Operation and Maintenance Report

N.W. Mauthe Superfund Site

Appleton, Wisconsin

May 8, 2012

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

May 8, 2012

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

Attention: Ms. Jennifer Borski

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

Dear Ms. Borski:

Terracon Consultants, Inc. (Terracon) has prepared this Operation and Maintenance Report to summarize the activities that took place at the above-referenced site from October 2011 through March 31, 2012. The report documents system operations and site conditions through the reporting period and recommends replacement of the pump in both Manholes 1 and 2, as well as system re-plumbing.

Sincerely,

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

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

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OPERATION AND MAINTENANCE REPORT NO. 45

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

May 8, 2012
Terracon Project No. 58117057

1.0 INTRODUCTION

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

2.0 BACKGROUND

2.1 Site Location

The N.W. Mauthe (Mauthe) property is located at 725 South Outagamie Street, Appleton, Wisconsin 54914-5072. The project is located in the NE¼, NW¼, Section 34, T21N, R17E, Outagamie County (Figure 1 – Site Location Map, Appendix A)

2.2 Site History

The Mauthe site was 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:

- 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 of 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 monitoring 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 conducted show contamination remains in the soil above ch. NR 720 Wis. Adm. Code levels, in the groundwater above ch. NR 140 Wis. Adm. Code enforcement standards, and in the groundwater above the ARARs established for the Mauthe site. Groundwater does 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. 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 linear feet in length. The central trench runs south of the site parallel to the railroad and is approximately 280 linear feet in length. The southeast trench runs along Second Street and Outagamie Street and is approximately 600 linear 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, Wisconsin Administrative Code (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 course 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.

In normal operation, the water level in the trenches is maintained at or near the bottom of the trench. The trenches can provide storage and continue to act as a hydraulic barrier until the water in the trench 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 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 trench extends approximately 31 fbgs. Groundwater from the manholes is piped to the treatment facility (Figure 2 – Site Detail Map, Appendix A).

2.5 Groundwater Treatment System

From February 1997 through April 18, 2006, the treatment system operated in a manual batch system mode. The groundwater treatment system was designed to be a fully automated batch treatment process designed for control of total chromium. Each batch operation was capable of treating 2,700 gallons of influent groundwater and took approximately six 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 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 is an air operated, double-diaphragm pump with an 86 gpm capacity. The reaction tank feed pump is 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 allows for the collection and transfer of sludge. The volume of water treated during a batch process is 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 are the primary parts in the treatment process. However, there are several other components necessary for the successful treatment of contaminated groundwater. They include: 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 are 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, autodialer, PLC system, and uninterruptible power supply. The master control panel will also sound 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 existing 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 Appleton Industrial User (Wastewater Discharge) was reissued on May 29, 2009 (Permit No. 09-21). The permit allows the continuation of groundwater direct discharge to the sanitary sewer as long as contaminant concentrations remain below discharge limits. Permit No. 09-21

will expire on midnight, May 31, 2012. A new permit application is being processed by the City of Appleton, which will take effect on June 1, 2012.

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 eleven observation wells constructed during the RI and the remedial action (RA) activities (W-2, W-8, W-15, MW-101 through MW-108), five observation wells (MW-109 through MW-113) installed in May 2006, and four piezometers (PZ5 through PZ8) installed in May 2005, to evaluate the remaining source area (Figure 2 – Site Detail Map, Appendix A).

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. Monitoring 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:

- 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 historic 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 a 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 abandoned. 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 Outfall 001[1] sample collection, the discharge valve from the storage tank is closed, typically one to three days prior to sampling depending on the anticipated groundwater infiltration into the collection system. The storage tank is allowed to accumulate pumped water until the sampling event, typically Thursday morning. The discharge valve is opened and water is allowed to discharge for approximately five minutes. The Outfall 001 sampling port is opened and approximately 10 gallons of water is allowed to discharge from the sampling port prior to collecting a sample. Samples are typically collected the first Thursday of the month.

3.1 Monthly Monitoring and Reporting

During the monthly monitoring events, an unfiltered sample was collected from Outfall 001 to be analyzed for hexavalent chromium and a filtered sample was collected from Outfall 001 to be analyzed for total dissolved chromium. A pH value from the Outfall 001 sample was also

[1] *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.*

determined on the samples collected by using a Hach pH Pocket Pal Tester. Pace Analytical Services, Inc. (Pace) performed the laboratory analysis. Pace provided an electronic report of the analysis to Scott Hodgson, Terracon's project manager, who emailed the report to Jennifer Borski, WDNR project manager. A summary of the laboratory analysis can be found in Table 1 – Influent and Effluent Summary, Appendix B.

During the monthly monitoring events, an unfiltered sample was collected from the Manhole No. 1 influent sampling port and from the Manhole No. 2 influent sampling port. Manhole No. 1 and No. 2 influent samples were measured with a Hach test kit, model Pocket Colorimeter II, for hexavalent chromium, and pH values were determined by a Hach pH Pocket Pal Tester.

Total flows from Outfall 001, from Manhole No. 1, and from Manhole No. 2 were recorded on an Operator Log Sheet during the monthly sample collection. Total flows from Outfall 001, from Manhole No. 1, and from Manhole No. 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 Pretreatment and Biosolids Manager 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.

3.2 Quarterly Monitoring and Reporting

A quarterly compliance report was submitted to the City of Appleton's Pretreatment and Biosolids Manager, Amanda Owens, and the WDNR project manager, Jennifer Borski, on January 13, 2012 and April 10, 2012 by email. The quarterly compliance reports included total metered discharge readings, pH measurements, and laboratory analytic test reports..

3.3 Semi-Annual Monitoring and Reporting

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

4.0 COMPLIANCE SAMPLING

Compliance sampling of the groundwater effluent is conducted twice per year by the City of Appleton at the sampling port for Outfall 001. The effluent is analyzed for the parameters listed in Table 2 – City of Appleton Compliance Limits, Outfall 001, Appendix B. City of Appleton wastewater staff collected compliance samples on October 26, 2011 and March 21, 2012 during this reporting period. Terracon collected annual compliance monitoring samples on April 5, 2012.

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.

In addition to the sampling events listed above, total chromium and hexavalent chromium are currently analyzed monthly from a sample collected from Outfall 001's sampling port (Table 1 – Influent and Effluent Summary, Appendix B).

5.0 GROUNDWATER SAMPLING

5.1 Groundwater Sampling Procedures

Two reductions to the original monitoring plan have been requested since 1997. On December 3, 1999, Jennifer Huffman with the WDNR requested a reduction to the monitoring plan, which 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.

On March 24, 2003, Jennifer Borski with the WDNR requested a reduction to the monitoring plan, which included the following:

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. Manganese detections did not appear to be related to contamination from the plating operations.
3. Reduction in the frequency from quarterly to annual sampling of total dissolved chromium at W-2, W-8, W-15, MW-101, MW-102, MW-105, MW-106, and MW-108.
4. Elimination of annual VOC sampling at W-2, W-8, W-15, MW-101, MW-102, MW-103, MW-104, MW-105, MW-106, and MW-108.

EPA approved the 2003 request on April 17, 2003.

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

Groundwater samples were collected during this reporting period on March 14, 2012, but due to darkness and other commitments, two remaining outlying wells (MW-101 and MW109) were sampled on March 16. During the sampling event, groundwater elevations were measured in monitoring wells W-2, W-8, W-15, MW-101 through MW-107, MW-109 through MW-113, and PZ-5 through PZ-8 prior to sampling. MW-108 was not initially found, and therefore, the water level was not measured at the same time as the other monitoring wells. However, well MW-8 was later found and the water level measured. 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 monitoring wells measured were used to develop a groundwater contour map (Figure 4 – Groundwater Table Contour Map—March 2012, Appendix A). Groundwater flow direction was in the general direction of the collection trenches, but was modified in the area of MW-112 where groundwater mounding was present and near the trenches. The gradient immediately adjacent to the trenches is very steep since the groundwater elevation in the trench in general is at the elevation of the sump high float level (approximately 25 feet below surface grade). As such, the complex flow pattern and steep gradient near the trenches is depicted generically on Figure 4.

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

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

samples to be analyzed for total cyanide were preserved with sodium hydroxide. The samples were picked up by a courier from Pace.

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

5.2 Groundwater Sampling Results

During the March 2012 sampling event, field measurements were taken on groundwater samples collected from monitoring wells MW-103, MW-104, MW-107, and MW-109 through MW-113 for temperature, conductivity, pH, dissolved oxygen, and oxidation/reduction potential. A summary of the field measurements are contained in Table 4 – Groundwater Geochemical Parameters, Appendix B.

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

The laboratory analytical results indicate that levels of (filtered) total chromium exceed the 1992 NR 140, WAC, groundwater PAL[2] in monitoring wells MW-103 (54.5 micograms per liter (µg/L)), MW-104 (5.4 µg/L), MW-107 (1,960 µg/L), MW-109 (2,040 µg/L), MW-110 (7,270 µg/L), MW-111 (572 µg/L), MW-112 (15,600 µg/L), and MW-113 (16,700 µg/L). The laboratory analytical results indicate that levels of total cyanide exceed the 1992 NR 140, WAC, PAL in monitoring well MW-112 (51 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 4 – Groundwater Table Total Chromium Isoconcentration Map—March 2012, Appendix A.

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

[2] *"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.*

Groundwater hydrographs were prepared for monitoring wells MW-102, MW-103, MW-104, MW-107, and MW-109 through MW-113 and are presented as Figure 3 – Groundwater Hydrographs, 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. VOC 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.

During the mid-month total flow recording, general inspection of the building, grounds, and treatment equipment was conducted.

6.2 Annual Operation and Maintenance Activities

The following annual operations and maintenance activities were performed during this reporting period:

- Overhead door inspection;
- Manhole 1 and 2 pump inspection and oil change;
- Heater inspection; and
- Cross-connection inspection.

The manhole pump inspection revealed that the pump in Manhole 2 was heavily corroded and the impellers did not move freely. The pump could cease working at any time. Terracon recommended to WDNR that the pump be replaced. In addition, the in-line check valve for the Manhole 1 was not functioning, which in time could cause increased wear on the pump and potential premature failure. Terracon recommended to WDNR that the check valve be replaced.

There were no outstanding issues revealed during the other annual inspection activities.

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 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.

6.4 Significant Operation and Maintenance Activities

There were no unscheduled maintenance activities during this reporting period.

6.5 Emergency Operations and Shut Downs

There were two unplanned shut downs during this reporting period. During the evening of October 11, 2011 the power went out for a short time at the Mauthe site and WDNR project manager Jennifer Borski was notified by We Energies. Jennifer subsequently notified Terracon. Blaine Schroyer of Terracon visited the site with Jennifer on October 12, 2011. The power was on and the system appeared to be running correctly at that time.

On November 5, 2011, Terracon visited the site and observed that the pumps had not cycled. There were no alarm conditions indicated on the control panel. Terracon returned on November 6 and found that the pumps still had not cycled. Terracon then opened each manhole vault to observe the water level. Water in each vault appeared to be over the high-high float level, but there were no system alarms. Terracon then manually pumped down each manhole so that water was at or below the low float level and re-set the system. On November 7, the pumps again had not cycled so each Manhole was run manually to bring water levels down to the low float level. On November 8, 2011 Town & Country Electric/Faith Technologies met Terracon onsite to diagnose potential system electrical problems. Testing indicated that both the autodialer and system backup batteries were dead. When the system backup battery was bypassed, the system operated correctly. After receiving approval, Terracon replaced the autodialer backup 12 volt battery on November 8, 2011, and ordered a new system backup battery. The new system backup battery (1300 VA unit; American Power Conversion - Battery Back-Up XS Series - 1300VA/780, 340, 10 1300VA UPS W/AVR GREEN FEATURE) was installed on November 15, 2011. The system has been running fine since the batteries were replaced. Both the autodialer backup battery and system backup battery should be replaced in November 2016.

On Monday November 14, 2011, Terracon received a call from Nick (City of Appleton) that one of the springs on the north overhead garage door broke when he opened the door that morning. Upon receiving approval, American Overhead Door replaced the springs on the north door and performed the annual inspection for both doors on November 15, 2011.

7.0 PUBLIC CONTACTS

There were no general public contacts during this reporting period.

8.0 FACILITY MEETINGS/REVIEWS

Jennifer Borski, WDNR project manager, has periodically communicated with the City of Appleton's Park and Recreation Department to confirm the Cooperative Agreement conditions are being followed and the arrangement is still satisfactory to both parties. The existing Cooperative Agreement expires in May 2012.

9.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the laboratory analysis from the March 14, 2012 sampling event indicate that the groundwater continues to exceed the 1992 NR 140, WAC, PALs for chromium, cyanide, and several VOCs.

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

Approximately 296,919 gallons of groundwater were extracted from the containment trenches from October 1, 2011 through March 31, 2012. The groundwater was discharged to the City of Appleton sanitary sewer system under the Industrial User (Wastewater Discharge) Permit Number 09-21. There were no exceedances of the compliance limits during this reporting period. However, there was a spike in the Manhole 2 influent hexavalent chromium concentration observed on February 2, 2012. At that time the hexavalent chromium concentration was 6.1 milligrams per liter (mg/L), which was an historical high measured concentration for the Manhole 2 influent. The Manhole 2 influent was re-tested on February 7, 2012 and found to have a hexavalent chromium concentration of 1.71 mg/L. The combined effluent on February 2, 2012 at Outfall 001 was 2.1 mg/L. Approximately 4.14 pounds of chromium were removed from the site during the reporting period, which represents approximately a 160 % increase over the previous 6-month period. The chromium pounds removed was estimated on a monthly basis using the laboratory reported total chromium

concentration and total gallons discharged for that month (see Table 1 – Influent and Effluent Summary, Appendix B).

Based on the laboratory analysis from the March 2012 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. However, in order to reduce the risk of the effluent exceeding the 4.5 mg/L hexavalent chromium limit, Terracon recommends re-plumbing the system piping to allow a greater volume of water to be held within the equalizer tank under equilibrium conditions and to create a sampling port in the discharge piping to allow effluent sampling under tank equilibrium conditions. Terracon also recommends replacement of the pump in both manholes and replacement of the in-line check valve in Manhole 1.

10.0 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.

11.0 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

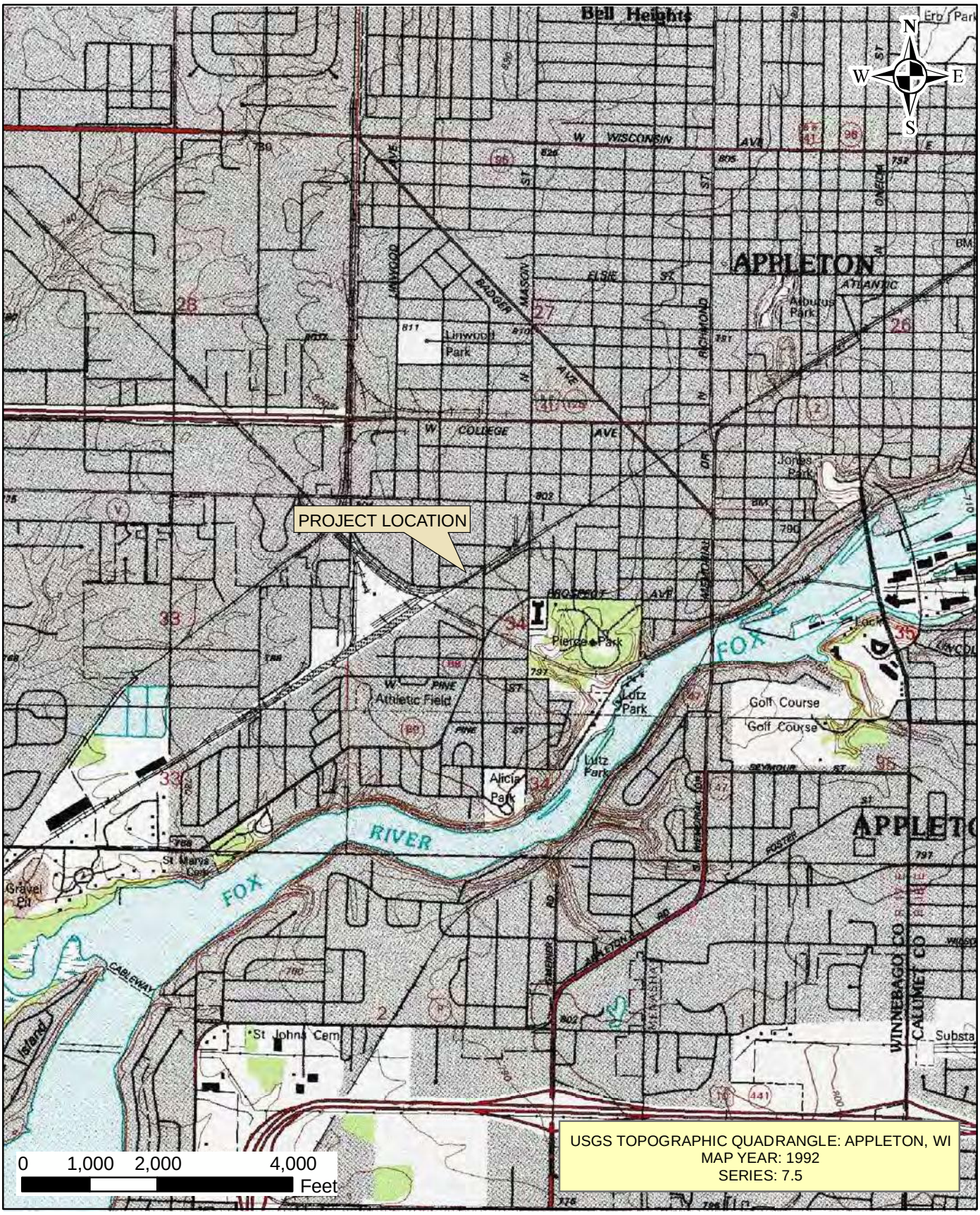
I, Scott A. Hodgson, P.G., hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements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

Scott A. Hodgson PG-1229
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

FIGURE 2

SITE DETAIL MAP

N.W. MAUTHE SITE
725 SOUTH OUTAGAMIE STREET
APPLETON WISCONSIN

MW-108
W-2
W MELVIN ST
W FOURTH ST
MW-111 (OB7)
MW-112 (OB8)
MW-110 (OB9)
MW-109 (OB5)
MW-101
MW-113 (OB6)
PZ5 (OB4)
Manhole #2
MW-102
PZ6 (OB3)
MW-107
PZ8 (OB1)
MW-103
Manhole #1
W-15
MW-104
PZ7 (OB2)
MW-106
S OUTAGAMIE ST
W SECOND ST
W-8
MW-105

Legend

- Monitoring Well
- Piezometer
- Collection System
- Pump Discharge
- Railroad Tracks
- Former Building
- Approximate Soil Remediation Limits*
- Property Line

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

0 25 50 100 Feet

N

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

Terracon
Consulting Engineers and Scientists
9656 South 57th Street Franklin, WI 53132
PH (414) 423-0255 FAX (414) 423-5566

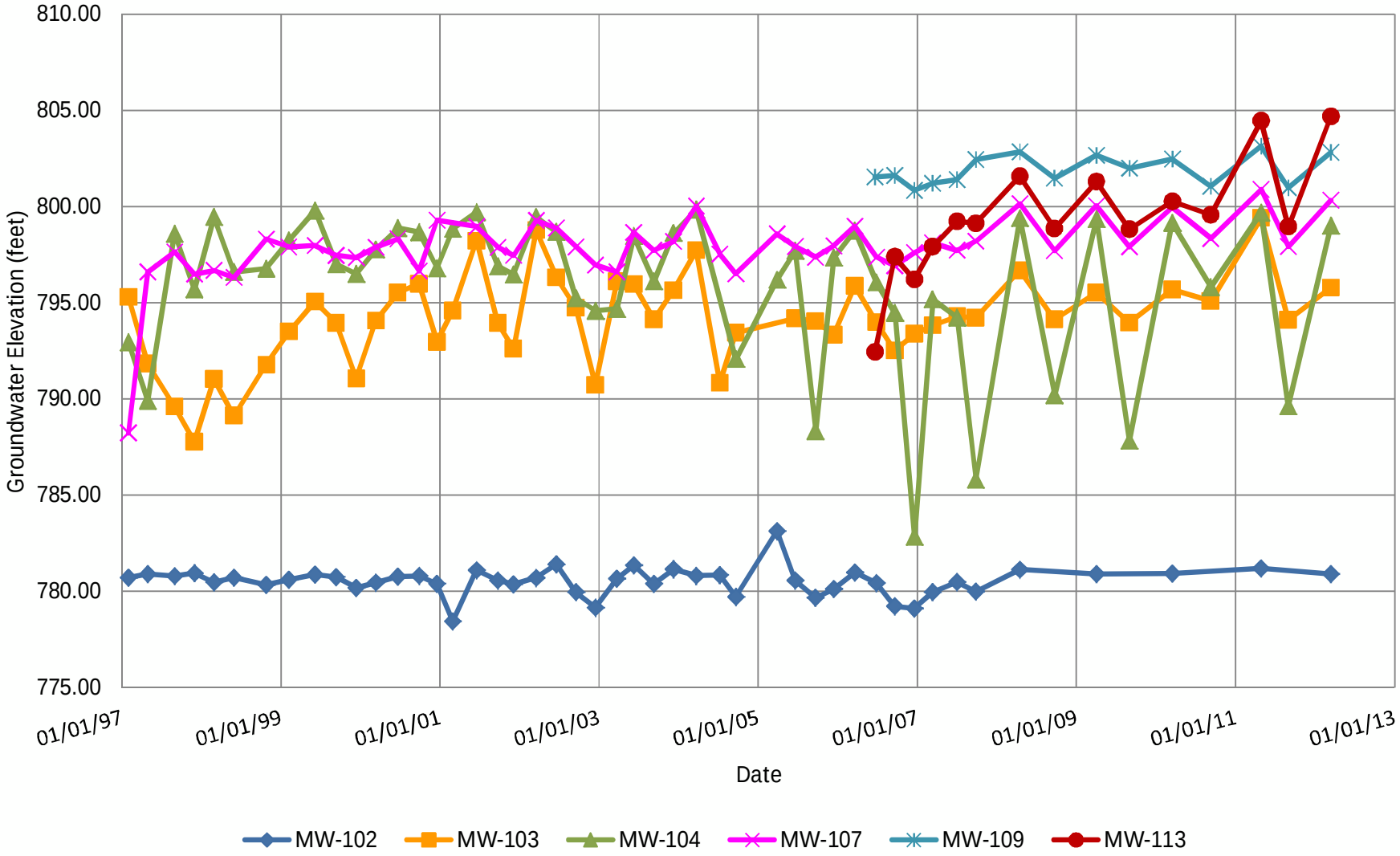
Project No.	58117057
Scale:	As Shown
File No.	58117057 MW Location Map.dwg
Date:	03/20/2012

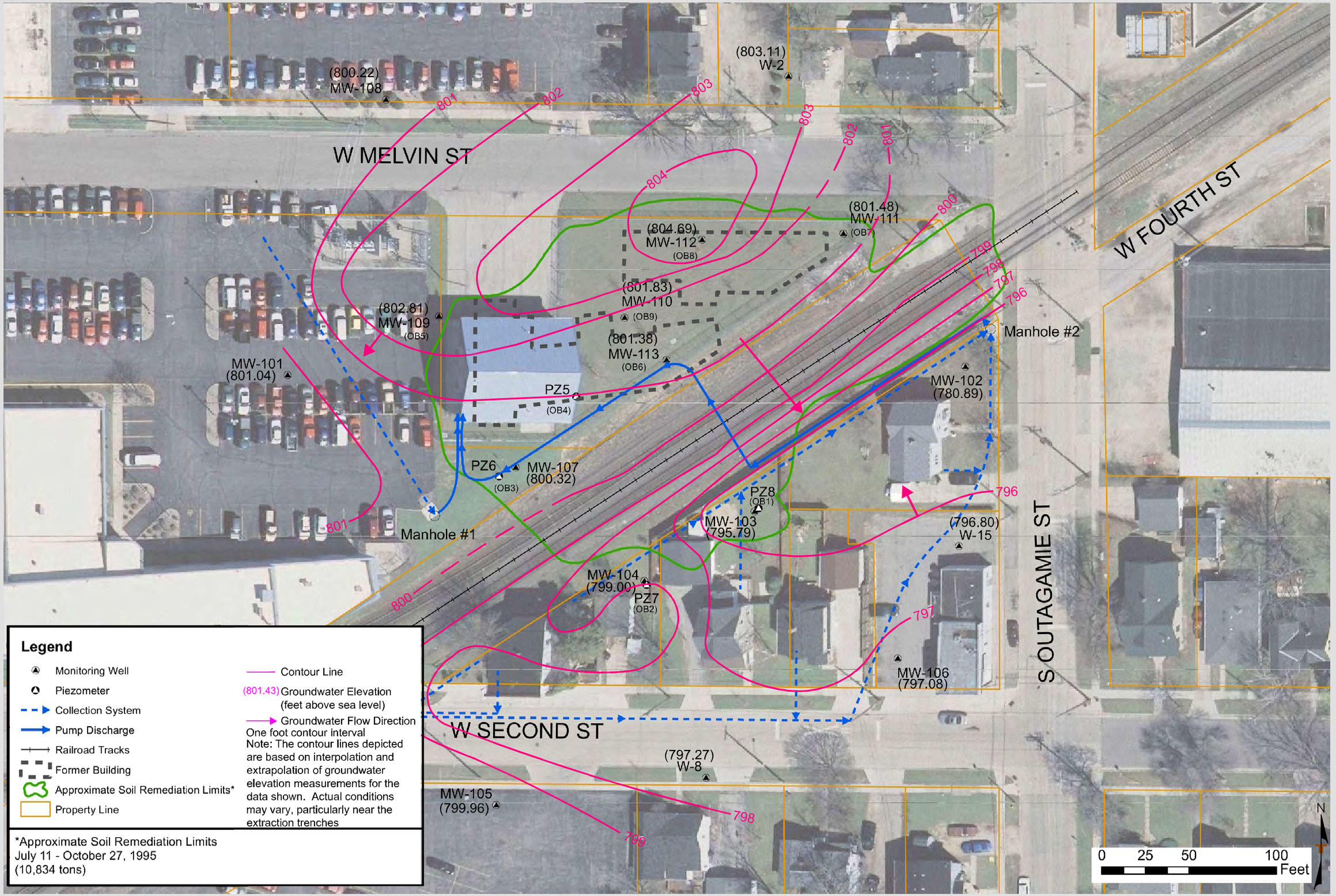
Project Mgr:	PAL
Drawn By:	LES
Checked By:	PAL
Approved By:	PAL

FIGURE 3

Groundwater Hydrographs

N.W. Mauthe Superfund Site





Legend

- Monitoring Well
- Piezometer
- Collection System
- Pump Discharge
- Railroad Tracks
- Former Building
- Approximate Soil Remediation Limits*
- Property Line
- Contour Line
- (801.43) Groundwater Elevation (feet above sea level)
- Groundwater Flow Direction

One foot contour interval

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

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

FIGURE 4

GROUNDWATER TABLE CONTOUR MAP - MARCH 2012
MARCH 14, 2012
N.W. MAUTHE SITE
725 SOUTH OUTAGAMIE STREET
APPLETON WISCONSIN

Terracon
Consulting Engineers and Scientists
9656 South 57th Street
Franklin, WI 53132
PH: (414) 423-0255
FAX: (414) 423-0565

Project No.	58117057	File No.	58117057 NW Location Mapping
Scale:	As Shown	Date:	04/30/2012
Project Mngr:	PAL	Checked By:	PAL
Drawn By:	LES	Approved By:	PAL

W MELVIN ST

W FOURTH ST

S OUTAGAMIE ST

W SECOND ST

MW-108 NS

W-2 NS

MW-111 (OB7) 432

MW-112 (OB8) 149

1,000 µg/L

100 µg/L

MW-110 (OB9) 4,530

866 MW-109 (OB5)

MW-113 (OB6) 7,460

MW-101 <2.0

PZ5 (OB4)

Manhole #2

<2.0 MW-102

PZ6 (OB3) MW-107 2,700

PZ8 (OB1) MW-103 27.0

Manhole #1

W-15 NS

MW-104 510

PZ7 (OB2)

NS MW-106

W-8 NS

MW-105 NS

N

0 25 50 100 Feet

Legend

- Monitoring Well
- Piezometer
- Collection System
- Pump Discharge
- Railroad Tracks
- Former Building
- Approximate Soil Remediation Limits*
- Property Line

866 Total Chromium Concentration (µg/L)

µg/L Micrograms per liter

NS Not sampled

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

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

FIGURE 5

GROUNDWATER TABLE TOTAL CHROMIUM ISOCONENTRATION MAP - MARCH 2012

N.W. MAUTHE SITE
725 SOUTH OUTAGAMIE STREET
APPLETON WISCONSIN

Terracon
Consulting Engineers and Scientists
9856 South 57th Street Franklin, WI 53132
PH. (414) 423-0255 FAX (414) 423-0566

Project No.	58117057
Scale:	As Shown
File No.:	58117057 MW Location Mapping
Date:	04/30/2012
Project Mngr:	PAL
Drawn By:	LES
Checked By:	PAL
Approved By:	PAL

FIGURE 6

MW-103 Total Chromium Concentration Trends

N.W. Mauthe Superfund Site

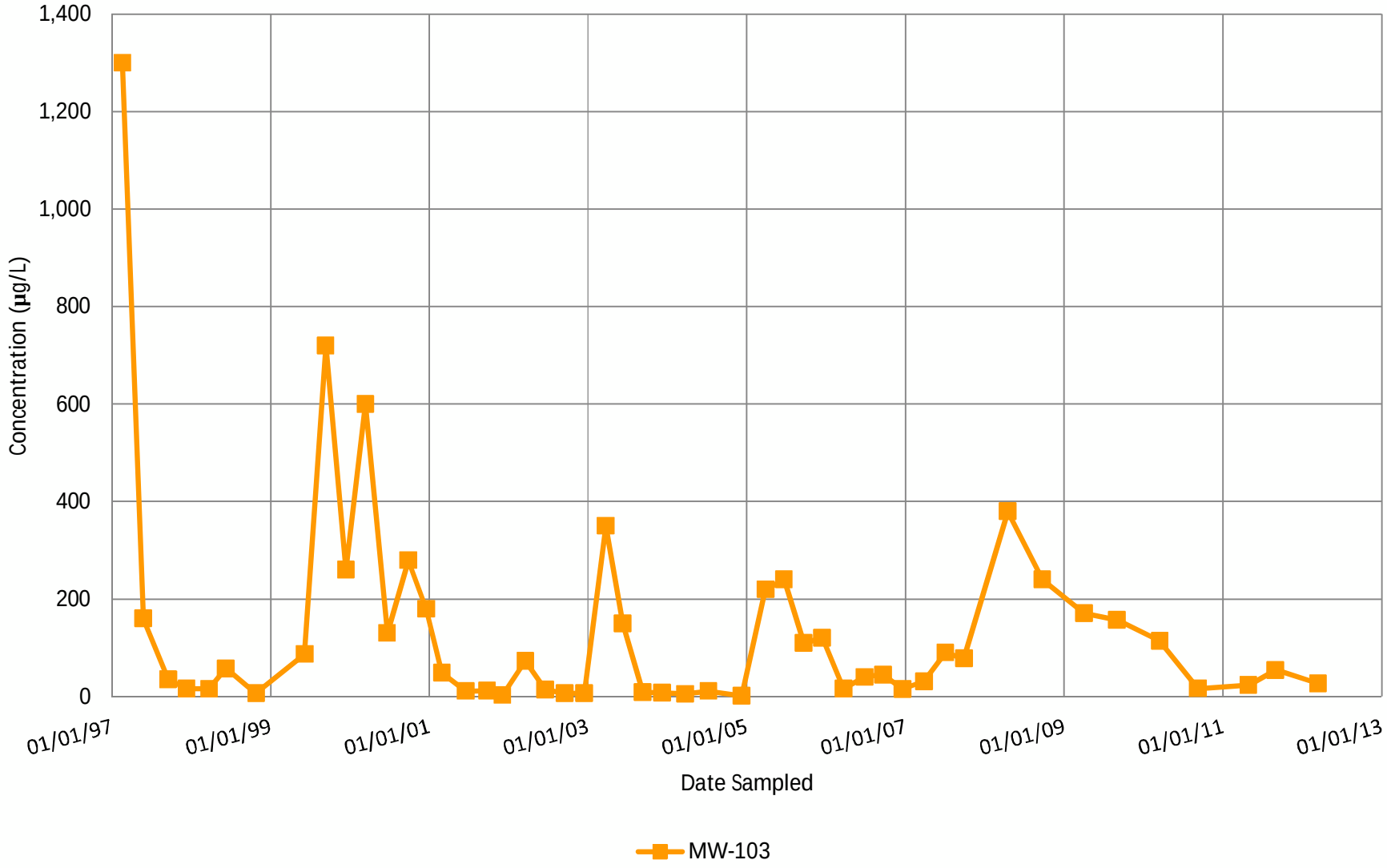


FIGURE 7

MW-104 Total Chromium Concentration Trends

N.W. Mauthe Superfund Site

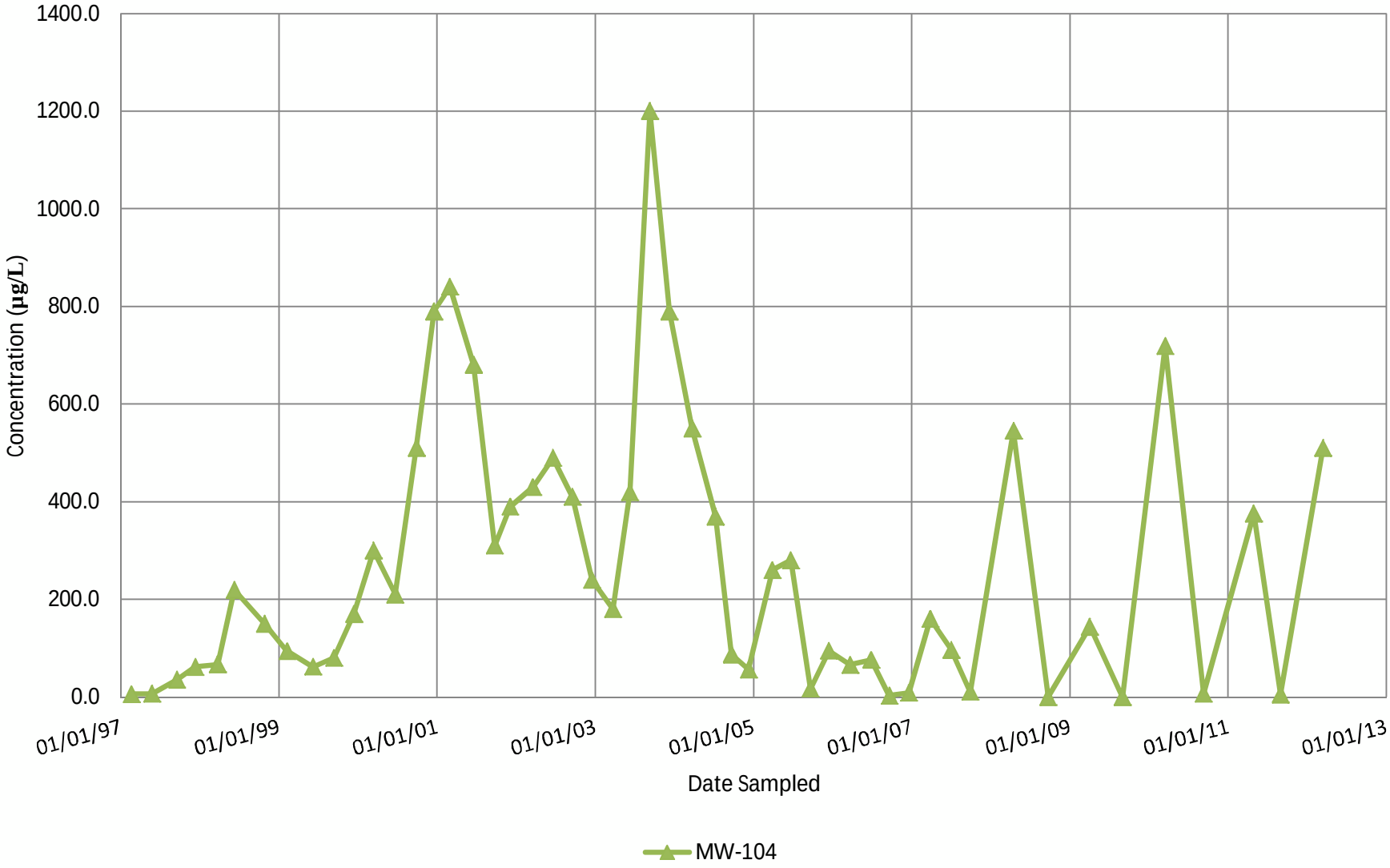


FIGURE 8

MW-107 Total Chromium Concentration Trends

N.W. Mauthe Superfund Site

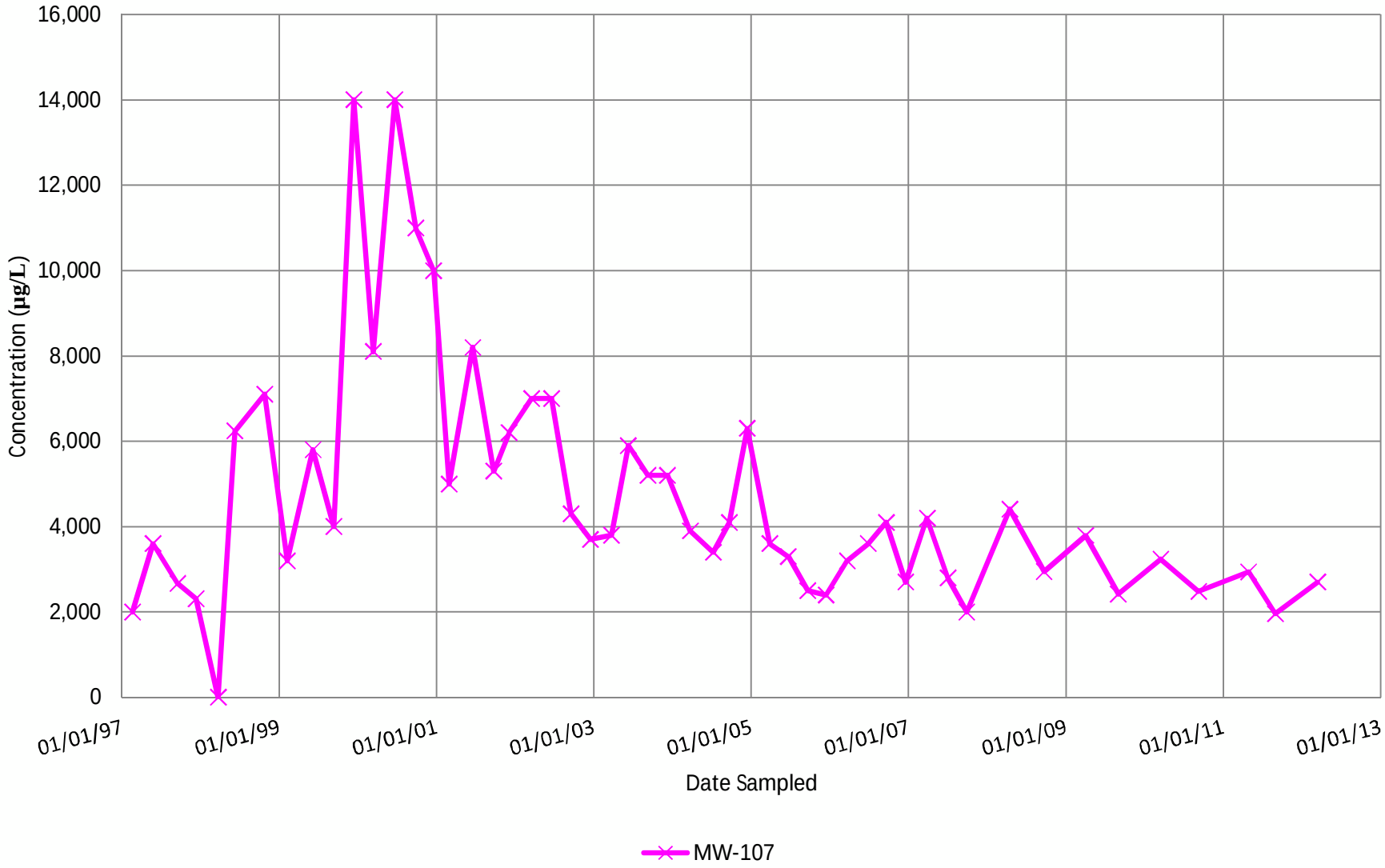


FIGURE 9

MW-109 Total Chromium Concentration Trends

N.W. Mauthe Superfund Site

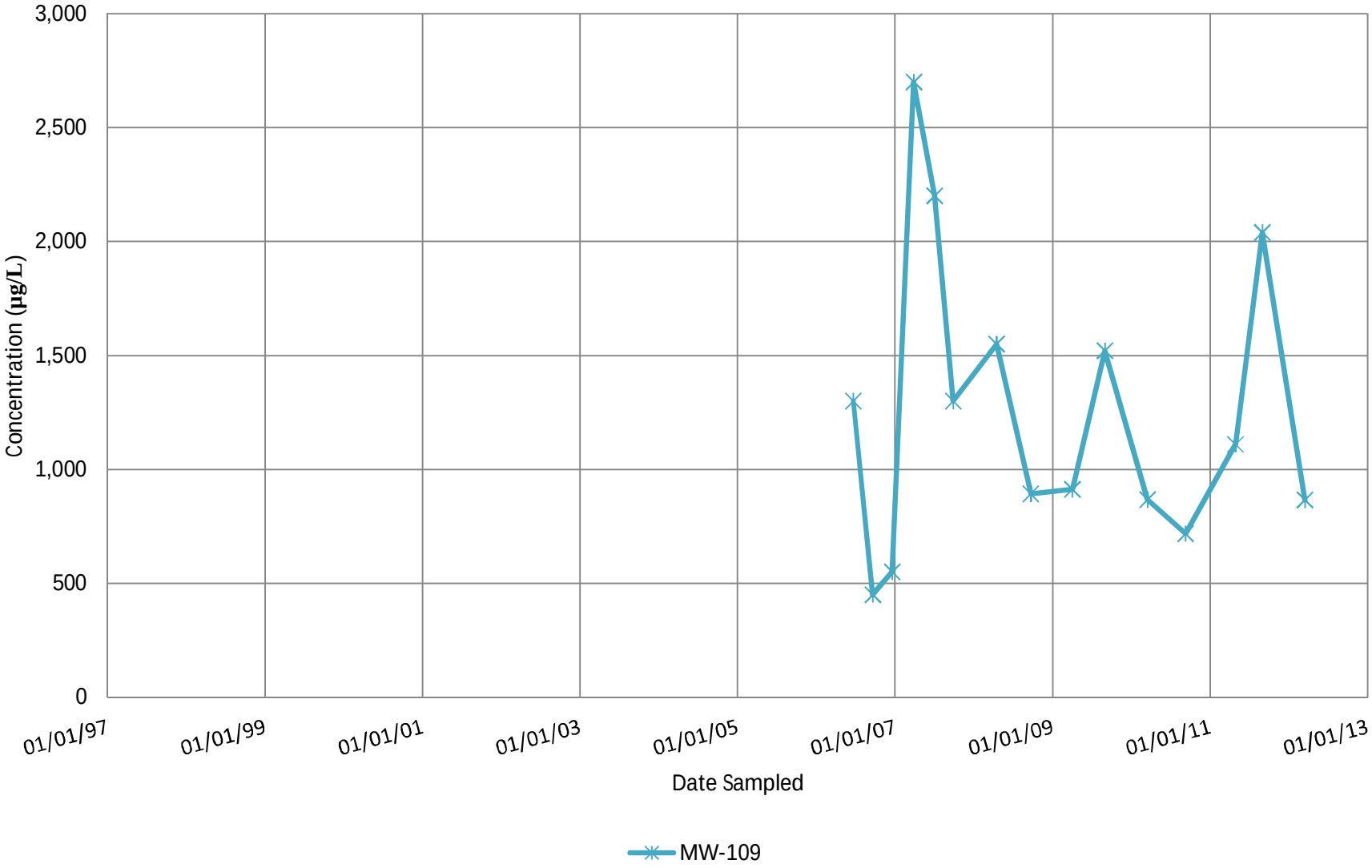


FIGURE 10

MW-110 Total Chromium Concentration Trends

N.W. Mauthe Superfund Site

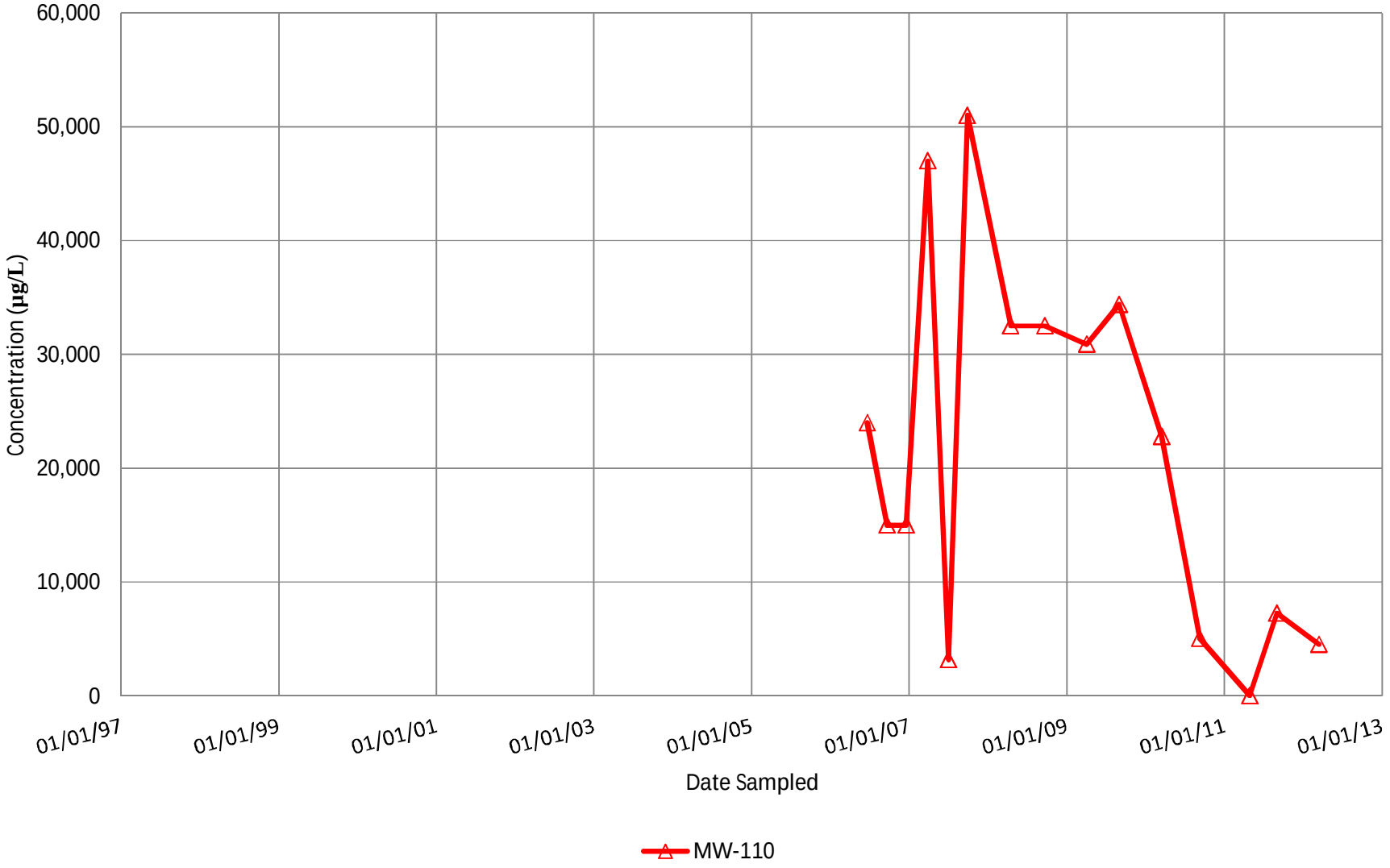


FIGURE 11

MW-111 Total Chromium Concentration Trends

N.W. Mauthe Superfund Site

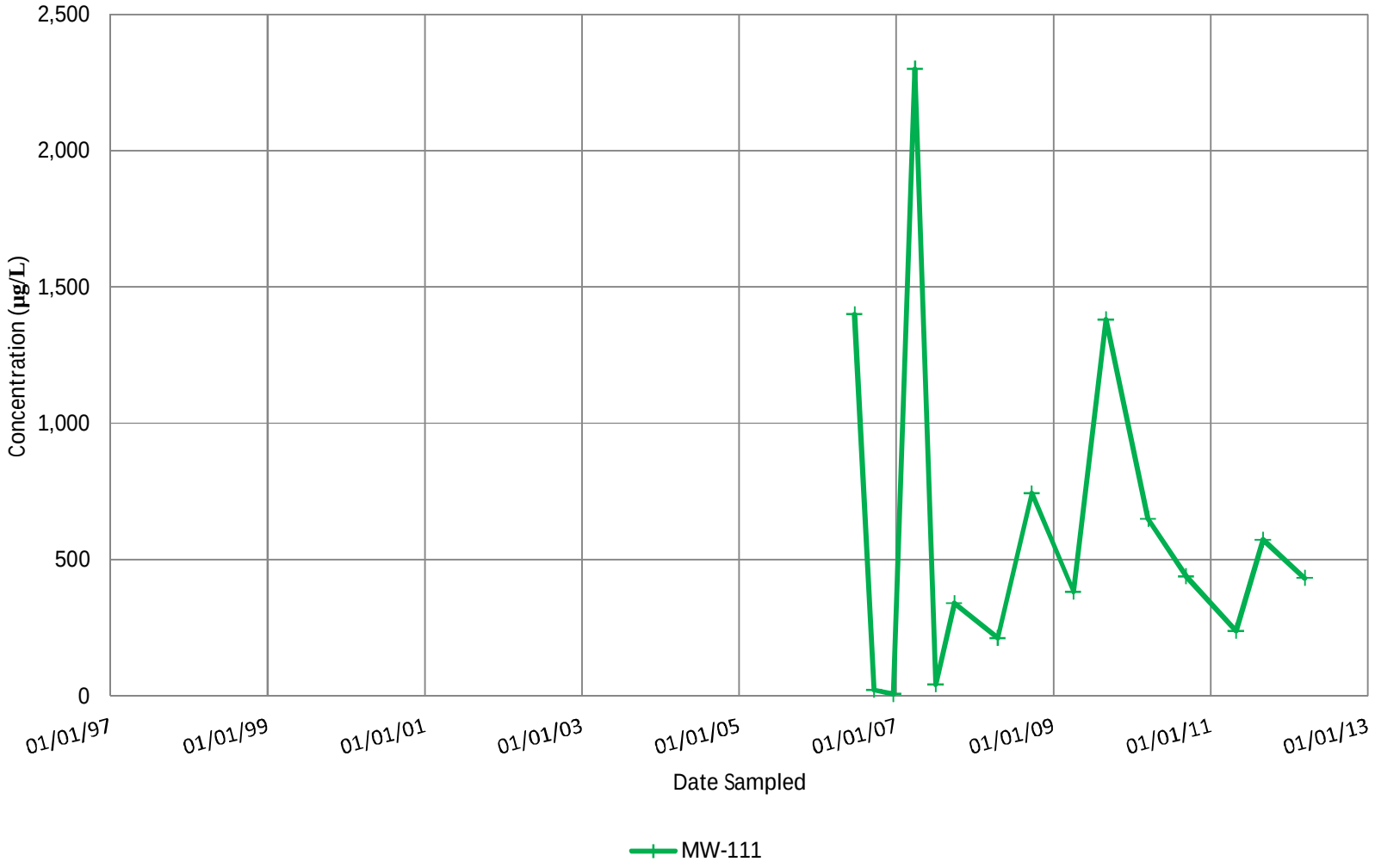


FIGURE 12

MW-112 Total Chromium Concentration Trends

N.W. Mauthe Superfund Site

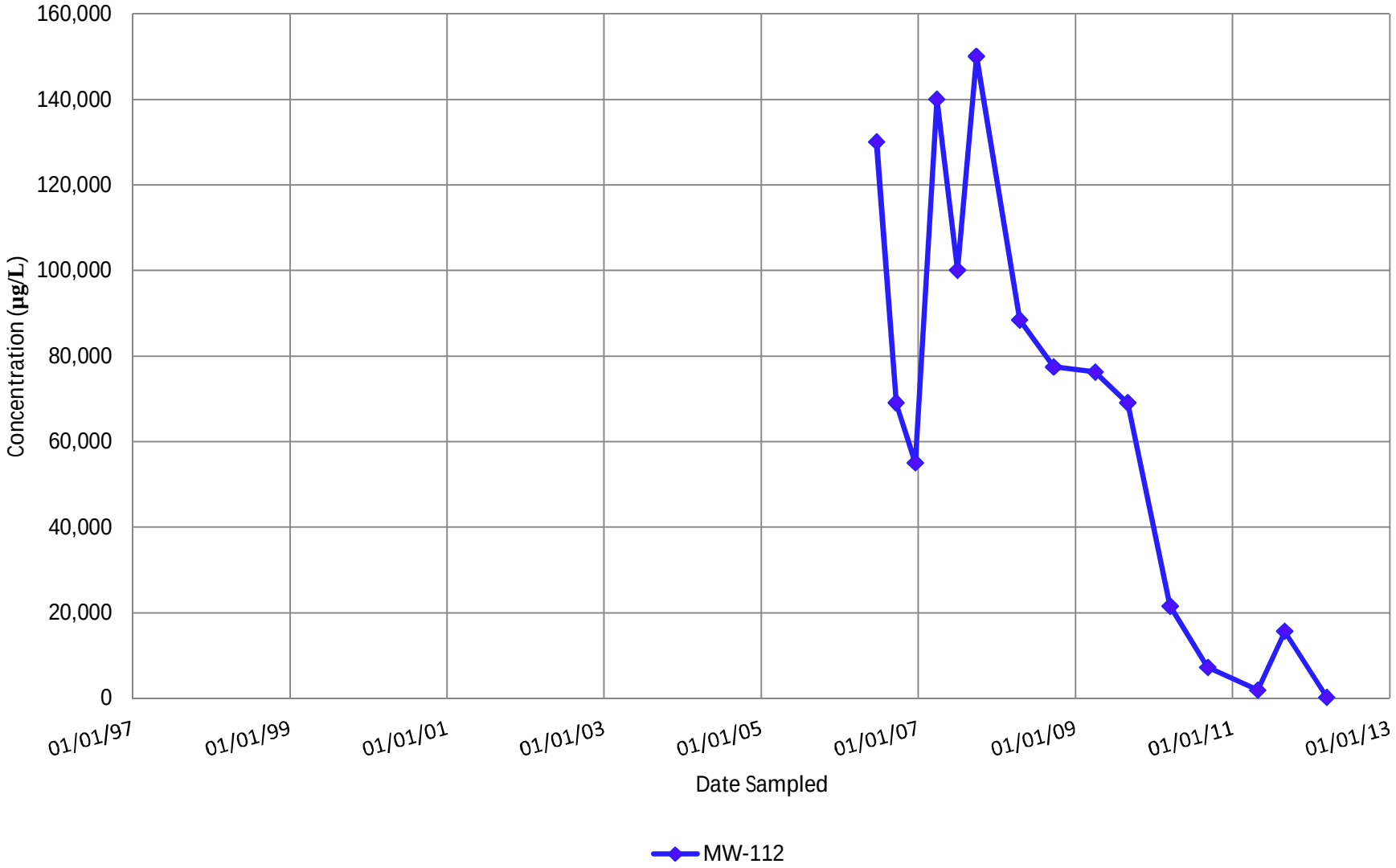


FIGURE 13

MW-113 Total Chromium Concentration Trends

N.W. Mauthe Superfund Site

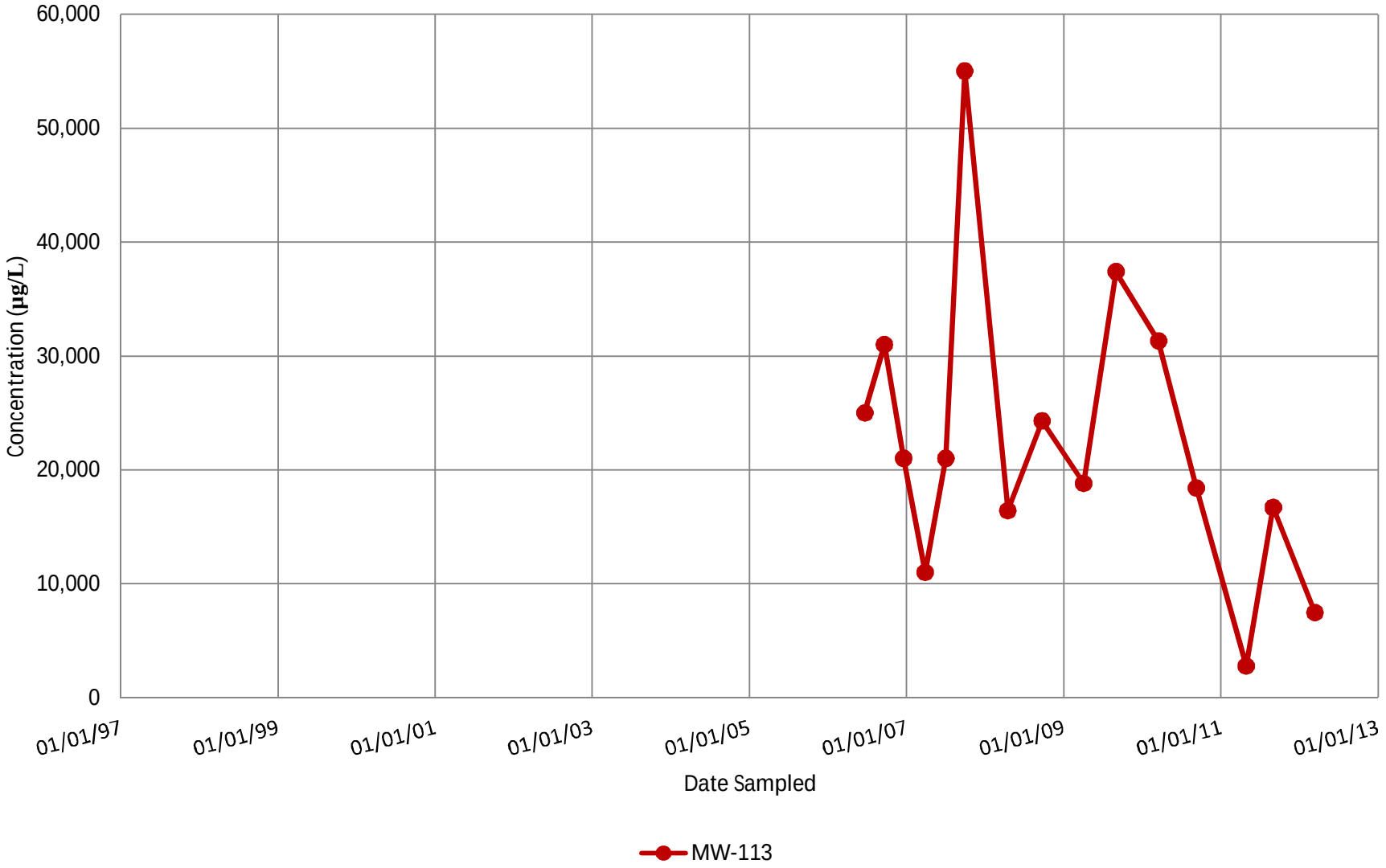


FIGURE 14

MW-107 CVOC Concentration Trends

N.W. Mauthe Superfund Site

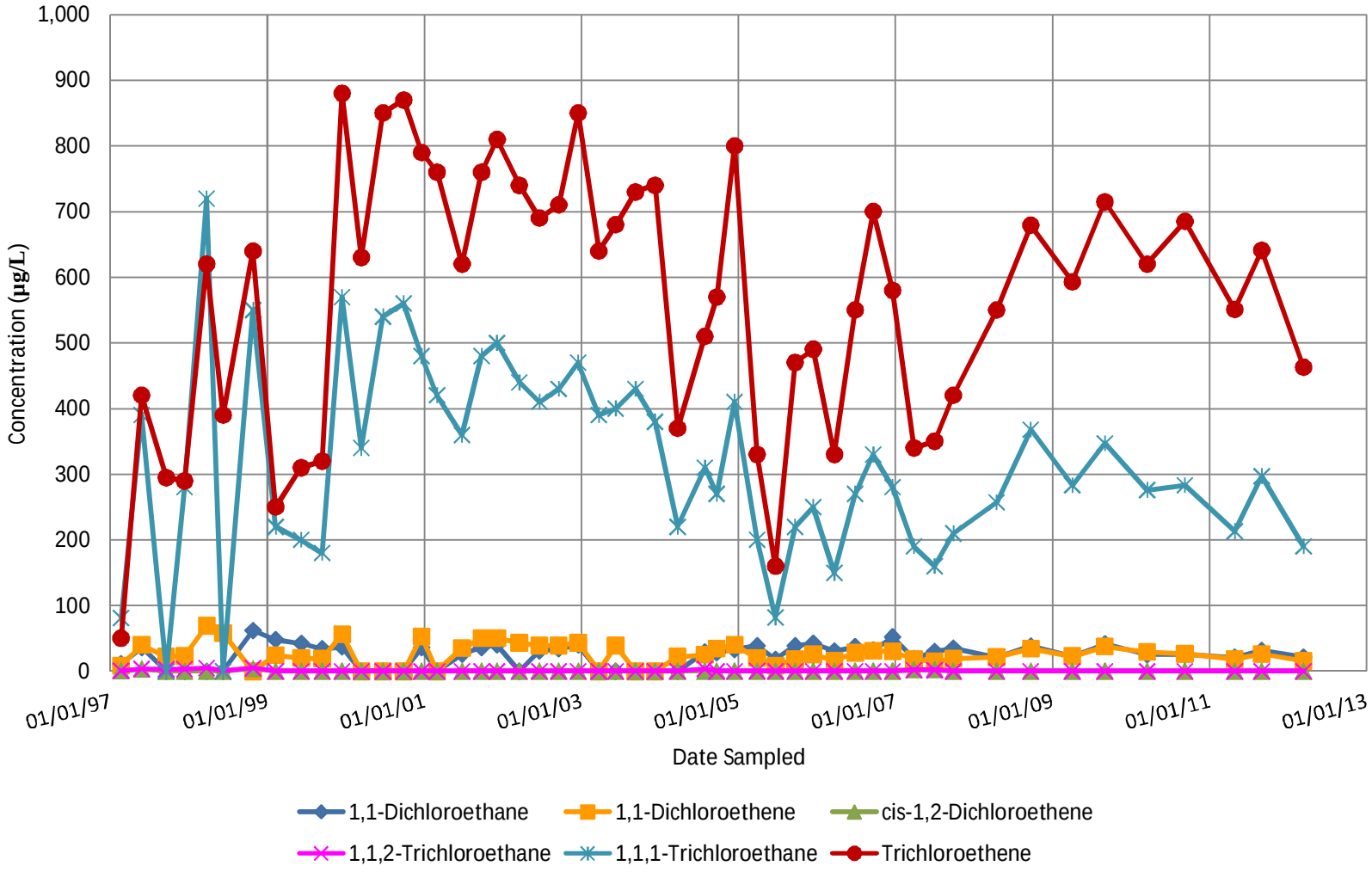


FIGURE 15

MW-110 CVOC Concentration Trends

N.W. Mauthe Superfund Site

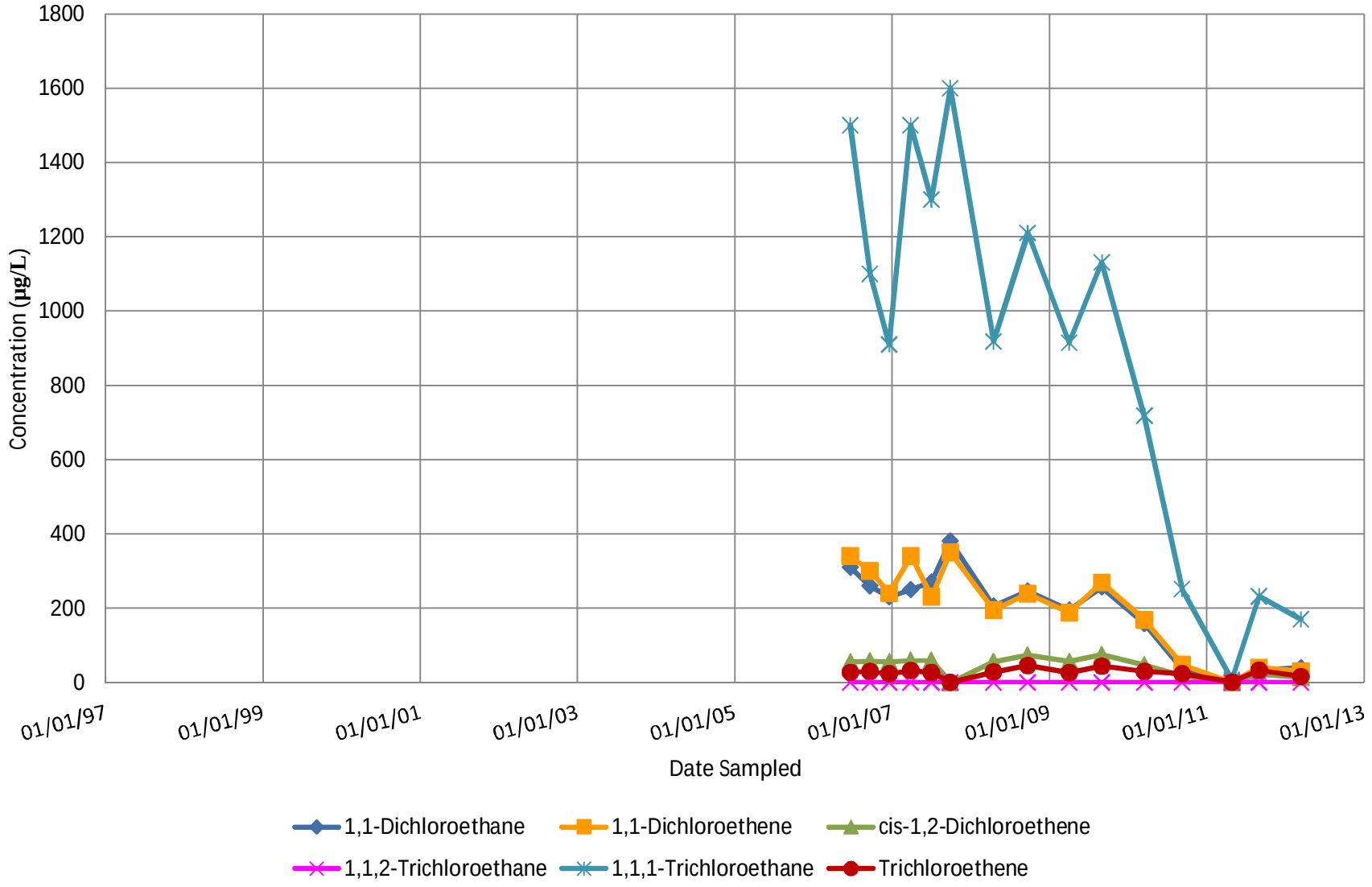
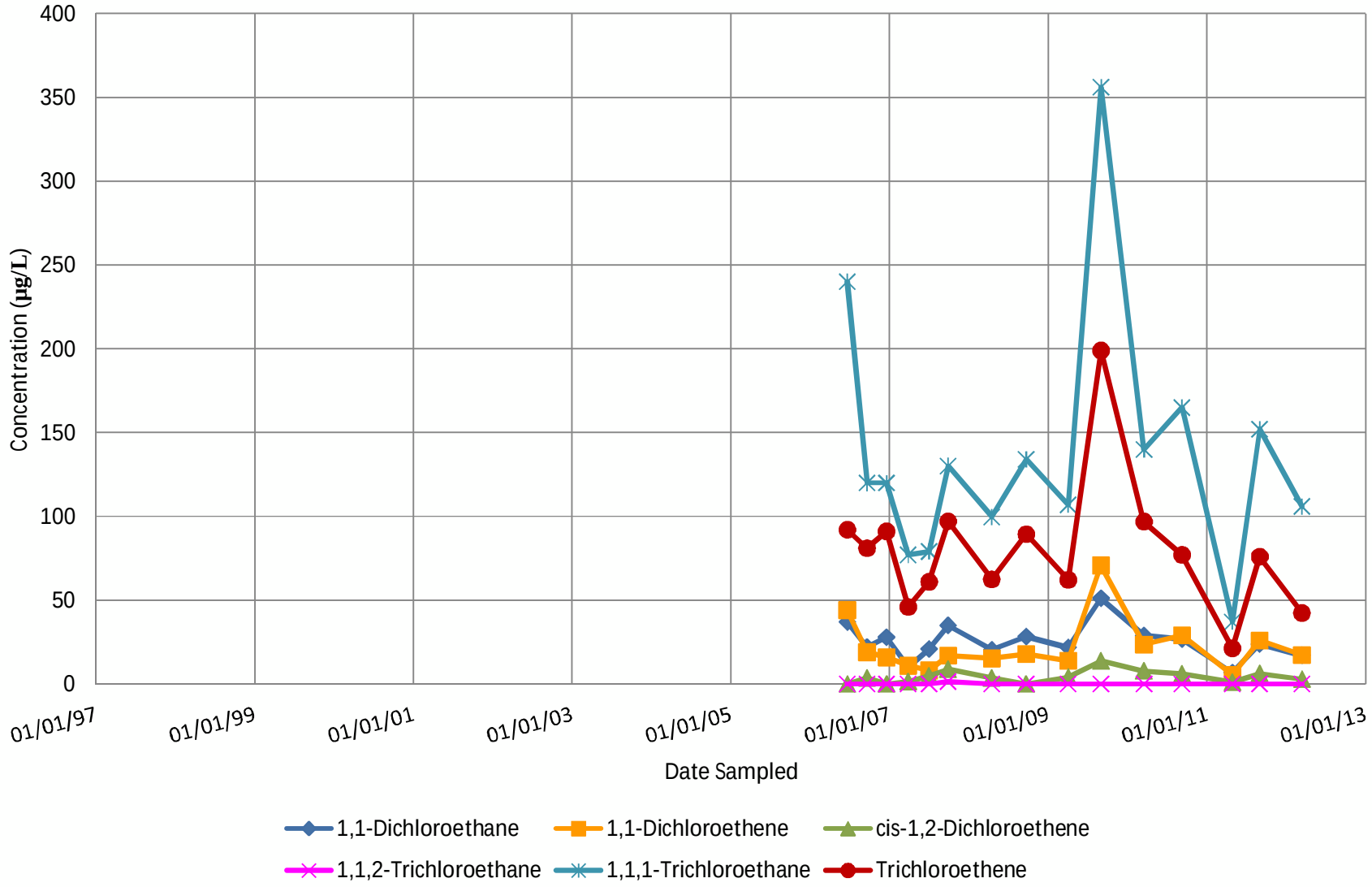


FIGURE 16

MW-113 CVOC Concentration Trends

N.W. Mauthe Superfund Site



Appendix B

Tables 1 to 6

TABLE 1
Influent - Effluent Compliance Summary

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

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

TABLE 1
Influent - Effluent Compliance Summary

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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
06/02/08		8,936,965	7,383					39,411			90,202		
06/03/08		8,936,965	0		9.3	0.90	0.824	39,876	9.0	1.06	90,901	9.0	0.54
06/09/08		8,951,078	14,113					43,187			101,102		
06/10/08		8,951,078	0		9.2	0.85		44,118	9.0	1.53	106,505	9.0	0.38
06/11/08		8,960,258	9,180					45,176			112,396		
06/16/08		8,999,813	39,555					52,865			140,673		
06/16/08		8,999,813	0					52,865			141,398		
06/17/08		8,999,813	0		9.2	1.4		53,808	9.1	3.40	143,560	9.1	0.33
06/18/08		9,007,718	7,905					54,790			146,825		
06/23/08		9,016,923	9,205					57,605			153,557		
06/24/08		9,016,923	0		9.3	0.20		58,074	9.1	2.50	154,613	9.0	0.14
06/30/08		9,026,850	9,927	**June**				61,392			160,227		
06/30/08		9,026,850	0	**91,466**				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	**July**				83,646			237,455		
	08/01/08	*9,127,730*		**100,880**									
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	**August**	7.5	1.1		97,465	7.1	2.25	272,112	7.1	0.22
	09/01/08	*9,173,323*		**45,593**									
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	**September**	7.6	1.8		108,035	7.4	3.70	285,942	7.4	0.18
	10/01/08	*9,192,867*		**19,545**									
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		

TABLE 1
Influent - Effluent Compliance Summary

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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
10/12/08		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	**October**	7.9	2.0		116,756	7.7	3.96	298,743	8.2	0.26
	11/01/08	*9,214,938*		**22,071**									
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	**November**				126,192			312,744		
	12/01/08	*9,234,926*		**19,988**									
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	**December**				131,563			320,808		
	01/01/09	*9,266,230*		**31,304**									
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	**January**				139,384			344,897		
	02/01/09	*9,287,182*		**20,952**									
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	**February**				143,772			352,912		
	03/01/09	*9,334,332*		**47,151**									
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	**March**				183,323			501,935		
	04/01/09	*9,467,680*		**133,348**									
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
	05/01/09	*9,568,209*		**April**									
05/01/09		9,574,025	28,722	**100,528**				217,567			582,471		
05/04/09		9,582,624	8,599					220,929			588,270		
05/05/09		9,582,624	0		7.6	0.76	0.724	221,884	8.0	1.29	589,714	8.0	0.33
05/11/09		9,599,171	16,547					227,170			599,566		
05/12/09		9,599,171	0		8.0	0.89		228,124	7.6	0.84	600,996	7.9	0.24
05/18/09		9,613,720	14,549					232,921			609,305		
05/19/09		9,613,720	0		7.4	0.79		233,874	7.0	0.84	610,378	7.2	0.38
05/19/09		9,615,798	2,078					233,908			610,421		
05/19/09		9,616,122	324					233,908			610,775		

TABLE 1
Influent - Effluent Compliance Summary

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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
05/25/09		9,624,219	8,097					237,697			615,786		
05/26/09		9,624,219	0		7.3	0.58		238,168	7.1	1.08	616,149	7.0	0.16
	06/01/09	*9,650,519*		**May**									
06/01/09		9,652,323	28,104	**82,310**				245,914			637,378		
06/02/09		9,652,323	0		7.3	0.23	0.648	246,871	6.9	1.05	638,835	7.2	0.26
06/03/09		9,658,104	5,781					248,350			641,072		
06/15/09		9,701,735	43,631					261,249			674,466		
	07/01/09	*9,727,520*		**June**									
07/01/09		9,727,975	26,240	**77,001**				272,082			691,914		
07/05/09		9,732,032	4,057					273,967			694,431		
07/07/09		9,732,032	0		7.4	0.96	0.878	274,443	7.1	2.20	695,508	7.1	0.20
07/20/09		9,742,289	10,257					278,743			700,527		
	08/01/09	*9,748,231*		**July**									
08/03/09		9,749,397	7,108	**20,712**				282,543			704,414		
08/04/09		9,749,397	0		7.5	1.9	1.680	283,019	7.1	2.80	704,768	7.3	0.14
08/08/09		9,752,139	2,742					284,005			706,115		
08/08/09		9,753,763	1,624					284,480			707,282		
08/09/09		9,757,508	3,745					284,962			710,677		
08/10/09		9,761,572	4,064					285,930			714,131		
08/10/09		9,762,328	756					286,411			714,491		
08/12/09		9,765,851	3,523					287,368			717,355		
08/13/09		9,767,253	1,402					287,846			718,430		
08/17/09		9,771,256	4,003					289,758			720,916		
08/30/09		9,785,737	14,481					295,976			730,538		
	09/01/09	*9,787,043*		**August**									
09/01/09		9,787,352	1,615	**38,811**	7.6	1.6	1.320	296,492	7.1	2.85	731,650	7.4	0.53
09/10/09		9,794,060	6,708					299,850			735,572		
09/21/09		9,800,194	6,134					303,204			738,803		
09/22/09		9,800,194	0					303,684			739,163		
	10/01/09	*9,806,949*		**September**									
10/01/09		9,807,491	7,297	**19,906**				306,569			743,395		
10/05/09		9,811,856	4,365					308,500			746,224		
10/06/09		9,811,856	0		6.9	1.8	1.700	308,983	6.8	2.48	746,576	7.1	0.55
10/15/09		9,827,819	15,963					314,838			757,329		
10/18/09		9,830,464	2,645					316,288			758,757		
	11/01/09	*9,871,202*		**October**									
11/02/09		9,875,106	44,642	**64,253**				329,981			793,417		
11/03/09		9,875,106	0		7.4	1.2	1.150	330,961	7.0	2.60	795,595	7.2	0.46
11/04/09		9,880,551	5,445					331,974			797,084		
11/05/09		9,882,809	2,258					332,950			798,526		
11/11/09		9,891,712	8,903					337,309			803,889		
11/12/09		9,893,927	2,215					338,274			805,324		
11/16/09		9,896,880	2,953					339,720			807,132		
11/17/09		9,897,695	815					340,200			807,495		
11/20/09		9,899,892	2,197					341,164			808,946		
11/30/09		9,914,595	14,703					346,476			819,664		
	12/01/09	*9,914,595*		**November**									
12/01/09		9,914,595	0	**43,393**	7.6	1.7	1.500	347,446	7.3	2.25	820,740	7.8	0.67
12/15/09		9,931,024	16,429					354,237			829,781		
12/18/09		9,933,254	2,230					355,200			831,213		
	01/01/10	*9,956,004*		**December**									
01/03/10		9,960,070	26,816	**41,409**				362,443			853,235		
01/05/10		9,960,070	0		6.9	2.3	2.220	362,924	7.2	5.36	855,045	7.2	0.68
01/14/10		9,969,979	9,909					365,847			860,488		
01/18/10		9,972,503	2,524					366,807			862,304		
01/31/10		9,991,034	18,531					370,664			878,832		
	02/01/10	*9,991,034*		**January**									
02/02/10		9,991,034	0	**35,030**	7.4	1.6	1.460	371,145	7.2	4.05	880,637	7.2	0.46

TABLE 1
Influent - Effluent Compliance Summary

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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
02/03/10		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*		**February**									
03/02/10		10,009,542	0	**18,508**	7.6	1.6	1.340	376,928	7.4	2.70	893,732	7.4	1.41
03/06/10		10,015,341	5,799					377,919			898,085		
03/13/10		10,048,616	33,275					383,764			927,938		
03/17/10		10,065,891	17,275					388,140			942,069		
03/23/10		10,077,601	11,710					392,478			950,481		
03/31/10		10,088,487	10,886					396,786			958,091		
	04/01/10	*10,088,725*		**March**									
04/01/10		10,088,817	330	**79,183**				396,786			958,456		
04/04/10		10,092,465	3,648					398,207			961,014		
04/06/10		10,092,465	0		7.4	1.3	1.180	399,166	7.2	2.00	962,110	7.2	0.20
04/19/10		10,151,166	58,701					416,846			1,005,028		
	05/01/10	*10,189,439*		**April**									
05/03/10		10,196,869	45,703	**100,715**				432,284			1,038,553		
05/04/10		10,196,869	0		7.3	0.98	0.902	433,730	7.1	1.12	1,040,370	7.2	0.37
05/17/10		10,258,463	61,594					453,256			1,083,344		
06/01/10		10,294,510	36,047					466,168			1,109,480		
	06/01/10	*10,294,510*		**May**									
06/01/10		10,294,510	0	**105,071**	7.6	0.85	0.762	467,117	7.2	1.44	1,110,569	7.3	0.28
06/21/10		10,372,589	78,079					488,138			1,171,628		
06/30/10		10,400,340	27,751					495,720			1,193,925		
06/30/10		10,400,889	549					496,193			1,194,286		
	07/01/10	*10,401,954*		**June**									
07/01/10		10,402,536	1,647	**107,444**				496,664			1,195,375		
07/05/10		10,409,431	6,895					499,493			1,200,058		
07/06/10		10,409,431	0		7.3	1.1	0.988	499,963	7.3	1.92	1,200,783	7.5	0.41
07/12/10		10,426,614	17,183					504,247			1,213,873		
07/21/10		10,506,902	80,288					525,545			1,275,358		
07/22/10		10,515,567	8,665					527,488			1,282,668		
07/23/10		10,532,459	16,892					531,679			1,283,332		
	08/01/10	*10,586,662*		**July**									
08/02/10		10,594,781	62,322	**184,709**				549,129			1,283,332		
08/03/10		10,594,781	0		7.8	0.54	0.515	549,601	7.4	1.20	1,283,332	7.5	0.20
08/04/10		10,599,046	4,265					550,588			1,283,332		
08/04/10		10,599,046	0					550,588			1,283,358		
08/04/10		10,599,046	0					550,588			1,283,358		
08/05/10		10,600,937	1,891					551,531			1,284,413		
08/06/10		10,602,372	1,435					552,002			1,285,481		
08/07/10		10,604,242	1,870					552,943			1,286,560		
08/12/10		10,621,705	17,463					558,442			1,299,650		
08/18/10		10,644,322	22,617					565,095			1,317,296		
	09/01/10	*10,664,511*		**August**									
09/06/10		10,672,363	28,041	**77,849**				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*		**September**									
10/01/10		10,718,374	5,149	**53,291**				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		

TABLE 1
Influent - Effluent Compliance Summary

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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
10/17/10		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*		**October**									
11/02/10		10,760,102	0	**42,299**	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*		**November**									
12/04/10		10,800,013	9,296	**34,530**				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*		**December**									
01/02/11		10,829,348	12,523	**32,938**				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*		**January**									
02/01/11		10,853,317	0	**25,748**	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*		**February**									
03/01/11		10,883,601	0	**30,284**	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*		**March**									
04/04/11		11,045,838	88,236	**139,690**				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*		**April**									
05/02/11		11,277,586	15,135	**250,878**				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		
	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

TABLE 1
Influent - Effluent Compliance Summary

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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
08/04/11		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**			**Pounds Cr**						
11/01/11		11,608,102	1,744	**39,405**			**0.358**	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				**Pounds Cr**	905,028			2,119,690		
	12/01/11	*11,689,609*		**November**			**0.834**						
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		
	01/01/12	*11,742,204*		**December**			**Pounds Cr**						
01/04/12		11,744,667	2,560	**52,595**			**0.745**	927,731			2,158,911		
01/05/12		11,744,667	0		6.9	0.98	0.862	928,184	7.5	1.84	2,161,198	7.3	0.27
01/19/12		11,754,619	9,952					932,303			2,166,977		
01/27/12		11,758,987	4,368					934,572			2,169,652		
01/31/12		11,761,124	2,137				**Pounds Cr**	935,480			2,171,180		
	02/01/12	*11,761,228*		**January**			**0.137**						
02/02/12		11,761,124	0	**19,024**	7.4	2.1	1.860	936,191	7.7	2.50	2,172,687	7.7	6.1
02/07/12		11,763,586	2,358					938,043		2.80	2,176,546		1.71
02/22/12		11,778,355	14,769					941,736			2,183,827		
02/24/12		11,780,157	16,571					942,642			2,184,964		
02/28/12		11,782,379	18,793				**Pounds Cr**	943,547			2,186,478		
	03/01/12	*11,783,379*		**February**			**0.329**						
03/01/12		11,782,379	0	**21,255**	7.1	2.6	2.560	944,002	7.3	3.45	2,186,478	7.6	2.04
03/14/12		11,824,851	41,472					956,400			2,221,364		
03/21/12		11,839,925	15,074					962,783			2,231,770		
03/25/12		11,848,965	9,040					965,591			2,239,149		
	04/01/12	*11,865,023*		**March**			**Pounds Cr**						

TABLE 1
Influent - Effluent Compliance Summary

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

	OUTFALL 001							Manhole #1			Manhole #2		
Date Actual	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
04/03/12		11,871,806	22,841	**81,644**			**1.740**	973,817			2,256,557		

TABLE 2

City of Appleton Compliance Limits, Outfall 001

N.W. Mauthe Superfund Site - Appleton, WI

Terracon Project No. 58117057

		Aluminum (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Chromium Total (mg/L)	Copper (mg/L)	Cyanide (mg/L)	Lead (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Zinc (mg/L)	Hexavalent Chromium (mg/L)
Permit #06-21 Limits		70	1.0	0.3	7.0	3.5	1.0	2.0	0.002	2.0	10.0	4.5
Sampler	Sample Date											
CH2M Hill	02/20/97	<.02	<.003	<.00050	0.04	<.01	<.00001	<.005	<.0002	<.005	0.0051	<.01
CH2M Hill	03/24/98	0.0152	<.002	<.00004	0.0637	<.0095	<.0017	<.0006	<.000015	<.0095	0.0046	0.1000
Appleton	04/29/98	<.011	<.002	<.005	0.2200	<.05	0.0020	<.1	<.0002	<.04	<.005	NA
Appleton	10/07/98	<.011	<.002	0.0050	0.1700	<.05	<.001	<.1	<.0002	<.04	0.0250	NA
MCO	03/18/99	<.009	<.003	<.00031	NA	.00068****	<.000032	<.0024	<.00005	.00351****	<.012	<.0036
Appleton	03/18/99	<.011	<.002	<.005	<0.05	<.05	0.0010	0.1000	<.00005	0.0400	0.0180	NA
Appleton	09/21/99	<.011	<.002	<.005	<.05	<.05	0.0030	<.1	<.00015	<.04	0.0080	NA
Appleton	02/15/00	<.015	<.0020	<.005	0.0900	<.05	<.001	<.1	<.00013	<.04	0.0280	NA
MCO	03/13/00	<.009	<.003	<.00031	0.1400	<.0006	<.0044	<.0024	<.00005	0.0012	<.012	NA
Appleton	02/21/01	<0.15	<.002	<.005	0.11	<.05	0.001	<.1	<.00013	<.04	0.042	NA
MCO	03/01/01	<.034	<.0027	.012 ****	0.25	.0088 ****	<.0033	<.17	<.00005	.036 ****	0.015	<.0036
Appleton	10/02/01	0.016	<.002	<.005	0.14	<.05	<.001	<.1	<.00013	<.04	0.065	NA
MCO	03/19/02	<.034	<.0027	<.0075	0.36	<.0077	<.0027	<.17	<.00005	<.017	<.012	<.0036
Appleton	05/02/02	<.049	<.012	<.014	0.362	<.015	<.0014	<.060	<.00011	<.011	<.009	NA
Appleton	11/12/02	0.027	<.0082	<.00053	0.23	<.009	<.0007	<.00084	<.000028	0.0044	0.0081	NA
Appleton	02/11/03	<0.027	<.0082	<.00053	0.086	<.0009	<.0014	<.0013	<.000028	0.0036	<.0025	NA
Appleton	03/24/03	<.045	<.0027	<.0088	0.13	0.075	<.0050	<.16	<.000050	<.019	<.0044	<.0036
Appleton	10/23/03	0.0045	0.0013	<0.0001	0.221	<0.0008	<0.005	<0.0006	0.0002	<0.025	<0.010	NA
Appleton	03/24/04	<0.050	<0.0026	<0.010	0.15	<0.0060	<0.0050	<0.16	<0.000025	<0.020	<0.010	NA
Appleton	11/09/04	0.0071	<0.0012	<0.0001	0.04	0.0008	<0.005	<0.008	<0.0002	0.0013	<0.01	NA
MCO	08/08/05	0.023	<0.0035	<0.0003	0.039	0.0019	<0.0037	<0.0011	<0.000026	<0.0044	0.0024	<0.005
Appleton	11/05/06	0.0052	<0.0012	<0.0001	0.088	<0.0005	<0.005	<0.0008	<0.0002	0.0017	<0.010	NA
Appleton	02/23/06	0.0021	<0.0012	<0.0001	0.08	<0.0005	<0.0005	<0.0008	<0.0002	0.0022	<0.010	NA
MCO	03/23/06	<0.20	<0.0076	<0.00074	0.32	0.0018	0.0043	<0.0034	<0.000026	0.0033	<0.020	NA
Appleton	06/27/06	<0.200	<0.0076	<0.00074	0.700	0.0016	<0.0094	<0.0034	<0.000072	0.0021	<0.020	<0.350
Appleton	10/05/06	0.037	<0.00011	<0.0001	4.575	0.0068	0.01	<0.001	<0.0002	0.0026	<0.010	NA
Appleton	03/22/07	<0.07	<0.07	<0.01	1.9	3.5	<0.004	<0.03	<0.0002	<0.04	<0.01	NA
MCO	04/02/07	0.0383	0.00024	0.000086	1.41	0.0041	<0.0094	0.00013	<0.00019	0.0035	0.009	NA
Appleton	12/04/07	<0.07	<0.001	<0.01	3.4	<0.01	0.008	<0.03	<0.0002	<0.04	<0.01	1.5
Appleton	01/16/08	0.21	<0.005	<0.01	<0.03	0.02	0.017	0.06	0.0003	<0.04	0.04	NA
OMNNI	04/08/08	0.0114	0.00043	0.00011	0.864	0.0043	0.014 J	0.000095 J	<0.0001	0.0024	0.0071	0.063
Appleton	08/19/08	<0.08	<0.001	<0.01	0.95	<0.01	0.005	<0.03	0.0002	<0.02	<0.01	NA
Appleton	03/31/09	<0.09	<0.012	<0.01	0.99	<0.01	<0.008	<0.05	<0.0002	<0.02	<0.01	NA
OMNNI	04/07/09	<0.0151	0.003 J	0.00040 J	0.767	0.0024 J	<0.0060	<0.0014	<0.00010	0.0016 J	0.0137 J	0.84
Appleton	09/22/09	<0.08	<0.006	<0.01	2.3	<0.01	<0.008	<0.05	<0.0002	<0.02	<0.01	NA
Appleton	03/02/10	<0.06	<0.002	<0.01	1.6	<0.01	<0.008	<0.03	<0.0002	<0.01	<0.01	NA
OMNNI	04/06/10	0.0501 J	<0.0014	0.00043 J	1.16	0.0024 J	<0.0061	<0.00075	<0.0001	0.0023 J	0.0046 J	1.3
Appleton	11/02/10	<0.10	<0.010	<0.01	0.71	<0.01	<0.008	<0.03	<0.0002	<0.01	<0.01	NA
Appleton	02/24/11	<0.08	<0.001	<0.01	1.5	<0.01	0.008	<0.04	<0.0002	<0.02	<0.01	NA
OMNNI	04/05/11	0.0725 J	0.0025 J	<0.00026	0.401	0.0028 J	<0.0061	<0.0014	<0.00010	0.00053 J	0.0023 J	0.40
Appleton	10/26/11	<0.08	<0.005	<0.01	1.2	<0.01	0.007	<0.04	<0.0002	<0.02	<0.01	NA
Appleton	03/21/12	<0.11	<0.004	<0.01	1.3	0.01	0.007	<0.04	<0.0002	<0.02	<0.01	NA
Terracon	04/05/12	<0.0695	<0.0047	<0.00039	0.696	0.014†	<0.0061	<0.0014	<0.00010	0.001†	<0.0053	0.83

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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	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
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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	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
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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	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
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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	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
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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-103	02/01/97	-		795.29
	05/01/97	-		791.83
	09/01/97	-		789.60
	12/01/97	-	803.74	787.78
	03/01/98	-		791.03
	06/01/98	-		789.13
	10/27/98	11.96		791.78
	02/08/99	10.24		793.50
	06/08/99	8.69		795.05
	09/13/99	9.79		793.95
	12/15/99	12.68		791.06
	03/13/00	9.63		794.07
	06/22/00	8.22		795.52
	09/27/00	7.76		795.98
	12/19/00	10.78		792.96
	03/01/01	9.15		794.59
	06/19/01	5.52		798.22
	09/24/01	9.80		793.94
	12/05/01	11.13		792.61
	03/19/02	4.96		798.78
	06/20/02	7.42		796.32
	09/18/02	9.00		794.74
	12/17/02	13.01		790.73
	03/24/03	7.63		796.11
	06/10/03	7.77		795.97
	09/10/03	9.60		794.14
	12/10/03	8.09		795.65
	03/23/04	4.01		797.73
	07/09/04	12.91		790.83
	09/21/04	10.30		793.44
	03/29/05	NR		---
	06/20/05	9.55		794.19
	09/21/05	9.70		794.04
	12/14/05	10.40		793.34
	03/21/06	7.87		795.87
	06/28/06	9.75		793.99
	09/20/06	11.23		792.51
	12/20/06	10.36		793.38
	03/13/07	9.91		793.83
	07/03/07	9.45		794.29
	09/27/07	9.52		794.22
	04/16/08	7.06		796.68
	09/22/08	9.62		794.12
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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-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
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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	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
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun Site - Appleton, WI
Terracon Project No. 58117057

Well Name	Date Measured	Depth To Water (feet)	Reference Elevation (To Top PVC) (feet)	Groundwater Elevation (feet)
MW-106	02/01/97	-		794.75
	05/01/97	-		797.23
	09/01/97	-		796.91
	12/01/97	-	804.08	795.48
	03/01/98	-		797.37
	06/01/98	-		796.76
	10/27/98	8.12		795.96
	02/08/99	9.75		794.33
	06/08/99	6.72		797.36
	09/13/99	7.88		796.20
	12/15/99	8.71		795.37
	03/13/00	8.72		795.36
	06/22/00	6.87		797.21
	09/27/00	7.41		796.67
	12/19/00	8.55		795.53
	03/01/01	9.54		794.54
	06/19/01	6.30		797.78
	09/24/01	7.57		796.51
	12/05/01	8.72		795.36
	03/19/02	7.64		796.44
	06/20/02	7.21		796.87
	09/18/02	7.88		796.20
	12/17/02	10.49		793.59
	03/24/03	9.98		794.10
	06/10/03	7.54		796.54
	09/10/03	7.35	804.00 ***	796.65
	12/10/03	7.18		796.82
	03/23/04	7.54		796.46
	07/09/04	6.48	803.90 ****	797.42
	09/21/04	8.02		795.88
	03/29/05	8.26		795.64
	06/20/05	7.31		796.59
	09/21/05	7.85		796.05
	12/14/05	8.47		795.43
	03/21/06	7.41		796.49
	06/28/06	7.78	803.83 *****	796.05
	09/20/06	7.90		795.93
	12/19/06	8.39		795.44
	03/13/07	9.08		794.75
	07/03/07	7.35		796.48
	09/27/07	6.92		796.91
	04/16/08	5.65		798.18
	04/03/09	7.03		796.80
	03/17/10	7.03		796.80
	04/29/11	5.05		798.78
	03/14/12	6.75		797.08

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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-107	02/01/97	-		788.23
	05/01/97	-		796.60
	09/01/97	-		797.64
	12/01/97	-	809.01	796.49
	03/01/98	-		796.68
	06/01/98	-		796.31
	10/27/98	10.71		798.30
	02/08/99	11.11		797.90
	06/08/99	11.04		797.97
	09/13/99	11.55		797.46
	12/15/99	11.66		797.35
	03/13/00	11.13		797.88
	06/22/00	10.69		798.32
	09/27/00	12.36		796.65
	12/19/00	7.32		799.29
*	03/01/01	-		-
	06/19/01	10.10	809.06 **	798.96
	09/24/01	11.23		797.88
	12/05/01	11.59		797.47
	03/19/02	9.79		799.27
	06/20/02	10.18		798.88
	09/18/02	11.16		797.90
	12/17/02	12.11		796.95
	03/24/03	12.46		796.60
	06/10/03	10.40		798.66
	09/10/03	11.34		797.72
	12/10/03	10.88		798.18
	03/23/04	9.04		800.02
	07/09/04	11.53		797.53
	09/21/04	12.55		796.51
	03/29/05	10.48		798.58
	06/20/05	11.14		797.92
	09/21/05	11.69		797.37
	12/14/05	11.10		797.96
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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-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
	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun 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-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
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
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 Superfun 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-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
MW-113	06/21/06	9.69	808.24	798.55
	09/20/06	10.27		797.97
	12/19/06	10.03		798.21
	03/13/07	8.93		799.31
	07/03/07	9.75		798.49
	09/27/07	9.67		798.57
	04/16/08	7.03		801.21
	09/22/08	9.97		798.27
	04/03/09	7.41		800.83
	09/01/09	9.72		798.52
	03/17/10	7.37		800.87
	09/09/10	9.48		798.76
	04/29/11	6.50		801.74
	09/01/11	9.74		798.50
	03/14/12	6.86		801.38
PZ-05	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

TABLE 3
Groundwater Elevations
N.W. Mauthe Superfun Site - Appleton, WI
Terracon Project No. 58117057

Well Name	Date Measured	Depth To Water (feet)	Reference Elevation (To Top PVC) (feet)	Groundwater Elevation (feet)
PZ-06	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
PZ-07	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
PZ-08	07/19/05	32.07	804.35	772.28
	09/21/05	24.47		779.88
	12/19/06	28.16		776.19
	03/13/07	21.90		782.45
	07/03/07	23.19		781.16
	09/27/07	22.47		781.88
	04/16/08	21.00		804.35
	04/03/09	20.63		783.72
	03/17/10	21.25		783.10
	04/29/11	20.65		783.70
	03/14/12	20.94		783.41

* Casing for MW-107 was damaged. Groundwater elevation could not be determined.
** Reflects new elevation of MW-107 after repair to well casing.
*** Monitoring wells re-surveyed after casings were shortened.
**** New elevation after the PVC casing was shortened after the March 23, 2004 sampling event.
***** New elevation after the PVC casing was shortened after the March 21, 2006 sampling event.
******New elevation after PVC casing was shortened after the December 19, 2006 sampling event.

Note: OMNNI Associates, Inc. collected water level readings from MW-109 to MW-113 on June 21, 2006 and September 20, 2006 and from PZ-5 to PZ-8 on July 19, 2005 and September 21, 2005.

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	4.00	7.93	14.80	1278 us	1.40	119.00	12.00	0.00
	02/09/99	4.00	8.47	9.50	1278 us	2.10	146.00	16.00	0.20
	06/08/99	4.00	7.20	14.60	1234 us	1.00	85.00	11.20	1.00
	09/13/99	5.10	7.34	15.00	1254 us	1.90	(136.00)	9.60	0.00
	12/15/99	4.80	7.77	11.80	1199 us	1.50	(231.00)	4.80	0.00
	03/13/00	7.00	6.17	8.90	1278 us	1.30	59.00	7.60	0.00
	06/22/00	4.40	7.86	12.10	1240 us	1.50	59.00	7.60	0.00
	09/27/00	6.60	6.39	16.40	1140 us	1.90	(187.00)	9.60	0.00
	12/19/00	5.00	7.66	9.50	1171 us	1.85	(161.00)	11.20	0.00
	03/01/01	3.50	7.42	10.50	1084 us	1.41	(222.00)	9.20	0.00
	06/19/01	7.00	7.81	15.60	1980 us	1.10	(18.00)	8.40	0.00
	09/24/01	5.00	7.48	13.40	1712 us	0.90	(38.00)	6.60	0.00
	12/05/01	5.00	7.51	10.20	1244 us	1.10	(71.00)	9.60	0.00
	03/19/02	6.00	7.51	10.60	977 us	1.10	(210.00)	13.20	0.00
	06/20/02	6.00	7.40	15.00	1870 us	0.80	(88.00)	8.80	0.00
	09/18/02	5.00	7.18	14.80	1138 us	1.00	(99.00)	10.40	0.00
	12/17/02	4.00	7.34	10.30	1187 us	1.00	(103.00)	9.60	0.00
	03/24/03	4.00	7.30	10.30	1077 us	1.00	(310.00)	10.00	0.00
	06/10/03	6.00	7.21	14.90	1620 us	1.00	(110.00)	12.80	0.00
	09/10/03	4.00	7.09	14.60	1210 us	0.80	(111.00)	8.80	0.00
	03/24/04	4.50	7.30	7.40	1210 us	EM	6.00	NA	0.00
	03/29/05	4.50	7.20	6.30	1182 us	3.40	85.00	NA	0.00
	03/23/06	7.00	6.60	10.50	2470 us	2.65	191.00	NA	0.03
	03/27/07	4.0	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
	03/16/11	NA	NA	NA	NA	NA	NA	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)
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	5.00	7.42	16.70	1459 us	1.30	97.00	14.40	0.20
	02/09/99	3.90	8.08	11.20	1386 us	1.30	21.00	8.00	2.40
	06/08/99	5.50	7.23	14.80	1283 us	1.80	85.00	14.00	5.60
	09/13/99	5.20	7.12	16.30	1363 us	1.70	(143.00)	14.40	1.60
	12/15/99	5.10	7.25	10.30	1375 us	0.90	(288.00)	14.40	1.20
	03/13/00	5.00	7.06	8.80	1277 us	1.10	(33.00)	8.40	1.00
	06/22/00	4.80	8.58	14.60	1177 us	1.97	(120.00)	6.80	0.00
	09/27/00	6.00	7.60	18.10	1098 us	1.50	(178.00)	10.00	0.00
	12/19/00	4.00	7.67	8.30	1227 us	1.14	(267.00)	11.60	0.00
	03/01/01	5.00	7.51	11.10	1175 us	1.20	(311.00)	11.20	0.00
	06/19/01	6.00	7.93	14.80	1310 us	0.80	(24.00)	6.20	0.00
	09/24/01	6.00	7.37	13.10	1177 us	0.40	4.00	6.40	0.00
	12/05/01	5.00	7.30	10.40	1288 us	1.00	(163.00)	12.40	0.00
	03/19/02	6.00	7.44	10.90	1044 us	1.30	(280.00)	11.20	0.00
	06/20/02	6.00	7.51	14.20	1240 us	0.80	(90.00)	6.20	0.00
	09/18/02	5.00	7.31	15.60	1221 us	1.30	(104.00)	14.60	1.00
	12/17/03	3.00	7.28	10.60	1,155	1.10	(172.00)	12.40	0.40
	03/24/03	5.00	7.18	10.60	1131 us	0.80	(342.00)	11.20	0.00
	06/10/03	4.00	7.30	15.00	1133 us	0.80	(121.00)	8.80	0.00
	09/10/03	5.00	7.22	15.00	1240 us	1.00	(175.00)	11.60	0.80
	03/24/04	4.30	7.40	7.80	755 us	EM	(47.00)	NA	0.00
	03/29/05	4.00	7.10	7.80	1743 us	3.43	87.00	NA	0.00
	03/23/06	4.00	7.20	8.30	2560 us	4.00	227.00	NA	0.00
	03/27/07	3.0	7.3	10.3	1438 us	6.71	237	NA	0.03
	04/16/08	NA	NA	NA	NA	NA	NA	NA	NA
	09/22/08	NA	NA	NA	NA	NA	NA	NA	NA
	04/03/09	NA	NA	NA	NA	NA	NA	NA	NA
	03/17/10	NA	NA	NA	NA	NA	NA	NA	NA
	04/29/11	1.25	7.52	8.5	1510.0 µs	3.32	222	NA	0.03
	04/29/11	NA	NA	NA	NA	NA	NA	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)
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	4.00	7.27	16.00	1551 us	0.80	137.00	14.40	0.00
	02/09/99	2.60	8.07	10.00	1418 us	1.30	7.00	12.00	0.60
	06/08/99	4.50	7.54	16.70	1465 us	1.50	75.00	12.00	1.40
	09/13/99	3.60	7.18	17.60	1647 us	1.90	(137.00)	10.40	0.80
	12/15/99	3.30	7.52	11.70	1544 us	1.50	(281.00)	12.40	1.00
	03/13/00	4.00	7.14	8.90	1266 us	1.40	(19.00)	7.60	0.40
	06/22/00	3.00	8.22	14.90	1546 us	1.63	36.00	7.30	0.00
	09/27/00	5.00	5.43	17.40	1711 us	1.30	(41.00)	12.40	0.00
	12/19/00	3.00	7.55	8.90	1628 us	3.23	(305.00)	15.20	1.60
	03/01/01	4.00	7.43	10.90	1435 us	2.10	(381.00)	16.00	0.80
	06/19/01	5.00	8.18	14.80	1380 us	1.40	(64.00)	6.00	0.00
	09/24/01	5.00	7.22	12.60	1160 us	1.00	(49.00)	8.00	0.00
	12/05/01	3.00	7.28	9.90	1544 us	2.00	(280.00)	12.80	1.20
	03/19/02	5.00	7.58	10.30	1284 us	1.80	(318.00)	12.20	0.40
	06/20/02	5.00	8.00	14.60	1280 us	1.00	(180.00)	12.40	0.00
	09/18/02	5.00	7.20	16.30	1399 us	1.60	(152.00)	13.60	0.40
	12/17/02	3.00	7.18	10.00	1234 US	2.00	(220.00)	8.80	1.00
	03/24/03	3.00	7.22	10.60	1294 us	1.40	(330.00)	12.40	0.20
	06/10/03	5.00	7.76	14.80	1148 us	1.20	(174.00)	11.20	0.00
	09/10/03	5.00	7.18	15.40	1317 us	1.20	(170.00)	10.40	0.60
	03/24/04	3.70	7.30	8.40	1516 us	EM	(32.00)	NA	0.00
	03/29/05	3.00	7.00	8.20	2240 us	3.81	85.00	NA	0.00
	03/23/06	4.00	7.00	7.50	1952 us	4.40	236.00	NA	0.00
	03/28/07	3.0	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
	03/14/12	NA	NA	NA	NA	NA	NA	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-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	9.00	7.13	14.10	2.27 ms	0.50	116.00	12.00	0.00
	02/09/99	7.00	8.11	12.70	2.11 ms	1.10	165.00	8.80	0.20
	06/08/99	6.00	7.05	15.00	2.17 ms	0.70	161.00	8.00	0.20
	09/13/99	5.90	7.25	14.90	2.12 ms	0.90	(125.00)	13.60	0.00
	12/15/99	6.00	8.71	12.70	2.06 ms	1.00	(262.00)	8.80	0.00
	03/13/00	7.00	6.34	11.60	1939 us	1.10	44.00	8.00	0.00
	06/22/00	5.00	7.73	15.20	2.25 ms	0.96	50.00	8.00	0.00
	09/27/00	8.50	6.80	15.50	2.18 ms	0.70	3.00	12.80	0.00
	12/19/00	10.50	7.12	11.90	2.18 ms	1.48	(233.00)	14.40	0.00
	03/01/01	8.00	7.41	11.00	2.31 ms	1.32	(283.00)	12.20	0.00
	06/19/01	9.00	8.04	13.60	1265 us	1.00	10.00	7.20	0.00
	09/24/01	8.00	7.79	13.40	1304 us	1.00	(11.00)	11.20	0.00
	12/05/01	9.00	7.40	11.20	2240 us	1.20	(304.00)	8.40	0.00
	03/19/02	9.00	7.36	10.80	1984 us	1.40	(210.00)	12.20	0.00
	06/20/02	10.00	7.93	13.80	1190 us	0.80	(30.00)	14.00	0.00
	09/18/02	10.00	7.24	15.00	2248 us	0.80	(113.00)	8.80	0.00
	12/17/02	8.00	7.27	11.40	1988 us	1.60	(334.00)	8.40	0.00
	03/24/03	9.00	7.45	11.10	1033 us	0.60	(190.00)	11.20	0.00
	06/10/03	10.00	7.66	14.00	1121 us	1.00	(61.00)	13.20	0.00
	09/10/03	8.00	7.30	14.80	2104 us	0.80	(124.00)	7.20	0.00
	03/24/04	6.70	6.90	10.10	3160 us	EM	(69.00)	NA	0.00
	03/29/05	6.00	6.60	12.12	4730 us	1.27	83.00	NA	0.00
	03/23/06	7.00	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	1.50	6.88	7.9	8.83 ms	2.23	NA	NA	NA
	03/17/10	1.50	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	2.00	6.20	10.1	0.47 S/m	1.90	212	NA	NA

TABLE 4

Groundwater Geochemical Parameters

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-102	02/20/97	NR	8.00	10.50	700 us	NA	NA	NA	NA
	05/27/97	NR	7.47	10.50	NA	NA	NA	NA	NA
	09/18/97	NR	6.99	13.00	810 us	NA	NA	NA	NA
	12/12/97	NR	7.23	8.50	690 us	NA	NA	NA	NA
	03/25/98	NR	7.68	10.20	1145 us	NA	NA	NA	NA
	06/10/98	NR	6.97	10.30	1046 us	NA	NA	NA	NA
	10/27/98	2.00	8.07	13.00	1197 us	1.50	103.00	17.60	0.40
	02/09/99	0.50	7.48	11.00	1164 us	1.00	0.33	14.40	0.00
	06/08/99	0.50	7.89	18.60	1226 us	1.00	151.00	4.80	0.80
	09/13/99	0.50	7.84	13.30	1208 us	1.20	(246.00)	10.00	1.20
	12/15/99	0.50	7.78	9.00	1152 us	1.60	(288.00)	10.80	1.00
	03/13/00	0.50	6.74	9.70	1096 us	1.20	(260.00)	6.80	0.00
	06/22/00	0.50	8.01	12.30	1233 us	0.53	(13.00)	6.00	0.00
	09/27/00	0.50	8.25	12.50	1182 us	1.90	(241.00)	9.20	0.00
	12/19/00	0.50	7.59	8.70	1126 us	1.27	(454.00)	11.60	0.00
	03/01/01	0.50	7.30	10.90	1321 us	1.02	(521.00)	9.20	0.00
	06/19/01	0.50	8.64	13.20	1944 us	0.60	35.00	6.40	0.00
	09/24/01	0.50	7.63	13.40	1622 us	0.80	18.00	7.20	0.00
	12/05/01	0.50	7.59	9.40	1233 us	0.80	(110.00)	12.40	0.00
	03/19/02	0.50	7.41	10.80	1143 us	0.90	(503.00)	9.20	0.50
	06/20/02	0.50	8.18	13.80	1720 us	0.40	4.00	9.60	0.00
	09/18/02	0.50	7.04	13.50	1318 us	1.00	(212.00)	10.80	1.00
	12/17/02	0.50	7.55	10.00	1186 us	0.60	(94.00)	11.20	0.00
	03/24/03	0.50	7.38	10.40	972 us	0.40	(621.00)	8.40	0.00
	06/10/03	0.50	8.01	13.80	1530 us	0.40	(18.00)	8.60	0.00
	09/10/03	0.50	7.10	14.00	1313 us	0.80	(211.00)	8.00	0.80
	03/24/04	2.70	7.20	12.80	1112 us	EM	(26.00)	NA	0.00
	03/29/05	3.00	7.10	12.70	1199 us	2.71	85.00	NA	0.00
	03/23/06	2.00	7.50	9.20	1234 us	5.06	283.00	NA	0.00
	03/27/07	2.0	7.2	12.5	1093 us	1.73	86	NA	0.29
	04/16/08	1.0	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	1.0	7.46	10.2	1275 us	4.90	NA	NA	NA
	03/17/10	1.0	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	1.50	6.50	12.7	0.12 S/m	5.50	97	NA	NA

TABLE 4

Groundwater Geochemical Parameters

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-103	02/20/97	NR	6.30	6.00	700 us	NA	NA	NA	NA
	05/27/97	NR	7.67	11.60	NA	NA	NA	NA	NA
	09/18/97	NR	7.21	10.50	1030 us	NA	NA	NA	NA
	12/12/97	NR	7.43	9.00	970 us	NA	NA	NA	NA
	03/25/98	NR	7.82	9.40	1441 us	NA	NA	NA	NA
	06/10/98	NR	6.24	9.90	1356 us	NA	NA	NA	NA
	10/27/98	8.00	7.66	12.70	1566 us	0.70	147.00	12.00	0.20
	02/09/99	7.80	7.48	9.90	1443 us	1.40	53.00	11.20	0.80
	06/08/99	9.50	7.42	13.90	1350 us	0.70	109.00	7.20	0.00
	09/13/99	4.10	7.41	12.90	985 us	1.60	(165.00)	12.00	0.00
	12/15/99	4.60	7.82	10.60	2.58 ms	1.40	(294.00)	10.80	0.00
	03/13/00	4.00	6.57	9.40	1292 us	1.00	76.00	8.40	0.40
	06/22/00	4.00	8.43	11.50	1354 us	0.99	(90.00)	6.00	0.00
	09/27/00	11.00	7.48	13.70	1131 us	1.40	(302.00)	7.60	0.00
	12/19/00	9.00	7.90	6.60	1063 us	1.56	(344.00)	9.20	0.40
	03/01/01	8.50	7.68	11.20	1160 us	1.88	(374.00)	8.00	0.60
	06/19/01	13.00	7.81	14.10	1848 us	1.10	(28.00)	7.40	0.00
	09/24/01	2.00	7.32	12.70	1743 us	1.00	(47.00)	12.00	0.00
	12/05/01	11.00	7.18	9.00	1121 us	1.40	(291.00)	10.80	0.60
	03/19/02	11.00	7.60	11.40	1050 us	1.50	(311.00)	10.00	0.40
	06/20/02	12.00	7.47	14.40	1830 us	0.80	(62.00)	10.80	0.00
	09/18/02	10.00	7.18	13.00	748 us	1.40	(170.00)	11.20	0.00
	12/17/02	8.00	7.22	9.60	1134 us	1.20	(284.00)	10.00	0.40
	03/24/03	11.00	7.54	11.00	1262 us	1.20	(320.00)	10.00	0.60
	06/10/03	10.00	7.13	14.10	1644 us	0.60	(80.00)	10.00	0.20
	09/10/03	10.00	7.14	13.20	920 us	1.00	(165.00)	10.40	0.00
	12/10/03	10.00	7.28	10.40	1210 us	0.80	(310.00)	7.80	0.20
	03/24/04	8.60	7.30	10.20	656 us	EM	(126.00)	NA	0.00
	07/09/04	5.00	7.20	14.00	996 us	16.30	283.00	NA	0.00
	09/21/04	1.50	7.10	20.10	1004 us	EM	(19.00)	NA	0.00
	03/29/05	12.00	7.00	10.20	1164 us	1.16	84.00	NA	0.00
	06/21/05	7.00	7.10	13.30	1253 us	1.46	142.00	NA	0.00
	09/21/05	10.00	7.30	13.50	1233 us	3.40	225.00	NA	0.00
	12/14/05	7.00	7.20	9.90	1295 us	1.53	NA	NA	0.00
	03.23/06	7.00	7.00	11.50	1140 us	230.00	252.00	NA	0.00
	06/28/06	5.00	7.10	11.80	746 us	2.75	232.00	NA	0.00
	12/20/06	8.00	7.40	10.80	1207 us	2.89	241.00	NA	0.23
	03/28/07	8.0	7.2	10.8	1075 us	3.09	238.0	NA	0.05
	07/03/07	8.0	7.4	11.3	1154 us	3.54	126.0	NA	0.38
	09/28/07	8.0	7.2	13.7	1294 us	3.14	217.0	NA	0.00
	04/16/08	1.0	7.09	12.0	556 us	0.83	233	NA	NA
	09/22/08	1.0	7.27	13.8	1446 us	0.20	183.7	NA	NA
	04/03/09	1.0	7.40	9.4	1451 us	1.89	NA	NA	NA
	09/01/09	1.0	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	2.0	6.20	10.2	0.12 S/m	0.70	175.0	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	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	8.00	7.84	13.20	1272 us	0.90	103.00	16.40	0.40
	02/09/99	9.50	7.66	10.10	1126 us	1.50	193.00	11.20	0.00
	06/08/99	13.00	6.80	15.60	1259 us	1.60	103.00	6.40	0.00
	09/13/99	13.80	7.08	13.90	1334 us	1.80	(146.00)	10.80	0.00
	12/15/99	11.20	7.68	10.80	1172 us	2.00	(232.00)	11.20	0.00
	03/13/00	16.50	6.91	10.20	1121 us	0.40	69.00	11.20	0.60
	06/22/00	11.00	8.65	11.60	1137 us	0.71	(211.00)	6.80	0.00
	09/27/00	8.00	7.24	12.90	1130 us	1.70	(123.00)	13.20	0.00
	12/19/00	8.00	7.75	8.20	1144 us	1.05	(240.00)	12.40	0.00
	03/01/01	9.50	7.72	10.60	1230 us	0.90	(220.00)	12.40	0.20
	06/19/01	13.00	7.91	12.90	1581 us	0.80	(110.00)	6.80	0.00
	09/24/01	8.00	7.18	12.40	1580 us	0.80	(99.00)	9.60	0.20
	12/05/01	7.00	7.22	9.90	1300 us	1.00	(311.00)	9.60	0.00
	03/19/02	10.00	7.70	10.60	1110 us	0.70	(210.00)	11.60	0.20
	06/20/02	10.00	7.53	13.00	1420 us	0.80	(174.00)	12.40	0.20
	09/18/02	9.00	7.03	14.60	1275 us	1.60	(148.00)	12.40	0.00
	12/17/02	8.00	7.31	10.00	1264 us	0.80	(294.00)	8.80	0.00
	03/24/03	8.00	7.61	10.40	1031 us	0.80	(240.00)	10.80	0.00
	06/10/03	10.00	7.40	15.00	1374 us	0.60	(91.00)	11.20	0.40
	09/10/03	9.00	7.08	14.20	1144 us	1.20	(151.00)	8.80	0.00
	12/01/03	8.00	7.35	10.10	1177 us	0.80	(280.00)	8.80	0.00
	03/24/04	13.60	7.30	9.90	1496 us	EM	(91.00)	NA	0.00
	07/09/04	5.00	7.00	12.00	1648 us	2.90	EM	NA	0.00
	09/21/04	1.00	7.00	13.10	1648 us	EM	1.00	NA	0.00
	03/29/05	6.00	7.00	10.20	1939 us	2.69	86.00	NA	0.00
	06/21/05	7.00	7.10	12.50	1999 us	3.50	125.00	NA	0.00
	09/21/05	7.00	7.10	13.80	1926 us	2.78	213.00	NA	0.00
	12/14/05	7.00	6.90	10.90	2320 us	2.11	253.00	NA	NA **
	03/23/06	10.00	6.90	10.60	2250 us	1.73	209.00	NA	0.00
	06/28/06	5.00	6.80	11.30	2290 us	1.40	215.00	NA	0.26
	12/20/06	8.00	7.10	11.90	2120 us	2.08	248.00	NA	0.00
	03/28/07	8.0	6.9	10.1	2450 us	3.80	226.0	NA	0.07
	07/03/07	6.0	7.1	11.5	2180 us	1.51	247.0	NA	0.61
	09/28/07	6.0	6.9	14.7	2380 us	2.22	266.0	NA	0.05
	04/16/08	1.0	6.96	13.9	853 us	1.74	157.0	NA	NA
	09/22/08	1.0	7.06	13.1	3.43 ms	0.23	61.8	NA	NA
	04/03/09	1.0	7.25	8.1	2.88 ms	1.67	NA	NA	NA
	09/01/09	1.0	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	(150.8)	NA	NA
	03/14/12	2.0	6.20	10.1	0.16 S/m	1.00	165.0	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-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	5.00	7.57	16.80	2.87 ms	0.10	121.00	13.60	0.00
	02/09/99	5.90	7.34	10.60	2.76 ms	0.90	281.00	16.80	1.80
	06/08/99	5.00	7.32	17.80	2.87 ms	0.70	90.00	9.60	0.20
	09/13/99	3.50	7.00	17.20	2.74 ms	1.70	(182.00)	13.20	1.40
	1215/99	3.60	7.36	13.00	2.62 ms	1.60	(255.00)	8.80	1.20
	03/13/00	4.50	6.58	8.40	2430 us	1.30	23.00	9.60	0.80
	06/22/00	3.20	8.44	14.30	2.71 ms	0.88	(304.00)	6.40	0.00
	09/27/00	6.00	6.62	17.90	2.53 ms	1.10	(198.00)	12.80	0.00
	12/19/00	6.00	7.42	9.60	2.32 ms	2.27	(167.00)	12.40	0.00
	03/01/01	5.00	7.24	10.80	2.45 ms	1.89	(184.00)	11.60	0.00
	06/19/01	7.00	8.19	12.80	1877 us	0.60	(200.00)	6.80	0.00
	09/24/01	6.00	7.41	13.80	1809 us	0.80	(183.00)	7.20	0.00
	12/05/01	6.00	7.34	10.00	2148 us	1.80	(188.00)	11.20	0.20
	03/19/02	5.00	6.94	10.20	1984 us	1.80	(169.00)	9.60	0.00
	06/20/02	6.00	8.04	13.00	1400 us	1.00	(310.00)	10.80	0.00
	09/18/02	6.00	7.21	17.20	2800 us	1.60	(183.00)	10.80	1.60
	12/17/02	5.00	7.08	10.40	2008 us	1.40	(194.00)	13.20	0.40
	03/24/03	5.00	7.04	10.60	1477 us	1.40	(99.00)	14.00	0.00
	06/10/03	6.00	7.81	14.80	1344 us	1.20	(280.00)	8.60	0.00
	09/10/03	6.00	7.30	16.40	2626 us	1.20	(177.00)	10.00	1.20
	03/24/04	4.90	6.80	5.90	2220 us	EM	(78.00)	NA	0.00
	03/29/05	4.00	6.80	8.90	2300 us	2.12	87.00	NA	0.00
	03/23/06	4.00	6.90	8.60	2170 us	3.54	256.00	NA	0.22
	03/27/07	4.0	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
	03/14/12	NA	NA	NA	NA	NA	NA	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-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	4.00	7.31	16.80	1824 us	1.20	138.00	12.80	0.00
	02/09/99	2.50	7.33	10.20	1605 us	1.10	197.00	20.80	0.00
	06/08/99	3.50	7.15	15.40	1332 us	0.70	17.00	6.40	0.20
	09/13/99	2.30	7.02	17.40	1357 us	1.00	(168.00)	11.60	0.00
	12/15/99	2.00	8.41	12.10	1445 us	0.80	(266.00)	10.00	0.00
	03/13/00	2.50	6.92	9.10	1513 us	1.60	18.00	10.40	0.00
	06/22/00	1.50	8.18	14.50	1736 us	2.02	38.00	7.20	0.00
	09/27/00	6.00	6.84	19.10	1715 us	1.60	(8.00)	12.00	0.00
	12/19/00	4.00	7.48	10.70	1694 us	1.43	(218.00)	10.80	0.00
	03/01/01	4.00	7.33	10.80	1722 us	1.50	(210.00)	9.20	0.00
	06/19/01	4.00	8.28	13.00	1361 us	1.10	(210.00)	6.40	0.00
	09/24/01	6.00	7.66	14.00	1220 us	0.80	(104.00)	11.20	0.00
	12/05/01	4.00	7.60	10.40	1702 us	0.90	(217.00)	12.80	0.00
	03/19/02	5.00	7.13	10.40	1630 us	1.70	(235.00)	9.20	0.00
	06/20/02	5.00	8.08	12.80	1288 us	1.20	(240.00)	8.80	0.00
	09/18/02	5.00	7.30	17.80	1438 us	1.00	(141.00)	8.80	0.00
	12/17/02	3.00	7.15	10.20	1788 us	0.80	(220.00)	11.20	0.00
	03/24/03	3.00	7.22	10.80	1250 us	1.10	(193.00)	10.00	0.00
	06/10/03	5.00	7.84	13.80	1310 us	1.20	(230.00)	10.20	0.00
	09/10/03	5.00	7.24	16.60	1303 us	0.80	(140.00)	12.00	0.00
	03/24/04	1.80	7.10	8.00	1761 us	EM	(57.00)	NA	0.00
	03/29/05	2.50	6.90	9.00	1995 us	2.24	85.00	NA	0.00
	03/23/06	4.00	7.00	9.40	2160 us	4.14	249.00	NA	0.00
	03/27/07	2.00	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
	03/14/12	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 4

Groundwater Geochemical Parameters

N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Purge* Volume (gallons)	pH (std units)	Temperature (°C)	Conductivity (units as shown)	Dissolved Oxygen (ppm, unless noted)	Redox (mV)	Alkalinity (gpg)	Ferrous Iron (mg/L)
MW-107	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	10.00	7.41	12.10	1179 us	1.10	62.00	20.00	10.00
	02/09/99	9.00	8.10	12.00	1189 us	1.30	263.00	7.20	0.40
	06/08/99	9.00	7.48	15.60	1406 us	2.20	163.00	4.80	0.40
	09/13/99	8.00	7.30	12.90	1301 us	2.60	(114.00)	14.00	0.60
	12/15/99	10.00	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	10.00	8.75	12.40	1574 us	0.62	(120.00)	6.40	0.00
	09/27/00	10.00	7.42	14.20	1505 us	1.60	(114.00)	9.20	0.00
	12/19/00	13.00	7.69	9.50	1524 us	1.21	(38.00)	10.40	0.00
	03/01/01	16.00	7.81	9.90	1704 us	1.31	(93.00)	12.40	0.20
	06/19/01	15.00	7.64	13.40	1221 us	0.80	(80.00)	6.00	0.20
	09/24/01	9.00	7.04	12.40	977 us	0.60	(77.00)	12.00	0.40
	12/05/01	13.00	7.15	9.20	1611 us	0.80	(95.00)	8.40	0.00
	03/19/02	12.00	7.64	10.00	1730 us	1.30	8.00	9.60	0.20
	06/20/02	10.00	7.48	13.60	1304 us	0.60	(110.00)	9.60	0.40
	09/10/02	10.00	7.52	13.10	1403 us	2.00	(104.00)	12.40	0.40
	12/17/02	10.00	7.22	10.40	1593 us	0.80	(110.00)	7.80	0.00
	03/24/03	10.00	7.30	10.30	1362 us	1.00	(48.00)	10.80	0.00
	06/10/03	11.00	7.20	14.00	1277 us	0.80	(200.00)	9.20	1.00
	09/10/03	10.00	7.46	13.30	1121 us	1.30	(99.00)	8.00	0.20
	12/01/03	10.00	7.41	9.80	1360 us	1.00	(98.00)	8.40	0.00
	03/24/04	9.00	7.30	11.10	1704 us	EM	(109.00)	NA	0.00
	07/09/04	6.00	7.30	13.20	1704 us	4.59	166.00	NA	0.00
	09/21/04	3.00	7.10	14.30	1649 us	EM	7.00	NA	0.00
	03/29/05	9.00	7.20	11.50	1749 us	2.83	85.00	NA	0.00
	06/21/05	8.00	7.30	12.70	2010 us	1.85	119.00	NA	0.00
	09/21/05	8.00	7.50	15.20	1594 us	2.92	221.00	NA	0.00
	12/14/05	8.00	7.40	12.30	1708 us	1.80	250.00	NA	0.00
	03/27/06	10.00	7.30	11.90	1726 us	2.65	269.00	NA	0.00
	06/28/06	7.00	7.20	13.40	1696 us	3.76	212.00	NA	0.04
	12/20/06	8.00	7.20	11.80	1655 us	3.83	234.00	NA	0.08
	03/28/07	8.0	7.3	10.4	1599 us	7.14	240	NA	0.01
	07/03/07	7.0	7.5	11.8	1163 us	3.41	258	NA	0.00
	09/28/07	6.0	7.4	13.1	1642 us	2.64	238	NA	0.02
	04/16/08	1.0	7.30	13.5	NA	2.12	197.9	NA	NA
	09/22/08	1.0	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	1.0	6.40	11.6	0.14 S/m	1.90	169.0	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-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	10.00	7.95	14.30	1696 us	1.40	116.00	12.80	0.20
	02/09/99	8.10	7.51	11.00	1810 us	1.10	(65.00)	10.40	0.40
	06/08/99	12.50	7.60	15.00	1706 us	0.90	173.00	7.20	0.60
	09/13/99	13.50	7.29	13.60	1849 us	1.20	(180.00)	8.00	0.00
	12/15/99	12.80	7.68	11.80	1885 us	1.00	(286.00)	8.40	0.00
	03/13/00	14.00	6.25	10.20	1642 us	1.70	(4.00)	9.20	0.20
	06/22/00	11.50	7.62	14.10	1989 us	1.01	69.00	6.40	0.00
	09/27/00	12.00	7.43	13.10	1983 us	0.40	(73.00)	10.40	0.00
	12/19/00	10.50	7.60	10.10	2.01 ms	2.18	(184.00)	10.80	0.00
	03/01/01	9.00	7.49	11.20	2.38 ms	2.20	(211.00)	11.60	0.00
	06/19/01	8.00	8.20	13.80	1634 us	0.80	(90.00)	7.00	0.00
	09/24/01	9.00	7.59	14.20	1512 us	0.80	(83.00)	9.60	0.00
	12/05/01	10.00	7.49	10.50	2111 us	1.80	(199.00)	9.60	0.00
	03/19/02	12.00	7.30	10.80	2120 us	2.10	(170.00)	11.60	0.00
	06/20/02	12.00	7.92	14.00	1424 us	0.80	(120.00)	12.40	0.00
	09/18/02	12.00	7.13	13.40	1744 us	1.00	(132.00)	11.20	0.00
	12/17/02	10.00	7.36	10.40	1986 us	1.60	(174.00)	8.40	0.00
	03/24/03	10.00	7.31	10.40	2032 us	1.60	(190.00)	8.40	0.00
	06/10/03	11.00	7.64	14.60	1324 us	0.80	(144.00)	9.20	0.00
	09/10/03	11.00	7.15	13.30	1622 us	0.80	(124.00)	10.40	0.00
	03/24/04	10.00	7.70	12.30	1927 us	EM	(156.00)	NA	0.00
	03/29/05	9.00	7.30	10.80	2090 us	2.29	83.00	NA	0.00
	03/27/06	9.00	7.30	9.30	2880 us	1.72	2.69	NA	0.04
	03/27/07	9.0	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
	03/14/12	NA	NA	NA	NA	NA	NA	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-109	06/21/06	2.00	6.42	14.80	1497 us	-	-	-	-
	09/20/06	2.00	6.66	14.60	1429 us	-	-	-	-
	12/20/06	8.00	7.10	11.00	2120 us	2.39	213.00	NA	0.16
	03/29/07	10.0	6.9	9.6	2050 us	7.71	284	NA	***
	07/03/07	9.0	7.2	12.8	2350 us	1.53	192	NA	0.04
	09/28/07	10.0	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	1.0	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	1.0	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
MW-110	06/21/06	2.00	6.91	12.70	1178 us	-	-	-	-
	09/20/06	2.00	7.00	14.40	1248 us	-	-	-	-
	12/20/06	10.00	7.20	10.60	1757 us	2.07	234.00	NA	0.00
	03/29/07	10.0	7.2	8.1	1806 us	7.03	255	NA	0.03
	07/03/07	8.0	8.3	12.1	1752 us	2.96	227	NA	0.13
	09/28/07	11.0	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	1.0	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	2.0	6.60	9.4	0.20 S/m	8.70	198.0	NA	NA
MW-111	06/21/06	2.00	7.01	12.40	1311 us	-	-	-	-
	09/20/06	1.75	6.99	14.00	1164 us	-	-	-	-
	12/20/06	6.00	7.20	11.00	1478 us	3.95	243.00	NA	0.01
	03/29/07	10.0	7.4	9.2	1908 us	9.29	209	NA	0.01
	07/03/07	6.0	7.4	12.1	1855 us	1.63	263	NA	0.28
	09/28/07	11.0	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

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	06/21/06	2.00	7.21	12.40	1338 us	-	-	-	-
	09/20/06	2.00	7.28	14.60	1238 us	-	-	-	-
	12/20/06	8.00	7.50	10.70	1817 us	1.94	729.00	NA	0.00
	03/28/07	10.0	7.5	9.5	2050 us	7.93	228	NA	0.00
	07/03/07	9.0	7.6	13.7	1909 us	3.48	234	NA	0.28
	09/28/07	11.0	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
MW-113	06/21/06	2.00	6.91	12.90	1020 us	-	-	-	-
	09/20/06	2.00	7.11	14.60	900 us	-	-	-	-
	12/20/06	8.00	7.20	10.60	1757 us	2.07	234.00	NA	0.00
	03/29/07	10.0	7.3	8.0	1508 us	9.52	235	NA	***
	07/03/07	7.0	7.6	10.9	1552 us	2.05	262	NA	0.13
	09/28/07	13.0	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	2.0	6.60	8.8	0.15 S/m	4.50	236.0	NA	NA

ppm = parts per million
us = microsiemens / centimeter
S/m = siemens / meter
mV = millivolts
gpg = grains per gallon
EM - Equipment malfunction.
Note: A different meter was used to test ferrous iron beginning on the March 2006 sampling event.
ms = millisiemens / centimeter
NA = not analyzed
NR = not recorded
( ) = Indicates a negative value.
* = Each monitoring well was purged dry twice prior to sampling
The second purging was conducted approximately 3-hrs after initial purging. The volume of purge water collected represents the total of the two well purges. Purge volumes prior to 10/27/98 were not available.
** = Not analyzed due to poor water clarity from recent piezometer installation nearby.
*** = Too cloudy for testing.

TABLE 5

Historical Groundwater Analytic Test Results--Selected Metals

N.W. Mauthe Superfund SIte - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
W-2	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	.72 *	NA	NA	NA	2.8	NA	NA
	03/13/00	<.31	.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*	.91*	NA	NA	NA	8.0	NA	NA
	03/01/01	<.23	<.57	NA	NA	NA	<2.0	NA	NA
	06/19/01	<.17	.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
W-8	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

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

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-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

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-103	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

TABLE 5

Historical Groundwater Analytic Test Results--Selected Metals

N.W. Mauthe Superfund SIte - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
MW-104	02/20/97	NA	5.9	NA	15	NA	550.0	NA	6.9
	05/27/97	<.02	6.9	NA	11	NA	470.0	<.2	5.2
	09/18/97	<.04	35.6	NA	5**	3**	235.0	<.03	4.74
	12/12/97	.04*	61.8	NA	9.8**	<.8	279.0	.05*	14
	03/25/98	.04*	66.8	NA	<9.5	<1.7	73.6	.008*	7.4*
	06/10/98	.04*	219.0	NA	<9.8	<1.7	107.0	.016*	12.8
	10/27/98	.29*	150.0	NA	2.3*	<.0032	25.0	<.05	30
	02/09/99	<.31	94.0	NA	1.4*	<.0032	1000.0	<.05	<12
	06/08/99	1*	62.0	NA	12.0	<.0032	620.0	<.05	17
	09/13/99	<.31	80.0	NA	3.2	<.0032	9.2	<.05	<12
	12/15/99	<.31	170.0	NA	NA	NA	1.6	NA	NA
	03/13/00	<.31	300.0	NA	NA	NA	13.0	NA	NA
	06/22/00	<.31	210.0	NA	NA	NA	41.0	NA	NA
	09/27/00	<.23	510.0	NA	NA	NA	3.9	NA	NA
	12/19/00	<.23	790.0	NA	NA	NA	<2	NA	NA
	03/01/01	<.23	840.0	NA	NA	NA	<2	NA	NA
	06/19/01	<.17	680.0	NA	NA	NA	2.3	NA	NA
	09/24/01	<.17	310.0	NA	NA	NA	17.0	NA	NA
	12/05/01	<.23	390.0	NA	NA	NA	2.2	NA	NA
	03/19/02	<.23	430.0	NA	NA	NA	<2.0	NA	NA
	06/20/02	<.23	490.0	NA	NA	NA	14.0	NA	NA
	09/18/02	<.23	410.0	NA	NA	NA	27.0	NA	NA
	12/17/02	<.23	240.0	NA	NA	NA	8.9	NA	NA
	03/24/03	<.17	180.0	NA	NA	NA	4.2	NA	NA
	06/10/03	NA	420.0	NA	NA	NA	NA	NA	NA
	09/10/03	NA	1200.0	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

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-105	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
MW-106	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

TABLE 5

Historical Groundwater Analytic Test Results--Selected Metals

N.W. Mauthe Superfund SIte - Appleton, Wisconsin

Well Name	Sample Date	Cadmium (ug/l)	Chromium (ug/l)	Hexavalent Chromium (ug/l)	Copper (ug/l)	Cyanide (ug/l)	Manganese (ug/l)	Mercury (ug/l)	Zinc (ug/l)
Max Contaminant Level (MCL)		5	100	100***	100	200	50.0	2	5,000
1992 ES NR 140		10	50	50	1,000	200	50.0	2	5,000
1992 PAL NR 140		1.0	5	5***	500	40	25.0	0.2	2,500
MW-107	02/20/97	NA	2,000	NA	13	NA	190.0	NA	6.9
	05/27/97	<.2	3,600	NA	<10	NA	91.0	<.2	10
	09/18/97	<.04	2,670	NA	<8.1	1**	59.3	<.03	33.5
	12/12/97	.04*	2,310	NA	<9.7	<.8	48.4	.1*	6.7
	03/25/98	.04*	11,200*	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	<2.3	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

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-108	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	.85*	NA	NA	NA	39.0	NA	NA
	09/18/02	<.23	<.44	NA	NA	NA	150.0	NA	NA
	12/17/02	<.23	.67*	NA	NA	NA	34.0	NA	NA
	03/24/03	<.17	.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
MW-109 ****	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
MW-110 ****	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

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-111 ****	06/21/06	<0.92	1,400	1,400	3.3*	27	190.0	<0.072	<20
****	09/20/06	NA	22	NA	-	20*	210.0	NA	<20
	12/19/06	NA	6.7	NA	NA	NA	NA	NA	NA
	03/29/07	NA	2,300	NA	NA	31	11	NA	<20
	07/03/07	NA	41	NA	NA	NA	NA	NA	NA
	09/28/07	NA	340	NA	NA	NA	NA	NA	NA
	04/16/08	NA	212	NA	NA	16 J	NA	NA	NA
	09/22/08	NA	743	NA	NA	NA	NA	NA	NA
	04/03/09	NA	381	NA	NA	13 J	NA	NA	NA
	09/01/09	NA	1,380	NA	NA	NA	NA	NA	NA
	03/17/10	NA	649	NA	NA	17 J	NA	NA	NA
	09/09/10	NA	438	NA	NA	NA	NA	NA	NA
	04/29/11	NA	238	NA	NA	<6.1	<0.14	NA	NA
	09/01/11	NA	572	NA	NA	NA	NA	NA	NA
	03/14/12	NA	432	NA	NA	13	NA	NA	NA
MW-112 ****	06/21/06	<0.92	130,000	140,000	5.3	140	180.0	<0.072	34,000
****	09/20/06	NA	69,000	NA	NA	84	130.0	NA	<20
	12/19/06	NA	55,000	NA	NA	88	NA	NA	<200
	03/28/07	NA	140,000	NA	NA	450	110	NA	<20
	07/03/07	NA	100,000	NA	NA	35	NA	NA	<200
	09/28/07	NA	150,000	NA	NA	320	NA	NA	34
	04/16/08	NA	88,400	NA	NA	380	NA	NA	NA
	09/22/08	NA	77,400	NA	NA	210	NA	NA	NA
	04/03/09	NA	76,200	NA	NA	210	NA	NA	NA
	09/01/09	NA	69,000	NA	NA	150	NA	NA	NA
	03/17/10	NA	21,500	NA	NA	110	NA	NA	NA
	09/09/10	NA	7,150	NA	NA	110	NA	NA	NA
	04/29/11	NA	1,840	NA	NA	<6.1	2.6 J	NA	NA
	09/01/11	NA	15,600	NA	NA	51	NA	NA	NA
	03/14/12	NA	149	NA	NA	<6.1	NA	NA	NA
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

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
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
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
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
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

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.

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

ND = Not detected above the analytical laboratories method detection limit

NA = Not Analyzed

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

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

ug/L = Microgram/Liter

mg/L = Milligram / Liter

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

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

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

TABLE 6

Historical Groundwater Analytic Test Results--Volatile Organic Compounds

N.W. Mauthe Superfund SIte - Appleton, Wisconsin

		Detected Volatile Organic Compounds (µg/L)												
		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*	.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
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	.23*	***	<.56
	03/24/03	<.35	<.35	<.35	<.39	<.39	<.39	***	<.37	<.42	<.32	<.42	***	<.42

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
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*	22.1	2.61*	<2.61	<2480	<68	265*	2.83	295	<2480	-
	12/12/97	<10	<12	56*	23	3*	<3	<2500	<68	280	3	290	<2500	-
	03/25/98	<25	<30	61*	69	5*	<5	<17	<68	720	5	620	17*	-
	06/10/98	<12	<15	59*	58	<3	<3	<3100	63*	340*	4*	390	<3100	-
	10/27/98	<.24	1.4	62	46*	3.6	.51*	<.17	<.21	550	4.9	640	<.36	-
	02/09/99	<3.2	<3.8	48	24	<4.0	<4.2	***	<3.2	220	<.38	250	***	<9.2
	06/08/99	<2.6	<3.0	42	20	<3.2	<3.4	***	<2.6	200	<3.0	310	***	<7.4
	09/13/99	<.26	<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 *	<4.2	***	<3.2	570	4.5 *	880	***	<9.2
	03/13/00	<26	<23	50 *	32 *	<12	<31	***	<30	340	<.90	630	***	<57
	06/22/00	<26	<23	<29	50 *	<12	<31	***	<30	540	<9	850	***	<57
	09/27/00	<26	<23	35*	54*	<12	<31	***	<30	560	<9	870	***	<57
	12/19/00	<6.4	<5.6	36	53	4.5*	<7.8	***	<7.5	480	4.1*	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

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
	09/24/01	<6.5	<15	36	50	<9	<6.1	***	<6.2	480	<6.5	760	***	<32
MW-107	12/05/01	<6.5	<15	40	50	<9	<6.1	***	<6.2	500	<6.5	810	***	<32
(cont.)	03/19/02	<6.0	<7.5	37*	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*	37*	<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*	41*	<19	<19	***	<19	430	<16	730	***	<22
	12/10/03	<17	<18	25*	31*	<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*	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*	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

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
	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

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-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*	46	***	-
	09/20/06	-	0.39*	1.7*	2.2	<0.83	<0.89	***	-	37	0.45*	51	***	-
	12/19/06	<0.41	0.44*	2.7	1.1*	<0.83	<0.89	***	-	33	0.52*	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

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-110	06/21/06	-	<3.7	310	340	56	19	***	-	1,500	<4.2	27	***	-
	09/20/06	-	<3.7	260	300	57	28*	***	-	1,100	<4.2	30	***	-
	12/19/06	<4.1	<3.7	230	240	55	16*	***	<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*	23*	***	<17	1,600	<10	32*	***	<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	<0.41	<1.3	39.6	29.9	13.4	2.3	***	<0.67	170	0.46 J	15.8	***	<2.63
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

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
MW-113	06/21/06	-	<0.74	37	44	4.4*	<1.8	***	-	240	<0.84	92	***	-
	09/20/06	-	<0.37	22	19	3.6	1.3*	***	-	120	0.82*	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	77.0	***	<5.3
	04/29/11	<0.41	<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

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
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
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

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 ug/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

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

March 23, 2012

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

RE: Project: 58117057 MAUTHE
Pace Project No.: 4057869

Dear Scott Hodgson:
Enclosed are the analytical results for sample(s) received by the laboratory on March 19, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI 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,

Kang Khang

kang.khang@pacelabs.com
Project Manager

Enclosures

Pace Analytical Services, Inc.
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CERTIFICATIONS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888
North Carolina Certification #: 503
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

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SAMPLE SUMMARY

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4057869001	**MW-103**	Water	03/14/12 10:45	03/19/12 12:00
4057869002	**MW-104**	Water	03/14/12 11:30	03/19/12 12:00
4057869003	**MW-107**	Water	03/14/12 12:00	03/19/12 12:00
4057869004	**MW-111**	Water	03/14/12 12:50	03/19/12 12:00
4057869005	**MW-112**	Water	03/14/12 13:45	03/19/12 12:00
4057869006	**MW-110**	Water	03/14/12 14:50	03/19/12 12:00
4057869007	**MW-113**	Water	03/14/12 15:55	03/19/12 12:00
4057869008	**MW-102**	Water	03/14/12 16:45	03/19/12 12:00
4057869009	**MW-101**	Water	03/16/12 13:15	03/19/12 12:00
4057869010	**MW-109**	Water	03/16/12 13:55	03/19/12 12:00
4057869011	**TRIP BLANK**	Water	03/14/12 00:00	03/19/12 12:00

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SAMPLE ANALYTE COUNT

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4057869001	**MW-103**	EPA 6010	DLB	1	PASI-G
4057869002	**MW-104**	EPA 6010	DLB	1	PASI-G
4057869003	**MW-107**	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	64	PASI-G
4057869004	**MW-111**	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
4057869005	**MW-112**	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
4057869006	**MW-110**	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	64	PASI-G
		EPA 335.4	DAW	1	PASI-G
4057869007	**MW-113**	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	64	PASI-G
4057869008	**MW-102**	EPA 6010	DLB	1	PASI-G
4057869009	**MW-101**	EPA 6010	DLB	1	PASI-G
4057869010	**MW-109**	EPA 6010	DLB	1	PASI-G
		EPA 8260	SMT	64	PASI-G
4057869011	**TRIP BLANK**	EPA 8260	SMT	64	PASI-G

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PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Method: **EPA 6010**
Description: 6010 MET ICP, Dissolved
Client: Terracon, Inc. - Franklin
Date: March 23, 2012

General Information:
10 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

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 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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Method: **EPA 8260**
Description: 8260 MSV
Client: Terracon, Inc. - Franklin
Date: March 23, 2012

General Information:
7 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below.

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 with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: MSV/14542

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

- LCS (Lab ID: 581047)
  - Chloromethane
- LCSD (Lab ID: 581048)
  - Chloromethane

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

QC Batch: MSV/14542

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 4057894002

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 581110)
  - Chloromethane
- MSD (Lab ID: 581111)
  - Chloromethane

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Method: **EPA 8260**
Description: 8260 MSV
Client: Terracon, Inc. - Franklin
Date: March 23, 2012

Additional Comments:

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PROJECT NARRATIVE

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Method: **EPA 335.4**
Description: 335.4 Cyanide, Total
Client: Terracon, Inc. - Franklin
Date: March 23, 2012

General Information:
3 samples were analyzed for EPA 335.4. All samples were received in acceptable condition with any exceptions noted below.

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.

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 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.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-103 **Lab ID: 4057869001** Collected: 03/14/12 10:45 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**27.0**	ug/L	5.0	2.0	1		03/20/12 14:54	7440-47-3	

Sample: MW-104 **Lab ID: 4057869002** Collected: 03/14/12 11:30 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**510**	ug/L	5.0	2.0	1		03/20/12 15:00	7440-47-3	

Sample: MW-107 **Lab ID: 4057869003** Collected: 03/14/12 12:00 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**2700**	ug/L	5.0	2.0	1		03/20/12 15:06	7440-47-3	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<2.0**	ug/L	5.0	2.0	5		03/21/12 17:11	71-43-2	
Bromobenzene	**<4.1**	ug/L	5.0	4.1	5		03/21/12 17:11	108-86-1	
Bromochloromethane	**<4.8**	ug/L	5.0	4.8	5		03/21/12 17:11	74-97-5	
Bromodichloromethane	**<2.8**	ug/L	5.0	2.8	5		03/21/12 17:11	75-27-4	
Bromoform	**<4.7**	ug/L	5.0	4.7	5		03/21/12 17:11	75-25-2	
Bromomethane	**<4.6**	ug/L	5.0	4.6	5		03/21/12 17:11	74-83-9	
n-Butylbenzene	**<4.6**	ug/L	5.0	4.6	5		03/21/12 17:11	104-51-8	
sec-Butylbenzene	**<4.4**	ug/L	25.0	4.4	5		03/21/12 17:11	135-98-8	
tert-Butylbenzene	**<4.8**	ug/L	5.0	4.8	5		03/21/12 17:11	98-06-6	
Carbon tetrachloride	**<2.4**	ug/L	5.0	2.4	5		03/21/12 17:11	56-23-5	
Chlorobenzene	**<2.0**	ug/L	5.0	2.0	5		03/21/12 17:11	108-90-7	
Chloroethane	**<4.8**	ug/L	5.0	4.8	5		03/21/12 17:11	75-00-3	
Chloroform	**<6.5**	ug/L	25.0	6.5	5		03/21/12 17:11	67-66-3	
Chloromethane	**<1.2**	ug/L	5.0	1.2	5		03/21/12 17:11	74-87-3	L3
2-Chlorotoluene	**<4.2**	ug/L	5.0	4.2	5		03/21/12 17:11	95-49-8	
4-Chlorotoluene	**<3.7**	ug/L	5.0	3.7	5		03/21/12 17:11	106-43-4	
1,2-Dibromo-3-chloropropane	**<8.4**	ug/L	25.0	8.4	5		03/21/12 17:11	96-12-8	
Dibromochloromethane	**<4.0**	ug/L	5.0	4.0	5		03/21/12 17:11	124-48-1	
1,2-Dibromoethane (EDB)	**<2.8**	ug/L	5.0	2.8	5		03/21/12 17:11	106-93-4	
Dibromomethane	**<3.0**	ug/L	5.0	3.0	5		03/21/12 17:11	74-95-3	
1,2-Dichlorobenzene	**<4.2**	ug/L	5.0	4.2	5		03/21/12 17:11	95-50-1	
1,3-Dichlorobenzene	**<4.4**	ug/L	5.0	4.4	5		03/21/12 17:11	541-73-1	
1,4-Dichlorobenzene	**<4.8**	ug/L	5.0	4.8	5		03/21/12 17:11	106-46-7	
Dichlorodifluoromethane	**<5.0**	ug/L	5.0	5.0	5		03/21/12 17:11	75-71-8	
1,1-Dichloroethane	**21.4**	ug/L	5.0	3.8	5		03/21/12 17:11	75-34-3	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-107 **Lab ID: 4057869003** Collected: 03/14/12 12:00 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2-Dichloroethane	**<1.8**	ug/L	5.0	1.8	5		03/21/12 17:11	107-06-2	
1,1-Dichloroethene	**15.6**	ug/L	5.0	2.8	5		03/21/12 17:11	75-35-4	
cis-1,2-Dichloroethene	**<4.2**	ug/L	5.0	4.2	5		03/21/12 17:11	156-59-2	
trans-1,2-Dichloroethene	**<4.4**	ug/L	5.0	4.4	5		03/21/12 17:11	156-60-5	
1,2-Dichloropropane	**<2.4**	ug/L	5.0	2.4	5		03/21/12 17:11	78-87-5	
1,3-Dichloropropane	**<3.0**	ug/L	5.0	3.0	5		03/21/12 17:11	142-28-9	
2,2-Dichloropropane	**<3.1**	ug/L	5.0	3.1	5		03/21/12 17:11	594-20-7	
1,1-Dichloropropene	**<3.8**	ug/L	5.0	3.8	5		03/21/12 17:11	563-58-6	
cis-1,3-Dichloropropene	**<1.0**	ug/L	5.0	1.0	5		03/21/12 17:11	10061-01-5	
trans-1,3-Dichloropropene	**<0.95**	ug/L	5.0	0.95	5		03/21/12 17:11	10061-02-6	
Diisopropyl ether	**<3.8**	ug/L	5.0	3.8	5		03/21/12 17:11	108-20-3	
Ethylbenzene	**<2.7**	ug/L	5.0	2.7	5		03/21/12 17:11	100-41-4	
Hexachloro-1,3-butadiene	**<3.4**	ug/L	25.0	3.4	5		03/21/12 17:11	87-68-3	
Isopropylbenzene (Cumene)	**<3.0**	ug/L	5.0	3.0	5		03/21/12 17:11	98-82-8	
p-Isopropyltoluene	**<3.4**	ug/L	5.0	3.4	5		03/21/12 17:11	99-87-6	
Methylene Chloride	**<2.2**	ug/L	5.0	2.2	5		03/21/12 17:11	75-09-2	
Methyl-tert-butyl ether	**<3.0**	ug/L	5.0	3.0	5		03/21/12 17:11	1634-04-4	
Naphthalene	**<4.4**	ug/L	25.0	4.4	5		03/21/12 17:11	91-20-3	
n-Propylbenzene	**<4.0**	ug/L	5.0	4.0	5		03/21/12 17:11	103-65-1	
Styrene	**<4.3**	ug/L	5.0	4.3	5		03/21/12 17:11	100-42-5	
1,1,1,2-Tetrachloroethane	**<4.6**	ug/L	5.0	4.6	5		03/21/12 17:11	630-20-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	5.0	1.0	5		03/21/12 17:11	79-34-5	
Tetrachloroethene	**<2.2**	ug/L	5.0	2.2	5		03/21/12 17:11	127-18-4	
Toluene	**<3.4**	ug/L	5.0	3.4	5		03/21/12 17:11	108-88-3	
1,2,3-Trichlorobenzene	**<3.7**	ug/L	5.0	3.7	5		03/21/12 17:11	87-61-6	
1,2,4-Trichlorobenzene	**<4.8**	ug/L	25.0	4.8	5		03/21/12 17:11	120-82-1	
1,1,1-Trichloroethane	**190**	ug/L	5.0	4.5	5		03/21/12 17:11	71-55-6	
1,1,2-Trichloroethane	**<2.1**	ug/L	5.0	2.1	5		03/21/12 17:11	79-00-5	
Trichloroethene	**463**	ug/L	5.0	2.4	5		03/21/12 17:11	79-01-6	
Trichlorofluoromethane	**<4.0**	ug/L	5.0	4.0	5		03/21/12 17:11	75-69-4	
1,2,3-Trichloropropane	**<5.0**	ug/L	5.0	5.0	5		03/21/12 17:11	96-18-4	
1,2,4-Trimethylbenzene	**<4.8**	ug/L	5.0	4.8	5		03/21/12 17:11	95-63-6	
1,3,5-Trimethylbenzene	**<4.2**	ug/L	5.0	4.2	5		03/21/12 17:11	108-67-8	
Vinyl chloride	**<0.90**	ug/L	5.0	0.90	5		03/21/12 17:11	75-01-4	
m&p-Xylene	**<9.0**	ug/L	10.0	9.0	5		03/21/12 17:11	179601-23-1	
o-Xylene	**<4.2**	ug/L	5.0	4.2	5		03/21/12 17:11	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	75	%.	70-130		5		03/21/12 17:11	460-00-4	
Dibromofluoromethane (S)	95	%.	70-130		5		03/21/12 17:11	1868-53-7	
Toluene-d8 (S)	85	%.	70-130		5		03/21/12 17:11	2037-26-5	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-111 **Lab ID: 4057869004** Collected: 03/14/12 12:50 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**432**	ug/L	5.0	2.0	1		03/20/12 15:09	7440-47-3	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.41**	ug/L	1.0	0.41	1		03/21/12 12:15	71-43-2	
Bromobenzene	**<0.82**	ug/L	1.0	0.82	1		03/21/12 12:15	108-86-1	
Bromochloromethane	**<0.97**	ug/L	1.0	0.97	1		03/21/12 12:15	74-97-5	
Bromodichloromethane	**<0.56**	ug/L	1.0	0.56	1		03/21/12 12:15	75-27-4	
Bromoform	**<0.94**	ug/L	1.0	0.94	1		03/21/12 12:15	75-25-2	
Bromomethane	**<0.91**	ug/L	1.0	0.91	1		03/21/12 12:15	74-83-9	
n-Butylbenzene	**<0.93**	ug/L	1.0	0.93	1		03/21/12 12:15	104-51-8	
sec-Butylbenzene	**<0.89**	ug/L	5.0	0.89	1		03/21/12 12:15	135-98-8	
tert-Butylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/21/12 12:15	98-06-6	
Carbon tetrachloride	**<0.49**	ug/L	1.0	0.49	1		03/21/12 12:15	56-23-5	
Chlorobenzene	**<0.41**	ug/L	1.0	0.41	1		03/21/12 12:15	108-90-7	
Chloroethane	**<0.97**	ug/L	1.0	0.97	1		03/21/12 12:15	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		03/21/12 12:15	67-66-3	
Chloromethane	**<0.24**	ug/L	1.0	0.24	1		03/21/12 12:15	74-87-3	L3
2-Chlorotoluene	**<0.85**	ug/L	1.0	0.85	1		03/21/12 12:15	95-49-8	
4-Chlorotoluene	**<0.74**	ug/L	1.0	0.74	1		03/21/12 12:15	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.7**	ug/L	5.0	1.7	1		03/21/12 12:15	96-12-8	
Dibromochloromethane	**<0.81**	ug/L	1.0	0.81	1		03/21/12 12:15	124-48-1	
1,2-Dibromoethane (EDB)	**<0.56**	ug/L	1.0	0.56	1		03/21/12 12:15	106-93-4	
Dibromomethane	**<0.60**	ug/L	1.0	0.60	1		03/21/12 12:15	74-95-3	
1,2-Dichlorobenzene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 12:15	95-50-1	
1,3-Dichlorobenzene	**<0.87**	ug/L	1.0	0.87	1		03/21/12 12:15	541-73-1	
1,4-Dichlorobenzene	**<0.95**	ug/L	1.0	0.95	1		03/21/12 12:15	106-46-7	
Dichlorodifluoromethane	**<0.99**	ug/L	1.0	0.99	1		03/21/12 12:15	75-71-8	
1,1-Dichloroethane	**2.3**	ug/L	1.0	0.75	1		03/21/12 12:15	75-34-3	
1,2-Dichloroethane	**<0.36**	ug/L	1.0	0.36	1		03/21/12 12:15	107-06-2	
1,1-Dichloroethene	**2.7**	ug/L	1.0	0.57	1		03/21/12 12:15	75-35-4	
cis-1,2-Dichloroethene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 12:15	156-59-2	
trans-1,2-Dichloroethene	**<0.89**	ug/L	1.0	0.89	1		03/21/12 12:15	156-60-5	
1,2-Dichloropropane	**<0.49**	ug/L	1.0	0.49	1		03/21/12 12:15	78-87-5	
1,3-Dichloropropane	**<0.61**	ug/L	1.0	0.61	1		03/21/12 12:15	142-28-9	
2,2-Dichloropropane	**<0.62**	ug/L	1.0	0.62	1		03/21/12 12:15	594-20-7	
1,1-Dichloropropene	**<0.75**	ug/L	1.0	0.75	1		03/21/12 12:15	563-58-6	
cis-1,3-Dichloropropene	**<0.20**	ug/L	1.0	0.20	1		03/21/12 12:15	10061-01-5	
trans-1,3-Dichloropropene	**<0.19**	ug/L	1.0	0.19	1		03/21/12 12:15	10061-02-6	
Diisopropyl ether	**<0.76**	ug/L	1.0	0.76	1		03/21/12 12:15	108-20-3	
Ethylbenzene	**<0.54**	ug/L	1.0	0.54	1		03/21/12 12:15	100-41-4	
Hexachloro-1,3-butadiene	**<0.67**	ug/L	5.0	0.67	1		03/21/12 12:15	87-68-3	
Isopropylbenzene (Cumene)	**<0.59**	ug/L	1.0	0.59	1		03/21/12 12:15	98-82-8	
p-Isopropyltoluene	**<0.67**	ug/L	1.0	0.67	1		03/21/12 12:15	99-87-6	
Methylene Chloride	**<0.43**	ug/L	1.0	0.43	1		03/21/12 12:15	75-09-2	
Methyl-tert-butyl ether	**<0.61**	ug/L	1.0	0.61	1		03/21/12 12:15	1634-04-4	
Naphthalene	**<0.89**	ug/L	5.0	0.89	1		03/21/12 12:15	91-20-3	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-111 **Lab ID: 4057869004** Collected: 03/14/12 12:50 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
n-Propylbenzene	**<0.81**	ug/L	1.0	0.81	1		03/21/12 12:15	103-65-1	
Styrene	**<0.86**	ug/L	1.0	0.86	1		03/21/12 12:15	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.92**	ug/L	1.0	0.92	1		03/21/12 12:15	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.20**	ug/L	1.0	0.20	1		03/21/12 12:15	79-34-5	
Tetrachloroethene	**<0.45**	ug/L	1.0	0.45	1		03/21/12 12:15	127-18-4	
Toluene	**<0.67**	ug/L	1.0	0.67	1		03/21/12 12:15	108-88-3	
1,2,3-Trichlorobenzene	**<0.74**	ug/L	1.0	0.74	1		03/21/12 12:15	87-61-6	
1,2,4-Trichlorobenzene	**<0.97**	ug/L	5.0	0.97	1		03/21/12 12:15	120-82-1	
1,1,1-Trichloroethane	**23.9**	ug/L	1.0	0.90	1		03/21/12 12:15	71-55-6	
1,1,2-Trichloroethane	**<0.42**	ug/L	1.0	0.42	1		03/21/12 12:15	79-00-5	
Trichloroethene	**62.6**	ug/L	1.0	0.48	1		03/21/12 12:15	79-01-6	
Trichlorofluoromethane	**<0.79**	ug/L	1.0	0.79	1		03/21/12 12:15	75-69-4	
1,2,3-Trichloropropane	**<0.99**	ug/L	1.0	0.99	1		03/21/12 12:15	96-18-4	
1,2,4-Trimethylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/21/12 12:15	95-63-6	
1,3,5-Trimethylbenzene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 12:15	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		03/21/12 12:15	75-01-4	
m&p-Xylene	**<1.8**	ug/L	2.0	1.8	1		03/21/12 12:15	179601-23-1	
o-Xylene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 12:15	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76	%.	70-130		1		03/21/12 12:15	460-00-4	
Dibromofluoromethane (S)	96	%.	70-130		1		03/21/12 12:15	1868-53-7	
Toluene-d8 (S)	87	%.	70-130		1		03/21/12 12:15	2037-26-5	
335.4 Cyanide, Total	Analytical Method: EPA 335.4 Preparation Method: EPA 335.4								
Cyanide	**0.013J**	mg/L	0.020	0.0061	1	03/21/12 06:30	03/21/12 09:31	57-12-5	

Sample: MW-112 **Lab ID: 4057869005** Collected: 03/14/12 13:45 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**149**	ug/L	5.0	2.0	1		03/20/12 15:11	7440-47-3	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.41**	ug/L	1.0	0.41	1		03/21/12 12:38	71-43-2	
Bromobenzene	**<0.82**	ug/L	1.0	0.82	1		03/21/12 12:38	108-86-1	
Bromochloromethane	**<0.97**	ug/L	1.0	0.97	1		03/21/12 12:38	74-97-5	
Bromodichloromethane	**<0.56**	ug/L	1.0	0.56	1		03/21/12 12:38	75-27-4	
Bromoform	**<0.94**	ug/L	1.0	0.94	1		03/21/12 12:38	75-25-2	
Bromomethane	**<0.91**	ug/L	1.0	0.91	1		03/21/12 12:38	74-83-9	
n-Butylbenzene	**<0.93**	ug/L	1.0	0.93	1		03/21/12 12:38	104-51-8	
sec-Butylbenzene	**<0.89**	ug/L	5.0	0.89	1		03/21/12 12:38	135-98-8	
tert-Butylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/21/12 12:38	98-06-6	
Carbon tetrachloride	**<0.49**	ug/L	1.0	0.49	1		03/21/12 12:38	56-23-5	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-112 **Lab ID: 4057869005** Collected: 03/14/12 13:45 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Chlorobenzene	**<0.41**	ug/L	1.0	0.41	1		03/21/12 12:38	108-90-7	
Chloroethane	**<0.97**	ug/L	1.0	0.97	1		03/21/12 12:38	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		03/21/12 12:38	67-66-3	
Chloromethane	**<0.24**	ug/L	1.0	0.24	1		03/21/12 12:38	74-87-3	L3
2-Chlorotoluene	**<0.85**	ug/L	1.0	0.85	1		03/21/12 12:38	95-49-8	
4-Chlorotoluene	**<0.74**	ug/L	1.0	0.74	1		03/21/12 12:38	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.7**	ug/L	5.0	1.7	1		03/21/12 12:38	96-12-8	
Dibromochloromethane	**<0.81**	ug/L	1.0	0.81	1		03/21/12 12:38	124-48-1	
1,2-Dibromoethane (EDB)	**<0.56**	ug/L	1.0	0.56	1		03/21/12 12:38	106-93-4	
Dibromomethane	**<0.60**	ug/L	1.0	0.60	1		03/21/12 12:38	74-95-3	
1,2-Dichlorobenzene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 12:38	95-50-1	
1,3-Dichlorobenzene	**<0.87**	ug/L	1.0	0.87	1		03/21/12 12:38	541-73-1	
1,4-Dichlorobenzene	**<0.95**	ug/L	1.0	0.95	1		03/21/12 12:38	106-46-7	
Dichlorodifluoromethane	**<0.99**	ug/L	1.0	0.99	1		03/21/12 12:38	75-71-8	
1,1-Dichloroethane	**<0.75**	ug/L	1.0	0.75	1		03/21/12 12:38	75-34-3	
1,2-Dichloroethane	**<0.36**	ug/L	1.0	0.36	1		03/21/12 12:38	107-06-2	
1,1-Dichloroethene	**<0.57**	ug/L	1.0	0.57	1		03/21/12 12:38	75-35-4	
cis-1,2-Dichloroethene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 12:38	156-59-2	
trans-1,2-Dichloroethene	**<0.89**	ug/L	1.0	0.89	1		03/21/12 12:38	156-60-5	
1,2-Dichloropropane	**<0.49**	ug/L	1.0	0.49	1		03/21/12 12:38	78-87-5	
1,3-Dichloropropane	**<0.61**	ug/L	1.0	0.61	1		03/21/12 12:38	142-28-9	
2,2-Dichloropropane	**<0.62**	ug/L	1.0	0.62	1		03/21/12 12:38	594-20-7	
1,1-Dichloropropene	**<0.75**	ug/L	1.0	0.75	1		03/21/12 12:38	563-58-6	
cis-1,3-Dichloropropene	**<0.20**	ug/L	1.0	0.20	1		03/21/12 12:38	10061-01-5	
trans-1,3-Dichloropropene	**<0.19**	ug/L	1.0	0.19	1		03/21/12 12:38	10061-02-6	
Diisopropyl ether	**<0.76**	ug/L	1.0	0.76	1		03/21/12 12:38	108-20-3	
Ethylbenzene	**<0.54**	ug/L	1.0	0.54	1		03/21/12 12:38	100-41-4	
Hexachloro-1,3-butadiene	**<0.67**	ug/L	5.0	0.67	1		03/21/12 12:38	87-68-3	
Isopropylbenzene (Cumene)	**<0.59**	ug/L	1.0	0.59	1		03/21/12 12:38	98-82-8	
p-Isopropyltoluene	**<0.67**	ug/L	1.0	0.67	1		03/21/12 12:38	99-87-6	
Methylene Chloride	**<0.43**	ug/L	1.0	0.43	1		03/21/12 12:38	75-09-2	
Methyl-tert-butyl ether	**<0.61**	ug/L	1.0	0.61	1		03/21/12 12:38	1634-04-4	
Naphthalene	**<0.89**	ug/L	5.0	0.89	1		03/21/12 12:38	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	1.0	0.81	1		03/21/12 12:38	103-65-1	
Styrene	**<0.86**	ug/L	1.0	0.86	1		03/21/12 12:38	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.92**	ug/L	1.0	0.92	1		03/21/12 12:38	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.20**	ug/L	1.0	0.20	1		03/21/12 12:38	79-34-5	
Tetrachloroethene	**<0.45**	ug/L	1.0	0.45	1		03/21/12 12:38	127-18-4	
Toluene	**<0.67**	ug/L	1.0	0.67	1		03/21/12 12:38	108-88-3	
1,2,3-Trichlorobenzene	**<0.74**	ug/L	1.0	0.74	1		03/21/12 12:38	87-61-6	
1,2,4-Trichlorobenzene	**<0.97**	ug/L	5.0	0.97	1		03/21/12 12:38	120-82-1	
1,1,1-Trichloroethane	**<0.90**	ug/L	1.0	0.90	1		03/21/12 12:38	71-55-6	
1,1,2-Trichloroethane	**<0.42**	ug/L	1.0	0.42	1		03/21/12 12:38	79-00-5	
Trichloroethene	**47.9**	ug/L	1.0	0.48	1		03/21/12 12:38	79-01-6	
Trichlorofluoromethane	**<0.79**	ug/L	1.0	0.79	1		03/21/12 12:38	75-69-4	
1,2,3-Trichloropropane	**<0.99**	ug/L	1.0	0.99	1		03/21/12 12:38	96-18-4	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-112 **Lab ID: 4057869005** Collected: 03/14/12 13:45 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2,4-Trimethylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/21/12 12:38	95-63-6	
1,3,5-Trimethylbenzene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 12:38	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		03/21/12 12:38	75-01-4	
m&p-Xylene	**<1.8**	ug/L	2.0	1.8	1		03/21/12 12:38	179601-23-1	
o-Xylene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 12:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	76	%.	70-130		1		03/21/12 12:38	460-00-4	
Dibromofluoromethane (S)	97	%.	70-130		1		03/21/12 12:38	1868-53-7	
Toluene-d8 (S)	86	%.	70-130		1		03/21/12 12:38	2037-26-5	
335.4 Cyanide, Total	Analytical Method: EPA 335.4 Preparation Method: EPA 335.4								
Cyanide	**<0.0061**	mg/L	0.020	0.0061	1	03/21/12 06:30	03/21/12 09:31	57-12-5	

Sample: MW-110 **Lab ID: 4057869006** Collected: 03/14/12 14:50 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**4530**	ug/L	5.0	2.0	1		03/20/12 15:13	7440-47-3	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.41**	ug/L	1.0	0.41	1		03/21/12 13:01	71-43-2	
Bromobenzene	**<0.82**	ug/L	1.0	0.82	1		03/21/12 13:01	108-86-1	
Bromochloromethane	**<0.97**	ug/L	1.0	0.97	1		03/21/12 13:01	74-97-5	
Bromodichloromethane	**<0.56**	ug/L	1.0	0.56	1		03/21/12 13:01	75-27-4	
Bromoform	**<0.94**	ug/L	1.0	0.94	1		03/21/12 13:01	75-25-2	
Bromomethane	**<0.91**	ug/L	1.0	0.91	1		03/21/12 13:01	74-83-9	
n-Butylbenzene	**<0.93**	ug/L	1.0	0.93	1		03/21/12 13:01	104-51-8	
sec-Butylbenzene	**<0.89**	ug/L	5.0	0.89	1		03/21/12 13:01	135-98-8	
tert-Butylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/21/12 13:01	98-06-6	
Carbon tetrachloride	**<0.49**	ug/L	1.0	0.49	1		03/21/12 13:01	56-23-5	
Chlorobenzene	**<0.41**	ug/L	1.0	0.41	1		03/21/12 13:01	108-90-7	
Chloroethane	**<0.97**	ug/L	1.0	0.97	1		03/21/12 13:01	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		03/21/12 13:01	67-66-3	
Chloromethane	**<0.24**	ug/L	1.0	0.24	1		03/21/12 13:01	74-87-3	L3
2-Chlorotoluene	**<0.85**	ug/L	1.0	0.85	1		03/21/12 13:01	95-49-8	
4-Chlorotoluene	**<0.74**	ug/L	1.0	0.74	1		03/21/12 13:01	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.7**	ug/L	5.0	1.7	1		03/21/12 13:01	96-12-8	
Dibromochloromethane	**<0.81**	ug/L	1.0	0.81	1		03/21/12 13:01	124-48-1	
1,2-Dibromoethane (EDB)	**<0.56**	ug/L	1.0	0.56	1		03/21/12 13:01	106-93-4	
Dibromomethane	**<0.60**	ug/L	1.0	0.60	1		03/21/12 13:01	74-95-3	
1,2-Dichlorobenzene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 13:01	95-50-1	
1,3-Dichlorobenzene	**<0.87**	ug/L	1.0	0.87	1		03/21/12 13:01	541-73-1	
1,4-Dichlorobenzene	**<0.95**	ug/L	1.0	0.95	1		03/21/12 13:01	106-46-7	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-110 **Lab ID: 4057869006** Collected: 03/14/12 14:50 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Dichlorodifluoromethane	**<0.99**	ug/L	1.0	0.99	1		03/21/12 13:01	75-71-8	
1,1-Dichloroethane	**39.6**	ug/L	1.0	0.75	1		03/21/12 13:01	75-34-3	
1,2-Dichloroethane	**0.63J**	ug/L	1.0	0.36	1		03/21/12 13:01	107-06-2	
1,1-Dichloroethene	**29.9**	ug/L	1.0	0.57	1		03/21/12 13:01	75-35-4	
cis-1,2-Dichloroethene	**13.4**	ug/L	1.0	0.83	1		03/21/12 13:01	156-59-2	
trans-1,2-Dichloroethene	**2.3**	ug/L	1.0	0.89	1		03/21/12 13:01	156-60-5	
1,2-Dichloropropane	**<0.49**	ug/L	1.0	0.49	1		03/21/12 13:01	78-87-5	
1,3-Dichloropropane	**<0.61**	ug/L	1.0	0.61	1		03/21/12 13:01	142-28-9	
2,2-Dichloropropane	**<0.62**	ug/L	1.0	0.62	1		03/21/12 13:01	594-20-7	
1,1-Dichloropropene	**<0.75**	ug/L	1.0	0.75	1		03/21/12 13:01	563-58-6	
cis-1,3-Dichloropropene	**<0.20**	ug/L	1.0	0.20	1		03/21/12 13:01	10061-01-5	
trans-1,3-Dichloropropene	**<0.19**	ug/L	1.0	0.19	1		03/21/12 13:01	10061-02-6	
Diisopropyl ether	**<0.76**	ug/L	1.0	0.76	1		03/21/12 13:01	108-20-3	
Ethylbenzene	**<0.54**	ug/L	1.0	0.54	1		03/21/12 13:01	100-41-4	
Hexachloro-1,3-butadiene	**<0.67**	ug/L	5.0	0.67	1		03/21/12 13:01	87-68-3	
Isopropylbenzene (Cumene)	**<0.59**	ug/L	1.0	0.59	1		03/21/12 13:01	98-82-8	
p-Isopropyltoluene	**<0.67**	ug/L	1.0	0.67	1		03/21/12 13:01	99-87-6	
Methylene Chloride	**<0.43**	ug/L	1.0	0.43	1		03/21/12 13:01	75-09-2	
Methyl-tert-butyl ether	**<0.61**	ug/L	1.0	0.61	1		03/21/12 13:01	1634-04-4	
Naphthalene	**<0.89**	ug/L	5.0	0.89	1		03/21/12 13:01	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	1.0	0.81	1		03/21/12 13:01	103-65-1	
Styrene	**<0.86**	ug/L	1.0	0.86	1		03/21/12 13:01	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.92**	ug/L	1.0	0.92	1		03/21/12 13:01	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.20**	ug/L	1.0	0.20	1		03/21/12 13:01	79-34-5	
Tetrachloroethene	**<0.45**	ug/L	1.0	0.45	1		03/21/12 13:01	127-18-4	
Toluene	**<0.67**	ug/L	1.0	0.67	1		03/21/12 13:01	108-88-3	
1,2,3-Trichlorobenzene	**<0.74**	ug/L	1.0	0.74	1		03/21/12 13:01	87-61-6	
1,2,4-Trichlorobenzene	**<0.97**	ug/L	5.0	0.97	1		03/21/12 13:01	120-82-1	
1,1,1-Trichloroethane	**170**	ug/L	1.0	0.90	1		03/21/12 13:01	71-55-6	
1,1,2-Trichloroethane	**0.46J**	ug/L	1.0	0.42	1		03/21/12 13:01	79-00-5	
Trichloroethene	**15.8**	ug/L	1.0	0.48	1		03/21/12 13:01	79-01-6	
Trichlorofluoromethane	**<0.79**	ug/L	1.0	0.79	1		03/21/12 13:01	75-69-4	
1,2,3-Trichloropropane	**<0.99**	ug/L	1.0	0.99	1		03/21/12 13:01	96-18-4	
1,2,4-Trimethylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/21/12 13:01	95-63-6	
1,3,5-Trimethylbenzene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 13:01	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		03/21/12 13:01	75-01-4	
m&p-Xylene	**<1.8**	ug/L	2.0	1.8	1		03/21/12 13:01	179601-23-1	
o-Xylene	**<0.83**	ug/L	1.0	0.83	1		03/21/12 13:01	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	77	%.	70-130		1		03/21/12 13:01	460-00-4	
Dibromofluoromethane (S)	95	%.	70-130		1		03/21/12 13:01	1868-53-7	
Toluene-d8 (S)	89	%.	70-130		1		03/21/12 13:01	2037-26-5	
335.4 Cyanide, Total	Analytical Method: EPA 335.4 Preparation Method: EPA 335.4								
Cyanide	**0.0066J**	mg/L	0.020	0.0061	1	03/21/12 06:30	03/21/12 09:32	57-12-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-113 **Lab ID: 4057869007** Collected: 03/14/12 15:55 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**7460**	ug/L	5.0	2.0	1		03/20/12 15:15	7440-47-3	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.41**	ug/L	1.0	0.41	1		03/20/12 17:58	71-43-2	
Bromobenzene	**<0.82**	ug/L	1.0	0.82	1		03/20/12 17:58	108-86-1	
Bromochloromethane	**<0.97**	ug/L	1.0	0.97	1		03/20/12 17:58	74-97-5	
Bromodichloromethane	**<0.56**	ug/L	1.0	0.56	1		03/20/12 17:58	75-27-4	
Bromoform	**<0.94**	ug/L	1.0	0.94	1		03/20/12 17:58	75-25-2	
Bromomethane	**<0.91**	ug/L	1.0	0.91	1		03/20/12 17:58	74-83-9	
n-Butylbenzene	**<0.93**	ug/L	1.0	0.93	1		03/20/12 17:58	104-51-8	
sec-Butylbenzene	**<0.89**	ug/L	5.0	0.89	1		03/20/12 17:58	135-98-8	
tert-Butylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/20/12 17:58	98-06-6	
Carbon tetrachloride	**<0.49**	ug/L	1.0	0.49	1		03/20/12 17:58	56-23-5	
Chlorobenzene	**<0.41**	ug/L	1.0	0.41	1		03/20/12 17:58	108-90-7	
Chloroethane	**<0.97**	ug/L	1.0	0.97	1		03/20/12 17:58	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		03/20/12 17:58	67-66-3	
Chloromethane	**<0.24**	ug/L	1.0	0.24	1		03/20/12 17:58	74-87-3	
2-Chlorotoluene	**<0.85**	ug/L	1.0	0.85	1		03/20/12 17:58	95-49-8	
4-Chlorotoluene	**<0.74**	ug/L	1.0	0.74	1		03/20/12 17:58	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.7**	ug/L	5.0	1.7	1		03/20/12 17:58	96-12-8	
Dibromochloromethane	**<0.81**	ug/L	1.0	0.81	1		03/20/12 17:58	124-48-1	
1,2-Dibromoethane (EDB)	**<0.56**	ug/L	1.0	0.56	1		03/20/12 17:58	106-93-4	
Dibromomethane	**<0.60**	ug/L	1.0	0.60	1		03/20/12 17:58	74-95-3	
1,2-Dichlorobenzene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 17:58	95-50-1	
1,3-Dichlorobenzene	**<0.87**	ug/L	1.0	0.87	1		03/20/12 17:58	541-73-1	
1,4-Dichlorobenzene	**<0.95**	ug/L	1.0	0.95	1		03/20/12 17:58	106-46-7	
Dichlorodifluoromethane	**<0.99**	ug/L	1.0	0.99	1		03/20/12 17:58	75-71-8	
1,1-Dichloroethane	**17.1**	ug/L	1.0	0.75	1		03/20/12 17:58	75-34-3	
1,2-Dichloroethane	**<0.36**	ug/L	1.0	0.36	1		03/20/12 17:58	107-06-2	
1,1-Dichloroethene	**17.3**	ug/L	1.0	0.57	1		03/20/12 17:58	75-35-4	
cis-1,2-Dichloroethene	**2.9**	ug/L	1.0	0.83	1		03/20/12 17:58	156-59-2	
trans-1,2-Dichloroethene	**<0.89**	ug/L	1.0	0.89	1		03/20/12 17:58	156-60-5	
1,2-Dichloropropane	**<0.49**	ug/L	1.0	0.49	1		03/20/12 17:58	78-87-5	
1,3-Dichloropropane	**<0.61**	ug/L	1.0	0.61	1		03/20/12 17:58	142-28-9	
2,2-Dichloropropane	**<0.62**	ug/L	1.0	0.62	1		03/20/12 17:58	594-20-7	
1,1-Dichloropropene	**<0.75**	ug/L	1.0	0.75	1		03/20/12 17:58	563-58-6	
cis-1,3-Dichloropropene	**<0.20**	ug/L	1.0	0.20	1		03/20/12 17:58	10061-01-5	
trans-1,3-Dichloropropene	**<0.19**	ug/L	1.0	0.19	1		03/20/12 17:58	10061-02-6	
Diisopropyl ether	**<0.76**	ug/L	1.0	0.76	1		03/20/12 17:58	108-20-3	
Ethylbenzene	**<0.54**	ug/L	1.0	0.54	1		03/20/12 17:58	100-41-4	
Hexachloro-1,3-butadiene	**<0.67**	ug/L	5.0	0.67	1		03/20/12 17:58	87-68-3	
Isopropylbenzene (Cumene)	**<0.59**	ug/L	1.0	0.59	1		03/20/12 17:58	98-82-8	
p-Isopropyltoluene	**<0.67**	ug/L	1.0	0.67	1		03/20/12 17:58	99-87-6	
Methylene Chloride	**<0.43**	ug/L	1.0	0.43	1		03/20/12 17:58	75-09-2	
Methyl-tert-butyl ether	**<0.61**	ug/L	1.0	0.61	1		03/20/12 17:58	1634-04-4	
Naphthalene	**<0.89**	ug/L	5.0	0.89	1		03/20/12 17:58	91-20-3	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-113 **Lab ID: 4057869007** Collected: 03/14/12 15:55 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
n-Propylbenzene	**<0.81**	ug/L	1.0	0.81	1		03/20/12 17:58	103-65-1	
Styrene	**<0.86**	ug/L	1.0	0.86	1		03/20/12 17:58	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.92**	ug/L	1.0	0.92	1		03/20/12 17:58	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.20**	ug/L	1.0	0.20	1		03/20/12 17:58	79-34-5	
Tetrachloroethene	**<0.45**	ug/L	1.0	0.45	1		03/20/12 17:58	127-18-4	
Toluene	**<0.67**	ug/L	1.0	0.67	1		03/20/12 17:58	108-88-3	
1,2,3-Trichlorobenzene	**<0.74**	ug/L	1.0	0.74	1		03/20/12 17:58	87-61-6	
1,2,4-Trichlorobenzene	**<0.97**	ug/L	5.0	0.97	1		03/20/12 17:58	120-82-1	
1,1,1-Trichloroethane	**106**	ug/L	1.0	0.90	1		03/20/12 17:58	71-55-6	
1,1,2-Trichloroethane	**<0.42**	ug/L	1.0	0.42	1		03/20/12 17:58	79-00-5	
Trichloroethene	**42.3**	ug/L	1.0	0.48	1		03/20/12 17:58	79-01-6	
Trichlorofluoromethane	**<0.79**	ug/L	1.0	0.79	1		03/20/12 17:58	75-69-4	
1,2,3-Trichloropropane	**<0.99**	ug/L	1.0	0.99	1		03/20/12 17:58	96-18-4	
1,2,4-Trimethylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/20/12 17:58	95-63-6	
1,3,5-Trimethylbenzene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 17:58	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		03/20/12 17:58	75-01-4	
m&p-Xylene	**<1.8**	ug/L	2.0	1.8	1		03/20/12 17:58	179601-23-1	
o-Xylene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 17:58	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	85	%.	70-130		1		03/20/12 17:58	460-00-4	
Dibromofluoromethane (S)	103	%.	70-130		1		03/20/12 17:58	1868-53-7	
Toluene-d8 (S)	100	%.	70-130		1		03/20/12 17:58	2037-26-5	

Sample: MW-102 **Lab ID: 4057869008** Collected: 03/14/12 16:45 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**<2.0**	ug/L	5.0	2.0	1		03/20/12 15:17	7440-47-3	

Sample: MW-101 **Lab ID: 4057869009** Collected: 03/16/12 13:15 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**<2.0**	ug/L	5.0	2.0	1		03/20/12 15:19	7440-47-3	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-109 **Lab ID: 4057869010** Collected: 03/16/12 13:55 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	**866**	ug/L	5.0	2.0	1		03/20/12 15:21	7440-47-3	
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.41**	ug/L	1.0	0.41	1		03/20/12 18:21	71-43-2	
Bromobenzene	**<0.82**	ug/L	1.0	0.82	1		03/20/12 18:21	108-86-1	
Bromochloromethane	**<0.97**	ug/L	1.0	0.97	1		03/20/12 18:21	74-97-5	
Bromodichloromethane	**<0.56**	ug/L	1.0	0.56	1		03/20/12 18:21	75-27-4	
Bromoform	**<0.94**	ug/L	1.0	0.94	1		03/20/12 18:21	75-25-2	
Bromomethane	**<0.91**	ug/L	1.0	0.91	1		03/20/12 18:21	74-83-9	
n-Butylbenzene	**<0.93**	ug/L	1.0	0.93	1		03/20/12 18:21	104-51-8	
sec-Butylbenzene	**<0.89**	ug/L	5.0	0.89	1		03/20/12 18:21	135-98-8	
tert-Butylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/20/12 18:21	98-06-6	
Carbon tetrachloride	**<0.49**	ug/L	1.0	0.49	1		03/20/12 18:21	56-23-5	
Chlorobenzene	**<0.41**	ug/L	1.0	0.41	1		03/20/12 18:21	108-90-7	
Chloroethane	**<0.97**	ug/L	1.0	0.97	1		03/20/12 18:21	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		03/20/12 18:21	67-66-3	
Chloromethane	**<0.24**	ug/L	1.0	0.24	1		03/20/12 18:21	74-87-3	
2-Chlorotoluene	**<0.85**	ug/L	1.0	0.85	1		03/20/12 18:21	95-49-8	
4-Chlorotoluene	**<0.74**	ug/L	1.0	0.74	1		03/20/12 18:21	106-43-4	
1,2-Dibromo-3-chloropropane	**<1.7**	ug/L	5.0	1.7	1		03/20/12 18:21	96-12-8	
Dibromochloromethane	**<0.81**	ug/L	1.0	0.81	1		03/20/12 18:21	124-48-1	
1,2-Dibromoethane (EDB)	**<0.56**	ug/L	1.0	0.56	1		03/20/12 18:21	106-93-4	
Dibromomethane	**<0.60**	ug/L	1.0	0.60	1		03/20/12 18:21	74-95-3	
1,2-Dichlorobenzene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 18:21	95-50-1	
1,3-Dichlorobenzene	**<0.87**	ug/L	1.0	0.87	1		03/20/12 18:21	541-73-1	
1,4-Dichlorobenzene	**<0.95**	ug/L	1.0	0.95	1		03/20/12 18:21	106-46-7	
Dichlorodifluoromethane	**<0.99**	ug/L	1.0	0.99	1		03/20/12 18:21	75-71-8	
1,1-Dichloroethane	**2.4**	ug/L	1.0	0.75	1		03/20/12 18:21	75-34-3	
1,2-Dichloroethane	**<0.36**	ug/L	1.0	0.36	1		03/20/12 18:21	107-06-2	
1,1-Dichloroethene	**1.1**	ug/L	1.0	0.57	1		03/20/12 18:21	75-35-4	
cis-1,2-Dichloroethene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 18:21	156-59-2	
trans-1,2-Dichloroethene	**<0.89**	ug/L	1.0	0.89	1		03/20/12 18:21	156-60-5	
1,2-Dichloropropane	**<0.49**	ug/L	1.0	0.49	1		03/20/12 18:21	78-87-5	
1,3-Dichloropropane	**<0.61**	ug/L	1.0	0.61	1		03/20/12 18:21	142-28-9	
2,2-Dichloropropane	**<0.62**	ug/L	1.0	0.62	1		03/20/12 18:21	594-20-7	
1,1-Dichloropropene	**<0.75**	ug/L	1.0	0.75	1		03/20/12 18:21	563-58-6	
cis-1,3-Dichloropropene	**<0.20**	ug/L	1.0	0.20	1		03/20/12 18:21	10061-01-5	
trans-1,3-Dichloropropene	**<0.19**	ug/L	1.0	0.19	1		03/20/12 18:21	10061-02-6	
Diisopropyl ether	**<0.76**	ug/L	1.0	0.76	1		03/20/12 18:21	108-20-3	
Ethylbenzene	**<0.54**	ug/L	1.0	0.54	1		03/20/12 18:21	100-41-4	
Hexachloro-1,3-butadiene	**<0.67**	ug/L	5.0	0.67	1		03/20/12 18:21	87-68-3	
Isopropylbenzene (Cumene)	**<0.59**	ug/L	1.0	0.59	1		03/20/12 18:21	98-82-8	
p-Isopropyltoluene	**<0.67**	ug/L	1.0	0.67	1		03/20/12 18:21	99-87-6	
Methylene Chloride	**<0.43**	ug/L	1.0	0.43	1		03/20/12 18:21	75-09-2	
Methyl-tert-butyl ether	**<0.61**	ug/L	1.0	0.61	1		03/20/12 18:21	1634-04-4	
Naphthalene	**<0.89**	ug/L	5.0	0.89	1		03/20/12 18:21	91-20-3	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: MW-109 **Lab ID: 4057869010** Collected: 03/16/12 13:55 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
n-Propylbenzene	**<0.81**	ug/L	1.0	0.81	1		03/20/12 18:21	103-65-1	
Styrene	**<0.86**	ug/L	1.0	0.86	1		03/20/12 18:21	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.92**	ug/L	1.0	0.92	1		03/20/12 18:21	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.20**	ug/L	1.0	0.20	1		03/20/12 18:21	79-34-5	
Tetrachloroethene	**<0.45**	ug/L	1.0	0.45	1		03/20/12 18:21	127-18-4	
Toluene	**<0.67**	ug/L	1.0	0.67	1		03/20/12 18:21	108-88-3	
1,2,3-Trichlorobenzene	**<0.74**	ug/L	1.0	0.74	1		03/20/12 18:21	87-61-6	
1,2,4-Trichlorobenzene	**<0.97**	ug/L	5.0	0.97	1		03/20/12 18:21	120-82-1	
1,1,1-Trichloroethane	**22.3**	ug/L	1.0	0.90	1		03/20/12 18:21	71-55-6	
1,1,2-Trichloroethane	**<0.42**	ug/L	1.0	0.42	1		03/20/12 18:21	79-00-5	
Trichloroethene	**33.5**	ug/L	1.0	0.48	1		03/20/12 18:21	79-01-6	
Trichlorofluoromethane	**<0.79**	ug/L	1.0	0.79	1		03/20/12 18:21	75-69-4	
1,2,3-Trichloropropane	**<0.99**	ug/L	1.0	0.99	1		03/20/12 18:21	96-18-4	
1,2,4-Trimethylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/20/12 18:21	95-63-6	
1,3,5-Trimethylbenzene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 18:21	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		03/20/12 18:21	75-01-4	
m&p-Xylene	**<1.8**	ug/L	2.0	1.8	1		03/20/12 18:21	179601-23-1	
o-Xylene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 18:21	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	85	%.	70-130		1		03/20/12 18:21	460-00-4	
Dibromofluoromethane (S)	105	%.	70-130		1		03/20/12 18:21	1868-53-7	
Toluene-d8 (S)	100	%.	70-130		1		03/20/12 18:21	2037-26-5	

Sample: TRIP BLANK **Lab ID: 4057869011** Collected: 03/14/12 00:00 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.41**	ug/L	1.0	0.41	1		03/20/12 16:27	71-43-2	
Bromobenzene	**<0.82**	ug/L	1.0	0.82	1		03/20/12 16:27	108-86-1	
Bromochloromethane	**<0.97**	ug/L	1.0	0.97	1		03/20/12 16:27	74-97-5	
Bromodichloromethane	**<0.56**	ug/L	1.0	0.56	1		03/20/12 16:27	75-27-4	
Bromoform	**<0.94**	ug/L	1.0	0.94	1		03/20/12 16:27	75-25-2	
Bromomethane	**<0.91**	ug/L	1.0	0.91	1		03/20/12 16:27	74-83-9	
n-Butylbenzene	**<0.93**	ug/L	1.0	0.93	1		03/20/12 16:27	104-51-8	
sec-Butylbenzene	**<0.89**	ug/L	5.0	0.89	1		03/20/12 16:27	135-98-8	
tert-Butylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/20/12 16:27	98-06-6	
Carbon tetrachloride	**<0.49**	ug/L	1.0	0.49	1		03/20/12 16:27	56-23-5	
Chlorobenzene	**<0.41**	ug/L	1.0	0.41	1		03/20/12 16:27	108-90-7	
Chloroethane	**<0.97**	ug/L	1.0	0.97	1		03/20/12 16:27	75-00-3	
Chloroform	**<1.3**	ug/L	5.0	1.3	1		03/20/12 16:27	67-66-3	
Chloromethane	**<0.24**	ug/L	1.0	0.24	1		03/20/12 16:27	74-87-3	
2-Chlorotoluene	**<0.85**	ug/L	1.0	0.85	1		03/20/12 16:27	95-49-8	
4-Chlorotoluene	**<0.74**	ug/L	1.0	0.74	1		03/20/12 16:27	106-43-4	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: TRIP BLANK **Lab ID: 4057869011** Collected: 03/14/12 00:00 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
1,2-Dibromo-3-chloropropane	**<1.7**	ug/L	5.0	1.7	1		03/20/12 16:27	96-12-8	
Dibromochloromethane	**<0.81**	ug/L	1.0	0.81	1		03/20/12 16:27	124-48-1	
1,2-Dibromoethane (EDB)	**<0.56**	ug/L	1.0	0.56	1		03/20/12 16:27	106-93-4	
Dibromomethane	**<0.60**	ug/L	1.0	0.60	1		03/20/12 16:27	74-95-3	
1,2-Dichlorobenzene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 16:27	95-50-1	
1,3-Dichlorobenzene	**<0.87**	ug/L	1.0	0.87	1		03/20/12 16:27	541-73-1	
1,4-Dichlorobenzene	**<0.95**	ug/L	1.0	0.95	1		03/20/12 16:27	106-46-7	
Dichlorodifluoromethane	**<0.99**	ug/L	1.0	0.99	1		03/20/12 16:27	75-71-8	
1,1-Dichloroethane	**<0.75**	ug/L	1.0	0.75	1		03/20/12 16:27	75-34-3	
1,2-Dichloroethane	**<0.36**	ug/L	1.0	0.36	1		03/20/12 16:27	107-06-2	
1,1-Dichloroethene	**<0.57**	ug/L	1.0	0.57	1		03/20/12 16:27	75-35-4	
cis-1,2-Dichloroethene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 16:27	156-59-2	
trans-1,2-Dichloroethene	**<0.89**	ug/L	1.0	0.89	1		03/20/12 16:27	156-60-5	
1,2-Dichloropropane	**<0.49**	ug/L	1.0	0.49	1		03/20/12 16:27	78-87-5	
1,3-Dichloropropane	**<0.61**	ug/L	1.0	0.61	1		03/20/12 16:27	142-28-9	
2,2-Dichloropropane	**<0.62**	ug/L	1.0	0.62	1		03/20/12 16:27	594-20-7	
1,1-Dichloropropene	**<0.75**	ug/L	1.0	0.75	1		03/20/12 16:27	563-58-6	
cis-1,3-Dichloropropene	**<0.20**	ug/L	1.0	0.20	1		03/20/12 16:27	10061-01-5	
trans-1,3-Dichloropropene	**<0.19**	ug/L	1.0	0.19	1		03/20/12 16:27	10061-02-6	
Diisopropyl ether	**<0.76**	ug/L	1.0	0.76	1		03/20/12 16:27	108-20-3	
Ethylbenzene	**<0.54**	ug/L	1.0	0.54	1		03/20/12 16:27	100-41-4	
Hexachloro-1,3-butadiene	**<0.67**	ug/L	5.0	0.67	1		03/20/12 16:27	87-68-3	
Isopropylbenzene (Cumene)	**<0.59**	ug/L	1.0	0.59	1		03/20/12 16:27	98-82-8	
p-Isopropyltoluene	**<0.67**	ug/L	1.0	0.67	1		03/20/12 16:27	99-87-6	
Methylene Chloride	**<0.43**	ug/L	1.0	0.43	1		03/20/12 16:27	75-09-2	
Methyl-tert-butyl ether	**<0.61**	ug/L	1.0	0.61	1		03/20/12 16:27	1634-04-4	
Naphthalene	**<0.89**	ug/L	5.0	0.89	1		03/20/12 16:27	91-20-3	
n-Propylbenzene	**<0.81**	ug/L	1.0	0.81	1		03/20/12 16:27	103-65-1	
Styrene	**<0.86**	ug/L	1.0	0.86	1		03/20/12 16:27	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.92**	ug/L	1.0	0.92	1		03/20/12 16:27	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.20**	ug/L	1.0	0.20	1		03/20/12 16:27	79-34-5	
Tetrachloroethene	**<0.45**	ug/L	1.0	0.45	1		03/20/12 16:27	127-18-4	
Toluene	**<0.67**	ug/L	1.0	0.67	1		03/20/12 16:27	108-88-3	
1,2,3-Trichlorobenzene	**<0.74**	ug/L	1.0	0.74	1		03/20/12 16:27	87-61-6	
1,2,4-Trichlorobenzene	**<0.97**	ug/L	5.0	0.97	1		03/20/12 16:27	120-82-1	
1,1,1-Trichloroethane	**<0.90**	ug/L	1.0	0.90	1		03/20/12 16:27	71-55-6	
1,1,2-Trichloroethane	**<0.42**	ug/L	1.0	0.42	1		03/20/12 16:27	79-00-5	
Trichloroethene	**<0.48**	ug/L	1.0	0.48	1		03/20/12 16:27	79-01-6	
Trichlorofluoromethane	**<0.79**	ug/L	1.0	0.79	1		03/20/12 16:27	75-69-4	
1,2,3-Trichloropropane	**<0.99**	ug/L	1.0	0.99	1		03/20/12 16:27	96-18-4	
1,2,4-Trimethylbenzene	**<0.97**	ug/L	1.0	0.97	1		03/20/12 16:27	95-63-6	
1,3,5-Trimethylbenzene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 16:27	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		03/20/12 16:27	75-01-4	
m&p-Xylene	**<1.8**	ug/L	2.0	1.8	1		03/20/12 16:27	179601-23-1	
o-Xylene	**<0.83**	ug/L	1.0	0.83	1		03/20/12 16:27	95-47-6	

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ANALYTICAL RESULTS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Sample: TRIP BLANK **Lab ID: 4057869011** Collected: 03/14/12 00:00 Received: 03/19/12 12:00 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Surrogates									
4-Bromofluorobenzene (S)	84	%.	70-130		1		03/20/12 16:27	460-00-4	
Dibromofluoromethane (S)	105	%.	70-130		1		03/20/12 16:27	1868-53-7	
Toluene-d8 (S)	99	%.	70-130		1		03/20/12 16:27	2037-26-5	

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

QC Batch: ICP/5714 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 4057869001, 4057869002, 4057869003, 4057869004, 4057869005, 4057869006, 4057869007, 4057869008, 4057869009, 4057869010

METHOD BLANK: 580932 Matrix: Water
Associated Lab Samples: 4057869001, 4057869002, 4057869003, 4057869004, 4057869005, 4057869006, 4057869007, 4057869008, 4057869009, 4057869010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<2.0	5.0	03/20/12 14:50	

LABORATORY CONTROL SAMPLE: 580933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	470	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 580934 580935

Parameter	Units	4057869001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Dissolved	ug/L	27.0	500	500	494	501	94	95	75-125	1	20	

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

QC Batch: MSV/14527 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 4057869007, 4057869010, 4057869011

METHOD BLANK: 580631 Matrix: Water
Associated Lab Samples: 4057869007, 4057869010, 4057869011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.92	1.0	03/20/12 07:50	
1,1,1-Trichloroethane	ug/L	<0.90	1.0	03/20/12 07:50	
1,1,2,2-Tetrachloroethane	ug/L	<0.20	1.0	03/20/12 07:50	
1,1,2-Trichloroethane	ug/L	<0.42	1.0	03/20/12 07:50	
1,1-Dichloroethane	ug/L	<0.75	1.0	03/20/12 07:50	
1,1-Dichloroethene	ug/L	<0.57	1.0	03/20/12 07:50	
1,1-Dichloropropene	ug/L	<0.75	1.0	03/20/12 07:50	
1,2,3-Trichlorobenzene	ug/L	<0.74	1.0	03/20/12 07:50	
1,2,3-Trichloropropane	ug/L	<0.99	1.0	03/20/12 07:50	
1,2,4-Trichlorobenzene	ug/L	<0.97	5.0	03/20/12 07:50	
1,2,4-Trimethylbenzene	ug/L	<0.97	1.0	03/20/12 07:50	
1,2-Dibromo-3-chloropropane	ug/L	<1.7	5.0	03/20/12 07:50	
1,2-Dibromoethane (EDB)	ug/L	<0.56	1.0	03/20/12 07:50	
1,2-Dichlorobenzene	ug/L	<0.83	1.0	03/20/12 07:50	
1,2-Dichloroethane	ug/L	<0.36	1.0	03/20/12 07:50	
1,2-Dichloropropane	ug/L	<0.49	1.0	03/20/12 07:50	
1,3,5-Trimethylbenzene	ug/L	<0.83	1.0	03/20/12 07:50	
1,3-Dichlorobenzene	ug/L	<0.87	1.0	03/20/12 07:50	
1,3-Dichloropropane	ug/L	<0.61	1.0	03/20/12 07:50	
1,4-Dichlorobenzene	ug/L	<0.95	1.0	03/20/12 07:50	
2,2-Dichloropropane	ug/L	<0.62	1.0	03/20/12 07:50	
2-Chlorotoluene	ug/L	<0.85	1.0	03/20/12 07:50	
4-Chlorotoluene	ug/L	<0.74	1.0	03/20/12 07:50	
Benzene	ug/L	<0.41	1.0	03/20/12 07:50	
Bromobenzene	ug/L	<0.82	1.0	03/20/12 07:50	
Bromochloromethane	ug/L	<0.97	1.0	03/20/12 07:50	
Bromodichloromethane	ug/L	<0.56	1.0	03/20/12 07:50	
Bromoform	ug/L	<0.94	1.0	03/20/12 07:50	
Bromomethane	ug/L	<0.91	1.0	03/20/12 07:50	
Carbon tetrachloride	ug/L	<0.49	1.0	03/20/12 07:50	
Chlorobenzene	ug/L	<0.41	1.0	03/20/12 07:50	
Chloroethane	ug/L	<0.97	1.0	03/20/12 07:50	
Chloroform	ug/L	<1.3	5.0	03/20/12 07:50	
Chloromethane	ug/L	<0.24	1.0	03/20/12 07:50	
cis-1,2-Dichloroethene	ug/L	<0.83	1.0	03/20/12 07:50	
cis-1,3-Dichloropropene	ug/L	<0.20	1.0	03/20/12 07:50	
Dibromochloromethane	ug/L	<0.81	1.0	03/20/12 07:50	
Dibromomethane	ug/L	<0.60	1.0	03/20/12 07:50	
Dichlorodifluoromethane	ug/L	<0.99	1.0	03/20/12 07:50	
Diisopropyl ether	ug/L	<0.76	1.0	03/20/12 07:50	
Ethylbenzene	ug/L	<0.54	1.0	03/20/12 07:50	
Hexachloro-1,3-butadiene	ug/L	<0.67	5.0	03/20/12 07:50	
Isopropylbenzene (Cumene)	ug/L	<0.59	1.0	03/20/12 07:50	

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

METHOD BLANK: 580631 Matrix: Water

Associated Lab Samples: 4057869007, 4057869010, 4057869011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/L	<1.8	2.0	03/20/12 07:50	
Methyl-tert-butyl ether	ug/L	<0.61	1.0	03/20/12 07:50	
Methylene Chloride	ug/L	<0.43	1.0	03/20/12 07:50	
n-Butylbenzene	ug/L	<0.93	1.0	03/20/12 07:50	
n-Propylbenzene	ug/L	<0.81	1.0	03/20/12 07:50	
Naphthalene	ug/L	<0.89	5.0	03/20/12 07:50	
o-Xylene	ug/L	<0.83	1.0	03/20/12 07:50	
p-Isopropyltoluene	ug/L	<0.67	1.0	03/20/12 07:50	
sec-Butylbenzene	ug/L	<0.89	5.0	03/20/12 07:50	
Styrene	ug/L	<0.86	1.0	03/20/12 07:50	
tert-Butylbenzene	ug/L	<0.97	1.0	03/20/12 07:50	
Tetrachloroethene	ug/L	<0.45	1.0	03/20/12 07:50	
Toluene	ug/L	<0.67	1.0	03/20/12 07:50	
trans-1,2-Dichloroethene	ug/L	<0.89	1.0	03/20/12 07:50	
trans-1,3-Dichloropropene	ug/L	<0.19	1.0	03/20/12 07:50	
Trichloroethene	ug/L	<0.48	1.0	03/20/12 07:50	
Trichlorofluoromethane	ug/L	<0.79	1.0	03/20/12 07:50	
Vinyl chloride	ug/L	<0.18	1.0	03/20/12 07:50	
4-Bromofluorobenzene (S)	%.	85	70-130	03/20/12 07:50	
Dibromofluoromethane (S)	%.	102	70-130	03/20/12 07:50	
Toluene-d8 (S)	%.	99	70-130	03/20/12 07:50	

LABORATORY CONTROL SAMPLE & LCSD: 580632 580633

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.2	52.2	100	104	70-133	4	20	
1,1,2,2-Tetrachloroethane	ug/L	50	47.6	48.0	95	96	70-130	.8	20	
1,1,2-Trichloroethane	ug/L	50	51.8	51.1	104	102	70-130	1	20	
1,1-Dichloroethane	ug/L	50	54.5	55.0	109	110	70-130	1	20	
1,1-Dichloroethene	ug/L	50	56.1	55.4	112	111	70-130	1	20	
1,2,4-Trichlorobenzene	ug/L	50	47.4	48.3	95	97	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/L	50	36.0	38.0	72	76	50-150	5	20	
1,2-Dibromoethane (EDB)	ug/L	50	48.0	47.9	96	96	70-130	.2	20	
1,2-Dichlorobenzene	ug/L	50	51.1	51.3	102	103	70-130	.3	20	
1,2-Dichloroethane	ug/L	50	49.5	49.4	99	99	70-145	.2	20	
1,2-Dichloropropane	ug/L	50	55.8	55.7	112	111	70-130	.3	20	
1,3-Dichlorobenzene	ug/L	50	50.2	50.2	100	100	70-130	.2	20	
1,4-Dichlorobenzene	ug/L	50	51.7	52.5	103	105	70-130	1	20	
Benzene	ug/L	50	56.6	57.0	113	114	70-130	.7	20	
Bromodichloromethane	ug/L	50	45.7	44.6	91	89	70-130	2	20	
Bromoform	ug/L	50	38.7	40.0	77	80	70-130	3	20	
Bromomethane	ug/L	50	56.3	57.4	113	115	52-155	2	20	
Carbon tetrachloride	ug/L	50	53.9	54.7	108	109	70-153	1	20	
Chlorobenzene	ug/L	50	51.1	52.7	102	105	70-130	3	20	
Chloroethane	ug/L	50	59.5	58.5	119	117	70-130	2	20	

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

LABORATORY CONTROL SAMPLE & LCSD: 580632 580633

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chloroform	ug/L	50	54.9	55.1	110	110	70-130	.4	20	
Chloromethane	ug/L	50	64.6	62.3	129	125	50-130	4	20	
cis-1,2-Dichloroethene	ug/L	50	53.1	54.6	106	109	70-130	3	20	
cis-1,3-Dichloropropene	ug/L	50	53.6	52.5	107	105	70-130	2	20	
Dibromochloromethane	ug/L	50	46.4	47.0	93	94	70-130	1	20	
Dichlorodifluoromethane	ug/L	50	65.5	66.1	131	132	50-150	1	20	
Ethylbenzene	ug/L	50	51.8	53.0	104	106	70-130	2	20	
Isopropylbenzene (Cumene)	ug/L	50	50.0	51.0	100	102	70-130	2	20	
m&p-Xylene	ug/L	100	103	105	103	105	70-130	2	20	
Methyl-tert-butyl ether	ug/L	50	43.6	43.8	87	88	70-130	.4	20	
Methylene Chloride	ug/L	50	53.6	53.1	107	106	70-130	.9	20	
o-Xylene	ug/L	50	50.1	51.6	100	103	70-130	3	20	
Styrene	ug/L	50	53.2	54.4	106	109	70-130	2	20	
Tetrachloroethene	ug/L	50	50.0	50.0	100	100	70-130	.1	20	
Toluene	ug/L	50	53.9	53.6	108	107	70-130	.5	20	
trans-1,2-Dichloroethene	ug/L	50	55.9	56.7	112	113	70-130	1	20	
trans-1,3-Dichloropropene	ug/L	50	39.6	39.3	79	79	70-130	.7	20	
Trichloroethene	ug/L	50	55.8	54.7	112	109	70-130	2	20	
Trichlorofluoromethane	ug/L	50	55.7	56.3	111	113	50-150	1	20	
Vinyl chloride	ug/L	50	61.0	60.6	122	121	66-130	.8	20	
4-Bromofluorobenzene (S)	%.				89	89	70-130			
Dibromofluoromethane (S)	%.				102	100	70-130			
Toluene-d8 (S)	%.				102	102	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 580719 580720

Parameter	Units	4057840001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.90	50	50	51.7	50.4	103	101	70-133	3	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.20	50	50	49.3	49.6	99	99	70-130	.7	20	
1,1,2-Trichloroethane	ug/L	<0.42	50	50	52.3	51.6	105	103	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.75	50	50	55.0	53.5	110	107	70-133	3	20	
1,1-Dichloroethene	ug/L	<0.57	50	50	54.7	53.0	109	106	70-130	3	20	
1,2,4-Trichlorobenzene	ug/L	<0.97	50	50	48.4	48.7	96	96	70-130	.5	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.7	50	50	36.5	37.7	73	75	50-150	3	20	
1,2-Dibromoethane (EDB)	ug/L	<0.56	50	50	48.2	49.1	96	98	70-130	2	20	
1,2-Dichlorobenzene	ug/L	<0.83	50	50	51.9	51.7	104	103	70-130	.3	20	
1,2-Dichloroethane	ug/L	<0.36	50	50	49.5	49.1	99	98	70-145	.8	20	
1,2-Dichloropropane	ug/L	<0.49	50	50	57.5	55.3	115	111	70-130	4	20	
1,3-Dichlorobenzene	ug/L	<0.87	50	50	50.5	50.5	101	101	70-130	.1	20	
1,4-Dichlorobenzene	ug/L	<0.95	50	50	52.1	52.3	104	105	70-130	.5	20	
Benzene	ug/L	<0.41	50	50	57.8	56.1	116	112	70-130	3	20	
Bromodichloromethane	ug/L	<0.56	50	50	45.8	45.3	92	91	70-130	1	20	
Bromoform	ug/L	<0.94	50	50	38.4	40.2	77	80	70-130	4	20	
Bromomethane	ug/L	<0.91	50	50	55.8	57.1	112	114	52-155	2	20	
Carbon tetrachloride	ug/L	<0.49	50	50	53.9	54.0	108	108	70-158	.3	20	
Chlorobenzene	ug/L	<0.41	50	50	51.9	52.1	104	104	70-130	.3	20	

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 580719 580720

Parameter	Units	4057840001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloroethane	ug/L	<0.97	50	50	56.9	57.0	114	114	70-130	.2	20	
Chloroform	ug/L	<1.3	50	50	54.8	54.0	110	108	70-130	2	20	
Chloromethane	ug/L	<0.24	50	50	62.9	59.5	126	119	46-130	6	20	
cis-1,2-Dichloroethene	ug/L	<0.83	50	50	54.4	53.4	109	107	70-130	2	20	
cis-1,3-Dichloropropene	ug/L	<0.20	50	50	53.3	53.3	107	107	70-130	.03	20	
Dibromochloromethane	ug/L	<0.81	50	50	46.1	47.6	92	95	70-130	3	20	
Dichlorodifluoromethane	ug/L	<0.99	50	50	60.1	59.1	120	118	50-150	2	20	
Ethylbenzene	ug/L	<0.54	50	50	52.7	52.6	105	105	70-130	.04	20	
Isopropylbenzene (Cumene)	ug/L	<0.59	50	50	50.7	51.2	101	102	70-130	1	20	
m&p-Xylene	ug/L	<1.8	100	100	104	104	104	104	70-130	.3	20	
Methyl-tert-butyl ether	ug/L	<0.61	50	50	43.1	43.3	86	87	70-130	.5	20	
Methylene Chloride	ug/L	<0.43	50	50	53.3	51.3	107	103	70-130	4	20	
o-Xylene	ug/L	<0.83	50	50	51.2	52.3	102	105	70-130	2	20	
Styrene	ug/L	<0.86	50	50	53.7	53.7	107	107	19-157	.04	20	
Tetrachloroethene	ug/L	<0.45	50	50	50.1	49.2	100	98	70-130	2	20	
Toluene	ug/L	<0.67	50	50	53.9	53.4	108	107	70-130	.9	20	
trans-1,2-Dichloroethene	ug/L	<0.89	50	50	56.8	55.0	114	110	70-130	3	20	
trans-1,3-Dichloropropene	ug/L	<0.19	50	50	39.9	40.1	80	80	70-130	.4	20	
Trichloroethene	ug/L	<0.48	50	50	55.0	55.7	110	111	70-130	1	20	
Trichlorofluoromethane	ug/L	<0.79	50	50	55.8	55.0	112	110	50-150	1	20	
Vinyl chloride	ug/L	<0.18	50	50	60.3	58.1	121	116	62-130	4	20	
4-Bromofluorobenzene (S)	%.						88	91	70-130			
Dibromofluoromethane (S)	%.						101	98	70-130			
Toluene-d8 (S)	%.						103	101	70-130			

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

QC Batch: MSV/14542 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 4057869003, 4057869004, 4057869005, 4057869006

METHOD BLANK: 581046 Matrix: Water
Associated Lab Samples: 4057869003, 4057869004, 4057869005, 4057869006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.92	1.0	03/21/12 07:42	
1,1,1-Trichloroethane	ug/L	<0.90	1.0	03/21/12 07:42	
1,1,2,2-Tetrachloroethane	ug/L	<0.20	1.0	03/21/12 07:42	
1,1,2-Trichloroethane	ug/L	<0.42	1.0	03/21/12 07:42	
1,1-Dichloroethane	ug/L	<0.75	1.0	03/21/12 07:42	
1,1-Dichloroethene	ug/L	<0.57	1.0	03/21/12 07:42	
1,1-Dichloropropene	ug/L	<0.75	1.0	03/21/12 07:42	
1,2,3-Trichlorobenzene	ug/L	<0.74	1.0	03/21/12 07:42	
1,2,3-Trichloropropane	ug/L	<0.99	1.0	03/21/12 07:42	
1,2,4-Trichlorobenzene	ug/L	<0.97	5.0	03/21/12 07:42	
1,2,4-Trimethylbenzene	ug/L	<0.97	1.0	03/21/12 07:42	
1,2-Dibromo-3-chloropropane	ug/L	<1.7	5.0	03/21/12 07:42	
1,2-Dibromoethane (EDB)	ug/L	<0.56	1.0	03/21/12 07:42	
1,2-Dichlorobenzene	ug/L	<0.83	1.0	03/21/12 07:42	
1,2-Dichloroethane	ug/L	<0.36	1.0	03/21/12 07:42	
1,2-Dichloropropane	ug/L	<0.49	1.0	03/21/12 07:42	
1,3,5-Trimethylbenzene	ug/L	<0.83	1.0	03/21/12 07:42	
1,3-Dichlorobenzene	ug/L	<0.87	1.0	03/21/12 07:42	
1,3-Dichloropropane	ug/L	<0.61	1.0	03/21/12 07:42	
1,4-Dichlorobenzene	ug/L	<0.95	1.0	03/21/12 07:42	
2,2-Dichloropropane	ug/L	<0.62	1.0	03/21/12 07:42	
2-Chlorotoluene	ug/L	<0.85	1.0	03/21/12 07:42	
4-Chlorotoluene	ug/L	<0.74	1.0	03/21/12 07:42	
Benzene	ug/L	<0.41	1.0	03/21/12 07:42	
Bromobenzene	ug/L	<0.82	1.0	03/21/12 07:42	
Bromochloromethane	ug/L	<0.97	1.0	03/21/12 07:42	
Bromodichloromethane	ug/L	<0.56	1.0	03/21/12 07:42	
Bromoform	ug/L	<0.94	1.0	03/21/12 07:42	
Bromomethane	ug/L	<0.91	1.0	03/21/12 07:42	
Carbon tetrachloride	ug/L	<0.49	1.0	03/21/12 07:42	
Chlorobenzene	ug/L	<0.41	1.0	03/21/12 07:42	
Chloroethane	ug/L	<0.97	1.0	03/21/12 07:42	
Chloroform	ug/L	<1.3	5.0	03/21/12 07:42	
Chloromethane	ug/L	<0.24	1.0	03/21/12 07:42	
cis-1,2-Dichloroethene	ug/L	<0.83	1.0	03/21/12 07:42	
cis-1,3-Dichloropropene	ug/L	<0.20	1.0	03/21/12 07:42	
Dibromochloromethane	ug/L	<0.81	1.0	03/21/12 07:42	
Dibromomethane	ug/L	<0.60	1.0	03/21/12 07:42	
Dichlorodifluoromethane	ug/L	<0.99	1.0	03/21/12 07:42	
Diisopropyl ether	ug/L	<0.76	1.0	03/21/12 07:42	
Ethylbenzene	ug/L	<0.54	1.0	03/21/12 07:42	
Hexachloro-1,3-butadiene	ug/L	<0.67	5.0	03/21/12 07:42	
Isopropylbenzene (Cumene)	ug/L	<0.59	1.0	03/21/12 07:42	

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

METHOD BLANK: 581046 Matrix: Water

Associated Lab Samples: 4057869003, 4057869004, 4057869005, 4057869006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
m&p-Xylene	ug/L	<1.8	2.0	03/21/12 07:42	
Methyl-tert-butyl ether	ug/L	<0.61	1.0	03/21/12 07:42	
Methylene Chloride	ug/L	<0.43	1.0	03/21/12 07:42	
n-Butylbenzene	ug/L	<0.93	1.0	03/21/12 07:42	
n-Propylbenzene	ug/L	<0.81	1.0	03/21/12 07:42	
Naphthalene	ug/L	<0.89	5.0	03/21/12 07:42	
o-Xylene	ug/L	<0.83	1.0	03/21/12 07:42	
p-Isopropyltoluene	ug/L	<0.67	1.0	03/21/12 07:42	
sec-Butylbenzene	ug/L	<0.89	5.0	03/21/12 07:42	
Styrene	ug/L	<0.86	1.0	03/21/12 07:42	
tert-Butylbenzene	ug/L	<0.97	1.0	03/21/12 07:42	
Tetrachloroethene	ug/L	<0.45	1.0	03/21/12 07:42	
Toluene	ug/L	<0.67	1.0	03/21/12 07:42	
trans-1,2-Dichloroethene	ug/L	<0.89	1.0	03/21/12 07:42	
trans-1,3-Dichloropropene	ug/L	<0.19	1.0	03/21/12 07:42	
Trichloroethene	ug/L	<0.48	1.0	03/21/12 07:42	
Trichlorofluoromethane	ug/L	<0.79	1.0	03/21/12 07:42	
Vinyl chloride	ug/L	<0.18	1.0	03/21/12 07:42	
4-Bromofluorobenzene (S)	%.	76	70-130	03/21/12 07:42	
Dibromofluoromethane (S)	%.	96	70-130	03/21/12 07:42	
Toluene-d8 (S)	%.	87	70-130	03/21/12 07:42	

LABORATORY CONTROL SAMPLE & LCSD: 581047 581048

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	50	60.0	58.5	120	117	70-133	2	20	
1,1,2,2-Tetrachloroethane	ug/L	50	53.5	53.9	107	108	70-130	.8	20	
1,1,2-Trichloroethane	ug/L	50	53.4	53.2	107	106	70-130	.4	20	
1,1-Dichloroethane	ug/L	50	64.1	61.9	128	124	70-130	3	20	
1,1-Dichloroethene	ug/L	50	55.0	52.6	110	105	70-130	4	20	
1,2,4-Trichlorobenzene	ug/L	50	45.1	46.1	90	92	70-130	2	20	
1,2-Dibromo-3-chloropropane	ug/L	50	46.9	49.6	94	99	50-150	6	20	
1,2-Dibromoethane (EDB)	ug/L	50	51.7	51.0	103	102	70-130	1	20	
1,2-Dichlorobenzene	ug/L	50	49.6	49.5	99	99	70-130	.08	20	
1,2-Dichloroethane	ug/L	50	64.5	63.7	129	127	70-145	1	20	
1,2-Dichloropropane	ug/L	50	60.4	58.4	121	117	70-130	3	20	
1,3-Dichlorobenzene	ug/L	50	47.8	48.5	96	97	70-130	2	20	
1,4-Dichlorobenzene	ug/L	50	50.0	50.0	100	100	70-130	.05	20	
Benzene	ug/L	50	61.3	59.1	123	118	70-130	4	20	
Bromodichloromethane	ug/L	50	56.9	55.3	114	111	70-130	3	20	
Bromoform	ug/L	50	43.7	44.2	87	88	70-130	1	20	
Bromomethane	ug/L	50	62.1	63.0	124	126	52-155	1	20	
Carbon tetrachloride	ug/L	50	67.8	66.5	136	133	70-153	2	20	
Chlorobenzene	ug/L	50	52.8	53.1	106	106	70-130	.6	20	
Chloroethane	ug/L	50	63.5	61.6	127	123	70-130	3	20	

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

LABORATORY CONTROL SAMPLE & LCSD: 581047 581048

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Chloroform	ug/L	50	59.5	57.9	119	116	70-130	3	20	
Chloromethane	ug/L	50	69.2	67.2	138	134	50-130	3	20	L0
cis-1,2-Dichloroethene	ug/L	50	55.3	54.2	111	108	70-130	2	20	
cis-1,3-Dichloropropene	ug/L	50	59.6	58.8	119	118	70-130	1	20	
Dibromochloromethane	ug/L	50	50.2	50.7	100	101	70-130	1	20	
Dichlorodifluoromethane	ug/L	50	59.1	59.0	118	118	50-150	.2	20	
Ethylbenzene	ug/L	50	56.1	55.4	112	111	70-130	1	20	
Isopropylbenzene (Cumene)	ug/L	50	56.2	55.7	112	111	70-130	.9	20	
m&p-Xylene	ug/L	100	111	110	111	110	70-130	1	20	
Methyl-tert-butyl ether	ug/L	50	56.2	54.7	112	109	70-130	3	20	
Methylene Chloride	ug/L	50	56.5	53.9	113	108	70-130	5	20	
o-Xylene	ug/L	50	53.8	53.1	108	106	70-130	1	20	
Styrene	ug/L	50	55.4	54.7	111	109	70-130	1	20	
Tetrachloroethene	ug/L	50	47.5	48.4	95	97	70-130	2	20	
Toluene	ug/L	50	54.6	53.6	109	107	70-130	2	20	
trans-1,2-Dichloroethene	ug/L	50	59.6	57.2	119	114	70-130	4	20	
trans-1,3-Dichloropropene	ug/L	50	51.9	51.5	104	103	70-130	.8	20	
Trichloroethene	ug/L	50	55.0	54.0	110	108	70-130	2	20	
Trichlorofluoromethane	ug/L	50	64.2	62.8	128	126	50-150	2	20	
Vinyl chloride	ug/L	50	63.7	62.2	127	124	66-130	2	20	
4-Bromofluorobenzene (S)	%.				82	83	70-130			
Dibromofluoromethane (S)	%.				96	93	70-130			
Toluene-d8 (S)	%.				89	88	70-130			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 581110 581111

Parameter	Units	4057894002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.90	50	50	58.3	57.9	117	116	70-133	.7	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.20	50	50	53.4	53.3	107	107	70-130	.1	20	
1,1,2-Trichloroethane	ug/L	<0.42	50	50	51.4	52.1	103	104	70-130	1	20	
1,1-Dichloroethane	ug/L	<0.75	50	50	62.3	61.4	125	123	70-133	1	20	
1,1-Dichloroethene	ug/L	<0.57	50	50	53.4	52.8	107	106	70-130	1	20	
1,2,4-Trichlorobenzene	ug/L	<0.97	50	50	47.2	46.6	93	92	70-130	1	20	
1,2-Dibromo-3-chloropropane	ug/L	<1.7	50	50	49.8	49.0	100	98	50-150	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.56	50	50	50.0	50.6	100	101	70-130	1	20	
1,2-Dichlorobenzene	ug/L	<0.83	50	50	50.0	48.7	99	97	70-130	2	20	
1,2-Dichloroethane	ug/L	0.47J	50	50	63.9	64.0	127	127	70-145	.04	20	
1,2-Dichloropropane	ug/L	<0.49	50	50	58.9	57.6	118	115	70-130	2	20	
1,3-Dichlorobenzene	ug/L	<0.87	50	50	48.8	47.9	98	96	70-130	2	20	
1,4-Dichlorobenzene	ug/L	<0.95	50	50	50.1	48.8	100	98	70-130	3	20	
Benzene	ug/L	<0.41	50	50	59.2	58.2	118	116	70-130	2	20	
Bromodichloromethane	ug/L	<0.56	50	50	53.5	53.4	107	107	70-130	.3	20	
Bromoform	ug/L	<0.94	50	50	42.3	38.7	85	77	70-130	9	20	
Bromomethane	ug/L	<0.91	50	50	63.2	63.9	126	128	52-155	1	20	
Carbon tetrachloride	ug/L	<0.49	50	50	65.8	62.3	132	125	70-158	5	20	
Chlorobenzene	ug/L	<0.41	50	50	52.5	53.2	105	106	70-130	1	20	

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(920)469-2436

QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 581110 581111

Parameter	Units	4057894002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloroethane	ug/L	<0.97	50	50	61.6	61.1	123	122	70-130	.9	20	
Chloroform	ug/L	<1.3	50	50	57.5	56.6	115	113	70-130	2	20	
Chloromethane	ug/L	<0.24	50	50	67.3	65.7	135	131	46-130	2	20	M0
cis-1,2-Dichloroethene	ug/L	<0.83	50	50	54.0	53.8	108	108	70-130	.4	20	
cis-1,3-Dichloropropene	ug/L	<0.20	50	50	58.7	55.7	117	111	70-130	5	20	
Dibromochloromethane	ug/L	<0.81	50	50	48.3	45.6	97	91	70-130	6	20	
Dichlorodifluoromethane	ug/L	<0.99	50	50	57.6	56.4	115	113	50-150	2	20	
Ethylbenzene	ug/L	<0.54	50	50	54.9	55.4	110	111	70-130	.9	20	
Isopropylbenzene (Cumene)	ug/L	<0.59	50	50	55.3	55.9	111	112	70-130	1	20	
m&p-Xylene	ug/L	<1.8	100	100	108	110	108	110	70-130	1	20	
Methyl-tert-butyl ether	ug/L	<0.61	50	50	54.0	54.7	108	109	70-130	1	20	
Methylene Chloride	ug/L	<0.43	50	50	54.2	53.0	108	106	70-130	2	20	
o-Xylene	ug/L	<0.83	50	50	53.5	54.2	106	107	70-130	1	20	
Styrene	ug/L	<0.86	50	50	52.5	53.7	105	107	19-157	2	20	
Tetrachloroethene	ug/L	<0.45	50	50	47.5	48.2	95	96	70-130	2	20	
Toluene	ug/L	<0.67	50	50	53.4	54.1	107	108	70-130	1	20	
trans-1,2-Dichloroethene	ug/L	<0.89	50	50	56.5	56.6	113	113	70-130	.2	20	
trans-1,3-Dichloropropene	ug/L	<0.19	50	50	50.3	49.0	101	98	70-130	3	20	
Trichloroethene	ug/L	<0.48	50	50	54.6	54.1	109	108	70-130	.9	20	
Trichlorofluoromethane	ug/L	<0.79	50	50	62.5	60.8	125	122	50-150	3	20	
Vinyl chloride	ug/L	<0.18	50	50	61.9	61.5	124	123	62-130	.6	20	
4-Bromofluorobenzene (S)	%.						82	83	70-130			
Dibromofluoromethane (S)	%.						94	93	70-130			
Toluene-d8 (S)	%.						88	90	70-130			

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QUALITY CONTROL DATA

Project: 58117057 MAUTHE
Pace Project No.: 4057869

QC Batch: WETA/11696 Analysis Method: EPA 335.4
QC Batch Method: EPA 335.4 Analysis Description: 335.4 Cyanide, Total
Associated Lab Samples: 4057869004, 4057869005, 4057869006

METHOD BLANK: 580989 Matrix: Water
Associated Lab Samples: 4057869004, 4057869005, 4057869006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Cyanide	mg/L	<0.0061	0.020	03/21/12 09:15	

LABORATORY CONTROL SAMPLE: 580990

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	.1	0.11	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 580991 580992

Parameter	Units	4057685001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	<0.0061	.1	.1	0.11	0.10	106	97	90-110	8	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 580993 580994

Parameter	Units	4057869006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	0.0066J	.1	.1	0.11	0.10	107	98	90-110	8	20	

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QUALIFIERS

Project: 58117057 MAUTHE
Pace Project No.: 4057869

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 58117057 MAUTHE
Pace Project No.: 4057869

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
4057869001	**MW-103**	EPA 6010	ICP/5714		
4057869002	**MW-104**	EPA 6010	ICP/5714		
4057869003	**MW-107**	EPA 6010	ICP/5714		
4057869004	**MW-111**	EPA 6010	ICP/5714		
4057869005	**MW-112**	EPA 6010	ICP/5714		
4057869006	**MW-110**	EPA 6010	ICP/5714		
4057869007	**MW-113**	EPA 6010	ICP/5714		
4057869008	**MW-102**	EPA 6010	ICP/5714		
4057869009	**MW-101**	EPA 6010	ICP/5714		
4057869010	**MW-109**	EPA 6010	ICP/5714		
4057869003	**MW-107**	EPA 8260	MSV/14542		
4057869004	**MW-111**	EPA 8260	MSV/14542		
4057869005	**MW-112**	EPA 8260	MSV/14542		
4057869006	**MW-110**	EPA 8260	MSV/14542		
4057869007	**MW-113**	EPA 8260	MSV/14527		
4057869010	**MW-109**	EPA 8260	MSV/14527		
4057869011	**TRIP BLANK**	EPA 8260	MSV/14527		
4057869004	**MW-111**	EPA 335.4	WETA/11696	EPA 335.4	WETA/11700
4057869005	**MW-112**	EPA 335.4	WETA/11696	EPA 335.4	WETA/11700
4057869006	**MW-110**	EPA 335.4	WETA/11696	EPA 335.4	WETA/11700

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

4057869

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CHAIN OF CUSTODY

LC

(Please Print Clearly)	
Company Name:	Terracon
Branch/Location:	Milwaukee, WI
Project Contact:	Seth Hodgson
Phone:	(414) 423-0255
Project Number:	58117057
Project Name:	~~Exc~~ Mauthe
Project State:	WI
Sampled By (Print):	PAL
Sampled By (Sign):	PL
PO #:	Regulatory Program:

*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

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
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, B = Biota, C = Charcoal, O = Oil, S = Soil, SL = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested: total chromium 250 mL HNO3 preserved	cyanide, 250 mL NaOH preserved	VOC, 40 mL glass vials HCl preserved					CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)
					Y/N	Pick Letter	Y	N	N						
							D	G	B						
001	MW-103	3/14/12	1045	GW			1							1-250mL D	
002	MW-104		1130				1								
003	MW-107		1200				1		3					3-40mL B	
004	MW-111		1230				1	1	3					1-250mL G	
005	MW-112		1345				1	1	3						
006	MW-110		1450				1	1	3					KS 3/19/12	
007	MW-113		1555				1		3						
008	MW-102	3/14/12	1645				1								
009	MW-101	3/16/12	1315				1								
010	MW-109	3/16/12	1355	GW			1		3					3-40mL B	
011	Trip Blank *			W						2				2-40mL VB	
	PAL														

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed:	
Transmit Prelim Rush Results by (complete what you want):	
Email #1:	
Email #2:	
Telephone:	
Fax:	

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

Relinquished By:	Date/Time:	Received By:	Date/Time:
PL	3/19/12 0930	Art Boyle	3-19-12 1030
Art Boyle	3-19-12 1700	Susan Lufler	3/19/12 12 IC

PACE Project No. 4057869

Receipt Temp = R01 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

* Added by Lab 3/19/12 SCW

ORIGINAL

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

Pace Analytical

Sample Condition Upon Receipt

Client Name: Terracon Project # 4057869

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ 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 N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun.

Cooler Temperature ROT **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Optional
Proj. Due Date:
Proj. Name:

Person examining contents:
Date: 3-19-12
Initials: SCW

Temp should be above freezing to 6°C for all sample except Biota.
Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☒No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☒Yes ☐No ☐N/A SCW 3/19/12	11.
Sample Labels match COC:	☐Yes ☒No ☐N/A	12. 006 - matched by Time - ID# read MW12 3-19-12
-Includes date/time/ID/Analysis Matrix: _____		
All containers needing preservation have been checked.	☒Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☐No	Initial when completed SCW / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☒Yes ☐No ☐N/A	16. Not Listed on COC. Added to COC 3/19/12 SCW
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: Added TripBlanks to COC. 3-19-12 SCW

Project Manager Review: _____ **Date:** 3/19/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Mauthe	PROJECT NO. 58117057
PROJECT LOCATION: Appleton, WI	
SAMPLE POINT: MW-101	SAMPLE POINT DESCRIPTION: Miller Parking lot
CASING DIAMETER: 2"	
WELL DEPTH:	
DATE: 3/16/12	TIME 1225 AM /PM
	DEPTH TO GROUND WATER (FT): 6.67
SAMPLING METHOD: low-flow	FLOW RATE: ~200ml/min
SAMPLE TIME: 1315	TOTAL PURGED: ~2gal

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1230	6.67	10.4	6.2	0.46	234	7.1
1235	7.59	10.0	6.2	0.46	233	1.4
1240	8.07	9.9	6.2	0.46	231	1.3
1245	8.58	9.7	6.2	0.46	229	1.2
1250	8.90	9.2	6.2	0.46	226	1.4
1255	9.38	9.7	6.2	~~0.040~~ 0.46	220	1.6
1300	9.70	9.8	6.2	0.47	218	1.8
1305	10.14	10.0	6.2	0.47	213	1.9
1310	10.51	10.0	6.2	0.47	213	1.9
1315	10.83	10.1	6.2	0.47	212	1.9

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	ODOR: YES (NO) NOT NOTED	ANALYSES: Total Chromium (Filtered)

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

COMMENTS:

SAMPLED BY: PAL	DATE: 3/16/12
REVIEWED BY: Scott A. Hodgson	DATE: 5/4/12

TERRACON — GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Mau the	PROJECT NO. 58117057
PROJECT LOCATION: Appleton, WI	
SAMPLE POINT: MW-102	SAMPLE POINT DESCRIPTION: ~ 801 Octagonal
CASING DIAMETER: 2"	
WELL DEPTH:	
DATE: 3/14/12	TIME 1605 AM /PM
	DEPTH TO GROUND WATER (FT): 23.48
SAMPLING METHOD: low-flow	FLOW RATE: ~200 ml/min
SAMPLE TIME: 1645	TOTAL PURGED: ~1.5 gal

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1610	23.81	12.4	6.6	0.13	-56	6.2
1615	23.98	12.7	6.6	0.12	-19	4.5
1620	24.15	12.6	6.5	0.12	30	4.8
1625	24.27	12.6	6.5	0.12	67	5.1
1630	24.42	12.7	6.5	0.12	84	5.4
1635	24.63	12.7	6.5	0.12	88	5.5
1640	24.79	12.7	6.5	0.12	94	5.6
1645	24.92	12.7	6.5	0.12	97	5.5

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)

ODOR: YES (NO) NOT NOTED

ANALYSES: total Chrom (filtered)

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

PAL

COMMENTS:

SAMPLED BY: PAL	DATE: 3/14/12
REVIEWED BY: Scott A. Hodgson	DATE: 5/4/12

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Mauthe	PROJECT NO. 58117057
PROJECT LOCATION: Appleton, WI	
SAMPLE POINT: MW-103	SAMPLE POINT DESCRIPTION: 1414 Mauthe PZ-8
CASING DIAMETER: 2"	
WELL DEPTH:	
DATE: 3/14/12	TIME 1000 AM/PM
	DEPTH TO GROUND WATER (FT): 7.95
SAMPLING METHOD: low-flow	FLOW RATE: ~200 ml/min
SAMPLE TIME: 1045	TOTAL PURGED: ~2 gal

nhl 6988ww

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1005	8.24	10.1	5.8	0.13	237	3.2
1010	8.71	9.7	5.9	0.13	224	0.0
1015	9.01	9.8	6.0	0.13	213	0.0
1020	9.39	9.8	6.1	0.13	205	0.2
1025	9.49	9.9	6.1	0.12	199	0.3
1030	9.72	10	6.1	0.12	193	0.5
1035	9.97	9.9	6.1	0.12	185	0.7
1040	10.19	9.9	6.1	0.12	183	0.7
1045	10.49	10.2	6.2	0.12	175	0.7

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	ODOR: YES (NO) NOT NOTED	ANALYSES: Total Chromium (Filtered)

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

PAL

COMMENTS:

SAMPLED BY: PAL	DATE: 3/14/12
REVIEWED BY: Scott A. Herlepsa	DATE: 5/4/12

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Mau the		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, WI			
SAMPLE POINT: MW-104	SAMPLE POINT DESCRIPTION: Next to PZ-7		
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: 3/14/12	TIME 1045	AM /PM	DEPTH TO GROUND WATER (FT): 8.28
SAMPLING METHOD: low-flow		FLOW RATE: ~200 ml/min	
SAMPLE TIME: 1130		TOTAL PURGED: ~2 gal	

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1050	8.62	10.1	6.0	0.22	100	8.2
1055	8.92	10.6	6.1	0.20	122	0.4
1100	9.08	10.5	6.1	0.19	130	0.4
1105	9.18	10.3	6.2	0.18	135	0.5
1110	9.42	10.1	6.2	0.17	149	0.6
1115	10.06	10.3	6.2	0.16	155	0.7
1120	9.89	10.2	6.2	0.16	159	0.9
1125	10.14	10.0	6.2	0.16	162	1.0
1130	10.19	10.1	6.2	0.16	165	1.0

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	ODOR: YES (NO) NOT NOTED	ANALYSES: total Chromium (filtered)

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

PAL

COMMENTS:

SAMPLED BY: PAL	DATE: 3/14/12
REVIEWED BY: Scott A. Hodgson	DATE: 5/4/12

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Mau Tho		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, WI			
SAMPLE POINT: MW107	SAMPLE POINT DESCRIPTION: Next to PZ-6		
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: 3/14/12	TIME 1135	AM /PM	DEPTH TO GROUND WATER (FT): 8.74
SAMPLING METHOD: low-flow		FLOW RATE: ~200 ml/min	
SAMPLE TIME: 1200		TOTAL PURGED: ~1 gal	

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1135	9.52	11.8	6.4	0.14	170	3.0
1140	10.18	11.6	6.4	0.13	170	2.1
1145	10.73	11.7	6.4	0.13	169	2.0
1150	11.41	11.7	6.5	0.13	169	1.9
1155	11.74	11.6	6.4	0.14	169	1.9
1200	11.93	11.6	6.4	0.14	169	1.9

SAMPLE APPEARANCE: VERY TURBID TURBID (SLIGHTLY TURBID) CLEAR

ODOR: YES (NO) NOT NOTED

ANALYSES: total Chromium (filtered) VOC

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

PAL

COMMENTS:

SAMPLED BY: PAL	DATE: 3/14/12
REVIEWED BY: Scott A. Hodgson	DATE: 3/4/12

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME:	Mau the	PROJECT NO.	58117057
PROJECT LOCATION:	Appleton, WI		
SAMPLE POINT:	MW-109	SAMPLE POINT DESCRIPTION:	
CASING DIAMETER:	2"		New System down
WELL DEPTH:			
DATE:	3/16/12	TIME	1320 AM /PM
DEPTH TO GROUND WATER (FT):	8.15		
SAMPLING METHOD:	low-flow	FLOW RATE:	~200 ml/min
SAMPLE TIME:	1355	TOTAL PURGED:	~2 gal

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/cm)	ORP (mV)	DO (mg/L)
1320	8.41	10.6	6.6	0.23	208	4.4
1325	8.63	10.4	6.4	0.22	207	1.6
1330	8.86	10.2	6.4	0.21	206	1.2
1335	9.37	9.9	6.4	0.20	205	1.3
1340	9.58	9.7	6.4	0.20	203	1.3
1345	9.78	9.6	6.4	0.20	202	1.4
1350	10.05	9.6	6.4	0.20	201	1.5
1358	10.34	9.6	6.4	0.20	200	1.5

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	ODOR: YES (NO) NOT NOTED	ANALYSES: VOC, total Chromium

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

PAL

COMMENTS:

SAMPLED BY:	PAL	DATE:	3/16/12
REVIEWED BY:	Scott A. Hodapp	DATE:	5/4/12

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Mau the		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, WI			
SAMPLE POINT: MW-110	SAMPLE POINT DESCRIPTION: N		
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: 3/14/12	TIME 1400	AM /PM	DEPTH TO GROUND WATER (FT): 7.98
SAMPLING METHOD: low-flow		FLOW RATE: ~200 ml/min	
SAMPLE TIME: 1450		TOTAL PURGED: ~2 gal	

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1400	8.35	8.8	6.5	0.20	225	~~22~~ 8.8
1405	8.63	8.6	6.6	0.16	221	9.1
1410	8.80	8.4	6.6	0.16	212	9.5
1415	9.08	8.7	6.6	0.17	212	9.5
1420	9.49	8.7	6.6	0.17	212	9.5
1425	9.76	8.9	6.6	0.18	212	9.4
1430	10.04	8.9	6.6	0.19	210	9.4
1435	10.25	9.1	6.6	0.19	205	9.2
1440	10.20	9.8	6.6	0.20	203	9.0
1445	10.15	9.9	6.6	0.20	200	8.8
1450	10.25	9.4	6.6	0.20	198	8.7

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR) — Hgreen/yellow

ODOR: YES (NO) NOT NOTED

ANALYSES: VOC, total chrom, cyanide

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

PAL

COMMENTS:

SAMPLED BY: PAL	DATE: 3/14/12
REVIEWED BY: Scott A. Hedges	DATE: 5/4/12

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Mau Hut		PROJECT NO. 58117057	
PROJECT LOCATION: Appleton, WI			
SAMPLE POINT: MW-111	SAMPLE POINT DESCRIPTION: East end of fenced area		
CASING DIAMETER: 2"			
WELL DEPTH:			
DATE: 3/14/12	TIME 1210	AM /PM	DEPTH TO GROUND WATER (FT): 6.11
SAMPLING METHOD: low-flow		FLOW RATE: ~200 ml/min	
SAMPLE TIME: 1250		TOTAL PURGED: ~1.5 gal	

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1210	6.34	12.1	6.3	0.18	185	8.3
1215	6.89	10.9	6.4	0.17	181	2.8
1220	7.60	10.6	6.4	0.17	181	2.5
1225	7.60	10.8	6.5	0.17	179	2.6
1230	7.60	10.2	6.5	0.17	178	2.5
1235	7.60	10.6	6.5	0.17	177	2.5
1240	7.60	10.7	6.5	0.17	177	2.5
1245	8.0	10.6	6.5	0.17	177	2.5
1250	8.3	10.5	6.5	0.17	177	2.5

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	ODOR: YES (NO) NOT NOTED	ANALYSES: VOC, Cyanide, total Chromium (filtered)

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

PAL

COMMENTS:

SAMPLED BY: PAL	DATE: 3/14/12
REVIEWED BY: Scott A. Hodapp	DATE: 3/4/12

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME:	Mau the	PROJECT NO.	58117057
PROJECT LOCATION:	Appleton, WI		
SAMPLE POINT:	MW-112	SAMPLE POINT DESCRIPTION:	North on side fwd
CASING DIAMETER:	2"		
WELL DEPTH:			
DATE:	3/14/12	TIME	1300 AM /PM
DEPTH TO GROUND WATER (FT):	3.49		
SAMPLING METHOD:	low-flow	FLOW RATE:	~200 ml/min
SAMPLE TIME:	1345	TOTAL PURGED:	~1.5 gal

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1300	4.05	10.6	6.6	0.16	205	5.4
1305	9.52	10.6	6.7	0.15	213	2.4
1310	5.03	10.5	6.7	0.14	218	2.1
1315	5.31	10.5	6.7	0.12	222	1.9
1320	5.63	10.4	6.6	0.10	218	3.9
1325	5.92	8.5	6.6	0.087	214	6.8
1330	6.43	8.4	6.6	0.084	216	8.6
1335	6.67	8.4	6.6	0.082	216	9.0
1340	6.83	8.4	6.6	0.079	216	9.2
1345	7.03	8.4	6.6	0.076	215	9.4

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR) slight yellow/green	ODOR: YES (NO) NOT NOTED	ANALYSES: VOC, Total Chromium (Filter) Cyanide

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

METHOD PERFORMED: PAL

COMMENTS:

SAMPLED BY: PAL	DATE: 3/14/12
REVIEWED BY: Scott A. Hodgson	DATE: 5/4/12

TERRACON GROUND WATER SAMPLING INFORMATION SHEET

PROJECT NAME: Mau the			PROJECT NO. 58117057
PROJECT LOCATION: Appleton, WI			
SAMPLE POINT: MW13	SAMPLE POINT DESCRIPTION:		
CASING DIAMETER: 2"	N		
WELL DEPTH:			
DATE: 3/14/12	TIME 1455	AM /PM	DEPTH TO GROUND WATER (FT): 6.86
SAMPLING METHOD: low-flow		FLOW RATE: ~200 ml/min	
SAMPLE TIME: 1555		TOTAL PURGED: ~2gal	

TIME	WATER LEVEL	TEMP.(°C)	pH	COND. (S/m)	ORP (mV)	DO (mg/L)
1455	7.05	10.6	6.7	0.15	208	7.1
1500	7.16	10.3	6.6	0.15	212	5.1
1505	7.24	10.1	6.6	0.15	217	4.5
1510	7.36	9.7	6.6	0.15	223	4.2
1515	7.42	9.7	6.6	0.15	228	4.2
1520	7.46	9.6	6.6	0.15	231	4.1
1525	7.48	8.4	6.6	0.15	232	6.7
1530	7.54	8.8	6.6	0.15	233	5.9
1535	7.61	9.1	6.6	0.15	233	5.5
1540	7.68	9.0	6.6	0.15	234	5.1
1545	7.74	8.9	6.6	0.15	235	4.7
1550	7.79	8.8	6.6	0.15	235	4.6
1555	7.85	8.8	6.6	0.15	236	4.5

SAMPLE APPEARANCE: VERY TURBID TURBID SLIGHTLY TURBID (CLEAR)	ODOR: YES (NO) NOT NOTED	ANALYSES: VOC, Total chrom (filtered)

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

PAL

COMMENTS:

SAMPLED BY: PAL	DATE: 3/14/12
REVIEWED BY: Scott A. Hodgson	DATE: 5/4/12

Appendix D

Form 4400-194

OPERATION, MAINTENANCE, MONITORING AND OPTIMIZATION REPORTING OF SOIL AND GROUNDWATER REMEDIATION SYSTEMS

PURPOSE AND APPLICABILITY OF THIS FORM: Completion of this form is required under s. NR 724.13(e), Wis. Adm. Code. Use of this form is mandatory. Failure to submit this form as require is a violation of s. NR 724.13, Wis. Adm. Code, and is subject to the penalties in s. 144.99, Wis. Stats. This form must be submitted every six months for active soil and groundwater remediation projects and every twelve months for passive (natural attenuation) remediation projects that are regulated under the NR 700 series of Wis. Adm. Code. Specifically, for sites meeting any of the following criteria:

- Soil or groundwater remediation projects that report progress in accordance with s. NR 700.11(1), Wis. Adm. Code.
- Soil or groundwater remediation projects that report progress in accordance with s. NR 724.13(3), Wis. Adm. Code. (Note: s. NR 724.13(3) requires progress reports for operation and maintenance of active systems to be submitted every three months however the Department considers submittal of this form every six months to satisfy the requirements of the rules, unless otherwise directed by the Department on a site specific basis.)
- Soil or groundwater remediation projects that report progress in accordance with s. NR 724.17(3), Wis. Adm. Code. (Note: s. NR 724.17(3) requires progress reports every time that samples are collected however the Department considers submittal of this form every twelve months to satisfy the requirements of the rules for monitoring natural attenuation, unless otherwise directed by the Department on a site specific basis.)

Submittal of this form is not a substitute for reporting required by Department programs such as Wastewater 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.

Please refer to the instructions that are attached to the back of these forms starting on page INS-1. In all cases, when asked to "explain," those explanations are to be included on separate sheets of paper. Explanations must include a title that refers to the page and item number, for example: Page GI-2, C.1.a.

A. GENERAL INFORMATION:

1. Site name: N.W. Mauthe Superfund Site (BRRTS #02-45-000127)
2. Reporting period from: October 1, 2011 To: March 31, 2012 Days in period: 183
3. Regulatory agency (enter DNR, DCOM, DATCP and/or other): WDNR/USEPA
4. DNR issued site number: 02-45-000127
5. State reimbursement fund claim number and fund name (if not applicable, enter NA): NA
6. Site location:
   a. DNR region and county: Northeast Region, Outagamie County
   b. Street address and municipality: 725 S Outagamie Street, Appleton
   c. Township, range, section and quarter quarter section: T21 N, R17E, Section 34, NE 1/4, NW 1/4
7. Responsible party:
   a. Name: Carol Mauthe
   b. Mailing address: 194 C S West Avenue, Appleton, Wisconsin 54915
   c. Phone number:
8. Consultant:
   a. Company name: Terracon Consultants, Inc.
   b. Mailing address: 9856 S 57th Street, Franklin, Wisconsin 53132
   c. Phone number: (414) 423-0255
9. Contaminants: chromium, cyanide, chlorinated solvents
10. Soil types (USCS or USDA): lean clay (CL); silty clay (CL-ML)
11. Hydraulic conductivity (cm/sec): 3.90 E x 10-7 12. Average linear velocity of groundwater (ft/yr): 1.17

GENERAL SITE INFORMATION, CONTINUED

SITE NAME AND REPORTING PERIOD:

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

Reporting period from: October 1, 2011 To: March 31, 2012 Days in period: 183

A. GENERAL INFORMATION (CONTINUED):

13. If soil is treated ex situ, is the treatment location off site? (Y/N) If yes, give location:

a. DNR region and county: NA

b. Township, range, section and quarter quarter section: NA

B. REMEDIATION METHOD: Only submit pages that apply to an individual site. Check all that apply:

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

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? (Y/N): yes
   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? (Y/N) If yes, explain: no
3. Is natural attenuation an effective low cost option at this time? (Y/N): no
4. Is closure sampling warranted at this time? (Y/N): no
5. Are there any modifications that can be made to the remediation to improve cost effectiveness? (Y/N) If yes, explain:
   yes, replumb tank discharge and replace manhole pumps with pumps that do not require annual oil change

D. ECONOMIC AND COST DATA TO DATE:

1. Total investigation costs ($): Superfund site; EPA has cost information
2. Implementation costs (design, capital and installation costs, excluding investigation costs) ($): Superfund site; EPA has cost information
3. Total costs during the previous reporting period ($): Previous consultant; WDNR has this information
4. Total costs during this reporting period ($): approximately $9,700
5. Total anticipated costs for the next reporting period ($): approximately $21,870
6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above? (Y/N) If yes explain: Yes
   D4: overhead door spring replacement; backup battery replacement; D5: manhole pump replacement, check valve replacement, system re-plumbing
7. If close out is anticipated within 12 months, estimated costs for project closeout ($): NA

GENERAL SITE INFORMATION, CONTINUED

SITE NAME AND REPORTING PERIOD:

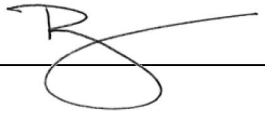
Site name: N. W. Mauthe Superfund Site (BRRTS #02-45-000127)

Reporting period from: October 1, 2011 To: March 31, 2012 Days in period: 183

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.

Registered Professional Engineers:

I (print name) Blaine R. Schroyer, 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.

Signature, title, P.E. number and date:  Principal/Office Manager E-31505 5/8/12

Hydrogeologists:

I (print name) Scott A. Hodgson, 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.

Signature, title and date: Scott A. Hodgson Senior Project Manager 5/8/12

Scientists:

I (print name) _____, 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.

Signature, title and date: _____

Professional Seal(s), if applicable:

OPERATION, MAINTENANCE, MONITORING AND OPTIMIZATION REPORTING OF SOIL AND GROUNDWATER REMEDIATION SYSTEMS

GROUNDWATER PUMP AND TREAT SYSTEMS AND FREE PRODUCT RECOVERY SYSTEMS

SITE NAME AND REPORTING PERIOD:

Site name: NW Mauthe Superfund site

Reporting period from: October 1, 2011 To: March 31, 2012 Days in period: 183

Date that the system was first started up: February 1997

A. GROUNDWATER EXTRACTION SYSTEM OPERATION:

1. Total number of groundwater extraction wells or trenches available and the number in use during period: three trenches available/used
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain): 179
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain: 97.8
4. Quantity of groundwater extracted during this time period (gallons): 296,919
5. Average groundwater extraction rate (gpm): 1.1
6. Quantity of dissolved phase contaminants removed during this time period in pounds: 4.143

B. FREE PRODUCT RECOVERY SYSTEM OPERATION:

1. Is free product (nonaqueous phase liquid) being recovered at this site? (Y/N) If yes, list method: no
2. Quantity of free product extracted during this time period (gallons, enter none if none): none
3. Average free product extraction rate (gpd): NA

C. SYSTEM EFFECTIVENESS EVALUATION:

1. Is a contaminated groundwater plume fully contained in the capture zone? (Y/N) If no, explain: No; system designed for containment only
2. If free product is present, is the free product fully contained in capture zone? (Y/N) If no, explain: NA
3. If free product is present in any wells at the site, but free product was not recovered during reporting period, explain. NA
4. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in C.4.a.
   a. Contaminant: chromium
   b. Percent reduction necessary to reach ch. NR 140 ES and PAL: 99.33 for ES and 99.93 for PAL
   c. Maximum contaminant concentration level in any monitoring well of that contaminant (µg/L): 7,460 at MW-113
   d. Maximum contaminant concentration level in any extraction well of that contaminant (µg/L): 6,100 at MH2 on 2/2/12
   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 for containment only, 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. Figure 4
- Groundwater contaminant distribution map (may be combined with contour map). Figure 5
- 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. NA
  - Graph of contaminant concentrations versus time for the monitoring well with the greatest level of contamination. Figure 13
- Groundwater contaminant chemistry table. Tables 5 and 6
- Groundwater elevations table. Table 3
- System operational data table. Tables 1 and 2

INSTRUCTIONS AND INFORMATION.

Specific Page by Page Instructions for This Form. The site name and reporting period is listed on every page. Then if the pages are inadvertently separated, that information can be used to determine which pages form the report.

When the form specifies that the person filling in the form "explain," those explanations are to be included on separate sheets of paper. Explanations must include a title that refers to the page and item, for example: Page GI-2, C.1.a.

Page GI-1, General Site Information.

— A.1. List the name as it appears on the DNR tracking system. If the person filling out the form does not know what the name on the tracking system is, use the name that the DNR used in the most recent correspondence.

— A.2. The reporting period should be either from January 1 to June 30 or July 1 to December 31 for active systems. For passive systems, use a calendar year basis. If however the report covers a newly installed system, list the actual startup date instead of January 1 or July 1. For new passive systems, use the first date that monitoring data is available as the date of startup.

— A.3. Enter all regulatory agencies that regulate the site.

— A.4. This form is a DNR form. For that reason, list the DNR site number. If there are other agencies regulating the site, listing identification numbers for other agencies is also recommended, but not mandatory, unless specified by those other agencies.

— A.5. Some sites are eligible for reimbursement from one or more state agencies. List all agencies that will be asked to reimburse costs on this site and the claim numbers issued by those agencies.

— A.6. If the information listed for the site location is not sufficient information for a person to use to drive to a site (example: no street address in a rural area), also include a map that is sufficient for a person to use to drive to the site. A U.S.G.S. topographic map that shows the site location may be used.

— A.7. Self explanatory.

— A.8. Self explanatory.

— A.9. List the contaminants that have at one time exceeded the PALs or Table Values in ch. NR 720. If GRO and/or DRO exceed the ch. NR 720 standards, also list GRO and/or DRO. Do not list other contaminants that have never exceeded state standards at the site. If more room is necessary, write "SEE ATTACHED SHEETS" and list all contaminants on a separate sheet.

— A.10. List the predominant soil types that are contaminated. If there is both contaminated soil and groundwater at the site, list soil types both above and below the water table. If only some soil is contaminated, do not list the soil types that are uncontaminated. If the site soils meet soil cleanup criteria, but groundwater is contaminated, so state that. Specify if the USCS or USDA system is used for soil descriptions. This line specifies soil because the vast majority of contaminated sites do not have contaminated bedrock. If bedrock is contaminated, also list that bedrock type.

— A.11. If the groundwater meets ch. NR 140 standards, enter "NA - NO NR 140 EXCEEDANCES". Otherwise, list the estimated hydraulic conductivity and the method used to estimate it (bail-down tests, calculations based on grain size, pumping test, etc.) If the hydraulic conductivity has not been determined, state when the tests are to be conducted. When a number of test results are available, list the range of results and the geometric mean. If however some results have a low level of accuracy and some results have a high level of accuracy, you should only list the most accurate results. See the Section on aquifer testing in the *Guidance on Design, Installation and Operation of Ground Water Extraction and Product Recovery Systems* for more information.

— A.12. If the groundwater meets ch. NR 140 standards, enter "NA - NO NR 140 EXCEEDANCES". Otherwise, enter groundwater average linear velocity as a function of hydraulic conductivity, effective porosity and the groundwater gradient. You should use the geometric mean from A.11. (above) and the most representative value for the gradient at the site. Estimate the effective porosity based on soil types and geologic origin of the soil. If there are reasons to believe that the average liner velocity estimate is less than the actual rate at the site, so state that reason. Secondary porosity effects, flow through submerged utility trenches, widespread contaminant distribution in low permeability soils, etc., are reasons to assume that the actual migration rate is much greater than the predicted average linear velocity. In such cases, you should explain the reasoning for doubting the predicted average linear velocity.

Page GI-2, General Site Information Continued.

List site name as shown on page GI-1 and the reporting period.

— A.13. If the information listed for the soil treatment location is not sufficient information for a person to use to drive to a site, also include a map that is sufficient for a person to use to drive to the site. A U.S.G.S. topographic map or a plat map that shows the site location may be used.

Page GI-2, General Site Information Continued.

— B. Check all methods used at a site. For example, if groundwater extraction, free product recovery and soil venting are used, check all three methods and submit the additional pages for those methods. If dual-phase or bioslurping are used, these methods extract both air and groundwater, check boxes for and attach additional pages for both soil venting and pump and treat.

— C. Remediation systems that use any form of enhancement are considered "active" and sites where there are no enhancements of any kind are considered "passive" forms of remediation. For purposes of these forms, natural attenuation (also called naturally occurring bioremediation) is "passive" and all other remediation methods are "active" methods.

— C.1. Design flow rates refers to flow rates such as gallons per minute extracted by a ground water extraction system, standard cubic feet per minute extracted by a soil venting system, standard cubic feet per minute injected by an in situ air sparging system, etc. If the actual flow rate is within 80 percent of the rate predicted in the design, consider that as meeting the design specification.

— C.2. Self explanatory.

— C.3. Self explanatory.

— C.4. Self explanatory.

— C.5. Self explanatory.

— D. The cost data in this section is used by DNR staff to evaluate whether or not the selected remedy is the most cost effective remedy and whether or not system modifications may be warranted to improve efficiency and/or cost effectiveness. Responsible parties and consultants are encouraged to submit cost information so that DNR staff may assist responsible parties and consultants accomplish environmental cleanups in the most cost effective manner.

Total costs for past costs are all costs to date. This information is for all costs that were incurred to investigate and/or remediate the site. These costs include but are not limited to: consulting labor and supplies, laboratory testing, transportation, equipment, etc. If the consultant does not pass all costs through the consulting firm, the consultant will need to contact their client for other non-consulting costs to determine total costs. Exceptions include costs for attorney fees, accounting, claim assistance in preparing claims to state reimbursement funds, or other indirect expenses that are not essential to remediating the site.

— D.1. Self explanatory.

— D.2. The initial implementation costs are all costs that are incurred to start implementing a remedy at a site. Costs for the investigation however are excluded because those costs are incurred prior to remedy selection. Since costs for treatability and/or pilot testing are used to procure data for remedial design and are specific to different remediation methods, these costs should be included in implementation costs and not investigation costs. Startup or shakedown costs are also considered implementation costs and should not be considered operation and maintenance costs.

— D.3. Costs for implementation or investigation should not be repeated here or they will be double counted.

— D.4. Costs for implementation or investigation should not be repeated here or they will be double counted.

— D.5. Costs for implementation or investigation should not be repeated here or they will be double counted.

— D.6. Examples of one-time or unusual costs include the following:
- Replacing a burned out motor on a pump.
- Replacement of a well that was destroyed by a snowplow.
- Confirmation sampling to determine if the site meets closeout criteria. This type of cost is considered an unusual cost because this type of sampling is not conducted during most reporting periods.

— D.7. This estimate of costs is for all costs to close out a site minus the salvage value of any remediation equipment. Pertinent costs include items such as well abandonment, equipment removal from the site, consulting costs associated with these items, etc. Do not include any costs that will not be paid by a state reimbursement fund, such as repaving.

Page GI-3, General Site Information Continued.

— E. Self explanatory.

Page GW-1, Groundwater Extraction and Product Recovery.

List site name as shown on page GI-1 and the reporting period.

— A.1. List two numbers, the total number of extraction wells at the site and the number that were in actual use during the period. If all wells were in use, state that on the form.

— A.2. The number of days of operation are the number of days that the system was actually operated. If the system was shut down for reasons such as: repairs were necessary, piping froze, shut down to provide time for subsurface conditions to equilibrate before sampling, etc., do not list those days as being in operation.

— A.3. System utilization is a measure of the amount of time that the system operated relative to the amount of time that it could have operated.

Page GW-1, Groundwater Extraction and Product Recovery (Continued).

— A.4. Self explanatory.
— A.5. The average is for the entire site, not per well or trench. For purposes of determining the average ground water extraction rate, calculate the average based on the total volume of groundwater extracted divided by the time of the reporting period. For example, if the system operated at 10 gallons per minute for one month, the amount of water extracted would be approximately 432,000 gallons. If the reporting period was six months long, then the time period is approximately 260,000 minutes. Therefore, the average flow rate over six months is 432,000 divided by 260,000 minutes for an average flow rate of 1.67 gallons per minute (gpm).
— A.6. Calculate the total dissolved contaminants removed in pounds. If the estimate is a sum of BTEX and not based on a total hydrocarbon test (GRO and/or DRO), so state that on the form.

— B.1. Self explanatory.
— B.2. Self explanatory.
— B.3. The average should be based on the entire site over the entire reporting period. See instructions above for A.5. List the free product recovery rate as gallons per day (gpd), not gallons per minute (gpm).

— C.1. To answer this question, a thorough evaluation of water levels and chemical analyses in all monitoring points at the site is necessary.
— C.2. If the capture zone has not been determined mathematically, it will need to be determined to answer this question. See the *Guidance on Design, Installation and Operation of Ground Water Extraction and Product Recovery Systems* for and any recent update or errata sheets for more information on plume capture.
— C.3. Self explanatory.
— C.4. When free product is present, line C.4.a. should state "FREE PRODUCT" and lines C.4.b. through C.4.d. are left blank. Otherwise, complete the following calculations.
There typically are several compounds at most contaminated sites that exceed the standards in ch. NR 140. The purpose of this question is to focus on the single contaminant that requires the most treatment to achieve groundwater quality standards on a percent reduction basis. For example, the most recent round of sampling at an example site demonstrated the highest levels of contaminants were 1,000 µg/L benzene and 1,000 µg/L toluene in the most heavily contaminated monitoring well. The ES and PAL for benzene is 5 µg/L and 0.5 µg/L (respectively) and for toluene the ES and PAL is 343 µg/L and 68.6 µg/L (ES and PAL data as of August 1995). Therefore the percent reduction to meet the ES and PAL for benzene is 99.5 and 99.95 percent and for toluene it is 65.7 and 93.14 percent. For that reason, the single contaminant that is most critical to reaching state groundwater standards is benzene. Therefore benzene is entered on line a. In this example, 99.5 and 99.95 percent is entered on line b. In this example, 1,000 µg/L is entered on line c. In this example, benzene is the driving factor, therefore enter the maximum benzene level in the single most heavily contaminated extraction well during the most recent sampling period on line d.

— D. See the generic discussion at the end of the instructions (below) for figures, graphs and tables, starting on page INS-7.

Page GW-2, In Situ Air Sparging.

List site name as shown on page GI-1 and the reporting period.

— A.1. Self explanatory.
— A.2. Self explanatory.
— A.3. Self explanatory.

— B.1. See instructions for Page GW-1, Item C.4.
— B.2. Self explanatory.
— B.3. Self explanatory.

— C. See the generic discussion at the end of the instructions (below) for figures, graphs and tables, starting on page INS-7.

Page GW-3, Natural Attenuation in Groundwater.

List site name as shown on page GI-1 and the reporting period.

— A.1. See instructions for page GW-1, Item C.4.
— A.2.a. List the estimated hydraulic conductivity that was listed on line A.11 on page GI-1.
— A.2.b. List the groundwater average linear velocity that was listed on line A.12 on page GI-1.
— A.3. Assess the monitoring well network to determine if there is a down gradient well that has not been impacted by the contaminants. Consider the possibility of a submerged (or diving) plume in that assessment. If all evidence indicates that the plume does not extend to the farthest "clean" downgradient well, indicate "YES" on the form. Otherwise indicate "NO" on the form. If there are not plans to install such a well, explain.