The following site is being submitted for inclusion into the GIS registry:

- To begin, click on cell to the right of; *This is a:*
- Use Tab, ↓ or Pg Down to navigate form. Print & include with file when completed.

This is a:	New Submittal
BRRTS ID (no dashes):	**0341004163**
Comm # (no dashes):	53226205924
County:	Milwaukee
Region:	Southeast
Site Name:	Amoco Station #18853
Street Address:	12324 W North Ave
City:	Wauwatosa
Final Closure Date:	2002-09-23
Closure Conditions:	met
Off-source property contamination?	No

(If yes, attach locational data and deed information on pg. 2)

Right-of-way contamination?	Yes
Contaminated media:	Groundwater

GPS Coordinates (meters in the **WTM91** projection)

Easting (X):	677465
Northing (Y):	289327
Collection Method:	DNR Web Site
Scale or Resolution:	1:7,297

(1:24,000 scale or finer)

Prepared by:	
Submitted by:	David Blair

Source Property Checklist

- ☒ Final Closure Letter
- ☒ The most recent deed including legal descriptions, for all properties within or partially within the contaminated site boundaries w/ Soil > NR 720 RCL and/or GW > NR 140 ES
- ☒ A certified surveyed map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map
- ☒ Parcel ID for all properties w/ Soil > NR 720 RCL and/or GW > NR 140 ES
- ☒ General Location Map
- ☒ Detailed Location Map showing property boundaries, buildings, MW(s), soil borings and/or potable wells etc for properties w/ Soil > NR 720 RCL and/or GW > NR 140 ES
- ☒ Latest Map(s) showing extent or outline of current GW and/or Soil contamination plume
- ☒ Latest Table of GW and/or Soil results
- ☒ Map showing GW flow direction
- ☒ A table of the previous 4 water level elevation measurements
- ☒ Geologic cross section (if generated as part of the site investigation)
- ☒ Statement signed by RP certifying correctness of legal descriptions
- ☒ ROW Notification

ENVIRONMENTAL & REGULATORY SERVICES DIVISION
BUREAU OF PECFA
101 West Pleasant Street, Suite 100A
Milwaukee, Wisconsin 53212-3963
TDD #: (608) 264-8777
Fax #: (414) 220-5374
http://www.commerce.state.wi.us
http://www.wisconsin.gov
Scott McCallum, Governor
Philip Edw. Albert, Secretary

Wisconsin
Department of Commerce

September 23, 2002

Mr. Raymond Stoelting
BP Products North America, Inc.
P.O. Box 642
Chanhassen, MN 55317-9998

RE: **Final Closure**

Commerce # 53226-2059-24 WDNR BRRTS # 03-41-004163
Amoco Station #18853, 12324 W. North Ave., Wauwatosa

Dear Mr. Stoelting:

The Wisconsin Department of Commerce (Commerce) has received all items required for closure of the site referenced above. This site is now listed as "closed" on the Commerce database and will be included on the Wisconsin Department of Natural Resources (WDNR) Geographic Information System (GIS) Registry of Closed Remediation Sites to document residual groundwater contamination.

It is in your best interest to keep all documentation related to the environmental activities at your site. If residual contamination is encountered in the future, appropriate measures must be implemented to assure that it is managed following all applicable regulations. If future site conditions indicate that any remaining contamination poses a threat, and subsequent information indicates a need to reopen this case, any original claim under the PECFA fund would also reopen and you may apply for assistance to the extent of remaining eligibility.

Thank you for your efforts to protect and restore Wisconsin's environment. If you have any questions, please contact me in writing at the letterhead address or by telephone at (414) 220-5402.

Sincerely,

Stephen D. Mueller
Hydrogeologist
Site Review Section

cc: Ms. Lisa Noblet, Delta Environmental Consultants, Inc.
Case File

COPY OF MOST RECENT PROPERTY DEED
(substituted City of Wauwatosa Assessor's Office Record)

PROPERTY OWNER NAME AND PROPERTY DESCRIPTION

(Provided by City of Wauwatosa Assessor's Office)

TAX ROLL YEAR	UNIT	KEY NUMBER
1998	CITY OF WAUWATOSA	337-0183-05

NAME & DESCRIPTION	ELIMINATE KEY NUMBERS
ROBERT C. FREDRICK, LAVERNE J. SPRAGUE, LOIS J. FREDRICK, RAYMOND W. FREDRICK, CAROLE J. GERDS & LINDA J. MC CARTHY, T/C SUBD OF SW1/4 SEC 18-7-21; PART OF LOT 2 DESC AS COM 235 FT E & 60.02 FT N OF SW COR SD SUBD TH W 174.98 FT N 179.98 FT E 259.98 FT S TO N LI W. NORTH AVE. TH W TO P.O.B.	337-0183-03 337-0183-04 RECEIVED MAR 6 - 1998 ASSESSOR'S OFFICE

DATE: 2/26/98

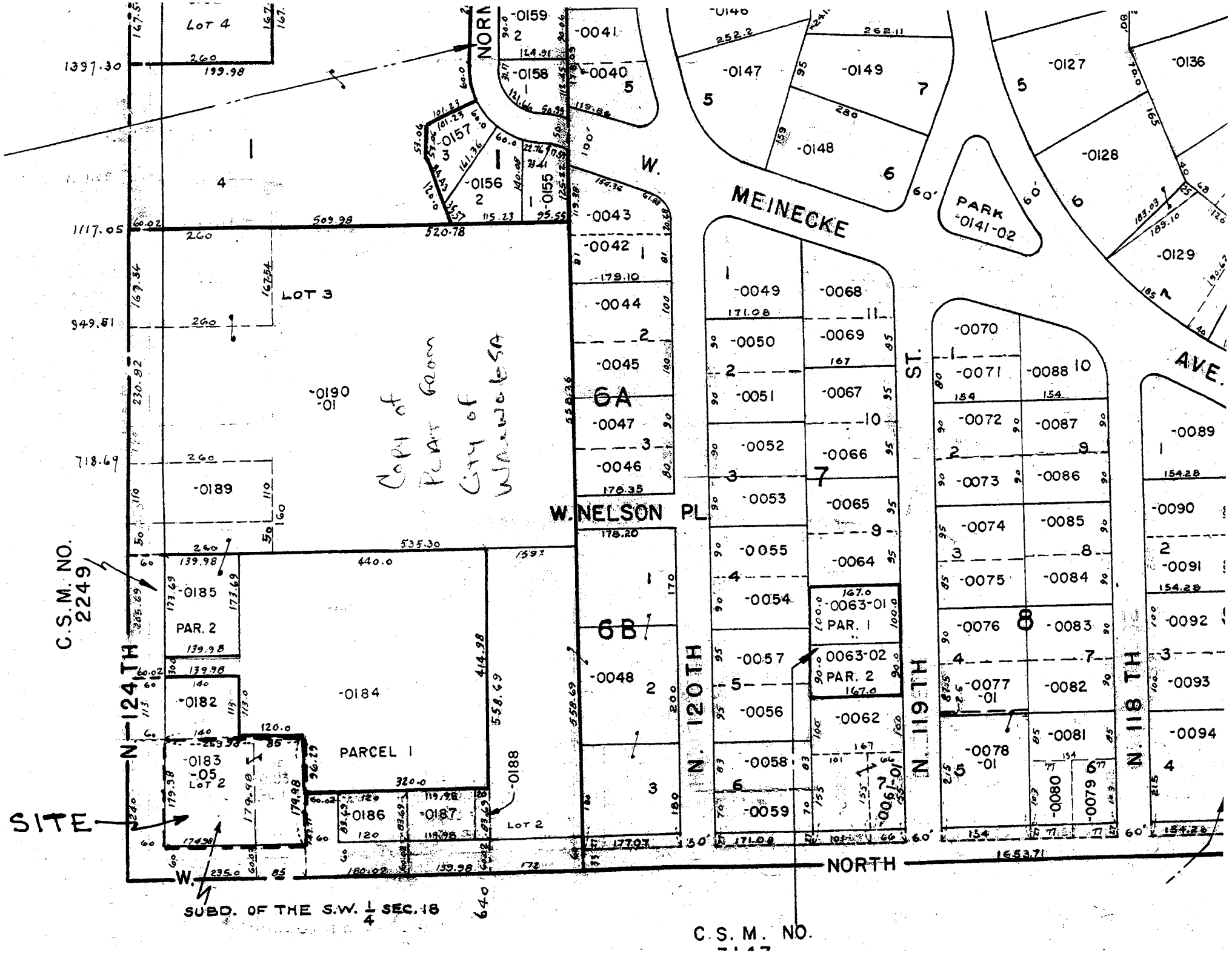
CANARY – ORIGINAL
GREEN – ASSESSOR'S COPY
WHITE – ABSTRACTOR'S COPY
2425 R3

MILWAUKEE COUNTY REGISTER OF DEEDS OFFICE
TAX LISTING DIVISION

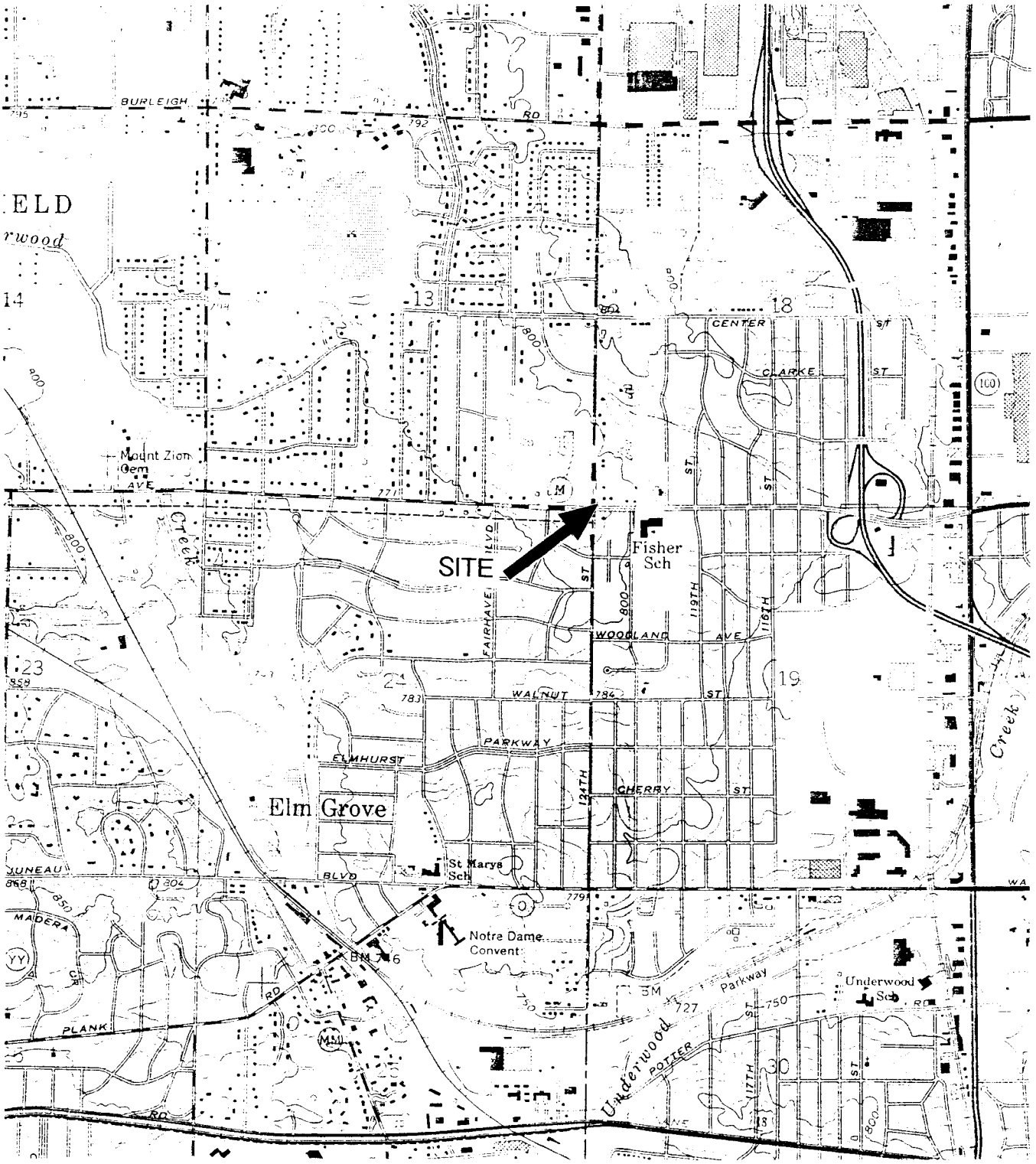
FULL PROPERTY DESCRIPTION WITHOUT ABBREVIATIONS

(As interpreted with the assistance of City of Wauwatosa Assessors Office)

That part of Subdivision of the Southwest ¼ of Section 18, Township 7 North, Range 21 East, in the City of Wauwatosa, Milwaukee County, Wisconsin, described as follows, to-wit: Part of Lot 2 described as Commencing 235 feet East and 60.02 feet North of the Southwest corner of said subdivision; thence West 174.98 feet; thence North 179.98 feet; thence East 259.98 feet; thence South to the North line of West North Avenue; thence West to the point of beginning.



LOT 4
LOT 3
PARCEL 1
PAR. 2
LOT 2
W. MEINECKE
W. NELSON PL.
N. 124TH
N. 120TH
N. 119TH
N. 118TH
ST.
AVE.
NORTH
PARK
C.S.M. NO. 2249
SITE
SUBD. OF THE S.W. 1/4 SEC. 18
C.S.M. NO.
Copy of Plat from City of Waukesha



QUADRANGLE LOCATION

WAUWATOSA QUADRANGLE
WISCONSIN
7.5 MINUTE SERIES (TOPOGRAPHIC)

North

0 2000

SCALE IN FEET

FIGURE 1
SITE LOCATION MAP
AMOCO SERVICE STATION No. 18853
12324 W. NORTH AVENUE
WAUWATOSA, WISCONSIN

PROJECT NO.	PREPARED BY
3240-304-1	BK
DATE	REVIEWED BY
1/2/96	

Delta Environmental Consultants, Inc.

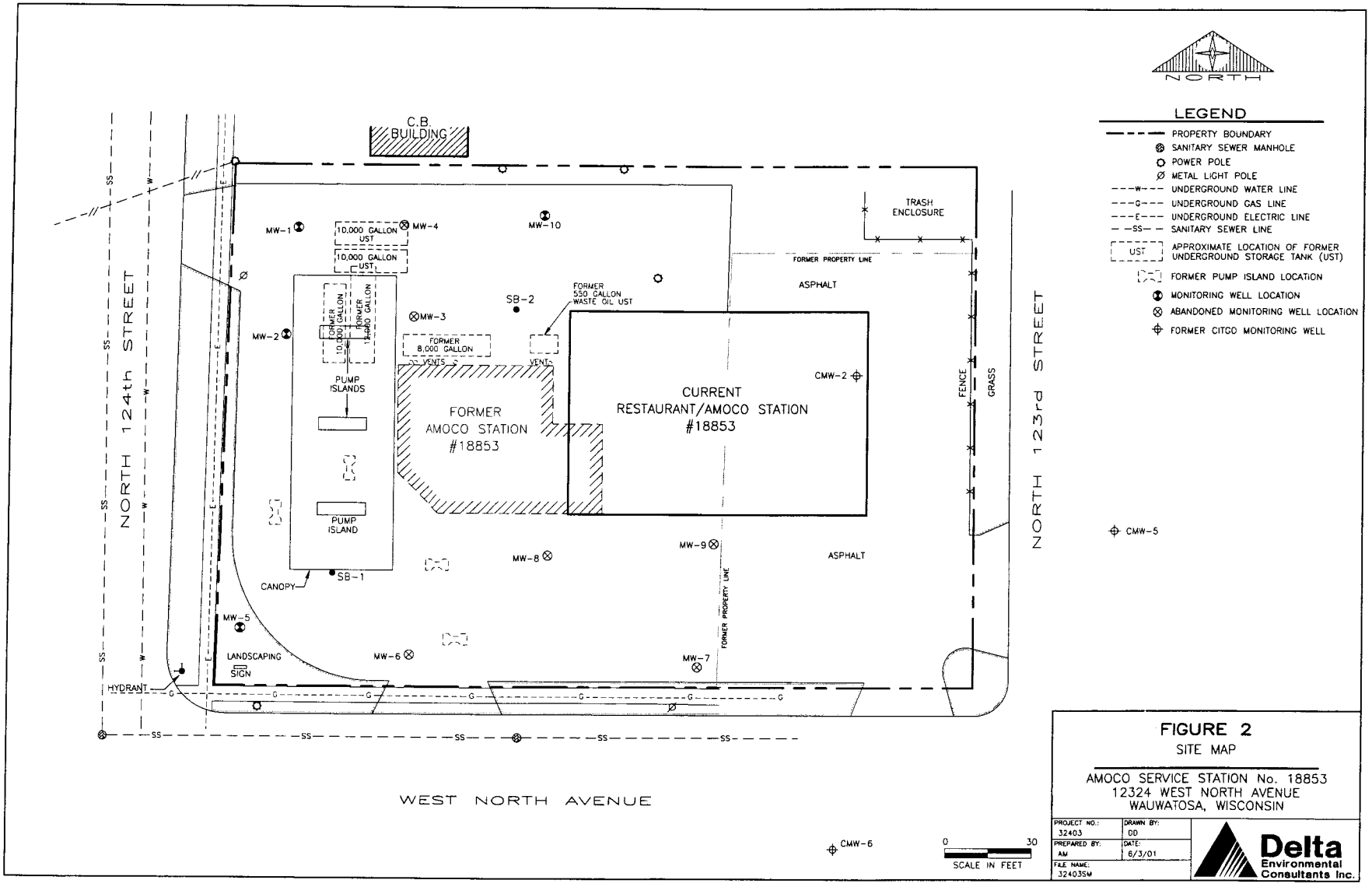
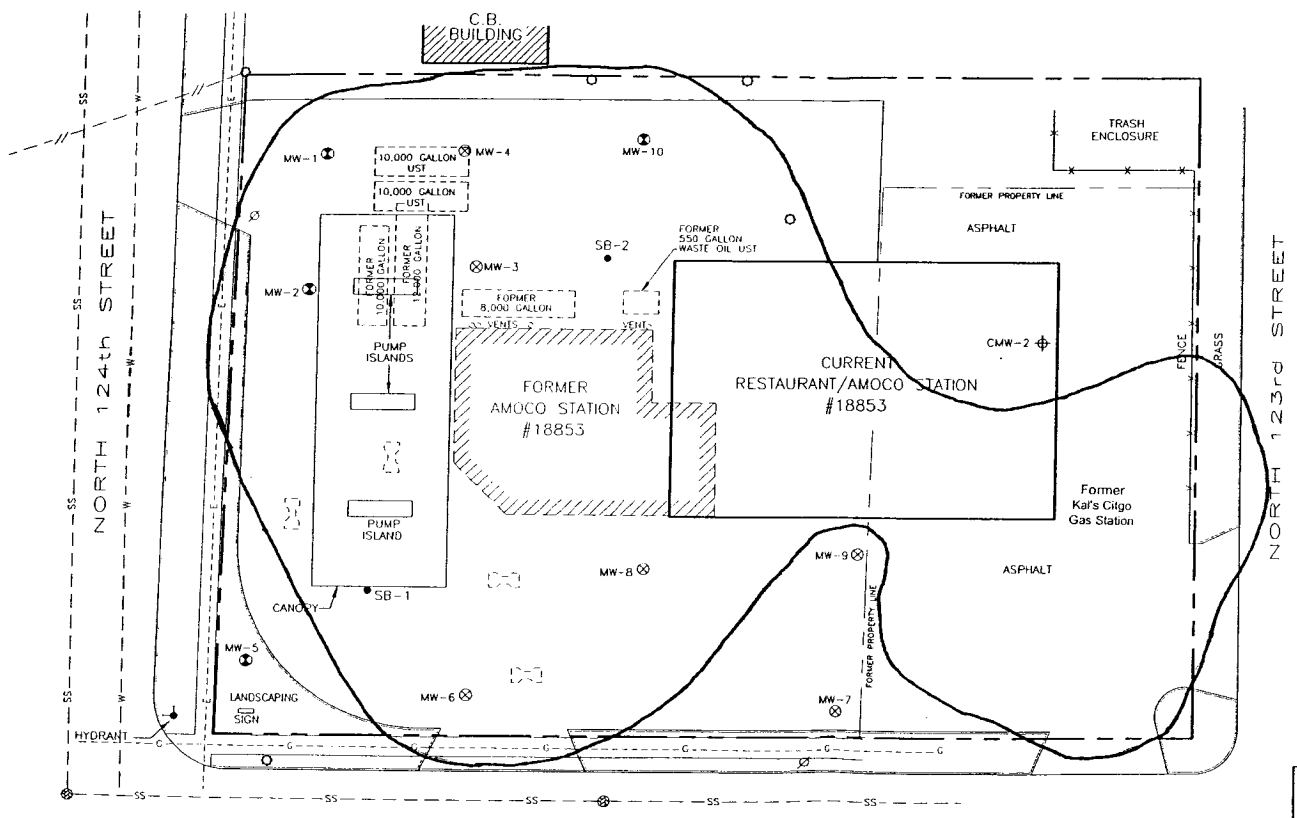


FIGURE 2
SITE MAP

AMOCO SERVICE STATION No. 18853
12324 WEST NORTH AVENUE
WAUWATOSA, WISCONSIN

PROJECT NO.: 32403	DRAWN BY: DD
PREPARED BY: AM	DATE: 6/3/01
FILE NAME: 32403SM	

Delta Environmental Consultants Inc.



NORTH

LEGEND

- PROPERTY BOUNDARY
- SANITARY SEWER MANHOLE
- POWER POLE
- METAL LIGHT POLE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- UNDERGROUND ELECTRIC LINE
- SANITARY SEWER LINE
- UST — APPROXIMATE LOCATION OF FORMER UNDERGROUND STORAGE TANK (UST)
- FORMER PUMP ISLAND LOCATION
- MONITORING WELL LOCATION
- ABANDONED MONITORING WELL LOCATION
- FORMER CITGO MONITORING WELL
- ESTIMATED EXTENT OF ENFORCEMENT STANDARD EXCEEDENCES IN GROUNDWATER

CMW-5

FIGURE 1

RESIDUAL PLUME OF GROUNDWATER CONTAMINATION

AMOCO SERVICE STATION No. 18853
12324 WEST NORTH AVENUE
WAUWATOSA, WISCONSIN

PROJECT NO.: 32403	DRAWN BY: DD
PREPARED BY: AM	DATE: 6/3/01
FILE NAME: 324035M	

Delta Environmental Consultants Inc.

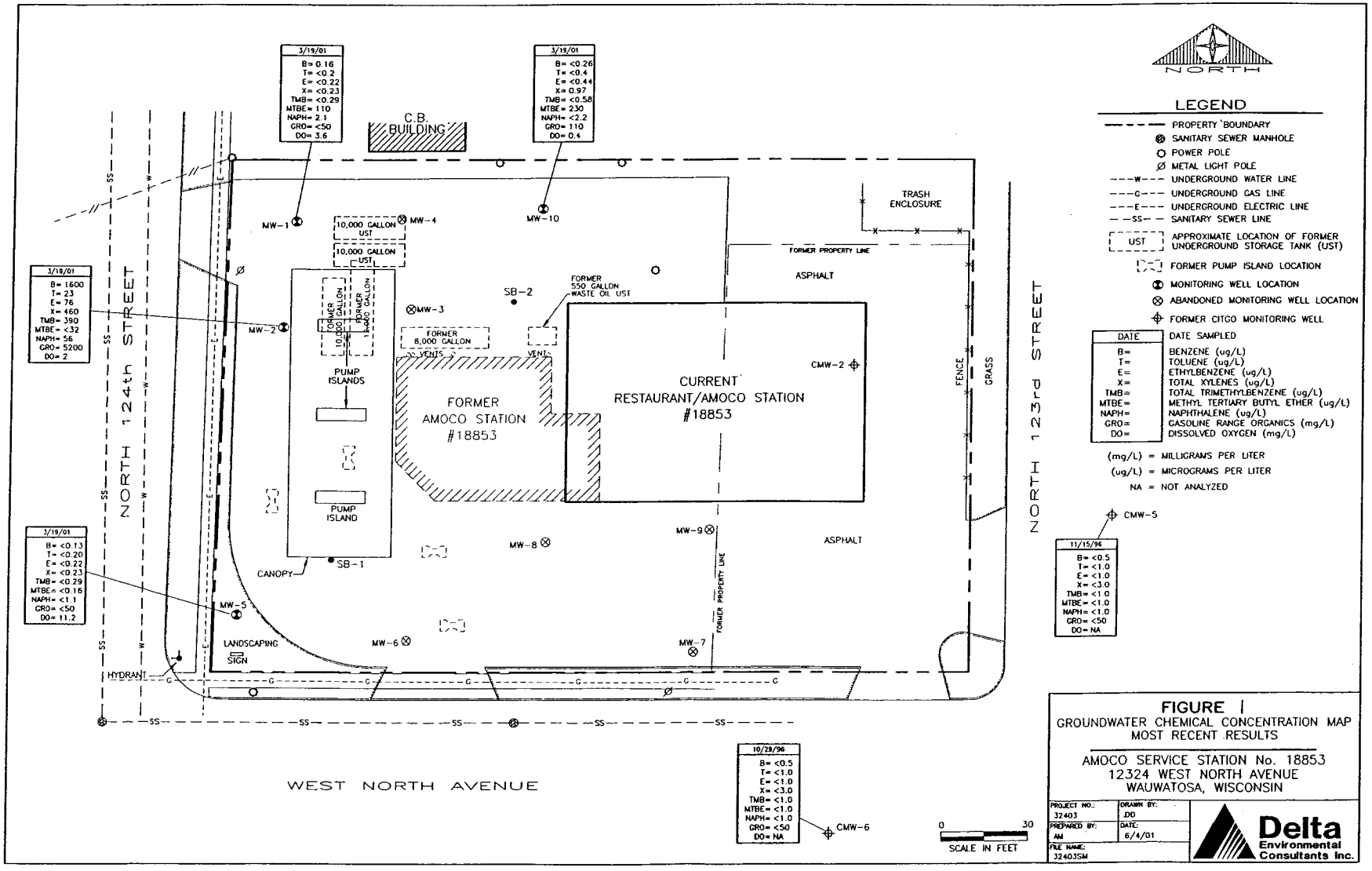


FIGURE 1
GROUNDWATER CHEMICAL CONCENTRATION MAP
MOST RECENT RESULTS

AMOCO SERVICE STATION No. 18853
12324 WEST NORTH AVENUE
WAUWATOSA, WISCONSIN

PROJECT NO.: 32403	DRAWN BY: DO
PREPARED BY: AM	DATE: 6/4/01
FILE NAME: 32403SM	

Delta Environmental Consultants Inc.

Table 3
Ground Water Analytical Results
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI

MW-1

Analytical Parameters													Bio-Parameters		
Parameter/	**Benzene**	**Toluene**	**Ethyl-benzene**	**Xylenes**	**Total TMBs**	**MTBE**	**GRO**	**n-Propyl-benzene**	**sec-Butyl-benzene**	**n-Butyl-benzene**	**Naph-thalene**	**Lead**	**DO**	**REDOX**	**Soluble Iron**
Date Sampled	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ppm	milli Volts	ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	<1.0	<1.0	<1.0	<2.0	<1.0	**83**	<50	NA	NA	NA	NA	<3.0	1.0	NM	0.0
08/17/95	<0.80	<1.2	<1.6	<2.6	<1.4	**110**	<50	<1.8	<1.6	<2.4	<3.2	<3.0	1.0	011	1.0
11/02/95	<1.0	<1.0	<1.0	<2.0	<1.0	**160**	85	NA	NA	NA	NA	NA	3.3	-034	1.0
02/13/96	<2.0	<2.0	<2.0	<4.0	4.8	**810**	340	NA	NA	NA	NA	NA	2.3	062	0.1
08/22/96	<2	<2	<2	<4	<2.0	**490**	320	NA	NA	NA	NA	NA	2.3	105	0.3
08/25/97	2.8	<1.0	<1.0	<2.0	<1.0	**2000**	1100	NA	NA	NA	NA	NA	0.8	018	0.8
09/97	Remedial excavation of 4500 tons of soil.														
03/12/99	1.5	1.9	2.2	4.6	4.7	**800**	310	NA	NA	NA	NA	NA	0.8	055	1.0
03/31/00	<0.15	<0.4	<0.5	<0.4	<0.4	**335**	NA	NA	NA	NA	<0.8	NA	4.6	091	NM
06/19/00	0.27	0.23	<0.22	0.53	0.55	**300**	NA	NA	NA	NA	<1.1	NA	4.0	112	NM
03/19/01	0.16	<0.2	<0.22	<0.23	<0.29	**110**	<50	NA	NA	NA	2.1	NA			

MW-2

Analytical Parameters													Bio-Parameters		
Parameter/	**Benzene**	**Toluene**	**Ethyl-benzene**	**Xylenes**	**Total TMBs**	**MTBE**	**GRO**	**n-Propyl-benzene**	**sec-Butyl-benzene**	**n-Butyl-benzene**	**Naph-thalene**	**Lead**	**DO**	**REDOX**	**Soluble Iron**
Date Sampled	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ppm	milli Volts	ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	**2600**	56	500	1000	390	**1500**	7300	NA	NA	NA	NA	3.1	2.0	NM	1.0
08/17/95	**3100**	68	510	1100	**560**	**900**	9200	<90	<80	270	**230**	<3.0	5.0	-078	2.0
11/02/95	**3300**	<120	310	810	**820**	**1000**	6000	<180	250	<240	<320	<3.0	3.0	-208	10+
02/13/96	**2900**	<60	460	650	**560**	**700**	9500	<90	<80	<120	<160	<3.0	2.5	-102	10+
08/22/96	**1300**	24	240	304	257	**300**	4200	NA	NA	NA	NA	NA	1.6	-130	10+
08/25/97	**4600**	<100	**1100**	1200	**1020**	**1200**	7000	NA	NA	NA	NA	NA	0.4	-70	10+
09/97	Remedial excavation of 4500 tons of soil.														
03/12/99	**2100**	40	430	530	423	**480**	5900	NA	NA	NA	NA	NA	0.7	-61	>10
03/31/00	**2200**	56.3	**951**	945	**946**	**440**	NA	NA	NA	NA	**119**	NA	3.9	-115	5.0
03/31/00 D	**2540**	44.3	**1020**	1012	**1015**	**480**	NA	NA	NA	NA	**125**	NA			
06/19/00	**1300**	27	340	480	468	<120	NA	NA	NA	NA	**81**	NA	1.7	-120	NM
03/19/01	**1600**	23	76	460	390	<32	5200	NA	NA	NA	**56**	NA			

Table 3
Ground Water Analytical Results
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI

MW-3

Analytical Parameters													Bio-Parameters		
Parameter/	**Benzene**	**Toluene**	**Ethyl-benzene**	**Xylenes**	**Total TMBs**	**MTBE**	**GRO**	**n-Propyl-benzene**	**sec-Butyl-benzene**	**n-Butyl-benzene**	**Naph-thalene**	**Lead**	**DO**	**REDOX**	**Soluble Iron**
Date Sampled	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ppm	milli Volts	ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	**51**	15	120	180	106	**81**	1300	NA	NA	NA	NA	6.7	2.0	NM	2.0
08/17/95	**70**	62	**810**	2900	**1200**	**16000**	17000	120	<4.0	300	**270**	<3.0	5.0	-019	4.0
11/02/95	**67**	<12	390	1200	**690**	**16000**	10000	76	17	230	**100**	<3.0	1.0	-240	10+
02/13/96	**<120**	170	**1500**	4200	**1500**	**12000**	23000	<220	<200	440	<400	NA	0.6	-129	10+
04/96	**Well Abandoned**														

MW-4

Analytical Parameters													Bio-Parameters		
Parameter/	**Benzene**	**Toluene**	**Ethyl-benzene**	**Xylenes**	**Total TMBs**	**MTBE**	**GRO**	**n-Propyl-benzene**	**sec-Butyl-benzene**	**n-Butyl-benzene**	**Naph-thalene**	**Lead**	**DO**	**REDOX**	**Soluble Iron**
Date Sampled	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ppm	milli Volts	ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	<1.0	<1.0	<1.0	<2.0	<1.0	**230**	130	NA	NA	NA	NA	<3.0	4.0	NM	0.1
08/17/95	<4.0	<6.0	<8.0	<13	<7.0	**660**	250	<9.0	<8.0	<12	<16	<3.0	1.0	-049	0.2
11/02/95	**16**	17	<5.0	<10	<5.0	**1500**	1200	NA	NA	NA	NA	NA	4.5	041	0.4
02/13/96	<10	<10	<10	21	54	**4300**	2000	NA	NA	NA	NA	NA	3.1	166	0.9
04/96	**Well Abandoned**														

MW-5

Analytical Parameters													Bio-Parameters		
Parameter/	**Benzene**	**Toluene**	**Ethyl-benzene**	**Xylenes**	**Total TMBs**	**MTBE**	**GRO**	**n-Propyl-benzene**	**sec-Butyl-benzene**	**n-Butyl-benzene**	**Naph-thalene**	**Lead**	**DO**	**REDOX**	**Soluble Iron**
Date Sampled	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ppm	milli Volts	ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	<1.0	<1.0	<1.0	<2.0	<1.0	<4.0	<50	NA	NA	NA	NA	<3.0	5.0	NM	0.2
08/17/95	<0.4	<0.6	<0.8	<1.3	<0.7	<0.4	<50	<0.9	<0.8	<1.2	<1.6	<3.0	3.0	-030	1.0
11/02/95	2.1	2.1	<1.0	<2.0	<1.0	<4.0	<50	NA	NA	NA	NA	NA	3.7	010	2.0
02/13/96	<1.0	<1.0	<1.0	<2.0	<1.0	<4.0	<50	NA	NA	NA	NA	NA	4.9	064	-0.2
08/25/97	<1.0	<1.0	<1.0	<2.0	<1.0	<4.0	<50	NA	NA	NA	NA	NA	1.0	38	0.2
09/97	Remedial excavation of 4500 tons of soil.														
03/12/99	<1.0	<1.0	<1.0	<2.0	<1.0	<4.0	<100	NA	NA	NA	NA	NA	2.4	219	2.0
03/31/00	<0.15	<0.4	<0.5	<0.4	<0.4	<0.3	NA	NA	NA	NA	<0.8	NA	5.8	192	NM
06/19/00	<0.13	<0.20	<0.22	<0.23	<0.29	<0.16	NA	NA	NA	NA	<1.1	NA	6.7	176	NM
03/19/01	<0.13	<0.20	<0.22	<0.23	<0.29	<0.16	<50	NA	NA	NA	<1.1	NA			

Table 3
Ground Water Analytical Results
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI

MW-6

Analytical Parameters													Bio-Parameters		
Parameter/ Date Sampled	Benzene µg/L	Toluene µg/L	Ethyl-benzene µg/L	Xylenes µg/L	Total TMBs µg/L	MTBE µg/L	GRO µg/L	n-Propyl-benzene µg/L	sec-Butyl-benzene µg/L	n-Butyl-benzene µg/L	Naph-thalene µg/L	Lead µg/L	DO ppm	REDOX milli Volts	Soluble Iron ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	**690**	29	680	580	266	**630**	4100	NA	NA	NA	NA	<3.0	1.0	NM	0.3
08/17/95	**370**	15	600	450	320	**110**	3600	45	<16	130	**60**	<3.0	2.0	-124	10+
11/02/95	**1000**	130	**1300**	2400	**1,090**	**390**	37000	150	13	340	**170**	NA	1.2	-159	10+
02/13/96	**960**	95	**1400**	1000	**650**	**310**	7600	110	<80	310	<160	NA	3.0	-111	10
08/22/96	**440**	83	**710**	870	472	**140**	5900	NA	NA	NA	NA	NA	1.1	-063	4.3
08/25/97	**1000**	95	**1000**	1600	**790**	**520**	7400	NA	NA	NA	NA	NA	0.8	62	9.0
9/97	**Well Destroyed**														

MW-7

Analytical Parameters													Bio-Parameters		
Parameter/ Date Sampled	Benzene µg/L	Toluene µg/L	Ethyl-benzene µg/L	Xylenes µg/L	Total TMBs µg/L	MTBE µg/L	GRO µg/L	n-Propyl-benzene µg/L	sec-Butyl-benzene µg/L	n-Butyl-benzene µg/L	Naph-thalene µg/L	Lead µg/L	DO ppm	REDOX milli Volts	Soluble Iron ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	<1.0	<1.0	<1.0	<2.0	1	14	270	NA	NA	NA	NA	<3.0	2.0	NM	4.0
08/17/95	1.8	3.7	2.2	2.6	3	<2.0	570	14	4.5	47	<3.2	<3.0	3.0	-132	5.0
11/02/95	4.5	5.4	4.4	4.0	3.5	<1.0	420	5.7	2.8	35	1.8	NA	3.4	-034	2.0
02/13/96	<0.5	<0.6	<0.8	<1.3	<0.7	<1.0	84	<0.9	<0.8	4.0	<1.6	NA	5.2	000	2.5
04/96	**Well Abandoned**														

MW-8

Analytical Parameters													Bio-Parameters		
Parameter/ Date Sampled	Benzene µg/L	Toluene µg/L	Ethyl-benzene µg/L	Xylenes µg/L	Total TMBs µg/L	MTBE µg/L	GRO µg/L	n-Propyl-benzene µg/L	sec-Butyl-benzene µg/L	n-Butyl-benzene µg/L	Naph-thalene µg/L	Lead µg/L	DO ppm	REDOX milli Volts	Soluble Iron ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	**570**	92	67	170	74	**9600**	5700	NA	NA	NA	NA	<3.0	1.0	NM	0.1
08/17/95	**53**	<1.2	23	<2.6	<1.4	**7600**	4300	<1.8	<1.6	8.4	<3.2	<3.0	2.0	-036	1.0
11/02/95	**270**	170	170	<100	67	**9800**	5300	NA	NA	NA	NA	NA	2.0	-073	1.0
02/13/96	**200**	170	210	470	319	**19000**	8600	NA	NA	NA	NA	NA	1.6	-078	1.0
08/22/96	**58**	<20	<20	<40	<20	**6400**	4600	NA	NA	NA	NA	NA	2.1	-047	1.5
08/25/97	**120**	11	42	10	3.7	**3700**	2700	NA	NA	NA	NA	NA	0.7	68	4.0
9/97	**Well Destroyed**														

Table 3
Ground Water Analytical Results
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI

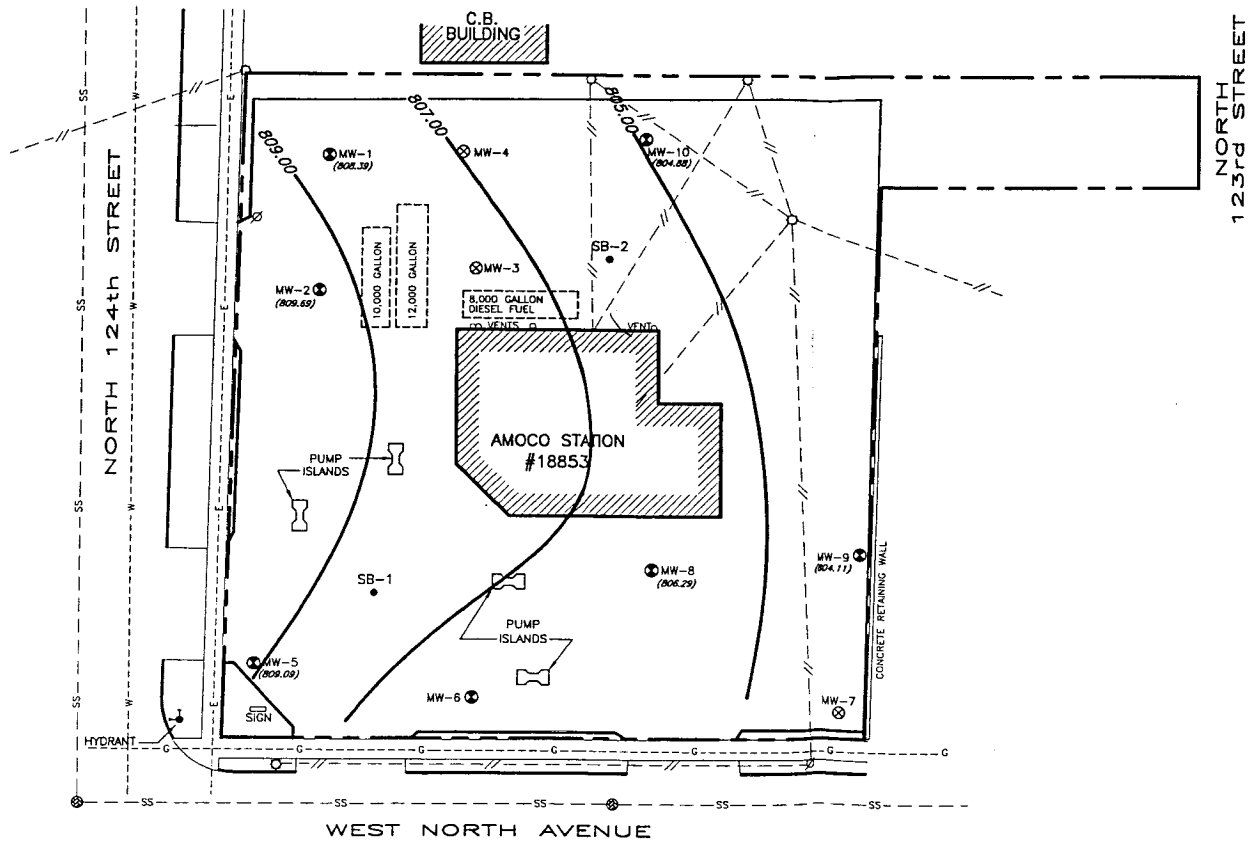
MW-9

Analytical Parameters													Bio-Parameters		
Parameter/	**Benzene**	**Toluene**	**Ethyl-benzene**	**Xylenes**	**Total TMBs**	**MTBE**	**GRO**	**n-Propyl-benzene**	**sec-Butyl-benzene**	**n-Butyl-benzene**	**Naph-thalene**	**Lead**	**DO**	**REDOX**	**Soluble Iron**
Date Sampled	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ppm	milli Volts	ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	<1.0	<1.0	<1.0	<2.0	<1.0	14	<50	NA	NA	NA	NA	<3.0	1.0	NM	0.0
08/17/95	<0.4	<0.6	<0.8	<1.3	<0.7	10	<50	<0.9	<0.8	<1.2	<1.6	<3.0	2.0	009	0.2
11/02/95	**280**	180	160	<100	79	**11000**	5700	NA	NA	NA	NA	NA	3.0	019	0.4
02/13/96	<1.0	<1.0	<1.0	<2.0	<1.0	21	<50	NA	NA	NA	NA	NA	4.6	044	0.1
08/25/97	<1	<1	<1	<2	<1.0	36	<50	NA	NA	NA	NA	NA	0.6	11	0.2
9/97	**Well Destroyed**														

MW-10

Analytical Parameters													Bio-Parameters		
Parameter/	**Benzene**	**Toluene**	**Ethyl-benzene**	**Xylenes**	**Total TMBs**	**MTBE**	**GRO**	**n-Propyl-benzene**	**sec-Butyl-benzene**	**n-Butyl-benzene**	**Naph-thalene**	**Lead**	**DO**	**REDOX**	**Soluble Iron**
Date Sampled	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	ppm	milli Volts	ppm
NR 140 ES	***5.0***	***1000***	***700***	***10000***	***480***	***60***	---	---	---	---	***40***	***15***			
01/26/94	<1.0	<1.0	<1.0	<2.0	<1.0	**110**	54	NA	NA	NA	NA	<3.0	1.0	NM	0.1
08/17/95	<0.80	<1.2	<1.6	<2.6	<1.4	**82**	<50	<1.8	<1.6	<2.4	<3.2	<3.0	3.0	054	0.2
11/02/95	<1.0	<1.0	<2.0	<1.0	<1.0	**100**	59	NA	NA	NA	NA	NA	8.0	-021	0.1
08/22/96	<2.0	<2.0	<2.0	<4.0	<2.0	**76**	<100	NA	NA	NA	NA	NA	2.1	062	0.1
08/25/97	<1.0	<1.0	<1.0	<2.0	<1.0	**1400**	920	NA	NA	NA	NA	NA	0.8	59	0.1
09/97	Remedial excavation of 4500 tons of soil.														
03/12/99	<1.0	<1.0	<1.0	<2.0	<1.0	**260**	110	NA	NA	NA	NA	NA	0.9	-136	0.8
03/31/00	<1.50	<4.0	<5.0	<4.0	<4.0	**302**	NA	NA	NA	NA	<8	NA	4.0	-122	0.2
06/19/00	0.35	0.22	<0.22	1.6	<0.29	**210**	NA	NA	NA	NA	<1.1	NA	2.3	-091	10+
6/19/00 D	0.36	0.24	<0.22	1.6	<0.29	**230**	NA	NA	NA	NA	<1.1	NA			
03/19/01	<0.26	<0.40	<0.44	0.97	<0.58	**230**	110	NA	NA	NA	<2.2	NA			

Notes:
< = less than the method detection limit
NR 140 ES = Wisconsin Adm. Code Chap. NR 140 Enforcement Standard (Rev. 03/00)
"bold type" = = Indicates that the reported concentration exceeds the NR 140 ES.
µg/L = micrograms per liter
D = Duplicate
TMBs = Trimethylbenzenes
MTBE = Methyl Tertiary Butyl Ether
GRO = Gasoline Range Organics
DO = Dissolved Oxygen
Redox = Reduction/Oxidation potential
ppm = parts per million
NA = Not analyzed
NM = Not Measured
MW-3, MW-4, and MW-7 were abandoned by Delta Environmental Consultants on 4/96



NORTH

LEGEND

- PROPERTY BOUNDARY
- SANITARY SEWER MANHOLE
- POWER POLE
- METAL LIGHT POLE
- OVERHEAD UTILITY LINE
- UNDERGROUND WATER LINE
- UNDERGROUND GAS LINE
- UNDERGROUND ELECTRIC LINE
- SANITARY SEWER LINE
- APPROXIMATE UNDERGROUND STORAGE TANK LOCATION (UST)
- MONITORING WELL LOCATION
- ABANDONED MONITORING WELL LOCATION
- (804.11) GROUND WATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- 805.00 GROUND WATER CONTOUR LINE CONTOUR INTERVAL = 2.00 FEET

NOTE: MW-6 WAS NOT USED IN GROUND WATER CONTOURS DUE TO SUBSURFACE ANOMOLIES.

FIGURE 8

GROUND WATER ELEVATION CONTOUR MAP
AUGUST 22, 1996

AMOCO SERVICE STATION No. 18853
12324 W. NORTH AVENUE
WAUWATOSA, WISCONSIN

PROJECT NO.: 3240-304-1	DRAWN BY: LS/EKO
PREPARED BY: BK	DATE: 1/6/97
FILE NAME: 593825-2	

Delta Environmental Consultants Inc.

Table 2
Groundwater Elevation Summary
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI
Delta Project No.32403

MW-1

TOC Elevation	**811.39**	**Well Depth**	**20.00**
Ground Elevation	**811.95**	**Screen Length**	**15.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	5.80	805.59	NA		Delta
2/24/1994	3.47	807.92	2.33	Submerged Sceen	Delta
8/17/1995	2.34	809.05	1.13	Submerged Sceen, Bailed 5.5 gal, dry	Delta
11/2/1995	2.26	809.13	0.08	Submerged Sceen, Bailed 5.5 gal, dry	Delta
2/13/1996	3.49	807.90	-1.23	Submerged Sceen, Bailed 5 gal, dry	Delta
8/22/1996	3.00	808.39	0.49	Submerged Sceen, brown, slight turb	Delta
8/25/1997	1.65	809.74	1.35	Submerged Sceen, mild brown	Delta
3/12/1999	3.85	807.54	-2.20	Submerged Sceen, mild brown	Delta
3/31/2000	4.49	806.90	-0.64	Submerged Sceen, light brown	Delta
6/19/2000	3.87	807.52	0.62	Submerged Sceen, cloudy brown	Delta
3/19/2001	4.05	807.34	-0.18	light brown, bailed 10 gal.	Delta

MW-2

TOC Elevation	**811.17**	**Well Depth**	**20.00**
Ground Elevation	**811.79**	**Screen Length**	**15.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	4.80	806.37	NA	Submerged Sceen	Delta
2/24/1994	3.23	807.94	1.57	Submerged Sceen	Delta
8/17/1995	2.42	808.75	0.81	Submerged Sceen ,Odor, very silty, bailed 5.5 gal, dry	Delta
11/2/1995	2.45	808.72	-0.03	Submerged Sceen , Odor, bailed 5.5 gal, dry	Delta
2/13/1996	4.32	806.85	-1.87	Submerged Sceen , Odor, bailed 5 gal dry, flooded	Delta
8/22/1996	1.48	809.69	2.84	Submerged Sceen, clear	Delta
8/25/1997	2.28	808.89	-0.80	Submerged Sceen, FC med grey	Delta
3/12/1999	4.14	807.03	-1.86	Submerged Sceen , Purged dry 5g	Delta
3/31/2000	4.38	806.79	-0.24	Submerged Sceen, light brown	Delta
6/19/2000	3.94	807.23	0.44	Submerged Sceen, cloudy brown	Delta
3/19/2001	4.21	806.96	-0.27	dark brown, purged 10 gal.	Delta

Table 2
Groundwater Elevation Summary
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI
Delta Project No.32403

MW-3

TOC Elevation	**811.10**	**Well Depth**	**13.00**
Ground Elevation	**811.58**	**Screen Length**	**10.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	5.17	805.93	NA		Delta
2/24/1994	NM	NA	NA		Delta
8/17/1995	2.15	808.95	NA	Submerged Sceen, Odor, silty, bailed 2.5 gal, dry	Delta
11/2/1995	1.91	809.19	0.24	Submerged Sceen	Delta
2/13/1996	3.53	807.57	-1.62	Odor, bailed 2 gal, dry, flooded	Delta
Well Abandoned 4/96					

MW-4

TOC Elevation	**811.10**	**Well Depth**	**20.00**
Ground Elevation	**811.68**	**Screen Length**	**15.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	6.32	804.78	NA		Delta
2/24/1994	6.39	804.71	-0.07		Delta
8/17/1995	4.39	806.71	2.00	Submerged Sceen, Dry at 5 gal	Delta
11/2/1995	6.21	804.89	-1.82	Dry at 5 gal	Delta
2/13/1996	5.00	806.10	1.21	4 gal, dry, flooded	Delta
Well Abandoned 4/96					

Table 2
Groundwater Elevation Summary
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI
Delta Project No.32403

MW-5

TOC Elevation	**812.48**	**Well Depth**	**18.00**
Ground Elevation	**813.08**	**Screen Length**	**15.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	6.08	806.40	NA		Delta
2/24/1994	5.06	807.42	1.02		Delta
8/17/1995	3.46	809.02	1.60	Cloudy, silty	Delta
11/2/1995	3.01	809.47	0.45	Bailed 5 gal, dry	Delta
2/13/1996	5.80	806.68	-2.79	4.5 gal, dry	Delta
8/22/1996	3.39	809.09	2.41		Delta
8/25/1997	2.77	809.71	0.62	Submerged Sceen, mild brown	Delta
3/12/1999	3.92	808.56	-1.15	Purged dry 2gal	Delta
3/31/2000	3.75	808.73	0.17	light brown	Delta
6/19/2000	3.11	809.37	0.64	cloudy brown	Delta
3/19/2001	3.28	809.20	-0.17	light brown, purged 9 gal.	Delta

MW-6

TOC Elevation	**810.96**	**Well Depth**	**17.60**
Ground Elevation	**811.52**	**Screen Length**	**15.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	8.40	802.56	NA		Delta
2/24/1994	7.62	803.34	0.78		Delta
8/17/1995	3.58	807.38	4.04	Bailed 4.5 gal, dry	Delta
11/2/1995	5.69	805.27	-2.11	Bailed 3.25 gal, dry	Delta
2/13/1996	7.58	803.38	-1.89	4 gal, dry, flooded	Delta
8/22/1996	5.46	805.50	2.12	brown, slight turb	Delta
8/25/1997	6.35	804.61	-0.89	Mild/Grey, FC	Delta
Well destroyed on 3/31/00					

Table 2
Groundwater Elevation Summary
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI
Delta Project No.32403

MW-7

TOC Elevation	**809.33**	**Well Depth**	**18.60**
Ground Elevation	**810.33**	**Screen Length**	**15.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	9.45	799.88	NA		Delta
2/24/1994	8.02	801.31	1.43		Delta
8/17/1995	4.27	805.06	3.75	Clear, Bailed 5 gal, dry	Delta
11/2/1995	3.73	805.60	0.54	Bailed 4.5 gal, dry	Delta
2/13/1996	7.20	802.13	-3.47	4 gal, dry, flooded	Delta
Well Abandoned 4/96					

MW-8

TOC Elevation	**810.87**	**Well Depth**	**13.00**
Ground Elevation	**811.57**	**Screen Length**	**10.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	6.28	804.59	NA		Delta
2/24/1994	5.45	805.42	0.83		Delta
8/17/1995	4.35	806.52	1.10	Slight odor	Delta
11/2/1995	3.81	807.06	0.54	Odor	Delta
2/13/1996	5.11	805.76	-1.30		Delta
8/22/1996	4.58	806.29	0.53	clear	Delta
8/25/1997	4.60	806.27	-0.02	mild brown	Delta
Well destroyed on 3/31/00					

Table 2
Groundwater Elevation Summary
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI
Delta Project No.32403

MW-9

TOC Elevation	**810.27**	**Well Depth**	**13.00**
Ground Elevation	**810.67**	**Screen Length**	**10.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	7.39	802.88	NA		Delta
2/24/1994	5.19	805.08	2.20		Delta
8/17/1995	5.80	804.47	-0.61	Cloudy	Delta
11/2/1995	4.67	805.60	1.13		Delta
2/13/1996	5.66	804.61	-0.99	4.5 gal, dry	Delta
8/22/1996	6.16	804.11	-0.50		Delta
8/25/1997	6.53	803.74	-0.37	mild brown	Delta
Well destroyed on 3/31/00					

MW-10

TOC Elevation	**810.86**	**Well Depth**	**13.50**
Ground Elevation	**811.32**	**Screen Length**	**10.00**

Date	Groundwater Depth (Below TOC)	Groundwater Elevation	Elevation Difference	Physical Observations	Recorded By
01/26/94	7.70	803.16	NA		Delta
2/24/1994	4.74	806.12	2.96		Delta
8/17/1995	6.10	804.76	-1.36	Clear	Delta
11/2/1995	5.50	805.36	0.60		Delta
2/13/1996	NM	NA	NM	Obstructed by truck	Delta
8/22/1996	5.98	804.88	NM	clear	Delta
8/25/1997	5.17	805.69	0.81	mild brown	Delta
3/12/1999	1.52	809.34	3.65	Heavy road salt no conver. pad	Delta
3/31/2000	2.94	807.92	-1.42	light brown	Delta
6/19/2000	2.27	808.59	0.67	turbid yellow/grey	Delta
3/19/2001	3.25	807.61	-0.98	clear, purged 6.5 gal	Delta

Date	Groundwater Flow Direction	Comments
01/26/94	east southeast	
2/24/1994	inconclusive	
8/17/1995	northeast	
11/2/1995	northeast	
2/13/1996	southeast	
8/22/1996	east northeast	Wells MW-3, MW-4, & MW-7 were abandoned 4/96
8/25/1997	east southeast	
3/12/1999	inconclusive	Insufficent data points due to submerged screens
3/31/2000	inconclusive	Wells MW-6, MW-*, & MW-9 weredestroyed during excavation activities on 3/31/00. Insuffient data points due to submerged screens.
6/19/2000	inconclusive	Insufficent data points due to submerged screens
3/19/2001	inconclusive	Insufficient data points due to submerged screens

Table 2
Groundwater Elevation Summary
Amoco Service Station No.18853
12324 W. North Avenue
Wauwatosa, WI
Delta Project No.32403

NOTES:

NA = not applicable

NM = not measured

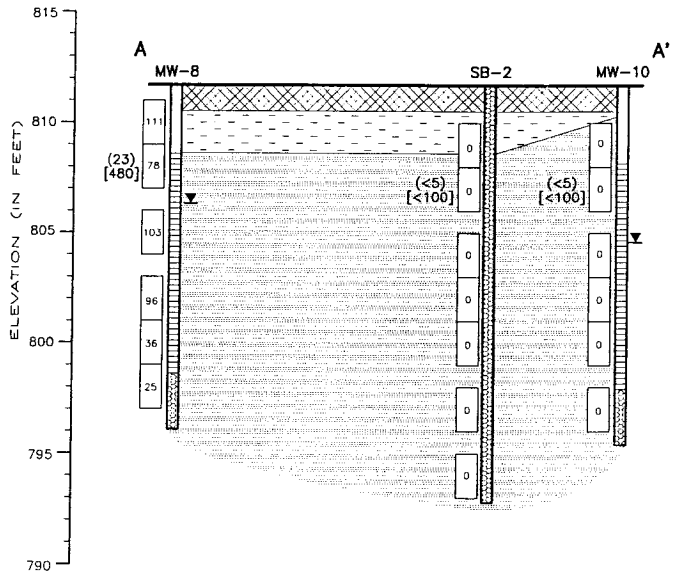
TOC = top of casing

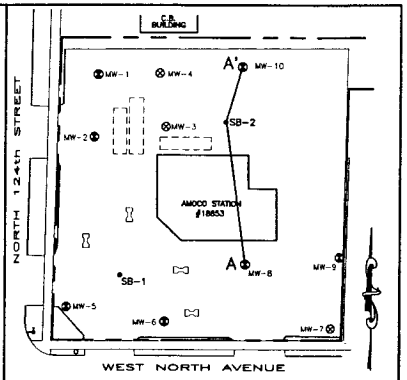
TOC and ground elevation measured from mean sea level

MW-3, MW-4, MW-7 were abandoned by Delta

Environmental Consultants on 4/96

All values measured in feet





LEGEND:

NOTES: 1. CROSS SECTION IS GENERAL IN NATURE.
2. ELEVATIONS ARE BASED ON U.S. GEOLOGICAL SURVEY DATUM.

- MONITORING WELL
- GROUND WATER TABLE ELEVATIONS AUGUST 27, 1996
- MONITORING WELL SCREEN INTERVAL
- 0 PHOTOIONIZATION DETECTOR READING (PID) REPORTED IN INSTRUMENT UNITS
- SOIL BORING
- (23) SOIL GASOLINE RANGE ORGANIC (GRO) CONCENTRATION REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg)
- [480] SOIL BENZENE CONCENTRATION REPORTED IN MICROGRAMS PER KILOGRAM (µg/L)
- ASPHALT AND BASE COURSE
- CLAYEY AND SILTY FILL
- CLAY (CL)

VERTICAL SCALE (FEET): 5
HORIZONTAL SCALE (FEET): 30

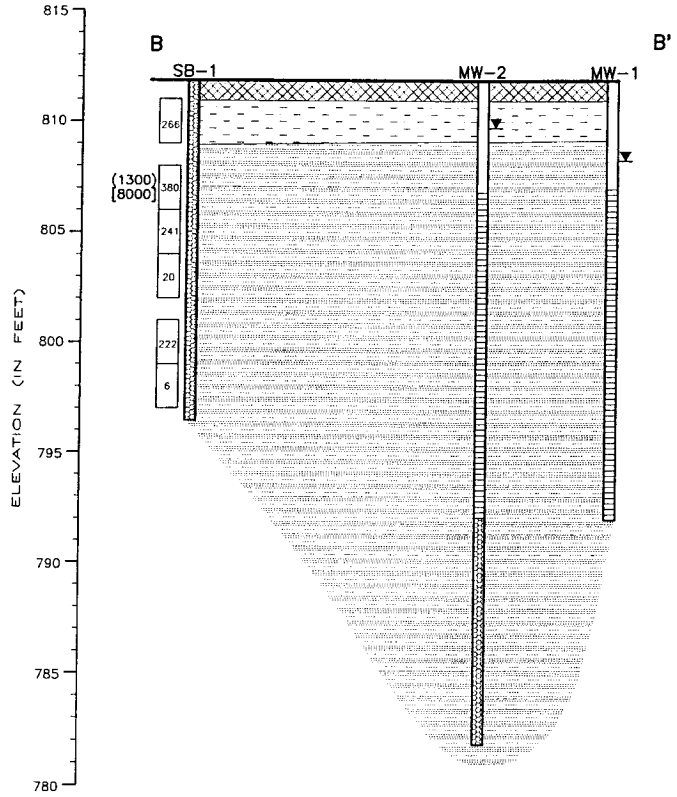
FIGURE 4

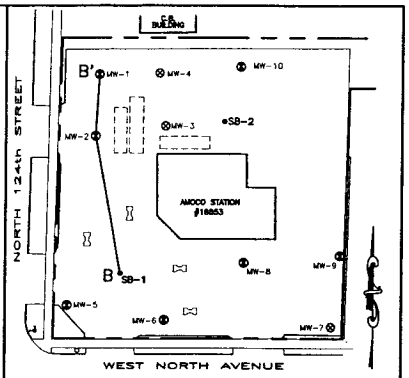
CROSS SECTION A–A'

AMOCO SERVICE STATION No. 18853
12324 W. NORTH AVENUE
WAUWATOSA, WISCONSIN

PROJECT NO.: 3240-304-I	DRAWN BY: EKO
PREPARED BY: BK	DATE: 1/20/97
FILE NAME: 93825-X	

Delta Environmental Consultants Inc.





LEGEND:

NOTES:
1. CROSS SECTION IS GENERAL IN NATURE.
2. ELEVATIONS ARE BASED ON U.S. GEOLOGICAL SURVEY DATUM.
3. PID HEADSPACE READINGS WERE NOT MEASURED FOR MONITORING WELLS MW-1 AND MW-2.

MONITORING WELL

GROUND WATER TABLE ELEVATIONS AUGUST 27, 1996

MONITORING WELL SCREEN INTERVAL

0 PHOTOIONIZATION DETECTOR READING (PID) REPORTED IN INSTRUMENT UNITS

SOIL BORING

(23) SOIL GASOLINE RANGE ORGANIC (GRO) CONCENTRATION REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg)

[480] SOIL BENZENE CONCENTRATION REPORTED IN MICROGRAMS PER KILOGRAM (µg/L)

ASPHALT AND BASE COURSE

CLAYEY AND SILTY FILL

CLAY (CL)

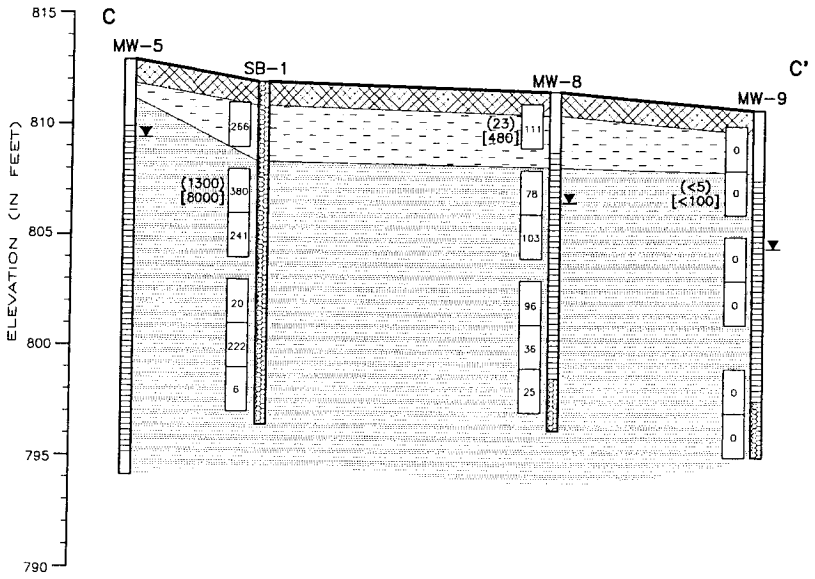
FIGURE 5

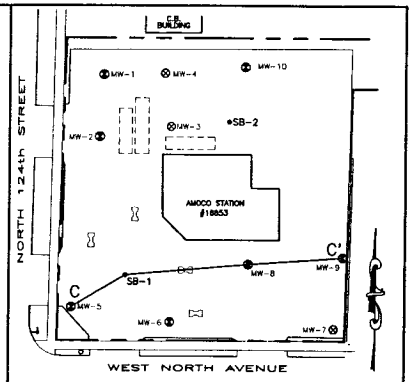
GEOLOGIC CROSS SECTION B–B'

AMOCO SERVICE STATION No. 18853
12324 W. NORTH AVENUE
WAUWATOSA, WISCONSIN

PROJECT NO.: 3240-304-1	DRAWN BY: EKO
PREPARED BY: BK	DATE: 1/20/97
FILE NAME: 93825-X	

Delta Environmental Consultants Inc.





LEGEND:

NOTES:
1. CROSS SECTION IS GENERAL IN NATURE.
2. ELEVATIONS ARE BASED ON U.S. GEOLOGICAL SURVEY DATUM.
3. PID HEADSPACE READINGS WERE NOT MEASURED FOR MONITORING WELL MW-5.

MONITORING WELL

GROUND WATER TABLE ELEVATIONS AUGUST 27, 1996

MONITORING WELL SCREEN INTERVAL

0 PHOTOIONIZATION DETECTOR READING (PID) REPORTED IN INSTRUMENT UNITS

SOIL BORING

(23) SOIL GASOLINE RANGE ORGANIC (GRO) CONCENTRATION REPORTED IN MILLIGRAMS PER KILOGRAM (mg/kg)

[480] SOIL BENZENE CONCENTRATION REPORTED IN MICROGRAMS PER KILOGRAM (µg/L)

ASPHALT AND BASE COURSE

CLAYEY AND SILTY FILL

CLAY (CL)

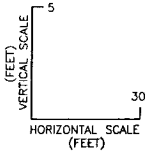


FIGURE 6

GEOLOGIC CROSS-SECTION C-C'

AMOCO SERVICE STATION No. 18853
12324 W. NORTH AVENUE
WAUWATOSA, WISCONSIN

PROJECT NO.: 3240-304-1	DRAWN BY: EKO
PREPARED BY: BK	DATE: 1/20/97
FILE NAME: 93825-X	

Delta Environmental Consultants Inc.

STATEMENT OF LEGAL DESCRIPTION ACCURACY

FOR

Amoco Service Station No. 18853
12324 West North Avenue
Wauwatosa, Wisconsin
BRRTS No. 03-41-004163
Commerce No. 53226-2059-24

This statement it being provided by Delta Environmental Consultants, Inc. (Delta), on behalf of BP Products North America Inc. The enclosed property description for the above-mentioned property was provided by the City of Wauwatosa and was provided to the property owner for verification of accuracy. According to the information available to Delta, the legal description is accurate and complete.

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Lisa Noblet, Project Geologist

August 1, 2002

Date

FILE COPY

Delta
Environmental
Consultants, Inc.

17500 W. Liberty Lane
Suite A
New Berlin, WI 53146-2109
U.S.A.
262/789-0254
FAX: 262/789-5483

January 3, 2002

Ms. Carla Ledesma
Wauwatosa City Clerk
7725 W. North Avenue
Wauwatosa, WI 53213

Mr. Bill Wehrly
Wauwatosa Engineering Department
7725 W. North Avenue
Wauwatosa, WI 53213

Subject: **Notification of Potential Residual Petroleum Contamination**
Amoco Service Station No. 18853
12324 W. North Avenue
Wauwatosa, Wisconsin
PECFA Claim No. 53226-2059-24
BRRTS No. 03-41-004163
Delta Project No. 32403

Dear Ms. Ledesma and Mr. Wehrly:

The Wisconsin Department of Commerce (Commerce) has granted conditional case closure to the above referenced petroleum remediation site. As part of the conditional closure, Commerce has requested that the road owner be notified of potential residual petroleum impacts, associated with the subject site, beneath N. 124th Street and W. North Avenue. A copy of the Commerce closure letter is attached. The following information is intended to meet the notification requirement requested by Commerce.

The attached Table 1 summarizes the historical groundwater analytical result for monitoring wells located adjacent to the road rights-of-way. Groundwater monitoring well locations are shown on Figure 1. Residual groundwater contamination above Wisconsin Administrative Code Chapter NR 140 enforcement standards (ES) was detected in monitoring wells MW-1 and MW-2, located adjacent to the east right-of-way of North 124th Street. ESs were also exceeded in MW-6 located adjacent to the north right-of-way of West North Avenue prior to its abandonment during excavation activities.

Should you have any questions or require additional information regarding this site, please do not hesitate to contact me at (262) 827-5542 or Lisa Noblet, Project Manager, at (262) 827-4819.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Adam S. McIlheran
Staff Hydrogeologist

Reviewed by:

Lisa Noblet, P.G.
Project Geologist

Attachments

c: Mr. Stephen Mueller - Wisconsin Dept. of Commerce
Mr. Ray Stoelting- BP Products North America Inc.