eurofins | Built Environment Testing

Report for:

Mr. Chad Johnson
Eastern Washington University
312 Eagle Lane
EH&S, 002 Martin Hall
Cheney, WA 99004

Regarding: Eurofins Aerotech Built Environment Testing, Inc.
Project: JFK Library; Air Quality Sampling
EML ID: 3884236

Approved by:

Business Unit Manager
Joshua Cox

Dates of Analysis:
Spore trap analysis: 12-19-2024

Service SOPs: Spore trap analysis (EB-MY-S-1038)
AIHA LAP, LLC accredited service, Lab ID #102297

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.

Eurofins Aerotech Built Environment Testing, Inc. ("the Company"), a member of the Eurofins Built Environment Testing group of companies, shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.
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Eurofins Aerotech Built Environment Testing, Inc.
1501 West Knudsen Drive, Phoenix, AZ 85027
(800) 651-4802 www.eurofinsus.com/Built

Client: Eastern Washington University
C/O: Mr. Chad Johnson
Re: JFK Library; Air Quality Sampling

Date of Sampling: 12-13-2024
Date of Receipt: 12-16-2024
Date of Report: 12-19-2024

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	38623694: 2nd open ledge		38623724: On top of TH fridge		38623714: On top of free stand bookshelf		38623720: On wall bookshelf top ridge		38623696: Loading dock AH outside	
Comments (see below)	None		None		None		None		None	
Lab ID-Version‡:	19242240-1		19242242-1		19242244-1		19242246-1		19242248-1	
Analysis Date:	12/19/2024		12/19/2024		12/19/2024		12/19/2024		12/19/2024	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores			1	53			2	110		
Basidiospores	3	160	2	110	1	53	2	110	3	160
Chaetomium										
Cladosporium										
Curvularia										
Epicoccum										
Fusarium										
Myrothecium										
Nigrospora										
Other colorless										
Penicillium/Aspergillus types†	1	53	2	110	2	110			1	53
Pithomyces										
Rusts										
Smuts, Periconia, Myxomycetes	1	13								
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Zygomycetes										
Background debris (1-4+)	2+		2+		2+		2+		2+	
Hyphal fragments/m3	< 13		13		< 13		13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+		1+		< 1+	
Sample volume (liters)	75		75		75		75		75	
§ TOTAL SPORES/m3		230		270		160		210		210

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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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

PROJECT ANALYST AND SIGNATORY REPORT

Project Analyst

Analyst: Dubravka Cvijetic

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Project: JFK Library; Air Quality Sampling
EML ID: 3884236

Approved by:

Business Unit Manager
Joshua Cox

Dates of Analysis:
Spore trap analysis: 12-19-2024

Service SOPs: Spore trap analysis (EB-MY-S-1038)
AIHA LAP, LLC accredited service, Lab ID #102297

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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	38623694: 2nd open ledge				38623724: On top of TH fridge				38623714: On top of free stand bookshelf			
Comments (see below)	None				None				None			
Lab ID-Version‡:	19242240-1				19242242-1				19242244-1			
Analysis Date:	12/19/2024				12/19/2024				12/19/2024			
Sample volume (liters)	75				75				75			
Background debris (1-4+)	2+				2+				2+			
	raw ct.	Count/m3	DL/m3*	%	raw ct.	Count/m3	DL/m3*	%	raw ct.	Count/m3	DL/m3*	%
Hyphal fragments					1	13	13	n/a				
Pollen												
§ TOTAL FUNGAL SPORES	5	230	n/a	100	5	270	n/a	100	3	160	n/a	100
Ascospores					1	53	53	20				
Basidiospores	3	160	53	71	2	110	53	40	1	53	53	33
Chaetomium												
Cladosporium												
Other colorless												
Penicillium/Aspergillus types	1	53	53	24	2	110	53	40	2	110	53	67
Pithomyces												
Rusts												
Smuts, Periconia, Myxomycetes	1	13	13	6								
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												

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

*The detection limit/limit of detection (DL) per cubic meter (m3) has been rounded to two significant figures to reflect analytical precision.

††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.

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Date of Sampling: 12-13-2024
Date of Receipt: 12-16-2024
Date of Report: 12-19-2024

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	38623720: On wall bookshelf top ridge				38623696: Loading dock AH outside			
Comments (see below)	None				None			
Lab ID-Version‡:	19242246-1				19242248-1			
Analysis Date:	12/19/2024				12/19/2024			
Sample volume (liters)	75				75			
Background debris (1-4+)	2+				2+			
	raw ct.	Count/m3	DL/m3*	%	raw ct.	Count/m3	DL/m3*	%
Hyphal fragments	1	13	13	n/a				
Pollen								
§ TOTAL FUNGAL SPORES	4	210	n/a	100	4	210	n/a	100
Ascospores	2	110	53	50				
Basidiospores	2	110	53	50	3	160	53	75
Chaetomium								
Cladosporium								
Other colorless								
Penicillium/Aspergillus types					1	53	53	25
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								

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

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PROJECT ANALYST AND SIGNATORY REPORT

Project Analyst

Analyst: Dubravka Cvijetic

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EML ID: 3884236

Approved by:

Business Unit Manager
Joshua Cox

Dates of Analysis:
Spore trap analysis other particles-Supplement: 12-19-2024

Service SOPs: Spore trap analysis other particles-Supplement (EM-MY-S-1038)
AIHA LAP, LLC accredited service, Lab ID #102297

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OTHER BIOLOGICAL PARTICLES REPORT: NON-VIABLE METHODOLOGY

Location:	38623694: 2nd open ledge		38623724: On top of TH fridge		38623714: On top of free stand bookshelf		38623720: On wall bookshelf top ridge		38623696: Loading dock AH outside	
Comments (see below)	None		None		None		None		None	
Lab ID-Version‡:	19242241-1		19242243-1		19242245-1		19242247-1		19242249-1	
	raw ct.	particles/m3	raw ct.	particles/m3	raw ct.	particles/m3	raw ct.	particles/m3	raw ct.	particles/m3
POLLEN										
Grass (Poaceae)										
Mulberry (Morus)										
Oak (Quercus)										
Other										
Pine (Pinaceae)										
Ragweed (Ambrosieae)										
Sycamore (Platanus)										
OTHER PLANT										
Algae										
Diatoms										
Fern, moss, etc. spores										
Other (wood, trichomes, etc.)										
OTHER PARTICLES:										
ANIMAL										
Epithelial (skin) cells	134	1,800	256	3,400	163	2,200	295	3,900	4	53
Hair										
Insect parts										
Mites										
FUNGI										
Hyphal fragments			1	13			1	13		
NON-BIOLOGICAL										
Cellulose fibers	11	150	26	350	11	150	14	190	3	40
Glass fiber			1	13						
Starch particles	2	27	3	40	1	13	1	13		
Synthetic fibers	2	27	1	13	8	110	6	80		
Background debris (1-4+)†	2+		2+		2+		2+		2+	
Sample volume (liters)	75		75		75		75		75	

Comments:

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

Carbonaceous particles include soot and other combustion products. In most instances a detailed analysis of soot can be accomplished using scanning electron microscopy.

Note: Interpretation is left to the company and/or persons who conducted the field work.

† Background debris is an indication of the amounts of non-biological particulate matter present on the slide (dust in the air) and is graded from 1+ to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume.

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Project Analyst

Analyst: Dubravka Cvijetic

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