



Customer Name: AGX, Inc. **Sample Date:** August 19, 2019
Customer Address: 207 Pine Creek Road **Date Received:** August 20, 2019
 Wexford, PA 15090 **Date of Report:** August 21, 2019
Customer Phone: (724) 934-4249 **Fax:** (724) 934-5677
PO Number: **Attention:** Amber Brancolini
Project Name/Number: Center Township Elementary School

Customer sample numbers below are uniquely identified by prefixing Laboratory # 88222-19

Airborne Spore Trap Analysis - AllergencoD													
Analytical Method: USMS-M008													
Total Volume (L)	75				75				75				
Sample Number	CTE-52-01				CTE-Lib-02				CTE-74-03				
Location:	Computer Lab (52)				Library				Room 74				
Particle ID	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	
Alternaria									1	13	13	1%	
Ascospores	19	13	247	6%	4	13	52	9%	27	13	351	20%	
Aspergillus/Penicillium-like	271	13	3,523	85%	7	13	91	15%	15	13	195	11%	
Basidiospores	16	13	208	5%	22	13	286	47%	74	13	962	54%	
Bipolaris/Drechslera													
Cercospora													
Chaetomium													
Cladosporium	11	13	143	3%	14	13	182	30%	19	13	247	14%	
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)	317		4,121		47		611		136		1,768		
Pollen	0	13	< 13		0	13	< 13		0	13	< 13		
Hyphal Fragments													
Insect Fragments													
Plant Fragments													
Skin Cell Fragments			1				0				1		
Debris			1				1				1		
Analyst Initials			KP				KP				KP		
Date Analyzed			08/20/19				08/20/19				08/20/19		
Cassette Serial # / Exp Date:			2796575 09/2019				2796578 09/2019				2931322 03/2020		

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

When providing duplicates of this report, the document should be provided in total and not in section in accordance with AIHA-LAP, LLC. Any unauthorized or improper disclosure, copying, distribution, use, or falsification of these results is prohibited. USMS shall have no liability to the Customer or the Customer's customer for opinions stated, recommendations made, actions taken, or conduct implemented based on the test results reported.



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



Customer Name:	AGX, Inc.	Sample Date:	August 19, 2019
Customer Address:	207 Pine Creek Road Wexford, PA 15090	Date Received:	August 20, 2019
		Date of Report:	August 21, 2019
Customer Phone:	(724) 934-4249	Fax:	(724) 934-5677
PO Number:		Attention:	Amber Brancolini
Project Name/Number:	Center Township Elementary School		

Customer sample numbers below are uniquely identified by prefixing Laboratory # 88222-19

**Airborne Spore Trap Analysis - AllergencoD
 Analytical Method: USMS-M008**

Total Volume (L)	75				75				75			
	CTE-75-04				CTE-76-05				CTE-44-06			
Sample Number	Room 75				Room 76				Room 44			
Location:	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%
Alternaria												
Ascospores	28	13	364	11%	7	13	91	7%	3	13	39	1%
Aspergillus/Penicillium-like	25	13	325	10%	17	13	221	18%	343	13	4,459	96%
Basidiospores	178	13	2,314	71%	61	13	793	64%	9	13	117	3%
Bipolaris/Drechslera												
Cercospora												
Chaetomium												
Cladosporium	20	13	260	8%	11	13	143	11%	4	13	52	1%
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)	251		3,263		96		1,248		359		4,667	
Pollen	0	13	< 13		0	13	< 13		1	13	13	
Hyphal Fragments												
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				1				1	
Debris			2				2				1	
Analyst Initials			KP				KP				KP	
Date Analyzed			08/20/19				08/20/19				08/20/19	
Cassette Serial # / Exp Date:			2931308 03/2020				2931301 03/2020				2931303 03/2020	

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

When providing duplicates of this report, the document should be provided in total and not in section in accordance with AIHA-LAP, LLC. Any unauthorized or improper disclosure, copying, distribution, use, or falsification of these results is prohibited. USMS shall have no liability to the Customer or the Customer's customer for opinions stated, recommendations made, actions taken, or conduct implemented based on the test results reported.



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



Customer Name: AGX, Inc. **Sample Date:** August 19, 2019
Customer Address: 207 Pine Creek Road **Date Received:** August 20, 2019
 Wexford, PA 15090 **Date of Report:** August 21, 2019
Customer Phone: (724) 934-4249 **Fax:** (724) 934-5677
PO Number: **Attention:** Amber Brancolini
Project Name/Number: Center Township Elementary School

Customer sample numbers below are uniquely identified by prefixing Laboratory # 88222-19

Airborne Spore Trap Analysis - AllergencoD
 Analytical Method: USMS-M008

Total Volume (L)	75				75				Raw ct.	AS	Spores/m ³	%
	CTE-27-07				CTE-OUT-08							
Sample Number	Room 27				Outside				Raw ct.	AS	Spores/m ³	%
Location:	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%	Raw ct.	AS	Spores/m ³	%
Alternaria					1	13	13	0%				
Ascospores	8	13	104	15%	214	13	2,782	7%				
Aspergillus/Penicillium-like	10	13	130	19%	28	13	364	1%				
Basidiospores	31	13	403	58%	123	267	32,841	87%				
Bipolaris/Drechslera												
Cercospora					2	13	26	0%				
Chaetomium												
Cladosporium	4	13	52	8%	112	13	1,456	4%				
Curvularia												
Epicoccum												
Helicomyces												
Nigrospora												
Oidium												
Pithomyces/Ulocladium					2	13	26	0%				
Polythrincium												
Rusts												
Smuts/ Myxomycetes					8	13	104	0%				
Stachybotrys												
Torula												
Trichoderma												
Unidentified dematiaceous conidia												
Unidentified hyaline conidia												
Total Mold (Spores/m ³ of air)	53		689		490		37,612					
Pollen	0	13	< 13		8	13	104					
Hyphal Fragments					1	13	13					
Insect Fragments												
Plant Fragments												
Skin Cell Fragments			1				0					
Debris			1				1					
Analyst Initials			KP				KP					
Date Analyzed			08/20/19				08/20/19					
Cassette Serial # / Exp Date:			2796580 09/2019				2931306 03/2020					

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

When providing duplicates of this report, the document should be provided in total and not in section in accordance with AIHA-LAP, LLC. Any unauthorized or improper disclosure, copying, distribution, use, or falsification of these results is prohibited. USMS shall have no liability to the Customer or the Customer's customer for opinions stated, recommendations made, actions taken, or conduct implemented based on the test results reported.



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

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

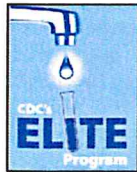
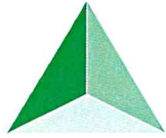
DEBRIS RATING for SPORE TRAP ANALYSIS (using 600X magnification) (Air-O-Cell, Micro 5, Allergenco D, Cyclex d, VersaTrap, etc.)		
DEBRIS RATING	CONDITIONS FOR REPORTING DEBRIS RATING	SIGNIFICANCE
0	A visible trace, including particulates and debris, is not observed.	Indicates the sample was a blank,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

302 Unity Plaza
Latrobe, PA 15650
PH: 724-853-4047 FAX: 724-853-4049

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 Township Elementary School</u>		
Turn-Around-Time: (Spore Trap & DME Only)*	Standard (48-72 hr) <input type="checkbox"/>	Next Day (24 hr, M-F) <input checked="" 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
CTE-S2-01	8-19-19	ST	SPT	Computer Lab (S2)	75 L
CTE-Lib-02				Library	
CTE-74-03				Room 74	
CTE-75-04				Room 75	
CTE-76-05				Room 76	
CTE-44-06				Room 44	
CTE-27-07				Room 27	
CTE-OUT-08	↓	↓	↓	Outside	↓

Relinquished By (Customer MUST sign)	<u>Amber Brancolini</u>	Date & Time	8-19-19 / 5:14 PM
Received By – Lab Use Only	<u>[Signature]</u>	Date & Time	8/19/19 11:30
		Lab #	88222-19

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, & 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.