BAD AXE
RESTORATION PRODUCTS

Particulate Conqueror Air Tests

Project 1

JC Builders-McHenry

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Project 2

JC - Des Plaines

Pre-Particulate Conqueror ... **Page 24**

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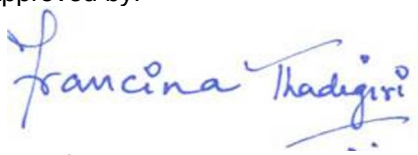
EMLab P&K
A TestAmerica Company

Report for:

Mark Douma
DryFx Restoration
966 Lambrecht Rd
Frankfort, IL 60423

Regarding: Project: JC Builders-McHenry-Pre; 1706 Jennifer Ln
EML ID: 1659041

Approved by:



Lab Manager
Francina Thadigiri

Dates of Analysis:
Spore trap analysis: 01-11-2017

Service SOPs: Spore trap analysis (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #176641

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 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.

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
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Client: DryFx Restoration
C/O: Mark Douma
Re: JC Builders-McHenry-Pre; 1706 Jennifer Ln

Date of Sampling: 01-09-2017
Date of Receipt: 01-11-2017
Date of Report: 01-12-2017

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	23535679: Basement-Pre		23535402: Main/1st Floor-Pre		23535319: 2nd Floor-Pre		23535315: Outside-Pre	
Comments (see below)	A		None		None		None	
Lab ID-Version‡:	7724115-1		7724116-1		7724117-1		7724118-1	
Analysis Date:	01/11/2017		01/11/2017		01/11/2017		01/11/2017	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria							4	53
Ascospores								
Basidiospores								
Bipolaris/Drechslera group								
Botrytis								
Chaetomium								
Cladosporium					1	53	5	270
Curvularia								
Epicoccum	1	13					1	13
Fusarium								
Myrothecium								
Nigrospora								
Other colorless							2	27
Penicillium/Aspergillus types†	48	1,400	18	960				
Pithomyces							1	13
Rusts	1	13						
Smuts, Periconia, Myxomycetes							2	27
Stachybotrys			1	13				
Stemphylium								
Torula								
Ulocladium								
Background debris (1-4+)††	2+		2+		2+		3+	
Hyphal fragments/m3	13		< 13		< 13		27	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	2+		2+		2+		< 1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		1,400		970		53		400

Comments: A) 30 of the raw count *Penicillium/Aspergillus* type spores were present as a 20 and a clump of 10.

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. 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.

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Re: JC Builders-McHenry-Pre; 1706 Jennifer Ln

Date of Sampling: 01-09-2017
Date of Receipt: 01-11-2017
Date of Report: 01-12-2017

MoldRANGE™, Local Climate; Extended Outdoor Comparison

Outdoor Location: 23535315, Outside-Pre

Fungi Identified	Outdoor data	Typical Outdoor Data for: January in Illinois† EMLab Local Climate code¹ B Annual Temp, A Elev., B Rain, A Temp. Range (n‡=66)						Typical Outdoor Data for: The entire year in Illinois† EMLab Local Climate code¹ B Annual Temp, A Elev., B Rain, A Temp. Range (n‡=926)					
Project zip code 60050	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	53	13	13	20	50	60	30	13	20	67	210	320	61
Bipolaris/Drechslera group	-	-	-	-	-	-	5	7	10	13	27	50	9
Chaetomium	-	-	-	-	-	-	5	7	7	13	53	200	4
Cladosporium	270	15	28	53	460	560	61	53	160	910	3,600	7,000	87
Curvularia	-	-	-	-	-	-	2	7	13	13	27	40	8
Epicoccum	13	-	-	-	-	-	20	13	13	40	110	200	54
Nigrospora	-	-	-	-	-	-	< 2	7	13	20	53	93	24
Other colorless	27	-	-	-	-	-	< 2	11	13	27	110	400	3
Penicillium/Aspergillus types	-	52	53	110	250	360	50	40	53	110	430	830	45
Pithomyces	13	-	-	-	-	-	3	7	13	27	92	150	27
Stachybotrys	-	-	-	-	-	-	2	-	-	-	-	-	2
Torula	-	-	-	-	-	-	2	7	8	20	47	80	6
Seldom found growing indoors**													
Ascospores	-	-	-	-	-	-	29	53	110	480	1,700	3,200	77
Basidiospores	-	27	53	110	310	500	53	53	160	720	3,100	6,500	83
Rusts	-	-	-	-	-	-	3	13	13	40	120	200	34
Smuts, Periconia, Myxomycetes	27	7	13	13	40	44	38	13	13	40	140	270	52
§ TOTAL SPORES/m3	400												

¹EMLab Local Climate codes are a climate classification scheme for statewide geographic areas. The MoldRANGE™ 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™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.

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Re: JC Builders-McHenry-Pre; 1706 Jennifer Ln

Date of Sampling: 01-09-2017
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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 MoldRANGE™ data by month and year within each EMLab Local Climate code.

References:

Burge, Harriet, A. Bioaerosols: 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.

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Date of Sampling: 01-09-2017
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MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 23535315: Outside-Pre

Species detected	Outdoor sample spores/m3 (<100 / 1K / 10K / >100K)	Typical outdoor ranges (North America)	Freq. %
Alternaria	53	7 - 33 - 530	44
Ascospores	< 13	13 - 210 - 6,400	77
Basidiospores	< 13	13 - 430 - 24,000	91
Cladosporium	270	27 - 480 - 9,900	90
Epicoccum	13	7 - 27 - 360	24
Other colorless	27	7 - 27 - 710	5
Penicillium/Aspergillus types	< 13	13 - 170 - 2,600	67
Pithomyces	13	7 - 25 - 520	15
Smuts, Periconia, Myxomycetes	27	7 - 53 - 910	64
Total	400		

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 occurence 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: 23535679: Basement-Pre

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 353%	dF: 2 Result: 1.3000 Critical value: 5.9915 Inside Similar: Yes	Result: 0.2222	dF: 8 Result: -0.5476 Critical value: 0.6190 Outside Similar: No	Score: 268 Result: High

Species Detected	Spores/m3 (<100 / 1K / 10K / >100K)
Epicoccum	13
Penicillium/Aspergillus types	1,400
Rusts	13
Total	1,400

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 23535402: Main/1st Floor-Pre

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 241%	dF: 2 Result: 1.3000 Critical value: 5.9915 Inside Similar: Yes	Result: 0.0000	dF: 8 Result: -0.3452 Critical value: 0.6190 Outside Similar: No	Score: 233 Result: Medium

Species Detected	Spores/m3 (<100 / 1K / 10K / >100K)
Penicillium/Aspergillus types	960
Stachybotrys	13
Total	970

Location: 23535319: 2nd Floor-Pre

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 13%	dF: 2 Result: 1.3000 Critical value: 5.9915 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: 0.7429 Critical value: 0.7714 Outside Similar: No	Score: 103 Result: Low

Species Detected	Spores/m3 (<100 / 1K / 10K / >100K)
Cladosporium	53
Total	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 (H0) 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.

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MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ 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.

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MoldSCORE™: Spore Trap Report

Outdoor Sample: 23535315 Outside-Pre

Fungi Identified	Outdoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3
Generally able to grow indoors*			
Alternaria		4	53
Bipolaris/Drechslera group		ND	< 13
Chaetomium		ND	< 13
Cladosporium		5	270
Curvularia		ND	< 13
Epicoccum		1	13
Nigrospora		ND	< 13
Other colorless		2	27
Penicillium/Aspergillus types†		ND	< 13
Pithomyces		1	13
Stachybotrys		ND	< 13
Torula		ND	< 13
Seldom found growing indoors**			
Ascospores		ND	< 13
Basidiospores		ND	< 13
Rusts		ND	< 13
Smuts, Periconia, Myxomycetes		2	27
Total			**400**

Location: 23535679 Basement-Pre

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		ND	< 13	100
Curvularia		ND	< 13	100
Epicoccum		1	13	104
Nigrospora		ND	< 13	100
Penicillium/Aspergillus types†		48	1,400	268
Stachybotrys		ND	< 13	100
Torula		ND	< 13	100
Seldom found growing indoors**				
Ascospores		ND	< 13	100
Basidiospores		ND	< 13	100
Rusts		1	13	105
Smuts, Periconia, Myxomycetes		ND	< 13	100
Total			**1,387**	**Final MoldSCORE** **268**

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MoldSCORE™: Spore Trap Report

Location: 23535402 Main/1st Floor-Pre

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		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		18	960		233
Stachybotrys		1	13		121
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**973**	**Final MoldSCORE**	**233**

Location: 23535319 2nd Floor-Pre

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		1	53		103
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		ND	< 13		100
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**53**	**Final MoldSCORE**	**103**

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MoldSCORE™: Spore Trap Report

* 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.

†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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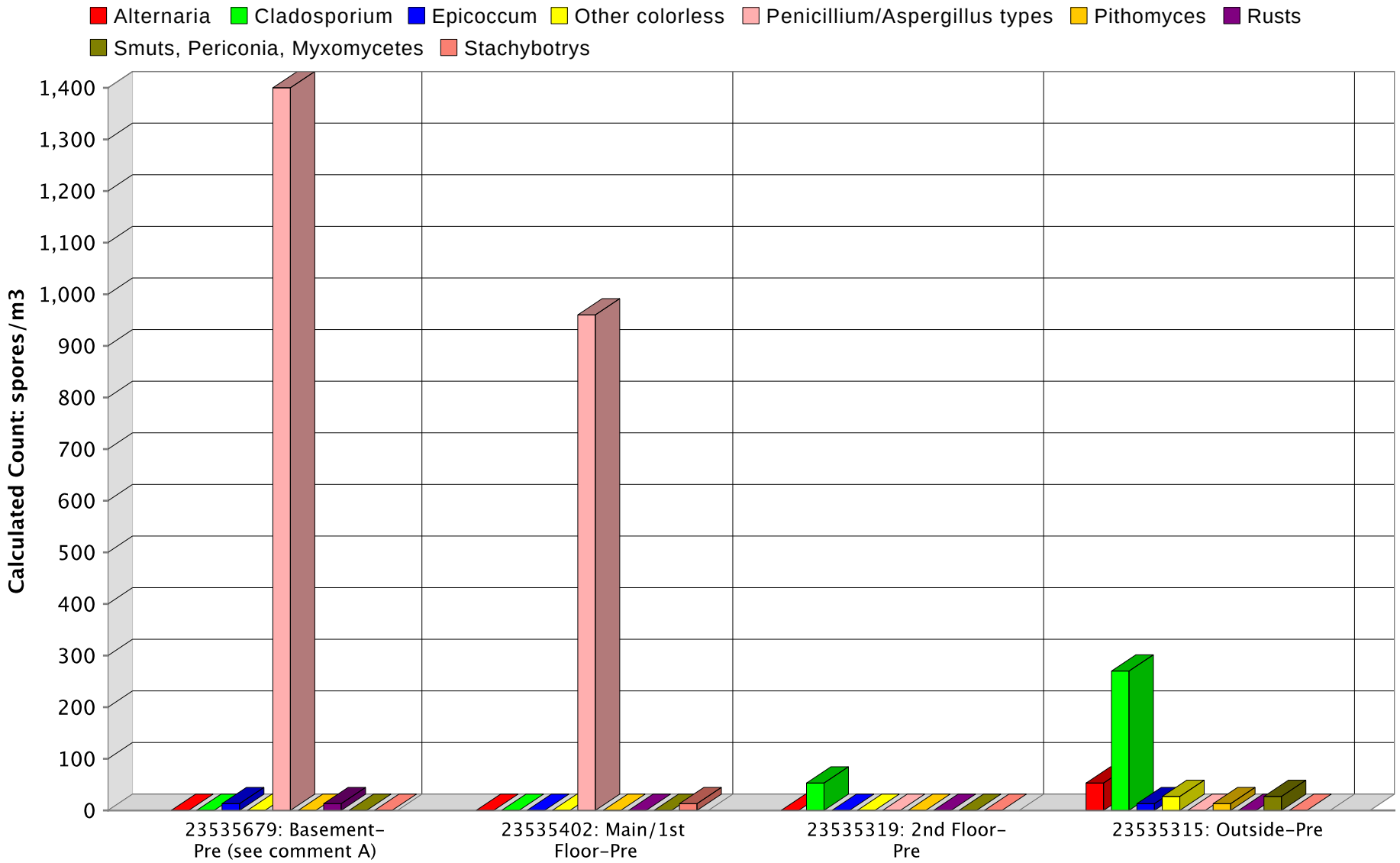
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments: A) 30 of the raw count *Penicillium/Aspergillus* type spores were present as a 20 and a clump of 10.

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

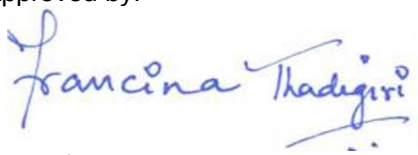
EMLab P&K
A TestAmerica Company

Report for:

Mark Douma
DryFx Restoration
966 Lambrecht Rd
Frankfort, IL 60423

Regarding: Project: JC Builders-McHenry-Pre; 1706 Jennifer Ln
EML ID: 1666771

Approved by:



Lab Manager
Francina Thadigiri

Dates of Analysis:
Spore trap analysis: 01-26-2017

Service SOPs: Spore trap analysis (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #176641

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 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.

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.

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Re: JC Builders-McHenry-Pre; 1706 Jennifer Ln

Date of Sampling: 01-25-2017
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SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	23535321: Basement		23535338: Main/1st Floor		23535337: 2nd Floor		23535333: Outside	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	7764581-1		7764582-1		7764583-1		7764584-1	
Analysis Date:	01/26/2017		01/26/2017		01/26/2017		01/26/2017	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	1	53						
Basidiospores	6	320	1	53	4	210	4	210
Botrytis								
Chaetomium								
Cladosporium			1	53			1	53
Curvularia								
Epicoccum					1	13	1	13
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types†			3	160				
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	1+		1+		1+		1+	
Hyphal fragments/m3	< 13		< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		< 1+		< 1+		1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		370		270		230		280

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. 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.

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MoldRANGE™, Local Climate; Extended Outdoor Comparison

Outdoor Location: 23535333, Outside

Fungi Identified	Outdoor data	Typical Outdoor Data for: January in Illinois† EMLab Local Climate code¹ B Annual Temp, A Elev., B Rain, A Temp. Range (n‡=66)						Typical Outdoor Data for: The entire year in Illinois† EMLab Local Climate code¹ B Annual Temp, A Elev., B Rain, A Temp. Range (n‡=1244)					
Project zip code 60050	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	20	50	60	30	13	13	53	190	310	57
Bipolaris/Drechslera group	-	-	-	-	-	-	5	7	12	13	27	50	8
Chaetomium	-	-	-	-	-	-	5	7	13	20	43	64	4
Cladosporium	53	15	28	53	460	560	61	53	160	690	3,100	6,000	88
Curvularia	-	-	-	-	-	-	2	7	13	13	27	51	6
Epicoccum	13	-	-	-	-	-	20	13	13	40	110	190	48
Nigrospora	-	-	-	-	-	-	< 2	7	13	21	53	99	23
Penicillium/Aspergillus types	-	52	53	110	250	360	50	43	53	110	370	730	40
Stachybotrys	-	-	-	-	-	-	2	13	13	33	67	180	2
Torula	-	-	-	-	-	-	2	7	13	21	44	62	6
Seldom found growing indoors**													
Ascospores	-	-	-	-	-	-	29	53	110	530	1,700	3,200	79
Basidiospores	210	27	53	110	310	500	53	53	160	800	3,100	6,100	86
Rusts	-	-	-	-	-	-	3	13	13	27	120	170	32
Smuts, Periconia, Myxomycetes	-	7	13	13	40	44	38	13	13	40	110	230	52
§ TOTAL SPORES/m3	280												

¹EMLab Local Climate codes are a climate classification scheme for statewide geographic areas. The MoldRANGE™ 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™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.

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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 MoldRANGE™ data by month and year within each EMLab Local Climate code.

References:

Burge, Harriet, A. Bioaerosols: 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.

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Re: JC Builders-McHenry-Pre; 1706 Jennifer Ln

Date of Sampling: 01-25-2017
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MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 23535333: Outside

Species detected	Outdoor sample spores/m3 <100 1K 10K >100K	Typical outdoor ranges (North America)	Freq. %
Ascospores	< 13	13 - 210 - 6,400	77
Basidiospores	210	13 - 430 - 24,000	91
Cladosporium	53	27 - 480 - 9,900	90
Epicoccum	13	7 - 27 - 360	24
Penicillium/Aspergillus types	< 13	13 - 170 - 2,600	67
Smuts, Periconia, Myxomycetes	< 13	7 - 53 - 910	64
Total	280		

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 occurence 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: 23535321: Basement

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 135%	dF: 2 Result: 0.1000 Critical value: 5.9915 Inside Similar: Yes	Result: 0.4000	dF: 4 Result: 0.3500 Critical value: N/A Outside Similar: N/A	Score: 131 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Ascospores	53
Basidiospores	320
Total	370

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 23535338: Main/1st Floor

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 96%	dF: 2 Result: 0.1000 Critical value: 5.9915 Inside Similar: Yes	Result: 0.6667	dF: 4 Result: -0.2500 Critical value: N/A Outside Similar: N/A	Score: 125 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K	
Basidiospores		53
Cladosporium		53
Penicillium/Aspergillus types		160
Total		270

Location: 23535337: 2nd Floor

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 80%	dF: 2 Result: 0.1000 Critical value: 5.9915 Inside Similar: Yes	Result: 0.8000	dF: 3 Result: 0.5000 Critical value: N/A Outside Similar: N/A	Score: 120 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K	
Basidiospores		210
Epicoccum		13
Total		230

* 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 (H0) 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.

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MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ 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.

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MoldSCORE™: Spore Trap Report

Outdoor Sample: 23535333 Outside

Fungi Identified	Outdoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3
Generally able to grow indoors*			
Alternaria		ND	< 13
Bipolaris/Drechslera group		ND	< 13
Chaetomium		ND	< 13
Cladosporium		1	53
Curvularia		ND	< 13
Epicoccum		1	13
Nigrospora		ND	< 13
Penicillium/Aspergillus types†		ND	< 13
Stachybotrys		ND	< 13
Torula		ND	< 13
Seldom found growing indoors**			
Ascospores		ND	< 13
Basidiospores		4	210
Rusts		ND	< 13
Smuts, Periconia, Myxomycetes		ND	< 13
Total			**280**

Location: 23535321 Basement

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		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		ND	< 13		100
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		1	53		121
Basidiospores		6	320		131
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**373**	**Final MoldSCORE**	**131**

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MoldSCORE™: Spore Trap Report

Location: 23535338 Main/1st Floor

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		1	53		103
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		3	160		125
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		1	53		103
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**267**	**Final MoldSCORE**	**125**

Location: 23535337 2nd Floor

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		ND	< 13		100
Curvularia		ND	< 13		100
Epicoccum		1	13		105
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		ND	< 13		100
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		4	210		120
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**227**	**Final MoldSCORE**	**120**

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MoldSCORE™: Spore Trap Report

* 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.

†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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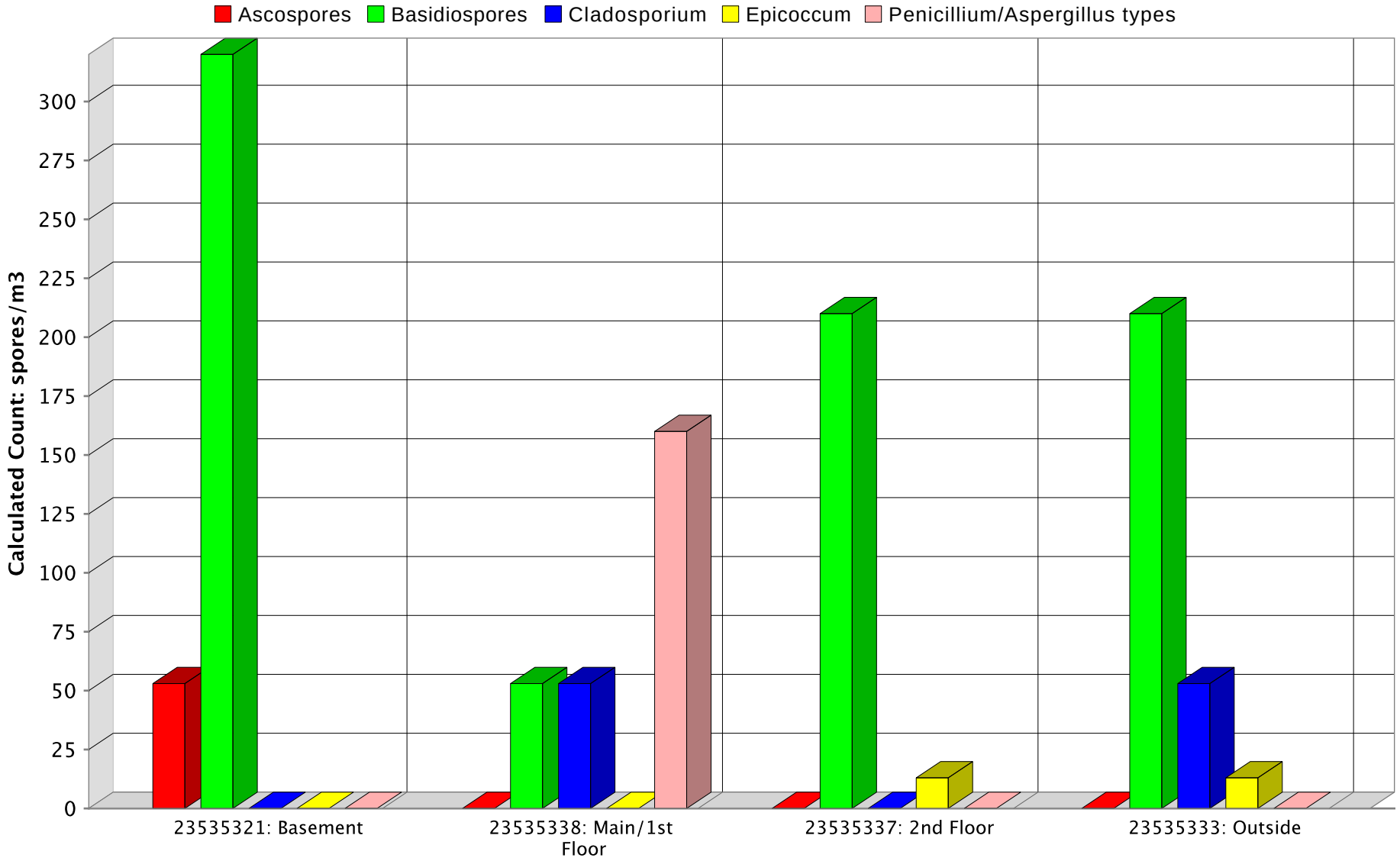
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:

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

EMLab P&K
A TestAmerica Company

Report for:

Mark Douma
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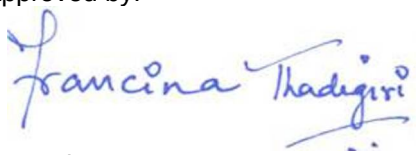
Frankfort, IL 60423

Regarding: Project: JC - Des Plaines - Pre
EML ID: 1684433

Approved by:



Lab Manager
Francina Thadigiri

Dates of Analysis:
Spore trap analysis: 02-28-2017

Service SOPs: Spore trap analysis (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #176641

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EMLab P&K
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Client: DryFx Restoration
C/O: Mark Douma
Re: JC - Des Plaines - Pre

Date of Receipt: 02-28-2017
Date of Report: 03-01-2017

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	23535322: Main Level		23535332: Basement		23535310: Upper Level		23535336: Outside	
Comments (see below)	A		B		None		None	
Lab ID-Version‡:	7846308-1		7846309-1		7846310-1		7846311-1	
Analysis Date:	02/28/2017		02/28/2017		02/28/2017		02/28/2017	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	2	27						
Ascospores			4	210	1	53		
Basidiospores	4	210	2	110				
Chaetomium								
Cladosporium	11	310	1	53	1	53	4	210
Epicoccum	1	13	2	27				
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13						
Other colorless								
Penicillium/Aspergillus types†	1	53	34	450	1	53		
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	2	27						
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+		2+		2+		1+	
Hyphal fragments/m3	< 13		13		< 13		13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		2+		< 1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		650		850		160		210

Comments: A) 7 of the raw count *Cladosporium* spores were present as a single clump. B) 34 of the raw count *Penicillium/ Aspergillus* type spores were present as a single clump.

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. 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.

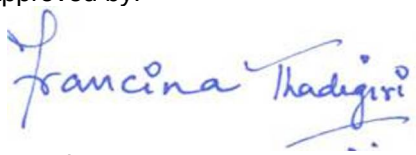
EMLab P&K
A TestAmerica Company

Report for:

Mark Douma
DryFx Restoration
966 Lambrecht Rd
Frankfort, IL 60423

Regarding: Project: JC - Des Plaines - Pre
EML ID: 1684433

Approved by:



Lab Manager
Francina Thadigiri

Dates of Analysis:
Direct microscopic exam (Qualitative): 02-28-2017

Service SOPs: Direct microscopic exam (Qualitative) (EM-MY-S-1039)
AIHA-LAP, LLC accredited service, Lab ID #176641

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Client: DryFx Restoration
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Re: JC - Des Plaines - Pre

Date of Receipt: 02-28-2017
Date of Report: 03-01-2017

DIRECT MICROSCOPIC EXAMINATION REPORT

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 7846307-1, Analysis Date: 02/28/2017: Tape sample B1309666: Basement Vinyl Floor				
Moderate	None	4+ ascomycetes (ascospores, ascomata, hyphae)	None	Mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded <1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ 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".
The limit of detection is < 1+ when mold growth is detected.

EMLab P&K
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Report for:

Mark Douma
DryFx Restoration
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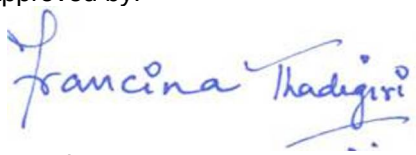
Frankfort, IL 60423

Regarding: Project: JC - Des Plaines - Pre
EML ID: 1684433

Approved by:



Lab Manager
Francina Thadigiri

Dates of Analysis:
Direct microscopic exam (Qualitative): 02-28-2017

Service SOPs: Direct microscopic exam (Qualitative) (EM-MY-S-1039)
AIHA-LAP, LLC accredited service, Lab ID #176641

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Re: JC - Des Plaines - Pre

Date of Receipt: 02-28-2017
Date of Report: 03-01-2017

DIRECT MICROSCOPIC EXAMINATION REPORT

Location:	B1309666: Basement Vinyl Floor
Sample type:	Tape sample
Lab ID-Version‡:	7846307-1
Analysis Date:	02/28/2017
MOLD/FUNGAL GROWTH*: Molds seen growing with underlying mycelial and/or sporulating structures	
Acremonium	
Alternaria	
Ascomycetes	4+
Aureobasidium	
Basidiospores	
Chaetomium	
Cladosporium	
Colorless spores typical of Penicillium / Aspergillus	
Fusarium	
Other colorless, ID unknown	
Stachybotrys	
Torula	
Ulocladium	
Miscellaneous spores**	None
Other comments†	None
Background debris or Description††	Moderate
General impression	Mold growth

* See Mold/Fungal Growth Details table on the last page.

** See Miscellaneous Spores table on the last page.

† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

†† Background debris is an indication of the amounts of non biological particulate matter present. This background amorphous material is graded and described as scant, light, moderate, heavy, or very heavy. (Very heavy background debris may obscure visibility.)

Fungal types listed without a growth rating or data entry were not detected during the course of the analysis for the respective sample.

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

‡ 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".
The limit of detection is < 1+ when mold growth is detected.

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Mold/Fungal Growth Rating Details

Growth Rating	Quantities of molds indicating growth are listed in the MOLD/FUNGAL GROWTH section. Judgement is used in determining the amount of growth present in the sample. For example, if only one portion of the sample has evidence of heavy growth, then it will receive a rating of heavy growth even though, strictly speaking, on a percentage basis of the entire sample, the amount of growth is low.	
	Swab/Tape/Dust/Wipe sample	Bulk Sample
< 1+ (Very Light Growth)	Evidence of very light growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in less than 10% of the microscopic fields examined.	Areas of very light growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.
1+ (Light Growth)	Evidence of light growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 10 to 25% of the microscopic fields examined.	Areas of light growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.
2+ (Moderate Growth)	Evidence of moderate growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 26 to 50% of the microscopic fields examined.	Areas of moderate growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.
3+ (Heavy Growth)	Evidence of heavy growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 51 to 75% of the microscopic fields examined.	Areas of heavy growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.
4+ (Very Heavy Growth)	Evidence of very heavy growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found to be nearly confluent in the majority of the microscopic fields examined.	Areas of very heavy growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.

Miscellaneous Spores

Slides/specimens are examined for the presence of mold spores and pollen, noting the quantities and distribution of spore types found. A designation of 'normal trapping' is made when a mix of spore types is present with the same general distribution as is usually found outdoors. In other words, the biological component of the sample surface is like that found everywhere. Types of spores present would include basidiospores (mushroom spores), myxomycetes (slime molds), plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Many of these spore types would not be found growing indoors on building materials since many plant pathogens require living plants for growth, and mushrooms require compost, leaf duff of various types, or associations with roots of certain trees, etc. Due to these factors, when a mix of spores seen include these types as well as pollen, the rational source is the outside air, rather than indoor mold growth. The numbers of miscellaneous spores seen are graded and described as shown below as none, very few, few, variety, and wide variety.

None	Very Few	Few	Variety	Wide Variety
No spores detected	Very few spores detected	A few spores detected	Many spores containing a variety of different genera detected	Many spores containing a wide variety of different genera detected

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Re: JC - Des Plaines - Pre

Date of Receipt: 02-28-2017
Date of Report: 03-01-2017

MoldRANGE™, Local Climate; Extended Outdoor Comparison

Outdoor Location: 23535336, Outside

Fungi Identified	Outdoor data	Typical Outdoor Data for: March in Illinois† EMLab Local Climate code¹ B Annual Temp, B Elev., A Rain, A Temp. Range (n‡=218)						Typical Outdoor Data for: The entire year in Illinois† EMLab Local Climate code¹ B Annual Temp, B Elev., A Rain, A Temp. Range (n‡=2753)					
Project zip code 60016	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	13	52	83	15	13	19	60	210	370	59
Bipolaris/Drechslera group	-	-	-	-	-	-	1	7	7	13	27	53	8
Chaetomium	-	-	-	-	-	-	4	7	7	13	16	33	4
Cladosporium	210	33	53	160	370	650	67	53	130	750	3,400	6,000	88
Curvularia	-	-	-	-	-	-	1	7	7	13	27	53	8
Epicoccum	-	8	13	13	20	27	16	7	13	33	110	210	48
Nigrospora	-	-	-	-	-	-	4	7	13	20	60	110	20
Other brown	-	7	10	13	13	30	15	7	7	13	40	53	15
Penicillium/Aspergillus types	-	27	53	67	150	230	51	39	53	110	320	590	47
Stachybotrys	-	-	-	-	-	-	< 1	7	7	13	27	39	1
Torula	-	-	-	-	-	-	3	7	7	13	40	67	7
Seldom found growing indoors**													
Ascospores	-	27	53	80	260	510	44	53	110	470	1,700	3,400	76
Basidiospores	-	40	53	140	920	2,000	56	53	160	850	3,100	5,300	83
Rusts	-	-	-	-	-	-	3	13	13	40	120	230	35
Smuts, Periconia, Myxomycetes	-	13	13	13	40	50	28	13	13	40	110	210	54
§ TOTAL SPORES/m3	210												

¹EMLab Local Climate codes are a climate classification scheme for statewide geographic areas. The MoldRANGE™ 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™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.

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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 MoldRANGE™ data by month and year within each EMLab Local Climate code.

References:
Burge, Harriet, A. Bioaerosols: 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.

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 23535336: Outside

Species detected	Outdoor sample spores/m3 (<100 / 1K / 10K / >100K)	Typical outdoor ranges (North America)	Freq. %
Ascospores	< 13	13 - 210 - 6,400	77
Basidiospores	< 13	13 - 440 - 24,000	91
Cladosporium	210	27 - 480 - 9,800	90
Penicillium/Aspergillus types	< 13	13 - 170 - 2,600	67
Smuts, Periconia, Myxomycetes	< 13	7 - 53 - 910	64
Total	210		

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 occurence 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: 23535322: Main Level

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 310%	dF: 2 Result: 4.1875 Critical value: 5.9915 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.7054 Critical value: 0.6786 Outside Similar: Yes	Score: 125 Result: Low

Species Detected	Spores/m3 (<100 / 1K / 10K / >100K)
Alternaria	27
Basidiospores	210
Cladosporium	310
Epicoccum	13
Other brown	13
Penicillium/Aspergillus types	53
Smuts, Periconia, Myxomycetes	27
Total	650

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 23535332: Basement

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 404%	dF: 2 Result: 4.1875 Critical value: 5.9915 Inside Similar: Yes	Result: 0.3333	dF: 5 Result: 0.0000 Critical value: 0.8000 Outside Similar: No	Score: 169 Result: Medium

Species Detected	Spores/m3 (<100 / 1K / 10K / >100K)
Ascospores	210
Basidiospores	110
Cladosporium	53
Epicoccum	27
Penicillium/Aspergillus types	450
Total	850

Location: 23535310: Upper Level

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 75%	dF: 2 Result: 4.1875 Critical value: 5.9915 Inside Similar: Yes	Result: 0.5000	dF: 3 Result: 0.6250 Critical value: N/A Outside Similar: N/A	Score: 108 Result: Low

Species Detected	Spores/m3 (<100 / 1K / 10K / >100K)
Ascospores	53
Cladosporium	53
Penicillium/Aspergillus types	53
Total	160

* 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 (H0) 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.

EMLab P&K
1815 West Diehl Road, Suite 800, Naperville, IL 60563
(866) 871-1984 Fax (856) 334-1040 www.emlab.com

Client: DryFx Restoration
C/O: Mark Douma
Re: JC - Des Plaines - Pre

Date of Receipt: 02-28-2017
Date of Report: 03-01-2017

MoldSTAT™: Supplementary Statistical Spore Trap Report

**** MoldSCORE™ 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.

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Client: DryFx Restoration
C/O: Mark Douma
Re: JC - Des Plaines - Pre

Date of Receipt: 02-28-2017
Date of Report: 03-01-2017

MoldSCORE™: Spore Trap Report

Outdoor Sample: 23535336 Outside

Fungi Identified	Outdoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3
Generally able to grow indoors*			
Alternaria		ND	< 13
Bipolaris/Drechslera group		ND	< 13
Chaetomium		ND	< 13
Cladosporium		4	210
Curvularia		ND	< 13
Nigrospora		ND	< 13
Penicillium/Aspergillus types†		ND	< 13
Stachybotrys		ND	< 13
Torula		ND	< 13
Seldom found growing indoors**			
Ascospores		ND	< 13
Basidiospores		ND	< 13
Rusts		ND	< 13
Smuts, Periconia, Myxomycetes		ND	< 13
Total			**213**

Location: 23535322 Main Level

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		2	27		111
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		11	310		118
Curvularia		ND	< 13		100
Epicoccum		1	13		105
Nigrospora		ND	< 13		100
Other brown		1	13		105
Penicillium/Aspergillus types†		1	53		108
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		4	210		122
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		2	27		105
Total			**653**	**Final MoldSCORE**	**125**

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Re: JC - Des Plaines - Pre

Date of Receipt: 02-28-2017
Date of Report: 03-01-2017

MoldSCORE™: Spore Trap Report

Location: 23535332 Basement

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		1	53		102
Curvularia		ND	< 13		100
Epicoccum		2	27		111
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		34	450		169
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		4	210		180
Basidiospores		2	110		112
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**853**	**Final MoldSCORE**	**169**

Location: 23535310 Upper Level

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		1	53		102
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		1	53		108
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		1	53		121
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**160**	**Final MoldSCORE**	**108**

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Re: JC - Des Plaines - Pre

Date of Receipt: 02-28-2017
Date of Report: 03-01-2017

MoldSCORE™: Spore Trap Report

* 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.

†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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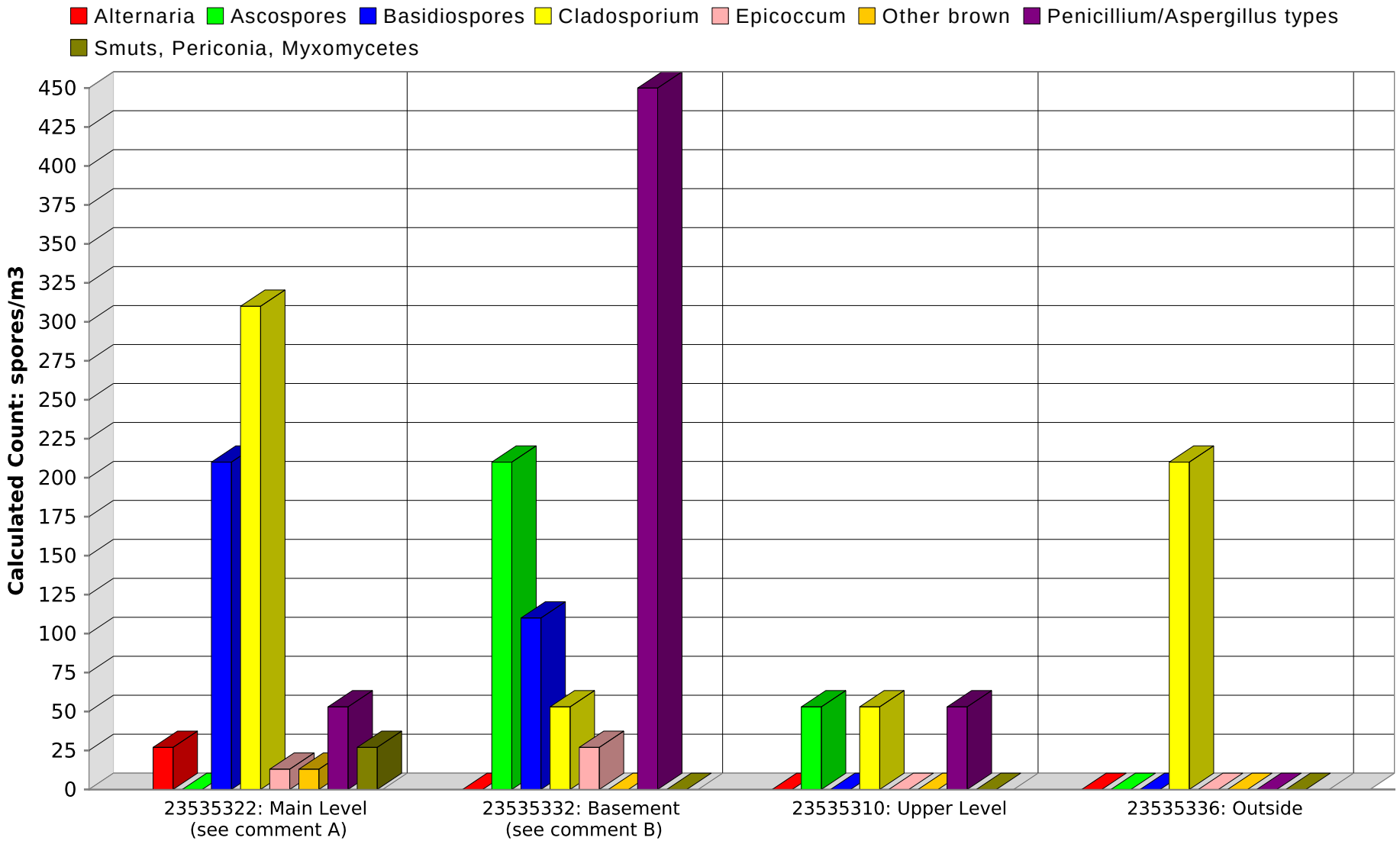
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments: A) 7 of the raw count *Cladosporium* spores were present as a single clump. B) 34 of the raw count *Penicillium/Aspergillus* type spores were present as a single clump.

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

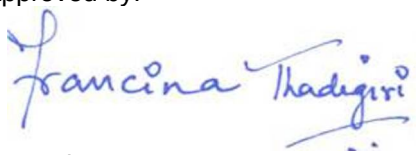
EMLab P&K
A TestAmerica Company

Report for:

Mark Douma
DryFx Restoration
966 Lambrecht Rd
Frankfort, IL 60423

Regarding: Project: JC-Des Plaines - Post; 1338 Hazel Ct.
EML ID: 1693443

Approved by:



Lab Manager
Francina Thadigiri

Dates of Analysis:
Spore trap analysis: 03-14-2017

Service SOPs: Spore trap analysis (EM-MY-S-1038)
AIHA-LAP, LLC accredited service, Lab ID #176641

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.

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Client: DryFx Restoration
C/O: Mark Douma
Re: JC-Des Plaines - Post; 1338 Hazel Ct.

Date of Sampling: 03-14-2017
Date of Receipt: 03-14-2017
Date of Report: 03-15-2017

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	23535357: Main Level		23535335: Basement		23535355: Upper Level		22399094: Outside	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	7888911-1		7888912-1		7888913-1		7888914-1	
Analysis Date:	03/14/2017		03/14/2017		03/14/2017		03/14/2017	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					1	13		
Ascospores								
Basidiospores								
Botrytis								
Chaetomium								
Cladosporium								
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora							1	13
Other brown			1	13			1	13
Other colorless								
Penicillium/Aspergillus types†								
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes							4	53
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Background debris (1-4+)††	1+		1+		2+		2+	
Hyphal fragments/m3	< 13		< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		< 1+		1+		< 1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		< 13		13		13		80

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. 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.

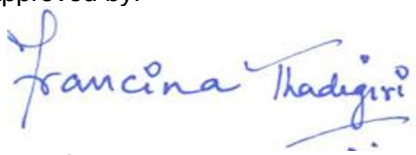
EMLab P&K
A TestAmerica Company

Report for:

Mark Douma
DryFx Restoration
966 Lambrecht Rd
Frankfort, IL 60423

Regarding: Project: JC-Des Plaines - Post; 1338 Hazel Ct.
EML ID: 1693443

Approved by:



Lab Manager
Francina Thadigiri

Dates of Analysis:
Direct microscopic exam (Qualitative): 03-14-2017

Service SOPs: Direct microscopic exam (Qualitative) (EM-MY-S-1039)
AIHA-LAP, LLC accredited service, Lab ID #176641

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Client: DryFx Restoration
C/O: Mark Douma
Re: JC-Des Plaines - Post; 1338 Hazel Ct.

Date of Sampling: 03-14-2017
Date of Receipt: 03-14-2017
Date of Report: 03-15-2017

DIRECT MICROSCOPIC EXAMINATION REPORT

Background Debris and/or Description	Miscellaneous Spores Present*	MOLD GROWTH: Molds seen with underlying mycelial and/or sporulating structures†	Other Comments††	General Impression
Lab ID-Version‡: 7888910-1, Analysis Date: 03/14/2017: Tape sample B1342033: Basement Concrete Floor				
Scant	Very few	< 1+ Colorless spore type, ID unknown (spores, hyphae)	None	Minimal mold growth

* Indicative of normal conditions, i.e. seen on surfaces everywhere. Includes basidiospores (mushroom spores), myxomycetes, plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Distribution of spore types seen mirrors that usually seen outdoors.

† Quantities of molds seen growing are listed in the MOLD GROWTH column and are graded <1+ to 4+, with 4+ denoting the highest numbers.

†† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

‡ 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".
The limit of detection is < 1+ when mold growth is detected.

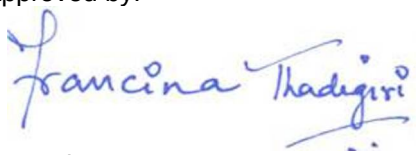
EMLab P&K
A TestAmerica Company

Report for:

Mark Douma
DryFx Restoration
966 Lambrecht Rd
Frankfort, IL 60423

Regarding: Project: JC-Des Plaines - Post; 1338 Hazel Ct.
EML ID: 1693443

Approved by:



Lab Manager
Francina Thadigiri

Dates of Analysis:
Direct microscopic exam (Qualitative): 03-14-2017

Service SOPs: Direct microscopic exam (Qualitative) (EM-MY-S-1039)
AIHA-LAP, LLC accredited service, Lab ID #176641

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Client: DryFx Restoration
C/O: Mark Douma
Re: JC-Des Plaines - Post; 1338 Hazel Ct.

Date of Sampling: 03-14-2017
Date of Receipt: 03-14-2017
Date of Report: 03-15-2017

DIRECT MICROSCOPIC EXAMINATION REPORT

Location:	B1342033: Basement Concrete Floor
Sample type:	Tape sample
Lab ID-Version‡:	7888910-1
Analysis Date:	03/14/2017
MOLD/FUNGAL GROWTH*: Molds seen growing with underlying mycelial and/or sporulating structures	
Acremonium	
Alternaria	
Aureobasidium	
Basidiospores	
Chaetomium	
Cladosporium	
Colorless spore type, ID unknown	< 1+
Colorless spores typical of Penicillium / Aspergillus	
Fusarium	
Other colorless, ID unknown	
Stachybotrys	
Torula	
Ulocladium	
Miscellaneous spores**	Very few
Other comments†	None
Background debris or Description††	Scant
General impression	Minimal mold growth

* See Mold/Fungal Growth Details table on the last page.

** See Miscellaneous Spores table on the last page.

† Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

†† Background debris is an indication of the amounts of non biological particulate matter present. This background amorphous material is graded and described as scant, light, moderate, heavy, or very heavy. (Very heavy background debris may obscure visibility.)

Fungal types listed without a growth rating or data entry were not detected during the course of the analysis for the respective sample.

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

‡ 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".
The limit of detection is < 1+ when mold growth is detected.

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Re: JC-Des Plaines - Post; 1338 Hazel Ct.

Date of Sampling: 03-14-2017
Date of Receipt: 03-14-2017
Date of Report: 03-15-2017

Mold/Fungal Growth Rating Details

Growth Rating	Quantities of molds indicating growth are listed in the MOLD/FUNGAL GROWTH section. Judgement is used in determining the amount of growth present in the sample. For example, if only one portion of the sample has evidence of heavy growth, then it will receive a rating of heavy growth even though, strictly speaking, on a percentage basis of the entire sample, the amount of growth is low.	
	Swab/Tape/Dust/Wipe sample	Bulk Sample
< 1+ (Very Light Growth)	Evidence of very light growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in less than 10% of the microscopic fields examined.	Areas of very light growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.
1+ (Light Growth)	Evidence of light growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 10 to 25% of the microscopic fields examined.	Areas of light growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.
2+ (Moderate Growth)	Evidence of moderate growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 26 to 50% of the microscopic fields examined.	Areas of moderate growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.
3+ (Heavy Growth)	Evidence of heavy growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 51 to 75% of the microscopic fields examined.	Areas of heavy growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.
4+ (Very Heavy Growth)	Evidence of very heavy growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found to be nearly confluent in the majority of the microscopic fields examined.	Areas of very heavy growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.

Miscellaneous Spores

Slides/specimens are examined for the presence of mold spores and pollen, noting the quantities and distribution of spore types found. A designation of 'normal trapping' is made when a mix of spore types is present with the same general distribution as is usually found outdoors. In other words, the biological component of the sample surface is like that found everywhere. Types of spores present would include basidiospores (mushroom spores), myxomycetes (slime molds), plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Many of these spore types would not be found growing indoors on building materials since many plant pathogens require living plants for growth, and mushrooms require compost, leaf duff of various types, or associations with roots of certain trees, etc. Due to these factors, when a mix of spores seen include these types as well as pollen, the rational source is the outside air, rather than indoor mold growth. The numbers of miscellaneous spores seen are graded and described as shown below as none, very few, few, variety, and wide variety.

None	Very Few	Few	Variety	Wide Variety
No spores detected	Very few spores detected	A few spores detected	Many spores containing a variety of different genera detected	Many spores containing a wide variety of different genera detected

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Re: JC-Des Plaines - Post; 1338 Hazel Ct.

Date of Sampling: 03-14-2017
Date of Receipt: 03-14-2017
Date of Report: 03-15-2017

MoldRANGE™, Local Climate; Extended Outdoor Comparison

Outdoor Location: 22399094, Outside

Fungi Identified	Outdoor data	Typical Outdoor Data for: March in Illinois† EMLab Local Climate code¹ B Annual Temp, B Elev., A Rain, A Temp. Range (n‡=218)						Typical Outdoor Data for: The entire year in Illinois† EMLab Local Climate code¹ B Annual Temp, B Elev., A Rain, A Temp. Range (n‡=2753)					
Project zip code 60016	spores/m3	very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	-	13	13	13	52	83	15	13	19	60	210	370	59
Bipolaris/Drechslera group	-	-	-	-	-	-	1	7	7	13	27	53	8
Chaetomium	-	-	-	-	-	-	4	7	7	13	16	33	4
Cladosporium	-	33	53	160	370	650	67	53	130	750	3,400	6,000	88
Curvularia	-	-	-	-	-	-	1	7	7	13	27	53	8
Nigrospora	13	-	-	-	-	-	4	7	13	20	60	110	20
Other brown	13	7	10	13	13	30	15	7	7	13	40	53	15
Penicillium/Aspergillus types	-	27	53	67	150	230	51	39	53	110	320	590	47
Stachybotrys	-	-	-	-	-	-	< 1	7	7	13	27	39	1
Torula	-	-	-	-	-	-	3	7	7	13	40	67	7
Seldom found growing indoors**													
Ascospores	-	27	53	80	260	510	44	53	110	470	1,700	3,400	76
Basidiospores	-	40	53	140	920	2,000	56	53	160	850	3,100	5,300	83
Rusts	-	-	-	-	-	-	3	13	13	40	120	230	35
Smuts, Periconia, Myxomycetes	53	13	13	13	40	50	28	13	13	40	110	210	54
§ TOTAL SPORES/m3	80												

¹EMLab Local Climate codes are a climate classification scheme for statewide geographic areas. The MoldRANGE™ 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™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.

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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 MoldRANGE™ data by month and year within each EMLab Local Climate code.

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

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 22399094: Outside

Species detected	Outdoor sample spores/m3 (<100 / 1K / 10K / >100K)	Typical outdoor ranges (North America)	Freq. %
Ascospores	< 13	13 - 210 - 6,400	77
Basidiospores	< 13	13 - 440 - 24,000	91
Cladosporium	< 13	27 - 480 - 9,800	90
Nigrospora	13	7 - 17 - 270	17
Other brown	13	7 - 20 - 130	25
Penicillium/Aspergillus types	< 13	13 - 170 - 2,600	67
Smuts, Periconia, Myxomycetes	53	7 - 53 - 910	64
Total	80		

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 occurence 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: 23535357: Main Level

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 2 Result: 0.7500 Critical value: 5.9915 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low

Species Detected	Spores/m3 (<100 / 1K / 10K / >100K)
None Detected	< 13

Location: 23535335: Basement

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 16%	dF: 2 Result: 0.7500 Critical value: 5.9915 Inside Similar: Yes	Result: 0.5000	dF: 3 Result: -0.1250 Critical value: N/A Outside Similar: N/A	Score: 105 Result: Low

Species Detected	Spores/m3 (<100 / 1K / 10K / >100K)
Other brown	13
Total	13

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MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 23535355: Upper Level

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: 16%	dF: 2 Result: 0.7500 Critical value: 5.9915 Inside Similar: Yes	Result: 0.0000	dF: 4 Result: -0.3500 Critical value: N/A Outside Similar: N/A	Score: 105 Result: Low

Species Detected	Spores/m3 <100 1K 10K >100K
Alternaria	13
Total	13

* 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 (H0) 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.

**** MoldSCORE™ 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.

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MoldSCORE™: Spore Trap Report

Outdoor Sample: 22399094 Outside

Fungi Identified	Outdoor sample spores/m3 <100 1K 10K >100K	Raw count	Spores/ m3
Generally able to grow indoors*			
Alternaria		ND	< 13
Bipolaris/Drechslera group		ND	< 13
Chaetomium		ND	< 13
Cladosporium		ND	< 13
Curvularia		ND	< 13
Nigrospora		1	13
Other brown		1	13
Penicillium/Aspergillus types†		ND	< 13
Stachybotrys		ND	< 13
Torula		ND	< 13
Seldom found growing indoors**			
Ascospores		ND	< 13
Basidiospores		ND	< 13
Rusts		ND	< 13
Smuts, Periconia, Myxomycetes		4	53
Total			**80**

Location: 23535357 Main Level

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		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		ND	< 13		100
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**N/A**	**Final MoldSCORE**	**100**

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MoldSCORE™: Spore Trap Report

Location: 23535335 Basement

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		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Other brown		1	13		105
Penicillium/Aspergillus types†		ND	< 13		100
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**13**	**Final MoldSCORE**	**105**

Location: 23535355 Upper Level

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		1	13		105
Bipolaris/Drechslera group		ND	< 13		100
Chaetomium		ND	< 13		100
Cladosporium		ND	< 13		100
Curvularia		ND	< 13		100
Nigrospora		ND	< 13		100
Penicillium/Aspergillus types†		ND	< 13		100
Stachybotrys		ND	< 13		100
Torula		ND	< 13		100
Seldom found growing indoors**					
Ascospores		ND	< 13		100
Basidiospores		ND	< 13		100
Rusts		ND	< 13		100
Smuts, Periconia, Myxomycetes		ND	< 13		100
Total			**13**	**Final MoldSCORE**	**105**

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MoldSCORE™: Spore Trap Report

* 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.

†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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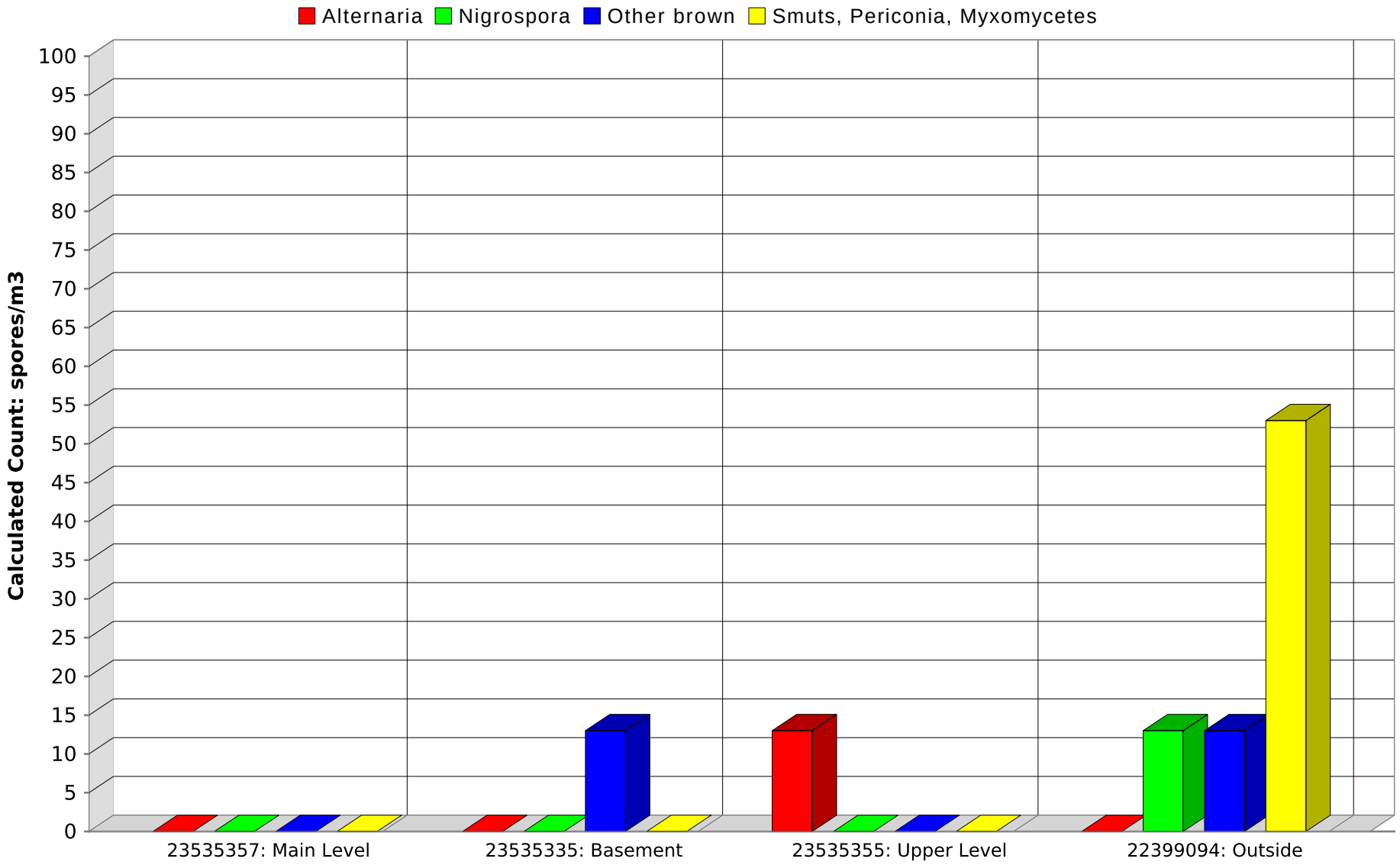
SPORE TRAP REPORT: NON-VIABLE METHODOLOGY



Comments:

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