

TO: Eric Sandin, GEF II, Geo/8

**Groundwater Use Registry Buckslip**

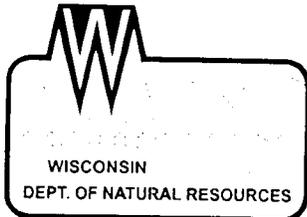
Site Name Baillie's Union 76  
Address US Hwy 2 AND State Hwy 27  
BRULE, WI  
BRRTS # 03-16-000396  
GPS Location: \_\_\_\_\_ latitude \_\_\_\_\_ longitude  
Date of Closure Decision 11/17/99

**Required**

- Closure Letter
- Deeds for all properties with ES exceedance in Groundwater
- 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
- Tax Parcel Number BR-006-00002-P1
- 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

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

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

November 30, 2000

Mr. Don Baillie  
Baillie Oil Co., Inc  
PO Box 70  
Brule, WI 54820-0070

Subject: Baillie's Union 76, USH 2 and STH 27, Brule, WI  
BRRTS # 03-16-000396

Dear Mr. Baillie:

The above-referenced site has been 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 September 22, 1999, you were notified that the Closure Committee had granted conditional closure to this case.

On November 30, 2000, the Department received correspondence indicating that you have complied with the conditions of closure, more specifically: You were required to notify the Department of Transportation of residual contamination in the right of way, you were required to record a groundwater use restriction for your property, and you were required to obtain a groundwater use restriction on that adjacent property. Based on the correspondence and the data provided, it appears that your site has been remediation to Department standards in accordance with 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.

However, please be aware that this case may be reopened pursuant to 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.

Sincerely,  
NORTHERN REGION

Janet Kazda  
Remediation and Redevelopment Program

c: File

Steve Palzkill  
Advent Environmental  
5110 Fairview Dr, Suite A  
Eau Claire, WI 54701



Quality Natural Resources Management  
Through Excellent Customer Service



725254

Groundwater Use Restriction  
Cover Sheet

Document Number

Document Title

DOCUMENT # 725254

Recorded  
NOV. 14, 2000 AT 08:00AM

KATHY F. HANSON  
DOUGLAS COUNTY RECORDER  
SUPERIOR, WI 54880-2769  
Fee Amount: \$16.00

Recording Area

16/16

Name and Return Address

Guille oil Co  
P.O. Box 70  
Brook WI 54822-0070

BR-006-00226-00

Parcel Identification Number (PIN)

725254

Yahoo! Mail for bdbaillie@yahoo.com

Yahoo! - my Yahoo!

Options - Sign Out - Help



Mail



Addresses



Calendar



Notepad

Attachment View -- Powered by **OutsideIn**

[Back to Message](#)

<b>Document Number</b>	<b>GROUNDWATER USE RESTRICTION</b>	
	<p align="center"><b><u>Declaration of Restriction</u></b></p> <p>In Re: East Twenty (20) rods of the Northeast Quarter of the Southeast Quarter (NE ¼ - SE ¼), Section Fourteen (14), Township Forty-Seven (47), except Lot Two (2) of Certified Survey Map contained in Volume 2, Range Ten (10) and lying South of Highway No. 2 of Certified Survey Maps, Page 98, Town of Brule, Douglas County, Wisconsin.</p>	
		<p>Recording Area</p> <p>Return to:</p> <p>Baillie Oil Company</p> <p>P.O. Box 70</p> <p>Brule, WI 54820-0070</p>
STATE OF WISCONSIN )		
) ss	BR-006-00226-00	

COUNTY OF DOUGLAS Parcel Identification No. (PIN)

**725254**

WHEREAS, John D. Shupe and Judy I. Shupe, husband and wife, who own the above-described property as survivorship marital property.

WHEREAS, one or more petroleum discharges have affected this property. As of June 1999, benzene contaminated groundwater above the ch. NR 140, Wis. Adm. Code preventive action limit (PAL) exists on this property at the following location: Benzene-contaminated groundwater at concentrations above the ch. NR 140, Wis. Adm. Code PAL is present in the northern portion of the above-described property, specifically at Monitoring Well-17P (MW-17P) and extends across USH 2. The location of MW-17P is depicted on the attached Exhibit A which is 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 additional soil or groundwater 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 exceeds the drinking water standards in ch. 809 is restricted by chs. NR 811 and 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 or reconstructed on this property unless applicable requirements are met, unless no construction that would require dewatering is ever expected to take place at the property.

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.

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

725254

7-5-54

Department of Natural Resources, its successors and 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 the restriction set forth in this covenant are no longer required. Upon 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, with a copy of the Department's written determination, may be recorded to give notice that this groundwater use restriction is no longer binding.

IN WITNESS WHEREOF, the owners of the property have executed this Declaration of Restrictions, this 11<sup>th</sup> day of November, 2000.

Signature: John Shupe

Printed Name: John Shupe

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

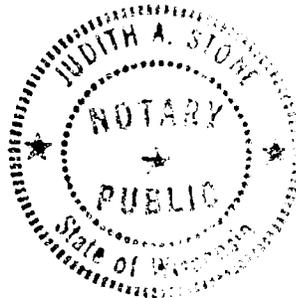
Subscribed and sworn to before me

this 10<sup>th</sup> day of November, 2000.

Judith A. Stone

Notary Public, State of WI

My commission 2-1-2004



This document was drafted by Michael K. Neal of Advent Environmental Services, Inc., and was reviewed by the Wisconsin Department of Natural Resources.

[Back to Message](#)

Yahoo! Messenger - Send instant messages to your online friends.

[Address Book](#) · [Alerts](#) · [Auctions](#) · [Bill Pay](#) · [Bookmarks](#) · [Briefcase](#) · [Broadcast](#) · [Calendar](#) · [Chat](#) · [Classifieds](#) · [Clubs](#) · [Companion](#) · [Experts Games](#) · [Greetings](#) · [Home Pages](#) · [Invites](#) · [Mail](#) · [Maps](#) · [Member Directory](#) · [Messenger](#) · [My Yahoo!](#) · [News](#) · [PayDirect](#) · [People Search](#) · [Personals](#) · [Photos](#) · [Shopping](#) · [Sports](#) · [Stock Quotes](#) · [TV](#) · [Travel](#) · [Weather](#) · [Yahoo!igans](#) · [Yellow Pages](#) · [more...](#)

# ADVENT

October 25, 2000

Kevin Gehrman  
WDOT  
P.O. Box 7916  
Madison, WI 53707-7916

Re: Notification of Residual Contaminated Groundwater in Right-of-Way at the Baillie Oil Company property located at USH 2 and STH 27, Brule, Douglas County, Wisconsin. Advent Project #97064.

To Whom It May Concern:

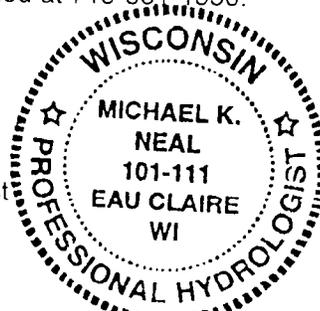
This letter is submitted to notify your department of the petroleum contaminated groundwater in the State right-of-way. The attached site diagram indicates the extent of petroleum-contaminated groundwater. The petroleum contaminants that exist are gasoline related: benzene. Based on current site conditions, the groundwater contamination will naturally degrade over time. The WDNR granted closure for the site based on this information and the condition that the WDOT would be informed of the possibility of encountering petroleum contamination during future subsurface work at this location.

If you have any questions I can be reached at 715-831-1530.

Sincerely,



Michael K. Neal, Professional Hydrologist  
Geomorphologist – Eau Claire Office



cc:  Jeff Kazda, WDNR, 107 Sutliff Avenue, Rhineland, WI 54501

Don Baillie, Baillie Oil Co., Inc., P.O. Box 70, Brule, WI 54820-0070

## Advent Environmental Services, Inc.

10845 N. Buntrock Ave. 04W  
Mequon, WI 53092  
414-238-1998  
1-800-890-1998  
Fax 414-238-1988

5110 Fairview Dr., Suite A  
Eau Claire, WI 54701  
715-831-1530  
1-800-530-1520  
Fax 715-831-1531

7520C Hwy. 51 South  
Minocqua, WI 54548  
715-356-9980  
1-888-357-9980  
Fax 715-358-2582

Document  
Number

GROUNDWATER USE RESTRICTION

DOCUMENT # 725253

Declaration of Restriction

In Re: NE ¼ SE ¼ of Section 14, Township 47 North, Range 10 West, in Douglas County, Wisconsin, being part of the former Burlington Northern Railroad Company right of way and described as follows: Commencing at the East One-Quarter (E ¼) corner of Section Fourteen (14); thence S. 00° 00' 10" W., 674.54 feet along the east line of said Section Fourteen (14) to a point 45 feet South of the centerline of the former Burlington Northern Railroad as measured at right angles thereto; thence S. 75° 45' 17" W. 40.23 feet to the place of beginning; thence continuing S. 75° 45' 17" W., 386.71 feet; thence S. 14° 14' 43" E., 105.00 feet; thence North 75° 45' 17" E., 360.13 feet; thence N. 00° 02' 14" E., 108.31 feet to the place of beginning.

Recorded  
NOV. 14, 2000 AT 08:00AM

KATHY F. HANSON  
DOUGLAS COUNTY RECORDER  
SUPERIOR, WI 54880-2769  
Fee Amount: \$12.00

Recording Area

Return to:  
Baillie Oil Company  
P.O. Box 70  
Brule, WI 54820-0070

*12 cu*

STATE OF WISCONSIN    )  
  ) ss  
COUNTY OF DOUGLAS

BR-006-00233-01  
Parcel Identification No. (PIN)

WHEREAS, Baillie Oil Company, Inc., a Wisconsin Corporation is the owner of the above-described property.

WHEREAS, one or more petroleum discharges have affected this property. As of June 1999, benzene contaminated groundwater above the ch. NR 140, Wis. Adm. Code enforcement standard (ES) exists on this property at the following location: Sump 3, benzene at 650 ppb. The area of contaminated groundwater extents across USH 2. The location of Sump 3 is depicted on the attached Exhibit A which is hereby made a part of this restriction.

WHEREAS, it is the desire and intention of the property owner to impose on the property restrictions which will make it unnecessary to conduct additional soil or groundwater 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 exceeds the drinking water standards in ch. 809 is restricted by chs. NR 811 and NR 812, Wis. Adm. Code. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply.

NOW THEREFORE, the owner hereby declares 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 or reconstructed on this property unless applicable requirements are met, unless no construction that would require dewatering is ever expected to take place at the property.

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.

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 and 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 the restriction set forth in this covenant are no longer required. Upon 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, with a copy of the Department's written determination, may be recorded to give notice that this groundwater use restriction is no longer binding.

By signing this document, Donald Baillie asserts that he/she is duly authorized to sign this document on behalf of Baillie Oil Company, Inc., a Wisconsin Corporation. IN WITNESS WHEREOF, the owner of the property has executed this Declaration of Restrictions, this \_\_\_\_\_ day of \_\_\_\_\_, 2000.

Signature: *Donald Baillie*

Printed Name: Donald Baillie

Title: President

Subscribed and sworn to before me this 27<sup>th</sup> day of October, 2000.

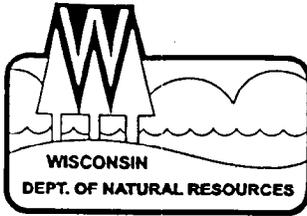
*Judith A Stone*

Notary Public, State of Wisconsin

My commission 2-1-2004



This document was drafted by Michael K. Neal of Advent Environmental Services, Inc., and was reviewed by the Wisconsin Department of Natural Resources.



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

September 22, 1999

Mr. Don Baillie  
Baillie Oil Co, Inc  
PO Box 70  
Brule, Wi 54820-0070

Subject: Baillie's Union 76, USH 2 and STH 27, Brule, WI BRRTS # 03-16-000396

Dear Mr. Baillie:

The Department of Natural Resources provided a notice to you that the degree and extent of gasoline and diesel fuel 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 September 2, 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 gasoline and diesel fuel contamination at the above-named site has been remediated to the extent practicable under current site conditions, and that no further action is necessary at this time. Therefore, the Department will consider the case "closed," pursuant to NR 726.05(8)(am), if you sign and record a Groundwater Use Restriction for your property and if the owner(s) of the nearby property, known as "Twin Gables," signs and records a groundwater use restriction for their property.

Enclosed is an example of a Groundwater Use Restriction. Please draft specific Groundwater Use Restrictions for these sites and submit the drafts to me. Department of Natural Resources attorneys will review the drafts and return them to you with revisions. After you have made the revisions, you should sign and record the restrictions with the County Register of Deeds. To document that this condition has been complied with, the responsible party must submit to the Department copies of the recorded Groundwater Use Restrictions, with the recording information stamped on them, within 15 days after the Register of Deeds returns the Groundwater Use Restrictions to the responsible parties. The Groundwater Use Restrictions may be amended in the future with the approval of DNR if conditions change at the sites and the residual contamination is remediated.

The 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. Specifically, you may wish to install an additional well on the off-site property, known as "Twin Gables," and sample the groundwater again. If contamination is not present in those samples, the requirement for the off-site Groundwater Use Restriction would be eliminated. Please contact Jim Hosch in our Superior office (715-392-0802) for additional information on this option. Note that this additional work may not be eligible for reimbursement through the Petroleum



Quality Natural Resources Management  
Through Excellent Customer Service



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  
Jim Hosch, Superior

Michael Neal  
Advent Environmental  
5110 Fairview Dr, Suite A  
Eau Claire, WI 54701

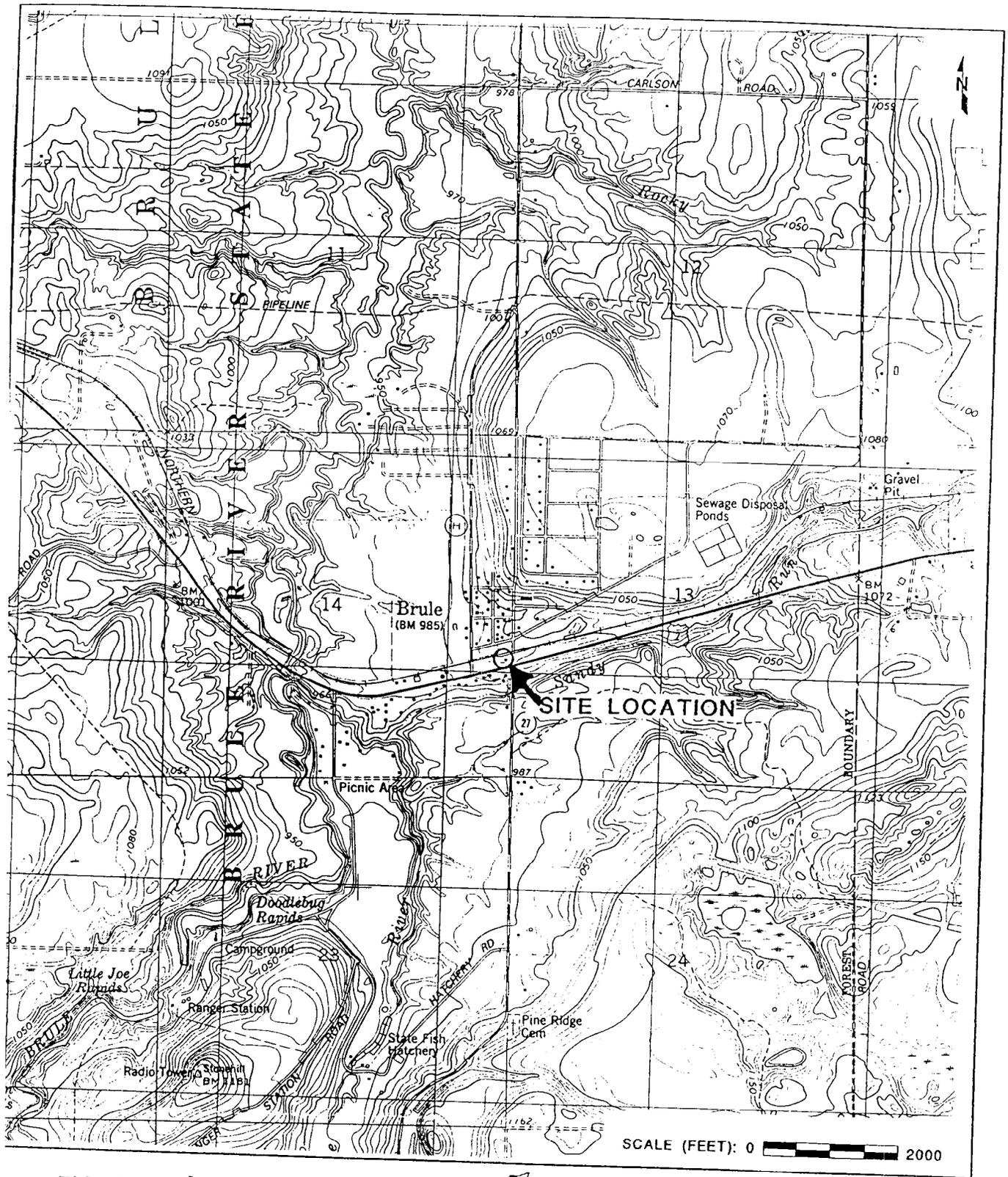


FIGURE 1 SITE LOCATION  
 BAILLIES OIL SITE  
 BRULE, WISCONSIN



**A D V E N T**  
 ENVIRONMENTAL SERVICES, INC.  
 DATE: 1/7/94  
 DRAWING # 97064

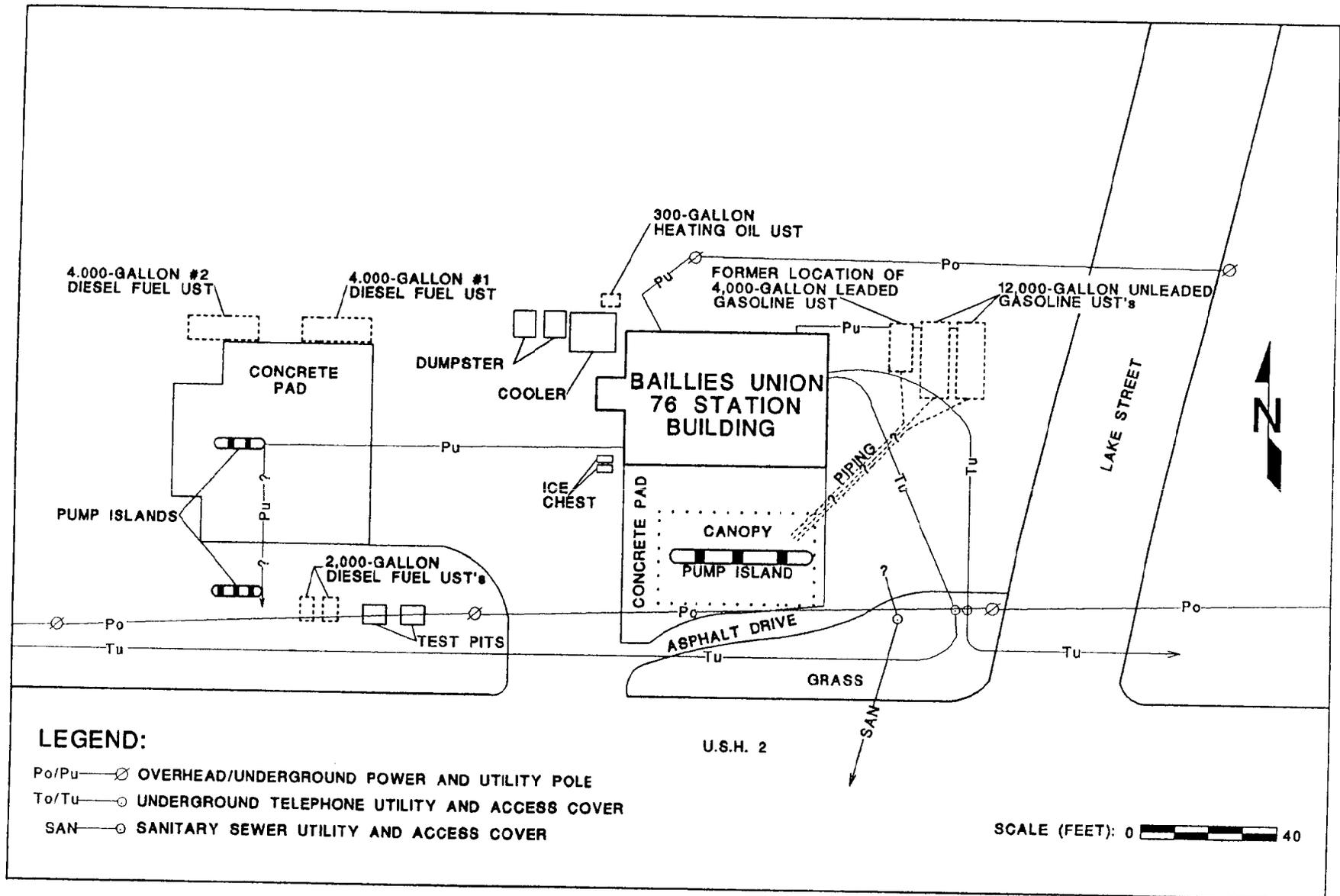


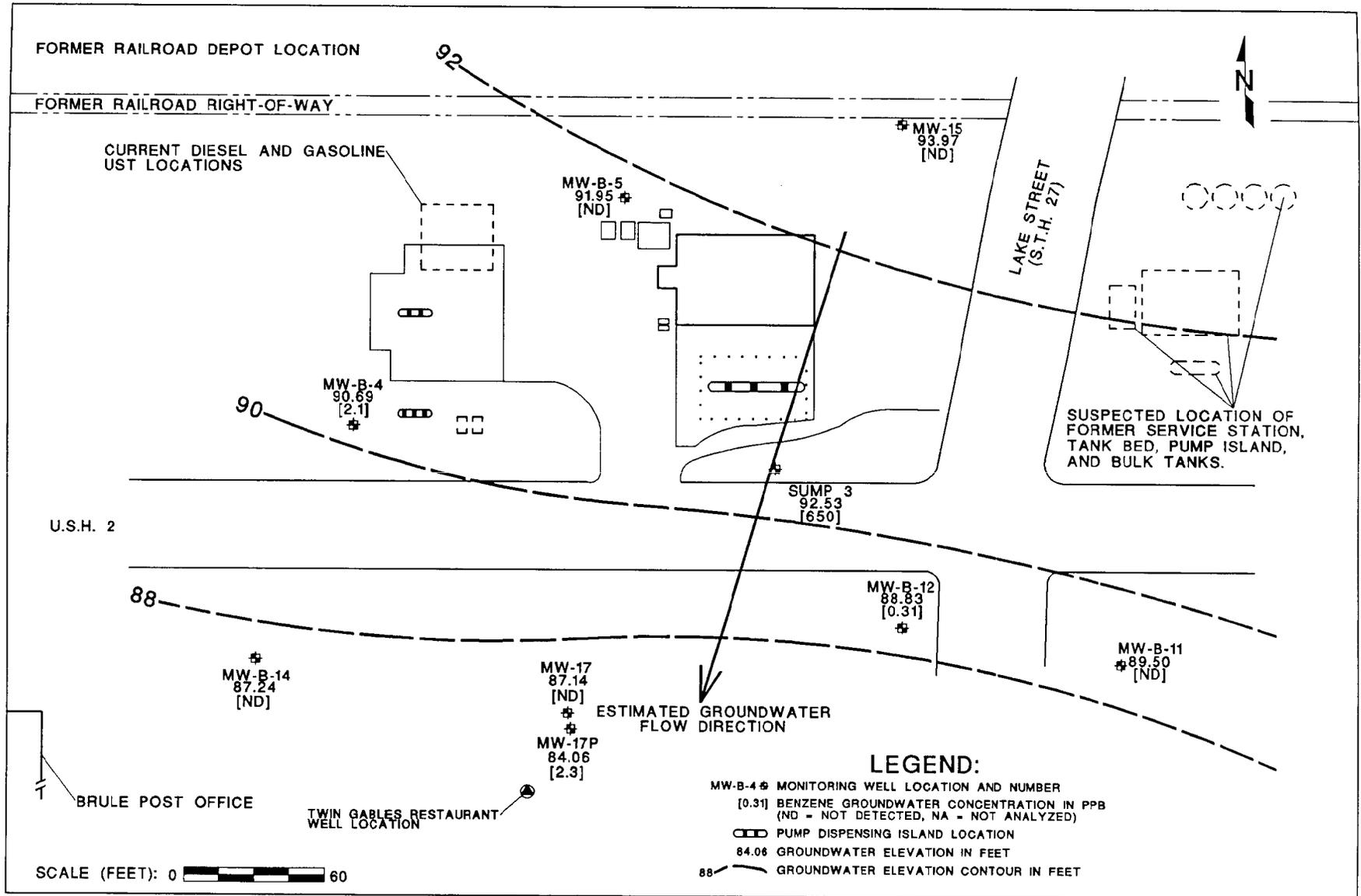
FIGURE 2-2 SITE FEATURES  
 BAILLIES OIL SITE  
 BRULE, WISCONSIN

**A D V E N T**

ENVIRONMENTAL SERVICES, INC.

DATE: 1/7/94

DRAWING # 97064A



**FIGURE 4 GROUNDWATER DATA (6/99)**  
**BAILLIES OIL SITE**  
**BRULE, WISCONSIN**

**A D V E N T**  
 ENVIRONMENTAL SERVICES, INC.  
 DATE: 7/21/99  
 DRAWING #97064.03M

**TABLE 1 (page 1 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
EARLIE OIL UNION 76 SITE, BRULE, WISCONSIN**

Date	Sample														NR 140 Remedial Action Limits	
	MW-3/Sump-3															
Relative Elevation (ft)	Nov-93	Sep-94	Mar-95	Nov-95	Jul-96	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99	ES	PAL
<b>ANALYTE</b>																
GROs (ppm)	25	77	24	22	21	28	10	12	32	6.6	9.2	19	23	1.9		
DROs (ppm)	6.9	6.6	30	36	23	18	0.59	1.9	1.3	0.4	1.1	1.3	3.7	0.32		
Lead (ppb)	ND	ND														
Iron (ppm)						18									15	1.5
Sulfate (ppm)						14								20		
Nitrate/Nitrite (ppm)						ND								57		
Temperature (C)						8.0								0.25		
Dissolved Oxygen (ppb)						0								9.6		
VOCs/PVOCs (ppb) <sup>1</sup>														0.38		
Benzene	<b>13,000</b>	<b>8,000</b>	<b>8,900</b>	<b>8,700</b>	<b>9,000</b>	<b>9,400</b>	<b>2,900</b>	<b>4,700</b>	<b>9,000</b>	<b>1,900</b>	<b>2,200</b>	<b>4,300</b>	<b>4,400</b>	<b>650</b>	5	0.5
Ethylbenzene	<b>1,700</b>	<b>1,600</b>	<b>1,700</b>	<b>1,200</b>	<b>1,200</b>	<b>1,800</b>	<b>370</b>	<b>710</b>	<b>880</b>	<b>230</b>	<b>370</b>	<b>770</b>	<b>860</b>	<b>110</b>	700	140
MTBE	ND	<b>440</b>	ND	ND	ND	ND	22	ND	ND	29	3	110	<11	ND	60	12
Naphthalene	ND				<b>2,800</b>										40	8
Toluene	<b>1,200</b>	<b>450</b>	<b>630</b>	<b>2,200</b>	<b>2,600</b>	<b>590</b>	<b>2,400</b>	<b>1,400</b>	<b>7,500</b>	<b>1,000</b>	<b>1,400</b>	<b>4,900</b>	<b>5,900</b>	<b>11</b>	343	68.6
1,2,4 & 1,3,5-TMB	<b>1,100</b>	<b>4,700</b>	<b>2,290</b>	<b>1,380</b>	<b>1,120</b>	<b>2,270</b>	<b>363</b>	<b>810</b>	<b>1,670</b>	<b>350</b>	<b>363</b>	<b>890</b>	<b>860</b>	<b>135</b>	480	96
Total Xylenes	<b>6,200</b>	<b>6,500</b>	<b>5,600</b>	<b>3,660</b>	<b>4,600</b>	<b>1,960</b>	<b>1,900</b>	<b>2,100</b>	<b>5,700</b>	<b>1,300</b>	<b>1,360</b>	<b>4,000</b>	<b>4,300</b>	<b>198</b>	620	124

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

-- = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

**TABLE 1 (page 2 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
BALLIE OIL UNION 76 SITE, BRULE, WISCONSIN**

Date	Sample													NR 140 Remedial Action Limits	
	MW-3/Sump-3 (DUP)														
	Nov-93	Mar-95	Nov-95	Jul-96	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99		
Relative Elevation (ft)	91.16	88.97	91.16	94.50	91.96	—	—	—	—	—	—	—	92.53		
<b>ANALYTE</b>															
GROs (ppm)	25	—	—	32	30	2.9	11	28	5.7	10	21	24	1.2	ES	PAL
VOCs/PVOCs (ppb) <sup>†</sup>															
Benzene	<b>11,000</b>	<b>6,900</b>	<b>8,500</b>	<b>9,300</b>	<b>9,100</b>	1,000	<b>5,000</b>	<b>3,100</b>	<b>1,700</b>	<b>2,600</b>	<b>4,100</b>	<b>4,900</b>	<b>420</b>	5	0.5
Ethylbenzene	ND	<b>1,300</b>	<b>1,300</b>	<b>1,300</b>	<b>2,100</b>	100	<b>680</b>	<b>930</b>	<b>210</b>	<b>420</b>	<b>800</b>	<b>960</b>	73	700	140
MTBE	ND	ND	ND	ND	<b>54</b>	ND	ND	ND	ND	<b>22</b>	<b>75</b>	<11	ND	60	12
Toluene	<b>1,000</b>	<b>420</b>	<b>230</b>	<b>2,800</b>	<b>700</b>	<b>650</b>	<b>1,400</b>	<b>4,000</b>	<b>910</b>	<b>1,900</b>	<b>4,900</b>	<b>6,600</b>	11	343	68.6
1,2,4 & 1,3,5-TMB	<b>1,500</b>	<b>2,250</b>	<b>1,630</b>	<b>1,710</b>	<b>2,700</b>	130	<b>750</b>	<b>1,360</b>	<b>314</b>	<b>500</b>	<b>980</b>	<b>920</b>	93	480	96
Total Xylenes	<b>5,700</b>	<b>4,800</b>	<b>4,000</b>	<b>5,200</b>	<b>7,000</b>	<b>670</b>	<b>2,000</b>	<b>5,800</b>	<b>1,200</b>	<b>1,800</b>	<b>4,000</b>	<b>4,800</b>	<b>152</b>	620	124

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>†</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

**TABLE 1 (page 3 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
BALLIE OIL UNION 76 SITE, BRULE, WISCONSIN**

Date	Sample														NR 140 Remedial Action Limits	
	MW-4															
	Nov-93	Sep-94	Mar-95	Nov-95	Jul-96	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99		
Relative Elevation (ft)	92.36	92.41	89.25	92.05	94.25	94.25	93.05	91.68	89.90	91.62	91.20	90.35	89.46	90.69		
<b>ANALYTE</b>																
GROs (ppm)	0.82	0.51	0.84	0.33	<0.05	0.24	0.31	1.2	0.55	ND	0.91	0.28	0.68	0.068	ES	PAL
DROs (ppm)	3.1	1.1	4.0	2.2	<0.1	1.2	1.2	2.0	1.1	1.1	<0.1	0.74	5.2	0.56	—	—
Lead (ppb)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	1.5
Iron (ppm)	—	—	—	—	—	1.9	11.0	—	—	—	—	—	—	—	—	—
Sulfate (ppm)	—	—	—	—	—	20	42	—	—	—	—	—	—	13	—	—
Nitrate/Nitrite (ppm)	—	—	—	—	—	ND	1.4	—	—	—	—	—	—	0.021	—	—
Temperature (C)	—	—	—	—	—	7.0	8.2	—	—	—	—	—	—	7.9	—	—
Dissolved Oxygen (ppb)	—	—	—	—	—	0	0	—	—	—	—	—	—	4.90	—	—
VOCs/PVOCs (ppb) <sup>1</sup>																
Benzene	<b>330</b>	<b>37</b>	<b>280</b>	<b>14</b>	ND	1.2	<b>37</b>	<b>280</b>	<b>110</b>	0.68	<b>280</b>	<b>42</b>	<b>160</b>	2.1	5	0.5
n-Butylbenzene	9.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1,2 Dichloroethane	<b>0.79</b>	—	—	—	—	—	—	—	—	—	—	—	—	—	5	0.5
Ethylbenzene	50	6.9	41	3.2	ND	0.58	5.3	110	47	0.68	37	9.4	60	0.57	700	140
MTBE	ND	ND	ND	ND	ND	ND	ND	<b>13</b>	ND	ND	ND	3.2	0.26	ND	60	12
Naphthalene	<b>19</b>	—	—	—	—	—	—	—	—	—	—	—	—	—	40	8
n-Propylbenzene	9.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Toluene	1.8	ND	ND	ND	ND	ND	21	1.5	ND	ND	<b>170</b>	40	1.2	ND	343	68.6
1,2,4 & 1,3,5 -TMB	61	12.1	6.3	3.1	ND	7.5	6.7	74	22	4	26	11	35	1.1	480	96
Total Xylenes	58	3.7	9.3	ND	ND	0.7	24	62	14	ND	<b>130</b>	34	23.2	0.59	620	124

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

TABLE 1 (page 4 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
BALLIE OIL UNION 76 SITE, BRULEE, WISCONSIN

Date	Sample														NR 140 Remedial Action Limits			
	MW-5																	
	Nov-93	Sep-94	Mar-95	Nov-95	Jul-96	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99				
Relative Elevation (ft)	92.82	94.46	90.36	92.43	95.38	94.33	93.92	92.20	90.92	92.78	91.68	90.83	90.27	91.95				
ANALYTE															ES	PAL		
GROs (ppm)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—
DROs (ppm)	ND	ND	0.2	0.12	ND	ND	ND	0.14	0.13	ND	0.10	—	—	ND	—	—	—	—
Lead (ppb)	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15	1.5
Iron (ppm)	—	—	—	—	—	ND	0.072	—	—	—	—	—	—	ND	—	—	—	—
Sulfate (ppm)	—	—	—	—	—	18	21	—	—	—	—	—	—	45	—	—	—	—
Nitrate/Nitrite (ppm)	—	—	—	—	—	1.3	ND	—	—	—	—	—	—	4.3	—	—	—	—
Temperature (C)	—	—	—	—	—	4.0	8.6	—	—	—	—	—	—	6.3	—	—	—	—
Dissolved Oxygen (ppb)	—	—	—	—	—	0	0	—	—	—	—	—	—	10.67	—	—	—	—
VOCs/PVOCs (ppb) <sup>1</sup>																		
Benzene	<b>0.53</b>	<b>0.69</b>	<b>0.87</b>	ND	ND	ND	ND	ND	ND	0.60	ND	—	—	ND	—	—	5	0.5
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	—	—	700	140
MTBE	ND	ND	ND	ND	ND	ND	ND	<b>27</b>	ND	ND	ND	—	—	ND	—	—	60	12
Toluene	ND	ND	0.85	ND	ND	ND	ND	ND	ND	0.68	ND	—	—	ND	—	—	343	68.6
1,2,4 & 1,3,5 -TMB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	—	—	480	96
Total Xylenes	1.1	0.81	1.4	ND	ND	ND	ND	ND	ND	0.70	ND	—	—	ND	—	—	620	124
1,4-Dichlorobenzene	0.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75	15

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

**TABLE 1 (page 5 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**BARLIE OIL UNION 78 SITE, BRULE WISCONSIN**

Date	Sample														NR 140 Remedial Action Limits	
	MW-11															
Relative Elevation (ft)	Mar-94	Sep-94	Mar-95	Nov-95	Jul-96	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99	ES	PAL
<b>ANALYTE</b>																
GROs (ppm)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	—	—
DROs (ppm)	0.15	ND	0.31	0.11	<0.1	ND	ND	ND	0.11	ND	<0.1	—	—	0.30	—	—
Lead (ppb)	ND	ND	—	—	—	—	—	—	—	—	—	—	—	—	15	1.5
Iron (ppm)	—	—	—	—	—	ND	0.31	—	—	—	—	—	—	—	—	—
Sulfate (ppm)	—	—	—	—	—	18	42	—	—	—	—	—	—	0.085	—	—
Nitrate/Nitrite (ppm)	—	—	—	—	—	ND	0.31	—	—	—	—	—	—	25	—	—
Temperature (C)	—	—	—	—	—	7.4	7.6	—	—	—	—	—	—	0.025	—	—
Dissolved Oxygen (ppb)	—	—	—	—	—	0	0	—	—	—	—	—	—	7.1	—	—
VOCs/PVOCs (ppb) <sup>1</sup>														1.12	—	—
Benzene	ND	ND	ND	ND	ND	<b>1.5</b>	<b>1.4</b>	<b>2.4</b>	ND	ND	ND	—	—	ND	5	0.5
1,2 Dichloroethane	<b>1.6</b>	—	—	—	—	—	—	—	—	—	—	—	—	—	5	0.5
Ethylbenzene	ND	ND	ND	ND	ND	1.1	0.82	ND	ND	ND	ND	—	—	ND	700	140
MTBE	ND	ND	ND	ND	ND	ND	1.2	<b>16</b>	ND	ND	ND	—	—	ND	60	12
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	0.56	ND	ND	—	—	ND	343	68.6
1,2,4 & 1,3,5 -TMB	ND	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	—	—	ND	480	96
Total Xylenes	ND	ND	ND	ND	ND	0.89	2.1	ND	ND	0.86	ND	—	—	ND	620	124

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

TABLE 1 (page 6 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
BAR LIE OIL UNION 70 SITE, BRULE, WISCONSIN

Date	Sample														NR 140 Remedial Action Limits	
	MW-12															
	Mar-94	Sep-94	Mar-95	Nov-95	Jul-96	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99		
Relative Elevation (ft)	87.38	89.02	87.27	89.39	90.92	91.27	89.95	88.74	87.92	89.67	88.47	87.82	87.45	88.83		
ANALYTE																
GROs (ppm)	0.35	1	0.73	0.12	<0.05	<0.05	ND	0.21	0.47	ND	0.18	0.31	0.26	0.069	ES	PAL
DROs (ppm)	0.21	0.15	0.35	0.17	<0.1	<0.1	ND	0.26	0.25	ND	0.16	0.11	0.53	ND	---	---
Lead (ppb)	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Iron (ppm)	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	15	1.5
Sulfate (ppm)	---	---	---	---	---	22	10	---	---	---	---	---	---	ND	---	---
Nitrate/Nitrite (ppm)	---	---	---	---	---	0.48	0.18	---	---	---	---	---	---	33	---	---
Temperature (C)	---	---	---	---	---	6.1	8.3	---	---	---	---	---	---	0.19	---	---
Dissolved Oxygen (ppb)	---	---	---	---	---	0	0	---	---	---	---	---	---	7.9	---	---
VOCs/PVOCs (ppb) <sup>1</sup>														4.58	---	---
Benzene	2.3	4.2	4.1	ND	ND	ND	ND	2.1	1.5	ND	0.77	2.7	1.4	0.31	---	---
n-Butylbenzene	8.1	---	---	---	---	---	---	---	---	---	---	---	---	---	5	0.5
Ethylbenzene	1.2	2.3	ND	ND	ND	ND	ND	1.2	ND	ND	1.0	0.6	<0.24	ND	---	---
MTBE	ND	ND	ND	ND	ND	ND	1.1	35	4.4	ND	5.8	3.3	0.89	ND	700	140
n-Propylbenzene	0.52	---	---	---	---	---	---	---	---	---	---	---	---	---	60	12
Toluene	0.9	1.8	ND	0.81	ND	ND	---	---								
1,2,4 & 1,3,5 -TMB	1.3	1.5	ND	0.81	ND	ND	343	68.6								
Total Xylenes	1.5	ND	ND	ND	ND	ND	0.54	ND	ND	ND	1.9	1.8	ND	ND	480	96
Isopropyl Benzene	1.5	---	---	---	---	---	---	---	---	---	0.66	0.55	1.3	ND	620	124

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

--- = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

TABLE 1 (page 7 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
BARRIE OIL UNION 78 SITE, BRULE, WISCONSIN

Date	Sample MW-14													NR 140 Remedial Action Limits	
	Mar-94	Sep-94	Mar-95	Nov-95	Jul-96	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99		
Relative Elevation (ft)	84.14	87.33	85.51	87.64	89.07	88.59	87.26	—	87.79	87.07	86.27	85.84	87.24		
ANALYTE														ES	PAL
GROs (ppm)	0.14	ND	ND	ND	ND	ND	ND	—	ND	ND	ND	ND	ND	—	—
DROs (ppm)	ND	ND	0.12	<0.1	2	ND	ND	—	ND	ND	ND	ND	ND	—	—
Lead (ppb)	ND	ND	—	—	—	—	—	—	—	—	—	—	—	15	1.5
Iron (ppm)	—	—	—	—	—	ND	—	—	—	—	—	—	—	—	—
Sulfate (ppm)	—	—	—	—	—	28	—	—	—	—	—	—	—	—	—
Nitrate/Nitrite (ppm)	—	—	—	—	—	ND	—	—	—	—	—	—	—	11	—
Temperature (C)	—	—	—	—	—	8.1	—	—	—	—	—	—	—	0.078	—
Dissolved Oxygen (ppb)	—	—	—	—	—	0.4	—	—	—	—	—	—	—	—	8.5
VOCs/PVOCs (ppb) <sup>1</sup>														—	—
Benzene	ND	ND	ND	ND	<b>5.1</b>	ND	ND	—	<b>1.8</b>	ND	<b>0.69</b>	ND	ND	5	0.5
n-Butylbenzene	4.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ethylbenzene	2.6	ND	ND	ND	1.7	ND	ND	—	ND	ND	1.2	ND	ND	700	140
MTBE	ND	ND	ND	ND	ND	ND	<b>44</b>	—	0.88	ND	ND	ND	ND	60	12
Naphthalene	3.5	—	—	—	—	—	—	—	—	—	—	—	—	40	8
n-Propylbenzene	1.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Toluene	4.0	ND	ND	ND	ND	ND	ND	—	1.6	ND	0.31	ND	ND	343	68.6
1,2,4 & 1,3,5 -TMB	18.9	ND	ND	ND	<b>8.3</b>	ND	ND	—	ND	1.5	1.3	ND	ND	480	96
Total Xylenes	16	1.4	ND	ND	ND	ND	ND	—	1.1	ND	0.78	ND	ND	620	124

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

TABLE 1 (page 6 of 11)  
 ANALYTICAL RESULTS - GROUNDWATER  
 BALLEE OIL UNION 76 SITE, BRULE, WISCONSIN

Date	Samples													NR 140 Remedial Action Limits			
	MW-15											MW-16					
Relative Elevation (ft)	Sep-94	Mar-95	Nov-95	Jul-96	Apr-97	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99	Sep-94	Mar-95	ES	PAL
<b>ANALYTE</b>																	
GROs (ppm)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	ND	ND	—	—
DROs (ppm)	ND	0.32	<0.1	<0.1	<0.1	ND	ND	0.22	ND	ND	—	—	ND	ND	ND	—	—
Lead (ppb)	ND	—	—	—	—	—	—	—	—	—	—	—	ND	ND	0.26	—	—
Iron (ppm)	—	—	—	—	ND	ND	—	—	—	—	—	—	—	ND	—	15	1.5
Sulfate (ppm)	—	—	—	—	16	18	—	—	—	—	—	—	ND	—	—	—	—
Nitrate/Nitrite (ppm)	—	—	—	—	0.13	ND	—	—	—	—	—	—	28	—	—	—	—
Temperature (C)	—	—	—	—	7.4	8.5	—	—	—	—	—	—	0.22	—	—	—	—
Dissolved Oxygen (ppb)	—	—	—	—	0	0	—	—	—	—	—	—	7.1	—	—	—	—
VOCs/PVOCs (ppb) <sup>1</sup>	—	—	—	—	—	—	—	—	—	—	—	—	0.78	—	—	—	—
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	ND	ND	5	0.5
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	ND	ND	700	140
MTBE	ND	ND	ND	ND	ND	4.4	24	ND	7.6	ND	—	—	ND	ND	ND	60	12
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	ND	ND	343	68.6
1,2,4 & 1,3,5 -TMB	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	ND	ND	480	96
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	—	—	ND	ND	ND	620	124

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

**TABLE 1 (page 9 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
BARLIE OIL UNION 76 SITE, BRULE, WISCONSIN**

Date	Sample												NR 140 Remedial Action Limits	
	MW-17													
	Sep-94	Mar-95	Nov-95	Jul-96	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99		
Relative Elevation (ft)	85.48	85.46	86.78	87.97	87.98	87.42	—	87.35	85.86	86.84	86.68	87.14		
<b>ANALYTE</b>													<b>ES</b>	<b>PAL</b>
GROs (ppm)	ND	ND	ND	ND	ND	ND	—	ND	ND	—	—	ND	—	—
DROs (ppm)	0.14	0.11	<0.1	<0.1	ND	0.13	—	ND	ND	—	—	ND	—	—
Lead (ppb)	ND	—	—	—	—	—	—	—	—	—	—	—	15	1.5
Iron (ppm)	—	—	—	—	ND	—	—	—	—	—	—	ND	—	—
Sulfate (ppm)	—	—	—	—	12	—	—	—	—	—	—	5.3	—	—
Nitrate/Nitrite (ppm)	—	—	—	—	ND	—	—	—	—	—	—	ND	—	—
Temperature (C)	—	—	—	—	8.7	—	—	—	—	—	—	7.7	—	—
Dissolved Oxygen (ppb)	—	—	—	—	1.0	—	—	—	—	—	—	0.24	—	—
VOCs/PVOCs (ppb) <sup>1</sup>														
Benzene	ND	ND	ND	ND	ND	ND	—	ND	ND	—	—	ND	5	0.5
Ethylbenzene	ND	ND	ND	ND	ND	ND	—	ND	ND	—	—	ND	700	140
MTBE	ND	ND	ND	ND	ND	ND	—	9.2	ND	—	—	ND	60	12
Toluene	ND	ND	ND	ND	ND	ND	—	ND	ND	—	—	ND	343	68.6
1,2,4 & 1,3,5-TMB	ND	ND	ND	ND	ND	ND	—	ND	ND	—	—	ND	480	96
Total Xylenes	ND	ND	ND	ND	ND	ND	—	ND	ND	—	—	ND	620	124

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

TABLE 1 (page 10 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
BARLIE OIL UNION 76 SITE, BRULE, WISCONSIN

	Sample MW-17P												NR 140 Remedial Action Limits	
	Sep-94	Mar-95	Nov-95	Jul-96	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99		
Date	Sep-94	Mar-95	Nov-95	Jul-96	Jul-97	Oct-97	Jan-98	Apr-98	Jul-98	Oct-98	Jan-99	Jun-99		
Relative Elevation (ft)	84.04	83.95	83.98	84.63	84.57	84.33	—	84.44	83.99	83.93	83.91	84.06		
ANALYTE													ES	PAL
GROs (ppm)	ND	ND	ND	0.095	0.094	0.065	—	0.13	0.058	<0.05	<0.05	ND	—	—
DROs (ppm)	ND	ND	ND	ND	ND	0.22	—	ND	0.11	<0.1	<0.1	ND	—	—
Lead (ppb)	ND	—	—	—	—	—	—	—	—	—	—	—	15	1.5
Iron (ppm)	—	—	—	—	0.67	—	—	—	—	—	—	0.39	—	—
Sulfate (ppm)	—	—	—	—	12	—	—	—	—	—	—	9.6	—	—
Nitrate/Nitrite (ppm)	—	—	—	—	0.31	—	—	—	—	—	—	0.72	—	—
Temperature (C)	—	—	—	—	8.3	—	—	—	—	—	—	9.0	—	—
Dissolved Oxygen (ppb)	—	—	—	—	0.4	—	—	—	—	—	—	1.41	—	—
VOCs/PVOCs (ppb) <sup>1</sup>														
Benzene	ND	<b>4.4</b>	<b>15</b>	<b>20</b>	<b>57</b>	<b>61</b>	—	<b>45</b>	<b>21</b>	<b>11</b>	<b>4.4</b>	<b>2.3</b>	5	0.5
n-Butylbenzene	2.2	—	—	—	—	—	—	—	—	—	—	—	—	—
Ethylbenzene	ND	ND	ND	1.5	1.2	1.7	—	2.8	1.2	0.94	0.34	ND	700	140
MTBE	ND	ND	ND	ND	ND	30	—	5.2	3.1	1.2	0.26	ND	60	12
Naphthalene	<b>8.8</b>	—	—	—	—	—	—	—	—	—	—	—	40	8
Toluene	ND	ND	ND	ND	ND	0.67	—	1.0	ND	1.0	ND	ND	343	68.6
1,2,4 & 1,3,5-TMB	ND	ND	ND	ND	1.2	1.4	—	2.0	2.9	1.0	ND	ND	480	96
Total Xylenes	ND	ND	ND	ND	0.52	0.81	—	1.9	ND	1.3	ND	ND	620	124
1,4-Dichlorobenzene	0.64	—	—	—	—	—	—	—	—	—	—	—	75	15

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

TABLE 1 (page 11 of 11)  
ANALYTICAL RESULTS - GROUNDWATER  
BAILLIE OIL UNION 76 SITE, BRULE, WISCONSIN

Well Type	Samples													NR 140 Remedial Action Limits	
	VE-1		VE-2		BAILLIE WELL		P.O. WELL	TWIN GABLES WELL		BLANKS					
	Venting		Venting		Potable		Potable	Potable		—					
Date	Jul-96	Apr-97	Jul-96	Apr-97	Sep-94	Apr-97	Sep-94	Sep-94	Apr-97	9-94 - 7-98	Oct-98	Jan-99	Jun-99	ES	PAL
Relative Elevation (ft)	—	92.24	—	93.30	—	—	—	—	—	—	—	—	—	—	—
ANALYTE														ES	PAL
GROs (ppm)	—	17	—	23	—	—	—	—	—	—	ND	ND	ND	—	—
DROs (ppm)	—	3.4	8.4	5.6	—	—	—	—	—	—	—	—	—	—	—
Lead (ppb)	—	—	—	—	—	—	—	—	—	—	—	—	—	15	1.5
Iron (ppm)	—	11	—	79	—	—	—	—	—	—	—	—	—	—	—
Sulfate (ppm)	—	11	—	40	—	—	—	—	—	—	—	—	—	—	—
Nitrate/Nitrite (ppm)	—	ND	—	ND	—	—	—	—	—	—	—	—	—	—	—
Temperature (C)	—	7.1	—	7.0	—	—	—	—	—	—	—	—	—	—	—
Dissolved Oxygen (ppb)	—	0	—	0	—	—	—	—	—	—	—	—	—	—	—
VOCs/PVOCs (ppb) <sup>1</sup>														—	—
Benzene	<b>3,800</b>	<b>2,800</b>	<b>480</b>	<b>960</b>	ND	ND	ND	ND	ND	ND	<b>0.81</b>	<0.26	ND	5	0.5
n-Butylbenzene	330	—	170	—	ND	ND	ND	ND	ND	ND	—	—	—	—	—
1,2 Dichloroethane	<b>120</b>	—	ND	—	ND	ND	ND	ND	ND	ND	—	—	—	5	0.5
Ethylbenzene	<b>1,700</b>	<b>1,100</b>	<b>520</b>	<b>470</b>	ND	ND	ND	ND	ND	ND	0.66	<0.24	ND	700	140
MTBE	ND	<b>180</b>	ND	<b>150</b>	ND	ND	ND	ND	ND	ND	ND	ND	ND	60	12
Naphthalene	ND	—	<b>190</b>	—	ND	ND	ND	ND	ND	ND	—	—	—	40	8
n-Propylbenzene	240	—	120	—	ND	ND	ND	ND	ND	ND	—	—	—	—	—
Toluene	<b>5,200</b>	<b>740</b>	<b>130</b>	<b>130</b>	ND	ND	ND	ND	ND	ND	3.0	<0.22	0.27	343	68.6
1,2,4 & 1,3,5 -TMB	<b>2,700</b>	<b>1,580</b>	<b>1,330</b>	<b>1,380</b>	ND	ND	ND	ND	ND	ND	ND	0.21	ND	480	96
Total Xylenes	<b>8,500</b>	<b>5,200</b>	<b>2,600</b>	<b>1,900</b>	ND	ND	ND	ND	ND	ND	3.1	ND	ND	620	124
Isopropyl Benzene	100	—	30	—	ND	ND	ND	ND	ND	ND	—	—	—	—	—

ND = not detected

TMB = trimethylbenzene

MTBE = methyl-tert-butyl ether

— = not analyzed or no standard

Shaded areas indicate concentration above the ES outlined in NR 140.10.

Bold numbers indicate concentration above the PAL outlined in NR 140.10.

<sup>1</sup> Only VOCs/PVOCs detected are listed. For a complete list of the compounds analyzed and laboratory detection limits, see Appendix A.

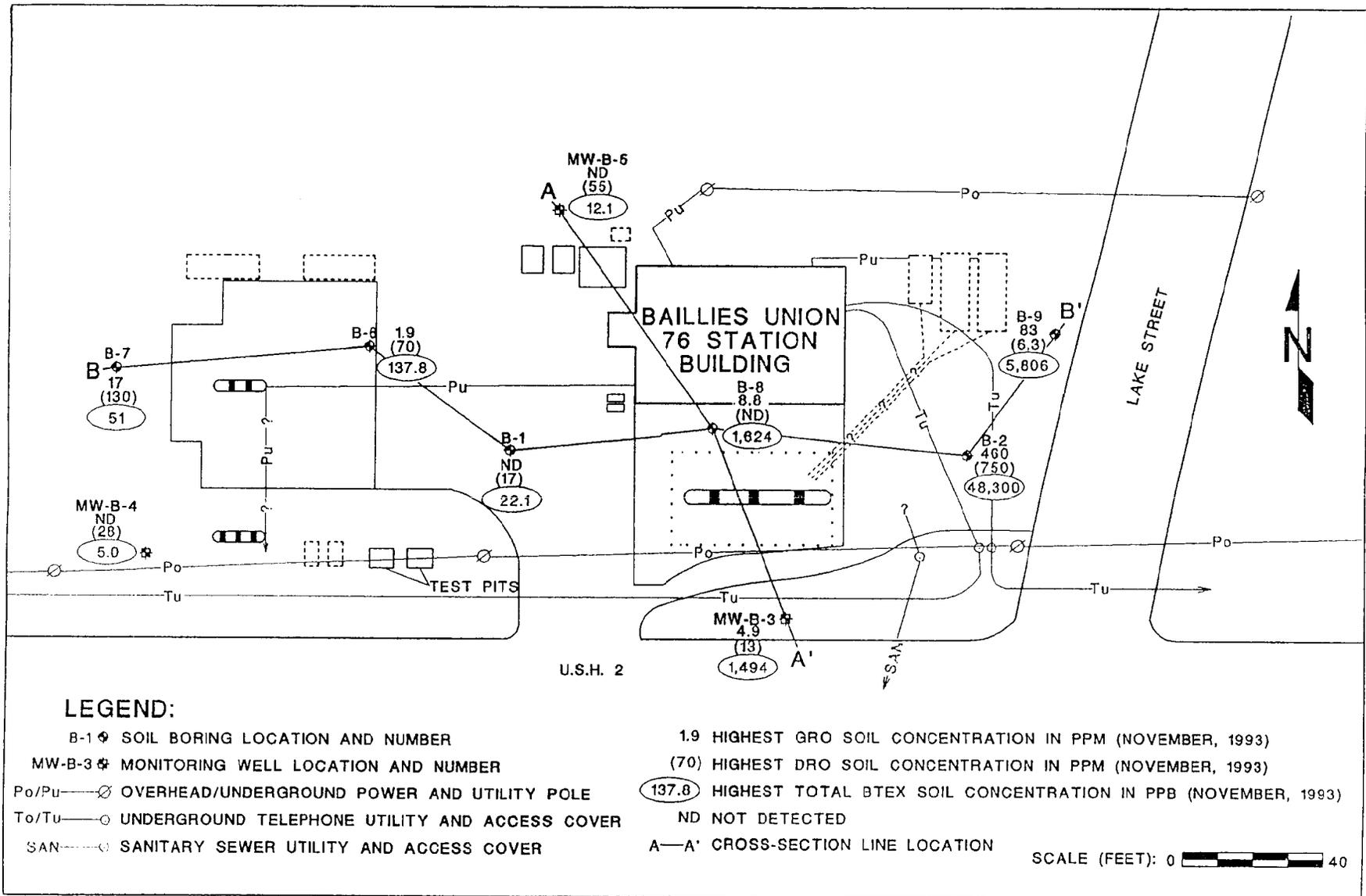


FIGURE 2-4 SOIL CONTAMINANT CONCENTRATIONS  
 BAILLIES OIL SITE  
 BRULE, WISCONSIN

**A D V E N T**  
 ENVIRONMENTAL SERVICES, INC.  
 DATE: 1/7/94  
 DRAWING # 97064E

*pre-remediation soil borings - 1993*

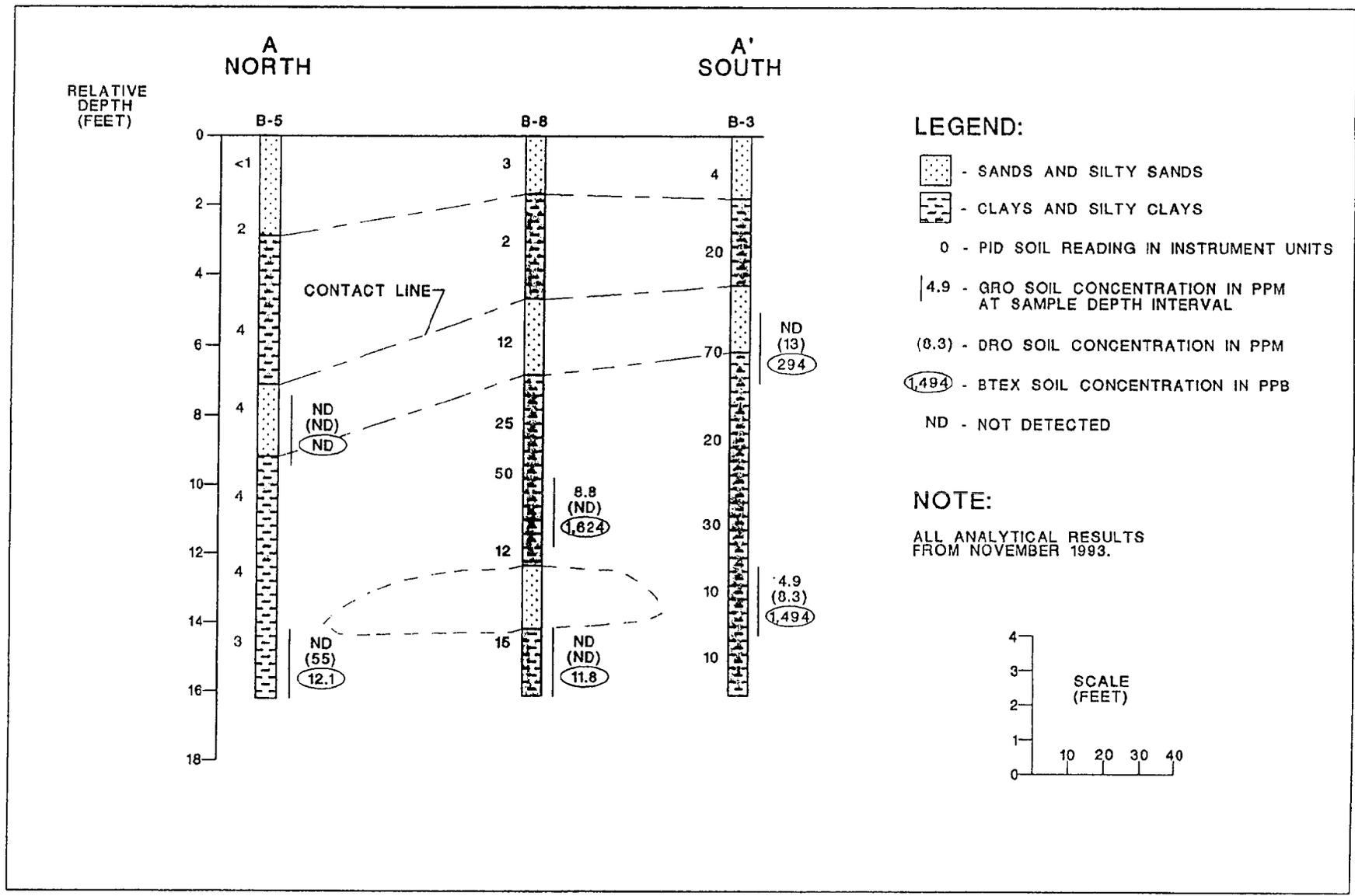


FIGURE 2-5 NORTH TO SOUTH CROSS-SECTION A-A'  
BAILLIES OIL SITE  
BRULE, WISCONSIN

Pre-remediation

**A D V E N T**  
ENVIRONMENTAL SERVICES, INC.  
DATE: 1/7/94  
DRAWING # 97064B

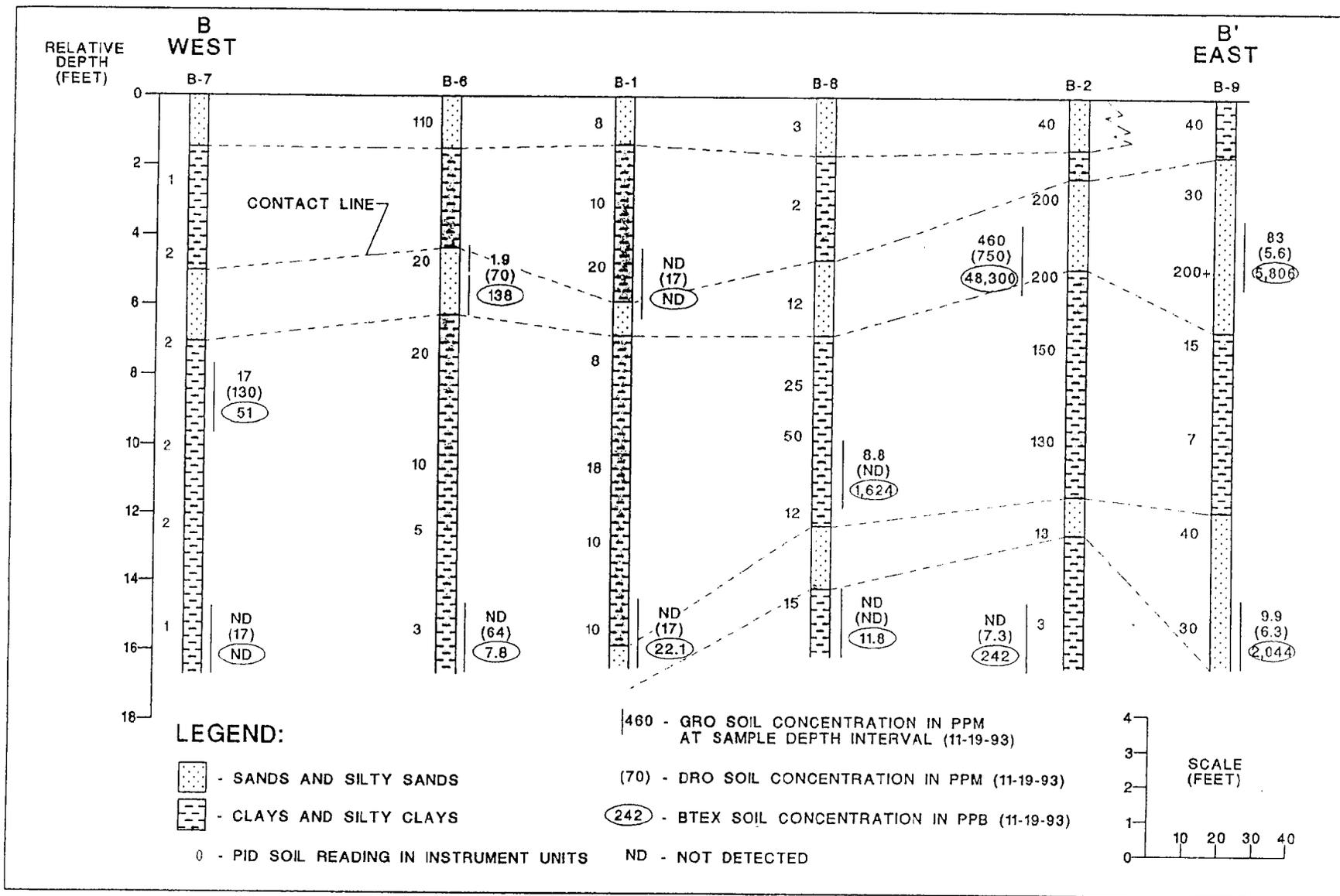


FIGURE 2-6 WEST TO EAST CROSS-SECTION B-B'  
 BAILLIES OIL SITE  
 BRULE, WISCONSIN

*Pre-remediation*

**A D V E N T**

ENVIRONMENTAL SERVICES, INC.  
 DATE: 1/7/94  
 DRAWING # 97064C