

DATE: May 13, 2019

TO: Robert Fisher, Assistant Principal

SUBJECT: Briarhill MS - IAQ - Air Test Results - Rooms 301, 400 & 403

On Thursday 5/9, Ensolum LLC Air tested Rooms 301, 400, 403. It is typically assumed that 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 301, was **4.3%**, Room 400, was **3.3%**, Room 403, was **4.8%** of the outdoor levels. Utilizing this theory, the indoor concentrations are well within the acceptable guidelines for areas with filtered air or air conditioning. If you have any questions, please call me.

Thanks,
Paul

Paul Siddall
Maintenance Energy Auditor (IAQ)
Facility Services
Lewisville ISD
340 Lake Haven Rd
Lewisville, TX 75057



May 17, 2019

Lewisville Independent School District
340 Lake Haven
Lewisville, Texas 75057
Attn: Mr. Paul Siddall

Re:
Limited Mold Assessment
Briarhill Middle School – Rooms 301, 400 and 403
2100 Briarhill Blvd.
Lewisville, Texas
Ensolum Project No. 01A.1288.024

Ensolum, LLC (Ensolum) was retained to perform limited mold assessment services within Rooms 301, 400 and 403 of the Briarhill Middle School located at 2100 Briarhill Blvd. in Lewisville, 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,

Tod L. McLellan, MAC
Mold Assessment License: MAC1361
Exp. Date: 03/08/2020

Darren G. Bowden
Principal
MAC0321 EXP: 2/15/202

1.0 INTRODUCTION

Ensolum was retained by Mr. Paul Siddall, LISD, to complete a Limited Mold Assessment in Rooms 301, 400 and 403 within Briarhill Middle School addressed at 2100 Briarhill Blvd., Lewisville, Texas. The purpose of this investigation was to determine if elevated concentrations of airborne fungal spores and structures were present within the above-referenced rooms.

Mr. Tod McLellan completed the on-site investigation on May 09, 2019. The Limited Mold Assessment was performed in response to a complaint of possible indoor air quality issues within the classrooms.

2.0 PROCEDURE

Ensolum visually inspected accessible areas of the classrooms. Visible water damage was not observed in any of the three classrooms.

Representative Relative Humidity readings were collected and recorded using a Vaisala HM40 Humidity and Temperature Meter. Measurements recorded during the investigation are listed in the chart below:

TEMPERATURE, RELATIVE HUMIDITY & SPECIFIC HUMIDITY				
LOCATION	DATE	Temperature: F	Relative Humidity	Specific Humidity
Room 301	5-09-2019	71.0°	61.9%	70.17
Room 400	5-09-2019	71.4°	58.8%	67.64
Room 403	5-09-2019	72.4°	59.8%	71.26
Outdoor	5-09-2019	69.4°	79.9%	86.17
Outdoor	5-09-2019	69.3°	79.1%	84.84

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 areas on the following page:

SPORE TRAP LOCATIONS	
SAMPLE NUMBER	LOCATION
275751	Room 301
275787	Room 400
275768	Room 403
275790	Outdoor
275782	Outdoor

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.

4.0 CONCLUSIONS

Based on the analytical results, the air concentration was within regulatory guidelines on the day of the assessment. Due to the high levels of specific humidity, Ensolum recommends that the HVAC System shall be adjusted and ran more frequently.

APPENDIX A

ANALYTICAL DATA



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

Lab Job No. : 19F-05463

Project : Briarhill Middle School

Report Date : 05/10/2019 12:21 PM

Project # : 01A1288024

Sample Date: 05/09/2019

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Allergenco D

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

Page 1 of 3

On 5/9/2019, five (5) samples were submitted by Tod McLellan 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
275751	75	Room 301 * See Analytical Notes report for further details	Basidiospores	1496 72%
			Cladosporium	173 8%
			Diatrypaceae	107 5%
			Aspergillus / Penicillium	93 4%
			Coprinus group	53 3%
			Drechslera / Bipolaris group	53 3%
			Ascospores	40 2%
			Hyphal / Spore Fragments - Dematiaceous	27 1%
			Myxomycete / Rust / Smut	27 1%
			Total:	2069 100%
			275787	75
Cladosporium	160 10%			
Aspergillus / Penicillium	93 6%			
Hyphal / Spore Fragments - Dematiaceous	40 3%			
Myxomycete / Rust / Smut	27 2%			
Ascospores	27 2%			
Non-specified Fungal Spore(s)	13 <1%			
Torula	13 <1%			
Epicoccum	13 <1%			
Drechslera / Bipolaris group	13 <1%			
Total:	1572 100%			



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

Lab Job No. : 19F-05463

Project : Briarhill Middle School

Report Date : 05/10/2019 12:21 PM

Project # : 01A1288024

Sample Date: 05/09/2019

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Allergenco D

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

Page 2 of 3

On 5/9/2019, five (5) samples were submitted by Tod McLellan 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			
275768	75	Room 403 * See Analytical Notes report for further details	Basidiospores	2000 87%			
			Cladosporium	93 4%			
			Aspergillus / Penicillium	80 3%			
			Myxomycete / Rust / Smut	53 2%			
			Ascospores	40 2%			
			Coprinus group	27 1%			
			Hyphal / Spore Fragments - Dematiaceous	13 <1%			
			Total:	2306 100%			
			275790	75	Outdoor * See Analytical Notes report for further details	Basidiospores	31200 65%
						Cladosporium	14266 30%
Ascospores	1696 4%						
Coprinus group	293 <1%						
Aspergillus / Penicillium	120 <1%						
Agaricales group	107 <1%						
Oidium	27 <1%						
Alternaria	27 <1%						
Helicomyces	13 <1%						
Total:	47749 100%						



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

Lab Job No. : 19F-05463

Project : Briarhill Middle School

Report Date : 05/10/2019 12:21 PM

Project # : 01A1288024

Sample Date: 05/09/2019

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Allergenco D

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

Page 3 of 3

On 5/9/2019, five (5) samples were submitted by Tod McLellan 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
275782	75	Outdoor * See Analytical Notes report for further details	Basidiospores Cladosporium Ascospores Coprinus group Aspergillus / Penicillium Agaricales group Cercospora Alternaria Helicomyces Total:	26400 88% 1585 5% 1429 5% 493 2% 80 <1% 40 <1% 40 <1% 27 <1% 13 <1% 30107 100%

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. Moody Labs assumes no responsibility for the qualifications of personnel performing sampling and/or interpretations of this data.

Analyst(s): M. Garcia

Lab Director : Heather Lopez

Approved Signatory : _____

Lab Director : Bruce Crabb

Approved Signatory : _____

Thank you for choosing Moody Labs

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IAQ Mold Report

Data Detail

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

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

Client : Ensolum, LLC	Lab Job No. : 19F-05463
Project : Briarhill Middle School	Report Date : 05/10/2019 12:21 PM
Project # : 01A1288024	Sample Date: 05/09/2019
Sample Type: Spore Trap, Non-cultured	Spore Trap Type: Allergenco D
Test Method: Mold: ASTM D7391-17e1 - Standard Profile	

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:	275751					275787					275768				
Location:	Room 301					Room 400					Room 403				
Media Expires On:	Apr 2020					Apr 2020					Apr 2020				
Notes Included:	See Analytical Notes										See Analytical Notes				
Volume:	75					75					75				
	raw ct.	RL	spores/m ³	%total	spores/m ³ SF	raw ct.	RL	spores/m ³	%total	spores/m ³ SF	raw ct.	RL	spores/m ³	%total	spores/m ³ SF
Agaricales group															
Alternaria															
Ascospores	3	13	40	2%	40	2	13	27	2%	30	3	13	40	2%	40
Aspergillus / Penicillium	7	13	93	4%	90	7	13	93	6%	90	6	13	80	3%	80
Basidiospores	101	15	1496	72%	1500	88	13	1173	75%	1200	100	20	2000	87%	2000
Cercospora															
Chaetomium															
Cladosporium	13	13	173	8%	170	12	13	160	10%	160	7	13	93	4%	90
Coprinus group	4	13	53	3%	50						2	13	27	1%	30
Diatrypaceae	8	13	107	5%	100										
Drechslera / Bipolaris group	4	13	53	3%	50	1	13	13	<1%	10					
Epicoccum						1	13	13	<1%	10					
Helicomyces															
Hyphal / Spore Fragments - Dematiace	2	13	27	1%	30	3	13	40	3%	40	1	13	13	<1%	10
Hyphal / Spore Fragments - Hyaline															
Memnoniella															
Myxomycete / Rust / Smut	2	13	27	1%	30	2	13	27	2%	30	4	13	53	2%	50
Non-specified Fungal Spore(s)						1	13	13	<1%	10					
Oidium															
Stachybotrys															
Torula						1	13	13	<1%	10					
TOTALS	144		2069	100%	2100	118		1572	100%	1600	123		2306	100%	2300
Analyst	M. Garcia					M. Garcia					M. Garcia				
Analysis Date	5/9/2019					5/9/2019					5/10/2019				
Debris Rating	2					2					2				
Debris Composition															
Fibers	1/5					1/5					1/5				
Inorganic/Other	1/5					1/5					1/5				
Insect Parts	0/5					0/5					1/5				
Pollen	0/5					0/5					0/5				
Skin/Dander	1/5					1/5					1/5				



IAQ Mold Report

Data Detail

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

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

Client : Ensolum, LLC	Lab Job No. : 19F-05463
Project : Briarhill Middle School	Report Date : 05/10/2019 12:21 PM
Project # : 01A1288024	Sample Date: 05/09/2019
Sample Type: Spore Trap, Non-cultured	Spore Trap Type: Allergenco D
Test Method: Mold: ASTM D7391-17e1 - Standard Profile	

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:	275790					275782							
Location:	Outdoor					Outdoor							
Media Expires On:	Apr 2020					Apr 2020							
Notes Included:	See Analytical Notes					See Analytical Notes							
Volume:	75					75							
	raw ct.	RL	spores/m ³	%total	spores/m ³ SF	raw ct.	RL	spores/m ³	%total	spores/m ³ SF			
Agaricales group	8	13	107	<1%	100	3	13	40	<1%	40			
Alternaria	2	13	27	<1%	30	2	13	27	<1%	30			
Ascospores	106	16	1696	4%	1700	100	14	1429	5%	1400			
Aspergillus / Penicillium	9	13	120	<1%	120	6	13	80	<1%	80			
Basidiospores	156	200	31200	65%	31000	132	200	26400	88%	26000			
Cercospora						3	13	40	<1%	40			
Chaetomium													
Cladosporium	107	133	14266	30%	14000	103	15	1585	5%	1600			
Coprinus group	22	13	293	<1%	290	37	13	493	2%	490			
Diatrypaceae													
Drechslera / Bipolaris group													
Epicoccum													
Helicomyces	1	13	13	<1%	10	1	13	13	<1%	10			
Hyphal / Spore Fragments - Dematiace													
Hyphal / Spore Fragments - Hyaline													
Memnoniella													
Myxomycete / Rust / Smut													
Non-specified Fungal Spore(s)													
Oidium	2	13	27	<1%	30								
Stachybotrys													
Torula													
TOTALS	413		47749	100%	48000	387		30107	100%	30000			
Analyst	M. Garcia					M. Garcia							
Analysis Date	5/10/2019					5/10/2019							
Debris Rating	2					2							
Debris Composition													
Fibers	1/5					1/5							
Inorganic/Other	1/5					1/5							
Insect Parts	0/5					0/5							
Pollen	0/5					1/5							
Skin/Dander	0/5					1/5							

End of Data Detail section
19F-05463

SMLMS v13.14

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IAQ Mold Report

Analytical Notes

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Client : Ensolum, LLC

Project : Briarhill Middle School

Project # : 01A1288024

Sample Type: Spore Trap, Non-cultured

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

Lab Job No. : 19F-05463

Report Date : 05/10/2019 12:21 PM

Sample Date : 05/09/2019

Spore Trap Type: Allergenco D

Page 1 of 3

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: 275751 : Room 301

Notes: Please note: the minimum detection limit for Basidiospores is 15 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Sample No: 275768 : Room 403

Notes: Please note: the minimum detection limit for Basidiospores is 20 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Sample No: 275790 : Outdoor

Notes: Please note: the minimum detection limit for Cladosporium is 133 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Please note: the minimum detection limit for Ascospores is 16 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Please note: the minimum detection limit for Basidiospores is 200 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Sample No: 275782 : Outdoor

Notes: Please note: the minimum detection limit for Basidiospores is 200 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Please note: the minimum detection limit for Cladosporium is 15 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Please note: the minimum detection limit for Ascospores is 14 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Field Blanks

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

NOTE: All remaining samples suitable for analysis.



IAQ Mold Report

Analytical Notes

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Client : Ensolum, LLC

Project : Briarhill Middle School

Project # : 01A1288024

Sample Type: Spore Trap, Non-cultured

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

Lab Job No. : 19F-05463

Report Date : 05/10/2019 12:21 PM

Sample Date : 05/09/2019

Spore Trap Type: Allergenco D

Page 2 of 3

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.

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

TDLR License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Client : Ensolum, LLC

Project : Briarhill Middle School

Project # : 01A1288024

Sample Type: Spore Trap, Non-cultured

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

Lab Job No. : 19F-05463

Report Date : 05/10/2019 12:21 PM

Sample Date : 05/09/2019

Spore Trap Type: Allergenco D

Page 3 of 3

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.



End of Analytical Notes section
19F-05463

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IAQ Mold Report

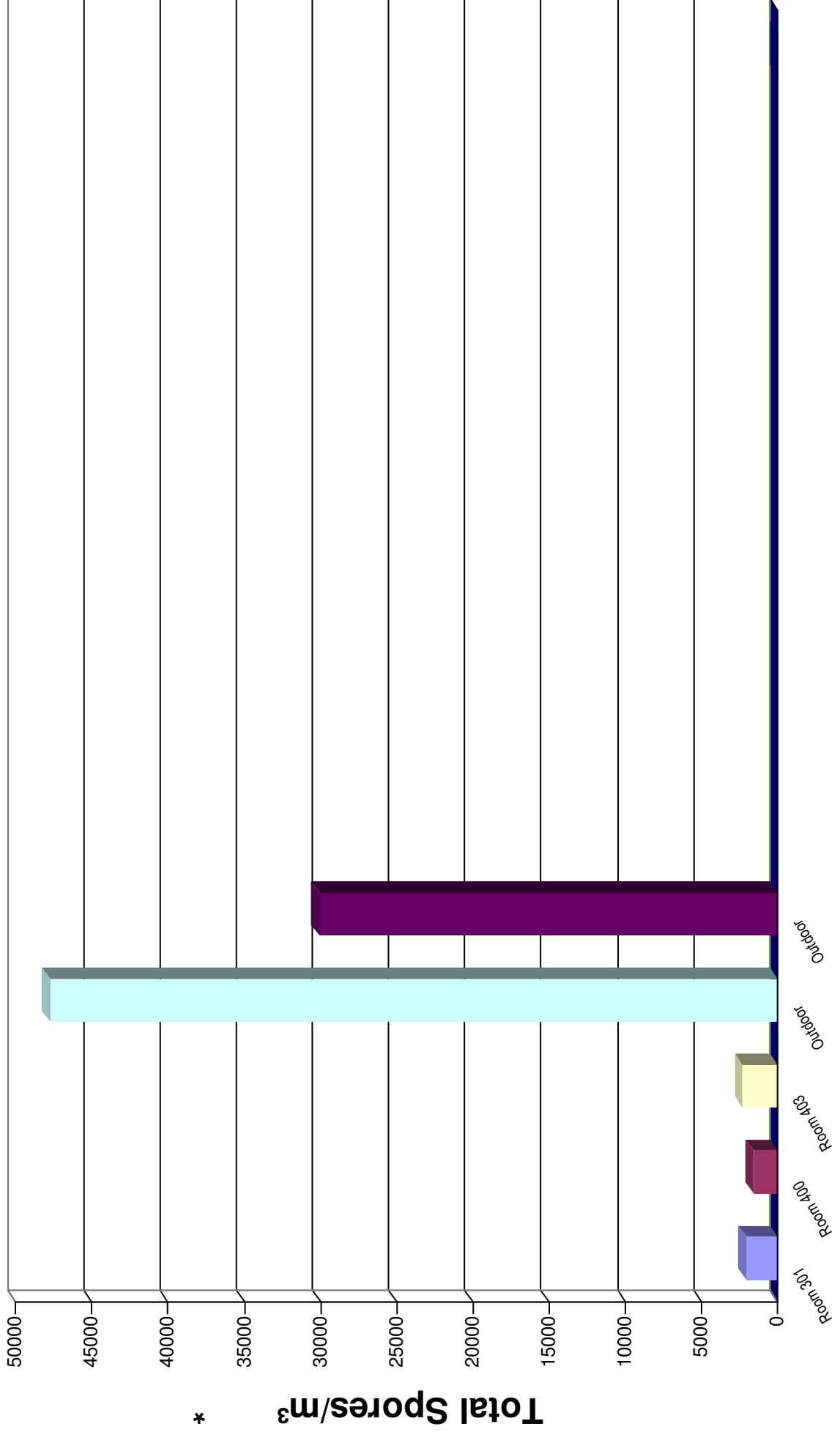
Supplemental Overview

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

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

Lab Job No. 19F-05463
Report Date 05/10/2019 12:21 PM
Sample Date : 05/09/2019

Client : Ensolum, LLC
Project : Briarhill Middle School
Project # : 01A1288024



*

Total Spores/m³



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 : Briarhill Middle School

Project # : 01A1288024

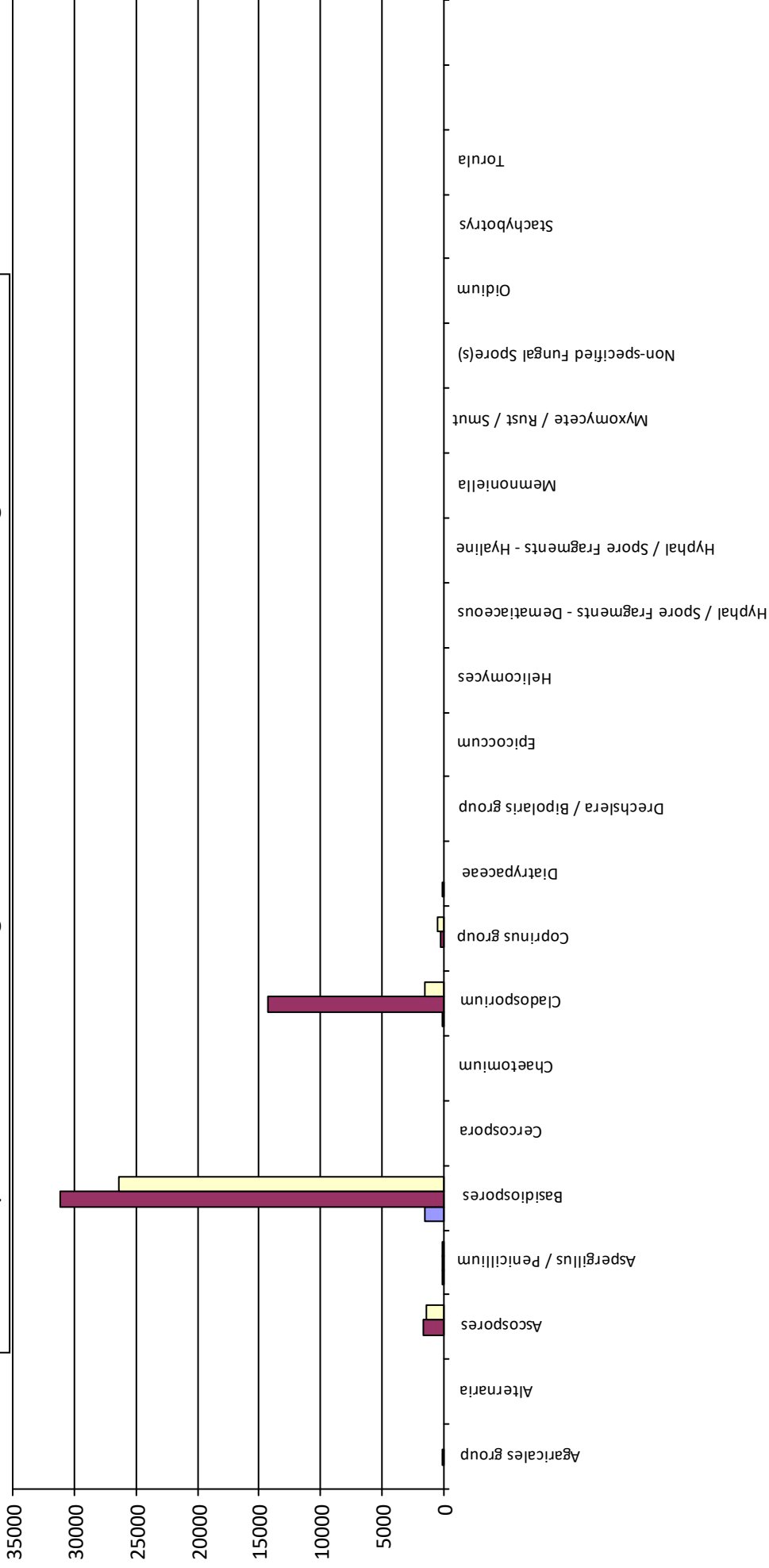
Lab Job No. 19F-05463

Report Date 05/10/2019 12:21 PM

Sample Date : 05/09/2019

Room 301

■ Sample
 ■ Average Reference 1
 ■ Average Reference 2



Average Reference 1 = Outdoor

Average Reference 2 = Outdoor

IAQ Mold Report

Supplemental Overview

TDLR License No.: LAB0117
 AIHA EMPAT ID: 102577

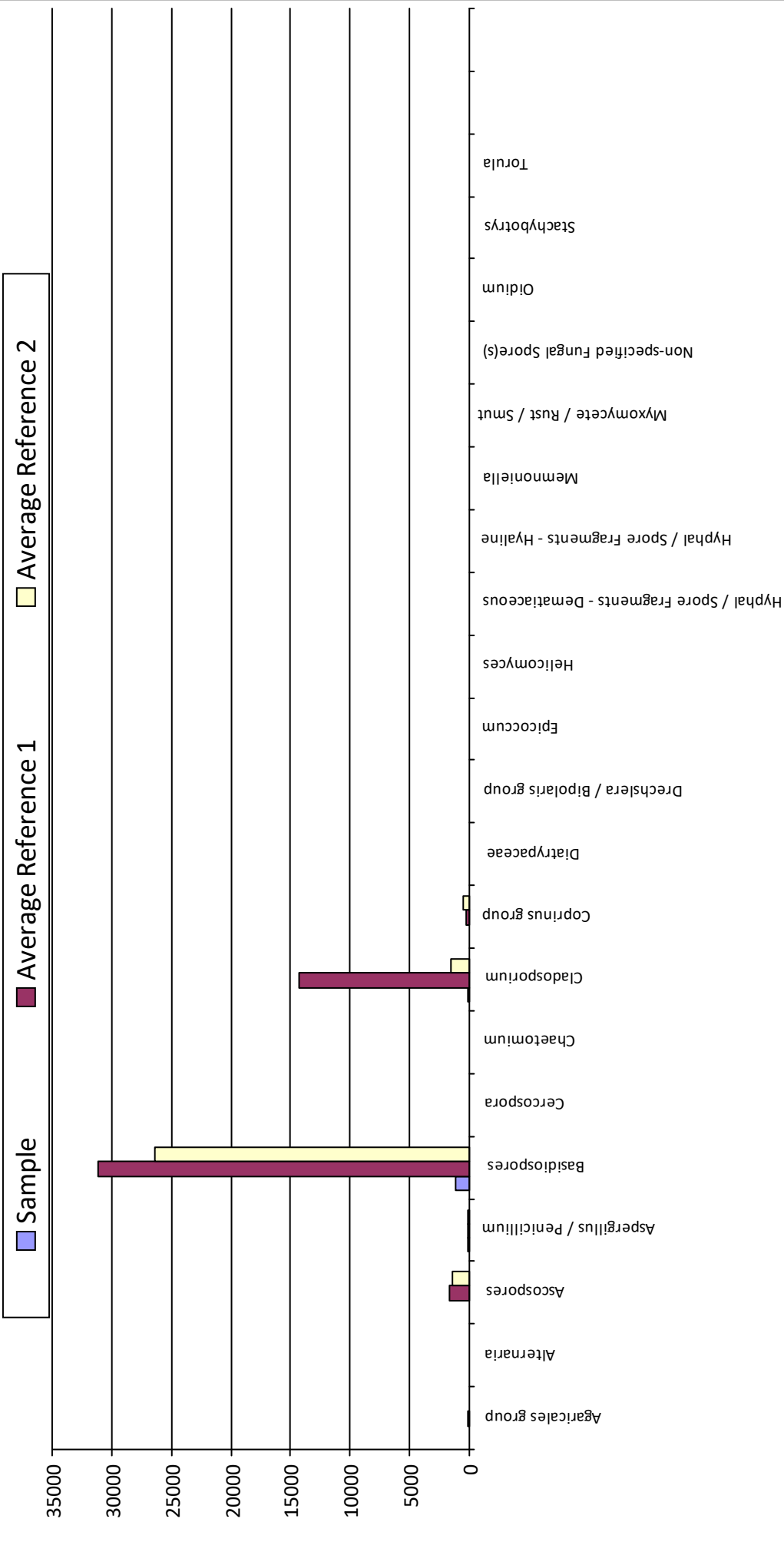


2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC
Project : Briarhill Middle School
Project # : 01A1288024

Lab Job No. 19F-05463
Report Date 05/10/2019 12:21 PM
Sample Date : 05/09/2019

Room 400



Average Reference 1 = Outdoor

Average Reference 2 = Outdoor

IAQ Mold Report

Supplemental Overview

TDLR License No.: LAB0117
 AIHA EMPAT ID: 102577

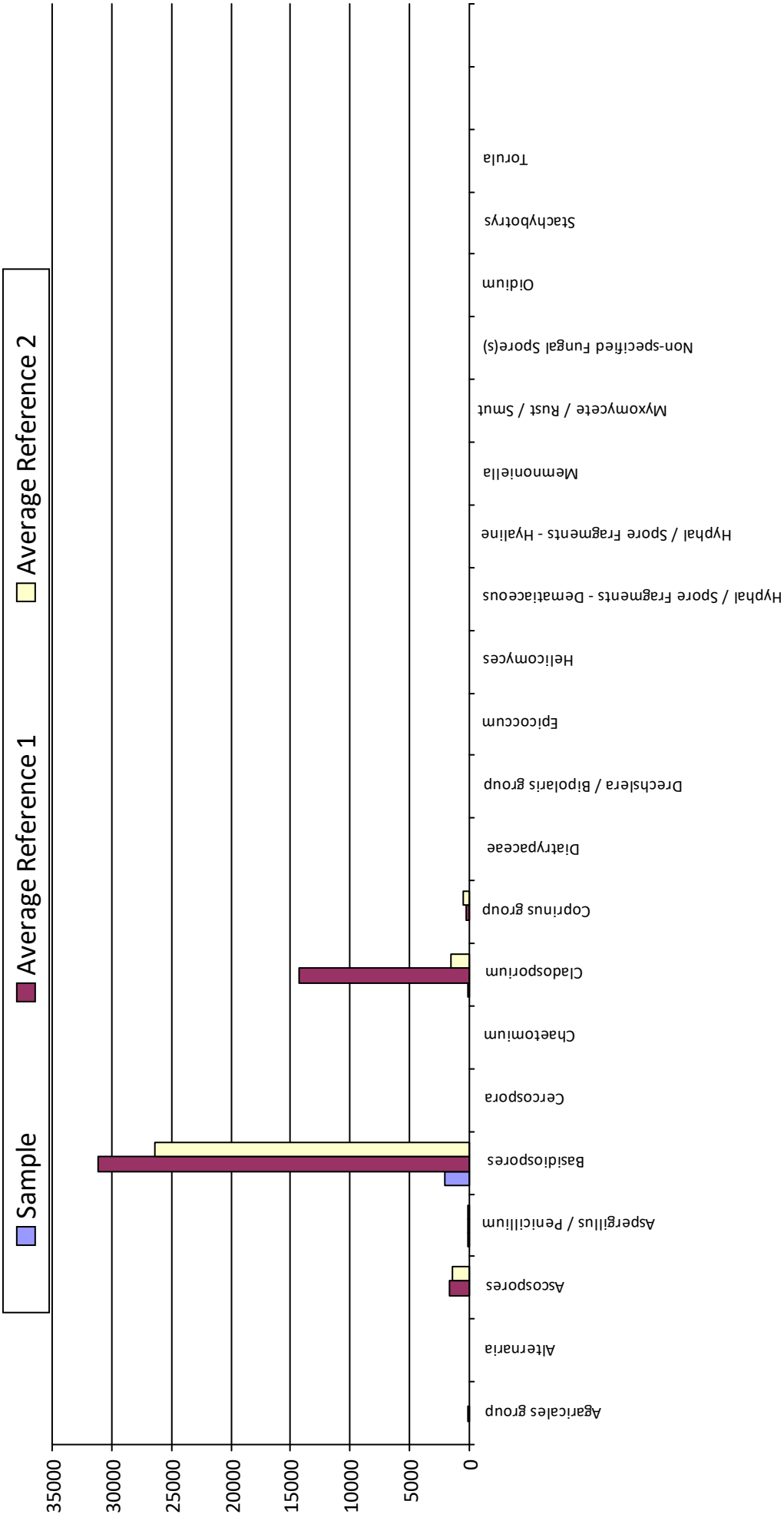


2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC
Project : Briarhill Middle School
Project # : 01A1288024

Lab Job No. 19F-05463
Report Date 05/10/2019 12:21 PM
Sample Date : 05/09/2019

Room 403



Average Reference 1 = Outdoor

Average Reference 2 = Outdoor

IAQ Mold Report

Supplemental Overview

TDLR License No.: LAB0117
 AIHA EMPAT ID: 102577

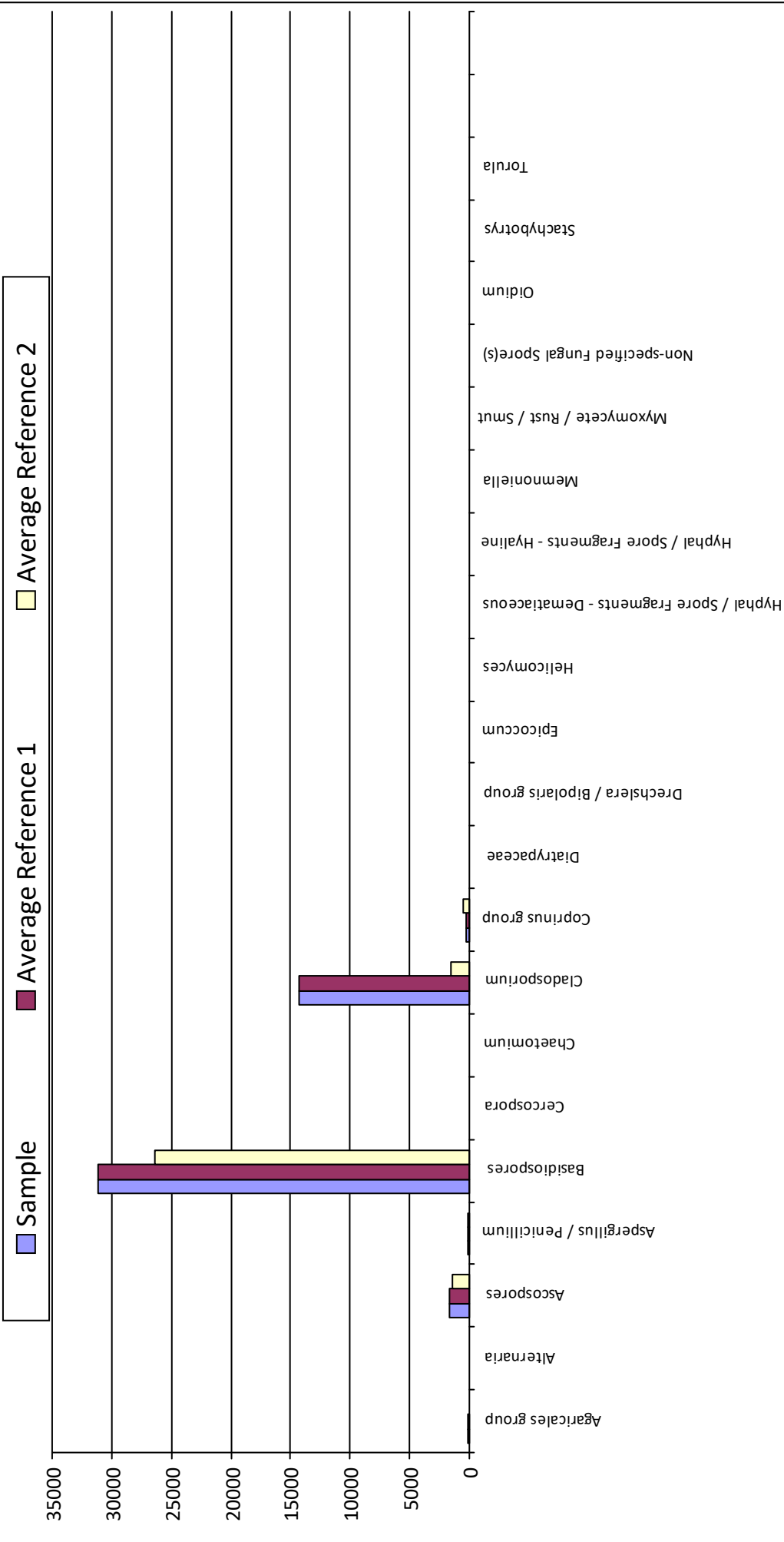


2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC
Project : Briarhill Middle School
Project # : 01A1288024

Lab Job No. 19F-05463
Report Date 05/10/2019 12:21 PM
Sample Date : 05/09/2019

Outdoor



Average Reference 1 = Outdoor

Average Reference 2 = Outdoor

IAQ Mold Report

Supplemental Overview

TDLR License No.: LAB0117
 AIHA EMPAT ID: 102577

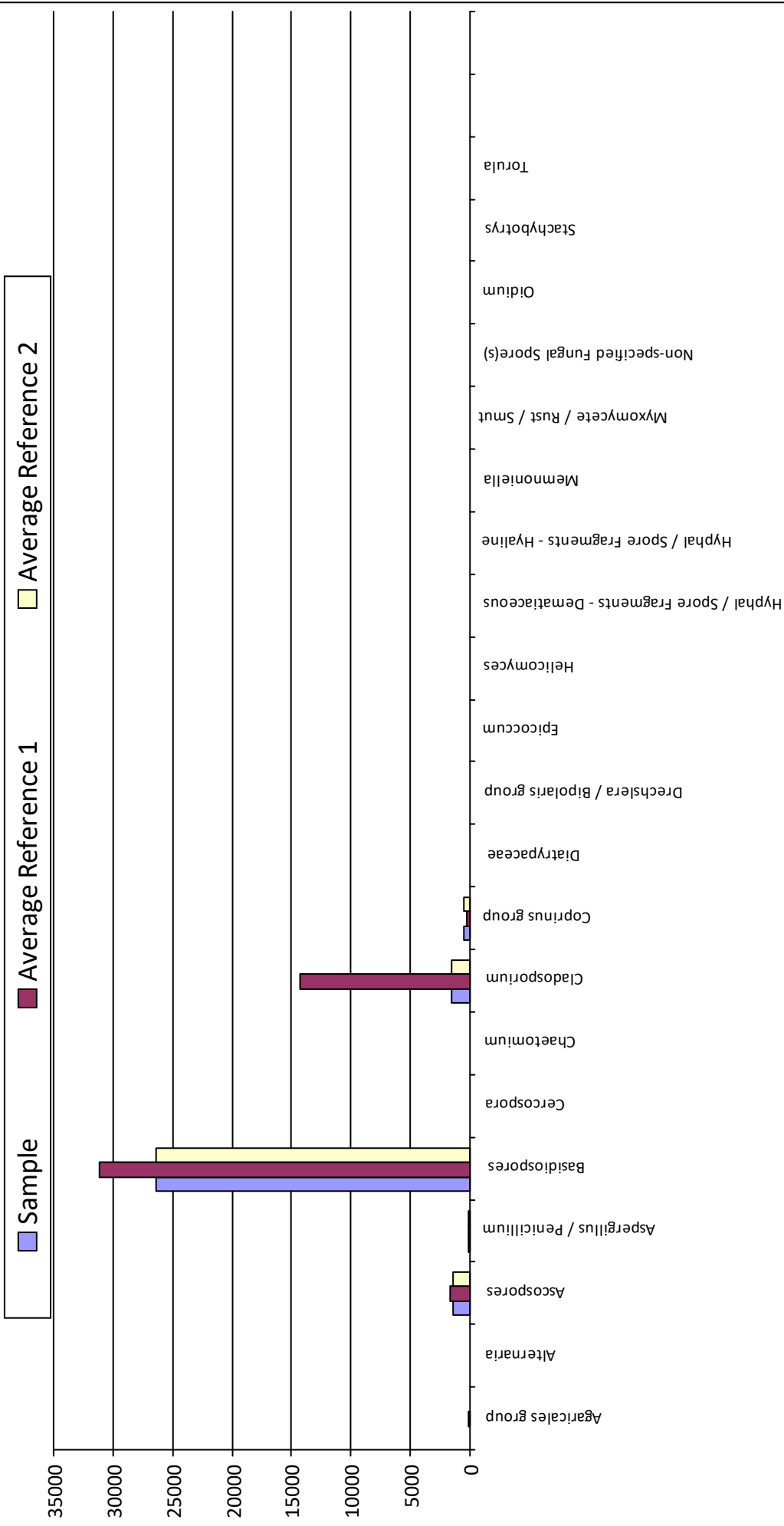


2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Client : Ensolum, LLC
Project : Briarhill Middle School
Project # : 01A1288024

Lab Job No. 19F-05463
Report Date 05/10/2019 12:21 PM
Sample Date : 05/09/2019

Outdoor



Average Reference 1 = Outdoor

Average Reference 2 = Outdoor



Chain of Custody

Lab Job # 19F-05463
Lab Job # 5 Allergencol
Lab Job #

Please call in advance for immediate, after-hour, & weekend pricing & availability.

ASBESTOS PLM

Bulk [] Immediate [] 1 day [] 2 day [] 3 day [] 5 day
[] Analyze All [] Positive Stop

PCM Air (7400)

[] Immediate [] 1 day [] 2 day [] 3 day [] 5 day
Analyze Blanks [] Yes [] No

TOTAL DUST(0500/0600)

[] 1 day [] 2 day

ASBESTOS TEM

Air AHERA Method [] Late Night* [] 6 hr [] 12 hr [] 24 hr
Air 7402 (Modified) [] 1 day [] 2 day [] 3 day
Bulk [] 1 day [] 2 day [] 3 day [] 5 day
Water/Wipe/Micro Vac [] 1 day [] 2 day [] 3 day
Analyze Blanks [] Yes [] No

*Late night analysis surcharges apply

MOLD

Direct Exam [] Immed [] 1 day [] 2 day [] 5 day
Standard Air [] Immed [] 1 day [X] 2 day [] 5 day
Expanded Air [] Immed [] 1 day [] 2 day [] 5 day
Culture** [] 10-14 days
Analyze Blanks [] Yes [] No

Turnaround of Culture Samples subject to Culture Growth

BACTERIA**

Colony Counts (CC) [] 3 day [] 5 day
CC + Gram Stain [] 3 day [] 5 day
Coliform & E. coli (P/A) [] 2-3 day
Legionella [] 14 days

OTHER:

Billing Company / City: Ensolum/Dallas
Submitter's Company: Ensolum, LLC
Submitter's Name: Tod McLellan MAC1361
Project: Br. and Hill Middle School
Contact Information: Name: Tod McLellan
E-mail Results to: Jcolson@ensolum.com & Tmclellan@ensolum.com
Invoice Address: 2351 W. Northwest Hwy. Suite 1203, Dallas, TX

of Samples: 5
Sample Date: 5-9-19
Project #: 01A1293004
Phone #: 682-225-3050
Mobile #:
Fax #:
P.O. #:

Please review paperwork and samples before submitting to lab. Unsealed / Improperly packaged / damaged / expired samples or excessive administrative requests may incur additional fees

Notes:

Table with 4 columns: Sample #, Sample Description, Vol. / Area (if applicable), Location / Notes. Contains handwritten entries for samples 275751, 275797, 275769, 275790, 275792.

Released By: [Signature] Date/Time: 5-9-19/1130 Received By: [Signature] Date/Time: 5/9/19 1130

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.