

DATE: March 19, 2015

TO: Jason Mullin, Assistant Principal

SUBJECT: Marcus HS - IAQ - Test results – Exterior Coping on the North side of building

On Friday 3/6, Apex Titan took samples of the “Black stuff” on the coping of the North side of the building (The newer built add-on). The results were *Oscillatoria*: *"Oscillatoria is a genus of filamentous cyanobacterium which is named for the oscillation in its movement. Filaments in the colonies can slide back and forth against each other until the whole mass is reoriented to its light source. It is commonly found in watering-troughs waters, and is mainly blue-green or brown-green. Oscillatoria is an organism that reproduces by fragmentation. Oscillatoria forms long filaments of cells which can break into fragments called hormogonia. The hormogonia can grow into a new, longer filament. Breaks in the filament usually occur where dead cells (necridia) are present. Oscillatoria uses photosynthesis to survive and reproduce. Each filament of oscillatoria consists of trichome which is made up of rows of cells. The tip of the trichome oscillates like a pendulum."* In short, it is an algae. It is not life threatening.

The recommendation is to Power Wash it. The West Zone Facility Services will be getting together with you about the cleaning of the coping.

If you have any questions, please get back to me.

Thanks,
Paul

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



March 19, 2015

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

Re: Limited Mold Assessment Services
Marcus High School
Exterior Coping
5707 Morriss Road
Flower Mound, Texas
LISD PO No. 91524217-00
Apex Project No. 7250115063

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.) at 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 Technician (Lic. No. MAT1075) on March 6, 2015. 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 of the exterior coping on the northeast side of the building. 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. P01151089) dated March 3, 2015. 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 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 tape lift samples.

Site Reconnaissance Observations/Findings and Recommendations

Apex' Mold Assessment Site reconnaissance was performed on March 6, 2015 by Mr. Clinton S. Jech. Apex's visual reconnaissance of the Investigation areas revealed the following:

Tape Lift Results

Apex collected two (2) tape lift samples of the discoloring on the exterior of the building. The microbial samples were analyzed by Steve Moody Micro Services, LLC (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.

One type of mold was identified within the investigation area collected from the exterior of the building. Tape lift samples collected from the northeast coping reported *Oscillatoria* with a prevalence level of 5, (extensive mold).

Suspect Mold

Visible mold was observed on the coping during the assessment.

Conclusions and Recommendations

Based on Apex's limited assessment and the analytical results collected, it appears that mold is on the exterior coping. Apex recommends that the areas be cleaned.

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
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

Summary

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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

Client : Apex TITAN, Inc. - Dallas, TX

Lab Job No. 15F-02646

Project : Marcus HS Exterior

Report Date 03/09/2015 4:07 PM

Project # : 7250115063

Sample Date : 03/06/2015

Sample Type: Solid Surface - Swab, Tape Lift, Bulk

Test Method: Mold: Qualitative Direct Examination (with stain)

Page 1 of 1

On 3/6/2015, two (2) samples were submitted by Clint Jech of Apex TITAN, Inc. - Dallas, TX (located at 2351 W. NW Highway #3321, Dallas, TX 75220) for Solid Surface - Swab, Tape Lift, Bulk mold analysis. This report consists of three sections; a summary section, a data detail section, and an analytical notes section.

Sample Number	Sample Description	Identification	Prevalence
TLS-1	Above Exit 66 * See Analytical Notes report for further details	Oscillatoria	5
TLS-2	Northeast * See Analytical Notes report for further details	Oscillatoria	5

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 Manager : Heather Lopez

Approved Signatory : _____

Lab Director : Bruce Crabb

Approved Signatory : _____

Thank you for choosing Moody Labs



IAQ Mold Report

Data Detail

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

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

Client : Apex TITAN, Inc. - Dallas, TX

Lab Job No. : 15F-02646

Project : Marcus HS Exterior

Report Date : 03/09/2015 4:07 PM

Project # : 7250115063

Sample Date : 03/06/2015

Sample Type: Solid Surface - Swab, Tape Lift, Bulk

Test Method: Mold: Qualitative Direct Examination (with stain)

Page 1 of 1

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:	TLS-1				TLS-2			
Location:	Above Exit 66				Northeast			
Media Expires On:								
Notes Included:	See Analytical Notes				See Analytical Notes			
Volume:								
	Score	MDL			Score	MDL		
Aspergillus / Penicillium								
Chaetomium								
Cladosporium								
Memnoniella								
Oscillatoria	5				5			
Stachybotrys								
Analyst	Rob Greene				Rob Greene			
Analysis Date	3/9/2015				3/9/2015			
Debris Rating	5				5			
Debris Composition								
Fibers	1/5				0/5			
Inorganic/Other	3/5				2/5			
Insect Parts	0/5				0/5			
Pollen	0/5				0/5			
Skin/Dander	0/5				0/5			

Prevalence Score Key:

- 1 - Trace mold
- 2 - Light mold
- 3 - Moderate mold
- 4 - Substantial mold
- 5 - Extensive mold



IAQ Mold Report

Analytical Notes

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Client : Apex TITAN, Inc. - Dallas, TX

Lab Job No. : 15F-02646

Project : Marcus HS Exterior

Report Date : 03/09/2015 4:07 PM

Project # : 7250115063

Sample Date : 03/06/2015

Sample Type: Solid Surface - Swab, Tape Lift, Bulk

Test Method: Mold: Qualitative Direct Examination (with stain)

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: TLS-1 : Above Exit 66

Notes: 60% Occluded. Oscillatoria ia a cyanobacteria

Sample No: TLS-2 : Northeast

Notes: 55% Occluded. Oscillatoria ia a cyanobacteria

Field Blanks

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

Methods

Methods are based upon accepted industry standards.

This report must not be used by the customer to claim product certification, approval, or endorsement by AIHA, ISO, or any agency of the Federal Government.

Debris Rating Key

0 - No debris detected.

1 - Trace debris.

2 - Light debris.

3 - Moderate debris.

4 - Substantial debris.

5 - Extensive debris.

6 - Field blank.

10 - Hold Sample

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



IAQ Mold Report

Analytical Notes

DSHS License No.: LAB0117

AIHA EMPAT ID: 102577

2051 Valley View Lane

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

Client : Apex TITAN, Inc. - Dallas, TX

Lab Job No. : 15F-02646

Project : Marcus HS Exterior

Report Date : 03/09/2015 4:07 PM

Project # : 7250115063

Sample Date : 03/06/2015

Sample Type: Solid Surface - Swab, Tape Lift, Bulk

Test Method: Mold: Qualitative Direct Examination (with stain)

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

Lab Job # FB 02045 PLM-3
Lab Job # FX-02046 Tape: 2
Lab Job #

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

Page 1 of

ASBESTOS PLM

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

PCM Air (7400)

Immediate 1 day 2 day 3 day 5 day

TOTAL DUST (0500/0600)

1 day 2 day

ASBESTOS TEM

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

MOLD

Direct Exam Immediate 1 day 2 day
Standard Air Immediate 1 day 2 day
Expanded Air Immediate 1 day 2 day
Culture** 10-14 days
Analyze Blanks Yes No

Turnaround of Culture Samples subject to Culture Growth

BACTERIA*

Total Colony Counts (CC) 3 day 5 day
CC + Gram Stain 3 day 5 day
Total Coliform & E. coli (P/A) 2-3 day

OTHER:

Billing Company / City: Apex Titan (Dallas South)

Submitter's Company:

Submitter's Name: Clint Jech

Project: Marcus HS Exterior

Contact Information: Name: Clint Jech

E-mail Results to: Clint/Darren/Veronica

Invoice Address: Veronica

of Samples: 5

Sample Date: 3/6/2015

Project #: 7250115063

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:

Table with 4 columns: Sample #, Sample Description, Vol. / Area (if applicable), Location / Notes. Contains handwritten entries for samples TLS-1, TLS-2, and 1, 2, 3.

Signature and date fields for Released By and Received By, including dates 3/6/2015 1535 and 3/6/15 3:34 PM.

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 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 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.

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.