



Accredited Environmental Technologies, Inc.

LIMITED MOLD ASSESSMENT

**MARS AREA SCHOOL DISTRICT
CENTENNIAL SCHOOL
(Students– 5TH and 6TH Grade)**

**Conducted by: Accredited Environmental Technologies, Inc.
Lou Pergola, Vice President**

**Report Reviewed by: Alan Sutherland, CIH Ret.
President**

Management Contact: Frank Randza

**Location: Mars Area Centennial School
100 Winfield Manor Drive
Mars, Pennsylvania**

AET Project No.: 10-18-PGH146CENT

Date of Report: November 19, 2018

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EXECUTIVE SUMMARY

In September 2018, Accredited Environmental Technologies, Inc. (AET) was contracted by Mars Area School District to perform a Limited Mold Assessment within 5 schools comprising the Mars Area School District. Services were performed in accordance with AET's Proposal #10147 dated 9/27/18 to obtain/document background site information on each school for evidence of dampness, visible mold growth, musty/mold-like odors, temperature and relative humidity conditions and potential impact to school indoor air quality from airborne mold spores. AET's proposal is deemed limited as the client has requested only 5 Mold Spore Air Quality (MSAQ) samples and 5 surface (tape lift) samples to be collected during this assessment. AET's mold assessment is not related to previous or current water infiltration episode(s) or specific occupant mold-related complaints or health concerns.

This report details AET's mold assessment completed at Mars Centennial School performed on 10/29/18. AET's on-site services were initiated prior to school opening hours and extended into student occupancy hours. Visual inspection of readily observable exposed/accessible walls, floors and ceilings throughout the Centennial School was performed for water impact/staining or suspect mold growth. Building HVAC operation was representative of standard school conditions. Ambient conditions during the limited mold assessment including periodic rains and an outdoor temperature of 64°F and a relative humidity of 46%.

AET's 10/29/18 limited mold assessment findings include:

1. **Odors:** No musty/mold like odors were noted throughout the school. No specific mold-related odor complaints were reported to AET.
2. **Visual Inspection:** Evidence of prior (now dry) and active (wet) water staining was noted on the drop ceiling tiles in multiple locations throughout the school. A room by room summary listing AET's findings are attached. No water staining was noted on wall surfaces; Flooring was primarily floor tile with limited carpeting (no water pooling, wet conditions).
3. **Concealed Materials Above Drop Ceiling:** Representative ceiling locations exhibiting active wet staining were visually inspected to review the cause of water infiltration (water leak).
4. **ASHRAE IAQ Comfort Parameters (Temperature and Relative Humidity):** Temperature and relative humidity levels were measured at various locations throughout the school. Indoor measurements were compared to the thermal comfort recommended guidelines by OSHA and ANSI/ASHRAE 55. Overall temperature ranged from 68°F to 70°F. Relative humidity ranged from 38.6% to 44.7%. Temperature and relative humidity levels were within recommended ASHRAE Guidelines. Summary of temperature and relative humidity measurements within the Subject Areas and outdoors is shown in Table 1 below.

IAQ Comfort Parameter Measurements (10/29/18)		
Location	Temperature	Relative Humidity
Outdoors: Adjacent to Door 1-3	64.1°F	45.9%
Room 113 Center	68.2°F	46.8%
Room 102 Center	68°F	44.7%
Room 404 Center	69.4°F	39.8%
Room 204 Center	70.2°F	39.4%
Cafeteria Center	70°F	38.6%

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5. **Surface Mold Growth:** A tape lift sample was collected where visual inspection identified water staining (suspect mold growth). No mold growth was found on the Ceiling Tile sample collected within the Library at the East Wall (See table below). Staining was due to a prior water leak; surfaces appeared dry.

Surface Mold Sampling Predominate Identified Fungal Group (10/29/18)				
Location(s)	Fungal Group/Spore Loading			
	Aspergillus/ Penicillium	Basidiospores	Stachybotrys	Hyphae*
Suspect Mold Growth, Library on Ceiling Tile, East Wall	ND	ND	ND	ND
*Non-spore type typically indicative of mold growth at $\geq 2+$				

6. **Surface Mold Spores:** Visual inspection confirmed housekeeping throughout the school on routinely used/cleaned desks, tables, furnishings, etc. was acceptable. No significant dust levels were identified (No sampling performed).
7. **Mold Spore Air Quality (MSAQ) Testing:** MSAQ testing was performed five (5) representative interior school locations (Classrooms and Cafeteria) and compared to outdoors. Total interior mold spore concentrations were well below 2000 S/m³ and below outdoors. No amplification of unique mold species related to interior mold growth was noted (**acceptable**); Trace levels of Aspergillus/Penicillium mold were identified both outdoors and within 3 of the 5 indoor locations. Basidiospores were the primary mold spore type found; Basidiospores are common outdoor and indoor molds. No target mold spores were detected (See Attached Standard Section). Total mold spore concentrations are summarized in Table 5 below.

Total Airborne Mold Spore Concentrations (10/29/18)					
Sample#	Location	Total Concentration	Specific Mold Genus		
			Basidiospores	Cladosporium	Aspergillus/ Penicillium
26898136	Outdoors: Adjacent to Door 1-3	28,419 S/m ³	26,073 S/m ³	ND	160 S/m ³
26898146	Outdoors: Adjacent to Door 1-3	24,368 S/m ³	22,928 S/m ³	ND	ND
26898141	AOC: Room 113 Center	266 S/m ³	160 S/m ³	ND	53 S/m ³
26898204	AOC: Room 102 Center	107 S/m ³	107 S/m ³	ND	ND
26898153	AOC: Room 404 Center	480 S/m ³	267 S/m ³	ND	ND
26898177	AOC: Room 204 Center	160 S/m ³	107 S/m ³	ND	53 S/m ³
26898183	AOC: Cafeteria Center	426 S/m ³	373 S/m ³	ND	53 S/m ³
AOC = Area of Concern					

Conclusion – Evidence of prior active water impact to the drop ceiling system was identified throughout the school. Building maintenance continues to initiate a program for the removal/replacement of stained ceiling tiles and repair of water leak sources above the drop ceiling system. No detectable impact to indoor air quality at the school was noted related to mold. The vast majority of ceiling tiles were identified in good condition with no surface staining.

This executive summary does not contain all of the information that is detailed in the full report. The report should be read in its entirety, including any tabular findings and appendices to obtain a more complete understanding of the information provided, and to aid in any decisions made, or actions taken, based on this information.

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STANDARDS

There are no Federal (OSHA/EPA) or Commonwealth of Pennsylvania regulatory standards for mold. Mold in both the residential and occupational settings do not comprise a single entity but generally a complex mixture of many different fungi, bacteria, etc. Human response can vary significantly based on wide variations in individual susceptibility. Health effects information regarding mold is generally insufficient to describe exposure-response relationships. The prudent approach for mold within buildings is to repair sources of water infiltration or elevated humidity and remediate areas of mold growth and maintain airborne mold spore levels as low as can be reasonably achieved. All allergy or medical related questions and concerns, including health concerns related to possible mold exposure, should be directed to a qualified physician.

Standards of care (recommended guidelines) have been developed and published by OSHA, EPA, American Conference of Governmental Industrial Hygienists (ACGIH), and the National Organization of Remediators and Mold Inspectors (NORMI) pertaining to mold assessments, controls, remediation, prevention, work practices, and post remediation validation in the indoor environment. The ACGIH recommended approach to assessing and controlling mold exposures relies on visual inspection, assessing occupant symptoms, evaluating building performance, monitoring potential environmental sources and application of professional judgement. Standard industry practice for MSAQ compares airborne mold concentrations in the area(s) of concern to outdoor levels as well as indoor non-concern or comparative locations. Both the total airborne mold spore levels and specific mold species in each sample is reviewed on a comparative basis. Surface staining or suspect mold growth is evaluated by bulk, swab or tape lift sampling.

NORMI standard of care for interpretation of sampling data for mold assessments is listed below. These standard industry practices have been incorporated into AET's services described herein.

NORMI Standard of Care Guidelines for Mold Assessment Samples			
Sample Type	Result /m ³	NORMI Interpretation	Notes
Airborne Mold Spore (non-viable)	Total Spore Count	<2000 Normal	Other molds may be found that have significance in some environments such as Cladosporium, which can be found as indoor sources and can be prevalent outdoors.
	Aspergillus/Penicillium	<200 Normal	
	Target Molds (Stachybotrys, Chaetomium, Trichoderma, Fusarium, Memnoniella)	No Target Molds	
Surface Mold by Tape or Swab (non-viable)	1-10 spores (~1+)	Rare	Normal
	11-100 spores (~2+)	Low	Caution
	101-1000 spores (~3+/4+)	Medium	Contamination Probable
	>1000 spores (~5+)	High	High Contamination

Please consult with the EPA document Mold Remediation in Schools and Commercial Buildings for information regarding prevention, investigating, evaluating, and remediation of mold problems.

Resource information/guidance/interpretation of mold testing results can be found at the following websites.

- www.cdc.gov
- www.osha.gov
- www.aiha.org
- www.epa.gov

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RESTRICTIONS/LIMITATIONS OF SERVICES

Visual Inspection: AET's findings and conclusions are based on the conditions present (both outdoors and inside accessible interior areas of the designated building areas) during AET's time on-site (snapshot in time). Visual inspection was performed on readily observable, exposed/accessible (within view) interior building materials present at the time of inspection and within the areas/locations cited. Intrusive inspection within wall cavities, HVAC systems, limited ceiling plenums and/or similar concealed locations was not performed. Further, review/inspection of building contents, furnishings and personal belongings was not included in AET's services. Accessible is defined as readily reachable with a 6' ladder; OSHA's Construction Standard requires fall protection at heights above 6 feet above the lower level (typical maximum reachable height 9 feet).

AET's mold assessment services are based on standard industry practice for inspection and sampling protocols exhibited by the members of the mold consulting profession. There are no federal (OSHA or EPA) standards (only guidelines) for mold investigation, evaluation and remediation. AET's mold professional decision-making is based on inspection of building materials for visible mold growth, signs of water damage, a history indicating previous water leaks and/or elevated humidity levels or condensation. Indoor mold needs moisture to grow. Mold growth will occur if favorable conditions exist; amplification will continue until the underlying source(s) are eliminated and remediation performed. Where moisture intrusion has occurred, drying is an essential component of moisture remediation. Continuous surveillance of walls, floors and ceilings for water damage/staining and signs of mold amplification is recommended.

AET was not contracted to identify or rectify sources of water infiltration (such as subsurface, window, roof, or plumbing leaks). AET's policy is to identify mold-impacted building materials and affected building locations which require mold remediation; not identify specific quantities. Mold remediation (removal, cleaning, drying) requires progressive visual inspections and moisture testing during remediation. Standard practice is to remove affected building materials including a 2 to 3-foot buffer area surrounding the impacted building materials. Without complete removal of mold colonization, as well as repair of moisture sources, mold will grow back. AET recommends mold remediation work be performed by a licensed mold remediation contractor; contact AET's project manager for specific guidelines and assistance (where required).

The purpose of AET's mold assessment was not to determine if water infiltration has resulted in structural damage to the integrity of the roof, walls, ceilings or foundation at the site. This is an engineering function which must be completed by appropriate engineering professionals.

Mold Spore Air Quality Sampling: MSAQ is a standard practice of AET's mold assessment decision-making. MSAQ results compare indoor airborne mold spore levels versus outdoors and area(s) of concern versus non-complaint (see NORMI Interpretation Guidelines in Standards Section). The purpose of MSAQ is to supplement AET's visual inspection findings (particularly in regard to potential concealed moisture damage or mold growth) including recent disturbance of these materials.

MSAQ results must include professional knowledge and judgement that significant variability of MSAQ levels can occur over the course of an hour or less. MSAQ may be representative of typical conditions but may miss evidence of problems that occur only infrequently. MSAQ cannot be used to prove the absence of a problem nor the basis of dismissing a complaint or defending inadequate efforts for continuing investigations or solving potential mold problems.

Health Concerns: The purpose of MSAQ sampling was not to correlate building conditions and sampling data for comparison to potential health effects. The CDC, EPA and OSHA agree that living or working in a building with mold damage can result in increased risk of respiratory disease. However, each person's response to mold exposure is unique; individual susceptibility can range from no reaction to allergic or irritation responses to flu-like symptoms. In very rare cases, fungal infections may occur. The wide variability in how people are affected by airborne mold is one of the reasons why there are no airborne exposure standards for mold. According to the

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ACGIH, a minimum of 36 samples are necessary for comparative purposes in worst case scenarios when determination of health effects is required. AET recommends the use of a qualified occupational physician where health effects have been reported by building occupants.

Warranty: AET's services were performed in a manner consistent with the level of skill and standard industry practices exhibited by members of the mold consulting profession. No other representations or warranties, expressed or implied, are included in connection with this report due to the restrictions/limitations detailed herein. AET's services were performed in accordance with the project intent identified in AET's proposal and subject to AET's terms and conditions dated April 2018. AET's findings/conclusions are not intended to be all inclusive; conditions which were not permitted, were undocumented, not observed or otherwise concealed on the subject property could exist (which may result in a modification of our conclusions or recommendations presented). The conclusion portion of this report is not intended to identify all areas of the structure which may have exposed or concealed mold contamination. Further, mold contamination is only one of the many IAQ sources which can exist at the site (investigation of which is not part of AET's scope of services). Liability on the part of AET is limited to the monetary value paid for this report.

If you have any questions or require additional information, please do not hesitate to contact our office.

Thank you for the opportunity to be of service.

Sincerely,



Alan J. Sutherland, CIH Ret.
President

Accredited Environmental Technologies, Inc.

MARS CENTENNIAL SCHOOL

LIMITED MOLD ASSESSMENT (10/29/18)

AET PROJECT #: 10-18-PGH146CENT

ROOM	TEMP (°F)	RH (%)	ODORS (Y/N)	VISUAL OBSERVATION Staining/Discoloration (Y/N)			TAPE LIFT	MSAQ	COMMENTS/ RESPONSE ACTION
				Walls	Floor	Ceiling			
Room 100	70.3	34.6	N	Y	N	N	N	N	18" Stain Window Wall West
Room 101	70.9	36.7	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 102	70.8	34.7	N	N	N	N	N	Y	Ceiling Tiles Good, No Stains
Room 103	71.6	36.6	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 104	71.5	35.0	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 105	71.6	40.4	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 106	72.0	36.5	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 110	71.9	37.0	N	N	N	N	N	N	Ceiling Tiles Good, No Stains, 4 Ceiling Tiles Removed for IT
Room 111	71.4	37.6	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 112	71.7	28.9	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 113	29.1	41.6	N	N	N	N	N	Y	Ceiling Tiles Good, No Stains
Room 200	72.9	53.8	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 201	73.0	55.5	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 202	72.3	53.1	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 203	72.5	38.0	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 204	72.5	37.5	N	N	N	N	N	Y	Ceiling Tiles Good, No Stains
Room 206	72.1	34.7	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 207	72.1	34.4	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 209	72.5	34.5	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 210	72.0	36.3	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 211	72.0	36.8	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 212	72.2	36.9	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 213	72.1	36.7	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 214	72.1	36.4	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 216	72.1	36.8	N	N	N	Y	N	N	10" Diameter Stain, South Corner
Room 218	71.8	36.6	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Hallway Adj. to 305	70.7	93.3	N	N	N	Y	N	N	2-8" Diameter Water Stains, Fitting was Repaired
Room 301	71.7	33.8	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Room 302	70.7	35.7	N	N	N	N	N	N	Ceiling Tiles Good, No Stains

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ROOM	TEMP (°F)	RH (%)	ODORS (Y/N)	VISUAL OBSERVATION Staining/Discoloration (Y/N)			TAPE LIFT	MSAQ	COMMENTS/ RESPONSE ACTION
				Walls	Floor	Ceiling			
				Room 303	71.6	35.3			
Room 304	71.7	36.0	N	N	N	N	N	Ceiling Tiles Good, No Stains	
Room 305	71.6	37.2	N	N	N	N	N	Ceiling Tiles Good, No Stains	
Room 306	71.4	38.9	N	N	N	N	N	Ceiling Tiles Good, No Stains, Area Rug	
Room 307	71.6	35.5	N	N	N	N	N	Ceiling Tiles Good, No Stains, Area Rug	
Room 401	73.0	57.5	N	N	N	N	N	Ceiling Tiles Good, No Stains	
Room 402	72.5	35.6	N	N	N	N	N	Ceiling Tiles Good, No Stains	
Room 403	72.0	35.4	N	N	N	N	N	Ceiling Tiles Good, No Stains	
Room 404	69.4	39.8	N	N	N	N	Y	Ceiling Tiles Good, No Stains	
Room 406	73.6	33.1	N	N	N	Y	N	12" Diameter Stain, North Corner	
Room 407	76.6	35.5	N	N	N	N	N	Ceiling Tiles Good, No Stains	
Café	64.9	46.9	N	N	N	N	N	Y	Ceiling Tiles Good, No Stains
Gym	66.4	42.6	N	N	N	N	N	N	Metal Deck Ceiling, Wood Gym Floor – No Stains
Faculty #1	68.0	43.5	N	N	N	Y	N	N	6" Diameter Stain on Ceiling Tile, West Corner (not active)
Music Rm	68.7	41.5	N	N	N	N	N	N	5 Ceiling Tiles out because of reported leak (Roof), Area Rug
Library	29.1	41.2	N	N	N	Y	N	N	2" Diameter Stain on Ceiling Tile (Center, East Wall), Carpeted, 3" Diameter Stain on Bulkhead (Center West)
Library Cont. Rm	69.3	39.9	N	N	N	Y	Y	N	4" Diameter Stain, NW Corner, Carpeted (Actively Wet)
Library Office	69.2	41.1	N	N	N	Y	N	N	8" Diameter Stain, NW Corner, Carpeted
Admin	68.4	40.8	N	N	N	Y	N	N	Conference Room – 2 Stains, 8" Diameter, Carpeted, Valve Leaving Principals Office, 8" Diameter Stain
Nurse	70.7	39.5	N	N	N	Y	N	N	2-10" Diameter Water Stains (Valve Leaking)
Main Foyer	70.2	40.2	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
Foyer #2	70.5	39.4	N	N	N	N	N	N	Ceiling Tiles Good, No Stains
1 st Floor Custodial	71.1	39.8	N	N	N	Y	N	N	3-12" Diameter Water Stains, Adj. to Pipe South Wall
Server Room	71.1	39.2	N	N	N	Y	N	N	1-4" Diameter Stain Above Mitsubsi HVAC Unit, Unit has Stains on Outside
Guidance Councilor	71.2	40.4	N	N	N	Y	N	N	1-4" Diameter Stain, Center of Room
Faculty Room 2	72.1	35.1	N	N	N	Y	N	N	12" Diameter Stain, Center of Room
Art Room	72.0	45.6	N	N	N	N	N	N	Ceiling Tiles Good, No Stains

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BULK/TAPE LIFT ANALYSIS MOLD REPORT

CLIENT: MARS AREA SCHOOL DISTRICT

AET PROJECT #: 10-18-PGH146

LOCATION: CENTENIAL SCHOOL
100 WINFIELD MANOR DRIVE
MARS, PENNSYLVANIA

DATE COLLECTED: 10/29/18

DATE ANALYZED: 11/6/18

SAMPLE NO./ DESCRIPTION	GROSS SAMPLE APPEARANCE	PRESUMPTIVE STRUCTURE TYPE	LOADING
TL01: Tape Lift Library on Ceiling Tile, East Wall	N/A	ND	ND
	Comments: Heavy Background Loading		

Reviewed By:



Kelly Eckhart, Laboratory Analyst

Rating Scale:

Attachment

Feb 2012
Version 1.8

ND = None Detected

1+ Minimal Microbial Loading

2+ Up to 25% Microbial Loading

3+ 26% to 50% Microbial Loading

4+ 51% to 75% Microbial Loading

5+ >75% Microbial Loading

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AIRBORNE FUNGAL SPORE ANALYSIS REPORT

CLIENT: MARS AREA SCHOOL DISTRICT

AET PROJECT #: 10-18-PGH146

LOCATION: CENTENIAL SCHOOL
100 WINFIELD MANOR DRIVE
MARS, PENNSYLVANIA

DATE COLLECTED: 10/29/18

DATE ANALYZED: 11/6/18

FUNGAL SPORES BY OPTICAL MICROSCOPY									
Sample #	26898136			26898146			26898141		
Location	Outdoors: Adjacent to Door			Outdoors: Adjacent to Door			Area of Concern:		
Volume (Liters)	1-3			1-3			Room 113 Center		
	75			75			75		
Non-Spore Loading									
Background Debris	2+			2+			3+		
Hyphal Fragments	ND			ND			4		
Pollen	ND			ND			ND		
Presumptive Spore Types	Count	%	S/m3	Count	%	S/m3	Count	%	S/m3
Alternaria	-	-	-	-	-	-	-	-	-
Arthrinium	-	-	-	-	-	-	-	-	-
Ascospores	160	8	2,133	108	6	1,440	4	20	53
Aspergillus/Penicillium	12	1	160	-	-	-	4	20	53
Basidiospores	1,956	92	26,073	1,720	94	22,928	12	60	160
Bipolaris/Drechslera	-	-	-	-	-	-	-	-	-
Botrytis	-	-	-	-	-	-	-	-	-
Cercospora	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Fusicladium	-	-	-	-	-	-	-	-	-
Geotrichum	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Oidium/Erysiphe	-	-	-	-	-	-	-	-	-
Pestilotia	-	-	-	-	-	-	-	-	-
Pithomyces	4	<1	53	-	-	-	-	-	-
Polythrincium	-	-	-	-	-	-	-	-	-
Rusts	-	-	-	-	-	-	-	-	-
Smuts/Periconia/Myxomycetes	-	-	-	-	-	-	-	-	-
Spegazzinia	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Stemphylium	-	-	-	-	-	-	-	-	-
Tetraploa	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-
Unknown/other	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Zygophiala	-	-	-	-	-	-	-	-	-
TOTAL FUNGAL SPORES	2,132	-	28,419	1,828	-	24,368	20	-	266



Kelly Eckhart, Laboratory Analyst

Background Debris Rating Scale:

ND = None Detected, 1+ = Minimal, 2+ = Up to 25%, 3+ = >25% to 50%, 4+ = >50% to 75%, 5+ = >75%

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AIRBORNE FUNGAL SPORE ANALYSIS REPORT

CLIENT: MARS AREA SCHOOL DISTRICT

AET PROJECT #: 10-18-PGH146

LOCATION: CENTENIAL SCHOOL
100 WINFIELD MANOR DRIVE
MARS, PENNSYLVANIA

DATE COLLECTED: 10/29/18

DATE ANALYZED: 11/6/18

FUNGAL SPORES BY OPTICAL MICROSCOPY									
Sample #	26898204			26898153			26898177		
Location	Area of Concern: Room 102 Center			Area of Concern: Room 404 Center			Area of Concern Room 204 Center		
Volume (Liters)	75			75			75		
Non-Spore Loading									
Background Debris	2+			3+			2+		
Hyphal Fragments	ND			8			ND		
Pollen	ND			4			ND		
Presumptive Spore Types	Count	%	S/m3	Count	%	S/m3	Count	%	S/m3
Alternaria	-	-	-	-	-	-	-	-	-
Arthrinium	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	4	33	53
Basidiospores	8	100	107	20	56	267	8	67	107
Bipolaris/Drechslera	-	-	-	-	-	-	-	-	-
Botrytis	-	-	-	-	-	-	-	-	-
Cercospora	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Fusicladium	-	-	-	-	-	-	-	-	-
Geotrichum	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Oidium/Erysiphe	-	-	-	-	-	-	-	-	-
Pestilotia	-	-	-	-	-	-	-	-	-
Pithomyces	-	-	-	4	11	53	-	-	-
Polythrincium	-	-	-	-	-	-	-	-	-
Rusts	-	-	-	-	-	-	-	-	-
Smuts/Periconia/Myxomycetes	-	-	-	12	33	160	-	-	-
Spegazzinia	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Stemphylium	-	-	-	-	-	-	-	-	-
Tetraploa	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Trichoderma	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-
Unknown/other	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Zygothiala	-	-	-	-	-	-	-	-	-
TOTAL FUNGAL SPORES	8	-	107	36	-	480	12	-	160



Kelly Eckhart, Laboratory Analyst

Background Debris Rating Scale:

ND = None Detected, 1+ = Minimal, 2+ = Up to 25%, 3+ = >25% to 50%, 4+ = >50% to 75%, 5+ = >75%

Accredited Environmental Technologies, Inc.

AIRBORNE FUNGAL SPORE ANALYSIS REPORT

CLIENT: MARS AREA SCHOOL DISTRICT

AET PROJECT #: 10-18-PGH146

LOCATION: CENTENIAL SCHOOL
100 WINFIELD MANOR DRIVE
MARS, PENNSYLVANIA

DATE COLLECTED: 10/29/18

DATE ANALYZED: 11/6/18

FUNGAL SPORES BY OPTICAL MICROSCOPY									
Sample #	26898183								
Location	Area of Concern: Cafeteria Center								
Volume (Liters)	75								
Non-Spore Loading									
Background Debris	2+								
Hyphal Fragments	4								
Pollen	ND								
Presumptive Spore Types	Count	%	S/m3	Count	%	S/m3	Count	%	S/m3
Alternaria	-	-	-						
Arthrinium	-	-	-						
Ascospores	-	-	-						
Aspergillus/Penicillium	4	12	53						
Basidiospores	28	88	373						
Bipolaris/Drechslera	-	-	-						
Botrytis	-	-	-						
Cercospora	-	-	-						
Chaetomium	-	-	-						
Cladosporium	-	-	-						
Curvularia	-	-	-						
Epicoccum	-	-	-						
Fusarium	-	-	-						
Fusicladium	-	-	-						
Geotrichum	-	-	-						
Nigrospora	-	-	-						
Oidium/Erysiphe	-	-	-						
Pestilotia	-	-	-						
Pithomyces	-	-	-						
Polythrincium	-	-	-						
Rusts	-	-	-						
Smuts/Periconia/Myxomycetes	-	-	-						
Spegazzinia	-	-	-						
Stachybotrys	-	-	-						
Stemphylium	-	-	-						
Tetraploa	-	-	-						
Torula	-	-	-						
Trichoderma	-	-	-						
Ulocladium	-	-	-						
Unknown/other	-	-	-						
Zygomycetes	-	-	-						
Zygophiala	-	-	-						
TOTAL FUNGAL SPORES	32	-	426						



Kelly Eckhart, Laboratory Analyst

Background Debris Rating Scale:

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