

April 7, 2023

Jane Pfeiffer Wisconsin Department of Natural Resources 2300 North Dr. Martin Luther King, Jr Drive Milwaukee, WI 53212

# Re: Vapor Mitigation System Decommissioning Report – 7513 41<sup>st</sup> Avenue Martino's Master Dry Cleaners BRRTS# 02-30-552188

Dear Ms. Pfeiffer,

In accordance with Appendix F of Wisconsin Department of Natural Resources (WDNR) publication RR-800, and to decommission the sub-slab depressurization system (SSDS), EnviroForensics is submitting this Decommissioning Report (Report) for the SSDS installed at 7513 41<sup>ST</sup> Avenue in Kenosha, Wisconsin (the Site).

Following the completion of remedial activities at the Site, the vapor intrusion pathway was reassessed in anticipation of a case closure request. The assessment was conducted to determine whether remediation addressed the source of vapors identified during the Site investigation. If so, case closure could be completed without the need for vapor mitigation as a continuing obligation.

# **Decommissioning Activities**

The SSDS fan was shut down on November 30, 2021. Three (3) sub-slab vapor sampling events were performed on March 1, 2022, June 27, 2022 and December 15, 2022, respectively. Four (4) sub-slab vapor samples were collected during each sampling event from temporary Vapor Pin<sup>®</sup> sampling ports installed in the floor. The sampling port locations are shown on **Figure 1**.

The samples were designated 6190-SSV-1 and 6190-SSV-4, respectively. The samples were collected in 1-liter vacuum canisters fitted with regulators to restrict flow to a rate of approximately 200 mL per minute. The water dam procedure and pressure testing of the sample train were conducted prior to collection of each sample for quality assurance purposes.



# Results

The sub-slab vapor sample results associated with decommissioning are summarized in **Table 1** (attached). Tetrachloroethene (PCE) was detected in each sample at concentrations below the vapor risk screening level (VRSL) for small commercial buildings of 5,800 micrograms per cubic meter ( $\mu$ g/m<sup>3</sup>). Trichloroethene (TCE) was detected in one (1) of the twelve (12) samples at a concentration below the VRSL. No other contaminants of concern were detected in the vapor samples.

# Conclusions

The concentrations of the contaminants of concern in sub-slab vapor were below VRSLs for three (3) consecutive sampling events. These data demonstrate that the remedial actions implemented at the Site have reduced the risk of exposure via the vapor intrusion pathway at the adjoining 7513 41<sup>st</sup> Avenue building. Active vapor mitigation is no longer needed.

Upon approval of the case closure request, EnviroForensics will remove the SSDS system components as part of Site restoration activities.

If you need any additional information, please don't hesitate to contact me at blewis@enviroforensics.com.

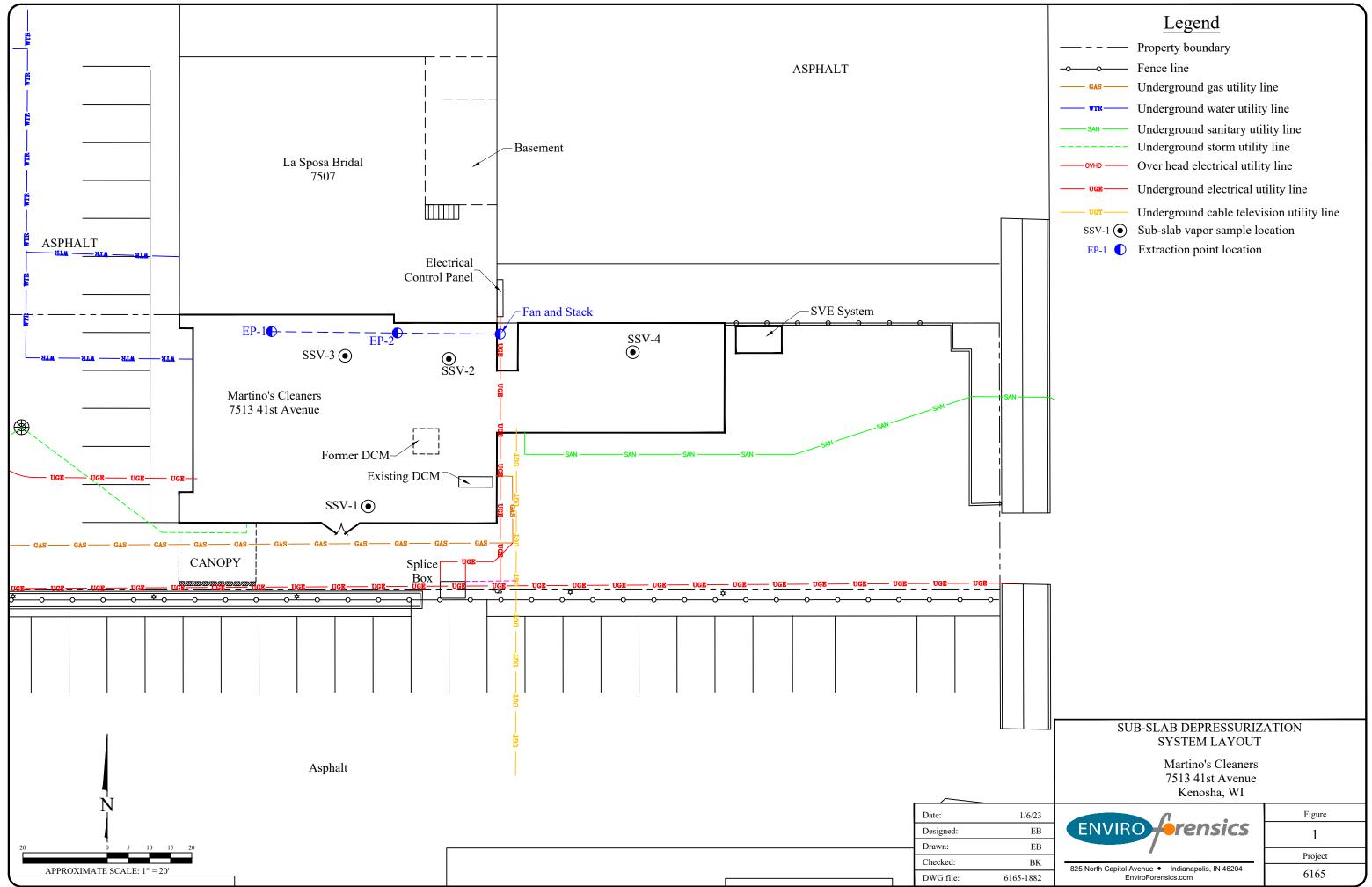
Regards, EnviroForensics, LLC

Wayne Fassbender, PG Senior Project Manager

Brad K. Lewis Senior Project Manager

# **Attachments:**

Figure 1 – Sub-Slab Vapor and Indoor Air Sample Locations Table 1 – Summary of Post-SSDS Sub-Slab Vapor Sample Analytical Results Attachment A: Laboratory Analytical Reports



# TABLE 1

SUMMARY OF POST-SSDS SUB-SLAB VAPOR ANALYTICAL RESULTS - SITE BUILDING

Martino's Master Drycleaners

7513 41st Avenue, Kenosha, Wisconsin

Sample Identification	Date Sampled	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1, 2-Dichloroethene
	3/1/2022	54.3	<10.7	<198	<396
6165-SSV-1	6/27/2022	1,170	27.9	<198	<396
	12/15/2022	167	<10.7	<198	<396
	3/1/2022	413	<10.7	<198	<396
6165-SSV-2	6/27/2022	1,340	<10.7	<198	<396
	12/15/2022	547	<10.7	<198	<396
	3/1/2022	214	<10.7	<198	<396
6165-SSV-3	6/27/2022	636	<10.7	<198	<396
	12/15/2022	256	<10.7	<198	<396
	3/1/2022	168	<10.7	<198	<396
6165-SSV-4	6/27/2022	464	<10.7	<198	<396
	12/15/2022	52.9	<10.7	<198	<396
Vapor Risk Scr	eening Level <sup>1</sup>	5,800	290	NE	5,800

### Notes:

<sup>1</sup> The Vapor Risk Screeing Levels are based on U.S. E.P.A.'s Regional Screening Levels (RSL's) for industrial indoor air with an attenuation factor of 0.03 for sub-slab samples a 0.1 adjustment for  $1 \times 10-5$  lifetime cancer risk for carcinoge All concentrations reported in until of micrograms per cubic meter ( $\mu$ g/m3)

Bolded values are above detection limits

Bolded and Orange Shaded values exceed the Vapor Risk Screening Level

NE = Not Established

NA = Not Analyzed





ATTACHMENT A LABORATORY ANALYTICAL REPORTS



Mr. Brian Kappen Enviroforensics N16 W. 23390 Stone Ridge Dr Suite G Waukesha, WI 53188

March 14, 2022

EnvisionAir Project Number: 2022-175 Client Project Name: 6165 – Martino's 41st

Dear Mr. Kappen,

Please find the attached analytical report for the samples received March 4, 2022. 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,

David Norris Project Manager EnvisionAir, LLC



Client Name: ENVIROFORENSICS

Project ID: 6165 - MARTINO'S 41ST

**BRIAN KAPPEN** 

Client Project Manager:

EnvisionAir Project Number: 2022-175

## Sample Summary

			START Date	START Time	End Date	End Time	Date		Initial Field		Lab Received
Laboratory Sample Number:	Sample Description:	Matrix:	Collected:	Collected:	Collected:	Collected:	Received:	<b>Received</b>	<u>(in. Hg)</u>	<u>(in. Hg)</u>	<u>(in. Hg)</u>
22-908	6165-SSV-1	A	3/1/22	16:23	3/1/22	16:29	3/4/22	12:15	-28	-3	-3
22-909	6165-SSV-2	A	3/1/22	16:46	3/1/22	16:52	3/4/22	12:15	-27	-3	-3
22-910	6165-SSV-3	A	3/1/22	17:09	3/1/22	17:13	3/4/22	12:15	-28	-3	-3
22-911	6165-SSV-4	А	3/1/22	17:28	3/1/22	17:32	3/4/22	12:15	-27	-3	-3

Canister Pressure / Vacuum



Client Name:	ENVIROFORENSICS
Project ID:	6165 - MARTINO'S 41ST
Client Project Manager:	BRIAN KAPPEN
EnvisionAir Project Number:	2022-175
Analytical Method: Analytical Batch:	TO-15 030722AIR
Client Sample ID:	6165-SSV-1
EnvisionAir Sample Number: Sample Matrix:	22-908 AIR
<u>Compounds</u> cis-1 2-Dichloroethene	Sample Results ug/m <sup>3</sup>

Sample Collection START Date/Time:	3/1/22	16:23
Sample Collection END Date/Time:	3/1/22	16:29
Sample Received Date/Time:	3/4/22	12:15

<u>Compounds</u>	Sample F	<u>Results ug/m³</u>
cis-1,2-Dichloroethene	< 198	
Tetrachloroethene	54.3	
trans-1,2-Dichloroethene	< 396	
Trichloroethene	< 10.7	
Vinyl Chloride	< 12.8	
4-bromofluorobenzene (surrog	ate)	104%
Analysis Date/Time:		3-8-22/00:28
Analyst Initials		tjg

Reporting Limit ug/m <sup>3</sup>	Flag
198	
31.9	
396	
10.7	
12.8	



Compounds	Sample Results ug/m <sup>3</sup>
EnvisionAir Sample Number: Sample Matrix:	22-909 AIR
Client Sample ID:	6165-SSV-2
Analytical Method: Analytical Batch:	TO-15 030722AIR
EnvisionAir Project Number:	2022-175
Client Project Manager:	BRIAN KAPPEN
Project ID:	6165 - MARTINO'S 41ST
Client Name:	ENVIROFORENSICS

Sample Collection START Date/Time:	3/1/22	16:46
Sample Collection END Date/Time:	3/1/22	16:52
Sample Received Date/Time:	3/4/22	12:15

<u>Compounds</u>	Sample F	<u>Results ug/m³</u>
cis-1,2-Dichloroethene	< 198	
Tetrachloroethene	413	
trans-1,2-Dichloroethene	< 396	
Trichloroethene	< 10.7	
Vinyl Chloride	< 12.8	
4-bromofluorobenzene (surrog	ate)	100%
Analysis Date/Time:		3-8-22/01:57
Analyst Initials		tjg

Reporting Limit ug/m <sup>3</sup>	<u>Flag</u>
198	
31.9	
396	
10.7	
12.8	



<u>Compounds</u>	Sample Results ug/m <sup>3</sup>
EnvisionAir Sample Number: Sample Matrix:	22-910 AIR
Client Sample ID:	6165-SSV-3
Analytical Method: Analytical Batch:	TO-15 030722AIR
EnvisionAir Project Number:	2022-175
Client Project Manager:	BRIAN KAPPEN
Project ID:	6165 - MARTINO'S 41ST
Client Name:	ENVIROFORENSICS

<u>Compounds</u>	Sample F	<u>Results ug/m³</u>
cis-1,2-Dichloroethene	< 198	
Tetrachloroethene	214	
trans-1,2-Dichloroethene	< 396	
Trichloroethene	< 10.7	
Vinyl Chloride	< 12.8	
4-bromofluorobenzene (surrog	gate)	101%
Analysis Date/Time:		3-8-22/02:37
Analyst Initials		tjg

Sample Collection START Date/Time:	3/1/22	17:09
Sample Collection END Date/Time:	3/1/22	17:13
Sample Received Date/Time:	3/4/22	12:15

<u>Reporting Limit ug/m<sup>3</sup></u>	Flag
198	
31.9	
396	
10.7	
12.8	



Client Name:	ENVIROFORENSICS
Project ID:	6165 - MARTINO'S 41ST
Client Project Manager:	BRIAN KAPPEN
EnvisionAir Project Number:	2022-175
Analytical Method: Analytical Batch:	TO-15 030722AIR
Client Sample ID:	6165-SSV-4
EnvisionAir Sample Number: Sample Matrix:	22-911 AIR
Compounds	Sample Results ug/m <sup>3</sup>

compounds	Sample r	esuns ug/m=
cis-1,2-Dichloroethene	< 198	-
Tetrachloroethene	168	
trans-1,2-Dichloroethene	< 396	
Trichloroethene	< 10.7	
Vinyl Chloride	< 12.8	
4-bromofluorobenzene (surrog	gate)	106%
Analysis Date/Time:		3-8-22/03:18
Analyst Initials		tjg

Sample Collection START Date/Time:	3/1/22	17:28
Sample Collection END Date/Time:	3/1/22	17:32
Sample Received Date/Time:	3/4/22	12:15

<u>Reporting Limit ug/m<sup>3</sup></u>	Flag
198	
31.9	
396	
10.7	
12.8	



**EnvisionAir Batch Number:** 

Analysis Date/Time: Analyst Initials 
 RPD
 Flag

 2.3%

 3.9%

 2.9%

 2.8%

 4.7%

Analytical Report

# **TO-15 Quality Control Data**

030722AIR

3-7-22/15:24

tjg

	0001227.010					
Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	<u>Flags</u>			
cis-1,2-Dichloroethene	< 5	5	-			
Tetrachloroethene	< 0.47	0.47				
trans-1,2-Dichloroethene	< 10	10				
Trichlorethene	< 0.2	0.2				
Vinyl Chloride	< 0.5	0.5				
4-bromofluorobenzene (surrogate)	101%					
Analysis Date/Time:	3-7-22/16:54					
Analyst Initials	tjg					
			LCS/D	LCS	LCSD	
LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	Conc(ppbv)	Rec.	Rec.	
Vinyl Chloride	10.1	9.87	10	101%	99%	
trans-1,2-Dichloroethene	10.1	9.71	10	101%	97%	
cis-1,2-Dichloroethene	10.1	10.4	10	101%	104%	
Trichloroethene	10.7	10.4	10	107%	104%	
Tetrachloroethene	9.79	9.34	10	98%	93%	
4-bromofluorobenzene (surrogate)	89%	100%				
,						

3-7-22/16:19

tjg



Flag Number

**Comments** 

EnvisionAir Proj#: 2022 - 175 Page \_\_\_\_ of \_\_\_\_

# **CHAIN OF CUSTODY RECORD**

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

Client: EnviroForer	15103	P.O. N	umber: 7	022-	-0070			EQUE	CTED	PARAME	TEDĈ				
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Address: envirozore	nsco.c	arMo		<u>5415</u>	;+	-		/	/						
Report To: BRIAN KA	Ppen	Sample	ed by: <u>R</u>	Kapr	<u>en</u>				s	× /	// 」	ser		SIC	NAIR
Phone: 26 C- C90-9	001	QA/QC	Required: Leve	(circle if appl I III Lev	icable) <b>rel IV</b>		/				/				
Invoice Address: Accar Cinvin, Forensics, Co	ntz	Report		ieeded: (circ 3 PPBV							Sampling Type: Soil-Gas: □ Sub-Slab: 🗶		waxay en	vision-sir o	om
Desired FAT: (Please Circle One 1 day 2 days 3 days Std (5	<u></u>		2: 1LC = 1 Liter 6LC = 6 Liter TB = Tediar TD = Therma	Canister	e	Soil-Gas: Sub-Slab: Sub-Slab: Sub-Slab: 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
6165-554-1	ILC.			3-1-22	1629		X			2096	0144	-28	-3	-3	22-905
6165-551-2	1	Í	1646	1	1652		1			2541	NA	-27	-3	-3	22-909
(d(05-55V-3			17799	0	1713					କ୍ଷଝ୍ୟ	0093	-28	-3	-3	22-910
6165-551-4	V		H	3	1732		Z			23835	0065	-27	-3	3	22-911
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Houlton

3-4-22

12:15



Mr. Brian Kappen Enviroforensics N16 W. 23390 Stone Ridge Dr Suite G Waukesha, WI 53188

July 20, 2022

EnvisionAir Project Number: 2022-376 Client Project Name: 6165 – Martino's 41<sup>st</sup> Ave.

Dear Mr. Kappen,

Please find the attached analytical report for the samples received July 1, 2022. 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,

David Norris Project Manager EnvisionAir, LLC



Client Name: ENVIROFORENSICS

Project ID: 6165 - MARTINO'S 41ST AVE.

**BRIAN KAPPEN** 

Client Project Manager:

EnvisionAir Project Number: 2022-376

## Sample Summary

### START START Lab Date Time End Date End Time Date Time Initial Field Final Field Received Laboratory Sample Number: Sample Description: Collected: Collected: Collected: Received: Received (in. Hg) <u>(in. Hg)</u> <u>(in. Hg)</u> Matrix: 6165-SSV-1 13:00 -28 22-1928 6/27/22 15:10 6/27/22 15:15 7/1/22 -3 -3 А -3 22-1929 6165-SSV-2 А 6/27/22 14:05 6/27/22 7/1/22 13:00 -27 -3 14:10 22-1930 6165-SSV-3 -4 -4 А 6/27/22 14:33 6/27/22 14:37 7/1/22 13:00 -30 22-1931 6165-SSV-4 А 6/27/22 13:31 6/27/22 13:38 7/1/22 13:00 -29 -3 -3

### Canister Pressure / Vacuum



< 12.8

Vinyl Chloride

Analyst Initials

Analysis Date/Time:

4-bromofluorobenzene (surrogate)

Client Name:	ENVIROFORENSICS	
Project ID:	6165 - MARTINO'S 41ST	AVE.
Client Project Manager:	BRIAN KAPPEN	
EnvisionAir Project Number:	2022-376	
Analytical Method: Analytical Batch:	TO-15 070522AIR	
Client Sample ID:	6165-SSV-1	Sample Collection START Date/Time: Sample Collection END Date/Time:
EnvisionAir Sample Number: Sample Matrix:	22-1928 AIR	Sample Received Date/Time:
<u>Compounds</u> cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene Trichloroethene	<u>Sample Results ug/m<sup>3</sup></u> < 198 1,170 < 396 27.9	<u>Reporting Limit ug/m³</u> 198 31.9 396 10.7

93%

7-5-22/22:12

tjg

Flag

12.8

6/27/22 15:10

6/27/22 15:15 7/1/22 13:00



< 12.8

Vinyl Chloride

Analysis Date/Time: Analyst Initials

4-bromofluorobenzene (surrogate)

Client Name:	ENVIROFORENSICS			
Project ID:	6165 - MARTINO'S 41ST	AVE.		
Client Project Manager:	BRIAN KAPPEN			
EnvisionAir Project Number:	2022-376			
Analytical Method: Analytical Batch:	TO-15 070522AIR			
Client Sample ID:	6165-SSV-2	Sample Collection START Date/Time:	6/27/22	14:05
EnvisionAir Sample Number: Sample Matrix:	22-1929 AIR	Sample Collection END Date/Time: Sample Received Date/Time:	6/27/22 7/1/22	14:10 13:00
<u>Compounds</u> cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene Trichloroethene	Sample Results ug/m <sup>3</sup> < 198 <b>1,340</b> < 396 < 10.7	<u>Reporting Limit ug/m³</u> 198 31.9 396 10.7	<u>Flag</u>	

91% 7-5-22/22:50

tjg

12.8



4-bromofluorobenzene (surrogate)

Analysis Date/Time: Analyst Initials

Client Name:	ENVIROFORENSICS			
Project ID:	6165 - MARTINO'S 41ST	AVE.		
Client Project Manager:	BRIAN KAPPEN			
EnvisionAir Project Number:	2022-376			
Analytical Method: Analytical Batch:	TO-15 070522AIR			
Client Sample ID:	6165-SSV-3	Sample Collection START Date/Time:	6/27/22 6/27/22	14:33 14:37
EnvisionAir Sample Number: Sample Matrix:	22-1930 AIR	Sample Collection END Date/Time: Sample Received Date/Time:	7/1/22	13:00
<u>Compounds</u> cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene Trichloroethene Vinyl Chloride	Sample Results ug/m <sup>3</sup> < 198 636 < 396 < 10.7 < 12.8	Reporting Limit ug/m <sup>3</sup> 198 31.9 396 10.7 12.8	<u>Flag</u>	

108% 7-5-22/23:28

tjg



< 12.8

Vinyl Chloride

Analysis Date/Time: Analyst Initials

4-bromofluorobenzene (surrogate)

Client Name:	ENVIROFORENSICS			
Project ID:	6165 - MARTINO'S 41ST	AVE.		
Client Project Manager:	BRIAN KAPPEN			
EnvisionAir Project Number:	2022-376			
Analytical Method: Analytical Batch:	TO-15 070522AIR			
Client Sample ID:	6165-SSV-4	Sample Collection START Date/Time:	6/27/22	13:31
EnvisionAir Sample Number: Sample Matrix:	22-1931 AIR	Sample Collection END Date/Time: Sample Received Date/Time:	6/27/22 7/1/22	13:38 13:00
<u>Compounds</u> cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene Trichloroethene	Sample Results ug/m <sup>3</sup> < 198 464 < 396 < 10.7	Reporting Limit ug/m <sup>3</sup> 198 31.9 396 10.7	<u>Flag</u>	

98% 7-6-22/00:44

tjg

12.8



**EnvisionAir Batch Number:** 

Analysis Date/Time:

Analyst Initials

Analytical Report

# **TO-15 Quality Control Data**

070522AIR

7-5-22/14:59

tjg

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	Flags				
cis-1,2-Dichloroethene	< 5	5					
Tetrachloroethene	< 0.47	0.47					
trans-1,2-Dichloroethene	< 10	10					
Trichlorethene	< 0.2	0.2					
Vinyl Chloride	< 0.5	0.5					
4-bromofluorobenzene (surrogate)	101%						
Analysis Date/Time:	7-5-22/17:03						
Analyst Initials	tjg						
			LCS/D	LCS	LCSD		
LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	Conc(ppbv)	Rec.	Rec.	RPD	Flag
Vinyl Chloride	9.66	9.95	10	97%	100%	3.0%	
trans-1,2-Dichloroethene	10.3	10.4	10	103%	104%	1.0%	
cis-1,2-Dichloroethene	9.83	9.52	10	98%	95%	3.2%	
Trichloroethene	10.5	9.71	10	105%	97%	7.8%	
Tetrachloroethene	10.2	9.52	10	102%	95%	6.9%	
4-bromofluorobenzene (surrogate)	94%	109%					

7-5-22/15:41

tjg



Flag Number

**Comments** 

EnvisionAir Proj#:2022-376 Page \_ of \_ 1

307

# CHAIN OF CUSTODY RECORD

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

Client: EnviroFact	5105	P.O. N	umber: 7	02-	0340		OUESTER	PARAME	TEDC				
Report bkappene Address: envrogrensis				Number:() 5 4  \$+									
Report To: Bran Kac	pen			Kap		-						SIC	NAIR
Phone: 262-290-0	1001	QA/QC		: (circle if appl el III Lev	icable) <b>rel IV</b>	] /		<i>[</i> ]	/		N V I	JIC	
Invoice Address: Accost envirogornsics	ter Can	Report ug/m		needed: (dira 1 <sup>3</sup> PPBV		20 12 12 12 12 12			Soil-Gas: □ Sub-Slab: ≰	<u>.</u>	www.en	vision-air.c	:om
Desired TAT: (Please Circle One 1 day 2 days 3 days Std (5		Media typ	e: 11,C = 1 Liter 6LC = 6 Liter TB = Tedlar TD = Therm	Canister	e		27.000 000 101 101 101 101 100 100 100		Indoor-Air: 🗆	Canister	Pressure /		
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
6165-551-1	ILC	6-27-22	23912	6-27-22-	1515	X		83922	00755	-78	-3	- 3	22-1928
6165-551-2-			1405		1410			83918	0138	-27	-3	- 3	22-1929
6165-551-3			1433		1737			83985	0114	-30	- 4	-4	22-1930
6165-551-4	V	V	1331	e -	1338	$\checkmark$		84136	0131	-29	-3	-3	22-1931
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Comments: Short LIST	! PCE	E, TC	Ē, C	DUE	, EDC.	E, VC							
Relino	quished				Date	Time			ceived by:			ate	Time
					30/27	1700		NEV			1.171	2/22	1200



Mr. Brian Kappen Enviroforensics N16 W. 23390 Stone Ridge Dr Suite G Waukesha, WI 53188

December 30, 2022

EnvisionAir Project Number: 2022-697 Client Project Name: 6165

Dear Mr. Kappen,

Please find the attached analytical report for the samples received December 16, 2022. 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,

David Norris Project Manager EnvisionAir, LLC



Client Name: ENVIROFORENSICS

6165

Project ID:

Client Project Manager: BRIAN KAPPEN

EnvisionAir Project Number: 2022-697

## Sample Summary

### START START Lab Date Time End Date End Time Date Time Initial Field Final Field Received (in. Hg) Laboratory Sample Number: Sample Description: Collected: Collected: Collected: Received: Received <u>(in. Hg)</u> <u>(in. Hg)</u> Matrix: 6165-SSV-1 12/15/22 12/15/22 -27 22-3505 13:18 13:23 12/16/22 11:00 -4 А -4 22-3506 6165-SSV-2 А 12/15/22 12:28 12/15/22 12/16/22 11:00 -30 -4 -4 12:34 22-3507 6165-SSV-3 -27 -4 -4 А 12/15/22 12:48 12/15/22 12:52 12/16/22 11:00 22-3508 6165-SSV-4 А 12/15/22 13:47 12/15/22 14:00 12/16/22 11:00 -30 -4 -4

Canister Pressure / Vacuum



Client Name:	ENVIROFORENSICS
Project ID:	6165
Client Project Manager:	BRIAN KAPPEN
EnvisionAir Project Number:	2022-697
Analytical Method: Analytical Batch:	TO-15 122122AIR
Client Sample ID:	6165-SSV-1
EnvisionAir Sample Number: Sample Matrix:	22-3505 AIR
<u>Compounds</u> cis-1,2-Dichloroethene Tetrachloroethene	Sample Results ug/m <sup>3</sup> < 198 167

Sample Collection START Date/Time:	12/15/22	13:18
Sample Collection END Date/Time:	12/15/22	13:23
Sample Received Date/Time:	12/16/22	11:00

<u>Compounds</u>	Sample	<u>Results ug/m³</u>	
cis-1,2-Dichloroethene	< 198		
Tetrachloroethene	167		
trans-1,2-Dichloroethene	< 396		
Trichloroethene	< 10.7		
Vinyl Chloride	< 12.8		
4-bromofluorobenzene (surroga	te)	106%	
Analysis Date/Time:		12-23-22/09:24	
Analyst Initials		tjg	

<u>Reporting Limit ug/m³</u>	<u>Flag</u>
198	
31.9	
396	
10.7	
12.8	



<u>Flag</u>

Client Name:	ENVIROFORENSICS
Project ID:	6165
Client Project Manager:	BRIAN KAPPEN
EnvisionAir Project Number:	2022-697
Analytical Method: Analytical Batch:	TO-15 122122AIR
Client Sample ID:	6165-SSV-2
EnvisionAir Sample Number: Sample Matrix:	22-3506 AIR
Compounds cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene	Sample Results ug/m³ < 198 547 < 396

Sample Collection START Date/Time: Sample Collection END Date/Time:	12/15/22 12/15/22	•	
Sample Received Date/Time:	12/16/22	11:00	

<u>Compounds</u>	Sample Results ug/m <sup>3</sup>	Reporting Limit ug/m <sup>3</sup>
cis-1,2-Dichloroethene	< 198	198
Tetrachloroethene	547	31.9
trans-1,2-Dichloroethene	< 396	396
Trichloroethene	< 10.7	10.7
Vinyl Chloride	< 12.8	12.8
4-bromofluorobenzene (surro	gate) 100%	
Analysis Date/Time:	12-23-22/10:00	
Analyst Initials	tjg	



Client Name:	ENVIROFORENSICS
Project ID:	6165
Client Project Manager:	BRIAN KAPPEN
EnvisionAir Project Number:	2022-697
Analytical Method: Analytical Batch:	TO-15 122122AIR
Client Sample ID:	6165-SSV-3
EnvisionAir Sample Number: Sample Matrix:	22-3507 AIR
<u>Compounds</u> cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene	<u>Sample Results ug/m<sup>3</sup></u> < 198 256 < 396

Sample Collection START Date/Time:	12/15/22	12:48
Sample Collection END Date/Time:	12/15/22	12:52
Sample Received Date/Time:	12/16/22	11:00

<u>Compounds</u>	Sample Results ug/m <sup>3</sup>	Reporting Limit ug/m <sup>3</sup>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	256	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surro	ogate) 101%		
Analysis Date/Time:	12-23-22/10:36		
Analyst Initials	tjg		



Client Name:	ENVIROFORENSICS
Project ID:	6165
Client Project Manager:	BRIAN KAPPEN
EnvisionAir Project Number:	2022-697
Analytical Method: Analytical Batch:	TO-15 122122AIR
Client Sample ID:	6165-SSV-4
EnvisionAir Sample Number: Sample Matrix:	22-3508 AIR
<u>Compounds</u>	Sample Results ug/m <sup>3</sup>
cis-1,2-Dichloroethene	< 198
Tetrachloroethene	52.9
trans-1,2-Dichloroethene	< 396

Sample Collection START Date/Time:	12/15/22	13:47
Sample Collection END Date/Time:	12/15/22	14:00
Sample Received Date/Time:	12/16/22	

<u>Compounds</u>	Sample Results ug/m <sup>3</sup>						
cis-1,2-Dichloroethene	< 198						
Tetrachloroethene	52.9						
trans-1,2-Dichloroethene	< 396						
Trichloroethene	< 10.7						
Vinyl Chloride	< 12.8						
4-bromofluorobenzene (surrog	ate)	105%					
Analysis Date/Time:		12-23-22/11:11					
Analyst Initials		tjg					

Reporting Limit ug/m <sup>3</sup>	Flag
198	
31.9	
396	
10.7	
12.8	



**EnvisionAir Batch Number:** 

Analyst Initials

Analytical Report

# **TO-15 Quality Control Data**

122122AIR

tjg

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	<u>Flags</u>				
cis-1,2-Dichloroethene	< 5	5	_				
Tetrachloroethene	< 0.47	0.47					
trans-1,2-Dichloroethene	< 10	10					
Trichlorethene	< 0.2	0.2					
Vinyl Chloride	< 0.5	0.5					
4-bromofluorobenzene (surrogate)	97%						
Analysis Date/Time:	12-22-22/17:53						
Analyst Initials	tjg						
			LCS/D	LCS	LCSD		
LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	Conc(ppbv)	Rec.	Rec.	<u>RPD</u>	Flag
Vinyl Chloride	9.48	9.39	10	95%	94%	1.0%	
trans-1,2-Dichloroethene	9.04	9.95	10	90%	100%	9.6%	
cis-1,2-Dichloroethene	9.99	10.3	10	100%	103%	3.1%	
Trichloroethene	10.5	10.5	10	105%	105%	0.0%	
Tetrachloroethene	10.4	10.2	10	104%	102%	1.9%	
4-bromofluorobenzene (surrogate)	96%	102%					
Analysis Date/Time:	12-22-22/16:01	12-22-22/16:40					

tjg



Flag Number

**Comments** 

EnvisionAir Proj#: 2022 - 1097 Page 1 of 1

12-16-22

11:00

# **CHAIN OF CUSTODY RECORD**

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

Client: Enviro Forensios LLC	P.O. Number:							-			
Report bkappene onviro Address: Connection	Project Name or I			KI		PARAME					
THENDICS, CUM		65	•				/ / 🗖		क को अंग का		a. 166a. 22 - 670. 271 mm207a.
Report To: B. Kappen	Jan &	Карр			/ / ;;	\$ / /		7EN	١V٧	SIC	NAIR
Phone: 414-326-4412	QA/QC Required: Leve	(circle if applicat									
Invoice Address: accounts payable Denvive for ensics, com	Reporting Units n	eeded: (circle) <sup>3</sup> PPBV P	PPMV	12 12 12 12 12 12 12 12 12 12 12 12 12 1			Soil-Gas: □ Sub-Slab:		www.en	vision-air (	om
Desired TAT: (Please Circle <u>One)</u> 1 day 2 days 3 days Std (5 bus. days)	Media type: 1LC = 1 Liter ( 6LC = 6 Liter ( TB = Tediar I TD = Therma	Canister			2550 100 100 100 100 100 100 100 100 100		Sub-Slab: K www.envision-air.com Indoor-Air: Canister Pressure / Vacuum				
Air Sample ID Media	Coll. Date (Grab/Comp Start)		Coll. Time (Comp. End)			Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
6165-55V-1 1LC	2/15/22 1318	1323		$\times$		83978	NА	-27	- L	-4	22.3505
6165-55V-2 1LC	) 1228	1234		$\prec$		2233	0083	- 30	-4	-4	82.3506
6165-55V-3 12C	1248	1252		$\times$		2540	0090	-27	-4	-4	22.3507.
6165-55V-4 1LC	V 1347	1400		X		14415	0061	-30	-4	-4	22-3508
					-						
							94-1-2 				
comments: PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, Viny/ Chloride											
Relinguished b	y:	Da	ate	<b>Time</b>		Rec	eived by:		Da	I	Time

4 Naulton