



# HYGIENETECH

Hygiene Technologies International, Inc.

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Torrance, California 90503-1643  
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www.hygienetech.com

January 8, 2015

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

Document No. 21412001.1

Attention: David Gau

Regarding: Limited Fungal Growth Exposure Assessment Surveys  
December 2014 Random Sampling

Dear Mr. Gau:

On December 5, 12, 22, and 31, 2014, industrial hygienists with Hygiene Technologies International, Inc. (HygieneTech) conducted limited fungal growth exposure assessment surveys involving 22 randomly selected areas located within the California State Board of Equalization (BOE) building. The findings of the surveys, along with the analytical data, conclusions, and recommendations when applicable, appear below.

On the survey dates, 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. The airborne fungi assessment analytical data with supporting and background information appear in the enclosed table.

As presented in Table 21412001-1, the airborne spore count data recorded showed fungal spore types outdoors such as *Alternaria*, ascospores, basidiospores, *Cladosporium*, colorless spores typical of *Penicillium/Aspergillus* species, *Epicoccum*, other brown, smuts, *Stachybotrys*, *Stemphylium*, and/or *Torula*. 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. The fungal spore types found indoor included *Alternaria*, ascospores, basidiospores, *Bipolaris/Drechslera* group, *Cladosporium*, 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 data recorded. 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 in this report only represent limited fungal growth and exposure potentials that existed at the time these surveys were performed and at the precise sample locations

Mr. David Gau  
January 8, 2015  
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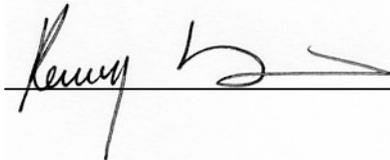


indicated. Note that fungal growth and exposure potentials may change due to changes in environmental conditions (such as those caused by water intrusion), use of mechanical systems, or other factors. Also be advised that additional fungal growth may exist at one or more locations in the structure that were not specifically assessed during the surveys.

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.**



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Technical Director

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

# APPENDIX A



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

TABLE 21412001-1  
AIRBORNE TOTAL FUNGI RESULTS  
450 N STREET  
SACRAMENTO, CALIFORNIA  
DECEMBER 5, 12, 22, AND 31, 2014

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21412001-1 TM01OUT	21412001-1 TM02	21412001-1 TM03	21412001-1 TM04
<b>SAMPLING LOCATION/ACTIVITIES</b>	Outdoors; about 15 feet east of building; approximately five feet above ground/Normal outdoor activities	3 <sup>rd</sup> Floor; Column J21 area; about two feet northeast of Column J21; approximately five feet above floor/Normal office activities	5 <sup>th</sup> Floor; Room 521; Column N22 area; about seven feet west of Column N22; approximately five feet above floor/Normal office activities	9 <sup>th</sup> Floor; Column K22 area; about ten feet west of Column K22; approximately five feet above floor/Normal office activities
<b>DATE</b>	12/05/14	12/05/14	12/05/14	12/05/14
<b>START/STOP</b>	10:07:00/10:12:00	10:18:00/10:23:00	10:27:00/10:32:00	10:36:00/10:41:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	800			
Ascospores				
Basidiospores	16,000		160	270
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	5.300		53	53
Curvularia				
Epicoccum				
Fusarium				
Nigrospora				
Oidium				
Other brown				
Other colorless				
Penicillium/Aspergillus types	160			
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	13			
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	<13	<13	13	<13
Background debris*	1+	1+	+	2+
<b>TOTAL**</b>	23,000	<13	210	320

\*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.

# HYGIENE TECHNOLOGIES INTERNATIONAL, INC.

# APPENDIX A



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450 N Street  
Sacramento, California 94279

TABLE 21412001-1  
AIRBORNE TOTAL FUNGI RESULTS  
450 N STREET  
SACRAMENTO, CALIFORNIA  
DECEMBER 5, 12, 22, AND 31, 2014

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21412001-1 TM05	21412001-1 TM06	21412001-1 TM07OUT	21412001-1 TM08
<b>SAMPLING LOCATION/ACTIVITIES</b>	15 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	21 <sup>st</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	Outdoors; about 25 feet east of eastern entry door of the building; approximately five feet above floor/Normal outdoor activities	4 <sup>th</sup> Floor; Column K17 area; Cubicle 76; southeastern corner; approximately five feet above floor/Normal office activities
<b>DATE</b>	12/05/14	12/05/14	12/12/14	12/12/14
<b>START/STOP</b>	10:45:00/10:50:00	10:52:00/10:57:00	15:35:00/15:40:00	15:44:00/15:49:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Ascospores			210	
Basidiospores	53		1,200	
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	53		110	
Curvularia				
Epicoccum				
Fusarium				
Nigrospora				
Oidium				
Other brown			13	
Penicillium/Aspergillus types		53	430	
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)			13	
Stachybotrys				
Stemphylium				
Torula				
Trichocladium				
Ulocladium				
Zygomycetes				
Hyphal fragments	<13	<13	<13	<13
Background debris*	2+	1+	1+	<1+
<b>TOTAL**</b>	110	53	2,000	<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+.

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Sacramento, California 94279

TABLE 21412001-1  
AIRBORNE TOTAL FUNGI RESULTS  
450 N STREET  
SACRAMENTO, CALIFORNIA  
DECEMBER 5, 12, 22, AND 31, 2014

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21412001-1 TM09	21412001-1 TM10	21412001-1 TM11	21412001-1 TM12
<b>SAMPLING LOCATION/ACTIVITIES</b>	10 <sup>th</sup> Floor; Column J18 area; Cubicle 6, about center; approximately five feet above floor/Normal office activities	11 <sup>th</sup> Floor; Column J21 area; Cubicle 11; about center; approximately five feet above floor/Normal office activities	18 <sup>th</sup> Floor; Column J18; about three feet northwest of Column J18; approximately five feet above floor/Normal office activities	23 <sup>rd</sup> Floor; Conference Room 2304; adjacent to southern entry door; approximately five feet above floor/Normal office activities
<b>DATE</b>	12/12/14	12/12/14	12/12/14	12/12/14
<b>START/STOP</b>	15:53:00/15:58:00	16:04:00/16:09:00	16:13:00/16:18:00	16:24:00/16:29:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Arthrinium				
Ascospores				
Basidiospores				
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium		53		110
Curvularia				
Epicoccum				
Fusarium				
Nigrospora				
Oidium				
Other brown				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	27			
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	<13	<13	<13	<13
Background debris*	1+	1+	1+	1+
<b>TOTAL**</b>	27	53	<13	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+.

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Sacramento, California 94279

TABLE 21412001-1  
AIRBORNE TOTAL FUNGI RESULTS  
450 N STREET  
SACRAMENTO, CALIFORNIA  
DECEMBER 5, 12, 22, AND 31, 2014

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21412001-1 TM13	21412001-1 TM14OUT	21412001-1 TM15	21412001-1 TM16
<b>SAMPLING LOCATION/ACTIVITIES</b>	24 <sup>th</sup> Floor; Northern corridor adjacent to Electrical Room; approximately five feet above floor/Normal office activities	Outdoors; about 15 feet north building; approximately five feet above ground/Normal outdoor activities	1 <sup>st</sup> Floor; Room 114; about center; approximately five feet above floor/Sampling activities only	19 <sup>th</sup> Floor; Column K21 area; at entry door of Room 1909; approximately five feet above floor/Normal office activities
<b>DATE</b>	12/12/14	12/22/14	12/22/14	12/22/14
<b>START/STOP</b>	16:33:00/16:38:00	15:18:00/15:23:00	15:25:00/15:30:00	15:50:00/15:55:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria	27	640		
Ascospores				
Basidiospores	53	2,700	53	
Bipolaris/Drechslera group	13			
Botrytis				
Chaetomium				
Cladosporium	53	680		
Curvularia				
Epicoccum		27		
Nigrospora				
Oidium				
Other brown				
Other colorless				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)		110		
Stachybotrys				
Stemphylium		27		
Torula				
Ulocladium				
Zygomycetes				
Hyphal fragments	<13	27	<13	<13
Background debris*	2+	1+	1+	1+
<b>TOTAL**</b>	150	4,200	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+.

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Sacramento, California 94279

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SACRAMENTO, CALIFORNIA  
DECEMBER 5, 12, 22, AND 31, 2014

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21412001-1 TM17	21412001-1 TM18	21412001-1 TM19	21412001-1 TM20OUT
<b>SAMPLING LOCATION/ACTIVITIES</b>	14 <sup>th</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	8 <sup>th</sup> Floor; southeast stairwell area; approximately five feet above floor/Normal office activities	6 <sup>th</sup> Floor; Break Room 617; about center; approximately five feet above floor/Normal office activities	Outdoors; about 15 feet east of the building; approximately five feet above ground/Normal outdoor activities
<b>DATE</b>	12/22/14	12/22/14	12/22/14	12/31/14
<b>START/STOP</b>	15:58:00/16:03:00	16:07:00/16:12:00	16:14:00/16:19:00	15:13:00/15:18:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Ascospores	110	53		53
Basidiospores	110	270		110
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium	53	110		270
Curvularia				
Epicoccum				
Fusarium				
Myrothecium				
Nigrospora				
Oidium				
Other brown				13
Penicillium/Aspergillus types				210
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	13		13	67
Stemphylium				
Stachybotrys				13
Torula				27
Ulocladium				
Zygomycetes				
Hyphal fragments	<13	<13	<13	40
Background debris*	2+	1+	2+	2+
<b>TOTAL**</b>	280	430	13	760

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## Results reported in spores per cubic meter of air (spores/M<sup>3</sup>)

SAMPLE NUMBER	21412001-1 TM21	21412001-1 TM22	21412001-1 TM23	21412001-1 TM24
<b>SAMPLING LOCATION/ACTIVITIES</b>	2 <sup>nd</sup> Floor; Elevator Lobby; about center; approximately five feet above floor/Normal office activities	7 <sup>th</sup> Floor; Men's Restroom; about center; approximately five feet above floor/Normal office activities	16 <sup>th</sup> Floor; Break Room 1603; about center; approximately five feet above floor/Normal office activities	17 <sup>th</sup> Floor; Column K18 area; about two feet west of Column K18; approximately five feet above floor/Normal office activities
<b>DATE</b>	12/31/14	12/31/14	12/31/14	12/31/14
<b>START/STOP</b>	15:21:00/15:26:00	15:28:00/15:33:00	15:38:00/15:43:00	15:45:00/15:50:00
<b>SAMPLE TIME</b>	5 minutes	5 minutes	5 minutes	5 minutes
Alternaria				
Ascospores				
Basidiospores				
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium				
Curvularia				
Epicoccum				
Fusarium				
Myrothecium				
Nigrospora				
Oidium				
Other brown				
Penicillium/Aspergillus types	53			
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)	67			
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	<13	<13	<13	<13
Background debris*	2+	2+	3+	2+
<b>TOTAL**</b>	120	<13	<13	<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+.

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Sacramento, California 94279

TABLE 21412001-1  
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450 N STREET  
SACRAMENTO, CALIFORNIA  
DECEMBER 5, 12, 22, AND 31, 2014

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SAMPLE NUMBER	21412001-1 TM25	21412001-1 TM26		
SAMPLING LOCATION/ACTIVITIES	20 <sup>th</sup> Floor; Northern corridor adjacent to northwestern drinking fountain; approximately five feet above floor/Normal office activities	22 <sup>nd</sup> Floor; Room 2225; about center; approximately five feet above floor/Normal office activities	This column intentionally left blank	This column intentionally left blank
DATE	12/31/14	12/31/14		
START/STOP	15:53:00/15:58:00	16:01:00/16:06:00		
SAMPLE TIME	5 minutes	5 minutes		
Alternaria				
Ascospores				
Basidiospores				
Bipolaris/Drechslera group				
Botrytis				
Chaetomium				
Cladosporium				
Curvularia				
Epicoccum				
Helicoma				
Myrothecium				
Nigrospora				
Oidium				
Other brown				
Penicillium/Aspergillus types				
Pithomyces				
Rusts				
Smuts (Periconia, Myxomycetes)				
Stachybotrys				
Stemphylium				
Torula				
Ulocladium				
Hyphal fragments	<13	<13		
Background debris*	2+	2+		
<b>TOTAL **</b>	<13	<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.



Report for:

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

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Regarding: Project: 21412001-1  
EML ID: 1299577

Approved by:

Technical Manager  
Melissa Tracey

Dates of Analysis:  
Spore trap analysis: 12-09-2014

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

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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: 21412001-1

Date of Sampling: 12-05-2014  
 Date of Receipt: 12-08-2014  
 Date of Report: 12-09-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21412001-1 TM01 OUT		21412001-1 TM02		21412001-1 TM03	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5920615-1		5920616-1		5920617-1	
Analysis Date:	12/09/2014		12/09/2014		12/09/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	15	800				
Basidiospores	61	16,000			3	160
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	99	5,300			1	53
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†	3	160				
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	1	13				
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+		1+		1+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		< 1+		< 1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>23,000</b>		<b>&lt; 13</b>		<b>210</b>

**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: 21412001-1

Date of Sampling: 12-05-2014  
Date of Receipt: 12-08-2014  
Date of Report: 12-09-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21412001-1 TM04		21412001-1 TM05		21412001-1 TM06	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5920618-1		5920619-1		5920620-1	
Analysis Date:	12/09/2014		12/09/2014		12/09/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores						
Basidiospores	5	270	1	53		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	1	53	1	53		
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†					1	53
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		1+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		< 1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>320</b>		<b>110</b>		<b>53</b>

**Comments:**

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

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Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21412001-1

Date of Sampling: 12-05-2014  
Date of Receipt: 12-08-2014  
Date of Report: 12-09-2014

**MoldRANGE™: Extended Outdoor Comparison****Outdoor Location: 21412001-1 TM01 OUT**

Fungi Identified	Outdoor data	Typical Outdoor Data for: December in California† (n‡=13644)						Typical Outdoor Data for: The entire year in California† (n‡=200698)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
<b>Generally able to grow indoors*</b>													
Alternaria	-	13	13	27	53	80	43	13	13	27	67	110	53
Bipolaris/Drechslera group	-	7	13	13	27	40	10	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	40	13	8	13	13	27	47	19
Cladosporium	5,300	110	210	680	2,000	3,500	96	110	210	610	1,600	2,800	97
Curvularia	-	10	13	13	27	40	4	7	13	13	27	53	6
Nigrospora	-	7	13	13	26	40	7	7	13	13	27	53	8
Penicillium/Aspergillus types	160	53	110	270	690	1,200	86	53	100	210	590	1,000	84
Stachybotrys	-	7	13	13	33	79	3	7	13	13	33	67	4
Torula	-	8	13	13	40	53	5	8	13	13	40	67	12
<b>Seldom found growing indoors**</b>													
Ascospores	800	27	53	160	640	1,300	68	25	53	110	360	690	71
Basidiospores	16,000	53	110	440	2,500	5,700	94	53	80	260	990	2,300	93
Rusts	-	13	13	13	40	55	18	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	13	13	13	33	80	160	61	13	13	40	110	210	68
<b>§ TOTAL SPORES/m3</b>	<b>23,000</b>												

†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: 21412001-1

Date of Sampling: 12-05-2014  
 Date of Receipt: 12-08-2014  
 Date of Report: 12-09-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Outdoor Summary: 21412001-1 TM01 OUT:**

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Ascospores				800	13 - 210 - 6,000	77
Basidiospores				16,000	19 - 450 - 24,000	92
Cladosporium				5,300	27 - 460 - 10,000	90
Penicillium/Aspergillus types				160	13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes				13	7 - 53 - 920	63
<b>Total</b>				23,000		

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: 21412001-1 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: 4 Result: 2.9333 Critical value: 9.4877 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			
<b>None Detected</b>		<100	1K	10K	>100K
					< 13

**Location: 21412001-1 TM03**

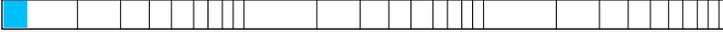
% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: < 1%	dF: 4 Result: 2.9333 Critical value: 9.4877 Inside Similar: Yes	Result: 0.5714	dF: 5 Result: 0.9000 Critical value: 0.8000 Outside Similar: Yes	Score: 101 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Basidiospores					160
Cladosporium					53
<b>Total</b>					210

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21412001-1

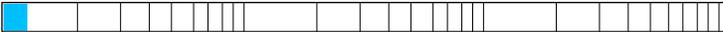
Date of Sampling: 12-05-2014  
 Date of Receipt: 12-08-2014  
 Date of Report: 12-09-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

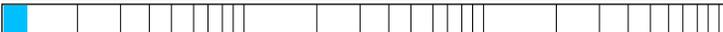
**Location:** 21412001-1 TM04

% 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: 4 Result: 2.9333 Critical value: 9.4877 Inside Similar: Yes	Result: 0.5714	dF: 5 Result: 0.9000 Critical value: 0.8000 Outside Similar: Yes	Score: 103 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Basidiospores					270
Cladosporium					53
<b>Total</b>					320

**Location:** 21412001-1 TM05

% 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: 4 Result: 2.9333 Critical value: 9.4877 Inside Similar: Yes	Result: 0.5714	dF: 5 Result: 0.8750 Critical value: 0.8000 Outside Similar: Yes	Score: 102 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Basidiospores					53
Cladosporium					53
<b>Total</b>					110

**Location:** 21412001-1 TM06

% 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: 4 Result: 2.9333 Critical value: 9.4877 Inside Similar: Yes	Result: 0.3333	dF: 5 Result: 0.0000 Critical value: 0.8000 Outside Similar: No	Score: 108 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Penicillium/Aspergillus types					53
<b>Total</b>					53

\* 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.

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21412001-1

Date of Sampling: 12-05-2014  
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Date of Report: 12-09-2014

### **MoldSTAT™: Supplementary Statistical Spore Trap Report**

\*\* 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 (H<sub>0</sub>) 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: 21412001-1

Date of Sampling: 12-05-2014  
 Date of Receipt: 12-08-2014  
 Date of Report: 12-09-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM03

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13	█			100
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium	█				1	53	█			100
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores	█				3	160	█			101
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>213</b>				
							<b>Final MoldSCORE</b>			<b>101</b>

**Location:** 21412001-1 TM04

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13	█			100
Bipolaris/Drechslera group					ND	< 13	█			100
Chaetomium					ND	< 13	█			100
Cladosporium	█				1	53	█			100
Curvularia					ND	< 13	█			100
Nigrospora					ND	< 13	█			100
Penicillium/Aspergillus types†					ND	< 13	█			100
Stachybotrys					ND	< 13	█			100
Torula					ND	< 13	█			100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores	█	█			5	270	█			103
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>320</b>				
							<b>Final MoldSCORE</b>			<b>103</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21412001-1

Date of Sampling: 12-05-2014  
 Date of Receipt: 12-08-2014  
 Date of Report: 12-09-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM05

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				102
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					1	53				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>107</b>				<b>Final MoldSCORE 102</b>

**Location:** 21412001-1 TM06

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>53</b>				<b>Final MoldSCORE 108</b>

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21412001-1

Date of Sampling: 12-05-2014  
Date of Receipt: 12-08-2014  
Date of Report: 12-09-2014

**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

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Regarding: Project: 21412001-1  
EML ID: 1302792

Approved by:

Technical Manager  
Melissa Tracey

Dates of Analysis:  
Spore trap analysis: 12-16-2014

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

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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: 21412001-1

Date of Sampling: 12-12-2014  
 Date of Receipt: 12-15-2014  
 Date of Report: 12-16-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21412001-1 TM07 OUT		21412001-1 TM08		21412001-1 TM09		21412001-1 TM10	
Comments (see below)	None		None		None		None	
Lab ID-Version‡:	5939210-1		5939211-1		5939212-1		5939213-1	
Analysis Date:	12/16/2014		12/16/2014		12/16/2014		12/16/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria								
Ascospores	4	210						
Basidiospores	23	1,200						
Bipolaris/Drechslera group								
Chaetomium								
Cladosporium	2	110					1	53
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13						
Other colorless								
Penicillium/Aspergillus types†	8	430						
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	1	13			2	27		
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	1+		< 1+		1+		1+	
Hyphal fragments/m3	< 13		< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13		< 13	
Skin cells (1-4+)	< 1+		< 1+		< 1+		< 1+	
Sample volume (liters)	75		75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>2,000</b>		<b>&lt; 13</b>		<b>27</b>		<b>53</b>

**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: 21412001-1

Date of Sampling: 12-12-2014  
Date of Receipt: 12-15-2014  
Date of Report: 12-16-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21412001-1 TM11		21412001-1 TM12		21412001-1 TM13	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5939214-1		5939215-1		5939216-1	
Analysis Date:	12/16/2014		12/16/2014		12/16/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Alternaria					2	27
Ascospores						
Basidiospores					1	53
Bipolaris/Drechslera group					1	13
Chaetomium						
Cladosporium			2	110	1	53
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+		1+		2+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		13	
Skin cells (1-4+)	< 1+		< 1+		1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>&lt; 13</b>		<b>110</b>		<b>150</b>

**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.

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Date of Sampling: 12-12-2014  
Date of Receipt: 12-15-2014  
Date of Report: 12-16-2014

**MoldRANGE™: Extended Outdoor Comparison**

**Outdoor Location: 21412001-1 TM07 OUT**

Fungi Identified	Outdoor data	Typical Outdoor Data for: December in California† (n‡=13644)						Typical Outdoor Data for: The entire year in California† (n‡=200698)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
<b>Generally able to grow indoors*</b>													
Alternaria	-	13	13	27	53	80	43	13	13	27	67	110	53
Bipolaris/Drechslera group	-	7	13	13	27	40	10	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	40	13	8	13	13	27	47	19
Cladosporium	110	110	210	680	2,000	3,500	96	110	210	610	1,600	2,800	97
Curvularia	-	10	13	13	27	40	4	7	13	13	27	53	6
Nigrospora	-	7	13	13	26	40	7	7	13	13	27	53	8
Other brown	13	13	13	13	40	53	31	13	13	13	40	53	34
Penicillium/Aspergillus types	430	53	110	270	690	1,200	86	53	100	210	590	1,000	84
Stachybotrys	-	7	13	13	33	79	3	7	13	13	33	67	4
Torula	-	8	13	13	40	53	5	8	13	13	40	67	12
<b>Seldom found growing indoors**</b>													
Ascospores	210	27	53	160	640	1,300	68	25	53	110	360	690	71
Basidiospores	1,200	53	110	440	2,500	5,700	94	53	80	260	990	2,300	93
Rusts	-	13	13	13	40	55	18	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	13	13	13	33	80	160	61	13	13	40	110	210	68
<b>§ TOTAL SPORES/m3</b>	<b>2,000</b>												

†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: 21412001-1

Date of Sampling: 12-12-2014  
 Date of Receipt: 12-15-2014  
 Date of Report: 12-16-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Outdoor Summary:** 21412001-1 TM07 OUT:

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Ascospores					13 - 210 - 6,000	76
Basidiospores					18 - 450 - 24,000	92
Cladosporium					27 - 450 - 10,000	90
Other brown					7 - 13 - 130	23
Penicillium/Aspergillus types					13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes					7 - 53 - 920	63
<b>Total</b>						

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:** 21412001-1 TM08

% 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: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low	
<b>Species Detected</b>		<b>Spores/m3</b>			
		<100	1K	10K	>100K
<b>None Detected</b>					< 13

**Location:** 21412001-1 TM09

% 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: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: -0.0429 Critical value: 0.7714 Outside Similar: No	Score: 105 Result: Low	
<b>Species Detected</b>		<b>Spores/m3</b>			
		<100	1K	10K	>100K
Smuts, Periconia, Myxomycetes					27
<b>Total</b>					27



Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21412001-1

Date of Sampling: 12-12-2014  
 Date of Receipt: 12-15-2014  
 Date of Report: 12-16-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21412001-1 TM13

<b>% of outdoor total spores/m3</b>	<b>Friedman chi-square* (indoor variation)</b>	<b>Agreement ratio** (indoor/outdoor)</b>	<b>Spearman rank correlation*** (indoor/outdoor)</b>	<b>MoldSCORE**** (indoor/outdoor)</b>	
Result: 7%	dF: 5 Result: 5.1429 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4000	dF: 8 Result: 0.1250 Critical value: 0.6190 Outside Similar: No	Score: 116 Result: Low	
<b>Species Detected</b>		<b>Spores/m3</b>			
		<100	1K	10K	>100K
Alternaria					27
Basidiospores					53
Bipolaris/Drechslera group					13
Cladosporium					53
<b>Total</b>					150

\* 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: 21412001-1

Date of Sampling: 12-12-2014  
 Date of Receipt: 12-15-2014  
 Date of Report: 12-16-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM09

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					2	27				105
<b>Total</b>						<b>27</b>				<b>105</b>
							<b>Final MoldSCORE</b>	<b>105</b>		

**Location:** 21412001-1 TM10

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				103
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>53</b>				<b>103</b>
							<b>Final MoldSCORE</b>	<b>103</b>		

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21412001-1

Date of Sampling: 12-12-2014  
 Date of Receipt: 12-15-2014  
 Date of Report: 12-16-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM11

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>N/A</b>				<b>Final MoldSCORE 100</b>

**Location:** 21412001-1 TM12

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					2	110				107
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>107</b>				<b>Final MoldSCORE 107</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21412001-1

Date of Sampling: 12-12-2014  
 Date of Receipt: 12-15-2014  
 Date of Report: 12-16-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM13

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria	█				2	27	█	█	█	111
Bipolaris/Drechslera group	█				1	13	█	█	█	105
Chaetomium					ND	< 13	█	█	█	100
Cladosporium	█				1	53	█	█	█	103
Curvularia					ND	< 13	█	█	█	100
Nigrospora					ND	< 13	█	█	█	100
Penicillium/Aspergillus types†					ND	< 13	█	█	█	100
Stachybotrys					ND	< 13	█	█	█	100
Torula					ND	< 13	█	█	█	100
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█	█	█	100
Basidiospores	█				1	53	█	█	█	100
Rusts					ND	< 13	█	█	█	100
Smuts, Periconia, Myxomycetes					ND	< 13	█	█	█	100
<b>Total</b>						<b>147</b>				<b>Final MoldSCORE 116</b>

\* 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

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Regarding: Project: 21412001-1  
EML ID: 1306252

Approved by:

Technical Manager  
Melissa Tracey

Dates of Analysis:  
Spore trap analysis: 12-23-2014

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

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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: 21412001-1Date of Sampling: 12-22-2014  
Date of Receipt: 12-23-2014  
Date of Report: 12-24-2014**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21412001-1 TM14 OUT		21412001-1 TM15		21412001-1 TM16	
Comments (see below)	A		None		None	
Lab ID-Version‡:	5956381-1		5956382-1		5956383-1	
Analysis Date:	12/23/2014		12/23/2014		12/23/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	12	640				
Basidiospores	51	2,700	1	53		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	33	680				
Curvularia						
Epicoccum	2	27				
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	8	110				
Stachybotrys						
Stemphylium	2	27				
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	1+		1+		1+	
Hyphal fragments/m3	27		< 13		< 13	
Pollen/m3	27		< 13		< 13	
Skin cells (1-4+)	< 1+		< 1+		1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>4,200</b>		<b>53</b>		<b>&lt; 13</b>

**Comments:** A) 27 of the raw count *Cladosporium* spores were present as a single clump.

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: 21412001-1

Date of Sampling: 12-22-2014  
Date of Receipt: 12-23-2014  
Date of Report: 12-24-2014

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21412001-1 TM17		21412001-1 TM18		21412001-1 TM19	
Comments (see below)	None		None		None	
Lab ID-Version‡:	5956384-1		5956385-1		5956386-1	
Analysis Date:	12/23/2014		12/23/2014		12/23/2014	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	2	110	1	53		
Basidiospores	2	110	5	270		
Bipolaris/Drechslera group						
Botrytis						
Chaetomium						
Cladosporium	1	53	2	110		
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes	1	13			1	13
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		1+		2+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>280</b>		<b>430</b>		<b>13</b>

**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: 21412001-1

Date of Sampling: 12-22-2014  
Date of Receipt: 12-23-2014  
Date of Report: 12-24-2014

**MoldRANGE™: Extended Outdoor Comparison**

**Outdoor Location: 21412001-1 TM14 OUT**

Fungi Identified	Outdoor data	Typical Outdoor Data for: December in California† (n‡=13644)						Typical Outdoor Data for: The entire year in California† (n‡=200698)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
<b>Generally able to grow indoors*</b>													
Alternaria	-	13	13	27	53	80	43	13	13	27	67	110	53
Bipolaris/Drechslera group	-	7	13	13	27	40	10	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	40	13	8	13	13	27	47	19
Cladosporium	680	110	210	680	2,000	3,500	96	110	210	610	1,600	2,800	97
Curvularia	-	10	13	13	27	40	4	7	13	13	27	53	6
Epicoccum	27	11	13	13	40	53	15	8	13	13	33	53	19
Nigrospora	-	7	13	13	26	40	7	7	13	13	27	53	8
Penicillium/Aspergillus types	-	53	110	270	690	1,200	86	53	100	210	590	1,000	84
Stachybotrys	-	7	13	13	33	79	3	7	13	13	33	67	4
Stemphylium	27	7	13	13	27	40	6	7	13	13	27	40	9
Torula	-	8	13	13	40	53	5	8	13	13	40	67	12
<b>Seldom found growing indoors**</b>													
Ascospores	640	27	53	160	640	1,300	68	25	53	110	360	690	71
Basidiospores	2,700	53	110	440	2,500	5,700	94	53	80	260	990	2,300	93
Rusts	-	13	13	13	40	55	18	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	110	13	13	33	80	160	61	13	13	40	110	210	68
<b>§ TOTAL SPORES/m3</b>	<b>4,200</b>												

†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.

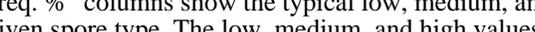
Interpretation of the data contained in this report is left to the client or the persons who conducted the field work. This report is provided for informational and comparative purposes only and should not be relied upon for any other purpose. "Typical outdoor data" are based on the results of the analysis 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: 21412001-1

Date of Sampling: 12-22-2014  
 Date of Receipt: 12-23-2014  
 Date of Report: 12-24-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

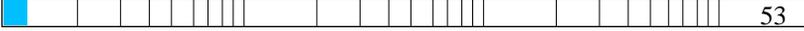
**Outdoor Summary: 21412001-1 TM14 OUT:**

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Ascospores					13 - 210 - 6,000	76
Basidiospores					18 - 450 - 24,000	92
Cladosporium					27 - 450 - 10,000	90
Epicoccum					7 - 22 - 330	24
Penicillium/Aspergillus types					13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes					7 - 53 - 920	63
Stemphylium					7 - 13 - 89	3
<b>Total</b>						

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: 21412001-1 TM15**

% 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: 4 Result: 7.9500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: 0.7286 Critical value: 0.7714 Outside Similar: No	Score: 102 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Basidiospores					
<b>Total</b>					

**Location: 21412001-1 TM16**

% 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: 4 Result: 7.9500 Critical value: 9.4877 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					

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21412001-1

Date of Sampling: 12-22-2014  
 Date of Receipt: 12-23-2014  
 Date of Report: 12-24-2014

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21412001-1 TM17

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 6%	dF: 4 Result: 7.9500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.8000	dF: 6 Result: 0.9000 Critical value: 0.7714 Outside Similar: Yes	Score: 101 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Ascospores					110
Basidiospores					110
Cladosporium					53
Smuts, Periconia, Myxomycetes					13
<b>Total</b>					280

**Location:** 21412001-1 TM18

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 10%	dF: 4 Result: 7.9500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.6667	dF: 6 Result: 0.9571 Critical value: 0.7714 Outside Similar: Yes	Score: 103 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Ascospores					53
Basidiospores					270
Cladosporium					110
<b>Total</b>					430

**Location:** 21412001-1 TM19

% 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: 4 Result: 7.9500 Critical value: 9.4877 Inside Similar: Yes	Result: 0.2857	dF: 6 Result: 0.2143 Critical value: 0.7714 Outside Similar: No	Score: 103 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
Smuts, Periconia, Myxomycetes					13
<b>Total</b>					13

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21412001-1

Date of Sampling: 12-22-2014  
Date of Receipt: 12-23-2014  
Date of Report: 12-24-2014

### **MoldSTAT™: Supplementary Statistical Spore Trap Report**

\* 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: 21412001-1

Date of Sampling: 12-22-2014  
 Date of Receipt: 12-23-2014  
 Date of Report: 12-24-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM16

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>N/A</b>				<b>Final MoldSCORE 100</b>

**Location:** 21412001-1 TM17

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium					1	53				101
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores					2	110				127
Basidiospores					2	110				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					1	13				101
<b>Total</b>						<b>280</b>				<b>Final MoldSCORE 101</b>

Client: Hygiene Technologies International, Inc.  
 C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
 Re: 21412001-1

Date of Sampling: 12-22-2014  
 Date of Receipt: 12-23-2014  
 Date of Report: 12-24-2014

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM18

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
Alternaria					ND	< 13				100
Bipolaris/Drechslera group					ND	< 13				100
Chaetomium					ND	< 13				100
Cladosporium	█				2	110				103
Curvularia					ND	< 13				100
Nigrospora					ND	< 13				100
Penicillium/Aspergillus types†					ND	< 13				100
Stachybotrys					ND	< 13				100
Torula					ND	< 13				100
<b>Seldom found growing indoors**</b>										
Ascospores	█				1	53				100
Basidiospores	█	█			5	270				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>427</b>				
							<b>Final MoldSCORE</b>	<b>103</b>		

**Location:** 21412001-1 TM19

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes	█				1	13				103
<b>Total</b>						<b>13</b>				
							<b>Final MoldSCORE</b>	<b>103</b>		

Client: Hygiene Technologies International, Inc.  
C/O: Mr. Kenny Hsi, Mr. Lakhpreet Sandhu  
Re: 21412001-1

Date of Sampling: 12-22-2014  
Date of Receipt: 12-23-2014  
Date of Report: 12-24-2014

### **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

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Regarding: Project: 21412001-1  
EML ID: 1308438

Approved by:

Technical Manager  
Melissa Tracey

Dates of Analysis:  
Spore trap analysis: 01-05-2015

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

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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: 21412001-1

Date of Sampling: 12-31-2014  
Date of Receipt: 01-02-2015  
Date of Report: 01-05-2015

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21412001-1 TM20 OUT		21412001-1 TM21		21412001-1 TM22		21412001-1 TM23	
Comments (see below)	A		A		A		A	
Lab ID-Version‡:	5966623-1		5966624-1		5966625-1		5966626-1	
Analysis Date:	01/05/2015		01/05/2015		01/05/2015		01/05/2015	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores	1	53						
Basidiospores	2	110						
Chaetomium								
Cladosporium	5	270						
Curvularia								
Epicoccum								
Fusarium								
Myrothecium								
Nigrospora								
Other brown	1	13						
Other colorless								
Penicillium/Aspergillus types†	4	210	1	53				
Pithomyces								
Rusts								
Smuts, Periconia, Myxomycetes	5	67	5	67				
Stachybotrys	1	13						
Stemphylium								
Torula	2	27						
Ulocladium								
Zygomycetes								
Background debris (1-4+)††	2+		2+		2+		3+	
Hyphal fragments/m3	40		< 13		< 13		< 13	
Pollen/m3	40		13		< 13		< 13	
Skin cells (1-4+)	< 1+		1+		1+		1+	
Sample volume (liters)	75		75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>760</b>		<b>120</b>		<b>&lt; 13</b>		<b>&lt; 13</b>

Comments: A) Analysis of replicate sample is delayed.

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: 21412001-1

Date of Sampling: 12-31-2014  
 Date of Receipt: 01-02-2015  
 Date of Report: 01-05-2015

**SPORE TRAP REPORT: NON-VIABLE METHODOLOGY**

Location:	21412001-1 TM24		21412001-1 TM25		21412001-1 TM26	
Comments (see below)	A		A		A	
Lab ID-Version‡:	5966627-1		5966628-1		5966629-1	
Analysis Date:	01/05/2015		01/05/2015		01/05/2015	
	raw ct.	spores/m3	raw ct.	spores/m3	raw ct.	spores/m3
Ascospores						
Basidiospores						
Botrytis						
Chaetomium						
Cladosporium						
Curvularia						
Epicoccum						
Fusarium						
Myrothecium						
Nigrospora						
Other brown						
Other colorless						
Penicillium/Aspergillus types†						
Pithomyces						
Rusts						
Smuts, Periconia, Myxomycetes						
Stachybotrys						
Stemphylium						
Torula						
Ulocladium						
Zygomycetes						
Background debris (1-4+)††	2+		2+		2+	
Hyphal fragments/m3	< 13		< 13		< 13	
Pollen/m3	< 13		< 13		< 13	
Skin cells (1-4+)	1+		1+		1+	
Sample volume (liters)	75		75		75	
<b>§ TOTAL SPORES/m3</b>		<b>&lt; 13</b>		<b>&lt; 13</b>		<b>&lt; 13</b>

Comments: A) Analysis of replicate sample is delayed.

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: 21412001-1

Date of Sampling: 12-31-2014  
Date of Receipt: 01-02-2015  
Date of Report: 01-05-2015

**MoldRANGE™: Extended Outdoor Comparison**  
**Outdoor Location: 21412001-1 TM20 OUT**

Fungi Identified	Outdoor data	Typical Outdoor Data for: December in California† (n‡=13644)						Typical Outdoor Data for: The entire year in California† (n‡=200698)					
		very low	low	med	high	very high	freq %	very low	low	med	high	very high	freq %
<b>Generally able to grow indoors*</b>													
Alternaria	-	13	13	27	53	80	43	13	13	27	67	110	53
Bipolaris/Drechslera group	-	7	13	13	27	40	10	7	13	13	27	40	12
Chaetomium	-	8	13	13	27	40	13	8	13	13	27	47	19
Cladosporium	270	110	210	680	2,000	3,500	96	110	210	610	1,600	2,800	97
Curvularia	-	10	13	13	27	40	4	7	13	13	27	53	6
Nigrospora	-	7	13	13	26	40	7	7	13	13	27	53	8
Other brown	13	13	13	13	40	53	31	13	13	13	40	53	34
Penicillium/Aspergillus types	210	53	110	270	690	1,200	86	53	100	210	590	1,000	84
Stachybotrys	13	7	13	13	33	79	3	7	13	13	33	67	4
Torula	27	8	13	13	40	53	5	8	13	13	40	67	12
<b>Seldom found growing indoors**</b>													
Ascospores	53	27	53	160	640	1,300	68	25	53	110	360	690	71
Basidiospores	110	53	110	440	2,500	5,700	94	53	80	260	990	2,300	93
Rusts	-	13	13	13	40	55	18	13	13	13	53	80	26
Smuts, Periconia, Myxomycetes	67	13	13	33	80	160	61	13	13	40	110	210	68
<b>§ TOTAL SPORES/m3</b>	<b>760</b>												

†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: 21412001-1

Date of Sampling: 12-31-2014  
 Date of Receipt: 01-02-2015  
 Date of Report: 01-05-2015

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Outdoor Summary: 21412001-1 TM20 OUT:**

Species detected	Outdoor sample spores/m3				Typical outdoor ranges (North America)	Freq. %
	<100	1K	10K	>100K		
Ascospores					13 - 210 - 6,000	76
Basidiospores					18 - 450 - 24,000	92
Cladosporium					27 - 450 - 10,000	90
Other brown					7 - 13 - 130	23
Penicillium/Aspergillus types					13 - 170 - 2,700	68
Smuts, Periconia, Myxomycetes					7 - 53 - 920	63
Stachybotrys					7 - 13 - 560	2
Torula					7 - 13 - 170	9
<b>Total</b>						

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: 21412001-1 TM21**

% of outdoor total spores/m3	Friedman chi-square* (indoor variation)	Agreement ratio** (indoor/outdoor)	Spearman rank correlation*** (indoor/outdoor)	MoldSCORE**** (indoor/outdoor)	
Result: 15%	dF: 5 Result: 4.2857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.4000	dF: 8 Result: 0.4762 Critical value: 0.6190 Outside Similar: No	Score: 113 Result: Low	
Species Detected		Spores/m3			
		<100	1K	10K	>100K
	Penicillium/Aspergillus types				
	Smuts, Periconia, Myxomycetes				
	<b>Total</b>				

**Location: 21412001-1 TM22**

% 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: 5 Result: 4.2857 Critical value: 11.0705 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
	<b>None Detected</b>				

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**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21412001-1 TM23

% 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: 5 Result: 4.2857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>		< 13		

**Location:** 21412001-1 TM24

% 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: 5 Result: 4.2857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>		< 13		

**Location:** 21412001-1 TM25

% 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: 5 Result: 4.2857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>		< 13		

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Date of Sampling: 12-31-2014  
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 Date of Report: 01-05-2015

**MoldSTAT™: Supplementary Statistical Spore Trap Report**

**Location:** 21412001-1 TM26

<b>% of outdoor total spores/m3</b>	<b>Friedman chi-square* (indoor variation)</b>	<b>Agreement ratio** (indoor/outdoor)</b>	<b>Spearman rank correlation*** (indoor/outdoor)</b>	<b>MoldSCORE**** (indoor/outdoor)</b>
Result: < 1%	dF: 5 Result: 4.2857 Critical value: 11.0705 Inside Similar: Yes	Result: 0.0000	dF: N/A Result: N/A Critical value: N/A Outside Similar: N/A	Score: 100 Result: Low
<b>Species Detected</b>		<b>Spores/m3</b>		
		<100	1K	10K
				>100K
<b>None Detected</b>				< 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.



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Date of Sampling: 12-31-2014  
 Date of Receipt: 01-02-2015  
 Date of Report: 01-05-2015

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM22

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>N/A</b>				<b>Final MoldSCORE 100</b>

**Location:** 21412001-1 TM23

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>N/A</b>				<b>Final MoldSCORE 100</b>

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**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM24

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>N/A</b>				
							<b>Final MoldSCORE</b>	<b>100</b>		

**Location:** 21412001-1 TM25

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13				100
Basidiospores					ND	< 13				100
Rusts					ND	< 13				100
Smuts, Periconia, Myxomycetes					ND	< 13				100
<b>Total</b>						<b>N/A</b>				
							<b>Final MoldSCORE</b>	<b>100</b>		

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 Date of Report: 01-05-2015

**MoldSCORE™: Spore Trap Report**

**Location:** 21412001-1 TM26

Fungi Identified	Indoor sample spores/m3				Raw count	Spores/m3	MoldSCORE‡			
	<100	1K	10K	>100K			100	200	300	Score
<b>Generally able to grow indoors*</b>										
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
<b>Seldom found growing indoors**</b>										
Ascospores					ND	< 13	█			100
Basidiospores					ND	< 13	█			100
Rusts					ND	< 13	█			100
Smuts, Periconia, Myxomycetes					ND	< 13	█			100
<b>Total</b>						<b>N/A</b>				<b>Final MoldSCORE 100</b>

\* 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.





# HYGIENE TECH

Hygiene Technologies International, Inc.

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## Request For Analysis

Project Number/Purchase Order: 21412001-1 Date Submitted: 12/15/14  
 Project Contact: L-Sandhu / K-h Si Turnaround Required: Normal  
 Lab Destination: EMLAB P8K Lab Contact: Sample Receiving

SAMPLE ID	VOLUME	MEDIA	ANALYSIS REQUESTED
21412001-TM07	75L	Air-o-cell	Spore Trap Analysis (Total Fungi)
21412001-TM08	75L	Air-o-cell	
21412001-TM09	75L	Air-o-cell	
21412001-TM10	75L	Air-o-cell	
21412001-TM11	75L	Air-o-cell	
21412001-TM12	75L	Air-o-cell	
21412001-TM13	75L	Air-o-cell	

Special Instructions: Round - 2

1. Sampled by: H Sandhu on 12/12/14 @ 15:30 Received by: [Signature] 12/20  
 2. Relinquished by: H Sandhu on 12/15/14 @ 12:10 Received by: \_\_\_\_\_  
 3. Relinquished by: \_\_\_\_\_ Received by: \_\_\_\_\_  
 Please include signature, date, and time

Lab Use Only:











