eurofins | Built Environment Testing

Report for:

Brad Roberts
Berks Fire Water Restoration
1145 Commons Blvd
Reading, PA 19605

Regarding: Eurofins EPK Built Environment Testing, LLC
Project: Schuylkill Valley School District - 2; IAQ test
EML ID: 3396997

Approved by:

Technical Manager
Ariunaa Jalsrai

Dates of Analysis:
Spore trap analysis: 09-25-2023

Service SOPs: Spore trap analysis (EB-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #103005

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested. Information supplied by the client which can affect the validity of results: sample air volume.

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Eurofins EPK Built Environment Testing, LLC
3000 Lincoln Drive East, Suite A, Marlton, NJ 08053
(866) 871-1984 www.eurofinsus.com/Built

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C/O: Brad Roberts
Re: Schuylkill Valley School District - 2; IAQ test

Date of Sampling: 09-21-2023
Date of Receipt: 09-25-2023
Date of Report: 09-25-2023

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	3691 1972: music room			3691 1963: outside		
Comments (see below)	None			None		
Lab ID-Version‡:	16522355-1			16522356-1		
Analysis Date:	09/25/2023			09/25/2023		
	raw ct.	% read	spores/m3	raw ct.	% read	spores/m3
Alternaria				7	100	93
Ascospores	1	25	53	13	25	690
Basidiospores	9	25	480	72	25	3,800
Chaetomium						
Cladosporium	8	25	430	8	25	430
Curvularia						
Epicoccum				4	100	53
Fusarium						
Ganoderma				1	25	53
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†	13	25	690			
Pithomyces	2	100	27	2	100	27
Rusts						
Smuts, Periconia, Myxomycetes	1	100	13			
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+			2+		
Hyphal fragments/m3	27			< 13		
Pollen/m3	13			< 13		
Skin cells (1-4+)	2+			< 1+		
Sample volume (liters)	75			75		
§ TOTAL SPORES/m3			1,700			5,200

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.
††Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3, per spore and per sample.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".
§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

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Service SOPs: Spore trap analysis (EB-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #103005

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Comments (see below)	None		None	
Lab ID-Version‡:	16522355-1		16522356-1	
Analysis Date:	09/25/2023		09/25/2023	
	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria			7	93
Ascospores	1	53	13	690
Basidiospores	9	480	72	3,800
Chaetomium				
Cladosporium	8	430	8	430
Curvularia				
Epicoccum			4	53
Fusarium				
Ganoderma			1	53
Myrothecium				
Nigrospora				
Other colorless				
Penicillium/Aspergillus types†	13	690		
Pithomyces	2	27	2	27
Rusts				
Smuts, Periconia, Myxomycetes	1	13		
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Zygomycetes				
Background debris (1-4+)††	2+		2+	
Hyphal fragments/m3	27		< 13	
Pollen/m3	13		< 13	
Skin cells (1-4+)	2+		< 1+	
Sample volume (liters)	75		75	
§ TOTAL SPORES/m3		1,700		5,200

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample, indicating a raw count of <1 spore.
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MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: 3691 1963, outside

Fungi Identified	Outdoor data	Typical Outdoor Data for: September in Pennsylvania† (n‡=3342)						Typical Outdoor Data for: The entire year in Pennsylvania† (n‡=29386)					
	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	93	13	17	50	110	190	69	10	13	40	93	160	44
Bipolaris/Drechslera group	-	7	7	13	40	53	19	7	7	13	33	53	10
Chaetomium	-	7	7	13	13	27	3	7	7	13	27	40	3
Cladosporium	430	220	430	1,200	3,200	5,800	96	53	130	590	2,000	3,600	84
Curvularia	-	7	13	27	59	130	41	7	8	17	53	84	16
Epicoccum	53	7	13	27	80	130	55	7	13	27	67	110	39
Ganoderma	53	44	53	130	270	400	27	27	53	110	210	320	11
Nigrospora	-	7	13	27	53	110	37	7	7	13	44	67	17
Penicillium/Aspergillus types	-	53	110	290	800	1,300	55	53	53	210	590	1,000	49
Pithomyces	27	11	13	40	110	210	63	7	13	27	80	160	27
Stachybotrys	-	7	7	13	33	100	< 1	7	7	13	45	170	< 1
Torula	-	7	13	27	53	87	14	7	11	13	47	67	7
Seldom found growing indoors**													
Ascospores	690	160	320	910	2,300	3,800	98	53	130	610	2,000	3,400	81
Basidiospores	3,800	990	1,900	5,300	14,000	23,000	> 99	110	250	1,900	7,900	15,000	96
Rusts	-	7	13	27	80	150	47	7	13	27	53	110	21
Smuts, Periconia, Myxomycetes	-	13	27	53	120	210	79	13	13	40	110	200	62
§ TOTAL SPORES/m3	5,200												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by Eurofins EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, Eurofins EMLab P&K may not have received and tested a representative number of samples for every region or time period. Eurofins EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

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Date of Sampling: 09-21-2023
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MoldSCORE™: Spore Trap Report

Outdoor Sample: 3691 1963 outside

Fungi Identified	Outdoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3
Generally able to grow indoors*			
Alternaria		7	93
Bipolaris/Drechslera group		ND	< 13
Chaetomium		ND	< 13
Cladosporium		8	430
Curvularia		ND	< 13
Epicoccum		4	53
Ganoderma		1	53
Nigrospora		ND	< 13
Penicillium/Aspergillus types†		ND	< 13
Pithomyces		2	27
Stachybotrys		ND	< 13
Torula		ND	< 13
Seldom found growing indoors**			
Ascospores		13	690
Basidiospores		72	3,800
Rusts		ND	< 13
Smuts, Periconia, Myxomycetes		ND	< 13
Total			**5,187**

Location: 3691 1972 music room

Fungi Identified	Indoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3	MoldSCORE‡ 100 200 300	Score
Generally able to grow indoors*					
Alternaria		ND	< 13		100
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		8	430		118
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		13	690		202
Pithomyces		2	27		107
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		1	53		100
Basidiospores		9	480		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		1	13		103
Total			**1,693**	**Final MoldSCORE**	**202**

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†The spores of Aspergillus and Penicillium (and others such as Acremonium, Paecilomyces) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.

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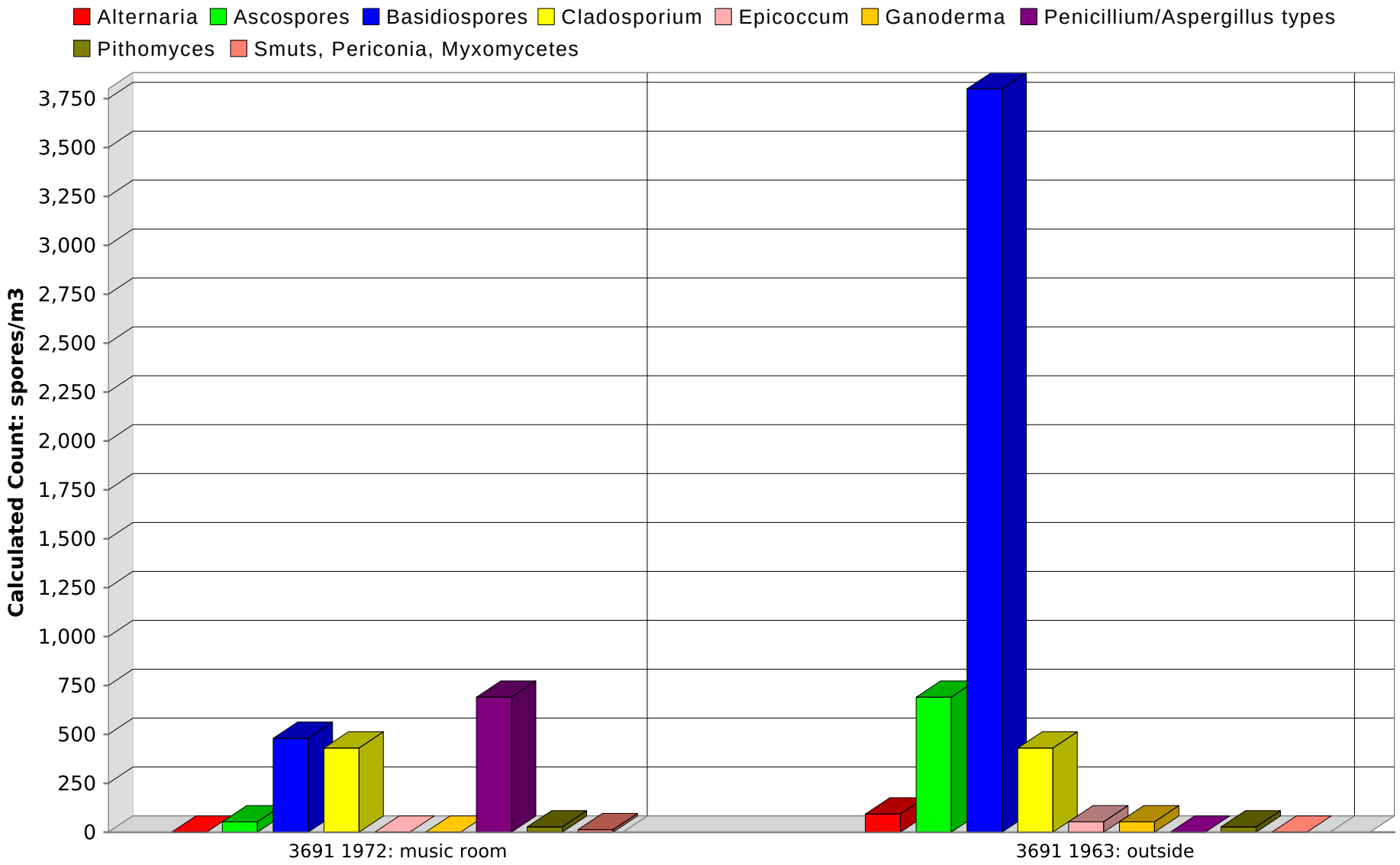
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:

Note: Graphical output may understate the importance of certain "marker" genera.