



Customer Name:	AGX, Inc.	Sample Date:	January 28, 2020
Customer Address:	207 Pine Creek Road Wexford, PA 15090	Date Received:	January 30, 2020
		Date of Report:	February 4, 2020
Customer Phone:	(724) 934-4249	Fax:	(724) 934-5677
PO Number:		Attention:	Amber Brancolini
Project Name/Number:	Summit Twp. Elementary		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 1897-20

Airborne Spore Trap Analysis - AllergencoD												
Analytical Method: USMS-M008												
Total Volume (L)	75				75				75			
Sample Number	S-01				S-02				S-03			
Location:	Room 2				Room 4				Room 7			
Particle ID	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%
Alternaria												
Ascospores	1	13	13	7%								
Aspergillus/Penicillium-like	11	13	143	73%								
Basidiospores	1	13	13	7%	2	13	26	100%	1	13	13	100%
Bipolaris/Drechslera												
Cercospora												
Chaetomium												
Cladosporium	2	13	26	13%								
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)	15		195		2		26		1		13	
Pollen	0	13	< 13		0	13	< 13		0	13	< 13	
Hyphal Fragments												
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1				1	
Debris			2				2				2	
Analyst Initials			LS				LS				LS	
Date Analyzed			01/31/20				01/31/20				01/31/20	
Cassette Serial # / Exp Date:			3220276 10/2020				3220269 10/2020				3220263 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 (spore/m³); Blank Lines = None Detected

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



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Project Name/Number:	Summit Twp. Elementary		

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Airborne Spore Trap Analysis - AllergencoD												
Analytical Method: USMS-M008												
Total Volume (L)	75				75				75			
Sample Number	S-04				S-05				S-06			
Location:	Room 6				Storage Room				Room 14			
Particle ID	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%
Alternaria												
Ascospores									1	13	13	20%
Aspergillus/Penicillium-like					35	13	455	88%	3	13	39	60%
Basidiospores	4	13	52	100%	3	13	39	8%	1	13	13	20%
Bipolaris/Drechslera												
Cercospora												
Chaetomium												
Cladosporium					2	13	26	5%				
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)	4		52		40		520		5		65	
Pollen	0	13	< 13		0	13	< 13		0	13	< 13	
Hyphal Fragments												
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1				1	
Debris			2				2				2	
Analyst Initials			LS				LS				LS	
Date Analyzed			01/31/20				01/31/20				01/31/20	
Cassette Serial # / Exp Date:			3220268 10/2020				3220264 10/2020				3220270 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 (spore/m³); Blank Lines = None Detected

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 Sharon Fanchalsky, AS, MLT (ASCP)



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PO Number:		Attention:	Amber Brancolini
Project Name/Number:	Summit Twp. Elementary		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 1897-20

Airborne Spore Trap Analysis - AllergencoD												
Analytical Method: USMS-M008												
Total Volume (L)	75				75							
Sample Number	S-07				S-08							
Location:	Office						Outside					
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	4	13	52	100%	2	13	26	100%				
Bipolaris/Drechslera												
Cercospora												
Chaetomium												
Cladosporium												
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)	4		52		2		26					
Pollen	0	13	< 13		0	13	< 13					
Hyphal Fragments												
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1					
Debris			2				1					
Analyst Initials			LS				LS					
Date Analyzed			01/31/20				01/31/20					
Cassette Serial # / Exp Date:			3220258 10/2020				3219834 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 (spore/m³); Blank Lines = None Detected

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



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



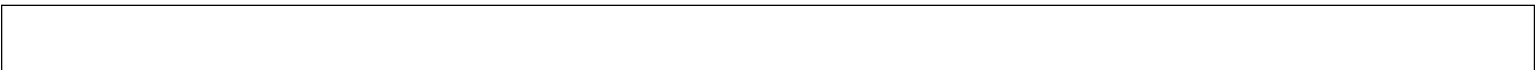
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Project Name/Number:	Summit Twp. Elementary	Attention:	Amber Brancolini

Customer sample numbers below are uniquely identified by prefixing Laboratory # 1897-20

Direct Microscopic Examination - Swab
Analytical Method: USMS-T017

Customer Sample Number	S-09														
	Room 4 - Chalkboard														
Sample Description/ Location	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	X														
Basidiospores															
<i>Bipolaris/Drechslera</i> conidia															
<i>Chaetomium</i> ascospores															
<i>Cladosporium</i> conidia		X													
<i>Curvularia</i> conidia															
<i>Epicoccum</i> conidia															
Hyphal Fragments	X														
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															
Analyst Initials					LS										
Date Analyzed					01/31/20										
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 Fanchalsky, AS, MLT (ASCP)

GUIDELINES FOR DIRECT MICROSCOPIC EXAMINATION – (DME) OF BULK, SWAB AND TAPE SAMPLES

These guidelines are not intended for determination of health significance nor are they necessarily representative of unacceptable indoor environments.

Molds require a food source, moisture, and spore production to proliferate, removing any one of these factors can control fungal growth. However, because of their ubiquitous nature, spores can never be completely eliminated from an area.

RELATIVE ABUNDANCE OF CONIDIA (SPORES) AND HYPHAL FRAGMENTS		
RATING	¹ Relative Amounts of Observed Fungal Structures per high power field (600X)	SIGNIFICANCE
Rare	0-1	Indicates a minimal amount of conidia (spores) and/or other fungal structures. Most normal indoor surfaces will show no to low fungal conidia/hyphal fragments. Generally, water indicator molds such as <i>Stachybotrys</i> or <i>Chaetomium</i> should be further investigated.
Few	2-5	Indicates low amounts of settled conidia (spores). Typically, this amount is not consistent with active fungal growth, however, it may suggest an active source nearby, or that a surface has not been cleaned appropriately. The presence of hyphal fragments or fruiting structures may indicate a nearby source of contamination. Generally, the presence of moisture indicator molds (e.g., <i>Stachybotrys</i> or <i>Chaetomium</i>) may suggest a chronic or acute water condition from sources such as roofs, plumbing leaks, increased humidity, etc.
Moderate	6-10	Indicates a moderate to heavy amount of fungal contamination (conidia/spores). Generally, this category is indicative of a surface that is, or has been affected, by active fungal growth. The presence of fruiting structures or hyphal fragments may support the premise that fungal growth is on-going. However, the presence of moderate to numerous conidia/spores alone does not necessarily indicate the viability of the spores. Further investigation of the affected areas may be warranted.
Many	11-100	
Numerous	>100	Indicates that the sample area was highly contaminated with fungal spores and/or hyphal fragments. Samples in this category display an unusually high number of conidia/spores or other fungal structures in each microscopic field.

¹This scale of relative abundance is affected by the size of the sampled area. If very large areas are sampled with a swab for example, this may cause the results to be skewed into a lower or higher category. These results correspond, roughly, to a sample area measuring one square inch.

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

DEBRIS RATING for DME ANALYSIS (using 600X magnification)		
DEBRIS RATING	CONDITIONS FOR REPORTING DEBRIS RATING	SIGNIFICANCE
0	Debris is not present.	Sample may be a blank sample or from a very clean or remediated area.
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, relative amounts of conidia/hyphal fragments may be affected.
3*	Debris is present and 40% to 75% of the average viewing field is obscured.	Moderate amount of debris is observed, relative amounts 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, relative amounts of conidia/hyphal fragments are estimated.
6	Slide completely obscured by excessive debris.	Unable to analyze. Recollect sample.

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

SPORE TRAP INTERPRETATION TIPS

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 the 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 indoors 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

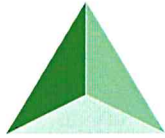
DEBRIS RATING for SPORE TRAP ANALYSIS (using 600X magnification) (Air-O-Cell, Micro 5, Allergenco D, Cyclex d, VersaTrap, etc.)		
DEBRIS RATING	CONDITIONS FOR REPORTING DEBRIS RATING	SIGNIFICANCE
0	A visible trace, including particulates and debris, is not observed.	Indicates the sample was a blank, 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.

RELATIVE ABUNDANCE of OBSERVED CONIDIA & HYPHAL FRAGMENTS	
RATING	Relative Amounts of Observed Fungal Structures per high power field (600X)
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 (600X)
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



U.S. Micro-Solutions, Inc.

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Latrobe, PA 15650
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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: Summit Twp. Elementary

Turn-Around-Time: (Spore Trap & DME Only)*
 Standard (48-72 hr) Next Day (24 hr, M-F) Same Day (6 hr, M-F) 3-Hour (M-F) Saturday

Comments:

Sample #	Sample Date / Time	Sample Code	Analysis Code	Sample Location & Description	Sample Volume/Area
S-01	1-28-20	ST	SPT	Room 2	75 L
S-02				Room 4	
S-03				Room 7	
S-04				Room 6	
S-05				Storage Room	
S-06				Room 14	
S-07				Office	
S-08				Outside	
S-09		S	DME	Room 4 - Chalkboard	1 se. in.

Relinquished By (Customer MUST sign) Amber Brancolini Date & Time 1-28-20 / 5:45 pm

Received By – Lab Use Only [Signature] Date & Time 01-30-20 0905 Lab # 15897-20

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>AP</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, & 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.