



U.S. Micro-Solutions, Inc. \* 302 Unity Plaza \* Latrobe, PA 15650  
Phone: (724) 853-4047 Fax: (724) 853-4049 AIHA-LAP, LLC EMLAP # 103009  
[www.usmslab.com](http://www.usmslab.com)



Customer Name: AGX Inc. Sample Date: August 18, 2020  
Customer Address: 207 Pine Creek Road Date Received: August 19, 2020  
Wexford, PA 15090 Date of Report: August 24, 2020  
Customer Phone: (724) 934-4249 Fax: (724) 934-5677  
PO Number: Attention: Amber Brancolini  
Project Name/Number: Center Avenue Elementary School

Customer sample numbers below are uniquely identified by prefixing Laboratory # 86771-20

Direct Microscopic Examination - Swab  
Analytical Method: MIC 02

Customer Sample Number	CAE-06														
Sample Description/ Location	Room 6 Cork Board														
Particle ID	Rare Amt	Few	Mod	Many	Num	Rare Amt	Few	Mod	Many	Num	Rare Amt	Few	Mod	Many	Num
<i>Alternaria</i> conidia															
Ascospores															
<i>Aspergillus</i> fruiting structures															
<i>Aspergillus/Penicillium</i> -like conidia															
Basidiospores															
<i>Bipolaris/Drechslera</i> conidia															
<i>Chaetomium</i> ascospores															
<i>Cladosporium</i> conidia															
<i>Curvularia</i> conidia															
<i>Epicoccum</i> conidia															
Hyphal Fragments															
Insect fragments															
<i>Penicillium</i> fruiting structures															
<i>Pithomyces/Ulocladium</i> conidia															
Plant fragments															
Pollen (unidentified)															
Rusts															
Smuts/ Myxomycetes															
<i>Stachybotrys</i> conidia															
<i>Stachybotrys</i> fruiting structures															
<i>Torula</i> conidia															
Unidentified dematiaceous conidia															
Unidentified hyaline conidia															
Skin Cell Fragments	1														
Debris	1														
No fungal conidia/hyphal fragments noted	X														
Analyst Initials	ARP														
Date Analyzed	08/21/20														
Lot # / Exp Date:Swab	1909527 09/2020														

Results relate only to the samples tested. The *Aspergillus/Penicillium*-like category cannot be differentiated by non-viable sampling methods.  
Mod = Moderate; Num = Numerous

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Technical Manager:

*Sharon Danko*

Sharon Danko, AS, MLT (ASCP)



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Airborne Spore Trap Analysis - AllergencoD  
 Analytical Method: MIC 01

Total Volume (L)	75				75				75			
Sample Number	CAE-01				CAE-02				CAE-03			
Location:	Room 11				Room 6				Multi Purpose Room			
Particle ID	Raw ct.	AS	Spores/m <sup>3</sup>	%	Raw ct.	AS	Spores/m <sup>3</sup>	%	Raw ct.	AS	Spores/m <sup>3</sup>	%
Alternaria												
Ascospores	3	13	39	7%					3	13	39	9%
Aspergillus/Penicillium-like	13	13	169	31%					3	13	39	9%
Basidiospores	9	13	117	21%	3	13	39	43%	18	13	234	51%
Bipolaris/Drechslera												
Cercospora									1	13	13	3%
Chaetomium												
Cladosporium	14	13	182	33%	4	13	52	57%	10	13	130	29%
Curvularia												
Epicoccum												
Helicomyces												
Nigrospora												
Oidium												
Pithomyces/Ulocladium	2	13	26	5%								
Polythrincium												
Rusts												
Smuts/ Myxomycetes	1	13	13	2%								
Stachybotrys												
Torula												
Trichoderma												
Unidentified dematiaceous conidia												
Unidentified hyaline conidia												
Total Mold (Spores/m <sup>3</sup> of air)	42		546		7		91		35		455	
Pollen	2	13	26		0	13	< 13		0	13	< 13	
Hyphal Fragments												
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1				1	
Debris			1				1				1	
Analyst Initials	ARP				ARP				ARP			
Date Analyzed	08/21/20				08/21/20				08/21/20			
Cassette Serial # / Exp Date:	3220372 10/2020				3220381 10/2020				3220362 10/2020			

Entire trace analyzed. Results relate only to the samples tested. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant. Total percentage may not equal 100% due to rounding. Percentages reported as 0% are greater than 0 and less than 0.5%. The *Aspergillus/Penicillium*-like category cannot be differentiated by non-viable sampling methods.

AS=Analytical Sensitivity (spores/m<sup>3</sup>); Blank Lines = None Detected

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Airborne Spore Trap Analysis - AllergencoD													
Analytical Method: MIC 01													
Total Volume (L)		75				75							
Sample Number		CAE-04				CAE-05							
Location:		Library				Outside							
Particle ID		Raw ct.	AS	Spores/m³	%	Raw ct.	AS	Spores/m³	%	Raw ct.	AS	Spores/m³	%
Alternaria						11	13	143	1%				
Ascospores						24	13	312	3%				
Aspergillus/Penicillium-like		37	13	481	80%	19	13	247	2%				
Basidiospores		5	13	65	11%	102	76	7,752	66%				
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium		3	13	39	7%	237	13	3,081	26%				
Curvularia						1	13	13	0%				
Epicoccum		1	13	13	2%	7	13	91	1%				
Helicomyces													
Nigrospora						1	13	13	0%				
Oidium													
Pithomyces/Ulocladium													
Polythrincium						1	13	13	0%				
Rusts													
Smuts/ Myxomycetes						6	13	78	1%				
Stachybotrys													
Torula													
Trichoderma													
Unidentified dematiaceous conidia													
Unidentified hyaline conidia													
Total Mold (Spores/m³ of air)		46		598		409		11,743					
Pollen		1	13	13		6	13	78					
Hyphal Fragments						2	13	26					
Insect Fragments													
Plant Fragments													
Skin Cell Fragments		1				0							
Debris		1				1							
Analyst Initials		ARP				ARP							
Date Analyzed		08/21/20				08/21/20							
Cassette Serial # / Exp Date:		3220347 10/2020				3220349 10/2020							

Entire trace analyzed. Results relate only to the samples tested. Results are reported as calculated. For biological data, the first and/or second digit should be considered significant. Total percentage may not equal 100% due to rounding. Percentages reported as 0% are greater than 0 and less than 0.5%. The *Aspergillus/Penicillium*-like category cannot be differentiated by non-viable sampling methods.

AS=Analytical Sensitivity (spores/m<sup>3</sup>); Blank Lines = None Detected

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## SPORE TRAP INTERPRETATION TIPS

Contains opinions and interpretations

Currently there are no numeric standards for indoor airborne or surface microbial contamination. Suggested guidelines are constantly being reviewed and updated as more information is collected.

Some common denominators should be considered when interpreting results:

1. Comparison of indoor/outdoor concentration ratios.
2. Complaint vs. non-complaint areas or affected vs. non-affected areas.
3. Consider air exchange rates and activity levels in a building structure, weather, and season of the year.
4. Rank order assessment and concentration (e.g. Spores/m<sup>3</sup> of air) of the fungi.
5. Predominant fungal genera: Are there water indicator microorganisms present, such as but not limited to: *Chaetomium*, *Stachybotrys*, *Rhodotorula*, *Trichoderma*, and *Scopulariopsis*.
6. Generally fungal counts indoors should be lower than outdoor counts and the types of fungi found indoors should be similar to outdoors.
7. There is always a potential bias from infiltration of outdoor air, poor housekeeping, excessive indoor relative humidity, or potential contamination sources (e.g. water intrusion through a basement wall) that may negatively influence post remedial verification (PRV) or clearance levels.
8. The investigator should look for various patterns among the indoor types of molds detected:
  - a. Increased levels of primary (1st) colonizers in damp or moisture intrusion areas of homes or commercial buildings: ***Aspergillus/Penicillium*** or ***Cladosporium*** are usually noted.
  - b. ***Chaetomium*** or ***Stachybotrys*** are tertiary (3rd) colonizers of indoor materials and are usually associated with chronic long-standing water/moisture issues in a building.
  - c. The presence of **hyphal fragments** or **fruiting structures** noted on spore trap samples usually indicates amplification (growth) of fungi on building substrates.
  - d. **Ascospores** and **basidiospores** noted on indoor spore trap samples most often represent the entrance of inadequately filtered outdoor air. During inclement weather, remember to note time, temperature, and season. Most indoor materials will not support the growth of these fungi.
9. When unidentified **hyaline** (clear) or **dematiaceous** (dark-pigmented) conidia are noted on a spore trap sample, it indicates that no particular fungus can be identified. These fungal conidia may represent such yeast-like fungi as *Aureobasidium*, *Sporidiobolus*, unidentifiable *Acremonium* species, Basidiomycetes (basidiospores), and Ascomycetes (ascospores).
10. Keep in mind when interpreting spore trap sample reports, that indoor levels may be higher than corresponding outdoor levels (winter time in the northern U.S.) with a predominance of *Aspergillus/Penicillium* or *Cladosporium* conidia with no significant amplification of any molds.

**SPORE TRAP GUIDELINES FOR INDOOR MICROBIAL CONTAMINATION**

<b>DEBRIS RATING for SPORE TRAP ANALYSIS (using 600X magnification)</b> (Air-O-Cell, Micro 5, Allergenco D, Cyclex d, VersaTrap, etc.)		
<b>DEBRIS RATING</b>	<b>CONDITIONS FOR REPORTING DEBRIS RATING</b>	<b>SIGNIFICANCE</b>
0	A visible trace, including particulates and debris, is not observed.	Indicates the sample is a blank, the area is exceptionally clean, or improper sampling occurred.
1	Debris is present and <10% of the average viewing field is obscured.	Minimal amount of debris is observed.
2	Debris is present and 10% to <40% of the average viewing field is obscured.	Low amount of debris is observed, counts may be affected.
3*	Debris is present and 40% to 75% of the average viewing field is obscured.	Moderate amount of debris is observed, counts of conidia/hyphal fragments may be underestimated.
4*	Debris is present and >75% of the average viewing field is obscured.	High amount of debris is observed, counts are estimated.
5* See Relative Abundance chart below	Excessive debris is present.	Periphery of trace analyzed. Relative amounts of conidia/hyphal fragments noted. Suggest recollection.
6	Slide completely obscured by excessive debris.	Unable to analyze. Recollect sample.

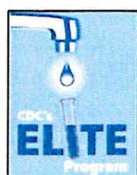
\*A rating of 3 or greater indicates that the accuracy of the analysis is likely affected.

<b>RELATIVE ABUNDANCE of OBSERVED CONIDIA &amp; HYPHAL FRAGMENTS</b>	
<b>RATING</b>	<b>Relative Amounts of Observed Fungal Structures per high power field (600 X)</b>
Rare	0-1
Few	2 to 5
Moderate	6 to 10
Many	11 to 100
Numerous	>100

<b>SKIN CELL ANALYSIS</b>	
<b>SKIN CELL RATING</b>	<b>Relative Amounts of Observed Skin Cells per high power field (600 X)</b>
0	No skin cells present
1	0-1
2	2 to 5
3	6 to 10
4	11 to 15
5	≥16

\*End of Report\*





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supplies@usmslab.com



## LABORATORY TEST REQUEST – CHAIN OF CUSTODY

Customer Name: AGX Inc.		Phone #: 724-934-4249		FAX #: 724-934-5677	
Address: 207 Pine Creek Road		City: Wexford		State: PA	Zip: 15090
Attention To: Amber Brancolini		E-Mail: abrancolini@agxinc.com			
Sample Obtained By: Amber Brancolini		Results: <input type="checkbox"/> FAX	<input checked="" type="checkbox"/> E-Mail	PO#	Proposal #
Project Name/Number: <u>Center Avenue Elementary School</u>					
Turn-Around-Time: (Spore Trap & DME Only)*					
Standard (48-72 hr) <input checked="" type="checkbox"/>		Next Day (24 hr, M-F) <input type="checkbox"/>		Same Day (6 hr, M-F) <input type="checkbox"/>	3-Hour (M-F) <input type="checkbox"/>
Saturday <input type="checkbox"/>					
Comments:					
Sample #	Sample Date / Time	Sample Code	Analysis Code	Sample Location & Description	Sample Volume/Area
CAE-01	8/18/20	ST	SPT	Room 11	75L
CAE-02	↓	↓	↓	Room 6	↓
CAE-03	↓	↓	↓	multi purpose room	↓
CAE-04	↓	↓	↓	Library	↓
CAE-05	↓	↓	↓	outside	↓
CAE-06	↓	S	DME	Room 6 cork board	1sq.in
Relinquished By (Customer MUST sign)				Date & Time	
<u>Amber Brancolini</u>				8-18-20 / 4:40 pm	
Received By – Lab Use Only			Date & Time	Lab #	
<u>[Signature]</u>			08/19/20 1030	8-17-20	

Rev. 12-14-17

Sample Code	
A	Air Plate
B	Bulk
ST	Spore Trap
S	Swab
W	Water
T	Tape
O	Other

Analysis Code			
DME	Direct Microscopic Exam	HPC	Heterotrophic Plate Count
SPT	Spore Trap <u>AD</u>	MYC	Mycobacteria Culture
FUNG	Fungal Culture – Counts w/ ID of top 3 organisms	STA	Staphylococcus / MRSA Culture
BACT	Bacterial Culture – Counts w/ ID of top 3 organisms	DUO	Duodenoscope Culture
SSQT	Sewage Screen (quant) – Counts w/ Identification <i>E. coli, coliforms, enterococci (fecal streptococci)</i>	HCU	Heater/Cooler Water Culture <i>includes mycobacteria, HPC, coliforms, &amp; P. aeruginosa</i>
SSQL	Sewage Screen (qualitative) – Identification of <i>E. coli, coliforms, enterococci (fecal streptococci)</i>	PSA	<i>Pseudomonas aeruginosa</i> Culture
COL	Colilert – Presence/absence of <i>E. coli, coliforms</i>	IDS	Species Identification by MALDI-TOF

\*All samples received after 1:00 p.m. Monday-Friday will be considered received the NEXT business day.

Same Day and Next Day samples received on Saturday will be reported on Monday and Tuesday, respectively.