



HYGIENETECH

Hygiene Technologies International, Inc.

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January 29, 2014

California State Board of Equalization
450 N Street
Sacramento, California 94279

Document No. 21401001.2

Attention: Vince Paul

Regarding: 23rd Floor – Break Room 2324 Water Leak
621 Capitol Mall, Sacramento

Dear Mr. Paul:

On January 16, 2014, Lakhpreet Sandhu, Industrial Hygienist, with Hygiene Technologies International, Inc. (HygieneTech), visited the building located at the above-referenced address for a purpose of conducting a water intrusion assessment survey. Prior to the survey, HygieneTech was informed that a water leak had reportedly occurred in Break Room 2324. Additionally, on January 22, 2014, HygieneTech revisited the Break Room 2324 and adjacent areas to conduct a cursory fungal growth exposure potential assessment survey. The findings of the surveys, along with the conclusions, a discussion of the analytical data, and recently recorded observations, appear below.

Following the notification of the reported water leak on the morning of January 16, 2014, HygieneTech met with the representatives of the BOE, the building property management, and the water restoration contractor (Pinnacle), to investigate the extent of water damage in the Break Room and adjacent areas. At that time, property management representative had determined that the water intrusion episode in the Break Room 2324 was caused by building maintenance personnel. Additionally, HygieneTech was also informed that following the water intrusion episode, the building maintenance personnel had performed some degree of water extraction activities in the affected areas. At the time of the January 16 survey, Pinnacle representatives and also performed water damage assessment in the Break Room 2324 and adjacent areas and were reportedly going to initiate drying and/or removal activities in the affected areas on the same day.

Upon visual inspection, evidence of water intrusion was observed in the Break Room 2324 and various adjacent areas including Rooms 2322, 2321, Cubicle 13 and 14 areas, as well as the adjacent hallway/walkway areas. Water impacted building materials such as carpet flooring, gypsum board wall material, and/or cabinetry toe-kick were observed in the lower portion of various affected areas. Several cardboard boxes and documents in some of the affected areas also exhibited signs of water damage. Please note that at the time, there was no sign of any remaining active water leak observed in Break Room 2324 or adjacent areas and also there were no evidence of visual mold growth observed or any unusual odors detected in any of the affected areas.



During the survey, with the use of a Delmhorst BD-10 moisture indicator, moisture content assessments were also conducted in various gypsum board wall and carpet flooring materials as well as cabinetry surfaces in the Break Room 2324 and accessible adjacent areas. Generally, moisture level readings of up to 12 (percent scale relative to wood substrate) are considered *background* or *dry*, while moisture level readings between 15 and 20 are considered *moist*, and moisture level readings above 20 are considered *wet*. At that time, the lower portions of all sections of accessible walls in the Break Room 2324 as well as the lower portion of some sections of few walls in adjacent areas of Rooms 2321, 2322 and hallway/walk way were found in *moist* to *wet* condition. Section of cabinetry base (toe-kick) in the Break Room 2324 as well as some of the carpet floor tiles in Rooms 2321, 2322, Cubicle 13 and 14 areas as well as adjacent hallway/walk way areas were also found in *moist* to *wet* condition.

Following the discovery and assessment of water damaged building materials on the morning of January 16, 2014, representatives of Pinnacle initiated various restoration activities on the same day and reportedly all work was completed on January 19, 2014. During the restoration activities in the affected areas, the modular furniture in Cubicles 13 and 14 was disassembled, *moist* to *wet* building materials were removed and/or dried using dehumidifiers and air movers, aeration holes for drying purpose were created on the lower portion of various walls and cabinetry surfaces. Reconstruction activities including installation of carpet floor tiles, gypsum board and insulation, cove base as well as painting of walls were also performed by Pinnacle representatives. The modular furniture of Cubicles 13 and 14 was also reassembled on January 19, 2014. Please note that following our water damage investigation survey, we had recommended that all restoration work should be performed using applicable industry practices associated with water damaged building materials.

On January 22, 2014, HygieneTech revisited the affected areas and collected air samples from Break Room 2324 and an adjacent area. One air sample was also collected at an outdoor location for comparison purposes. Air samples were collected for total (viable and nonviable) fungi analyses using a Zefon brand Bio-Pump plus™ equipped with Air-O-Cell™ cassettes. All such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) by trained and experienced microbiologists at a laboratory accredited by the American Industrial Hygiene Association (AIHA) and that successfully participates in the AIHA Environmental Microbiology Proficiency Analytical Testing (EMPAT) Program.

As presented in Table 21401001-2, the airborne spore count data recorded on the survey date showed fungal spore types outdoors, such as *Alternaria*, ascospores, basidiospores, *Chaetomium*, *Cladosporium*, *Nigrospora*, other brown, rust, and smuts. In the indoor area tested, the data indicated low airborne levels of basidiospores, *Cladosporium*, other brown, rust, and smuts. The distribution of fungal spore type detected in the surveyed areas was consistent with those found outdoors and the overall data within the tested areas were well below the overall datum recorded outdoors. These data are considered unremarkable and are not believed to pose a health risk beyond that posed by the outdoor environment where exposures to airborne fungi are expected.

Be advised that the data provided with this correspondence only represent fungal growth potentials that existed at the time, these surveys were performed and at the precise locations only, the latter of which were selected based on the available background information provided, and that fungal growth and exposure potentials may change due to changes in environmental conditions, such as those caused by water intrusion, use of mechanical systems, or other factors. Also be advised that, while no evidence of fungal growth was seen at the time of the surveys, fungal growth may exist at one or more locations in the structure that were not specifically assessed during the surveys.

Mr. Vince Paul
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If you have any comments or questions regarding the information contained in this correspondence, please feel free to contact our offices directly at (310) 370-8370.

Sincerely,

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

A handwritten signature in black ink, appearing to read 'Kenny K. Hsi', is written over a horizontal line.

Kenny K. Hsi, CIH
Technical Director

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A



CLIENT: California State Board of Equalization
450 N Street
Sacramento, California 94279

TABLE 21401001-2
AIRBORNE TOTAL FUNGI RESULTS
BREAKROOM 2324 AND ADJACENT AREA
621 CAPITOL MALL
SACRAMENTO, CALIFORNIA
JANUARY 22, 2014

Results reported in spores per cubic meter of air (spores/M³)

SAMPLE NUMBER	21401001-2 TM01OUT	21401001-2 TM02	21401001-2 TM03	
SAMPLING LOCATION/ACTIVITIES	Outdoors; about 50 feet south of building; approximately five feet above ground/Normal outdoor activities	23 rd Floor; Break Room 2324; adjacent to sink cabinetry; approximately five feet above floor/Normal office activities	23 rd Floor; northern quadrant; area adjacent to Break Room 2324; Cubicle 13 entry area; approximately five feet above floor/Normal office activities	This column intentionally left blank
START/STOP	14:29:00/14:34:00	14:39:00/14:44:00	14:46:00/14:51:00	
SAMPLE TIME	5 minutes	5 minutes	5 minutes	
Alternaria	27			
Ascospores	53			
Basidiospores	640	53	53	
Botrytis				
Chaetomium	13			
Cladosporium	2,100	53		
Curvularia				
Epicoccum				
Myrothecium				
Nigrospora	13			
Oidium				
Other brown	40	13	13	
Other colorless				
Penicillium/Aspergillus types				
Pithomyces				
Rusts	13		13	
Smuts (Periconia, Myxomycetes)	27		27	
Stachybotrys				
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	130	13	13	
Background debris*	2+	2+	2+	
TOTAL**	3,000	120	110	

*Background debris is an indication of the amount of non-biological particulate matter present on the slide and is graded (from least to greatest) as 1+ to 4+.

**Note that all reported counts have been rounded to no more than two significant figures based on the sampling and analytical methods used, and therefore the total count may not equal the sum of the individual counts in a column.



Report for:

Mr. Larry Sandhu
Hygiene Technologies International, Inc.
3625 Del Amo Boulevard, Suite 180
Torrance, CA 90503-8370

Regarding: Project: 21401001-2
EML ID: 1162739

Approved by:

Technical Manager
Melissa Tracey

Dates of Analysis:
Spore trap analysis: 01-22-2014

Service SOPs: Spore trap analysis (1038)
AIHA-LAP, LLC accredited service, Lab ID #179768

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 items tested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Hygiene Technologies International, Inc.
C/O: Mr. Larry Sandhu
Re: 21401001-2Date of Sampling: 01-22-2014
Date of Receipt: 01-22-2014
Date of Report: 01-23-2014**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21401001-2TM01OUT		21401001-2TM02		21401001-2TM03	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5260107-1		5260108-1		5260109-1	
Analysis Date:	01/22/2014		01/22/2014		01/22/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	2	27				
Ascospores	1	53				
Basidiospores	12	640	1	53	1	53
Chaetomium	1	13				
Cladosporium	40	2,100	1	53		
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora	1	13				
Other brown	3	40	1	13	1	13
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts	1	13			1	13
Smuts, Periconia, Myxomycetes	2	27			2	27
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	130		13		13	
Pollen/m3	67		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		1+	
Sample volume (liters)	75		75		75	
§ TOTAL SPORES/m3		3,000		120		110

Comments:

Spore types listed without a count or data entry were not detected during the course of the analysis for the respective sample.

† The spores of *Aspergillus* and *Penicillium* (and others such as *Acremonium*, *Paecilomyces*) are small and round with very few distinguishing characteristics. They cannot be differentiated by non-viable sampling methods. Also, some species with very small spores are easily missed, and may be undercounted.

†† Background debris indicates the amount of non-biological particulate matter present on the trace (dust in the air) and the resulting visibility for the analyst. It is rated from 1+ (low) to 4+ (high). Counts from areas with 4+ background debris should be regarded as minimal counts and may be higher than reported. It is important to account for samples volumes when evaluating dust levels.

The analytical sensitivity is the spores/m3 divided by the raw count. The limit of detection is the analytical sensitivity multiplied by the sample volume divided by 1000.

For more information regarding analytical sensitivity, please contact QA by calling the laboratory.

‡ 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".

§ Total Spores/m3 has been rounded to two significant figures to reflect analytical precision.

