



## **SALEM UNITED METHODIST CHURCH CLASSROOM # 5**



### **VOLATILE ORGANIC COMPOUND (VOC) REPORT**

**MID ATLANTIC JOB NUMBER:  
MCOM-23-33**

**OCTOBER 2023**

*PREPARED FOR:*

**SALEM UNITED METHODIST CHURCH  
350 MANOR ROAD  
WEXFORD, PA 15090**

*PREPARED BY:*

**MID ATLANTIC ENVIRONMENTAL CONSULTANTS, INC.  
5320 N. PIONEER ROAD  
GIBSONIA, PA 15044  
(724) 444-3460 – OFFICE  
(724) 444-3463 – FAX  
[midatlantic@zoominternet.net](mailto:midatlantic@zoominternet.net) – EMAIL**



5320 N. Pioneer Road  
Gibsonia, PA 15044  
Phone: 724-444-3460  
Fax: 724-444-3463  
Email: [midatlantic@zoominternet.net](mailto:midatlantic@zoominternet.net)

---

October 26, 2023

Salem United Methodist Church  
350 Manor Road  
Wexford, PA 15090

Attn: (Reverend) Mrs. Stephanie Gottschalk

**Re: TO-15 Volatile Organic Compound Sampling**

To Whom It May Concern:

On Tuesday, October 17<sup>th</sup>, 2023, Mid Atlantic Environmental Consultants, Inc. performed TO-15 Volatile Organic Compound (VOC) testing requested by Reverend Stephanie Gottschalk, at the Salem United Methodist Church located at 350 Manor Road in Wexford, Pennsylvania. The purpose of the sampling was to determine if any VOC chemicals are above any regulatory limits inside of classroom #5.

We appreciate the opportunity to assist you with this project. Should you have any further questions or concerns, please do not hesitate to contact Mid Atlantic by phone at: (724) 444-3460; or by e-mail at: [midatlantic@zoominternet.net](mailto:midatlantic@zoominternet.net).

Sincerely,

A handwritten signature in blue ink, appearing to read 'J. Pillart', is written over a faint circular stamp.



Joseph D. Pillart  
Certified Indoor Environmentalist

## Salem United Methodist Church – Classroom #5

Mid Atlantic Environmental Consultants, Inc. was retained by Reverend Stepanie Gottschalk to conduct TO-15 VOC testing at 350 Manor Road in Wexford, Pennsylvania. Mr. Joseph D. Pillart performed the indoor air quality investigative sampling of the suite. Mr. Pillart, is a Certified Indoor Environmentalist (CIE), certified through the American Council for Accredited Certification (ACAC), reviewed the sampling data, and created this report.

Sampling was conducted in preschool classroom #5 due to the complaints of a nuisance smell inside the classroom. The classroom experienced a roof leak after roof work was done. Water entered from the ceiling that damaged ceiling tiles and wet the small carpet below. The ceiling above the drop ceiling was concrete, the walls inside the classroom were painted block. It should be noted the classroom has boiler heat with radiators. Two ceiling fans are inside the classroom to provide the only air movement. The water that entered the classroom was cleaned up by staff. A timeline of the chain of events was provided by the client and is in Appendix C.

The classroom was unoccupied during the sampling activities. No nuisance smell was observed inside the classroom during the sampling activities.

Indoor air quality TO-15 Volatile Organic Compounds (VOCs) sampling was done to determine if there are any compounds that may be over any regulatory permissible exposure levels inside the classroom. VOCs are emitted as gases from certain solids or liquids. Many are known to have potential adverse health effects for anyone exposed to long-term or elevated levels of these compounds.

Two (2) Volatile Organic Compound (VOC) samples were collected on Tuesday, October 17<sup>th</sup>, 2023. Sample VOC #1 was collected from inside classroom #5. It was set up in the center of the classroom. Sample VOC #2 was collected from the outside in the rear of the building to serve as a reference sample.

The VOC air samples were collected through a pre-calibrated Summa Can for a 8-hour period. The 8-hour sample period represents a snapshot of the daily cycle of work activities inside the classroom. 250cc of air was collected in the sample Summa Can for analysis. The VOC sample was analyzed in accordance with EPA analytical method (TO-15) - 70 Compounds + Tentatively Identified Compounds. Please see Appendix A for lab results.

Mid Atlantic Environmental Consultants, Inc. retained Mr. Frank Pokrywka a Certified Industrial Hygienist (CIH) to review and comment on the findings of the EMSL VOC report. Please find the attached review letter in Appendix B.

### VOC Findings:

The results reveal that no compounds found in any of the VOC samples were above any published NIOSH, OSHA, or PA DEP Indoor Air Statewide Health Standard Vapor Intrusion exposure limits. The only two compounds that were found inside that weren't found outside are **2-Butanone (MEK)** and **Ethyl Acetate**. Please see the EMSL report for possible sources of the compounds in Appendix A.

## **Salem United Methodist Church – Classroom #5**

Refer to appendices for further information.

Appendix A — VOC Sample Results

Appendix B — CIH Review Letter

Appendix C — Timeline Chain of Events

Appendix D — Project Photos

Appendix E — Accreditation

*Should you have any further questions, feel free to contact our office at (724) 444-3460.*

**Appendix A – Sampling Information /  
Laboratory Analysis and Report  
TO-15 VOC Sampling Data**





**EMSL ANALYTICAL, INC.**

200 Route 130 North  
Cinnaminson, NJ 08077  
Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78

**Attention:** Joe Pillart  
Mid Atlantic Environmental Consultants  
5320 North Pioneer Road  
Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

**Laboratory Report- Sample Summary**

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
492300798-0001	VOC-1 RMS	10/17/2023	7:30 AM
492300798-0002	VOC-2 Outside	10/17/2023	7:41 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date	Report Revision	Revision Comments
10/24/2023	R0	Initial Report

Owen McKenna, Chemistry Laboratory Director  
or other approved signatory

**Test results meet all NELAP requirements unless otherwise specified. NJDEP Certification #: 03036**

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

**EMSL ANALYTICAL, INC.**

200 Route 130 North  
Cinnaminson, NJ 08077  
Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78

**Attention:** Joe Pillart  
Mid Atlantic Environmental Consultants  
5320 North Pioneer Road  
Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

## Case Narrative

### Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

### Column

Restek RTX-502.2, 60m, 0.25mm ID, 1.4um

### Concentrator Traps:

Entech Dual Cold Traps: (1) 1/8" No Packing, (2) 1/8" Tenax.

### Gas Standards:

Certified Gas standards were used for all analyses.

### Sample Volumes:

Sample volume aliquots for this procedure are 250cc for indoor/ ambient air and 25cc for soil gas. Other volumes for sample dilutions are reflected on each result page.

### Holding Times:

Standard holding times of 30 days were met for all samples.

### Sampling Pressures:

All samples were received at acceptable pressure/vacuum unless listed below.

### Sample Dilutions:

Dilutions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier. Ethanol and Isopropanol are not diluted for and may be reported with an "E" qualifier on the final result.

### QA/QC criteria outside method specifications are listed below (if applicable).

#### Initial Calibration

All Initial Calibration criteria met method specification.

#### Initial Calibration Verification Standard (ICVS)- Second Source

ICVS met method specification with 70-130% recovery for 100% of compounds.

#### Laboratory Control Sample (LCS)

LCS met method specification with 70-130% recovery for 100% of compounds. (If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)

**EMSL ANALYTICAL, INC.**

200 Route 130 North  
Cinnaminson, NJ 08077  
Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78

**Attention:** Joe Pillart  
Mid Atlantic Environmental Consultants  
5320 North Pioneer Road  
Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

### Case Narrative

**Continuing Calibration Verification Standard (CCVS)**

CCVS met method specification with all compounds within 30% deviation.

**Ending Calibration Verification Standard (ECVS)**

ECVS met method specification with all compounds within 30% deviation.

**Method Blanks (MB)**

Method Blank met method specification.

**Reporting Limit Laboratory Control Samples (RL LCS)**

RL LCS met method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below.

**Manual Integration** : -Listed below if applicable. Before and after documentation provided in extended deliverable packages.

**The following data qualifiers that may have been reported with the data,**

**ND-** Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

**U-** Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.

**J (Target)-** Concentration estimated between Reporting Limit and MDL.

**J-** Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed

**B-** Compound found in associated method blank as well as in the sample.

**E-** Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.

**D-** Compound reported from additional diluted analysis.

**N-** indicates presumptive evidence of a compound based on library search match.

**EMSL Analytical, Inc.** certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer –readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Owen McKenna, Chemistry Laboratory Director  
or other approved signatory





**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonsia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

### Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	0.20		ND	0.34	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.41	0.20		2.1	1.0	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.20		ND	1.4	
Chloromethane	74-87-3	50.49	0.57	0.20		1.2	0.41	
n-Butane	106-97-8	58.12	2.0	0.20		4.8	0.48	
Vinyl chloride	75-01-4	62.50	ND	0.20		ND	0.51	
1,3-Butadiene	106-99-0	54.09	ND	0.20		ND	0.44	
Bromomethane	74-83-9	94.94	ND	0.20		ND	0.78	
Chloroethane	75-00-3	64.51	ND	0.20		ND	0.53	
Ethanol	64-17-5	46.07	65	5.0	E	120	9.4	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.20		ND	0.87	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	0.24	0.20		1.3	1.1	
Isopropyl alcohol(2-Propanol)	67-63-0	60.09	20	0.20		49	0.49	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.20		ND	1.5	
Acetone	67-64-1	58.08	5.9	0.20		14	0.48	
1,1-Dichloroethene	75-35-4	96.94	ND	0.20		ND	0.79	
Acetonitrile	75-05-8	41.05	ND	0.20		ND	0.34	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.20		ND	0.61	
Bromoethane(Ethyl bromide)	74-96-4	109.0	ND	0.20		ND	0.89	
3-Chloropropene(Allyl chloride)	107-05-1	76.52	ND	0.20		ND	0.63	
Carbon disulfide	75-15-0	76.14	ND	0.20		ND	0.62	
Methylene chloride	75-09-2	84.93	ND	0.20		ND	0.69	
Acrylonitrile	107-13-1	53.08	ND	0.20		ND	0.43	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.20		ND	0.72	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.20		ND	0.79	
n-Hexane	110-54-3	86.18	ND	0.20		ND	0.70	
1,1-Dichloroethane	75-34-3	98.96	ND	0.20		ND	0.81	
Vinyl acetate	108-05-4	86.09	ND	0.20		ND	0.70	
2-Butanone(MEK)	78-93-3	72.11	0.67	0.20		2.0	0.59	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.20		ND	0.79	
Ethyl acetate	141-78-6	88.11	0.40	0.20		1.4	0.72	
Chloroform	67-66-3	119.4	ND	0.20		ND	1.0	
Tetrahydrofuran	109-99-9	72.11	ND	0.20		ND	0.59	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.20		ND	1.1	
Cyclohexane	110-82-7	84.16	ND	0.20		ND	0.69	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.20		ND	0.93	
Carbon tetrachloride	56-23-5	153.8	ND	0.20		ND	1.3	
n-Heptane	142-82-5	100.2	ND	0.20		ND	0.82	
1,2-Dichloroethane	107-06-2	98.96	ND	0.20		ND	0.81	
Benzene	71-43-2	78.11	ND	0.20		ND	0.64	
Trichloroethene	79-01-6	131.4	ND	0.20		ND	1.1	
1,2-Dichloropropane	78-87-5	113.0	ND	0.20		ND	0.92	
Methyl Methacrylate	80-62-6	100.1	ND	0.20		ND	0.82	
Bromodichloromethane	75-27-4	163.8	ND	0.20		ND	1.3	
1,4-Dioxane	123-91-1	88.11	ND	0.20		ND	0.72	



**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

### Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.20		ND	0.82	
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.20		ND	0.91	
Toluene	108-88-3	92.14	7.3	0.20		27	0.75	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.20		ND	0.91	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.20		ND	1.1	
2-Hexanone(MBK)	591-78-6	100.2	ND	0.20		ND	0.82	
Tetrachloroethene	127-18-4	165.8	ND	0.20		ND	1.4	
Dibromochloromethane	124-48-1	208.3	ND	0.20		ND	1.7	
1,2-Dibromoethane	106-93-4	187.9	ND	0.20		ND	1.5	
Chlorobenzene	108-90-7	112.6	ND	0.20		ND	0.92	
Ethylbenzene	100-41-4	106.2	ND	0.20		ND	0.87	
Xylene (p,m)	1330-20-7	106.2	ND	0.40		ND	1.7	
Xylene (Ortho)	95-47-6	106.2	ND	0.20		ND	0.87	
Styrene	100-42-5	104.1	ND	0.20		ND	0.85	
Isopropylbenzene (cumene)	98-82-8	120.2	ND	0.20		ND	1.0	
Bromoform	75-25-2	252.7	ND	0.20		ND	2.1	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.20		ND	1.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.20		ND	1.0	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.20		ND	1.0	
2-Chlorotoluene	95-49-8	126.6	ND	0.20		ND	1.0	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.20		ND	1.0	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.20		ND	1.2	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.20		ND	1.2	
Benzyl chloride	100-44-7	126.6	ND	0.20		ND	1.0	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.20		ND	1.2	
1,2,4-Trichlorobenzene	120-82-1	181.4	ND	0.20		ND	1.5	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.20		ND	2.1	
Naphthalene	91-20-3	128.2	ND	0.20		ND	1.0	
<b>Total Target Compound Concentrations:</b>			<b>100</b>	<b>ppbv</b>		<b>220</b>	<b>ug/m3</b>	

**Surrogate**  
 4-Bromofluorobenzene

Result	Spike	Recovery
9.5	10	95%

**Qualifier Definitions**

**ND = Non Detect**  
 B = Compound also found in method blank.  
 E= Estimated concentration exceeding upper calibration range.  
 D= Result reported from diluted analysis.  
 J= Concentration estimated between Reporting Limit and MDL.

**Method Reference**

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).





**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

<b>Analysis Initial</b>	<b>Analysis Date</b> 10/23/2023	<b>Analyst Init.</b> TP	<b>Lab File ID</b> v3551.D	<b>Canister ID</b> E0526	<b>Sample Vol.</b> 250 cc	<b>Dil. Factor</b> 1
-------------------------	------------------------------------	----------------------------	-------------------------------	-----------------------------	------------------------------	-------------------------

**Target Compound Results Summary**

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	0.20		ND	0.34	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.40	0.20		2.0	1.0	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.20		ND	1.4	
Chloromethane	74-87-3	50.49	0.51	0.20		1.1	0.41	
n-Butane	106-97-8	58.12	0.24	0.20		0.58	0.48	
Vinyl chloride	75-01-4	62.50	ND	0.20		ND	0.51	
1,3-Butadiene	106-99-0	54.09	ND	0.20		ND	0.44	
Bromomethane	74-83-9	94.94	ND	0.20		ND	0.78	
Chloroethane	75-00-3	64.51	ND	0.20		ND	0.53	
Ethanol	64-17-5	46.07	23	5.0		43	9.4	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.20		ND	0.87	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	0.22	0.20		1.2	1.1	
Isopropyl alcohol(2-Propanol)	67-63-0	60.09	2.0	0.20		4.9	0.49	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.20		ND	1.5	
Acetone	67-64-1	58.08	1.8	0.20		4.2	0.48	
1,1-Dichloroethene	75-35-4	96.94	ND	0.20		ND	0.79	
Acetonitrile	75-05-8	41.05	ND	0.20		ND	0.34	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.20		ND	0.61	
Bromoethane(Ethyl bromide)	74-96-4	109.0	ND	0.20		ND	0.89	
3-Chloropropene(Allyl chloride)	107-05-1	76.52	ND	0.20		ND	0.63	
Carbon disulfide	75-15-0	76.14	ND	0.20		ND	0.62	
Methylene chloride	75-09-2	84.93	ND	0.20		ND	0.69	
Acrylonitrile	107-13-1	53.08	ND	0.20		ND	0.43	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.20		ND	0.72	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.20		ND	0.79	
n-Hexane	110-54-3	86.18	ND	0.20		ND	0.70	
1,1-Dichloroethane	75-34-3	98.96	ND	0.20		ND	0.81	
Vinyl acetate	108-05-4	86.09	ND	0.20		ND	0.70	
2-Butanone(MEK)	78-93-3	72.11	ND	0.20		ND	0.59	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.20		ND	0.79	
Ethyl acetate	141-78-6	88.11	ND	0.20		ND	0.72	
Chloroform	67-66-3	119.4	ND	0.20		ND	1.0	
Tetrahydrofuran	109-99-9	72.11	ND	0.20		ND	0.59	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.20		ND	1.1	
Cyclohexane	110-82-7	84.16	ND	0.20		ND	0.69	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.20		ND	0.93	
Carbon tetrachloride	56-23-5	153.8	ND	0.20		ND	1.3	
n-Heptane	142-82-5	100.2	ND	0.20		ND	0.82	
1,2-Dichloroethane	107-06-2	98.96	ND	0.20		ND	0.81	
Benzene	71-43-2	78.11	ND	0.20		ND	0.64	
Trichloroethene	79-01-6	131.4	ND	0.20		ND	1.1	
1,2-Dichloropropane	78-87-5	113.0	ND	0.20		ND	0.92	
Methyl Methacrylate	80-62-6	100.1	ND	0.20		ND	0.82	
Bromodichloromethane	75-27-4	163.8	ND	0.20		ND	1.3	
1,4-Dioxane	123-91-1	88.11	ND	0.20		ND	0.72	

7 of 11



**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[tp15lab@EMSL.com](mailto:tp15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

<b>Analysis Initial</b>	<b>Analysis Date</b> 10/23/2023	<b>Analyst Init.</b> TP	<b>Lab File ID</b> v3551.D	<b>Canister ID</b> E0526	<b>Sample Vol.</b> 250 cc	<b>Dil. Factor</b> 1
-------------------------	------------------------------------	----------------------------	-------------------------------	-----------------------------	------------------------------	-------------------------

### Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.20		ND	0.82	
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.20		ND	0.91	
Toluene	108-88-3	92.14	ND	0.20		ND	0.75	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.20		ND	0.91	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.20		ND	1.1	
2-Hexanone(MBK)	591-78-6	100.2	ND	0.20		ND	0.82	
Tetrachloroethene	127-18-4	165.8	ND	0.20		ND	1.4	
Dibromochloromethane	124-48-1	208.3	ND	0.20		ND	1.7	
1,2-Dibromoethane	106-93-4	187.9	ND	0.20		ND	1.5	
Chlorobenzene	108-90-7	112.6	ND	0.20		ND	0.92	
Ethylbenzene	100-41-4	106.2	ND	0.20		ND	0.87	
Xylene (p,m)	1330-20-7	106.2	ND	0.40		ND	1.7	
Xylene (Ortho)	95-47-6	106.2	ND	0.20		ND	0.87	
Styrene	100-42-5	104.1	ND	0.20		ND	0.85	
Isopropylbenzene (cumene)	98-82-8	120.2	ND	0.20		ND	1.0	
Bromoform	75-25-2	252.7	ND	0.20		ND	2.1	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.20		ND	1.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.20		ND	1.0	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.20		ND	1.0	
2-Chlorotoluene	95-49-8	126.6	ND	0.20		ND	1.0	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.20		ND	1.0	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.20		ND	1.2	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.20		ND	1.2	
Benzyl chloride	100-44-7	126.6	ND	0.20		ND	1.0	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.20		ND	1.2	
1,2,4-Trichlorobenzene	120-82-1	181.4	ND	0.20		ND	1.5	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.20		ND	2.1	
Naphthalene	91-20-3	128.2	ND	0.20		ND	1.0	
<b>Total Target Compound Concentrations:</b>			<b>28</b>	<b>ppbv</b>		<b>57</b>	<b>ug/m3</b>	

**Surrogate**  
 4-Bromofluorobenzene

**Result** 9.4      **Spike** 10      **Recovery** 94%

**Qualifier Definitions**

**ND = Non Detect**  
 B = Compound also found in method blank.  
 E= Estimated concentration exceeding upper calibration range.  
 D= Result reported from diluted analysis.  
 J= Concentration estimated between Reporting Limit and MDL.

**Method Reference**

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).







492350798

RECEIVED  
EMSL  
CINNAMINSON, N.J.

TO-15 Sample Information

2023 OCT 19 A 11:29

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: MID ATLANTIC ENVIRONMENTAL CONSULTANTS, Inc.

Contact Person:

Name: Joseph P. Hart

E-mail: JP4396@ZOOMINTERNET.NET

Additional E-mails:

Telephone #: 724-444-3460

Library Search requested:  YES  NO

A library search (aka Tentatively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.

Sample Type:

Indoor Air Quality (Home/Office)  Soil Gas/Sub Slab

IAQ (Industrial)

Other:

Sample Description: VOC-1 PRE-SCHOOL CLASS ROOM / VOC-2 OUTSIDE REFERENCE

PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.

- |  |                             |   |
|--|-----------------------------|---|
| <input checked="" type="checkbox"/> OSHA PELs/NIOSH RELS                             | combined form               | <input checked="" type="checkbox"/> Potential Sources of Compounds found in your IAQ sample |
| <input type="checkbox"/> EPA RSLs - 11/2022; default is THQ 0.1                      | Residential Industrial      | <input type="checkbox"/> TVOC (Library Search Required for this format)                     |
| <input type="checkbox"/> EPA VISLs - 3/2012  | IA/SG                       | <input type="checkbox"/> NH DES_WMD - 2/2013 Indoor Air Soil Gas                            |
| <input type="checkbox"/> NJ DEP - 5/2021 - Circle one:                               | VI-Indoor AQ VI-Soil Gas    | <input type="checkbox"/> Ohio - 5/2016 - Circle one: Residential Commercial                 |
| <input type="checkbox"/> NC DENR - 2/2018 - Circle one:                              | Residential Non-residential | <input type="checkbox"/> Indiana Dept Env Mgmt Screening Levels - 3/2018                    |
| <input checked="" type="checkbox"/> PA DEP - 11/2016                                 | <u>Indoor Air</u>           | <input type="checkbox"/> Vermont DEC IROCP - 7/2017 (soil gas only)                         |
| <input type="checkbox"/> PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas |                             | <input type="checkbox"/> California OEHHA - 2/2012  |
| <input type="checkbox"/> CA HHSL - 9/2010 - Circle one:                              | Indoor Air Soil Gas         | <input type="checkbox"/> Other; these are the compounds I want reported:                    |

Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.

**\*Very Important Information for Clients!** Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.

US EPA TO-3 via GC/FID:

C<sub>1</sub>-C<sub>6</sub> hydrocarbons

Methane only

ASTM-D5504 via GC/SCD: \*

Sulfur Scan (H<sub>2</sub>S, COS, MeSH, EtSH, DMS)

H<sub>2</sub>S only

We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.

Draeger Analyzer:

CO  CO<sub>2</sub>  NH<sub>3</sub>  O<sub>2</sub>  Water Vapor

Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

**NIOSH and OSHA Exposure Limit Comparisons**

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.9	0.41		2.1	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.9	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	0.57		1.2	LFC		210000	
n-Butane	--	106-97-8	58.12	2.0		4.8	1900000		N.E.	
Vinyl chloride	C	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.51	ND		ND	LFC		2600000	
Ethanol	--	64-17-5	46.07	65	E	120	1900000		1900000	
Bromoethene(Vinyl bromide)	C	593-60-2	106.9	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.4	0.24		1.3	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.09	20		49	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.4	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	5.9		14	5900000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		N.E.	
Acetonitrile	NC	75-05-8	41.05	ND		ND	34000		67000	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)	--	74-96-4	109.0	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.52	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	C	75-09-2	84.93	ND		ND	LFC		87000	
Acrylonitrile	C	107-13-1	53.08	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.		N.E.	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	NC	110-54-3	86.18	ND		ND	180000		180000	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	
Vinyl acetate	NC	108-05-4	86.09	ND		ND	14000		N.E.	
2-Butanone(MEK)	NC	78-93-3	72.11	0.67		2.0	590000		590000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	790000		790000	
Ethyl acetate	NC	141-78-6	88.11	0.40		1.4	1400000		1400000	
Chloroform	C	67-66-3	119.4	ND		ND	9800		240000	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	
1,1,1-Trichloroethane	NC	71-55-6	133.4	ND		ND	1900000		1900000	
Cyclohexane	NC	110-82-7	84.16	ND		ND	1000000		1000000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.2	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.8	ND		ND	13000		63000	
n-Heptane	NC	142-82-5	100.2	ND		ND	350000		2000000	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	4000		200000	
Benzene	C	71-43-2	78.11	ND		ND	320		3200	
Trichloroethene	C	79-01-6	131.4	ND		ND	130000		540000	
1,2-Dichloropropane	C	78-87-5	113.0	ND		ND	LFC		350000	
Methyl Methacrylate	NC	80-62-6	100.1	ND		ND	410000		410000	
Bromodichloromethane	C	75-27-4	163.8	ND		ND	N.E.		N.E.	
1,4-Dioxane	C	123-91-1	88.11	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.2	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.0	ND		ND	4500		N.E.	





**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

### NIOSH and OSHA Exposure Limit Comparisons

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	OSHA PEL ug/m3
Toluene	NC	108-88-3	92.14	7.3		27	380000	750000
trans-1,3-Dichloropropene**	C	10061-02-6	111.0	ND		ND	4500	N.E.
1,1,2-Trichloroethane	C	79-00-5	133.4	ND		ND	55000	55000
2-Hexanone(MBK)	NC	591-78-6	100.2	ND		ND	4100	410000
Tetrachloroethene	C	127-18-4	165.8	ND		ND	LFC	680000
Dibromochloromethane	--	124-48-1	208.3	ND		ND	N.E.	N.E.
1,2-Dibromoethane	C	106-93-4	187.9	ND		ND	350	150000
Chlorobenzene	NC	108-90-7	112.6	ND		ND	N.E.	350000
Ethylbenzene	C	100-41-4	106.2	ND		ND	430000	430000
Xylene (p,m)	NC	1330-20-7	106.2	ND		ND	430000	430000
Xylene (Ortho)	NC	95-47-6	106.2	ND		ND	430000	430000
Styrene	NC	100-42-5	104.1	ND		ND	210000	430000
Isopropylbenzene (cumene)	NC	98-82-8	120.2	ND		ND	250000	250000
Bromoform	C	75-25-2	252.7	ND		ND	5200	5200
1,1,2,2-Tetrachloroethane	C	79-34-5	167.9	ND		ND	6900	34000
4-Ethyltoluene	--	622-96-8	120.2	ND		ND	N.E.	N.E.
1,3,5-Trimethylbenzene	NC	108-67-8	120.2	ND		ND	120000	N.E.
2-Chlorotoluene	--	95-49-8	126.6	ND		ND	260000	N.E.
1,2,4-Trimethylbenzene	NC	95-63-6	120.2	ND		ND	120000	N.E.
1,3-Dichlorobenzene	--	541-73-1	147.0	ND		ND	N.E.	N.E.
1,4-Dichlorobenzene	C	106-46-7	147.0	ND		ND	LFC	450000
Benzyl chloride	C	100-44-7	126.6	ND		ND	5200	5200
1,2-Dichlorobenzene	NC	95-50-1	147.0	ND		ND	300000	300000
1,2,4-Trichlorobenzene	NC	120-82-1	181.4	ND		ND	37000	N.E.
Hexachloro-1,3-butadiene	C	87-68-3	260.8	ND		ND	210	N.E.
Naphthalene	C	91-20-3	128.2	ND		ND	52000	52000

\*\*The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedances as marked

#### Exposure Limit Definitions

REL= Recommended Exposure Limit, PEL= Permissible Exposure Limit

#### Compound Exposure Definitions

NE= No Limit Established NS= No Screening Value  
 LFC= Lowest Feasible Concentration

#### Agency Definitions

NIOSH= The National Institute for Occupational Safety and Health  
 OSHA= Occupational Safety and Health Administration

#### Reference

Occupational Safety and Health Administration (OSHA) (2017) Air Contaminants. 29 CFR 1910.1000 [82 FR 2735, January 9, 2017].

#### Qualifier Definitions

B = Compound also found in method blank. ND = Non Detect  
 E= Estimated concentration exceeding upper calibration range.  
 D= Result reported from diluted analysis.  
 J= Concentration estimated between Reporting Limit and MDL.

#### Carcinogenic (C) Exceedance

Value exceeds the theoretical risk that 1 additional case of cancer will occur in a population of 1 million than statistically expected.  
 Thus is a theoretical risk and not an actual epidemiological one.

#### NonCarcinogenic (NC) Exceedance

Value exceeds the theoretical risk that 1 in a population of 100,000 will experience deleterious health effects.  
 Thus is a theoretical risk and not an actual epidemiological one.





**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

**Possible Background Sources of Contaminants**

Target Compounds	CAS#	Result		*Typical Indoor Air Data			Use and Possible Sources	
		ppbv	Q	ug/m3	% of Samples Detected	Min. Conc. (ppbv)		Max. Conc. (ppbv)
Freon 12(Dichlorodifluoromethane)	75-71-8	0.41		2.1	23%	ND	0.60	Practically odorless, has a faint, ether-like odor in high concentration. This is a halogenated chlorofluorocarbon (CFC), which has a long atmospheric residence time, previously used as a refrigerant and aerosol spray propellant. Complying with the Montreal Protocol, its manufacture was banned in the United States along with many other countries in 1994. (12)
Chloromethane	74-87-3	0.57		1.2	77%	ND	0.81	Chloromethane is present at very low concentrations throughout the atmosphere. Naturally occurring chloromethane is continuously released into the atmosphere from oceans, rotting wood, forest fires, and volcanoes. Manmade sources of chloromethane include cigarette smoke, polystyrene insulation, aerosol propellants, home burning of wood, grass, coal, or certain plastics, chlorinated swimming pools, refrigerators over 30 years old. (2)
n-Butane	106-97-8	2.0		4.8	87%	ND	33	Butane is contained in natural gas. Its main uses are in the production of chemicals, as a refrigerant, as an aerosol propellant, as a constituent in liquefied petroleum gas, and as the main component of gas lighter refills.(13)



**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

**Possible Background Sources of Contaminants**

Target Compounds	CAS#	Result		Q	Result ug/m3	*Typical Indoor Air Data			Use and Possible Sources
		ppbv				% of Samples Detected	Min. Conc. (ppbv)	Max. Conc. (ppbv)	
Ethanol	64-17-5	65		E	120	100%	3.4	658	Ethanol is ubiquitous in air samples as it is found in many products: cleaners (home, auto,pets), disinfectants/sanitizers, laundry care products, pesticide sprays, mouthwash, deoderants, first aid sprays, paints, air fresheners, auto care products. Ethanol is also contained in gasoline. Please see citation for an extensive list. (6)
Freon 11(Trichlorofluoromethane)	75-69-4	0.24			1.3	None Detected in Study			This is a halogenated chlorofluorocarbon (CFC), which has a long atmospheric residence time, previously used as a refrigerant and aerosol spray propellant. Complying with the Montreal Protocol, its manufacture was banned in the United States along with many other countries in 1994. (12)
Isopropyl alcohol(2-Propanol)	67-63-0	20			49	97%	ND	268	IPA is very common in air samples. Multiple types of cleaners (home, auto, pet) and disinfecting/sanitizing/polishing wipes, ink cartridges, paints, personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. Please see citation for an extensive list. (6)
Acetone	67-64-1	5.9			14	100%	2.6	45	Another very common VOC in air samples, found in home products such as glues, rubber cement and adhesives, expanding foams/crack fillers, air fresheners, paint thinners and paint clean up products. Please see citation for an extensive list. (6)



**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[tp15lab@EMSL.com](mailto:tp15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date 10/23/2023	Analyst Init. TP	Lab File ID v3550.D	Canister ID E0308	Sample Vol. 250 cc	Dil. Factor 1
------------------	-----------------------------	---------------------	------------------------	----------------------	-----------------------	------------------

**Possible Background Sources of Contaminants**

Target Compounds	CAS#	Result		*Typical Indoor Air Data			Use and Possible Sources	
		ppbv	Q	ug/m3	% of Samples Detected	Min. Conc. (ppbv)		Max. Conc. (ppbv)
2-Butanone(MEK)	78-93-3	0.67		2.0	45%	ND	2.5	The primary use of MEK is as a solvent in processes involving gums, resins, cellulose acetate, and cellulose nitrate. MEK is also used in the synthetic rubber industry, in the production of paraffin wax, and in household products such as lacquer and varnishes, paint and paint remover, and glues. (1) MEK may be found in automobile exhaust, printing inks, cleaning agents and cigarette smoke and is used as a fragrance/flavoring agent in candy and perfume. (7)
Ethyl acetate	141-78-6	0.40		1.4	100%	0.53	34	Ethyl acetate is used as a solvent for varnishes, lacquers and dry cleaning. It is released during the manufacture of linoleum, and 'plastic' wood, dyes, artificial fruit flavorings and essences, and perfumes and fragrances. Ethyl acetate is used as a solvent in nail polish, nail polish remover, base coats and other manicuring products. Ethyl acetate is present in wines. (15)
Toluene	108-88-3	7.3		27	81%	ND	3.2	Toluene is added to gasoline and other fuels and may be found in gasoline exhaust. Toluene is found in paints, paint thinners, fingernail polish, lacquers, adhesives, synthetic fragrances, cigarette smoke and rubber and in some printing and leather tanning processes. (2),(5)

\*Based on EMSL in-house data collection 04/2019-06/2019

**Qualifier Definitions**

- ND = Non Detect
- B = Compound also found in method blank.
- E= Estimated concentration exceeding upper calibration range.
- D= Result reported from diluted analysis.
- J= Concentration estimated between lower calibration standard and MDL.



**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

**Possible Background Sources of Contaminants**

Target Compounds	CAS#	Result		*Typical Indoor Air Data			Use and Possible Sources
		ppbv	Q	% of Samples Detected	Min. Conc. (ppbv)	Max. Conc. (ppbv)	

**Sources References**

- <sup>1</sup> <https://www.epa.gov/sites/production/files/2016-09/documents>
- <sup>2</sup> <https://www.atsdr.cdc.gov/toxfags/IndividualFAQs.html> Individual FAQs have different update dates.
- <sup>3</sup> EPA Document# EPA-740-R1-7012 May 2018
- <sup>4</sup> Delaware Health and Social Services, Division of Public Health FAQ Sheets. January 2010.
- <sup>5</sup> New York Department of Environmental Conservation, Uses, Sources and Potential Exposure to Toxic Air Pollutants.
- <sup>6</sup> US Department of Health and Human Services, Household Products Database.
- <sup>7</sup> NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012.
- <sup>8</sup> IARC Working Group on the Evaluation of Carcinogenic Risk to Humans. Some Chemicals Present in Industrial and Consumer Products, Food and Drinking-Water. Lyon (FR): International Agency for Research on Cancer; 2013.
- <sup>9</sup> <http://apps.sepa.org.uk/spria/Pages/SubstanceInformation.aspx?pid=53>
- <sup>10</sup> <https://nj.gov/health/eoh/rtkweb/documents/fs>
- <sup>11</sup> 1-Propene CAS 115-07-1, Environment Canada, Health Canada, September 2014. <http://www.ec.gc.ca/ese-ees/default.asp?lang=En&n=AD74EA35-1>
- <sup>12</sup> <https://pubchem.ncbi.nlm.nih.gov/compound>
- <sup>13</sup> Committee on Acute Exposure Guideline Levels; Committee on Toxicology; Board on Environmental Studies and Toxicology; Division on Earth and Life Studies; National Research Council. Acute Exposure Guideline Levels for Selected Airborne Chemicals: Volume 12. Washington (DC): National Academies Press (US); 2012
- <sup>14</sup> All about Acrylonitrile <http://angroup.org/about/index.php>
- <sup>15</sup> <http://www.npi.gov.au/resource/ethyl-acetate>



**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

**Pennsylvania DEP- Table 5. Indoor air Statewide health standard vapor intrusion screening values (SVIA)**

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	Residential ug/m3	>	Non- Res. ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.9	0.41		2.1	100		440	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.9	ND		ND	N.E.		N.E.	
Chloromethane	NC	74-87-3	50.49	0.57		1.2	14.0		68.0	
n-Butane	--	106-97-8	58.12	2.0		4.8	N.E.		N.E.	
Vinyl chloride	C	75-01-4	62.50	ND		ND	0.790		14.0	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	0.810		4.10	
Bromomethane	NC	74-83-9	94.94	ND		ND	5.20		22.0	
Chloroethane	NC	75-00-3	64.51	ND		ND	10000		44000	
Ethanol	--	64-17-5	46.07	65	E	120	N.E.		N.E.	
Bromoethene(Vinyl bromide)	C	593-60-2	106.9	ND		ND	0.760		3.80	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.4	0.24		1.3	730		3100	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.09	20		49	210		880	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.4	ND		ND	31000		130000	
Acetone	NC	67-64-1	58.08	5.9		14	32000		140000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	210		880	
Acetonitrile	NC	75-05-8	41.05	ND		ND	63.0		260	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	N.E.		N.E.	
Bromoethane(Ethyl bromide)	--	74-96-4	109.0	ND		ND	N.E.		N.E.	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.52	ND		ND	1.00		4.40	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	730		3100	
Methylene chloride	C	75-09-2	84.93	ND		ND	630		2600	
Acrylonitrile	C	107-13-1	53.08	ND		ND	0.360		1.80	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	94.0		470	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	63.0		260	
n-Hexane	NC	110-54-3	86.18	ND		ND	730		3100	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	15.0		77.0	
Vinyl acetate	NC	108-05-4	86.09	ND		ND	210		880	
2-Butanone(MEK)	NC	78-93-3	72.11	0.67		2.0	5200		22000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	N.E.		N.E.	
Ethyl acetate	NC	141-78-6	88.11	0.40		1.4	73.0		310	
Chloroform	C	67-66-3	119.4	ND		ND	1.10		5.30	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	13.0		63.0	
1,1,1-Trichloroethane	NC	71-55-6	133.4	ND		ND	5200		22000	
Cyclohexane	NC	110-82-7	84.16	ND		ND	6300		26000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.2	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.8	ND		ND	4.10		20.0	
n-Heptane	NC	142-82-5	100.2	ND		ND	N.E.		N.E.	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	0.940		4.70	
Benzene	C	71-43-2	78.11	ND		ND	3.10		16.0	
Trichloroethene	C	79-01-6	131.4	ND		ND	2.10		8.80	
1,2-Dichloropropane	C	78-87-5	113.0	ND		ND	2.40		12.0	
Methyl Methacrylate	NC	80-62-6	100.1	ND		ND	730		3100	
Bromodichloromethane	C	75-27-4	163.8	ND		ND	0.660		3.30	
1,4-Dioxane	C	123-91-1	88.11	ND		ND	3.20		16.0	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.2	ND		ND	3100		13000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.0	ND		ND	N.E.		N.E.	





**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0001  
**CUSTOMER SAMPLE ID:** VOC-1 RMS

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonsia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:30  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3550.D	E0308	250 cc	1

**Pennsylvania DEP- Table 5. Indoor air Statewide health standard vapor intrusion screening values (SVIA)**

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	Residential ug/m3	Non- Res. ug/m3
Toluene	NC	108-88-3	92.14	7.3		27	5200	22000
trans-1,3-Dichloropropene**	C	10061-02-6	111.0	ND		ND	N.E.	N.E.
1,1,2-Trichloroethane	C	79-00-5	133.4	ND		ND	0.210	0.880
2-Hexanone(MBK)	NC	591-78-6	100.2	ND		ND	31.0	130
Tetrachloroethene	C	127-18-4	165.8	ND		ND	42.0	180
Dibromochloromethane	--	124-48-1	208.3	ND		ND	0.900	4.50
1,2-Dibromoethane	C	106-93-4	187.9	ND		ND	0.0410	0.200
Chlorobenzene	NC	108-90-7	112.6	ND		ND	52.0	220
Ethylbenzene	C	100-41-4	106.2	ND		ND	9.70	49.0
Xylene (p,m)	NC	1330-20-7	106.2	ND		ND	100	440
Xylene (Ortho)	NC	95-47-6	106.2	ND		ND	100	440
Styrene	NC	100-42-5	104.1	ND		ND	1000	4400
Isopropylbenzene (cumene)	NC	98-82-8	120.2	ND		ND	420	1800
Bromoform	C	75-25-2	252.7	ND		ND	22.0	110
1,1,2,2-Tetrachloroethane	C	79-34-5	167.9	ND		ND	0.420	2.10
4-Ethyltoluene	--	622-96-8	120.2	ND		ND	N.E.	N.E.
1,3,5-Trimethylbenzene	NC	108-67-8	120.2	ND		ND	7.30	31.0
2-Chlorotoluene	--	95-49-8	126.6	ND		ND	N.E.	N.E.
1,2,4-Trimethylbenzene	NC	95-63-6	120.2	ND		ND	7.30	31.0
1,3-Dichlorobenzene	--	541-73-1	147.0	ND		ND	N.E.	N.E.
1,4-Dichlorobenzene	C	106-46-7	147.0	ND		ND	2.20	11.0
Benzyl chloride	C	100-44-7	126.6	ND		ND	0.500	2.50
1,2-Dichlorobenzene	NC	95-50-1	147.0	ND		ND	210	880
1,2,4-Trichlorobenzene	NC	120-82-1	181.4	ND		ND	2.10	8.80
Hexachloro-1,3-butadiene	C	87-68-3	260.8	ND		ND	N.E.	N.E.
Naphthalene	C	91-20-3	128.2	ND		ND	0.720	3.60

\*\*The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedances as marked

**Exposure Limit Definitions**  
 Screening Values-IA

**Compound Exposure Definitions**  
 NE= No Limit Established NS= No Screening Value  
 LFC= Lowest Feasible Concentration

**Agency Definitions**  
 PADEP= Pennsylvania Department of Environmental Protection

**Reference**  
 Land Recycling Program Technical Guidance Manual for Vapor Intrusion into Buildings from Groundwater and Soil under Act 2 (Doc# 261-0300-101), Nov.19, 2016

**Qualifier Definitions**  
 B = Compound also found in method blank. ND = Non Detect  
 E= Estimated concentration exceeding upper calibration range.  
 D= Result reported from diluted analysis.  
 J= Concentration estimated between Reporting Limit and MDL.

**Carcinogenic (C) Exceedance**  
 Value exceeds the theoretical risk that 1 additional case of cancer will occur in a population of 1 million than statistically expected.  
 Thus is a theoretical risk and not an actual epidemiological one.

**NonCarcinogenic (NC) Exceedance**  
 Value exceeds the theoretical risk that 1 in a population of 100,000 will experience deleterious health effects.  
 Thus is a theoretical risk and not an actual epidemiological one.

**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3551.D	E0526	250 cc	1

**NIOSH and OSHA Exposure Limit Comparisons**

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	OSHA PEL ug/m3
Propylene	NC	115-07-1	42.08	ND		ND	N.E.	N.E.
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.9	0.40		2.0	4900000	4900000
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.9	ND		ND	7000000	7000000
Chloromethane	NC	74-87-3	50.49	0.51		1.1	LFC	210000
n-Butane	--	106-97-8	58.12	0.24		0.58	1900000	N.E.
Vinyl chloride	C	75-01-4	62.50	ND		ND	LFC	2600
1,3-Butadiene	C	106-99-0	54.09	ND		ND	LFC	2200
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC	78000
Chloroethane	NC	75-00-3	64.51	ND		ND	LFC	2600000
Ethanol	--	64-17-5	46.07	23		43	1900000	1900000
Bromoethene(Vinyl bromide)	C	593-60-2	106.9	ND		ND	LFC	N.E.
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.4	0.22		1.2	5600000	5600000
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.09	2.0		4.9	980000	980000
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.4	ND		ND	7700000	7700000
Acetone	NC	67-64-1	58.08	1.8		4.2	590000	2400000
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000	N.E.
Acetonitrile	NC	75-05-8	41.05	ND		ND	34000	67000
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	300000	300000
Bromoethane(Ethyl bromide)	--	74-96-4	109.0	ND		ND	880000	880000
3-Chloropropene(Allyl chloride)	C	107-05-1	76.52	ND		ND	3100	3100
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100	62000
Methylene chloride	C	75-09-2	84.93	ND		ND	LFC	87000
Acrylonitrile	C	107-13-1	53.08	ND		ND	2200	4300
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.	N.E.
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	790000	790000
n-Hexane	NC	110-54-3	86.18	ND		ND	1800000	1800000
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000	400000
Vinyl acetate	NC	108-05-4	86.09	ND		ND	14000	N.E.
2-Butanone(MEK)	NC	78-93-3	72.11	ND		ND	590000	590000
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	790000	790000
Ethyl acetate	NC	141-78-6	88.11	ND		ND	1400000	1400000
Chloroform	C	67-66-3	119.4	ND		ND	9800	240000
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000	590000
1,1,1-Trichloroethane	NC	71-55-6	133.4	ND		ND	1900000	1900000
Cyclohexane	NC	110-82-7	84.16	ND		ND	1000000	1000000
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.2	ND		ND	N.E.	N.E.
Carbon tetrachloride	C	56-23-5	153.8	ND		ND	13000	63000
n-Heptane	NC	142-82-5	100.2	ND		ND	350000	2000000
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	4000	200000
Benzene	C	71-43-2	78.11	ND		ND	320	3200
Trichloroethene	C	79-01-6	131.4	ND		ND	130000	540000
1,2-Dichloropropane	C	78-87-5	113.0	ND		ND	LFC	350000
Methyl Methacrylate	NC	80-62-6	100.1	ND		ND	410000	410000
Bromodichloromethane	C	75-27-4	163.8	ND		ND	N.E.	N.E.
1,4-Dioxane	C	123-91-1	88.11	ND		ND	3600	360000
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.2	ND		ND	200000	410000
cis-1,3-Dichloropropene**	C	10061-01-5	111.0	ND		ND	4500	N.E.



**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3551.D	E0526	250 cc	1

**NIOSH and OSHA Exposure Limit Comparisons**

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	NIOSH REL ug/m3	>	OSHA PEL ug/m3	>
Toluene	NC	108-88-3	92.14	ND		ND	380000		750000	
trans-1,3-Dichloropropene**	C	10061-02-6	111.0	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	C	79-00-5	133.4	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.2	ND		ND	4100		410000	
Tetrachloroethene	C	127-18-4	165.8	ND		ND	LFC		680000	
Dibromochloromethane	--	124-48-1	208.3	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	C	106-93-4	187.9	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.6	ND		ND	N.E.		350000	
Ethylbenzene	C	100-41-4	106.2	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.2	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.2	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.1	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.2	ND		ND	250000		250000	
Bromoform	C	75-25-2	252.7	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	C	79-34-5	167.9	ND		ND	6900		34000	
4-Ethyltoluene	--	622-96-8	120.2	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.2	ND		ND	120000		N.E.	
2-Chlorotoluene	--	95-49-8	126.6	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.2	ND		ND	120000		N.E.	
1,3-Dichlorobenzene	--	541-73-1	147.0	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	C	106-46-7	147.0	ND		ND	LFC		450000	
Benzyl chloride	C	100-44-7	126.6	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.0	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.4	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	C	87-68-3	260.8	ND		ND	210		N.E.	
Naphthalene	C	91-20-3	128.2	ND		ND	52000		52000	

\*\*The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedances as marked

**Exposure Limit Definitions**

REL= Recommended Exposure Limit, PEL= Permissible Exposure Limit

**Compound Exposure Definitions**

NE= No Limit Established NS= No Screening Value  
 LFC= Lowest Feasible Concentration

**Agency Definitions**

NIOSH= The National Institute for Occupational Safety and Health  
 OSHA= Occupational Safety and Health Administration

**Reference**

Occupational Safety and Health Administration (OSHA) (2017) Air Contaminants. 29 CFR 1910.1000 [82 FR 2735, January 9, 2017].

**Carcinogenic (C) Exceedance**

Value exceeds the theoretical risk that 1 additional case of cancer will occur in a population of 1 million than statistically expected.  
 Thus is a theoretical risk and not an actual epidemiological one.

**Qualifier Definitions**

**B** = Compound also found in method blank. **ND** = Non Detect  
**E** = Estimated concentration exceeding upper calibration range.  
**D** = Result reported from diluted analysis.  
**J** = Concentration estimated between Reporting Limit and MDL.

**NonCarcinogenic (NC) Exceedance**

Value exceeds the theoretical risk that 1 in a population of 100,000 will experience deleterious health effects.  
 Thus is a theoretical risk and not an actual epidemiological one.



**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

<b>Analysis Initial</b>	<b>Analysis Date</b>	<b>Analyst Init.</b>	<b>Lab File ID</b>	<b>Canister ID</b>	<b>Sample Vol.</b>	<b>Dil. Factor</b>
	10/23/2023	TP	v3551.D	E0526	250 cc	1

**Possible Background Sources of Contaminants**

Target Compounds	CAS#	Result		*Typical Indoor Air Data			Use and Possible Sources	
		ppbv	Q	ug/m3	% of Samples Detected	Min. Conc. (ppbv)		Max. Conc. (ppbv)
Freon 12(Dichlorodifluoromethane)	75-71-8	0.40		2.0	23%	ND	0.60	Practically odorless, has a faint, ether-like odor in high concentration. This is a halogenated chlorofluorocarbon (CFC), which has a long atmospheric residence time, previously used as a refrigerant and aerosol spray propellant. Complying with the Montreal Protocol, its manufacture was banned in the United States along with many other countries in 1994. (12)
Chloromethane	74-87-3	0.51		1.1	77%	ND	0.81	Chloromethane is present at very low concentrations throughout the atmosphere. Naturally occurring chloromethane is continuously released into the atmosphere from oceans, rotting wood, forest fires, and volcanoes. Manmade sources of chloromethane include cigarette smoke, polystyrene insulation, aerosol propellants, home burning of wood, grass, coal, or certain plastics, chlorinated swimming pools, refrigerators over 30 years old. (2)
n-Butane	106-97-8	0.24		0.58	87%	ND	33	Butane is contained in natural gas. Its main uses are in the production of chemicals, as a refrigerant, as an aerosol propellant, as a constituent in liquefied petroleum gas, and as the main component of gas lighter refills.(13)



**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonsia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	10/23/2023	TP	v3551.D	E0526	250 cc	1

**Possible Background Sources of Contaminants**

Target Compounds	CAS#	Result		*Typical Indoor Air Data			Use and Possible Sources	
		ppbv	Q	ug/m3	% of Samples Detected	Min. Conc. (ppbv)		Max. Conc. (ppbv)
Ethanol	64-17-5	23		43	100%	3.4	658	Ethanol is ubiquitous in air samples as it is found in many products: cleaners (home, auto,pets), disinfectants/sanitizers, laundry care products, pesticide sprays, mouthwash, deoderants, first aid sprays, paints, air fresheners, auto care products. Ethanol is also contained in gasoline. Please see citation for an extensive list. (6)
Freon 11(Trichlorofluoromethane)	75-69-4	0.22		1.2	None Detected in Study			This is a halogenated chlorofluorocarbon (CFC), which has a long atmospheric residence time, previously used as a refrigerant and aerosol spray propellant. Complying with the Montreal Protocol, its manufacture was banned in the United States along with many other countries in 1994. (12)
Isopropyl alcohol(2-Propanol)	67-63-0	2.0		4.9	97%	ND	268	IPA is very common in air samples. Multiple types of cleaners (home, auto, pet) and disinfecting/sanitizing/polishing wipes, ink cartridges, paints, personal care products: nail polish, nail polish remover, colognes, perfumes, rubbing alcohol, hair spray. Please see citation for an extensive list. (6)
Acetone	67-64-1	1.8		4.2	100%	2.6	45	Another very common VOC in air samples, found in home products such as glues, rubber cement and adhesives, expanding foams/crack fillers, air fresheners, paint thinners and paint clean up products. Please see citation for an extensive list. (6)

\*Based on EMSL in-house data collection 04/2019-06/2019

**Qualifier Definitions**

**ND = Non Detect**  
**B = Compound also found in method blank.**





**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3551.D	E0526	250 cc	1

**Possible Background Sources of Contaminants**

Target Compounds	CAS#	Result		*Typical Indoor Air Data			Use and Possible Sources
		ppbv	Q	% of Samples Detected	Min. Conc. (ppbv)	Max. Conc. (ppbv)	

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

J= Concentration estimated between lower calibration standard and MDL.

**Sources References**

- <sup>1</sup> <https://www.epa.gov/sites/production/files/2016-09/documents>
- <sup>2</sup> <https://www.atsdr.cdc.gov/toxfags/IndividualFAQs/IndividualFAQshaveDifferentUpdateDates/>
- <sup>3</sup> EPA Document# EPA-740-R1-7012 May 2018
- <sup>4</sup> Delaware Health and Social Services, Division of Public Health FAQ Sheets. January 2010.
- <sup>5</sup> New York Department of Environmental Conservation, Uses, Sources and Potential Exposure to Toxic Air Pollutants.
- <sup>6</sup> US Department of Health and Human Services, Household Products Database.
- <sup>7</sup> NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012.
- <sup>8</sup> IARC Working Group on the Evaluation of Carcinogenic Risk to Humans. Some Chemicals Present in Industrial and Consumer Products, Food and Drinking-Water. Lyon (FR): International Agency for Research on Cancer; 2013.
- <sup>9</sup> <http://apps.sepa.org.uk/spripa/Pages/SubstanceInformation.aspx?pid=53>
- <sup>10</sup> <https://ni.gov/health/eoh/rtkweb/documents/fs>
- <sup>11</sup> 1-Propene CAS 115-07-1, Environment Canada \_Health Canada, September 2014. <http://www.ec.gc.ca/ese-ees/default.asp?lang=En&n=AD74EA35-1>
- <sup>12</sup> <https://pubchem.ncbi.nlm.nih.gov/compound>
- <sup>13</sup> Committee on Acute Exposure Guideline Levels; Committee on Toxicology; Board on Environmental Studies and Toxicology; Division on Earth and Life Studies; National Research Council. Acute Exposure Guideline Levels for Selected Airborne Chemicals: Volume 12. Washington (DC): National Academies Press (US); 2012
- <sup>14</sup> All about Acrylonitrile <http://angroup.org/about/index.php>
- <sup>15</sup> <http://www.npi.gov.au/resource/ethyl-acetate>



**EMSL ANALYTICAL, INC.**

200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonsia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3551.D	E0526	250 cc	1

**Pennsylvania DEP- Table 5. Indoor air Statewide health standard vapor intrusion screening values (SVIA)**

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	Residential ug/m3	>	Non- Res. ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.9	0.40		2.0	100		440	
Freon 114(1,2-Dichlorotetrafluoroethan	--	76-14-2	170.9	ND		ND	N.E.		N.E.	
Chloromethane	NC	74-87-3	50.49	0.51		1.1	14.0		68.0	
n-Butane	--	106-97-8	58.12	0.24		0.58	N.E.		N.E.	
Vinyl chloride	C	75-01-4	62.50	ND		ND	0.790		14.0	
1,3-Butadiene	C	106-99-0	54.09	ND		ND	0.810		4.10	
Bromomethane	NC	74-83-9	94.94	ND		ND	5.20		22.0	
Chloroethane	NC	75-00-3	64.51	ND		ND	10000		44000	
Ethanol	--	64-17-5	46.07	23		43	N.E.		N.E.	
Bromoethene(Vinyl bromide)	C	593-60-2	106.9	ND		ND	0.760		3.80	
Freon 11(Trichlorofluoromethane)	--	75-69-4	137.4	0.22		1.2	730		3100	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.09	2.0		4.9	210		880	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.4	ND		ND	31000		130000	
Acetone	NC	67-64-1	58.08	1.8		4.2	32000		140000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	210		880	
Acetonitrile	NC	75-05-8	41.05	ND		ND	63.0		260	
Tertiary butyl alcohol(TBA)	--	75-65-0	74.12	ND		ND	N.E.		N.E.	
Bromoethane(Ethyl bromide)	--	74-96-4	109.0	ND		ND	N.E.		N.E.	
3-Chloropropene(Allyl chloride)	C	107-05-1	76.52	ND		ND	1.00		4.40	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	730		3100	
Methylene chloride	C	75-09-2	84.93	ND		ND	630		2600	
Acrylonitrile	C	107-13-1	53.08	ND		ND	0.360		1.80	
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	94.0		470	
trans-1,2-Dichloroethene	--	156-60-5	96.94	ND		ND	63.0		260	
n-Hexane	NC	110-54-3	86.18	ND		ND	730		3100	
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	15.0		77.0	
Vinyl acetate	NC	108-05-4	86.09	ND		ND	210		880	
2-Butanone(MEK)	NC	78-93-3	72.11	ND		ND	5200		22000	
cis-1,2-Dichloroethene	--	156-59-2	96.94	ND		ND	N.E.		N.E.	
Ethyl acetate	NC	141-78-6	88.11	ND		ND	73.0		310	
Chloroform	C	67-66-3	119.4	ND		ND	1.10		5.30	
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	13.0		63.0	
1,1,1-Trichloroethane	NC	71-55-6	133.4	ND		ND	5200		22000	
Cyclohexane	NC	110-82-7	84.16	ND		ND	6300		26000	
2,2,4-Trimethylpentane(Isooctane)	--	540-84-1	114.2	ND		ND	N.E.		N.E.	
Carbon tetrachloride	C	56-23-5	153.8	ND		ND	4.10		20.0	
n-Heptane	NC	142-82-5	100.2	ND		ND	N.E.		N.E.	
1,2-Dichloroethane	C	107-06-2	98.96	ND		ND	0.940		4.70	
Benzene	C	71-43-2	78.11	ND		ND	3.10		16.0	
Trichloroethene	C	79-01-6	131.4	ND		ND	2.10		8.80	
1,2-Dichloropropane	C	78-87-5	113.0	ND		ND	2.40		12.0	
Methyl Methacrylate	NC	80-62-6	100.1	ND		ND	730		3100	
Bromodichloromethane	C	75-27-4	163.8	ND		ND	0.660		3.30	
1,4-Dioxane	C	123-91-1	88.11	ND		ND	3.20		16.0	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.2	ND		ND	3100		13000	
cis-1,3-Dichloropropene**	C	10061-01-5	111.0	ND		ND	N.E.		N.E.	



**EMSL ANALYTICAL, INC.**  
 200 Route 130 North  
 Cinnaminson, NJ 08077  
 Telephone: (856)858-4800 FAX: (856)858-4571  
[to15lab@EMSL.com](mailto:to15lab@EMSL.com) | <http://www.EMSL.com>

**EMSL ORDER ID:** 492300798  
**EMSL CUSTOMER ID:** MIDA78  
**EMSL SAMPLE ID:** 492300798-0002  
**CUSTOMER SAMPLE ID:** VOC-2 Outside

**Attention:** Joe Pillart  
 Mid Atlantic Environmental Consultants  
 5320 North Pioneer Road  
 Gibsonia, PA 15044

**Customer PO:** MCOM-23-33  
**EMSL Project ID:**  
**Project Name:** Salem United Methodist Church

**Phone:** 724-444-3460  
**Email:** [jp4396@zoominternet.net](mailto:jp4396@zoominternet.net)

**Collected:** 10/17/2023 07:41  
**Received:** 10/19/2023 09:50  
**Analyzed:** See Results  
**Reported:** 10/24/2023

Analysis Initial	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
	10/23/2023	TP	v3551.D	E0526	250 cc	1

**Pennsylvania DEP- Table 5. Indoor air Statewide health standard vapor intrusion screening values (SVIA)**

Target Compounds	Tox. Basis	CAS#	MW	Result ppbv	Q	Result ug/m3	Residential ug/m3	>	Non-Res. ug/m3	>
Toluene	NC	108-88-3	92.14	ND		ND	5200		22000	
trans-1,3-Dichloropropene**	C	10061-02-6	111.0	ND		ND	N.E.		N.E.	
1,1,2-Trichloroethane	C	79-00-5	133.4	ND		ND	0.210		0.880	
2-Hexanone(MBK)	NC	591-78-6	100.2	ND		ND	31.0		130	
Tetrachloroethene	C	127-18-4	165.8	ND		ND	42.0		180	
Dibromochloromethane	--	124-48-1	208.3	ND		ND	0.900		4.50	
1,2-Dibromoethane	C	106-93-4	187.9	ND		ND	0.0410		0.200	
Chlorobenzene	NC	108-90-7	112.6	ND		ND	52.0		220	
Ethylbenzene	C	100-41-4	106.2	ND		ND	9.70		49.0	
Xylene (p,m)	NC	1330-20-7	106.2	ND		ND	100		440	
Xylene (Ortho)	NC	95-47-6	106.2	ND		ND	100		440	
Styrene	NC	100-42-5	104.1	ND		ND	1000		4400	
Isopropylbenzene (cumene)	NC	98-82-8	120.2	ND		ND	420		1800	
Bromoform	C	75-25-2	252.7	ND		ND	22.0		110	
1,1,2,2-Tetrachloroethane	C	79-34-5	167.9	ND		ND	0.420		2.10	
4-Ethyltoluene	--	622-96-8	120.2	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.2	ND		ND	7.30		31.0	
2-Chlorotoluene	--	95-49-8	126.6	ND		ND	N.E.		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.2	ND		ND	7.30		31.0	
1,3-Dichlorobenzene	--	541-73-1	147.0	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	C	106-46-7	147.0	ND		ND	2.20		11.0	
Benzyl chloride	C	100-44-7	126.6	ND		ND	0.500		2.50	
1,2-Dichlorobenzene	NC	95-50-1	147.0	ND		ND	210		880	
1,2,4-Trichlorobenzene	NC	120-82-1	181.4	ND		ND	2.10		8.80	
Hexachloro-1,3-butadiene	C	87-68-3	260.8	ND		ND	N.E.		N.E.	
Naphthalene	C	91-20-3	128.2	ND		ND	0.720		3.60	

\*\*The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

The > column is used to flag exceedances as marked

**Exposure Limit Definitions**

Screening Values-IA

**Compound Exposure Definitions**

NE= No Limit Established NS= No Screening Value  
 LFC= Lowest Feasible Concentration

**Agency Definitions**

PADEP= Pennsylvania Department of Environmental Protection

**Reference**

Land Recycling Program Technical Guidance Manual for Vapor Intrusion into Buildings from Groundwater and Soil under Act 2 (Doc# 261-0300-101), Nov.19, 2016

**Qualifier Definitions**

B = Compound also found in method blank. ND = Non Detect  
 E= Estimated concentration exceeding upper calibration range.  
 D= Result reported from diluted analysis.  
 J= Concentration estimated between Reporting Limit and MDL.

**Carcinogenic (C) Exceedance**

Value exceeds the theoretical risk that 1 additional case of cancer will occur in a population of 1 million than statistically expected.  
 Thus is a theoretical risk and not an actual epidemiological one.

**NonCarcinogenic (NC) Exceedance**

Value exceeds the theoretical risk that 1 in a population of 100,000 will experience deleterious health effects.  
 Thus is a theoretical risk and not an actual epidemiological one.



## Appendix B – CIH Review Letter



To: Mid Atlantic Environmental Consultants Inc.

From: Frank Pokrywka, CIH, Ed.D.

Re: Odor Issues at Salem United Methodist Church Classroom

Date: 10/27/2023

Volatile organic compounds (VOCs) are among the thousands of gaseous chemicals found in many household products and the outdoor environment. Although the term "VOC" carries a negative connotation, volatile organic compounds aren't inherently harmful, people, animals, trees, soil, mold, even flowers give off VOCs. But there are unacceptable and acceptable VOC levels to keep in mind when it comes to regulating indoor air quality.

The TO-15 testing performed by Mid Atlantic Consultants confirms the indoor air quality (IAQ) findings for 70 of the most common and potentially problematic VOCs. Of the 70 VOCs tested for only 12 were detected in the classroom. Nine of these same VOCs were found outdoors as well with the higher levels indoors as mentioned in the EMSL report. Three common VOCs butanone (MEK), toluene and ethyl acetate were only found indoors probably related to adhesives, paints, coatings or furnishings located there.

To summarize the EMSL report findings VOC levels were very low; orders of magnitude lower than occupational exposure limits and also well below IAQ limits established by the Pennsylvania Department of Environmental Protection. While few IAQ standards exist, it is generally agreed that total VOC (TVOC) concentrations below 500 micrograms per cubic meter ( $\mu\text{g}/\text{M}^3$ ) indicate good indoor air quality. In comparison, the TVOCs reported during this TO-15 testing were 220  $\mu\text{g}/\text{M}^3$  in the classroom and 57  $\mu\text{g}/\text{M}^3$  outdoors. Possible sources for each of the VOCs reported are also mentioned in the EMSL report. In conclusion, if any of the VOCs reported in the TO-15 test were the source of the reported odors in the classroom, the levels measured do not indicate a significant health risk in my opinion.

The Mid Atlantic environmentalist who performed the IAQ testing for this project reported not smelling any odors during his survey of the classroom. From the recent history and space description reported in Appendix C of this report, the IAQ odors began after a recent roofing project and water incursion into the classroom. Reportedly, church staff cleaned the water damage, removed the carpet and damaged ceiling tiles and used a dehumidifier to dry the space. When the odors worsened a restoration company was brought in to clean the carpet but the odors persisted. The roofers were recalled to ventilate the classroom and the odors lessened somewhat overnight. TO-15 testing was performed on October 17. Mold testing also performed by Mid-Atlantic reported no significant findings. Radiator heat and ceiling fans are used to condition the space with no forced air ventilation and limited access to outdoor air.

Finally, based on the laboratory reports reviewed and conversation with the Mid Atlantic environmentalist performing the work, IAQ conditions at Classroom 5 should have resolved. The initial odors were undoubtedly a result of the roofing work and water leak. Wet carpet, plaster, ceiling tile, concrete, wood and other furnishings develop an odor until they dry. Restoration work introduces new odors from rubber roofing materials, caulking, new carpets, floor tile, adhesives etc. until these materials have a chance to off gas. Good ventilation of the space can accelerate this clearing of odors. Fans and blowers bringing in outside air can be helpful. In poorly ventilated space or spaces that have not yet dried completely, this off gassing can take longer. If necessary, raising temperatures in the space, additional drying and some other specialized odor remediation measures can help eliminate odors faster. Hopefully the efforts made to date have successfully resolved the odor issues in Classroom 5 at the Salem United Methodist Church. Please let Mid Atlantic Consultants know if you have any questions about information addressed in this report or additional need of our services.

## Appendix C – Timeline Chain of Events

# TIMELINE OF CHAIN OF EVENTS

**This is a summary that we already had used in-house and that I just added our Mid-Atlantic interactions to the timeline below.**

**Thank you,  
Rev. Stephanie**

## **A note about the roof work that has been done:**

In mid-July Gotcha Covered Roofing did the work that involved fixing some flashing, screws, and other areas where the sanctuary and education building come together that would affect how water runs off the adjoined sanctuary roof to the flat roof and was not up to standard. This could allow water to seep down and around the rubber roof. When they came back last week, they said it was possible that while working on the rubber roof a screw had been stepped on or some other small puncture had happened. They first removed the standing water that was there after recent heavy rains and then they were able to find a nail-head sized puncture in a portion of the rubber roof.

Because of it being a flat roof with rubber membrane, it is not a leak where the source of entry puncture is directly above where it comes through inside the building. The place where rubber gets compromised allows water to seep under the rubber membrane and then it affects other parts of the actual cement roof. The two places where we had leaks (room 5 and the ceiling in the lower stairwell) seem to be the places where water eventually settles if it gets under or around the rubber membrane. So that if water gets under the rubber on the exterior, it works its way to those low points and pools there and that is when we see the interior leak and why they are in the same place. And then the fact that flat roofs have pooled water means that there is still a source for that slow buildup even when it is not raining and the water can be constant despite the weather.

The puncture hole was filled and then a liquid silicone roof membrane was applied in a wide area surrounding it (about 1/4 of the flat roof.) I do not have the data sheets yet but I believe this is the brand of silicon roofing that the roof company used. The brand has a few versions of the product but this is their website. <https://www.apoc.com/collections/silicone-roof-coatings-primers/products/roof-coatings-armor-flex-apoc-585>

The windows above Room 3 and 5 that provide light into the sanctuary were also caulked on 9/27 and some wooden junctures near them as they were trying to seal up any way that water might seep in beyond the rubber roof. This was all exterior work. They also noted that this is not the ideal season for silicone to be applied as there is more moisture in the air and moisture affects how well it bonds to the surface below.

In August 2023, after the roof leak affected the carpet, we then had to have the carpet replaced. This also led to asbestos-abatement work being completed before the new commercial carpet was glued down (also in August of 2023.)



# TIMELINE OF CHAIN OF EVENTS

## Timeline

9/24 Leak discovered. Fans, dehumidifiers placed in Room 5

9/25 Roofers called and come to examine at 5pm

9/26 Roofers remove standing water from the flat roof. Carpet in Room 5 is dry by the end of day.

9/27 Roofers patch hole, apply silicon coating on 1/4 of roof and caulk around upper sanctuary windows facing parking lot.

9/28 Cool day, rain

9/29 Odor noticed in Room 5

10/1 Odor still present in Room 5. Additional air purifier, fans put in room 5.

10/2 Call made to ZeroRez (weather shifted, temperatures are high)

10/3 ZeroRez steam cleans carpet in Room 5, applies antibacterial and deodorizing treatments beforehand

10/4 Smell in Room 5 is much stronger, reported to church

10/5 Calls made to Environmental Health Consultant, ZeroRez. Room 5 aired out overnight.

10/6 Roofers come to site, smell reduced overnight. Gathering Material Safety Data sheets on all products used to send to the consultant.

10/10 More contact made with EnSpec and suggestion to speak to those with access to Industrial Hygienist. Began making calls to ACHD, EPA, and other companies for referrals.

10/11 Responses received. Contact initiated or made with Mold Testing Co. (phone), Mid-Atlantic Environmental (in person), and RT Environmental (email.)

10/12 Received quote from Mid-Atlantic

10/13 Accepted quote from Mid-Atlantic and received confirmation of test date.

10/17 Test date for T0-15 and Mold swab/air test.

## Appendix D – Project Photos

**SALEM UNITED METHODIST CHURCH**



Photo  
#1

Pre-School Classroom 5

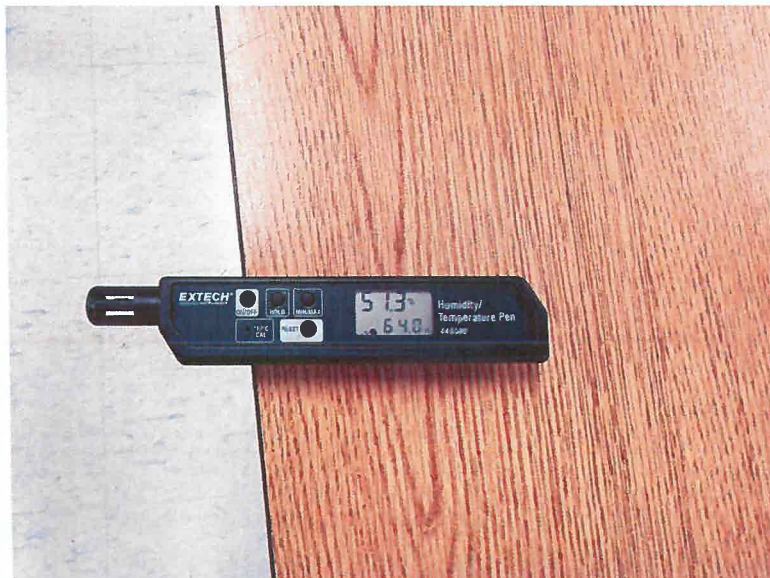


Photo  
#2

Start of Sampling - Classroom #5 – Relative Humidity 51.3% / Temp. 64.0°F

**PHOTOGRAPHIC RECORD**

**SALEM UNITED METHODIST CHURCH**



Photo  
#3

Start of Sample - Sample VOC-1 - Pre-School Classroom 5



Photo  
#4

Start of Sample - Sample VOC-2 - Outside Reference



**PHOTOGRAPHIC RECORD**

**SALEM UNITED METHODIST CHURCH**



Photo #5	View of Outside Reference Sample VOC-2- Sample set under overhang due to chance of rain.
----------	--



Photo #6	Start of Sampling – Outside Reference - Relative Humidity 80.6% / Temp. 49.8°F
----------	--

**SALEM UNITED METHODIST CHURCH**

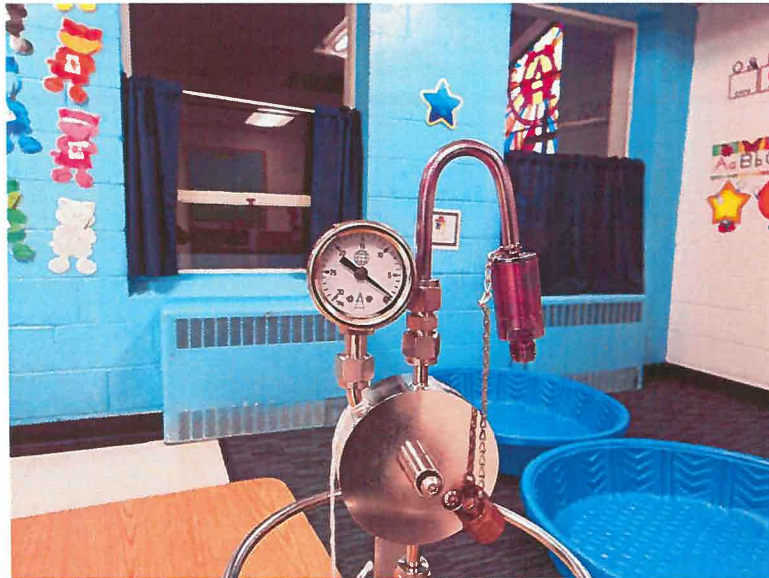


Photo #7

End of Sample - Sample VOC-1 - Pre-School Classroom 5



Photo #8

End of Sampling - Classroom #5 – Relative Humidity 47.0% / Temp. 64.5°F



**PHOTOGRAPHIC RECORD**

**SALEM UNITED METHODIST CHURCH**



Photo  
#9

End of Sample - Sample VOC-2 - Outside Reference

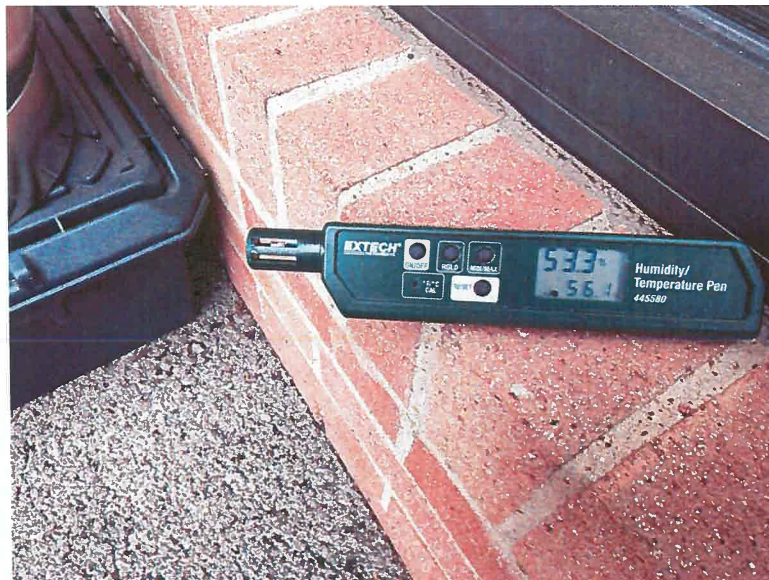


Photo  
#10

End of Sampling - Outside Reference – Relative Humidity 53.3% / Temp. 56.1°F



# Appendix E – Accreditation



# American Council for Accredited Certification

hereby certifies that

**Joseph D. Pillart, Jr.**

has met all the specific standards and qualifications of the re-certification process,  
including continued professional development, and is hereby re-certified as a

**CIE**

**Council-certified  
Indoor Environmentalist**

This certificate expires on May 31, 2024.

*Charles F. Wiles*

Charles F. Wiles, Executive Director

00859

Certificate Number

This certificate remains the property of the American Council for Accredited Certification.