

Received 2/21/18



Tracked → 4/13/18
Reviewed → 4/13/18

February 14, 2018

Michael and Susan Borchardt
W4139 Center Street
Waubeka, WI 53021

**Subject: Vapor Intrusion Sampling Results – 418 S. Main Street, Cedar Grove,
Wisconsin
BRRTS: 02-60-271527**

Dear Mr. and Mrs. Borchardt:

In accordance with Wisconsin Department of Natural Resources (WDNR) regulation NR 716.14, EnviroForensics, LLC (EnviroForensics) is providing the results of environmental samples collected from your property located at 418 South Main Street in Cedar Grove, Wisconsin. The samples were collected on January 25 and 26, 2018. The sampling activities are part of an environmental investigation being performed for the former Dutch Cleaners facility located at 403 S. Main Street in Cedar Grove Wisconsin at the direction of the WDNR pursuant to the authority granted to it under State and Federal law. The chemicals of concern (COCs) for the investigation are the dry cleaning solvent tetrachloroethene (PCE) and its associated breakdown products.

The Responsible Party is:

Dutch Cleaners
403 South Main Street
Cedar Grove, WI

Sampling Results

Three indoor air samples were collected from within your building (basement; first and second floors) one (1) sub-slab vapor sample was collected from beneath the basement concrete slab at your building. For quality control purposes a sample of outdoor ambient air was also collected. The sampling locations are depicted on the attached **Figure 1**. The results of the indoor air and sub-slab vapor samples are summarized and compared to WDNR standards on the attached **Table 1**. A copy of the laboratory report that relates to the indoor air and sub-slab vapor samples is also attached.

PCE was detected in the sub-slab vapor sample at a concentration that was well below the vapor risk screening Level for that compound. No other COCs were detected in the sub-slab vapor sample.



COCs were not detected above laboratory detection limits in either the indoor or outdoor air samples.

At this time, there does not appear to be a vapor intrusion risk to your building. The WDNR requires that a second sampling event be performed in the non-heating months (May through October) to verify the sampling results and we will contact you to schedule the next event.

If you have any questions or concerns, please contact us at 414-982-3988 or by email at wfassbender@enviroforensics.com. In addition, the WDNR project manager for this Site is Richard Joslin. He can be contacted at 920 424-7077 or by email at richard.joslin@wisconsin.gov.

Sincerely,
EnviroForensics, LLC

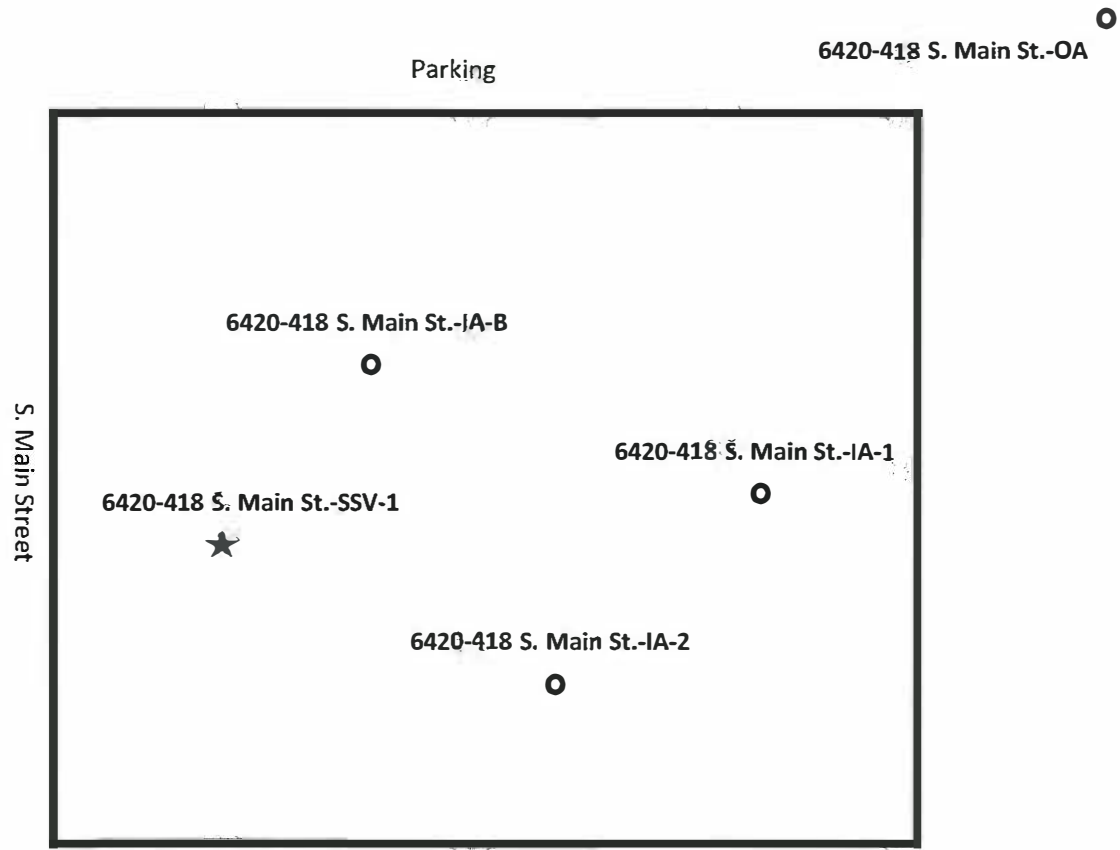
A handwritten signature in black ink, appearing to read "Wayne Fassbender".

Wayne Fassbender, PG
Senior Project Manager

Attachments: Figure 1 – Vapor Intrusion Sampling Locations
Table 1 – Vapor Intrusion Assessment Results Summary
Laboratory Analytical Report

Copy: Richard Joslin, Wisconsin Department of Natural Resources

FIGURE 1
VAPOR INTRUSION SAMPLE LOCATIONS
418 S. Main Street, Cedar Grove Wisconsin



Legend

- = Indoor/Outdoor Air Sample
- IA-1 = Indoor air sample
- SSV-1 = Sub-Slab Vapor
- ★ = Sub-Slab Vapor Sampling Port Location

TABLE 1
VAPOR INTRUSION ANALYTICAL RESULTS - 418 S. MAIN ST.
Former Dutch Cleaners
403 S. Main Street, Cedar Grove, Wisconsin

Sample Address	Sample Identification	Sample Date	Consultant	Applicable Criteria	Mitigation	Tetrachloroethene	Trichloroethene
INDOOR/ OUTDOOR AIR							
Residential Vapor Action Level						42	2.1
418 S. Main St.	6420-418 S Main ST-IA-B	01/26/18	EnviroForensics	Residential	No	<3.19	<1.07
	6420-418 S Main ST-IA-1	01/26/18			No	<3.19	<1.07
	6420-418 S Main ST-IA-2	01/26/18			No	<3.19	<1.07
	6420-418 S Main ST-OA	01/26/18			No	<3.19	<1.07
SUB-SLAB VAPOR							
Residential Vapor Risk Screening Level						1,400	70
418 S. Main St.	6420-418 S Main ST-SSV-1	01/26/18	EnviroForensics	Residential	No	4.88	<1.07

Notes:

Results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Samples analyzed according to EPA Method TO-15

Vapor Risk Screening/Action Levels are calculated in accordance with WDNR Publication RR-800 and subsequent guidance documents

IA = Indoor Air

OA = Outdoor Air

SSV = Sub-slab vapor

Bolded values are above detection limits



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Mr. Wayne Fassbender
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

February 9, 2018

EnvisionAir Project Number: 2018-60
Client Project Name: 6420

Dear Mr. Fassbender,

Please find the attached analytical report for the samples received January 31, 2018. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

Feel free to contact me if you have any questions or comments regarding your analytical report or service.

Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

A handwritten signature in black ink that reads "Stanley A. Hunnicutt".

Stanley A Hunnicutt

Project Manager
EnvisionAir, LLC



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Client Name: ENVIROFORENSICS
 Project ID: 6420
 Client Project Manager: WAYNE FASSBENDER
 EnvisionAir Project Number: 2018-60

Sample Summary

Canister Pressure / Vacuum

<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>Matrix:</u>	<u>START</u>		<u>End Date</u>		<u>End Time</u>		<u>Date</u>		<u>Time</u>		<u>Initial Field</u>		<u>Final Field</u>		<u>Lab</u>	
			<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Received:</u>	<u>Received:</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>	<u>Received</u>						
18-231	6420-406 S MAIN ST-IA-1	A	1/25/18	8:51	1/25/18	16:50	1/31/18	11:30	-29	-6	-6	-6	-6	-6	-6	-6	-6	-6
18-232	6420-406 S MAIN ST-OA	A	1/25/18	8:38	1/25/18	16:38	1/31/18	11:30	-29	-7	-7	-7	-7	-7	-7	-7	-7	-7
18-233	6420-418 S MAIN ST-IA-1	A	1/25/18	16:09	1/26/18	16:11	1/31/18	11:30	-29	-5	-5	-5	-5	-5	-5	-5	-5	-5
18-234	6420-418 S MAIN ST-IA-2	A	1/25/18	16:11	1/26/18	16:13	1/31/18	11:30	-29	-7	-7	-7	-7	-7	-7	-7	-7	-7
18-235	6420-418 S MAIN ST-IA-B	A	1/25/18	16:13	1/26/18	16:01	1/31/18	11:30	-29	-2	-2	-2	-2	-2	-2	-2	-2	-2
18-236	6420-418 S MAIN ST-OA	A	1/25/18	15:33	1/26/18	15:40	1/31/18	11:30	-25	-2	-2	-2	-2	-2	-2	-2	-2	-2
18-237	6420-406 S MAIN ST-SSV-1	A	1/26/18	15:19	1/26/18	15:24	1/31/18	11:30	-28	-2	-2	-2	-2	-2	-2	-2	-2	-2
18-238	6420-418 S MAIN ST-SSV-1	A	1/26/18	16:35	1/26/18	16:40	1/31/18	11:30	-27	-5	-5	-5	-5	-5	-5	-5	-5	-5



EnvisionAir
1441 Sadlier Circle West Drive
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Ph: 317-351-0885
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Client Name: ENVIROFORENSICS
Project ID: 6420
Client Project Manager: WAYNE FASSBENDER
EnvisionAir Project Number: 2018-60

Analytical Method: TO-15
Analytical Batch: 020418AIR

Client Sample ID: 6420-418 S MAIN ST-IA-1
Envision Sample Number: 18-233
Sample Matrix: AIR

Sample Collection START Date/Time: 1/25/18 16:09
Sample Collection END Date/Time: 1/26/18 16:11
Sample Received Date/Time: 1/31/18 11:30

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	113%		
Analysis Date/Time:	2-5-18/10:08		
Analyst Initials	tjg		



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Project ID: 6420
Client Project Manager: WAYNE FASSBENDER
EnvisionAir Project Number: 2018-60

Analytical Method: TO-15
Analytical Batch: 020418AIR

Client Sample ID: 6420-418 S MAIN ST-IA-2
Envision Sample Number: 18-234
Sample Matrix: AIR

Sample Collection START Date/Time: 1/25/18 16:11
Sample Collection END Date/Time: 1/26/18 16:13
Sample Received Date/Time: 1/31/18 11:30

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	118%		
Analysis Date/Time:	2-5-18/10:46		
Analyst Initials	tjg		



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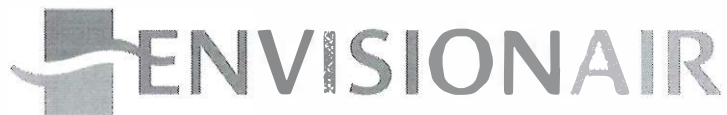
Client Name: ENVIROFORENSICS
Project ID: 6420
Client Project Manager: WAYNE FASSBENDER
EnvisionAir Project Number: 2018-60

Analytical Method: TO-15
Analytical Batch: 020418AIR

Client Sample ID: 6420-418 S MAIN ST-IA-B
Envision Sample Number: 18-235
Sample Matrix: AIR

Sample Collection START Date/Time: 1/25/18 16:13
Sample Collection END Date/Time: 1/26/18 16:01
Sample Received Date/Time: 1/31/18 11:30

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	112%		
Analysis Date/Time:	2-5-18/11:25		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS
Project ID: 6420
Client Project Manager: WAYNE FASSBENDER
EnvisionAir Project Number: 2018-60

Analytical Method: TO-15
Analytical Batch: 020418AIR

Client Sample ID: 6420-418 S MAIN ST-OA
Envision Sample Number: 18-236
Sample Matrix: AIR

Sample Collection START Date/Time: 1/25/18 15:33
Sample Collection END Date/Time: 1/26/18 15:40
Sample Received Date/Time: 1/31/18 11:30

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	< 3.19	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	112%		
Analysis Date/Time:	2-5-18/04:26		
Analyst Initials	tjg		



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Client Name: ENVIROFORENSICS
Project ID: 6420
Client Project Manager: WAYNE FASSBENDER
EnvisionAir Project Number: 2018-60

Analytical Method: TO-15
Analytical Batch: 020618AIR

Client Sample ID: 6420-418 S MAIN ST-SSV-1
Envision Sample Number: 18-238
Sample Matrix: AIR

Sample Collection START Date/Time: 1/26/18 16:35
Sample Collection END Date/Time: 1/26/18 16:40
Sample Received Date/Time: 1/31/18 11:30

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	4.88	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	108%		
Analysis Date/Time:	2-7-18/07:05		
Analyst Initials	tjg		

TO-15 Quality Control Data

EnvisionAir Batch Number: 020418AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	89%		
Analysis Date/Time:	2-4-18/14:03		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Vinyl Chloride	10.3	10.1	10	103%	101%	2.0%	
trans-1,2-Dichloroethene	9.27	9.62	10	93%	96%	3.7%	
cis-1,2-Dichloroethene	9.95	10.1	10	100%	101%	1.5%	
Trichloroethene	9.61	10.8	10	96%	108%	11.7%	
Tetrachloroethene	10.3	11.3	10	103%	113%	9.3%	
4-bromofluorobenzene (surrogate)	89%	95%					
Analysis Date/Time:	2-4-18/12:47	2-4-18/13:28					
Analyst Initials	tjg	tjg					

TO-15 Quality Control Data

EnvisionAir Batch Number: 020618AIR

<u>Method Blank (MB):</u>	<u>MB Results (ppbv)</u>	<u>Reporting Limit (ppbv)</u>	<u>Flags</u>
cis-1,2-Dichloroethene	< 5	5	
Tetrachloroethene	< 0.47	0.47	
trans-1,2-Dichloroethene	< 10	10	
Trichloroethene	< 0.2	0.2	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	92%		
Analysis Date/Time:	2-4-18/17:14		
Analyst Initials	tjg		

<u>LCS/LCSD</u>	<u>LCS Results (ppbv)</u>	<u>LCSD Results (ppbv)</u>	<u>LCS/D Conc(ppbv)</u>	<u>LCS Rec.</u>	<u>LCSD Rec.</u>	<u>RPD</u>	<u>Flag</u>
Vinyl Chloride	10	11.4	10	100%	114%	13.1%	
trans-1,2-Dichloroethene	9.07	9.09	10	91%	91%	0.2%	
cis-1,2-Dichloroethene	9.74	9.57	10	97%	96%	1.8%	
Trichloroethene	10.1	10.7	10	101%	107%	5.8%	
Tetrachloroethene	10.3	10.9	10	103%	109%	5.7%	
4-bromofluorobenzene (surrogate)	113%	115%					
Analysis Date/Time:	2-4-18/15:59	2-4-18/16:39					
Analyst Initials	tjg	tjg					



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Flag Number

Comments

CHAIN OF CUSTODY RECORD

WAF

EnvisionAir | 1441 Sadler Circle West Drive | Indianapolis, IN 46239 | Phone: (317) 351-0885 | Fax: (317) 351-0882

Client: <u>Enviroforensics</u>	P.O. Number: <u>2018-0084</u>
Report Address: <u>116 W 2330 N. Riverside Dr Wendasho, WI 53188</u>	Project Name or Number: <u>6420</u>
Report To: <u>Wayne Fassbinder</u>	Sampled by: <u>Mate Rudy</u>
Phone: <u>414-982-3988</u>	QA/QC Required: (circle if applicable) <u>Level III</u> Level IV
Invoice Address: <u>Same</u>	Reporting Units needed: (circle) <u>ug/m³</u> mg/m ³ PPBV PPMV
Desired TAT: (Please Circle One) 1 day 2 days 3 days <u>5 (5 bus. days)</u>	Media type: 1LC = 1 Liter Canister 6LC = 6 Liter Canister TB = Tedlar Bag TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List

TO-15 Short List



Sampling Type:
 Soil-Gas:
 Sub-Slab:
 Indoor-Air:

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Canister Pressure / Vacuum

Air Sample ID	Media Type <small>(see code above)</small>	Coll. Date <small>(Grab/Comp Start)</small>	Coll. Time <small>(Grab/Comp Start)</small>	Coll. Date <small>(Comp. End)</small>	Coll. Time <small>(Comp. End)</small>				Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
6420-4065 Main St-IA-1	6LC	01/25/18	8:51	01/25/18	16:50			X	82011	05716	-29	-6	-6	18-231
6420-4065 Main St-CA	6LC	01/25/18	8:38	01/25/18	16:38			X	16026	04653	-29	-7	-7	18-232
6420-4185 Main St-IA-1	6LC	01/25/18	16:09	01/26/18	16:11			X	14886	07620	-29	-5	-5	18-233
6420-4185 Main St-IA-2	6LC	01/25/18	16:11	01/26/18	16:13			X	4656	08008	-29	-7	-7	18-234
6420-4185 Main St-IA-B	6LC	01/25/18	16:13	01/26/18	16:01			X	16101	07257	-29	-2	-2	18-235
6420-4185 Main St-CA	6LC	01/25/18	15:33	01/26/18	15:46			X	17877	03062	-25	-2	-2	18-236
6420-4065 Main St-SSU-1	1LC	01/26/18	15:19	01/26/18	15:24			X	83973	0052	-28	-2	-2	18-237
6420-4185 Main St-SSU-1	1LC	01/26/18	16:35	01/26/18	16:40			X	83978	0053	-27	-5	-5	18-238

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
			FedEx	1/31/18	1130
			<i>[Signature]</i>		

