

TO: Eric Sandin, GEF II, Geo/8

**Groundwater Use Registry Buckslip**

Site Name BARRON Electric Cooperative

Address 1456 E. LaSalle Ave

BARRON, WI 54812

BRRTS # 03-03-000087

GPS Location: 3716404.25000 ~~latitude~~ 549115.31250 ~~longitude~~ y

Date of Closure Decision 11/30/99

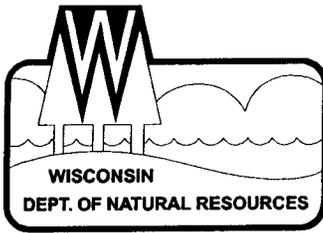
Off-site contamination: Yes  
ROW contamination: NO

**Required**

- Final Closure Letter
- Closure Letter
- Deeds for all properties with ES exceedance in Groundwater *off-site only*
- GPS location (latitude and longitude)
- Location map
- Detailed Site Map
- Groundwater Flow Direction Diagram including location of monitoring wells and all drinking water wells
- Latest Groundwater Plume Map with Groundwater Flow Direction
- Latest Table of Analytical Results for Groundwater

**If Available, include the following:**

- Metes and Bounds Legal Description *on deed*
- Tax Parcel Number *206-8045-84-000*
- Geologic cross sections showing soil and groundwater contaminant source extent and location, isoconcentrations for all groundwater contaminants that exceed NR 140 enforcement standards, water table and piezometric elevations, and the extent, location and elevation of geologic units, bedrock, and confining unites



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor  
Darrell Bazzell, Secretary  
William H. Smith, Regional Director

Northern Region Headquarters  
107 Sutliff Ave.  
Rhinelander, Wisconsin 54501-0818  
Telephone 715-365-8900  
FAX 715-365-8932  
TDD 715-365-8957

January 3, 2002

Mr. Dallas Sloan  
Barron Electric Cooperative  
1456 E LaSalle Ave  
Barron, WI 54812

SUBJECT: Final Case Closure  
Barron Electric Cooperative, 1456 E LaSalle Ave, Barron, WI  
WDNR BRRTS #: 03-03-000087

Dear Mr. Sloan:

On November 30, 1999, your site as described above was reviewed for closure by the Northern Region Closure Committee. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On December 3, 1999, you were notified that the Closure Committee had granted conditional closure to this case.

On December 17, 2001, the Department received correspondence indicating that you have complied with the conditions of closure, specifically, the recording of a groundwater use restriction for the off-site property at 1490 E Division Ave, Barron, WI. Based on the correspondence and data provided, it appears that your site has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code. The Department considers this case closed and no further investigation, remediation or other action is required at this time.

Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the registry. To review the sites on the GIS Registry web page, visit <http://gomapout.dnr.state.wi.us/org/at/et/geo/gwur/index.htm>

Please be aware that this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare, or the environment.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 715-365-8990.



Quality Natural Resources Management  
Through Excellent Customer Service



Sincerely,  
NORTHERN REGION



Janet Kazda  
Remediation and Redevelopment Program

c: File

Sharon Masek  
Cooper Engineering, Inc.  
310 W South St  
Rice Lake, WI 54868

James Stephens  
1490 E Division Ave  
Barron, WI 54812



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor  
George E. Meyer, Secretary  
William H. Smith, Regional Director

Northern Region Headquarters  
107 Sutliff Ave.  
Rhinelander, Wisconsin 54501-0818  
Telephone 715-365-8900  
FAX 715-365-8932  
TDD 715-365-8957

December 3, 1999

Mr. Dallas Sloan  
Barron Electric Cooperative  
1456 E LaSalle Ave  
Barron, WI 54812

Subject: Barron Electric Cooperative, 1456 E LaSalle Ave, Barron, WI BRRTS # 03-03-000087

Dear Mr. Sloan:

The Department of Natural Resources provided a notice to you that the degree and extent of unleaded gasoline contamination at the above-named site was required to be investigated and remediated. We have since been informed that the required investigation and remediation has been accomplished.

On November 30, 1999, the above-named site was reviewed by the Northern Region Closeout Committee for a determination as to whether or not the case qualified for close out under ch. NR 726, Wis. Adm. Code.

Based on the investigative and remedial documentation provided to the Department, it appears that the unleaded gasoline contamination at the above-named site has been remediated in compliance with the requirements of chs. NR 700 to 724, Wis. Adm. Code.

The most recent groundwater monitoring data at this site indicates an exceedance of the NR 140 preventive action limit (PAL) for naphthalene but compliance with the NR 140 enforcement standard (ES). The Department may grant an exemption pursuant to s.NR140.28(2), Wis. Adm. Code, if the following criteria are met:

- a) The anticipated increase in the concentration of naphthalene will be minimized to the extent technically and economically feasible.
- b) Compliance with the PAL is either not technically or economically feasible.
- c) The ES for naphthalene will not be attained or exceeded at the point of standards application.
- d) Any increase in the concentration of naphthalene above background does not present a threat to public health or welfare.

The Department believes that the above criteria have been or will be met because of the remediation which has occurred at this site. Therefore, pursuant to NR 140.28, an exemption for the naphthalene PAL is granted to monitoring well # MW-7. This letter serves as your exemption. At this time, the Department is not requiring any further investigation or other remediation concerning this specific site.

However, please note that the Department will only consider the case "closed," pursuant to NR



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726.05(8)(am), if the responsible party obtains a Groundwater Use Restriction for the off-site Enforcement Standard (ES) Exceedances in MW-6. The owner of that property will have to agree to sign and record the affidavit for the restriction

Enclosed is an example of a Groundwater Use Restriction. A specific Groundwater Use Restriction for this site should be drafted and submitted to me. Department of Natural Resources attorneys will review the draft and return it to the owner with revisions. After the revisions have been made, the owner should sign and record the restriction with the County Register of Deeds. To document that this condition has been complied with, the responsible party must submit to the Department a copy of the recorded Groundwater Use Restriction, with the recording information stamped on it, within 15 days after the Register of Deeds returns the Groundwater Use Restriction to the owner of the property. The Groundwater Use Restriction may be amended in the future with the approval of DNR if conditions change at the site and the residual contamination is remediated.

The off-site groundwater use restriction is an option that the Department can offer to you in order to close this site. If you choose not to accept this option, you may perform additional investigation and cleanup of the remaining contamination. Note that this additional work may not be eligible for reimbursement through the Petroleum Environmental Cleanup Fund Award (PECFA) Program. You should contact the Department of Commerce to determine eligibility of the additional work for reimbursement.

Please note that this case closure is contingent upon proper documentation of proper abandonment of the monitoring wells on site. If monitoring wells remain at this site, please provide the documentation that this action has been completed, or have your consultant do so. Please complete Form 3300-5B and send it to my attention at the above address.

If you have any additional information which was not formerly provided to the Department, and which you feel would significantly impact this closure decision, you may submit that information for our re-evaluation of case closure.

If you have any questions, please call me at 715-365-8990.

Sincerely,  
NORTHERN REGION



Janet Kazda  
Case Closeout Committee

→ cc: File  
Lori Huntoon, Dept of Commerce  
Steve Karklins, DG/2  
Chuck Fitzgerald, Rhinelander  
Chris Saari, Brule

Gary Strand  
Cooper Engineering, Inc  
310 W South Street  
Rice Lake, WI 54868

BARRON COUNTY, WI  
REGISTER OF DEEDS  
DONNA M. MILLER

634406

10-30-2000 8:10 AM

MISCELLANEOUS  
RECORDING FEE: 16.00  
TRANSFER FEE:  
FEE EXEMPT #:   
PAGES: 4

Document Number GROUNDWATER USE RESTRICTION

Declaration of Restrictions

In Re:

S27, T34N, R12W  
Plat 14-3  
W ½ - E ½ - E ½ - NW-SE  
Ex. prt S. of river & Ex. E. 120 ft.  
of N. 260 ft, City of Barron

1490 E. Division Ave.

STATE OF WISCONSIN )  
 )ss  
COUNTY OF BARRON )WHEREAS, James A. & Helen L. Stephens are the  
owners of the above-described property.

Recording Area

Name and Return AddressBarron Electric Cooperative  
PO Box 40  
Barron, WI 54812206-8045-84-000  
Parcel Identification Number (PIN)

WHEREAS, one or more unleaded gasoline discharges have occurred on this property Gasoline contaminated groundwater above ch. NR 140, Wis. Adm. Code enforcement standards existed on this property on July 12, 1999 at the following location: Monitoring Well 6 Methylene Chloride 12.9 ug/l. The location of MW-6 is depicted on Figure 1 which is attached and hereby made a part of this restriction.

WHEREAS, it is the desire and intention of the property owners to impose on the property restrictions which will make it unnecessary to conduct further groundwater or soil remediation activities on the property at the present time.

WHEREAS, natural attenuation has been approved by the Department of Natural Resources to remediate groundwater contamination exceeding ch. NR 140, Wis. Adm. Code groundwater standards within the boundaries of this property.

WHEREAS, construction of wells where the water quality does not comply with drinking water standards in ch. NR 809, Wis. Adm. Code is restricted by ch. NR 811, Wis. Adm. Code and ch. NR 812, Wis. Adm. Code. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply.

NOW THEREFORE, the owners hereby declare that all of the property described above is held and shall be held, conveyed or encumbered, leased, rented, used, occupied and improved subject to the following limitation and restrictions:

Anyone who proposes to construct or reconstruct a well on this property is required to contact the Department of Natural Resources' Bureau of Drinking Water and Groundwater, or its successor agency, to determine what specific requirements are applicable, prior to constructing or reconstructing a well on this property. No well may be constructed on this property unless applicable requirements are met.

If construction is proposed on this property that will require dewatering, or if groundwater is to be otherwise extracted from this property, while this groundwater use restriction is in effect, the groundwater shall be sampled and analyzed for contaminants that were previously detected on the property and any extracted groundwater shall be managed in compliance with applicable statutes and rules.

By separate agreement recorded the same day, Barron Electric Cooperative agrees to indemnify and save harmless, James A. Stephens and Helen L. Stephens, husband and wife, their heirs, personal representatives, successors and assigns against any and all costs incurred for testing for Methylene Chloride in monitoring well #6 at time of sale of property by James A. & Helen L. Stephens, and if required by the Wisconsin Department of Natural Resources.

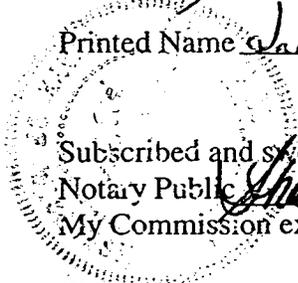
This restriction is hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring the above-described property whether by descent, devise, purchase or otherwise. This restriction benefits and is enforceable by the Wisconsin Department of Natural Resources, its successors or assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate this covenant, to prevent the proposed violation or to recover damages for such violation.

Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or its successor issue a determination that one or more of the restrictions set forth in this covenant is no longer required. Upon the receipt of such a request, the Wisconsin Department of Natural Resources shall determine whether or not the restrictions contained herein can be extinguished. If the Department determines that the restrictions can be extinguished, an affidavit, attached to a copy of the Department's written determination, may be recorded to give notice that this deed restriction, or portions of this deed restriction, are no longer binding. Barron Electric Cooperative shall be responsible for the recording fees associated with the removal of the deed restriction.

IN WITNESS WHEREOF, the owner(s) of the property have executed this Declaration of Restrictions, this 30<sup>th</sup> day of October, 2000.

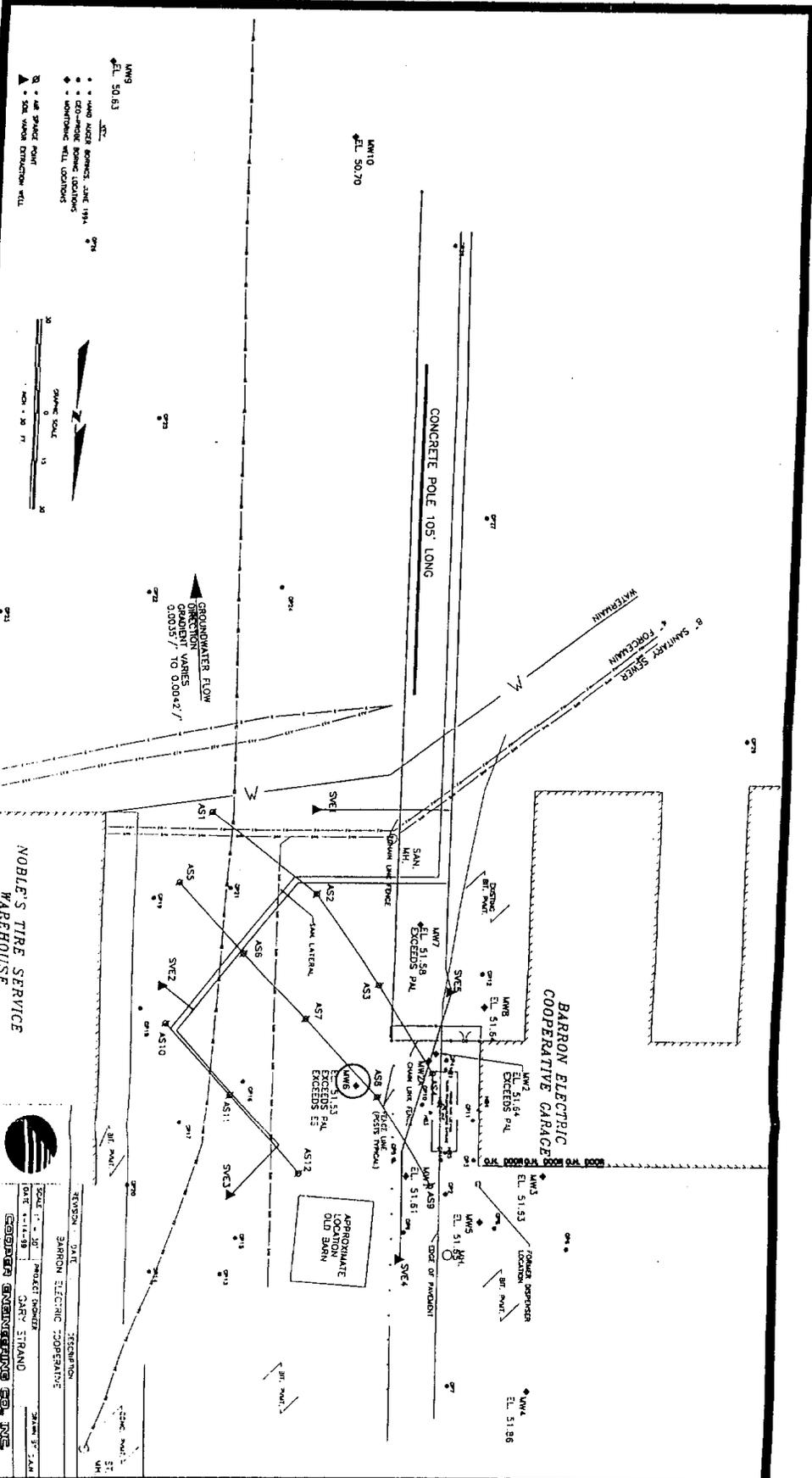
Signature James A. Stephens Signature Helen Stephens

Printed Name James A. Stephens Printed Name Helen Stephens



Subscribed and sworn to before me this 30<sup>th</sup> day of October, 2000.  
Notary Public Shaun M. Johnson, State of Wisconsin, Barron County  
My Commission expires March 3, 2002

This document was drafted by Barron Electric Cooperative with assistance from the Wisconsin Department of Natural Resources.



BARRON ELECTRIC CO-OP  
JULY 12, 1999 GROUNDWATER SAMPLE LOCATION MAP

PROJECT NO. 78-1534-1008 SHEET NO. 1008 DATE: 07-14-99 DRAWN BY: CARY STRAND CHECKED BY: GARY STRAND PROJECT NO. 78-1534-1008 SHEET NO. 1008	REVISION: DATE: DESCRIPTION: 1. BARRON ELECTRIC CO-OPERATIVE 2. GOLDER ASSOCIATES, INC. 3. GOLDER ASSOCIATES, INC. 4. GOLDER ASSOCIATES, INC. 5. GOLDER ASSOCIATES, INC. 6. GOLDER ASSOCIATES, INC. 7. GOLDER ASSOCIATES, INC. 8. GOLDER ASSOCIATES, INC. 9. GOLDER ASSOCIATES, INC. 10. GOLDER ASSOCIATES, INC.

552232

VOL 686 PAGE 518

11/3/93

RECEIVED OF RECORD

9:45 A.M.  
NOV 3 1993

*Linda M. Danielson*  
REGISTER OF DEEDS  
BARRON COUNTY, WI

James A. Stephens and Helen L. Stephens, husband and wife, as joint tenants

conveys and warrants to James A. Stephens and Helen L. Stephens, as marital property

Linda M. Danielson  
P.O. Box 187  
Eau Claire, WI 54702-0187

the following described real estate in Barron County, State of Wisconsin:

Tax Parcel No:

The West One-half of the East One-half of the East One-half of the Northwest Quarter of the Southeast Quarter of Section No. 27, Township No. 34 North of Range No. 12 West, except that part thereof lying south and west of the thread of the stream of the Yellow River, and also except the East 120 feet of the North 260 feet thereof, all in the City of Barron, subject to highways and easements of record and zoning ordinances.

FEE EXEMPT  
77.25(8)

This is not homestead property  
(is) (is not)

Exception to warranties: Municipal and zoning ordinances, recorded easements for public utilities serving the property, recorded building and use restrictions and covenants and general taxes levied in the year 1993.

Dated this 18th day of October, 1993.

(SEAL)

*James A. Stephens*

(SEAL)

James A. Stephens

(SEAL)

*Helen L. Stephens*

(SEAL)

Helen L. Stephens

AUTHENTICATION

ACKNOWLEDGMENT

Signature(s)

STATE OF WISCONSIN

authenticated this day of 1993

Eau Claire County, Wis.

Personally came before me this 18th day of October, 1993, the above named James A. Stephens and Helen L. Stephens

TITLE: MEMBER STATE BAR OF WISCONSIN

(If not authorized by § 700.06, Wis. Stats.)

to me known to be the person(s) who executed the foregoing instrument and acknowledged the same.

*Sebastian J. Geraci*

Sebastian J. Geraci  
Notary Public Eau Claire County, Wis.

Linda M. Danielson

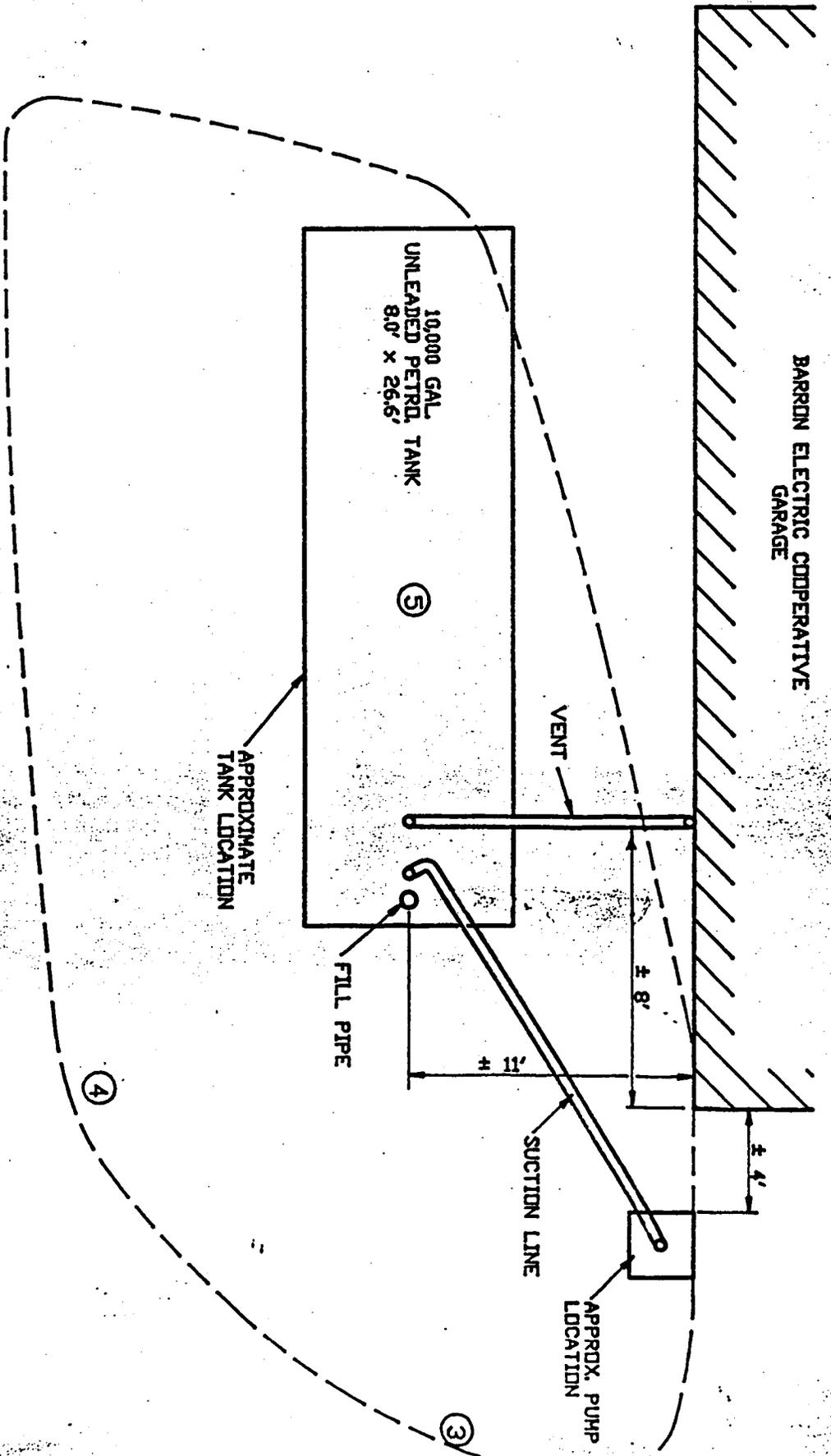
Eau Claire, Wisconsin

(Signatures may be authenticated or acknowledged, but are not necessary.)

\*Names of persons signing in any capacity should be typed or printed below their signatures.



BARRON ELECTRIC COOPERATIVE  
GARAGE



BARRON ELECTRIC COOPERATIVE  
TANK SITE PLAN

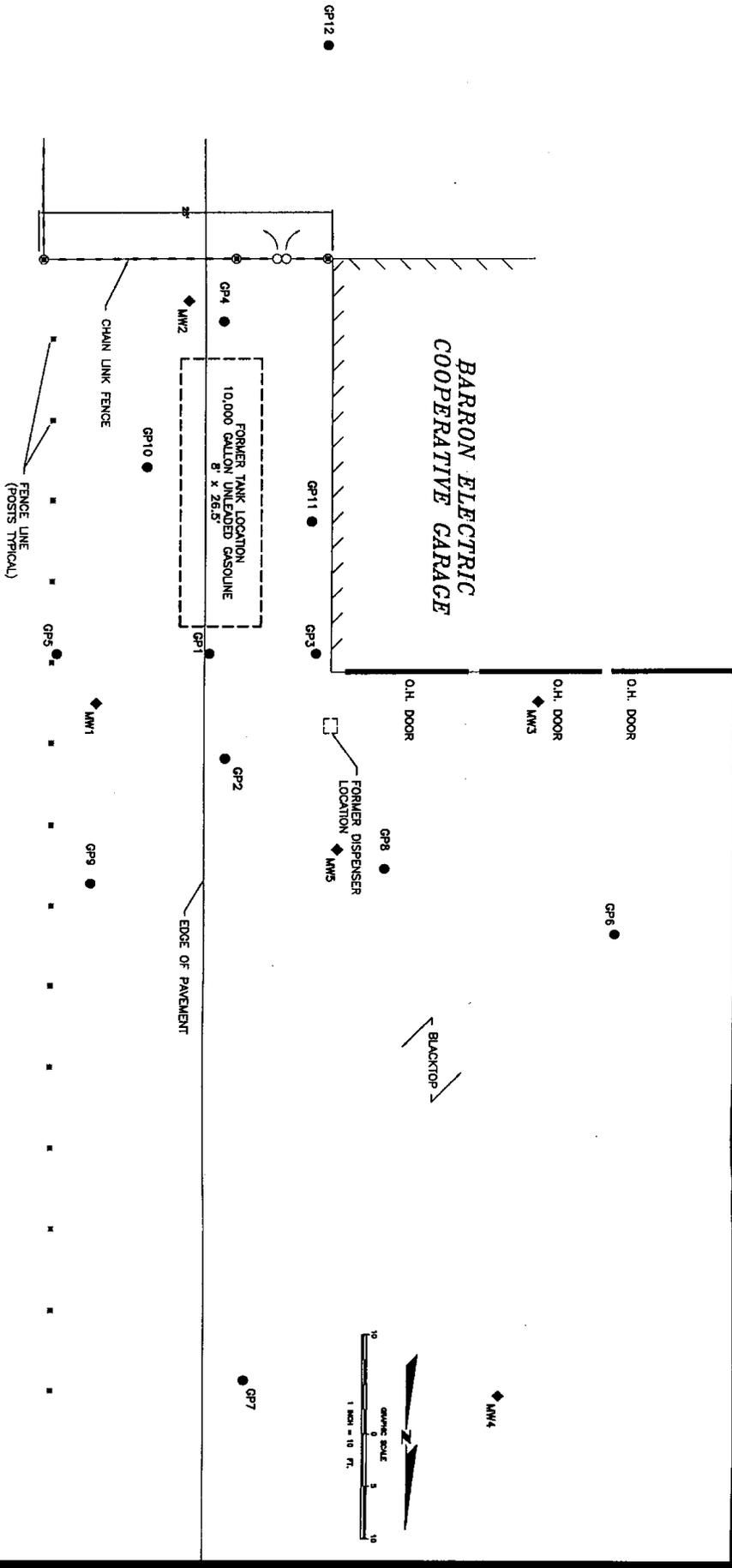
KEY

- APPROXIMATE SITE ASSESSMENT LIMITS
- ③ --- APPROXIMATE SOIL SAMPLE LOCATION



1" = 6'

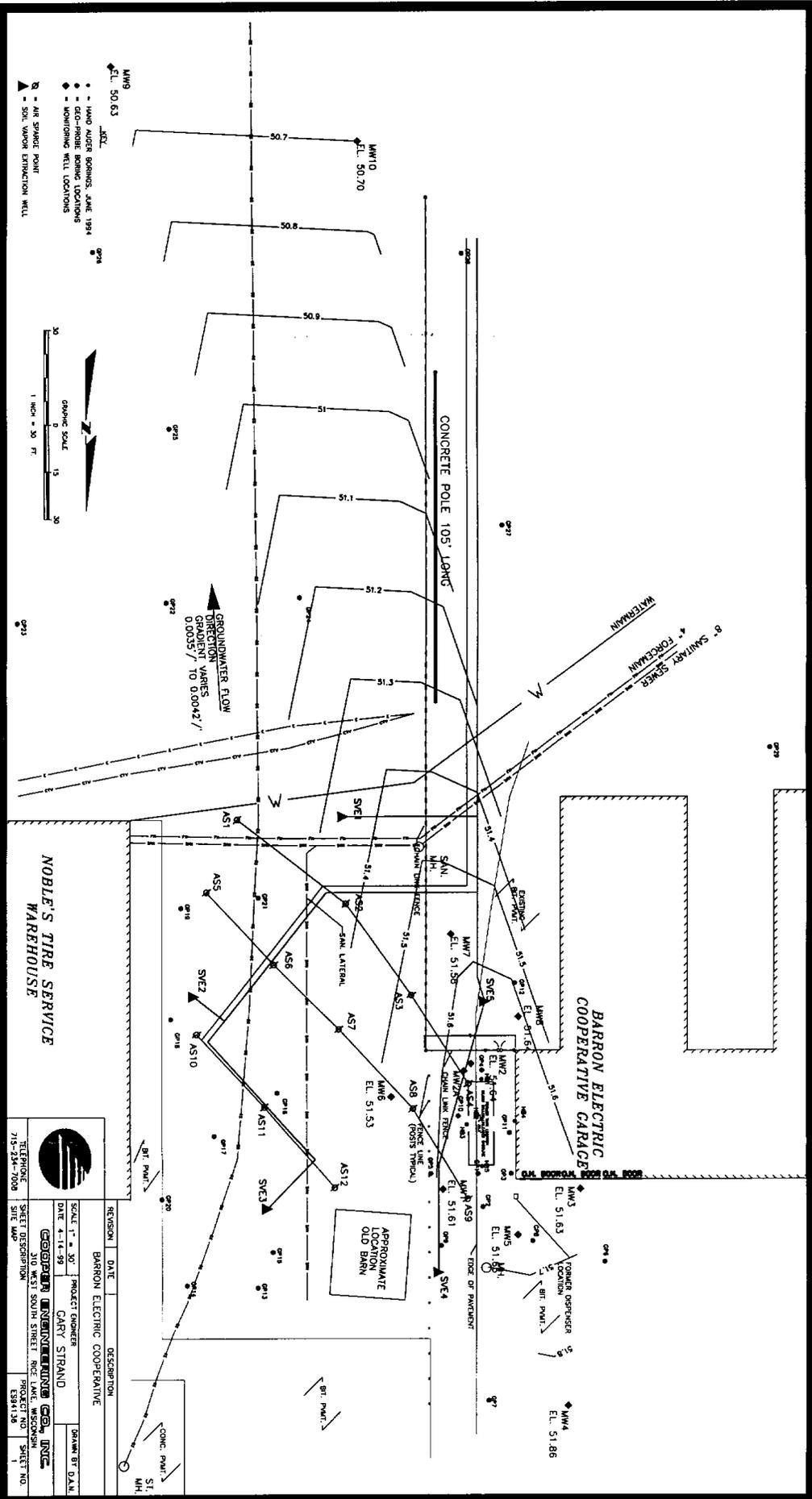
**BARRON ELECTRIC  
COOPERATIVE GARAGE**



BARRON ELECTRIC CO-OP



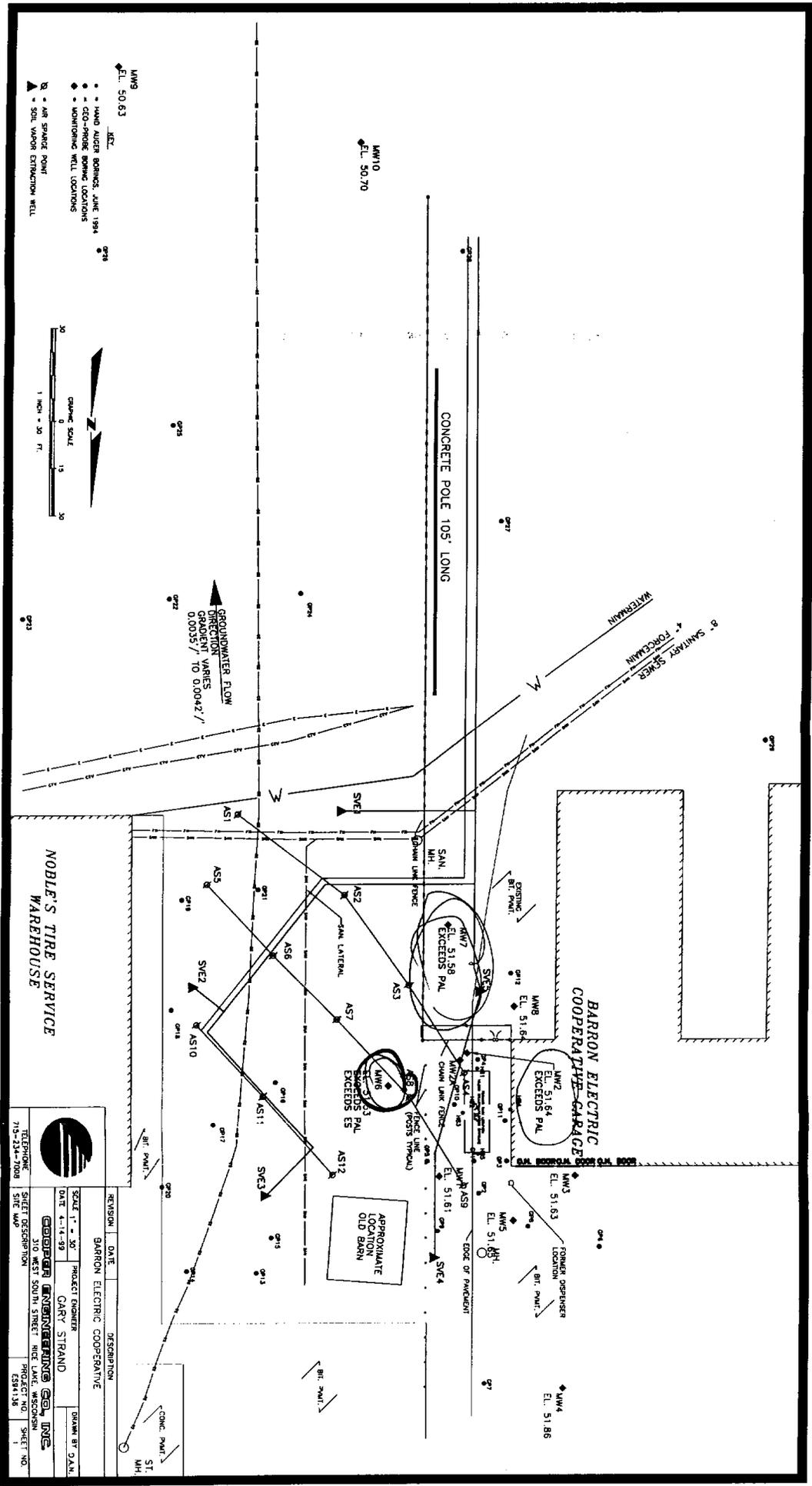
**COOPER ENGINEERING COMPANY**  
 2001 15th Street, N.E.  
 Redmond, WA 98073  
 Telephone: 754-227-7000  
 Fax: 754-227-7001  
 PERSONAL VOUCHER NO. 2-118-93 O.A.K.



BARRON ELECTRIC CO-OP  
JULY 13, 1999 GROUNDWATER FLOW MAP

	REVISION	DATE	DESCRIPTION	DRAWN BY
	1	4-14-99	BARRON ELECTRIC COOPERATIVE	D.A.N.
SCALE: 1" = 30' DATE: 4-14-99 PROJECT OWNER: BARRON ELECTRIC COOPERATIVE CLIENT: GARTY STRAND ENGINEER: GEORAM ENGINEERING CO. INC. 210 WEST SOUTH STREET, RICE LAKE, WISCONSIN TELEPHONE: 715-834-7008 FAX: 715-834-7008 SHEET DESCRIPTION: GROUNDWATER FLOW MAP SHEET NO: 13 OF 13				

BARRON ELECTRIC CO-OP  
 JULY 12, 1999 GROUNDWATER SAMPLE LOCATION MAP



SCALE 1" = 30' DATE 4-14-99 PROJECT ENGINEER GARY STRAND DRAWN BY G.A.N.	SHEET DESCRIPTION 310 WEST SOUTH STREET RICE LAKE, WISCONSIN PROJECT NO. 1394136 SHEET NO. 1
REVISION DATE DESCRIPTION	BARON ELECTRIC COOPERATIVE

**Barron Electric Cooperative  
Groundwater Data For MW 1**

PARAMETER	6/23/95	9/14/95	5/30/96	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	20,000	1200 c	3910 c,d	2,920	5,100	3,070	1,320	362		
Lead, dissolved	1	1	1	2.21	--	--	--	--	15	1.5
Benzene	1	1	<5.0	nd	nd	nd	<0.2	<0.2	5	0.5
n-Butylbenzene	860	740	446	129	--	--	--	<0.5		
sec-Butylbenzene	42	27	<5.0	nd	--	--	--	<0.5		
Chloromethane	nd	50	<28	nd	--	--	--	<0.2	3	0.3
Diisopropyl ether	28	nd	<5.0	nd	--	--	--	--		
MTBE	--	--	--	--	nd	nd	<0.3	<0.3	60	12
Ethylbenzene	390	75	<5.0	nd	11.9	13.2	4.80	<0.5	700	140
Isopropylbenzene	57	nd	<5.0	nd	--	--	--	<0.5		
p-Isopropyltoluene	21	nd	<5.0	nd	--	--	--	<0.5		
Methylene Chloride	nd	nd	nd	52.9	--	--	--	<0.5	5	0.5
Naphthalene	36	10	<7.5	nd	--	--	1.4	1.4	40	8
n-Propylbenzene	210	79	<5.0	nd	--	--	--	<0.5		
Toluene	50	100	<5.0	nd	60.5	27.8	<0.5	<0.5	343	68.6
Trimethylbenzene*	69	50	150	61.4	23.54	29.2	36.8	<0.5	480	96
Total Xylene	350	36	22	nd	248.8	115.4	122.5	1.4	620	124

All results reported in ug/L (parts per billion).

nd = Parameter not detected above limit of detection (LOD)

<0.5 = result below the limit of detection (LOD)

-- = not analyzed for this parameter

Bold type denotes PAL exceedances

Shaded cells denote ES exceedances

\*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

a Estimated value--see laboratory results

b Suspected laboratory background contamination

c Sample contained fractions heavier than GRO hydrocarbons

d Elevated reporting limit due to sample dilution

e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW 2**

PARAMETER	6/23/95	9/14/95	5/30/96	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	20,000	8500	8830 de	1,410	1,220	1,490	325	1,120		
Lead, dissolved	nd	nd	--	nd	--	--	--	--	15	1.5
Benzene	58	nd	<20	nd	nd	nd	<0.2	<1.0	5	0.5
n-Butylbenzene	630	300	177	14.2	--	--	--	<2.5		
sec-Butylbenzene	28	nd	<20	1.8	--	--	--	<2.5		
Chloroform	nd	nd	nd	<b>0.8</b>	--	--	--	<1.0	0.6	0.06
Chloromethane	<b>360a</b>	nd	<1/10	nd	--	--	--	<1.0	3	0.3
o-Chlorotoluene	nd	nd	nd	28.3	--	--	--	<2.5		
1,2-Dichloropropane	nd	nd	nd	1.2	--	--	--	<2.5		
Isopropyl ether	54	nd	<20	nd	--	--	--	<2.5		
MTBE	--	--	--	0.8	nd	nd	<0.3	<1.5	60	12
Ethylbenzene	<b>450</b>	<b>240</b>	<b>218</b>	68.3	34.4	56.9	8.02	21	700	140
Isopropylbenzene	110	nd	<20	5	--	--	--	2.92		
p-Isopropyltoluene	43	nd	<20	0.8	--	--	--	<2.5		
Naphthalene	<b>170</b>	nd	<b>112a</b>	<b>21</b>	--	--	--	9.49	40	8
n-Propylbenzene	390	85	78	25.3	--	--	--	7.82		
Toluene	<b>260</b>	<b>440</b>	<b>398</b>	<b>83.2</b>	27.5	47	3.1	6.37	343	68.6
1,1,2-Trichloroethane	nd	nd	nd	3.5	--	--	--	<1.0	5	0.5
Trimethylbenzenes*	<b>3210</b>	<b>1220</b>	<b>831</b>	<b>256</b>	<b>162.3</b>	<b>160.5</b>	60.2	<b>107.7</b>	480	96
Total Xylene	<b>3220</b>	<b>1860</b>	<b>1592</b>	<b>358.9</b>	<b>222.6</b>	<b>327</b>	59.5	<b>133.4</b>	620	124

All results reported in ug/L (parts per billion).

nd = Parameter not detected above limit of detection (LOD)

<0.5 = result below the limit of detection (LOD)

-- = not analyzed for this parameter

Bold type denotes PAL exceedances

Shaded cells denote ES exceedances

\*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

a Estimated value--see laboratory results

b Suspected laboratory background contamination

c Sample contained fractions heavier than GRO hydrocarbons

d Elevated reporting limit due to sample dilution

e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW 2A**

PARAMETER	5/30/96	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	188	nd	nd	nd	<50	<50		
Lead, dissolved	nd	nd	--	--	--	--	15	1.5
Benzene	nd	nd	nd	nd	<0.2	<0.2	5	0.5
n-Butylbenzene	5.9	nd	--	--	--	<0.5		
sec-Butylbenzene	nd	nd	--	--	--	<0.5		
Chloromethane	nd	nd	--	--	--	<0.2	3	0.3
Diisopropyl ether	nd	nd	--	--	--	<0.5		
Ethylbenzene	nd	nd	nd	nd	<0.5	<0.5	700	140
Isopropylbenzene	nd	nd	--	--	--	<0.5		
p-Isopropyltoluene	nd	nd	--	--	--	<0.5		
Naphthalene	nd	nd	--	--	--	<1.0	40	8
n-Propylbenzene	0.3 a	nd	--	--	--	<0.5		
Toluene	nd	nd	nd	nd	<0.5	<0.5	343	68.6
Trimethylbenzenes*	2.7	nd	nd	nd	nd	<0.5	480	96
Total Xylene	nd	nd	nd	nd	<0.5	<0.5	620	124

All results reported in ug/L (parts per billion).

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<0.5 = result below the limit of detection (LOD)

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a Estimated value--see laboratory results

b Suspected laboratory background contamination

c Sample contained fractions heavier than GRO hydrocarbons

d Elevated reporting limit due to sample dilution

e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW 3**

PARAMETER	6/23/95	9/14/95	5/30/96	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	nd	nd	nd	nd	nd	nd	<50.0	<50.0		
Lead, dissolved	3	nd	--	--	--	--	--	--	15	1.5
Benzene	nd	nd	nd	nd	nd	nd	<0.2	<0.2	5	0.5
n-Butylbenzene	nd	nd	--	--	--	--	--	<0.5		
sec-Butylbenzene	nd	nd	--	--	--	--	--	<0.5		
Chloromethane	<b>6.5</b>	nd	--	--	--	--	--	<0.2	3	0.3
Diisopropyl ether	nd	nd	--	--	--	--	--	<0.5		
Ethylbenzene	nd	nd	--	nd	nd	nd	<0.5	<0.5	700	140
Isopropylbenzene	nd	nd	--	--	--	--	--	<0.5		
p-Isopropyltoluene	nd	nd	--	--	--	--	--	<0.5		
MTBE	nd	nd	nd	3.4	nd	nd	<0.3	<0.3	60	12
Naphthalene	nd	nd	--	--	--	--	--	<1.0	40	8
n-Propylbenzene	nd	nd	--	--	--	--	--	<0.5		
Toluene	nd	nd	nd	nd	nd	nd	<0.5	<0.5	343	68.6
Trimethylbenzenes*	nd	nd	nd	1.9	nd	nd	1.55	<0.5	480	96
Total Xylene	nd	nd	nd	nd	nd	nd	0.692	<0.5	620	124

All results reported in ug/L (parts per billion).

nd = Parameter not detected above limit of detection (LOD)

<0.5 = result below the limit of detection (LOD)

-- = not analyzed for this parameter

Bold type denotes PAL exceedances

Shaded cells denote ES exceedances

\*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

a Estimated value--see laboratory results

b Suspected laboratory background contamination

c Sample contained fractions heavier than GRO hydrocarbons

d Elevated reporting limit due to sample dilution

e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW 4**

PARAMETER	6/23/95	9/14/95	5/30/96	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	nd	nd	nd	nd	nd	nd	<50.0	<50.0		
Lead, dissolved	nd	nd	--	--	--	--	--	--	15	1.5
Benzene	nd	nd	nd	nd	nd	nd	<0.2	<0.2	5	0.5
n-Butylbenzene	nd	nd	--	--	--	--	--	<0.5		
sec-Butylbenzene	nd	nd	--	--	--	--	--	<0.5		
Diisopropyl ether	nd	nd	--	--	--	--	--	<0.5		
Ethylbenzene	nd	nd	nd	nd	nd	nd	<0.5	<0.5	700	140
Chloromethane	nd	nd	--	--	--	--	--	<0.2	3	0.3
Isopropylbenzene	nd	nd	--	--	--	--	--	<0.5		
p-Isopropyltoluene	nd	nd	--	--	--	--	--	<0.5		
MTBE	nd	nd	nd	1.5	nd	nd	<0.3	<0.3	60	12
Naphthalene	nd	nd	--	--	--	--	--	<1.0	40	8
n-Propylbenzene	nd	nd	--	--	--	--	--	<0.5		
Toluene	nd	nd	nd	nd	nd	nd	<0.5	<0.5	343	68.6
Trimethylbenzenes*	nd	nd	nd	4.9	1.44	4.67	2.85	<0.5	480	96
Total Xylene	nd	nd	nd	1.3	nd	2.02	1.56	<0.5	620	124

All results reported in ug/L (parts per billion).

nd = Parameter not detected above limit of detection (LOD)

<0.5 = result below the limit of detection (LOD)

-- = not analyzed for this parameter

**Bold type denotes PAL exceedances**

Shaded cells denote ES exceedances

\*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

a Estimated value--see laboratory results

b Suspected laboratory background contamination

c Sample contained fractions heavier than GRO hydrocarbons

d Elevated reporting limit due to sample dilution

e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW5**

PARAMETER	6/23/95	9/14/95	5/30/96	6/18/97	3/31/98	9/18/98	4/5/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	nd	1600	1300 c	nd	nd	nd	<50.0	<50		
Lead, dissolved	1	1	nd	nd	--	--	--	--	15	1.5
Benzene	nd	nd	nd	nd	nd	nd	<0.2	<0.2	5	0.5
n-Butylbenzene	180	55	48	nd	--	--	--	<0.5		
sec-Butylbenzene	4.9	nd	3.7	nd	--	--	--	<0.5		
Chloromethane	nd	nd	nd	nd	--	--	--	<0.2	3	0.3
Diisopropyl ether	nd	nd	nd	nd	--	--	--	<0.5		
MTBE	--	--	--	nd	nd	nd	<0.3	<0.3	60	12
Ethylbenzene	nd	nd	nd	nd	nd	nd	<0.5	<0.5	700	140
Isopropylbenzene	nd	nd	0.2 a	nd	--	--	--	<0.5		
p-Isopropyltoluene	3.3	nd	nd	nd	--	--	--	<0.5		
Naphthalene	14	nd	0.4 a	nd	--	--	--	<1.0	40	8
n-Propylbenzene	nd	nd	nd	nd	--	--	--	<0.5		
Toluene	26	8.9	5.6	nd	nd	nd	<0.5	<0.5	343	68.6
Trimethylbenzenes*	nd	31	82	nd	1.22	nd	<0.5	<0.5	480	96
Total Xylene	450	12	104	nd	nd	nd	<0.5	<0.5	620	124

All results reported in ug/L (parts per billion).

nd = Parameter not detected above limit of detection (LOD)

<0.5 = result below the limit of detection (LOD)

-- = not analyzed for this parameter

Bold type denotes PAL exceedances

Shaded cells denote ES exceedances

\*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

a Estimated value--see laboratory results

b Suspected laboratory background contamination

c Sample contained fractions heavier than GRO hydrocarbons

d Elevated reporting limit due to sample dilution

e Sample contained fractions heavier & higher than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW6**

PARAMETER	5/30/96	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	22,600 d,e	1,210	617	226	2970	712		
Lead, dissolved	5	2.27	--	--	--	--	15	1.5
Benzene	<20	nd	nd	nd	<2.0	<4.0	5	0.5
n-Butylbenzene	609	252	--	--	--	<10		
sec-Butylbenzene	<20	41.3	--	--	--	<10		
Chloroform	nd	29.2	--	--	--	<4.0	6	0.6
Chloromethane	<1/10	nd	--	--	--	<4.0	3	0.3
o-Chlorotoluene	nd	538	--	--	--	<10		
1,2-Dichloropropane	nd	26.1	--	--	--	<10	5	0.5
Diisopropyl ether	22	nd	--	--	--	<10		
MTBE	--	nd	nd	nd	<3.0	<6.0	60	12
Methylene Chloride	nd	106	--	--	--	12.9	5	0.5
Ethylbenzene	1080	1120	11.5	11.2	126	48.3	700	140
Isopropylbenzene	45	79.9	--	--	--	<10		
p-Isopropyltoluene	<20	52.9	--	--	--	<10		
Naphthalene	318	270	--	--	--	<20	40	8
n-Propylbenzene	343	392	--	--	--	17.9		
Toluene	2480	3030	32.8	9.61	70.6	30.2	343	68.6
1,1,2,2-Tetrachloroethane	nd	46.3	--	--	--	<4.0	0.2	0.02
Trimethylbenzenes*	3518	4210	66.4	28.83	691	123.8	480	96
Total Xylene	7590	5690	136	77.8	872	250	620	124

All results reported in ug/L (parts per billion).  
 nd = Parameter not detected above limit of detection (LOD)  
 -- = not analyzed for this parameter  
 <0.5 = result below the limit of detection (LOD)  
 Bold type denotes PAL exceedances  
 Shaded cells denote ES exceedances  
 \*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene  
 a Estimated value--see laboratory results  
 b Suspected laboratory background contamination  
 c Sample contained fractions heavier than GRO hydrocarbons  
 d Elevated reporting limit due to sample dilution  
 e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW7**

PARAMETER	5/30/96	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	6,950 d,e	2,220	3,240	2,880	942	1,460		
Lead, dissolved	1	1.21	--	--	--	--	15	1.5
Benzene	<20	nd	<b>498</b>	1.34	<1.0	<1.0	5	0.5
n-Butylbenzene	250	71.3	--	--	--	8.09		
sec-Butylbenzene	<20	7.7	--	--	--	<2.5		
Chloroform	nd	5	--	--	--	<1.0	6	0.6
Chloromethane	<110	nd	--	--	--	<1.0	3	0.3
o-Chlorotoluene	nd	151	--	--	--	<2.5		
p-Chlorotoluene	nd	85.7	--	--	--	<2.5		
1,2-Dichloropropane	nd	3.7	--	--	--	<2.5	5	0.5
2,2-Dichloropropane	nd	2.2	--	--	--	<2.5		
Diisopropyl ether	<20	nd	--	--	--	<2.5		
MTBE	--	--	nd	nd	<1.5	<1.5	60	12
Ethylbenzene	<20	6.6	497	1.14	<2.5	4.26	700	140
Isopropylbenzene	<20	17.7	--	--	--	3.19		
p-Isopropyltoluene	<20	14.7	--	--	--	<2.5		
Naphthalene	<30	9	--	--	--	9.09	40	8
n-Propylbenzene	107	106	--	--	--	12.2		
Toluene	<20	0.6	<b>519</b>	1.66	<2.0	<2.5	343	68.6
Trimethylbenzenes*	<20	<b>837</b>	<b>1572</b>	334	158.7	93.4	480	96
Total Xylene	<60	27.37	<b>1472</b>	5.98	<2.5	8.97	620	124

All results reported in ug/L (parts per billion).  
 nd = Parameter not detected above limit of detection (LOD)  
 <0.5 = result below the limit of detection (LOD)  
 -- = not analyzed for this parameter  
 Bold type denotes PAL exceedances  
 Shaded cells denote ES exceedances  
 \*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene  
 a Estimated value--see laboratory results  
 b Suspected laboratory background contamination  
 c Sample contained fractions heavier than GRO hydrocarbons  
 d Elevated reporting limit due to sample dilution  
 e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW8**

PARAMETER	Date								Enforcement Standard	Preventative Action Limit
	5/30/96	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99				
GRO	829 c,d	229	142	172	165	182				
Lead, dissolved	--	nd	--	--	--	--		15	1.5	
Benzene	<2.0	nd	nd	nd	<0.2	<0.2		5	0.5	
Bromodichloromethane	nd	0.7	--	--	--	<0.2		0.6	0.06	
n-Butylbenzene	32	6.9	--	--	--	5.23				
sec-Butylbenzene	<2.0	1.5	--	--	--	0.94				
Chloromethane	nd	nd	--	--	--	<0.2		3	0.3	
Diisopropyl ether	<2.0	nd	--	--	--	<0.5				
Ethylbenzene	<2.0	nd	nd	nd	<0.5	<0.5		700	140	
Isopropylbenzene	<2.0	nd	--	--	--	<0.5				
p-Isopropyltoluene	<2.0	nd	--	--	--	<0.5				
Naphthalene	<3.0	nd	--	--	--	1.4		40	8	
n-Propylbenzene	<2.0	nd	--	--	--	<0.5				
Toluene	<2.0	nd	nd	nd	<0.5	<0.5		343	68.6	
Trimethylbenzenes*	nd	nd	nd	nd	<0.5	<0.5		480	96	
Total Xylene	<6.0	nd	nd	nd	<0.5	<0.5		620	124	

All results reported in ug/L (parts per billion).

nd = Parameter not detected above limit of detection (LOD)

<0.5 = result below the limit of detection (LOD)

-- = not analyzed for this parameter

**Bold type denotes PAL exceedances**

Shaded cells denote ES exceedances

\*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

a Estimated value--see laboratory results

b Suspected laboratory background contamination

c Sample contained fractions heavier than GRO hydrocarbons

d Elevated reporting limit due to sample dilution

e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW 9**

PARAMETER	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	1,460	511	423	120	<50		
Lead, dissolved	nd	--	--	--	--	15	1.5
Benzene	<b>1.3</b>	nd	<b>0.835</b>	<0.2	0.25	5	0.5
Bromodichloromethane	<b>0.5</b>	--	--	--	<0.2	0.6	0.06
n-Butylbenzene	19.9	--	--	--	0.82		
sec-Butylbenzene	1.7	--	--	--	0.51		
Chloroform	<b>2.1</b>	--	--	--	<0.2	6	0.6
o-Chlorotoluene	59.2	--	--	--	<0.5		
p-Chlorotoluene	8.1	--	--	--	<0.5		
1,2-Dichloropropane	nd	--	--	--	<0.5	5	0.5
MTBE	--	nd	nd	<0.3	<0.3	60	12
Ethylbenzene	123	28.9	22.2	<0.5	<0.5	700	140
Isopropylbenzene	8.3	--	--	--	0.75		
p-Isopropyltoluene	0.7	--	--	--	<0.5		
Naphthalene	<del>47.7</del>	--	--	--	<1.0	40	8
n-Propylbenzene	41.8	--	--	--	1.34		
Toluene	4.7	nd	2.17	<0.5	<0.5	343	68.6
Trimethylbenzenes*	<b>305</b>	<b>97.3</b>	87.5	31.3	4.05	480	96
Total Xylene	<b>166.8</b>	76.8	55.72	10.4	1.11	620	124

All results reported in ug/L (parts per billion).  
 nd = Parameter not detected above limit of detection (LOD)  
 <0.5 = result below the limit of detection (LOD)  
 -- = not analyzed for this parameter  
 Bold type denotes PAL exceedances  
 Shaded cells denote ES exceedances  
 \*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene  
 a Estimated value--see laboratory results  
 b Suspected laboratory background contamination  
 c Sample contained fractions heavier than GRO hydrocarbons  
 d Elevated reporting limit due to sample dilution  
 e Sample contained fractions heavier & lighter than GRO hydrocarbons

**Barron Electric Cooperative  
Groundwater Data for MW 10**

PARAMETER	6/18/97	3/31/98	9/18/98	4/6/99	7/12/99	Enforcement Standard	Preventative Action Limit
GRO	624	313	1070	79.9	462		
Lead, dissolved	nd	--	--	--	--	15	1.5
Benzene	nd	nd	1.7	<0.2	<0.2	5	0.5
Bromodichloromethane	nd	--	--	--	<0.2	0.6	0.06
n-Butylbenzene	nd	--	--	--	3.65		
sec-Butylbenzene	0.8	--	--	--	<0.5		
Chloroform	0.7	--	--	--	<0.2	6	0.6
o-Chlorotoluene	8.5	--	--	--	<0.5		
p-Chlorotoluene	nd	--	--	--	<0.5		
1,2-Dichloropropane	0.6	--	--	--	<0.5	5	0.5
MTBE	--	nd	nd	<0.3	<0.3	60	12
Ethylbenzene	5.7	2.32	28.6	<0.5	6.24	700	140
Isopropylbenzene	2.8	--	--	--	4.95		
p-Isopropyltoluene	nd	--	--	--	<0.5		
Naphthalene	7.6	--	--	--	1.98	40	8
n-Propylbenzene	6	--	--	--	18.4		
Toluene	nd	nd	2.23	<0.5	0.53	343	68.6
Trimethylbenzenes*	80.8	16	142	0.78	63.30	480	96
Total Xylene	12.05	3.01	43.84	<0.5	11.42	620	124

All results reported in ug/L (parts per billion).

nd = Parameter not detected above limit of detection (LOD)

<0.5 = result below the limit of detection (LOD)

-- = not analyzed for this parameter

Bold type denotes PAL exceedances

Shaded cells denote ES exceedances

\*Wisconsin Administrative Code NR 140 combines 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene

a Estimated value--see laboratory results

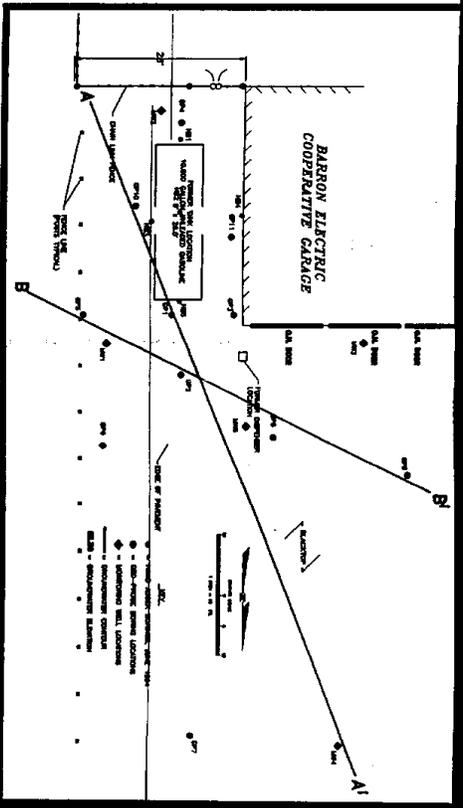
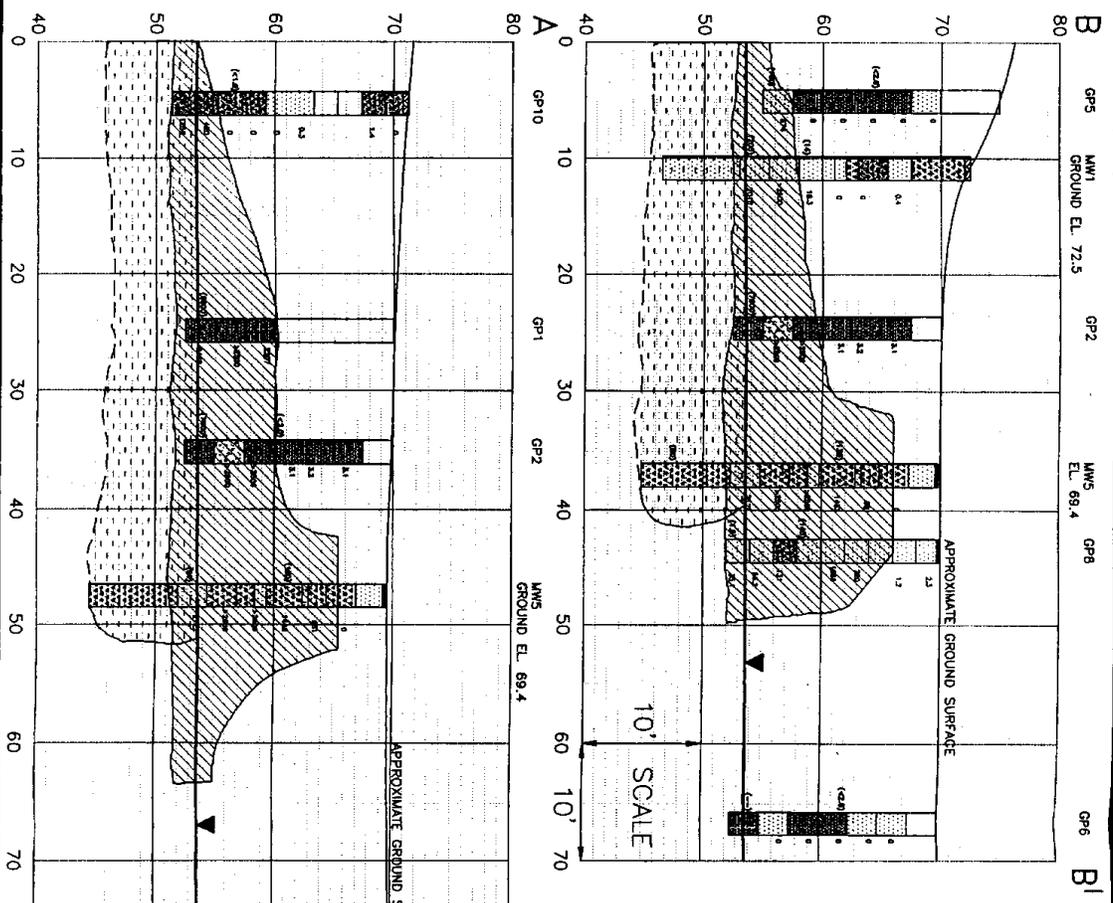
b Suspected laboratory background contamination

c Sample contained fractions heavier than GRO hydrocarbons

d Elevated reporting limit due to sample dilution

e Sample contained fractions heavier & lighter than GRO hydrocarbons

# BARRON ELECTRIC COOPERATIVE



ELEVATIONS SHOWN ARE BASED ON SITE DATUM

GENERAL SITE STRATIGRAPHY  
BROWN SAND AND SILTY SAND  
WITH SOME GRAVEL

KEY

- 3000 FIELD INSTRUMENT READING
- 3000 LABORATORY RESULT, GRG (mg/kg)
- ND NOT DETECTED
- NOT COLLECTED
- GROUNDWATER SURFACE
- ESTIMATED AREA OF SOIL CONTAMINATION
- ESTIMATED AREA OF GROUNDWATER CONTAMINATION