QLab, 256 Bridge St, Metuchen, NJ 08840
info@qlabusa.com www.QLABusa.com
AIHA EMPAT Lab ID: 178794

AccuScience™ Analysis Report

Analysis: AccuScience Premium Level 3 Fungal Spore Count™
Client: RK Environmental
Phillipsburg, NJ
Contact: McGuinness, Michael
Project ID: Willow Grove School
Date Sampled: 11/10/2017

QLab Job No.: CH17-1110-17
Date Received: 11/10/2017
Date Analyzed: 11/10/2017
Date Reported: 11/10/2017

Reviewed by: WT **Approved by:** Wei-Chih Tang, Ph.D., Lab Director

Lab Sample No.	CH17-1110-17(1)			CH17-1110-17(2)			CH17-1110-17(3)		
Sample ID	**2235757**			**2235753**			**2235767**		
Sample Location	**Girls Bathroom C**			**C105**			**Faculty Bathroom**		
Sample Type (Device)	Air (Allergenco-D)			Air (Allergenco-D)			Air (Allergenco-D)		
Air Volume	75 L			75 L			75 L		
Total Concentration (counts/m³)**	**2,300 cts/m³**			**770 cts/m³**			**2,300 cts/m³**		
Mycologix Profile Group 1, 2 & 3	**cts/smp***	**counts/m³**	**%**	**cts/smp***	**counts/m³**	**%**	**cts/smp***	**counts/m³**	**%**
1. Common Dominant Spores	DL = 53; LQL = 1100 cts/m³			DL = 53; LQL = 1100 cts/m³			DL = 53; LQL = 1100 cts/m³		
Ascospores, non-specified (O)	15	200	9	8	110	14	8	110	5
Basidiospores (O,I)	49	650	28	19	250	32	26	350	15
Cladosporium, Group HM (O)									
Aspergillus/Penicillium-like, DOT (O)									
#Cluster-Chain-Loose Spore Profile™									
Cladosporium, Group C (O,I)	68	**910**	**40**	22	**290**	**38**	102	**1,400**	**61**
Cladosporium, Group S (I)									
Aspergillus/Penicillium-like (I,O)				8	**110**	**14**	18	**240**	**10**
## Cluster-Chain-Loose Spore Profile™					*0% - 0% - 100%*			*78% - 0% - 22%*	
Cluster(s)								*1 cluster(s) of 14 spores*	
2. Indoor Hydrophilic Fungi#	DL = 13; LQL = 270 cts/m³			DL = 13; LQL = 270 cts/m³			DL = 13; LQL = 270 cts/m³		
Stachybotrys (I)									
Chaetomium (I)									
Ulocladium (I)									
Memnoniella (I)									
Trichoderma (I)									
Scopulariopsis (I)									
3. Others	DL = 13; LQL = 270 cts/m³			DL = 13; LQL = 270 cts/m³			DL = 13; LQL = 270 cts/m³		
Hyphal fragment (O,I)				1	13	2	5	67	3
Alternaria (O,I)									
Cercospora (O)									
Curvularia (O,I)									
Drechslera/Bipolaris-like (O)									
Epicoccum (O)	1	13	<1				1	13	<1
Fusarium (O,I)									
Myxomycetes/Smuts/Periconia (O,I)	8	110	5				5	67	3
Nigrospora (O)									
Pithomyces (O)							3	40	2
Rusts (O)	6	80	4				1	13	<1
Unknown (O,I)	24	320	14						
Skin Cells Rating	Medium			Medium			Medium		
Debris Rating	3 (26 - 75%)			3 (26 - 75%)			3 (26 - 75%)		
Note									

*: cts/smp: counts per sample. **: All concentrations are rounded to two digits of significant figures. Total concentrations/percentages may not be equal to the sum of individual concentrations/percentages due to rounding. #: Water-loving indoor fungi (min Aw ≥0.89). Absence of hydrophilic fungi does not exclude the possibility of a water damage history. DL: detection limit (analytical sensitivity). LQL: Lower quantitation limit = 20 x DL. Upper quantitation limit depends on sample conditions. ## Asp/Pen-like spores: Loose: 1 to 2 spores; Chain: 3 to 9 spores; Cluster: 10 spores or more. O: Mostly outdoor origin with rare exceptions; I: Mostly indoor origin with rare exceptions. Distinct Outdoor Type (DOT): Distinct outdoor Asp/Pen spores that can be easily differentiated from indoor Asp/Pen spores. DOT is specific to the batch of samples collected at the same time and cannot be used for other batches.

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Lab Sample No.	CH17-1110-17(4)			CH17-1110-17(5)		
Sample ID	**2235754**			**2235762**		
Sample Location	**Boys Bathroom C**			**OAR**		
Sample Type (Device)	Air (Allergenco-D)			Air (Allergenco-D)		
Air Volume	75 L			75 L		
Total Concentration (counts/m³)**	**1,400 cts/m³**			**2,500 cts/m³**		
Mycologix Profile Group 1, 2 & 3	**cts/smp***	**counts/m³**	**%**	**cts/smp***	**counts/m³**	**%**
1. Common Dominant Spores	DL = 53; LQL = 1100 cts/m³			DL = 53; LQL = 1100 cts/m³		
Ascospores, non-specified (O)				8	110	4
Basidiospores (O,I)	8	110	8	42	560	23
Cladosporium, Group HM (O)						
Aspergillus/Penicillium-like, DOT (O)						
#Cluster-Chain-Loose Spore Profile™						
Cladosporium, Group C (O,I)	82	**1,100**	**77**	121	**1,600**	**65**
Cladosporium, Group S (I)						
Aspergillus/Penicillium-like (I,O)	8	**110**	**8**	4	**53**	**2**
## Cluster-Chain-Loose Spore Profile™		*0% - 0% - 100%*			*0% - 0% - 100%*	
Cluster(s)						
2. Indoor Hydrophilic Fungi#	DL = 13; LQL = 270 cts/m³			DL = 13; LQL = 270 cts/m³		
Stachybotrys (I)						
Chaetomium (I)						
Ulocladium (I)						
Memnoniella (I)						
Trichoderma (I)						
Scopulariopsis (I)						
3. Others	DL = 13; LQL = 270 cts/m³			DL = 13; LQL = 270 cts/m³		
Hyphal fragment (O,I)				4	53	2
Alternaria (O,I)	1	13	<1	1	13	<1
Cercospora (O)						
Curvularia (O,I)						
Drechslera/Bipolaris-like (O)						
Epicoccum (O)				1	13	<1
Fusarium (O,I)						
Myxomycetes/Smuts/Periconia (O,I)	4	53	4	1	13	<1
Nigrospora (O)						
Pithomyces (O)				1	13	<1
Rusts (O)	3	40	3	1	13	<1
Unknown (O,I)				2	27	1
Skin Cells Rating	Medium			Trace		
Debris Rating	3 (26 - 75%)			2 (6 - 25%)		
Note						

*: cts/smp: counts per sample. **: All concentrations are rounded to two digits of significant figures. Total concentrations/percentages may not be equal to the sum of individual concentrations/percentages due to rounding. #: Water-loving indoor fungi (min Aw ≥0.89). Absence of hydrophilic fungi does not exclude the possibility of a water damage history. DL: detection limit (analytical sensitivity). LQL: Lower quantitation limit = 20 x DL. Upper quantitation limit depends on sample conditions. ## Asp/Pen-like spores: Loose: 1 to 2 spores; Chain: 3 to 9 spores; Cluster: 10 spores or more. O: Mostly outdoor origin with rare exceptions; I: Mostly indoor origin with rare exceptions. Distinct Outdoor Type (DOT): Distinct outdoor Asp/Pen spores that can be easily differentiated from indoor Asp/Pen spores. DOT is specific to the batch of samples collected at the same time and cannot be used for other batches.

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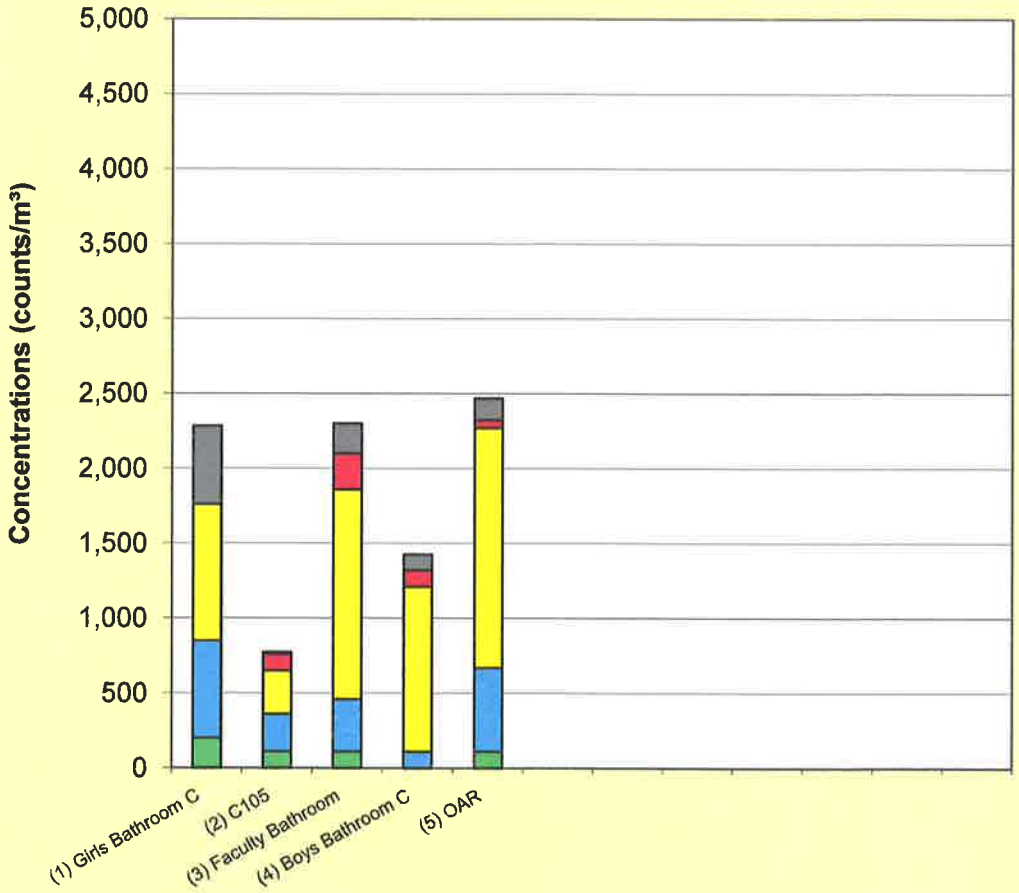
Approved by: Wei-Chih Tang, Ph.D., Lab Director

Please see original data for complete interpretation.

Mycologix Profile-Graph™
Profiles of Airborne Fungal Spores



RUSH RUSH

QLAB Environmental Microbiology

256 Bridge Street, Metuchen, NJ 08840, USA

Chain of Custody

Toll Free Tel/Fax: 888-QLab-Wei (888-752-2934)
Tel: 856-489-0011 www.QLabUSA.com

Lab Job No.: (lab use only) CH17-1110-17	**Telephone No.:** 908-454-6316	**Company Contact:** McGuinness. Michael
Company Name: RK Environmental	**Please select:** Fax Report ( ) or Email Report ( )	**Project ID:** Willowrow School
Company Address: 401 St. James Ave, Phillipsburg, NJ	**Fax No.:**	**Date/Time sampled:** 11/10/17 :
	Email address: rkenvironmental@entermail.net	**P.O. No.:** 17-130

	Sample ID	Sample Location	Analysis Code	Turnaround Time (Std,1-2 Day,3-6 Hr) Std	Day	Hr	Sample Type (see below)	Volume (L) or Area (in^2)	Note (e.g.: material type, weather, etc.)
1	2235757	girls B-room C	FD-01HP			3	Allergenco D	75L	
2	2235753	C105							
3	2235767	Faculty Bathroom							
4	2235754	Boys Bathroom C							
5	2235762	OAR							
6	RK-WGES-01T	C105	FD01-HP				Gel Tape	Compact	
7	RK-WGES-02T	Faculty Bathroom							
8	RK-WGES-03T	Boys B-Room C							
9	RK-WGES-04T	Girls Bathroom C							

Sample Types: Air-O-Cell, Bio-Tape, swab, Andersen, bulk, dust, filter cassette, potable water, non-potable water, etc. **Material Types:** wood, paper, etc.

Common Analysis Codes: Fungi, Direct Exam: **(1) Spore Trap: FD-01HP; (2) Tape-lift: FD-02HP; (3) Swab, Bulk, Dust: FD-04HP.**
Fungi, Culture: **(1) Andersen/plate: FC-11; (2) Swab, Bulk, Dust: FC-12**

Submitted by: (sign) Maggie Kim (print) John Horan Date submitted: 11/10/17

Received by: (sign) Maggie Kim (print) Maggie Kim Date and time received: 11/10/17 1:19PM

Hand Delivered

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RK_COC_Blank

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AIHA EMPAT Lab ID: 178794

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Analysis: AccuScience Premium Direct Exam (FD-02HP)
Client: RK Environmental
Phillipsburg, NJ
Contact: McGuinness, Michael
Project ID: Willow Grove School

QLab Job No.: CH17-1110-17
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Date Reported: 11/10/2017

Reviewed by: WT **Approved by:** Wei-Chih Tang, Ph.D., Lab Director

Lab Sample No.	CH17-1110-17(6)		CH17-1110-17(7)		CH17-1110-17(8)	
Sample ID	**RK-WGES-01T**		**RK-WGES-02T**		**RK-WGES-03T**	
Sample Location	**C105**		**Faculty Bathroom**		**Boys Bathroom C**	
Sample Type (Device)	Air (Allergenco-D)		Air (Allergenco-D)		Air (Allergenco-D)	
Date Analyzed	11/10/2017		11/10/2017		11/10/2017	
	(1) Peak Density (within 1 mm dia.)*		**(1) Peak Density (within 1 mm dia.)***		**(1) Peak Density (within 1 mm dia.)***	
Identification	Spores	Hyphae/Structure	Spores	Hyphae/Structure	Spores	Hyphae/Structure
Major Hydrophilic Fungi: **						
Stachybotrys						
Chaetomium						
Ulocladium						
Acremonium						
Trichoderma						
Aureobasidium						
Yeasts (cells)						
Other Fungi:						
Aspergillus/Penicillium-like	+				+	
Aspergillus						
Penicillium						
Cladosporium	+		+		+	
Alternaria						
Curvularia	+					
Epicoccum						
Myxomycetes/smuts/Periconia	+					
Nigrospora						
Pithomyces	+					
Unidentifiable w/o culturing	+			+	+	+
Summary	**(2) Overall Coverage**		**(2) Overall Coverage**		**(2) Overall Coverage**	
Sample Size Examined	**150 mm²**		**150 mm²**		**150 mm²**	
Mycologix™ Fungal Biomass Level#	**1: Normal Background**		**1: Normal Background**		**1: Normal Background**	
Mold/Yeast Growth Observed	**No**		**No**		**No**	
Sample Mold/Yeast Coverage**	**Trace: < 3%**		**Trace: < 3%**		**Trace: < 3%**	
Sample Debris Coverage**	**Medium: 10 - 50%**		**Low: 3 - 10%**		**Low: 3 - 10%**	
Note						

 # Mycologix™ Fungal Biomass Level: 1: Normal Background, 2A: Settled Biomass, 2B: Residual Biomass
3A: Slight Growth, 3B: Moderate Growth, 3C: Heavy Growth

***Peak Density:** Peak density of fungal biomass (spores, reproduction structures, hyphae, etc.) observed under the microscope within the viewfield of 200X magnification (approximately 1 mm in diameter).
++++, +++, ++, +: Biomass covering >50%, 10-50%, 3-10%, <3% of the 200X viewfield, respectively

**** Sample Coverage of Fungi/Debris:** Overall coverage of fungal biomass/debris collected on the tape samples
Tape/slide samples are taken from bulk/swab samples received and then analyzed under microscope.
High, Medium, Low, Trace: Biomass/debris covering >50%, 10-50%, 3-10%, <3% of the entire sample, respectively

*****Hydrophilic Fungi:** Water-loving fungi, Min. Aw >0.89. Absence of hydrophilic fungi does not exclude the possibility of a water damage history.

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Lab Sample No.	CH17-1110-17(9)					
Sample ID	**RK-WGES-04T**					
Sample Location	**Girls Bathroom C**					
Sample Type (Device)	Air (Allergenco-D)					
Date Analyzed	11/10/2017					
	(1) Peak Density (within 1 mm dia.)*					
Identification	Spores	Hyphae/Structure				
Major Hydrophilic Fungi:						
Stachybotrys						
Chaetomium						
Ulocladium						
Acremonium						
Trichoderma						
Aureobasidium						
Yeasts (cells)						
Other Fungi:						
Aspergillus/Penicillium-like						
Aspergillus						
Penicillium						
Cladosporium	+					
Alternaria						
Curvularia						
Epicoccum						
Myxomycetes/smuts/Periconi						
Nigrospora						
Pithomyces						
Unidentifiable w/o culturing	+					
Summary	**(2) Overall Coverage**					
Sample Size Examined	**150 mm²**					
Mycologix™ Fungal Biomass Level#	**1: Normal Background**					
Mold/Yeast Growth Observed	**No**					
Sample Mold/Yeast Coverage**	**Trace: < 3%**					
Sample Debris Coverage**	**Low: 3 - 10%**					
Note						

 # Mycologix™ Fungal Biomass Level: 1: Normal Background, 2A: Settled Biomass, 2B: Residual Biomass
3A: Slight Growth, 3B: Moderate Growth, 3C: Heavy Growth

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