Treadway, David

To:

Scott, James

Cc:

Hughes, Jason; Barr, Shawn; Cashman, Jinger

Subject:

Limited Mold Assessment Rms 1230,1240, and 1250

Mr. Scott,

Good morning. My name is David Treadway and I and 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 rooms 1230, 1240, and 1250 on January 30. 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 outdoor levels. Data from the airborne fungi sampling indicated that the total indoor concentration of mold/fungi in Room 1230 was 8.6%, Room 1240 was 5.5%, Room 1250 was 6.1% of the outdoor levels. Utilizing this theory, the indoor concentrations were within acceptable guidelines for areas with filter air or air conditioning. If you have any questions, please feel free to contact me.

Sincerely, David Treadway

Environmental Coordinator Lewisville ISD 469-948-7823



February 7, 2020

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

Re:

Limited Mold Assessment Flower Mound High School – Rooms 1230, 1240 &1250 3411 Peters Colony Road Flower Mound, Texas Ensolum Project No. 01A.1288.074

Ensolum, LLC (Ensolum) was retained to perform limited mold assessment services within Rooms 1230, 1240 & 1250 of Flower Mound High School located at 3411 Peters Colony Road 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

Da A Forder

1.0 INTRODUCTION

Ensolum was retained by Mr. David Treadway, LISD, to complete a Limited Mold Assessment of Rooms 123, 1240 & 1250 of Flower Mound High School located at 3411 Peters Colony Road 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 30, 2020. The Limited Mold Assessment was performed in response to a complaint of possible indoor air quality issues within specific areas from a flood event.

2.0 PROCEDURE

Ensolum visually inspected accessible areas of classrooms 1230, 1240 & 1250. No Visible water damage or odors were observed in the following locations:

	VISIBLE W.	ATER DAMAGE
LOCATION	DATE	EXPLANATION
Room 1230	1-30-2020	N/A
Room 1240	1-30-2020	N/A
Room 1250	1-30-2020	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:

TEMPERA	ATURE, REL	ATIVE HUMIDITY	& SPECIFIC HU	IMIDITY					
LOCATION	DATE	Temperature: F	Relative Humidity	Specific Humidity					
Exterior, Northwest	1-30-2020	52	49	28					
Exterior, Southwest	1-30-2020	53	48	28					
Room 1230	1-30-2020	71	44	49					
Room 1240	1-30-2020	72	39	45					
Room 1250	1-30-2020	70	34	37					

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, Northwest								
2	Exterior, Southwest								
3	Room 1230								
4	Room 1240								
5	Room 1250								

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 rooms 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

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

Page 1 of 3

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

Client: Project: Ensolum, LLC

Flower Mound HS, Rooms 1230, 1240 & 1250

Project #: 01A.1288.074

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No.: 20F-01095

Report Date: 01/31/2020

Sample Date: 01/30/2020

Spore Trap Type: Allergenco D

On 1/30/2020, five (5) 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		ntration ubic meter	
1	75	Exterior, Northwest	Basidiospores Ascospores Aspergillus / Penicillium Cladosporium Myxomycete / Periconia / Rust / Smut Coprinus group Hyphal / Spore Fragments - Dematiaceous Nigrospora Curvularia Total:	746 360 213 133 27 27 13	48% 23% 14% 9% 2% <1% <1% <1%	
2	75	Exterior, Northeast	Basidiospores Ascospores Aspergillus / Penicillium Cladosporium Agaricales group Coprinus group Hyphal / Spore Fragments - Dematiaceous Myxomycete / Periconia / Rust / Smut Drechslera / Bipolaris /	1213 440 293 93 40 27 13	56% 20% 14% 4% 2% 1% <1% <1%	
			Helminthosporum / Exserohilum group Alternaria Total:	13 2158	<1% 100%	
			,			



IAQ Mold Report

Summary

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

Client: Project:

Project #:

Ensolum, LLC

Flower Mound HS, Rooms 1230, 1240 & 1250

01A.1288.074

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No.: 20F-01095

Report Date: 01/31/2020

Sample Date: 01/30/2020

Spore Trap Type: Allergenco D

Page 2 of 3

On 1/30/2020, five (5) 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		ntration ubic meter	
3	75	Classroom 1230 * See Analytical Notes report for	Hyphal / Spore Fragments - Dematiaceous	67	36%	
		further details	Basidiospores	40	21%	
			Myxomycete / Periconia / Rust / Smut	27	14%	
			Aspergillus / Penicillium	27	14%	
			Cladosporium	13	7%	
			Alternaria	13	7%	
			Total:	187	100%	
4	75	Classroom 1240	Hyphal / Spore Fragments - Dematiaceous	53	45%	
			Ascospores	27	23%	
			Myxomycete / Periconia / Rust / Smut	13	11%	
			Basidiospores	13	11%	
			Aspergillus / Penicillium	13	11%	
			Total:	119	100%	
5	75	Classroom 1250	Hyphal / Spore Fragments - Dematiaceous	40	30%	
			Ascospores	40	30%	
			Hyphal / Spore Fragments - Hyaline	13	10%	
			Coprinus group	13	10%	
			Drechslera / Bipolaris / Helminthosporum / Exserohilum group	13	10%	
		,	Basidiospores	13	10%	
			Total:	132	100%	



Project:

IAQ Mold Report

Summary

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

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

Client: Ensolum, LLC

Flower Mound HS, Rooms 1230, 1240 & 1250

Project #: 01A.1288.074

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No.: 20F-01095

Report Date: 01/31/2020

Sample Date: 01/30/2020

Spore Trap Type: Allergenco D Page 3 of 3

On 1/30/2020, five (5) 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

Results may not be reported except in full. Data contained in this test report relates only to the samples tested. This report does not express or imply interpretation of the results contained herein. Interpretation should be made by a qualified professional.

Moody Labs assumes no responsibility for the manner in which these samples were collected or handled prior to being received at this laboratory. Volume, area, and/or weight is provided by the customer. Moody Labs assumes no responsibility for the qualifications of personnel performing sampling and/or interpretations of this data.

Analyst(s): Phoebe Stell

Lab Director: Heather Lopez

Lab Director: Bruce Crabb

Thank you for choosing Moody Labs

Approved Signatory:

Approved Signatory:

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ing Moody Labs

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IAQ Mold Report

Data Detail

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

Client: Ensolum, LLC

Project: Flower Mound HS, Rooms 1230, 1240 & 1250

Project #: 01A.1288.074

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No.: 20F-01095

Report Date: 01/31/2020

Sample Date: 01/30/2020

Spore Trap Type: Allergenco D

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

This report consists of three sections; a sur	nmary s	section	on, a data o	detail sec	ction, and an a	nalytica	al no	tes section.	Results	may not be re	ported	exce	pt in full.					
Sample ID:	1						2						3					
Location:	Exterior, Northwest						Exterior, Northeast						Classroom 1230					
Media Expires On:		Nov 2020						Nov :	2020				Nov :	2020				
Notes Included:																		
Volume:	75						7					7						
	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						3	13	40	2%	40								
Alternaria						1	13	13	<1%	10	1	13	13	7%	10			
Ascospores	27	13	360	23%	360	33	13	440	20%	440								
Aspergillus / Penicillium	16	13	213	14%	210	22	13	293	14%	290	2		27	14%	30			
Basidiospores	56	13	746	48%	750	91	13	1213	56%	1200	3	13	40	21%	40			
Chaetomium																		
Cladosporium	10	13	133	9%	130	7	13	93	4%	90	1	13	13	7%	10			
Coprinus group	2	13	27	2%	30	2	13	27	1%	30								
Curvularia	1	13	13	<1%	10													
Drechslera / Bipolaris / Helminthosporu						1	13	13	<1%	10								
Hyphal / Spore Fragments - Dematiace	1	13	13	<1%	10	1	13	13	<1%	10	5	13	67	36%	70			
Hyphal / Spore Fragments - Hyaline																		
Memnoniella																		
Myxomycete / Periconia / Rust / Smut	2	13	27	2%	30	1	13	13	<1%	10	2	13	27	14%	30			
Nigrospora	1	13	13	<1%	10													
Stachybotrys																		
TOTALS	116		1545	100%	1500	162		2158	100%	2200	14		187	100%	190			
Analyst			Phoeb	e Stell				Phoeb	e Stell		Phoebe Stell							
Analysis Date			1/31/	2020				1/31/	2020		1/31/2020							
Debris Rating			2	2				2	2				5	5				
Debris Composition																		
Fibers			1/	/5				1/	5				2/	5				
Inorganic/Other			2/	/5		2/5							5/	5				
Insect Parts			1/	/5		1/5					0/5							
Pollen			0/	/5				1/	5				0/	5				
Skin/Dander			1/	/5				1/	5				4/	5				

Moody Labs

IAQ Mold Report

Data Detail

2051 Valley View Lane

Farmers Branch, TX 75234 Phone: (972) 241-8460

Client:

Ensolum, LLC

Project:

Flower Mound HS, Rooms 1230, 1240 & 1250

Project #:

01A.1288.074

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No.: 20F-01095

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.

Report Date: 01/31/2020

Sample Date: 01/30/2020

Spore Trap Type: Allergenco D

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

Sample ID:				1					5					
Location:			Classroo	om 1240	0			Classroo	om 125	0				
Media Expires On:			Nov	2020				Nov	2020					
Notes Included:														
Volume:			7	5				7	5					
	raw ct.	RL	spores/m³	%total	spores/m³ SF	raw ct.	RL	spores/m³	%total	spores/m³ SF				
Agaricales group														
Alternaria														
Ascospores	2	13	27	23%	30	3	13	40	30%	40				
Aspergillus / Penicillium	1	13	13	11%	10									
Basidiospores	1	13	13	11%	10	1	13	13	10%	10				
Chaetomium										1219911				
Cladosporium														
Coprinus group						1	13	13	10%	10				
Curvularia														
Drechslera / Bipolaris / Helminthosporu						1	13	13	10%	10				
Hyphal / Spore Fragments - Dematiace	4	13	53	45%	50	3	13	40	30%	40				
Hyphal / Spore Fragments - Hyaline						1	13	13	10%	10				
Memnoniella														
Myxomycete / Periconia / Rust / Smut	1	13	13	11%	10							e in the		
Nigrospora														
Stachybotrys														
TOTALS	9		119	100%	120	10		132	100%	130				
Analyst		***	Phoeb	e Stell				Phoeb	e Stell					
Analysis Date			1/31/	2020				1/31/	2020					
Debris Rating			4	1				3	3					
Debris Composition														
Fibers	1/5				1/5									
Inorganic/Other			2/	5				2/	5					
Insect Parts			0/	'5				1/	5					
Pollen			0/	5				0/	5					
Skin/Dander			4/	5				2/	′5		19			

End of Data Detail section 20F-01095

SMLMS v13.44

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Moody Labs

IAQ Mold Report

Analytical Notes

2051 Valley View Lane

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577

Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Project :

Ensolum, LLC

Flower Mound HS, Rooms 1230, 1240 & 1250

Project #:

01A.1288.074

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Sample Date: 01/30/2020 Spore Trap Type: Allergenco D

Lab Job No.: 20F-01095 **Report Date:** 01/31/2020

Daga 1 of

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.

Samples Analyzed

Sample No

3: Classroom 1230

Notes:

20% Occluded.

Field Blanks

No discernable field blanks were submitted with this set of samples.

NOTE: All remaining samples suitable for analysis.

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

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 HS, Rooms 1230, 1240 & 1250

Project #:

01A.1288.074

Sample Type: Spore Trap, Non-cultured

Test Method: Mold: ASTM D7391-17e1 - Standard Profile

Lab Job No.: 20F-01095 Report Date: 01/31/2020

Sample Date: 01/30/2020

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.



Lab 10 # 102571





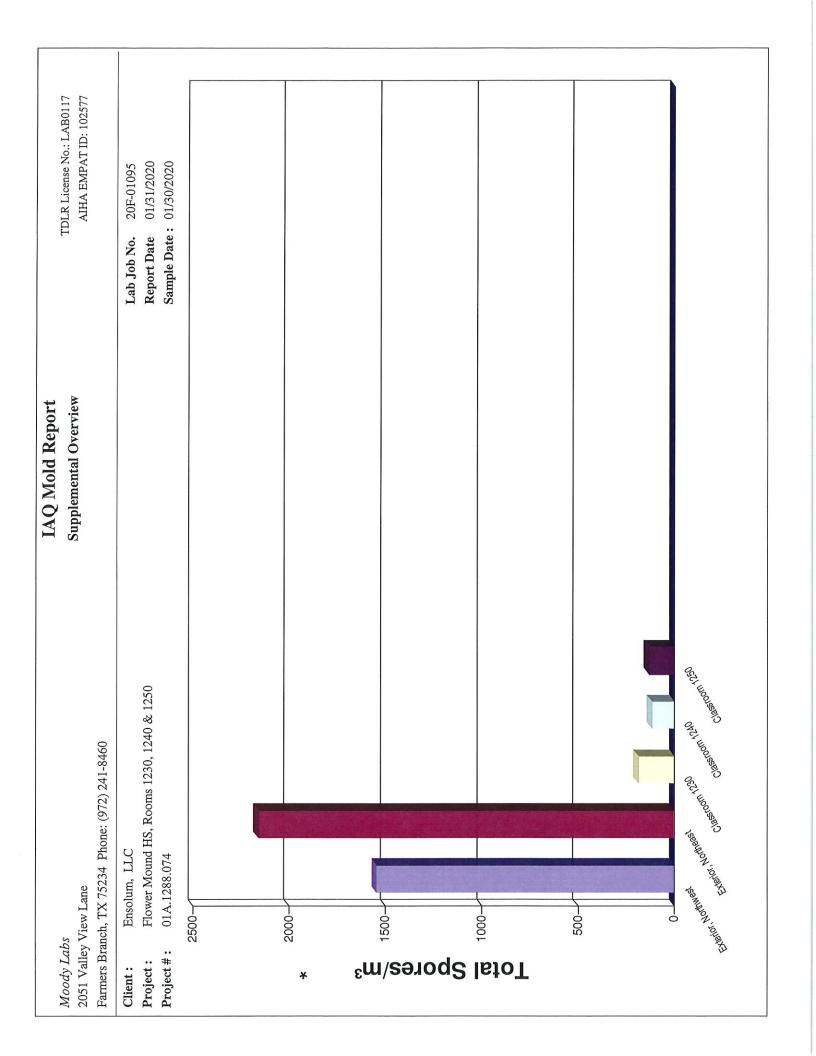






End of Analytical Notes section 20F-01095





TDLR License No.: LAB0117 AIHA EMPAT ID: 102577 Sample Date: 01/30/2020 01/31/2020 20F-01095 Lab Job No. Report Date ☐ Average Reference 2 Average Reference 2 = Exterior, Northeast Stachybotrys Nigrospora Supplemental Overview IAQ Mold Report Myxomycete / Periconia / Rust / Smut Memnoniella Exterior, Northwest Hyphal / Spore Fragments - Hyaline Average Reference 1 Hyphal / Spore Fragments - Dematiaceous Exserohilum group Drechslera / Bipolaris / Helminthosporum / Curvularia Coprinus group Flower Mound HS, Rooms 1230, 1240 & 1250 Cladosporium Chaetomium Farmers Branch, TX 75234 Phone: (972) 241-8460 Sample Sample Basidiospores Average Reference 1 = Exterior, Northwest Aspergillus / Penicillium Ensolum, LLC 01A.1288.074 **Ascospores** 2051 Valley View Lane Alternaria Agaricales group Project #: Project: Client: 1000 009 400 1400 1200 800 200

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577 01/31/2020 Sample Date: 01/30/2020 20F-01095 Lab Job No. Report Date ☐ Average Reference 2 Average Reference 2 = Exterior, Northeast Stachybotrys Nigrospora Supplemental Overview IAQ Mold Report Myxomycete / Periconia / Rust / Smut Memnoniella Exterior, Northeast Hyphal / Spore Fragments - Hyaline Average Reference 1 Hyphal / Spore Fragments - Dematiaceous Exserohilum group Drechslera / Bipolaris / Helminthosporum / Curvularia Coprinus group Flower Mound HS, Rooms 1230, 1240 & 1250 Cladosporium Chaetomium Farmers Branch, TX 75234 Phone: (972) 241-8460 Sample Sample Basidiospores Average Reference 1 = Exterior, Northwest Aspergillus / Penicillium Ensolum, LLC 01A.1288.074 Ascospores 2051 Valley View Lane Alternaria Agaricales group Project #: Project: Client: 400 0 1400 1200 1000 900 200 800

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577 01/31/2020 Sample Date: 01/30/2020 20F-01095 Report Date Lab Job No. ☐ Average Reference 2 Average Reference 2 = Exterior, Northeast **Στα**ςηγροτηγ Nigrospora Supplemental Overview IAQ Mold Report Myxomycete / Periconia / Rust / Smut Memnoniella Classroom 1230 Hyphal / Spore Fragments - Hyaline Average Reference 1 Hyphal / Spore Fragments - Dematiaceous Exserohilum group Drechslera / Bipolaris / Helminthosporum / Curvularia Coprinus group Flower Mound HS, Rooms 1230, 1240 & 1250 Cladosporium Chaetomium Farmers Branch, TX 75234 Phone: (972) 241-8460 Sample Sample Basidiospores Average Reference 1 = Exterior, Northwest Aspergillus / Penicillium Ensolum, LLC 01A.1288.074 Ascospores 2051 Valley View Lane Alternaria Agaricales group Project #: Project: Client: 1400 1200 1000 800 900 400 200 0

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577 01/31/2020 Sample Date: 01/30/2020 20F-01095 Report Date Lab Job No. ☐ Average Reference 2 Average Reference 2 = Exterior, Northeast Stachybotrys Nigrospora Supplemental Overview IAQ Mold Report Myxomycete / Periconia / Rust / Smut Memnoniella Classroom 1240 Hyphal / Spore Fragments - Hyaline Average Reference 1 Hyphal / Spore Fragments - Dematiaceous Exserohilum group Drechslera / Bipolaris / Helminthosporum / Curvularia Coprinus group Ensolum, LLC Flower Mound HS, Rooms 1230, 1240 & 1250 Cladosporium Chaetomium Farmers Branch, TX 75234 Phone: (972) 241-8460 Sample Sample Basidiospores Average Reference 1 = Exterior, Northwest Aspergillus / Penicillium 01A.1288.074 Ascospores 2051 Valley View Lane Alternaria Agaricales group Project #: Project: Client: 1400 1200 1000 400 200 0 800 9

TDLR License No.: LAB0117 AIHA EMPAT ID: 102577 01/31/2020 Sample Date: 01/30/2020 20F-01095 Report Date Lab Job No. ☐ Average Reference 2 Average Reference 2 = Exterior, Northeast Stachybotrys Nigrospora Supplemental Overview IAQ Mold Report Myxomycete / Periconia / Rust / Smut Memnoniella Classroom 1250 Hyphal / Spore Fragments - Hyaline Average Reference 1 Hyphal / Spore Fragments - Dematiaceous Exserohilum group Drechslera / Bipolaris / Helminthosporum / Curvularia Coprinus group Flower Mound HS, Rooms 1230, 1240 & 1250 Cladosporium Chaetomium Farmers Branch, TX 75234 Phone: (972) 241-8460 Sample Basidiospores Average Reference 1 = Exterior, Northwest Aspergillus / Penicillium Ensolum, LLC 01A.1288.074 End of Supplemental Overview section Ascospores 2051 Valley View Lane Alternaria Agaricales group Project #: Project: Client: 1400 1200 900 400 200 0 1000 800

APPENDIX B

DEFINITIONS AND LIMITATIONS



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.