

**GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM:** Completion of this form is required under s. NR 724.13(3), Wis. Adm. Code. A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation of s. NR 724.13(3), Wis. Adm. Code, and is subject to the penalties in s. 292.99, Wis. Stats. This form must be submitted every six months for soil or groundwater remediation projects that report operation and maintenance progress in accordance with s. NR 724.13(3), Wis. Adm. Code.

Note: Long-term monitoring results submitted in accordance with s. NR 724.17(3), Wis. Adm. Code are required to be submitted within 10 business days of receiving sampling results and are not required to be submitted using this form. However, portions of this form require monitoring data summary information that may be based on information previously submitted in accordance with s. NR 724.17(3), Wis. Adm. Code.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if this form is required to be submitted at sites responded to under the Federal Comprehensive Environmental Response and Compensation Act (commonly known as Superfund) or an equivalent State lead Superfund response.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and obtain prior written approval for any omissions or changes.

Submittal of this form is not a substitute for reporting required by Department programs such as Waste Water or Air Management. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by the Bureau for Remediation and Redevelopment.

Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.). Unless otherwise noted, all citations refer to Wisconsin Administrative Code.

Note: There is a separate semi-annual report required under s. NR 700.11(1), Wis. Adm. Code. Reporting under that provision is through an internet-based form:

<http://dnr.wi.gov/topic/Brownfields/documents/regs/NR700progreport.pdf>

**Section GI - General Site Information**

**A. General Information**

1. Site name

One Hour Martinizing - Oconomowoc

2. Reporting period from: 01/01/2017 To: 06/30/2017 Days in period: 181

3. Regulatory agency (enter DNR, DATCP and/or other) 4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific)  
 DNR 02-68-551911

5. Site location

Region	County	Address					
Southeast Region	Waukesha	36929 Plank Rd					
Municipality name <input type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village		Township	Range	<input checked="" type="radio"/> E <input type="radio"/> W	Section	$\frac{1}{4}$	$\frac{1}{4}$
Oconomowoc		07 N	17		3	NW	NW

6. Responsible party Name	7. Consultant		
Brian Cass	<input type="checkbox"/> Select if the following information has changed since the last submittal		
Mailing address	Company name		
W229 N2494 County Road F, Waukesha, WI 53186	EnviroForensics, LLC		
Phone number	Mailing address	Phone number	
(262) 521-9710	N16 W23390 Stone Ridge Dr. Suite G	(317) 972-7870	

8. Contaminants  
 PCE

9. Soil types (USCS or USDA)  
 Silty Sand

10. Hydraulic conductivity(cm/sec): 0.02 11. Average linear velocity of groundwater (ft/yr) 355

12. If soil is treated ex situ, is the treatment location off site?  Yes  No

If yes, give location: Region \_\_\_\_\_ County \_\_\_\_\_

Municipality name <input type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village	Township	Range	<input type="radio"/> E <input checked="" type="radio"/> W	Section	$\frac{1}{4}$	$\frac{1}{4}$
	N					

Site name: One Hour Martinizing - Oconomowoc  
Reporting period from: 01/01/2017 To: 06/30/2017  
Days in period: 181

## Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 11/14)

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### B. Remediation Method

Only submit sections that apply to an individual site. Check all that apply:

- Groundwater extraction (submit a completed Section GW-1).
- Free product recovery (submit a completed Section GW-1).
- In situ air sparging (submit a completed Section GW-2).
- Groundwater natural attenuation (submit a completed Section GW-3).
- Other groundwater remediation method (submit a completed Section GW-4).
- Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- Soil natural attenuation (submit a completed Section IS-2).
- Other in situ soil remediation method (submit a completed Section IS-3).
- Biopiles (submit a completed Section ES-1).
- Landspreading/thinspreading of petroleum contaminated soil (submit a completed Section ES-2).
- Other ex situ remediation method (submit a completed Section ES-3).
- Site is a landfill (submit a completed Section LF-1).

### C. General Effectiveness Evaluation for All Active Systems

If the remediation is active (not natural attenuation), complete this subsection.

1. Is the system operating at design rates and specifications?  Yes  No

If the answer is no, explain whether or not modifications are necessary to achieve the goal that was previously established in design.

2. Are modifications to the system warranted to improve effectiveness  Yes  No

If yes, explain:

3. Is natural attenuation an effective low cost option at this time?  Yes  No

4. Is closure sampling warranted at this time?  Yes  No

5. Are there any modifications that can be made to the remediation to improve cost effectiveness?  Yes  No

If yes, explain:

### D. Economic and Cost Data to Date

1. Total investigation cost: \$430,600.00

2. Implementation costs (design, capital and installation costs, excluding investigation costs): \$221,800.00

3. Total costs during the previous reporting period: \_\_\_\_\_

4. Total costs during this reporting period: \$36,500.00

5. Total anticipated costs for the next reporting period: \$10,000.00

6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above?  Yes  No

If yes, explain:

Site security, site restoration, telemetry installation, and more frequent exhaust sampling at startup.

7. If closure is anticipated within 12 months, estimated costs for project closeout: \_\_\_\_\_

Site name: One Hour Martinizing - Oconomowoc  
 Reporting period from: 01/01/2017 To: 06/30/2017  
 Days in period: 181

**Remediation Site Operation, Maintenance,  
 Monitoring & Optimization Report**

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**E. Name(s), Signature(s) and Date of Person(s) Submitting Form**

Legibly print name, date and sign. Only persons qualified to submit reports under ch. NR 712 Wis. Adm. Code are to sign this form for sites with any ongoing active remediation, monitoring or an investigation. Other persons may sign this form for sites with no response activities during the six month reporting period.

**Registered Professional Engineers:**

I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all 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.

Print name Andrew Horwath	Title Senior Engineer
Signature <i>Andrew D. Horwath</i>	Date 7/26/2017

**Hydrogeologists:**

I 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 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.

Print name Brian Kappen	Title Project Manager
Signature <i>Brian Kappen</i>	Date 7/26/2017

**Scientists:**

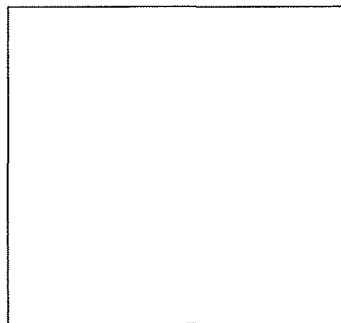
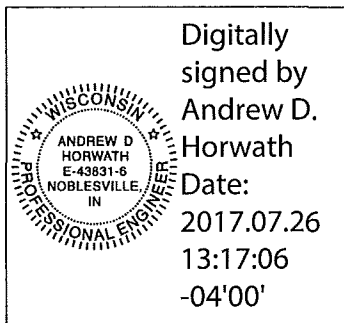
I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

**Other Persons:**

Print name	Title
Signature	Date

**Professional Seal(s), if applicable:**



Site name: One Hour Martinizing - Oconomowoc  
Reporting period from: 01/01/2017 To: 06/30/2017  
Days in period: 181

# Remediation Site Operation, Maintenance, Monitoring & Optimization Report

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## Section IS-1, Soil Venting (Including Soil Vapor Extraction, Building Venting and Bioventing)

### A. Soil Venting Operation

**Note:** This form is not required for building vapor mitigation systems that are installed proactively to protect building occupants/users and are not considered part of ongoing active soil remediation.

1. Number of air extraction wells available and number of wells actually in use during the period: 2
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):  
87
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:  
100
4. Average depth to groundwater: 29 ~~gpm~~ feet

### B. Building Basement/Subslab Venting System Operation

1. Number of venting points available and number of points actually in use during the period: \_\_\_\_\_
2. Number of days of operation (only list the number of days the system actually operated, if unknown explain): \_\_\_\_\_
3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain: \_\_\_\_\_

### C. Effectiveness Evaluation

1. Average contaminant removal rate for the entire system: 0.027 pounds per day
2. Average contaminant removal rate per well or venting point: 0.014 pounds per day
3. If the average contaminant removal rate is less than one pound per day for the entire system, or if the average contaminant removal rate per well is less than one tenth of a pound per day, evaluate the following:
  - a. If contaminants are aerobically biodegradable and confirmation borings have not been drilled in the past year:
    - i. Oxygen levels in extracted air: \_\_\_\_\_ percent
    - ii. Methane levels in extracted air (ppmv) If over 10 ppmv, explain: \_\_\_\_\_
  - iii. If methane is not present above 10 ppmv and if oxygen is greater than 20 percent in extracted air, you should either:
    - o Drill confirmation borings during the next reporting period, if the entire site should be considered for closure.
    - o Or, perform an in situ respirometry test in a zone of high contamination. Do not perform the test in an air extraction well, use a gas probe or water table well. If a zero order rate of decay based on oxygen depletion is less than 2 mg/kg per day, then you should drill confirmation borings, if the entire site should be considered for closure. If the rate of decay is between 2 and 10 mg/kg, operate for one more reporting period before evaluating further. If the zero order rate of decay is greater than 10 mg/kg total hydrocarbons, continue operating the system in a manner than maximizes aerobic biodegradation.
  - b. If contaminants are not aerobically biodegradable and confirmation borings have not been recently drilled during the past year, you should drill confirmation borings during the next reporting period if the entire site should be considered for closure.
  - c. If soil borings were drilled during the past year and soil contamination remains above acceptable levels, explain if the system effectiveness can be increased and/or if other options need to be considered to achieve cleanup criteria.

### D. Additional Attachments



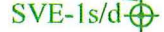

- Attach the following to this form:
- Well and soil sample location map indicating all air extraction wells. If forced air injection wells are also in use, identify those wells.
  - If water table monitoring wells are present at the site, a map of well locations.
  - Time versus vapor phase contaminant concentration graph.
  - Time versus cumulative contaminant removal graph.
  - Groundwater elevations table, if water table wells are present at the site; also list screen lengths and elevations.
  - Table of soil contaminant chemistry data.
  - Soil gas data, if gas probes are used to monitor subsurface conditions in locations other than where air is extracted.
  - System operational data table.

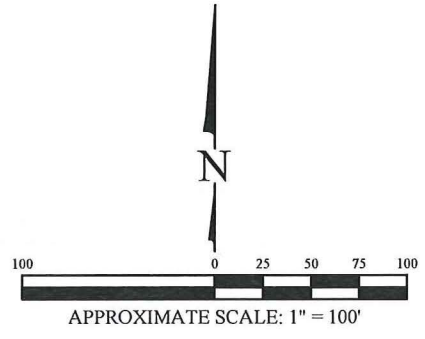
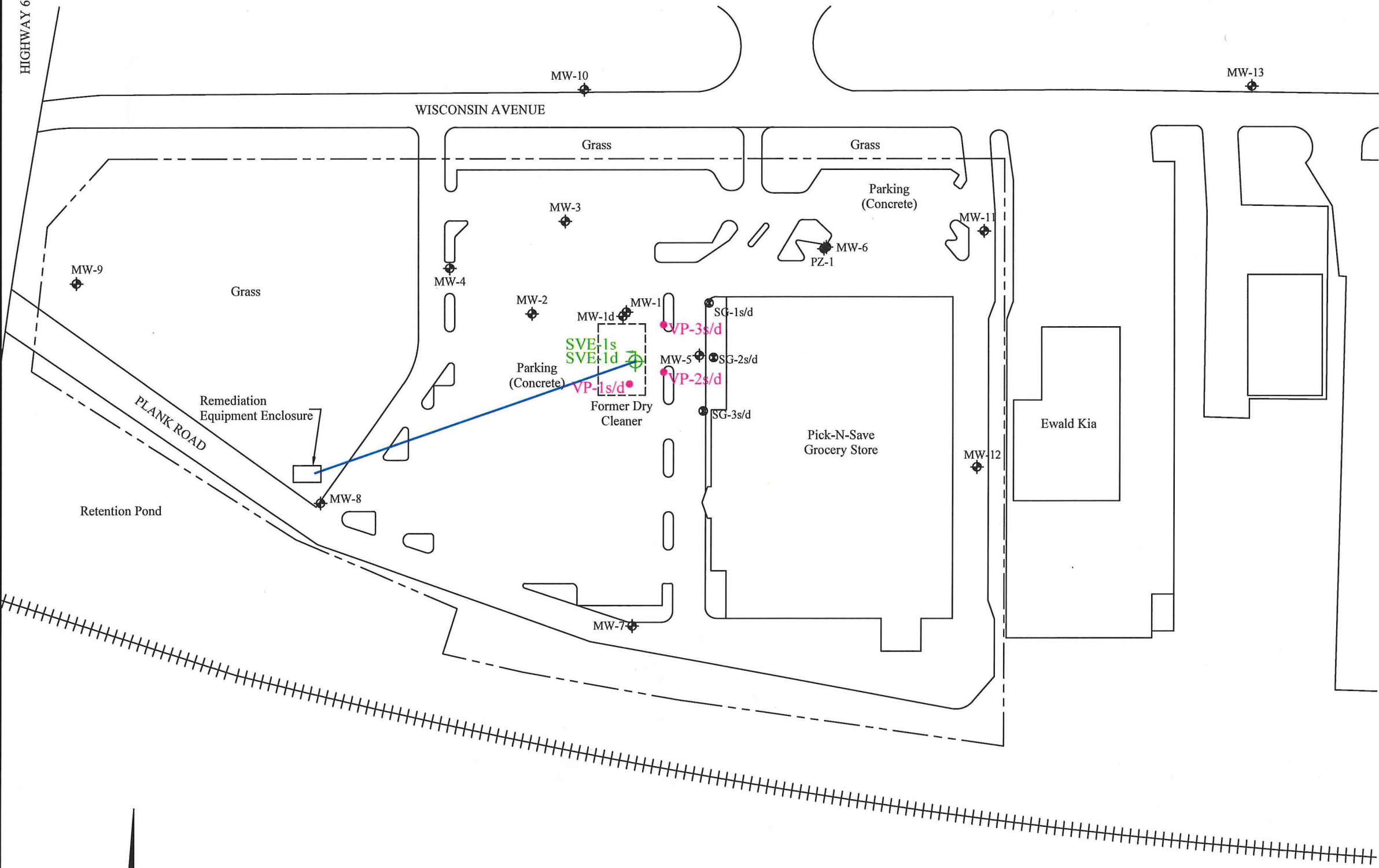
HIGHWAY 67

WISCONSIN AVENUE

PLANK ROAD

### Legend

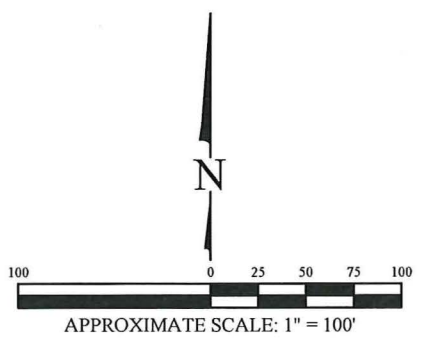
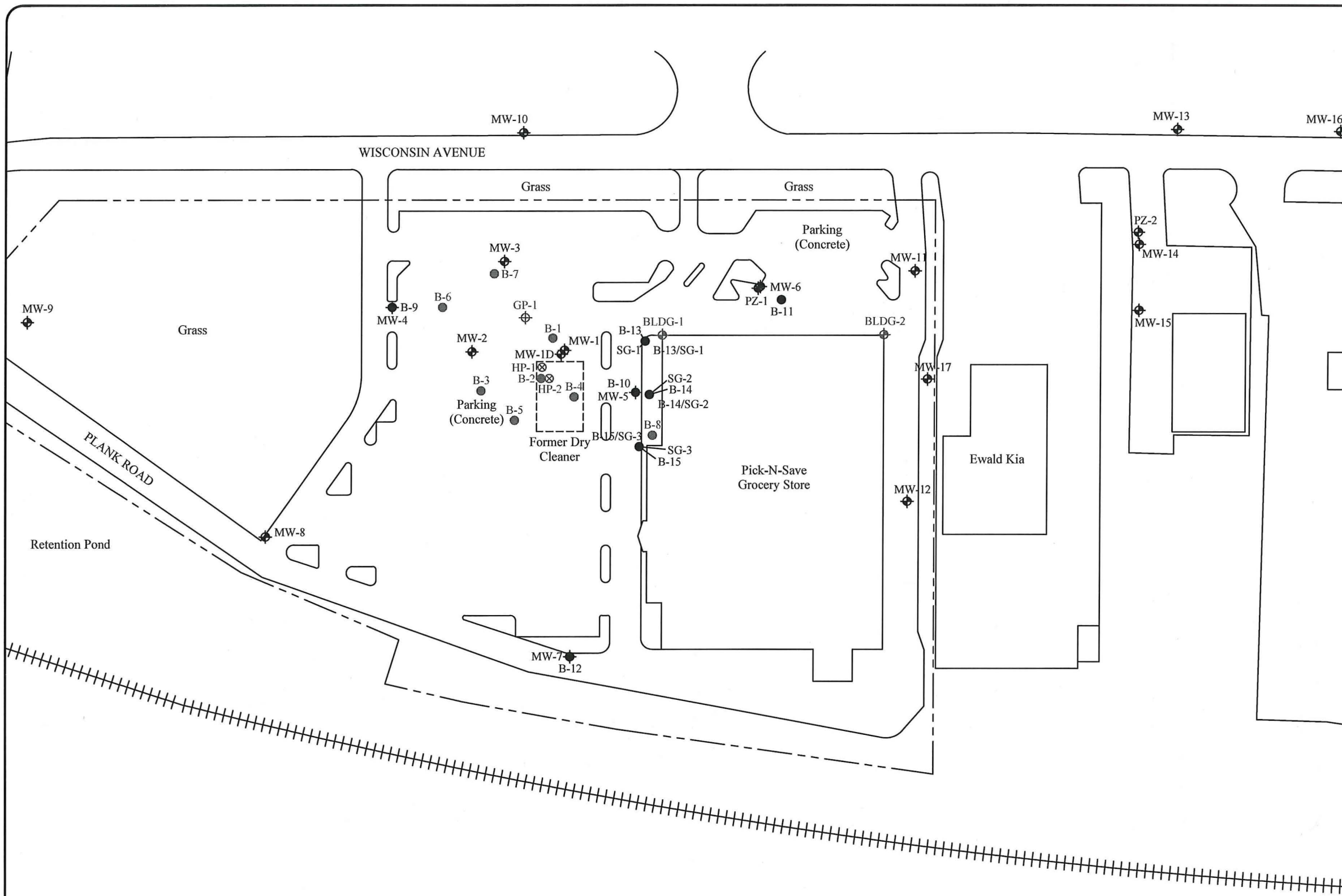
- Property boundary
- MW-1  Monitoring well sample location
- SG-1  Soil gas sampling point
- SVE-1s/d  SVE wells
- VP-1s/d  Nested vacuum monitoring point
- Subsurface conveyance piping



<b>SVE SYSTEM LAYOUT</b>	
Martinizing Dry Cleaning 36929 Plank Road Oconomowoc, WI	
 ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC. 602 N. Capitol Ave., Ste. 210 • Indianapolis, IN 46204 EnviroForensics.com	Figure <b>1</b> Project <b>6143</b>
Date: 10/18/16 Designed: EB Drawn: EB Checked: BK DWG file: 6143-0540	

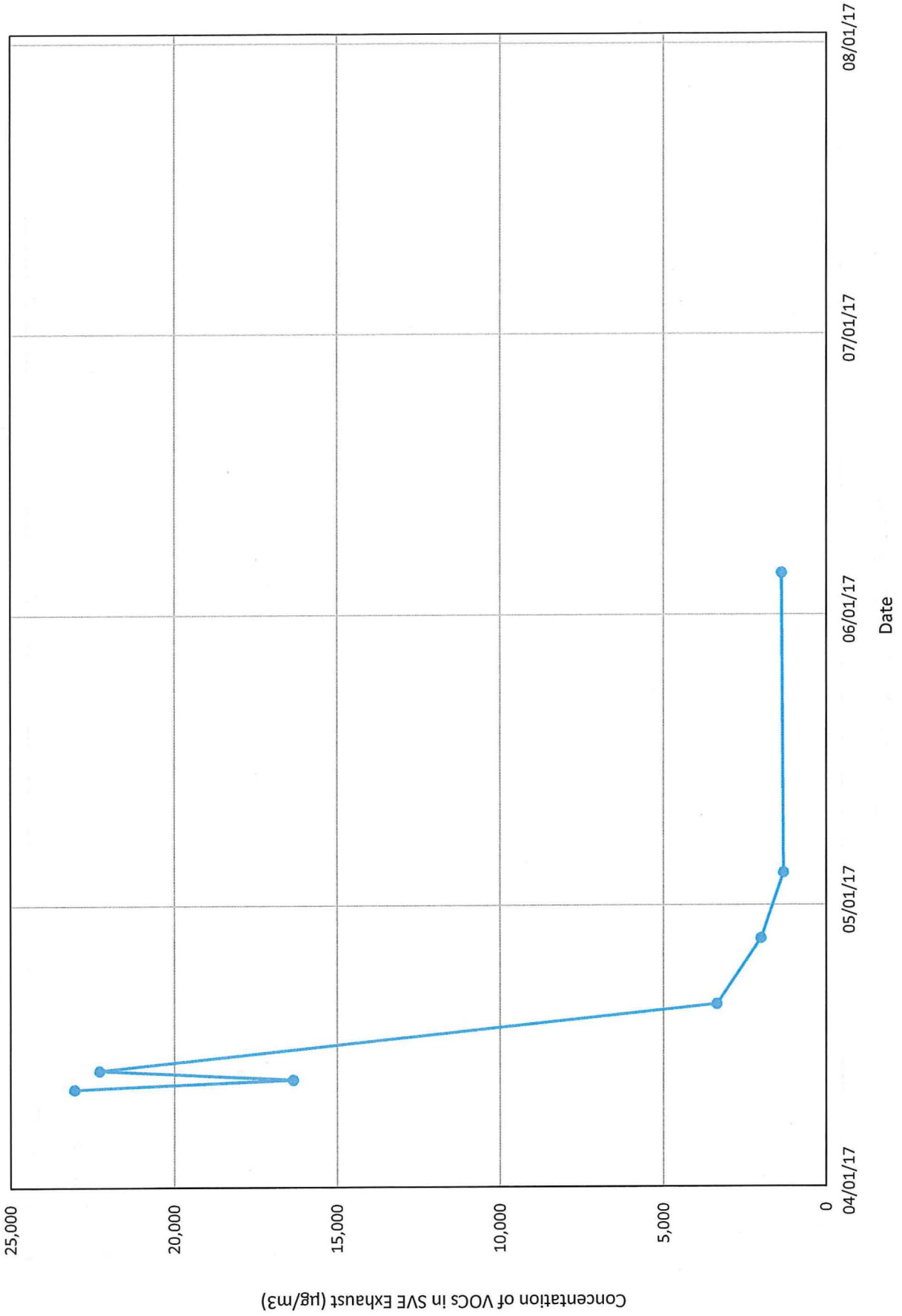
### Legend

- Property boundary
- MW-1 ⊕ Monitoring well sample location
- SG-1 ⊙ Soil gas sample location
- B-9 ● Soil boring location (EnviroForensics)
- B-1 ● Soil boring location (KPRG)
- GP-1 ⊕ Preliminary site assessment borings (Giles)
- HP-1 ⊗ Soil boring location (Giles)
- MW-5 ⊕ Elevation data omitted due to it being inconsistent with other elevation data.

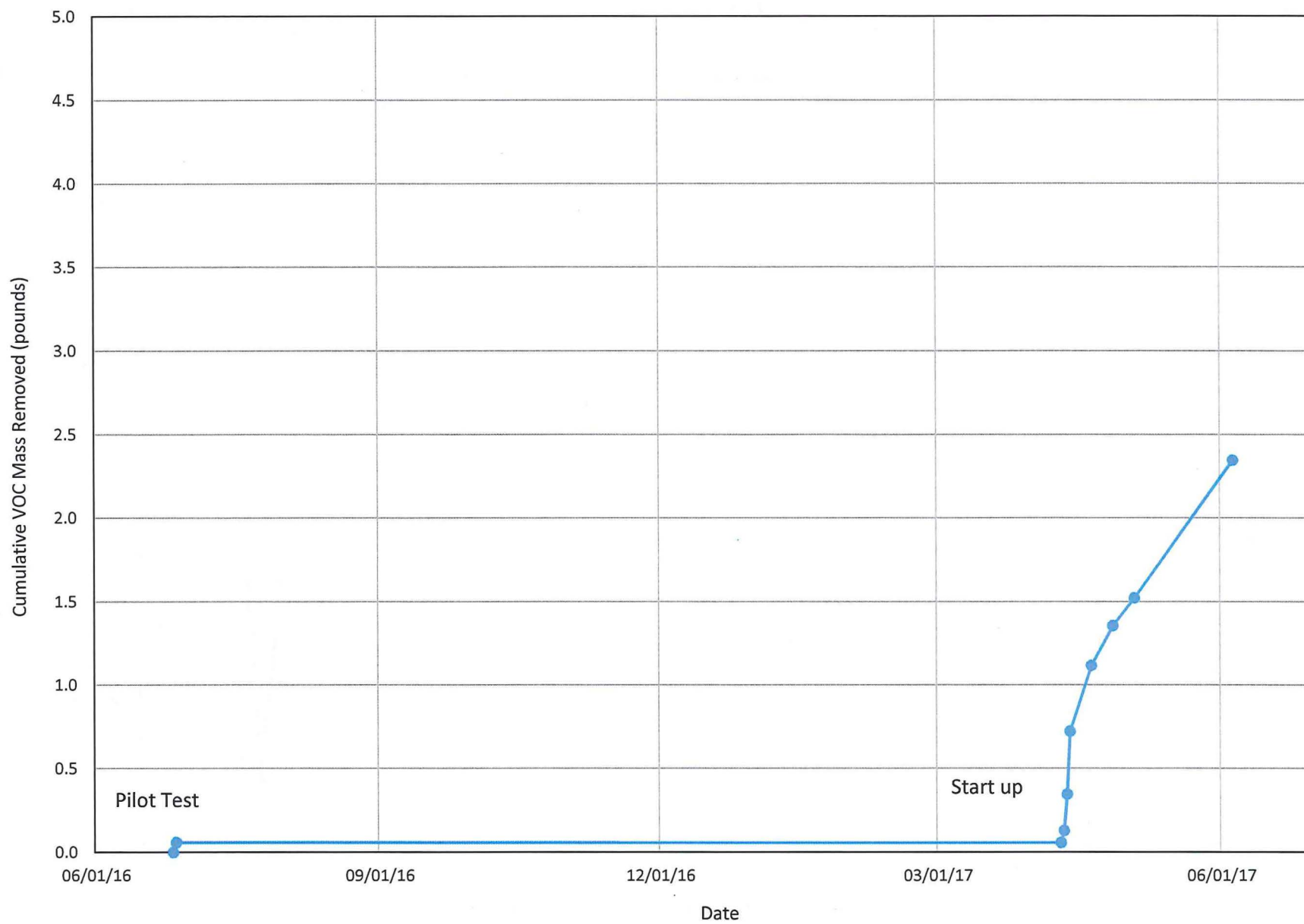


<b>SAMPLE LOCATIONS MAP</b>															
Martinizing Dry Cleaning 36929 Plank Road Oconomowoc, WI															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Date:</td><td>9/1/15</td></tr> <tr><td>Designed:</td><td>EB</td></tr> <tr><td>Drawn:</td><td>EB</td></tr> <tr><td>Checked:</td><td>KH</td></tr> <tr><td>DWG file:</td><td>6143-0198</td></tr> </table>	Date:	9/1/15	Designed:	EB	Drawn:	EB	Checked:	KH	DWG file:	6143-0198	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><b>ENVIROforensics</b></td> <td style="text-align: center;">Figure 2</td> </tr> <tr> <td style="font-size: small;">                     ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC.                      602 N. Capitol Ave., Ste. 210 • Indianapolis, IN 46204                      EnviroForensics.com                 </td> <td style="text-align: center;">Project 6143</td> </tr> </table>	<b>ENVIROforensics</b>	Figure 2	ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC. 602 N. Capitol Ave., Ste. 210 • Indianapolis, IN 46204 EnviroForensics.com	Project 6143
Date:	9/1/15														
Designed:	EB														
Drawn:	EB														
Checked:	KH														
DWG file:	6143-0198														
<b>ENVIROforensics</b>	Figure 2														
ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC. 602 N. Capitol Ave., Ste. 210 • Indianapolis, IN 46204 EnviroForensics.com	Project 6143														

Vapor Phase VOC Concentration Trend



### Cumulative VOC Mass Removed





**Table 1**  
**Monitoring Well Construction Information**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Well ID	Date Installed	Diameter (inches)	Northing <sup>1</sup>	Easting <sup>1</sup>	Ground Elevation (ft MSL)	Top of Casing Elevation (ft MSL)	Screened Interval (feet BGS)	Total Depth (ft BGS)
MW-1	04/28/09	2	406,877.44	2,406,434.53	893.16	892.88	25.5 - 35.5	35.50
MW-1D	08/18/09	2	406,873.83	2,406,431.47	893.07	892.58	45.0 - 50.0	50.00
MW-2	08/04/09	2	406,876.03	2,406,349.26	891.83	891.27	25.5 - 35.5	35.50
MW-3	08/04/09	2	406,959.22	2,406,379.24	893.25	892.88	26.0 - 36.0	36.00
MW-4	01/05/11	2	406,916.95	2,406,275.55	892.11	891.72	24.7 - 34.7	34.74
MW-5	01/05/11	2	406,838.53	2,406,499.98	894.27	893.69	24.5 - 34.5	34.57
MW-6	01/06/11	2	406,935.97	2,406,614.20	893.89	893.57	24.9 - 34.9	34.91
MW-7	01/05/11	2	406,595.02	2,406,440.08	891.91	891.51	25.1 - 35.1	35.15
MW-8	5/17/2013	2	406,705.62	2,406,159.46	888.04	887.73	19.5 - 29.5	29.50
MW-9	5/14/2013	2	406,903.37	2,406,940.11	889.84	889.32	19.3 - 29.3	29.36
MW-10	5/17/2013	2	407,077.78	2,406,396.22	896.01	895.61	23.7 - 33.7	33.70
MW-11	5/20/2013	2	406,950.52	2,406,756.45	893.73	893.44	24.3 - 34.3	34.33
MW-12	5/16/2013	2	406,738.21	2,406,750.14	893.65	893.05	23.5 - 33.5	33.51
MW-13	12/5/2013	2	407,080.85	2,406,996.85	892.41	892.12	25.0 - 35.0	35.00
MW-14	4/6/2015	2	406,976.11	2,406,936.92	894.41	894.00	21.0 - 36.0	37.00
MW-15	4/6/2015	2	406,914.28	2,406,936.86	894.30	893.89	22.5 - 37.5	38.00
MW-16	7/27/2015	2	407,081.07	2,407,175.28	890.87	890.67	26.0 - 36.0	36.00
MW-17	7/27/2015	2	406,828.86	2,406,770.00	895.87	895.63	22.5 - 37.5	37.50
PZ-1	12/5/2013	2	406,934.54	2,406,612.09	894.04	893.57	50.0 - 55.0	55.00
PZ-2	4/6/2015	2	406,979.84	2,406,936.87	894.36	894.01	51.5 - 56.5	62.00

**Notes:**

<sup>1</sup> Wisconsin State Plane - Southern Zone, NAD 27

Elevations based on NGVD 1929

ft BGS = feet below ground surface

MSL = Mean Sea Level

Wells were surveyed by Surveying Associates, Inc. on February 28, 2011, July 10, 2013, and January 7, 2014.

**Table 2**  
**Summary of Groundwater Elevation Data**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water	Groundwater Elevation (ft above MSL)
MW-1	08/28/09	892.88	28.07	864.81
	11/09/09	892.88	28.56	864.32
	12/03/09	892.88	28.71	864.17
	03/08/10	892.88	29.03	863.85
	06/02/10	892.88	28.48	864.40
	01/07/11	892.88	28.46	864.42
	04/27/11	892.88	27.42	865.46
	09/07/11	892.88	28.70	864.18
	12/19/11	892.88	29.10	863.78
	02/27/12	892.88	29.31	863.57
	05/22/12	892.88	28.76	864.12
	06/11/13	892.88	27.19	865.69
	10/01/13	892.88	27.66	865.22
	01/02/14	892.88	28.54	864.34
	05/28/14	892.88	28.29	864.59
	10/09/14	892.88	28.90	863.98
	04/27/15	892.88	29.39	863.49
	06/22/15	892.88	29.29	863.59
	08/03/15	892.88	29.23	863.65
	11/04/15	892.88	29.28	863.60
10/10/16	892.88	28.13	864.75	
03/28/17	892.88	28.34	864.54	
MW-1D	08/28/09	892.58	27.67	864.91
	11/09/09	892.58	28.15	864.43
	12/03/09	892.58	28.31	864.27
	03/08/10	892.58	28.68	863.90
	06/02/10	892.58	28.08	864.50
	01/07/11	892.58	28.06	864.52
	04/27/11	892.58	27.63	864.95
	09/07/11	892.58	28.30	864.28
	12/19/11	892.58	28.73	863.85
	02/27/12	892.58	29.00	863.58
	05/22/12	892.58	28.44	864.14
	06/11/13	892.58	26.90	865.68
	10/01/13	892.58	27.29	865.29
	01/02/14	892.58	28.16	864.42
	05/28/14	892.58	28.15	864.43
	10/09/14	892.58	29.92	862.66
	04/27/15	892.58	29.05	863.53
	06/22/15	892.58	28.92	863.66
	08/03/15	892.58	28.87	863.71
	11/04/15	892.58	NA	NA
10/10/16	892.58	27.77	864.81	
03/28/17	892.58	27.97	864.61	

**Table 2**  
**Summary of Groundwater Elevation Data**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water	Groundwater Elevation (ft above MSL)
MW-2	08/28/09	891.24	26.00	865.24
	11/09/09	891.24	26.58	864.66
	12/03/09	891.24	28.72	862.52
	03/08/10	891.24	27.09	864.15
	06/02/10	891.24	26.51	864.73
	01/07/11	891.27	26.40	864.87
	04/27/11	891.24	26.03	865.21
	09/07/11	891.24	26.74	864.50
	12/19/11	891.24	27.20	864.04
	02/27/12	891.24	27.46	863.78
	05/22/12	891.24	26.89	864.35
	06/11/13	891.27	25.22	866.05
	10/01/13	891.27	25.63	865.64
	01/02/14	891.27	26.57	864.70
	05/28/14	891.27	26.35	864.92
	10/09/14	891.27	27.06	864.21
	04/27/15	891.27	27.53	863.74
	06/22/15	891.27	27.44	863.83
	08/03/15	891.27	27.38	863.89
	11/04/15	891.27	27.42	863.85
10/10/16	891.27	26.13	865.14	
03/28/17	891.27	26.37	864.90	
MW-3	08/28/09	892.88	27.66	865.22
	11/09/09	892.88	28.31	864.57
	12/03/09	892.88	28.48	864.40
	03/08/10	892.88	28.80	864.08
	06/02/10	892.88	28.21	864.67
	01/07/11	892.88	28.12	864.76
	04/27/11	892.88	27.72	865.16
	09/07/11	892.88	28.40	864.48
	12/19/11	892.88	28.93	863.95
	02/27/12	892.88	29.16	863.72
	05/22/12	892.88	28.58	864.30
	06/11/13	892.88	26.90	865.98
	10/01/13	892.88	27.33	865.55
	01/02/14	892.88	28.27	864.61
	05/28/14	892.88	28.06	864.82
	10/09/14	892.88	28.73	864.15
	04/27/15	892.88	29.23	863.65
	06/22/15	892.88	29.12	863.76
	08/03/15	892.88	29.16	863.72
	11/04/15	892.88	29.06	863.82
10/10/16	892.88	27.86	865.02	
03/28/17	892.88	28.06	864.82	

**Table 2**  
**Summary of Groundwater Elevation Data**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water	Groundwater Elevation (ft above MSL)
MW-4	01/07/11	891.72	26.55	865.17
	04/27/11	891.72	26.70	865.02
	09/07/11	891.72	26.60	865.12
	12/19/11	891.72	27.42	864.30
	02/27/12	891.72	27.68	864.04
	05/22/12	891.72	27.17	864.55
	06/11/13	891.72	25.41	866.31
	10/01/13	891.72	24.46	867.26
	01/02/14	891.72	26.8	864.92
	05/28/14	891.72	26.56	865.16
	10/09/14	891.72	27.30	864.42
	04/27/15	891.72	27.91	863.81
	06/22/15	891.72	27.74	863.98
	08/03/15	891.72	27.65	864.07
	11/04/15	891.72	27.71	864.01
	10/10/16	891.72	26.38	865.34
03/28/17	891.72	26.64	865.08	
MW-5	01/07/11	893.69	29.47	864.22
	04/27/11	893.69	29.06	864.63
	09/07/11	893.69	29.70	863.99
	12/19/11	893.69	30.09	863.60
	02/27/12	893.69	30.29	863.40
	05/22/12	893.69	29.77	863.92
	06/11/13	893.69	28.12	865.57
	10/01/13	893.69	28.74	864.95
	01/02/14	893.69	29.57	864.12
	05/28/14	893.69	29.28	864.41
	10/09/14	893.69	28.40	865.29
	04/27/15	893.69	30.32	863.37
	06/22/15	893.69	30.22	863.47
	08/03/15	893.69	30.18	863.51
	11/04/15	893.69	30.23	863.46
	10/10/16	893.69	29.15	864.54
03/28/17	893.69	29.33	864.36	

**Table 2**  
**Summary of Groundwater Elevation Data**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water	Groundwater Elevation (ft above MSL)
MW-6	01/07/11	NA	29.68	NA
	04/27/11	NA	29.19	NA
	09/07/11	NA	29.85	NA
	12/19/11	NA	30.13	NA
	02/27/12	NA	30.34	NA
	05/22/12	NA	29.78	NA
	06/11/13	893.57	28.35	865.22
	10/01/13	893.57	28.95	864.62
	01/02/14	893.57	29.7	863.87
	05/28/14	893.57	29.36	864.21
	10/09/14	893.57	30.11	863.46
	04/27/15	893.57	30.35	863.22
	06/22/15	893.57	30.25	863.32
	08/03/15	893.57	30.24	863.33
	11/04/15	893.57	30.30	863.27
10/10/16	893.57	29.25	864.32	
03/28/17	893.57	29.42	864.15	
MW-7	01/07/11	891.51	26.58	864.93
	04/27/11	891.51	26.00	865.51
	09/07/11	891.51	26.88	864.63
	12/19/11	891.51	27.37	864.14
	02/27/12	891.51	27.70	863.81
	05/22/12	891.51	26.80	864.71
	06/11/13	891.51	25.02	866.49
	10/01/13	891.51	25.02	866.49
	01/02/14	891.51	26.77	864.74
	05/28/14	891.51	26.16	865.35
	10/09/14	891.51	27.28	864.23
	04/27/15	891.51	27.49	864.02
	06/22/15	891.51	27.19	864.32
	08/03/15	891.51	27.41	864.10
	11/04/15	891.51	27.55	863.96
10/10/16	891.51	26.27	865.24	
03/28/17	891.51	26.55	864.96	
MW-8	06/11/13	887.73	21.55	866.18
	10/01/13	887.73	21.96	865.77
	01/02/14	887.73	22.98	864.75
	05/28/14	887.73	22.65	865.08
	10/09/14	887.73	23.54	864.19
	04/27/15	887.73	23.96	863.77
	06/22/15	887.73	23.83	863.90
	08/03/15	887.73	23.86	863.87
	11/04/15	887.73	23.95	863.78
	10/10/16	887.73	22.80	864.93
03/28/17	887.73	22.85	864.88	

**Table 2**  
**Summary of Groundwater Elevation Data**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water	Groundwater Elevation (ft above MSL)
MW-9	06/11/13	889.32	23.48	865.84
	10/01/13	889.32	23.88	865.44
	01/02/14	889.32	24.88	864.44
	05/28/14	889.32	24.46	864.86
	10/09/14	889.32	25.45	863.87
	04/27/15	889.32	25.80	863.52
	06/22/15	889.32	25.61	863.71
	08/03/15	889.32	25.79	863.53
	11/04/15	889.32	25.90	863.42
	10/10/16	889.32	24.50	864.82
03/28/17	889.32	24.72	864.60	
MW-10	06/11/13	895.61	29.53	866.08
	10/01/13	895.61	29.95	865.66
	01/02/14	895.61	30.89	864.72
	05/28/14	895.61	30.72	864.89
	10/09/14	895.61	31.35	864.26
	04/27/15	895.61	31.87	863.74
	06/22/15	895.61	31.81	863.80
	08/03/15	895.61	31.70	863.91
	11/04/15	895.61	31.69	863.92
	10/10/16	895.61	30.50	865.11
03/28/17	895.61	30.65	864.96	
MW-11	06/11/13	893.44	29.60	863.84
	10/01/13	893.44	29.25	864.19
	01/02/14	893.44	29.94	863.50
	05/28/14	893.44	29.52	863.92
	10/09/14	893.44	30.28	863.16
	04/27/15	893.44	30.38	863.06
	06/22/15	893.44	30.26	863.18
	08/03/15	893.44	30.33	863.11
	11/04/15	893.44	30.38	863.06
	10/10/16	893.44	29.47	863.97
03/28/17	893.44	29.55	863.89	
MW-12	06/11/13	893.05	27.95	865.10
	10/01/13	893.05	28.69	864.36
	01/02/14	893.05	29.41	863.64
	05/28/14	893.05	28.92	864.13
	10/09/14	893.05	29.78	863.27
	04/27/15	893.05	29.87	863.18
	06/22/15	893.05	29.25	863.80
	08/03/15	893.05	29.81	863.24
	11/04/15	893.05	29.86	863.19
	10/10/16	893.05	28.90	864.15
03/28/17	893.05	29.04	864.01	

**Table 2**  
**Summary of Groundwater Elevation Data**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water	Groundwater Elevation (ft above MSL)
MW-13	01/02/14	892.12	29.47	862.65
	05/28/14	892.12	28.96	863.16
	10/09/14	892.12	29.77	862.35
	04/15/15	892.12	29.46	862.66
	04/27/15	892.12	29.47	862.65
	06/22/15	892.12	29.43	862.69
	08/03/15	892.12	29.78	862.34
	11/04/15	892.12	29.71	862.41
	10/10/16	892.12	29.13	862.99
	03/28/17	892.12	28.92	863.20
MW-14	04/15/15	894.00	31.29	862.71
	04/27/15	894.00	31.14	862.86
	06/22/15	894.00	31.08	862.92
	08/03/15	894.00	31.33	862.67
	11/04/15	894.00	31.30	862.70
	10/10/16	894.00	30.58	863.42
	03/28/17	894.00	30.51	863.49
MW-15	04/15/15	893.89	31.18	862.71
	04/27/15	893.89	30.97	862.92
	06/22/15	893.89	30.90	862.99
	08/03/15	893.89	31.13	862.76
	11/04/15	893.89	31.12	862.77
	10/10/16	893.89	30.35	863.54
	03/28/17	893.89	30.32	863.57
MW-16	08/03/15	890.67	28.25	862.42
	11/04/15	890.67	28.52	862.15
	10/10/16	890.67	28.03	862.64
	03/28/17	890.67	27.72	862.95
MW-17	08/03/15	895.63	32.49	863.14
	11/04/15	895.63	32.50	863.13
	10/10/16	895.63	31.65	863.98
	03/28/17	895.63	31.71	863.92

**Table 2**  
**Summary of Groundwater Elevation Data**  
 Former One Hour Martinizing Cleaners  
 Oconomowoc, Wisconsin

Well ID	Date	TOC Elevation (ft above MSL)	Depth to Water	Groundwater Elevation (ft above MSL)
PZ-1	01/02/14	893.57	29.46	864.11
	05/28/14	893.57	29.31	864.26
	10/09/14	893.57	29.88	863.69
	04/27/15	893.57	31.21	862.36
	06/22/15	893.57	30.10	863.47
	08/03/15	893.57	30.23	863.34
	11/04/15	893.57	32.14	861.43
	10/10/16	893.57	29.07	864.50
	03/28/17	893.57	29.23	864.34
PZ-2	04/15/15	894.01	29.96	864.05
	04/27/15	894.01	30.76	863.25
	06/22/15	894.01	30.70	863.31
	08/03/15	894.01	30.91	863.10
	11/04/15	894.01	30.78	863.23
	10/10/16	894.01	29.80	864.21
		03/28/17	894.01	29.94

**Notes:**

All measurements recorded in feet  
 TOC = Top of Casing  
 MSL = Mean Seal Level  
 NA = not available



**Table 3**  
**Summary of Soil Analytical Results**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Soil Boring Identification	Sample Depth (feet BGS)	Sample Date	Tetrachloroethylene	Trichloroethylene	cis-1,2-Dichloroethylene	trans-1,2-Dichloroethylene	Vinyl chloride
HP-1	2-4	05/06/08	660	<27	<26	<26	<37
HP-2	2-4	05/06/08	380	<27	<26	<26	<37
	6-8	05/06/08	2,700	<27	<26	<26	<37
GP-1	2-4	05/06/08	40	<27	<26	<26	<37
	14-16	05/06/08	69	<27	<26	<26	<37
B-1	2-4	08/12/08	3,080	<25	<25	<25	<25
	9-11	08/12/08	2,090	<25	<25	<25	<25
B-2	6-7	08/12/08	1,660	<25	<25	<25	<25
B-3	2-4	08/12/08	<25	<25	<25	<25	<25
	10-11	08/12/08	<25	<25	<25	<25	<25
B-4	2-4	08/12/08	<25	<25	<25	<25	<25
	7-8	08/12/08	78.2	<25	<25	<25	<25
B-5	2-4	08/12/08	<25	<25	<25	<25	<25
	18-20	08/12/08	46.1 J	<25	<25	<25	<25
B-6	2-4	08/12/08	<25	<25	<25	<25	<25
	10-11.5	08/12/08	<25	<25	<25	<25	<25
B-7	2-4	08/12/08	<25	<25	<25	<25	<25
	6-7	08/12/08	<25	<25	<25	<25	<25
B-8	2-4	08/12/08	<25	<25	<25	<25	<25
	10-11	08/12/08	<25	<25	<25	<25	<25
MW-1	25-27	08/12/08	158	<25	<25	<25	<25
MW-1D	36-37	08/12/08	<25	<25	<25	<25	<25
B-10	0-2	01/04/11	<26	<26	<26	<26	<37
	4-6	01/04/11	<26	<26	<26	<26	<36
	22-24	01/04/11	75	<26	<26	<26	<36
B-13	5-7	05/16/13	<16	<18	<12	<24	<10
	20-22	05/16/13	<16	<17	<12	<23	<9.7
B-15	10-12	05/14/13	<12	<14	<9.0	<18	<7.6
	20-22	05/14/13	<14	<15	<10	<21	<8.6
<b>Direct Contact Industrial RCL*</b>			<b>145,000</b>	<b>8,410</b>	<b>2,340,000</b>	<b>1,850,000</b>	<b>2,080</b>
<b>Direct Contact Residential RCL*</b>			<b>33,000</b>	<b>1,300</b>	<b>156,000</b>	<b>1,560,000</b>	<b>67.0</b>
<b>Soil to Groundwater RCL*</b>			<b>4.5</b>	<b>3.6</b>	<b>41.2</b>	<b>62.6</b>	<b>0.10</b>

**Notes:**

\* = WDNR Residual Contaminant Level (RCL) based on United States Environmental Protection Agency Region 3, 6, and 9 Regional Screening Levels (November 2013) according to WDNR Publication RR-890.

All concentrations reported in units of micrograms per kilogram (µg/kg)

**Bolded and orange shaded** values are above the WDNR Industrial Residual Contaminant Level for direct contact.

**Bolded and green shaded** values are above WDNR Residential Residual Contaminant Level for direct contact.

**Bolded and blue shaded** values are above WDNR Soil to Groundwater Residual Contaminant Level.

BGS = below ground surface

RCL = Residual Contaminant Level

**TABLE 4**  
**SOIL GAS ANALYTICAL RESULTS SUMMARY**  
Former One Hour Martinizing Cleaners  
Oconomowoc, Wisconsin

Sample Identification	Sample Date	Tetrachloroethylene	Trichloroethylene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
6143-SG-1s	6/21/2013	<b>20,000</b>	<170	<130	<130	<82
6143-SG-1d	6/21/2013	<b>80,000</b>	<1000	<770	<770	<500
6143-SG-2s	6/21/2013	<b>3,600</b>	<b>120</b>	<37	<37	<24
6143-SG-2d	6/21/2013	<b>22,000</b>	<330	<250	<250	<160
6143-SG-3s	6/21/2013	<b>570</b>	<b>31</b>	<7.9	<7.9	<5.1
6143-SG-3d	6/21/2013	<b>15,000</b>	<170	<130	<130	<82
Deep Vapor Risk Screening Level <sup>1</sup>		<b>180,000</b>	<b>8,800</b>	<b>NE</b>	<b>NE</b>	<b>28,000</b>
Shallow Vapor Risk Screening Level <sup>2</sup>		<b>18,000</b>	<b>880</b>	<b>NE</b>	<b>NE</b>	<b>2,800</b>

**Notes:**

<sup>1</sup> The Vapor Risk Screening Levels are based on U.S. E.P.A.'s Regional Screening Levels (RSL's) for non-residential indoor air with an attenuation factor of 0.001 for soil gas deeper than 5 feet below the foundation of large commercial buildings.

<sup>2</sup> The Vapor Risk Screening Levels are based on U.S. E.P.A.'s Regional Screening Levels (RSL's) for non-residential indoor air with an attenuation factor of 0.01 for shallow soil gas below large commercial buildings or deep soil gas below small commercial buildings.

All concentrations reported in units of micrograms per cubic meter (µg/m<sup>3</sup>)

**Bolded** values are above detection limits

NE = Not Established

**TABLE 5**  
**SOIL VAPOR EXTRACTION SYSTEM OPERATIONAL DATA**  
 OHM -Oconomowoc  
 36929 Plank Road, Oconomowoc, Wisconsin

Date	Time	Operating Zone	System Runtime	System Vacuum	Effluent Flow Rate	Effluent VOC Concentration	Inlet Temperature	Exhaust Temperature	Dilution	Notes
			Hours	inHg	cfm	$\mu\text{g}/\text{m}^3$	$^{\circ}\text{F}$	$^{\circ}\text{F}$	(%)	
4/11/2017	1820	shallow + deep	4.4	-13.00	185	23,052	50	185	30	SVE Start-up. Inlet temperature below 50
4/12/2017	1339	shallow + deep	23.0	-17.00	190	16,337	65	205	30	
4/13/2017	1035	shallow + deep	45.8	-11.00	198	22,289	53	165	40	
4/20/2017	1037	shallow + deep	210.6	-12.00	190	3,360	65	180	40	
4/27/2017	1102	shallow + deep	378.7	-12.00	190	2,000	50	170	40	
5/4/2017	852	shallow + deep	540.5	-9.00	210	1,310	55	133	50	
6/5/2017	1512	shallow + deep	1,314.3	-7.00	207	1,372	62	145	60	

Notes:  
 -- = Reading not recorded  
 inHg = inches of mercury  
 cfm = cubic feet per minute  
 $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter