

DATE: May 20, 2019

TO: Rachel Garrett, Principal

SUBJECT: Valley Ridge ES - IAQ - Initial Contact - Room 136

I just received Work Order #473482: "The teacher in Room 136 would like a mold air quality test performed in her room. She has had leaks on the south wall under the white board and smart board." I called Ensolum LLC, and they will add Room 136 to the Air Test for Room 142, on the same P.O. It should be done either tomorrow or Wednesday of this week.

If you have any questions, please contact me.

Thanks,
Paul

Paul Siddall
Maintenance Energy Auditor (Sprint)
Facility Services
Lewisville ISD
601 E. Purnell Street
Lewisville, TX 75057
Cell: 469-446-8882

DATE: May 17, 2019

TO: Rachel Garrett, Principal

SUBJECT: Valley Ridge ES - IAQ - Initial Contact - Room 142

This afternoon, I received your E-mail with the following concerns: "I have 2 interim teachers who are moving rooms into room 142 next year. One of them told me that she has a mold allergy/ disease of sorts. I told her to contact benefits to discuss her disease and any accommodations she may need. Apparently, she decided to do a mold test in the room and gave me a Petri dish, photos attached. She is requesting an air quality test in the room. Please let me know how to proceed."

This afternoon, I investigated the room and saw no water intrusion or signs of mold. I have set up Work Order #473244.

I have submitted a P.O. request for Ensolum, LLC, to do an Air Test in Room 142. It should be done on Tuesday 5/21 or Wednesday 5/22 and we should have the results by Friday 5/24.

If you have any questions, please call me.

Thanks,

Paul

Paul Siddall
Special Projects (IAQ)
Facility Services
469-446-8882

DATE: May 24, 2019

TO: Rachel Garrett, Principal

SUBJECT: Valley Ridge ES - IAQ - Air Test Results - Rooms 136 & 142

On Wednesday 5/22, Ensolum LLC Air tested Rooms 136 & 142. 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 136, was **5.2%**, and in Room 142, was **12.6%** 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



June 6, 2019

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

Re:

Limited Mold Assessment
Valley Ridge Elementary School – Room 136 and Classroom 142
1604 North Garden Ridge Blvd.
Lewisville, Texas
Ensolum Project No. 01A.1288.028

Ensolum, LLC (Ensolum) was retained to perform limited mold assessment services in Classroom 136 and Classroom 142 within Valley Ridge Elementary School located at 1604 North Garden Ridge 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
Mold Assessment Consultant
MAC1361 EXP: 3/6/2020

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

1.0 INTRODUCTION

Ensolum was retained by Mr. Paul Siddall, LISD, to complete a Limited Mold Assessment in Classroom 136 and Classroom 142 within the Valley Ridge Elementary School located at 1604 North Garden Ridge Blvd., Lewisville, Texas. The purpose of this investigation was to determine if elevated concentrations of airborne fungal spores and structures were present within Classroom 136 and Classroom 142.

Mr. Tod L. McLellan completed the on-site investigation on May 22, 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 both classrooms. Visible water damage was observed in the following locations:

VISIBLE WATER DAMAGE		
LOCATION	DATE	EXPLANATION
Classroom 136	5-22-2019	Visible water damage was observed on vinyl wall covering on the south wall of the classroom.
Classroom 142	5-22-2019	Visible water damage was observed on carpet adjacent to the Classroom entrance.

It is possible that water-damaged building materials are present within the adjacent areas but were not reasonably accessible due to access limitations.

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 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
Classroom 136	5-22-2019	71.8°	56.8%	66.09
Classroom 142	5-22-2019	71.2°	66.0%	75.40
Outdoor	5-22-2019	78.8°	76.4%	113.74
Outdoor	5-22-2019	80.3°	73.8%	115.59

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
ST – 1 (275778)	Classroom 136
ST – 2 (275785)	Classroom 142
ST – 3 (275755)	Outdoor
ST – 4 (275774)	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 on May 22, 2019 were evaluated. The air samples collected from Classroom 136 and Classroom 142 (ST – 1 and ST – 2) yielded elevated concentrations of *Aspergillus/Penicillium* in comparison with the Outdoor samples (ST – 3 and ST – 4).

4.0 CONCLUSIONS

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

5.0 RECOMMENDATIONS

Ensolum recommends the following:

1. Water damaged vinyl wall covering within Classroom 136 shall be removed and replaced with new.
2. Water damaged carpet within Classroom 142 shall be cleaned thoroughly.
3. Once affected building materials are removed and replaced Ensolum recommends an additional air sampling in both Classrooms to verify that elevation of fungal spores and structures has been alleviated.

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-06113

Project : Valley Ridge Elementary

Report Date : 05/22/2019 7:00 PM

Project # : 01A1288028

Sample Date: 05/22/2019

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Allergenco D

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

Page 1 of 3

On 5/22/2019, four (4) 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
275778	75	Room 136 * See Analytical Notes report for further details	Basidiospores	1791 71%
			Aspergillus / Penicillium	387 15%
			Cladosporium	93 4%
			Ascospores	80 3%
			Hyphal / Spore Fragments - Dematiaceous	67 3%
			Coprinus group	53 2%
			Myxomycete / Rust / Smut	27 1%
			Agaricales group	13 <1%
			Drechslera / Bipolaris group	13 <1%
			Total:	2524 100%
			275785	75
Aspergillus / Penicillium	307 5%			
Cladosporium	187 3%			
Myxomycete / Rust / Smut	173 3%			
Ascospores	147 2%			
Coprinus group	80 1%			
Hyphal / Spore Fragments - Dematiaceous	67 1%			
Hyphal / Spore Fragments - Hyaline	27 <1%			
Total:	6138 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-06113
Project : Valley Ridge Elementary	Report Date : 05/22/2019 7:00 PM
Project # : 01A1288028	Sample Date: 05/22/2019
Sample Type: Spore Trap, Non-cultured	Spore Trap Type: Allergenco D
Test Method: Mold: ASTM D7391-17e1 - Standard Profile	Page 2 of 3

On 5/22/2019, four (4) 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
275755	75	Outdoor * See Analytical Notes report for further details	Basidiospores Ascospores Coprinus group Cladosporium Aspergillus / Penicillium Agaricales group Myxomycete / Rust / Smut Cercospora / Pseudocercospora Hyphal / Spore Fragments - Hyaline Helicosporium Fusicladium Alternaria <div style="text-align: right;">Total:</div>	43600 90% 2550 5% 1040 2% 640 1% 213 <1% 187 <1% 160 <1% 67 <1% 27 <1% 13 <1% 13 <1% 13 <1% 48523 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-06113

Project : Valley Ridge Elementary

Report Date : 05/22/2019 7:00 PM

Project # : 01A1288028

Sample Date: 05/22/2019

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Allergenco D

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

Page 3 of 3

On 5/22/2019, four (4) 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
275774	75	Outdoor * See Analytical Notes report for further details	Basidiospores Cladosporium Ascospores Coprinus group Aspergillus / Penicillium Agaricales group Myxomycete / Rust / Smut Hyphal / Spore Fragments - Dematiaceous Cercospora / Pseudocercospora Drechslera / Bipolaris group Hyphal / Spore Fragments - Hyaline Helicomycetes Fusarium Alternaria	41600 87% 2305 5% 2126 4% 1293 3% 293 <1% 120 <1% 107 <1% 27 <1% 27 <1% 27 <1% 13 <1% 13 <1% 13 <1% 13 <1%
			Total:	47977 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): Kyle Thiele

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-06113
Project : Valley Ridge Elementary	Report Date : 05/22/2019 7:00 PM
Project # : 01A1288028	Sample Date: 05/22/2019
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:	275778					275785					275755				
Location:	Room 136					Room 142					Outdoor				
Media Expires On:	Apr 2020					Apr 2020					Apr 2020				
Notes Included:	See Analytical Notes					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	1	13	13	<1%	10						14	13	187	<1%	190
Alternaria											1	13	13	<1%	10
Ascospores	6	13	80	3%	80	11	13	147	2%	150	102	25	2550	5%	2500
Aspergillus / Penicillium	29	13	387	15%	390	23	13	307	5%	310	16	13	213	<1%	210
Basidiospores	103	17	1791	71%	1800	103	50	5150	84%	5100	109	400	43600	90%	44000
Cercospora / Pseudocercospora											5	13	67	<1%	70
Chaetomium															
Cladosporium	7	13	93	4%	90	14	13	187	3%	190	48	13	640	1%	640
Coprinus group	4	13	53	2%	50	6	13	80	1%	80	78	13	1040	2%	1000
Drechslera / Bipolaris group	1	13	13	<1%	10										
Fusarium															
Fusicladium											1	13	13	<1%	10
Helicomyces															
Helicosporium											1	13	13	<1%	10
Hyphal / Spore Fragments - Dematiace	5	13	67	3%	70	5	13	67	1%	70					
Hyphal / Spore Fragments - Hyaline						2	13	27	<1%	30	2	13	27	<1%	30
Memnoniella															
Myxomycete / Rust / Smut	2	13	27	1%	30	13	13	173	3%	170	12	13	160	<1%	160
Stachybotrys															
TOTALS	158		2524	100%	2500	177		6138	100%	6100	389		48523	100%	49000
Analyst	Kyle Thiele					Kyle Thiele					Kyle Thiele				
Analysis Date	5/22/2019					5/22/2019					5/22/2019				
Debris Rating	3					3					2				
Debris Composition															
Fibers	1/5					1/5					1/5				
Inorganic/Other	3/5					3/5					2/5				
Insect Parts	0/5					0/5					1/5				
Pollen	1/5					1/5					2/5				
Skin/Dander	2/5					2/5					0/5				



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-06113
Project : Valley Ridge Elementary **Report Date :** 05/22/2019 7:00 PM
Project # : 01A1288028 **Sample Date:** 05/22/2019
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:	275774																		
Location:	Outdoor																		
Media Expires On:	Apr 2020																		
Notes Included:	See Analytical Notes																		
Volume:	75																		
	raw ct.	RL	spores/m ³	%total	spores/m ³ SF														
Agaricales group	9	13	120	<1%	120														
Alternaria	1	13	13	<1%	10														
Ascospores	101	21	2126	4%	2100														
Aspergillus / Penicillium	22	13	293	<1%	290														
Basidiospores	104	400	41600	87%	42000														
Cercospora / Pseudocercospora	2	13	27	<1%	30														
Chaetomium																			
Cladosporium	121	19	2305	5%	2300														
Coprinus group	97	13	1293	3%	1300														
Drechslera / Bipolaris group	2	13	27	<1%	30														
Fusarium	1	13	13	<1%	10														
Fusicladium																			
Helicomycetes	1	13	13	<1%	10														
Helicosporium																			
Hyphal / Spore Fragments - Dematiace	2	13	27	<1%	30														
Hyphal / Spore Fragments - Hyaline	1	13	13	<1%	10														
Memnoniella																			
Myxomycete / Rust / Smut	8	13	107	<1%	100														
Stachybotrys																			
TOTALS	472		47977	100%	48000														
Analyst	Kyle Thiele																		
Analysis Date	5/22/2019																		
Debris Rating	1																		
Debris Composition																			
Fibers	1/5																		
Inorganic/Other	1/5																		
Insect Parts	1/5																		
Pollen	1/5																		
Skin/Dander	0/5																		

End of Data Detail section
19F-06113

SMLMS v13.16

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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

Lab Job No. : 19F-06113

Project : Valley Ridge Elementary

Report Date : 05/22/2019 7:00 PM

Project # : 01A1288028

Sample Date : 05/22/2019

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Allergenco D

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

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 275778 : Room 136

Notes: Please note: the minimum detection limit for Basidiospores is 17 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Sample No 275785 : Room 142

Notes: Please note: the minimum detection limit for Basidiospores is 50 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Sample No 275755 : Outdoor

Notes: Please note: the minimum detection limit for Basidiospores is 400 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Please note: the minimum detection limit for Ascospores is 25 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

Sample No 275774 : Outdoor

Notes: Please note: the minimum detection limit for Basidiospores is 400 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Please note: the minimum detection limit for Ascospores is 21 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.
Please note: the minimum detection limit for Cladosporium is 19 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.



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 : Valley Ridge Elementary

Project # : 01A1288028

Sample Type: Spore Trap, Non-cultured

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

Lab Job No. : 19F-06113

Report Date : 05/22/2019 7:00 PM

Sample Date : 05/22/2019

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 : Valley Ridge Elementary

Project # : 01A1288028

Sample Type: Spore Trap, Non-cultured

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

Lab Job No. : 19F-06113

Report Date : 05/22/2019 7:00 PM

Sample Date : 05/22/2019

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-06113

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IAQ Mold Report

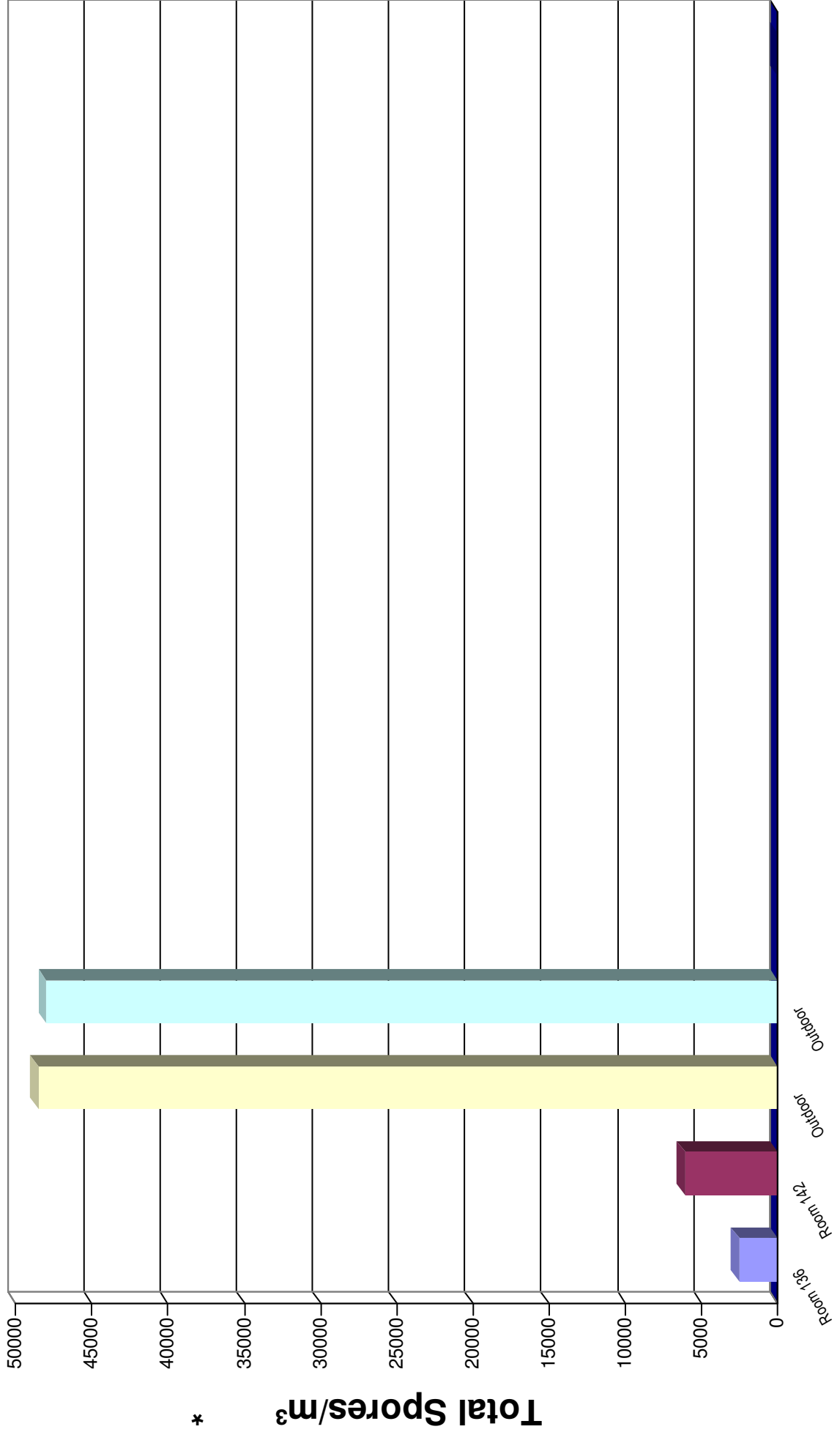
Supplemental Overview

TDLR License No.: LAB0117
AIHA EMPAT ID: 102577

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

Client : Ensolum, LLC
Project : Valley Ridge Elementary
Project # : 01A1288028

Lab Job No. 19F-06113
Report Date 05/22/2019 7:00 PM
Sample Date : 05/22/2019



*

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 : Valley Ridge Elementary
Project # : 01A1288028

Lab Job No. 19F-06113
Report Date 05/22/2019 7:00 PM
Sample Date : 05/22/2019
Room 136

■ 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 : Valley Ridge Elementary
Project # : 01A1288028

Lab Job No. 19F-06113
Report Date 05/22/2019 7:00 PM
Sample Date : 05/22/2019

Room 142



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 : Valley Ridge Elementary
Project # : 01A1288028

Lab Job No. 19F-06113
Report Date 05/22/2019 7:00 PM
Sample Date : 05/22/2019

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 : Valley Ridge Elementary
Project # : 01A1288028

Lab Job No. 19F-06113
Report Date 05/22/2019 7:00 PM
Sample Date : 05/22/2019

Outdoor



Average Reference 1 = Outdoor

Average Reference 2 = Outdoor



Chain of Custody

Lab Job # 9F-06113
Lab Job #
Lab Job #

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

Page 1 of 1

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 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

of Samples: 4

Submitter's Company: Ensolum, LLC

Sample Date: 5-22-19

Submitter's Name: Tod McLellan MAC1361

Project #: OIA1298023

Project: Valley Ridge Elementary

Phone #: 682-225-3050

Contact Information: Name: Tod McLellan

Mobile #:

E-mail Results to: Jcolson@ensolum.com & Tmclellan@ensolum.com

Fax #:

Invoice Address: 2351 W. Northwest Hwy. Suite 1203, Dallas, TX

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 275773, 275795, 275755, and 275774.

Released By: [Signature] Date/Time: 5-22/19/1000 Received By: [Signature] Date/Time: 5/22/19 10:18

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.