Air-O-Cell sampling of fiber and mold conducted on 12/5/18

Sample Number	Location
2733-5647	Outside loading dock Air Handler
2733-5480	Outside roof Air handler 6
2736-3102	U18
2736-5470	3 rd floor stack area
2733-5629	Stack Area Lower Level
2733-5701	L23
2733-5474	L03
2733-5669	Main Level between General Advising and Info Desk
2733-5452	Reference Desk Area
2736-2996	Autoruum Woman's Bathroom.
2733-5638	M23 Center of Room HEPAs running
2733-5490	U08
2733-5672	U06
2733-5473	Upper Level Stacks by Stairs.



Report for:

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

Regarding:

Project: JFK EML ID: 2059066

Approved by:

Operations Manager Joshua Cox

Dates of Analysis: Spore trap analysis: 12-14-2018

Service SOPs; Spore trap analysis (EM-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 items tested.

EMLab P&K ("the Company") 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 revonues 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 Tost Results exceed the amount paid to the Company by the client therefor.

EMLab P&K's LabServe® reporting system includes automated fail-safes to ensure that all AIHA-LAP, LLC quality requirements are met and notifications are added to reports when any quality steps remain pending.

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Outsid	3-5647: e Loading Oock		3-5480: ide Roof		6-3102: U18	2736-5470: 3rd Fl Stack Are	
Comments (see below)	1	Vone	1	None	7	Vone	. 1	Vone
Lab ID-Versioný:	972	5783-1	972	5785-1	972	5787-1	972	5789-1
Analysis Date:	12/	14/2018	12/1	14/2018	12/1	4/2018	12/	14/2018
N. C.	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	5	67	1	13			1	13
Basidiospores	7	93	3	40			7	93
Chactomium								
Cladosporium	3	40	1	13			1	13
Curvularia								
Epicoccum								
Fusarium								
Myrotheeium								
Nigrospora								
Other brown	1	13			1	13		
Other colorless								
Penicillium/Aspergillus types†	9	120	_1_	13	ļ.,		56	750
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	1	13	1	13	2	27	1	13
Stachybotrys								
Stemphylium			1	13				
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+	Name of the last	2+		21		2+	
Hyphal fragments/m3	< 13		< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		<1+		<1+			
Sample volume (liters)	75	3000	75		75	- 1000	75	7328.00
§ TOTAL SPORES/m3		350		110		40		880

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. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory, \$\frac{1}{2} \A \text{ "Version" indicated by -"x" after the Lab ID# with a value greater than I 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.

[†] 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 41 (high). Counts from areas with 1+ 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.

(800) 651-4802 Fax (623) 780-7695 www.cmlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	Stack A	3-5629; rea Lower evel		3-5701: L23		3-5474; L03	Main L	3-5669; evel GA - o Desk
Comments (see below)	1	None	1	Vone	1	Vone .	1	Vone
Lab ID-Version‡:	972	5791-1	972	5793-1	972	5795-1	972	5797-1
Analysis Date:	12/1	4/2018	12/1	4/2018	12/1	4/2018	12/1	4/2018
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m2
Ascospores	1	13	_1_	13			1_	13
Basidiospores					2	27	6	80
Chactomium								
Cladosporium								
Curvularia)[
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown				1				
Other colorless								
Penicillium/Aspergillus types†	1	13	9	120	_ 2	27	23	310
Pithomyces								
Rusts						8950		500000
Smuts. Periconia, Myxomycetes						13	3	40
Stachybotrys								
Stemphylium								
Torula								Lacre =
Ulocladium								-
Zygomycetes							2.000	
Background debris (1-4+)††	1+		_1+		2+		21	
Hyphal fragments/m3	< 13		13		≤13		< 13	
Pollen/m3	13		< 13		13		13	_
Skin cells (1-4+)	< 1+		< 1+		< 1+		<11	
Sample volume (liters)	75		75	20755	75	8840	75	2.230
§ TOTAL SPORES/m3		27		130		67		440

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

The analytical sensitivity is the spores/m^3 divided by the raw count, expressed in spores/m^3. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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 ligures to reflect analytical precision.

[†] The spores of Aspergillus and Penicillium (and others such as Acremonium, Paccilomyces) 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.

γγBackground 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.

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		3-5452: f Desk		6-2996; /om Bath	M23 (3-5638; Center Of Loom	2733-5490: U08		
Comments (see below)	l l	None		Vone	7	None	1	None	
Lab ID-Version:	972	5799-1	972	5801-1	972	5803-1	972	5805-1	
Analysis Date:	12/1	14/2018	12/1	14/2018	12/	14/2018	12/1	4/2018	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	
Ascospores	3	40					2	27	
Basidiospores	3	40	3	40	1	13	4	53	
Chactomium									
Cladosporium									
Curvularia									
Epicoccum							<u> </u>		
Fusarium									
Myrothecium									
Nigrospora									
Other brown			1	13					
Other colorless									
Penicillium/Aspergillus types†	2_	27					4	53	
Pithomyces									
Rusts									
Smuts, Periconia, Myxomycetes Stachybotrys									
Stemphylium			_						
Torula									
Ulocladium									
Zygomycetes		22/20		100					
Background debris (1-4+)††	2+	3	21		2+		2+		
Hyphal fragments/m3	< 13		< 13		< 13		< 13		
Pollen/m3	< 13		< 13		< 13		< 13		
Skin cells (1-4+)	<1+		<11		< 1+		1+		
Sample volume (liters)	75		75		75		75		
§ TOTAL SPORES/m3		110		53		13		130	

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. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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.

[†] 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 spares 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,

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:		3-5672; U06		3-5473: Level Stacks	
Comments (see below)		None		None	
Lab ID-Version‡:	97.	25807-1	97	25809-1	
Analysis Date:	12/	14/2018	12/	/14/2018	
	raw ct.	spores/m3	raw ct.	spores/m3	
Ascospores				5.50	
Basidiospores	1	13	3	40	
Chaetomium					
Cladosporium					
Curyularia					
Epicoccum	11.50				
Fusarium					
Myrothecium					
Nigrospora					
Other brown	1	13			
Other colorless					
Penicillium/Aspergillus types†	2	27	2	27	
Pithomyces					
Rusts					
Smuts, Periconia, Myxomycetes			4	53	
Stachybotrys					
Stemphylium					
Torula					
Ulocladium		x			
Zygomycetes					
Background debris (1-4+)††	2+		2+		
Hyphal fragments/m3	< 13		< 13		
Pollen/m3	< 13		< 13		
Skin cells (1-4+)	<14		1+		
Sample volume (liters)	75		75		
§ TOTAL SPORES/m3		53		120	

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. The limit of detection is the analytical sensitivity (in spores/m^3) multiplied by the sample volume (in liters) divided by 1000 liters.

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.

[†] 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.



Report for:

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

Regarding:

Project: JFK EML ID: 2059066

Approved by:

Operations Manager Joshua Cox

Dates of Analysis: Spore trap analysis: 12-14-2018

Service SOPs: Spore trap analysis (EM-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 items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customor 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 haid to the Company by the client therefore. Test Results exceed the amount paid to the Company by the client therefor.

EMLab P&K's LabServe® reporting system includes automated fail-safes to ensure that all AIHA-LAP, LLC quality requirements are met and notifications are added to reports when any quality steps remain pending.

EMLab P&K

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

CHARLES BEREIT DEPONDED NOW VEGRETE METHODOLOGY

Location:	Ou	2733-56 tside Load		i.		2733-54 Outside				2736-31 U18				2736-54 3rd Fl Stac		
Comments (see below)		None				None	1			None	8			None		
Lab ID-Version‡:		9725783	3-1			972578	5-1			9725787	7-1			9725789	9-1	
Analysis Date:		12/14/20	118			12/14/20	316			12/14/20	018			12/14/20	018	
Sample volume (liters)		75	210.70			75			ľ	75				75	1000	
Background debris (1-4+)††		2+	-			2+	-			21			2+			
	(5W-\$1)	Count/m3	Di/mis	24	raw ct	Count'm3	DL/m3*	36	raw ct.	Count/m3	DL/m3*	20	raw ct	Counting	DLZm3*	36
Hyphal fragments						200							15		-8	115
Pollen § TOTAL FUNGAL SPORES	26	350	n/a	100	8	110	10/a	100	4	40	ıt'a	100	66	880	n/n	100
Ascospores	3	67	13	19	1	13	13	13	-	- 100	1-1-0	100	1	13	13	2
Dasidiospores	7	93	13	27	3	40	13	38				<u> </u>	7	9.3	13	11
Chactemium	- 00	5000	1	120000	100		-	Services.						5		
Cladosporium	3	40	13	12	15	13	13	1.3			Aug Page		10	13	13	-3
Other brown	1	13	13	-1					1	. 13	13	13	Same	600	77.230	10.2
Penicillians/Aspergillus types	9	120	1.3	35	1:	13	1.3	13				1200	56	750	1.3	85
Rusts		75740	-			i nico	100	lane.			-		57.0	svez -		100
Smuts, Periconia, Myxomycetes	1	13	13	4	1	13	13	13	2	27	13	67	- 1	13	13	2
Stachybotrys						79-5					1	_				
Stemphylium					1	13	13	13								
Torula	.11.		1 1													
Ulocladium			-									<i>8</i> -	3 1			
Zygomycetes										8		V.			N	

Comments:

Spare 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/limit of detection is the Count/m°3 divided by the raw count, expressed in Count/m°3.

fi Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the oir) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 41 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.

\$ A "Version" indicated by "x" after the Lab 1D0 with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x". \$ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

Acrotech Laboratories, Inc.

EMLab ID. 2059066, Page 2 of 5

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

EMLab P&K 1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University C/O; Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

Location:	Stac	2733-56 k Area Lan		el		2733-57 1.23				2733-54 L03	74:		Main	2733-56 Level <u>GA</u>		esk
Comments (see below)	- 3000	None				None				None				None		
Lab ID-Version‡:		9725791	1-1			9725793	3-I	-		9725793	5-1			9725797	7-1	
Analysis Date:		12/14/20	118			12/14/20	018			12/14/20	118			12/14/20	18	
Sample volume (liters)		75				75				75				75		
Background debris (1-4+)) i		11	V.			11			2+				2+			
	raw ct.	Count/m3	D1.6m3*	96	raw et.	Countini3	DL/m3*	54	raw et	Count/m2	DL/m3*	95	TAWKE	Count/or3	DL/m3*	95
Hypkal Ragments				4.50	1	13	13	n/a								
Pollen	1	13	13	n/a		77.51-5	1 1000		1	13	13	n/a	1	13	13	n/a
§ TOTAL FUNGAL SPORES	2	27	n/a	100	10	130	11/8	100	. 5	67	n/a	100	33	440	n/a	100
Ascospores	1	13	13	50	1	13	13	10			10-2		1	13	13	.3
Basidiospores									2	27	13	40	- 6	80	13	18
Chactomium																
Cladosporium										_			1			
Other brown			1000	300		- 200		2000	63	190000				3555		
Penicillium/Aspergillus types	I I	13	13	50	9	120	13	90	2	27	13	40	23	310	13	70
Rusts									-	- 72			20 1	740	1000	- 2
Smuts, Periconia, Myxomycetes									1	13	13	20	3	40	13	9
Stachy botry's				<u></u>				_	_		3					
Stemphylium										-	-	-			+	
Torula			_		1		2								-	
Ufocladium			-					_	-	_	4				-	
Zygomyceles	5.8		1								T				1	

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/limit of detection is the Count/m^3 divided by the raw count, expressed in Count/m^3.

A "Version" indicated by "x" after the Lab ID9 with n value of "x". § Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

Aerotech Laboratories, Ige

EMLab ID: 2059066, Page 3 of 5

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

^{††}Background debus 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 1+ background debus should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

EMLab P&K

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018 Client: Eastern Washington University

C/O; Mr. Chad Johnson

Re: JFK

Location:		2733-54 Ref De				2736-29 Aut Wom			M	2733-56 23 Center (2733-54 U08	0.004	
Comments (see below)		None				None				None				None		
Lab ID-Version‡:		9725799	0-1			972580	1-1			9725803	3-1		9725805-1			
Analysis Date:		12/14/20	18			12/14/20	018			12/14/20	018	0	12/14/2018			
Sample volume (liters)		75	(5 (0))			75				75			75			
Background debris (1-4+)î î		2+			21					21	140000000000	بالمسا	2+			
Dackey Olima Victoria (1 1-7)	raw et	Count/m3	DL/m3*	95	ray et	Count/m3	DL/m3*	96	rzw et.	Count/m3	D1/m3*	55	raw et	Count/m3	DL/m3*	14
Hyplind fragments Pollen													-			
§ TOTAL FUNGAL SPORES	8	110	n/a	100	4	53	n/a	100	1	13	n/n	100	10	130	n'a	100
Ascospores	3	40	1.3	38	100		-	1					2	27	13	40
Basidiospores Chactonium	3	10	13	38	3	40	13	7.5	1	13	13	100	4	53	13	40
Cindosporium						13	13	25				_	-		-	-
Other brown Penicillium/Aspergillus types Rosts	2	27	13	25				15					1	53	13	40
Smuts, Periconia, Myxomycetes Stachybotrys																
Stemphylium Touda	+ 1															
Uloctadium Zygomyceles											-	-				

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/limit of detection is the Count/in^3 divided by the raw count, expressed in Count/in^3.

Aerotech Laboratories, Inc.

EMILab ID: 2059066, Page 4 of 5

^{*}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 much from 1+ (low) to 41 (logh). 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.

[‡] A "Version" indicated by -"x" after the Lab ID." with a value greater than 1 indicates a sample with nmended data. The revision number is reflected by the value of "x". § Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

EMLab P&K

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt; 12-12-2018 Date of Report: 12-14-2018

Location:		2733-5672 1106	4			2733-5473 Upper Level S						
Comments (see below)		None				None						
Lab ID-Version‡:		9725807-1				9725809-1						
Analysis Date:		12/14/2018	li.		12/14/2018							
Sample volume (liters)		75				75						
Background debris (1-41)††		21			2+							
	raw et	Count/m3	DL/m3*	55	raw et.	Count/m.)	DL/m3*	76				
Hyphal fragments Pollen												
§ TOTAL FUNGAL SPORES	4.	53	ti/a	100	9	120	n/a	100				
Ascospores	V (06	1 000-1			715		- va				
Basidiospores	1 1	13	13	25	3	40	13	33				
Chactomium												
Cladosperium												
Other brown	1	13	13	25								
Penieillium/Aspergillus types Rusts	2	27	13	50	2	27	13	22				
Smuts, Periconia, Myxomyeetes					4	53	13	44				
Stachybotrys Stemphylium						324						
Forula				Carrie X	- Y			+				
Ulocladium Zygomycetes												

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/limit of detection is the Count/in 3 divided by the row count, expressed in Count/in 3.

† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the enalyst. It is rated from 1+ (low) to 41 (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to secount for samples volumes when evaluating dust levels.

\$ A "Version" indicated by "x" after the Lab 1D# with a value greater than V indicates a sample with amended data. The revision number is reflected by the value of "x", \$ Total Fungal Spores has been rounded to two significant figures to reflect analytical precision.

Aerotech Laboratories, Inc.

EMI ah ID: 2059066, Page 5 of 5

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



Report for:

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

Regarding:

Project: JFK EML ID: 2059066

Approved by:

Operations Manager Joshua Cox

Dates of Analysis: Spore trap analysis other particles-Supplement: 12-14-2018

Service SOPs: Spore trap analysis other particles-Supplement (EM-MY-S-1038) All IA-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 rolate only to the items tested.

EMLab P&K ("the Company") 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.

EMI.ab P&K's LabServe® reporting system includes automated fail-safes to ensure that all AIHA-LAP, LLC quality requirements are met and notifications are added to reports when any quality steps remain pending.

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

OTHER BIOLOGICAL PARTICLES REPORT: NON-VIABLE METHODOLOGY

Location:	Outside	3-5647: e Loading Oock	Outs	3-5480; ide Roof		6-3102: U18	3rd FI	6-5470: Stack Area
Comments (see below)	1	None	7	None	1	Vone	1	None
Lab ID-Version:	972	5784-1	972	5786-1	972	5788-1	972	25790-1
	raw ct.	particles/m3	raw ct.	particles/m3	raw ct.	particles/m3	raw et.	particles/m2
POLLEN				,				
Grass (Poaceae)						7		
Mulberry (Morus)								
Oak (Quercus)								100
Other								
Pine (Pinaccac)				77_				
Ragweed (Ambrosicae)								
Sycamore (Platanus)								
OTHER PLANT								
Algae								
Diatoms								
Fern, moss, etc. spores								
Other (wood, trichomes, etc.)								
OTHER PARTICLES:								
ANIMAL								
Epithelial (skin) cells	42	560	7	93	42	560	203	2,700
Llair								
Insect parts								
Mites								
FUNGI								
Hyphal fragments								
NON-BIOLOGICAL				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	10.150	S-yen.	9.000	Q. Constant
Cellulose fibers	- 11	150	2	27	12_	160	22	290
Glass fiber			20					13
Starch particles			_1_	13			2	27
Synthetic fibers							2	27
Background debris (1-4+)†	2+		2-1-		2+		2+	
Sample volume (liters)	75		75	Vet - 1	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 seanning 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.

\$ 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".

Acrotech Laboratories, Inc.

EMLab ID: 2059066, Page 2 of 5

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

OTHER BIOLOGICAL PARTICLES REPORT: NON-VIABLE METHODOLOGY

Location:	Stack A	3-5629; irea Lower Level		3-5701: L23		3-5474; L03	Main L	3-5669: evel GA - o Desk
Comments (see below)	1	None	1	None		None	1	None
Lab ID-Version‡:	972	5792-1	972	5794-1	972	5796-1	972	5798-1
	raw ct.	particles/m3	raw ct.	particles/m3	raw ct.	partieles/m3	raw ct.	particles/m.
POLLEN								
Grass (Poaceae)	Air S							
Mulberry (Morus)								
Oak (Quercus)								
Other		13	0		1	13	1	13
Pine (Pinaceae)		1						
Ragweed (Ambrosieae)								
Sycamore (Platanus)		91						
OTHER PLANT								
Algae								
Diatoms								
Fern, moss, etc. spores								
Other (wood, trichomes, etc.)			1	13				
OTHER PARTICLES:						97		
ANIMAL								
Epithelial (skin) cells	23	310	6	80	19	250	88	1,200
Hair								- Theorem
Insect parts								
Mites						1	9	
FUNGI	A Larman							
Hyphal fragments			1	13				
NON-BIOLOGICAL				- 100				
Cellulose fibers	3	40	6	80	7	93	14	190
Glass fiber				5)			1	13
Starch particles							3	40
Synthetic fibers					1	13	2	27
Background debris (1-4+)†	1+	100	1+		2+		2+	
Sample volume (liters)	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.

Carbonaccous 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.

[†] 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".

Aerotech Laboratories, Inc.

EMLab ID: 2059066, Page 3 EMLab ID: 2059066, Page 3 of 5

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

OTHER BIOLOGICAL PARTICLES REPORT: NON-VIABLE METHODOLOGY

Location:		3-5452; f Desk		6-2996: /om Bath	M23 (3-5638: Center Of Loom		3-5490: U08
Comments (see below)	I	None	1	Vone	1	None	1	Vone
Lab ID-Version‡:	972	25800-1	972	5802-1	972	25804-1	972	5806-1
*	raw ct.	particles/m3	raw ct.	particles/m3	raw ct.	particles/m3	raw et.	particles/m3
POLLEN		1						
Grass (Poaceae)								
Mulberry (Morus)								
Oak (Quercus)				JI .				
Other								
Pine (Pinaceae)								
Ragweed (Ambrosieae)								
Sycamore (Platanus)								
OTHER PLANT								
Algac								
Diatoms						N_		
Fern, moss, etc. spores								
Other (wood, trichomes, etc.)				le le			1	13
OTHER PARTICLES:								
ANIMAL								
Epithelial (skin) cells	78	1,000	58	770	32	430	101	1,300
Llair		100						
Insect parts								
Mites								
FUNGI								
Hyphal fragments								
NON-BIOLOGICAL								
Cellulose fibers	13	170	13	170	12	160	15	200
Glass fiber			2	27				
Starch particles	2	27	_1_	13				
Synthetic fibers	2	27	2	27				
Background debris (1-4+)†	2+		21	:00 (T)	2+		2+	
Sample volume (liters)	75		75	12	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 11 to 4+ with 4+ indicating the largest amounts. To evaluate dust levels it is important to account for differences in sample volume.

‡ 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". Aerotech Laboratorics, Inc. EMLab ID: 2059066, Page 4 of 5

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

OTHER BIOLOGICAL PARTICLES REPORT: NON-VIABLE METHODOLOGY

Location:	2733-5672: U06			33-5473: Level Stacks	
Comments (see below)	8	None		None	
Lab ID-Version‡:	97	25808-I	9725810-1		
Tally its - version g.	raw et.	particles/m3	raw ct.	particles/m3	
POLLEN					
Eucalyptus (Eucalyptus)					
Grass (Poaceae)					
Mulberry (Morus)					
Oak (Quercus)					
Other					
Pinc (Pinaceae)					
Ragweed (Ambrosieae)					
Sycamore (Platanus)					
OTHER PLANT					
Algae					
Diatoms					
Fern, moss, etc. spores					
Other (wood, trichomes, etc.)			111	13	
OTHER PARTICLES:					
ANIMAL.				- 11	
Epithelial (skin) cells	40	530	195	2,600	
Hair					
Insect parts					
Mites					
FUNGI					
Hyphal fragments					
Hyphal fragments NON-BIOLOGICAL		7,000		er doct integral	
Cellulose fibers	9	120	17	230	
Glass fiber					
Starch particles			3	40	
Synthetic fibers			2	27	
Background debris (1-4+)†	2+		2+		
Sample volume (liters)	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.

Carbonaccous 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.

‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than I indicates a sample with amended data. The revision number is reflected by the value of "x".

Aerotech Laboratories, Inc.

EMLab ID: 2059066, Page 5 EMLab ID: 2059066, Page 5 of 5

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldRANGETM, Local Climate; Extended Outdoor Comparison

Outdoor Location: 2733-5647, Outside Loading Dock

Fungi Identified	data				Typical Outdoor Data for: December in Washington† EMLab Local Climate code! Annual Temp, A Elev., B Rain, A Temp. Range (n‡=17)					Typical Outdoor Data for: The entire year in Washington's EMI ab Local Climate code' A Annual Temp, A Elev., B Rain, A Temp, Range (n2-905)				
Project zip code 99004	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %	
Generally able to grow indoors*														
Alternaria		1.68	300	*	100	-	11	13	13	27	53	93	28	
Bipolaris/Drechslera group	*	y :		96	((6))	-	< 2	7	7	13	27	50	2	
Chactomium	2	23	25	2	-	2	2	7	13	13	23	40	6	
Cladosporium	40	30	53	110	300	520	8.3	53	110	400	1,300	2,500	83	
Curvularia	- B.	3		•		2	< 2	8	13	13	19	39	2	
Nigrospora	-	23	17	5	-	*	< 2	-	853	-	•		2	
Other brown	13	. 5	÷=			*	30	7	13	24	53	53	30	
Penicillium/Aspergillus types	120	53	89	160	320	510	87	53	53	160	480	840	84	
Stachybotrys	- 3	948	92	27	29	÷.	2			743	4	32	2	
Stemphylium	2	8	14	23	12	¥.	< 2	2	Œ	3	720	22	2	
Torula	- 3				27	50	2	13	13	13	53	66	4	
Seldom found growing indoors**														
Ascospores	67	27	53	210	850	930	55	53	89	270	1,000	1,700	78	
Basidiospores	93	27	53	190	1,100	2,400	85	53	130	530	1,900	4,100	91	
Rusts	92	523	5	12	32	/A _{ES}	4	13	1.3	26	53	100	18	
Smuts, Periconia, Myxomyeetes	13	13	13	27	140	270	57	13	27	160	1,000	2,000	67	
§ TOTAL SPORES/m3	350													

^{&#}x27;EMLab Local Climate codes are a climate classification scheme for statewide geographic areas. The MoldRANGE'M Local Climate report uses the sampling location zip code to identify the EMLab Local Climate code in that area. Using information available from the NOAA weather database, the EMLab Local Climate code sharpens the precision of the MoldRANGE'M reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Local Climate code system can be found on the last page of this report.

[†]The Typical Outdoor Data represents the typical outdoor spore levels across the state for the time period and EMLab Local Climate code 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 not enough data is available to make a statistically meaningful assessment, it is indicated with a dash.

[‡] n is the sample size used to calculate the MoldRANGE™ Local Climate data summarized in the table.

^{*} 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.

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

1501 West Knudson Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

(800) 651-4802 Fax (623) 780-7695 www Date of Sampling: 12-05-2018

Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

MoldRANGETM, Local Climate; Extended Outdoor Comparison

Outdoor Location: 2733-5480, Outside Roof

Fungi Identified	Outdoor data		Dee	ember in ab Local o, A Elev	loor Da Washing Climate , B Rain -47)	glon† code¹		Typical Outdoor Date The entire year in Washing EMLab Local Climate co Range A Annual Temp, A Elev., B Rain, A (n ² ₂ , 905)				ington† code	igton† ndc'
Project zip code 99004	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*							53945						cess
Alternaria		20	12	₩.		*	11	13	13	27	53	93	28
Bipolaris/Drechslera group	-	28	Ş	9	2	Ş	< 2	7	7	13	27	50	2
Chaetomium	(2)	23	72		-	2	2.	7	13	13	23	40	6
Cladosporium	13	30	53	110	300	520	83	53	110	400	1,300	2,500	83
Curyularia	-	60	35	50	3	3	<.2	8	13	13	19	39	2
Nigrospora	8	30	22	*0	37.5	*	< 2	35	后 禁 员		53	17	2
Other brown	*	98	334	8	4	8	30	7	13	24	53	53	30
Penicillium/Aspergillus types	13	53	89	160	320	510	87	53	53	160	480	840	84
Stachybotrys	-	120	20	2		2	2		1.04	12	20	ō-	2
Stemphylium	13	1.70)	15	23	17.1	-	< 2	1.4	121		26	12	2
Torula	-	(()	<u>;</u>	±3	20	-	2	13	13	13	53	66	4
Seldom found growing indoors**													
Ascospores	13	27	53	210	850	930	55	53	89	270	1,000	1,700	78
Basidiospores	40	27	53	190	1,100	2,400	85	53	130	530	1,900	4,100	0.000
Rusts	- 8	12	32	20	12	-	4	13	13	26	53	100	18
Smuts, Periconia, Myxomycetes	13	13	13	27	140	270	57	13	27	160	1,000	2,000	67
§ TOTAL SPORES/m3	110												

⁴EMLab Local Climate codes are a climate classification scheme for statewide geographic areas. The MoldRANGETM Local Climate report uses the sampling location zip code to identify the EMLab Local Climate code in that area. Using information available from the NOAA weather database, the EMLab Local Climate code sharpens the precision of the MoldRANGETM reporting system, providing more reliable estimates of the range and average concentrations of the different airborne fungal spore types for each region. Additional information on the EMLab Local Climate code system can be found on the last page of this report.

†The Typical Outdoor Data represents the typical outdoor spore levels across the state for the time period and EMLab Local Climate code 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 not enough data is available to make a statistically meaningful assessment, it is indicated with a dash.

In is the sample size used to calculate the MoldRANGE™ Local Climate data summarized in the table.

§ 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.

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

Understanding EMLab Local Climate Codes

Outdoor airborne spore concentrations are strongly influenced by climate and weather patterns, often resulting in pronounced seasonal and diurnal cycles (Burge 1995). The seasonal climatic changes directly affect the growth cycle of plants, thereby influencing fungal growth, spore maturation, and release cycles. By evaluating outdoor spore concentrations across similar climatic zones rather than for the state as a whole, it is possible to provide a more representative estimate of typical outdoor spore levels and frequency of occurrence for different airborne fungal spore types in a given area.

The EMLab Local Climate code system is a novel and patent pending classification system that uses data from the NOAA -National Oceanic and Atmospheric Administration database to define unique climate regions by state. The following local climate variables, for each statewide zip code, are obtained from NOAA and assigned a letter code of A (above the statewide average for that variable) or B (below the statewide average for that variable):

- 1. Annual High Temperature
- 2. Elevation
- 3. Rainfall/Precipitation
- 4. Monthly Temperature Range

The result is a 4-character code assigned to each statewide zip code, referred to as the Local Climate Code. Below are some examples of decoded Local Climate Codes:

AAAA = Above avg. Annual High Temperature, Above avg. Elevation, Above avg. Rainfall/Precipitation, Above avg. Monthly Temperature Range AABB - Above avg. Annual High Temperature, Above avg. Elevation, Below avg. Rainfall/Precipitation, Below avg. Monthly Temperature Range BBAA - Below avg. Annual High Temperature, Below avg. Elevation, Above avg. Rainfall/Precipitation, Above avg. Monthly Temperature Range

The actual outdoor air sample data from matching local climate codes in each state are then compiled in a manner relating typical spore concentrations and frequency of occurrence.

The NOAA local climate variables were selected by mapping data points from a subset of approximately 145,000 weather and geographic database entries to over 80,000 outdoor spore trap samples with known zip codes and assessing them using orthogonal array experimental design techniques. The results were then compared to the typical ranges of spore types found when grouping zip codes using the Koppen-Geiger climatic classification system; a commonly used climatic system that provides an objective numerical definition in terms of climatic elements such as temperature, rainfall, and other seasonal characteristics. The EMLab Local Climate codes showed improved granularity and refinement of the zip code groupings, implying a better representation of the expected range of spore types to be found within an individual zip code.

The values on this report were calculated by obtaining the four variables listed above from the over 585 million data points of weather and geographic information available in the NOAA database, and determining the frequencies and percentile values of spore types by utilizing over 180,000 EMLab P&K outdoor spore trap samples with known zip codes.

This report groups statewide zip codes in relation to these EMLab Local Climate codes and summarizes MoldRANGETM data by month and year within each FMLab Local Climate code.

Burge, Harriet, A. Bioacrosols: Boca Raton: Lewis Publishers, pp. 163-171, 1995.

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 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, EMLab P&K may not have received and tested a representative number of samples for every region or time period. 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.

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATIM: Supplementary Statistical Spore Trap Report

Outdoor Summary: 2733-5647: Outside Loading Dock

Species detected	<100	Outdo	or sample	일시 하는 그 하나 사람이 있다면 걸	Typical outdoor ranges (North America)			Freq.	
Ascospores					67	13 -	240	- 6,600	77
Basidiospores					93] 13 -	480	- 24,000	91
Cladosporium					40	27 -	530	- 9,100	90
Other brown					13] 7-	22	- 160	27
Penicillium/Aspergillus types			10.000		120] 13 -	190	- 2,700	66
Smuts, Periconia, Myxomycetes					13	7 -	53	- 1,100	66
Total					350]			

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: 2736-3102: U18

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreemen (indoor/o		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 11%	dF; 11 Result; 12.2179 Critical value: 19.6752 Inside Similar: Yes	Result:	0.5000	dl': 6 Result: -0.5286 Critical value: 0.7714 Outside Similar: No	Score; 110 Result: Low
Species	Detected		9.000	Spores/m3	7-00000 to 0.5-
		<100	IK.	10K	>100K
	Other brown				
Smuts, P	ericonia, Myxomycetes				27
	Total				40_

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATIM: Supplementary Statistical Spore Trap Report

Location: 2736-5470: 3rd Fl Stack Area

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearma correlate (indoor/c	ion***	MoldSCORE**** (indoor/outdoor) Score: 207 Result: Medium	
Result: 254%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes	Resu	lt: 0.9091	dF; 6 Result: 0.9000 Critical value: 0.7714 Outside Similar: Yes			
Species 1	Detected			Spore	s/m3		
		<100	1K		10K	>100	OK
	Ascospores						13
	Basidiospores				THE		93
	Cladosporium				1111		13
Doniel	illium/Aspergillus types				11111		750
	ericonia, Myxomycetes				TITI		13
Smuts, 1	Total					i i i i i i i	880

Location: 2733-5629: Stack Area Lower Level

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	(indoor/outdoor) correlation*** (indoor/outdoor) Result: 0.5000 dF; 6 Result: 0.6857		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 7%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes			Score: 102 Result: Low			
Species	Detected			Spores/m3			
92		<100	1K_	10K	>100K		
	Ascospores				13		
Penic	illium/Aspergiffus types				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	Total				27		

Location: 2733-5701: L23

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	(indoor/outdoor) correlation***		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 38%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes	Result	: 0.5000	dF: 6 Result: 0.7286 Critical value: 0.7714 Outside Similar: No	Score: 118 Result: Low
Species	Detected	eton	1K	Spores/m3	>100K
Penic	Ascospores illium/Aspergillus types Total				130 130 130

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.cmlab.com

Client: Eastern Washington University C/O: Mr. Chad Johnson

Rc: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATIM: Supplementary Statistical Spore Trap Report

Location: 2733-5474: L03

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)		ent ratio** r/outdoor)	correl	nan rank ation*** /outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 19%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes	Resu	lt: 0.6667	dF: 6 Result: 0.6571 Critical value: 0.7714 Outside Similar: No		Score: 104 Result: Low		
Species	Detected	<100	IK	Spo	res/m3 10K	>1001	C	
	Basidiospores illium/Aspergillus types Periconia, Myxomycetes Total						27 27 13 67	

Location: 2733-5669: Main Level GA - Info Desk

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	(indoor/outdoor)		Spearman ran correlation*** (indoor/outdoo	(indoor/outdoor)
Result: 128%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes	Result	0.8000	dF: 6 Result: 0.7286 Critical value: 0.77 Outside Similar: N	7. 5.0
Species	Detected			Spores/m3	
•		<100	IK	10K	>100K
	Ascospores				13
	Basidiospores				80
Penic	illium/Aspergillus types	The second secon			310
	ericonia, Myxomycetes				40
	Total	Commence of the Party of the Pa			440

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATIM: Supplementary Statistical Spore Trap Report

Location: 2733-5452: Ref Desk

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.6667		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor) Score: 104 Result: Low	
Result: 30%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes			dF: 6 Result: 0,7714 Critical value: 0.7714 Outside Similar: Yes		
Species	Detected			Spores/m3		
		<100	1K	10K	>100K	
	Ascospores				40	
	Basidiospores				40	
Penic	illium/Aspergillus types				27	
	Total					

Location: 2736-2996: Aut Wom Bath

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor) Result: 0.5000		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
Result: 15%	dF; 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes			dl': 6 Result: 0.1714 Critical value: 0.7714 Outside Similar: No	Score: 105 Result: Low		
Species	Detected	2100	1175	Spores/m3	>100K		
	Basidiospores Other brown Total		1K 	10K	1000 40		

Location: 2733-5638: M23 Center Of Room

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.2857		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result; 3%	dF; 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes			dl': 6 Result: 0.5571 Critical value: 0.7714 Outside Similar: No	Score: 101 Result: Low
Species 1	Detected			Spores/m3	AND AND AND A SECOND ASSESSMENT OF THE ASSESSMEN
		<100	IK	10K	>100K
Basidiospores Total					13
					13_

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATTM: Supplementary Statistical Spore Trap Report

Location: 2733-5490: U08

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 38%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Ycs	Resul	i: 0.6667	dl': 6 Result: 0.9429 Critical value: 0.7714 Outside Similar: Yes	Score: 107 Result: Low			
Species .	Detected	<100	1K	Spores/m3	>100K			
Ascospores Basidiospores Penicillium/Aspergillus types Total					53 53 1 1 1 1 1 30			

Location: 2733-5672: U06

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.6667		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 15%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes			dF: 6 Result: 0.5857 Critical value: 0.7714 Outside Similar: No	Score: 105 Result: Low			
Species	Detected	Spores/m3						
		<100	1K	10K	>100K			
	Basidiospores				13			
Other brown Penicillium/Aspergillus types								
					27			
	Total	The second secon			53			

(800) 651-4802 Fax (623) 780-7695 www.cmlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATIM: Supplementary Statistical Spore Trap Report

Location: 2733-5473: Upper Level Stacks

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 34%	dF: 11 Result: 12,2179 Critical value: 19,6752 Inside Similar: Yes	Res	ult: 0.6667	dF: 6 Result: 0.1571 Critical value: 0.7714 Outside Similar: No	Score: 110 Result: Low			
Species	Detected	<100	IK	Spores/m3	>100K			
Basidiospores Penicillium/Aspergillus types Smuts, Periconia, Myxomycetes Total					40 27 53 120			

^{*} The Priedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (110) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

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 ranges" are based on the results of the analysis of samples delivered to and analyzed by 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. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. FMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

^{**} An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

^{*6*} The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

^{***} MoldSCOREIM is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATTM: Supplementary Statistical Spore Trap Report

Outdoor Summary: 2733-5480: Outside Roof

Species detected	<100	Outdoo	r sample s	spores/m3 >100K	Typical outdoor ranges (North America)			Freq.	
Ascospores		TTIIII		THIM	13	13 -	240	- 6,600	77
Basidiospores					40	13 -	480	- 24,000	91
Cladosporium					13	27 -	530	- 9,100	90
Penicillium/Aspergillus types					13	13 -	190	- 2,700	66
Smuts, Periconia, Myxomycetes					13	7 -	53	- 1,100	66
Stemphylium					13	7 -	13	- 110	3
Total					110				

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: 2736-3102: U18

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 38%	dF; 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.0357 Critical value: 0.6786 Outside Similar: No	Score: 110 Result: Low			
Species	Detected	<100 IK	Spores/m3	>100K			
Other brown Smuts, Periconia, Myxomycetes Total				13 27 1 40			

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATIM: Supplementary Statistical Spore Trap Report

Location: 2736-5470: 3rd Fl Stack Area

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		correla	Spearman rank correlation*** (indoor/outdoor)			MoldSCORE**** (indoor/outdoor)		
Result: 839% dlf: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes		Resi	ult: 0.9091	dF: 6 Result: 0.6000 Critical value: 0.7714 Outside Similar: No		Score: 209 Result: Medium				
Species Detected		Spores/m3								
		<100	IK		10K	>100K				
	Ascospores						Ш	13		
	Basidiospores		1111111		THE		Ш	93		
	Cladosporium				TITI		HIII	13		
Penicillium/Aspergillus types Smuts, Periconia, Myxomycetes					THE			750		
								13		
timitus, t	Total						TITI	880		

Location: 2733-5629: Stack Area Lower Level

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 24%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes	Result: 0.5000	dF: 6 Result: 0.2714 Critical value: 0.7714 Outside Similar: No	Score: 102 Result: Low			
Species	Detected	<100 1K	Spores/m3	>100K			
Ascospores Penicillium/Aspergillus types Total				13 13 1 1 1 1 27			

Location: 2733-5701: L23

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.5000					MoldSCORE**** (indoor/outdoor)				
Result: 126%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes						Score: 119 Result: Low				
Species	Detected	<100 IK					>100K				
Penic	Ascospores illium/Aspergillus types Tot al										13 120 130

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATTM: Supplementary Statistical Spore Trap Report

Location: 2733-5474: 1.03

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)						
Result: 63%	dF; 11 Result; 12.2179 Critical value; 19.6752 Inside Similar; Yes	Resu	lt: 0.6667	dF; 6 Result: 0.7000 Critical value: 0.7714 Outside Similar: No	Score: 104 Result: Low			
Species	Detected	Spores/m3						
		<100	1K	10K	>100K			
	Basidiospores				27			
Penicillium/Aspergillus types		- <u> </u>			27			
	Smuts, Periconia, Myxomycetes							
17)	Total				67			

Location: 2733-5669: Main Level GA - Info Desk

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.8000		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 421%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes			dF: 6 Result: 0.5571 Critical value: 0.7714 Outside Similar: No	Score: 149 Result: Low			
Species 1	Detected	1		Spores/m3	50000000			
		<100	IK	10K	>100K			
	Ascospores				1			
	Basidiospores				80			
Penicillium/Aspergillus types Smuts, Periconia, Myxomycetes					310			
					40			
	Total	The second second second			1			

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATTM: Supplementary Statistical Spore Trap Report

Location: 2733-5452: Ref Desk

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.6667		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)			
Result: 101%	dF; 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes			dF; 6 Result: 0.7000 Critical value: 0.7714 Outside Similar: No	Score: 104 Result: Low			
Species	Detected			Spores/m3				
		<100	IK	10K	>100K			
	Ascospores				40			
Basidiospores Penicillium/Aspergillus types					40			
					27			
	Total				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			

Location: 2736-2996: Aut Wom Bath

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.2500		Spearman rank correlation*** (indoor/outdoor)	Score: 105 Result: Low	
Result: 50%	dF; 11 Result: 12,2179 Critical value: 19,6752 Inside Similar: Yes			dF: 7 Result: 0.4643 Critical value: 0.6786 Outside Similar: No		
Species Detected Basidiospores Other brown Total		Spores/m3				
		<100	1K	10K	>100K	
					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
					53	

Location: 2733-5638: M23 Center Of Room

square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)		
dF: 11 Result: 12,2179 Critical value: 19,6752 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: 1.0000 Critical value: 0.7714 Outside Similar: Yes	Score: 101 Result: Low		
Species Detected		Spores/m3			
	<100 IK	10K	>100K		
•			13		
•	(indoor variation) dF: 11 Result: 12,2179 Critical value: 19,6752 Inside Similar: Yes etected Basidiospores	(indoor variation) dF: 11 Result: 0.2857 Result: 12,2179 Critical value: 19,6752 Inside Similar: Yes etected	(indoor variation) (indoor/outdoor) dF: 11 Result: 0.2857 dF: 6 Result: 12,2179 Result: 1.0000 Critical value: 0.7714 Outside Similar: Yes Outside Similar: Yes Sporcs/m3 etected Sporcs/m3 10K Basidiospores IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		

(800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTATIM: Supplementary Statistical Spore Trap Report

Location: 2733-5490: U08

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Agreement ratio** (indoor/outdoor)		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 126%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes	Resul	t: 0.6667	dF: 6 Result: 0,7000 Critical value: 0,7714 Outside Similar: No	Score: 108 Result: Low	
Species Detected		Spores/m3				
		<100	IK	10K	>100K	
	Ascospores				27	
Basidiospores					53	
Penicillium/Aspergillus types					53	
	Total				130	

Location: 2733-5672: U06

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.4444		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor) Score: 105 Result: Low	
Result: 50%	dF: 11 Result: 12.2179 Critical value: 19.6752 Inside Similar: Yes			dl: 7 Result: 0.2768 Critical value: 0.6786 Outside Similar: No		
Species Detected		Spores/m3				
		<100	1K	10K	>100K	
Basidiospores					1 1 1 1 1 1 13	
Other brown					13	
Penicillium/Aspergillus types Total					27	
					53	

1501 West Knudsen Drive, Phoenix, AZ 85027 (800) 651-4802 Fax (623) 780-7695 www.emlab.com

Client: Eastern Washington University

C/O: Mr. Chad Johnson

Re: JFK

Date of Sampling: 12-05-2018 Date of Receipt: 12-12-2018 Date of Report: 12-14-2018

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 2733-5473: Upper Level Stacks

% of outdoor total spores/m3	Friedman chi- square* (indoor variation)	Result: 0.6667		Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor) Score: 110 Result: Low	
Result: 114%	dF: 11 Result: 12,2179 Critical value: 19.6752 Inside Similar: Yes			dF: 6 Result: 0.6000 Critical value: 0.7714 Outside Similar: No		
Species Detected		Spores/m3 <100 1K 10K >100K				
Basidiospores Penicillium/Aspergillus types Smuts, Periconia, Myxomycetes Total			1K		40 27 53	

- * The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (110) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.
- ** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.
- *** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.
- **** MoldSCOREM is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&Kreserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

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 ranges" are based on the results of the analysis of samples delivered to and analyzed by 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. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.