

**Built Environment Testing** 

Report for:

Mr. Quality Control EMLab P&K (QA) 1150 Bayhill Drive Suite 100 San Bruno, CA 94066

Regarding:

Eurofins EPK Built Environment Testing, LLC Project: Sample Report EML ID: 1012562

Approved by:

Murali R Putty

Technical Manager Murali Putty

Dates of Analysis: Direct microscopic exam (Qualitative): 01-10-2013

Service SOPs: Direct microscopic exam (Qualitative) (EM-MY-S-1039) AIHA LAP, LLC accredited service, Lab ID #102856

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. Due to the nature of the analyses performed, field blank correction of results is not applied. The results relate only to the samples as received and tested.

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Eurofins EPK Built Environment Testing, LLC

Client: EMLab P&K (QA) C/O: Mr. Quality Control Re: Sample Report Date of Sampling: 01-10-2013 Date of Receipt: 01-10-2013 Date of Report: 01-10-2013

### DIRECT MICROSCOPIC EXAMINATION REPORT

Location:	16	17	18				
Sample type:	Swab sample	Bulk sample	Tape sample				
Lab ID-Version <sup>‡</sup> :	4534879-1	4534880-1	4534882-1				
Analysis Date:	01/10/2013	01/10/2013	01/10/2013				
MOLD/FUNGAL GROWTH*: Molds seen growing with underlying mycelial and/or sporulating structures							
Acremonium							
Alternaria							
Aureobasidium							
Basidiospores							
Chaetomium		1+					
Cladosporium		2+					
Colorless spores typical of Penicillium / Aspergillus							
Colorless spores typical of Penicillium/Aspergillus	2+						
Fusarium							
Other colorless, ID unknown							
Stachybotrys		3+					
Torula							
Ulocladium							
Miscellaneous spores**	Very few	Few	Very few				
Other comments†	None	None	None				
Background debris or Description <sup>††</sup>	Heavy	Wallboard	Light				
General impression	Mold growth	Mold growth	Normal trapping				

\* See Mold/Fungal Growth Details table on the last page.

\*\* See Miscellaneous Spores table on the last page.

<sup>†</sup> Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

<sup>††</sup> Background debris is an indication of the amounts of non biological particulate matter present. This background amorphous material is graded and described as scant, light, moderate, heavy, or very heavy. (Very heavy background debris may obscure visibility.)

Fungal types listed without a growth rating or data entry were not detected during the course of the analysis for the respective sample.

Interpretation is left to the company and/or persons who conducted the field work.

 $\ddagger$  A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x". The limit of detection is < 1+ when mold growth is detected.

The minit of detection is < 1+ when mold growth is detect

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### DIRECT MICROSCOPIC EXAMINATION REPORT

Location:	19	20				
Sample type:	Tape sample	Tape sample				
Lab ID-Version <sup>‡</sup> :	4534883-1	4534884-1				
Analysis Date:	01/10/2013	01/10/2013				
MOLD/FUNGAL GROWTH*: Molds seen growing with underlying mycelial and/or sporulating structures						
Acremonium						
Alternaria		< 1+				
Aureobasidium						
Basidiospores						
Chaetomium						
Cladosporium						
Colorless spores typical of Penicillium / Aspergillus						
Fusarium						
Other colorless, ID unknown						
Stachybotrys						
Torula						
Ulocladium						
Miscellaneous spores**	Variety	Very few				
Other comments†	A few Stachybotrys spores detected.	None				
Background debris or Description <sup>††</sup>	Moderate	Moderate				
General impression	Mold growth in vicinity?	Minimal mold growth				

\* See Mold/Fungal Growth Details table on the last page.

\*\* See Miscellaneous Spores table on the last page.

<sup>†</sup> Some comments may refer to the following: Most surfaces collect a mix of spores which are normally present in the outdoor environment. At times it is possible to note a skewing of the distribution of spore types, and also to note "marker" genera which may indicate indoor mold growth. Marker genera are those spore types which are present normally in very small numbers, but which multiply indoors when conditions are favorable for growth.

<sup>††</sup> Background debris is an indication of the amounts of non biological particulate matter present. This background amorphous material is graded and described as scant, light, moderate, heavy, or very heavy. (Very heavy background debris may obscure visibility.)

Fungal types listed without a growth rating or data entry were not detected during the course of the analysis for the respective sample.

Interpretation is left to the company and/or persons who conducted the field work.

 $\ddagger$  A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x". The limit of detection is < 1+ when mold growth is detected.

The minit of detection is < 1+ when mold growth is detect

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# **Mold/Fungal Growth Rating Details**

Growth Rating	Quantities of molds indicating growth are listed in the MOLD/FUNGAL GROWTH section. Judgement is used in determining the amount of growth present in the sample. For example, if only one portion of the sample has evidence of heavy growth, then it will receive a rating of heavy growth even though, strictly speaking, on a percentage basis of the entire sample, the amount of growth is low.				
	Swab/Tape/Dust/Wipe sample	Bulk Sample			
<1+ (Very Light Growth)	Evidence of very light growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in less than 10% of the microscopic fields examined.	Areas of very light growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.			
1+ (Light Growth)	Evidence of light growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 10 to 25% of the microscopic fields examined.	Areas of light growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.			
2+ (Moderate Growth)	Evidence of moderate growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 26 to 50% of the microscopic fields examined.	Areas of moderate growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.			
3+ (Heavy Growth)	Evidence of heavy growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found in 51 to 75% of the microscopic fields examined.	Areas of heavy growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.			
4+ (Very Heavy Growth)	Evidence of very heavy growth observed on the sample as indicated by spores of one type seen with underlying mycelial and/or with their sporulating structures found to be nearly confluent in the majority of the microscopic fields examined.	Areas of very heavy growth detected by the presence of spores of one type seen with underlying mycelial and/ or with their sporulating structures in the bulk sample.			

## **Miscellaneous Spores**

Slides/specimens are examined for the presence of mold spores and pollen, noting the quantities and distribution of spore types found. A designation of 'normal trapping' is made when a mix of spore types is present with the same general distribution as is usually found outdoors. In other words, the biological component of the sample surface is like that found everywhere. Types of spores present would include basidiospores (mushroom spores), myxomycetes (slime molds), plant pathogens such as ascospores, rusts and smuts, and a mix of saprophytic genera with no particular spore type predominating. Many of these spore types would not be found growing indoors on building materials since many plant pathogens require living plants for growth, and mushrooms require compost, leaf duff of various types, or associations with roots of certain trees, etc. Due to these factors, when a mix of spores seen include these types as well as pollen, the rational source is the outside air, rather than indoor mold growth. The numbers of miscellaneous spores seen are graded and described as shown below as none, very few, few, variety, and wide variety.

wide (allee)				
None	Very Few	Few	Variety	Wide Variety
No spores detected	Very few spores detected	A few spores detected	Many spores containing a variety of different genera detected	Many spores containing a wide variety of different genera detected

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# DIRECT MICROSCOPIC EXAMINATION REPORT

### PROJECT ANALYST AND SIGNATORY REPORT

**Project Analyst** 

Mey

Analyst: Malcolm Moody

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by AIHA LAP, LLC, or any agency of the federal government. The Company reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

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EMLab ID: 1012562, Page 5 of 5