GIS REGISTRY INFORMATION

SITE NAME: Grantsburg Amoco

BRRTS #: 03-07-186720 **FID # (if appropriate):**

COMMERCE # (if appropriate): 54840-0188-08

CLOSURE DATE: 9/29/04

STREET ADDRESS: 108 W. Hwy 70

CITY: Grantsburg

SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection): X= 311449 Y= 592340

CONTAMINATED MEDIA: Groundwater ☐ Soil ☐ Both ☒

OFF-SOURCE GW CONTAMINATION >ES: ☐ Yes ☐ No

IF YES, STREET ADDRESS 1: Hwy 70 ROW only.

GPS COORDINATES (meters in WTM91 projection): X= Y=

OFF-SOURCE SOIL CONTAMINATION >Generic or Site-Specific RCL (SSRCL): ☐ Yes ☒ No

IF YES, STREET ADDRESS 1:

GPS COORDINATES (meters in WTM91 projection): X= Y=

CONTAMINATION IN RIGHT OF WAY: ☒ Yes ☐ No

DOCUMENTS NEEDED:

Closure Letter, and any conditional closure letter issued ☒

Copy of most recent deed, including legal description, for all affected properties ☒

Certified survey map or relevant portion of the recorded plat map ***(if referenced in the legal description)*** **for all affected properties** ☒

County Parcel ID number, ***if used for county,*** **for all affected properties** 131-2600-62900 ☒

Location Map which outlines all properties within contaminated site boundaries on USGS topographic map or plat map in sufficient detail to permit the parcels to be located easily (8.5x14" if paper copy). If groundwater standards are exceeded, the map must also include the location of all municipal and potable wells within 1200' of the site. ☒

Detailed Site Map(s) for all affected properties, showing buildings, roads, property boundaries, contaminant sources, utility lines, monitoring wells and potable wells. (8.5x14", if paper copy) This map shall also show the location of all contaminated public streets, highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination exceeding ch. NR 140 ESs and soil contamination exceeding ch. NR 720 generic or SSRCLs. ☒

Tables of Latest Groundwater Analytical Results (no shading or cross-hatching) ☒

Tables of Latest Soil Analytical Results (no shading or cross-hatching) ☒

Isoconcentration map(s), ***if required for site investigation (SI)*** (8.5x14" if paper copy). The isoconcentration map should have flow direction and extent of groundwater contamination defined. If not available, include the latest extent of contaminant plume map. ☒

GW: Table of water level elevations, with sampling dates, and free product noted if present ☒

GW: Latest groundwater flow direction/monitoring well location map (should be 2 maps if maximum variation in flow direction is greater than 20 degrees) ☒

SOIL: Latest horizontal extent of contamination exceeding generic or SSRCLs, with one contour ☒

Geologic cross-sections, ***if required for SI.*** (8.5x14' if paper copy) ☒

RP certified statement that legal descriptions are complete and accurate ☒

Copies of off-source notification letters (if applicable) N/A ☒

Letter informing ROW owner of residual contamination (if applicable)(public, highway or railroad ROW) ☒

Copy of (soil or land use) deed restriction(s) or deed notice ***if any required as a condition of closure*** N/A ☒

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

WISCONSIN
DEPT. OF NATURAL RESOURCES

Jim Doyle, Governor
Scott Hassett, Secretary
John Gozdzialski, Regional Director

Northern Region Headquarters
107 Sutliff Ave.
Rhinelander, Wisconsin 54501-3349
Telephone 715-365-8900
FAX 715-365-8932
TTY Access via relay - 711

October 1, 2004

Mille Lacs Oil Co
102 Main St N
Cambridge MN 55008

SUBJECT: Final Case Closure By Closure Committee
Grantsburg Amoco, 108 W Hwy 70, Grantsburg, WI
WDNR BRRTS #:03-07-186720
PECFA # 54840-0188-08

To Whom It May Concern:

On July 1, 2004, your site as described above was reviewed for closure by the Northern 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 July 6, 2004, you were notified that the Closure Committee had granted conditional closure to this case.

On September 29, 2004, the Department received correspondence indicating that you have complied with the conditions of closure, specifically, abandonment of the monitoring wells. Based on the correspondence and data provided, it appears that your case 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 If your property is listed on the GIS Registry due to groundwater contamination exceeding ch. NR 140 standards at the time of closure, and you intend to construct or reconstruct a well, you will need Department approval. Department approval is required before construction or reconstruction of a well on a property listed on the GIS Registry, in accordance with s. NR 812.09(4)(w). To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at the web address listed above.

If there is equipment purchased with PECFA funds remaining at the site, contact the Commerce PECFA Program to determine the method for salvaging the equipment.

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.

Sincerely,
NORTHERN REGION

Janet Kazda

Janet Kazda
Remediation & Redevelopment Program

cc: File

Jolene Grearson
Environmental Compliance Consultants, Inc
PO Box 614
Rhinelander, WI 54501

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

WISCONSIN
DEPT. OF NATURAL RESOURCES

Jim Doyle, Governor
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Northern Region Headquarters
107 Sutliff Ave.
Rhinelander, Wisconsin 54501-3349
Telephone 715-365-8900
FAX 715-365-8932
TTY Access via relay - 711

July 6, 2004

Mille Lacs Oil Co
102 Main St N
Cambridge, MN 55008

Subject: Conditional Case Closure
Grantsburg Amoco, 108 W Hwy 70, Grantsburg, WI
WDNR BRRTS # 03-07-186720
PECFA #54840-0188-08

To Whom It May Concern:

On July 1, 2004, your request for closure of the case described above was reviewed by the Northern Region Closure Committee. The Closure Committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. After careful review of the closure request, the Closure Committee has determined that the gasoline contamination on the site appears to have been investigated and remediated to the extent practicable under site conditions Your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code and will be closed if the following conditions are satisfied:

1. The monitoring wells at the site must be properly abandoned in compliance with ch. NR 141, Wis. Adm. Code. Documentation of well abandonment must be submitted to me on Form 3300-5B found at www.dnr.state.wi.us/org/water/dgw/gw/ or provided by the Department of Natural Resources.
2. The Parcel Identification Number for the property must be provided.

When the above conditions have been satisfied, please submit a letter to let me know that applicable conditions have been met, and your case will be closed. 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.

If this is a PECFA site, section 101.143, Wis. Stats., requires that PECFA claimants seeking reimbursement of interest costs, for sites with petroleum contamination, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received by the PECFA Program within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for PECFA reimbursement.

Please be aware that the 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 to the environment.

We appreciate 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

Janet Kazda
Remediation and Redevelopment Program

c: File
Phil Richard, Park Falls

Craig Johanesen
ECCI
2453 Atwood Ave
Madison, WI 53704

DOCUMENT NO.

STATE BAR OF WISCONSIN FORM 1 — 1982

WARRANTY DEED

THIS SPACE RESERVED FOR RECORDING DATA

This Deed, made between Richard L. Davison and LaCinda L. Davison, husband and wife,

..., Grantor,

and Mille Lacs Oil Company, a Minnesota corporation,

..., Grantee,

Witnesseth, That the said Grantor, for a valuable consideration of Ten Dollars and other good and valuable consideration conveys to Grantee the following described real estate in Burnett County, State of Wisconsin: A parcel of land described as commencing at a point that is 2 rods North and 2 rods West of the Southeast corner of the Southeast Quarter of the Southwest Quarter of Section 14, Township 38 North, of Range 19 West, thence due North 7 rods, 7 feet, thence due West 13 rods, thence due South 7 rods, 7 feet, thence due East 13 rods to the point of beginning, Excepting therefrom the following parcel of land, to-wit: All that part or parcel of land in the SE SW, Section 14,-38-19, a reference line to which is described as follows: Commencing at a point on the Southwest corner of said Section 14-38-19, thence South 89 degrees 48' East 2400.5 feet to the point of beginning, thence continue South 89 degrees 48' East 247.5 feet. Width of parcel all as measured perpendicular to, radially from, and Easterly along the reference line from the place of beginning, is as follows: On the northerly side, 45' for the first 37.4', tapering to 133.7' in the next 177.2', tapering to 150' in the remaining 32.9'. On the Southerly side, that part of said SE SW lying Southerly of the above described reference line. Said parcel contains 0.23 acres, more or less, exclusive of land previously acquired or now used for highway purposes. The South 60 feet of a parcel of land described as follows: A parcel of land situated in the Southeast Quarter of the Southwest Quarter, Section 14, Township 38 North, of Range 19 West, described as follows: Beginning at a point 2 rods West and 9 rods, 7 feet North of the Southeast corner of the SE SW, 14-38-19, thence West 13 rods, thence North 177.5 feet to the line which is an extension Westward of the South line of Summit Avenue, thence East 13 rods, thence South 177.5 feet to the point of beginning. Excluded from this transaction are pumps, tank and consoles, LP tanks and pumps, Standard signs, and all personal property not listed on the bill of sale executed by the grantors and bearing even date with this instrument.

RETURN TO

Tax Parcel No: ...

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

Together with all and singular the hereditaments and appurtenances thereunto belonging;
And Richard L. Davison and LaCinda L. Davison, husband and wife, warrants that the title is good, indefeasible in fee simple and free and clear of encumbrances except subject to existing highways and subject to easements and restrictions of record

and will warrant and defend the same.

Dated this 21st day of October, 19 86

...(SEAL) Richard L. Davison (SEAL)

* ... * Richard L. Davison

...(SEAL) LaCinda L. Davison (SEAL)

* ... * LaCinda L. Davison

AUTHENTICATION

Signature(s) ...

authenticated this ...day of..., 19...

* ...

TITLE: MEMBER STATE BAR OF WISCONSIN

(If not, ... authorized by § 706.06, Wis. Stats.)

THIS INSTRUMENT WAS DRAFTED BY

BENSON AND TAYLOR, Attorneys at Law
Box 370, Siren, Wisconsin 54872

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

ACKNOWLEDGMENT

STATE OF WISCONSIN } ss.
Burnett County.

Personally came before me this 21st day of October, 19 86 the above named Richard L. Davison and LaCinda L. Davison, husband and wife,

to me known to be the person S who executed the foregoing instrument and acknowledge the same.

* ...

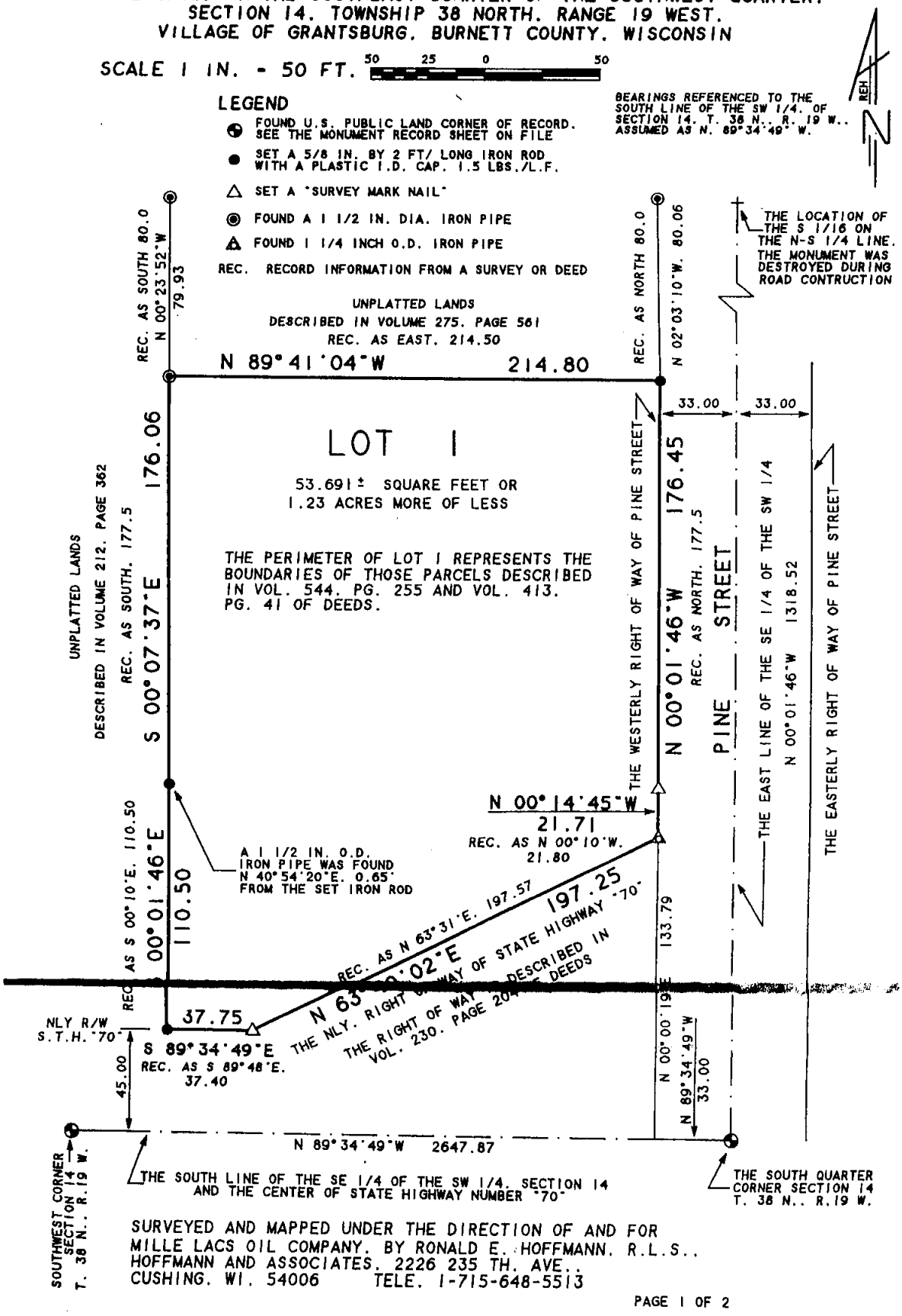
Notary Public Burnett County, Wis.
My Commission is permanent. (If not, state expiration date: ..., 19...)

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

BURNETT COUNTY CERTIFIED SURVEY MAP NO. ____

LOCATED IN THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER.
SECTION 14. TOWNSHIP 38 NORTH. RANGE 19 WEST.
VILLAGE OF GRANTSBURG. BURNETT COUNTY. WISCONSIN

SCALE 1 IN. = 50 FT. 50 25 0 50



SURVEYED AND MAPPED UNDER THE DIRECTION OF AND FOR
MILLE LACS OIL COMPANY. BY RONALD E. HOFFMANN. R.L.S..
HOFFMANN AND ASSOCIATES. 2226 235 TH. AVE..
CUSHING. WI. 54006 TELE. 1-715-648-5513

BURNETT COUNTY CERTIFIED SURVEY MAP NO. _____

LOCATED IN PART OF THE SOUTHEAST QUARTER OF THE SOUTHWEST QUARTER, SECTION 14, TOWNSHIP 38 NORTH, RANGE 19 WEST, VILLAGE OF GRANTSBURG, BURNETT COUNTY, WISCONSIN

SURVEYOR'S NOTES: Several of the iron pipes found while completing this survey were not accepted as being in the correct location. The found monuments along the west side of Pine Street, (see R.W. Buggert Survey, 2/17/69, RF # 4, Pg. 15) must have been moved during previous road construction. The north line of that parcel described in Vol. 544, Pg. 255 was intended to adjoin the south line of that parcel described in Vol. 275, Pg. 561 of Deeds. Therefore, the north line of Lot 1 adjoins the south line of said parcel described in Vol. 275, Pg. 561 of Deeds.

SURVEYOR'S CERTIFICATE:

I, Ronald E. Hoffmann, a Registered Wisconsin Land Surveyor, do hereby certify that by the direction of Mille Lacs Oil Company, I have surveyed and mapped the following described lands and to the best of my knowledge and belief this Certified Survey Map is a true and correct representation of that survey.

Located in part of the Southeast Quarter of the Southwest Quarter, Section 14, Township 38 North, Range 19 West of the 4th. Principal Meridian, Village of Grantsburg, Burnett County, Wisconsin described as follows:

Commencing at the south quarter corner of said Section 14; thence North 89 degrees 34 minutes 49 seconds West, assumed bearing, along the south line of the Southeast Quarter of the Southwest Quarter of said Section 14, a distance of 33.00 feet; thence, leaving said south line, North 00 degrees 00 minutes 19 seconds East 133.79 feet to the point of beginning; thence North 00 degrees 14 minutes 45 seconds West, along the west right of way of Pine Street, 21.71 feet; thence, continuing along said west right of way, North 00 degrees 01 minutes 46 seconds West 176.45 feet to the northeast corner of that parcel described in Vol. 544, Pg. 255 and the southeast corner of that parcel described in Vol. 275, Pg. 561 of Deeds.; thence North 89 degrees 41 minutes 04 seconds West along the north line of said described parcel in Vol. 544, Pg. 255, a distance of 214.80 feet to the northwest corner of said parcel described in Vol. 544, Pg. 255 and the southwest corner of that parcel described in Vol. 275, Pg. 561 of Deeds.; thence South 00 degrees 07 minutes 37 seconds East, along the west line of that parcel described in Vol. 544, Pg. 255 and along a portion of the west line of that parcel described in Vol. 413, Pg. 41, a distance of 176.06 feet; thence, continuing along the west line of that parcel described in Vol. 413, Pg. 41, South 00 degrees 01 minutes 46 seconds East 110.50 feet to the northerly right of way of State Highway Number "70"; thence South 89 degrees 34 minutes 49 seconds East, along said northerly right of way, 37.75 feet; thence, continuing along said right of way, North 63 degrees 40 minutes 02 seconds East 197.25 feet to the point of beginning.

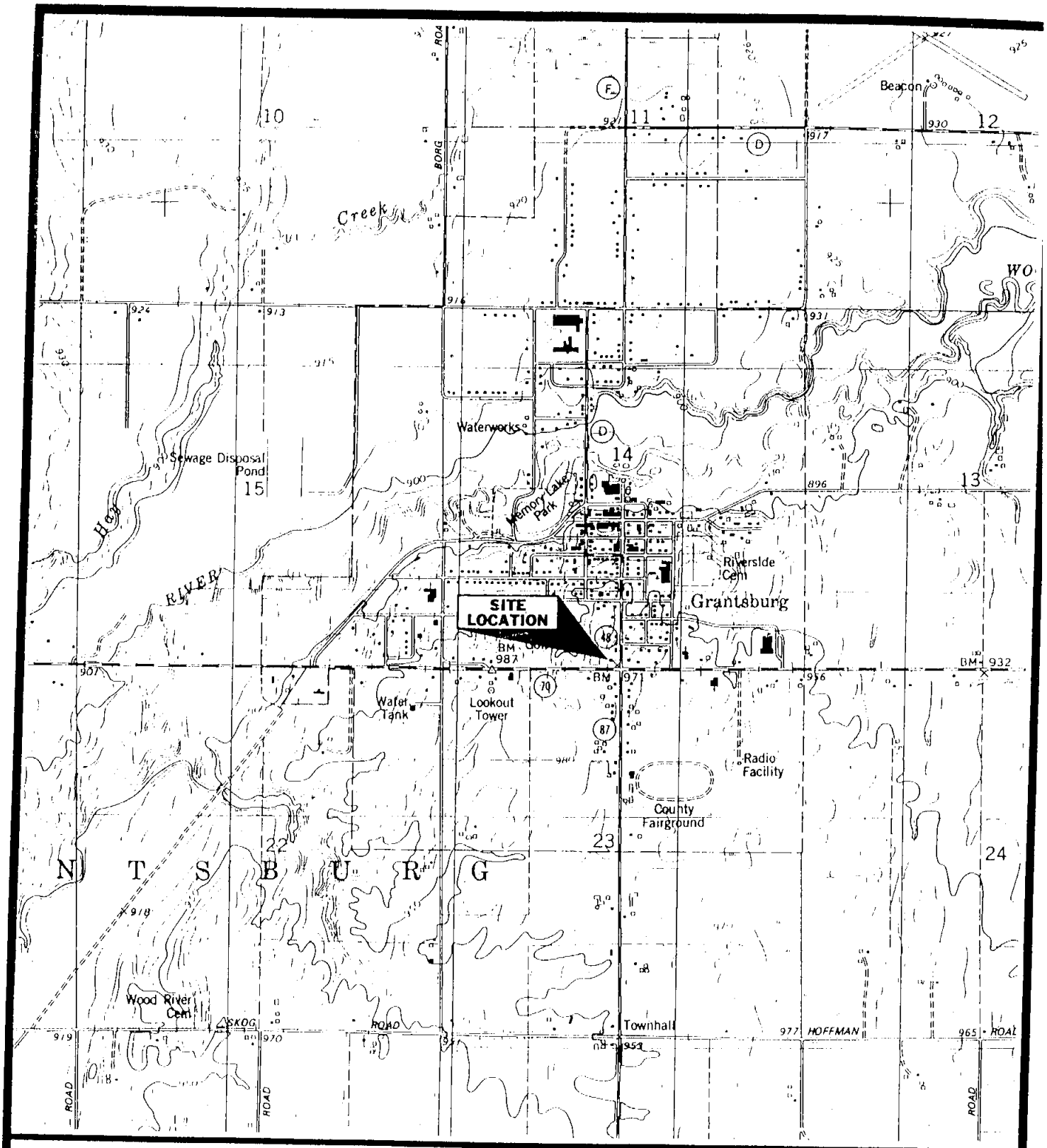
Said described parcel contains 1.23 acres (53,691 square feet) more or less.

Subject to any other recorded or unrecorded easements and unwritten rights and all state, county and township rules and regulations

I also certify that I have fully complied with the provisions of Chapter 236.34 of the Wisconsin Statutes in surveying and mapping said described parcel.

RONALD E. HOFFMANN, R.L.S.

mille_lac.lwp/grant_8_9/csm



SCALE: 1:24 000

SOURCE: GRANTSBURG, WI, USGS
7.5-MINUTE TOPOGRAPHIC QUADRANGLE

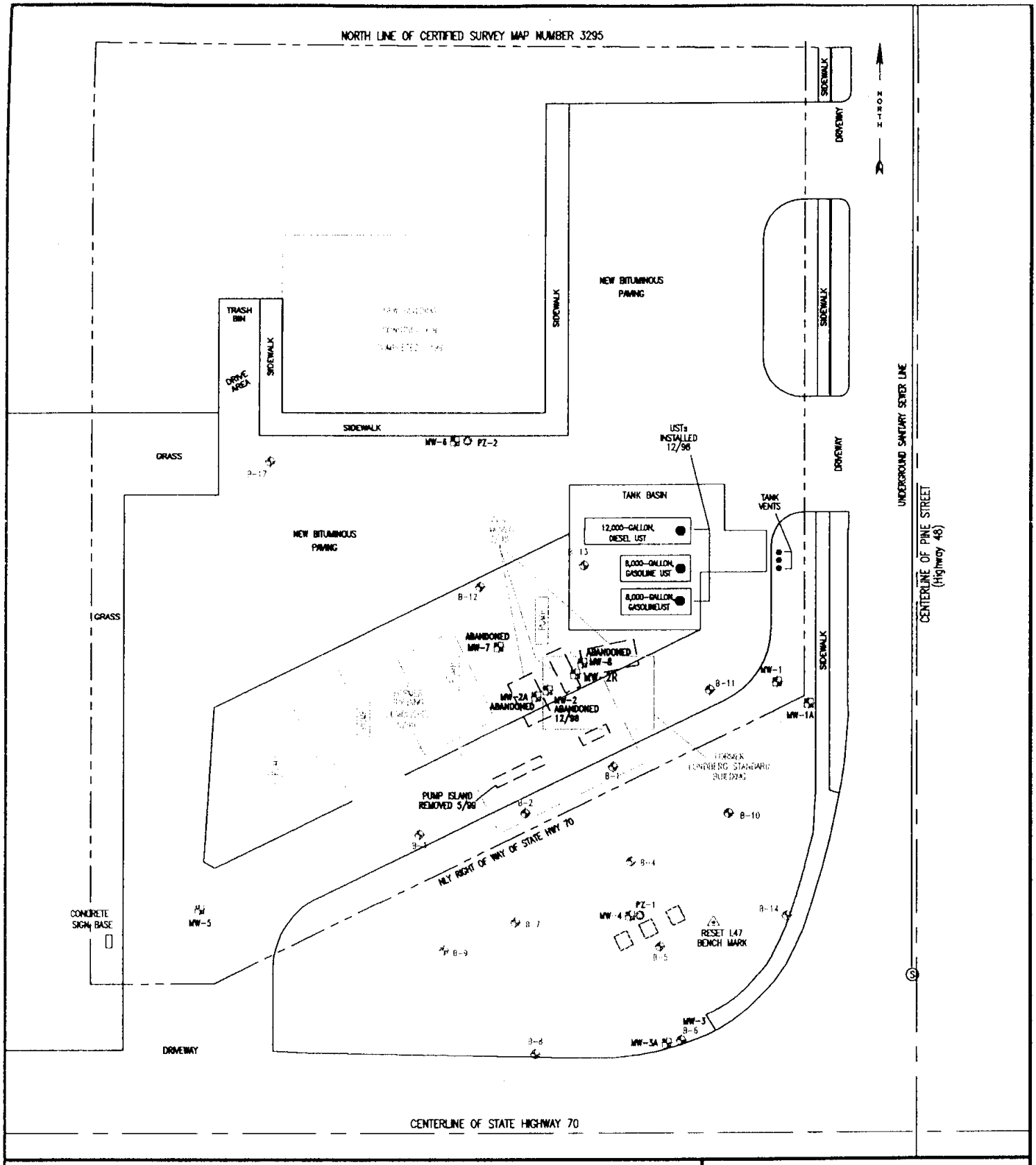
N

GRANTSBURG AMOCO, MILLES LACS OIL COMPANY
GRANTSBURG, WI

FIGURE 1
SITE LOCATION

FEBRUARY 2000	JMA

ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.



LEGEND

B-9 SOIL BORING NUMBER AND LOCATION

MW-5 MONITORING WELL NUMBER AND LOCATION

PZ-1 PIEZOMETER NUMBER AND LOCATION

SCALE IN FEET

0 20 40

GRANTSBURG AMOCO
MILLE LACS OIL COMPANY
GRANTSBURG, WI

FIGURE 2
SITE MAP

Sept. 2003 | PAS

ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.

Table 3A
Ground Water Analytical Results - Monitoring Wells
Grantburg Amoco
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS No: 03-07-186720

(all concentrations in ug/l)

Pre- or Post Remediation	Well No.	Sample Date	Benzene	Toluene	Ethyl-benzene	total Xylenes	MTBE	1,2,4-TMB	1,3,5-TMB	GRO	Lead	Naph-thalene	EDC
	s.NR 140	ES	5	1000	700	10000	60	480*	480*		15	40	5
	Standards	PAL	0.5	200	140	1000	12	96*	96*		1.5	8	0.5
Pre-Remediation	MW-1	08/11/1998	<0.27	<0.27	<0.32	<0.43	<0.32	<0.22	<0.27	<50	130	<0.35	<0.37
	MW-1	11/03/1998	<0.14	<0.58	<0.59	<1.2	<0.65	<0.62	<0.59	<50			
Post-Remediation	MW-1	09/07/1999	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15	<1.4		
	MW-1	05/31/2000	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15			
	MW-1	02/02/2001	<0.35	<0.38	<0.37	1.57	<0.36	0.62	<0.37				
	MW-1	11/08/2001	<0.45	<0.68	<0.82	<0.77	<0.43	<0.92	<0.94	<50			
Pre-Remediation	MW-1A	10/01/1998	<0.27	<0.27	<0.32	<0.43	<0.32	<0.22	<0.27	<50	<2.7	<0.35	<0.37
	MW-1A	11/03/1998	<0.14	<0.58	<0.59	<1.2	<0.65	<0.62	<0.59	<50			
Post-Remediation	MW-1A	09/07/1999	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15	*2.0*		
	MW-1A	05/31/2000	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15			
Pre-Remediation	MW-2	08/11/1998	**2700**	*230*	*200*	185	8.2	50	24	5200	*5.7*	*29*	<9.2
	MW-2	11/03/1998	**1200**	31	110	49	<6.5	15	7.1	2600			
Pre-Remediation	MW-2A	10/01/1998	**11000**	**19000**	**2000**	**14600**	<80	**2900**	**650**	69000	*3.8*	**1100**	<92
	MW-2A	11/03/1998	**9800**	**17000**	**1800**	**13500**	<65	**2400**	**580**	69000			
Post-Remediation	MW-2R	09/07/1999	**320**	50	50	325	<4.7	*210*	*50*	2200	<1.4		
	MW-2R	05/31/2000	**2200**	46	*280*	200	<24	*65*	*59*	4700			
	MW-2R	02/02/2001	**610**	5.2	58	15.4	1.9	5.1	4.2		0.74	*13*	<1.8
	MW-2R	11/08/2001	**390**	5.4	42	16	<1.7	8.3	4.3	1200			
Pre-Remediation	MW-3	08/11/1998	*2.3*	0.81	7.3	8.8	<0.32	1.5	0.78	<50	*5.6*	0.36	<0.37
	MW-3 dup	08/11/1998	*2.3*	0.76	7	8.9	<0.32	1.5	0.87	<50	<2.1	0.36	<0.37
	MW-3	11/03/1998	**8.7**	0.67	34	13.1	<0.65	4.6	2.4	100			
Post-Remediation	MW-3	09/07/1999	**20**	<5.2	*210*	<10	<0.47	<5.5	<5.2	840	*1.6*		
	MW-3	05/31/2000	**25**	8.4	*150*	50	<4.7	24	13	800			
	MW-3	02/02/2001	**14**	2.9	79	7.2	<0.32	1.5	<0.27		0.66	8.2	<0.37
	MW-3 dup	02/02/2001	**15**	3.5	78	9.9	1.2	2.6	<0.37				
	MW-3	11/08/2001	**18**	3.1	130	26	<0.43	22	2.7	550			
	MW-3 dup	11/08/2001	**18**	3.1	130	22.7	<0.43	22	2.7	550			
Pre-Remediation	MW-3A	10/01/1998	**91**	21	**1000**	419	<3.2	**350**	**160**	5300	*6.7*	**120**	<3.7
	MW-3A	11/03/1998	**59**	18	**510**	246	5.5	*180*	*90*	4000			
Post-Remediation	MW-3A	09/07/1999	**77**	47	**520**	295	<24	*190*	*94*	3700	*5.9*		
	MW-3A	05/31/2000	**83**	39	**560**	357	<12	*230*	*110*	6500			
	MW-3A	11/08/2001	**81**	30	**570**	330	<1.7	*250*	*110*	4400			
Pre-Remediation	MW-4	08/11/1998	**14000**	**17000**	**2100**	*7100*	<64	**670**	**240**	54000	*7.8*	**160**	<74
	MW-4	11/03/1998	**13000**	**18000**	**2400**	*8200*	<65	**700**	**230**	64000			
Post-Remediation	MW-4	09/07/1999	**4200**	**3700**	*600*	*1940*	<47	*190*	*88*	15000	*1.8*		
	MW-4	05/31/2000	**2900**	**3500**	*630*	*2440*	<59	**320**	**160**	16000			
	MW-4	02/02/2001	**3000**	**7800**	**1300**	*5800*	<16	**390**	**140**		*2.1*	**100**	<18
	MW-4	11/08/2001	**1700**	**2100**	*520*	*1380*	<8.6	*110*	*40*	8700		**62**	
Pre-Remediation	PZ-1	08/11/1998	**14**	2.3	3.6	10.3	<0.32	1.9	1.2	87	*2.7*	<0.35	0.38
	PZ-1	11/03/1998	**24**	1.3	15	12.2	0.81	5.3	2.2	220			
Post-Remediation	PZ-1	09/07/1999	*2.1*	<0.52	1.7	<1.0	<0.47	<0.55	<0.52	25	<1.4		
	PZ-1	05/31/2000	*1.6*	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15			
	PZ-1	02/02/2001	*4.7*	0.29	2.0	1.26	<0.20	0.45	<0.29				
	PZ-1	11/08/2001	<0.45	<0.68	<0.82	<0.77	<0.43	<0.92	<0.94	<50			
Pre-Remediation	MW-5	08/11/1998	<0.27	<0.27	<0.32	<0.43	<0.32	<0.22	<0.27	<50	<2.1	<0.35	<0.37
	MW-5	11/03/1998	<0.14	<0.58	<0.59	<1.2	<0.65	<0.62	<0.59	<50			
Post-Remediation	MW-5	09/07/1999	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15	<1.4		
	MW-5	05/31/2000	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15			
Pre-Remediation	MW-6	08/11/1998	<0.27	<0.27	<0.32	<0.43	<0.32	<0.22	<0.27	<50	<2.1	<0.35	<0.37
	MW-6	11/03/1998	<0.14	<0.58	<0.59	<1.2	<0.65	<0.62	<0.59	<50			
Post-Remediation	MW-6	09/07/1999	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	62	<1.4		
	MW-6	05/31/2000	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	32			
	MW-6	02/02/2001	<0.35	<0.38	<0.37	<0.38	<0.36	<0.37	<0.37				
	MW-6	11/08/2001	<0.45	<0.68	<0.82	<0.77	<0.43	<0.92	<0.94	<50			
Pre-Remediation	PZ-2	08/11/1998	<0.27	<0.27	<0.32	<0.43	<0.32	<0.22	<0.27	<50	6.6	<0.35	<0.37
	PZ-2	11/03/1998	<0.14	<0.58	<0.59	<1.2	<0.65	<0.62	<0.59	<50			
Post-Remediation	PZ-2	09/07/1999	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15	<1.4		
	PZ-2	05/31/2000	<0.50	<0.52	<0.54	<1.0	<0.47	<0.55	<0.52	<15			
	PZ-2	02/02/2001	<0.35	0.68	0.42	2.7	<0.36	0.83	<0.37				
	PZ-2	11/08/2001	<0.45	<0.68	<0.82	<0.77	<0.43	<0.92	<0.94	<50			

Concentrations in micrograms per liter (ug/l) (equivalent to parts per billion)
< = concentration less than the indicated method detection limit
MTBE = Methyl tert Butyl Ether
GRO = Gasoline Range Organics
TMB = Trimethylbenzene
EDC = 1,2-Dichloroethane (ethylene dichloride)
ES = Enforcement Standard (s. NR 140 Wisc Admin Code)
PAL = Preventative Action Limit (s. NR 140 Wisc Admin Code)
* = ES and PAL for Trimethylbenzenes are for 1,2,4-TMB and 1,3,5-TMB *combined*.
BOLD = concentration exceeds ES
ITALICS with Underline = concentration exceeds PAL

Table 3B
Ground Water Analytical Results - Monitoring Wells
Extended VOC (8021 other than PVOC, Naphthalene, and EDC which are presented in 3A)
Grantburg Amoco
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS No: 03-07-186720

Well No.	Date	n-Butyl benzene	s-Butyl benzene	Isopropyl benzene	n-Propyl benzene	p-Isopropyl toluene	Methylene Chloride
NR 140	ES	ns	ns	ns	ns	ns	ns
NR 140	PAL	ns	ns	ns	ns	ns	ns
MW-1	08/11/1998	<0.29	<0.29	<0.26	<0.76	<0.24	<0.36
MW-1A	10/01/1998	<0.29	<0.29	<0.26	<0.76	<0.24	<0.36
MW-2	08/11/1998	<7.2	<7.2	30	31	<6.0	12
MW-2A	10/01/1998	92	<72	98	210	<60	<90
MW-3	08/11/1998	<0.29	<0.29	0.31	<0.76	<0.24	<0.36
MW-3A	10/01/1998	17	8.2	83	120	11	<3.6
MW-4	08/11/1998	<58	<58	78	<150	<48	110
MW-5	08/11/1998	<0.29	<0.29	<0.26	<0.76	<0.24	<0.36
MW-6	08/11/1998	<0.29	<0.29	<0.26	<0.76	<0.24	<0.36
PZ-1	08/11/1998	<0.29	<0.29	<0.26	<0.76	<0.24	<0.36
PZ-2	08/11/1998	<0.29	<0.29	<0.26	<0.76	<0.24	<0.36

Concentrations reported in micrograms per liter (ug/L)
< = not detected at or above method detection limits.

Compounds included on EPA List 8021 but not presented here were not detected.
ES = Enforcement Standard (NR 140 Wisc Admin Code)
PAL = Preventative Action Limit (NR 140 Wisc Admin Code)
ns = no ES or PAL standard established for compound
Note: Methylene Chloride is a common laboratory contaminant.
Bold indicates concentration exceeds ES
Italics indicates concentration exceeds PAL

Table 3C
Pre-Remediation
Ground Water Analytical Results - Geoprobe Borings
Grantburg Amoco - Mille Lacs Oil Company
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS No: 03-07-186720

(all concentrations in ug/l)

Boring No.	Sample Date	MTBE	Benzene	Toluene	Ethyl-benzene	total Xylenes	1,2,4-TMB	1,3,5-TMB	GRO
s.NR 140	**ES**	60	5	1000	700	10000	480*	480*	
Standards	**PAL**	12	0.5	200	140	1000	96*	96*	
B-1	05/27/1998	<0.8	**55**	<0.4	<0.4	<1.5	<0.7	<0.2	<100
B-2	05/27/1998	<0.8	*1.5*	4.4	<0.4	80.9	24.3	13.1	340
B-3	05/27/1998	<0.8	<0.5	<0.4	<0.4	<1.5	<0.7	<0.2	<100
B-4	05/27/1998	**465**	**2380**	*307*	**1620**	*2890*	**630**	**671**	31000
B-5	05/27/1998	**499**	**9340**	**11200**	**1710**	*5480*	**687**	**643**	83900
B-7	05/27/1998	**427**	**147**	31.1	*301*	486	*97.9*	*212*	21400
B-8	05/27/1998	<0.8	<0.5	<0.4	<0.4	<1.5	<0.7	<0.2	<100
B-9	05/27/1998	<0.8	<0.5	<0.4	<0.4	<1.5	<0.7	<0.2	<100
B-12	05/27/1998	<0.8	<0.5	<0.4	<0.4	<1.5	<0.7	<0.2	<100

Concentrations in micrograms per liter (ug/l) [equivalent to parts per billion]
< = concentration less than the indicated method detection limit
MTBE = Methyl tert Butyl Ether
GRO = Gasoline Range Organics
TMB = Trimethylbenzene
ES = Enforcement Standard (s. NR 140 Wisc Admin Code)
PAL = Preventative Action Limit (s. NR 140 Wisc Admin Code)
* = ES and PAL for Trimethylbenzenes are for 1,2,4-TMB and 1,3,5-TMB *combined.*
BOLD = concentration exceeds ES
ITALICS with Underline = concentration exceeds PAL

Table 3D
Groundwater Analytical Results -- Monitoring Wells
Bioattenuation Parameters
Grantburg Amoco
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS N0: 03-07-186720

Well	Date	Alkalinity (mg/l)	Mn (tot) (ug/l)	Nitrogen nitrate +nitrite (mg/l)	Nitrogen Kjeldahl (mg/l)	Total Nitrogen (mg/l)	Sulfate (mg/l)	Methane (ug/l)	Phosphorus (mg/l)	Dissolved Oxygen (mg/l)	Temp (C)	pH	Cond	Redox (Eh)	Fe^{2+} (mg/l)
MW-1	08/11/1998	430	310	0.45			28	<7.2	1.5		16	7.8	1400	48	2
MW-1	11/03/1998	420	380	0.38			16				13	7.2	966	195	0
MW-1	09/07/1999	360	42	0.68	0.72	1.4	33			1.2	12.9	7.1	661	-48	<0.001
MW-1	05/31/2000			0.67			43			2.1	9.0	7.6		158	0
MW-1	02/02/2001									3.78	8.0				
MW-1	11/08/2001													106	
MW-1A	10/01/1998		8.7					<7.1							
MW-1A	11/03/1998	370	130	0.027			17				14	7.6	132	216	0
MW-1A	09/07/1999	380	280	0.15	0.75	0.91	11					7.1	1602	-39	0.0072
MW-1A	05/31/2000			0.82			14							156	0.4
MW-2	08/11/1998	530	7600	0.57			32	136	1.1		15	7.6	1651	105	0
MW-2	11/03/1998	560	8600	0.036			8.9				12	6.8	845	210	0
MW-2A	10/01/1998	520	19000	<0.026			20	42	0.058						
MW-2A	11/03/1998	820	25000	<0.017			<8.7				12	6.9	1325	154	6.6
MW-2R	09/07/1999	480	5500	0.064	1.4	1.5	14			5.3	18.4	7.2	1536	103	0.043
MW-2R	05/31/2000			<0.042			<5.0			0.91	10.6	7.6		101	2.4
MW-2R	02/02/2001									1.27	6.2				
MW-2R	11/08/2001													16	
MW-3	08/11/1998	390	4300	<0.026			41	<7.2	0.22		17	7.2		94	0.0
MW-3 dup	08/11/1998	360	4500	0.11			32	<7.2	0.46		16	7.3		91	0.6
MW-3	11/03/1998	470	5600	<0.017			32				12	7.1	860	209	0.6
MW-3	09/07/1999	390	19000	0.2	1.2	1.4	29			2.2	18.3	7.2		74	1.2
MW-3	05/31/2000			<0.042			43			0.6	10.1	6.8		139	3.0
MW-3	02/02/2001									1.11	8.1				
MW-3	11/08/2001													17	
MW-3A	10/01/1998	240	40000	0.032			18	15	4.2						
MW-3A	11/03/1998	240	24000	<0.017			20				13	6.9		217	>10
MW-3A	09/07/1999	190	47000	0.05	2.7	2.7	<5.0				20	7.2		-46	50
MW-3A	05/31/2000			0.15			28					6.8		13	4.6
MW-3A	11/08/2001													-16	
MW-4	08/11/1998	430	17000	<0.026			23	38	0.35		17	7.2	1848	48	6.2
MW-4	11/03/1998	430	23000	<0.017			21				12	6.8	1338	155	5.0
MW-4	09/07/1999	450	10000	0.031	2.2	2.2	14			1.36	13.7	7.1	1032	-62	23
MW-4	05/31/2000			0.34			8.6			1.2	8.3	7.2		45	4.3
MW-4	02/02/2001									1.81	6.8				
MW-4	11/08/2001													-30	
PZ-1	08/11/1998	360	1600	0.044			36	<7.2	0.52		13	7.8	1723	99	0.4
PZ-1	11/03/1998	390	2400	<0.017			33				9	7	1374	135	0.0
PZ-1	09/07/1999	400	3500	0.053	0.75	0.81	34			2.29	11.1	7.1	1013	-56	0.13
PZ-1	05/31/2000			<0.042			41					7.4		156	0.4
PZ-1	02/02/2001									7.57	7.6				
PZ-1	11/08/2001													112	
MW-5	08/11/1998	430	1600	0.41			32	<7.2	0.38		19	7.5	957	101	0.2
MW-5	11/03/1998	430	1200	1.2			26				12	7.2	1251	220	0.0
MW-5	09/07/1999	390	1600	2.1	0.88	3.0	43			2.15	16.4	7.2	916	90	0.0093
MW-5	05/31/2000			<0.042			32			0.9	9.4	7.6		147	0.0
MW-6	08/11/1998	380	420	0.37			20	<7.2	0.36		15	7.2	1753	110	0.1
MW-6	11/03/1998	450	120	0.019			18				11	7	476	135	0.0
MW-6	09/07/1999	450	210	0.55	0.92	1.5	15			3.3	16.4	7		5	0.022
MW-6	05/31/2000			<0.042			16			0.6	10.5	7.2		39	0.0
MW-6	02/02/2001									2.32	7.2				
MW-6	11/08/2001													65	
PZ-2	08/11/1998	520	970	0.12			220	<7.2	0.076		13	7.7	1856	99	0.5
PZ-2	11/03/1998	740	1100	<0.017			110				10	7.2	254	197	0.0
PZ-2	09/07/1999	600	1100	<0.030	0.61	0.61	92			4.96	10.3	7.2	1731	38	0.0047
PZ-2	05/31/2000			<0.042			100				10.9	7.6		124	0.0
PZ-2	02/02/2001									4.34	8.9				
PZ-2	11/08/2001													29	

ug/l = micrograms per liter (equivalent to parts per billion)
mg/l = milligrams per liter (equivalent to parts per million)
C = degrees Celsius
Cond = Conductivity in micromohs
Fe^{2+} = Ferrous Iron (dissolved iron)

Table 1A
PreRemedial Soil Analytical Results - Site Investigation
Grantsburg Amoco - Mille Lacs Oil Company
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS No: 03-07-186720

Sample Location	Sample Date	Sample Depth	Benzene (ug/l)	Ethyl-benzene (ug/l)	MTBE (ug/l)	1,2,4 TMB (ug/l)	1,3,5 TMB (ug/l)	Toluene (ug/l)	total Xylenes (ug/l)	GRO (mg/l)	Lead (mg/l)
NR 720 RCL			**5.5**	**2900**				**1500**	**4100**	**250**	**50**
B-1	05/26/1998	6-8	<13	<10	<8	<18	<5	<10	<22	<10	12.1
B-1*	05/26/1998	16-18	***103***	<10	<8	<18	<5	<10	<22	<10	19.8
B-2	05/26/1998	10-12	<13	138	<8	120	118	<10	125	29.3	<10
B-2	05/26/1998	16-18	<13	<10	<8	<18	<5	<10	<22	<10	20.5
B-3	05/26/1998	10-12	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-4*	05/26/1998	6-8	***30800***	***43900***	18.6	31000	41800	***9630***	***40600***	***2510***	<11
B-4	05/26/1998	14-16	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-5**	05/26/1998	4-6	**135000**	**136000**	70800	141000	166000	**470000**	**484000**	**8830**	<11
B-5	05/26/1998	16-18	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-6	05/26/1998	6-8	<13	280	<8	74	195	101	<22	19.5	<11
B-6	05/26/1998	14-16	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-7	05/27/1998	6-8	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-7*	05/27/1998	14-16	***964***	416	1170	1600	1790	438	1310	150	<11
B-8	05/27/1998	6-8	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-8	05/27/1998	12-14	<13	<10	<8	<18	<5	<10	<22	<10	<10
B-9	05/27/1998	6-8	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-9	05/27/1998	14-16	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-10	05/27/1998	6-8	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-10	05/27/1998	14-16	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-11	05/27/1998	6-8	<13	<10	<8	<18	<5	<10	<22	<10	
B-11	05/27/1998	14-16	<13	<10	<8	<18	<5	<10	<22	<10	
B-12	05/27/1998	6-8	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-12	05/27/1998	14-16	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-13	05/27/1998	6-8	<13	<10	<8	<18	<5	<10	<22	<10	20.8
B-13	05/27/1998	14-16	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-14*	05/27/1998	6-8	<13	***4690***	<8	6160	6280	315	3890	***437***	<11
B-14	05/27/1998	14-16	<13	<10	<8	<18	<5	<10	<22	<10	<11
B-15/MW-1	07/13/1998	18-20	<25	<25	<25	<25	<25	<25	<25	<2.9	<11
B-16/MW-2*	07/13/1998	7-9	***440***	230	<25	500	170	140	680	13	<11
B-16/MW-2	07/13/1998	19-21	<25	<25	<25	<25	<25	<25	<25	<2.9	<11
B-17	07/13/1998	8-10	<25	<25	<25	<25	<25	<25	<25	<3.0	<11
B-18/MW-5	07/14/1998	6-8	<17	<17	<17	<17	<17	<17	<17	<2.1	<11
B-19/MW-6	07/14/1998	6-8	<25	<25	<25	<25	<25	<25	<25	<3.0	<11
B-21/MW-7	12/15/1998	5	<25	<25	<25	<25	<25	<25	<25	<3.0	5.3
B-21/MW-7*	12/15/1998	10	***400***	<25	31	<25	230	<25	<25	37	4.5

* indicates soil sample collected below water table (water table depth is approximately 4 to 6 feet bgs across the site).
** indicates sample was collected from an area which was excavated in May 1999 as part of the remedial action.
GRO and Lead concenntrations in miligrams per kilogram (mg/kg) [equivalent to parts per million (ppm)]
other PVOC concentrations in micrograms per kilogram (ug/kg) [equivalent to parts per billion (ppb)]
depth in feet below ground surface
GRO = Gasoline Range Organics
MTBE = Methyl tert Butyl Ether
TMB = Trimethylbenzene
Bold indicates concentration exceeds NR 720 Generic Residual Contaminant Level
Italics indicates sample was from below the water table.

Table 1B
Preremedial Soil Analytical Results
December 1998, Tank Removal Activities
Grantsburg Amoco - Mille Lacs Oil Company
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS No: 03-07-186720

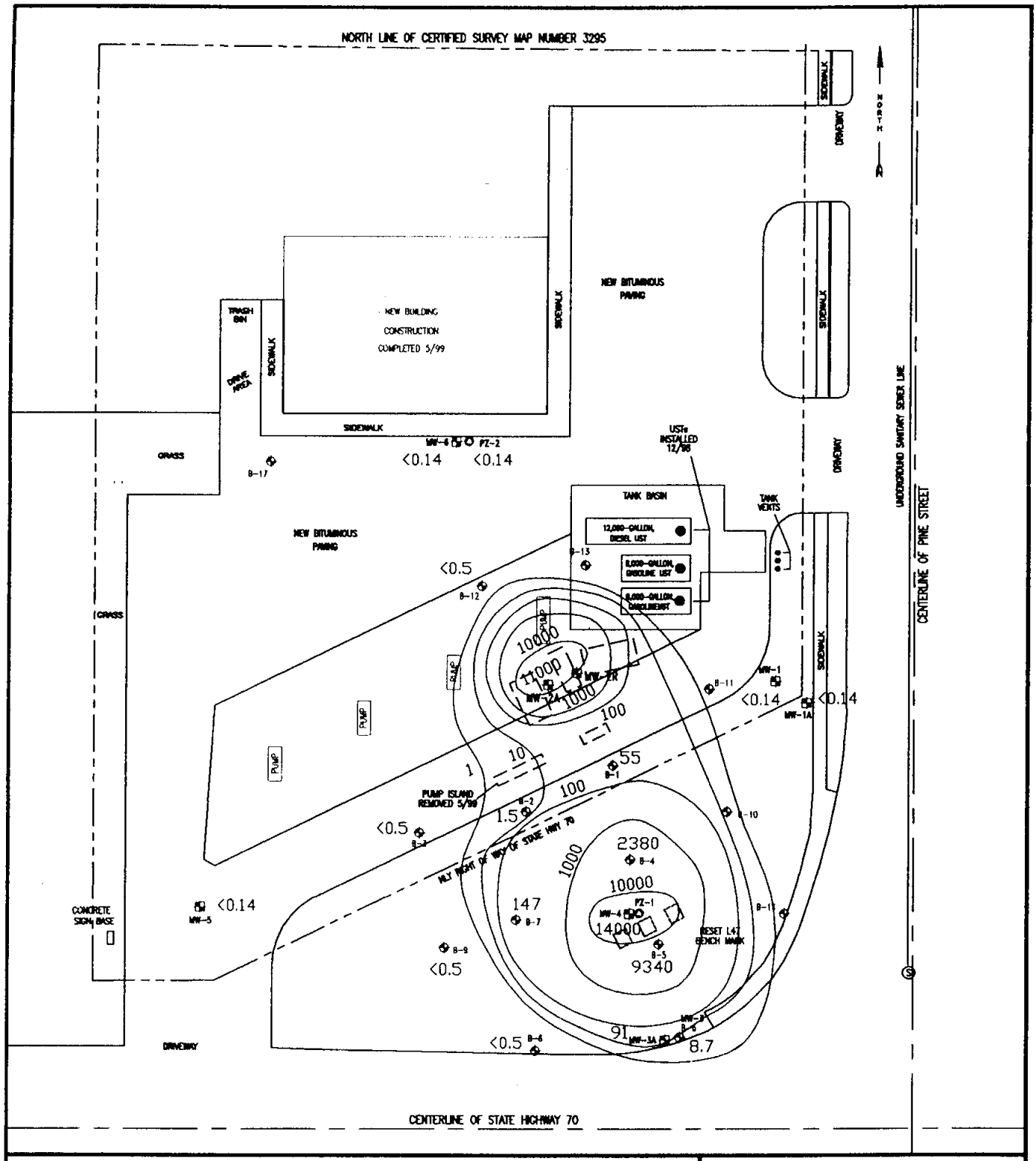
Sample Location	Sample Date	Sample Depth (ft)	Benzene (ug/l)	Ethyl-benzene (ug/l)	MTBE (ug/l)	1,2,4 TMB (ug/l)	1,3,5 TMB (ug/l)	Toluene (ug/l)	total Xylenes (ug/l)	GRO (mg/l)	Lead (mg/l)
NR 720 GRCL			**5.5**	**2900**				**1500**	**4100**	**250**	**50**
PT-1	12/07/1998	4	<25	<25	<25	<25	<25	<25	<25	<2.9	4.3
PT-2	12/07/1998	4	**410**	88	<25	43	<25	<25	285	<3.0	20
PT-3	12/07/1998	4	<25	<25	<25	<25	<25	<25	<25	<3.0	4.6
PT-4	12/07/1998	3	**61000**	**170000**	3200	340000	110000	**470000**	**840000**	**6000**	4.2
PT-6	12/07/1998	9	**4700**	**6600**	180	15000	4700	**22000**	**37000**	270	4.9
PT-7	12/07/1998	3	**860**	**4600**	<250	27000	24000	1100	**14200**	**1100**	26
PT-8	12/07/1998	4	**3000**	**11000**	600	51000	15000	**71000**	**80000**	**1100**	14
PT-9	12/07/1998	8	**7600**	**5400**	370	11000	3200	**1500**	**10390**	**360**	4.0
PT-10	12/07/1998	4	**230**	92	<25	200	77	43	201	3.9	7.4
S. end of Central Tank	12/10/1998	6	**450**	1900	100	9900	3500	**3500**	**12100**	190	8.8
N. end of Central Tank	12/10/1998	6	**1200**	**9300**	320	44000	16000	**12000**	**64000**	**1100**	<3.6
East Tank	12/10/1998		<25	<25	<25	280	86	32	180	3.7	<3.9
E. end of East Tank	12/10/1998		**1600**	**69000**	<1000	410000	130000	**83000**	**560000**	**3800**	10
W. end of East Tank	12/10/1998		**3900**	**13000**	<250	92000	28000	**27000**	**103000**	**1000**	<4.2
S. end of West Tank	12/10/1998	9	**15000**	**51000**	<1300	130000	40000	**140000**	**261000**	**3200**	5.3
N. end of West Tank	12/10/1998	8	**190**	**4000**	<100	19000	5900	**2300**	**19800**	**300**	6.5

GRO and Lead concenntrations in miligrams per kilogram (mg/kg) [equivalent to parts per million (ppm)]
other PVOC concentrations in micrograms per kilogram (ug/kg) [equivalent to parts per billion (ppb)]
depth in feet below ground surface
PT indicates samples from piping trench.
GRO = Gasoline Range Organics
MTBE = Methyl tert Butyl Ether
TMB = Trimethylbenzene
Bold indicates concentration exceeds NR 720 Generic Residual Contaminant Level

Table 2
Post-Remediation Soil Analytical Results
Grantsburg Amoco - Mille Lacs Oil Company
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS No: 03-07-186720

Soil Sample	Sample Date	Depth	Benzene	Toluene	Ethyl-benzene	total Xylenes	MTBE	1,3,5 TMB	1,2,4 TMB	GRO	Lead
NR 746 Table 1			8.5	38	4.6	42		11	83		
NR 746 Table 2		0-4'	1.1								
NR 720.19 RCLs		0-4'	11.6	3130	1560	31300					
Sesoil SSRCLs			13.8	1676		3417					
Excavation Area 1 (location of tanks and dispensers removed '98-'99)											
N. Wall	5/26/99	4'	0.35	1.4	0.48	2.9	<0.11	1.4	4.6	67	
E. Wall	5/26/99	4'	0.17	0.41	0.12	0.61	<0.021	0.16	0.45	13	
S. Wall	5/26/99	4'	<2.4	37	15	16	<2.1	12	14	1000	
W. Wall	5/26/99	4'	0.28	5.7	1.6	6.2	<0.11	0.77	5.3	220	
Base E.	5/26/99	8-9'	0.21	0.14	0.088	<0.047	<0.021	<0.025	<0.024	3.3	
Base W.	5/26/99	8-9'	0.18	1.9	0.23	0.90	<0.021	0.55	1.3	69	
Corner Excavation (Former Lindberg Standard Dispensers)											
N. Wall	5/26/99	4'	1.7	3.9	2.7	8.9	<420	2.3	4.4	200	
E. Wall	5/26/99	4'	0.14	0.18	<0.024	0.14	<0.021	<0.025	0.095	<0.69	
S. Wall	5/26/99	4'	**29**	1800	91	33.9	<42	34	87	4100	13
W. Wall	5/26/99	4'	0.19	1.5	0.87	3.14	<0.021	0.34	1.1	50	
Base E.	5/26/99	7'	1.5	0.21	0.28	0.99	<0.021	0.10	0.23	<0.69	
Base W.	5/26/99	7'	***44***	340	110	280	440	27	140	7700	14
HA-1	8/7/02	3'	9.6	160	110	410	6.2	51	140		
HA-2	8/7/02	4'	<0.025	<0.025	0.2	3.51	<0.025	0.44	0.14		
HA-3	8/7/02	3'	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025		

Concentrations in milligrams per kilogram (mg/kg) [equivalent to parts per million]
< = concentration less than the indicated method detection limit
MTBE = methyl tert butyl ether
1,3,5 TMB=1,3,5-Trimethylbenzene
1,2,4 TMB= 1,2,4-Trimethylbenzene
GRO = gasoline range organics
NR 720.19 RCLs = Residual Contaminant Concentration for Direct Contact (0-4' depth) (EPA Website calculations)
Sesoil SSRCLs = Site Specific Residual Contaminant Concentrations for groundwater (determined through SESOIL Modeling)
HA indicates hand auger boring advanced near the corner excavation area.
Bold = concentration exceeds NR 720.19 SSRCL for Direct Contact (0-4' depth)
Italics = sample collected from below the water table.



LEGEND

- B-9 SOIL BORING NUMBER AND LOCATION
- MW-5 MONITORING WELL NUMBER AND LOCATION
- PZ-1 PIEZOMETER NUMBER AND LOCATION

Concentration In ug/L

SCALE IN FEET

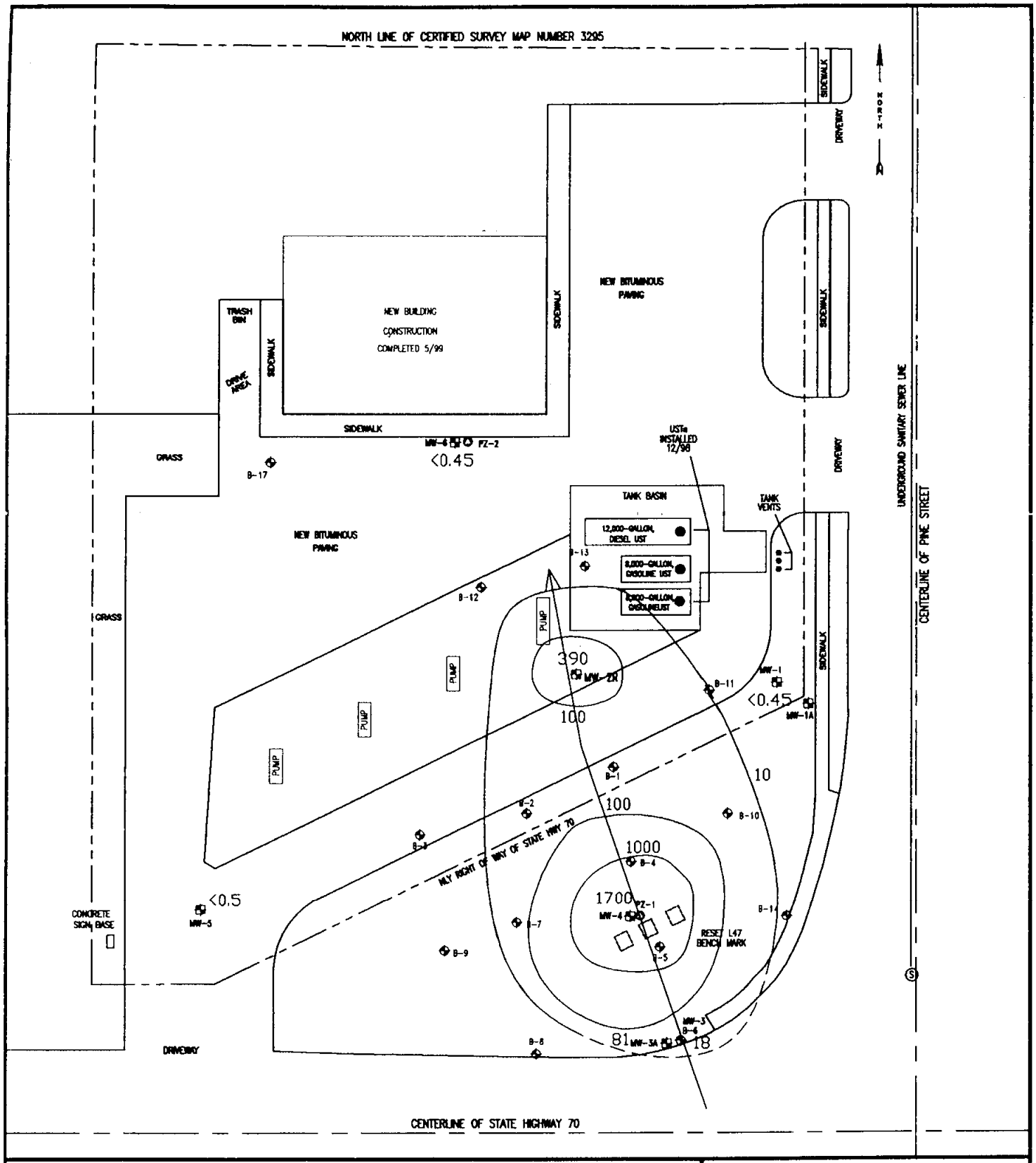
0 20 40

GRANTSBURG AMOCO
MILLE LACS OIL COMPANY
GRANTSBURG, WI

Figure 9
Groundwater Benzene Isoconcentration Map (1998)

Sep. 2003	PAS

ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.



LEGEND

- B-9 SOIL BORING NUMBER AND LOCATION
- MW-5 MONITORING WELL NUMBER AND LOCATION
- PZ-1 PIEZOMETER NUMBER AND LOCATION
- #### Benzene Concentration in ug/L
- ⟶ Groundwater Flow Direction

SCALE IN FEET

0 20 40

GRANTSBURG AMOCO
MILLE LACS OIL COMPANY
GRANTSBURG, WI

Figure 10
Groundwater Benzene Isoconcentration Map (2001)

Sep. 2003	PAS

ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.

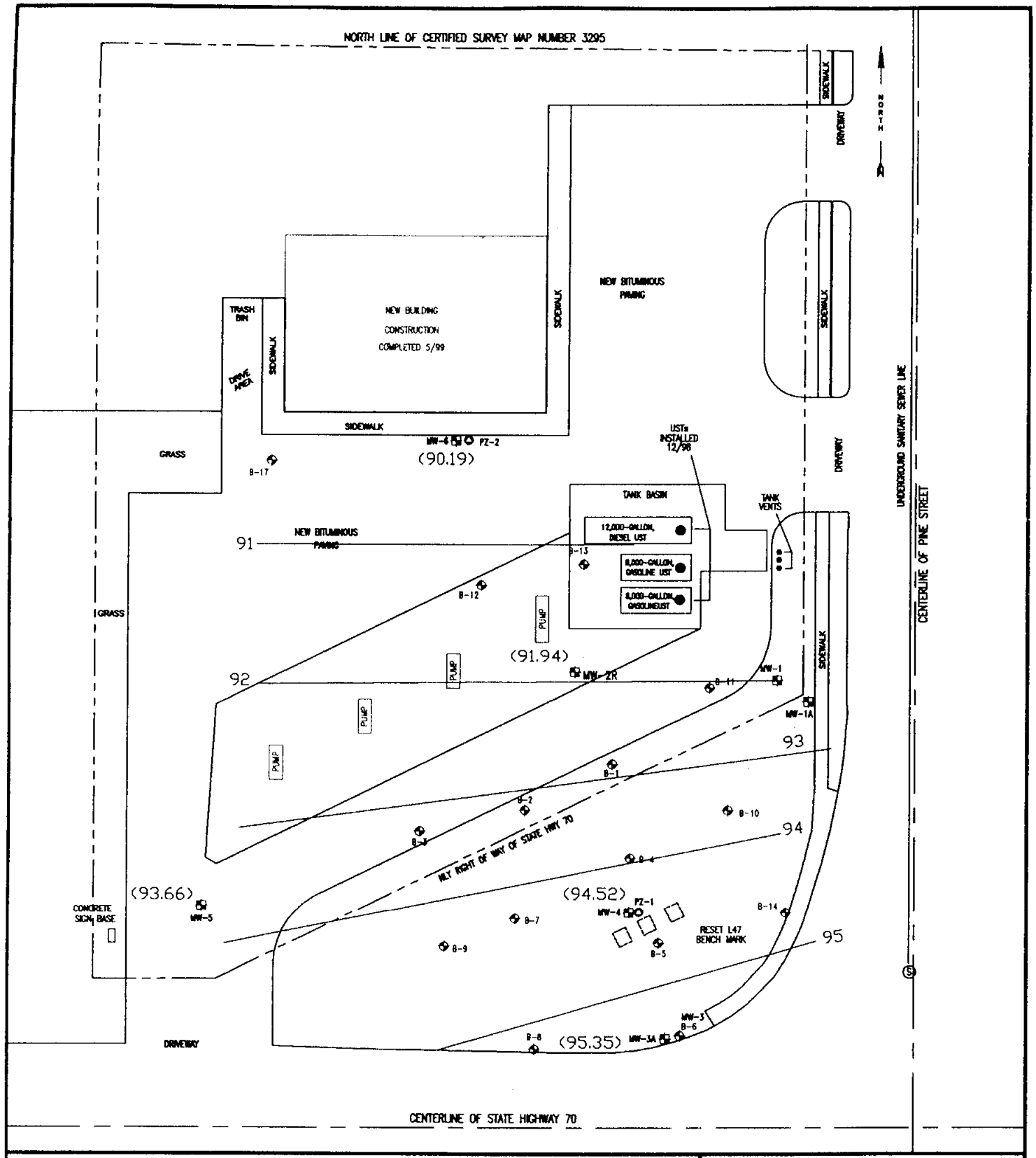
Table 4
Groundwater Elevation Data
Grantsburg Amoco - Mille Lacs Oil Company
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS No: 03-07-186720

Well Number	Measurement Date	Top of Riser Elevation	Ground Surface Elevation	Depth to Water (TOR Feet	Water Table Elevation	Top of Screen Elevation	Bottom of Screen Elevation
MW-1	08/04/1998	97.83	98.2	7.26	90.57	87.9	72.9
MW-1	10/01/1998	97.83	98.2	7.30	90.53	87.9	72.9
MW-1	11/03/1998	97.83	98.2	7.35	90.48	87.9	72.9
MW-1	09/07/1999	97.75	98.2	6.05	91.70	87.9	72.9
MW-1	05/31/2000	97.75	98.2	5.60	92.15	87.9	72.9
MW-1	02/02/2001	97.75	98.2	8.77	88.98	87.9	72.9
MW-1	11/08/2001	97.75	98.2	6.12	91.63	87.9	72.9
MW-1A	10/01/1998	97.72	98.2	7.98	89.74	92.7	88.7
MW-1A	11/03/1998	97.72	98.2	7.61	90.11	92.7	88.7
MW-1A	09/07/1999	97.48	98.2	6.58	90.90	92.7	88.7
MW-1A	05/31/2000	97.48	98.2	5.82	91.66	92.7	88.7
MW-2	08/04/1998	98.90	99.4	7.11	91.79	87.4	72.4
MW-2	10/01/1998	98.90	99.4	7.43	91.47	87.4	72.4
MW-2	11/03/1998	98.90	99.4	7.33	91.57	87.4	72.4
MW-2A	10/01/1998	98.91	99.4	7.19	91.72	93.9	89.9
MW-2A	11/03/1998	98.91	99.4	7.00	91.91	93.9	89.9
MW-2R	09/07/1999	97.02	97.3	4.57	92.45	94.1	84.1
MW-2R	05/31/2000	97.02	97.3	4.69	92.33	94.1	84.1
MW-2R	02/02/2001	97.02	97.3	7.17	89.85	94.1	84.1
MW-2R	11/08/2001	97.02	97.3	5.08	91.94	94.1	84.1
MW-3	08/04/1998	99.64	100.3	5.16	94.48	89.3	74.3
MW-3	10/01/1998	99.64	100.3	5.05	94.59	89.3	74.3
MW-3	11/03/1998	99.64	100.3	4.89	94.75	89.3	74.3
MW-3	09/07/1999	99.77	100.3	4.12	95.65	89.3	74.3
MW-3	05/31/2000	99.77	100.3	4.37	95.40	89.3	74.3
MW-3	02/02/2001	99.77	100.3	6.98	92.79	89.3	74.3
MW-3	11/08/2001	99.77	100.3	5.36	94.41	89.3	74.3
MW-3A	10/01/1998	99.71	100.3	4.76	94.95	96.4	92.4
MW-3A	11/03/1998	99.71	100.3	4.33	95.38	96.4	92.4
MW-3A	09/07/1999	99.83	100.3	3.52	96.31	96.4	92.4
MW-3A	05/31/2000	99.83	100.3	3.74	96.09	96.4	92.4
MW-3A	11/08/2001	99.83	100.3	4.48	95.35	96.4	92.4
MW-4	08/04/1998	99.81	100.3	5.32	94.49	97.3	82.3
MW-4	10/01/1998	99.81	100.3	5.24	94.57	97.3	82.3
MW-4	11/03/1998	99.81	100.3	4.96	94.85	97.3	82.3
MW-4	09/07/1999	99.81	99.9	4.00	95.81	97.3	82.3
MW-4	05/31/2000	99.81	99.9	4.62	95.19	97.3	82.3
MW-4	02/02/2001	99.81	99.9	7.06	92.75	97.3	82.3
MW-4	11/08/2001	99.81	99.9	5.29	94.52	97.3	82.3

Table 4
Groundwater Elevation Data
Grantsburg Amoco - Mille Lacs Oil Company
Grantsburg, Wisconsin
ECCI Project No: 98063
BRRTS No: 03-07-186720

Well Number	Measurement Date	Top of Riser Elevation	Ground Surface Elevation	Depth to Water (TOR Feet	Water Table Elevation	Top of Screen Elevation	Bottom of Screen Elevation
PZ-1	08/04/1998	99.87	100.2	6.11	93.76	75.2	70.2
PZ-1	10/01/1998	99.87	100.2	6.04	93.83	75.2	70.2
PZ-1	11/03/1998	99.87	100.2	5.88	93.99	75.2	70.2
PZ-1	09/07/1999	99.86	100.1	4.49	95.37	75.2	70.2
PZ-1	05/31/2000	99.86	100.1	5.36	94.50	75.2	70.2
PZ-1	02/02/2001	99.86	100.1	7.67	92.19	75.2	70.2
PZ-1	11/08/2001	99.86	100.1	5.93	93.93	75.2	70.2
MW-5	08/04/1998	98.12	98.7	4.57	93.55	94.8	79.8
MW-5	10/01/1998	98.12	98.7	4.18	93.94	94.8	79.8
MW-5	11/03/1998	98.12	98.7	4.18	93.94	94.8	79.8
MW-5	09/07/1999	98.17	99.5	2.98	95.19	94.8	79.8
MW-5	05/31/2000	98.17	99.5	3.28	94.89	94.8	79.8
MW-5	02/02/2001						
MW-5	11/08/2001	98.17	99.5	4.51	93.66	94.8	79.8
MW-6	08/04/1998	100.20	97.9	6.85	93.35	95.2	80.2
MW-6	10/01/1998	100.20	97.9	10.21	89.99	95.2	80.2
MW-6	11/03/1998	100.20	97.9	6.48	93.72	95.2	80.2
MW-6	09/07/1999	96.27	96.7	5.62	90.65	95.2	80.2
MW-6	05/31/2000	96.27	96.7	5.79	90.48	95.2	80.2
MW-6	02/02/2001	96.27	96.7	8.12	88.15	95.2	80.2
MW-6	11/08/2001	96.27	96.7	6.08	90.19	95.2	80.2
PZ-2	08/04/1998	100.37	98.2	11.06	89.31	74.5	69.5
PZ-2	10/01/1998	100.37	98.2	7.53	92.84	74.5	69.5
PZ-2	11/03/1998	100.37	98.2	7.30	93.07	74.5	69.5
PZ-2	09/07/1999	96.75	96.7	6.47	90.28	74.5	69.5
PZ-2	05/31/2000	96.75	96.7	6.59	90.16	74.5	69.5
PZ-2	02/02/2001	96.75	96.7	8.98	87.77	74.5	69.5
PZ-2	11/08/2001	96.75	96.7	6.77	89.98	74.5	69.5

All measurements and elevations in feet
Elevations set to an arbitrary site datum
TOR = Top of Riser
Note: The TOR and ground surface elevations were adjusted at some wells due to construction on site. Elevations were resurveyed on September 7, 1999.



LEGEND

- B-9 SOIL BORING NUMBER AND LOCATION
- MW-5 MONITORING WELL NUMBER AND LOCATION
- PZ-1 PIEZOMETER NUMBER AND LOCATION

(95.35) = Water Elevation In Well

95 = Water Table Contour Line

SCALE IN FEET

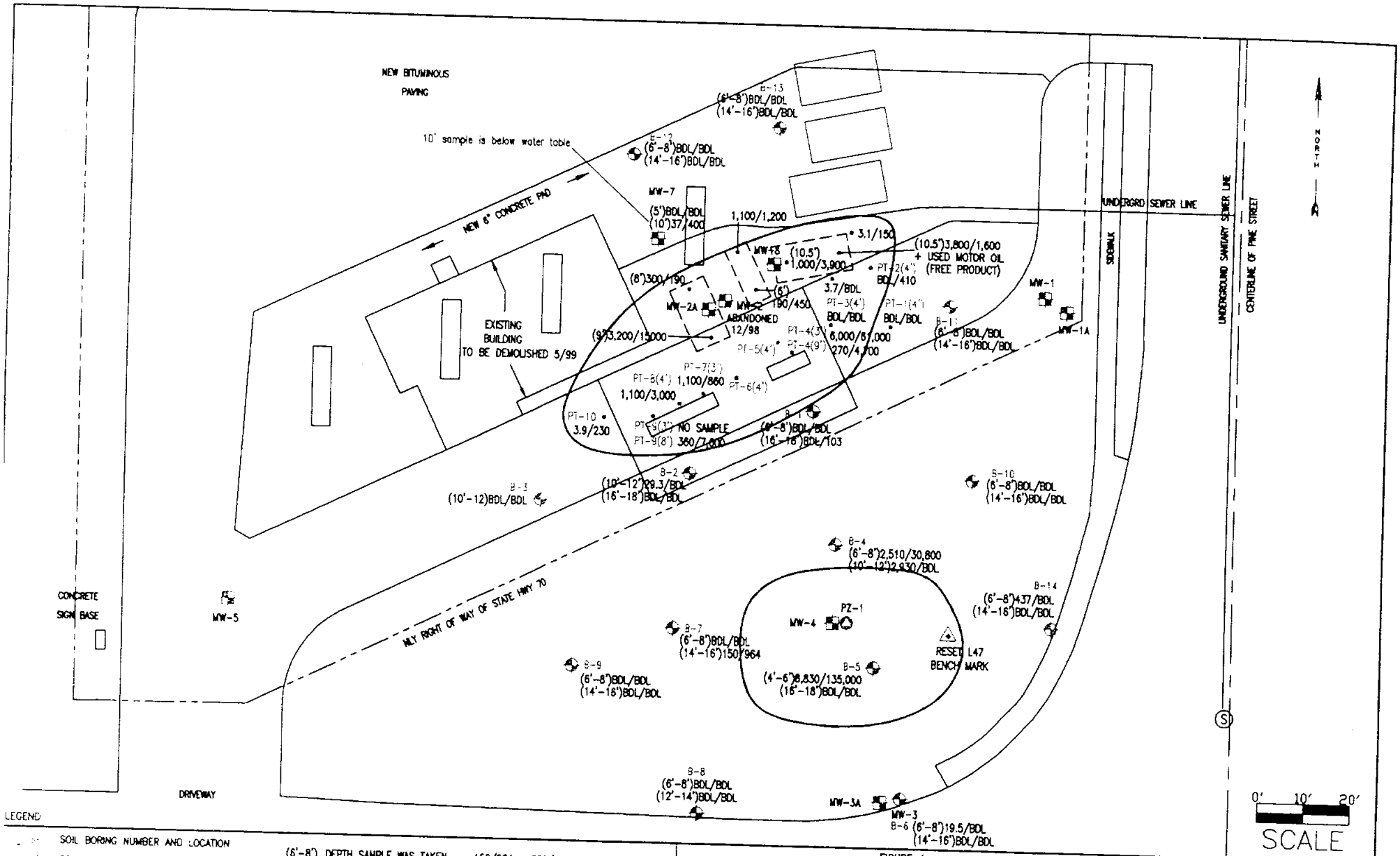
0 20 40

GRANTSBURG AMOCO
MILLE LACS OIL COMPANY
GRANTSBURG, WI

Figure 11
Water Table Contour Map
November 8, 2001

Nov. 2002	BDH

ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.



LEGEND

- SOIL BORING NUMBER AND LOCATION
- SOIL SAMPLE NUMBER, DEPTH AND LOCATION
- MW-4 MONITORING WELL NUMBER AND LOCATION

(6'-8') DEPTH SAMPLE WAS TAKEN

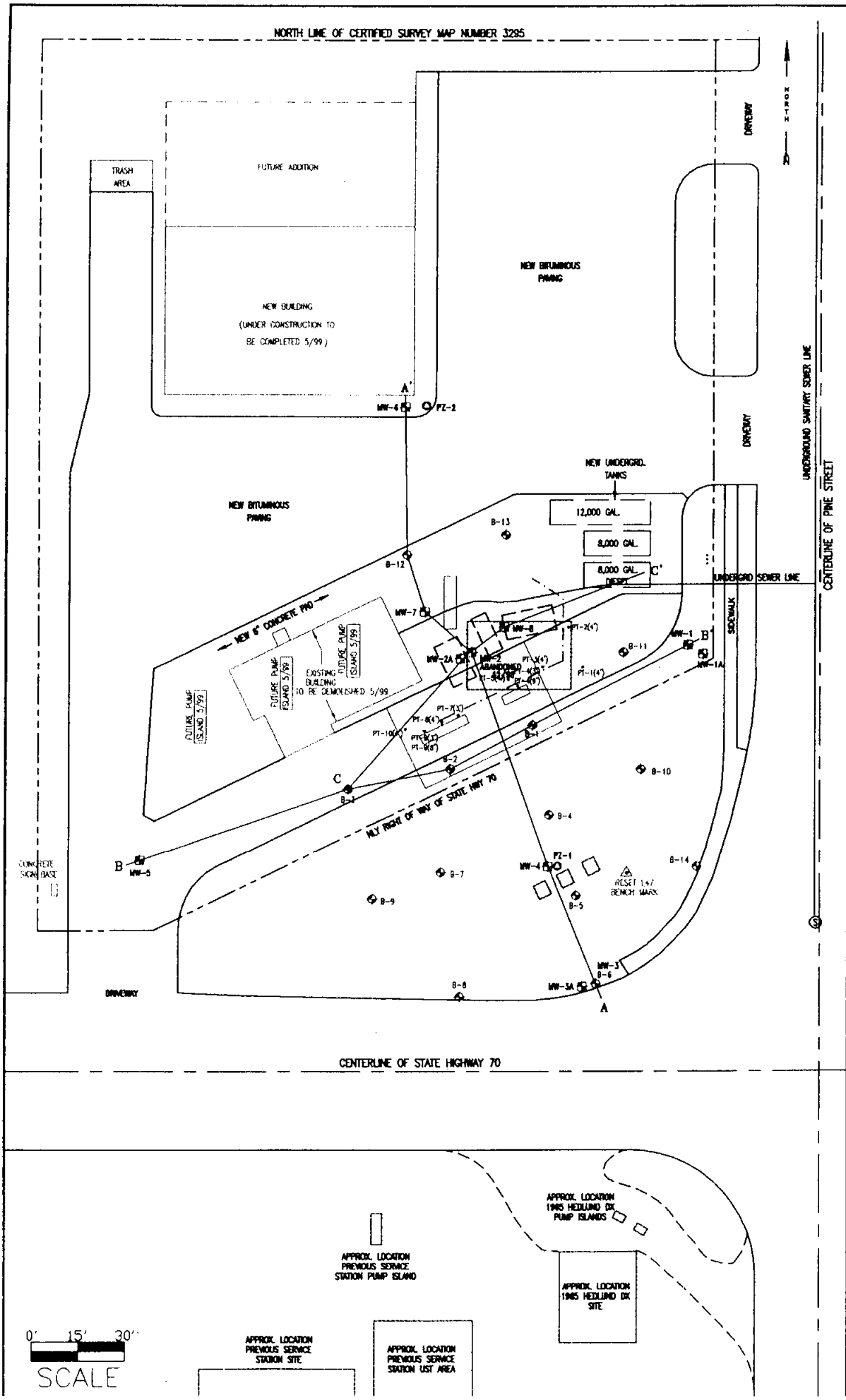
BDL BELOW DETECTION LIMIT

150/964 GRO/BENZENE READINGS; GRO REPORTED IN mg/kg BENZENE REPORTED IN ug/kg

FIGURE 4
Pre-Remedial Soil Sample Locations and Extent of Soil With NR 720 RCL Exceedences (at or above the water table)
GRANTSBERG AMOCO, MILLE LACS OIL
GRANTSBURG, WISCONSIN

E.C.C.I.

DRAWN BY:	PAS	9/03
DRAFTED BY:	PJB	01/99
CHECKED BY:	CLJ	9/03
APPROVED BY:		
FILE NAME: B-4b.DWG		



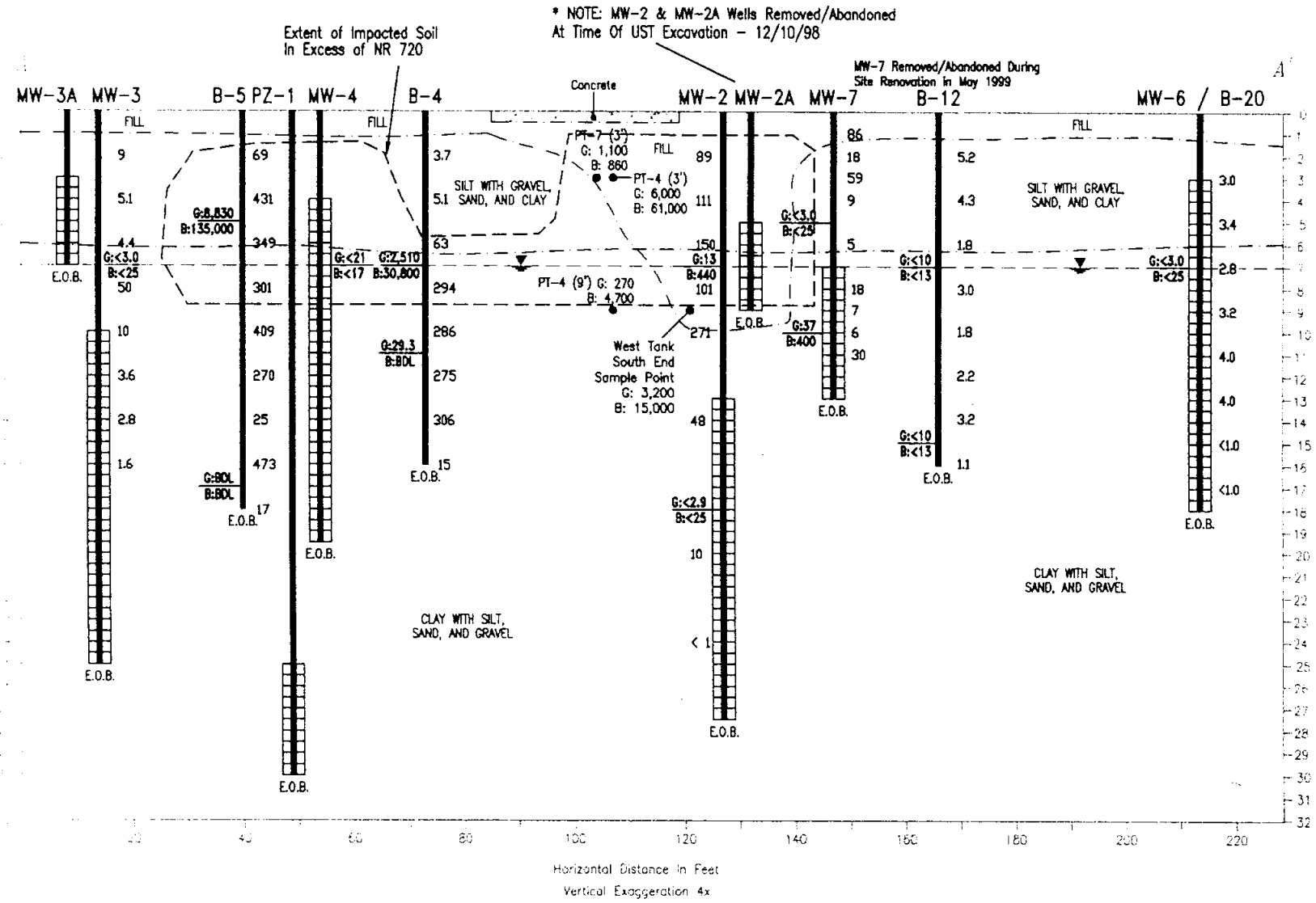
DRAWN BY:	PAS	9/03
DRAFTED BY:	PJB	11/98
CHECKED BY:	CJJ	9/03
APPROVED BY:		
FILE NAME: B-5A XClsc.DWG		

E.C.C.I.

FIGURE 5A
PRE-REMEDIAL CROSS SECTION LOCATION MAP
GRANTSBURG AMOCO, MILLE LACS OIL COMPANY
GRANTSBURG, WISCONSIN

CROSS SECTION LOCATION LINE(S) — A — A'

LEGEND
B-# SOIL BORING NUMBER AND LOCATION
MW-# MONITORING WELL NUMBER AND LOCATION

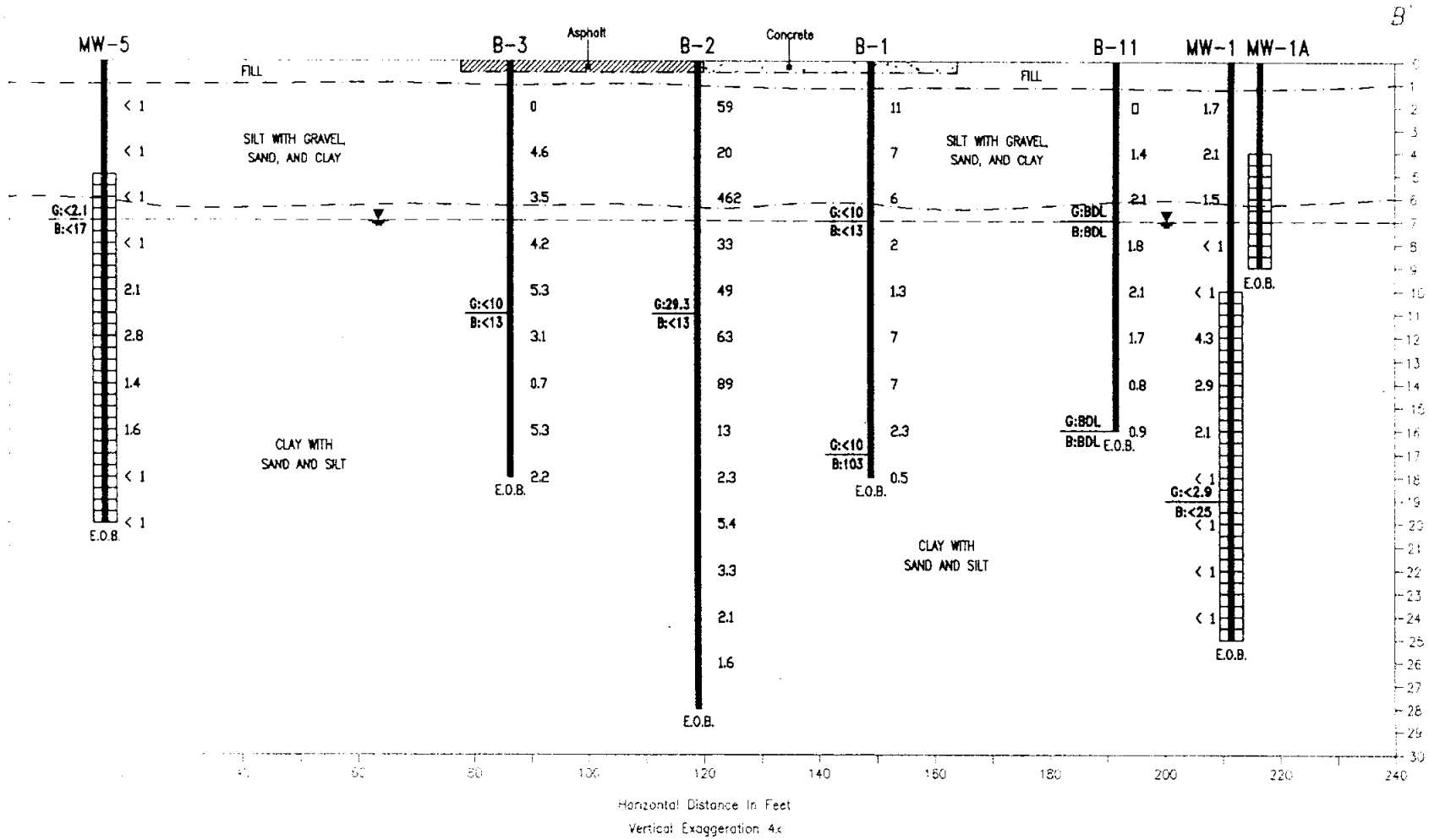


LEGEND					
286	PID Reading	Water Table Level	E.O.B.	End Of Boring	
G:<29.3 / B:<13	Gasoline Range Organic Measured in mg/kg / Benzene Measured in ug/kg	Well Screen	BDL	Below Detection Limits	

FIGURE 5B
PRE-REMEDIAL CROSS SECTION A TO A'
GRANTSBURG AMOCO, MILLE LACS OIL
GRANTSBURG, WISCONSIN

E.C.C.I.

DRAWN BY:	PAS	9/03
DRAFTED BY:	PJB	10/98
CHECKED BY:	CLJ	9/03
APPROVED BY:		
FILE NAME: XSECAA.DWG		



LEGEND

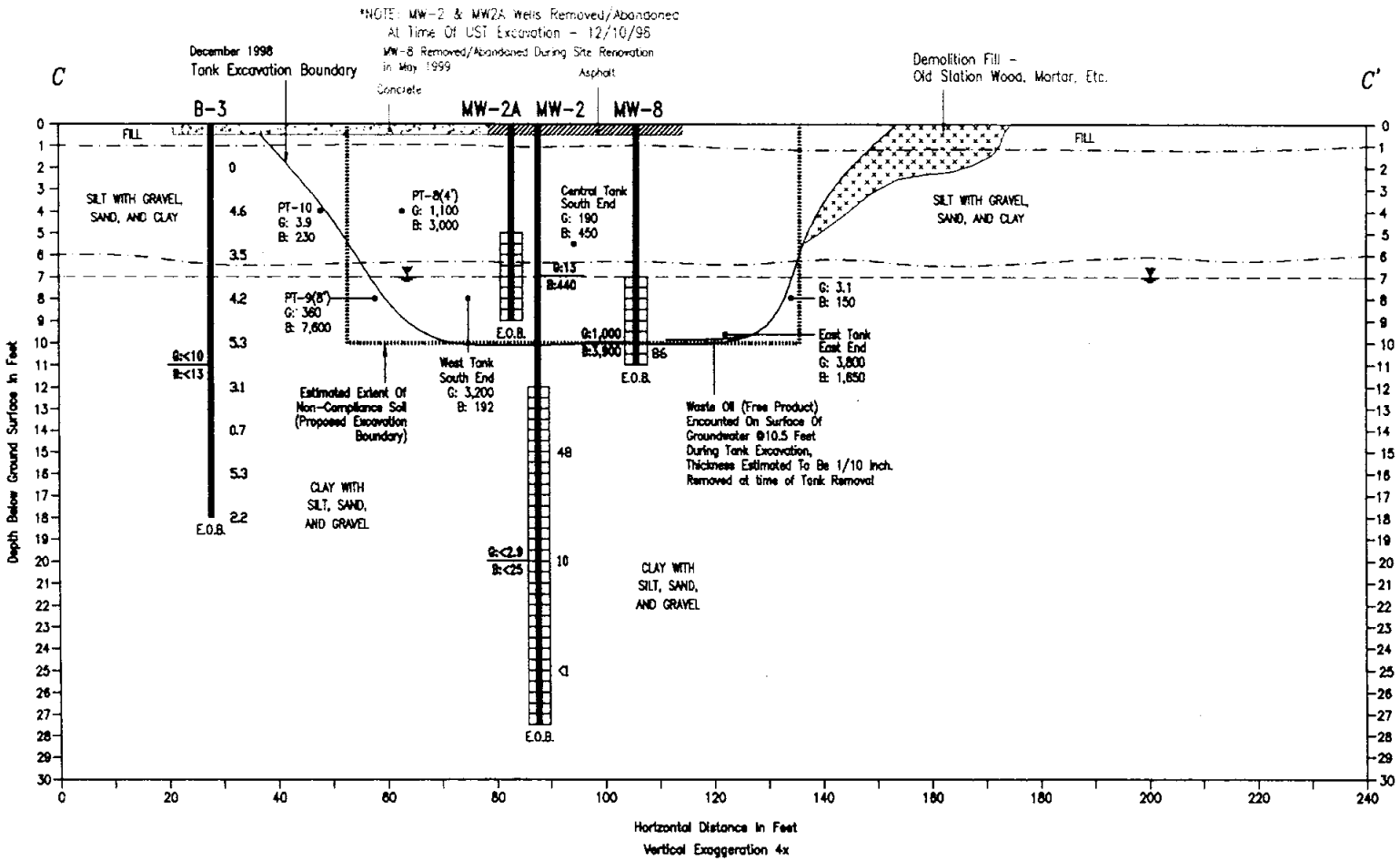
2.8	PID Reading		Water Table Level	E.O.B.	End Of Boring
G:<10 / B:<103	Gasoline Range Organic Measured In mg/kg / Benzene Measured In ug/kg		Well Screen	BDL	Below Detection Limits

FIGURE 5C

PRE-REMEDIAL CROSS SECTION B TO B'
GRANTSBURG AMOCO, MILLE LACS OIL
GRANTSBURG, WISCONSIN

E.C.C.I.

DRAWN BY:	PAS	9/03
DRAFTED BY:	PJB	10/98
CHECKED BY:	CLJ	9/03
APPROVED BY:		
FILE NAME: B-5C B-B.DWG		



LEGEND

2.8 PID Reading

G:<10 Gasoline Range Organic Measured In mg/kg
B:<103 Benzene Measured In ug/kg

Water Table Level

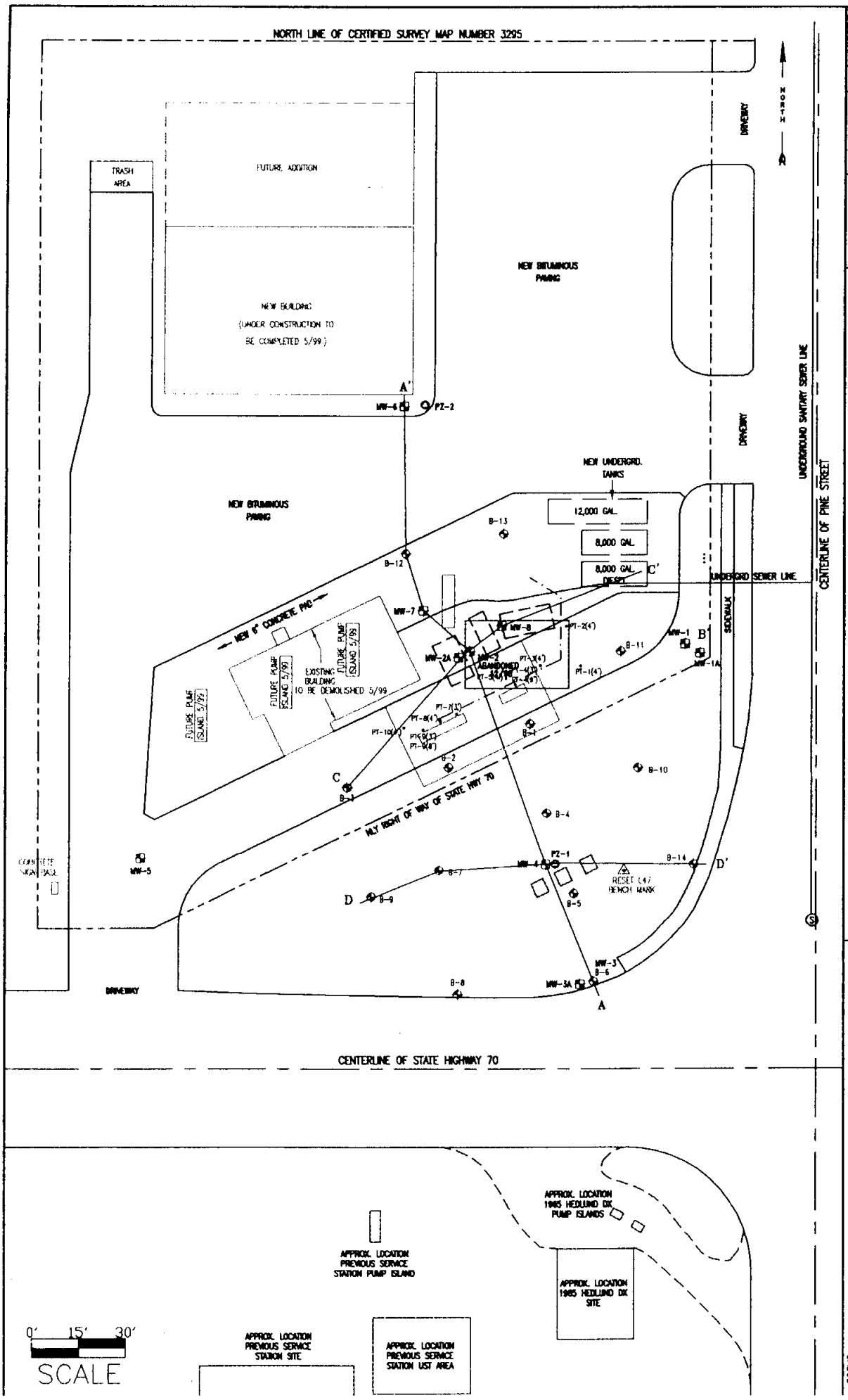
Well Screen

E.O.B. End Of Boring

FIGURE 5D
CROSS SECTION C TO C'
GRANTSBURG AMOCO, MILLE LACS OIL
GRANTSBURG, WISCONSIN

E.C.C.I.

DRAWN BY:	PAS	9/03
DRAFTED BY:	PJB	10/98
CHECKED BY:	CLJ	9/03
APPROVED BY:		
FILE NAME: XSECCC.DWG		



DRAWN BY:	PAS	9/03
DRAFTED BY:	RJB	11/98
CHECKED BY:	CJJ	9/03
APPROVED BY:		
FILE NAME: F-BA.DWG		

E.C.C.I.

FIGURE 8A

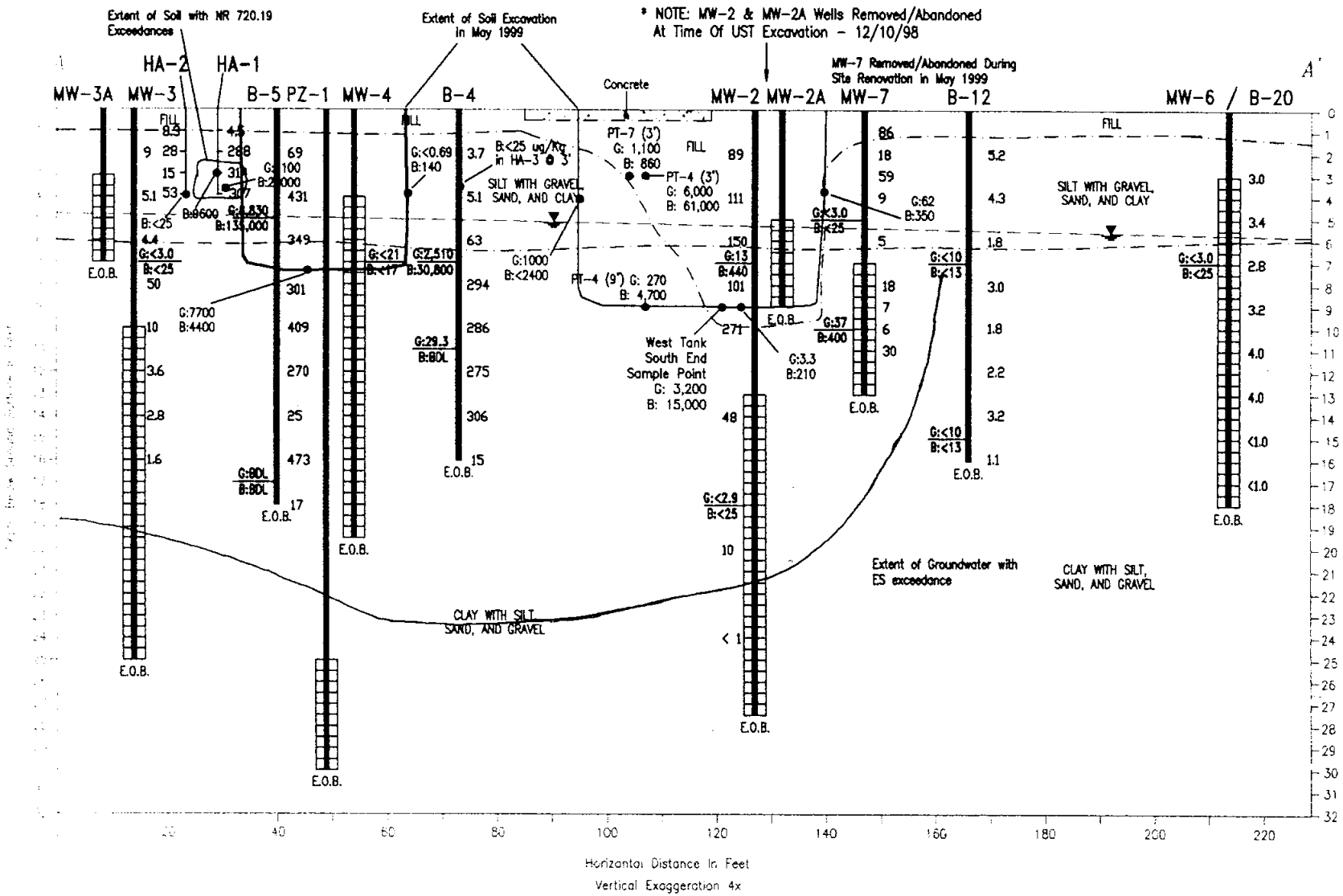
POST-REMEDIATION CROSS SECTION LOCATION MAP
GRANTSBURG AMOCO, MILLE LACS OIL COMPANY
GRANTSBURG, WISCONSIN

LEGEND

B-5 SOIL BORING NUMBER AND LOCATION

MW-5 MONITORING WELL NUMBER AND LOCATION

A — A' CROSS SECTION LOCATION LINE(S)



LEGEND

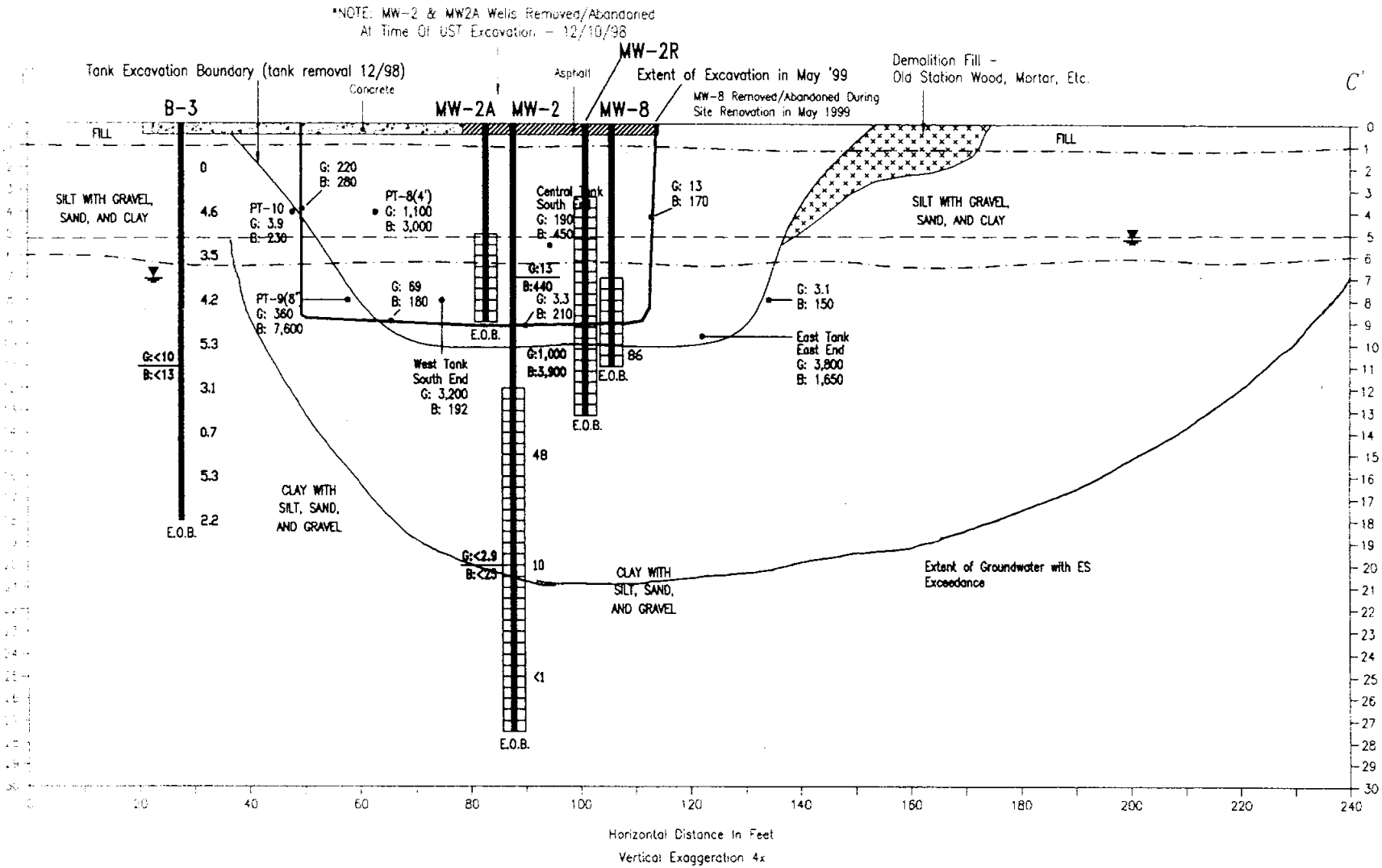
286	PID Reading		Water Table Level	E.O.B.	End Of Boring
G:<29.3 / B:<13	Gasoline Range Organic Measured in mg/kg / Benzene Measured in ug/kg		Well Screen	BDL	Below Detection Limits

FIGURE 8B

POST REMEDIATION CROSS SECTION A TO A'
GRANTSBURG AMOCO, MILLE LACS OIL
GRANTSBURG, WISCONSIN

E.C.C.I.

DRAWN BY:	PAS	9/03
DRAFTED BY:	PJB	10/98
CHECKED BY:	CLJ	9/03
APPROVED BY:		
FILE NAME: B-7a.DWG		



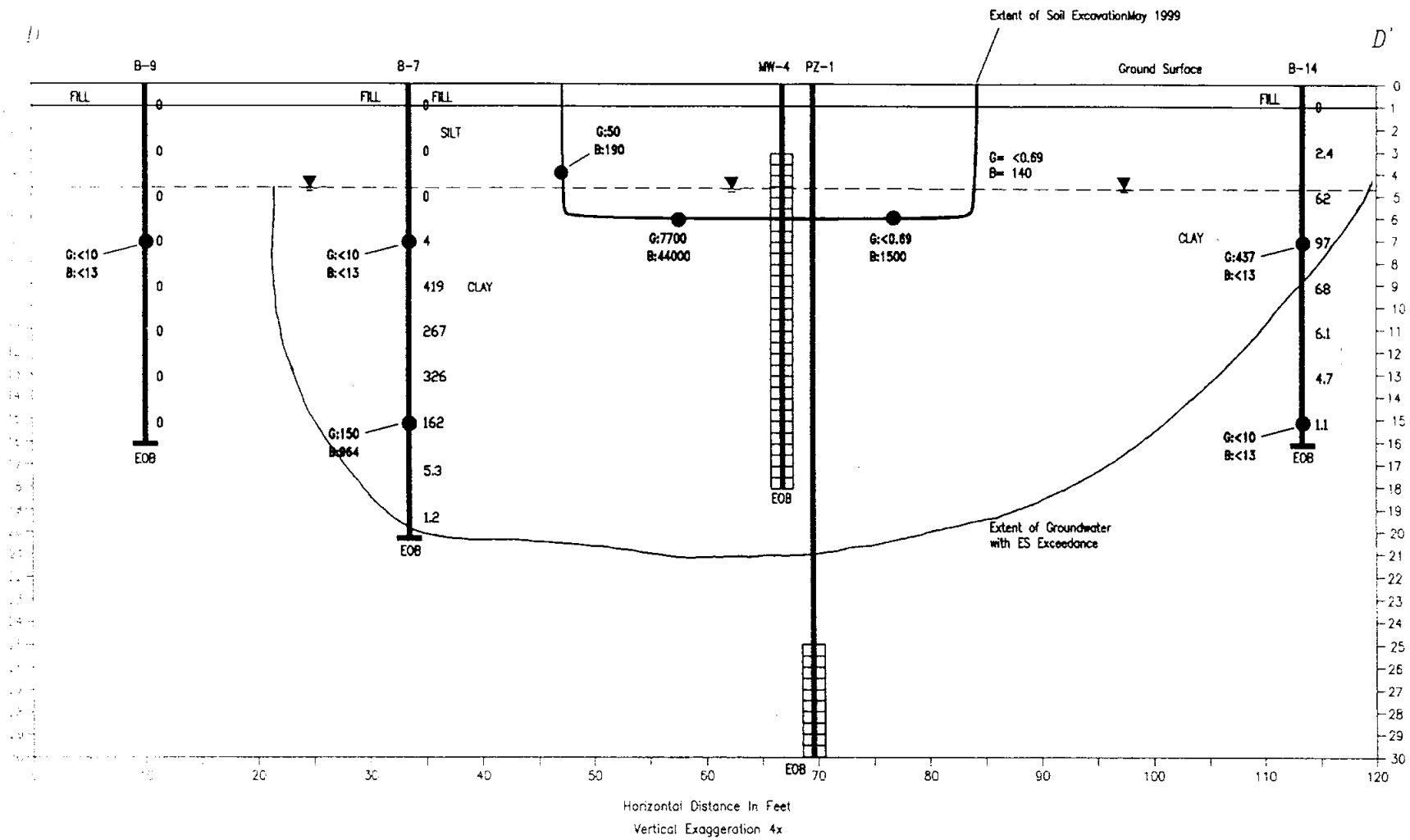
LEGEND				
2.8	PID Reading	Water Table Level	E.O.B.	End Of Boring
G:<10 / B:<103	Gasoline Range Organic Measured In mg/kg / Benzene Measured In ug/kg	Well Screen		

FIGURE 8C

POST REMEDIATION CROSS SECTION C TO C'
GRANTSBURG AMOCO, MILLE LACS OIL
GRANTSBURG, WISCONSIN

E.C.C.I.

DRAWN BY:	TDJ	10/98
DRAFTED BY:	PAS	9/03
CHECKED BY:	CLJ	9/03
APPROVED BY:		
FILE NAME: B-7b.DWG		



LEGEND

2.8 PID Reading

G:<10 Gasoline Range Organic Measured in mg/kg
B:<103 Benzene Measured in ug/kg

Water Table Level

Well Screen

EOB End of Boring

FIGURE 8D
POST REMEDIATION CROSS SECTION D TO D'
GRANTSBURG AMOCO, MILLE LACS OIL
GRANTSBURG, WISCONSIN

E.C.C.I.

DRAWN BY:	JMA	11/02
DRAFTED BY:	PAS	9/03
CHECKED BY:	CLJ	9/03
APPROVED BY:		
FILE NAME: XSECDD.DWG		

A.L. Anlauf
Chairman - CEO

MILLE LACS OIL CO.
102 Main Street North
Cambridge, MN 55008
(612) 689-2220
(612) 689-3970 - Fax

August 6, 2002

Wisconsin Department of Natural Resources

To Whom It May Concern:

Mille Lacs Oil Company states that the legal descriptions of all properties within or partially with the contaminated site boundaries are attached to the statement.

By: _____ Date: 8/6/02

ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.

1341 SUNDBY ROAD, SUITE 106 • DULUTH, MN 55811 • 218-525-0324 (VOICE) • 218-525-0326 (FAX)

December 30, 2002

Grantsburg Village Office
Jennifer Zeiler, Clerk
316 S. Brad Street
Grantsburg, WI 54840

RE: Notification of Gasoline Impacted Soil and Groundwater in Right-of-Way
Grantsburg Amoco
Intersection of State Highways 70 and 48

Dear Ms. Zeiler:

Attached is a letter submitted to the Wisconsin Department of Transportation to provide notification that gasoline impacted soil and groundwater are present in the right-of-way of State Highways 70 and 48 in Grantsburg. This letter is being submitted to you for your information, and to comply with Wisconsin Department of Natural Resources regulations. Investigation and cleanup has been conducted at this site in accordance with state regulations. Gasoline impacted soil and groundwater remain on the property. However, the plume is not expanding or migrating, and no adverse impacts to human health or the environment appear to present due to the residual gasoline remaining in soil and groundwater at the site. Natural attenuation will continue to mitigate the gasoline release.

Please call me at 218-525-0324, or Craig Johanesen in our Madison office at 608-223-0875, if you have any questions or concerns regarding this information.

Sincerely,
ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.

Jon M. Aspie

Jon M. Aspie
Senior Hydrogeologist

attachment

ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.

1341 SUNDBY ROAD, SUITE 106 • DULUTH, MN 55811 • 218-525-0324 (VOICE) • 218-525-0326 (FAX)

December 30, 2002

Wisconsin Department of Transportation
Attn: Sharlene Te Beest
P.O. Box 7965
Madison, WI 53707-7965

RE: Notification of Contamination within Right of Way

Dear Ms. Te Beest;

This letter is to notify the Wisconsin Department of Transportation that gasoline impacted soil and groundwater is present in the right-of-way of State Highways 70 and 48 in Grantsburg.

County:	Burnett
Highway:	State Highway 70 and State Highway 48
Site Name:	Grantsburg Amoco
Site Address:	108 W. Highway 70, Grantsburg, WI, 54840 (intersection of Highways 70 and 48).
BRRTS No.:	03-07-186720
PECFA No.:	54840-0188-08
DNR FID No.:	807073300
Owner's Name:	Mille Lacs Oil Company
Owner's Address:	102 Main St. N., Cambridge, MN, 55008
Consulting Firm:	Environmental Compliance Consultants, Inc.
Consultant Contact:	Jon Aspie
Consultant Address:	1341 Sundby Rd, Ste 106-D, Duluth, MN, 55811
Consultant Phone:	218-525-0324
Consultant Fax:	218-525-0326
Consultant E-mail:	jmaspie@eccinow.com

Soil Contamination:	Yes
Depth to Contaminated Soil:	2 feet below ground surface (bgs).
Vertical Extent of Contaminated Soil:	2 feet to approximately 4 feet bgs (to the water table).

Groundwater Contamination:	Yes
Depth to Water Table:	Approximately 4 feet within the right-of-way area.

Description of types of Contamination Present: Hydrocarbons associated with gasoline: benzene, toluene, ethylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and naphthalene have been present in groundwater samples at concentrations which exceed NR 140 enforcement standards. Xylenes and lead have been present at concentrations exceeding NR 140 Preventative Action Limits.

Benzene is present in soil at concentrations which exceed s. NR 720.19 Site Specific Residual Contaminant Levels.

Brief Summary of Cleanup Activity: Impacted soil was excavated from the right-of-way area in May 1999. Soil with the highest hydrocarbon concentrations was removed. However,

soil remains in place with residual hydrocarbons. Groundwater has been sampled since the soil excavation was conducted. The hydrocarbon concentrations in groundwater have been stable or declining since the excavation was conducted, and the extent of the plume has been stable or receding. The remaining hydrocarbon impacts in soil and groundwater are being mitigated through remediation by natural attenuation.

The following figures are included as attachments to this letter:

Site Location Map.
Current Plume Map for Groundwater Contamination.
Current Plume Map for Soil Contamination.

Please call me at 218-525-0324, or Craig Johanesen in our Madison, Wisconsin office at 608-223-0875, if you have any questions or comments regarding this information.

Sincerely,
ENVIRONMENTAL COMPLIANCE CONSULTANTS, INC.

Jon M. Aspie

Jon M. Aspie
Senior Hydrogeologist

cc: Clerk, Grantsburg Village Office, 316 S. Brad St., Grantsburg, WI, 54840