

EXECUTIVE SUMMARY

The following report outlines the sampling/analysis plan, QA/QC plan, investigative waste management plan, site health and safety plan, and work plan proposed by OMNNI for the investigation at the former American Quality Fibers site located at 204 Railroad Street, Menasha, Wisconsin. (See Figure 1 – Site Location Map, Appendix 1.) The site is located in the SE¼, NW¼, Section 22, T20N, R17E, Winnebago County. The plan outlines procedures to assure proper sampling techniques, to assure proper handling of all investigative wastes, to protect personnel from potential hazards during normal activities and during adverse conditions, and to implement the defined scope of work.

GENERAL INFORMATION

The former American Quality Fibers site was most recently operated as a paper and plastics storage facility, but had operated in the past as a warehouse for a chemical company and as a drum refinisher. Volatile organic compound (VOC) and metal contamination have been found on the site.

The purpose of the investigation is to identify the source(s) of contamination, to determine the horizontal and vertical extent of soil and groundwater contamination, and to recommend a remediation plan for the site that will restore the environment and protect human health.

The site is located on Doty Island in the City of Menasha approximately 400 feet south of the Menasha Channel. The site is in the Fox - Wolf River basin of Wisconsin. Surficial deposits in this basin consist of glacial sediment deposited during the Wisconsin glaciation. The glaciers were present during the Pleistocene period. United States Geological Survey maps (Water Resources of Wisconsin - Fox - Wolf River Basin, by Perry G. Alcott, 1968) indicate that the materials in the vicinity of the site are composed of glacial lake deposits consisting of silt and clay. The site overlies bedrock formed during the Ordovician Period. Bedrock in the area is comprised of the undifferentiated Platteville Formation, Decorah Formation, and Galena Dolomite. Previous work completed at the site has identified approximately seven feet of clay over silty sand followed by bedrock located at approximately 20 feet below the ground surface.

Topography on-site is relatively flat. Regionally, the topography on Doty Island is also flat with an approximate elevation of 750 MSL. Based on elevations collected from the three wells on-site, groundwater is approximately three to five feet below the ground surface and movement is to the east - northeast toward the Menasha Channel. The channel flows to the west into Little Lake Butte des Morts, which empties into the Fox River.

The site is serviced by City sewer and water, which may influence groundwater flow direction as well as act as potential contamination migration pathways. Changes in the groundwater depth and flow direction typically occur seasonally.

HISTORICAL INFORMATION

American Quality Fibers was a paper and plastics recycling facility that operated from 1986 until it went bankrupt. The current owner of the property is Winnebago County, which acquired the property through an In Rem tax deed in 1997. Prior to 1986 the site was most recently used as a warehouse for a chemical company and as a drum refinishing operation.

Three separate site assessments have been performed at the American Quality Fibers site since 1996. A Partial Phase I Environmental Assessment was performed by Graef, Anhalt, and Schloemer, Inc., in 1996. The report indicated that the site was occupied by a wood truss building used for auto storage according to a 1926 Sanborn

map. The 1926 to 1944 Sanborn map revealed a chemical warehouse and a chemical storage building. Two acid tanks were shown on the map on the south side of the property. During an inspection of the site, two main points of potential environmental concern were observed outside of the building. A pair of vent and fill pipes were observed along the south wall of the building near the west corner of the building, and distressed vegetation and numerous old drum lids and bungs were observed outside the southeast corner of the building. Interviews conducted during the site assessment revealed that a large slurry tank and an aboveground storage tank existed inside the building. Spills were reportedly rinsed down two floor drains inside the building. No soil or groundwater sampling was performed as part of this assessment.

An assessment was also performed by the DNR in 1998. As a part of this assessment, four soil borings were performed and six surface soil samples were collected on-site. Groundwater monitoring wells were constructed in three of the borings. Results of the assessment showed severe soil and groundwater contamination on the property. High levels of volatile organic compounds including ketones, chlorinated compounds, and petroleum hydrocarbons were found in the soil and groundwater at MW1, located in the northern, unpaved portion of the property. Less severe groundwater contamination was found in wells MW2 and MW3, located on the south edge of the property; however, the most severe soil contamination was found in this area. Extremely high levels of lead contamination were found in the soil on the south end of the property. The DNR's report, dated January 1999, concluded that a groundwater contaminant plume extends to the east from MW1 to the eastern edge of the railroad tracks. The DNR recommended additional investigation of the property.

In March and April of 1999, a site assessment was performed by the Environmental Protection Agency (EPA). Twenty-seven surface soil samples were collected at the site, and the three existing monitoring wells were sampled. Drain and floor samples were also collected. During the first sampling event in March, soil samples were collected from along the eastern and southern edges of the property at 40-foot intervals, from the small unpaved area in the center of the site, and from background locations across Railroad Street. A second sampling event in April included sampling from under the northern section of pavement, from under the warehouse foundation and from the drain inside the warehouse. Analytical laboratory results indicated high levels of arsenic, barium, chromium, lead, and mercury in the soil at the American Quality Fibers site. Toxicity characteristic leaching procedure standards were not exceeded in any of the samples; however, total lead levels in three of the soil samples (SS8, SS9, and SS10) were over the Wisconsin Industrial Residual Contaminant Level of 500 ppm. The groundwater sampling confirmed the high levels of VOC contamination in MW1 on-site. The samples collected from the drain and floor were also contaminated with lead.

SAMPLING/ANALYSIS PLAN AND QA/QC PLAN

SOIL BORING INSTALLATION PROCEDURES

Environmental Drilling Service (EDS) will be subcontracted for the drilling during the investigation at American Quality Fibers. EDS was chosen because they have the experience to use a variety of drilling techniques, including bedrock drilling. This will assure the most timely and cost effective results. They are also familiar with the cross-contamination prevention techniques between the unconsolidated materials and the bedrock. Because bedrock drilling is required, borings will be advanced using air-rotary drilling techniques. All borings that are not converted into monitoring wells will be abandoned per Chapter NR 141 Wis. Adm. Code.

Samples will be obtained from each boring continuously in the fine-grained soils (approx. 0-7 feet) and at 5.0' intervals in the coarse-grained soil (expected from 7 – 20 feet) by split-spoon sampling according to ASTM D-1586. A portion of each sample will be screened with a flame ionization detector (FID). At each sampling interval, a representative portion of the soil will also be collected for possible laboratory analysis. One or two soil samples will be chosen from each boring for laboratory analysis. The first sample will be collected at the water table. The second sample will be collected at the depth of the highest field screening location if organic contamination is present.

SOIL SAMPLING PROCEDURES

Soil samples will be analyzed for volatile organic compounds (VOCs) by EPA Method 5030/8021 or 8260. Soil samples collected on the south side of the property near MW2 will also be tested for RCRA metals. Select soil samples will be analyzed for TCLP lead. Our standard instruments and sample collection procedures are as follows:

1. Soil samples are collected from a split-spoon sampler during environmental drilling.
2. Sample collector wears new latex/nitrile exam gloves when collecting samples to decrease the risk of personal exposure and cross contamination.
3. A portion of the sample is collected in a sampling syringe and placed in new glass 40-ml vials and/or new glass 2-oz jars, and immediately placed on ice, and later delivered to U.S. Analytical Laboratory for analysis.
4. The remaining portion of the sample is placed in a clean 4-oz. jar (approx. 3/4 filled), and sealed with aluminum foil and a teflon-lined lid. The headspace sample is then agitated for a minimum of 30 seconds and then allowed to equilibrate. Minimum equilibration time will correspond to the following specifications:

Minimum Sample Headspace Equilibration Time

Ambient Outside Air Temperature at the Time of Sample Collection	Minimum Amount of Time Sample Must Equilibrate at 70° F or Greater Temperature
< 40 F	40 min.
41 – 55 F	20 min.
56 – 69°F	10 min.
> 70°	5 min.

INSTRUMENT SPECIFICATIONS

When the sample has completed equilibration, it will be promptly field analyzed with a portable flame ionization detector (FID). OMNNI uses a sensidyne FID. A background reading is first taken. The FID probe is then inserted into the jar through a single hole in the aluminum foil. The instrument reading is measured at one-half the distance between the foil seal and the sample surface. The measured reading is then recorded.

Hydrogen gas is used for field calibration gas. The FID meter is field calibrated at the following times:

- At the beginning of each day
- After any significant change in temperature or humidity
- Every three hours
- After any repairs to the instrument are performed

All samples will be returned to the laboratory as soon as possible, if possible, the day the sample was collected. All samples are returned to the lab with a chain-of-custody form provided by the laboratory. Care is taken to ensure that the chain-of-custody form is properly and fully completed before submitting to the laboratory.

Soil analyses are conducted in accordance with methods approved by the DNR. VOC analysis will be performed using two 40-ml sample vials per sample location. The sample is collected with a syringe and preserved in the laboratory. The holding time is 4 days. Sampling for RCRA metals will be performed by placing soil in two 2 - ounce glass jars per sample location. No preservation is necessary and the holding time is 6 months.

MONITORING WELL INSTALLATION AND DEVELOPMENT PROCEDURES

The permanent monitoring wells are typically constructed of two-inch, schedule 40, flush-thread PVC casings and well screens. A stainless steel casing will be used in the immediate vicinity of MW1 if it is determined that the well needs to be replaced. It has been reported that the PVC well may have “melted” due to the high concentrations of contaminants in the well. Prior to use, well parts are individually wrapped in plastic.

Permanent wells will be installed and developed according to Chapter NR 141, Wis. Admin. Code, DNR Groundwater Monitoring Well Requirements. Each well will be assigned a Wisconsin unique well number. The monitoring wells will be installed with ten-foot screens which are placed in the borings to intersect the water table. Piezometers will be installed with five-foot screens sealed beneath the water table. Filter pack and annular space seal material are installed by gravity as the augers are withdrawn from the hole. Wells are cut to the required height using a PVC pipe cutter.

An as-constructed well and boring survey will be performed by OMNNI once fieldwork is complete. Elevations will be either based on a local datum of 100 feet, or a U.S.G.S. elevation, assigned to a mark on a reference point located at the site. Ground elevation will be surveyed to the nearest 0.1 foot, and the top of the well casing to the nearest 0.01 foot.

A horizontal grid system will be established at the site with the origin of the grid set on the reference point. Wells and borings are located with respect to this grid system.

To properly develop each permanent monitoring well, water will be removed until a consistent water quality is obtained. This is done by removing 10 times the water volume in the well and filter pack, removing water until it is free of sediment, or removing the water until the well is purged dry. Water will be removed from the wells by bailing the water with as little agitation as possible. If the water level is unaffected by bailing and large amounts of water are to be removed, the well is developed by using the surge and purge method with a Red Lion centrifugal pump or equivalent. No water is added to the well during development. The development water will be placed into 55-gallon drums, pending the results of analytical testing.

GROUNDWATER SAMPLING PROCEDURES

A water level meter will be used to measure water elevations. If the wells have free product on top of the water surface, depth to water and depth to product will be measured with a fiberglass reel tape with an interface probe at the end. The wells will be purged and samples will be collected with a Voss disposable bailer or a peristaltic groundwater sampling pump.

The wells will be sampled starting from the upgradient area and progressing toward the downgradient area of the site. As the degree of contamination becomes known, least contaminated wells will be sampled first, and the more contaminated wells will be sampled last. The wells will be opened to allow for equilibration before the depth to groundwater is determined. Four water volumes within the well casing will be removed prior to sampling. Dissolved oxygen, odor, turbidity, temperature, conductivity, and pH will be determined on the unfiltered portions of the sample and recorded on the well specific field sheet. When the sample requires filtering, the sample will be filtered with an in-line pump (as soon after collection as possible). VOC analysis is performed using two, 40-ml vials preserved with 0.5 ml of 1:1 HCl. The holding time is 14 days. Metals are collected in a 250-ml plastic bottle with 2-ml of nitric acid preservative. The holding time is 6 months.

Trip and field blanks will consist of two new 40-ml vials filled with deionized water. These will be analyzed for VOCs. One field blank will be analyzed for every 10 samples collected. At least one trip blank will be taken per site visit. Trip blanks are poured, labeled, and sealed, then taken out in the field. Trip blanks are kept with all samples collected until reaching the field. Field blanks are typically used if the bailers are not dedicated to a specific well. If there is a possibility for field cross-contamination of samples, field blanks may also be taken at the sample collector's discretion. One temperature blank is collected per batch of samples and one duplicate sample is collected with every 10 samples.

Samples will be placed on ice until refrigerated, then they are transported or picked up by U.S. Analytical Laboratory for testing as soon as possible. A chain-of-custody will be filled out listing all samples collected, requested laboratory analysis, date and time of collection, and the name of the sample collector. This document will remain with the samples at all times and bear the names of all persons handling the samples until the samples are received by the laboratory.

In the field, sampling equipment is rinsed with a 10% methanol solution and then flushed three times with deionized water between each well sampled. Equipment that is still contaminated after field cleaning will be rinsed with tap water, washed off with detergent, rinsed with a 10% methanol solution, and flushed three times with deionized water.

DECONTAMINATION PROCEDURES

Decontamination is the process of removing and/or neutralizing contaminants that may have accumulated on PPE (personnel protective equipment) and drilling equipment. Proper decontamination is a critical element in the control of hazards which helps ensure the health and safety of workers. Proper decontamination also contains the contamination to the site, thus preventing further environmental problems.

Drilling

The following decontamination procedures will be used by EDS when completing borings, installing monitoring wells, and/or installing remediation systems.

- A. Between samples, the split spoon will be cleaned in a multiple rinse, surfactant solution (soap and water or Alconox solution.)
- B. The sample will be collected while wearing new latex/nitrile exam gloves.
- C. The surface upon which the sample is collected will be cleaned between samples.
- D. The latex exam gloves will be changed between samples.
- E. Soil which has accumulated around the boring will be stored in 55-gallon drums. The soil will later be disposed of in compliance with the DNR regulations.
- F. Upon completion of the boring, the augers will be decontaminated before they are used again. The following procedures will be followed when decontaminating drilling equipment:
 - 1. Environmental Drilling Service uses a decontamination trailer. All water from the decontamination is contained in 55-gallon drums.
 - 2. All contaminated equipment is placed in the decontamination trailer.
 - 3. A pressurized steam cleaner is used to clean all contaminated equipment.

4. Following steam cleaning, the auger is removed from the decontamination trailer.
5. Upon completion of the job, the accumulated water in the decontamination basin is pumped out and placed in a barrel. Wash water used for cleaning the split spoons is also added to the barrel. The barrel will be disposed of in compliance with all regulatory agencies.

INVESTIGATIVE WASTE MANAGEMENT PLAN

All investigative waste will be managed in accordance with the General Interim Guidelines for the Management of Investigative Wastes. The guidelines define investigative waste as any contaminated media generated as a result of investigative activities. The investigative waste at the American Quality Fibers site will consist of soil cuttings from the borings, well development and sampling water, water generated from the pump tests, and equipment decontamination. All waste management methods will be protective of human health and the environment and will comply with applicable laws and rules. Every effort will be made to minimize the amount of investigative waste generated.

Equipment decontamination will occur within a decontamination trailer used by Environmental Drilling Service. All water from the steam cleaning will be containerized in 55-gallon steel drum until later disposal.

All soil cuttings from the drilling activities will be containerized in 55-gallon steel drums kept in a secure place until laboratory analysis is available. Cuttings from each boring and water from each well will be kept separate to avoid mixing of potentially contaminated and clean material, thus minimizing disposal or treatment costs. Drums will be clearly labeled with the waste type, origin, and date of collection. Once lab data is available, a decision will be made regarding the final destination of the waste. If analytical data shows soil or water to be clean, then the material will be placed back on-site. Clean water will not be placed on-site over an area that is known to be contaminated in order to avoid leaching of additional contaminants into the environment. Contaminated waste will be treated and/or disposed of as part of the investigation activities or treated and/or disposed of as part of the remedial action, depending on which method is most cost effective.

SITE HEALTH AND SAFETY PLAN

The initial assessments at American Quality Fibers have indicated the presence of gasoline derived petroleum hydrocarbons, including benzene, toluene, total xylenes, and ethylbenzene, etc., and acetone, ketones, and RCRA metals.

This Safety and Health Plan (hereafter referred to as the Plan) describes the program to be implemented by OMNNI Associates (hereafter referred to as OMNNI) when performing work at American Quality Fibers, 204 Railroad Street, Menasha, Wisconsin.

Safeguarding OMNNI employees is a key part of this project. All work will be conducted in accordance with applicable federal, state, and local regulations.

This Plan identifies procedures to be followed to minimize the potential for personnel exposure to contaminants known or suspected of being present at the site. All OMNNI employees who perform fieldwork during this project will be required to read this Plan and acknowledge receipt and understanding of the plan.

OMNNI has the primary responsibility for implementing the safety plan, which includes training its employees in safe operating procedures and advising the personnel on matters concerning the health and safety of employees or the public. OMNNI should also be consulted before any changes are made to the safety plan. Changes might include:

- Upgrading protection levels as required.
- Suspending work due to Safety and Health Plan violations, health related incidents, and other increased risk situation.
- Removing personnel from the work site if their actions endanger the safety and health of other field personnel.
- Authorizing personnel to enter the site based on medical and training requirements.

REGULATORY AGENCY

The Wisconsin Department of Natural Resources Project Manager for this project is Keld Lauridsen, telephone number 920-492-5921

MEDICAL CONTACTS

The nearest local hospital is Theda Clark Regional Medical Center - Neenah, WI., telephone number 920-729-2063.

Directions to Medical Aid: Theda Clark Regional Medical Center

Go South on Railroad Street. Railroad Street turns into Clybourn Street at the City limits. Continue south to Highway 114 (Washington Street). Turn right on 114 and continue southwest to Water Street. Turn left onto Water Street and continue to 3rd Street. Turn right on 3rd Street and go south until you arrive at Theda Clark.

The local emergency contacts are:

Fire Department	911 or 920-967-5125
Police Department	911 or 920-967-5128
Ambulance Service	911 or 888-888-3838
Poison Center	800-815-8855
Chem Trec	1-800-424-9300

When contacting the Ambulance Service, inform the dispatcher as to the specific hazard (if known) to ensure that if the injured person is contaminated, care will not be denied.

HAZARD DESCRIPTION

The wastes identified at the site thus far have the following characteristics:

1. Waste Type(s): Liquid Solid Sludge Gas
2. Characteristic(s): Corrosive Ignitable Radioactive Volatile Toxic Reactive
Unknown Other

DESCRIPTION OF CONTAMINATION:

The contamination at the American Quality Fibers site is petroleum contaminated soil and groundwater. Other chemicals detected in the water at MW1 at levels that exceed groundwater enforcement standards include acetone, cis-1,2-dichloroethylene, methyl ethyl ketone, methyl isobutyl ketone, styrene, and tetrachloroethylene.

HAZARD ASSESSMENT

The following have been identified, but are not limited to, as possible hazards on this site: (check those that are appropriate for the site)

1. Physical hazards associated with construction, material handling, and the use of equipment while wearing personal protective equipment (PPE).
2. Heat and cold stress.
3. Inhalation of low concentrations of vapors or mists from acids, caustics, peroxide, or organic solvents.
4. Limited skin or eye contact with acids, caustics, peroxide, oils, or organic solvents.
5. Fire hazard due to the presence of organic materials.
6. Chemical reaction hazard due to the presence of acids, caustics, or peroxide.
7. High pressure hoses and liquid transfer equipment.
8. High-noise area.
9. Vibration hazard.

OVEREXPOSURE to SPECIFIC COMPOUNDS

<u>Type</u>	<u>Level in MW1(8/13/98)</u>	<u>Exposure limit(TWA)</u>	<u>IDLH</u>	<u>Overexposure</u>	<u>Odor</u>
Toluene	120 ppm	100 ppm	500 ppm	irr eyes, weak	aromatic
Benzene	4.3 ppm	0.1 ppm	500 ppm	irr eyes, nau, headache	aromatic
Xylenes	126 ppm	100 ppm	900 ppm	drowsiness, irr eyes	aromatic
Ethylbenzene	94 ppm	100 ppm	800 ppm	irr eyes, skin, headache	aromatic
Acetone	100 ppm	250 ppm	2500 ppm	irr eyes, nose, dizz, head	mint like
Cis-1,2 dichloro-Ethylene	80 ppm	200 ppm	1000 ppm	irr eyes, CNS depression	chloroform
Methyl ethyl Ketone	36 ppm	200 ppm	3000 ppm	irr eyes, skin, nose, vomit	mint
Methyl isobutyl ketone	56 ppm	50 ppm	500 ppm	irr eyes, skin	pleasant
Naphthalene	26 ppm	10 ppm	250 ppm	irr eyes, head, confusion	mothball
Styrene	4 ppm	50 ppm	700 ppm	irr eyes, dizz, conf, weak	floral
Tetrachloro-Ethylene	28 ppm	100 ppm	150 ppm	irr eyes, nose, throat	chloroform

Note: Exposure limits are for airborne contaminants and are based on exposure for an 8 hour period.

Emergency and first aid procedures for compounds found at the American Quality Fibers site can be found on the material safety data sheets located in Appendix 2.

LEVELS OF PROTECTION

It is important that personal protective equipment is appropriate to protect against known or potential hazards at American Quality Fibers. Protective equipment has been selected based on the types and concentrations of substances anticipated at the site and the possible routes of personnel exposure. OMNNI recommends a modified level D on-site, if deemed necessary. Level D protection includes the following:

Level D Protection

Required

Coverall
Hard hat
Gloves
Safety boots/shoes

Optional

Face shield
Hearing protection
Safety glasses

Modifications to the level of protection include an air purifying respirator and chemical resistant gloves when sampling soil and groundwater near MW1, if deemed necessary.

LEVELS OF PROTECTION FOR GENERAL ORGANIC VAPORS

Health Action Levels

Required PPE Level

Up to 1 ppm above background in breathing zone on Draeger tube sample and up to 25 ppm on H-NU.

LEVEL D

1 – 25 ppm above background in breathing zone on Draeger tube sample or >25 ppm on H-NU.

MODIFIED LEVEL C

>100 ppm above the background in breathing zone on Draeger tube sample and/or H-NU.

SUSPEND WORK

SITE ACCESS

Access to the site will be limited to authorized personnel. Such personnel include the Contractor's employees, designated equipment operators, WDNR personnel, and designated union (owner) representatives.

Certain procedures may be followed to ensure suitable site control and limitation of access so that those persons who may be unaware of site conditions are not exposed to hazards.

If future remediation includes excavation, unattended excavations will be appropriately barricaded. Well caps will be secured by suitable locking devices to prevent unauthorized access. All heavy machinery and equipment shall be locked or chained each evening upon completion of daily activities.

TRAFFIC CONTROL

If traffic is deemed to be a hazard, the sub-contractors will be responsible for providing appropriate warning signs and lights.

TRAINING REQUIREMENTS

All employees who will perform fieldwork at the site must have completed a 40-hour hazardous waste site training program as required under OSHA 29 CFR 1912.120.

SITE SPECIFIC TRAINING

Employees assigned to the site will be given site-specific training and field experience to include the following topic:

- X Acute and chronic effects of the toxic chemicals found at the site
- X Routes of potential exposure and field activities which could result in such exposure
- X Need for personal protection, types of protection, fit effectiveness and limitations
- X Proper use and fitting of respiratory protective equipment

- X Medical Surveillance program specific to site hazards
 - Work zones established at the site
 - X Prohibited activities on site
 - Engineering controls and safe work practices associated with each employee's work assignment, including dust control measures and use of "buddy system"
 - X Personal and equipment decontamination procedures
 - X Emergency response procedures
 - X Basic operational safety, emphasizing hazards expected on-site
 - X Drum handling procedures
 - Tank or vacuum trailer loading or unloading
 - X Spill control
 - X Sampling procedures
 - Site communication procedures
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PERSONNEL DECONTAMINATION

All employees assigned to the site will follow the following procedures for personnel decontamination prior to leaving the work site.

Latex gloves will be removed on site and disposed of in an appropriate container. If facilities are available, all exposed skin, such as the hands, should be washed prior to leaving site. Boots and clothing will be checked for excess soil, which if present, will be removed.

SITE STANDARD OPERATING PROCEDURES

Workers will be expected to adhere to the established safety practices for their respective specialties (e.g., drum handling, sampling).

The need to exercise caution in the performance of specific work tasks is made more acute due to weather conditions, restricted mobility, and reduced peripheral vision caused by the protective gear itself. Work at this site will be conducted according to established procedures and guidelines for the safety and health of all involved.

MONITORING PROGRAM

Air monitoring will be conducted with a portable Micro-tip HL 200 photoionizer which detects and measures the concentration of organic in the air. Representative personnel exposure monitoring, to determine 8-hour time weighted average (TWA) exposure concentrations, will be conducted when possible.

While at the site, the Contractor's employees will be required to monitor their own health and that of their co-workers. Visual observations include:

- ?? behavioral changes
- ?? change in appetite
- ?? coordination losses
- ?? gum and lip discoloration
- ?? increased salivation
- ?? pupil dilation
- ?? sensation losses
- ?? skin irritation
- ?? slurred speech
- ?? eye irritation

Any abnormalities or changes are to be reported to the physician and investigated immediately. Such aspects could be symptoms of toxic exposure and must not be allowed to persist without medical attention.

COMPLIANCE AGREEMENT

Safety and Health Plan Compliance Agreement

I, _____(print name), have received a copy of the Safety and Health Plan for Project No. N1645A00. I have read the Plan, understand it, and agree to comply with all of its provisions. I understand that I could be prohibited from working on the project for violating any of the safety requirements specified in the Plan.

Signed:

signature

date

Signed for OMNNI:

signature

date

SITE WORK PLAN

OMNNI proposes a phased investigation for the American Quality Fibers site. (See Figure 1 – Site Location Map, Appendix A.) Initially, we propose to install a background soil boring/monitoring well and piezometer west of Railroad Street, a piezometer and three monitoring wells proceeding radially outward from MW1, a monitoring well and piezometer to the east of the railroad tracks, and soil borings along the southeastern side of the building on-site, possibly extending into the railroad right-of-way. (See Figure 2 - Site Detail Map, Appendix A.)

Soil borings will be installed using hollow stem or solid stem augers if bedrock drilling is not planned for the boring. If the boring extends into bedrock, an air rotary method will be used. Borings will be continuously sampled by field screening with a flame ionization detector (FID) in fine-grained soils, which are expected between 0-7 feet bgs. In course-grained soil, expected between 7-20 feet below grade, samples will be collected from each major soil unit encountered at a maximum of 5-foot intervals. Borings will extend in depth to define the vertical extent of contamination. One to two soil samples will be collected from each boring and delivered to U.S. Analytical Laboratory for analysis. The first sample will be collected at the water table. The second sample will be collected at the depth of the highest field screening location. Soil samples will be tested for volatile organic compounds (VOCs) by EPA Method 5030/8021. Soil samples collected near MW2 will also be analyzed for Resource Conservation and Recovery Act (RCRA) metals.

In addition to the analyses requested by the DNR, OMNNI proposes that select soil samples be analyzed for lead using the toxicity characteristic leaching procedure (TCLP). OMNNI also proposes to analyze select soil samples for total organic carbon, iron, soil moisture, pH, porosity, and grain size. Soil vapor probes will be installed in select soil borings to be used for analyzing subsurface oxygen and carbon dioxide levels to give an indication of microbial activity.

Soil borings that are not converted into groundwater monitoring wells will be abandoned per NR141, Wis. Adm. Code.

All groundwater monitoring wells and piezometers will be installed per NR 141, Wis. Adm. Code. If dense non-aqueous phase liquids (DNAPLs) are suspected to exist, double cased wells will be installed into bedrock to prevent downward migration of VOCs. DNAPL presence may be indicated by visible product in soil and groundwater samples, high concentrations in soil samples and headspace readings, increased dissolved concentrations with depth, and VOC concentrations detected in groundwater exceeding one percent of the effective solubility limit. Monitoring well MW1 will be inspected before drilling begins to determine if the PVC well is intact. Speculation exists that the high concentrations of chlorinated compounds in the well may have affected the integrity of the well. If the well is damaged, a new well will be installed in its place with stainless steel casing. If similar subsurface conditions exist near MW1, new wells in these areas will also be installed using stainless steel casings.

Wells and piezometers will be developed after recovery per NR141. Two rounds of groundwater sampling will be performed within 30 calendar days of each other. The samples will be tested for VOCs per EPA Method 5030/8021. The groundwater sample collected from MW2 will also be analyzed for RCRA metals. Dissolved oxygen, pH, temperature, and conductivity will be measured in the field at each location during each event.

In addition to the analyses requested by the DNR, OMNNI proposes that select groundwater samples be analyzed for total organic carbon, dissolved iron, sulfate, nitrate, alkalinity, redox, chlorine (Cl-), methane, and hardness.

In-field hydraulic conductivity testing will be performed on select wells to aid in determining in-situ hydraulic conductivity.

Prepared By:

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Hydrogeologist

Reviewed By:

Don Brittnacher, P.E., P.G.
Professional Engineer

"I, Dave Fries, 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."

(Professional Geologist)

(P.G. Number)

"I, Don Brittnacher, 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 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)

(P.E. Number)

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APPENDIX 1
FIGURES

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**QA/QC Plan,
Investigative Waste
Management Plan,
Site Health and
Safety Plan, and Site
Work Plan**

for the

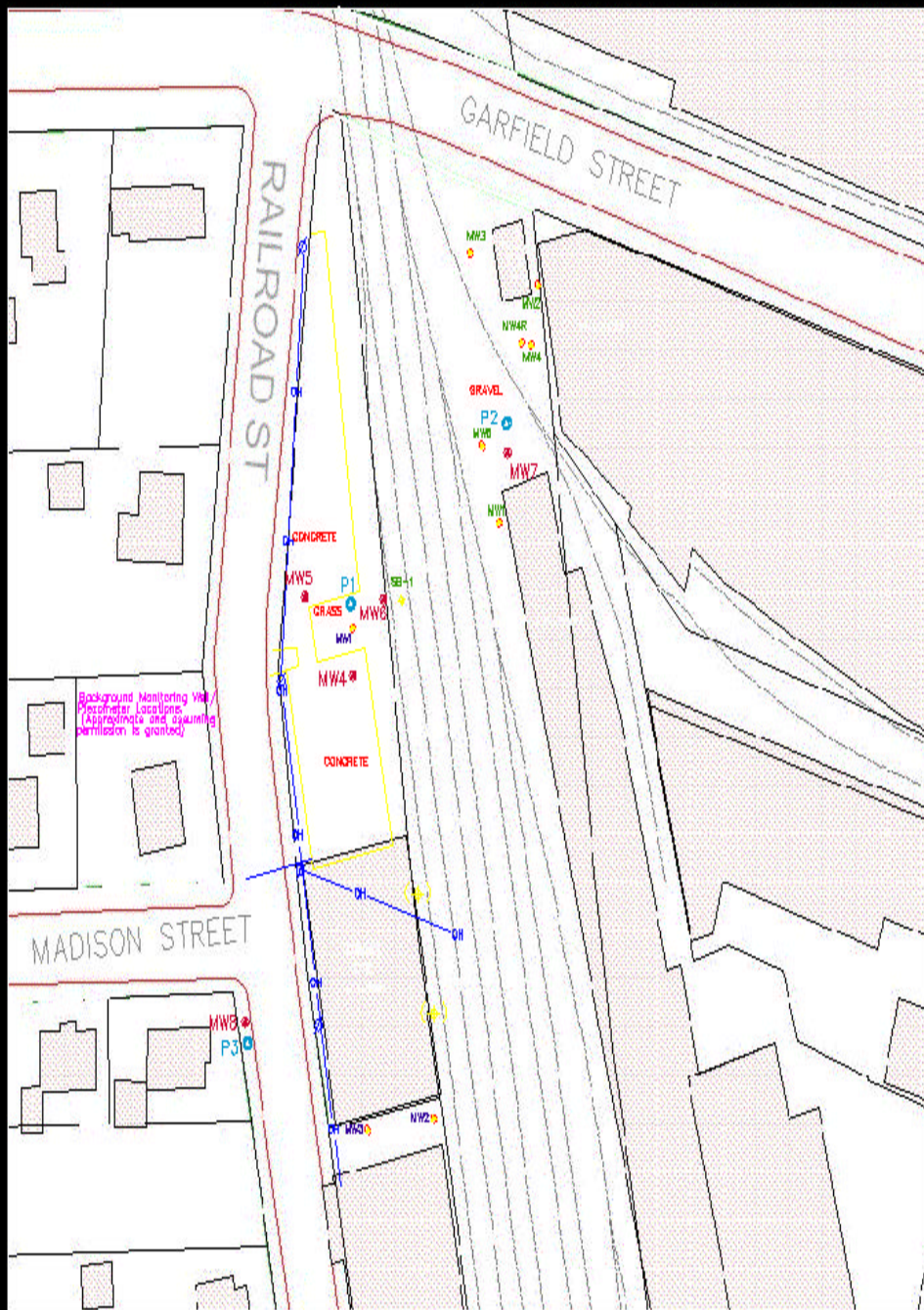
**Investigation of Soil
and Groundwater
Contamination**

at

**American Quality
Fibers
204 Railroad Street
Menasha, WI**

November 2, 2000

Project N1645A00



0' 15' 30' 45' 60'

SCALE: 1" = 60'

LOCAL GRID NORTH



LEGEND:

- (⊕) Proposed Soil Boring Location
- MW4 (⊕) Proposed Monitoring Well Location (Phase 1)
- P1 (⊕) Proposed Piezometer Location (Phase 1)
- NW1 (▲) Well Location *
- * The wells from the Fox Valley & Western Neenah Station were abandoned when closure was obtained for the site.
- SB-1 (⊕) Soil Boring and Well Location *
- NW2 (▲) DNR Monitoring Well Location

NOTE:

Soil samples will be taken from each monitoring well boring. Additional dedicated soil borings will be installed near the building on-site to determine the extent of surface soil impacts, soil under the building, and potential utility impacts.

FIGURE 2
SITE DETAIL MAP

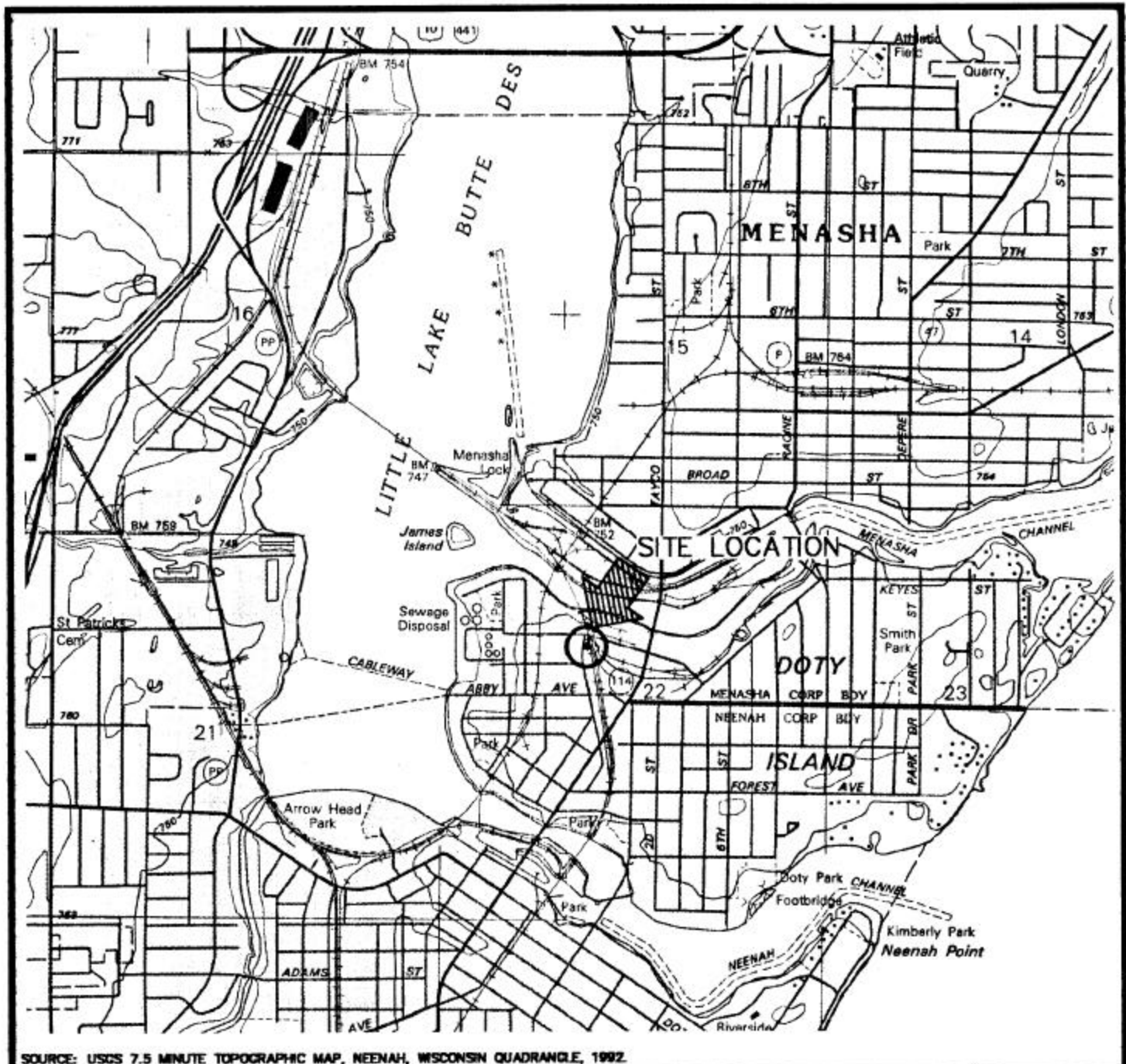
AMERICAN QUALITY FIBER
204 RAILROAD STREET
MENASHA, WISCONSIN 54952



ONE SYSTEMS DRIVE
APPLETON, WI 54914
PHONE (920) 726-8900
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PROJECT ENGINEER:	CAD FILE NO.:	316
DRAWN BY:	DATE:	SCALE: 1" = 60'
REVIEWED BY:	DATE:	6/22/05

Figure 1



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, NEENAH, WISCONSIN QUADRANGLE, 1992.

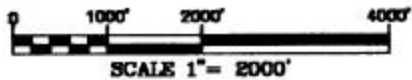


FIGURE 1
SITE LOCATION MAP

FORMER AMERICAN QUALITY FIBERS
204 RAILROAD STREET
MENASHA, WISCONSIN 54952

OMNI
ASSOCIATES

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DRAWN BY:	DLD	SCALE: