



MOLD INSPECTION REPORT



Prepared By
James Johnson

Inspection Report
401 North 4th Street, Lake Wales, Florida 33853

Report ID Inspection Date
NXT540 October 04, 2022 at 10:00 AM

Inspector



Client



Ground Zero Home & Mold Inspections, LLC
PO Box 5036
call : (863) 602-3003

Ground Zero Home and Mold Inspections, LLC

INTRODUCTION

PROPERTY & INSPECTION INFORMATION

Full Address

401 North 4th Street, Lake Wales, Florida,
33853

Year Built

1990

Square Footage

3700

TYPE OF BUILDING

School

BEDROOMS

8 Classrooms

BATHROOMS

2 Bathrooms

OCCUPANCY

Occupied

WEATHER DURING INSPECTION

Sunny

ATTENDING THE INSPECTION

School Employee







STANDARDS OF PRACTICE

National Organization of Remediators
and Mold Inspectors (NORMI)

GROUND















Dry

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COMMENT KEY OR DEFINITION OF RECOMMENDATIONS

#	Image	Name	Description
1.		Exterior Air Quality Sample(EX)	An exterior air quality sample must be taken to compare with the interior samples.
2.		Acceptable Levels (AL)	The item, component or unit have acceptable levels of mold.
3.		Slightly Elevated (SE)	This item, component or unit is slight elevated with mold and is requiring remediation back to condition 1
4.		Elevated Levels(EL)	The item, component or unit has visible mold and or lab results has stated that there is mold present. Items, components or units requires remediation back to condition 1. Levels are to high and not safe.
5.		Inspected(IN)	This item has been inspected/No damage or microbial growth present at the time of inspection.
6.		Not Inspected(NI)	I did not inspect this item, component or unit and made no representations of whether or not it was functioning as intended and will state a reason for not inspecting.
7.		Medium	If visible microbial growth is present, a swab or air quality sample should be taken at the time of inspection. The sample will be taken to the laboratory for testing. Depending on the type of microbial growth and the amount remediation may have to take place.
8.		High	Visible microbial growth, musty odor, high humidity, and moisture in the air. Air and or swab samples will be taken to the laboratory for testing. Areas of the home should be remediated/removal of all microbial contents. In most cases a protocol of microbial growth removal should take place.
9.		Low	Microbial growth can often have strong or unpleasant odors, they can be the source of the "moldy odor" or musty smell frequently associated with mold growth. A moldy odor suggests that mold is growing in the building and should be investigated but no visible microbial growth at the time of inspection.
10.		Exterior Baseline Sample	An exterior baseline sample was taken for comparison of the inside results.
11.		Interior Air Quality Sample	Interior air quality sample is taken to test the quality of air that you are breathing.
12.		Slightly Elevated	
13.		Remediation	Removal of all mold
14.		General Summary	



Name: **James Johnson** Email Address: **gzhomeandmoldinspections@gmail.com**

Licence Number: **HI11095 / MSRA2994**

Association Information:

InterNACHI | NACHI18031418

Inspectors Certification



Association Logo





[A Brief Guide to Mold](#)



[OSHA How to Prevent Mold](#)



[OSHA Mold Fact Sheet](#)



REMEDIATION

2. INTERIOR SURFACES

2.1.1 Room 1

High

Comment Location : ROOM 1

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results show slightly elevated signs of Aspergillus/Penicillium, Basidiospores, and Myxomycetes mold spores inside room 1.

*Recommend remediation



Location: ROOM 1

1.1 Photo



Location: ROOM 1

1.2 Air Quality Sample



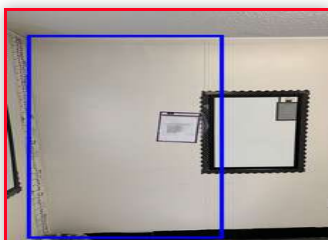
Location: ROOM 1

1.3 Moisture Stain



Location: ROOM 1

1.4 Moisture Stain/100% Moisture



Location: ROOM 1

1.5 100% Moisture/Wall needs to be removed.

Comment Location : ROOM 2

A swab sample was taken and sent to the laboratory for analysis. The laboratory shows present of (low) Aspergillus/Penicillium mold spores and (high) Cladosporium mold spores inside room 2.

***Recommend remediation**



Location: ROOM 2

1.1 Photo



Location: ROOM 2

1.2 Swab Sample



Location: ROOM 2

1.3 Mold Growth/Ceiling



Location: ROOM 2

1.4 Mold Growth/Ceiling



Location: ROOM 2

1.5 Mold Growth/Ceiling



Location: ROOM 2

1.6 Mold Growth/Ceiling



Location: ROOM 2

1.7 Mold Growth/Air Vents



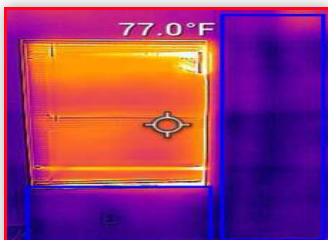
Location: ROOM 2

1.8 84% Moisture Detected/Ceiling



Location: ROOM 2

1.9 Moisture Detected in Wall



Location: ROOM 2

1.10 Moisture Detected in Wall/Infrared



Location: ROOM 2

1.11 Moisture Detected in Wall/Infrared

Comment Location : ROOM 3

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results showed slightly elevated Basidiospores inside room 3

*Recommend remediation



Location: ROOM 3

1.1 Photo



Location: ROOM 3

1.2 Air Quality Sample



Location: ROOM 3

1.3 100% Moisture Detected/Wall



Location: ROOM 3

1.4 Moisture Detected in Wall



Location: ROOM 3

1.5 Microbial Growth Inside Air Vent



Location: ROOM 3

1.6 Moisture Detected in Wall/Infrared



Location: ROOM 3

1.7 Moisture Detected in Wall/Infrared

Comment Location : ROOM 4

A swab sample was taken and sent to the laboratory for analysis. The laboratory shows present of slightly elevated Altemaria (ULOCLADIUM) and Basidiospores mold spores in room 4.

*Recommend remediation



Location: ROOM 3

1.1 Air Quality Sample



Location: ROOM 3

1.2 Moisture Detected in Wall

Comment Location : ROOM 5

A swab sample was taken and sent to the laboratory for analysis. The results showed elevated Cladosporium and Curvularia mold spores inside room 5.

Moisture was detected inside the wall cavity. The HVAC system is located behind the wall where moisture was detected.

***Recommend remediation**



Location: ROOM 5

1.1 Photo



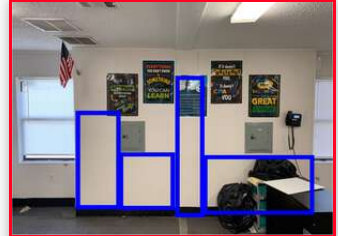
Location: ROOM 5

1.2 Mold Growth



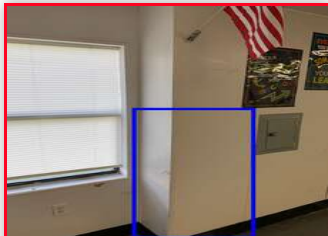
Location: ROOM 5

1.3 Moisture Detected in Wall



Location: ROOM 5

1.4 Moisture Detected in Wall



Location: ROOM 5

1.5 Moisture Detected in Wall



Location: ROOM 5

1.6 Moisture Damage



Location: ROOM 5

1.7 Moisture Detected/Ceiling



Location: ROOM 5

1.8 Moisture Detected/Ceiling

Comment Location : ROOM 6

A swab sample was taken and sent to the laboratory for analysis. The laboratory results showed (high) Cladosporium and (low) Aspergillus/Penicillium mold inside room 6.

***Recommend remediation**



Location: ROOM 6

1.1 Photo



Location: ROOM 6

1.2 Swab Sample



Location: ROOM 6

1.3 Mold Growth



Location: ROOM 6

1.4 Mold Growth/Water Damage



Location: ROOM 6

1.5 Moisture Detected/Ceiling



Location: ROOM 6

1.6 Moisture Detected/Ceiling

Comment Location : ROOM 7

A swab sample was taken and sent to the laboratory for analysis. The laboratory results showed (high) Cladosporium mold inside room 7.

*Recommend remediation



Location: ROOM 7

1.1 Photo



Location: ROOM 7

1.2 Swab Sample



Location: ROOM 7

1.3 Mold Growth



Location: ROOM 7

1.4 Mold Growth



Location: ROOM 7

1.5 Moisture Detected/Ceiling



Location: ROOM 7

1.6 Water Stains/Moisture



Location: ROOM 7

1.7 Water Stains/82% Moisture



Location: ROOM 7

1.8 Microbial Growth



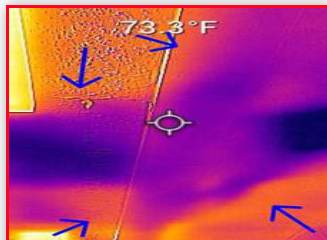
Location: ROOM 7

1.9 Microbial Growth



Location: ROOM 7

1.10 Water Damage



Location: ROOM 7

1.11 Water Damage/Infrared

Comment Location : ROOM 8

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results showed slightly elevated Basidiospores inside room 8.

*Recommend remediation



Location: ROOM 8

1.1 Air Quality Sample



Location: ROOM 8

1.2 Microbial Growth



Location: ROOM 8

1.3 Microbial Growth



Location: ROOM 8

1.4 Past Water Stains



Location: ROOM 8

1.5 Past Water Stains

2. INTERIOR SURFACES

2.1.1 Room 1

High

Comment Location : ROOM 1

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results show slightly elevated signs of Aspergillus/Penicillium, Basidiospores, and Myxomycetes mold spores inside room 1.

*Recommend remediation



Location: ROOM 1

1.1 Photo



Location: ROOM 1

1.2 Air Quality Sample



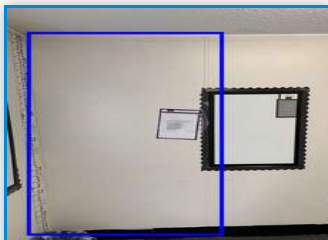
Location: ROOM 1

1.3 Moisture Stain



Location: ROOM 1

1.4 Moisture Stain/100% Moisture



Location: ROOM 1

1.5 100% Moisture/Wall needs to be removed.

Comment Location : ROOM 2

A swab sample was taken and sent to the laboratory for analysis. The laboratory shows present of (low) Aspergillus/Penicillium mold spores and (high) Cladosporium mold spores inside room 2.

*Recommend remediation



Location: ROOM 2

1.1 Photo



Location: ROOM 2

1.2 Swab Sample



Location: ROOM 2

1.3 Mold Growth/Ceiling



Location: ROOM 2

1.4 Mold Growth/Ceiling



Location: ROOM 2

1.5 Mold Growth/Ceiling



Location: ROOM 2

1.6 Mold Growth/Ceiling



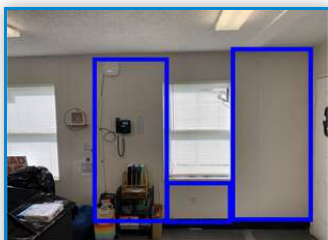
Location: ROOM 2

1.7 Mold Growth/Air Vents



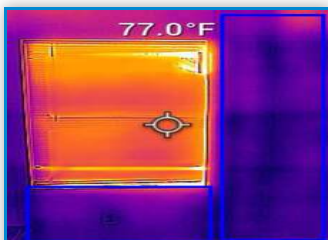
Location: ROOM 2

1.8 84% Moisture Detected/Ceiling



Location: ROOM 2

1.9 Moisture Detected in Wall



Location: ROOM 2

1.10 Moisture Detected in Wall/Infrared



Location: ROOM 2

1.11 Moisture Detected in Wall/Infrared

Comment Location : ROOM 3

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results showed slightly elevated Basidiospores inside room 3

*Recommend remediation



Location: ROOM 3

1.1 Photo



Location: ROOM 3

1.2 Air Quality Sample



Location: ROOM 3

1.3 100% Moisture Detected/Wall



Location: ROOM 3

1.4 Moisture Detected in Wall



Location: ROOM 3

1.5 Microbial Growth Inside Air Vent



Location: ROOM 3

1.6 Moisture Detected in Wall/Infrared



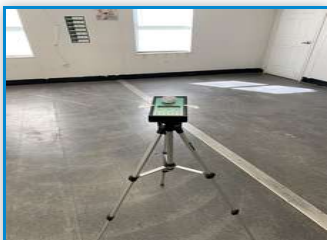
Location: ROOM 3

1.7 Moisture Detected in Wall/Infrared

Comment Location : ROOM 4

A swab sample was taken and sent to the laboratory for analysis. The laboratory shows present of slightly elevated Altemaria (ULOCLADIUM) and Basidiospores mold spores in room 4.

*Recommend remediation



Location: ROOM 3

1.1 Air Quality Sample



Location: ROOM 3

1.2 Moisture Detected in Wall

Comment Location : ROOM 8

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results showed slightly elevated Basidiospores inside room 8.

***Recommend remediation**



Location: ROOM 8

1.1 Air Quality Sample



Location: ROOM 8

1.2 Microbial Growth



Location: ROOM 8

1.3 Microbial Growth



Location: ROOM 8

1.4 Past Water Stains



Location: ROOM 8

1.5 Past Water Stains

EXTERIOR SURFACES SECTION REPORT

Section Items	EX	AL	SE	EL	IN	NI	Comments
1.1 COLLECT AN AIR SAMPLE OUTSIDE FOR BASELINE	✓						1 View Comments
1.2 ROOF					✓		1 View Comments
1.3 EXTERIOR SIDING					✓		1 View Comments

EX = Exterior Air Quality Sample, AL = Acceptable Levels, SE = Slightly Elevated, EL = Elevated Levels, IN = Inspected NI = Not Inspected,

COMMENTS

1.1.1 Air sample outside collected

Exterior Baseline Sample

No Image

Air Quality Sample


Comment Location - EXTERIOR

An outside air sample was collected and sent to the laboratory for analysis.



Location: EXTERIOR

1.1 Air Quality Sample

 Repair or Replace

Comment Location - EXTERIOR/ROOF

At the time of inspection the roof appeared to have soft spots throughout the entire roof. The roof appeared to have many repairs. The roof is actively leaking and have been leaking for quite some time. The assessor recommends the roof to be replaced.



Location: EXTERIOR/ROOF

1.1 Ponding Water Marks



Location: EXTERIOR/ROOF

1.2 Repairs



Location: EXTERIOR/ROOF

1.3 Repairs/Ponding Water Marks



Location: EXTERIOR/ROOF

1.4 Repairs/Ponding Water Marks




Location: EXTERIOR/ROOF

1.5 Repairs



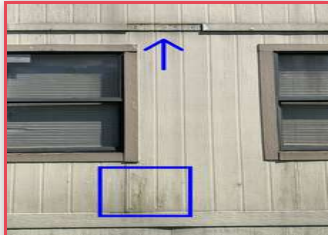
Location: EXTERIOR/ROOF

1.6 Repairs

 Repair or Replace

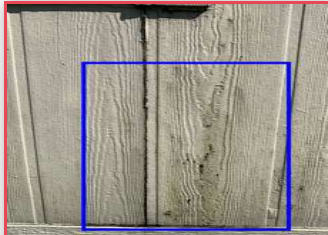
Comment Location - EXTERIOR

The exterior hardie board paneling is starting to separate which allows moisture/water into the side of the building. Missing piece of siding and damaged siding was observed along the exterior of the building. The assessor recommends repair to the exterior siding of the build to help deter moisture intrusion.



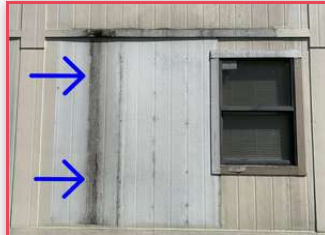
Location: EXTERIOR

1.1 Missing Siding/Soft Spots



Location: EXTERIOR

1.2 Soft Spots



Location: EXTERIOR

1.3 Water Intrusion/Missing Sealant



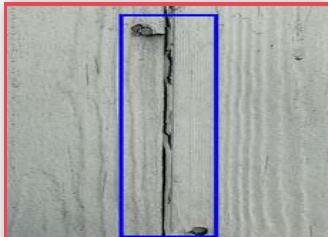
Location: EXTERIOR

1.4 Damage to Siding



Location: EXTERIOR

1.5 Water Intrusion/Missing Sealant



Location: EXTERIOR

1.6 Water Intrusion/Missing Sealant



Location: EXTERIOR

1.7 Water Intrusion/Missing Sealant



Location: EXTERIOR

1.8 Water Intrusion/Missing Sealant

INTERIOR SURFACES SECTION REPORT

Section Items	EX	AL	SE	EL	IN	NI	Comments	
2.1 ROOM 1			✓				1	View Comments
2.2 ROOM 2				✓			1	View Comments
2.3 ROOM 3			✓				1	View Comments
2.4 ROOM 4			✓				1	View Comments
2.5 ROOM 5				✓			1	View Comments
2.6 ROOM 6				✓			1	View Comments
2.7 ROOM 7				✓			1	View Comments
2.8 ROOM 8			✓				1	View Comments

EX = Exterior Air Quality Sample, AL = Acceptable Levels, SE = Slightly Elevated, EL = Elevated Levels, IN = Inspected NI = Not Inspected,

COMMENTS

No Image Slightly Elevated Remediation

Comment Location - ROOM 1

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results show slightly elevated signs of Aspergillus/Penicillium, Basidiospores, and Myxomycetes mold spores inside room 1.

*Recommend remediation



Location: ROOM 1
1.1 Photo



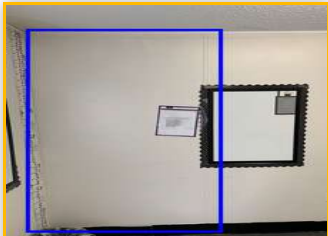
Location: ROOM 1
1.2 Air Quality Sample



Location: ROOM 1
1.3 Moisture Stain



Location: ROOM 1
1.4 Moisture Stain/100% Moisture



Location: ROOM 1
1.5 100% Moisture/Wall needs to be removed.

No Image Slightly Elevated Remediation

Comment Location - ROOM 2

A swab sample was taken and sent to the laboratory for analysis. The laboratory shows present of (low) Aspergillus/Penicillium mold spores and (high) Cladosporium mold spores inside room 2.

*Recommend remediation



Location: ROOM 2

1.1 Photo



Location: ROOM 2

1.2 Swab Sample



Location: ROOM 2

1.3 Mold Growth/Ceiling



Location: ROOM 2

1.4 Mold Growth/Ceiling



Location: ROOM 2

1.5 Mold Growth/Ceiling



Location: ROOM 2

1.6 Mold Growth/Ceiling



Location: ROOM 2

1.7 Mold Growth/Air Vents



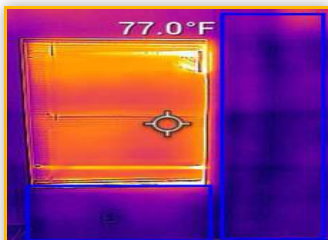
Location: ROOM 2

1.8 84% Moisture Detected/Ceiling



Location: ROOM 2

1.9 Moisture Detected in Wall



Location: ROOM 2

1.10 Moisture Detected in Wall/Infrared



Location: ROOM 2

1.11 Moisture Detected in Wall/Infrared

No Image Slightly Elevated Remediation

Comment Location - ROOM 3

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results showed slightly elevated Basidiospores inside room 3

*Recommend remediation



Location: ROOM 3
1.1 Photo



Location: ROOM 3
1.2 Air Quality Sample



Location: ROOM 3
1.3 100% Moisture Detected/Wall



Location: ROOM 3
1.4 Moisture Detected in Wall



Location: ROOM 3
1.5 Microbial Growth Inside Air Vent



Location: ROOM 3
1.6 Moisture Detected in Wall/Infrared



Location: ROOM 3
1.7 Moisture Detected in Wall/Infrared

No Image Slightly Elevated Remediation

Comment Location - ROOM 4

A swab sample was taken and sent to the laboratory for analysis. The laboratory shows present of slightly elevated Altemaria (ULOCLADIUM) and Basidiospores mold spores in room 4.

*Recommend remediation



Location: ROOM 3
1.1 Air Quality Sample



Location: ROOM 3
1.2 Moisture Detected in Wall

 Remediation

Comment Location - ROOM 5

A swab sample was taken and sent to the laboratory for analysis. The results showed elevated Cladosporium and Curvularia mold spores inside room 5.

Moisture was detected inside the wall cavity. The HVAC system is located behind the wall where moisture was detected.

***Recommend remediation**



Location: ROOM 5

1.1 Photo



Location: ROOM 5

1.2 Mold Growth



Location: ROOM 5

1.3 Moisture Detected in Wall



Location: ROOM 5

1.4 Moisture Detected in Wall



Location: ROOM 5

1.5 Moisture Detected in Wall



Location: ROOM 5

1.6 Moisture Damage



Location: ROOM 5

1.7 Moisture Detected/Ceiling



Location: ROOM 5

1.8 Moisture Detected/Ceiling

 Remediation

Comment Location - ROOM 6

A swab sample was taken and sent to the laboratory for analysis. The laboratory results showed (high) Cladosporium and (low) Aspergillus/Penicillium mold inside room 6.

*Recommend remediation



Location: ROOM 6
1.1 Photo



Location: ROOM 6
1.2 Swab Sample



Location: ROOM 6
1.3 Mold Growth



Location: ROOM 6
1.4 Mold Growth/Water Damage



Location: ROOM 6
1.5 Moisture Detected/Ceiling



Location: ROOM 6
1.6 Moisture Detected/Ceiling

 Remediation

Comment Location - ROOM 7

A swab sample was taken and sent to the laboratory for analysis. The laboratory results showed (high) Cladosporium mold inside room 7.

*Recommend remediation



Location: ROOM 7

1.1 Photo



Location: ROOM 7

1.2 Swab Sample



Location: ROOM 7

1.3 Mold Growth



Location: ROOM 7

1.4 Mold Growth



Location: ROOM 7

1.5 Moisture Detected/Ceiling



Location: ROOM 7

1.6 Water Stains/Moisture



Location: ROOM 7

1.7 Water Stains/82% Moisture



Location: ROOM 7

1.8 Microbial Growth



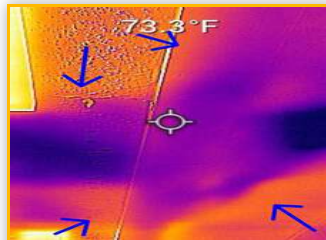
Location: ROOM 7

1.9 Microbial Growth



Location: ROOM 7

1.10 Water Damage



Location: ROOM 7

1.11 Water Damage/Infrared

No Image Slightly Elevated Remediation

Comment Location - ROOM 8

An air quality sample was taken and sent to the laboratory for analysis. The laboratory results showed slightly elevated Basidiospores inside room 8.

*Recommend remediation



Location: ROOM 8
1.1 Air Quality Sample



Location: ROOM 8
1.2 Microbial Growth



Location: ROOM 8
1.3 Microbial Growth



Location: ROOM 8
1.4 Past Water Stains



Location: ROOM 8
1.5 Past Water Stains



EXPANDED FUNGAL REPORT TM

Prepared Exclusively For

Ground Zero Home and Mold Inspections

PO Box 5036

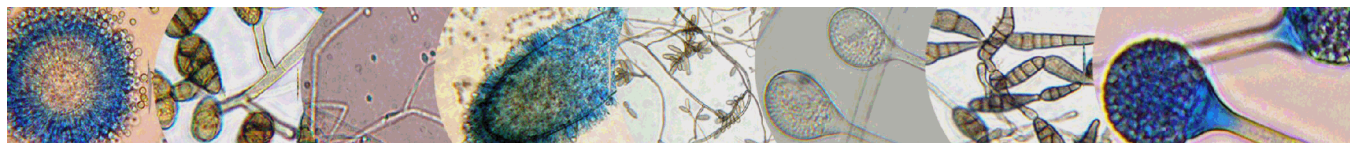
Lakeland, FL 33807

Phone:863-602-3003

Report Date: 10/4/2022
Project: Edward W Bok Academy
EMSL Order: 932205318

A2LA Accredited

Certificate #2845.28



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EMSL Analytical, Inc.

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Attn: James Johnson
Ground Zero Home and Mold Inspections
PO Box 5036
Lakeland, FL 33807

EMSL Order: 932205318
Customer ID: GZHM42
Collected: 10/03/2022
Received: 10/04/2022
Analyzed: 10/04/2022

Proj: Edward W Bok Academy

1. Description of Analysis

Analytical Laboratory

EMSL Analytical, Inc. (EMSL) is a nationwide, full service, analytical testing laboratory network providing Asbestos, Mold, Indoor Air Quality, Microbiological, Environmental, Chemical, Forensic, Materials, Industrial Hygiene and Mechanical Testing services since 1981. Ranked as the premier independently owned environmental testing laboratory in the nation, EMSL puts analytical quality as its top priority. This quality is recognized by many well-respected federal, state and private accrediting agencies, and assured by our high quality personnel, including many Ph.D. microbiologists and mycologists.

EMSL is an independent laboratory that performed the analysis of these samples. EMSL did not conduct the sampling or site investigation for this report. The samples referenced herein were analyzed under strict quality control procedures using state-of-the-art microbiological methods. The analytical methods used and the data presented are scientifically and legally defensible.

The laboratory data is provided in compliance with ISO-IEC 17025 guidelines for the particular test(s) requested, including any associated limitations for the methods employed. These data are intended for use by professionals having knowledge of the testing methods necessary to interpret them accurately.



EMSL Analytical, Inc.

5700 Memorial Highway, Suite 122 Tampa, FL 33615

Phone: (813) 280-8752 Fax: (813) 280-8753 Web: <http://www.EMSL.com> Email: tampalab@emsl.com

Attn: James Johnson
Ground Zero Home and Mold Inspections
PO Box 5036
Lakeland, FL 33807

EMSL Order: 932205318
Customer ID: GZHM42
Collected: 10/03/2022
Received: 10/04/2022
Analyzed: 10/04/2022

Proj: Edward W Bok Academy

Air Samples - Spore traps:

Spore traps are commercially available sampling devices that capture airborne particles on an adhesive slide. Air is pulled through the device using a vacuum pump. Spores, as well as other airborne particles, are impacted on the collection adhesive. Using spore trap collection methods has inherent limitations. These collection methods are biased towards larger spore sizes.

The analysis for total spore counts is a direct microscopic examination and does not include culturing or growing the fungi. Therefore, the results include both viable and non-viable spores. Some fungal groups produce similar spore types that cannot be distinguished by direct microscopic examination alone (i.e., *Aspergillus/Penicillium*, and others). Other spore types may lack distinguishing features that aid in their identification. These types are grouped into larger categories such as Ascospores or Basidiospores.

Fungal spores are identified and grouped by morphological characteristics including color, shape, septation, ornamentation, and fruiting structures (if present) which are compared to published mycological identification keys and texts. EMSL reports provide spore counts per cubic meter of air to three significant figures. Please note that each spore category is reported to three significant figures. Due to rounding and the application of three significant figures the sum of the individual spore numbers may not equal the total spore count on the report. EMSL does not maintain responsibility for final volume concentrations (counts/m³) since this volume is provided by the field collector and can not be verified by EMSL.

EMSL analyzes spore traps using phase contrast microscopy. There is a wide choice of collection devices (Air-O-Cell, Micro-5, Burkhard, etc.) on the market. Differences in analytical method may exist between spore trap devices.

Spore trap results are reported in spores per cubic meter of air. Due to the other airborne particles collected with the spores, EMSL reports a background particle density. Background density is an indication of overall particulate matter present on the sample (i.e. dust in the air). High background concentrations may obscure spores such as the *Penicillium/Aspergillus* group. The rating system is from 1-5 with 1 = 1 - 25% of the background obscured by material, 2 = 26 - 50%, 3 = 51 - 75%, 4 = 76% - 99%, 5 = 100% or overloaded. A background rating of 4 or higher should be regarded as a minimum count since the actual concentrations may be higher than those reported. EMSL will not be held responsible for overloading of samples. Sample volumes are left to the discretion of the company or persons conducting the fieldwork.

Skin fragment density is the percentage of skin cells making up the total background material, 1 = 1 - 25%, 2 = 26 - 50%, 3 = 51 - 75%, 4 = 76-100%. Skin fragment density is considered an indication of the general cleanliness in the area sampled. It has been estimated that up to 90% of household dust consists of dead skin cells.

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PO Box 5036
Lakeland, FL 33807

EMSL Order: 932205318
Customer ID: GZHM42
Collected: 10/03/2022
Received: 10/04/2022
Analyzed: 10/04/2022

Proj: Edward W Bok Academy

2. Analytical Results

See attached data reports and charts.



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Spore Trap ASSESSMENT Report™ Air-O-Cell™ Analysis of Fungal Spores & Particulates (Methods MICRO-SOP-201, ASTM D7391)

	Particle Identification	Raw Count	(Count/m³)	% of Total	Interpretation Guideline
932205318-0001	Alternaria (Ulocladium)	1	20	0.9	
	Ascospores	13	290	12.7	
Client Sample ID 8880	Aspergillus/Penicillium	11	240	10.5	
	Basidiospores	39	860	37.8	
Location Outside	Bipolaris++	1*	7*	0.3	
	Chaetomium++	-	-	-	
	Cladosporium	18	400	17.6	
Sample Volume (L) 150	Curvularia	7	200	8.8	
	Epicoccum	-	-	-	
	Fusarium++	3	70	3.1	
Sample Type Background	Ganoderma	3	70	3.1	
	Myxomycetes++	1	20	0.9	
	Pithomyces++	-	-	-	
Comments	Rust	-	-	-	
	Scopulariopsis/Microascus	-	-	-	
	Stachybotrys/Memnoniella	-	-	-	
	Unidentifiable Spores	-	-	-	
	Zygomycetes	1	20	0.9	
	Cercospora++	2	40	1.8	
	Nigrospora	1	20	0.9	
Total Fungi	102	2277	100		
	Hyphal Fragment	3	70	-	
	Insect Fragment	-	-	-	
	Pollen	1	20	-	
Analytical Sensitivity 600x: 22 counts/cubic meter		Skin Fragments: 1		1 to 4 (low to high)	
Analytical Sensitivity 300x *: 7* counts/cubic meter		Fibrous Particulate: 1		1 to 4 (low to high)	
		Background: 2		1 to 4 (low to high); 5 (overloaded)	

- Not commonly found growing indoors, spores likely come from outside.
- Spores reported to be able to cause allergies in individuals.
- Potential for mycotoxin production exists with these fungi.
- These fungi are considered water damage indicators.

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category

Gerald Iannuzzi, Laboratory Manager
or Other Approved Signatory

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Spore Trap ASSESSMENT Report™ Air-O-Cell™ Analysis of Fungal Spores & Particulates (Methods MICRO-SOP-201, ASTM D7391)

	Particle Identification	Raw Count	(Count/m³)	% of Total	Interpretation Guideline
932205318-0002	Alternaria (Ulocladium)	-	-	-	
	Ascospores	1	40	1.3	Acceptable
Client Sample ID	Aspergillus/Penicillium	10	440	13.9	Slightly Elevated
6209	Basidiospores	58	2600	82	Slightly Elevated
	Bipolaris++	-	-	-	
	Chaetomium++	-	-	-	
Location	Cladosporium	-	-	-	
Room 1	Curvularia	-	-	-	
	Epicoccum	-	-	-	
Sample Volume (L)	Fusarium++	-	-	-	
75	Ganoderma	-	-	-	
	Myxomycetes++	2	90	2.8	Slightly Elevated
	Pithomyces++	-	-	-	
Sample Type	Rust	-	-	-	
Inside	Scopulariopsis/Microascus	-	-	-	
	Stachybotrys/Memnoniella	-	-	-	
Comments	Unidentifiable Spores	-	-	-	
	Zygomycetes	-	-	-	
	Cercospora++	-	-	-	
	Nigrospora	-	-	-	
	Pyricularia	-	-	-	
	Total Fungi	71	3170	100	Slightly Elevated
	Hyphal Fragment	-	-	-	
	Insect Fragment	-	-	-	
	Pollen	1*	10*	-	Acceptable
Analytical Sensitivity 600x: 44 counts/cubic meter		Skin Fragments: 1		1 to 4 (low to high)	
Analytical Sensitivity 300x *: 13* counts/cubic meter		Fibrous Particulate: 1		1 to 4 (low to high)	
		Background: 1		1 to 4 (low to high); 5 (overloaded)	

- Acceptable** Concentration at or below background
- Slightly Elevated** Concentration above background
- ELEVATED** Concentration 10X or more above background

- Not commonly found growing indoors, spores likely come from outside.
- Spores reported to be able to cause allergies in individuals.
- Potential for mycotoxin production exists with these fungi.
- These fungi are considered water damage indicators.

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category

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Spore Trap ASSESSMENT Report™ Air-O-Cell™ Analysis of Fungal Spores & Particulates (Methods MICRO-SOP-201, ASTM D7391)

	Particle Identification	Raw Count	(Count/m³)	% of Total	Interpretation Guideline
932205318-0004	Alternaria (Ulocladium)	-	-	-	
	Ascospores	-	-	-	
Client Sample ID	Aspergillus/Penicillium	1	40	0.7	Acceptable
8877	Basidiospores	132	5830	97.7	Slightly Elevated
	Bipolaris++	-	-	-	
	Chaetomium++	-	-	-	
Location	Cladosporium	3	100	1.7	Acceptable
Room 3	Curvularia	-	-	-	
	Epicoccum	-	-	-	
Sample Volume (L)	Fusarium++	-	-	-	
75	Ganoderma	-	-	-	
	Myxomycetes++	-	-	-	
	Pithomyces++	-	-	-	
Sample Type	Rust	-	-	-	
Inside	Scopulariopsis/Microascus	-	-	-	
	Stachybotrys/Memnoniella	-	-	-	
Comments	Unidentifiable Spores	-	-	-	
	Zygomycetes	-	-	-	
	Cercospora++	-	-	-	
	Nigrospora	-	-	-	
	Pyricularia	-	-	-	
	Total Fungi	136	5970	100	Slightly Elevated
	Hyphal Fragment	-	-	-	
	Insect Fragment	-	-	-	
	Pollen	-	-	-	
Analytical Sensitivity 600x: 44 counts/cubic meter		Skin Fragments: 1		1 to 4 (low to high)	
Analytical Sensitivity 300x *: 13* counts/cubic meter		Fibrous Particulate: 1		1 to 4 (low to high)	
		Background: 1		1 to 4 (low to high); 5 (overloaded)	

Acceptable Concentration at or below background

Slightly Elevated Concentration above background

ELEVATED Concentration 10X or more above background

Not commonly found growing indoors, spores likely come from outside.

Spores reported to be able to cause allergies in individuals.

Potential for mycotoxin production exists with these fungi.

These fungi are considered water damage indicators.

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category

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	Particle Identification	Raw Count	(Count/m³)	% of Total	Interpretation Guideline
932205318-0005	Alternaria (Ulocladium)	1	40	3	Slightly Elevated   
	Ascospores	-	-	-	
Client Sample ID	Aspergillus/Penicillium	3	100	7.5	Acceptable 
6199	Basidiospores	28	1200	89.6	Slightly Elevated  
	Bipolaris++	-	-	-	
Location	Chaetomium++	-	-	-	
Room 4	Cladosporium	-	-	-	
	Curvularia	-	-	-	
Sample Volume (L)	Epicoccum	-	-	-	
75	Fusarium++	-	-	-	
	Ganoderma	-	-	-	
Sample Type	Myxomycetes++	-	-	-	
Inside	Pithomyces++	-	-	-	
	Rust	-	-	-	
Comments	Scopulariopsis/Microascus	-	-	-	
	Stachybotrys/Memnoniella	-	-	-	
	Unidentifiable Spores	-	-	-	
	Zygomycetes	-	-	-	
	Cercospora++	-	-	-	
	Nigrospora	-	-	-	
	Pyricularia	-	-	-	
	Total Fungi	32	1340	100	Acceptable
	Hyphal Fragment	-	-	-	
	Insect Fragment	-	-	-	
	Pollen	-	-	-	
Analytical Sensitivity 600x: 44 counts/cubic meter		Skin Fragments: 1		1 to 4 (low to high)	
Analytical Sensitivity 300x *: 13* counts/cubic meter		Fibrous Particulate: 1		1 to 4 (low to high)	
		Background: 1		1 to 4 (low to high); 5 (overloaded)	

- Acceptable** Concentration at or below background  Not commonly found growing indoors, spores likely come from outside.
- Slightly Elevated** Concentration above background  Spores reported to be able to cause allergies in individuals.
- ELEVATED** Concentration 10X or more above background  Potential for mycotoxin production exists with these fungi.
-  These fungi are considered water damage indicators.

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category

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	Particle Identification	Raw Count	(Count/m ³)	% of Total	Interpretation Guideline
932205318-0009	Alternaria (Ulocladium)	-	-	-	
	Ascospores	2	90	3.4	Acceptable
Client Sample ID	Aspergillus/Penicillium	3	100	3.7	Acceptable
0698	Basidiospores	54	2400	89.6	Slightly Elevated
	Bipolaris++	-	-	-	
	Chaetomium++	-	-	-	
Location	Cladosporium	2	90	3.4	Acceptable
Room 8	Curvularia	-	-	-	
	Epicoccum	-	-	-	
Sample Volume (L)	Fusarium++	-	-	-	
75	Ganoderma	-	-	-	
	Myxomycetes++	-	-	-	
	Pithomyces++	-	-	-	
Sample Type	Rust	-	-	-	
Inside	Scopulariopsis/Microascus	-	-	-	
	Stachybotrys/Memnoniella	-	-	-	
Comments	Unidentifiable Spores	-	-	-	
	Zygomycetes	-	-	-	
	Cercospora++	-	-	-	
	Nigrospora	-	-	-	
	Pyricularia	-	-	-	
	Total Fungi	61	2680	100	Slightly Elevated
	Hyphal Fragment	-	-	-	
	Insect Fragment	-	-	-	
	Pollen	-	-	-	
Analytical Sensitivity 600x: 44 counts/cubic meter		Skin Fragments: 1		1 to 4 (low to high)	
Analytical Sensitivity 300x *: 13* counts/cubic meter		Fibrous Particulate: 1		1 to 4 (low to high)	
		Background: 1		1 to 4 (low to high); 5 (overloaded)	

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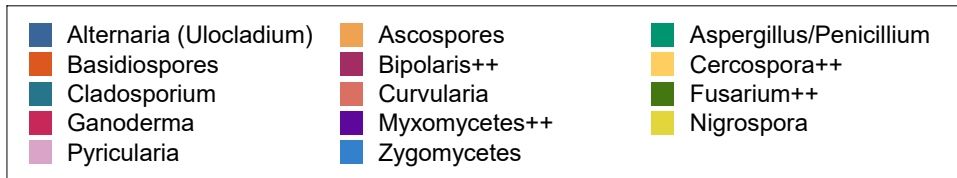
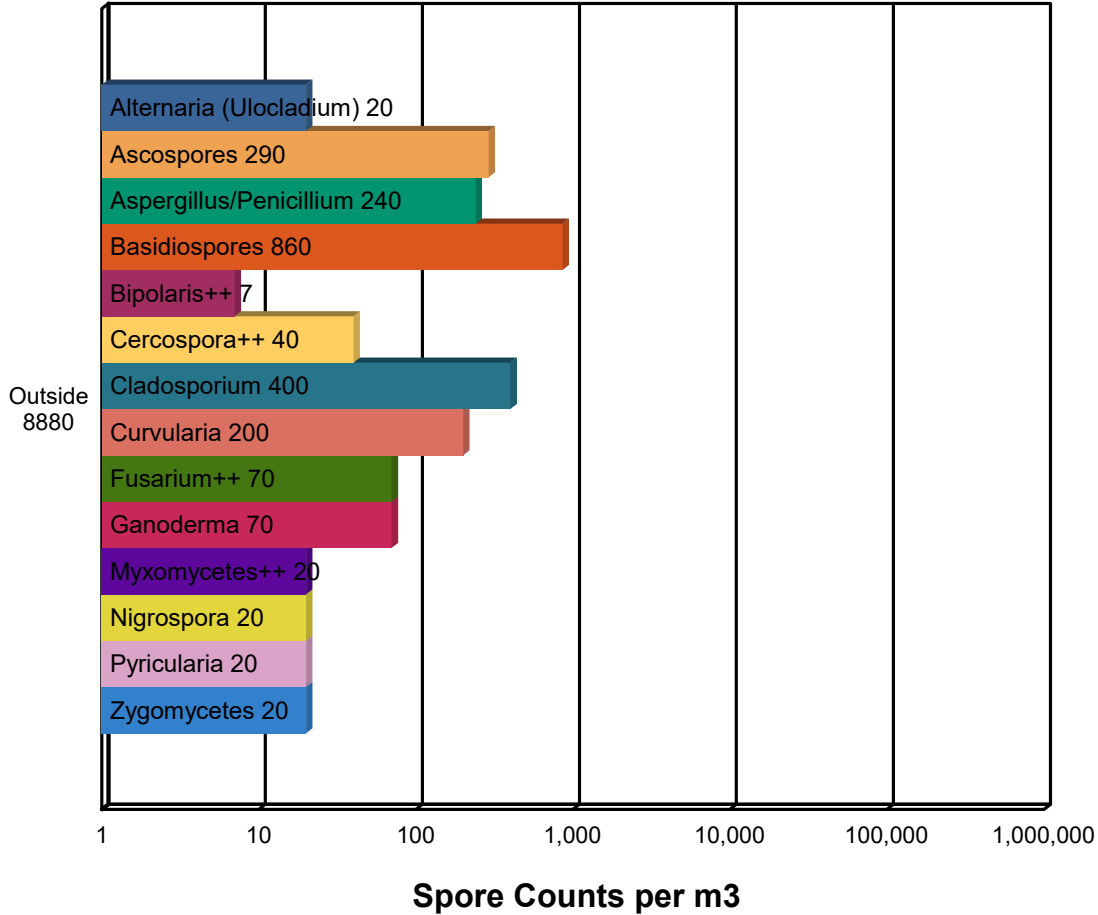
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Spore Trap Report: Total Counts



* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

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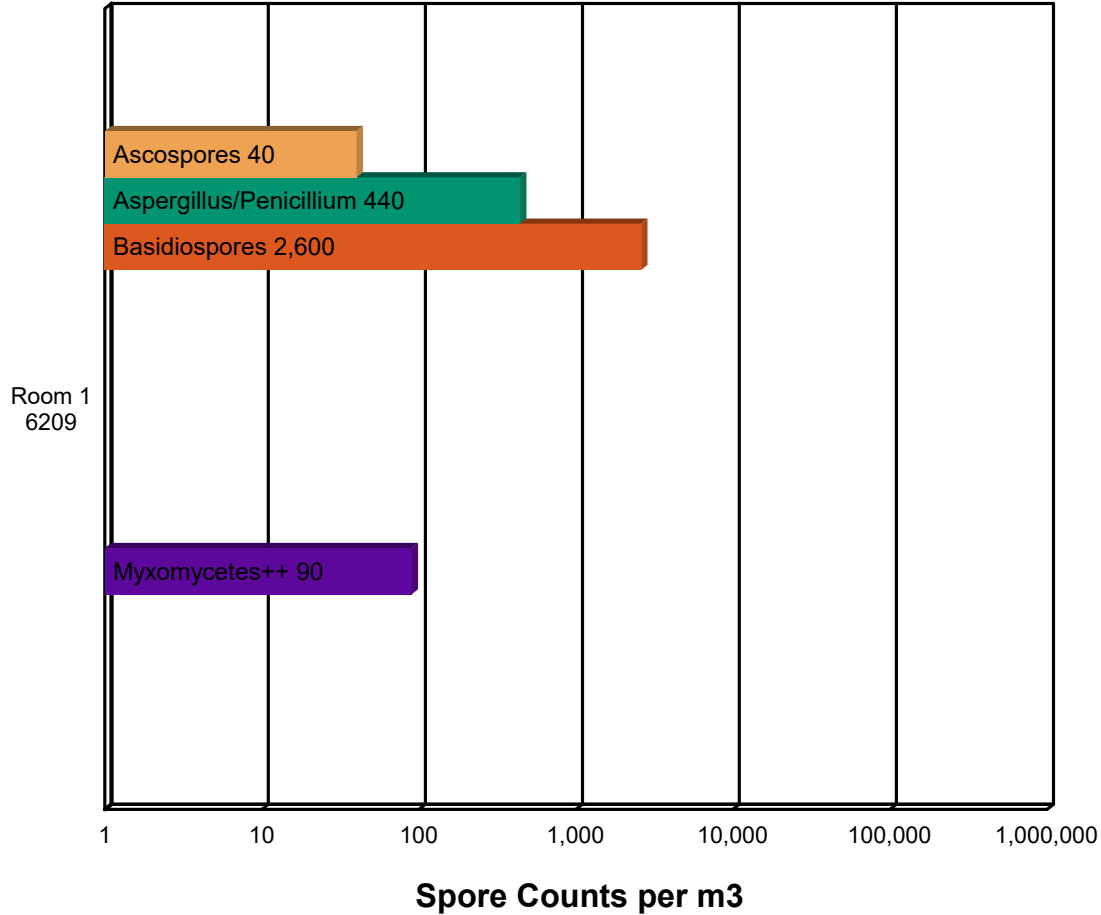
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Spore Trap Report: Total Counts



Alternaria (Ulocladium)	Ascospores	Aspergillus/Penicillium
Basidiospores	Bipolaris++	Cercospora++
Cladosporium	Curvularia	Fusarium++
Ganoderma	Myxomycetes++	Nigrospora
Pyricularia	Zygomycetes	

* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

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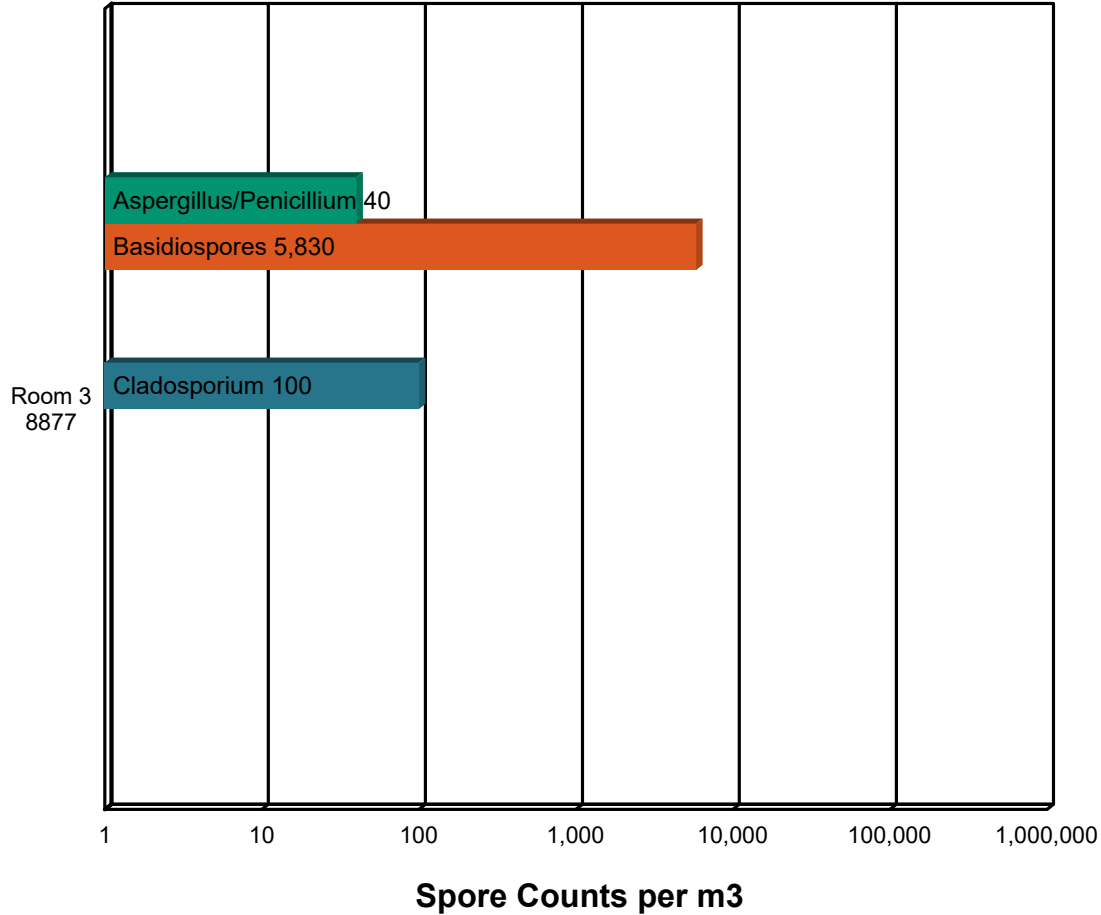
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Proj: Edward W Bok Academy

Spore Trap Report: Total Counts



Alternaria (Ulocladium)	Ascospores	Aspergillus/Penicillium
Basidiospores	Bipolaris++	Cercospora++
Cladosporium	Curvularia	Fusarium++
Ganoderma	Myxomycetes++	Nigrospora
Pyricularia	Zygomycetes	

* The chart is displayed using a logarithmic scale. Bar size is not directly proportional to the number of spores.

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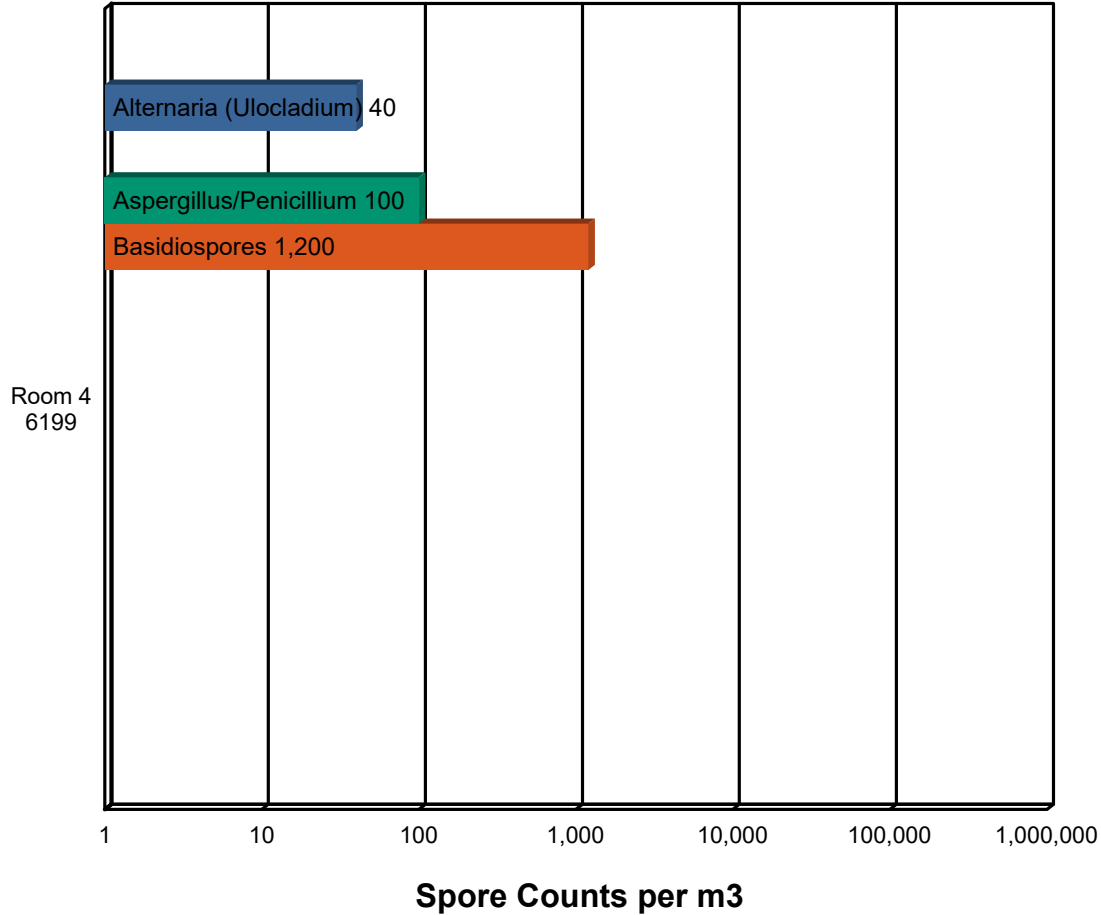
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Ground Zero Home and Mold Inspections
PO Box 5036
Lakeland, FL 33807

EMSL Order: 932205318
Customer ID: GZHM42
Collected: 10/03/2022
Received: 10/04/2022
Analyzed: 10/04/2022

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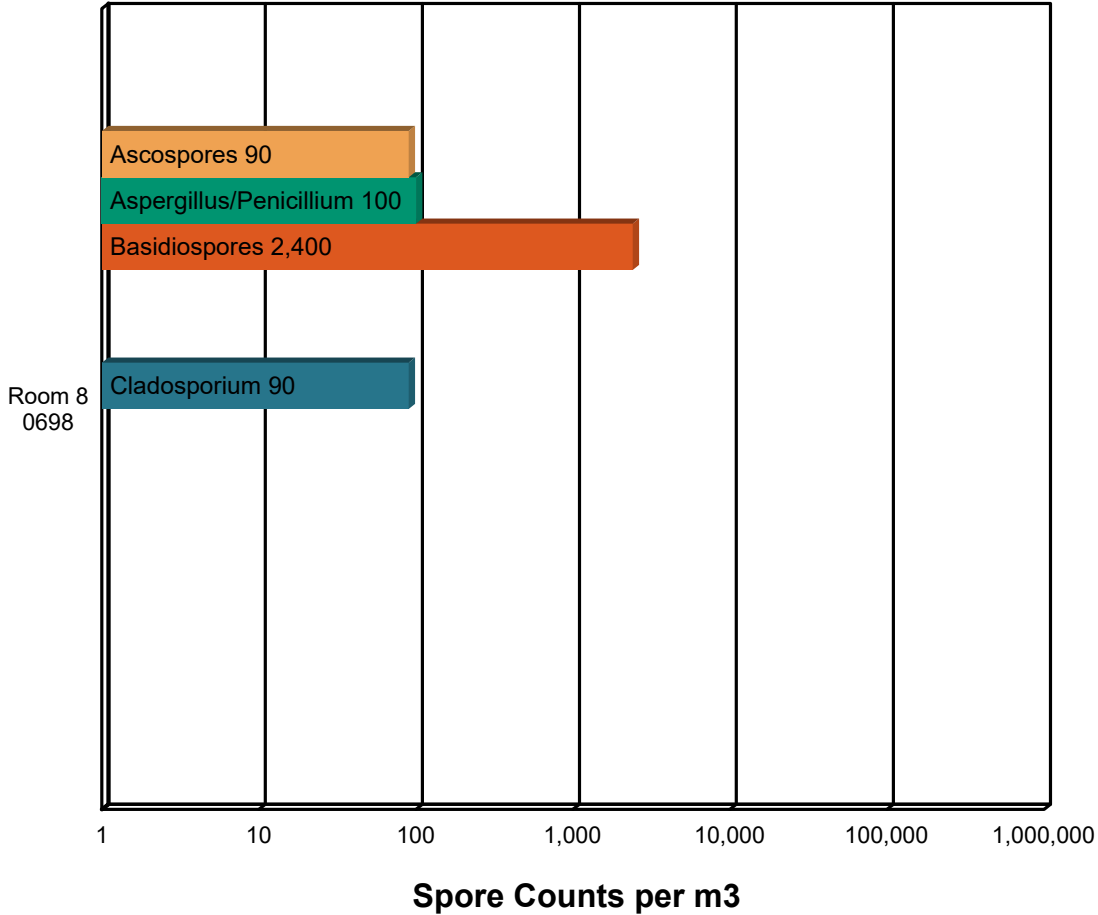
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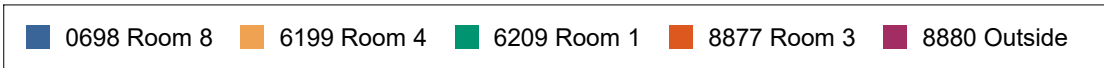
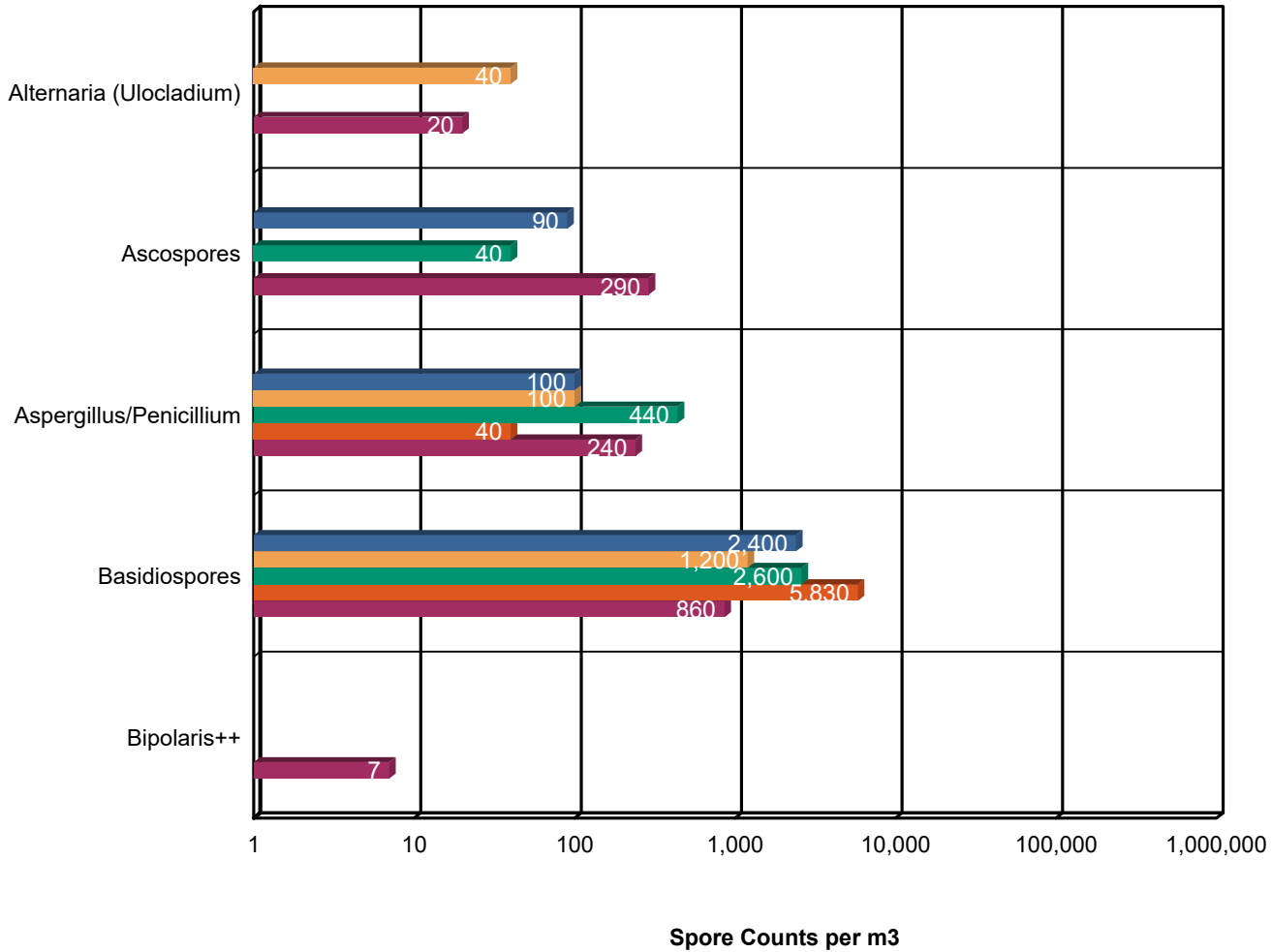
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Background Comparison Chart



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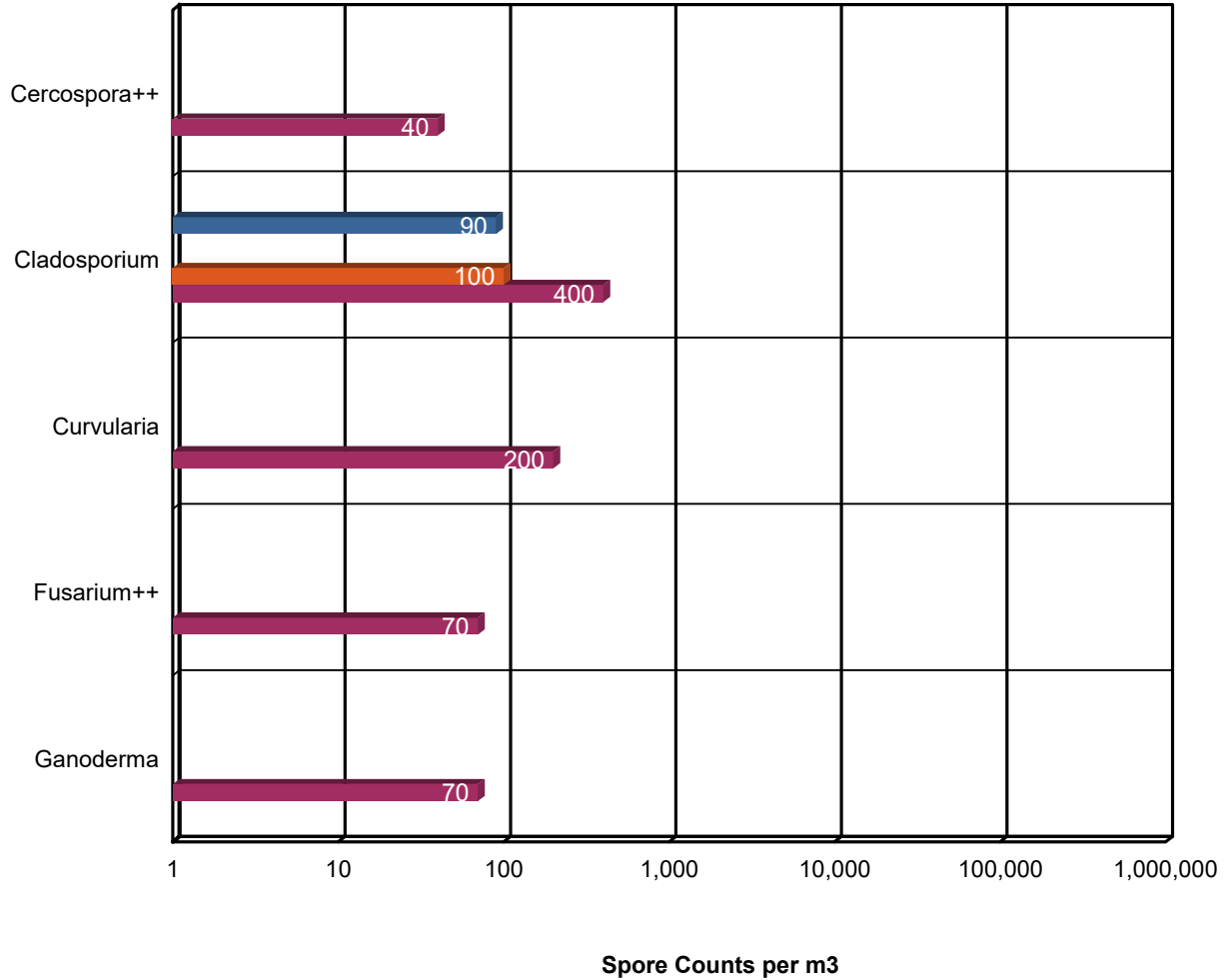
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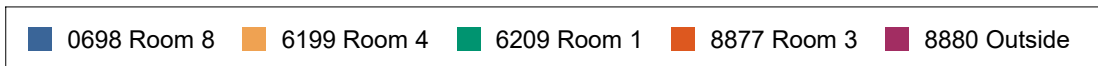
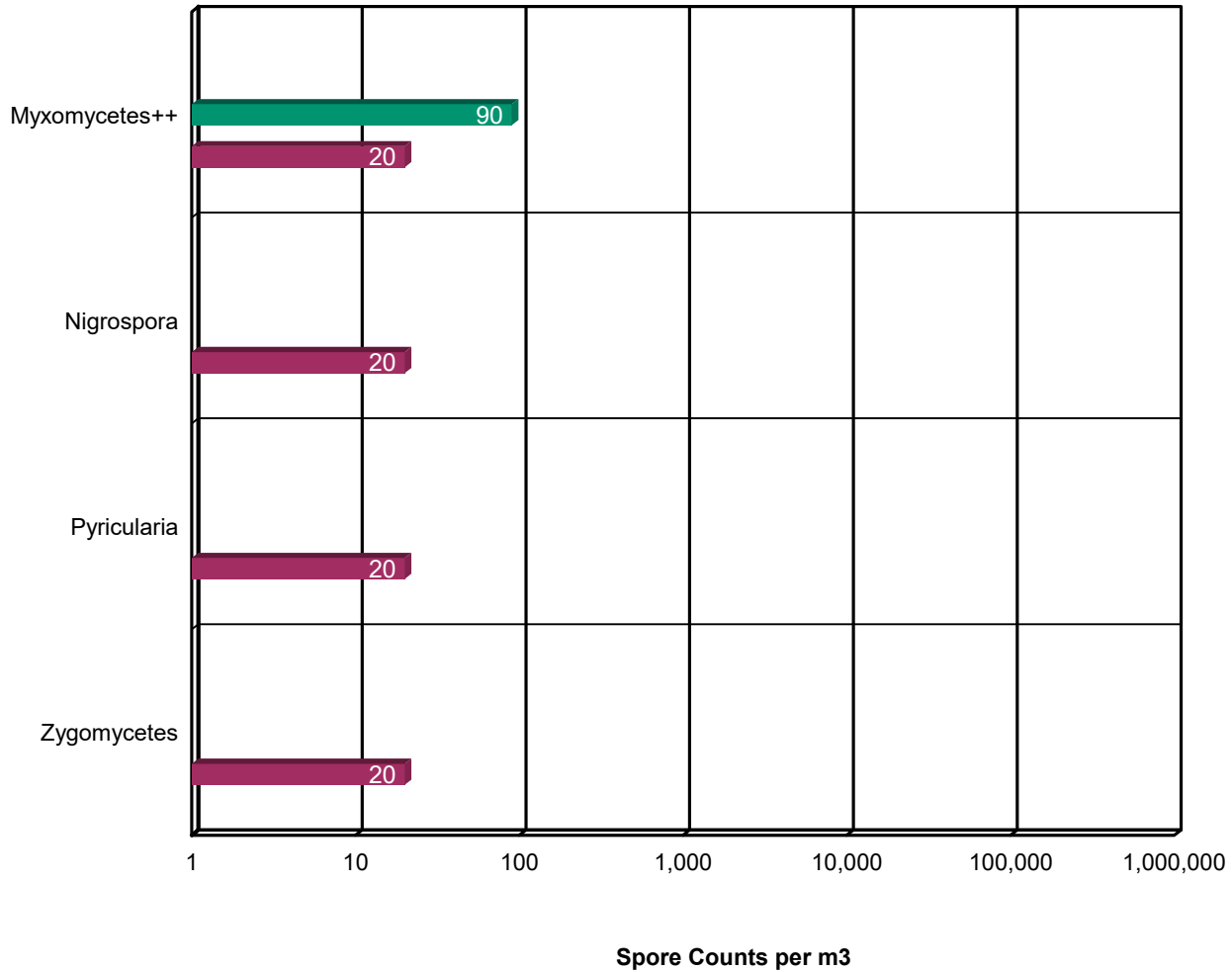
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Surface Contamination ASSESSMENT Report TM Swab Samples Based on Direct Microscopic Analysis MICRO-SOP-200

Sample Information	Sample Location	Surface Contamination Rating (Referenced in IICRC S520)	Recommended Remedial Action (Referenced in IICRC S520)
Lab Sample #: 932205318-0003 Client Sample ID: Swab 1	Room 2	Condition 3: Actual fungal growth	 Remediate to a Condition 1 status
Lab Sample #: 932205318-0006 Client Sample ID: Swab 2	Room 5	Condition 3: Actual fungal growth	 Remediate to a Condition 1 status
Lab Sample #: 932205318-0007 Client Sample ID: Swab 3	Room 6	Condition 3: Actual fungal growth	 Remediate to a Condition 1 status
Lab Sample #: 932205318-0008 Client Sample ID: Swab 4	Room 7	Condition 3: Actual fungal growth	 Remediate to a Condition 1 status

Definitions (from IICRC S520 Standard)	
	Condition 1 (normal fungal ecology): an indoor environment that may have settled spores, fragments, or traces of actual growth.
	Condition 2 (settled spores): an indoor environment which is primarily contaminated with settled spores that were dispersed directly or indirectly from a Condition 3 area, and which may have traces of actual growth.
	Condition 3 (actual growth): an indoor environment contaminated with the presence of actual mold growth and associated spores. Actual growth includes growth that is active or dormant, visible or hidden.

Data provided in this report are intended to facilitate the assessment process performed by an Indoor Environmental Professional (IEP). The IEP is responsible for final data interpretation and remediation conclusions based on their assessment which may include information on the building history, an inspection, sampling, and laboratory data. Post-remediation verification testing recommended after any remediation.



Gerald Iannuzzi, Laboratory Manager
or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Tampa, FL A2LA Accredited – Certificate #2845.28

Initial report from: 10/04/2022 12:06:08

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Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Swab Samples (EMSL Method MICRO-SOP-200)

Lab Sample Number: Client Sample ID: Sample Location:	932205318-0003 Swab 1 Room 2	932205318-0006 Swab 2 Room 5	932205318-0007 Swab 3 Room 6	932205318-0008 Swab 4 Room 7	
Spore Types	Category	Category	Category	Category	
Alternaria (Ulocladium)	-	-	-	-	
Ascospores	-	-	-	-	
Aspergillus/Penicillium	Low	-	Low	-	
Basidiospores	-	-	-	-	
Bipolaris++	-	-	-	-	
Chaetomium++	-	-	-	-	
Cladosporium	*High*	*High*	*High*	*High*	
Curvularia	-	Rare	-	-	
Epicoccum	-	-	-	-	
Fusarium++	-	-	-	-	
Ganoderma	-	-	-	-	
Myxomycetes++	-	-	-	-	
Pithomyces++	-	-	-	-	
Rust	-	-	-	-	
Scopulariopsis/Microascus	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	
Unidentifiable Spores	-	-	-	-	
Zygomycetes	-	-	-	-	
Hyphal Fragment	-	-	-	-	
Insect Fragment	-	-	-	-	
Pollen	-	-	-	-	
Fibrous Particulate	-	-	-	-	

Category: Count/per area analyzed
 Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000
 High background particulate: A high level of background particulate can obscure fungal matter and lead to underestimation or failure to detect
 ++ = Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.
 * = Sample contains fruiting structures and/or hyphae associated with the spores.
 - = Not detected.

Gerald Iannuzzi, Laboratory Manager
or Other Approved Signatory

No discernable field blank was submitted with this group of samples.

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3. Understanding the Results

EMSL Analytical, Inc. is an independent laboratory, providing unbiased and scientifically valid results. These data represent only a portion of an overall IAQ investigation. Visual information and environmental conditions measured during the site assessment (humidity, moisture readings, etc.) are crucial to any final interpretation of the results. Many factors impact the final results; therefore, result interpretation should only be conducted by qualified individuals. The American Conference of Governmental Industrial Hygienists (ACGIH) has published a good reference book covering sampling and data interpretation. It is entitled, Bioaerosols: Assessment and Control, 1999.

Fungal spores are found everywhere. Whether or not symptoms develop in people exposed to fungi depends on the nature of the fungal material (e.g., allergenic, toxic, or infectious), the exposure level, and the susceptibility of exposed persons. Susceptibility varies with the genetic predisposition (e.g., allergic reactions do not always occur in all individuals), age, pre-existing medical conditions (e.g., diabetes, cancer, or chronic lung conditions), use of immunosuppressive drugs, and concurrent exposures. These reasons make it difficult to identify dose/response relationships that are required to establish "safe" or "unsafe" levels (i.e., permissible exposure limits).

It is generally accepted in the industry that indoor fungal growth is undesirable and inappropriate, necessitating removal or other appropriate remedial actions. The New York City guidelines and EPA guidelines for mold remediation in schools and commercial buildings define the conditions warranting mold remediation. Always remember that water is the key. Preventing water damage or water condensation will prevent mold growth.

This report is not intended to provide medical advice or advice concerning the relative safety of an occupied space. Always consult an occupational or environmental health physician who has experience addressing indoor air contaminants if you have any questions.



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4. Glossary of Fungi

ALTERNARIA(ULOCLADIUM)	
Natural Habitat	Common saprobe and pathogen of plants. Typically found on plant tissue, decaying wood, and foods. Soil . Air outdoors.
Suitable Substrates in the Indoor Environment	Indoors near condensation (window frames, showers), House dust (in carpets, and air). Also colonizes building supplies, computer disks, cosmetics, leather, optical instruments, paper, sewage, stone monuments, textiles, wood pulp, and jet fuel
Water Activity	Aw =0.85-0.88 (water damage indicator)
Mode of Dissemination	Wind
Allergic Potential	Type I allergies (hay fever, asthma), Type III (hypersensitivity pneumonitis)
Potential or Opportunistic Pathogens	Phaeohyphomycosis {causing cystic granulomas in the skin and subcutaneous tissue}. In immunocompetent patients, Alternaria colonizes the paranasal sinuses, leading to chronic hypertrophic sinusitis
Industrial Uses	Biocontrol of weed plants ·Biocontrol fungal plant pathogens.
Potential Toxins Produced	Alternariol (AOH) . Alternariol monomethylether (AME). Tenuazonic acid (TeA). Altenuene (ALT). Altertoxins (ATX)
Other Comments	Many species of Ulocladium have been renamed as Alternaria . Alternaria spores are one of the most common and potent indoor and outdoor airborne allergens. Additionally, Alternaria sensitization has been determined to be one of the most important factors in the onset of childhood asthma. Synergy with Cladosporium or Ulocladium may increase the severity of symptoms
References	Alternaria redefined. J. Woudenberg et al., Studies in Mycology. Volume 75, June 2013, Pages 171-212

ASCOSPORES	
Natural Habitat	Everywhere in nature.
Suitable Substrates in the Indoor Environment	Depends on genus and species.
Water Activity	Depends on genus and species.
Mode of Dissemination	Forcible ejection or passive release and dissemination by wind or insects.
Allergic Potential	Depends on genus and species.
Potential or Opportunistic Pathogens	Depends on genus and species.
Industrial Uses	Depends on genus and species.
Potential Toxins Produced	Depends on genus and species.
Other Comments	Ascospores are the result of sexual reproduction and produced in a saclike structure called an ascus. All ascospores belong to members of the Phylum Ascomycota, which encompasses a plethora of genera worldwide.

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ASPERGILLUS/PENICILLIUM

Natural Habitat	Plant debris ·Seed ·Cereal crops
Suitable Substrates in the Indoor Environment	Grows on a wide range of substrates indoors ·Prevalent in water damaged buildings ·Foods (blue mold on cereals, fruits, vegetables, dried foods) ·House dust ·Fabrics ·Leather ·Wallpaper ·Wallpaper glue
Water Activity	Aw=0.75-0.94
Mode of Dissemination	Wind ·Insects
Allergic Potential	Type I (hay fever, asthma) ·Type III (hypersensitivity)
Potential or Opportunistic Pathogens	Possible depending on the species.
Industrial Uses	Many depending on the species
Potential Toxins Produced	Possible depending on the species.
Other Comments	Spores of Aspergillus and Penicillium (including others such as Acremonium, Talaromyces, and Paecilomyces) are small and spherical with few distinguishing characteristics. They cannot be differentiated or speciated by non-viable impaction sampling methods. Some species with very small spores may be undercounted in samples with high background debris.

BASIDIOSPORES

Natural Habitat	Forest floors. Lawns .Plants (saprobes or pathogens depending on genus)
Suitable Substrates in the Indoor Environment	Depends on genus. Wood products
Water Activity	Unknown.
Mode of Dissemination	Forcible ejection. Wind currents.
Allergic Potential	Type I allergies (hay fever, asthma) . Type III (hypersensitivity pneumonitis)
Potential or Opportunistic Pathogens	Depends on genus.
Industrial Uses	Edible mushrooms are used in the food industry.
Potential Toxins Produced	Amanitins. monomethyl-hydrazine. muscarine. ibotenic acid. psilocybin.
Other Comments	Basidiospores are the result of sexual reproduction and formed on a structure called the basidium. Basidiospores belong to the members of the Phylum Basidiomycota, which includes mushrooms, shelf fungi, rusts, and smuts.

BIPOLARIS++

Natural Habitat	Plant saprophyte.Plant pathogen of many plants, causing leaf rot, crown rot, and root rot on warm season turf grasses
Suitable Substrates in the Indoor Environment	House plants, Indoor building materials
Free moisture required for mold growth	Unknown
Mode of Dissemination	Wind
Allergic Potential	Hay fever, asthma. Allergic and chronic invasive sinusitis
Potential or Opportunistic Pathogens	Invasive sinusitis, disseminated mycoses, peritonitis, keratitis, phaeohyphomycosis
Potential Toxins	Can potentially produce sterigmatocystin.
Other Comments	Includes Bipolaris, Drechslera, Exserohilum.

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CERCOSPORA++	
Natural Habitat	Parasite on higher plants, commonly causes leaf spot diseases.
Suitable Substrates in the Indoor Environment	Unknown
Water Activity	Moderate –High humidity
Mode of Dissemination	Irrigation water, Insects, Rain Wind
Allergic Potential	Unknown
Potential or Opportunistic Pathogens	Unknown
Other Comments	Includes morphologically similar spores of Cercospora, Pseudocercospora, Septoriella, and Septoria.

CLADOSPORIUM	
Natural Habitat	Dead plant matter. Straw. Soil. Woody plants
Suitable Substrates in the Indoor Environment	Fiberglass duct liner. Paint. Textiles. Found in high concentration in water-damaged building materials.
Water Activity	Aw 0.84-0.88
Mode of Dissemination	Air
Allergic Potential	Type I (asthma and hay fever).
Potential or Opportunistic Pathogens	Edema. keratitis. onychomycosis. pulmonary infections. Sinusitis.
Industrial Uses	Produces 10 antigens.
Potential Toxins Produced	Cladosporin and Emodin.

CURVULARIA	
Natural Habitat	A worldwide saprophytic fungi, being isolated from dead plant material and soil.
Suitable Substrates in the Indoor Environment	Paper, wood products
Free moisture required for mold growth	Unknown
Mode of Dissemination	Wind
Allergic Potential	Hay fever, asthma, allergic fungal sinusitis
Potential or Opportunistic Pathogens	In immunocompromised patients can cause cerebral abscess, endocarditis, mycetoma, ocular keratitis, onychomycosis, and pneumonia.

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FUSARIUM++	
Natural Habitat	Soil. Plant pathogen causing root rot, stem rot, and wilt of many ornamental and crop plants. Genera with like spores include Fusarium, Albonectria, Atractium, Bisifusarium, Corinectria, Cosmospora, Cosmosporella, Cyanonectria, Dialonectria, Fusicolla, Geejayessia, Ilyonectria, Luteonectria, Macroconia, Mariannaea, Microcera, Neocosmospora, Neonectria, Nothofusarium, Pseudofusicolla Rectifusarium, Rugonectria, Scolecofusarium, Setofusarium, Stylonectria, Thelonectria, and Tumenectria.
Suitable Substrates in the Indoor Environment	Often found in humidifiers. Wet, cellulose-based building materials
Water Activity	Aw=0.86-0.91
Mode of Dissemination	Insects. Water droplets, rain. Wind when spores become dry.
Allergic Potential	Type I allergies (hay fever, asthma).
Potential or Opportunistic Pathogens	Esophageal cancer is believed to happen after consumption of F. moniliforme infected corn. Keratitis. Endophthalmitis. Onychomycosis. Cutaneous infections. Mycetoma. Sinusitis. Pulmonary infections. Endocarditis. Peritonitis. Central venous catheter infections. Septic arthritis. Neurological disease in horses after consumption of F. moniliforme infected corn. Respiratory disease in pigs after consumption of F. moniliforme infected corn.
Industrial Uses	Biological Weapon.
Potential Toxins Produced	Trichothecenes. Zearalenone. Fumonisin.
Other Comments	Major plant pathogen.
Reference	Atlas of Moulds in Europe causing respiratory Allergy, Foundation for Allergy Research in Europe, Edited by Knud Wilken-Jensen and Suzanne Gravesen, ASK Publishing, Denmark, 1984.

GANODERMA	
Natural Habitat	Grows on conifers and hardwoods worldwide, causing white rot, root rot, and stem rot.
Suitable Substrates in the Indoor Environment	Unknown.
Water Activity	Unknown.
Mode of Dissemination	Wind.
Allergic Potential	Ganoderma species are known to cause allergies in people on a worldwide scale.
Potential or Opportunistic Pathogens	Unknown.
Industrial Uses	Biopulping of wood for the paper industry. Potential medicinal use due to: 1. Inhibition of Ras dependent cell transformation, 2. Antifibrotic activity, 3. Immunomodulating activity, 4. Free-radicle scavenging
Potential Toxins Produced	Unknown.
Other Comments	Used in traditional Chinese medicine as an herbal supplement. It is also known as a "shelf fungus" because the fruiting body forms a stalk-less shelf on the sides of trees and logs. It is sometimes called "artists conk" because when you scratch the white pores of the fruiting body, the white rubs away and exposes the brown hyphae underneath. Thus, pictures can be produced on the fruiting body.
Reference	References: Craig, R.L., Levetin, E. 2000. Multi-year study of Ganoderma aerobiology. Aerobiologia 16: 75-81. http://www.pfc.forestry.ca/diseases/CTD/Group/Heart/heart6_e.html

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EMSL Order: 932205318
Customer ID: GZHM42
Collected: 10/03/2022
Received: 10/04/2022
Analyzed: 10/04/2022

Proj: Edward W Bok Academy

MYXOMYCETES++

Natural Habitat	Decaying logs, Dead leaves , Dung , Lawns , Mulched flower beds, Lawns
Suitable Substrates in the Indoor Environment	Rotting lumber
Free moisture required for mold growth	Unknown
Mode of Dissemination	Insects, Water, Wind
Allergic Potential	Type I
Potential or Opportunistic Pathogens	Unknown
Industrial Uses	
Other Comments	Includes Myxomycetes, Smut, Rust, and Periconia.

NIGROSPORA

Natural Habitat	Common on live or dead grass, seeds & soil.
Suitable Substrates in the Indoor Environment	Unknown
Water Activity	Unknown
Mode of Dissemination	Forcibly projected.
Allergic Potential	Type 1 allergies (hey fever, asthma)
Potential or Opportunistic Pathogens	Keratitis & skin lesions

PYRICULARIA

Natural Habitat	Parasite on leaves of different grasses and sometime other plants . Commonly causes leaf spot diseases. Rice blast disease caused by this fungus.
Suitable Substrates in the Indoor Environment	Unknown- require a living plant host for growth
Water Activity	Unknown
Mode of Dissemination	Wind, water
Allergic Potential	Unknown
Potential or Opportunistic Pathogens	Unknown

ZYGOMYCETES

Natural Habitat	Decaying plant matter, Decaying animal matter
Suitable Substrates in the Indoor Environment	Fruits and vegetables
Free moisture required for mold growth	Aw=0.90-0.95
Mode of Dissemination	Water splash, Wind
Allergic Potential	Type I (hay fever, asthma) & Type III (hypersensitivity)
Potential or Opportunistic Pathogens	Some Zygomycetes can cause zygomycosis in immunocompromised patients. Zygomycosis can occur in the lungs, nasal sinus, brain, eye, skin, and mucous membranes.

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5. References and Informational Links

Books

- Bioaerosols: Assessment and Control. Janet Macher, Ed., American Conference of Governmental Industrial Hygienists, Cincinnati, OH 1999.
- Exposure Guidelines for Residential Indoor Air Quality. Environmental Health Directorate, Health Protection Branch, Health Canada, Ottawa, Ontario, 1989.
- Fungal Contamination in Public Buildings: Health Effects and Investigation Methods. Health Canada, Ottawa, Ontario, 2004.
- IICRC: S500 Standard and Reference Guide for Professional Water Damage Restoration. 3rd Edition, Institute of Inspection, Cleaning, and Restoration Certification, Vancouver, WA, 2006
- IICRC: S520 Standard and Reference Guide for Professional Mold Remediation. 1st Edition, Institute of Inspection, Cleaning, and Restoration Certification, Vancouver, WA, 2004
- Field Guide for the Determination of Biological Contaminants in Environmental Samples. 2nd Edition, American Industrial Hygiene Association, 2005.

Consumer Links

Read the full text of AIHA's "The Facts About Mold" consumer brochure.

<http://www.aiha.org/get-involved/VolunteerGroups/Documents/Biosafety/VG-FactsAbout%20MoldDecember2011.pdf>

The Occupational Safety and Health Administration (OSHA)

<http://www.osha.gov/SLTC/molds/index.html>

CDC Mold Facts

<http://www.cdc.gov/mold/faqs.htm>

CDC Stachybotrys - Questions and answers on Stachybotrys chartarum and other molds

<http://www.cdc.gov/mold/stachy.htm>

IOM, NAS: Clearing the Air: Asthma and Indoor Air Exposures

<https://www.epa.gov/indoor-air-quality-iaq/should-you-have-air-ducts-your-home-cleaned>



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National Library of Medicine-Mold website
<http://www.nlm.nih.gov/medlineplus/molds.html>

California Department of Health Services (CADOHS)
<https://www.cdph.ca.gov/Programs/CCDPHP/DEODC/EHLB/IAQ/Pages/Mold.aspx>

Minnesota Department of Health
<http://www.health.state.mn.us/divs/eh/indoorair/mold/index.html>

New York City Department of Health and Mental Hygiene
<https://www1.nyc.gov/site/doh/health/health-topics/mold.page>

H.R.: The United States Toxic Mold Safety and Protection Act

EPA

"Should You Have the Air Ducts in Your Home Cleaned?"
<<http://www.epa.gov/iaq/pubs/airduct.html>>

General information about molds and actions that can be taken to clean up or prevent a mold problem.
<<http://www.epa.gov/asthma/molds.html>>

"A Brief Guide to Mold, Moisture, and Your Home" - Includes basic information on mold, cleanup guidelines, and moisture and mold prevention
<http://www.epa.gov/mold/moldguide.html>

"Mold Remediation in Schools and Commercial Buildings" - Information on remediation in schools and commercial property, references for potential mold and moisture remediators.
<https://www.epa.gov/mold/mold-remediation-schools-and-commercial-buildings-guide>

FEMA

"Homes That Were Flooded May Harbor Mold Problems" - Information and tips for cleaning mold.
<http://www.fema.gov/news-release/homes-were-flooded-may-harbor-mold-problems>

"Dealing With Mold & Mildew in Your Flood Damaged Home."
http://www.fema.gov/pdf/rebuild/recover/fema_mold_brochure_english.pdf



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6. Important Terms, Conditions, and Limitations

A. Sample Retention

Samples analyzed by EMSL will be retained for 60 days after analysis date. Storage beyond this period is available for a fee with written request prior to the initial 30 day period. Samples containing hazardous/toxic substances which require special handling will be returned to the client immediately. EMSL reserves the right to charge a sample disposal fee or return samples to the client.

B. Change Orders and Cancellation

All changes in the scope of work or turnaround time requested by the client after sample acceptance must be made in writing and confirmed in writing by EMSL. If requested changes result in a change in cost the client must accept payment responsibility. In the event work is cancelled by a client, EMSL will complete work in progress and invoice for work completed to the point of cancellation notice. EMSL is not responsible for holding times that are exceeded due to such changes.

C. Warranty

EMSL warrants to its clients that all services provided hereunder shall be performed in accordance with established and recognized analytical testing procedures and with reasonable care in accordance with applicable federal, state and local laws. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. EMSL disclaims any other warranties, express or implied, including a warranty of fitness for particular purpose and warranty of merchantability.

D. Limits of Liability

In no event shall EMSL be liable for indirect, special, consequential, or incidental damages, including, but not limited to, damages for loss of profit or goodwill regardless of the negligence (either sole or concurrent) of EMSL and whether EMSL has been informed of the possibility of such damages, arising out of or in connection with EMSL's services thereunder or the delivery, use, reliance upon or interpretation of test results by client or any third party. We accept no legal responsibility for the purposes for which the client uses the test results. EMSL will not be held responsible for the improper selection of sampling devices even if we supply the device to the user. The user of the sampling device has the sole responsibility to select the proper sampler and sampling conditions to insure that a valid sample is taken for analysis. Any resampling performed will be at the sole discretion of EMSL, the cost of which shall be limited to the reasonable value of the original sample delivery group (SDG) samples. In no event shall EMSL be liable to a client or any third party, whether based upon theories

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of tort, contract or any other legal or equitable theory, in excess of the amount paid to EMSL by client thereunder.

E. Indemnification

Client shall indemnify EMSL and its officers, directors and employees and hold each of them harmless for any liability, expense or cost, including reasonable attorney's fees, incurred by reason of any third party claim in connection with EMSL services, the test result data or its use by client



Our Mission Statement.

Ground Zero Home and Mold Inspections mission is built on a commitment to provide the nation's premier certifying company for indoor air quality. Ground Zero strives to reduce the levels of indoor air pollutants through preventive measures such as evaluations and inspections. Our goal is to protect people, processes and the environment by defining, developing and delivering solutions to our clients.

Ground Zero is Licensed and Certified.

We are a fully licensed and insured professionals, trained to meet specific state requirements for the State of Florida. Based on a NORMI proctored examination, accepted by the State of Florida for licensure, we are experienced professionals that follows industry standard protocols for testing air quality and inspecting for mold.



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Objective:

- Conduct a mold test with laboratory samples to investigate the overall air quality and determine potential high mold spore concentrations.
- Conduct a full HD Infrared Thermography Scan to determine occurrences of factors that can contribute to mold growth or poor IAQ, such as water intrusions, AC air leaks or temperature variances.
- Conduct a full Visual Inspection and Assessment to identify any sources of mold and fungi contamination and to identify any instances of cross-contamination in the above-listed property.
- Provide a complete remediation protocol that will include steps to stop future mold and to provide guidance to ensure microbial air quality is acceptable in all affected areas.

A complete HD infrared thermography assessment was taken:

At the time of the inspection, it was determined to undertake mold test including one outdoor air control sample, four interior air samples, and 4 swab samples.

It should be noted that the results for the above-mentioned tests at the above-listed property are indicative of the test day conditions - daily test results can vary due to interior conditions, humidity and air movement.

The mold test samples have been laboratory analyzed and the results confirm signs of elevated mold and toxic mold *Cladosporium*.

The identified fungi types can cause health problems even at low levels, and in this case the levels were higher than normal and warrant remediation in all areas.



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The inspection findings revealed the following:

- HD Thermography scan residual moisture in the classrooms, facilitating mold growth.
- Severe visible microbial growth on the ceilings and air vents.

Below is the recommended, itemized, and condensed step-by-step remediation plan for a licensed remediation contractor and similar contractors:

• Room 1:

Remove wood panel wall in the corner from floor to ceiling and insulation.

Remove any hidden damaged walls uncovered during the remediation process.

ULPA or HEPA clean and sanitize remaining walls, studs, floors, and hard surfaces, and treat with an organic fungicide.

• Room 2:

Remove damage ceiling and walls by the window.

Remove any hidden damaged walls uncovered during the remediation process.

ULPA or HEPA clean and sanitize all walls, floors, and hard surfaces, and treat with an organic fungicide.

• Room 3:

Remove damage wall by window. Remove all air vents.

Remove any hidden damaged walls uncovered during the remediation process.

ULPA or HEPA clean and sanitize all walls, floors, and hard surfaces, and treat with an organic fungicide.

• Room 4:

Remove damage wall by window.

Remove any hidden damaged walls uncovered during the remediation process.

ULPA or HEPA clean and sanitize all walls, floors, and hard surfaces, and treat with an organic fungicide.

• Room 5:

Remove damage wall by window. Remove all air vents.

Remove any hidden damaged walls uncovered during the remediation process.

ULPA or HEPA clean and sanitize all walls, floors, and hard surfaces, and treat with an organic

fungicide.

• **Room 6:**

Remove damaged drywall from the ceiling and all air vents.

Remove any hidden damaged walls uncovered during the remediation process.

ULPA or HEPA clean and sanitize all walls, floors, and hard surfaces, and treat with an organic fungicide.

• **Room 7:**

Remove damaged drywall from the ceiling and all air vents

Remove any hidden damaged walls uncovered during the remediation process.

ULPA or HEPA clean and sanitize all walls, floors, and hard surfaces, and treat with an organic fungicide.

• **Room 8:**

Remove all air vents and any visible microbial growth

Remove any hidden damaged walls uncovered during the remediation process.

ULPA or HEPA clean and sanitize all walls, floors, and hard surfaces, and treat with an organic fungicide.

• **Central air system and duct system:**

Due to contaminants and cross-contamination, the air handler, entire duct system and all supply and return grilles should be properly sanitized.



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• **Mold Clearance and PRV (Post Remediation Verification):**

Ground Zero Home and Mold Inspections should revisit the above-mentioned premises after remediation is completed, but before any repairs or remodeling is undertaken and at the very least, test the affected areas. If Ground Zero Home and Mold Inspection discovers any elevated levels or toxicity of mold, or cross-contamination, or inadequate workmanship, further remediation work will be undertaken by qualified remediators until such time as the affected areas are safe and pass the Clearance test.

Note that these are only recommended steps. Many surfaces in buildings simply cannot be accessed without causing serious damage and once exposed, walls may reveal more extensive signs of mold and water intrusion, requiring more extensive remediation.

Remediation proposal and mold protocol:

Professional mold removal (remediation) is recommended by the licensed remediation contractor and the remediator must be provided with this Mold Protocol Report which includes information on specific areas in need of mold removal and the recommended methods for mold removal. It is the responsibility of the contractor using this Protocol to update it as required when hidden damage or similar issues are discovered - in order that it complies with the most current technical standards on remediation and complies with the most recent regulations and laws, which are applicable to remediation and medical standards.

This remediation protocol document is to be used only by trained and state-licensed remediators in possession of the necessary licenses to satisfy federal, state, provincial and local laws and regulations. If remediation is undertaken in states without licensing requirements, remediation contractors should be certified by national organizations such as ACAC, IICRC, NORMI or IAQA. It is recommended that contractors using this Mold Protocol Report consult with the client to discuss and review which fungicides, enzymes or other organic products will be used.

The scope of this protocol reflects a limited investigation and evaluation. Further analytical testing may be required to find additional hidden mold infestations in hidden areas that were not sampled or inspected. Inspections by other specialists may be required to locate possible contamination from asbestos, lead paint and other environmental hazards prior to remediation and should be reviewed with the remediation contractor.



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The presence of such materials would take precedence over mold remediation and removal of such regulated materials must be conducted in accordance with federal, state, provincial and local laws and regulations and require specific remediation protocols.

The results of this analysis represent conditions only at the exact time and locations where samples were taken.

Thus, the report and this remediation letter should not be relied upon to represent conditions at any other location or date and does not imply that this property is free of contaminants in other areas.

Moisture removal:

Extremely important: Prior to any remediation, always correct all conditions that have contributed to excess moisture or humidity at the property. Extract any excess water from the property and remove excess humidity with a professional dehumidifier. Humidity must be maintained between 30% and 50% in the work area. Failure to ensure correction to the problem areas can result in mold returning after remediation.

Recommended guidelines:

Remediators should perform remediation in compliance with the IICRC ANSI/IICRC S520; 2015 Standards for Professional Mold Remediation, IAQA standards, or in compliance with the EPA's Mold Removal in Schools and Commercial Buildings guidelines. The remediator should follow any applicable recommendations that the inspector and IEP (Indoor Environmental Professional) included.

Remediation contractor responsibilities:

In Florida State, remediation services should be rendered only by a professional and experienced mold remediator who can verify possession of the following: A Florida Mold Remediation license with proper insurance coverage. In addition to the required state license, they can also possess certifications in mold remediation by national organizations such as IICRC and IAQA. However, possessing the Florida license remains the principal requisite. If required, any intrusive or destructive work must be undertaken by companies in possession of a state-specific General Contractor's License or a specialty license.



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All work shall be done in strict accordance with all applicable regulations, standards, and codes. It is highly recommended that the client requests a legal written contract outlining the contractor's responsibilities and the client's obligations as well as cost estimates, limitations and disclaimers.

It is further recommended that the contract states that the work must pass Ground Zero's Mold Clearance PRV inspection prior to final payment.

The agreement must be made prior to remediation and determine who is responsible for correct disposal of waste building materials. All the client's personal property removed by the remediator shall be returned to its original position post-remediation.

Contractors must demonstrate completion of mold remediation training and respirator training, as well as demonstrate hazardous communication training as required by the US Occupational Safety and Health Administration (OSHA 29 CFR 1910.1200). Tyvek coveralls should be utilized along with suitable gloves, goggles, and foot cover. NIOSH-approved N-95 respirators and HEPA cartridges (N100, R100 or P100) are highly recommended. Adequate respiratory protection must be utilized in accordance with OSHA 29 CFR 1910.134. In addition, the extent of coverall uses and selection of respirator type and selection of containment type at this specific job site must comply with the mold removal guidelines prescribed by IICRC and IAQA.

The remediator shall use all appropriate controls and work practices which are standard in the indoor air environment and mold remediation industry that apply, regardless of the inclusion or exclusion of such standards in this document. Should the above scope or protocol or any part thereof not be specifically adhered to, then mold spores can remain, or cross contaminate other areas.

Containment:

The containment enclosure will be in the form of 6 mil thick polyethylene sheeting. The remediator shall enclose in 6 mil polyethylene sheeting any and all HVAC system returns and air vents, and any ceiling voids above ceiling tiles in the containment area that are used as return air plenums. Also, all conduits, chases, risers and doors within the containment area shall be sealed with 6 mil plastic to minimize the migration of contaminants to other parts of the building



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It is highly recommended that warning signs be displayed that inform persons that mold remediation work is ongoing. In addition, it is highly recommended that remediators restrict access to the work areas and inform untrained visitors to the site of hazards and that they are encouraged to not enter.

Pressure in the containment enclosure must be negative by at least 5 pascals or 0.02 inches water gauge relative to non-contaminated areas outside of the containment enclosure. Contractors can verify negative pressure with a digital manometer. It is highly recommended that containment barriers be constructed so that containment flaps close if negative pressure is lost.

In addition to the creation of negative pressure, it is highly recommended that a containment area achieves four to twelve air changes per hour for containment air ventilation and dilution.

Air being removed from the containment enclosure should be HEPA-filtered and emptied outside, away from air intakes. If it is not possible to exhaust air outside, the air must be HEPA-filtered, and a particle counter should be utilized to confirm correct function of the filter. Air scrubbers equipped with HEPA filters and capable of at least 600 to 1,000 cfm must be used in all enclosed work areas during remediation and for at least 48 hours after remediation. Expanding containment may be necessary when hidden fungal contamination is discovered.

The creation of negative pressure differentials may create a risk of carbon monoxide exposure from back drafting of carbon monoxide, or fire hazards due to rollout of fire from gas appliances. Caution, judgment, and adequate planning must be used whenever gas appliances, fireplaces, laboratory hoods and other potential pathways which may be affected by the creation of nearby negative pressure are found in the work area.

➤ **Note:**

Negatively pressurized containment in hot and humid climates or during summer seasons can cause humidity to be sucked into containment areas through openings in walls, ceilings, and floors.

Guidelines for HVAC cleaning:

- Obtain complete and professional remediation services from a professional HVAC contractor specializing in decontamination of moldy HVAC systems and ensure remediation is performed in compliance with NADCA ACR 2013.



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- Any AC units in the enclosed work area or with a return in the enclosed work area must be shut down, locked out, and all registers, grills, and returns must be sealed and taped with barriers consisting of polyethylene sheeting. Supplemental portable heating or air conditioning may be used in the building or work area if needed to maintain favorable temperatures for workers and building occupants.
- Remove and clean the blower fan. Clean the coils with extreme care, especially at the bottom (in most cases, they may have to be removed for cleaning due to contamination growing on the bottom sides of the coils and between the coils fins.) If satisfactory cleaning cannot be achieved without damaging the coils, then replacement of the coils is recommended.
- Clean the condensation drain pan and lines. Remove all contaminated insulation from inside the air handler. HEPA-vacuum, clean, and sanitize the interior components with an organic fungicide approved by the EPA for use inside air handlers.
- Properly remediate any microbial growth on carpets, wood, drywall, or any other surface located above, around, and under the air handler and its enclosure in compliance with nationally recognized mold remediation guidelines and any state or federal requirements that may apply.

Note: Inexpensive and quick cleaning may cause more problems than it solves as it can disturb spores in the duct work or leave many fragments of mold in the coils and blower fan.

Removal of personal items:

All furniture, clothes, mirrors, and other personal items must be removed from the work areas and stored in a safe, non-contaminated and dry place. Removal will deter cross-contamination and nearly always expose hidden mold behind personal items. Hard-surfaced personal items that were in contaminated areas must be wiped with a fungicide.



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Porous items in the same areas must be HEPA-vacuumed or disposed of. All non-movable and attached items in the work area must be sealed with polyethylene sheeting after being first HEPA-vacuumed and then wet-wiped with fungicide. Exercise caution when wrapping salvageable items to prevent the trapping of moisture.

Spore suppression:

Prior to removal and disposal of any moldy materials, spore suppression is recommended. Spore suppression can be carried out by HEPA-vacuuming moldy surfaces, covering moldy materials with sticky sheets of plastic, or simply spraying the moldy material with a misting of fungicide. Only EPA-approved organic fungicides should be used.

Removal and cleaning steps:

Remove (via professional remediation methods) all drywall, wall or ceiling materials as described previously. This includes removal of all attached fixtures to allow access to walls in the above-listed areas. If mold is found behind any vapor barriers, remove, clean behind, and properly replace the vapor barrier so that they will effectively keep moisture out.

All contaminated surfaces and materials must be removed (even if contamination is slight). This includes drywall, wallpaper, floor laminate, base board, any carpet and carpet padding, any insulation, and any other moldy porous surfaces.

- Do not leave openings in walls, ceilings, floors, or other building components that can serve as cross contamination pathways.

- Do not leave openings that can result in the entrance of humidity or other outdoor elements into the containment area from outdoors, crawl spaces, or attic areas.

Double bag moldy debris or wrap moldy debris in sheets of 6 mil plastic. Use warning labels to discourage opening of contaminated bags. Tape shut then, HEPA-vacuum or wet-wipe exteriors of bags and dispose of as normal waste (unless prohibited by local regulations). HEPA-vacuum all horizontal surfaces and furniture in the entire house within the containment area



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Assess if there is any hidden mold:

Once the wall board or other moldy material is removed, the exposed areas must be inspected for mold growth on previously hidden surfaces, such as wall studs, pipes, conduits, and wall board materials located behind the studs. Any previously hidden mold now exposed must also be removed while retaining building structural integrity, enclosure integrity, and negative pressure. Upon removal, moldy materials must be double bagged, sealed with tape, removed from the property and disposed of (in accordance with local regulations).

Cleaning of components inside the wall cavities:

Non-removable, contaminated wooden materials (such as studs inside walls) must be sand down by at least 1/16th of an inch to remove mold prior to fungicidal treatment. Wood furring strips on block walls must be removed. Contaminated metal studs must be cleaned with a detergent solution and treated with fungicide. If it is not possible to clean and disinfect the structural item, then it must be removed, disposed of and replaced. Removal or replacement of structural supporting members may need the prior consultation of a structural engineer. Sand or wipe away mold from the top, bottom, front, back, and sides of items. The above approach to covering all surfaces must also be utilized when applying organic fungicide.

Cleaning the work area:

Micro-clean the rest of the areas in the contained area by HEPA-vacuuming all surfaces from top to bottom, and in the direction from the least to the most-contaminated area. Next, wipe all surfaces in the work area with an anti-microbial disinfectant. Wipe all electrical components such as wires and sockets with the electrical power off. Only EPA-approved fungicides should be used. Do not use bleach (it is not an EPA approved fungicide and can corrode metal). When clean, the work area should be free of the following: clutter and debris, moisture, humidity above 60% RH, musty or moldy odors, dust, mold growth, and spore levels above normal background levels.

Cleaning clothes and other personal belongings: It is recommended that most cleaning processes start and end with HEPA-vacuuming



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- **Machine Washing**

Clothes from contaminated areas can be washed as directed on clothing label or the clothes can be dry-cleaned. If the manufacturer's label permits, laundry sanitizers can be used to reduce odors and microorganisms. Bleach can be used with white fabrics if permitted by manufacturer's label. Otherwise, fabrics should be washed with color safe bleach products such as those containing sodium perborate or sodium percarbonate (consult the manufacturer's label). Washing your machine-safe clothing may also be enhanced by increasing water temperatures, but care should be taken to not exceed the manufacturer's water temperature recommendations. If heavily contaminated, disposal of clothes is advised (with client's prior written permission).

- **Leather items**

Clean lightly contaminated leather items with a leather soap and treat with a fungicide that has been tested and proven to be safe on such items. If heavily contaminated, items should be disposed of (with client's prior written permission).

- **Furniture**

Lightly contaminated, fleecy furniture with no moisture damage can sometimes be successfully HEPA vacuumed. If visually contaminated with mold or previously wet and stained, disposal is typically advisable. At all times, disposal should be undertaken only with the client's written permission. When testing has demonstrated that the surface will not be damaged or discolored by the applicable fungicide, contaminated, non-porous items should be cleaned with a detergent solution and treated with fungicide. Remediation of high value items must be conducted by qualified and experienced, item-specific specialists.

Post-Clearance Testing Prior to the installation of new building materials, call Ground Zero Home and Mold Inspections for a post-clearance test to determine if mold remediation has been successful.

Thank you again for choosing Ground Zero Home and Mold Inspections for your mold inspection and if you have any questions then feel free to contact me at any time.

Sincerely,

James Johnson