



January 24, 2023

Gary Parpovich
930 Derby Lane
Green Bay, Wisconsin 54301

Subject: Environmental Investigation Sampling Results
BRRTS#: 02-05-514372

Dear Mr Parpovich:

In accordance with the executed Agreement to Provide Access for Sampling Activities, and 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 930 Derby Lane in Green Bay, Wisconsin. Indoor air, sub-slab, sanitary sewer gas and sump vapor samples were collected in November and December 2022. The sampling activities are part of an environmental investigation being performed for the former Econo-Care Cleaners facility located at 1404 S Webster Avenue in Green Bay at the direction of the WDNR pursuant to the authority granted to it under State and Federal law. The chemicals of concern for the investigation are the dry cleaning solvent tetrachloroethene (PCE) and its associated breakdown products.

The Responsible Party is:

Econo-Care Cleaners (former)
1404 S Webster Avenue
Green Bay, WI

Sampling Results

Two (2) indoor air samples were collected from within your home, 200030-930 Derby-IA-B, 200030-930 Derby-IA-1. One (1) sub-slab vapor sample (200030-930 Derby-SSV-1) was collected from beneath the floor of your home, one sump vapor sample (200030-930 Derby-SUMP) and one sanitary sewer vapor sample (200030-930 Derby-SSG-1) were collected as well. The sampling locations are depicted on the attached **Figure 1**. The results of the indoor air and 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 vapor samples is also attached.

Indoor air detections of PCE were below the Residential Vapor Action Level (VAL). There were no detections in the sub-slab or sump vapor samples. The sanitary sewer gas sample had PCE in concentrations below the Vapor Action Level.

Vapor samples were collected from five (5) nearby sanitary sewer manholes. The manholes sampled are located in Webster Avenue and Derby Lane. There were detections of PCE, but *below* the vapor action level. The results are summarized in **Table 1**. These detections do not indicate that residual vapors in the sewers represent a vapor risk to your home.

TCE was detected in the indoor air samples during the August 2022 sampling event. After sampling, a product containing TCE was removed from your home. This product was kept outdoors during the December 2022 sampling event, and TCE was not detected in the indoor air samples.

At this time we are not recommending further vapor assessment, however, we will seek concurrence from the WDNR. If you have any questions or concerns, please contact us at 262-290-4001 or by email at wfassbender@enviroforensics.com. The WDNR project manager, Josie Schultz, can be reached at 920-366-5685. We greatly appreciate your help and patience with this matter.

Sincerely,
EnviroForensics, LLC

A handwritten signature in blue ink, appearing to read "Rob Hoverman".

Rob Hoverman, PG
Senior Project Manager

Copy: Josie Schultz, Wisconsin Department of Natural Resources

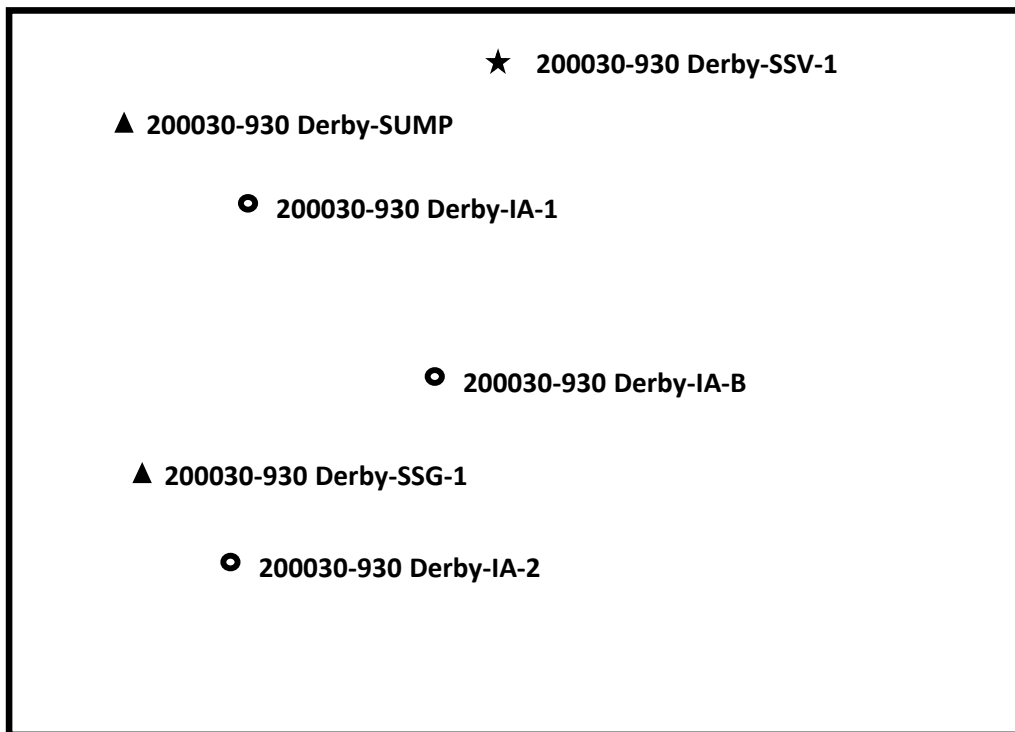
Attachments:

Figure 1 – Vapor Intrusion Sample Locations
Table 1 – Vapor Intrusion Analytical Results
Laboratory Analytical Report Excerpt

FIGURE 1
VAPOR INTRUSION SAMPLE LOCATIONS
930 Derby Lane, Green Bay, Wisconsin

Derby Lane

● 200030-OA



Legend

- = Indoor/Outdoor Air Sample
- IA-B = Basement
- IA-1 = 1st Floor
- IA-2 = 2nd Floor
- SSV-1 = Sub-Slab Vapor
- ★ = Sub-Slab Vapor Sampling Port Location
- ▲ = Sump/Sewer Gas Sampling Location



TABLE 1
VAPOR INTRUSION ASSESSMENT RESULTS SUMMARY

Former Econo Care Cleaners
1404 South Webster Avenue, Wisconsin

Address	Sample Identification	Sample Type	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	
INDOOR/OUTDOOR AIR									
Residential Vapor Action Level				42	2.1	NE	NE	1.7	
930 Derby	IA-B	Grab - Summa	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
			8/25/2022	3.2	5.2	<0.28	<0.25	<0.13	
		28-Day Passive	12/20/2022	0.566	<0.180	<0.167	<0.167	<0.209	
	IA-1	Grab - Summa	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
			8/25/2022	2.3	2.9	<0.38	<0.81	<1.28	
		28-Day Passive	12/20/2022	0.474	<0.180	<0.167	<0.167	<0.209	
	IA-2	Grab - Summa	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
			8/25/2022	2.9	2.8	<0.38	<0.81	<0.13	
	Outdoor Air	OA	Grab - Summa	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28
SUB-SLAB VAPOR									
Residential Vapor Risk Screening Level				1,400	70	NE	NE	57	
930 Derby	SSV-1	Grab - Summa	2/24/2022	111	<10.7	<0.38	<0.81	<12.8	
			8/25/2022	128	1.8	<0.38	<0.81	<0.16	
			12/20/2022	<31.9	<10.7	<198	<396	<12.8	
SUMP VAPOR									
Residential Vapor Action Level				42	2.1	NE	NE	1.7	
930 Derby	SUMP	Grab - Summa	2/24/2022	<31.9	<10.7	<198	<396	<12.8	
			12/20/2022	<31.9	<10.7	<198	<396	<12.8	
SANITARY SEWER GAS									
Residential Vapor Risk Screening Level				1,400	70	NE	NE	57	
930 Derby	SSG-1	Grab - Summa	12/20/2022	76.6	<10.7	<198	<396	<12.8	
			2/24/2022	<31.9	<10.7	<198	<396	<12.8	
S Webster Ave	SSG-1	28-Day Passive	12/20/2022	13.4	<0.186	<0.172	<0.172	<0.216	
			24-Hour Passive	12/20/2022	71.5	<5.39	<5.01	<5.01	<6.26
Derby Lane	SSG-2	Grab - Summa	2/24/2022	690	32.8	<198	<396	<12.8	
			28-Day Passive	12/20/2022	31.0	<0.186	<0.173	<0.173	<0.216
			24-Hour Passive	12/20/2022	29.7	<5.36	<4.98	<4.98	<6.23
S Webster Ave	SSG-3	28-Day Passive	12/20/2022	0.258	<0.186	<0.172	<0.172	<0.216	
			24-Hour Passive	12/20/2022	<6.36	<5.38	<5.00	<5.00	<6.25
Derby Lane	SSG-4	28-Day Passive	12/20/2022	2.91	<0.186	<0.173	<0.173	<0.216	
			24-Hour Passive	12/20/2022	<6.35	<5.37	<4.99	<4.99	<6.24
Derby Lane	SSG-5	28-Day Passive	12/20/2022	0.354	<0.186	<0.173	<0.173	<0.216	
			24-Hour Passive	12/20/2022	<6.36	<5.38	<5.00	<5.00	<6.25

Notes:

Vapor Action and Risk Screening Levels are calculated according to WDNR Publication RR-800 and subsequent vapor intrusion Results reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)

Samples analyzed according to EPA Method TO-15

NE = Screening/action level not established

Bolded values are above detection limits

Bolded and shaded values exceed the applicable screening or action level



EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Mr. Rob Hoverman
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

January 5, 2023

EnvisionAir Project Number: 2022-710
Client Project Name: 200030 – Econo Care

Dear Mr. Hoverman,

Please find the attached analytical report for the samples received December 22, 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,

A handwritten signature in black ink that reads "David Norris". The signature is written in a cursive, flowing style.

David Norris
Project Manager
EnvisionAir, LLC



EnvisionAir
 1441 Sadlier Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-710

Sample Summary

Canister Pressure / Vacuum

<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>Matrix:</u>	<u>START</u>		<u>End Date</u>	<u>End Time</u>	<u>Date</u>	<u>Time</u>	<u>Canister Pressure / Vacuum</u>		<u>Lab</u> <u>Received</u>
			<u>Collected:</u>	<u>Collected:</u>					<u>(in. Hg)</u>	<u>(in. Hg)</u>	
22-3569	200030-930 DERBY-SSV-1	A	12/20/22	11:04	12/20/22	11:08	12/22/22	10:15	-27	-4	-4
22-3570	200030-930 DERBY-SSG-1	A	12/20/22	11:18	12/20/22	11:23	12/22/22	10:15	-29	-5	-5
22-3571	200030-930 DERBY-SUMP	A	12/20/22	11:20	12/20/22	11:26	12/22/22	10:15	-28	-4	-4



EnvisionAir
 1441 Sadler Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-710
Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-930 DERBY-SSV-1
EnvisionAir Sample Number: 22-3569
Sample Matrix: AIR

Sample Collection START Date/Time: 12/20/22 11:04
Sample Collection END Date/Time: 12/20/22 11:08
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	96%		
Analysis Date/Time:	12-28-22/18:07		
Analyst Initials	tjg		



EnvisionAir
 1441 Sadler Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-710
Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-930 DERBY-SSG-1
EnvisionAir Sample Number: 22-3570
Sample Matrix: AIR

Sample Collection START Date/Time: 12/20/22 11:18
Sample Collection END Date/Time: 12/20/22 11:23
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	76.6	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	95%		
Analysis Date/Time:	12-28-22/18:43		
Analyst Initials	tjg		



EnvisionAir
 1441 Sadler Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-710
Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-930 DERBY-SUMP
EnvisionAir Sample Number: 22-3571
Sample Matrix: AIR
Sample Collection START Date/Time: 12/20/22 11:20
Sample Collection END Date/Time: 12/20/22 11:26
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	103%		
Analysis Date/Time:	12-28-22/19:19		
Analyst Initials	tjg		

TO-15 Quality Control Data

EnvisionAir Batch Number: 122822AIR

<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)	102%		
Analysis Date/Time:	12-28-22/14:00		
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	9.05	9.93	10	91%	99%	9.3%	
trans-1,2-Dichloroethene	8.95	9.55	10	90%	96%	6.5%	
cis-1,2-Dichloroethene	9.55	10.6	10	96%	106%	10.4%	
Trichloroethene	9.91	10	10	99%	100%	0.9%	
Tetrachloroethene	10.6	10.4	10	106%	104%	1.9%	
4-bromofluorobenzene (surrogate)	106%	100%					
Analysis Date/Time:	12-28-22/12:11	12-28-22/12:50					
Analyst Initials	tjg	tjg					



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Flag Number

Comments

CHAIN OF CUSTODY RECORD

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

Client: Enviro Forensics P.O. Number: _____

Report Address: _____ Project Name or Number: 20080

Report To: Rob Hoberman Sampled by: R Brown

Phone: _____ QA/QC Required: (circle if applicable)
Level III Level IV

Invoice Address: _____ Reporting Units needed: (circle)
µg/m³ mg/m³ PPBV PPMV

Desired TAT: (Please Circle One)
1 day 2 days 3 days Std (5 bus. days)

REQUESTED PARAMETERS

TO-15 Full List
TO-15 Short List (Specify in notes)

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

Canister Pressure / Vacuum

www.envision-air.com



Air Sample ID	Media Type (above)	Coll. Date (Grab/Comp Std)	Coll. Time (Grab/Comp Std)	Coll. Date (Comp. Std)	Coll. Time (Comp. Std)	TO-15 Full List		TO-15 Short List (Specify in notes)		Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
<u>20080-930 Derby -SSV-1</u>	<u>ILC</u>	<u>12/20/22</u>	<u>1104</u>	<u>12/20/22</u>	<u>1108</u>					<u>31707</u>	<u>NA</u>	<u>-27</u>	<u>-4</u>	<u>-4</u>	<u>22-3569</u>
<u>20080-930 Derby -SSG-1</u>			<u>1118</u>		<u>1123</u>					<u>84138</u>	<u>NA</u>	<u>-29</u>	<u>-5</u>	<u>-5</u>	<u>22-3570</u>
<u>20080-930 Derby -SUMP</u>			<u>1120</u>		<u>1126</u>					<u>83919</u>	<u>4010</u>	<u>-28</u>	<u>-4</u>	<u>-4</u>	<u>22-3571</u>

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
<u>[Signature]</u>	<u>12-21-22</u>	<u>1630</u>	<u>[Signature]</u>	<u>12-21-22</u>	<u>1630</u>



Beacon Environmental

2203A Commerce Road, Suite 1

Forest Hill, MD 21050 USA

1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 221003R01

Laboratory Work Order: 0006723

Project Description:

Econo Care Cleaners

Green Bay, WI

Prepared for:

Rob Hoverman

EnviroForensics

N16W23390 Stone Ridge Dr, Suite G

Waukesha, WI 53188

Ryan W. Schneider

Senior Project Manager

January 13, 2023

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

Steven C. Thornley
Laboratory Director

Peter B. Kelly
Quality Manager

Table of Contents

Cover Page	1
Sample Summary	3
Case Narrative	4
Analytical Results	5
Summary of Compound Detections	6
Data Summary Table	7
Detailed Analytical Results	8
0006723-01 - 200030-930 Derby-IA-B	9
0006723-02 - 200030-930 Derby-IA-1	10
QC Summaries	11
Additional QC Information	22
Sample Result Calculations	23
Equation	23
LOD/MRL Calculation Table	24
Certifications	25
Notes and Definitions	26
Sample Management Records	27
Chain of Custody	28

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0006723-01 Sampler Type:	200030-930 Derby-IA-B Sorbent Tube	12/29/2022	TO-17 (Passive)	Indoor Air
0006723-02 Sampler Type:	200030-930 Derby-IA-1 Sorbent Tube	12/29/2022	TO-17 (Passive)	Indoor Air

Project Completeness

Samples Received: 2
Samples Analyzed: 2

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Case Narrative

Beacon Environmental provided thermally conditioned ChloroSorbors for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in $\mu\text{g}/\text{m}^3$. Beacon calculated concentration results using the exposure period, target analyte mass, and the following procedures detailed in ISO 16017-2, *Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 2: Diffusive sampling*.

Beacon reports results and reporting limits to three significant digits.

Reporting Limits (RLs) for EPA Method TO-17

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. Beacon performed dilution analysis when results exceeded the upper calibration limit, bringing all reported results within the calibration range. The project method quantitation limit (MQL) is the limit of detection (LOD) as noted in the data tables.

Calibration Verification

All continuing calibration verification (CCV) values are within $\pm 30\%$ of the true values as defined by the initial calibration and met the requirements specified in BEACON's Quality Manual.

Internal Standards and Surrogates

Internal standards and surrogates are spiked on all blanks (ICB, BLK), field samples and laboratory control samples (ICV/CALV, BS, ICV and CCV). Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates are within the acceptance criteria unless noted in the **Case Narrative**.

Blank Contamination

No targeted compounds above the limit of detection (LOD) for each compound were observed in the Laboratory Method Blanks unless noted in the **Case Narrative**.

Laboratory Control Samples

Acceptance criteria for surrogate and analytes recoveries are 70 to 130 percent; all recoveries are within the acceptance criteria unless noted in the **Case Narrative**.

Discussion

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

End of Case Narrative

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Analytical Results

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Summary of Compound Detections- Concentration

Lab Sample ID: 0006723-01	200030-930 Derby-IA-B Indoor Air	Method: TO-17 (Passive)
---------------------------	--	-------------------------

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Tetrachloroethene	127-18-4	0.566		7.973	0.425	0.213	Kb23010407.D

Lab Sample ID: 0006723-02	200030-930 Derby-IA-1 Indoor Air	Method: TO-17 (Passive)
---------------------------	--	-------------------------

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Tetrachloroethene	127-18-4	0.474		7.980	0.425	0.213	Kb23010409.D

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188**Site Name:** Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman**Beacon Proposal:** 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023***Data Summary Table- Concentration***

Compound	Frequency	LOD ($\mu\text{g}/\text{m}^3$)	Max Value ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene	2	0.213	0.566

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Detailed Analytical Results

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006723 Reported: 01/13/2023
---	--	--

Lab Sample ID: 0006723-01	200030-930 Derby-IA-B	Method: TO-17 (Passive)
Indoor Air		

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.209	U	0.209	0.418	01/04/2023 11:53	Kb23010407.D
trans-1,2-Dichloroethene	156-60-5	<0.167	U	0.167	0.334	01/04/2023 11:53	Kb23010407.D
cis-1,2-Dichloroethene	156-59-2	<0.167	U	0.167	0.334	01/04/2023 11:53	Kb23010407.D
Trichloroethene	79-01-6	<0.180	U	0.180	0.360	01/04/2023 11:53	Kb23010407.D
Tetrachloroethene	127-18-4	0.566		0.213	0.425	01/04/2023 11:53	Kb23010407.D

Analyte	CAS#	% Recovery	Recovery Limits	Q	Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	113%	70-130		01/04/2023 11:53	Kb23010407.D
Surrogate: Toluene-d8	2037-26-5	110%	70-130		01/04/2023 11:53	Kb23010407.D

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Lab Sample ID: 0006723-02

200030-930 Derby-IA-1
 Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m ³)	Q	LOD (µg/m ³)	LOQ (µg/m ³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.209	U	0.209	0.418	01/04/2023 12:45	Kb23010409.D
trans-1,2-Dichloroethene	156-60-5	<0.167	U	0.167	0.334	01/04/2023 12:45	Kb23010409.D
cis-1,2-Dichloroethene	156-59-2	<0.167	U	0.167	0.334	01/04/2023 12:45	Kb23010409.D
Trichloroethene	79-01-6	<0.180	U	0.180	0.360	01/04/2023 12:45	Kb23010409.D
Tetrachloroethene	127-18-4	0.474		0.213	0.425	01/04/2023 12:45	Kb23010409.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	112%	70-130			01/04/2023 12:45	Kb23010409.D
Surrogate: Toluene-d8	2037-26-5	110%	70-130			01/04/2023 12:45	Kb23010409.D

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

QC Information/Summary

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B22L001 - Instrument: K System - File ID: K22113017.D
B22L001-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.4	70-130			
trans-1,2-Dichloroethene	49.1	10	5	ng	50.0		98.2	70-130			
cis-1,2-Dichloroethene	50.0	10	5	ng	50.0		100	70-130			
Trichloroethene	53.0	10	5	ng	50.0		106	70-130			
Tetrachloroethene	59.6	10	5	ng	50.0		119	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>50.4</i>			<i>ng</i>	<i>50.0</i>		<i>101</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>53.4</i>			<i>ng</i>	<i>50.0</i>		<i>107</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B22L001 - Instrument: K System - File ID: K22113020.D
B22L001-ICB1 (Lab Blank/Initial Calibration Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>95.2</i>			<i>ng</i>	<i>100</i>		<i>95.2</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>101</i>			<i>ng</i>	<i>100</i>		<i>101</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006723 Reported: 01/13/2023
---	--	--

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Batch: 23A0004 - Instrument: K System - File ID: Kb23010402.D

23A0004-BS1 (LCS, Calibration Source Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.4	70-130			
trans-1,2-Dichloroethene	51.8	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Trichloroethene	49.8	10	5	ng	50.0		99.5	70-130			
Tetrachloroethene	63.9	10	5	ng	50.0		128	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.4</i>			<i>ng</i>	<i>50.0</i>		<i>113</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>60.3</i>			<i>ng</i>	<i>50.0</i>		<i>121</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Batch: 23A0004 - Instrument: K System - File ID: Kb23010403.D
23A0004-BLK1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.443	0.418	0.209	µg/m ³							U
trans-1,2-Dichloroethene	<0.354	0.334	0.167	µg/m ³							U
cis-1,2-Dichloroethene	<0.354	0.334	0.167	µg/m ³							U
Trichloroethene	<0.382	0.360	0.180	µg/m ³							U
Tetrachloroethene	<0.451	0.425	0.213	µg/m ³							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>110</i>			<i>ng</i>	<i>100</i>		<i>110</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>114</i>			<i>ng</i>	<i>100</i>		<i>114</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010404.D
B23A004-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.3	70-130			
trans-1,2-Dichloroethene	51.1	10	5	ng	50.0		102	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Trichloroethene	48.9	10	5	ng	50.0		97.7	70-130			
Tetrachloroethene	63.4	10	5	ng	50.0		127	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.0</i>			<i>ng</i>	<i>50.0</i>		<i>112</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.2</i>			<i>ng</i>	<i>50.0</i>		<i>116</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006723 Reported: 01/13/2023
---	--	--

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010425.D

B23A004-CCV1 (LCS, Closing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.5	10	5	ng	50.0		97.0	70-130			
trans-1,2-Dichloroethene	52.1	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	51.3	10	5	ng	50.0		103	70-130			
Trichloroethene	47.5	10	5	ng	50.0		95.0	70-130			
Tetrachloroethene	62.0	10	5	ng	50.0		124	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.8</i>			<i>ng</i>	<i>50.0</i>		<i>114</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.9</i>			<i>ng</i>	<i>50.0</i>		<i>118</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010426.D
B23A004-CCB1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>95.5</i>			<i>ng</i>	<i>100</i>		<i>95.5</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>116</i>			<i>ng</i>	<i>100</i>		<i>116</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006723 Reported: 01/13/2023
---	--	--

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010441.D

B23A004-CCV2 (Continuing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.9	10	5	ng	50.0		97.8	70-130			
trans-1,2-Dichloroethene	52.6	10	5	ng	50.0		105	70-130			
cis-1,2-Dichloroethene	51.6	10	5	ng	50.0		103	70-130			
Trichloroethene	50.3	10	5	ng	50.0		101	70-130			
Tetrachloroethene	64.6	10	5	ng	50.0		129	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>55.6</i>			<i>ng</i>	<i>50.0</i>		<i>111</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>61.4</i>			<i>ng</i>	<i>50.0</i>		<i>123</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010442.D
B23A004-CCB2 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>105</i>			<i>ng</i>	<i>100</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>117</i>			<i>ng</i>	<i>100</i>		<i>117</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006723 Reported: 01/13/2023
---	--	--

TO-17 (Passive) - LCS/LCSD Quality Control Summary

LCS: 23A0004-BS1 File ID: Kb23010402.D

Analyzed: 1/4/23 10:27

LCSD: B23A004-ICV1 File ID: Kb23010404.D

Analyzed: 1/4/23 9:39

Analyte	CAS#	LCS Result (ng)	%REC Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	48.69	97.38	50	48.67	97.30	70-130	0.04	30	
trans-1,2-Dichloroethene	156-60-5	51.77	103.54	50	51.05	102.00	70-130	1.40	30	
cis-1,2-Dichloroethene	156-59-2	50.77	101.54	50	50.77	102.00	70-130	0.00	30	
Trichloroethene	79-01-6	49.76	99.52	50	48.85	97.70	70-130	1.85	30	
Tetrachloroethene	127-18-4	63.89	127.78	50	63.41	127.00	70-130	0.75	30	

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Additional QC Information

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006723 Reported: 01/13/2023
---	--	--

Sample Result Calculation Summary (Concentration)
TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m ³	File ID
---------	-------------------------------	--------------------------	----------------------	---------------------------	---	---------

Lab ID: 0006723-01 **Sample Name:** 200030-930 Derby-IA-B **̄ Temp (°C):** 30.00

Vinyl Chloride	41,805	1.00	0.573	U	U	Kb23010407.D
trans-1,2-Dichloroethene	41,805	1.00	0.716	U	U	Kb23010407.D
cis-1,2-Dichloroethene	41,805	1.00	0.716	U	U	Kb23010407.D
Trichloroethene	41,805	1.00	0.665	U	U	Kb23010407.D
Tetrachloroethene	41,805	1.00	0.563	13.30	0.566	Kb23010407.D

Lab ID: 0006723-02 **Sample Name:** 200030-930 Derby-IA-1 **̄ Temp (°C):** 30.00

Vinyl Chloride	41,809	1.00	0.573	U	U	Kb23010409.D
trans-1,2-Dichloroethene	41,809	1.00	0.716	U	U	Kb23010409.D
cis-1,2-Dichloroethene	41,809	1.00	0.716	U	U	Kb23010409.D
Trichloroethene	41,809	1.00	0.665	U	U	Kb23010409.D
Tetrachloroethene	41,809	1.00	0.563	11.15	0.474	Kb23010409.D

Calculations:

$$C = \frac{1000 \times M \times DF}{U_c \times t}$$

$$U_c = U * \left(\frac{T_s + 273.15}{T_u + 273.15} \right)^{1/2}$$

- where: C = concentration (µg/m³)
 M = mass (ng)
 DF = dilution factor
 U_c = uptake rate (ml/min), corrected
 t = sampling time (minutes)
 U = compound specific uptake rate
 T_u = uptake rate study temperature
 T_s = sample average temperature

Note: T_u is 16.65°C

Reference: Federal Register/Vol. 79, No. 125/June 30, 2014

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Method Detection and Reporting Limit Calculations (Concentration)
TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0006723-01	Sample Name: 200030-930 Derby-IA-B	̄ Temp (°C): 30.00
---------------------------	---	---------------------------

Vinyl Chloride	41,805	1.00	0.573	10.00	5.00	0.418	0.209
trans-1,2-Dichloroethene	41,805	1.00	0.716	10.00	5.00	0.334	0.167
cis-1,2-Dichloroethene	41,805	1.00	0.716	10.00	5.00	0.334	0.167
Trichloroethene	41,805	1.00	0.665	10.00	5.00	0.360	0.180
Tetrachloroethene	41,805	1.00	0.563	10.00	5.00	0.425	0.213

Lab ID: 0006723-02	Sample Name: 200030-930 Derby-IA-1	̄ Temp (°C): 30.00
---------------------------	---	---------------------------

Vinyl Chloride	41,809	1.00	0.573	10.00	5.00	0.418	0.209
trans-1,2-Dichloroethene	41,809	1.00	0.716	10.00	5.00	0.334	0.167
cis-1,2-Dichloroethene	41,809	1.00	0.716	10.00	5.00	0.334	0.167
Trichloroethene	41,809	1.00	0.665	10.00	5.00	0.360	0.180
Tetrachloroethene	41,809	1.00	0.563	10.00	5.00	0.425	0.213

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Laboratory Certification List

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	01/31/2023	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAC	12097	New York Department of Health	04/01/2023	
Utah-NELAC	MD010912022-12	Utah Department of Health	12/31/2023	

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Qualifiers/Notes and Definitions

General Definitions:

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside ± 0.06 control limits)
3σ	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

Sample/Sample Receipt Qualifiers and Notes:

U Analyte was not detected and is reported as less than the limit of detection (LOD). The LOD has been adjusted for any dilution or concentration of the sample.

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006723
Reported: 01/13/2023

Sample Management Records



January 23, 2023

Krista Strenski
926 Derby Lane
Green Bay, Wisconsin 54301

Subject: Environmental Investigation Sampling Results
BRRTS#: 02-05-514372

Dear Ms. Strenski:

In accordance with the executed Agreement to Provide Access for Sampling Activities, and 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 926 Derby Lane in Green Bay, Wisconsin. Indoor air and sub-slab vapor samples were collected during November and December 2022. The sampling activities are part of an environmental investigation being performed for the former Econo-Care Cleaners facility located at 1404 S Webster Avenue in Green Bay at the direction of the WDNR pursuant to the authority granted to it under State and Federal law. The chemicals of concern for the investigation are the dry cleaning solvent tetrachloroethene (PCE) and its associated breakdown products.

The Responsible Party is:

Econo-Care Cleaners (former)
1404 S Webster Avenue
Green Bay, WI

Sampling Results

Two indoor air samples were collected from within your home, 200030-926 Derby-IA-B and 200030-926 Derby-IA-1. One (1) sub-slab vapor sample (200030-926 Derby-SSV-1) was collected from beneath the floor of your home, one (1) sanitary sewer gas sample was collected (200030-926 Derby-SSG-1) and one (1) sump vapor sample was collected (200030-926 Derby-SUMP). The sampling locations are depicted on the attached **Figure 1**. The results of the indoor air and 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 vapor samples is also attached.

There were no detections above the laboratory detection limits in any of the vapor samples.

Document: 200030-0240
EnviroForensics, LLC
N16 W23390 Stone Ridge Dr, Suite G, Waukesha, WI 53188
Phone: 262-290-4001 • Fax 317-972-7875

Vapor samples were collected from five (5) nearby sanitary sewer manholes. The manholes sampled are located in Webster Avenue and Derby Lane. There were detections of PCE below the vapor action level, the results are summarized in **Table 1**. These detections do not indicate that residual vapors in the sewers represent a vapor risk to your home.

At this time we are not recommending further vapor assessment, however, we will seek concurrence from the WDNR. If you have any questions or concerns, please contact us at 262-290-4001 or by email at rhoverman@enviroforensics.com. The WDNR project manager, Josie Schultz, can be reached at 920-366-5685. We greatly appreciate your help and patience with this matter.

Sincerely,
EnviroForensics, LLC

A handwritten signature in blue ink, appearing to read "Rob Hoverman".

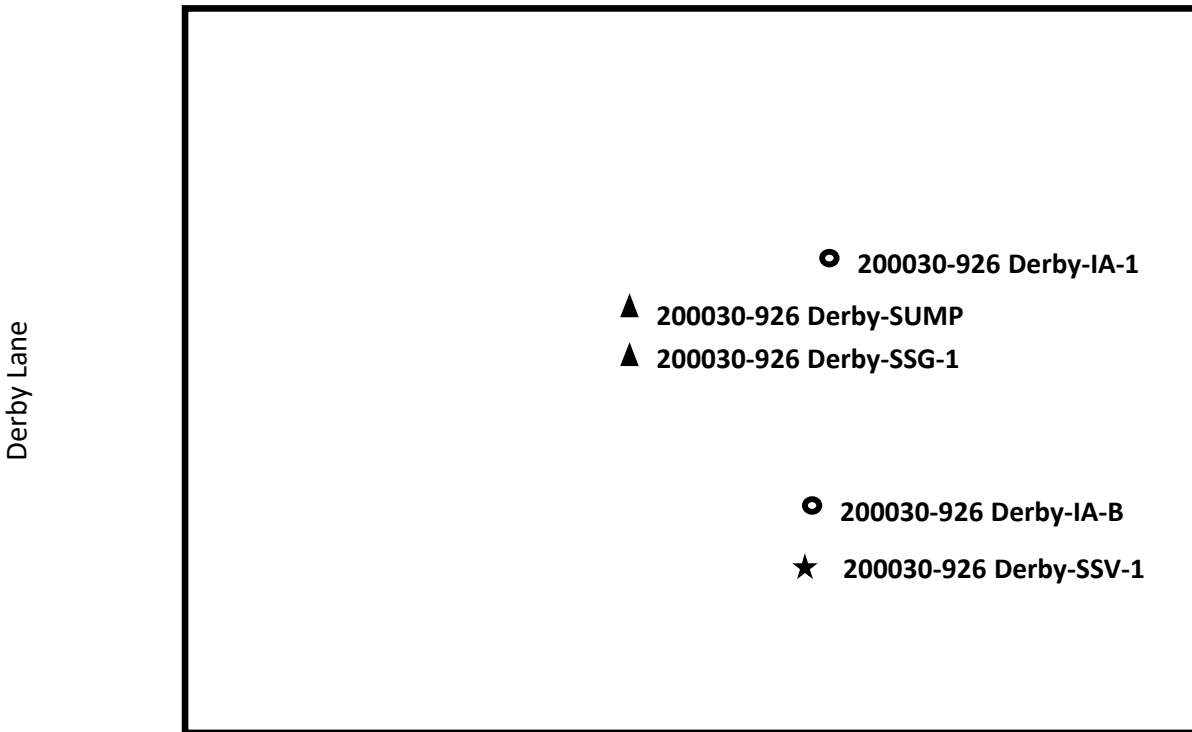
Rob Hoverman, PG
Senior Project Manager

Copy: Josie Schultz, Wisconsin Department of Natural Resources

Attachments:

Figure 1 – Vapor Intrusion Sample Locations
Table 1 – Vapor Intrusion Analytical Results
Laboratory Analytical Report

FIGURE 1
VAPOR INTRUSION SAMPLE LOCATIONS
926 Derby Lane, Green Bay, Wisconsin



Legend

- = Indoor Air Sample
- IA-B = Basement
- IA-1 = 1st Floor
- SSV-1 = Sub-Slab Vapor
- ★ = Sub-Slab Vapor Sampling Port Location
- ▲ = Sanitary Sewer Gas/Sump Sample Location



TABLE 1
VAPOR INTRUSION ASSESSMENT RESULTS SUMMARY

Former Econo Care Cleaners
1404 South Webster Avenue, Wisconsin

Address	Sample Identification	Sample Type	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
INDOOR/OUTDOOR AIR								
Residential Vapor Action Level				42	2.1	NE	NE	1.7
926 Derby	IA-B	Grab - Summa	4/12/2022	0.66 J	0.34 J	<0.30	<0.26	<0.13
			8/2/2022	1.0 J	<0.29	<0.29	<0.25	<0.13
		28-Day Passive	12/19/2022	<0.220	<0.187	<0.173	<0.173	<0.216
	IA-1	Grab - Summa	4/12/2022	0.52 J	<0.30	<0.30	1.4	<0.13
			8/2/2022	3.1	<0.29	<0.29	<0.25	<0.13
		28-Day Passive	12/19/2022	<0.220	<0.187	<0.173	<0.173	<0.216
OA	Grab - Summa	8/2/2022	<0.45	<0.30	<0.30	<0.26	<0.13	
SUB-SLAB VAPOR								
Residential Vapor Risk Screening Level				1,400	70	NE	NE	57
926 Derby	SSV-1	Grab - Summa	4/12/2022	44.0	5.4	<0.39	<0.33	<0.17
			8/2/2022	323	3.7	<0.38	<0.33	<0.17
			12/19/2022	<31.9	<10.7	<198	<396	<12.8
SUMP VAPOR								
Residential Vapor Action Level				42	2.1	NE	NE	1.7
926 Derby	SUMP	Grab - Summa	12/19/2022	<31.9	<10.7	<198	<396	<12.8
SANITARY SEWER GAS								
Residential Vapor Action Level				1,400	70	NE	NE	57
926 Derby	SSG-1	Grab - Summa	12/19/2022	<31.9	<10.7	<198	<396	<12.8
S Webster Ave	SSG-1	Grab - Summa	2/24/2022	<31.9	<10.7	<198	<396	<12.8
		28-Day Passive	12/20/2022	13.4	<0.186	<0.172	<0.172	<0.216
		24-Hour Passive	12/20/2022	71.5	<5.39	<5.01	<5.01	<6.26
		Grab - Summa	2/24/2022	690	32.8	<198	<396	<12.8
Derby Lane	SSG-2	28-Day Passive	12/20/2022	31.0	<0.186	<0.173	<0.173	<0.216
		24-Hour Passive	12/20/2022	29.7	<5.36	<4.98	<4.98	<6.23
		28-Day Passive	12/20/2022	0.258	<0.186	<0.172	<0.172	<0.216
S Webster Ave	SSG-3	24-Hour Passive	12/20/2022	<6.36	<5.38	<5.00	<5.00	<6.25
		28-Day Passive	12/20/2022	2.91	<0.186	<0.173	<0.173	<0.216
Derby Lane	SSG-4	24-Hour Passive	12/20/2022	<6.35	<5.37	<4.99	<4.99	<6.24
		28-Day Passive	12/20/2022	0.354	<0.186	<0.173	<0.173	<0.216
Derby Lane	SSG-5	24-Hour Passive	12/20/2022	<6.36	<5.38	<5.00	<5.00	<6.25

Notes:

Vapor Action and Risk Screening Levels are calculated according to WDNR Publication RR-800 and subsequent

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

Samples analyzed according to EPA Method TO-15

NE = Screening/action level not established

Bolded values are above detection limits

Bolded and shaded values exceed the applicable screening or action level

NA = Not Analyzed

J = Analyte concentration detected between the laboratory Reporting Limit and the laboratory



EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Mr. Rob Hoverman
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

January 5, 2023

EnvisionAir Project Number: 2022-709
Client Project Name: 200030 – Econo Care

Dear Mr. Hoverman,

Please find the attached analytical report for the samples received December 22, 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,

A handwritten signature in black ink that reads "David Norris". The signature is written in a cursive, flowing style.

David Norris
Project Manager
EnvisionAir, LLC



EnvisionAir
 1441 Sadlier Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-709

Sample Summary

Canister Pressure / Vacuum

<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>Matrix:</u>	<u>START</u>		<u>End Date</u>	<u>End Time</u>	<u>Date</u>	<u>Time</u>	<u>Canister Pressure / Vacuum</u>		<u>Lab</u> <u>Received</u>
			<u>Collected:</u>	<u>Collected:</u>					<u>(in. Hg)</u>	<u>(in. Hg)</u>	
22-3566	200030-926 DERBY-SSV-1	A	12/19/22	16:24	12/19/22	16:30	12/22/22	10:15	-28	-4	-4
22-3567	200030-926 DERBY-SSG-1	A	12/19/22	16:34	12/19/22	16:38	12/22/22	10:15	-28	-4	-4
22-3568	200030-926 DERBY-SUMP	A	12/19/22	16:45	12/19/22	16:51	12/22/22	10:15	-28	-4	-4



EnvisionAir
 1441 Sadler Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-709

Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-926 DERBY-SSV-1
EnvisionAir Sample Number: 22-3566
Sample Matrix: AIR

Sample Collection START Date/Time: 12/19/22 16:24
Sample Collection END Date/Time: 12/19/22 16:30
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	98%		
Analysis Date/Time:	12-28-22/16:20		
Analyst Initials	tjg		



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-709

Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-926 DERBY-SSG-1
EnvisionAir Sample Number: 22-3567
Sample Matrix: AIR

Sample Collection START Date/Time: 12/19/22 16:34
Sample Collection END Date/Time: 12/19/22 16:38
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	100%		
Analysis Date/Time:	12-28-22/16:56		
Analyst Initials	tjg		



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-709

Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-926 DERBY-SUMP
EnvisionAir Sample Number: 22-3568
Sample Matrix: AIR

Sample Collection START Date/Time: 12/19/22 16:45
Sample Collection END Date/Time: 12/19/22 16:51
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	101%		
Analysis Date/Time:	12-28-22/17:32		
Analyst Initials	tjg		

TO-15 Quality Control Data

EnvisionAir Batch Number: 122822AIR

<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)	102%		
Analysis Date/Time:	12-28-22/14:00		
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	9.05	9.93	10	91%	99%	9.3%	
trans-1,2-Dichloroethene	8.95	9.55	10	90%	96%	6.5%	
cis-1,2-Dichloroethene	9.55	10.6	10	96%	106%	10.4%	
Trichloroethene	9.91	10	10	99%	100%	0.9%	
Tetrachloroethene	10.6	10.4	10	106%	104%	1.9%	
4-bromofluorobenzene (surrogate)	106%	100%					
Analysis Date/Time:	12-28-22/12:11	12-28-22/12:50					
Analyst Initials	tjg	tjg					



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Flag Number

Comments

CHAIN OF CUSTODY RECORD

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

P.O. Number:

Project Name or Number: 20030

Report Name: EconoCare

Sampled by: R. Brown

QA/QC Required: (circle if applicable)
Level III Level IV

Repeating Units needed: (circle)
1g/m³ mg/m³ PPBV PPMV

Media type: 11C = 1 Liter Canister
61C = 6 Liter Canister
T8 = Teflon Bag
TD = Thermal Description Tube

Desired TAT: (please circle one)
1 day 2 days 3 days Std (5 bus. days)

Invoice Address: Accounts Payable@envisionair.com

Report To: Rob Hoberman

Phone: 262-290-4001

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



Air Sample ID	Media Type (see code above)	Coll. Date (Grav/Comp Std)	Coll. Time (Grav/Comp Std)	Coll. Date (Comp Std)	Coll. Time (Comp Std)	Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
20030-926 Derby-SSV-1	11C	12-19-12	1624	12-19-12	1630	J1713	0142	-28	-4	-4	22-3506
20030-976 Derby-SSV-1	↓	↓	1634	↓	1638	J1716	0068	-28	-4	-4	22-3507
20030-976 Derby-SAMP	↓	↓	1645	↓	1651	2224	0118	-28	-4	-4	22-3508

Comments:

PCF PRE CDE TAKE KC

Relinquished by:	Date	Time	Received by:	Date	Time
7L7L	12-21-12	1630	FedEx	12-21-12	1630
			4Doraton	12-22-12	10:15



Beacon Environmental
2203A Commerce Road, Suite 1
Forest Hill, MD 21050 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 221003R01

Laboratory Work Order: 0006725

Project Description:

Econo Care Cleaners
Green Bay, WI

Prepared for:

Rob Hoverman

EnviroForensics

N16W23390 Stone Ridge Dr, Suite G

Waukesha, WI 53188

Ryan W. Schneider
Senior Project Manager

January 13, 2023

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

Steven C. Thornley
Laboratory Director

Peter B. Kelly
Quality Manager

Table of Contents

Cover Page	1
Sample Summary	3
Case Narrative	4
Analytical Results	5
Detailed Analytical Results	6
0006725-01 - 200030-926 Derby-IA-1	7
0006725-02 - 200030-926 Derby-IA-B	8
QC Summaries	9
Additional QC Information	20
Sample Result Calculations	21
Equation	21
LOD/MRL Calculation Table	22
Certifications	23
Notes and Definitions	24
Sample Management Records	25
Chain of Custody	26

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0006725-01 Sampler Type:	200030-926 Derby-IA-1 Sorbent Tube	12/29/2022	TO-17 (Passive)	Indoor Air
0006725-02 Sampler Type:	200030-926 Derby-IA-B Sorbent Tube	12/29/2022	TO-17 (Passive)	Indoor Air

Project Completeness

Samples Received: 2
Samples Analyzed: 2

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188**Site Name:** Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman**Beacon Proposal:** 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Case Narrative

Beacon Environmental provided thermally conditioned ChloroSorbers for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in $\mu\text{g}/\text{m}^3$. Beacon calculated concentration results using the exposure period, target analyte mass, and the following procedures detailed in ISO 16017-2, *Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 2: Diffusive sampling*.

Beacon reports results and reporting limits to three significant digits.

Reporting Limits (RLs) for EPA Method TO-17

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. Beacon performed dilution analysis when results exceeded the upper calibration limit, bringing all reported results within the calibration range. The project method quantitation limit (MQL) is the limit of detection (LOD) as noted in the data tables.

Calibration Verification

All continuing calibration verification (CCV) values are within $\pm 30\%$ of the true values as defined by the initial calibration and met the requirements specified in BEACON's Quality Manual.

Internal Standards and Surrogates

Internal standards and surrogates are spiked on all blanks (ICB, BLK), field samples and laboratory control samples (ICV/CALV, BS, ICV and CCV). Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates are within the acceptance criteria unless noted in the **Case Narrative**.

Blank Contamination

No targeted compounds above the limit of detection (LOD) for each compound were observed in the Laboratory Method Blanks unless noted in the **Case Narrative**.

Laboratory Control Samples

Acceptance criteria for surrogate and analytes recoveries are 70 to 130 percent; all recoveries are within the acceptance criteria unless noted in the **Case Narrative**.

Discussion

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

End of Case Narrative

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Analytical Results

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Detailed Analytical Results

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Lab Sample ID: 0006725-01

200030-926 Derby-IA-1
 Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m ³)	Q	LOD (µg/m ³)	LOQ (µg/m ³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.216	U	0.216	0.433	01/04/2023 14:31	Kb23010413.D
trans-1,2-Dichloroethene	156-60-5	<0.173	U	0.173	0.346	01/04/2023 14:31	Kb23010413.D
cis-1,2-Dichloroethene	156-59-2	<0.173	U	0.173	0.346	01/04/2023 14:31	Kb23010413.D
Trichloroethene	79-01-6	<0.187	U	0.187	0.373	01/04/2023 14:31	Kb23010413.D
Tetrachloroethene	127-18-4	<0.220	U	0.220	0.441	01/04/2023 14:31	Kb23010413.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	114%	70-130			01/04/2023 14:31	Kb23010413.D
Surrogate: Toluene-d8	2037-26-5	108%	70-130			01/04/2023 14:31	Kb23010413.D

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Lab Sample ID: 0006725-02

200030-926 Derby-IA-B
 Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m ³)	Q	LOD (µg/m ³)	LOQ (µg/m ³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.216	U	0.216	0.433	01/04/2023 15:24	Kb23010415.D
trans-1,2-Dichloroethene	156-60-5	<0.173	U	0.173	0.346	01/04/2023 15:24	Kb23010415.D
cis-1,2-Dichloroethene	156-59-2	<0.173	U	0.173	0.346	01/04/2023 15:24	Kb23010415.D
Trichloroethene	79-01-6	<0.187	U	0.187	0.373	01/04/2023 15:24	Kb23010415.D
Tetrachloroethene	127-18-4	<0.220	U	0.220	0.441	01/04/2023 15:24	Kb23010415.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	116%	70-130			01/04/2023 15:24	Kb23010415.D
Surrogate: Toluene-d8	2037-26-5	109%	70-130			01/04/2023 15:24	Kb23010415.D

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

QC Information/Summary

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006725 Reported: 01/13/2023
---	--	--

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B22L001 - Instrument: K System - File ID: K22113017.D

B22L001-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.4	70-130			
trans-1,2-Dichloroethene	49.1	10	5	ng	50.0		98.2	70-130			
cis-1,2-Dichloroethene	50.0	10	5	ng	50.0		100	70-130			
Trichloroethene	53.0	10	5	ng	50.0		106	70-130			
Tetrachloroethene	59.6	10	5	ng	50.0		119	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>50.4</i>			<i>ng</i>	<i>50.0</i>		<i>101</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>53.4</i>			<i>ng</i>	<i>50.0</i>		<i>107</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B22L001 - Instrument: K System - File ID: K22113020.D
B22L001-ICB1 (Lab Blank/Initial Calibration Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>95.2</i>			<i>ng</i>	<i>100</i>		<i>95.2</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>101</i>			<i>ng</i>	<i>100</i>		<i>101</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Batch: 23A0004 - Instrument: K System - File ID: Kb23010402.D
23A0004-BS1 (LCS, Calibration Source Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.4	70-130			
trans-1,2-Dichloroethene	51.8	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Trichloroethene	49.8	10	5	ng	50.0		99.5	70-130			
Tetrachloroethene	63.9	10	5	ng	50.0		128	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.4</i>			<i>ng</i>	<i>50.0</i>		<i>113</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>60.3</i>			<i>ng</i>	<i>50.0</i>		<i>121</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Batch: 23A0004 - Instrument: K System - File ID: Kb23010403.D
23A0004-BLK1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.443	0.433	0.217	µg/m ³							U
trans-1,2-Dichloroethene	<0.354	0.346	0.173	µg/m ³							U
cis-1,2-Dichloroethene	<0.354	0.346	0.173	µg/m ³							U
Trichloroethene	<0.382	0.373	0.187	µg/m ³							U
Tetrachloroethene	<0.451	0.441	0.220	µg/m ³							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>110</i>			<i>ng</i>	<i>100</i>		<i>110</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>114</i>			<i>ng</i>	<i>100</i>		<i>114</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010404.D
B23A004-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.3	70-130			
trans-1,2-Dichloroethene	51.1	10	5	ng	50.0		102	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Trichloroethene	48.9	10	5	ng	50.0		97.7	70-130			
Tetrachloroethene	63.4	10	5	ng	50.0		127	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.0</i>			<i>ng</i>	<i>50.0</i>		<i>112</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.2</i>			<i>ng</i>	<i>50.0</i>		<i>116</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010425.D
B23A004-CCV1 (LCS, Closing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.5	10	5	ng	50.0		97.0	70-130			
trans-1,2-Dichloroethene	52.1	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	51.3	10	5	ng	50.0		103	70-130			
Trichloroethene	47.5	10	5	ng	50.0		95.0	70-130			
Tetrachloroethene	62.0	10	5	ng	50.0		124	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.8</i>			<i>ng</i>	<i>50.0</i>		<i>114</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.9</i>			<i>ng</i>	<i>50.0</i>		<i>118</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010426.D
B23A004-CCB1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>95.5</i>			<i>ng</i>	<i>100</i>		<i>95.5</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>116</i>			<i>ng</i>	<i>100</i>		<i>116</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010441.D
B23A004-CCV2 (Continuing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.9	10	5	ng	50.0		97.8	70-130			
trans-1,2-Dichloroethene	52.6	10	5	ng	50.0		105	70-130			
cis-1,2-Dichloroethene	51.6	10	5	ng	50.0		103	70-130			
Trichloroethene	50.3	10	5	ng	50.0		101	70-130			
Tetrachloroethene	64.6	10	5	ng	50.0		129	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>55.6</i>			<i>ng</i>	<i>50.0</i>		<i>111</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>61.4</i>			<i>ng</i>	<i>50.0</i>		<i>123</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010442.D
B23A004-CCB2 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>105</i>			<i>ng</i>	<i>100</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>117</i>			<i>ng</i>	<i>100</i>		<i>117</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

TO-17 (Passive) - LCS/LCSD Quality Control Summary
LCS: 23A0004-BS1 File ID: Kb23010402.D

Analyzed: 1/4/23 10:27

LCSD: B23A004-ICV1 File ID: Kb23010404.D

Analyzed: 1/4/23 9:39

Analyte	CAS#	LCS Result (ng)	%REC Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	48.69	97.38	50	48.67	97.30	70-130	0.04	30	
trans-1,2-Dichloroethene	156-60-5	51.77	103.54	50	51.05	102.00	70-130	1.40	30	
cis-1,2-Dichloroethene	156-59-2	50.77	101.54	50	50.77	102.00	70-130	0.00	30	
Trichloroethene	79-01-6	49.76	99.52	50	48.85	97.70	70-130	1.85	30	
Tetrachloroethene	127-18-4	63.89	127.78	50	63.41	127.00	70-130	0.75	30	

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Additional QC Information

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006725 Reported: 01/13/2023
---	--	--

Sample Result Calculation Summary (Concentration)
TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m ³	File ID
---------	-------------------------------	--------------------------	----------------------	---------------------------	---	---------

Lab ID: 0006725-01	Sample Name: 200030-926 Derby-IA-1	̄ Temp (°C): 30.00
---------------------------	---	---------------------------

Vinyl Chloride	40,325	1.00	0.573	U	U	Kb23010413.D
trans-1,2-Dichloroethene	40,325	1.00	0.716	U	U	Kb23010413.D
cis-1,2-Dichloroethene	40,325	1.00	0.716	U	U	Kb23010413.D
Trichloroethene	40,325	1.00	0.665	U	U	Kb23010413.D
Tetrachloroethene	40,325	1.00	0.563	U	U	Kb23010413.D

Lab ID: 0006725-02	Sample Name: 200030-926 Derby-IA-B	̄ Temp (°C): 30.00
---------------------------	---	---------------------------

Vinyl Chloride	40,325	1.00	0.573	U	U	Kb23010415.D
trans-1,2-Dichloroethene	40,325	1.00	0.716	U	U	Kb23010415.D
cis-1,2-Dichloroethene	40,325	1.00	0.716	U	U	Kb23010415.D
Trichloroethene	40,325	1.00	0.665	U	U	Kb23010415.D
Tetrachloroethene	40,325	1.00	0.563	U	U	Kb23010415.D

Calculations:

$$C = \frac{1000 \times M \times DF}{U_c \times t}$$

$$U_c = U * \left(\frac{T_s + 273.15}{T_u + 273.15} \right)^{1/2}$$

- where:
- C = concentration (µg/m³)
 - M = mass (ng)
 - DF = dilution factor
 - Uc = uptake rate (ml/min), corrected
 - t = sampling time (minutes)
 - U = compound specific uptake rate
 - Tu = uptake rate study temperature
 - Ts = sample average temperature

Note: Tu is 16.65°C

Reference: Federal Register/Vol. 79, No. 125/June 30, 2014

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Method Detection and Reporting Limit Calculations (Concentration)
TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0006725-01	Sample Name: 200030-926 Derby-IA-1	X̄ Temp (°C): 30.00					
Vinyl Chloride	40,325	1.00	0.573	10.00	5.00	0.433	0.216
trans-1,2-Dichloroethene	40,325	1.00	0.716	10.00	5.00	0.346	0.173
cis-1,2-Dichloroethene	40,325	1.00	0.716	10.00	5.00	0.346	0.173
Trichloroethene	40,325	1.00	0.665	10.00	5.00	0.373	0.187
Tetrachloroethene	40,325	1.00	0.563	10.00	5.00	0.441	0.220

Lab ID: 0006725-02	Sample Name: 200030-926 Derby-IA-B	X̄ Temp (°C): 30.00					
Vinyl Chloride	40,325	1.00	0.573	10.00	5.00	0.433	0.216
trans-1,2-Dichloroethene	40,325	1.00	0.716	10.00	5.00	0.346	0.173
cis-1,2-Dichloroethene	40,325	1.00	0.716	10.00	5.00	0.346	0.173
Trichloroethene	40,325	1.00	0.665	10.00	5.00	0.373	0.187
Tetrachloroethene	40,325	1.00	0.563	10.00	5.00	0.441	0.220

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Laboratory Certification List

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	01/31/2023	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAC	12097	New York Department of Health	04/01/2023	
Utah-NELAC	MD010912022-12	Utah Department of Health	12/31/2023	

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188**Site Name:** Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman**Beacon Proposal:** 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Qualifiers/Notes and Definitions

General Definitions:

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside ± 0.06 control limits)
3σ	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

Sample/Sample Receipt Qualifiers and Notes:

U Analyte was not detected and is reported as less than the limit of detection (LOD). The LOD has been adjusted for any dilution or concentration of the sample.

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006725
Reported: 01/13/2023

Sample Management Records



January 24, 2023

Lynne Stahl
Stahl & Hack Real Estate LLC
1410 S Webster Avenue
Green Bay, Wisconsin 54301

Subject: Environmental Investigation Sampling Results
BRRTS#: 02-05-514372

Dear Mrs. Stahl:

In accordance with the executed Agreement to Provide Access for Sampling Activities, and 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 1410 S Webster Avenue in Green Bay, Wisconsin. Indoor air and sub-slab vapor samples were collected in November and December 2022. The sampling activities are part of an environmental investigation being performed for the former Econo-Care Cleaners facility located at 1404 S Webster Avenue in Green Bay at the direction of the WDNR pursuant to the authority granted to it under State and Federal law. The chemicals of concern for the investigation are the dry cleaning solvent tetrachloroethene (PCE) and its associated breakdown products.

The Responsible Party is:

Econo-Care Cleaners (former)
1404 S Webster Avenue
Green Bay, WI

Sampling Results

One (1) indoor air sample was collected from the basement within your building, 200030-1410 Webster-IA-B. One (1) sub-slab vapor sample (200030-1410 Webster-SSV-1) was collected from beneath the floor of your building and one sanitary sewer gas sample (200030-1410 Webster-SSG-1) was collected. The sampling locations are depicted on the attached **Figure 1**. The results of the indoor air and 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 vapor samples is also attached.

There were no detections in the sanitary sewer gas or sub-slab samples above laboratory detection limits. PCE was detected in the indoor air sample at a level below the Residential Vapor Action Level.

Vapor samples were collected from five (5) of the nearby sanitary sewer manholes. The manholes sampled are located in Webster Avenue and Derby Lane. There were detections of PCE below the vapor action level, the results are summarized in **Table 1**. These detections do not indicate that residual vapors in the sewers represent a vapor risk to your property.

At this time we are not recommending further vapor assessment, however, we will seek concurrence from the WDNR. If you have any questions or concerns, please contact us at 262-290-4001 or by email at wfassbender@enviroforensics.com The WDNR project manager, Josie Schultz, can be reached at 920-366-5685. We greatly appreciate your help and patience with this matter.

Sincerely,
EnviroForensics, LLC

A handwritten signature in blue ink, appearing to read "Rob Hoverman".

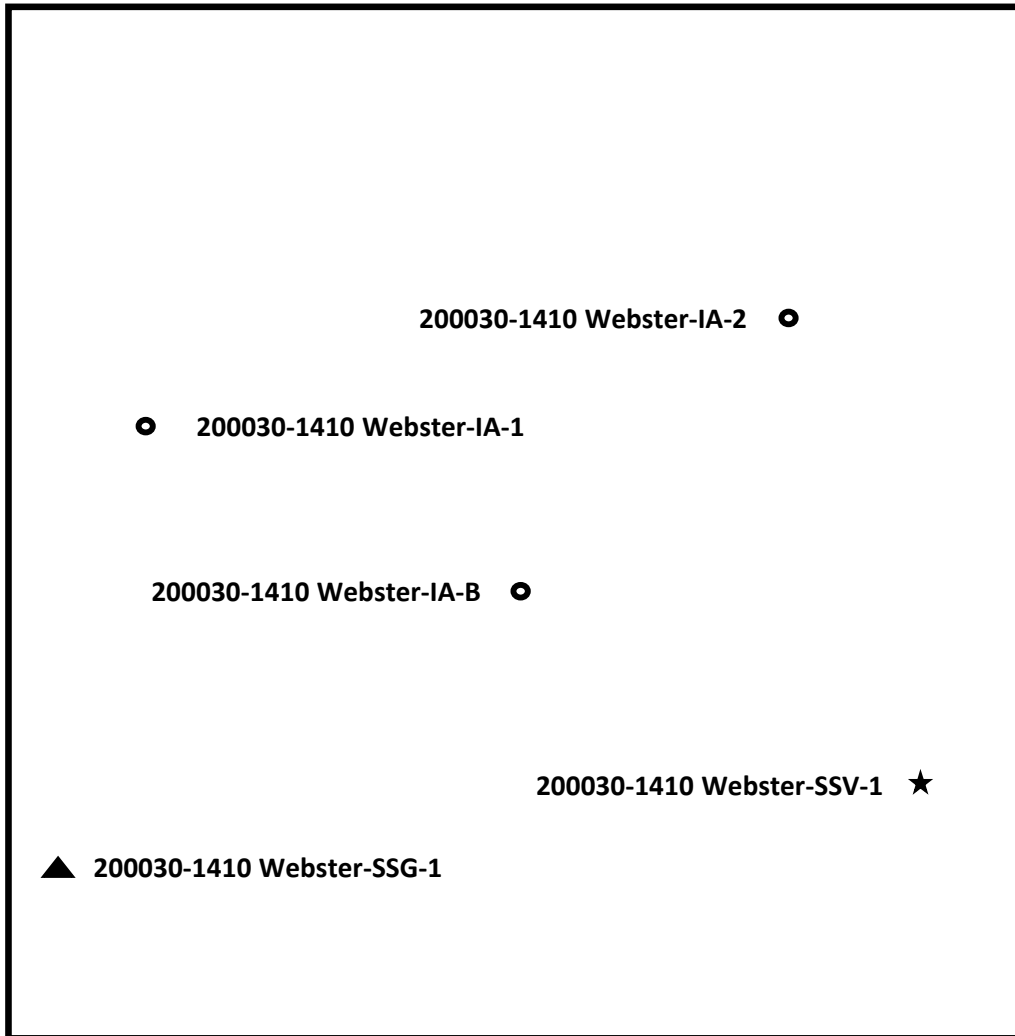
Rob Hoverman, PG
Senior Project Manager

Copy: Josie Schultz, Wisconsin Department of Natural Resources

Attachments:

Figure 1 – Vapor Intrusion Sample Locations
Table 1 – Vapor Intrusion Analytical Results
Laboratory Analytical Report Excerpt

FIGURE 1
VAPOR INTRUSION SAMPLE LOCATIONS
1410 South Webster Avenue, Green Bay, Wisconsin



Legend

- = Indoor Air Sample
- IA-B = Basement
- IA-1 = 1st Floor
- IA-2 = 2nd Floor
- SSV-1 = Sub-Slab Vapor
- ★ = Sub-Slab Vapor Sampling Port Location
- ▲ = Sanitary Sewer Gas Sampling Location



TABLE 1
VAPOR INTRUSION ASSESSMENT RESULTS SUMMARY

Former Econo Care Cleaners
1404 South Webster Avenue, Wisconsin

Address	Sample Identification	Sample Type	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1 Dichloroethane	1, 1, 1-Trichloroethane
INDOOR/OUTDOOR AIR										
Residential Vapor Action Level				42	2.1	NE	NE	1.7	18	5200
Small Commercial Vapor Action Level				180	8.8	NE	180	28	77	22,000
1410 S Webster	IA-B	Grab - Summa	2/25/2022	<3.19	<1.07	<19.8	<39.6	<1.28	<4.05	<546
		28-Day Passive	12/20/2022	1.09	<0.179	<0.167	<0.167	<0.208	NA	NA
	IA-1	Grab - Summa	2/25/2022	<3.19	<1.07	<19.8	<39.6	<1.28	<4.05	<546
		IA-2	Grab - Summa	2/25/2022	<3.19	<1.07	<19.8	<39.6	<1.28	<4.05
Outdoor Air	OA	Grab - Summa	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	<4.05	<546
SUB-SLAB VAPOR										
Residential Vapor Risk Screening Level				1,400	70	NE	NE	57	590	170,000
Small Commercial Vapor Risk Screening Level				5,800	290	NE	5,800	930	2,600	730,000
1410 S Webster	SSV-1	Grab - Summa	2/25/2022	<31.9	<10.7	<198	<396	<12.8	<40.5	<5460
			12/20/2022	<31.9	<10.7	<198	<396	<12.8	NA	NA
SANITARY SEWER GAS										
Residential Vapor Action Level				1,400	70	NE	NE	57	590	170,000
Small Commercial Vapor Action Level				5,800	290	NE	5,800	930	2,600	730,000
1410 S Webster	SSG-1	Grab - Summa	12/20/2022	<31.9	<10.7	<198	<396	<12.8	NA	NA
S Webster Ave	SSG-1	Grab - Summa	2/24/2022	<31.9	<10.7	<198	<396	<12.8	NA	NA
		28-Day Passive	12/20/2022	13.4	<0.186	<0.172	<0.172	<0.216	NA	NA
		24-Hour Passive	12/20/2022	71.5	<5.39	<5.01	<5.01	<6.26	NA	NA
Derby Lane	SSG-2	Grab - Summa	2/24/2022	690	32.8	<198	<396	<12.8	NA	NA
		28-Day Passive	12/20/2022	31.0	<0.186	<0.173	<0.173	<0.216	NA	NA
		24-Hour Passive	12/20/2022	29.7	<5.36	<4.98	<4.98	<6.23	NA	NA
S Webster Ave	SSG-3	28-Day Passive	12/20/2022	0.258	<0.186	<0.172	<0.172	<0.216	NA	NA
		24-Hour Passive	12/20/2022	<6.36	<5.38	<5.00	<5.00	<6.25	NA	NA
Derby Lane	SSG-4	28-Day Passive	12/20/2022	2.91	<0.186	<0.173	<0.173	<0.216	NA	NA
		24-Hour Passive	12/20/2022	<6.35	<5.37	<4.99	<4.99	<6.24	NA	NA
Derby Lane	SSG-5	28-Day Passive	12/20/2022	0.354	<0.186	<0.173	<0.173	<0.216	NA	NA
		24-Hour Passive	12/20/2022	<6.36	<5.38	<5.00	<5.00	<6.25	NA	NA

Notes:

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

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

Samples analyzed according to EPA Method TO-15

NA = Not Analyzed

NE = Screening/action level not established

Bolded values are above detection limits

Bolded and shaded values exceed the applicable screening or action level



EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Mr. Rob Hoverman
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

January 5, 2023

EnvisionAir Project Number: 2022-711
Client Project Name: 200030 – Econo Care

Dear Mr. Hoverman,

Please find the attached analytical report for the samples received December 22, 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,

A handwritten signature in black ink that reads "David Norris". The signature is written in a cursive, flowing style.

David Norris
Project Manager
EnvisionAir, LLC



EnvisionAir
 1441 Sadlier Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-711

Sample Summary

		<i>Canister Pressure / Vacuum</i>										
		<u>START</u>										<u>Lab</u>
<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>Matrix:</u>	<u>START Date</u>	<u>Time</u>	<u>End Date</u>	<u>End Time</u>	<u>Date</u>	<u>Time</u>	<u>Initial Field</u>	<u>Final Field</u>	<u>Received</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>	
22-3572	200030-1410 WEBSTER-SSV-1	A	12/20/22	12:03	12/20/22	12:14	12/22/22	10:15	-28	-8	-8	
22-3573	200030-1410 WEBSTER-SSG-1	A	12/20/22	12:04	12/20/22	12:08	12/22/22	10:15	-28.5	-4	-4	



EnvisionAir
 1441 Sadler Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-711

Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-1410 WEBSTER-SSV-1

EnvisionAir Sample Number: 22-3572
Sample Matrix: AIR

Sample Collection START Date/Time: 12/20/22 12:03
Sample Collection END Date/Time: 12/20/22 12:14
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	100%		
Analysis Date/Time:	12-28-22/19:54		
Analyst Initials	tjg		



EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-711

Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-1410 WEBSTER-SSG-1

EnvisionAir Sample Number: 22-3573
Sample Matrix: AIR

Sample Collection START Date/Time: 12/20/22 12:04
Sample Collection END Date/Time: 12/20/22 12:08
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	96%		
Analysis Date/Time:	12-28-22/21:09		
Analyst Initials	tjg		



EnvisionAir
 1441 Sadlier Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 122822AIR

<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)	102%		
Analysis Date/Time:	12-28-22/14:00		
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	9.05	9.93	10	91%	99%	9.3%	
trans-1,2-Dichloroethene	8.95	9.55	10	90%	96%	6.5%	
cis-1,2-Dichloroethene	9.55	10.6	10	96%	106%	10.4%	
Trichloroethene	9.91	10	10	99%	100%	0.9%	
Tetrachloroethene	10.6	10.4	10	106%	104%	1.9%	
4-bromofluorobenzene (surrogate)	106%	100%					
Analysis Date/Time:	12-28-22/12:11	12-28-22/12:50					
Analyst Initials	tjg	tjg					



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Flag Number

Comments



Beacon Environmental

2203A Commerce Road, Suite 1

Forest Hill, MD 21050 USA

1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 221003R01

Laboratory Work Order: 0006724

Project Description:

Econo Care Cleaners

Green Bay, WI

Prepared for:

Rob Hoverman

EnviroForensics

N16W23390 Stone Ridge Dr, Suite G

Waukesha, WI 53188

Ryan W. Schneider
Senior Project Manager

January 13, 2023

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

Steven C. Thornley
Laboratory Director

Peter B. Kelly
Quality Manager

Table of Contents

Cover Page	1
Sample Summary	3
Case Narrative	4
Analytical Results	5
Summary of Compound Detections	6
Data Summary Table	7
Detailed Analytical Results	8
0006724-01 - 200030-1410 Webster-IA-B	9
QC Summaries	10
Additional QC Information	21
Sample Result Calculations	22
Equation	22
LOD/MRL Calculation Table	23
Certifications	24
Notes and Definitions	25
Sample Management Records	26
Chain of Custody	27

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0006724-01 Sampler Type:	200030-1410 Webster-IA-B Sorbent Tube	12/29/2022	TO-17 (Passive)	Indoor Air

Project Completeness

Samples Received: 1
Samples Analyzed: 1

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Case Narrative

Beacon Environmental provided thermally conditioned ChloroSorbent for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in $\mu\text{g}/\text{m}^3$. Beacon calculated concentration results using the exposure period, target analyte mass, and the following procedures detailed in ISO 16017-2, *Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 2: Diffusive sampling*.

Beacon reports results and reporting limits to three significant digits.

Reporting Limits (RLs) for EPA Method TO-17

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. Beacon performed dilution analysis when results exceeded the upper calibration limit, bringing all reported results within the calibration range. The project method quantitation limit (MQL) is the limit of detection (LOD) as noted in the data tables.

Calibration Verification

All continuing calibration verification (CCV) values are within $\pm 30\%$ of the true values as defined by the initial calibration and met the requirements specified in BEACON's Quality Manual.

Internal Standards and Surrogates

Internal standards and surrogates are spiked on all blanks (ICB, BLK), field samples and laboratory control samples (ICV/CALV, BS, ICV and CCV). Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates are within the acceptance criteria unless noted in the **Case Narrative**.

Blank Contamination

No targeted compounds above the limit of detection (LOD) for each compound were observed in the Laboratory Method Blanks unless noted in the **Case Narrative**.

Laboratory Control Samples

Acceptance criteria for surrogate and analytes recoveries are 70 to 130 percent; all recoveries are within the acceptance criteria unless noted in the **Case Narrative**.

Discussion

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

End of Case Narrative

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Analytical Results

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Summary of Compound Detections- Concentration

Lab Sample ID: 0006724-01	200030-1410 Webster-IA-B	Method: TO-17 (Passive)
	Indoor Air	

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Tetrachloroethene	127-18-4	1.09		7.976	0.424	0.212	Kb23010411.D

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188**Site Name:** Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman**Beacon Proposal:** 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023***Data Summary Table- Concentration***

Compound	Frequency	LOD ($\mu\text{g}/\text{m}^3$)	Max Value ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene	1	0.212	1.09

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Detailed Analytical Results

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Lab Sample ID: 0006724-01

200030-1410 Webster-IA-B

Method: TO-17 (Passive)

Indoor Air

Analyte	CAS#	Result (µg/m ³)	Q	LOD (µg/m ³)	LOQ (µg/m ³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.208	U	0.208	0.416	01/04/2023 13:38	Kb23010411.D
trans-1,2-Dichloroethene	156-60-5	<0.167	U	0.167	0.333	01/04/2023 13:38	Kb23010411.D
cis-1,2-Dichloroethene	156-59-2	<0.167	U	0.167	0.333	01/04/2023 13:38	Kb23010411.D
Trichloroethene	79-01-6	<0.179	U	0.179	0.359	01/04/2023 13:38	Kb23010411.D
Tetrachloroethene	127-18-4	1.09		0.212	0.424	01/04/2023 13:38	Kb23010411.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	107%	70-130			01/04/2023 13:38	Kb23010411.D
Surrogate: Toluene-d8	2037-26-5	94.9%	70-130			01/04/2023 13:38	Kb23010411.D

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

QC Information/Summary

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B22L001 - Instrument: K System - File ID: K22113017.D
B22L001-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.4	70-130			
trans-1,2-Dichloroethene	49.1	10	5	ng	50.0		98.2	70-130			
cis-1,2-Dichloroethene	50.0	10	5	ng	50.0		100	70-130			
Trichloroethene	53.0	10	5	ng	50.0		106	70-130			
Tetrachloroethene	59.6	10	5	ng	50.0		119	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>50.4</i>			<i>ng</i>	<i>50.0</i>		<i>101</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>53.4</i>			<i>ng</i>	<i>50.0</i>		<i>107</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B22L001 - Instrument: K System - File ID: K22113020.D
B22L001-ICB1 (Lab Blank/Initial Calibration Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>95.2</i>			<i>ng</i>	<i>100</i>		<i>95.2</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>101</i>			<i>ng</i>	<i>100</i>		<i>101</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006724 Reported: 01/13/2023
---	--	--

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Batch: 23A0004 - Instrument: K System - File ID: Kb23010402.D

23A0004-BS1 (LCS, Calibration Source Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.4	70-130			
trans-1,2-Dichloroethene	51.8	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Trichloroethene	49.8	10	5	ng	50.0		99.5	70-130			
Tetrachloroethene	63.9	10	5	ng	50.0		128	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.4</i>			<i>ng</i>	<i>50.0</i>		<i>113</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>60.3</i>			<i>ng</i>	<i>50.0</i>		<i>121</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Batch: 23A0004 - Instrument: K System - File ID: Kb23010403.D
23A0004-BLK1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.443	0.416	0.208	µg/m ³							U
trans-1,2-Dichloroethene	<0.354	0.333	0.167	µg/m ³							U
cis-1,2-Dichloroethene	<0.354	0.333	0.167	µg/m ³							U
Trichloroethene	<0.382	0.359	0.179	µg/m ³							U
Tetrachloroethene	<0.451	0.424	0.212	µg/m ³							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>110</i>			<i>ng</i>	<i>100</i>		<i>110</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>114</i>			<i>ng</i>	<i>100</i>		<i>114</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010404.D
B23A004-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.3	70-130			
trans-1,2-Dichloroethene	51.1	10	5	ng	50.0		102	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Trichloroethene	48.9	10	5	ng	50.0		97.7	70-130			
Tetrachloroethene	63.4	10	5	ng	50.0		127	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.0</i>			<i>ng</i>	<i>50.0</i>		<i>112</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.2</i>			<i>ng</i>	<i>50.0</i>		<i>116</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010425.D
B23A004-CCV1 (LCS, Closing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.5	10	5	ng	50.0		97.0	70-130			
trans-1,2-Dichloroethene	52.1	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	51.3	10	5	ng	50.0		103	70-130			
Trichloroethene	47.5	10	5	ng	50.0		95.0	70-130			
Tetrachloroethene	62.0	10	5	ng	50.0		124	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.8</i>			<i>ng</i>	<i>50.0</i>		<i>114</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.9</i>			<i>ng</i>	<i>50.0</i>		<i>118</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010426.D
B23A004-CCB1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>95.5</i>			<i>ng</i>	<i>100</i>		<i>95.5</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>116</i>			<i>ng</i>	<i>100</i>		<i>116</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010441.D
B23A004-CCV2 (Continuing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.9	10	5	ng	50.0		97.8	70-130			
trans-1,2-Dichloroethene	52.6	10	5	ng	50.0		105	70-130			
cis-1,2-Dichloroethene	51.6	10	5	ng	50.0		103	70-130			
Trichloroethene	50.3	10	5	ng	50.0		101	70-130			
Tetrachloroethene	64.6	10	5	ng	50.0		129	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>55.6</i>			<i>ng</i>	<i>50.0</i>		<i>111</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>61.4</i>			<i>ng</i>	<i>50.0</i>		<i>123</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010442.D
B23A004-CCB2 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>105</i>			<i>ng</i>	<i>100</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>117</i>			<i>ng</i>	<i>100</i>		<i>117</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006724 Reported: 01/13/2023
---	--	--

TO-17 (Passive) - LCS/LCSD Quality Control Summary

LCS: 23A0004-BS1 File ID: Kb23010402.D

Analyzed: 1/4/23 10:27

LCSD: B23A004-ICV1 File ID: Kb23010404.D

Analyzed: 1/4/23 9:39

Analyte	CAS#	LCS Result (ng)	%REC Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	48.69	97.38	50	48.67	97.30	70-130	0.04	30	
trans-1,2-Dichloroethene	156-60-5	51.77	103.54	50	51.05	102.00	70-130	1.40	30	
cis-1,2-Dichloroethene	156-59-2	50.77	101.54	50	50.77	102.00	70-130	0.00	30	
Trichloroethene	79-01-6	49.76	99.52	50	48.85	97.70	70-130	1.85	30	
Tetrachloroethene	127-18-4	63.89	127.78	50	63.41	127.00	70-130	0.75	30	

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Additional QC Information

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006724 Reported: 01/13/2023
---	--	--

Sample Result Calculation Summary (Concentration)
TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m³	File ID
---------	-------------------------------	--------------------------	----------------------	---------------------------	---------------------------------	---------

Lab ID: 0006724-01 **Sample Name:** 200030-1410 Webster-IA-B **̄ Temp (°C):** 30.00

Vinyl Chloride	41,939	1.00	0.573	U	U	Kb23010411.D
trans-1,2-Dichloroethene	41,939	1.00	0.716	U	U	Kb23010411.D
cis-1,2-Dichloroethene	41,939	1.00	0.716	U	U	Kb23010411.D
Trichloroethene	41,939	1.00	0.665	U	U	Kb23010411.D
Tetrachloroethene	41,939	1.00	0.563	25.63	1.09	Kb23010411.D

Calculations:

$$C = \frac{1000 \times M \times DF}{U_c \times t}$$

$$U_c = U * \left(\frac{T_s + 273.15}{T_u + 273.15} \right)^{1/2}$$

- where: C = concentration (µg/m³)
M = mass (ng)
DF = dilution factor
Uc = uptake rate (ml/min), corrected
t = sampling time (minutes)
U = compound specific uptake rate
Tu = uptake rate study temperature
Ts = sample average temperature

Note: Tu is 16.65°C

Reference: Federal Register/Vol. 79, No. 125/June 30, 2014

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006724 Reported: 01/13/2023
---	--	--

Method Detection and Reporting Limit Calculations (Concentration)
TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0006724-01	Sample Name: 200030-1410 Webster-IA-B	\bar{X} Temp (°C): 30.00					
Vinyl Chloride	41,939	1.00	0.573	10.00	5.00	0.416	0.208
trans-1,2-Dichloroethene	41,939	1.00	0.716	10.00	5.00	0.333	0.167
cis-1,2-Dichloroethene	41,939	1.00	0.716	10.00	5.00	0.333	0.167
Trichloroethene	41,939	1.00	0.665	10.00	5.00	0.359	0.179
Tetrachloroethene	41,939	1.00	0.563	10.00	5.00	0.424	0.212

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Laboratory Certification List

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	01/31/2023	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAC	12097	New York Department of Health	04/01/2023	
Utah-NELAC	MD010912022-12	Utah Department of Health	12/31/2023	

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Qualifiers/Notes and Definitions

General Definitions:

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside ± 0.06 control limits)
3σ	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

Sample/Sample Receipt Qualifiers and Notes:

U Analyte was not detected and is reported as less than the limit of detection (LOD). The LOD has been adjusted for any dilution or concentration of the sample.

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006724
Reported: 01/13/2023

Sample Management Records



January 24, 2023

Jesse Ziese
Darkside Tattoo
1404 S Webster Avenue
Green Bay, Wisconsin 54301

Subject: Environmental Investigation Sampling Results
BRRTS#: 02-05-514372

Dear Mr. Zeise:

In accordance with the executed Agreement to Provide Access for Sampling Activities, and 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 1404 S Webster Avenue in Green Bay, Wisconsin. Indoor air, sub-slab vapor and groundwater samples were collected in November and December 2022. The sampling activities are part of an environmental investigation being performed for the former Econo-Care Cleaners facility located at 1404 S Webster Avenue in Green Bay at the direction of the WDNR pursuant to the authority granted to it under State and Federal law. The chemicals of concern for the investigation are the dry cleaning solvent tetrachloroethene (PCE) and its associated breakdown products.

The Responsible Party is:

Econo-Care Cleaners (former)
1404 S Webster Avenue
Green Bay, WI

Sampling Results

One indoor air sample was collected from within your business, 200030-1404 Webster-IA-1. One (1) sub-slab vapor sample (200030-1404 Webster-SSV-1) was collected from beneath the floor of your building and one sanitary sewer gas sample (200030-1404 Webster-SSG-1) was collected as well. The sampling locations are depicted on the attached **Figure 1**. The results of the indoor air and 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 vapor samples is also attached.

Tetrachloroethene (PCE) was detected in the indoor air sample at a level beneath the Small Commercial Vapor Action Level. There were no detections above laboratory detection limits in the sub-slab or sanitary sewer gas samples.

Vapor samples were collected from five (5) nearby sanitary sewer manholes. The manholes sampled are located in Webster Avenue and Derby Lane. There were detections of PCE below the vapor action level, the results are summarized in **Table 1**. These detections do not indicate that residual vapors in the sewers represent a vapor risk to your business.

At this time we are not recommending further vapor assessment, however, we will seek concurrence from the WDNR. If you have any questions or concerns, please contact us at 262-290-4001 or by email at wfassbender@enviroforensics.com. The WDNR project manager, Josie Schultz, can be reached at 920-366-5685. We greatly appreciate your help and patience with this matter.

Sincerely,
EnviroForensics, LLC

A handwritten signature in blue ink, appearing to read "Rob Hoverman".

Rob Hoverman, PG
Senior Project Manager

Copy: Josie Schultz, Wisconsin Department of Natural Resources

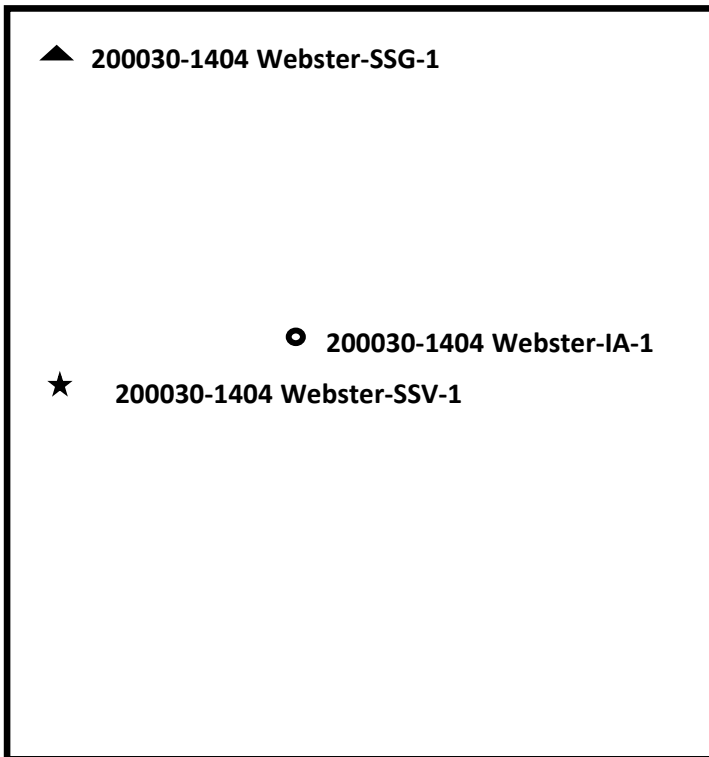
Attachments:

Figure 1 – Vapor Intrusion Sample Locations
Table 1 – Vapor Intrusion Analytical Results
Laboratory Analytical Report Excerpt

FIGURE 1
VAPOR INTRUSION SAMPLE LOCATIONS
1404 South Webster Avenue, Green Bay, Wisconsin

Derby Lane

● 200030-OA



South Webster Avenue

Legend

- = Indoor/Outdoor Air Sample
- IA-1 = 1st Floor
- SSV-1 = Sub-Slab Vapor
- ★ = Sub-Slab Vapor Sampling Port Location
- ▲ = Sanitary Sewer Gas Sampling Location



TABLE 1
VAPOR INTRUSION ASSESSMENT RESULTS SUMMARY

Former Econo Care Cleaners
1404 South Webster Avenue, Wisconsin

Address	Sample Identification	Sample Type	Sample Date	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	
INDOOR/OUTDOOR AIR									
Small Commercial Vapor Action Level				180	8.8	NE	180	28	
1404 S Webster	IA-1	Grab - Summa	2/23/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
			8/2/2022	25.6	<0.29	<0.28	<0.25	<0.13	
		28-Day Passive	12/19/2022	11.7	<0.187	<0.174	<0.174	<0.217	
Outdoor Air	OA	Grab - Summa	2/24/2022	<3.19	<1.07	<19.8	<39.6	<1.28	
			8/2/2022	<0.45	<0.30	<0.30	<0.26	<0.13	
SUB-SLAB VAPOR									
Small Commercial Vapor Risk Screening Level				5,800	290	NE	5,800	930	
1404 S Webster	SSV-1	Grab - Summa	2/23/2022	<31.9	<10.7	<198	<396	<12.8	
			8/2/2022	368	4.4	0.70 J	<0.32	<0.16	
			12/19/2022	<31.9	<10.7	<198	<396	<12.8	
SANITARY SEWER GAS									
Small Commercial Vapor Risk Screening Level				5,800	290	NE	5,800	930	
1404 S Webster	SSG-1	Grab - Summa	12/19/2022	<31.9	<10.7	<198	<396	<12.8	
S Webster Ave	SSG-1	Grab - Summa	2/24/2022	<31.9	<10.7	<198	<396	<12.8	
			28-Day Passive	12/20/2022	13.4	<0.186	<0.172	<0.172	<0.216
			24-Hour Passive	12/20/2022	71.5	<5.39	<5.01	<5.01	<6.26
Derby Lane	SSG-2	Grab - Summa	2/24/2022	690	32.8	<198	<396	<12.8	
			28-Day Passive	12/20/2022	31.0	<0.186	<0.173	<0.173	<0.216
			24-Hour Passive	12/20/2022	29.7	<5.36	<4.98	<4.98	<6.23
S Webster Ave	SSG-3	28-Day Passive	12/20/2022	0.258	<0.186	<0.172	<0.172	<0.216	
			24-Hour Passive	12/20/2022	<6.36	<5.38	<5.00	<5.00	<6.25
Derby Lane	SSG-4	28-Day Passive	12/20/2022	2.91	<0.186	<0.173	<0.173	<0.216	
			24-Hour Passive	12/20/2022	<6.35	<5.37	<4.99	<4.99	<6.24
Derby Lane	SSG-5	28-Day Passive	12/20/2022	0.354	<0.186	<0.173	<0.173	<0.216	
			24-Hour Passive	12/20/2022	<6.36	<5.38	<5.00	<5.00	<6.25

Notes:

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

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

Samples analyzed according to EPA Method TO-15

NE = Screening/action level not established

Bolded values are above detection limits

Bolded and shaded values exceed the applicable screening or action level

NA = Not Analyzed

J = Analyte concentration detected between the laboratory Reporting Limit and the laboratory Method Detection Limit



EnvisionAir
1441 Sadlier Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Mr. Rob Hoverman
Enviroforensics
N16 W. 23390 Stone Ridge Dr
Suite G
Waukesha, WI 53188

January 5, 2023

EnvisionAir Project Number: 2022-712
Client Project Name: 200030 – Econo Care

Dear Mr. Hoverman,

Please find the attached analytical report for the samples received December 22, 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,

A handwritten signature in black ink that reads "David Norris". The signature is written in a cursive, flowing style.

David Norris
Project Manager
EnvisionAir, LLC



EnvisionAir
 1441 Sadlier Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-712

Sample Summary

		<i>Canister Pressure / Vacuum</i>									
		<u>START</u>								<u>Lab</u>	
<u>Laboratory Sample Number:</u>	<u>Sample Description:</u>	<u>Matrix:</u>	<u>START Date Collected:</u>	<u>Time Collected:</u>	<u>End Date Collected:</u>	<u>End Time Collected:</u>	<u>Date Received:</u>	<u>Time Received</u>	<u>Initial Field (in. Hg)</u>	<u>Final Field (in. Hg)</u>	<u>Received (in. Hg)</u>
22-3574	200030-1404 WEBSTER-SSV-1	A	12/19/22	13:55	12/19/22	13:55	12/22/22	10:15	-27	-4	-4
22-3575	200030-1404 WEBSTER-SSG-1	A	12/19/22	13:50	12/19/22	13:50	12/22/22	10:15	-30	-20	-20



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-712

Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-1404 WEBSTER-SSV-1

EnvisionAir Sample Number: 22-3574
Sample Matrix: AIR

Sample Collection START Date/Time: 12/19/22 13:51
Sample Collection END Date/Time: 12/19/22 13:55
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	100%		
Analysis Date/Time:	12-28-22/21:45		
Analyst Initials	tjg		



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Client Name: ENVIROFORENSICS
Project ID: 200030 - ECONO CARE
Client Project Manager: ROB HOVERMAN
EnvisionAir Project Number: 2022-712

Analytical Method: TO-15
Analytical Batch: 122822AIR

Client Sample ID: 200030-1404 WEBSTER-SSG-1

EnvisionAir Sample Number: 22-3575
Sample Matrix: AIR

Sample Collection START Date/Time: 12/19/22 13:34
Sample Collection END Date/Time: 12/19/22 13:50
Sample Received Date/Time: 12/22/22 10:15

<u>Compounds</u>	<u>Sample Results ug/m³</u>	<u>Reporting Limit ug/m³</u>	<u>Flag</u>
cis-1,2-Dichloroethene	< 198	198	
Tetrachloroethene	< 31.9	31.9	
trans-1,2-Dichloroethene	< 396	396	
Trichloroethene	< 10.7	10.7	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	98%		
Analysis Date/Time:	12-28-22/22:21		
Analyst Initials	tjg		



EnvisionAir
 1441 Sadlier Circle West Drive
 Indianapolis, IN 46239
 Ph: 317-351-0885
 Fax: 317-351-0882
 www.envision-air.com

Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 122822AIR

<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)	102%		
Analysis Date/Time:	12-28-22/14:00		
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	9.05	9.93	10	91%	99%	9.3%	
trans-1,2-Dichloroethene	8.95	9.55	10	90%	96%	6.5%	
cis-1,2-Dichloroethene	9.55	10.6	10	96%	106%	10.4%	
Trichloroethene	9.91	10	10	99%	100%	0.9%	
Tetrachloroethene	10.6	10.4	10	106%	104%	1.9%	
4-bromofluorobenzene (surrogate)	106%	100%					
Analysis Date/Time:	12-28-22/12:11	12-28-22/12:50					
Analyst Initials	tjg	tjg					



EnvisionAir
1441 Sadler Circle West Drive
Indianapolis, IN 46239
Ph: 317-351-0885
Fax: 317-351-0882
www.envision-air.com

Flag Number

Comments



Beacon Environmental

2203A Commerce Road, Suite 1

Forest Hill, MD 21050 USA

1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 221003R01

Laboratory Work Order: 0006722

Project Description:

Econo Care Cleaners

Green Bay, WI

Prepared for:

Rob Hoverman

EnviroForensics

N16W23390 Stone Ridge Dr, Suite G

Waukesha, WI 53188

Ryan W. Schneider
Senior Project Manager

January 13, 2023

All data meet requirements as specified in the Beacon Environmental Quality Assurance Project Plan and the results relate only to the samples reported. The work performed was in accordance with ISO/IEC 17025:2017. This report shall not be reproduced, except in full, without written approval of the laboratory. Release of the data contained in this data package has been authorized by the Laboratory Director or his signee, as verified by the following signatures:

Steven C. Thornley
Laboratory Director

Peter B. Kelly
Quality Manager

Table of Contents

Cover Page	1
Sample Summary	3
Case Narrative	4
Analytical Results	5
Summary of Compound Detections	6
Data Summary Table	7
Detailed Analytical Results	8
0006722-01 - 200030-1404 Webster-IA-1	9
QC Summaries	10
Additional QC Information	21
Sample Result Calculations	22
Equation	22
LOD/MRL Calculation Table	23
Certifications	24
Notes and Definitions	25
Sample Management Records	26
Chain of Custody	27

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0006722-01 Sampler Type:	200030-1404 Webster-IA-1 Sorbent Tube	12/29/2022	TO-17 (Passive)	Indoor Air

Project Completeness

Samples Received: 1
Samples Analyzed: 1

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Case Narrative

Beacon Environmental provided thermally conditioned ChloroSorbent for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in $\mu\text{g}/\text{m}^3$. Beacon calculated concentration results using the exposure period, target analyte mass, and the following procedures detailed in ISO 16017-2, *Indoor, ambient and workplace air-Sampling and analysis of volatile organic compounds by sorbent tube/thermal desorption/capillary gas chromatography-Part 2: Diffusive sampling*.

Beacon reports results and reporting limits to three significant digits.

Reporting Limits (RLs) for EPA Method TO-17

The RLs represent a baseline above which results meet laboratory-determined limits of precision and accuracy. Beacon performed dilution analysis when results exceeded the upper calibration limit, bringing all reported results within the calibration range. The project method quantitation limit (MQL) is the limit of detection (LOD) as noted in the data tables.

Calibration Verification

All continuing calibration verification (CCV) values are within $\pm 30\%$ of the true values as defined by the initial calibration and met the requirements specified in BEACON's Quality Manual.

Internal Standards and Surrogates

Internal standards and surrogates are spiked on all blanks (ICB, BLK), field samples and laboratory control samples (ICV/CALV, BS, ICV and CCV). Acceptance criteria for internal standards are 60 to 140 percent and surrogate recoveries are 70 to 130 percent; all internal standards and surrogates are within the acceptance criteria unless noted in the **Case Narrative**.

Blank Contamination

No targeted compounds above the limit of detection (LOD) for each compound were observed in the Laboratory Method Blanks unless noted in the **Case Narrative**.

Laboratory Control Samples

Acceptance criteria for surrogate and analytes recoveries are 70 to 130 percent; all recoveries are within the acceptance criteria unless noted in the **Case Narrative**.

Discussion

Samples were received in proper condition and laboratory control parameters were met unless otherwise noted below. The work performed was in accordance with ISO/IEC 17025:2017.

End of Case Narrative

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Analytical Results

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006722 Reported: 01/13/2023
---	--	--

Summary of Compound Detections- Concentration

Lab Sample ID: 0006722-01	200030-1404 Webster-IA-1 Indoor Air	Method: TO-17 (Passive)
---------------------------	---	-------------------------

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Tetrachloroethene	127-18-4	11.7		7.973	0.442	0.221	Kb23010405.D

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188**Site Name:** Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman**Beacon Proposal:** 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023***Data Summary Table- Concentration***

Compound	Frequency	LOD ($\mu\text{g}/\text{m}^3$)	Max Value ($\mu\text{g}/\text{m}^3$)
Tetrachloroethene	1	0.221	11.7

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Detailed Analytical Results

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Lab Sample ID: 0006722-01

200030-1404 Webster-IA-1

Method: TO-17 (Passive)

Indoor Air

Analyte	CAS#	Result (µg/m ³)	Q	LOD (µg/m ³)	LOQ (µg/m ³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.217	U	0.217	0.434	01/04/2023 11:00	Kb23010405.D
trans-1,2-Dichloroethene	156-60-5	<0.174	U	0.174	0.347	01/04/2023 11:00	Kb23010405.D
cis-1,2-Dichloroethene	156-59-2	<0.174	U	0.174	0.347	01/04/2023 11:00	Kb23010405.D
Trichloroethene	79-01-6	<0.187	U	0.187	0.374	01/04/2023 11:00	Kb23010405.D
Tetrachloroethene	127-18-4	11.7		0.221	0.442	01/04/2023 11:00	Kb23010405.D
Analyte	CAS#	% Recovery	Recovery Limits	Q		Analyzed	File ID
Surrogate: 1,2-DCA-d4	17060-07-0	117%	70-130			01/04/2023 11:00	Kb23010405.D
Surrogate: Toluene-d8	2037-26-5	110%	70-130			01/04/2023 11:00	Kb23010405.D

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

QC Information/Summary

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B22L001 - Instrument: K System - File ID: K22113017.D
B22L001-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.4	70-130			
trans-1,2-Dichloroethene	49.1	10	5	ng	50.0		98.2	70-130			
cis-1,2-Dichloroethene	50.0	10	5	ng	50.0		100	70-130			
Trichloroethene	53.0	10	5	ng	50.0		106	70-130			
Tetrachloroethene	59.6	10	5	ng	50.0		119	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>50.4</i>			<i>ng</i>	<i>50.0</i>		<i>101</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>53.4</i>			<i>ng</i>	<i>50.0</i>		<i>107</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B22L001 - Instrument: K System - File ID: K22113020.D
B22L001-ICB1 (Lab Blank/Initial Calibration Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>95.2</i>			<i>ng</i>	<i>100</i>		<i>95.2</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>101</i>			<i>ng</i>	<i>100</i>		<i>101</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006722 Reported: 01/13/2023
---	--	--

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Batch: 23A0004 - Instrument: K System - File ID: Kb23010402.D

23A0004-BS1 (LCS, Calibration Source Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.4	70-130			
trans-1,2-Dichloroethene	51.8	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Trichloroethene	49.8	10	5	ng	50.0		99.5	70-130			
Tetrachloroethene	63.9	10	5	ng	50.0		128	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.4</i>			<i>ng</i>	<i>50.0</i>		<i>113</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>60.3</i>			<i>ng</i>	<i>50.0</i>		<i>121</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Batch: 23A0004 - Instrument: K System - File ID: Kb23010403.D
23A0004-BLK1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.443	0.434	0.217	µg/m ³							U
trans-1,2-Dichloroethene	<0.354	0.347	0.174	µg/m ³							U
cis-1,2-Dichloroethene	<0.354	0.347	0.174	µg/m ³							U
Trichloroethene	<0.382	0.374	0.187	µg/m ³							U
Tetrachloroethene	<0.451	0.442	0.221	µg/m ³							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>110</i>			<i>ng</i>	<i>100</i>		<i>110</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>114</i>			<i>ng</i>	<i>100</i>		<i>114</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010404.D
B23A004-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.7	10	5	ng	50.0		97.3	70-130			
trans-1,2-Dichloroethene	51.1	10	5	ng	50.0		102	70-130			
cis-1,2-Dichloroethene	50.8	10	5	ng	50.0		102	70-130			
Trichloroethene	48.9	10	5	ng	50.0		97.7	70-130			
Tetrachloroethene	63.4	10	5	ng	50.0		127	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.0</i>			<i>ng</i>	<i>50.0</i>		<i>112</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.2</i>			<i>ng</i>	<i>50.0</i>		<i>116</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010425.D
B23A004-CCV1 (LCS, Closing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.5	10	5	ng	50.0		97.0	70-130			
trans-1,2-Dichloroethene	52.1	10	5	ng	50.0		104	70-130			
cis-1,2-Dichloroethene	51.3	10	5	ng	50.0		103	70-130			
Trichloroethene	47.5	10	5	ng	50.0		95.0	70-130			
Tetrachloroethene	62.0	10	5	ng	50.0		124	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>56.8</i>			<i>ng</i>	<i>50.0</i>		<i>114</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>58.9</i>			<i>ng</i>	<i>50.0</i>		<i>118</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010426.D
B23A004-CCB1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>95.5</i>			<i>ng</i>	<i>100</i>		<i>95.5</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>116</i>			<i>ng</i>	<i>100</i>		<i>116</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006722 Reported: 01/13/2023
---	--	--

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010441.D

B23A004-CCV2 (Continuing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	48.9	10	5	ng	50.0		97.8	70-130			
trans-1,2-Dichloroethene	52.6	10	5	ng	50.0		105	70-130			
cis-1,2-Dichloroethene	51.6	10	5	ng	50.0		103	70-130			
Trichloroethene	50.3	10	5	ng	50.0		101	70-130			
Tetrachloroethene	64.6	10	5	ng	50.0		129	70-130			
<i>Surrogate: 1,2-DCA-d4</i>	<i>55.6</i>			<i>ng</i>	<i>50.0</i>		<i>111</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>61.4</i>			<i>ng</i>	<i>50.0</i>		<i>123</i>	<i>70-130</i>			

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Organics in Air by EPA TO-17 Using ChloroSorber Packed Tube - Quality Control Summary

Sequence: B23A004 - Instrument: K System - File ID: Kb23010442.D
B23A004-CCB2 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<5	10	5	ng							U
trans-1,2-Dichloroethene	<5	10	5	ng							U
cis-1,2-Dichloroethene	<5	10	5	ng							U
Trichloroethene	<5	10	5	ng							U
Tetrachloroethene	<5	10	5	ng							U
<i>Surrogate: 1,2-DCA-d4</i>	<i>105</i>			<i>ng</i>	<i>100</i>		<i>105</i>	<i>70-130</i>			
<i>Surrogate: Toluene-d8</i>	<i>117</i>			<i>ng</i>	<i>100</i>		<i>117</i>	<i>70-130</i>			

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006722 Reported: 01/13/2023
---	--	--

TO-17 (Passive) - LCS/LCSD Quality Control Summary

LCS: 23A0004-BS1 File ID: Kb23010402.D

Analyzed: 1/4/23 10:27

LCSD: B23A004-ICV1 File ID: Kb23010404.D

Analyzed: 1/4/23 9:39

Analyte	CAS#	LCS Result (ng)	%REC Q	Spike Level (ng)	LCSD Result (ng)	%REC	%REC Limits	RPD	RPD Limit	Q
Vinyl Chloride	75-01-4	48.69	97.38	50	48.67	97.30	70-130	0.04	30	
trans-1,2-Dichloroethene	156-60-5	51.77	103.54	50	51.05	102.00	70-130	1.40	30	
cis-1,2-Dichloroethene	156-59-2	50.77	101.54	50	50.77	102.00	70-130	0.00	30	
Trichloroethene	79-01-6	49.76	99.52	50	48.85	97.70	70-130	1.85	30	
Tetrachloroethene	127-18-4	63.89	127.78	50	63.41	127.00	70-130	0.75	30	

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Additional QC Information

EnviroForensics N16W23390 Stone Ridge Dr, Suite G Waukesha, WI 53188	Site Name: Econo Care Cleaners Site Location: Green Bay, WI Project Manager: Rob Hoverman	Beacon Proposal: 221003R01 Lab Work Order: 0006722 Reported: 01/13/2023
---	--	--

Sample Result Calculation Summary (Concentration)
TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial Result ng	C Calculated Result µg/m ³	File ID
---------	-------------------------------	--------------------------	----------------------	---------------------------	---	---------

Lab ID: 0006722-01	Sample Name: 200030-1404 Webster-IA-1	̄ Temp (°C): 30.00
---------------------------	--	---------------------------

Vinyl Chloride	40,230	1.00	0.573	U	U	Kb23010405.D
trans-1,2-Dichloroethene	40,230	1.00	0.716	U	U	Kb23010405.D
cis-1,2-Dichloroethene	40,230	1.00	0.716	U	U	Kb23010405.D
Trichloroethene	40,230	1.00	0.665	U	U	Kb23010405.D
Tetrachloroethene	40,230	1.00	0.563	265.54	11.7	Kb23010405.D

Calculations:

$$C = \frac{1000 \times M \times DF}{U_c \times t}$$

$$U_c = U * \left(\frac{T_s + 273.15}{T_u + 273.15} \right)^{1/2}$$

where: C = concentration (µg/m³)
 M = mass (ng)
 DF = dilution factor
 U_c = uptake rate (ml/min), corrected
 t = sampling time (minutes)
 U = compound specific uptake rate
 T_u = uptake rate study temperature
 T_s = sample average temperature

Note: T_u is 16.65°C

Reference: Federal Register/Vol. 79, No. 125/June 30, 2014

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Method Detection and Reporting Limit Calculations (Concentration)
TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng)		C Calculated (µg/m³)	
				LOQ	LOD	LOQ	LOD

Lab ID: 0006722-01	Sample Name: 200030-1404 Webster-IA-1	̄ Temp (°C): 30.00
---------------------------	--	---------------------------

Vinyl Chloride	40,230	1.00	0.573	10.00	5.00	0.434	0.217
trans-1,2-Dichloroethene	40,230	1.00	0.716	10.00	5.00	0.347	0.174
cis-1,2-Dichloroethene	40,230	1.00	0.716	10.00	5.00	0.347	0.174
Trichloroethene	40,230	1.00	0.665	10.00	5.00	0.374	0.187
Tetrachloroethene	40,230	1.00	0.563	10.00	5.00	0.442	0.221

EnviroForensics
 N16W23390 Stone Ridge Dr, Suite G
 Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Laboratory Certification List

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	01/31/2023	
DoD-ELAP	72690/L22-563	United States Department of Defense Environmental Laboratory Accreditation	11/30/2024	
ISO/IEC 17025:2017	72690/L22-563	General Requirements for the Competence of Testing and Calibration Laboratories	11/30/2024	
NEFAP	72690/L22-564	TNI National Environmental Field Activities Program (NEFAP)	11/30/2024	
NY-NELAC	12097	New York Department of Health	04/01/2023	
Utah-NELAC	MD010912022-12	Utah Department of Health	12/31/2023	

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Qualifiers/Notes and Definitions

General Definitions:

DF	Dilution Factor
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
NA	Not Applicable
Q	Qualifier
RPD	Relative Percent Difference
RT	Retention Times in Minutes
RRT	Evaluation of Relative Retention Times in RRT Units (qualified if outside ± 0.06 control limits)
3σ	Uncertainty
∉	Compound not on scope of accreditation
+	values are outside method/contract required QC limits
∅	Compound not on scope of accreditation and analyzed with a one-point calibration

Sample/Sample Receipt Qualifiers and Notes:

U Analyte was not detected and is reported as less than the limit of detection (LOD). The LOD has been adjusted for any dilution or concentration of the sample.

EnviroForensics
N16W23390 Stone Ridge Dr, Suite G
Waukesha, WI 53188

Site Name: Econo Care Cleaners
Site Location: Green Bay, WI
Project Manager: Rob Hoverman

Beacon Proposal: 221003R01
Lab Work Order: 0006722
Reported: 01/13/2023

Sample Management Records

