Treadway, David

From: Treadway, David
Sent: Friday, February 7, 2020 3:20 PM
To: Van Scoyoc, Christine; Joeris, Tina
Cc: Barr, Shawn; Hughes, Jason; Cashman, Jinger
Subject: Limited Mold Assessment Rm 140

Mrs. Van Scoyoc,

Good afternoon. My name is David Treadway and I am the IAQ coordinator for LISD. I am sending this email to follow up with the results of the limited mold assessment that was conducted in Room 140 on January 31. It is typically assumed that the indoor spore levels in an area with filtered or air conditioned air, and activity levels associated with schools, average below the outdoor levels. Data from the airborne fungi sampling indicated that the total indoor concentration of mold/fungi in Room 140, was **18 %** of the outdoor levels. Utilizing this theory, the indoor concentrations were within the acceptable guidelines for areas with filtered air or air conditioning. This being said, I went ahead and requested that the air conditioning unit being cleaned and a new air filter installed. This should take care of the musty odor that was reported. If you have any questions, please call or email me.

Sincerely,
David Treadway

Environmental Coordinator
Lewisville ISD
469-948-7823

ENSOLUM

February 7, 2020

Lewisville Independent School District
340 Lake Haven
Lewisville, Texas 75057
Attn: Mr. David Treadway

Re:
Limited Mold Assessment
Flower Mound Elementary School – Room 140
4101 Churchill Drive
Flower Mound, Texas
Ensolum Project No. 01A.1288.073

Ensolum, LLC (Ensolum) was retained to perform limited mold assessment services within Room 140 of Flower Mound Elementary School located at 4101 Churchill Drive in Flower Mound, Texas. Enclosed is the report, including analytical data.

Ensolum appreciates this opportunity to be of service and looks forward to our continued work together. Please contact the undersigned with any questions or concerns you may have.

Sincerely,

Clinton S. Jech
Mold Assessment Consultant
MAC1444 EXP: 10/09/2021

Darren G. Bowden
Principal
MAC0321 EXP: 2/15/2020

1.0 INTRODUCTION

Ensolum was retained by Mr. David Treadway, LISD, to complete a Limited Mold Assessment of Room 140 of Flower Mound Elementary School located at 4101 Churchill Drive in Flower Mound, Texas. The purpose of this investigation was to determine if elevated concentrations of airborne fungal spores and structures were present within the above-referenced room.

Mr. Clint Jech completed the on-site investigation on January 31, 2020. The Limited Mold Assessment was performed in response to a complaint of possible indoor air quality issues within specific areas.

2.0 PROCEDURE

Ensolum visually inspected accessible areas of classroom 140. No Visible water damage or odors were observed in the following locations:

VISIBLE WATER DAMAGE		
LOCATION	DATE	EXPLANATION
Room 140	1-31-2020	N/A

Following the inspection of potential water-damaged building materials, Ensolum conducted a moisture investigation in the identified areas to determine if nonvisible water-damaged materials and other building materials within the investigation area were present. The moisture investigation was completed with a GE Protimeter BLD5364 moisture meter on accessible porous and semi-porous building materials in each area of concern. At the time of investigation, monitored building materials did not exhibit elevated moisture concentrations in comparison with similar and non-affected building materials in the structure and standard scientific guidelines.

Representative Relative Humidity readings were collected and recorded using an Extech Instruments Humidity / Temperature Pen. Measurements recorded during the investigation are listed in the chart below:

TEMPERATURE, RELATIVE HUMIDITY & SPECIFIC HUMIDITY				
LOCATION	DATE	Temperature: F	Relative Humidity	Specific Humidity
Exterior, Northeast	1-31-2020	49	49	25
Exterior, Southeast	1-31-2020	52	44	25
Room 140	1-31-2020	69	37	39

Area air samples were collected with Allergenco-D spore trap cassettes and analyzed for airborne fungal spores and structures. Samples were collected at a rate of 15 liters per minute. Indoor air sample(s) were collected for a five (5) minute period of time (75 liters) at a height of approximately five (5) feet above finished floor (AFF). Outdoor air samples were collected for a five (5) minutes period of time (75 liters) at a height of approximately five (5) feet above level ground. American Conference of Governmental Industrial Hygienists (ACGIH) guidelines were followed for the sample collection. Fungal air samples were collected in the following areas:

SPORE TRAP LOCATIONS	
SAMPLE NUMBER	LOCATION
1	Exterior, Northeast
2	Exterior, Southeast
3	Room 140

3.0 RESULTS

Currently, there are no regulatory standards for airborne fungal contamination. Therefore, results of the fungal analysis are compared against scientific guidelines. Bioaerosol samples are evaluated by comparing the indoor samples against the outdoor sample. The same types of fungi should be found in both the indoor and outdoor samples.

Should higher fungal concentrations occur in the indoor sample(s) or complaint areas, this generally indicates there is a source of fungal growth in the area. The types of fungi are also evaluated-the same types/genus of fungi should be present in both the indoor/complaint and outdoor/non-complaint samples.

The results of the fungal air samples collected were evaluated. Air testing performed using spore traps found that airborne mold spores in the room were considerably lower and were qualitatively similar to those measured outside of the building at the time the sampling was performed.

CONCLUSIONS

Based on ENSOLUM's limited assessment and the analytical results, it appears that the indoor air quality, as it relates to airborne fungi, was within recommended guidelines on this day.

APPENDIX A

ANALYTICAL DATA

IAQ Mold Report

Summary

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : Flower Mound ES, Room 140
Project # : 01A.1288.073
Sample Type: Spore Trap, Non-cultured
Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No. : 20F-01136
Report Date : 02/03/2020
Sample Date: 01/31/2020
Spore Trap Type: Allergenco D

On 1/31/2020, three (3) samples were submitted by Clint Jech of Ensolum, LLC (located at 2351 W. Northwest Hwy Suite #1203, Dallas, TX 75220) for Spore Trap, Non-cultured mold analysis. This report consists of three sections; a summary section, a data detail section, and an analytical notes section.

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
1	75	Exterior, Northeast	Basidiospores	693	56%
			Ascospores	173	14%
			Cladosporium	133	11%
			Aspergillus / Penicillium	67	5%
			Hyphal / Spore Fragments - Hyaline	40	3%
			Hyphal / Spore Fragments - Dematiaceous	27	2%
			Agaricales group	27	2%
			Myxomycete / Periconia / Rust / Smut	27	2%
			Alternaria	27	2%
			Coprinus group	13	1%
			Pithomyces	13	1%
			Total:	1240	100%
2	75	Exterior, Southeast	Basidiospores	547	43%
			Ascospores	253	20%
			Cladosporium	200	16%
			Aspergillus / Penicillium	133	10%
			Hyphal / Spore Fragments - Dematiaceous	53	4%
			Oidium / Peronospora	27	2%
			Ulocladium / Stemphylium	27	2%
			Agaricales group	13	1%
			Coprinus group	13	1%
			Alternaria	13	1%
			Total:	1279	100%

IAQ Mold Report

Summary

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2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

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AIHA EMPAT ID: 102577

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Project : Flower Mound ES, Room 140
Project # : 01A.1288.073
Sample Type: Spore Trap, Non-cultured
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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter	
3	75	Room 140	Basidiospores	67	28%
			Ascospores	53	22%
			Cladosporium	40	17%
			Aspergillus / Penicillium	40	17%
			Hyphal / Spore Fragments - Dematiaceous	27	11%
			Hyphal / Spore Fragments - Hyaline	13	5%
			Total:	240	100%

Analyst(s): Phoebe Stell

Lab Director : Heather Lopez

Lab Director : Bruce Crabb

Approved Signatory : Heather Lopez

Approved Signatory : Bruce Crabb

Thank you for choosing Moody Labs

IAQ Mold Report

Data Detail

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460
TDLR License No.: LAB0117
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Client : Ensolum, LLC
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Report Date : 02/03/2020
Sample Date: 01/31/2020
Spore Trap Type: Allergenco D

This report consists of three sections; a summary section, a data detail section, and an analytical notes section. Results may not be reported except in full.

Sample ID:	1					2					3				
Location:	Exterior, Northeast					Exterior, Southeast					Room 140				
Media Expires On:	Nov 2020					Nov 2020					Nov 2020				
Notes Included:															
Volume:	75					75					75				
	raw ct.	RL	spores/m³	%total	spores/m³ SF	raw ct.	RL	spores/m³	%total	spores/m³ SF	raw ct.	RL	spores/m³	%total	spores/m³ SF
Agaricales group	2	13	27	2%	30	1	13	13	1%	10					
Alternaria	2	13	27	2%	30	1	13	13	1%	10					
Ascospores	13	13	173	14%	170	19	13	253	20%	250	4	13	53	22%	50
Aspergillus / Penicillium	5	13	67	5%	70	10	13	133	10%	130	3	13	40	17%	40
Basidiospores	52	13	693	56%	690	41	13	547	43%	550	5	13	67	28%	70
Chaetomium															
Cladosporium	10	13	133	11%	130	15	13	200	16%	200	3	13	40	17%	40
Coprinus group	1	13	13	1%	10	1	13	13	1%	10					
Hyphal / Spore Fragments - Dematiace	2	13	27	2%	30	4	13	53	4%	50	2	13	27	11%	30
Hyphal / Spore Fragments - Hyaline	3	13	40	3%	40						1	13	13	5%	10
Memnoniella															
Myxomycete / Periconia / Rust / Smut	2	13	27	2%	30										
Oidium / Peronospora						2	13	27	2%	30					
Pithomyces	1	13	13	1%	10										
Stachybotrys															
Ulocladium / Stemphylium						2	13	27	2%	30					
TOTALS	93		1240	100%	1200	96		1279	100%	1300	18		240	100%	240
Analyst	Phoebe Stell					Phoebe Stell					Phoebe Stell				
Analysis Date	2/3/2020					2/3/2020					2/3/2020				
Debris Rating	1					1					2				
Debris Composition															
Fibers	0/5					1/5					1/5				
Inorganic/Other	1/5					1/5					2/5				
Insect Parts	1/5					0/5					0/5				
Pollen	0/5					0/5					0/5				
Skin/Dander	0/5					1/5					1/5				

End of Data Detail section
20F-01136

IAQ Mold Report

Analytical Notes

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460
TDLR License No.: LAB0117
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Sample Type: Spore Trap, Non-cultured
Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No. : 20F-01136
Report Date : 02/03/2020
Sample Date : 01/31/2020
Spore Trap Type: Allergenco D

This report consists of three sections; a summary section, a data detail section, and an analytical notes section. Results may not be reported except in full.

NOTE: No abnormalities or exceptions noted during analysis. All samples suitable for analysis.

NOTE: No discernable field blanks were included with this sample set.

Methods

Method: ASTM D7391-17e1: Categorization and Quantification of Airborne Fungal Structures in an Inertial Impaction Sample by Optical Microscopy.
Samples are read at 100% unless noted. Partial readings may be employed when concentrations are elevated. Use final spore concentrations, not raw spore counts, for interpretation of results.

Calculation: Spores/cubic meter = (Raw spore count)*(RL)
Note: RL (Reporting Limit) is based upon 1 raw spore count.
Moody Labs recommends two significant figures for calculated values based on ASTM D7391-17e1.

This report must not be used by the customer to claim product certification, approval, or endorsement by AIHA, ISO, or any agency of the Federal Government.

Debris Rating Key

0 - No linear trace detected
1 - Trace particulate/debris
2 - Light particulate/debris
3 - Moderate particulate/debris
4 - Substantial particulate/debris
5 - Extensive particulate/debris
6 - Field blank
10 - Hold Sample
11 - Modified Analysis per Client Instructions

NOTE: Particulate/debris are defined as skin, fibers, pollen grains, insect parts, fungal and/or other non-fungal particles.

IAQ Mold Report

Analytical Notes

Moody Labs
2051 Valley View Lane
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Lab ID # 102577

End of Analytical Notes section
20F-01136

IAQ Mold Report

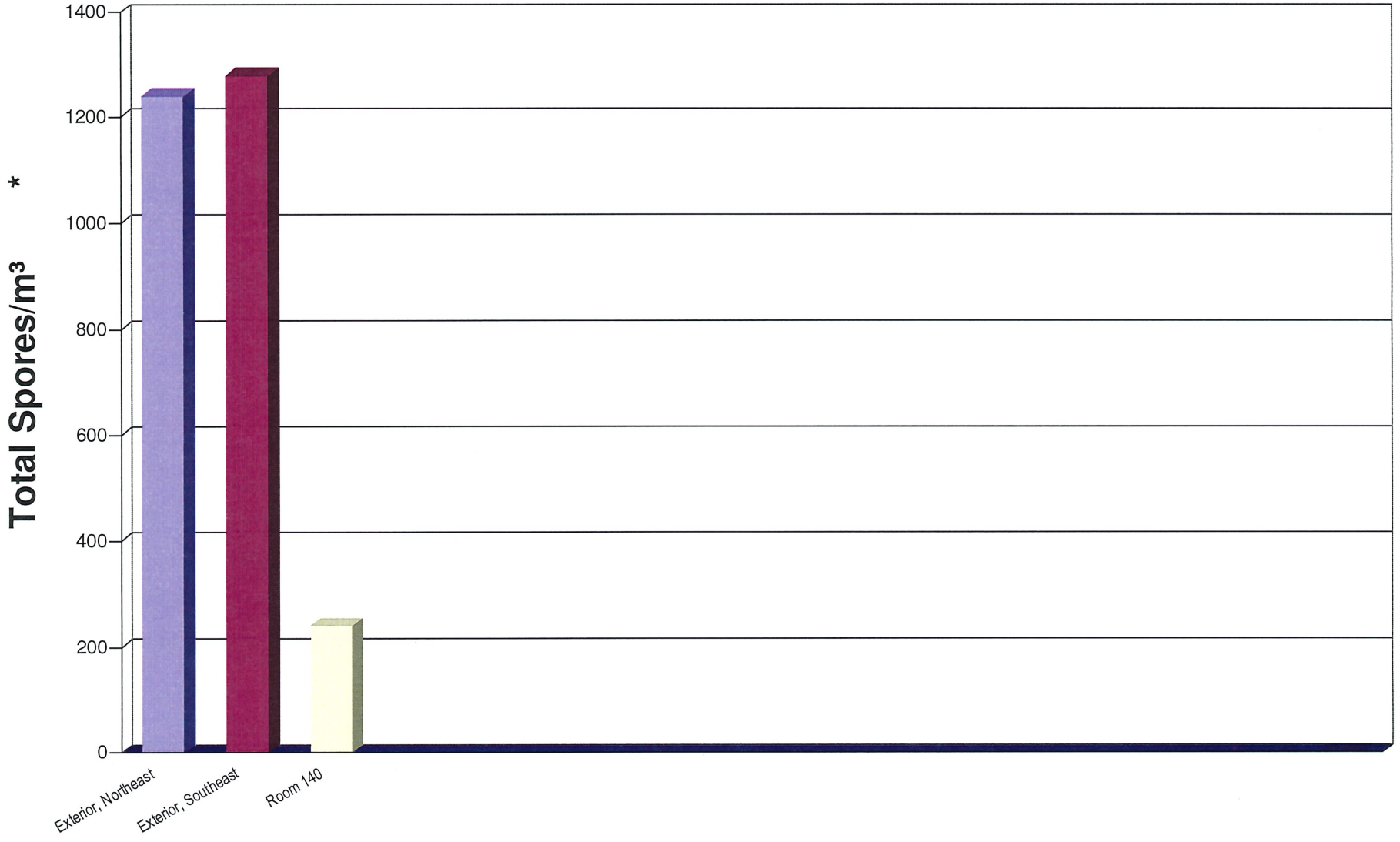
Supplemental Overview

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : Flower Mound ES, Room 140
Project # : 01A.1288.073

Lab Job No. 20F-01136
Report Date 02/03/2020
Sample Date : 01/31/2020



Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

IAQ Mold Report

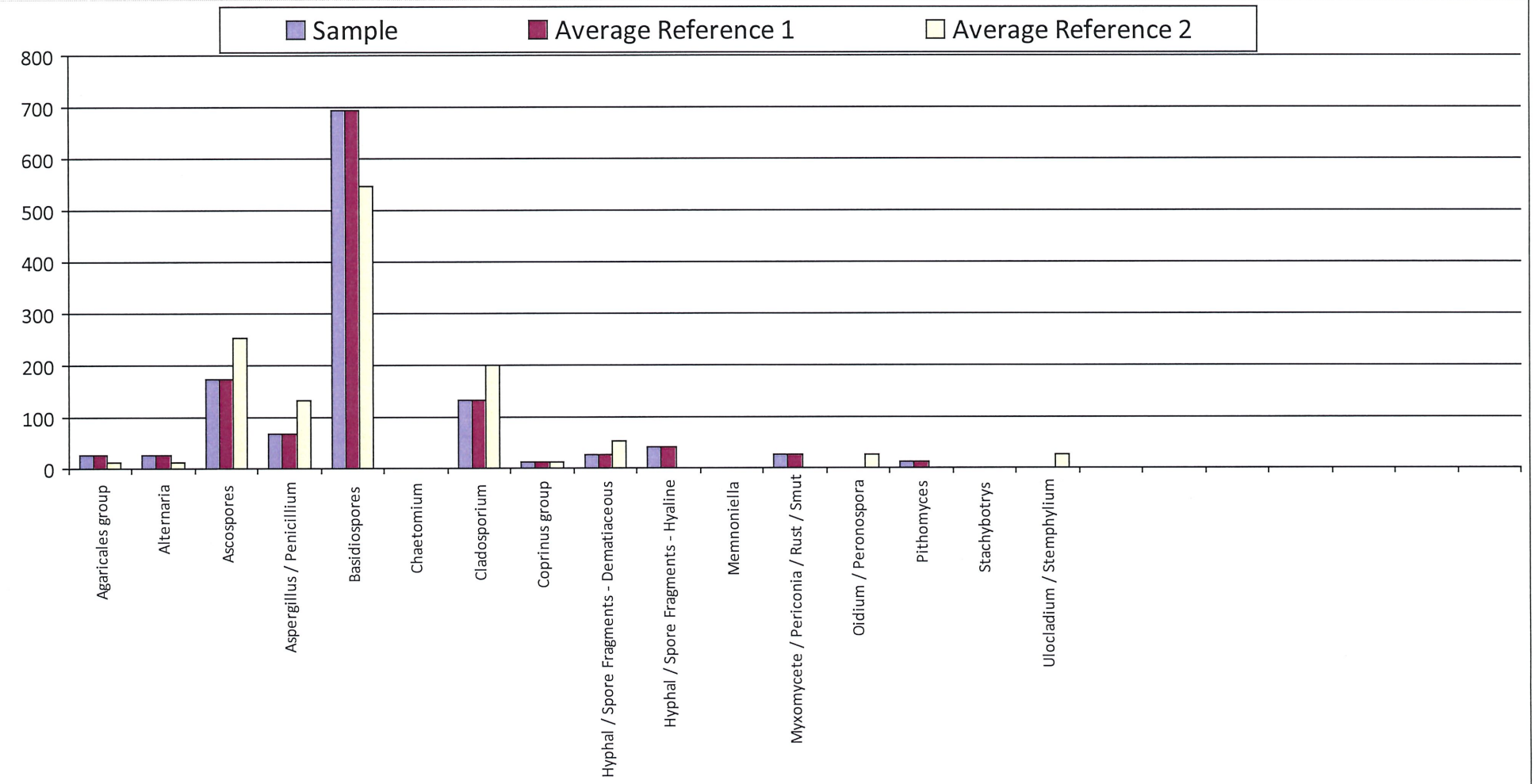
Supplemental Overview

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : Flower Mound ES, Room 140
Project # : 01A.1288.073

Exterior, Northeast

Lab Job No. 20F-01136
Report Date 02/03/2020
Sample Date : 01/31/2020



Average Reference 1 = Exterior, Northeast

Average Reference 2 = Exterior, Southeast

Moody Labs
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

IAQ Mold Report

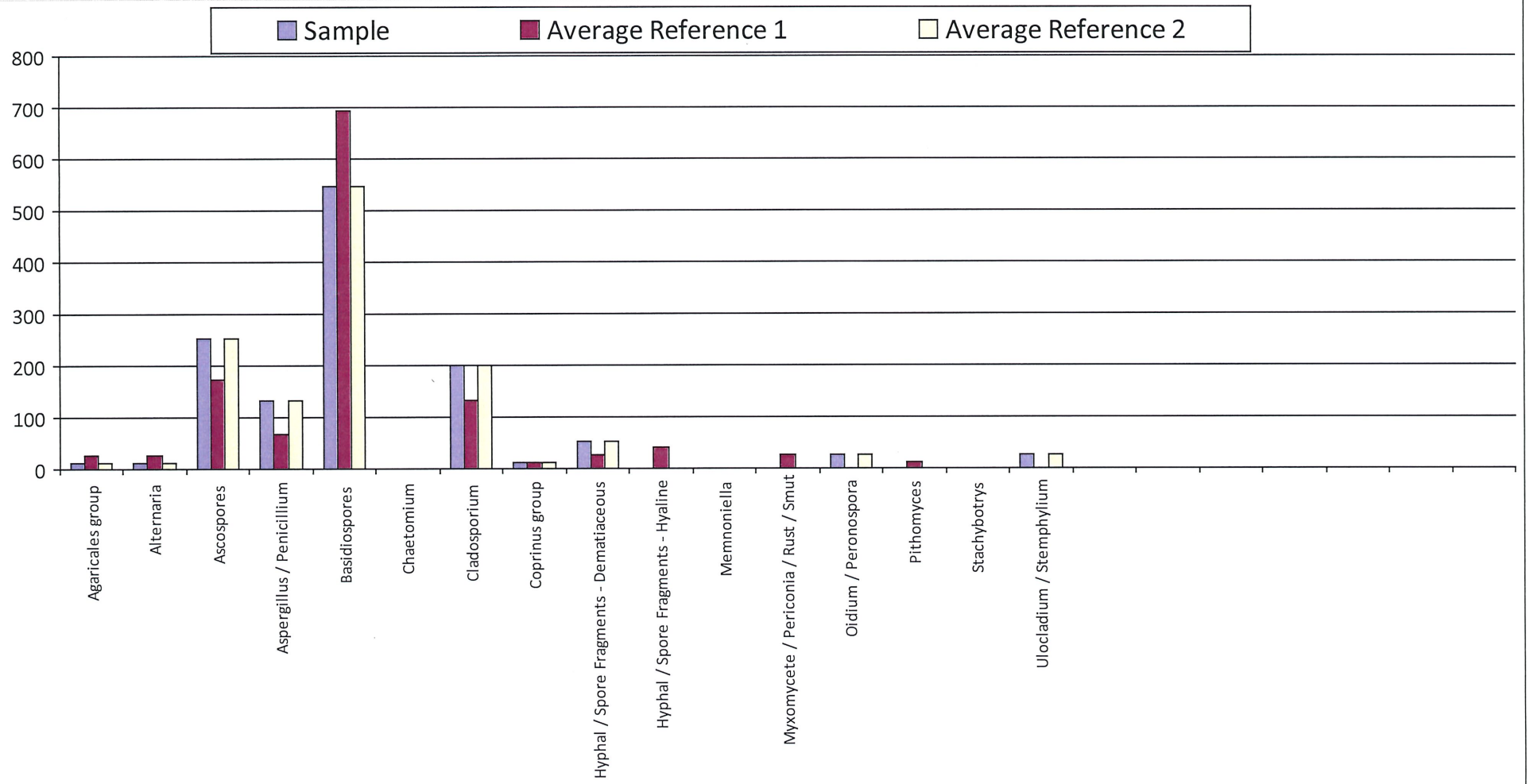
Supplemental Overview

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : Flower Mound ES, Room 140
Project # : 01A.1288.073

Exterior, Southeast

Lab Job No. 20F-01136
Report Date 02/03/2020
Sample Date : 01/31/2020



Average Reference 1 = Exterior, Northeast

Average Reference 2 = Exterior, Southeast

Moody Labs
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IAQ Mold Report

Supplemental Overview

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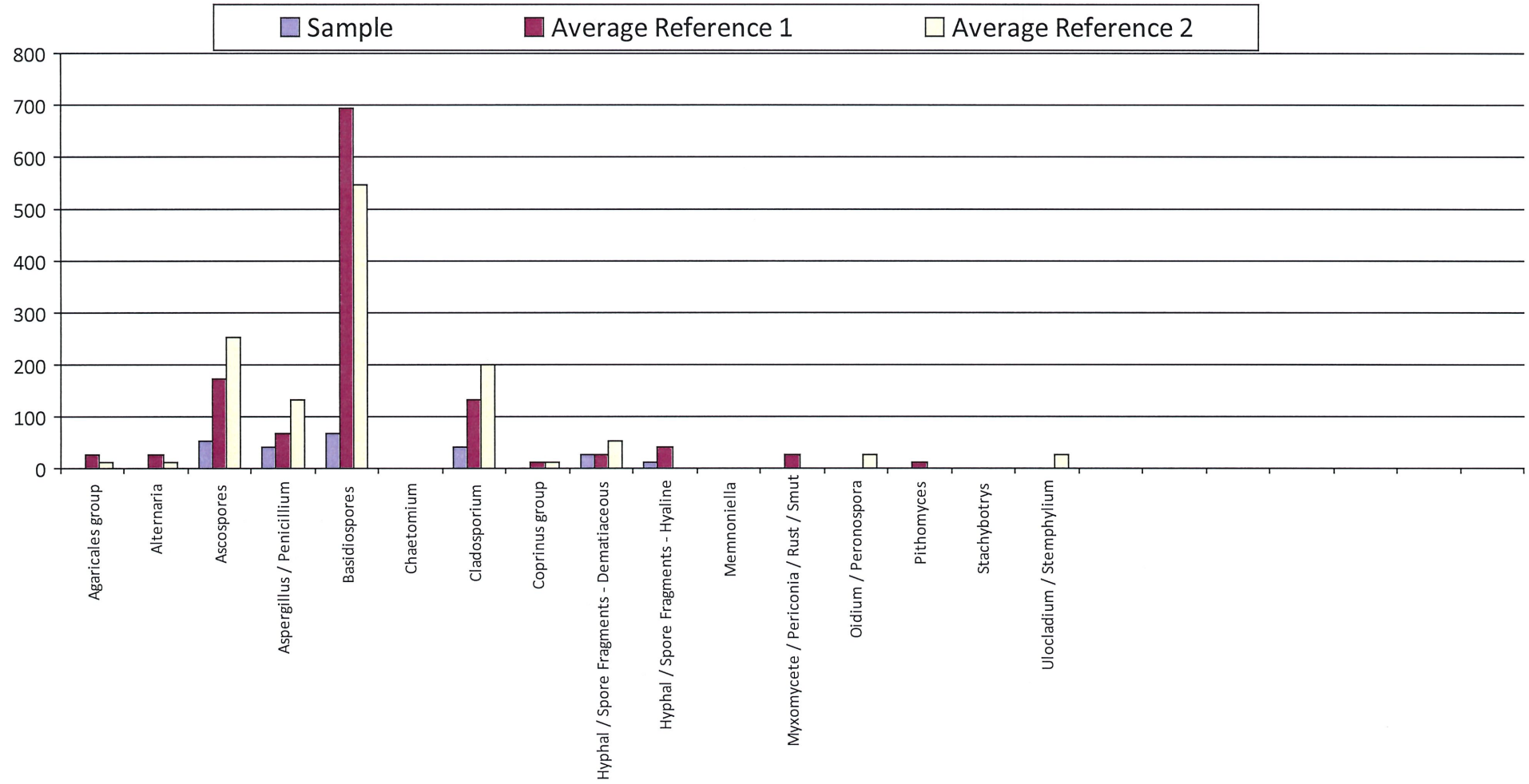
AIHA EMPAT ID: 102577

Client : Ensolum, LLC
Project : Flower Mound ES, Room 140
Project # : 01A.1288.073

Room 140

Lab Job No. 20F-01136
Report Date 02/03/2020
Sample Date : 01/31/2020



Average Reference 1 = Exterior, Northeast

Average Reference 2 = Exterior, Southeast

End of Supplemental Overview section
20F-01136

APPENDIX B

DEFINITIONS AND LIMITATIONS

ENSOLUM

Mold Services Definitions & Limitations

Ensolum performed services in accordance with generally accepted practices of the profession undertaken in similar services at the same time and in the same geographical area. No other warranties, express or implied, apply to the services hereunder or the final report.

Ensolum's services and any report have been prepared on behalf of and for the exclusive use of the Client solely for its use and reliance in assessing the presence of mold in the Investigation Areas of the site. The Client was the only party to which Ensolum explained the risks and limitations of the services and was solely involved in shaping the scope of services. Accordingly, reliance on this report by any other party may involve assumptions leading to an unintended interpretation of findings and opinions. With the consent of the Client, Ensolum may offer reliance to third parties or contract with other parties to develop findings and opinions related to such party's unique risk management concerns. Notwithstanding the foregoing, reliance by any and all third parties upon this deliverable, Ensolum's services or any subsequent report shall be limited in the aggregate to the fair market value of the services provided by Ensolum.

"Limited Mold Assessment". This deliverable uses the term "Limited Mold Assessment" to denote that Ensolum's mold assessment services are limited: (i) to certain portions of the building structure (e.g., the Investigation Areas), by non-destructive sampling methodologies, and/or by access limitations to building materials or components within the Investigation Area(s). In contrast to a "Limited Assessment" is a comprehensive assessment would involve destructive sampling methods with the assessment to be conducted throughout the entire building structure.

Time sensitive. One must keep in mind that mold assessments are essentially a "snap shot in time," and the results are only relevant at the time of site reconnaissance. Because mold, when biologically active, is a living organism, its presence is influenced and controlled by environmental conditions. Mold assessments, therefore, are "time sensitive" in that the presence and concentration of mold and similar organisms in building structures or in the air is directly influenced by environmental conditions (such as humidity, moisture, nutrients and substrates), whether natural or caused by man, which conditions may vary significantly over relatively short periods of time.

Methodologies. Currently, mold assessment methodologies and protocols in Texas are governed by persuasive guidelines (rather than promulgated federal/state or local regulations). Presently, there is no data that supports a threshold limit or dose-response relationship for exposure to mold aeroallergens, individual pathogens, opportunistic pathogens and/or mycotoxins. The Occupational Safety and Health Administration (OSHA), the National Institute of Occupational Safety and Health (NIOSH) and other non-governmental associations, have not yet established permissible exposure limits (PELs), recommended exposure limits (RELs), or other limit values for fungi. Because no limit values presently exist. Ensolum will not and cannot represent that the site contains no harmful microbes, mold, fungi, or their metabolites, or other latent conditions beyond those identified by the limited scope of this mold assessment.

Findings limited. Findings in an LMA are limited due to the nature of the information obtained such as a visual reconnaissance of readily accessible areas of building structures, interview information, anecdotal information, and limited sampling data derived from one or more specific sampling events. Ensolum cannot warrant the accuracy of prior or subsequent information/data, reports and services performed by other firms at the Site. Ensolum assumes no responsibility or liability for errors in information or data provided by or through the client or third party sources. Ensolum's services are not to be construed as legal or medical interpretation or advice.

Moisture Intrusion Limitation. Ensolum performs mold assessment services and is not a moisture intrusion, HVAC, plumbing or building envelope specialist. However, during the course of conducting its mold assessment services, Ensolum will report observed areas of apparent moisture intrusion. Ensolum does not and will not investigate the cause or causes of such observed moisture intrusion. In the event apparent moisture intrusion is observed, Ensolum will recommend that the client contact a specialist (i.e., plumbing contractor, building envelope specialist, HVAC contractor, water intrusion specialist, etc.) to assist the client in determining the specific cause or causes of the moisture intrusion and remedial options.

Certificate of Mold Damage Remediation (CMDR). For mold remediation projects (above certain size thresholds), applicable Texas law (i.e., Texas Occupation Code Section 1958.54 and T.A.C. Section 295.397 (the Texas Mold Assessment and Remediation Rules), requires that a "Certificate of Mold Damage Remediation" be issued by the Mold Remediation Contractor upon successful completion of the project. This certificate must be provided to property owners no later than the 10th day after the date on which the mold remediation is completed at a property. The Mold Remediation Certificate issued by the Mold Remediation Contractor must include a certification by the Mold Assessor that the mold remediation project has been successfully completed in accordance with the mold remediation protocol.

Be advised that Ensolum's issuance of a CMDR upon successful completion of a Mold Remediation project does not mean, warrant or otherwise guarantee that mold will not be subsequently found in any portion of an Investigation Area or the Site. In the event that Ensolum is engaged to render services in connection with a mold remediation project, ENSOLUM will require Client to provide to Ensolum written documentation that all sources of moisture which contributed to the presence of mold in the Investigation Area have been fully remediated and corrected prior to achieving clearance.