

Setting the Standard in Comprehensive Environmental Solutions

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# INDOOR AIR QUALITY ASSESSMENT REPORT

at

#### PATRICK HENRY K-8 SCHOOL

4643 TANEY AVE, ALEXANDRIA, VA 22304



#### Report Prepared for:

John Contreras

Alexandria City Public Schools

2601 Cameron Mills Rd, Alexandria, VA 22302

Dated: October 4, 2021

Toll Free: 877.457.TECI • www.totalenvironmental.net

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#### **APPENDICES**

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**Appendix D:** Formaldehyde Analytical Results

**Appendix E:** 4-PCH Analytical Results

**Appendix F:** Sampling Locations

**Appendix G:** Photographs

#### **ABBREVIATIONS AND ACRONYMS**

**AHU** Air-Handling Unit

AIHA American Industrial Hygiene Association

**ASHRAE** American Society of Heating, Refrigerating and Air-Conditioning

Engineers

**ASTM** American Society for Testing and Materials

CO Carbon Monoxide CO2 Carbon Dioxide

**EMLAP** Environmental Microbiology Laboratory Accreditation Program

**HVAC** Heating, Ventilating, And Air-Conditioning

IAQ Indoor Air Quality

NIST National Institute for Standards and TechnologyNVLAP National Voluntary Laboratory Accreditation Program

**RH** Relative Humidity

# Abbreviations involving scientific volume and measurements involving media or water sampling

**Spores/m3** Mold spores per cubic meter of air

LPM Liters Per Minute
NTE Not to exceed

°F degree Fahrenheit
PPM Parts Per Million

#### 1. Executive Summary

Total Environmental Concepts (TEC) was contracted by Alexandria City Public Schools (ACPS) to perform Indoor Air Quality (IAQ) assessments at 19 schools. The original list is provided below:

- Alexandria City High School (AC)
- AC Satellite Campus, Central Offices (CO)
- Charles Barrett Elementary School (BC)
- Cora Kelly School for Math (CK)
- Frances C. Hammond Elementary School (FH)
- George Mason Elementary School (GM)
- George Mason Elementary School (GW)
- James K. Polk Elementary School (JP)
- John Adams Elementary School (JA)
- Lyles-Crouch Elementary School (LC)
- Minnie Howard High School (MH)
- Naomi Brooks Elementary School (NB)
- Samuel Tucker Elementary School (ST)
- William Ramsey Elementary School (WR)
- Douglas MacArthur Elementary School (Out of Service)
- Jefferson-Houston Elementary School (JH)
- Ferdinand T. Day Elementary School (FD)
- Patrick Henry K-8 School (PH)
- Mount Vernon Community School (MV)

This IAQ assessment was conducted at Patrick Henry K-8 School on Thursday, August 26, 2021. ACPS required that the testing be based on the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) guidelines. ACPS provided site plans and fifteen (15) sampling locations per school. ACPS chose sampling locations based on internal review of facilities maintenance records and a review of facilities maintenance-related issues. These sampling locations were selected to collect representative IAQ data in these specific areas and to document any areas of potential concern observed during the site assessment. An extra sampling location was included, at the request of the Assistant Principal, to verify the on-site air purifier (Alen BreathSmart). ACPS required that TEC test for the following major indoor air pollutants:

- Mold
- Radon
- TO+15 (VOCs)
- Formaldehyde
- 4-polycyclohexene (4-PCH)

In accordance with ASHRAE, TEC also took measurements of the following at each school:

- Carbon Monoxide
- Carbon Dioxide
- Humidity

- Temperature
- Oxygen

#### <u>Summary of findings and recommendations during this limited IAQ investigation:</u>

Mold – TEC conducted site-specific mold sampling outside the Patrick Henry K-8 School
to obtain a baseline of the number and types of fungal spores in the air. This baseline was
compared to the spores collected at the sampling locations since inside spore counts
above baseline could indicate internal sources of mold.

#### Findings:

- 1. The number of spores in the air was within acceptable ranges in all locations compared to background outside air mold spore counts.
- 2. Minor water staining was observed in several locations on ceiling tiles. No active leaks could be identified above the drop ceilings. These tiles should be replaced so that active leaking can be detected.

Photographs can be found in Section 3, Visual Observations.

#### Recommendations:

- Moving forward, any suspected mold growth should be inspected by a qualified professional.
- Investigate sources of water leaks and any evidence of water staining.
- Inspect above drop ceilings and replace stained ceiling tiles.
- Inspect areas around the building foundation.
- For all HVAC and associated building systems, a detailed maintenance schedule should be established and adhered to.

None of the results from the fifteen sampling locations at Patrick Henry K-8 School were indicative of mold issues.

- Radon levels recorded in all locations were less than 4pCi/L, as recommended by EPA and HUD.
- **VOCs** The levels of volatile organic compounds (VOCs) recorded at each location were within acceptable ranges compared to EPA Regional Screening Levels (RSLs).
- **Formaldehyde** the levels of formaldehyde recorded at each location were within an acceptable range, compared to EPA Regional Screening Level (RSLs) of 1ug/m3.
- **4-PCH** levels recorded during this investigation were within the LEED (Leadership of Energy and Environmental Design) IAQ guideline of 6.5 ug/m3.
- **Carbon monoxide** concentrations in all areas were less than the EPA, and ASHRAE recommended a limit of 9 ppm.
- Carbon dioxide concentrations in all tested spaces were less than the ASHRAE limit of 1,092 ppm.
- RH the relative humidity in all tested spaces was within the ASHRAE guidelines of ≤ 67% and for this investigation, ≤ 65%. None of the tested locations had a relative humidity greater than 65%.

• **Temperature** – none of the tested spaces had temperatures greater than the ASHRAE recommended summer range of 75°F-80.5°F.

#### 2. Assesment Methods

Under the direction of TEC Industrial Hygienist Nikki Satari, Margaret Stanger, Victoria Powers, and Channing Jackson, also of TEC, conducted IAQ inspections and air sampling on August 26, 2021. All air samples were collected three-six feet from the floor level, the typical breathing zone for adults.

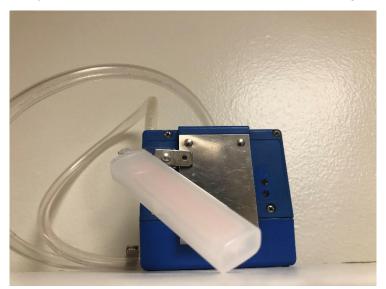
Mold air samples were collected with a field calibrated Environmental Monitoring Systems High Volume Sampling Pump on Allergenco-D Disposable IAQ Air Monitoring Cassettes at a flow rate of 10 liters per minute for a sample volume of 75 liters during the assessment (photograph below). The Hayes Microbial Consulting laboratory reports are included in Appendix A.



Radon gas samples were collected by securing Air Chek Radon Test Kits (photograph below). Samples were collected within the breathing zone (4-6ft from ground level) at each sample location. In accordance with Air Chek's Radon Test Kit Instructions, kits were secured to walls inside the building and away from open windows, doors to the outside, or interior air ventilation systems. The sampling time was 72 hours. Radon analytical results can be found in Appendix B.



Formaldehyde gas air samples were collected using static Aldehyde TraceAir II Monitors (photograph below). Samples were secured to surrounding testing equipment to expose the total surface area of the sampling device for the 4 hours of sampling time. Monitors were collected after 4 hours and processed for shipment to Phase Separation Science located in Catonsville, MD. Formaldehyde analytical results can be found in Appendix D. Photograph below.



The 4-polycyclohexene (4-PCH) samples were collected in SKC's Anasorb CSC sorbent tubes through Gilian GilAir3 Air Sampling Pumps (photograph below). Pumps were placed within the breathing zone (4-6ft from ground level). Run times were 8 hours or time-weighted 4-hour runs. 4-PCH analytical results can be found in Appendix E. Photograph below.



TO+15 (VOCs) samples were collected using ENTECH Instruments 1.4L SUMMA canisters with an ENTECH regulator attachment (photograph below). Canisters were deployed at each location for a run time of 8 hours or a time-weighted run time of 4 hours. Internal pressure readings were recorded at the start and end of each sample run time. TO+15 (VOCs) analytical results can be found in Appendix C. Photograph below.



The temperature and relative humidity were taken with the AcuRite Digital Indoor Temperature and Humidity Monitor in the lobby of each school. Temperature and relative humidity readings can be found in Section 5, Mold Sampling Results, below.

Real-time measurements for oxygen, carbon dioxide, carbon monoxide, VOC, hydrogen sulfides were taken with a Multi-gas detector. These measurements can be found in Section 10 Multi-gas Detector (MSA Altair Multi-gas) Readings. This information can be found in Table 1 below. Photograph Below.



## 3. Visual Observations

Sample Location	August 26, 2021	Visual Observations
Hallway by Room 206	Water staining was observed on the ceiling of the hallway by room 206.	

Recreation Center	The Recreation Center was observed to be separate from Patrick Henry K-8 School.	
Stairwell 200	The main stairwell to the second floor of Patrick Henry K-8 School.	
Main Office	View of the main office of Patrick Henry K-8 School.	

#### 4. Conditions for Human Occupancy

Conditions for Human Occupancy are addressed in ASHRAE Standard 55-2017. These standards are designed to provide comfort for an estimated 80% of occupants. The standard provides for a temperature range between approximately 67 and 82 °F. A more specific range based on relative humidity, season, clothing worn, activity levels, and other factors can be determined. For example, the standard does not specify a lower humidity range but notes that issues of comfort, skin irritation, dry mucous membranes, and static electricity may arise when the relative humidity is less than 30%. ASHRAE Standard 62.1-2016 does recommend an upper limit of 67% humidity to avoid conditions conducive to microbial growth. For this investigation, TEC used a conservative upper limit of 65%. The recommended ASHRAE temperature range for schools and office spaces in summer is 75°F-80.5°F.

#### 4.1 Temperature

The recommended ASHRAE temperature range for schools and office spaces in summer is 75°F-80.5°F. The recorded relative humidity in all locations was below 65%, and the average indoor temperature can be found in Table 2.

#### 4.2 Relative Humidity

ASHRAE Standard 62.1-2016 recommends a relative humidity no greater than 67% to avoid conditions conducive to microbial growth. The relative humidity observed by TEC during this investigation was below 65% in all locations. Average relative humidity can be found in Table 2.

#### 4.3 Carbon Dioxide

Carbon dioxide (CO2) is a by-product of combustion-burning engines such as generators, furnaces, boilers, and idling automobile engines. High CO2 measurements may indicate engine maintenance issues. There were no exceedances in real-time during the IAQ investigation. Complete results are summarized in Table 1.

#### 4.4 Carbon Monoxide

Carbon monoxide (CO) is a by-product of the combustion of fossil fuels. Generators, furnaces, boilers, idling automobile engines may all produce CO. High CO measurements may indicate engine maintenance issues. There were no exceedances in real-time during the IAQ investigation. Complete results can be found in Table 1.

#### 4.5 Multi-gas Detector Readings

Multi-gas readings were taken at each location to document current conditions at the time of the sampling efforts and to monitor the environment between sampling locations. There were no exceedances in real-time during the IAQ investigation. Complete results can be found in Table 1.

#### 5. Mold Sampling Results

TEC conducted mold sampling outside to obtain a baseline spore count. This baseline was compared to inside mold spore counts at the designated sampling locations.

The number of spores in the air was within acceptable ranges in all locations compared to background outside air mold spore counts.

In conclusion, federal standards for the number of fungal spores present in the indoor environment don't exist. The widely accepted guideline in the indoor air quality field requires that the number and types of spores present in the indoor environment not exceed those present outdoors at any given time.

Mold is carried indoors through building entrances, open windows, loading docks, foot traffic into buildings, and the HVAC system. To thrive indoors, mold requires a food source, proper temperature, and humidity to foster its growth.

There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and, if it does, to help pinpoint the area of contamination.

There will also be mold spores present in "normal" outdoor environments. In any environment, excess mold growth may arise due to excess moisture, and indoors this may indicate water leaks or high indoor humidity.

Interior spore counts above baseline readings may indicate internal sources of mold, and this would indicate a requirement for further investigation and potential mitigation

TEC recommends that ACPS investigate all areas where there are obvious signs of water intrusion. Care should be taken to look above drop ceilings and around the building foundation. Any hidden suspected mold should be tested and verified by a qualified professional. The mold in air results do not indicate a need for mold abatement at this time, but conditions may worsen if the issues with leaks and water intrusion are not addressed. The observed ratio anomalies are most likely caused by a combination of the normal fluctuation in daily spore counts and the issues with water intrusion.

#### Findings:

- 1. The number of spores in the air was within acceptable ranges in all locations compared to background outside air mold spore counts.
- 2. Minor water staining was observed in several locations on ceiling tiles. No active leaks could be identified above the drop ceilings, and these tiles should be replaced so that active leaking can be detected.

Photographs can be found in Section 3, Visual Observations.

#### Recommendations:

- Moving forward, any suspected mold growth should be inspected by a qualified professional.
- Investigate sources of water leaks and any evidence of water staining.
- Inspect above drop ceilings and replace stained ceiling tiles.
- Inspect areas around the building foundation.
- For all HVAC and associated building systems, a detailed maintenance schedule should be established and adhered to.

None of the results from the fifteen sampling locations at Patrick Henry K-8 School were indicative of mold issues.

Mold analytical results can be found in Appendix A.

#### 6. Radon Gas Sampling Results

Radon forms as the result of the radioactive decay of uranium. Uranium is a naturally occurring radioactive by-product that occurs when rock and soil break down. Some building materials, such as granite, maybe a source of radon. ACPS provided sampling areas, which did not allow for TEC to utilize the sampling protocol provided by Air Chek to perform a comprehensive survey. Air Chek Radon Test Kits collection times were a minimum of 72 hours. Test kits were then retrieved and shipped to Air Chek Inc., located in Mills River, NC. Air Chek laboratories are the National Institute of Standards and Technology's (NIST) National Voluntary Laboratory Accreditation Program (NVLAP), and American Industrial Hygiene Association (AIHA) for Environmental Microbial Laboratory Accreditation Program (EMLAP) certified. Analytical results can be found in Appendix B.

#### 7. TO+15 (VOC) Sampling Results

Volatile organic compounds (VOCs) are organic chemicals emitted as gases. Carpets, flooring materials, cleaning agents, disinfectants, air fresheners, and vinyl furnishings may all be sources of VOCs in indoor air. Analytical results can be found in Appendix C.

#### 8. Formaldehyde Gas Sampling Results

Sources of formaldehyde are similar to sources of carbon monoxide. They include gas-burning engines and space heaters. Other sources include smoking, household products, pressed wood products, and adhesives. Analytical results can be found in Appendix D.

#### 9. 4-PCH Sampling Results

4-polycyclohexene is a common indoor air contaminant most commonly associated with "new-carpet" smell complaints. 4-PCH is a by-product of carpet manufacturing and has been associated with adverse health effects. None of the areas investigated during this study indicated elevated levels of PCH. Analytical results can be found in Appendix E.

#### 10. Multi-Gas Detector (MSA Altair Multi-gas) Readings

Multi-gas readings were taken at each location to document current conditions at the time of the sampling efforts and to monitor the environment between sampling locations. There were no exceedances in real-time during the IAQ investigation. Multi-gas results can be found below in Table 1.

Table 1

	Multi-Gas Detector Readings										
Location	VOC	СО	OXYGEN	H2S							
Main Office	0.0	0.0	20.9	0.0							
Hall Kitchen	0.0	0.0	20.9	0.0							
111	0.0	0.0	20.9	0.0							
Hall 120	0.0	0.0	20.9	0.0							
129	0.0	0.0	20.9	0.0							
Cafeteria	0.0	0.0	20.9	0.0							
Rec Center	0.0	0.0	20.9	0.0							
Stairs 200	0.1	0.0	20.3	0.0							
Media Center	0.0	0.0	20.9	0.0							
207	0.0	0.0	20.9	0.0							
217	0.0	0.0	20.9	0.0							
233	0.0	0.0	20.9	0.0							
Stairs 300	0.0	0.0	20.9	0.0							
322	0.0	0.0	20.9	0.0							
302 Hall	0.0	0.0	20.9	0.0							

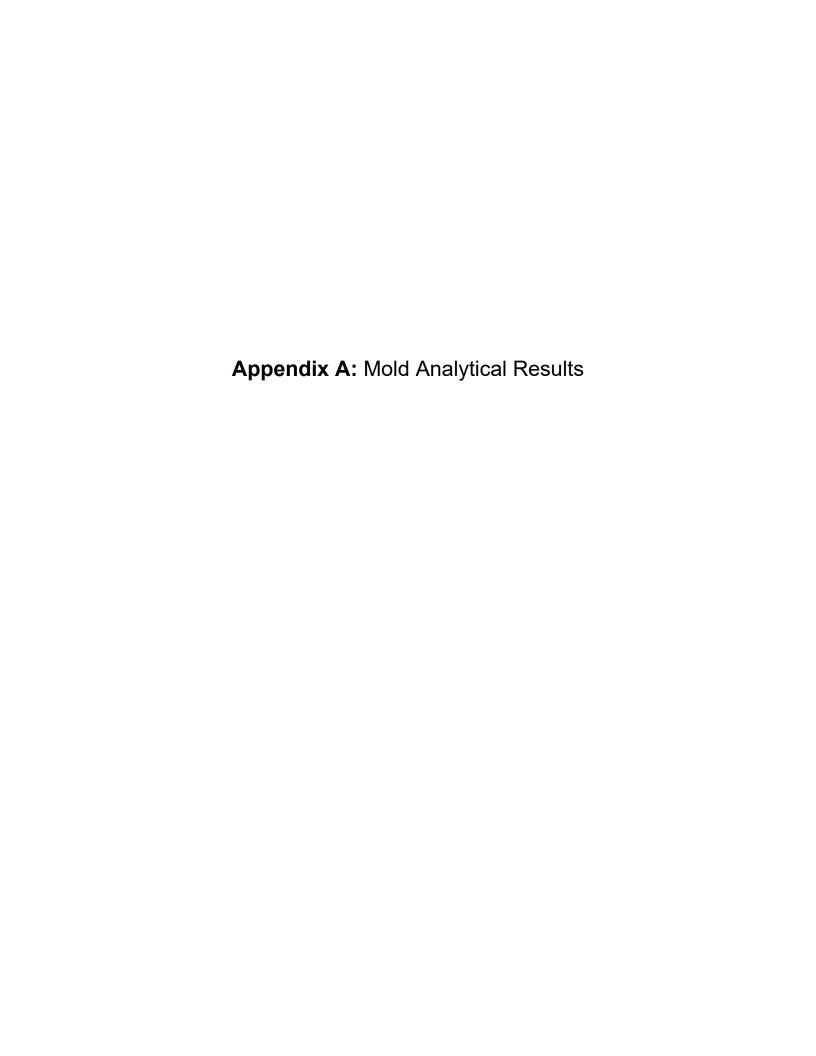
Table 2

Results of Analytes by Location										
Location	Radon	Mold AVG: 73 F AVG: 46 %		TO+15 VOCs	4PCH	Formaldehyde				
Main Office	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
Hall Kitchen	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
111	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
Hall 120	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
129	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
Cafeteria	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
Rec Center	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
Stairs 200	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
Media Center	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
207	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
217	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
233	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
Stairs 300	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
322	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				
302 Hall	< 4 pCi/L	Spore Co	unt Normal	< RSL	< 6.5 ug/m3	< RSL				

<sup>\*</sup>See Section 5 - Ratio abnormalities are most likely caused by fluctuations in daily spore counts

#### 11. Quality Control Program

- TEC recognizes the importance of quality assurance (QA) and quality control (QC) measures related to sample collection and processing performance.
- To ensure compliance with QA/QC measures, Standard Operating Procedures (SOPs)
  have been developed for field sample collection techniques, field sample screening
  procedures, multi-media sampling, and the accurate presentation of findings/reporting.
- All staff are provided these SOPs and are trained in these procedures before conducting work activities. TEC's Program Manager and the on-site PM/QCM will manage the quality control program.
- The PM will work closely with field technicians to ensure the success of the quality control program. All team members will receive copies of and abide by the quality control plan.
- Daily records will be kept of all operations, activities, and tests performed in the quality control program.
- All samples collected during this IAQ assessment were collected, processed, and shipped under the strictest chain of custody (CoC) guidelines.
- All samples were shipped for analysis by a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory.







Analysis Report prepared for

# Total Environmental Concepts, Inc.

8382 Terminal Road Suite B Lorton, VA 22079

Phone: (571) 289-2173

Patrick Henry ES

Collected: August 26, 2021 Received: August 30, 2021 Reported: August 30, 2021 We would like to thank you for trusting Hayes Microbial for your analytical needs! We received 17 samples by FedEx in good condition for this project on August 30th, 2021.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC..

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

Steve Hayes, BSMT(ASCP) Laboratory Director

Hayes Microbial Consulting, LLC.



EPA Laboratory ID: VA01419



phon N. Hoyes

Lab ID: #188863



DPH License: #PH-0198

#21032408

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Spore Trap SOP - HMC#101

Sample Number	1	PH431	15650	2	PH431	8568	3	PH43	15646	4	PH43	15605
Sample Name	PH 322			PH Hall 320			PH Hall 302			PH Stairs 2		
Sample Volume		75.00 liter			75.00 liter		75.00 liter			75.00 liter		
Reporting Limit		13 spores/m <sup>3</sup>		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>				13 spores/m <sup>3</sup>	1
Background		1		1			2				2	
Fragments		ND			ND			ND			ND	
Organism	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total
Alternaria												
Ascospores	1	13	100.0%	1	13	50.0%	2	27	66.7%	3	40	75.0%
Aspergillus Penicillium												
Basidiospores				1	13	50.0%				1	13	25.0%
Bipolaris Drechslera												
Chaetomium												
Cladosporium							1	13	33.3%			
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Pestalotiopsis												
Total	1	13	100%	2	26	100%	3	40	100%	4	53	100%

HAYES
MICROBIAL CONSULTING

Water Damage Indicator

Collected: Aug 26, 2021

Project Analyst:

Ramesh Poluri, PhD

Common Allergen

Received: Aug 30, 2021

Slightly Higher than Baseline

Date:

Reported: Aug 30, 2021

Significantly Higher than Baseline

00

08 - 30 - 2021

Reviewed By:

Steve Hayes, BSMT Stephen 11. Abyus

Date:

Ratio Abnormality

#21032408

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Spore Trap SOP - HMC#101

Alternaria Ascospores 1 13 100.0% 2 27 66.7% 1 13 50.0% 1 13 50.0  Aspergillus Penicillium Basidiospores Bipolaris Drechslera Chaetomium Cladosporium Curvularia Epicoccum Fusarium Memonoiella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	Sample Number	5	PH43	15580	6	PH43	15661	7	PH43	15667	8	PH43	15655
Reporting Limit   Background   2	Sample Name	PH 233			PH Hall 217			PH Media Room 200			PH Stairs 200		
Background   2	Sample Volume		75.00 liter			75.00 liter			75.00 liter		75.00 liter		
No	Reporting Limit		13 spores/m <sup>3</sup>	3	13 spores/m <sup>3</sup>			13 spores/m³				13 spores/m <sup>3</sup>	3
Organism         Raw Count         Count / m³         % of Total         Raw Count / m³         % of Total         % of Total         Raw Count / m³	Background		2		·			2				2	
Alternaria Ascospores 1 13 100.0% 2 27 66.7% 1 13 50.0% 1 13 50.0  Aspergillus/Penicillium Basidiospores Bipolaris/Drechslera Chaetomium Cladosporium Curvularia Epicoccum Fusarium Memonoiella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	Fragments		ND			ND			ND			ND	
Alternaria Ascospores 1 13 100.0% 2 27 66.7% 1 13 50.0% 1 13 50.0  Aspergillus/Penicillium Basidiospores Bipolaris/Drechslera Chaetomium Cladosporium Curvularia Epicoccum Fusarium Memonoiella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis													
Alternaria Ascospores 1 13 100.0% 2 27 66.7% 1 13 50.0% 1 13 50.0  Aspergillus/Penicillium Basidiospores Bipolaris/Drechslera Chaetomium Cladosporium Curvularia Epicoccum Fusarium Memonoiella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis			1			1						2	
Ascospores Aspergillus Penicillium Basidiospores Bipolaris Drechslera Chaetomium Cladosporium Curvularia Epicoccum Fusarium Memnoniella Myxomycetes Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	_	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total
Aspergillus Penicillium  Basidiospores Bipolaris Drechslera  Chaetomium Cladosporium Cladosporium Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis													
Basidiospores Bipolaris Drechslera Chaetomium Cladosporium Cladosporium Epicoccum Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	•	1	13	100.0%	2	27	66.7%	1	13	50.0%	1	13	50.0%
Bipolaris Drechslera Chaetomium Cladosporium Cladosporium Curvularia Epicoccum Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis													
Chaetomium Cladosporium Cladosporium Curvularia Epicoccum Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	·										1	13	50.0%
Cladosporium Curvularia Epicoccum Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	·												
Curvularia Epicoccum Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis													
Epicoccum Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	·				1	13	33.3%						
Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis													
Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	·												
Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis													
Pithomyces Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis	Memnoniella												
Stachybotrys Stemphylium Torula Ulocladium Pestalotiopsis								1	13	50.0%			
Stemphylium Torula Ulocladium Pestalotiopsis	-												
Torula Ulocladium Pestalotiopsis													
Ulocladium Pestalotiopsis													
Pestalotiopsis													
	Pestalotiopsis												
Total 1 13 100% 3 40 100% 2 26 100% 2 26 100%	Total	1	13	100%	3	40	100%	2	26	100%	2	26	100%

Water Damage Indicator

Common Allergen

Received: Aug 30, 2021

Reported: Aug 30, 2021

Significantly Higher than Baseline

Ratio Abnormality

Collected: Aug 26, 2021

Project Analyst:

Ramesh Poluri, PhD

Slightly Higher than Baseline

Date:

08 - 30 - 2021

Reviewed By:

Steve Hayes, BSMT

Date:

#21032408

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Spore Trap SOP - HMC#101

Sample Number	9	PH431	15652	10	PH431	5660	11	PH43	15645	12	PH43	15656
Sample Name	PH 129			PH Hall 120			PH 111			PH Main Office		
Sample Volume	75.00 liter				75.00 liter		75.00 liter			75.00 liter		
Reporting Limit		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>	В
Background		2			2			2			2	
Fragments		ND			ND			ND			ND	
Organism	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total
Alternaria												
Ascospores	1	13	100.0%	3	40	75.0%	1	13	50.0%	2	27	66.7%
Aspergillus Penicillium												
Basidiospores				1	13	25.0%						
Bipolaris Drechslera												
Chaetomium												
Cladosporium										1	13	33.3%
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes												
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Pestalotiopsis							1	13	50.0%			
Total	1	13	100%	4	53	100%	2	26	100%	3	40	100%

Water Damage Indicator

Common Allergen

Slightly Higher than Baseline

Significantly Higher than Baseline

Ratio Abnormality



Collected: Aug 26, 2021

Received: Aug 30, 2021

Reviewed By:

Project Analyst: Ramesh Poluri, PhD

08 - 30 - 2021

Date:

Reported: Aug 30, 2021

Steve Hayes, BSMT

Date:

#21032408

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Spore Trap SOP - HMC#101

Sample Number	13	PH431	15659	14	PH431	15663	15	PH431	15662	16	PH43	15658	
Sample Name	PH Hall Kitchen				PH Cafe			PH Rec Center			PH 207		
Sample Volume		75.00 liter		75.00 liter			75.00 liter			75.00 liter			
Reporting Limit		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>		
Background		2			2			2			2		
Fragments		ND			ND			ND			ND		
Organism	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total	
Alternaria													
Ascospores	2	27	66.7%	1	13	100.0%	1	13	50.0%	2	27	66.7%	
Aspergillus Penicillium													
Basidiospores	1	13	33.3%				1	13	50.0%				
Bipolaris Drechslera													
Chaetomium													
Cladosporium										1	13	33.3%	
Curvularia													
Epicoccum													
Fusarium													
Memnoniella													
Myxomycetes													
Pithomyces													
Stachybotrys													
Stemphylium													
Torula													
Ulocladium													
Pestalotiopsis													
Total	3	40	100%	1	13	100%	2	26	100%	3	40	100%	

HAYES
MICROBIAL CONSULTING

Water Damage Indicator

Collected: Aug 26, 2021

Project Analyst:

Ramesh Poluri, PhD

Common Allergen

Received: **Aug 30, 2021** 

Reported: Aug 30, 2021

Significantly Higher than Baseline

Date:

Slightly Higher than Baseline

08 - 30 - 2021

Reviewed By:

Steve Hayes, BSMT

Date:

Ratio Abnormality

#21032408

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

Spore Trap SOP - HMC#101

Sample Number	17	PH43	15647			
Sample Name	F	PH Outdoor				
Sample Volume		75.00 liter				
Reporting Limit		13 spores/m <sup>3</sup>				
Background		2				
Fragments		ND				
Organism	Raw Count	Count / m <sup>3</sup>	% of Total			
Alternaria						
Ascospores	288	3840	57.6%			
Aspergillus Penicillium	45	600	9.0%			
Basidiospores	160	2133	32.0%			
Bipolaris Drechslera						
Chaetomium						
Cladosporium	6	80	1.2%			
Curvularia	1	13	<1%			
Epicoccum						
Fusarium						
Memnoniella						
Myxomycetes						
Pithomyces						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Pestalotiopsis						
Total	500	6666	100%			
Water Damage Indicato	r	Commo	n Allergen	Slightly Higher than Baseline	Significantly Higher than Baseline	Ratio Abnormality

Collected: Aug 26, 2021

Received: Aug 30, 2021

Reported: Aug 30, 2021

Project Analyst: Ramesh Poluri, PhD

08 - 30 - 2021

Date:

Reviewed By:

Steve Hayes, BSMT

Date:

**Karl Ford Total Environmental Concepts, Inc.** 

Patrick Henry ES

#21032408

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

## **Spore Trap Information**

Reporting Limit	The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will
Blanks	be estimated.  Results have not been corrected for field or laboratory blanks.
Background	The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic an non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium ma be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows:
	<ul> <li>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</li> <li>1: &lt;5% of field occluded. No spores will be uncountable.</li> <li>2: 5-25% of field occluded.</li> <li>3: 25-75% of field occluded.</li> <li>4: 75-90% of field occluded.</li> <li>5: &gt;90% of field occluded. Suggested recollection of sample.</li> </ul>
Fragments	Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification.
Control Comparisons	There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments.
Water Damage Indicator	Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.
Common Allergen	Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.  Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.
Slightly Higher than Baseline	Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.
Significantly Higher than Baseline	Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) i
Ratio Abnormality	the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indocenvironment than it was outdoors.
Color Coding	Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damag indicators.



Karl Ford #21032408 Patrick Henry ES **Total Environmental Concepts, Inc.** 

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

**Organism Descriptions** 

_		
Ascos	poi	res

A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report.

Health affects are poorly studied, but many are likely to be allergenic.

#### Aspergillus | Penicillium

The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on

a wide variety of substrates.

Effects: This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin

production is dependent on the species, the food source, competition with other organisms, and other environmental conditions.

#### **Basidiospores**

Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they

can cause structural damage to buildings.

Common allergens and are also associated with hypersensitivity pneumonitis. Effects:

#### Cladosporium

One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are Habitat:

lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon

and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.

A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.

#### Curvularia

Habitat: They exist in soil and plant debris, and are plant pathogens.

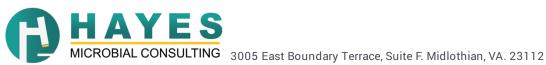
Effects: They are allergenic and a common cause of allergic fungal sinusitis. An occasional cause of human infection, including keratitis, sinusitis,

onychomycosis, mycetoma, pneumonia, endocarditis and desseminated infection, primarily in the immunocompromised.

#### Myxomycetes

Habitat: Found on decaying plant material and as a plant pathogen.

Effects: Some allergenic properties reported, but generally pose no health concerns to humans.



**Karl Ford** Patrick Henry ES **Total Environmental Concepts, Inc.** 

8382 Terminal Road Suite B Lorton, VA 22079 (571) 289-2173

**Organism Descriptions** 

#21032408

Found in soil and occasionally on plants. Some species can break down plastics. Habitat: Pestalotiopsis

> No known health effects. Allergenic properties are poorly studied. Effects:



	Total Environmental Concepts, Inc.			Placement Tech Placement Date Address	Channins 8/26/7021 Patrick He	Sample Type  Email	Mold teci pro
$\sim$	Sample #	Location/ room	Flow Rate	Sampling Time	Pump Start Time	Pump End Time	Comments
4	PH4315650	PH 322	10Llm	7.5m	1705	1713	
	PH-4312568	PH hall 320	1		1703	1710	
		PH hall 302			1648	1655	
	PH 4315605	DIL CL		-	1651	1659	
		PH Stairs 2 PH 233			1717	1725	
	1				1719	1727	+
	PH 4315661	111111111111111111111111111111111111111			1735	1742	
1	PH 4315667	PH Media roomzoo			1133		
	PH 4315655	PH Stairs 200			1746	1753	
	PH 4315652	PH 129			1704	141	
	PH 4315660	PH hall 120			1714	172)	
1	PH 431564S	PH 111			1724	1732	
	PH4315656	PH main office			1757	1805	
	PH4315659	PH hall kitchen			1762	1810	
1	P174315663				1,808,1	1816	
1		PH Reccenter			1832	1839	
	P1+4315662				1737	1744	
1	DI- 4315647	PHOUTDOOY			1819	1826	
1	417 93 3697	1110010081			1011	(000	
ł							
					SHIP: FED	EX - BOX 50	MOLD
					DATE: 08-30-2021 8169 3667 2013		
	(a)84	<i>2</i>					21032408
				ý.		1	

CH 8/33/21

Appendix B: Radon Analytical Results

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Sent	tembe	r I	2021
ocp.	tcmbc.	ι,	2021

#### \*\* LABORATORY ANALYSIS REPORT \*\*

Pg 1 of 4

#### Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723732 Result: < 0.3 pCi/l

Location: 207 Room

Ph Es

Kit #: 9723739 Result:  $0.9 \pm 0.3$  pCi/l

Location: 322 200M

Ph Es

Kit #: 9723741 Result: < 0.3 pCi/l

Location: Cafe - 2

Ph Es

Kit #: 9723742 Result:  $0.7 \pm 0.3$  pCi/l

Location: 129 ROOM

Ph Es

Kit #: 9723747 Result:  $0.7 \pm 0.3$  pCi/l

Location: Hall 320

Ph Es

Kit #: 9723748 Result: < 0.3 pCi/l

Location: Cafe-1

Ph Es

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 8.8% 70°F

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 10.3% 70°F

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm

Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 10.9% 70°F

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 4:00 pm

Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 95 hours 10.7% 70°F

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm

Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 10.9% 70°F

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm

Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 10.9% 70°F

September 1, 2021

Ph Es

Ph Es

Ph Es B

Ph Es

Ph Es

#### \*\* LABORATORY ANALYSIS REPORT \*\*

Pg 2 of 4

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723749 Result: < 0.3 pCi/l Analysis Note :

Location: Stairs 2.00 Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm

Ph Es Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 8.2% 70°F

Kit #: 9723750 Result:  $0.5 \pm 0.3$  pCi/l Analysis Note:

Location: Maih Office Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 4:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 95 hours 8.2% 70°F

Kit #: 9723864 Result:  $0.7 \pm 0.3$  pCi/l Analysis Note:

Location: 5 tair 5 2 Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 7.4% 70°F

Kit #: 9723865 Result: < 0.3 pCi/l Analysis Note:

Location: Cafe - B Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 5.3% 70°F

Kit #: 9723870 Result:  $0.5 \pm 0.3$  pCi/l Analysis Note :

Location: Media Room 200-1 Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 9.5% 70°F

Kit #: 9723871 Result:  $0.8 \pm 0.3$  pCi/l Analysis Note:

Location: 2-33 Room Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 10.3% 70°F

September 1, 2021

Ph Es

Ph Es

Ph Es

#### \*\* LABORATORY ANALYSIS REPORT \*\*

Pg 3 of 4

Attention: P8184	LEILA DEAN	/ TOTAL ENV	VIRONMENTAL	CONCEPTS
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Kit #: 9723872 Result:  $0.7 \pm 0.3$  pCi/l Analysis Note:

Location: Media 1200m 200-2 Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm

Ph Es Ended: 2021-08-30 at 3:00 pm Hours/MST%: 94 hours 9.7% 70°F

Kit #: 9723873 Result: < 0.3 pCi/l Analysis Note:

Location: Rec center Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm

Ph Es Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 9.5% 70°F

Kit #: 9723878 Result: < 0.3 pCi/l Analysis Note:

Location: 12ec center - 2 Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 9.6% 70°F

Kit #: 9723879 Result: < 0.3 pCi/l Analysis Note :

Location: cafe - \( \) Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm

Ph Es D Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 10.9% 70°F

Kit #: 9723880 Result:  $0.7 \pm 0.3$  pCi/l Analysis Note:

Location: Hall 120 Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 4:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 95 hours 9.5% 70°F

Kit #: 9723885 Result:  $0.8 \pm 0.3$  pCi/l Analysis Note:

Location: 11 Room Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 4:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 95 hours 9.7% 70°F

September 1, 2021

#### \*\* LABORATORY ANALYSIS REPORT \*\*

Pg 4 of 4

#### Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723886

Result: < 0.3 pCi/l

Location: Hall Kitchen

Ph Es

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 8.9% 70°F

Kit #: 9723889

Result: ????

Location: Travel BLANK

Ph

Analysis Note: NI

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-31 at 1:00 pm

Ended: 2021-08-31 at 2:00 pm

Hours/MST%: 1 hours 5.2% 70°F

Kit #: 9723891

Result:  $0.7 \pm 0.3$  pCi/l

Location: Hall 217

Ph Es

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 9.6% 70°F

Kit #: 9723897 Result:  $0.8 \pm 0.3$  pCi/l

Location: Hall 302

Ph Es

Analysis Note:

Analyzed: 2021-09-01 at 11:00 am

Started: 2021-08-26 at 5:00 pm

Ended: 2021-08-30 at 3:00 pm

Hours/MST%: 94 hours 8.7% 70°F

Air Chek 1936 Butler Bridge Rd, Mills River, NC 28759-3892 Phone: (828) 684-0893 Fax: (828) 684-8498

Appendix C: VOCs (TO+15) Analytical Results



#### **Certificate of Analysis**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091704

September 27, 2021

Karl Ford
Total Environmental Concepts - Lorton
8382 Terminal Road, Suite B
Lorton, VA 22079

Reference: PSS Project No: 21091704

Project Name: ACPS IAQ Testing

Project Location: Patrick Henry K-8 School

Project ID.: 4920002



#### Dear Karl Ford:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21091704**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on October 22, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal

Laboratory Manager





### **Explanation of Qualifiers**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091704

#### **Project ID: 4920002**

The following samples were received under chain of custody by Phase Separation Science (PSS) on 09/17/2021 at 10:30 am

PSS Sample ID	Sample ID	Matrix	Date/Time Collected	
21091704-001	PH- Main Office	AIR	09/15/21 19:29	
21091704-002	PH- Hall Kitchen	AIR	09/15/21 19:33	
21091704-003	PH- 111	AIR	09/15/21 19:37	
21091704-004	PH- Hall 120	AIR	09/15/21 19:40	
21091704-005	PH- 129	AIR	09/15/21 19:44	
21091704-006	PH- Cafe	AIR	09/15/21 19:29	
21091704-007	PH- Rec Center	AIR	09/15/21 19:44	
21091704-008	PH- Stairs 200	AIR	09/15/21 19:30	
21091704-009	PH- Media Center	AIR	09/15/21 19:33	
21091704-010	PH- 207	AIR	09/15/21 19:39	
21091704-011	PH- Hall 217	AIR	09/15/21 19:43	
21091704-012	PH- 233	AIR	09/15/21 19:46	
21091704-013	PH- Stairs 2- 300	AIR	09/15/21 19:33	
21091704-014	PH- 322	AIR	09/15/21 19:39	
21091704-015	PH- 302 Hall	AIR	09/15/21 19:35	

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

#### Notes:

- 1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
- 2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
- 3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
- 4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
- 5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
- 6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
- 7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
- 8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.



### **Explanation of Qualifiers**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

DCHENCE

Project Name: ACPS IAQ Testing

PSS Project No.: 21091704

#### Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

#### **Certifications:**

NELAP Certifications: PA 68-03330, VA 460156

State Certifications: MD 179, WV 303 Regulated Soil Permit: P330-12-00268 NSWC USCG Accepted Laboratory LDBE MWAA LD1997-0041-2015





1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com VELAP ID 460040

21 September 2021

Amber Confer
Phase Separation Science, Inc.
6630 Baltimore National Pike, Route 40 West
Baltimore, MD 21228

RE: 4920002

Enclosed are the results of analyses for samples received by the laboratory on 09/20/21 12:00.

Maryland Spectral Services, Inc. is a TNI 2009 Standard accredited laboratory and as such, all analyses performed at Maryland Spectral Services included in this report are 2009 TNI certified except as indicated at the end of this report. Please visit our website at www.mdspectral.com for a complete listing of our TNI 2009 Standard accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rabecka Koons

Quality Assurance Officer

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## **Analytical Results**

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1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

Project: 4920002

Project Number: [none]

Project Manager: Amber Confer

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PH-MAIN OFFICE	21091704-001	1092004-01	Vapor	09/15/21 19:29	09/20/21 12:00
PH-HALL KITCHEN	21091704-002	1092004-02	Vapor	09/15/21 19:33	09/20/21 12:00
PH-111	21091704-003	1092004-03	Vapor	09/15/21 19:37	09/20/21 12:00
PH-HALL 120	21091704-004	1092004-04	Vapor	09/15/21 19:40	09/20/21 12:00
PH-129	21091704-005	1092004-05	Vapor	09/15/21 19:44	09/20/21 12:00
PH-REC CENTER	21091704-007	1092004-07	Vapor	09/15/21 19:44	09/20/21 12:00
PH-STAIRS 200	21091704-008	1092004-08	Vapor	09/15/21 19:30	09/20/21 12:00
PH-MEDIA CENTER	21091704-009	1092004-09	Vapor	09/15/21 19:33	09/20/21 12:00
PH-207	21091704-010	1092004-10	Vapor	09/15/21 19:39	09/20/21 12:00
PH-HALL 217	21091704-011	1092004-11	Vapor	09/15/21 19:43	09/20/21 12:00
PH-233	21091704-012	1092004-12	Vapor	09/15/21 19:46	09/20/21 12:00
PH-STAIRS 2-300	21091704-013	1092004-13	Vapor	09/15/21 19:33	09/20/21 12:00
PH-322	21091704-014	1092004-14	Vapor	09/15/21 19:39	09/20/21 12:00
PH-302 HALL	21091704-015	1092004-15	Vapor	09/15/21 19:35	09/20/21 12:00

#### **Narrative**

Results for the following sample(s) are not included in this data package:

MSS ID CLIENT ID Matrix

1092004-06 PH-CAFE (21091704-06) Vapor

The sample listed above was received with no sample collection. Upon inspection the canister was in working order. The flow controller was inspected and found to be within acceptable limits for sample collection. This may indicate an issue with the field sample collection procedure.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-MAIN OFFICE 21091704-001 1092004-01 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (GO</b>	C/MS) P	repared by	y TO-15 P	rep					
Acetone	33.5		ug/m³	2.40	2.40	1	09/20/21	09/20/21 18:13	WB
Benzene	0.29	J	ug/m³	0.64	0.16	1	09/20/21	09/20/21 18:13	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/20/21	09/20/21 18:13	WB
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 18:13	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/20/21	09/20/21 18:13	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/20/21	09/20/21 18:13	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/20/21	09/20/21 18:13	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/20/21	09/20/21 18:13	WB
Carbon tetrachloride	0.44	J	ug/m³	1.30	0.33	1	09/20/21	09/20/21 18:13	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/20/21	09/20/21 18:13	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 18:13	WB
Chloroform	ND		ug/m³	0.97	0.24	1	09/20/21	09/20/21 18:13	WB
Chloromethane	1.12		ug/m³	0.41	0.10	1	09/20/21	09/20/21 18:13	WB
3-Chloropropene	ND		$ug/m^3$	0.63	0.16	1	09/20/21	09/20/21 18:13	WB
Cyclohexane	0.31	J	ug/m³	0.69	0.17	1	09/20/21	09/20/21 18:13	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 18:13	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 18:13	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 18:13	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 18:13	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 18:13	WB
Dichlorodifluoromethane	2.37		ug/m³	0.99	0.99	1	09/20/21	09/20/21 18:13	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 18:13	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 18:13	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 18:13	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 18:13	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 18:13	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 18:13	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 18:13	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 18:13	WB
1,4-Dioxane	0.25	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 18:13	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/20/21	09/20/21 18:13	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 18:13	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 18:13	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 18:13	WB

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Rabecka Koons, Quality Assurance Officer

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report



Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-MAIN OFFICE 21091704-001 1092004-01 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (G									
Freon 114	ND	срагси в	ug/m³	1.40	1.40	1	09/20/21	09/20/21 18:13	WB
n-Heptane	0.53	J	ug/m³	0.82	0.21	1	09/20/21	09/20/21 18:13	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/20/21	09/20/21 18:13	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/20/21	09/20/21 18:13	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/20/21	09/20/21 18:13	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/20/21	09/20/21 18:13	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/20/21	09/20/21 18:13	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/20/21	09/20/21 18:13	WB
Methyl ethyl ketone (2-Butanone)	1.33		ug/m³	0.59	0.34	1	09/20/21	09/20/21 18:13	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/20/21	09/20/21 18:13	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/20/21	09/20/21 18:13	WB
Propene	ND		ug/m³	0.34	0.34	1	09/20/21	09/20/21 18:13	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/20/21	09/20/21 18:13	WB
Styrene	0.17	J	ug/m³	0.85	0.15	1	09/20/21	09/20/21 18:13	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 18:13	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/20/21	09/20/21 18:13	WB
Tetrahydrofuran	0.38	J	ug/m³	0.59	0.15	1	09/20/21	09/20/21 18:13	WB
Toluene	2.64		$ug/m^3$	0.75	0.35	1	09/20/21	09/20/21 18:13	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/20/21	09/20/21 18:13	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 18:13	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 18:13	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 18:13	WB
Trichlorofluoromethane (Freon 11)	1.35		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 18:13	WB
1,2,4-Trimethylbenzene	0.25	J	$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 18:13	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 18:13	WB
2,2,4-Trimethylpentane	0.23	J	$ug/m^3$	0.93	0.23	1	09/20/21	09/20/21 18:13	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/20/21	09/20/21 18:13	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 18:13	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/20/21	09/20/21 18:13	WB
o-Xylene	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 18:13	WB
m- & p-Xylenes	0.52	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 18:13	WB
Surrogate: 4-Bromofluorobenzene		7.	3-115	100 %	09/20/21		09/20/21 18:13		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

Project Number: [none]
Project Manager: Amber Confer

### PH-HALL KITCHEN 21091704-002 1092004-02 (Vapor) Sample Date: 09/15/21

				Sample Date: 0	7/13/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-	15 (GC/MS) P	repared b	y TO-15 P	rep					
Acetone	29.7		$ug/m^3$	2.40	2.40	1	09/20/21	09/20/21 18:47	WB
Benzene	0.22	J	ug/m³	0.64	0.16	1	09/20/21	09/20/21 18:47	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/20/21	09/20/21 18:47	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 18:47	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/20/21	09/20/21 18:47	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/20/21	09/20/21 18:47	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/20/21	09/20/21 18:47	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/20/21	09/20/21 18:47	WB
Carbon tetrachloride	0.44	J	$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 18:47	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 18:47	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 18:47	WB
Chloroform	ND		ug/m³	0.97	0.24	1	09/20/21	09/20/21 18:47	WB
Chloromethane	1.03		$ug/m^3$	0.41	0.10	1	09/20/21	09/20/21 18:47	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/20/21	09/20/21 18:47	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/20/21	09/20/21 18:47	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 18:47	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 18:47	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 18:47	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 18:47	WB
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 18:47	WB
Dichlorodifluoromethane	2.32		ug/m³	0.99	0.99	1	09/20/21	09/20/21 18:47	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 18:47	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 18:47	WB
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/20/21	09/20/21 18:47	WB
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/20/21	09/20/21 18:47	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 18:47	WB
1,2-Dichloropropane	ND		$ug/m^3$	0.92	0.23	1	09/20/21	09/20/21 18:47	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 18:47	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 18:47	WB
1,4-Dioxane	0.18	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 18:47	WB
Ethyl acetate	ND		$ug/m^3$	3.60	3.60	1	09/20/21	09/20/21 18:47	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 18:47	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 18:47	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 18:47	WB

akecka Korns

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-HALL KITCHEN 21091704-002 1092004-02 (Vapor)

Sample Date: 09/15/21

				Sample Date: 09	0/15/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared by	7 TO-15 I	Prep (continued)					
Freon 114	ND		$ug/m^3$	1.40	1.40	1	09/20/21	09/20/21 18:47	WB
n-Heptane	0.33	J	$ug/m^3$	0.82	0.21	1	09/20/21	09/20/21 18:47	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/20/21	09/20/21 18:47	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/20/21	09/20/21 18:47	WB
2-Hexanone	ND		$ug/m^3$	0.82	0.15	1	09/20/21	09/20/21 18:47	WB
sopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/20/21	09/20/21 18:47	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/20/21	09/20/21 18:47	WB
Methylene chloride	ND		$ug/m^3$	18.0	18.0	1	09/20/21	09/20/21 18:47	WB
Methyl ethyl ketone (2-Butanone)	1.42		$ug/m^3$	0.59	0.34	1	09/20/21	09/20/21 18:47	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/20/21	09/20/21 18:47	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/20/21	09/20/21 18:47	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/20/21	09/20/21 18:47	WB
-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/20/21	09/20/21 18:47	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/20/21	09/20/21 18:47	WB
,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 18:47	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/20/21	09/20/21 18:47	WB
Tetrahydrofuran	0.32	J	ug/m³	0.59	0.15	1	09/20/21	09/20/21 18:47	WB
Toluene	1.24		$ug/m^3$	0.75	0.35	1	09/20/21	09/20/21 18:47	WB
,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/20/21	09/20/21 18:47	WB
,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 18:47	WB
,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 18:47	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 18:47	WB
Trichlorofluoromethane (Freon 11)	1.35		ug/m³	1.10	0.28	1	09/20/21	09/20/21 18:47	WB
,2,4-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 18:47	WB
,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 18:47	WB
,2,4-Trimethylpentane	0.23	J	$ug/m^3$	0.93	0.23	1	09/20/21	09/20/21 18:47	WB
inyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/20/21	09/20/21 18:47	WB
/inyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 18:47	WB
/inyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/20/21	09/20/21 18:47	WB
-Xylene	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 18:47	WB
n- & p-Xylenes	ND		$ug/m^3$	1.70	0.43	1	09/20/21	09/20/21 18:47	WB
Surrogate: 4-Bromofluorobenzene		73	-115	100 %	09/20/21	I	09/20/21 18:47		

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Rabecka Koons, Quality Assurance Officer

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Page 6 of 34



Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-111 21091704-003 1092004-03 (Vapor) Sample Date: 09/15/21

				Sample Date: 09	9/13/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15	(GC/MS) Pi	repared b	y TO-15 F	rep					
Acetone	33.9		ug/m³	2.40	2.40	1	09/20/21	09/20/21 19:21	WB
Benzene	0.26	J	$ug/m^3$	0.64	0.16	1	09/20/21	09/20/21 19:21	WB
Benzyl chloride	ND		$ug/m^3$	1.00	0.25	1	09/20/21	09/20/21 19:21	WB
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 19:21	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/20/21	09/20/21 19:21	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/20/21	09/20/21 19:21	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/20/21	09/20/21 19:21	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/20/21	09/20/21 19:21	WB
Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/20/21	09/20/21 19:21	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/20/21	09/20/21 19:21	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 19:21	WB
Chloroform	ND		ug/m³	0.97	0.24	1	09/20/21	09/20/21 19:21	WB
Chloromethane	1.14		ug/m³	0.41	0.10	1	09/20/21	09/20/21 19:21	WB
3-Chloropropene	ND		$ug/m^3$	0.63	0.16	1	09/20/21	09/20/21 19:21	WB
Cyclohexane	0.21	J	ug/m³	0.69	0.17	1	09/20/21	09/20/21 19:21	WB
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 19:21	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 19:21	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 19:21	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 19:21	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 19:21	WB
Dichlorodifluoromethane	2.37		ug/m³	0.99	0.99	1	09/20/21	09/20/21 19:21	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 19:21	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 19:21	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 19:21	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 19:21	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 19:21	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 19:21	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 19:21	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 19:21	WB
1.4-Dioxane	0.25	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 19:21	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/20/21	09/20/21 19:21	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 19:21	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 19:21	WB
Freon 113	0.46	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 19:21	WB

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



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**Reported:** 09/21/21 15:47

PH-111 21091704-003 1092004-03 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared b	y TO-15 I	Prep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/20/21	09/20/21 19:21	WB
n-Heptane	0.45	J	ug/m³	0.82	0.21	1	09/20/21	09/20/21 19:21	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/20/21	09/20/21 19:21	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/20/21	09/20/21 19:21	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/20/21	09/20/21 19:21	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/20/21	09/20/21 19:21	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/20/21	09/20/21 19:21	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/20/21	09/20/21 19:21	WB
Methyl ethyl ketone (2-Butanone)	1.45		ug/m³	0.59	0.34	1	09/20/21	09/20/21 19:21	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/20/21	09/20/21 19:21	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/20/21	09/20/21 19:21	WB
Propene	ND		ug/m³	0.34	0.34	1	09/20/21	09/20/21 19:21	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/20/21	09/20/21 19:21	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/20/21	09/20/21 19:21	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 19:21	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/20/21	09/20/21 19:21	WB
Tetrahydrofuran	0.38	J	ug/m³	0.59	0.15	1	09/20/21	09/20/21 19:21	WB
Toluene	1.32		ug/m³	0.75	0.35	1	09/20/21	09/20/21 19:21	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/20/21	09/20/21 19:21	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 19:21	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 19:21	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 19:21	WB
Trichlorofluoromethane (Freon 11)	1.40		ug/m³	1.10	0.28	1	09/20/21	09/20/21 19:21	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 19:21	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 19:21	WB
2,2,4-Trimethylpentane	0.23	J	$ug/m^3$	0.93	0.23	1	09/20/21	09/20/21 19:21	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/20/21	09/20/21 19:21	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 19:21	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/20/21	09/20/21 19:21	WB
o-Xylene	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 19:21	WB
m- & p-Xylenes	0.43	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 19:21	WB
Surrogate: 4-Bromofluorobenzene		7.	3-115	99 %	09/20/21		09/20/21 19:21		

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**

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**Reported:** 09/21/21 15:47

PH-HALL 120 21091704-004 1092004-04 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (GO</b>	C/MS) P	repared b	y TO-15 P	Prep					
Acetone	26.7		ug/m³	2.40	2.40	1	09/20/21	09/20/21 19:55	WB
Benzene	0.22	J	ug/m³	0.64	0.16	1	09/20/21	09/20/21 19:55	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/20/21	09/20/21 19:55	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 19:55	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/20/21	09/20/21 19:55	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/20/21	09/20/21 19:55	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/20/21	09/20/21 19:55	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/20/21	09/20/21 19:55	WB
Carbon tetrachloride	0.44	J	ug/m³	1.30	0.33	1	09/20/21	09/20/21 19:55	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 19:55	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 19:55	WB
Chloroform	0.49	J	ug/m³	0.97	0.24	1	09/20/21	09/20/21 19:55	WB
Chloromethane	1.07		ug/m³	0.41	0.10	1	09/20/21	09/20/21 19:55	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/20/21	09/20/21 19:55	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/20/21	09/20/21 19:55	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 19:55	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 19:55	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 19:55	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 19:55	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 19:55	WB
Dichlorodifluoromethane	2.27		ug/m³	0.99	0.99	1	09/20/21	09/20/21 19:55	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 19:55	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 19:55	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 19:55	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 19:55	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 19:55	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 19:55	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 19:55	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 19:55	WB
1,4-Dioxane	0.22	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 19:55	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/20/21	09/20/21 19:55	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 19:55	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 19:55	WB
Freon 113	0.46	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 19:55	WB

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Rabecka Koons, Quality Assurance Officer

All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report



Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**

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**Reported:** 09/21/21 15:47

PH-HALL 120 21091704-004 1092004-04 (Vapor) Sample Date: 09/15/21

				Domontino	Detection				
Analyte	Result	Notes	Units	Reporting Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<u> </u>						Dilution	Trepared	Anaryzeu	Anaryst
Volatile Organics by EPA TO-15 (G		reparea b				1	00/20/21	00/20/21 10.55	WB
Freon 114	ND		ug/m³	1.40	1.40	1	09/20/21	09/20/21 19:55	
n-Heptane Hexachlorobutadiene	<b>0.33</b> ND	J	ug/m³ ug/m³	0.82 2.10	0.21 2.10	1	09/20/21 09/20/21	09/20/21 19:55 09/20/21 19:55	WB WB
	ND		ug/m³	14.0		1	09/20/21	09/20/21 19:55	WB
Hexane			_		14.0		09/20/21		WB
2-Hexanone	ND		ug/m³	0.82	0.15	1		09/20/21 19:55	
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/20/21	09/20/21 19:55	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/20/21	09/20/21 19:55	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/20/21	09/20/21 19:55	WB
Methyl ethyl ketone (2-Butanone)	1.33		ug/m³	0.59	0.34	1	09/20/21	09/20/21 19:55	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/20/21	09/20/21 19:55	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/20/21	09/20/21 19:55	WB
Propene	ND		ug/m³	0.34	0.34	1	09/20/21	09/20/21 19:55	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/20/21	09/20/21 19:55	WB
Styrene	0.21	J	ug/m³	0.85	0.15	1	09/20/21	09/20/21 19:55	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 19:55	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/20/21	09/20/21 19:55	WB
Tetrahydrofuran	0.59	J	ug/m³	0.59	0.15	1	09/20/21	09/20/21 19:55	WB
Toluene	2.71		ug/m³	0.75	0.35	1	09/20/21	09/20/21 19:55	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/20/21	09/20/21 19:55	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 19:55	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 19:55	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 19:55	WB
Trichlorofluoromethane (Freon 11)	1.29		ug/m³	1.10	0.28	1	09/20/21	09/20/21 19:55	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 19:55	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 19:55	WB
2,2,4-Trimethylpentane	0.23	J	$ug/m^3$	0.93	0.23	1	09/20/21	09/20/21 19:55	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/20/21	09/20/21 19:55	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 19:55	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/20/21	09/20/21 19:55	WB
o-Xylene	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 19:55	WB
m- & p-Xylenes	0.56	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 19:55	WB
Surrogate: 4-Bromofluorobenzene		7.	3-115	100 %	09/20/21		09/20/21 19:55		

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



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**Reported:** 09/21/21 15:47

PH-129 21091704-005 1092004-05 (Vapor) Sample Date: 09/15/21

				Sample Date: 0	9/15/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-1	5 (GC/MS) Pi	repared b	y TO-15 I	Prep					
Acetone	24.5		ug/m³	2.40	2.40	1	09/20/21	09/20/21 20:30	WB
Benzene	0.26	J	ug/m³	0.64	0.16	1	09/20/21	09/20/21 20:30	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/20/21	09/20/21 20:30	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 20:30	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/20/21	09/20/21 20:30	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/20/21	09/20/21 20:30	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/20/21	09/20/21 20:30	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/20/21	09/20/21 20:30	WB
Carbon tetrachloride	0.44	J	ug/m³	1.30	0.33	1	09/20/21	09/20/21 20:30	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/20/21	09/20/21 20:30	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 20:30	WB
Chloroform	0.39	J	ug/m³	0.97	0.24	1	09/20/21	09/20/21 20:30	WB
Chloromethane	1.01		ug/m³	0.41	0.10	1	09/20/21	09/20/21 20:30	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/20/21	09/20/21 20:30	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/20/21	09/20/21 20:30	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 20:30	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 20:30	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 20:30	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 20:30	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 20:30	WB
Dichlorodifluoromethane	2.23		ug/m³	0.99	0.99	1	09/20/21	09/20/21 20:30	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 20:30	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 20:30	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 20:30	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 20:30	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 20:30	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 20:30	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 20:30	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 20:30	WB
1,4-Dioxane	0.22	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 20:30	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/20/21	09/20/21 20:30	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 20:30	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 20:30	WB
Freon 113	0.46	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 20:30	WB

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**

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1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-129 21091704-005 1092004-05 (Vapor) Sample Date: 09/15/21

Reporting	Detection				
Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
rep (continued	)				
1.40	1.40	1	09/20/21	09/20/21 20:30	WB
0.82	0.21	1	09/20/21	09/20/21 20:30	WB
2.10	2.10	1	09/20/21	09/20/21 20:30	WB
14.0	14.0	1	09/20/21	09/20/21 20:30	WB
0.82	0.15	1	09/20/21	09/20/21 20:30	WB
1.10	0.40	1	09/20/21	09/20/21 20:30	WB
0.72	0.21	1	09/20/21	09/20/21 20:30	WB
18.0	18.0	1	09/20/21	09/20/21 20:30	WB
0.59	0.34	1	09/20/21	09/20/21 20:30	WB
0.82	0.82	1	09/20/21	09/20/21 20:30	WB
1.10	0.70	1	09/20/21	09/20/21 20:30	WB
0.34	0.34	1	09/20/21	09/20/21 20:30	WB
0.98	0.40	1	09/20/21	09/20/21 20:30	WB
0.85	0.15	1	09/20/21	09/20/21 20:30	WB
1.40	0.35	1	09/20/21	09/20/21 20:30	WB
1.40	0.70	1	09/20/21	09/20/21 20:30	WB
0.59	0.15	1	09/20/21	09/20/21 20:30	WB
0.75	0.35	1	09/20/21	09/20/21 20:30	WB
1.50	0.38	1	09/20/21	09/20/21 20:30	WB
1.10	0.28	1	09/20/21	09/20/21 20:30	WB
1.10	0.28	1	09/20/21	09/20/21 20:30	WB
1.10	0.28	1	09/20/21	09/20/21 20:30	WB
1.10	0.28	1	09/20/21	09/20/21 20:30	WB
0.98	0.25	1	09/20/21	09/20/21 20:30	WB
0.98	0.25	1	09/20/21	09/20/21 20:30	WB
0.93	0.23	1	09/20/21	09/20/21 20:30	WB
0.70	0.70	1	09/20/21	09/20/21 20:30	WB
0.87	0.22	1	09/20/21	09/20/21 20:30	WB
0.51	0.13	1	09/20/21	09/20/21 20:30	WB
0.87	0.22	1	09/20/21	09/20/21 20:30	WB
1.70	0.43	1	09/20/21	09/20/21 20:30	WB
	0.51 0.87	0.51     0.13       0.87     0.22       1.70     0.43	0.51     0.13     1       0.87     0.22     1       1.70     0.43     1	0.51     0.13     1     09/20/21       0.87     0.22     1     09/20/21       1.70     0.43     1     09/20/21	0.51     0.13     1     09/20/21     09/20/21 20:30       0.87     0.22     1     09/20/21     09/20/21 20:30       1.70     0.43     1     09/20/21     09/20/21 20:30

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-REC CENTER 21091704-007 1092004-07 (Vapor) Sample Date: 09/15/21

				Sample Date: 02					
<b></b>	D 1:	N	TT '	Reporting	Detection	D'1 4'	D 1		A 1 ·
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (Go</b>		repared by							
Acetone	16.6		ug/m³	2.40	2.40	1	09/20/21	09/20/21 21:04	WB
Benzene	0.22	J	ug/m³	0.64	0.16	1	09/20/21	09/20/21 21:04	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/20/21	09/20/21 21:04	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 21:04	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/20/21	09/20/21 21:04	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/20/21	09/20/21 21:04	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/20/21	09/20/21 21:04	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/20/21	09/20/21 21:04	WB
Carbon tetrachloride	0.44	J	ug/m³	1.30	0.33	1	09/20/21	09/20/21 21:04	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 21:04	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 21:04	WB
Chloroform	ND		ug/m³	0.97	0.24	1	09/20/21	09/20/21 21:04	WB
Chloromethane	1.03		ug/m³	0.41	0.10	1	09/20/21	09/20/21 21:04	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/20/21	09/20/21 21:04	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/20/21	09/20/21 21:04	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 21:04	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 21:04	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 21:04	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 21:04	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 21:04	WB
Dichlorodifluoromethane	2.23		ug/m³	0.99	0.99	1	09/20/21	09/20/21 21:04	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 21:04	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 21:04	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 21:04	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 21:04	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 21:04	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 21:04	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 21:04	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 21:04	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	09/20/21	09/20/21 21:04	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/20/21	09/20/21 21:04	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 21:04	WB
4-Ethyltoluene	0.44	J	ug/m³	0.98	0.25	1	09/20/21	09/20/21 21:04	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 21:04	WB

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**

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1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-REC CENTER 21091704-007 1092004-07 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared b	y TO-15 P	rep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/20/21	09/20/21 21:04	WB
n-Heptane	ND		$ug/m^3$	0.82	0.21	1	09/20/21	09/20/21 21:04	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/20/21	09/20/21 21:04	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/20/21	09/20/21 21:04	WB
2-Hexanone	ND		$ug/m^3$	0.82	0.15	1	09/20/21	09/20/21 21:04	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/20/21	09/20/21 21:04	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/20/21	09/20/21 21:04	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/20/21	09/20/21 21:04	WB
Methyl ethyl ketone (2-Butanone)	0.77		$ug/m^3$	0.59	0.34	1	09/20/21	09/20/21 21:04	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/20/21	09/20/21 21:04	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/20/21	09/20/21 21:04	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/20/21	09/20/21 21:04	WB
n-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/20/21	09/20/21 21:04	WB
Styrene	ND		$ug/m^3$	0.85	0.15	1	09/20/21	09/20/21 21:04	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 21:04	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/20/21	09/20/21 21:04	WB
Tetrahydrofuran	ND		$ug/m^3$	0.59	0.15	1	09/20/21	09/20/21 21:04	WB
Toluene	0.60	J	$ug/m^3$	0.75	0.35	1	09/20/21	09/20/21 21:04	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/20/21	09/20/21 21:04	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 21:04	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 21:04	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 21:04	WB
Trichlorofluoromethane (Freon 11)	1.35		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 21:04	WB
1,2,4-Trimethylbenzene	0.49	J	$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 21:04	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 21:04	WB
2,2,4-Trimethylpentane	ND		ug/m³	0.93	0.23	1	09/20/21	09/20/21 21:04	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/20/21	09/20/21 21:04	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 21:04	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/20/21	09/20/21 21:04	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 21:04	WB
m- & p-Xylenes	0.43	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 21:04	WB
Surrogate: 4-Bromofluorobenzene		7.	3-115	100 %	09/20/21		09/20/21 21:04		

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## **Analytical Results**

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**Reported:** 09/21/21 15:47

Project Number: [none]
Project Manager: Amber Confer

PH-STAIRS 200 21091704-008 1092004-08 (Vapor) Sample Date: 09/15/21

				Sample Date. 0.					
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (G</b>	C/MS) P	repared by	y TO-15 P	rep					
Acetone	42.4		ug/m³	2.40	2.40	1	09/20/21	09/20/21 21:38	WB
Benzene	0.26	J	ug/m³	0.64	0.16	1	09/20/21	09/20/21 21:38	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/20/21	09/20/21 21:38	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 21:38	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/20/21	09/20/21 21:38	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/20/21	09/20/21 21:38	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/20/21	09/20/21 21:38	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/20/21	09/20/21 21:38	WB
Carbon tetrachloride	0.44	J	$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 21:38	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 21:38	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 21:38	WB
Chloroform	0.24	J	ug/m³	0.97	0.24	1	09/20/21	09/20/21 21:38	WB
Chloromethane	1.03		ug/m³	0.41	0.10	1	09/20/21	09/20/21 21:38	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/20/21	09/20/21 21:38	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/20/21	09/20/21 21:38	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 21:38	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 21:38	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 21:38	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 21:38	WB
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 21:38	WB
Dichlorodifluoromethane	2.27		ug/m³	0.99	0.99	1	09/20/21	09/20/21 21:38	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 21:38	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 21:38	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 21:38	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 21:38	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 21:38	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 21:38	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 21:38	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 21:38	WB
1,4-Dioxane	0.25	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 21:38	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/20/21	09/20/21 21:38	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 21:38	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 21:38	WB
Freon 113	0.46	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 21:38	WB

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Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

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**Reported:** 09/21/21 15:47

PH-STAIRS 200 21091704-008 1092004-08 (Vapor) Sample Date: 09/15/21

				Sample Date: 09	0/15/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (C</b>	GC/MS) Pi	repared by	7 <b>TO-15 I</b>	Prep (continued)					
Freon 114	ND		$ug/m^3$	1.40	1.40	1	09/20/21	09/20/21 21:38	WB
n-Heptane	0.33	J	$ug/m^3$	0.82	0.21	1	09/20/21	09/20/21 21:38	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/20/21	09/20/21 21:38	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/20/21	09/20/21 21:38	WB
2-Hexanone	0.16	J	$ug/m^3$	0.82	0.15	1	09/20/21	09/20/21 21:38	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/20/21	09/20/21 21:38	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/20/21	09/20/21 21:38	WB
Methylene chloride	ND		$ug/m^3$	18.0	18.0	1	09/20/21	09/20/21 21:38	WB
Methyl ethyl ketone (2-Butanone)	1.42		$ug/m^3$	0.59	0.34	1	09/20/21	09/20/21 21:38	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/20/21	09/20/21 21:38	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/20/21	09/20/21 21:38	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/20/21	09/20/21 21:38	WB
n-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/20/21	09/20/21 21:38	WB
Styrene	0.17	J	ug/m³	0.85	0.15	1	09/20/21	09/20/21 21:38	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 21:38	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/20/21	09/20/21 21:38	WB
Tetrahydrofuran	0.41	J	ug/m³	0.59	0.15	1	09/20/21	09/20/21 21:38	WB
Toluene	1.85		$ug/m^3$	0.75	0.35	1	09/20/21	09/20/21 21:38	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/20/21	09/20/21 21:38	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 21:38	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 21:38	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 21:38	WB
Trichlorofluoromethane (Freon 11)	1.24		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 21:38	WB
1,2,4-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 21:38	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 21:38	WB
2,2,4-Trimethylpentane	0.28	J	$ug/m^3$	0.93	0.23	1	09/20/21	09/20/21 21:38	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/20/21	09/20/21 21:38	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 21:38	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/20/21	09/20/21 21:38	WB
o-Xylene	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 21:38	WB
m- & p-Xylenes	0.48	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 21:38	WB
Supported A Promofluorohouzona		7.1	115	00.9/	00/20/2	7	00/20/21 21:25		

Surrogate: 4-Bromofluorobenzene

73-115

99 %

09/20/21

09/20/21 21:38

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Project Number: [none]

Project Manager: Amber Confer

### **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-MEDIA CENTER 21091704-009 1092004-09 (Vapor)

Sample Date: 09/15/21

Reporting Detection Analyte Result Notes Units Limit (MRL) Limit (LOD) Dilution Prepared Analyzed Analyst Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep 2.40 2.40 1 09/20/21 09/20/21 22:12 WB 47.7 ug/m³ Acetone 09/20/21 09/20/21 22:12 WB 1 Benzene 0.22 J ug/m³ 0.64 0.16 1 09/20/21 09/20/21 22:12 WB Benzyl chloride ND ug/m3 1.00 0.25 Bromodichloromethane ND 1.30 0.33 09/20/21 09/20/21 22:12 WB  $ug/m^3$ 09/20/21 09/20/21 22:12 WB Bromoform ND  $ug/m^3$ 2.10 0.53 1 09/20/21 09/20/21 22:12 WB Bromomethane ND ug/m3 0.78 0.20 09/20/21 09/20/21 22:12 WB 1,3-Butadiene 1 ND ug/m3 0.44 0.44 09/20/21 22:12 WB Carbon disulfide ND  $ug/m^3$ 1.56 1.56 09/20/21 09/20/21 09/20/21 22:12 WB J Carbon tetrachloride 0.44ug/m3 1.30 0.33 ND ug/m³ 0.92 0.23 09/20/21 09/20/21 22:12 WB Chlorobenzene Chloroethane ND  $ug/m^3$ 0.53 0.27 09/20/21 09/20/21 22:12 WB 09/20/21 09/20/21 22:12 WB Chloroform ND ug/m³ 0.97 0.24 09/20/21 22:12 WB Chloromethane 1.09 ug/m3 0.41 0.10 09/20/21 09/20/21 22:12 3-Chloropropene ND ug/m³ 0.63 0.1609/20/21 WB 09/20/21 09/20/21 22:12 WB Cyclohexane ND  $ug/m^3$ 0.69 0.17 09/20/21 22:12 WB Dibromochloromethane ND ug/m³ 1.30 0.33 09/20/21 09/20/21 09/20/21 22:12 WB 1,2-Dibromoethane (EDB) ND 0.35 1 ug/m³ 1.40 09/20/21 09/20/21 22:12 WB ND 0.30 1,2-Dichlorobenzene ug/m3 1.20 ND 09/20/21 09/20/21 22:12 WB 1,3-Dichlorobenzene ug/m3 1.20 0.30 09/20/21 22:12 ND 0.30 09/20/21 WB 1.4-Dichlorobenzene ug/m3 1.20 Dichlorodifluoromethane 0.99 0.99 09/20/21 09/20/21 22:12 WB 2.27 ug/m3 09/20/21 09/20/21 22:12 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 ND 0.20 09/20/21 09/20/21 22:12 WB 1,2-Dichloroethane ug/m3 0.81 1.1-Dichloroethene ND 0.79 0.20 09/20/21 09/20/21 22:12 WB ug/m3 09/20/21 22:12 WB ND 0.79 0.20 09/20/21 cis-1,2-Dichloroethene ug/m3 trans-1,2-Dichloroethene ND ug/m3 0.79 0.20 09/20/21 09/20/21 22:12 WB 09/20/21 09/20/21 22:12 WB 1,2-Dichloropropane ND  $ug/m^3$ 0.92 0.23 cis-1,3-Dichloropropene ND ug/m3 0.91 0.23 09/20/21 09/20/21 22:12 WB 09/20/21 09/20/21 22:12 trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 WB 09/20/21 09/20/21 22:12 WB 1,4-Dioxane 0.36  $ug/m^3$ 0.72 0.18 09/20/21 22:12 Ethyl acetate ND ug/m³ 3.60 3.60 09/20/21 WB Ethylbenzene ND ug/m³ 0.87 0.22 09/20/21 09/20/21 22:12 WB 4-Ethyltoluene ND 0.98 0.25 09/20/21 09/20/21 22:12 WB ug/m³ 09/20/21 09/20/21 22:12 Freon 113 0.46 J ug/m3 1.50 0.38 WB

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



## **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

Project Number: [none]
Project Manager: Amber Confer

### PH-MEDIA CENTER 21091704-009 1092004-09 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pro	epared b	y TO-15 P	rep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/20/21	09/20/21 22:12	WB
n-Heptane	0.29	J	ug/m³	0.82	0.21	1	09/20/21	09/20/21 22:12	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/20/21	09/20/21 22:12	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/20/21	09/20/21 22:12	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	09/20/21	09/20/21 22:12	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/20/21	09/20/21 22:12	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/20/21	09/20/21 22:12	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/20/21	09/20/21 22:12	WB
Methyl ethyl ketone (2-Butanone)	1.24		ug/m³	0.59	0.34	1	09/20/21	09/20/21 22:12	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/20/21	09/20/21 22:12	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/20/21	09/20/21 22:12	WB
Propene	ND		ug/m³	0.34	0.34	1	09/20/21	09/20/21 22:12	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/20/21	09/20/21 22:12	WB
Styrene	ND		ug/m³	0.85	0.15	1	09/20/21	09/20/21 22:12	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 22:12	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/20/21	09/20/21 22:12	WB
Tetrahydrofuran	0.38	J	ug/m³	0.59	0.15	1	09/20/21	09/20/21 22:12	WB
Toluene	1.47		ug/m³	0.75	0.35	1	09/20/21	09/20/21 22:12	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/20/21	09/20/21 22:12	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 22:12	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 22:12	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 22:12	WB
Trichlorofluoromethane (Freon 11)	1.29		ug/m³	1.10	0.28	1	09/20/21	09/20/21 22:12	WB
1,2,4-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 22:12	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 22:12	WB
2,2,4-Trimethylpentane	0.28	J	ug/m³	0.93	0.23	1	09/20/21	09/20/21 22:12	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/20/21	09/20/21 22:12	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 22:12	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/20/21	09/20/21 22:12	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 22:12	WB
m- & p-Xylenes	0.43	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 22:12	WB
Surrogate: 4-Bromofluorobenzene		7.	3-115	100 %	09/20/21	1	09/20/21 22:12		

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**

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1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-207 21091704-010 1092004-10 (Vapor) Sample Date: 09/15/21

Benze         0.26         J         ug/m²         0.64         0.16         I         09/20/21         20/20/21 (22/246         WB           Benzyl chloride         ND         ug/m²         1.00         0.25         I         09/20/21         09/20/21 (22/46         WB           Bromodichomethane         ND         ug/m²         1.30         0.33         I         09/20/21         09/20/21 (22/46         WB           Bromomethane         ND         ug/m²         0.78         0.20         I         09/20/21         09/20/21 (22/46         WB           Bromomethane         ND         ug/m²         0.78         0.20         I         09/20/21         09/20/21 (22/46         WB           Carbon distulfide         ND         ug/m²         1.56         1.56         1.5         09/20/21         09/20/21 (22/46         WB           Chlorotherach         ND         ug/m²         0.53         0.27         1         09/20/21         09/20/21 (22/46         WB           Chlorotherace         ND         ug/m²         0.63         0.17         1         09/20/21         09/20/21 (22/46         WB           Chlorotherace         ND         ug/m²         0.41         0.10         0					Reporting	Detection				
Nectone   15.2   September   15.2   September   15.4   September   1	Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Bernzer	Volatile Organics by EPA TO-1	15 (GC/MS) Pre	pared by	7 TO-15 P	rep					
Benzyl chloride	Acetone	45.2		ug/m³	2.40	2.40	1	09/20/21	09/20/21 22:46	WB
Bromodichloromethane	Benzene	0.26	J	ug/m³	0.64	0.16	1	09/20/21	09/20/21 22:46	WB
Bromoform   ND	Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/20/21	09/20/21 22:46	WB
Bromomethane   ND	Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 22:46	WB
1,3-Butadiene   ND	Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/20/21	09/20/21 22:46	WB
Carbon disulfide         ND         ug/m²         1.56         1.56         1         09/20/21         09/20/21 (22/46)         WB           Carbon tetrachloride         0.50         J         ug/m²         1.30         0.33         1         09/20/21         09/20/21 (22/46)         WB           Chlorobenzene         ND         ug/m²         0.92         0.23         1         09/20/21         09/20/21 (22/46)         WB           Chloroform         0.44         J         ug/m²         0.97         0.24         1         09/20/21         09/20/21 (22/46)         WB           Chloroform         0.41         J         ug/m²         0.63         0.16         1         09/20/21         09/20/21 (22/46)         WB           Chloropopene         ND         ug/m²         0.63         0.16         1         09/20/21         09/20/21 (22/46)         WB           Cyclohexane         ND         ug/m²         0.69         0.17         1         09/20/21         09/20/21 (22/46)         WB           Dibromochlaroethane         ND         ug/m²         1.40         0.35         1         09/20/21         09/20/21 (22/46)         WB           1,2-Dichlorobenzene         ND         ug/m² <td>Bromomethane</td> <td>ND</td> <td></td> <td>ug/m³</td> <td>0.78</td> <td>0.20</td> <td>1</td> <td>09/20/21</td> <td>09/20/21 22:46</td> <td>WB</td>	Bromomethane	ND		ug/m³	0.78	0.20	1	09/20/21	09/20/21 22:46	WB
Carbon tetrachloride         0.50         J         ug/m²         1.30         0.33         1         092021         092021 22:46         WB           Chlorobenzene         ND         ug/m²         0.92         0.23         1         092021         092021 22:46         WB           Chlorotenae         ND         ug/m²         0.53         0.27         1         092021         092021 22:46         WB           Chloroform         0.44         J         ug/m²         0.41         0.10         1         092021         092021 22:46         WB           Chloropropene         ND         ug/m²         0.63         0.16         1         092021         092021 22:46         WB           Cyclobexane         ND         ug/m²         0.69         0.17         1         092021         092021 22:46         WB           Dibromochloromethane         ND         ug/m²         1.40         0.33         1         092021         092021 22:46         WB           1,2-Dibromochlaromethane         ND         ug/m²         1.20         0.30         1         092021         092021 22:46         WB           1,3-Dichlorobenzene         ND         ug/m²         1.20         0.30 <td< td=""><td>1,3-Butadiene</td><td>ND</td><td></td><td>ug/m³</td><td>0.44</td><td>0.44</td><td>1</td><td>09/20/21</td><td>09/20/21 22:46</td><td>WB</td></td<>	1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/20/21	09/20/21 22:46	WB
Chlorobenzene ND ug/m³ 0.92 0.23 1 0920/21 0920/21 2246 WB Chlorothane ND ug/m³ 0.53 0.27 1 0920/21 0920/21 2246 WB Chlorothane ND ug/m³ 0.53 0.27 1 0920/21 0920/21 2246 WB Chlorothane 1.12 ug/m³ 0.97 0.24 1 0920/21 0920/21 2246 WB Chloromethane 1.12 ug/m³ 0.41 0.10 1 0920/21 0920/21 2246 WB Chloromethane ND ug/m³ 0.63 0.16 1 0920/21 0920/21 2246 WB Cyclohexane ND ug/m³ 0.69 0.17 1 0920/21 0920/21 2246 WB Cyclohexane ND ug/m³ 1.30 0.33 1 0920/21 0920/21 2246 WB Cyclohexane ND ug/m³ 1.40 0.35 1 0920/21 0920/21 2246 WB L3-Dichlorothane (EDB) ND ug/m³ 1.40 0.35 1 0920/21 0920/21 2246 WB L3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 0920/21 0920/21 2246 WB L3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 0920/21 0920/21 2246 WB L3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 0920/21 0920/21 2246 WB L3-Dichlorobenzene ND ug/m³ 1.20 0.30 1 0920/21 0920/21 2246 WB L3-Dichlorobenzene ND ug/m³ 0.99 0.99 1 0920/21 0920/21 2246 WB L3-Dichlorobenzene ND ug/m³ 0.81 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothane ND ug/m³ 0.81 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothane ND ug/m³ 0.81 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothane ND ug/m³ 0.81 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothane ND ug/m³ 0.81 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothane ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.79 0.20 1 0920/21 0920/21 2246 WB L3-Dichlorothene ND ug/m³ 0.91 0.23 1 0920/21 0920/21 2246 WB L3-Dichlorothene	Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/20/21	09/20/21 22:46	WB
Chloroethane ND ug/m² 0.53 0.27 1 09/20/21 09/20/21 22:46 WB Chloroform 0.44 J ug/m² 0.97 0.24 1 09/20/21 09/20/21 22:46 WB Chloromethane 1.12 ug/m² 0.41 0.10 1 09/20/21 09/20/21 22:46 WB 3-Chloropropene ND ug/m² 0.63 0.16 1 09/20/21 09/20/21 22:46 WB Cyclohexane ND ug/m² 0.69 0.17 1 09/20/21 09/20/21 22:46 WB 1.2-Dibromochloromethane ND ug/m² 1.30 0.33 1 09/20/21 09/20/21 22:46 WB 1.2-Dibromochloromethane (EDB) ND ug/m² 1.40 0.35 1 09/20/21 09/20/21 22:46 WB 1.2-Dibromochloromethane (EDB) ND ug/m² 1.20 0.30 1 09/20/21 09/20/21 22:46 WB 1.3-Dichlorobenzene ND ug/m² 1.20 0.30 1 09/20/21 09/20/21 22:46 WB 1.3-Dichlorofiluoromethane (EDB) ND ug/m² 1.20 0.30 1 09/20/21 09/20/21 22:46 WB 1.3-Dichlorofiluoromethane ND ug/m² 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1.3-Dichlorofiluoromethane ND ug/m² 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1.2-Dichlorofiluoromethane ND ug/m² 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1.2-Dichloroethane ND ug/m² 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1.2-Dichloroethane ND ug/m² 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1.1-Dichloroethene ND ug/m² 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1.1-Dichloroethene ND ug/m² 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1.1-Dichloroethene ND ug/m² 0.89 0.99 0.99 1 09/20/21 09/20/21 22:46 WB 1.1-Dichloroethene ND ug/m² 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1.1-Dichloroethene ND ug/m² 0.89 0.20 1 09/20/21 09/20/21 22:46 WB 1.1-Dichloroethene ND ug/m² 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1.1-Dichloroethene ND ug/m² 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1.3-Dichloropropane ND ug/m² 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1.3-Dichloropropane ND ug/m² 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1.3-Dichloropropane ND ug/m² 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1.3-Dichloropropane ND ug/m² 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1.3-Dichloropropane ND ug/m² 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1.3-Dichloropropane ND ug/m² 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1.3-Dichloropropane ND ug/m² 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1.3-Dichloropropane ND ug/m² 0.91 0.92 0.23 1	Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/20/21	09/20/21 22:46	WB
Chloroform         0.44         J         ug/m²         0.97         0.24         1         09/20/21         09/20/21         22:46         WB           Chloromethane         1.12         ug/m³         0.41         0.10         1         09/20/21         09/20/21         22:46         WB           3-Chloropropene         ND         ug/m³         0.63         0.16         1         09/20/21         09/20/21         22:46         WB           Cyclohexane         ND         ug/m³         0.69         0.17         1         09/20/21         09/20/21         22:46         WB           Dibromochloromethane         ND         ug/m³         1.30         0.33         1         09/20/21         09/20/21         22:46         WB           1,2-Dichlorobenzene         ND         ug/m³         1.40         0.35         1         09/20/21         09/20/21         22:46         WB           1,3-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/20/21         09/20/21         22:46         WB           Dichlorodifluoromethane         ND         ug/m³         0.99         0.99         1         09/20/21         09/20/21         22:46         WB <td>Chlorobenzene</td> <td>ND</td> <td></td> <td><math>ug/m^3</math></td> <td>0.92</td> <td>0.23</td> <td>1</td> <td>09/20/21</td> <td>09/20/21 22:46</td> <td>WB</td>	Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/20/21	09/20/21 22:46	WB
Chloromethane         1,12         ug/m²         0,41         0,10         1         09/20/21         09/20/21         02/246         WB           3-Chloropropene         ND         ug/m²         0,63         0,16         1         09/20/21         09/20/21         22.46         WB           Cyclohexane         ND         ug/m²         0,69         0,17         1         09/20/21         09/20/21         22.46         WB           Dibromochloromethane         ND         ug/m²         1,30         0,33         1         09/20/21         09/20/21         22.46         WB           1,2-Dibromochloromethane (EDB)         ND         ug/m²         1,40         0,35         1         09/20/21         09/20/21         22.46         WB           1,2-Dichlorobenzene         ND         ug/m²         1,20         0,30         1         09/20/21         09/20/21         22.46         WB           1,4-Dichlorobenzene         ND         ug/m²         1,20         0,30         1         09/20/21         09/20/21         22.46         WB           1,4-Dichlorobenzene         ND         ug/m²         0,99         0,99         1         09/20/21         09/20/21         22.46         WB	Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 22:46	WB
Section   Sect	Chloroform	0.44	J	ug/m³	0.97	0.24	1	09/20/21	09/20/21 22:46	WB
Cyclohexane         ND         ug/m³         0.69         0.17         1         09/20/21         09/20/21         2246         WB           Dibromochloromethane         ND         ug/m³         1.30         0.33         1         09/20/21         09/20/21         2246         WB           1,2-Dibromoethane (EDB)         ND         ug/m³         1.40         0.35         1         09/20/21         09/20/21         2246         WB           1,2-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/20/21         09/20/21         2246         WB           1,3-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/20/21         09/20/21         2246         WB           1,4-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/20/21         09/20/21         2246         WB           1,4-Dichlorobenzene         ND         ug/m³         0.99         0.99         1         09/20/21         09/20/21         2246         WB           1,1-Dichlorothane         ND         ug/m³         0.81         0.20         1         09/20/21         09/20/21         2246         WB	Chloromethane	1.12		ug/m³	0.41	0.10	1	09/20/21	09/20/21 22:46	WB
Dibromochloromethane   ND   ug/m³   1,30   0,33   1   09/20/21   09/20/21   22:46   WB   1,2-Dibromocthane (EDB)   ND   ug/m³   1,40   0,35   1   09/20/21   09/20/21   22:46   WB   1,2-Dichlorobenzene   ND   ug/m³   1,20   0,30   1   09/20/21   09/20/21   22:46   WB   1,3-Dichlorobenzene   ND   ug/m³   1,20   0,30   1   09/20/21   09/20/21   22:46   WB   1,4-Dichlorobenzene   ND   ug/m³   1,20   0,30   1   09/20/21   09/20/21   22:46   WB   1,4-Dichlorobenzene   ND   ug/m³   0,99   0,99   1   09/20/21   09/20/21   22:46   WB   1,1-Dichloroethane   ND   ug/m³   0,81   0,20   1   09/20/21   09/20/21   22:46   WB   1,2-Dichloroethane   ND   ug/m³   0,81   0,20   1   09/20/21   09/20/21   22:46   WB   1,1-Dichloroethane   ND   ug/m³   0,81   0,20   1   09/20/21   09/20/21   22:46   WB   1,1-Dichloroethane   ND   ug/m³   0,79   0,20   1   09/20/21   09/20/21   22:46   WB   1,1-Dichloroethane   ND   ug/m³   0,79   0,20   1   09/20/21   09/20/21   22:46   WB   1,2-Dichloroethene   ND   ug/m³   0,79   0,20   1   09/20/21   09/20/21   22:46   WB   1,2-Dichloroptopane   ND   ug/m³   0,91   0,23   1   09/20/21   09/20/21   22:46   WB   1,2-Dichloroptopane   ND   ug/m³   0,91   0,23   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,91   0,23   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,72   0,18   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,72   0,18   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,72   0,18   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,72   0,18   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,72   0,18   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,72   0,18   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,36   0,36   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   J ug/m³   0,36   0,36   1   09/20/21   09/20/21   22:46   WB   1,4-Dioxane   0,36   0,36   0,36   0,36   1   09/20/21   09	3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/20/21	09/20/21 22:46	WB
1,2-Dibromoethane (EDB)       ND       ug/m³       1,40       0.35       1       09/20/21       09/20/21       22:46       WB         1,2-Dichlorobenzene       ND       ug/m³       1.20       0.30       1       09/20/21       09/20/21       22:46       WB         1,3-Dichlorobenzene       ND       ug/m³       1.20       0.30       1       09/20/21       09/20/21       22:46       WB         1,4-Dichlorobenzene       ND       ug/m³       1.20       0.30       1       09/20/21       09/20/21       22:46       WB         Dichlorodifluoromethane       2.23       ug/m³       0.99       0.99       1       09/20/21       09/20/21       22:46       WB         1,1-Dichloroethane       ND       ug/m³       0.81       0.20       1       09/20/21       09/20/21       22:46       WB         1,2-Dichloroethane       ND       ug/m³       0.81       0.20       1       09/20/21       09/20/21       22:46       WB         1,1-Dichloroethane       ND       ug/m³       0.79       0.20       1       09/20/21       09/20/21       22:46       WB         cis-1,2-Dichloroethane       ND       ug/m³       0.79       0.20	Cyclohexane	ND		ug/m³	0.69	0.17	1	09/20/21	09/20/21 22:46	WB
1,2-Dichlorobenzene         ND         ug/m³         1,20         0.30         1         09/20/21         09/20/21 22:46         WB           1,3-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/20/21         09/20/21 22:46         WB           1,4-Dichlorobenzene         ND         ug/m³         1.20         0.30         1         09/20/21         09/20/21 22:46         WB           Dichlorodifluoromethane         2.23         ug/m³         0.99         0.99         1         09/20/21         09/20/21 22:46         WB           1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/20/21         09/20/21 22:46         WB           1,2-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/20/21         09/20/21 22:46         WB           1,1-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21 22:46         WB           trans-1,2-Dichloroethene         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21 22:46         WB           trans-1,2-Dichloropropane         ND         ug/m³         0.99	Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 22:46	WB
1,3-Dichlorobenzene         ND         ug/m³         1,20         0,30         1         09/20/21         09/20/21 22:46         WB           1,4-Dichlorobenzene         ND         ug/m³         1,20         0,30         1         09/20/21         09/20/21 22:46         WB           Dichlorodifluoromethane         2,23         ug/m³         0,99         0,99         1         09/20/21         09/20/21         22:46         WB           1,1-Dichloroethane         ND         ug/m³         0,81         0,20         1         09/20/21         09/20/21         22:46         WB           1,1-Dichloroethane         ND         ug/m³         0,81         0,20         1         09/20/21         09/20/21 22:46         WB           1,1-Dichloroethene         ND         ug/m³         0,79         0,20         1         09/20/21         09/20/21 22:46         WB           cis-1,2-Dichloroethene         ND         ug/m³         0,79         0,20         1         09/20/21         09/20/21 22:46         WB           trans-1,2-Dichloroptopene         ND         ug/m³         0,79         0,20         1         09/20/21         09/20/21 22:46         WB           cis-1,3-Dichloropropene         ND	1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 22:46	WB
1,4-Dichlorobenzene ND ug/m³ 1.20 0.30 1 09/20/21 09/20/21 22:46 WB Dichlorodifluoromethane 2.23 ug/m³ 0.99 0.99 1 09/20/21 09/20/21 22:46 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1,2-Dichloroethane ND ug/m³ 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1,1-Dichloroethane ND ug/m³ 0.81 0.20 1 09/20/21 09/20/21 22:46 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1,2-Dichloropropane ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB cis-1,3-Dichloropropane ND ug/m³ 0.92 0.23 1 09/20/21 09/20/21 22:46 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB	1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 22:46	WB
Dichlorodifluoromethane         2.23         ug/m³         0.99         0.99         1         09/20/21         09/20/21         02:46         WB           1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/20/21         09/20/21         22:46         WB           1,2-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/20/21         09/20/21         22:46         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21         22:46         WB           cis-1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21         22:46         WB           trans-1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21         22:46         WB           1,2-Dichloroptoethane         ND         ug/m³         0.92         0.23         1         09/20/21         09/20/21         22:46         WB           cis-1,3-Dichloroptopane         ND         ug/m³         0.91         0.23         1         09/20/21         09/20/21         22:46	1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 22:46	WB
1,1-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/20/21         09/20/21         22:46         WB           1,2-Dichloroethane         ND         ug/m³         0.81         0.20         1         09/20/21         09/20/21 22:46         WB           1,1-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21 22:46         WB           cis-1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21 22:46         WB           trans-1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21 22:46         WB           trans-1,2-Dichloroethane         ND         ug/m³         0.79         0.20         1         09/20/21         09/20/21 22:46         WB           1,2-Dichloropropane         ND         ug/m³         0.92         0.23         1         09/20/21         09/20/21 22:46         WB           cis-1,3-Dichloropropene         ND         ug/m³         0.91         0.23         1         09/20/21         09/20/21 22:46         WB           1,4-Dioxane         0.36         Jug/m³         <	1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 22:46	WB
1,2-Dichloroethane ND ug/m³ 0.81 0.20 1 09/20/21 22:46 WB 1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 22:46 WB cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1,2-Dichloroptopane ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1,2-Dichloroptopane ND ug/m³ 0.92 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloroptopene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1,4-Dioxane 0.36 J ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1,4-Dioxane ND ug/m³ 0.72 0.18 1 09/20/21 09/20/21 22:46 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/20/21 09/20/21 22:46 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/20/21 09/20/21 22:46 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/20/21 09/20/21 22:46 WB	Dichlorodifluoromethane	2.23		ug/m³	0.99	0.99	1	09/20/21	09/20/21 22:46	WB
1,1-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 22:46 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/20/21 09/20/21 22:46 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1,4-Dioxane 0.36 J ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/20/21 09/20/21 22:46 WB Ethylbenzene ND ug/m³ 0.87 0.22 1 09/20/21 09/20/21 22:46 WB 09/20/21 22:46 WB 09/20/21 09/20/21 22:46 WB	1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 22:46	WB
cis-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 22:46 WB trans-1,2-Dichloroethene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1,2-Dichloropropane ND ug/m³ 0.92 0.23 1 09/20/21 09/20/21 22:46 WB cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1,4-Dioxane 0.36 J ug/m³ 0.72 0.18 1 09/20/21 09/20/21 22:46 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/20/21 09/20/21 22:46 WB Ethyl benzene ND ug/m³ 0.87 0.22 1 09/20/21 09/20/21 22:46 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/20/21 09/20/21 22:46 WB	1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 22:46	WB
trans-1,2-Dichloroptopene ND ug/m³ 0.79 0.20 1 09/20/21 09/20/21 22:46 WB 1,2-Dichloroptopene ND ug/m³ 0.92 0.23 1 09/20/21 09/20/21 22:46 WB cis-1,3-Dichloroptopene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloroptopene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1,4-Dioxane 0.36 J ug/m³ 0.72 0.18 1 09/20/21 09/20/21 22:46 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/20/21 09/20/21 22:46 WB Ethylbenzene ND ug/m³ 0.87 0.22 1 09/20/21 09/20/21 22:46 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/20/21 09/20/21 22:46 WB	1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 22:46	WB
1,2-Dichloropropane         ND         ug/m³         0.92         0.23         1         09/20/21         09/20/21         22:46         WB           cis-1,3-Dichloropropene         ND         ug/m³         0.91         0.23         1         09/20/21         09/20/21         22:46         WB           trans-1,3-Dichloropropene         ND         ug/m³         0.91         0.23         1         09/20/21         09/20/21         22:46         WB           1,4-Dioxane         0.36         J         ug/m³         0.72         0.18         1         09/20/21         09/20/21         22:46         WB           Ethyl acetate         ND         ug/m³         3.60         3.60         1         09/20/21         09/20/21         22:46         WB           Ethylbenzene         ND         ug/m³         0.87         0.22         1         09/20/21         09/20/21         22:46         WB           4-Ethyltoluene         ND         ug/m³         0.98         0.25         1         09/20/21         09/20/21         22:46         WB	cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 22:46	WB
cis-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB 1,4-Dioxane 0.36 J ug/m³ 0.72 0.18 1 09/20/21 09/20/21 22:46 WB Ethyl acetate ND ug/m³ 3.60 3.60 1 09/20/21 09/20/21 22:46 WB Ethylbenzene ND ug/m³ 0.87 0.22 1 09/20/21 09/20/21 22:46 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/20/21 09/20/21 22:46 WB	trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 22:46	WB
trans-1,3-Dichloropropene ND ug/m³ 0.91 0.23 1 09/20/21 09/20/21 22:46 WB  1,4-Dioxane 0.36 J ug/m³ 0.72 0.18 1 09/20/21 09/20/21 22:46 WB  Ethyl acetate ND ug/m³ 3.60 3.60 1 09/20/21 09/20/21 22:46 WB  Ethylbenzene ND ug/m³ 0.87 0.22 1 09/20/21 09/20/21 22:46 WB  4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/20/21 09/20/21 22:46 WB	1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 22:46	WB
1,4-Dioxane         0.36         J ug/m³         0.72         0.18         1 09/20/21         09/20/21 22:46         WB           Ethyl acetate         ND         ug/m³         3.60         3.60         1 09/20/21         09/20/21 22:46         WB           Ethylbenzene         ND         ug/m³         0.87         0.22         1 09/20/21         09/20/21 22:46         WB           4-Ethyltoluene         ND         ug/m³         0.98         0.25         1 09/20/21         09/20/21 22:46         WB	cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 22:46	WB
Ethyl acetate ND ug/m³ 3.60 3.60 1 09/20/21 09/20/21 22:46 WB  Ethylbenzene ND ug/m³ 0.87 0.22 1 09/20/21 09/20/21 22:46 WB  4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/20/21 09/20/21 22:46 WB	trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 22:46	WB
Ethylbenzene ND ug/m³ 0.87 0.22 1 09/20/21 09/20/21 22:46 WB 4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/20/21 09/20/21 22:46 WB	1,4-Dioxane	0.36	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 22:46	WB
4-Ethyltoluene ND ug/m³ 0.98 0.25 1 09/20/21 09/20/21 22:46 WB	Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/20/21	09/20/21 22:46	WB
·	Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 22:46	WB
Freon 113 0.54 J ug/m <sup>3</sup> 1.50 0.38 1 09/20/21 09/20/21 22:46 WB	4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 22:46	WB
	Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 22:46	WB

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G **Baltimore MD 21227** 410-247-7600 www.mdspectral.com

> Reported: 09/21/21 15:47

PH-207 21091704-010 1092004-10 (Vapor) Sample Date: 09/15/21

				Sample Date: 03	7/13/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared b	y TO-15 F	Prep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/20/21	09/20/21 22:46	WB
n-Heptane	0.33	J	ug/m³	0.82	0.21	1	09/20/21	09/20/21 22:46	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/20/21	09/20/21 22:46	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/20/21	09/20/21 22:46	WB
2-Hexanone	0.16	J	ug/m³	0.82	0.15	1	09/20/21	09/20/21 22:46	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/20/21	09/20/21 22:46	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/20/21	09/20/21 22:46	WB
Methylene chloride	ND		$ug/m^3$	18.0	18.0	1	09/20/21	09/20/21 22:46	WB
Methyl ethyl ketone (2-Butanone)	1.24		ug/m³	0.59	0.34	1	09/20/21	09/20/21 22:46	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/20/21	09/20/21 22:46	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/20/21	09/20/21 22:46	WB
Propene	ND		ug/m³	0.34	0.34	1	09/20/21	09/20/21 22:46	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/20/21	09/20/21 22:46	WB
Styrene	0.21	J	ug/m³	0.85	0.15	1	09/20/21	09/20/21 22:46	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 22:46	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/20/21	09/20/21 22:46	WB
Tetrahydrofuran	0.47	J	ug/m³	0.59	0.15	1	09/20/21	09/20/21 22:46	WB
Toluene	2.49		ug/m³	0.75	0.35	1	09/20/21	09/20/21 22:46	WB
1,2,4-Trichlorobenzene	ND		$ug/m^3$	1.50	0.38	1	09/20/21	09/20/21 22:46	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 22:46	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 22:46	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 22:46	WB
Trichlorofluoromethane (Freon 11)	1.35		ug/m³	1.10	0.28	1	09/20/21	09/20/21 22:46	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 22:46	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 22:46	WB
2,2,4-Trimethylpentane	0.28	J	ug/m³	0.93	0.23	1	09/20/21	09/20/21 22:46	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/20/21	09/20/21 22:46	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 22:46	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/20/21	09/20/21 22:46	WB
o-Xylene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 22:46	WB
m- & p-Xylenes	0.43	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 22:46	WB

Surrogate: 4-Bromofluorobenzene

73-115

100 %

09/20/21

09/20/21 22:46

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**

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1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-HALL 217 21091704-011 1092004-11 (Vapor) Sample Date: 09/15/21

				Sample Date: 0	7/13/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-1	15 (GC/MS) P	repared b	y TO-15 F	rep					
Acetone	29.7		ug/m³	2.40	2.40	1	09/20/21	09/20/21 23:21	WB
Benzene	0.26	J	ug/m³	0.64	0.16	1	09/20/21	09/20/21 23:21	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/20/21	09/20/21 23:21	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 23:21	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/20/21	09/20/21 23:21	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/20/21	09/20/21 23:21	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/20/21	09/20/21 23:21	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/20/21	09/20/21 23:21	WB
Carbon tetrachloride	0.44	J	ug/m³	1.30	0.33	1	09/20/21	09/20/21 23:21	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 23:21	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/20/21	09/20/21 23:21	WB
Chloroform	0.34	J	ug/m³	0.97	0.24	1	09/20/21	09/20/21 23:21	WB
Chloromethane	1.03		ug/m³	0.41	0.10	1	09/20/21	09/20/21 23:21	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/20/21	09/20/21 23:21	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/20/21	09/20/21 23:21	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/20/21	09/20/21 23:21	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 23:21	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 23:21	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 23:21	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/20/21	09/20/21 23:21	WB
Dichlorodifluoromethane	2.27		ug/m³	0.99	0.99	1	09/20/21	09/20/21 23:21	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 23:21	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/20/21	09/20/21 23:21	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 23:21	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 23:21	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/20/21	09/20/21 23:21	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/20/21	09/20/21 23:21	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 23:21	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 23:21	WB
1,4-Dioxane	0.22	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 23:21	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	09/20/21	09/20/21 23:21	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 23:21	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/20/21	09/20/21 23:21	WB
Freon 113	0.46	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 23:21	WB

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**

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**Reported:** 09/21/21 15:47

PH-HALL 217 21091704-011 1092004-11 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared by	y TO-15 F	Prep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/20/21	09/20/21 23:21	WB
n-Heptane	0.61	J	$ug/m^3$	0.82	0.21	1	09/20/21	09/20/21 23:21	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/20/21	09/20/21 23:21	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/20/21	09/20/21 23:21	WB
2-Hexanone	0.25	J	$ug/m^3$	0.82	0.15	1	09/20/21	09/20/21 23:21	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/20/21	09/20/21 23:21	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/20/21	09/20/21 23:21	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/20/21	09/20/21 23:21	WB
Methyl ethyl ketone (2-Butanone)	2.12		$ug/m^3$	0.59	0.34	1	09/20/21	09/20/21 23:21	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/20/21	09/20/21 23:21	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/20/21	09/20/21 23:21	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/20/21	09/20/21 23:21	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/20/21	09/20/21 23:21	WB
Styrene	0.26	J	$ug/m^3$	0.85	0.15	1	09/20/21	09/20/21 23:21	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 23:21	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/20/21	09/20/21 23:21	WB
Tetrahydrofuran	0.53	J	$ug/m^3$	0.59	0.15	1	09/20/21	09/20/21 23:21	WB
Toluene	1.73		$ug/m^3$	0.75	0.35	1	09/20/21	09/20/21 23:21	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/20/21	09/20/21 23:21	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 23:21	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/20/21	09/20/21 23:21	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 23:21	WB
Trichlorofluoromethane (Freon 11)	1.35		ug/m³	1.10	0.28	1	09/20/21	09/20/21 23:21	WB
1,2,4-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 23:21	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 23:21	WB
2,2,4-Trimethylpentane	0.23	J	$ug/m^3$	0.93	0.23	1	09/20/21	09/20/21 23:21	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/20/21	09/20/21 23:21	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 23:21	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/20/21	09/20/21 23:21	WB
o-Xylene	0.26	J	$ug/m^3$	0.87	0.22	1	09/20/21	09/20/21 23:21	WB
m- & p-Xylenes	0.56	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 23:21	WB
Surrogate: 4-Bromofluorobenzene		73	R-115	101 %	09/20/21		09/20/21 23:21		

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-233 21091704-012 1092004-12 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15	(GC/MS) Pr	epared by	y TO-15 F						
Acetone	30.7		ug/m³	2.40	2.40	1	09/20/21	09/20/21 23:55	WB
Benzene	0.26	J	$ug/m^3$	0.64	0.16	1	09/20/21	09/20/21 23:55	WB
Benzyl chloride	ND		$ug/m^3$	1.00	0.25	1	09/20/21	09/20/21 23:55	WB
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 23:55	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/20/21	09/20/21 23:55	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/20/21	09/20/21 23:55	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/20/21	09/20/21 23:55	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/20/21	09/20/21 23:55	WB
Carbon tetrachloride	0.50	J	$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 23:55	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/20/21	09/20/21 23:55	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/20/21	09/20/21 23:55	WB
Chloroform	0.24	J	$ug/m^3$	0.97	0.24	1	09/20/21	09/20/21 23:55	WB
Chloromethane	1.09		$ug/m^3$	0.41	0.10	1	09/20/21	09/20/21 23:55	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/20/21	09/20/21 23:55	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/20/21	09/20/21 23:55	WB
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/20/21	09/20/21 23:55	WB
1,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/20/21	09/20/21 23:55	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 23:55	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 23:55	WB
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/20/21	09/20/21 23:55	WB
Dichlorodifluoromethane	2.18		$ug/m^3$	0.99	0.99	1	09/20/21	09/20/21 23:55	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 23:55	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/20/21	09/20/21 23:55	WB
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/20/21	09/20/21 23:55	WB
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/20/21	09/20/21 23:55	WB
trans-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/20/21	09/20/21 23:55	WB
1,2-Dichloropropane	ND		$ug/m^3$	0.92	0.23	1	09/20/21	09/20/21 23:55	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 23:55	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/20/21	09/20/21 23:55	WB
1,4-Dioxane	0.25	J	ug/m³	0.72	0.18	1	09/20/21	09/20/21 23:55	WB
Ethyl acetate	ND		$ug/m^3$	3.60	3.60	1	09/20/21	09/20/21 23:55	WB
Ethylbenzene	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 23:55	WB
4-Ethyltoluene	0.25	J	ug/m³	0.98	0.25	1	09/20/21	09/20/21 23:55	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/20/21	09/20/21 23:55	WB

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**

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1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-233 21091704-012 1092004-12 (Vapor) Sample Date: 09/15/21

				Sample Date: 09	//13/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared by	7 <b>TO-15</b> F	Prep (continued)					
Freon 114	ND		ug/m³	1.40	1.40	1	09/20/21	09/20/21 23:55	WB
n-Heptane	0.57	J	ug/m³	0.82	0.21	1	09/20/21	09/20/21 23:55	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/20/21	09/20/21 23:55	WB
Hexane	ND		ug/m³	14.0	14.0	1	09/20/21	09/20/21 23:55	WB
2-Hexanone	0.16	J	ug/m³	0.82	0.15	1	09/20/21	09/20/21 23:55	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/20/21	09/20/21 23:55	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/20/21	09/20/21 23:55	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	09/20/21	09/20/21 23:55	WB
Methyl ethyl ketone (2-Butanone)	1.21		ug/m³	0.59	0.34	1	09/20/21	09/20/21 23:55	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/20/21	09/20/21 23:55	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/20/21	09/20/21 23:55	WB
Propene	ND		ug/m³	0.34	0.34	1	09/20/21	09/20/21 23:55	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/20/21	09/20/21 23:55	WB
Styrene	0.26	J	ug/m³	0.85	0.15	1	09/20/21	09/20/21 23:55	WB
,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/20/21	09/20/21 23:55	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/20/21	09/20/21 23:55	WB
Tetrahydrofuran	0.68		ug/m³	0.59	0.15	1	09/20/21	09/20/21 23:55	WB
Toluene	1.77		ug/m³	0.75	0.35	1	09/20/21	09/20/21 23:55	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/20/21	09/20/21 23:55	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 23:55	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 23:55	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	09/20/21	09/20/21 23:55	WB
Trichlorofluoromethane (Freon 11)	1.29		ug/m³	1.10	0.28	1	09/20/21	09/20/21 23:55	WB
1,2,4-Trimethylbenzene	0.29	J	ug/m³	0.98	0.25	1	09/20/21	09/20/21 23:55	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/20/21	09/20/21 23:55	WB
2,2,4-Trimethylpentane	0.23	J	ug/m³	0.93	0.23	1	09/20/21	09/20/21 23:55	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/20/21	09/20/21 23:55	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/20/21	09/20/21 23:55	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/20/21	09/20/21 23:55	WB
o-Xylene	0.26	J	ug/m³	0.87	0.22	1	09/20/21	09/20/21 23:55	WB
m- & p-Xylenes	0.61	J	ug/m³	1.70	0.43	1	09/20/21	09/20/21 23:55	WB
Surrogate: 4-Bromofluorobenzene		73	-115	101 %	09/20/21	!	09/20/21 23:55		

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Rabecka Koons, Quality Assurance Officer

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-STAIRS 2-300 21091704-013 1092004-13 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15	(GC/MS) Pr	epared by	<u>y TO-15</u> F						
Acetone	33.6		ug/m³	2.40	2.40	1	09/21/21	09/21/21 00:30	WB
Benzene	0.29	J	ug/m³	0.64	0.16	1	09/21/21	09/21/21 00:30	WB
Benzyl chloride	ND		$ug/m^3$	1.00	0.25	1	09/21/21	09/21/21 00:30	WB
Bromodichloromethane	ND		$ug/m^3$	1.30	0.33	1	09/21/21	09/21/21 00:30	WB
Bromoform	ND		$ug/m^3$	2.10	0.53	1	09/21/21	09/21/21 00:30	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/21/21	09/21/21 00:30	WB
1,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/21/21	09/21/21 00:30	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/21/21	09/21/21 00:30	WB
Carbon tetrachloride	0.44	J	$ug/m^3$	1.30	0.33	1	09/21/21	09/21/21 00:30	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/21/21	09/21/21 00:30	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/21/21	09/21/21 00:30	WB
Chloroform	0.29	J	$ug/m^3$	0.97	0.24	1	09/21/21	09/21/21 00:30	WB
Chloromethane	1.01		$ug/m^3$	0.41	0.10	1	09/21/21	09/21/21 00:30	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/21/21	09/21/21 00:30	WB
Cyclohexane	ND		ug/m³	0.69	0.17	1	09/21/21	09/21/21 00:30	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/21/21	09/21/21 00:30	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/21/21	09/21/21 00:30	WB
1,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/21/21	09/21/21 00:30	WB
1,3-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/21/21	09/21/21 00:30	WB
1,4-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/21/21	09/21/21 00:30	WB
Dichlorodifluoromethane	2.13		$ug/m^3$	0.99	0.99	1	09/21/21	09/21/21 00:30	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/21/21	09/21/21 00:30	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/21/21	09/21/21 00:30	WB
1,1-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/21/21	09/21/21 00:30	WB
cis-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/21/21	09/21/21 00:30	WB
trans-1,2-Dichloroethene	ND		$ug/m^3$	0.79	0.20	1	09/21/21	09/21/21 00:30	WB
1,2-Dichloropropane	ND		$ug/m^3$	0.92	0.23	1	09/21/21	09/21/21 00:30	WB
cis-1,3-Dichloropropene	ND		$ug/m^3$	0.91	0.23	1	09/21/21	09/21/21 00:30	WB
trans-1,3-Dichloropropene	ND		$ug/m^3$	0.91	0.23	1	09/21/21	09/21/21 00:30	WB
1,4-Dioxane	0.25	J	$ug/m^3$	0.72	0.18	1	09/21/21	09/21/21 00:30	WB
Ethyl acetate	ND		$ug/m^3$	3.60	3.60	1	09/21/21	09/21/21 00:30	WB
Ethylbenzene	ND		$ug/m^3$	0.87	0.22	1	09/21/21	09/21/21 00:30	WB
4-Ethyltoluene	0.39	J	$ug/m^3$	0.98	0.25	1	09/21/21	09/21/21 00:30	WB
Freon 113	0.54	J	$ug/m^3$	1.50	0.38	1	09/21/21	09/21/21 00:30	WB

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Project Manager: Amber Confer

Project Number: [none]

## **Analytical Results**

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1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-STAIRS 2-300 21091704-013 1092004-13 (Vapor)

Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (G</b>	C/MS) Pi	repared by	y TO-15 I	Prep (continued)					
Freon 114	ND		$ug/m^3$	1.40	1.40	1	09/21/21	09/21/21 00:30	WB
n-Heptane	0.41	J	$ug/m^3$	0.82	0.21	1	09/21/21	09/21/21 00:30	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/21/21	09/21/21 00:30	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/21/21	09/21/21 00:30	WB
2-Hexanone	ND		$ug/m^3$	0.82	0.15	1	09/21/21	09/21/21 00:30	WB
Isopropylbenzene (Cumene)	ND		$ug/m^3$	1.10	0.40	1	09/21/21	09/21/21 00:30	WB
Methyl tert-butyl ether (MTBE)	ND		$ug/m^3$	0.72	0.21	1	09/21/21	09/21/21 00:30	WB
Methylene chloride	ND		$ug/m^3$	18.0	18.0	1	09/21/21	09/21/21 00:30	WB
Methyl ethyl ketone (2-Butanone)	1.47		$ug/m^3$	0.59	0.34	1	09/21/21	09/21/21 00:30	WB
Methyl isobutyl ketone	ND		$ug/m^3$	0.82	0.82	1	09/21/21	09/21/21 00:30	WB
Naphthalene	ND		$ug/m^3$	1.10	0.70	1	09/21/21	09/21/21 00:30	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/21/21	09/21/21 00:30	WB
n-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/21/21	09/21/21 00:30	WB
Styrene	0.17	J	$ug/m^3$	0.85	0.15	1	09/21/21	09/21/21 00:30	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/21/21	09/21/21 00:30	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/21/21	09/21/21 00:30	WB
Tetrahydrofuran	1.06		$ug/m^3$	0.59	0.15	1	09/21/21	09/21/21 00:30	WB
Toluene	3.24		ug/m³	0.75	0.35	1	09/21/21	09/21/21 00:30	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/21/21	09/21/21 00:30	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/21/21	09/21/21 00:30	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/21/21	09/21/21 00:30	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/21/21	09/21/21 00:30	WB
Trichlorofluoromethane (Freon 11)	1.24		$ug/m^3$	1.10	0.28	1	09/21/21	09/21/21 00:30	WB
1,2,4-Trimethylbenzene	0.44	J	$ug/m^3$	0.98	0.25	1	09/21/21	09/21/21 00:30	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/21/21	09/21/21 00:30	WB
2,2,4-Trimethylpentane	0.23	J	ug/m³	0.93	0.23	1	09/21/21	09/21/21 00:30	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	09/21/21	09/21/21 00:30	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/21/21	09/21/21 00:30	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/21/21	09/21/21 00:30	WB
o-Xylene	0.30	J	ug/m³	0.87	0.22	1	09/21/21	09/21/21 00:30	WB
m- & p-Xylenes	0.69	J	ug/m³	1.70	0.43	1	09/21/21	09/21/21 00:30	WB
Surrogate: 4-Bromofluorobenzene		73	3-115	102 %	09/21/21		09/21/21 00:30		

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-322 21091704-014 1092004-14 (Vapor) Sample Date: 09/15/21

				Sample Date: 0	7/13/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-1	15 (GC/MS) P1	repared b	<u>y TO-15 P</u>	rep					
Acetone	36.5		$ug/m^3$	2.40	2.40	1	09/21/21	09/21/21 01:05	WB
Benzene	0.22	J	ug/m³	0.64	0.16	1	09/21/21	09/21/21 01:05	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/21/21	09/21/21 01:05	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/21/21	09/21/21 01:05	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/21/21	09/21/21 01:05	WB
Bromomethane	ND		$ug/m^3$	0.78	0.20	1	09/21/21	09/21/21 01:05	WB
,3-Butadiene	ND		$ug/m^3$	0.44	0.44	1	09/21/21	09/21/21 01:05	WB
Carbon disulfide	ND		$ug/m^3$	1.56	1.56	1	09/21/21	09/21/21 01:05	WB
Carbon tetrachloride	0.44	J	ug/m³	1.30	0.33	1	09/21/21	09/21/21 01:05	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	09/21/21	09/21/21 01:05	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	09/21/21	09/21/21 01:05	WB
Chloroform	ND		$ug/m^3$	0.97	0.24	1	09/21/21	09/21/21 01:05	WB
Chloromethane	1.05		$ug/m^3$	0.41	0.10	1	09/21/21	09/21/21 01:05	WB
-Chloropropene	ND		$ug/m^3$	0.63	0.16	1	09/21/21	09/21/21 01:05	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/21/21	09/21/21 01:05	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	09/21/21	09/21/21 01:05	WB
,2-Dibromoethane (EDB)	ND		$ug/m^3$	1.40	0.35	1	09/21/21	09/21/21 01:05	WB
,2-Dichlorobenzene	ND		$ug/m^3$	1.20	0.30	1	09/21/21	09/21/21 01:05	WB
,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/21/21	09/21/21 01:05	WB
,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/21/21	09/21/21 01:05	WB
Dichlorodifluoromethane	2.32		ug/m³	0.99	0.99	1	09/21/21	09/21/21 01:05	WB
,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/21/21	09/21/21 01:05	WB
,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	09/21/21	09/21/21 01:05	WB
,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/21/21	09/21/21 01:05	WB
is-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/21/21	09/21/21 01:05	WB
rans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/21/21	09/21/21 01:05	WB
,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/21/21	09/21/21 01:05	WB
eis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/21/21	09/21/21 01:05	WB
rans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/21/21	09/21/21 01:05	WB
,4-Dioxane	0.25	J	ug/m³	0.72	0.18	1	09/21/21	09/21/21 01:05	WB
thyl acetate	ND		ug/m³	3.60	3.60	1	09/21/21	09/21/21 01:05	WB
Ethylbenzene	0.74	J	ug/m³	0.87	0.22	1	09/21/21	09/21/21 01:05	WB
-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/21/21	09/21/21 01:05	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/21/21	09/21/21 01:05	WB

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Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-322 21091704-014 1092004-14 (Vapor) Sample Date: 09/15/21

				Sample Date: 09	9/15/21				
				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
<b>Volatile Organics by EPA TO-15 (C</b>	GC/MS) Pi	repared by	y TO-15 l	Prep (continued)					
Freon 114	ND		$ug/m^3$	1.40	1.40	1	09/21/21	09/21/21 01:05	WB
n-Heptane	0.45	J	$ug/m^3$	0.82	0.21	1	09/21/21	09/21/21 01:05	WB
Hexachlorobutadiene	ND		$ug/m^3$	2.10	2.10	1	09/21/21	09/21/21 01:05	WB
Hexane	ND		$ug/m^3$	14.0	14.0	1	09/21/21	09/21/21 01:05	WB
2-Hexanone	0.20	J	$ug/m^3$	0.82	0.15	1	09/21/21	09/21/21 01:05	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/21/21	09/21/21 01:05	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/21/21	09/21/21 01:05	WB
Methylene chloride	ND		$ug/m^3$	18.0	18.0	1	09/21/21	09/21/21 01:05	WB
Methyl ethyl ketone (2-Butanone)	1.06		$ug/m^3$	0.59	0.34	1	09/21/21	09/21/21 01:05	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/21/21	09/21/21 01:05	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	09/21/21	09/21/21 01:05	WB
Propene	ND		$ug/m^3$	0.34	0.34	1	09/21/21	09/21/21 01:05	WB
n-Propylbenzene	ND		$ug/m^3$	0.98	0.40	1	09/21/21	09/21/21 01:05	WB
Styrene	0.17	J	$ug/m^3$	0.85	0.15	1	09/21/21	09/21/21 01:05	WB
1,1,2,2-Tetrachloroethane	ND		$ug/m^3$	1.40	0.35	1	09/21/21	09/21/21 01:05	WB
Tetrachloroethene	ND		$ug/m^3$	1.40	0.70	1	09/21/21	09/21/21 01:05	WB
Tetrahydrofuran	0.47	J	$ug/m^3$	0.59	0.15	1	09/21/21	09/21/21 01:05	WB
Toluene	0.83		$ug/m^3$	0.75	0.35	1	09/21/21	09/21/21 01:05	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/21/21	09/21/21 01:05	WB
1,1,1-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/21/21	09/21/21 01:05	WB
1,1,2-Trichloroethane	ND		$ug/m^3$	1.10	0.28	1	09/21/21	09/21/21 01:05	WB
Trichloroethene	ND		$ug/m^3$	1.10	0.28	1	09/21/21	09/21/21 01:05	WB
Trichlorofluoromethane (Freon 11)	1.29		$ug/m^3$	1.10	0.28	1	09/21/21	09/21/21 01:05	WB
1,2,4-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/21/21	09/21/21 01:05	WB
1,3,5-Trimethylbenzene	ND		$ug/m^3$	0.98	0.25	1	09/21/21	09/21/21 01:05	WB
2,2,4-Trimethylpentane	0.28	J	$ug/m^3$	0.93	0.23	1	09/21/21	09/21/21 01:05	WB
Vinyl acetate	ND		$ug/m^3$	0.70	0.70	1	09/21/21	09/21/21 01:05	WB
Vinyl bromide	ND		$ug/m^3$	0.87	0.22	1	09/21/21	09/21/21 01:05	WB
Vinyl chloride	ND		$ug/m^3$	0.51	0.13	1	09/21/21	09/21/21 01:05	WB
o-Xylene	0.78	J	ug/m³	0.87	0.22	1	09/21/21	09/21/21 01:05	WB
m- & p-Xylenes	2.91		ug/m³	1.70	0.43	1	09/21/21	09/21/21 01:05	WB
Surrogate: 4-Bromofluorobenzene		73	3-115	100 %	09/21/21	1	09/21/21 01:05		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-302 HALL 21091704-015 1092004-15 (Vapor) Sample Date: 09/15/21

				Reporting	Detection				
Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GO	C/MS) Pı	repared by	y TO-15 P	rep					
Acetone	49.3		ug/m³	2.40	2.40	1	09/21/21	09/21/21 01:39	WB
Benzene	0.22	J	ug/m³	0.64	0.16	1	09/21/21	09/21/21 01:39	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	09/21/21	09/21/21 01:39	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	09/21/21	09/21/21 01:39	WB
Bromoform	ND		ug/m³	2.10	0.53	1	09/21/21	09/21/21 01:39	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	09/21/21	09/21/21 01:39	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	09/21/21	09/21/21 01:39	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	09/21/21	09/21/21 01:39	WB
Carbon tetrachloride	0.50	J	ug/m³	1.30	0.33	1	09/21/21	09/21/21 01:39	WB
Chlorobenzene	ND		$ug/m^3$	0.92	0.23	1	09/21/21	09/21/21 01:39	WB
Chloroethane	ND		$ug/m^3$	0.53	0.27	1	09/21/21	09/21/21 01:39	WB
Chloroform	ND		ug/m³	0.97	0.24	1	09/21/21	09/21/21 01:39	WB
Chloromethane	1.07		ug/m³	0.41	0.10	1	09/21/21	09/21/21 01:39	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	09/21/21	09/21/21 01:39	WB
Cyclohexane	ND		$ug/m^3$	0.69	0.17	1	09/21/21	09/21/21 01:39	WB
Dibromochloromethane	ND		$ug/m^3$	1.30	0.33	1	09/21/21	09/21/21 01:39	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	09/21/21	09/21/21 01:39	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/21/21	09/21/21 01:39	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/21/21	09/21/21 01:39	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	09/21/21	09/21/21 01:39	WB
Dichlorodifluoromethane	2.23		ug/m³	0.99	0.99	1	09/21/21	09/21/21 01:39	WB
1,1-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/21/21	09/21/21 01:39	WB
1,2-Dichloroethane	ND		$ug/m^3$	0.81	0.20	1	09/21/21	09/21/21 01:39	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/21/21	09/21/21 01:39	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/21/21	09/21/21 01:39	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	09/21/21	09/21/21 01:39	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	09/21/21	09/21/21 01:39	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/21/21	09/21/21 01:39	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	09/21/21	09/21/21 01:39	WB
1,4-Dioxane	0.25	J	ug/m³	0.72	0.18	1	09/21/21	09/21/21 01:39	WB
Ethyl acetate	3.64		ug/m³	3.60	3.60	1	09/21/21	09/21/21 01:39	WB
Ethylbenzene	ND		$ug/m^3$	0.87	0.22	1	09/21/21	09/21/21 01:39	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	09/21/21	09/21/21 01:39	WB
Freon 113	0.54	J	ug/m³	1.50	0.38	1	09/21/21	09/21/21 01:39	WB

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Project Manager: Amber Confer

Project Number: [none]

# **Analytical Results**



1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

PH-302 HALL 21091704-015 1092004-15 (Vapor) Sample Date: 09/15/21

					Reporting	Detection				
Proper   14	Analyte	Result	Notes	Units	Limit (MRL)	Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
	Volatile Organics by EPA TO-15 (C	GC/MS) Pi	repared by	y TO-15 F	rep (continued)					
Hexane	Freon 114	ND		ug/m³	1.40	1.40	1	09/21/21	09/21/21 01:39	WB
Part	n-Heptane	0.41	J	ug/m³	0.82	0.21	1	09/21/21	09/21/21 01:39	WB
	Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	09/21/21	09/21/21 01:39	WB
Methyl tert-butyl ether (MTBE)   ND	Hexane	19.5		ug/m³	14.0	14.0	1	09/21/21	09/21/21 01:39	WB
Methyl teri-butyl ether (MTBE)         ND         ug/m²         0.72         0.21         1         09/21/21         <	2-Hexanone	0.20	J	ug/m³	0.82	0.15	1	09/21/21	09/21/21 01:39	WB
Methylene chloride         42.1         L         ug/m³         18.0         18.0         1         09/21/21         09/21/21         01/39         WB           Methyl ethyl ketone (2-Butanone)         1.68         ug/m³         0.59         0.34         1         09/21/21         09/21/21         01/39         WB           Methyl isobutyl ketone         ND         ug/m³         0.82         0.82         1         09/21/21         09/21/21         01/39         WB           Naphthalene         ND         ug/m³         0.34         0.34         1         09/21/21         09/21/21         01/39         WB           Propoplbenzene         ND         ug/m³         0.98         0.40         1         09/21/21         09/21/21         01/39         WB           Styrene         0.21         J         ug/m³         0.85         0.15         1         09/21/21         09/21/21         01/39         WB           Styrene         0.21         J         ug/m³         0.85         0.15         1         09/21/21         09/21/21         01/39         WB           Eterachloroethane         ND         ug/m³         0.40         0.70         1         09/21/21         09/21/21	Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	09/21/21	09/21/21 01:39	WB
Methyl ethyl ketone (2-Butanone)         1.68         ug/m²         0.59         0.34         1         0921/21         0921/21 01:39         WB           Methyl isobutyl ketone         ND         ug/m²         0.82         0.82         1         0921/21         0921/21 01:39         WB           Naphthalene         ND         ug/m²         1.10         0.70         1         0921/21         0921/21 01:39         WB           Propene         ND         ug/m²         0.34         0.34         1         0921/21         0921/21 01:39         WB           Propene         ND         ug/m²         0.38         0.40         1         0921/21         0921/21 01:39         WB           Propene         ND         ug/m²         0.98         0.40         1         0921/21         0921/21 01:39         WB           Styrene         0.21         J         ug/m²         0.85         0.15         1         0921/21         0921/21 01:39         WB           L1,2-2-Tetrachloroethane         ND         ug/m²         1.40         0.35         1         0921/21         0921/21 01:39         WB           Letrahydrofuran         0.47         J         ug/m²         0.75         0.35	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	09/21/21	09/21/21 01:39	WB
Methyl isobutyl ketone         ND         ug/m³         0.82         0.82         1         09/21/21         09/21/21 01:39         WB           Naphthalene         ND         ug/m³         1.10         0.70         1         09/21/21         09/21/21 01:39         WB           Propene         ND         ug/m³         0.34         0.34         1         09/21/21         09/21/21 01:39         WB           Propilenzene         ND         ug/m³         0.98         0.40         1         09/21/21         09/21/21 01:39         WB           Styrene         0.21         J         ug/m³         0.85         0.15         1         09/21/21         09/21/21 01:39         WB           Styrene         0.21         J         ug/m³         0.85         0.15         1         09/21/21         09/21/21 01:39         WB           Etrachloroethane         ND         ug/m³         1.40         0.35         1         09/21/21         09/21/21 01:39         WB           Ictrahydrofuran         0.47         J         ug/m³         0.59         0.15         1         09/21/21         09/21/21 01:39         WB           Ictrahydrofuran         ND         ug/m³         0.75         <	Methylene chloride	42.1	L	ug/m³	18.0	18.0	1	09/21/21	09/21/21 01:39	WB
Naphthalene  ND  ug/m³  1.10  0.70  1  09/21/21  09/21/21 01:39  WB Propene  ND  ug/m³  0.34  0.34  1  09/21/21  09/21/21 01:39  WB Propople  ND  ug/m³  0.85  0.15  1  09/21/21  09/21/21 01:39  WB Propylbenzene  ND  ug/m³  0.85  0.15  1  09/21/21  09/21/21 01:39  WB Propylbenzene  ND  ug/m³  0.85  0.15  1  09/21/21  09/21/21 01:39  WB Propylbenzene  ND  ug/m³  1.40  0.35  1  09/21/21  09/21/21  09/21/21 01:39  WB Propylbenzene  ND  ug/m³  1.40  0.70  1  09/21/21	Methyl ethyl ketone (2-Butanone)	1.68		ug/m³	0.59	0.34	1	09/21/21	09/21/21 01:39	WB
Propene ND ug/m³ 0.34 0.34 1 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.40 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.85 0.15 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.40 0.35 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.40 0.35 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.59 0.15 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.59 0.15 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.59 0.15 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.75 0.35 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.50 0.38 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.10 0.28 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.10 0.28 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.10 0.28 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.10 0.28 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.10 0.28 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 1.10 0.28 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01/39 WB 1-4 Propylbenzene N	Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	09/21/21	09/21/21 01:39	WB
ND	Naphthalene	ND		ug/m³	1.10	0.70	1	09/21/21	09/21/21 01:39	WB
Styrene         0.21         J         ug/m³         0.85         0.15         1         09/21/21         09/21/21 01:39         WB           L,1,2,2-Tetrachloroethane         ND         ug/m³         1.40         0.35         1         09/21/21         09/21/21 01:39         WB           Tetrachloroethane         ND         ug/m³         1.40         0.70         1         09/21/21         09/21/21 01:39         WB           Tetrachloroethane         ND         ug/m³         0.59         0.15         1         09/21/21         09/21/21 01:39         WB           Toluene         0.98         ug/m³         0.75         0.35         1         09/21/21         09/21/21 01:39         WB           L2,4-Trichloroethane         ND         ug/m³         1.50         0.38         1         09/21/21         09/21/21 01:39         WB           L1,1-Trichloroethane         ND         ug/m³         1.10         0.28         1         09/21/21         09/21/21 01:39         WB           L1,2-Trichloroethane         ND         ug/m³         1.10         0.28         1         09/21/21         09/21/21 01:39         WB           Trichlorofluoroethane (Freon 11)         1.29         ug/m³         1.10	Propene	ND		ug/m³	0.34	0.34	1	09/21/21	09/21/21 01:39	WB
1,1,2,2-Tetrachloroethane	n-Propylbenzene	ND		ug/m³	0.98	0.40	1	09/21/21	09/21/21 01:39	WB
Tetrachloroethene	Styrene	0.21	J	ug/m³	0.85	0.15	1	09/21/21	09/21/21 01:39	WB
Tetrahydrofuran   0.47   J   ug/m³   0.59   0.15   1   09/21/21   09/21/21 01:39   WB	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	09/21/21	09/21/21 01:39	WB
Foluene         0.98         ug/m³         0.75         0.35         1         09/21/21         09/21/21         01/21/21	Tetrachloroethene	ND		ug/m³	1.40	0.70	1	09/21/21	09/21/21 01:39	WB
Roluene         0.98         ug/m³         0.75         0.35         1         09/21/21         09/21/21 01:39         WB           1,2,4-Trichlorobenzene         ND         ug/m³         1.50         0.38         1         09/21/21         09/21/21 01:39         WB           1,1,1-Trichloroethane         ND         ug/m³         1.10         0.28         1         09/21/21         09/21/21 01:39         WB           1,1,2-Trichloroethane         ND         ug/m³         1.10         0.28         1         09/21/21         09/21/21 01:39         WB           1,1,2-Trichloroethane         ND         ug/m³         1.10         0.28         1         09/21/21         09/21/21 01:39         WB           1,1,2-Trichloroethane         ND         ug/m³         1.10         0.28         1         09/21/21         09/21/21 01:39         WB           1,1,2-Trichloroethane         ND         ug/m³         1.10         0.28         1         09/21/21         09/21/21 01:39         WB           1,2,4-Trimethylbenzere         ND         ug/m³         0.98         0.25         1         09/21/21         09/21/21 01:39         WB           2,2,4-Trimethylpentane         0.33         J ug/m³         0.94	Tetrahydrofuran	0.47	J	ug/m³	0.59	0.15	1	09/21/21	09/21/21 01:39	WB
1,1,1-Trichloroethane	Toluene	0.98		ug/m³	0.75	0.35	1	09/21/21	09/21/21 01:39	WB
1,1,2-Trichloroethane   ND   ug/m³   1.10   0.28   1   09/21/21   09/21/21 01:39   WB    Trichloroethene   ND   ug/m³   1.10   0.28   1   09/21/21   09/21/21 01:39   WB    Trichlorofluoromethane (Freon 11)   1.29   ug/m³   1.10   0.28   1   09/21/21   09/21/21 01:39   WB    1,2,4-Trimethylbenzene   ND   ug/m³   0.98   0.25   1   09/21/21   09/21/21 01:39   WB    1,3,5-Trimethylbenzene   ND   ug/m³   0.98   0.25   1   09/21/21   09/21/21 01:39   WB    2,2,4-Trimethylpentane   0.33   J   ug/m³   0.98   0.25   1   09/21/21   09/21/21 01:39   WB    2,2,4-Trimethylpentane   ND   ug/m³   0.93   0.23   1   09/21/21   09/21/21 01:39   WB    2,2,4-Trimethylpentane   ND   ug/m³   0.70   0.70   1   09/21/21   09/21/21 01:39   WB    Winyl acetate   ND   ug/m³   0.87   0.22   1   09/21/21   09/21/21 01:39   WB    Winyl chloride   ND   ug/m³   0.51   0.13   1   09/21/21   09/21/21 01:39   WB    D-Xylene   ND   ug/m³   0.87   0.22   1   09/21/21   09/21/21 01:39   WB    D-Xylene   ND   ug/m³   0.87   0.22   1   09/21/21   09/21/21 01:39   WB    MB   MB   MB   MB   MB   MB   MB	1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	09/21/21	09/21/21 01:39	WB
Frichloroethene ND ug/m³ 1.10 0.28 1 09/21/21 09/21/21 01:39 WB  Frichlorofluoromethane (Freon 11) 1.29 ug/m³ 1.10 0.28 1 09/21/21 09/21/21 01:39 WB  I,2,4-Trimethylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  I,3,6-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 1 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 I 0.33 I 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 I 0.33 I 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 I 0.33 I 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 I 0.33 I 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 I 0.33 I 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J ug/m³ 0.98 0.25 I 0.33 I 09/21/21 01:39 WB  I,3,5-Trimethylpentane 0.33 J	1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/21/21	09/21/21 01:39	WB
Trichlorofluoromethane (Freon 11)         1.29         ug/m³         1.10         0.28         1         09/21/21         09/21/21         01:39         WB           1,2,4-Trimethylbenzene         ND         ug/m³         0.98         0.25         1         09/21/21         09/21/21         01:39         WB           1,3,5-Trimethylbenzene         ND         ug/m³         0.98         0.25         1         09/21/21         09/21/21         01:39         WB           2,2,4-Trimethylpentane         0.33         J         ug/m³         0.93         0.23         1         09/21/21         09/21/21         01:39         WB           Vinyl acetate         ND         ug/m³         0.70         0.70         1         09/21/21         09/21/21         01:39         WB           Vinyl bromide         ND         ug/m³         0.87         0.22         1         09/21/21         09/21/21         01:39         WB           Vinyl chloride         ND         ug/m³         0.51         0.13         1         09/21/21         09/21/21         01:39         WB           D-Xylene         ND         ug/m³         0.87         0.22         1         09/21/21         09/21/21         01:39	1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	09/21/21	09/21/21 01:39	WB
1,2,4-Trimethylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB 1,3,5-Trimethylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.70 0.70 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.70 0.70 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.70 0.70 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.70 0.70 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane ND ug/m³ 0.87 0.22 1 09/21/21 01:39 WB	Trichloroethene	ND		ug/m³	1.10	0.28	1	09/21/21	09/21/21 01:39	WB
1,3,5-Trimethylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 09/21/21 01:39 WB  2,2,4-Trimethylpentane ND ug/m³ 0.93 0.23 1 09/21/21 09/21/21 01:39 WB  Vinyl acetate ND ug/m³ 0.70 0.70 1 09/21/21 09/21/21 01:39 WB  Vinyl bromide ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB  Vinyl chloride ND ug/m³ 0.51 0.13 1 09/21/21 09/21/21 01:39 WB  D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB  ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB  D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB  ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB  ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB	Trichlorofluoromethane (Freon 11)	1.29		ug/m³	1.10	0.28	1	09/21/21	09/21/21 01:39	WB
1,3,5-Trimethylbenzene ND ug/m³ 0.98 0.25 1 09/21/21 01:39 WB 2,2,4-Trimethylpentane 0.33 J ug/m³ 0.93 0.23 1 09/21/21 01:39 WB Vinyl acetate ND ug/m³ 0.70 0.70 1 09/21/21 01:39 WB Vinyl bromide ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB Vinyl chloride ND ug/m³ 0.51 0.13 1 09/21/21 09/21/21 01:39 WB D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB	1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	09/21/21	09/21/21 01:39	WB
2,2,4-Trimethylpentane         0.33         J         ug/m³         0.93         0.23         1         09/21/21         09/21/21         01:39         WB           Vinyl acetate         ND         ug/m³         0.70         0.70         1         09/21/21         09/21/21         01:39         WB           Vinyl bromide         ND         ug/m³         0.87         0.22         1         09/21/21         09/21/21         01:39         WB           Vinyl chloride         ND         ug/m³         0.51         0.13         1         09/21/21         09/21/21         01:39         WB           D-Xylene         ND         ug/m³         0.87         0.22         1         09/21/21         09/21/21         01:39         WB           m- & p-Xylenes         0.48         J         ug/m³         1.70         0.43         1         09/21/21         09/21/21         01:39         WB	•	ND		ug/m³	0.98	0.25	1	09/21/21	09/21/21 01:39	WB
Vinyl acetate         ND         ug/m³         0.70         0.70         1         09/21/21         09/21/21         01:39         WB           Vinyl bromide         ND         ug/m³         0.87         0.22         1         09/21/21         09/21/21         01:39         WB           Vinyl chloride         ND         ug/m³         0.51         0.13         1         09/21/21         09/21/21         01:39         WB           D-Xylene         ND         ug/m³         0.87         0.22         1         09/21/21         09/21/21         01:39         WB           m- & p-Xylenes         0.48         J         ug/m³         1.70         0.43         1         09/21/21         09/21/21         01:39         WB	2,2,4-Trimethylpentane	0.33	J	ug/m³	0.93	0.23	1	09/21/21	09/21/21 01:39	WB
Vinyl chloride ND ug/m³ 0.51 0.13 1 09/21/21 09/21/21 01:39 WB o-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB m- & p-Xylenes 0.48 J ug/m³ 1.70 0.43 1 09/21/21 09/21/21 01:39 WB	Vinyl acetate			ug/m³			1	09/21/21	09/21/21 01:39	WB
D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB  M- & p-Xylenes 0.48 J ug/m³ 1.70 0.43 1 09/21/21 09/21/21 01:39 WB	Vinyl bromide	ND		ug/m³	0.87	0.22	1	09/21/21	09/21/21 01:39	WB
D-Xylene ND ug/m³ 0.87 0.22 1 09/21/21 09/21/21 01:39 WB  M- & p-Xylenes 0.48 J ug/m³ 1.70 0.43 1 09/21/21 09/21/21 01:39 WB	Vinyl chloride	ND		ug/m³	0.51	0.13	1	09/21/21	09/21/21 01:39	WB
m- & p-Xylenes 0.48 J ug/m³ 1.70 0.43 1 09/21/21 09/21/21 01:39 WB	•	ND		-		0.22	1	09/21/21	09/21/21 01:39	WB
a de projectiones	•		J	_			1	09/21/21	09/21/21 01:39	WB
	Surrogate: 4-Bromofluorobenzene	0.10			101 %			09/21/21 01:39		

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



## **Analytical Results**

nelso IN ACCORDANCE

1500 Caton Center Dr Suite G Baltimore MD 21227 410-247-7600 www.mdspectral.com

**Reported:** 09/21/21 15:47

**Project:** 4920002

Project Number: [none]

Project Manager: Amber Confer

#### **Notes and Definitions**

L Analyte is a possible laboratory contaminant

J Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

%-Solids Percent Solids is a supportive test and as such does not require accreditation

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



# Chain of Custody Form for Subcontracted Analyses

Page 1 of 1

Phase Separation Se 6630 Baltimore Nat Baltimore, MD 212 Phone: (410) 747-8 Fax: (410) 788-872	tional Pike 28 770		Proj Proj	O. No. : ect Location ect Number : ort To LOD		Maryl	tes Transferred To: and Spectral Servic Caton Center Drive nore, MD 21227			***************************************	
For Questions or	issues please contact: A	mber Confer	-		ue On :09/27/21 05:00	Phone	410-247-7600				
Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative	٥	0	Ч
21091704-001	PH- Main Office	09/15/21	19:29	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON		Ó	ì
21091704-002	PH- Hall Kitchen	09/15/21	19:33	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	1.	0	2
21091704-003	PH- 111	09/15/21	19:37	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	┪-	þ	
21091704-004	PH- Hall 120	09/15/21	19:40	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	-	0	4
21091704-005	PH- 129	09/15/21	19:44	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	-	0	3
21091704-006	PH- Cafe	09/15/21	19:29	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	٦.	d	6
21091704-007	PH- Rec Center	09/15/21	19:44	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	-	o	***
21091704-008	PH- Stairs 200	09/15/21	19:30	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	1-	O	Q,
21091704-009	PH- Media Center	09/15/21	19:35	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	-	Ø	q
21091704-010	PH- 207	09/15/21	19:39	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	-	16	
21091704-011	PH- Hall 217	09/15/21	19:43	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON		11	
21091704-012	PH- 233	09/15/21	19:46	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	- '	۱۷	
21091704-013	PH- Stairs 2-300	09/15/21	19:33	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	7 -	13	
21091704-014	PH- 322	09/15/21	19:33	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	٦.,	14	
21091704-015	PH- 302 Hall	09/15/21	19:35	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON	1-	15	*
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	-005			1605			1944	30	4		4720	59		17		T	·	- 05	
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Special Inst	ructions/QC Requirem	ents 8	& Com	iments:	•						·			, ,,			:		
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Client Contact Information		Confe	Carrier'			······································				Carrier:											
Company: QSS		Phone:	andger. / r	7449 -1		Samplers	Name(s)				An An	alysis	i I:Ma	trix		of <u>2</u>		7.3			
		Site Conta	ict:				· · · · · · · · · · · · · · · · · · ·	<del></del>				Ń		1							
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Cijent Sample ID	Sample Date Start	Time Start (24 hr clock)	:Samole	Time Stop (24 hr clock)	Field ("Ho)	Canister Pressure in Field ("Hg)::. (Slop)	incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size	TO-15 FULL LIST	TO-15 ABREVIATED LIST	Indoor / Ambient Air	Soll Gas / Subslab		Comments					,
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Special instructions/QC Requirements & Comments:					J		<u>,                                      </u>			· • · · · · · · · · · · · · · · · · · ·		<u></u>		 :						,	
Canisters Shipped by:	Date/Time	1		<	Canisters	Received by	/: 		Date/Time	1/2	6,	/1	1		12	: 1	0 (				
Samples Relinquished by:	Date/Time	:			Received											-					
Relinquished by:	Date/Time		······································		Received	by:	by: Date/Time:														



#### **Case Narrative**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091704

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

#### **Sample Receipt:**

Soil gas/indoor air not indicated on COC; samples are indoor air. Incoming pressures not taken upon receipt. Pressures will be taken as subcontractor.

21091704: Analyses associated with analyst code 4051 were performed by SGS North America - NY, 6601 Kirkville Road, East Syracuse, NY 13057 - NY 11626

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

# TALIFONMENTAL SCHOOL

## **SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15**

### PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com email: info@phaseonline.com

(1	*CLIENT	Total Environmental Conce	pts, Inc. *OFF	ICE LOC.: LO	rton		PSS Wor	k Order #:			PAGE 1		OF	2		
	*PROJE	<sub>CT MGR:</sub> Karl Ford					2	109170	4							
		kford@teci.pro		*PHONE NO:	(703) 567-	4346										
		CT NAME: ACPS IAQ te			o.: 492000		* (3)		* + 0	*	ab	* q	*			
		CATION: Patrick Henry	K-8 School	ol	<u> </u>			<u>∩</u>	essur Star	essur Stop	aniste 1g) L	elsqn	ient /	ist		
	SITE LO	CATION:		P.O. NO.:			*	Sample Reg. ID	Canister Pressure in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab	Indoor/Ambient Air	TO-15 Full List	List	
لم	SAMPLE	R(S):	*DATE	*Time Start	*DATE	*Time Stop	Can ID *	ampl	anist	anist	comi	oii G	door	0-15	Special	
۲	LAB#	*SAMPLE IDENTIFICATION	START	(24hr clock)	STOP	(24hr clock)					드죠	ŭ			S	REMARKS
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	2	PH - Hall Kitchen	9/15/21	15:44	9/15/21	19:33	599	10285	32	4				<b>V</b>		
	3	PH - 111	9/15/21	15:49	9/15/21	19:37	9267	4706	31	1				~		
	y	PH - Hall 120	9/15/21	16:00	9/15/21	19:40	610	10232	35	2				/		
	5	PH - 129	9/15/21	16:05	9/15/21	19:44	59	4720	30	4				~		
	6	PH - Cafe	9/15/21	15:33	9/15/21	19:29	3681	4501	30	3				~		
	7	PH - Rec Center	9/15/21	15:57	9/15/21	19:44	2684	4691	30+	4				1		
	8	PH - Stairs 200	9/15/21	15:31	9/15/21	19:30	10188	4749	33	1				<b>/</b>		
	9	PH - Media Center	9/15/21	15:35	9/15/21	19:33	10191	10512	32	1				~		
	0	PH - 207	9/15/21	15:40	9/15/21	19:39	9607	4702	30	1				/		
5		shed By: (1)	Date	Time	Received By:	Y 1	_ (	*Reque 5-Day	sted TAT	One TA	AT per CO	C) 2-Da	v	Ship		arrier:
		ning Jackson	9/16/21	12:45	Mei	1 /	,	Next I		Emerg		Othe	-		Cl	ient
	Relinqui	shed By: (2)	Date 917121	Time (030	Received By:	170	527	Data Deliverabl	es Requi	red:						
	Relinqui	shed By: (3)	Date	Time	Received By:			Special Instruc	tions:							
	Relinqui	shed By: (4)	Date	Time	Received By:											

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. \* = REQUIRED

# TALL CHEMISTRY ON MENTAL SCHOOL

## **SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15**

### PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com email: info@phaseonline.com

(1		TENIA										PAGE 2	)		2		
		Total Environmental Concep	ots, Inc. *OFF	ICE LOC.: LO	orton		PSS W					PAGE 2		0F	2	_	
	*PROJE	<sub>ст мск:</sub> Karl Ford					21091764										
		kford@teci.pro		*PHONE NO:	(703) 567-4	1346											
	*PROJE	CT NAME: ACPS IAQ te			<sub>o.:</sub> 4920002		* (3)	)		* * +	*	۳ <del>6</del>	* Q	*			
Ī	OITELO	CATION: Patrick Henry	K-8 School					essur Star	essur Stop	aniste 1g) La	elsqn	ient A	ist				
				*	Sample Reg. ID		Canister Pressure in field ("Hg) Start	Canister Pressure * in field ("Hg) Stop	Incoming Canister Pressure ("Hg) Lab	Soil Gas / Subslab	Indoor/Ambient Air *	TO-15 Full List	Special List				
2	SAMPLE LAB#	*SAMPLE IDENTIFICATION	*DATE START	*Time Start (24hr clock)	*DATE STOP	*Time Stop (24hr clock)	Can ID *		Samp	Canis in field	Canis in field	Incorr	Soil G	oopul	TO-1	Specia	REMARKS
Ĭ	11	PH - Hall 217	9/15/21	15:44	9/15/21	19:43	572		4687	31	0				~	$\prod$	
	12	PH - 233	9/15/21	15:48	9/15/21	19:46	9611		3464	32	0				V		
	13	PH - Stairs 2 - 300	9/15/21	15:41	9/15/21	19:33	3052		3465	30	0				1		
	14	PH - 322	9/15/21	15:50	9/15/21	19:39	3682		4724	30	0			П	1		
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5		shed By: (1)	Date	Time	Received By:			(4)	*Reque	sted TAT	(One TA	AT per CC	C) 2-Da	v	Ship	oing C	arrier:
		ning Jackson	9/16/21	12:45	7/10	0			Next I		Emerg	ency	Othe			(	lient
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								- 23									
	Relinqui	shed By: (4)	Date	Time	Received By:												
L																	

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. \* = REQUIRED



#### **Sample Receipt Checklist**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing PSS Project No.: 21091704

Client Name Total Environmental Concepts - Lorto Received By Amber Confer

**Delivered By** Client

Tracking No Not Applicable

Logged In By Amber Confer

Shipping Container(s)

No. of Coolers 0

Ice N/A

Custody Seal(s) Intact? N/A Temp (deg C)

Seal(s) Signed / Dated?

N/A Temp Blank Present No

**Documentation** Sampler Name <u>Not Provided</u>

COC agrees with sample labels?

Yes

N/A

Chain of Custody Yes

Sample Container Custody Seal(s) Intact? Not Applicable

Appropriate for Specified Analysis? Yes Seal(s) Signed / Dated Not Applicable

Intact? Yes

Labeled and Labels Legible? Yes

Holding Time Total No. of Samples Received 15

All Samples Received Within Holding Time(s)? Yes Total No. of Containers Received 15

**Preservation** 

**Total Metals** (pH<2)N/A Dissolved Metals, filtered within 15 minutes of collection (pH<2) N/A Orthophosphorus, filtered within 15 minutes of collection N/A Cyanides (pH>12)N/A Sulfide (pH>9)N/A TOC, DOC (field filtered), COD, Phenols N/A (pH<2)TOX, TKN, NH3, Total Phos (pH<2)N/A VOC, BTEX (VOA Vials Rcvd Preserved) (pH<2)N/A Do VOA vials have zero headspace? N/A 624 VOC (Rcvd at least one unpreserved VOA vial) N/A 524 VOC (Rcvd with trip blanks) (pH<2)N/A

#### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Soil gas/indoor	air not indicated	on COC: same	ples are indoor air.
Gon gao, inacon			

Incoming pressures not taken upon receipt. Pressures will be taken as subcontractor.

Samples Inspected/Checklist Completed By:	Outer I longer	Date: 09/17/2021
	Amber Confer	

PM Review and Approval: Date: 09/17/2021

LynPhadeeck4sloonf 41

Version 1.000



Relinquished By: (2)

Relinquished By: (3)

Relinquished By: (4)

Date

Date

Date

Time

Time

Time

## **SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15**

PHASE SEPARATION SCIENCE, INC. www.phaseonline.com email: info@phaseonline.com

☐ Next Day

**Special Instructions:** 

Data Deliverables Required:

☐ Emergency ☐ Other

#### PSS Work Order #: PAGE OF \*CLIENT: \*OFFICE LOC.: \*PROJECT MGR: EMAIL: \*PHONE NO: ( \* (3) Canister Pressure \* in field ("Hg) Stop Incoming Canister Pressure ("Hg) Lab Indoor/Ambient Air Soil Gas / Subslab PROJECT NO .: Canister Pressure in field ("Hg) Start \*PROJECT NAME: Sample Reg. ID TO-15 Full List SITE LOCATION: P.O. NO.: Special List SAMPLER(S): \*DATE \*Time Start \*DATE \*Time Stop REMARKS LAB# \*SAMPLE IDENTIFICATION START (24hr clock) STOP (24hr clock) Relinquished By: (1) Date \*Requested TAT (One TAT per COC) Shipping Carrier: Time Received By: (4) 5-Day ☐ 3-Dav ☐ 2-Day

Received By:

Received By:

Received By:



Relinquished By: (2)

Relinquished By: (3)

Relinquished By: (4)

Date

Date

Date

Time

Time

Time

## **SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM TO-15**

PHASE SEPARATION SCIENCE, INC. www.phaseonline.com email: info@phaseonline.com

☐ Next Day

**Special Instructions:** 

Data Deliverables Required:

☐ Emergency ☐ Other

#### PSS Work Order #: PAGE OF \*CLIENT: \*OFFICE LOC.: \*PROJECT MGR: EMAIL: \*PHONE NO: ( \* (3) Canister Pressure \* in field ("Hg) Stop Incoming Canister Pressure ("Hg) Lab Indoor/Ambient Air Soil Gas / Subslab PROJECT NO .: Canister Pressure in field ("Hg) Start \*PROJECT NAME: Sample Reg. ID TO-15 Full List SITE LOCATION: P.O. NO.: Special List SAMPLER(S): \*DATE \*Time Start \*DATE \*Time Stop REMARKS LAB# \*SAMPLE IDENTIFICATION START (24hr clock) STOP (24hr clock) Relinquished By: (1) Date \*Requested TAT (One TAT per COC) Shipping Carrier: Time Received By: (4) 5-Day ☐ 3-Dav ☐ 2-Day

Received By:

Received By:

Received By:

Appendix D: Formaldehyde Analytical Results



#### **Certificate of Analysis**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091703

September 27, 2021

Karl Ford
Total Environmental Concepts - Lorton
8382 Terminal Road, Suite B
Lorton, VA 22079

Reference: PSS Project No: 21091703

Project Name: ACPS IAQ Testing

Project Location: Pactrick Henry K-8 School

Project ID.: 4920002



#### Dear Karl Ford:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21091703**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on October 22, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal

Laboratory Manager





#### **Explanation of Qualifiers**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091703

#### Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 09/17/2021 at 10:30 am

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21091703-001	PH- Main Office	AIR	09/15/21 00:00
21091703-002	PH- Hall Kitchen	AIR	09/15/21 00:00
21091703-003	PH- 111	AIR	09/15/21 00:00
21091703-004	PH- Hall 120	AIR	09/15/21 00:00
21091703-005	PH- 129	AIR	09/15/21 00:00
21091703-006	PH- Cafe	AIR	09/15/21 00:00
21091703-007	PH- Rec Center	AIR	09/15/21 00:00
21091703-008	PH- Stairs 200	AIR	09/15/21 00:00
21091703-009	PH- Media Center	AIR	09/15/21 00:00
21091703-010	PH- 207	AIR	09/15/21 00:00
21091703-011	PH- Hall 217	AIR	09/15/21 00:00
21091703-012	PH- 233	AIR	09/15/21 00:00
21091703-013	PH- Stairs 2- 300	AIR	09/15/21 00:00
21091703-014	PH- 322	AIR	09/15/21 00:00
21091703-015	PH- 302 Hall	AIR	09/15/21 00:00

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

#### Notes:

- 1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
- 2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
- 3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
- 4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
- 5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
- 6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
- 7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
- 8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.



#### **Explanation of Qualifiers**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091703

#### Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

#### **Certifications:**

NELAP Certifications: PA 68-03330, VA 460156

State Certifications: MD 179, WV 303 Regulated Soil Permit: P330-12-00268 NSWC USCG Accepted Laboratory LDBE MWAA LD1997-0041-2015



Ms. Amber Confer Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 September 27, 2021

Account# 15354 Login# L546916

**Dear Amber Confer:** 

Enclosed are the analytical results for the samples received by our laboratory on September 18, 2021. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

**SGS Galson** 

Lisa Swab Laboratory Director

Lisa Luab

**Enclosure(s)** 



#### ANALYTICAL REPORT

Account : 15354 Login No.: L546916

#### **Terms and Conditions & General Disclaimers**

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

#### **Analytical Disclaimers**

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <a href="http://www.sgsgalson.com">http://www.sgsgalson.com</a> in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead,
			Environmental Microbiology
State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials
Texas	Texas Dept. of Licensing and	Lab ID: 1042	Mold Analysis Laboratory license

#### Legend

< - Less than MDL - Method Detection Limit mg - Milligrams ppb - Parts per Billion > - Greater than ug - Micrograms NA - Not Applicable ppm - Parts per Million I - Liters m3 - Cubic Meters NS - Not Specified ppbv - ppb Volume LOQ - Limit of Quantitation kg - Kilograms ND - Not Detected ppmv - ppm Volume ft2 - Square Feet cm2 - Square Centimeters ng - Nanograms in2 - Square Inches



#### LABORATORY ANALYSIS REPORT

## GALSON

6601 Kirkville Road
East Syracuse, NY 13057

(315) 432-5227 FAX: (315) 437-0571 www.sgsgalson.com Client : Phase Separation Science, Inc. Account No.: 15354 Site : PATRICK HENRY K-8 SCHOOL Login No. : L546916

Project No. : ACPS IAQ TESTING-4920002

Date Sampled : 15-SEP-21 Date Received : 18-SEP-21 Report ID : 1266390

#### Formaldehyde

		Time	Total	Conc	
<u>Sample ID</u>	<u>Lab ID</u>	minutes	uq	mg/m3	mqq
PH-MAIN OFFICE	L546916-1	234	<0.4	<0.01	<0.01
PH-HALL KITCHEN	L546916-2	229	<0.4	<0.01	<0.01
PH-111	L546916-3	228	<0.4	<0.01	<0.01
PH-HALL 120	L546916-4	220	<0.4	<0.02	<0.01
PH-129	L546916-5	219	<0.4	<0.02	<0.01
PH-CAFE	L546916-6	236	<0.4	<0.01	<0.01
PH-REC CENTER	L546916-7	227	<0.4	<0.01	<0.01
PH-STAIRS 200	L546916-8	239	<0.4	<0.01	<0.01
PH-MEDIA CENTER	L546916-9	238	<0.4	<0.01	<0.01
PH-207	L546916-10	239	<0.4	<0.01	<0.01
PH-HALL 217	L546916-11	239	<0.4	<0.01	<0.01
PH-233	L546916-12	238	<0.4	<0.01	<0.01
PH-STAIRS 2-300	L546916-13	232	<0.4	<0.01	<0.01
PH-322	L546916-14	229	<0.4	<0.01	<0.01
PH-302 HALL	L546916-15	231	<0.4	<0.01	<0.01

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.4 ug Submitted by: JLL Approved by: MLN

Analytical Method : mod. OSHA 1007; HPLC/UV Date : 27-SEP-21

Collection Media : Assay 581 Supervisor : MWJ





## **GALSON**

Client Name : Phase Separation Science, Inc. Site : PATRICK HENRY K-8 SCHOOL Project No. : ACPS IAQ TESTING-4920002

Date Sampled: 15-SEP-21 Account No.: 15354
Date Received: 18-SEP-21 Login No.: L546916

Date Analyzed: 23-SEP-21

L546916 (Report ID: 1266390):

6601 Kirkville Road

FAX: (315) 437-0571

www.sgsgalson.com

East Syracuse, NY 13057 (315) 432-5227

Total ug corrected for a desorption efficiency of 96%.

FORMALDEHYDE results have been corrected for the average background found on the media:

0.1178 ug for lot #4B21 (samples 1-15).

SOPs: LC-SOP-4(23)

L546916 (Report ID: 1266390):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
Formaldehyde	+/-12.1%	95.3%

SGS	GALSON	New Client		Phase Se 6630 Balti	paration S	cience		Invoice To*: Phase Separation Science						
000	UMLOUI	Client Account	-	Baltimore,		· ·								
		onem Account	140			<u> </u>								
6601 Kirky	rille Rd cuse, NY 13057		Phone No.* :	440 747 0	770	<u> </u>		Di						
Tel: (315)	432-5227		Cell No. :		770				o.: <u>410-747-8</u>					
888-4	32-LABS (5227)		Email Results to		ofor		····	Email: invoicing@phaseonline.com P.O. No.: ODC 4920002-001						
www.sgsg	alson.com			ess:reporting@phaseonline.com					d :			*** 6 11		
LW.								orcan our	u · L Card on F	ile []	Call for Cred	ait Card ir	110.	
Need Results By:	(surcharge)			Samples submitted using the FreePumpLoan™ Program  Samples submitted using the FreeSamplingBadges™ Program								am.		
Standard	0%	Site Name: Patric	k Henry K-8 Sc	hool	Pro	oject: ACPS IAQ te	esting - 492000	2 Samp	led by: Karl F	ord				
4 Business Days	35%	Comments:												
□ 3 Business Days 50% □ 2 Business Days 75% □ Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum														
Next Day by 6pm	100%	List description of ind	lustra on December 5-4				T <sub>2</sub>							
Next Day by Noon	150%	List description of ind	lustry or Process/into	errerences pre	sent in samp	ling area :	State samples we collected in (e.g.,		Please indicate w			_	l l	
☐ Same Day	200%	Public grade s	school building	3			VA	,	MSHA	Other (		Cal C	Jana	
Sample Identif	ication*			Samp	ole Volume	1	***				specify,	Havevela	nt Chromium	
(Maxmium of 20 C		Date Sampled	Collection Mediu		ple Time ple Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Anal	ysis Reque	sted*	Method R	Reference^	Process (	e.g., welding	
PH - Main Office	09/15/21	Assay N581 Aldehyde Ba			Min	Formaldehyde			mod, OSHA 1	1007: TPLC/UV	PD433	<del></del>		
PH - Hall Kitchen	09/15/21	Assay N581 Aldehyde Ba	adge 229 Min Formaldehyde				mod. OSHA 1	1007: TPLC/UV	PD542	23				
PH - 111		09/15/21	Assay N581 Aldehyde Ba	dge 228		Min	Formaldehyde			mod. OSHA 1	1007: TPLC/UV	PD431	3	
PH - Hall 120		09/15/21	Assay N581 Aldehyde Ba	adge 220 Min Forma			Formaldehyde			mod. OSHA 1	1007: TPLC/UV	PD524	0	
PH - 129		09/15/21	Assay N581 Aldehyde Ba	<sup>dge</sup> 219		Min	Formaldehyde			mod. OSHA 1007: TPLC/UV		PD418	37	
PH - Cafe		09/15/21	Assay N581 Aldehyde Ba	<sup>ige</sup> 236		Min	Formaldehyde			mod, OSHA 1	007: TPLC/UV	PD401	10	
PH - Rec Center		09/15/21	Assay N581 Aldehyde Ba	ge 227		Min	Formaldehyde			mod, OSHA 1	007: TPLC/UV	PD473	34	
PH - Stairs 200		09/15/21	Assay N581 Aldehyde Ba	<sup>ige</sup> 239		Min	Formaldehyde			mod. OSHA 1	007: TPLC/UV	PD506	30	
PH - Media Center		09/15/21	Assay N581 Aldehyde Bad	<sup>1ge</sup> 238		Min	Formaldehyde			mod. OSHA 1	007: TPLC/UV	PD474	11	
PH - 207		09/15/21	Assay N581 Aldehyde Bad	<sup>1ge</sup> 239		Min	Formaldehyde		<del> </del>	mod. OSHA 1	007: TPLC/UV	PD465	55	
PH - Hall 217		09/15/21	Assay N581 Aldehyde Bad	99 239		Min	Formaldehyde		-	mod. OSHA 1	007: TPLC/UV	PD509	)1	
^Galson Laboratories will substitute our routine/preferred method if it doe				ch the metho	d listed on the	COC unless this box is	checked: V Use	method(s)	listed on COC	I				
For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):  For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:									<del></del>	·		2		
Chain of Custody	Prin	t Name/Signature		Date	Time		Р	rint Name	/Signature		Dat	е	Time	
Relinquished by: Cha		on	0	09/16/21 12:30 Received by:			aler					1030		
Relinquished by:	Mer J	100	10	11712	1030	* Received by:						1041		
		# n-	Samp	es received	after 3pm v	vill be considered as	next day's busin	ess	V					
		- He	quirea nevas tell	TOUR CONTRA	<b>Bertinee</b> fë	Percentago respense	Selenta South Selection	ո <b>փ(թ։Զ</b> Թթiո	g processed.		P	age	of 2	

Invoice To\*: Phase Separation Science Report To\*: Phase Separation Science New Client? SGS GALSON 6630 Baltimore National Pike Baltimore, MD 21228 Client Account No.\*: 6601 Kirkville Rd Phone No.: 410-747-8770 Phone No.\*:410-747-8770 East Syracuse, NY 13057 Email: invoicing@phaseonline.com Tel: (315) 432-5227 Cell No.: 888-432-LABS (5227) P.O. No.: ODC 4920002-001 Email Results to : Amber Confer\_ Credit Card : Card on File Call for Credit Card Info. www.sgsgalson.com Email address: reporting@phaseonline.com Samples submitted using the FreeSamplingBadges™ Program Samples submitted using the FreePumpLoan™ Program Need Results By: (surcharge) Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford Site Name: Patrick Henry K-8 School 0% V Standard 35% 4 Business Days Dosimeter cartrige # noted in the (Hexavelent Chromium Process) colum 50% 3 Business Days 75% 2 Business Days Please indicate which OEL this data will be used for: List description of industry or Process/interferences present in sampling area: State samples were Next Day by 6pm 100% collected in (e.g., NY) OSHA PEL ACGIH TLV Cal OSHA 150% Next Day by Noon Public grade school building П мsha Other (specify): VA 200% Same Day Hexavalent Chromium Sample Volume Sample Units\*: Method Reference^ Process (e.g., welding Analysis Requested\* Sample Time Sample Identification\* Collection Medium **Date Sampled** L, ml,min,in2,cm2,ft2 plating, painting, etc.)\* Sample Area\* (Maxmium of 20 Characters) PD4156 mod. OSHA 1007: TPLC/UV Min Formaldehyde 238 09/15/21 Assay N581 Aldehyde Badge PH - 233 mod. OSHA 1007: TPLC/UV PD5050 Formaldehyde 232 Min 09/15/21 Assay N581 Aldehyde Badge PH - Stairs 2 - 300 mod. OSHA 1007: TPLC/UV IPD5447 Formaldehyde Min 229 09/15/21 Assay N581 Aldehyde Badge PH - 322 PD4042 mod. OSHA 1007: TPLC/U\ Formaldehyde Min 231 09/15/21 Assay N581 Aldehyde Badge PH - 302 Hall 

For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG): For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)\*: Date Time Print Name/Signature Time Print Name/Signature Date Chain of Custody 1030 12:30 Received by: 09/16/21 Relinquished by: Channing Jackson Received by: anno 1030 1ster Relinquished by Samples received after 3pm will be considered as next day's business

<sup>\*</sup> Required Pelge feilufe to complete these fields may cerult in a delay in your samples being processed.



#### Chain of Custody Form for Subcontracted Analyses

Page 1 of 1

Samples Transferred To: Phase Separation Science, Inc. W.O. No.: SGS North America - NY 21091703 Project Location : Pactrick Henry K-8 School 6630 Baltimore National Pike 6601 Kirkville Road Baltimore, MD 21228 East Syracuse, NY 13057 Phone: (410) 747-8770 Project Number: 4920002 Fax: (410) 788-8723 Report To LOD: No Old SGS Galson Labs. bsc 315-432-5227 For Questions or issues please contact: Amber Confer Report Due On:09/27/21 05:00 Field Time Matrix Analyses Required Method Type of Preservative Date Lab Sampled Container Sample ID Sample ID Sampled Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS NONSC NON 09/15/21 00:00 Air 21091703-001 PH- Main Office 09/15/21 Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS PH- Hall Kitchen 00:00 Air NONSC NON 21091703-002 VARIOUS 09/15/21 00:00 Formaldehyde (mod. OSHA 1007; HPLC/UV) NONSC NON 21091703-003 PH- 111 Air Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS NON 09/15/21 NONSC 21091703-004 PH- Hall 120 00:00 Air 09/15/21 Formaldehyde (mod. OSHA 1007; HPLC/UV) **VARIOUS** NONSC NON PH- 129 00:00 Air 21091703-005 Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS NON 09/15/21 00:00 Air NONSC 21091703-006 PH- Cafe Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS 09/15/21 00:00 NONSC NON 21091703-007 PH- Rec Center Air Formaldehyde (mod, OSHA 1007; HPLC/UV) VARIOUS NON 21091703-008 PH- Stairs 200 09/15/21 00:00 Air NONSC Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS NON 09/15/21 00:00 Air NONSC 21091703-009 PH- Media Center Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS 09/15/21 00:00 Air NONSC NON 21091703-010 PH- 207 Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS 09/15/21 00:00 NONSC NON 21091703-011 PH- Hall 217 Air Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS NON 09/15/21 NONSC 21091703-012 PH- 233 00:00 Air 00:00 Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS NONSC NON 21091703-013 PH- Stairs 2- 300 09/15/21 Air 09/15/21 00:00 Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS NONSC NON 21091703-014 PH- 322 Air Formaldehyde (mod. OSHA 1007; HPLC/UV) VARIOUS 21091703-015 PH- 302 Hall 09/15/21 00:00 Air NONSC NON Perform Q.C. on Sample: Data Deliverables Required: COA Send Report Attn: reporting@phaseonline.com Send InvoiceAttn: invoicing@phaseonline.com Airbill No.: \_\_\_\_\_ Carrier : \_\_\_\_\_\_ Condition Upon Receipt : Comments: Samples Relinquished By: West on Date: 9/17/10 Samples Relinquished By:

Date:

Time:

Samples Received By:

Page 7 of 7 Report Reference:1 Generated:27-SEP-21 10:36

Samples Received By:

Page 10 of 14

Samples Received By:

Page 10 of 14 Time: Samples Received By:



#### **Case Narrative**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091703

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

#### Sample Receipt:

All sample receipt conditions were acceptable.

21091703: Analyses associated with analyst code 4051 were performed by SGS North America - NY, 6601 Kirkville Road, East Syracuse, NY 13057 - NY 11626

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

21091703

SGS G	ALSOF	New Client	66	30 Baltin	aration Sonore Nation	onal Pike	Invoice To	o*: <u>Phase S</u>	eparation Sci	ence				
Tel: (315) 4	ise, NY 13057 32-5227 2-LABS (5227)	Phone No.*: 410-747-8770  Cell No.:  Email Results to : Amber Confer  Email address: reporting@phaseonline.com  ✓ Samples submitted using the FreePumpLoan™ Program						Phone No.: 410-747-8770  Email: invoicing@phaseonline.com  P.O. No.: ODC 4920002-001  Credit Card: Card on File Call for Credit Card Info.						
Need Results By:	(surcharge)			Samples su	ıbmitted usir	ng the FreePumpLoan™	Program Samples s	ubmitted using th	e FreeSamplingBadge	s™ Program				
<b>☑</b> Standard	0%	Site Name : Patricl	k Henry K-8 Scho	ol	Pro	oject : ACPS IAQ te	sting - 4920002 samp	led by: Karl F	ord					
4 Business Days	35%	Comments:												
3 Business Days	50%	Dosimeter cartr	rige # noted in the	e (Hexav	elent Chr	omium Process) o	colum							
2 Business Days	75%													
Next Day by 6pm  Next Day by Noon	100%	List description of ind	lustry or Process/interfe	rences pres	sent in sampi	ing area:	State samples were collected in (e.g., NY)	OSHA PEL	hich OEL this data wil	l be used for :				
Same Day	200%	Public grade s	school building				VA	MSHA	Other (specify):					
Sample Identific	cation*	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*		Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Reque	sted*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*				
PH - Main Office		09/15/21	Assay N581 Aldehyde Badge			Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD4330				
PH - Hall Kitchen		09/15/21	Assay N581 Aldehyde Badge	229		Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD5423				
PH - 111		09/15/21	Assay N581 Aldehyde Badge	228	no está yezhoù sa sa so sa timurkona da	Min	Formaldehyde	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	mod. OSHA 1007: TPLC/UV	PD4313				
PH - Hall 120		09/15/21	Assay N581 Aldehyde Badge	220		Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD5240				
PH - 129		09/15/21	Assay N581 Aldehyde Badge	219		Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD4187				
PH - Cafe		09/15/21	Assay N581 Aldehyde Badge	236	***************************************	Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD4010				
PH - Rec Center		09/15/21	Assay N581 Aldehyde Badge	227		Min	Formaldehyde	ATTEMPTED TO THE PARTY OF THE P	mod. OSHA 1007: TPLC/UV	PD4734				
PH - Stairs 200	Section of the sectio	09/15/21	Assay N581 Aldehyde Badge	239	Andreas and Andrew Land Street of the Street of the	Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD5060				
PH - Media Center		09/15/21	Assay N581 Aldehyde Badge	238		Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD4741				
PH - 207		09/15/21	Assay N581 Aldehyde Badge	239		Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD4655				
PH - Hall 217		09/15/21	Assay N581 Aldehyde Badge	239		Min	Formaldehyde		mod, OSHA 1007: TPLC/UV	PD5091				
^Galson Laboratories will	nod if it does not match	the method	listed on th	e COC unless this box is	checked: V Use method(s)	listed on COC	Martin Company							
For metals analysis: if req	uesting an anal	yte with the option of a	lower LOQ, please ind	icate if the I	ower LOQ is	required (only available	o for certain analytes - see SAC	G):						
For crystalline silica: form	tals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG): stalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:													
Chain of Custody														
	nning Jacks	on	09/	16/21	12:30	Received by :	alerta	9 171	N 1030					
Relinquished by:	ver ,	7 (2)	9	17/1	1030	Received by:								
	•	* R				will be considered as elds may result in a	next day's business delay in your samples beir	g processed.	Р	age_1_ of_2_				

21091703

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SGS	G	ALSON		66	ase Sepa 30 Baltim	ore Natio	nal Pike	Invoice To	∘* : <u>Phase S</u>	eparation Sci	ence				
			Client Account	No.*:	illinore, iv	10 2 1220		-				-			
660	01 Kirkville	e Rd	•		engenin Westerlanden besteutster										
Eas	st Syracus	e, NY 13057		Phone No.* : 41	0-747-877	0		Phone N	e No.: <u>410-747-8770</u>						
I e	l: (315) 43: 888-432-	2-5227 -LABS (5227)		Cell No. :						invoicing@phaseonline.com					
140			I	Email Results to : <u>An</u>	nber Confe	er			o.: <u>ODC 4920</u>						
VVV	vw.sgsgals	son.com		Email address: reporting@phaseonline.com Credit Card : Card on File Call for Credit Card Info.											
					Samples sub	mitted usin	ig the FreePumpLoan™	Program	ubmitted using th	ne FreeSamplingBadge	oTM Program	-			
Need Result	ts By:	(surcharge)				ornitted usin	ig the rieer unipcoan	riogram Samples s	ubmitted using th	e rreesamplingbauge	is Program	1			
71777	Standard	0%	Site Name : Patricl	Name: Patrick Henry K-8 School Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford											
777	ess Days	35%	Comments :												
3 Busine	ess Days	50%	Dosimeter cartr	ige # noted in the	e (Hexave	elent Chr	omium Process) o	colum							
2 Busine	ess Days	75%	-												
Next Day	by 6pm	100%	List description of ind	ustry or Process/interfe	rences prese	ent in sampl	ing area :	State samples were		which OEL this data wil	l be used fo	r:			
☐ Next Day I	by Noon	150%	Public grade s	school building				collected in (e.g., NY)	ACGIH TLV	Cal OS	SHA				
☐ Sa	me Day	200%	Tublic grade s	scribbi ballarig				VA	MSHA	Other (specify):					
	le Identifica um of 20 Cha		Date Sampled	Collection Medium	Sampl	Volume e Time e Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Reque	sted*	Method Reference^	Hexavalent ( Process (e.g plating, pain	g., welding			
PH - 233			09/15/21	Assay N581 Aldehyde Badge	238		Min	Formaldehyde		mod. OSHA 1007: TPLC/UV					
PH - Stairs 2	2 - 300		09/15/21	Assay N581 Aldehyde Badge	232		Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD5050	)			
PH - 322			09/15/21	Assay N581 Aldehyde Badge	229	229 Min Formaldehyde				mod. OSHA 1007: TPLC/UV	PD5447				
PH - 302 Ha	II		09/15/21	Assay N581 Aldehyde Badge	231		Min	Formaldehyde		mod. OSHA 1007: TPLC/UV	PD4042				
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^Galson Labora	tories will s	subsititute our r	outine/preferred meth	l nod if it does not match	the method	listed on the	e COC unless this box is	s checked: V Use method(s)	listed on COC	L					
								e for certain analytes - see SAC							
For crystalline s	silica: form(s	s) of silica need	ed must be indicated	Quartz, Cristobalite, ar	nd/or Tridymi	ite)* :						100,000,000 to the			
Chain of Custo	dy	Prin	t Name/Signature		Date	Time		Print Name	e/Signature	Da	te	Time			
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			* R					next day's business delay in your samples beir	ng processed	P	Page 2 c	of 2			



#### **Sample Receipt Checklist**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing PSS Project No.: 21091703

Client Name Total Environmental Concepts - Lorto Received By Amber Confer

**Delivered By** Client

Tracking No Not Applicable

Logged In By Amber Confer

Shipping Container(s)

No. of Coolers 0

Ice N/A

Custody Seal(s) Intact? N/A Temp (deg C)

Seal(s) Signed / Dated?

N/A Temp Blank Present No

**Documentation** Sampler Name <u>Karl Ford</u>

COC agrees with sample labels? Yes MD DW Cert. No. N/A

Chain of Custody Yes

Sample Container Custody Seal(s) Intact? Not Applicable

Appropriate for Specified Analysis? Yes Seal(s) Signed / Dated Not Applicable

Intact? Yes

Labeled and Labels Legible? Yes

Holding Time Total No. of Samples Received 15

All Samples Received Within Holding Time(s)? Yes Total No. of Containers Received 15

Preservation

100011441011		
Total Metals	(pH<2)	N/A
Dissolved Metals, filtered within 15 minutes of collection	(pH<2)	N/A
Orthophosphorus, filtered within 15 minutes of collection		N/A
Cyanides	(pH>12)	N/A
Sulfide	(pH>9)	N/A
TOC, DOC (field filtered), COD, Phenols	(pH<2)	N/A
TOX, TKN, NH3, Total Phos	(pH<2)	N/A
VOC, BTEX (VOA Vials Rcvd Preserved)	(pH<2)	N/A
Do VOA vials have zero headspace?		N/A
624 VOC (Rcvd at least one unpreserved VOA vial)		N/A
524 VOC (Rcvd with trip blanks)	(pH<2)	N/A

#### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:	Auter J longer	Date: 09/17/2021
	Amber Confer	

PM Review and Approval:

Lynn Jackson
Page 14 of 14

Date: 09/17/2021

Version 1.000

SGS	ALSOI	New Client?	Report To* :					Invoice To	o*:				
343	ALSUI	Client Account											
		Cheffit Account											
6601 Kirkvi	lle Rd use, NY 13057		 Phone No.* :					Phone N	 lo.:				
Tel: (315) 4	32-5227		Cell No. :					Ema	lo.: ail :				
888-43	2-LABS (5227)							P.O. N	0.:				
www.sgsga	alson.com							Credit Car	rd : Card on F	ile 🗌	Call for Cred	dit Card I	nfo.
			_										
Need Results By:	(surcharge)			Samples subn	nitted usin	g the FreePumpLoan <sup>™</sup>	Program	Samples s	submitted using th	ie FreeSam	plingBadge	s™ Progra	am
Standard	0%	Site Name :			Pro	ject :		Samp	oled by :				
4 Business Days	35%	Comments:											
3 Business Days	50%												
2 Business Days	75%						_						
Next Day by 6pm	100%	List description of ind	ustry or Process/interfer	ences presen	t in sampl	ing area :	State samples w		Please indicate v				
Next Day by Noon	150%						collected in (e.g.,	, NY)	OSHA PEL	_		Cal	OSHA
Same Day	200%								MSHA	Other (	specify):		
Sample Identifi (Maxmium of 20 Cl		Date Sampled	Collection Medium	Sample \ Sample Sample	Time	Sample Units*: L, ml,min,in2,cm2,ft2	Ana	alysis Reque	ested*	Method F	Reference^	Process (	ent Chromium e.g., welding painting, etc.)*
^Galson Laboratories wil	II subsititute ou	r routine/preferred meth	I nod if it does not match	L the method li	sted on the	e COC unless this box is	s checked: U	se method(s	s) listed on COC	<u> </u>		l	
For metals analysis: if re-	questing an ana	lyte with the option of a	lower LOQ, please indi	cate if the lov	ver LOQ is	required (only availabl	e for certain analy	tes - see SA	.G):				
For crystalline silica: forn	n(s) of silica nee	eded must be indicated	(Quartz, Cristobalite, an	d/or Tridymit	e)*:		<u>-</u>						
Chain of Custody	Pr	int Name/Signature	Г	Date	Time			Print Nam	e/Signature		Da	te	Time
Relinquished by :		-				Received by :							
Relinquished by:						Received by :							
		* R	Samples equired fields, failure			will be considered as elds may result in a			ng processed.	_	P	age	of

SGS	ALSOI	New Client?	Report To* :					Invoice To	o*:				
343	ALSUI	Client Account											
		Cheffit Account											
6601 Kirkvi	lle Rd use, NY 13057		 Phone No.* :					Phone N	 lo.:				
Tel: (315) 4	32-5227		Cell No. :					Ema	lo.: ail :				
888-43	2-LABS (5227)							P.O. N	0.:				
www.sgsga	alson.com							Credit Car	rd : Card on F	ile 🗌	Call for Cred	dit Card I	nfo.
			_										
Need Results By:	(surcharge)			Samples subn	nitted usin	g the FreePumpLoan <sup>™</sup>	Program	Samples s	submitted using th	ie FreeSam	plingBadge	s™ Progra	am
Standard	0%	Site Name :			Pro	ject :		Samp	oled by :				
4 Business Days	35%	Comments:											
3 Business Days	50%												
2 Business Days	75%						_						
Next Day by 6pm	100%	List description of ind	ustry or Process/interfer	ences presen	t in sampl	ing area :	State samples w		Please indicate v				
Next Day by Noon	150%						collected in (e.g.,	, NY)	OSHA PEL	_		Cal	OSHA
Same Day	200%								MSHA	Other (	specify):		
Sample Identifi (Maxmium of 20 Cl		Date Sampled	Collection Medium	Sample \ Sample Sample	Time	Sample Units*: L, ml,min,in2,cm2,ft2	Ana	alysis Reque	ested*	Method F	Reference^	Process (	ent Chromium e.g., welding painting, etc.)*
^Galson Laboratories wil	II subsititute ou	r routine/preferred meth	I nod if it does not match	the method li	sted on the	e COC unless this box is	s checked: U	se method(s	s) listed on COC	<u> </u>		l	
For metals analysis: if re-	questing an ana	lyte with the option of a	lower LOQ, please indi	cate if the lov	ver LOQ is	required (only availabl	e for certain analy	tes - see SA	.G):				
For crystalline silica: forn	n(s) of silica nee	eded must be indicated	(Quartz, Cristobalite, an	d/or Tridymit	e)*:		<u>-</u>						
Chain of Custody	Pr	int Name/Signature	Г	Date	Time			Print Nam	e/Signature		Da	te	Time
Relinquished by :		-				Received by :							
Relinquished by:						Received by :							
		* R	Samples equired fields, failure			will be considered as elds may result in a			ng processed.	_	P	age	of

**Appendix E:** 4-PCH Analytical Results



#### **Certificate of Analysis**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091702

September 27, 2021

Karl Ford
Total Environmental Concepts - Lorton
8382 Terminal Road, Suite B
Lorton, VA 22079

Reference: PSS Project No: 21091702

Project Name: ACPS IAQ Testing

Project Location: Patrick Henry K-8 School

Project ID.: 4920002



#### Dear Karl Ford:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **21091702**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on October 22, 2021, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,

Dan Prucnal
Laboratory Manager





#### **Explanation of Qualifiers**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091702

#### **Project ID: 4920002**

The following samples were received under chain of custody by Phase Separation Science (PSS) on 09/17/2021 at 10:30 am

PSS Sample ID	Sample ID	Matrix	Date/Time Collected	
21091702-001	PH- Main Office	AIR	09/15/21 00:00	
21091702-002	PH- Hall Kitchen	AIR	09/15/21 00:00	
21091702-003	PH- 111	AIR	09/15/21 00:00	
21091702-004	PH- Hall 120	AIR	09/15/21 00:00	
21091702-005	PH- 129	AIR	09/15/21 00:00	
21091702-006	PH- Cafe	AIR	09/15/21 00:00	
21091702-007	PH- Rec Center	AIR	09/15/21 00:00	
21091702-008	PH- Stairs 200	AIR	09/15/21 00:00	
21091702-009	PH- Media Room 200	AIR	09/15/21 00:00	
21091702-010	PH- 207	AIR	09/15/21 00:00	
21091702-011	PH- Hall 217	AIR	09/15/21 00:00	
21091702-012	PH- 233	AIR	09/15/21 00:00	
21091702-013	PH- Stairs 2- 300	AIR	09/15/21 00:00	
21091702-014	PH- 322	AIR	09/15/21 00:00	
21091702-015	PH- 302 Hall	AIR	09/15/21 00:00	

Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

#### Notes:

- 1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
- 2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
- 3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
- 4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminates, and part 141.3, for the secondary drinking water contaminates.
- 5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
- 6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
- 7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
- 8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.



#### **Explanation of Qualifiers**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

SCIENCE

Project Name: ACPS IAQ Testing

PSS Project No.: 21091702

#### Standard Flags/Abbreviations:

- B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C Results Pending Final Confirmation.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND Not Detected at or above the reporting limit.
- RL PSS Reporting Limit.
- U Not detected.

#### **Certifications:**

NELAP Certifications: PA 68-03330, VA 460156

State Certifications: MD 179, WV 303 Regulated Soil Permit: P330-12-00268 NSWC USCG Accepted Laboratory LDBE MWAA LD1997-0041-2015



Ms. Amber Confer Phase Separation Science, Inc. 6630 Baltimore National Pike Baltimore, MD 21228 September 23, 2021

Account# 15354 Login# L546913

Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on September 18, 2021. All samples on the chain of custody were received in good condition unless otherwise noted. Any additional observations will be noted on the chain of custody.

Please contact client services at (888) 432-5227 if you would like any additional information regarding this report. Thank you for using SGS Galson.

Sincerely,

SGS Galson

Lisa Swab Laboratory Director

Lisa Luab

Enclosure(s)



#### ANALYTICAL REPORT

Account : 15354 Login No.: L546913

#### **Terms and Conditions & General Disclaimers**

- This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.
- Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

#### **Analytical Disclaimers**

- Unless otherwise noted within the report, all quality control results associated with the samples were within established control limits or did not impact reported results.
- Note: The findings recorded within this report were drawn from analysis of the sample(s) provided to the laboratory by the Client (or a third party acting at the Client's direction). The laboratory does not have control over the sampling process, including but not limited to the use of field equipment and collection media, as well as the sampling duration, collection volume or any other collection parameter used by the Client. The findings herein constitute no warranty of the sample's representativeness of any sampled environment, and strictly relate to the samples as they were presented to the laboratory. For recommended sampling collection parameters, please refer to the Sampling and Analysis Guide at www.sgsgalson.com.
- Unrounded results are carried through the calculations that yield the final result and the final result is rounded to the number of significant figures appropriate to the accuracy of the analytical method. Please note that results appearing in the columns preceding the final result column may have been rounded and therefore, if carried through the calculations, may not yield an identical final result to the one reported.
- The stated LOQs for each analyte represent the demonstrated LOQ concentrations prior to correction for desorption efficiency (if applicable).
- Unless otherwise noted within the report, results have not been blank corrected for any field blank or method blank data.

Accreditations SGS Galson holds a variety of accreditations and recognitions. Our quality management system conforms with the requirements of ISO/IEC 17025. Where applicable, samples may also be analyzed in accordance with the requirements of ELAP, NELAC, or LELAP under one of the state accrediting bodies listed below. Current Scopes of Accreditation can be viewed at <a href="http://www.sgsgalson.com">http://www.sgsgalson.com</a> in the accreditations section of the "About" page. To determine if the analyte tested falls under our scope of accreditation, please visit our website or call Client Services at (888) 432-5227.

National/International	Accreditation/Recognition	Lab ID#	Program/Sector
AIHA-LAP, LLC - IHLAP, ELLAP, EMLAP	ISO/IEC 17025 and USEPA NLLAP	Lab ID 100324	Industrial Hygiene, Environmental Lead,
			Environmental Microbiology
State	Accreditation/Recognition	Lab ID#	Program/Sector
New York (NYSDOH)	ELAP and NELAC (TNI)	Lab ID: 11626	Air Analysis, Solid and Hazardous Waste
New Jersey (NJDEP)	NELAC (TNI)	Lab ID: NY024	Air Analysis
Louisiana (LDEQ)	LELAP	Lab ID: 04083	Air Analysis, Solid Chemical Materials
Texas	Texas Dept. of Licensing and	Lab ID: 1042	Mold Analysis Laboratory license
	Regulation		

#### Legend

< - Less than MDL - Method Detection Limit mg - Milligrams ppb - Parts per Billion > - Greater than ug - Micrograms NA - Not Applicable ppm - Parts per Million I - Liters m3 - Cubic Meters NS - Not Specified ppbv - ppb Volume LOQ - Limit of Quantitation kg - Kilograms ND - Not Detected ppmv - ppm Volume ft2 - Square Feet cm2 - Square Centimeters ng - Nanograms in2 - Square Inches



#### LABORATORY ANALYSIS REPORT

## GALSON

6601 Kirkville Road
East Syracuse, NY 13057

(315) 432-5227 FAX: (315) 437-0571 www.sqsqalson.com Client : Phase Separation Science, Inc. Account No.: 15354 Site : PATRICK HENRY K-8 SCHOOL Login No. : L546913

Project No. : ACPS IAQ TESTING-4920002

Date Sampled : 15-SEP-21 Date Analyzed : 21-SEP-21 - 22-SEP-21

Date Received : 18-SEP-21 Report ID : 1266114

#### 4-Phenylcyclohexene (4PCH low LOQ)

		Air Vol	Front	Back	Total	Conc	ppm
Sample ID	<u>Lab ID</u>	liter	uq	uq	uq	mq/m3	
PH-MAIN OFFICE	L546913-1	46.8	<0.2	<0.2	<0.2	<0.004	<0.0007
PH-HALL KITCHEN	L546913-2	45.8	<0.2	<0.2	<0.2	<0.005	<0.0007
PH-111	L546913-3	45.6	<0.2	<0.2	<0.2	<0.005	<0.0007
PH-HALL 120	L546913-4	44	<0.2	<0.2	<0.2	<0.005	<0.0007
PH-129	L546913-5	43.8	<0.2	<0.2	<0.2	<0.005	<0.0007
PH-CAFE	L546913-6	47.2	<0.2	<0.2	<0.2	<0.004	<0.0007
PH-REC CENTER	L546913-7	45.4	<0.2	<0.2	<0.2	<0.005	<0.0007
PH- STAIRS 200	L546913-8	47.8	<0.2	<0.2	<0.2	<0.004	<0.0007
PH-ROOM 200	L546913-9	47.6	<0.2	<0.2	<0.2	<0.004	<0.0007
PH-207	L546913-10	47.8	<0.2	<0.2	<0.2	<0.004	<0.0007
PH-HALL 217	L546913-11	47.8	<0.2	<0.2	<0.2	<0.004	<0.0007
PH-233	L546913-12	47.6	<0.2	<0.2	<0.2	<0.004	<0.0007
PH-STAIRS 2-300	L546913-13	46.4	<0.2	<0.2	<0.2	<0.004	<0.0007
PH-322	L546913-14	45.8	<0.2	<0.2	<0.2	<0.005	<0.0007
PH-302 HALL	L546913-15	46.2	<0.2	<0.2	<0.2	<0.004	<0.0007

COMMENTS: Please see attached lab footnote report for any applicable footnotes.

Level of Quantitation: 0.2 ug Submitted by: BDK Approved by: MLN

Analytical Method : mod. NIOSH 1501; GC/PID Date : 23-SEP-21

Collection Media : 226-01 Supervisor : KAG





## **GALSON**

6601 Kirkville Road East Syracuse, NY 13057

(315) 432-5227 FAX: (315) 437-0571 www.sgsgalson.com Client Name : Phase Separation Science, Inc. Site : PATRICK HENRY K-8 SCHOOL Project No. : ACPS IAQ TESTING-4920002

Date Sampled: 15-SEP-21 Account No.: 15354
Date Received: 18-SEP-21 Login No.: L546913

Date Analyzed: 21-SEP-21 - 22-SEP-21

L546913 (Report ID: 1266114):

Total ug corrected for a desorption efficiency of 97%. SOPs: GC-SOP-16(26), GC-SOP-8(27), GC-SOP-12(20)

L546913 (Report ID: 1266114):

Accuracy and mean recovery data presented below is based on a 95% confidence interval (k=2). The estimated accuracy applies to the media, technology, and SOP referenced in this report and does not account for the uncertainty associated with the sampling process. The accuracy is based solely on spike recovery data from internal quality control samples. Where N/A appears below, insufficient data is available to provide statistical accuracy and mean recovery values for the associated analyte.

Parameter	Accuracy	Mean Recovery
4-Phenylcyclohexene (4PCH low LOQ)	+/-18%	88.2%

21691702 SGS GALSON New Client? Report To\*: Phase Separation Science Invoice To\*: Phase Separation Science 6630 Baltimore National Pike Baltimore, MD 21228 Client Account No.\*: 1Z2313E44465093217 Date:09/18/21 Phone No.\*: 410-747-8770 Shipper: UPS Phone No.: 410-747-8770 Initials:AJB Cell No.: Email: invoicing@phaseonline.com Email Results to : Amber Confer P.O. No.: ODC 4920002-001 Prep: UNKNOWN Email address: reporting@phaseonline.com Credit Card : Card on File Call for Credit Card Info. Samples submitted using the FreePumpLoan™ Program Samples submitted using the FreeSamplingBadges™ Program **Need Results By:** (surcharge) Site Name: Patrick Henry K-8 School 0% Standard Project: ACPS IAQ testing - 4920002 Sampled by: Karl Ford 4 Business Days 35% Comments: 3 Business Days 50% -AILNG. ASB 9118/21 2 Business Days 75% Next Day by 6pm 100% List description of industry or Process/interferences present in sampling area: State samples were Please indicate which OEL this data will be used for: Next Day by Noon 150% collected in (e.g., NY) OSHA PEL ACGIH TLV Cal OSHA Public grade school Same Day 200% VA ☐ MSHA Other (specify): Sample Volume Sample Identification\* Hexavalent Chromium Sample Units\*: Collection Medium Date Sampled Sample Time (Maxmium of 20 Characters) Analysis Requested\* Method Reference Process (e.g., welding L, ml.min,in2,cm2,ft2 Sample Area\* plating, painting, etc.)\* PH - Main Office 09/15/21 46.8 Sm Charcoal tubes / 226-01 4-Phenylcyclohexene mod, NIOSH 1501 PH - Hall Kitchen 09/15/21 45.8 Sm Charcoal tubes / 226-01 4-Phenylcyclohexene mod, NIOSH 1501 PH - 111 09/15/21 Sm Charcoal tubes / 226-01 45.6 4-Phenylcyclohexene mod, NIOSH 1501 PH - Hall 120 09/15/21 Sm Charcoal tubes / 226-01 44.0 4-Phenylcyclohexene mod. NIOSH 1501 PH - 129 09/15/21 Sm Charcoal tubes / 226-01 43.8 4-Phenylcyclohexene mod, NIOSH 1501 PH - Cafe 09/15/21 47.2 Sm Charcoal tubes / 226-01 4-Phenylcyclohexene mod, NIOSH 1501 PH - Rec Center 09/15/21 45.4 Sm Charcoal tubes / 226-01 4-Phenylcyclohexene mod, NIOSH 1501 PH - Stairs 200 maj rhu 09/15/21 47.8 Sm Charcoal tubes / 226-01 4-Phenylcyclohexene mod. NIOSH 1501 PH - Media Center Long 200 09/15/21 Sm Charcoal tubes / 226-01 47.6 4-Phenylcyclohexene mod. NIOSH 1501 PH - 207 09/15/21 Sm Charcoal tubes / 226-01 47.8 4-Phenylcyclohexene mod. NIOSH 1501 PH - Hall 217 09/15/21 Sm Charcoal tubes / 226-01 47.8 4-Phenylcyclohexene mod, NIOSH 1501 \*Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: | V Use method(s) listed on COC For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG): For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)\*: Chain of Custody Print Name/Signature Date Time Print Name/Signature Date Time

Samples received after 3pm will be considered as next day's business
\* Required finding for the completer the effects on a feet finding for the completer the effects on a feet finding for the completer the effects on a feet finding for the completer the effects on a feet finding for the completer the effects on a feet finding for the completer the effects on a feet finding for the completer the effects on a feet finding for the completer the effects of the effects o

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12:30

09/16/21

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Relinquished by:

9117124

1030

Page 1 of 2

21091702

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			Client Account	No.*: Ba	itimore, i	ND 21228		, .A.	<del></del>		······		***************************************
ľ	6601 Kirkvil East Syracu	lle Rd ise, NY 13057		Phone No.* : 41(	0-747-877	70		Phone	No.: 410-747-8	770			
	Tel: (315) 4	32-5227 2-LABS (5227)		Cell No. :				E	nail: invoicing@	phaseor	nline.com		
			I	Email Results to : Am	ber Conf	er	3	P.O.	No.: ODC 4920				
1	www.sgsga	ilson.com		Email address: rep	orting@p	haseonlir	ie.com	Credit C	ard: Card on F	ile 🗌	Call for Cree	dit Card Ir	nfo.
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胎	2 Business Days Next Day by 6pm	75% 100%	List description of inc	lustry or Process/interfe	rancas nras	ent in earnol	ing area :	State samples were	Please indicate v	which OFL t	his data wil	he used	for
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片	Same Day	200%	Public grade s	ublic grade school VA MSHA Other (specify):									
	Sample Identifi (Maxmium of 20 Ct		tition* Date Sampled Collection Medium Sample Time Sample Units*: Analysis Requested* Method Reference^ Process (e.g.								nt Chromium e.g., welding painting, etc.)*		
Ph	- 233		09/15/21	Sm Charcoal tubes / 226-01	47.6		L	4-Phenylcyclohexene		mod. NI	OSH 1501		
Ph	l - Stairs 2 - 300		09/15/21	Sm Charcoal tubes / 226-01	46.4		L	4-Phenylcyclohexene		mod. NI	OSH 1501		
Pŀ	- 322		09/15/21	Sm Charcoal tubes / 226-01	45.8		L	4-Phenylcyclohexene		mod. NI	OSH 1501		
Ph	l - 302 Hall		09/15/21	Sm Charcoal tubes / 226-01	46.2		L	4-Phenylcyclohexene	····	mod. NI	OSH 1501		
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								e for certain analytes - see					
				(Quartz, Cristobalite, ar									
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Phase Separation Science, Inc

## Chain of Custody Form for Subcontracted Analyses

Page 1 of 1

Samples Transferred To:

i, mc		W.C	). No. :	21001702		-			
Pike				Patrick Henry K-8 School	SGS	North America - N	Y		
					<del></del>				
					East	· ·			
og mlogge		Rep	ort To LOI	): No	Qld	SGS Galson Labs. b	sc		
es piease contact: Ai	mber Conter		Report I	Due On :09/27/21 05:00	Phor	ne: 315-432-5227			
Field	Date				Mathad	T C			
Sample ID	Sampled	Sampled		7 maryses required	Method	Container	Preservative		
PH- Main Office	09/15/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
PH- Hall Kitchen	09/15/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
PH- 111	09/15/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON		
PH- Hall 120	09/15/21	00:00	Air	4-Phenylcyclohexene	VARIOUS		NON		
PH- 129	09/15/21	00:00	Air	4-Phenylcyclohexene	VARIOUS		NON		
PH- Cafe	09/15/21	00:00	Air	4-Phenylcyclohexene			NON		
PH- Rec Center	09/15/21	00:00	Air	4-Phenylcyclohexene		<u> </u>	NON		
PH- Stairs 200	09/15/21	00:00	Air	4-Phenylcyclohexene		<u> </u>	NON		
I- Media Room 200	09/15/21	00:00	Air	4-Phenylcyclohexene		<u> </u>	NON		
PH- 207	09/15/21	00:00	Air	4-Phenylcyclohexene			NON		
PH- Hall 217	09/15/21	00:00	Air	4-Phenylcyclohexene			NON		
PH- 233	09/15/21	00:00	Air	4-Phenylcyclohexene			NON		
PH- Stairs 2- 300	09/15/21	00:00	Air			ļ <u></u>	NON		
PH- 322	09/15/21	00:00	Air	4-Phenylcyclohexene			NON		
PH- 302 Hall	09/15/21	00:00	Air	4-Phenylcyclohexene			NON		
tn: reporting@p	phaseonline.con	NPS			• -	nvoicing@phaseon	ıline.com		
ausun	Date : 4/1/2	Tir	ne:	Samples Received By:					
aurun	Date : 4/1/2	Tii	me:	Samples Received By:  Samples Received By:  Reference: 1 Generated: 23-SEP-: Samples Received By:	Benneu Idi	Down soll	9/18/21		
	Field Sample ID  PH- Main Office PH- Hall Kitchen PH- 111 PH- Hall 120 PH- 129 PH- Cafe PH- Rec Center PH- Stairs 200 I- Media Room 200 PH- 207 PH- Hall 217 PH- 233 PH- Stairs 2- 300 PH- 322 PH- 302 Hall  Ies Required: In : reporting@p Carr	## Pike  ## Pike  ## Pike    Pield	Pike  Proj Proj Proj Rep es please contact: Amber Confer  Field Sampled Date Sampled  PH- Main Office 09/15/21 00:00  PH- Hall Kitchen 09/15/21 00:00  PH- Hall 120 09/15/21 00:00  PH- 129 09/15/21 00:00  PH- Cafe 09/15/21 00:00  PH- Rec Center 09/15/21 00:00  PH- Stairs 200 09/15/21 00:00  I- Media Room 200 09/15/21 00:00  PH- Hall 217 09/15/21 00:00  PH- Stairs 2-300 09/15/21 00:00  PH- Stairs 2-300 09/15/21 00:00  PH- Stairs 2-300 09/15/21 00:00  PH- 302 Hall 09/15/21 00:00	Pike  Project Location Project Number  Report To LOI  es please contact: Amber Confer  Field Sample ID  PH- Main Office  PH- Hall Kitchen  PH- Hall 120  PH- 129  PH- 129  PH- Cafe  PH- Rec Center  PH- Rec Center  PH- Stairs 200  PH- Stairs 200  PH- 233  PH- 233  PH- 233  PH- 233  PH- 233  PH- Stairs 2- 300  PH- Stairs 2- 300  PH- Stairs 2- 300  PH- Stairs 2- 300  PH- 322  PH- 302 Hall  PH- 302 Hall  PH- 302 Hall  PH- COA  PH- COA  PH- COA  PH- 302 Hall  PH- COA  PH- COA  PH- COA  PH- COA  PH- COA  PH- Stairs 2- 300  PH- 302 Hall  PH- 302 Hall  PH- 302 Hall  PH- 302 Hall  PH- 304 PH- COA  PH- 302 Hall  PH- 302 Hall  PH- 302 Hall  PH- 304 PH- COA  PH- COA  PH- COA  PH- COA  PH- COA  PH- COA  PH- 100  PH- 10	Pike   W.O. No. :   21091702   Patrick Henry K-8 School   Project Number :   4920002   Report To LOD :   No   Report Due On :09/27/21 05:00	Pike	Pike		



#### **Case Narrative**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing

PSS Project No.: 21091702

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

#### **Sample Receipt:**

All sample receipt conditions were acceptable.

21091702: Analyses associated with analyst code 4051 were performed by SGS North America - NY, 6601 Kirkville Road, East Syracuse, NY 13057 - NY 11626

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

21691702

SGS	ALSOI	New Client Client Account	6	630 Baltir	paration Some Nation MD 21228	onal Pike	Invoice To	o*: <u>Phase S</u>	eparation Sci	ence
Tel: (315) 4	ıse, NY 13057 32-5227 2-LABS (5227)	1	Phone No.* :4  Cell No. :  Email Results to :A	mber Con	fer	2	Ema P.O. N	o.: ODC 4920	phaseonline.com	
Email address: reporting@phaseonline.com  Credit Card : ☐ Card on File ☐ Call for Credit Card Info.  Need Results By: (surcharge)  Email address: reporting@phaseonline.com  Credit Card : ☐ Card on File ☐ Call for Credit Card Info.										
Standard	0%	Site Name : Patric	k Henry K-8 Sch	ool	Pro	pject : ACPS IAQ te	esting - 4920002 Samr	oled by: Karl F	ord	
4 Business Days	35%	Comments :	, , , , , , , , , , , , , , , , , , ,			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	John J. C. Louis Comp.	nou by . Itali i	014	
3 Business Days	50%									
2 Business Days	75%									
Next Day by 6pm	100%	List description of inc	lustry or Process/inter	ferences pre	sent in samp	ling area :	State samples were		vhich OEL this data wi	
Next Day by Noon	150%	Public grade s	school				collected in (e.g., NY)		ACGIH TLV	Cal OSHA
Same Day	200%		T	T 6	1- M-1	<del></del>	VA	MSHA	Other (specify):	To the second
Sample Identifi (Maxmium of 20 Ch		Date Sampled	Collection Mediun	n Sam	le Volume ple Time ple Area*	Sample Units*: L, ml.min,in2,cm2,ft2	Analysis Reque	ested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
PH - Main Office		09/15/21	Sm Charcoal tubes / 226-0	46.8		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - Hall Kitchen		09/15/21	Sm Charcoal tubes / 226-0	45.8		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - 111		09/15/21	Sm Charcoal tubes / 226-0	45.6		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - Hall 120		09/15/21	Sm Charcoal tubes / 226-0	1 44.0		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - 129		09/15/21	Sm Charcoal tubes / 226-0	1 43.8		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - Cafe		09/15/21	Sm Charcoal tubes / 226-0	47.2		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - Rec Center		09/15/21	Sm Charcoal tubes / 226-0	1 45.4		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - Stairs 200	alrul	09/15/21	Sm Charcoal tubes / 226-0	1 47.8		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - Media Center	form 200	09/15/21	Sm Charcoal tubes / 226-0	47.6		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - 207		09/15/21	Sm Charcoal tubes / 226-0	47.8		L	4-Phenylcyclohexene		mod. NIOSH 1501	
PH - Hall 217		09/15/21	Sm Charcoal tubes / 226-0	47.8		L	4-Phenylcyclohexene		mod. NIOSH 1501	
^Galson Laboratories will	l subsititute our	routine/preferred met	hod if it does not mate	h the metho	d listed on th	e COC unless this box is	s checked: V Use method(s	listed on COC		
For metals analysis: if rec	questing an anal	yte with the option of a	lower LOQ, please in	dicate if the	lower LOQ is	required (only available	e for certain analytes - see SA	3):		
For crystalline silica: form	n(s) of silica nee	ded must be indicated	(Quartz, Cristobalite,	and/or Tridy	nite)* :					
Chain of Custody		nt Name/Signature		Date	Time		Print Name	e/Signature	Da	te Time
Relinquished by: Cha	nning Jacks	on		9/16/21	12:30	Received by :	aluscof	5	9/17/7	1030
Relinquished by:	les	com	19	11111	1030					
		* R					next day's business delay in your samples beir	ng processed.	F	Page_1_ of _2_

21091702

SGS	GALS	ON	New Client	-	Phase Sep 6630 Baltir Baltimore,	nore Natio	onal Pike	Invoice T	o* : <u>Phase S</u>	eparation Sci	ence	
East : Tel: (	Kirkville Rd Syracuse, NY 1 315) 432-5227 888-432-LABS ( sgsgalson.cor	5227)	E	Cell No. : Email Results to : , Email address:	esults to : Amber Confer P.O. No. : ODC 4920002-001					phaseonline.com	dit Card Info.	
Need Results By: (surcharge) Samples submitted using the FreePumpLoan™ Program Samples submitted using the FreeSamplingBadges™ Program												
	ndard 0%	Si	ite Name : Patrick	Henry K-8 Scl	nool	Pro	oject : ACPS IAQ to	esting - 4920002 samp	oled by: Karl F	ord		
4 Business	Days 35%	C	omments:	mments:								
3 Business Days 50%												
2 Business						****		T				
Next Day by Next Day by			ist description of ind	ustry or Process/inte	rferences pre	sent in sampl	ing area:	State samples were collected in (e.g., NY)		hich OEL this data wil	-	
Next Day by Same			Public grade school    Collected in (e.g., NY)									
Sample Identification*  (Maxmium of 20 Characters)  Date Sampled  Collection Medium  Sample Volume Sample Units*:  L. ml.min.in2.cm2.ft2  Analysis Requested*  Method Reference^ Process (e.g.								Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*				
PH - 233			09/15/21	Sm Charcoal tubes / 226			L	4-Phenylcyclohexene		mod. NIOSH 1501	plating, painting, etc.,	
PH - Stairs 2 -	300		09/15/21	Sm Charcoal tubes / 226	01 46.4		L	4-Phenylcyclohexene		mod. NIOSH 1501		
PH - 322			09/15/21	Sm Charcoal tubes / 226	-01 45.8		L	4-Phenylcyclohexene		mod. NIOSH 1501		
PH - 302 Hall			09/15/21	Sm Charcoal tubes / 226	01 46.2		L	4-Phenylcyclohexene		mod. NIOSH 1501		
				Sm Charcoal tubes / 226	01		L	4-Phenylcyclohexene	White and the second se	mod. NIOSH 1501		
				Sm Charcoal tubes / 226	01		L	4-Phenylcyclohexene		mod. NIOSH 1501		
				Sm Charcoal tubes / 226	01		L	4-Phenylcyclohexene		mod. NIOSH 1501		
	V - 1000			Sm Charcoal tubes / 226	-01		L	4-Phenylcyclohexene		mod. NIOSH 1501		
				Sm Charcoal tubes / 226	01		L	4-Phenylcyclohexene		mod. NIOSH 1501		
				Sm Charcoal tubes / 226	01		L	4-Phenylcyclohexene		mod. NIOSH 1501		
				Sm Charcoal tubes / 226	01		L	4-Phenylcyclohexene		mod. NIOSH 1501		
^Galson Laborator	ies will subsititu	te our rou	utine/preferred meth	od if it does not mat	ch the method	d listed on the	e COC unless this box is	s checked: V Use method(s	) listed on COC	•		
For metals analysis	s: if requesting a	n analyte	with the option of a	lower LOQ, please i	ndicate if the I	lower LOQ is	required (only available	e for certain analytes - see SA	3):	W 1 W 1 W 1 W 1 W 1 W 1 W 1 W 1 W 1 W 1		
For crystalline silic	a: form(s) of silic	a needed	must be indicated (	Quartz, Cristobalite,	and/or Tridyr	nite)* :				2 0 2 0 2 0 3		
Chain of Custody			Name/Signature		Date	Time		Print Name	e/Signature	Da	te Time	
Relinquished by:			7		9/16/21	12:30	Received by :	arenjo	m	91171	U 1030	
Relinquished by :	are	7	hort		112121	1030	<del></del>					
	Samples received after 3pm will be considered as next day's business  * Required fields, failure to complete these fields may result in a delay in your samples being processed.  Page 2 of 2											



#### **Sample Receipt Checklist**

6630 Baltimore National Pike Baltimore, MD 21228 410-747-8770 800-932-9047 www.phaseonline.com

Project Name: ACPS IAQ Testing PSS Project No.: 21091702

Client Name Total Environmental Concepts - Lorto Received By Amber Confer

**Delivered By** Client

Tracking No Not Applicable

Logged In By Amber Confer

Shipping Container(s)

No. of Coolers 0

Ice N/A

Custody Seal(s) Intact? N/A Temp (deg C)

Seal(s) Signed / Dated?

N/A Temp Blank Present No

**Documentation** Sampler Name <u>Karl Ford</u>

COC agrees with sample labels? Yes MD DW Cert. No. N/A

Chain of Custody Yes

Sample Container Custody Seal(s) Intact? Not Applicable

Appropriate for Specified Analysis? Yes Seal(s) Signed / Dated Not Applicable

Intact? Yes

Labeled and Labels Legible? Yes

Holding Time Total No. of Samples Received 15

All Samples Received Within Holding Time(s)? Yes Total No. of Containers Received 15

**Preservation** 

**Total Metals** (pH<2)N/A Dissolved Metals, filtered within 15 minutes of collection (pH<2)N/A Orthophosphorus, filtered within 15 minutes of collection N/A Cyanides (pH>12)N/A Sulfide (pH>9)N/A TOC, DOC (field filtered), COD, Phenols N/A (pH<2)TOX, TKN, NH3, Total Phos (pH<2)N/A VOC, BTEX (VOA Vials Rcvd Preserved) (pH<2)N/A Do VOA vials have zero headspace? N/A 624 VOC (Rcvd at least one unpreserved VOA vial) N/A 524 VOC (Rcvd with trip blanks) (pH<2)N/A

#### Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Samples Inspected/Checklist Completed By:	Outer I longer	Date: 09/17/2021
	Amber Confer	

PM Review and Approval:

Lynn Jackson
Page 14 of 14

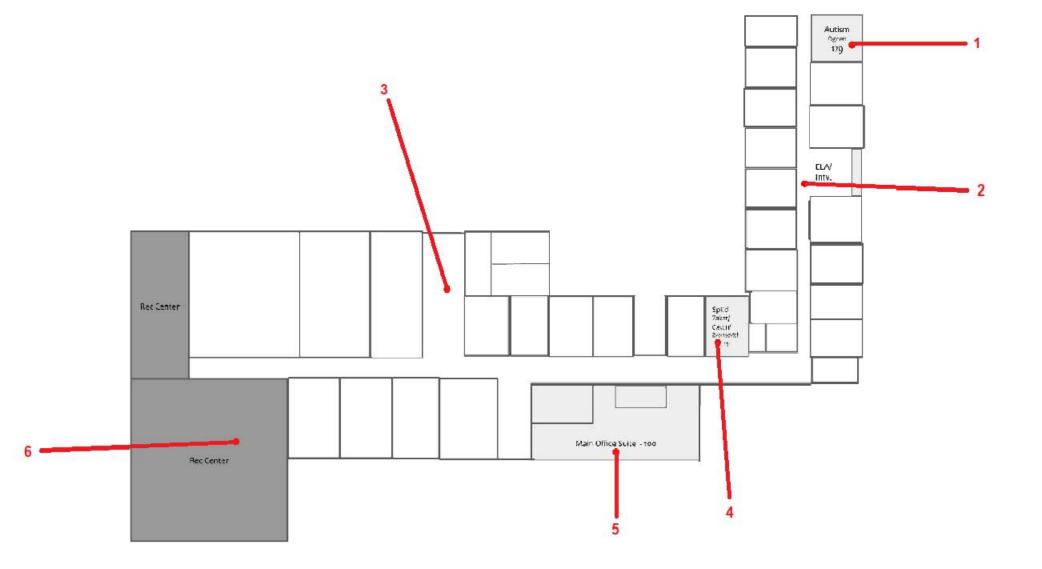
Version 1.000

Date: 09/17/2021

SGS	ALSOI	New Client?	Report To* :					Invoice To	o*:						
343	ALSUI	Client Account													
		Cheffit Account													
6601 Kirkvi East Syracu		 Phone No.* :					Phone N	 lo.:							
Tel: (315) 4	32-5227		Cell No. :					Phone No.:							
Tel: (315) 432-5227															
www.sgsga	alson.com							Credit Car	rd : Card on Fi	le 🗆	Call for Cred	dit Card Ir	nfo.		
			_												
Need Results By:	(surcharge)			Samples subn	nitted usin	g the FreePumpLoan <sup>™</sup>	Program	Samples s	submitted using th	e FreeSam	plingBadge	s™ Progra	am.		
Standard	0%	Site Name :			Pro	ject :		Samp	oled by :						
4 Business Days	35%	Comments:													
3 Business Days	50%														
2 Business Days	75%						_								
Next Day by 6pm	100%	List description of ind	ustry or Process/interfer	ences presen	t in sampli	ing area :	State samples we		Please indicate w						
Next Day by Noon	150%						collected in (e.g.,	NY)	OSHA PEL	_		Cal (	DSHA		
Same Day	200%								MSHA	Other (	specify):				
Sample Identifi (Maxmium of 20 Cl		Date Sampled	Collection Medium	Sample \ Sample Sample	Time	Sample Units*: L, ml,min,in2,cm2,ft2	Ana	alysis Reque	ested*	Method Reference			Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*		
^Galson Laboratories wil	II subsititute ou	r routine/preferred meth	I nod if it does not match	the method li	sted on the	e COC unless this box is	s checked: Us	se method(s	s) listed on COC						
^Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: Use method(s) listed on COC  For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):															
For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:															
Chain of Custody Print Name/Signature Date Time Print Name/Signature Da								te	Time						
Relinquished by :		-				Received by :									
Relinquished by:						Received by :									
Samples received after 3pm will be considered as next day's business  * Required fields, failure to complete these fields may result in a delay in your samples being processed.  Page of															

SGS	ALSOI	New Client?	Report To* :					Invoice To	o*:						
343	ALSUI	Client Account													
		Cheffit Account													
6601 Kirkvi East Syracu		 Phone No.* :					Phone N	 lo.:							
Tel: (315) 4	32-5227		Cell No. :					Phone No.:							
Tel: (315) 432-5227															
www.sgsga	alson.com							Credit Car	rd : Card on Fi	le 🗆	Call for Cred	dit Card Ir	nfo.		
			_												
Need Results By:	(surcharge)			Samples subn	nitted usin	g the FreePumpLoan <sup>™</sup>	Program	Samples s	submitted using th	e FreeSam	plingBadge	s™ Progra	am.		
Standard	0%	Site Name :			Pro	ject :		Samp	oled by :						
4 Business Days	35%	Comments:													
3 Business Days	50%														
2 Business Days	75%						_								
Next Day by 6pm	100%	List description of ind	ustry or Process/interfer	ences presen	t in sampli	ing area :	State samples we		Please indicate w						
Next Day by Noon	150%						collected in (e.g.,	NY)	OSHA PEL	_		Cal (	DSHA		
Same Day	200%								MSHA	Other (	specify):				
Sample Identifi (Maxmium of 20 Cl		Date Sampled	Collection Medium	Sample \ Sample Sample	Time	Sample Units*: L, ml,min,in2,cm2,ft2	Ana	alysis Reque	ested*	Method Reference			Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*		
^Galson Laboratories wil	II subsititute ou	r routine/preferred meth	I nod if it does not match	the method li	sted on the	e COC unless this box is	s checked: Us	se method(s	s) listed on COC						
^Galson Laboratories will substitute our routine/preferred method if it does not match the method listed on the COC unless this box is checked: Use method(s) listed on COC  For metals analysis: if requesting an analyte with the option of a lower LOQ, please indicate if the lower LOQ is required (only available for certain analytes - see SAG):															
For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)*:															
Chain of Custody Print Name/Signature Date Time Print Name/Signature Da								te	Time						
Relinquished by :		-				Received by :									
Relinquished by:						Received by :									
Samples received after 3pm will be considered as next day's business  * Required fields, failure to complete these fields may result in a delay in your samples being processed.  Page of															







Sample Location Analyzed For:
 Mold 4-polycyclohexene
 Radon Formaldehyde
 VOC's (TO+15)

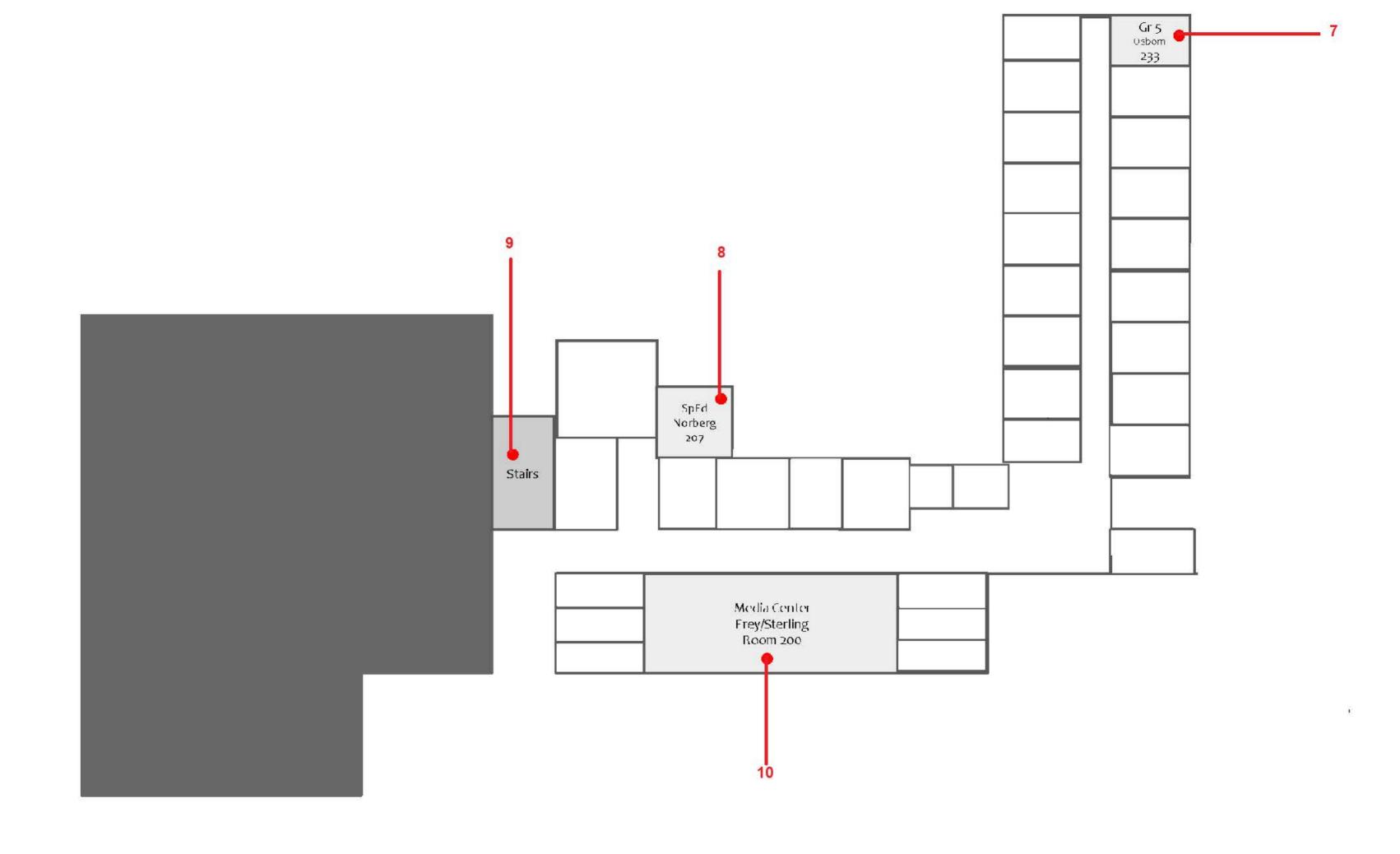
Patrick Henry Elementary School 4643 Taney Avenue Alexandria, VA 22304 First Floor



8382 Terminal Road, Suite B Lorton, VA 22079

Phone: 703-567-4346 Fax: 703-567-348?







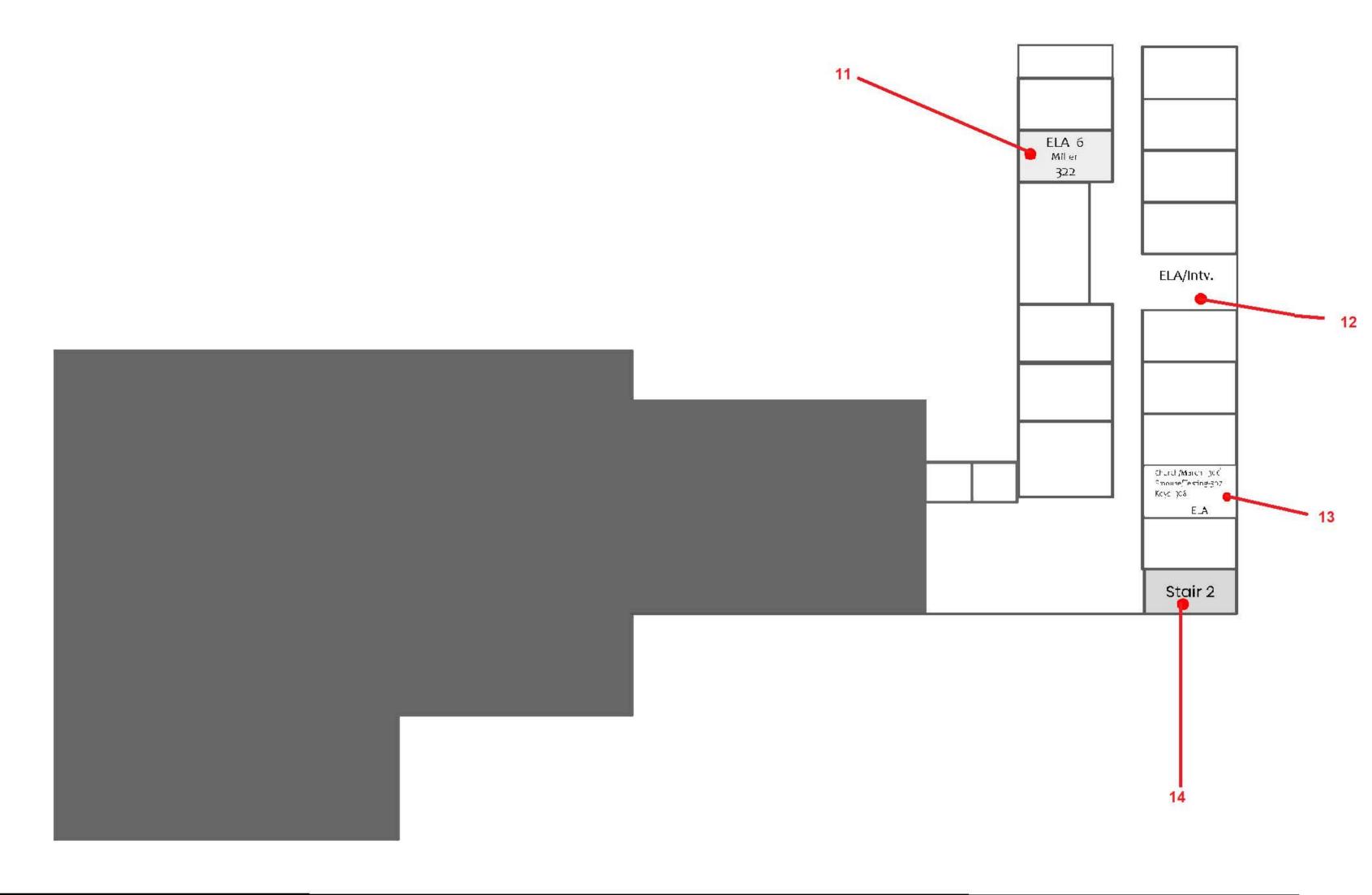
Sample Location Analyzed For:
 Mold 4-polycyclohexene
 Radon Formaldehyde
 VOC's (TO+15)

Patrick Henry Elementary School
4643 Taney Avenue
Alexandria, VA 22304
Second Floor



8382 Terminal Road, Suite B Lorton, VA 22079 Phone: 703-567-4346 Fax: 703-567-3487





## **LEGEND**

Sample Location Analyzed For:
 Mold 4-polycyclohexene
 Radon Formaldehyde
 VOC's (TO+15)

Patrick Henry Elementary School 4643 Taney Avenue Alexandria, VA 22304 Third Floor



8382 Terminal Road, Suite B Lorton, VA 22079 Phone: 703-567-4346 Fax: 703-567-3487

3





Patrick Henry, Media Center



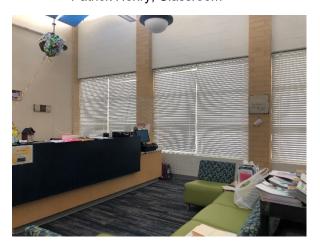
Patrick Henry, Cafeteria



Patrick Henry, Classroom



Patrick Henry, Gym



Patrick Henry, Office



Patrick Henry, Hallway