

**GIS REGISTRY INFORMATION**

**SITE NAME:** University of Wisconsin - Waukesha  
**BRRTS #:** 03-68-004432 **FID # (if appropriate):** 268181650  
**COMMERCE # (if appropriate):** \_\_\_\_\_  
**CLOSURE DATE:** 09/27/2003  
**STREET ADDRESS:** 1500 North University Drive  
**CITY:** Waukesha

**SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection):** X= 660987 Y= 285296

**CONTAMINATED MEDIA:** Groundwater  Soil  Both

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

**IF YES, STREET ADDRESS 1:** \_\_\_\_\_

**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 or denial 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
- 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)
- 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
- Copy of any maintenance plan referenced in the deed restriction.



**State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES**

Jim Doyle, Governor  
Scott Hassett, Secretary  
Gloria L. McCutcheon, Regional Director

Waukesha Service Center  
141 NW Barstow St., Room 180  
Waukesha, Wisconsin 53188  
Telephone 262-574-2100  
FAX 262-574-2117

August 27, 2003

Ms. Leslie Williams  
Waukesha County Department of Parks and Land Use  
1320 Pewaukee Road, Room 260  
Waukesha, WI 53188

Subject: Final Case Closure, UW-Waukesha UST Release  
1500 North University Drive, Waukesha, WI  
FID# 268181650 BRRTS# 03-68-004432

Dear Ms. Williams:

On April 16, 1999, you were notified that the Wisconsin Department of Natural Resources had granted conditional closure for the above referenced site.

The Department has since received correspondence indicating that you have complied with the conditions of closure. On June 1, 1999, the Department received all of the monitoring well abandonment forms for the site. On August 12, 2003, the Department received a copy of the groundwater use restriction for the site that was filed with Waukesha County. Based on the correspondence and data provided, it appears that your site has been remediated to Department standards in accordance with s. NR 726.05, Wis. Ad. Code. Therefore, the Department considers this case closed and no further investigation, remediation or other action is required at this time.

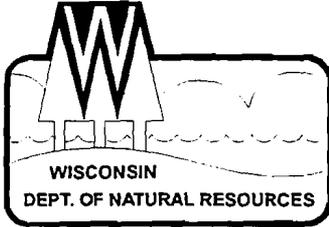
Please be aware that this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare, or the environment.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at the letterhead address or (262) 574-2166.

Sincerely,

David G. Volkert, P.G.  
Hydrogeologist  
Bureau for Remediation & Redevelopment

cc: SER File



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Tommy G. Thompson, Governor  
George E. Meyer, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region Annex  
4041 North Richards Street  
PO Box 12436  
Milwaukee, Wisconsin 53212-0436  
Telephone 414-229-0800  
FAX 414-229-0810

April 16, 1999

Leslie Williams  
Waukesha County Department of Parks and Land Use  
1320 Pewaukee Road  
Waukesha, WI 53188

Subject: Case closure, 300 gallon gasoline underground storage tank release, UW-Waukesha UST #84, 1500 North University Drive, Waukesha, file reference FID #268181650 ERR-LUST

I have reviewed your case file based on documents submitted by Northern Environmental. Based on this information I agree with Northern Environmental in that no further work is needed. The department reserves the right to reopen this case pursuant to s. NR726.09, Wisconsin Administrative Code (WAC), should additional information regarding site conditions indicate contamination on or from the site poses a threat to public health, safety or welfare or the environment.

To complete the closure of this site, you must place a groundwater use restriction on the property deed at the county register of deeds office which specifies the legal description of the property, the location, type, and concentration of the contaminants and includes the following language:

Natural attenuation has been approved by the Department of Natural Resources to remediate groundwater exceeding ch. NR 140 groundwater standards within the boundaries of this property. Construction of wells where water quality exceeds the drinking water standards in ch. NR809 is restricted by chs. NR811 and NR812. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply. 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 to determine what specific requirements are applicable prior to constructing or reconstructing a well on this property.

Within 60 days all of the groundwater monitoring wells at the site must be abandoned in accordance with WAC NR 141 and the completed abandonment forms must be submitted to the department. Once the department receives the abandonment forms and a notarized copy of the groundwater use restriction, this case will be tracked as closed on our computer tracking system.

If you have any questions about this letter, call me at 414-229-0850.

Sincerely,



John Feeney  
Hydrogeologist

Cc: Delta Environmental Consultants, Inc.  
SER File



WC2488516-002

# DECLARATION OF RESTRICTION

2488516

REGISTER'S OFFICE  
WAUKESHA COUNTY, WI  
RECORDED ON

07-29-1999 2:10 PM

MICHAEL J. HASSLINGER  
REGISTER OF DEEDS

REC. FEE: 6.00  
REC. FEE-CD: 4.00  
REC. FEE-ST: 2.00  
TRAN. FEE:  
TRAN. FEE-STATE:  
PAGES: 2

REEL 2948 IMAGE 1025

Document Number

Document Title

### Recording Area

#### Name and Return Address

LESLIE WILLIAMS  
PARK & LAND USE  
1320 PEWAUKEE RD, 260  
WAUKESHA, WI 53188

#### Parcel Identification Number (PIN)

*File  
12/2  
Park & Land Use*

**DECLARATION OF RESTRICTION**

IN RE: Property (1000 – 1500 N. University Drive) located in that part of the East ½ of Section 32 T7N R19E beg E ¼ COR, SO 2'45 E 462', S89 53'34 W 907.01', NO 2'58 W 462', S89 53'34 W 429.96', NO 0'31 W 2658.58', N89 55'5 E 677.4', S 330', N89 55'5 E 660', S 2327.99' to beg EXC STS V1008 deeds p668 EXC V1058 p625, excepting therefrom such property and acreage upon which is not sited the 25 by 70-foot wood frame University of Wisconsin - Waukesha maintenance shed and its immediately surrounding area located in the southwest corner of the property.

State of Wisconsin )  
 )ss.  
 County of Waukesha )

WHEREAS Waukesha County is the owner of record of the above-described excepted and non-excepted property; and

WHEREAS it is the desire and intention of the property owner to impose on the non-excepted property restrictions which will make it unnecessary to conduct further soil and/or groundwater remediation activities on the non-excepted property at the present time;

Now, therefore, the owner hereby declares that the non-excepted property described above is held and shall be held, conveyed or encumbered, leased, rented, used occupied and improved subject to the following limitations and restrictions:

One or more leaded gasoline discharges have occurred at the former farm garage building located on this property. Natural attenuation has been approved by the Department of Natural Resources to remediate groundwater exceeding ch. NR 140 groundwater standards within the boundaries of this property. Construction of wells where water quality exceeds the drinking water standards in ch. NR 809 is restricted by chs. NR 811 and NR 812. Special well construction standards or water treatment requirements, or both, or well construction prohibitions may apply. 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 to determine what specific requirements are applicable prior to construction or reconstructing a well on this property.

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 non-excepted property whether by descent, devise, purchase or otherwise. This restriction inures to the benefit of and is enforceable by the Wisconsin Department of Natural Resources, its successor or assign. The Department, its successor or assign, may initiate proceedings at law or in equity against any person or persons violating or proposing to violate this covenant to prevent the proposed violation or to recover damages for such violation.

Signed by the property owner this 29th day of July, 1999.

By Waukesha County

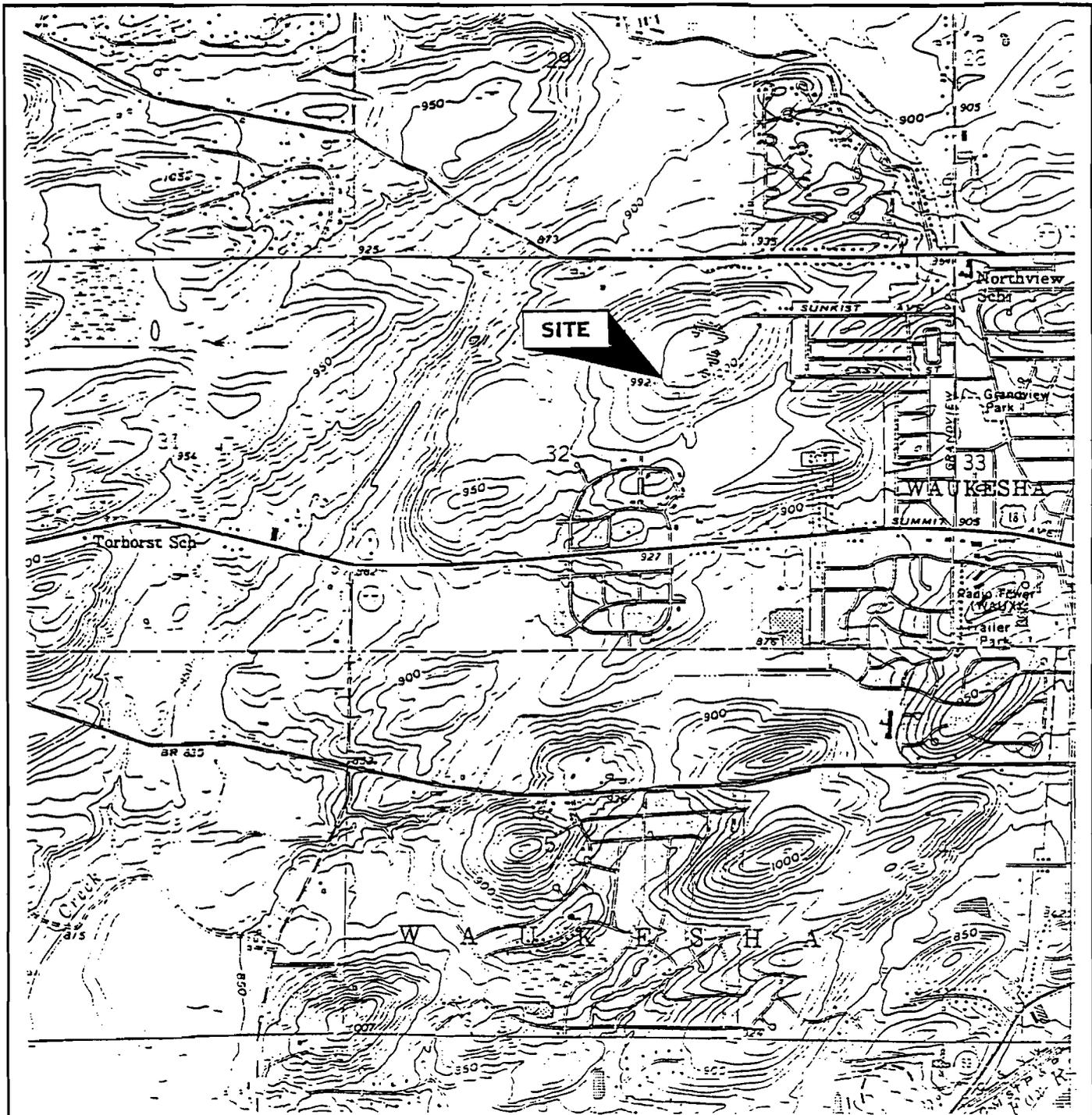
*Leslie W. Williams*

Leslie W. Williams, Hazardous Materials Coordinator  
 Environmental Health Division, Department of Parks and Land Use

Subscribed and sworn to before me this 29 day of July, 1999

*Margaret M. Douglas Deputy*  
 Notary Public, State of Wisconsin,  
 My Commission Dec 2001

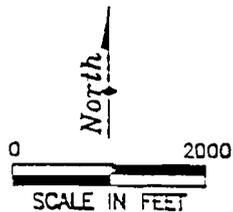
Drafted by Steve Schmitz, Assistant Corporation Counsel



HARTLAND QUADRANGLE  
 WISCONSIN  
 7.5 MINUTE SERIES (TOPOGRAPHIC)



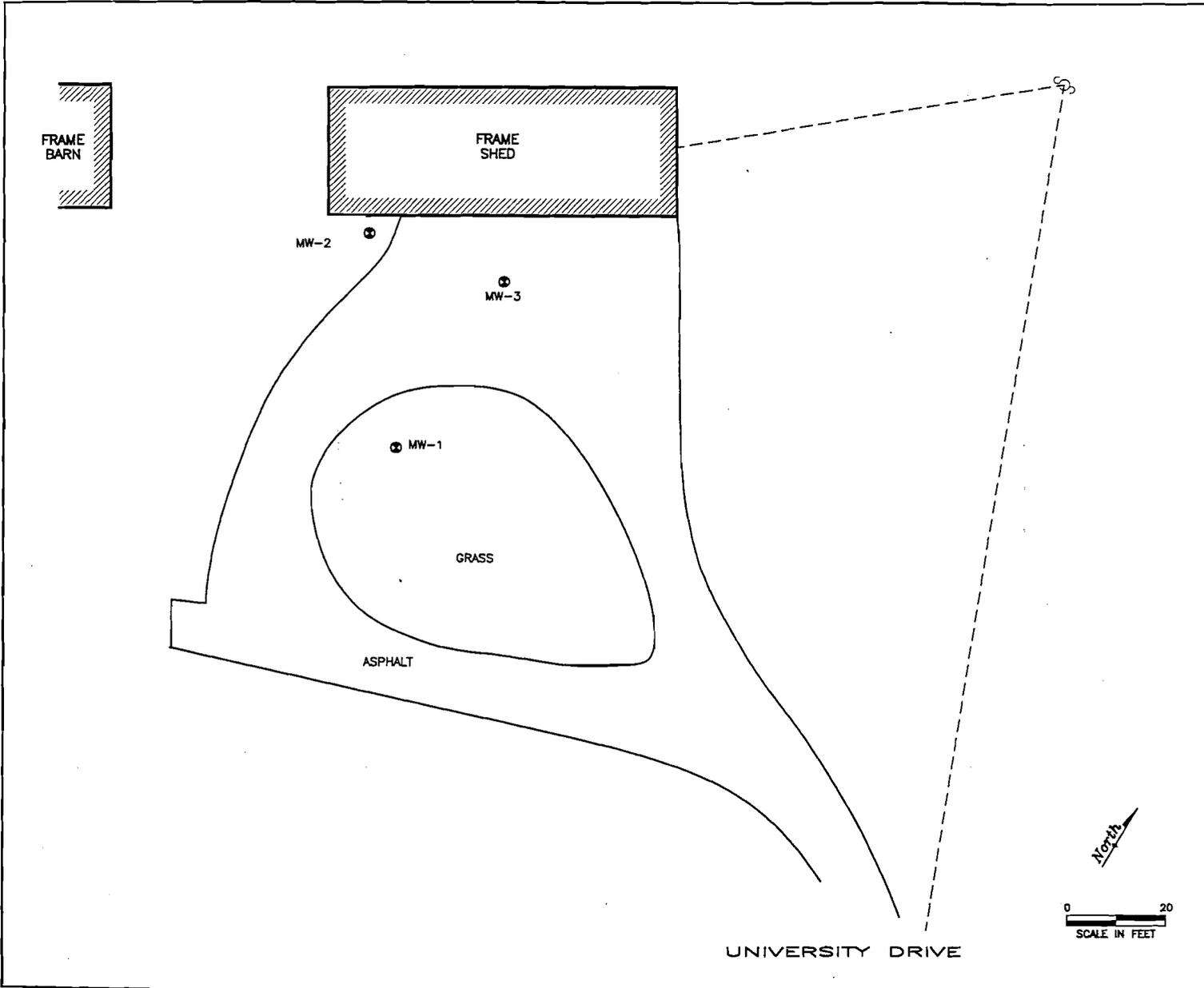
QUADRANGLE LOCATION



**FIGURE 1**  
 SITE LOCATION MAP  
 UW - WAUKESHA  
 UNIVERSITY DRIVE  
 WAUKESHA, WISCONSIN

PROJECT NO. 1096-115	PREPARED BY GGG
DATE 11/05/97	REVIEWED BY





**LEGEND**

MW-3 ● MONITORING WELL LOCATION  
 - - - - OVERHEAD UTILITY

**FIGURE 2**  
 SITE MAP

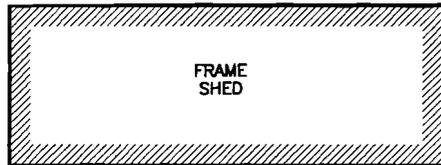
LW - WAUKESHA  
 UNIVERSITY DRIVE  
 WAUKESHA, WISCONSIN

PROJECT NO.: 1096-115	DRAWN BY: DD
PREPARED BY: GGG	DATE: 11/20/97
FILE NAME: 96115-S	





FRAME  
BARN



FRAME  
SHED

MW-2  
(991.37)

991.25

991.00

MW-3  
(990.96)

990.75

990.50

MW-1  
(990.47)

GRASS

ASPHALT

UNIVERSITY DRIVE



### LEGEND

- MW-3 MONITORING WELL LOCATION
- - - - OVERHEAD UTILITY
- (990.96) GROUND WATER ELEVATION (IN FEET)
- 991.00** GROUND WATER CONTOUR LINE  
CONTOUR INTERVAL = 0.25 FEET

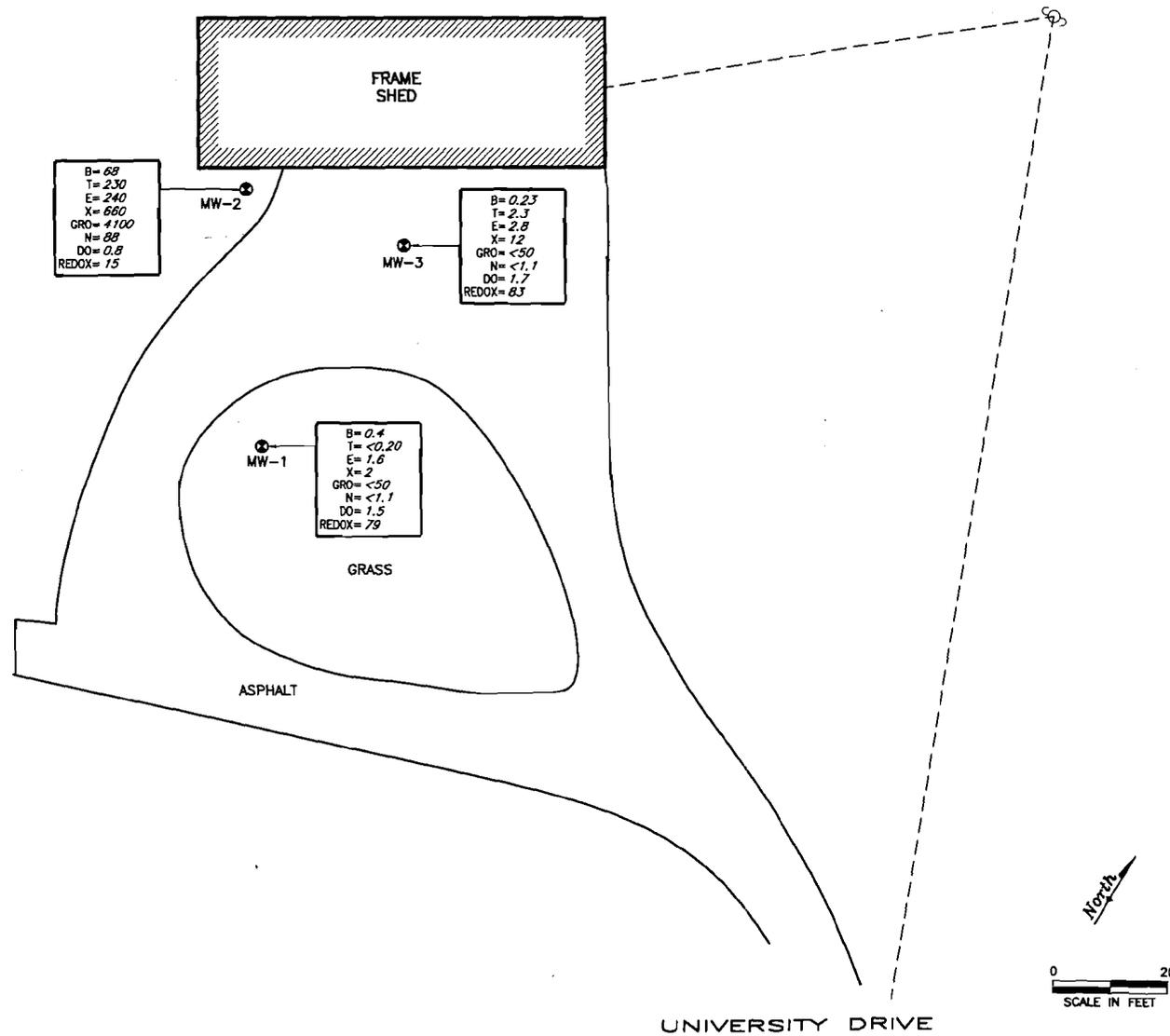
**FIGURE 3**  
GROUND WATER ELEVATION  
CONTOUR MAP - DECEMBER 3, 1998

UW - WAUKESHA  
UNIVERSITY DRIVE  
WAUKESHA, WISCONSIN

PROJECT NO.:	DRAWN BY:
1098-115	DD
PREPARED BY:	DATE:
JZ	1/14/99
FILE NAME:	
96115-S	



FRAME  
SHED



**LEGEND**

- MW-3 MONITORING WELL LOCATION
  - OVERHEAD UTILITY
  - B= BENZENE (µg/L)
  - T= TOLUENE (µg/L)
  - E= ETHYLBENZENE (µg/L)
  - X= XYLENES (µg/L)
  - GRO= GASOLINE RANGE ORGANICS (µg/L)
  - N= NAPHTHALENE (µg/L)
  - DO= DISSOLVED OXYGEN (ppm)
  - REDOX= REDUCTION/OXIDATION (mV)
- (µg/L) MICROGRAMS PER LITER  
(ppm) PARTS PER MILLION  
(mV) MILLIVOLTS

**FIGURE 5**  
GROUND WATER CHEMICAL  
CONCENTRATION MAP - DECEMBER 3, 1998

UW - WAUKESHA  
UNIVERSITY DRIVE  
WAUKESHA, WISCONSIN

PROJECT NO.: 1098-115	DRAWN BY: DD
PREPARED BY: JZ	DATE: 1/15/99
FILE NAME: 96115-5	



**Table 3**  
**Ground Water Chemistry and In-Field Biodegradation Data Summary**

UW-Waukesha  
Waukesha, Wisconsin  
Delta No. I096-115-1

*- dg well*

MW-1		Volatile Organic Compounds									In-field Biodegradation Measurements						
Parameter/ Date	Benzene ug/L	Toluene ug/L	Ethyl- benzene ug/L	Xylenes ug/L	1,3,5-TMB ug/L	1,2,4 TMB ug/L	Dissolved Lead mg/L	GRO ug/L	Naphthalene ug/L	MTBE ug/L	DO ppm	Temp °C	Conductivity µmhos/cm	pH	REDOX milliVolts	Iron (T) ppm	Iron (S) ppm
NR 140 ES	5.0	343	700	620			0.015		40	60							
02/27/97	<0.31	<0.39	<0.38	1.5	2.3	<0.32	<0.00089	NA	<0.35	9.0	3.6	7	400	7.4	-60	0.2	0.1
05/08/97	120	5.8	12	100	29	66	NA	580	0.71	32.0	4.1	11	400	7.4	90	1.0	0.1
08/25/97	1.7	0.24	0.29	1.8	0.44	1.3	NA	<50	<0.46	<0.16	5.3	19	300	7.2	54	4.0	2.0
03/17/98	<0.13	<0.20	<0.29	0.51	<0.29	0.39	NA	<50	0.51	<0.16	6.8	10	800	7.7	100	0.2	0.2
06/09/98	38	2	5.7	50	9.6	27	NA	330	<0.46	<1.5	2.0	14	200	7.6	179	7.0	4.0
09/10/98	32	1.4	1.1	29	9.7	17	NA	310	<0.46	<5.7	0.9	19	300	7.9	134	5.0	2.0
12/03/98	0.4	<0.20	1.6	2	1.7	0.89	NA	<50	<1.1	<0.16	1.5	18	200	7.9	79	4.0	1.0

*Source*

MW-2		Volatile Organic Compounds									In-field Biodegradation Measurements						
Parameter/ Date	Benzene ug/L	Toluene ug/L	Ethyl- benzene ug/L	Xylenes ug/L	1,3,5-TMB ug/L	1,2,4 TMB ug/L	Dissolved Lead mg/L	GRO ug/L	Naphthalene ug/L	MTBE ug/L	DO ppm	Temp °C	Conductivity µmhos/cm	pH	REDOX milliVolts	Iron (T) ppm	Iron (S) ppm
NR 140 ES	5.0	343	700	620			0.015		40	60							
02/27/97	180	740	92	1000	73	180	0.0033	NA	43	2.8	2.3	7	400	7.5	37	0.8	0.1
05/08/97	370	3100	510	3600	170	570	NA	12000	120	<3.2	2.0	10	300	7.3	-70	0.2	0.1
08/25/97	1100	13000	2200	12000	470	1800	NA	33000	640	<16	1.7	18	300	7.1	24	2.0	0.8
03/17/98	430	13000	2300	13000	440	1700	NA	54000	550	<32	5.0	11	970	8.1	100	2.3	1.5
06/09/98	320	5700	1500	8000	340	1300	NA	28000	380	<12	0.8	13	100	7.5	-127	6.0	5.0
09/10/98	59	330	240	830	76	260	NA	4500	86	<0.80	0.4	19	300	7.6	-123	8.0	5.0
12/03/98	68	230	240	660	88	280	NA	4100	88	<1.6	0.8	16	100	7.6	15	10.0	6.0

**Table 3**  
**Ground Water Chemistry and In-Field Biodegradation Data Summary**

UW-Waukesha  
Waukesha, Wisconsin  
Delta No. 1096-115-1

*Side gradient*

MW-3		Volatile Organic Compounds									In-field Biodegradation Measurements						
Parameter/ Date	Benzene ug/L	Toluene ug/L	Ethyl- benzene ug/L	Xylenes ug/L	1,3,5-TMB ug/L	1,2,4 TMB ug/L	Dissolved Lead mg/L	GRO ug/L	Naphthalene ug/L	MTBE ug/L	DO ppm	Temp °C	Conductivity µmhos/cm	pH	REDOX milliVolts	Iron (T) ppm	Iron (S) ppm
<i>NR 140 ES</i>	5.0	343	700	620			0.015		40	60							
02/27/97	0.32	0.69	<0.38	<1.1	<0.33	<0.32	<0.00089	NA	0.65	<0.14	4.7	7	400	7.6	-5	0.6	0.3
05/08/97	0.18	0.35	<0.22	<0.23	<0.29	<0.22	NA	<50	<0.46	2.8	5.6	11	300	7.5	75	0.3	0.1
08/25/97	<0.13	<0.20	<0.22	0.38	<0.29	0.24	NA	<50	<0.46	<0.16	4.7	18	300	7.3	29	2.0	0.3
03/17/98	<0.13	<0.20	<0.22	<0.23	<0.29	<0.22	NA	<50	<0.46	0.34	7.5	10	800	7.5	100	0.2	0.1
06/09/98	<0.13	<0.20	<0.22	<0.23	<0.29	<0.22	NA	<50	<0.46	<0.16	2.3	14	200	7.6	191	4.0	1.0
09/10/98	<0.13	<0.20	<0.22	<0.23	<0.29	<0.22	NA	<50	<0.46	<0.16	0.8	20	300	7.6	131	1.0	0.5
12/03/98	0.23	2.3	2.8	12	0.56	2.2	NA	<50	<1.1	<0.16	1.7	17	100	7.8	83	3.0	1.0

**Explanation:**

- MW =..... Monitoring Well
  - TMB =..... Tri-methyl Benzene
  - MTBE =..... Methyl Tertiary-butyl Ether
  - GRO =..... Gasoline Range Organic Compounds
  - DO =..... Dissolved Oxygen
  - Redox =..... Reduction/Oxidation
  - Iron (T) =..... Iron; Total
  - Iron (S) =..... Iron; Soluble
  - µg/L =..... micrograms per liter
  - mg/L =..... milligrams per liter
  - msl =..... mean sea level
  - ppm =..... parts per million
  - °C =..... Degrees Celsius
  - µmhos/cm =..... micromhos per centimeter
  - NR 140 ES =... Wisconsin Adm. Code Ch. NR 140 Enforcement Standard (Rev. 10/96)
  - NA =..... Not analyzed
  - NM =..... No measurement
- Additional VOC compounds were detected at MW-2 at very low concentrations

**Table 1**  
**Ground Water Elevation Summary**  
 UW-Waukesha  
 Waukesha, Wisconsin  
 Delta No. I096-115-1

<b>MW-1</b>							
<b>T.O.C. Elev.:</b>		<b>1003.36</b>	<b>(ft. from M.S.L.)</b>		<b>Well Depth:</b>	<b>18.35</b>	<b>(ft. T.O.C.)</b>
<b>Date</b>	<b>GW Depth</b>	<b>GW Table</b>	<b>Elev.</b>	<b>Water in</b>	<b>Physical</b>		
<b>MM/DD/YR</b>	<b>T.O.C. (ft.)</b>	<b>Elev. (ft.)</b>	<b>Diff. (ft.)</b>	<b>Well (ft.)</b>	<b>Observations</b>		
02/27/97	8.36	995.00		9.99	CLOUDY BROWN		
05/08/97	7.30	996.06	1.06	11.05	CLOUDY BROWN		
08/25/97	7.12	996.24	0.18	11.23	CLOUDY, SILTY		
03/17/98	7.53	995.83	-0.41	10.82	CLOUDY, SILTY		
06/09/98	8.33	995.03	-0.80	10.02	CLOUDY,HEAVY SILT		
09/10/98	12.04	991.32	-3.71	6.31	CLOUDY,HEAVY SILT		
12/03/98	12.89	990.47	-0.85	5.46	CLOUDY/VERY HEAVY SILT		

<b>MW-2</b>							
<b>T.O.C. Elev.:</b>		<b>1004.65</b>	<b>(ft. from M.S.L.)</b>		<b>Well Depth:</b>	<b>17.65</b>	<b>(ft. T.O.C.)</b>
<b>Date</b>	<b>GW Depth</b>	<b>GW Table</b>	<b>Elev.</b>	<b>Water in</b>	<b>Physical</b>		
<b>MM/DD/YR</b>	<b>T.O.C. (ft.)</b>	<b>Elev. (ft.)</b>	<b>Diff. (ft.)</b>	<b>Well (ft.)</b>	<b>Observations</b>		
02/27/97	8.41	996.24		9.94	CLOUDY BROWN		
05/08/97	7.48	997.17	0.93	10.87	CLOUDY BROWN		
08/25/97	6.72	997.93	0.76	11.63	CLOUDY, LT SILT		
03/17/98	7.41	997.24	-0.69	10.94	CLOUDY, LT SILT / SLIGHT ODOR		
06/09/98	8.13	996.52	-0.72	10.22	CLOUDY, LT SILT / SLIGHT ODOR		
09/10/98	12.11	992.54	-3.98	6.24	CLOUDY, LT SILT / SLIGHT ODOR		
12/03/98	13.28	991.37	-1.17	5.07	CLOUDY, LT SILT / SLIGHT ODOR		

**Table 1**  
**Ground Water Elevation Summary**  
 UW-Waukesha  
 Waukesha, Wisconsin  
 Delta No. 1096-115-1

<b>MW-3</b>					
<b>T.O.C. Elev.:</b>		<b>1002.18 (ft. from M.S.L.)</b>		<b>Well Depth: 15.00 (ft. T.O.C.)</b>	
<b>Date</b> <b>MM/DD/YR</b>	<b>GW Depth</b> <b>T.O.C. (ft.)</b>	<b>GW Table</b> <b>Elev. (ft.)</b>	<b>Elev.</b> <b>Diff. (ft.)</b>	<b>Water in</b> <b>Well (ft.)</b>	<b>Physical</b> <b>Observations</b>
02/27/97	6.23	995.95		12.12	CLEAR
05/08/97	5.12	997.06	1.11	13.23	SLIGHTLY CLOUDY
08/25/97	5.21	996.97	-0.09	13.14	CLOUDY, LT SILT
03/17/98	5.12	997.06	0.09	13.23	CLOUDY, LT SILT
06/09/98	5.76	996.42	-0.64	12.59	CLOUDY, HEAVY SILT
09/10/98	10.04	992.14	-4.28	8.31	CLOUDY, SILTY
12/03/98	11.22	990.96	-1.18	7.13	CLOUDY, SILTY

**EXPLANATION:**

- MW = ..... Monitoring Well
- Elev. = ..... Elevation
- ft. = ..... Feet
- NM = ..... No Measurement Obtained
- T.O.C. = ..... Top of Casing
- GW = ..... Ground Water
- M.S.L. = ..... Mean Sea Level
- NC = ..... No change
- NM = ..... Not Measured