PREPARED BY
EnviroForensics, LLC
Milwaukee, WI 53202

October 23, 2024

Mr. Binyoti Amungwafor
Wisconsin Department of Natural Resources
Milwaukee Service Center
1027 W. St. Paul Avenue
Milwaukee, WI 53233

Re: Additional Soil Gas Sampling Results
OHM-Wauwatosa
6737 Milwaukee Avenue
Wauwatosa, Wisconsin 53213
BRRTS# 02-41-551923

Dear Mr. Amungwafor:

On February 19, 2024, EnviroForensics, LLC (EnviroForensics) proposed to re-sample soil gas probes SG-4s, SG-6s, SG-6d, SG-7s, and SG-7d one (1) additional time in the summer months for chlorinated volatile organic compounds (CVOCs) at the OHM-Wauwatosa at 6737 Milwaukee Ave. Wauwatosa, Wisconsin**.** The purpose of resampling was to determine if there is a statistically significant increasing trend in vapor concentrations. We did not propose to re-sample the sub-slab ports located within the site building due to the very low concentrations of CVOCs detected which are well below the small commercial Vapor Risk Screening Levels (VRSLs) and the residential VRSLs.

Sampling and Results

Testing the integrity of the sample points was conducted with helium tracer gas at each soil gas probe. One (1) liter of Helium tracer gas was pumped into a sealed shroud encompassing the sub-slab vapor points. The tubing for the sampling train was attached to a helium detection device outside of the shroud. Air was purged from the sub-slab vapor sampling apparatus and screened for the presence of helium. The sub-slab vapor sampling apparatus appeared to have a quality seal since no helium was detected outside of the shroud.

All vacuum canisters were batch-certified by the laboratory for QA/QC purposes. Initial and final pressure readings were collected from each vacuum canister along with all other required information. The vacuum canisters had a regulator to restrict flow rates to less

than 200 ml/minute. The vacuum canisters were submitted to ENVision Air Laboratories of Indianapolis, Indiana for laboratory analysis of VOCs via US EPA Method TO-15.

Sampling as described above was implemented in May 2024. Results from the soil gas sampling showed significant increase in tetrachloroethene (PCE). Additionally, the results showed significant detections of trichloroethene (TCE) above the Residential VRSL that have never been seen on the Site. Results are presented on **Figure 1** and in **Table 1.** The laboratory analytical report is attached to this letter.

After reviewing the results, we believe that these detections from the May 2024 event were from contaminated batch certified canisters. Batch certified canisters have earned a reputation for containing carryover contaminants and frequently at elevated concentrations for TCE. As noted in various communications from WDNR vapor experts, the WDNR is preferencing the use of passive samplers over shorter duration canisters due to carryover, exposure assessment periods and general reliability. Therefore, we resampled the four (4) soil gas points (SG-6s/d & SG-7s/d) nearest to the residential property on the east side of the Site. We deployed these samples with Beacon passive sorbent tubes analyzed by TO-17.

Because the soil gas probes were recently checked for integrity and the sampling was conducted with passive samplers, additional leak testing was not performed. However, one (1) probe volume was removed with a pump to ensure that atmospheric vapors were not mixing with the screened interval prior to deploying each sampler. Each sampler was tied to string and placed at the midpoint of each screen. Once deployed, the well plug or screw down cap was replaced until retrieval. The samplers were deployed from September 4 through September 9, 2024, approximately 9 days, during summer conditions as previously proposed.

Passive sample results are also shown of **Figure 1** and in **Table 1** and the laboratory report is attached to this letter. The resampling event samples contained PCE at comparable concentrations as previously detected prior to and in some cases after remediation.

Conclusions

Limited rebound has occurred since remediation was discontinued November 2021, but the detections are still orders of magnitude below the VRSL. Almost three years have passed since the SVE system shutdown, giving subsurface conditions sufficient time to rebound. We have not identified detections of PCE on-Site above the Residential VRSL since before

remediation. Previous off-site screening at the adjacent residential property did not reveal a vapor intrusion risk prior to remediation. Therefore, it is unreasonable to suspect that the site would pose a future vapor intrusion risk to offsite properties after remediation was completed further reducing the potential.

We propose the Site be closed. We previously submitted closure documentation with fees; request to update those documents to include the most recent vapor data collected and re-submitted without additional fees.

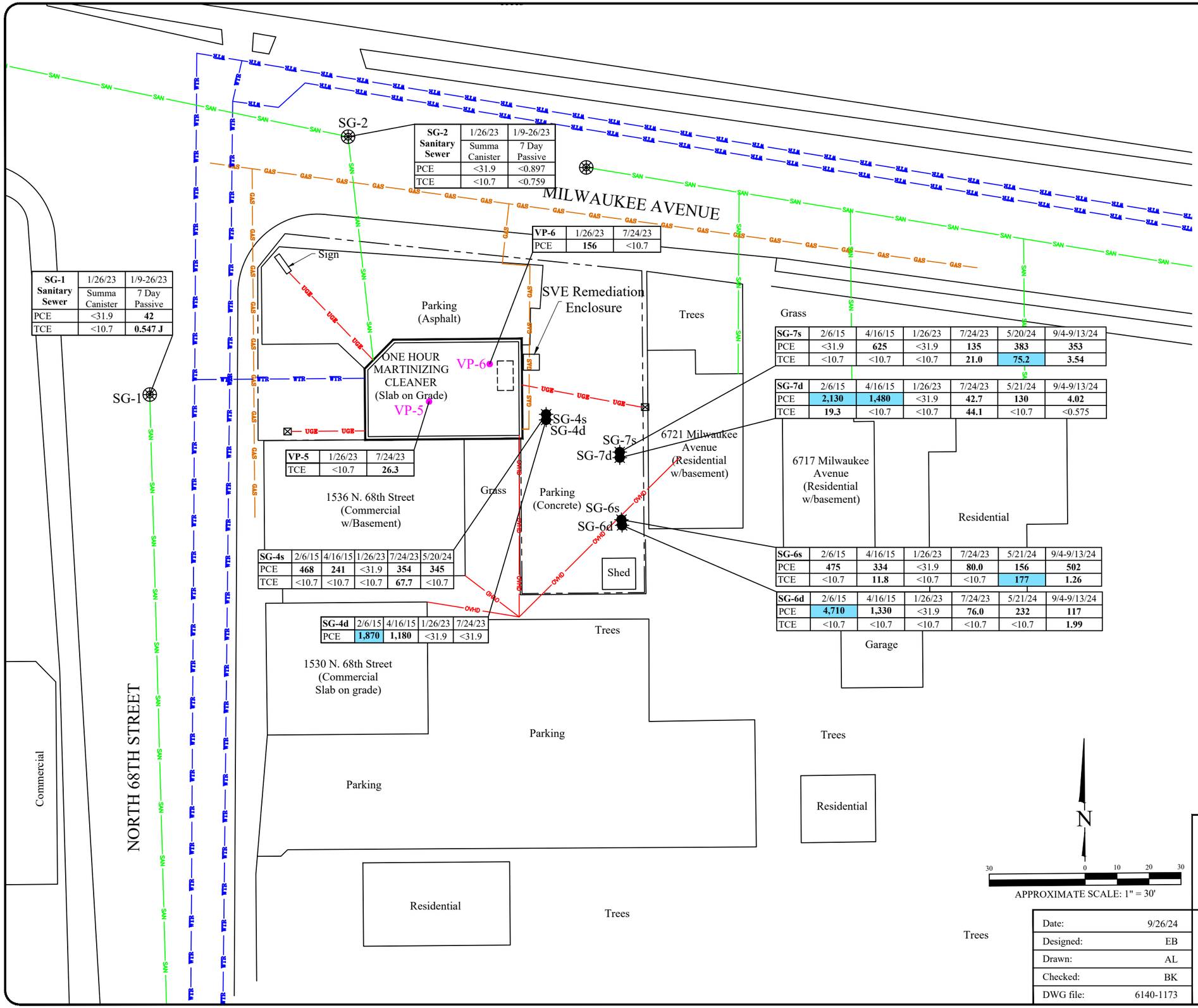
If you have further questions regarding these results or conclusions, please contact me.

Sincerely,
EnviroForensics

Rob Hoverman
Regional Director
262-366-4425
rhoverman@enviroforensics.com

Attachments:

Figure 1: Vapor Sampling Results
Table 1: Vapor Sampling Results
Laboratory Analytical Reports



SG-2 Sanitary Sewer	1/26/23 Summa Canister	1/9-26/23 7 Day Passive
PCE	<31.9	<0.897
TCE	<10.7	<0.759

SG-1 Sanitary Sewer	1/26/23 Summa Canister	1/9-26/23 7 Day Passive
PCE	<31.9	**42**
TCE	<10.7	**0.547 J**

VP-6	1/26/23	7/24/23
PCE	**156**	<10.7

VP-5	1/26/23	7/24/23
TCE	<10.7	**26.3**

SG-7s	2/6/15	4/16/15	1/26/23	7/24/23	5/20/24	9/4-9/13/24
PCE	<31.9	**625**	<31.9	**135**	**383**	**353**
TCE	<10.7	<10.7	<10.7	**21.0**	**75.2**	**3.54**

SG-7d	2/6/15	4/16/15	1/26/23	7/24/23	5/21/24	9/4-9/13/24
PCE	**2,130**	**1,480**	<31.9	**42.7**	**130**	**4.02**
TCE	**19.3**	<10.7	<10.7	**44.1**	<10.7	<0.575

SG-4s	2/6/15	4/16/15	1/26/23	7/24/23	5/20/24
PCE	**468**	**241**	<31.9	**354**	**345**
TCE	<10.7	<10.7	<10.7	**67.7**	<10.7

SG-4d	2/6/15	4/16/15	1/26/23	7/24/23
PCE	**1,870**	**1,180**	<31.9	<31.9

SG-6s	2/6/15	4/16/15	1/26/23	7/24/23	5/21/24	9/4-9/13/24
PCE	**475**	**334**	<31.9	**80.0**	**156**	**502**
TCE	<10.7	**11.8**	<10.7	<10.7	**177**	**1.26**

SG-6d	2/6/15	4/16/15	1/26/23	7/24/23	5/21/24	9/4-9/13/24
PCE	**4,710**	**1,330**	<31.9	**76.0**	**232**	**117**
TCE	<10.7	<10.7	<10.7	<10.7	<10.7	**1.99**

Legend

- Property boundary
- UGE — Underground electric line utility
- OVHD — Overhead electric line utility
- GAS — Gas line utility
- SAN — Sanitary line utility
- WTR — Water line utility
- Old light location
- SG-1 — Soil gas sample location
- VP-1 — Sub-Slab vapor monitoring points
- SG-1 — Sewer vapor sampling location

Analytes	Vapor Risk Screening Levels	
	Residential	Small Commercial
PCE	**1,400**	**5,800**
TCE	**70**	**290**

Notes:
1. Bolded and shaded blue values are above the residential vapor risk screening level
2. Units in micrograms per cubic meter = ug/m^3
3. NE = Not Established
4. PCE = Tetachloroethene
5. TCE = Trichloroethene
6. CVOCs = Chlorinated Volatile Organic Compounds
7. ND = Not Detected

VAPOR SAMPLING RESULTS

One Hour Martinizing
6737 West Milwaukee Avenue
Wauwatosa, WI

Date:	9/26/24
Designed:	EB
Drawn:	AL
Checked:	BK
DWG file:	6140-1173

ENVIRO forensics
825 North Capitol Avenue • Indianapolis, IN 46204
EnviroForensics.com

Figure 1

Project 6140

TABLE 1

VAPOR ANALYTICAL RESULTS

One Hour Martinizing

6737 W. Milwaukee Avenue, Wauwatosa, Wisconsin

Sample Identification	Date Sampled	Sample Type	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride
Small Commercial Vapor Risk Screening Level			**5,800**	**290**	**N.E.**	**5,800**	**930**
Residential Vapor RiskScreening Level			**1,400**	**70**	**N.E.**	**1,400**	**56**
6140-SG-1 Sanitary Sewer	11/19/2010	Summa Canister	**390**	NA	NA	NA	NA
	1/26/2023		<31.9	<10.7	<198	<396	<12.8
	1/9-1/26/2023	7-day Passive	**42**	**0.547 J**	<0.704	<0.704	<0.879
6140-SG-2 Sanitary Sewer	1/26/2023	Summa Canister	<31.9	<10.7	<198	<396	<12.8
	1/9-1/26/2023	Passive 7-day	<0.897	<0.759	<0.704	<0.704	<0.881
6140-SG-4s	2/6/2015	Summa Canister	**468**	<10.7	<198	<396	<12.8
	4/16/2015		**241**	<10.7	<198	<396	<12.8
	1/26/2023		<31.9	<10.7	<198	<396	<12.8
	7/24/2023		**354**	**67.7**	<198	<396	<12.8
	5/20/2024		**345**	<10.7	<198	<396	<12.8
6140-SG-4d	2/6/2015	Summa Canister	**1,870**	<10.7	<198	<396	<12.8
	4/16/2015		**1,180**	<10.7	<198	<396	<12.8
	1/26/2023		<31.9	<10.7	<198	<396	<12.8
	7/24/2023		<31.9	<10.7	<198	<396	<12.8
6140-SG-6s	2/6/2015	Summa Canister	**475**	<10.7	<198	<396	<12.8
	4/16/2015		**334**	**11.8**	<198	<396	<12.8
	1/26/2023		<31.9	<10.7	<198	<396	<12.8
	7/24/2023		**80**	<10.7	<198	<396	<12.8
	5/21/2024		**156**	**177**	<198	<396	<12.8
	9/4-9/13/2024	Passive 9-day	**502**	**1.26**	<0.563	<0.563	<0.703
6140-SG-6d	2/6/2015	Summa Canister	**4,710**	<10.7	<198	<396	<12.8
	4/16/2015		**1,330**	<10.7	<198	<396	<12.8
	1/26/2023		<31.9	<10.7	<198	<396	<12.8
	7/24/2023		**76.0**	<10.7	<198	<396	<12.8
	5/21/2024		**232**	<10.7	<198	<396	<12.8
	9/4-9/13/2024	Passive 9-day	**117**	**1.99**	<0.562	<0.562	<0.703
6140-SG-7s	2/6/2015	Summa Canister	<31.9	<10.7	<198	<396	<12.8
	4/16/2015		**625**	<10.7	<198	<396	<12.8
	1/26/2023		<31.9	<10.7	<198	<396	<12.8
	7/24/2023		**135**	**21.0**	<198	<396	<12.8
	5/20/2024		**383**	**75.2**	<198	<396	<12.8
	9/4-9/13/2024	Passive 9-day	**353**	**3.54**	<0.534	<0.534	<0.667
6140-SG-7d	2/6/2015	Summa Canister	**2,130**	**19.3**	<198	<396	<12.8
	4/16/2015		**1,480**	<10.7	<198	<396	<12.8
	1/26/2023		<31.9	<10.7	<198	<396	<12.8
	7/24/2023		**42.7**	**44.1**	<198	<396	<12.8
	5/21/2024		**130**	<10.7	<198	<396	<12.8
	9/4-9/13/2024	Passive 9-day	**4.02**	<0.575	<0.534	<0.534	<0.667
VP-5	1/26/2023	Summa Canister	<31.9	<10.7	<198	<396	<12.8
	7/24/2023		<31.9	**26.3**	<198	<396	<12.8
VP-6	1/26/2023	Summa Canister	<31.9	<10.7	<198	<396	<12.8
	7/24/2023		**156**	<10.7	<198	<396	<12.8

Notes:

Vapor Risk Screeing Levels are calculated according to procedures described in Publication RR-800

All concentrations reported in units of micrograms per cubic meter ($\mu g/m^3$)

Bolded values are above detection limits

Bolded and Blue Shaded values exceed the residential Vapor Risk Screening Level

EnvisionAir
1441 Sadlier Circle West Drive
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www.envision-air.com

Ms. Nicolett Morris
Enviroforensics
825 N. Capitol Ave.
Indianapolis, IN 46204

June 5, 2024

EnvisionAir Project Number: 2024-248
Client Project Name: 6140 – OHM-Wauwatosa

Dear Ms. Morris,

Please find the attached analytical report for the samples received May 23, 2024. All test methods performed were fully compliant with local, state, and federal EPA methods unless otherwise noted. The project was analyzed as requested on the enclosed chain of custody record. Please review the comments section for additional information about your results or Quality Control data.

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

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

Yours Sincerely,

David Norris
Project Manager
EnvisionAir, LLC

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Client Name: ENVIROFORENSICS

Project ID: 6140 - OHM-WAUWATOSA

Client Project Manager: NICOLETTE MORRIS

EnvisionAir Project Number: 2024-248

Sample Summary

Laboratory Sample Number:	Sample Description:	Matrix:	START Date Collected:	START Time Collected:	End Date Collected:	End Time Collected:	Date Received:	Time Received	Canister Pressure / Vacuum Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)
24-1359	6140-SG-4S	A	5/20/24	4:11	5/20/24	4:17	5/23/24	15:26	30	5	5
24-1360	6140-SG-6S	A	5/21/24	8:33	5/21/24	8:38	5/23/24	15:26	30	5	5
24-1361	6140-SG-6D	A	5/21/24	9:46	5/21/24	10:00	5/23/24	15:26	30	5	5
24-1362	6140-SG-7S	A	5/20/24	5:11	5/20/24	5:19	5/23/24	15:26	30	5	5
24-1363	6140-SG-7D	A	5/21/24	11:05	5/21/24	11:11	5/23/24	15:26	28	5	5

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Client Name: ENVIROFORENSICS

Project ID: 6140 - OHM-WAUWATOSA

Client Project Manager: NICOLETTE MORRIS

EnvisionAir Project Number: 2024-248

Analytical Method: TO-15
Analytical Batch: 052424AAIR

Client Sample ID: 6140-SG-4S
EnvisionAir Sample Number: 24-1359
Sample Matrix: AIR

Sample Collection START Date/Time: 5/20/24 4:11
Sample Collection END Date/Time: 5/20/24 4:17
Sample Received Date/Time: 5/23/24 15:26

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 4920	4920	
4-Methyl-2-pentanone (MIBK)	< 20500	20500	
1,1,1-Trichloroethane	< 5460	5460	
1,1,2,2-Tetrachloroethane	< 3.36	3.36	1
1,1,2-Trichloroethane	< 2.10	2.10	1
1,1-Dichloroethane	< 40.5	40.5	
1,1-Dichloroethene	< 1980	1980	
1,2,4-Trichlorobenzene	< 7.42	7.42	
1,2,4-Trimethylbenzene	< 49.2	49.2	
1,2-dibromoethane (EDB)	< 0.32	0.32	1
1,2-Dichlorobenzene	< 601	601	
1,2-Dichloroethane	< 4.05	4.05	
1,2-Dichloropropane	< 4.62	4.62	
1,3,5-Trimethylbenzene	< 49.2	49.2	
1,3-Butadiene	< 2.21	2.21	
1,3-Dichlorobenzene	< 601	601	
1,4-Dichlorobenzene	< 6.01	6.01	
1,4-Dioxane	< 18.0	18.0	
2-Butanone (MEK)	< 29500	29500	
2-Hexanone	< 205	205	
Acetone	< 23800	23800	
Benzene	< 16.0	16.0	
Benzyl Chloride	< 4.14	4.14	1
Bromodichloromethane	< 5.36	5.36	1
Bromoform	< 103	103	
Bromomethane	< 38.8	38.8	
Carbon Disulfide	< 3110	3110	
Carbon Tetrachloride	< 6.29	6.29	
Chlorobenzene	< 230	230	
Chloroethane	< 132	132	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 8.30	8.30	
Chloromethane	< 206	206	
cis-1,2-Dichloroethene	< 198	198	
cis-1,3-Dichloropropene	< 45.4	45.4	
Cyclohexane	< 55100	55100	
Dibromochloromethane	< 8.52	8.52	
Dichlorodifluoromethane	< 495	495	
Ethyl Acetate	< 541	541	
Ethylbenzene	< 86.8	86.8	
Hexachloro-1,3-butadiene	< 10.7	10.7	
Isooctane	< 4670	4670	
m,p-Xylene	< 434	434	
Methylene Chloride	< 417	417	
Methyl-tert-butyl ether	< 361	361	
N-Heptane	< 4100	4100	
N-Hexane	< 1760	1760	
Naphthalene	< 5.24	5.24	
o-Xylene	< 434	434	
Propylene	< 1720	1720	
Styrene	< 4260	4260	
Tetrachloroethene	**345**	31.9	
Tetrahydrofuran	< 2950	2950	
Toluene	< 37700	37700	
trans-1,2-Dichloroethene	< 396	396	
trans-1,3-Dichloropropene	< 45.4	45.4	
Trichloroethene	< 10.7	10.7	
Trichlorofluoromethane	< 5620	5620	
Vinyl Acetate	< 1760	1760	
Vinyl Bromide	< 4.37	4.37	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	96%		
Analysis Date/Time:	5-24-24/19:31		
Analyst Initials	tjg		

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Client Name: ENVIROFORENSICS

Project ID: 6140 - OHM-WAUWATOSA

Client Project Manager: NICOLETTE MORRIS

EnvisionAir Project Number: 2024-248

Analytical Method: TO-15
Analytical Batch: 052424AAIR

Client Sample ID: 6140-SG-6S
EnvisionAir Sample Number: 24-1360
Sample Matrix: AIR

Sample Collection START Date/Time: 5/21/24 8:33
Sample Collection END Date/Time: 5/21/24 8:38
Sample Received Date/Time: 5/23/24 15:26

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 4920	4920	
4-Methyl-2-pentanone (MIBK)	< 20500	20500	
1,1,1-Trichloroethane	< 5460	5460	
1,1,2,2-Tetrachloroethane	< 3.36	3.36	1
1,1,2-Trichloroethane	< 2.10	2.10	1
1,1-Dichloroethane	< 40.5	40.5	
1,1-Dichloroethene	< 1980	1980	
1,2,4-Trichlorobenzene	< 7.42	7.42	
1,2,4-Trimethylbenzene	< 49.2	49.2	
1,2-dibromoethane (EDB)	< 0.32	0.32	1
1,2-Dichlorobenzene	< 601	601	
1,2-Dichloroethane	< 4.05	4.05	
1,2-Dichloropropane	< 4.62	4.62	
1,3,5-Trimethylbenzene	< 49.2	49.2	
1,3-Butadiene	< 2.21	2.21	
1,3-Dichlorobenzene	< 601	601	
1,4-Dichlorobenzene	< 6.01	6.01	
1,4-Dioxane	< 18.0	18.0	
2-Butanone (MEK)	< 29500	29500	
2-Hexanone	< 205	205	
Acetone	< 23800	23800	
Benzene	< 16.0	16.0	
Benzyl Chloride	< 4.14	4.14	1
Bromodichloromethane	< 5.36	5.36	1
Bromoform	< 103	103	
Bromomethane	< 38.8	38.8	
Carbon Disulfide	< 3110	3110	
Carbon Tetrachloride	< 6.29	6.29	
Chlorobenzene	< 230	230	
Chloroethane	< 132	132	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 8.30	8.30	
Chloromethane	< 206	206	
cis-1,2-Dichloroethene	< 198	198	
cis-1,3-Dichloropropene	< 45.4	45.4	
Cyclohexane	< 55100	55100	
Dibromochloromethane	< 8.52	8.52	
Dichlorodifluoromethane	< 495	495	
Ethyl Acetate	< 541	541	
Ethylbenzene	< 86.8	86.8	
Hexachloro-1,3-butadiene	< 10.7	10.7	
Isooctane	< 4670	4670	
m,p-Xylene	< 434	434	
Methylene Chloride	< 417	417	
Methyl-tert-butyl ether	< 361	361	
N-Heptane	< 4100	4100	
N-Hexane	< 1760	1760	
Naphthalene	< 5.24	5.24	
o-Xylene	< 434	434	
Propylene	< 1720	1720	
Styrene	< 4260	4260	
Tetrachloroethene	**156**	31.9	
Tetrahydrofuran	< 2950	2950	
Toluene	< 37700	37700	
trans-1,2-Dichloroethene	< 396	396	
trans-1,3-Dichloropropene	< 45.4	45.4	
Trichloroethene	**177**	10.7	
Trichlorofluoromethane	< 5620	5620	
Vinyl Acetate	< 1760	1760	
Vinyl Bromide	< 4.37	4.37	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	97%		
Analysis Date/Time:	5-24-24/20:18		
Analyst Initials	tjg		

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Client Name: ENVIROFORENSICS

Project ID: 6140 - OHM-WAUWATOSA

Client Project Manager: NICOLETTE MORRIS

EnvisionAir Project Number: 2024-248

Analytical Method: TO-15
Analytical Batch: 052424AAIR

Client Sample ID: 6140-SG-6D
EnvisionAir Sample Number: 24-1361
Sample Matrix: AIR

Sample Collection START Date/Time: 5/21/24 9:46
Sample Collection END Date/Time: 5/21/24 10:00
Sample Received Date/Time: 5/23/24 15:26

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 4920	4920	
4-Methyl-2-pentanone (MIBK)	< 20500	20500	
1,1,1-Trichloroethane	< 5460	5460	
1,1,2,2-Tetrachloroethane	< 3.36	3.36	1
1,1,2-Trichloroethane	< 2.10	2.10	1
1,1-Dichloroethane	< 40.5	40.5	
1,1-Dichloroethene	< 1980	1980	
1,2,4-Trichlorobenzene	< 7.42	7.42	
1,2,4-Trimethylbenzene	< 49.2	49.2	
1,2-dibromoethane (EDB)	< 0.32	0.32	1
1,2-Dichlorobenzene	< 601	601	
1,2-Dichloroethane	< 4.05	4.05	
1,2-Dichloropropane	< 4.62	4.62	
1,3,5-Trimethylbenzene	< 49.2	49.2	
1,3-Butadiene	< 2.21	2.21	
1,3-Dichlorobenzene	< 601	601	
1,4-Dichlorobenzene	< 6.01	6.01	
1,4-Dioxane	< 18.0	18.0	
2-Butanone (MEK)	< 29500	29500	
2-Hexanone	< 205	205	
Acetone	< 23800	23800	
Benzene	< 16.0	16.0	
Benzyl Chloride	< 4.14	4.14	1
Bromodichloromethane	< 5.36	5.36	1
Bromoform	< 103	103	
Bromomethane	< 38.8	38.8	
Carbon Disulfide	< 3110	3110	
Carbon Tetrachloride	< 6.29	6.29	
Chlorobenzene	< 230	230	
Chloroethane	< 132	132	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 8.30	8.30	
Chloromethane	< 206	206	
cis-1,2-Dichloroethene	< 198	198	
cis-1,3-Dichloropropene	< 45.4	45.4	
Cyclohexane	< 55100	55100	
Dibromochloromethane	< 8.52	8.52	
Dichlorodifluoromethane	< 495	495	
Ethyl Acetate	< 541	541	
Ethylbenzene	< 86.8	86.8	
Hexachloro-1,3-butadiene	< 10.7	10.7	
Isooctane	< 4670	4670	
m,p-Xylene	< 434	434	
Methylene Chloride	< 417	417	
Methyl-tert-butyl ether	< 361	361	
N-Heptane	< 4100	4100	
N-Hexane	< 1760	1760	
Naphthalene	< 5.24	5.24	
o-Xylene	< 434	434	
Propylene	< 1720	1720	
Styrene	< 4260	4260	
Tetrachloroethene	**232**	31.9	
Tetrahydrofuran	< 2950	2950	
Toluene	< 37700	37700	
trans-1,2-Dichloroethene	< 396	396	
trans-1,3-Dichloropropene	< 45.4	45.4	
Trichloroethene	< 10.7	10.7	
Trichlorofluoromethane	< 5620	5620	
Vinyl Acetate	< 1760	1760	
Vinyl Bromide	< 4.37	4.37	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	100%		
Analysis Date/Time:	5-24-24/21:04		
Analyst Initials	tjg		

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Client Name: ENVIROFORENSICS

Project ID: 6140 - OHM-WAUWATOSA

Client Project Manager: NICOLETTE MORRIS

EnvisionAir Project Number: 2024-248

Analytical Method: TO-15
Analytical Batch: 052424AAIR

Client Sample ID: 6140-SG-7S
EnvisionAir Sample Number: 24-1362
Sample Matrix: AIR

Sample Collection START Date/Time: 5/20/24 5:11
Sample Collection END Date/Time: 5/20/24 5:19
Sample Received Date/Time: 5/23/24 15:26

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 4920	4920	
4-Methyl-2-pentanone (MIBK)	< 20500	20500	
1,1,1-Trichloroethane	< 5460	5460	
1,1,2,2-Tetrachloroethane	< 3.36	3.36	1
1,1,2-Trichloroethane	< 2.10	2.10	1
1,1-Dichloroethane	< 40.5	40.5	
1,1-Dichloroethene	< 1980	1980	
1,2,4-Trichlorobenzene	< 7.42	7.42	
1,2,4-Trimethylbenzene	< 49.2	49.2	
1,2-dibromoethane (EDB)	< 0.32	0.32	1
1,2-Dichlorobenzene	< 601	601	
1,2-Dichloroethane	< 4.05	4.05	
1,2-Dichloropropane	< 4.62	4.62	
1,3,5-Trimethylbenzene	< 49.2	49.2	
1,3-Butadiene	< 2.21	2.21	
1,3-Dichlorobenzene	< 601	601	
1,4-Dichlorobenzene	< 6.01	6.01	
1,4-Dioxane	< 18.0	18.0	
2-Butanone (MEK)	< 29500	29500	
2-Hexanone	< 205	205	
Acetone	< 23800	23800	
Benzene	< 16.0	16.0	
Benzyl Chloride	< 4.14	4.14	1
Bromodichloromethane	< 5.36	5.36	1
Bromoform	< 103	103	
Bromomethane	< 38.8	38.8	
Carbon Disulfide	< 3110	3110	
Carbon Tetrachloride	< 6.29	6.29	
Chlorobenzene	< 230	230	
Chloroethane	< 132	132	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 8.30	8.30	
Chloromethane	< 206	206	
cis-1,2-Dichloroethene	< 198	198	
cis-1,3-Dichloropropene	< 45.4	45.4	
Cyclohexane	< 55100	55100	
Dibromochloromethane	< 8.52	8.52	
Dichlorodifluoromethane	< 495	495	
Ethyl Acetate	< 541	541	
Ethylbenzene	< 86.8	86.8	
Hexachloro-1,3-butadiene	< 10.7	10.7	
Isooctane	< 4670	4670	
m,p-Xylene	< 434	434	
Methylene Chloride	< 417	417	
Methyl-tert-butyl ether	< 361	361	
N-Heptane	< 4100	4100	
N-Hexane	< 1760	1760	
Naphthalene	< 5.24	5.24	
o-Xylene	< 434	434	
Propylene	< 1720	1720	
Styrene	< 4260	4260	
Tetrachloroethene	**383**	31.9	
Tetrahydrofuran	< 2950	2950	
Toluene	< 37700	37700	
trans-1,2-Dichloroethene	< 396	396	
trans-1,3-Dichloropropene	< 45.4	45.4	
Trichloroethene	**75.2**	10.7	
Trichlorofluoromethane	< 5620	5620	
Vinyl Acetate	< 1760	1760	
Vinyl Bromide	< 4.37	4.37	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	102%		
Analysis Date/Time:	5-24-24/21:50		
Analyst Initials	tjg		

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Client Name: ENVIROFORENSICS

Project ID: 6140 - OHM-WAUWATOSA

Client Project Manager: NICOLETTE MORRIS

EnvisionAir Project Number: 2024-248

Analytical Method: TO-15
Analytical Batch: 052424AAIR

Client Sample ID: 6140-SG-7D
EnvisionAir Sample Number: 24-1363
Sample Matrix: AIR

Sample Collection START Date/Time: 5/21/24 11:05
Sample Collection END Date/Time: 5/21/24 11:11
Sample Received Date/Time: 5/23/24 15:26

Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
4-Ethyltoluene	< 4920	4920	
4-Methyl-2-pentanone (MIBK)	< 20500	20500	
1,1,1-Trichloroethane	< 5460	5460	
1,1,2,2-Tetrachloroethane	< 3.36	3.36	1
1,1,2-Trichloroethane	< 2.10	2.10	1
1,1-Dichloroethane	< 40.5	40.5	
1,1-Dichloroethene	< 1980	1980	
1,2,4-Trichlorobenzene	< 7.42	7.42	
1,2,4-Trimethylbenzene	< 49.2	49.2	
1,2-dibromoethane (EDB)	< 0.32	0.32	1
1,2-Dichlorobenzene	< 601	601	
1,2-Dichloroethane	< 4.05	4.05	
1,2-Dichloropropane	< 4.62	4.62	
1,3,5-Trimethylbenzene	< 49.2	49.2	
1,3-Butadiene	< 2.21	2.21	
1,3-Dichlorobenzene	< 601	601	
1,4-Dichlorobenzene	< 6.01	6.01	
1,4-Dioxane	< 18.0	18.0	
2-Butanone (MEK)	< 29500	29500	
2-Hexanone	< 205	205	
Acetone	< 23800	23800	
Benzene	< 16.0	16.0	
Benzyl Chloride	< 4.14	4.14	1
Bromodichloromethane	< 5.36	5.36	1
Bromoform	< 103	103	
Bromomethane	< 38.8	38.8	
Carbon Disulfide	< 3110	3110	
Carbon Tetrachloride	< 6.29	6.29	
Chlorobenzene	< 230	230	
Chloroethane	< 132	132	

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Compounds	Sample Results ug/m³	Reporting Limit ug/m³	Flag
Chloroform	< 8.30	8.30	
Chloromethane	< 206	206	
cis-1,2-Dichloroethene	< 198	198	
cis-1,3-Dichloropropene	< 45.4	45.4	
Cyclohexane	< 55100	55100	
Dibromochloromethane	< 8.52	8.52	
Dichlorodifluoromethane	< 495	495	
Ethyl Acetate	< 541	541	
Ethylbenzene	< 86.8	86.8	
Hexachloro-1,3-butadiene	< 10.7	10.7	
Isooctane	< 4670	4670	
m,p-Xylene	< 434	434	
Methylene Chloride	< 417	417	
Methyl-tert-butyl ether	< 361	361	
N-Heptane	< 4100	4100	
N-Hexane	< 1760	1760	
Naphthalene	< 5.24	5.24	
o-Xylene	< 434	434	
Propylene	< 1720	1720	
Styrene	< 4260	4260	
Tetrachloroethene	**130**	31.9	
Tetrahydrofuran	< 2950	2950	
Toluene	< 37700	37700	
trans-1,2-Dichloroethene	< 396	396	
trans-1,3-Dichloropropene	< 45.4	45.4	
Trichloroethene	< 10.7	10.7	
Trichlorofluoromethane	< 5620	5620	
Vinyl Acetate	< 1760	1760	
Vinyl Bromide	< 4.37	4.37	
Vinyl Chloride	< 12.8	12.8	
4-bromofluorobenzene (surrogate)	100%		
Analysis Date/Time:	5-24-24/22:35		
Analyst Initials	tjg		

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Analytical Report

TO-15 Quality Control Data

EnvisionAir Batch Number: 052424AAIR

Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	Flags
4-Ethyltoluene	< 100	100	
4-Methyl-2-pentanone (MIBK)	< 500	500	
1,1,1-Trichloroethane	< 100	100	
1,1,2,2-Tetrachloroethane	< 0.049	0.049	1
1,1,2-Trichloroethane	< 0.038	0.038	1
1,1-Dichloroethane	< 1	1	
1,1-Dichloroethene	< 50	50	
1,2,4-Trichlorobenzene	< 0.1	0.1	
1,2,4-Trimethylbenzene	< 1	1	
1,2-dibromoethane (EDB)	< 0.0041	0.0041	1
1,2-Dichlorobenzene	< 10	10	
1,2-Dichloroethane	< 0.1	0.1	
1,2-Dichloropropane	< 0.1	0.1	
1,3,5-Trimethylbenzene	< 1	1	
1,3-Butadiene	< 0.1	0.1	
1,3-Dichlorobenzene	< 10	10	
1,4-Dichlorobenzene	< 0.1	0.1	
1,4-Dioxane	< 0.5	0.5	
2-Butanone (MEK)	< 1000	1000	
2-Hexanone	< 5	5	
Acetone	< 1000	1000	
Benzene	< 0.5	0.5	
Benzyl Chloride	< 0.08	0.08	1
Bromodichloromethane	< 0.08	0.08	1
Bromoform	< 1	1	
Bromomethane	< 1	1	
Carbon Disulfide	< 100	100	
Carbon Tetrachloride	< 0.1	0.1	
Chlorobenzene	< 5	5	
Chloroethane	< 5	5	
Chloroform	< 0.17	0.17	
Chloromethane	< 10	10	
cis-1,2-Dichloroethene	< 5	5	
cis-1,3-Dichloropropene	< 1	1	
Cyclohexane	< 1600	1600	
Dibromochloromethane	< 0.1	0.1	
Dichlorodifluoromethane	< 10	10	
Ethyl Acetate	< 15	15	
Ethylbenzene	< 2	2	
Hexachloro-1,3-butadiene	< 0.1	0.1	
Isooctane	< 100	100	
m,p-Xylene	< 10	10	
Methylene Chloride	< 12	12	
Methyl-tert-butyl ether	< 10	10	
N-Heptane	< 100	100	
N-Hexane	< 50	50	
Naphthalene	< 0.1	0.1	
o-Xylene	< 10	10	
Propylene	< 100	100	
Styrene	< 100	100	
Tetrachloroethene	< 0.47	0.47	
Tetrahydrofuran	< 100	100	

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Method Blank (MB):	MB Results (ppbv)	Reporting Limit (ppbv)	Flags
Toluene	< 1000	1000	
trans-1,2-Dichloroethene	< 10	10	
trans-1,3-Dichloropropene	< 1	1	
Trichloroethene	< 0.2	0.2	
Trichlorofluoromethane	< 100	100	
Vinyl Acetate	< 50	50	
Vinyl Bromide	< 0.1	0.1	
Vinyl Chloride	< 0.5	0.5	
4-bromofluorobenzene (surrogate)	103%		
Analysis Date/Time:	5-24-24/17:53		
Analyst Initials	tjg		

LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	LCS/D Conc(ppbv)	LCS Rec.	LCSD Rec.	RPD	Flag
Propylene	9.15	8.93	10	92%	89%	2.4%	
Dichlorodifluoromethane	9.66	10.6	10	97%	106%	9.3%	
Chloromethane	9.89	9.98	10	99%	100%	0.9%	
Vinyl Chloride	9.99	9.22	10	100%	92%	8.0%	
1,3-Butadiene	10.8	10.3	10	108%	103%	4.7%	
Bromomethane	8.84	9.01	10	88%	90%	1.9%	
Chloroethane	10.5	9.76	10	105%	98%	7.3%	
Vinyl Bromide	9.94	10.2	10	99%	102%	2.6%	
Trichlorofluoromethane	10.5	9.91	10	105%	99%	5.8%	
Acetone	9.82	9.66	10	98%	97%	1.6%	
1,1-Dichloroethene	10	10	10	100%	100%	0.0%	
Methylene Chloride	10.2	10.5	10	102%	105%	2.9%	
Carbon Disulfide	9.18	9	10	92%	90%	2.0%	
trans-1,2-Dichloroethene	9.49	8.99	10	95%	90%	5.4%	
Methyl-tert-butyl ether	10.9	10.6	10	109%	106%	2.8%	
1,1-Dichloroethane	9.84	9.69	10	98%	97%	1.5%	
Vinyl Acetate	10.2	10	10	102%	100%	2.0%	
N-Hexane	9.18	9.55	10	92%	96%	4.0%	
2-Butanone (MEK)	9	9.45	10	90%	95%	4.9%	
cis-1,2-Dichloroethene	10.1	10.2	10	101%	102%	1.0%	
Ethyl Acetate	9.65	10.4	10	97%	104%	7.5%	
Chloroform	10.6	10.6	10	106%	106%	0.0%	
Tetrahydrofuran	10.2	9.83	10	102%	98%	3.7%	
1,2-Dichloroethane	10.3	9.61	10	103%	96%	6.9%	
1,1,1-Trichloroethane	10.7	10.3	10	107%	103%	3.8%	
Carbon Tetrachloride	9.74	9.58	10	97%	96%	1.7%	
Benzene	9.55	9.57	10	96%	96%	0.2%	
Cyclohexane	9.36	10.5	10	94%	105%	11.5%	
1,2-Dichloropropane	9.53	10	10	95%	100%	4.8%	
Trichloroethene	10.1	9.68	10	101%	97%	4.2%	
Bromodichloromethane	10.1	9.69	10	101%	97%	4.1%	
1,4-Dioxane	10.2	10.2	10	102%	102%	0.0%	
Isooctane	9.19	9.4	10	92%	94%	2.3%	
N-Heptane	10	9.89	10	100%	99%	1.1%	
cis-1,3-Dichloropropene	9.9	9.29	10	99%	93%	6.4%	
4-Methyl-2-pentanone (MIBK)	9.93	9.58	10	99%	96%	3.6%	
trans-1,3-Dichloropropene	10.4	10.3	10	104%	103%	1.0%	
1,1,2-Trichloroethane	9.73	9.96	10	97%	100%	2.3%	
Toluene	9.74	9.92	10	97%	99%	1.8%	
2-Hexanone	9.46	9.26	10	95%	93%	2.1%	
Dibromochloromethane	10.9	10.9	10	109%	109%	0.0%	
1,2-dibromoethane (EDB)	10.2	9.57	10	102%	96%	6.4%	
Tetrachloroethene	9.29	9.23	10	93%	92%	0.6%	
Chlorobenzene	9.8	9.58	10	98%	96%	2.3%	
Ethylbenzene	10.3	10.4	10	103%	104%	1.0%	
m,p-Xylene	21.4	19.6	20	107%	98%	8.8%	
Bromoform	10.3	9.65	10	103%	97%	6.5%	

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Analytical Report

LCS/LCSD	LCS Results (ppbv)	LCSD Results (ppbv)	LCS/D Conc(ppbv)	LCS Rec.	LCSD Rec.	RPD	Flag
Styrene	10.1	10.3	10	101%	103%	2.0%	
1,1,2,2-Tetrachloroethane	9.34	9.26	10	93%	93%	0.9%	
o-Xylene	9.87	9.33	10	99%	93%	5.6%	
4-Ethyltoluene	9.99	10.2	10	100%	102%	2.1%	
1,3,5-Trimethylbenzene	10	10.5	10	100%	105%	4.9%	
1,2,4-Trimethylbenzene	9.65	9.78	10	97%	98%	1.3%	
1,3-Dichlorobenzene	10.9	10.4	10	109%	104%	4.7%	
Benzyl Chloride	9.88	9.75	10	99%	98%	1.3%	
1,4-Dichlorobenzene	10.5	10.4	10	105%	104%	1.0%	
1,2-Dichlorobenzene	9.81	10.1	10	98%	101%	2.9%	
1,2,4-Trichlorobenzene	10.4	10.2	10	104%	102%	1.9%	
Naphthalene	9.16	10.8	10	92%	108%	16.4%	
Hexachloro-1,3-butadiene	9.74	10.5	10	97%	105%	7.5%	
4-bromofluorobenzene (surrogate)	93%	103%					
Analysis Date/Time:	5-24-24/15:17	5-24-24/16:09					
Analyst Initials	tjg	tjg					

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Flag Number	Comments
1	Reporting limit is supported by MDL. TJG

CHAIN OF CUSTODY RECORD

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

Client: EnviroForensics	P.O. Number: 2024-0138
Report Address: 825 N. Capitol Ave. Indianapolis, IN	Project Name or Number: 6140 OHM-Wauwatosa
Report To: N. Morris \ M. Edmonson	Sampled by: A. Bean
Phone: 866-888-7911	QA/QC Required: (circle if applicable) Level III Level IV
Invoice Address: Same	Reporting Units needed: (circle) ug/m³ mg/m³ PPBV PPMV
Desired TAT: (Please Circle One) 1 day 2 days 3 days Std (5 bus. days)	Media type: 1LC = 1 Liter Canister; 6LC = 6 Liter Canister; TB = Tedlar Bag; TD = Thermal Desorption Tube

REQUESTED PARAMETERS

TO-15 Full List

TO-15 Short List (Specify in notes)

ENVISIONAIR

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

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Air Sample ID	Media Type (see code above)	Coll. Date (Grab/Comp Start)	Coll. Time (Grab/Comp Start)	Coll. Date (Comp. End)	Coll. Time (Comp. End)					Canister Serial #	Flow Controller Serial #	Initial Field (in. Hg)	Final Field (in. Hg)	Lab Received (in. Hg)	EnvisionAir Sample Number
6140-SG-4S	1LC	5/20/24	04:11	5/20/24	04:17	X				84136	0108	-30	-5	-5	24-1359
6140-SG-6S	1LC	5/21/24	08:33	5/21/24	08:38	X				83726	0131	-30	-5	-5	24-1360
6140-SG-6D	1LC	5/21/24	09:46	5/21/24	10:00	X				84053	7394	-30	-5	-5	24-1361
6140-SG-7S	1LC	5/20/24	05:11	5/20/24	05:19	X				83985	0101	-30	-5	-5	24-1362
6140-SG-7D	1LC	5/21/24	11:05	5/21/24	11:11	X				84054	0134	-28	-5	-5	24-1363

Canister Pressure / Vacuum

Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Amari Bean	5/23/24	326	SPL	5/23/24	326

Beacon Environmental
526 Underwood Lane
Bel Air, MD 21014 USA
1.410.838.8780

CERTIFICATE OF ANALYSIS

Beacon Proposal No.: 240826R01

Laboratory Work Order: 0008009

Project Description:
OHM-Wauwatosa
Wauwatosa, WI

Client PO No.: 2024-0257

Prepared for:
Nicolette Morris
EnviroForensics
25 N. Capitol Avenue
Indianapolis, IN 46204

Ryan W. Schneider
Senior Project Manager

September 23, 2024

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

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

Sample Summary

Lab Sample ID	Client Sample ID	Received	Analysis	Matrix
0008009-01	6140-SG6d	09/16/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			
0008009-02	6140-SG6s	09/16/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			
0008009-03	6140-SG7s	09/16/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			
0008009-04	6140-SG7d	09/16/2024	TO-17 (Passive)	Indoor Air
Sampler Type:	Sorbent Tube			

Project Completeness

Samples Received: 4
Samples Analyzed: 4

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EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

Case Narrative

Beacon Environmental provided thermally conditioned ChloroSorbers for sampling, with analyses following U.S. EPA Method TO-17, with analytical results reported in µg/m3. 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 ±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.

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EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

STATEMENT OF DATA QUALIFICATIONS

Qualifier Summary:

Analysis: TO-17 (Passive)

0008009-01 **6140-SG6d**

Compound	Q	Q Explanation
1,2-DCA-d4	S5	Surrogate recovery was out of laboratory and method acceptance limits.
Toluene-d8	S5	Surrogate recovery was out of laboratory and method acceptance limits.

0008009-02 **6140-SG6s**

Compound	Q	Q Explanation
1,2-DCA-d4	S5	Surrogate recovery was out of laboratory and method acceptance limits.

0008009-03 **6140-SG7s**

Compound	Q	Q Explanation
1,2-DCA-d4	S5	Surrogate recovery was out of laboratory and method acceptance limits.
Toluene-d8	S5	Surrogate recovery was out of laboratory and method acceptance limits.

End of Case Narrative

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EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

Analytical Results

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

Summary of Compound Detections- Concentration

Lab Sample ID 0008009-01 — **6140-SG6d** — Indoor Air — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Trichloroethene	79-01-6	1.99		6.098	1.21	0.606	Ka24091705.D
Tetrachloroethene	127-18-4	117		8.125	1.43	0.716	Ka24091705.D

Lab Sample ID 0008009-02 — **6140-SG6s** — Indoor Air — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Trichloroethene	79-01-6	1.26		6.104	1.21	0.606	Ka24091706.D
Tetrachloroethene	127-18-4	502		8.125	1.43	0.716	Ka24091706.D

Lab Sample ID 0008009-03 — **6140-SG7s** — Indoor Air — Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	RT	LOQ (µg/m³)	LOD (µg/m³)	File ID
Trichloroethene	79-01-6	3.54		6.101	1.15	0.575	Ka24091707.D
Tetrachloroethene	127-18-4	353		8.125	1.36	0.679	Ka24091707.D

Lab Sample ID 0008009-04 — **6140-SG7d** — 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	4.02		8.125	1.36	0.679	Ka24091708.D

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CERTIFICATE OF ANALYSIS

EnviroForensics 25 N. Capitol Avenue Indianapolis, IN 46204	**Site Name:** OHM-Wauwatosa **Site Location:** Wauwatosa, WI **Project Manager:** Nicolette Morris	**Beacon Proposal:** 240826R01 **Lab Work Order:** 0008009 **Reported:** 09/23/2024

Data Summary Table- Concentration

Compound	Frequency	LOD (µg/m³)	Max Value (µg/m³)
Trichloroethene	3	0.575	3.54
Tetrachloroethene	4	0.679	502

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EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

Detailed Analytical Results

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

Lab Sample ID: 0008009-01

6140-SG6d

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.703	U	0.703	1.41	09/17/2024 12:45	Ka24091705.D
1,1-Dichloroethene	75-35-4	<0.875	U	0.875	1.75	09/17/2024 12:45	Ka24091705.D
trans-1,2-Dichloroethene	156-60-5	<0.562	U	0.562	1.12	09/17/2024 12:45	Ka24091705.D
cis-1,2-Dichloroethene	156-59-2	<0.562	U	0.562	1.12	09/17/2024 12:45	Ka24091705.D
Trichloroethene	79-01-6	**1.99**		0.606	1.21	09/17/2024 12:45	Ka24091705.D
Tetrachloroethene	127-18-4	**117**		0.716	1.43	09/17/2024 12:45	Ka24091705.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*65.1%*	*70-130*	*S5*	*09/17/2024 12:45*	*Ka24091705.D*
Surrogate: Toluene-d8	2037-26-5	*66.1%*	*70-130*	*S5*	*09/17/2024 12:45*	*Ka24091705.D*

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

Lab Sample ID: 0008009-02

6140-SG6s

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.703	U	0.703	1.41	09/17/2024 13:13	Ka24091706.D
1,1-Dichloroethene	75-35-4	<0.875	U	0.875	1.75	09/17/2024 13:13	Ka24091706.D
trans-1,2-Dichloroethene	156-60-5	<0.563	U	0.563	1.13	09/17/2024 13:13	Ka24091706.D
cis-1,2-Dichloroethene	156-59-2	<0.563	U	0.563	1.13	09/17/2024 13:13	Ka24091706.D
Trichloroethene	79-01-6	**1.26**		0.606	1.21	09/17/2024 13:13	Ka24091706.D
Tetrachloroethene	127-18-4	**502**		0.716	1.43	09/17/2024 13:13	Ka24091706.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*65.2%*	*70-130*	*S5*	*09/17/2024 13:13*	*Ka24091706.D*
Surrogate: Toluene-d8	2037-26-5	*74.7%*	*70-130*		*09/17/2024 13:13*	*Ka24091706.D*

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

Lab Sample ID: 0008009-03

6140-SG7s

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.667	U	0.667	1.33	09/17/2024 13:42	Ka24091707.D
1,1-Dichloroethene	75-35-4	<0.830	U	0.830	1.66	09/17/2024 13:42	Ka24091707.D
trans-1,2-Dichloroethene	156-60-5	<0.534	U	0.534	1.07	09/17/2024 13:42	Ka24091707.D
cis-1,2-Dichloroethene	156-59-2	<0.534	U	0.534	1.07	09/17/2024 13:42	Ka24091707.D
Trichloroethene	79-01-6	**3.54**		0.575	1.15	09/17/2024 13:42	Ka24091707.D
Tetrachloroethene	127-18-4	**353**		0.679	1.36	09/17/2024 13:42	Ka24091707.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*61.3%*	*70-130*	*S5*	*09/17/2024 13:42*	*Ka24091707.D*
Surrogate: Toluene-d8	2037-26-5	*54.3%*	*70-130*	*S5*	*09/17/2024 13:42*	*Ka24091707.D*

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

Lab Sample ID: 0008009-04

6140-SG7d

Indoor Air

Method: TO-17 (Passive)

Analyte	CAS#	Result (µg/m³)	Q	LOD (µg/m³)	LOQ (µg/m³)	Analyzed	File ID
Vinyl Chloride	75-01-4	<0.667	U	0.667	1.33	09/17/2024 14:11	Ka24091708.D
1,1-Dichloroethene	75-35-4	<0.830	U	0.830	1.66	09/17/2024 14:11	Ka24091708.D
trans-1,2-Dichloroethene	156-60-5	<0.534	U	0.534	1.07	09/17/2024 14:11	Ka24091708.D
cis-1,2-Dichloroethene	156-59-2	<0.534	U	0.534	1.07	09/17/2024 14:11	Ka24091708.D
Trichloroethene	79-01-6	<0.575	U	0.575	1.15	09/17/2024 14:11	Ka24091708.D
Tetrachloroethene	127-18-4	**4.02**		0.679	1.36	09/17/2024 14:11	Ka24091708.D

Analyte	*CAS#*	*% Recovery*	*Recovery Limits*	*Q*	*Analyzed*	*File ID*
Surrogate: 1,2-DCA-d4	17060-07-0	*71.6%*	*70-130*		*09/17/2024 14:11*	*Ka24091708.D*
Surrogate: Toluene-d8	2037-26-5	*82.0%*	*70-130*		*09/17/2024 14:11*	*Ka24091708.D*

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EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

QC Information/Summary

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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

Sequence: B24I014 - Instrument: K System - File ID: Ka24090516.D

B24I014-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	45.5	10	5	ng	50.0		90.9	70-130			
1,1-Dichloroethene	54.4	10	5	ng	50.0		109	70-130			
trans-1,2-Dichloroethene	51.3	10	5	ng	50.0		103	70-130			
cis-1,2-Dichloroethene	50.3	10	5	ng	50.0		101	70-130			
Trichloroethene	57.8	10	5	ng	50.0		116	70-130			
Tetrachloroethene	58.6	10	5	ng	50.0		117	70-130			
Surrogate: 1,2-DCA-d4	*49.4*			*ng*	50.0		*98.7*	*70-130*			
Surrogate: Toluene-d8	*53.7*			*ng*	50.0		*107*	*70-130*			

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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

Sequence: B24I014 - Instrument: K System - File ID: Ka24090518.D

B24I014-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
1,1-Dichloroethene	<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
Surrogate: 1,2-DCA-d4	*97.0*			*ng*	100		*97.0*	*70-130*			
Surrogate: Toluene-d8	*101*			*ng*	100		*101*	*70-130*			

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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

Sequence: B24I040 - Batch: 24I0036 - Instrument: K System - File ID: Ka24091702.D

24I0036-BS1 (LCS, Calibration Source Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	42.3	10	5	ng	50.0		84.6	70-130			
1,1-Dichloroethene	48.3	10	5	ng	50.0		96.6	70-130			
trans-1,2-Dichloroethene	51.6	10	5	ng	50.0		103	70-130			
cis-1,2-Dichloroethene	51.2	10	5	ng	50.0		102	70-130			
Trichloroethene	54.4	10	5	ng	50.0		109	70-130			
Tetrachloroethene	60.7	10	5	ng	50.0		121	70-130			
Surrogate: 1,2-DCA-d4	*51.0*			*ng*	50.0		*102*	*70-130*			
Surrogate: Toluene-d8	*53.5*			*ng*	50.0		*107*	*70-130*			

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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

Sequence: B24I040 - Batch: 24I0036 - Instrument: K System - File ID: Ka24091703.D

24I0036-BLK1 (Lab Blank)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	<0.667	1.33	0.667	µg/m³							U
1,1-Dichloroethene	<0.830	1.66	0.830	µg/m³							U
trans-1,2-Dichloroethene	<0.534	1.07	0.534	µg/m³							U
cis-1,2-Dichloroethene	<0.534	1.07	0.534	µg/m³							U
Trichloroethene	<0.575	1.15	0.575	µg/m³							U
Tetrachloroethene	<0.679	1.36	0.679	µg/m³							U
Surrogate: 1,2-DCA-d4	*95.5*			*ng*	100		*95.5*	*70-130*			
Surrogate: Toluene-d8	*94.6*			*ng*	100		*94.6*	*70-130*			

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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

Sequence: B24I040 - Instrument: K System - File ID: Ka24091704.D

B24I040-ICV1 (LCSD/Second Source Verification/CALV)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	44.5	10	5	ng	50.0		89.1	70-130			
1,1-Dichloroethene	56.0	10	5	ng	50.0		112	70-130			
trans-1,2-Dichloroethene	51.0	10	5	ng	50.0		102	70-130			
cis-1,2-Dichloroethene	52.3	10	5	ng	50.0		105	70-130			
Trichloroethene	60.6	10	5	ng	50.0		121	70-130			
Tetrachloroethene	58.5	10	5	ng	50.0		117	70-130			
Surrogate: 1,2-DCA-d4	*49.4*			*ng*	50.0		*98.8*	*70-130*			
Surrogate: Toluene-d8	*52.3*			*ng*	50.0		*105*	*70-130*			

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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

Sequence: B24I040 - Instrument: K System - File ID: Ka24091709.D

B24I040-CCV1 (LCS, Closing Calibration Verification)

Analyte	Result	LOQ	LOD	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Vinyl Chloride	42.6	10	5	ng	50.0		85.2	70-130			
1,1-Dichloroethene	47.8	10	5	ng	50.0		95.5	70-130			
trans-1,2-Dichloroethene	52.3	10	5	ng	50.0		105	70-130			
cis-1,2-Dichloroethene	51.6	10	5	ng	50.0		103	70-130			
Trichloroethene	60.0	10	5	ng	50.0		120	70-130			
Tetrachloroethene	60.1	10	5	ng	50.0		120	70-130			
Surrogate: 1,2-DCA-d4	*51.9*			*ng*	50.0		*104*	*70-130*			
Surrogate: Toluene-d8	*52.5*			*ng*	50.0		*105*	*70-130*			

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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

Sequence: B24I040 - Instrument: K System - File ID: Ka24091710.D

B24I040-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
1,1-Dichloroethene	<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
Surrogate: 1,2-DCA-d4	*95.1*			*ng*	100		*95.1*	*70-130*			
Surrogate: Toluene-d8	*90.6*			*ng*	100		*90.6*	*70-130*			

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EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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

LCS: 24I0036-BS1 File ID: Ka24091702.D Analyzed: 9/17/24 11:41

LCSD: B24I040-ICV1 File ID: Ka24091704.D Analyzed: 9/17/24 10:51

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	42.30	84.6		50	44.53	89.10	70-130	5.14	30	
1,1-Dichloroethene	75-35-4	48.31	96.62		50	55.98	112.00	70-130	14.71	30	
trans-1,2-Dichloroethene	156-60-5	51.61	103.22		50	51.02	102.00	70-130	1.15	30	
cis-1,2-Dichloroethene	156-59-2	51.22	102.44		50	52.28	105.00	70-130	2.05	30	
Trichloroethene	79-01-6	54.43	108.86		50	60.63	121.00	70-130	10.78	30	
Tetrachloroethene	127-18-4	60.66	121.32		50	58.48	117.00	70-130	3.66	30	

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EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

Additional QC Information

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

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: 0008009-01 **Sample Name:** 6140-SG6d						
Vinyl Chloride	12,700	1.00	0.560	U	U	Ka24091705.D
1,1-Dichloroethene	12,700	1.00	0.450	U	U	Ka24091705.D
trans-1,2-Dichloroethene	12,700	1.00	0.700	U	U	Ka24091705.D
cis-1,2-Dichloroethene	12,700	1.00	0.700	U	U	Ka24091705.D
Trichloroethene	12,700	1.00	0.650	16.40	1.99	Ka24091705.D
Tetrachloroethene	12,700	1.00	0.550	814.03	117	Ka24091705.D
Lab ID: 0008009-02 **Sample Name:** 6140-SG6s						
Vinyl Chloride	12,698	1.00	0.560	U	U	Ka24091706.D
1,1-Dichloroethene	12,698	1.00	0.450	U	U	Ka24091706.D
trans-1,2-Dichloroethene	12,698	1.00	0.700	U	U	Ka24091706.D
cis-1,2-Dichloroethene	12,698	1.00	0.700	U	U	Ka24091706.D
Trichloroethene	12,698	1.00	0.650	10.42	1.26	Ka24091706.D
Tetrachloroethene	12,698	1.00	0.550	3503.10	502	Ka24091706.D
Lab ID: 0008009-03 **Sample Name:** 6140-SG7s						
Vinyl Chloride	13,380	1.00	0.560	U	U	Ka24091707.D
1,1-Dichloroethene	13,380	1.00	0.450	U	U	Ka24091707.D
trans-1,2-Dichloroethene	13,380	1.00	0.700	U	U	Ka24091707.D
cis-1,2-Dichloroethene	13,380	1.00	0.700	U	U	Ka24091707.D
Trichloroethene	13,380	1.00	0.650	30.78	3.54	Ka24091707.D
Tetrachloroethene	13,380	1.00	0.550	2597.08	353	Ka24091707.D
Lab ID: 0008009-04 **Sample Name:** 6140-SG7d						
Vinyl Chloride	13,382	1.00	0.560	U	U	Ka24091708.D
1,1-Dichloroethene	13,382	1.00	0.450	U	U	Ka24091708.D
trans-1,2-Dichloroethene	13,382	1.00	0.700	U	U	Ka24091708.D
cis-1,2-Dichloroethene	13,382	1.00	0.700	U	U	Ka24091708.D
Trichloroethene	13,382	1.00	0.650	U	U	Ka24091708.D
Tetrachloroethene	13,382	1.00	0.550	29.56	4.02	Ka24091708.D

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EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

Calculations:

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

$$Uc = U * \left(\left(\frac{Ts + 273.15}{Tu + 273.15}\right)^{1/2}\right)$$

where:

C	=	concentration ($\mu g/m^3$)
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

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CERTIFICATE OF ANALYSIS

EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

Method Detection and Reporting Limit Calculations (Concentration)

TO-17 (Passive)

Analyte	t Sampling Time minutes	DF Dilution Factor	Uc Uptake Rate	M Initial (ng) LOQ	M Initial (ng) LOD	C Calculated (µg/m³) LOQ	C Calculated (µg/m³) LOD
Lab ID: 0008009-01	**Sample Name:** 6140-SG6d						
Vinyl Chloride	12,700	1.00	0.560	10.00	5.00	1.41	0.703
1,1-Dichloroethene	12,700	1.00	0.450	10.00	5.00	1.75	0.875
trans-1,2-Dichloroethene	12,700	1.00	0.700	10.00	5.00	1.12	0.562
cis-1,2-Dichloroethene	12,700	1.00	0.700	10.00	5.00	1.12	0.562
Trichloroethene	12,700	1.00	0.650	10.00	5.00	1.21	0.606
Tetrachloroethene	12,700	1.00	0.550	10.00	5.00	1.43	0.716
Lab ID: 0008009-02	**Sample Name:** 6140-SG6s						
Vinyl Chloride	12,698	1.00	0.560	10.00	5.00	1.41	0.703
1,1-Dichloroethene	12,698	1.00	0.450	10.00	5.00	1.75	0.875
trans-1,2-Dichloroethene	12,698	1.00	0.700	10.00	5.00	1.13	0.563
cis-1,2-Dichloroethene	12,698	1.00	0.700	10.00	5.00	1.13	0.563
Trichloroethene	12,698	1.00	0.650	10.00	5.00	1.21	0.606
Tetrachloroethene	12,698	1.00	0.550	10.00	5.00	1.43	0.716
Lab ID: 0008009-03	**Sample Name:** 6140-SG7s						
Vinyl Chloride	13,380	1.00	0.560	10.00	5.00	1.33	0.667
1,1-Dichloroethene	13,380	1.00	0.450	10.00	5.00	1.66	0.830
trans-1,2-Dichloroethene	13,380	1.00	0.700	10.00	5.00	1.07	0.534
cis-1,2-Dichloroethene	13,380	1.00	0.700	10.00	5.00	1.07	0.534
Trichloroethene	13,380	1.00	0.650	10.00	5.00	1.15	0.575
Tetrachloroethene	13,380	1.00	0.550	10.00	5.00	1.36	0.679
Lab ID: 0008009-04	**Sample Name:** 6140-SG7d						
Vinyl Chloride	13,382	1.00	0.560	10.00	5.00	1.33	0.667
1,1-Dichloroethene	13,382	1.00	0.450	10.00	5.00	1.66	0.830
trans-1,2-Dichloroethene	13,382	1.00	0.700	10.00	5.00	1.07	0.534
cis-1,2-Dichloroethene	13,382	1.00	0.700	10.00	5.00	1.07	0.534
Trichloroethene	13,382	1.00	0.650	10.00	5.00	1.15	0.575
Tetrachloroethene	13,382	1.00	0.550	10.00	5.00	1.36	0.679

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EnviroForensics 25 N. Capitol Avenue Indianapolis, IN 46204	**Site Name:** OHM-Wauwatosa **Site Location:** Wauwatosa, WI **Project Manager:** Nicolette Morris	**Beacon Proposal:** 240826R01 **Lab Work Order:** 0008009 **Reported:** 09/23/2024

Laboratory Certification List

Certification ID	Certification No.	Description	Expires	Project Required
Alaska CS-LAP	19-002	Alaska Department of Environmental Conservation	12/30/2024	
Colorado	MD010912023	Colorado Division of Oil and Public Safety	11/23/2024	
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-NELAP	12097	New York Department of Health	04/01/2025	
Utah-NELAP	MD010912024-15	Utah Department of Health	12/31/2024	
Washington State	C1085	The State of Washington Department of Ecology	05/23/2025	

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EnviroForensics	**Site Name:**	OHM-Wauwatosa	**Beacon Proposal:**	240826R01
25 N. Capitol Avenue	**Site Location:**	Wauwatosa, WI	**Lab Work Order:**	0008009
Indianapolis, IN 46204	**Project Manager:**	Nicolette Morris	**Reported:**	09/23/2024

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
%RE	Percent Relative Error
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)
RV	Calibration reference value
VISL	EPA Vapor Intrusion Screening Level
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:

S5	Surrogate recovery was out of laboratory and method acceptance limits.
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.

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EnviroForensics	**Site Name:** OHM-Wauwatosa	**Beacon Proposal:** 240826R01
25 N. Capitol Avenue	**Site Location:** Wauwatosa, WI	**Lab Work Order:** 0008009
Indianapolis, IN 46204	**Project Manager:** Nicolette Morris	**Reported:** 09/23/2024

Sample Management Records

BEACON ENVIRONMENTAL
526 Underwood Lane
Bel Air, Maryland 21014, USA
1-410-838-8780
800-878-5510 Toll Free

PASSIVE AIR SAMPLING - SORBENT TUBE | CHAIN-OF-CUSTODY

Client Information		Project Manager: NICOLETTE MORRIS	Client PO:
Company: ENVIRO FORENSICS		Project Name: OHM - WAUWATOSA	Turn around time (check one): ☒ Normal ☐ Rush (specify) ____ days
Address: 825 N CAPITOL AVE		Location: WAUWATOSA WI	
City / State / Zip: INDIANAPOLIS IN 46204		Submitted by: R. HOLERMAN	Analysis: ☒ Method TO-17 ☐ Method 325
Phone: 317 972 7870		Email: RHOLERMAN@ENVIROFORENSICS.COM	

Location ID	Tube ID	Start Date	Start Time	Stop Date	Stop Time	Aver Temp (C)	Target Compounds	INDOOR AIR	AMBIENT AIR	CRAWL SPACE	SEWER GAS
6140-SG6d	~~CS045~~ CS0405 AA 9/16/24	9/4/24	11:10	9/13/24	06:50		PCE, TCE, cDCE, tDCE, VC	X			
6140-SG6s	CS0513	↓	11:16	↓	06:54		↓	↓			
6140-SG7s	CS1220	↓	~~07:00~~	↓	07:00		↓	↓			
6140-SG7d	CS0435	↓	↓	↓	07:02		↓	↓			
			Start/stop times added 9/16 from sample bags AA								

Special Notes / Instructions: * NEED 1A DETECTION LIMITS - TAKEN FROM PERM SOIL GAS PROBES

Relinquished by (signature): [signature]	Date / Time: 9/13/24	Received by (signature): FEDEX	Date / Time:
Relinquished by (signature):	Date / Time:	Received by (signature): Autumn Anderson	Date / Time: 9/16/24 9:52
For Lab Use Only	Beacon Job No: 8009	Beacon Proposal: 240826R01	
Courier Name: Fedex	Shipment Condition: good	Custody Seal Intact: ☐ Yes ☐ No ☑ n/a	Custody Seal No: —