Total Environmental Concepts, Inc.
Setting the Standard in Comprehensive Environmental Solutions

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Learning to Live • Loving to Learn
ACPS
Alexandria City Public Schools

Indoor Air Quality Assessment Report

at

ACPS Central Offices – Satellite Campus

1340 Braddock Road, Alexandria, VA 22314

Report Prepared for:

John Contreras

Alexandria City Public Schools

2601 Cameron Mills Rd, Alexandria, VA 22302

Dated: September 29, 2021

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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 Technology
NVLAP	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 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 (DM)
- Jefferson-Houston Elementary School (JH)
- Ferdinand T. Day Elementary School (FD)
- Patrick Henry Elementary School (PH)
- Mount Vernon Community School (MV)

This IAQ assessment was conducted at AC Satellite Campus, Central Offices on Friday, August 20, 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. Only five (5) sampling locations were pervided for this location. 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. 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

Summary of findings and recommendations during this limited IAQ investigation:

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

  Findings:

  The number of spores in the air were within acceptable ranges in all locations as compared to background outside air mold spore counts. 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 schedule of maintenance should be established and adhered to.

  None of the results from the five sampling locations at ACPS Satellite Campus were indicative of mold issues.

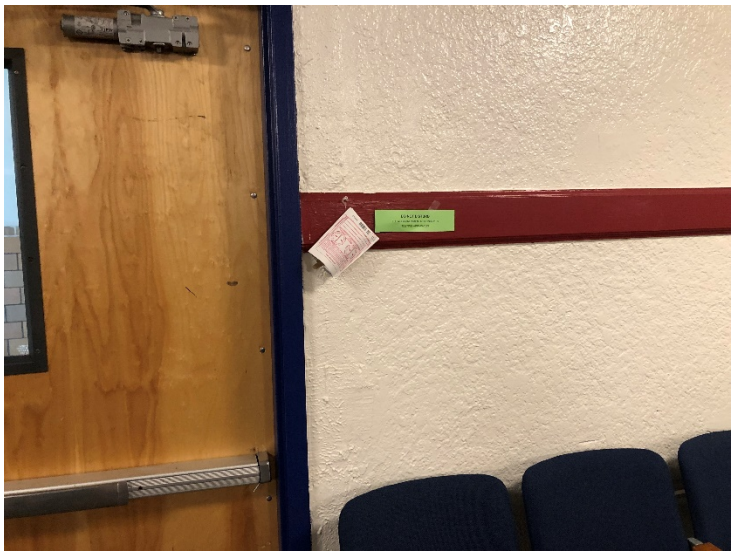
- **Radon** – levels recorded in all locations were less than 4pCi/L, as recommended by EPA and HUD.
- **VOCs** – The levels of volatile organic compounds (VOCs) recorded at each location were within acceptable ranges compared to EPA Regional Screening Levels (RSLs).
- **4-PCH** – levels recorded during this investigation were within the LEED (Leadership of Energy and Environmental Design) IAQ guideline of 6.5 ug/m3.
- **Formaldehyde** – the levels of formaldehyde recorded at each location were within an acceptable range, compared to EPA Regional Screening Level (RSLs) of 1ug/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. Assessment 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 20, 2021. All air samples were collected three to six feet from 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.

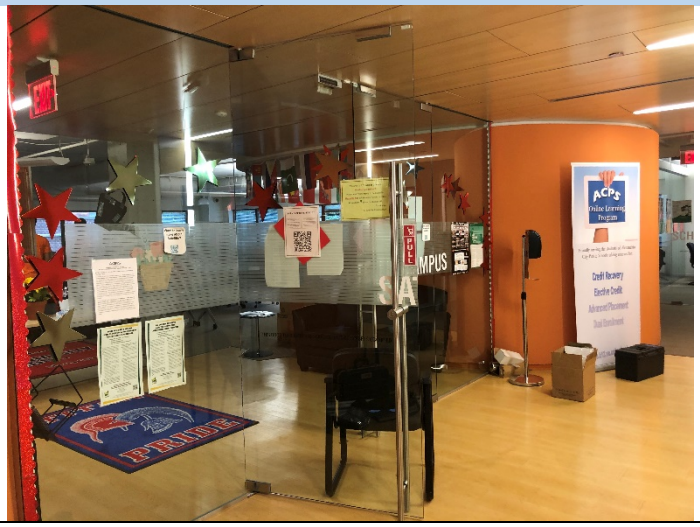
The 4-polycyclohexene (4-PCH) samples were collected in SKC's Anasorb CSC sorbent tubes through Gilian GilAir3 Air Sampling Pumps (photograph below). Pumps were placed within the breathing zone (4-6ft from ground level). Run times were 8 hours or time-weighted 4-hour runs. 4-PCH analytical results can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

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.

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.

3. Visual Observations

Sample Location	August 20, 2021	Visual Observations
Lobby	TEC noted the campus on the second floor of a converted office building.	

Cafeteria	The student cafeteria of ACPS Satellite Campus.	
230-1A	Room 230-1A of ACPS Satellite Campus.	
210-4A	Room 210-4A of ACPS Satellite Campus.	

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 can be found 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 as a result of 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:

The number of spores in the air were within acceptable ranges in all locations as compared to background outside air mold spore counts. 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 schedule of maintenance should be established and adhered to.

None of the results from the five sampling locations at ACPS Satellite Campus 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	CO	OXYGEN	H2S
Lobby	0.0	0.0	20.9	0.0
230-1A	0.0	0.0	20.9	0.0
Cafeteria	0.0	0.0	20.9	0.0
Satellite Campus	0.0	0.0	20.9	0.0
210-4A	0.0	0.0	20.9	0.0

Table 2

Results of Analytes by Location						
Location	Radon	Mold		TO+15 VOCs	4PCH	Formaldehyde
		AVG: 81 F	AVG: 49%			
Lobby	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
230-1A	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Cafeteria	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
Satellite Campus	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL
210-4A	< 4 pCi/L	Spore Count Normal		< RSL	< 6.5 ug/m3	< RSL

**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.

Appendix A: Mold Analytical Results

HAYES MICROBIAL CONSULTING

#21031192

Analysis Report prepared for

Total Environmental Concepts, Inc.

8382 Terminal Road
Suite B
Lorton, VA 22079

Phone: **(571) 289-2173**

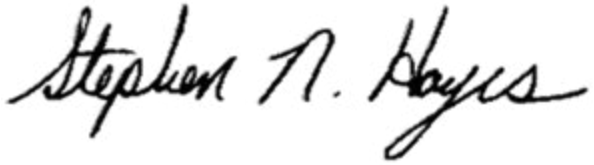
ASPC Central Office

Collected: **August 20, 2021**
Received: **August 23, 2021**
Reported: **August 23, 2021**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 6 samples by FedEx in good condition for this project on August 23rd, 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

Lab ID: #188863

DPH License: #PH-0198

Maggie Stanger
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Lorton, VA 22079
(571) 289-2173

ASPC Central Office

#21031192

Spore Trap
SOP - HMC#101

Sample Number	1	CO4318610		2	CO4318608		3	CO4318607		4	CO4318613	
Sample Name	CO Lobby			CO Satellite Campus			CO 210-4A			CO 230-1A		
Sample Volume	75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit	13 spores/m³			13 spores/m³			13 spores/m³			13 spores/m³		
Background	2			2			2			2		
Fragments	ND			13/m³			ND			ND		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria												
Ascospores	2	27	66.7%	1	13	100.0%	2	27	66.7%	1	13	50.0%
Aspergillus|Penicillium												
Basidiospores												
Bipolaris|Drechslera												
Chaetomium												
Cladosporium										1	13	50.0%
Curvularia												
Epicoccum												
Fusarium												
Memnoniella												
Myxomycetes	1	13	33.3%				1	13	33.3%			
Pithomyces												
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	3	40	100%	1	13	100%	3	40	100%	2	26	100%

Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality

Collected: **Aug 20, 2021** Received: **Aug 23, 2021** Reported: **Aug 23, 2021**

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **08 - 23 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **08 - 23 - 2021**

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ASPC Central Office

#21031192

Spore Trap
SOP - HMC#101

Sample Number	5	CP4318606		6	CO4318603	
Sample Name	**CO Cafeteria**			**CO - Outside**		
Sample Volume	75.00 liter			75.00 liter		
Reporting Limit	13 spores/m³			13 spores/m³		
Background	2			2		
Fragments	ND			13/m³		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria						
Ascospores	2	27	66.7%	192	2560	67.4%
Aspergillus|Penicillium				3	40	1.1%
Basidiospores				88	1173	30.9%
Bipolaris|Drechslera						
Chaetomium						
Cladosporium	1	13	33.3%	2	27	<1%
Curvularia						
Epicoccum						
Fusarium						
Memnoniella						
Myxomycetes						
Pithomyces						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Total	3	40	100%	285	3800	100%

Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality

Collected: **Aug 20, 2021** Received: **Aug 23, 2021** Reported: **Aug 23, 2021**

Project Analyst: Ramesh Poluri, PhD P. Ramesh Date: **08 - 23 - 2021**

Reviewed By: Steve Hayes, BSMT Stephen N. Hayes Date: **08 - 23 - 2021**

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#21031192

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 be estimated.
Blanks	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 and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows: **NBD:** No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD) **1 :** <5% of field occluded. No spores will be uncountable. **2 :** 5-25% of field occluded. **3 :** 25-75% of field occluded. **4 :** 75-90% of field occluded. **5 :** >90% of field occluded. Suggested recollection of sample.
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 Common Allergen Slightly Higher than Baseline Significantly Higher than Baseline Ratio Abnormality	**Blue:** These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem. **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. **Red:** The spore count is significantly higher than the baseline count and probably indicates a source of contamination. **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%) in 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 indoor environment 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 damage indicators.

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#21031192

Organism Descriptions

Ascospores	**Habitat:**	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.
	Effects:	Health affects are poorly studied, but many are likely to be allergenic.
Aspergillus|Penicillium	**Habitat:**	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.
	Effects:	Common allergens and are also associated with hypersensitivity pneumonitis.
Cladosporium	**Habitat:**	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 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.
	Effects:	A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.
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.

ASPC Central Office

Total Environmental Concepts, Inc.

Placement Tech	Maggie	Sample Type	Mold
Placement Date	8/20/21	Email	kford@tec1.pro
Address			

Sample #	Location/ room	Flow Rate	Sampling Time	Pump Start Time	Pump End Time	Comments
CO4318610	COLobby	10 l/M	10:00	10:00	10:07	
CO4318608	COsatelite Campus	10	10:19	10:19	10:26	
CO4318607	CO210-4A		10:24	10:28	10:32	
CO4318613	CO230-1A		10:42	10:42	10:49	
CO4318606	CO Cafeteria		10:45	10:45	10:12	
CO4318603	CO Outside Blank	↓	11:02	11:02	11:09	

Appendix B: Radon Analytical Results

Attention: P8184 / LEILA DEAN / TOTAL ENVIRONMENTAL CONCEPTS

Kit #: 9723816 Result: < 0.3 pCi/l
Location: Lobby
Ac Satellite Campus
,

Analysis Note :
Analyzed : 2021-08-25 at 10:00 am
Started : 2021-08-20 at 10:00 am
Ended : 2021-08-24 at 2:00 pm
Hours/MST% : 100 hours 10.3% 70°F

Kit #: 9723823 Result: < 0.3 pCi/l
Location: 230-1A
Ac Satellite Campus
,

Analysis Note :
Analyzed : 2021-08-25 at 10:00 am
Started : 2021-08-20 at 11:00 am
Ended : 2021-08-24 at 2:00 pm
Hours/MST% : 99 hours 10.9% 70°F

Kit #: 9723824 Result: < 0.3 pCi/l
Location: 230-1A D
Ac Satellite Campus
,

Analysis Note :
Analyzed : 2021-08-25 at 10:00 am
Started : 2021-08-20 at 11:00 am
Ended : 2021-08-24 at 2:00 pm
Hours/MST% : 99 hours 10.9% 70°F

Kit #: 9723827 Result: < 0.3 pCi/l
Location: Satelite campus main
Ac Satellite Campus
,

Analysis Note :
Analyzed : 2021-08-25 at 10:00 am
Started : 2021-08-20 at 10:00 am
Ended : 2021-08-24 at 2:00 pm
Hours/MST% : 100 hours 10.3% 70°F

Kit #: 9723832 Result: < 0.3 pCi/l
Location: 210 - 4A
Ac Satellite Campus
,

Analysis Note :
Analyzed : 2021-08-25 at 10:00 am
Started : 2021-08-20 at 10:00 am
Ended : 2021-08-24 at 2:00 pm
Hours/MST% : 100 hours 10.2% 70°F

Kit #: 9723833 Result: ????
Location: Cafe - B
Central Office Blank
,

Analysis Note : IB2
Analyzed : 2021-08-25 at 10:00 am
Started : 2021-08-20 at 11:00 am
Ended : 2021-08-20 at 11:00 am
Hours/MST% : 0 hours 22.3% 70°F

Kit #: 9723834 Result: < 0.3 pCi/l
Location: cafe
Ac Satellite Campus
,

Analysis Note :
Analyzed : 2021-08-25 at 10:00 am
Started : 2021-08-20 at 10:00 am
Ended : 2021-08-24 at 2:00 pm
Hours/MST% : 100 hours 10.7% 70°F

ACPS Central Office

Total Environmental Concepts, Inc.

Placement Tech	Maggie	Sample Type	Radon	Pickup Tech	
Placement Date	8/20/21	Sample Media		Pickup Date	
Address				Email	

Sample #	Location/ room	SQFT >2000	HVAC Y/N	Window Y/N	Fan Y/N	Time in	Time out	Comment
C09723816	CO Lobby		Y	N	N	10:00		
C09723827	CO Satilite Campus		Y	Y	N	10:30		
C09723832	CO 210 4A		Y	Y	N	10:31		
C09723823	CO 230-1A		Y	Y	N	10:45		
C09723824D	CO 280-1A D		Y	Y	N	10:45		
C09723834	CO Cafeteria		Y	N	N	10:50		
C09723833B	CO Cafeteria B		Y	N	N	10:50		

Appendix C: VOCs (TO+15) Analytical Results

PHASE SEPARATION SCIENCE

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

Certificate of Analysis

Project Name: A.C. Satellite
PSS Project No.: 21082410

August 31, 2021

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

Reference: PSS Project No: **21082410**
Project Name: A.C. Satellite
Project Location: Alexandria, VA

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) **21082410**.

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 September 28, 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

PHASE SEPARATION SCIENCE

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

Explanation of Qualifiers

Project Name: A.C. Satellite

PSS Project No.: 21082410

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/24/2021 at 03:40 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082410-001	CO-Elevator Lobby	AIR	08/20/21 16:14
21082410-002	CO-Satellite Campus	AIR	08/20/21 16:05
21082410-003	CO-210-4A Class	AIR	08/20/21 16:03
21082410-004	CO-230-1A Office	AIR	08/20/21 16:08
21082410-005	CO-Cafe	AIR	08/20/21 16:10

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.

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.
J	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

Maryland spectral Services

Analytical Chemistry Services

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

31 August 2021

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

Enclosed are the results of analyses for samples received by the laboratory on 08/25/21 11:10.

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,

Sam Hamner
Senior Chemist

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

Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CO-ELEVATOR LOBBY	21082410-001	1082527-01	Vapor	08/20/21 16:14	08/25/21 11:10
CO-SATELLITE CAMPUS	21082410-002	1082527-02	Vapor	08/20/21 16:05	08/25/21 11:10
CO-210-4A CLASS	21082410-003	1082527-03	Vapor	08/20/21 16:03	08/25/21 11:10
CO-230-1A OFFICE	21082410-004	1082527-04	Vapor	08/20/21 16:08	08/25/21 11:10
CO-CAFE	21082410-005	1082527-05	Vapor	08/20/21 16:10	08/25/21 11:10

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.

Sam Hamner, Senior Chemist

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

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

Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-ELEVATOR LOBBY
21082410-001
1082527-01 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	**20.5**		ug/m³	2.40	2.40	1	08/25/21	08/25/21 23:04	WB
Benzene	**0.32**	J	ug/m³	0.64	0.16	1	08/25/21	08/25/21 23:04	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	08/25/21	08/25/21 23:04	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	08/25/21	08/25/21 23:04	WB
Bromoform	ND		ug/m³	2.10	0.53	1	08/25/21	08/25/21 23:04	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	08/25/21	08/25/21 23:04	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	08/25/21	08/25/21 23:04	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	08/25/21	08/25/21 23:04	WB
Carbon tetrachloride	**0.38**	J	ug/m³	1.30	0.33	1	08/25/21	08/25/21 23:04	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	08/25/21	08/25/21 23:04	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	08/25/21	08/25/21 23:04	WB
Chloroform	**0.68**	J	ug/m³	0.97	0.24	1	08/25/21	08/25/21 23:04	WB
Chloromethane	**1.38**		ug/m³	0.41	0.10	1	08/25/21	08/25/21 23:04	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	08/25/21	08/25/21 23:04	WB
Cyclohexane	**1.17**		ug/m³	0.69	0.17	1	08/25/21	08/25/21 23:04	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	08/25/21	08/25/21 23:04	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	08/25/21	08/25/21 23:04	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/25/21	08/25/21 23:04	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/25/21	08/25/21 23:04	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/25/21	08/25/21 23:04	WB
Dichlorodifluoromethane	**2.97**		ug/m³	0.99	0.99	1	08/25/21	08/25/21 23:04	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/25/21	08/25/21 23:04	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/25/21	08/25/21 23:04	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/25/21	08/25/21 23:04	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/25/21	08/25/21 23:04	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/25/21	08/25/21 23:04	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	08/25/21	08/25/21 23:04	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/25/21	08/25/21 23:04	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/25/21	08/25/21 23:04	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	08/25/21	08/25/21 23:04	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	08/25/21	08/25/21 23:04	WB
Ethylbenzene	**0.30**	J	ug/m³	0.87	0.22	1	08/25/21	08/25/21 23:04	WB
4-Ethyltoluene	**0.25**	J	ug/m³	0.98	0.25	1	08/25/21	08/25/21 23:04	WB
Freon 113	**0.54**	J	ug/m³	1.50	0.38	1	08/25/21	08/25/21 23:04	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.

Sam Hamner, Senior Chemist

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

Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-ELEVATOR LOBBY
21082410-001
1082527-01 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m³	1.40	1.40	1	08/25/21	08/25/21 23:04	WB
n-Heptane	**0.78**	J	ug/m³	0.82	0.21	1	08/25/21	08/25/21 23:04	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	08/25/21	08/25/21 23:04	WB
Hexane	ND		ug/m³	14.0	14.0	1	08/25/21	08/25/21 23:04	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	08/25/21	08/25/21 23:04	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	08/25/21	08/25/21 23:04	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	08/25/21	08/25/21 23:04	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	08/25/21	08/25/21 23:04	WB
Methyl ethyl ketone (2-Butanone)	**1.18**		ug/m³	0.59	0.34	1	08/25/21	08/25/21 23:04	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	08/25/21	08/25/21 23:04	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	08/25/21	08/25/21 23:04	WB
Propene	ND		ug/m³	0.34	0.34	1	08/25/21	08/25/21 23:04	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	08/25/21	08/25/21 23:04	WB
Styrene	**0.38**	J	ug/m³	0.85	0.15	1	08/25/21	08/25/21 23:04	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	08/25/21	08/25/21 23:04	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	08/25/21	08/25/21 23:04	WB
Tetrahydrofuran	**0.29**	J	ug/m³	0.59	0.15	1	08/25/21	08/25/21 23:04	WB
Toluene	**1.17**		ug/m³	0.75	0.35	1	08/25/21	08/25/21 23:04	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	08/25/21	08/25/21 23:04	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/25/21	08/25/21 23:04	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/25/21	08/25/21 23:04	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	08/25/21	08/25/21 23:04	WB
Trichlorofluoromethane (Freon 11)	**2.70**		ug/m³	1.10	0.28	1	08/25/21	08/25/21 23:04	WB
1,2,4-Trimethylbenzene	**0.29**	J	ug/m³	0.98	0.25	1	08/25/21	08/25/21 23:04	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	08/25/21	08/25/21 23:04	WB
2,2,4-Trimethylpentane	**0.33**	J	ug/m³	0.93	0.23	1	08/25/21	08/25/21 23:04	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	08/25/21	08/25/21 23:04	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	08/25/21	08/25/21 23:04	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	08/25/21	08/25/21 23:04	WB
o-Xylene	**0.30**	J	ug/m³	0.87	0.22	1	08/25/21	08/25/21 23:04	WB
m- & p-Xylenes	**0.78**	J	ug/m³	1.70	0.43	1	08/25/21	08/25/21 23:04	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*98 %*		*08/25/21*		*08/25/21 23:04*	

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Sam Hamner, Senior Chemist

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Analytical Results

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

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-SATELLITE CAMPUS
21082410-002
1082527-02 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	**20.1**		ug/m³	2.40	2.40	1	08/26/21	08/26/21 00:05	WB
Benzene	**0.26**	J	ug/m³	0.64	0.16	1	08/26/21	08/26/21 00:05	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	08/26/21	08/26/21 00:05	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 00:05	WB
Bromoform	ND		ug/m³	2.10	0.53	1	08/26/21	08/26/21 00:05	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	08/26/21	08/26/21 00:05	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	08/26/21	08/26/21 00:05	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	08/26/21	08/26/21 00:05	WB
Carbon tetrachloride	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 00:05	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	08/26/21	08/26/21 00:05	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	08/26/21	08/26/21 00:05	WB
Chloroform	ND		ug/m³	0.97	0.24	1	08/26/21	08/26/21 00:05	WB
Chloromethane	**1.01**		ug/m³	0.41	0.10	1	08/26/21	08/26/21 00:05	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	08/26/21	08/26/21 00:05	WB
Cyclohexane	**0.59**	J	ug/m³	0.69	0.17	1	08/26/21	08/26/21 00:05	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 00:05	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	08/26/21	08/26/21 00:05	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 00:05	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 00:05	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 00:05	WB
Dichlorodifluoromethane	**2.67**		ug/m³	0.99	0.99	1	08/26/21	08/26/21 00:05	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/26/21	08/26/21 00:05	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/26/21	08/26/21 00:05	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 00:05	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 00:05	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 00:05	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	08/26/21	08/26/21 00:05	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/26/21	08/26/21 00:05	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/26/21	08/26/21 00:05	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	08/26/21	08/26/21 00:05	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	08/26/21	08/26/21 00:05	WB
Ethylbenzene	**0.26**	J	ug/m³	0.87	0.22	1	08/26/21	08/26/21 00:05	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	08/26/21	08/26/21 00:05	WB
Freon 113	**0.46**	J	ug/m³	1.50	0.38	1	08/26/21	08/26/21 00:05	WB

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Sam Hamner, Senior Chemist

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Baltimore MD 21227
410-247-7600
www.mdspectral.com

Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-SATELLITE CAMPUS
21082410-002
1082527-02 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m³	1.40	1.40	1	08/26/21	08/26/21 00:05	WB
n-Heptane	**0.53**	J	ug/m³	0.82	0.21	1	08/26/21	08/26/21 00:05	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	08/26/21	08/26/21 00:05	WB
Hexane	ND		ug/m³	14.0	14.0	1	08/26/21	08/26/21 00:05	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	08/26/21	08/26/21 00:05	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	08/26/21	08/26/21 00:05	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	08/26/21	08/26/21 00:05	WB
Methylene chloride	**18.1**	L	ug/m³	18.0	18.0	1	08/26/21	08/26/21 00:05	WB
Methyl ethyl ketone (2-Butanone)	**1.27**		ug/m³	0.59	0.34	1	08/26/21	08/26/21 00:05	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	08/26/21	08/26/21 00:05	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	08/26/21	08/26/21 00:05	WB
Propene	ND		ug/m³	0.34	0.34	1	08/26/21	08/26/21 00:05	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	08/26/21	08/26/21 00:05	WB
Styrene	**0.34**	J	ug/m³	0.85	0.15	1	08/26/21	08/26/21 00:05	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	08/26/21	08/26/21 00:05	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	08/26/21	08/26/21 00:05	WB
Tetrahydrofuran	**0.21**	J	ug/m³	0.59	0.15	1	08/26/21	08/26/21 00:05	WB
Toluene	**1.02**		ug/m³	0.75	0.35	1	08/26/21	08/26/21 00:05	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	08/26/21	08/26/21 00:05	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 00:05	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 00:05	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 00:05	WB
Trichlorofluoromethane (Freon 11)	**2.30**		ug/m³	1.10	0.28	1	08/26/21	08/26/21 00:05	WB
1,2,4-Trimethylbenzene	**0.25**	J	ug/m³	0.98	0.25	1	08/26/21	08/26/21 00:05	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	08/26/21	08/26/21 00:05	WB
2,2,4-Trimethylpentane	**0.28**	J	ug/m³	0.93	0.23	1	08/26/21	08/26/21 00:05	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	08/26/21	08/26/21 00:05	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	08/26/21	08/26/21 00:05	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	08/26/21	08/26/21 00:05	WB
o-Xylene	**0.30**	J	ug/m³	0.87	0.22	1	08/26/21	08/26/21 00:05	WB
m- & p-Xylenes	**0.69**	J	ug/m³	1.70	0.43	1	08/26/21	08/26/21 00:05	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*101 %*		*08/26/21*		*08/26/21 00:05*	

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Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-210-4A CLASS
21082410-003
1082527-03 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	**17.9**		ug/m³	2.40	2.40	1	08/26/21	08/26/21 01:07	WB
Benzene	**0.26**	J	ug/m³	0.64	0.16	1	08/26/21	08/26/21 01:07	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	08/26/21	08/26/21 01:07	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 01:07	WB
Bromoform	ND		ug/m³	2.10	0.53	1	08/26/21	08/26/21 01:07	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	08/26/21	08/26/21 01:07	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	08/26/21	08/26/21 01:07	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	08/26/21	08/26/21 01:07	WB
Carbon tetrachloride	**0.38**	J	ug/m³	1.30	0.33	1	08/26/21	08/26/21 01:07	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	08/26/21	08/26/21 01:07	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	08/26/21	08/26/21 01:07	WB
Chloroform	ND		ug/m³	0.97	0.24	1	08/26/21	08/26/21 01:07	WB
Chloromethane	**1.01**		ug/m³	0.41	0.10	1	08/26/21	08/26/21 01:07	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	08/26/21	08/26/21 01:07	WB
Cyclohexane	**0.55**	J	ug/m³	0.69	0.17	1	08/26/21	08/26/21 01:07	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 01:07	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	08/26/21	08/26/21 01:07	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 01:07	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 01:07	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 01:07	WB
Dichlorodifluoromethane	**2.72**		ug/m³	0.99	0.99	1	08/26/21	08/26/21 01:07	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/26/21	08/26/21 01:07	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/26/21	08/26/21 01:07	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 01:07	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 01:07	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 01:07	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	08/26/21	08/26/21 01:07	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/26/21	08/26/21 01:07	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/26/21	08/26/21 01:07	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	08/26/21	08/26/21 01:07	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	08/26/21	08/26/21 01:07	WB
Ethylbenzene	**0.26**	J	ug/m³	0.87	0.22	1	08/26/21	08/26/21 01:07	WB
4-Ethyltoluene	ND		ug/m³	0.98	0.25	1	08/26/21	08/26/21 01:07	WB
Freon 113	**0.46**	J	ug/m³	1.50	0.38	1	08/26/21	08/26/21 01:07	WB

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Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-210-4A CLASS
21082410-003
1082527-03 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m³	1.40	1.40	1	08/26/21	08/26/21 01:07	WB
n-Heptane	**0.37**	J	ug/m³	0.82	0.21	1	08/26/21	08/26/21 01:07	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	08/26/21	08/26/21 01:07	WB
Hexane	ND		ug/m³	14.0	14.0	1	08/26/21	08/26/21 01:07	WB
2-Hexanone	ND		ug/m³	0.82	0.15	1	08/26/21	08/26/21 01:07	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	08/26/21	08/26/21 01:07	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	08/26/21	08/26/21 01:07	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	08/26/21	08/26/21 01:07	WB
Methyl ethyl ketone (2-Butanone)	**1.00**		ug/m³	0.59	0.34	1	08/26/21	08/26/21 01:07	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	08/26/21	08/26/21 01:07	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	08/26/21	08/26/21 01:07	WB
Propene	ND		ug/m³	0.34	0.34	1	08/26/21	08/26/21 01:07	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	08/26/21	08/26/21 01:07	WB
Styrene	**0.30**	J	ug/m³	0.85	0.15	1	08/26/21	08/26/21 01:07	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	08/26/21	08/26/21 01:07	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	08/26/21	08/26/21 01:07	WB
Tetrahydrofuran	**0.21**	J	ug/m³	0.59	0.15	1	08/26/21	08/26/21 01:07	WB
Toluene	**0.98**		ug/m³	0.75	0.35	1	08/26/21	08/26/21 01:07	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	08/26/21	08/26/21 01:07	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 01:07	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 01:07	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 01:07	WB
Trichlorofluoromethane (Freon 11)	**2.25**		ug/m³	1.10	0.28	1	08/26/21	08/26/21 01:07	WB
1,2,4-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	08/26/21	08/26/21 01:07	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	08/26/21	08/26/21 01:07	WB
2,2,4-Trimethylpentane	**0.23**	J	ug/m³	0.93	0.23	1	08/26/21	08/26/21 01:07	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	08/26/21	08/26/21 01:07	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	08/26/21	08/26/21 01:07	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	08/26/21	08/26/21 01:07	WB
o-Xylene	**0.26**	J	ug/m³	0.87	0.22	1	08/26/21	08/26/21 01:07	WB
m- & p-Xylenes	**0.69**	J	ug/m³	1.70	0.43	1	08/26/21	08/26/21 01:07	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*100 %*		*08/26/21*		*08/26/21 01:07*	

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Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-230-1A OFFICE
21082410-004
1082527-04 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	**22.4**		ug/m³	2.40	2.40	1	08/26/21	08/26/21 01:41	WB
Benzene	**0.29**	J	ug/m³	0.64	0.16	1	08/26/21	08/26/21 01:41	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	08/26/21	08/26/21 01:41	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 01:41	WB
Bromoform	ND		ug/m³	2.10	0.53	1	08/26/21	08/26/21 01:41	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	08/26/21	08/26/21 01:41	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	08/26/21	08/26/21 01:41	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	08/26/21	08/26/21 01:41	WB
Carbon tetrachloride	**0.44**	J	ug/m³	1.30	0.33	1	08/26/21	08/26/21 01:41	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	08/26/21	08/26/21 01:41	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	08/26/21	08/26/21 01:41	WB
Chloroform	**2.15**		ug/m³	0.97	0.24	1	08/26/21	08/26/21 01:41	WB
Chloromethane	**1.18**		ug/m³	0.41	0.10	1	08/26/21	08/26/21 01:41	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	08/26/21	08/26/21 01:41	WB
Cyclohexane	**1.03**		ug/m³	0.69	0.17	1	08/26/21	08/26/21 01:41	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 01:41	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	08/26/21	08/26/21 01:41	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 01:41	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 01:41	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 01:41	WB
Dichlorodifluoromethane	**3.56**		ug/m³	0.99	0.99	1	08/26/21	08/26/21 01:41	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/26/21	08/26/21 01:41	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/26/21	08/26/21 01:41	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 01:41	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 01:41	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 01:41	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	08/26/21	08/26/21 01:41	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/26/21	08/26/21 01:41	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/26/21	08/26/21 01:41	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	08/26/21	08/26/21 01:41	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	08/26/21	08/26/21 01:41	WB
Ethylbenzene	**0.26**	J	ug/m³	0.87	0.22	1	08/26/21	08/26/21 01:41	WB
4-Ethyltoluene	**0.25**	J	ug/m³	0.98	0.25	1	08/26/21	08/26/21 01:41	WB
Freon 113	**0.54**	J	ug/m³	1.50	0.38	1	08/26/21	08/26/21 01:41	WB

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Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-230-1A OFFICE
21082410-004
1082527-04 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m³	1.40	1.40	1	08/26/21	08/26/21 01:41	WB
n-Heptane	**0.57**	J	ug/m³	0.82	0.21	1	08/26/21	08/26/21 01:41	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	08/26/21	08/26/21 01:41	WB
Hexane	ND		ug/m³	14.0	14.0	1	08/26/21	08/26/21 01:41	WB
2-Hexanone	**0.16**	J	ug/m³	0.82	0.15	1	08/26/21	08/26/21 01:41	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	08/26/21	08/26/21 01:41	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	08/26/21	08/26/21 01:41	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	08/26/21	08/26/21 01:41	WB
Methyl ethyl ketone (2-Butanone)	**1.45**		ug/m³	0.59	0.34	1	08/26/21	08/26/21 01:41	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	08/26/21	08/26/21 01:41	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	08/26/21	08/26/21 01:41	WB
Propene	ND		ug/m³	0.34	0.34	1	08/26/21	08/26/21 01:41	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	08/26/21	08/26/21 01:41	WB
Styrene	**0.38**	J	ug/m³	0.85	0.15	1	08/26/21	08/26/21 01:41	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	08/26/21	08/26/21 01:41	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	08/26/21	08/26/21 01:41	WB
Tetrahydrofuran	**0.24**	J	ug/m³	0.59	0.15	1	08/26/21	08/26/21 01:41	WB
Toluene	**1.21**		ug/m³	0.75	0.35	1	08/26/21	08/26/21 01:41	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	08/26/21	08/26/21 01:41	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 01:41	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 01:41	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 01:41	WB
Trichlorofluoromethane (Freon 11)	**3.26**		ug/m³	1.10	0.28	1	08/26/21	08/26/21 01:41	WB
1,2,4-Trimethylbenzene	**0.29**	J	ug/m³	0.98	0.25	1	08/26/21	08/26/21 01:41	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	08/26/21	08/26/21 01:41	WB
2,2,4-Trimethylpentane	**0.33**	J	ug/m³	0.93	0.23	1	08/26/21	08/26/21 01:41	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	08/26/21	08/26/21 01:41	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	08/26/21	08/26/21 01:41	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	08/26/21	08/26/21 01:41	WB
o-Xylene	**0.30**	J	ug/m³	0.87	0.22	1	08/26/21	08/26/21 01:41	WB
m- & p-Xylenes	**0.78**	J	ug/m³	1.70	0.43	1	08/26/21	08/26/21 01:41	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*100 %*		*08/26/21*		*08/26/21 01:41*	

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.

Sam Hamner, Senior Chemist

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

Analytical Results

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

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-CAFE
21082410-005
1082527-05 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep									
Acetone	**23.2**		ug/m³	2.40	2.40	1	08/26/21	08/26/21 02:22	WB
Benzene	**0.29**	J	ug/m³	0.64	0.16	1	08/26/21	08/26/21 02:22	WB
Benzyl chloride	ND		ug/m³	1.00	0.25	1	08/26/21	08/26/21 02:22	WB
Bromodichloromethane	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 02:22	WB
Bromoform	ND		ug/m³	2.10	0.53	1	08/26/21	08/26/21 02:22	WB
Bromomethane	ND		ug/m³	0.78	0.20	1	08/26/21	08/26/21 02:22	WB
1,3-Butadiene	ND		ug/m³	0.44	0.44	1	08/26/21	08/26/21 02:22	WB
Carbon disulfide	ND		ug/m³	1.56	1.56	1	08/26/21	08/26/21 02:22	WB
Carbon tetrachloride	**0.44**	J	ug/m³	1.30	0.33	1	08/26/21	08/26/21 02:22	WB
Chlorobenzene	ND		ug/m³	0.92	0.23	1	08/26/21	08/26/21 02:22	WB
Chloroethane	ND		ug/m³	0.53	0.27	1	08/26/21	08/26/21 02:22	WB
Chloroform	ND		ug/m³	0.97	0.24	1	08/26/21	08/26/21 02:22	WB
Chloromethane	**1.28**		ug/m³	0.41	0.10	1	08/26/21	08/26/21 02:22	WB
3-Chloropropene	ND		ug/m³	0.63	0.16	1	08/26/21	08/26/21 02:22	WB
Cyclohexane	**0.55**	J	ug/m³	0.69	0.17	1	08/26/21	08/26/21 02:22	WB
Dibromochloromethane	ND		ug/m³	1.30	0.33	1	08/26/21	08/26/21 02:22	WB
1,2-Dibromoethane (EDB)	ND		ug/m³	1.40	0.35	1	08/26/21	08/26/21 02:22	WB
1,2-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 02:22	WB
1,3-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 02:22	WB
1,4-Dichlorobenzene	ND		ug/m³	1.20	0.30	1	08/26/21	08/26/21 02:22	WB
Dichlorodifluoromethane	**3.07**		ug/m³	0.99	0.99	1	08/26/21	08/26/21 02:22	WB
1,1-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/26/21	08/26/21 02:22	WB
1,2-Dichloroethane	ND		ug/m³	0.81	0.20	1	08/26/21	08/26/21 02:22	WB
1,1-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 02:22	WB
cis-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 02:22	WB
trans-1,2-Dichloroethene	ND		ug/m³	0.79	0.20	1	08/26/21	08/26/21 02:22	WB
1,2-Dichloropropane	ND		ug/m³	0.92	0.23	1	08/26/21	08/26/21 02:22	WB
cis-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/26/21	08/26/21 02:22	WB
trans-1,3-Dichloropropene	ND		ug/m³	0.91	0.23	1	08/26/21	08/26/21 02:22	WB
1,4-Dioxane	ND		ug/m³	0.72	0.18	1	08/26/21	08/26/21 02:22	WB
Ethyl acetate	ND		ug/m³	3.60	3.60	1	08/26/21	08/26/21 02:22	WB
Ethylbenzene	**0.26**	J	ug/m³	0.87	0.22	1	08/26/21	08/26/21 02:22	WB
4-Ethyltoluene	**0.25**	J	ug/m³	0.98	0.25	1	08/26/21	08/26/21 02:22	WB
Freon 113	**0.54**	J	ug/m³	1.50	0.38	1	08/26/21	08/26/21 02:22	WB

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Sam Hamner, Senior Chemist

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

Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

CO-CAFE
21082410-005
1082527-05 (Vapor)
Sample Date: 08/20/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Volatile Organics by EPA TO-15 (GC/MS) Prepared by TO-15 Prep (continued)									
Freon 114	ND		ug/m³	1.40	1.40	1	08/26/21	08/26/21 02:22	WB
n-Heptane	**0.57**	J	ug/m³	0.82	0.21	1	08/26/21	08/26/21 02:22	WB
Hexachlorobutadiene	ND		ug/m³	2.10	2.10	1	08/26/21	08/26/21 02:22	WB
Hexane	ND		ug/m³	14.0	14.0	1	08/26/21	08/26/21 02:22	WB
2-Hexanone	**0.20**	J	ug/m³	0.82	0.15	1	08/26/21	08/26/21 02:22	WB
Isopropylbenzene (Cumene)	ND		ug/m³	1.10	0.40	1	08/26/21	08/26/21 02:22	WB
Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.72	0.21	1	08/26/21	08/26/21 02:22	WB
Methylene chloride	ND		ug/m³	18.0	18.0	1	08/26/21	08/26/21 02:22	WB
Methyl ethyl ketone (2-Butanone)	**1.24**		ug/m³	0.59	0.34	1	08/26/21	08/26/21 02:22	WB
Methyl isobutyl ketone	ND		ug/m³	0.82	0.82	1	08/26/21	08/26/21 02:22	WB
Naphthalene	ND		ug/m³	1.10	0.70	1	08/26/21	08/26/21 02:22	WB
Propene	ND		ug/m³	0.34	0.34	1	08/26/21	08/26/21 02:22	WB
n-Propylbenzene	ND		ug/m³	0.98	0.40	1	08/26/21	08/26/21 02:22	WB
Styrene	**0.34**	J	ug/m³	0.85	0.15	1	08/26/21	08/26/21 02:22	WB
1,1,2,2-Tetrachloroethane	ND		ug/m³	1.40	0.35	1	08/26/21	08/26/21 02:22	WB
Tetrachloroethene	ND		ug/m³	1.40	0.70	1	08/26/21	08/26/21 02:22	WB
Tetrahydrofuran	**0.21**	J	ug/m³	0.59	0.15	1	08/26/21	08/26/21 02:22	WB
Toluene	**1.13**		ug/m³	0.75	0.35	1	08/26/21	08/26/21 02:22	WB
1,2,4-Trichlorobenzene	ND		ug/m³	1.50	0.38	1	08/26/21	08/26/21 02:22	WB
1,1,1-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 02:22	WB
1,1,2-Trichloroethane	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 02:22	WB
Trichloroethene	ND		ug/m³	1.10	0.28	1	08/26/21	08/26/21 02:22	WB
Trichlorofluoromethane (Freon 11)	**2.42**		ug/m³	1.10	0.28	1	08/26/21	08/26/21 02:22	WB
1,2,4-Trimethylbenzene	**0.25**	J	ug/m³	0.98	0.25	1	08/26/21	08/26/21 02:22	WB
1,3,5-Trimethylbenzene	ND		ug/m³	0.98	0.25	1	08/26/21	08/26/21 02:22	WB
2,2,4-Trimethylpentane	**0.28**	J	ug/m³	0.93	0.23	1	08/26/21	08/26/21 02:22	WB
Vinyl acetate	ND		ug/m³	0.70	0.70	1	08/26/21	08/26/21 02:22	WB
Vinyl bromide	ND		ug/m³	0.87	0.22	1	08/26/21	08/26/21 02:22	WB
Vinyl chloride	ND		ug/m³	0.51	0.13	1	08/26/21	08/26/21 02:22	WB
o-Xylene	**0.35**	J	ug/m³	0.87	0.22	1	08/26/21	08/26/21 02:22	WB
m- & p-Xylenes	**0.83**	J	ug/m³	1.70	0.43	1	08/26/21	08/26/21 02:22	WB
Surrogate: 4-Bromofluorobenzene			*73-115*	*101 %*		*08/26/21*		*08/26/21 02:22*	

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.

Sam Hamner, Senior Chemist

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

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

Analytical Results

Project: AC SATELLITE

Project Number: [none]
Project Manager: Amber Confer

Reported:
08/31/21 14:22

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).
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-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.

Sam Hamner, Senior Chemist

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

Chain of Custody Form for Subcontracted Analyses

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

W.O. No. : 21082410
Project Location : Alexandria, VA
Project Number : N/A
Report To LOD : No

Samples Transferred To:
Maryland Spectral Services, Inc.
1500 Caton Center Drive, Suite G
Baltimore, MD 21227

Phone : 410-247-7600

For Questions or issues please contact: Amber Confer

Report Due On :09/01/21 05:00

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative 108527
21082410-001	CO-Elevator Lobby	08/20/21	16:14	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON - 01
21082410-002	CO-Satellite Campus	08/20/21	16:05	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON - 02
21082410-003	CO-210-4A Class	08/20/21	16:03	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON - 03
21082410-004	CO-230-1A Office	08/20/21	16:08	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON - 04
21082410-005	CO-Cafe	08/20/21	16:10	Air	VOCs in Air by GC/MS (subbed)	TO-15	Air Canister	NON - 05

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send InvoiceAttn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : TIE

Condition Upon Receipt : _____

Comments :

Samples Relinquished By : _____ Date : _____ Time: _____ Samples Received By : [signature]

Samples Relinquished By: _____ Date : 8/25/21 Time : 11:10 Samples Received By: Lori Foster

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: _____

Air Analysis by TO-15

Chain of Custody

Client Contact Information	Project Manager: Amber Confer	Carrier:	1 of 1 COCs
Company: Phase Separation	Phone:	Samplers Name(s)	
	Site Contact:		
Project Name: AC Satellite	Analysis Turnaround Time		
Site:	Standard (Specify) 5day		
PO #	Rush (Specify)		

Client Sample ID	Sample Date Start	Time Start (24 hr clock)	Sample Date Stop	Time Stop (24 hr clock)	Canister Pressure in Field ("Hg) (Start)	Canister Pressure in Field ("Hg) (Stop)	Incoming Canister Pressure ("Hg) (Lab)	Sample Regulator ID	Can ID	Can Size (L)	Analysis/Matrix: TO-15 FULL LIST	TO-15 ABREVIATED LIST	Indoor / Ambient Air	Soil Gas / Subslab	Comments
21082410-001	8/20/21	0938	8/20/21	1614	30	6	5	04685	3054	1.4	X		X		1082527-01 100
21082410-002	|	1012	|	1605	30	10.5	11	04717	3679	|	|		|		-02 119
21082410-003	|	1017	|	1603	30	13	11	04704	9613	|	|		|		-03 155
21082410-004	|	1026	|	1608	29	0	0	03607	10185	|	|		|		-04 188
21082410-005	↓	1030	↓	1610	30	10	7	10232	10184	↓	↓		↓		-05 187

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	Date/Time: 8/25/21
Samples Relinquished by:	Date/Time:	Received by: Lori Foster	Date/Time: 11:10
Relinquished by:	Date/Time:	Received by:	Date/Time:

TO-15_COC.xls

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

Project Name: A.C. Satellite

PSS Project No.: 21082410

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:

Stop date not recorded on COC; flow controllers provided were for 8 hour sampling period. End date of 8/20/21 used.
Incoming pressures not taken at PSS; samples subbed out. Incoming pressures will be taken at subcontracted lab.

21082410: Analyses associated with analyst code 4010 were performed by
Maryland Spectral Services, Inc., 1500 Caton Center Drive, Suite G, Baltimore, MD 21227 - VA 460156

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

EPA TO-15: 1,2-Dichlorotetrafluoroethane, Chloroethane, Dibromochloromethane

PHASE SEPARATION SCIENCE

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

Lab Chronology

Project Name: A.C. Satellite
PSS Project No.: 21082410

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
EPA TO-15	CO-Elevator Lobby	Initial	21082410-001	A	187016	187016	08/24/2021 15:56	08/24/2021 15:56
	CO-Satellite Campus	Initial	21082410-002	A	187016	187016	08/24/2021 15:56	08/24/2021 15:56
	CO-210-4A Class	Initial	21082410-003	A	187016	187016	08/24/2021 15:56	08/24/2021 15:56
	CO-230-1A Office	Initial	21082410-004	A	187016	187016	08/24/2021 15:56	08/24/2021 15:56
	CO-Cafe	Initial	21082410-005	A	187016	187016	08/24/2021 15:56	08/24/2021 15:56

PHASE SEPARATION SCIENCE

TO-15 CHAIN OF CUSTODY FORM

All Fields must be completed accurately. Shaded sections for lab use only.

www.phaseonline.com ~ info@phaseonline.com

6630 Baltimore National Pike ~ Suite 103-A ~ Baltimore, Maryland 21228 ~ (410) 747-8770 ~ (800) 932-9047

(1)

PSS CLIENT: A.C Satellite OFFICE LOCATION:

BILL TO (if different): PHONE #:

CONTACT: EMAIL:

PROJECT NAME: PROJECT #:

SITE LOCATION: P.O. #:

SAMPLER(S):

PSS Work Order #: 21082410

PAGE _____ OF _____

(2) (3)

PSS ID	SAMPLE IDENTIFICATION	DATE START	Time Start (24hr clock)	DATE STOP	Time Stop (24hr clock)	Can ID	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	REMARKS
1	CO-Elevator Lobby	8/20/21	938		1614	3054	04685	30+	6						
2	CO-Satellite Campus	"	1012		1605	3679	04717	30	10.5						
3	CO-210-4A Class	"	1017		1603	9613	04704	30+	13						
4	CO-230-1A Office	"	1026		1608	10185	05607	29	0						
5	CO-Cafe	"	1030		1610	10184	10232	30+	10						

(5)

Relinquished By: (1)	Date	Time	Received By:
Deanna Johnson	8/24/21	3:40	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4)

Requested TAT (One TAT per COC)

☐ 5-Day ☐ 3-Day ☐ 2-Day ☐ Next Day ☐ Emergency ☐ Other

Shipping Carrier: ~~FTE~~ Client

Data Deliverables Required: 8/24/21 TW

Special Instructions:

This chain of custody is a legal document. The client (Client Name), by signing, or having client's agent sign, this "TO-15 Chain of Custody 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.

PHASE SEPARATION SCIENCE

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

Sample Receipt Checklist

Project Name: A.C. Satellite
PSS Project No.: 21082410

Client Name Total Environmental Concepts - Lorto
Disposal Date 09/28/2021

Received By Thomas Wingate
Date Received 08/24/2021 03:40:00 PM
Delivered By Client
Tracking No Not Applicable
Logged In By Thomas Wingate

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 Not Provided
N/A
COC agrees with sample labels? Yes
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 5
All Samples Received Within Holding Time(s)? Yes
Total No. of Containers Received 5

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	(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

PHASE SEPARATION SCIENCE

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

Sample Receipt Checklist

Project Name: A.C. Satellite
PSS Project No.: 21082410

Client Name	Total Environmental Concepts - Lortc	**Received By**	Thomas Wingate
Disposal Date	09/28/2021	**Date Received**	08/24/2021 03:40:00 PM
		Delivered By	Client
		Tracking No	Not Applicable
		Logged In By	Thomas Wingate

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.

Stop date not recorded on COC; flow controllers provided were for 8 hour sampling period. End date of 8/20/21 used.
Incoming pressures not taken at PSS; samples subbed out. Incoming pressures will be taken at subcontracted lab.

Samples Inspected/Checklist Completed By: Thomas Wingate — Date: 08/24/2021

PM Review and Approval: Amber Confer — Date: 08/24/2021

PHASE SEPARATION SCIENCE

TO-15 CHAIN OF CUSTODY FORM

All Fields must be completed accurately. Shaded sections for lab use only.

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(1)

PSS CLIENT: A.C Satellite OFFICE LOCATION:

BILL TO (if different): PHONE #:

CONTACT: EMAIL:

PROJECT NAME: PROJECT #:

SITE LOCATION: P.O. #:

SAMPLER(S):

PSS Work Order #: 21082410

PAGE _____ OF _____

(2) (3)

PSS ID	SAMPLE IDENTIFICATION	DATE START	Time Start (24hr clock)	DATE STOP	Time Stop (24hr clock)	Can ID	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	REMARKS
1	CO-Elevator Lobby	8/20/21	938		1614	3054	04685	30+	6						
2	CO-Satellite Campus	"	1012		1605	3679	04717	30	10.5						
3	CO-210-4A Class	"	1017		1603	9613	04704	30+	13						
4	CO-230-1A Office	"	1026		1608	10185	05607	29	0						
5	CO-Cafe	"	1030		1610	10184	10232	30+	10						

(5)

Relinquished By: (1)	Date	Time	Received By:
Deanna Johnson	8/24/21	3:40	
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:

(4)

Requested TAT (One TAT per COC)
☐ 5-Day ☐ 3-Day ☐ 2-Day
☐ Next Day ☐ Emergency ☐ Other

Shipping Carrier: ~~FE~~ Client

Data Deliverables Required: 8/24/21 TW

Special Instructions:

This chain of custody is a legal document. The client (Client Name), by signing, or having client's agent sign, this "TO-15 Chain of Custody 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.

Appendix D: Formaldehyde Analytical Results

PHASE SEPARATION SCIENCE

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

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082527

September 3, 2021

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

Reference: PSS Project No: **21082527**
Project Name: ACPS IAQ Testing
Project Location: AC Satellite Campus
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) **21082527**.

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 September 29, 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

PHASE SEPARATION SCIENCE

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

Explanation of Qualifiers

Project Name: ACPS IAQ Testing
PSS Project No.: 21082527

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/25/2021 at 05:35 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082527-001	CO- Elevator Lobby	AIR	08/20/21 00:00
21082527-002	CO- Satellite Campus	AIR	08/20/21 00:00
21082527-003	CO- 2104A Class	AIR	08/20/21 00:00
21082527-004	CO- 230-1A Office	AIR	08/20/21 00:00
21082527-005	CO- Cafe	AIR	08/20/21 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.

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.
J	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

SGS GALSON

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

September 02, 2021

Account# 15354

Login# L545277

Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on August 27, 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

Enclosure(s)

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 http://www.sgsgalson.com 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 Regulation	Lab ID: 1042	Mold Analysis Laboratory license

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - 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	in2 - Square Inches	ng - Nanograms

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc.
Site : AC SATELLITE CAMPUS
Project No. : ACPS IAQ TESTING-4920002
Date Sampled : 20-AUG-21
Date Received : 27-AUG-21

Account No.: 15354
Login No. : L545277
Date Analyzed : 31-AUG-21
Report ID : 1262678

Formaldehyde

Sample ID	Lab ID	Time minutes	Total ug	Conc mg/m3	ppm
CO-ELEVATOR LOBBY	L545277-1	247	<0.4	<0.01	<0.01
CO-SATELITE CAMPUS	L545277-2	231	<0.4	<0.01	<0.01
CO-2104A CLASS	L545277-3	232	<0.4	<0.01	<0.01
CO-230-1A OFFICE	L545277-4	226	<0.4	<0.01	<0.01
CO-CAFE	L545277-5	222	<0.4	<0.02	<0.01

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

Level of Quantitation: 0.4 ug
Analytical Method : mod. OSHA 1007; HPLC/UV
Collection Media : Assay 581

Submitted by: JLL
Date : 02-SEP-21
Supervisor : MWJ

Approved by: NKP

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 : AC SATELLITE CAMPUS
Project No. : ACPS IAQ TESTING-4920002

Date Sampled : 20-AUG-21 Account No.: 15354
Date Received: 27-AUG-21 Login No. : L545277
Date Analyzed: 31-AUG-21

L545277 (Report ID: 1262678):
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 1-5).
SOPs: LC-SOP-4(23)

L545277 (Report ID: 1262678):
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%

U540211 21082527

Z2313E40165461239
Date:08/27/21
Shipper:UPS
Initials:BGF
Prep:UNKNOWN

East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)
www.sgsgalson.com

83

☐ New Client?

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Client Account No.*:

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. :
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)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : AC Satellite Campus Project : ACPS IAQ testing - 4920002 Sampled by :

Comments :

List description of industry or Process/interferences present in sampling area :
Public grade school building

State samples were collected in (e.g., NY)
VA

Please indicate which OEL this data will be used for :
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA
☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
CO- Elevator Lobby	08/20/21	Assay N581 Aldehyde Badge	247	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5433
CO-Satelite Campus	08/20/21	Assay N581 Aldehyde Badge	231	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5424
CO-2104A Class	08/20/21	Assay N581 Aldehyde Badge	232	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5499
CO-230-1A Office	08/20/21	Assay N581 Aldehyde Badge	226	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4488
CO-CAFE	08/20/21	Assay N581 Aldehyde Badge	222	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5283
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	

^Galson Laboratories will subsititute 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	Date	Time
Relinquished by :				Received by :	Brett Grenert-Fischer Brett Grenert-Fischer	8/27/21	1126
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 ___

Chain of Custody Form for Subcontracted Analyses

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

W.O. No. : 21082527
Project Location : AC Satellite Campus
Project Number : 4920002
Report To LOD : No

Samples Transferred To:
SGS North America - NY
6601 Kirkville Road
East Syracuse, NY 13057
Old SGS Galson Labs. bsc
Phone : 315-432-5227

For Questions or issues please contact: Amber Confer

Report Due On :09/03/21 05:00

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21082527-001	CO- Elevator Lobby	08/20/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082527-002	CO- Satellite Campus	08/20/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082527-003	CO- 2104A Class	08/20/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082527-004	CO- 230-1A Office	08/20/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON
21082527-005	CO- Cafe	08/20/21	00:00	Air	Formaldehyde (mod. OSHA 1007; HPLC/UV)	VARIOUS	NONSC	NON

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send InvoiceAttn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : UPS

Condition Upon Receipt : _____

Comments : _____

Samples Relinquished By : [signature] Date : 8/26/21 Time: _____ Samples Received By : Brett Grenert-Fischer Brett Grenert-Fischer 8/27/21 1126

Samples Relinquished By: _____ Date : _____ Time : _____ Samples Received By: _____

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: _____

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082527

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.

21082527: 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.

21082527

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. :
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)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : AC Satellite Campus Project : ACPS IAQ testing - 4920002 Sampled by :

Comments :

List description of industry or Process/interferences present in sampling area :
Public grade school building

State samples were collected in (e.g., NY)
VA

Please indicate which OEL this data will be used for :
☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA
☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
CO- Elevator Lobby	08/20/21	Assay N581 Aldehyde Badge	247	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5433
CO-Satelite Campus	08/20/21	Assay N581 Aldehyde Badge	231	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5424
CO-2104A Class	08/20/21	Assay N581 Aldehyde Badge	232	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5499
CO-230-1A Office	08/20/21	Assay N581 Aldehyde Badge	226	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4488
CO-CAFE	08/20/21	Assay N581 Aldehyde Badge	222	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5283
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	

^Galson Laboratories will subsititute 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	Date	Time
Relinquished by :	Client	8/25/21	1735	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 ____

PHASE SEPARATION SCIENCE

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

Sample Receipt Checklist

Project Name: ACPS IAQ Testing
PSS Project No.: 21082527

Client Name Total Environmental Concepts - Lortc
Disposal Date 09/29/2021

Received By Amber Confer
Date Received 08/25/2021 05:35:00 PM
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 Not Provided
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 5
All Samples Received Within Holding Time(s)? Yes
Total No. of Containers Received 5

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	(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: Amber Confer — Date: 08/26/2021
Amber Confer

PM Review and Approval: Lynn Jackson — Date: 08/26/2021
Lynn Jackson

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. :
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)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name :

Project : ACPS IAQ testing - 4920002

Sampled by :

Comments :

List description of industry or Process/interferences present in sampling area : Public grade school building

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for : ☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
CO-Satelite Campus	08/20/21	Assay N581 Aldehyde Badge	231	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5424
CO-Satelite Campus	08/20/21	Assay N581 Aldehyde Badge	231	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5424
CO-2104A Class	08/20/21	Assay N581 Aldehyde Badge	232	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5499
CO-230-1A Office	08/20/21	Assay N581 Aldehyde Badge	226	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4488
CO-CAFE	08/20/21	Assay N581 Aldehyde Badge	222	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5283
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	

^Galson Laboratories will subsititute 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	Date	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 ____

Appendix E: 4-PCH Analytical Results

PHASE SEPARATION SCIENCE

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

Certificate of Analysis

Project Name: ACPS IAQ Testing
PSS Project No.: 21082526

September 3, 2021

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

Reference: PSS Project No: **21082526**
Project Name: ACPS IAQ Testing
Project Location: AC Satellite Campus
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) **21082526**.

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 September 29, 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

PHASE SEPARATION SCIENCE

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

Explanation of Qualifiers

Project Name: ACPS IAQ Testing

PSS Project No.: 21082526

Project ID: 4920002

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/25/2021 at 05:35 pm

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
21082526-001	CO- Elevator Lobby	AIR	08/20/21 00:00
21082526-002	CO- Satellite Campus	AIR	08/20/21 00:00
21082526-003	CO- 210-4A-Class	AIR	08/20/21 00:00
21082526-004	CO- 230-1A Office	AIR	08/20/21 00:00
21082526-005	CO-Cafe	AIR	08/20/21 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.

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.
J	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

SGS GALSON

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

September 02, 2021

Account# 15354

Login# L545225

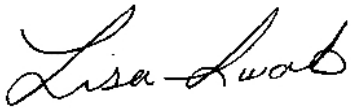
Dear Amber Confer:

Enclosed are the analytical results for the samples received by our laboratory on August 27, 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

Enclosure(s)

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 http://www.sgsgalson.com 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 Regulation	Lab ID: 1042	Mold Analysis Laboratory license

Legend

< - Less than	mg - Milligrams	MDL - Method Detection Limit	ppb - Parts per Billion
> - Greater than	ug - Micrograms	NA - Not Applicable	ppm - Parts per Million
l - 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	in2 - Square Inches	ng - Nanograms

SGS GALSON

6601 Kirkville Road
East Syracuse, NY 13057
(315) 432-5227
FAX: (315) 437-0571
www.sgsgalson.com

LABORATORY ANALYSIS REPORT

Client : Phase Separation Science, Inc. Account No.: 15354
Site : AC SATELLITE CAMPUS Login No. : L545225
Project No. : ACPS IAQ TESTING-4920002
Date Sampled : 20-AUG-21 Date Analyzed : 31-AUG-21
Date Received : 27-AUG-21 Report ID : 1262965

4-Phenylcyclohexene (4PCH low LOQ)

Sample ID	Lab ID	Air Vol liter	Front ug	Back ug	Total ug	Conc mg/m3	ppm
CO-ELEVATOR LOBBY	L545225-1	49.4	<0.2	<0.2	<0.2	<0.004	<0.0006
CO-SATELLITE CAMPUS	L545225-2	46.2	<0.2	<0.2	<0.2	<0.004	<0.0007
CO-210-4A CLASS	L545225-3	46.4	<0.2	<0.2	<0.2	<0.004	<0.0007
CO-230-1A OFFICE	L545225-4	45.2	<0.2	<0.2	<0.2	<0.005	<0.0007
CO-CAFE	L545225-5	44.44	<0.2	<0.2	<0.2	<0.005	<0.0007

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

Level of Quantitation: 0.2 ug
Analytical Method : mod. NIOSH 1501; GC/PID
Collection Media : 226-01

Submitted by: BDK
Date : 02-SEP-21
Supervisor : KAG

Approved by: MLN

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 : AC SATELLITE CAMPUS
Project No. : ACPS IAQ TESTING-4920002

Date Sampled : 20-AUG-21 Account No.: 15354
Date Received: 27-AUG-21 Login No. : L545225
Date Analyzed: 31-AUG-21

L545225 (Report ID: 1262965):
Total ug corrected for a desorption efficiency of 97%.
SOPs: GC-SOP-16(26), GC-SOP-8(27), GC-SOP-12(20)

L545225 (Report ID: 1262965):
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%

L545225 21082526

1Z2313E40165461239
Date:08/27/21
Shipper:UPS
Initials:BGF
Prep:UNKNOWN

East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

(85)

☐ New Client?

Report To*: Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Client Account No.*:

Phone No.*: 410-747-8770
Cell No.:
Email Results to: Amber Confer
Email address: reporting@phaseonline.com

Invoice To*: Phase Separation Science

Phone No.: 410-747-8770
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P.O. No.:
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)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name: AC Satellite Campus Project: ACPS IAQ testing - 4920002 Sampled by:

Comments:

List description of industry or Process/interferences present in sampling area: Public grade school all NB BGF 8/27/21

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for: ☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
CO - Elevator Lobby	08/20/21	Sm Charcoal tubes / 226-01	49.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
CO - Satellite Campus	08/20/21	Sm Charcoal tubes / 226-01	46.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
CO - 210-4A Class	08/20/21	Sm Charcoal tubes / 226-01	46.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
CO - 230-1A Office	08/20/21	Sm Charcoal tubes / 226-01	45.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
CO - Cafe	08/20/21	Sm Charcoal tubes / 226-01	44.44	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	
		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 Laboratories will subsititute 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	Date	Time
Relinquished by:				Received by:	Brett Grenert-Fischer Brett Grenert-Fischer	8/27/21	1126
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 ____

Chain of Custody Form for Subcontracted Analyses

Phase Separation Science, Inc
6630 Baltimore National Pike
Baltimore, MD 21228
Phone: (410) 747-8770
Fax: (410) 788-8723

For Questions or issues please contact: Amber Confer

W.O. No. : **21082526**
Project Location : AC Satellite Campus
Project Number : 4920002
Report To LOD : No

Report Due On :09/03/21 05:00

Samples Transferred To:
SGS North America - NY
6601 Kirkville Road
East Syracuse, NY 13057
Old SGS Galson Labs. bsc
Phone : 315-432-5227

Lab Sample ID	Field Sample ID	Date Sampled	Time Sampled	Matrix	Analyses Required	Method	Type of Container	Preservative
21082526-001	CO- Elevator Lobby	08/20/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082526-002	CO- Satellite Campus	08/20/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082526-003	CO- 210-4A-Class	08/20/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082526-004	CO- 230-1A Office	08/20/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON
21082526-005	CO-Cafe	08/20/21	00:00	Air	4-Phenylcyclohexene	VARIOUS	NONSC	NON

Data Deliverables Required: COA

Perform Q.C. on Sample : _____

Send Report Attn : reporting@phaseonline.com

Send InvoiceAttn : invoicing@phaseonline.com

Airbill No.: _____ Carrier : UPS

Condition Upon Receipt : _____

Comments :

Samples Relinquished By : [signature] Date : 8/26/21 Time: _____ Samples Received By : ~~Brett Grenert-Fischer~~ Brett Grenert-Fischer 8/27/21 1126

Samples Relinquished By: _____ Date : _____ Time : _____ Samples Received By: _____

Samples Relinquished By: _____ Date: _____ Time: _____ Samples Received By: _____

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

Project Name: ACPS IAQ Testing

PSS Project No.: 21082526

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.

21082526: 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.

21082526

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

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P.O. No. :
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)
☑ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name : AC Satellite Campus
Project : ACPS IAQ testing - 4920002
Sampled by :

Comments :

List description of industry or Process/interferences present in sampling area : Public grade school

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for : ☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
CO - Elevator Lobby	08/20/21	Sm Charcoal tubes / 226-01	49.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
CO - Satellite Campus	08/20/21	Sm Charcoal tubes / 226-01	46.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
CO - 210-4A Class	08/20/21	Sm Charcoal tubes / 226-01	46.4	L	4-Phenylcyclohexene	mod. NIOSH 1501	
CO - 230-1A Office	08/20/21	Sm Charcoal tubes / 226-01	45.2	L	4-Phenylcyclohexene	mod. NIOSH 1501	
CO - Cafe	08/20/21	Sm Charcoal tubes / 226-01	44.44	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	
		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 Laboratories will subsititute 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	Date	Time
Relinquished by :	Client	8/25/21	1735	Received by :			
Relinquished by :		8/26/21		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 ___

PHASE SEPARATION SCIENCE

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

Sample Receipt Checklist

Project Name: ACPS IAQ Testing
PSS Project No.: 21082526

Client Name	Total Environmental Concepts - Lorto	**Received By**	Amber Confer
Disposal Date	09/29/2021	**Date Received**	08/25/2021 05:35:00 PM
		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	Not Provided
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	5
All Samples Received Within Holding Time(s)?	Yes	Total No. of Containers Received	5

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	(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: Amber Confer — Date: 08/26/2021

Amber Confer

PM Review and Approval: Lynn Jackson — Date: 08/26/2021

Lynn Jackson

SGS GALSON

6601 Kirkville Rd
East Syracuse, NY 13057
Tel: (315) 432-5227
888-432-LABS (5227)

www.sgsgalson.com

☐ New Client?

Client Account No.*:

Report To* : Phase Separation Science
6630 Baltimore National Pike
Baltimore, MD 21228

Phone No.* : 410-747-8770
Cell No. :
Email Results to : Amber Confer
Email address: reporting@phaseonline.com

Invoice To* : Phase Separation Science

Phone No.: 410-747-8770
Email : invoicing@phaseonline.com
P.O. No. :
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)
☐ Standard	0%
☐ 4 Business Days	35%
☐ 3 Business Days	50%
☐ 2 Business Days	75%
☐ Next Day by 6pm	100%
☐ Next Day by Noon	150%
☐ Same Day	200%

Site Name :
Project : ACPS IAQ testing - 4920002
Sampled by :

Comments :

List description of industry or Process/interferences present in sampling area : Public grade school building

State samples were collected in (e.g., NY): VA

Please indicate which OEL this data will be used for : ☑ OSHA PEL ☐ ACGIH TLV ☐ Cal OSHA ☐ MSHA ☐ Other (specify):

Sample Identification* (Maxmium of 20 Characters)	Date Sampled	Collection Medium	Sample Volume Sample Time Sample Area*	Sample Units*: L, ml,min,in2,cm2,ft2	Analysis Requested*	Method Reference^	Hexavalent Chromium Process (e.g., welding plating, painting, etc.)*
CO-Elevator Lobby	08/20/21	Assay N581 Aldehyde Badge	247	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5433
CO-Satelite Campus	08/20/21	Assay N581 Aldehyde Badge	231	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5424
CO-2104A Class	08/20/21	Assay N581 Aldehyde Badge	232	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5499
CO-230-1A Office	08/20/21	Assay N581 Aldehyde Badge	226	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD4488
CO-CAFE	08/20/21	Assay N581 Aldehyde Badge	222	min	Formaldehyde	mod. OSHA 1007: TPLC/UV	PD5283
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	
		Assay N581 Aldehyde Badge		min	Formaldehyde	mod. OSHA 1007: TPLC/UV	

^Galson Laboratories will subsititute 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):

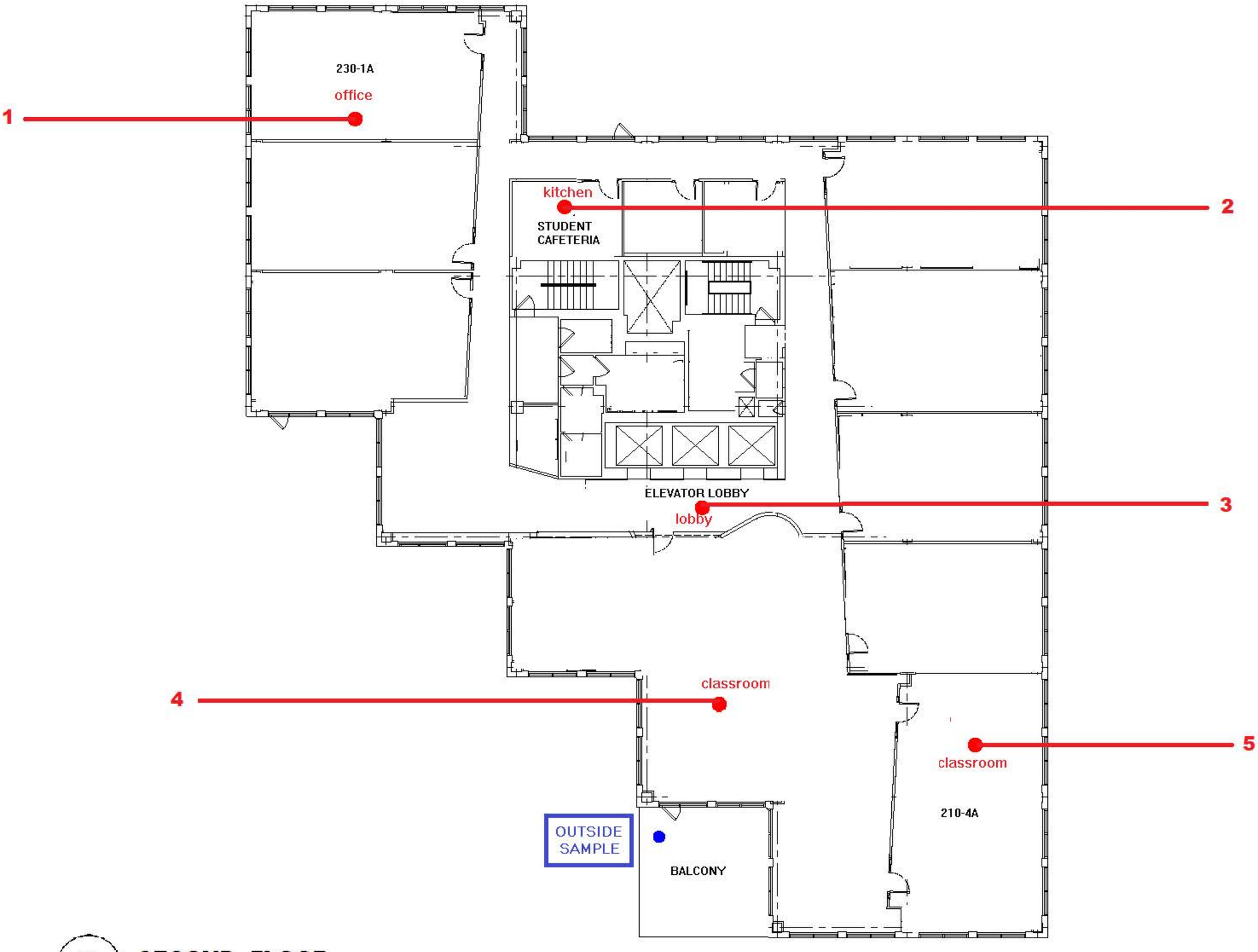
For crystalline silica: form(s) of silica needed must be indicated (Quartz, Cristobalite, and/or Tridymite)* :

Chain of Custody	Print Name/Signature	Date	Time		Print Name/Signature	Date	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 ____

Appendix F: Sampling Locations



2 SECOND FLOOR

LEGEND

● Sample Location Analyzed For:

Mold
Radon
VOC's (TO+15)
4-polycyclohexene
Formaldehyde

ACPS Central Offices

SATELLITE CAMPUS

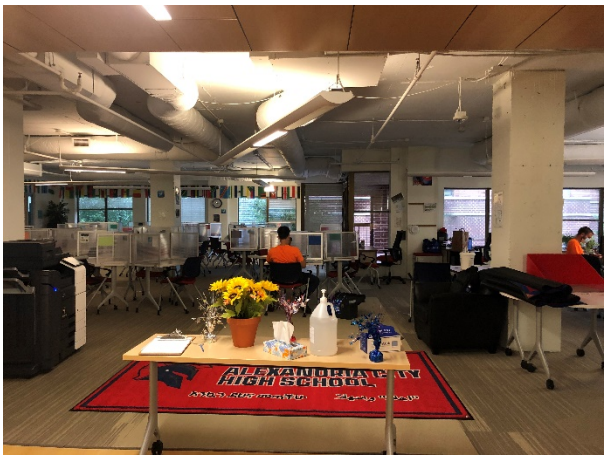
1340 Braddock Road
Alexandria, VA 22314

Total Environmental Concepts, Inc.
8382 Terminal Road, Suite B
Lorton, VA 22079
Phone: 703-567-4346
Fax: 703-567-3487

Figure 1

Appendix G: Photographs

Central Offices, Lobby



Central Offices, Satellite Campus

Central Offices, 210-4A

Central Offices, 230-1A

Central Offices, Student Cafeteria