

Semi-Annual Operation & Maintenance Report

Report #44 (May 2011 – September 2011)

N.W. Mauthe Superfund Site

Prepared for

Wisconsin Department of Natural Resources
Bureau for Remediation & Redevelopment

October 17, 2011

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Semi-Annual Operation & Maintenance Report
N.W. Mauthe Superfund Site
Conducted For
The Wisconsin Department of Natural Resources

Report #44
(May 2011 – September 2011)

N.W. Mauthe Site
725 S. Outagamie Street
Appleton, Wisconsin 54914-5072

Prepared by:
OMNNI Associates, Inc.
One Systems Drive
Appleton, WI 54914-1654
(T) 920/735-6900
(F) 920/830-6100
www.omnni.com

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Background Information

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. (See Figure 1 – Site Location Map, Appendix 1.)

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 Wisconsin Department of Natural Resources (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 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 (ARAR's).
- 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.

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. (See Figure 2 – Site Detail Map, Appendix 1.) 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.

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. (See Figure 2 – Site Detail Map, Appendix 1.)

The groundwater treatment system was designed to capture groundwater containing contaminants at concentrations greater than 1992 ch. NR 140, Wis. Adm. Code preventive action limits (PALs) as

approved in the ROD. The west trench and southeast trench were located outside the estimated extent of the groundwater contamination and are designed to prevent further migration of groundwater contamination. The central trench was designed to collect contaminated groundwater and prevent further migration of the groundwater contamination off-site.

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

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 can be taken advantage of if 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. (See Figure 2 – Site Detail Map, Appendix 1.)

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.

Groundwater Monitoring Network

The groundwater monitoring 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 monitoring wells constructed during the RI and the remedial action (RA) activities (W-2, W-8, W-15, MW-101 through MW-108), five monitoring 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. (See Figure 2 – Site Detail Map, Appendix 1.)

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

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

Three down-gradient 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 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.

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

Five 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 historic 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.

In 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.

Influent/Effluent Monitoring and Reporting

Prior to Outfall 001¹ sample collection, the discharge valve from the storage tank is closed, typically on a Monday morning, but could be closed 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 Tuesday 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 Tuesday of the first full week in the month.

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 determined on the samples collected by using a Hach pH Pocket Pal Tester or an Oakton 10 Series pH meter. Pace Analytical Services, Inc. (Pace) performed the laboratory analysis. Pace provided an electronic report of the analysis to Brian Wayner, OMNNI's project manager, who sent the report to Jennifer Borski, WDNR project manager, and Amanda Owens, City of Appleton Pretreatment and Biosolids Manager. A summary of the laboratory analysis can be found in Table 1. (See Table 1 – Influent and Effluent Summary, Appendix 2.)

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 or an Oakton 10 Series pH meter.

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 approximately the third Monday of the month. (See Table 1 – Influent and Effluent Summary, Appendix 2.) 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 include OMNNI's invoice for services from the previous month, a copy of invoices paid during the month, a copy of the Operator Log Sheets, a copy of the Inspection Sheet, and a copy of Table 1 – Influent and Effluent Summary.

Quarterly Monitoring and Reporting

A quarterly compliance report was submitted to the City of Appleton's Pretreatment and Biosolids Manager and the WDNR project manager on July 5, 2011 and October 3, 2011 by email. The quarterly compliance reports included total metered discharge readings, pH measurements, and laboratory analysis.

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.

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 Operation, Maintenance, Monitoring and Optimization Reporting of Soil and Groundwater Remediation Systems, Form 4400-194, Appendix 4.)

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. (See Table 2 – City of Appleton Compliance Limits, Outfall 001, Appendix 2.) City of Appleton wastewater staff did not perform compliance sampling during this reporting period.

A summary of the City of Appleton's compliance sampling analysis and OMNNI's annual compliance sampling analysis can be found in Table 2. (See Table 2 – City of Appleton Compliance Limits, Outfall 001, Appendix 2.)

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. (See Table 1 – Influent and Effluent Summary, Appendix 2.)

Groundwater Sampling

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:

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:

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 16 groundwater monitoring wells and four piezometers associated with the Mauthe remediation system. (See Figure 2 – Site Detail Map, Appendix 1.)

During the September 1, 2011 sampling event, groundwater elevation measurements were taken from monitoring wells MW-103, MW-104, MW-107, and MW-109 through MW-113, prior to sampling. A summary of the historical groundwater elevations for the site is included in Table 3. (See Table 3 – Groundwater Elevations, Appendix 2.) The groundwater elevation data from the monitoring wells measured were used to develop a groundwater contour map. (See Figure 3 – Groundwater Elevation Contour Map (9/1/2011), Appendix 1.) Groundwater flow direction was in the general direction of the collection trenches. If the elevations along the collection trenches were known, the groundwater contours could be portrayed more accurately.

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 for approximately 15 minutes 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 300 ml/min., utilizing a resistor to control pump flow. Purged water from the monitoring points was collected, taken into the treatment building, and discharged at the Outfall 001 pipe leading to the City of Appleton sanitary sewer system.

Groundwater samples were collected after the monitoring point was micro-purged. Temperature, conductivity, pH, dissolved oxygen, and oxidation/reduction potential were recorded just prior to sampling. 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 at OMNNI's office by a courier from Pace.

The groundwater elevations, purged groundwater volume, field testing data, and sample collection time were recorded on a Well Specific Field Sheet. (See Well Specific Field Sheet, Appendix 4.)

Groundwater Sampling Results

During the September 1, 2011 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. (See Table 4 – Groundwater Geochemical Parameters, Appendix 2.)

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 ch. NR 140, Wis. Adm. Code groundwater PAL² in monitoring wells MW-103 (54.5 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 ch. NR 140, Wis. Adm. Code groundwater PAL in monitoring well MW-112 (51 µg/l). (See Table 5 – Groundwater Analytical Results / Selected Metals, Appendix 2 and laboratory report and chain of custody, Appendix 5.) An isoconcentration map for (filtered) total chromium concentrations is shown on Figure 4. (See Figure 4 – Isoconcentration Map, Total Chromium (9/1/11), Appendix 1.)

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 ch. NR 140, Wis. Adm. Code groundwater PAL in monitoring wells MW-107 and MW-109 through MW-113. (See Table 6 – Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs), Appendix 2 and laboratory report and chain of custody, Appendix 5.)

Groundwater elevation versus time graphs were prepared for monitoring wells MW-102, MW-103, MW-104, MW-107, and MW-109 through MW-113. (See Graph Set 1 - Groundwater Elevation Versus Time Graphs, Appendix 3.) Chromium concentrations versus time graphs were prepared for monitoring wells MW-103, MW-104, MW-107, and MW-109 through MW-113. (See Graph Set 2 - Chromium Versus Time Graphs, Appendix 3.) VOCs versus time graphs were prepared for monitoring wells MW-107, MW-110, and MW-113. (See Graph Set 3 – Volatile Organic Compounds (VOCs) Versus Time Graphs, Appendix 3.)

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.

Monthly Operation and Maintenance Activities

During the monthly sampling event of Outfall 001, 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.

Annual Operation and Maintenance Activities

No scheduled annual operations and maintenance activities were performed during this reporting period.

Periodic Operation and Maintenance Activities

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

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.

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.

Significant Operation and Maintenance Activities

There were no unscheduled maintenance activities during this reporting period.

Emergency Operations and Shut Downs

There was one unplanned shut down during this reporting period. The power to the building went off on Friday, September 2, 2011 at approximately 9:30 a.m. during a storm. Around 11:30 a.m. the main breaker was turned off and the pumps were set to off so that the system could be brought back on-line in a controlled manner after the power was restored. Brian Wayner stopped at Mauthe around 6:30 p.m. and again around 8:45 p.m. on September 2nd; the power was still out. On September 3rd, he stopped by the site a little before 8 a.m. The power was back on. He brought the system back on-line. Both manhole pumps turned on immediately. The high-high sensor in manhole #2 was tripped. Manhole #1 pumped down and turned off. Manhole # 2 pumped down enough that he could reset the high-high sensor. He stopped in again around 9:30 a.m. Manhole #2 was done pumping, but the equalization tank was still draining at over 17 gpm. He stopped in at the site on September 5th around 11:50 a.m. The system appeared to be functioning normally. Jenifer Borski was notified on September 2nd that the power was off to the facility and a follow up email was sent on September 3rd summarizing the events to bring the facility back on-line after the power was restored.

Public Contacts

There were no general public contacts during this reporting period.

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.

The facility was inspected by the Appleton Fire Department on June 7, 2011. City of Appleton Park & Recreation staff were on site and let the inspector in. No issues or violations were noted. (See Operation and Maintenance Support Documentation, Appendix 6, for a copy of the inspection report.)

Brian Wayner met with Amanda Owens, Pretreatment and Biosolids Manager for the City of Appleton, on September 20, 2011 for the annual site visit and sampling review. No issues were raised and no changes to the sampling procedures were requested.

Conclusions and Recommendations

The results of the laboratory analysis from the September 1, 2011 sampling event indicate that the groundwater continues to exceed the 1992 ch. NR 140, Wis. Adm. Code groundwater 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 293,935 gallons of groundwater was extracted from the containment trenches from May 1, 2011 to September 30, 2011. 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. Approximately 1.6 pounds of chromium were removed from the site during the reporting period.

Based on the laboratory analysis from the September 1, 2011 sampling event and the laboratory analysis from the Outfall 001 during the reporting period, OMNNI recommends continued operation of the groundwater extraction system with direct discharge to the City of Appleton sanitary sewer system.

Standard of Care

The conclusions presented in this report were arrived at using generally accepted hydrogeologic and engineering practices. The conclusions presented herein represent our professional opinions, based on data collected over the reporting period and discussed in this report. Conditions at other locations on the property may be different than described in this report. The scope of this report is limited to the specific project and location described herein.

Prepared By:



Brian D. Wayner, P.E.
Project Manager

Reviewed By:

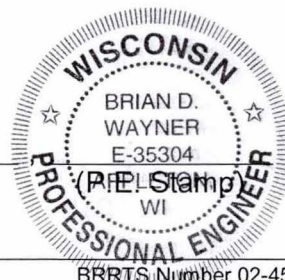


Don Brittnacher, P.G.
Hydrogeologist

"I, Brian D. Wayner, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with 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 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."

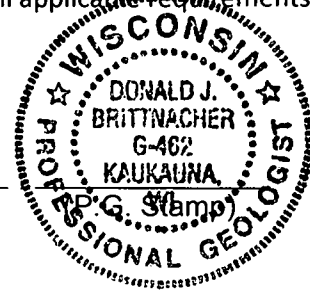


(Professional Engineer)



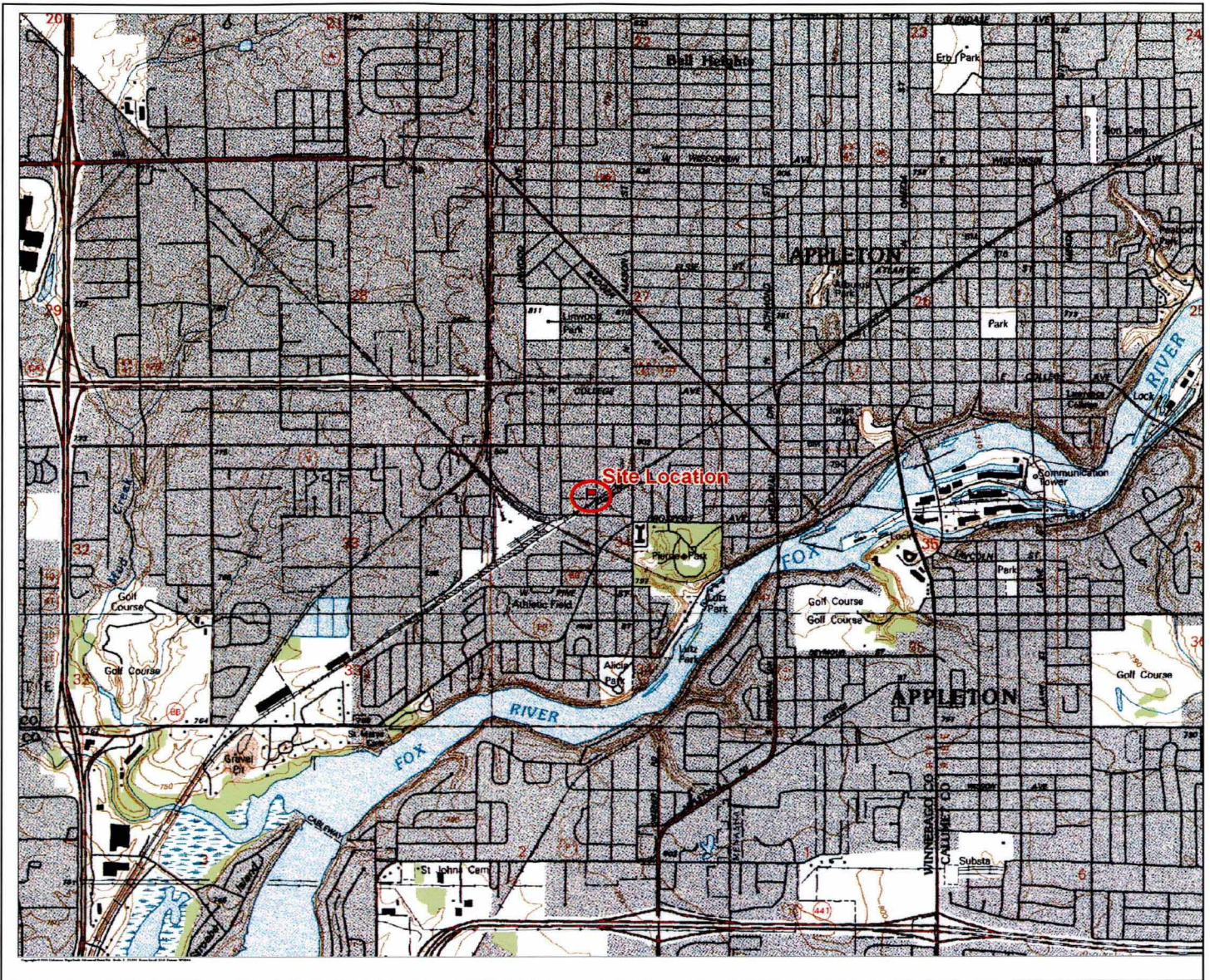
"I, Don Brittnacher, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements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

Don Brittnacher
(Professional Geologist)



Distribution

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Source: 2000 DeLorme Topo



Figure 1
Site Location Map

N.W. Mauthe
725 South Outagamie Street
Appleton, Wisconsin 54914-5072



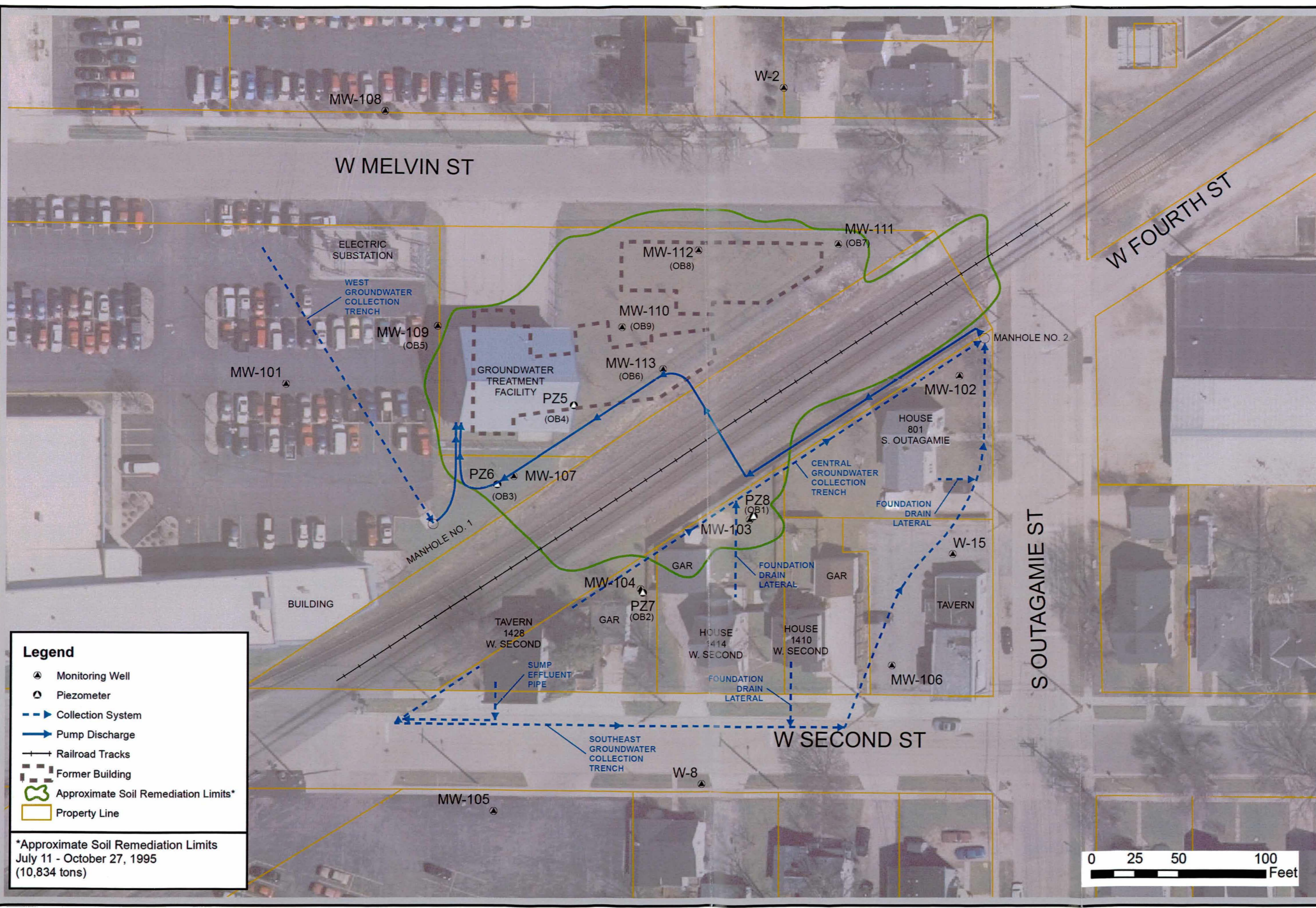
Project Number:
N1866A05

Date: May 14, 2008

One Systems Drive, Appleton, Wisconsin 54914-1654
Phone: (920) 735-6900 Fax: (920) 830-6100



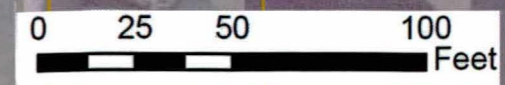
Project Manager: BDW
 Project Engineer: BDW
 Drawn By: JCW
 Checked By: BDW
 Date: 5/23/2011



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)



**N.W. MAUTHE SITE
 SITE DETAIL MAP**



SCALE:
 1" = 50'
 PROJECT NO.
N1866A05
 FIGURE NO.
FIG 2

Legend

- Groundwater Elevation Contour (2 ft)
- +— Railroad Tracks
- ⊠ Former Building
- ⊡ Approximate Soil Remediation Limits*
- - - Collection System
- Pump Discharge
- ⊙ Monitoring Well
- ⊙ Piezometer
- ▭ Property Line

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

NOTE:
Groundwater contours were drawn
assuming no influence by the groundwater
collection system.



Project Manager: BDW
Project Engineer: BDW
Drawn By: JCW
Checked By: BDW
Date: 5/4/2011

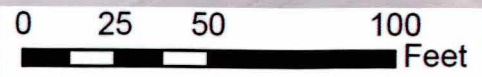
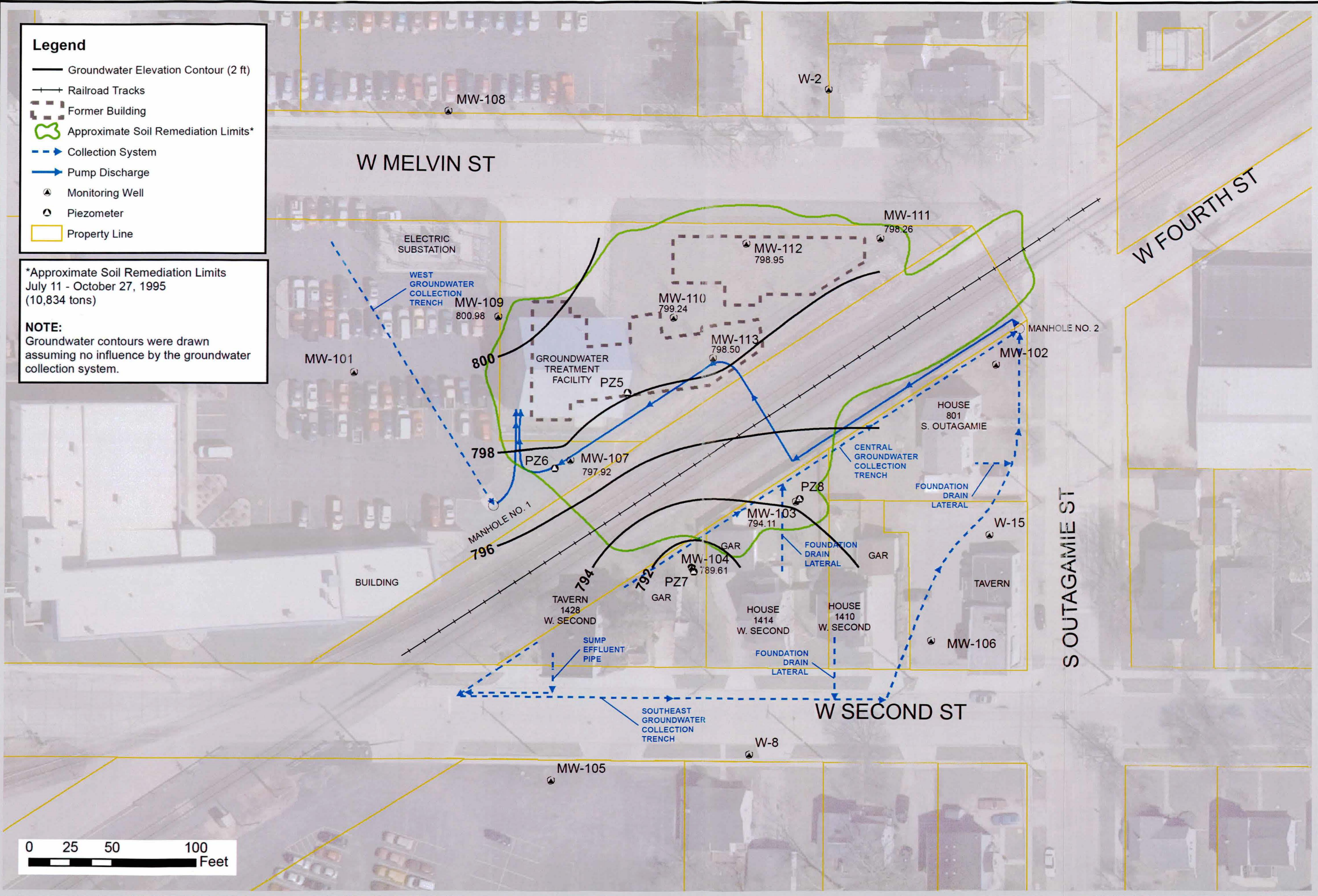
**N.W. MAUTHE SITE
GROUNDWATER ELEVATION CONTOUR MAP (9/11/2011)**

725 SOUTH OUTAGAMIE STREET
APPLETON, WISCONSIN



SCALE:
1" = 52'
PROJECT NO.
N1866A05
FIGURE NO.
FIG 3

F:\ENVIRO\1866A05 (Maathe Site Eval)\GIS\WSElev_110901.mxd



Legend

- Groundwater Chromium Concentration (ug/L)
- ▲ Wells
- △ Piezometers
- +— Railroad Tracks
- Former Building
- - - Collection System
- Pump Discharge
- ⬭ Approximate Soil Remediation Limits*
- ▭ Property Line

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



Project Manager: BDW
 Project Engineer: BDW
 Drawn By: JCW
 Checked By: BDW
 Date: 9/22/2011

**N.W. MAUTHE SITE
 ISOCONCENTRATION MAP - TOTAL CHROMIUM (9/1/2011)**

725 SOUTH OUTAGAMIE STREET
 APPLETON, WISCONSIN



SCALE:
 1" = 52'
 PROJECT NO.
N1866A05
 FIGURE NO.
FIG 4

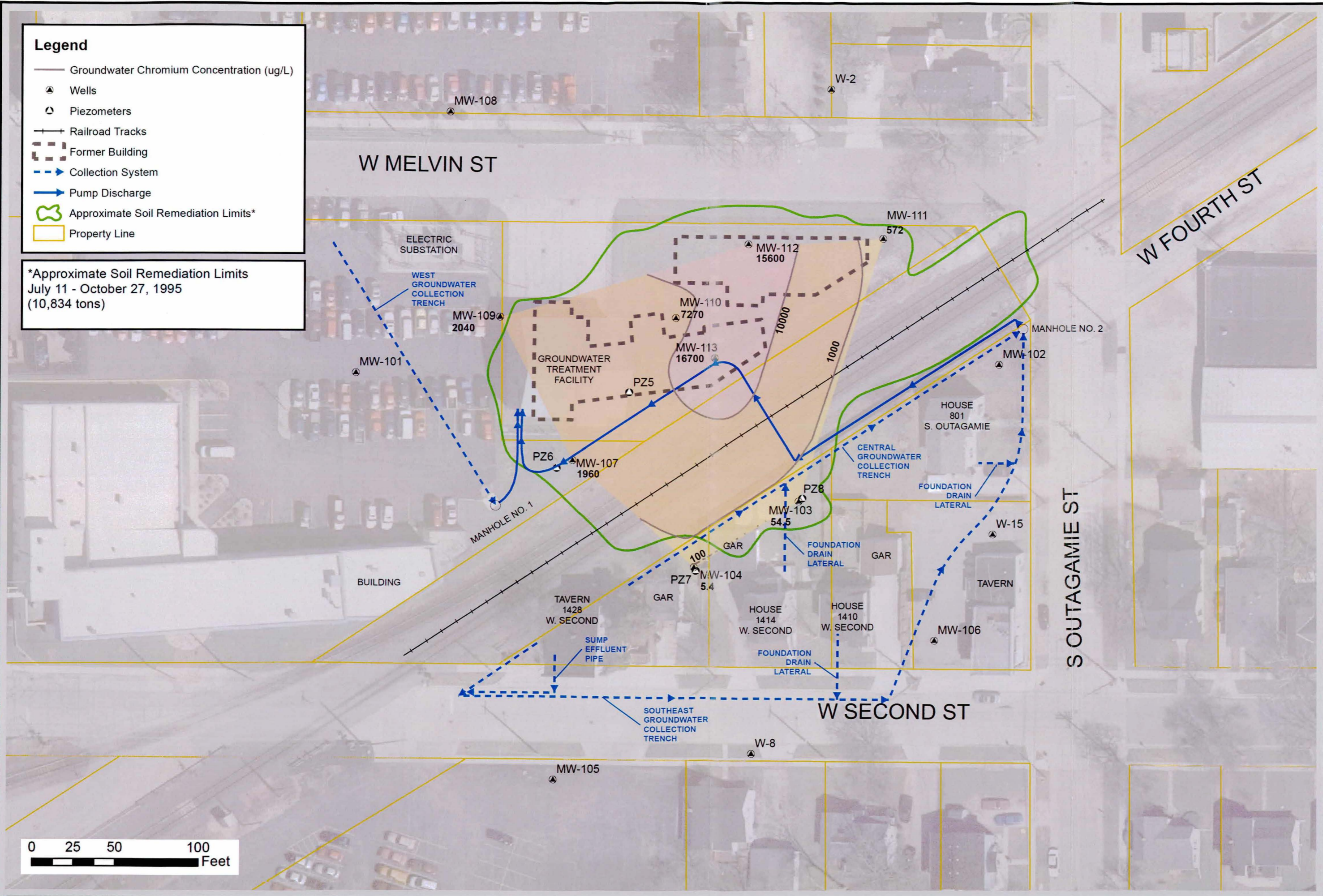


Table 1 - Influent and Effluent Summary
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Date Actual	OUTFALL 001							Manhole #1		Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	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	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	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	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	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	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	85,979	8.9	0.16
	06/01/08	8,935,384										
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	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	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	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	154,613	9.0	0.14

Table 1 - Influent and Effluent Summary
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
06/30/08		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		
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		

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N.W. Mauthe Superfund Site - Appleton, Wisconsin

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
12/17/08		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		
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

Table 1 - Influent and Effluent Summary
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
10/15/09		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
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		

Table 1 - Influent and Effluent Summary
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Date Actual	OUTFALL 001							Manhole #1			Manhole #2		
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	09/01/10	10,664,511		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		
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		

Table 1 - Influent and Effluent Summary
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Date Actual	OUTFALL 001						Manhole #1			Manhole #2			
	Date For Linear Interpolation	Metered Discharge Reading (gallons)	Gallons Discharged Between Meter Reading	Monthly Discharge (gallons)	pH	Hexavalent Chromium Lab Analysis (mg/L) [Local Limit 4.5 mg/L]	Total Chromium Lab Analysis (mg/L) [Local Limit 7.0 mg/L]	Flow Totalizer #1 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)	Flow Totalizer #2 Reading (gallons)	pH	Hexavalent Chromium Hach Test Kit (mg/L)
	08/01/11	11,483,192		July									
08/01/11		11,484,004	10,791	64,080				830,795			1,968,801		
08/02/11		11,484,004	0		7.9	0.86	0.800	831,711	7.5	1.26	1,970,342	7.5	0.42
08/04/11		11,492,474	8,470					834,025			1,975,014		
08/05/11		11,493,370	896					834,506			1,975,820		
08/15/11		11,509,618	16,248					841,800			1,986,618		
08/31/11		11,524,004	14,386					849,495			1,994,794		
	09/01/11	11,524,179		August									
09/01/11		11,524,431	427	40,987				849,948			1,994,794		
09/03/11								850,953			1,997,262		
09/05/11		11,533,935	9,504					852,322			2,003,014		
09/06/11		11,533,935	0		8.0	1.2	1.180	852,778	7.7	1.65	2,004,161	7.7	0.55
09/08/11		11,538,054	4,119					854,174			2,005,726		
09/19/11		11,547,336	9,282					859,158			2,011,134		
09/20/11		11,548,416	1,080					859,611			2,011,902		
09/28/11		11,562,993	14,577					863,696			2,024,247		
	10/01/11	11,568,104		September									
10/03/11		11,572,412	9,419	43,925				867,344			2,031,123		

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

		Aluminum (mg/L)	Arsenic (mg/L)	Cadmium (mg/L)	Chromium Total (mg/L)	Copper (mg/L)	Cyanide (mg/L)	Lead (mg/L)	Mercury (mg/L)	Nickel (mg/L)	Zinc (mg/L)	Hexavalent Chromium (mg/L)
Permit #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	<.05	<.05	0.0010	0.1000	<.00005	0.0400	0.0180	NA
Appleton	09/21/99	<.011	<.002	<.005	<.05	<.05	0.0030	<.1	<.00015	<.04	0.0080	NA
Appleton	02/15/00	<.015	<.0020	<.005	0.0900	<.05	<.001	<.1	<.00013	<.04	0.0280	NA
MCO	03/13/00	<.009	<.003	<.00031	0.1400	<.0006	<.0044	<.0024	<.00005	0.0012	<.012	NA
Appleton	02/21/01	<.015	<.002	<.005	0.11	<.05	0.001	<.1	<.00013	<.04	0.042	NA
MCO	03/01/01	<.034	<.0027	.012****	0.25	.0088****	<.0033	<.17	<.00005	.036****	0.015	<.0036
Appleton	10/02/01	0.016	<.002	<.005	0.14	<.05	<.001	<.1	<.00013	<.04	0.065	NA
MCO	03/19/02	<.034	<.0027	<.0075	0.36	<.0077	<.0027	<.17	<.00005	<.017	<.012	<.0036
Appleton	05/02/02	<.049	<.012	<.014	0.362	<.015	<.0014	<.060	<.00011	<.011	<.009	NA
Appleton	11/12/02	0.027	<.0082	<.00053	0.23	<.009	<.0007	<.00084	<.000028	0.0044	0.0081	NA
Appleton	02/11/03	<.027	<.0082	<.00053	0.086	<.0009	<.0014	<.0013	<.000028	0.0036	<.0025	NA
Appleton	03/24/03	<.045	<.0027	<.0088	0.13	0.075	<.0050	<.16	<.000050	<.019	<.0044	<.0036
Appleton	10/23/03	0.0045	0.0013	<.00001	0.221	<.0008	<.005	<.0006	0.0002	<.025	<.010	NA
Appleton	03/24/04	<.050	<.0026	<.010	0.15	<.0060	<.0050	<.16	<.000025	<.020	<.010	NA
Appleton	11/09/04	0.0071	<.0012	<.00001	0.04	0.0008	<.005	<.008	<.00002	0.0013	<.01	NA
MCO	08/08/05	0.023	<.0035	<.00003	0.039	0.0019	<.0037	<.0011	<.000026	<.0044	0.0024	<.005
Appleton	11/05/06	0.0052	<.0012	<.00001	0.088	<.0005	<.005	<.0008	<.00002	0.0017	<.010	NA
Appleton	02/23/06	0.0021	<.0012	<.00001	0.08	<.0005	<.0005	<.0008	<.00002	0.0022	<.010	NA
MCO	03/23/06	<.020	<.0076	<.000074	0.32	0.0018	0.0043	<.0034	<.000026	0.0033	<.020	NA
Appleton	06/27/06	<.200	<.0076	<.000074	0.700	0.0016	<.0094	<.0034	<.000072	0.0021	<.020	<.350
Appleton	10/05/06	0.037	<.00011	<.00001	4.575	0.0068	0.01	<.001	<.00002	0.0026	<.010	NA
Appleton	03/22/07	<.07	<.07	<.01	1.9	3.5	<.004	<.03	<.00002	<.04	<.01	NA
MCO	04/02/07	0.0383	0.00024	0.000086	1.41	0.0041	<.0094	0.00013	<.000019	0.0035	0.009	NA
Appleton	12/04/07	<.07	<.001	<.01	3.4	<.01	0.008	<.03	<.00002	<.04	<.01	1.5
Appleton	01/16/08	0.21	<.005	<.01	<.03	0.02	0.017	0.06	0.0003	<.04	0.04	NA
OMNNI	04/08/08	0.0114	0.00043	0.00011	0.864	0.0043	0.014 J	0.000095 J	<.00001	0.0024	0.0071	0.063
Appleton	08/19/08	<.08	<.001	<.01	0.95	<.01	0.005	<.03	0.0002	<.02	<.01	NA
Appleton	03/31/09	<.09	<.012	<.01	0.99	<.01	<.008	<.05	<.00002	<.02	<.01	NA
OMNNI	04/07/09	<.0151	0.003 J	0.00040 J	0.767	0.0024 J	<.0060	<.0014	<.000010	0.0016 J	0.0137 J	0.84
Appleton	09/22/09	<.08	<.006	<.01	2.3	<.01	<.008	<.05	<.00002	<.02	<.01	NA
Appleton	03/02/10	<.06	<.002	<.01	1.6	<.01	<.008	<.03	<.00002	<.01	<.01	NA
OMNNI	04/06/10	0.0501 J	<.0014	0.00043 J	1.16	0.0024 J	<.0061	<.00075	<.00001	0.0023 J	0.0046 J	1.3
Appleton	11/02/10	<.10	<.010	<.01	0.71	<.01	<.008	<.03	<.00002	<.01	<.01	NA
Appleton	02/24/11	<.08	<.001	<.01	1.5	<.01	0.008	<.04	<.00002	<.02	<.01	NA
OMNNI	04/05/11	0.0725 J	0.0025 J	<.000026	0.401	0.0028 J	<.0061	<.0014	<.000010	0.00053 J	0.0023 J	0.40

Table 3- Groundwater Elevations

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

Table 3- Groundwater Elevations*N.W. Mauthe Superfund Site - Appleton, Wisconsin*

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

Table 3- Groundwater Elevations

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

Table 3- Groundwater Elevations*N.W. Mauthe Superfund Site - Appleton, Wisconsin*

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

Table 3- Groundwater Elevations
N.W. Mauthe Superfund Site - Appleton, Wisconsin

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
	12/17/03	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
	03/29/04	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

Table 3- Groundwater Elevations

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

Table 3- Groundwater Elevations

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

Table 3- Groundwater Elevations
N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

Table 3- Groundwater Elevations

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

Table 3- Groundwater Elevations

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

Table 3- Groundwater Elevations

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

Table 3- Groundwater Elevations*N.W. Mauthe Superfund Site - Appleton, Wisconsin*

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
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
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

Table 3- Groundwater Elevations

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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
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
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
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

Table 3- Groundwater Elevations*N.W. Mauthe Superfund Site - Appleton, Wisconsin*

Well Name	Date Measured	Depth To Water (feet)	Reference Elevation (To Top PVC) (feet)	Groundwater Elevation (feet)
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
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

* 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

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

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

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

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 us	2.33	234	NA	0.09

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

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

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

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

Table 5 - Groundwater Analytical 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 - Groundwater Analytical 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	<.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	.55 *	NA	NA	NA	<2.0	NA	NA
	12/05/01	<.23	.90*	NA	NA	NA	<2.0	NA	NA
	03/19/02	<.23	.66*	NA	NA	NA	<2.0	NA	NA
	06/20/02	<.23	.58*	NA	NA	NA	2.2	NA	NA
	09/18/02	<.23	<.44	NA	NA	NA	13.0	NA	NA
	12/17/02	<.23	<.44	NA	NA	NA	33.0	NA	NA
	03/24/03	<.17	.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

Table 5 - Groundwater Analytical 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

Table 5 - Groundwater Analytical 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

Table 5 - Groundwater Analytical 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
	12/05/02	<.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

Table 5 - Groundwater Analytical Results / Selected Metals
N.W. Mauthe Superfund Site - Appleton, Wisconsin

Well Name	Sample Date	Cadmium	Chromium	Hexavalent Chromium	Copper	Cyanide	Manganese	Mercury	Zinc
		(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(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 - Groundwater Analytical 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	<.23	7,000	NA	NA	NA	<20	NA	NA
	09/18/02	<.17	4,300	NA	NA	NA	24.0	NA	NA
	12/17/02	<.17	3,700	NA	NA	NA	15.0	NA	NA
	03/24/03	<.10	3,800	NA	NA	NA	7.7	NA	NA
	06/10/03	NA	5,900	NA	NA	NA	NA	NA	NA
	09/10/03	NA	5,200	NA	NA	NA	NA	NA	NA
	12/10/03	NA	5,200	NA	NA	NA	NA	NA	NA
	12/15/03	NA	NA	5,500	NA	NA	NA	NA	NA
	03/24/04	NA	3,900	4,100	NA	NA	1.2*	NA	NA
	07/09/04	NA	3,400	5,000	NA	NA	NA	NA	NA
	09/22/04	NA	4,100	4,400	NA	NA	NA	NA	NA
	12/14/04	NA	6,300	5,800	NA	NA	NA	NA	NA
	03/29/05	NA	3,600	4,100	NA	NA	1.9	NA	NA
	06/22/05	NA	3,300	2,900	NA	NA	NA	NA	NA
	09/21/05	NA	2,500	2,500	NA	NA	NA	NA	NA
	12/15/05	NA	2,400	2,700	NA	NA	NA	NA	NA
	03/23/06	NA	3,200	3,600	NA	NA	1.90	NA	NA
	06/28/06	NA	3,600	3,000	NA	NA	NA	NA	NA
	09/20/06	NA	4,100	4,200	NA	NA	NA	NA	NA
	12/19/06	NA	2,700	NA	NA	NA	NA	NA	NA
	03/28/07	NA	4,200	NA	NA	NA	1.7	NA	NA
	07/03/07	NA	2,800	NA	NA	NA	NA	NA	NA
	09/28/07	NA	2,000	NA	NA	NA	NA	NA	NA
	04/16/08	NA	4,410	NA	NA	NA	NA	NA	NA
	09/22/08	NA	2,950	NA	NA	NA	NA	NA	NA
	04/03/09	NA	3,790	NA	NA	NA	NA	NA	NA
	09/01/09	NA	2,420	NA	NA	NA	NA	NA	NA
	03/17/10	NA	3,240	NA	NA	NA	NA	NA	NA
	09/09/10	NA	2,480	NA	NA	NA	NA	NA	NA
	04/29/11	NA	2,940	NA	NA	NA	0.32 J	NA	NA
	09/01/11	NA	1,960	NA	NA	NA	NA	NA	NA

Table 5 - Groundwater Analytical 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	6/21/06****	<0.92	1,300	1,400	2.4*	<9.4	480.0	<0.072	<20
	9/20/06****	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
MW-110	6/21/06****	<0.92	24,000	26,000	2.9*	40	290.0	<0.072	<20
	9/20/06****	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

Table 5 - Groundwater Analytical 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	6/21/06****	<0.92	1,400	1,400	3.3*	27	190.0	<0.072	<20
	9/20/06****	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
MW-112	6/21/06****	<0.92	130,000	140,000	5.3	140	180.0	<0.072	34,000
	9/20/06****	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
MW-113	6/21/06****	<0.92	25,000	26,000	3.4*	11	170.0	<0.072	<20
	9/20/06****	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

Table 5 - Groundwater Analytical 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.

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

ND = Not detected above the analytical laboratories method detection limit

NA = Not Analyzed

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

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

ug/L = Microgram/Liter

mg/L = Milligram / Liter

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

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

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

Table 6 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

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 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

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 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

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 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

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 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

N.W. Mauth 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	<1.7	<1.8	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
	09/01/11	<2.0	<6.5	31.5	26.1	<4.2	<4.4	***	5.2	297	2.3 J	641	***	<13.2

Table 6 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

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	
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	

Table 6 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

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
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

Table 6 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

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	
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
	09/28/07 ^A	<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	

Table 6 - Groundwater Analytical Results / Detected Volatile Organic Compounds (VOCs)

N.W. Mauthe Superfund Site - Appleton, Wisconsin

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

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

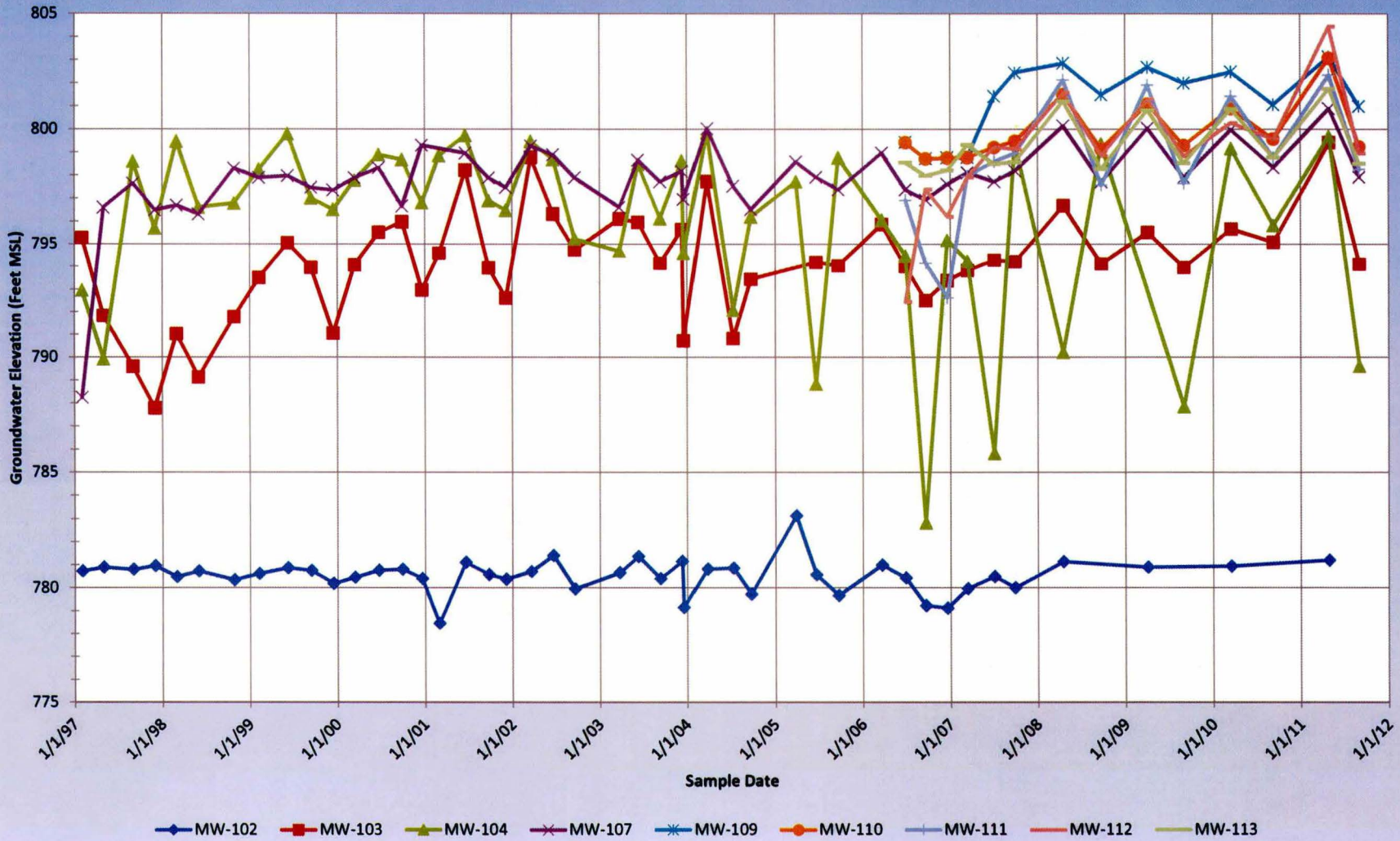
ug/l = Microgram/Liter

= 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)

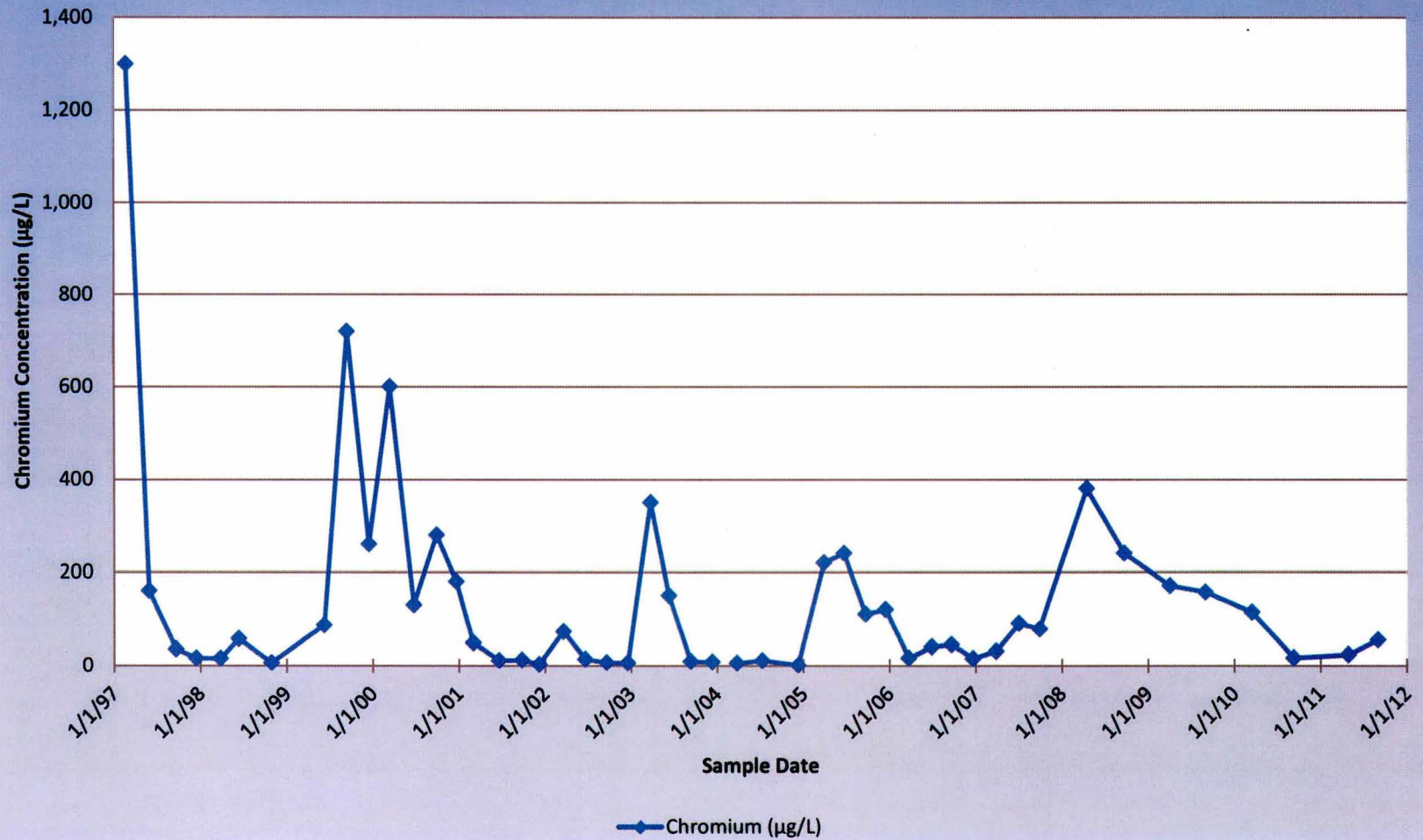
Graph Set 1
Groundwater Elevations Versus Time Graphs
(MW-102, MW-103, MW-104, MW-107, and MW-109 through MW-113)

Groundwater Elevation vs Time

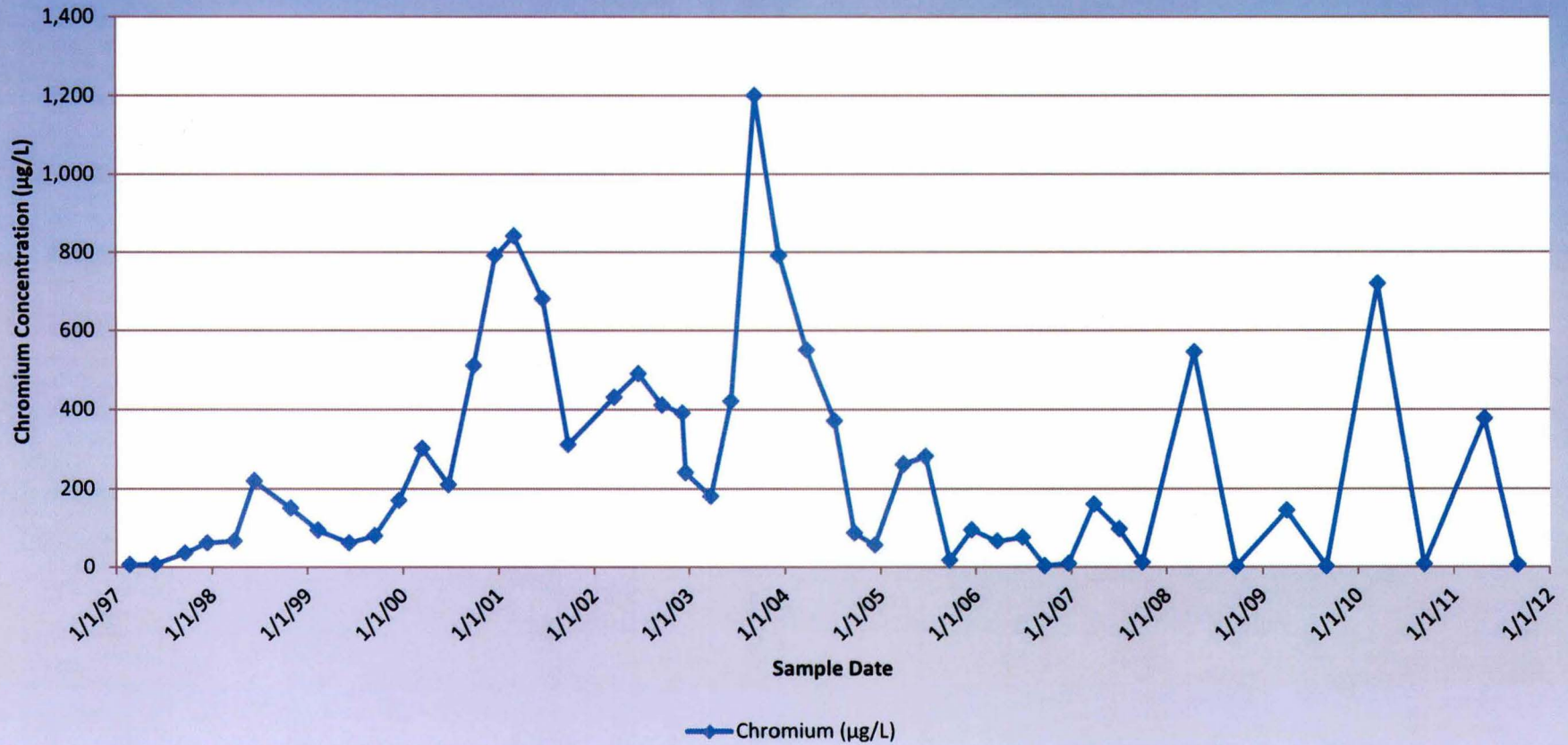


Graph Set 2
Chromium Versus Time Graphs
(MW-103, MW-104, MW-107, and MW-109 through MW-113)

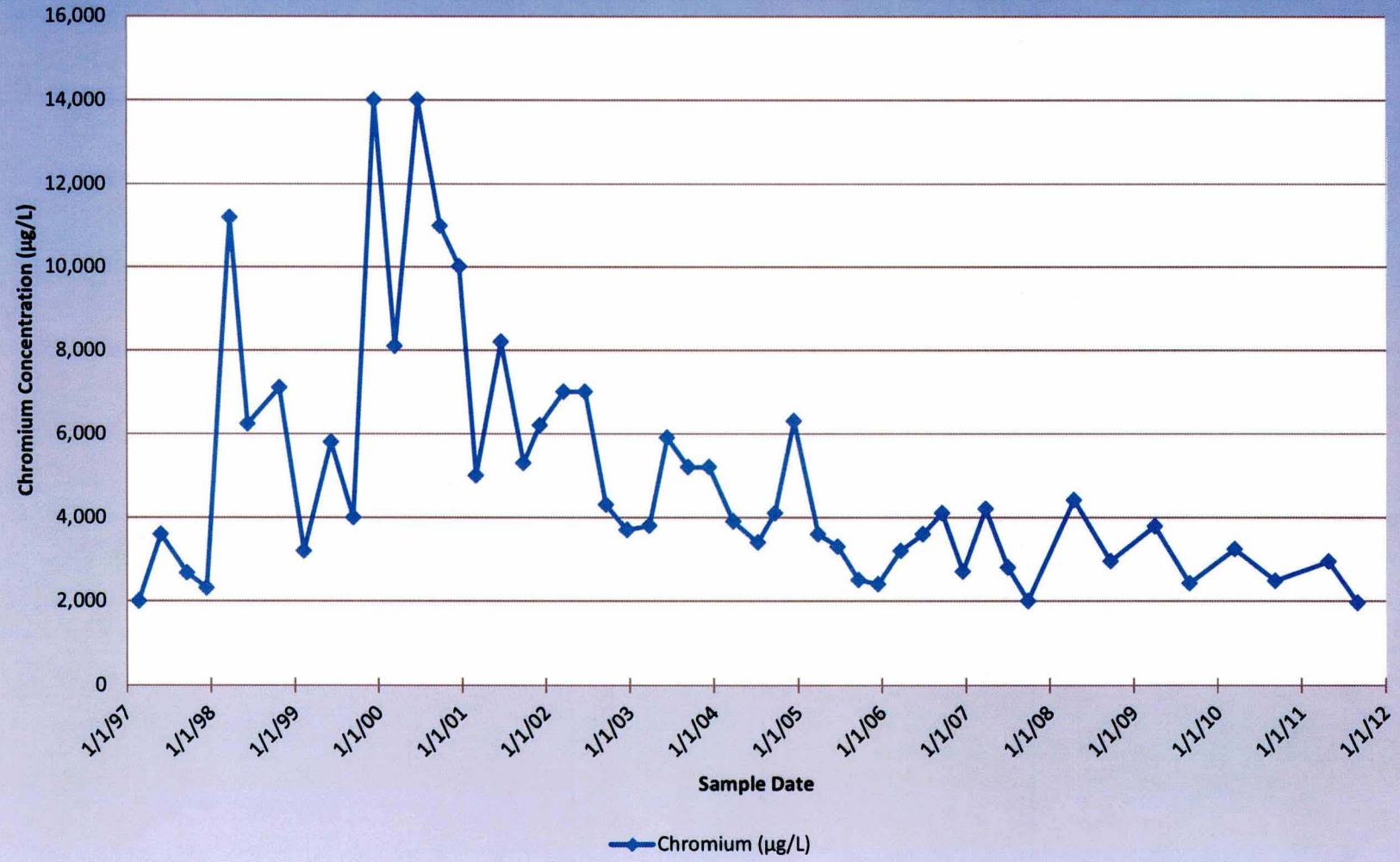
MW-103 Chromium Concentration vs Time



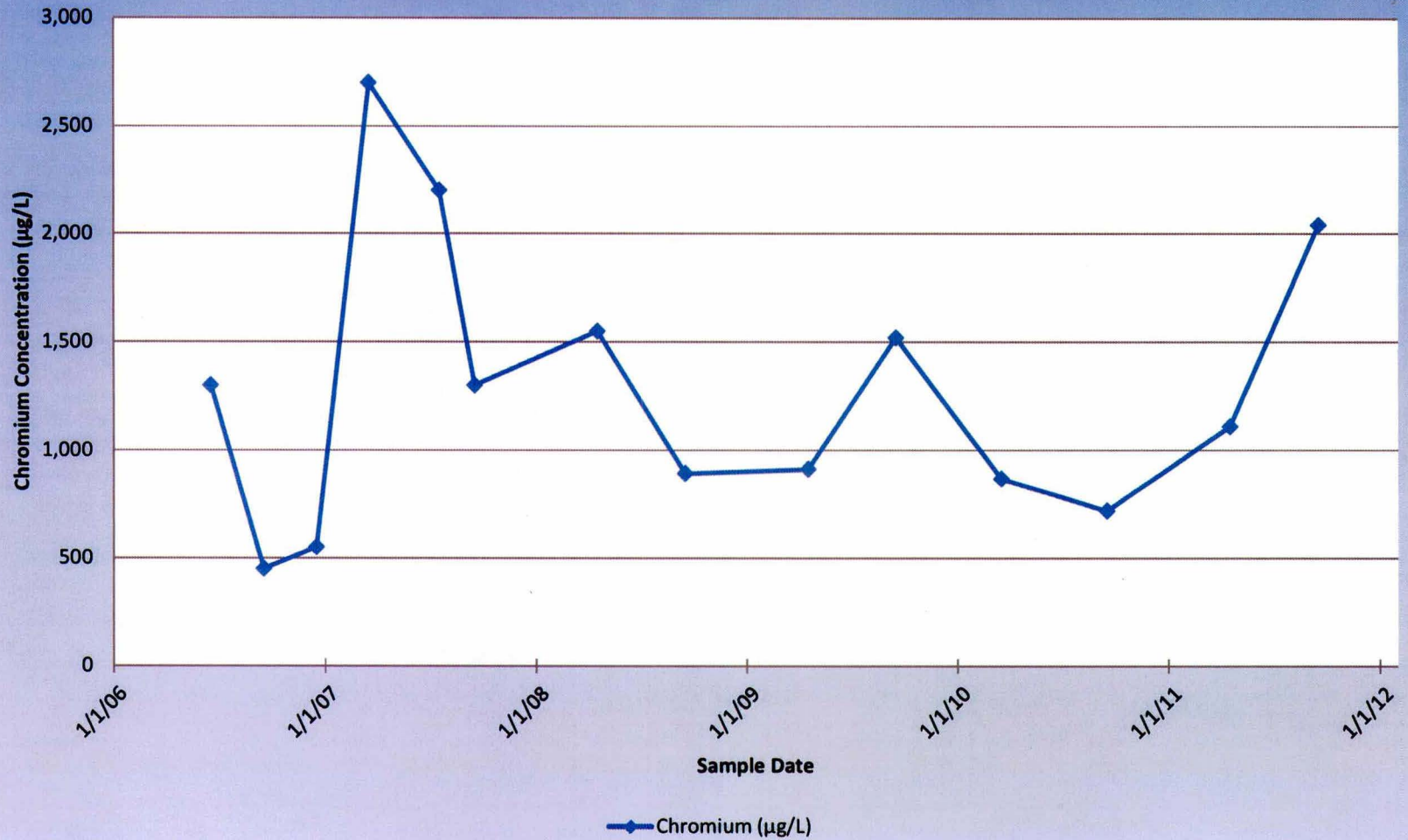
MW-104 Chromium Concentration vs Time



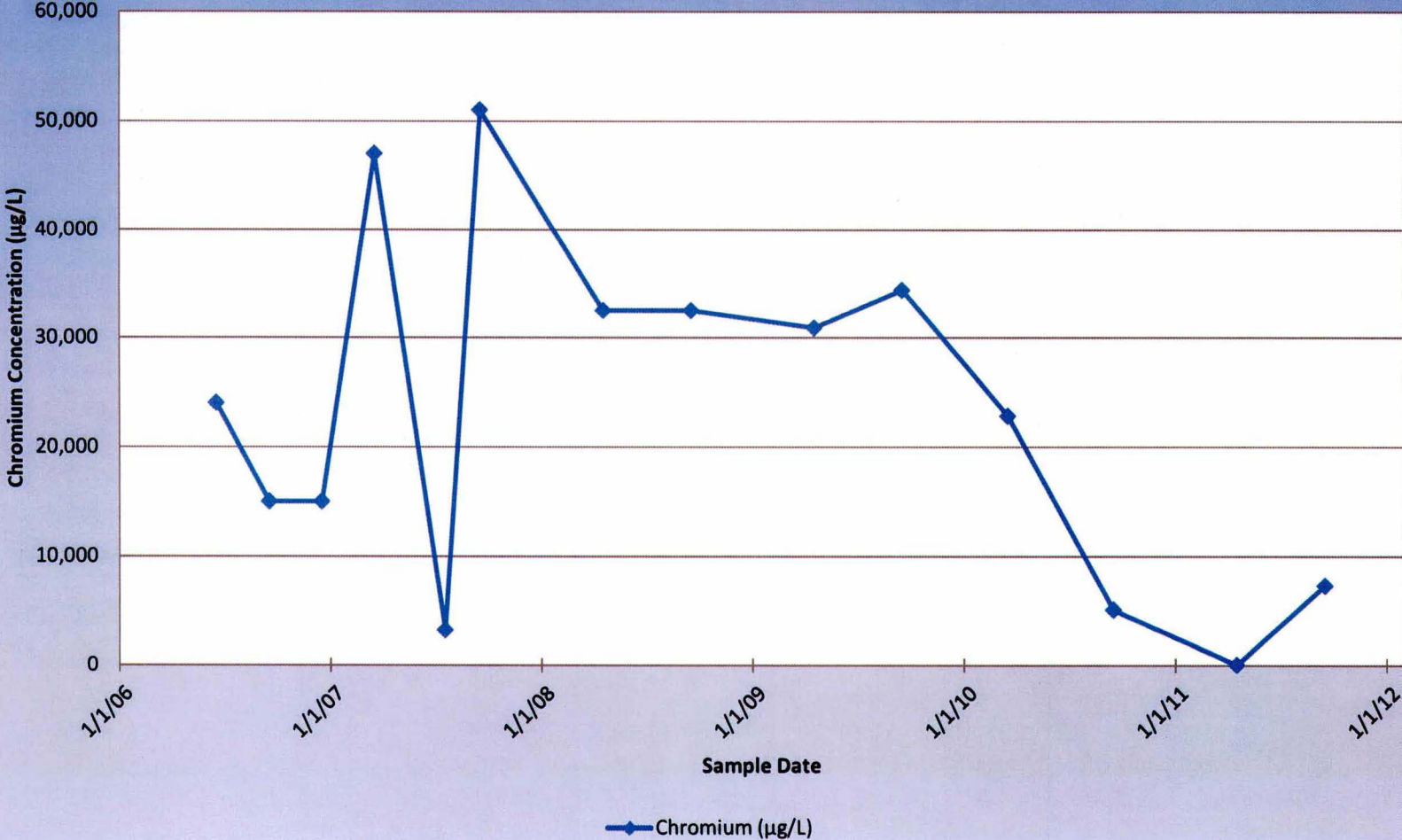
MW-107 Chromium Concentration vs Time



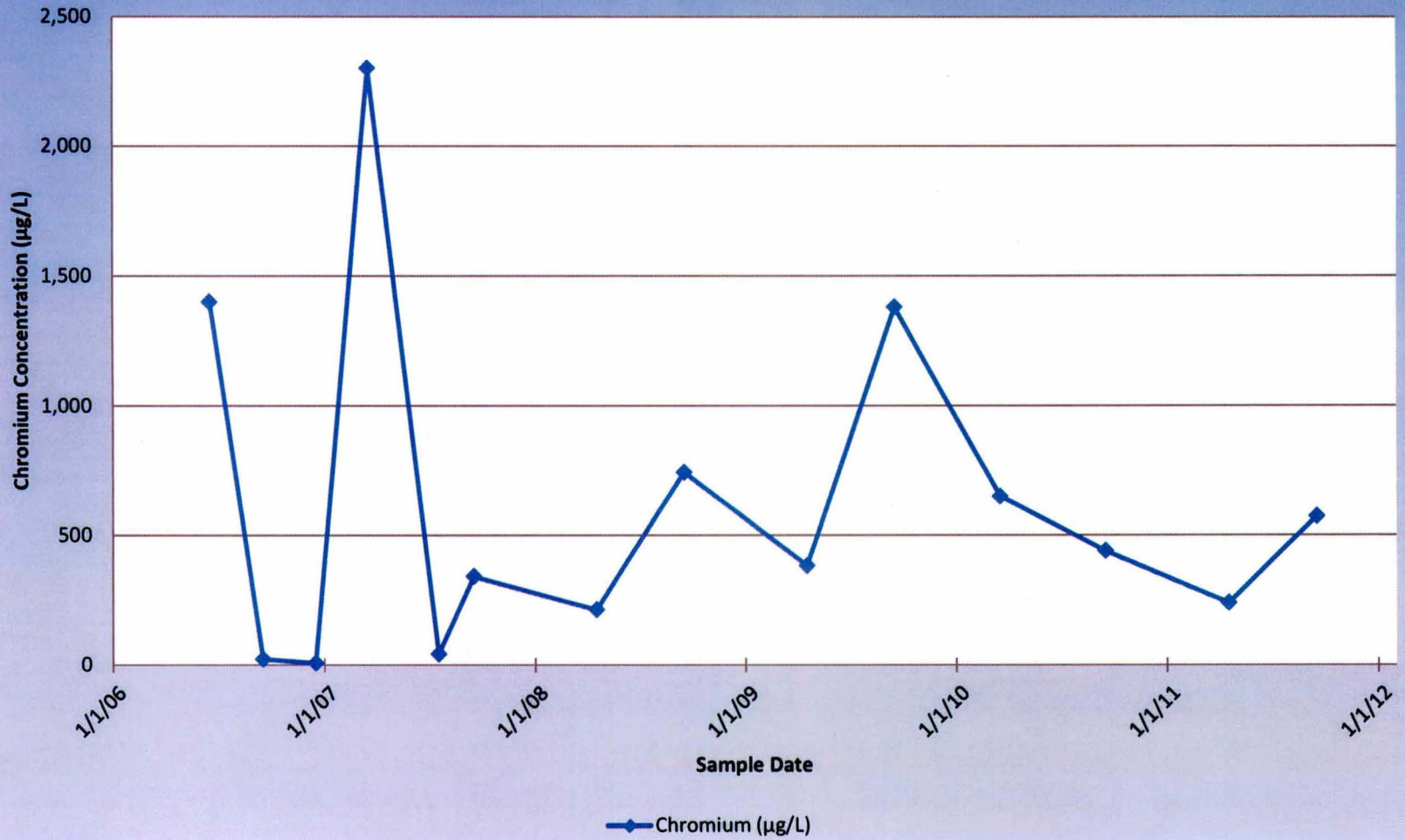
MW-109 Chromium Concentration vs Time



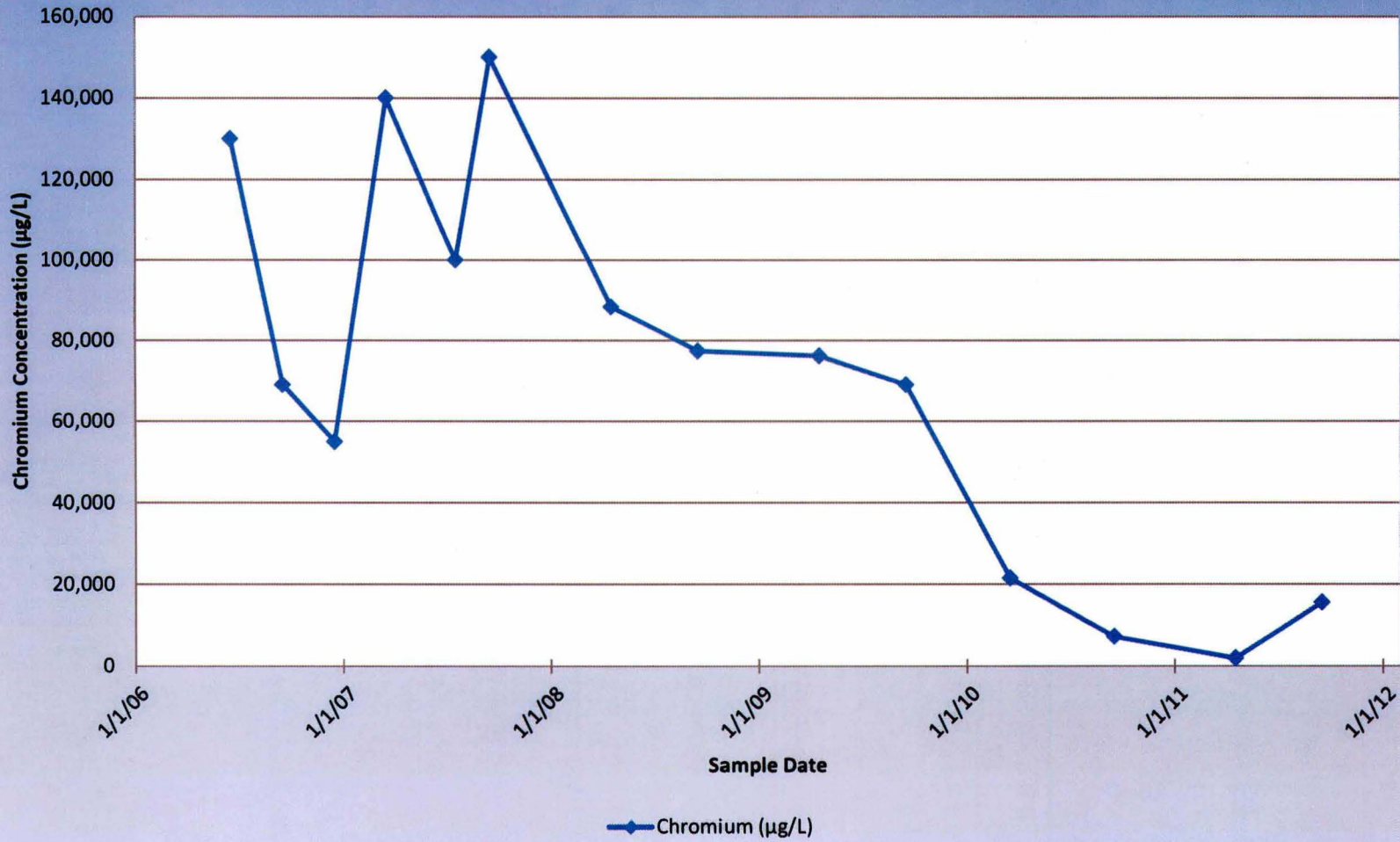
MW-110 Chromium Concentration vs Time



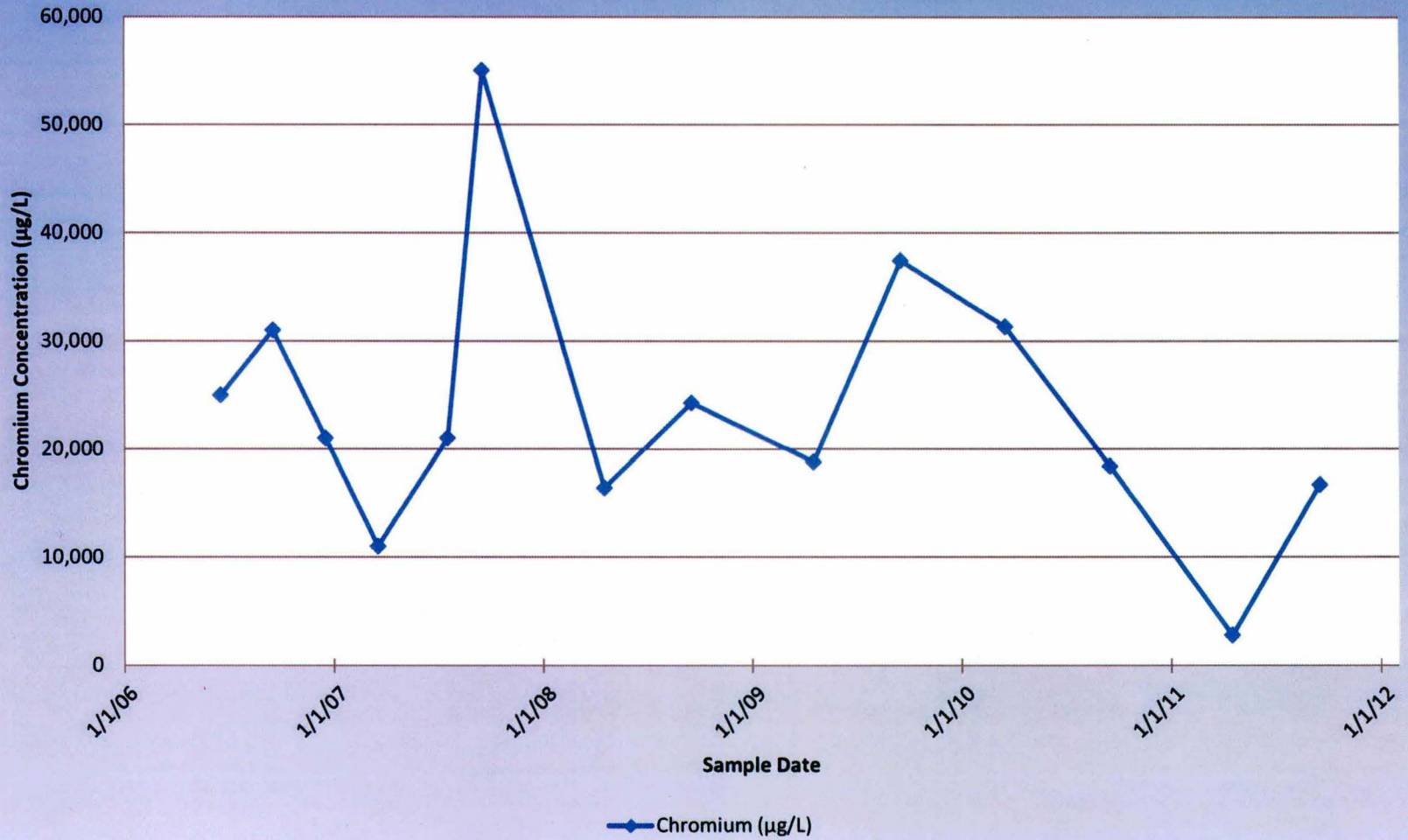
MW-111 Chromium Concentration vs Time



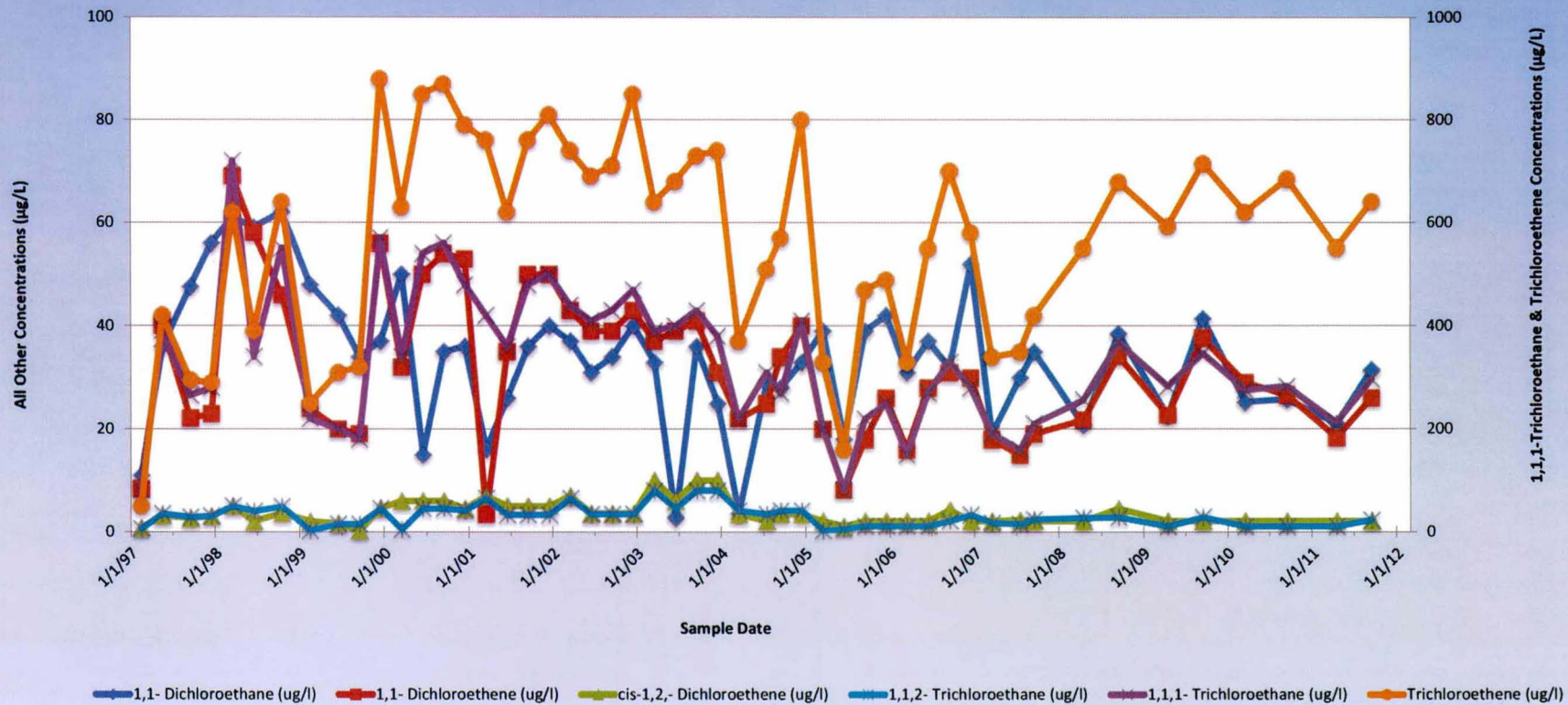
MW-112 Chromium Concentration vs Time



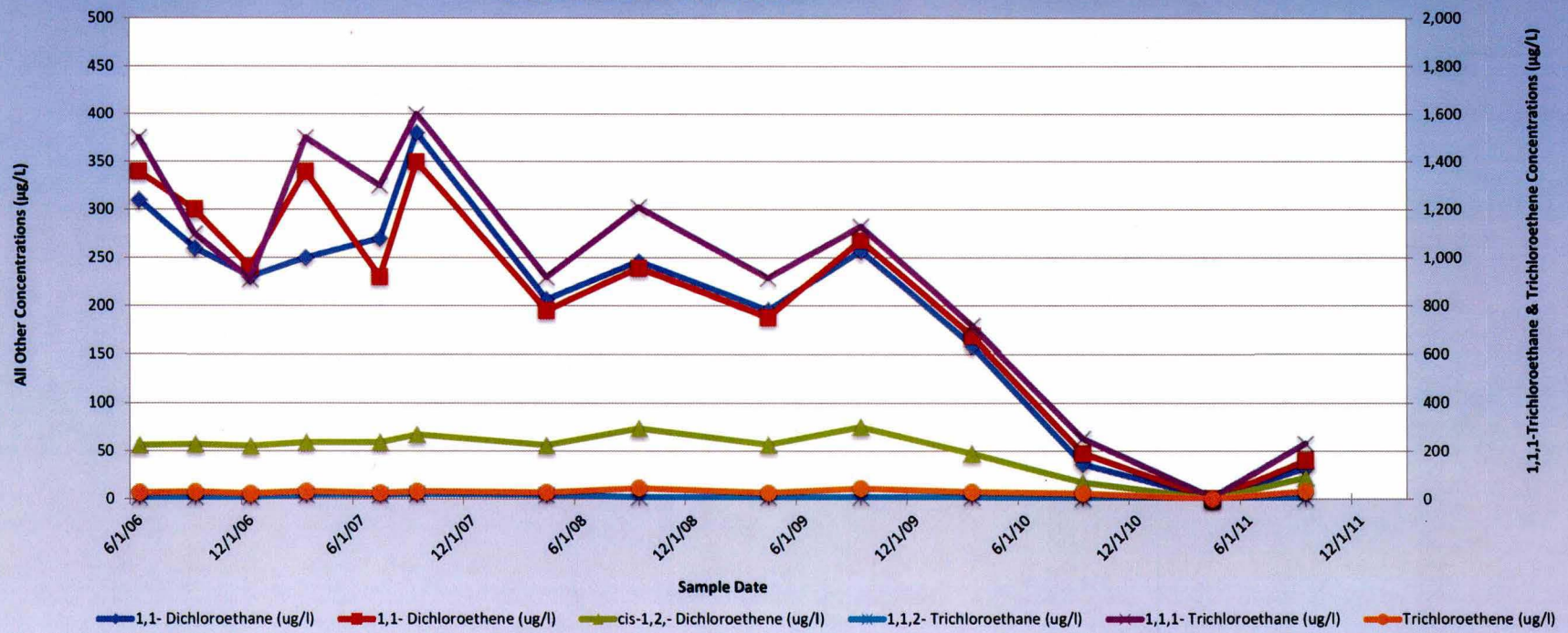
MW-113 Chromium Concentration vs Time



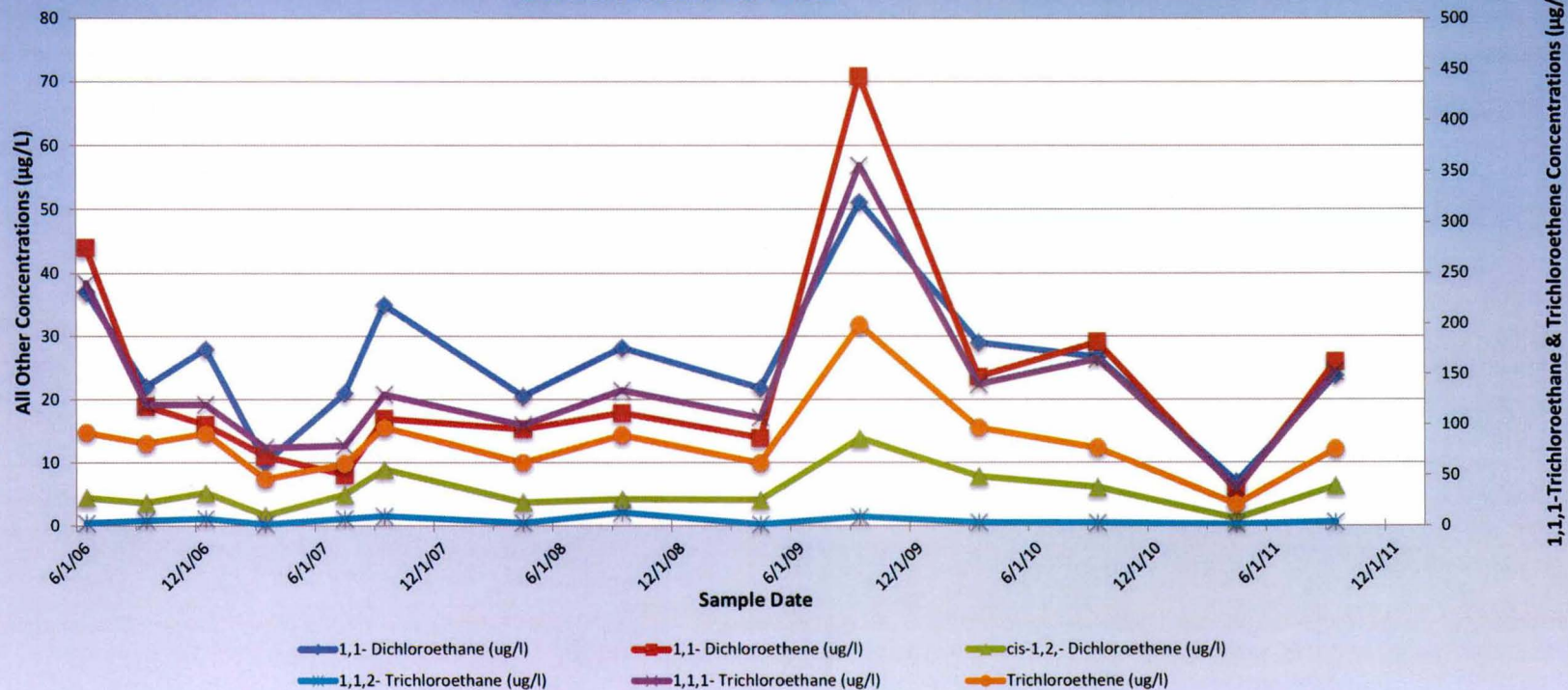
MW-107 Volatile Organic Compounds (VOCs) Contamination vs. Time



MW-110 Volatile Organic Compounds (VOCs) Contamination vs. Time



MW-113 Volatile Organic Compounds (VOCs) Contamination vs. Time



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 required 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
2. Reporting period from: May 1, 2011 To: September 30, 2011 Days in period: 153
3. Regulatory agency (enter DNR, DCOM, DATCP and/or other): WDNR and 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, Outagamie
 - b. Street address and municipality: 725 South Outagamie Street, Appleton, WI 54914
 - c. Township, range, section and quarter quarter section: T21N, R17E, Section 34, NE1/4, NW1/4
7. Responsible party:
 - a. Name: Carol Mauthe
 - b. Mailing address: c/o Jennifer Borski, WDNR, 625 East County Road Y, Suite 700
Oshkosh, WI 54901-9731
 - c. Phone number: (920) 424-7887
8. Consultant:
 - a. Company name: OMNNI Associates, Inc.
 - b. Mailing address: One Systems Drive, Appleton, WI 54914-1654
 - c. Phone number: (920) 735-6900
9. Contaminants: Chromium, cyanide, and chlorinated solvents
10. Soil types (USCS or USDA): LEAN CLAY W/SAND, reddish brown (CL)
11. Hydraulic conductivity (cm/sec): 3.90E-07
12. Average linear velocity of groundwater (ft/yr): 1.17

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

GENERAL SITE INFORMATION, CONTINUED

SITE NAME AND REPORTING PERIOD:

Site name: N.W. Mauthe Superfund Site
Reporting period from: May 1, 2011 To: September 30, 2011 Days in period: 153

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: _____

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

- 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: Not at this time

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 (\$): \$20,030.52
4. Total costs during this reporting period (\$): \$10,778.02
5. Total anticipated costs for the next reporting period (\$): \$19,417
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: *
7. If close out is anticipated within 12 months, estimated costs for project closeout (\$): Close out not anticipated within 12 months

* D.3 - Two heating units in the truck bay were replaced because of cracked heat exchangers, sampling faucet repaired, LED lights installed on building exterior, and five year review support. D.4 - Five year review support. D.5 - Estimate based on Terracon's bid, replacing the heating - A/C unit in the office and replace snow guards with rail system and repair gutter.

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

GENERAL SITE INFORMATION, CONTINUED

SITE NAME AND REPORTING PERIOD:

Site name: N.W. Mauthe Superfund Site

Reporting period from: May 1, 2011 To: September 30, 2011 Days in period: 153

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) Brian Wayner, 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: *Brian D. Wayner* October 17, 2011

Hydrogeologists:

I (print name) Don Brittnacher, 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.

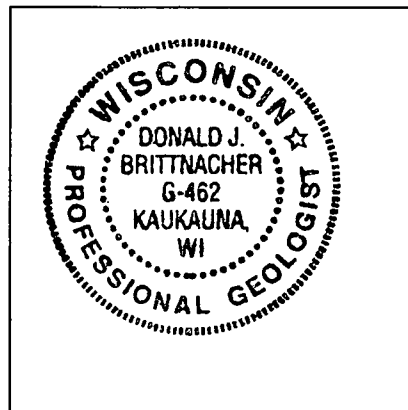
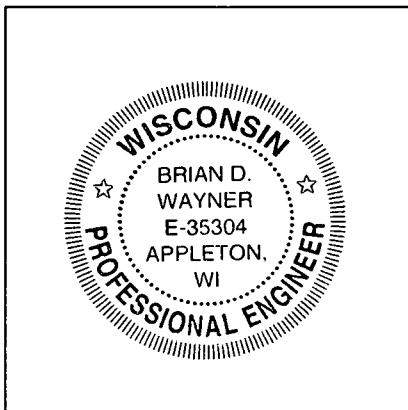
Signature, title and date: *Don Brittnacher* October 17, 2011

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: N.W. Mauthe Superfund Site

Reporting period from: May 1, 2011 To: September 30, 2011 Days in period: 153

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): 152
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain: 99%
4. Quantity of groundwater extracted during this time period (gallons): 293,935
5. Average groundwater extraction rate (gpm): 1.3
6. Quantity of dissolved phase contaminants removed during this time period in pounds: 1.6 pounds total chromium

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): Not applicable
3. Average free product extraction rate (gpd): Not applicable

C. SYSTEM EFFECTIVENESS EVALUATION:

1. Is a contaminated groundwater plume fully contained in the capture zone? (Y/N) If no, explain: Yes
2. If free product is present, is the free product fully contained in capture zone? (Y/N) If no, explain: Not applicable
3. If free product is present in any wells at the site, but free product was not recovered during reporting period, explain.
4. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in C.4.a.
 - a. Contaminant: Chromium; MW-113; 16,700 µg/L
 - b. Percent reduction necessary to reach ch. NR 140 ES and PAL: ES - 99.70%, PAL - 99.97%
 - c. Maximum contaminant concentration level in any monitoring well of that contaminant (µg/L): 16,700 (MW-113)
 - d. Maximum contaminant concentration level in any extraction well of that contaminant (µg/L): 1,180 (Outfall 001)
 - 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, not treatment.

D. ADDITIONAL ATTACHMENTS: Attach the following to this form:

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

Well Specific Field Sheets

Facility Name: N.W. Mauthe
 Date: September 1, 2011
 Areas of dense fog before 9am. Otherwise, mostly sunny and hot, with a high near 90.
 Light wind becoming south southeast between 10 and 13 mph. Winds could gust as high as 21 mph.
 Weather Conditions:
 Person(s) Sampling: Brian Wayner/Kyle Wayner
 Sampling Equipment: Solonist 101 water level meter, Peristaltic pump - micro purge, DO probe, ORP (Oakton 300 pH meter), pH/Conductivity (Oakton pH/Con. 10 meter)

Well Name	W-2	W-8	W-15	MW-101	MW-102
WI Unique Well No.					
Top of PVC Casing Elevation (MSL)	804.66	803.36	803.42	807.59	804.37
Ground Surface Elevation (MSL)	-	-	-	-	-
Depth to Bottom of Well (ft)	-	-	-	-	-
Screen Top (MSL)	-	-	-	-	-
Screen Bottom (MSL)	-	-	-	-	-
Screen Length (ft)	-	-	-	-	-
Water Elevation (MSL)	-	-	-	-	-
Water Elevation (ft from ground surface)	-	-	-	-	-
Measured Depth to Water (ft)	-	-	-	-	-
Micro Purge Pump Setting	-	-	-	-	-
Time Purging Begun	-	-	-	-	-
Time Purging Completed	-	-	-	-	-
Amount Purged (gal)	-	-	-	-	-
Purged Dry? (Y/N)	-	-	-	-	-
Temperature (°C)	-	-	-	-	-
Conductivity (µS)	-	-	-	-	-
pH (std. units)	-	-	-	-	-
DO Reading (mg/L)	-	-	-	-	-
ORP (mV)	-	-	-	-	-
Ferrous Iron (mg/L)	-	-	-	-	-
Color (Y/N)	-	-	-	-	-
Odor (Y/N)	-	-	-	-	-
Turbidity (Y/N)	-	-	-	-	-
Sampling Parameters	n/a	n/a	n/a	n/a	n/a
Time Sample Withdrawn	-	-	-	-	-
Sample field filtered? (Y/N)	n/a	n/a	n/a	n/a	n/a
Time filtered	-	-	-	-	-
Well secured? (Y/N)	Y	Y	Y	Y	Y

Well Specific Field Sheets

Facility Name: N.W. Mauthe
 Date: September 1, 2011
 Areas of dense fog before 9am. Otherwise, mostly sunny and hot, with a high near 90.
 Light wind becoming south southeast between 10 and 13 mph. Winds could gust as high as 21 mph.
 Weather Conditions:
 Person(s) Sampling: Brian Wayner/Kyle Wayner
 Sampling Equipment: Solonist 101 water level meter, Peristaltic pump - micro purge, DO probe, ORP (Oakton 300 pH meter), pH/Conductivity (Oakton pH/Con. 10 meter)

Well Name	MW-103	MW-104	MW-105	MW-106	MW-107
WI Unique Well No.					
Top of PVC Casing Elevation (MSL)	803.74	807.28	803.46	803.83	809.06
Ground Surface Elevation (MSL)	-	-	-	-	-
Depth to Bottom of Well (ft)	-	-	-	-	-
Screen Top (MSL)	-	-	-	-	-
Screen Bottom (MSL)	-	-	-	-	-
Screen Length (ft)	-	-	-	-	-
Water Elevation (MSL)	794.11	789.61	-	-	797.92
Water Elevation (ft from ground surface)	-	-	-	-	-
Measured Depth to Water (ft)	9.63	17.67	-	-	11.14
Micro Purge Pump Setting	3.0	3.0	-	-	3.0
Time Purging Begun	10:22 AM	9:55 AM	-	-	9:25 AM
Time Purging Completed	10:37 AM	10:05 AM	-	-	9:40 AM
Amount Purged (gal)	-1.5	-1.5	-	-	-1.5
Purged Dry? (Y/N)	N	N	-	-	N
Temperature (°C)	13.5	13.4	-	-	15.0
Conductivity (µS)	1316	2.58m	-	-	1490
pH (std. units)	7.36	7.31	-	-	7.63
DO Reading (mg/L)	0.63	0.31	-	-	0.28
ORP (mV)	89.7	-150.8	-	-	184.1
Ferrous Iron (mg/L)	-	-	-	-	-
Color (Y/N)	N	N	-	-	N
Odor (Y/N)	N	N	-	-	N
Turbidity (Y/N)	N	N	-	-	N
Sampling Parameters	Filtered Cr	Filtered Cr	n/a	n/a	Filtered Cr, VOCs
Time Sample Withdrawn	10:37 AM	10:05 AM	-	-	9:40 AM
Sample field filtered? (Y/N)	Y	Y	n/a	n/a	Y
Time filtered	10:37 AM	10:05 AM	-	-	9:40 AM
Well secured? (Y/N)	Y	Y	Y	Y	Y

Well Specific Field Sheets

Facility Name: N.W. Mauthe
 Date: September 1, 2011
 Areas of dense fog before 9am. Otherwise, mostly sunny and hot, with a high near 90.
 Light wind becoming south southeast between 10 and 13 mph. Winds could gust as high as 21 mph.
 Weather Conditions:
 Person(s) Sampling: Brian Wayner/Kyle Wayner
 Sampling Equipment: Solonist 101 water level meter, Peristaltic pump - micro purge, DO probe, ORP (Oakton 300 pH meter), pH/Conductivity (Oakton pH/Con. 10 meter)

Well Name	MW-108	MW-109	MW - 110	MW - 111	MW - 112
WI Unique Well No.		PI420	PI424	PI422	PI423
Top of PVC Casing Elevation (MSL)	806.61	810.52	809.81	807.59	808.14
Ground Surface Elevation (MSL)	—	807.41	807.03	805.05	805.51
Depth to Bottom of Well (ft)	—	22.78	22.48	22.60	22.76
Screen Top (MSL)	—	802.74	802.33	799.99	800.38
Screen Bottom (MSL)	—	787.74	787.33	784.99	785.38
Screen Length (ft)	—	15	15	15	15
Water Elevation (MSL)	—	800.98	799.24	798.26	798.95
Water Elevation (ft from ground surface)	—	6.43	7.79	6.79	6.56
Measured Depth to Water (ft)	—	9.54	10.57	9.33	9.19
Micro Purge Pump Setting	—	3.0	3.0	3.0	3.0
Time Purging Begun	—	6:48 AM	8:27 AM	7:22 AM	7:51 AM
Time Purging Completed	—	7:03 AM	8:42 AM	7:37 AM	8:06 AM
Amount Purged (gal)	—	~1.5	~1.5	~1.5	~1.5
Purged Dry? (Y/N)	—	N	N	N	N
Temperature (°C)	—	15.2	17.3	15.0	15.0
Conductivity (µS)	—	2560	1643	1716	1581
pH (std. units)	—	7.28	7.50	7.57	7.83
DO Reading (mg/L)	—	0.24	2.67	0.85	0.44
ORP (mV)	—	148.3	181.4	159.6	169.0
Ferrous Iron (mg/L)	—	—	—	—	—
Color (Y/N)	—	N	y-yellow	N	y-yellow
Odor (Y/N)	—	N	N	N	N
Turbidity (Y/N)	—	N	N	N	N
Sampling Parameters	n/a	Filtered Cr, VOCs	Filtered Cr, Cyanide, VOCs	Filtered Cr, VOCs	Filtered Cr, Cyanide, VOCs
Time Sample Withdrawn	—	7:03 AM	8:42 AM	7:39 AM	8:06 AM
Sample field filtered? (Y/N)	n/a	Y	Y	Y	Y
Time filtered	—	7:04 AM	8:43 AM	7:40 AM	8:06 AM
Well secured? (Y/N)	Y	Y	Y	Y	Y

Well Specific Field Sheets

Facility Name: N.W. Mauthe
 Date: September 1, 2011
 Areas of dense fog before 9am. Otherwise, mostly sunny and hot, with a high near 90.
 Light wind becoming south southeast between 10 and 13 mph. Winds could gust as high as 21 mph.
 Weather Conditions:
 Person(s) Sampling: Brian Wayner/Kyle Wayner
 Sampling Equipment: Solonist 101 water level meter, Peristaltic pump - micro purge, DO probe, ORP (Oakton 300 pH meter), pH/Conductivity (Oakton pH/Con. 10 meter)

Well Name	MW - 113	PZ-5	PZ-6	PZ-7	PZ-8
WI Unique Well No.	PI421	PI412	PI411	PI410	PI409
Top of PVC Casing Elevation (MSL)	808.24	810.88	809.77	804.48	804.35
Ground Surface Elevation (MSL)	805.62	807.83	806.97	804.60	804.52
Depth to Bottom of Well (ft)	22.57	43.00	43.08	35.28	36.31
Screen Top (MSL)	800.67	772.88	771.69	774.20	773.04
Screen Bottom (MSL)	785.67	767.88	766.69	769.20	768.04
Screen Length (ft)	15	5	5	5	5
Water Elevation (MSL)	798.50	—	—	—	—
Water Elevation (ft from ground surface)	7.12	—	—	—	—
Measured Depth to Water (ft)	9.74	—	—	—	—
Micro Purge Pump Setting	3.0	—	—	—	—
Time Purging Begun	8:53 AM	—	—	—	—
Time Purging Completed	9:08 AM	—	—	—	—
Amount Purged (gal)	~1.5	—	—	—	—
Purged Dry? (Y/N)	N	—	—	—	—
Temperature (°C)	16.2	—	—	—	—
Conductivity (µS)	1552	—	—	—	—
pH (std. units)	7.67	—	—	—	—
DO Reading (mg/L)	0.27	—	—	—	—
ORP (mV)	184.8	—	—	—	—
Ferrous Iron (mg/L)	—	—	—	—	—
Color (Y/N)	y-yellow	—	—	—	—
Odor (Y/N)	N	—	—	—	—
Turbidity (Y/N)	N	—	—	—	—
Sampling Parameters	Filtered Cr, VOCs	n/a	n/a	n/a	n/a
Time Sample Withdrawn	9:08 AM	—	—	—	—
Sample field filtered? (Y/N)	Y	n/a	n/a	n/a	n/a
Time filtered	9:08 AM	—	—	—	—
Well secured? (Y/N)	Y	Y	Y	Y	Y

Please Print Clearly)

UPPER MIDWEST REGION

Company Name: OMNNI ASSOCIATES
 Branch/Location: APPLETON
 Project Contact: Brian Wayner
 Phone: 920/830-6141
 Project Number: N1866AOS/006
 Project Name: MAUTHE
 Project State: WI
 Sampled By (Print): Brian Wayner
 Sampled By (Sign): *B. Wayner*



MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

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

FILTERED? (YES/NO)
 PRESERVATION (CODE)*

Y/N	Pick Letter	Matrix	Analysis Requested
N	A	GW	HEXAVALENT CHROMIUM
Y	D	GW	CHROMIUM

Quote #: MAUTHE 81910
 Mail To Contact: Brian Wayner
 Mail To Company: OMNNI ASSOCIATES
 Mail To Address: ONE SYSTEMS DRIVE APPLETON, WI 54914
 Invoice To Contact: Brian Wayner
 Invoice To Company: OMNNI ASSOCIATES
 Invoice To Address: SAME
 Invoice To Phone: 920/830-6141

PO #: _____ Regulatory Program: _____

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX
		DATE	TIME	
aw	Outfall 001	5/3/11	6:53	GW

CLIENT COMMENTS: LAB COMMENTS (Lab Use Only)
 Profile #
 2-250m10A

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: *B. Wayner* Date/Time: 5/3/11 7:35a
 Relinquished By: *D. Melke* Date/Time: 5/3/11 12:40
 Relinquished By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____
 Relinquished By: _____ Date/Time: _____

Received By: *D. Melke* Date/Time: 5/3/11 08:40
 Received By: *[Signature]* Date/Time: 5/3/11 1240
 Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____
 Received By: _____ Date/Time: _____

PACE Project No. 4045288
 Receipt Temp = *ROT* °C
 Sample Receipt pH *OK* / Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact



Sample Condition Upon Receipt

Client Name: OMNI

Project # 4045288

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

Cooler Temperature 6.5 Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

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

Optional:
Proj Due Date: _____
Proj Name: _____

Person examining contents:
Date: 5/3/11
Initials: D

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>D</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Date/Time: _____ Field Data Required? Y / N

Person Contacted: _____
Comments/ Resolution: _____

Project Manager Review: _____ Date: 5/3/11

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



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

May 12, 2011

Brian Wayner
Omni Associates, Inc.
One Systems Drive
Appleton, WI 549141654

RE: Project: N1866AOS/006 MAUTHE
Pace Project No.: 4045288

Dear Brian Wayner:

Enclosed are the analytical results for sample(s) received by the laboratory on May 03, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Steven Mleczko

steve.mleczko@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Page 1 of 8

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CERTIFICATIONS

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4045288

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
California Certification #: 09268CA
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888

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

REPORT OF LABORATORY ANALYSIS

Page 2 of 8

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SAMPLE SUMMARY

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4045288

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4045288001	OUTFALL 001	Water	05/03/11 06:53	05/03/11 12:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4045288

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4045288001	OUTFALL 001	EPA 6010	DLB	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: N1866AOS/006 MAUTHE

Pace Project No.: 4045288

Sample: OUTFALL 001 Lab ID: 4045288001 Collected: 05/03/11 06:53 Received: 05/03/11 12:40 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	338	ug/L	5.0	0.50	1		05/05/11 22:12	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	0.37	mg/L	0.050	0.0098	2.5		05/03/11 16:45	18540-29-9	

QUALITY CONTROL DATA

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4045288

QC Batch: ICP/4524 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 4045288001

METHOD BLANK: 445315 Matrix: Water
Associated Lab Samples: 4045288001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<0.50	5.0	05/05/11 22:00	

LABORATORY CONTROL SAMPLE: 445316

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	461	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 445317 445318

Parameter	Units	4045199006 Result	MS		MSD		% Rec		% Rec Limits	Max RPD	RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Chromium, Dissolved	ug/L	<0.50	500	500	445	446	89	89	75-125	.2	20	

QUALITY CONTROL DATA

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4045288

QC Batch: WETA/8810 Analysis Method: SM 3500-Cr B (Online)
QC Batch Method: SM 3500-Cr B (Online) Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 4045288001

METHOD BLANK: 444769 Matrix: Water
Associated Lab Samples: 4045288001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0039	0.020	05/03/11 16:45	

LABORATORY CONTROL SAMPLE: 444770

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.30	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 444771 444772

Parameter	Units	4045288001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
										RPD	RPD	
Chromium, Hexavalent	mg/L	0.37	.75	.75	1.1	1.1	100	104	90-110	2	20	

QUALIFIERS

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4045288

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

Please Print Clearly)

UPPER MIDWEST REGION

Page of 1

MN: 612-607-1700 WI: 920-469-2436



4046678

Company Name: OMNNI ASSOCIATES
 Branch/Location: APPLETON
 Project Contact: Brian Wayner
 Phone: 920/830-6141
 Project Number: N1866AOS/000
 Project Name: MAUTHE
 Project State: WI
 Sampled By (Print): Brian Wayner
 Sampled By (Sign): B. J. Wayner

CHAIN OF CUSTODY

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

FILTERED? (YES/NO)	Y/N	N	X																	
PRESERVATION (CODE)*	Pick Letter	A	D																	

Quote #: MAUTHE 81910
 Mail To Contact: Brian Wayner
 Mail To Company: OMNNI ASSOCIATES
 Mail To Address: ONE SYSTEMS DRIVE
 Appleton, WI 54914
 Invoice To Contact: Brian Wayner
 Invoice To Company: OMNNI ASSOCIATES
 Invoice To Address: SAME
 Invoice To Phone: 920/830-6141

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Analysis Requested	HEXAVALENT CHROMIUM	CHROMIUM
		DATE	TIME				
807	outfall 001	6/7/11	6:35	GW		X	X

CLIENT COMMENTS: LAB COMMENTS (Lab Use Only)
 Profile #
 1-250mlp^a, 1-250mlp^d

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

Relinquished By: <i>B. J. Wayner</i>	Date/Time: 6/7/11 7:15a	Received By: <i>[Signature]</i>	Date/Time: 6/7 843
Relinquished By: <i>[Signature]</i>	Date/Time: 6/7 1430	Received By: <i>[Signature]</i>	Date/Time: 6/7/11 1430
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____

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

PAGE Project No. 4046678
 Receipt Temp = 2073 °C
 Sample Receipt pH (OK) Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact



Sample Condition Upon Receipt

Client Name: Omni Associates Project # 4046678

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

Optional _____
 Proj. Due Date _____
 Proj. Name _____

Person examining contents:
 Date: 6/7/11
 Initials: JD

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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>AKC</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Date/Time: _____ Field Data Required? Y / N

Person Contacted: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: 6/7/11

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)



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

June 13, 2011

Brian Wayner
Omni Associates, Inc.
One Systems Drive
Appleton, WI 549141654

RE: Project: N1866AOS/006 MAUTHE
Pace Project No.: 4046678

Dear Brian Wayner:

Enclosed are the analytical results for sample(s) received by the laboratory on June 07, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Steven Mleczo

steve.mleczo@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Page 1 of 8

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

CERTIFICATIONS

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4046678

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
California Certification #: 09268CA
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888

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

REPORT OF LABORATORY ANALYSIS

Page 2 of 8

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SAMPLE SUMMARY

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4046678

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4046678001	OUTFALL 001	Water	06/07/11 06:35	06/07/11 14:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4046678

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4046678001	OUTFALL 001	EPA 6010	DLB	1	PASI-G
		SM 3500-Cr B (Online)	MY	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4046678

Sample: **OUTFALL 001** Lab ID: **4046678001** Collected: 06/07/11 06:35 Received: 06/07/11 14:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	447	ug/L	5.0	0.44	1		06/09/11 19:52	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	0.46	mg/L	0.050	0.0098	2.5		06/07/11 16:45	18540-29-9	

QUALITY CONTROL DATA

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4046678

QC Batch: ICP/4690 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 4046678001

METHOD BLANK: 461687 Matrix: Water

Associated Lab Samples: 4046678001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<0.44	5.0	06/09/11 19:44	

LABORATORY CONTROL SAMPLE: 461688

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	487	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 461689 461690

Parameter	Units	461689		461690		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		4046678001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Chromium, Dissolved	ug/L	447	500	500	910	910	92	92	75-125	.01	20	

QUALITY CONTROL DATA

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4046678

QC Batch: WETA/9072 Analysis Method: SM 3500-Cr B (Online)
QC Batch Method: SM 3500-Cr B (Online) Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 4046678001

METHOD BLANK: 460463 Matrix: Water
Associated Lab Samples: 4046678001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0039	0.020	06/07/11 16:45	

LABORATORY CONTROL SAMPLE: 460464

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.32	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 460465 460466

Parameter	Units	4046678001		460466		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chromium, Hexavalent	mg/L	0.46	.75	.75	1.2	1.2	96	102	90-110	4	20

QUALIFIERS

Project: N1866AOS/006 MAUTHE
Pace Project No.: 4046678

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay



Sample Condition Upon Receipt

Client Name: Omni Project # 4047897

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 207 Biological Tissue is Frozen: yes no

Temp Blank Present: yes no

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

Optional: _____
Proj. Due Date: _____
Proj. Name: _____

Person examining contents:
Date: _____
Initials: AKC

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	initial when completed <u>AKC</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: 7/5/11

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)



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

July 11, 2011

Brian Wayner
Omni Associates, Inc.
One Systems Drive
Appleton, WI 549141654

RE: Project: MAUTHE OUTFALL N1866A05/006
Pace Project No.: 4047897

Dear Brian Wayner:

Enclosed are the analytical results for sample(s) received by the laboratory on July 05, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Steven Mleczko

steve.mleczko@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Page 1 of 8

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CERTIFICATIONS

Project: MAUTHE OUTFALL N1866A05/006
Pace Project No.: 4047897

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
California Certification #: 09268CA
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888

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

REPORT OF LABORATORY ANALYSIS

Page 2 of 8

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SAMPLE SUMMARY

Project: MAUTHE OUTFALL N1866A05/006
Pace Project No.: 4047897

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4047897001	OUTFALL 001	Water	07/05/11 07:11	07/05/11 11:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: MAUTHE OUTFALL N1866A05/006
Pace Project No.: 4047897

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4047897001	OUTFALL 001	EPA 6010	DLB	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: MAUTHE OUTFALL N1866A05/006
Pace Project No.: 4047897

Sample: OUTFALL 001 Lab ID: 4047897001 Collected: 07/05/11 07:11 Received: 07/05/11 11:25 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	752 ug/L		5.0	0.44	1		07/06/11 18:43	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	0.78 mg/L		0.20	0.039	10		07/05/11 15:30	18540-29-9	



QUALITY CONTROL DATA

Project: MAUTHE OUTFALL N1866A05/006
Pace Project No.: 4047897

QC Batch: ICP/4781 Analysis Method: EPA 6010
QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
Associated Lab Samples: 4047897001

METHOD BLANK: 473839 Matrix: Water
Associated Lab Samples: 4047897001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<0.44	5.0	07/07/11 10:33	

LABORATORY CONTROL SAMPLE: 473840

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	515	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 473841 473842

Parameter	Units	4047831001		473841		473842		% Rec Limits	Max RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
Chromium, Dissolved	ug/L	1.6J	500	500	512	511	102	102	75-125	.2	20



QUALITY CONTROL DATA

Project: MAUTHE OUTFALL N1866A05/006
Pace Project No.: 4047897

QC Batch: WETA/9278 Analysis Method: SM 3500-Cr B (Online)
QC Batch Method: SM 3500-Cr B (Online) Analysis Description: Chromium, Hexavalent by 3500
Associated Lab Samples: 4047897001

METHOD BLANK: 473358 Matrix: Water

Associated Lab Samples: 4047897001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0039	0.020	07/05/11 15:30	

LABORATORY CONTROL SAMPLE: 473359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.31	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 473360 473361

Parameter	Units	4047897001		473361		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result					
Chromium, Hexavalent	mg/L	0.78	3	3	4.1	3.9	110	105	90-110	4 20



QUALIFIERS

Project: MAUTHE OUTFALL N1866A05/006
Pace Project No.: 4047897

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.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS





Sample Condition Upon Receipt

Client Name: Omni Associates Project # LD4906

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 _____

Optional:
 Proj. Due Date:
 Proj. Name:

Thermometer Used NA Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun
 Cooler Temperature ROI Biological Tissue is Frozen: yes no
 Temp Blank Present: yes no

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

Person examining contents:
 Date: 8/2/11
 Initials: BF

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>BF</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

Project Manager Review: _____ Date: 8/2/11

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)



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

August 03, 2011

Brian Wayner
Omni Associates, Inc.
One Systems Drive
Appleton, WI 549141654

RE: Project: N1866A05/006 MAUTHE
Pace Project No.: 4049086

Dear Brian Wayner:

Enclosed are the analytical results for sample(s) received by the laboratory on August 02, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Steven Mleczko

steve.mleczko@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: N1866A05/006 MAUTHE
Pace Project No.: 4049086

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

REPORT OF LABORATORY ANALYSIS

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

SAMPLE SUMMARY

Project: N1866A05/006 MAUTHE
Pace Project No.: 4049086

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4049086001	OUTFALL 001	Water	08/02/11 07:30	08/02/11 12:55

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: N1866A05/006 MAUTHE
Pace Project No.: 4049086

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4049086001	OUTFALL 001	EPA 6010	MMZ	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: N1866A05/006 MAUTHE
Pace Project No.: 4049086

Sample: **OUTFALL 001** Lab ID: **4049086001** Collected: 08/02/11 07:30 Received: 08/02/11 12:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	800	ug/L	5.0	0.44	1		08/03/11 12:01	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	0.86	mg/L	0.10	0.020	5		08/02/11 14:15	18540-29-9	



QUALITY CONTROL DATA

Project: N1866A05/006 MAUTHE
 Pace Project No.: 4049086

QC Batch: ICP/4866 Analysis Method: EPA 6010
 QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
 Associated Lab Samples: 4049086001

METHOD BLANK: 485491 Matrix: Water
 Associated Lab Samples: 4049086001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<0.44	5.0	08/03/11 11:12	

METHOD BLANK: 485495 Matrix: Water
 Associated Lab Samples: 4049086001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<0.44	5.0	08/03/11 11:41	

LABORATORY CONTROL SAMPLE: 485492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	476	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 485493 485494

Parameter	Units	4049098001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Chromium, Dissolved	ug/L	<0.44	500	500	486	490	97	98	75-125	.9 20	



QUALITY CONTROL DATA

Project: N1866A05/006 MAUTHE
 Pace Project No.: 4049086

QC Batch: WETA/9505 Analysis Method: SM 3500-Cr B (Online)
 QC Batch Method: SM 3500-Cr B (Online) Analysis Description: Chromium, Hexavalent by 3500
 Associated Lab Samples: 4049086001

METHOD BLANK: 485354 Matrix: Water
 Associated Lab Samples: 4049086001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0039	0.020	08/02/11 14:15	

LABORATORY CONTROL SAMPLE: 485355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.30	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 485356 485357

Parameter	Units	4049086001		485357		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result					
Chromium, Hexavalent	mg/L	0.86	1.5	1.5	2.5	2.4	107	104	90-110	2 20



QUALIFIERS

Project: N1866A05/006 MAUTHE
Pace Project No.: 4049086

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.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

Please Print Clearly

Company Name: OMNUI Associates
 Branch/Location: Appleton
 Project Contact: Brian Wayner
 Phone: 920-830-6141
 Project Number: N1860A05/006
 Project Name: Muathe
 Project State: WI
 Sampled By (Print): Brian Wayner
 Sampled By (Sign): B. J. Wayner



CHAIN OF CUSTODY

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

Quote #: MAUTHE 8/9/10
 Mail To Contact: Brian Wayner
 Mail To Company: OMNUI ASSOCIATES
 Mail To Address: ONE SYSTEMS DRIVE
 APPLETON, WI 54914
 Invoice To Contact: BRIAN WAYNER
 Invoice To Company: OMNUI ASSOCIATES
 Invoice To Address: SAME
 Invoice To Phone: 920/830-6141
 CLIENT COMMENTS: LAB COMMENTS (Lab Use Only)
 Profile #

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

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

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

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Analysis Requested	Filtered? (YES/NO)	Preservation (CODE)*
		DATE	TIME				
001	Outfall 001	9/6/11	7:05	GW	HEXAVALENT CHROMIUM CHROMIUM	N	A

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

Transmit Prelim Rush Results by (complete what you want):

Relinquished By: B. J. Wayner	Date/Time: 9/6/11 7:30	Received By: D. Muelke	Date/Time: 9/6/11 8:35
Relinquished By: D. Muelke	Date/Time: 9/6/11 1230	Received By: [Signature]	Date/Time: 9/6/11 1230
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

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

PACE Project No. 4050482
 Receipt Temp = 20.1 °C
 Sample Receipt pH (OK) Adjusted
 Cooler Custody Seal Present / Not Present Intact / Not Intact

Sample Condition Upon Receipt



Client Name: Omni associates Project # 4050482

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 _____

Optional:
 Proj. Due Date
 Proj. Name

Thermometer Used NA Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun
 Cooler Temperature ROI Biological Tissue is Frozen: yes no
 Temp Blank Present: yes no

Person examining contents:
 Date: 9-6-11
 Initials: JIC

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:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed <u>JIC</u> Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Date/Time: _____ Field Data Required? Y / N
 Person Contacted: _____
 Comments/ Resolution: _____

Project Manager Review: _____ Date: 9/6/11

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)



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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

September 13, 2011

Brian Wayner
Omni Associates, Inc.
One Systems Drive
Appleton, WI 549141654

RE: Project: N1866A05/006 MAUTHE
Pace Project No.: 4050482

Dear Brian Wayner:

Enclosed are the analytical results for sample(s) received by the laboratory on September 06, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Steven Mleczko

steve.mleczko@pacelabs.com
Project Manager

Enclosures



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CERTIFICATIONS

Project: N1866A05/006 MAUTHE
Pace Project No.: 4050482

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

REPORT OF LABORATORY ANALYSIS

Page 2 of 8

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SAMPLE SUMMARY

Project: N1866A05/006 MAUTHE
Pace Project No.: 4050482

Lab ID	Sample ID	Matrix	Date Collected	Date Received
4050482001	OUTFALL 001	Water	09/06/11 07:05	09/06/11 12:30

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(920)469-2436

SAMPLE ANALYTE COUNT

Project: N1866A05/006 MAUTHE
Pace Project No.: 4050482

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
4050482001	OUTFALL 001	EPA 6010	DLB	1	PASI-G
		SM 3500-Cr B (Online)	DEY	1	PASI-G

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: N1866A05/006 MAUTHE
 Pace Project No.: 4050482

Sample: OUTFALL 001 Lab ID: 4050482001 Collected: 09/06/11 07:05 Received: 09/06/11 12:30 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP, Dissolved	Analytical Method: EPA 6010								
Chromium, Dissolved	1180 ug/L		5.0	0.44	1		09/09/11 00:31	7440-47-3	
Chromium, Hexavalent	Analytical Method: SM 3500-Cr B (Online)								
Chromium, Hexavalent	1.2 mg/L		0.10	0.020	5		09/06/11 15:50	18540-29-9	



QUALITY CONTROL DATA

Project: N1866A05/006 MAUTHE
 Pace Project No.: 4050482

QC Batch: ICP/4999 Analysis Method: EPA 6010
 QC Batch Method: EPA 6010 Analysis Description: ICP Metals, Trace, Dissolved
 Associated Lab Samples: 4050482001

METHOD BLANK: 500487 Matrix: Water
 Associated Lab Samples: 4050482001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Dissolved	ug/L	<0.44	5.0	09/09/11 16:17	

LABORATORY CONTROL SAMPLE: 500488

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Dissolved	ug/L	500	497	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 500489 500490

Parameter	Units	500489		500490		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		4050481002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chromium, Dissolved	ug/L	54.5	500	500	538	543	97	98	75-125	.9	20



QUALITY CONTROL DATA

Project: N1866A05/006 MAUTHE
 Pace Project No.: 4050482

QC Batch: WETA/9816 Analysis Method: SM 3500-Cr B (Online)
 QC Batch Method: SM 3500-Cr B (Online) Analysis Description: Chromium, Hexavalent by 3500
 Associated Lab Samples: 4050482001

METHOD BLANK: 499564 Matrix: Water
 Associated Lab Samples: 4050482001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chromium, Hexavalent	mg/L	<0.0039	0.020	09/06/11 15:50	

LABORATORY CONTROL SAMPLE: 499565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/L	.3	0.30	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 499566 499567

Parameter	Units	4050482001		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.										
Chromium, Hexavalent	mg/L	1.2	1.5	1.5	1.5	2.7	2.6	103	95	90-110	5	20	



QUALIFIERS

Project: N1866A05/006 MAUTHE
Pace Project No.: 4050482

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.

LABORATORIES

PASI-G Pace Analytical Services - Green Bay

Inspection District: 5

Due: 5/25/2011

Appleton Fire Department

www.appleton.org/departments/fire/

700 N DREW ST APPLETON, WI 54911

Phone (920) 832-5810

Fax (920) 832-5830



Site Address: 725 S OUTAGAMIE ST

Bldg:

Bldg Type: B - Business

Tax Key: 31-3-0115-00

Last Insp By: 1530

Shift: E

Date: 10/28/2010

Type: Routine

Site Name: Mauthe Site

Phone:

Property Owner:

Phone:

Owner Address:

Fax:

KEY HOLDERS/CONTACTS

Name	Address	Cell Phone	Home Phone	Work Phone
Briane Wayner				(920) 851-0366

Occupancy Limit:

Sprinkler System: None

Standpipe:

FDC:

Fire Alarm System: None

Knox Box: Side D

Special Hazard System:

Alarm Panel: None

PREMISE NOTES

Briane Wayner is with Omni Associates
 Omni Fax 830-6100, Parks & Rec Fax 832-5950 (Fax to both)
 Jennifer - WDNR 424-7887 is a contact
 Carol Mauthe is owner
 May want to call for access code, Parks & Rec 832-3920
 You are hereby notified of the following violations on your premises:

Nick 414 4531
Briane 411 8256

CODE REF DATE VIOLATION C=Corrected N/C=Not Corrected C/C

ORDER TO COMPLY

As such conditions are contrary to law, you are hereby required to correct said violations upon receipt of this notice. An inspection to determine whether or not you have complied with this notice will be conducted _____ . Failure to comply before the reinspection date may render you liable to the penalties provided by law for such violations, and reinspection or missed appointment fees.

Date of Inspection: 6/7/11 Inspector Number: 4573-1452

Station: 5 Shift: A Total Time: 20

Occupant Signature: Nick Grode

Type of Inspection: Routine Re-Inspection License Special Referral Occupancy Night
 Copy Disposition: Copy Given Send Copy Faxed Copy No Copy Requested

ENGINEERING • ARCHITECTURE • ENVIRONMENTAL

OMNI
ASSOCIATES

One Systems Drive
Appleton, WI 54914
1-800-571-6677
www.omni.com