June 17, 2019

Mr. Alex Baylor, Environmental Specialist via email: alex.baylor@pgcps.org
Environmental Safety Office
Prince Georges County Public Schools
Division of Supporting Services / Building Services
13306 Old Marlboro Pike
Upper Marlboro, MD 20772

RE: Indoor Air Quality (IAQ) and Mold Assessment Services
Tall Oaks Vocational High School
2112 Church Road, Bowie, MD 20721
Tidewater Project No.: 5419-001

Dear Mr. Baylor:

Tidewater, Inc. (Tidewater) is pleased to present this Indoor Air Quality (IAQ) and Mold Assessment Report describing the results of the IAQ assessment and mold survey conducted by Tidewater at Tall Oaks Vocational High School located at 2112 Church Road in Bowie, Maryland. The IAQ and Mold survey was conducted on May 15, 2019, by Tidewater's Project Manager and Certified Industrial Hygienist, Mr. Skanda Abeyesekere MS, CIH, CSP, CHMM.

The scope of work for the IAQ assessment and mold survey included:

- Visual inspections of the following representative areas of the school: Classroom 1, Health Suite, Multipurpose Room, Classroom 2, Classroom 5, Guidance Room, Classroom 7, Classroom 10, Classroom 14, Classroom 17, and Classroom 20 of Tall Oaks Vocational High School for evidence of potential indoor air quality problems (including suspect microbial growth, water damage, chemical use/storage, drain traps, sources of allergens/contaminants, etc.) that may contribute to indoor air quality problems.
- Comfort parameter air testing at the above areas utilizing a direct-reading IAQ monitor for temperature (T), relative humidity (RH), carbon monoxide (CO), and carbon dioxide (CO_2.) Measurements were taken for comparison with guidelines established by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 62.1–2016, Ventilation for Acceptable Indoor Air Quality, and The United States Environmental Protection Agency (US EPA) National Ambient Air Quality Standards (NAAQS.)
- Measurement of particulate matter less than 10 microns (PM10) concentrations utilizing a direct-reading instrument at the above areas for comparison with guidelines established by the United States Environmental Protection Agency (US EPA.)
- Measurement of Total Volatile Organic Compounds (TVOCs) concentrations utilizing a direct-reading instrument at the above areas for comparison with relevant guidelines.
- Air sampling for total airborne fungal spore concentrations at the above areas using Allergenco-D cassettes affixed to a Buck BioAire™ Model B520 Bioaerosol Sampling Pump.

Visual Observations

Tidewater's assessment included a visual inspection of representative areas of the school including Classroom 1, Health Aid Room, Multipurpose Room, Classroom 2, Classroom 5, Guidance Room, Classroom 7, Classroom 10, Classroom 14, Classroom 17, and Classroom 20 of Tall Oaks Vocational High School. Photos of Site conditions are included in Attachment C. The results of Tidewater's visual inspection are as follows:

Classroom 1

Classroom 1 was vacant at the time of the inspection. The return air grills of the ceiling-mounted air conditioning unit contained excessive levels of dust. The air conditioning system was not in operation at the time of the inspection and the classroom was relatively warm. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed in the classroom. No unusual odors were detected from the classroom. General housekeeping appeared to be deficient.

Health Suite

The Health Suite was vacant at the time of the inspection. The main room contained several wall mounted fan coil units in multiple rooms. The fan coil unit in the Boy's Room was not in operation at the time of the inspection. Furthermore, this fan coil unit contained excessive levels dirt/dust on the supply grills. Housekeeping activities observed in the Health Suite appeared to be adequate. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed. No unusual odors were detected.

Multi-Purpose Room

The Multipurpose Room was vacant at the time of the inspection. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed in the Multipurpose Room. No unusual odors were detected in the room. All trash receptacles were empty and the general housekeeping appeared to be satisfactory. Tidewater observed the grills located on the ducts at the perimeter of the Multipurpose Room to contain rust formations.

Classroom 2

Classroom 2 was vacant at the time of the inspection. A wall mounted fan coil unit was observed in the classroom. This fan coil unit was not in operation at the time of the inspection. General housekeeping appeared to be deficient. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed. Tidewater noted the presence of a strong air freshener odor in the classroom.

Classroom 5

Classroom 5 was vacant at the time of the inspection. Tidewater observed the air supply grills of the ceiling mounted HVAC unit to contain excessive levels of dirt/dust. Furthermore, Tidewater observed books stored on top of the air supply grills of the wall mounted fan coil unit hindering air flow. General housekeeping within the classroom appeared to be deficient. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed within the room. No unusual odors were detected within the classroom.

Guidance Room

Tidewater observed one water-stained ceiling tile above the front desk. The ceiling-mounted air supply grill appeared to have excessive dust. Tidewater also observed miscellaneous cleaning

supplies stored under the front desk. The air conditioning system was not in operation at the time of the inspection. No unusual odors were detected within the Guidance Room.

Classroom 7

Classroom 7 was vacant at the time of the inspection. The air supply grills of the ceiling mounted HVAC unit appeared to be clean. The fan coil unit was in operation and cold air was emitting from the fan coil unit. Tidewater observed food debris in the sink drain trap that could potentially result in adverse odors. General housekeeping within the classroom appeared to be deficient. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed.

Classroom 10

Tidewater observed the air supply grills of the ceiling mounted HVAC unit contained excessive levels of dirt/dust. The fan coil unit was not in operation at the time of the inspection. No signs of water intrusion were observed within the classroom. General housekeeping appeared to be deficient. No unusual odors were detected within the classroom.

Classroom 14

One occupant was in Classroom 14 at the time of the inspection. The fan coil unit was not in operation at the time of the inspection and the air circulation within the classroom appeared to be poor. The air supply grills of the ceiling mounted HVAC unit contained excessive levels of dirt/dust. The occupant complained of a strong odor emanating from the fan coil unit heater when it is in operation. A portable heater was also observed within the classroom. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed within the classroom. Tidewater did not detect any unusual odors in the classroom at the time of the inspection.

Classroom 17

Classroom 17 was vacant at the time of the inspection. A wall mounted fan coil unit and a wall mounted HVAC unit were observed in the classroom. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed within the classroom. No unusual odors were detected within the classroom.

Classroom 20

One occupant was present in Classroom 20 at the time of the inspection. A wall mounted fan coil unit and a wall mounted HVAC unit were observed in the classroom. No signs of suspect mold growth, or prior or ongoing water-intrusion problems, were observed within the classroom. No unusual odors were detected within the classroom.

Comfort Parameter Air Testing

During the assessment, Tidewater recorded temperature, relative humidity, carbon dioxide (CO_2), and carbon monoxide (CO) measurements in the above mentioned locations of Tall Oaks Vocational High School using a TSI Q-Track Air Quality Meter (Model Number TSI Q-Track 7565, Serial Number 7565x0931002, Calibration Date: April 18, 2019.) Measurements were taken after allowing the instrument to become acclimated to the ambient temperature and relative humidity for approximately five (5) minutes. Measurements were taken over a 5-minute time period at each designated location and the average concentration was recorded. Samples were obtained for comparison with guidelines established by the American Society for Heating Refrigeration and Air Conditioning (ASHRAE) Standard 62.1 – 2016, Ventilation for Acceptable

Indoor Air Quality. A background sample was obtained in front of the main entrance to the school building for comparison to the interior readings. The results of the IAQ comfort parameter monitoring are provided in Table 1, in **Attachment A**.

According to the American Society for Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) Standard 62.1 – 2016, the temperature range in summer months should be maintained between 73.0°F and 79.0°F for maximum occupant comfort. The ASHRAE guideline for temperature for winter months is between 68.0°F and 74.5°F. The indoor temperature levels recorded in the assessed areas ranged between 67.8°F and 70.2°F, and the background temperature outside the building was 70.0°F. The temperature levels recorded within the majority of the classrooms were within the recommended range for the spring-summer transitional period.

Per the same guideline, a maximum recommended relative humidity level of 65.0% is recommended to reduce the likelihood of condensation on cold surfaces. Relative humidity levels recorded in the assessed areas ranged between 42.8% and 49.6%. The background relative humidity level outside the building was 40.3%. The relative humidity levels in all areas assessed were below the ASHRAE recommended maximum relative humidity guideline of 65.0%.

ASHRAE Standard 62.1 – 2016 recommends that indoor CO_2 concentrations not exceed 700 ppm above the outdoor background CO_2 level. The CO_2 levels recorded in the assessed areas ranged between 458 ppm to 700 ppm. The background CO_2 level outside the building was 431 ppm. The CO_2 levels within all interior locations assessed did not exceed 700 ppm above the outdoor background CO_2 level of 431 ppm.

The CO concentrations recorded in all of the assessed areas were below the maximum guideline of 9 ppm recommended by the Indoor Air Quality Association (IAQA) for CO in occupied indoor environments.

Particulate Matter Less than 10 Microns (PM 10)

Tidewater conducted air sampling for respirable dust particulates using a TSI® DUST TRAK DRX™ Aerosol Monitor (Serial Number 8534170101, Calibrated Date: March 1, 2019.) The TSI® DUST TRAK DRX™ Aerosol Monitor was equipped with a PM10 (10 µm) respirable impactor. Measurements were taken after allowing the device to become acclimated to the ambient temperature and relative humidity for five (5) minutes. Measurements were taken over a 5-minute time period at each designated location and the average concentration was recorded. Samples were taken for comparison with guidelines established by the EPA NAAQS. Tidewater also obtained a background sample from outside the main entrance of the school building for comparison to the interior readings. The results of the particulate matter sampling are provided in Table 2, in **Attachment A**.

Based on the EPA National Ambient Air Quality Standard (NAAQS) for Particulate Matter, Final Rule (January 15, 2013), the 24-hour primary and secondary exposure standard for particulate matter less than 10 microns (PM10) is 150.0 micrograms per cubic meter of air (µg/m^3) or 0.150 milligrams per cubic meter of air (mg/m^3.) The results of the PM10 analysis indicate that the average PM10 dust concentration recorded in all of the assessed areas ranged between 0.005 mg/m^3 and 0.015 mg/m^3. The average PM10 dust concentration in the background sample obtained in front of the main entrance was 0.012 mg/m^3.

The results of the PM10 monitoring indicate that the PM10 dust concentrations all areas assessed were below the EPA 24-hour primary and secondary NAAQS of 0.150 mg/m^3.

Total Volatile Organic Compound (TVOC) Air Testing

Tidewater obtained direct read measurements for Total Volatile Organic Compounds (TVOCs) using a Mini-RAE 2000 Hand Held VOC meter (Model Number MINIRAE 2000, Serial Number 110-010833, Calibration Date April 9, 2019.) Measurements were taken after allowing the device to become acclimated to the ambient temperature and relative humidity for five (5) minutes. Measurements were taken over a 5-minute time period at each sampling location and the average concentration was recorded for comparison with threshold limits recommended for typical indoor occupied environments.

A background sample was also obtained outdoors in front of the main entrance of the school building for comparison to the indoor readings. The results of the particulate matter sampling are provided in Table 3, in **Attachment A**.

There are no OSHA published guidelines for TVOCs. However, in general, the indoor air quality TVOC threshold for typical indoor occupied environments should not exceed 1,000 ppb (1.0 ppm) isobutylene units. The TVOC concentrations recorded in all of the assessed areas were below the recommend threshold level of 1.0 ppm.

Spore Trap Bioaerosol Sampling

On May 15, 2019, Tidewater collected a total of eleven (11) spore trap air samples using Allegenco-D cassettes to characterize potential airborne fungal spores within select areas of Tall Oaks Vocational High School. A background sample was also collected outside the main entrance to the school building for comparison purposes.

Tidewater obtained the spore trap samples using Allergenco-D cassettes affixed to a Buck BioAire™ Bioaerosol Sampling Pump (Pump Model Number B520 and Serial Number B153043, Calibration Date: February 6, 2019) calibrated to a flow rate of 15.0 Liters per minute. Each sample was run for a period of five (5) minutes at each sample location to collect a total sample volume of 75.0 liters of air.

Once collected, the samples were transported to EMSL Analytical Laboratory (EMSL) located in Beltsville, Maryland for analysis. The samples were transported following rigorous chain-of-custody guidelines to ensure proper handling and delivery of the samples. EMSL is accredited in the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP) and is a successful participant in AIHA's Environmental Microbiology Proficiency Analytical Testing (EMPAT) program (Laboratory Number 102891.)

The samples were analyzed via light microscopy at the standardized magnification of 600X. This technique does not allow for the differentiation between *Aspergillus* and *Penicillium* spores because they are morphologically identical. Additionally, the technique does not allow for cultivation, or the identification of spores to the species level, except in a few cases.

There are no universally accepted federal or State of Maryland standards for acceptable airborne concentrations of bioaerosols in an indoor occupational environment. In general, airborne concentrations indoors should be less than that found in the outdoor air, with similar species composition. Indoor spore counts significantly greater than those detected outdoors, or the presence of large numbers of different types of spores indoors that are not found outdoors, may indicate contamination and potential indoor air quality problems.

The total mold spore counts for the interior samples ranged between 540 and 1,560 spores per cubic meter (spores/m^3.) The total mold spore concentration in the outdoors (background) sample was 2,830 spores/m^3. The mold spore concentrations in all interior locations sampled were significantly below the outdoors (background) total mold spore concentration.

Additionally, the individual fungal species concentrations observed in the interior samples were generally consistent with those observed in the background reference samples with no significant concentrations of an individual fungal species identified in the interior samples.

The summary of the results for the spore trap sampling are provided in Table 4 in **Attachment A**. The laboratory analytical results, including speciation and chain of custody forms for the spore trap samples are included in **Attachment B**.

Conclusions

Based on this IAQ and mold assessment survey, Tidewater offers the following conclusions:

- Tidewater's visual inspection did not reveal any evidence of standing water, active water intrusion or suspect mold growth on accessible walls, floors and ceilings in the assessed areas.
- Tidewater did observe one water-stained ceiling tile in the Guidance Room.
- The air supply grills of the ceiling mounted HVAC units in Classroom 1, Classroom 5, Classroom 10, and Classroom 14 appeared to contained excessive levels of dirt/dust.
- General housekeeping in all classrooms appeared to be deficient.
- Temperature, relative humidity, CO_2, CO, PM10, and TVOC readings recorded within the assessed areas were all within industry standards and guidelines.
- The mold spore concentrations in all interior locations sampled were significantly below the outdoors (background) total mold spore concentration. Additionally, the individual fungal species concentrations observed in the interior samples were generally consistent with those observed in the background reference samples with no significant concentrations of an individual fungal species identified in the interior samples.

Recommendations

Based on the results of the assessment, Tidewater offers the following recommendations:

- Investigate above the water-stained ceiling tile in the Guidance Room for any ongoing water leaks and surface mold formations. If any leaks are detected, repair them immediately. If surface mold contamination is observed, appropriate steps should be taken to remediate and sanitize the affected areas.
- Remove the water-stained ceiling tile in the Guidance Room. Ensure that the perimeter of the ceiling grids are cleaned with a 10% bleach solution to eliminate exiting fungal spores prior to installing a new ceiling tile.
- Clean all air supply grills in the ceiling mounted HVAC units in Classroom 1, Classroom 5, Classroom 10, and Classroom 14 with a 10% bleach solution to eliminate observed dirt/dust.
- Ensure that all cleaning activities are conducted after hours when the classrooms are vacant to minimize exposure to occupants.

- Remove all food debris from the sink drain trap in Classroom 7 and maintain the drain free of food debris.
- Maintain good housekeeping practices in all common areas and classrooms. All common area and classrooms floors should be broom cleaned at the end of each day. Furthermore, all horizontal surfaces including desk tops, furniture, window sills and suspended light fixtures should be cleaned on a routine basis to prevent the accumulations of dust.
- Ensure HVAC System supplying is properly balanced per design requirements in order to ensure adequate ventilation throughout the classrooms.
- Ensure the ventilation systems are turned on in all classrooms and are operating at all times when the classrooms are occupied to provide sufficient air flow and ventilation to the classrooms**.**
- Ensure the air supply vent of the fan coil unit in Classroom 5 is left unobstructed to ensure adequate air supply into the classroom.

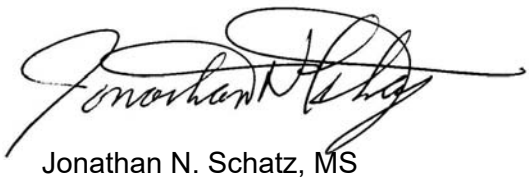
Qualifications

Tidewater has endeavored to investigate existing conditions in representative areas of Tall Oaks Vocational High School located at 2112 Church Road in Bowie, Maryland as they pertain to indoor air quality. Our conclusions and recommendations are based on the observations made on the day of our assessment, laboratory data from the time of the assessment, and information provided by both our Client and the area occupants. Actual conditions vary from day to day throughout the year.

Tidewater appreciates the opportunity to provide Industrial Hygiene consulting services for Prince Georges County Public Schools. Please contact us should any questions arise concerning this report or if we may be of further assistance.

Sincerely,

Tidewater, Inc.



Skanda Abeyesekere, MS, CIH, CSP, CHMM
Project Manager

Jonathan N. Schatz, MS
Manager, IH Services

SA/JNS

Attachments: **Attachment A – Summary of Comfort Parameters, Total (Nuisance) Dust, TVOC and Non-Viable Spore Trap Sampling**
Attachment B – Laboratory Reports for Non-Viable Spore Trap Sampling
Attachment C – Photographs of Site Conditions
Attachment D – Calibration Certificates
Attachment E – Qualifications
Attachment F – Floor Plan with Sampling Locations

Attachment A

Summary of Comfort Parameters, Total (Nuisance) Dust, TVOC and Non-Viable Spore Trap Sampling

Table 1: Indoor Air Quality Comfort Parameters Tall Oaks Vocational High School				
Location	**Temperature (°F)**	**Relative Humidity (%)**	**Carbon Dioxide (ppm)**	**Carbon Monoxide (ppm)**
May 15, 2019				
Guidance Room	69.0	45.0	615	0.0
Classroom 7	69.8	44.8	467	0.0
Classroom 10	69.9	42.8	461	0.0
Classroom 14	69.8	43.3	460	0.0
Classroom 17	69.9	44.7	480	0.0
Classroom 20	69.0	44.1	458	0.0
Classroom 1	67.8	49.6	700	0.0
Multipurpose Room	70.2	46.9	565	0.0
Classroom 2	68.9	45.7	528	0.0
Classroom 5	69.0	47.0	560	0.0
Health Administration Room	69.7	49.0	575	0.0
Background	70.0	40.3	431	0.0

- Numbers highlighted in red indicates locations in which temperature, carbon dioxide or relative humidity levels were either above or below the guidelines recommended by the American Society for Heating Refrigeration and Air Conditioning (ASHRAE) Standard 62.1 – 2016.

Table 2: Particulate Matter Less than 10 Microns (PM10) Tall Oaks Vocational High School	
Location	**Particulate Matter (PM10)** **Concentration (mg/m^3)**
May 15, 2019	
Guidance Room	0.009
Classroom 7	0.015
Classroom 10	0.005
Classroom 14	0.005
Classroom 17	0.007
Classroom 20	0.006
Classroom 1	0.008
Multipurpose Room	0.007
Classroom 2	0.011
Classroom 5	0.006
Health Administration Room	0.007
Background (Outdoors)	0.012

Table 3: Total Volatile Organic Compounds (TVOCs) Tall Oaks Vocational High School	
Location	**Concentration (ppm)**
May 15, 2019	
Guidance Room	0.0
Classroom 7	0.0
Classroom 10	0.0
Classroom 14	0.0
Classroom 17	0.0
Classroom 20	0.0
Classroom 1	0.0
Multipurpose Room	0.0
Classroom 2	0.0
Classroom 5	0.0
Health Administration Room	0.0
Background (Outdoors)	0.0

Table 4: Spore Trap Sampling Results Tall Oaks Vocational High School			
May 15, 2019			
Sample Number	**Sample Location**	**Sample Volume (L)**	**Total Fungi Concentration (Counts/m^3)**
A1	Classroom 1	75.0	720
A2	Health Administration Room	75.0	1,420
A3	Multipurpose Room	75.0	1,440
A4	Classroom 2	75.0	600
A5	Classroom 5	75.0	540
A6	Guidance Room	75.0	860
A7	Classroom 7	75.0	1,560
A8	Classroom 10	75.0	1,000
A9	Classroom 14	75.0	1,040
A10	Classroom 17	75.0	870
A11	Classroom 20	75.0	540
BG-1	Background (Outdoors)	75.0	2,830

- Highlighted Area indicates location where the concentrations of the indoor sample exceeded the level detected in the background sample.

Attachment B

Laboratory Reports for Non-Viable Spore Trap Mold Sampling

EMSL Analytical, Inc.

528 Mineola Avenue Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com / carleplacelab@emsl.com

Order ID: 061909464
Customer ID: TIDE50
Customer PO:
Project ID:

Attn: Skanda Abeyeskere
Tidewater, Inc.
6625 Selnick Drive
Suite A
Elkridge, MD 21075

Phone: (410) 540-8700
Fax: (410) 997-8713
Collected: 05/15/2019
Received: 05/18/2019
Analyzed: 05/20/2019

Proj: PGCPS Tall Oaks Vocational HS, MD 5419-001

Test Report: Allergenco-D(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	061909464-0001			061909464-0002			061909464-0003		
Client Sample ID:	A1			A2			A3		
Volume (L):	75			75			75		
Sample Location:	Room 1			Health Aid Rm			Mult Purpose Room		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	5	200	27.8	5	200	14.1	1	40	2.8
Aspergillus/Penicillium	-	-	-	6	300	21.1	9	400	27.8
Basidiospores	12	520	72.2	21	920	64.8	24	1000	69.4
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Polythrincium	-	-	-	-	-	-	-	-	-
Total Fungi	**17**	**720**	**100**	**32**	**1420**	**100**	**34**	**1440**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.

Jeffrey Lau, Microbiology Laboratory Manager
or Other Approved Signatory

Samples received in good condition unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "*" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the result, it will be noted on the report.

Initial report from: 05/20/2019 16:48:45

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.
528 Mineola Avenue Carle Place, NY 11514
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Order ID: 061909464
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Attn: Skanda Abeyeskere
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Suite A
Elkridge, MD 21075

Phone: (410) 540-8700
Fax: (410) 997-8713
Collected: 05/15/2019
Received: 05/18/2019
Analyzed: 05/20/2019

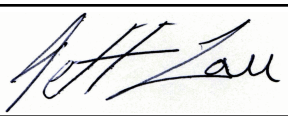
Proj: PGCPS Tall Oaks Vocational HS, MD 5419-001

Test Report: Allergenco-D(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	061909464-0004			061909464-0005			061909464-0006		
Client Sample ID:	A4			A5			A6		
Volume (L):	75			75			75		
Sample Location:	Room 2			Room 5			Guaidance Room		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	4	200	33.3	3	100	18.5	8	300	34.9
Aspergillus/Penicillium	4	200	33.3	-	-	-	-	-	-
Basidiospores	4	200	33.3	10	440	81.5	12	520	60.5
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	1	40	4.7
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Polythrincium	-	-	-	-	-	-	-	-	-
Total Fungi	**12**	**600**	**100**	**13**	**540**	**100**	**21**	**860**	**100**
Hyphal Fragment	1	40	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.



Jeffrey Lau, Microbiology Laboratory Manager
or Other Approved Signatory

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Initial report from: 05/20/2019 16:48:45

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.
528 Mineola Avenue Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com / carleplacelab@emsl.com

Order ID: 061909464
Customer ID: TIDE50
Customer PO:
Project ID:

Attn: Skanda Abeyeskere
Tidewater, Inc.
6625 Selnick Drive
Suite A
Elkridge, MD 21075

Phone: (410) 540-8700
Fax: (410) 997-8713
Collected: 05/15/2019
Received: 05/18/2019
Analyzed: 05/20/2019

Proj: PGCPS Tall Oaks Vocational HS, MD 5419-001

Test Report: Allergenco-D(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	061909464-0007			061909464-0008			061909464-0009		
Client Sample ID:	A7			A8			A9		
Volume (L):	75			75			75		
Sample Location:	Room 7			Room 10			Room 14		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	5	200	12.8	4	200	20	6	300	28.8
Aspergillus/Penicillium	5	200	12.8	9	400	40	-	-	-
Basidiospores	22	960	61.5	9	400	40	17	740	71.2
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	5	200	12.8	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Polythrincium	-	-	-	-	-	-	-	-	-
Total Fungi	**37**	**1560**	**100**	**22**	**1000**	**100**	**23**	**1040**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.

Jeffrey Lau, Microbiology Laboratory Manager
or Other Approved Signatory

Samples received in good condition unless otherwise noted. High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "*" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. The report reflects the samples as received. When the information supplied by the customer can affect the validity of the result, it will be noted on the report.

Initial report from: 05/20/2019 16:48:45

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

EMSL Analytical, Inc.
528 Mineola Avenue Carle Place, NY 11514
Phone/Fax: (516) 997-7251 / (516) 997-7528
http://www.EMSL.com / carleplacelab@emsl.com

Order ID: 061909464
Customer ID: TIDE50
Customer PO:
Project ID:

Attn: Skanda Abeyeskere
Tidewater, Inc.
6625 Selnick Drive
Suite A
Elkridge, MD 21075

Phone: (410) 540-8700
Fax: (410) 997-8713
Collected: 05/15/2019
Received: 05/18/2019
Analyzed: 05/20/2019

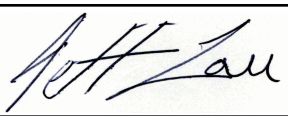
Proj: PGCPS Tall Oaks Vocational HS, MD 5419-001

Test Report: Allergenco-D(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	061909464-0010			061909464-0011			061909464-0012		
Client Sample ID:	A10			A11			BG-1		
Volume (L):	75			75			75		
Sample Location:	Room 17			Room 20			Outdoors		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	1*	10*	0.4
Ascospores	6	300	34.5	6	300	55.6	32	1400	49.5
Aspergillus/Penicillium	-	-	-	-	-	-	3	100	3.5
Basidiospores	13	570	65.5	5	200	37	26	1100	38.9
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	1	40	7.4	4	200	7.1
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	1*	10*	0.4
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Polythrincium	-	-	-	-	-	-	1*	10*	0.4
Total Fungi	**19**	**870**	**100**	**12**	**540**	**100**	**68**	**2830**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	8	300	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	1	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	2	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

No discernable field blank was submitted with this group of samples.



Jeffrey Lau, Microbiology Laboratory Manager
or Other Approved Signatory

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Initial report from: 05/20/2019 16:48:45

For Information on the fungi listed in this report please visit the Resources section at www.emsl.com

OrderID: 061909464

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*):

061909464

PHONE:
FAX:

Company : Tidewater Inc.	**EMSL-Bill to:** ☐ Different ☐ Same If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 6625 Slenick Drive, Suite A	
City: Elkridge **State/Province:** Maryland	**Zip/Postal Code:** **Country:**
Report To (Name): Skanda Abeyesekere	**Telephone #:**
Email Address: skanda@tideh2o.net	**Fax #:** **Purchase Order:**
Project Name/Number: PGCPS Tall OAKS Vocational	**Please Provide Results:** ☐ FAX ☐ E-mail ☐ Mail
U.S. State Samples Taken: MD 5419-001 HS	**Connecticut Samples:** ☐ Commercial ☐ Residential

Turnaround Time (TAT) Options* - Please Check

☐ 3 Hour ☐ 6 Hour ■ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements*

Non Culturable Air Samples (Spore Traps) – Test Codes

- **M001** Air-O-Cell
- **M049** BioSIS
- **M030** Micro 5
- **M173** Allegro M2
- **M003** Burkard
- **M174** MoldSnap
- **M004** Allergenco
- **M043** Cyclex
- **M176** Relle Smart
- **M032** Allergenco-D
- **M002** Cyclex-d
- **M130** Via-Cell
- **M172** Versa Trap

Other Microbiology Test Codes

- **M041** Fungal Direct Examination
- **M005** Viable Fungi ID and Count
- **M006** Viable Fungi ID and Count (Speciation)
- **M007** Culturable Fungi
- **M008** Culturable Fungi (Speciation)
- **M009** Gram Stain Culturable Bacteria
- **M010** Bacterial Count and ID – 3 Most Prominent
- **M011** Bacterial Count and ID – 5 Most Prominent
- **M013** Sewage Contamination in Buildings
- **M014** Endotoxin Analysis
- **M015** Heterotrophic Plate Count
- **M180** Real Time Q-PCR-ERMI 36 Panel
- **M018** Total Coliform (Membrane Filtration)
- **M020** Fecal *Streptococcus* (Membrane Filtration)
- **M210-215** *Legionella* Detection
- **M026** Recreational Water Screen
- **M027** Mycotoxin Analysis
- **M029** *Enterococci*
- **M019** Fecal Coliform
- **M133** MRSA Analysis
- **M028** *Cryptococcus neoformans* Detection
- **M120** *Histoplasma capsulatum* Detection
- **M033-39** Allergen Testing
- **M044** Group Allergen (Cat, Dog, Cockroach, Dustmites)
- **Other** See Analytical Price Guide

Preservation Method (Water):

Name of Sampler: SKANDA ABEYESEKERE **Signature of Sampler:**

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
Example: A1	Kitchen	Air	M001	75L	1/1/12 4:00 PM
A1	Room 1	AIR	M032	75.0	05/15/2019
A2	Health Aid Rm		(M)		
A3	Multi purpose Room				
A4	Room 2				
A5	Room 5				
A6	Guidance room				
A7	Room 7				
A8	Room 10				
A9	Room 14				

Client Sample # (s): 12- **Total # of Samples:** 12

Relinquished (Client): **Date:** 05/15/19 **Time:** 2:00pm.

Received (Client): FedEx **Date:** 5/17/19 **Time:** 10:15am

Comments:

5/19/19

CHARLE PLACE, NY

RAD 5/18/19 11:55AM

OrderID: 061909464

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*):

061909464

PHONE:
FAX:

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
A 10	Room 17	Air	M632 (M)	75.0	05/15/2019
A 11	Room 20	↓	↓	↓	↓
BG-1	outdoors	↓	↓	↓	↓

****Comments/Special Instructions:**

19 MAY 18 AM11:55

Page 2 of 2 pages

1/19/19

Attachment C

Photographs of Site Conditions

PHOTO LOG
Tall Oaks Vocational High School
2112 Church Road
Bowie, Maryland

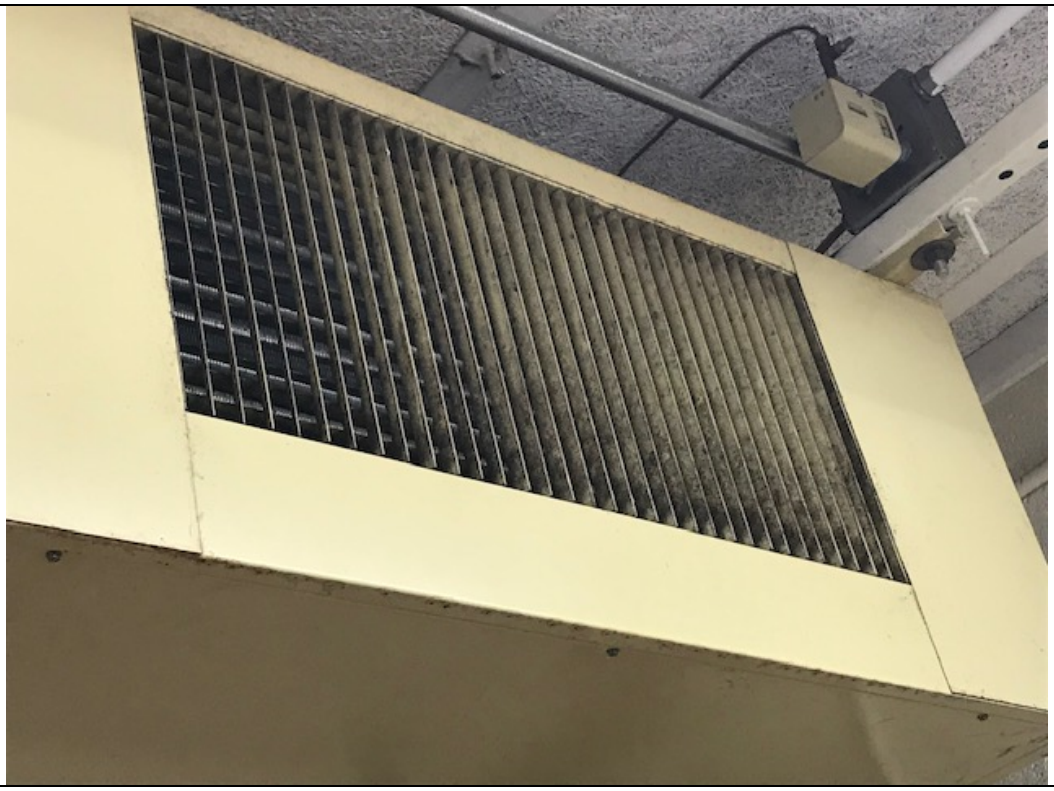


Photo 1: Classroom 1 – Ceiling Mounted Air Conditioning Unit Grills contain excessive levels of grime and dust.

Photo 2: Health Aid Room - Fan coil unit in the boy's room contained excessive levels of dust and debris

PHOTO LOG
Tall Oaks Vocational High School
2112 Church Road
Bowie, Maryland

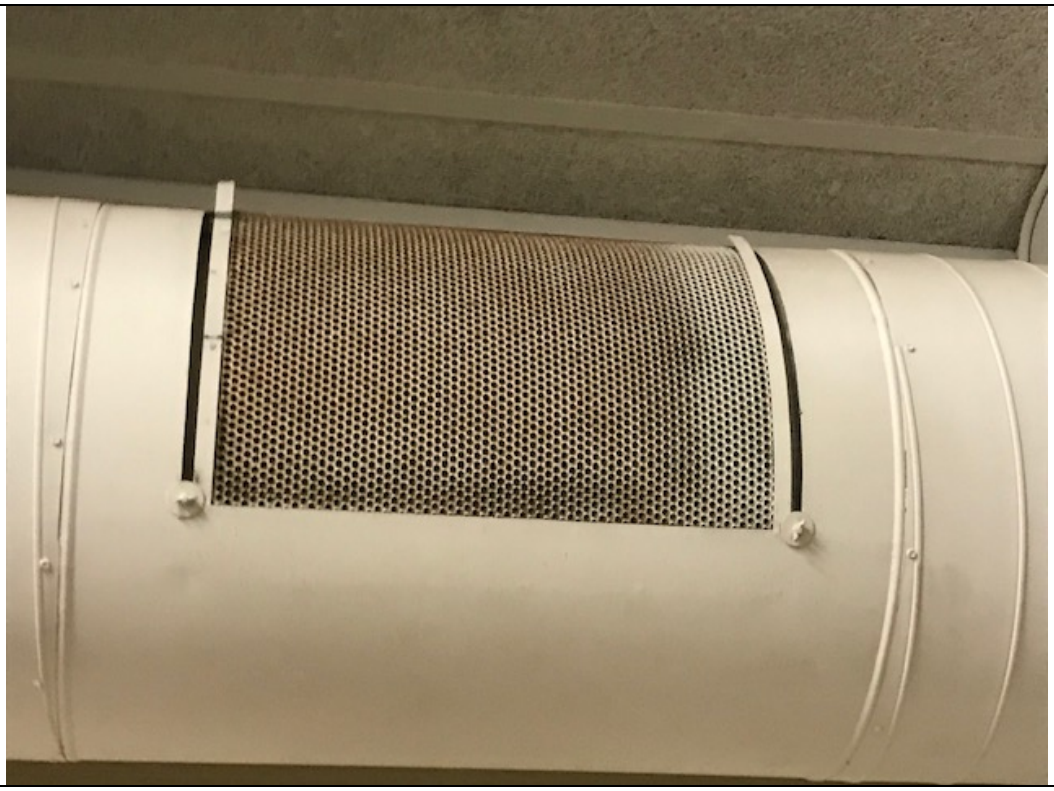


Photo 3: Multipurpose Room – Grills in air duct located in the perimeter contained rust.

Photo 4: Classroom 4 – Wall Mounted Fan Coil Unit

PHOTO LOG
Tall Oaks Vocational High School
2112 Church Road
Bowie, Maryland

Photo 5: Classroom 5 – Ceiling Mounted Air Conditioning Unit Grills contain excessive levels of grime and dust.

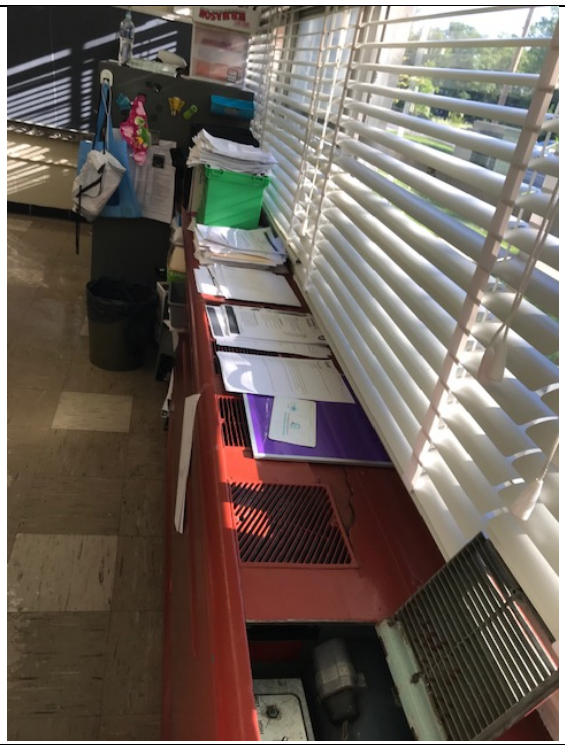


Photo 6: Classroom 5 – Books placed on top of Fan coil unit hindering air flow

PHOTO LOG
Tall Oaks Vocational High School
2112 Church Road
Bowie, Maryland

Photo 7: Guidance Room – Water stained ceiling tile.

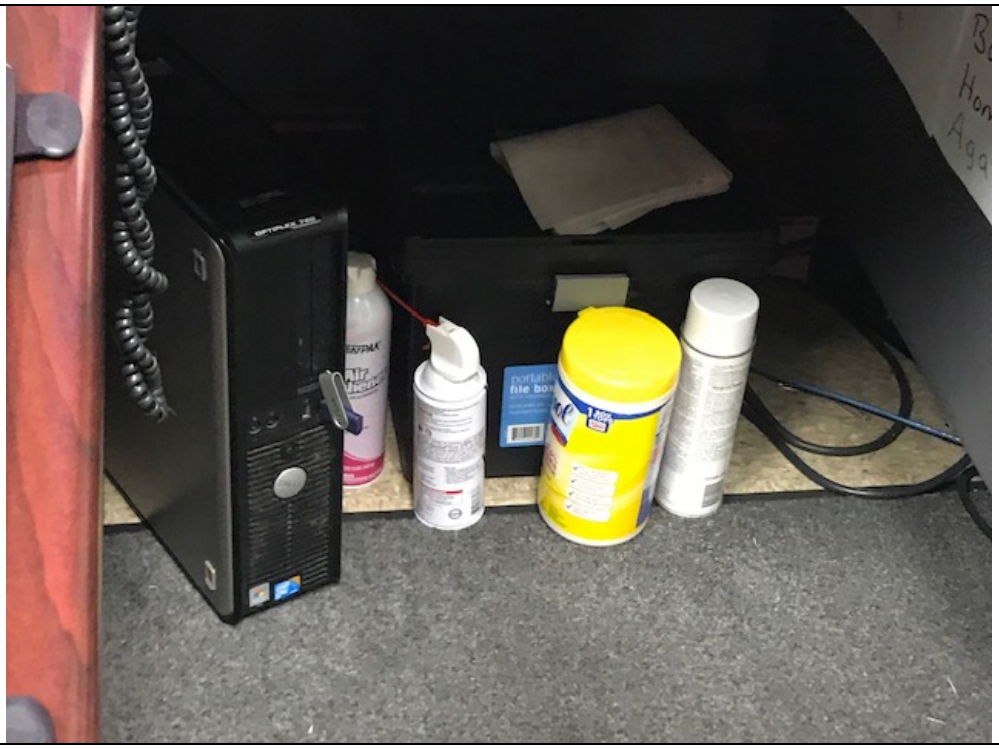


Photo 8: Guidance Room – Cleaning items stored.

PHOTO LOG
Tall Oaks Vocational High School
2112 Church Road
Bowie, Maryland

Photo 9: Classroom 7 – Food debris trapped in the sink drain trap.

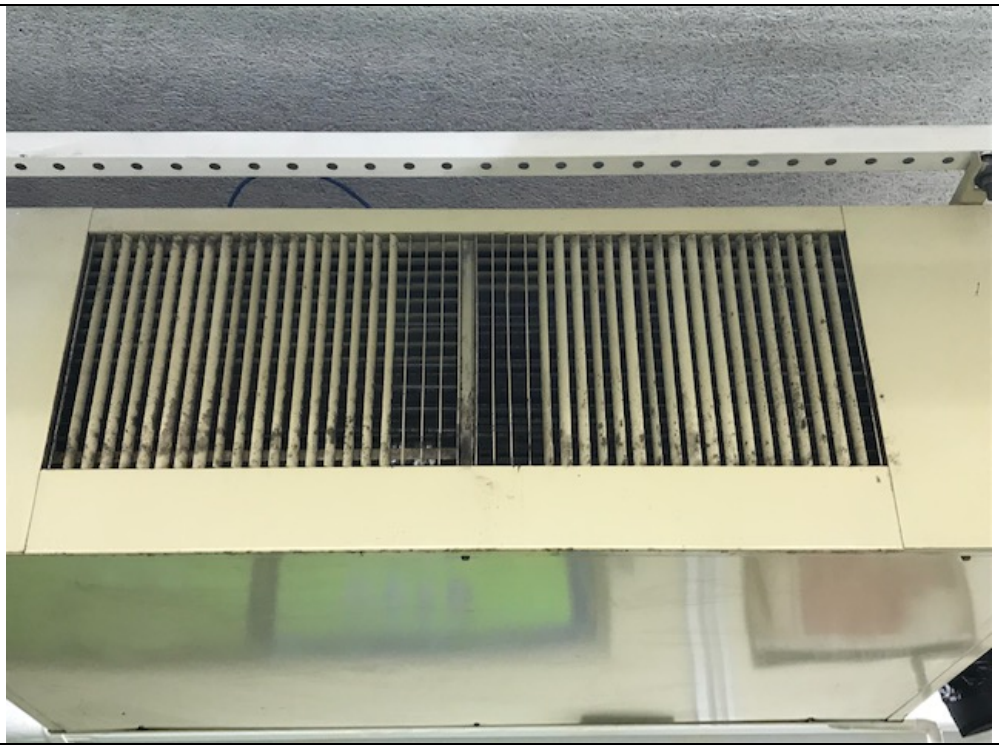


Photo 10: Classroom 10 – Ceiling Mounted Air Conditioning Unit Grills contain excessive levels of grime and dust. .

PHOTO LOG
Tall Oaks Vocational High School
2112 Church Road
Bowie, Maryland

Photo 11: Classroom 14 – Ceiling Mounted Air Conditioning Unit Grills contain excessive levels of grime and dust.

Photo 12: Classroom 14 – Potable Heater.

PHOTO LOG
Tall Oaks Vocational High School
2112 Church Road
Bowie, Maryland

Photo 13: Classroom 17 – Wall-mounted air conditioning unit.

Photo 14: Classroom 17 – Wall-mounted fan coil unit.

PHOTO LOG
Tall Oaks Vocational High School
2112 Church Road
Bowie, Maryland

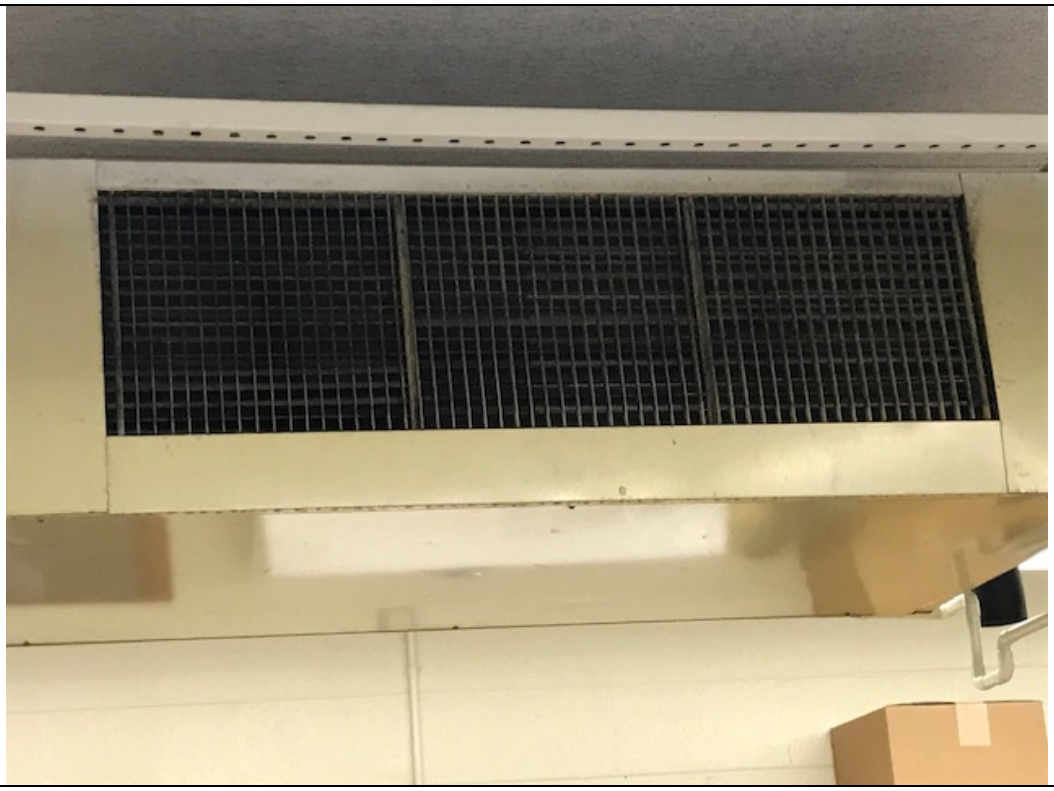


Photo 15: Classroom 20 – Ceiling-mounted HVAC unit

Photo 16: – Classroom 20 – Wall-mounted fan coil unit

Attachment D

Calibration Certificates

FIELD ENVIRONMENTAL INSTRUMENTS, INC.
www.fieldenvironmental.com

301 Brushton Avenue
Suite A
Pittsburgh PA 15221
800-393-4009 Toll Free
(412) 436-2600 Local
(412) 436-2616 Fax

IAQ Meter Calibration Certificate

	Lot #	Expiration
Cal Standard	18-6508	4/18/2020

Carbon Monoxide Gas	**Reading ppm**	**Acceptable Range**
35 ppm	35.0	(32 - 38)

Carbon Dioxide Gas	**Reading ppm**	**Acceptable Range**
1000 ppm	1008.0	(950 - 1050)

Model	TSI Q-Trak 7565
S/N	7565x0931002
Barcode	u59038x
Order #	398188

Calibrated By: Bryce Spontak

Date of Calibration: 05/16/19

All calibrations performed by FEI conform to manufacturer's specifications. Please report any issues within 24 hours of receiving equipment.
All calibration gas used is traceable to NIST. Additional documentation is available upon request.

TSI P/N 2300157

CERTIFICATE OF CALIBRATION AND TESTING

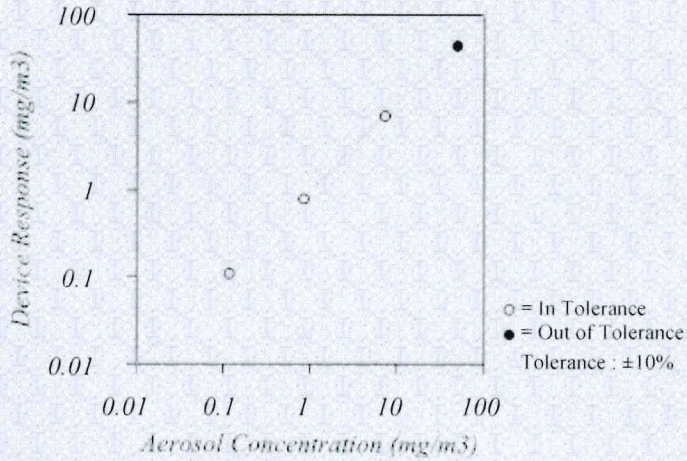
TSI Incorporated, 500 Cardigan Road, Shoreview, MN 55126 USA
Tel: 1-800-874-2811 1-651-490-2811 Fax: 1-651-490-3824 http://www.tsi.com

Environment Conditions		
Temperature	76.6 (24.8)	°F (°C)
Relative Humidity	24	%RH
Barometric Pressure	29.14 (986.8)	inHg (hPa)

Model	**8534**
Serial Number	**8534170101**

☐ As Left ☐ In Tolerance
☒ As Found ☒ Out of Tolerance

Concentration Linearity Plot



System ID: DTII01-02

FLOW AND PRESSURE VERIFICATION — **SYSTEM DTII01-02**

Parameter	Standard	Measured	Allowable Range	Parameter	Standard	Measured	Allowable Range
Flow lpm	3.0	3.0	2.85 ~ 3.15	Pressure kPa	98.6	98.6	93.71 ~ 103.57

Pump run time: 25 Hours, Pump voltage: 433 Bits

TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil and has been nominally adjusted to respirable mass per standard ISO 12103-1, A1 test dust (Arizona dust). Our calibration ratio is greater than 1.2:1

Measurement Variable	System ID	Last Cal.	Cal. Due
Temp/Humidity	E005409	10-19-17	10-31-18
DC Voltage	E003314	05-03-17	05-31-18
Photometer	E003319	01-09-18	07-31-18
1 um PSL	679755	n/a	n/a
10 um PSL	167947	n/a	n/a
Flowmeter	E002471	04-20-17	04-30-18

Measurement Variable	System ID	Last Cal.	Cal. Due
Temp/Humidity	E005410	10-19-17	10-31-18
DC Voltage	E003315	05-03-17	05-31-18
Microbalance	M001324	11-02-16	11-30-18
3 um PSL	180387	n/a	n/a
Pressure	E003511	10-02-17	10-31-18

Verified

March 1, 2018
Date

INSTRUMENT CALIBRATION REPORT

Pine Environmental Services, LLC.

Tidewater MD

Instrument ID 110-010833
Description MINIRAE 2000
Calibrated 4/9/2019

Manufacturer Rae Systems
Model Number MINIRAE 2000
Serial Number 110-010833
Location Maryland
Department CATHY MOORE

Frequency 6 Months
Status Pass
Temp 24
Humidity 39

Calibration Specifications

Group # 1
Group Name ISOBUTYLENE
Stated Accy Pct of Reading

Range Acc % 0.0000
Reading Acc % 3.0000
Plus/Minus 0.00

Nom In Val / In Val	In Type	Out Val	Out Type	Fnd As	Lft As	Dev%	Pass/Fail
100.00 / 100.00	ppm	100.00	ppm	92.80	101.00	1.00%	Pass

Test Instruments Used During the Calibration (As Of Cal Entry Date)

Test Instrument ID	Description	Manufacturer	Model Number	Serial Number / Lot Number	Last Cal Date	Next Cal Date / Expiration Date
MD ISO 100PPM FBI-248-100-12	MD ISO 100PPM	Pine Environmental Services, Inc.	FBI-248-100-12	34LS-248-100	5/23/2022	
MD ZERO AIR FBI-1-25	ZERO AIR Oxygen 20.9%VOL, Nitrogen Balance	Pine Environmental Services, Inc.	31844	FBI-1-25		

Notes about this calibration

Calibration Result Calibration Successful
Who Calibrated Ryan Armstrong

Pine Environmental Services, LLC. hereby certifies that this instrument is calibrated and functions to meet the manufacturer's specifications using NIST traceable standards, or is derived from accepted values of physical constants.

Certificate of Conformance

(X) Buck BioAire™ ( ) Buck BioSlide™

Serial number: B153043 **Date Issued:** 2-6-19

Flow Calibration

The instrument listed above is in conformance with factory specifications and the flow is set to nominal using a BUCK Calibrator which is N.I.S.T. traceable to A. P. Buck, Inc. Calibration Procedure APB-1, Ver. 6.2.

QA APPROVAL BY: Thomas J. Gravenor

Information contained in this document should not be reproduced in any form without the written consent of A.P. Buck Inc. It is for reference only and cannot be used as a form of endorsement by any private or governmental regulatory body.

A.P. BUCK, INC.
7101 Presidents Drive, Suite 110
Orlando, FL 32809
Phone: 407-851-8602 • Fax: 407-851-8910

BUCK
A.P. BUCK, INC.

Attachment E

Qualifications

ABIH®

american board of industrial hygiene®

organized to improve the practice of industrial hygiene
proclaims that

Skandakumar Harshanath Abeyesekere

having met all requirements of
education, experience and examination, and
ongoing maintenance,
is hereby certified in the

COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

CIH®

Certificate Number	**9928 CP**
Awarded:	**May 11, 2011**
Expiration Date:	**December 1, 2021**

Susan Ripple
Chair, ABIH

Chief Executive Officer, ABIH

BOARD OF CERTIFIED SAFETY PROFESSIONALS

affirms that

Skandakumar Abeyesekere

Has applied for, met qualifications, and passed required examination(s) and is hereby authorized to use the designation

Certified Safety Professional®

in Comprehensive Practice

So long as this certificate is not suspended or revoked and the certificant renews this authorization annually and meets Continuance of Certification requirements.

Board of Examiners in witness whereof we have here unto set our hands and affixed the Seal of the Board this 7th Day of April, 2008

Paul S Adams — President

Linda Tapp — Secretary

20110 — CSP No.

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT

THIS CERTIFIES THAT

Skandakumar Abeyeskere

HAS SUCCESSFULLY MET ALL THE REQUIREMENTS OF EDUCATION, EXPERIENCE AND EXAMINATION, AND IS HEREBY DESIGNATED A

CERTIFIED HAZARDOUS MATERIALS MANAGER
CHMM

INSTITUTE OF HAZARDOUS MATERIALS MANAGEMENT IHMM CORPORATE SEAL 1984 DISTRICT OF COLUMBIA

May 13, 2016
DATE OF CERTIFICATION

19053
CREDENTIAL NUMBER

May 31, 2021
CERTIFICATION EXPIRES

M. Patricia Buley
ACTING EXECUTIVE DIRECTOR

VALID SO LONG AS THIS CREDENTIAL IS RENEWED ACCORDING TO SCHEDULE AND IS NOT OTHERWISE REVOKED.

ANSI Accredited Program PERSONNEL CERTIFICATION

Accredited by the American National Standards Institute and the Council of Engineering and Scientific Specialty Boards

Attachment F

Floor Plan with Sampling Locations

TIDEWATER INC	**Attachment C** **Tall Oaks Vocational High School** **Floor Plan with Sampling Locations**	Scale: N/A Project #: 5419-001 Date: May 15, 2019	**General Notes** ▲ = Sample Location