



Customer Name: AGX Inc. **Sample Date:** August 20, 2020
Customer Address: 207 Pine Creek Road **Date Received:** August 21, 2020
 Wexford, PA 15090 **Date of Report:** August 26, 2020
Customer Phone: (724) 934-4249 **Fax:** (724) 934-5677
PO Number: **Attention:** Amber Brancolini
Project Name/Number: Butler Intermediate High School

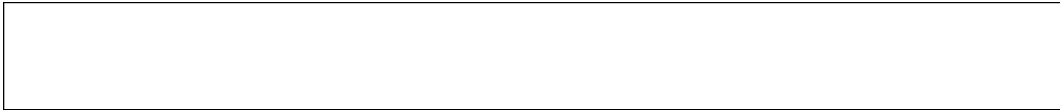
Customer sample numbers below are uniquely identified by prefixing Laboratory # 86867-20

Airborne Spore Trap Analysis - AllergencoD
 Analytical Method: MIC 01

Total Volume (L)	75				75				75			
Sample Number	BIHS-01				BIHS-02				BIHS-03			
Location:	Teachers Center				Room 141				Room 133			
Particle ID	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%
Alternaria												
Ascospores												
Aspergillus/Penicillium-like												
Basidiospores	15	13	195	79%	4	13	52	80%	15	13	195	94%
Bipolaris/Drechslera												
Cercospora												
Chaetomium												
Cladosporium	1	13	13	5%	1	13	13	20%	1	13	13	6%
Curvularia	1	13	13	5%								
Epicoccum												
Helicomyces												
Nigrospora												
Oidium												
Pithomyces/Ulocladium	1	13	13	5%								
Polythrincium												
Rusts												
Smuts/ Myxomycetes	1	13	13	5%								
Stachybotrys												
Torula												
Trichoderma												
Unidentified dematiaceous conidia												
Unidentified hyaline conidia												
Total Mold (Spores/m ³ of air)	19		247		5		65		16		208	
Pollen	0	13	< 13		0	13	< 13		0	13	< 13	
Hyphal Fragments												
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1				1	
Debris			1				1				1	
Analyst Initials			JM				JM				JM	
Date Analyzed			08/25/20				08/25/20				08/25/20	
Cassette Serial # / Exp Date:			3220320 10/2020				3220326 10/2020				3220282 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/m³); Blank Lines = None Detected

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Technical Manager: *Sharon Danko*
 Sharon Danko, AS, MLT (ASCP)



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PO Number:		Attention:	Amber Brancolini
Project Name/Number:	Butler Intermediate High School		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 86867-20

**Airborne Spore Trap Analysis - AllergencoD
 Analytical Method: MIC 01**

Total Volume (L)	75				75				75			
	BIHS-04				BIHS-05				BIHS-06			
Sample Number	Room 109				Auditorium				Room 201			
Location:	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%
Alternaria												
Ascospores					1	13	13	5%				
Aspergillus/Penicillium-like												
Basidiospores	4	13	52	40%	16	13	208	80%	3	13	39	100%
Bipolaris/Drechslera												
Cercospora												
Chaetomium												
Cladosporium	6	13	78	60%	3	13	39	15%				
Curvularia												
Epicoccum												
Helicomyces												
Nigrospora												
Oidium												
Pithomyces/Ulocladium												
Polythrincium												
Rusts												
Smuts/ Myxomycetes												
Stachybotrys												
Torula												
Trichoderma												
Unidentified dematiaceous conidia												
Unidentified hyaline conidia												
Total Mold (Spores/m³ of air)	10		130		20		260		3		39	
Pollen	0	13	< 13		0	13	< 13		0	13	< 13	
Hyphal Fragments												
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1				1	
Debris			1				1				1	
Analyst Initials			JM				JM				JM	
Date Analyzed			08/25/20				08/25/20				08/25/20	
Cassette Serial # / Exp Date:			3220321 10/2020				3220297 10/2020				3220303 10/2020	

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**Airborne Spore Trap Analysis - AllergencoD
 Analytical Method: MIC 01**

Total Volume (L)	75				75				75			
	BIHS-07				BIHS-08				BIHS-09			
Sample Number	Room 208				Room 227				Room 231			
	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%
Alternaria												
Ascospores	1	13	13	50%								
Aspergillus/Penicillium-like									2	13	26	17%
Basidiospores	1	13	13	50%	3	13	39	100%	9	13	117	75%
Bipolaris/Drechslera												
Cercospora												
Chaetomium												
Cladosporium									1	13	13	8%
Curvularia												
Epicoccum												
Helicomyces												
Nigrospora												
Oidium												
Pithomyces/Ulocladium												
Polythrincium												
Rusts												
Smuts/ Myxomycetes												
Stachybotrys												
Torula												
Trichoderma												
Unidentified dematiaceous conidia												
Unidentified hyaline conidia												
Total Mold (Spores/m³ of air)	2		26		3		39		12		156	
Pollen	0	13	< 13		0	13	< 13		0	13	< 13	
Hyphal Fragments												
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1				1	
Debris			1				1				1	
Analyst Initials			JM				JM				LS	
Date Analyzed			08/25/20				08/25/20				08/26/20	
Cassette Serial # / Exp Date:			3220331 10/2020				3220322 10/2020				3220329 10/2020	

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Airborne Spore Trap Analysis - AllergencoD												
Analytical Method: MIC 01												
Total Volume (L)	75						75					
Sample Number	BIHS-10						BIHS-11					
Location:	Room 247						Outside					
Particle ID	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%
Alternaria												
Ascospores	3	13	39	18%	10	13	130	1%				
Aspergillus/Penicillium-like												
Basidiospores	14	13	182	82%	135	178	24,030	97%				
Bipolaris/Drechslera												
Cercospora												
Chaetomium												
Cladosporium					49	13	637	3%				
Curvularia												
Epicoccum												
Helicomyces												
Nigrospora												
Oidium												
Pithomyces/Ulocladium												
Polythrincium												
Rusts												
Smuts/ Myxomycetes					1	13	13	0%				
Stachybotrys												
Torula												
Trichoderma												
Unidentified dematiaceous conidia												
Unidentified hyaline conidia												
Total Mold (Spores/m³ of air)	17		221		195		24,810					
Pollen	0	13	< 13		0	13	< 13					
Hyphal Fragments					2	13	26					
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1					
Debris			2				1					
Analyst Initials			LS				LS					
Date Analyzed			08/26/20				08/26/20					
Cassette Serial # / Exp Date:			3220327 10/2020				3220345 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.
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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/m³ 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

DEBRIS RATING for SPORE TRAP ANALYSIS (using 600X magnification) (Air-O-Cell, Micro 5, Allergenco D, Cyclex d, VersaTrap, etc.)		
DEBRIS RATING	CONDITIONS FOR REPORTING DEBRIS RATING	SIGNIFICANCE
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* <small>See Relative Abundance chart below</small>	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.

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

SKIN CELL ANALYSIS	
SKIN CELL RATING	Relative Amounts of Observed Skin Cells per high power field (600 X)
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

