February 1, 2021

John Feeney
Wisconsin Department of Natural Resources
1155 Pilgrim Rd
Plymouth, WI 53074

Re: Remediation Progress Update
Harborview Cleaners
134 East Grand Avenue
Port Washington, WI 53073
BRRTS#: 02-46-548092

Dear Mr. Feeney:

EnviroForensics, LLC (EnviroForensics) is pleased to provide this remediation progress update for Harborview Cleaners located at 134 E. Grand Avenue in Port Washington, Wisconsin (the Site). Remediation activities are ongoing in accordance with Wisconsin Department of Natural Resources (WDNR) NR 700 series rules to address tetrachloroethene (PCE) impacts in the subsurface.

General information and soil vapor extraction (SVE) system operational data are provided in the attached Remediation Site Operation, Maintenance, Monitoring & Optimization Report (Form 4400-194). The SVE system operated for the first half of 2020, and was then shut down in advance of confirmation soil and vapor sampling to evaluate subsurface conditions compared to pre-remediation conditions. Operation, maintenance and monitoring (OM&M) that occurred in 2020 was not previously reported because EnviroForensics wanted to first evaluate the confirmation sampling results and determine whether to recommend continued remediation or case closure. Therefore, the attached report covers all of 2020.

Soil Vapor Extraction Progress and Status

The SVE system began operation in August 2018 and operated for 12,994 hours through June 15, 2020 (the date of the most recent OM&M event). The system was temporarily shut down in July 2020 in advance of the soil and sub-slab vapor confirmation sampling. VOC concentrations detected in samples of the system effluent over time are depicted on the attached **Chart 1**. An overall concentration trend is not apparent because extraction has rotated among groups of wells and individual wells rather than consistent extraction from a single zone. Cumulative VOC mass removed over time is depicted on **Chart 2**. To date, the system has removed approximately 35 pounds of volatile organic compounds (VOCs) from the subsurface. The system has remained off as the confirmation sampling results were evaluated.

N16 W23390 Stone Ridge Drive, Suite G, Waukesha, WI 53188 | P: 262-290-4001 | enviroforensics.com

Confirmation Sampling Results

The effectiveness of SVE and on-going potential for vapor intrusion can be assessed by comparing pre- and post-remediation contaminant concentrations in soil. EnviroForensics collected soil samples from several borings that correspond to the following investigation sample locations and depth intervals:

- K-1 (3-4 feet)
- HP-1 (2-4 feet and 6-8 feet)
- HP-2 (6-8 feet)
- SB-2 (6-8 feet)
- SB-3 (6-8 feet)

The soil borings were advanced using direct-push methods within two feet of the associated investigation sample location. Six (6) soil samples were collected for laboratory analysis of VOCs in August 2020, approximately six (6) weeks after the SVE system was shut down.

The confirmation soil sample results are summarized on **Table 1** and **Figure 1**. Compared to pre-remediation results, lower PCE concentrations were observed at three (3) of the five (5) sample locations - K-1R, HP-2R, and SB-3R – while concentrations at SB-2R were similar to pre-remediation concentrations. At location HP-1R, the PCE concentration was much lower in the 6-8 foot depth interval compared to the pre-remediation value; however, the 2-4 foot sample contained PCE at a concentration of 81,000 micrograms per kilogram (µg/kg). This concentration of PCE in shallow soil represents a potential source of continuing vapor intrusion risk.

Sub-slab vapor sampling was also performed in the Site building to confirm the effectiveness of SVE and current vapor conditions below the slab. Two (2) sub-slab vapor samples designated V-1R and V-2R were collected from the approximate locations of previous vapor samples V-1 and V-2 (collected by another consultant in 2008). The vapor samples were analyzed for PCE and related compounds.

The sub-slab vapor sample results are included in **Table 2** and illustrated on **Figure 2**. PCE concentrations in vapor have decreased substantially compared to pre-remediation values. However, both of the sub-slab vapor samples still contained PCE at concentrations above the VRSL of 6,000 micrograms per cubic meter (µg/m^3), indicating a continued risk of vapor intrusion to the Site building.

Recommendations

An evaluation of the soil and vapor confirmation sample results suggests the source of continuing vapor impacts is likely the shallow soil (2-4 feet bgs) in the vicinity of HP-1R. This sample location is within several feet of extraction well SVE-1; however, the screened interval of

SVE-1 (4-9 feet bgs) is below the zone of higher impact identified by the recent sampling. Therefore, EnviroForensics recommends continuing operation of the SVE system with a modification to the screened interval of extraction well SVE-1 and a focus on the zones of highest residual impact.

If you have any questions regarding the results of this progress update, please do not hesitate to call me at (262) 290-4001.

Sincerely,
EnviroForensics, LLC

Brian Kappen, PG
Project Manager

Attachments:

Form 4400-194

TABLE 2
SUMMARY OF CONFIRMATION SOIL SAMPLE ANALYTICAL RESULTS
Harborview Cleaners
134 East Grand Avenue, Port Washington, Wisconsin

Boring Identification	Sample Depth (feet)	Sample Date	Consultant	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Benzene	Chloroform	sec-Butylbenzene	n-Butylbenzene	1,4-Dichlorobenzene	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Methylene Chloride	Napthalene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes (total)
Industrial RCL [1]				**145,000**	**8,410**	**2,340,000**	**1,850,000**	**7,070**	**2,130**	**145,000**	**108,000**	**16,400**	**35,400**	**268,000**	**162,000**	**1,150,000**	**24,100**	**264,000**	**818,000**	**219,000**	**182,000**	**260,000**
Non-Industrial RCL [1]				**33,000**	**1,300**	**156,000**	**1,560,000**	**1,600**	**423**	**145,000**	**108,000**	**3,740**	**8,020**	**268,000**	**162,000**	**61,800**	**5,520**	**264,000**	**818,000**	**219,000**	**182,000**	**260,000**
Soil to Goundwater RCL [1]				**4.5**	**3.6**	**41.2**	**62.6**	**5.1**	**3.3**	**N.E.**	**N.E.**	**144**	**1,570**	**N.E.**	**N.E.**	**2.6**	**658**	**1,970**	**1,107**	**1,382**	**1,382**	**3,960**
K-1	3-4	11/20/2006	Konicek	**1,300**	<25	<25	<25	<25	<25	<25	<40	<25	<25	<25	<25	**84**	<25	<25	<25	<25	<25	<75
K-1R	2-3	8/24/2020	EnviroForensics	**500**	<48	<21	<38	<15	<53	<24	<18	<39	<19	<25	<26	<150	<120	<19	<32	<54	<17	<111
HP-1	2-4	1/16/2008	Konicek	**29,000**	<120	<120	<120	<120	<120	<120	<200	<120	<120	<120	<120	<120	<120	<120	<120	<120	<120	<370
	6-8	1/16/2008	Konicek	**81,000**	<310	<310	<310	<310	<310	<310	<500	<310	<310	<310	<310	<310	<310	<310	<310	<310	<310	<930
HP-1R	2-4	8/24/2020	EnviroForensics	**81,000**	**430**	**35 J**	<38	**44 J**	**163 J**	**25.8 J**	**123**	**48 J**	**123**	**27.7 J**	**29.7 J**	<150	**560**	**102**	**291**	**370**	**85**	**677**
	6-8	8/24/2020	EnviroForensics	**1,860**	<48	<21	<38	<15	<53	<24	<18	<39	<19	<25	<26	<150	<120	<19	<32	<54	<17	<111
HP-2	6-8	1/16/2008	Konicek	**1,200**	<25	<25	<25	<25	<25	<25	<40	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<75
HP-2R	6-8	8/24/2020	EnviroForensics	<40	<48	<21	<38	<15	<53	<24	<18	<39	<19	<25	<26	<150	<120	<19	<32	<54	<17	<111
SB-2	6-8	12/2/2015	EnviroForensics	**3,800**	<42	<21	<24	<16	<26	<36	**1,470 J**	<30	**690 J**	<37	<56	<2200	**4,400**	**1,020 J**	**380 J**	**7,200**	**2,200 J**	**4,560**
SB-2R	6-8	8/24/2020	EnviroForensics	**2,530**	**1,590**	**860**	**720**	<15	<53	<24	<18	<39	<19	<25	<26	<150	<120	<19	<32	<54	<17	<111
SB-3	6-8	12/2/2015	EnviroForensics	**1,720**	<42	<21	<24	<16	<26	<36	<86	<30	<27	<37	<56	<220	<87	<35	<31	<78	<89	<99
SB-3R	6-8	8/24/2020	EnviroForensics	**286**	<48	<21	<38	<15	<53	<24	<18	<39	<19	<25	<26	<150	<120	<19	<32	<54	<17	<111

Notes:

[1] Residual Contaminant Levels calculated according to the procedures described in WDNR Publication RR-890

All concentrations reported in micrograms per kilogram µg/kg

J, Q = Estimated concentration between the laboratory detection limit and reporting limit

NE = Not established

NA = Not available

Bolded values are above laboratory detection limits

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

TABLE 2
SUB-SLAB VAPOR SAMPLE RESULTS SUMMARY
Harborview Cleaners
134 E. Grand Avenue, Port Washington, Wisconsin

Sample Identification	Consultant	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Residential Vapor Risk Screening Level			**1,400**	**70**	**NE**	**NE**	**57**
Small Commercial Vapor Risk Screening Level			**6,000**	**290**	**NE**	**NE**	**930**
V-1	Konicek	1/21/2008	**515,100**	**77.0**	**21.0**	<4.8	<1.66
V-1R	EnviroForensics	8/24/2020	**19,800**	**44.1**	<198	<396	<12.8
V-2	Konicek	1/21/2008	**1,193,000,000**	**1,541**	**564**	<54.0	<17.7
V-2R	EnviroForensics	8/24/2020	**32,100**	**708**	<198	<396	<12.8

Notes:

Vapor Risk Screeing Levels are calculated according to WDNR Publication RR-800 and subsequent vapor intrusion guidance documents

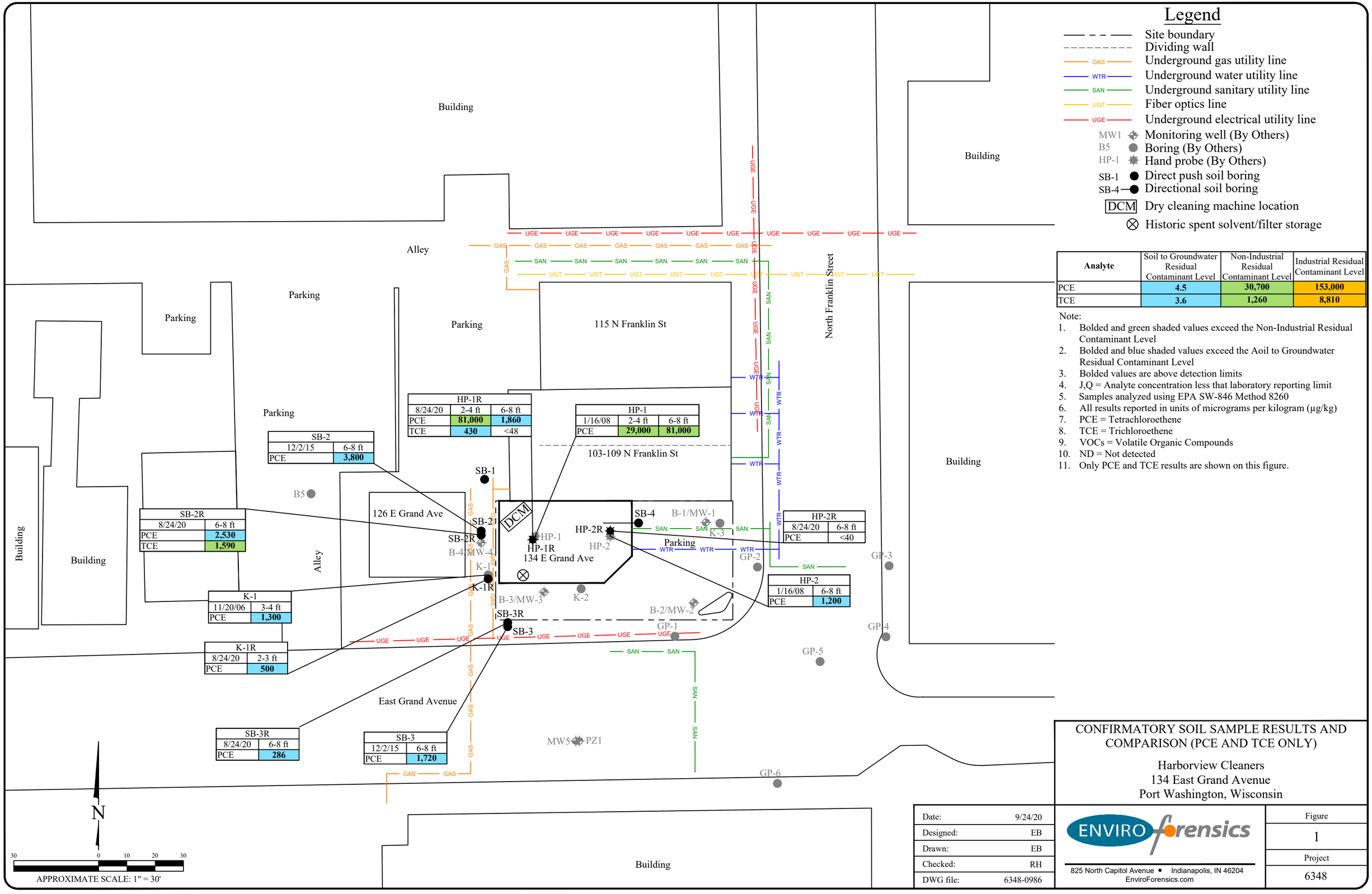
Results reported in units of micrograms per cubic meter ($\mu g/m^3$)

Samples analyzed according to EPA Method TO-15

NE = Screening/action level not established

Bolded values are above detection limits

Bolded and shaded values exceed the applicable screening level



HP-1R		
8/24/20	2-4 ft	6-8 ft
PCE	**81,000**	**1,860**
TCE	**430**	<48

HP-1		
1/16/08	2-4 ft	6-8 ft
PCE	**29,000**	**81,000**

SB-2	
12/2/15	6-8 ft
PCE	**3,800**

SB-2R	
8/24/20	6-8 ft
PCE	**2,530**
TCE	**1,590**

K-1	
11/20/06	3-4 ft
PCE	**1,300**

K-1R	
8/24/20	2-3 ft
PCE	**500**

SB-3R	
8/24/20	6-8 ft
PCE	**286**

SB-3	
12/2/15	6-8 ft
PCE	**1,720**

HP-2R	
8/24/20	6-8 ft
PCE	<40

HP-2	
1/16/08	6-8 ft
PCE	**1,200**

Legend

- Site boundary
- Dividing wall
- Underground gas utility line
- Underground water utility line
- Underground sanitary utility line
- Fiber optics line
- Underground electrical utility line
- MW1 — Monitoring well (By Others)
- B5 — Boring (By Others)
- HP-1 — Hand probe (By Others)
- SB-1 — Direct push soil boring
- SB-4 — Directional soil boring
- DCM — Dry cleaning machine location
- Historic spent solvent/filter storage

Analyte	Soil to Groundwater Residual Contaminant Level	Non-Industrial Residual Contaminant Level	Industrial Residual Contaminant Level
PCE	**4.5**	**30,700**	**153,000**
TCE	**3.6**	**1,260**	**8,810**

Note:
1. Bolded and green shaded values exceed the Non-Industrial Residual Contaminant Level
2. Bolded and blue shaded values exceed the Aoil to Groundwater Residual Contaminant Level
3. Bolded values are above detection limits
4. J,Q = Analyte concentration less that laboratory reporting limit
5. Samples analyzed using EPA SW-846 Method 8260
6. All results reported in units of micrograms per kilogram (µg/kg)
7. PCE = Tetrachloroethene
8. TCE = Trichloroethene
9. VOCs = Volatile Organic Compounds
10. ND = Not detected
11. Only PCE and TCE results are shown on this figure.

CONFIRMATORY SOIL SAMPLE RESULTS AND COMPARISON (PCE AND TCE ONLY)

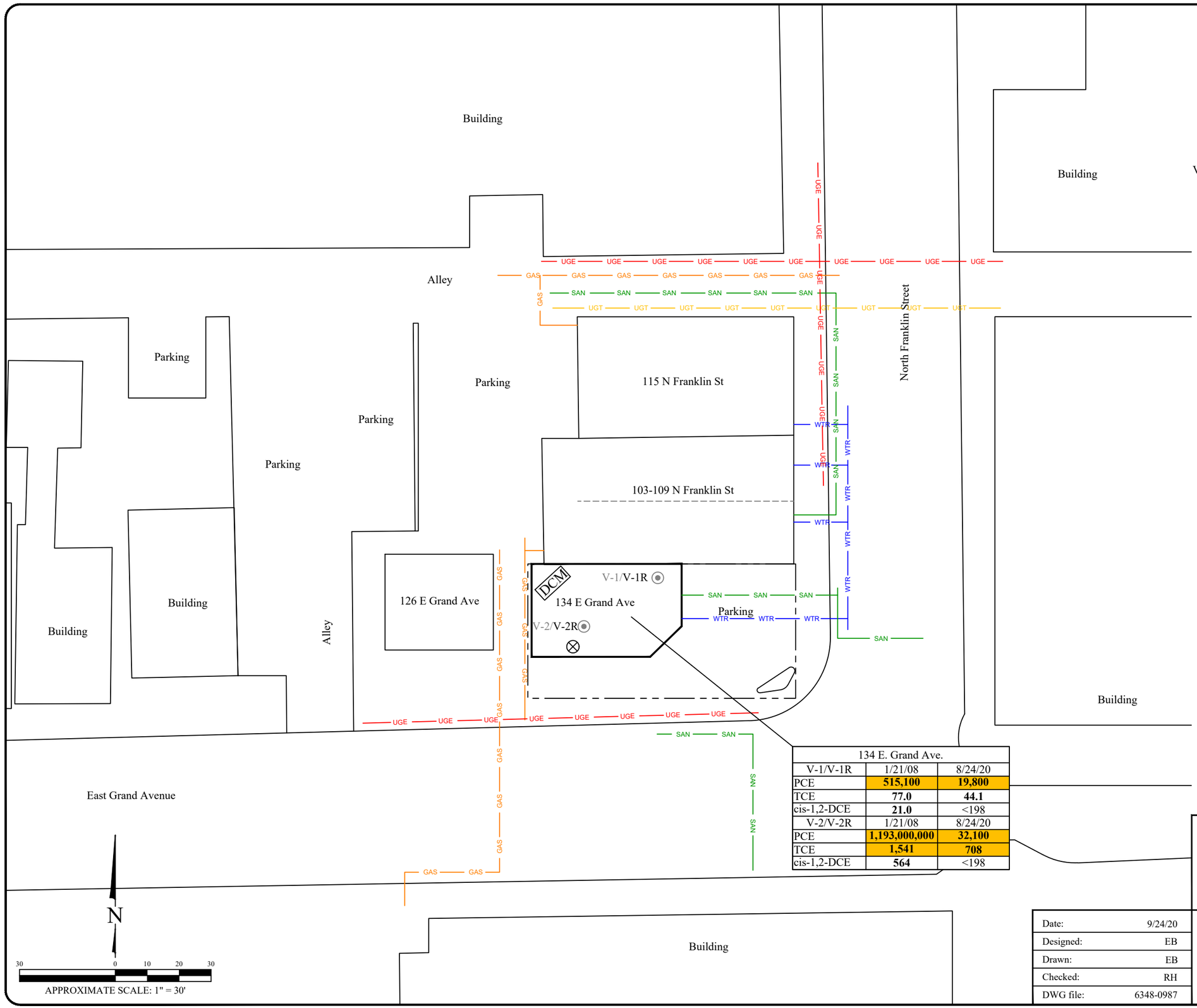
Harborview Cleaners
134 East Grand Avenue
Port Washington, Wisconsin

Date:	9/24/20
Designed:	EB
Drawn:	EB
Checked:	RH
DWG file:	6348-0986

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

Figure 1

Project 6348



Legend

- Site boundary
- Dividing wall
- GAS — Underground gas utility line
- WTR — Underground water utility line
- SAN — Underground sanitary utility line
- UGT — Fiber optics line
- UGE — Underground electrical utility line
- V-1 — Vapor sample (By Others)
- V-1R/SS-1/SSV-1 — Sub-slab sample
- DCM — Dry cleaning machine location
- Historic spent solvent/filter storage

Sub-slab vapor and Soil gas		
Analyte	Small Commercial Vapor Risk Screening Level	Residential Vapor Risk Screening Level
PCE	**6,000**	**1,400**
TCE	**293**	**70**
cis-1,2-DCE	NE	NE

Note:
1. Bolded and shaded orange values exceed Small Commercial Vapor Risk Screening Levels
2. Bolded and shaded blue values exceed Residential Vapor Risk Screening Levels
3. All results reported in micrograms per cubic meter ($\mu g/m^3$)
4. NE = Not established
5. Vapor Risk Screening Levels calculated according to WDNR Publication RR-800 and subsequent vapor intrusion guidance documents
6. PCE = Tetrachloroethene
7. TCE = Trichloroethene
8. cis-1,2-DCE = cis-1,2-Dichloroethene

134 E. Grand Ave.		
V-1/V-1R	1/21/08	8/24/20
PCE	**515,100**	**19,800**
TCE	**77.0**	**44.1**
cis-1,2-DCE	**21.0**	<198
V-2/V-2R	1/21/08	8/24/20
PCE	**1,193,000,000**	**32,100**
TCE	**1,541**	**708**
cis-1,2-DCE	**564**	<198

SUB-SLAB VAPOR SAMPLE RESULTS SUMMARY

Harborview Cleaners
134 East Grand Avenue
Port Washington, Wisconsin

Date:	9/24/20
Designed:	EB
Drawn:	EB
Checked:	RH
DWG file:	6348-0987

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

Figure 2

Project 6348

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Remediation Site Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 06/20)

GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM:

Completion of the applicable portions of this form is required under Wis. Admin. Code § NR 724.13(3). Failure to submit this form as required is a violation of that rule section and is subject to the penalties in Wis. Stats. § 292.99. This form must be submitted every six months for remediation projects that report operation and maintenance progress, in accordance with Wis. Admin. Code §. NR 724.13(3). A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Submittal of this form is not a substitute for reporting required by department programs such as Waste Water or Air Management.

Notes:

1. Long-term monitoring results submitted in accordance with Wis. Admin. Code § NR 724.17(3) 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 that section of code.
2. Responsible parties should check with the department 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 response.
3. Responsible parties should check with the department Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and should obtain prior written approval for any omissions or changes.
4. Responsible parties are required to report separately on a semi-annual basis under Wis. Admin. Code § NR 700.11(1). Reporting under that provision is through an internet-based form. More information can be found at: http://dnr.wi.gov/topic/Brownfields/documents/regs/NR700progreport.pdf.
5. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by Remediation and Redevelopment Program. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records Law (Wis. Stats. §§ 19.31–19.39).

Section GI - General Site Information

A. General Information

1. Site name
Harborview Cleaners

2. Reporting period from:	01/01/2020	To:	12/31/2020	Days in period:	365

3. Regulatory agency (enter DNR, DATCP and/or other)	4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific)
DNR	02-46-548092

5. Site location

Region	County	Address
Southeast Region	Ozaukee	134 E. Grand Ave

Municipality name ◉ City ○ Town ○ Village	Township	Range ◉ E ○ W	Section	¼	¼ ¼
Port Washington	11 N	22	28	SE	NW

6. Responsible party	7. Consultant
Name Harborview Cleaners	☐ Select if the following information has changed since the last submittal
Mailing address 7513 41st Ave, Kenosha, WI 53142	Company name EnviroForensics, LLC
Phone number (262) 284-2370	Mailing address N16W23390 Stone Ridge Drive, Suite G Phone number (262) 290-4001

8. Contaminants
Volatile Organic Compounds (Tetrachloroethene, Trichloroethene)

9. Soil types (USCS or USDA)
CL, ML, SM

10. Hydraulic conductivity(cm/sec):	11. Average linear velocity of groundwater (ft/yr)
3.3 x 10-4	19

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

If yes, give location: Region	County				
Municipality name ◯ City ◯ Town ◯ Village	Township N	Range ◯ E ◯ W	Section	¼	¼ ¼

B. Remediation Method

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

- ☐ 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).
- ☐ Biopiles (submit a completed Section ES-1).
- ☐ Other in situ soil remediation method (submit a completed Section IS-3).
- ☐ Soil natural attenuation (submit a completed Section IS-2).
- ☒ Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- ☐ Other groundwater remediation method (submit a completed Section GW-4).
- ☐ Groundwater natural attenuation (submit a completed Section GW-3).
- ☐ In situ air sparging (submit a completed Section GW-2).
- ☐ Free product recovery (submit a completed Section GW-1).
- ☐ Groundwater extraction (submit a completed Section GW-1).

C. General Effectiveness Evaluation for All Active Systems

If the remediation is active (not natural attentuation), 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:	$183,400.00
2. Implementation costs (design, capital and installation costs, excluding investigation costs:	$145,900.00
3. Total costs during the previous reporting period:	$17,000.00
4. Total costs during this reporting period:	$28,628.00
5. Total anticipated costs for the next reporting period:	$26,000.00

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:
During this reporting period (D.4), confirmation soil and vapor sampling was performed to evaluate the need for further remediation. During the next reporting period (D.5), extraction well SVE-1 will be modified to target a shallower zone of contamination identified during soil confirmation sampling in August 2020. Additionally, non-routine maintenance of the blower will be performed to address an oil leak.

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

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	Title
Robert Fedorchak	Senior Engineer
Signature	Date 02/01/2021

Hydrogeologists:

I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, 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.

Print name	Title
Brian Kappen	Senior Geologist
Signature	Date 1/27/2021

Scientists:

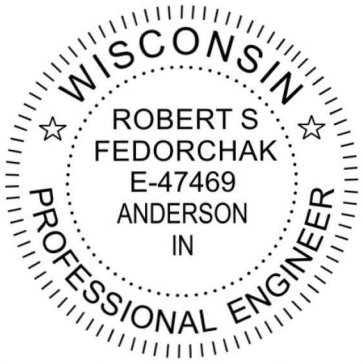
I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm.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

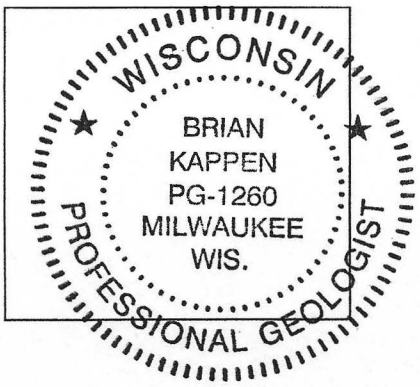
Print name	Title
Signature	Date

Other Persons:

Print name	Title
Signature	Date

Professional Seal(s), if applicable:





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: 4

2. Number of days of operation (only list the number of days the system actually operated, if unknown explain):
148. The system was intentionally shut down in July 2020 in advance of soil and vapor confirmation sampling. The system was also shut down for an extended period earlier in the year to troubleshoot an oil leak.

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:
The SVE system was intentionally shut down in July 2020, and was not re-started during the reporting period. Disregarding the time after shut down, system utilization was 80%.

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: 0.05 pounds per day

2. Average contaminant removal rate per well or venting point: 0.013 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 (ppm_V) If over 10 ppm_V, explain:

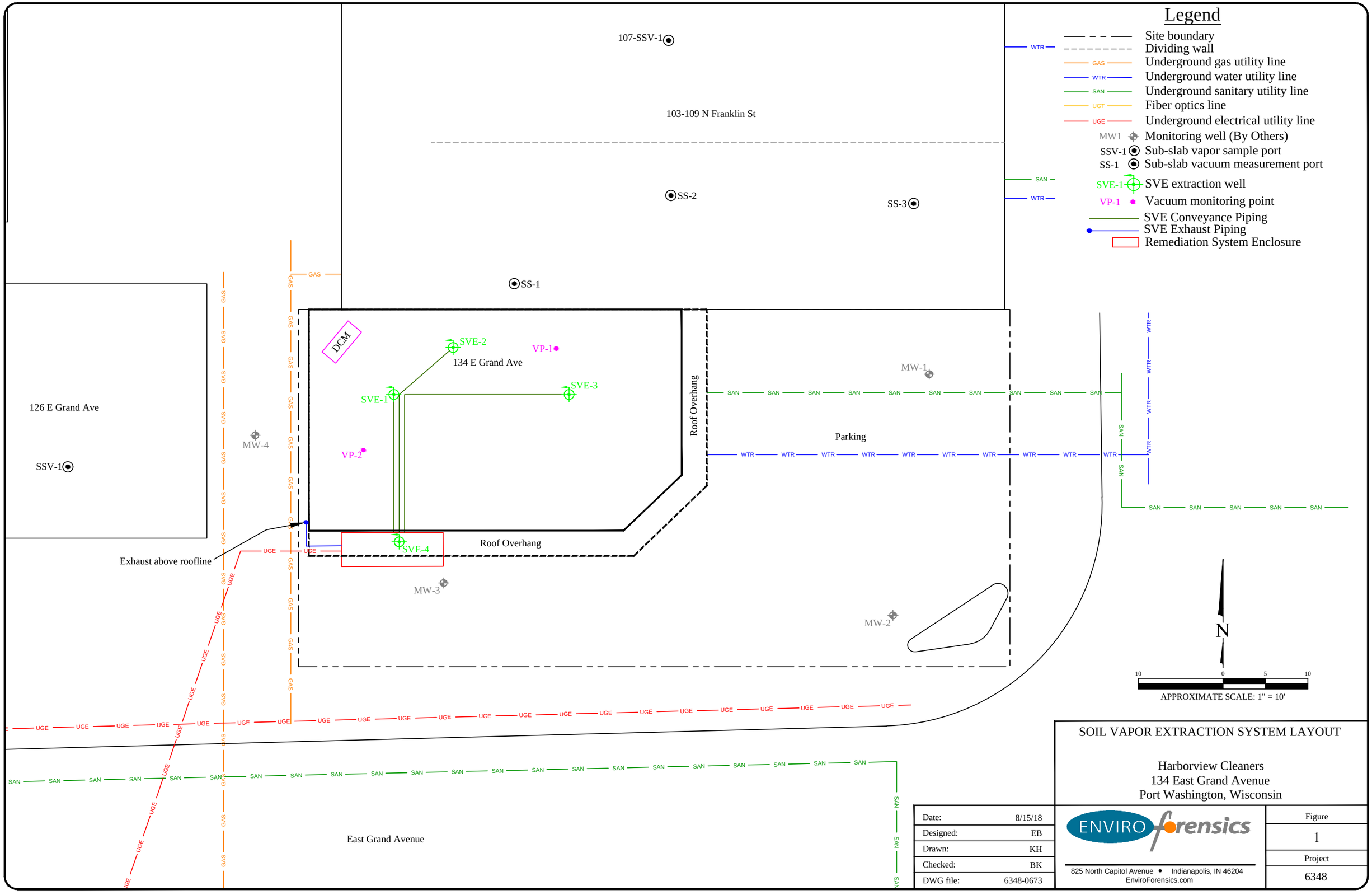
      iii. If methane is not present above 10 ppm_V and if oxygen is greater than 20 percent in extracted air, you should either:
      - Drill confirmation borings during the next reporting period, if the entire site should be considered for closure.
      - Or, perform an in situ respirometry test in a zone 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.

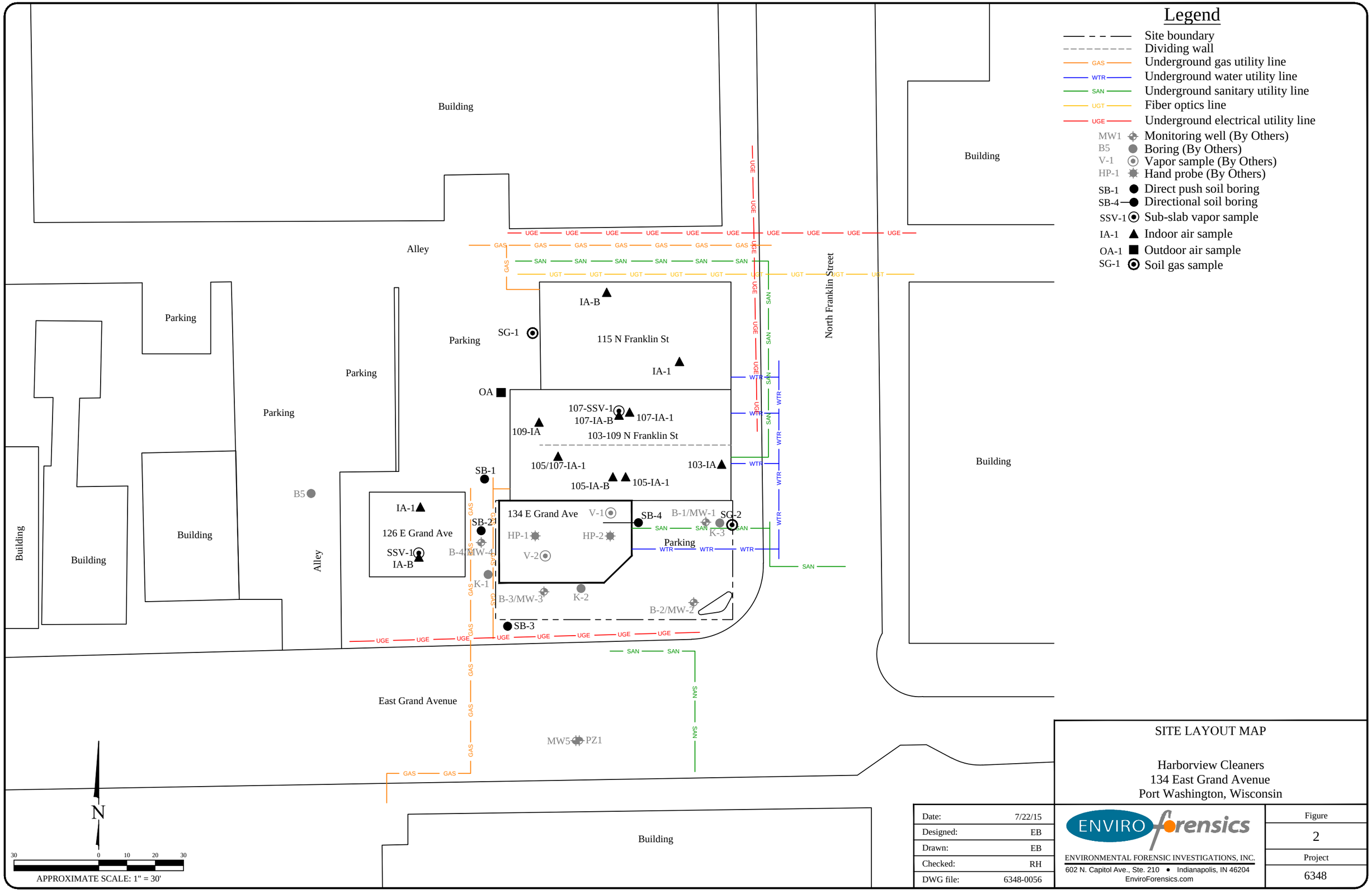
   b. If contaminants are not aerobically biodegradable and confirmation borings have not been recently drilled during the past year, you should drill confirmation borings during the next reporting period if the entire site should be considered for closure.

   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
Site boundary
Dividing wall
Underground gas utility line
Underground water utility line
Underground sanitary utility line
Fiber optics line
Underground electrical utility line
MW1 Monitoring well (By Others)
SSV-1 Sub-slab vapor sample port
SS-1 Sub-slab vacuum measurement port
SVE-1 SVE extraction well
VP-1 Vacuum monitoring point
SVE Conveyance Piping
SVE Exhaust Piping
Remediation System Enclosure
107-SSV-1
103-109 N Franklin St
SS-2
SS-3
SS-1
126 E Grand Ave
SSV-1
MW-4
DCM
SVE-2
VP-1
134 E Grand Ave
SVE-3
SVE-1
VP-2
SVE-4
Roof Overhang
MW-3
Exhaust above roofline
Roof Overhang
MW-1
Parking
MW-2
East Grand Avenue
N
10 0 5 10
APPROXIMATE SCALE: 1" = 10'
SOIL VAPOR EXTRACTION SYSTEM LAYOUT
Harborview Cleaners
134 East Grand Avenue
Port Washington, Wisconsin
Date: 8/15/18
Designed: EB
Drawn: KH
Checked: BK
DWG file: 6348-0673
ENVIROforensics
825 North Capitol Avenue • Indianapolis, IN 46204
EnviroForensics.com
Figure
1
Project
6348



SITE LAYOUT MAP

Harborview Cleaners
134 East Grand Avenue
Port Washington, Wisconsin

Date:	7/22/15
Designed:	EB
Drawn:	EB
Checked:	RH
DWG file:	6348-0056

ENVIRO forensics
ENVIRONMENTAL FORENSIC INVESTIGATIONS, INC.
602 N. Capitol Ave., Ste. 210 • Indianapolis, IN 46204
EnviroForensics.com

Figure
2

Project
6348

Chart 1

SVE Effluent VOC Concentration

Harborview Cleaners - 134 E. Grand Avenue, Port Washington, Wisconsin

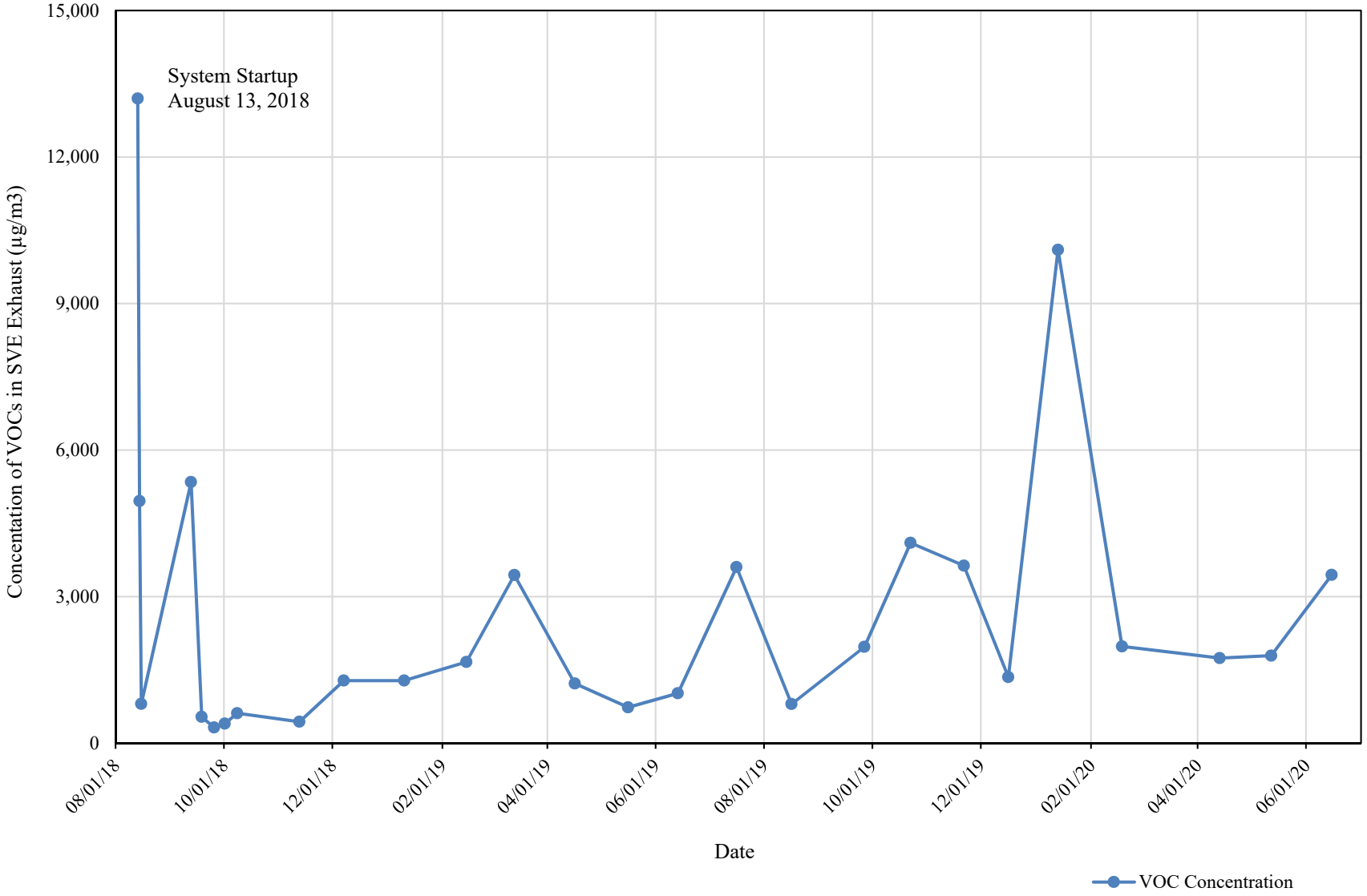


Chart 2

Cumulative VOC Mass Removed

Harborview Cleaners - 134 E. Grand Avenue, Port Washington, Wisconsin

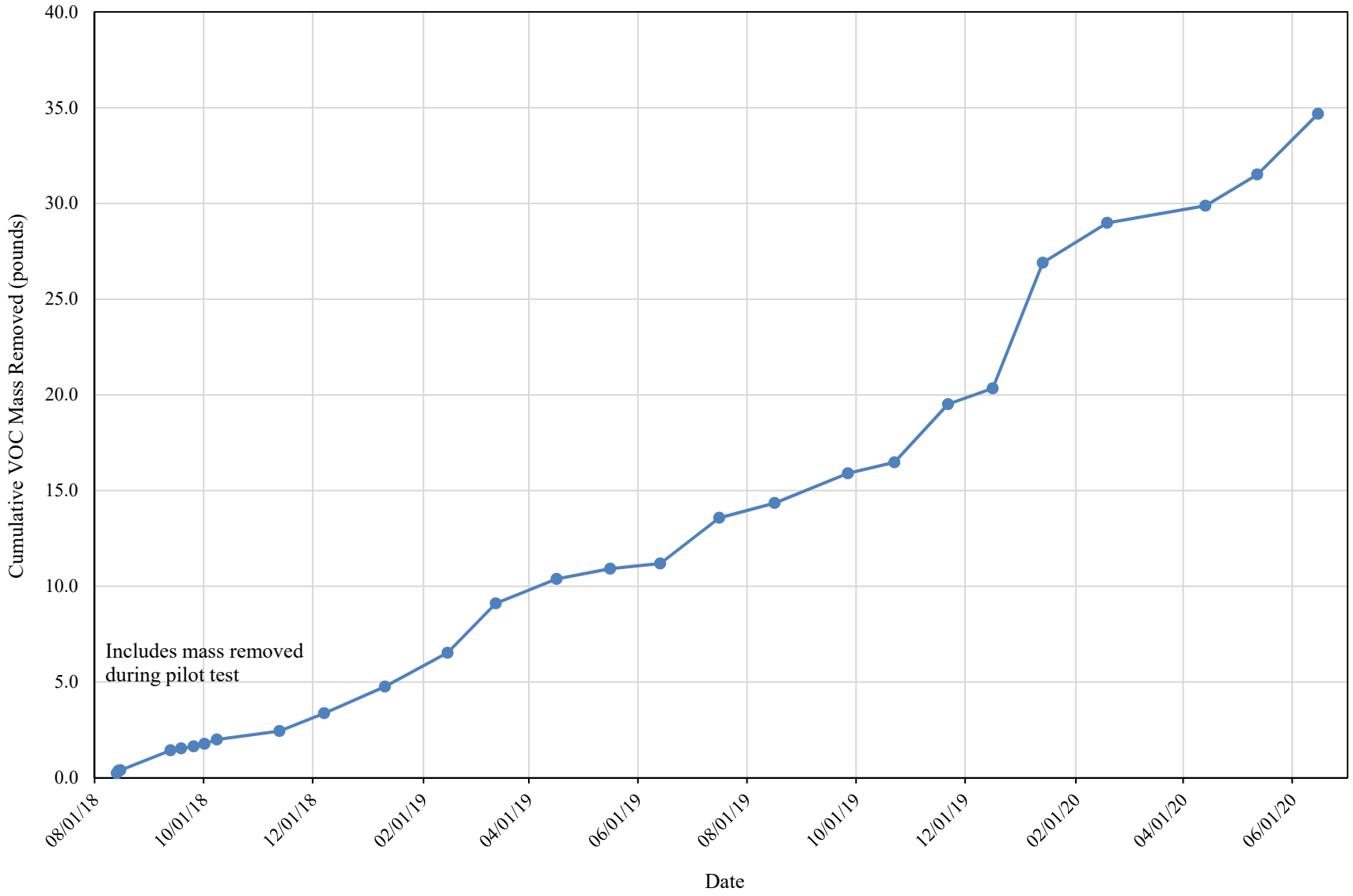


TABLE 1
GROUNDWATER ELEVATION DATA SUMMARY
Harborview Cleaners
134 East Grand Avenue
Port Washington, Wisconsin

Well ID	TOC Elevation (feet AMSL)	Screened Interval (feet below TOC)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet AMSL)
MW-1	591.69	4.6 - 19.6	4/18/2016	8.38	583.31
			7/19/2016	8.76	582.93
MW-2	591.81	2.6 - 12.6	4/18/2016	8.44	583.37
			7/19/2016	8.71	583.10
MW-3	592.69	4.4 - 14.4	4/18/2016	11.19	581.50
			7/19/2016	11.38	581.31
MW-4	593.84	4.9 - 14.9	4/18/2016	11.83	582.01
			7/19/2016	12.08	581.76
MW-5	592.34	7.7 - 17.7	4/18/2016	10.98	581.36
			7/19/2016	11.14	581.20
PZ-1	592.42	29.3 - 34.3	4/18/2016	3.63	588.79
			7/19/2016	8.75	583.67

Notes:
All values are in feet
AMSL = above mean sea level
TOC = top of casing reported in the 2009 Site Investigation Report

TABLE 2
SOIL VAPOR EXTRACTION SYSTEM OPERATIONAL DATA
Harborview Cleaners
134 E. Grand Avenue, Port Washington, Wisconsin

Date	Time	System Runtime	VFD Setting	System Vacuum	Conveyance Line Vacuum				Exhaust Pressure	Inlet Filter Differential Pressure	Exhaust Differential Pressure	Calculated Flow Rate	Intake Temperature	Exhaust Temperature	Effluent VOC Concentration
		Panel Display	Panel Display	AWS	1	2	3	4	Exhaust Pipe	Filter Housing	Pitot Tube		AWS	Exhaust Pipe	Exhaust Port
		Hours	Hertz	in Hg	in Hg				in H_2O	in H_2O	in H_2O	SCFM	°F	°F	µg/m^3
08/13/18	1103	3.5	60.0	-6.0	-7.0	0.0	-7.0	0.0	8.0	0.0	2.2	287	--	143	13,197
08/14/18	1100	26.4	60.0	-5.5	-7.0	0.0	-8.0	0.0	9.0	0.0	2.2	289	--	145	4,956
08/15/18	1345	50.6	50.0	-2.0	-2.0	-1.5	-1.8	-1.8	4.0	0.0	2.2	319	--	109	803
09/12/18	1333	187.8	51.2	-2.0	-3.0	-2.0	-2.0	-2.5	8.0	0.0	2.2	321	68	110	5,344
09/18/18	950	328.2	51.2	-2.0	-2.5	-2.0	-2.0	-2.0	8.0	0.0	2.1	306	63	103	536
09/25/18	1520	501.7	51.2	-5.0	-6.0	0.0	-5.5	0.0	5.0	0.0	1.7	254	65	123	319
10/01/18	1050	641.2	51.2	-3.2	0.0	-3.0	0.0	-3.0	7.0	0.0	2.0	295	57	110	397
10/08/18	1210	687.9	51.2	-5.6	-6.0	0.0	-5.5	0.0	5.0	0.0	1.7	260	60	116	612
11/12/18	1207	1,503.9	51.2	-1.5	-2.5	-1.5	-2.0	-2.0	7.0	0.0	2.2	332	48	82	437
12/07/18	1220	2,129.0	51.2	-3.1	0.0	-3.0	-3.0	0.0	6.0	0.0	2.1	310	49	88	1,280
01/10/19	1315	2,946.0	60.0	-3.3	0.0	-2.5	-3.0	0.0	7.5	0.0	2.8	355	48	96	1,280
02/14/19	924	3,781.3	59.0	-3.7	0.0	0.0	-3.0	-3.5	7.0	0.0	2.6	340	40	94	1,660
03/13/19	733	4,427.2	60.0	-5.0	0.0	-4.5	0.0	0.0	4.0	0.0	2.3	310	45	110	3,440
04/16/19	1235	5,247.8	60.0	-3.0	0.0	-2.5	-3.0	0.0	6.0	0.0	2.6	340	49	106	1,220
05/16/19	1024	5,965.7	60.0	-6.3	0.0	0.0	0.0	-6.7	2.4	0.0	2.0	272	45	123	732
06/13/19	1031	6,252.5	60.0	-8.0	0.0	0.0	-8.5	0.0	1.0	0.0	1.8	246	58	156	1,020
07/16/19	1335	6,765.1	60.0	-5.0	0.0	-5.5	0.0	0.0	2.0	0.0	2.8	345	57	90	3,603
08/16/19	1000	7,500.4	60.0	-2.8	0.0	-2.9	-3.0	0.0	4.5	0.0	2.8	351	63	119	799
09/26/19	910	8,154.9	60.0	-4.4	-5.4	0.0	0.0	-5.0	2.2	0.0	2.5	321	54	120	1,970
10/22/19	1020	8,278.7	60.0	-5.2	0.0	-5.2	0.0	0.0	2.5	0.0	2.3	302	57	124	4,100
11/21/19	911	8,998.5	60.0	-5.7	-5.2	0.0	-5.2	0.0	2.0	0.0	2.3	310	48	117	3,633
12/16/19	1050	9,516.8	60.0	-4.7	0.0	-4.9	0.0	0.0	NM	0.0	2.4	315	47	112	1,350
01/13/20	1117	10,188.8	60.0	-7.9	0.0	0.0	-8.0	0.0	11.2	0.0	2.0	258	48	148	10,100
02/18/20	1325	11,054.8	60.0	-4.3	5.5	0.0	0.0	5.0	11.0	0.0	2.5	324	35	108	1,980
03/24/20	1100	11,079.2	60.0	-7.3	0.0	0.0	-7.5	0.0	8.2	0.0	2.0	265	47	128	--
04/13/20	1617	11,564.2	60.0	-7.3	0.0	0.0	-7.5	0.0	8.0	0.0	1.9	270	47	137	1,740
05/12/20	1040	12,245.5	60.0	-2.4	0.0	-2.7	-2.8	0.0	12.5	0.0	2.8	357	50	104	1,790
06/15/20	1150	12,994.2	60.0	-4.4	-5.0	0.0	0.0	-4.8	10.0	0.0	2.6	328	50	117	3,443

Notes:
in Hg = inches of mercury
in H_2O = inches of water
µg/m^3 = micrograms per cubic meter
-- = reading or sample not collected
AWS = Air-water separator
NM = not measured due to gauge malfunction
SCFM = Standard cubic feet per minute