



PARAGON ELECTRIC COMPANY, INC.

606 Parkway Blvd., P.O. Box 28, Two Rivers, WI 54241  
414-793-1161 Fax 414-793-3736 Telex 26-3450

April 22, 1991

RECEIVED DNR  
APR  
~~MAR 24~~ 1991  
LAKE MICHIGAN DISTRICT

Ms. Annette Weissbach  
State of Wisconsin  
Department of Natural Resources  
1125 N. Military Avenue  
Box 10448  
Green Bay, Wisconsin 54307-0448

Dear Ms. Weissbach:

Enclosed is the report on possible soil and ground water contamination in the area of a mineral spirit underground tank (UGT) excavation.

At the time this UGT was removed possible soil contamination was suspected, therefore this study was conducted.

Your point of contact regarding this report at Paragon is Richard J. Lubenow, P.E.

Sincerely,

PARAGON ELECTRIC COMPANY, INC.

Richard J. Lubenow, P.E.  
Manager Maintenance & Facilities

Enclosure

**SOILS AND GROUNDWATER  
ASSESSMENT FOR A  
550 GALLON  
UNDERGROUND MINERAL  
SPIRITS STORAGE TANK**

**PREPARED FOR:  
MR. RICHARD LUBENOW  
PARAGON ELECTRIC  
606 PARKWAY BOULEVARD  
TWO RIVERS, WISCONSIN 54241**

**PREPARED BY:  
CRAIG A. VARLAND  
PROJECT MANAGER  
SIGMA ENVIRONMENTAL SERVICES, INC.  
9555 SOUTH HOWELL AVENUE  
OAK CREEK, WISCONSIN 53154**

**PROJECT REFERENCE #TEW0374**

**MARCH 28, 1991**

## TABLE OF CONTENTS

	<u>Page</u>
<b>I. <u>INTRODUCTION</u>.....</b>	<b>1</b>
<b>II. <u>SITE DESCRIPTION</u>.....</b>	<b>1</b>
<b>III. <u>PREVIOUS WORK</u>.....</b>	<b>1</b>
<b>IV. <u>SUBSURFACE INVESTIGATION</u>.....</b>	<b>2</b>
Soil Borings.....	2
Monitoring Wells.....	3
Groundwater Sampling Program.....	3
Static Water Level Measurements.....	4
<b>V. <u>SITE GEOLOGY AND HYDROGEOLOGY</u>.....</b>	<b>4</b>
Geology.....	4
Hydrogeology.....	4
<b>VI. <u>REGULATIONS</u>.....</b>	<b>5</b>
Soil.....	5
Groundwater.....	5
<b>VII. <u>SOIL QUALITY</u>.....</b>	<b>6</b>
Soil Quality Results.....	6
<b>VIII. <u>GROUNDWATER QUALITY</u>.....</b>	<b>6</b>
Groundwater Quality Results.....	6
<b>IX. <u>CONCLUSIONS</u>.....</b>	<b>8</b>
<b>X. <u>LIMITATIONS OF INVESTIGATION</u>.....</b>	<b>9</b>

**LIST OF FIGURES**

<b><u>Figure</u></b>		<b><u>Follows Page</u></b>
1.	Site Location Map.....	1
2.	Site Map.....	2
3.	Well Location Map.....	4

**LIST OF TABLES**

<b><u>Table</u></b>		<b><u>Page</u></b>
1.	Soil Quality Results.....	6
2.	Groundwater Quality Results.....	7

**LIST OF APPENDICES**

**Appendix**

- A. Boring Logs
- B. Well Construction Forms
- C. Well Development Forms
- D. Water Level Measurements
- E. Laboratory Results (Soil)
- F. Laboratory Results (Groundwater)
- G. Well Construction Logs



## **I. INTRODUCTION**

Sigma Environmental Services, Inc. (formerly known as CBC Environmental Services) of Oak Creek, Wisconsin, has been retained by Mr. Richard Lubenow to conduct a subsurface investigation at 606 Parkway Boulevard in Two Rivers, Wisconsin. The purpose of the investigation was to determine general soil and groundwater quality on the perimeter of a former underground mineral spirits storage tank located at the property. This report details the work conducted at the site and results of the investigation.

## **II. SITE DESCRIPTION**

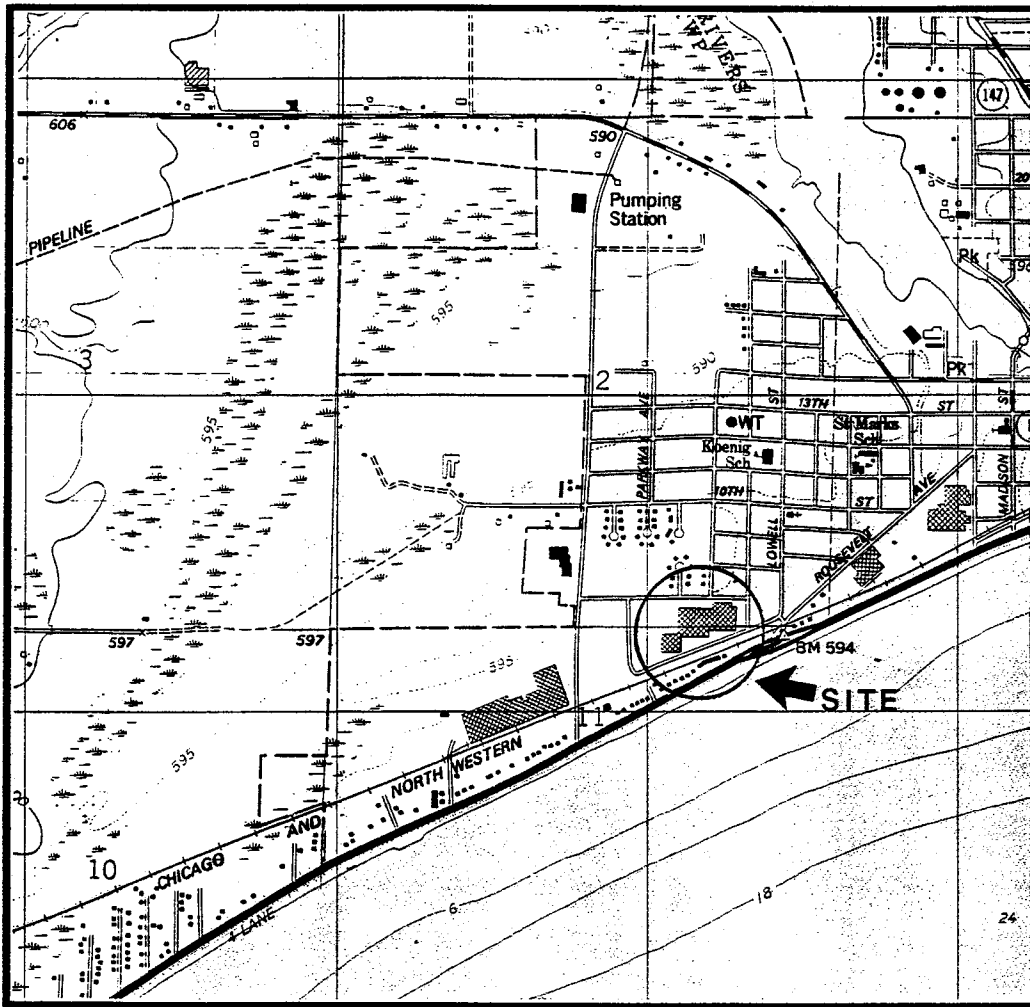
The subject property is located at 606 Parkway Boulevard, Two Rivers, Wisconsin. Specifically, the property is located in the Southwest quarter of the Northeast quarter of Section 2, Township 19 North, Range 24 east, City of Two Rivers, Manitowoc County, Wisconsin. The location of the site is depicted in Figure 1.

The property occupies 26.77 acres of land and contains a large manufacturing facility and offices. The western portion is bordered by a parking lot. The north and east sides of the facility are bordered by 7th Street and Bucholz Street, respectively. Lake Michigan is located approximately one-eight mile south of the site.

## **III. PREVIOUS WORK**

Previous work conducted at the site included the removal of a 550 gallon underground mineral spirits storage tank located inside the Paragon Facility near the truck dock area.

Autoquip, Incorporated of Milwaukee, Wisconsin was contracted by Sigma Environmental Services (formerly CBC Environmental Services) to perform the tank removal. Confirmational samples collected within the tank excavation



Approximate Scale



**Figure 1**

**SITELLOCATION MAP**

**Paragon Electric Company, Inc.  
Two Rivers, Wisconsin**



Adapted from U.S.G.S. 7.5 Minute Series, Two Rivers Quadrangle

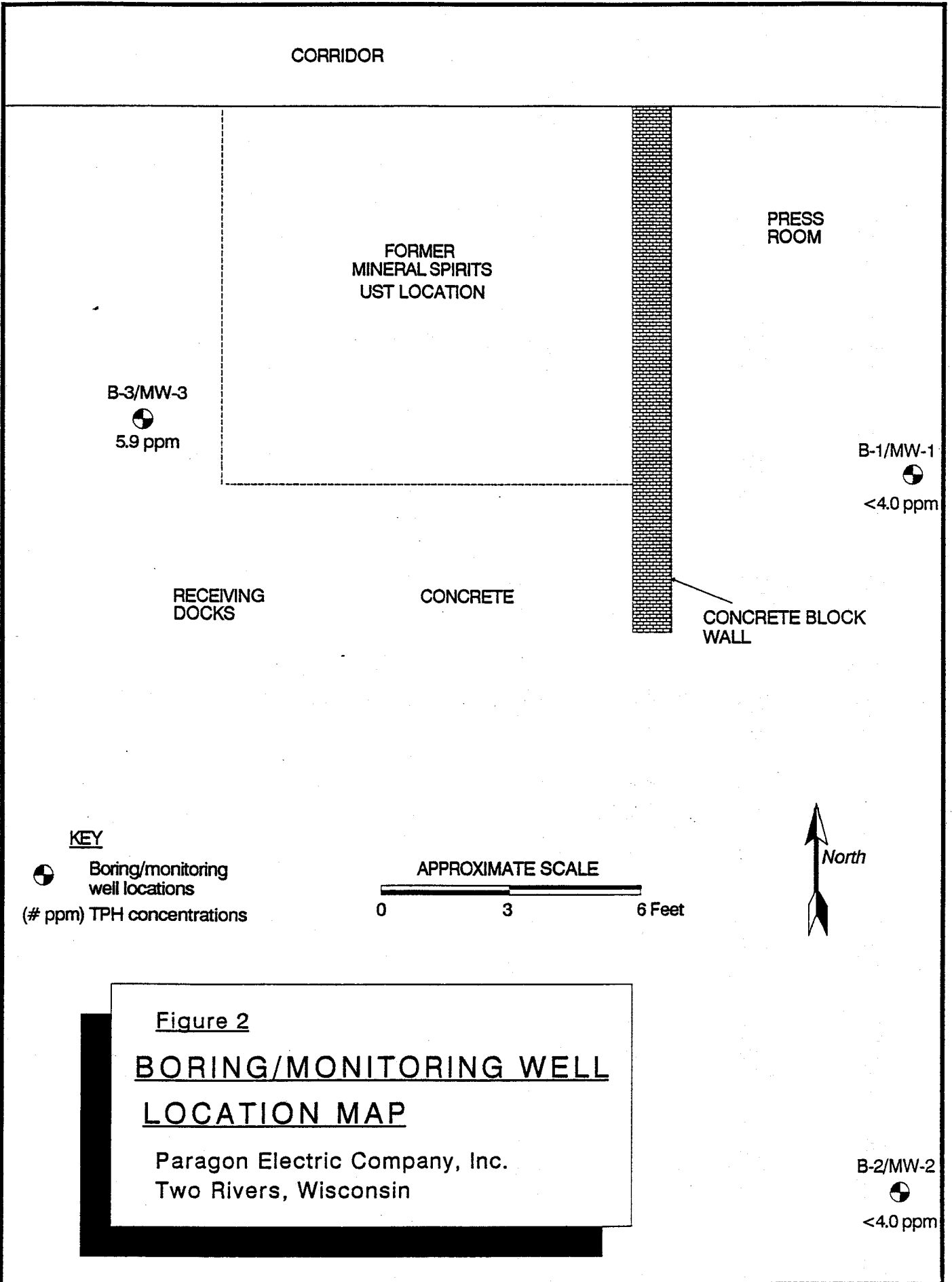
revealed concentrations of petroleum hydrocarbons of 180 ppm (parts per million) and 79 ppm from the east and west base samples, respectively.

#### **IV. SUBSURFACE INVESTIGATION**

Work conducted at the site during this portion of the investigation included drilling profile soil borings, installing groundwater monitoring wells, and submitting soil and groundwater samples for laboratory analysis.

**Soil Borings.** During this phase of this field study, three (3) soil borings were drilled near the former mineral spirits tank excavation. The locations of these borings are depicted in Figure 2. A diamond-tipped core barrel was utilized to cut a ten inch (10") diameter hole in the floor of the building. A General<sup>(TM)</sup> 550 drill rig was used to advance 2-1/4" I.D. x 2.5' length hollow stem augers. A 2" x 6" core sampler was driven by a slide hammer to collect soil samples. The borings were limited to total depths of 10.1 to 10.9 feet due to heaving sands encountered at the groundwater table. All borings were drilled on December 27, 1990, by Giles Engineering of Waukesha, Wisconsin. Boring logs are presented in Appendix A.

During advancement of the augers, core samplers were used to collect soil samples at various intervals. Two (2) samples were collected at each interval; one (1) sample was immediately containerized into a glass jar, sealed with a teflon-lined cap and placed into a cooler. The other sample was also containerized into a glass jar, sealed and allowed to warm-up for a period of approximately twenty (20) minutes. This sample was screened for volatile organic compounds utilizing a Photovac<sup>(TM)</sup> Microtip Photoionization Detector (PID) instrument. The PID utilized an 11.7 eV (electron volt) lamp and was field calibrated to an isobutylene standard. PID results are included with the boring logs in Appendix A. One (1) sample from each boring displaying the highest PID value was accompanied with a Chain-of-Custody document and transported to the CBC Environmental



Services Laboratory in Oak Creek, Wisconsin, for analysis of Total Petroleum Hydrocarbons (TPH).

All downhole drilling equipment (augers, sampler extensions, and core samplers) were steam cleaned prior to mobilization to the site and between borings. Between each boring the core samplers were rinsed with hexane and triple rinsed with deionized water. In addition, the split-spoon samplers were washed with analconox soap solution and a final tap water rinse between each sample interval.

Monitoring Wells. Three (3) groundwater monitoring wells were installed in the boreholes following completion. Monitoring well locations are shown in Figure 2. The monitoring wells were constructed of 1-1/4" I.D. (inside diameter) threaded casing and double walled .020" stainless steel mesh screen. Well construction logs are presented in Appendix B.

Groundwater Sampling Program. The three (3) groundwater monitoring wells were developed on January 18, 1991 by Sigma field technicians per Wisconsin Department of Natural Resources (WDNR) guidelines (NR 140). Well development forms are presented as Appendix C.

Following well development, the wells were purged and sampled according to Sigma standard sampling protocol (adopted from WDNR Pub.-WR-153, February 1987). Four (4) 40 milliliter vials were collected from each well and submitted with one (1) set of duplicate samples, trip, and field blanks, to the CBC Laboratory for analysis of priority pollutant volatile organic compounds plus xylene.

Static Water Level Measurements. Static water level measurements were collected at the site as a means to determine direction of groundwater flow. A tabulated listing of water level measurements is found in Appendix D.

## V. SITE GEOLOGY AND HYDROGEOLOGY

Geology. The regional geology of the area ranges from the Precambrian basement rock to the quaternary glacial deposits. Bedrock, from oldest to youngest, consists of the Precambrian crystalline rocks: Cambrian sandstones; Ordovician dolomites, sandstones and shales; Silurian dolomite; and Devonian dolomites. Quaternary glacial deposits overlying the bedrock are mostly lake deposits consisting of organic materials and stratified clay, silts, and sand.

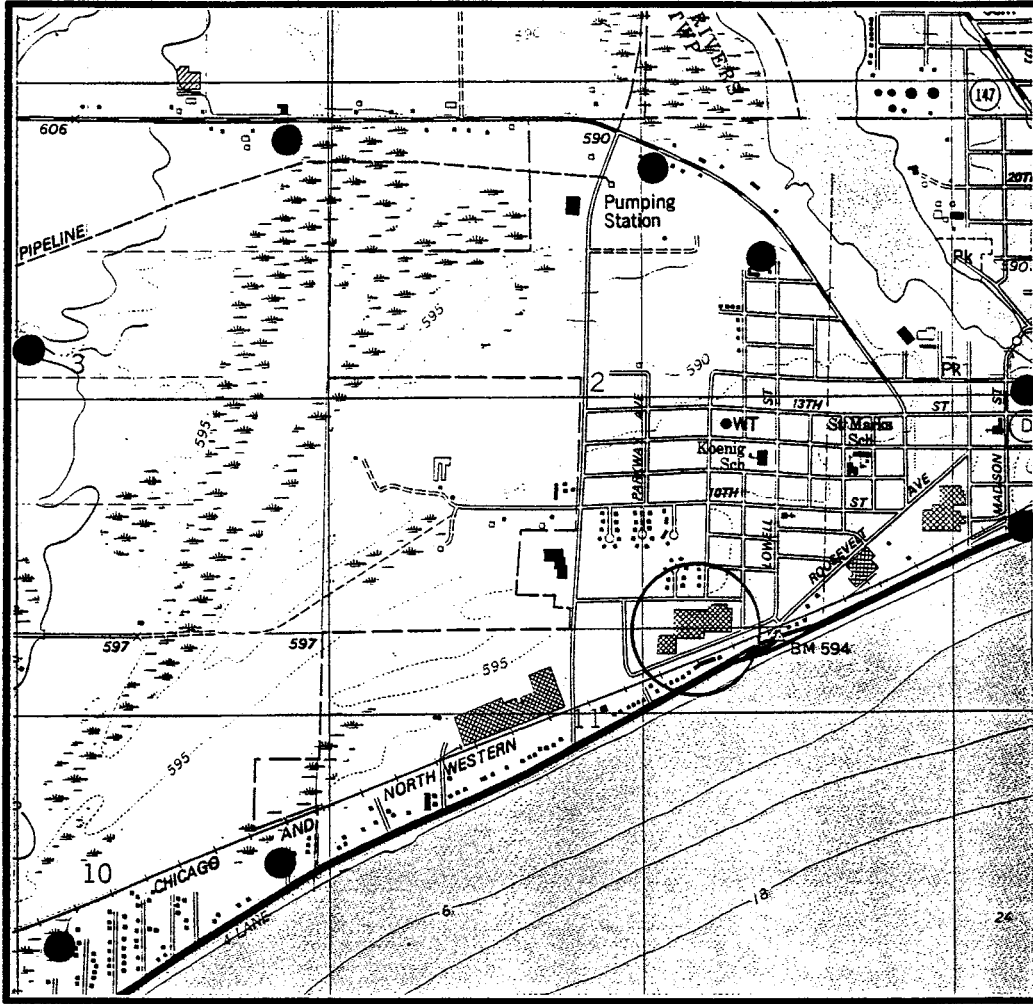
Geology at the site consists essentially of silty fine sands with traces of small gravel and organic material.

Hydrogeology. The principal aquifers for potable water in the Two Rivers area are: the sands and gravel (glacial aquifer); the Niagara (dolomites) and the deep sandstone aquifer. The Maquoketa shale separates the Niagara and sandstone aquifers and presents a relatively impermeable barrier restricting the vertical movement of groundwater between the aquifers.

Well logs of Sections 1, 2, 3, and 10 indicate well construction locally is primarily in the Niagaran Dolomite aquifer. Two (2) of the domestic wells were completed in the glacial aquifer. One (1) municipal well was completed in the sandstone aquifer. In general, the well records show that the predominant upper materials are sands with clays encountered at depths of ten (10) to sixty-eight (68) feet below ground surface. Wells researched ranged in total depths from 97 to 1640 feet. A list of well records researched as part of this investigation are presented in Appendix E. Figure 3 depicts the location of selected wells researched, relative to the site.

for what  
etc.

15



Approximate Scale



# FIGURE 3

## WATER WELL LOCATION MAP

Paragon Electric Company, Inc.  
Two Rivers, Wisconsin



Adapted from U.S.G.S. 7.5 Minute Series, Two Rivers Quadrangle

Localized variations in groundwater flow may occur beneath the Paragon facility due to man-made alterations in the shallow subsurface. The existence of sewer pipelines, utility conduits and foundation footings may alter groundwater flow on a site-specific basis. Groundwater will flow along the path of least resistance such as gravel backfills in sewer and utility mains. Thus, groundwater flowing beneath the facility may be diverted along these mains.

General groundwater flow at the site, as measured by the monitoring wells, is south-southeast in direction. Static water levels at the site are less than ten (10) feet below ground surface.

## **VI. REGULATIONS**

**Soil.** The State of Wisconsin has not established standards for the levels of contaminants detected in soil. The Wisconsin Department of Natural Resources (WDNR) evaluates each situation separately to determine if the existence of contaminants in soils will have an adverse affect on the groundwater or otherwise on the environment and public health. The WDNR has stated that corrective action is required if the level of Total Petroleum Hydrocarbons in soils is above 10 ppm (parts per million). Samples collected from the three (3) borings near the former tank location did not exceed the standard.

**Groundwater.** The State of Wisconsin has established groundwater quality standards for contaminants detected in or having a reasonable probability of entering the groundwater resources of the state. The standards are found in Chapter NR 140 of the Wisconsin Administrative Code. Samples collected from MW-1, MW-2 and MW-3 exceed the established standards for trichloroethylene and vinyl chloride. Table 2 summarizes the standards that the State of Wisconsin has established for groundwater quality.

TCE  
VC



## **VII. SOIL QUALITY**

**Soil Quality Results.** Core samples collected at the site were field screened for the presence of volatile organic compounds having ionization potentials equal to or less than 11.7 eV (electron volts) by means of a head space analysis using a Photovac<sub>(TM)</sub> Microtip Photoionization Detector (PID) instrument. Results of the soil screening are shown in the boring logs at Appendix A. One (1) sample from each boring was submitted to the CBC Environmental Services Laboratory for analysis of Total Petroleum Hydrocarbons (TPH).

Laboratory analysis of the samples from borings B-1 and B-2 revealed no detectable concentrations of the compounds analyzed. The sample from boring B-3 revealed a TPH concentration of 5.9 ppm (parts per million). Table 1 presents the soil quality results of the samples analyzed.

---

**TABLE 1**

**SOIL QUALITY RESULTS**

<b><u>Location</u></b>	<b><u>Sample Depth Below Surface</u></b>	<b><u>PID Results (ppm)</u></b>	<b><u>Laboratory Results TPH (ppm)</u></b>
B-1	7 - 7.6'	50	<4.0
B-2	2.5 - 3.1'	24	<4.0
B-3	6.6 - 7.2'	90	5.9

ppm = parts per million

---

Appendix F presents the laboratory results for the samples submitted.

## **VIII. GROUNDWATER QUALITY**

**Groundwater Quality Results.** The groundwater quality study included the sampling of the monitoring wells installed at the site. As stated previously, the monitoring wells were developed following installation. On January 18, 1991,

water levels were measured and the wells purged and sampled. Four (4) 40 milliliter vials were collected from each well.

Water samples were placed into a cooler and accompanied by a Chain-of-Custody document to the CBC Laboratory for analysis of priority pollutant volatile organic compounds and xylene. Laboratory results of groundwater revealed the following: MW-1 - detectable concentrations of chlorobenzene (1.9 ppb), chlorodibromomethane (1.3 ppb), 1,2-dichloropropane (1.4 ppb), ethylbenzene (4.1 ppb), chloromethane (110 ppb), toluene (2.0 ppb), trichloroethylene (13 ppb), vinyl chloride (110 ppb), xylene (6.1 ppb); MW-2 - chloromethane (51 ppb), trichloroethylene (25 ppb), vinyl chloride (51 ppb); MW-3 - chloromethane (64 ppb), toluene (1.6 ppb), trichloroethylene (19 ppb), vinyl chloride (64 ppb), xylene (4.0 ppb).

Table 2 presents the results of the laboratory analysis for selected compounds which have designated established groundwater standards. Appendix G presents the groundwater laboratory results.

**TABLE 2**  
**GROUNDWATER QUALITY RESULTS (Parts Per Billion)**

	<u>MW-1</u>	<u>MW-2</u>	<u>MW-3</u>	<u>Enforcement Standard</u>	<u>Preventive Action Limit</u>
Benzene	<1.0	<1.0	<1.0	5.0	5.0
Ethylbenzene	4.1	<1.0	<1.0	1360	272
Toluene	2.0	<1.0	1.6	343	68.6
Xylene	6.1	<1.0	4.0	620	124
Trichloroethylene	13 <sup>1,2</sup>	25 <sup>1,2</sup>	19 <sup>1,2</sup>	5.0	5.0
Vinyl Chloride	110 <sup>1,2</sup>	51 <sup>1,2</sup>	64 <sup>1,2</sup>	0.2	0.2

<sup>1</sup> - Exceeds NR 140 Enforcement Standards

<sup>2</sup> - Exceeds NR 140 Preventive Action Limit

## **IX. CONCLUSIONS**

The Soils and Groundwater Assessment at the former underground mineral spirits storage tank is completed. The following conclusions are made based on data collected at the site:

1. The site geology consists of brown silty fine sands. The sands in the subsurface present a transport mechanism for lateral and vertical flow of contaminants.
2. The phreatic surface is encountered at less than 10 feet below ground level. Groundwater flow is south-southeast in direction.
3. TPH (Total Petroleum Hydrocarbons) analysis of soil samples revealed no elevated concentrations of contaminants (>10 ppm).
4. Trichloroethylene, Vinyl Chloride, and other volatile organic compounds were detected in the groundwater samples collected from the three (3) monitoring wells. The concentrations of Trichloroethylene and Vinyl Chloride exceed the State of Wisconsin's Enforcement Standards and Preventive Action Limits.
5. Contaminants identified by laboratory analysis are not consistent with substances stored in the Underground Storage Tank (UST).
6. Trichloroethylene is currently utilized at the facility. Elevated concentrations of vinyl chloride may be attributed to breakdown of trichloroethylene.

## **X. LIMITATIONS OF INVESTIGATION**

This report was prepared under constraints of cost, time, and scope, and reflects a limited assessment and evaluation rather than a full, total, complete or extensive assessment and evaluation.

Our assessment was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by Professional Consultants practicing in this or similar localities. No other warranty or guarantee, expressed or implied, is made as to the conclusion and professional advice included in this report.

The findings of this report are valid as of the present date of the assessment. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, from the broadening of knowledge, or from other reasons. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.

The interpretations and conclusions contained in this report are based upon the result of independent laboratory tests and analysis intended to detect the presence and/or concentrations of certain chemical constituents in samples taken from the subject property. Sigma Environmental Services, Inc. has no control over such testing and analysis and therefore, disclaims any responsibility for any errors and omissions arising therefrom.

A subsurface exploration was performed and presented in this report. However, subsurface exploration cannot reveal totally what is below the surface. Depending upon the sampling method and frequency, every soil condition may not be observed, and some materials or layers which are present in the subsurface may not be noted.

**This report is issued with the understanding that it is the responsibility of the owner(s) to ensure that the information and recommendations contained herein are brought to the attention of the appropriate regulatory agency(ies).**

**This report has been prepared specifically for Paragon Electric. Reproduction or distribution of this report should not be performed without written consent of Paragon Electric and Sigma Environmental Services Inc.**

**APPENDIX A**

**BORING LOGS**









# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION 140 East Ryan Road • Oak Creek, WI 53154-4599

NOTES:

Client: Paragon Electric  
 Location: Two Rivers, Wisconsin Start Date: 12/27/90  
 Boring Number: B-3 Completion Date: 12/27/90  
 Drilling Co: Giles Engineering Rig: General-550  
 Driller: Rolly Dombrowski Auger or Casing Size: 2 1/4"  
 Helper: \_\_\_\_\_ Hole Advanced By:  HS. Auger  Wash Boring  
 If wash boring used Depth \_\_\_\_\_ to \_\_\_\_\_ ft.

WATER LEVEL	READING		WATER LEVEL BELOW SURFACE	DEPTH CAVED
	DATE	TIME		
Encountered when drilling				
After auger or casing pulled				
24 hour reading	12/28/90	8:00am	7.43	
<u>1/2</u> hour reading			7.48	
Observation well installed	12/27/90	3:00	Depth <u>10.3</u> Feet	

Sample Number	Blows on Sampler				Sample Recovery	Material Change	MATERIAL CLASSIFICATION	Signature:	PID PPM	REMARKS
	0	6	12	18						
1							2.4-3.0' - Brown silty very fine to fine sand-trace coarse sand		32	
2							5.0-5.6' - Light brown to fine-medium sand-trace coarse sand		3.5	
3							6.6-7.2' - Gray silty very fine to fine sand-trace coarse sand		9.0	Damp odor
4							10.3-10.9' - Brown to gray silty very fine to fine sand-trace coarse sand		40	Wet
							15		15	
							BORING TERMINATED AT 10.9'			
							20		20	
							25		25	
							30		30	
							35		35	
							40		40	

**APPENDIX B**

**WELL CONSTRUCTION FORMS**



Facility/Project Name <u>Paragon Electric</u>	Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>MW-1</u>
Facility License, Permit or Monitoring Number _____		Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location <u>SW</u> 1/4 of <u>NE</u> 1/4 of Section <u>2</u>	Date Well Installed <u>1 2 / 2 7 / 9 0</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>7</u> ft.	T <u>19</u> N, R <u>24</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Rolly Dombrowsky</u>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input checked="" type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	<u>Giles Engineering</u>

<p>A. Protective pipe, top elevation _____ ft. MSL</p> <p>B. Well casing, top elevation _____ ft. MSL</p> <p>C. Land surface elevation _____ ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or <u>1.0</u> ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen:  <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP  <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH  <input type="checkbox"/> Bedrock</p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50  Hollow Stem Auger <input checked="" type="checkbox"/> 41  Other <input type="checkbox"/> _____</p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01  Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis):  _____</p> </div> <p>E. Bentonite seal, top _____ ft. MSL or <u>2.0</u> ft.</p> <p>F. Fine sand, top _____ ft. MSL or <u>3.0</u> ft.</p> <p>G. Filter pack, top _____ ft. MSL or <u>4.0</u> ft.</p> <p>H. Well screen, top _____ ft. MSL or <u>4.9</u> ft.</p> <p>I. Well screen, bottom _____ ft. MSL or <u>1 0 4</u> ft.</p> <p>J. Filter pack, bottom _____ ft. MSL or _____ ft.</p> <p>K. Borehole, bottom _____ ft. MSL or _____ ft.</p> <p>L. Borehole, diameter <u>5.0</u> in.</p> <p>M. O.D. well casing <u>1.50</u> in.</p> <p>N. I.D. well casing <u>1.25</u> in.</p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe:  a. Inside diameter: _____ in.  b. Length: _____ ft.  c. Material: Steel <input type="checkbox"/> 04  <u>Flush Aluminum Manhole</u> Other <input checked="" type="checkbox"/> _____  d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No  If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30  Concrete <input checked="" type="checkbox"/> 01  Other <input type="checkbox"/> _____</p> <p>4. Material between well casing and protective pipe:  Bentonite <input type="checkbox"/> 30  Annular space seal <input checked="" type="checkbox"/> _____  Other <input type="checkbox"/> _____</p> <p>5. Annular space seal: Granular Bentonite <input checked="" type="checkbox"/> 33  _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35  _____ Lbs/gal mud weight . . . . . Bentonite slurry <input type="checkbox"/> 31  _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 50  _____ Ft<sup>3</sup> volume added for any of the above  How installed: Tremie <input type="checkbox"/> 01  Tremie pumped <input type="checkbox"/> 02  Gravity <input checked="" type="checkbox"/> 08</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33  <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32  Other <input type="checkbox"/> _____</p> <p>7. Fine sand material: Manufacturer, product name and mesh size  <u>Red Flint Filter Sand 100</u>  Volume added _____ ft<sup>3</sup></p> <p>8. Filter pack material: Manufacturer, product name and mesh size  <u>Red Flint Filter Sand 20</u>  Volume added _____ ft<sup>3</sup></p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23  Flush threaded PVC schedule 80 <input type="checkbox"/> 24  <u>1 1/4" Galvanized Steel</u> Other <input checked="" type="checkbox"/> _____</p> <p>10. Screen material: <u>SS</u>  Screen type: Factory cut <input type="checkbox"/> 11  Continuous slot <input type="checkbox"/> 01  <u>Double-Wall Mesh Screen</u> Other <input checked="" type="checkbox"/> _____  Manufacturer <u>SWRC</u>  Slot size: _____ 0.020 in.  Slotted length: <u>5.5</u> ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/>  Other <input type="checkbox"/> _____</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

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

Signature \_\_\_\_\_ Firm Sigma Environmental Services, Inc.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. 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 \$5,000 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.



Facility/Project Name <b>Paragon Electric</b>	Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <b>MW-2</b>
Facility License, Permit or Monitoring Number _____		Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location _____ 1/4 of _____ 1/4 of Section _____	Date Well Installed <u>1 2</u> / <u>2 7</u> / <u>9 0</u> m m d d y y
Distance Well Is From Waste/Source Boundary 18 ft.	T _____ N, R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <b>Rolly Dombrowski</b>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	<b>Giles Engineering</b>

<p>A. Protective pipe, top elevation _____ ft. MSL</p> <p>B. Well casing, top elevation _____ ft. MSL</p> <p>C. Land surface elevation _____ ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or <u>1 0</u> ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen:  <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP  <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH  <input type="checkbox"/> Bedrock</p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50  Hollow Stem Auger <input checked="" type="checkbox"/> 41  Other <input type="checkbox"/> _____</p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01  Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Describe _____</p> <p>17. Source of water (attach analysis):  _____</p> </div> <p>E. Bentonite seal, top _____ ft. MSL or <u>2 0</u> ft.</p> <p>F. Fine sand, top _____ ft. MSL or <u>3 0</u> ft.</p> <p>G. Filter pack, top _____ ft. MSL or <u>4 0</u> ft.</p> <p>H. Well screen, top _____ ft. MSL or <u>5 1</u> ft.</p> <p>I. Well screen, bottom _____ ft. MSL or <u>1 0 6</u> ft.</p> <p>J. Filter pack, bottom _____ ft. MSL or _____ ft.</p> <p>K. Borehole, bottom _____ ft. MSL or _____ ft.</p> <p>L. Borehole, diameter <u>5 0</u> in.</p> <p>M. O.D. well casing <u>1 5 0</u> in.</p> <p>N. I.D. well casing <u>1 2 5</u> in.</p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe:  a. Inside diameter: _____ in.  b. Length: _____ ft.  c. Material: Steel <input type="checkbox"/> 04  <u>Flush Aluminum Manhole</u> Other <input checked="" type="checkbox"/> _____  d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No  If yes, describe: _____</p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30  Concrete <input checked="" type="checkbox"/> 01  Other <input type="checkbox"/> _____</p> <p>4. Material between well casing and protective pipe:  Bentonite <input type="checkbox"/> 30  Annular space seal <input checked="" type="checkbox"/> _____  Other <input type="checkbox"/> _____</p> <p>5. Annular space seal: Granular Bentonite <input checked="" type="checkbox"/> 33  _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35  _____ Lbs/gal mud weight . . . . . Bentonite slurry <input type="checkbox"/> 31  _____ % Bentonite . . . . . Bentonite-cement grout <input type="checkbox"/> 50  _____ Ft<sup>3</sup> volume added for any of the above  How installed: Tremie <input type="checkbox"/> 01  Tremie pumped <input type="checkbox"/> 02  Gravity <input checked="" type="checkbox"/> 08</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33  <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32  Other <input type="checkbox"/> _____</p> <p>7. Fine sand material: Manufacturer, product name and mesh size  <u>Red Flint Filter Sand 100</u>  Volume added _____ ft<sup>3</sup></p> <p>8. Filter pack material: Manufacturer, product name and mesh size  <u>Red Flint Filter Sand 20</u>  Volume added _____ ft<sup>3</sup></p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23  Flush threaded PVC schedule 80 <input type="checkbox"/> 24  <u>1 1/4" Galvanized Steel</u> Other <input checked="" type="checkbox"/> _____</p> <p>10. Screen material: <u>Stainless Steel</u>  Screen type: Factory cut <input type="checkbox"/> 11  Continuous slot <input type="checkbox"/> 01  <u>Double-Wall Mesh Screen</u> Other <input checked="" type="checkbox"/> _____  Manufacturer <u>AWRC</u>  Slot size: 0.020 in.  Slotted length: <u>5.5</u> ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/>  Other <input type="checkbox"/> _____</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
Signature \_\_\_\_\_ Firm **Sigma Environmental Services, Inc.**

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. 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 \$5,000 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.



Facility/Project Name <b>Paragon Electric</b>	Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <b>MW-3</b>
Facility License, Permit or Monitoring Number _____		Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location <u>SW</u> 1/4 of <u>NE</u> 1/4 of Section <u>2</u>	Date Well Installed <u>1</u> / <u>2</u> / <u>2</u> <u>7</u> / <u>9</u> / <u>0</u>
Distance Well Is From Waste/Source Boundary <u>2</u> ft.	T <u>19</u> N, R <u>24</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Rolly Dombrowski</u> <u>Giles Engineering</u>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input checked="" type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation _____ ft. MSL B. Well casing, top elevation _____ ft. MSL C. Land surface elevation _____ ft. MSL D. Surface seal, bottom _____ ft. MSL or <u>1.0</u> ft.		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Protective cover pipe: a. Inside diameter: _____ in. b. Length: _____ ft. c. Material: Steel <input type="checkbox"/> 04 <u>Flush Aluminum Manhole</u> Other <input checked="" type="checkbox"/> d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____ 3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> 4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/> 5. Annular space seal: Granular Bentonite <input checked="" type="checkbox"/> 33 _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 _____ Lbs/gal mud weight . . . . Bentonite slurry <input type="checkbox"/> 31 _____ % Bentonite . . . . Bentonite-cement grout <input type="checkbox"/> 50 _____ Ft <sup>3</sup> volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08 6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/> 7. Fine sand material: Manufacturer, product name and mesh size <u>Red Flint Filter Sand 100</u> Volume added _____ ft <sup>3</sup> 8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint Filter Sand 20</u> Volume added _____ ft <sup>3</sup> 9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 <u>1 1/4"</u> Other <input checked="" type="checkbox"/> 10. Screen material: <u>Stainless Steel</u> Screen type: Factory cut <input type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 <u>Double-wall Mesh Screen</u> Other <input checked="" type="checkbox"/> Manufacturer <u>AWRC</u> Slot size: 0.020 in. Slotted length: <u>5.5</u> ft. 11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock 13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 4.1 Other <input type="checkbox"/> 15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99 16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____ 17. Source of water (attach analysis): _____		
E. Bentonite seal, top _____ ft. MSL or <u>2.0</u> ft. F. Fine sand, top _____ ft. MSL or <u>3.0</u> ft. G. Filter pack, top _____ ft. MSL or <u>4.0</u> ft. H. Well screen, top _____ ft. MSL or <u>5.3</u> ft. I. Well screen, bottom _____ ft. MSL or <u>10.8</u> ft. J. Filter pack, bottom _____ ft. MSL or _____ ft. K. Borehole, bottom _____ ft. MSL or _____ ft. L. Borehole, diameter <u>5.0</u> in. M. O.D. well casing <u>1.50</u> in. N. I.D. well casing <u>1.25</u> in.		

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
 Signature \_\_\_\_\_ Firm Sigma Environmental Services, Inc.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. 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 \$5,000 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.

**APPENDIX C**

**WELL DEVELOPMENT FORMS**



Facility/Project Name <b>PARAGON ELECTRIC</b>	Well Name <b>MW-1 (INSIDE)</b>
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry?  Yes  No

2. Well development method
- surged with bailer and bailed  4 1
  - surged with bailer and pumped  6 1
  - surged with block and bailed  4 2
  - surged with block and pumped  6 2
  - surged with block, bailed and pumped  7 0
  - compressed air  2 0
  - bailed only  1 0
  - pumped only  5 1
  - pumped slowly  5 0
  - Other  \_\_\_\_\_

3. Time spent developing well 0075 min.

4. Depth of well (from top of well casing) 009.3 ft.

5. Inside diameter of well 01.25 in.

6. Volume of water in filter pack and well casing <03.4 gal.

7. Volume of water removed from well 034.0 gal.

8. Volume of water added (if any) \_\_\_\_\_ gal.

9. Source of water added N/A

10. Analysis performed on water added?  Yes  No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	6.98 ft.	8.51 ft.
Date	011891 m m d d y y	011891 m m d d y y
Time	11:45 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	1:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	01.0 inches	00.0 inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Very turbid brown color</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <u>Water cleared up after 2 gallons purged</u>

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

Additional comments on development:

Well recharged slowly. Approximately <sup>25</sup> gallons per minutes. Amount purged was more than 10 volumes of water.

Well developed by: Person's Name and Firm Name: <u>Scott Kirsop/Dale Palkowski</u> Firm: <u>Sigma Environmental</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>Scott Kirsop</u> Firm: <u>Sigma Environmental</u>
---------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <b>PARAGON ELECTRIC</b>	Well Name <b>MW 2 (Inside)</b>				
License, Permit or Monitoring Number -----	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; padding: 2px;">Wis. Unique Well Number</td> <td style="width:50%; padding: 2px;">DNR Well Number</td> </tr> <tr> <td style="padding: 2px;">-----</td> <td style="padding: 2px;">-----</td> </tr> </table>	Wis. Unique Well Number	DNR Well Number	-----	-----
Wis. Unique Well Number	DNR Well Number				
-----	-----				

1. Can this well be purged dry?       Yes     No

2. Well development method

surged with bailer and bailed	<input type="checkbox"/>	4 1
surged with bailer and pumped	<input checked="" type="checkbox"/>	6 1
surged with block and bailed	<input type="checkbox"/>	4 2
surged with block and pumped	<input type="checkbox"/>	6 2
surged with block, bailed and pumped	<input type="checkbox"/>	7 0
compressed air	<input type="checkbox"/>	2 0
bailed only	<input type="checkbox"/>	1 0
pumped only	<input type="checkbox"/>	5 1
pumped slowly	<input type="checkbox"/>	5 0
Other _____	<input type="checkbox"/>	<input style="width:40px;" type="text"/>

3. Time spent developing well      0065 min.

4. Depth of well (from top of well casing)      009.4 ft.

5. Inside diameter of well      01.25 in.

6. Volume of water in filter pack and well casing      <035 gal.

7. Volume of water removed from well      035.0 gal.

8. Volume of water added (if any)      \_\_\_\_\_ gal.

9. Source of water added      N/A

10. Analysis performed on water added?       Yes     No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>006.96</u> ft.	<u>007.02</u> ft.
Date	<u>01/18/91</u> m m d d y y	<u>01/18/91</u> m m d d y y
Time	<u>12:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>01:50</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>01.0</u> inches	<u>00.0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>VERY TURBID BROWN IN COLOR</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <u>WATER CLEARED UP AFTER 12 GALLONS PURGED.</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

Additional comments on development:  
*Well recharged slowly. Approximately .25 gallons every minute. Took out more than 10 volumes during development.*

Well developed by: Person's Name and Firm  Name: <u>SCOTT KIRSOP/DAN PALKOWSKI</u> Firm: <u>SIGMA ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge.  Signature: <u>Scott Kirsop</u> Firm: <u>Sigma Environmental</u>
------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------

NOTE: Shaded areas are for DNR use only. See instructions for more information.



Facility/Project Name <b>PARAGON Electric</b>	Well Name <b>MW-3 (INSIDE)</b>	
License, Permit or Monitoring Number -----	Wis. Unique Well Number -----	DNR Well Number -----

1. Can this well be purged dry?       Yes     No
2. Well development method
- surged with bailer and bailed       4 1
  - surged with bailer and pumped       6 1
  - surged with block and bailed       4 2
  - surged with block and pumped       6 2
  - surged with block, bailed and pumped       7 0
  - compressed air       2 0
  - bailed only       1 0
  - pumped only       5 1
  - pumped slowly       5 0
  - Other \_\_\_\_\_

3. Time spent developing well      0060 min.
4. Depth of well (from top of well casing)      009.0 ft.
5. Inside diameter of well      01.25 in.
6. Volume of water in filter pack and well casing      < 032 gal.
7. Volume of water removed from well      035.0 gal.
8. Volume of water added (if any)             gal.
9. Source of water added      N/A

10. Analysis performed on water added?       Yes     No  
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>006.84</u> ft.	<u>006.84</u> ft.
Date	<u>01/18/91</u> m m d d y y	<u>01/18/91</u> m m d d y y
Time	<u>11:15</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>13:15</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>1.0</u> inches	<u>00.0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20
	Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>VERY Turbid</u> <u>Brown in</u> <u>color</u>	Turbid <input type="checkbox"/> 25 (Describe) <u>WATER CLEARED</u> <u>UP AFTER 5gals.</u> <u>WATER PURGED.</u>

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids      \_\_\_\_\_ mg/l
15. COD      \_\_\_\_\_ mg/l

Additional comments on development:

*Well Recharged NICEly. Approximately .50 gallons per minute, MORE than 10 volumes of WATER WAS purged FROM well.*

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>Scott Kirsop / Dale Palowski</u>	Signature: <u>Scott Kirsop</u>
Firm: <u>SIGMA Environmental</u>	Firm: <u>Sigma Environmental</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

**APPENDIX D**

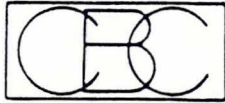
**WATER LEVEL MEASUREMENTS**

**PARAGON ELECTRIC**  
**WATER LEVEL MEASUREMENTS**

<u>Well #</u>	<u>Depth to Water</u>	<u>Date</u>
MW-1	7.54'	12-29-90
	6.98'	1-18-91
MW-2	7.57'	12-28-90
	6.96'	1-18-91
MW-3	7.43'	12-28-90
	6.84'	1-18-91

**APPENDIX E**

**LABORATORY RESULTS (SOIL)**



# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION

140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

01/08/91

LABORATORY REPORT

PAGE 1

C739 8458955 W31

TEWOCR0374

CBC REMEDIAL SERVICES INC.  
140 E. RYAN ROAD  
OAK CREEK, WI 53154  
ATTN: CRAIG VARLAND

SAMPLE 90362-C11527 BORING 1/7-7.6'/PID = 50/SOIL/PARAGON ELECTRIC-TWO  
RIVERS, WI

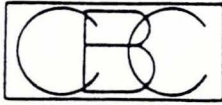
DATE COLLECTED 12/28/90 DATE RECEIVED 12/28/90

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,  
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME.

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

APPROVAL 



# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION  
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

01/07/91

LABORATORY REPORT

PAGE 1

C739 8458955 W31

CBC REMEDIAL SERVICES INC.  
140 E. RYAN ROAD  
OAK CREEK ,WI 53154  
ATTN: CRAIG VARLAND

TEWOCR0374

SAMPLE 90362-C11528 BORING 2/2.5-3.1'/PID=24/SOIL/PARAGON ELECTRIC-TWO  
RIVERS, WI

DATE COLLECTED 12/28/90 DATE RECEIVED 12/28/90

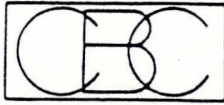
TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	<4.0	PPM

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,  
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME.

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

APPROVAL *M.P.*





# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION  
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

01/08/91

LABORATORY REPORT

PAGE 1

C739 8458955 W31

CBC REMEDIAL SERVICES INC.  
140 E. RYAN ROAD  
OAK CREEK ,WI 53154  
ATTN: CRAIG VARLAND

TEWOCR0374


SAMPLE 90362-C11529 BORING 3/6.6-7.2'/PID=90/SOIL/PARAGON ELECTRIC-TWO  
RIVERS, WI

DATE COLLECTED 12/28/90 DATE RECEIVED 12/28/90

TEST NAME	RESULT	UNITS
TOTAL PETROLEUM HYDROCARBONS	5.9	PPM
	GASOLINE	
	BASED ON SIMILARITIES TO GASOLINE STANDARDS	

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,  
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME.

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

APPROVAL 

WI DNR LAB CERTIFICATION #241283020

FAX #414-764-0486

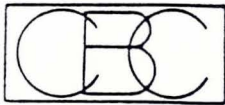
CLIENT SERVICES DIRECT LINE 414-768-7460

1-800-365-3840

**APPENDIX F**

**LABORATORY RESULTS (GROUNDWATER)**





# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION

140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

03/05/91

LABORATORY REPORT

PAGE 1

C739 8459594 W31

BL/ / / /

TEWOCR0374

SIGMA ENVIRONMENTAL SERVICES, INC.  
9555 S. HOWELL AVE.  
OAK CREEK ,WI 53154  
ATTN: CRAIG VARLAND

SAMPLE 91018-C11530 WATER/TRIP BLANKS/PARAGON ELECTRIC-TWO RIVERS  
DATE COLLECTED 01/18/91 DATE RECEIVED 01/18/91

TEST NAME	RESULT	UNITS
BENZENE	<1.0	PPB
BROMOFORM	<1.0	PPB
CARBON TETRACHLORIDE	<1.0	PPB
CHLOROBENZENE	<1.0	PPB
CHLORODIBROMOMETHANE	<1.0	PPB
CHLOROETHANE	<1.0	PPB
2-CHLOROETHYL VINYL ETHER	<1.0	PPB
CHLOROFORM	<1.0	PPB
DICHLOROBROMOMETHANE	<1.0	PPB
1,1-DICHLOROETHANE	<1.0	PPB
1,2-DICHLOROETHANE	<1.0	PPB
1,1-DICHLOROETHYLENE	<1.0	PPB
1,2-DICHLOROPROPANE	<1.0	PPB
CIS-1,3-DICHLOROPROPENE	<1.0	PPB
ETHYLBENZENE	<1.0	PPB
BROMOMETHANE	<1.0	PPB
CHLOROMETHANE	<1.0	PPB
METHYLENE CHLORIDE	<1.0	PPB
1,1,2,2-TETRACHLOROETHANE	<1.0	PPB
TETRACHLOROETHYLENE	<1.0	PPB
TOLUENE	<1.0	PPB
1,2-TRANS-DICHLOROETHYLENE	<1.0	PPB
1,1,1-TRICHLOROETHANE	<1.0	PPB
1,1,2-TRICHLOROETHANE	<1.0	PPB
TRICHLOROETHYLENE	<1.0	PPB
TRICHLOROFLUOROMETHANE	<1.0	PPB
VINYL CHLORIDE / FREON 12	<1.0	PPB
TRANS-1,3-DICHLOROPROPENE	<1.0	PPB
XYLENE, TOTAL	<1.0	PPB

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,  
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

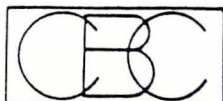
APPROVAL 

WI DNR LAB CERTIFICATION #241283020

FAX #414-764-0486

CLIENT SERVICES DIRECT LINE 414-768-7460

1-800-365-3840



# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION  
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

03/05/91

LABORATORY REPORT

PAGE 1

SIGMA ENVIRONMENTAL SERVICES, INC.  
9555 S. HOWELL AVE.  
OAK CREEK ,WI 53154  
ATTN: CRAIG VARLAND

C739 8459594 W31  
BL/ / / /  
TEWOCR0374

SAMPLE 91018-C11531 WATER/FIELD BLANKS/PARAGON ELECTRIC-TWO RIVERS  
DATE COLLECTED 01/18/91 DATE RECEIVED 01/18/91

TEST NAME	RESULT	UNITS
BENZENE	<1.0	PPB
BROMOFORM	<1.0	PPB
CARBON TETRACHLORIDE	<1.0	PPB
CHLOROBENZENE	<1.0	PPB
CHLORODIBROMOMETHANE	<1.0	PPB
CHLOROETHANE	<1.0	PPB
2-CHLOROETHYLVINYL ETHER	<1.0	PPB
CHLOROFORM	<1.0	PPB
DICHLOROBROMOMETHANE	<1.0	PPB
1,1-DICHLOROETHANE	<1.0	PPB
1,2-DICHLOROETHANE	<1.0	PPB
1,1-DICHLOROETHYLENE	<1.0	PPB
1,2-DICHLOROPROPANE	<1.0	PPB
CIS-1,3-DICHLOROPROPENE	<1.0	PPB
ETHYLBENZENE	<1.0	PPB
BROMOMETHANE	<1.0	PPB
CHLOROMETHANE	<1.0	PPB
METHYLENE CHLORIDE	<1.0	PPB
1,1,2,2-TETRACHLOROETHANE	<1.0	PPB
TETRACHLOROETHYLENE	<1.0	PPB
TOLUENE	<1.0	PPB
1,2-TRANSDICHLOROETHYLENE	<1.0	PPB
1,1,1-TRICHLOROETHANE	<1.0	PPB
1,1,2-TRICHLOROETHANE	<1.0	PPB
TRICHLOROETHYLENE	<1.0	PPB
TRICHLOROFLUOROMETHANE	<1.0	PPB
VINYL CHLORIDE / FREON 12	<1.0	PPB
TRANS-1,3-DICHLOROPROPENE	<1.0	PPB
XYLENE, TOTAL	<1.0	PPB

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,  
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

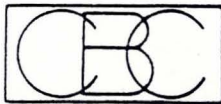
APPROVAL 

WI DNR LAB CERTIFICATION #241283020

FAX #414-764-0486

CLIENT SERVICES DIRECT LINE 414-768-7460

1-800-365-3840



# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION  
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

02/26/91

LABORATORY REPORT

PAGE 1

C739 8459594 W31  
BL/ / / /  
TEWOCR0374

SIGMA ENVIRONMENTAL SERVICES, INC.  
9555 S. HOWELL AVE.  
OAK CREEK ,WI 53154  
ATTN: CRAIG VARLAND

SAMPLE 91018-C11525 WATER/MW-1/PARAGON ELECTRIC-TWO RIVERS  
DATE COLLECTED 01/18/91 DATE RECEIVED 01/18/91

TEST NAME	RESULT	UNITS
BENZENE	<1.0	PPB
BROMOFORM	<1.0	PPB
CARBON TETRACHLORIDE	<1.0	PPB
CHLOROBENZENE	1.9	PPB
CHLORODIBROMOMETHANE	1.3	PPB
CHLOROETHANE	<1.0	PPB
2-CHLOROETHYL VINYL ETHER	<1.0	PPB
CHLOROFORM	<1.0	PPB
DICHLOROBROMOMETHANE	<1.0	PPB
1,1-DICHLOROETHANE	<1.0	PPB
1,2-DICHLOROETHANE	<1.0	PPB
1,1-DICHLOROETHYLENE	<1.0	PPB
1,2-DICHLOROPROPANE	1.4	PPB
CIS-1,3-DICHLOROPROPENE	<1.0	PPB
ETHYLBENZENE	4.1	PPB
BROMOMETHANE	<1.0	PPB
CHLOROMETHANE	110	PPB
METHYLENE CHLORIDE	<1.0	PPB
1,1,2,2-TETRACHLOROETHANE	<1.0	PPB
TETRACHLOROETHYLENE	<1.0	PPB
TOLUENE	2.0	PPB
1,2-TRANSDICHLOROETHYLENE	<1.0	PPB
1,1,1-TRICHLOROETHANE	<1.0	PPB
1,1,2-TRICHLOROETHANE	<1.0	PPB
TRICHLOROETHYLENE	13	PPB
TRICHLOROFLUOROMETHANE	<1.0	PPB
VINYL CHLORIDE / FREON 12	110	PPB
TRANS-1,3-DICHLOROPROPENE	<1.0	PPB
XYLENE, TOTAL	6.1	PPB

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,  
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

APPROVAL *M.F.*

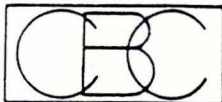
WI DNR LAB CERTIFICATION #241283020

FAX #414-764-0486

CLIENT SERVICES DIRECT LINE 414-768-7460

1-800-365-3840





# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION

140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

02/26/91

LABORATORY REPORT

PAGE 1

C739 8459594 W31  
BL/ / / /  
TEWOCR0374

SIGMA ENVIRONMENTAL SERVICES, INC.  
9555 S. HOWELL AVE.  
OAK CREEK ,WI 53154  
ATTN: CRAIG VARLAND

SAMPLE 91018-C11527 WATER/MW-2/PARAGON ELECTRIC-TWO RIVERS  
DATE COLLECTED 01/18/91 DATE RECEIVED 01/18/91

TEST NAME	RESULT	UNITS
BENZENE	<1.0	PPB
BROMOFORM	<1.0	PPB
CARBON TETRACHLORIDE	<1.0	PPB
CHLOROBENZENE	<1.0	PPB
CHLORODIBROMOMETHANE	<1.0	PPB
CHLOROETHANE	<1.0	PPB
2-CHLOROETHYL VINYL ETHER	<1.0	PPB
CHLOROFORM	<1.0	PPB
DICHLOROBROMOMETHANE	<1.0	PPB
1,1-DICHLOROETHANE	<1.0	PPB
1,2-DICHLOROETHANE	<1.0	PPB
1,1-DICHLOROETHYLENE	<1.0	PPB
1,2-DICHLOROPROPANE	<1.0	PPB
CIS-1,3-DICHLOROPROPENE	<1.0	PPB
ETHYLBENZENE	<1.0	PPB
BROMOMETHANE	<1.0	PPB
CHLOROMETHANE	51	PPB
METHYLENE CHLORIDE	<1.0	PPB
1,1,2,2-TETRACHLOROETHANE	<1.0	PPB
TETRACHLOROETHYLENE	<1.0	PPB
TOLUENE	<1.0	PPB
1,2-TRANS-DICHLOROETHYLENE	<1.0	PPB
1,1,1-TRICHLOROETHANE	<1.0	PPB
1,1,2-TRICHLOROETHANE	<1.0	PPB
TRICHLOROETHYLENE	25	PPB
TRICHLOROFLUOROMETHANE	<1.0	PPB
VINYL CHLORIDE / FREON 12	51	PPB
TRANS-1,3-DICHLOROPROPENE	<1.0	PPB
XYLENE, TOTAL	<1.0	PPB

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,

@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

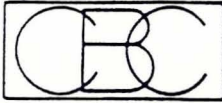
APPROVAL M. T. W.

WI DNR LAB CERTIFICATION #241283020

FAX #414-764-0486

CLIENT SERVICES DIRECT LINE 414-768-7460

1-800-365-3840



# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION  
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

02/26/91

LABORATORY REPORT

PAGE 1

C739 8459594 W31  
BL/ / / /  
TEWOCR0374

SIGMA ENVIRONMENTAL SERVICES, INC.  
9555 S. HOWELL AVE.  
OAK CREEK ,WI 53154  
ATTN: CRAIG VARLAND

SAMPLE 91018-C11528 WATER/MW-3/PARAGON ELECTRIC-TWO RIVERS  
DATE COLLECTED 01/18/91 DATE RECEIVED 01/18/91

TEST NAME	RESULT	UNITS
BENZENE	<1.0	PPB
BROMOFORM	<1.0	PPB
CARBON TETRACHLORIDE	<1.0	PPB
CHLOROBENZENE	<1.0	PPB
CHLORODIBROMOMETHANE	<1.0	PPB
CHLOROETHANE	<1.0	PPB
2-CHLOROETHYLVINYL ETHER	<1.0	PPB
CHLOROFORM	<1.0	PPB
DICHLOROBROMOMETHANE	<1.0	PPB
1,1-DICHLOROETHANE	<1.0	PPB
1,2-DICHLOROETHANE	<1.0	PPB
1,1-DICHLOROETHYLENE	<1.0	PPB
1,2-DICHLOROPROPANE	<1.0	PPB
CIS-1,3-DICHLOROPROPENE	<1.0	PPB
ETHYLBENZENE	<1.0	PPB
BROMOMETHANE	<1.0	PPB
CHLOROMETHANE	64	PPB
METHYLENE CHLORIDE	<1.0	PPB
1,1,2,2-TETRACHLOROETHANE	<1.0	PPB
TETRACHLOROETHYLENE	<1.0	PPB
TOLUENE	1.6	PPB
1,2-TRANSDICHLOROETHYLENE	<1.0	PPB
1,1,1-TRICHLOROETHANE	<1.0	PPB
1,1,2-TRICHLOROETHANE	<1.0	PPB
TRICHLOROETHYLENE	19	PPB
TRICHLOROFLUOROMETHANE	<1.0	PPB
VINYL CHLORIDE / FREON 12	64	PPB
TRANS-1,3-DICHLOROPROPENE	<1.0	PPB
XYLENE, TOTAL	4.0	PPB

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,  
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

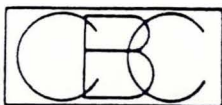
APPROVAL *M.J.W.*

WI DNR LAB CERTIFICATION #241283020

FAX #414-764-0486

CLIENT SERVICES DIRECT LINE 414-768-7460

1-800-365-3840



# ENVIRONMENTAL SERVICES

CHEM-BIO CORPORATION  
140 EAST RYAN ROAD OAK CREEK, WI 53154-4599 (414) 764-7005

02/26/91

LABORATORY REPORT

PAGE 1

C739 8459594 W31  
BL/ / / /  
TEWOCR0374

SIGMA ENVIRONMENTAL SERVICES, INC.  
9555 S. HOWELL AVE.  
OAK CREEK ,WI 53154  
ATTN: CRAIG VARLAND

SAMPLE 91018-C11529 WATER/DUPLICATE/PARAGON ELECTRIC-TWO RIVERS  
DATE COLLECTED 01/18/91 DATE RECEIVED 01/18/91

TEST NAME	RESULT	UNITS
BENZENE	<1.0	PPB
BROMOFORM	<1.0	PPB
CARBON TETRACHLORIDE	<1.0	PPB
CHLOROBENZENE	<1.0	PPB
CHLORODIBROMOMETHANE	<1.0	PPB
CHLOROETHANE	<1.0	PPB
2-CHLOROETHYLVINYL ETHER	<1.0	PPB
CHLOROFORM	<1.0	PPB
DICHLOROBROMOMETHANE	<1.0	PPB
1,1-DICHLOROETHANE	<1.0	PPB
1,2-DICHLOROETHANE	<1.0	PPB
1,1-DICHLOROETHYLENE	<1.0	PPB
1,2-DICHLOROPROPANE	<1.0	PPB
CIS-1,3-DICHLOROPROPENE	<1.0	PPB
ETHYLBENZENE	<1.0	PPB
BROMOMETHANE	<1.0	PPB
CHLOROMETHANE	18	PPB
METHYLENE CHLORIDE	<1.0	PPB
1,1,2,2-TETRACHLOROETHANE	<1.0	PPB
TETRACHLOROETHYLENE	<1.0	PPB
TOLUENE	<1.0	PPB
1,2-TRANSDICHLOROETHYLENE	<1.0	PPB
1,1,1-TRICHLOROETHANE	<1.0	PPB
1,1,2-TRICHLOROETHANE	<1.0	PPB
TRICHLOROETHYLENE	20	PPB
TRICHLOROFLUOROMETHANE	<1.0	PPB
VINYL CHLORIDE / FREON 12	18	PPB
TRANS-1,3-DICHLOROPROPENE	<1.0	PPB
XYLENE, TOTAL	<1.0	PPB

PLEASE CONTACT CLIENT SERVICES WITH ANY QUESTIONS. WATER SAMPLES ARE DISPOSED OF 30 DAYS AFTER RECEIPT ; NON-WATER SAMPLES WILL BE RETURNED 6 WEEKS AFTER RECEIPT. N/T = NOT TESTED, N/A = NOT APPLICABLE,  
@ = ELEVATED DETECTION LIMIT DUE TO MATRIX INTERFERENCE. # = ELEVATED DETECTION LIMIT DUE TO SAMPLE CONCENTRATION.  
\$ = ELEVATED DETECTION LIMIT DUE TO SAMPLE VOLUME. + = ELEVATED DETECTION LIMIT DUE TO EXTRACT VOLUME.

IL EPA CERTIFICATION # 100243; AIHA ACCREDITED.

APPROVAL M.J.H.

WI DNR LAB CERTIFICATION #241283020

FAX #414-764-0486

CLIENT SERVICES DIRECT LINE 414-768-7460

1-800-365-3840

**APPENDIX G**

**WELL CONSTRUCTION LOGS**



County: Manitowoc

Well name Mirro Aluminum Company, Two Rivers, Wis.

Located 15th St., 400' S. of Washington St. Completed... 5/3/65

Owner... Mirro Aluminum Co.

Address. Manitowoc, Wisconsin

Driller.. Egerer-Galloway Well Corp.

Engineer.

Field check.

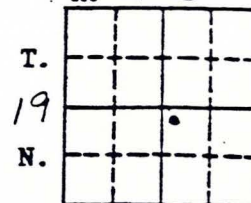
Altitude.... 595' *ETM*

Use..... Industrial

Static w. l. = 7'

Spec. cap... = 0.9

R. 24E



Quad. Manitowoc 15'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
16"	0	45'				16"	steel 3/8" wall	0	45'				
10"	45	371'				10"	steel .307" wall	+2'	87'				

Grout: Kind	from	to
Neat cement	0	45'

Samples from 0 to 370' Date received: 9/16/65  
 Sample Nos. 257899 to 257972 Examined by: Janet Olmstead Date: 2/11/66  
 Formations: Drift, Silurian

Remarks: Well tested for 7½ hours at 300 gpm with 343 feet of drawdown.

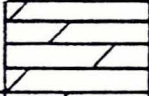
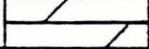
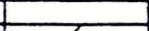
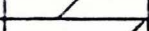
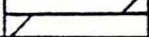
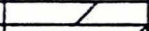
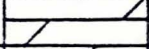
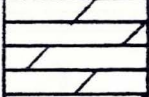
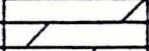
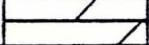
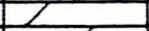


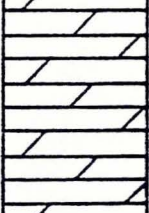
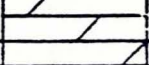
LOG OF WELL:

Depth (ft)	Interval (ft)	Stratigraphic Unit	Description
0-10	10		Top soil, mxd clr, mxd lithology
10-15	5		Snd, mxd clr, M&C, Srnd, P srtg, tr fn, VC; mch cl, tr Vfn & fn gvl & soil
15-20	5		Snd, mxd clr, M&C, Srnd, P srtg, tr VC; ltl Vfn & fn gvl & cong
20-25	5		Cl, lt rd bn, dolic; ltl Vfn, fn gvl, tr snd
25-30	5		Cl, lt rd bn, dolic; mch st, tr snd, & Vfn gvl
30-35	5		Cl, Vlt rd bn, dolic; mch st, tr snd & Vfn gvl
35-40	5		St & Cl, lt vl gry bn; mch Vfn & fn snd
40-55	15		Cl, lt rd, dolic; mch st, tr snd
55-80	25		Cl, lt rd bn, dolic; mch st, tr snd
80-85	5		Snd, mxd clr, C & VC, ang, P srtg, tr M, fn; ltl Vfn, fn gvl, cl
85-90	5		Dol, lt gry bn, M & fn, dns; mch cvd snd, tr sh & pyr
90-95	5		Dol, lt gry, M & fn, dns; tr pyr & sh
95-100	5		Dol, lt vl gry bn, M & fn, dns; tr pyr & sh
100-105	5		Dol, lt vl rd bn mot lt gry, M & fn, dns; tr pyr & sh
105-110	5		Dol, lt vl rd bn mot lt gry, M & fn, dns; tr pyr, sh, oolic dol
110-140	30		Dol, lt vl rd bn mot lt gry, M & fn, dns; tr pyr & sh
140-145	5		Dol, lt vl rd bn, M & fn, dns;
145-150	5		Dol, Vlt vl gry, M & fn, dns; tr pyr
150-170	20		Dol, V t vl gry, M & fn, dns; tr pyr & sh



Well name Mirro Aluminum Co., Two Rivers, Wis.  
 Sample Nos. 257899 to 257972

S  
I  
L  
U  
R  
I  
A  
N

170-210	40		Dol. Vlt yl pnk bn, M & fn, dns; tr sugary dol, sh & pyr
210-220	10		Dol. Vlt or pnk, M, dns, tr C; tr pyr & sh
220-225	5		Dol. lt yl rd bn, M, dns; tr sh & gypsum
225-230	5		Dol. lt yl rd bn, M, dns; tr qtz
230-240	10		Dol. lt yl rd bn, M, dns; tr qtz & stnd pyr
240-245	5		Dol. lt yl rd bn, M, dns; tr qtz, stnd pyr & sh
245-255	10		Dol. lt yl rd bn, M & C, dns; tr stnd pyr
255-280	25		Dol. Vlt gry, M & C, dns; tr sh
280-285	5		Dol. Vlt gry, M & C, dns; tr sh & pyr
285-295	10		Dol. Vlt gry, M & C, dns;
295-300	5		Dol. lt yl bn, M & fn, dns;
300-305	5		Dol. lt yl bn mot Vlt gry, M & fn, dns; tr pyr & sh
305-310	5		Dol. wh, M & fn, dns;
310-365	55		Dol. Vlt gry, M & fn, dns, tr C; tr pyr & calc
365-370	5		Dol. lt gry, M & fn, dns; ltl stnd Fe, tr pyr

END OF WELL

CITY TEST WELL NO. 2, TWO RIVERS, WIS.

1750' E of Well No. 1. Sec. 1, T. 19, R. 24 E. NE 1/4, SE 1/4, SW 1/4

W. H. Gray Bros. Drillers, 1914

Samples sent by G. H. Wehausen

" examined by F. T. Thwaites, U. W. Nos. 16717-16819

Elevation of curb 587

		1" = 100	
DRIFT	100	0-15	"Lake sand" no sample
		15-17	"Lake sand" "
		17-32	"Lake sand" "
		32-100	Clay, red, dry " "
NIAGARA	670	100-335	Limestone, magnesian, light gray
		335-350	Limestone, magnesian, yellowish
		350-440	Limestone, magnesian, light gray
		440-470	Limestone, magnesian, light gray, white flint
		470-515	Limestone, magnesian, light gray
		515-545	Limestone, magnesian, light gray, white flint
		545-560	Limestone, light gray, magnesian
		560-590	Limestone, magnesian, dark gray, flinty
		590-620	Limestone, magnesian, gray, shaly
		620-635	Limestone, magnesian, light gray
		635-665	Limestone, magnesian, gray, flinty
		665-680	Limestone, magnesian, yellowish gray
		680-710	Limestone, magnesian, gray, flinty
		710-770	Limestone, magnesian, dark gray
			770-800
	800-860	Shale, gray, limy with some shaly limestone at top.	



TWO RIVERS 2

Mn-4

RICHMOND	330	860-875		Limestone, magnesian, bluish-gray, very shaly
		875-1100		Shale, bluish-gray, limy
GALENA-BLACK RIVER	195	1100-1250		Limestone, bluish-gray, magnesian
		1250-1265		Limestone, magnesian, brownish-gray
		1265-1280		Limestone, magnesian, bluish-gray
		1280-1295		Limestone, magnesian, brownish-gray
ST. PETER	45	1295-1340		Sandstone, fine to medium, gray & yellow, little lime
LAKE SUPERIOR?	270	1340-1400		Sandstone, fine, yellowish and brownish red, grains not well rounded, no lime
		1400-1445		Sandstone, fine, red, grains fairly well rounded, no lime
		1445-1460		Sandstone, medium, yellowish-brown, angular grains
		1460-1475		Sandstone, fine, red, well rounded
		1475-1490		Shale, sandy, reddish-gray, no lime
		1490-1550		Sandstone, fine, yellowish red and gray, grains poorly rounded
		1550-1580		Sandstone, fine, light red, grains poorly rounded
		1580-1595		Sandstone, fine, dark yellowish-brown, well rounded
PRE-CAMBRIAN	30	1595-1610		Shale, sandy, dark red, no lime
		1610-1640		Quartzite, light gray to brown, glassy



State of Wisconsin  
 Department of Natural Resources  
 Private Water Supply  
 Box 7921  
 Madison, Wisconsin 53707

NOTE:  
 White Copy - Division's Copy  
 Green Copy - Driller's Copy  
 Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT  
 Form 3300-15 Rev. 5-85

1. COUNTY MANITOWOC CHECK (✓) ONE:  Town  Village  City Name TWO RIVERS

2. LOCATION MIle 13.2 SW 1 19W 25E 3. NAME  OWNER  AGENT AT TIME OF DRILLING CHECK (✓) ONE Lighthouse Inn WELL #3

OR - Grid or Street No. Memorial Dr Street or Road Name 1515 Memorial Dr ADDRESS Two Rivers WI 54241

AND - If available subdivision name, lot & block No. POST OFFICE ZIP CODE

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain	Sanitary Bldg. Sewer	Floor Drain Connected To:	Storm Bldg. Drain	Storm Bldg. Sewer
	C.I. Other	C.I. Other	C.I. Sewer Other Sewer	C.I. Other	C.I. Other
<u>11</u>		<u>120</u>			

Street Sewer  San.  Storm  Other  C.I.  Other  Foundation Drain Connected to:  Sewer  Clearwater Dr.  Sewage Sump  Clearwater Sump  Sewage Sump  Other  Clearwater Sump  Septic Tank  Holding Tank  Sewage Absorption Unit  Seepage Pit  Seepage Bed  Seepage Trench

Manure Hopper or Retention or Pneumatic Tank  Manure Storage Basin  Concrete Floor Only  Concrete Floor and Partial Concrete Walls  Other (Describe) PERM. WELL # 81606

5. Well is intended to supply water for: Motel - Non-Potable, for heat

9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>GRAVEL</u>	<u>Surface</u>	<u>10</u>
<u>Sandy-clay</u>	<u>10</u>	<u>85</u>
<u>GRAVEL</u>	<u>85</u>	<u>89</u>
<u>Limestone</u>	<u>89</u>	<u>400</u>
<u>Lime-chert</u>	<u>400</u>	<u>545</u>

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>9</u>	<u>Surface</u>	<u>89</u>			
<u>6</u>	<u>89</u>	<u>545</u>			

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)
<u>6</u>	<u>New bl. STL</u>	<u>Surface</u>	<u>91</u>
	<u>Plend welded</u>		
	<u>ASIM A53</u>		
	<u>1897 280</u>		
	<u>Taiwan</u>		

MANITOWOC CO. MISC. #6  
 FILE LOC: TWO RIVERS  
 APPROVAL DATE: FEB 19, 1988

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>DRILL SLURRY</u>	<u>Surface</u>	<u>89</u>

10. TYPE OF DRILLING MACHINE USED

Cable Tool  Rotary-hammer w/drilling mud & air  Jetting with

Rotary-air w/drilling mud  Rotary-hammer & air  Air

Rotary-w/drilling mud  Reverse Rotary  Water

Well construction completed on 12-10 1987

11. MISCELLANEOUS DATA

Yield Test: 2 Hrs. at 60 GPM Well is terminated 24 inches  above final grade  below

Depth from surface to normal water level 125 Ft. Well disinfected upon completion  Yes  No

Depth of water level when pumping 208 Ft. Stabilized  Yes  No Well sealed watertight upon completion  Yes  No

Water sample sent to GREEN BAY SC = 0.7 GPM/FT. laboratory on 12-28 1987

For opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature Tom VandeGucht Registered Well Driller Business Name and Complete Mailing Address Tom VandeGucht Water Well Inc P.O. 24081 Green Bay WI 54304







JUL 30 1986

1. COUNTY <b>Manitowoc</b>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <b>Two Rivers</b>	
2. LOCATION OR - Grid or Street No.    Street or Road Name <b>NE 1/4 SW 1/4    1515 12th. St.</b>		Section    Township    Range <b>1    19N.    24E</b>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <b>Leigh Stegeman</b>	
AND - If available subdivision name, lot & block No.		POST OFFICE <b>Two Rivers, Wis.</b>		ZIP CODE <b>54241</b>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <b>6</b>		Sanitary Bldg. Drain C.I.    Other <b>-    -</b>	
		Sanitary Bldg. Sewer C.I.    Other <b>-    -</b>		Floor Drain Connected To: C.I. Sewer    Other Sewer <b>-    -</b>	
		Storm Bldg. Drain C.I.    Other <b>-    -</b>		Storm Bldg. Sewer C.I.    Other <b>-    -</b>	
Street Sewer		Other Sewers		Foundation Drain Connected to:	
San.    Storm		C.I.    Other		Sewer    Sewage Sump	
<b>50    -</b>		<b>-    -</b>		C.I.    Other	
		Clearwater Dr.		Clearwater Sump	
		<b>-</b>		<b>-</b>	
Privy		Pet Waste Pit		Sewage Absorption Unit	
<b>-</b>		<b>-</b>		Seepage Pit	
		Pit: Nonconforming Existing		Seepage Bed	
		Well		Seepage Trench	
		Pump		<b>-</b>	
		Tank		<b>-</b>	
Temporary Manure Stack or Platform		Watertight Liquid Manure Tank or Basin		Manure Pressure Pipe	
<b>-</b>		<b>-</b>		<b>-</b>	
		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)	
		<b>-</b>		<b>-</b>	
		Manure Storage Basin		Other (Describe)	
		Concrete Floor Only		<b>-</b>	
		Concrete Floor and Partial Concrete Walls		<b>-</b>	
5. Well is intended to supply water for: <b>Bait Shop</b>		9. FORMATIONS			
6. DRILLHOLE		Kind		From (ft.)    To (ft.)	
Dia. (in.)    From (ft.)    To (ft.)    Dia. (in.)    From (ft.)    To (ft.)		<b>sand</b>		<b>Surface    28</b>	
<b>10    Surface    99    6    99    370</b>		<b>clay</b>		<b>28    86</b>	
		<b>hard pan</b>		<b>86    99</b>	
7. CASING, LINER, CURBING AND SCREEN		Material, Weight, Specification		From (ft.)    To (ft.)	
Dia. (in.)    Mfg. & Method of Assembly		<b>limestone</b>		<b>99    370</b>	
<b>6    ASTM A-53</b>		<b>Surface    99</b>			
<b>Sumitomo</b>					
<b>Welded joint</b>					
<b>Wt. 18.97 per ft.</b>					
8. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind    From (ft.)    To (ft.)		<input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
<b>Drilling mud    Surface    99</b>		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
		Well construction completed on <b>May 30, 1986</b>			
11. MISCELLANEOUS DATA		Well is terminated <b>8</b> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Yield Test: <b>4</b> Hrs. at <b>20</b> GPM		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth from surface to normal water level <b>100</b> Ft.		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <b>100</b> Ft.    Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Water sample sent to <b>Madison</b> laboratory on <b>June 12, 1986</b>					

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature *Leonard J. Wilkins* Registered Well Driller

Business Name and Complete Mailing Address  
**Wilkins Well Drilling**  
**R. 1 Greenleaf, Wis. 54126**



JUL 27 1984

1. COUNTY Wisconsin CHECK (✓) ONE:  Town  Village  City Name First Part Amos River

2. LOCATION NE of SW Section 2 Township 19-N Range 24-E 3. NAME  OWNER  AGENT AT TIME OF DRILLING CHECK (✓) ONE Van Wachholz

OR - Grid or Street No. Street or Road Name ADDRESS 2925 10th St

AND - If available subdivision name, lot & block No. POST OFFICE Amos River, Wisconsin ZIP CODE

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain	Sanitary Bldg. Sewer	Floor Drain Connected To:	Storm Bldg. Drain	Storm Bldg. Sewer
<u>50</u>	C.I. <u>50</u> Other	C.I. Other	C.I. Sewer Other Sewer	C.I. Other	C.I. Other

Street Sewer	Other Sewers	Foundation Drain Connected to:	Sewage Sump	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pneumatic Tank
San. Storm C.I. Other	Sewer	Sewage Sump Clearwater Dr. Clearwater Sump	C.I. Other	<u>50</u>	<u>50</u>		Seepage Pit Seepage Bed <u>7.5</u> Seepage Trench	

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumphoom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
		Well Pump Tank	Nonconforming Existing								

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin	Other (Describe)
					Concrete Floor Only Concrete Floor and Partial Concrete Walls	

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
<u>10</u>	<u>Surface</u>	<u>97</u>				<u>sand</u>	<u>Surface</u>	<u>50</u>
<u>6</u>	<u>97</u>	<u>123</u>				<u>clay</u>	<u>50</u>	<u>85</u>
						<u>gravel</u>	<u>85</u>	<u>97</u>

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
<u>6</u>	<u>ERW</u>	<u>Surface</u>	<u>97</u>	<u>limestone</u>	<u>97</u>	<u>123</u>
	<u>P.E. 1.875" pipe</u>					
	<u>Black-Ren-</u>					
	<u>ASTM-A-P20</u>					
	<u>IBT Brazil D.T.</u>					

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>Clay Slurry</u>	<u>Surface</u>	<u>97</u>

10. TYPE OF DRILLING MACHINE USED

Cable Tool  Rotary-hammer w/drilling mud & air  Jetting with

Rotary-air w/drilling mud  Rotary-hammer & air  Air

Rotary-w/drilling mud  Reverse Rotary  Water

Well construction completed on July 24 1984

11. MISCELLANEOUS DATA

Yield Test: 1 Hrs. at 10 GPM Well is terminated 18 inches  above final grade  below

Depth from surface to normal water level 19 Ft. Well disinfected upon completion  Yes  No

Depth of water level when pumping 19 Ft. Stabilized  Yes  No Well sealed watertight upon completion  Yes  No

Water sample sent to Indian Wisconsin laboratory on July 24 1984

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature Jane Rethoff Registered Well Driller Business Name and Complete Mailing Address P.O. Box 81 Turfburg, Wisconsin



# WELL CONSTRUCTOR'S REPORT

Well-6

WHITE COPY - DIVISION'S COPY  
 GREEN COPY - DRILLER'S COPY  
 YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN  
 DEPARTMENT OF NATURAL RESOURCES  
 Box 450  
 Madison, Wisconsin 53701

SEP 2 1970

1. COUNTY Manitowish CHECK ONE  Town  Village  City Two Rivers

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
NE 1/4 of Sec. 2 - T19N R24E

3. OWNER AT TIME OF DRILLING  
Tom Dabick

4. OWNER'S COMPLETE MAIL ADDRESS  
R# 2 Two Rivers Wis.

5. Distance in feet from well to nearest:

BUILDING	SANITARY SEWER		FLOOR DRAIN		FOUNDATION DRAIN		WASTE WATER DRAIN	
	C. I.	TILE	C. I.	TILE	SEWER CONNECTED	INDEPENDENT	C. I.	TILE
---	<u>50</u>	---	---	---	---	<u>✓</u>	---	---

(Record answer in appropriate block)

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
-	-	<u>75</u>	-	<u>80</u>	-	-	-	-

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Home or trailer

7. DRILLHOLE						10. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
<u>10</u>	<u>Surface</u>	<u>20</u>	<u>6</u>	<u>20</u>	<u>143</u>	<u>sand</u>	<u>Surface</u>	<u>68</u>	
						<u>Clay</u>	<u>68</u>	<u>108</u>	

8. CASING, LINER, CURBING, AND SCREEN			
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
<u>6</u>	<u>steel std.</u>	<u>Surface</u>	<u>122</u>
	<u>19.45 lb per foot new black T.C.</u>		

9. GROUT OR OTHER SEALING MATERIAL		
Kind	From (ft.)	To (ft.)
<u>Shill slurry</u>	<u>Surface</u>	<u>20</u>

Well construction completed on Aug. 27 1970

11. MISCELLANEOUS DATA

Yield test: 3 Hrs. at 15 GPM

Well is terminated 18 inches  above  below final grade

Depth from surface to normal water level 10 ft. Well disinfected upon completion  Yes  No

Depth to water level when pumping 12 ft. Well sealed watertight upon completion  Yes  No

Water sample sent to Madison laboratory on: Sept. 1 1970

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumphouses, access pits, etc., should be given on reverse side.

SIGNATURE: Joseph P. ... Registered Well Driller

COMPLETE MAIL ADDRESS: 4217 ... St. Manitowish

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS



1. COUNTY Manitowish CHECK ONE  Town  Village  City NAME Two Rivers

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
NW 1/4 - NE 1/4 S2 T19N. R24E

3. OWNER AT TIME OF DRILLING  
Harley Groelle

4. OWNER'S COMPLETE MAIL ADDRESS  
Harley Groelle Two Rivers R. 2 Wis. 54241

5. Distance in feet from well to nearest:

BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN	WASTE WATER DRAIN
C. I.	TILE	C. I.	SEWER CONNECTED	INDEPENDENT
5'	35'			45'
				35'

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
C. I.	TILE							
		60'						

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Private Home.

7. DRILLHOLE						10. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
10	Surface	20				Sand Clay	Surface	21	
6	20	114				Sand.	21	41	

8. CASING, LINER, CURBING, AND SCREEN				10. FORMATIONS			
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
6"	Well Drillers	Surface		Red Clay	41	97	
	Pipe 19' 45 #			Sand & Gravel	97	107	
	per ft.	0	107	Rock Limestone	107	114	
	T. & C. Black.						

9. GROUT OR OTHER SEALING MATERIAL		
Kind	From (ft.)	To (ft.)
Clay Slurry	Surface	20

11. MISCELLANEOUS DATA

Well construction completed on 6/28 1965

Yield test: 5 Hrs. at 10 GPM Well is terminated 15 inches  above  below final grade

Depth from surface to normal water level 12 ft. Well disinfected upon completion  Yes  No

Depth to water level when pumping 12 ft. Well sealed watertight upon completion  Yes  No

Water sample sent to Madison laboratory on: 3/3 - 1969

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE Amos Retzstaff Registered Well Driller COMPLETE MAIL ADDRESS Luxemburg R. 1 Wis 54217

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
----------------------	---------------	---------------	-----------	---------



1. COUNTY Manitowish CHECK ONE  Town  Village  City NAME Two Rivers

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
T 19 N R 24 E S 3 RECEIVED

3. OWNER AT TIME OF DRILLING Cyrus Decker NOV 23 1965

4. OWNER'S COMPLETE MAIL ADDRESS R# 2 Two Rivers Wis.

5. Distance in feet from well to nearest:

BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN	WASTE WATER DRAIN
C. I.	TILE	C. I.	SEWER CONNECTED	INDEPENDENT
4 1/2	50	75	50	-
-	-	-	-	50

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
C. I.	TILE							
-	-	150	-	-	-	-	100	-

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

There is a additional well about 100 feet away that will be filled with cement

6. Well is intended to supply water for: town

7. DRILLHOLE						10. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
10	Surface	2.5	6	2.5	97	Sand	Surface	30	
						Clay	30	95	
						Sand & gravel	95	97	

8. CASING, LINER, CURBING, AND SCREEN			
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Steel Std.	Surface	97

9. GROUT OR OTHER SEALING MATERIAL		
Kind	From (ft.)	To (ft.)
Reddied clay	Surface	2.5

11. MISCELLANEOUS DATA

Well construction completed on 11/22/65 19

Yield test: 10 Hrs. at 20 GPM Well is terminated 24 inches  above  below final grade

Depth from surface to normal water level 2 ft. Well disinfected upon completion  Yes  No

Depth to water level when pumping 4 ft. Well sealed watertight upon completion  Yes  No

Water sample sent to Madison laboratory on: 11/22/65 19

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE Joseph P. Robine Registered Well Driller COMPLETE MAIL ADDRESS 4517 Cannon St. Manitowish Wis.

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS



1. COUNTY: Manitowish CHECK ONE:  Town  Village  City NAME: Twp Rivers - South Part.

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
T 19 NR 24-25 E NE 1/4 of Sec. 3

3. OWNER AT TIME OF DRILLING: Joseph Robinson

4. OWNER'S COMPLETE MAIL ADDRESS: Rt 2 Twp Rivers wis.

5. Distance in feet from well to nearest:		BUILDING	SANITARY SEWER	SEWER	FLOOR DRAIN	FOUNDATION DRAIN		WASTE WATER DRAIN	
(Record answer in appropriate block)		C. I.	TILE	C. I.	TILE	SEWER CONNECTED	INDEPENDENT	C. I.	TILE
		10	-	-	-	-	-	-	-
CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE	
C. I.	TILE								
-	-	75	-	-	-	-	-	-	

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Home use

7. DRILLHOLE						10. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind		From (ft.)	To (ft.)
10	Surface	20	6	20	124	sand		Surface	21
						Clay		21	82
8. CASING, LINER, CURBING, AND SCREEN						hard pan			
Dia. (in.)	Kind and Weight		From (ft.)	To (ft.)		limestone		82	99
6	Steel Sld 19.45		Surface	99				99	124
	Block T x C								
9. GROUT OR OTHER SEALING MATERIAL									
Kind			From (ft.)	To (ft.)					
Drill slurry			Surface	20					

11. MISCELLANEOUS DATA

Well construction completed on April - 18 1968

Yield test: 3 Hrs. at 20 GPM Well is terminated 18 inches  above  below final grade

Depth from surface to normal water level 6 ft. Well disinfected upon completion  Yes  No

Depth to water level when pumping 8 ft. Well sealed watertight upon completion  Yes  No

Water sample sent to Madison laboratory on: April 22 1968

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE: Joseph Robins Registered Well Driller COMPLETE MAIL ADDRESS: 4217 Connel St. Manitowish wis.

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS



FEB 11 1977

State of Wisconsin  
Department of Natural Resources  
Box 450  
Madison, Wisconsin 53701

NOTE:  
White Copy - Division's Copy  
Green Copy - Driller's Copy  
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT  
Form 3300-15  
Rev. 10-75

1. COUNTY Manitowish CHECK (✓) ONE:  Town  Village  City Two Rivers Name

2. LOCATION SW 1/4 NE 1/4 Section 3 Township 19 Range 24 3. NAME  OWNER  AGENT AT TIME OF DRILLING CHECK (✓) ONE  
OR - Grid or Street No. Street Name ADDRESS Raphael Greenwood  
AND - If available subdivision name, lot & block No. POST OFFICE Rt. 2  
Two Rivers, Wis. 54241

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building		Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
8'		C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other

Street Sewer		Other Sewers		Foundation Drain Connected to:		Sewage Sump		Clearwater Sump		Septic Tank		Holding Tank		Sewage Absorption Unit	
San.	Storm	C.I.	Other	Sewer	Sewage Sump	C.I.	Other	Clearwater Sump	Septic Tank	Holding Tank	Sewage Pit	Sewage Pit	Sewage Bed	Sewage Trench	
				Clearwater Dr.	Clearwater Sump										79'

Privy		Pet Waste Pit		Pit: Nonconforming Existing		Subsurface Pumproom		Barn Gutter		Animal Barn Pen		Animal Yard		Silo With Pit		Glass Lined Storage Facility		Silo w/o Pit		Earthen Silage Storage Trench Or Pit	
				Well	Nonconforming	Existing	Gutter														

Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description)	

5. Well is intended to supply water for: Home Use

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
10"	Surface 0	27				Top Soil	Surface 0	2
6"	27	84				Red Clay	2	63
						Sand & Gravel	63	83
						Water Bearing Gravel	83	84

7. CASING, LINER, CURBING AND SCREEN  
Material, Weight, Specification & Method of Assembly

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
6"	Black Standard	Surface 0	84
	Steel Pipe - New		
	18.97* per Ft. U.S.S.		
	P.E. Seamless		
	ASTM-A-53		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Puddled Clay	Surface 0	27

9. FORMATIONS

10. TYPE OF DRILLING MACHINE USED

<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Rotary-hammer w/drilling mud & air	<input type="checkbox"/> Jetting with
<input type="checkbox"/> Rotary-air w/drilling mud	<input checked="" type="checkbox"/> Rotary-hammer & air	<input type="checkbox"/> Air
<input type="checkbox"/> Rotary-w/drilling mud	<input type="checkbox"/> Reverse Rotary	<input type="checkbox"/> Water

11. MISCELLANEOUS DATA

Yield Test: 2 Hrs. at 30 GPM Well construction completed on Feb. 3 1977

Depth from surface to normal water level 12 Ft. Well is terminated 12 inches  above final grade  below

Depth of water level when pumping 25 Ft. Well disinfected upon completion  Yes  No

Stabilized  Yes  No Well sealed watertight upon completion  Yes  No

Water sample sent to Madison laboratory on Feb. 7 1977

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature Roger P. Weber Complete Mail Address Rt 2 Chilton, Wis. 53018

Registered Well Driller



1. COUNTY Monitona CHECK (✓) ONE:  Town  Village  City Two Rivers Name

2. LOCATION  $\frac{1}{4}$  Section SW Section 10 Township 20 Range 24 3. NAME  OWNER  AGENT AT TIME OF DRILLING CHECK (✓) ONE Larry Neelis

OR - Grid or Street No. Street Name OR T19N ? ADDRESS 2105 West St.

AND - If available subdivision name, lot & block No. POST OFFICE Two Rivers Wis.

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building		Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
C.I.	Other	C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
<u>20</u>	-	-	-	<u>50</u>	-	-	-	-	-	-	-

Street Sewer		Other Sewers		Foundation Drain Connected to:		Sewage Sump		Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit		
San.	Storm	C.I.	Other	Sewer	Sewage Sump	C.I.	Other				Seepage Pit	Seepage Bed	Seepage Trench
-	-	-	-	Clearwater Dr.	Clearwater Sump	-	-	-	<u>75</u>	-	-	<u>85</u>	-

Privy	Pet Waste Pit	Pit: Nonconforming Existing		Subsurface Pumproom		Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well	Pump	Nonconforming Existing	Nonconforming Existing							
-	-	-	-	-	-	-	-	-	-	-	-	-

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)
-	-	-	-	-	-

5. Well is intended to supply water for: home use

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
<u>10</u>	<u>Surface</u>	<u>20</u>	<u>6</u>	<u>20</u>	<u>126</u>	<u>sand</u>	<u>Surface</u>	<u>38</u>
						<u>sandy clay</u>	<u>38</u>	<u>97</u>
						<u>hard pans</u>	<u>97</u>	<u>110</u>
						<u>limestone</u>	<u>110</u>	<u>126</u>

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
<u>6</u>	<u>steel std 1897</u>	<u>Surface</u>	<u>110</u>
	<u>new black</u>		
	<u>welded joints</u>		

ERWB

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>drill slurry</u>	<u>Surface</u>	<u>20</u>

10. TYPE OF DRILLING MACHINE USED

<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Rotary-hammer w/drilling mud & air	<input type="checkbox"/> Jetting with
<input type="checkbox"/> Rotary-air w/drilling mud	<input checked="" type="checkbox"/> Rotary-hammer & air	<input type="checkbox"/> Air
<input type="checkbox"/> Rotary-w/drilling mud	<input type="checkbox"/> Reverse Rotary	<input type="checkbox"/> Water

Well construction completed on March 27 1980

11. MISCELLANEOUS DATA

Yield Test: 3 Hrs. at 20 GPM

Depth from surface to normal water level 16 Ft.

Depth of water level when pumping 20 Ft. Stabilized  Yes  No

Well is terminated 16 inches  above  below final grade

Well disinfected upon completion  Yes  No

Well sealed watertight upon completion  Yes  No

Water sample sent to Direxlab - Monitona laboratory on 3-27 1980

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature Joseph Robine Registered Well Driller

Complete Mail Address 4217 Ponce de Leon St. Monitona Wis



1. COUNTY Manitowish CHECK ONE  Town  Village  City NAME Tris Rivers

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
SW 1/4 of Sec. 10 T19 NR 24-25 E

3. OWNER AT TIME OF DRILLING  
Edwards Motor Co. Inc.

4. OWNER'S COMPLETE MAIL ADDRESS  
1101 Franklin St. Manitowish Wis.

5. Distance in feet from well to nearest:

BUILDING		SANITARY SEWER		FLOOR DRAIN		FOUNDATION DRAIN		WASTE WATER DRAIN	
C. I.	TILE	C. I.	TILE	C. I.	TILE	SEWER CONNECTED	INDEPENDENT	C. I.	TILE

(Record answer in appropriate block)

6	-	-	-	-	-	-	-	-	-
---	---	---	---	---	---	---	---	---	---

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
C. I.	TILE							
-	-	-	-	-	-	-	-	-

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Garage use

7. DRILLHOLE						10. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
10	Surface	20	6	20	303	sand	Surface	20	
						Clay	20	58	

8. CASING, LINER, CURBING, AND SCREEN			
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	stul std-1945	Surface	108
	new black Tex		

Dia. (in.)	From (ft.)	To (ft.)
	Surface	108
		108
		303

9. GROUT OR OTHER SEALING MATERIAL		
Kind	From (ft.)	To (ft.)
drill slurry	Surface	20

11. MISCELLANEOUS DATA

Yield test: 3 1/2 Hrs. at 50 GPM

Depth from surface to normal water level 2 FT. overground

Depth to water level when pumping 80 ft.

Water sample sent to Madison laboratory on: Oct 1 - 1968

Well construction completed on Sept. 30 - 1968

Well is terminated 24 inches  above  below final grade

Well disinfected upon completion  Yes  No

Well sealed watertight upon completion  Yes  No

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumphrooms, access pits, etc., should be given on reverse side.

SIGNATURE Joseph Reine COMPLETE MAIL ADDRESS 4217 Conant St. Manitowish Wis.

Registered Well Driller

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS



WELL CONSTRUCTOR'S REPORT  
Well-6

APR 29 1970.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES  
Box 450  
Madison, Wisconsin 53701

WHITE COPY - DIVISION'S COPY  
GREEN COPY - DRILLER'S COPY  
YELLOW COPY - OWNER'S COPY

1. COUNTY Manitowish CHECK ONE  Town  Village  City Two Rivers NAME

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)  
NE 1/4 of Sec. 10 T 19 NR 24 - 5 E

3. OWNER AT TIME OF DRILLING  
Gerry J. Jankowski

4. OWNER'S COMPLETE MAIL ADDRESS  
3448 Memorial Drive Two Rivers Wis.

5. Distance in feet from well to nearest:		BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN		WASTE WATER DRAIN	
(Record answer in appropriate block)		C. I.	TILE	C. I.	TILE	SEWER CONNECTED	INDEPENDENT	C. I.
		15	28	28	-	-	-	45
CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILO	ABANDONED WELL	SINK HOLE
C. I.	TILE						<u>Sand point</u>	
-	-	75	-	80	-	-	<u>30' away</u>	-

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Home use

7. DRILLHOLE						10. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
10	Surface	20	6	20	132	sand	Surface	46	
						clay	46	88	

8. CASING, LINER, CURBING, AND SCREEN				
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)	
6	steel std 1945	Surface	102	hard pan
	4" pipe foot			limestone
	new block Tex.			

9. GROUT OR OTHER SEALING MATERIAL			
Kind	From (ft.)	To (ft.)	
Slur slurry	Surface	20	

Well construction completed on April 24 1970

11. MISCELLANEOUS DATA  
Yield test: 2 3/4 Hrs. at 20 GPM  
Well is terminated 12 inches  above  below final grade

Depth from surface to normal water level 14 ft. Well disinfected upon completion  Yes  No

Depth to water level when pumping 16 ft. Well sealed watertight upon completion  Yes  No

Water sample sent to Madison laboratory on: April 27 1970

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumphrooms, access pits, etc., should be given on reverse side.

SIGNATURE Joseph P. Pinski Registered Well Driller COMPLETE MAIL ADDRESS 4217 Central St. Manitowish, Wis.

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS