



HYGIENETECH

Hygiene Technologies International, Inc.

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February 6, 2014

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

Document No. 21402001.1

Attention: Vince Paul

Regarding: 7th Floor Women's Restroom Water Leak
450 N Street, Sacramento

Dear Mr. Paul:

On January 31, 2014, Lakhpreet Sandhu, Industrial Hygienist, with Hygiene Technologies International, Inc. (HygieneTech), inspected the Women's Restrooms located on 6th and 7th Floors of the California State Board of Equalization (BOE) building and performed a water intrusion survey following the reported water leak. Subsequently, from January 31 through February 2, 2014, HygieneTech performed additional inspections with building management personnel and/or their contractor/consultant (JLS Environmental Services, Inc. (JLS) & LaCroix Davis, LLC (LCD)), monitored water intrusion response activities and performed clearance testing. 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 afternoon of January 31, 2014, HygieneTech inspected the 6th and 7th Floor Women's Restroom areas and met with the representatives of the building management and their contractors on 7th Floor Women Restroom. Please note at that time, there were no signs of water intrusion observed within the occupied space of 7th Floor Women's Restroom and the 6th Floor Women's Restroom was observed to be closed/locked and "Temporarily out of order" signs were posted on both restroom.

Upon visual inspection on the afternoon of January 31, 2014 in the 7th Floor Women's Restroom, an active water leak was observed at the waste pipe located within the plumbing cavity area directly behind the toilet stalls (Photos 1 and 2). Water impacted building materials, such as gypsum board wall material, plumbing pipes, concrete floor and pipe insulation, were also observed in that area. Please note that the inspection was performed through the toilet seat cover dispenser opening located at the eastern partition wall behind one of the toilet stall and there was no evidence of visual mold growth observed on any of the accessible building materials. Minor sewer like odors was noticed in the plumbing cavity area at that time.

Following the discovery of water damaged building materials, representatives of JLS Environmental Services, Inc. (JLS) and Brice Mechanical initiated various repair and/or restoration activities in the



affected areas on the 6th and 7th Floor Women's Restrooms on the evening of January 31, 2014. On the same evening, HygieneTech also performed visual inspection with building management personnel and/or their contractor/consultant on the 6th, 5th and 4th Floor Women's Restrooms through the toilet seat cover dispenser opening located at the eastern partition wall behind one of the toilet stall and observed evidence of water intrusion related to the waste pipe leak within the plumbing cavity area behind the toilet stalls in the 6th Floor Women's Restroom and in a similar area located immediately below in the 5th Floor Women's Restroom. Please note that at the time of the inspection, no signs of visual mold growth were observed on any of the accessible building materials within the plumbing cavity areas on the 6th and 5th Floor Women's Restrooms.

During the repair activities using appropriate control measures, one toilet fixture each in the 6th and 7th Floor Women's Restroom was removed and upon removal of those fixtures, minor water staining and/or wet gypsum board material were observed. Once the toilet fixtures were removed, the waste pipe openings were immediately covered to eliminate potential sewer related odors. During the additional repair/restoration activities, controlled negative pressured containments monitored by manometers were constructed in both Women's Restrooms on the 6th and 7th Floors and the air was exhausted through a restroom vent to control potential sewer like odors due to the repair/restoration activities. Prior to the removal of affected building materials within the containments, various fixtures and openings in the work areas were sealed with polyethylene sheeting and tape. Outside of the work areas, sections of carpet flooring were covered with plastic sheeting and air scrubbers were activated.

During the remediation activities, no evidence of visual fungal growth were observed on any of the building materials inspected; however, water staining related to the waste pipe leak, wet building materials, as well as some degree of water staining not related to the waste pipe leak were observed. All building materials including the affected gypsum board materials, as well as small sections of fireproofing and sections of pipe insulation, were removed from the affected areas in the 6th and 7th Floor Women's Restrooms and cleaning activities including HEPA vacuuming, wire-brushing, abrading, and/or wet wiping activities were performed. Please note that some of the affected gypsum board materials from the fire rated core walls within the plumbing cavity and adjacent areas were not removed based on concern by building management. Such walls were cleaned with a HEPA vacuum, wet wiped with a biocide solution, small wet portions of which were dried using dehumidifier, air movers, as well as air scrubbers. Upon completion of the drying process, the building surfaces were once again HEPA vacuumed, wet wiped with a biocide solution, and then encapsulated with a Foster® Full Defense™ (40-25) fungicidal protective coating. Some additional building materials in the work areas showing water staining but no evidence of fungal growth, along with other adjacent building materials not showing water staining, were also painted with the Foster® Full Defense™ product.

Please note that upon removal of the gypsum board material at the eastern partition wall in the 7th Floor Women's Restroom, damaged pipe fitting was observed (Photos 3 and 4). Prior to starting the repair work, water supply was reportedly shut off in the eastern flank of the building from floors 5 through 24 involving restrooms, janitor closets, break rooms, and/or other sink areas.

At the conclusion of all the repair and remediation activities on February 2, 2014, HygieneTech collected air samples for total fungi and surface samples for bacteria from the 6th and 7th Floor Women's Restroom containment areas. Additionally, one air sample for total fungi was also collected from the 5th Floor Women's Restroom and one air sample for total fungi was 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. Surface samples were also collected for viable bacteria assessment over one square inch of surface area using Healthlink® Transporters™ (Rayon tipped swabs immersed in 0.5 milliliter of modified Stuart's transport medium). All



such samples were subsequently analyzed for fungi (including yeasts, molds, rusts, smuts, and mushrooms) or were cultured over time and evaluated for total coliforms, fecal coliforms, *Escherichia coli* (*E. coli*) and *Enterococcus* 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. The airborne fungi and surface bacteria assessment analytical data with supporting and background information appears in the enclosed Table 21402001-1, 21402001-2, and 21402001-3.

As presented in Table 21402001-1, the airborne spore count datum recorded on the survey date showed fungal spore types outdoors, such as *Alternaria*, ascospores, basidiospores, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, smuts, and *Ulocladium*. In the indoor areas tested, the data showed that airborne fungal spores were either not detected at or above the laboratory detection limit indicated or were detected at low airborne concentrations, which included low levels of colorless spores typical of *Penicillium/Aspergillus* species and/or smuts. The distribution of fungal spore types detected in the surveyed areas was consistent with those found outdoors, and the overall data within the tested areas were well below the overall outdoor 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. Additionally as shown in the Tables 21402001-2 and 21402001-3, the viable bacterial screen results for the samples collected from varying surfaces within the subject containments showed no evidence of total coliforms, fecal coliforms, *Escherichia coli* (*E. coli*), or *Enterococcus*.

Be advised that the data provided with this correspondence only represent fungal growth and bacteria exposure potentials that existed at the time the final survey was 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 bacteria exposure potentials may change due to changes in environmental conditions, such as those caused by water intrusion, use of mechanical systems, or other factors. 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.

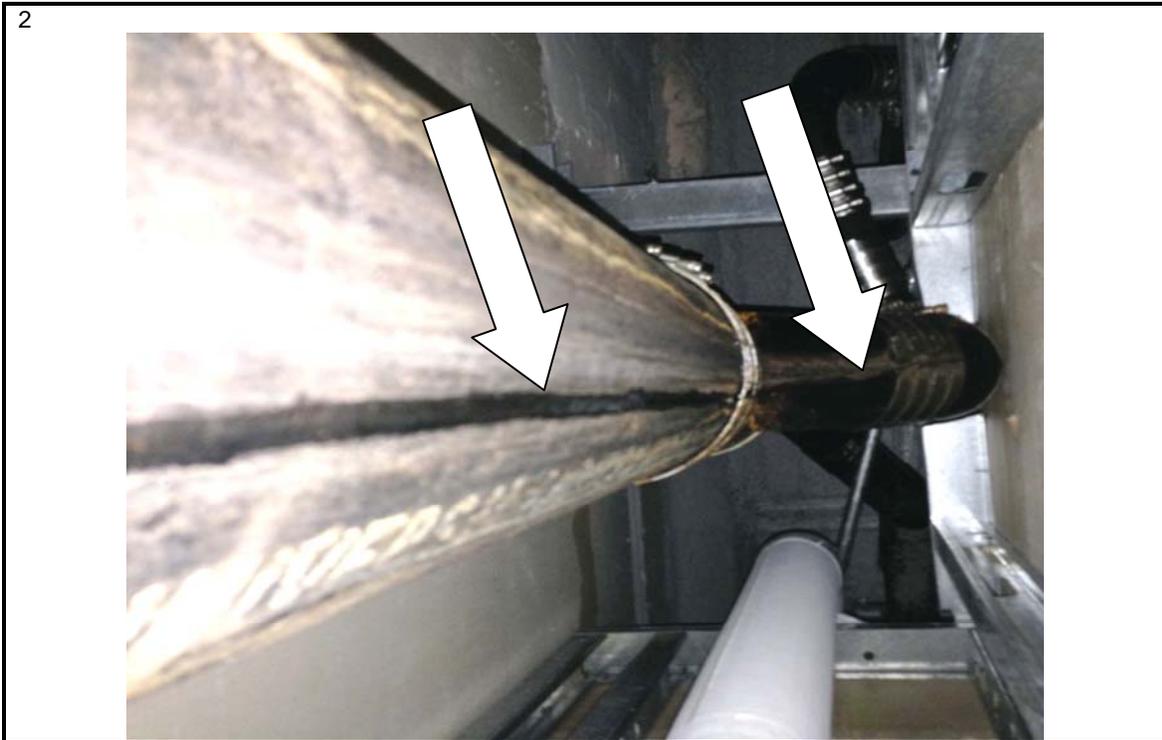
Sincerely,

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

Kenny K. Hsi, CIH
Technical Director



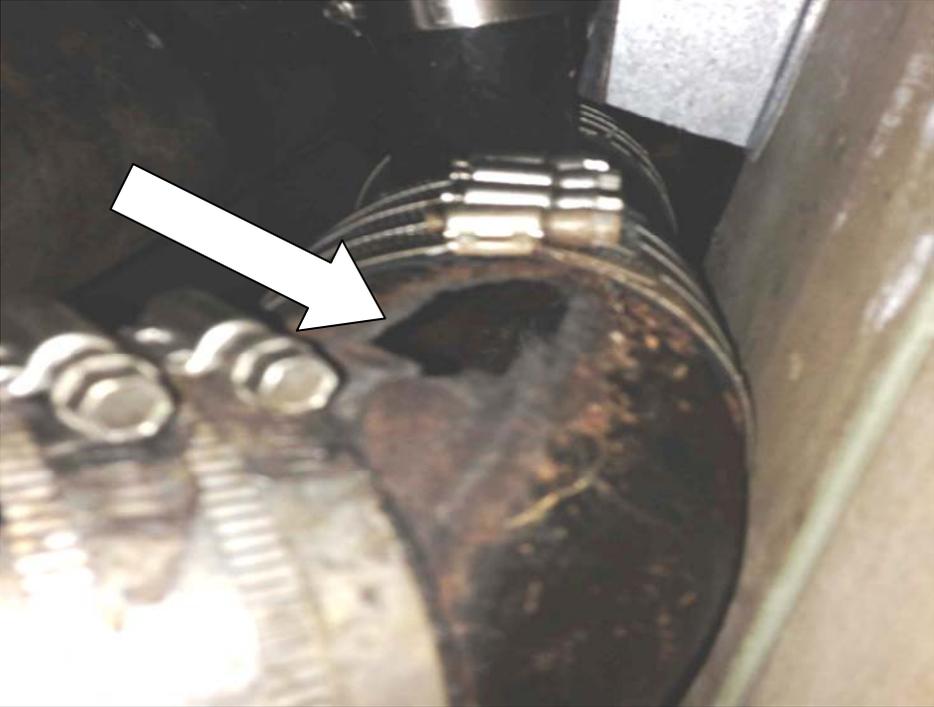
Date	Address	Photo Location – Description	Up
01/31/14	450 N Street Sacramento, California	7 th Floor; Women's Restroom; looking east; view of plumbing cavity area within the eastern partition wall opening at toilet seat cover dispenser area; showing water streaks on main waste pipe riser	↑



Date	Address	Photo Location – Description	Up
01/31/14	450 N Street Sacramento, California	7 th Floor; Women's Restroom; looking up; view of plumbing cavity interior area within the eastern partition wall opening at toilet seat cover dispenser area; showing water streak on main waste pipe riser and adjacent pipe fitting	↑



3



Date	Address	Photo Location – Description	Up
01/31/14	450 N Street Sacramento, California	7 th Floor; Women's Restroom; looking up; view of plumbing cavity interior area within the eastern partition wall cavity opening; showing hole at the pipe fitting adjacent to the main waste pipe riser behind the gypsum board	↑

4



Date	Address	Photo Location – Description	Up
01/31/14	450 N Street Sacramento, California	Close-up of Photo 3; showing hole and crack at the pipe fitting adjacent to the main waste pipe riser	↑

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

APPENDIX A



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

TABLE 21402001-1
AIRBORNE TOTAL FUNGI RESULTS
450 N STREET
SACRAMENTO, CALIFORNIA
FEBRUARY 2, 2014

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

SAMPLE NUMBER	21402001-1 TM01OUT	21402001-1 TM02	21402001-1 TM03	21402001-1 TM04
SAMPLING LOCATION/ACTIVITIES	Outdoors; southwestern corner of building; approximately five feet above ground/Normal outdoor activities	5 th Floor; Women's Restroom; southeastern corner; approximately five feet above floor/Sampling activities only	7 th Floor; Women's Restroom; within containment; about three feet west of wall opening; approximately five feet above floor/Post abatement; sampling activities only	6 th Floor; Women's Restroom; within containment; about one foot west of wall opening; approximately five feet above floor/Post abatement; sampling activities only
START/STOP	17:22:00/17:27:00	17:36:00/17:41:00	18:04:00/18:09:00	18:26:00/18:31:00
SAMPLE TIME	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	13			
Ascospores	160			
Basidiospores	160			
Botrytis				
Chaetomium				
Cladosporium	2,300			
Curvularia				
Epicoccum				
Myrothecium				
Nigrospora				
Oidium				
Other brown				
Other colorless				
Penicillium/Aspergillus types	160		53	
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	53	13		
Stachybotrys				
Torula				
Ulocladium	13			
Zygomycetes				
Hyphal fragments	40	<13	<13	<13
Background debris*	2+	2+	2+	2+
TOTAL**	2,900	13	53	<13

*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.

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Sacramento, California 94279

TABLE 21402001-2
SURFACE BACTERIA
450 N STREET
SACRAMENTO, CALIFORNIA
FEBRUARY 2, 2014

SAMPLE NUMBER	SAMPLING LOCATION	APPROXIMATE AREA SAMPLED (in ²)	<i>Enterococcus</i> (MPN/swab)	<i>Escherichia coli</i> (MPN/swab)	Total Coliform (MPN/swab)	COMMENTS
21402001-2 S01	7 th Floor; Women's Restroom; within containment; toilet stall area adjacent to wall opening; floor; about two inches west of wall framing; from horizontal surface of ceramic tile	1	<10	<10	<10	N/A
21402001-2 S02	7 th Floor; Women's Restroom; within containment; toilet stall area wall opening at southern end; from vertical surface of metal framing	1	<10	<10	<10	N/A
21402001-2 S03	6 th Floor; Women's Restroom; within containment; toilet stall area adjacent to wall opening; floor; about two inches south of wall framing; from horizontal surface of ceramic tile	1	<10	<10	<10	N/A
21402001-2 S04	6 th Floor; Women's Restroom; within containment; toilet stall area adjacent to wall opening; subfloor between wall framing and ceramic tiles; from horizontal surface of concrete	1	<10	<10	<10	N/A

LEGEND

in²: Square inch
MPN: Most probable number
<: Less than (detection limit indicated)

HYGIENE TECHNOLOGIES INTERNATIONAL, INC.



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

TABLE 21402001-3
SURFACE BACTERIA
450 N STREET
SACRAMENTO, CALIFORNIA
FEBRUARY 2, 2014

SAMPLE NUMBER	LOCATION	APPROXIMATE AREA SAMPLED (sq/in)	TOTAL COLIFORM	FECAL COLIFORM	<i>ESCHERICHIA COLI (E. Coli)</i>
21402001-2 S01	7 th Floor; Women's Restroom; within containment; toilet stall area adjacent to wall opening; floor; about two inches west of wall framing; from horizontal surface of ceramic tile	1	Absent	Absent	Absent
21402001-2 S02	7 th Floor; Women's Restroom; within containment; toilet stall area wall opening at southern end; from vertical surface of metal framing	1	Absent	Absent	Absent
21402001-2 S03	6 th Floor; Women's Restroom; within containment; toilet stall area adjacent to wall opening; floor; about two inches south of wall framing; from horizontal surface of ceramic tile	1	Absent	Absent	Absent
21402001-2 S04	6 th Floor; Women's Restroom; within containment; toilet stall area adjacent to wall opening; subfloor between wall framing and ceramic tiles; from horizontal surface of concrete	1	Absent	Absent	Absent

LEGEND

sq/in: Square inch



Report for:

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

Regarding: Project: 21402001-1
EML ID: 1166814

Approved by:

Technical Manager
Melissa Tracey

Dates of Analysis:
Spore trap analysis: 02-03-2014

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. Kenny Hsi, Mr. Lakhpreet Sandhu
 Re: 21402001-1

Date of Sampling: 02-02-2014
 Date of Receipt: 02-03-2014
 Date of Report: 02-03-2014

SPORE TRAP REPORT: NON-VIABLE METHODOLOGY

Location:	21402001-1 TM01 OUT		21402001-1 TM02		21402001-1 TM03		21402001-1 TM04	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	5280111-1		5280112-1		5280113-1		5280114-1	
Analysis Date:	02/03/2014		02/03/2014		02/03/2014		02/03/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria	1	13						
Ascospores	3	160						
Basidiospores	3	160						
Chaetomium								
Cladosporium	43	2,300						
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other colorless								
Penicillium/Aspergillus types†	3	160			1	53		
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	4	53	1	13				
Stachybotrys								
Stemphylium								
Torula								
Ulocladium	1	13						
Zygomycetes								
Background debris (1-4+)††	2+		2+		2+		2+	
Hyphal fragments/m3	40		< 13		< 13		< 13	
Pollen/m3	< 13		13		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		1+		< 1+	
Sample volume (liters)	75		75		75		75	
§ TOTAL SPORES/m3		2,900		13		53		< 13

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.

Client: Hygiene Technologies International, Inc.
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu
Re: 21402001-1

Date of Sampling: 02-02-2014
Date of Receipt: 02-03-2014
Date of Report: 02-03-2014

MoldRANGE™: Extended Outdoor Comparison

Outdoor Location: 21402001-1 TM01 OUT

Fungi Identified	Outdoor data	Typical Outdoor Data for: February in California† (n‡=16302)						Typical Outdoor Data for: The entire year in California† (n‡=199769)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
Generally able to grow indoors*													
Alternaria	13	13	13	20	44	67	38	13	13	27	67	110	54
Bipolaris/Drechslera group	-	7	13	13	27	40	7	7	13	13	27	40	12
Chaetomium	-	7	13	13	27	40	9	8	13	13	27	47	19
Cladosporium	2,300	80	150	400	1,000	1,700	95	110	210	610	1,600	2,800	97
Curvularia	-	7	10	13	13	27	2	7	13	13	27	53	6
Nigrospora	-	7	13	13	13	27	4	7	13	13	27	53	8
Penicillium/Aspergillus types	160	53	66	200	490	820	82	53	100	210	590	1,000	84
Stachybotrys	-	13	13	13	40	80	3	7	13	13	33	67	4
Torula	-	7	13	13	40	53	5	8	13	13	40	67	12
Ulocladium	13	8	13	13	27	40	7	8	13	13	27	40	10
Seldom found growing indoors**													
Ascospores	160	27	53	160	510	960	72	25	53	110	360	690	71
Basidiospores	160	53	110	430	1,800	3,900	95	53	80	270	990	2,300	93
Rusts	-	8	13	13	40	73	14	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	53	13	13	27	67	110	54	13	13	40	110	210	68
§ TOTAL SPORES/m3	2,900												

†The 'Typical Outdoor Data' represents the typical outdoor spore levels for the location and time frame indicated. The last column represents the frequency of occurrence. The very low, low, med, high, and very high values represent the 10, 20, 50, 80, and 90 percentile values of the spore type when it is detected. For example, if the frequency of occurrence is 63% and the low value is 53, it would mean that the given spore type is detected 63% of the time and, when detected, 20% of the time it is present in levels above the detection limit and below 53 spores/m3. These values are updated periodically, and if enough data is not available to make a statistically meaningful assessment, it is indicated with a dash.

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

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

‡n = number of samples used to calculate data.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. In addition, EMLab P&K may not have received and tested a representative number of samples for every region or time period. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu
 Re: 21402001-1

Date of Sampling: 02-02-2014
 Date of Receipt: 02-03-2014
 Date of Report: 02-03-2014

MoldSTAT™: Supplementary Statistical Spore Trap Report

Outdoor Summary: 21402001-1 TM01 OUT:

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Alternaria				13	7 - 33 - 590	45
Ascospores				160	13 - 210 - 5,700	76
Basidiospores				160	15 - 450 - 24,000	92
Cladosporium				2,300	27 - 480 - 10,000	90
Penicillium/Aspergillus types				160	13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes				53	7 - 53 - 930	64
Ulocladium				13	7 - 13 - 93	4
Total				2,900		

The "Typical outdoor ranges" and "Freq. %" columns show the typical low, medium, and high spore counts per cubic meter and the frequency of occurrence for the given spore type. The low, medium, and high values represent the 2.5, 50, and 97.5 percentile values when the spore type is detected. For example, if the low value is 53 and the frequency of occurrence is 63%, it would mean that we typically detect the given spore type on 63 percent of all outdoor samples and, when detected, 2.5% of the time it is present in levels below 53 spores/m3.

Indoor Samples

Location: 21402001-1 TM02

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 2 Result: 0.7500 Critical value: 5.9915 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.2321 Critical value: 0.6786 Outside Similar: No	Score: 103 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Smuts, Periconia, Myxomycetes				13
	Total				13

Location: 21402001-1 TM03

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 1%	dF: 2 Result: 0.7500 Critical value: 5.9915 Inside Similar: Yes	Result: 0.2500	dF: 7 Result: 0.4821 Critical value: 0.6786 Outside Similar: No	Score: 108 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Penicillium/Aspergillus types				53
	Total				53

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu
 Re: 21402001-1

Date of Sampling: 02-02-2014
 Date of Receipt: 02-03-2014
 Date of Report: 02-03-2014

MoldSTAT™: Supplementary Statistical Spore Trap Report

Location: 21402001-1 TM04

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)
Result: < 1%	dF: 2 Result: 0.7500 Critical value: 5.9915 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
Species Detected		Spores/m3		
		<100	1K	10K
				>100K
None Detected				< 13

* The Friedman chi-square statistic is a non-parametric test that examines variation in a set of data (in this case, all indoor spore counts). The null hypothesis (H0) being tested is that there is no meaningful difference in the data for all indoor locations. The alternative hypothesis (used if the test disproves the null hypothesis) is that there is a difference between the indoor locations. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

** An agreement ratio is a simple method for assessing the similarity of two samples (in this case the indoor sample and the outdoor summary) based on the spore types present. A score of one indicates that the types detected in one location are the same as that in the other. A score of zero indicates that none of the types detected indoors are present outdoors. Typically, an agreement of 0.8 or higher is considered high.

*** The Spearman rank correlation is a non-parametric test that examines correlation between two sets of data (in this case the indoor location and the outdoor summary). The null hypothesis (H0) being tested is that the indoor and outdoor samples are unrelated. The alternative hypothesis (used if the test disproves the null hypothesis) is that the samples are similar. The null hypothesis is rejected when the result of the test is greater than the critical value. The critical value that is displayed is based on the degrees of freedom (dF) of the test and a significance level of 0.05.

**** MoldSCORE™ is a specialized method for examining air sampling data. It is a score between 100 and 300, with 100 indicating a greater likelihood that the airborne indoor spores originated from the outside, and 300 indicating a greater likelihood that they originated from an inside source. The Result displayed is based on the numeric score given and will be either Low, Medium, or High, indicating a low, medium, or high likelihood that the spores detected originated from an indoor source. EMLab P&K reserves the right to, and may at anytime, modify or change the MoldScore algorithm without notice.

Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor ranges" are based on the results of the analysis of samples delivered to and analyzed by EMLab P&K and assumptions regarding the origins of those samples. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect these results. With the statistical analysis provided, as with all statistical comparisons and analyses, false-positive and false-negative results can and do occur. EMLab P&K hereby disclaims any liability for any and all direct, indirect, punitive, incidental, special or consequential damages arising out of the data contained in, or any actions taken or omitted in reliance upon, this report.

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu
 Re: 21402001-1

Date of Sampling: 02-02-2014
 Date of Receipt: 02-03-2014
 Date of Report: 02-03-2014

MoldSCORE™: Spore Trap Report

Outdoor Sample: 21402001-1 TM01 OUT

Fungi Identified	Outdoor sample spores/m3				Raw count	Spores/m3
	<100	1K	10K	>100K		
Generally able to grow indoors*						
Alternaria					1	13
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					43	2,300
Curvularia					ND	< 13
Nigrospora					ND	< 13
Penicillium/Aspergillus types†					3	160
Stachybotrys					ND	< 13
Torula					ND	< 13
Ulocladium					1	13
Seldom found growing indoors**						
Ascospores					3	160
Basidiospores					3	160
Rusts					ND	< 13
Smuts, Periconia, Myxomycetes					4	53
Total						2,853

Location: 21402001-1 TM02

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3
	<100	1K	10K	>100K		
Generally able to grow indoors*						
Alternaria					ND	< 13
Bipolaris/Drechslera group					ND	< 13
Chaetomium					ND	< 13
Cladosporium					ND	< 13
Curvularia					ND	< 13
Nigrospora					ND	< 13
Penicillium/Aspergillus types†					ND	< 13
Stachybotrys					ND	< 13
Torula					ND	< 13
Seldom found growing indoors**						
Ascospores					ND	< 13
Basidiospores					ND	< 13
Rusts					ND	< 13
Smuts, Periconia, Myxomycetes					1	13
Total						13

MoldSCORE‡			
100	200	300	Score
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			100
			103
Final MoldSCORE			103

Client: Hygiene Technologies International, Inc.
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu
 Re: 21402001-1

Date of Sampling: 02-02-2014
 Date of Receipt: 02-03-2014
 Date of Report: 02-03-2014

MoldSCORE™: Spore Trap Report

Location: 21402001-1 TM03

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡				
	<100	1K	10K	>100K			100	200	300	Score	
Generally able to grow indoors*											
Alternaria					ND	< 13				100	
Bipolaris/Drechslera group					ND	< 13				100	
Chaetomium					ND	< 13				100	
Cladosporium					ND	< 13				100	
Curvularia					ND	< 13				100	
Nigrospora					ND	< 13				100	
Penicillium/Aspergillus types†	█				1	53				108	
Stachybotrys					ND	< 13				100	
Torula					ND	< 13				100	
Seldom found growing indoors**											
Ascospores					ND	< 13				100	
Basidiospores					ND	< 13				100	
Rusts					ND	< 13				100	
Smuts, Periconia, Myxomycetes					ND	< 13				100	
Total						53					
										Final MoldSCORE	108

Location: 21402001-1 TM04

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡				
	<100	1K	10K	>100K			100	200	300	Score	
Generally able to grow indoors*											
Alternaria					ND	< 13				100	
Bipolaris/Drechslera group					ND	< 13				100	
Chaetomium					ND	< 13				100	
Cladosporium					ND	< 13				100	
Curvularia					ND	< 13				100	
Nigrospora					ND	< 13				100	
Penicillium/Aspergillus types†					ND	< 13				100	
Stachybotrys					ND	< 13				100	
Torula					ND	< 13				100	
Seldom found growing indoors**											
Ascospores					ND	< 13				100	
Basidiospores					ND	< 13				100	
Rusts					ND	< 13				100	
Smuts, Periconia, Myxomycetes					ND	< 13				100	
Total						N/A					
										Final MoldSCORE	100

Client: Hygiene Technologies International, Inc.
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu
Re: 21402001-1

Date of Sampling: 02-02-2014
Date of Receipt: 02-03-2014
Date of Report: 02-03-2014

MoldSCORE™: Spore Trap Report

* The spores in this category are generally capable of growing on wet building materials in addition to growing outdoors. Building related growth is dependent upon the fungal type, moisture level, type of material, and other factors. *Cladosporium* is one of the predominant spore types worldwide and is frequently present in high numbers. *Penicillium/Aspergillus* species colonize both outdoor and indoor wet surfaces rapidly and are very easily dispersed. Other genera are usually present in lesser numbers.

** These fungi are generally not found growing on wet building materials. For example, the rusts and smuts are obligate plant pathogens. However, in each group there are notable exceptions. For example, agents of wood decay are members of the basidiomycetes and high counts of a single morphological type of basidiospore on an inside sample should be considered significant.

†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.

‡Rated on a scale from 100 to 300. A rating less than 150 is low and indicates a low probability of spores originating inside. A rating greater than 250 is high and indicates a high probability that the spores originated from inside, presumably from indoor mold growth. A rating between 150 and 250 indicates a moderate likelihood of indoor fungal growth. MoldSCORE is NOT intended for wall cavity samples. It is intended for ambient air samples in residences. Using the analysis on other samples (like wall cavity samples) will lead to misleading results.



Report for:

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

Regarding: Project: 21402002-1
EML ID: 1166499

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:
QuantiTray-sewage screen: 02-03-2014

Service SOPs: QuantiTray-sewage screen (1055)

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. Kenny Hsi, Mr. Lakhpreet Sandhu
 Re: 21402002-1

Date of Sampling: 02-02-2014
 Date of Receipt: 02-02-2014
 Date of Report: 02-03-2014

MPN Quantitray

Location:	21402001-2S01	21402001-2S02	21402001-2S03	21402001-2S04
Comments (see below)	A	A	A	A
Lab ID-Version‡:	5278750-1	5278752-1	5278754-1	5278756-1
Date Prepared	02/03/14	02/03/14	02/03/14	02/03/14
Date Analyzed	02/03/14	02/03/14	02/03/14	02/03/14
	MPN/swab	MPN/swab	MPN/swab	MPN/swab
<i>E. coli</i>	< 10	< 10	< 10	< 10
<i>Enterococcus</i>	< 10	< 10	< 10	< 10
Total coliform	< 10	< 10	< 10	< 10

Comments: A) Sample prepared on 2/2/2014.

‡ 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".



Report for:

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

Regarding: Project: 21402002-1
EML ID: 1166499

Approved by:

Technical Manager
Dr. Kamashwaran Ramanathan

Dates of Analysis:

Fecal Coliform, Total Coliform, E. coli-P/A: 02-03-2014

Service SOPs: Fecal Coliform, Total Coliform, E. coli-P/A (1574, (1218 in Marlton, NJ))

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. Kenny Hsi, Mr. Lakhpreet Sandhu
Re: 21402002-1

Date of Sampling: 02-02-2014
Date of Receipt: 02-02-2014
Date of Report: 02-03-2014

COLIFORM WITH *E. COLI* SCREEN*

Location:	21402001-2S01	21402001-2S02	21402001-2S03	21402001-2S04
Comments (see below)	None	None	None	None
Lab ID-Version‡:	5278751-1	5278753-1	5278755-1	5278757-1
Sample type:	Swab sample	Swab sample	Swab sample	Swab sample
Setup Time:	02/02/14 22:00	02/02/14 22:00	02/02/14 22:00	02/02/14 22:00
Total Coliforms	Absent	Absent	Absent	Absent
<i>E. coli</i>	Absent	Absent	Absent	Absent
Fecal Coliforms	Absent	Absent	Absent	Absent

Comments:

* Reported as presence or absence of coliforms and of *Escherichia coli* (*E. coli*) determined by MUG (4-methylumbelliferyl-B-D-glucuronide) test. "Coliforms" is a term that refers to the fermentative Gram negative rods belonging to the Enterobacteriaceae family. Fecal coliforms previously referred to one member of this family, *E. coli*, which is a common organism in the human intestinal tract. More recently, fecal coliforms have been defined as "thermotolerant coliforms" and include all coliforms which grow and ferment lactose with gas and acid at $44.5 \pm 0.2^\circ\text{C}$. This definition includes *Klebsiella*. However, since *Klebsiella* has been isolated from environmental samples in the apparent absence of fecal pollution, *E. coli* is a more specific indicator organism for sewage spills. Non-fecal coliforms are widely distributed in nature and are free living in water, soil, and on plants. Thus, the presence of small numbers of environmental coliforms should not be considered abnormal or of any particular concern for human safety.

Based on samples delivered. Sampling techniques, contaminants infecting samples, unrepresentative samples and other similar or dissimilar factors may affect results. EMLab P&K hereby disclaims any liability for indirect, punitive, incidental, special or consequential damages arising out of the use or interpretation of the data contained in, or any actions taken in reliance upon, this report; and its actual direct damages arising out of the use or interpretation of the data contained in, or any actions or omitted taken in reliance upon, this report shall be limited to the cost of this report.

‡ 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".

