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November 2, 2022

Mr. John T. Hunt  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
101 Ogden Road  
Peshtigo, WI 54157

**Subject:** BP Gas Station (Former Clark Gas Station # 562)  
4751 N. Santa Monica Blvd., Milwaukee, WI

DATCP-FID # 416189      DNR-FID # 241 574 850

BRRTS #: 03-41-000450      Start: 09-28-1989      End: 05-26-2010

BRRTS #: 03-41-589630      Start: 04-20-2022      End: Active/Open

**Addendum to the Site Investigation Work Plan (SIWP)**

**Dear Mr. Hunt:**

The site investigation work plan (SIWP) was submitted to the WDNR on September 9, 2022. On October 14, 2022, the WDNR required to address the following items.

1. Submit a figure showing the location of former area of the residual soil and groundwater contamination of the closed BRRTS # 03-41-000450 in relation to the proposed soil borings/monitoring wells for the open BRRTS # 03-41-589630 and location of the GEC-TSSA soil samples exceeding the NR 720 residual contaminant levels (RCLs).
2. Provide a narrative on how the locations of the four soil borings/wells will aid to determine the degree and extent of the contamination from the recent release, evaluate the new discharge in relation to the residual contamination from the closed BRRTS # 03-41-000450, and explain the applicability of the location of the proposed soil boring at 30 feet away from S-1 and S-11 on the scaled figure.

3. Provide the soil disposal document as noted in the TSSA report, and
4. Installation of the proposed well MW-4 at the location of the former monitoring well MW-1

### **Removal of Two 6,000 Gallons USTs on April 1, 1990**

Based on the site investigation scoping report submitted to the DNR, it appears that a gas station was active on the site during 1960s. Two 6,000 gallons capacity USTs were installed east-west at the northwest corner of the canopy. The installation date of the tanks is unknown.

Two pump islands were located to the west of Santa Monica Blvd. The third pump island was located to the east of the building. The tank registration forms are included in **Appendix A**.

<u><b>Id.</b></u>	<u><b>Installed</b></u>	<u><b>Gallons</b></u>	<u><b>Content</b></u>	<u><b>Make</b></u>	<u><b>Date Removed</b></u>
57460	Unknown	6000	UL Gasoline	Coated Steel	04/01/1990
57461	Unknown	6000	UL Gasoline	Coated Steel	04/01/1990

### **Removal of Approximately 1,176 Tons of Contaminated Soils in 1990**

Omega Environmental Services, Inc. conducted the removal of approximately 1,176 tons (1,176.39 tons) of the contaminated soils between March 13-19, 1990. The soils were disposed of at Parkview Landfill, Menomonee Falls, Wisconsin (**Source:** WDNR Database for BRRTS # 03-41-000450).

### **Installation of Two 12-K Gals. USTs and Four Sumps on April 1, 1990**

Two 12K USTs were installed north-south on April 1, 1990 in the former tank bed after the removal of the two 6K USTs and disposal of approximately 1,176 tons of the petroleum contaminated soils.

The four tank sump wells (S-1, S-2, S-3, and S-4) were installed at the NW, NE, SE, and SW corners of the tank bed, respectively (**Table 1** and **Figure 1: Figure 6 of Sigma**). The tank registration forms are included in **Appendix A**.

<u><b>Id.</b></u>	<u><b>Installed</b></u>	<u><b>Gallons</b></u>	<u><b>Content</b></u>	<u><b>Make</b></u>	<u><b>Date Removed</b></u>
112903	04/01/1990	12000	UL Gasoline	Coated Steel	03/21/2022
113159	04/01/1990	12000	UL Gasoline	Coated Steel	03/21/2022

## Removal of Two 12K Gals. USTs of April 1, 1990 in March 2022

General Engineering Corporation (GEC) of Portage, Wisconsin, supervised the removal of the two 12K USTs of April 1, 1990. The two USTs and three pump islands were removed on March 21, 2022. The site sampling map and five photos have been included in **Appendix B**. The excavation was approximately 55 feet long (north-south), 35 feet wide (east-west), and 14 feet deep.

OM Enterprises, Inc. has summarized the GEC's TSSA soil sampling data in **Table 1**. The highest concentration of benzene (0.056 ppm) in the tank bed was detected in sample S-1 (north-northeast wall) at approximately 9.5 feet below the grade.

The highest concentration of benzene (0.299 ppm) in the piping/dispenser areas was detected in sample S-11 (northeast pump island) at approximately 3 feet below the grade.

## Soil Disposal (727 Tons) and Confirmatory Soil Sampling

Approximately 727 tons (23.31 tons on 3/21/22 + 377.39 tons on 3/22/22 + 326.32 tons on 3/23/22) of the contaminated soils were hauled to the waste management landfill, Menomonee Falls, Wisconsin in March 2022. The invoice and disposal proof are included in **Appendix C**.

It appears that the excavation was approximately 60 feet long (north-south), 55 feet wide (east-west), and 14 feet deep. It appears that GEC did not collect the confirmatory wall and bottom soil samples following the removal of approximately 727 tons of the contaminated soils. Therefore, we do not have the data about the residual soil contaminants in the excavated areas of 2022.

## Installation of Existing UST System in 2022

One manifold tank-21K (15-K + 6K) was installed in the former tank bed on March 24, 2022. The third pump (west) of 1990 was replaced by two pumps (NW and SW). A tank sump well was installed at the southwest corner of the tank bed.

The existing tanks have been summarized below and tank registration form are included in **Attachment A**.

<u>Id.</u>	<u>Installed</u>	<u>Gallons</u>	<u>Content</u>	<u>Make</u>	<u>Date Removed</u>
238503	03/24/2022	15000	UL Gasoline	Fiberglass	N/A (Active)
238505	03/24/2022	6000	UL Gasoline	Fiberglass	N/A (Active)

### **Notification of Petroleum Contamination (BRRTS # 03-41-000450)**

Foth and Van Dyke of Milwaukee notified the petroleum contamination to the WDNR in September 1889 (**Appendix D**).

### **Soil Borings and Monitoring Wells (BRRTS # 03-41-000450)**

Ten soil borings (B-1 through B-10) were advanced in June 1992. Six out of the ten soil boring were converted into six 2 inches diameter groundwater monitoring wells MW-1 through MW-6 (**Table 2**).

Two soil borings (B-11 and B-12) were advanced in April 1993. The soil boring B-11 was converted into a 2 inches diameter groundwater monitoring well MW-7 (**Table 2**).

Two soil borings (B-13 and B-14) were advanced between June and October of 1995. The soil borings were converted into 2 inches diameter groundwater monitoring wells MW-8 and MW-9, respectively (**Table 2**). The well construction reports have been included in **Appendix E**.

The soil quality data has been summarized in **Table 3**: Table 2 of Sigma. The soil quality data will be included in the SIR of the BRRTS # 03-41-589630. The detected concentrations of benzene are as follows.

<b><u>Boring</u></b>	<b><u>Depth</u></b> (~ ft.)	<b><u>Conc.</u></b> (ppb)	<b><u>Location</u></b>
B-2/MW-2	7-9	74	NE Corner of Bldg. ( <b>Figure: 2</b> )
B-7/MW-5	11-12.5	2100	4771 N Santa Monica Blvd. ( <b>Figure: 2</b> )
B-10/B-10	7-9	13,000	N of Q-1 (6" dia. 25 ft. RW, <b>Figure: 2</b> )

Sigma submitted "Report of A Subsurface Investigation" to the WDNR on March 25, 1994 (**Source**: Page 1251 to....., the WDNR site file).

OM Enterprises, Inc. believes that the above soil borings were not in the areas of the BRRTS # 03-41-589630.

**Soil and Groundwater Remediations (BRRTS # 03-41-000450)**

OM Enterprises, Inc. reviewed the following documents posted on the web site of the closed BRRTS # 03-41-000450.

1. A Remedial Alternative Analysis, Sigma, July 1994: Page 1241 to.....
2. Project Manual for Installation of A Soil Vapor Extraction / Groundwater Extraction and Treatment System, Sigma, September 1995: Page 1008 to.....
3. Remedial System Installation and Start-up Report, Sigma, May 1997: Page 819 to....
4. Status Report for the Soil and Groundwater Remediation System, Sigma, February 1998: Pag 617 to.....
5. Status Report for the Soil and Groundwater Remediation System, Sigma, October 1999: Page 494 to.....
6. Status Report for the Soil and Groundwater Remediation System, Sigma, May 2000: Page 368 to

Based on the review of the site file, it appears that soil excavation was not selected as a remedial alternative for the remediation of the petroleum impacted soils. The WDNR approved the soil vapor extraction (SVE) and groundwater remedial system for the site remediation. The treated water was discharged into the MMSD sewer system and contaminated granular carbon was hauled to the Waste Management landfill in Menomonee Falls, Wisconsin.

Two vapor extraction wells (VE-1 and VE-2), each 9 ft. deep and 6” in diameter were installed on October 9, 1995 (**Figure 2, Table 2, and Appendix E**).

Four recovery wells (Q-1 through Q-4), each ~ 22-25 ft. deep and 6” in diameter were also installed on October 9, 1995 (**Figure 2, Table 2, and Appendix E**).

**Closure Packet for BRRTS # 03-41-000450**

Sigma submitted the closure request in September 2002 (**Appendix F**). The groundwater quality data will be included in the SIR of the BRRTS # 03-41-589630.

The concentration of benzene at the time of the submittal of the closure request is as follows. The locations are shown on **Figure 3: Figure 1 of Sigma**.

<b>Id.</b>	<b>Date</b>	<b>Conc.</b>	<b>Location</b>	<b>Comment</b>
S-1	10/30/2001	48	Tank Bed	<i>Appears located in new release area</i>
S-2	07/23/2001	650	Tank Bed	<i>Appears located in new release area</i>
S-3	7/23/2001	1100	Tank Bed	<i>Appears located in new release area</i>
S-4	10/23/2001	30	Tank Bed	<i>Appears located in new release area</i>
MW-1	10/22/2001	< 22	N of Tank Bed	<i>Appears located in new release area</i>
MW-2	10/22/2001	290	NE Corner of Bldg.	Not located in new release area
MW-3	7/23/2001	< 0.45	NE of Canopy	Not located in new release area
MW-4	10/22/2001	< 0.45	SW Corner of Canopy	Not located in new release area
MW-5	10/22/2001	870	4771 N Santa Monica	Not located in new release area
MW-6	10/22/2001	560	NW Corner of Lot	Not located in new release area
MW-7	10/22/2001	< 0.45	NW Corner of Lot	Not located in new release area
MW-8	10/22/2001	< 11	NW Corner of Lot	Not located in new release area
MW-9	10/22/2001	< 0.45	NW Corner of Lot	Not located in new release area
Q-1	7/23/2001	< 4.5	NW of Bldg. & N of Shed	Not located in new release area
Q-2	7/23/2001	590	N of Q-1	Not located in new release area
Q-3	7/23/2001	20	NW of Tank Bed	Not located in new release area
Q-4	7/23/2001	120	NE of MW-1	<i>Appears located in new release area</i>

The four former abandoned sump wells (S-1 through S-4), MW-1, and Q-1 appear to be in the new release area (BRRTS # 03-41-589630). The approximate locations and concentrations at the time of closure have been shown on **Figure 4**.

### **Proposed Boring/Wells and Issues of Abandoned Well MW-1**

OM Enterprises, Inc. proposed to advance four soil borings/monitoring wells as shown on **Figure 5** and summarized below.

<b>Boring Id.</b>	<b>Borings Depth (~ft.)</b>	<b>Wells Depth (~ft.)</b>	<b>Screen (ft.)</b>	<b>Approximate Location</b>	<b>Rationale/Comments</b>
B-1	17.5	MW-1 (17.5)	10	East of Canopy	Delineate Plume
B-2	17.5	MW-2 (17.5)	10	South Lot Line	Delineate Plume
B-3	17.5	MW-3 (17.5)	10	West of Canopy	Delineate Plume
B-4	17.5	MW-4 (17.5)	10	North of Canopy	Delineate Plume

The locations of the soil borings/monitoring wells are not to the scale and cannot be placed to the scale because of the following conditions known and unforeseen circumstances encountered during the exploration activities.

1. The driller cannot start the drilling without the clearance from the Digger's Hotline.
2. The driller must maintain the Digger's Hotline required underground and aboveground separation distances from the utility lines.
3. The driller retains a private locator because the Digger's Hotline does not locate the private utilities.
4. The driller changes the locations of the borings depending on the results of the private locators.
5. The on-site building and other structures (canopy, shed, pole, etc.) affect the locations of the proposed drill holes.
6. Sometimes the unforeseen encountered conditions during the drilling require to change the locations of the drill holes

The area of the site has been paved with the concrete after the construction of the new building and installation of the new UST system.

#### **MW-1:**

The monitoring well MW-1 has been proposed in the landscape area. The proposed well MW-1 is located very close to the NE pump island (S-11 sample location). The well will be moved to the north to cover the sample location of S-1. If the well is contaminated, we may consider drilling hole in the public right of way.

#### **MW-2:**

The monitoring well MW-2 has also been proposed in the landscape area. We believe that the well define the plume. If the plume is not defined, we may consider drilling in the right of way of the county park.

### **MW-3:**

The monitoring well MW-3 has been proposed in the asphalt area. There is no room to install a well between the building and canopy. There is a sump well (~ 15 feet deep) at the southwest corner of the tank bed. The depth to the groundwater in the sump well was ~ 10 feet below the grade in August 2022. If the sump well is contaminated, MW-3 would be helpful to define the plume.

### **MW-4 at Abandoned Well MW-1**

Sentinel Environmental Services LLC abandoned the well on June 2, 2009. The well abandonment forms have been included in **Appendix G**. The Wisconsin Administrative Code § NR 141.25 (2) (d) requires cutting the well casing at least 30 inches below the grade. OM Enterprises, Inc. opened the well. The PVC has not been cut. The PVC is filled with the bentonite.

The owner wanted to use the well for the new release. The monitoring well was exposed during the development of the site in 2022. The bentonite of the top of the sand was removed during the excavation to install the new tank. OM Enterprises, Inc. talked to the driller. The driller will pull the PVC pipe; remove the residual bentonite, if any; and install the monitoring well MW-4 at the same location. Benzene in the soil was not detected in B-1 during the investigation in 1992. The concentration of benzene in the groundwater of MW-1 was detected at < 22 ppb on October 22, 2001 (last sampling).

### **Need of Additional Well at NW Corner**

The NW corner of the site was impacted by the previous release/closed BRRTS of this former Clark Site as well as by the two closed BRRTS activities of the northside property (gas station and dry cleaning). The insurance company would not pay for the costs associated with the previous release. Therefore, OM Enterprises, Inc. would not advance borings in the areas away from the insurance covered release areas.

### **Summary and Conclusions**

1. Two 6,000 gallons capacity USTs and approximately 1,176 tons of the contaminated soils were removed between March 1990 and April 1990
2. Two 12K USTs were installed on April 1, 1990 in the former tank bed after the removal of the two 6K USTs and disposal of approximately 1,176 tons of the petroleum contaminated soils.



3. Two USTs and three pump islands were removed on March 21, 2022. The highest concentration of benzene (0.056 ppm) in the tank bed was detected in sample S-1 (north-northeast wall) at approximately 9.5 feet below the grade. The highest concentration of benzene (0.299 ppm) in the piping/dispenser areas was detected in sample S-11 (northeast pump island) at approximately 3 feet below the grade.
4. Approximately 727 tons of the contaminated soils were hauled in March 2022. GEC did not collect the confirmatory wall and bottom soil samples following the removal of approximately 727 tons of the contaminated soils. Therefore, we do not have the data about the residual soil contaminants.
5. One manifold tank-21K (15-K + 6K) was installed in the former tank bed on March 24, 2022. The third pump (west) of 1990 was replaced by two pumps (NW and SW). A tank sump well was installed at the southwest corner of the tank bed.
6. Fourteen soil borings were advanced for the closed BRRTS # 03-41-000450 between in June 1992 and October 1995. Nine soil boring were converted into the groundwater monitoring wells.
7. Benzene was detected at 74 ppb in B-2/MW-2 at 7'-9'; 2100 ppb in B-7/MW-5 at 11'-12.5'; and 13000 ppb in B-10 at 7-9' below the grades.
8. The WDNR approved the soil vapor extraction (SVE) and groundwater remedial system for the site remediation. Two vapor extraction wells (VE- and VE-2) and four recovery wells (Q-1 through Q-4) were installed. The following concentrations of benzene were present in the tank bed at the time of the closure of the closed BRRTS # 03-41-000450.

<b>Sump Well</b>	<b>Date Sampled</b>	<b>Conc. (ppb)</b>
S-1	10/30/2001	48
S-2	07/23/2001	650
S-3	7/23/2001	1100
S-4	10/23/2001	30

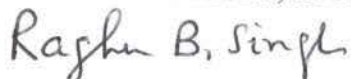
9. The locations of the soil borings/monitoring wells are not to the scale and cannot be placed to the scale because of the known and unforeseen circumstances encountered during the exploration activities.

10. The area of the site has been paved with the concrete after the construction of the new building and installation of the new UST system.
11. The monitoring well MW-1 has been proposed in the landscape area. The well will be moved to the north to cover the sample location of S-1. If the well is contaminated, we may consider drilling hole in the public right of way.
12. The monitoring well MW-2 has also been proposed in the landscape area. We believe that the well define the plume.
13. The monitoring well MW-3 has been proposed in the asphalt area. If the tank sump well is contaminated, MW-3 would be helpful to define the plume.
14. The Wisconsin Administrative Code § NR 141.25 (2) (d) requires cutting the well casing at least thirty inches below the grade. The PVC has not been cut. The PVC is filled with the bentonite. There is no bentonite surrounding the well casing. The driller will pull the PVC pipe; remove the residual bentonite, if any; and install the monitoring well MW-4 at the same location.
15. The insurance company would not pay for the costs associated with the previous release. Therefore, OM Enterprises, Inc. would not advance borings in the areas away from the insurance covered release areas.

Thank you for your cooperation.

**Sincerely,**

OM ENTERPRISES, INC.



Raghu B. Singh, Ph. D.

Environmental Professional

40 CFR § 312.10 (b)

**Encls:**

- Table 1: Summary of Petroleum Volatile Organic Compounds (PVOCs and Naphthalene of Tank System Site Assessment (TSSA) Soil Samples Collected by General Engineering Corporation on March 21, 2022 and March 23, 2022.

- Table 2: Summary of Soil Borings, Monitoring Wells, Tank Sump Wells, Vapor Extraction Wells, and Recovery Wells for BRRTS # 03-41-000450 (Closed: 05-26-2010)
- Table 3: Table 2 of Sigma: Soil Sample Analytical Results
- Figure 1: Figure 6 of Sigma: Groundwater and Soil Remediation System Groundwater Contour Map (October 2001)
- Figure 2: Figure 1 of Sigma: Soil Quality Map
- Figure 3: Figure 1 of Sigma: Soil Quality Map
- Figure 4: Benzene Concentration (ppb) at Closure of BRRTS # 03-41-000450
- Figure 5: Location of Proposed Soil Borings and Monitoring Wells
- Appendix A: WDATCP-Tank Registration Forms
- Appendix B: General Engineering Corporation (GEC) Map and Photos of UST Removal, 2022 (BRRTS # 03-41-589630)
- Appendix C: Proof for Disposal of Approximately 727 Tons Contaminated Soils in 2022 (BRRTS # 03-41-589630)
- Appendix D: Foth & Van Dyke Notification of Contamination to the WDNR, September 1989 (Closed BRRTS # 03-41-000450)
- Appendix E: Monitoring Wells, Vapor Extraction Wells, and Recovery Wells Construction Reports (Closed BRRTS # 03-41-000450)
- Appendix F: Closure Request of Sigma of September 12, 2002 for Closed BRRTS # 03-41-000450
- Appendix G: Well Abandonment Forms of Sentinel Environmental of February 16, 2010 for Closed BRRTS # 03-41-000450
- CC:** Mr. Amin Bhimani/Responsible Party / [AYSS786@gmail.com](mailto:AYSS786@gmail.com)

**Table 1**  
**Summary of Petroleum Volatile Organic Compounds (PVOCs) and Naphthalene of Tank System Site Assessment (TSSA)**  
**Soil Samples Collected by General Engineering Corporation on March 21, 2022 and March 23, 2022**  
**BP Gas Station (Former Clark Gas Station)**  
**4751 N Santa Monica Blvd., Milwaukee, WI 53211**

DATCP-Tank-FID # 416189

LUST-FID # 241574850

LUST-BRRTS # 03-41-589630

Page 1 of 2

Contaminants of Concern	Not-To-Exceed D-C RCL (mg/kg) Non-Industrial	Not-To-Exceed D-C RCL (mg/kg) Industrial	RCL-GW (mg/kg) DF=2 Soil to GW	Sample	S-1	S-2	S-3	S-4	S-5	S-6	S-7	S-8
	*RR-106, October 2018			Location	N/NE Wall	N/NW Wall	E/NE Wall	E/SE Wall	W/SW Wall	W/NW Wall	W/SW Wall	SW Dispenser
				Depth (ft.)	8	8	8	8	8	8	8	3
				Soil	FILL	FILL	FILL	FILL	FILL	FILL	FILL	FILL
				PID (ppm)	9.5	332	7	2	2	579	2	2
Benzene	1.6	7.07	<b>0.0051</b>	ppm	<b>0.056</b>	< 0.025	< 0.025	0.040 "J"	< 0.025	< 0.025	< 0.025	< 0.025
Ethylbenzene	8.02	35.4	1.57	ppm	0.034 "J"	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.033 "J"	< 0.025
MTBE	63.8	282	0.027	ppm	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Naphthalene	5.52	24.1	<b>0.6582</b>	ppm	0.112	< 0.025	< 0.025	< 0.025	< 0.025	0.053	0.07	0.052 "J"
Toluene	818	818	1.1072	ppm	0.055 "J"	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
1,2,4-TMB	219	219	<b>1.3787</b>	ppm	0.098	< 0.025	0.055 "J"	0.036 "J"	< 0.025	< 0.025	< 0.025	0.041 "J"
1,3,5-TMB	182	182		ppm	0.113	< 0.025	0.0257 "J"	< 0.025	< 0.025	< 0.025	< 0.025	0.040 "J"
m & p-Xylenes			3.96	ppm	0.168	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
o-Xylene	260	260		ppm	0.072	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	0.036 "J"	0.036 "J"
				Solids %	90.00	91.30	85.60	84.60	91.20	90.30	83.10	88.30

**Note:**  
\* denotes the Wis. Admin. Code § 720 RCL Quick Reference Table: Contaminated Soil, October 2018 (RR-106)  
"J" denotes the concentration between the method of detection (MOD) and method of quantification (MOQ).  
Concentration in bold color indicate the concentration exceeding RCLs-GW (Soil to GW)

**Table 1**  
**Summary of Petroleum Volatile Organic Compounds (PVOCs) and Naphthalene of Tank System Site Assessment (TSSA)**  
**Soil Samples Collected by General Engineering Corporation on March 21, 2022 and March 23, 2022**  
**BP Gas Station (Former Clark Gas Station)**  
**4751 N Santa Monica Blvd., Milwaukee, WI 53211**

DATCP-Tank-FID # 416189

LUST-FID # 241574850

LUST-BRRTS # 03-41-589630

Page 2 of 2

Contaminants of Concern	Not-To-Exceed D-C RCL (mg/kg) Non-Industrial	Not-To-Exceed D-C RCL (mg/kg) Industrial	RCL-GW (mg/kg) DF=2 Soil to GW	Sample	S-9 S	S-10 S	S-11				
				Location	Prod. Line T	SE Dispenser	NE Dispenser				
				Depth (ft.)	3	3	3				
				Soil	FILL	FILL	FILL				
				PID (ppm)	2	3	3				
Benzene	1.6	7.07	<b>0.0051</b>	ppm	< 0.025	< 0.025	<b>0.299</b>				
Ethylbenzene	8.02	35.4	1.57	ppm	< 0.025	< 0.025	0.282				
MTBE	63.8	282	0.027	ppm	< 0.025	< 0.025	< 0.025				
Naphthalene	5.52	24.1	<b>0.6582</b>	ppm	< 0.025	0.098	0.37				
Toluene	818	818	1.1072	ppm	0.034 "J"	0.128	<b>1.13</b>				
1,2,4-TMB	219	219	<b>1.3787</b>	ppm	0.033 "J"	0.072	0.86				
1,3,5-TMB	182	182		ppm	0.0281 "J"	0.079	0.293				
m & p-Xylenes			3.96	ppm	0.067 "J"	0.12	2.01				
o-Xylene	260	260		ppm	0.0316 "J"	0.082	0.32				
				Solids %	88.20	84.50	71.80				

**Note:**  
 \* denotes the Wis. Admin. Code § 720 RCL Quick Reference Table: Contaminated Soil, October 2018 (RR-106)  
 "J" denotes the concentration between the method of detection (MOD) and method of quantification (MOQ).  
 Concentration in bold color indicate the concentration exceeding RCLs-GW (Soil to GW)

**Table 2**

Summary of Soil Borings, Monitoring Wells, Tank Sump Wells, Vapor Extraction Wells, and Recovery Wells

BP Gas Station (Former Clark # 562)  
4751 N Santa Monica Blvd., Milwaukee, WI 53211

BRRTS # 03-41-000450 (Closed: 05-26-2010)

**(Page 1 of 1)**

Installed Date	Abandoned Date	Boring Id.	Well Id.	Well Depth (~ ft.)	Screen (ft.)	Inside Dia. (inch)	Location Location
6/25/1992	6/2/2009	B-1	MW-1	14.00	10.00	2.00	N of Tank Bed
6/25/1992	6/2/2009	B-2	MW-2	15.00	10.00	2.00	NE Corner of Building
6/25/1992	6/2/2009	B-3	MW-3	15.00	10.00	2.00	NE of Canopy
6/26/1992	6/2/2009	B-4	MW-4	15.00	10.00	2.00	SW Corner of Canopy
6/26/1992	6/26/1992	B-5	N/A	N/A	N/A	N/A	SE of Canopy
6/26/1992	6/26/1992	B-6	N/A	N/A	N/A	N/A	SW Corner: 4771 N. Santa Monica
9/29/1992	6/2/2009	B-7	MW-5	15.00	10.00	2.00	4771 N Santa Monica Bed.
9/29/1992	9/29/1992	B-8	N/A	N/A	N/A	N/A	W ROW of Santa Monica
9/30/1992	6/2/2009	B-9	MW-6	14.50	10.00	2.00	NW Corner of Lot
9/30/1992	9/30/1992	B-10	N/A	N/A	N/A	N/A	N of Q-1
4/13/1993	6/2/2009	B-11	MW-7	14.50	10.00	2.00	NW Corner of Lot
4/13/1993	4/13/1993	B-12	N/A	N/A	N/A	N/A	NW of MW-6
6/29/1995	6/2/2009	B-13	MW-8	15.00	10.00	2.00	NW Corner of Lot
10/9/1995	6/2/2009	B-14	MW-9	15.00	10.00	2.00	NW Corner of Lot
10/9/1995	6/2/2009	VE-1	VE-1	9.00	3.00	6.00	NW Corner of Canopy
10/9/1995	6/2/2009	VE-2	VE-2	9.00	3.00	6.00	N of Canopy
10/9/1995	6/2/2009	Q-1	Q-1	25.00	18.00	6.00	NW of Bldg. & N of Shed
10/9/1995	6/2/2009	Q-2	Q-2	24.00	18.00	6.00	N of Q-1
10/9/1995	Not Located*	Q-3	Q-3	22.00	15.00	6.00	NW of Tanks Removed in 2021
10/9/1995	6/2/2009	Q-4	Q-4	25.00	18.00	6.00	NE of MW-1
4/1/1990	3/21/2021	S-1	Tank Sump Well of USTs Removed in 2021				NW Corner of Former Tank Bed
4/1/1990	3/21/2021	S-2	Tank Sump Well of USTs Removed in 2021				NE Corner of Former Tank Bed
4/1/1990	3/21/2021	S-3	Tank Sump Well of USTs Removed in 2021				SE Corner of Former Tank Bed
4/1/1990	3/21/2021	S-4	Tank Sump Well of USTs Removed in 2021				SW Corner of Former Tank Bed

**Note:**

\* Well abandonment form was not located.

Two 6-K tanks (E-W), removed on 04-01-1990, were located at the NW corner of the canopy.

Two 12-K tanks (N-S), removed on 03-21-2021, were located to the north of the canopy.

S-1, S-2, S-3, and S-4 denotes the tank sump wells installed at the four corners of the tanks bed removed in 2021

VE denotes the vapor extraction wells advanced for the soil remediation.

Q-1 through Q-4 denotes the 6" diameter recovery wells to pump water for on-site carbon treatment.

Table 3: Table 2 of Sigma: Soil Sample Analytical Results

Table 2  
Soil Sample Analytical Results  
Clark Retail Enterprises  
Station #0562  
Milwaukee, Wisconsin

Date Sampled Soil Boring I.D.	Photo-ionization Detector (i.u.i.)	Petroleum Volatile Organic Compounds ( $\mu\text{g}/\text{kg}$ )					(mg/kg)	
		Benzene	Ethyl- benzene	Toluene	Total Xylene	Methyl-tert butyl ether	GRO	Total Lead
NR 720 RCL	---	5.5	2,900	1,500	4,100	---	100	50
NR 746 Table 1	---	8,500	4,600	38,000	42,000	---	---	---
NR 746 Table 2	---	1,100	---	---	---	---	---	---
June-92								
B-1/7-9'	4,084.0	<6.0	310	270	4,200	<6.0	400	3.4
B-1/9-11'	109.0	NA	NA	NA	NA	NA	190	NA
B-2/7-9'	3,975.0	74	250	760	1,900	<2.4	64	3.8
B-2/9-11'	15.0	NA	NA	NA	NA	NA	98	NA
B-3/7-9'	1,965.0	<1.2	3.6	7.1	7.1	<1.2	39	<1.2
B-3/9-11'	112.0	NA	NA	NA	NA	NA	35	NA
B-4/7-9'	0.0	<1.1	<1.1	2.2	3.3	<1.1	<6.0	2.1
B-4/9-11'	0.0	NA	NA	NA	NA	NA	<6.0	NA
B-5/7-9'	0.0	<1.2	<1.2	<1.2	<1.2	<1.2	<5.8	18
B-5/9-11'	0.0	NA	NA	NA	NA	NA	<5.0	NA
September-92								
B-6/6-8'	36.1	<5.0	21	<5.0	33	<5.4	<5.3	<1.1
B-6/8-10'	163.0	NA	NA	NA	NA	NA	70	NA
B-7/11-12.5'	876.0	2,100	8,600	20,000	51,000	200	700	1.6
B-7/13.5-15'	184.0	NA	NA	NA	NA	NA	95	NA
B-8/7-9'	0.0	<2.0	<2.0	<3.0	<3.0	<2.0	<6.2	<1.2
B-8/9-11'	0.0	NA	NA	NA	NA	NA	<6.1	NA
B-9/7-9'	2,161.0	<1.0	13	2	70	<1.0	11	<1.1
B-9/14.5-16'	871.0	NA	NA	NA	NA	NA	54	NA
B-10/7-9'	>2,500	13,000	49,000	130,000	27,000	<5.9	2,400	2.3
B-10/9-11'	1,010.0	NA	NA	NA	NA	NA	38	NA
April-93								
B-11/6-8'	2.6	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	3.6
B-12/6-8'	3.7	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	<LOQ	4.5

Note:

- <LOQ = Less than the Laboratory Level of Quantification
- NA = Not Analyzed
- i.u.i. = Instrument Units as Isobutylene
- 74 = Exceeds NR 720 Generic RCL
- 13,000 = Exceeds NR 746 Table 1 Value

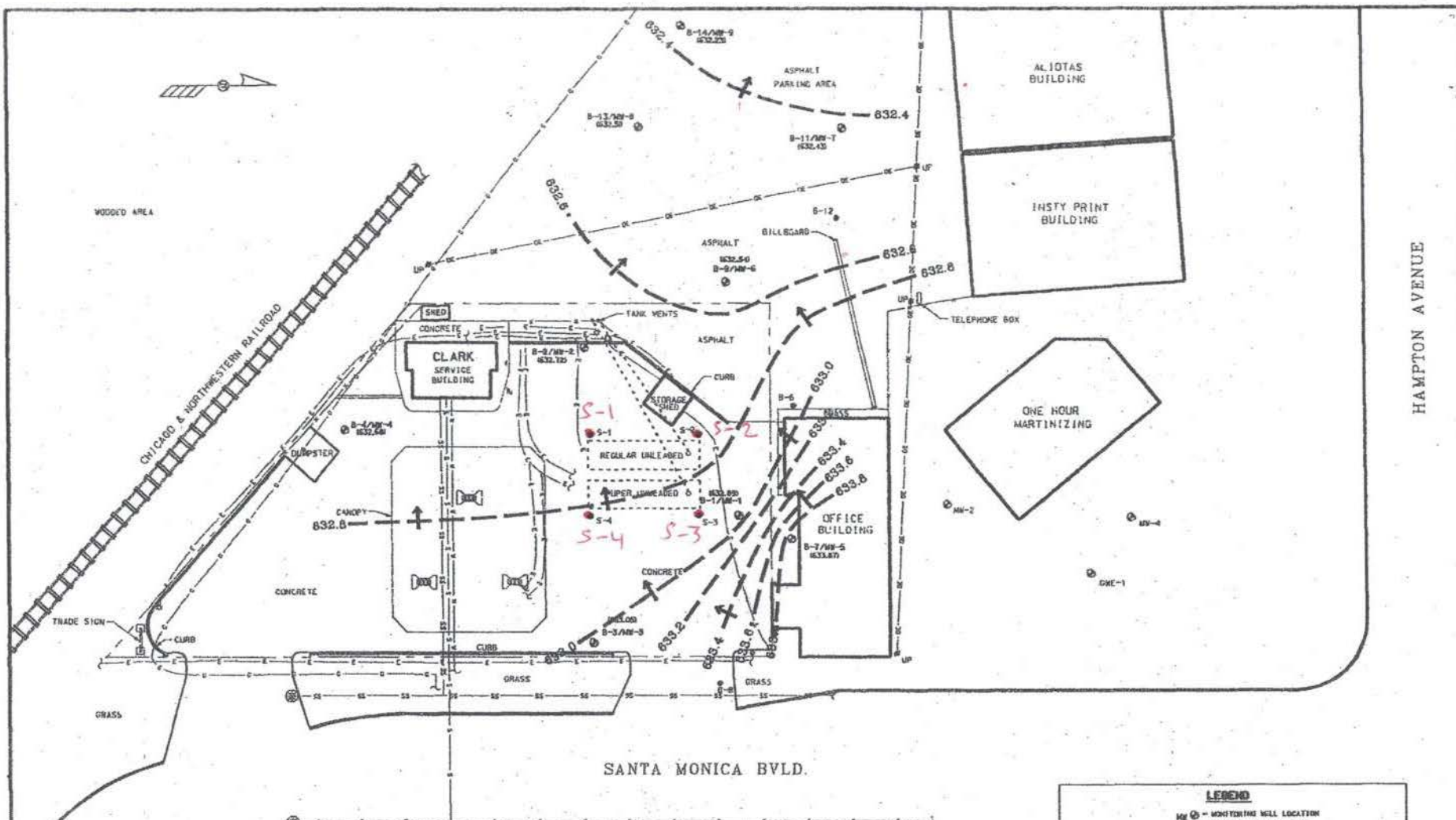


Figure 1: Figure 6 of Sigma: Groundwater and Soil Remediation System  
Groundwater Contour Map (October 2001)

NOTES:  
1. SHOWN UTILITIES, STRUCTURES AND PIPING ADJACENT TO OR EXPECTED TO BE ENCOUNTERED IN THE WORK ARE SHOWN ON THE DRAWINGS. THE LOCATIONS SHOWN ARE TAKEN FROM EXISTING RECORDS AND SITE OBSERVATIONS; HOWEVER, IT IS EXPECTED THAT THERE MAY BE SOME DISCREPANCIES AND OMISSIONS IN THE LOCATIONS AND QUANTITIES OF UTILITIES AND STRUCTURES SHOWN. THOSE SHOWN ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY, AND NO RESPONSIBILITY IS ASSUMED BY EITHER THE OWNER OR THE ENGINEER FOR THEIR ACCURACY OR COMPLETENESS.

2. SITE PLAN DRAWING SHOWS EXISTING SITE CONDITIONS PROVIDED FOR CONTRACTORS INFORMATION. THERE IS NO WORK TO BE COMPLETED BY THE CONTRACTOR SHOWN ON THIS DRAWING.

**LEGEND**

- MW ⊙ = MONITORING WELL LOCATION
- UP ⊕ = UTILITY POLE LOCATION
- S ⊙ = 12" PVC SNAG IN TANK EXCAVATION
- B ⊙ = SOIL BORING LOCATION
- SS --- = UNDERGROUND SANITARY SEWER LINE
- S --- = UNDERGROUND STORM SEWER LINE
- C --- = UNDERGROUND NATURAL GAS LINE
- V --- = UNDERGROUND WATER LINE
- DE --- = OVERHEAD ELECTRIC LINE
- = PROPERTY LINE
- = GROUNDWATER CONTOUR LINE, CONTOUR INTERVAL = .2'
- | | | = STATIC GROUNDWATER LEVEL (OCT. 2001)
- = GROUNDWATER FLOW DIRECTION

**SIGMA**  
ENVIRONMENTAL SERVICES, INC.  
220 EAST RYAN ROAD  
OAK CREEK, WISCONSIN 53154  
PHONE : (414) 768 - 7144  
1-800-732-1671

NO	DATE	REVISIONS	BY	APP'D

NAME:	DATE:
BEB	3-4-97
DRAWN BY:	DESIGNED BY:
CHECKED BY:	APPROVED BY:



CLARK REFINING AND MARKETING, INC. - STATION #562  
GROUNDWATER AND SOIL REMEDIATION SYSTEM  
GROUNDWATER CONTOUR MAP (OCTOBER 2001)

DRAWING NUMBER  
C0562-43  
**FIGURE 6**



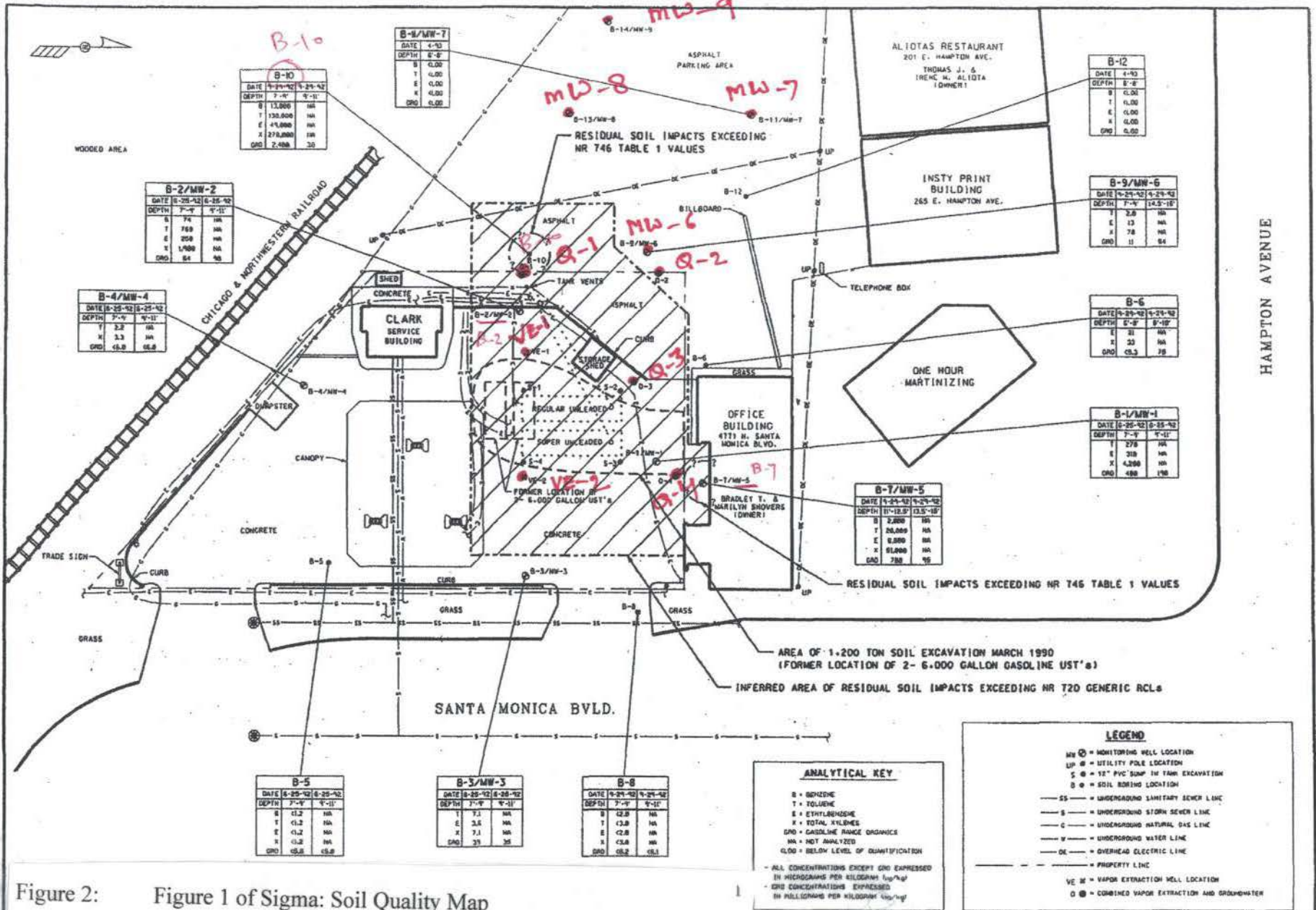
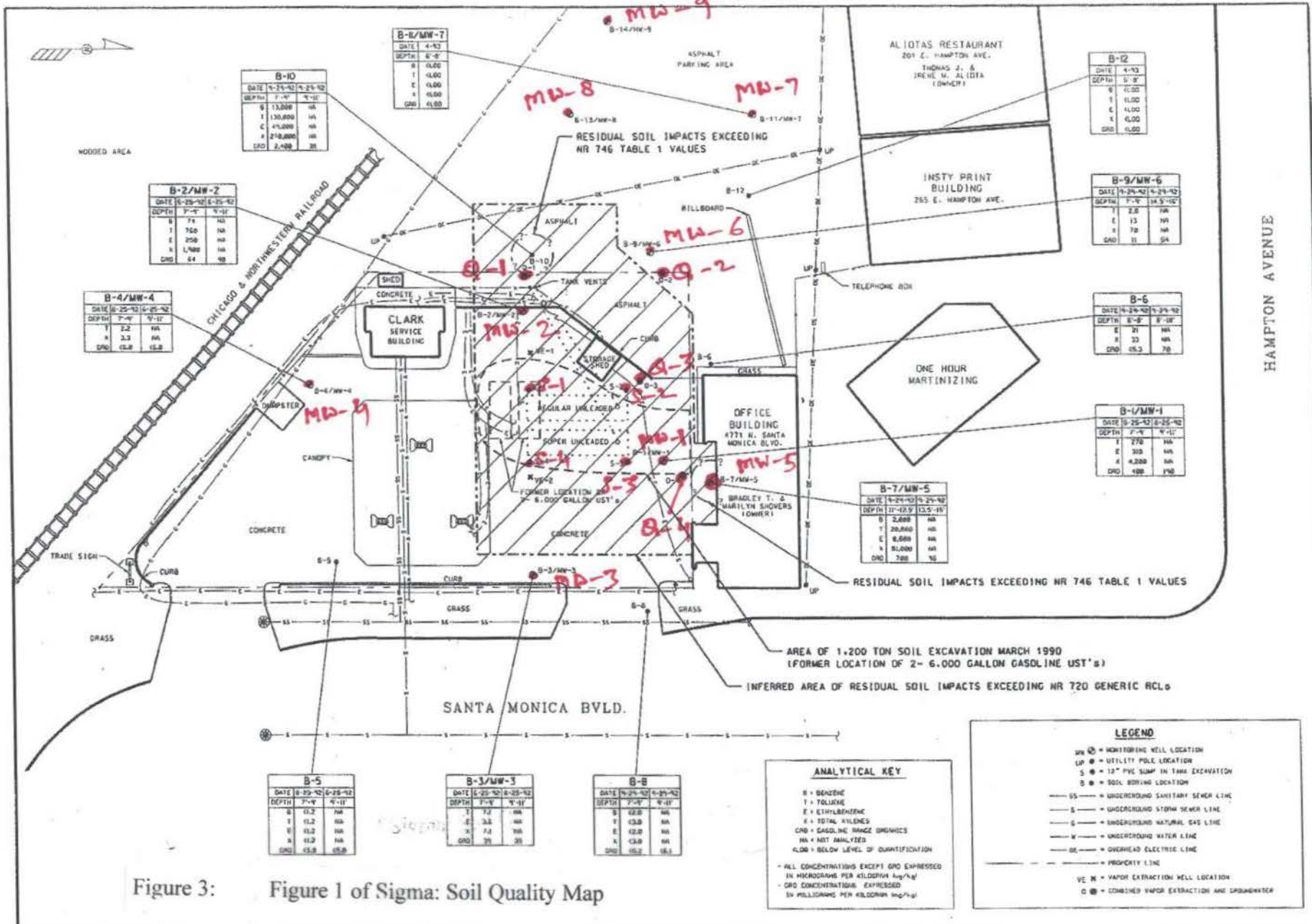


Figure 2: Figure 1 of Sigma: Soil Quality Map

<p>220 EAST RYAN ROAD DAK CREEK, WISCONSIN 53154 PHONE : (414) 768 - 7144, 1-800-732-4571</p>	GRAPHIC SCALE		NAME: BEB		DATE: 4-11-03	<p>CLARK RETAIL ENTERPRISES, INC. - STATION #562 4751 N. SANTA MONICA BLVD., MILWAUKEE, WISCONSIN SOIL QUALITY MAP</p>	DRAWING NUMBER COS62-44	
	NO	DATE	REVISIONS	BY	APVD			DESIGNED BY: DGB
								CHECKED BY: DGB
								APPROVED BY: DGB

FIGURE 1



**SIGMA**  
 ENVIRONMENTAL SERVICES, INC.  
 220 EAST RYAN ROAD  
 OAK CREEK, WISCONSIN 53154  
 PHONE: 761.61.768 - 7144.  
 1-800-732-6571

NO	DATE	REVISIONS	BY	APVD

NAME	DATE
DRAWN BY: BEB	4-11-03
DESIGNED BY: DOB	4-14-03
CHECKED BY: DOB	4-14-03
APPROVED BY: DOB	4-14-03



CLARK RETAIL ENTERPRISES, INC. - STATION #562  
 4751 N. SANTA MONICA BLVD., MILWAUKEE, WISCONSIN  
 SOIL QUALITY MAP

DRAWING NUMBER  
 COS62-44

FIGURE 1



# East Hampton Avenue

One Hour Martinizing  
285 E. Hampton Avenue  
(Former Gas Station)  
BRRTS # 03-41-002225  
Closed : 03-01-2017

One Hour Martinizing  
285 E. Hampton Avenue  
(Now Dry Cleaning Site)  
BRRTS # 02-41- 543260  
Wells Abandoned on 6/17/22 & 8/5/22

Shover's Realty  
4771 N. Santa Monica Blvd.  
B-7/MW-5 for Clark Oil  
(Abandoned)

Alley

Manhole

B-1/MW-1 for Clark Oil  
(Abandoned)

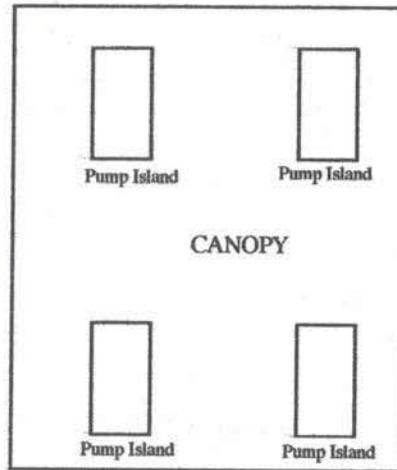
MW-4  
(Proposed)

	650 7/23/2001	1100 ppb 7/23/2001	
<b>Tank Sump Wells (Abandoned)</b>			
	48 ppb 10/30/2001	30 ppb 10/23/2001	

MW-3 (Proposed)

## BP Gas Station

BRRTS # 03-41-589630



MW-1  
(Proposed)

MW-2 (Proposed)

Park

Santa Monica Blvd.

Figure 4: Benzene Concentration (ppb) at Closure of BRRTS # 03-41-000450

Site Clark Gas Station 4751 N Santa Monica Blvd. Milwaukee, WI 53211	Consultant OM Enterprises, Inc. 124 W Scott Street Fond du Lac, WI 54935	NOT TO SCALE 	Project #	Legend Monitoring Well Soil Boring
			3062	
			Date	
			07/24/2022	



# East Hampton Avenue

One Hour Martinizing  
285 E. Hampton Avenue  
(Former Gas Station)  
BRRTS # 03-41-002225  
Closed : 03-01-2017

One Hour Martinizing  
285 E. Hampton Avenue  
(Now Dry Cleaning Site)  
BRRTS # 02-41- 543260  
Wells Abandoned on 6/17/22 & 8/5/22

Shover's Realty  
4771 N. Santa Monica Blvd.  
B-7/MW-5 for Clark Oil  
(Abandoned)

Alley

Manhole

B-1/MW-1 for Clark Oil  
(Abandoned)

MW-4  
(Proposed)

Area Excavated During  
Tank Installation

NEW TANK (21-K) INSTALLED ON 3/24/22

15-K  
Regular (No Premium)

6-K  
Regular  
Premium

Tank Sump Well

MW-3 (Proposed)

**BP Gas Station**

BRRTS # 03-41-589630

Pump Island

Pump Island

MW-1  
(Proposed)

CANOPY

Pump Island

Pump Island

MW-2 (Proposed)

Park

Santa Monica Blvd.

Figure 5: Locations of Proposed Soil Borings and Monitoring Wells

<p>Site Clark Gas Station 4751 N Santa Monica Blvd. Milwaukee, WI 53211</p>	<p>Consultant OM Enterprises, Inc. 124 W Scott Street Fond du Lac, WI 54935</p>	<p>NOT TO SCALE  0' 15' 30'</p>	<p>Project # 3062 Date 07/24/2022</p>	<p>Legend  Monitoring Well  Soil Boring</p>
---	---	---	---	---


**Appendix A**  
**WDATCP-Tank Registration Forms**

# Tank Search Public Access

10/27/2022 4:56 AM

Number of matching records: 6

Tank Type	Tank ID	Facility ID	Street Address	Tank Status	Tank Contents	Tank Size (Gal)	Facility Owner
<b>County: Milwaukee County, FDID: 4020</b>							
Underground Storage Tank	57460	<a href="#">416189</a>	4751 N Santa Monica Blvd	Closed/Removed	Unleaded Gasoline	6,000	Clark Of Milwaukee Inc
Underground Storage Tank	57461	<a href="#">416189</a>	4751 N Santa Monica Blvd	Closed/Removed	Unleaded Gasoline	6,000	Clark Of Milwaukee Inc
Underground Storage Tank	112903	<a href="#">416189</a>	4751 N Santa Monica Blvd	Closed/Removed	Unleaded Gasoline	12,000	Clark Of Milwaukee Inc
Underground Storage Tank	113159	<a href="#">416189</a>	4751 N Santa Monica Blvd	Closed/Removed	Unleaded Gasoline	12,000	Clark Of Milwaukee Inc
Underground Storage Tank	238503	<a href="#">416189</a>	4751 N Santa Monica Blvd	Install Pending	Unleaded Gasoline	15,000	Clark Of Milwaukee Inc
Underground Storage Tank	238505	<a href="#">416189</a>	4751 N Santa Monica Blvd	Install Pending	Unleaded Gasoline	6,000	Clark Of Milwaukee Inc

To go back to your search results please click the back arrow  in the above Toolbar

## Tank Details

### Site and Owner

#### Site Info

Facility ID: 416189  
 Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 Site Anniversary Date: April 28

#### County & Municipality

Milwaukee County  
 City of Milwaukee  
 Fire Dept ID: 4020  
 Dispenser Has Sumps: N

#### Owner

Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 WI 53211

### Underground Storage Tank - ID: 57460, WANG ID: 402004399, Closed/Removed as of 1990-04-01

<b>Install Date:</b>		<b>Capacity In Gallons:</b>	6,000	<b>Contents:</b>	Unleaded Gasoline
<b>Tank Occupancy:</b>	Retail Fuel Sales	<b>Marketer:</b>	Y	<b>CAS Number</b>	
<b>Federally Regulated:</b>	Yes	<b>Spill Protection:</b>	Not Installed	<b>Overfill Protection:</b>	Not Installed
<b>Overfill Prot Type:</b>	Not Installed	<b>Containment Sump Installed:</b>	N	<b>Lining Inspected Date:</b>	
<b>Corrosion Protect Type:</b>		<b>Date Of Lining:</b>		<b>Underground Piping:</b>	N
<b>Leak Detection:</b>	Unknown	<b>Wall Type:</b>	Single		
<b>Leak Test Method:</b>					
<b>Construction Material:</b>	Coated Steel				

### PIPING -

<b>Flex Connectors:</b>		<b>UST Mainfolded:</b>		<b>Related Tank ID:</b>	
<b>Type:</b>		<b>Aboveground Piping:</b>	N	<b>Aboveground Pipe Cons:</b>	
<b>Construction Material:</b>		<b>Corrosion Protect Type:</b>		<b>Leak Detection:</b>	
<b>Catastrophic Leak Detection:</b>				<b>Leak Test Method:</b>	
				<b>Pipe Wall Type:</b>	
				<b>Piping System Type:</b>	

### Inspection Test Dates

Test Type	Test Date	Test Expire Date

### Inspections

FacilityId	Inspection Type	Inspection Date
416189	Annual	05/09/2016
416189	Annual	07/11/2017
416189	Annual	11/28/2018
416189	Annual	07/08/2020
416189	Annual	08/04/2021

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## Tank Details

### Site and Owner

#### Site Info

Facility ID: 416189  
 Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 Site Anniversary Date: April 28

#### County & Municipality

Milwaukee County  
 City of Milwaukee  
 Fire Dept ID: 4020

Dispenser Has Sumps: N

#### Owner

Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 WI 53211

### Underground Storage Tank - ID: 57461, WANG ID: 402004400, Closed/Removed as of 1990-04-01

<b>Install Date:</b>		<b>Capacity In Gallons:</b>	6,000	<b>Contents:</b>	Unleaded Gasoline
<b>Tank Occupancy:</b>	Retail Fuel Sales	<b>Marketer:</b>	Y	<b>CAS Number</b>	
<b>Federally Regulated:</b>	Yes	<b>Spill Protection:</b>	Not Installed	<b>Overfill Protection:</b>	Not Installed
<b>Overfill Prot Type:</b>	Not Installed	<b>Containment Sump Installed:</b>	N	<b>Lining Inspected Date:</b>	
<b>Corrosion Protect Type:</b>		<b>Date Of Lining:</b>		<b>Underground Piping:</b>	N
<b>Leak Detection:</b>	Unknown	<b>Wall Type:</b>	Single		
<b>Leak Test Method:</b>					
<b>Construction Material:</b>	Coated Steel				

### PIPING -

<b>Flex Connectors:</b>		<b>UST Mainfolded:</b>		<b>Related Tank ID:</b>	
<b>Type:</b>		<b>Aboveground Piping:</b>	N	<b>Aboveground Pipe Cons:</b>	
<b>Construction Material:</b>		<b>Corrosion Protect Type:</b>		<b>Leak Detection:</b>	
<b>Catastrophic Leak Detection:</b>				<b>Leak Test Method:</b>	
				<b>Pipe Wall Type:</b>	
				<b>Piping System Type:</b>	


### Inspection Test Dates

Test Type	Test Date	Test Expire Date

### Inspections

FacilityId	Inspection Type	Inspection Date
416189	Annual	05/09/2016
416189	Annual	07/11/2017
416189	Annual	11/28/2018
416189	Annual	07/08/2020
416189	Annual	08/04/2021



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## Tank Details

### Site and Owner

#### Site Info

Facility ID: 416189  
 Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 Site Anniversary Date: April 28

#### County & Municipality

Milwaukee County  
 City of Milwaukee  
 Fire Dept ID: 4020  
 Dispenser Has Sumps: N

#### Owner

Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 WI 53211

### Underground Storage Tank - ID: 112903, WANG ID: 402005373, Closed/Removed as of 2022-03-21

<b>Install Date:</b>	04/01/1990	<b>Capacity In Gallons:</b>	12,000	<b>Contents:</b>	Unleaded Gasoline
<b>Tank Occupancy:</b>	Retail Fuel Sales	<b>Marketer:</b>	Y	<b>CAS Number</b>	
<b>Federally Regulated:</b>	Yes	<b>Spill Protection:</b>	Installed	<b>Overfill Protection:</b>	Installed
<b>Overfill Prot Type:</b>	90alm95auto	<b>Containment Sump Installed:</b>	N	<b>Lining Inspected Date:</b>	
<b>Corrosion Protect Type:</b>	Sacrificial Anodes	<b>Date Of Lining:</b>		<b>Underground Piping:</b>	N
<b>Leak Detection:</b>	Automatic Tank Gauge	<b>Wall Type:</b>	Single		
<b>Leak Test Method:</b>	Monthly Monitoring				
<b>Construction Material:</b>	Coated Steel				

### PIPING -


<b>Flex Connectors:</b>		<b>UST Mainfolded:</b>		<b>Related Tank ID:</b>	
<b>Type:</b>		<b>Aboveground Piping:</b>	N	<b>Aboveground Pipe Cons:</b>	
<b>Construction Material:</b>		<b>Corrosion Protect Type:</b>		<b>Leak Detection:</b>	
<b>Catastrophic Leak Detection:</b>				<b>Leak Test Method:</b>	
				<b>Pipe Wall Type:</b>	
				<b>Piping System Type:</b>	

### Inspection Test Dates

Test Type	Test Date	Test Expire Date

### Inspections

FacilityId	Inspection Type	Inspection Date
416189	Annual	05/09/2016
416189	Annual	07/11/2017
416189	Annual	11/28/2018
416189	Annual	07/08/2020
416189	Annual	08/04/2021

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## Tank Details

### Site and Owner

#### Site Info

Facility ID: 416189  
 Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 Site Anniversary Date: April 28

#### County & Municipality

Milwaukee County  
 City of Milwaukee  
 Fire Dept ID: 4020  
 Dispenser Has Sumps: N

#### Owner

Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 WI 53211

### Underground Storage Tank - ID: 113159, WANG ID: 402005374, Closed/Removed as of 2022-03-21

<b>Install Date:</b>	04/01/1990	<b>Capacity In Gallons:</b>	12,000	<b>Contents:</b>	Unleaded Gasoline
<b>Tank Occupancy:</b>	Retail Fuel Sales	<b>Marketer:</b>	Y	<b>CAS Number</b>	
<b>Federally Regulated:</b>	Yes	<b>Spill Protection:</b>	Installed	<b>Overfill Protection:</b>	Installed
<b>Overfill Prot Type:</b>	90alrm95auto	<b>Containment Sump Installed:</b>	N	<b>Lining Inspected Date:</b>	
<b>Corrosion Protect Type:</b>	Sacrificial Anodes	<b>Date Of Lining:</b>		<b>Underground Piping:</b>	N
<b>Leak Detection:</b>	Automatic Tank Gauge	<b>Wall Type:</b>	Single		
<b>Leak Test Method:</b>	Monthly Monitoring				
<b>Construction Material:</b>	Coated Steel				

### PIPING -


<b>Flex Connectors:</b>		<b>UST Mainfolded:</b>		<b>Related Tank ID:</b>	
<b>Type:</b>		<b>Aboveground Piping:</b>	N	<b>Aboveground Pipe Cons:</b>	
<b>Construction Material:</b>		<b>Corrosion Protect Type:</b>		<b>Leak Detection:</b>	
<b>Catastrophic Leak Detection:</b>				<b>Leak Test Method:</b>	
				<b>Pipe Wall Type:</b>	
				<b>Piping System Type:</b>	

### Inspection Test Dates

Test Type	Test Date	Test Expire Date

### Inspections

FacilityId	Inspection Type	Inspection Date
416189	Annual	05/09/2016
416189	Annual	07/11/2017
416189	Annual	11/28/2018
416189	Annual	07/08/2020
416189	Annual	08/04/2021

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## Tank Details

### Site and Owner

#### Site Info

Facility ID: 416189  
 Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 Site Anniversary Date: April 28

#### County & Municipality

Milwaukee County  
 City of Milwaukee  
 Fire Dept ID: 4020  
 Dispenser Has Sumps: N

#### Owner

Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 WI 53211

### Underground Storage Tank - ID: 238503, WANG ID: , Install Pending

<b>Install Date:</b>	03/24/2022	<b>Capacity In Gallons:</b>	15,000	<b>Contents:</b>	Unleaded Gasoline
<b>Tank Occupancy:</b>	Retail Fuel Sales	<b>Marketer:</b>	Y	<b>CAS Number</b>	
<b>Federally Regulated:</b>	Yes	<b>Spill Protection:</b>	Installed	<b>Overfill Protection:</b>	Installed
<b>Overfill Prot Type:</b>	90alrm95auto	<b>Containment Sump Installed:</b>	N	<b>Lining Inspected Date:</b>	
<b>Corrosion Protect Type:</b>		<b>Date Of Lining:</b>		<b>Underground Piping:</b>	N
<b>Leak Detection:</b>	Interstitial Monitor - Electronic	<b>Wall Type:</b>	Double		
<b>Leak Test Method:</b>	Monthly Monitoring				
<b>Construction Material:</b>	Fiberglass or Poly				

### PIPING -

<b>Flex Connectors:</b>		<b>UST Mainfolded:</b>		<b>Related Tank ID:</b>	
<b>Type:</b>		<b>Aboveground Piping:</b>	N	<b>Aboveground Pipe Cons:</b>	
<b>Construction Material:</b>		<b>Corrosion Protect Type:</b>		<b>Leak Detection:</b>	
<b>Catastrophic Leak Detection:</b>				<b>Leak Test Method:</b>	
				<b>Pipe Wall Type:</b>	
				<b>Piping System Type:</b>	

### Inspection Test Dates

Test Type	Test Date	Test Expire Date

### Inspections

FacilityId	Inspection Type	Inspection Date
416189	Annual	05/09/2016
416189	Annual	07/11/2017
416189	Annual	11/28/2018
416189	Annual	07/08/2020
416189	Annual	08/04/2021

To go back to your search results please click the back arrow  in the above Toolbar

## Tank Details

### Site and Owner

#### Site Info

Facility ID: 416189  
 Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 Site Anniversary Date: April 28

#### County & Municipality

Milwaukee County  
 City of Milwaukee  
 Fire Dept ID: 4020  
 Dispenser Has Sumps: N

#### Owner

Clark Of Milwaukee Inc  
 4751 N Santa Monica Blvd  
 Milwaukee  
 WI 53211

### Underground Storage Tank - ID: 238505, WANG ID: , Install Pending

<b>Install Date:</b>	03/24/2022	<b>Capacity In Gallons:</b>	6,000	<b>Contents:</b>	Unleaded Gasoline
<b>Tank Occupancy:</b>	Retail Fuel Sales	<b>Marketer:</b>	Y	<b>CAS Number</b>	
<b>Federally Regulated:</b>	Yes	<b>Spill Protection:</b>	Installed	<b>Overfill Protection:</b>	Installed
<b>Overfill Prot Type:</b>	90alm95auto	<b>Containment Sump Installed:</b>	N	<b>Lining Inspected Date:</b>	
<b>Corrosion Protect Type:</b>		<b>Date Of Lining:</b>		<b>Underground Piping:</b>	N
<b>Leak Detection:</b>	Interstitial Monitor - Electronic	<b>Wall Type:</b>	Double		
<b>Leak Test Method:</b>	Monthly Monitoring				
<b>Construction Material:</b>	Fiberglass or Poly				

### PIPING -

<b>Flex Connectors:</b>	<b>UST Mainfolded:</b>	<b>Related Tank ID:</b>
<b>Type:</b>	<b>Aboveground Piping:</b> N	<b>Aboveground Pipe Cons:</b>
<b>Construction Material:</b>	<b>Corrosion Protect Type:</b>	<b>Leak Detection:</b>
<b>Catastrophic Leak Detection:</b>		<b>Leak Test Method:</b>
		<b>Pipe Wall Type:</b>
		<b>Piping System Type:</b>

### Inspection Test Dates

Test Type	Test Date	Test Expire Date

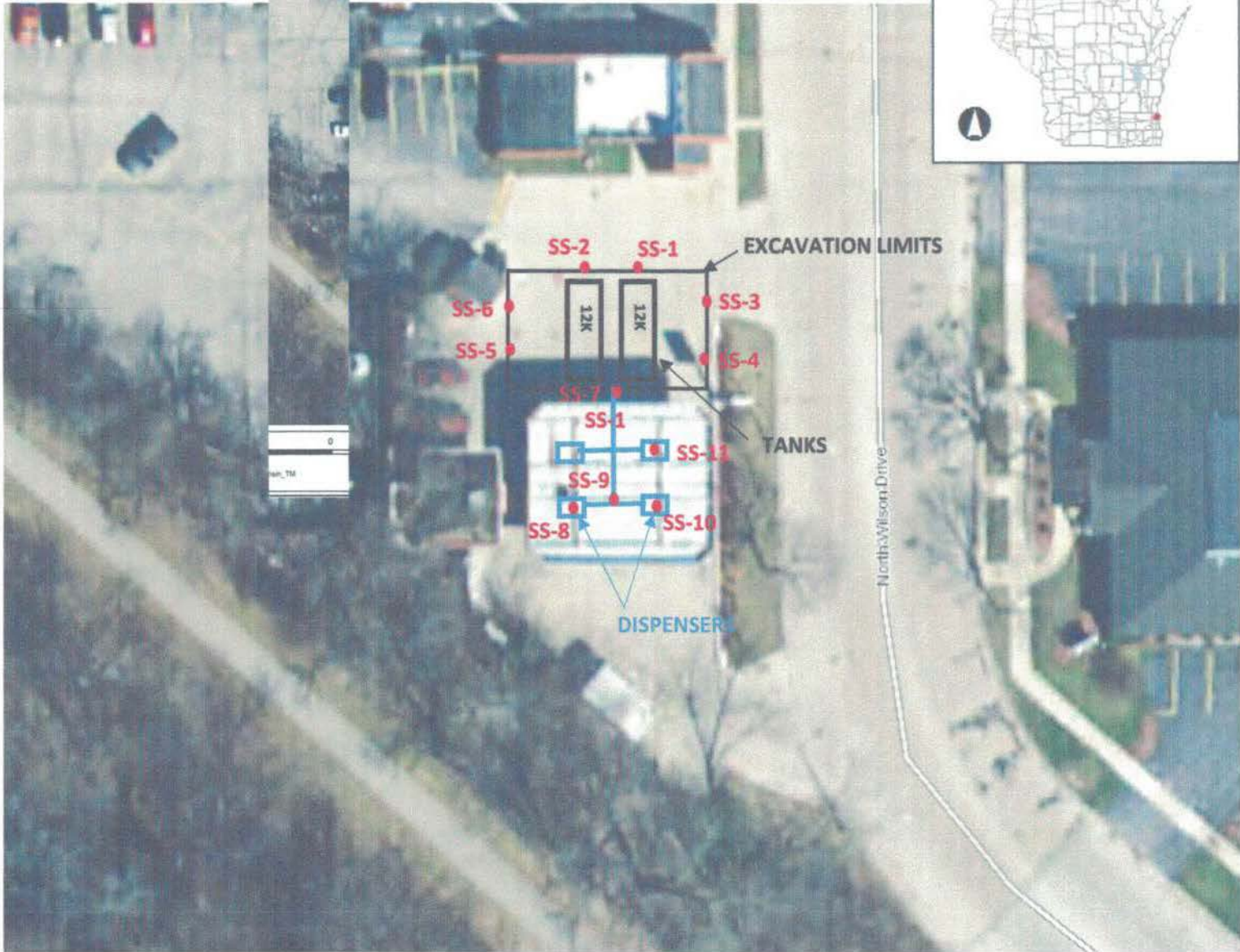
### Inspections

FacilityId	Inspection Type	Inspection Date
416189	Annual	05/09/2016
416189	Annual	07/11/2017
416189	Annual	11/28/2018
416189	Annual	07/08/2020
416189	Annual	08/04/2021

**Appendix B**  
**General Engineering Corporation (GEC) Map and**  
**Photos of UST Removal, 2022 (BRRTS # 03-41-589630)**



# SITE SAMPLING MAP



## Legend

### Major Roads

- County Road
- Interstate HWY
- State HWY
- US HWY

### Local Roads

- 24K Intermittent Stream
- 24K In Water Flow Labels

- 1
- 2
- 3, 4, 5
- 6, 7, 8, 9

### 24K River/Stream

- <all other values>
- 1
- 2
- 3, 4, 5
- 6, 7, 8, 9

### Waterbody Shoreline

- 24K Waterbody
- Open Water - 24K-Great lakes

## Notes

SANTA MONICA CLARK  
4751 NORTH SANTA MONICA BLVD  
MILWAUKEE, WI 53211

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>



PHOTOGRAPH OF THE FIRST 12,000-GALLON TANK AFTER REMOVAL



PHOTOGRAPH OF THE SECOND 12,000-GALLON UST JUST AFTER REMOVAL FROM THE EXCAVATION



PHOTOGRAPH OF THE EXCAVATION AFTER REMOVAL OF TANKS



PHOTOGRAPH OF THE TANK BED AFTER OVER EXCAVATION





PHOTOGRAPH OF THE FORMER DISPENSER AREA

**Appendix C**  
**Proof for Disposal of Approximately 727 Tons Contaminated**  
**Soils in 2022 (BRRTS # 03-41-589630)**



# INVOICE

**Customer ID:**

Customer Name:  
Service Period:  
Invoice Date:  
Invoice Number:

**8-99196-03009**  
GENERAL ENGINEERING  
03/16/22 - 03/31/22  
04/01/2022  
0064091-2286-5

**How To Contact Us**

Visit [wm.com](http://wm.com) to sign up for paperless billing or pay your invoices.

Visit [wmsolutions.com](http://wmsolutions.com) to manage your waste streams and access additional disposal documentation.

Customer Service:  
**(800) 963-4776**

**Your Payment Is Due**

**04/30/2022**

If full payment of the invoiced amount is not received within your contractual terms, you may be charged a monthly late charge of 2.5% of the unpaid amount, with a minimum monthly charge of \$5, or such late charge allowed under applicable law, regulation or contract.

**Your Total Due**

**\$20,504.06**

<b>Previous Balance</b>	+	<b>Payments</b>	+	<b>Adjustments</b>	+	<b>Current Invoice Charges</b>	=	<b>Total Account Balance Due</b>
15,115.58		(15,115.58)		0.00		20,504.06		<b>20,504.06</b>

**IMPORTANT MESSAGES**

Effective January 1, 2022, our environmental and waste water management charges will be increased or added to your account as specified on your invoice. If you have a disposal agreement, this change may require your consent. For more information about these charges, call our Technical Service Center at 1-800-963-4776.

----- Please detach and send the lower portion with payment --- (no cash or staples) -----

**Waste Management**  
WASTE MANAGEMENT OF WISCONSIN, INC.  
PO BOX 42390  
PHOENIX, AZ 85080  
(800) 963-4776  
TSCMIDWEST@WM.COM

Invoice Date	Invoice Number	Customer ID (Include with your payment)
04/01/2022	0064091-2286-5	<b>8-99196-03009</b>
Payment Terms	Total Due	Amount
Total Due by 04/30/2022	\$20,504.06	

2286000089919603009000640910000205040600002050406 7

I0401L23

GENERAL ENGINEERING  
916 SILVER LAKE DR  
PORTAGE WI 53901-1015

Remit To: **WM CORPORATE SERVICES, INC.**  
**AS PAYMENT AGENT**  
PO BOX 4648  
CAROL STREAM, IL 60197-4648

**THINK GREEN®**



## DETAILS OF SERVICE - continued

Details for Service Location:

Customer ID: 8-99196-03009

General Engineering, 916 Silver Lake Dr, Portage WI 53901-1015

Description	Date	Ticket	Quantity	Unit of Measure	Rate	Amount
ENVIRONMENTAL FEE TON			24.42	TON	1.75	42.74
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: na						0.00
<b>Ticket Total</b>						<b>686.21</b>
Vehicle#: 48	03/22/22	2057862				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			22.84	TON	24.00	548.16
WASTE WATER MANAGEMENT TON			22.84	TON	1.10	25.12
FUEL SURCHARGE TON			22.84	TON	1.25	28.55
ENVIRONMENTAL FEE TON			22.84	TON	1.75	39.97
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>641.80</b>
Vehicle#: 72	03/22/22	2057866				0.00
ENVIRONMENTAL FEE TON			19.95	TON	1.75	34.91
Unspecified material, bioremediated, daily cover,			19.95	TON	24.00	478.80
WASTE WATER MANAGEMENT TON			19.95	TON	1.10	21.95
FUEL SURCHARGE TON			19.95	TON	1.25	24.94
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>560.60</b>
Vehicle#: 57	03/22/22	2057870				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			20.35	TON	24.00	488.40
WASTE WATER MANAGEMENT TON			20.35	TON	1.10	22.39
FUEL SURCHARGE TON			20.35	TON	1.25	25.44
ENVIRONMENTAL FEE TON			20.35	TON	1.75	35.61
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>571.84</b>
Vehicle#: 9	03/22/22	2057907				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			20.02	TON	24.00	480.48
WASTE WATER MANAGEMENT TON			20.02	TON	1.10	22.02
FUEL SURCHARGE TON			20.02	TON	1.25	25.03
ENVIRONMENTAL FEE TON			20.02	TON	1.75	35.04
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>562.57</b>
Vehicle#: 85	03/22/22	2057913				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			19.54	TON	24.00	468.96
WASTE WATER MANAGEMENT TON			19.54	TON	1.10	21.49
FUEL SURCHARGE TON			19.54	TON	1.25	24.43
ENVIRONMENTAL FEE TON			19.54	TON	1.75	34.20
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>549.08</b>
Vehicle#: 72	03/22/22	2057915				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			20.31	TON	24.00	487.44
WASTE WATER MANAGEMENT TON			20.31	TON	1.10	22.34
FUEL SURCHARGE TON			20.31	TON	1.25	25.39
ENVIRONMENTAL FEE TON			20.31	TON	1.75	35.54
Profile # BIO136932WI						0.00

**Customer ID:**

**8-99196-03009**

Customer Name:

GENERAL ENGINEERING

Service Period:

03/16/22 - 03/31/22

Invoice Date:

04/01/2022

Invoice Number:

0064091-2286-5

**DETAILS OF SERVICE - continued**

**Details for Service Location:**

**Customer ID: 8-99196-03009**

**General Engineering, 916 Silver Lake Dr, Portage WI 53901-1015**

Description	Date	Ticket	Quantity	Unit of Measure	Rate	Amount
Generator SANTA MONICA CLARK Manifest#: NA <b>Ticket Total</b>						0.00 0.00 <b>570.71</b>
Vehicle#: 57 PO#:WALTS SANTA MONICA P Unspecified material, bioremediated, daily cover, WASTE WATER MANAGEMENT TON FUEL SURCHARGE TON ENVIRONMENTAL FEE TON Profile # BIO136932WI Generator SANTA MONICA CLARK Manifest#: NA <b>Ticket Total</b>	03/22/22	2057917				0.00 0.00 485.76 22.26 25.30 35.42 0.00 0.00 <b>568.74</b>
Vehicle#: 48 PO#:WALTS SANTA MONICA P Unspecified material, bioremediated, daily cover, WASTE WATER MANAGEMENT TON FUEL SURCHARGE TON ENVIRONMENTAL FEE TON Profile # BIO136932WI Generator SANTA MONICA CLARK Manifest#: NA <b>Ticket Total</b>	03/22/22	2057920				0.00 0.00 536.16 24.57 27.93 39.10 0.00 0.00 <b>627.76</b>
Vehicle#: 85 PO#:WALTS SANTA MONICA P Unspecified material, bioremediated, daily cover, WASTE WATER MANAGEMENT TON FUEL SURCHARGE TON ENVIRONMENTAL FEE TON Profile # BIO136932WI Generator SANTA MONICA CLARK Manifest#: na <b>Ticket Total</b>	03/22/22	2057971				0.00 0.00 584.88 26.81 30.46 42.65 0.00 0.00 <b>684.80</b>
Vehicle#: 72 PO#:WALTS SANTA MONICA P Unspecified material, bioremediated, daily cover, WASTE WATER MANAGEMENT TON FUEL SURCHARGE TON ENVIRONMENTAL FEE TON Profile # BIO136932WI Generator SANTA MONICA CLARK Manifest#: na <b>Ticket Total</b>	03/22/22	2057973				0.00 0.00 462.00 21.18 24.06 33.69 0.00 0.00 <b>540.93</b>
Vehicle#: 57 PO#:WALTS SANTA MONICA P Unspecified material, bioremediated, daily cover, WASTE WATER MANAGEMENT TON FUEL SURCHARGE TON ENVIRONMENTAL FEE TON Profile # BIO136932WI Generator SANTA MONICA CLARK Manifest#: na <b>Ticket Total</b>	03/22/22	2057975				0.00 0.00 512.16 23.47 26.68 37.35 0.00 0.00 <b>599.66</b>



**Customer ID:**

**8-99196-03009**

Customer Name:

GENERAL ENGINEERING

Service Period:

03/16/22 - 03/31/22

Invoice Date:

04/01/2022

Invoice Number:

0064091-2286-5

**DETAILS OF SERVICE - continued**

**Details for Service Location:**

**Customer ID: 8-99196-03009**

**General Engineering, 916 Silver Lake Dr, Portage WI 53901-1015**

Description	Date	Ticket	Quantity	Unit of Measure	Rate	Amount
Vehicle#: 57	03/23/22	2058130				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			22.63	TON	24.00	543.12
WASTE WATER MANAGEMENT TON			22.63	TON	1.10	24.89
FUEL SURCHARGE TON			22.63	TON	1.25	28.29
ENVIRONMENTAL FEE TON			22.63	TON	1.75	39.60
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>635.90</b>
Vehicle#: 59	03/23/22	2058139				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			21.02	TON	24.00	504.48
WASTE WATER MANAGEMENT TON			21.02	TON	1.10	23.12
FUEL SURCHARGE TON			21.02	TON	1.25	26.28
ENVIRONMENTAL FEE TON			21.02	TON	1.75	36.79
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: na						0.00
<b>Ticket Total</b>						<b>590.67</b>
Vehicle#: 9	03/23/22	2058147				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			19.99	TON	24.00	479.76
WASTE WATER MANAGEMENT TON			19.99	TON	1.10	21.99
FUEL SURCHARGE TON			19.99	TON	1.25	24.99
ENVIRONMENTAL FEE TON			19.99	TON	1.75	34.98
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: na						0.00
<b>Ticket Total</b>						<b>561.72</b>
Vehicle#: 74	03/23/22	2058172				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			21.59	TON	24.00	518.16
WASTE WATER MANAGEMENT TON			21.59	TON	1.10	23.75
FUEL SURCHARGE TON			21.59	TON	1.25	26.99
ENVIRONMENTAL FEE TON			21.59	TON	1.75	37.78
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: na						0.00
<b>Ticket Total</b>						<b>606.68</b>
Vehicle#: 57	03/23/22	2058175				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			22.08	TON	24.00	529.92
WASTE WATER MANAGEMENT TON			22.08	TON	1.10	24.29
FUEL SURCHARGE TON			22.08	TON	1.25	27.60
ENVIRONMENTAL FEE TON			22.08	TON	1.75	38.64
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: na						0.00
<b>Ticket Total</b>						<b>620.45</b>
Vehicle#: 68	03/23/22	2058180				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			18.69	TON	24.00	448.56

## DETAILS OF SERVICE - continued

Details for Service Location:

Customer ID: 8-99196-03009

General Engineering, 916 Silver Lake Dr, Portage WI 53901-1015

Description	Date	Ticket	Quantity	Unit of Measure	Rate	Amount
WASTE WATER MANAGEMENT TON			18.69	TON	1.10	20.56
FUEL SURCHARGE TON			18.69	TON	1.25	23.36
ENVIRONMENTAL FEE TON			18.69	TON	1.75	32.71
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: na						0.00
<b>Ticket Total</b>						<b>525.19</b>
Vehicle#: 9	03/23/22	2058191				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			19.18	TON	24.00	460.32
WASTE WATER MANAGEMENT TON			19.18	TON	1.10	21.10
FUEL SURCHARGE TON			19.18	TON	1.25	23.98
ENVIRONMENTAL FEE TON			19.18	TON	1.75	33.57
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: na						0.00
<b>Ticket Total</b>						<b>538.97</b>
Vehicle#: 74	03/23/22	2058221				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			14.75	TON	24.00	354.00
WASTE WATER MANAGEMENT TON			14.75	TON	1.10	16.23
FUEL SURCHARGE TON			14.75	TON	1.25	18.44
ENVIRONMENTAL FEE TON			14.75	TON	1.75	25.81
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>414.48</b>
Vehicle#: 57	03/23/22	2058231				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			20.08	TON	24.00	481.92
WASTE WATER MANAGEMENT TON			20.08	TON	1.10	22.09
FUEL SURCHARGE TON			20.08	TON	1.25	25.10
ENVIRONMENTAL FEE TON			20.08	TON	1.75	35.14
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: na						0.00
<b>Ticket Total</b>						<b>564.25</b>
Vehicle#: 59	03/23/22	2058311				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			19.97	TON	24.00	479.28
WASTE WATER MANAGEMENT TON			19.97	TON	1.10	21.97
FUEL SURCHARGE TON			19.97	TON	1.25	24.96
ENVIRONMENTAL FEE TON			19.97	TON	1.75	34.95
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>561.16</b>
Vehicle#: 74	03/23/22	2058316				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			18.21	TON	24.00	437.04
WASTE WATER MANAGEMENT TON			18.21	TON	1.10	20.03
FUEL SURCHARGE TON			18.21	TON	1.25	22.76
ENVIRONMENTAL FEE TON			18.21	TON	1.75	31.87
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>511.70</b>
Vehicle#: 57	03/23/22	2058318				0.00
PO#:WALTS SANTA MONICA P						0.00
Unspecified material, bioremediated, daily cover,			20.14	TON	24.00	483.36
WASTE WATER MANAGEMENT TON			20.14	TON	1.10	22.15



**Customer ID:**

**8-99196-03009**

Customer Name:

GENERAL ENGINEERING

Service Period:

03/16/22 - 03/31/22

Invoice Date:

04/01/2022

Invoice Number:

0064091-2286-5

**DETAILS OF SERVICE - continued**

**Details for Service Location:**

**Customer ID: 8-99196-03009**

**General Engineering, 916 Silver Lake Dr, Portage WI 53901-1015**

Description	Date	Ticket	Quantity	Unit of Measure	Rate	Amount
FUEL SURCHARGE TON			20.14	TON	1.25	25.18
ENVIRONMENTAL FEE TON			20.14	TON	1.75	35.25
Profile # BIO136932WI						0.00
Generator SANTA MONICA CLARK						0.00
Manifest#: NA						0.00
<b>Ticket Total</b>						<b>565.94</b>
<b>Total Current Charges</b>						<b>20,504.06</b>

**Appendix D**  
**Foth & Van Dyke Notification of Contamination to the**  
**WDNR, September 1989 (Closed BRRTS # 03-41-000450)**

1693-

# Foth & Van Dyke

---

LETTER REPORT

UNDERGROUND STORAGE TANK  
INVESTIGATION/SITE ASSESSMENT

at

CLARK STATION NO. 562  
4751 NORTH SANTA MONICA AVENUE  
WHITEFISH BAY, WISCONSIN

Scope I.D. 89C47

RECEIVED

SEP 28 1989

D.N.R. SED Hqtrs.  
Milwaukee, WI

Prepared for:

CLARK OIL & REFINING CORPORATION  
9451 North 107th Street  
Milwaukee, Wisconsin 53202

CLARK OIL & REFINING CORPORATION  
8182 Maryland Avenue  
St. Louis, Missouri 63105-3721

19,  
SEPTEMBER 1989

# Foth & Van Dyke

Two Park Plaza  
Suite 950  
10850 West Park Place  
Milwaukee, WI 53224-3619  
414/359-2500

Engineers  
Architects  
Planners  
Scientists  
Economists

September 19, 1989

Mr. Lindy Lindberg  
Clark Oil & Refining Corporation  
9451 North 107th Street  
Milwaukee, Wisconsin 53224

89C47

Mr. Jeffrey Bingham  
Environmental Project Coordinator  
Clark Oil & Refining Corporation  
8182 Maryland Avenue  
St. Louis, Missouri 63105-3721

Gentlemen:

RE: UNDERGROUND STORAGE TANK INVESTIGATION/SITE ASSESSMENT  
STATION NO. 562  
4751 NORTH SANTA MONICA AVENUE  
WHITEFISH BAY, WISCONSIN

## EXECUTIVE SUMMARY

On August 28, 1989, a total of three borings were drilled and sampled by a Foth & Van Dyke geologist; two to a depth of 13 feet and one to a depth of 4 feet, at the Clark Oil Station located at Hampton Avenue and Santa Monica in Whitefish Bay, Wisconsin. Soil contamination was detected in the field using a photoionization meter which detects organic vapors. Composite soil samples were therefore collected from each boring and were submitted for analysis of Total Petroleum Hydrocarbons (TPH) and Benzene, Ethylbenzene, Toluene, and Xylene (BETX) and a waste characterization profile was obtained on a composite soil sample from the site.

Although regulations do not currently exist for this type of contamination in soil, proposed Wisconsin Department of Natural Resources (WDNR) guidelines establish 10 parts-per-million (ppm) of TPH and/or 10 ppm of BETX for a cleanup standard. Soils with contamination in excess of the 10 ppm guideline will require treatment or disposal at a licensed landfill.

50 years

Mr. Lindy Lindberg  
Mr. Jeffrey Bingham  
Clark Oil & Refining Corporation  
September 19, 1989  
Page 2

The analytical results for the Hampton Avenue and Santa Monica Clark Oil Station indicate significant contamination (minimum 182.6 ppm BETX) in both of the 13-foot borings. The 4-foot soil boring drilled adjacent to one of the islands detected 13 ppm gasoline.

## PURPOSE AND SCOPE OF INVESTIGATION

### Purpose of Investigation

The purpose of this investigation was to determine whether there is evidence of soil contamination at the site.

### Scope of Investigation

The scope of the investigation included the following:

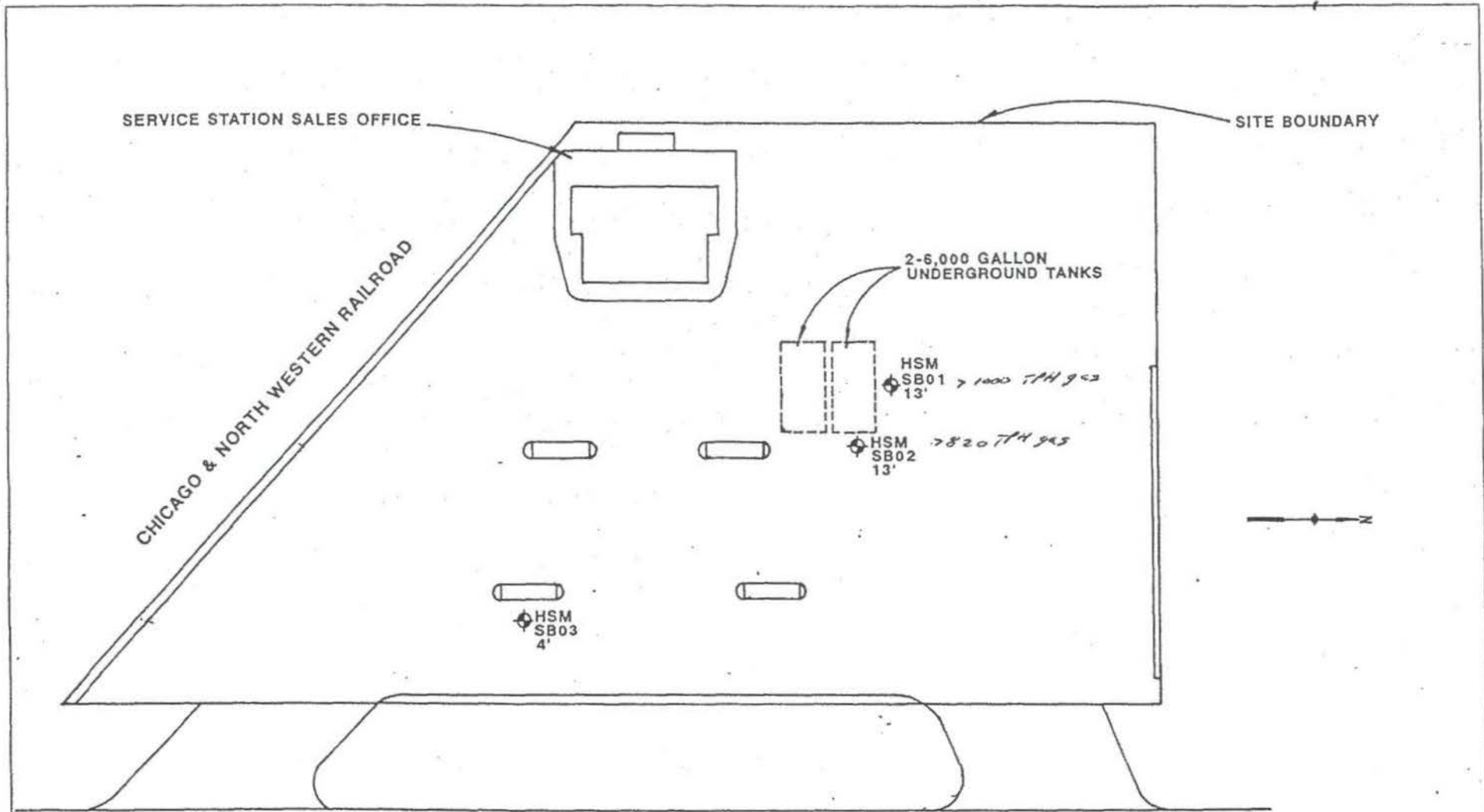
- Survey of the site using a metal detector to determine location of underground storage tanks and pipes.
- Drilling of two soil borings to a depth of 13 feet and one soil boring to a depth of 4 feet with samples collected from each boring and monitored in the field using an organic vapor detector.
- Laboratory analysis of one soil sample from each boring for Total Petroleum Hydrocarbons (TPH), and Benzene, Ethylbenzene, Toluene, and Xylene (BETX).
- Laboratory analysis of a composite soil sample from the site for a waste characterization profile (necessary for disposal of contaminated soils at a licensed landfill).

## SITE DESCRIPTION AND BACKGROUND

The site consists of the Clark Oil Station No. 562, located at Hampton Avenue and Santa Monica in Whitefish Bay, Wisconsin. Figure No. 1 shows the location of the tanks on the site.

## REGIONAL/LOCAL GEOLOGY

The geology of this portion of Milwaukee County, Wisconsin is characterized by Pleistocene glacial deposits associated with the Lake Michigan Glacial Lobe. The deposits range in thickness from 50 to 200 feet and consist of lacustrine



SITE BOUNDARY

SERVICE STATION SALES OFFICE

CHICAGO & NORTH WESTERN RAILROAD

2-6,000 GALLON UNDERGROUND TANKS

HSM SB01 13' 7820 TH 943

HSM SB02 13' 7820 TH 945

HSM SB03 4'



NORTH SANTA MONICA BOULEVARD

FIGURE NO.1

NORTH SANTA MONICA BLVD.  
WHITEFISH BAY , WISCONSIN

SCALE: NOT TO SCALE | DATE:  
PREPARED BY: FOTH & VAN DYKE | BY: PDP 1

Mr. Lindy Lindberg  
Mr. Jeffrey Bingham  
Clark Oil & Refining Corporation  
September 19, 1989  
Page 3

silt and clay, fluvial sand and gravel, and clayey, silty till. Glacial deposits in the region are underlain by a thick (>2,000 feet) sequence of Silurian, Ordovician, and Cambrian aged dolomites, shales, and sandstones.

## FINDINGS OF INVESTIGATION

### Investigation Activities

On August 28, 1989, a field crew was mobilized to the site. One 4-foot soil boring and two 13-foot soil borings were drilled, and one composite soil sample was collected from each boring and submitted to a laboratory for analysis of TPH and BETX. Sample locations are shown in Figure No. 1 and were based on the results of a magnetic survey conducted to locate underground storage tanks and pipes. The borings were drilled by Wisconsin Test Drilling using a D-50 drill rig and 4.25-inch I.D. hollow stem augers. Samples were collected utilizing a decontaminated 2-inch O.D. split-spoon sampler, and were monitored in the field using a Photovac TIP 1 Photoionization Detector (PID).

The maximum PID reading (see attached boring logs) was 1,370 parts per million (ppm) in Boring No. HSMSB02. The Wisconsin Department of Natural Resources recommends using 10 ppm as a guideline for classification of soils. PID readings in excess of 10 ppm indicate soil contamination.

Since contamination was detected at the site, a composite sample was collected from all of the borings and submitted to the laboratory for a waste characterization profile. This information, along with the BETX and TPH values from each contaminated boring, will be necessary in order to dispose of the contaminated soils at a licensed landfill. Foth & Van Dyke has submitted the necessary paperwork to Waste Management for disposal of the soils at Metro Landfill. Approval from the landfill is expected within 1 to 2 weeks.

Boring logs were maintained by a qualified geologist and equipment decontamination procedures were followed to minimize the possibility of cross-contamination between samples and boreholes. All downhole drilling equipment (i.e. augers, bits, drill rods, etc.) was steam cleaned between borings. Split-spoon samplers and stainless steel sampling equipment were decontaminated between samples as follows:

Mr. Lindy Lindberg  
Mr. Jeffrey Bingham  
Clark Oil & Refining Corporation  
September 19, 1989  
Page 4

- Tap Water/Trisodium Phosphate Detergent (TSP) Wash.
- Tap Water Rinse.
- Reagent Grade Methyl Alcohol Rinse.
- Distilled Water Rinse.
- Air Dried.

#### Investigation Results

Soil analytical results are summarized in Table No. 1. Both of the 13-foot borings contained BETX and Gasoline concentrations in excess of WDNR cleanup standards (10,000 ppb total BETX or gasoline). The minimum contaminant level detected in these two borings was 182,600 ppb total BETX. Boring No. HSMSB03 also detected BETX and gasoline in the soil, but contaminant levels are significantly lower than in the borings near the tanks. The maximum contamination detected in Boring No. HSMSB03 was 13,000 ppb gasoline.

The analytical results from this site investigation indicate that soils excavated from the tank pit during tank removal operations will require disposal at a licensed landfill.

TABLE NO. 1

Soil Analytical Results  
Clark Oil Station No. 562  
4751 North Santa Monica Avenue  
Whitefish Bay, Wisconsin

Parameter (parts per billion)	HSMSB01-C	HSMSB02-C	HSMSB03-C
Benzene	8,900	ND	ND
Ethylbenzene	9,700	250,000	53
Toluene	54,000	960,000	67
Xylene	110,000	2,800,000	1,200
Total BETX	182,600	4,010,000	1,320
TPH Gasoline	>1,000,000	>820,000	13,000

ND: Not Detected

WDNR Cleanup Standards - >10,000 ppb Total BETX or Gasoline



Mr. Lindy Lindberg  
Mr. Jeffrey Bingham  
Clark Oil & Refining Corporation  
September 19, 1989  
Page 5

#### LIMITATIONS OF INVESTIGATION

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Engineers and Geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

The interpretations and conclusions contained in this report are based on the results of laboratory tests and analysis intended to detect the presence and concentration of certain chemical constituents in samples taken from the subject property. Such testing and analysis have been conducted by an independent laboratory which is certified by the State of Wisconsin to conduct such test analysis, and which used methodologies mandated by the Environmental Protection Agency in the performance of such test and analysis. Consultant has no involvement in, or control over, such testing and analysis and has no non-laboratory means of confirming the occurrence of such laboratory results. Consultant, therefore, disclaims any responsibility for any inaccuracy in such laboratory results.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information and recommendations contained herein are brought to the attention of the regulatory agencies.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of the report may be investigated wholly or partially by changes outside our control.

The opportunity to be of service is appreciated. If you have any questions, please call.

Mr. Lindy Lindberg  
Mr. Jeffrey Bingham  
Clark Oil & Refining Corporation  
September 19, 1989  
Page 6

Respectfully submitted,

FOTH & VAN DYKE

*Liz Porter*

Liz Porter  
Project Geologist

EMP:kll

Enclosure

Engineers  
Architects  
Planners  
Scientists  
Economists

# Foth & Van Dyke

Two Park Plaza  
Suite 950  
10850 West Park Place  
Milwaukee, WI 53224-3619  
414/359-2500

September 27, 1989

Ms. Bernice Aument  
Wisconsin Dept. of Natural Resources  
Southeast District Office  
2300 North Martin Luther King Drive  
Milwaukee, WI 53212

89C46  
89C47

Dear Ms. Aument:

RE: INITIAL SITE ASSESSMENTS AT TWO MILWAUKEE AREA  
CLARK STATIONS

Enclosed please find copies of Foth & Van Dyke's initial  
site assessments on the following Clark Oil Stations:

1. Clark Oil Station No. 365  
13th and Layton Avenue  
Milwaukee, Wisconsin
2. Clark Oil Station No. 562  
4751 North Santa Monica Avenue  
Whitefish Bay, Wisconsin

RECEIVED

SEP 28 1989

D.N.R. SED Hqus.  
Milwaukee, WI

As the reports indicate, evidence of contamination was  
encountered at both sites.

Contaminated soils from the Clark Oil Station at 13th and  
Layton have been approved for disposal at Metro Landfill.  
The two underground storage tanks were removed from the  
site on September 22, 1989, and excavation and transport of  
the soils began on September 25, 1989. Foth & Van Dyke is  
monitoring the excavation and will be collecting samples  
from the sides and base of the excavation pit. A follow-up  
report on this site will be submitted once the results of  
the excavation samples are available.

Removal of the underground storage tanks and excavation of  
the contaminated soils are also planned at the Santa Monica  
station. The timetable for this remediation has not yet  
been established, but the permitting process for disposal  
of the contaminated soils at Metro Landfill has already  
been initiated.

50 years

Bureau for Remediation and Redevelopment  
Activity Detail Report - Case Tracking

Activity Number: 03-41-000450

Activity Type: LUST

Activity Name: CLARK OIL STATION #562

Activity Address:

Region: Southeast Region

Location Name: CLARK OIL STATION #562

Location Address: 4751 N SANTA MONICA BLVD

Municipality: WHITEFISH BAY

Priority: High

Comments:

RECEIVED

MAR 18 2003

ERS DIVISION  
MILWAUKEE  
County: Milwaukee

Transferred to:  DCOM  Waste  DATCP

DCOM Number: 53211104351

FID: 241574850

EPA ID:

Start Date: 09/28/1989

End Date: OPEN

Project Manager:

LUST Trust Eligible: FEDERAL

Score: 38.00

Activity Geo Location:

Legal Desc: None Found

Latitude: None Found

Longitude: None Found

SHWIMS Geo Location:

Legal Desc: None Found

Latitude: None Found

Longitude: None Found

- |                                   |  |  |  |
|-----------------------------------|--|--|--|
| <input type="checkbox"/> VPLE     | <input checked="" type="checkbox"/> Co-Contamination | <input checked="" type="checkbox"/> PECFA Eligible | <input type="checkbox"/> PECFA 80K Failure |
| <input type="checkbox"/> Gen Prop | <input checked="" type="checkbox"/> Tracked by DCOM  | <input type="checkbox"/> PECFA 80K                 |  |

Who:

Contact Type: RESPONSIBLE PARTY

Name:

Title:

Company: CLARK RETAIL ENTERPRISES

Address: ATTN ERIC LARSON  
601 S MAIN ST  
ANN ARBOR, MI 48104

Phone: (734) 669-6155

Ext:

Fax: (734) 668-9631

E-Mail: eric.larson@clarkretail.com

Contact Type: CONSULTANT

Name:

Title:

Company: SIGMA ENVIRONMENTAL SERVICES INC

Address: 220 E RYAN RD  
OAK CREEK, WI 53154

Phone: (414) 768-7144

Ext:

Fax: (414) 768-7158

E-Mail:

Impacts:

Soil Contamination

Groundwater Contamination

Free Product

Co-contamination

Risk:

Medium Risk

Assigned: 03/12/2003

Substances:

Gasoline - Leaded

Gasoline - Unleaded

Actions:

1 Notification

09/28/1989

**Bureau for Remediation and Redevelopment  
Activity Detail Report - Case Tracking**

**Actions:**

37	SI Report Received (w/out Fee) SI REPORT RECV'D	07/08/1991
36	Site Investigation Workplan Approved SI WORK PLAN APPV'D	08/18/1992
43	Status Report Received QRTLY/MTHLY STATUS RPT	11/10/1992
37	SI Report Received (w/out Fee)/2 SI REPORT RECV'D	11/19/1992
37	SI Report Received (w/out Fee)/3 SI REPORT RECV'D	05/24/1994
43	Status Report Received/2 QRTLY/MTHLY STATUS RPT	03/16/1995
3	Notice of Noncompliance (NON) NTC OF NON COMPLIENCE	04/05/1995
39	Remedial Action Options Report received (w/out Fee) RA WORK PLAN RECV'D	08/02/1995
40	Remedial Action Options Report Approved RA WORK PLAN APPV'D	08/29/1995
99	Miscellaneous RE-SCORE TO 38.00	09/05/1995
99	Miscellaneous/2 REC'D LETTER ABOUT REMEDIAL SYSTEMS OPERATION	02/04/1997
43	Status Report Received/3	05/07/1997
80	Closure Not Approved	05/30/1997
43	Status Report Received/4	07/25/1997
43	Status Report Received/5	04/20/1998
92	O&M Report Received (w/out Fee)	12/03/1999
43	Status Report Received/6	12/03/1999
43	Status Report Received/7 SOIL & GW REMEDIATION SYSTEM	08/14/2000
79	Closure Review Request Received with Fee REC'D CK#37131 \$750.00 - REC'D GIS PKT GIVEN TO MW 9/20/02 JH PICKED UP 10/11/02	09/17/2002
700	Date Groundwater Registry Fee Received REC'D CK # 37132 \$250.00	09/18/2002
90	Start FIFO Review JH GIS PKT COMPLETE (MW)	10/07/2002
91	End FIFO Review JH ADDITIONAL INFO REQUEST FOR CLOSURE DETERMINATION	11/05/2002
76	Activity Transferred to DCOM	03/12/2003

UTD Number: 450 FID Number: 241574850 PMN Number: \_\_\_\_\_

County: 41 Initial Contact Date: 9.28.89  
 Site Name: Clark Oil Station #562 Date RPLetter Sent: \_\_\_\_\_  
 Address: 4751 N. Santa Monica Date Closure Approved: \_\_\_\_\_

Municipality: \_\_\_\_\_ Person/Firm Reporting: \_\_\_\_\_  
 Legal Description: 1/4 1/4 sec. - NR E/W Phone Number: (\_\_\_\_) \_\_\_\_\_  
 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_

Priority Screening	Scoring Criteria	Funding Source	Effective Date	LUST Trust Eligible
<u>1</u> = High	1. _____	<u>1</u> = RP	____/____/____	<u>1</u> = Federal
<u>2</u> = Medium	2. _____	<u>2</u> = LTF	____/____/____	<u>2</u> = Non-Federal
<u>3</u> = Low	3. _____	<u>3</u> = EF	____/____/____	
<u>4</u> = Unknown	4. _____	<u>4</u> = Other	____/____/____	
	5. _____			

Score: 24 Init.: JF Date: 10.6.94  
30 Case Status

	Start Date	End Date
<u>F</u> Free Product Removal	____/____/____	____/____/____
<u>E</u> RP Emergency Response	____/____/____	____/____/____
<u>R</u> LTF Emergency Response	____/____/____	____/____/____
<u>L</u> Long Term Monitoring	____/____/____	____/____/____

Responsible Party: Maureen Turman Impacts: \_\_\_\_\_  
 Company Name: Clark Refining + Marketing, Inc. Enter "P" for potential and "K" for known  
 Contact Person: 1307 Butterfield Rd. Su. 424 P  
 Address: Downers Grove IL 60515  
60515 (1) Fire/Explosion Threat  
 Phone Number: 708.434-5300 x46 K (2) Contaminated Private Well(s) \_\_\_\_\_ # of Wells  
K (3) Contaminated Public Well  
K (4) Groundwater Contamination  
K (5) Soil Contamination  
 (6) Other: \_\_\_\_\_  
 (7) Surface Water Impacts  
 (9) Floating Product

Consultant	Substances	# Tank(s)	Size
Company Name: <u>Sigma</u>	<u>✓</u> (1) Leaded Gas	_____	_____
Contact Name: _____	<u>✓</u> (2) Unleaded Gas	_____	_____
Address: _____	(3) Diesel	_____	_____
Telephone: _____	(4) Fuel Oil	_____	_____
	(5) Unkwn Hydrocrbn	_____	_____
	(8) Other	_____	_____
	(12) Waste Oil	_____	_____

Clark Oil #562 241574850 ECR-LUST

TRACKING UP-DATE FORM FOR PROJECT MANAGER				
ID#	FID#	ACTION	ACTION DATE	ACTION COMMENTS
		37	5/24/94	
		39	8/2/95	
		40	8/29/95	

ACTION CODES

- |                                |                               |                                |
|--------------------------------|-------------------------------|--------------------------------|
| 02 = RP Letter Sent*           | 33 = Tank Cls/SA Report Rec'd | 45 = Form 4 Approved           |
| 03 = Notice of Noncompliance*  | 34 = Tank Cls/SA Report Appvd | 46 = Form 4 Denied             |
| 04 = Enforcement Conference*   | 35 = SI Workplan Rec'd*       | 47 = PECFA Reimbursement       |
| 14 = Notice of Violation*      | 36 = SI Workplan Appvd*       | 48 = Free Product Recovery*    |
| 18 = Admin. Order Issued*      | 37 = SI Report Rec'd          | 49 = Alternate Water Supplied* |
| 19 = Admin. Order Modified     | 38 = SI Report Appvd*         |                                |
| 20 = Admin. Order Cancelled    | 39 = RA Workplan Rec'd*       |                                |
| 21 = Contest Case Hearing*     | 40 = RA Workplan Appvd*       |                                |
| 23 = Referral to DOJ*          | 41 = RA Report Rec'd*         |                                |
| 30 = Notice to Proceed*        | 42 = RA Report Appvd*         |                                |
| 31 = Tnk Cls/SA Workplan Rec'd | 43 = Status Reports*          |                                |
| 32 = Tnk Cls/SA Workplan Appvd | 44 = Form 4 Received          |                                |
- 60 = Consent Order +

NOTE: \* = EPA Reporting Requirements

ATTACHMENT

Boring Logs



Foth & Van Dyke & Associates, Inc.

LOG OF TEST BORING NO.: HSMSB01						SURFACE ELEVATION:					
CLIENT: CLARK OIL PROJECT: HAMPTON & SANTA MONICA PROJECT NUMBER: 89C47 LOCATION:						BORING DEPTH: 13.0 FT. DATE: 08-28-89					
DEPTH FR LND SURF	SAMP DEPTH INTERVAL	TYPE	#	N	REC (in)	DESCRIPTION OF MATERIAL	CLASS	UNCONFINED STRENGTH	MOISTURE	PID	DRILLING AND SAMPLING NOTES
-- 0.0						REBAR CONCRETE 0.5"					
	2.5-4.0	SS	1	21	18	M. DENSE, M. TO C. SAND & GRAVEL FILL, SOME WOOD BROWN TO RED, STRONG OOR	hf		DRY	67.0	
-- 5.0	5.0-6.5	SS	2	21	18	M. DENSE, TAN F. SAND W/ TR. SILT, STRONG OOR-FILL	hf		DRY	400.	
	7.5-9.0	SS	3	19		M. DENSE, TAN TO GRAY CLAYEY SAND W/ SOME SILT, V. STRONG OOR	sc		SL. MOIST	750.	
-- 10.0	10.0-12.0	SS	4	10	24	STIFF TAN CLAY, SOME F. SAND	cl		SL. MOIST	849.	
	12.0-13.0	SS	5	6	12	AS ABOVE			SL. MOIST	350.	T=1520 ID NO. HSMSB01-C TIP=85.0 ppm IN AUGER
-- 15.0						E.O.B. 13.0'					
-- 20.0											
-- 25.0											
-- 30.0											
-- 35.0											
-- 40.0											
-- 45.0											
-- 50.0											
-- 55.0											
START DATE: 08-28-89 COMPLETION DATE: 08-28-89 LOGGED BY: B. HACKENBERG DRILLING METHOD: 4.25" HSA DRILLING CONTRACTOR: WISCONSIN TEST DRILLING						WATER LEVEL INFORMATION DEPTH AT COMPLETION: DRY LATER TIME/DEPTH: LATER TIME/DEPTH: CAVE-IN DEPTH: DRILLING LOSSES:					

Foth & Van Dyke & Associates, Inc.

LOG OF TEST BORING NO.: HSMSB02						SURFACE ELEVATION:					
CLIENT: CLARK OIL PROJECT: HAMPTON & SANTA MONICA PROJECT NUMBER: 89C47 LOCATION:						BORING DEPTH: 13.0 FT. DATE: 08-28-89					
DEPTH FR LND SURF	SAMP DEPTH INTERVAL	TYPE	#	N	REC (in)	DESCRIPTION OF MATERIAL	CLASS	UNCONFINED STRENGTH	MOISTURE	PID	DRILLING AND SAMPLING NOTES
-- 0.0						REBAR CONCRETE	0.5"				
	2.5-4.0	SS	1	5	18	LOOSE, M. TO C. SAND & GRAVEL FILL BROWN, ODOR, FEW GLASS SHARDS	hf		DRY	65.0	
-- 5.0	5.0-6.5	SS	2	21	18	M. DENSE, TAN F. SAND, STRONG ODOR	hf		DRY	352.	
	7.5-9.0	SS	3	19	18	M. DENSE, GRAY SILTY SAND, V. STRONG ODOR	sm		SL. MOIST	1300	
-- 10.0	10.0-12.0	SS	4	8	24	LOOSE, GRAY SILTY F. SAND W/ SOME CLAY, V. STRONG ODOR	sm		SL. MOIST	1370	
	12.0-13.0	SS	5	9	12	AS ABOVE			SL. MOIST	1296	T=1610 ID NO. HSMSB02-C
-- 15.0						E.O.B. 13.0'					
-- 20.0											
-- 25.0											
-- 30.0											
-- 35.0											
-- 40.0											
-- 45.0											
-- 50.0											
-- 55.0											

START DATE: 08-28-89  
 COMPLETION DATE: 08-28-89  
 LOGGED BY: B. HACKENBERG  
 DRILLING METHOD: 4.25" HSA  
 DRILLING CONTRACTOR: WISCONSIN TEST DRILLING

WATER LEVEL INFORMATION  
 DEPTH AT COMPLETION: DRY  
 LATER TIME/DEPTH:  
 LATER TIME/DEPTH:  
 CAVE-IN DEPTH:  
 DRILLING LOSSES:

Foth & Van Dyke & Associates, Inc.

LOG OF TEST BORING NO.: HSMSB03							SURFACE ELEVATION:				
CLIENT: CLARK OIL PROJECT: HAMPTON & SANTA MONICA PROJECT NUMBER: 89C47 LOCATION:							BORING DEPTH: 4.0 FT. DATE: 08-28-89				
DEPTH FR LND SURF	SAMP DEPTH INTERVAL	TYPE	#	N	REC (in)	DESCRIPTION OF MATERIAL	CLASS	UNCONFINED STRENGTH	MOISTURE	PID	DRILLING AND SAMPLING NOTES
0.0	0.5-2.0	SS	1	15		REBAR CONCRETE 0.5"	hf	0.25	DRY	20.0	
	2.0-4.0	SS	2	17	18	SOFT, BROWN CLAY & C. GRAVEL, ODOR SOME GLASS SHARDS, FILL M. DENSE, TAN TO WHITE SAND & GRAVEL	hf		DRY	0.0	T=1650 ID NO. HSMSB03-C
5.0						E.O.B. 4.0'					
10.0											
15.0											
20.0											
25.0											
30.0											
35.0											
40.0											
45.0											
50.0											
55.0											

START DATE: 08-28-89 COMPLETION DATE: 08-28-89 LOGGED BY: B. HACKENBERG DRILLING METHOD: 4.25" HSA DRILLING CONTRACTOR: WISCONSIN TEST DRILLING	WATER LEVEL INFORMATION DEPTH AT COMPLETION: LATER TIME/DEPTH: LATER TIME/DEPTH: CAVE-IN DEPTH: DRILLING LOSSES:
---	---

Spill ID Number  
**890928-06**  
Y Y M M D D 0-99

Date of Incident <b>UNK</b>	Day of Week	Time of Incident <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.	Reported By (Name)	Telephone Number ( )
Date Reported <b>9/28/89</b>	Day of Week <b>Thurs</b>	Time Reported <input type="checkbox"/> A.M. <input type="checkbox"/> P.M.	Agency or Firm Reporting <b>Foth &amp; Van Dyke</b>	Reported thru Div. Emergen. Gov't. <input type="checkbox"/> Yes <input type="checkbox"/> No
Substance Involved	Quantity	Units	Person or Firm Responsible <b>Clark Oil Company</b>	
Substance Involved	Quantity	Units	Contact Name	Telephone Number ( )

Physical Characteristics  
 Solid  Liquid  Semisolid  Gas  
 Color \_\_\_\_\_ Odor \_\_\_\_\_

Address - Street or Route  
**9451 N. 107<sup>th</sup> Street**  
 City, State, Zip Code  
**Milwaukee, WI 53202**

Cause of Incident  
**LUST**

Action Taken By Spiller  
 No Action Taken  No Notification  Investigate

Exact Location Description (intersection, mileage, etc.)  
**4751 4751 N. Santa Monica Ave whitefish Bay**

County Location  
**Milwaukee** T N R

DNR Dist **SED** DNR Area **Milw** Groundwaters Affected  
 Yes  No  Potential

Surface Waters Affected  
 Yes  No  Potential

Date District Notified  
**9/28/89**

District Person Notified Telephone Number ( )

Date Investigated Day of Week Time Investigated  
 A.M.  P.M.

Person Investigating Telephone Number ( )

Action Taken By DNR  
 No Action Taken  Investigation  Supervise/Conduct Cleanup

Spiller Required To Take Action; Type

Contractor Hired By DNR; Name

Amount Recovered

29.29 Enforcement

Other Agencies on Scene

Local State Federal

Person Filing This Report (print name)  
**Skip Baker**

Signature **Skip Baker** Date Signed **11/17/89**

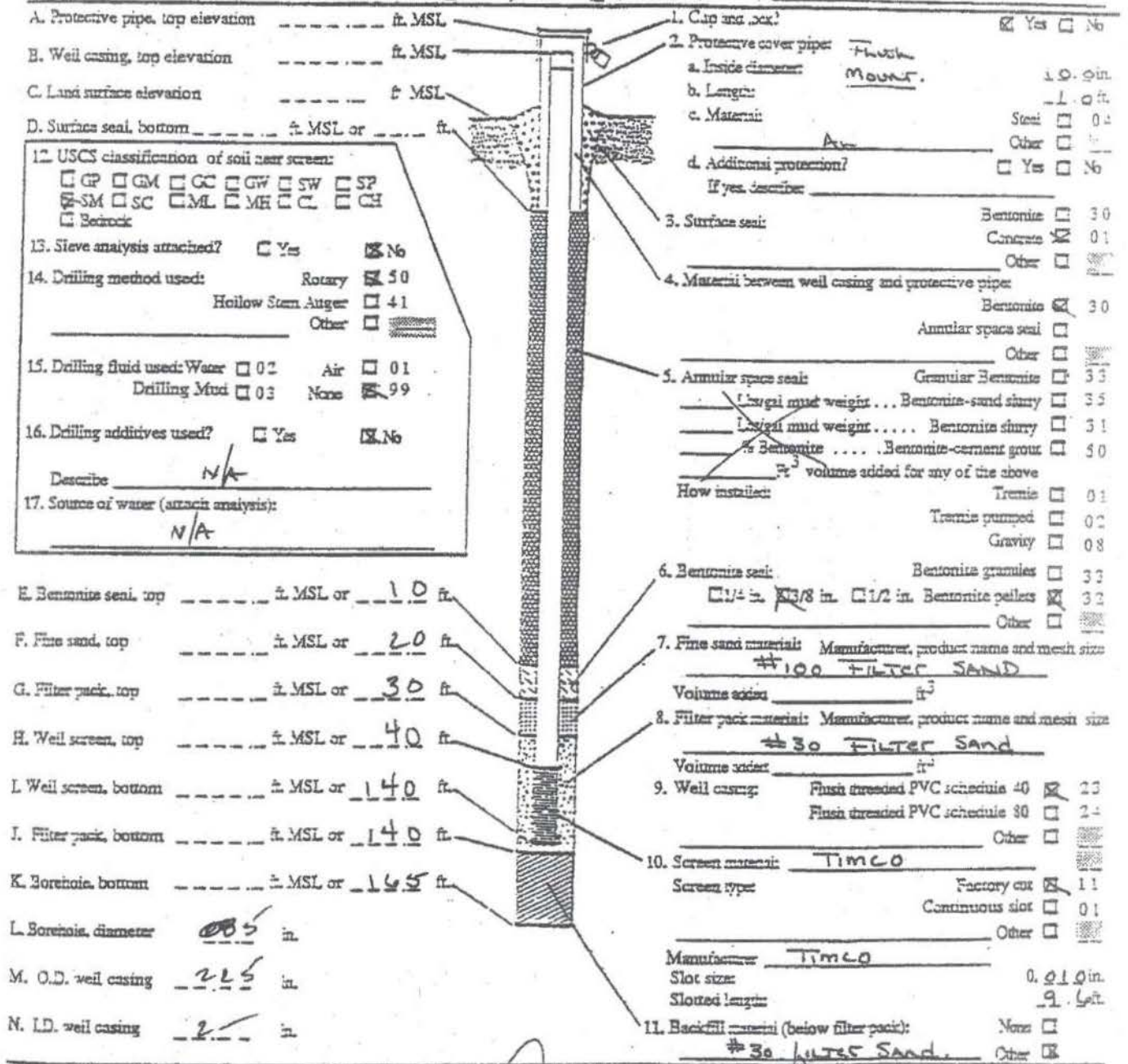
Additional Comments:  
**9/28/89 soil borings were collected to evaluate site condition. significant contamination was discovered**

RECEIVED  
 NOV 17 1989  
 BUREAU OF SOIL -  
 HAZARDOUS WASTE MANAGEMENT

L.U.S.T.

**Appendix E**  
**Monitoring Wells, Vapor Extraction Wells, and Recovery**  
**Wells Construction Reports (Closed BRRTS # 03-41-000450)**

Facility/Project Name: Clark #562  
 City Location: \_\_\_\_\_  
 Well Name: B-1/MW-1  
 Primary License, Permit or Monitoring Number: \_\_\_\_\_  
 Type of Well:  Water Table Observation Well  II  Piezometer  IZ  
 Section Location: NE 1/4 of NE 1/4 of Section 5  
 Distance Well is from Water Source Boundary: 35.0 ft  
 Location of Well Relative to Water Source: T 7 N. R 22 E  
 Is Well A Point of Enforcement Sta. Application?  Yes  No  
 Location of Well Relative to Water Source:  Upgradient  Downgradient  Not Known



I hereby certify that the information on this form is true and correct to the best of my knowledge.  
 Signature: Jane Klesch

Please complete and return both sides of this form as required by sgs. 101.11 and 101.13, Wis. Stats., and ch. sgs. 101.11, Wis. Admin. Code. In accordance with ch. 101.13, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 101.13, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 101.13, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation.

Facility/Project Name <b>Clark 562</b>	Grid Location <b>R E N C S. R E E C W.</b>	Well Name <b>B-2/mw-2</b>
Facility License, Permit or Monitoring Number		Wis. Unique Well Number: _____ DNR Well Number: _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> <b>11</b> Piezometer <input type="checkbox"/> <b>12</b>	Section Location <b>NE 1/4 of NE 1/4 of Section 5</b>	Date Well Installed <b>06/25/92</b>
Distance well is from Wastewater boundary <b>25.0</b> ft	T <u>7</u> N <u>R</u> <u>22</u> E <u>W</u>	Well installed by: (Person's Name and Firm) <b>- OSI Environmental -</b>
Is Well A Point of Enforcement in Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of well relative to Wastewater <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidewater <input type="checkbox"/> Downgradient <input checked="" type="checkbox"/> Not Known	

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: <b>Flush Main</b>
C. Land surface elevation _____ ft. MSL	a. Inside diameter: <b>1.0</b> in.
D. Surface seal, bottom _____ ft. MSL or _____ ft.	b. Length: <b>1.1</b> ft.
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> ME <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	c. Material: <b>Steel</b> <input type="checkbox"/> 0.4 <input type="checkbox"/> Other <input checked="" type="checkbox"/> <b>11</b>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: _____
14. Drilling method used: Rotary <input checked="" type="checkbox"/> <b>30</b> Hollow Stem Auger <input type="checkbox"/> <b>41</b> Other <input type="checkbox"/> _____	3. Surface seal: <b>Bentonite</b> <input type="checkbox"/> 30 <b>Concrete</b> <input checked="" type="checkbox"/> <b>01</b> Other <input type="checkbox"/> _____
15. Drilling fluid used: Water <input type="checkbox"/> <b>02</b> Air <input type="checkbox"/> <b>01</b> Drilling Mud <input type="checkbox"/> <b>03</b> None <input checked="" type="checkbox"/> <b>99</b>	4. Material between well casing and protective pipe: <b>Bentonite</b> <input checked="" type="checkbox"/> <b>30</b> Annular space seal <input type="checkbox"/> _____ Other <input type="checkbox"/> _____
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: <b>N/A</b>	5. Annular space seal: <b>Granular Bentonite</b> <input type="checkbox"/> <b>33</b> <b>Clayal mud weight ... Bentonite-sand slurry</b> <input checked="" type="checkbox"/> <b>35</b> <b>Light mud weight ... Bentonite slurry</b> <input type="checkbox"/> <b>31</b> <b>% Bentonite ... Bentonite-cement grout</b> <input type="checkbox"/> <b>50</b> If volume added for any of the above: How installed: <b>Tremie</b> <input type="checkbox"/> <b>01</b> <b>Tremie pump</b> <input checked="" type="checkbox"/> <b>02</b> <b>Gravity</b> <input type="checkbox"/> <b>08</b>
17. Source of water (attach analysis): <b>N/A</b>	6. Bentonite seal: <b>Bentonite granules</b> <input type="checkbox"/> <b>33</b> <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. <b>Bentonite pellets</b> <input checked="" type="checkbox"/> <b>32</b> Other <input type="checkbox"/> _____
E. Bentonite seal, top _____ ft. MSL or <b>1.0</b> ft.	7. Fine sand material: <b>Manufacturer, product name and mesh size</b> <b>#100 FILTER SAND</b> Volume added _____ ft <sup>3</sup>
F. Fine sand, top _____ ft. MSL or <b>2.5</b> ft.	8. Filter pack material: <b>Manufacturer, product name and mesh size</b> <b>#30 FILTER SAND</b> Volume added _____ ft <sup>3</sup>
G. Filter pack, top _____ ft. MSL or <b>3.5</b> ft.	9. Well casing: <b>Flush threaded PVC schedule 40</b> <input checked="" type="checkbox"/> <b>23</b> <b>Flush threaded PVC schedule 80</b> <input type="checkbox"/> <b>24</b> Other <input type="checkbox"/> _____
H. Well screen, top _____ ft. MSL or <b>5.0</b> ft.	10. Screen material: <b>TIMCO</b>
I. Well screen, bottom _____ ft. MSL or <b>1.50</b> ft.	Screen type: <b>Factory cut</b> <input checked="" type="checkbox"/> <b>11</b> <b>Continuous slot</b> <input type="checkbox"/> <b>01</b> Other <input type="checkbox"/> _____
J. Filter pack, bottom _____ ft. MSL or <b>1.50</b> ft.	Manufacturer: <b>TIMCO</b> Slot size: <b>0.010</b> in. Slotted length: <b>9.6</b> ft.
K. Bentonite, bottom _____ ft. MSL or <b>1.20</b> ft.	11. Backfill material (below filter pack): <b>None</b> <input type="checkbox"/> <b>#30 Filter Sand</b> <input checked="" type="checkbox"/> Other <input type="checkbox"/> _____
L. Bentonite diameter <b>0.5</b> in.	
M. O.D. well casing <b>2.25</b> in.	
N. I.D. well casing <b>2.00</b> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: **Gene Kleiss** Title: **Owner**

These complete and return both sides of this form as required by Chs. 113.01 and 113.02, Wis. Stats., and Ch. 113.01, Wis. Admin. Code. In accordance with Ch. 113.01, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with Ch. 113.02, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

APPENDIX I

APPENDIX H

State of Wisconsin  
Department of Natural Resources

MONITORING WELL CONSTRUCTION  
Form W-00-113A  
1999

Station/Project Name Chesh 562		Form Location	
Factory Location, Firm or Manufacturer/ Vendor		A. <input type="checkbox"/> N. <input type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.	
Type of well Water: each Observation Well Phreatometer	Well ID NE 1/4 of S. 22	Well Name R-3/mw-3	Well Number NONE
Diameter Well is from Manufacturer's drawing 35.0	Location of Well relative to well pad <input type="checkbox"/> Upgradient <input type="checkbox"/> Downgradient	Well Installation T 7 N 3 22 S E 0 W	Well Installation by OSI ENVIRONMENTAL
Is this a final or construction site application <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well relative to water source <input type="checkbox"/> Upgradient <input type="checkbox"/> Downgradient	Well Installation by OSI ENVIRONMENTAL	Well Number NONE

A. Proponer's pipe, top elevation F YSL or F YSL	B. YSL	1. Cap and seal <input type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation F YSL	F YSL	2. Proponer's cover pipe a. Inside diameter b. Length c. Material
C. Lead inches above casing F YSL	F YSL	d. Additional protection <input type="checkbox"/> Yes <input type="checkbox"/> No
D. Surface seal, bottom <input type="checkbox"/> GM <input type="checkbox"/> GM <input type="checkbox"/> GP <input type="checkbox"/> GP <input type="checkbox"/> SW <input type="checkbox"/> SW <input type="checkbox"/> SSM <input type="checkbox"/> SSM <input type="checkbox"/> SSM <input type="checkbox"/> SSM		3. Surface seal <input type="checkbox"/> Bentonite <input type="checkbox"/> 3.0 <input type="checkbox"/> Concrete <input type="checkbox"/> 0.1 <input type="checkbox"/> Other <input type="checkbox"/>
E. USGS classification of soil near screen <input type="checkbox"/> Ys <input type="checkbox"/> Ns		4. Material between well casing and protective pipe <input type="checkbox"/> Bentonite <input type="checkbox"/> 3.0 <input type="checkbox"/> Amorphous silica <input type="checkbox"/> 3.0 <input type="checkbox"/> Other <input type="checkbox"/>
F. Screen analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No		5. Annular space seal <input type="checkbox"/> Bentonite <input type="checkbox"/> 3.0 <input type="checkbox"/> Gravelly bentonite <input type="checkbox"/> 3.5 <input type="checkbox"/> Dry pack cement <input type="checkbox"/> 3.5 <input type="checkbox"/> Other <input type="checkbox"/>
13. Screen analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No		6. Annular space a. Inside diameter b. Length c. Material
14. Drilling method used: Hollow Stem Auger <input type="checkbox"/> 4.1 Rotary <input type="checkbox"/> 5.0 Other <input type="checkbox"/>		7. Free sand cement a. Manufacturer, product name and model size b. Filter pack cement: Manufacturer, product name and model size c. Filter pack cement: Manufacturer, product name and model size
15. Drilling fluid used: Water <input type="checkbox"/> 0.0 Air <input type="checkbox"/> 0.1 Drilling fluid <input type="checkbox"/> 0.3 None <input type="checkbox"/> 99		8. Volume solids a. Manufacturer, product name and model size b. Filter pack cement: Manufacturer, product name and model size
16. Drilling additive used? <input type="checkbox"/> Yes <input type="checkbox"/> No		9. Well casing a. Material b. Inside diameter c. Length d. Wall thickness e. Weight f. Finish
17. Source of water (check each): N/A		10. Screen annular a. Manufacturer, product name and model size b. Screen type c. Screen size d. Finishing size e. Finishing material f. Finishing material

1. Cap and seal  
2. Proponer's cover pipe  
3. Surface seal  
4. Material between well casing and protective pipe  
5. Annular space seal  
6. Annular space  
7. Free sand cement  
8. Volume solids  
9. Well casing  
10. Screen annular  
11. Sandfill around filter pack  
12. Bentonite  
13. Screen analysis attached?  
14. Drilling method used  
15. Drilling fluid used  
16. Drilling additive used  
17. Source of water

1. Well screen, bottom a. YSL or b. YSL	2. Well screen, top a. YSL or b. YSL	3. Filter pack, bottom a. YSL or b. YSL	4. Filter pack, top a. YSL or b. YSL	5. Free sand, top a. YSL or b. YSL	6. Bentonite seal, top a. YSL or b. YSL	7. Bentonite seal, bottom a. YSL or b. YSL	8. Well casing, top a. YSL or b. YSL	9. Well casing, bottom a. YSL or b. YSL	10. Bentonite diameter a. YSL or b. YSL	11. ID well casing a. YSL or b. YSL	12. Old well casing a. YSL or b. YSL	13. ID well casing a. YSL or b. YSL
---	--	---	--	--	---	--	--	---	---	---	--	---



Project Name: Clark #562 Grid Location: \_\_\_\_\_ Well Name: B-4/mw-4  
 License, Permit or Monitoring Number: \_\_\_\_\_ ft. □ N. □ S. □ E. □ W. Well Unique Well Number: \_\_\_\_\_ Local Well Number: \_\_\_\_\_

Well:  Water Table Observation Well  II  Piezometer  III Section Location: NE 1/4 of NE 1/4 of Section 5  
 Well is from Water Source Boundary: \_\_\_\_\_ ft. T 7 N. R. 22 E. □ W. Date Well Installed: 06/26/92  
 Point of Enforcement Dist. Application:  Yes  No Location of Well Relative to Wastewater Source:  Upgradient  Downgradient  Not Known  
 Well Installed by: (Person's Name and Firm) OSI Environmental

Well pipe, top elevation: \_\_\_\_\_ ft. MSL. 1. Cap and lock?  Yes  No  
 Casing, top elevation: \_\_\_\_\_ ft. MSL. 2. Protective cover pipe:  Yes  No  
 Surface elevation: \_\_\_\_\_ ft. MSL. a. Inside diameter: 1.0 in.  
 Seal bottom: \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft. b. Length: \_\_\_\_\_ ft.  
 Classification of soil near screen: c. Material: A1 Steel  0.4  
 GM  GC  GW  SW  SP Other  0.4  
 SC  ML  MH  CL  CH d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_  
 Analysis attached?  Yes  No 3. Surface seal: Bentonite  30  
 Drilling method used: Rotary  50 Concrete  01  
 Hollow Stem Auger  41 Other  \_\_\_\_\_  
 Drilling fluid used: Water  02 Air  01 4. Material between well casing and protective pipe:  
 Drilling Mud  03 None  99 Bentonite  30  
 Additives used?  Yes  No Annular space seal  \_\_\_\_\_  
 Other: N/A Other  \_\_\_\_\_  
 Volume of water (attach analysis): N/A 5. Annular space seal: Granular Bentonite  33  
100 lb bag and weight Bentonite-sand slurry  35  
100 lb bag mud weight Bentonite slurry  31  
5 Bentonite Bentonite-cement slurry  50  
 How installed: \_\_\_\_\_ Tremie  01  
\_\_\_\_\_ Tremie tamped  02  
\_\_\_\_\_ Gravit  03  
 Annular seal top: \_\_\_\_\_ ft. MSL or 1.0 ft. 6. Bentonite seal: Bentonite granules  33  
 1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
 Other  \_\_\_\_\_  
 Seal top: \_\_\_\_\_ ft. MSL or 2.5 ft. 7. Fine sand material: Manufacturer, product name and mesh size  
#100 FILTER SAND  
 Volume added: \_\_\_\_\_ ft<sup>3</sup>  
 Seal top: \_\_\_\_\_ ft. MSL or 3.5 ft. 8. Filter pack material: Manufacturer, product name and mesh size  
#30 FILTER SAND  
 Volume added: \_\_\_\_\_ ft<sup>3</sup>  
 Seal top: \_\_\_\_\_ ft. MSL or 5.0 ft. 9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 30  24  
 Other  \_\_\_\_\_  
 Seal bottom: \_\_\_\_\_ ft. MSL or 15.0 ft. 10. Screen material: TIMCO  
 Screen type: Factory cut  11  
 Continuous slot  01  
 Other  \_\_\_\_\_  
 Seal bottom: \_\_\_\_\_ ft. MSL or 15.0 ft. Manufacturer: TIMCO  
 Slot size: 0.075 in.  
 Slotted length: 4.6 ft.  
 Seal bottom: \_\_\_\_\_ ft. MSL or 17.0 ft. 11. Backfill material (below filter pack): None   
#30 FILTER SAND  Other  \_\_\_\_\_  
 Diameter: 2.5 in.  
 Well casing: 2.25 in.  
 Well casing: 2.00 in.

I certify that the information on this form is true and correct to the best of my knowledge.  
Gene Klueh \_\_\_\_\_  
 Wisconsin and return both sides of this form as required by chs. \_\_\_\_\_ and 104, Wis. Stats. and ch. \_\_\_\_\_, Wis. Admin. Code. In accordance with Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Agency/Project Name: Clark 562      Gnd Location: \_\_\_\_\_      Well Name: B-7/mw-5

Agency License, Permit or Monitoring Number: \_\_\_\_\_      Section Location: NE 1/4 of NE 1/4 of Section 5

Type of Well: Water Table Observation Well      Distance Well is from Waste/Source Boundary: 30'

Location of Well relative to Waste/Source:  Upgradient     Downgradient     Not Known

Well Unique Well Number: \_\_\_\_\_      Date Well Installed: 09/29/92

Well Installed by: (Person's Name and Firm): CSI ENVIRONMENTAL

A. Protective pipe, top elevation	ft. MSL	1. Cap and lock!	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation	ft. MSL	2. Protective cover pipe:	
C. Land surface elevation	ft. MSL	a. Inside diameter	<u>2.0 in</u>
D. Surface seal, bottom	ft. MSL or	b. Length	<u>1.0 ft</u>
12. USCS classification of soil near screen:		c. Material	<u>21</u> Std <input type="checkbox"/> Other <input checked="" type="checkbox"/>
<input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP		d. Additional protection?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> ME <input type="checkbox"/> CL <input type="checkbox"/> CH		If yes, describe _____	
<input type="checkbox"/> Bedrock		3. Surface seal:	Bentonite <input type="checkbox"/> 30
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Concrete <input type="checkbox"/> 01	
14. Drilling method used:		Other <input type="checkbox"/>	
Rotary <input type="checkbox"/> 50		4. Material between well casing and protective pipe:	Bentonite <input checked="" type="checkbox"/> 30
Hollow Stem Auger <input checked="" type="checkbox"/> 41		Annular space seal <input type="checkbox"/>	
Other <input type="checkbox"/>		Other <input type="checkbox"/>	
15. Drilling fluid used: Water <input type="checkbox"/> 02      Air <input type="checkbox"/> 01		5. Annular space seal:	Granular Bentonite <input type="checkbox"/> 33
Drilling Mud <input type="checkbox"/> 03      None <input checked="" type="checkbox"/> 99		Lbs/gal mud weight... Bentonite-sand slurry <input type="checkbox"/> 35	
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Lbs/gal mud weight... Bentonite slurry <input type="checkbox"/> 31	
Describe _____		% Bentonite... Bentonite-cement grout <input type="checkbox"/> 50	
17. Source of water (attach analysis): _____		ft <sup>3</sup> volume added for any of the above _____	
E. Bentonite seal, top	ft. MSL or	How installed:	Tremie <input type="checkbox"/> 01
F. Fine sand, top	ft. MSL or	Tremie pumped <input type="checkbox"/> 02	
G. Filter pack, top	ft. MSL or	Gravity <input checked="" type="checkbox"/> 08	
H. Well screen, top	ft. MSL or	6. Bentonite seal:	Bentonite granules <input type="checkbox"/> 33
I. Well screen, bottom	ft. MSL or	<input type="checkbox"/> 1/4 in - #18 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32	
J. Filter pack, bottom	ft. MSL or	Other <input type="checkbox"/>	
K. Bentonite, bottom	ft. MSL or	7. Fine sand material: Manufacturer, product name and mesh size	<u>#100 FLINT SAND</u>
L. Bentonite, diameter	ft.	Volume added _____ ft <sup>3</sup>	
M. O.D. well casing	ft.	8. Filter pack material: Manufacturer, product name and mesh size	<u>#30 Flint Sand</u>
N. I.D. well casing	ft.	Volume added _____ ft <sup>3</sup>	
		9. Well casing:	Finish threaded PVC schedule 40 <input checked="" type="checkbox"/> 33
		Finish threaded PVC schedule 80 <input type="checkbox"/> 34	
		Other <input type="checkbox"/>	
		10. Screen material: <u>PVC</u>	
		Screen type:	Factory cut <input checked="" type="checkbox"/> 11
		Continuous slot <input type="checkbox"/> 01	
		Other <input type="checkbox"/>	
		Manufacturer: <u>Timeco</u>	
		Slot size:	<u>0.010 in</u>
		Slotted length:	<u>2.6 ft</u>
		11. Bacteria resistant Geow filter pack:	None <input checked="" type="checkbox"/>
		Other <input type="checkbox"/>	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [Signature]      Date: \_\_\_\_\_

These conditions and return your copy of this form as required by Wis. Stats. §§ 111.01 and 111.02, and Wis. Admin. Code, in accordance with Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance

Agency/Project Name: Clark 562      Geo Location: \_\_\_\_\_  
Well Name: B-9/mw-6  
Agency License, Permit or Monitoring Number: \_\_\_\_\_  
Type of Well: Water Table Observation Well  11      Section Location: NE 1/4 of NE 1/4 of Section 5  
Piezometer  22      Date well installed: 09/30/92  
Distance well is from Watersource boundary: 450'      Well installed by: (Person's Name and firm) OSI Environmental  
Given A Point of Enforcement Sta. Application?  Yes      Location of Well relative to Watersource:  
 Upgradient       Downgradient       Not Known

1. Protective pipe, top elevation	ft. MSL	1. Cap and lock	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. Well casing, top elevation	ft. MSL	2. Protective cover pipe:	
3. Land surface elevation	ft. MSL	a. Inside diameter	<u>62.0 in.</u>
4. Surface seal, bottom	ft. MSL or _____	b. Length	<u>1.0 ft.</u>
USCS classification of soil near screen:		c. Material	<u>As</u>
<input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP		d. Additional protection?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> ME <input type="checkbox"/> CL <input type="checkbox"/> CH		If yes, describe _____	
<input type="checkbox"/> Siltstone		3. Surface seal	Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
5. Sieve analysis attached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Material between well casing and protective pipe	Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/>
6. Drilling method used:	Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	5. Annular space seal	Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight... Bentonite slurry <input type="checkbox"/> 31 % Bentonite... Bentonite-cement grout <input type="checkbox"/> 50 How installed: <input type="checkbox"/> Tremie <input type="checkbox"/> 01 <input type="checkbox"/> Tremie pumped <input type="checkbox"/> 02 <input checked="" type="checkbox"/> Gravity <input type="checkbox"/> 08
7. Drilling fluid used: Water <input type="checkbox"/> 02      Air <input type="checkbox"/> 01	Drilling Mud <input type="checkbox"/> 03      None <input checked="" type="checkbox"/> 99	6. Bentonite seal	Bentonite granules <input type="checkbox"/> 33 <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
8. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Describe <u>AK</u>	7. Fine sand material: Manufacturer, product name and mesh size	<u>#100 Flint sand</u>
9. Source of water (attach analysis): <u>N/A</u>		Volume added _____ ft <sup>3</sup>	
Bentonite seal, top	ft. MSL or <u>05</u> ft.	8. Filter pack material: Manufacturer, product name and mesh size	<u>#30 Flint Sand</u>
Fine sand, top	ft. MSL or <u>21</u> ft.	Volume added _____ ft <sup>3</sup>	
Filter pack, top	ft. MSL or <u>30</u> ft.	9. Well casing:	Finish threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Finish threaded PVC schedule 30 <input type="checkbox"/> 24 Other <input type="checkbox"/>
Well screen, top	ft. MSL or <u>45</u> ft.	10. Screen material: <u>PVC</u>	Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
Well screen, bottom	ft. MSL or <u>145</u> ft.	Manufacturer: <u>Timco</u>	Slot size: <u>0.015 in.</u>
Filter pack, bottom	ft. MSL or <u>145</u> ft.	Slotted length: <u>2.6 ft.</u>	
Bentonite, bottom	ft. MSL or <u>160</u> ft.	11. Bacteria material (below filter pack):	None <input checked="" type="checkbox"/> <u>Natural</u> Other <input type="checkbox"/>
Bentonite diameter	<u>33</u> in.		
O.D. well casing	<u>2.55</u> in.		
I.D. well casing	<u>2.1</u> in.		

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
John Klump      Sign  
Failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation, in accordance with the State.

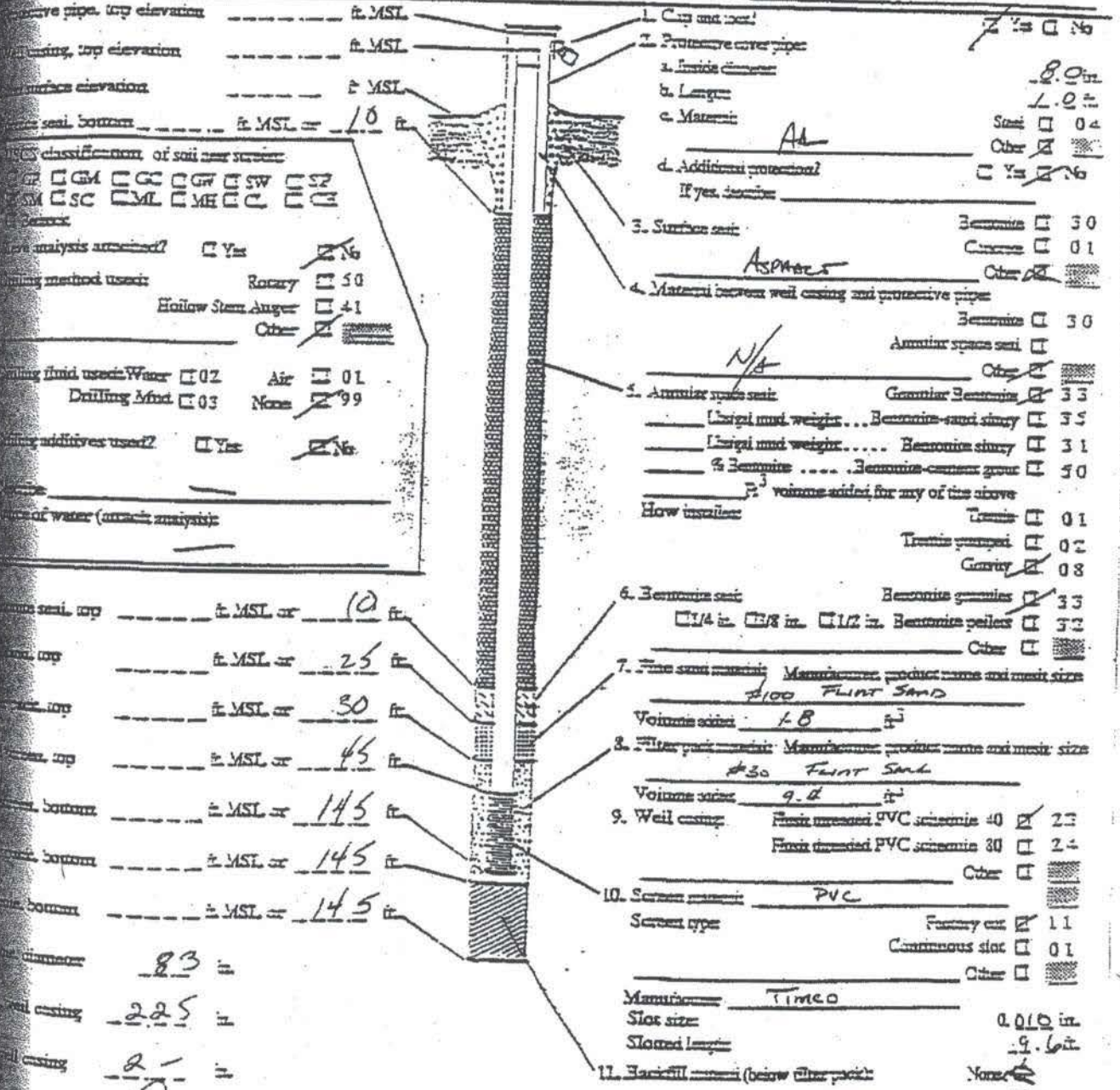
Project Name: Blank #0562      Cont. Location: \_\_\_\_\_      Well Name: B-11/mw 7

Well Type:  Water Table Observation Well      Section Location: Ne 1/4 of 1/2 1/4 of Section 5

Well is from:  State boundary       T 7 N. R. 22 W.      Date Well Installed: 04/13/93

Point of measurement in Application: 100'      Location of Well relative to Water Source:  Upgradient      Well Installed by: OSI Environmental

Point of measurement in Application:  Yes       No       Downgradient       Not Known



I hereby certify that the information on this form is true and correct to the best of my knowledge.

Gene Kleck      Sigma

Facility/Project Name: Clark Refining + Marketing / Clark Local Grid Location of Well: \_\_\_\_\_ ft.  N \_\_\_\_\_ ft.  E  
 \_\_\_\_\_ ft.  S \_\_\_\_\_ ft.  W Well Name: MW-8  
 Facility License, Permit or Monitoring Number: \_\_\_\_\_ Grid Origin Location: \_\_\_\_\_  
 Lat. \_\_\_\_\_ Long. \_\_\_\_\_ or \_\_\_\_\_  
 Type of Well: Water Table Observation Well  11 St. Plane \_\_\_\_\_ ft. N. \_\_\_\_\_ ft. E.  
 Piezometer  12 Section Location of Waste/Source: \_\_\_\_\_  
 Distance Well Is From Waste/Source Boundary: \_\_\_\_\_ ft. 1/4 of \_\_\_\_\_ 1/4 of Sec. \_\_\_\_\_ T. \_\_\_\_\_ N. R. \_\_\_\_\_  
 Is Well A Point of Enforcement Std. Application?  Yes  No Location of Well Relative to Waste/Source:  
 u  Upgradient s  Sidegradient  
 d  Downgradient n  Not Known  
 Well Installed By: (Person's Name and Firm) Ken Stuckert  
Briohn Environmental

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL \_\_\_\_\_ 1. Cap and lock?  Yes  No  
 B. Well casing, top elevation \_\_\_\_\_ ft. MSL \_\_\_\_\_ 2. Protective cover pipe:  
 a. Inside diameter: \_\_\_\_\_ 8.0 in.  
 b. Length: \_\_\_\_\_ 1.0 ft.  
 c. Material: \_\_\_\_\_ Steel  04  
 \_\_\_\_\_ Other  \_\_\_\_\_  
 d. Additional protection?  Yes  No  
 If yes, describe: \_\_\_\_\_  
 C. Land surface elevation \_\_\_\_\_ ft. MSL \_\_\_\_\_  
 D. Surface seal, bottom \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft. \_\_\_\_\_  
 12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock   
 13. Sieve analysis attached?  Yes  No  
 14. Drilling method used: Rotary  50  
 Hollow Stem Auger  41  
 Other  \_\_\_\_\_  
 15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99  
 16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_  
 17. Source of water (attach analysis): \_\_\_\_\_  
 E. Bentonite seal, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft. \_\_\_\_\_  
 F. Fine sand, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft. \_\_\_\_\_  
 G. Filter pack, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft. \_\_\_\_\_  
 H. Screen joint, top \_\_\_\_\_ ft. MSL or 5.0 ft. \_\_\_\_\_  
 I. Well bottom \_\_\_\_\_ ft. MSL or 15.0 ft. \_\_\_\_\_  
 J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 15.0 ft. \_\_\_\_\_  
 K. Borehole, bottom \_\_\_\_\_ ft. MSL or 15.0 ft. \_\_\_\_\_  
 L. Borehole, diameter \_\_\_\_\_ in. \_\_\_\_\_  
 M. O.D. well casing \_\_\_\_\_ in. \_\_\_\_\_  
 N. I.D. well casing \_\_\_\_\_ in. \_\_\_\_\_

3. Surface seal: Bentonite  30  
 Concrete  01  
 Other  \_\_\_\_\_  
 4. Material between well casing and protective pipe:  
 Bentonite  30  
 Annular space seal  \_\_\_\_\_  
 Other  \_\_\_\_\_  
 5. Annular space seal: a. Granular Bentonite  33  
 b. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite-sand slurry  35  
 c. \_\_\_\_\_ Lbs/gal mud weight ... Bentonite slurry  31  
 d. \_\_\_\_\_ % Bentonite ... Bentonite-cement grout  50  
 e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above  
 f. How installed: Tremie  01  
 Tremie pumped  02  
 Gravity  08  
 6. Bentonite seal: a. Bentonite granules  33  
 b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
 c. \_\_\_\_\_ Other  \_\_\_\_\_  
 7. Fine sand material: Manufacturer, product name & mesh size  
 a. \_\_\_\_\_  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>  
 8. Filter pack material: Manufacturer, product name and mesh size  
 a. \_\_\_\_\_  
 b. Volume added \_\_\_\_\_ ft<sup>3</sup>  
 9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 \_\_\_\_\_ Other  \_\_\_\_\_  
 10. Screen material: PVC  
 a. Screen type: Factory cut  11  
 Continuous slot  01  
 \_\_\_\_\_ Other  \_\_\_\_\_  
 b. Manufacturer \_\_\_\_\_  
 c. Slot size: \_\_\_\_\_ 0. \_\_\_\_\_ in.  
 d. Slotted length: \_\_\_\_\_ 10.0 ft.  
 11. Backfill material (below filter pack): None  14  
 Other  \_\_\_\_\_

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
 Signature: [Signature] Firm: Simon Environmental Inc.

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation. NOTE: This form is for DNR use only. See instructions for more information including where the completed form should be sent.

Facility/Project Name <b>Clark Station #0562</b>	Local Grid Location of Well 56.0 ft. <input checked="" type="checkbox"/> N. 93.0 ft. <input checked="" type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.	Well Name <b>B14/MW-9</b>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. 43 6 11 Long. 87 54 25 or	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed <u>1 0 / 0 9 / 9 5</u> m m d d y v
Distance Well Is From Waste/Source Boundary 100 ft.	Section Location of Waste/Source <b>NE 1/4 of NE 1/4 of Sec. 5, T. 7 N, R. 22</b> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <b>Midwest Engineering</b>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input checked="" type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

- A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL
- B. Well casing, top elevation \_\_\_\_\_ ft. MSL
- C. Land surface elevation \_\_\_\_\_ ft. MSL
- D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1.0 ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

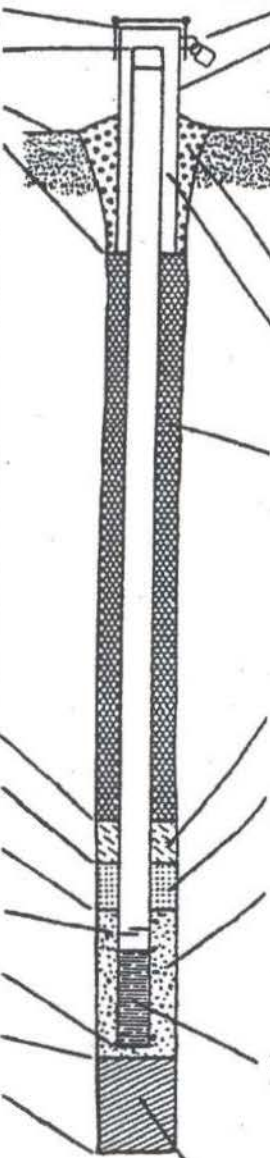
13. Sieve analysis attached?  Yes  No

14. Drilling method used: Rotary  50  
 Hollow Stem Auger  41  
 Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_

17. Source of water (attach analysis): \_\_\_\_\_



- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: 8.0 in.
  - b. Length: 1.0 ft.
  - c. Material: Steel  04  
Other
  - d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_
- 3. Surface seal: Bentonite  30  
Concrete  01  
Asphalt Other
- 4. Material between well casing and protective pipe: Bentonite  30  
Annular space seal   
Other
- 5. Annular space seal:
  - a. Granular Bentonite  33
  - b. \_\_\_\_\_ Lbs/gal mud weight Bentonite-sand slurry  35
  - c. \_\_\_\_\_ Lbs/gal mud weight \_\_\_\_\_ Bentonite slurry  31
  - d. \_\_\_\_\_ % Bentonite \_\_\_\_\_ Bentonite-cement grout  50
  - e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above
  - f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08
- 6. Bentonite seal:
  - a. Bentonite granules  33
  - b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32
  - c. \_\_\_\_\_ Other
- 7. Fine sand material: Manufacturer, product name & mesh size
  - a. Badger, Fine Sand, #40-60
  - b. Volume added 0.5 ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size
  - a. Red Flint, Flint Sand #20
  - b. Volume added 5.6 ft<sup>3</sup>
- 9. Well casing: Flush threaded PVC schedule 40  23  
 Flush threaded PVC schedule 80  24  
 Other
- 10. Screen material: PVC
  - a. Screen type: Factory cut  11  
Continuous slot  01  
Other
  - b. Manufacturer Badger
  - c. Slot size: 0.010 in.
  - d. Slotted length: 10.0 ft.
- 11. Backfill material (below filter pack): None  14  
Other

- E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1.0 ft.
- F. Fine sand, top \_\_\_\_\_ ft. MSL or 3.0 ft.
- G. Filter pack, top \_\_\_\_\_ ft. MSL or 4.0 ft.
- H. Screen joint, top \_\_\_\_\_ ft. MSL or 5.0 ft.
- I. Well bottom \_\_\_\_\_ ft. MSL or 15.0 ft.
- J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 15.0 ft.
- K. Borehole, bottom \_\_\_\_\_ ft. MSL or 15.0 ft.
- L. Borehole, diameter 8.0 in.
- M. O.D. well casing 2.25 in.
- N. I.D. well casing 2.00 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Dawn Kure Firm **Sigma Environmental Services, Inc.**  
 102 Progress Drive, Saukville, WI 53080 (414) 284-6824

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs 144, 147 & 160, Wis Stats, and ch NR 141, Wis Ad Code. In accordance with ch 144, Wis Stats, failure to file this form may result in a forfeiture of not less than \$10, nor more than \$1000 for each day of violation. In accordance with ch 147, Wis Stats, failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.







Facility/Project Name <b>Clark Station #0562</b>	Local Grid Location of Well 26.0 ft. <input checked="" type="checkbox"/> N. 53.0 ft. <input checked="" type="checkbox"/> E.	Well Name <b>VE-2</b>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. 43 6 11 Long. 87 54 25 or	Was Unique Well Number: DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed 1 0 / 0 9 / 9 5 m m d d y y
Distance Well Is From Waste/Source Boundary 5 ft.	Section Location of Waste/Source NE 1/4 of NE 1/4 of Sec. 5, T. 7 N, R. 22 <input checked="" type="checkbox"/> E.	Well Installed By: (Person's Name and Firm) <b>Midwest Engineering</b>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input checked="" type="checkbox"/> Not Known	

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL

B. Well casing, top elevation \_\_\_\_\_ ft. MSL

C. Land surface elevation \_\_\_\_\_ ft. MSL

D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1.0 ft.

12. USCS classification of soil near screen:  
GP  GM  GC  GW  SW  SP   
SM  SC  ML  MH  CL  CH   
Bedrock

13. Sieve analysis attached?  Yes  No

14. Drilling method used: Rotary  50  
Hollow Stem Auger  41  
Other

15. Drilling fluid used: Water  02 Air  01  
Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
Describe \_\_\_\_\_

17. Source of water (attach analysis): \_\_\_\_\_

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.

F. Fine sand, top \_\_\_\_\_ ft. MSL or 3.0 ft.

G. Filter pack, top \_\_\_\_\_ ft. MSL or 5.0 ft.

H. Screen joint, top \_\_\_\_\_ ft. MSL or 6.0 ft.

I. Well bottom \_\_\_\_\_ ft. MSL or 9.0 ft.

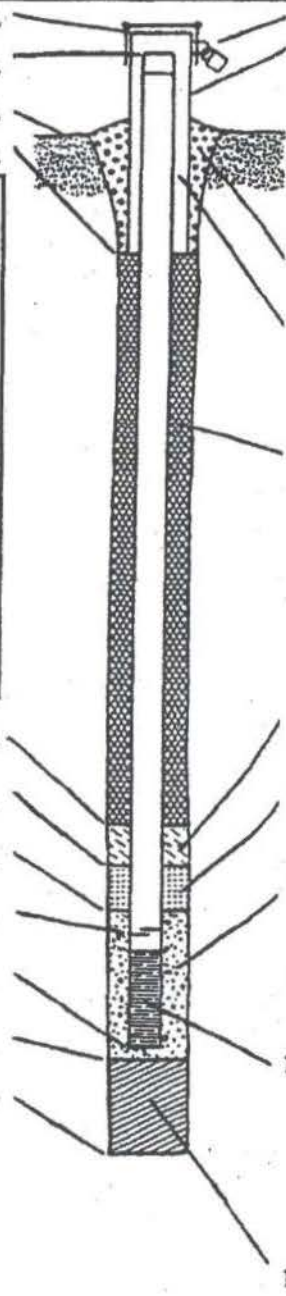
J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 10.0 ft.

K. Borehole, bottom \_\_\_\_\_ ft. MSL or 10.0 ft.

L. Borehole, diameter 18.0 in.

M. O.D. well casing 6.25 in.

N. I.D. well casing 6.00 in.



1. Cap and lock?  Yes  No

2. Protective cover pipe:  
a. Inside diameter: 18.0 in.  
b. Length: 1.0 ft.  
c. Material: Steel  04  
Other

d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_

3. Surface seal:  
Bentonite  30  
Concrete  01  
Asphalt Other

4. Material between well casing and protective pipe:  
Bentonite  30  
Annular space seal   
Other

5. Annular space seal:  
a. Granular Bentonite  33  
b. \_\_\_\_\_ Lbs/gal mud weight. Bentonite-sand slurry  35  
c. \_\_\_\_\_ Lbs/gal mud weight. Bentonite slurry  31  
d. \_\_\_\_\_ % Bentonite. Bentonite-cement grout  50  
e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above  
f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08

6. Bentonite seal:  
a. Bentonite granules  33  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
c. \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name & mesh size  
a. Badger, Fine Sand, #40-60  
b. Volume added 1.2 ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
a. Red Flint, Flint Sand #20  
b. Volume added 5.8 ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other

10. Screen material: PVC  
a. Screen type: Factory cut  11  
Continuous slot  01  
Other   
b. Manufacturer Badger  
c. Slot size: 0 in.  
d. Slotted length: 3.0 ft.

11. Backfill material (below filter pack): None  14  
Other

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [Signature] Firm: **Sigma Environmental Services, Inc.**  
102 Progress Drive, Saukville, WI 53080 (414) 284-6824

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Facility/Project Name <b>Clark Station #0562</b>	Local Grid Location of Well 27.0 ft. <input checked="" type="checkbox"/> N. 10.0 ft. <input checked="" type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.	Well Name <b>Q-1</b>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. 43 6 11 Long. 87 54 25 or	Wis. Unique Well Number: DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed <u>1 0 / 0 9 / 9 5</u> m m d d y y
Distance Well Is From Waste/Source Boundary 45 ft.	Section Location of Waste/Source <u>NE 1/4 of NE 1/4 of Sec. 5, T. 7 N, R. 22</u> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <b>Midwest Engineering</b>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input checked="" type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

- A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL
- B. Well casing, top elevation \_\_\_\_\_ ft. MSL
- C. Land surface elevation \_\_\_\_\_ ft. MSL
- D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1.0 ft.

12. USCS classification of soil near screen:  
 GP  GM  GC  GW  SW  SP   
 SM  SC  ML  MH  CL  CH   
 Bedrock

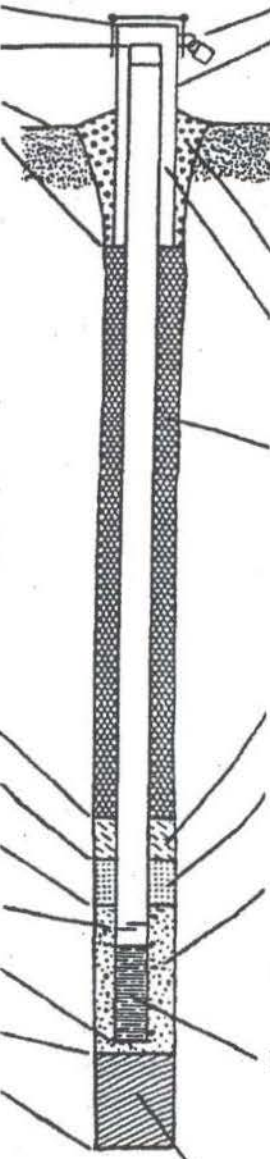
13. Sieve analysis attached?  Yes  No

14. Drilling method used: Rotary  50  
 Hollow Stem Auger  41  
 Other

15. Drilling fluid used: Water  02 Air  01  
 Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
 Describe \_\_\_\_\_

17. Source of water (attach analysis): \_\_\_\_\_



- 1. Cap and lock?  Yes  No
- 2. Protective cover pipe:
  - a. Inside diameter: 18.0 in.
  - b. Length: 1.0 ft.
  - c. Material: Steel  04  
Other
  - d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_
- 3. Surface seal: Bentonite  30  
Concrete  01  
Asphalt Other
- 4. Material between well casing and protective pipe: Bentonite  30  
Annular space seal   
Other
- 5. Annular space seal: a. Granular Bentonite  33  
b. \_\_\_\_\_ Lbs/gal mud weight. Bentonite-sand slurry  35  
c. \_\_\_\_\_ Lbs/gal mud weight ..... Bentonite slurry  31  
d. \_\_\_\_\_ % Bentonite ..... Bentonite-cement grout  50  
e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above  
f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08
- 6. Bentonite seal: a. Bentonite granules  33  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
c. \_\_\_\_\_ Other
- 7. Fine sand material: Manufacturer, product name & mesh size  
a. Badger, Fine Sand, #40-60  
b. Volume added 5.6 ft<sup>3</sup>
- 8. Filter pack material: Manufacturer, product name & mesh size  
a. Red Flint, Flint Sand #20  
b. Volume added 15.6 ft<sup>3</sup>
- 9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other
- 10. Screen material: PVC  
a. Screen type: Factory cut  11  
Continuous slot  01  
Other   
b. Manufacturer Badger  
c. Slot size: 0 in.  
d. Slotted length: 15.0 ft.
- 11. Backfill material (below filter pack): None  14  
Other

- E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1.0 ft.
- F. Fine sand, top \_\_\_\_\_ ft. MSL or 1.0 ft.
- G. Filter pack, top \_\_\_\_\_ ft. MSL or 6.0 ft.
- H. Screen joint, top \_\_\_\_\_ ft. MSL or 7.0 ft.
- I. Well bottom \_\_\_\_\_ ft. MSL or 25.0 ft.
- J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 25.0 ft.
- K. Borehole, bottom \_\_\_\_\_ ft. MSL or 25.0 ft.
- L. Borehole, diameter 18.0 in.
- M. O.D. well casing 6.25 in.
- N. I.D. well casing 6.00 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm **Sigma Environmental Services, Inc.**  
 102 Progress Drive, Saukville, WI 53080 (414) 284-6824

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Facility/Project Name <b>Clark Station #0562</b>	Local Grid Location of Well 71.0 ft. <input checked="" type="checkbox"/> N. 10.0 ft. <input checked="" type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.	Well Name <b>Q-2</b>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. 43 6 11 Long. 87 54 25 or	Was Unique Well Number <input type="checkbox"/> DNR Well Number <input type="checkbox"/>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N. _____ ft. E.	Date Well Installed <u>1 0 / 0 9 / 9 5</u> m m d d y y
Distance Well Is From Waste/Source Boundary 45 ft.	Section Location of Waste/Source <u>NE 1/4 of NE 1/4 of Sec. 5, T. 7 N, R. 22</u> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <b>Midwest Engineering</b>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input checked="" type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL

B. Well casing, top elevation \_\_\_\_\_ ft. MSL

C. Land surface elevation \_\_\_\_\_ ft. MSL

D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1.0 ft.

12. USCS classification of soil near screen:  
GP  GM  GC  GW  SW  SP   
SM  SC  ML  MH  CL  CH   
Bedrock

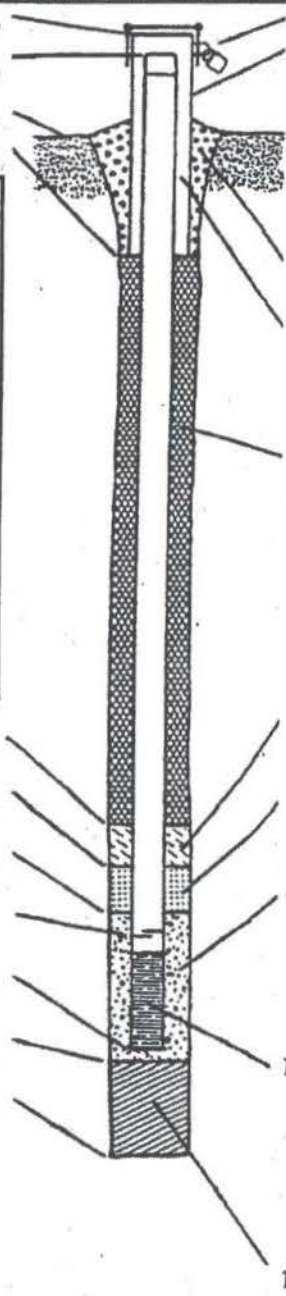
13. Sieve analysis attached?  Yes  No

14. Drilling method used: Rotary  50  
Hollow Stem Anger  41  
Other

15. Drilling fluid used: Water  02 Air  01  
Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
Describe \_\_\_\_\_

17. Source of water (attach analysis): \_\_\_\_\_



1. Cap and lock?  Yes  No

2. Protective cover pipe:  
a. Inside diameter: 18.0 in.  
b. Length: 1.0 ft.  
c. Material: Steel  04  
Other

d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  30  
Concrete  01  
Asphalt Other

4. Material between well casing and protective pipe:  
Bentonite  30  
Annular space seal

5. Annular space seal:  
a. Granular Bentonite  33  
b. \_\_\_\_\_ Lbs/gal mud weight, Bentonite-sand slurry  35  
c. \_\_\_\_\_ Lbs/gal mud weight, Bentonite slurry  31  
d. \_\_\_\_\_ % Bentonite, Bentonite-cement grout  50  
e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above  
f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08

6. Bentonite seal:  
a. Bentonite granules  33  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
c. \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name & mesh size  
a. Badger, Fine Sand, #40-60  
b. Volume added 5.6 ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
a. Red Flint, Flint Sand #20  
b. Volume added 15.6 ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other

10. Screen material: PVC  
a. Screen type: Factory cut  11  
Continuous slot  01  
Other

b. Manufacturer Badger  
c. Slot size: 0 in.  
d. Slotted length: 15.0 ft.

11. Backfill material (below filter pack): None  14  
Other

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or 1.0 ft.

F. Fine sand, top \_\_\_\_\_ ft. MSL or 3.5 ft.

G. Filter pack, top \_\_\_\_\_ ft. MSL or 5.0 ft.

H. Screen joint, top \_\_\_\_\_ ft. MSL or 6.0 ft.

I. Well bottom \_\_\_\_\_ ft. MSL or 24.0 ft.

J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 25.0 ft.

K. Borehole, bottom \_\_\_\_\_ ft. MSL or 25.0 ft.

L. Borehole, diameter 18.0 in.

M. O.D. well casing 6.25 in.

N. I.D. well casing 6.00 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: [Signature] Firm: **Sigma Environmental Services, Inc.**  
102 Progress Drive, Saukville, WI 53080 (414) 284-6824

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs 144, 147 & 160, Wis Stats, ch NR 141, Wis Ad Code. In accordance with ch 144, Wis Stats, failure to file this form may result in a forfeiture of not less than \$10, nor more than \$1000 for each day of violation. In accordance with ch 147, Wis Stats, failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation. NOTE: Shaded areas are for DNR use only. See instructions for more information including where the completed form should be sent.

Facility/Project Name <b>Clark Station #0562</b>	Local Grid Location of Well 60.0 ft. <input type="checkbox"/> N. <input type="checkbox"/> S. 22.0 ft. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <b>Q-3</b>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. 43 6 11 Long. 87 54 25 or	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N, _____ ft. E.	Date Well Installed <u>1 0 / 0 9 / 9 5</u> m m d d y y
Distance Well Is From Waste/Source Boundary 15 ft.	Section Location of Waste/Source <u>NE 1/4 of NE 1/4 of Sec. 5, T. 7 N, R. 22</u> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <b>Midwest Engineering</b>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input checked="" type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>18.0</u> in. b. Length: <u>1.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: _____
D. Surface seal, bottom _____ ft. MSL or <u>1.0</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 <u>Asphalt</u> Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input checked="" type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input checked="" type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 33 b. _____ Lbs/gal mud weight. Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ..... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite ..... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft <sup>3</sup> volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name & mesh size a. <u>Badger, Fine Sand, #40-60</u> b. Volume added <u>5.6</u> ft <sup>3</sup>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____	8. Filter pack material: Manufacturer, product name & mesh size a. <u>Red Flint, Flint Sand #20</u> b. Volume added <u>15.6</u> ft <sup>3</sup>
17. Source of water (attach analysis): _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top _____ ft. MSL or _____ ft.	10. Screen material: <u>PVC</u> a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or <u>3.0</u> ft.	b. Manufacturer <u>Badger</u>
G. Filter pack, top _____ ft. MSL or <u>6.0</u> ft.	c. Slot size: <u>0</u> in.
H. Screen joint, top _____ ft. MSL or <u>7.0</u> ft.	d. Slotted length: <u>15.0</u> ft.
I. Well bottom _____ ft. MSL or <u>22.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
J. Filter pack, bottom _____ ft. MSL or <u>25.0</u> ft.	
K. Borehole, bottom _____ ft. MSL or <u>25.0</u> ft.	
L. Borehole, diameter <u>18.0</u> in.	
M. O.D. well casing <u>6.25</u> in.	
N. I.D. well casing <u>6.00</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.  
Signature: [Signature] Firm: **Sigma Environmental Services, Inc.**  
102 Progress Drive, Sankville, WI 53080 (414) 284-6824

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Facility/Project Name <b>Clark Station #0562</b>	Local Grid Location of Well 73.0 ft. <input checked="" type="checkbox"/> N. 50.0 ft. <input checked="" type="checkbox"/> E. <input type="checkbox"/> S. <input type="checkbox"/> W.	Well Name <b>Q-4</b>
Facility License, Permit or Monitoring Number	Grid Origin Location Lat. 43 6 11 Long. 87 54 25 or	Wis. Unique Well Number: DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N. _____ ft. E.	Date Well Installed <u>1 0 / 0 9 / 9 5</u> m m d d v y
Distance Well Is From Waste/Source Boundary 15 ft.	Section Location of Waste/Source <u>NE 1/4 of NE 1/4 of Sec. 5, T. 7 N, R. 22</u> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <b>Midwest Engineering</b>
Is Well A Point of Enforcement Std. Application? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input checked="" type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation \_\_\_\_\_ ft. MSL

B. Well casing, top elevation \_\_\_\_\_ ft. MSL

C. Land surface elevation \_\_\_\_\_ ft. MSL

D. Surface seal, bottom \_\_\_\_\_ ft. MSL or 1.0 ft.

12. USCS classification of soil near screen:  
GP  GM  GC  GW  SW  SP   
SM  SC  ML  MH  CL  CH   
Bedrock

13. Sieve analysis attached?  Yes  No

14. Drilling method used: Rotary  50  
Hollow Stem Auger  41  
Other

15. Drilling fluid used: Water  02 Air  01  
Drilling Mud  03 None  99

16. Drilling additives used?  Yes  No  
Describe \_\_\_\_\_

17. Source of water (attach analysis): \_\_\_\_\_

E. Bentonite seal, top \_\_\_\_\_ ft. MSL or \_\_\_\_\_ ft.

F. Fine sand, top \_\_\_\_\_ ft. MSL or 3.0 ft.

G. Filter pack, top \_\_\_\_\_ ft. MSL or 6.0 ft.

H. Screen joint, top \_\_\_\_\_ ft. MSL or 7.0 ft.

I. Well bottom \_\_\_\_\_ ft. MSL or 25.0 ft.

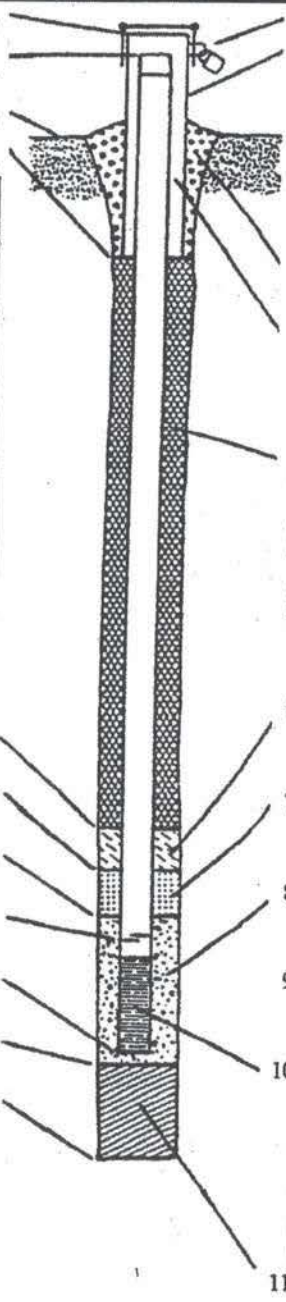
J. Filter pack, bottom \_\_\_\_\_ ft. MSL or 25.0 ft.

K. Borehole, bottom \_\_\_\_\_ ft. MSL or 25.0 ft.

L. Borehole, diameter 18.0 in.

M. O.D. well casing 6.25 in.

N. I.D. well casing 6.00 in.



1. Cap and lock?  Yes  No

2. Protective cover pipe:  
a. Inside diameter: 18.0 in.  
b. Length: 1.0 ft.  
c. Material: Steel  04  
Other

d. Additional protection?  Yes  No  
If yes, describe: \_\_\_\_\_

3. Surface seal: Bentonite  30  
Concrete  01  
Asphalt Other

4. Material between well casing and protective pipe:  
Bentonite  30  
Annular space seal   
Other

5. Annular space seal:  
a. Granular Bentonite  33  
b. \_\_\_\_\_ Lbs/gal mud weight..Bentonite-sand slurry  35  
c. \_\_\_\_\_ Lbs/gal mud weight ..... Bentonite slurry  31  
d. \_\_\_\_\_ % Bentonite ..... Bentonite-cement grout  50  
e. \_\_\_\_\_ Ft<sup>3</sup> volume added for any of the above  
f. How installed: Tremie  01  
Tremie pumped  02  
Gravity  08

6. Bentonite seal:  
a. Bentonite granules  33  
b.  1/4 in.  3/8 in.  1/2 in. Bentonite pellets  32  
c. \_\_\_\_\_ Other

7. Fine sand material: Manufacturer, product name & mesh size  
a. Badger, Fine Sand, #40-60  
b. Volume added 5.6 ft<sup>3</sup>

8. Filter pack material: Manufacturer, product name & mesh size  
a. Red Flint, Flint Sand #20  
b. Volume added 15.6 ft<sup>3</sup>

9. Well casing: Flush threaded PVC schedule 40  23  
Flush threaded PVC schedule 80  24  
Other

10. Screen material: PVC  
a. Screen type: Factory cut  11  
Continuous slot  01  
Other

b. Manufacturer Badger  
c. Slot size: 0 in.  
d. Slotted length: 15.0 ft.

11. Backfill material (below filter pack): None  14  
Other

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm **Sigma Environmental Services, Inc.**  
102 Progress Drive, Saukville, WI 53080 (414) 284-6824

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**Appendix F**  
**Closure Request of Sigma of September 12, 2002 for**  
**Closed BRRTS # 03-41-000450**

Letter Of Transmittal

From: Name Mary E. Clifford  
Company Sigma Environmental Services, Inc.

Type of Submittal:  
 LUST  ERP  VPLE  other  
(describe)

Address 220 East Ryan Road  
Oak Creek, Wisconsin 53154

Phone (414) 768-7144

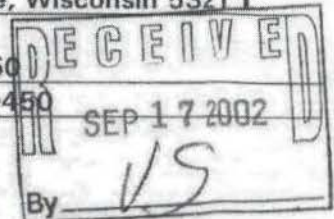
Date 9/13/02

To: Program Assistant/BRR Program  
Wisconsin Department of Natural  
Resources Box 12436  
2300 N. Dr. Martin Luther King Jr. Dr.  
Milwaukee, WI 53212

FOR: Site Name Clark Station # 0562  
Address 4751 N. Santa Monica Blvd.  
Milwaukee, Wisconsin 53211

FID# 241574850

BRRTS# 03-41-000450



Check type(s) of documents enclosed. Submittals are tracked & filed based on information you provide. Include FID & BRRTS numbers assigned to this site. Identify the intent of documents(s) you are submitting in order to speed processing. Please attach required fees to this form.

Are you requesting Department Review?  Yes  No

√	TYPE OF DOCUMENT/REPORT	FEE	DNR (office use CODE only)
	Notification of Release	none	01
	Tank Closure/Site Assessment <i>where release(s) have been detected*</i>	none	33
	Site Investigation Workplan	\$500 if review is requested	35,135~
	Site Investigation	\$750 if review is requested	37,
	__ groundwater impacts above ES		137~
	__ no groundwater impacts or gw impacts below ES (if petroleum constituents only, case will be transferred to Department of Commerce)		76,
	Request to Transfer Case to Department of Commerce	none	96
	Off-Site Determination Request	none	76
	Remedial Action Options Plan	\$500 mandatory	638~
	NR 720.19 Site Specific Clean-Up Goal Proposal	\$750 if review is requested	39,143~
	NR 718 Landspreading Request	\$750 if review is requested	67,68~
	"Notification to Treat or Dispose" of Contaminated Soil/Water	\$500 mandatory	61~
	Injection/Infiltration Request	none	99
	Quarterly Report or Update	\$500 mandatory	63~
	O&M Form 4400-194	\$500 if review is requested	43, 43~
	Remedial Action Options Report	\$300 if review is requested	92, 192~
	Closure Review Request	\$750 if review is requested	41, 41~
X	NR700.11 Simple Site Closure Request	\$750 mandatory	79~
	"Draft Deed Affidavit" or "Restriction required for close-out"	\$250 mandatory	183~
	"Well Abandonment Forms"	none	99
	Remedial Design Report	none	99
	Construction Documentation Reports	\$750 if review is requested	147, 148~
	Long Term Monitoring Plan	\$250 if review is requested	151, 152~
	Voluntary Party Liability Exemption (VPLE) Application	\$300 if review is requested	24, 25~
	VPLE "Phase I/II Assessments" or "Additional Reports"	\$250 mandatory	662
	Tax Cancellation Agreement	computed hourly	99
	Negotiated Agreement	\$500 mandatory	654
	Lender Assessment	\$1000 mandatory	630
	Negotiation and Cost Recovery (municipalities only)	\$500 mandatory	686
	General Liability Clarification Request	fee for each service, mandatory	90~
	Lease Letter Request - Single Property	\$500 mandatory	684
	Lease Letter Request - Multiple Properties	\$500 mandatory	646
	Request for Other Technical Assistance	\$1000 mandatory	646
	Other (please describe)	\$500 mandatory	90~

\*Closure reports for sites where no releases have been detected should be sent directly to "Clean Closures" c/o DNR Remediation and Redevelopment Program, P.O. Box 7921, Madison WI 53707

WDNR BRRTS CASE #: 0 3 - 4 1 - 0 0 0 4 5 0 WDNR SITE NAME: Clark Station # 0562

I certify that, to the best of my knowledge, the information presented on and attached to this form is true and accurate. This recommendation for case closure is based upon all available data as of 9/12/2002 (date). I have read the Case Summary and Close Out Form Instructions and all required information has been included.

Form Completed By:

Closeout Review Fee Attached  
 GW Registry Fee Attached

  
 (Signature) 9-16-02  
 (Date)

Printed Name: Dave G. Bauer Company Name: Sigma Environmental Services, Inc.

Email address: dbauer@thesigmagroup.com

If not site owner, relationship to site owner: environmental consultant

Address: 220 East Ryan Road

Telephone Number: ( 414 ) 768-7144 FAX Number: ( 414 ) 768-7158

Environmental Consultant (if different then above): \_\_\_\_\_

Address: \_\_\_\_\_

Telephone Number: ( \_\_\_\_\_ ) FAX Number: ( \_\_\_\_\_ )

**1. SITE LOCATION & ZONING**

WDNR Site Name: Clark Station #0562

Complete Site Address: 4751 Santa Monica Boulevard 53211

WDNR BRRTS CASE #: 0 3 - 4 1 - 0 0 0 4 5 FID #: 2 4 1 5 7 4 8 5 0

PECFA Claim #: 5 3 2 1 1 - 1 0 4 3 - 5 1

Responsible Party Name: Clark Retail Enterprises, Inc.

Complete Responsible Party Address: 601 South Main Street, Ann Arbor, Michigan 48104

Site Legal Description: NE ¼, NE ¼, Sec 5, T 7 N, R 22 (E/W) Town: Milwaukee

County: Milwaukee Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_

GIS Coordinates obtained:  on site using GPS Locator converted or projected onto WMTM '91  
 using RR GIS Registry on screen digitizing to get WMTM coordinates

Date of Incident/Discovery: August 28, 1989 Contaminant Type (s): Petroleum Constituents

Quantity Released: \_\_\_\_\_ Post Remedial Zoning Classification: Commerical  
 (Do not abbreviate zoning terms)



WDNR BRRTS CASE #: 0 3 - 4 1 - 0 0 0 4 5 0 WDNR SITE NAME: Clark Station # 0562**2. RECEPTORS**

Identify **all** pre-remedial and actual reports, the potential risk and their locations (i.e., both on and off site utility corridors, basements or sumps of nearby buildings, direct contact threat from soil, water supplies, surface waters, sediments, etc.) (For definition refer to s. NR 700.03 (47), Wis. Adm. Code.):

There are no recorded pre-remedial reports. Utilities are located onsite on the southern and eastern property line. Direct contact treat does not appear to be present onsite.

Have the remedial actions abated the potential or actual impacts to these receptors?  Yes  No

If no, provide details in case summary.

If yes, please identify the nature of the remaining risk and the receptor at risk: \_\_\_\_\_

**3. SOIL INVESTIGATION INFORMATION**

Extent Defined?  Yes  No If not, explain why? \_\_\_\_\_

Soil Type(s): sand and clayey sand Depth of Contamination: 6-13 feet bgs

Type of Bedrock: not encountered Depth to Bedrock: N/A

Is any contaminated soil (unsaturated or saturated) in contact with the bedrock?  Yes  No

List **all** contaminants found in soil (regardless of ch. NR 720 standards/attach table if necessary)

Ethylbenzene, xylenes, benzene, toluene. Refer to Subsurface reports dated August 1992, June 1993, and March 1994

Measurable Free Product?  Yes  No Depth/Location: \_\_\_\_\_

**4. SOIL REMEDIATION INFORMATION**

Remedial Action Completed?  Yes  No s. NR 720.19 Analysis?  Yes  No If yes, attach supporting documentation

Were Immediate or Interim Actions Conducted?  Yes  No If yes, what action was taken?

Brief description of Remedial Action Taken: Soil vapor extraction

Were soils excavated?  Yes  No Quantity: 1200 tons Disposal Method: disposed of at Parkview Landfill, Menomonee Falls

Final confirmation Sample Collection Methods: composite grab samples were collected from the sidewalls and bottom of excavation

Final Soil/Drill Cuttings Disposal Location: Parkview Landfill, Menomonee Falls, Wisconsin

Estimated volume and depth of in situ soils exceeding ch. NR 720 Table RCLs or site specific RCLs: 400 ft<sup>3</sup>, 7-9 feet bgs(B-1 and B-2), pre-remediation

Estimated volume and depth of in situ soils exceeding ch. NR 746 Table 1 or Table 2 or site specific RCLs: 400 ft<sup>3</sup>, (B-10:7-9,B-7: 7-9), pre-remediation

**5. GROUNDWATER INFORMATION**

Extent of Contamination Defined?  Yes  No  N/A Remedial Action Completed?  Yes  No  N/A

Brief Description of Remedial Action Taken: vacuum enhanced groundwater recovery

# of Sample Rounds: 21 Depth(s) to Groundwater/Flow Direction(s): 7-11 feet bgs, west to southwest, see attached report

Field Analyses?  Yes  No

Lab Analyses?  Yes  No

# of Sampling points: 17

f:\sigma\forms\wdnr\cs-sum frm

WDNR BRRTS CASE #: 0 3 - 4 1 - 0 0 0 4 5 0 WDNR SITE NAME: Clark Station # 0562

# NR 141 Monitoring Wells Sampled: 9 # Temporary Groundwater Sampling Points Sampled: 0

# Recovery Sumps Sampled: 8 # Municipal Wells Sampled: 0 # Private Wells Sampled: 0

List **all** contaminants found in groundwater (regardless of ch. NR 720 standards/attach table if necessary)  
Benzene, ethylbenzene, toluene, xylenes, trimethybenzenes, methyl tert butyl benzene. Refer to attached report

Has DNR Been Notified of Substances in Groundwater w/o Standards?      Yes X No If Yes, How Many?     

What Substances?     

Any Potable Wells Within 1,200 Feet of Site?      Yes X No Have They Been Sampled?      Yes      No  
 [NOTE: Wells are to be included on map described in Item B8]

Have Well Owners/Occupants Been Notified of Results?      Yes      No Are notification letters attached?     

Preventive Action Limit Currently Exceeded? X Yes      No If Yes, identify location(s)     

Enforcement Standard Currently Exceeded? X Yes      No If Yes, identify location(s)     

Measurable Free Product Detected? X Yes      No X pre-remediation?      post-remediation?

Was Free Product remediated? X Yes      No Explain: Vacuum enhanced groundwater recovery and natural attenuation, see attached report

**6. OTHER CONTAMINATED MEDIA INFORMATION**

Have other media been impacted (either on-site or off-site)?      Yes X No

Briefly describe type and extent of all contamination found in media other than soil or groundwater:       
      
    

Remedial Action Completed?      Yes X No      N/A

Brief description of remedial action taken:     

# of Sample Rounds:      Field Analyses?      Yes      No Lab Analyses?      Yes      No

# of Sampling Points:      Table of analytical results for all contaminants attached?      Yes      No

**7. PATHWAY TO CLOSURE PROPOSED AND ASSOCIATED SITE INFORMATION:**

     **Soil**  
     <s. NR 720.09/720.11 Generic RCLs  
     s. NR 720.19(2) Soil Performance Standards (SPS)  
     s. NR 720.19(3) Site Specific Standards (SSRCLs)

     **Groundwater**  
     <s. NR 140.10 Table 1 and Table 2 Values  
     s. NR 140.28(2) PAL Exemption  
     s. NR 726.05(2)(b), > ES Natural Attenuation

WDNR BRRTS CASE #: 0 3 - 4 1 - 0 0 0 4 5 0 WDNR SITE NAME: Clark Station # 0562

**Petroleum Storage Tank Soil Options for Closure**

- s. NR 746.07 Soil Screening Levels/Post Investigation
- s. NR 746.08 Soil Screening Levels/Post Remediation

**Petroleum Storage Tank Groundwater Options for Closure**

- s. NR746.07 > PAL < ES Low Permeability Site/Post Investigation
- s. NR746.07 > ES, Permeable Site, Post Investigation
- s. NR 746.08 > ES, Low Permeability Site, Post Remediation
- s. NR 746.08 > ES, Permeable Site, Post Remediation

A. Enforcement actions closed out?  Yes  No  N/A Permits closed out?  Yes  No  N/A

B. Proposed post remediation land use:  Residential  Commercial  Industrial  Other Specify: \_\_\_\_\_

C. Does remedy include Soil Performance Standards (SPS)?  Yes  No  
Type:  Cap  Soil  Building  Natural Attenuation of Groundwater  Other  
Specify: \_\_\_\_\_

Will the proposed post remediation land use be consistent with the maintenance of the SPS?  Yes  No  
Why? \_\_\_\_\_

Proof of ch. NR 714 public notice attached?  Yes  No (Proof can either be the actual entire page of the newspaper with the notice OR a "Proof of Publication" from the newspaper publisher.)

Maps and photos attached documenting the cap area, construction, and/or the integrity of the cap?  Yes  No  N/A

A maintenance plan is attached for the performance standard per ss. NR 720.19(2) and 724.13(2), Wis. Adm. Code?  
 Yes  No

D. Does remedy include SSRCLs?  Yes  No  
Is post-remedial land use industrial?  Yes  No

Is zoning change required or completed?  Yes  No  
If yes, have you attached verification of the zoning for affected properties?  Yes  No

Complete assumptions and calculations for SSRCLs attached with justification?  Yes  No

If using EPA Soil Screening Level Model as justification for closure of sites with residual contaminated soils, are the numbers used: (circle one) site specific inputs or defaults and are calculations and results attached?  Yes  No

E. Does remedy include natural attenuation of groundwater only? (i.e., there is no residual soil contamination?)  Yes  No  
Mann-Kendall/Mann-Whitney U Results attached?  Yes  No (required for ch. NR 746 permeable sites)

F. Describe how the following pathways are protected:  
1) Direct Contact Pathway: The majority of the site is covered by asphalt or concrete, see attached report.  
2) Groundwater: The impact plume margin is generally decreasing and is expected to continue by natural attenuation, see attached report.

**8. PROPOSED INSTITUTIONAL CONTROLS (See PUB. RR-606)**

- Unrestricted
- Deed Restriction (required for industrial cleanup level/ and when performance standard requires maintenance plan)
- Deed Notice
- For public street or highway right of way contamination, provide notice as required (See item (E) in the case summary checklist)
- RR GIS Registry of Closed Sites
- Other

Copy of Draft Deed Document(s) attached?  Yes  No (see RR web site: <http://www.dnr.state.wi.us/org/aw/rr/index.html>)

**FOR DEPARTMENT USE ONLY**

PROJECT MANAGER: \_\_\_\_\_ Date Reviewed: \_\_\_\_\_

FIRST REVIEW DATE: \_\_\_\_\_ [ ] Approved [ ] Denied

\_\_\_\_\_  
(Signature) (Signature) (Signature) (Signature)

SECOND REVIEW DATE: \_\_\_\_\_ [ ] Approved [ ] Denied

\_\_\_\_\_  
(Signature) (Signature) (Signature) (Signature)

**COMMITTEE RECOMMENDATION:**

       **Closure Approved With:**

- No Restrictions
- Listing on GIS Registry
- Zoning Verification
- Deed Restriction
- Deed Notice
- Site Specific Close Out Letter
- Well Abandonment Documentation
- Soil Disposal Documentation
- Public Notice of soil performance standard remedy
- NR 140 Exemption For: \_\_\_\_\_

       Specific Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

       **Closure Denied, Needs More:**

- Investigation
- Groundwater Monitoring
- Soil Remediation
- Groundwater Remediation
- Documentation of Soil Landspreading or Biopile Destiny
- Specific Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

192-

Mr. John Hnat  
Hydrogeologist  
WDNR-Southeast Region  
2300 N. DR. Martin Luther King Blvd.  
P.O Box 12436  
Milwaukee, WI 53212-0436

RE: **CASE SUMMARY AND CLOSE OUT REQUEST**  
Clark Station #0562  
4751 Santa Monica Boulevard  
Milwaukee, WI  
BRRTS # 03-41-000450  
FID # 241574850

Dear Ms. Stovel:

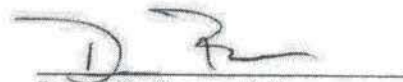
Sigma Environmental Services, Inc. (Sigma) has provided environmental consulting services for the implementation of soil and groundwater remediation activities at the Clark Retail Enterprises, Inc. (Clark) site located at 4751 Santa Monica Boulevard, Milwaukee, Wisconsin. Based on the information available to date, and in accordance with the requirements of Chapters NR 726 and NR 746 of the Wisconsin Administrative Code (WAC), Sigma on behalf of Clark, is requesting that the site be considered for case closure. As petroleum hydrocarbon impacts remain in the groundwater at concentrations above the established enforcement standards for select Petroleum Volatile Organic Compounds (PVOCs), it is understood that registration on the GIS database will be required. A check for \$250 has been submitted to the Wisconsin Department of Natural Resources-Southeast District.

Enclosed please find the necessary documentation required for obtaining site closure. If there are any questions or comments concerning this request, please contact Sigma at (414) 768-7144.

Sincerely,

SIGMA ENVIRONMENTAL SERVICES, INC.

  
Mary E. Clifford  
Staff Scientist

  
David G. Bauer, P.G.  
Project Manager/ Hydrogeologist

  
Randy E. Boness, P.G.  
Senior Project Manager

Enclosures

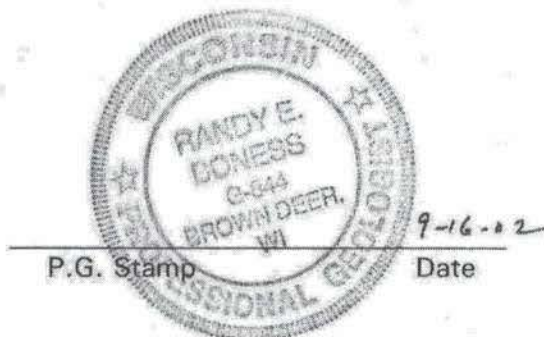
Cc: Eric Larson - Clark Retail Enterprises, Inc.



CERTIFICATIONS

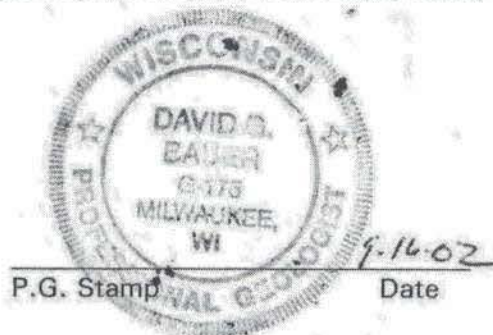
"I, Randy E. Boness, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Randy Boness  
Signature and title Senior Geologist



"I, Dave G. Bauer, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

D. G. Bauer Hydrogeologist  
Signature and title



"I, Mary E. Clifford, hereby certify that I am a scientist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Mary Clifford Staff Scientist  
Signature and title

9/16/02  
Date

## CASE SUMMARY

**Responsible Party:** Clark Retail Enterprises, Inc.  
601 S. Main Street  
Ann Arbor, MI 48104  
Attn: Eric Larson  
Telephone: (734) 669-6155  
FAX: (734) 668-9631  
E-mail: [eric.larson@clarkretail.com](mailto:eric.larson@clarkretail.com)

### Case Summary and Chronology of Events

#### August 1989 through January 1990

Foth and Van Dyke (FVD) conducted a preliminary site assessment to determine if a release from the underground storage tank (UST) systems had occurred. FVD's assessment included drilling 3 soil boring onsite and collecting composite samples for laboratory analysis. Based on laboratory result, a petroleum release had occurred at the site. In the fall of 1986, tightness testing was performed on the tanks and product piping. The regular unleaded UST systems passed however, the super unleaded tank failed. Subsequent excavation around the product lines did not indicate a release. On January 5, 1990, Clark Oil relined the super unleaded tank and placed it back in service.

#### March 1990

Omega Environmental Services, Inc. (Omega) conducted soil removal activities of 1200 tons of petroleum impacted soil during the removal and upgrade of two 6,000 gallon unleaded gasoline underground storage tanks (UST) on March 13 to 16, 1990. Approximately 1176.39 tons of contaminated soil was removed and disposed of at Parkview Landfill, Menomonee Falls, Wisconsin from the tank excavation and continued north and west to the property lines. Representative composite grab soil samples were collected from the sidewalls and bottom of the excavation.

After the excavation was complete, the entire excavation was lined with 6 millimeter polyethylene plastic. Two (2) EPA approved steel 12,000 gallon, cathodically protected USTs were installed in the excavation and leak tested. Based on site activities Omega recommended no further action.

#### January 1992

The Wisconsin Department of Natural Resources (WDNR) notified Clark that additional investigation was necessary to determine the horizontal and vertical extent of contamination to the soil and/or groundwater.

#### June 1992 through April 1993

Sigma conducted subsurface investigation activities on-site and off-site to determine the extent and character of petroleum impacts beneath the site. The investigation included drilling 12 soil borings (GP-1 through GP-12) and installing seven groundwater monitoring wells (MW-1 through MW-7). Based on the laboratory results, field screening results and physical observations, and estimated 2,000 cubic yards of petroleum impacted soil exists on and off-site. The laboratory analysis indicated that predominant soil impacts appeared to be related to releases from the two gasoline USTs that were removed in 1990. Soil boring and monitoring well locations are included in Figure 1.

Volatile organic compounds (VOCs) above NR 140 Enforcement Standards (ES) or Preventative Action Limit (PAL) were detected in groundwater monitoring wells MW-1, MW-2, MW-3, MW-5, and MW-6. Soluble lead was detected in monitoring well MW-1 and MW-2 at concentrations above NR 140 ESs. Based on a review of the subsurface investigation data it was determined that remediation of both soil and groundwater was necessary. Groundwater quality results are present as Table 1. Refer to "Report of a Subsurface Investigation at Clark Station #562 ..." for further information.

#### July 1994 through June 1995

Sigma completed a preliminary remedial alternative analysis for the site and Analysis For Clark Refining and Marketing, Inc...", dated July 1994). Three remedial alternatives were identified and evaluated based upon their technical feasibility, remediation efficiency and cost-effectiveness. Sigma recommended soil vapor extraction (SVE) with groundwater air sparge.

Based on review of the WDNR records of the remediation work at the One Hour Martinizing site directly north of the Clark site and discussion with the WDNR, the air sparge technology did not appear to be the most effective option for remediation. Sigma then proposed a SVE/groundwater extraction and treatment system as the most effective alternative. For further information refer to "Remedial Action Plan and Proposed Design for the Clark Station #0562...".

#### June 1995

Offsite monitoring well MW-8 was installed on June 29, 1995 west of the Clark property. Select PVOC concentrations were detected above NR 140 ESs during the July 1995 and August 1995 sampling events. Groundwater quality results are presented as Table 1.



### **October 1995 through February 1997**

Construction of the remediation system consisting of Vacuum Enhanced Groundwater Recovery (VEGR) in conjunction with Soil Vapor Extraction (SVE) was initiated in October 1995. The system consisted of four vacuum enhanced extraction wells (Q-1 through Q-4) to extract both soil vapor and groundwater from the subsurface and two AVE wells (VE-1 and VE-2) connected to the SVE unit to extract vapors from the vadose zone.

The four dual extraction wells (Q-1 through Q-4), two SVE wells (VE-1 and VE-2), and an additional monitoring well (MW-9) were installed October 4 through October 11, 1995. The parking lot was saw cut and a trench was excavated for the installation of the system piping from October to December 1995. Well locations are included in Figure 1.

During the trench excavation, soil was field screened using a Photoionization Detector (PID). The soil in the trench appeared to be impacted based on the PID readings. Therefore, approximately 170 yd<sup>3</sup> contaminated soil was sent to the Orchard Ridge Recycling and Disposal Facility in Menomonee Falls, Wisconsin (Waste Profile # ORC-BIO/57989).

Installation of the remediation equipment within the treatment building was initiated in May 1996. The system was designed to discharge effluent groundwater from the remediation system to the sanitary sewer (MMSD) on a temporary basis until a storm sewer WPDES permit was received.

On October 11, 1996 groundwater samples were collected from the entire monitoring well network (MW-1 through MW-9) and analyzed for PVOC's. These samples were analyzed to provide a baseline of groundwater quality prior to the system start-up. Groundwater results are presented in Table 1.

On October 21, 1996, the SVE system was activated. The system operated intermittently during the first three months of operation because of an electrical problem in the control panel. The problem was repaired and the system began full operation in February 1997.

For more detailed information on the remediation system operation at Clark Station #0562 refer to "Remediation System Installation and Start-up Report" for Clark Station #0562..., dated May 1997.

### **April 1997 though December 1997**

Since remediation system start-up in October 1996, the system removed approximately 647.5 pounds of VOC's and 32.2 pounds of benzene while the groundwater extraction and treatment system has removed approximately 6.6 pounds of PVOC's. During the period of April 15, 1997

through December 31, 1997, the SVE system removed approximately 10.2 pounds of benzene and 466.5 pounds on VOC's while the groundwater extraction and treatment system removed approximately 3.96 pounds of PVOC's.

Quarterly groundwater sampling for GRO, PVOCs, and lead was performed for monitoring wells MW-1 through MW-9. Sampling events were conducted on May 21 and August 28, 1997. Analytical reports indicate benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations remained above NR 140 ESs at monitoring wells, MW-1, MW-2, MW-5, and MW-8 while benzene and xylene were reported above NR 140 ESs at monitoring well MW-6. Groundwater quality results are presented as Table 1. For further information refer to "Status Report for the Soil and Groundwater Remediation System at Clark Station #0562..." dated February 1998.

#### **January 1998 to April 1999**

The active remediation systems were shut down between September 29, 1998 and March 25, 1999 to monitor groundwater quality and evaluate the site conditions based on COMM 47 guidelines. Based on the results of COMM 47 evaluation, continued operation of the active remediation systems was warranted to minimize contaminant plume expansion.

Since remediation system start-up in October 1996, the system removed approximately 1033.8 pounds of VOCs and approximately 96.7 pounds of benzene. During the reported period of January 1, 1998 through April 30, 1999, the SVE system removed approximately 38.7 pounds of benzene and 218.5 pounds of VOCs while the groundwater extraction and treatment system removed approximately 1.08 pounds of PVOCs.

Periodic groundwater sampling activities were performed on February 18, 1998, May 19, 1998, July 23, 1998, November 24, 1998, and March 24, 1999. Results for the groundwater monitoring for the March 24, 1999 sampling event show NR 140 ES exceedances for one or more of the following compounds; benzene, toluene, ethylbenzene, and xylene (BTEX) in monitoring wells MW-1, MW-2, MW-5, MW-6 and MW-8. Groundwater results are presented in Table 1. Refer to "Status Report for the Soil and Groundwater Remediation System at Clark Station #0562..." dated October 1999 for more information.

#### **May 1999 through April 2000**

During the recording period of May 1, 1999 through April 30, 2000, the SVE system removed approximately 2.9 pounds of VOCs. Since the remediation start-up in October 1996, the system removed approximately 1036.7 pounds of VOCs and 96.7 pounds of benzene. The groundwater extraction

and treatment system removed approximately 2.4 pounds of PVOC's during the recording period and approximately 10.2 pounds of PVOC's since the remediation start-up in October 1996.

Periodic groundwater sampling for PVOCs was performed on one of more groundwater monitoring wells on July 20, 1999, October 11, 1999 and February 28, 2000. Results of groundwater monitoring for the February 28, 2000 sampling event indicated NR 140 ES exceedances for one or more of the following compounds, benzene, toluene, ethylbenzene, xylene (BTEX) and trimethylbenzene in monitoring wells MW-1, MW-2, MW-5, and MW-6. Groundwater results are presented on Table 1 and Figure 2.

Based on an evaluation of COMM 46 Risk Factors, Sigma recommended active remediation system shutdown and implementation of a groundwater natural attenuation monitoring program was appropriate for the site. Sigma also recommended implementing a quarterly groundwater monitoring program at the site to verify that natural attenuation is occurring and that contaminant plum continues to remain stable and recede.

The groundwater monitoring program consisted of quarterly monitoring of PVOCs, geochemical and biochemical indicators of natural attenuation at monitoring wells MW-1, MW-2, MW-5, MW-6 and MW-8, and annual monitoring of the above listed compounds at monitoring wells MW-3, MW-4, MW-7 and MW-9. For more information refer to "Status Report for the Soil and Groundwater Remediation System at Clark Station #0562..." dated May 2000.

#### **May 2000**

A groundwater sampling event occurred at monitoring wells MW-1, MW-2, MW-5, MW-6, MW-7, and MW-8 on May 24, 2000. Select BTEX compounds and/or trimethylbenzene concentrations were detected above NR 140 ESs at monitoring wells MW-1, MW-2, MW-5, MW-6, and MW-8. Groundwater results are presented on Table 1 and Figure 2.

#### **July 2000**

The SVE system and groundwater extraction and treatment system was shut down July 2000. The system was cleaned after shut down on July 24, 2000. Activities at the site will now consist of quarterly groundwater monitoring for natural attenuation.

#### **October 2000 through October 2001**

Four groundwater sampling events were completed at the site on October 5, 2000, April 2, 2001, July 23, 2001, and October 22, 2001. Groundwater samples were collected at all groundwater monitoring wells for the four

above referenced groundwater sampling events with the exception of the October 5, 2000 groundwater sampling event. Groundwater samples were analyzed for PVOCs along with select *in-situ* field measurements.

Static groundwater measurements were used to calculate groundwater elevations and flow directions. During the sampling events occurring October 2000 through October 2001 depth to water measurements varied across the site from 7.26 feet below ground surface (bgs) to 10.93 feet bgs with an average depth of 8.98 feet bgs. The October 2001 sampling event indicates that groundwater flow direction is generally west to southwest across the site. The hydraulic gradient for the October 2001 sampling event is approximately 0.0076 feet per foot, consistent with previous sampling events. Table 2 provides a summary of historical groundwater elevations. Groundwater contour maps for the October 5, 2000, April 2, 2001, July 23, 2001, and October 22, 2001 are presented as Figure 3, 4, 5 and 6, respectively.

Select PVOC concentrations were detected above NR 140 ESs during the last four sampling events. Concentrations of benzene were detected above NR 140 ESs at monitoring well MW-1, MW-2, MW-5, and MW-6 at all four sampling events with the exception of benzene concentrations at monitoring well MW-1 during the October 2000 and April 2001 sampling events. Ethylbenzene was detected above NR 140 ES concentrations at monitoring well MW-1 during the July and October 2001 sampling and at monitoring wells MW-5 and MW-8 during last four sampling events. Toluene concentrations above NR 140 ESs were detected at monitoring well MW-1 during the October 2000 and April, July and October 2001 sampling events. Concentrations of total xylenes above the NR 140 ESs were detected at monitoring well MW-1 during the October 2000, July and October 2001 sampling events and at monitoring well MW-8 during the October 2000 and October 2001 sampling events. Total trimethylbenzene concentrations were detected above NR 140 ESs at monitoring well MW-1, MW-2, MW-5, and MW-8 for the sampling events occurring from October 2000 to October 2001. Groundwater quality results are presented on Table 1 and Figure 2. Groundwater laboratory results for the sampling events occurring April 2001, July 2001 and October 2001 are included as Attachment A.

*In-situ* field measurements were collected at select monitoring wells during the October 2000, April 2001, July 2001, and October 2001 sampling events to further evaluate if intrinsic bioremediation of hydrocarbon impacts to groundwater is feasible and on-going. A review of the *in-situ* field measurements during the October 2001 sampling event indicate subsurface conditions are favorable for intrinsic bioremediation. Dissolved oxygen levels and reduction-oxidation potential were both detected in impacted monitoring

wells MW-1 and MW-5 at lower levels than were indicated in non-impacted monitoring well MW-9 indicating that microbial consumption has depleted the oxygen present in the groundwater. The presence of ferrous iron in impacted monitoring wells MW-1 and MW-5 indicates microbes are utilizing iron (III) as an alternate electron acceptor and further supports the fact that intrinsic bioremediation is on-going. Table 3 presents a summary of the *in-situ* field measurements for groundwater.

Mann Kendall statistical analysis was completed on monitoring wells MW-1, MW-2, MW-5, MW-6, and MW-8 one or more of the following PVOCs, benzene, ethylbenzene, toluene, total xylenes, and total trimethylbenzenes. Concentrations of PVOCs were found to be decreasing or stable at all monitoring wells analyzed with the exception of ethylbenzene at monitoring well MW-1 and trimethylbenzenes at monitoring wells MW-5 and MW-8. Mann Kendall analysis is presented as Attachment B.

#### **Justification for Site Closure**

The Clark site located at 4751 Santa Monica Boulevard has been in operation as a gasoline station since the early 1960's. The site is approximately 0.4 acres in size and is located in a mixed residential/commercial area of Milwaukee, Wisconsin. The site is bordered by the Chicago & Northwestern Railroad to the southwest, a Martinizing Dry Cleaners (formerly a Mobil Station) to the north, and a parking lot on the southeast corner of the intersection of Hampton Avenue and Santa Monica Boulevard. (refer to "A Subsurface Investigation for Clark Station #562..." dated March 1994).

Remedial strategies at the site were warranted to restore soil and groundwater qualities to practical levels as determined by the Wisconsin Department of Natural Resources. Given the Clark Station's hydrogeologic setting and the results of the subsurface investigation, a soil vapor extraction and vacuum enhanced groundwater recovery and treatment system was installed to address impacted soil and groundwater. The system was in operation from October 22, 1996 through July 2000 with a temporary system shut down from September 29, 1998 and March 25, 1999 to monitor groundwater quality and evaluate the site conditions based on COMM 47 guidelines. The SVE system removed a total of approximately 1036.7 pounds of VOC's and approximately 96.7 pounds of benzene. While the groundwater extraction and treatment system removed a total of approximately 10.2 pound of PVOC's. The system was shutdown in July 2000 to implement a groundwater natural attenuation monitoring program.

Since the remediation system shut down in July 2000 a total of four groundwater monitoring events have occurred. Groundwater flow is consistently to the west with a varying north to south component present.

Post remedial groundwater quality monitoring has documented stable and/or decreasing concentrations of benzene, ethylbenzene, toluene, total xylenes, and trimethylbenzene at monitoring wells MW-1, MW-2, MW-5, MW-6, and MW-8 with the exception of ethylbenzene concentrations at monitoring well MW-1 and trimethylbenzene concentrations at monitoring wells MW-5 and MW-8. While monitoring wells MW-3, MW-4, MW-7 and MW-9 continue to have no detected concentrations of PVOCs.

#### **Evaluation of NR 746 Risk Screening Criteria**

In accordance with NR 746.06, the following risk criteria (*and how each applies to the site*) were used to determine whether the site may be closed as provided in NR 746.07:

- Presence or absence of NR 746 Environmental factors (EFs) or the satisfactory response to any EF present.

*Upon evaluation of the site environmental data generated, none of the environmental factors as outlined in NR 746 appear to be present at the site. Specifically, 1) there is no documented expansion of the plume margin (with the exception of ethylbenzene concentrations at MW-1 and trimethylbenzene concentrations at MW-5 and MW-8 2), no verified contaminant concentrations in a private or public potable well that attains or exceeds the preventative action limit, 3) no contamination within bedrock or within 1 meter of bedrock, 4) no petroleum product that is not in the dissolved phase (floating product) is present with a thickness of 0.01 feet or more, and has been verified by more than one sampling event, and 5) no documented contamination discharges to a surface water or wetland.*

- No soil contamination is present at the site that exceeds any of the indicators of petroleum product listed NR 746.06 Table 1.

*Laboratory analysis of soil samples reveal that concentrations (before remediation) of ethylbenzene and xylene at soil borings B-7 and B-10 were detected above the NR 746.06 Table 1 values for soil screening along with benzene and toluene at soil boring B-10. However, post remediation system operation soil samples have not been collected, therefore current levels of contaminants are not known. The site is primarily concrete and/or asphalt paved, limiting exposure routes to any soil impacts that may remain on site.*

- There is no soil contamination within 4 feet of the ground surface that exceeds NR 746.06 Table 2 direct contact values.

***During site investigation activities, field screening of shallow soil samples with a photoionization detector indicated elevated levels of petroleum hydrocarbons however, laboratory analysis of shallow soil samples (within 4 feet of the surface) was not performed. The site is primarily concrete and/or asphalt paved, limiting exposure routes to soil that may remain on site.***

- For substances not listed in NR 746.06 Table 2 that are present within 4 feet of the ground surface and have been approved by the agency with administrative authority of the site as contaminants of concern as defined in s. NR 720.03(2), any potential human health risk from direct contact has been addressed.

***During site investigation activities, field screening of shallow soil samples with a photoionization detector indicated elevated levels of petroleum hydrocarbons however, laboratory analysis of shallow soil samples (within 4 feet of the surface) was not performed. The site is primarily concrete and/or asphalt paved, limiting exposure routes to soil that may remain on site.***

- Except for the substances listed in Table 2, there is no human health risk from direct contact for a substance listed in Table 1 if the substances's concentration is below the Table 1 soil screening level.

***During site investigation activities, field screening of shallow soil samples with a photoionization detector indicated elevated levels of petroleum hydrocarbons however, laboratory analysis of shallow soil samples (within 4 feet of the surface) was not performed. The site is primarily concrete and/or asphalt paved, limiting exposure routes to soil that may remain on site.***

- No release of a petroleum product to the soil or groundwater at the site has occurred within the last 10 years.

***Historical data indicates that the site has been operating as a Clark station since the early 1960's. In 1989, a release was confirmed and reported to the WDNR at the site and two 6,000 gallon unleaded gasoline UST were subsequently removed from the site and replaced with two 12,000 gallon gasoline USTs in 1990.***

- There is no evidence of migration of petroleum product contamination within a utility corridor or within a permeable material or soil along which vapors, free product or contaminated water may flow.

*No evidence of migration of petroleum product contamination within a utility corridor is present based on the groundwater analytical results of groundwater monitoring wells, MW-3 and MW-4 located near underground utilities. Based on a review of the site conditions and adjacent properties, utility corridors are present adjacent to the site, along the eastern and southern property boundaries. Specifically, natural gas, storm sewer, and sanitary sewer utility line run adjacent to the property along N. Santa Monica Boulevard. In addition a natural gas utility line runs along the south property boundary.*

- There is no evidence of migration or imminent migration of petroleum product contamination to building foundation drain tile, sumps or other points of entry into a basement or other enclosed structure where petroleum vapors could collect and create odors or an adverse impact on indoor air quality or where the contaminants may pose an explosion hazard

*There is no current evidence to support contaminant/vapor migration to other structures in the vicinity of the site.*

- No enforcement standard is attained or exceeded in any groundwater within 1000 feet of a well operated by a public utility, as defined in s. 196.01(5), Stats., or within 100 feet of any other well used to provide water for human consumption.

*No public wells were identified within 1000 feet of the site and no private wells were identified within 100 feet of the site (refer to "Subsurface Investigation for Clark Station #562..." dated March 1994).*

Based on the available site specific information NR 746.06 risk criteria have been evaluated and substantially met for this site; consequently it is our professional opinion that minimal risk to human health and/or the environment is present with respect to the release that occurred at the Clark Station #1363. A review of groundwater quality data indicates that dissolved petroleum hydrocarbons have impacted groundwater, however, empirical evidence indicates that natural attenuation is occurring beneath the site and will continue to effectively remediate the site to the extent possible.

#### **Conclusion and Recommendation**

The implementation of an aggressive remediation program has significantly reduced subsurface impacts to the extent practicable, and based on current information no significant risk to human health and/or the environment currently exists as a result of the past gasoline release at the site. The groundwater impact plume is generally stable and down gradient monitoring



wells are not impacted at concentration greater than NR 140 ESs or PALs. Biodegradation is active and will continue to reduce dissolved impacts remaining on-site. Sigma therefore recommends the Wisconsin Department of Natural Resources require No Further Action and grant Case Closure. Upon approval of Case Closure, the monitoring well network will be abandoned in accordance with NR 141. As groundwater impacts remain at concentrations above the established enforcement standards, it is understood that the WDNR and COMM will require the site and adjacent properties to be listed on the WDNR Geographic Information Systems database.

Table 1 (con't)  
GROUNDWATER QUALITY RESULTS  
CLARK STATION #0582  
SUMPS

COMPOUND	Sample Location and Date																ES	PAL
	S-1								S-2									
	02/19/1998	05/19/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	02/28/2000	05/24/2000	10/05/2000	04/02/2001	07/23/2001	10/30/2001	10/05/2000	04/02/2001	07/23/2001		
Benzene	120	36	64	1.8	32	14	9	<0.27	42	105	38	100	48	280	460	650	5	0.5
Ethylbenzene	160	30	95	5	190	35	23	0.38	2.2	5.5	35	37	35	35	100	1900	700	140
Toluene	57	17	27	1.6	15	2.2	7.6	0.53	8.4	1.5	15	250	210	250	450	8500	1000	200
Total Xylenes	1,200	380	680	40	550	134	20	3	39	3	144	270	221	370	1,030	9,600	10000	1000
1,3,5-Trimethylbenzene	290	27	96	12	110	13	5	<0.27	8	1	30	15	100	25	63	760	480	98
1,2,4-Trimethylbenzene	1,300	200	880	57	790	280	240	5	8	44	330	200	81	120	580	3,200	480	96
Methyl Tert Butyl Ether	<50	<10	<50	8.2	3.3	<0.44	<0.64	<0.32	3.0	1.5	8.6	130	55	42.0	25	300	60	12

Key: All results in micrograms per liter (ug/l), except GRO that is in milligrams per liter (mg/l)

Groundwater recovery system started on October 21, 1998

- Shaded = Exceeds WDNR Enforcement Standard
- ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard
- PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit
- S-1 = Sumps located within the tank basin. Installed with tank installation
- Q-1 = Groundwater extraction wells
- NT = Not Tested
- 
- FF = Free Product in well

TABLE 1 (Cont.)  
GROUNDWATER QUALITY RESULTS  
CLASSIFICATION 2002  
MONITORING WELL MW-4

COMPOUND	Sampling Date																ES	PAL	
	10/11/1996	02/21/1997	05/21/1997	08/29/1997	02/19/1998	05/19/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	02/26/2000	05/24/2000	10/05/2001	04/02/2001	07/23/2001			10/22/2001
Benzene	<1.0	<1.0	<1.0	<1.0	Not	<1.0	NT	NT	<0.26	NT	<0.27	NT	NT	NT	<0.29	<0.45	<0.45	5	0.5
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	Sampled	<1.0	NT	NT	<0.24	NT	<0.32	NT	NT	NT	<0.57	<0.82	<0.82	700	140
Toluene	<1.0	<1.0	<1.0	<1.0		<1.0	NT	NT	<0.21	NT	<0.27	NT	NT	NT	<0.13	<0.68	<0.68	1000	200
Total Xylenes	<1.0	<1.0	<1.0	<1.0		<3.0	NT	NT	<0.97	NT	<0.43	NT	NT	NT	<0.63	<2.47	<2.47	10000	1000
1,3,5-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0		<1.0	NT	NT	<0.54	NT	<0.27	NT	NT	NT	<0.29	<0.94	<0.94	—	—
1,2,4-Trimethylbenzene	<1.0	<1.0	<1.0	<1.0		<1.0	NT	NT	<0.88	NT	<0.27	NT	NT	NT	<0.34	<0.92	<0.92	—	—
Total Trimethylbenzene	<2.0	<2.0	<2.0	<2.0		<2.0	NT	NT	<1.40	NT	<0.54	NT	NT	NT	<0.63	<1.86	<1.86	480	96
Methyl Tert Butyl Ether	<10.0	<10.0	<10.0	<10.0		<10	NT	NT	<0.22	NT	<0.32	NT	NT	NT	<0.20	<0.43	<0.43	60	12
Gasoline Range Organics	<0.1	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	—	—
Lead - Soluble	<1.5	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15	1.5
Key:	<p>All results in micrograms per liter (µg/l), except GRO that is in milligrams per liter (mg/l)</p> <p>Groundwater recovery system started on October 21, 1996</p> <p>Remediation system shutdown Spring of 2000 (before 5/24/2000 sampling)</p> <p>Shaded = Exceeds WDNR Enforcement Standard</p> <p>ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard</p> <p>PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit</p> <p>NT = Not Tested</p> <p>— = No Establish Standard</p> <p>FP = Free Product in well</p> <p><b>BOLD</b> = Concentrations above NR 140 ES</p>																		

TABLE 1 (Cont.)  
GROUNDWATER QUALITY RESULTS  
CURSOR STATION W-562  
MONITORING WELL MW-3

COMPOUND	Sampling Date															ES	PAL				
	07/18/1995	08/20/1995	10/11/1995	02/21/1997	05/21/1997	06/23/1997	02/18/1998	05/19/1998	07/20/1998	11/20/1998	03/24/1999	07/20/1999	10/11/1999	02/26/2000	05/24/2000			10/26/2000	04/02/2001	07/23/2001	10/22/2001
Benzene	2,260	1,190	2,160	444	331	127	72	<25	420	18	96.5	<13	<6.8	<0.27	<1.3	<8.8	<7.2	<22	<11	5	0.5
Ethylbenzene	2,150	1,900	3,240	1,860	2,350	2,290	200	2,100	3,000	1,700	1,400	1,600	2,100	80	470	1,900	1,600	2,500	1,700	700	140
Toluene	8,340	3,720	16,790	1,710	1,610	878	79	280	1,300	980	800	480	470	2	13	750	48	278	110	1,000	200
Total Xylenes	10,340	5,760	17,800	8,110	8,200	8,480	4,900	9,700	11,000	5,900	5,200	8,700	9,800	147	2,260	10,200	9,200	11,690	7,900	10,000	1,000
1,3,5-Trimethybenzene	349	199	661	211	563	832	420	330	460	270	260	520	330	8	110	450	750	860	360	—	—
1,2,4-Trimethybenzene	1,050	840	2,470	915	1,500	2,550	1,500	980	1,600	1,200	1,200	2,100	1,900	70	380	2,000	3,300	4,000	2,000	—	—
Total Triethylbenzene	1,399	1,039	3,151	1,127	2,063	3,382	1,920	1,310	2,060	1,476	1,460	2,620	2,230	76	500	2,450	4,050	4,890	2,300	480	96
Methyl Tert Butyl Ether	<500	<50	<10	<10	72	<125	<50	<250	<500	<3.5	<5.5	<11	<6.0	<0.32	<1.1	<9.0	<5.6	<22	<11	60	12
Gasoline Range Organics	43,600	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead - Soluble	4	NT	<1.5	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

All results in micrograms per liter (ug/L), except GRO that is in milligrams per liter (mg/L)

Groundwater recovery system started on October 21, 1995

Remediation system shutdown Spring of 2000 (below 524/2000 sampling)

Shaded = Exceeds WDNR Enforcement Standard

ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

NT = Not Tested

— = No Establish Standard

PP = Free Product in well

BOLD = Concentration above NR 140 ES

TABLE 1 (Cont.)  
GROUNDWATER QUALITY RESULTS  
DUNK STATE W 0055  
MONITORING WELL MW-7

COMPOUND	Sampling Date																			ES	PAL	
	04/20/1993	06/20/1994	10/03/1994	10/11/1996	02/21/1997	05/21/1997	08/28/1997	02/15/1998	05/19/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	02/28/2000	05/24/2000	10/05/2000	04/02/2001	07/23/2001			10/22/2001
Benzene	ND	16	<0.6	5.6	10.8	2.8	2.7	<1.0	3.1	<1.0	<0.26	<0.26	<0.26	<0.27	<0.27	<0.28	<0.35	<0.29	<0.45	<0.45	5	0.5
Ethylbenzene	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.24	<0.24	<0.24	<0.32	<0.32	<0.24	<0.37	<0.57	<0.82	<0.82	700	140
Toluene	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.21	0.2	<0.21	<0.27	<0.27	0.2	<0.38	<0.13	<0.68	<0.68	1,000	200
Total Xylenes	ND	<3.0	<1.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.97	<0.97	<0.97	<0.43	<0.43	<0.97	<0.76	<0.63	<2.47	<2.47	10,000	1,000
1,3,5-Trimethylbenzene	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.54	<0.54	<0.54	<0.27	<0.27	<0.54	<0.37	<0.29	<0.94	<0.94	—	—
1,2,4-Trimethylbenzene	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.86	<0.86	<0.86	<0.22	<0.22	<0.86	<0.37	<0.34	<0.92	<0.92	480	96
Total Trimethylbenzene	ND	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.40	<1.40	<1.40	<0.49	<0.49	<1.40	<0.74	<0.63	<1.86	<1.86	480	96
Methyl Tert Butyl Ether	ND	250	130	50.5	11.4	11.2	29.5	<50	<10	15.0	11.0	14.0	4.7	5.4	3.8	4.4	4.1	1.2	2.7	1.3	60	12
Gasoline Range Organics	<0.1	0.16	0.07	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	—	—
Lead - Soluble	<5.0	<3.0	<2.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15	1.5
Key:	All results in micrograms per liter (ug/l), except GRO that is in milligrams per liter (mg/l) Groundwater recovery system started on October 21, 1998 Remediation system shutdown Spring of 2000 (before 5/24/2000 sampling) Shaded = Exceeds WDNR Enforcement Standard ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit NT = Not Tested — = No Establish Standard FP = Free Product in well <b>BOLD</b> = Concentrations exceed NR 140 ES																					

TABLE 1 (Cont.)  
GROUNDWATER QUALITY RESULTS  
CLARK STATION #062  
MONITORING WELL MW4

Sampling Date

COMPOUND	07/18/1992	04/26/1995	06/29/1994	10/31/1994	10/17/1998	02/21/1997	05/21/1997	08/28/1997	02/18/1999	02/19/1999	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	02/28/2000	05/24/2000	10/09/2000	04/02/2001	07/23/2001	10/22/2001	ES	PAL
Benzene	10,000	9,000	16,000	10,000	13,000	7,800	2,400	824	1,100	380	430	2,300	1,300	630	3,600	1,300	4,300	110	130	99	960	5	0.5
Ethylbenzene	300	90	930	1,200	2,340	474	140	398	54	29	81	98	140	130	100	140	110	49	66	240	180	700	140
Toluene	250	180	310	320	277	60.8	127	82.9	<10	13	<10	<0.2	19	8	13	5	37	2.2	38	4.5	11	1,000	200
Total Xylenes	1,500	370	4,400	4,910	8,500	1,300	431	942	<30	1100	62	11	24	141	54	5.8	<48	16.6	225	281	38.3	10,000	1,000
1,2-Dimethylbenzene	<250	ND	300	380	1,000	265	141	80	34	210	64	<14	<22	36	36	19	<43	19	11	400	130	—	—
1,2,4-Trimethylbenzene	<250	ND	1,200	1,400	3,410	822	365	1,140	23	482	260	28	<22	36	36	19	<43	19	11	400	130	—	—
Total Triethylbenzene	<500	ND	1,500	1,700	4,410	1,087	566	1,203	47	700	344	38	<36	36	36	19	<70	19	15	400	130	450	56
Methyl Tert-Butyl Ether	<250	NT	246	189	<10	27.1	34	<325	<50	<50	<100	30	15	2.1	8.8	6.9	<11	0.89	<0.20	<0.36	<2.1	60	12
Gasoline Range Organics	16	16	29	31	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	—	—
Lead - Sizable	<4.0	<0.3	<3.0	<2.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15	1.4

Key: All results in micrograms per liter (µg/L), except GRO (nd) is in milligrams per liter (mg/L)

Groundwater recovery system started on October 21, 1996

Remediation system shutdown Spring of 2000 (before 5/24/2000 sampling)

Shaded = Exceeds W/DAR Enforcement Standard

ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

PAL = Wisconsin Administrative Code, Chapter NR 140 Prevention Action Level

NT = Not Tested

— = No Enforceable Standard

FP = Free Product at Well

BOLD = Concentrations exceed NR 140

TABLE 1 (Cont.)  
GROUNDWATER QUALITY RESULTS  
CLARK STATION BRW-2  
MONTICELLO WELLS RW-2

COMPOUND	Sampling Date															ES	PAL		
	07/18/1992	04/08/1993	06/25/1994	10/21/1994	10/11/1995	02/21/1997	02/28/1997	02/18/1998	05/18/1998	07/22/1998	11/04/1998	03/24/1999	07/20/1999	10/05/2000	04/02/2001			07/23/2001	09/22/2001
Boron	8,268	2,888	3,029	3,080	4,498	4,288	3,348	4,885	3,898	770	1,880	1,888	1,888	1,100	818	880	878	0.5	
Chloride	2,209	520	1,300	1,800	2,400	1,800	1,900	2,190	1,900	430	1,000	1,400	1,400	1,300	1,200	1,400	1,500	180	
Total Chloride	1,400	5,700	3,000	3,400	1,110	944	460	850	900	90	260	300	300	150	100	140	260	1,000	
Total Fluoride	12,700	2,700	6,800	8,100	8,000	9,200	9,700	6,100	7,000	620	2,970	4,700	4,700	2,600	4,000	4,100	6,200	10,000	
1,3,5-Trinitrobenzene	1,200	240	300	300	360	260	260	420	500	80	260	260	260	260	200	210	370	---	
1,2,4-Trinitrobenzene	2,100	410	710	1,000	1,320	960	1,600	1,700	1,300	200	860	860	860	860	800	1,000	1,500	---	
Total Trinitrobenzene	3,400	750	300	1,300	1,880	1,212	1,460	2,320	1,700	371	1,840	1,740	1,740	1,700	1,170	1,310	1,870	480	
Methyl Tert Butyl Ether	<1,000	NT	<100	120	<10	200	<200	<500	<500	<100	6.8	<6.5	<6.5	<6.5	1.4	4.2	22	<6.5	12
Guadalupe Organics	34	31	25	36	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Lead - Soluble	4	<5.0	3.4	4.2	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15	1.5

ES: All results in micrograms per liter (µg/L), except DDTO. DDTO: DDTO in milligrams per liter (mg/L)

NT: Groundwater recovery system, Clark on October 21, 1996

FP: Remediation system shutdown Spring of 2000 (before 5/21/2000 sampling)

ES: Espeak's vCDEE Enforcement Standard

PAL: Wisconsin Administrative Code, Chapter NR 110 Enforcement Standard

NT: Wisconsin Administrative Code, Chapter NR 100 Prevention Action Limit

FP: Fall Trend

FP: No Enrichment Standard

FP: Free Product in well

BOLD: Concentrations exceed MCL or ES

TABLE 1 (Cont.)  
GROUNDWATER QUALITY RESULTS  
CLARK STATION #0162  
MONITORING WELL MW-2

*Start off*  
*Palmer*

COMPOUND	Sampling Date																					ES	PAL
	07/16/1992	04/22/1993	06/23/1994	10/31/1994	10/11/1995	02/21/1997	05/21/1997	06/28/1997	02/18/1998	05-01/1998	07/23/1998	11/24/1998	03/30/1999	07/23/1999	10/11/1999	02/25/2000	05/24/2000	10/05/2000	04/02/2001	07/23/2001	10/22/2001		
Benzene	29,000	15,000	15,000	FP	FP	NS	FP	892	Not	190	69	1,400	120	190	326	1,900	1,000	340	27	21	290	5	0.5
Ethylbenzene	1,500	1,400	1,200		(0.04)			808	Sampled	170	48	480	120	460	360	330	210	260	120	110	160	700	140
Toluene	35,000	34,000	28,000					7,400	Could not locate	2,500	740	1,400	520	820	840	860	430	340	160	83	120	1,000	200
Total Xylenes	8,000	14,000	23,000					22,100	locate	5,700	1,900	9,100	6,800	12,000	12,100	18,000	7,000	6,900	4,200	2,800	4,400	10,000	1,000
1,3,5-Trimethylbenzene	<1.0	1,200	800					1,620	due to	1,500	360	850	1,200	1,200	1,200	1,100	1,600	1,200	1,300	1,300	1,600	—	—
1,2,4-Trimethylbenzene	6	1,500	3,500					5,780	snov	3,500	650	2,400	2,900	3,700	4,100	3,100	2,500	3,000	2,100	2,500	3,400	—	—
Total Trimethylbenzene	6	2,800	4,300					8,600		5,000	1,010	3,280	4,100	4,900	5,300	4,200	3,500	4,200	4,400	3,800	5,000	480	96
Methyl Tert Butyl Ether	68	ND	<200					<500		<250	<100	8.5	<11	<5.5	<16	<6.4	<4.4	16.0	<4.0	16.0	<11	60	12
Gasoline Range Organics	85	81	106					NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	—	—
Lead - Soluble	11	80	<3.0					NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15	1.5

Key:  
 All results in micrograms per liter (µg/l), except GRO that is in milligrams per liter (mg/l)  
 Groundwater recovery system started on October 21, 1995  
 Remediation system shutdown Spring of 2000 (before 5/24/2000 sampling)  
 Shaded \* Exceeds WDNR Enforcement Standard  
 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard  
 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit  
 NT = Not Tested  
 — = No Establish Standard  
 FP = Free Product in well  
**BOLD** = Concentrations exceed NR 140 ES



TABLE 1 (Cont.)  
GROUNDWATER QUALITY RESULTS  
CLARK STATION #0367  
MONITORING WELL MW-2

COMPOUND	Sampling Date																				ES	PAL	
	07/16/1992	04/26/1993	06/29/1994	10/31/1994	10/11/1996	02/21/1997	05/21/1997	08/28/1997	02/19/1998	05/19/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	02/28/2000	05/24/2000	10/05/2000	04/02/2001	07/23/2001			10/22/2001
Benzene	900	ND	350	210	2.9	1.0	<1.0	<1.0	Not	<1.0	NT	NT	1.4	NT	<0.27	NT	NT	NT	<0.29	<0.45	NT	5	0.5
Ethylbenzene	750	ND	510	170	<1.0	<1.0	<1.0	<1.0	Sampled	3.3	NT	NT	<0.24	NT	<0.32	NT	NT	NT	<0.57	<0.82	NT	700	140
Toluene	<5.0	ND	34	13	<1.0	<1.0	<1.0	<1.0		<1.0	NT	NT	<0.21	NT	<0.27	NT	NT	NT	<0.13	<0.68	NT	1,000	200
Total Xylenes	3,200	7	1,100	245.4	<1.0	<3.0	<3.0	<3.0		<3.0	NT	NT	<0.97	NT	<0.43	NT	NT	NT	<0.63	<2.47	NT	10,000	1,000
1,3,5-Trimethylbenzene	<50	ND	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	NT	NT	<0.54	NT	<0.27	NT	NT	NT	<0.29	<0.94	NT	—	—
1,2,4-Trimethylbenzene	<50	ND	8	2.5	<1.0	<1.0	<1.0	<1.0		4.3	NT	NT	<0.86	NT	<0.27	NT	NT	NT	<0.34	<0.92	NT	—	—
Total Trimethylbenzenes	<100	ND	8	2.5	<2.0	<2.0	<2.0	<2.0		4.3	NT	NT	<1.40	NT	<0.54	NT	NT	NT	<0.63	<1.86	NT	480	96
Methyl Tert Butyl Ether	<50	ND	<5.0	8.8	<10	<10	<10	<10		<10	NT	NT	1.6	NT	<0.32	NT	NT	NT	0.64	<0.43	NT	80	12
Gasoline Range Organics	7	<0.1	3.5	1.1	ND	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	—	—
Lead - Soluble	<4.0	<5.0	<3.0	<2.0	ND	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15	1.5

Key:  
 All results in micrograms per liter (ug/l), except GRO that is in milligrams per liter (mg/l)  
 Groundwater recovery system started on October 21, 1996  
 Remediation system shutdown Spring of 2000 (before 5/24/2000 sampling)  
 Shaded = Exceeds WDNR Enforcement Standard  
 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard  
 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit  
 NT = Not Tested  
 — = No Establish Standard  
 FP = Free Product in well  
**BOLD** = Concentrations exceed NR 140 ES

TABLE 1 (CONT.)  
 GROUNDWATER QUALITY RESULTS  
 CLARK STATION 9958Z  
 MONITORING WELL MW-4

COMPOUND	Sampling Date																				ES	PAL	
	07/16/1992	04/26/1993	06/29/1994	10/31/1994	10/11/1996	02/21/1997	05/21/1997	08/28/1997	02/18/1998	05/19/1998	07/22/1998	11/24/1998	02/24/1999	07/20/1999	10/11/1999	02/28/2000	05/24/2000	10/05/2000	04/02/2001	07/23/2001			10/22/2001
Benzene	<1.0	ND	1	<0.6	<1.0	<1.0	<1.0	<1.0	Not	<1.0	NT	NT	<0.26	NT	<0.27	NT	NT	NT	<0.29	<0.45	<0.45	5	0.5
Ethylbenzene	<1.0	ND	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	Sampled	<1.0	NT	NT	<0.24	NT	<0.32	NT	NT	NT	<0.57	<0.82	<0.82	700	140
Toluene	<1.0	ND	11	<1.0	2.2	<1.0	<1.0	<1.0		<1.0	NT	NT	<0.21	NT	<0.27	NT	NT	NT	<0.13	<0.88	<0.68	1000	200
Total Xylenes	<1.0	ND	28	<1.0	7.3	<3.0	<3.0	<3.0		<3.0	NT	NT	<0.97	NT	<0.43	NT	NT	NT	<0.63	<2.47	<2.47	10000	1000
1,3,5-Trimethylbenzene	<1.0	ND	2.8	<1.0	1.5	<1.0	<1.0	<1.0		<1.0	NT	NT	<0.54	NT	<0.27	NT	NT	NT	<0.29	<0.94	<0.94	--	--
1,2,4-Trimethylbenzene	<1.0	ND	10	<1.0	4.3	<1.0	<1.0	<1.0		<1.0	NT	NT	<0.86	NT	<0.27	NT	NT	NT	<0.34	<0.92	<0.92	--	--
Total Trimethylbenzene	<2.0	ND	13	<2.0	5.8	<2.0	<2.0	<2.0		<2.0	NT	NT	<1.4	NT	<0.54	NT	NT	NT	<0.63	<1.86	<1.86	480	96
Methyl Tert Butyl Ether	3	ND	<1.0	<1.0	<10	<10	<10	<10		<10	NT	NT	<0.22	NT	<0.32	NT	NT	NT	<0.20	<0.43	<0.43	80	12
Gasoline Range Organics	0	<0.1	0.11	<50	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	--	--
Lead - Soluble	<4.0	<5.0	<3.0	<2.0	NT	NT	NT	NT		NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15	1.5

Key: All results in micrograms per liter (ug/l), except GRO that is in milligrams per liter (mg/l)  
 Groundwater recovery system started on October 21, 1996  
 Remediation system shutdown Spring of 2000 (before 5/24/2000 sampling)

Shaded = Exceeds WQNR Enforcement Standard  
 ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard  
 PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit  
 NT = Not Tested  
 -- = No Establish Standard  
 PP = Free Product in well  
**BOLD** = Concentrations exceed NR 140 ES

TABLE 1  
GROUNDWATER QUALITY RESULTS  
CLARK STATION #0562  
MONITORING WELL MW-1

*Revised*

COMPOUND	Sampling Date																			ES	PAL		
	07/16/1992	04/26/1993	05/29/1994	10/31/1994	10/11/1996	02/21/1997	03/21/1997	08/28/1997	02/18/1998	05/19/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	02/28/2000	05/24/2000	10/05/2000	04/02/2001			07/23/2001	10/22/2001
Benzene	8,100	2,800	FP	FP		FP	FP	417	245	<200	<250	73	170	88	38	62	48	27	29	<56	<22	5.0	0.5
Ethylbenzene	3,100	1,100			(0.25)	(0.58)		2,000	2,100	1,400	1,100	300	520	450	790	140	230	540	420	1,000	740	700	140
Toluene	18,500	20,000						13,100	4,500	21,000	14,000	8,900	4,800	8,700	11,000	990	3,200	3,500	3,200	9,500	6,000	1,000	200
Total Xylenes	18,300	9,000						17,800	24,000	24,000	22,000	12,100	11,800	13,900	15,500	4,900	6,900	10,900	9,500	14,400	12,800	10,000	1,000
1,3,5-Trimethylbenzene	<100	1,000						1,370	1,700	1,500	1,800	1,100	1,500	1,500	1,300	1,800	1,300	1,900	1,800	1,900	1,600	—	—
1,2,4-Trimethylbenzene	1,500	1,000						5,450	5,300	5,000	4,900	2,700	3,700	3,700	3,700	2,800	1,700	2,500	2,600	3,400	2,900	—	—
Total Trimethylbenzenes	1,300	2,000						6,820	7,000	6,500	6,700	3,800	5,200	5,200	5,000	4,600	3,000	4,100	4,200	5,300	4,500	480	96
Methyl Tert Butyl Ether	1,800	NT						<500	<250	<2000	<100	<11	18	<22	<32	<8.0	<4.4	10	<5.0	<54	<22	60	12
Gasoline Range Organics	40	54						NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	—	—
Lead - Soluble	69	76						NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	15	1.5

Key: All results in micrograms per liter (µg/l), except GRO that is in milligrams per liter (mg/l)  
 Groundwater recovery system started on October 21, 1996  
 Remediation system shutdown Spring of 2000 (before 5/24/2000 sampling)

Shaded = Exceeds WDR Enforcement Standard

ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

NT = Not Tested

— = No Establish Standard

FP = Free Product in well

**BOLD** = Concentrations above NR 140 ES

Table 1 (cont.)  
 GROUNDWATER QUALITY RESULTS  
 CLARK STATION #0562  
 SUMPS

COMPOUND	Sample Location and Date																ES	PAL
	S-3			S-4														
	10/05/2000	04/02/2001	07/23/2001	02/18/1998	05/19/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	02/29/2000	05/24/2000	10/05/2000	04/02/2001	07/23/2001	10/30/2001		
Benzene	46	220	1100	67	55	30	1.2	21	2.6	1.5	1.1	2	0.91	5.6	140	30	5	0.5
Ethylbenzene	2.7	53	4400	18	1.6	4.2	0.46	37	<0.24	<0.24	0.63	0.33	<0.37	1.9	9.2	32	700	140
Toluene	23	220	18000	1.3	31	9.1	<0.21	0.83	0.29	<0.21	<0.27	0.35	<0.38	0.23	440	200	1000	200
Total Xylenes	35	500	21200	5.3	<3.0	8.3	<0.97	11	<0.97	<0.97	<0.43	0.37	<0.76	<1.20	113	240	10000	1000
1,3,5-Trimethylbenzene	6.2	14	1000	<1.0	<1.0	<1.0	<0.054	<0.54	<0.54	<0.54	<0.27	<0.54	<0.37	<0.29	<2.3	7.5	480	96
1,2,4-Trimethylbenzene	7.7	99	4100	3.2	2.3	<1.0	<0.86	3	<0.86	<0.86	<0.22	<0.86	<0.37	0.54	<2.3	30	480	96
Methyl Tert Butyl Ether	13	13	720	<50	<10	<10	<0.22	1.3	<0.22	<0.22	<0.32	<0.22	<0.36	2.7	200	59	60	12

Key:

All results in micrograms per liter (µg/l), except GRO that is in milligrams per liter (mg/l)

Groundwater recovery system started on October 21, 1996

Shaded = Exceeds WDNR Enforcement Standard

ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

S-1 = Sumps located within the tank basin. Installed with tank installation

Q-1 = Groundwater extraction wells

NT = Not Tested

--- = No Establish Standard

FP = Free Product in well

Table (cont.)  
 GROUNDWATER QUALITY RESULTS  
 CLARK STATION #0562  
 RECOVERY WELLS

COMPOUND	Sample Location and Date								ES	PAL
	Q-1									
	02/18/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	04/02/2001	07/23/2001		
Benzene	<25	35	84	<0.25	110	8	NT	<4.5	5	0.5
Ethylbenzene	32	22	61	<0.24	170	11	NT	100	700	140
Toluene	170	18	7.6	<0.21	120	1.6	NT	15	1000	200
Total Xylenes	6,500	86	181	<0.97	3,100	117	NT	592	10000	1000
1,3,5-Trimethylbenzene	1,200	17	20	<0.54	600	23	NT	72	480	96
1,2,4-Trimethylbenzene	1,800	27	30	<0.86	1,600	66	NT	1,000	480	96
Methyl Tert Butyl Ether	<130	78	57	<0.22	8	100	NT	<4.3	60	12

Key: All results in micrograms per liter (ug/l), except GRO that is in milligrams per liter (mg/l)  
 Groundwater recovery system started on October 21, 1998

Shaded = Exceeds WDNR Enforcement Standard

ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

S-1 = Sumps located within the tank basin. Installed with tank installation

Q-1 = Groundwater extraction wells

NT = Not Tested

--- = No Establish Standard

FP = Free Product in well

Table 1 (cont.)  
**GROUNDWATER QUALITY RESULTS**  
 CLARK STATION #0582  
 RECOVERY WELLS

Sample Location and Date													ES	PAL
COMPOUND	Q-2							Q-3						
	02/18/1998	05/19/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	04/02/2001	07/23/2001	04/02/2001	07/23/2001			
Benzene	700	400	7,500	5,100	4,800	1,200	4,100	1,200	590	230	20	5	0.5	
Ethylbenzene	13	41	640	490	350	260	720	220	140	42	16	700	140	
Toluene	54	270	<100	69	38	54	150	8	8.9	45	14	1000	200	
Total Xylenes	360	3,500	1,300	921	537	376	1,491	12	<12.4	395	243	10000	1000	
1,3,5-Trimethylbenzene	11	530	<100	<14	<27	<5.4	9.4	<2.9	<4.7	6.1	16	480	96	
1,2,4-Trimethylbenzene	140	1,100	440	85	73	87	72	13	9	180	140	480	96	
Methyl Tert Butyl Ether	91	<100	<1000	34	16	22	87	<2.0	<2.1	5.3	<0.43	60	12	

Key: All results in micrograms per liter (ug/l), except GRO that is in milligrams per liter (mg/l)  
 Groundwater recovery system started on October 21, 1996

- Shaded = Exceeds WDNR Enforcement Standard
- ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard
- PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit
- S-1 = Sumps located within the tank basin. Installed with tank installation
- Q-1 = Groundwater extraction wells
- NT = Not Tested
- = No Establish Standard
- FP = Free Product in well

Table 1 (cont.)  
**GROUNDWATER QUALITY RESULTS**  
**CLARK STATION #0562**  
**RECOVERY WELLS**

Compound	Sample Location and Date								ES	PAL
	Q-4									
	02/18/1998	07/23/1998	11/24/1998	03/24/1999	07/20/1999	10/11/1999	04/02/2001	07/23/2001		
Benzene	3.9	1,500	890	360	290	740	180	120	5	0.5
Ethylbenzene	2	270	530	320	670	300	210	340	700	140
Toluene	1	420	720	520	<b>8,000</b>	280	<b>1,800</b>	790	1000	200
Total Xylenes	22	2,000	3,510	2,420	8,400	1,190	3,200	3,020	10000	1000
1,3,5-Trimethylbenzene	5.4	230	100	74	430	35	170	150	480	96
1,2,4-Trimethylbenzene	8.3	<25	390	250	1,400	190	720	940	480	96
Methyl Tert Butyl Ether	67	<250	3	14	<22	10	<4.0	<4.3	60	12

Key: All results in micrograms per liter (ug/l), except GRO that is in milligrams per liter (mg/l)

Groundwater recovery system started on October 21, 1995

**bold** = Exceeds WDNR Enforcement Standard

ES = Wisconsin Administrative Code, Chapter NR 140 Enforcement Standard

PAL = Wisconsin Administrative Code, Chapter NR 140 Preventive Action Limit

S-1 = Sumps located within the tank basin. Installed with tank installation

Q-1 = Groundwater extraction wells

NT = Not Tested

-- = No Establish Standard

FP = Free Product in well

TABLE 2  
ELEVATION SURVEY DATA  
CLARK STATION #0562  
4751 NORTH SANTA MONICA BOULEVARD  
MILWAUKEE, WI

Well Number	Date	TOC	Static water Level	Water Table
		Elevation	(From TOC)	Elevation (ft)
MW-1	10/22/2001	643.13	10.24	632.89
	07/23/2001	643.13	9.41	633.72
	04/02/2001	643.13	9.2	633.93
	10/05/2000	643.13	9.1	634.03
	05/24/2000	643.13	9.13	634.00
	02/28/2000	643.13	11.37	631.76
	10/11/1999	643.13	10.22	632.91
	07/20/1999	643.13	8.71	634.42
	03/24/1999	643.13	10	633.13
	11/24/1998	643.13	10.57	632.56
	07/23/1998	643.13	9.86	633.27
	05/19/1998	643.13	9.12	634.01
	02/18/1998	643.13	10.56	632.57
	08/28/1997	643.13	9.55	633.56
	07/01/1997	643.13	8.38	634.75
	05/21/1997	643.13	—	—
	02/21/1997	643.13	11.53	631.60
	10/11/1996	643.13	10.85	632.28
	10/31/1994	100.45	10.00	90.45
	06/29/1994	100.45	10.05	90.40
04/02/1993	100.45	7.58	92.87	
02/05/1993	100.45	10.31	90.14	
10/12/1992	100.45	10.78	89.67	
07/16/1992	100.45	9.96	90.49	
MW-2	10/22/2001	643.65	10.93	632.72
	07/23/2001	643.65	9.88	633.77
	04/02/2001	643.65	8.82	634.83
	10/05/2000	643.65	9.51	634.14
	05/24/2000	643.66	9.01	634.65
	02/28/2000	643.65	11.86	631.79
	10/11/1999	643.65	10.96	632.69
	07/20/1999	643.65	9.30	634.35
	03/24/1999	643.65	9.55	634.10
	11/24/1998	643.65	11.07	632.58
	07/23/1998	643.65	10.45	633.20
	05/19/1998	643.65	8.45	635.20
	02/18/1998	NT	NT	NT
	08/28/1997	643.65	10.09	633.56
	07/01/1997	643.65	7.81	635.84
	05/21/1997	643.65	—	—
	02/21/1997	643.65	—	—
	10/11/1996	643.65	11.33	632.32
	10/31/1994	100.96	12.08	88.88
	06/29/1994	100.96	10.57	90.39
04/02/1993	100.96	6.98	93.98	
02/05/1993	100.96	10.48	90.48	
10/12/1992	100.96	11.39	89.57	
07/16/1992	100.96	10.44	90.52	
MW-3	10/22/2001	642.61	9.56	633.05
	07/23/2001	642.61	8.68	633.93
	04/02/2001	642.61	8.48	634.13
	10/05/2000	642.61	8.52	634.09
	05/24/2000	642.61	8.47	634.14
	02/28/2000	642.61	—	—
	10/11/1999	642.61	9.58	633.03
	07/20/1999	642.61	8.04	634.57
	03/24/1999	642.61	9.30	633.31
	11/24/1998	642.61	10.06	632.55
	07/23/1998	642.61	10.21	632.40
	05/19/1998	642.61	8.21	634.40
	02/18/1998	642.61	9.52	633.09
	08/28/1997	642.61	9.01	633.60
	07/01/1997	642.61	7.74	634.87
	05/21/1997	642.61	9.17	633.44
	02/21/1997	642.61	10.28	632.33
	10/11/1996	642.61	9.83	632.78
	10/31/1994	99.93	10.68	89.25
	06/29/1994	99.93	9.05	90.88
04/02/1993	99.93	6.74	93.19	
02/05/1993	99.93	9.74	90.19	
10/12/1992	99.93	10.11	89.82	
07/16/1992	99.93	9.34	90.59	

KEY:  
TOC = Top of well casing  
ft = feet below ground surface

Note: Site was surveyed to a USGS benchmark on July 3, 1997



TABLE 2 (Cont.)  
 ELEVATION SURVEY DATA  
 CLARK STATION #0562  
 4751 NORTH SANTA MONICA BOULEVARD  
 MILWAUKEE, WI

Well Number	Date	TOC Elevation	Static water Level (From TOC)	Water Table Elevation (ft)
MW-4	10/22/2001	643.25	10.57	632.68
	07/23/2001	643.25	9.57	633.68
	04/02/2001	643.25	8.31	634.94
	10/05/2000	643.25	8.95	634.30
	05/24/2000	643.25	7.99	635.26
	02/28/2000	643.25	---	---
	10/11/1999	643.25	10.5	632.75
	07/20/1999	643.25	8.85	634.40
	03/24/1999	643.25	9.53	633.72
	11/24/1998	643.25	10.55	632.70
	07/23/1998	643.25	7.16	636.09
	05/19/1998	643.25	5.15	638.10
	02/18/1998	643.25	10.43	632.82
	08/28/1997	643.25	9.53	633.72
	07/01/1997	643.25	7.89	635.36
	05/21/1997	643.25	8.37	634.88
	02/21/1997	643.25	10.58	632.67
	10/11/1996	643.25	10.67	632.58
	10/31/1994	100.53	11.30	89.23
	06/29/1994	100.53	10.04	90.49
04/02/1993	100.53	5.79	94.74	
02/05/1993	100.53	9.72	90.81	
10/12/1992	100.53	10.96	89.57	
07/16/1992	100.53	9.98	90.55	
MW-5	10/22/2001	643.99	10.12	633.87
	07/23/2001	643.99	9.42	634.57
	04/02/2001	643.99	9.39	634.60
	10/05/2000	643.99	9.40	634.59
	05/24/2000	643.99	9.64	634.35
	02/28/2000	643.99	11.20	632.79
	10/11/1999	643.99	10.19	633.80
	07/20/1999	643.99	9.07	634.92
	03/24/1999	643.99	10.11	633.88
	11/24/1998	643.99	10.63	633.36
	07/23/1998	643.99	9.87	634.12
	05/19/1998	643.09	9.58	633.53
	02/18/1998	643.09	10.61	632.48
	08/28/1997	643.09	9.75	633.34
	07/01/1997	643.09	8.98	634.11
	05/21/1997	643.09	10.53	632.56
	02/21/1997	643.09	11.04	632.05
	10/11/1996	643.09	10.50	632.59
	10/31/1994	100.46	11.40	89.06
	06/29/1994	100.46	10.19	90.27
04/02/1993	100.46	8.43	92.03	
02/05/1993	100.46	10.56	89.90	
10/12/1992	100.46	10.90	89.56	
07/16/1992	100.46	---	---	
MW-6	10/22/2001	642.36	9.82	632.54
	07/23/2001	642.36	8.99	633.37
	04/02/2001	642.36	8.25	634.11
	10/05/2000	642.36	8.20	634.16
	05/24/2000	642.36	8.20	634.16
	02/28/2000	642.36	10.56	631.80
	10/11/1999	642.36	9.83	632.53
	07/20/1999	642.36	8.50	633.86
	03/24/1999	642.36	9.25	633.11
	11/24/1998	642.36	9.88	632.48
	07/23/1998	642.36	9.32	633.04
	05/19/1998	642.36	7.82	634.54
	02/18/1998	642.36	9.43	632.93
	08/28/1997	642.36	9.05	633.31
	07/01/1997	642.36	9.18	633.18
	05/21/1997	642.36	8.63	633.73
	02/21/1997	642.36	10.15	632.21
	10/11/1996	642.36	9.99	632.37
	10/31/1994	99.66	10.64	89.02
	06/29/1994	99.66	5.47	94.19
04/02/1993	99.66	6.42	93.24	
02/05/1993	99.66	9.35	90.31	
10/12/1992	99.66	10.20	89.46	
07/16/1992	99.66	---	---	

KEY:  
 TOC = Top of well casing  
 ft = feet below ground surface  
 Note: Site was surveyed to a USGS benchmark on July 3, 1997

Table 2 (Cont.)  
 ELEVATION SURVEY DATA  
 CLARK STATION #0562  
 4781 NORTH SANTA MONICA BOULEVARD  
 MILWAUKEE, WI

Well Number	Date	TOC Elevation	Static water Level (From TOC)	Water Table Elevation (ft)
MW-7	10/22/2001	642.12	9.69	632.43
	07/23/2001	642.12	8.87	633.25
	04/02/2001	642.12	8.24	633.88
	10/05/2000	642.12	8.55	633.57
	05/24/2000	642.12	8.1	634.02
	02/28/2000	642.12	10.44	631.68
	10/11/1999	642.12	9.72	632.40
	07/20/1999	642.12	8.46	633.66
	03/24/1999	642.12	9.17	632.95
	11/24/1998	642.12	9.73	632.39
	07/23/1998	642.12	9.16	632.96
	05/19/1998	642.12	7.99	634.13
	02/18/1998	642.12	9.57	632.55
	08/28/1997	642.12	8.95	633.17
	07/01/1997	642.12	7.24	634.88
	05/21/1997	642.12	8.60	633.52
	02/21/1997	642.12	9.91	632.21
	10/11/1996	642.12	9.81	632.31
	10/31/1994	99.41	10.44	88.97
	06/29/1994	99.41	9.35	90.06
04/02/1993	99.41	6.62	92.79	
02/05/1993	99.41	---	---	
10/12/1992	99.41	---	---	
07/16/1992	99.41	---	---	
MW-8	10/22/2001	641.68	9.17	632.51
	07/23/2001	641.68	8.27	633.41
	04/02/2001	641.68	7.39	634.29
	10/05/2000	641.68	7.87	633.81
	05/24/2000	641.68	7.22	634.46
	02/28/2000	641.68	9.89	631.79
	10/11/1999	641.68	9.21	632.47
	07/20/1999	641.68	7.81	633.87
	03/24/1999	641.68	8.45	633.23
	11/24/1998	641.68	9.20	632.48
	07/23/1998	641.68	8.64	633.04
	05/19/1998	641.68	7.21	634.47
	02/18/1998	641.68	9.05	632.63
	08/28/1997	641.68	8.37	633.31
	07/01/1997	641.68	6.21	635.47
	05/21/1997	641.68	8.15	633.53
	02/21/1997	641.68	9.37	632.31
	10/11/1996	641.68	9.35	632.33
08/30/1995	641.68	8.72	632.96	
MW-9	10/22/2001	641.37	8.94	632.43
	07/23/2001	641.37	7.99	633.38
	04/02/2001	641.37	7.26	634.11
	10/05/2000	641.37	7.71	633.66
	05/24/2000	641.37	7.08	634.29
	02/28/2000	641.37	9.65	631.72
	10/11/1999	641.37	9.00	632.37
	07/20/1999	641.37	7.67	633.70
	03/24/1999	641.37	8.39	632.98
	11/24/1998	641.37	8.95	632.42
	07/23/1998	641.37	9.34	632.03
	05/19/1998	641.37	7.09	634.28
	02/18/1998	641.37	8.80	632.57
	08/28/1997	641.37	8.15	633.22
	07/01/1997	641.37	6.18	635.19
	05/21/1997	641.37	8.00	633.37
	02/21/1997	641.37	9.08	632.29
10/11/1996	641.37	9.14	632.23	

KEY:  
 TOC = Top of well casing  
 ft = feet below ground surface  
 Note: Site was surveyed to a USGS benchmark on July 3, 1997

Table 2 (cont.)  
 ELEVATION SURVEY DATA  
 CLARK STATION #0562  
 4751 NORTH SANTA MONICA BOULEVARD  
 MILWAUKEE, WI

Well Number	Date	TOC Elevation	Static water Level (From TOC)	Water Table Elevation (ft)
Q-1	02/18/1998	642.3	18.21	624.09
	05/19/1998	642.30	NT	NT
	07/23/1998	642.30	17.52	624.78
	11/24/1998	642.30	9.84	632.46
	03/24/1999	642.30	8.31	633.99
	07/20/1999	642.30	8.17	634.13
	10/11/1999	642.30	9.78	632.52
	02/28/2000	642.30	11.81	630.49
	05/24/2000	642.30	NT	NT
	10/05/2000	642.30	NT	NT
	04/02/2001	642.30	NT	NT
	07/23/2001	642.30	7.21	635.09
	10/22/2001	642.30	NT	NT
Q-2	02/18/1998	642.40	10.86	631.54
	05/19/1998	642.40	6.73	635.67
	07/23/1998	642.40	10.91	631.49
	11/24/1998	642.40	9.95	632.45
	03/24/1999	642.40	9.28	633.12
	07/20/1999	642.40	8.53	633.87
	10/11/1999	642.40	9.87	632.53
	02/28/2000	642.40	10.96	631.44
	05/24/2000	642.40	NT	NT
	10/05/2000	642.40	NT	NT
	04/02/2001	642.40	8.33	634.07
	07/23/2001	642.40	8.99	633.41
	10/22/2001	642.40	9.81	632.59
Q-3	02/18/1998	643.04	NT	NT
	05/19/1998	643.04	NT	NT
	07/23/1998	643.04	9.85	633.19
	11/24/1998	643.04	NT	NT
	03/24/1999	643.04	NT	NT
	07/20/1999	643.04	NT	NT
	02/28/2000	643.04	NT	NT
	05/24/2000	643.04	NT	NT
	10/05/2000	643.04	NT	NT
	04/02/2001	643.04	8.92	634.12
	07/23/2001	643.04	9.28	633.76
	10/22/2001	643.04	NT	NT
	Q-4	02/18/1998	642.62	19.20
05/19/1998		642.62	NT	NT
07/23/1998		642.62	21.35	621.27
11/24/1998		642.62	10.24	632.38
03/24/1999		642.62	9.72	632.90
07/20/1999		642.62	8.45	634.17
10/11/1999		642.62	9.81	632.81
02/28/2000		642.62	11.81	630.81
05/24/2000		642.62	NT	NT
10/05/2000		642.62	NT	NT
04/02/2001		642.62	8.87	633.75
07/23/2001		642.62	8.92	633.70
10/22/2001		642.62	9.74	632.88

KEY:  
 TOC = Top of well casing  
 ft = feet below ground surface  
 Note: Site was surveyed to a USGS benchmark on July 3, 1997

**Table 3**  
**Conductivity, Dissolved Oxygen, pH and Redox Potential Readings**  
**Clark Station #0562**  
**4751 North Santa Monica Boulevard, Milwaukee, WI**

Well Number	Depth to Water	Conductivity uS	pH	Redox Potential mV	Dissolved Oxygen mg/l	Ferrous Iron (mg/l)	Temp Deg. C	Date Measured	
MW-1	10.85	NT	NT	NT	NT	NT	NT	10/21/1996	
	11.53	NT	NT	NT	NT	NT	NT	02/21/1997	
	NT	NT	NT	NT	NT	NT	NT	05/21/1997	
	9.55	1941	7.27	NT	0.33	NT	15.1	08/28/1997	
	10.56	3930	7.1	-7.1	0.22	3	9.0	02/18/1998	
	9.12	3510	7.2	+45.7	0.42	3	13.1	05/19/1998	
	9.86	2410	6.9	+35.1	0.31	3.1	14.6	07/23/1998	
	10.57	3190	NT	-75.4	0.2	2.2	12.6	11/24/1998	
	10	NT	NT	NT	0.2	NT	NT	03/24/1999	
	8.71	NT	NT	NT	0.19	NT	NT	07/20/1999	
	10.22	NT	NT	NT	0.2	NT	NT	10/11/1999	
	11.37	NT	NT	NT	0.18	NT	NT	02/28/2000	
	9.13	NT	NT	NT	0.27	NT	NT	05/24/2000	
	9.1	NT	NT	NT	0.17	NT	NT	10/05/2000	
	9.2	NT	NT	NT	0.16	NT	NT	04/02/2001	
	9.41	NT	NT	-79.8	0.24	NT	NT	07/23/2001	
10.24	NT	7	-171.6	0.16	2.8	16.2	10/22/2001		
MW-2	11.33	NT	NT	NT	NT	NT	NT	10/21/1996	
	NT	NT	NT	NT	NT	NT	NT	02/21/1997	
	NT	NT	NT	NT	NT	NT	NT	05/21/1997	
	10.09	2100	7.09	NT	0.47	NT	13.2	08/28/1997	
		Not tested, unable to find due to snow cover							
	8.45	2310	7.1	+47.6	0.61	2	13.6	05/19/1998	
	10.45	2320	7	+35.4	0.41	2.5	14.6	07/23/1998	
	11.07	2880	7.1	-82.3	0.18	2.5	12.2	11/24/1998	
	9.55	NT	NT	NT	0.19	NT	NT	03/24/1999	
	9.3	NT	NT	NT	0.18	NT	NT	07/20/1999	
	10.96	NT	NT	NT	0.19	NT	NT	10/11/1999	
	11.86	NT	NT	NT	0.19	NT	NT	02/28/2000	
	9.01	NT	NT	NT	0.35	NT	NT	05/24/2000	
	9.51	NT	NT	NT	0.18	NT	NT	10/05/2000	
	8.82	NT	NT	NT	0.19	NT	NT	04/02/2001	
	9.88	NT	NT	-88.6	0.21	NT	NT	07/23/2001	
10.93	NT	7	-84.1	0.2	2.6	16.4	10/22/2001		
MW-3	9.83	NT	7.6	NT	1.2	NT	13.0	10/21/1996	
	10.28	NT	6.9	NT	1.33	NT	NT	02/21/1997	
	9.17	3160	8	-22.7	3.92	NT	9.3	05/21/1997	
	9.01	1996	7.27	NT	2.95	NT	13.5	08/28/1997	
	9.52	NT	NT	NT	NT	NT	NT	02/18/1998	
	8.21	4310	6.8	+221.8	2.35	0	10.3	05/19/1998	
	10.21	3990	7.2	+188.4	1.89	0	14.5	07/23/1998	
	10.06	NT	NT	NT	NT	NT	NT	11/24/1998	
	9.3	NT	NT	NT	0.5	NT	NT	03/24/1999	
	8.04	NT	NT	NT	0.88	NT	NT	07/20/1999	
	9.58	NT	NT	NT	0.4	NT	NT	10/11/1999	
	NT	NT	NT	NT	NT	NT	NT	02/28/2000	
	8.47	NT	NT	NT	3.94	NT	NT	05/24/2000	
	8.52	NT	NT	NT	0.36	NT	NT	10/05/2000	
	8.48	NT	NT	NT	0.52	NT	NT	04/02/2001	
	8.68	NT	NT	21.8	0.43	NT	NT	07/23/2001	
9.56	NT	NT	NT	0.29	NT	NT	10/22/2001		

**KEY:**

mg/l = milligrams per liter

NT = Not Tested

mV = millivolts

Deg. C = Degrees Celsius

\* Note - Depth of groundwater measured from the top of the well casing

**Table 3 (Cont.)**  
**Conductivity, Dissolved Oxygen, pH and Redox Potential Readings**  
**Clark Station #0562**  
**4751 North Santa Monica Boulevard, Milwaukee, WI**

Well Number	Depth to Water	Conductivity uS	pH	Redox Potential mV	Dissolved Oxygen mg/l	Ferrous Iron (mg/l)	Temp Deg. C	Date Measured
MW-4	10.67	NT	7.1	NT	4.5	NT	11.5	10/21/1996
	10.58	NT	6.7	NT	2.3	NT	8.6	02/21/1997
	8.37	3670	7.7	-2.5	5.08	NT	8.3	05/21/1997
	9.53	1400	7.1	NT	1.34	NT	12.2	08/28/1997
	10.43	NT	NT	NT	NT	NT	NT	02/18/1998
	5.15	3910	7.4	+75.9	1.21	1.5	11.9	05/19/1998
	7.16	2430	6.9	+70.1	0.92	2	14.1	07/23/1998
	10.55	NT	NT	NT	NT	NT	NT	11/24/1998
	9.53	NT	NT	NT	0.22	NT	NT	03/24/1999
	8.65	NT	NT	NT	0.65	NT	NT	07/20/1999
	10.5	NT	NT	NT	0.64	NT	NT	10/11/1999
	NT	NT	NT	NT	NT	NT	NT	02/28/2000
	7.99	NT	NT	NT	2.72	NT	NT	05/24/2000
	8.95	NT	NT	NT	0.8	NT	NT	10/05/2000
	8.31	NT	NT	NT	0.47	NT	NT	04/02/2001
9.57	NT	NT	NT	36.9	0.45	NT	07/23/2001	
10.57	NT	7	39.1	0.28	1.6	16.3	10/22/2001	
MW-5	10.50	NT	7.0	NT	0	NT	13.5	10/21/1996
	11.04	NT	7.8	NT	0.3	NT	11.2	02/21/1997
	10.53	1694	7.8	-24.3	0.58	NT	11.0	05/21/1997
	9.75	2490	7	NT	0.35	NT	14.1	08/28/1997
	10.61	2400	7.4	-25.7	0.25	3	9.1	02/18/1998
	9.56	2900	7	-64.5	0.35	5	12.1	05/19/1998
	9.87	3140	6.9	-71.7	0.22	5.3	15.2	07/23/1998
	10.63	1838	6.9	-105.5	0.19	1.5	11.7	11/24/1998
	10.11	NT	NT	NT	0.19	NT	NT	03/24/1999
	9.07	NT	NT	NT	0.22	NT	NT	07/20/1999
	10.19	NT	NT	NT	0.22	NT	NT	10/11/1999
	11.2	NT	NT	NT	0.21	NT	NT	02/28/2000
	9.64	NT	NT	NT	0.24	NT	NT	05/24/2000
	9.4	NT	NT	NT	0.17	NT	NT	10/05/2000
	9.39	NT	NT	NT	0.26	NT	NT	04/02/2001
	9.42	NT	NT	NT	-74.3	0.17	NT	07/23/2001
	10.12	NT	7	-126.4	0.22	3.4	16.4	10/22/2001
MW-6	9.99	NT	7.2	NT	0	NT	14.2	10/21/1996
	10.15	NT	6.7	NT	0.3	NT	9.6	02/21/1997
	8.63	2170	7.3	+43.7	0.26	NT	10.3	05/21/1997
	9.05	4450	6.99	NT	0.3	NT	13.9	08/28/1997
	9.43	5590	7.3	+19.7	0.43	4	NT	02/18/1997
	7.62	6320	7.2	-34.1	0.45	2	12.4	05/19/1998
	9.32	6980	7.4	-29.1	0.26	2	15.6	07/23/1998
	9.88	4100	7	-100	0.21	2	11.7	11/24/1998
	9.25	NT	NT	NT	0.2	NT	NT	03/24/1999
	8.5	NT	NT	NT	0.8	NT	NT	07/20/1999
	9.83	NT	NT	NT	0.78	NT	NT	10/11/1999
	10.56	NT	NT	NT	0.9	NT	NT	02/28/2000
	8.2	NT	NT	NT	0.29	NT	NT	05/24/2000
	8.63	NT	NT	NT	0.38	NT	NT	10/05/2000
	8.25	NT	NT	NT	0.34	NT	NT	04/02/2001
8.99	NT	NT	NT	-38.9	0.76	NT	07/23/2001	
9.82	NT	7	-175.7	0.15	2	16.1	10/22/2001	

KEY:  
mg/l = milligrams per liter  
NT = Not Tested  
mV = millivolts  
Deg. C = Degrees Celcius  
\* Note - Depth of groundwater measured from the top of the well casing

Table 3 (Cont.)  
 Conductivity, Dissolved Oxygen, pH and Redox Potential Readings  
 Clark Station #0582  
 4751 North Santa Monica Boulevard, Milwaukee, WI

Well Number	Depth to Water	Conductivity uS	pH	Redox Potential mV	Dissolved Oxygen mg/l	Ferrous Iron (mg/l)	Temp Deg. C	Date Measured
MW-7	9.81	NT	7.2	NT	1.2	NT	14.7	10/21/1996
	9.91	NT	6.5	NT	0.7	NT	9.8	02/21/1997
	8.6	1870	7.2	+83.6	3.39	NT	10.4	05/21/1997
	8.95	4140	6.88	NT	0.32	NT	15.5	08/28/1997
	9.57	524	7.3	+29.6	0.86	1	NT	02/18/1998
	7.99	6990	6.8	+46.1	0.42	1	11.9	05/19/1998
	9.16	5420	7.6	+30.1	0.16	1.5	15.6	07/23/1998
	9.73	1210	7	+47.6	1.3	0	NT	11/24/1998
	9.17	NT	NT	NT	0.8	NT	NT	03/24/1999
	8.46	NT	NT	NT	0.92	NT	NT	07/20/1999
	9.72	NT	NT	NT	0.88	NT	NT	10/11/1999
	10.44	NT	NT	NT	0.94	NT	NT	02/28/2000
	8.1	NT	NT	NT	0.29	NT	NT	05/24/2000
	8.55	NT	NT	NT	0.4	NT	NT	10/05/2000
	8.24	NT	NT	NT	0.43	NT	NT	04/02/2001
	8.87	NT	NT	NT	17.5	0.39	NT	07/23/2001
9.69	NT	7	24.6	0.29	2.2	15.8	10/22/2001	
MW-8	9.35	NT	7.5	NT	0	NT	13.3	10/21/1996
	9.37	NT	6.8	NT	0.4	NT	8.3	02/21/1997
	8.15	3420	8.1	+113.7	0.45	NT	8.7	05/21/1997
	8.37	1734	7.27	NT	0.3	NT	12.7	08/28/1997
	9.05	NT	6.9	+23.8	0.39	3	9.9	02/18/1998
	7.21	4320	7.2	+27.3	0.28	1	12.4	05/19/1998
	8.64	4210	7.6	+20.1	0.29	1	15.1	07/23/1998
	9.2	2110	7.1	-103.8	0.18	4	11.9	11/24/1998
	8.45	NT	NT	NT	0.22	NT	NT	03/24/1999
	7.81	NT	NT	NT	0.54	NT	NT	07/20/1999
	9.21	NT	NT	NT	0.6	NT	NT	10/11/1999
	9.89	NT	NT	NT	0.56	NT	NT	02/28/2000
	7.22	NT	NT	NT	0.33	NT	NT	05/24/2000
	7.87	NT	NT	NT	0.44	NT	NT	10/05/2000
	7.39	NT	NT	NT	0.22	NT	NT	04/02/2001
	8.27	NT	NT	-51.4	0.29	NT	NT	07/23/2001
9.17	NT	7	-168.7	0.19	2.8	15.4	10/22/2001	
MW-9	9.14	NT	7.4	NT	1.4	NT	13.2	10/21/1996
	9.08	NT	6.8	NT	0.8	NT	7.9	02/21/1997
	8.00	3.08	8.00	+107.7	6.77	NT	8.5	05/21/1997
	8.15	1596	7.63	NT	3.97	NT	14.8	08/28/1997
	8.8	NT	NT	NT	NT	NT	NT	02/18/1998
	7.09	5380	7.2	+99.7	0.21	0.5	12.4	05/19/1998
	9.34	4620	7	+97.6	0.42	1	14.9	07/23/1998
	8.95	NT	NT	NT	NT	NT	NT	11/24/1998
	8.39	NT	NT	NT	0.17	NT	NT	03/24/1999
	7.67	NT	NT	NT	0.91	NT	NT	07/20/1999
	9	NT	NT	NT	0.28	NT	NT	10/11/1999
	9.65	NT	NT	NT	0.95	NT	NT	02/28/2000
	7.08	NT	NT	NT	2.68	NT	NT	05/24/2000
	7.71	NT	NT	NT	1	NT	NT	10/05/2000
	7.26	NT	NT	NT	0.31	NT	NT	04/02/2001
	7.99	NT	NT	8.2	0.36	NT	NT	07/23/2001
8.94	NT	7	48.5	0.34	1.2	15.7	10/22/2001	

KEY:  
 mg/l = milligrams per liter  
 NT = Not Tested  
 mV = millivolts  
 Deg. C = Degrees Celcius  
 \* Note - Depth of groundwater measured from the top of the well casing

**Table 3 (Cont.)**  
**Conductivity, Dissolved Oxygen, pH and Redox Potential Readings**  
**Clark Station #0562**  
**4751 North Santa Monica Boulevard, Milwaukee, WI**

Well Number	Depth to Water	Conductivity mV	pH	Redox Potential mV	Dissolved Oxygen mg/l	Ferrous Iron (mg/l)	Date Measured	
Q-1	18.21	1920	6.1	+110.6	0.78	0.8	02/18/1998	
	Not tested unable to remove well covers							05/19/1998
	17.52	2640	7.2	+131.2	0.32	0	07/23/1998	
	9.84	3200	7	-79.7	0.25	2	11/24/1998	
	8.31	NT	NT	NT	0.22	NT	03/24/1999	
	8.17	NT	NT	NT	0.43	NT	07/20/1999	
	9.78	NT	NT	NT	0.42	NT	10/11/1999	
	11.81	NT	NT	NT	0.34	NT	02/28/2000	
	8.3	NT	NT	NT	0.24	NT	10/05/2000	
	NT	NT	NT	NT	NT	NT	04/02/2001	
	7.21	NT	NT	-19.7	0.25	NT	07/23/2001	
9.63	NT	NT	NT	0.16	NT	10/22/2001		
Q-2	10.86	3310	7.2	-77.2	0.25	5	02/18/1998	
	6.73	4310	7.3	-40.1	0.45	2	05/19/1998	
	10.91	1210	5.9	+120.1	0.56	0	07/23/1998	
	9.95	1880	7.2	-88.5	0.25	5.5	11/24/1998	
	9.28	NT	NT	NT	0.21	NT	03/24/1999	
	8.53	NT	NT	NT	0.4	NT	07/20/1999	
	9.87	NT	NT	NT	0.37	NT	10/11/1999	
	10.96	NT	NT	NT	0.38	NT	02/28/2000	
	8.68	NT	NT	NT	0.28	NT	10/05/2000	
	8.33	NT	NT	NT	0.22	NT	04/02/2001	
	8.99	NT	NT	-26.7	0.31	NT	07/23/2001	
9.81	NT	NT	NT	0.18	NT	10/22/2001		
Q-3	Not tested, under dumpster, could not be moved							02/18/1998
	Not tested unable to remove well covers							05/19/1998
	9.85	3410	7.2	+88.4	0.48	0	07/23/1998	
	NT	NT	NT	NT	NT	NT	11/24/1998	
	NT	NT	NT	NT	NT	NT	03/24/1999	
	NT	NT	NT	NT	NT	NT	07/20/1999	
	NT	NT	NT	NT	NT	NT	10/11/1999	
	NT	NT	NT	NT	NT	NT	02/28/2000	
	9.1	NT	NT	NT	0.18	NT	10/05/2000	
	8.92	NT	NT	NT	0.24	NT	04/02/2001	
	9.28	NT	NT	-35.6	0.22	NT	07/23/2001	
Not tested, under dumpster, could not be moved							10/22/2001	
Q-4	19.2	297	6.8	-22.8	0.55	1	02/18/1998	
	Not tested unable to remove well covers							05/19/1998
	21.35	4250	7.1	+5.21	0.48	0	07/23/1998	
	10.24	2970	7.1	-101.2	0.18	4	11/24/1998	
	9.72	NT	NT	NT	0.19	NT	03/24/1999	
	8.45	NT	NT	NT	0.19	NT	07/20/1999	
	9.81	NT	NT	NT	0.2	NT	10/11/1999	
	11.81	NT	NT	NT	0.2	NT	02/28/2000	
	8.8	NT	NT	NT	0.22	NT	10/05/2000	
	8.87	NT	NT	NT	0.19	NT	04/02/2001	
	8.92	NT	NT	-39.1	0.28	NT	07/23/2001	
9.74	NT	NT	NT	0.27	NT	10/22/2001		

KEY:  
mg/l = milligrams per liter  
NT = Not Tested  
mV = millivolts  
\* Note - Depth of groundwater measured from the top of the well casing

**Appendix G**  
**Well Abandonment Forms of Sentinel Environmental**  
**of February 16, 2010 for Closed BRRTS # 03-41-000450**



SENTINEL ENVIRONMENTAL SERVICES, LLC



February 16, 2010

Greg Michael  
Department of Commerce  
9316 N. 107<sup>th</sup> St.  
Milwaukee, WI 53224

**RECEIVED**

**MAY 21 2010**

**PECFA SITE REVIEW  
MILWAUKEE OFFICE**

RE: Well Abandonment Form Submittal/Final Closure Request  
Former Clark #562  
4751 N. Santa Monica Blvd.  
Milwaukee, WI 53211  
BRRTS No. 03-41-000450  
PECFA No. 53211-1043-51

Dear Mr. Michael:

Sentinel Environmental Services, LLC was contacted by Mr. Amin Bhimani (responsible party) to complete conditional closure items for the site. The scope of work included well abandonment, granular activated carbon disposal, and permanent remediation system shut down.

All site wells were properly abandoned on 06/02/09. There were 9-2" monitoring wells and 5-6" remediation wells. The remediation wells included 3 dual phase (SVE/Pump) and 2 single phase (SVE only). Pumps and piping required removal at the 3 dual phase well locations. As I had no site map to identify remediation wells, they are identified on the abandonment forms by proximity to monitoring wells or permanent site features. Well abandonment forms are attached for your records.

The site remediation system was permanently shut down on 11/02/09. There were 5 drums of granular activated carbon (GAC) that required disposal at Waste Management under profile #MW103425W1. GAC lab results and profile information are included for your records. The remediation building contained an SVE with groundwater pump and treat system. All components of the system were removed and disposed as scrap.

Please review these conditional closure items as completed and consider this site for final closure. If you have any questions I can be reached at 262-375-8110 or 262-844-6220 (cell).

Sincerely,  
Sentinel Environmental Services, LLC

*David M. Lennon*

David M. Lennon, P.E.  
Project Manager

cc: Amin Bhimani, 700 W. Wisconsin Ave., Milwaukee, WI 53233

Attachments

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to:

Drinking Water  Watershed/Wastewater  Remediation/Redevelopment  
 Waste Management  Other:

1. Well Location Information

County: Milwaukee WI Unique Well # of Removed Well: \_\_\_\_\_ Hicap #: \_\_\_\_\_  
 Latitude / Longitude (Degrees and Minutes): \_\_\_\_\_ ' N \_\_\_\_\_ ' W  
 Method Code (see instructions): \_\_\_\_\_  
 1/4 NE 1/4 NE Section: 05 Township: 07 N Range: 22  E  W  
 or Gov't Lot #: \_\_\_\_\_  
 Well Street Address: 4751 N. Santa Monica Blvd.  
 Well City, Village or Town: Milwaukee Well ZIP Code: 53211  
 Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

2. Facility / Owner Information

Facility Name: Former Clark #562  
 Facility ID (FID or PWS): 241574850  
 License/Permit/Monitoring #: MW-1  
 Original Well Owner: Clark Oil  
 Present Well Owner: Amin Bhimani  
 Mailing Address of Present Owner: 700 W. Wisconsin Ave., Ste #3  
 City of Present Owner: Milwaukee State: WI ZIP Code: 53233

Reason For Removal From Service: site closed WI Unique Well # of Replacement Well: \_\_\_\_\_

3. Well / Drillhole / Borehole Information

Monitoring Well  Water Well  Borehole / Drillhole  
 Original Construction Date (mm/dd/yyyy): unknown  
 If a Well Construction Report is available, please attach: \_\_\_\_\_  
 Construction Type:  Drilled  Driven (Sandpoint)  Dug  
 Other (specify): \_\_\_\_\_  
 Formation Type:  Unconsolidated Formation  Bedrock  
 Total Well Depth From Ground Surface (ft.): 14.5 Casing Diameter (in.): 2  
 Lower Drillhole Diameter (in.): unknown Casing Depth (ft.): unknown  
 Was well annular space grouted?  Yes  No  Unknown  
 If yes, to what depth (feet)? \_\_\_\_\_ Depth to Water (feet): 8.36

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes  No  N/A  
 Liner(s) removed?  Yes  No  N/A  
 Screen removed?  Yes  No  N/A  
 Casing left in place?  Yes  No  N/A  
 Was casing cut off below surface?  Yes  No  N/A  
 Did sealing material rise to surface?  Yes  No  N/A  
 Did material settle after 24 hours?  Yes  No  N/A  
 If yes, was hole retopped?  Yes  No  N/A  
 If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A  
 Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)  Other (Explain): Gravity  
 Sealing Materials:  
 Neat Cement Grout  Clay-Sand Slurry (11 lb./gal. wt.)  
 Sand-Cement (Concrete) Grout  Bentonite-Sand Slurry " "  
 Concrete  Bentonite Chips  
 For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips  Bentonite - Cement Grout  
 Granular Bentonite  Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole

3/8" Bentonite Chips

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	14.5	0.32 <u>ft<sup>3</sup></u>	

6. Comments

7. Supervision of Work

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)	Date Received	Noted By	
<u>Sentinel Env. Services, LLC</u>	<u>940910</u>	<u>06/02/09</u>			
Street or Route	Telephone Number	Comments			
<u>P.O. Box 865</u>	<u>(262) 375-8110</u>				
City	State	ZIP Code	Signature of Person Doing Work	Date Signed	
<u>Grafton</u>	<u>WI</u>	<u>53024</u>	<u>Dave Lennon</u>	<u>02/16/10</u>	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to:

Drinking Water

Watershed/Wastewater

Remediation/Redevelopment

Waste Management

Other: \_\_\_\_\_

**1. Well Location Information**

County: Milwaukee WI Unique Well # of Removed Well: \_\_\_\_\_ Hicap #: \_\_\_\_\_

Latitude / Longitude (Degrees and Minutes): \_\_\_\_\_ 'N  
\_\_\_\_\_ 'W  
Method Code (see instructions): \_\_\_\_\_

1/4 or Gov't Lot #: NE NE Section: 05 Township: 07 Range: 22  E  W

Well Street Address: 4751 N. Santa Monica Blvd.

Well City, Village or Town: Milwaukee Well ZIP Code: 53211

Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

Reason For Removal From Service: Site Closed WI Unique Well # of Replacement Well: \_\_\_\_\_

**2. Facility / Owner Information**

Facility Name: Former Clark #562

Facility ID (FID or PWS): 241574850

License/Permit/Monitoring #: MW-2

Original Well Owner: Clark Oil

Present Well Owner: Amin Bhimani

Mailing Address of Present Owner: 700 W. Wisconsin Ave., Ste #3

City of Present Owner: Milwaukee State: WI ZIP Code: 53233

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?  Yes  No  N/A  
Liner(s) removed?  Yes  No  N/A  
Screen removed?  Yes  No  N/A  
Casing left in place?  Yes  No  N/A  
Was casing cut off below surface?  Yes  No  N/A  
Did sealing material rise to surface?  Yes  No  N/A  
Did material settle after 24 hours?  Yes  No  N/A  
If yes, was hole retopped?  Yes  No  N/A  
If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)  Other (Explain): Gravity

Sealing Materials:  
 Neat Cement Grout  Clay-Sand Slurry (11 lb./gal. wt.)  
 Sand-Cement (Concrete) Grout  Bentonite-Sand Slurry " "  
 Concrete  Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips  Bentonite - Cement Grout  
 Granular Bentonite  Bentonite - Sand Slurry

**3. Well / Drillhole / Borehole Information**

Monitoring Well  Water Well  Borehole / Drillhole  
Original Construction Date (mm/dd/yyyy): unknown  
If a Well Construction Report is available, please attach: \_\_\_\_\_

Construction Type:  
 Drilled  Driven (Sandpoint)  Dug  
 Other (specify): \_\_\_\_\_

Formation Type:  
 Unconsolidated Formation  Bedrock

Total Well Depth From Ground Surface (ft.): 16 Casing Diameter (in.): 2

Lower Drillhole Diameter (in.): unknown Casing Depth (ft.): unknown

Was well annular space grouted?  Yes  No  Unknown

If yes, to what depth (feet)? \_\_\_\_\_ Depth to Water (feet): 8.46

**5. Material Used To Fill Well / Drillhole**

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<u>3/8" Bentonite Chips</u>	<u>Surface</u>	<u>16</u>	<u>0.35 ft<sup>3</sup></u>	

**6. Comments**

\_\_\_\_\_

**7. Supervision of Work**

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)	Date Received	Noted By	
<u>Sentinel Env. Services, LLC</u>	<u>940910</u>	<u>06/02/09</u>			
Street or Route	Telephone Number	Comments			
<u>P.O. Box 865</u>	<u>(262) 375-8110</u>				
City	State	ZIP Code	Signature of Person Doing Work	Date Signed	
<u>Grafton</u>	<u>WI</u>	<u>53024</u>	<u>Dave Lennon</u>	<u>02/16/10</u>	

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Verification Only of Fill and Seal

Route to:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

<b>1. Well Location Information</b>			<b>2. Facility / Owner Information</b>		
County <b>Milwaukee</b>	WI Unique Well # of Removed Well	Hicap #	Facility Name <b>Former Clark #562</b>		

Latitude / Longitude (Degrees and Minutes)		Method Code (see instructions)		Facility ID (FID or PWS) <b>241574850</b>	
-----'N		-----		License/Permit/Monitoring # <b>MW-3</b>	
-----'W		-----		Original Well Owner <b>Clark Oil</b>	

1/4 1/4 <b>NE</b> 1/4 <b>NE</b>	Section <b>05</b>	Township <b>07 N</b>	Range <b>22</b>	<input checked="" type="checkbox"/> E <input type="checkbox"/> W	Present Well Owner <b>Amin Bhimani</b>
Well Street Address <b>4751 N. Santa Monica Blvd.</b>					Mailing Address of Present Owner <b>700 W. Wisconsin Ave., Ste #3</b>

Well City, Village or Town <b>Milwaukee</b>		Well ZIP Code <b>53211</b>		City of Present Owner <b>Milwaukee</b>		State <b>WI</b>	ZIP Code <b>53233</b>
Subdivision Name		Lot #		State		ZIP Code	

Reason For Removal From Service <b>site closed</b>	WI Unique Well # of Replacement Well	<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>					
---	--------------------------------------	--	--	--	--	--	--

<b>3. Well / Drillhole / Borehole Information</b>		Original Construction Date (mm/dd/yyyy) <b>unknown</b>					
<input checked="" type="checkbox"/> Monitoring Well	<input type="checkbox"/> Water Well	<input type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.				

Construction Type:		<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____					
--------------------	--	---	--	--	--	--	--

Formation Type:		Required Method of Placing Sealing Material					
<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock	<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Screened & Poured (Bentonite Chips) <input checked="" type="checkbox"/> Other (Explain): <b>Gravity</b>					

Total Well Depth From Ground Surface (ft.) <b>14</b>	Casing Diameter (in.) <b>2</b>	Sealing Materials					
Lower Drillhole Diameter (in.) <b>unknown</b>	Casing Depth (ft.) <b>unknown</b>	<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.) <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry * <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Chips					

Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	For Monitoring Wells and Monitoring Well Boreholes Only:						
If yes, to what depth (feet)?	Depth to Water (feet) <b>7.86</b>	<input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry					

<b>5. Material Used To Fill Well / Drillhole</b>				From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<b>3/8" Bentonite Chips</b>				Surface	<b>14</b>	<b>0.31 ft<sup>3</sup></b>	

**6. Comments**

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>			
Name of Person or Firm Doing Filling & Sealing <b>Sentinel Env. Services, LLC</b>		License # <b>940910</b>	Date of Filling & Sealing (mm/dd/yyyy) <b>06/02/09</b>	Date Received		Noted By	
Street or Route <b>P.O. Box 865</b>		Telephone Number <b>(262) 375-8110</b>		Comments			
City <b>Grafton</b>	State <b>WI</b>	ZIP Code <b>53024</b>	Signature of Person Doing Work <b>Dave Lennon</b>		Date Signed <b>02/16/10</b>		

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Verification Only of Fill and Seal

Route to:

Drinking Water

Watershed/Wastewater

Remediation/Redevelopment

Waste Management

Other:

**1. Well Location Information**

County <b>Milwaukee</b>	WI Unique Well # of Removed Well	Hicap #
Latitude / Longitude (Degrees and Minutes)		Method Code (see instructions)
-----' N		
-----' W		
1/4 1/4 <b>NE</b> 1/4 <b>NE</b>	Section <b>05</b>	Township <b>07 N</b>
or Gov't Lot #		Range <b>22</b> <input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well Street Address <b>4751 N. Santa Monica Blvd.</b>		
Well City, Village or Town <b>Milwaukee</b>		Well ZIP Code <b>53211</b>
Subdivision Name		Lot #

**2. Facility / Owner Information**

Facility Name <b>Former Clark #562</b>
Facility ID (FID or PWS) <b>241574850</b>
License/Permit/Monitoring # <b>MW-4</b>
Original Well Owner <b>Clark Oil</b>
Present Well Owner <b>Amin Bhimani</b>
Mailing Address of Present Owner <b>700 W. Wisconsin Ave., Ste #3</b>
City of Present Owner <b>Milwaukee</b>
State <b>WI</b>
ZIP Code <b>53233</b>

Reason For Removal From Service <b>Site Closed</b>	WI Unique Well # of Replacement Well
---	--------------------------------------

**3. Well / Drillhole / Borehole Information**

<input checked="" type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) <b>unknown</b>
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.
<input type="checkbox"/> Borehole / Drillhole	
Construction Type:	
<input checked="" type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)
<input type="checkbox"/> Other (specify):	<input type="checkbox"/> Dug
Formation Type:	
<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
Total Well Depth From Ground Surface (ft.) <b>15</b>	Casing Diameter (in.) <b>2</b>
Lower Drillhole Diameter (in.) <b>unknown</b>	Casing Depth (ft.) <b>unknown</b>
Was well annular space grouted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
If yes, to what depth (feet)?	Depth to Water (feet) <b>8.25</b>

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Casing left in place?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Was casing cut off below surface?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Required Method of Placing Sealing Material	
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input type="checkbox"/> Screened & Poured (Bentonite Chips)	<input checked="" type="checkbox"/> Other (Explain): <b>Gravity</b>
Sealing Materials	
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite-Sand Slurry "
<input type="checkbox"/> Concrete	<input type="checkbox"/> Bentonite Chips
For Monitoring Wells and Monitoring Well Boreholes Only:	
<input checked="" type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

**5. Material Used To Fill Well / Drillhole**

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<b>3/8" Bentonite Chips</b>	Surface	<b>15</b>	<b>0.33 ft<sup>3</sup></b>	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing <b>Sentinel Env. Services, LLC</b>	License # <b>940910</b>	Date of Filling & Sealing (mm/dd/yyyy) <b>06/02/09</b>	DNR Use Only	
Street or Route <b>P.O. Box 865</b>	Telephone Number <b>262-375-8110</b>	Comments	Date Received	Noted By
City <b>Grafton</b>	State <b>WI</b>	ZIP Code <b>53024</b>	Signature of Person Doing Work <b>Dave Lennon</b>	Date Signed <b>02/16/10</b>

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<input type="checkbox"/> <b>Verification Only of Fill and Seal</b>	<b>Route to:</b> <input type="checkbox"/> Drinking Water <input type="checkbox"/> Watershed/Wastewater <input type="checkbox"/> Waste Management <input type="checkbox"/> Other: _____	<input checked="" type="checkbox"/> <b>Remediation/Redevelopment</b>
--	--	--

<b>1. Well Location Information</b>	<b>2. Facility / Owner Information</b>
County: <u>Milwaukee</u>	Facility Name: <u>Former Clark #562</u>
WI Unique Well # of Removed Well: _____	Facility ID (FID or PWS): <u>241574850</u>
Hicap #: _____	License/Permit/Monitoring #: <u>MW-5</u>

Latitude / Longitude (Degrees and Minutes): _____ 'N	Method Code (see instructions): _____
_____ 'W	

1/4 1/4 <u>NE</u> 1/4 <u>NE</u>	Section: <u>05</u>	Township: <u>07 N</u>	Range: <u>22</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Original Well Owner: <u>Clark Oil</u>
or Gov't Lot #				Present Well Owner: <u>Arun Bhimani</u>

Well Street Address: 4751 N. Santa Monica Blvd.

Well City, Village or Town: Milwaukee      Well ZIP Code: 53211

Subdivision Name: \_\_\_\_\_      Lot #: \_\_\_\_\_

City of Present Owner: Milwaukee      State: WI      ZIP Code: 53233

Reason For Removal From Service: Site closed      WI Unique Well # of Replacement Well: \_\_\_\_\_

<b>3. Well / Drillhole / Borehole Information</b>		<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>	
<input checked="" type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy): <u>unknown</u>	Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Screen removed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Casing left in place? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
<input type="checkbox"/> Borehole / Drillhole		Was casing cut off below surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Construction Type:		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)	<input type="checkbox"/> Dug	If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Other (specify): _____			

Formation Type:  Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.): 15      Casing Diameter (in.): 2

Lower Drillhole Diameter (in.): unknown      Casing Depth (ft.): unknown

Was well annular space grouted?  Yes  No  Unknown

If yes, to what depth (feet)? \_\_\_\_\_      Depth to Water (feet): 8.65

<b>5. Material Used To Fill Well / Drillhole</b>			
<u>3/8" Bentonite Chips</u>	From (ft.): <u>Surface</u>	To (ft.): <u>15</u>	No. Yards, Sacks Sealant or Volume (circle one): <u>0.33 ft<sup>3</sup></u>
			Mix Ratio or Mud Weight: _____

**6. Comments**

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing: <u>Sentinel Env. Services, LLC</u>	License #: <u>940910</u>	Date of Filling & Sealing (mm/dd/yyyy): <u>06/02/09</u>	Date Received: _____	Noted By: _____	
Street or Route: <u>P.O. Box 865</u>	Telephone Number: <u>262-375-8110</u>	Comments: _____			
City: <u>Grafton</u>	State: <u>WI</u>	ZIP Code: <u>53024</u>	Signature of Person Doing Work: <u>Dave Lennon</u>	Date Signed: <u>02/16/10</u>	

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Verification Only of Fill and Seal

**Route to:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**

County <b>Milwaukee</b>	WI Unique Well # of Removed Well _____	Hicap # _____
Latitude / Longitude (Degrees and Minutes) _____ ' N _____ ' W		Method Code (see instructions) _____
1/4 NE 1/4 NE or Gov't Lot #	Section <b>05</b>	Township <b>07 N</b>
		Range <b>22</b> <input checked="" type="checkbox"/> E <input type="checkbox"/> W
Well Street Address <b>4751 N. Santa Monica Blvd.</b>		
Well City, Village or Town <b>Milwaukee</b>		Well ZIP Code <b>53211</b>
Subdivision Name _____		Lot # _____

**2. Facility / Owner Information**

Facility Name <b>Former Clark #562</b>
Facility ID (FID or PWS) <b>241574850</b>
License/Permit/Monitoring # <b>MW-6</b>
Original Well Owner <b>Clark Oil</b>
Present Well Owner <b>Amin Bhimani</b>
Mailing Address of Present Owner <b>700 W. Wisconsin Ave., Ste #3</b>
City of Present Owner <b>Milwaukee</b>
State <b>WI</b>
ZIP Code <b>53233</b>

Reason For Removal From Service  
**Site Closed**

WI Unique Well # of Replacement Well  
\_\_\_\_\_

**3. Well / Drillhole / Borehole Information**

<input checked="" type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) <b>unknown</b>
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.
<input type="checkbox"/> Borehole / Drillhole	
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft.) <b>14</b>	Casing Diameter (in.) <b>2</b>
Lower Drillhole Diameter (in.) <b>unknown</b>	Casing Depth (ft.) <b>unknown</b>
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)?	Depth to Water (feet) <b>8.10</b>

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Casing left in place?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Was casing cut off below surface?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Required Method of Placing Sealing Material	
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input type="checkbox"/> Screened & Poured (Bentonite Chips)	<input checked="" type="checkbox"/> Other (Explain): <b>Gravity</b>
Sealing Materials	
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite-Sand Slurry " "
<input type="checkbox"/> Concrete	<input type="checkbox"/> Bentonite Chips
For Monitoring Wells and Monitoring Well Boreholes Only:	
<input checked="" type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

**5. Material Used To Fill Well / Drillhole**

Material	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<b>3/8" Bentonite Chips</b>	Surface	<b>14</b>	<b>0.31 ft<sup>3</sup></b>	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing <b>Sentinel Env. Services, LLC</b>	License # <b>940910</b>	Date of Filling & Sealing (mm/dd/yyyy) <b>06/02/09</b>	DNR Use Only	
Street or Route <b>P.O. Box 865</b>			Date Received	Noted By
City <b>Grafton</b>			Telephone Number <b>262-375-8110</b>	Comments
State <b>WI</b>	ZIP Code <b>53024</b>	Signature of Person Doing Work <b>Dave Lennon</b>	Date Signed <b>02/16/10</b>	

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Verification Only of Fill and Seal

Route to:  
 Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

<b>1. Well Location Information</b>				<b>2. Facility / Owner Information</b>			
County <b>Milwaukee</b>		WI Unique Well # of Removed Well _____		Hicap # _____		Facility Name <b>Former Clark #562</b>	
Latitude / Longitude (Degrees and Minutes) _____' N _____' W				Facility ID (FID or PWS) <b>241574850</b>			
Method Code (see instructions) _____				License/Permit/Monitoring # <b>MW-7</b>			
1/4 NE 1/4 NE or Gov't Lot #		Section <b>05</b>	Township <b>07 N</b>	Range <b>22</b>	<input checked="" type="checkbox"/> E <input type="checkbox"/> W		
Well Street Address <b>4751 N. Santa Monica Blvd.</b>				Original Well Owner <b>Clark Oil</b>			
Well City, Village or Town <b>Milwaukee</b>				Present Well Owner <b>Amm Bhimani</b>			
Subdivision Name _____				Mailing Address of Present Owner <b>700 W. Wisconsin Ave., Ste #3</b>			
Well ZIP Code <b>53211</b>				City of Present Owner <b>Milwaukee</b>		State <b>WI</b>	ZIP Code <b>53233</b>

Reason For Removal From Service <b>site closed</b>		WI Unique Well # of Replacement Well _____	
<b>3. Well / Drillhole / Borehole Information</b>			
<input checked="" type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) <b>unknown</b>	
If a Well Construction Report is available, please attach. _____			
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____			
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock			
Total Well Depth From Ground Surface (ft.) <b>13</b>		Casing Diameter (in.) <b>2</b>	
Lower Drillhole Diameter (in.) <b>unknown</b>		Casing Depth (ft.) <b>unknown</b>	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown			
If yes, to what depth (feet)? _____		Depth to Water (feet) <b>7.84</b>	

<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>			
Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
Casing left in place?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Was casing cut off below surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did sealing material rise to surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
Required Method of Placing Sealing Material			
<input type="checkbox"/> Conductor Pipe-Gravity		<input type="checkbox"/> Conductor Pipe-Pumped	
<input type="checkbox"/> Screened & Poured (Bentonite Chips)		<input checked="" type="checkbox"/> Other (Explain): <b>Gravity</b>	
Sealing Materials			
<input type="checkbox"/> Neat Cement Grout		<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)	
<input type="checkbox"/> Sand-Cement (Concrete) Grout		<input type="checkbox"/> Bentonite-Sand Slurry " "	
<input type="checkbox"/> Concrete		<input type="checkbox"/> Bentonite Chips	
For Monitoring Wells and Monitoring Well Boreholes Only:			
<input checked="" type="checkbox"/> Bentonite Chips		<input type="checkbox"/> Bentonite - Cement Grout	
<input type="checkbox"/> Granular Bentonite		<input type="checkbox"/> Bentonite - Sand Slurry	

<b>5. Material Used To Fill Well / Drillhole</b>			
From (ft.) <b>Surface</b>	To (ft.) <b>13</b>	No. Yards, Sacks Sealant or Volume (circle one) <b>0.29 ft<sup>3</sup></b>	Mix Ratio or Mud Weight

**6. Comments**  
\_\_\_\_\_

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing <b>Sentinel Env. Services, LLC</b>		License # <b>940910</b>	Date of Filling & Sealing (mm/dd/yyyy) <b>06/02/09</b>	Date Received	Noted By
Street or Route <b>P.O. Box 865</b>			Telephone Number <b>262-375-8110</b>	Comments	
City <b>Grafton</b>	State <b>WI</b>	ZIP Code <b>53024</b>	Signature of Person Doing Work <b>Dave Lennon</b>	Date Signed <b>02/16/10</b>	



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Verification Only of Fill and Seal

**Route to:**

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**

County: Milwaukee      WI Unique Well # of Removed Well: \_\_\_\_\_      Hicap #: \_\_\_\_\_  
Latitude / Longitude (Degrees and Minutes): \_\_\_\_\_ ' N  
\_\_\_\_\_ ' W  
Method Code (see instructions): \_\_\_\_\_  
1/4 NE 1/4 NE      Section: 05      Township: 07 N      Range: 22  E  W  
or Gov't Lot #: \_\_\_\_\_

**2. Facility / Owner Information**

Facility Name: Former Clark #562  
Facility ID (FID or PWS): 241574850  
License/Permit/Monitoring #: MW-8  
Original Well Owner: Clark Oil  
Present Well Owner: Amin Bhimani  
Mailing Address of Present Owner: 700 W. Wisconsin Ave., Ste #3  
City of Present Owner: Milwaukee      State: WI      ZIP Code: 53233

Well Street Address: 4751 N. Santa Monica Blvd.  
Well City, Village or Town: Milwaukee      Well ZIP Code: 53211  
Subdivision Name: \_\_\_\_\_      Lot #: \_\_\_\_\_

Reason For Removal From Service: Site Closed      WI Unique Well # of Replacement Well: \_\_\_\_\_

**3. Well / Drillhole / Borehole Information**

Monitoring Well      Original Construction Date (mm/dd/yyyy): unknown  
 Water Well  
 Borehole / Drillhole      If a Well Construction Report is available, please attach: \_\_\_\_\_  
Construction Type:  
 Drilled       Driven (Sandpoint)       Dug  
 Other (specify): \_\_\_\_\_

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?       Yes       No       N/A  
Liner(s) removed?       Yes       No       N/A  
Screen removed?       Yes       No       N/A  
Casing left in place?       Yes       No       N/A  
Was casing cut off below surface?       Yes       No       N/A  
Did sealing material rise to surface?       Yes       No       N/A  
Did material settle after 24 hours?       Yes       No       N/A  
If yes, was hole retopped?       Yes       No       N/A  
If bentonite chips were used, were they hydrated with water from a known safe source?       Yes       No       N/A

Formation Type:  
 Unconsolidated Formation       Bedrock

Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity       Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)       Other (Explain): Gravity

Total Well Depth From Ground Surface (ft.): 15.5      Casing Diameter (in.): 2  
Lower Drillhole Diameter (in.): unknown      Casing Depth (ft.): unknown

Sealing Materials:  
 Neat Cement Grout       Clay-Sand Slurry (11 lb./gal. wt.)  
 Sand-Cement (Concrete) Grout       Bentonite-Sand Slurry " "  
 Concrete       Bentonite Chips

Was well annular space grouted?       Yes       No       Unknown  
If yes, to what depth (feet)?      Depth to Water (feet): 6.63

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips       Bentonite - Cement Grout  
 Granular Bentonite       Bentonite - Sand Slurry

**5. Material Used To Fill Well / Drillhole**  
3/8" Bentonite Chips

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	15.5	0.34 ft <sup>3</sup>	

**6. Comments**

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing				DNR Use Only	
License #		Date of Filling & Sealing (mm/dd/yyyy)		Date Received	Noted By
<u>Sentinel Env. Services, LLC</u>		<u>940910</u>		<u>06/02/09</u>	
Street or Route			Telephone Number		Comments
<u>P.O. Box 865</u>			<u>262-375-8110</u>		
City	State	ZIP Code	Signature of Person Doing Work		Date Signed
<u>Grafton</u>	<u>WI</u>	<u>53024</u>	<u>Dave Lennor</u>		<u>02/16/10</u>

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**Verification Only of Fill and Seal**

Route to:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

<b>1. Well Location Information</b>			<b>2. Facility / Owner Information</b>		
County <b>Milwaukee</b>	WI Unique Well # of Removed Well _____	Hicap # _____	Facility Name <b>Former Clark #567</b>		

Latitude / Longitude (Degrees and Minutes) ____ ° ____ ' ____ " N ____ ° ____ ' ____ " W	Method Code (see instructions) _____	Facility ID (FID or PWS) <b>241574850</b>
License/Permit/Monitoring # <b>MW-9</b>		Original Well Owner <b>Clark Oil</b>

1/4 NE 1/4 NE or Gov't Lot #	Section <b>05</b>	Township <b>07 N</b>	Range <b>22</b>	<input checked="" type="checkbox"/> E <input type="checkbox"/> W	Present Well Owner <b>Amin Bhimani</b>
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Well Street Address <b>4751 N. Santa Monica Blvd.</b>	Well ZIP Code <b>53211</b>	Mailing Address of Present Owner <b>700 W. Wisconsin Ave., Ste #3</b>
Well City, Village or Town <b>Milwaukee</b>	City of Present Owner <b>Milwaukee</b>	State <b>WI</b>

Subdivision Name _____	Lot # _____	ZIP Code <b>53233</b>
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Reason For Removal From Service <b>Site Closed</b>	WI Unique Well # of Replacement Well _____	<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>	
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<b>3. Well / Drillhole / Borehole Information</b>		Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input checked="" type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) <b>unknown</b>	Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Water Well	If a Well Construction Report is available, please attach.	Screen removed?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A
<input type="checkbox"/> Borehole / Drillhole		Casing left in place?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A

Construction Type:	<input checked="" type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)	<input type="checkbox"/> Dug	Was casing cut off below surface?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A		
<input type="checkbox"/> Other (specify): _____	Did sealing material rise to surface?		<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A	Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> N/A

Formation Type:	<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock	Required Method of Placing Sealing Material	<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
Total Well Depth From Ground Surface (ft.) <b>12</b>	Casing Diameter (in.) <b>2</b>	<input checked="" type="checkbox"/> Screened & Poured (Bentonite Chips)	<input checked="" type="checkbox"/> Other (Explain): <b>Gravity</b>		

Lower Drillhole Diameter (in.) <b>unknown</b>	Casing Depth (ft.) <b>unknown</b>	Sealing Materials	<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)
Was well annular space grouted?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite-Sand Slurry " "

If yes, to what depth (feet)?	Depth to Water (feet) <b>6.92</b>	For Monitoring Wells and Monitoring Well Boreholes Only:	<input checked="" type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
		<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry	

<b>5. Material Used To Fill Well / Drillhole</b>			
<b>3/8" Bentonite Chips</b>	From (ft.) Surface	To (ft.) <b>12</b>	No. Yards, Sacks Sealant or Volume (circle one) <b>0.26 ft<sup>3</sup></b>
			Mix Ratio or Mud Weight

**6. Comments**

\_\_\_\_\_

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing <b>Sentinel Env. Services, LLC</b>	License # <b>940910</b>	Date of Filling & Sealing (mm/dd/yyyy) <b>06/02/09</b>	Date Received	Noted By	
Street or Route <b>P.O. Box 865</b>	Telephone Number <b>(262) 375-8110</b>	Comments			
City <b>Grafton</b>	State <b>WI</b>	ZIP Code <b>53024</b>	Signature of Person Doing Work <b>Dave Lennon</b>	Date Signed <b>02/16/10</b>	



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Verification Only of Fill and Seal

Route to:

Drinking Water

Watershed/Wastewater

Remediation/Redevelopment

Waste Management

Other: \_\_\_\_\_

**1. Well Location Information**

**2. Facility / Owner Information**

County: Milwaukee WI Unique Well # of Removed Well: \_\_\_\_\_ Hicap #: \_\_\_\_\_

Facility Name: Former Clark #567

Latitude / Longitude (Degrees and Minutes): \_\_\_\_\_ Method Code (see instructions): \_\_\_\_\_

Facility ID (FID or PWS): 241574850

License/Permit/Monitoring #: SVE (W. of MW-3)

1/4 1/4 NE 1/4 NE Section: 05 Township: 07 N Range: 22  E  W

Original Well Owner: Clark Oil

Well Street Address: 4751 N. Santa Monica Blvd.

Present Well Owner: Amm Bhimani

Well City, Village or Town: Milwaukee Well ZIP Code: 53211

Mailing Address of Present Owner: 700 W. Wisconsin Ave., Ste #3

Subdivision Name: \_\_\_\_\_ Lot #: \_\_\_\_\_

City of Present Owner: Milwaukee State: WI ZIP Code: 53233

Reason For Removal From Service: Site Closed WI Unique Well # of Replacement Well: \_\_\_\_\_

**3. Well / Drillhole / Borehole Information**

**4. Pump, Liner, Screen, Casing & Sealing Material**

Monitoring Well Original Construction Date (mm/dd/yyyy): unknown  
 Water Well  
 Borehole / Drillhole If a Well Construction Report is available, please attach.

Pump and piping removed?  Yes  No  N/A  
Liner(s) removed?  Yes  No  N/A  
Screen removed?  Yes  No  N/A  
Casing left in place?  Yes  No  N/A  
Was casing cut off below surface?  Yes  No  N/A  
Did sealing material rise to surface?  Yes  No  N/A  
Did material settle after 24 hours?  Yes  No  N/A  
If yes, was hole retopped?  Yes  No  N/A  
If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

Construction Type:  
 Drilled  Driven (Sandpoint)  Dug  
 Other (specify): \_\_\_\_\_

Required Method of Placing Sealing Material:  
 Conductor Pipe-Gravity  Conductor Pipe-Pumped  
 Screened & Poured (Bentonite Chips)  Other (Explain): Gravity

Formation Type:  
 Unconsolidated Formation  Bedrock

Sealing Materials:  
 Neat Cement Grout  Clay-Sand Slurry (11 lb./gal. wt.)  
 Sand-Cement (Concrete) Grout  Bentonite-Sand Slurry " "  
 Concrete  Bentonite Chips

Total Well Depth From Ground Surface (ft.): 9.5 Casing Diameter (in.): 6

For Monitoring Wells and Monitoring Well Boreholes Only:  
 Bentonite Chips  Bentonite - Cement Grout  
 Granular Bentonite  Bentonite - Sand Slurry

Lower Drillhole Diameter (in.): unknown Casing Depth (ft.): unknown

Was well annular space grouted?  Yes  No  Unknown

If yes, to what depth (feet)? \_\_\_\_\_ Depth to Water (feet): 7.48

**5. Material Used To Fill Well / Drillhole**

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	9.5	1.9 ft <sup>3</sup>	

3/8" Bentonite Chips

**6. Comments**

**7. Supervision of Work**

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing (mm/dd/yyyy)	Date Received	Noted By	
<u>Sentinel Env. Services, LLC</u>	<u>940910</u>	<u>06/02/09</u>			
Street or Route	Telephone Number		Comments		
<u>P.O. Box 865</u>	<u>(262) 375-8110</u>				
City	State	ZIP Code	Signature of Person Doing Work	Date Signed	
<u>Grafton</u>	<u>WI</u>	<u>53024</u>	<u>Dave Lennon</u>	<u>02/16/10</u>	

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Verification Only of Fill and Seal

Route to:  
 Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

<b>1. Well Location Information</b>				<b>2. Facility / Owner Information</b>			
County <b>Milwaukee</b>		WI Unique Well # of Removed Well		Facility Name <b>Former Clark #562</b>		Facility ID (FID or PWS) <b>241574850</b>	
Latitude / Longitude (Degrees and Minutes)		Method Code (see instructions)		License/Permit/Monitoring # <b>SVE (near MW-2)</b>		Original Well Owner <b>Clark Oil</b>	
1/4 1/4 <b>NE</b> 1/4 <b>NE</b>		Section <b>05</b>	Township <b>07 N</b>	Range <b>22</b>	<input checked="" type="checkbox"/> E <input type="checkbox"/> W		Present Well Owner <b>Amin Bhimani</b>
Well Street Address <b>4751 N. Santa Monica Blvd.</b>				Mailing Address of Present Owner <b>700 W. Wisconsin Ave., Ste #3</b>			
Well City, Village or Town <b>Milwaukee</b>				Well ZIP Code <b>53211</b>			
Subdivision Name				City of Present Owner <b>Milwaukee</b>		State <b>WI</b>	ZIP Code <b>53233</b>

Reason For Removal From Service <b>Site Closed</b>		WI Unique Well # of Replacement Well		<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>			
<b>3. Well / Drillhole / Borehole Information</b>				Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) <b>unknown</b>		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Screen removed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
<input type="checkbox"/> Borehole / Drillhole		Construction Type:		Casing left in place? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Drilled		<input type="checkbox"/> Driven (Sandpoint)		<input type="checkbox"/> Dug		Was casing cut off below surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
<input type="checkbox"/> Other (specify): _____		Formation Type:		Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Unconsolidated Formation		<input type="checkbox"/> Bedrock		Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Total Well Depth From Ground Surface (ft.) <b>9.5</b>		Casing Diameter (in.) <b>6</b>		If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Lower Drillhole Diameter (in.) <b>unknown</b>		Casing Depth (ft.) <b>unknown</b>		If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet) <b>8.12</b>		Required Method of Placing Sealing Material			
If yes, to what depth (feet)?				<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped			
				<input type="checkbox"/> Screened & Poured (Bentonite Chips) <input checked="" type="checkbox"/> Other (Explain): <b>Gravity</b>			
<b>5. Material Used To Fill Well / Drillhole</b>				Sealing Materials			
<b>3/8" Bentonite Chips</b>				<input type="checkbox"/> Neat Cement Grout		<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)	
				<input type="checkbox"/> Sand-Cement (Concrete) Grout		<input type="checkbox"/> Bentonite-Sand Slurry " "	
				<input type="checkbox"/> Concrete		<input type="checkbox"/> Bentonite Chips	
				For Monitoring Wells and Monitoring Well Boreholes Only:			
				<input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout			
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			
				From (ft.) To (ft.) No. Yards, Sacks Sealant or Volume (circle one) Mix Ratio or Mud Weight			
				Surface <b>9.5</b> <b>1.9 FE3</b>			

**6. Comments**

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing <b>Sentinel Env. Services, LLC</b>		License # <b>940910</b>	Date of Filling & Sealing (mm/dd/yyyy) <b>06/02/09</b>	Date Received	Noted By
Street or Route <b>P.O. Box 865</b>		Telephone Number <b>(262) 375-8110</b>		Comments	
City <b>Grafton</b>	State <b>WI</b>	ZIP Code <b>53024</b>	Signature of Person Doing Work <b>Dave Lennon</b>	Date Signed <b>02/16/10</b>	

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Verification Only of Fill and Seal

Route to:

- Drinking Water       Watershed/Wastewater       Remediation/Redevelopment  
 Waste Management       Other: \_\_\_\_\_

<b>1. Well Location Information</b>				<b>2. Facility / Owner Information</b>			
County <b>Milwaukee</b>		WI Unique Well # of Removed Well _____		Hicap # _____		Facility Name <b>Former Clark #562</b>	
Latitude / Longitude (Degrees and Minutes) _____'N _____'W				Facility ID (FID or PWS) <b>241574850</b>			
Method Code (see instructions) _____				License/Permit/Monitoring # <b>SVE (near mw-6)</b>			
1/4 NE 1/4 NE or Gov't Lot #		Section <b>05</b>		Township <b>07 N</b>		Range <b>22 E</b>	
Well Street Address <b>4751 N. Santa Monica Blvd.</b>				Original Well Owner <b>Clark Oil</b>			
Well City, Village or Town <b>Milwaukee</b>				Present Well Owner <b>Amin Bhimani</b>			
Subdivision Name				Well ZIP Code <b>53211</b>		Mailing Address of Present Owner <b>700 W. Wisconsin Ave., Ste #3</b>	
Reason For Removal From Service <b>Site Closed</b>				Lot #		City of Present Owner <b>Milwaukee</b>	
WI Unique Well # of Replacement Well				State <b>WI</b>		ZIP Code <b>53233</b>	

<b>3. Well / Drillhole / Borehole Information</b>				<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>			
<input checked="" type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) <b>unknown</b>		Pump and piping removed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Screen removed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A Casing left in place? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		Was casing cut off below surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Did sealing material rise to surface? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A Did material settle after 24 hours? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Construction Type:		If a Well Construction Report is available, please attach.		Required Method of Placing Sealing Material			
<input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____				<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Screened & Poured (Bentonite Chips) <input checked="" type="checkbox"/> Other (Explain): <b>Gravity</b>			
Formation Type:				Sealing Materials			
<input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.) <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " " <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Chips			
Total Well Depth From Ground Surface (ft.) <b>22</b>		Casing Diameter (in.) <b>6</b>		For Monitoring Wells and Monitoring Well Boreholes Only:			
Lower Drillhole Diameter (in.) <b>unknown</b>		Casing Depth (ft.) <b>unknown</b>		<input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet) <b>7.78</b>					

5. Material Used To Fill Well / Drillhole				From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
<b>3/8" Bentonite Chips</b>				Surface	<b>22</b>	<b>4.3 ft<sup>3</sup></b>	

6. Comments

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>	
Name of Person or Firm Doing Filling & Sealing <b>Sentinel Env. Services, LLC</b>		License # <b>940910</b>	Date of Filling & Sealing (mm/dd/yyyy) <b>06/02/09</b>		Date Received
Street or Route <b>P.O. Box 865</b>		Telephone Number <b>(262) 375-8110</b>		Noted By	
City <b>Grafton</b>		State <b>WI</b>	ZIP Code <b>53024</b>	Signature of Person Doing Work <b>Dave Lennon</b>	
				Date Signed <b>02/16/10</b>	

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Verification Only of Fill and Seal

Route to:

Drinking Water

Watershed/Wastewater

Remediation/Redevelopment

Waste Management

Other: \_\_\_\_\_

1. Well Location Information

County Milwaukee WI Unique Well # of Removed Well \_\_\_\_\_ Hicap # \_\_\_\_\_

Latitude / Longitude (Degrees and Minutes) \_\_\_\_\_ Method Code (see instructions) \_\_\_\_\_  
\_\_\_\_\_ 'N  
\_\_\_\_\_ 'W

1/4 1/4 NE 1/4 NE Section 05 Township 07 Range 22  E  W  
or Gov't Lot # \_\_\_\_\_

Well Street Address 4751 N. Santa Monica Blvd.

Well City, Village or Town Milwaukee Well ZIP Code 53211

Subdivision Name \_\_\_\_\_ Lot # \_\_\_\_\_

Reason For Removal From Service Site Closed WI Unique Well # of Replacement Well \_\_\_\_\_

3. Well / Drillhole / Borehole Information

Monitoring Well

Water Well

Borehole / Drillhole

Original Construction Date (mm/dd/yyyy) unknown

If a Well Construction Report is available, please attach.

Construction Type:

Drilled

Driven (Sandpoint)

Dug

Other (specify): \_\_\_\_\_

Formation Type:

Unconsolidated Formation

Bedrock

Total Well Depth From Ground Surface (ft.) 25 Casing Diameter (in.) 6

Lower Drillhole Diameter (in.) unknown

Casing Depth (ft.) unknown

Was well annular space grouted?  Yes  No  Unknown

If yes, to what depth (feet)? \_\_\_\_\_

Depth to Water (feet) \_\_\_\_\_

5. Material Used To Fill Well / Drillhole

3/8" Bentonite Chips

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface	<u>25</u>	<u>4.9 ft<sup>3</sup></u>	

6. Comments

7. Supervision of Work

Supervision of Work				DNR Use Only	
Name of Person or Firm Doing Filling & Sealing <u>Sentinel Env. Services, LLC</u>	License # <u>940910</u>	Date of Filling & Sealing (mm/dd/yyyy) <u>06/02/09</u>	Date Received	Noted By	
Street or Route <u>P.O. Box 865</u>	Telephone Number <u>(262) 375-8110</u>	Comments			
City <u>Grafton</u>	State <u>WI</u>	ZIP Code <u>53024</u>	Signature of Person Doing Work <u>Dave Lennon</u>	Date Signed <u>02/16/10</u>	

2. Facility / Owner Information

Facility Name Former Clark #562

Facility ID (FID or PWS) 241574850

License/Permit/Monitoring # SVE (near mw-5)

Original Well Owner Clark Oil

Present Well Owner Amin Bhimani

Mailing Address of Present Owner 700 W. Wisconsin Ave., Ste #3

City of Present Owner Milwaukee State WI ZIP Code 53233

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?  Yes  No  N/A

Liner(s) removed?  Yes  No  N/A

Screen removed?  Yes  No  N/A

Casing left in place?  Yes  No  N/A

Was casing cut off below surface?  Yes  No  N/A

Did sealing material rise to surface?  Yes  No  N/A

Did material settle after 24 hours?  Yes  No  N/A

If yes, was hole retopped?  Yes  No  N/A

If bentonite chips were used, were they hydrated with water from a known safe source?  Yes  No  N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity

Conductor Pipe-Pumped

Screened & Poured (Bentonite Chips)

Other (Explain): Gravity

Sealing Materials

Neat Cement Grout

Clay-Sand Slurry (11 lb./gal. wt.)

Sand-Cement (Concrete) Grout

Bentonite-Sand Slurry "

Concrete

Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips

Bentonite - Cement Grout

Granular Bentonite

Bentonite - Sand Slurry

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Waste Management

Other: \_\_\_\_\_

<b>1. Well Location Information</b>				<b>2. Facility / Owner Information</b>																			
County <b>Milwaukee</b>		WI Unique Well # of Removed Well _____		Hicap # _____		Facility Name <b>Former Clark #562</b>																	
Latitude / Longitude (Degrees and Minutes) _____' N _____' W		Method Code (see instructions) _____		Facility ID (FID or PWS) <b>241574850</b>		License/Permit/Monitoring # <b>SVE (near storage shed)</b>																	
1/4 NE 1/4 NE or Gov't Lot #		Section <b>05</b>	Township <b>07 N</b>	Range <b>22</b>	<input checked="" type="checkbox"/> E <input type="checkbox"/> W																		
Well Street Address <b>4751 N. Santa Monica Blvd.</b>				Original Well Owner <b>Clark Oil</b>																			
Well City, Village or Town <b>Milwaukee</b>				Well ZIP Code <b>53211</b>																			
Subdivision Name _____				Lot # _____		Present Well Owner <b>Amm Bhimani</b>																	
Reason For Removal From Service <b>Site closed</b>				WI Unique Well # of Replacement Well _____																			
<b>3. Well / Drillhole / Borehole Information</b>				<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>																			
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Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock		Total Well Depth From Ground Surface (ft.) <b>24</b>		Sealing Materials <input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.) <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " " <input type="checkbox"/> Concrete <input type="checkbox"/> Bentonite Chips																			
Lower Drillhole Diameter (in.) <b>unknown</b>		Casing Diameter (in.) <b>6</b>		For Monitoring Wells and Monitoring Well Boreholes Only: <input checked="" type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry																			
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Surface	<b>24</b>	<b>4.7 cu yds</b>																					
If yes, to what depth (feet)? _____		Depth to Water (feet) <b>8.15</b>		6. Comments _____																			
<b>7. Supervision of Work</b>						<b>DNR Use Only</b>																	
Name of Person or Firm Doing Filling & Sealing <b>Sentinel Env. Services, LLC</b>		License # <b>940910</b>		Date of Filling & Sealing (mm/dd/yyyy) <b>06/02/09</b>		Date Received _____																	
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