

## Joslin, Richard R - DNR

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**From:** Kyle Vander Heiden <kvanderheiden@enviroforensics.com>  
**Sent:** Thursday, July 5, 2018 2:56 PM  
**To:** Joslin, Richard R - DNR  
**Subject:** Dutch Cleaners (BRRTS #02-60-271527) Results Letters  
**Attachments:** 418 S. Main St..PDF; 406 S. Main St..PDF; 403 S. Main St..PDF; 349 S. Main St..PDF

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Good Afternoon Richard,

Attached are the results letters for the most recent VI Assessments (June 13<sup>th</sup>, 2018).

Regards,

**Kyle Vander Heiden**  
Staff Geologist

EnviroForensics | N16 W23390 Stone Ridge Court, Suite G | Waukesha, WI 53188  
P. 414.219.1338 | C. 262.366.5810 | F. 262.510.0460  
[www.enviroforensics.com](http://www.enviroforensics.com)

*Turning Environmental Liabilities Into Assets®*



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July 5, 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 June 14, 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). In addition, 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 PCE. No other COCs were detected in the sub-slab vapor sample.

*Document: 6420-0270*  
EnviroForensics, LLC  
N16 W23390 Stone Ridge Drive, Suite G  
Waukesha, WI 53188  
Phone: 262-290-4001 • Fax 317.972.7875

*July 5, 2018*



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 and we do not recommend any further sampling activities at your property.

If you have any questions or concerns, please contact me 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**

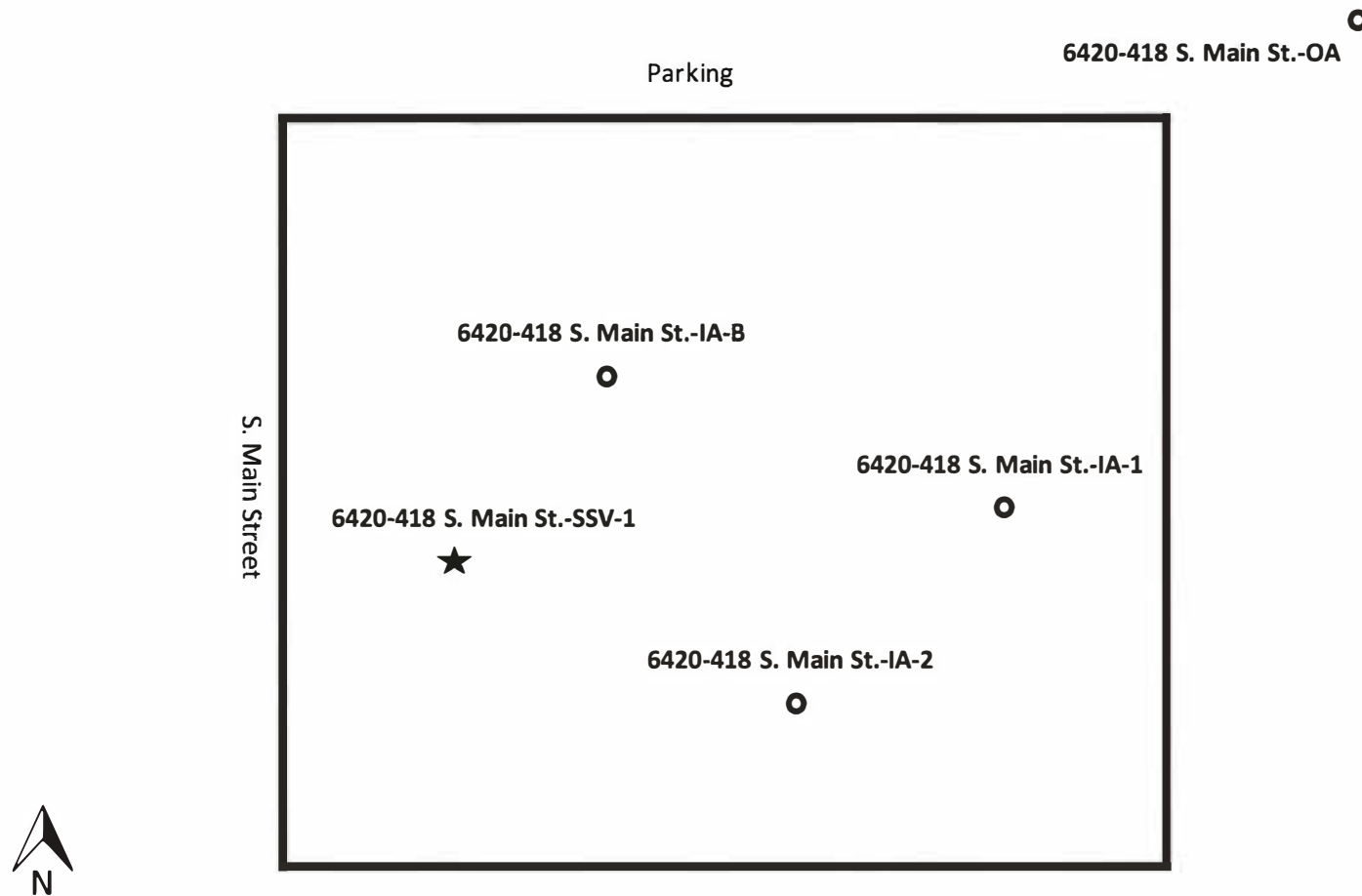
A handwritten signature in black ink, appearing to read "Wayne Fassbender".

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 = Indoor air sample
- OA = Indoor air sample
- SSV = 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
<b>INDOOR/ OUTDOOR AIR</b>							
<b>Residential Vapor Action Level</b>						<b>42</b>	<b>2.1</b>
418 S. Main St.	6420-418 S Main ST-IA-B	01/26/18	EnviroForensics	Residential	No	<3.19	<1.07
		06/14/18				<3.19	<1.07
	6420-418 S Main ST-IA-1	01/26/18				<3.19	<1.07
	6420-418 S Main ST-IA-2	01/26/18				<3.19	<1.07
	6420-418 S Main ST-OA	01/26/18				<3.19	<1.07
<b>SUB-SLAB VAPOR</b>							
<b>Residential Vapor Risk Screening Level</b>						<b>1,400</b>	<b>70</b>
418 S. Main St.	6420-418 S Main ST-SSV-1	01/26/18	EnviroForensics	Residential	No	<b>4.88</b>	<1.07
		06/14/18				<b>26.0</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. Wes Fassbender  
Enviroforensics  
N16 W. 23390 Stone Ridge Dr  
Suite G  
Waukesha, WI 53188

July 2, 2018

EnvisionAir Project Number: 2018-360  
Client Project Name: 6420

Dear Mr. Fassbender,

Please find the attached analytical report for the samples received June 18, 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



**EnvisionAir**  
 1441 Sadler Circle West Drive  
 Indianapolis, IN 46239  
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 Fax: 317-351-0882  
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**Client Name:** ENVIROFORENSICS  
**Project ID:** 6420  
**Client Project Manager:** WES FASSBENDER  
**EnvisionAir Project Number:** 2018-360

**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>							
18-1416	6420-418 S MAIN ST-IA-B	A	6/13/18	16:34	6/14/18	16:14	6/18/18	16:00	-29	-4	-4
18-1417	6420-418 S MAIN ST-SSV-1	A	6/14/18	16:16	6/14/18	16:21	6/18/18	16:00	-27	-2	-2



**EnvisionAir**  
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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-360

**Analytical Method:** TO-15  
**Analytical Batch:** 062718AIR

**Client Sample ID:** 6420-418 S MAIN ST-IA-B  
**Envision Sample Number:** 18-1416  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/13/18 16:34  
**Sample Collection END Date/Time:** 6/14/18 16:14  
**Sample Received Date/Time:** 6/18/18 16:00

<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:	06-27-18/20:46		
Analyst Initials	tjg		





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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-360

**Analytical Method:** TO-15  
**Analytical Batch:** 063018AIR

**Client Sample ID:** 6420-418 S MAIN ST-SSV-1  
**Envision Sample Number:** 18-1417  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/14/18 16:16  
**Sample Collection END Date/Time:** 6/14/18 16:21  
**Sample Received Date/Time:** 6/18/18 16:00

<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	26.0	3.19	
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	< 1.07	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	93%		
Analysis Date/Time:	06-30-18/10:14		
Analyst Initials	tjg		

**TO-15 Quality Control Data**

**EnvisionAir Batch Number:** 063018AIR

<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)	90%		
Analysis Date/Time:	06-29-18/12:51		
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	9.32	8.49	10	93%	85%	9.3%	
trans-1,2-Dichloroethene	9.89	9.63	10	99%	96%	2.7%	
cis-1,2-Dichloroethene	8.98	9.13	10	90%	91%	1.7%	
Trichloroethene	8.79	9.08	10	88%	91%	3.2%	
Tetrachloroethene	10.4	9.18	10	104%	92%	12.5%	
4-bromofluorobenzene (surrogate)	109%	96%					
Analysis Date/Time:	06-29-18/10:59	06-29-18/11:41					
Analyst Initials	tjg	tjg					



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Analytical Report

**TO-15 Quality Control Data**

**EnvisionAir Batch Number:** 062718AIR

<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)	87%		
Analysis Date/Time:	06-27-18/17:31		
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	9.09	9.53	10	91%	95%	4.7%	
trans-1,2-Dichloroethene	9.95	10.0	10	100%	100%	0.5%	
cis-1,2-Dichloroethene	8.75	9.02	10	88%	90%	3.0%	
Trichloroethene	9.65	9.96	10	97%	100%	3.2%	
Tetrachloroethene	9.48	9.65	10	95%	97%	1.8%	
4-bromofluorobenzene (surrogate)	107%	107%					
Analysis Date/Time:	06-27-18/15:40	06-27-18/16:21					
Analyst Initials	tjg	tjg					

■



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**Flag Number**

**Comments**

# CHAIN OF CUSTODY RECORD

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

Client: <u>Env. Ref Services</u>	P.O. Number: <u>2018-0858</u>
Report <u>N16 W 23390 Stouder Dr.</u> Address: <u>W. Washington, IN 46188</u>	Project Name or Number: <u>6420</u>
Report To: <u>W. Fassbender</u>	Sampled by: <u>Nathan Dack</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) <u>1 day</u> 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 (Specify in notes)



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

www.envision-air.com

*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
<u>6420-4185 Main St-JAB</u>	<u>6LC</u>	<u>6-13-18</u>	<u>16:34</u>	<u>6-14-18</u>	<u>16:14</u>					<u>4656</u>	<u>07617</u>	<u>-29</u>	<u>-4</u>	<u>-4</u>	<u>18-1416</u>
<u>6420-4185 Main St-SSV1</u>	<u>1LC</u>	<u>6-14-18</u>	<u>16:16</u>	<u>6-14-18</u>	<u>16:21</u>					<u>2218</u>	<u>0023</u>	<u>-27</u>	<u>-2</u>	<u>-2</u>	<u>18-1417</u>

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>6-15-18</u>	<u>1030</u>	<u>Fed Ex</u> <u>[Signature]</u>	<u>6/18/18</u>	<u>1600</u>



July 5, 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 June 13, 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. 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 PCE. 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 and we do not recommend any further sampling activities at your property.

If you have any questions or concerns, please contact me 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**

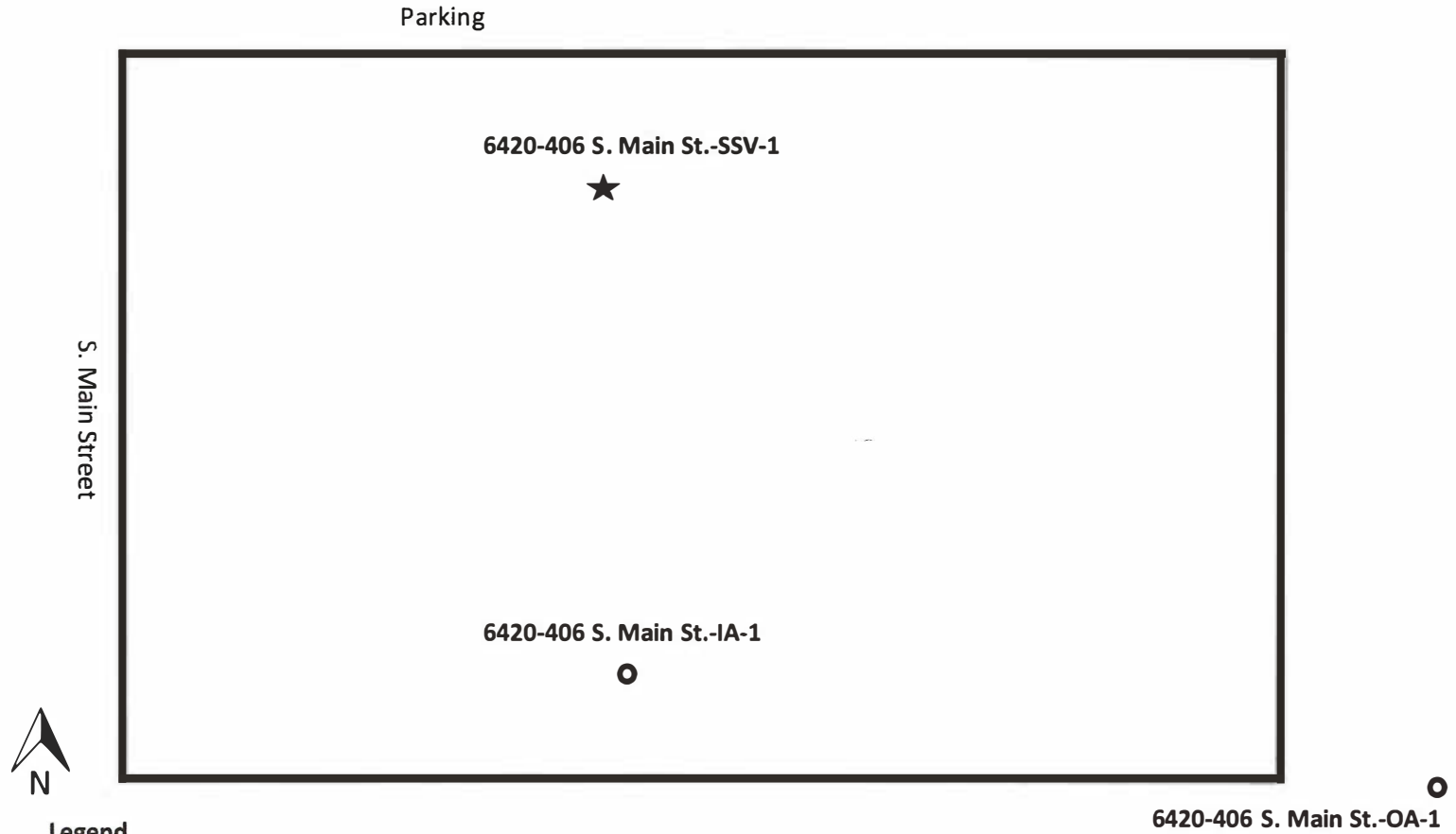
A handwritten signature in grey ink that reads "Wayne P. Fassbender".

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 = Indoor Air Sample
- OA = Outdoor Air Sample
- SSV = 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
		06/13/18				<3.19	<1.07
	6420-406 S Main ST-OA-1	01/25/18				<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
		06/13/18				<b>15.2</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. Wes Fassbender  
Enviroforensics  
N16 W. 23390 Stone Ridge Dr  
Suite G  
Waukesha, WI 53188

July 2, 2018

EnvisionAir Project Number: 2018-359  
Client Project Name: 6420

Dear Mr. Fassbender,

Please find the attached analytical report for the samples received June 18, 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



**EnvisionAir**  
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**Client Name:** ENVIROFORENSICS  
**Project ID:** 6420  
**Client Project Manager:** WES FASSBENDER  
**EnvisionAir Project Number:** 2018-359

**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>							
18-1414	6420-406 S MAIN ST-IA-1	A	6/13/18	8:25	6/13/18	15:25	6/18/18	16:00	-29	-9	-9
18-1415	6420-406 S MAIN ST-SSV-1	A	6/13/18	15:30	6/13/18	15:36	6/18/18	16:00	-17	-2	-2



**EnvisionAir**  
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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-359

**Analytical Method:** TO-15  
**Analytical Batch:** 062718AIR

**Client Sample ID:** 6420-406 S MAIN ST-IA-1  
**Envision Sample Number:** 18-1414  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/13/18 8:25  
**Sample Collection END Date/Time:** 6/13/18 15:25  
**Sample Received Date/Time:** 6/18/18 16:00

<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)	107%		
Analysis Date/Time:	06-27-18/20:07		
Analyst Initials	tjg		

■



**EnvisionAir**  
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Indianapolis, IN 46239  
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www.envision-air.com

**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-359

**Analytical Method:** TO-15  
**Analytical Batch:** 063018AIR

**Client Sample ID:** 6420-406 S MAIN ST-SSV-1  
**Envision Sample Number:** 18-1415  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/13/18 15:30  
**Sample Collection END Date/Time:** 6/13/18 15:36  
**Sample Received Date/Time:** 6/18/18 16:00

<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>15.2</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)	92%		
Analysis Date/Time:	06-30-18/09:36		
Analyst Initials	tjg		



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Analytical Report

**TO-15 Quality Control Data**

**EnvisionAir Batch Number:** 063018AIR

<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)	90%		
Analysis Date/Time:	06-29-18/12:51		
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	9.32	8.49	10	93%	85%	9.3%	
trans-1,2-Dichloroethene	9.89	9.63	10	99%	96%	2.7%	
cis-1,2-Dichloroethene	8.98	9.13	10	90%	91%	1.7%	
Trichloroethene	8.79	9.08	10	88%	91%	3.2%	
Tetrachloroethene	10.4	9.18	10	104%	92%	12.5%	
4-bromofluorobenzene (surrogate)	109%	96%					
Analysis Date/Time:	06-29-18/10:59	06-29-18/11:41					
Analyst Initials	tjg	tjg					

**TO-15 Quality Control Data**

**EnvisionAir Batch Number:** 062718AIR

<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)	87%		
Analysis Date/Time:	06-27-18/17:31		
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	9.09	9.53	10	91%	95%	4.7%	
trans-1,2-Dichloroethene	9.95	10.0	10	100%	100%	0.5%	
cis-1,2-Dichloroethene	8.75	9.02	10	88%	90%	3.0%	
Trichloroethene	9.65	9.96	10	97%	100%	3.2%	
Tetrachloroethene	9.48	9.65	10	95%	97%	1.8%	
4-bromofluorobenzene (surrogate)	107%	107%					
Analysis Date/Time:	06-27-18/15:40	06-27-18/16:21					
Analyst Initials	tjg	tjg					

■



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Flag Number

Comments



# CHAIN OF CUSTODY RECORD

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

Client: <u>EnviroForensics</u>	P.O. Number: <u>2018-0858</u>
Report <u>N16 W 23390 Steward Dr</u> Address: <u>Waukegan WI 53188</u>	Project Name or Number: <u>6420</u>
Report To: <u>W Fusbender</u>	Sampled by: <u>Nathan D. d.</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 (Specify in notes)



**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
<u>6420-4065 Main St-IA-1</u>	<u>6LC</u>	<u>6-13-18</u>	<u>08:25</u>	<u>6-13-18</u>	<u>15:25</u>				<u>11078</u>	<u>05301</u>	<u>-29</u>	<u>-9</u>	<u>-9</u>	<u>18-1414</u>
<u>6420-4065 Main St-SSV-1</u>	<u>1LC</u>	<u>6-13-18</u>	<u>15:30</u>	<u>6-13-18</u>	<u>15:36</u>				<u>2215</u>	<u>0077</u>	<u>-17</u>	<u>-2</u>	<u>-2</u>	<u>18-1415</u>

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
<u>R. D. ...</u>	<u>6-15-18</u>	<u>1030</u>	<u>FedEx</u>		
			<u>Stan Hunicutt</u>	<u>6/18/18</u>	<u>1600</u>



July 5, 2018

Tom and Marilyn Berlin  
403 S. Main St  
Cedar Grove, WI 53013

**Subject: Vapor Intrusion Sampling Results – 403 S. Main St, Cedar Grove, Wisconsin  
BRRTS: 02-60-271527**

Dear Mr & Mrs. Berlin:

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 403 S. Main St, Cedar Grove, WI 53013. On April 24 - 26, 2018, a sub-slab depressurization system (SSDS) was installed to mitigate vapors from beneath your building. Subsequently, indoor air and sub-slab samples were collected on June 13 - 14, 2018 to evaluate the effectiveness of the SSDS. The sampling activities are part of an environmental investigation being performed for the former Dutch Cleaners facility located at 403 S. Main St in Cedar Grove 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:

Former Dutch Cleaners  
403 S. Main St.  
Cedar Grove, WI 53013

### **Sampling Results**

Two indoor air samples were collected from within the building and three sub-slab vapor samples were 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 result of the indoor/outdoor 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 samples is also attached.

PCE and trichloroethene were detected in one or more sub-slab samples; however, the concentrations were *below* applicable vapor action level for PCE and TCE. No other COCs were

*Document: 6420-0235*  
EnviroForensics, LLC  
N16 W23390 Stone Ridge Drive, Suite G  
Waukesha, WI 53188  
Phone: 262-290-4001 • Fax 317.972.7875

*July 5, 2018*



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

At this time the SSDS is effectively mitigating vapors from beneath the building. We will continue to sample periodically as part of the commissioning efforts to ensure the SSDS continues to work properly. We will contact you to schedule the next event. If you have any questions or concerns, please contact me at (414) 982-3988, or by email at [wfassbender@enviroforensics.com](mailto:wfassbender@enviroforensics.com). The WDNR project manager, Richard Joslin, can be reached at 920-662-5165. We greatly appreciate your help and patience with this matter.

Sincerely,  
**EnviroForensics, LLC**

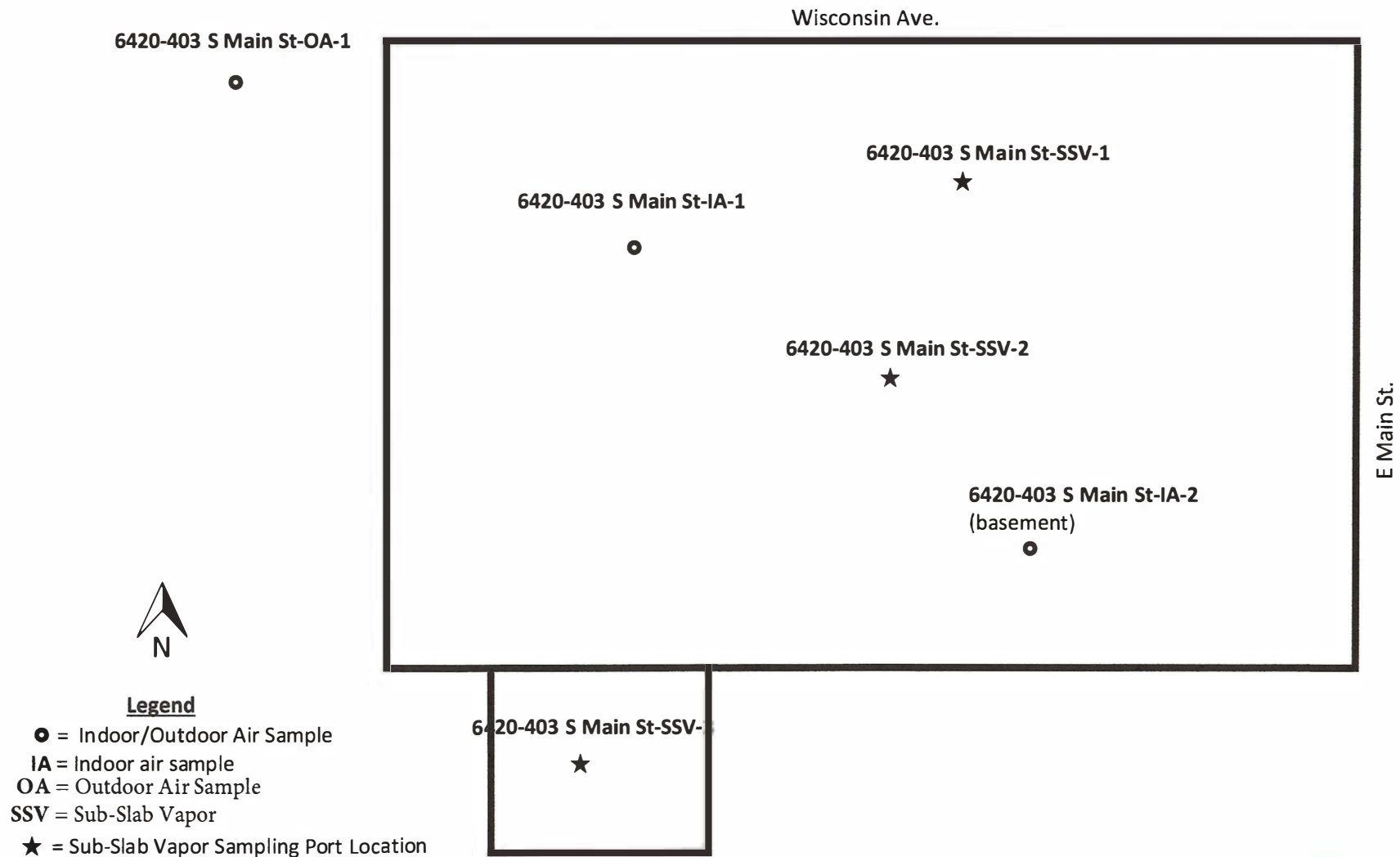
A handwritten signature in black ink that reads "Wayne P. Fassbender".

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**  
**403 S. Main St., Cedar Grove Wisconsin**



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

Sample Address	Sample Identification	Sample Date	Consultant	Mitigation	Tetrachloroethene	Trichloroethene
<b>INDOOR/ OUTDOOR AIR</b>						
<b>Non-Residential Vapor Action Level</b>					<b>180</b>	<b>8.8</b>
403 S. Main St.	6420-403 S Main ST-IA-1	09/13/17	EnviroForensics	No	<b>6.92</b>	<1.07
		06/14/18		Yes	<3.19	<1.07
	6420-403 S Main ST-IA-2	09/13/17		No	<b>7.26</b>	<1.07
		06/14/18		Yes	<3.19	<1.07
	6420-403 S Main ST-OA	09/13/17		No	<3.19	<1.07
		06/14/18		Yes	<3.19	<1.07
<b>SUB-SLAB VAPOR</b>						
<b>Non-Residential Vapor Risk Screening Level</b>					<b>6,000</b>	<b>290</b>
403 S. Main St.	6420-403 S Main ST-SSV-1	09/13/17	EnviroForensics	No	<b>14,100</b>	<b>35.3</b>
		06/14/18		Yes	<b>60.7</b>	<1.07
	6420-403 S Main ST-SSV-2	09/13/17		No	<b>66,300</b>	<b>16.4</b>
		06/14/18		Yes	<b>25.7</b>	<1.07
	6420-403 S Main ST-SSV-3	04/25/18		No	<3.19	<1.07
		06/14/18		Yes	<b>358</b>	<b>21.0</b>

**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

**Bolded and Orange shaded** concentration exceed the applicable non-residential screening level





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

July 2, 2018

EnvisionAir Project Number: 2018-358  
Client Project Name: 6420

Dear Mr. Fassbender,

Please find the attached analytical report for the samples received June 18, 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:** WES FASSBENDER  
**EnvisionAir Project Number:** 2018-358

**Sample Summary**

<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>Canister Pressure / Vacuum</u>		
			<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Collected:</u>	<u>Received:</u>	<u>Received:</u>	<u>Initial Field</u>	<u>Final Field</u>	<u>Lab</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>			
18-1408	6420-403 S MAIN ST-OA	A	6/13/18	15:13	6/14/18	15:27	6/18/18	16:00	-29	-4	-4						
18-1409	6420-403 S MAIN ST-IA-1	A	6/13/18	8:57	6/14/18	10:15	6/18/18	16:00	-28	-4	-4						
18-1410	6420-403 S MAIN ST-IA-2	A	6/13/18	9:00	6/14/18	10:17	6/18/18	16:00	-30	-5	-5						
18-1411	6420-403 S MAIN ST-SSV-1	A	6/14/18	10:45	6/14/18	10:50	6/18/18	16:00	-28	-3	-3						
18-1412	6420-403 S MAIN ST-SSV-2	A	6/14/18	10:36	6/14/18	10:41	6/18/18	16:00	-29	-3	-3						
18-1413	6420-403 S MAIN ST-SSV-3	A	6/14/18	10:26	6/14/18	10:31	6/18/18	16:00	-28	-2	-2						



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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-358

**Analytical Method:** TO-15  
**Analytical Batch:** 062818AIR

**Client Sample ID:** 6420-403 S MAIN ST-OA

**Sample Collection START Date/Time:** 6/13/18 15:13

**Sample Collection END Date/Time:** 6/14/18 15:27

**Envision Sample Number:** 18-1408  
**Sample Matrix:** AIR

**Sample Received Date/Time:** 6/16/18 16:00

<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)	97%		
Analysis Date/Time:	06-28-18/03:15		
Analyst Initials	tjg		





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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-358

**Analytical Method:** TO-15  
**Analytical Batch:** 062718AIR

**Client Sample ID:** 6420-403 S MAIN ST-IA-1  
**Envision Sample Number:** 18-1409  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/13/18 8:57  
**Sample Collection END Date/Time:** 6/14/18 10:15  
**Sample Received Date/Time:** 6/16/18 16:00

<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)	97%		
<b>Analysis Date/Time:</b>	06-27-18/18:49		
<b>Analyst Initials</b>	tjg		



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**Client Name:** ENVIROFORENSICS  
**Project ID:** 6420  
**Client Project Manager:** WES FASSBENDER  
**EnvisionAir Project Number:** 2018-358

**Analytical Method:** TO-15  
**Analytical Batch:** 062718AIR

**Client Sample ID:** 6420-403 S MAIN ST-IA-2  
**Envision Sample Number:** 18-1410  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/13/18 9:00  
**Sample Collection END Date/Time:** 6/14/18 10:17  
**Sample Received Date/Time:** 6/16/18 16:00

<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)	101%		
Analysis Date/Time:	06-27-18/19:27		
Analyst Initials	tjg		



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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-358

**Analytical Method:** TO-15  
**Analytical Batch:** 062318AIR

**Client Sample ID:** 6420-403 S MAIN ST-SSV-1 **Sample Collection START Date/Time:** 6/14/18 10:45

**Sample Collection END Date/Time:** 6/14/18 10:50

**Envision Sample Number:** 18-1411

**Sample Received Date/Time:** 6/16/18 16:00

**Sample Matrix:** AIR

<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>60.7</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)	90%		
Analysis Date/Time:	06-23-18/03:44		
Analyst Initials	tjg		



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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-358

**Analytical Method:** TO-15  
**Analytical Batch:** 062318AIR

**Client Sample ID:** 6420-403 S MAIN ST-SSV-2  
**Envision Sample Number:** 18-1412  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/14/18 10:36  
**Sample Collection END Date/Time:** 6/14/18 10:41  
**Sample Received Date/Time:** 6/16/18 16:00

<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>25.7</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)	88%		
Analysis Date/Time:	06-23-18/04:23		
Analyst Initials	tjg		



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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-358

**Analytical Method:** TO-15  
**Analytical Batch:** 062318AIR

**Client Sample ID:** 6420-403 S MAIN ST-SSV-3  
**Envision Sample Number:** 18-1413  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/14/18 10:26  
**Sample Collection END Date/Time:** 6/14/18 10:31  
**Sample Received Date/Time:** 6/16/18 16:00

<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>358</b>	128	1
trans-1,2-Dichloroethene	< 39.6	39.6	
Trichloroethene	<b>21.0</b>	1.07	
Vinyl Chloride	< 1.28	1.28	
4-bromofluorobenzene (surrogate)	88%		
Analysis Date/Time:	06-23-18/05:01		
Analyst Initials	tjg		



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Analytical Report

**TO-15 Quality Control Data**

EnvisionAir Batch Number: 062318AIR

<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)	84%		
Analysis Date/Time:	06-22-18/19:32		
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	8.72	8.94	10	87%	89%	2.5%	
trans-1,2-Dichloroethene	10.8	10.9	10	108%	109%	0.9%	
cis-1,2-Dichloroethene	9.42	9.67	10	94%	97%	2.6%	
Trichloroethene	9.51	9.30	10	95%	93%	2.2%	
Tetrachloroethene	10.2	9.46	10	102%	95%	7.5%	
4-bromofluorobenzene (surrogate)	99%	101%					
Analysis Date/Time:	06-22-18/18:15	06-23-18/07:02					
Analyst Initials	tjg	tjg					

**TO-15 Quality Control Data**

EnvisionAir Batch Number: 062718AIR

<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)	87%		
Analysis Date/Time:	06-27-18/17:31		
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	9.09	9.53	10	91%	95%	4.7%	
trans-1,2-Dichloroethene	9.95	10	10	100%	100%	0.5%	
cis-1,2-Dichloroethene	8.75	9.02	10	88%	90%	3.0%	
Trichloroethene	9.65	9.96	10	97%	100%	3.2%	
Tetrachloroethene	9.48	9.65	10	95%	97%	1.8%	
4-bromofluorobenzene (surrogate)	107%	107%					
Analysis Date/Time:	06-27-18/15:40	06-27-18/16:21					
Analyst Initials	tjg	tjg					



**EnvisionAir**  
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<u>Flag Number</u>	<u>Comments</u>
1	Reported value is from a 40x dilution. TJG 07-02-18



# CHAIN OF CUSTODY RECORD

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

Client: <u>EnvironAir</u>	P.O. Number: <u>2018-0858</u>
Report <u>N16 w 2390 Starline Pl</u> Address: <u>Waukegan, WI 53188</u>	Project Name or Number: <u>6420</u>
Report To: <u>W. Fassbender</u>	Sampled by: <u>Nathan P. ...</u>
Phone: <u>414-982-3958</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) <u>1 day</u> 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 (Specify in notes)



**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
6420-4035 Main St-0A	6LC	6-13-18	15:13	6-14-18	15:27			X	4665	07458	-29	-4	-4	18-1408
6420-4035 Main St-1A-1	6LC	6-13-18	08:57	6-14-18	10:15			X	14115	07712	-28	-4	-4	18-1409
6420-4035 Main St-1A-2	6LC	6-13-18	09:00	6-14-18	10:17			X	19564	07300	-30	-5	-5	18-1410
6420-4035 Main St-SSU-1	1LC	6-14-18	10:45	6-14-18	10:50			X	83924	0011	-28	-3	-3	18-1411
6420-4035 Main St-SSU-2	1LC	6-14-18	10:36	6-14-18	10:41			X	84051	0072	-29	-3	-3	18-1412
6420-4035 Main St-SSU-3	1LC	6-14-18	10:26	6-14-18	10:31			X	2224	<del>0112</del> 001	-29	-2	-2	18-1413

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	6-15-18	1030	FedEx	6/18/18	1600
			<u>[Signature]</u>		



July 5, 2018

Justin Zylstra  
Director of Finance & Development  
349 S. Main St.  
Cedar Grove, WI 53013

**Subject: Vapor Intrusion Sampling Results – 349 S. Main St, Cedar Grove, Wisconsin  
BRRTS: 02-60-271527**

Dear Mr. Zylstra:

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 349 S. Main St., Cedar Grove, WI 53013. The samples were collected on June 13, 2018. The sampling activities are part of an environmental investigation being performed for the former Dutch Cleaners facility located at 403 S. Main St. in Cedar Grove 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:

Former Dutch Cleaners  
403 S. Main St.  
Cedar Grove, WI 53013

### **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. The sample 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, however, the concentration detected was *below* the vapor risk screening Level. 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.

*Document: 6420-0236*  
EnviroForensics, LLC  
N16 W23390 Stone Ridge Drive, Suite G  
Waukesha, WI 53188  
Phone: 262-290-4001 • Fax 317.972.7875

*July 5, 2018*



At this time, there does not appear to be a vapor intrusion risk to your building and we do not recommend any further sampling activities at your property.

If you have any questions or concerns, please contact me at (414) 982-3988, or by email at [wfassbender@enviroforensics.com](mailto:wfassbender@enviroforensics.com). The WDNR project manager, Richard Joslin, can be reached at 920-662-5165. We greatly appreciate your help and patience with this matter.

Sincerely,  
**EnviroForensics, LLC**

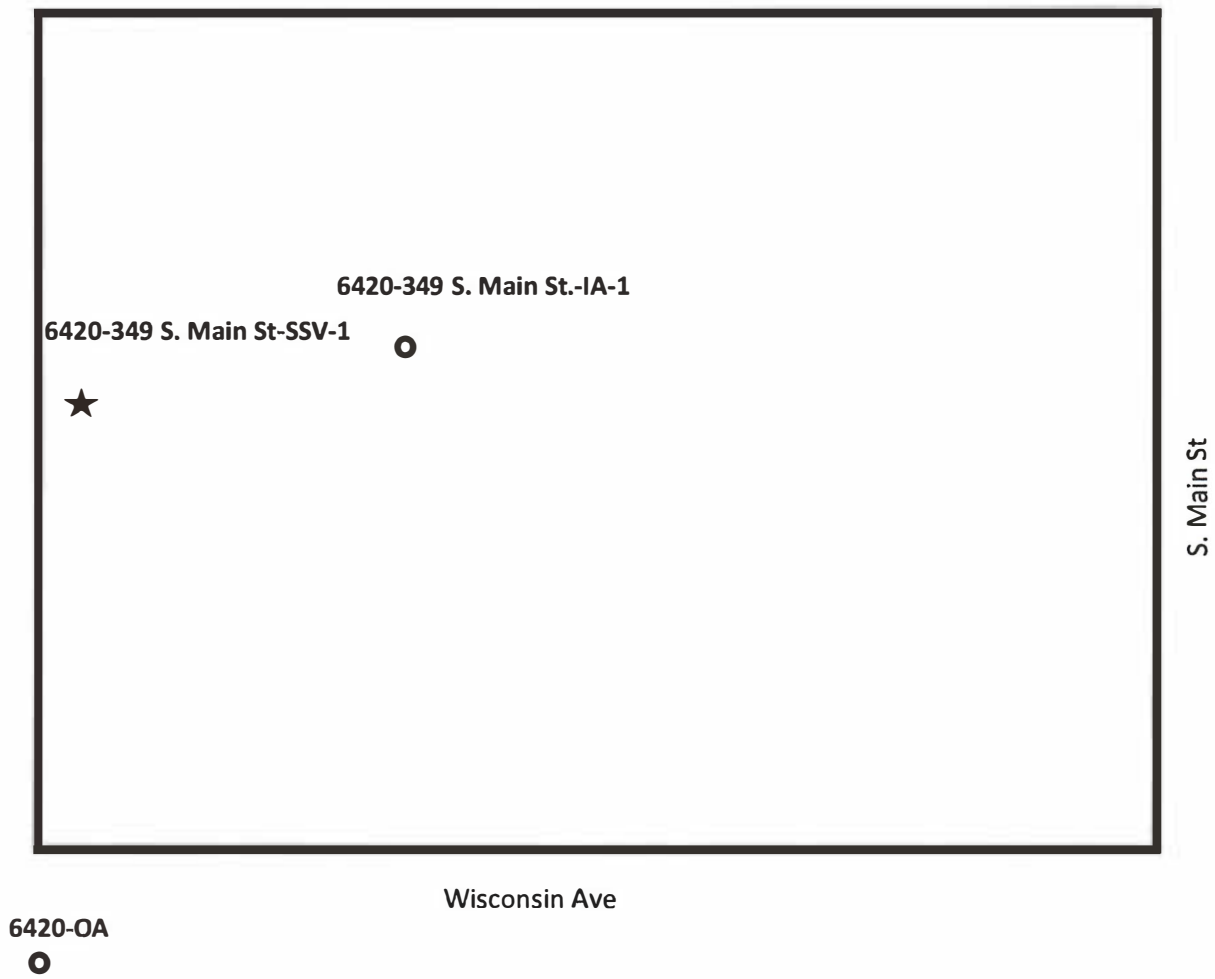
A handwritten signature in blue ink that reads "Wayne P. Fassbender".

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**  
**349 S. Main St, Cedar Grove, Wisconsin**



**Legend**

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

**TABLE 1**  
**VAPOR INTRUSION ANALYTICAL RESULTS - 349 S. MAIN ST.**

Former Dutch Cleaners  
 403 S. Main Street, Cedar Grove, Wisconsin

Sample Address	Sample Identification	Sample Date	Consultant	Applicable Criteria	Mitigation	Tetrachloroethene	Trichlorethene
<b>INDOOR/ OUTDOOR AIR</b>							
<b>Small Commercial Vapor Action Level</b>						<b>180</b>	<b>8.8</b>
349 S. Main St.	6420-349 S Main ST-IA-1	04/25/18	EnviroForensics	Commercial	No	<3.19	<1.07
		06/13/18				<3.19	<1.07
	6420-OA	04/25/18				<3.19	<1.07
<b>SUB-SLAB VAPOR</b>							
<b>Small Commercial Vapor Risk Screening Level</b>						<b>6,000</b>	<b>290</b>
349 S. Main St.	6420-349 S Main ST-SSV-1	04/25/18	EnviroForensics	Commerical	No	<b>134</b>	<b>3.87</b>
		06/13/18				<b>15.7</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



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

July 2, 2018

EnvisionAir Project Number: 2018-357  
Client Project Name: 6420

Dear Mr. Fassbender,

Please find the attached analytical report for the samples received June 18, 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



**EnvisionAir**  
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**Client Name:** ENVIROFORENSICS  
**Project ID:** 6420  
**Client Project Manager:** WES FASSBENDER  
**EnvisionAir Project Number:** 2018-357

**Sample Summary**

		<i>Canister Pressure / Vacuum</i>								
<u>Laboratory Sample Number:</u>	<u>Sample Description:</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>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>
18-1406	6420-349 S MAIN ST-1A-1	A	6/13/18 8:29	6/13/18	15:37	6/18/18	16:00	-27	-9	-9
18-1407	6420-349 S MAIN ST-SSV-1	A	6/13/18 15:40	6/13/18	15:45	6/18/18	16:00	-27	-3	-3



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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-357

**Analytical Method:** TO-15  
**Analytical Batch:** 062718AIR

**Client Sample ID:** 6420-349 S MAIN ST-IA-1  
**Envision Sample Number:** 18-1406  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/13/18 8:29  
**Sample Collection END Date/Time:** 6/13/18 15:37  
**Sample Received Date/Time:** 6/18/18 16:00

<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)	101%		
Analysis Date/Time:	6-27-18/18:10		
Analyst Initials	tjg		





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**Client Name:** ENVIROFORENSICS

**Project ID:** 6420

**Client Project Manager:** WES FASSBENDER

**EnvisionAir Project Number:** 2018-357

**Analytical Method:** TO-15  
**Analytical Batch:** 062218AIR

**Client Sample ID:** 6420-349 S MAIN ST-SSV-1  
**Envision Sample Number:** 18-1407  
**Sample Matrix:** AIR

**Sample Collection START Date/Time:** 6/13/18 15:40  
**Sample Collection END Date/Time:** 6/13/18 15:45  
**Sample Received Date/Time:** 6/18/18 16:00

<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>15.7</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)	89%		
Analysis Date/Time:	6-23-18/03:06		
Analyst Initials	tjg		



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Analytical Report

**TO-15 Quality Control Data**

**EnvisionAir Batch Number:** 062218AIR

<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)	84%		
Analysis Date/Time:	6-22-18/19:32		
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	9.48	8.72	10	95%	87%	8.4%	
trans-1,2-Dichloroethene	9.47	10.8	10	95%	108%	13.1%	
cis-1,2-Dichloroethene	9.71	9.42	10	97%	94%	3.0%	
Trichloroethene	8.99	9.51	10	90%	95%	5.6%	
Tetrachloroethene	8.34	10.2	10	83%	102%	20.1%	1
4-bromofluorobenzene (surrogate)	106%	99%					
Analysis Date/Time:	6-22-18/10:14	6-22-18/18:15					
Analyst Initials	tjg	tjg					



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Analytical Report

**TO-15 Quality Control Data**

EnvisionAir Batch Number: 062718AIR

<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)	87%					
Analysis Date/Time:	6-27-18/17:31					
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	9.09	9.53	10	91%	95%	4.7%	
trans-1,2-Dichloroethene	9.95	10	10	100%	100%	0.5%	
cis-1,2-Dichloroethene	8.75	9.02	10	88%	90%	3.0%	
Trichloroethene	9.65	9.96	10	97%	100%	3.2%	
Tetrachloroethene	9.48	9.65	10	95%	97%	1.8%	
4-bromofluorobenzene (surrogate)	107%	107%					
Analysis Date/Time:	6-27-18/15:40	6-27-18/16:21					
Analyst Initials	tjg	tjg					



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**Flag Number**

1

**Comments**

RPD is biased high, but recoveries are within control. TJG 7/2/18

-

# CHAIN OF CUSTODY RECORD

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

Client: <u>Enviroforensics</u>	P.O. Number: <u>2018-0858</u>
Report <u>NIG w 23390 Standard Air</u> Address: <u>Waukesha WI 53188</u>	Project Name or Number: <u>6420</u>
Report To: <u>W. Fassbender</u>	Sampled by: <u>Nathan Dick</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 (Specify in notes)



**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
<u>6420-3495 Mainst-7A1</u>	<u>6LC</u>	<u>06/13/18</u>	<u>08:29</u>	<u>06/13/18</u>	<u>15:37</u>				<u>20670</u>	<u>05252</u>	<u>-27</u>	<u>-9</u>	<u>-9</u>	<u>18-1406</u>
<u>6420-3495 Mainst-SSV-1</u>	<u>1LC</u>	<u>06/13/18</u>	<u>15:40</u>	<u>06/13/18</u>	<u>15:45</u>				<u>83944</u>	<u>0096</u>	<u>-27</u>	<u>-3</u>	<u>-3</u>	<u>18-1407</u>

Comments: All CANS LABELLED 11 Wisconsin Are not used

Relinquished by:	Date	Time	Received by:	Date	Time
<u>N. Dick</u>	<u>6-15-18</u>	<u>1030</u>	<u>FedEx</u> <u>John Hunsicker</u>	<u>6/18/18</u>	<u>1600</u>