

DATE: October 30, 2013

TO: Gary Shafferman, Principal

SUBJECT: Marcus HS - IAQ - Air Test - Rooms B-103, B-105 & Storage room

Last night 10/29, I received your E-mail, and setup Work Order #169235: "Two teachers in B Hall downstairs complaining about being sick since rooms flooded. Julie Murdock and Melissa Bellvue. Can we check their rooms? B103 and B105." I inspected both rooms and the storage room this morning. Didn't see any signs of water intrusion, but I know of the water flood from 10/14. I am submitting a P.O. request today, to have the two rooms and storage room Air Tested. Should have the results back next week.

If you have any questions, please call me.

Thanks,
Paul

Paul Siddall
Maintenance Energy Auditor (IAQ)
Facility Services
Lewisville ISD
469-446-8882

DATE: November 6, 2013

TO: Gary Shafferman, Principal

SUBJECT: Marcus HS - IAQ - Air Test Result - Rooms B-103, B-105 & Storage Room

On Friday 11/1, SWG Air tested the Room B-103, Room B-105 and Common Storage Room. It is typically assumed that indoor spore levels in an area with filtered or air conditioned air, and activity levels associated with schools average 10% to 40% of the outdoor levels. Data from the airborne fungi sampling indicated that the total indoor concentration of mold/fungi in the Room B-103, was **7.7%**, Room B-105, was **2.9%**, Common Storage Room, was **5.0%**, of the outdoor levels. Utilizing this theory, the indoor concentrations are within the acceptable guidelines for areas with filtered air or air conditioning. **I recommend that we Air Test those same areas in the middle of January 2014.** If you have any questions, please call me.

Thanks,
Paul

Paul Siddall
Maintenance Energy Auditor (IAQ)
Facility Services
Lewisville ISD
469-446-8882

Southwest GEOSCIENCE

2351 W. Northwest Hwy., Suite 3321
Dallas, Texas 75220
Ph: (214) 350-5469
Fax: (214) 350-2914

November 8, 2013

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

Re: Limited Mold Assessment Services
Marcus High School
Rooms B-103, B-105 and the Storage Room
5707 Morriss Road
Flower Mound, Texas
SWG Project No. 0113H269

Introduction

Southwest Geoscience (SWG) conducted limited mold assessment activities for the Lewisville Independent School District (Lewisville I.S.D.) within Marcus High School located at 5707 Morriss Road in Flower Mound, Texas (hereinafter referred to as the "Site"). The investigation was limited to areas of the Site identified by Lewisville I.S.D. as described below. The assessment was performed by Mr. Clinton S. Jech, a State of Texas licensed Mold Assessment Consultant (License #MAT1075), on November 1, 2013. SWG's mold services definitions and limitations are included as an attachment to this report.

Investigation Areas

Lewisville I.S.D. identified the following physical portions of the Site as the target investigation areas ("Investigation Areas") for mold assessment: readily accessible areas within room B-103, room B-105 and the storage room. SWG's mold assessment services were limited to the Investigation Area(s) identified by Lewisville, I.S.D. Additional areas or portions of the Site were out-of-scope and not included in SWG's mold assessment or this report at this time.

Scope of Work

As set forth in SWG's Mold Assessment Proposal No. 0113H1391 dated October 31, 2013. SWG's scope-of-work was to provide visual and/or analytical mold assessment and related services in the Investigation Areas which included:

Visual Reconnaissance: SWG performed a visual reconnaissance of the Investigation Areas for visible indications of moisture intrusion (as indicated by staining or visible moisture) and/or suspect mold growth. SWG's visual reconnaissance only included readily accessible or visible portions of the Investigation Areas.

Suspect Mold Growth Sampling and Analysis: SWG collected limited ambient air samples for nonviable mold spores utilizing Air-O-Cell cassettes. "Air-O-Cell" refers to slit impaction air sampling cassettes manufactured by Zefon Analytical Accessories, St. Petersburg, Florida.

Site Reconnaissance Observations/Findings and Recommendations

SWG's Mold Assessment Site reconnaissance was performed on November 1, 2013 by Mr. Clinton S. Jech. SWG's visual reconnaissance of the Investigation areas revealed the following:

Temperature and Relative Humidity

Temperature readings collected inside the investigation areas on November 1, 2013 ranged from 72.3 to 73.7 degrees Fahrenheit while relative humidity ranged from 41.4 to 47.3 percent. Temperature readings collected outside the building ranged from 74.8 to 75.9 degrees Fahrenheit while outside relative humidity ranged from 31.2 to 36.3 percent.

Relative humidity is a measure of the moisture content of air and is closely tied to the comfort of the office/workplace temperature. As with temperature, there are no regulations governing acceptable office/workplace humidity ranges. Humidity levels in the office/work place are not only related to health effects, but also have operational impacts on modern office equipment.

Workplace/office temperatures have historically been considered a subjective factor because the perception of uncomfortable temperature levels is specific to each individual. There are no regulations governing acceptable office/workplace temperature ranges, but significant research has been conducted which indicates that there are temperature ranges that are not only comfortable but also result in optimum performance. ASHRAE (American Society of Heating, Refrigerating & Air Conditioning Engineers) has published guidelines describing thermal environmental conditions that at least 80% of the persons who occupy that environment will find acceptable or "comfortable." Table I below explains the applicable limits and guidelines.

Relative Humidity	Winter Temperatures	Summer Temperatures
30%	68.5 to 76°F	74 to 80°F
40%	68.5 to 75.5°F	73 to 79.5°F
50%	68.5 to 74.5°F	73 to 79°F
60%	68 to 74°F	72.5 to 78°F

SWG utilized a Protimeter Moisture Measurement System (MMS) instrument (Model No. BLD2000) to measure and diagnose dampness in the drywall within random areas. The MMS is a battery powered handheld unit that is equipped with hydrostick probes to measure moisture content in wood, drywall and other and non-conductive materials. The device measures electrical conductivity of building materials and compares the conductivity readings to an internal, electronic standard reading for normal or "dry" materials.

Moisture content readings were obtained by pushing the moisture probe pins into surfaces. The measured values were then displayed on a colored scale depicting if the materials measured were normal (dry), higher than normal but not critical (at risk) or contained excessive moisture levels (wet). Based on the manufacturer's guidelines, the instrument measurement values are described below:

< 5%	Out of Range
> 5% but < 16%	Normal
> 17% but < 20%	Higher than Normal but Not Critical
> 20%	Excessive Moisture Levels

Moisture meter readings taken from the walls within the investigations areas were reported as 10-70% which is considered normal to excessive by the manufacture.

Air Monitoring Results

SWG collected three (3) samples from the interior of the building and two (2) samples from the exterior of the building. The microbial samples were analyzed by Steve Moody Micro Services, Inc. (SMMS) in Farmers Branch, Texas; SMMS is a State of Texas licensed mold analysis laboratory and accredited under the AIHA Laboratory Quality Assurance Program for Environmental Microbiology.

Room B-103

Air testing performed using spore traps found that airborne mold spores in the room were considerably lower and were qualitatively similar to those measured outside of the building at the time the sampling was performed. Total fungal spore concentration within the investigation area was reported as 2,080 counts/m³, while the exterior level ranged from 17,200 to 26,960 counts/m³.

One (1) type of mold were identified at a higher concentration within the investigation area as compared to the sample collected from the exterior of the building. Air sample(s) collected within the room reported *Stachybotrys* as 40 counts/m³ while no exterior levels were reported.

Room B-105

Air testing performed using spore traps found that airborne mold spores in the room were considerably lower and were qualitatively similar to those measured outside of the building at the time the sampling was performed. Total fungal spore concentration within the investigation area was reported as 780 counts/m³, while the exterior level ranged from 17,200 to 26,960 counts/m³.

Two (2) types of mold were identified at a higher concentration within the investigation area as compared to the sample collected from the exterior of the building. Air sample(s) collected within the room reported *Chaetomium* as 40 counts/m³ and *Stachybotrys* was reported as 20 counts/m³ while no exterior levels were reported.

Storage Room

Air testing performed using spore traps found that airborne mold spores in the room were considerably lower and were qualitatively similar to those measured outside of the building at the time the sampling was performed. Total fungal spore concentration within the investigation area was reported as 1,340 counts/m³, while the exterior level ranged from 17,200 to 26,960 counts/m³.

Two (2) types of mold were identified at a higher concentration within the investigation area as compared to the sample collected from the exterior of the building. Air sample(s) collected within the room reported *Chaetomium* as 20 counts/m³ and *Stachybotrys* was reported as 40 counts/m³ while no exterior levels were reported.

The American Conference of Governmental Industrial Hygienists (ACGIH) sets forth assessment criteria related to the "indoor/outdoor" relationship where the indoor air quality should be at or below that of outdoor air quality with regard to fungal spores (see ACGIH Bioaerosols, Assessment and Controls publication, 1999).

Suspect Mold

No visible mold was observed during the assessment. No odors or excessive dust were noted.

Conclusions and Recommendations

Based on SWG's limited assessment and the analytical results, it appears that the indoor air quality, as it relates to airborne fungi, was within recommended guidelines. Due to presence of *Chaetomium* and *Stachybotrys*, additional testing may be considered for a higher level of confidence. The wall identified to be wet should be dried or removed.

If you have any questions regarding this report or if we can assist you with any other matter, please contact the undersigned at (214) 350-5469.

Sincerely,
Southwest Geoscience



Darren G. Bowden
Corporate Director
Industrial Hygiene Services
Texas Mold Assessment Consultant
Lic. No. MAC0321

Attachments: Analytical Results/Chain of Custody
Mold Services Definitions & Limitations/Standard of Care and Reliance

Analytical Results/Chain of Custody

IAQ Mold Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

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

Summary

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX

Lab Job No. 13F-12097

Project : Marcus HS Rooms B-103 & B-105 and Storage Closet

Report Date 11/05/2013 12:26 PM

Project # : 0113H269

Sample Date : 11/01/2013

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Zefon - Air-O-Cell

Test Method: Mold: ASTM D7391-09 - Standard Profile

Page 1 of 3

On 11/1/2013, five (5) samples were submitted by Clint Jech of Southwest Geoscience - Dallas, TX (located at 2351 W NW Hwy #3321, Dallas, TX 75220) for Spore Trap, Non-cultured mold analysis. This report consists of three sections; a summary section, a data detail section, and an analytical notes section.

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
1	75	Exterior, Northwest	Agaricus / Agrocybe	240
			Alternaria	840
			Ascospores	160
			Aspergillus / Penicillium	2600
			Basidiospores	11400
			Cerebella / Monodictys / Stemphylium / Ulocladium	600
			Chlamydospore	1000
			Cladosporium	7040
			Coprinus	440
			Drechslera / Bipolaris group	120
			Fusarium	80
			Hyphal / Spore Fragments	1800
			Myxomycete / Periconia / Rust / Smut	640
			Total:	26960
2	75	Exterior, East	Agaricus / Agrocybe	200
			Alternaria	760
			Ascospores	320
			Aspergillus / Penicillium	2600
			Basidiospores	7440
			Cercospora / Pseudocercospora	40
			Cladosporium	3280
			Coprinus	80
			Curvularia	40
			Hyphal / Spore Fragments	1280
			Myxomycete / Periconia / Rust / Smut	1080
			Nigrospora	80
			Total:	17200

IAQ Mold Report

Steve Moody Micro Services, LLC
 2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Summary

DSHS License No.: LAB0117
 AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX **Lab Job No.** 13F-12097
Project : Marcus HS Rooms B-103 & B-105 and Storage Closet **Report Date** 11/05/2013 12:26 PM
Project # : 0113H269 **Sample Date :** 11/01/2013
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
3	150	Room B-103 * See Analytical Notes report for further details	Ascospores Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys <div style="text-align: right;">Total:</div>	40 460 680 160 20 440 240 40 2080
4	150	Room B-105 * See Analytical Notes report for further details	Ascospores Aspergillus / Penicillium Basidiospores Chaetomium Cladosporium Drechslera / Bipolaris group Hyphal / Spore Fragments Stachybotrys <div style="text-align: right;">Total:</div>	40 80 240 40 100 20 240 20 780

IAQ Mold Report

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

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Project : Marcus HS Rooms B-103 & B-105 and Storage Closet **Report Date** 11/05/2013 12:26 PM
Project # : 0113H269 **Sample Date :** 11/01/2013
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
5	150	Storage Room * See Analytical Notes report for further details	Alternaria Ascospores Aspergillus / Penicillium Basidiospores Chaetomium Coprinus Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Nigrospora Stachybotrys <div style="text-align: right;">Total:</div>	20 40 380 440 20 20 40 260 60 20 40 1340

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.

Steve Moody Micro Services assumes no responsibility for the manner in which these samples were collected or handled prior to being received at this laboratory. SMMS assumes no responsibility for the qualifications of personnel performing sampling and/or interpretations of this data.

Analyst(s): Rob Greene

Lab Director: Bruce Crabb

Approved Signatory :



Thank you for choosing Steve Moody Micro Services

IAQ Mold Report

Steve Moody Micro Services, LLC
 2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Data Detail

DSHS License No.: LAB0117
 AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX **Lab Job No. :** 13F-12097
Project : Marcus HS Rooms B-103 & B-105 and Storage Closet **Report Date :** 11/05/2013 12:26 PM
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Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile Page 1 of 2

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

Sample ID:	1			2			3			4		
Location:	Exterior, Northwest			Exterior, East			Room B-103			Room B-105		
Debris Rating:	4			4			5			5		
Media Expires On:	Feb 2014			Feb 2014			Feb 2014			Feb 2014		
Notes Included?:							See Analytical Notes			See Analytical Notes		
Volume:	75			75			150			150		
	raw ct.	MDL	spores/m ³	raw ct.	MDL	spores/m ³	raw ct.	MDL	spores/m ³	raw ct.	MDL	spores/m ³
Agaricus / Agrocybe	6	40.00	240	5	40.00	200						
Alternaria	21	40.00	840	19	40.00	760						
Ascospores	4	40.00	160	8	40.00	320	2	20.00	40	2	20.00	40
Aspergillus / Penicillium	65	40.00	2600	65	40.00	2600	23	20.00	460	4	20.00	80
Basidiospores	285	40.00	11400	186	40.00	7440	34	20.00	680	12	20.00	240
Cercospora / Pseudocercospora				1	40.00	40						
Cerebella / Monodictys / Stemphylium / Ulocladium	15	40.00	600									
Chaetomium										2	20.00	40
Chlamydo-spore	25	40.00	1000									
Cladosporium	176	40.00	7040	82	40.00	3280	8	20.00	160	5	20.00	100
Coprinus	11	40.00	440	2	40.00	80						
Curvularia				1	40.00	40	1	20.00	20			
Drechslera / Bipolaris group	3	40.00	120							1	20.00	20
Fusarium	2	40.00	80									
Hyphal / Spore Fragments	45	40.00	1800	32	40.00	1280	22	20.00	440	12	20.00	240
Memnoniella												
Myxomycete / Periconia / Rust / Smut	16	40.00	640	27	40.00	1080	12	20.00	240			
Nigrospora				2	40.00	80						
Stachybotrys							2	20.00	40	1	20.00	20
TOTALS	674		26960	430		17200	104		2080	39		780
Analyst	Rob Greene			Rob Greene			Rob Greene			Rob Greene		
Analysis Date	11/5/2013			11/5/2013			11/5/2013			11/5/2013		

IAQ Mold Report

Steve Moody Micro Services, LLC
 2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Data Detail

DSHS License No.: LAB0117
 AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX **Lab Job No. :** 13F-12097
Project : Marcus HS Rooms B-103 & B-105 and Storage Closet **Report Date :** 11/05/2013 12:26 PM
Project # : 0113H269 **Sample Date :** 11/01/2013
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile Page 2 of 2

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:	5									
Location:	Storage Room									
Debris Rating:	5									
Media Expires On:	Feb 2014									
Notes Included?:	See Analytical Notes									
Volume:	150									
	raw ct.	MDL	spores/m ³							
Agaricus / Agrocybe										
Alternaria	1	20.00	20							
Ascospores	2	20.00	40							
Aspergillus / Penicillium	19	20.00	380							
Basidiospores	22	20.00	440							
Cercospora / Pseudocercospora										
Cerebella / Monodictys / Stemphylium / Ulocladium										
Chaetomium	1	20.00	20							
Chlamyospore										
Cladosporium										
Coprinus	1	20.00	20							
Curvularia										
Drechslera / Bipolaris group	2	20.00	40							
Fusarium										
Hyphal / Spore Fragments	13	20.00	260							
Memnoniella										
Myxomycete / Periconia / Rust / Smut	3	20.00	60							
Nigrospora	1	20.00	20							
Stachybotrys	2	20.00	40							
TOTALS	67		1340							
Analyst	Rob Greene									
Analysis Date	11/5/2013									

Debris Rating Key:

- 0 - No debris detected.
- 1 - Trace debris.
- 2 - Light debris.
- 3 - Moderate debris.
- 4 - Substantial debris.
- 5 - Extensive debris.
- 6 - Field blank.

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

IAQ Mold Report

Steve Moody Micro Services, LLC

Analytical Notes

DSHS License No.: LAB0117

2051 Valley View Lane

AIHA EMPAT ID: 102577

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

Client : Southwest Geoscience - Dallas, TX

Lab Job No. : 13F-12097

Project : Marcus HS Rooms B-103 & B-105 and Storage Closet

Report Date : 11/05/2013 12:26 PM

Project # : 0113H269

Sample Date : 11/01/2013

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Zefon - Air-O-Cell

Test Method: Mold: ASTM D7391-09 - Standard Profile

Page 1 of 2

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 : Room B-103

Notes: 99% Occluded. Due to occlusion on the primary portion of the trace in this sample, higher concentrations of material(s) may be present. The reported "Concentration(s)" are based upon visual estimates of the fields examined. This condition could lead to under-reporting of "Concentration(s)".

Hyaline small spores and structures cannot be effectively observed due to the nature and abundance of the clear inorganic background particulate.

Sample No: 4 : Room B-105

Notes: 99% Occluded. Due to occlusion on the primary portion of the trace in this sample, higher concentrations of material(s) may be present. The reported "Concentration(s)" are based upon visual estimates of the fields examined. This condition could lead to under-reporting of "Concentration(s)".

Hyaline small spores and structures cannot be effectively observed due to the nature and abundance of the clear inorganic background particulate.

Sample No: 5 : Storage Room

Notes: 99% Occluded. Due to occlusion on the primary portion of the trace in this sample, higher concentrations of material(s) may be present. The reported "Concentration(s)" are based upon visual estimates of the fields examined. This condition could lead to under-reporting of "Concentration(s)".

Hyaline small spores and structures cannot be effectively observed due to the nature and abundance of the clear "glassy" inorganic background particulate.

Field Blanks

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

NOTE: All remaining samples suitable for analysis.

IAQ Mold Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

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

Analytical Notes

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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Lab Job No. : 13F-12097

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Report Date : 11/05/2013 12:26 PM

Project # : 0113H269

Sample Date : 11/01/2013

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Zefon - Air-O-Cell

Test Method: Mold: ASTM D7391-09 - Standard Profile

Page 2 of 2

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Methods

Method: ASTM D7391-09: Categorization and Quantification of Airborne Fungal Structures in an Inertial Impaction Sample by Optical Microscopy.

Calculation: Spores/cubic meter = (Raw spore count)*(MDL)

Note: MDL (Minimum Detection Limit) is calculated based upon 1 raw spore count.

Steve Moody Micro Services recommends two significant figures for calculated values based on ASTM D7391-09.

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.



LAB # 102577

Chain of Custody

Page 1 of 1



Lab Job # 13F-12097 AOC:5
 Lab Job # _____
 Lab Job # _____

Please call in advance for immediate, after-hour, & weekend pricing & availability.
 Turnaround of Culture Samples subject to Culture Growth**

ASBESTOS PLM

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

PCM Air (7400) 1 day 2 day 3 day 5 day Immediate
TOTAL DUST (0500/0600) 1 day 2 day

MOLD

Non-culture (Tape / Bulk / Air) 1 day 2 day Immediate
 Air Standard Profile Air Expanded Profile
 Analyze Blanks Yes No
 Culture (Swab / Bulk / Plate) 7-14 day

OTHER: _____

ASBESTOS TEM

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

BACTERIA

Heterotrophic Plate Count (HPC) 3 day
 HPC + Gram Stain 3 day 5 day
 HPC + 3 Gram Neg ID 6-8 day
 HPC + 5 Gram Neg ID 6-8 day
 Fecal Coliform (MPN) 3 day
 Total Coliform & E Coli (P/A) 2-3 day

Billing Company / City: SWG # of Samples: 5
 Submitter's Company: _____ Sample Date: 11/12/13
 Submitter's Name: Clinton S. Jech Project #: 0113H2169
 Project: Marlins HS Rooms B-103 + B-105 and Storage closet Phone #: _____
 Contact Information: Name: Clinton S. Jech Mobile #: (972) 989-1031
 E-mail Results to: Clint/Darren/Veronica Fax #: _____
 Invoice Address: Veronica 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: Rm 103 NW corner of N. Wall 60% Center of Rm. 103 20% / Storage Rm. 10. Wall 65% Rm 103

Sample #	Sample Description	Vol. / Area if applicable	Location / Notes
1	Exterior, Northwest	75	T= 74.8 ° H= 30.3 %
2	Exterior, South East	75	T= 75.9 ° H= 31.2 %
3	Room B-105 Northwest corner 60% Mar 60	150	T= 75.7 ° H= 41.4 % M= 10-60 % Ceilings = Ceiling Tile Walls = Drywall Floors = Floor Tile
4	Room B-105	150	T= 72.3 ° H= 47.3 % M= % Ceilings = Ceiling Tile Walls = Drywall / CMU Block Floors = Floor Tile
5	Storage Room	150	T= 72.3 ° H= 47.3 % M= 10-60 % Ceilings = Ceiling Tile Walls = Drywall Floors = Floor Tile

Released By: <u>[Signature]</u>	Date / Time: <u>11/12/13 1539</u>	Received By: <u>JC</u>	Date / Time: <u>11-1-13 3:39 PM</u>
Released By: _____	Date / Time: _____	Received By: _____	Date / Time: _____

Mold Services Definitions & Limitations/
Standard of Care and Reliance

Mold Services Definitions & Limitations

“Mold” defined. Mold is a general term used to describe various types of single-celled naturally occurring biological organisms occurring worldwide. For purposes of this report (and the Texas Mold Assessment & Remediation Rules), the term “mold” is broadly defined to include any living or dead fungi or related products or parts, including spores, hyphae, and mycotoxins.

Limited Scope of Mold Assessment. The scope of SWG’s mold assessment services as reflected in the Proposal and this report are limited in that (i) they were physically limited to certain portions of the building structure (e.g., the Client identified Investigation Areas); and (ii) limited by accessibility to building materials or components within the Investigation Area(s). In contrast to a Limited Assessment” is a comprehensive assessment, which involves destructive sampling methods and the scope of the assessment typically extending to the entire building structure.

Time sensitive. 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 aeroallergens. Because no limit values presently exist, SWG 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 from a limited mold assessment are limited because of the nature of the information obtained (e.g., 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). SWG cannot warrant the accuracy of prior or subsequent information/data, reports and services performed by other firms at the Site. SWG assumes no responsibility or liability for errors in information or data provided by or through the client or third party sources. SWG’s services are not to be construed as legal or medical interpretation or advice.

Moisture Intrusion Limitation. SWG performs mold assessment services and is not a moisture intrusion, HVAC, roofing, plumbing or building envelope specialist. However, during the course of conducting its mold assessment services, SWG will report observed areas of apparent moisture intrusion. SWG does not and will not investigate the cause or causes of such observed moisture intrusion. In the event apparent moisture intrusion is observed, SWG 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.

Texas Licensing Requirements. SWG (and/or its personnel) will render the services set forth in this proposal in the capacity of a Texas licensed Mold Assessor. SWG is not licensed as a Mold Remediation Contractor and does not perform mold remediation. As of January 1, 2005, Texas law has required that Mold Assessors and Mold Remediation Contractors be licensed.

Mold Remediation Certificate. 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 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 SWG's issuance of a Mold Remediation Certificate 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 the Investigation Area or the Site. In the event that SWG is engaged to render services in connection with a mold remediation project, SWG will require *Client to provide to SWG a signed certificate prepared by Client's moisture intrusion specialist or appropriate contractor stating that all sources of moisture which resulted in the presence of mold in the Investigation Area have been fully remediated and corrected.*

Standard of Care

SWG performed its 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, expressed or implied, apply to the Services hereunder or this report.

Reliance

SWG's proposal for this project, services and this report have been prepared on behalf of and for the exclusive use of Lewisville Independent School District solely for their use and reliance in assessing the presence of mold in the Investigation Areas of the site. Lewisville Independent School District is the only party to which SWG 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, SWG 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 the proposal, the Services or this report shall be limited in the aggregate to all relying parties to the fair market value of the Services provided by SWG.

Southwest GEOSCIENCE

2351 W. Northwest Hwy., Suite 3321
Dallas, Texas 75220
Ph: (214) 350-5469
Fax: (214) 350-2914

March 3, 2014

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

Re: Limited Mold Assessment Services
Marcus High School
Rooms B103, B105 and Adjacent Storage
5707 Morriss Road
Flower Mound, Texas
SWG Project No. 0113H269A
LISD PO# P257904

Introduction

Southwest Geoscience (SWG) conducted limited mold assessment activities for the Lewisville Independent School District (Lewisville I.S.D.) within Marcus High School located 5707 Morris Road in Flower Mound, Texas (hereinafter referred to as the "Site"). The investigation was limited to areas of the Site identified by Lewisville I.S.D. as described below. The assessment was performed by Mr. Clinton S. Jech, a State of Texas licensed Mold Assessment Technician (Lic. No. MAT1075) on February 18, 2014. SWG's mold services definitions and limitations are included as an attachment to this report.

Investigation Areas

Lewisville I.S.D. identified the following physical portions of the Site as the target investigation areas ("Investigation Areas") for mold assessment: readily accessible areas within rooms B103, B105 and adjacent storage. SWG's mold assessment services were limited to the Investigation Area(s) identified by Lewisville, I.S.D. Additional areas or portions of the Site were out-of-scope and not included in SWG's mold assessment or this report at this time.

Scope of Work

As set forth in SWG's Mold Assessment Proposal (No. P0114H1052) dated January 30, 2014. SWG's scope-of-work was to provide visual and/or analytical mold assessment and related services in the Investigation Areas which included:

Visual Reconnaissance: SWG performed a visual reconnaissance of the Investigation Areas for visible indications of moisture intrusion (as indicated by staining or visible moisture) and/or suspect mold growth. SWG's visual reconnaissance only included readily accessible or visible portions of the Investigation Areas.

Suspect Mold Growth Sampling and Analysis: SWG collected limited ambient air samples for nonviable mold spores utilizing Air-O-Cell cassettes. "Air-O-Cell" refers to slit impaction air sampling cassettes manufactured by Zefon Analytical Accessories, St. Petersburg, Florida.

Site Reconnaissance Observations/Findings and Recommendations

SWG's Mold Assessment Site reconnaissance was performed on February 18, 2014 by Mr. Clinton S. Jech. SWG's visual reconnaissance of the Investigation areas revealed the following:

Temperature and Relative Humidity

Temperature readings collected inside the rooms ranged from 71.6 to 75.2 degrees Fahrenheit while relative humidity ranged from 39.7 to 46.3 percent. Temperature readings collected outside the building ranged from 75.2 to 83.8 degrees Fahrenheit while outside relative humidity ranged from 28.1 to 30.9 percent.

Relative humidity is a measure of the moisture content of air and is closely tied to the comfort of the office/workplace temperature. As with temperature, there are no regulations governing acceptable office/workplace humidity ranges. Humidity levels in the office/workplace are not only related to health effects, but also have operational impacts on modern office equipment.

Workplace/office temperatures have historically been considered a subjective factor because the perception of uncomfortable temperature levels is specific to each individual. There are no regulations governing acceptable office/workplace temperature ranges, but significant research has been conducted which indicates that there are temperature ranges that are not only comfortable but also result in optimum performance. ASHRAE (American Society of Heating, Refrigerating & Air Conditioning Engineers) has published guidelines describing thermal environmental conditions that at least 80% of the persons who occupy that environment will find acceptable or “comfortable.” Table 1 below explains the applicable limits and guidelines.

Table 1 Acceptable Ranges Of Temperature And Humidity		
Relative Humidity	Winter Temperatures	Summer Temperatures
30%	68.5 to 76°F	74 to 80°F
40%	68.5 to 75.5°F	73 to 79.5°F
50%	68.5 to 74.5°F	73 to 79°F
60%	68 to 74°F	72.5 to 78°F

SWG utilized a Protimeter Moisture Measurement System (MMS) instrument (Model No. BLD2000) to measure and diagnose dampness in the drywall within random areas. The MMS is a battery powered handheld unit that is equipped with hydrostick probes to measure moisture content in wood, drywall and other and non-conductive materials. The device measures electrical conductivity of building materials and compares the conductivity readings to an internal, electronic standard reading for normal or “dry” materials.

Moisture content readings were obtained by pushing the moisture probe pins into surfaces. The measured values were then displayed on a colored scale depicting if the materials measured were normal (dry), higher than normal but not critical (at risk) or contained excessive moisture levels (wet). Based on the manufacturer’s guidelines, the instrument measurement values are described below:

< 5%	Out of Range
> 5% but < 16%	Normal
> 17% but < 20%	Higher than Normal but Not Critical
> 20%	Excessive Moisture Levels

Moisture meter readings taken from the walls within the rooms were ranged from 7 to 12% which is considered normal by the manufacturer.

Air Monitoring Results

SWG collected three (3) samples from the interior of the investigation area and two (2) samples from the exterior of the building. The microbial s counts/m³ samples were analyzed by Steve Moody Micro Services, Inc. (SMMS) in Farmers Branch, Texas; SMMS is a State of Texas licensed mold analysis laboratory and accredited under the AIHA Laboratory Quality Assurance Program for Environmental Microbiology.

Air testing performed using spore traps indicated that total airborne mold spores in room B103 and the storage closet were lower as compared to those measured outside of the building at the time the sampling was performed. The total airborne mold spores in room B105 were higher as compared to those measured outside of the building at the time the sampling was performed.

The total fungal spore concentration within the investigation area was reported as 1,160 counts/m³ (Room B103), 1,480 counts/m³ (Storage Closet) and 5,500 counts/m³ (Room B105), while the exterior levels ranged from 4,560 to 5,200 counts/m³.

The air samples collected within the investigation area reported *Stachybotrys* as 20 to 60 counts/m³ and *Curvularia* and *Epicoccum* as 20 counts/m³, while no exterior levels were reported. In addition, *Aspergillus/Penicillium* was reported as 4,660 counts/m³, while exterior levels were reported as 1,120 counts/m³.

The American Conference of Governmental Industrial Hygienists (ACGIH) sets forth assessment criteria related to the "indoor/outdoor" relationship where the indoor air quality should be at or below that of outdoor air quality with regard to fungal spores (see ACGIH Bioaerosols, Assessment and Controls publication, 1999). Due to the levels of *Stachybotrys* and *Aspergillus/Penicillium* compared to the building exterior, SWG considers the airborne mold concentration to be elevated.

Suspect Mold

No visible mold was observed during the assessment. No odors or excessive dust were noted.

Conclusions and Recommendations

Due to the levels of *Stachybotrys* and *Aspergillus/Penicillium* compared to the building exterior, SWG considers the airborne mold concentration to be elevated. SWG recommends that the areas be cleaned and further testing/further investigation be performed.

If you have any questions regarding this report or if we can assist you with any other matter, please contact the undersigned at (214) 350-5469.

Sincerely,
Southwest Geoscience



Darren G. Bowden
Corporate Director
Industrial Hygiene Services
Texas Mold Assessment Consultant
Lic. No. MAC0321

Attachments: Analytical Results/Chain of Custody, Mold Services Definitions & Limitations

Analytical Results/Chain of Custody

IAQ Mold Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

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

Summary

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX

Lab Job No. 14F-01943

Project : Marcus HS Rooms B103, B105 & Common Storage Room

Report Date 02/20/2014 1:05 PM

Project # : 0113H269A

Sample Date : 02/18/2014

Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Zefon - Air-O-Cell

Test Method: Mold: ASTM D7391-09 - Standard Profile

Page 1 of 3

On 2/18/2014, five (5) samples were submitted by Clint Jech of Southwest Geoscience - Dallas, TX (located at 2351 W NW Hwy #3321, Dallas, TX 75220) for Spore Trap, Non-cultured mold analysis. This report consists of three sections; a summary section, a data detail section, and an analytical notes section.

Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
1	75	Exterior, Northwest * See Analytical Notes report for further details	Agaricus / Agrocybe	80
			Alternaria	80
			Ascospores	40
			Aspergillus / Penicillium	480
			Basidiospores	1520
			Cladosporium	1360
			Hyphal / Spore Fragments	920
			Myxomycete / Periconia / Rust / Smut	80
			Total:	4560
			2	75
Alternaria	200			
Ascospores	80			
Aspergillus / Penicillium	1120			
Basidiospores	2080			
Cladosporium	840			
Hyphal / Spore Fragments	600			
Myxomycete / Periconia / Rust / Smut	160			
Pithomyces	40			
Total:	5200			

IAQ Mold Report

Steve Moody Micro Services, LLC
 2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Summary

DSHS License No.: LAB0117
 AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX **Lab Job No.** 14F-01943
Project : Marcus HS Rooms B103, B105 & Common Storage Room **Report Date** 02/20/2014 1:05 PM
Project # : 0113H269A **Sample Date :** 02/18/2014
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile Page 2 of 3

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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
3	150	Room B103 * See Analytical Notes report for further details	Alternaria	60
			Aspergillus / Penicillium	420
			Basidiospores	140
			Cladosporium	160
			Epicoccum	20
			Hyphal / Spore Fragments	220
			Myxomycete / Periconia / Rust / Smut	80
			Stachybotrys	60
			Total:	1160
			4	150
Aspergillus / Penicillium	4660			
Basidiospores	340			
Cladosporium	120			
Curvularia	20			
Hyphal / Spore Fragments	200			
Myxomycete / Periconia / Rust / Smut	60			
Stachybotrys	20			
Total:	5500			
5	150	Storage Closet * See Analytical Notes report for further details		
			Basidiospores	300
			Cladosporium	120
			Hyphal / Spore Fragments	180
			Myxomycete / Periconia / Rust / Smut	60
			Stachybotrys	20
			Total:	1480

IAQ Mold Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Summary

DSHS License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX **Lab Job No.** 14F-01943
Project : Marcus HS Rooms B103, B105 & Common Storage Room **Report Date** 02/20/2014 1:05 PM
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Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
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On 2/18/2014, five (5) samples were submitted by Clint Jech of Southwest Geoscience - Dallas, TX (located at 2351 W NW Hwy #3321, 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.

Steve Moody Micro Services assumes no responsibility for the manner in which these samples were collected or handled prior to being received at this laboratory. SMMS assumes no responsibility for the qualifications of personnel performing sampling and/or interpretations of this data.

Analyst(s): Rebecca Lutz, Rob Greene

Lab Director: Bruce Crabb

Approved Signatory :



Thank you for choosing Steve Moody Micro Services

IAQ Mold Report

Steve Moody Micro Services, LLC
 2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Data Detail

DSHS License No.: LAB0117
 AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX **Lab Job No. :** 14F-01943
Project : Marcus HS Rooms B103, B105 & Common Storage Room **Report Date :** 02/20/2014 1:05 PM
Project # : 0113H269A **Sample Date :** 02/18/2014
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile

Page 1 of 2

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

Sample ID:	1			2			3			4		
Location:	Exterior, Northwest			Exterior, North			Room B103			Room B105		
Debris Rating:	5			5			5			5		
Media Expires On:	Sep 2014			Sep 2014			Sep 2014			Sep 2014		
Notes Included?:												
Volume:	75			75			150			150		
	raw ct.	MDL	spores/m ³	raw ct.	MDL	spores/m ³	raw ct.	MDL	spores/m ³	raw ct.	MDL	spores/m ³
Agaricus / Agrocybe	2	40.00	80	2	40.00	80						
Alternaria	2	40.00	80	5	40.00	200	3	20.00	60	4	20.00	80
Ascospores	1	40.00	40	2	40.00	80						
Aspergillus / Penicillium	12	40.00	480	28	40.00	1120	21	20.00	420	233	20.00	4660
Basidiospores	38	40.00	1520	52	40.00	2080	7	20.00	140	17	20.00	340
Chaetomium												
Cladosporium	34	40.00	1360	21	40.00	840	8	20.00	160	6	20.00	120
Curvularia										1	20.00	20
Epicoccum							1	20.00	20			
Hyphal / Spore Fragments	23	40.00	920	15	40.00	600	11	20.00	220	10	20.00	200
Memnoniella												
Myxomycete / Periconia / Rust / Smut	2	40.00	80	4	40.00	160	4	20.00	80	3	20.00	60
Pithomyces				1	40.00	40						
Stachybotrys							3	20.00	60	1	20.00	20
TOTALS	114		4560	130		5200	58		1160	275		5500
Analyst	Rob Greene			Rob Greene			Rob Greene			Rebecca Lutz		
Analysis Date	2/20/2014			2/20/2014			2/20/2014			2/20/2014		

IAQ Mold Report

Steve Moody Micro Services, LLC
 2051 Valley View Lane
 Farmers Branch, TX 75234 Phone: (972) 241-8460

Data Detail

DSHS License No.: LAB0117
 AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX **Lab Job No. :** 14F-01943
Project : Marcus HS Rooms B103, B105 & Common Storage Room **Report Date :** 02/20/2014 1:05 PM
Project # : 0113H269A **Sample Date :** 02/18/2014
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile Page 2 of 2

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:	5								
Location:	Storage Closet								
Debris Rating:	5								
Media Expires On:	Sep 2014								
Notes Included?:									
Volume:	150								
	raw ct.	MDL	spores/m ³						
Agaricus / Agrocybe									
Alternaria									
Ascospores									
Aspergillus / Penicillium	40	20.00	800						
Basidiospores	15	20.00	300						
Chaetomium									
Cladosporium	6	20.00	120						
Curvularia									
Epicoccum									
Hyphal / Spore Fragments	9	20.00	180						
Memnoniella									
Myxomycete / Periconia / Rust / Smut	3	20.00	60						
Pithomyces									
Stachybotrys	1	20.00	20						
TOTALS	74		1480						
Analyst	Rebecca Lutz								
Analysis Date	2/20/2014								

Debris Rating Key:

- 0 - No debris detected.
- 1 - Trace debris.
- 2 - Light debris.
- 3 - Moderate debris.
- 4 - Substantial debris.
- 5 - Extensive debris.
- 6 - Field blank.

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

IAQ Mold Report

Steve Moody Micro Services, LLC
2051 Valley View Lane
Farmers Branch, TX 75234 Phone: (972) 241-8460

Analytical Notes

DSHS License No.: LAB0117
AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX **Lab Job No. :** 14F-01943
Project : Marcus HS Rooms B103, B105 & Common Storage Room **Report Date :** 02/20/2014 1:05 PM
Project # : 0113H269A **Sample Date :** 02/18/2014
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
Test Method: Mold: ASTM D7391-09 - Standard Profile

Page 1 of 2

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: 1 : Exterior, Northwest

Notes: 20% Occluded.

Sample No: 2 : Exterior, North

Notes: 25% Occluded.

Sample No: 3 : Room B103

Notes: 45% Occluded.

Sample No: 4 : Room B105

Notes: 75% Occluded.

Sample No: 5 : Storage Closet

Notes: 50% Occluded.

Field Blanks

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

Methods

Method: ASTM D7391-09: Categorization and Quantification of Airborne Fungal Structures in an Inertial Impaction Sample by Optical Microscopy.

Calculation: Spores/cubic meter = (Raw spore count)*(MDL)

Note: MDL (Minimum Detection Limit) is calculated based upon 1 raw spore count.

Steve Moody Micro Services recommends two significant figures for calculated values based on ASTM D7391-09.

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.

IAQ Mold Report

Steve Moody Micro Services, LLC

2051 Valley View Lane

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

Analytical Notes

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

Client : Southwest Geoscience - Dallas, TX

Lab Job No. : 14F-01943

Project : Marcus HS Rooms B103, B105 & Common Storage Room

Report Date : 02/20/2014 1:05 PM

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Page 2 of 2

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 # 102577

Chain of Custody

Page 1 of



Lab Job # 14F-01943 AOC:5
 Lab Job # _____
 Lab Job # _____

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

Turnaround of Culture Samples subject to Culture Growth

ASBESTOS PLM

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

PCM Air (7400) 1 day 2 day 3 day 5 day Immediate
TOTAL DUST (0500/0600) 1 day 2 day

MOLD

Non-culture (Tape / Bulk / Air) 1 day 2 day Immediate
 Air Standard Profile Air Expanded Profile
 Analyze Blanks Yes No
 Culture (Swab / Bulk / Plate) 7-14 day

OTHER: _____

ASBESTOS TEM

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

BACTERIA

Heterotrophic Plate Count (HPC) 3 day
 HPC + Gram Stain 3 day 5 day
 HPC + 3 Gram Neg ID 6-8 day
 HPC + 5 Gram Neg ID 6-8 day
 Fecal Coliform (MPN) 3 day
 Total Coliform & E Coli (P/A) 2-3 day

Billing Company / City: SWG Dallas # of Samples: 5
 Submitter's Company: _____ Sample Date: 2/18/2014
 Submitter's Name: Clinton S. Jech Project #: 01134269A
 Project: Marcos HS ~~at~~ Rooms B103, B105 & Common Storage Room Phone #: _____
 Contact Information: Name: Clinton S. Jech Mobile #: (972) 989-1031
 E-mail Results to: Clint/Doreen/Veronica Fax #: _____
 Invoice Address: Veronica 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: _____

Sample #	Sample Description	Vol. / Area if applicable	Location / Notes
1	Exterior, Northwest	75	T = 83.8 ° H = 30.9 %
2	Exterior, North	75	T = 83.3 ° H = 28.1 %
3	Room B103	150	T = 75.2 ° H = 39.7 % M = 7-10 % Ceilings = Lay-in Ceiling Tile Walls = Drywall Floors = Floor Tile
4	Room B105	150	T = 72.9 ° H = 46.3 % M = 7-12 % Ceilings = Lay-in Ceiling Tile Walls = CMU Block / Drywall Floors = Floor Tile
5	Storage Closet	150	T = 71.6 ° H = 42.8 % M = 7.9 % Ceilings = Lay-in Ceiling Tile Walls = Drywall Floors = Floor Tile

Released By: <u>[Signature]</u>	Date / Time: <u>2/18/2014 11:00 AM</u>	Received By: <u>JL</u>	Date / Time: <u>2-18-14 4:05 PM</u>
Released By: _____	Date / Time: _____	Received By: _____	Date / Time: _____

Mold Services Definitions & Limitations/
Standard of Care and Reliance

Mold Services Definitions & Limitations

“Mold” defined. Mold is a general term used to describe various types of single-celled naturally occurring biological organisms occurring worldwide. For purposes of this report (and the Texas Mold Assessment & Remediation Rules), the term “mold” is broadly defined to include any living or dead fungi or related products or parts, including spores, hyphae, and mycotoxins.

Limited Scope of Mold Assessment. The scope of SWG’s mold assessment services as reflected in the Proposal and this report are limited in that (i) they were physically limited to certain portions of the building structure (e.g., the Client identified Investigation Areas); and (ii) limited by accessibility to building materials or components within the Investigation Area(s). In contrast to a Limited Assessment” is a comprehensive assessment, which involves destructive sampling methods and the scope of the assessment typically extending to the entire building structure.

Time sensitive. 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 aeroallergens. Because no limit values presently exist, SWG 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 from a limited mold assessment are limited because of the nature of the information obtained (e.g., 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). SWG cannot warrant the accuracy of prior or subsequent information/data, reports and services performed by other firms at the Site. SWG assumes no responsibility or liability for errors in information or data provided by or through the client or third party sources. SWG’s services are not to be construed as legal or medical interpretation or advice.

Moisture Intrusion Limitation. SWG performs mold assessment services and is not a moisture intrusion, HVAC, roofing, plumbing or building envelope specialist. However, during the course of conducting its mold assessment services, SWG will report observed areas of apparent moisture intrusion. SWG does not and will not investigate the cause or causes of such observed moisture intrusion. In the event apparent moisture intrusion is observed, SWG 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.

Texas Licensing Requirements. SWG (and/or its personnel) will render the services set forth in this proposal in the capacity of a Texas licensed Mold Assessor. SWG is not licensed as a Mold Remediation Contractor and does not perform mold remediation. As of January 1, 2005, Texas law has required that Mold Assessors and Mold Remediation Contractors be licensed.

Mold Remediation Certificate. 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 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 SWG's issuance of a Mold Remediation Certificate 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 the Investigation Area or the Site. In the event that SWG is engaged to render services in connection with a mold remediation project, SWG will require *Client to provide to SWG a signed certificate prepared by Client's moisture intrusion specialist or appropriate contractor stating that all sources of moisture which resulted in the presence of mold in the Investigation Area have been fully remediated and corrected.*

Standard of Care

SWG performed its 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, expressed or implied, apply to the Services hereunder or this report.

Reliance

SWG's proposal for this project, services and this report have been prepared on behalf of and for the exclusive use of Lewisville Independent School District solely for their use and reliance in assessing the presence of mold in the Investigation Areas of the site. Lewisville Independent School District is the only party to which SWG 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, SWG 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 the proposal, the Services or this report shall be limited in the aggregate to all relying parties to the fair market value of the Services provided by SWG.