

DATE: January 16, 2014

TO: Trish Cuckler, Principal

SUBJECT: Hedrick ES - IAQ - Air Test - Rooms 129 & 130

Yesterday 1/15, I received Work Order #175299: "*Air Quality request for Classrooms #129 and #130.*" This morning 1/16, I inspected both rooms. Room 129 had 1 small stained ceiling tile in the left hand corner. Other than that, there were no other water intrusions in Room 129. In Room 130, there were no indications of water intrusions. I am requesting Ricky Henslee, from the Central Zone, to replace the stained ceiling tile in Room 129. Today, I am putting in a P.O. request to have Southwest GeoScience do an Air Test in each of the rooms. The test should be done the first part of next week (The weather needs to be above 60 degrees and not raining.), and we should have the results back by the end of the week, pending the weather. If you have any questions, please call me.

Thanks,
Paul

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

DATE: February 24, 2014

TO: Trish Cuckler, Principal

SUBJECT: Hedrick ES - IAQ - Air Test Results - Rooms 129 & 130

On Tuesday 2/18, SWG Air tested the Rooms 129 & 130. 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 129, was **14.0%**, and Room 130, was **17.6%** of the outdoor levels. Utilizing this theory, the indoor concentrations are within the acceptable guidelines for areas with filtered air or air conditioning. **Room 129 had 7 spores of Stachybotrys and Room 130 had 3 spores of Stachybotrys. I am requesting Custodial to Steam Clean the carpet in both rooms on Friday night 2/28. We will retest the following week when the weather permits.** 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

February 27, 2014

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

Re: Limited Mold Assessment Services
Hedrick Elementary School
Room 129 & 130
1532 Bellaire Boulevard
Lewisville, Texas
LISD PO# 259357
SWG Project No. 0114H040

Introduction

Southwest Geoscience (SWG) conducted limited mold assessment activities for the Lewisville Independent School District (Lewisville I.S.D.) within Hedrick Elementary School located at 1532 Bellaire Boulevard in Lewisville, 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 room 129 and room 130. 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. P0114H1026) dated January 21, 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 73.9 to 74.8 degrees Fahrenheit while relative humidity ranged from 33.5 to 33.9 percent. Temperature readings collected outside the building ranged from 75.5 to 77.0 degrees Fahrenheit while outside relative humidity ranged from 36.6 to 37.4 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 I below explains the applicable limits and guidelines.

Table I 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 9 percent which is considered normal by the manufacturer.

Air Monitoring Results

SWG collected two (2) samples from the interior of the investigation area 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.

Air testing performed using spore traps indicated that total airborne mold spores in the classrooms were lower to those measured outside of the building at the time the sampling was performed. The total fungal spore concentration within the investigation area ranged from 2,020 to 2,540 counts/m³, while the exterior level ranged 11,560 to 14,440 counts/m³. However, the air samples collected within the investigation area reported *Stachybotrys* as 60-140 counts/m³ and *Curvularia* as 100 counts/m³ while exterior levels were reported as 40 counts/m³. *Alternaria* was reported as 260 counts/m³ while exterior levels were reported as 240 counts/m³. *Myxomycete/Periconia/Rust/Smut* was reported as 500 counts/m³ while exterior levels were reported as 360 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* compared to the building exterior, SWG considers the airborne mold concentration to be elevated.

Suspect Mold

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

Conclusions and Recommendations

Based on SWG's limited assessment and the analytical results collected, it appears that the indoor air quality, as it relates to airborne fungi was above recommended guidelines. SWG recommends that the areas be cleaned and further testing 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-01942
Project : Hedrick ES Rooms 129 & 130 **Report Date** 02/20/2014 12:43 PM
Project # : 0114H040 **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, four (4) 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, Northeast	Agaricus / Agrocybe Alternaria Ascospores Aspergillus / Penicillium Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Epicoccum Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Oidium / Peronospora Pithomyces <div style="text-align: right;">Total:</div>	120 240 4520 1040 4080 2680 40 40 120 920 360 160 80 14400

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

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Client : Southwest Geoscience - Dallas, TX

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Project : Hedrick ES Rooms 129 & 130

Report Date 02/20/2014 12:43 PM

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Page 2 of 3

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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
2	75	Exterior, Northwest	Agaricus / Agrocybe	80
			Alternaria	200
			Ascospores	1680
			Aspergillus / Penicillium	1480
			Basidiospores	3120
			Cercospora / Pseudocercospora	40
			Chaetomium	40
			Cladosporium	3160
			Coprinus	240
			Drechslera / Bipolaris group	40
			Fusicladium	40
			Hyphal / Spore Fragments	960
			Myxomycete / Periconia / Rust / Smut	280
			Oidium / Peronospora	120
			Scopulariopsis	40
			Stachybotrys	40
			Total:	11560

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-01942
Project : Hedrick ES Rooms 129 & 130 **Report Date** 02/20/2014 12:43 PM
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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
3	150	Room 129 * See Analytical Notes report for further details	Alternaria Aspergillus / Penicillium Basidiospores Chaetomium Cladosporium Coprinus Drechslera / Bipolaris group Epicoccum Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys <div style="text-align: right;">Total:</div>	100 100 420 20 660 40 20 20 340 160 140 2020
4	150	Room 130 * See Analytical Notes report for further details	Alternaria Basidiospores Cladosporium Curvularia Drechslera / Bipolaris group Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut Stachybotrys <div style="text-align: right;">Total:</div>	260 760 320 100 20 520 500 60 2540

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. :** 14F-01942
Project : Hedrick ES Rooms 129 & 130 **Report Date :** 02/20/2014 12:43 PM
Project # : 0114H040 **Sample Date :** 02/18/2014
Sample Type: Spore Trap, Non-cultured **Spore Trap Type:** Zefon - Air-O-Cell
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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, Northeast			Exterior, Northwest			Room 129			Room 130		
Debris Rating:	4			3			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	3	40.00	120	2	40.00	80						
Alternaria	6	40.00	240	5	40.00	200	5	20.00	100	13	20.00	260
Ascospores	113	40.00	4520	42	40.00	1680						
Aspergillus / Penicillium	26	40.00	1040	37	40.00	1480	5	20.00	100			
Basidiospores	102	40.00	4080	78	40.00	3120	21	20.00	420	38	20.00	760
Cercospora / Pseudocercospora				1	40.00	40						
Chaetomium				1	40.00	40	1	20.00	20			
Cladosporium	67	40.00	2680	79	40.00	3160	33	20.00	660	16	20.00	320
Coprinus				6	40.00	240	2	20.00	40			
Curvularia	1	40.00	40							5	20.00	100
Drechslera / Bipolaris group	1	40.00	40	1	40.00	40	1	20.00	20	1	20.00	20
Epicoccum	3	40.00	120				1	20.00	20			
Fusicladium				1	40.00	40						
Hyphal / Spore Fragments	23	40.00	920	24	40.00	960	17	20.00	340	26	20.00	520
Memnoniella												
Myxomycete / Periconia / Rust / Smut	9	40.00	360	7	40.00	280	8	20.00	160	25	20.00	500
Oidium / Peronospora	4	40.00	160	3	40.00	120						
Pithomyces	2	40.00	80									
Scopulariopsis				1	40.00	40						
Stachybotrys				1	40.00	40	7	20.00	140	3	20.00	60
TOTALS	360		14400	289		11560	101		2020	127		2540
Analyst	Rob Greene			Rob Greene			Rob Greene			Rob Greene		
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-01942

Project : Hedrick ES Rooms 129 & 130

Report Date : 02/20/2014 12:43 PM

Project # : 0114H040

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.

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-01942

Project : Hedrick ES Rooms 129 & 130

Report Date : 02/20/2014 12:43 PM

Project # : 0114H040

Sample Date : 02/18/2014

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Page 1 of 1

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Samples Analyzed

Sample No: 3 : Room 129

Notes: 60% Occluded.

Sample No: 4 : Room 130

Notes: 80% Occluded.

Field Blanks

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

NOTE: All remaining samples suitable for analysis.

Methods

Method: ASTM D7391-09: 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 # 14F-0942 AOC:4
 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
 Submitter's Company: _____
 Submitter's Name: Clinton S. Jech
 Project: Hedrick ES Rooms 129 & 130
 Contact Information: Name: Clinton S. Jech
 E-mail Results to: Clint/Darren/Veronica
 Invoice Address: Veronica

of Samples: 4
 Sample Date: 2/18/2014
 Project #: 0114H040
 Phone #: _____
 Mobile #: (972) 989-1031
 Fax #: _____
 P.O. #: _____

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

Notes: _____

Sample #	Sample Description	Vol. / Area if applicable	Location / Notes
1	Exterior, Northeast	75	T= 77.0° H= 36.6 %
2	Exterior, Northwest	75	T= 75.5° H= 37.4 %
3	Room 129	150	T= 74.8° H= 33.9 % RH= 7.8 % Ceilings = Lay-in Ceiling Tile Walls = Cork Board, Drywall Floors = Carpet
4	Room 130	150	T= 73.9° H= 33.5 % RH= 8.9 % Ceilings = Lay-in Ceiling Tile Walls = Cork Board / Drywall Floors = Carpet

Released By: <u>[Signature]</u>	Date / Time: <u>2/18/2014 1604</u>	Received By: <u>JC</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.

DATE: April 4, 2014

TO: Patricia Cuckler, Principal

SUBJECT: Hedrick ES - IAQ - Retest results - Rooms 125, 129 & 130

On Tuesday 3/25, SWG Air tested the Rooms 125, 129 & 130. 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 125, was **146.2%**, Room 129, was **69.8%**, Room 130, was **104.3%**, of the outdoor levels. **The percentages are high because of an unordinary low mold count outside. In Room 125, Chaetomium was 2% and Stachybotrys 1% of the total count. In Room 129, Stachybotrys was 2% of total count. In Room 130, Stachybotrys was 1% of total count. Outside Stachybotrys was 2% of the total count. I am requesting Custodial to Shampoo the carpet tonight 4/4, and Southwest GeoScience will retest on Tuesday 4/8 or Wednesday 4/9. Weather conditions should be favorable for testing.** Utilizing this theory, the indoor concentrations are not 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
469-446-8882

DATE: April 11, 2014

TO: Patricia Cuckler, Principal

SUBJECT: Hedrick ES - IAQ - Re-test Results - Rooms 125, 129 & 130

On Tuesday 4/8, SWG Air tested the Rooms 125, 129 & 130. 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 125, was 26.2%, Room 129, was 32.6%, Room 130, was 50.9%, of the outdoor levels. Utilizing this theory, the indoor concentrations are within the acceptable guidelines for Rooms 125 & 129 with filtered air or air conditioning. **Room 130 had higher than 40%. The mold counts are less than the last test and no Stachybotrys. I am requesting Custodial to Shampoo the traffic areas in the room, next Thursday 4/17, and retest on 4/22, weather permitting.** If you have any questions, please call me.

Thanks,
Paul

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



April 14, 2014

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

Re: Limited Mold Assessment Services
Hedrick Elementary School
Rooms 125, 129 and 130
1532 Bellaire Boulevard
Lewisville, Texas
Project No. 7210114H055A
LISD PO# P267588

Introduction

Apex TITAN, Inc. a subsidiary of Apex Companies, LLC (APEX) conducted limited mold assessment activities for the Lewisville Independent School District (Lewisville I.S.D.) within the Hendrick Elementary School 1532 Bellaire Boulevard in Lewisville, 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. Apex'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 125, 129 and 130. Apex'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 Apex's mold assessment or this report at this time.

Scope of Work

As set forth in Apex's Mold Assessment Proposal (No. P0114H1142) dated April 8, 2014. Apex's scope-of-work was to provide visual and/or analytical mold assessment and related services in the Investigation Areas which included:

Visual Reconnaissance: Apex 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. Apex's visual reconnaissance only included readily accessible or visible portions of the Investigation Areas.

Suspect Mold Growth Sampling and Analysis: Apex 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

Apex's Mold Assessment Site reconnaissance was performed on April 8, 2014 by Mr. Clinton S. Jech. Apex's visual reconnaissance of the Investigation areas revealed the following:

Temperature and Relative Humidity

Temperature readings collected inside the room ranged from 74.6 to 77 degrees Fahrenheit while relative humidity ranged from 22.7 to 24 percent. Temperature readings collected outside the building ranged from 70.1 to 71.3 degrees Fahrenheit while outside relative humidity ranged from 17.4 to 18.6 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 I below explains the applicable limits and guidelines.

Table I 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

Apex 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 6 to 14% which is considered normal by the manufacturer.

Air Monitoring Results

Apex collected three (3) samples from the interior of the investigation area 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.

Air testing performed using spore traps indicated that total airborne mold spores in classrooms 125, and 130 were lower 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 ranged from 1,187 to 2,308 counts/m³, while the exterior level ranged from 3,504 to 4,530 counts/m³. However, the air sample collected within room 125 reported *Stachybotrys* as 7 counts/m³ while no exterior levels were reported. The air sample with room 130 reported *Cercospora* / *Pseudocerospora*, *Cerebella* / *Monodictys* / *Stemphylium* / *Ulocladium*, and *Epicoccum* were reported as 7 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). Due to the levels of *Stachybotrys* compared to the building exterior, Apex 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

Based on Apex's limited assessment and the analytical results collected, it appears that the indoor air quality, as it relates to airborne fungi was above recommended guidelines. Apex recommends that the areas be cleaned and further testing 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,
Apex TITAN, Inc.



Darren G. Bowden
Senior Program Manager
Industrial Hygiene Services
Texas Mold Assessment Consultant
Lic. No. MAC0321

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

ATTACHMENT 1

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 : Apex TITAN, Inc. - Dallas, TX

Lab Job No. 14F-04161

Project : Hedrick ES Rooms 125, 129 and 130

Report Date 04/10/2014 2:31 PM

Project # : 7210114H055

Sample Date : 04/08/2014

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 4/9/2014, five (5) samples were submitted by Clint Jech of Apex TITAN, Inc. - Dallas, TX (located at 2351 W. NW Highway #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, Northeast * See Analytical Notes report for further details	Agaricus / Agrocybe	13
			Alternaria	200
			Ascospores	213
			Aspergillus / Penicillium	733
			Basidiospores	773
			Cladosporium	1973
			Coprinus	13
			Drechslera / Bipolaris group	13
			Hyphal / Spore Fragments	293
			Myxomycete / Periconia / Rust / Smut	293
			Oidium / Peronospora	13
			Total:	4530
			2	75
Ascospores	173			
Aspergillus / Penicillium	280			
Basidiospores	853			
Cladosporium	1573			
Coprinus	13			
Drechslera / Bipolaris group	13			
Hyphal / Spore Fragments	413			
Myxomycete / Periconia / Rust / Smut	53			
Total:	3504			

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 : Apex TITAN, Inc. - Dallas, TX **Lab Job No.** 14F-04161
Project : Hedrick ES Rooms 125, 129 and 130 **Report Date** 04/10/2014 2:31 PM
Project # : 7210114H055 **Sample Date :** 04/08/2014
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 125	Agaricus / Agrocybe Ascospores Aspergillus / Penicillium Basidiospores Cercospora / Pseudocercospora Cladosporium Hyphal / Spore Fragments Oidium / Peronospora Stachybotrys	13 27 213 240 7 620 53 7 7
			Total:	1187
4	150	Room 129	Ascospores Aspergillus / Penicillium Basidiospores Cladosporium Hyphal / Spore Fragments	73 347 500 454 107
			Total:	1481

IAQ Mold Report

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DSHS License No.: LAB0117
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Client : Apex TITAN, Inc. - Dallas, TX **Lab Job No.** 14F-04161
Project : Hedrick ES Rooms 125, 129 and 130 **Report Date** 04/10/2014 2:31 PM
Project # : 7210114H055 **Sample Date :** 04/08/2014
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Test Method: Mold: ASTM D7391-09 - Standard Profile Page 3 of 3

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Sample Number	Volume (liters)	Sample Description	Identification	Concentration spores/cubic meter
5	150	Room 130	Alternaria Ascospores Aspergillus / Penicillium Basidiospores Cercospora / Pseudocercospora Cerebella / Monodictys / Stemphylium / Ulocladium Cladosporium Drechslera / Bipolaris group Epicoccum Hyphal / Spore Fragments Myxomycete / Periconia / Rust / Smut <div style="text-align: right; margin-top: 10px;">Total:</div>	107 13 253 547 7 7 1081 13 7 213 60 2308

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 : Apex TITAN, Inc. - Dallas, TX **Lab Job No. :** 14F-04161
Project : Hedrick ES Rooms 125, 129 and 130 **Report Date :** 04/10/2014 2:31 PM
Project # : 7210114H055 **Sample Date :** 04/08/2014
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, Northeast			Exterior, Northwest			Room 125			Room 129		
Debris Rating:	5			4			3			3		
Media Expires On:	Feb 2015			Feb 2015			Feb 2015			Feb 2015		
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	1	13.33	13				2	6.67	13			
Alternaria	15	13.33	200	10	13.33	133						
Ascospores	16	13.33	213	13	13.33	173	4	6.67	27	11	6.67	73
Aspergillus / Penicillium	55	13.33	733	21	13.33	280	32	6.67	213	52	6.67	347
Basidiospores	58	13.33	773	64	13.33	853	36	6.67	240	75	6.67	500
Cercospora / Pseudocercospora							1	6.67	7			
Cerebella / Monodictys / Stemphylium / Ulocladium												
Chaetomium												
Cladosporium	148	13.33	1973	118	13.33	1573	93	6.67	620	68	6.67	454
Coprinus	1	13.33	13	1	13.33	13						
Drechslera / Bipolaris group	1	13.33	13	1	13.33	13						
Epicoccum												
Hyphal / Spore Fragments	22	13.33	293	31	13.33	413	8	6.67	53	16	6.67	107
Memnoniella												
Myxomycete / Periconia / Rust / Smut	22	13.33	293	4	13.33	53						
Oidium / Peronospora	1	13.33	13				1	6.67	7			
Stachybotrys							1	6.67	7			
TOTALS	340		4530	263		3504	178		1187	222		1481
Analyst	Rebecca Lutz			Rebecca Lutz			Rob Greene			Rob Greene		
Analysis Date	4/10/2014			4/10/2014			4/10/2014			4/10/2014		

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 : Apex TITAN, Inc. - Dallas, TX **Lab Job No. :** 14F-04161
Project : Hedrick ES Rooms 125, 129 and 130 **Report Date :** 04/10/2014 2:31 PM
Project # : 7210114H055 **Sample Date :** 04/08/2014
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:	Room 130								
Debris Rating:	4								
Media Expires On:	Feb 2015								
Notes Included?:									
Volume:	150								
	raw ct.	MDL	spores/m ³						
Agaricus / Agrocybe									
Alternaria	16	6.67	107						
Ascospores	2	6.67	13						
Aspergillus / Penicillium	38	6.67	253						
Basidiospores	82	6.67	547						
Cercospora / Pseudocercospora	1	6.67	7						
Cerebella / Monodictys / Stemphylium / Ulocladium	1	6.67	7						
Chaetomium									
Cladosporium	162	6.67	1081						
Coprinus									
Drechslera / Bipolaris group	2	6.67	13						
Epicoccum	1	6.67	7						
Hyphal / Spore Fragments	32	6.67	213						
Memnoniella									
Myxomycete / Periconia / Rust / Smut	9	6.67	60						
Oidium / Peronospora									
Stachybotrys									
TOTALS	346		2308						
Analyst	Rob Greene								
Analysis Date	4/10/2014								

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

Analytical Notes

DSHS License No.: LAB0117

2051 Valley View Lane

AIHA EMPAT ID: 102577

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

Client : Apex TITAN, Inc. - Dallas, TX

Lab Job No. : 14F-04161

Project : Hedrick ES Rooms 125, 129 and 130

Report Date : 04/10/2014 2:31 PM

Project # : 7210114H055

Sample Date : 04/08/2014

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, Northeast

Notes: 40% Occluded.

Field Blanks

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

NOTE: All remaining samples suitable for analysis.

Methods

Method: ASTM D7391-09: 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 : Apex TITAN, Inc. - Dallas, TX

Lab Job No. : 14F-04161

Project : Hedrick ES Rooms 125, 129 and 130

Report Date : 04/10/2014 2:31 PM

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Sample Type: Spore Trap, Non-cultured

Spore Trap Type: Zefon - Air-O-Cell

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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 1



Lab Job # 14F-04161 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

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

OTHER: _____

Billing Company / City: Apex Titan Dallas # of Samples: 5
 Submitter's Company: ETI Sample Date: 4/8/2014
 Submitter's Name: Clint Jech Project #: 7210114405J
 Project: Hedrick ES Rooms 125, 129 + 130 Phone #: _____
 Contact Information: Name: Clint Jech Mobile #: (972) 989-1031
 E-mail Results to: dabandon@apex.com c.jech@apex.com vjackowski@apex.com Fax #: _____
 Invoice Address: vjackowski@apex.com 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, Northeast	75	T=71.3 ° H=18.6 %
2	Exterior, Northwest	75	T=70.1 ° H=17.4 %
3	Room 125	150	T=77.0 ° H=24.0 % M=9-11 % Ceilings = Ceiling Tile Walls = Drywall / Corkboard Floors = Carpet
4	Room 129	150	T=74.0 ° H=22.7 % M=8-11 % Ceilings = Ceiling Tile Walls = Drywall / Corkboard Floors = Carpet
5	Room 130	150	T=75.5 ° H=23.2 % M=6-14 % Ceilings = Ceiling Tile Walls = Drywall / Corkboard Floors = Carpet

Released By: <u>[Signature]</u>	Date / Time: <u>4/8/2014 1845</u>	Received By: <u>[Signature]</u>	Date / Time: <u>4/9/14 7:30 AM</u>
Released By: _____	Date / Time: _____	Received By: _____	Date / Time: _____

ATTACHMENT 2

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 singled-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 Apex’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, Apex 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). Apex cannot warrant the accuracy of prior or subsequent information/data, reports and services performed by other firms at the Site. Apex assumes no responsibility or liability for errors in information or data provided by or through the client or third party sources. Apex’s services are not to be construed as legal or medical interpretation or advice.

Moisture Intrusion Limitation. Apex 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, Apex will report observed areas of apparent moisture intrusion. Apex does not and will not investigate the cause or causes of such observed moisture intrusion. In the event apparent moisture intrusion is observed, Apex 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. Apex (and/or its personnel) will render the services set forth in this proposal in the capacity of a Texas licensed Mold Assessor. Apex 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 Apex'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 Apex is engaged to render services in connection with a mold remediation project, Apex will require *Client to provide to Apex 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

Apex 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

Apex'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 Apex 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, Apex 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 Apex.

DATE: April 28, 2014

TO: Patricia Cuckler, Principal

SUBJECT: Hedrick ES - IAQ - Retest Results - Room 130

On Wednesday 4/23, SWG retested Room 130. 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 Room 130, was 29.9% of the outdoor levels. Utilizing this theory, the indoor concentrations are within the acceptable guidelines for areas with filtered air or air conditioning. **Based on our concerns for the teacher and the student (with allergies), I have requested the Central Zone to deliver an Air Scrubber. The Teacher can turn it on during lunch, and then turn on again when she leaves the room in the afternoon, and let it run all night. I recommend that we do this for 4 weeks. At the end of 4 weeks, I will have the room tested again.** If you have any questions, please call me.

Thanks,
Paul

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