



FEB 21

TRACKED  4-13-18  
REVIEWED  4-13-18

February 14, 2018

Jackie Lukens  
406 S. Main St.  
Cedar Grove, WI 53013

**Subject: Vapor Intrusion Sampling Results – 406 S. Main Street, Cedar Grove, Wisconsin  
BRRTS: 02-60-271527**

Dear Mrs. Lukens:

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 406 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**

One indoor air sample was collected from within your building and one (1) sub-slab vapor sample was collected from beneath the 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 this compound. No other COCs were detected in the sub-slab vapor sample.





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

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](mailto: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](mailto:richard.joslin@wisconsin.gov).

Sincerely,  
**EnviroForensics, LLC**

A handwritten signature in blue ink that reads "Wayne P. Fassbender".

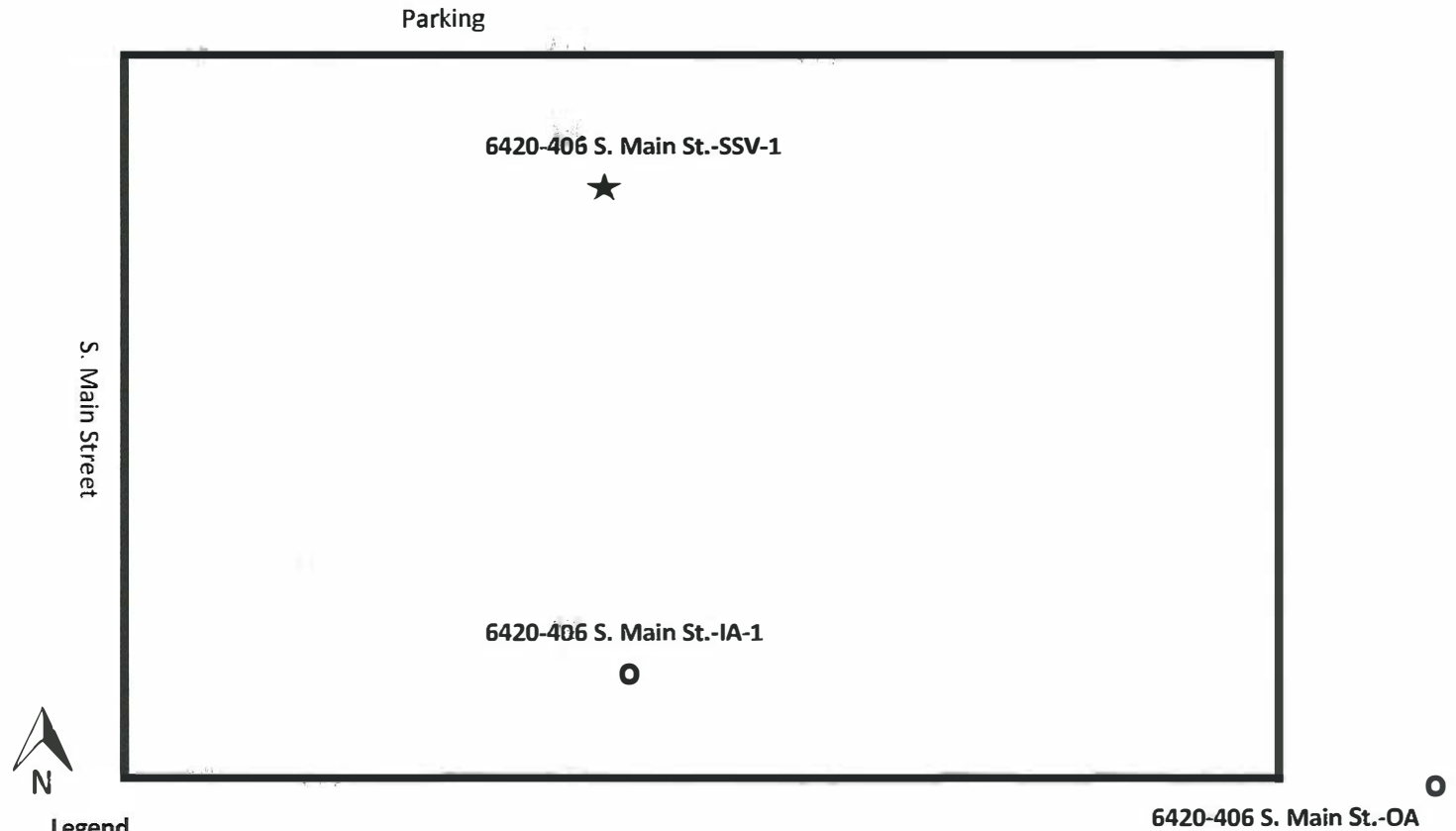
Wayne Fassbender, PG  
*Senior Project Manager*

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**  
**406 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 - 406 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
<b>INDOOR/ OUTDOOR AIR</b>							
<b>Small Commercial Vapor Action Level</b>						<b>180</b>	<b>8.8</b>
406 S. Main St.	6420-406 S Main ST-IA-1	01/25/18	EnviroForensics	Commercial	No	<3.19	<1.07
	6420-406 S Main ST-OA-1	01/25/18			No	<3.19	<1.07
<b>SUB-SLAB VAPOR</b>							
<b>Small Commercial Vapor Risk Screening Level</b>						<b>6,000</b>	<b>290</b>
406 S. Main St.	6420-406 S Main ST-SSV-1	01/26/18	EnviroForensics	Commercial	No	<b>10.2</b>	<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







**EnvisionAir**  
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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.

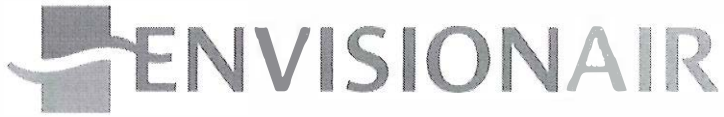
Thank you for your business. EnvisionAir looks forward to working with you on your next project.

Yours Sincerely,

A handwritten signature in cursive script that reads "Stanley A. Hunnicutt".

Stanley A Hunnicutt

Project Manager  
EnvisionAir, LLC



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 Indianapolis, IN 46239  
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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>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>Date</u>	<u>Time</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Received:</u>	<u>Received</u>	<u>(in. Hg)</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
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
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
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
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
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
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
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



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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:** 6420-406 S MAIN ST-IA-1  
**Envision Sample Number:** 18-231  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 1/25/18 8:51  
**Sample Collection END Date/Time:** 1/25/18 16:50  
**Sample Received Date/Time:** 1/31/18 11:30

<u>Compounds</u>	<u>Sample Results ug/m<sup>3</sup></u>	<u>Reporting Limit ug/m<sup>3</sup></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)	114%		
Analysis Date/Time:	2-5-18/09:30		
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:** 6420-406 S MAIN ST-OA  
**Envision Sample Number:** 18-232  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 1/25/18 8:38  
**Sample Collection END Date/Time:** 1/25/18 16:38  
**Sample Received Date/Time:** 1/31/18 11:30

<u>Compounds</u>	<u>Sample Results ug/m<sup>3</sup></u>	<u>Reporting Limit ug/m<sup>3</sup></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)	111%		
Analysis Date/Time:	2-5-18/03:14		
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:** 020618AIR

**Client Sample ID:** 6420-406 S MAIN ST-SSV-1  
**Envision Sample Number:** 18-237  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 1/26/18 15:19  
**Sample Collection END Date/Time:** 1/26/18 15:24  
**Sample Received Date/Time:** 1/31/18 11:30

<u>Compounds</u>	<u>Sample Results ug/m<sup>3</sup></u>	<u>Reporting Limit ug/m<sup>3</sup></u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 19.8	19.8	
Tetrachloroethene	<b>10.2</b>	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	116%		
Analysis Date/Time:	2-7-18/06:23		
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</u>	<u>LCS</u>	<u>LCSD</u>	<u>RPD</u>	<u>Flag</u>
			<u>Conc(ppbv)</u>	<u>Rec.</u>	<u>Rec.</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>N16 W23390 Stonebide Dr Waukesha, WI 53188</u>	Project Name or Number: <u>6420</u>
Report To: <u>Wayne Fassler</u>	Sampled by: <u>Wade Duster</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/m<sup>3</sup></u> mg/m <sup>3</sup> PPBV PPMV
Desired TAT: (Please Circle One) 1 day 2 days 3 days <u>Std (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 (see code above)	Coll. Date (Grab/Comp Start)	Coll. Time (Grab/Comp Start)	Coll. Date (Comp. End)	Coll. Time (Comp. End)				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-6A	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-6A	6LC	01/25/18	15:33	01/26/18	15:40	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			83943	0052	-28	-2	-2	18-237
6420-4185 Main St-SSU-1	1LC	01/26/18	16:35	01/26/18	16:40	X			83948	0053	-27	-5	-5	18-238

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
			FedEx		
			<i>Arans Hummel</i>	1/31/18	1130

