

**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

Martino's Master Dry Cleaners

2. Reporting period from: 01/01/2018 To: 06/30/2018 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 02-30-552188

5. Site location

Region	County	Address				
Southeast Region	Kenosha	7513 41st Ave				
Municipality name <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village	Township	Range	<input checked="" type="radio"/> E <input type="radio"/> W	Section	¼	¼ ¼
Kenosha	01 N	22		11	NE	NE

6. Responsible party Name	7. Consultant	
Martino's Master Dry Cleaners	<input type="checkbox"/> Select if the following information has changed since the last submittal	
Mailing address	Company name	
7513 41st Ave, Kenosha, WI 53142	EnviroForensics, LLC	
Phone number	Mailing address	Phone number
(262) 694-7858	N16 W23390 Stone Ridge Drive Suite G Waukesha WI 53188	(262) 290-4001

8. Contaminants  
 Tetrachloroethene

9. Soil types (USCS or USDA)  
 SP, CL

10. Hydraulic conductivity(cm/sec): 0.010 11. Average linear velocity of groundwater (ft/yr) 186

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 type="radio"/> W	Section	¼	¼ ¼
	N					

Site name: Martino's Master Dry Cleaners

Reporting period from: 01/01/2018 To: 06/30/2018

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: \$436,100.00

2. Implementation costs (design, capital and installation costs, excluding investigation costs): \$171,800.00

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

4. Total costs during this reporting period: \$34,700.00

5. Total anticipated costs for the next reporting period: \$20,000.00

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:

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

Site name: Martino's Master Dry Cleaners

Reporting period from: 01/01/2018 To: 06/30/2018

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## 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.

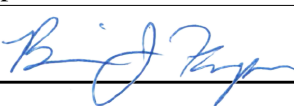
#### Registered Professional Engineers:

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 D. Horwath	Title Director of Engineering and Remediation Services
Signature	Date 7/26/2018

#### 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 	Date 7/26/2018

#### 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: Martino's Master Dry Cleaners

Reporting period from: 01/01/2018 To: 06/30/2018

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## 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):  
27

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:  
15% System start up occurred on 5/1/2018, leaving 61 possible operating days during the reporting time period. The system was intentionally shut down due to water management issues, and an unplanned shut down from power failure resulted in 10 days of lost operation. The adjusted system utilization (accounting for start up on 5/1/2018) is 44%.

4. Average depth to groundwater: 11 gpm

#### 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: 0.16 pounds per day

2. Average contaminant removal rate per well or venting point: 0.08 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.

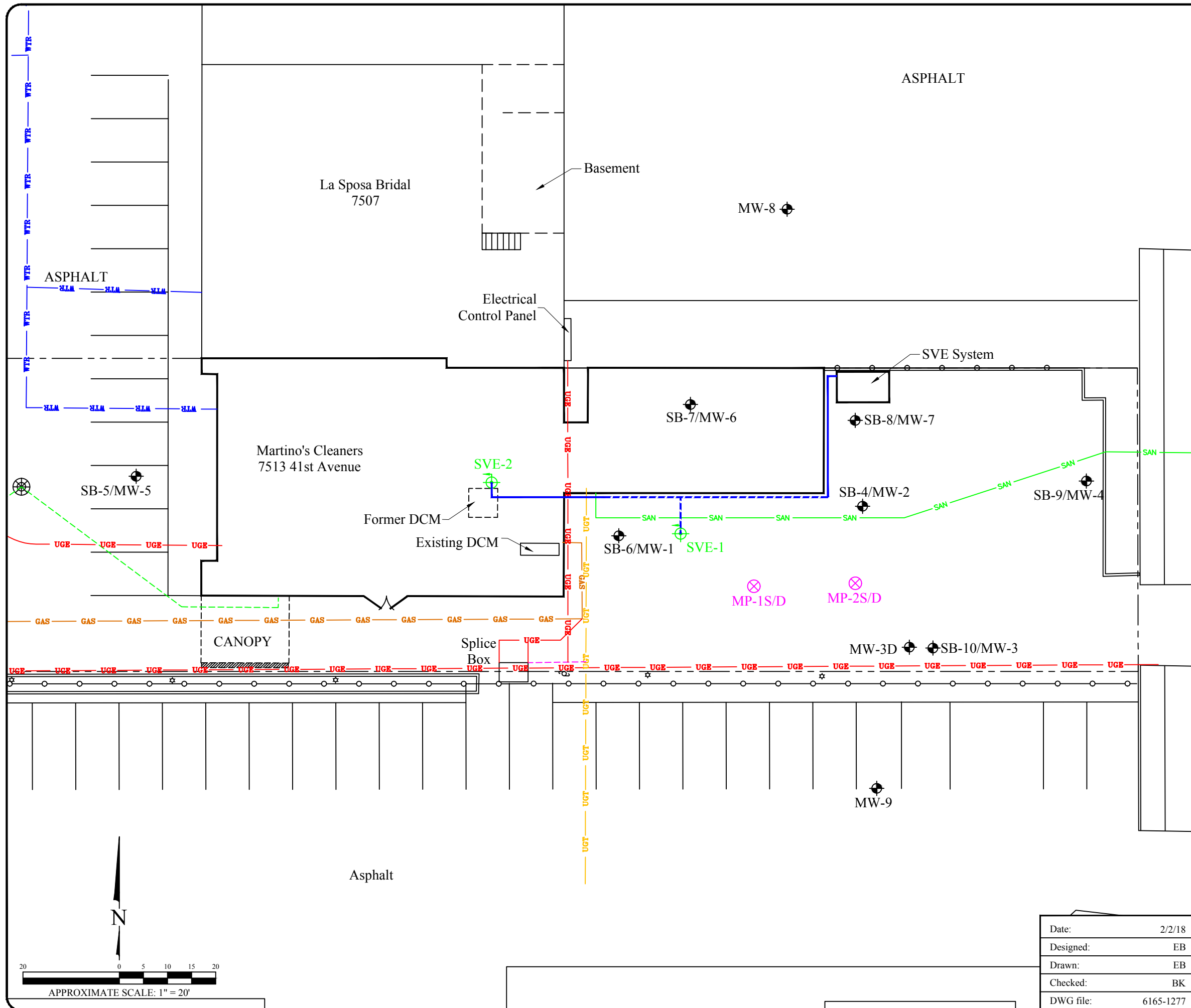
b. If contaminants are not aerobically biodegradable and confirmation borings have not been recently drilled during the past year, you should drill confirmation borings during the next reporting period if the entire site should be considered for closure.

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.

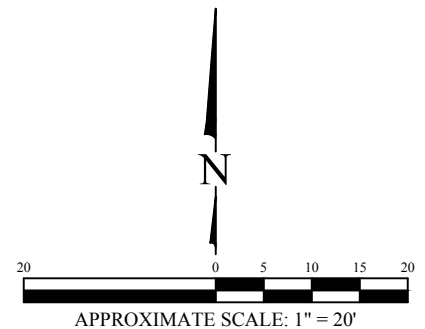


### Legend

- Property boundary
- Fence line
- GAS — Underground gas utility line
- WTR — Underground water utility line
- SAN — Underground sanitary utility line
- - - - - Underground storm utility line
- OVHD — Over head electrical utility line
- UGE — Underground electrical utility line
- UGT — Underground cable television utility line
- MW-5 ⊕ Monitoring well location
- SVE-1 ⊕ SVE extraction well location
- MP-1S/D ⊗ Nested SVE monitoring points
- SVE conveyance piping (dashed indicates buried section)

### SVE REMEDIATION SYSTEM LAYOUT

Martino's Cleaners  
7513 41st Avenue  
Kenosha, WI



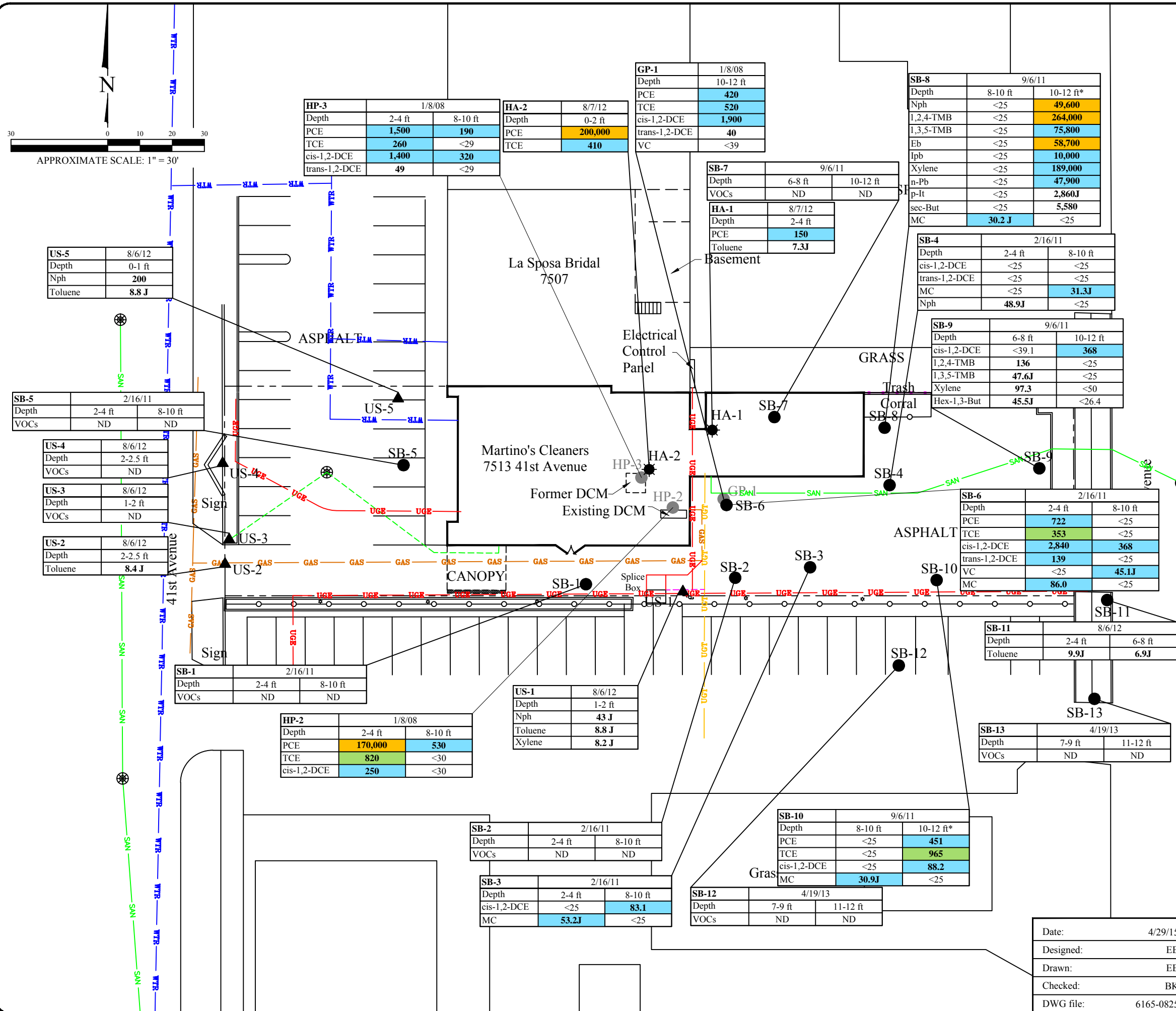
Date:	2/2/18
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6165-1277

825 North Capitol Avenue • Indianapolis, IN 46204  
EnviroForensics.com

Figure	1
Project	6165

**Legend**

- Property boundary
- Fence line
- GAS — Underground gas utility line
- WTR — Underground water utility line
- SAN — Underground sanitary utility line
- — Underground storm utility line
- OVHD — Over head electrical utility line
- UGE — Underground electrical utility line
- UGT — Underground cable television utility line
- SB-1 Soil boring location
- ★ HA-2 Hand auger boring location
- HP-2 Soil boring location (done by others - 2008)
- ▲ US-2/SG-2 Utility corridor/soil gas sample location



Analytes	Soil Residual Contaminant Level		
	Industrial	Non-Industrial	Soil to Groundwater
PCE	153,000	30,700	4.5
TCE	8,810	644	3.6
cis-1,2-DCE	2,400,000	156,000	41.2
trans-1,2-DCE	976,000	211,000	58.8
VC	2,030	67	0.1
MC	1,070,000	60,700	2.6
Nph	26,000	5,150	659
1,2,4-TMB	219,000	89,800	1,390
1,3,5-TMB	182,000	182,000	1,380
EB	37,000	7,470	1,570
Ipb	268,000	268,000	1,270
Xylene	388,000	388,000	3,940
Toluene	45,000,000	5,000,000	860
n-Pb	264,000	264,000	1,970
p-It	162,000	162,000	NE
sec-But	NE	NE	NE
Hex-1,3-But	22,100	6,230	1.0

- Notes:
1. Bold, shaded orange values exceed Industrial RCL
  2. Bold, shaded green values exceed Non-Industrial RCL
  3. Bold, shaded blue values exceed SRCL for Soil to Groundwater
  4. Bold values equal or exceed laboratory detection limits
  5. Results not shown are below laboratory detection limits
  6. All Soil Residual Contaminant Levels were calculated according to WDNR Publication RR-890
  7. PCE - Tetrachloroethene
  8. TCE - Trichloroethene
  9. cis-1,2-DCE - cis-1,2-Dichloroethene
  10. trans-1,2-DCE - trans-1,2-Dichloroethene
  11. VC = Vinyl Chloride
  12. MC = Methyl Chloride
  13. Nph = Naphthalene
  14. 1,2,4-TMB = 1,2,4-Trimethylbenzene
  15. 1,3,5-TMB = 1,3,5-Trimethylbenzene
  16. EB = Ethylbenzene
  17. Ipb = Isopropylbenzene
  18. n-Pb = n-propylbenzene
  19. p-It = p-Isopropyltoluene
  20. sec-But = sec-Butylbenzene
  21. Hex-1,3-But = Hexachloro-1,3-butadiene
  22. J = Analyte concentration detected between the laboratory Reporting Limit and the laboratory Method Detection Limit
  23. NE = Not Established
  24. ND = Compounds not detected
  25. \* = Sample collected within zone of intermittent saturation

**SOIL SAMPLE ANALYTICAL RESULTS SUMMARY**

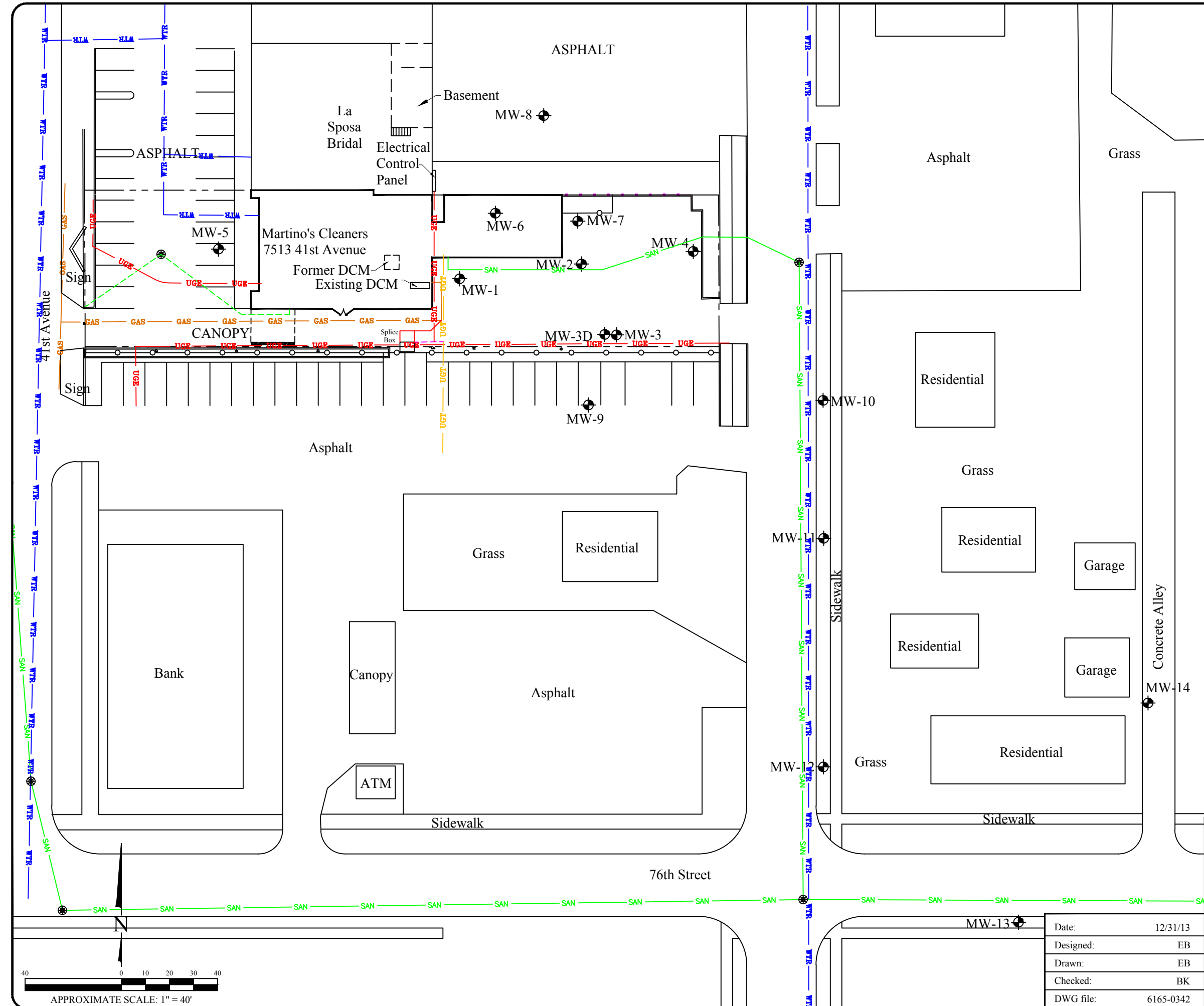
Martino's Cleaners  
7513 41st Avenue  
Kenosha, WI

Date:	4/29/15		Figure
Designed:	EB		2
Drawn:	EB		Project
Checked:	BK		6165
DWG file:	6165-0825		

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### Legend

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- SAN— Underground sanitary utility line
- - - SAN - - - Underground storm utility line
- OVHD— Over head electrical utility line
- UGE— Underground electrical utility line
- UGT— Underground cable television utility line
- MW-5 ◉ Monitoring well location



### MONITORING WELL LOCATION MAP

Martino's Cleaners  
7513 41st Avenue  
Kenosha, WI

Date:	12/31/13
Designed:	EB
Drawn:	EB
Checked:	BK
DWG file:	6165-0342

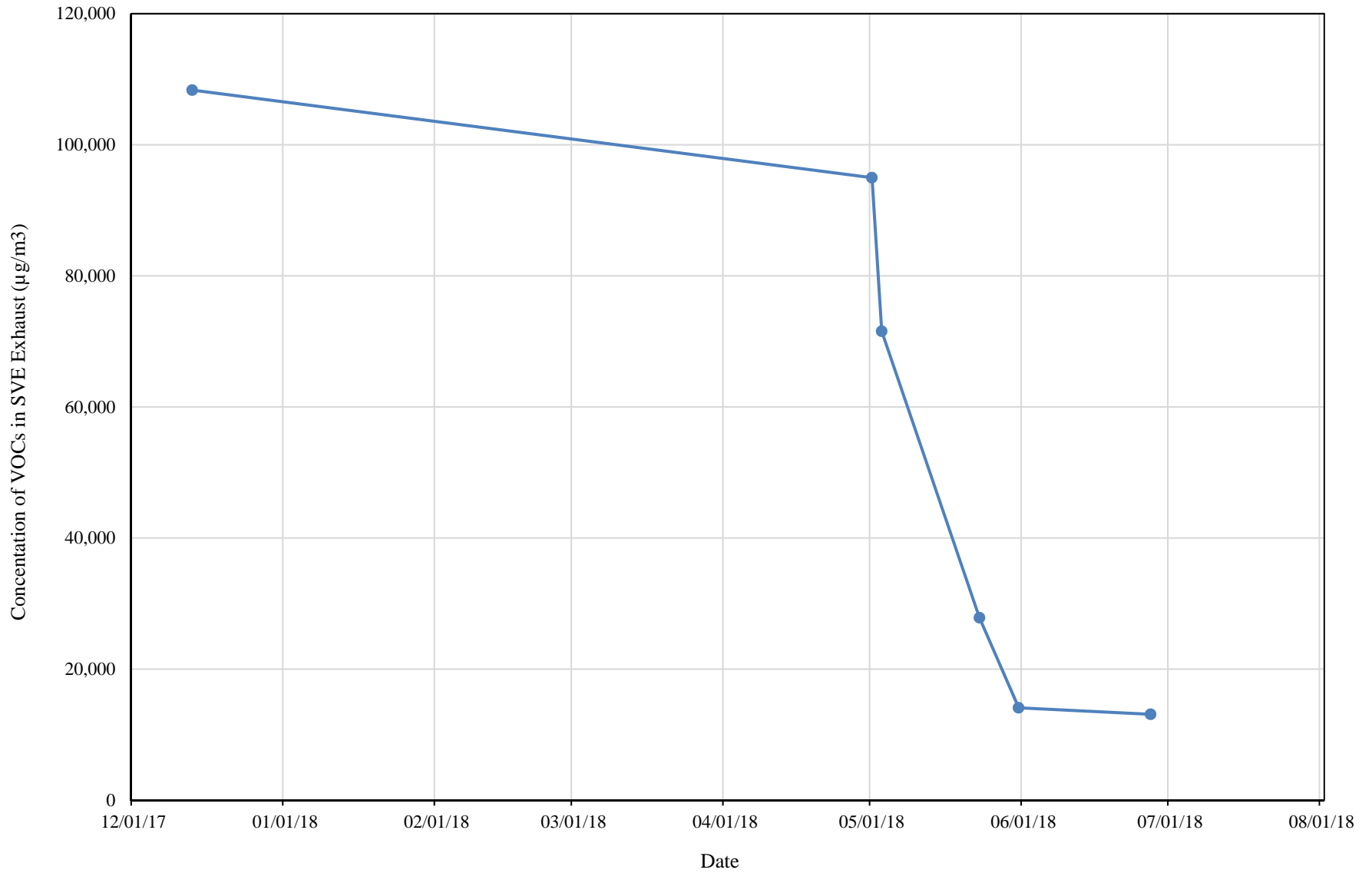


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Figure	3
Project	6165

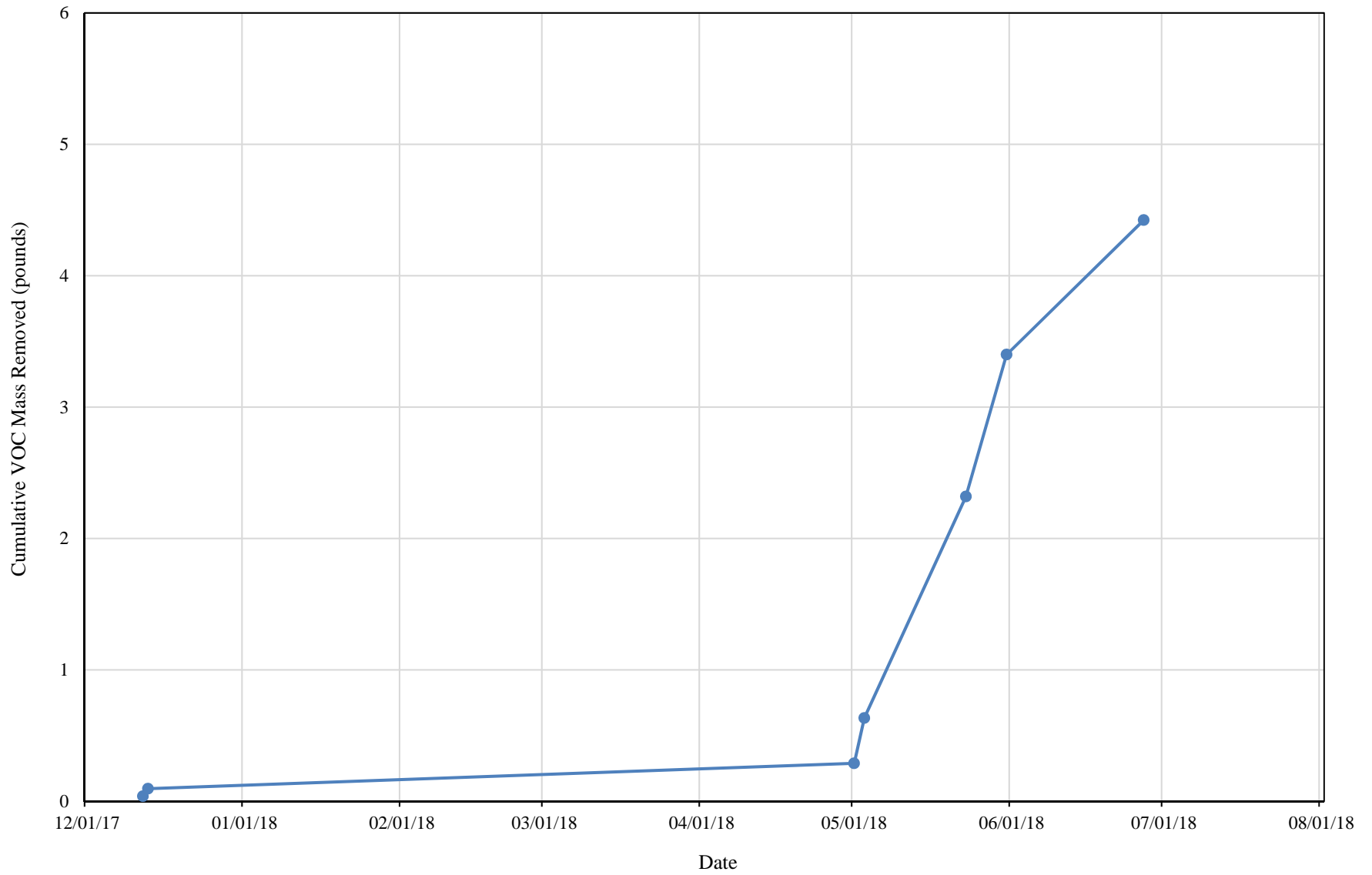
### Vapor Phase VOC Concentration Trend

Martino's Master Dry Cleaners- 7513 41st Avenue, Kenosha, Wisconsin





**Cumulative VOC Mass Removed**  
Martino's Master Dry Cleaners- 7513 41st Avenue, Kenosha, Wisconsin



**TABLE 1**  
**GROUNDWATER ELEVATION SUMMARY**

Martino's Master Drycleaners  
7513 41st Avenue, Kenosha, Wisconsin

Well ID	Date	TOC Elevation (feet AMSL)	Top Screen Elevation (feet AMSL)	Bottom Screen Elevation (feet AMSL)	TOC Elevation (feet AMSL)	DTW (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-1	9/7/2011	640.70	633.90	623.90	640.70	11.28	629.42
	8/8/2012				640.70	11.29	629.41
	12/16/2013				640.70	11.44	629.26
	3/12/2014				640.70	11.33	629.37
	5/28/2014				640.70	10.78	629.92
	9/23/2014				640.70	11.01	629.69
	11/12/2014				640.70	11.21	629.49
	3/18/2015				640.70	10.95	629.75
	6/22/2015				640.70	10.79	629.91
	9/16/2015				640.70	11.19	629.51
	11/30/2015				640.70	10.53	630.17
	3/9/2016				640.70	10.94	629.76
	6/2/2016				640.70	10.80	629.90
	9/27/2016				640.70	10.96	629.74
MW-2	9/7/2011	640.06	633.30	623.30	640.06	10.81	629.25
	8/8/2012				640.06	10.82	629.24
	12/16/2013				640.06	10.99	629.07
	3/12/2014				640.06	10.86	629.20
	5/28/2014				640.06	10.37	629.69
	9/23/2014				640.06	10.51	629.55
	11/12/2014				640.06	10.72	629.34
	3/18/2015				640.06	10.50	629.56
	6/22/2015				640.06	10.30	629.76
	9/16/2015				640.06	10.71	629.35
	11/30/2015				640.06	10.09	629.97
	3/9/2016				640.06	10.51	629.55
	6/2/2016				640.06	10.33	629.73
	9/27/2016				640.06	10.53	629.53
MW-3	9/7/2011	640.21	634.40	624.40	640.21	11.02	629.19
	8/8/2012				640.21	11.04	629.17
	12/16/2013				640.21	11.24	628.97
	3/12/2014				640.21	11.21	629.00
	5/28/2014				640.21	10.71	629.50
	9/23/2014				640.21	10.82	629.39
	11/12/2014				640.21	11.02	629.19
	3/18/2015				640.21	10.87	629.34
	6/22/2015				640.21	10.66	629.55
	9/16/2015				640.21	11.04	629.17
	11/30/2015				640.21	10.45	629.76
	3/9/2016				640.21	10.88	629.33
	6/2/2016				640.21	10.68	629.53
	9/27/2016				640.21	10.90	629.31

**TABLE 1**  
**GROUNDWATER ELEVATION SUMMARY**

Martino's Master Drycleaners  
7513 41st Avenue, Kenosha, Wisconsin

Well ID	Date	TOC Elevation (feet AMSL)	Top Screen Elevation (feet AMSL)	Bottom Screen Elevation (feet AMSL)	TOC Elevation (feet AMSL)	DTW (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-3D	12/16/2013	640.37	611.11	606.11	640.37	11.08	629.29
	3/12/2014				640.37	11.40	628.97
	5/28/2014				640.37	10.94	629.43
	9/23/2014				640.37	11.02	629.35
	11/12/2014				640.37	11.16	629.21
	3/18/2015				640.37	11.31	629.06
	6/22/2015				640.37	10.84	629.53
	9/16/2015				640.37	11.23	629.14
	11/30/2015				640.37	10.76	629.61
	3/9/2016				640.37	11.18	629.19
	6/2/2016				640.37	10.73	629.64
9/27/2016	640.37	11.00	629.37				
MW-4	9/7/2011	640.07	632.70	622.70	640.07	10.98	629.09
	8/8/2012				640.07	10.91	629.16
	12/16/2013				640.07	11.03	629.04
	3/12/2014				640.07	10.93	629.14
	5/28/2014				640.07	10.46	629.61
	9/23/2014				640.07	10.57	629.50
	11/12/2014				640.07	10.79	629.28
	3/18/2015				640.07	10.58	629.49
	6/22/2015				640.07	10.41	629.66
	9/16/2015				640.07	10.78	629.29
	11/30/2015				640.07	10.18	629.89
	3/9/2016				640.07	10.63	629.44
	6/2/2016				640.07	10.24	629.83
	9/27/2016				640.07	10.63	629.44
MW-5	9/7/2011	640.33	633.80	623.80	640.33	10.45	629.88
	8/8/2012				640.33	10.38	629.95
	12/16/2013				640.33	10.63	629.70
	3/12/2014				640.33	10.45	629.88
	5/28/2014				640.33	9.82	630.51
	9/23/2014				640.33	10.12	630.21
	11/12/2014				640.33	10.40	629.93
	3/18/2015				640.33	10.06	630.27
	6/22/2015				640.33	9.90	630.43
	9/16/2015				640.33	10.35	629.98
	11/30/2015				640.33	9.56	630.77
	3/9/2016				640.33	10.02	630.31
	6/2/2016				640.33	9.95	630.38
	9/27/2016				640.33	10.16	630.17

**TABLE 1**  
**GROUNDWATER ELEVATION SUMMARY**

Martino's Master Drycleaners  
7513 41st Avenue, Kenosha, Wisconsin

Well ID	Date	TOC Elevation (feet AMSL)	Top Screen Elevation (feet AMSL)	Bottom Screen Elevation (feet AMSL)	TOC Elevation (feet AMSL)	DTW (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-6	9/7/2011	NA	NA	NA	NA	11.60	NA
	8/8/2012				NA	11.60	NA
	12/16/2013				NA	11.79	NA
	3/12/2014				NA	11.61	NA
	5/28/2014				NA	11.12	NA
	9/23/2014				NA	11.32	NA
	11/12/2014				NA	11.56	NA
	3/18/2015				NA	11.24	NA
	6/22/2015				NA	11.13	NA
	9/16/2015				NA	11.52	NA
	11/30/2015				NA	10.88	NA
	3/9/2016				NA	11.35	NA
	6/2/2016				NA	11.14	NA
	9/27/2016				NA	11.33	NA
MW-7	9/7/2011	640.66	634.10	624.10	640.66	11.40	629.26
	8/8/2012				640.66	10.78	629.88
	12/16/2013				640.66	11.54	629.12
	3/12/2014				640.66	11.41	629.25
	5/28/2014				640.66	10.94	629.72
	9/23/2014				640.66	10.97	629.69
	11/12/2014				640.66	11.30	629.36
	3/18/2015				640.66	11.04	629.62
	6/22/2015				640.66	10.91	629.75
	9/16/2015				640.66	11.28	629.38
	11/30/2016				640.66	10.65	630.01
	3/9/2016				640.66	11.05	629.61
	6/2/2016				640.66	10.93	629.73
	9/27/2016				640.66	11.11	629.55
MW-8	12/16/2013	638.99	631.30	621.30	638.99	9.72	629.27
	3/12/2014				638.99	9.61	629.38
	5/28/2014				638.99	9.17	629.82
	9/23/2014				638.99	9.30	629.69
	11/12/2014				638.99	9.53	629.46
	3/18/2015				638.99	9.25	629.74
	6/22/2015				638.99	9.20	629.79
	9/16/2015				638.99	9.52	629.47
	11/30/2015				638.99	8.93	630.06
	3/9/2016				638.99	9.28	629.71
	6/2/2016				638.99	9.25	629.74
	9/27/2016				638.99	9.39	629.60

**TABLE 1**  
**GROUNDWATER ELEVATION SUMMARY**

Martino's Master Drycleaners  
7513 41st Avenue, Kenosha, Wisconsin

Well ID	Date	TOC Elevation (feet AMSL)	Top Screen Elevation (feet AMSL)	Bottom Screen Elevation (feet AMSL)	TOC Elevation (feet AMSL)	DTW (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-9	12/16/2013	641.09	631.90	621.90	641.09	12.16	628.93
	3/12/2014				641.09	12.11	628.98
	5/28/2014				641.09	11.59	629.50
	9/23/2014				641.09	11.73	629.36
	11/12/2014				641.09	11.90	629.19
	3/18/2015				641.09	11.81	629.28
	6/22/2015				641.09	11.59	629.50
	9/16/2015				641.09	11.92	629.17
	11/30/2015				641.09	11.38	629.71
	3/9/2016				NA	NA	NA
	6/2/2016				641.09	11.54	629.55
9/27/2016	641.09	11.79	629.30				
MW-10	9/23/2014	640.26	630.00	620.00	640.26	11.00	629.26
	11/12/2014				640.26	11.19	629.07
	3/18/2015				640.26	11.12	629.14
	6/22/2015				640.26	10.82	629.44
	9/16/2015				640.26	11.19	629.07
	11/30/2015				640.26	10.63	629.63
	3/9/2016				640.26	11.06	629.20
	6/2/2016				640.26	10.83	629.43
	9/27/2016				640.26	11.07	629.19
	MW-11				9/23/2014	641.51	631.30
11/12/2014		641.51	12.54	628.97			
3/18/2015		641.51	12.52	628.99			
6/22/2015		641.51	12.20	629.31			
9/16/2015		641.51	12.50	629.01			
11/30/2015		641.51	12.04	629.47			
3/9/2016		641.51	12.46	629.05			
6/2/2016		641.51	12.18	629.33			
9/27/2016		641.51	12.41	629.10			
MW-12	9/23/2014	643.18	633.10	623.10	643.18	9.36	633.82
	11/12/2014				643.18	14.41	628.77
	3/18/2015				643.18	14.45	628.73
	6/22/2015				643.18	14.15	629.03
	9/16/2015				643.18	14.46	628.72
	11/30/2015				643.18	14.06	629.12
	3/9/2016				643.18	14.38	628.80
	6/2/2016				643.18	14.08	629.10
	9/27/2016				643.18	14.31	628.87

**TABLE 1**  
**GROUNDWATER ELEVATION SUMMARY**

Martino's Master Drycleaners  
7513 41st Avenue, Kenosha, Wisconsin

Well ID	Date	TOC Elevation (feet AMSL)	Top Screen Elevation (feet AMSL)	Bottom Screen Elevation (feet AMSL)	TOC Elevation (feet AMSL)	DTW (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-13	9/23/2014	642.03	631.50	621.50	642.03	13.88	628.15
	11/12/2014				642.03	13.91	628.12
	3/18/2015				642.03	13.96	628.07
	6/22/2015				642.03	13.79	628.24
	9/16/2015				642.03	13.97	628.06
	11/30/2015				642.03	13.80	628.23
	3/9/2016				642.03	13.91	628.12
	6/2/2016				642.03	13.78	628.25
9/27/2016	642.03	13.87	628.16				
MW-14	9/23/2014	640.98	630.70	620.70	640.98	12.10	628.88
	11/12/2014				640.98	12.25	628.73
	3/18/2015				640.98	12.24	628.74
	6/22/2015				640.98	11.90	629.08
	9/16/2015				640.98	12.24	628.74
	11/30/2015				640.98	11.79	629.19
	3/9/2016				640.98	12.18	628.80
	6/2/2016				640.98	11.93	629.05
9/27/2016	640.98	12.11	628.87				

**Notes:**

All values are in feet  
 AMSL = above mean sea level  
 DTW = Depth to water  
 NA = Not Available  
 TOC = Top of Casing

**TABLE 2**  
**SUMMARY OF SOIL ANALYTICAL RESULTS**  
 Martino's Master Drycleaners  
 7513 41st Avenue, Kenosha, Wisconsin

Boring Identification	Sample Depth (feet)	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl chloride	Benzene	sec-Butylbenzene	n-Butylbenzene	Ethylbenzene	Hexachloro-1,3-butadiene	Isopropylbenzene (Cumene)	p-Isopropyltoluene	Methylene Chloride	Naphthalene	n-propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes (total)	Toluene
<b>Industrial RCL <sup>1</sup></b>			<b>145,000</b>	<b>8,410</b>	<b>2,340,000</b>	<b>1,850,000</b>	<b>2,080</b>	<b>7,070</b>	<b>145,000</b>	<b>108,000</b>	<b>35,400</b>	<b>7,190</b>	<b>268,000</b>	<b>162,000</b>	<b>1,150,000</b>	<b>24,100</b>	<b>264,000</b>	<b>219,000</b>	<b>182,000</b>	<b>260,000</b>	<b>818,000</b>
<b>Non-Industrial RCL <sup>1</sup></b>			<b>33,000</b>	<b>1,300</b>	<b>156,000</b>	<b>1,560,000</b>	<b>67</b>	<b>1,600</b>	<b>145,000</b>	<b>108,000</b>	<b>8,020</b>	<b>1,630</b>	<b>268,000</b>	<b>162,000</b>	<b>61,800</b>	<b>5,520</b>	<b>264,000</b>	<b>219,000</b>	<b>182,000</b>	<b>260,000</b>	<b>818,000</b>
<b>Soil to Goundwater RCL <sup>1</sup></b>			<b>4.5</b>	<b>3.6</b>	<b>41.2</b>	<b>62.6</b>	<b>0.1</b>	<b>5.1</b>	<b>N.E.</b>	<b>N.E.</b>	<b>1,570</b>	<b>N.E.</b>	<b>N.E.</b>	<b>N.E.</b>	<b>2.6</b>	<b>658.2</b>	<b>N.E.</b>	<b>1,382</b>	<b>1,382</b>	<b>3,960</b>	<b>1,107</b>
GP-1	10-12	1/8/2008	<b>420</b>	<b>520</b>	<b>1,900</b>	<b>40</b>	<39	ND	<28	ND	<28	<39	<28	<28	<56	<56	<28	<28	<28	<96	ND
HA-1	2-4	8/7/2012	<b>150</b>	<11	<7	<14	<5.9	ND	<8.8	ND	<7.2	<20	<14	<11	<39	<28	<10	<12	<12	<3.9	<b>7.3 J</b>
HA-2	0-2	8/7/2012	<b>200,000</b>	<b>410</b>	<26	<53	<22	ND	<33	ND	<27	<74	<53	<39	<150	<110	<37	<45	<44	<15	<24
HP-2	2-4	1/8/2008	<b>170,000</b>	<b>820</b>	<b>250</b>	<28	<39	ND	<28	ND	<28	<39	<28	<28	<56	<56	<28	<28	<28	<96	ND
	8-10		<b>530</b>	<30	<30	<30	<42	ND	<30	ND	<30	<42	<30	<30	<61	<61	<30	<30	<30	<100	ND
HP-3	2-4	1/8/2008	<b>1,500</b>	<b>260</b>	<b>1,400</b>	<b>49</b>	<38	ND	<27	ND	<27	<38	<27	<27	<54	<54	<27	<27	<27	<92	ND
	8-10		<b>190</b>	<29	<b>320</b>	<29	<40	ND	<29	ND	<29	<40	<29	<29	<58	<58	<29	<29	<29	<98	ND
SB-1	2-4	2/16/2011	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
	8-10		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-2	2-4	2/16/2011	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
	8-10		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-3	2-4	2/16/2011	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<b>53.2 J</b>	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
	8-10		<25.0	<25.0	<b>83.1</b>	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-4	2-4	2/16/2011	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<b>48.9 J</b>	<25.0	<25.0	<25.0	<50.0	<25.0
	8-10		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<b>31.3 J</b>	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-5	2-4	2/16/2011	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
	8-10		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-6	2-4	2/16/2011	<b>722</b>	<b>353</b>	<b>2,840</b>	<b>139</b>	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<b>86.0</b>	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
	8-10		<25.0	<25.0	<b>368</b>	<25.0	<b>45.1 J</b>	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-7	6-8	9/6/2011	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
	10-12		<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-8	8-10	9/6/2011	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<b>30.2 J</b>	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
	10-12		<2000	<2000	<2000	<2000	<2000	<2000	<b>5,580</b>	<3230	<b>58,700</b>	<26.4	<b>10,000</b>	<b>2,860 J</b>	<2000	<b>49,600</b>	<b>47,900</b>	<b>264,000</b>	<b>75,800</b>	<b>189,000</b>	<2,000
SB-9	6-8	9/6/2011	<39.1	<39.1	<39.1	<39.1	<39.1	<39.1	<39.1	<63.1	<39.1	<b>45.5 J</b>	<39.1	<39.1	<39.1	<39.1	<39.1	<b>136</b>	<b>47.6 J</b>	<b>97.3</b>	<39.1
	10-12		<25.0	<25.0	<b>368</b>	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<26.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-10	8-10	9/6/2011	<26.0	<26.0	<26.0	<26.0	<26.0	<26.0	<26.0	<42.1	<26.0	<27.5	<26.0	<26.0	<b>30.9 J</b>	<26.0	<26.0	<26.0	<26.0	<52.1	<26.0
	10-12		<b>451</b>	<b>965</b>	<b>88.2</b>	<25.0	<25.0	<25.0	<25.0	<40.4	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<25.0	<50.0	<25.0
SB-11	2-4	8/6/2012	<9.7	<11	<7.1	<14	<6	<4.3	<8.9	<7.5	<7.3	<20	<15	<11	<40	<29	<10	<12	<12	<4	<b>9.9 J</b>
	6-8		<8.3	<9.3	<6.1	<12	<3.4	<3.7	<7.7	<6.4	<6.3	<17	<13	<9.2	<34	<25	<8.7	<11	<10	<3.4	<b>6.9 J</b>
SB-12	7-9	4/19/2013	<10	<12	<7.7	<16	<6.5	<4.6	<9.6	<8.1	<7.9	<22	<16	<12	<43	<31	<11	<13	<13	<4.3	<7.2
	11-12		<12	<13	<8.5	<17	<7.2	<5.1	<11	<8.9	<8.7	<24	<17	<13	<47	<34	<12	<15	<14	<4.7	<7.9
SB-13	7-9	4/19/2013	<13	<15	<9.7	<20	<8.2	<5.8	<12	<10	<9.9	<27	<20	<15	<54	<39	<14	<17	<16	<5.4	<9.0
	11-12		<11	<12	<7.8	<16	<6.6	<4.7	<9.8	<8.2	<8.0	<22	<16	<12	<44	<31	<11	<13	<13	<4.4	<7.3
MW-8	7	12/2/2013	<49	<28	<24	<29	<21	<b>390</b>	<b>153</b>	<b>410</b>	<b>760</b>	<95	<b>570</b>	<b>62 J</b>	<57	<114	<b>2,200</b>	<b>8,600</b>	<b>3,010</b>	<b>43 J</b>	<b>9,234</b>

**Notes:**

<sup>1</sup> Residual Contaminant Levels calculated according to the procedures described in WDNR Publication RR-890  
 All concentrations reported in micrograms per kilogram µg/kg  
**Bolded** values are above Laboratory Detection Limits  
**Bolded and Orange Shaded** value indicates an exceedance of the Industrial Residual Contaminant Level  
**Bolded and Green Shaded** value indicates an exceedance of the Non-Industrial Residual Contaminant Level  
**Bolded and Blue Shaded** value indicates an exceedance of the Soil to Groundwater Residual Contaminant Level

Samples analyzed using EPA SW-846 Method 8260  
 J = Estimated concentration between the Method Detection Limit and the Reporting Limit  
 N.E. = Not Established  
 RCL = Residual Contaminant Level  
 ND = Compound not detected. Data not available to EnviroForensics.

**TABLE 3**  
**SOIL VAPOR EXTRACTION SYSTEM OPERATIONAL DATA**

Martino's Master Dry Cleaners  
 7513 41st Ave, Kenosha, Wisconsin

Date	Time	System Runtime	VFD Setting	System Vacuum	Influent Flow Rate	Effluent CVOC Concentration	Pre-Filter Vacuum	Post-Filter Vacuum	Exhaust Temperature	Dilution	Water Volume in Drum
		Hours	Hertz	inHg	fpm	$\mu\text{g}/\text{m}^3$	inHg		$^{\circ}\text{F}$	(%)	Gallons
12/13/2017	1819	2	48	-14.0	3,015	108,343	-16.0	-17.0	135	0	0
5/1/2018	1625	6	40	-11.0	4,920	94,974	-16.0	-15.0	145	10	0
5/2/2018	1455	7	40	-11.0	4,780	--	-15.0	-12.0	135	25	5
5/3/2018	1110	15	40	-8.0	4,910	71,549	--	--	130	25	5
5/16/2018	1538	15	38	-8.0	4,710	--	-9.0	-9.0	95	25	30
5/17/2018	1400	36	30	-6.0	4,140	--	-7.0	-7.0	115	50	75
5/18/2018	1040	56	30	-5.0	3,950	--	-5.3	-5.0	120	50	75
5/23/2018	845	175	30	-5.5	3,690	27,820	-5.5	-5.5	124	50	80
5/31/2018	835	367	30	-5.0	2,790	14,095	-5.0	-5.0	115	50	80
6/4/2018	1346	367	30	-5.0	4,060	--	--	--	115	50	80
6/27/2018	1353	553	30	-6.0	3,140	13,097	-7.0	-7.0	130	50	80

Notes:

-- = Reading not recorded

inHg = inches of mercury

fpm = feet per minute

$\mu\text{g}/\text{m}^3$  = micrograms per cubic meter