CCA Building

EXISTING CONDITIONS REPORT
Weisenberger Tie and Lumber Company
Marathon City, Wisconsin
Delta No. 15-91-032

Prepared by:

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May 4, 1993

2.3.2 Miller Engineers Phase 1 Remedial Investigation (1989 - 1991)

In December 1989, Miller Engineers of Sheboygan, Wisconsin was contracted by the WDNR to conduct a Remedial Investigation (Phase I) to determine the extent and degree of soil and ground water contamination at the site. As of February 1991, a total of 139 soil borings and four monitoring wells (MW-1, MW-2, MW-3 and MW-7 in this report) had been installed at the site by Miller Engineers.

Soil borings installed by Miller Engineers were terminated at depths between two and seven feet below ground surface. Typically, soil samples were collected from depths of 0-2 and 4-6 feet. Soil samples were analyzed for PCP, Total Petroleum Hydrocarbons (TPH) as #2 diesel fuel, and VOC. Contaminant concentrations were highest in the areas adjacent to the dip tanks.

Miller Engineers collected ground water samples from the seven on-site monitoring wells (MW-1, MW-2, MW-3, MW-5, MW-6, MW-7 and MW-10) in February, 1990. Laboratory reports indicated high levels of dissolved TPH and PCP in monitoring wells MW-3, MW-7 and MW-10.

One soil sample, collected from a depth of 0-2 feet at the south end of the PCP dip tanks, was analyzed for isomer specific dioxins by Alta Analytical Laboratory, Inc. of El Dorado Hills, California in April, 1991. This sample contained some of the highest reported concentrations of TPH and PCP detected in the Miller Engineers study (810 and 1,955 milligrams per kilogram, respectively), and also contained 2,446,378 picograms per gram (pg/g, equivalent to parts per trillion) total dioxin.

2.3.3 Department of Agriculture, Trade, and Consumer Protection Sampling (1991)

In May, 1991, the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) collected two soil samples near the pressure treating facility in the area east of the tram. The sample taken adjacent to the tram showed elevated levels of copper and arsenic. Due to these levels, the WDNR required a site investigation of the area to determine the extent of copper, chromium and arsenic contamination resulting from preservative discharge to the environment.

The WDNR also instructed Mr. Weisenberger to conduct a remedial investigation at the above ground fuel tanks, located on the north side of the driveway. These tanks were suspected sources of contamination due to no secondary containment structures and because of the past practice of hanging the nozzles upside down

on the outsides of the tanks after fueling. Weisenberger Tie and Lumber Company contracted with CWE to perform this work.

2.3.4 Central Wisconsin Engineers Investigation (1992)

In April 1992, CWE advanced nine soil borings near the pressure treating building (TB-1 through TB-9) to depths of 9.5 feet below the ground surface. TB-1 through TB-5 were located east of the tram and TB-6 through TB-9 were located along the west edge of the concrete drip pad. Soil samples from depths of 0-2 and 2-4 feet were collected from all borings and analyzed for total copper, total chromium and total arsenic. The highest concentrations of these constituents were detected in samples collected from 0-2 feet deep. A soil sample collected from TB-9 at a depth of 0-2 feet was reported to contain concentrations of total arsenic, total chromium and total copper of 1600, 1200 and 760 mg/kg (equivalent to ppm), respectively. CWE's investigation determined that the highest levels of contamination in shallow (0-2 feet) soils at the CCA facility occurred on the west side of the concrete drip pad. CWE's investigation did not define the horizontal extent of contaminants in the soil near the pressure treating facility. CWE recommended additional soil borings to define the horizontal extent of contamination in this area in a May 1992 report to the WDNR.

In April 1992, CWE performed an investigation in the area around the fuel tanks. CWE advanced three soil borings (TB-10, TB-11, and TB-12) to depths of approximately 10 feet below ground in areas where there were visible soil stains and petroleum odors present. Two samples from each boring were submitted for laboratory analysis of DRO and petroleum volatile organic compounds (PVOCs). CWE concluded that petroleum hydrocarbon contamination in the soil extended to depths of 4.5 to 7 feet below ground surface at the soil boring locations. The highest concentration of DRO reported (46,000 ppm) was in a sample collected from 0-2 feet in boring TB-12.

2.4 Contaminant Source Inventory

Potential sources of soil and ground water contamination at the site include the dip tanks, as described above, and which are the primary focus of this investigation. There were three above ground fuel tanks on site consisting of one 10,000 gallon diesel fuel tank, one 4,000 gallon fuel oil tank, and one 500 gallon gasoline tank. The above ground fuel tanks had no secondary containment structures, as described in Section 2.2, and were removed in October, 1992. Additional potential sources of contamination on site include the

CCA pressure treating facility, and 78 drums of used PCP and diesel fuel which are stored in a maintenance building west of the pallet factory (Figure 3).

2.5 Utility Survey

A utility survey was conducted at the site on March 20, 1992. Utilities were located and plotted on a base map (Figure 3). The utilities identified in the areas of investigation include an overhead electric line which trends north-south along the eastern boundary of the study area, and an underground electrical conduit which crosses the northern portion of the study area. The locations of additional buried and above ground utilities at the site are shown on Figure 3.

3.0 PHYSICAL SETTING

3.1 Site Description

Marathon County is located in north central Wisconsin between 44 and 46 degrees north latitude and 89 and 90.5 degrees west longitude. Marathon County is the largest county in the state and contains 1,559 square miles (Clements, 1990). Most of Marathon County is characterized as a gently undulating plain, although the largest relief in the state occurs where Rib Mountain rises 740 feet from its base to a total elevation of 1,942 feet above mean sea level (Kendy and Bradbury, 1988). The Weisenberger property is located in central Marathon County approximately 12 miles west of the city of Wausau and is situated on an upland overlooking the Big Rib river valley. The Big Rib River flows eastward approximately one-half mile south of the site, and is a tributary of the Wisconsin River.

Marathon City's municipal well field is located on the north side of the Big Rib River, near the Highway 107 bridge. The location of Municipal Well #1 is shown on Figure 4, which also identifies potable wells in the vicinity of the site. Logs of the potable wells shown on Figure 4 are included in Appendix A. Four potable water wells are located on the site (PW-1 through PW-4), and are shown on Figure 5. PW-1 is not shown on Figure 5, but is located adjacent to the Weisenberger residence.

The property adjoining the Weisenberger site on the south and southeast belongs to County Concrete Corporation and has been excavated to a depth of approximately 10 to 15 feet on average. The material removed from the excavation to the east of the Weisenberger property was used for road grade on the State Highway 29 overpass (located approximately one-half mile northeast of the site). The County Concrete

sampling event. A stained area, shown on Figure 19, was found to contain high concentrations of DRO, PCP and dioxins/furans based on laboratory analysis of DSS-18. This area was probably the area where freshly dipped lumber was allowed to dry after being removed from the dip tanks.

A third round of samples were collected in December, 1992. Samples were collected from a depth of approximately two feet deep at DSS-4,-5,-9 and DSS-11. These samples were collected to quantify soil contamination with depth at those locations. Eight surface sample locations (DSS-4,-6,-8,-9,-10,-11,-12, and DSS-17) were resampled for VOC analysis because samples collected in September from these locations had been analyzed past required holding times for VOCs.

The fourth round of soil sampling was performed in January, 1993. The WDNR authorized Delta to complete additional investigative work at the CCA pressure treating facility located in the northeast portion of the site and at the former location of the above ground fuel tanks. Investigations begun by Central Wisconsin Engineers at those locations had identified soil contamination, as described in Section 2.3. Delta installed five soil borings and completed one soil boring as a monitoring well at each location.

Soil samples were collected continuously from soil borings advanced during the fourth round of soil sampling. At the former location of the fuel tanks, soil borings were advanced to 10 feet. Two samples from each boring were submitted to RMT Labs for analysis of DRO, Gasoline Range Organics (GRO), Petroleum Volatile Organic Compounds (PVOCs by EPA method 8020), PAH and total lead (Pb).

At the CCA pressure treating facility, soil samples were collected from 0-2 and 2-4 feet deep for analysis of total copper by EPA method 6010, total chromium by EPA method 6010, and total arsenic by EPA method 7060.

5.3 Distribution of Contaminants in Soil

The purpose of the soil investigation was to define the extent and degree of the contaminants in soils that may be impacting surface water, ground water, or the atmosphere. This section presents a discussion of the distribution of organic and inorganic contaminants in site soils, and explores correlations between the wood treatment practices and contaminants detected. The soil sample chemical results are summarized in Tables 5-11. Soil sample analytical reports are included in Appendix F.

In summary, the highest concentrations of PAHs were detected in soil samples collected from borings placed adjacent to the dip tanks from the ground surface to depths of five to six feet, which is the approximate depth to bedrock at that location. There is a potential for PAHs to leach out of the unsaturated soils into the water table at this location. PAHs were not detected in soil samples collected outside the immediate vicinity of the PCP dip tanks at the lumber drying areas.

5.3.2.3 Diesel Range Organics

CWE's investigation of the former above ground fuel tanks location identified diesel range organics (DRO) contaminants in five of six soil samples submitted for laboratory analysis. DRO concentrations ranged from 230 to 46,000 mg/kg. DRO contamination was detected in one soil sample collected at a depth of five to seven feet (230 mg/kg) but the highest concentration of DRO was in a sample collected near the surface (0-2 feet, 46,000 mg/kg). DRO was not detected in soil samples collected by Delta at this location.

Diesel fuel was used as a carrier during the years of PCP treatment operations; therefore, soil samples analyzed for PCP and PAH were also analyzed for diesel range organics (DRO). DRO is not a specific contaminant, and so is not specifically regulated, but can be an indication of the presence of other semi-volatile organic contaminants. The results of DRO analysis are summarized in Table 7.

Quantifiable concentrations of DRO were reported in 24 soil samples collected from 19 locations. The highest reported concentrations of DRO were at the same locations (dip tank area) as the highest PAH and phenol concentrations.

5.3.3 Dioxin and Furan Contamination

The chemical formulation of PCP creates dioxins/furans as impurities in the product. Dioxins/furans are of interest because they are considered highly toxic. These non-volatile compounds are composed of two benzene rings connected by either one (dibenzofurans) or two (dibenzo-*p*-dioxins) oxygen bridges between the rings. Because dioxins and furans have the same molecular formula and similar structure, the compounds are grouped together. On the dioxin molecular framework there are eight positions where hydrogen atoms can be replaced by chlorine atoms, creating 75 possible configurations of polychlorinated dibenzo-*p*-dioxins. The isomers with the highest toxicity are those having 4 to 6 chlorine atoms and the 2,3,7,8 positions substituted with chlorine.

guidelines, reported analyte concentrations are considered valid if the level of contamination in the blank is less than five percent of the level detected in the sample.

Dioxin/furan contaminant concentrations in soils increased with congener group, (i.e., tetra<penta<hexa<hepta<octa). Concentrations were greatest in the PCP dipping and lumber drying areas.

Three sediment samples were collected from a pond located approximately 1,500 feet southwest of the site on County Concrete property. These samples were analyzed for dioxins/furans to determine the off-site distribution of dioxins/furans. Two of the samples were reported to contain 2.5 and 2.1 ppt total HeptaCDD. The third sample did not have detectable concentrations of HeptaCDD. The three samples were reported to contain 29.7, 23.4 and 18 ppt of total OctaCDD, but OctaCDD was detected at similar levels in the laboratory method blank during analysis, suggesting that the concentrations reported in the field samples could be false positives. These concentrations indicate that dioxin/furan contamination is not of particular concern in surface water sediments off-site.

In summary, dioxins/furans were detected in all soil samples collected south of Weisenberger Road, in the PCP treating area. High concentrations of dioxins/furans were detected in soil samples collected from borings placed adjacent to the dip tanks from the ground surface to depths of five to six feet, which is the approximate depth to bedrock at that location. There is a potential for dioxins/furans to leach out of the unsaturated soils into the water table at this location. High concentrations of dioxins/furans were also detected at the ground surface in the lumber drying area.

5.3.4 Inorganic Contamination

Arsenic is a common constituent in wood preservative formulations, therefore the WDNR requested that arsenic be analyzed in soil samples to determine if past wood treating practices had contaminated site soils with arsenic. Forty soil samples were analyzed for total arsenic content. These samples were collected from the PCP treating area and the pressure treating facility area.

Copper and chromium are constituents CCA (copper chromium arsenate) the wood treating chemical used in the pressure treating process, therefore, soil samples collected at the pressure treating facility were analyzed for copper and chromium in addition to arsenic.

feet). TCLP is a leaching test procedure. If the leachate concentration of these metals exceeds a regulatory action limit, the source material is regulated as a hazardous waste upon generation. If the concentration does not exceed the regulatory action limit the soil is regulated as a hazardous substance spill under Wisconsin Administrative Code Chapter NR 144.76. The TCLP results for copper and chromium from the two samples analyzed for TCLP did not contain hazardous concentrations of copper or chromium. Samples collected closer to the drip pad by CWE may have failed a TCLP analysis.

Total lead analysis was performed on soil samples collected from borings advanced at the former fuel tanks location (DSS-9 through DSS-12 and DMW-10). This analysis was performed to determine if leaded gasoline had leached into the soil in that area. Total lead concentrations for the eight samples analyzed ranged from 22 to 80 mg/kg (Table 9). These concentrations are within the ranges found in natural soils, as published by the EPA, but are above the average. Gasoline range organic compounds were not detected in these samples, suggesting that the reported lead concentrations are naturally occurring.

5.4 Soil Contamination Discussion

VOCs, semi-volatiles (PCP, PAH, DRO) and dioxins/furans are considered contaminants of concern in the PCP wood treating area. Specifically, soils adjacent to the dip tanks and the lumber drying areas are considered source areas for these contaminants in ground water. PCP concentrations were generally higher than concentrations of the other contaminants. The extent of VOC, PAH and DRO contamination is within the boundaries of PCP contamination, as depicted on Figure 20. Since any remedial action(s) for PCP in soil would also remediate VOC and PAH contamination, the extent of VOC and PAH contamination in soil are not depicted separately from PCP contamination.

At the dip tanks, soil contamination extends from the ground surface to the bedrock surface, a thickness of approximately six feet. Data generated by Miller Engineers has been used to assist in determining the approximate extent of PCP contamination in the soil around the dip tank and lumber drying areas (Figure 20).

The approximate extent of total TCDD/F contamination in soil, in excess of 1,000 ppt (1.0 ppb) is restricted to the stained soil area at the lumber drying area (Figure 21). The approximate extent of PentaCDD/F in excess of 1,000 ppt is shown on Figure 22. The approximate extent of HexaCDD/F, HeptaCDD/F and OctaCDD/F in excess of 1,000 ppt, are shown on Figures 23, 24, and 25, respectively. The data indicated

that dioxin/furan concentrations decreased greatly at a depth of two feet below the ground surface at most locations (e.g., DSS-11 0-0.5 ft and DSS-11 2 ft., Table 8), except at the dip tanks where high concentrations were detected throughout the unsaturated zone.

The locations of soil borings and monitoring wells advanced in the former fuel tanks location are shown on Figure 26. VOC and DRO contamination appears to be limited to the locations sampled by CWE. DRO concentrations were reported in excess of 200 ppm in all samples collected by CWE except for TB-10, 5-7 feet in which no DRO was detected. Total PVOC concentrations were highest in TB-12 (>10 ppm) which also had the highest reported DRO concentration (46,000 ppm). Organic contaminants were not detected during Delta's soil sampling program at the former above ground fuel tanks location.

Arsenic is not considered a contaminant of concern in the PCP treating area, or at the former fuel tanks location. However, CWE's investigation of the pressure treating facility identified elevated concentrations of arsenic, copper and chromium adjacent to the drip pad, as shown on Figures 27 and 28.

5.5 Ground Water Sampling

Three rounds of ground water sampling were conducted at the site to assess the horizontal and vertical distribution of contaminants in ground water. A total of 16 monitoring wells and six piezometers were sampled. In addition, four water supply wells both on-site (PW-1, PW-4) and downgradient (Krautkramer property) were sampled, and three surface water samples were collected downgradient from the site.

Sampling round no. 1 occurred in June, 1992. Twenty-two ground water samples were collected from 14 monitoring wells, three piezometers and three water supply wells (PW-2 and two Krautkramer wells). Three surface water samples were also collected from a pond downgradient of the site, on County Concrete property. Samples were analyzed for VOCs, semi-volatiles (PAH, Phenolics and DRO), and dissolved arsenic. The results of round 1 sampling showed that the vertical and downgradient extent of ground water contamination had not been defined. Subsequent to round 1, two additional monitoring wells (DMW-7 and DMW-8) and three additional piezometers (DPZ-4, DPZ-5, and DPZ-1a) were installed to define the horizontal and vertical extent of ground water contamination.

Sampling round no. 2 occurred during August, 1992. Twenty-five ground water samples were collected from the same wells sampled during round 1, plus the two additional monitoring wells and three additional

piezometers, and one water supply well (PW-2). Round 2 samples were analyzed for VOCs, semi-volatiles, and dissolved arsenic. In addition, 12 wells were sampled for dioxins/furans. Round 2 sampling results showed that the extent of dioxins/furans had not been established. Subsequent to round 2, monitoring wells were installed at the pressure treating facility (DMW-9) and at the former fuel tanks location (DMW-10).

Sampling round no. 3 occurred during January, 1993. Eight ground water samples were collected from six monitoring wells and one well supplying the Weisenberger residence (PW-1). Six select wells (PW-1, MW-2, MW-6, MW-10, DMW-5 and DMW-10) were sampled for dioxin/furan analysis to define the extent of dioxins/furans in ground water, one well (DMW-10) was sampled for petroleum volatile organic compounds (PVOCs), PAH and dissolved lead analyses, and one well (DMW-9) was sampled for dissolved copper, chromium and arsenic analyses. Round 2 sampling results showed that low level concentrations of dioxins/furans exist at the site.

5.6 Distribution of Contaminants in Ground Water

This section characterizes the contamination occurring within the saturated zone. The observed contamination in ground water is a result of the PCP solution handling and wood treating process.

Analytical methods used for ground water analyses were the same as the soil analytical methods. Ground water analytical data is summarized in Tables 10-13. Laboratory reports are included in Appendix G.

5.6.1 Volatile Organic Contamination

Table 10 summarizes the results of VOCs analysis of ground water samples. A total of 11 volatiles were detected in the 22 samples collected during round 1. A total of eight volatiles were detected in the 25 samples collected during rounds 2 and 3. Methylene chloride was reported in three round 1 samples at concentrations ranging from 1.1 to 6.9 mg/L, but was also present in the laboratory method blank at similar levels. Methylene chloride was not detected in any soil samples (Section 5.3.1) and is not considered to be present at the site.

Volatiles which were detected in both soil and ground water samples were: ethylbenzene, xylenes, 1,3,5 trimethylbenzene, 1,2,4 trimethylbenzene, n-butylbenzene, n-propylbenzene, and naphthalene. Volatiles that were detected in ground water and not in soil were: benzene, toluene and isopropylbenzene.

- **Operable Unit 2** (all soils containing dioxin)
    1. Excavation > incineration
    2. Excavation > vaulting soils w/ dioxin

- **Operable Unit 3** (contaminated ground water)
    1. Phase separation > bioreactor > carbon polishing > surface discharge
    2. Phase separation > UV/ozone oxidation > carbon polishing > surface discharge
    3. Phase separation > bioreactor or UV/ozone > carbon polishing > nutrient addition > subsurface reinfiltration
    4. Phase separation > carbon polishing > surface discharge

Due to extremely high capital costs, it is strongly recommended that pilot testing be completed before employing treatment processes such as incineration or thermal desorption of soils; and prior to implementing UV/ozone oxidation, bioremediation and nutrient addition for ground water.

9.0 REFERENCES

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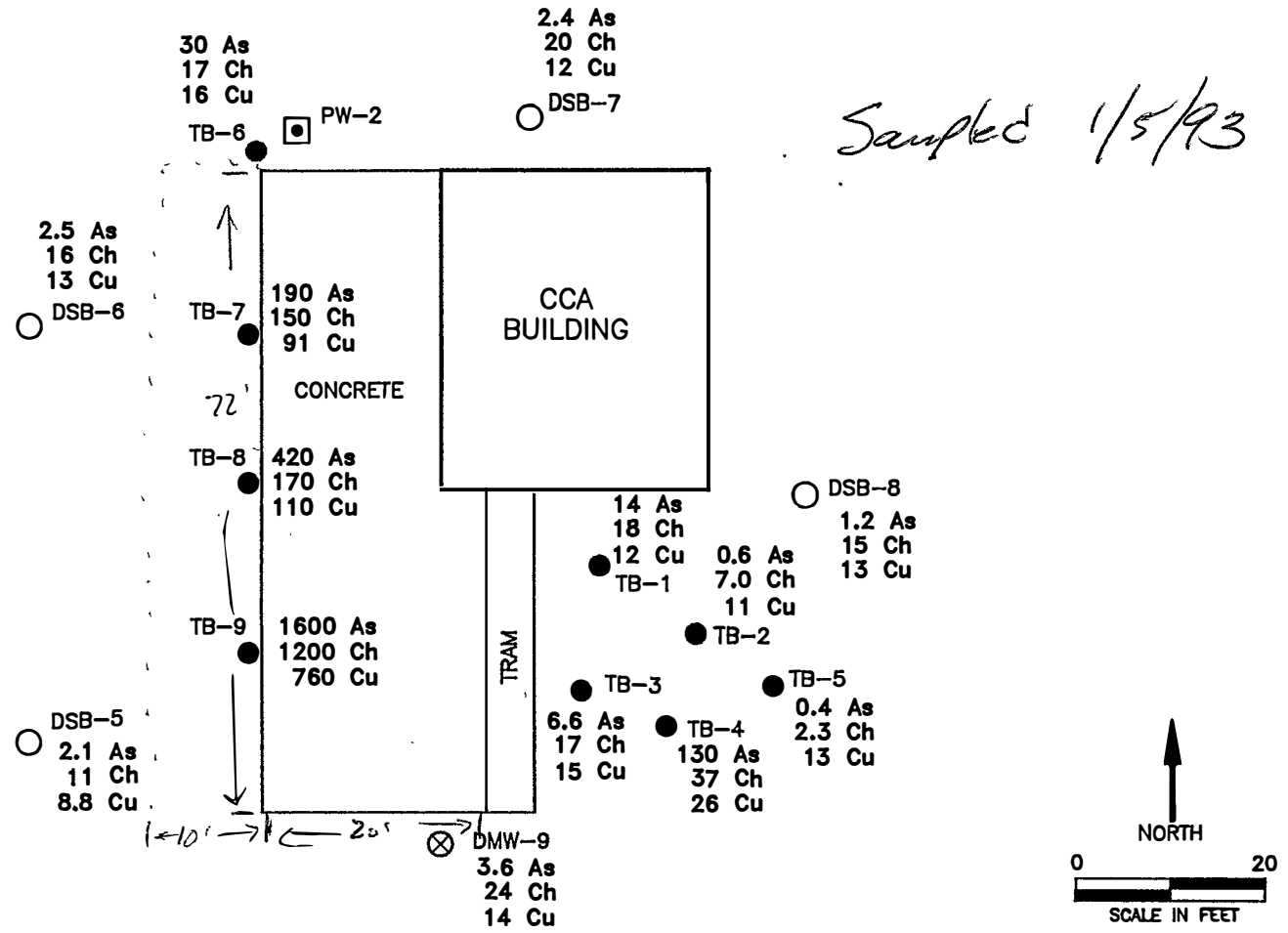
TABLE 9
Summary - Inorganics Analyses in Soil Samples
Pressure Treating Facility & Fuel Tanks Locations
Weisenberger Tie & Lumber Company
Marathon City, Wisconsin
Delta No. 15-91-032

Sample Location	Sample Depth (ft)	Total Arsenic (mg/kg)	Total Copper (mg/kg)	Total Chromium (mg/kg)	Total Lead (mg/kg)
DMW-9	0-2	3.6	14	24	NA
	2-4	<0.67	5.7	13	NA
DMW-10	4-6	NA	NA	NA	55
	8-10	NA	NA	NA	36
DSB-5	0-2	2.1	8.8	11	NA
	2-4	3.3	12	18	NA
DSB-6	0-2	2.5	13	16	NA
	2-4	1.9	59	14	NA
DSB-7	0-2	2.4	12	20	NA
	2-4	2.5	20	33	NA
DSB-8	0-2	1.2	13	15	NA
	2-4	<0.69	12	15	NA
DSB-9	6-8	NA	NA	NA	37
DSB-10	2-4	NA	NA	NA	80
	6-8	NA	NA	NA	41
DSB-11	4-6	NA	NA	NA	28
	6-8	NA	NA	NA	22
DSB-12	8-10	NA	NA	NA	33

NA- Sample Not Analyzed.



LEGEND

- ● CWE SOIL BORING LOCATION
- ⊡ PRIVATE WATER SUPPLY WELL
- ○ DELTA SOIL BORING LOCATION
- ⊗ MONITORING WELL LOCATION

1600 As TOTAL ARSENIC CONCENTRATION 0 – 2 FT.

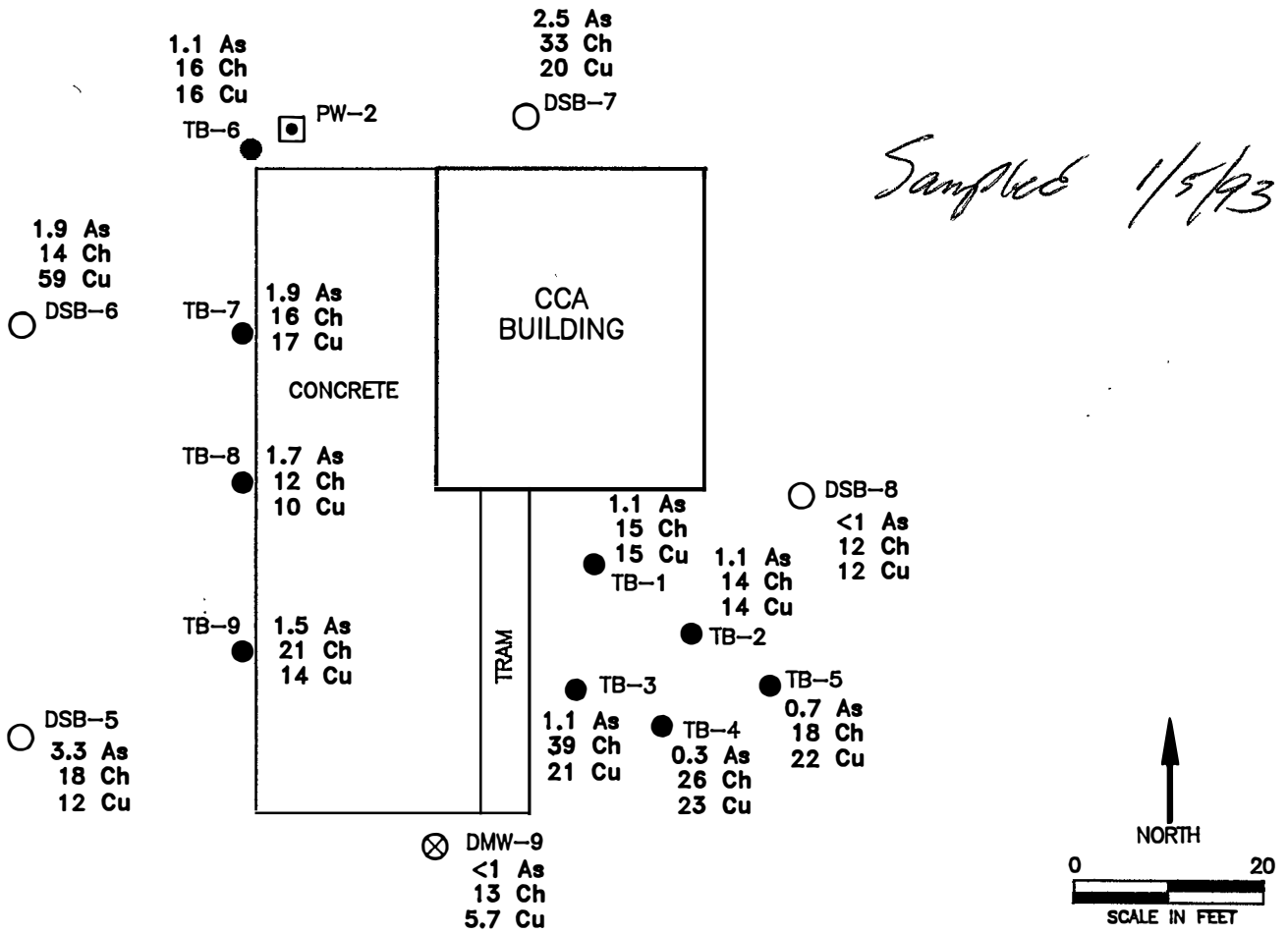
1200 Ch TOTAL CHROMIUM CONCENTRATION 0 – 2 FT.

760 Cu TOTAL COPPER CONCENTRATION 0 – 2 FT.

CONCENTRATIONS IN Mg/Kg

FIGURE 27
PRESSURE TREATING FACILITY
SOIL BORING LOCATIONS AND
ARSENIC, CHROMIUM AND COPPER CONCENTRATIONS
0 – 2 FT.
WEISENBERGER TIE & LUMBER COMPANY
MARATHON CITY, WISCONSIN

PROJECT NO.	PREPARED BY	REVIEWED BY	
15-91-032	TL/DD		Delta Environmental Consultants, Inc.
DATE 4/20/93	REVISION NO.	FILE NAME 91032-27	



LEGEND

- ● CWE SOIL BORING LOCATION
- ⊡ PRIVATE WATER SUPPLY WELL
- ○ DELTA SOIL BORING LOCATION
- ⊗ MONITORING WELL LOCATION

1.1 As — TOTAL ARSENIC CONCENTRATION 2 1/2 – 4 1/2 FT.

21 Ch — TOTAL CHROMIUM CONCENTRATION 2 1/2 – 4 1/2 FT.

14 Cu — TOTAL COPPER CONCENTRATION 2 1/2 – 4 1/2 FT.

CONCENTRATIONS IN Mg/Kg

FIGURE 28
PRESSURE TREATING FACILITY
SOIL BORING LOCATIONS AND
ARSENIC, CHROMIUM AND COPPER CONCENTRATIONS
2 1/2 – 4 1/2 FT.
WEISENBERGER TIE & LUMBER COMPANY
MARATHON CITY, WISCONSIN

PROJECT NO.	PREPARED BY	REVIEWED BY	
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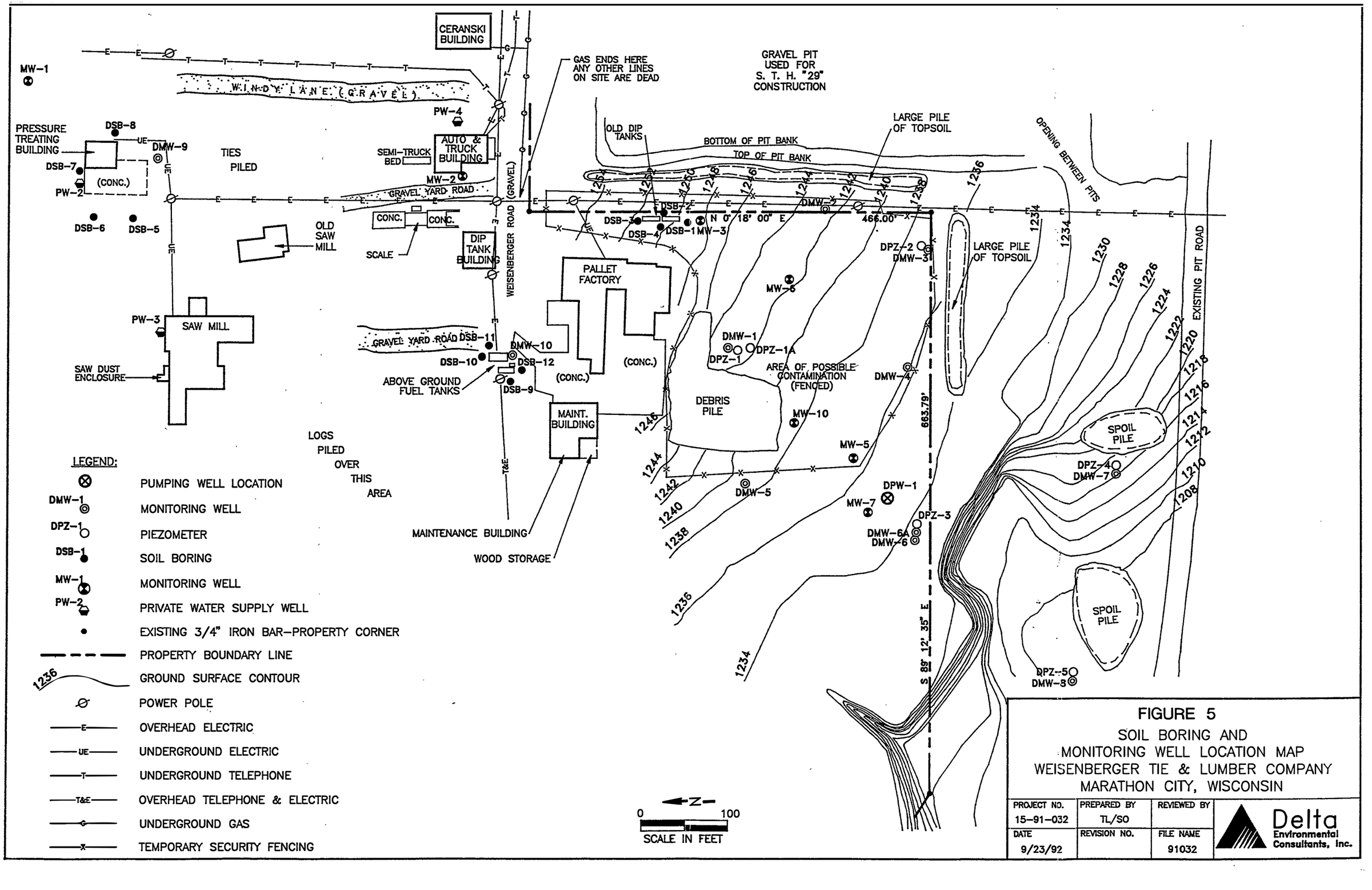

FIGURE 5

SOIL BORING AND MONITORING WELL LOCATION MAP WEISENBERGER TIE & LUMBER COMPANY MARATHON CITY, WISCONSIN

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15-91-032	TL/SO		Delta Environmental Consultants, Inc.
DATE	REVISION NO.	FILE NAME	
9/23/92		91032	

CERANSKI BUILDING

GAS ENDS HERE ANY OTHER LINES ON SITE ARE DEAD

GRAVEL PIT USED FOR S. T. H. "29" CONSTRUCTION

W I N D Y - L A N E (G R A V E L)

PRESSURE TREATING BUILDING

(CONC.)

TIES PILED

AUTO & TRUCK BUILDING

SEMI-TRUCK BED

OLD DIP TANKS

BOTTOM OF PIT BANK

TOP OF PIT BANK

LARGE PILE OF TOPSOIL

OPENING BETWEEN PITS

GRAVEL YARD ROAD

CONC.

CONC.

SCALE

OLD SAW MILL

DIP TANK BUILDING

WEISENBERGER ROAD (GRAVEL)

N 0° 18' 00" E 466.00'

LARGE PILE OF TOPSOIL

EXISTING PIT ROAD

PALLET FACTORY

SAW MILL

GRAVEL YARD ROAD

SAW DUST ENCLOSURE

ABOVE GROUND FUEL TANKS

(CONC.)

(CONC.)

MAINT. BUILDING

DEBRIS PILE

AREA OF POSSIBLE CONTAMINATION (FENCED)

WEISENBERGER PROPERTY

663.79'

COUNTY CONCRETE PROPERTY

S 89° 12' 35" E

SPOIL PILE

SPOIL PILE

LOGS PILED OVER THIS AREA

MAINTENANCE BUILDING

WOOD STORAGE

1256 1254 1252 1250 1248 1246 1244 1242 1240 1238 1236 1234 1232 1230 1228 1226 1224 1222 1220 1218 1216 1214 1212 1210 1208

LEGEND:

- EXISTING 3/4" IRON BAR—PROPERTY CORNER
- PROPERTY BOUNDARY LINE
- GROUND SURFACE CONTOUR
- POWER POLE
- E — OVERHEAD ELECTRIC
- UE — UNDERGROUND ELECTRIC
- T — UNDERGROUND TELEPHONE
- T&E — OVERHEAD TELEPHONE & ELECTRIC
- G — UNDERGROUND GAS
- X — TEMPORARY SECURITY FENCING

N

0 100

SCALE IN FEET

FIGURE 3

SITE MAP
WEISENBERGER TIE & LUMBER COMPANY
MARATHON CITY, WISCONSIN

PROJECT NO.	PREPARED BY	REVIEWED BY	
15-91-032	TL/SO		Delta Environmental Consultants, Inc.
DATE	REVISION NO.	FILE NAME	
9/22/92		91032	

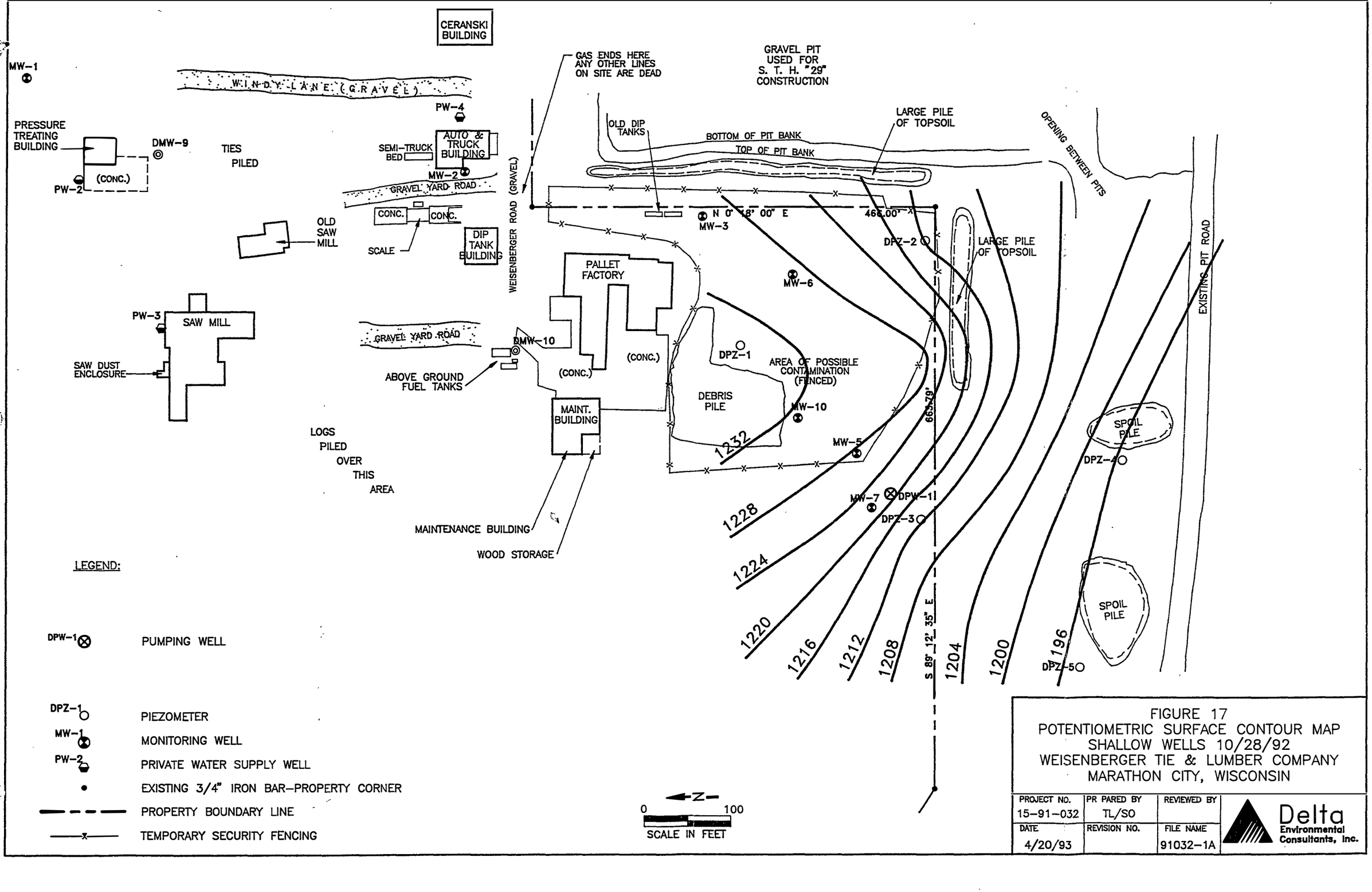


FIGURE 17
POTENTIOMETRIC SURFACE CONTOUR MAP
SHALLOW WELLS 10/28/92
WEISENBERGER TIE & LUMBER COMPANY
MARATHON CITY, WISCONSIN

PROJECT NO.	PR PARED BY	REVIEWED BY
15-91-032	TL/SO	
DATE	REVISION NO.	FILE NAME
4/20/93		91032-1A

Delta Environmental Consultants, Inc.

WISCONSIN TEST DRILLING, INC.

FIELD BORING LOG

Sheet 2 Of 2

SCHOFIELD, WISCONSIN

FOR MILLER Wiesenberger

LOCATION Marathon, WI Elev.

Job No. 2101

Boring No. MW-1

GROUND WATER — While drilling / Before casing removal / After casing removal; Time after drilling; Depth to water 26.5'; Depth to cave-in

Start 1-25-90
Unit 807
Chief L.E.

Sample No.	Moisture	Blows on Sampler 0/6	Blows on Sampler 6/12	Sample Recovery	Total Blows	VISUAL FIELD CLASSIFICATION AND REMARKS	Casing/Probe Weight 140# Drop 30"	Unconfined Strength	Boulders	Blows on Casing Size	Blows on Probe Size	Drilling Method
						Fracture/Water Zone						6" Hamm
						Gray GRANITE BEDROCK						
						E.O.B. @ 60.0'						
						Well Set @ 60.0'						

55 60 65 70 75 80 85 90 95 100

TRIANGLE LABORATORIES OF RTP, INC.
PCDD/PCDF 2378X ANALYSIS (b)

09/03/92

PW-2

FILE NAME.: T924206 SAMPLE ID.: 97801
PROJECT...: 21757A CLIENT NAME...: RMT LABORATORIES, INC.
CLIENT PROJECT: n/a
TLI ID....: 59-58-9 ANALYSIS DATE.: 09/01/92 CLIENT CODE..: RMT01
COLLECTED.: n/a ANALYSIS TIME.: 03:18 DILUTION.....: n/a
RECEIVED..: 08/26/92 ANALYST.....: SA BLANK FILE...: T924197
MATRIX....: WATER INSTRUMENT....: T % LIPID.....: n/a
EXT. SIZE.: 0.987 L GC COLUMN.....: DB-5 % SOLIDS.....: n/a
ADJ. SIZE.: 0.987 L GC COLUMN ID..: 1708423 % MOISTURE...: n/a
EXT. DATE.: 08/27/92 ICAL NAME.....: TC56082 ORIGIN.....: n/a
EXT. VOL..: 20.00 ul ICAL DATE.....: 06/08/92 CONTRACT.....: n/a
SPIKE FILE: SPX2372S CONCAL NAME...: T924195 SAS NUMBER...: n/a
INJECT VOL: 2.0 ul CONCAL DATE...: 08/31/92 EPISODE.....: n/a

NAME	CONC(ppq)	NUMBER	DL	EMPC	RATIO	RT	FLAGS
2378-TCDD	ND		2.2				—
12378-PeCDD	ND		2.4				—
123478-HxCDD	ND		4.5				—
123678-HxCDD	ND		2.7				—
123789-HxCDD	ND		3.7				—
1234678-HpCDD	28.2				1.06	45:22	B
OCDD	368				0.83	50:14	B
78-TCDF	EMPC			1.2			—
12378-PeCDF	ND		2.0				—
23478-PeCDF	ND		1.9				—
123478-HxCDF	ND		3.1				—
123678-HxCDF	ND		2.2				—
234678-HxCDF	2.7				1.35	40:09	B
123789-HxCDF	ND		3.5				—
1234678-HpCDF	ND		2.5				—
1234789-HpCDF	ND		4.0				—
OCDF	EMPC			8.0			B
TOTAL TCDD	ND		2.2				—
TOTAL PeCDD	ND		2.4				—
TOTAL HxCDD	ND		3.5				—
TOTAL HpCDD	46.5	2			1.07		—
TOTAL TCDF	EMPC			2.0			—
TOTAL PeCDF	ND		1.9				—
TOTAL HxCDF	2.6	1			1.35		—
TOTAL HpCDF	3.8	1			1.12		—

Reviewed By: KU 9/3/92

X237_RPT 4.01, LARS 5.00

FILE NAME.: T924206	SAMPLE ID.: 97801	
PROJECT...: 21757A	CLIENT NAME...: RMT LABORATORIES, INC.	
CLIENT PROJECT: n/a		
TLI ID....: 59-58-9	ANALYSIS DATE.: 09/01/92	CLIENT CODE..: RMT01
COLLECTED.: n/a	ANALYSIS TIME.: 03:18	DILUTION.....: n/a
RECEIVED..: 08/26/92	ANALYST.....: SA	BLANK FILE...: T924197
MATRIX....: WATER	INSTRUMENT....: T	% LIPID.....: n/a
EXT. SIZE.: 0.987 L	GC COLUMN.....: DB-5	% SOLIDS.....: n/a
ADJ. SIZE.: 0.987 L	GC COLUMN ID..: 1708423	% MOISTURE...: n/a
EXT. DATE.: 08/27/92	ICAL NAME.....: TC56082	ORIGIN.....: n/a
EXT. VOL..: 20.00 ul	ICAL DATE.....: 06/08/92	CONTRACT.....: n/a
SPIKE FILE: SPX2372S	CONCAL NAME...: T924195	SAS NUMBER...: n/a
INJECT VOL: 2.0 ul	CONCAL DATE...: 08/31/92	EPISODE.....: n/a

SURROGATE RECOVERY SUMMARY (TYPE B)

NAME	CONC (ppq)	% REC.	RATIO	RT	FLAGS
37Cl-TCDD	167	82.2		30:10	
13C12-PeCDF 234	2220	109	1.55	35:05	
13C12-HxCDF 478	1820	90.0	0.51	39:12	
13C12-HxCDD 478	2390	118	1.21	40:22	
13C12-HpCDF 789	1750	86.3	0.43	45:56	

ALTERNATE STANDARDS RECOVERY SUMMARY (TYPE B)

NAME	CONC (ppq)	% REC.	RATIO	RT	FLAGS
13C12-HxCDF 789	1860	91.7	0.51	41:17	
13C12-HxCDF 234	1830	90.1	0.51	40:10	

INTERNAL STANDARDS RECOVERY SUMMARY

NAME	CONC (ppq)	% REC.	RATIO	RT	FLAGS
13C12-2378-TCDF	1460	72.2	0.75	29:20	
13C12-2378-TCDD	1600	78.9	0.76	30:08	
13C12-PeCDF 123	2170	107	1.52	34:05	
13C12-PeCDD 123	2860	141	1.48	35:34	
13C12-HxCDF 678	1560	77.1	0.50	39:21	
13C12-HxCDD 678	1940	95.7	1.23	40:30	
13C12-HpCDF 678	1680	82.8	0.43	43:50	
13C12-HpCDD 678	1930	95.1	1.03	45:21	
13C12-OCDD	4030	99.5	0.87	50:13	

RECOVERY STANDARDS RECOVERY SUMMARY

NAME	RATIO	RT	FLAGS
13C12-1234-TCDD	0.79	29:55	
13C12-HxCDD 789	1.23	40:58	

Reviewed By: | KU 9/3/92 | X237_RPT 4.01, LARS 5.

RMT INC.
LABORATORIES

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
Report Date: 09-17-92

RMT SAMPLE NO.: 97801

Client Name: DELTA ENVIRONMENTAL Project # : 91467.00

Matrix: (soil/water)	WATER	Field Sample ID:	GWW202 PW-2
Sample wt/vol:	1000 (g/ml) ML	Lab File ID:	>PBD13
Level: (low/med)	LOW	Sampling Date:	08-21-92
GPC Cleanup: (Y/N)	N	Date Extracted:	08-28-92
Moisture:	--	Analysis Date:	08-29-92
Column: (pack/cap)	CAP	Dilution Factor:	1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: UG/L Conc.	EQL	Code
108-95-2	Phenol		10.	U
95-57-8	2-Chlorophenol		10.	U
95-48-7	2-Methylphenol		10.	U
106-44-5	4-Methylphenol		10.	U
88-75-5	2-Nitrophenol		10.	U
105-67-9	2,4-Dimethylphenol		10.	U
120-83-2	2,4-Dichlorophenol		10.	U
91-20-3	Naphthalene		10.	U
59-50-7	4-Chloro-3-methylphenol		10.	U
88-06-2	2,4,6-Trichlorophenol		10.	U
95-95-4	2,4,5-Trichlorophenol		50.	U
208-96-8	Acenaphthylene		10.	U
83-32-9	Acenaphthene		10.	U
51-28-5	2,4-Dinitrophenol		50.	U
100-02-7	4-Nitrophenol		50.	U
86-73-7	Fluorene		10.	U
534-52-1	4,6-Dinitro-2-methylphenol		50.	U
87-86-5	Pentachlorophenol		50.	U
85-01-8	Phenanthrene		10.	U
120-12-7	Anthracene		10.	U
206-44-0	Fluoranthene		10.	U
129-00-0	Pyrene		10.	U
56-55-3	Benzo(a)anthracene		10.	U
218-01-9	Chrysene		10.	U
205-99-2	Benzo(b)fluoranthene		10.	U
207-08-9	Benzo(k)fluoranthene		10.	U
50-32-8	Benzo(a)pyrene		10.	U
193-39-5	Indeno(1,2,3-cd)pyrene		10.	U
53-70-3	Dibenz(a,h)anthracene		10.	U
191-24-2	Benzo(g,h,i)perylene		10.	U

JOSEPH J. KUBALE/ ORGANIC SUPERVISOR

State of Wisconsin
Department of Natural Resources

Route To:
☐ Solid Waste ☐ Haz. Waste
☐ Emergency Response ☐ Underground Tanks
☐ Wastewater ☐ Water Resources
☐ Other _____

SOIL BORING LOG INFORMATION
Form 4400-122 7-91

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
Weisenberger Lumber	_ _ _ _ _ _ _ _	DMW-9

Boring Drilled By (Firm name and name of crew chief)	Date Drilling Started (MM/DD/YY)	Date Drilling Completed (MM/DD/YY)	Drilling Method
WTD - Mike Mueller	01/08/93	01/08/93	Air Rotary

DNR Facility Well No.	WI Unique Well No.	Common Well Name	Final Static Water Level	Surface Elevation	Borehole Diameter
_ _ _	_ _ _ _ _ _ _ _		_____ Feet MSL	270.07 Feet MSL	6 inches

Boring Location
State Plane _____ N, _____ E S/C/N | Lat ___ ___ ___
NW 1/4 of NE 1/4 of Section 1, T 28 N, R 5 (E) W | Long ___ ___ ___

Local Grid Location (If applicable)
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

County	DNR County Code	Civil Town/City/ or Village
Marathon	37	Marathon, WI

Sample Number	Sample Length Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	USCS	Graphic Log	Well Diagram	PID/FID	Soil Properties: Standard Penetration	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
1	1.0	36	5	Weathered BEDROCK						M				
			10											
			15											
			20											
			25											
			30											
			35	Hard ROCK										
			40	EOB 38.0'										
			45											
			50											

I hereby certlify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
Ron Thalacker	WTD Environmental Drilling

This form is authorized by Chapters 144.147 and 162, Wis. Stats. Completion of this report is mandatory. Penalties: Forfeit not less than $10 nor more than $5,000 for each violation. Fined not less than $10 or more than $100 or imprisoned not less than 30 days, or both for each violation. Each day of continued violation is a separate offense, pursuant to ss 144.99 and 162.06, Wis. Stats.

State of Wisconsin
Department of Natural Resources

Route to: Solid Waste ☐ Haz. Waste ☐ Wastewater ☐
Env. Response & Repair ☐ Underground Tanks ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION
Form 4400-113A Rev. 4-90

Facility/Project Name: Weisenberger Lumber	Local Grid Location of Well: _____ ft. ☐N ☐S _____ ft. ☐E ☐W	Well Name: DMW-9
Facility License, Permit or Monitoring Number: _____	Grid Origin Location: Lat. ___ ___ ___ Long. ___ ___ ___ or	Wis. Unique Well Number / DNR Well Number
Type of Well: Water Table Observation Well ☒ 11; Piezometer ☐ 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed: 01/08/93 (m m / d d / y y)
Distance Well Is From Waste/Source Boundary: _____ ft.	Section Location of Waste/Source: ___1/4 of ___ 1/4 of Sec. ___, T. ___ N, R. ___ ☐E ☐W	Well Installed By: (Person's Name and Firm): Mike Mueller; WTD Environmental Drilling
Is Well A Point of Enforcement Std. Application? ☐ Yes ☐ No	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient; d ☐ Downgradient n ☐ Not Known	

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation 1272.48 ft. MSL
C. Land surface elevation 1270.07 ft. MSL
D. Surface seal, bottom _____ ft. MSL or 4.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis attached? ☐ Yes ☐ No

14. Drilling method used: Rotary ☒ 50; Hollow Stem Auger ☐ 41; Other ☐ __ _____

15. Drilling fluid used: Water ☐ 02; Air ☒ 01; Drilling Mud ☐ 03; None ☐ 99

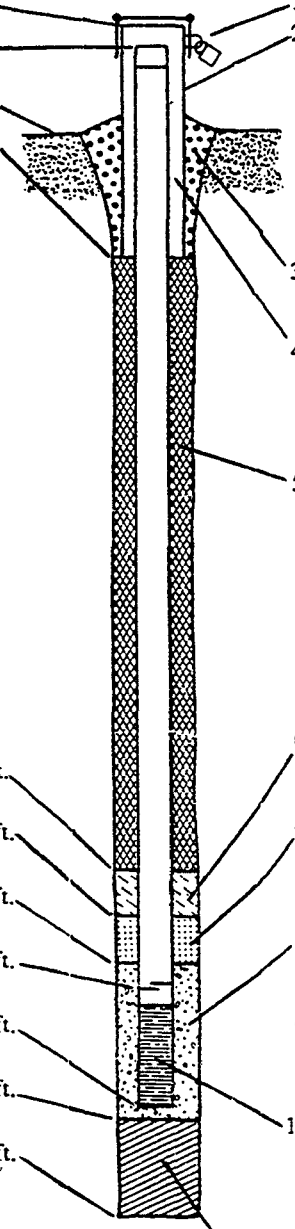
16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

_____

E. Bentonite seal, top _____ ft. MSL or 06 ft.
F. Fine sand, top _____ ft. MSL or 130 ft.
G. Filter pack, top _____ ft. MSL or 150 ft.
H. Screen joint, top _____ ft. MSL or 170 ft.
I. Well bottom _____ ft. MSL or 320 ft.
J. Filter pack, bottom _____ ft. MSL or 380 ft.
K. Borehole, bottom _____ ft. MSL or 380 ft.
L. Borehole, diameter 6.0 in.
M. O.D. well casing 2.37 in.
N. I.D. well casing 2.01 in.



1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 4.0 in.
b. Length: 7.0 ft.
c. Material: Steel ☒ 04; Other ☐ __ _____
d. Additional protection? ☐ Yes ☒ No
If yes, describe: _____
3. Surface seal: Bentonite ☒ 30; Concrete ☐ 01; Other ☐ __ _____
4. Material between well casing and protective pipe: Bentonite ☒ 30; Annular space seal ☐ __; Other ☐ __ _____
5. Annular space seal: a. Granular Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. _____ Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01; Tremie pumped ☐ 02; Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
c. _____ Other ☐ __
7. Fine sand material: Manufacturer, product name & mesh size
a. Badger #7
b. Volume added _____ ft^3
8. Filter pack material: Manufacturer, product name and mesh size
a. American Materials #30
b. Volume added _____ ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23; Flush threaded PVC schedule 80 ☐ 24; Other ☐ __ _____
10. Screen material: PVC
a. Screen type: Factory cut ☒ 11; Continuous slot ☐ 01; Other ☐ __ _____
b. Manufacturer Northern Air
c. Slot size: 0.010 in.
d. Slotted length: 15.0 ft.
11. Backfill material (below filter pack): None ☒ 14; Other ☐ __ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Ron Thalacker
Firm: WTD Environmental Drilling

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch.144, Wis Stats., failure to file this form may result in a forfeiture of not less than $10, nor more than $5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than $10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

RMT INC.
LABORATORIES

CLIENT: DELTA ENV. CONSULTANTS, INC.
SAMPLE #: 15175 REPORT DATE: 02/09/93
PROJECT #: 91467.00 COLLECTION DATE: 01/20/93
WORK ORDER #: 930121-9146700 STATION ID: DMW-9
WI DNR LAB ID: 113138520 SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Arsenic, dissolved	<3.0	ug/L
Chromium, dissolved	<2.0	ug/L
Copper, dissolved	3.1	ug/L

2/9/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14470
PROJECT #: 91467.00
WORK ORDER #: 930108-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/22/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-5 0-2'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	90.7	%
Arsenic	2.1	mg/kg dry wt.
Chromium	11	mg/kg dry wt.
Copper	8.8	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14471
PROJECT #: 91467.00
WORK ORDER #: 930108-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/22/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-5 2-4'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	88.6	%
Arsenic	3.3	mg/kg dry wt.
Chromium	18	mg/kg dry wt.
Copper	12	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14472
PROJECT #: 91467.00
WORK ORDER #: 930108-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/22/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-6 0-2'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	90.6	%
Arsenic	2.5	mg/kg dry wt.
Chromium	16	mg/kg dry wt.
Copper	13	mg/kg dry wt.

Patricia M. McCentock 1/25/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14473
PROJECT #: 91467.00
WORK ORDER #: 930108-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/22/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-6 2-4'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	87.9	%
Arsenic	1.9	mg/kg dry wt.
Chromium	14	mg/kg dry wt.
Copper	59	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14474
PROJECT #: 91467.00
WORK ORDER #: 930108-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/22/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-7 0-2'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	86.0	%
Arsenic	2.4	mg/kg dry wt.
Chromium	20	mg/kg dry wt.
Copper	12	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14475
PROJECT #: 91467.00
WORK ORDER #: 930108-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/22/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-7 2-4'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	87.0	%
Arsenic	2.5	mg/kg dry wt.
Chromium	33	mg/kg dry wt.
Copper	20	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14476
PROJECT #: 91467.00
WORK ORDER #: 930108-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/22/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-8 0-2'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	87.2	%
Arsenic	1.2	mg/kg dry wt.
Chromium	15	mg/kg dry wt.
Copper	13	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14477
PROJECT #: 91467.00
WORK ORDER #: 930108-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/22/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-8 2-4'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	86.8	%
Arsenic	<0.69	mg/kg dry wt.
Chromium	15	mg/kg dry wt.
Copper	12	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC. LABORATORIES

RECEIVED
JAN 27 1993

CLIENT: DELTA
SAMPLE #: 14726
PROJECT #: 91467.00
WORK ORDER #: 930112-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/25/93
COLLECTION DATE: 01/08/93
STATION ID: DMW-9 0-2'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	87.1	%
Arsenic	3.6	mg/kg dry wt.
Chromium	24	mg/kg dry wt.
Copper	14	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 14727
PROJECT #: 91467.00
WORK ORDER #: 930112-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 01/25/93
COLLECTION DATE: 01/08/93
STATION ID: DMW-9 2-4'
SAMPLE COLLECTOR: TAL

INORGANIC ANALYSIS REPORT

PARAMETER	RESULT	UNITS
Solids, total	89.7	%
Arsenic	<0.67	mg/kg dry wt.
Chromium	13	mg/kg dry wt.
Copper	5.7	mg/kg dry wt.

Patricia M. McClintock 1/25/93
Approval Signature

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 15757
PROJECT #: 91467.00
WORK ORDER #: 930203-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 02/15/93
COLLECTION DATE: 01/08/93
STATION ID: DMW-9 0-2'
SAMPLE COLLECTOR: TAL

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
METALS (mg/L)

PARAMETER	MTD	PQL	SPIKE RECOVERY	THRESHOLD LIMIT	RESULT	ADJUSTED RESULT
Arsenic	7060	0.0060	MSA 0.9987	5.0	<0.0060	<0.0060

Kei Oak 2/15/93
Approval Signature

Methods from USEPA SW846, 3rd Edition.
PQL : practical quantitation limit
MSA : Method of Standard Addition, acceptable correlation coefficient value (r) greater than 0.995.
ADJUSTED RESULT : adjusted for % recovery (method 1311.)

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 15757
PROJECT #: 91467.00
WORK ORDER #: 930203-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 02/15/93
COLLECTION DATE: 01/08/93
STATION ID: DMW-9 0-2'
SAMPLE COLLECTOR: TAL

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

EXTRACTION 1311

PARAMETER	RESULT	UNITS
Sample weight, total	100.0	gm
pH, after 5 minutes	8.0	su
pH, after heating	1.5	su
Extraction solution	1	
Final pH	4.9	su
Extraction pH	4.9	su
Leaching date	02/09/93	

Approval Signature 2/15

METHOD 1311, AS PUBLISHED IN FED. REGISTER; JUNE 29,1990;
40 CFR PARTS 261, 264, 265, 268, 271, AND 302.

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 15758
PROJECT #: 91467.00
WORK ORDER #: 930203-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 02/15/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-7 2-4'
SAMPLE COLLECTOR: TAL

TOXICITY CHARACTERISTIC LEACHING PROCEDURE
METALS (mg/L)

PARAMETER	MTD	PQL	SPIKE RECOVERY	THRESHOLD LIMIT	RESULT	ADJUSTED RESULT
Chromium	6010	0.010	98%	5.0	<0.010	<0.010

2/15
Approval Signature

Methods from USEPA SW846, 3rd Edition.
PQL : practical quantitation limit
MSA : Method of Standard Addition, acceptable correlation coefficient value (r) greater than 0.995.
ADJUSTED RESULT : adjusted for % recovery (method 1311.)

RMT INC.
LABORATORIES

CLIENT: DELTA
SAMPLE #: 15758
PROJECT #: 91467.00
WORK ORDER #: 930203-9146700
WI DNR LAB ID: 113138520

REPORT DATE: 02/15/93
COLLECTION DATE: 01/05/93
STATION ID: DSB-7 2-4'
SAMPLE COLLECTOR: TAL

TOXICITY CHARACTERISTIC LEACHING PROCEDURE

EXTRACTION 1311

PARAMETER	RESULT	UNITS
Sample weight, total	100.0	gm
pH, after 5 minutes	7.6	su
pH, after heating	1.4	su
Extraction solution	1	
Final pH	4.8	su
Extraction pH	4.9	su
Leaching date	02/09/93	

2/15
Approval Signature

METHOD 1311, AS PUBLISHED IN FED. REGISTER; JUNE 29,1990;
40 CFR PARTS 261, 264, 265, 268, 271, AND 302.

APPENDIX I

WELL CONSTRUCTION REPORT

Well Construction Report For WISCONSIN UNIQUE WELL NUMBER AB419

State of Wisconsin
Department of Natural Resources
Private Water Supply — WS/2
Box 7921
Madison, WI 53707

[Stamp:] MAR 10 1988

Property Owner: Rudy Weisenberger 1715 — Telephone Number: 433-2049
Mailing Address: Box 67 Weisenberger Rd
City: Marathon — State: WI — Zip Code: 54448
County: Marathon 37 — County Well Location Permit No. W — Well Completion Date: 3-1-88 (MM DD YY)

Well Constructor (Business Name): HEEG Well Drilling — License #: 355
Address: 5069 Cty F
City: Auburndale — State: WI — Zip Code: 54412

1. Location (Please type or print using a black pen.)
☐ Town ☐ City ☑ Village of Marathon — Fire # (if available)
Grid or Street Address or Road Name and Number (if available)
Subdivision Name — Lot # — Block #
Gov't Lot # ____ or SE ¼ of NE ¼ of Section 1; T 28 N; R 5 ☒ E ☐ W

2. Mark well location in correct 40-acre parcel of section.
[Section grid N/E/S/W, X marked in NE quarter]

3. Well Type ☐ New ☑ Replacement ☐ Reconstruction/Rehabilitation of well constructed in 19____.
Reason for new, reconstructed, replaced, or rehabilitated well? Needs More Water
☑ Drilled ☐ Driven Point ☐ Jetted ☐ Other ____

4. Well serves ____ # of homes and/or Saw Mill (ex: barn, restaurant, church, school, industry, etc.)
High Capacity Well? ☐ Yes ☑ No
High Capacity Property? ☐ Yes ☑ No

5. Well Located on Highest Point of Property, Consistent with the General Layout and Surroundings? ☑ Yes ☐ No
Well Located in Floodplain? ☐ Yes ☑ No
Distance In Feet From Well To Nearest:

	1. Landfill		9. Downspout/Yard Hydrant		17. Wastewater Sump
25	2. Building Overhang		10. Privy		18. Paved Animal Barn Pen
400	3. Septic or Holding Tank		11. Foundation Drain to Clearwater		19. Animal Yard or Shelter
	4. Sewage Absorption Unit		12. Foundation Drain to Sewer		20. Silo — Type
	5. Nonconforming Pit		13. Building Drain ☐ Cast Iron or Plastic ☐ Other		21. Barn Gutter
	6. Buried Home Heating Oil Tank		14. Building Sewer ☐ Gravity ☐ Pressure ☐ Cast Iron or Plastic ☐ Other		22. Manure Pipe ☐ Gravity ☐ Pressure ☐ Cast Iron or Plastic ☐ Other
	7. Buried Petroleum Tank		15. Collector Sewer		23. Other Manure Storage
	8. Shoreline/Swimming Pool		16. Clearwater Sump		Other NR 112 Waste Source 24.

6. Drillhole Dimensions

Dia. (in.)	From (ft.)	To (ft.)
8	surface	40
6	40	145

Method of constructing upper enlarged drillhole. (If applicable ✓ more than one.)
☐ 1. Rotary — Mud Circulation
☑ 2. Rotary — Air
☐ 3. Rotary — Foam
☐ 4. Reverse Rotary
☐ 5. Cable-tool Bit ____ in. dia.
☐ 6. Temp. Outer Casing ____ in. dia. Removed? ☐ Yes ☐ No If no, explain ____
☐ 7. Other ____

9. Geology

	Type, Caving/Noncaving, Color, Hardness, Etc.	From (ft.)	To (ft.)
C	Clay	surface	2
DQ	Decomposed	2	30
Q	Granite	30	145

7. Casing, Liner, Screen

Dia. (in.)	Material, Weight, Specification Mfg. & Method of Assembly	From (ft.)	To (ft.)
6	St Steel	surface	40
	280 WALL ASTM-A120/53		
	Kent Steel		
	Welded Joint		

Dia. (in.)	screen type and material	From	To

8. Grout or Other Sealing Material
Method: Pump

Kind of Sealing Material	From (ft.)	To (ft.)	# Sacks Cement
Drill cuttings	surface	7	
Cement	7	40	5

10. Static Water Level: 30 ft. below ground surface

11. Pump Test: Pumping Level 145 ft. below surface. Pumping at 6 GPM for 2 hours

12. Well Is: 18 in. ☑ Above ☐ Below Grade
Developed? ☑ Yes ☐ No
Disinfected? ☑ Yes ☐ No
Capped? ☑ Yes ☐ No

13. Were all unused, noncomplying, or unsafe wells properly filled with sealant? ☐ Yes ☑ No If no, explain: Still in use

14. Signature of Well Constructor: Brian Heeg BH — Date Signed: 3/8/88
Signature of Drill Rig Operator: Brian Heeg BH — Date Signed: 3/8/88

Make additional comments on reverse side about geology, etc.

DNR/ORIGINAL — WELL CONSTRUCTION REPORT Form 3300-77A Rev. 8-87