

GIS REGISTRY INFORMATION

SITE NAME: W R Grace Site "A" & "B"  
 BRRTS #: 02-41-000685 FID # (if appropriate): 241078420  
 COMMERCE # (if appropriate):  
 CLOSURE DATE: 30-Apr-2008  
 STREET ADDRESS: 4301 W Sterling Plac & 900 N 43rd St  
 CITY: Milwaukee

SOURCE PROPERTY GPS COORDINATES (meters in WTM91 projection): X= 685477 Y= 287417

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	X
Copy of most recent deed, including legal description, for all affected properties	X
Certified survey map or relevant portion of the recorded plat map (if referenced in the legal description) for all affected properties	X
County Parcel ID number, if used for county, for all affected properties	X
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.	X
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.	X
Tables of Latest Groundwater Analytical Results (no shading or cross-hatching)	X
Tables of Latest Soil Analytical Results (no shading or cross-hatching)	X
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.	X
GW: Table of water level elevations, with sampling dates, and free product noted if present	X
GW: Latest groundwater flow direction/monitoring well location map (should be 2 maps if maximum variation in flow direction is greater than 20 degrees)	X
SOIL: Latest horizontal extent of contamination exceeding generic or SSRCLs, with one contour	X
Geologic cross-sections, if required for SI. (8.5x14" if paper copy)	X
RP certified statement that legal descriptions are complete and accurate	X
Copies of off-source notification letters (if applicable)	N/A
Letter informing ROW owner of residual contamination (if applicable)(public, highway or railroad ROW)	N/A
Any maintenance plan enclosed with closure letter - SEE CLOSURE LETTER	X



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Matthew J. Frank, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-3128  
FAX 414-263-8606  
Telephone 414-263-8500  
TTY Access via relay - 711

April 30, 2008

Milwaukee Metropolitan Sewerage District (MMSD)  
Attn: Dave Fowler  
260 West Seeboth Street  
Milwaukee, WI 53204-1446

Subject: Final Case Closure for WR Grace Site "A", 4301 West Sterling Place, and Site "B",  
900 North 43rd Street, Milwaukee, WI

FID: 241078420  
BRRTS: 02-41-000685 and 03-41-002189

Dear Mr. Fowler:

On February 15, 2008, the Wisconsin Department of Natural Resources ("the Department") reviewed the above referenced case for closure. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On February 15, 2008, you were notified that the Closure Committee had granted conditional closure to this case.

On April 9, 2008, the Department received correspondence indicating that you have complied with the requirements of closure. The Department received the Cap Maintenance Plan for Sites "A", and "B" (see enclosed). Based on the correspondence and data provided, it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which the current property owner and any subsequent property owners must adhere. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. It is the Department's intent to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

Residual soil contamination remains at Site "A" and Site "B" (see enclosed map in the Cap Maintenance Plan) as indicated in the information submitted to the Department of Natural Resources. If soil in the specific locations described above is excavated in the future, then pursuant to ch. NR 718 or, if applicable, ch. 289, Stats., and chs. 500 to 536, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling

confirms that contamination is present the property owner at the time of excavation will need to determine whether the material would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Pursuant to s. 292.12(2)(a), Wis. Stats., the soil cover (see enclosed map in the Cap Maintenance Plan) that currently exists in the location shown on the attached map shall be maintained in compliance with the attached Cap Maintenance Plan in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. If soil in the specific locations described above is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

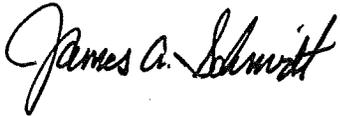
The following activities are prohibited on any portion of the property where a soil cover is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a building or other structure. In addition, depending on site-specific conditions, construction over contaminated materials (asbestos) may result in asbestos migration into enclosed structures or migration along newly placed underground utility lines. The potential for asbestos inhalation and mitigation should be evaluated when planning any future redevelopment, and measures should be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

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 GIS Registry. To review the sites on the GIS Registry web page, visit <http://dnr.wi.gov/org/aw/rr/gis/index.htm>. If your property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. 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 <http://www.dnr.state.wi.us/org/water/dwg/3300254.pdf> or at the web address listed above for the GIS Registry.

Please be aware that the case maybe reopened pursuant to s. NR 726.09, Wis. Admin. 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. Failure to submit the above documentation may result in enforcement actions.

The Department appreciates the actions you have taken to investigate and remediate the contamination at this site. If you have any questions or comments, please feel free to contact John J. Hnat at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future correspondence should be sent directly to the Remediation and Redevelopment Program Assistant Vicky Stovall (414-263-8688) at the above address.

Sincerely,

A handwritten signature in black ink that reads "James A. Schmidt". The signature is written in a cursive style with a large initial "J" and "S".

James A. Schmidt  
Southeast Region  
Remediation and Redevelopment Team Supervisor

C: WDNR SER Files

**CAP MAINTENANCE PLAN  
FORMER WR GRACE SITES "A" AND "B"  
4301 WEST STERLING PLACE  
AND  
900 N 43<sup>rd</sup> STREET  
MILWAUKEE, WISCONSIN**

**Contract No. TS 2423**

**File Code D5320**

April 4, 2008

Prepared For:



Milwaukee Metropolitan Sewerage District  
260 West Seeboth Street  
Milwaukee, Wisconsin 53204-1446

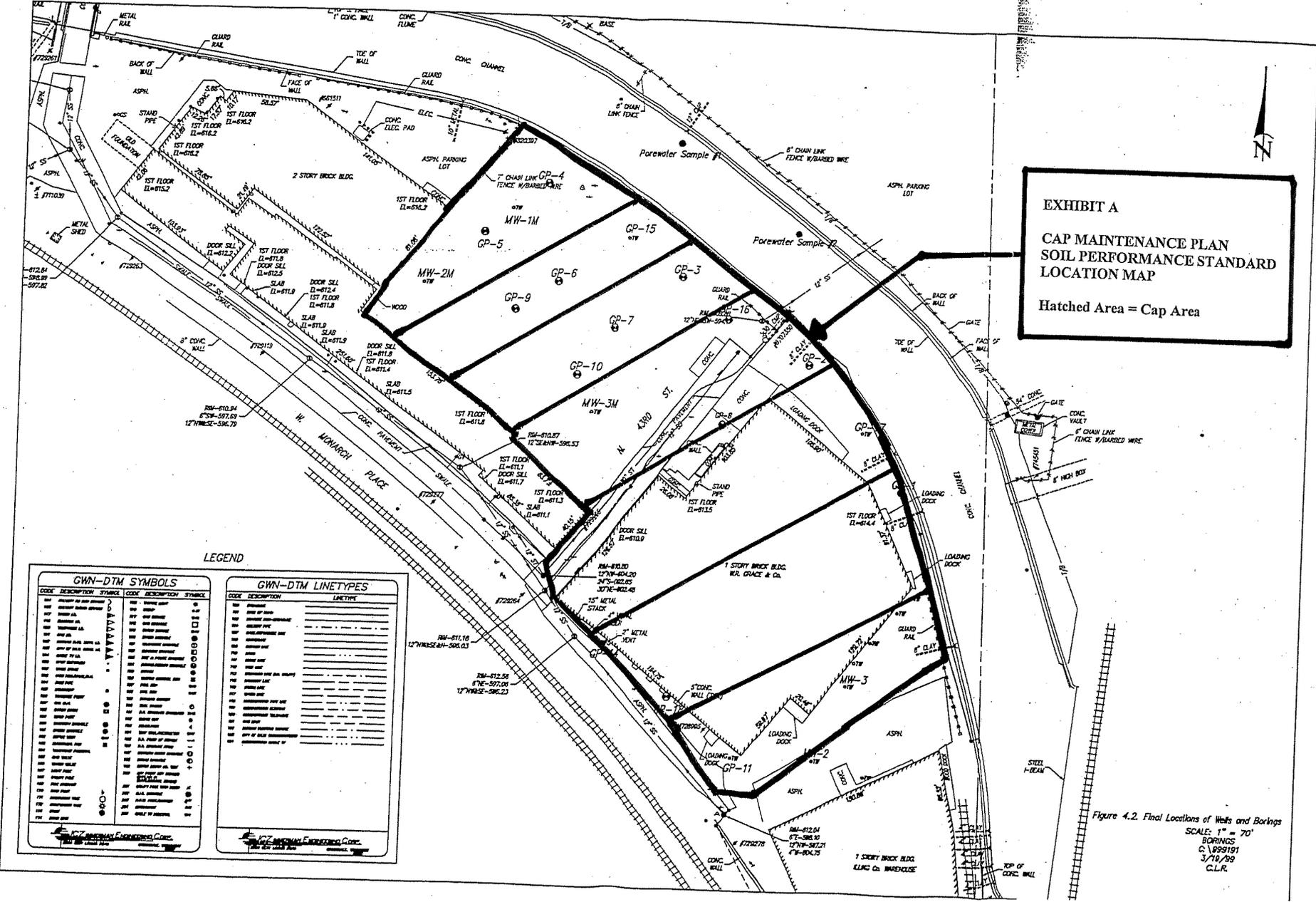
Prepared By:

GeoTrans, Inc.  
175 N. Corporate Drive, Suite 100  
Brookfield, WI 53045

GEOTRANS REF. NO. 0511.131.03  
TT NO. 123P1424012T

WDNR BRRTS 03-41-002189  
(ALSO 02-41-000685, 06-41-256782, and 06-41-257897)

**EXHIBIT A**  
**CAP MAINTENANCE PLAN**  
**SOIL PERFORMANCE STANDARD**  
**LOCATION MAP**  
 Hatched Area = Cap Area



**LEGEND**

GWN-DTM SYMBOLS		GWN-DTM LINETYPES				
CODE	DESCRIPTION	SYMBOL	CODE	DESCRIPTION	SYMBOL	LINE TYPE
101	1" CONC. WALL	---	101	1" CONC. WALL	---	---
102	8" CONC. WALL	---	102	8" CONC. WALL	---	---
103	12" CONC. WALL	---	103	12" CONC. WALL	---	---
104	CONC. CHANNE	---	104	CONC. CHANNE	---	---
105	CONC. FLOOR	---	105	CONC. FLOOR	---	---
106	CONC. PAD	---	106	CONC. PAD	---	---
107	ELEC.	---	107	ELEC.	---	---
108	WOOD	---	108	WOOD	---	---
109	ASPH. PARKING LOT	---	109	ASPH. PARKING LOT	---	---
110	ASPH.	---	110	ASPH.	---	---
111	GRASS	---	111	GRASS	---	---
112	1" CHAIN LINK FENCE W/ BARBED WIRE	---	112	1" CHAIN LINK FENCE W/ BARBED WIRE	---	---
113	6" CHAIN LINK FENCE W/ BARBED WIRE	---	113	6" CHAIN LINK FENCE W/ BARBED WIRE	---	---
114	8" HIGH BOX	---	114	8" HIGH BOX	---	---
115	STEEL I-BEAM	---	115	STEEL I-BEAM	---	---
116	TOP OF CONC. WALL	---	116	TOP OF CONC. WALL	---	---
117	BACK OF WALL	---	117	BACK OF WALL	---	---
118	FACE OF WALL	---	118	FACE OF WALL	---	---
119	DOOR SILL	---	119	DOOR SILL	---	---
120	DOOR SILL	---	120	DOOR SILL	---	---
121	DOOR SILL	---	121	DOOR SILL	---	---
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197	DOOR SILL	---	197	DOOR SILL	---	---
198	DOOR SILL	---	198	DOOR SILL	---	---
199	DOOR SILL	---	199	DOOR SILL	---	---
200	DOOR SILL	---	200	DOOR SILL	---	---

Figure 4.2. Final Locations of Wells and Borings  
 SCALE: 1" = 20'  
 BORINGS  
 C. 1999191  
 3/18/99  
 C.L.R.

**EXHIBIT B****CAP MAINTENANCE PLAN  
SOIL PERFORMANCE STANDARD  
Issued April 2008****1.0 Purpose**

Currently, a soil performance standard – cap is in place over residually impacted soils at the Former WR Grace sites "A" and "B" at 4310 West Sterling Place and 900 N 43<sup>rd</sup> Street in Milwaukee, Wisconsin. This cap is raised approximately four feet above the surrounding surface grade on the eastern portion of the site. The entire site cap is either vegetated with grass and shrubs or cover with gravel/asphalt for access and parking. The raised portion consists of six inches of topsoil over one and one half feet of clean fill placed over dredged river sediments.

The soil cap provides a barrier to contact with subsurface fill soils contaminated with asbestos from prior site operations. The asbestos contamination in site fill extends to an average of nine feet below grade throughout the site and to 15 feet below grade in isolated areas. Native soil appears to be generally unaffected by asbestos contamination.

**The owner will require that any future site activities that disturb soils will be included in a Site Work Plan detailing procedures for handling site soils containing asbestos in a safe manner protective of human health and in conformance with all applicable federal and state regulations. This control by the owner will meet the requirements for a soil performance standard under 720.19(2) and 724.13(2).**

**Any site work will require special handling for asbestos contaminated soil that must be in a wet condition before movement in order to remain under the Asbestos Hazard Emergency Act (AHERA) and the National Emissions Standards for Hazardous Air Pollutants (NESHAP).**

Exhibits A and C show the impacted area over which these controls are in place and confirmation soil sample result tables.

This soil performance standard serves to minimize or eliminate potential human contact with the residually impacted soils. The purpose of this document is to outline the baseline operation and maintenance (O&M) requirements for the upkeep of this soil performance standard to continue effective operation as a barrier to human contact.

## **2.0 Operation and Maintenance**

### **2.1 Visual Inspection**

A visual inspection of the condition of the soil cap will be performed on an annual basis during the early spring growing season (May - June). The inspection will include a thorough walk over of the area for visual signs of cracks, washouts, erosion, and loss of vegetation. Observations will be recorded and photo documented. Appropriate actions will be taken as noted below depending on the results of the inspection.

### **2.2 Maintenance Activities**

#### **2.2.1 Cracks, Washouts, and Erosion**

Any cracks, washouts, and erosion identified in the cap which have exposed soils or gravel and will not support vegetation will be filled and topped with a minimum of six inches of topsoil to match the surrounding grade.

#### **2.2.2 Revegetation**

The repaired area will be seeded with grass or groundcover to match the surrounding vegetation. Sufficient mulch or mechanical anchorage, if necessary, will be applied to allow the grass or groundcover to become established.

#### **2.2.3 Growth of Shrubs and Trees**

Over time, shrubs and trees will migrate to the cap surface area and become established. These will be noted in the annual inspections, but will not require any further activity as their presence does not compromise the soil performance standard.

### **2.3 Excavated Soils from Future Site Activities**

If site soils are disturbed or excavated during future site activities, they will be characterized and handled properly on and off-site. The WDNR will be notified accordingly.

## **3.0 Documentation**

A file/binder will be kept at the District office that will include copies of all photo documentation with the date and description of each picture. In addition, records and receipts for all O&M expenses will be kept on in the file for review.

**EXHIBIT C**  
**CONFIRMATION SOIL SAMPLE**  
**RESULT TABLES**

F-92468

TABLE 1  
 Petroleum Results  
 W.R. Grace and Co.  
 Milwaukee, Wisconsin

<u>Sample Number</u>	<u>Location &amp; Depth</u>	<u>Results in ppm</u>
21-2	2.0' to 3.5'	520
21-3	14.5' to 16.0'	100
21-4	17.0' to 18.5'	460
22-2	2.0' to 3.5'	6.7
22-3	14.5' to 16.0'	130
22-4	17.0' to 18.5'	2600
23-2	2.0' to 3.5'	220
23-3	14.5' to 16.0'	1400
23-4	16.0'	68
25-2	2.0' to 3.5'	92
25-3	9.5' to 11.0'	140
25-4	14.5' to 16.0'	93
25-5	16.0'	20

TABLE 2  
 Asbestos Results  
 W.R. Grace and Co.  
 Milwaukee, Wisconsin

<u>Sample Number</u>	<u>Location &amp; Building Material</u>	<u>Results in %</u>	<u>Type</u>
21-1	Depth 6"	3 %	Chrysotile
		2 %	Actinolite
22-1	Depth 6"	7 %	Actinolite
23-1	Depth 6"	2 %	Actinolite
25-1	Depth 6"	5 %	Actinolite

ND = No asbestos detected

APRIL 1992

Abestos Investigation  
 Fox Environmental, Milwaukee  
 Page Four

3.0 Results:

Airborne Asbestos Analysis

Laboratory Number	Field Number	Asb Structures Identified	Structures per mm <sup>2</sup>
3866	F-1	None	<22.9
867	F-2	None	<22.9
868	F-3	1 (Actinolite)	22.9
3869	F-4	None	<22.9
870	F-5	1 (Actinolite)	22.9
871	F-6	1 (Actinolite)	22.9
3872	F-7	1 (Actinolite)	22.9
3873	F-8	None	<22.9
874	F-9	None	<22.9
875	F-10	1 (Actinolite)	22.9
876	F-11	2 (Actinolite & Crysotile)	45.9
3877	F-12	1 (Actinolite)	22.9
878	F-13	None	<22.9

Soil Asbestos Analysis

Laboratory Number	Field Number	Asb Structures Identified	Percent by Volume
879	S-1	Actinolite	1%-5%
3880	S-2	Actinolite	1%-5%
3881	S-3	Actinolite	4%
382	S-4	Actinolite	1%-5%
3883	S-5	Actinolite	1%-5%

Field Observations

Wind Direction:

10:00am	Southwest	6-10 mph
11:00am	South	6-10 mph
11:30am	North	6-10 mph
12:00am	South	6-10 mph
1:00pm	Southeast	6-10 mph
2:00pm	Southeast	6-10 mph
3:00pm	Southeast	6-10 mph

**TABLE 1**  
**Asbestos Results**  
**W.R. Grace Company**  
**900 North 43rd Street**  
**Milwaukee, Wisconsin**

APRIL 1992

DEPTH	SB-31	SB-32	SB-33	SB-34	SB-35	SB-36	SB-37	SB-38	SB-39
0' - 2'	3%C	<1%C	<1%A	3%A	7%C&A	2%C	ND	7%A	ND
2' - 3.5'	ND	12%C	2%C	2%C	ND	3%C	2%C	6%C&A	4%C&A
4.5' - 6'	ND	ND	4%C&A	ND	ND	<1%C	ND	ND	2%C
7' - 8.5'	ND	ND	ND	2%C	ND	ND	<1%C	2%A	ND
9.5' - 11'	ND	10%C	ND						
12' - 13.5'	--	--	--	--	--	--	10%C	--	--

Note: ND = Not Detected  
 C = Chrysotile  
 A = Actinolite

Table 5.2

Asbestos Test Results  
Menomonee River Drop Structure, W. R. Grace Property, 900 N. 43rd Street, Milwaukee, WI

Location	Date	Depth (feet)	Chrysotile Asbestos	Amosite Asbestos	Other Asbestos	EPA Standard (%)
GP-1, S-2	3/4/99	3-6	Present	Not Detected	Not Detected	1
GP-1, S-3	3/4/99	6-9	Present	Not Detected	Not Detected	1
GP-2, S-2	3/4/99	3-6	Present	Not Detected	Not Detected	1
GP-2, S-4	3/4/99	9-12	Not Detected	Not Detected	Not Detected	1
GP-3, S-1	3/5/99	0-3	Present	Not Detected	Not Detected	1
GP-3, S-5	3/5/99	12-15	Not Detected	Not Detected	Not Detected	1
GP-4, S-2	3/5/99	3-6	Present	Not Detected	Not Detected	1
GP-4, S-4	3/5/99	9-12	Not Detected	Not Detected	Not Detected	1
GP-5, S-2	3/5/99	3-6	Present	Not Detected	Not Detected	1
GP-6, S-1	3/5/99	0-3	Present	Not Detected	Not Detected	1
GP-6, S-3	3/5/99	6-9	Present	Not Detected	Not Detected	1
GP-7, S-5	3/5/99	12-15	Present	Not Detected	Not Detected	1
GP-8, S-1	3/5/99	0-3	Present	Not Detected	Not Detected	1
GP-8, S-5	3/5/99	12-15	Not Detected	Not Detected	Not Detected	1
GP-9, S-1	3/10/99	0-3	Present	Not Detected	Not Detected	1
GP-10, S-2	3/10/99	3-6	Present	Not Detected	Not Detected	1
GP-11, S-1	3/10/99	0-3	Present	Not Detected	Not Detected	1
GP-14, S-1	3/10/99	0-3	Present	Not Detected	Not Detected	1
GP-15, S-1	3/4/99	0-3	Present	Not Detected	Not Detected	1
GP-15, S-3	3/4/99	6-9	Not Detected	Not Detected	Not Detected	1
GP-16, S-1	3/4/99	0-3	Present	Not Detected	Not Detected	1
GP-16, S-4	3/4/99	9-12	Not Detected	Not Detected	Not Detected	1
GP-17, S-1	3/4/99	0-3	Present	Not Detected	Not Detected	1
GP-17, S-3	3/4/99	6-9	Present	Not Detected	Not Detected	1
GP-18, S-2	3/10/99	3-6	Present	Not Detected	Not Detected	1
MW-1M, S-1	3/5/99	1-2.5	Present	Not Detected	Not Detected	1
MW-2M, S-4	3/5/99	8.5-10	Present	Not Detected	Not Detected	1
MW-3M, S-2	3/11/99	3.5-5	Not Detected	Not Detected	Not Detected	1
MW-3M, S-5	3/11/99	11-12.5	Not Detected	Not Detected	Not Detected	1

# Maintenance/Inspection Log for Soil Performance Standard

WR Grace Sites "A" and "B"  
 900 N 43rd Street and 4301 W Sterling Place  
 Milwaukee, WI

WDNR BRRTS Case # 03-41-002189

Use this log with Exhibits A (Location Plan)  
 and B (Cap Maintenance Plan)

Annual Inspection Date   
 Inspect May - June of each year

Cap Maintenance Item	Photo	Condition	Repairs	Repairs
	Taken		Needed	Scheduled
	Yes/No	Describe	Yes/No	Date
Raised East Vegetated Area				
Access Road at Center of Site				
West Vegetated Area				
New Shrubs and Trees				

Comments

If soil disturbance/excavation planned, notify WDNR

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State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee WI 53212-3128

Scott Walker, Governor  
Cathy Stepp, Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



February 1, 2012

Ms. Jennifer Wright  
Milwaukee Metropolitan Sewerage District  
260 W. Seeboth St.  
Milwaukee, WI 53204

Subject: Cap Modification Plan Review for the W.R. Grace Site "B" property  
900 N. 43<sup>rd</sup> Street, Milwaukee, WI  
WDNR FID#241078420 BRRTS#02-41-000685 and #03-41-002189

Dear Ms. Wright:

On April 30, 2008, the Wisconsin Department of Natural Resources (Department) issued final closure to the above-referenced cases. Case closure was conditioned upon the long-term maintenance of a soil cover which was constructed over asbestos-contaminated soil to eliminate potential human contact with the impacted soils. On April 4, 2008, the Department granted a conditional low hazard waste exemption to the Milwaukee Metropolitan Sewerage District (MMSD) to allow disposal of historic fill material on the 900 N. 43<sup>rd</sup> St. property and the adjoining parcel at 4200 W. Monarch Place. The imported fill originated from the Former Central Ready Mix site at 5013 W. State St. in Milwaukee during construction of the MMSD Watercourse Western Milwaukee Flood Management Project. Approximately 14,961 yd<sup>3</sup> of soil/fill was excavated from the Central Ready Mix site between June 2 and October 28, 2009 and placed on top of the existing soil barrier on the 900 N. 43<sup>rd</sup> St. and 4200 W. Monarch Place properties. The imported fill, contaminated primarily with polyaromatic hydrocarbons (PAHs) and lead, was subsequently capped with six inches of clean topsoil and vegetated.

Based on the changes to the site since final closure was granted, Daniel Pelczar from HNTB, on behalf of MMSD, submitted the required review fees and a new cap maintenance plan to reflect the modifications made to the site and soil barrier. The original conditions of site closure and continuing obligations have not changed – only the type of cap that must be maintained. The six inch vegetated soil cover over contaminated soil/fill must be maintained in compliance with the **attached revised maintenance plan** and the Department must approve any changes to this barrier. The following activities are prohibited on any portion of the property where the soil cover is required, unless prior written approval has been obtained from the DNR:

- removal of the existing barrier;
- replacement with another barrier;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure

This site is listed on the Remediation and Redevelopment Program's internet accessible Geographic Information System (GIS) Registry to provide notice of residual contamination and of any continuing

POST  
CLOSURE

Jennifer Wright

February 1, 2012

Page 2

obligations. The Department will update the GIS listing to add the new maintenance plan and residual contamination information.

The Department appreciates your efforts to restore the environment at this site. If you have any questions or concerns regarding this letter, please contact me at (414) 263-8533.

Sincerely,



Nancy D. Ryan, Hydrogeologist  
Remediation and Redevelopment

Cc: SER case file  
Daniel Pelczar, HNTB – electronic copy

Attachments

## CAP MAINTENANCE PLAN ADDENDUM

February 1, 2012

Property identified as:  
Former WR Grace, Site B  
900 North 43rd Street  
Milwaukee, Wisconsin 53208-3117

WDNR BRRTS #: 02-41-000685 and 03-41-002189  
WDNR FID #: 241078420

County Tax Number 386-0206-000-0

**LEGAL DESCRIPTION:** THAT PART OF LOT 7 IN BLOCK 2, LOTS 3 AND 4 IN ASSESSORS' PLAT No. 125 IN THE NORTHEAST ¼, OF SECTION 26, AND THE NORTHWEST 1/4 OF SECTION 25, TOWNSHIP 7 NORTH RANGE 21 EAST IN THE CITY OF MILWAUKEE, COUNTY OF MILWAUKEE, STATE OF WISCONSIN, MORE PARTICULARLY DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST ¼ CORNER OF WEST STERLING PLACE AND NORTH 45<sup>TH</sup> STREET AS ESTABLISHED BY THE CITY OF MILWAUKEE, SAID POINT ALSO DESCRIBED AS FOLLOWS: COMMENCING AT A POINT WHERE THE EAST LINE OF SAID ¼ SECTION INTERSECTS THE CENTER LINE OF WEST STATE STREET; THENCE NORTH 84° 05' WEST ON A LINE 555.10 FEET TO A POINT; THENCE NORTH 86° 49' WEST ON A LINE 124.24 FEET TO A POINT, SAID POINT BEING THE CENTER OF NORTH 45<sup>TH</sup> STREET EXTENDED; THENCE SOUTH 11° 31' WEST ALONG THE CENTER LINE OF NORTH 45<sup>TH</sup> STREET, 179.71 FEET TO A POINT; THENCE SOUTH 81° 25' EAST 10.01 FEET TO THE POINT OF COMMENCEMENT; THENCE SOUTH 11° 31' WEST ALONG THE EASTERLY LINE OF SAID NORTH 45<sup>TH</sup> STREET, 27.53 FEET TO A POINT; THENCE SOUTH 51° 44' EAST 143.00 FEET TO A POINT; THENCE NORTH 28° 16' EAST 20 FEET TO A POINT; THENCE SOUTH 52° 35' EAST 135 FEET TO A POINT; THENCE SOUTH 38° 16' WEST 3.00 FEET TO A POINT; THENCE SOUTH 51° 44' EAST 234.82 FEET TO A POINT IN THE WESTERLY LINE OF NORTH 43<sup>RD</sup> STREET; THENCE NORTH 38° 16' EAST ALONG THE WESTERLY LINE OF NORTH 43<sup>RD</sup> STREET 165.16 FEET TO THE SOUTHERLY LINE OF WEST STERLING PLACE AS ESTABLISHED; THENCE ALONG THE SOUTHERLY LINE OF WEST STERLING PLACE NORTH 51° 49' WEST 160.74 FEET TO A POINT; THENCE NORTH 57° 39' WEST 110.30 FEET TO A POINT; THENCE NORTH 65° 49' WEST 31.16 FEET TO A POINT; THENCE NORTH 80° 58' WEST 36.23 FEET TO A POINT; THENCE NORTH 89° 25' WEST 90.20 FEET TO A POINT; THENCE NORTH 81° 25' WEST 136.34 FEET TO THE POINT OF BEGINNING.

\*\*\*\*\*

## Introduction

The purpose of this document is to present a Cap Maintenance Plan Addendum to the Wisconsin Department of Natural Resources (WDNR) for a fill site that was capped at the above-referenced property. The maintenance activities relate to the existing six inches of topsoil and vegetative cap over imported contaminated historic fill from the Former Central Ready Mix Site located at 5013 West State Street, Milwaukee, Wisconsin (WDNR BRRTS #02-41-552683, 03-41-000159, 03-41-005140, 03-41-557682 and 07-41-552160; and WDNR FID#241519410) occupying the area over the former WR Grace Site B site. A conditional low hazard waste grant of exemption for use of contaminated soil as fill was approved on October 30 2008, by the WDNR for this work (Exhibit A). This Cap Maintenance Plan amends the prior Cap Maintenance Plan dated April 4, 2008, which was prepared by GeoTrans, Inc. for the Milwaukee Metropolitan Sewage District (MMSD). The previous cap was 2 feet thick which was over asbestos impacted soil. This work was part of the MMSDs Watercourse Western Milwaukee Flood Management Project, Phase 1.

## Description of Contamination

The imported contaminated historic fill and soils are impacted by petroleum (PAHs) and metals (arsenic and lead). Soil analytical data of the imported contaminated historic fill is presented on Table 1 (Exhibit B). The 6 inches of topsoil and vegetative cap over imported contaminated historic fill area is to be maintained in accordance with this Cap Maintenance Plan. The topography of the site and "as built" figures are presented in the attached map (Exhibit C).

## Cap Purpose

A six inch topsoil and vegetative cap barrier is over imported contaminated historic fill and over the previous asbestos contaminated soil cap which serves as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. A Wisconsin Department of Transportation (WisDOT) No. 10 seed mixture was used to vegetate the site. The WisDOT No. 10 seed mixture includes the following species: 40% Kentucky Bluegrass, 25% Red Fescue, 20% Perennial Ryegrass, 10% White Clover and 5% Redtop. An erosion control mat was placed on the majority of the topsoil cap with a woven coir fabric on the north side facing the Menomonee River. Based on the current and future use of the property, the barrier should function as intended unless disturbed.

## Semiannual Inspection

A six inch topsoil and vegetative cap barrier overlying the contaminated historic fill is depicted in Exhibit C will be inspected twice a year (spring and fall) for cracks and other potential exposures to underlying soils. The inspections will be performed to evaluate damage to the cap due to settling, exposure to the weather, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented. The inspections will be performed by the property owner or their designated representatives. A log of the inspections will be maintained by the property owner and is included as Exhibit D, *Cap Inspection Log*. The log will include recommendations for necessary repair of any areas where underlying contaminated historic fill materials are exposed. Once repairs are completed, they will be documented in the inspection log. A copy of the inspection log will be kept at the address of the property owner and available of submittal or inspection by WDNR representatives upon their request.

### **Maintenance Activities**

If exposed contaminated historic fill soils are noted during the semiannual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Maintenance activities can include soil repairs of the cap, replacing of the erosion control mat and reseeding. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment ("PPE"). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law. Appropriate notification of the WDNR or its successor would be required.

In the event the six inches of topsoil and vegetative cap, overlying the imported contaminated historic fill are removed or replaced, the replacement barrier must equally serve as a barrier to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Cap Maintenance Plan Addendum unless indicated otherwise by the WDNR or its successor.

The property owner, in order to maintain the integrity of the soil cap, will maintain a copy of this Maintenance Plan at MMSDs headquarters listed under the contact information contained herein and make it available to all interested parties (i.e. employees, contractors, future property owners, etc.) for viewing.

### **Prohibition of Activities and Notifications of WDNR Prior to Actions Affecting a Cover or Cap**

The following activities are prohibited on any portion of the property where a 6 inch topsoil cover and vegetative cap barrier is required as shown on the attached map (Exhibit C), unless prior written approval has been obtained from the WDNR: 1.) removal of the existing barrier; 2.) replacement with another barrier; 3.) excavating or grading of the land surface; 4.) filling on capped areas; 5.) plowing for agricultural cultivation; or 6.) construction or placement of a building or other structure.

### **Amendment or Withdrawal of Maintenance Plan**

This Cap Maintenance Plan Amendment can be re-amended or withdrawn by the property owner and its successors with the written approval of WDNR.

**Contact Information**  
(as of February 1, 2012)

Site Owner and Operator: Milwaukee Metropolitan Sewage District  
Attn. Ms. Jennifer Wright  
260 W. Seeboth St.  
Milwaukee, Wisconsin 53204  
(414) 272-5100

Consultant: HNTB Corporation  
Attn: Mr. Daniel K. Pelczar  
11414 W. Park Place; Suite 300  
Milwaukee, WI 53224  
(414) 359-2300

WDNR: Mr. John Hnat  
Wisconsin Department of Natural Resources  
2300 North Dr. Martin Luther King Jr. Drive  
Milwaukee, Wisconsin 53212  
(414) 263-8644

## Attachment A



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Matthew J. Frank, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-3128  
FAX 414-263-8606  
Telephone 414-263-8500  
TTY Access via relay - 711

RECEIVED  
NOV 03 2008  
M4  
HNTB COMPANIES

October 30, 2008

Jennifer Wright  
Milwaukee Metropolitan Sewerage District  
260 W. Seeboth Street  
Milwaukee, WI 53201

FID # 241078420 &  
241403470  
Milwaukee County  
SW - EXEMPTION

Subject: Conditional low hazard waste grant of exemption for use of contaminated soil as fill; former Grace and Illing properties now owned by Milwaukee Metropolitan Sewerage District; City of Milwaukee

Dear Ms. Wright:

Based on our review of the proposed request for low hazard waste exemption in accordance with s. 289.43(8), Stats, we have determined that the proposed activity is not likely to cause increased environmental contamination or endanger human health and welfare, provided that the project is done in accordance with the plan proposed in the exemption request submitted by HNTB on July 17, 2008 and conditions of the attached grant of exemption.

The Milwaukee Metropolitan Sewerage District (MMSD) currently owns properties formerly used for industrial manufacturing purposes. Remediation of one of these properties, the Central Ready Mix site, will yield soil contaminated with metals and petroleum hydrocarbons. Some of the soil is suitable for reuse as fill on site, some is contaminated enough to require landfilling, and a large excess of soil will be used as compacted and covered fill on two other properties, the former Grace and Illing properties. The contaminated soils are suitable for construction, have been in-place and subject to natural leaching and stabilization actions for several decades, and can be excavated and placed using conventional earthwork construction practices. If the contaminated soil is compacted properly, graded to suitable slopes, covered with clean soil and revegetated; it should be protected from exposure and erosion, any users of the property should be protected from direct contact with contaminants, and the contaminated soils will not be a threat to other protected resources.

If you have any questions regarding this grant of exemption, please contact Frank Schultz at 414-263-8694 or by e-mail at [Frank.Schultz@wi.gov](mailto:Frank.Schultz@wi.gov).

Sincerely,

Franklin C. Schultz  
Waste & materials Management Program Supervisor  
Southeast Region

cc: Tom Wentland - PSC  
John Hnat - MSC  
Rachel Sabre - MSC  
Daniel K. Pelczar - HNTB

BEFORE THE  
STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

CONDITIONAL LOW HAZARD WASTE GRANT OF EXEMPTION  
FOR THE PLACEMENT OF SOLID WASTE  
AT THE FORMER GRACE AND ILLING PROPERTIES IN  
THE CITY OF MILWAUKEE

FINDINGS OF FACT

The Department of Natural Resources (Department) finds that:

1. The Milwaukee Metropolitan Sewerage District (MMSD) owns adjacent properties in the City of Milwaukee.  
The addresses and legal descriptions for these properties are:
  - 900 N 43<sup>rd</sup> Street (former site of W.R. Grace Company)  
Assessor's Plat No. 125 – NE ¼ Sec 26 & NW ¼ Sec 25-7-2 Block 2 Lots 3 & 4, and
  - 4200 W Monarch Place (former site of Harold T. Illing Company)  
Assessor's Plat No. 125 – NE ¼ Sec 26 & NW ¼ Sec 25-7-2 Block 2 Lots 1 & 2.
2. Contaminant releases at both sites have been reported to the Southeast Region's Remediation & Redevelopment Program and remedial actions have occurred in response to these releases. Remediation projects identified as BRRTS Nos. 02-41-000685 (closed) and 03-41-002189 (closed) are associated with the site at 900 N 43<sup>rd</sup> Street. BRRTS Nos. 02-41-107699 (closed), 02-41-548384 (open), and 02-41-548406 (open) exist for the site at 4200 W Monarch Place. Interim actions have been taken for the open BRRTS projects.
3. MMSD is planning to create more floodplain storage along the Menomonee River at the former Central Ready Mix site at 5013 West State Street in the City of Milwaukee.
4. Creation of the additional flood plain storage will generate soils in excess of what can be reused on the Central Ready Mix site. These excess soils include fill materials and soils impacted with organic materials and heavy metals from historic industrial operations on-site. The excess soils are considered to be solid waste as defined by s. 289.01 (33).
5. MMSD is requesting that approximately 34,000 tons of soils generated at the Central Ready Mix property be placed on the former Grace and Illing properties. Soils generated at the Central Ready Mix site that exceed the industrial RCLs as defined in the NR 700 series will be disposed at a licensed solid waste landfill. Some soils generated at the Central Ready Mix site will be reused at that location for the creation of berms and creation of desired site contours.
6. The Department issued a conditional grant of exemption for construction at the former Central Ready Mix site on October 8, 2008.
7. On July 17, 2008 the Department received a request for an exemption to place excess soils from the Central Ready Mix site at the former Grace and Illing properties.
6. The plan review fee of \$550.00 was received for this exemption request on July 17, 2008 (check number 27539).
7. Documents considered in the exemption request include the following:

- a. A request for an exemption under NR 718 submitted on July 17, 2008 by HNTB.
- b. An e-mail from Daniel Pelozar, HNTB on August 22, 2008 giving additional estimates on the volumes and classifications of soils to be generated at the Central Ready Mix site.
- c. Discussions at a meeting between MMSD, HNTB, and the Department on September 11, 2008.
- d. A letter dated September 26, 2008 from HNTB.
- e. Conversations with other Department staff in the Water and Waste & Materials Management program.
- f. Information on the former Grace and Illing properties available through City of Milwaukee property records.
- g. A site visit to the former Grace and Illing properties on October 17, 2008.
- h. Maps of the area showing streets and land use available at: <http://maps.live.com/>.

8. Additional facts relevant to the review the request for grant of exemption include the following:

- a. The contaminated soils that is proposed to be used as fill has been contaminated with low levels of certain metallic elements and petroleum compounds.
- b. The contaminated soils have been in place for decades and have been subject to leaching and stabilization actions.
- c. Surface protection by soil cover and vegetation is proposed to prevent exposure and direct contact between the contaminated soils and any users of the property and to prevent erosion to surface water and other protected resources.
- d. The residual contaminants of concern in the soils are low in leaching potential, and the organic materials are subject to slow degradation over time.
- e. The contaminated soils can be excavated, hauled, placed, and compacted using conventional earthwork construction practices.

9. The conditions set forth below are needed to assure that exempted uses of the contaminated soils are conducted in an expeditious manner while preserving the Department's ability to minimize environmental impacts. The conditions set forth in this grant of exemption are necessary to assure protection of the environment and to prevent contamination of surface water. If the conditions are complied with, the proposed exemption will not inhibit compliance with the applicable provisions of ch. 30, 31, 160, and 280 to 299, and ss. 1.11, 23.40, 59.692, 59.693, 60.627, 61, 351, 61.354, 62.231, 62.234, and 87.30, Wis. Stats.

#### CONCLUSIONS OF LAW

1. Based on the foregoing, the Department has the authority under s. 289.43(8), Wis. Stats., and s. NR 500.08(5), Wis. Adm. Code, to issue a low hazard waste grant of exemption if the exemption would not inhibit compliance with the applicable provisions of ch. 30, 31, 160, and 280 to 299, and ss. 1.11, 23.40, 59.692, 59.693, 60.627, 61.351, 61.354, 62.231, 62.234, and 87.30, Wis. Stats.
2. The Department has authority to approve a grant of exemption with conditions if the conditions are needed to ensure compliance with the applicable provisions of ch. 30, 31, 160, and 280 to 299, and ss. 1.11, 23.40, 59.692, 59.693, 60.627, 61.351, 61.354, 62.231, 62.234, and 87.30, Wis. Stats.
3. The conditions set forth below are needed to ensure compliance with the applicable provisions of ch. 30, 31, 160, and 280 to 299, and ss. 1.11, 23.40, 59.692, 59.693, 60.627, 61.351, 61.354, 62.231, 62.234, and 87.30, Wis. Stats.

4. In accordance with the foregoing, the Department has the authority under s. 289.43(8), Wis. Stats. and s. NR 500.08(5), Wis. Adm. Code, to issue the following conditional low hazard waste grant of exemption.

#### CONDITIONAL GRANT OF EXEMPTION

The Department hereby grants the requested low hazard waste exemption, as authorized by s. 289.43(8), Stats., to allow the Milwaukee Metropolitan Sewerage District to place up to 34,000 tons of soil from the former Central Ready Mix site at 5013 West State Street in Milwaukee, Wisconsin on the former Grace and Illing properties in Milwaukee in accordance with submittals on July 17, 2008 and September 26, 2008 from HNTB and the following conditions:

1. All soils from the Central Ready Mix site shall be placed, graded, capped, and seeded at the former Grace and Illing properties within 3 years of the effective date of this exemption.
2. MMSD shall supervise its contractors to ensure that transportation of soils does not cause nuisance conditions (excessive soils on City streets, fugitive dust, etc.).
3. Any additional laboratory results from the February 7, 2002; April 23, 2002; and/or January 17, 2008 sampling events, not previously submitted to the Department, shall be submitted by December 31, 2008.
4. MMSD shall follow appropriate best management practices to prevent run-off during placement and grading of contaminated soils and cover soils at the former Grace and Illing properties. An erosion control plan for the former Grace and Illing properties shall be prepared and submitted to Rachel Sabre of the Southeast Region's Water Program for review, prior to placement of soils. All erosion control measures must meet or exceed the approved Stormwater Construction Technical Standards found on the Department's Runoff Management Website <http://dnr.wi.gov/org/water/wm/nps/stormwater/techstds.htm#Construction> developed by the Department under Wis. Admin. Code Ch. NR 151.31.
5. MMSD shall provide supervision to ensure that soil placement, cap construction, and seeding are done in accordance with established engineering and agricultural practices.
6. Final grades on the former Grace and Illing properties are anticipated to be at 4:1, but in no case will exceed 3:1.
7. MMSD shall conduct daily inspections of the former Grace and Illing properties during soil placement, grading, capping, and seeding.
8. Erosion control measures shall be maintained and weekly inspections conducted at the former Grace and Illing properties until a vegetative cover is fully established.
9. Reseeding and replacement of eroded cover soils shall occur as needed to ensure a well-established vegetative cover for the former Grace and Illing properties.
10. MMSD shall notify the Department 48 hours prior to the placement of soils at the former Grace and/or Illing properties. The Department may choose to inspect the former Grace and Illing properties during soil placement, soil grading, capping, and/or seeding. All reasonable efforts shall be made to accommodate requests for any such inspections. Inspection fees will not be charged for these inspections.

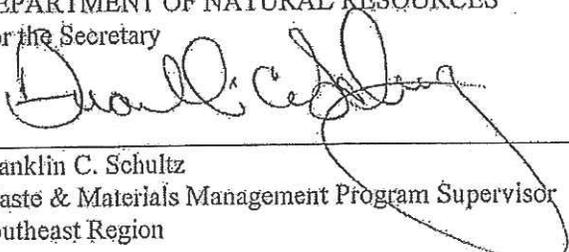
11. MMSD shall inspect the former Grace and Illing properties within 24-hours of significant rain events (> ½-inch) until the desired vegetative cover is fully established. Any erosion gullies will be repaired within 48-hours of discovery.
12. Placement of soils at the former Grace and Illing properties shall in no way limit future remedial options deemed necessary for either or both of these sites.
13. A letter or report summarizing the amount of soils placed on the former Grace and Illing properties, a map showing final contours (if different than planned); explanations of any problems encountered during the project and solutions, and other pertinent information; shall be submitted to the Department when the project is complete.

#### NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes, administrative codes and case law establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, sections 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. Such a petition shall be filed with the appropriate circuit court and shall be served on the Department. The petition shall name the Department of Natural Resources as the respondent.

Dated October 30 2008  
DEPARTMENT OF NATURAL RESOURCES  
For the Secretary

  
Franklin C. Schultz  
Waste & Materials Management Program Supervisor  
Southeast Region

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**EXHIBIT B**

Table 1  
Summary of Soil Analytical Results - Test Pits  
Former Central Ready Mix Site  
5013 West State Street, Milwaukee, Wisconsin

Sample Number	SS-025	SS-026	SS-027	SS-028	SS-029	SS-030	SS-031	SS-032	SS-033	SS-034	SS-035	WDNR NR 720 RCLs and WDNR Interim Guidance GRCLs for Groundwater Protection	WDNR NR 720 RCLs and WDNR Interim Guidance GRCLs for Direct Contact Exposure Pathway (Non- Industrial)
Test Pit Location	TP-7B	TP-7B	TP-8B	TP-9B	TP-9B	TP-10B	TP-10B	TP-12B	TP-12B	TP-11B	TP-11B		
Test Pit Surface Elevation (ft. MSL)	623.8	623.8	623.8	624.4	624.4	624.4	624.4	---	---	---	---		
Sample Depth (ft)	4	7	5	3	5.5	4	8	3	4-5	3-4	7-8		
Depth of Proposed Cut (ft)	8	8	5.5	6.1	6.1	9	9	5.2	5.2	8	8		
Sampling Date	06/08/09	06/08/09	06/08/09	06/08/09	06/08/09	06/08/09	06/08/09	06/08/09	06/08/09	06/08/09	06/08/09		
<b>Diesel Range Organics (DRO); mg/kg</b>													
DRO	330	11	23	65	240	49	74	60	39	25	88	100	---
<b>Gasoline Range Organics (GRO); mg/kg</b>													
GRO	<5.9	<5.6	<5.4	<5.4	<5.9	<6.0	<5.3	<5.4	<5.8	<5.5	<5.4	100	---
<b>Detected Volatile Organic Compounds (VOCs); µg/kg</b>													
Naphthalene	71	<56	<54	<54	970	<60	<53	<54	<58	<55	<54	400	20,000
1,2-Dichlorobenzene	<30	<28	<27	<27	<30	85	<27	<27	<29	<27	<27	---	---
<b>Polynuclear Aromatic Hydrocarbons (PAHs); µg/kg</b>													
Acenaphthene	15,000	<280	550	<540	5,800	900	<530	<3400	260	<140	510	38,000	900,000
Acenaphthylene	<5700	<480	<460	<910	4100	<92	<900	<5700	<450	<230	<460	700	18,000
Anthracene	41,000	360	280	600	4,100	360	210	940	200	120	440	3,000,000	5,000,000
Benzo(a)anthracene	38,000	660	2,400	2,500	15,000	4,500	3,300	5,700	1,500	930	3,000	17,000	88
Benzo(b)fluoranthene	35,000	1,100	5,400	5,000	28,000	9,900	8,000	11,000	3,200	1,900	6,000	360,000	88
Benzo(k)fluoranthene	16,000	410	2,000	1,900	12,000	3,800	3,800	4,100	1,100	650	2,300	870,000	880
Benzo(a)pyrene	26,000	650	3,000	3,200	28,000	5,300	3,700	7,400	1,800	860	3,500	48,000	8.8
Benzo(g,h,i)perylene	19,000	1,000	4,000	4,900	30,000	9,100	6,400	10,000	2,800	1,500	5,100	6,800,000	1,800
Chrysene	53,000	1,100	4,200	3,800	22,000	8,000	5,800	9,800	2,700	1,600	5,600	37,000	8,800
DiBenzo(a,h)anthracene	2,900	110	490	550	3,700	1,000	910	950	310	190	510	38,000	8.8
Fluoranthene	130,000	2,200	4,800	4,800	29,000	6,300	4,900	14,000	3,300	1,800	7,300	500,000	600,000
Fluorene	13,000	300	<54	<110	1,400	<110	<110	<670	<53	<27	<54	100,000	600,000
Indeno(1,2,3-cd)pyrene	20,000	810	3,900	5,800	34,000	12,000	5,700	13,000	3,000	1,700	1,900	680,000	88
1-Methylnaphthalene	7,400	270	310	<320	2,300	580	320	<2000	230	130	420	23,000	1,100,000
2-Methylnaphthalene	24,000	770	2,000	1,400	16,000	3,200	1,600	5,400	1,200	620	2,300	20,000	600,000
Naphthalene	22,000	<170	180	<320	3,300	500	<320	<2000	<160	100	270	400	20,000
Phenanthrene	88,000	940	1,100	1,400	14,000	1,100	950	3,600	950	630	2,000	1,800	18,000
Pyrene	76,000	1,500	4,800	5,000	36,000	6,100	4,000	16,000	3,400	2,000	7,800	8,700,000	500,000
<b>Resource Conservation and Recovery Act (RCRA) Metals; mg/kg</b>													
Arsenic	4.5	8.2	3.2	10	1.9	6.3	5.4	2.9	2.1	4.3	2.6	---	0.039 / 10 (1)
Barium	140	24	8.3	39	10	25	11	18	5.9	21	6.5	---	---
Cadmium	0.27	0.26	0.37	0.41	0.40	1.7	0.41	0.59	0.27	0.37	0.43	---	8
Chromium	6.6	7.0	5.6	23	2.9	66	7.6	36	3.9	8.7	4.3	---	16,000 (2)
Lead	54	13	19	50	18	76	24	44	10	58	15	---	50
Mercury	0.022	<0.011	0.036	0.018	0.013	0.014	0.026	0.011	0.012	0.018	<0.011	---	---
Selenium	<4.3	<4.5	<4.3	<4.3	<4.3	<4.3	<4.2	<4.3	<4.2	<4.4	<4.3	---	---
Silver	<0.12	<0.12	<0.12	0.79	<0.12	2.1	0.21	1.4	<0.12	0.15	<0.12	---	---

Notes:

--- = no standard or not measured

(1) = Assumed background concentration of Arsenic (10 mg/kg)

(2) = Concentration for trivalent chromium

Bold and boxed values exceed WDNR NR 720 Table 1 values or WDNR Interim Guidance GRCLs for the groundwater pathway

Bold values exceed the WDNR Interim Guidance GRCLs for Non-Industrial settings for the direct contact exposure pathway, including WDNR NR 720 Table 2 values, which includes arsenic above 10 mg/kg

GRCL = Generic Residual Contaminant Level

RCL = Residual Contaminant Level

Table 1  
Summary of Soil Analytical Results - Test Pits  
Former Central Ready Mix Site  
5013 West State Street, Milwaukee, Wisconsin

Sample Number	SS-036	SS-037	SS-038	SS-039	SS-040	SS-041	SS-042	SS-043	SS-044	SS-045	SS-046	SS-047	WDNR NR 720 RCLs and WDNR Interim Guidance GRCLs for Groundwater Protection	WDNR NR 720 RCLs and WDNR Interim Guidance GRCLs for Direct Contact Exposure Pathway (Non- Industrial)
Test Pit Location	TP-11C	TP-11C	TP-13D	TP-13C	TP-14E	TP-14E	TP-14F	TP-14F	TP-13E	TP-13E	TP-12D	TP-12D		
Test Pit Surface Elevation (ft. MSL)	624.3	624.3	625.3	625.7	622.7	622.7	622.0	622.0	624.0	624.0	621.5	621.5		
Sample Depth (ft)	5	10	3	1-2	3	6	2-3	6	4-6	10	3	6		
Depth of Proposed Cut (ft)	12.5	13	4.6	2.1	7.3	7.3	8.1	8.1	12.5	12.5	5.8	5.8		
Sampling Date	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09		
<b>Diesel Range Organics (DRO); mg/kg</b>														
DRO	15	11	22	38	200	190	38	73	130	51	39	65	100	---
<b>Gasoline Range Organics (GRO); mg/kg</b>														
GRO	<5.3	<6.0	<5.4	<5.6	<5.8	<5.4	<5.4	<5.8	<5.3	<6.0	<5.4	<5.3	100	---
<b>Detected Volatile Organic Compounds (VOCs); µg/kg</b>														
Naphthalene	<53	<60	<54	<56	59	<54	<54	<58	<53	<60	<54	<53	400	20,000
1,2-Dichlorobenzene	<27	<30	<27	<28	<29	<27	<27	<29	<27	<30	<27	<26	---	---
<b>Polynuclear Aromatic Hydrocarbons (PAHs); µg/kg</b>														
Acenaphthene	570	<300	<270	<560	<3300	<2700	<270	<660	990	370	<270	340	38,000	900,000
Acenaphthylene	<910	<510	<460	<950	<5600	<4600	<460	<1100	<450	<460	<460	<450	700	18,000
Anthracene	1,100	150	180	370	2,700	1,400	140	440	720	270	200	320	3,000,000	5,000,000
Benzo(a)anthracene	3,900	320	1,300	2,200	19,000	10,000	2,600	9,100	6,300	1,900	1,300	2,000	17,000	88
Benzo(b)fluoranthene	7,200	510	2,500	4,600	35,000	19,000	6,100	22,000	12,000	4,200	2,700	3,600	360,000	88
Benzo(k)fluoranthene	2,600	270	1,100	1,800	15,000	8,300	2,300	8,400	6,300	1,700	1,100	1,500	870,000	880
Benzo(a)pyrene	4,300	280	1,400	2,600	25,000	12,000	2,200	7,600	8,400	2,500	1,600	2,200	48,000	8.8
Benzo(g,h,i)perylene	7,200	370	2,000	3,300	28,000	15,000	4,300	13,000	10,000	3,200	2,300	3,200	6,800,000	1,800
Chrysene	6,700	550	2,400	4,600	31,000	17,000	5,200	18,000	12,000	3,600	2,400	3,200	37,000	8,800
Dibenzo(a,h)anthracene	670	56	240	400	3,000	2,000	680	2,300	1,000	360	230	300	38,000	8.8
Fluoranthene	8,800	1,200	3,300	3,800	51,000	25,000	5,100	15,000	18,000	5,400	3,600	4,900	500,000	600,000
Fluorene	350	2,900	<54	<110	<660	<540	<54	<130	100	68	<54	<53	100,000	600,000
Indeno(1,2,3-cd)pyrene	6,200	900	2,100	3,500	33,000	12,000	4,100	16,000	12,000	3,700	2,000	3,900	680,000	88
1-Methylnaphthalene	440	480	220	480	2,500	1,600	290	740	830	270	210	260	23,000	1,100,000
2-Methylnaphthalene	2,500	460	950	1,900	14,000	9,100	1,400	4,500	4,600	1,600	<160	1,500	20,000	600,000
Naphthalene	630	480	160	360	<2000	<1600	<160	<400	1,100	220	240	260	400	20,000
Phenanthrene	3,600	660	860	1,600	14,000	7,000	1,200	2,900	4,600	1,600	940	1,500	1,800	18,000
Pyrene	9,500	1,200	3,200	5,800	50,000	25,000	3,700	11,000	18,000	5,200	3,700	5,000	8,700,000	500,000
<b>Resource Conservation and Recovery Act (RCRA) Metals; mg/kg</b>														
Arsenic	2.9	6.3	9.1	5.8	2.1	2.0	4.3	2.3	3.5	6.5	5.8	2.6	---	0.039 / 10 (1)
Barium	8.2	39	12.0	17	10	6.6	11	10	12	13	11	9.9	---	---
Cadmium	0.4	0.35	0.32	0.44	0.44	0.29	0.56	0.7	0.4	0.24	0.35	0.44	---	8
Chromium	7.3	13	5.9	14	3.9	3.3	3.6	4.6	4.7	8.3	4.3	4.3	---	16000 (2)
Lead	20	28	30	29	20	13	11	12	11	17	15	15	---	50
Mercury	<0.011	0.09	0.019	0.022	0.023	<0.011	0.019	<0.011	<0.011	0.029	0.019	0.10	---	---
Selenium	<4.3	<4.8	<4.3	<4.5	<4.3	<4.3	<4.3	<4.2	<4.3	<4.3	<4.3	<4.2	---	---
Silver	0.12	0.19	0.16	0.29	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	---	---

Notes:

--- = no standard

(1) = Assumed background concentration of Arsenic (10 mg/kg)

(2) = Concentration for trivalent chromium

Bold and boxed values exceed WDNR NR 720 Table 1 values or WDNR Interim Guidance GRCLs for the groundwater pathway

Bold values exceed the WDNR Interim Guidance GRCLs for Non-Industrial settings for the direct contact exposure pathway, including WDNR NR 720 Table 2 values, which includes arsenic above 10 mg/kg

GRCL = Generic Residual Contaminant Level

RCL = Residual Contaminant Level

Table 1  
Summary of Soil Analytical Results - Test Pits  
Former Central Ready Mix Site  
5013 West State Street, Milwaukee, Wisconsin

Sample Number	SS-048	SS-049	SS-050	SS-051	SS-052	SS-053	SS-054	SS-055	SS-056	SS-057	WDNR NR 720 RCLs and WDNR Interim Guidance GRCLs for Groundwater Protection	WDNR NR 720 RCLs and WDNR Interim Guidance GRCLs for Direct Contact Exposure Pathway (Non- Industrial)
Test Pit Location	TP-12E	TP-12E	TP-11D	TP-11D	TP-7C	TP-7C	TP-7C	TP-11E	TP-11E	TP-11E		
Test Pit Surface Elevation (ft. MSL)	626.8	626.8	625.4	625.4	623.8	623.8	623.8	627.5	627.5	627.5		
Sample Depth (ft)	5	10	6	10	4-5	7	9-10	4-5	10	13		
Depth of Proposed Cut (ft)	16.2	16.2	13.5	13.5	12.5	12.5	12.5	18	18	18		
Sampling Date	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09	06/09/09		
<b>Diesel Range Organics (DRO); mg/kg</b>												
DRO	34	43	46	74	140	630	<5.5	36	14	52	100	---
<b>Gasoline Range Organics (GRO); mg/kg</b>												
GRO	<5.3	<5.3	<6.0	<5.3	<5.5	<5.4	<5.7	<5.3	<5.3	<6.2	100	---
<b>Detected Volatile Organic Compounds (VOCs); µg/kg</b>												
Naphthalene	<53	<53	<60	<53	<55	<54	<57	<53	<53	<62	400	20,000
1,2-Dichlorobenzene	<26	<27	<30	<26	<27	<27	<28	<26	<26	<31	---	---
<b>Polynuclear Aromatic Hydrocarbons (PAHs); µg/kg</b>												
Acenaphthene	<260	<270	<540	<260	<270	750	<57	150	2,000	430	38,000	900,000
Acenaphthylene	<450	<450	<920	<450	<470	<460	<96	<90	<900	<440	700	18,000
Anthracene	120	160	260	250	180	680	8	110	900	200	3,000,000	5,000,000
Benzo(a)anthracene	820	1,100	1,900	1,600	750	2,500	31	920	9,700	1,600	17,000	88
Benzo(b)fluoranthene	1,800	2,200	3,600	3,300	1,300	5,300	40	2,100	19,000	3,500	360,000	88
Benzo(k)fluoranthene	620	760	1,400	1,200	460	2,200	31	770	8,200	1,500	870,000	880
Benzo(a)pyrene	1,000	1,200	2,200	2,200	870	3,700	29	960	13,000	1,700	48,000	8.8
Benzo(g,h,i)perylene	1,400	2,200	3,900	3,500	1,200	5,600	40	1,700	16,000	2,700	6,800,000	1,800
Chrysene	1,800	2,400	3,500	3,100	1,200	4,400	<5.7	1,900	21,000	3,300	37,000	8,800
Dibenzo(a,h)anthracene	160	210	330	330	110	540	<8.5	210	1,500	320	38,000	8.8
Fluoranthene	2,400	2,500	5,400	5,000	1,900	6,000	98	2,300	30,000	4,800	500,000	600,000
Fluorene	<53	<53	<110	140	<55	250	<11	50	<110	180	100,000	600,000
Indeno(1,2,3-cd)pyrene	1,100	1,900	2,400	2,700	1,100	4,500	100	1,300	13,000	1,800	680,000	88
1-Methylnaphthalene	180	<160	<330	<160	<160	160	<34	110	<320	310	23,000	1,100,000
2-Methylnaphthalene	350	<160	1,100	<160	350	620	<34	100	7,100	270	20,000	600,000
Naphthalene	210	<160	<330	<160	<160	330	<34	61	980	280	400	20,000
Phenanthrene	730	880	1,600	1,400	400	2,000	28	670	6,400	1,400	1,800	18,000
Pyrene	2,700	2,900	6,300	4,700	1,900	6,500	95	2,300	31,000	4,300	8,700,000	500,000
<b>Resource Conservation and Recovery Act (RCRA) Metals; mg/kg</b>												
Arsenic	9.0	3.5	1.5	<1.5	6.3	3.7	13	1.6	<1.5	1.6	---	0.039 / 10 (1)
Barium	13	9.8	20	5.4	21	19	23	9.7	7.2	5.0	---	---
Cadmium	0.84	0.34	0.72	0.29	0.11	0.36	0.20	0.35	0.35	0.23	---	8
Chromium	12	3.3	54	2.9	13	5.8	11	3.7	6.3	2.9	---	16,000 (2)
Lead	20	14	22	11	47	41	16	12	11	9.2	---	50
Mercury	0.014	0.016	0.018	<0.011	0.024	0.034	0.049	0.015	<0.011	<0.010	---	---
Selenium	<4.2	<4.3	<4.3	<4.2	<4.4	<4.3	<4.5	<4.2	<4.2	<4.2	---	---
Silver	<0.12	<0.12	2.2	<0.12	0.39	<0.12	<0.12	<0.12	<0.12	<0.11	---	---

**Notes:**

--- = no standard

(1) = Assumed background concentration of Arsenic (10 mg/kg)

(2) = Concentration for trivalent chromium

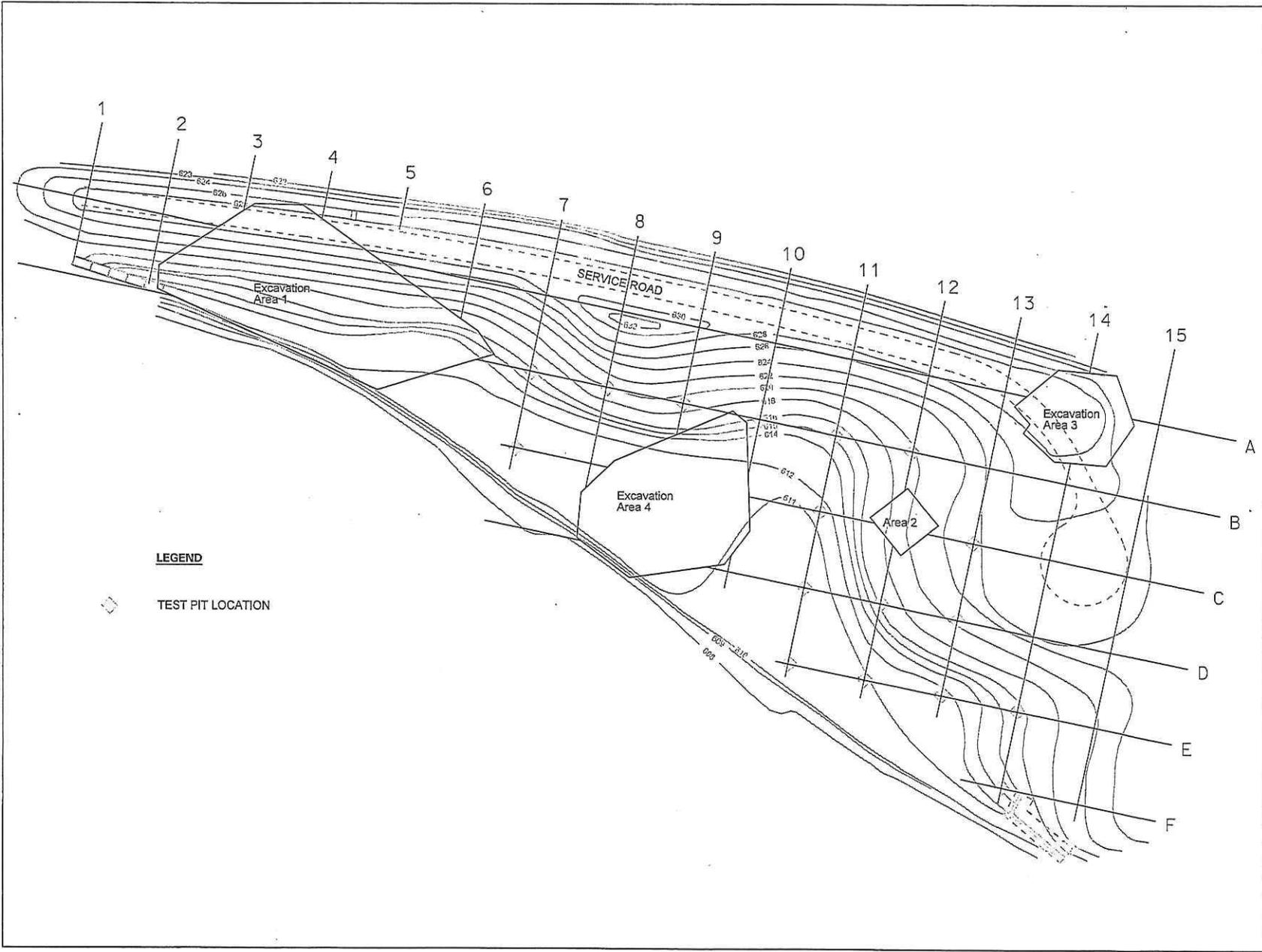
Bold and boxed values exceed WDNR NR 720 Table 1 values or WDNR Interim Guidance GRCLs for the groundwater pathway

Bold values exceed the WDNR Interim Guidance GRCLs for Non-Industrial settings for the direct contact exposure pathway, including WDNR NR 720 Table 2 values, which includes arsenic above 10 mg/kg

GRCL = Generic Residual Contaminant Level

RCL = Residual Contaminant Level

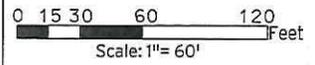
POST  
CLOSURE



HNTB Corporation  
 The HNTB Companies  
 Architects Engineers Planners  
 11414 West Park Place  
 Suite 300  
 Milwaukee, Wisconsin 53224  
 (414) 359 - 2300  
 www.hntb.com

**Figure 5**  
**Test Pit Sampling Grid**

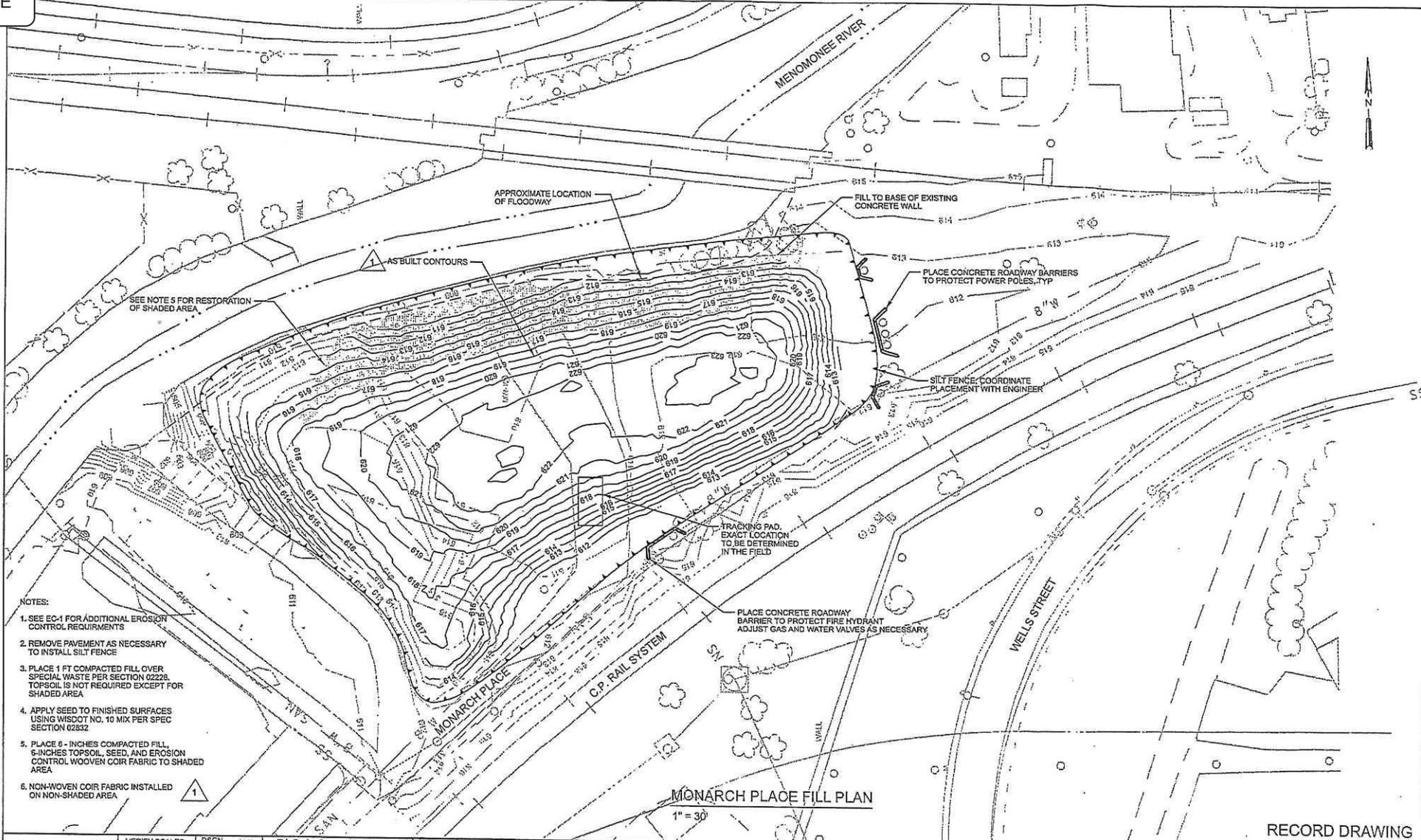
Western Milwaukee Flood Management Project  
 Former Central Redi Mix  
 5013 W. State St.  
 Milwaukee, WI



DRAWN BY:	TJK
DESIGNED BY:	TJK
CHECKED BY:	DKP
APPROVED BY:	DKP
JOB NO.:	43909
DRAWING NO.:	5
SHEET NO.:	5
PLOT DATE:	12/10/10

POST  
CLOSURE

**EXHIBIT C**



SEE NOTE 5 FOR RESTORATION OF SHADED AREA

NOTES:

1. SEE EC-1 FOR ADDITIONAL EROSION CONTROL REQUIREMENTS
2. REMOVE PAVEMENT AS NECESSARY TO INSTALL SILT FENCE
3. PLACE 1 FT COMPACTED FILL OVER SPECIAL WASTE PER SECTION 02228. TOPSOIL IS NOT REQUIRED EXCEPT FOR SHADED AREA
4. APPLY SEED TO FINISHED SURFACES USING WISDOT NO. 10 MIX PER SPEC SECTION 02832
5. PLACE 6 - INCHES COMPACTED FILL, 6-INCHES TOPSOIL, SEED, AND EROSION CONTROL WOOLEN COIR FABRIC TO SHADED AREA
6. NON-WOVEN COIR FABRIC INSTALLED ON NON-SHADED AREA

MONARCH PLACE FILL PLAN  
1" = 30'

RECORD DRAWING

THIS DOCUMENT AND THE USAGES AND SERVICES INCORPORATED HEREIN ARE THE PROPERTY OF HNTB AND ARE NOT TO BE USED, REPRODUCED OR IN ANY MANNER FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER, METROPOLITAN SEWERAGE DISTRICT.

VERIFY SCALES 1" = 10' OR 1" = 20' OR 1" = 30' OR 1" = 40' OR 1" = 50' OR 1" = 60' OR 1" = 80' OR 1" = 100'	DSGN PMB
DR RDJ	
CHK MCB	
APVD PMB	

This Design Prepared For MMSD By:  
**HNTB**

REV 01	10/2010	RECORD DRAWING - AS BUILT CONTOURS PER MMSD FIELD SURVEY	TJK	JCM
REV. NO.	DATE	REVISION DESCRIPTION	BY	APVD

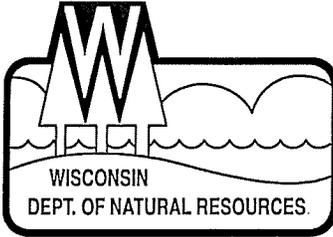


MILWAUKEE METROPOLITAN SEWERAGE DISTRICT  
WATERCOURSE  
WESTERN MILWAUKEE FLOOD MANAGEMENT PROJECT - PHASE 1  
SITE PLANS  
MONARCH PLACE FILL PLAN

DRAWING NO.:	SP-11
SHEET:	18
DATE:	AUGUST 2008
CONTRACT:	W20017C01
MMSD FILE:	151-653.dgn







## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Matthew J. Frank, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-3128  
FAX 414-263-8606  
Telephone 414-263-8500  
TTY Access via relay - 711

February 15, 2008

Dave Fowler  
Milwaukee Metropolitan Sewerage District (MMSD)  
260 West Seeboth Street  
Milwaukee, WI 53204-1446

Subject: Conditional Closure for WR Grace Site "A", 4301 West Sterling Place, and Site "B",  
900 North 43rd Street, Milwaukee, WI

FID: 241078420  
BRRTS: 02-41-000685 and 03-41-002189

Dear Mr. Fowler:

On February 15, 2008, the Wisconsin Department of Natural Resources ("the Department") reviewed the request for closure of the case described above. The Department 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 Department has determined that the petroleum, metal, and asbestos contamination on the site from the former petroleum tanks onsite and asbestos handling from the former WR Grace facility 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:

- Submit a Cap Maintenance Plan for the site as a Soil Performance Standard remedy as indicated on Page 4 of the Case Summary and Close Out Request Form 4400-202. This would include special handling for asbestos contaminated soil that must be in a wet condition before movement in order to remain under the Asbestos Hazard Emergency Response Act (AHERA) and the National Emissions Standard for Hazardous Air Pollutants (NESHAP). Also include a location map with confirmation soil sample result tables.

When the above conditions have been satisfied, please submit the appropriate documentation to verify 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 GIS Registry. To review the site on the GIS Registry web page, visit the RR Sites Map page at: <http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

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.

If you have any questions or comments, please feel free to contact me at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future correspondence should be sent directly to the Remediation and Redevelopment Program Assistant Vicky Stovall (414-263-8688) at the above address.

Sincerely,



John J. Hnat, P. G.  
Project Manager/Senior Hydrogeologist  
Southeast Region  
Remediation and Redevelopment

C: Dan Morgan, GeoTrans  
WDNR SER Files

7736352

QUIT CLAIM DEED

DOCUMENT NO.

W.R. Grace & Co.-Conn. a Connecticut corporation

quit claims to Milwaukee Metropolitan Sewerage District

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

See Exhibit A attached hereto and incorporated herein.

FEE # 77.25 (29) EXEMPT

Notice is hereby given that Hazardous Materials, including but not necessarily limited to hazardous substances as defined in § 292.01 Wis. Stats., are present on, in or under the building, soils or groundwater at the real estate described herein. Such Hazardous Materials include, but are not necessarily limited to, lead, chromium, diesel range organics, volatile organic compounds, polycyclic aromatic hydrocarbons, polychlorinated biphenyls and asbestos. The degree and extent of the Hazardous Material contamination has not been determined. Further investigation and remedial action may be necessary to obtain a Certificate of Completion under § 292.15 Wis. Stats. Notice is further given that the Milwaukee Metropolitan Sewerage District (Grantee), on its own behalf and behalf of its successors and assigns, hereby releases and waives any claim, demand, cause of action and suits of any type or kind whether under contract, statute, or common law, whether known or unknown, that it may now have or its successors and assigns may have in the future against W.R. Grace and Company-Conn.(Grantor), its officers, directors and agents related to or arising out of the presence, release, discharge, spill or deposit on, in, under or from the real estate described herein or any improvements, equipment or fixtures thereon of any Hazardous Material or otherwise related to the environmental condition of such real estate, improvements, equipment or fixtures.

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

Dated this 30th day of April, 1999.

W.R. Grace & Co.-Conn., a Connecticut corporation

By: [Signature] (SEAL) \* By: John Wardzel (SEAL) \*

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 John W. Daniels, Jr., Esq. Quarles & Brady LLP (Signatures may be authenticated or acknowledged. Both are not necessary.)

386-102 REEL 4553 IMAGE 2222

REGISTER'S OFFICE Milwaukee County, WI } ss RECORDED AT 3:50 PM

APR 30 1999 2222- REEL 4553 IMAGE 2223 Walter R. Barry REGISTER OF DEEDS

THIS SPACE RESERVED FOR RECORDING DATA

NAME AND RETURN ADDRESS Tom Crawford, Esq. Milwaukee Metropolitan Sewerage District 260 West Seeboth Street Milwaukee, Wisconsin 53201-3049

386-0206-1 and 386-210-200-6 PARCEL IDENTIFICATION NUMBER

7736352 # RECORD 12.00

ACKNOWLEDGMENT STATE OF MASSACHUSETTS ) )ss. Middlesex County ) Personally came before me this 26 day of April, 1999, the above named and John Wardzel of W.R. Grace & Co.-Conn., a Connecticut corporation to me known to be the person who executed the foregoing instrument and acknowledged the same. \* [Signature] Notary Public Middlesex County, MA My Commission is permanent. (If not, state expiration date: 12/20/02, 00)

1200

## EXHIBIT A

## PARCEL A:

Lots 3 and 4 in Block 2 in Assessor's Plat No. 125, being a part of the Northeast 1/4 of Section 26 and Northwest 1/4 of Section 25, Town 7 North, Range 21 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin.

Tax Key No. 386-0206-1

ADDRESS: 900 North 43rd Street

## PARCEL B:

That part of Lot 7 in Block 2, in Assessor's Plat No. 125 in the Northeast 1/4 of Section 26 and the Northwest 1/4 of Section 25, Town 7 North, Range 21 East, in the City of Milwaukee, County of Milwaukee, State of Wisconsin, more particularly described as follows:

Commencing at the Southeast 1/4 corner of West Sterling Place and North 45th Street as established by the City of Milwaukee, said point being also described as follows:

Commencing at a point where the East line of said 1/4 Section intersects the center line of West State Street; thence North 84° 05' West on a line 555.10 feet to a point; thence North 86° 49' West on a line 124.24 feet to a point, said point being the center line of North 45th Street extended; thence South 11° 31' West along the center line of North 45th Street, 179.71 feet to a point; thence South 81° 25' East 10.01 feet to the point of commencement; thence South 11° 31' West along the Easterly line of said North 45th Street, 27.53 feet to a point; thence South 51° 44' East 143.00 feet to a point; thence North 28° 16' East 20 feet to a point; thence South 52° 35' East 135 feet to a point; thence South 38° 16' West 3.00 feet to a point; thence South 51° 44' East 234.82 feet to a point in the Westerly line of North 43rd Street; thence North 38° 16' East along the Westerly line of North 43rd Street 165.16 feet to the Southerly line of West Sterling Place as established; thence along the Southerly line of West Sterling Place North 51° 49' West 160.74 feet to a point; thence North 57° 39' West 110.30 feet to a point; thence North 65° 49' West 31.16 feet to a point; thence North 80° 58' West 36.23 feet to a point; thence North 89° 38' West 90.20 feet to a point; thence North 81° 25' West 136.34 feet to the place of beginning.

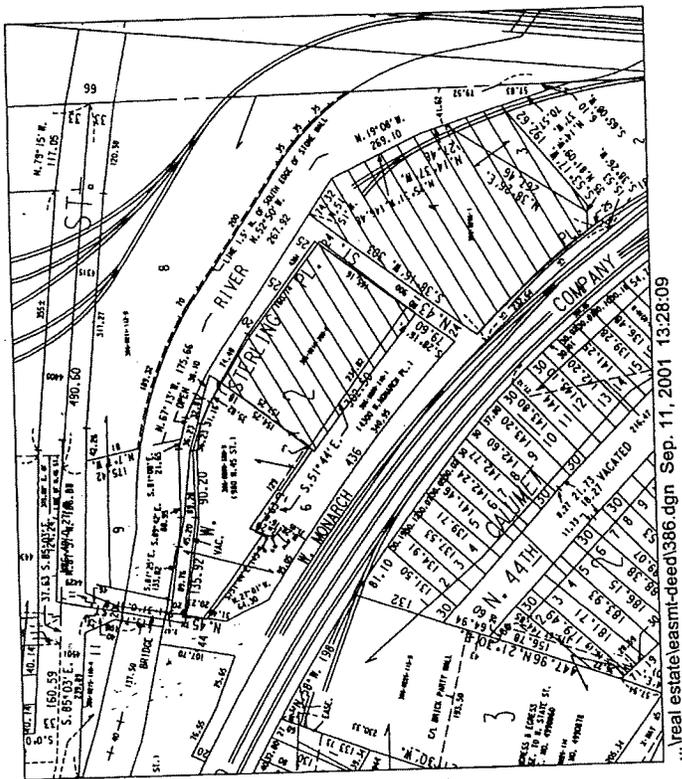
EXCEPT that part conveyed by Warranty Deed recorded as Document No. 4137272. ?

0216

Tax Key No. 386-210-200-6

TOGETHER with any rights that Grantor has in any easement or recorded document; and

INCLUDED with the above described property (Parcel A and Parcel B) are Riparian Interests and Rights that the Grantor may have in the Menomonee River, if any. Said rights may include qualified title and ownership to the center or thread of the stream bed of the adjoining Menomonee River. ALSO included in the above described property (to the extent Grantor has any interest) are any portions of vacated Sterling Place where it abuts the Grantor's property and the associated Riparian Rights of the adjoining Menomonee River.



...real estate easmt-deed\386.dgn Sep. 11, 2001 13:28.09

SECTION I, ITEM 1, 3/3



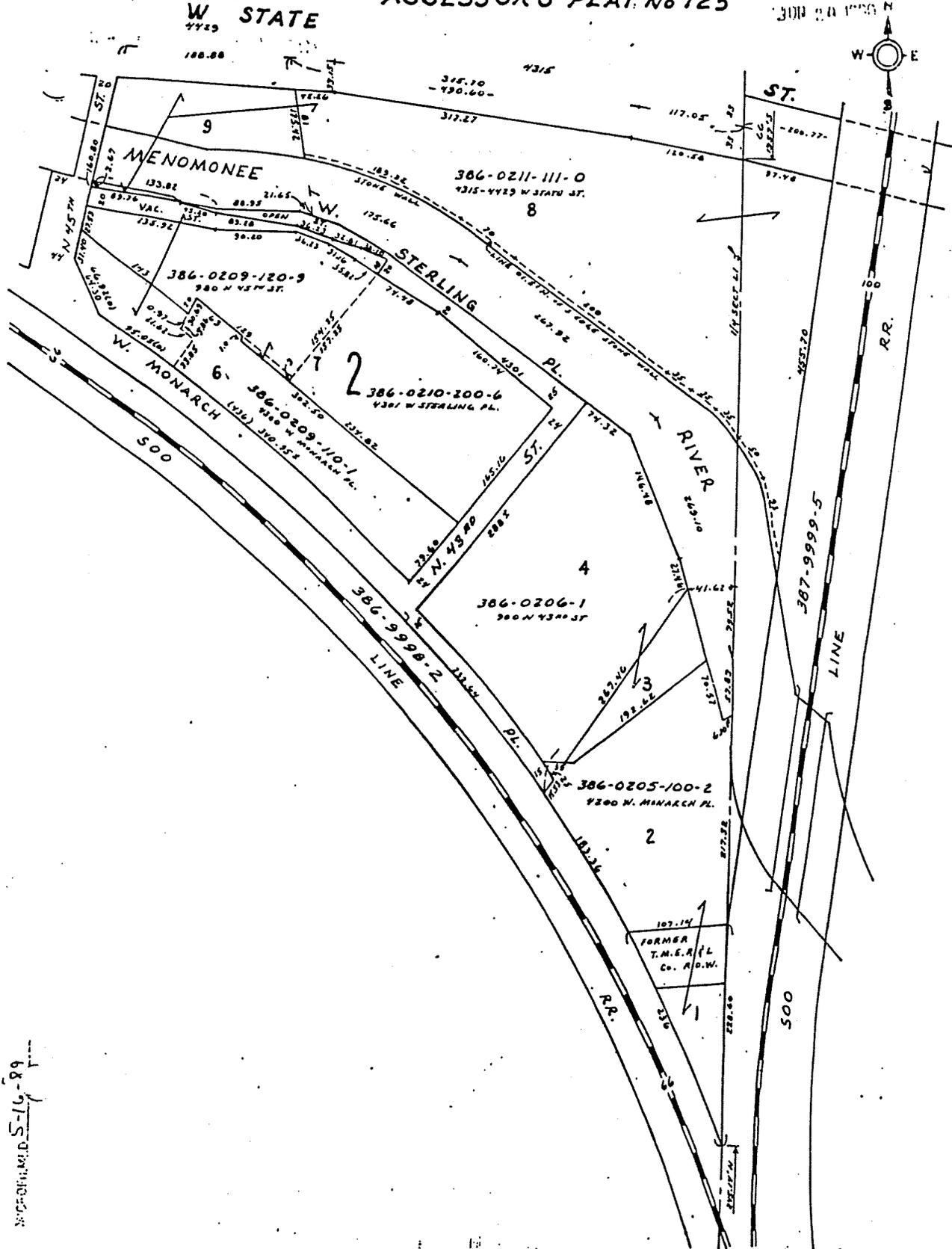
NE 26-7-24 & NW 25-7-21  
ATLAS PAGE 386 & 387

386 & 387

386-14  
SCALE 1"=100'

MANUFACTURING  
W STATE  
4429

ASSESSOR'S PLAT. No 125



REC'D BY: M.D. S-16-89

SECTION I, ITEM 2, 2/2

WDNR BRRTS Case # 02-541-000685      Former WR Grace Properties, Milwaukee, WI

Also # 03-41-002189, 06-41-256782, and 06-41-257897

Statement by the Responsible Party:

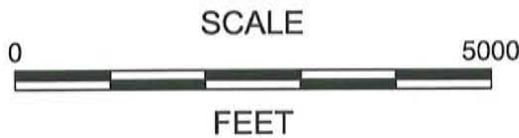
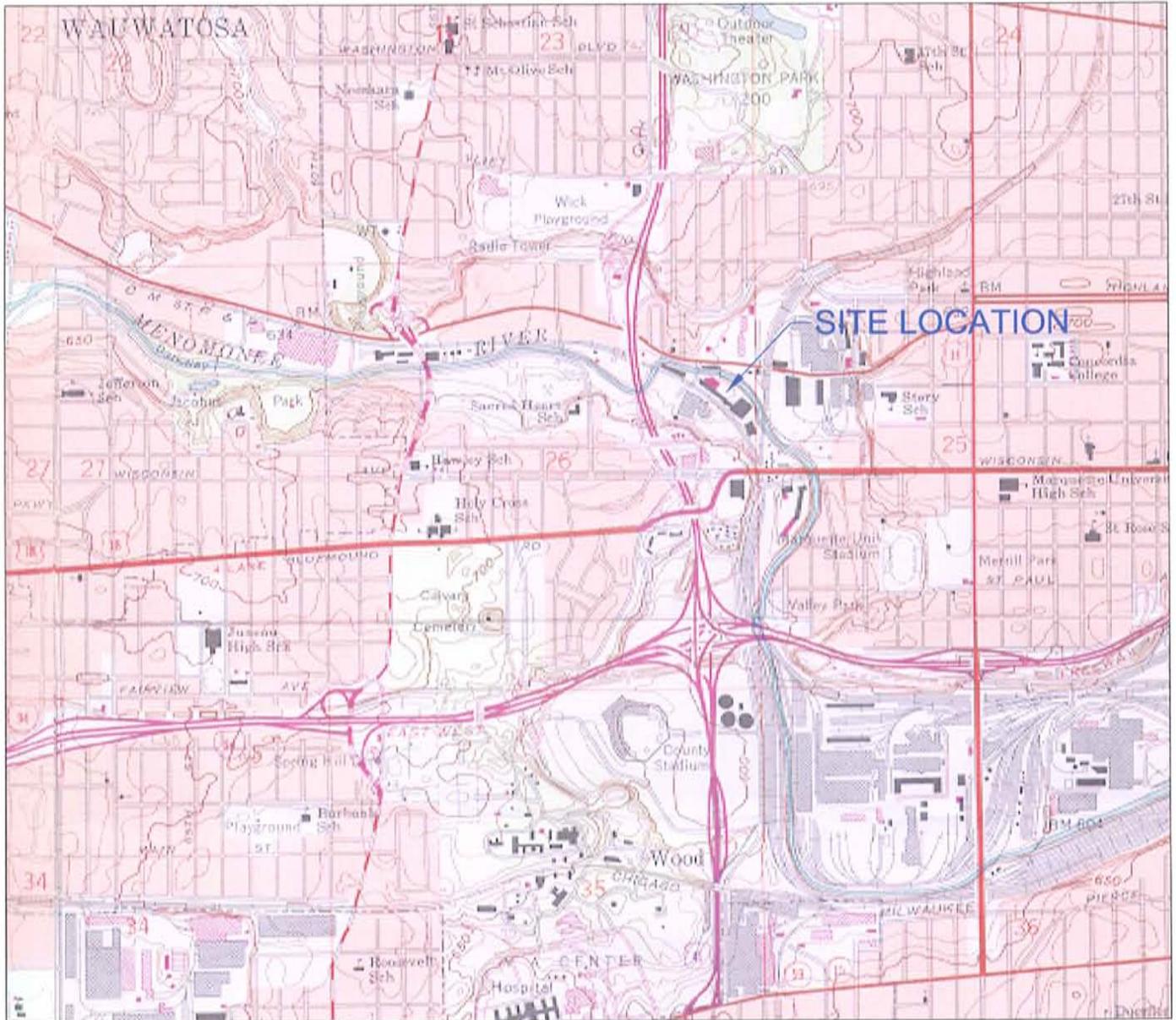
I believe that the legal description has been attached for each property that is within, or partially within, the contaminated site boundary. *(The purpose of this requirement is that a legal description for each of the contaminated properties has been submitted. The RP is not required to attest to the accuracy of the attached legal descriptions.)*

By: David C. Fowler CFM for the Milwaukee Metropolitan Sewerage District

Print Name : David C Fowler CFM

Date: 8/16/07

SECTION I ITEM 4



National Geodetic Vertical Datum of 1929  
Contour Interval 10 Feet



?	DATE: 8/3/07
?	DESIGNED: HJW
<b>SITE LOCATION and LOCAL TOPOGRAPHY</b>	CHECKED: DLM
	APPROVED: DLM
	DRAWN: HJW
	PROJ.: 0511.131



Figure 1

Base map from U.S.G.S. 7.5' Milwaukee, Wisconsin topographic quadrangle map, 1958, revised 1971.

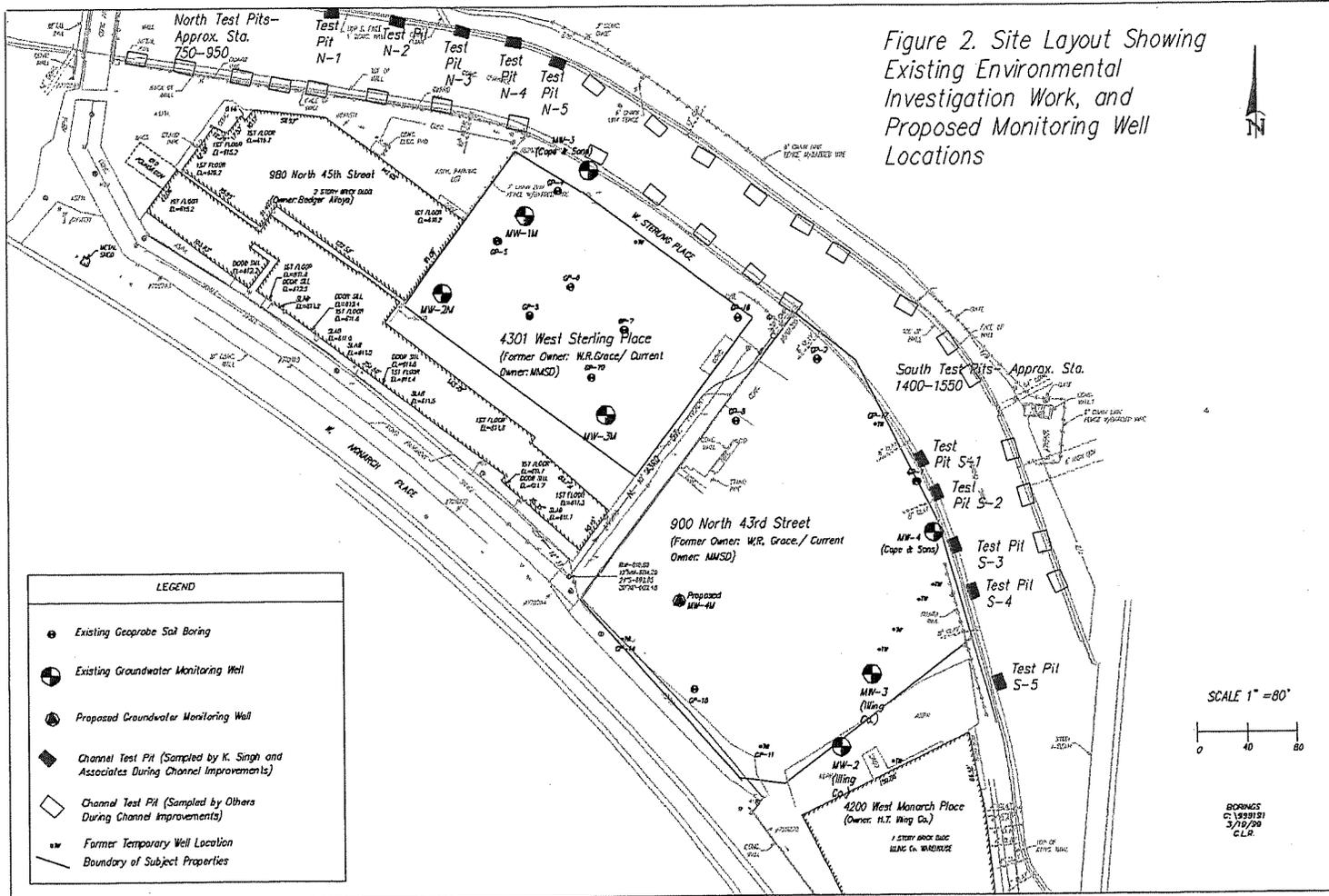
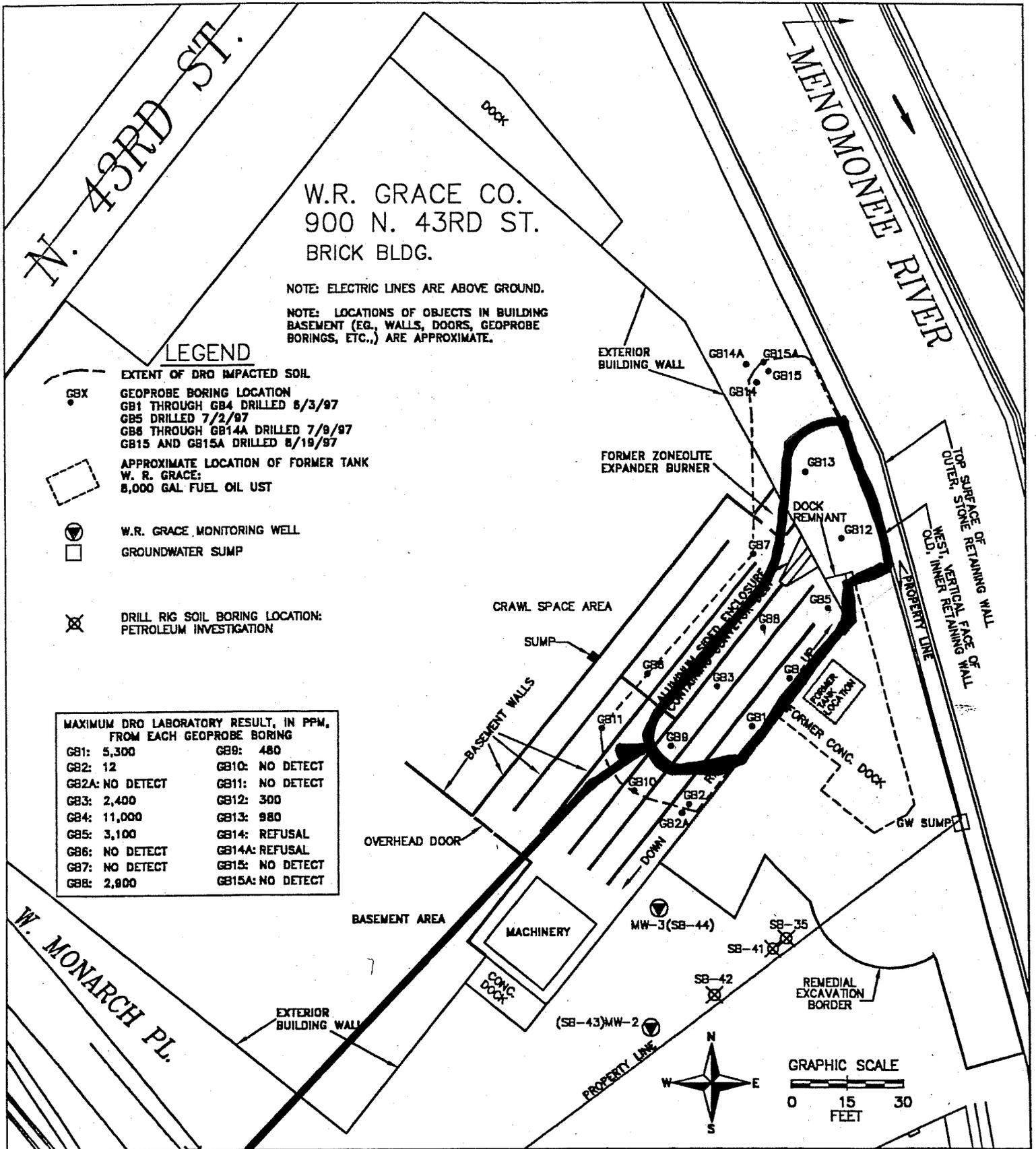


Figure 2. Site Layout Showing Existing Environmental Investigation Work, and Proposed Monitoring Well Locations

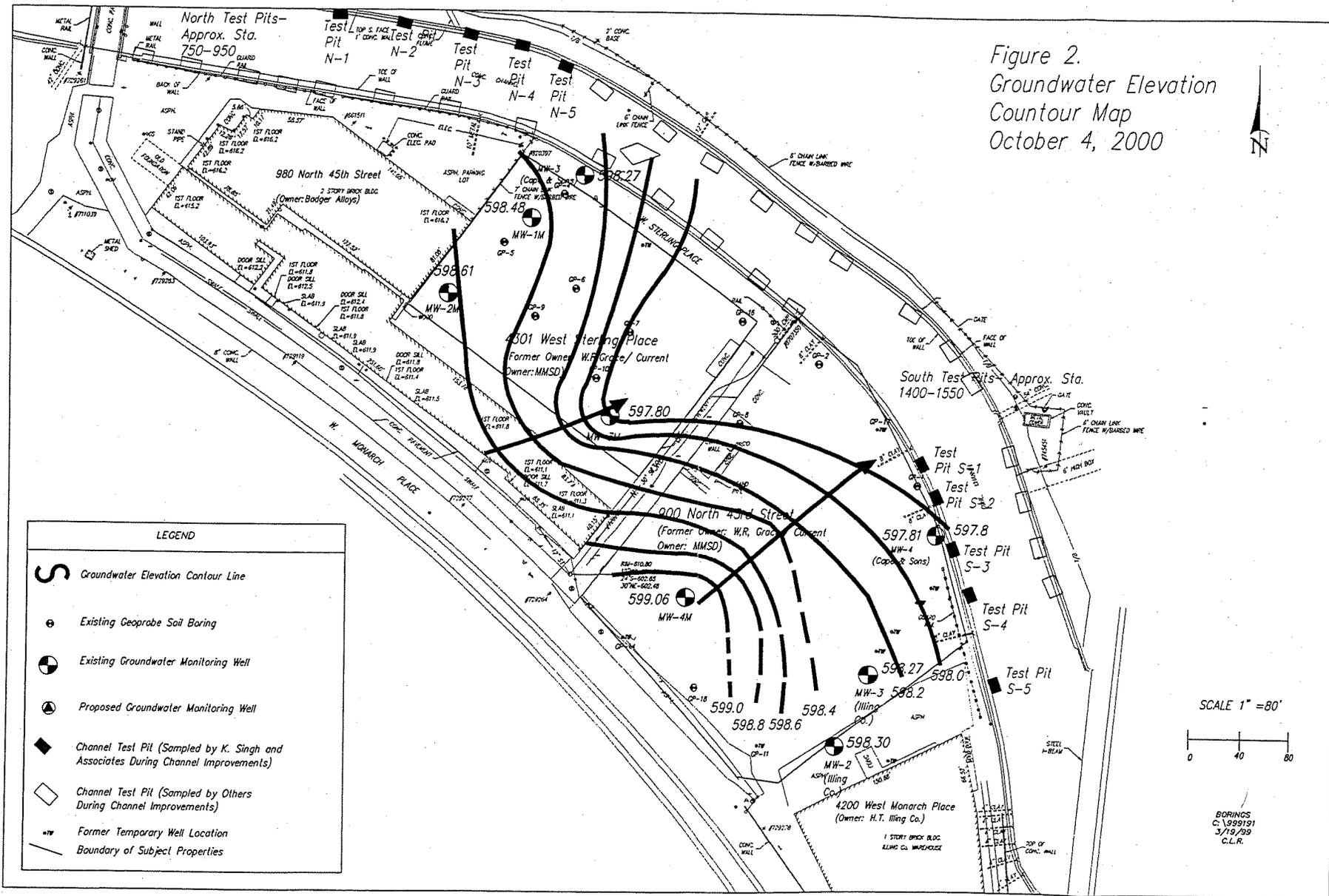
SECTION I  
ITEM 5

2/2



Section I, Item 10: Single contour of petroleum-contaminated soil remaining in place, 122 CY beneath building basement and 23 CY beneath retaining wall.

Figure 2.  
Groundwater Elevation  
Countour Map  
October 4, 2000



SECTION I  
ITEM 9  
10/10

SCALE 1" = 80'  
0 40 80

BORINGS  
C. 999191  
3/19/99  
C.L.R.

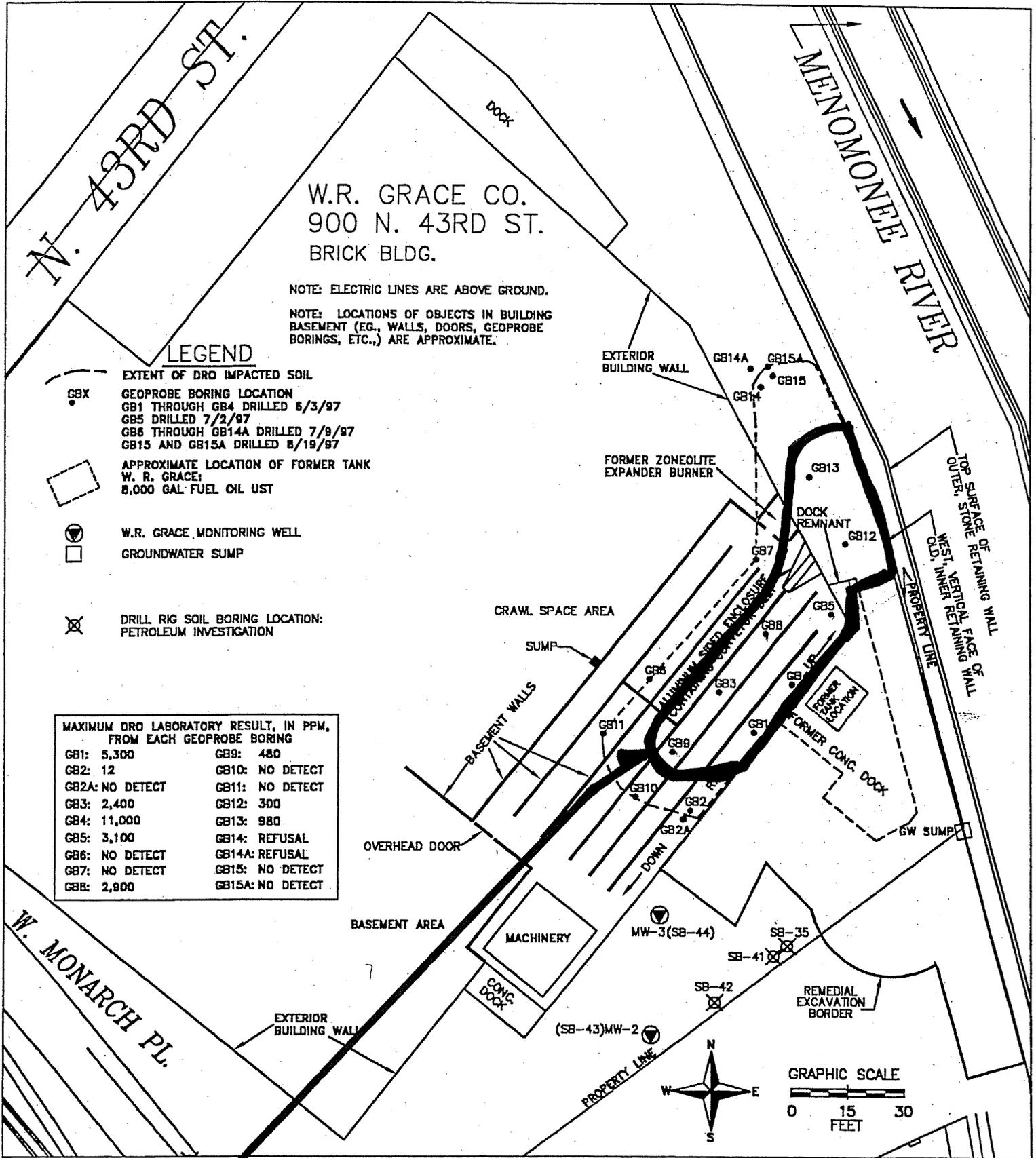


FIGURE 1

SITE MAP  
BORING LOCATIONS

DESCRIPTION  
PART OF THE SOUTHEAST CORNER OF LOTS 3 & 4,  
BLOCK 2 OF ASSESSOR'S PLAT NO. 25, BEING A PART  
OF THE NORTHEAST 1/4 OF SECTION 28 AND THE NORTH-  
WEST 1/4 OF SECTION 25 IN TOWNSHIP 7 NORTH, RANGE  
21 EAST, IN THE CITY OF MILWAUKEE, COUNTY OF MILWAUKEE,  
STATE OF WISCONSIN.

NOTE: ELECTRIC LINES ARE  
ABOVE GROUND.

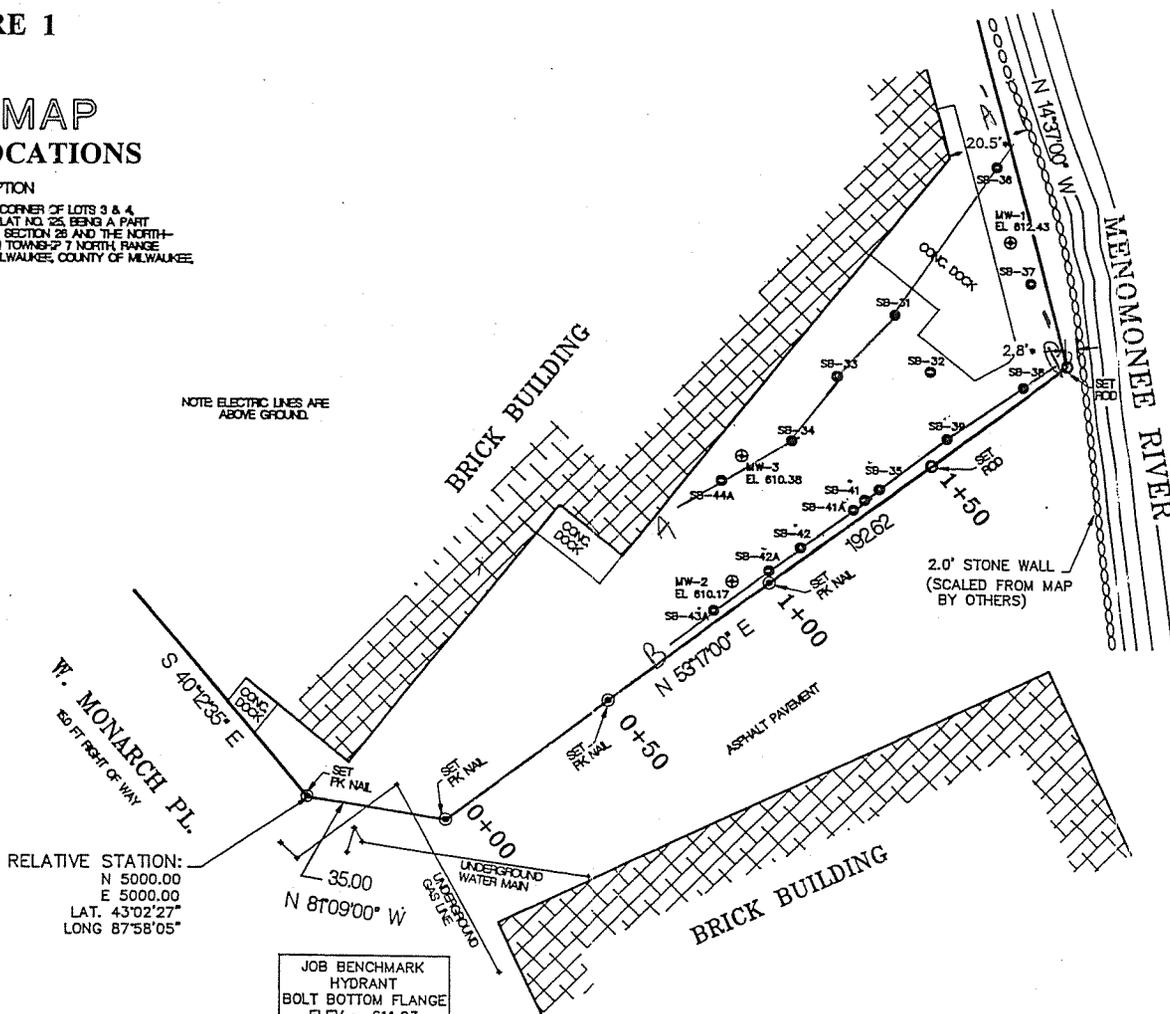
RELATIVE STATION:  
N 5000.00  
E 5000.00  
LAT. 43°02'27"  
LONG 87°58'05"

JOB BENCHMARK  
HYDRANT  
BOLT BOTTOM FLANGE  
ELEV = 611.93

KEY	
TC	= ELEVATION AT TOP OF PVC
EL	= ELEVATION AT TOP OF CASING
GR	= ELEVATION AT GROUND

MONITORING WELLS & SOL BORINGS	
MW - #1	N 5140.84 E 5174.54 TC 612.38 EL 612.43 GR 608.59
MW - #2	N 5054.55 E 5105.59 TC 809.78 EL 610.17
MW - #3	N 5086.10 E 5107.90 TC 610.09 EL 610.38

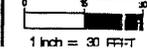
\* NOTE: THESE DIMENSIONS ARE  
SCALED FROM MAP PROVIDED  
BY OTHERS.



VERTICAL DATUM IS BASED ON  
MEAN SEA LEVEL AND  
ADJUSTMENT

W. R. GRACE & CO.  
900 NORTH 43rd STREET, MILWAUKEE, WI.

DATE: 11-05-92 ADDED SB-41A, SB-42A, SB-43A, SB-44A & RIVER LOCATION  
DATE: 10-30-92 ADDED MW-1, MW-2, MW-3, SB-31 THRU SB-39 & SB-41 & SB-42

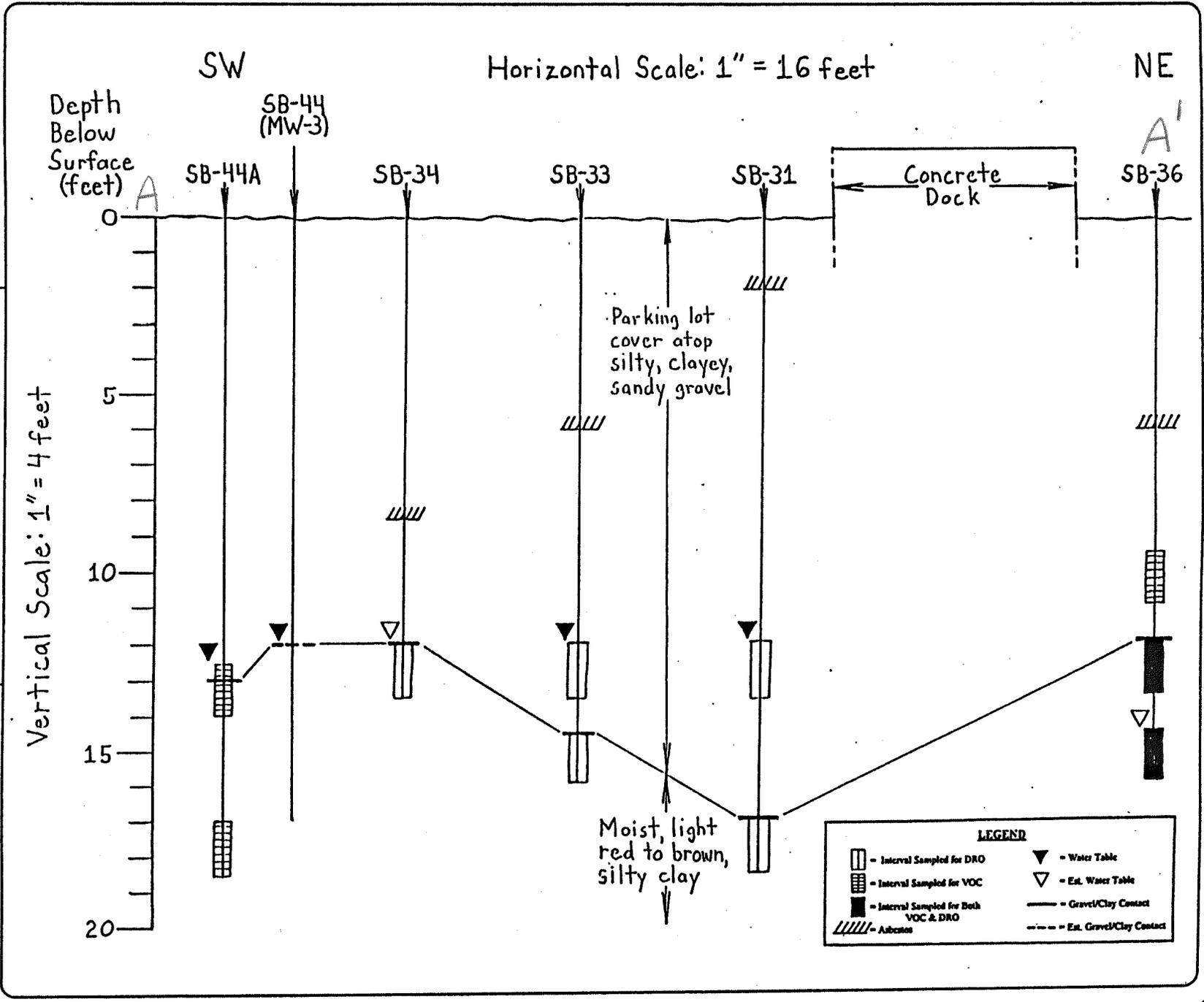


DATE: 08/17/82  
DRAWN/CHKD: CAJ/MLW  
LIS JOB NO: 92-127-01

fox environmental services, Inc.  
 5150 North Port Washington Rd.  
 Suite 101  
 Milwaukee, Wisconsin 53217  
 (414) 332-5857

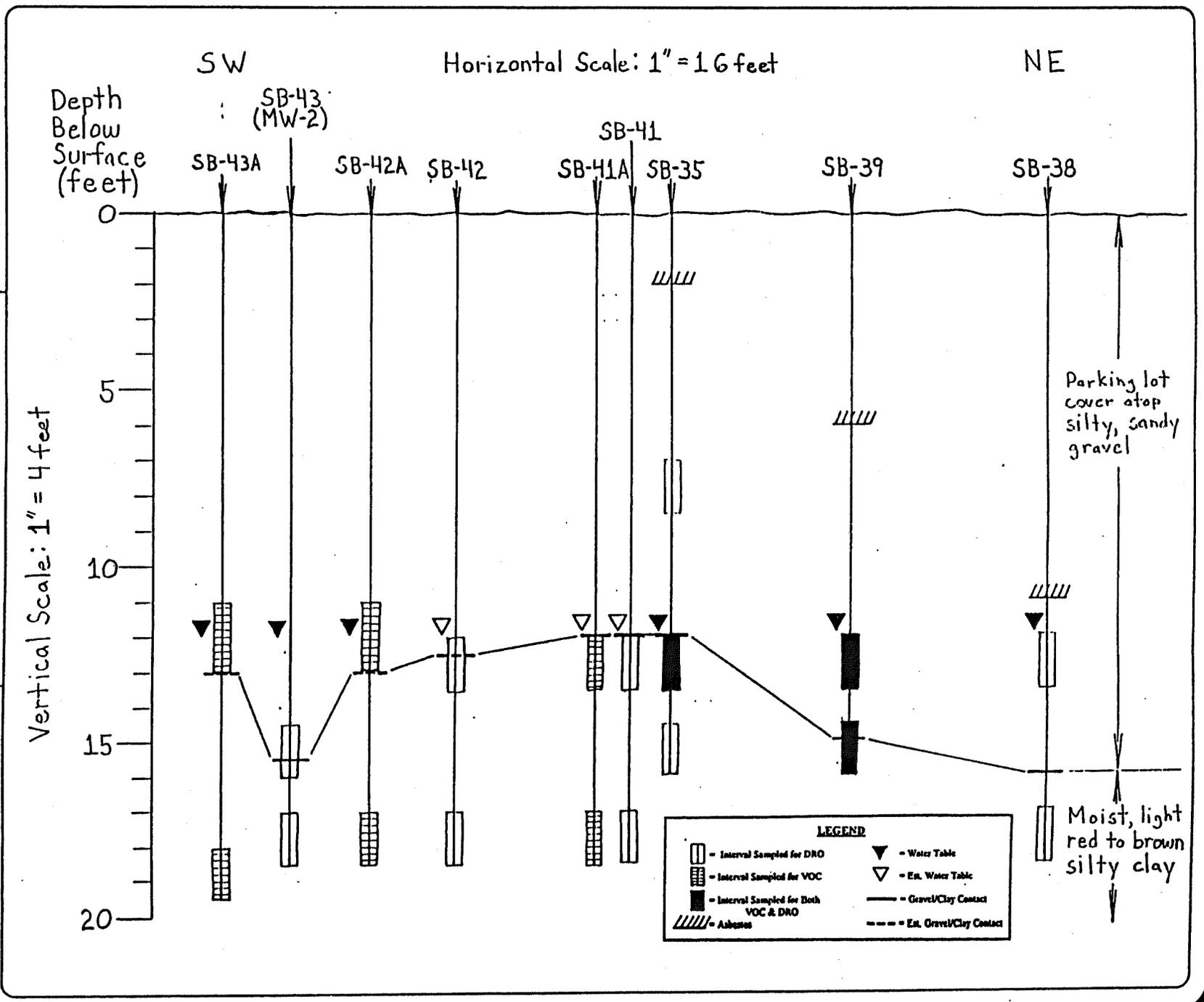
**FIGURE 2**  
**BORING PROFILES**

**PROJECT NO. 92468**  
**NOVEMBER, 1992**



SECTION C X-SECTIONS 1/2

SECTION C X-SECTIONS 2/2



fox environmental services, Inc.  
 5150 North Port Washington Rd.  
 Suite 101  
 Milwaukee, Wisconsin 53217  
 (414) 332 - 5857

**FIGURE 3**  
**BORING PROFILES**

**PROJECT NO. 92468**  
**NOVEMBER, 1992**

**Table 1: Water Sampling Results from Groundwater Monitoring Wells at 900 North 43<sup>rd</sup> Street, Milwaukee, Wisconsin.**

**Sampling Event Date: July 2, 1997**  
**By FOX Environmental Services, Inc.**

	MW-2	MW-3	Duplicate (MW-3)	Trip Blank	PAL (as of 10/96)	ES (as of 10/96)
VOCs (in ppb):						
All others	ND	ND	ND	ND	--	--
PAHs (in ppb):						
Benzo(a)anthracene	ND	0.066	ND	--	--	--
Benzo(a)pyrene	<b>0.053</b>	<b>0.046</b>	<b>0.025</b>	--	<b>0.02</b>	<b>0.2</b>
Benzo(b)fluoranthene	0.023	0.054	ND	--	--	--
Benzo(k)fluoranthene	ND	0.025	0.011	--	--	--
Chrysene	ND	0.11	ND	--	--	--
All others	ND	ND	ND	--	--	--

**Bold numbers are used to indicate that a PAL established under Wisconsin Administrative Code NR 140.10 was attained or exceeded.**

**Bold & Shaded indicate that an ES established under Wisconsin Administrative Code NR 140.10 was attained or exceeded.**

**Explanation of abbreviations and symbols used in the preceding table:**

MW-2 = designations of monitoring wells  
 ES = Enforcement Standard.  
 PAL = Preventative Action Limit.  
 PAHs = polynuclear aromatic hydrocarbons

VOCs = Volatile organic compounds  
 ND = not detected  
 ppb = parts per billion.

**Table 1: Summary of Groundwater Sampling Results for W.R. Grace Site, 900 N. 43rd Street, Milwaukee, WI**  
**FOX Project #: 92468**

All values are in units of parts per billion unless noted.  
**Bold indicates PAL attained or exceeded.** Shading and bold indicates ES attained or exceeded.

Sampling Date	Compound	Well MW-2	Well MW-3	Well MW-4	Well MW-5	Dup. or Blank Well Result	PAL	ES	Trip Blank
6/22/98	<b>PAHS:</b>					MW-4			
	anthracene	BQL	BQL	1.2	NS	1.2	NA	NA	NA
	benzo(a)anthracene	BQL	BQL	1.1	NS	1.4	NA	NA	NA
	benzo(a)pyrene	0.01	BQL	0.92	NS	0.7	0.02	0.2	NA
	benzo(b)fluoranthene	BQL	BQL	0.77	NS	1.2	NA	NA	NA
	benzo(ghi)perylene	BQL	BQL	0.68	NS	0.87	NA	NA	NA
	benzo(k)fluoranthene	BQL	BQL	0.45	NS	0.6	NA	NA	NA
	chrysene	BQL	BQL	1.2	NS	1.9	NA	NA	NA
	dibenzo(a,h)anthracene	BQL	BQL	0.17	NS	0.25	NA	NA	NA
	fluoranthene	BQL	BQL	4.2	NS	6.1	NA	NA	NA
	fluorene	BQL	BQL	2.7	NS	2.5	80	400	NA
	indeno(1,2,3-cd)pyrene	BQL	BQL	0.41	NS	0.59	NA	NA	NA
	2-methyl naphthalene	BQL	BQL	3.8	NS	BQL	NA	NA	NA
	naphthalene	BQL	BQL	BQL	NS	BQL	8	40	NA
	phenanthrene	BQL	BQL	2.2	NS	4.7	NA	NA	NA
	pyrene	BQL	BQL	3.3	NS	4	NA	NA	NA
	all others	BQL	BQL	BQL	NS	BQL	NA	NA	NA
	8/10/98	<b>PAHS:</b>					MW-4		
anthracene		BQL	BQL	0.42	BQL	0.73	NA	NA	NA
benzo(a)anthracene		BQL	BQL	2.3	BQL	3.5	NA	NA	NA
benzo(a)pyrene		BQL	BQL	2.4	BQL	3.5	0.02	0.2	NA
benzo(b)fluoranthene		BQL	BQL	2.2	BQL	3.3	NA	NA	NA
benzo(ghi)perylene		BQL	BQL	2.4	BQL	3.0	NA	NA	NA
benzo(k)fluoranthene		BQL	BQL	1.2	BQL	1.8	NA	NA	NA
chrysene		BQL	BQL	3.7	BQL	5.5	NA	NA	NA
dibenzo(a,h)anthracene		BQL	BQL	0.33	BQL	0.59	NA	NA	NA
fluoranthene		BQL	BQL	8.6	BQL	12	NA	NA	NA
indeno(1,2,3-cd)pyrene		BQL	BQL	1.3	BQL	1.9	NA	NA	NA
phenanthrene		BQL	BQL	2.0	BQL	3.2	NA	NA	NA
pyrene		BQL	BQL	6.6	BQL	9.4	NA	NA	NA
all others		BQL	BQL	BQL	BQL	BQL	NA	NA	NA
Turbidity (NTUs)	293	285	735	315	NA				
8/13/98 Note: Samples were obtained 3 days after purging.	<b>PAHS:</b>					MW-4			
	benzo(a)anthracene	BQL	BQL	0.84	BQL	1.2	NA	NA	NA
	benzo(a)pyrene	BQL	BQL	0.75	BQL	1.1	0.02	0.2	NA
	benzo(b)fluoranthene	BQL	BQL	0.71	BQL	0.94	NA	NA	NA
	benzo(ghi)perylene	BQL	BQL	0.63	BQL	1.0	NA	NA	NA
	benzo(k)fluoranthene	BQL	BQL	0.42	BQL	0.62	NA	NA	NA
	chrysene	BQL	BQL	1.3	BQL	1.8	NA	NA	NA
	dibenzo(a,h)anthracene	BQL	BQL	0.13	BQL	0.21	NA	NA	NA
	fluoranthene	BQL	BQL	3.0	BQL	BQL	NA	NA	NA
	phenanthrene	BQL	BQL	1.0	BQL	BQL	NA	NA	NA
	pyrene	BQL	BQL	3.3	BQL	4.1	NA	NA	NA
	all others	BQL	BQL	BQL	BQL	BQL	NA	NA	NA
	Turbidity (NTUs)	20.9	73.2	110	467	NA			
9/15/98 Note: Samples were obtained using low flow techniques.	<b>PAHS:</b>					Field Blank			
	phenanthrene	NS	NS	0.81	NS	BQL	NA	NA	NA
	pyrene	NS	NS	1.5	NS	BQL	NA	NA	NA
	all others	NS	NS	BQL	NS	BQL	NA	NA	NA
Turbidity (NTUs)	NS	NS	0.8	NS	NA				

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	MW-1M	MW-1M	MW-1M	MW-1M	MW-2M	NR 140 PAL	NR 140 ES
Sampling Date	3/12/99	6/12/00	10/4/00	1/26/01	3/12/99		
<b>Dissolved RCRA Metals</b>							
Arsenic(mg/l)	< 0.05	<0.0022	<0.0022	<0.0022	< 0.05	0.005	0.05
Barium(mg/l)	< 0.5	0.090	0.094	0.11	< 0.5	0.4	2
Cadmium(mg/l)	< 0.01	0.00015	< 0.00014	< 0.00014	< 0.01	0.0005	0.005
Chromium(mg/l)	< 0.01	0.0014	< 0.0032	< 0.00022	< 0.01	0.01	0.1
Lead(mg/l)	< 0.005	<0.0012	<0.0012	<0.0012	< 0.005	0.0015	0.015
Mercury(mg/l)	< 0.002	<0.000024	0.000064	< 0.000014	< 0.002	0.0002	0.002
Selenium(mg/l)	< 0.01	0.0070	< 0.0015	< 0.0015	< 0.01	0.01	0.05
Silver(mg/l)	< 0.05	<0.0028	0.0052	< 0.0028	< 0.05	0.01	0.05
<b>Gasoline Range Organics (GRO) (mg/l)</b>							
	NT	<0.050	<0.050	<0.050	NT	---	---
<b>Diesel Range Organics (DRO) (mg/l)</b>							
	NT	0.20	0.14	< 0.10	NT	---	---
<b>Volatile Organic Compounds (VOCs)</b>							
Benzene (ug/l)	< 0.5	<0.10	<0.10	<0.10	< 0.5	0.5	5
Bromobenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
Bromodichloromethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	0.06	0.6
n-Butylbenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	3.1	---	---
sec-Butylbenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	2.7	---	---
tert-Butylbenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	0.85	---	---
Carbon tetrachloride (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	0.5	5
Chlorobenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	1.1	---	---
Chloroethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	80	400
Chloroform (ug/l)	< 0.14	<0.25	<0.25	<0.25	< 0.14	0.6	6
Chloromethane (ug/l)	< 0.6	<0.25	<0.25	<0.25	< 0.6	0.3	3
2-Chlorotoluene (ug/l)	< 0.5	<0.10	<0.10	<0.10	< 0.5	---	---
4-Chlorotoluene (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
Dibromochloromethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	6	60
1,2-Dibromo-3-chloropropane (ug/l)	< 0.39	<0.25	<0.25	<0.25	< 0.39	0.02	0.2
1,2-Dibromoethane (ug/l)	< 0.38	<0.25	<0.25	<0.25	< 0.38	0.005	0.05
1,2-Dichlorobenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	6.9	60	600
1,3-Dichlorobenzene (ug/l)	0.67	<0.25	<0.25	<0.25	< 0.5	125	1,250
1,4-Dichlorobenzene (ug/l)	0.54	<0.25	<0.25	<0.25	1.1	15	75
Dichlorodifluoromethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	200	1,000
1,1-Dichloroethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	85	850
1,2-Dichloroethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	0.5	5
1,1-Dichloropropene (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
1,1,1-Trichloroethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	40	200
1,1,2,2-Tetrachloroethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	0.02	0.2
1,1,2-Trichloroethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	0.5	5
1,1-Dichloroethene (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
cis-1,2-Dichloroethene (ug/l)	0.58	<0.25	0.37	<0.25	< 0.5	---	---
trans-1,2-Dichloroethene (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
1,2-Dichloropropane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	0.5	5
1,3-Dichloropropane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
2,2-Dichloropropane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
Diisopropyl ether (ug/l)	< 5.0	<0.25	<0.25	<0.25	<5.0	---	---
Ethylbenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	140	700
Hexachlorobutadiene (ug/l)	< 5.0	<0.25	<0.25	<0.25	<5.0	---	---

**Table 1**  
Summary of Groundwater Quality Test Results  
Former W.R. Grace Property, Milwaukee, WI

Test Description	MW-1M	MW-1M	MW-1M	MW-1M	MW-2M	NR 140 PAL	NR 140 ES
Sampling Date	3/12/99	6/12/00	10/4/00	1/26/01	3/12/99		
<b>Volatile Organic Compounds (VOCs) / Continued</b>							
Isopropylbenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	1.6	---	---
p-Isopropyltoluene (ug/l)	0.88	<0.25	<0.25	<0.25	0.96	---	---
Methylene chloride (ug/l)	< 0.53	<0.25	<0.25	<0.25	<b>2.9</b>	0.5	5
Methyl-tert-butyl-ether (ug/l)	2.5	<0.25	<0.25	<0.25	< 0.2	12	60
Naphthalene (ug/l)	< 2.0	<0.25	<0.25	<0.25	<2.0	8	40
n-Propylbenzene (ug/l)	< 0.5	<0.25	<0.25	<0.25	2.8	---	---
1,1,2,2-Tetrachloroethane (ug/l)	< 0.35	<0.25	<0.25	<0.25	< 0.35	0.02	0.2
Tetrachloroethene (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
Toluene (ug/l)	< 0.5	<0.10	<0.10	<0.10	< 0.5	68.6	343
1,2,3-Trichlorobenzene (ug/l)	< 2.0	<0.25	<0.25	<0.25	< 200	---	---
1,2,4-Trichlorobenzene (ug/l)	< 2.0	<0.25	<0.25	<0.25	< 200	14	70
1,1,1-Trichloroethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	40	200
1,1,2-Trichloroethane (ug/l)	< 0.16	<0.25	<0.25	<0.25	< 0.16	0.5	5
Trichloroethene (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
Trichlorofluoromethane (ug/l)	< 0.5	<0.25	<0.25	<0.25	< 0.5	---	---
1,2,4-Trimethylbenzene (ug/l)	< 1.0	<0.10	<0.10	<0.10	< 1.0	96*	480*
1,3,5-Trimethylbenzene (ug/l)	< 1.0	<0.10	<0.10	<0.10	< 1.0	96*	480*
Vinyl chloride (ug/l)	< 0.17	<0.25	<0.25	<0.25	< 0.17	0.02	0.2
Total Xylenes (ug/l)	0.57	<0.25	<0.25	<0.25	< 0.50	124	620
<b>Polycyclic Aromatic Hydrocarbons (PAH)</b>							
acenaphthene (ug/l)	NT	<0.22	<0.22	<0.22	NT	---	---
acenaphthylene (ug/l)	NT	<0.55	<0.55	<0.55	NT	---	---
anthracene (ug/l)	NT	0.035	< 0.018	< 0.018	NT	600	3,000
benzo (a) anthracene (ug/l)	NT	0.14	< 0.017	<b>0.092</b>	NT	---	---
benzo (b) fluoranthene (ug/l)	NT	<0.043	<0.043	<b>0.11</b>	NT	0.02	0.2
benzo (k) fluoranthene (ug/l)	NT	0.056	< 0.029	<b>0.098</b>	NT	---	---
benzo (a) pyrene (ug/l)	NT	<b>0.088</b>	< 0.027	<b>0.05</b>	NT	0.02	0.2
benzo (g,h,i) perylene (ug/l)	NT	<0.10	<0.10	<b>&lt;0.10</b>	NT	---	---
chrysene (ug/l)	NT	<b>0.56</b>	< 0.013	<b>0.025</b>	NT	0.02	0.2
dibenzo (a,h) anthracene (ug/l)	NT	<0.16	<0.16	<b>&lt;0.16</b>	NT	---	---
fluoranthene (ug/l)	NT	0.27	< 0.10	0.30	NT	80	400
fluorene (ug/l)	NT	<0.029	<0.029	<0.029	NT	80	400
indeno (1,2,3-cd) pyrene (ug/l)	NT	<0.083	<0.083	<0.083	NT	---	---
1-Methylnaphthalene (ug/l)	NT	<0.40	<0.40	<0.40	NT	---	---
2-Methylnaphthalene (ug/l)	NT	<0.60	<0.60	<0.60	NT	---	---
naphthalene (ug/l)	NT	<0.22	<0.22	<0.22	NT	8	40
phenanthrene (ug/l)	NT	0.094	< 0.014	0.14	NT	---	---
pyrene (ug/l)	NT	0.39	< 0.047	0.23	NT	50	250

\* Combined ES/PAL for 1,2,4-TMB and 1,3,5-TMB

NT= Not Tested

\* Methylene Chloride is a common laboratory artifact and may not be representative of actual groundwater quality.

^ Not tested by laboratory due to insufficient sample quantity

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	MW-2M	MW-2M	MW-2M	MW-3M	MW-3M	NR 140 PAL	NR 140 ES
Sampling Date	6/12/00	10/4/00	1/26/01	3/12/99	6/12/00		
<b>Dissolved RCRA Metals</b>							
Arsenic(mg/l)	<0.0022	<0.0022	<0.0022	< 0.05	<0.0022	0.005	0.05
Barium(mg/l)	0.13	0.10	0.095	< 0.5	0.10	0.4	2
Cadmium(mg/l)	0.00043	0.00027	< 0.00014	< 0.01	<0.00014	0.0005	0.005
Chromium(mg/l)	0.0019	<0.0032	< 0.00022	< 0.01	0.0021	0.01	0.1
Lead(mg/l)	<0.0012	<0.0012	<0.0012	< 0.005	<0.0012	0.0015	0.015
Mercury(mg/l)	<0.000024	0.000058	<0.000014	< 0.002	<0.000024	0.0002	0.002
Selenium(mg/l)	<0.0015	<0.0015	<0.0015	< 0.01	<0.0015	0.01	0.05
Silver(mg/l)	<0.0028	0.0040	< 0.0028	< 0.05	<0.0028	0.01	0.05
<b>Gasoline Range Organics (GRO) (mg/</b>							
	0.28	0.18	0.15	NT	0.57	---	---
<b>Diesel Range Organics (DRO) (mg/l)</b>							
	30	18	23	NT	3	---	---
<b>Volatile Organic Compounds (VOCs)</b>							
Benzene (ug/l)	0.11	< 0.10	< 0.10	< 0.5	<0.10	0.5	5
Bromobenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
Bromodichloromethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	0.06	0.6
n-Butylbenzene (ug/l)	<0.25	<0.25	<0.25	0.61	<0.25	---	---
sec-Butylbenzene (ug/l)	<0.25	0.34	<0.25	< 0.5	3.7	---	---
tert-Butylbenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
Carbon tetrachloride (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	0.5	5
Chlorobenzene (ug/l)	<0.25	1.3	0.86	< 0.5	<0.25	---	---
Chloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	80	400
Chloroform (ug/l)	<0.25	<0.25	<0.25	< 0.14	<0.25	0.6	6
Chloromethane (ug/l)	<0.25	<0.25	<0.25	< 0.6	<0.25	0.3	3
2-Chlorotoluene (ug/l)	<0.10	<0.10	<0.10	< 0.5	<0.10	---	---
4-Chlorotoluene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
Dibromochloromethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	6	60
1,2-Dibromo-3-chloropropane (ug/l)	<0.25	<0.25	<0.25	< 0.39	<0.25	0.02	0.2
1,2-Dibromoethane (ug/l)	<0.25	<0.25	<0.25	< 0.38	<0.25	0.005	0.05
1,2-Dichlorobenzene (ug/l)	5.6	5.7	5.5	< 0.5	<0.25	60	600
1,3-Dichlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	125	1,250
1,4-Dichlorobenzene (ug/l)	<0.25	1.3	1.2	< 0.5	<0.25	15	75
Dichlorodifluoromethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	200	1,000
1,1-Dichloroethane (ug/l)	0.73	0.68	0.81	< 0.5	<0.25	85	850
1,2-Dichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	0.5	5
1,1-Dichloropropene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
1,1,1-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	40	200
1,1,2,2-Tetrachloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	0.02	0.2
1,1,2-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	0.5	5
1,1-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
cis-1,2-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
trans-1,2-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
1,2-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	0.5	5
1,3-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
2,2-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
Diisopropyl ether (ug/l)	<0.25	<0.25	<0.25	< 5.0	<0.25	---	---
Ethylbenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	140	700
Hexachlorobutadiene (ug/l)	<0.25	<0.25	<0.25	< 5.0	<0.25	---	---

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	MW-2M	MW-2M	MW-2M	MW-3M	MW-3M	NR 140 PAL	NR 140 ES
Sampling Date	6/12/00	10/4/00	1/26/01	3/12/99	6/12/00		
<b>Volatile Organic Compounds (VOCs)</b>							
Isopropylbenzene (ug/l)	0.28	0.58	<0.25	< 0.5	4.2	---	---
p-Isopropyltoluene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
Methylene chloride (ug/l)	<b>0.6</b>	< 0.25	< 0.25	< 0.53	<0.25	0.5	5
Methyl-tert-butyl-ether (ug/l)	<0.25	<0.25	<0.25	< 0.20	<0.25	12	60
Naphthalene (ug/l)	0.57	0.39	<0.25	< 2.0	0.75	8	40
n-Propylbenzene (ug/l)	0.31	0.35	<0.25	< 0.5	9.5	---	---
1,1,2,2-Tetrachloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.35	<0.25	0.02	0.2
Tetrachloroethene (ug/l)	<0.25	<0.25	<0.25	0.67	<0.25	---	---
Toluene (ug/l)	0.19	0.17	0.13	< 0.5	<0.10	68.6	343
1,2,3-Trichlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 2.0	<0.25	---	---
1,2,4-Trichlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 2.0	<0.25	14	70
1,1,1-Trichloroethane (ug/l)	0.26	< 0.25	< 0.25	< 0.5	<0.25	40	200
1,1,2-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.16	<0.25	0.5	5
Trichloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
Trichlorofluoromethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	---	---
1,2,4-Trimethylbenzene (ug/l)	0.13	< 0.10	0.73	< 1.0	6.6	---	---
1,3,5-Trimethylbenzene (ug/l)	<0.10	<0.10	<0.10	< 1.0	<0.10	---	---
Vinyl chloride (ug/l)	<0.25	<0.25	<0.25	< 0.17	<0.25	0.02	0.2
Total Xylenes (ug/l)	<0.25	<0.25	<0.25	< 0.5	<0.25	124	620
<b>Polycyclic Aromatic Hydrocarbons (P)</b>							
acenaphthene (ug/l)	2.0	2.6	3.2	NT	9.1	---	---
acenaphthylene (ug/l)	<0.55	<0.55	<0.55	NT	<0.55	---	---
anthracene (ug/l)	1.6	< 0.018	< 0.018	NT	2.2	600	3,000
benzo (a) anthracene (ug/l)	6.4	< 0.017	< 0.017	NT	0.93	---	---
benzo (b) fluoranthene (ug/l)	<0.043	<0.043	<0.043	NT	<0.043	0.02	0.2
benzo (k) fluoranthene (ug/l)	<0.029	<0.029	<0.029	NT	<0.029	---	---
benzo (a) pyrene (ug/l)	<0.027	<0.027	<0.027	NT	<0.027	0.02	0.2
benzo (g,h,i) perylene (ug/l)	<0.10	<0.10	<0.10	NT	<0.10	---	---
chrysene (ug/l)	<b>0.51</b>	< 0.013	< 0.013	NT	0.081	0.02	0.2
dibenzo (a,h) anthracene (ug/l)	<0.16	<0.16	<0.16	NT	<0.16	---	---
fluoranthene (ug/l)	3.5	< 0.10	< 0.10	NT	1.7	80	400
fluorene (ug/l)	3.6	3.8	5.5	NT	19	80	400
indeno (1,2,3-cd) pyrene (ug/l)	<0.083	<0.083	<0.083	NT	<0.083	---	---
1-Methylnaphthalene (ug/l)	7.5	3.7	<0.40	NT	53	---	---
2-Methylnaphthalene (ug/l)	<0.60	7.3	8.9	NT	<0.60	---	---
naphthalene (ug/l)	<0.22	7.8	<0.22	NT	<0.22	8	40
phenanthrene (ug/l)	0.31	< 0.014	1.8	NT	1.3	---	---
pyrene (ug/l)	11	< 0.047	< 0.047	NT	1.1	50	250

\* Combined ES/PAL for 1,2,4-TMB

**Table 1**  
 Summary of Groundwater Quality Test Results  
 Former W.R. Grace Property, Milwaukee, WI

Test Description	MW-3M	MW-3M	MW-4M	MW-4M	MW-4M	NR 140 PAL	NR 140 ES
Sampling Date	10/4/00	1/26/01	6/12/00	10/4/00	1/26/01		
<b>Dissolved RCRA Metals</b>							
Arsenic(mg/l)	<0.0022	<0.0022	<0.0022	<0.0022	0.0025	0.005	0.05
Barium(mg/l)	0.094	0.090	0.23	0.097	0.16	0.4	2
Cadmium(mg/l)	<0.00014	<0.00014	0.0002	<b>0.00072</b>	<b>0.0012</b>	0.0005	0.005
Chromium(mg/l)	< 0.0032	0.00038	0.0012	< 0.0032	0.00047	0.01	0.1
Lead(mg/l)	<0.0012	<0.0012	<0.0012	< 0.0012	<b>0.0025</b>	0.0015	0.015
Mercury(mg/l)	0.000060	<0.000014	<0.000024	0.000064	<0.000014	0.0002	0.002
Selenium(mg/l)	<0.0015	<0.0015	0.0017	< 0.0015	<0.0015	0.01	0.05
Silver(mg/l)	0.0054	<0.0028	<0.0028	0.0045	<0.0028	0.01	0.05
<b>Gasoline Range Organics (GRO) (mg/</b>							
	0.29	0.33	<0.050	<0.050	<0.050	---	---
<b>Diesel Range Organics (DRO) (mg/l)</b>							
	1.6	3.0	0.43	0.73	0.82	---	---
<b>Volatile Organic Compounds (VOCs)</b>							
Benzene (ug/l)	<0.10	<0.10	<0.10	<0.10	<0.10	0.5	5
Bromobenzene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
Bromodichloromethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.06	0.6
n-Butylbenzene (ug/l)	3.8	<0.25	<0.25	<0.25	<0.25	---	---
sec-Butylbenzene (ug/l)	3.9	4.2	<0.25	<0.25	<0.25	---	---
tert-Butylbenzene (ug/l)	0.33	<0.25	<0.25	<0.25	<0.25	---	---
Carbon tetrachloride (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.5	5
Chlorobenzene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
Chloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	80	400
Chloroform (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.6	6
Chloromethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.3	3
2-Chlorotoluene (ug/l)	<0.10	<0.10	<0.10	<0.10	<0.10	---	---
4-Chlorotoluene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
Dibromochloromethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	6	60
1,2-Dibromo-3-chloropropane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.02	0.2
1,2-Dibromoethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.005	0.05
1,2-Dichlorobenzene (ug/l)	0.33	<0.25	<0.25	<0.25	<0.25	60	600
1,3-Dichlorobenzene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	125	1,250
1,4-Dichlorobenzene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	15	75
Dichlorodifluoromethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	200	1,000
1,1-Dichloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	85	850
1,2-Dichloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.5	5
1,1-Dichloropropene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
1,1,1-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	40	200
1,1,2,2-Tetrachloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.02	0.2
1,1,2-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.5	5
1,1-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
cis-1,2-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
trans-1,2-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
1,2-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.5	5
1,3-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
2,2-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
Diisopropyl ether (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
Ethylbenzene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	140	700
Hexachlorobutadiene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	MW-3M	MW-3M	MW-4M	MW-4M	MW-4M	NR 140 PAL	NR 140 ES
Sampling Date	10/4/00	1/26/01	6/12/00	10/4/00	1/26/01		
<b>Volatile Organic Compounds (VOCs)</b>							
Isopropylbenzene (ug/l)	4.7	4.5	<0.25	<0.25	<0.25	---	---
p-Isopropyltoluene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
Methylene chloride (ug/l)	<0.25	<0.25	<0.25	<0.25	1.3	0.5	5
Methyl-tert-butyl-ether (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	12	60
Naphthalene (ug/l)	1.0	1.3	<0.25	<0.25	<0.25	8	40
n-Propylbenzene (ug/l)	6.9	7.8	<0.25	<0.25	<0.25	---	---
1,1,2,2-Tetrachloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.02	0.2
Tetrachloroethene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
Toluene (ug/l)	0.13	<0.25	<0.10	<0.10	0.71	68.6	343
1,2,3-Trichlorobenzene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
1,2,4-Trichlorobenzene (ug/l)	<0.25	0.24	<0.25	<0.25	<0.25	14	70
1,1,1-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	40	200
1,1,2-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.5	5
Trichloroethene (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
Trichlorofluoromethane (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	---	---
1,2,4-Trimethylbenzene (ug/l)	6.2	<0.25	<0.10	<0.10	<0.10	---	---
1,3,5-Trimethylbenzene (ug/l)	0.12	0.18	<0.10	<0.10	<0.10	---	---
Vinyl chloride (ug/l)	<0.25	<0.25	<0.25	<0.25	<0.25	0.02	0.2
Total Xylenes (ug/l)	<0.25	<0.25	<0.25	<0.25	0.34	124	620
<b>Polycyclic Aromatic Hydrocarbons (P)</b>							
acenaphthene (ug/l)	9.7	13	NT	<0.22	<0.22	---	---
acenaphthylene (ug/l)	<0.55	<1.2	NT	<0.55	<0.55	---	---
anthracene (ug/l)	<0.018	<0.040	NT	<0.018	<0.018	600	3,000
benzo (a) anthracene (ug/l)	<0.017	<0.038	NT	<0.017	<0.017	---	---
benzo (b) fluoranthene (ug/l)	<0.043	<0.095	NT	<0.043	<0.043	0.02	0.2
benzo (k) fluoranthene (ug/l)	<0.029	<0.064	NT	<0.029	<0.029	---	---
benzo (a) pyrene (ug/l)	<0.027	<0.060	NT	<0.027	<0.027	0.02	0.2
benzo (g,h,i) perylene (ug/l)	<0.10	<0.22	NT	<0.10	<0.10	---	---
chrysene (ug/l)	<0.013	<0.029	NT	<0.013	<0.013	0.02	0.2
dibenzo (a,h) anthracene (ug/l)	<0.16	<0.36	NT	<0.16	<0.16	---	---
fluoranthene (ug/l)	<0.10	<0.22	NT	<0.10	<0.10	80	400
fluorene (ug/l)	13	23	NT	<0.029	<0.029	80	400
indeno (1,2,3-cd) pyrene (ug/l)	<0.083	<0.18	NT	<0.083	<0.083	---	---
1-Methylnaphthalene (ug/l)	31	40	NT	<0.40	<0.40	---	---
2-Methylnaphthalene (ug/l)	27	47	NT	<0.60	<0.60	---	---
naphthalene (ug/l)	24	<0.49	NT	<0.22	<0.22	8	40
phenanthrene (ug/l)	<0.014	0.62	NT	<0.014	<0.014	---	---
pyrene (ug/l)	<0.47	<0.10	NT	<0.047	<0.047	50	250

\* Combined ES/PAL for 1,2,4-TMB

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	Grace MW-2	Grace MW-2	Grace MW-2	Grace MW-3	Grace MW-3	Grace MW-3	NR 140 PAL	NR 140 ES
Sampling Date	3/11/99	6/12/00	10/4/00	3/12/99	6/12/00	10/4/00		
<b>Dissolved RCRA Metals</b>								
Arsenic(mg/l)	< 0.005	NT	< 0.0022	< 0.05	<0.0022	<0.0022	0.005	0.05
Barium(mg/l)	< 0.5	NT	0.13	< 0.5	0.17	0.19	0.4	2
Cadmium(mg/l)	<b>0.00067</b>	NT	0.00017	< 0.01	0.00023	0.00016	0.0005	0.005
Chromium(mg/l)	< 0.01	NT	< 0.0032	< 0.01	0.00066	< 0.0032	0.01	0.1
Lead(mg/l)	0.0031	NT	< 0.0012	< 0.005	<0.0012	<0.0012	0.0015	0.015
Mercury(mg/l)	< 0.0002	NT	0.000052	< 0.002	<0.000024	0.000055	0.0002	0.002
Selenium(mg/l)	< 0.005	NT	< 0.0015	< 0.01	0.0017	< 0.0015	0.01	0.05
Silver(mg/l)	< 0.05	NT	0.0061	< 0.05	<0.0028	0.0049	0.01	0.05
<b>Gasoline Range Organics (GRO) (mg/</b>								
	NT	NT	< 0.050	NT	<0.050	<0.050	---	---
<b>Diesel Range Organics (DRO) (mg/l)</b>								
	NT	NT	< 0.10	NT	0.12	< 0.10	---	---
<b>Volatile Organic Compounds (VOCs)</b>								
Benzene (ug/l)	< 0.5	NT	< 0.120	< 0.5	<0.10	<0.10	0.5	5
Bromobenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
Bromodichloromethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	0.06	0.6
n-Butylbenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
sec-Butylbenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
tert-Butylbenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
Carbon tetrachloride (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	0.5	5
Chlorobenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
Chloroethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	80	400
Chloroform (ug/l)	< 0.14	NT	< 0.25	< 0.14	<0.25	<0.25	0.6	6
Chloromethane (ug/l)	< 0.6	NT	< 0.25	< 0.6	<0.25	<0.25	0.3	3
2-Chlorotoluene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.10	<0.10	---	---
4-Chlorotoluene (ug/l)	< 0.5	NT	< 0.10	< 0.5	<0.25	<0.25	---	---
Dibromochloromethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	6	60
1,2-Dibromo-3-chloropropane (ug/l)	< 0.39	NT	< 0.25	< 0.39	<0.25	<0.25	0.02	0.2
1,2-Dibromoethane (ug/l)	< 0.38	NT	< 0.25	< 0.38	<0.25	<0.25	0.005	0.05
1,2-Dichlorobenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	60	600
1,3-Dichlorobenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	125	1,250
1,4-Dichlorobenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	15	75
Dichlorodifluoromethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	200	1,000
1,1-Dichloroethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	0.46	85	850
1,2-Dichloroethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	0.5	5
1,1-Dichloropropene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
1,1,1-Trichloroethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	40	200
1,1,2,2-Tetrachloroethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	0.02	0.2
1,1,2-Trichloroethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	0.5	5
1,1-Dichloroethene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
cis-1,2-Dichloroethene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
trans-1,2-Dichloroethene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
1,2-Dichloropropane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	0.5	5
1,3-Dichloropropane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
2,2-Dichloropropane (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	---	---
Diisopropyl ether (ug/l)	< 5.0	NT	< 0.25	< 5.0	<0.25	<0.25	---	---
Ethylbenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	<0.25	<0.25	140	700
Hexachlorobutadiene (ug/l)	< 5.0	NT	< 0.25	< 5.0	<0.25	<0.25	---	---

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	Grace MW-2	Grace MW-2	Grace MW-2	Grace MW-3	Grace MW-3	Grace MW-3	NR 140 PAL	NR 140 ES
Sampling Date	3/11/99	6/12/00	10/4/00	3/12/99	6/12/00	10/4/00		
<b>Volatile Organic Compounds (VOCs)</b>								
Isopropylbenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	< 0.25	< 0.25	---	---
p-Isopropyltoluene (ug/l)	1.2	NT	1.5	< 0.5	< 0.25	< 0.25	---	---
Methylene chloride (ug/l)	< 0.53	NT	< 0.25	1.8*	< 0.25	< 0.25	0.5	5
Methyl-tert-butyl-ether (ug/l)	< 0.20	NT	< 0.25	< 0.20	< 0.25	< 0.25	12	60
Naphthalene (ug/l)	< 2.0	NT	< 0.25	< 2.0	< 0.25	< 0.25	8	40
n-Propylbenzene (ug/l)	< 0.5	NT	< 0.25	< 0.5	< 0.25	< 0.25	---	---
1,1,2,2-Tetrachloroethane (ug/l)	< 0.35	NT	< 0.25	< 0.35	< 0.25	< 0.25	0.02	0.2
Tetrachloroethene (ug/l)	< 0.5	NT	< 0.25	< 0.5	< 0.25	< 0.25	---	---
Toluene (ug/l)	< 0.5	NT	< 0.10	< 0.5	< 0.10	< 0.10	68.6	343
1,2,3-Trichlorobenzene (ug/l)	< 2.0	NT	< 0.25	< 2.0	< 0.25	< 0.25	---	---
1,2,4-Trichlorobenzene (ug/l)	< 2.0	NT	< 0.25	< 2.0	< 0.25	< 0.25	14	70
1,1,1-Trichloroethane (ug/l)	< 0.5	NT	< 0.25	0.57	< 0.25	< 0.25	40	200
1,1,2-Trichloroethane (ug/l)	< 0.16	NT	< 0.25	< 0.16	< 0.25	< 0.25	0.5	5
Trichloroethene (ug/l)	< 0.5	NT	< 0.25	< 0.5	< 0.25	< 0.25	---	---
Trichlorofluoromethane (ug/l)	< 0.5	NT	< 0.25	< 0.5	< 0.25	< 0.25	---	---
1,2,4-Trimethylbenzene (ug/l)	< 1.0	NT	< 0.10	< 1.0	< 0.10	< 0.10	---	---
1,3,5-Trimethylbenzene (ug/l)	< 1.0	NT	< 0.10	< 1.0	< 0.10	< 0.10	---	---
Vinyl chloride (ug/l)	< 0.17	NT	< 0.25	< 0.17	< 0.25	< 0.25	0.02	0.2
Total Xylenes (ug/l)	< 0.5	NT	< 0.25	< 0.5	< 0.25	< 0.25	124	620
<b>Polycyclic Aromatic Hydrocarbons (P)</b>								
acenaphthene (ug/l)	NT	NT	< 0.22	NT	< 0.22	< 0.22	---	---
acenaphthylene (ug/l)	NT	NT	< 0.55	NT	< 0.55	< 0.55	---	---
anthracene (ug/l)	NT	NT	< 0.018	NT	< 0.018	< 0.018	600	3,000
benzo (a) anthracene (ug/l)	NT	NT	< 0.017	NT	< 0.017	< 0.017	---	---
benzo (b) fluoranthene (ug/l)	NT	NT	< 0.043	NT	< 0.043	< 0.043	0.02	0.2
benzo (k) fluoranthene (ug/l)	NT	NT	< 0.029	NT	< 0.029	< 0.029	---	---
benzo (a) pyrene (ug/l)	NT	NT	< 0.027	NT	< 0.027	< 0.027	0.02	0.2
benzo (g,h,i) perylene (ug/l)	NT	NT	< 0.10	NT	< 0.10	< 0.10	---	---
chrysene (ug/l)	NT	NT	< 0.013	NT	< 0.013	< 0.013	0.02	0.2
dibenzo (a,h) anthracene (ug/l)	NT	NT	< 0.16	NT	< 0.16	< 0.16	---	---
fluoranthene (ug/l)	NT	NT	< 0.10	NT	< 0.10	< 0.10	80	400
fluorene (ug/l)	NT	NT	< 0.029	NT	< 0.029	< 0.029	80	400
indeno (1,2,3-cd) pyrene (ug/l)	NT	NT	< 0.083	NT	< 0.083	< 0.083	---	---
1-Methylnaphthalene (ug/l)	NT	NT	< 0.40	NT	< 0.40	< 0.40	---	---
2-Methylnaphthalene (ug/l)	NT	NT	< 0.60	NT	< 0.60	< 0.60	---	---
naphthalene (ug/l)	NT	NT	< 0.22	NT	< 0.22	< 0.22	8	40
phenanthrene (ug/l)	NT	NT	< 0.014	NT	< 0.014	< 0.014	---	---
pyrene (ug/l)	NT	NT	< 0.047	NT	< 0.047	< 0.047	50	250

\* Combined ES/PAL for 1,2,4-TMB

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	Cape MW-4	Cape MW-4	Cape MW-4	GP-11	GP-15	GP-17	NR 140 PAL	NR 140 ES
Sampling Date	6/12/00	10/4/00	1/26/01	3/16/99	3/5/99	3/5/99		
<b>Dissolved RCRA Metals</b>								
Arsenic(mg/l)	0.0022	< 0.0022	< 0.0022	NT^	< 0.05	< 0.005	0.005	0.05
Barium(mg/l)	0.051	0.035	0.081	NT^	< 0.5	< 0.40	0.4	2
Cadmium(mg/l)	<0.00014	0.00032	<0.00014	NT^	< 0.01	< 0.0005	0.0005	0.005
Chromium(mg/l)	0.0015	< 0.0032	0.00045	NT^	< 0.01	< 0.010	0.01	0.1
Lead(mg/l)	<0.0012	<0.0012	<0.0012	NT^	< 0.005	0.002	0.0015	0.015
Mercury(mg/l)	<0.000024	0.000053	<0.000014	< 0.002	< 0.002	< 0.0002	0.0002	0.002
Selenium(mg/l)	0.0019	< 0.0015	< 0.0015	NT^	< 0.01	< 0.01	0.01	0.05
Silver(mg/l)	<0.0028	0.0053	<0.0028	NT^	< 0.05	< 0.01	0.01	0.05
<b>Gasoline Range Organics (GRO) (mg/</b>								
	<0.050	0.075	<0.050	NT	NT	NT	---	---
<b>Diesel Range Organics (DRO) (mg/l)</b>								
	0.53	0.66	1.1	NT	NT	NT	---	---
<b>Volatile Organic Compounds (VOCs)</b>								
Benzene (ug/l)	<0.10	<0.10	<0.10	< 0.5	< 0.5	< 0.5	0.5	5
Bromobenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
Bromodichloromethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	0.06	0.6
n-Butylbenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
sec-Butylbenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
tert-Butylbenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
Carbon tetrachloride (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	0.5	5
Chlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
Chloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	80	400
Chloroform (ug/l)	<0.25	<0.25	<0.25	< 0.14	< 0.14	< 0.14	0.6	6
Chloromethane (ug/l)	<0.25	<0.25	<0.25	< 0.6	< 0.6	< 0.6	0.3	3
2-Chlorotoluene (ug/l)	<0.10	<0.10	<0.10	< 0.5	< 0.5	< 0.5	---	---
4-Chlorotoluene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
Dibromochloromethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	6	60
1,2-Dibromo-3-chloropropane (ug/l)	<0.25	<0.25	<0.25	< 0.39	< 0.39	< 0.39	0.02	0.2
1,2-Dibromoethane (ug/l)	<0.25	<0.25	<0.25	< 0.38	< 0.38	< 0.38	0.005	0.05
1,2-Dichlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	60	600
1,3-Dichlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	125	1,250
1,4-Dichlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	15	75
Dichlorodifluoromethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	200	1,000
1,1-Dichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	85	850
1,2-Dichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	0.5	5
1,1-Dichloropropene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
1,1,1-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	40	200
1,1,2,2-Tetrachloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	0.02	0.2
1,1,2-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	0.5	5
1,1-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
cis-1,2-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
trans-1,2-Dichloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
1,2-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	0.5	5
1,3-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
2,2-Dichloropropane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
Diisopropyl ether (ug/l)	<0.25	<0.25	<0.25	< 5.0	< 5.0	< 5.0	---	---
Ethylbenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	140	700
Hexachlorobutadiene (ug/l)	<0.25	<0.25	<0.25	< 5.0	< 5.0	< 5.0	---	---

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	Cape MW-4 6/12/00	Cape MW-4 10/4/00	Cape MW-4 1/26/01	GP-11 3/16/99	GP-15 3/5/99	GP-17 3/5/99	NR 140 PAL	NR 140 ES
Sampling Date	6/12/00	10/4/00	1/26/01	3/16/99	3/5/99	3/5/99		
<b>Volatile Organic Compounds (VOCs)</b>								
Isopropylbenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
p-Isopropyltoluene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
Methylene chloride (ug/l)	<0.25	<0.25	<0.25	2.3*	< 0.53	< 0.53	0.5	5
Methyl-tert-butyl-ether (ug/l)	<0.25	<0.25	<0.25	< 0.20	< 0.20	< 0.20	12	60
Naphthalene (ug/l)	<0.25	<0.25	<0.25	< 2.0	< 2.0	< 2.0	8	40
n-Propylbenzene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
1,1,2,2-Tetrachloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.35	< 0.35	< 0.35	0.02	0.2
Tetrachloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
Toluene (ug/l)	<0.10	<0.10	<0.10	0.58	< 0.5	0.64	68.6	343
1,2,3-Trichlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 2.0	< 2.0	< 2.0	---	---
1,2,4-Trichlorobenzene (ug/l)	<0.25	<0.25	<0.25	< 2.0	< 2.0	< 2.0	14	70
1,1,1-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	0.52	< 0.5	0.52	40	200
1,1,2-Trichloroethane (ug/l)	<0.25	<0.25	<0.25	< 0.16	< 0.16	< 0.16	0.5	5
Trichloroethene (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
Trichlorofluoromethane (ug/l)	<0.25	<0.25	<0.25	< 0.5	< 0.5	< 0.5	---	---
1,2,4-Trimethylbenzene (ug/l)	<0.10	<0.10	<0.10	< 1.0	< 1.0	< 1.0	---	---
1,3,5-Trimethylbenzene (ug/l)	<0.10	<0.10	<0.10	< 1.0	< 1.0	< 1.0	---	---
Vinyl chloride (ug/l)	<0.25	<0.25	<0.25	< 0.17	< 0.17	< 0.17	0.02	0.2
Total Xylenes (ug/l)	<0.25	<0.25	<0.25	0.63	< 0.5	< 0.5	124	620
<b>Polycyclic Aromatic Hydrocarbons (P)</b>								
acenaphthene (ug/l)	<0.22	0.72	<0.22	NT	NT	NT	---	---
acenaphthylene (ug/l)	<0.55	<0.55	<0.55	NT	NT	NT	---	---
anthracene (ug/l)	<0.018	<0.018	<0.018	NT	NT	NT	600	3,000
benzo (a) anthracene (ug/l)	<0.017	<0.017	<0.017	NT	NT	NT	---	---
benzo (b) fluoranthene (ug/l)	<0.043	<0.043	<0.043	NT	NT	NT	0.02	0.2
benzo (k) fluoranthene (ug/l)	<0.029	<0.029	<0.029	NT	NT	NT	---	---
benzo (a) pyrene (ug/l)	<0.027	<0.027	<0.027	NT	NT	NT	0.02	0.2
benzo (g,h,i) perylene (ug/l)	<0.10	<0.10	<0.10	NT	NT	NT	---	---
chrysene (ug/l)	<0.013	<0.013	<0.013	NT	NT	NT	0.02	0.2
dibenzo (a,h) anthracene (ug/l)	<0.16	<0.16	<0.16	NT	NT	NT	---	---
fluoranthene (ug/l)	<0.10	<0.10	<0.10	NT	NT	NT	80	400
fluorene (ug/l)	<0.029	0.34	0.62	NT	NT	NT	80	400
indeno (1,2,3-cd) pyrene (ug/l)	<0.083	<0.083	<0.083	NT	NT	NT	---	---
1-Methylnaphthalene (ug/l)	<0.40	0.67	<0.40	NT	NT	NT	---	---
2-Methylnaphthalene (ug/l)	<0.60	0.87	<0.60	NT	NT	NT	---	---
naphthalene (ug/l)	<0.22	<0.22	<0.22	NT	NT	NT	8	40
phenanthrene (ug/l)	<0.014	<0.014	0.13	NT	NT	NT	---	---
pyrene (ug/l)	<0.047	<0.047	<0.047	NT	NT	NT	50	250

\* Combined ES/PAL for 1,2,4-TMB

**Table 1**  
**Summary of Groundwater Quality Test Results**  
**Former W.R. Grace Property, Milwaukee, WI**

Test Description	Porewater	Porewater	NR 140	NR 140
	#1	#2	PAL	ES
Sampling Date	3/8/99	3/8/99		
<b>Dissolved RCRA Metals</b>				
Arsenic(mg/l)	NT	NT	0.005	0.05
Barium(mg/l)	NT	NT	0.4	2
Cadmium(mg/l)	NT	NT	0.0005	0.005
Chromium(mg/l)	NT	NT	0.01	0.1
Lead(mg/l)	NT	NT	0.0015	0.015
Mercury(mg/l)	NT	NT	0.0002	0.002
Selenium(mg/l)	NT	NT	0.01	0.05
Silver(mg/l)	NT	NT	0.01	0.05
<b>Gasoline Range Organics (GRO) (mg/</b>				
	NT	NT	---	---
<b>Diesel Range Organics (DRO) (mg/l)</b>				
	NT	NT	---	---
<b>Volatile Organic Compounds (VOCs)</b>				
Benzene (ug/l)	< 0.5	< 0.5	0.5	5
Bromobenzene (ug/l)	< 0.5	< 0.5	---	---
Bromodichloromethane (ug/l)	< 0.5	< 0.5	0.06	0.6
n-Butylbenzene (ug/l)	< 0.5	< 0.5	---	---
sec-Butylbenzene (ug/l)	< 0.5	< 0.5	---	---
tert-Butylbenzene (ug/l)	< 0.5	< 0.5	---	---
Carbon tetrachloride (ug/l)	< 0.5	< 0.5	0.5	5
Chlorobenzene (ug/l)	< 0.5	< 0.5	---	---
Chloroethane (ug/l)	< 0.5	< 0.5	80	400
Chloroform (ug/l)	< 0.14	< 0.14	0.6	6
Chloromethane (ug/l)	< 0.6	< 0.6	0.3	3
2-Chlorotoluene (ug/l)	< 0.5	< 0.5	---	---
4-Chlorotoluene (ug/l)	< 0.5	< 0.5	---	---
Dibromochloromethane (ug/l)	< 0.5	< 0.5	6	60
1,2-Dibromo-3-chloropropane (ug/l)	< 0.39	< 0.39	0.02	0.2
1,2-Dibromoethane (ug/l)	< 0.38	< 0.38	0.005	0.05
1,2-Dichlorobenzene (ug/l)	< 0.5	< 0.5	60	600
1,3-Dichlorobenzene (ug/l)	< 0.5	< 0.5	125	1,250
1,4-Dichlorobenzene (ug/l)	< 0.5	< 0.5	15	75
Dichlorodifluoromethane (ug/l)	< 0.5	< 0.5	200	1,000
1,1-Dichloroethane (ug/l)	< 0.5	< 0.5	85	850
1,2-Dichloroethane (ug/l)	< 0.5	< 0.5	0.5	5
1,1-Dichloropropene (ug/l)	< 0.5	< 0.5	---	---
1,1,1-Trichloroethane (ug/l)	< 0.5	< 0.5	40	200
1,1,2,2-Tetrachloroethane (ug/l)	< 0.5	< 0.5	0.02	0.2
1,1,2-Trichloroethane (ug/l)	< 0.5	< 0.5	0.5	5
1,1-Dichloroethene (ug/l)	< 0.5	< 0.5	---	---
cis-1,2-Dichloroethene (ug/l)	< 0.5	< 0.5	---	---
trans-1,2-Dichloroethene (ug/l)	< 0.5	< 0.5	---	---
1,2-Dichloropropane (ug/l)	< 0.5	< 0.5	0.5	5
1,3-Dichloropropane (ug/l)	< 0.5	< 0.5	---	---
2,2-Dichloropropane (ug/l)	< 0.5	< 0.5	---	---
Diisopropyl ether (ug/l)	< 5.0	< 5.0	---	---
Ethylbenzene (ug/l)	< 0.5	< 0.5	140	700
Hexachlorobutadiene (ug/l)	< 5.0	< 5.0	---	---

**Table 1**  
 Summary of Groundwater Quality Test Results  
 Former W.R. Grace Property, Milwaukee, WI

Test Description	Porewater	Porewater	NR 140	NR 140
	#1.	#2	PAL	ES
Sampling Date	3/8/99	3/8/99		
<b>Volatile Organic Compounds (VOCs)</b>				
Isopropylbenzene (ug/l)	< 0.5	< 0.5	---	---
p-Isopropyltoluene (ug/l)	< 0.5	< 0.5	---	---
Methylene chloride (ug/l)	6.5*	2.7*	0.5	5
Methyl-tert-butyl-ether (ug/l)	< 0.20	< 0.20	12	60
Naphthalene (ug/l)	< 2.0	< 2.0	8	40
n-Propylbenzene (ug/l)	< 0.5	< 0.5	---	---
1,1,2,2-Tetrachloroethane (ug/l)	< 0.35	< 0.35	0.02	0.2
Tetrachloroethene (ug/l)	< 0.5	< 0.5	---	---
Toluene (ug/l)	< 0.5	0.57	68.6	343
1,2,3-Trichlorobenzene (ug/l)	< 2.0	< 2.0	---	---
1,2,4-Trichlorobenzene (ug/l)	< 2.0	< 2.0	14	70
1,1,1-Trichloroethane (ug/l)	< 0.5	< 0.5	40	200
1,1,2-Trichloroethane (ug/l)	< 0.16	< 0.16	0.5	5
Trichloroethene (ug/l)	< 0.5	< 0.5	---	---
Trichlorofluoromethane (ug/l)	< 0.5	< 0.5	---	---
1,2,4-Trimethylbenzene (ug/l)	< 1.0	< 1.0	---	---
1,3,5-Trimethylbenzene (ug/l)	< 1.0	< 1.0	---	---
Vinyl chloride (ug/l)	< 0.17	< 0.17	0.02	0.2
Total Xylenes (ug/l)	< 0.5	< 0.5	124	620
<b>Polycyclic Aromatic Hydrocarbons (P)</b>				
acenaphthene (ug/l)	NT	NT	---	---
acenaphthylene (ug/l)	NT	NT	---	---
anthracene (ug/l)	NT	NT	600	3,000
benzo (a) anthracene (ug/l)	NT	NT	---	---
benzo (b) fluoranthene (ug/l)	NT	NT	0.02	0.2
benzo (k) fluoranthene (ug/l)	NT	NT	---	---
benzo (a) pyrene (ug/l)	NT	NT	0.02	0.2
benzo (g,h,i) perylene (ug/l)	NT	NT	---	---
chrysene (ug/l)	NT	NT	0.02	0.2
dibenzo (a,h) anthracene (ug/l)	NT	NT	---	---
fluoranthene (ug/l)	NT	NT	80	400
fluorene (ug/l)	NT	NT	80	400
indeno (1,2,3-cd) pyrene (ug/l)	NT	NT	---	---
1-Methylnaphthalene (ug/l)	NT	NT	---	---
2-Methylnaphthalene (ug/l)	NT	NT	---	---
naphthalene (ug/l)	NT	NT	8	40
phenanthrene (ug/l)	NT	NT	---	---
pyrene (ug/l)	NT	NT	50	250

\* Combined ES/PAL for 1,2,4-TMB

TABLE 1

## Soil Sampling Results for Excavation Sidewalls and Bottom

Sample Designation	DRO in ppm	PVOC (1) in ppb		PAH in ppb	VOC (2) in ppb	TPH Diesel (3) in ppm
		Benzene	Toluene			
S-1 (B)	14	BQL	BQL	All BQL	---	---
S-2 (B)	27	BQL	BQL	---	---	---
S-3 (SW)	BQL	---	---	---	---	---
S-4 (B)	24	BQL	4.1	---	---	---
S-5 (B)	29	---	---	---	---	---
S-6 (B)	24	BQL	3.5	---	---	---
S-7 (SW)	2700	BQL	BQL	---	---	---
S-8 (SW)	32	BQL	BQL	---	---	---
S-9 (SW)	12	---	---	---	---	---
S-10 (B)	16	BQL	BQL	All BQL	---	---
S-11 (SW)	17	BQL	BQL	All BQL	---	---
S-11A (4)	17	BQL	BQL	All BQL	---	---
S-12 (B)	22	---	---	---	---	---
S-13 (SW)	5100	---	---	---	---	---
S-14 (SW)	2600	---	---	---	---	---
S-15 (B)	35	5.8	2.3	---	---	---
S-18 (B)	---	---	---	---	150	---
S-20 (SW)	BQL	---	---	---	BQL	BQL
S-21 (B)	---	---	---	---	38000	---
S-24 (SW)	BQL	---	---	---	BQL	BQL
S-25 (SW)	98 (5)	---	---	---	390000	BQL

Explanation of table symbols: (B) = Excavation bottom sample  
 (SW) = Excavation sidewall sample  
 BQL = Below quantification limit  
 --- = No sample submitted for laboratory analysis

- Footnotes: (1) Benzene and toluene were the only compounds detected in the analysis. All other PVOC were BQL.  
 (2) Listed values are due to p-isopropyltoluene. P-isopropyltoluene and methylene chloride were the only compounds detected in the analysis. All other VOC were BQL. Comparable concentrations of methylene chloride were found in the associated method blanks, therefore all methylene chloride detects were attributed to contamination acquired at the laboratory.  
 (3) TPH Diesel values were obtained by comparing sample against a #2 fuel oil standard.  
 (4) Sample S-11A is a duplicate of sample S-11.  
 (5) This DRO is the result of p-isopropyltoluene.

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 fox environmental services, inc.



**Table 3: Summary of Laboratory Results from Geoprobe holes drilled  
at 900 North 43<sup>rd</sup> Street, Milwaukee, Wisconsin.  
FOX Project: 92468**

	GB-1 13-15	GB-1 16-17	GB-1 17-19	GB-2 12.5-14.5	GB-2A 8.5-10.5	GB-2A 10.5-12.5	GB-3 8-10
DRO (in ppm)	5,300	ND	ND	12	ND	ND	2,400
	GB-3 10-12	GB-4 15.5-17.5	GB-4 19.5-21.5	Dup (GB-4) 15.5-17.5	GB-5 4-6	GB-5 6-7	GB-5 7-8
DRO (in ppm)	ND	11,000	ND	8,300	1,000	3,100	ND
	GB-6-8 6-8	GB-7 4-6	GB-8 6-7	GB-8 8-10	GB-9 6-8	GB-10 5-7	GB-11 5-7
DRO (in ppm)	ND	ND	2,900	ND	480	ND	ND
	GB-12 12-14	GB-13 12-14	Dup (GB-12) 12-14	GB-15 9-11	GB-15 11-13	GB-15 13-15	GB-15A 12-14
DRO (in ppm)	300	980	360	ND	ND	ND	ND
	Dup (GB-15) 13-15						
DRO (in ppm)	ND						

Explanation of abbreviations and symbols used in the preceding table:

GB1 13-15 = probehole designation and sample  
depth interval (in feet)  
ppm = parts per million

ND= Not Detected  
DRO = diesel range organics

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Table 5.2

Asbestos Test Results  
Menomonee River Drop Structure, W. R. Grace Property, 900 N. 43rd Street, Milwaukee, WI

Location	Date	Depth (feet)	Chrysotile Asbestos	Amosite Asbestos	Other Asbestos	EPA Standard (%)
GP-1, S-2	3/4/99	3-6	Present	Not Detected	Not Detected	1
GP-1, S-3	3/4/99	6-9	Present	Not Detected	Not Detected	1
GP-2, S-2	3/4/99	3-6	Present	Not Detected	Not Detected	1
GP-2, S-4	3/4/99	9-12	Not Detected	Not Detected	Not Detected	1
GP-3, S-1	3/5/99	0-3	Present	Not Detected	Not Detected	1
GP-3, S-5	3/5/99	12-15	Not Detected	Not Detected	Not Detected	1
GP-4, S-2	3/5/99	3-6	Present	Not Detected	Not Detected	1
GP-4, S-4	3/5/99	9-12	Not Detected	Not Detected	Not Detected	1
GP-5, S-2	3/5/99	3-6	Present	Not Detected	Not Detected	1
GP-6, S-1	3/5/99	0-3	Present	Not Detected	Not Detected	1
GP-6, S-3	3/5/99	6-9	Present	Not Detected	Not Detected	1
GP-7, S-5	3/5/99	12-15	Present	Not Detected	Not Detected	1
GP-8, S-1	3/5/99	0-3	Present	Not Detected	Not Detected	1
GP-8, S-5	3/5/99	12-15	Not Detected	Not Detected	Not Detected	1
GP-9, S-1	3/10/99	0-3	Present	Not Detected	Not Detected	1
GP-10, S-2	3/10/99	3-6	Present	Not Detected	Not Detected	1
GP-11, S-1	3/10/99	0-3	Present	Not Detected	Not Detected	1
GP-14, S-1	3/10/99	0-3	Present	Not Detected	Not Detected	1
GP-15, S-1	3/4/99	0-3	Present	Not Detected	Not Detected	1
GP-15, S-3	3/4/99	6-9	Not Detected	Not Detected	Not Detected	1
GP-16, S-1	3/4/99	0-3	Present	Not Detected	Not Detected	1
GP-16, S-4	3/4/99	9-12	Not Detected	Not Detected	Not Detected	1
GP-17, S-1	3/4/99	0-3	Present	Not Detected	Not Detected	1
GP-17, S-3	3/4/99	6-9	Present	Not Detected	Not Detected	1
GP-18, S-2	3/10/99	3-6	Present	Not Detected	Not Detected	1
MW-1M, S-1	3/5/99	1-2.5	Present	Not Detected	Not Detected	1
MW-2M, S-4	3/5/99	8.5-10	Present	Not Detected	Not Detected	1
MW-3M, S-2	3/11/99	3.5-5	Not Detected	Not Detected	Not Detected	1
MW-3M, S-5	3/11/99	11-12.5	Not Detected	Not Detected	Not Detected	1

**Table 5.3**  
Soil Quality Test Results, Menomonee River Drop Structure, W.R. Grace Property, Milwaukee

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Test Description	GP-1, S-4	GP-1, S-5	GP-2, S-5	GP-3, S-5	GP-4, S-5	GP-5, S-5	GP-6, S-4	GP-7, S-5	NR 720 RCL
Sampling Date	3/4/99	3/4/99	3/4/99	3/5/99	3/5/99	3/5/99	3/5/99	3/5/99	---
Sample Depth (feet)	3-6	12-15	12-15	12-15	12-15	12-15	9-12	12-15	---
<b>Physical Soil Parameters</b>									
Percent Solids (%)	92	89	90	90	99	95	75	91	---
<b>RCRA Metals</b>									
Arsenic(mg/kg)	< 2.7	NT	< 2.8	< 2.8	< 2.5	< 2.6	< 3.3	< 2.7	0.039
Barium(mg/kg)	< 27	NT	42	< 28	< 25	< 26	44	< 27	---
Cadmium(mg/kg)	< 0.54	NT	< 0.56	< 0.56	< 0.50	< 0.53	< 0.67	< 0.55	8
Chromium(mg/kg)	5.2	NT	15	5.1	26	5.7	12	8.9	14*
Lead(mg/kg)	3.6	NT	6.8	5	4.8	7.4	9.5	18	50
Mercury(mg/kg)	< 0.043	NT	< 0.044	< 0.044	< 0.04	< 0.042	< 0.053	< 0.042	---
Selenium(mg/kg)	< 0.54	NT	0.97	0.67	< 0.50	< 0.53	0.95	0.82	---
Silver(mg/kg)	< 2.7	NT	< 2.8	< 2.8	< 2.5	< 2.6	< 3.3	< 2.7	---
<b>Diesel Range Organics (DRO)</b>									
DRO (mg/kg)	< 5.4	14	< 5.6	< 5.6	< 5.1	63	< 6.7	< 5.5	100
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>									
acenaphthene (ug/kg)	< 110	NT	< 110	< 110	170	410	< 130	< 1,100	38,000
acenaphthylene (ug/kg)	< 220	NT	< 220	< 220	< 200	< 220	< 270	< 2,200	700
anthracene (ug/kg)	< 0.55	NT	< 0.55	< 0.56	< 0.51	220	< 0.67	130	3,000,000
benzo (a) anthracene (ug/kg)	2.5	NT	< 0.56	< 0.56	52	230	< 0.67	320	3,900
benzo (a) pyrene (ug/kg)	< 1.1	NT	< 1.1	< 1.1	91	170	< 1.3	250	390
benzo (b) fluoranthene (ug/kg)	< 1.1	NT	3.9	< 1.1	99	160	< 1.3	210	3,900
benzo (g,h,i) perylene (ug/kg)	< 2.2	NT	< 2.2	< 2.2	70	140	< 2.7	310	39,000
benzo (k) fluoranthene (ug/kg)	< 0.55	NT	< 0.55	< 0.56	39	100	< 0.67	140	39,000
chrysene (ug/kg)	< 2.2	NT	< 2.2	< 2.2	68	240	< 2.7	340	37,000
dibenzo (a,h) anthracene (ug/kg)	< 1.1	NT	< 1.1	< 1.1	18	47	< 1.3	25	390
fluoranthene (ug/kg)	< 55	NT	< 55	< 56	74	580	< 67	1,700	500,000
fluorene (ug/kg)	< 5.5	NT	< 5.5	< 5.6	< 5.1	100	< 6.7	73	100,000
indeno (1,2,3-cd) pyrene (ug/kg)	< 22	NT	< 22	< 22	62	110	< 27	350	3,900
1-Methylnaphthalene (ug/kg)	< 55	NT	< 55	< 56	< 51	< 55	< 67	< 550	23,000
2-Methylnaphthalene (ug/kg)	< 55	NT	< 55	< 56	130	480	< 67	< 550	20,000
naphthalene (ug/kg)	< 5.5	NT	< 5.5	< 5.6	6.4	10	< 6.7	< 55	400
phenanthrene (ug/kg)	< 5.5	NT	< 5.5	< 5.6	63	450	< 6.7	950	1,800
pyrene (ug/kg)	< 22	NT	< 22	< 22	32	530	< 27	730	8,700,000
<b>Gasoline Range Organics (GRO)</b>									
GRO (mg/kg)	< 5.4	< 5.6	< 5.6	< 5.6	6.7	10	< 6.7	11	100

Note:\* The complete NR 720 RCLs for Chromium are: Hexavalent Chromium 14 ppm non-industrial sites/ 200 ppm industrial, Trivalent Chromium 16,000 ppm non-industrial sites (no industrial RCL for Trivalent Chromium)

**Table 5.3**  
Soil Quality Test Results, Menomonee River Drop Structure, W.R. Grace Property, Milwaukee  
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Test Description	GP-1, S-4	GP-1, S-5	GP-2, S-5	GP-3, S-5	GP-4, S-5	GP-5, S-5	GP-6, S-4	GP-7, S-5	NR 720 RCL
<b>Volatile Organic Compounds (VOCs)</b>									
Benzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 5.5
Bromobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Bromodichloromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
n-Butylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
sec-Butylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
tert-Butylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Carbon tetrachloride (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Chlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Chloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Chloroform (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Chloromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
2-Chlorotoluene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
4-Chlorotoluene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Dibromochloromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dibromo-3-chloropropane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dibromoethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,3-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,4-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Dichlorodifluoromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1-Dichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	4.9
1,1-Dichloropropene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,1-Trichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,2,2-Tetrachloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,2-Trichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1-Dichloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
cis-1,2-Dichloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
trans-1,2-Dichloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dichloropropane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,3-Dichloropropane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
2,2-Dichloropropane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Diisopropyl ether (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Ethylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	2.900
Hexachlorobutadiene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Isopropylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
p-Isopropyltoluene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Methylene chloride (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Methyl-tert-butyl-ether (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Naphthalene (ug/kg)	< 25	< 25	< 25	< 25	< 25	1,600	< 25	87	---
n-Propylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,2,2-Tetrachloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	5.5
Tetrachloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Toluene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	1,500
1,2,3-Trichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2,4-Trichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,1-Trichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,2-Trichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Trichloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Trichlorofluoromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2,4-Trimethylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	34	< 25	< 25	---
1,3,5-Trimethylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Vinyl chloride (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Total Xylenes (ug/kg)	< 25	< 25	< 25	< 25	< 25	32	< 25	< 25	4,100

**Table 5.3**  
Soil Quality Test Results, Menomonee River Drop Structure, W.R. Grace Property, Milwaukee  
Page 3 of 6

Test Description	GP-8, S-5	GP-10, S-3	GP-11, S-4	GP-14, S-5	GP-15, S-5	GP-16, S-5	GP-17, S-4	NR 720 RCL
Sampling Date	3/5/99	3/10/99	3/10/99	3/10/99	3/4/99	3/4/99	3/4/99	---
Sample Depth (feet)	12-15	6-9	9-12	12-15	12-15	12-15	9-12	---
<b>Physical Soil Parameters</b>								
Percent Solids (%)	88	86	82	83	97	97	93	---
<b>RCRA Metals</b>								
Arsenic(mg/kg)	< 2.8	< 2.9	< 3.0	< 3.0	< 2.6	< 2.6	< 2.5	0.039
Barium(mg/kg)	47	< 29	52	< 30	31	< 26	< 25	---
Cadmium(mg/kg)	< 0.57	< 0.58	< 0.61	< 0.60	< 0.52	< 0.52	< 0.50	8
Chromium(mg/kg)	19	6.9	18	3.9	8.8	4.2	5.7	14*
Lead(mg/kg)	7.3	35	7.2	3.5	20	3.9	4.7	50
Mercury(mg/kg)	< 0.046	0.058	< 0.049	< 0.048	< 0.041	< 0.041	< 0.04	---
Selenium(mg/kg)	0.83	1.1	1	0.77	< 0.52	0.58	0.69	---
Silver(mg/kg)	< 2.8	< 2.9	< 3.0	< 3.0	< 2.6	< 2.6	< 2.5	---
<b>Diesel Range Organics (DRO)</b>								
DRO (mg/kg)	< 5.7	< 5.8	< 6.1	< 6.0	< 5.2	< 5.2	< 5.4	100
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>								
acenaphthene (ug/kg)	< 110	< 120	< 120	< 120	< 110	< 110	< 110	38,000
acenaphthylene (ug/kg)	< 230	< 230	< 240	< 240	< 220	< 220	< 220	700
anthracene (ug/kg)	< 0.57	9.3	< 0.61	< 0.60	2.6	< 0.55	< 0.55	3,000,000
benzo (a) anthracene (ug/kg)	< 0.57	46	< 0.61	< 0.60	5.7	< 0.56	3.7	3,900
benzo (a) pyrene (ug/kg)	< 1.1	42	< 1.2	< 1.2	6	< 1.1	5.1	390
benzo (b) fluoranthene (ug/kg)	< 1.1	38	< 1.2	< 1.2	4.7	6.5	5.5	3,900
benzo (g,h,i) perylene (ug/kg)	< 2.3	28	< 2.4	< 2.4	2.9	< 2.2	3.5	39,000
benzo (k) fluoranthene (ug/kg)	< 0.57	22	< 0.61	< 0.60	3.1	< 0.55	1.6	39,000
chrysene (ug/kg)	2.3	46	< 2.4	< 2.4	5.1	< 2.2	5.2	37,000
dibenzo (a,h) anthracene (ug/kg)	< 1.1	8.3	< 1.2	< 1.2	< 1.1	< 1.1	1.5	390
fluoranthene (ug/kg)	< 57	99	< 61	< 60	< 55	< 55	< 55	500,000
fluorene (ug/kg)	< 5.7	< 5.8	< 6.1	< 6.0	< 5.5	< 5.5	< 5.5	100,000
indeno (1,2,3-cd) pyrene (ug/kg)	< 23	34	< 24	< 24	< 22	< 22	< 22	3,900
1-Methylnaphthalene (ug/kg)	< 57	< 58	< 61	< 60	< 55	< 55	< 55	23,000
2-Methylnaphthalene (ug/kg)	< 57	89	< 61	< 60	< 55	< 55	< 55	20,000
naphthalene (ug/kg)	< 5.7	< 5.8	< 6.1	< 6.0	< 5.5	< 5.5	< 5.5	400
phenanthrene (ug/kg)	< 5.7	58	9.4	< 6.0	11	< 5.5	6.7	1,800
pyrene (ug/kg)	< 23	72	< 24	< 24	11	< 22	< 22	8,700,000
<b>Gasoline Range Organics (GRO)</b>								
GRO (mg/kg)	< 5.7	< 5.8	< 6.1	< 6.0	< 5.2	< 5.2	< 5.4	100

Note:\* The complete NR 720 RCLs for Chromium are: Hexavalent Chromium 14 ppm non-industrial sites/ 200 ppm industrial. Trivalent Chromium 16,000 ppm non-industrial sites (no industrial RCL for Trivalent Chromium)

Table 5.3  
Soil Quality Test Results, Menomonee River Drop Structure, , W.R. Grace Property, Milwaukee  
Page 4 of 6

Test Description	GP-8, S-5	GP-10, S-3	GP-11, S-4	GP-14, S-5	GP-15, S-5	GP-16, S-5	GP-17, S-4	NR 720 RCL
<b>Volatile Organic Compounds (VOCs)</b>								
Benzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	< 5.5
Bromobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Bromodichloromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
n-Butylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
sec-Butylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
tert-Butylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Carbon tetrachloride (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Chlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Chloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Chloroform (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Chloromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
2-Chlorotoluene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
4-Chlorotoluene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Dibromochloromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dibromo-3-chloropropane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dibromoethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,3-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,4-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Dichlorodifluoromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1-Dichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	4.9
1,1-Dichloropropene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,1-Trichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,2,2-Tetrachloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,2-Trichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1-Dichloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
cis-1,2-Dichloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
trans-1,2-Dichloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2-Dichloropropane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,3-Dichloropropane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
2,2-Dichloropropane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Diisopropyl ether (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Ethylbenzene (ug/kg)	< 25	< 25	< 25	< 25	65	< 25	< 25	2,900
Hexachlorobutadiene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Isopropylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
p-Isopropyltoluene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Methylene chloride (ug/kg)	< 25	360*	420*	360*	< 25	< 25	< 25	---
Methyl-tert-butyl-ether (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Naphthalene (ug/kg)	< 25	< 25	< 25	< 25	170	< 25	< 25	---
n-Propylbenzene (ug/kg)	< 25	< 25	< 25	< 25	33	< 25	< 25	---
1,1,2,2-Tetrachloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	5.5
Tetrachloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Toluene (ug/kg)	< 25	< 25	< 25	< 25	150	< 25	< 25	1,500
1,2,3-Trichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2,4-Trichlorobenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,1-Trichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,1,2-Trichloroethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Trichloroethene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Trichlorofluoromethane (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
1,2,4-Trimethylbenzene (ug/kg)	< 25	< 25	< 25	< 25	85	< 25	< 25	---
1,3,5-Trimethylbenzene (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Vinyl chloride (ug/kg)	< 25	< 25	< 25	< 25	< 25	< 25	< 25	---
Total Xylenes (ug/kg)	< 25	< 25	< 25	< 25	260	< 25	< 25	4,100

**Table 5.3**  
Soil Quality Test Results, Menomonee River Drop Structure, , W.R. Grace Property, Milwaukee  
Page 5 of 6

Test Description	GP-18, S-5	MW-2M, S-5	MW-3M, S-5	NR 720 RCL
Sampling Date	3/10/99	3/5/99	3/11/99	---
Sample Depth (feet)	12-15	12-15	12-15	---
<b>Physical Soil Parameters</b>				
Percent Solids (%)	88	93	89	---
<b>RCRA Metals</b>				
Arsenic(mg/kg)	< 2.8	< 2.7	< 2.8	0.039
Barium(mg/kg)	73	< 27	< 28	---
Cadmium(mg/kg)	< 0.57	< 0.54	< 0.56	8
Chromium(mg/kg)	21	5.4	4.4	14*
Lead(mg/kg)	7.7	9.5	3.5	50
Mercury(mg/kg)	< 0.046	< 0.043	< 0.045	---
Selenium(mg/kg)	0.61	< 0.54	< 0.56	---
Silver(mg/kg)	< 2.8	< 2.7	< 2.8	---
<b>Diesel Range Organics (DRO)</b>				
DRO (mg/kg)	< 5.7	< 5.4	< 5.6	100
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>				
acenaphthene (ug/kg)	< 110	< 110	< 110	38,000
acenaphthylene (ug/kg)	< 230	< 220	< 220	700
anthracene (ug/kg)	< 0.57	16	< 0.56	3,000,000
benzo (a) anthracene (ug/kg)	< 0.57	32	< 0.56	3,900
benzo (a) pyrene (ug/kg)	< 1.1	28	< 1.1	390
benzo (b) fluoranthene (ug/kg)	< 1.1	23	< 1.1	3,900
benzo (g,h,i) perylene (ug/kg)	< 2.3	65	< 2.2	39,000
benzo (k) fluoranthene (ug/kg)	< 0.57	8.4	< 0.56	39,000
chrysene (ug/kg)	< 2.3	53	< 2.2	37,000
dibenzo (a,h) anthracene (ug/kg)	< 1.1	18	< 1.1	390
fluoranthene (ug/kg)	< 57	72	< 56	500,000
fluorene (ug/kg)	< 5.7	5.9	7.2	100,000
indeno (1,2,3-cd) pyrene (ug/kg)	< 23	< 22	< 22	3,900
1-Methylnaphthalene (ug/kg)	< 57	< 54	56	23,000
2-Methylnaphthalene (ug/kg)	< 57	61	< 56	20,000
naphthalene (ug/kg)	< 5.7	6.9	< 5.6	400
phenanthrene (ug/kg)	6.6	63	46	1,800
pyrene (ug/kg)	< 23	48	< 22	8,700,000
<b>Gasoline Range Organics (GRO)</b>				
GRO (mg/kg)	< 5.7	< 5.4	< 5.6	100

Note:\* The complete NR 720 RCLs for Chromium are: Hexavalent Chromium 14 ppm non-industrial sites/ 200 ppm industrial, Trivalent Chromium 16,000 ppm non-industrial sites (no industrial RCL for Trivalent Chromium)

SECTION I, ITEM 6

Table 5.3

Soil Quality Test Results, Menomonee River Drop Structure, , W.R. Grace Property, Milwaukee

Page 6 of 6

Test Description	GP-18, S-5	MW-2M, S-5	MW-3M, S-5	NR 720 RCL
<b>Volatile Organic Compounds (VOCs)</b>				
Benzene (ug/kg)	< 25	< 25	< 25	< 5.5
Bromobenzene (ug/kg)	< 25	< 25	< 25	---
Bromodichloromethane (ug/kg)	< 25	< 25	< 25	---
n-Butylbenzene (ug/kg)	< 25	< 25	< 25	---
sec-Butylbenzene (ug/kg)	< 25	< 25	< 25	---
tert-Butylbenzene (ug/kg)	< 25	< 25	< 25	---
Carbon tetrachloride (ug/kg)	< 25	< 25	< 25	---
Chlorobenzene (ug/kg)	< 25	< 25	< 25	---
Chloroethane (ug/kg)	< 25	< 25	< 25	---
Chloroform (ug/kg)	< 25	< 25	< 25	---
Chloromethane (ug/kg)	< 25	< 25	< 25	---
2-Chlorotoluene (ug/kg)	< 25	< 25	< 25	---
4-Chlorotoluene (ug/kg)	< 25	< 25	< 25	---
Dibromochloromethane (ug/kg)	< 25	< 25	< 25	---
1,2-Dibromo-3-chloropropane (ug/kg)	< 25	< 25	< 25	---
1,2-Dibromoethane (ug/kg)	< 25	< 25	< 25	---
1,2-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	---
1,3-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	---
1,4-Dichlorobenzene (ug/kg)	< 25	< 25	< 25	---
Dichlorodifluoromethane (ug/kg)	< 25	< 25	< 25	---
1,1-Dichloroethane (ug/kg)	< 25	< 25	< 25	---
1,2-Dichloroethane (ug/kg)	< 25	< 25	< 25	4.9
1,1-Dichloropropene (ug/kg)	< 25	< 25	< 25	---
1,1,1-Trichloroethane (ug/kg)	< 25	< 25	< 25	---
1,1,2,2-Tetrachloroethane (ug/kg)	< 25	< 25	< 25	---
1,1,2-Trichloroethane (ug/kg)	< 25	< 25	< 25	---
1,1-Dichloroethene (ug/kg)	< 25	< 25	< 25	---
cis-1,2-Dichloroethene (ug/kg)	< 25	< 25	< 25	---
trans-1,2-Dichloroethene (ug/kg)	< 25	< 25	< 25	---
1,2-Dichloropropane (ug/kg)	< 25	< 25	< 25	---
1,3-Dichloropropane (ug/kg)	< 25	< 25	< 25	---
2,2-Dichloropropane (ug/kg)	< 25	< 25	< 25	---
Diisopropyl ether (ug/kg)	< 25	< 25	< 25	---
Ethylbenzene (ug/kg)	< 25	< 25	< 25	2,900
Hexachlorobutadiene (ug/kg)	< 25	< 25	< 25	---
Isopropylbenzene (ug/kg)	< 25	< 25	< 25	---
p-Isopropyltoluene (ug/kg)	< 25	< 25	< 25	---
Methylene chloride (ug/kg)	400*	< 25	< 25	---
Methyl-tert-butyl-ether (ug/kg)	< 25	< 25	< 25	---
Naphthalene (ug/kg)	< 25	< 25	87	---
n-Propylbenzene (ug/kg)	< 25	< 25	< 25	---
1,1,2,2-Tetrachloroethane (ug/kg)	< 25	< 25	< 25	5.5
Tetrachloroethene (ug/kg)	< 25	< 25	< 25	---
Toluene (ug/kg)	< 25	< 25	< 25	1,500
1,2,3-Trichlorobenzene (ug/kg)	< 25	< 25	< 25	---
1,2,4-Trichlorobenzene (ug/kg)	< 25	< 25	< 25	---
1,1,1-Trichloroethane (ug/kg)	< 25	< 25	< 25	---
1,1,2-Trichloroethane (ug/kg)	< 25	< 25	< 25	---
Trichloroethene (ug/kg)	< 25	< 25	< 25	---
Trichlorofluoromethane (ug/kg)	< 25	< 25	< 25	---
1,2,4-Trimethylbenzene (ug/kg)	< 25	< 25	< 25	---
1,3,5-Trimethylbenzene (ug/kg)	< 25	< 25	< 25	---
Vinyl chloride (ug/kg)	< 25	< 25	< 25	---
Total Xylenes (ug/kg)	< 25	< 25	< 25	4,100

# NUCLEAR FIELD DENSITY TEST DATA SHEET

PROJECT: MENARD RIVER DROP STRUCTURE  
 PROJ NO.: 01021 TASK NO.: 107  
 METER NO. 4 STD COUNTS \_\_\_\_\_

DATE 3-7-00  
 WEATHER Sunny 70°  
 TECHNICIAN NL

TEST NO.	1	2	3	4	
ELEVATION (ft)	FINISH	→	→	→	
DEPTH FROM FINISH GRADE (ft)					
APPROX. LIFT THICKNESS (in)	12"	→	→	→	
HAND PROBE PENETRATION (in)	N/A	N/A	N/A	N/A	
GAUGE PROBE DEPTH (in)	8"	→	→	→	
WET DENSITY (pcf)	141.6	144.4	140.2	146.2	
DRY DENSITY (pcf)	135.1	136.6	134.4	140.4	
WATER CONTENT, %	4.8	5.7	4.3	4.1	
COMPACTION, %	92.5	93.5	92.0	96.1	
MAXIMUM DENSITY, pcf <input type="checkbox"/> MOD. <input type="checkbox"/> STD.	146.1				
TEST AREA					
TEST LOCATION	45' N + 70' E OF SW CORNER OF PROPERTY	105' N + 65' W CORNER OF PROPERTY	115' S + 40' E OF NW CORNER OF PROPERTY	60' S + 80' W OF NE CORNER OF PROPERTY	
SOIL DESCRIPTION					

**Table 2**  
 Summary of Groundwater Elevation Data

Monitoring Well Designation	PVC Elev.	Depth to Water 3/12/99	Groundwater Elevation 3/12/99	Depth to Water 3/25/99	Groundwater Elevation 3/25/99	Depth to Water 6/12/00	Groundwater Elevation 6/12/00	Depth to Water 10/4/00	Groundwater Elevation 10/4/00	Depth to Water 1/26/01	Groundwater Elevation 1/26/01
MW-1M	616.03	17.22	598.81	17.12	598.91	17.40	598.63	17.55	598.48	18.42	597.61
MW-2M	616.89	17.96	598.93	17.85	599.04	18.22	598.67	18.28	598.61	18.29	598.60
MW-3M	613.05	15.59	597.46	15.45	597.60	15.04	598.01	15.25	597.80	15.28	597.77
MW-4M	613.69					14.62	599.07	14.63	599.06	14.60	599.09
GP-11	613.65	18.52	595.13	13.68	599.97	NT	NT	NT	NT	NT	NT
GP-15	611.77	14.20	597.57	14.05	597.72	NT	NT	NT	NT	NT	NT
GP-17	611.04	14.12	596.92	13.13	597.91	NT	NT	NT	NT	NT	NT
MW-2	609.94	11.80	598.14	NT	NT	NT	NT	11.64	598.30	NT	NT
MW-3	609.91	12.17	597.74	NT	NT	11.18	598.73	11.64	598.27	NT	NT
Cape MW-3	614.66	NT	NT	NT	NT	16.50	598.16	16.60	598.06	NT	NT
Cape MW-4	613.20	NT	NT	NT	NT	14.63	598.57	15.39	597.81	15.39	597.81

Note: NT= Depth-to-water not taken.

SECTION I  
 ITEM 8