costs for project closeout: \$0.00

## 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.

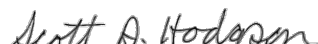
### Registered Professional Engineers:

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 Blaine R. Schroyer, P.E.	Title Principal/Office Manager
Signature 	Date 10/30/2020

### 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 Scott A. Hodgson, P.G.	Title Senior Project Manager
Signature 	Date 10/30/2020

### 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 (BRRTS #02-45-000127)

Reporting period from: 10/01/2019 To: 09/30/2020

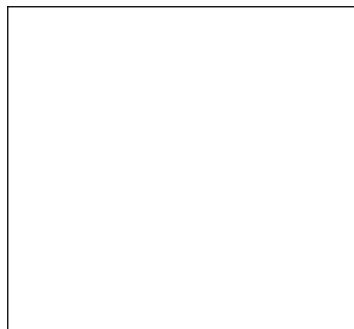
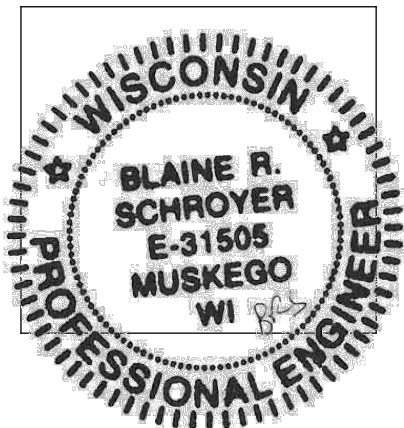
Days in period: 365

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

Form 4400-194 (R 1/14)

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Professional Seal(s), if applicable:



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

Reporting period from: 10/01/2019 To: 09/30/2020

Days in period: 365

# 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:

365

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

95

4. Quantity of groundwater extracted during this time period: 962,404 gallons

5. Average groundwater extraction rate: 2 gpm

6. Quantity of dissolved phase contaminants removed during this time period in pounds: 3 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: 308 ug/L TCE in MW-107, 98.3 % for ES and 99.94% for PAL

b. Percent reduction necessary to reach ch. NR 140 ES and PAL: 99.94 %

c. Maximum contaminant concentration level in any monitoring well of that contaminant: 308 µg/L

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

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

Reporting period from: 10/01/2019 To: 09/30/2020

Days in period: 365

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

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e. If the maximum concentration in a monitoring well is more that 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.