

DATE: September 12, 2017

**TO:** Curtis Martin, Principal

SUBJECT: Tom Hicks ES - IAQ - Air Test Results - Nurses' Office, Main Admin Office

On Tuesday 9/5, Apex-Titan Air tested the Nurses' Office and the Main Admin Office. It is typically assumed that indoor spore levels in an area with filtered or air conditioned air, and activity levels associated with schools average below the outdoor levels. Data from the airborne fungi sampling indicated that the total indoor concentration of mold/fungi in the Nurses' office, was **0.5%**, and the Main Admin Office, was **2.2%** of the outdoor levels. Utilizing this theory, the indoor concentrations are well within the acceptable guidelines for areas with filtered air or air conditioning. If you have any questions, please call me. Thanks, Paul

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



September 24, 2017

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

Re: Limited Mold Assessment Services Tom Hicks Elementary School Nurse's Office and Main Admin Office 3651 Compass Drive Frisco, Texas LISD PO No. 91745152-00 Apex Project No. 725010727087

#### 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 Tom Hicks Elementary School located at 3651 Compass Drive in Frisco, 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 September 5, 2017 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 the nurse's office and main admin office. 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. P725010727100) dated August 31, 2017. 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 September 5, 2017 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 rooms ranged from 73.9 to 75.9 degrees Fahrenheit while relative humidity ranged from 38.9 to 42.5 percent. Temperature readings collected outside the building ranged from 85.2 to 89.2 degrees Fahrenheit while outside relative humidity ranged from 441.8 to 50.2 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 Temperature										
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 ranged from 10-13% which is considered normal by the manufacturer.

# Air Monitoring Results

Apex collected one (1) sample from the interior within each of the investigation area and two (2) samples from 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.

### Nurse's Office

Air testing performed using spore traps indicated that total airborne mold spores in the nurse's office was lower 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 40 counts/m<sup>3</sup>, while the exterior level ranged from 4,302 to 7,161 counts/m<sup>3</sup>.

### Main Admin Office

Air testing performed using spore traps indicated that total airborne mold spores in the nmain admin office was lower 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 161 counts/m<sup>3</sup>, while the exterior level ranged from 4,302 to 7,161 counts/m<sup>3</sup>.

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 excessive dust or odors were noted during the inspection.

#### **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 within recommended guidelines on the day of the assessment.

If you have any questions regarding this report or if we can assist you with any other matter, please contact the undersigned at (469) 365-1140.

Sincerely, Apex TITAN, Inc.

Clinton. S. Jech Manager, Field Services Texas Mold Assessment Technician, Lic. No. MAT1075

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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



Moody Labs
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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

Project : Hicks ES, Nurse's Office and Main Administration Office

**Project # :** 7250107087

Sample Type: Spore Trap, Non-cultured

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

Lab Job No. : 17F-10530 Report Date : 09/07/2017 11:10 AM Sample Date: 09/05/2017

Spore Trap Type: Zefon - Air-O-Cell

Page 1 of 3

On 9/5/2017, four (4) samples were submitted by Clint Jech of Apex Titan, Inc. - Dallas (located at 12100 Ford. Rd., Suite 401, Farmers Branch, TX 75234) 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.

Volume (liters)	Sample Description	Identification			ntration
150	Exterior. Southeast	Cladosporium		3286	76%
	* See Analytical Notes report for				9%
	further details				2%
		_		87	2%
		Alternaria		87	2%
		Drechslera / Bipolaris group		80	2%
		Fusarium		67	2%
		Cercospora		60	1%
		Hyphal / Spore Fragments - Dematiaceous		53	1%
		Pithomyces		27	<1%
		Curvularia		27	<1%
		Ascospores		20	<1%
		Coprinus group		13	<1%
		Pyricularia		7	<1%
		Ganoderma		7	<1%
		7	Fotal:	4302	100%
		(liters)150Exterior, Southeast * See Analytical Notes report for	(liters)Cladosporium150Exterior, Southeast * See Analytical Notes report for further detailsCladosporium Myxomycete / Rust / Smut 	(liters)Cladosporium150Exterior, Southeast * See Analytical Notes report for further detailsCladosporium Myxomycete / Rust / Smut Basidiospores Nigrospora Alternaria Drechslera / Bipolaris group Fusarium Cercospora Hyphal / Spore Fragments - Dematiaceous Pithomyces Curvularia Ascospores Coprinus group Pyricularia	(liters)spores/cu150Exterior, Southeast * See Analytical Notes report for further detailsCladosporium Myxomycet / Rust / Smut Basidiospores3286 Myxomycet / Rust / Smut Basidiospores374 107 Nigrospora161Nigrospora87 Alternaria87 Drechslera / Bipolaris group80 Fusarium170Nigrospora60 Hyphal / Spore Fragments - Dematiaceous60 Hyphal / Spore Fragments - Diematiaceous53 20 Coprinus group161Nigrospores27 Curvularia27 Ascospores20 20 Coprinus group13 7 Ganoderma7 7

Moody Labs
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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

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Page 2 of 3

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Sample Number	Volume (liters)	Sample Description	Identification			ntration
2	150	Exterior, East * See Analytical Notes report for	Cladosporium		5840	82%
		further details	Myxomycete / Rust / Smut		320	4%
			Paecilomyces		227	3%
			Basidiospores		180	3%
			Nigrospora		127 100	2%
			Cercospora Fusarium		73	1% 1%
			Hyphal / Spore Fragments - Dematiaceous		53	1% <1%
			Drechslera / Bipolaris group		53	<1%
			Alternaria		47	<1%
			Curvularia		40	<1%
			Ascospores		27	<1%
			Coprinus group		20	<1%
			Spegazzinia		13	<1%
			Epicoccum		13	<1%
			Torula		7	<1%
			Oidium		7	<1%
			Sporidesmium		7	<1%
			Pithomyces		7	<1%
				Total:	7161	100%
3	150	Nurse's Office	Myxomycete / Rust / Smut		13	32%
			Curvularia		13	32%
			Nigrospora		7	18%
			Drechslera / Bipolaris group		7	18%
				Total:	40	100%

Moody	Labs

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

Project : Hicks ES, Nurse's Office and Main Administration Office

**Project # :** 7250107087

Sample Type: Spore Trap, Non-cultured

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

Lab Job No. : 17F-10530 Report Date : 09/07/2017 11:10 AM Sample Date: 09/05/2017

Spore Trap Type: Zefon - Air-O-Cell

Page 3 of 3

SMLMS v12.40

On 9/5/2017, four (4) samples were submitted by Clint Jech of Apex Titan, Inc. - Dallas (located at 12100 Ford. Rd., Suite 401, Farmers Branch, TX 75234) 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		ntration
4	150	Main Admin Office	Hyphal / Spore Fragments - Dematiaceous	27	17%
			Alternaria	27	17%
			Nigrospora	20	12%
			Myxomycete / Rust / Smut	20	12%
			Drechslera / Bipolaris group	20	12%
			Epicoccum	13	8%
			Curvularia	13	8%
			Agaricales group	7	4%
			Aspergillus / Penicillium	7	4%
			Ascospores	7	4%
			Total:	161	100%
		I. Data contained in this test report relates only to the on should be made by a qualified professional.	samples tested. This report does not express or imply interpret	ation of	
Moody Labs assumes no re	esponsibility f		or handled prior to being received at this laboratory. Moody La pretations of this data.	bs	
	htaq Khan			٥.	
Lab Manager : He	eather Loj	pez A	pproved Signatory : Acathe pproved Signatory : Bune Cul	B	
Lab Director : Br	uce Crabł	o A	pproved Signatory :	l.	
		- — — Thank you for choosing	g Moody Labs		MI MS v12 40

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#### Data Detail

2051 Valley View Lane

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

Client : Apex Titan, Inc. - Dallas

Project : Hicks ES, Nurse's Office and Main Administration Office

**Project # :** 7250107087

Sample Type: Spore Trap, Non-cultured

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

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

Sample ID:	1						2					3					
Location:	Exterior, Southeast						Exterior, East					Nurse's Office					
Media Expires On:	Jul 2018						Jul 2018					Jul 2018					
Notes Included:	See Analytical Notes						5	See Analy	tical No	tes							
Volume:				50				15	50				1	50			
	raw ct.	RL	spores/m <sup>3</sup>	%total	spores/m³ SF	raw ct.	RL	spores/m <sup>3</sup>	%total	spores/m <sup>3</sup> SF	raw ct.	RL	spores/m <sup>3</sup>	%total	spores/m³ SF		
Agaricales group																	
Alternaria	13	7	87	2%	87	7	7	47	<1%	50							
Ascospores	3	7	20	<1%	20	4	7	27	<1%	30							
Aspergillus / Penicillium																	
Basidiospores	16	7	107	2%	110	27	7	180	3%	180							
Cercospora	9	7	60	1%	60	15	7	100	1%	100							
Chaetomium																	
Cladosporium	115	29	3286	76%	3300	146	40	5840	82%	5800							
Coprinus group	2	7	13	<1%	10	3	7	20	<1%	20							
Curvularia	4	7	27	<1%	30	6	7	40	<1%	40	2	7	13	32%	10		
Drechslera / Bipolaris group	12	7	80	2%	80	8	7	53	<1%	50	1	7	7	18%	7		
Epicoccum						2	7	13	<1%	10							
Fusarium	10	7	67	2%	67	11	7	73	1%	73							
Ganoderma	1	7	7	<1%	7												
Hyphal / Spore Fragments - Dematiace	8	7	53	1%	50	8	7	53	<1%	50					-		
Hyphal / Spore Fragments - Hyaline																	
Memnoniella																	
Myxomycete / Rust / Smut	56	7	374	9%	370	48	7	320	4%	320	2	7	13	32%	10		
Nigrospora	13	7	87	2%	87	19	7	127	2%	130	1	7	7	18%	7		
Oidium						1	7	7	<1%	7							
Paecilomyces						34	7	227	3%	230							
Pithomyces	4	7	27	<1%	30	1	7	7	<1%	7							
Pyricularia	1	7	7	<1%	7												
Spegazzinia						2	7	13	<1%	10							
Sporidesmium						1	7	7	<1%	7							
Stachybotrys																	
Torula						1	7	7	<1%	7							
TOTALS	267		4302	100%	4300	344		7161	100%	7200	6		40	100%	40		
Analyst			Mushta					Mushta					Mushta				
Analysis Date			9/7/2			1		9/7/2						2017			
Debris Rating				3				3						4			
Debris Composition																	
Fibers			1,	/5				1,	/5				2	/5			
Inorganic/Other				/5					/5					/5			
Insect Parts				/5		1/5							/5				
Pollen				/5				1,						/5			
Skin/Dander				/5		<u> </u>		1,						/5			

DSHS License No.: LAB0117 AIHA EMPAT ID: 102577

Lab Job No. : 17F-10530 Report Date : 09/07/2017 11:10 AM Sample Date: 09/05/2017 Spore Trap Type: Zefon - Air-O-Cell



IAQ Mold Report
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#### **Data Detail**

2051 Valley View Lane

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

Client : Apex Titan, Inc. - Dallas

Project : Hicks ES, Nurse's Office and Main Administration Office

**Project # :** 7250107087

Sample Type: Spore Trap, Non-cultured

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

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

Sample ID:			4							
Location:			Main Adm	in Offi	се					
Media Expires On:			Jul 2	018						
Notes Included:										
Volume:			15	0						
	raw ct.	RL	spores/m <sup>3</sup>	%total	spores/m <sup>3</sup> SF					
Agaricales group	1	7	7	4%	7					
Alternaria	4	7	27	17%	30					
Ascospores	1	7	7	4%	7					
Aspergillus / Penicillium	1	7	7	4%	7					
Basidiospores										
Cercospora										
Chaetomium										
Cladosporium										
Coprinus group										
Curvularia	2	7	13	8%	10					
Drechslera / Bipolaris group	3	7	20	12%	20					
Epicoccum	2	7	13	8%	10					
Fusarium										
Ganoderma										
Hyphal / Spore Fragments - Dematiace	4	7	27	17%	30					
Hyphal / Spore Fragments - Hyaline										
Memnoniella										
Myxomycete / Rust / Smut	3	7	20	12%	20					
Nigrospora	3	7	20	12%	20					
Oidium										
Paecilomyces										
Pithomyces										
Pyricularia										
Spegazzinia										
Sporidesmium										
Stachybotrys										
Torula										
TOTALS	24		161	100%	160					
Analyst			Mushtad		1					
Analysis Date			9/7/2	017						
Debris Rating			4							
Debris Composition										
Fibers			1/5							
Inorganic/Other			3/5							
Insect Parts			1/5							
Pollen			1/5	5						
Skin/Dander	3/5						 	_	 	

DSHS License No.: LAB0117 AIHA EMPAT ID: 102577

Lab Job No. : 17F-10530 Report Date : 09/07/2017 11:10 AM Sample Date: 09/05/2017 Spore Trap Type: Zefon - Air-O-Cell



#### Data Detail

2051 Valley View Lane

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

Client : Apex Titan, Inc. - Dallas

**Project :** Hicks ES, Nurse's Office and Main Administration Office

**Project # :** 7250107087

Sample Type: Spore Trap, Non-cultured

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

DSHS License No.: LAB0117 AIHA EMPAT ID: 102577

Lab Job No. : 17F-10530 Report Date : 09/07/2017 11:10 AM Sample Date: 09/05/2017 Spore Trap Type: Zefon - Air-O-Cell

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End of Data Detail section 17F-10530

SMLMS v12.40



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Manda	IAQ Mold Repo	ort							
Moody L	Analytical Notes	DSHS License No.: LAB0117							
2051 Valley	View Lane	AIHA EMPAT ID: 102577							
Farmers Bran	ch, TX 75234 Phone: (972) 241-8460								
Client :	Apex Titan, Inc Dallas	Lab Job No.: 17F-10530							
<b>Project :</b>	Hicks ES, Nurse's Office and Main Administration Office	<b>Report Date : </b> 09/07/2017 11:10 AM							
Project # :	7250107087	Sample Date : 09/05/2017							
Sample Type	e: 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 consist	sts of three sections; a summary section, a data detail section, and an analytical	notes section. Results may not be reported except in full.							
Samples Ar	nalyzed								
Sample No	1 : Exterior, Southeast								
Notes:	Notes: Please note: the minimum detection limit for Cladosporium is 29 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers								

	results to other samples, use calculated results, not raw numbers.
Sample No	2 : Exterior, East
Notes:	Please note: the minimum detection limit for Cladosporium is 40 spores / cubic meter. When comparing results to other samples, use calculated results, not raw numbers.

## **Field Blanks**

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

#### NOTE: All remaining samples suitable for analysis.

#### **Methods**

Method: ASTM D7391-09. A standard spore trap reading consists of a 30% reading for small spores; 100% of the sample is read for medium and large spores. A 100% reading is provided for containment samples, upon request, or otherwise as noted. Use final spore concentrations, not raw spore counts, for interpretation of results.

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

Note: RL (Reporting Limit) is calculated based upon 1 raw spore count.

Moody Labs 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.

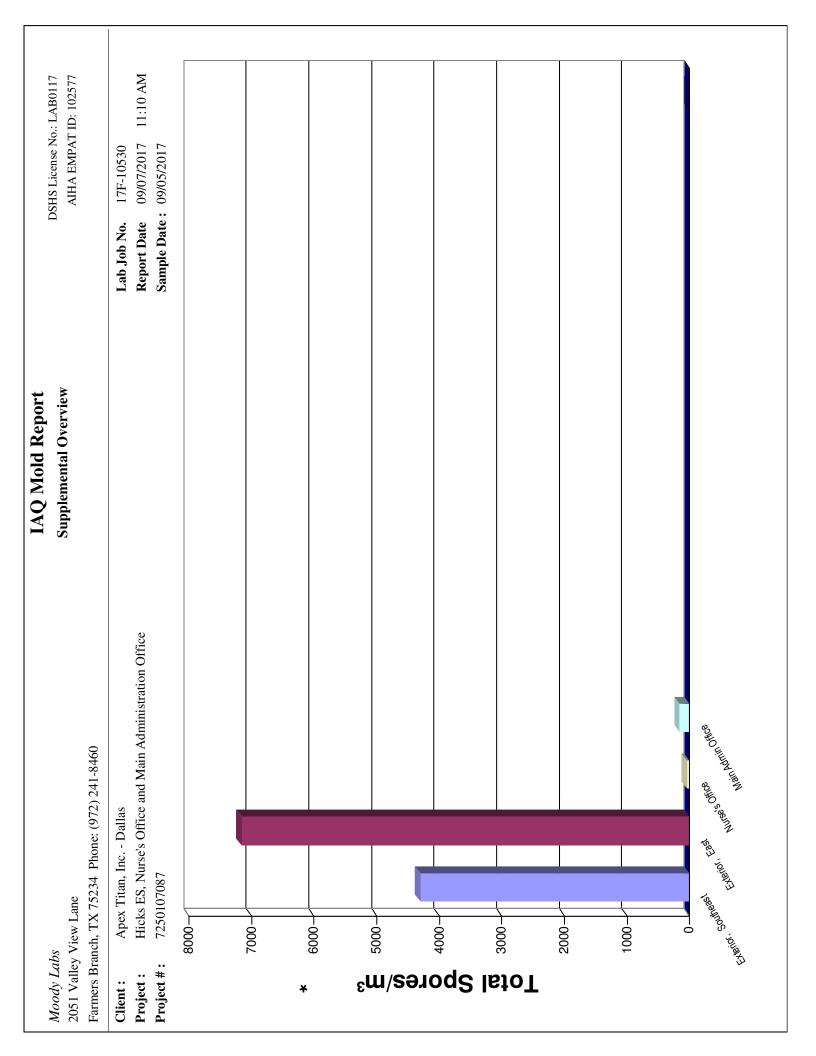
### **Debris Rating Key**

- 0 No linear trace detected
- 1 Trace particulate/debris
- 2 Light particulate/debris
- 3 Moderate particulate/debris.
- 4 Substantial particulate/debris
- 5 Extensive particulate/debris
- 6 Field blank
- 10 Hold Sample
- 11 Modified Analysis per Client Instructions

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

Moody La	IAQ Mold Report	rt
moody L	Analytical Notes	DSHS License No.: LAB0117
2051 Valley V		AIHA EMPAT ID: 102577
	h, TX 75234 Phone: (972) 241-8460	
Client :	Apex Titan, Inc Dallas	Lab Job No. : 17F-10530
Project : Project # :	Hicks ES, Nurse's Office and Main Administration Office 7250107087	<b>Report Date :</b> 09/07/2017 11:10 AM <b>Sample Date :</b> 09/05/2017
0	Spore Trap, Non-cultured	Spore Trap Type: Zefon - Air-O-Cell
	Mold: ASTM D7391-09 - Standard Profile	Page 2 of 2
This report consists	s of three sections; a summary section, a data detail section, and an analytical no	-
	ACCREDITED LABORATO ENVIRONMENTAL MICROBIOLOGY ISO/IEC 17025:2005 WWW.AIHAACCREDITEDLABS.ORG LAB # 102577	
Statewide Historical	Ity Underutilized Business Program	W/BENI
17F-10530	ores section	

SMLMS v12.40



Moody L	sqe							IA Sup	AQ Ma pplemer	IAQ Mold Report Supplemental Overview	port rview				DSHS License No.: LAB0117	cense No	: LAB01	17	
2051 Valley View Lane Farmers Branch, TX 75234 Phone: (972) 241-8460	View Lane ch, TX 7523	34 Phone: (9	172) 241-84	160					1						AIHA	AIHA EMPAT ID: 102577	ID: 1025		
Client : Project : Project # :	Apex Titan, Hicks ES, N 7250107087	Apex Titan, Inc Dallas Hicks ES, Nurse's Office and Main Administration Office 7250107087	las ice and Ma	in Admin	istration	Office	Exto	Exterior, S	Southeast	st			La Re Sai	Lab Job No. Report Date Sample Date :		17F-10530 09/07/2017 09/05/2017	11:10 AM	W	
			Sample			Average	ge Refe	Reference	1		🗖 Ave	Average Reference	eferen	ce 2					
4500																			
4000																			
3500																			
3000																			
2500																			
2000																			
1500																			
1000																			
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End of Supplemental Overview section 17F-10530	ıtal Overview se	ction																	



TOTAL DUST(0500/0600)

Air AHERA Method 🗌 Late Night\* 🗌 6 hr

**ASBESTOS PLM** 

PCM Air (7400)

ASBESTOS TEM

Air 7402 (Modified)

Water/Wipe/Micro Vac Analyze Blanks

Bulk

Bulk

# Chain of Custody

🗋 Immediate 🗋 1 day 🛑 2 day 🛄 3 day 🛄 5 day

Immediate 1 day 2 day 3 day 5 day

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*Please call in advance for im	mediate, after-hour, & v	weekend pricing & ava MOLD	ilability.*	Page 1	of <u>1</u>
mediate 🗌 1 day 🔛 2 day	☐ 3 day ☐ 5 day ☐ <b>Positive Stop</b>	Direct Exam Standard Air Expanded Air	Immediate Immediate Immediate	☐ 1 day ☐ 2 d ☐ 1 day ☑ 2 d ☐ 1 day ☐ 2 d	lay
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_ate Night*		☐ 12 hr ☐ 24 hr	Colony Counts (CC) CC + Gram Stain	☐ 3 day ☐ 5 day ☐ 3 day ☐ 5 day
			Coliform & E. coli (P/A)	🔲 2-3 day
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🔲 1 day	🗋 2 day	🗋 3 day	-	
🗌 Yes	🗌 No		OTHER:	

*Late night analysis surcharges apply	
Billing Company / City: Apex Titen, Inc.	# of Samples: <b>イ</b>
Submitter's Company:	Sample Date: <u>9/5/2017</u>
Submitter's Name: <u>Cliaton S. Jech</u>	Project #: 7250107087
Project: Hicks ES Norse's office and Main Admin office	Phone #:
Contact Information: Name: Clint Jech	Mobile #: (972) 989-103
E-mail Results to: Clint/Darren/Verenien	Fax #:
Invoice Address: Veranien	P.O. #:
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*Please review pape	erwork ar	nd sample	s before submitting to la	b. Unsealed	/ improperly p	ackaged ,	/ damaged	/ expired sam	ples or	excessiv	e admir	istrative	requests	mav in	cur addi <sup>.</sup>	tional fees
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Sample #	Sample Description	Vol. / Area (if applicable)	Location / Notes
J	Exterior, Southeast	150	T= 85.2 " H= 50.2 . /.
2	Exterior, East	152	T- 89.2 • H= 41.8.1.
	Nurse's office	150	T= 75.9 + H= 38.9 -1- AL = 10-13-1.
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			Floor = Aloor Tile
_4	Main Admin office		T= 73.9 . H= 42.5 .1. M+11-13.
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			Walls = Sheetrock
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# 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.

