

January 11, 2019

Pine Richland School District 702 Warrendale Road Gibsonia, PA 15044-9534 Attention: Mr. Gary Zang

Mr. Gary Zang
Maintenance Supervisor

Re: Follow-up Fungal Assessments

Pine-Richland Elementary, Middle and High Schools

Gibsonia, PA 15044

PSI Project No.: 08161784

Dear Mr. Zang:

Enclosed, please find the analytical results for the samples collected by your staff at each of the district's schools between December 27, 2018 and January 2, 2019.

PURPOSE AND SCOPE OF INVESTIGATION

As part of the Pine Richland School District's periodic Indoor Air Quality (IAQ) testing, airborne bioaerosol (mold) samples were collected from select locations at each of the district's schools between December 27, 2018 and January 2, 2019. The purpose of the sampling was to document ambient conditions in each facility.

AIRBORNE BIOAEROSOLS

Airborne bioaerosol samples were collected in five (5) locations each at Hance Elementary, Richland Elementary and Wexford Elementary, and ten (10) locations each at the Middle School, High School, and Eden. The samples were collected between December 27, 2018 and January 2, 2019. In all, forty-five (45) air samples were collected. Samples were collected using Air-O-Cell[™] disposable spore trap air sampling cassettes. The cassettes are attached to a sampling pump calibrated at 15 liters of air per minute (15 LPM), with sampling intervals of three minutes. The samples were analyzed by PSI's Pittsburgh, PA AIHA EMLAP accredited microbiological laboratory. The analyses estimate the total concentration of airborne aerosols including mold/yeast spores. In addition to the determination of the total concentration of microorganisms, the most predominant types of mold spores were identified to the genus level. The disposable spore trap cassettes are designed for the rapid collection and analysis of a wide range of airborne aerosols including viable and non-viable spores, but do not differentiate between viable and non-viable mold spores. The analytical results are attached.



Periodic Air Quality Testing

Pine Richland School District PSI Project #08161794 January 11, 2019

SAMPLING RESULTS

Following is a summary of the sampling results for the samples collected between December 27, 2018 and January 2, 2019. Additional information is provided in the appendices of this report.

Hance Elementary

 Airborne bioaerosol samples were collected from Rooms 113, 118, 128, 136 and 142 on December 27, 2018. Total spore counts were low, ranging between 13 spores/m³ and 27 spores/m³. No Pen/Asp or target molds indicative of a wet environment were reported.

Wexford Elementary

 Airborne bioaerosol samples were collected from Rooms C112, B103, B120, C136 and C118 on January 2, 2019. Total spore counts were low, ranging between 27 spores/m³ and 390 spores/m³. Very low levels of Pen/Asp (40 spores/m³) were reported in Room C118, and no target molds indicative of a wet environment were reported.

Richland Elementary

 Airborne bioaerosol samples were collected from Rooms 201, 103, 007, 219 and 120 on December 27, 2018. Total spore counts were low, ranging between 26 spores/m³ and 550 spores/m³. Low levels of Pen/Asp (400 spores/m³) were reported in Room 007 and in Room 219 (80 spores/m³). No target molds indicative of a wet environment were reported.

Eden Hall

Airborne bioaerosol samples were collected from Rooms 206, 314, 103, 243, 702, 308, 802, 633, 521 and the Library on December 27, 2018. Total spore counts were low, ranging between 26 spores/m³ and 94 spores/m³. No Pen/Asp or target molds indicative of a wet environment were reported.

Middle School

Airborne bioaerosol samples were collected from Rooms 301, 418, 100, the Gate Room, 203, 201, 401, 208, 313 and 306 on January 2, 2019. Total spore counts were low, ranging between 26 spores/m³ and 2,500 spores/m³. Low levels of Pen/Asp (110 spores/m³) were reported in the Gate Room and in Room 306 (160 spores/m³). No target molds indicative of a wet environment were reported. Slightly elevated counts of Cladosporium sp. were present in the samples collected from Room 306 and the Gate Room. Cladosporium is not considered a target mold and is typically found outdoors.



Periodic Air Quality Testing Pine Richland School District PSI Project #08161794 January 11, 2019

High School

Airborne bioaerosol samples were collected from the Chorus Room, Room 424, the Planetarium (Room 008), Room 105, the office, Room 41, Room 100, Room 201, Room 303, and Room 319 on December 27, 2018. Total spore counts were low, ranging between 13 spores/m³ and 210 spores/m³. Low levels of Pen/Asp were reported in Room 105 (27 spores/m³), the Office (53 spores/m³), Room 41 (93 spores/m³), and Room 100 (27 spores/m³). One spore (13 spores/m³) of Stachybotrys sp., a target mold indicative of a wet environment was reported in Room 41. This spore is likely residual and is not considered to be significant.

CONCLUSIONS & RECOMMENDATIONS

The analytical results are not indicative of conditions conducive to mold growth or an interior fungal amplification in the classrooms assessed.

WARRANTY

PSI warrants that the findings contained herein have been prepared with the level of care and skill ordinarily exercised by professionals practicing in the community. The scope of work addressed readily accessible and exposed interior building areas. Observation or sampling of inaccessible areas such as behind walls was not performed. The investigation was limited to locations in the western wing of the facility where water leakage impact was reported by the client. PSI's investigation did not address determining the source of moisture intrusion into the structure.

The sampling methods utilized by PSI in performing its services may have resulted in the disturbance or dispersal of mold spores. While we attempted to minimize such dispersal, we cannot eliminate it entirely. The Client acknowledges that mold is ubiquitous to the environment with mold amplification occurring when building materials are impacted by moisture. The Client further acknowledges that site conditions are outside of PSI's control, and that mold amplification will likely occur, or continue to occur, in the presence of moisture. As such, PSI cannot and shall not be held responsible for the occurrence or reoccurrence of mold amplification.

No other warranties are implied or expressed.

USE BY THIRD PARTIES

This report was prepared pursuant to the contract PSI has with the Pine Richland School District. That contractual relationship included an exchange of information about the subject site that was unique and between PSI and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between PSI and its client, reliance or any use of this report by anyone other than the Pine Richland School District, for whom it was prepared, is prohibited and therefore not foreseeable to PSI.



Periodic Air Quality Testing Pine Richland School District PSI Project #08161794 January 11, 2019

Reliance or use by any such third party without explicit written authorization does not make said third party a third party beneficiary to PSI's contract with the Pine Richland School District. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.

UNIDENTIFIABLE CONDITIONS

This report is necessarily limited to the conditions observed and to the information available at the time of the work. Due to the nature of the work, there is a possibility that there may exist conditions which could not be identified within the scope of work or which were not apparent at the time of our site work. This report is also limited to information available from the client at the time it was conducted. The report may not represent all conditions at the subject site as it only reflects the information gathered from specific locations.

Please contact PSI at 412-922-4001 x383 if you have any questions or if you need additional information.

Respectfully Submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Michael N. Kopar, CIE

Environmental Project Manager

p:\0816\2018\iaq\mold\08161784 - pine richland\random samples\08161784 pine richland fungal sampling.docx

Attachments:

A. Analytical Results



ATTACHMENTS

ATTACHMENT A ANALYTICAL RESULTS



DATE

Work Order: 1901027

PSI, Inc 850 Poplar Street Reported: 1/9/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/9/19 Received: 1/3/19 Sampled: 12/27/18 Project Name: Pine-Richland

Attn: Mike Kopar

Analyst: TV

AIHA-LAP, LLC. Lab #100373	,	TX License:	LAB0145	•			TEST ME	THOD: PSI-V	VI-620-81
LAB NUMBER:		001A			002A			003A	
Client ID:		8508			8537			Rm 113	
Location:		Rm 136			Rm 128			Rm 113	
Comments:							<u> </u>		
Detection Limit(spores/m³):		13			13			13	
Hyphal Fragments									
Pollen					2000				ž.
Sample Description:		Air-O-Cell			Air-O-Cell			Air-O-Cell	
	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%
Cladosporium sp.				1	13	50.00			E 4
Ascospores	1	13	50.00				1	13	100.00
Basidiospores				_ 1	13	50.00			
Smuts/Myxomycetes	1	13	50.00						
Peronospora/Oidium sp.	1			4			2	78	
Pen./Asp. Group									
Alternaria sp.									
Drechslera/Bipolaris									
Spegazzinia sp.				1 133			i.		
Tetraploa sp.									
Curvularia sp.			1		1000		2	W.	1
Stachybotrys sp.					1 1				
Unknown/Brown*							IIIW.	5 3	
Torula sp.		1							
Ulocladium sp.					Δ				
Chaetomium sp.								1	
Pithomyces sp.									
Epicoccum sp.					1				
Polythrincium sp.							,		
Pestalotia sp.									
Cercospora sp.		-					T		
Rusts		1						1 1	
Nigrospora sp.									
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		1			1		1		
	1				 				
		†					1	1	
Background debris (1-5)**	2			2	2		2	30	
Sample Volume (liters)	75	Ш		75			75		
TOTAL ‡	2	26	100	2	26	100	1	13	100



DATE

Work Order: 1901027

PSI, Inc 850 Poplar Street Reported: 1/9/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/9/19 Received: 1/3/19 Project Name: Pine-Richland

Attn: Mike Kopar

Sampled: 12/27/18 Analyst: TV

AlHA-LAP, LLC. Lab #100373 TX License: LAB0145 TEST METHOD: PSI-WI-620-816

AIHA-LAP, LLC. Lab #100373		TX License:	LAB0145			
LAB NUMBER:		004A			005A	
Client ID:		8529			8576	
Location:		Rm 118			Rm 142	
Comments:						
Detection Limit(spores/m³):		13			13	
Hyphal Fragments						
Pollen					<u> </u>	
Sample Description:		Air-O-Cell			Air-O-Cell	
	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%
Cladosporium sp.						
Ascospores	2	27	100.00	1	13	100.00
Basidiospores						
Smuts/Myxomycetes						
Peronospora/Oidium sp.						
Pen./Asp. Group					1	
Alternaria sp.						
Drechslera/Bipolaris					1	
Spegazzinia sp.						
Tetraploa sp.	1				1 1	
Curvularia sp.	_==					
Stachybotrys sp.					1	
Unknown/Brown*						
Torula sp.						
Ulocladium sp.						
Chaetomium sp.		 			1	
Pithomyces sp.						
Epicoccum sp.		 			1	
Polythrincium sp.						
Pestalotia sp.					 	
Cercospora sp.					1	
Rusts						
Nigrospora sp.		T W			 	
Nigiospoia sp.					 	
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	+	<u> </u>			+	
	+				+ +	
	 				+	
	-				+	
Background debris (1-5)**	2			2	-	
Sample Volume (liters)	75	1		75		
Sample Volume (liters) TOTAL ‡	2	27	100	1	13	100





PSI, Inc

850 Poplar Street

DATE

Work Order: 1901027

Pittsburgh, PA 15220

Attn: Mike Kopar

Reported: 1/9/19 Analyzed: 1/9/19 Project Number: 08161784

Received: 1/3/19

Sampled: 12/27/18

Project Name: Pine-Richland

Analyst: TV

Specific Sample Comments:

General Report Comments:

- * Unknown/brown are spores without a distinctive morphology on spore traps and non-viable surface samples.
- ** Background debris is the amount of particulate matter present on the slide and is graded from 1-5 with 1 being very little, while a debris rating of 5 is unreadable.

The higher the rating the more likelihood spores may be underestimated.

A rating of 4 should be interpreted as minimal counts and may actually be higher than reported.

‡ Total spores/m³ has been rounded to two significant figures to reflect analytical precision.

All samples were analyzed at 400x or 600x magnification unless noted.

The reporting limit is one spore/item adjusted for volume. Entire trace was analyzed unless noted.

Results relate only to items tested. Results are not corrected for blank data.

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Samples will be disposed of within thirty (30) days unless notified in writing by the client.

Results based on volume measurement provided by the client.

Disclaimer: The laboratory is not responsible for interpretation of test results or for methods used during sampling.

All samples were in acceptable condition unless noted.

Respectfully submitted, PSI, Inc.

Brake

Jack Maake, Approved Signatory

Project Information Project Information Project Information Project Information OSIL (784

Project Name:

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Pittsburgh, PA 15220 iH Laboratory 850 Poplar Street

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Project No:	18617180	34								C. Alban	Pitt	Pittsburgh, PA 15220	
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Reques	Requested Turn Around Time	ne		()	67.	Environ	Environmental Conditions	ondition	52		Sample Analysis	ysis	C/ode
Same Day	I-2 Day (24-48 hr)	3-5 Day		Fog	Rain		Wind Snow	Clear	Temperature:	ature	Direct Exam		DE
		X	Light						Inside	Outside	Fungal Culture & Genus ID (non-speciation)	speciation)	FC/6
Requested Date:			Moderate	ate					1		Fungal Culture & Genus ID Speciation (top 3 species)	stion (top 3 species)	FC/G sp.
Laborato	Laboratory Use Only	ν,	Heavy						Relative Humidity	lumidity	Bacteria w/Genus ID (3 most predominant)	dominant)	BAC
All Samples in Acceptable Condition:	table Condition:			_					Inside	Outside	Sewage Screen		55
Comments:		_	and an						1		Legionella Culture		21
Shipping Charges Apply.	:Ajd	X							4.		Other (list)		Oth
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8508	RM 136	de		Aik		5	ر ا		0.2.	: :		Swab	5
								†					

Special Instructions / Comments:



DATE

Work Order: 1901028

PSI, inc 850 Poplar Street Reported: 1/9/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/9/19 Received: 1/3/19 Project Name: Pine-Richland

Attn: Mike Kopar

Sampled: 12/27/18

Analyst: TV

LAB NUMBER:	T	001A			002A		Ŧ T	THOD: PSI-V 003A	
Client ID:		8513			8493			8521	
Cilent ID.		6513			6493	_	-	8521	
Location:		Rm 201			Rm 103			Rm 007	
Comments:									
Detection Limit(spores/m³):		13			13	_		13	
Hyphal Fragments	2	27					1	13	E =
Pollen									
Sample Description:		Air-O-Cell			Air-O-Cell			Air-O-Cell	
-	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%
Cladosporium sp.	2	27	100.00	1	13	50.00	2	27	4.88
Ascospores				1	13	50.00	8	110	19.51
Basidiospores									100
Smuts/Myxomycetes									
Peronospora/Oidium sp.		15				- 20			
Pen./Asp. Group							30	400	73.17
Alternaria sp.									
Drechslera/Bipolaris					1				
Spegazzinia sp.			10			"			HV ID
Tetraploa sp.							i i		
Curvularia sp.					8 1				322 (1)
Stachybotrys sp.					1			1	
Unknown/Brown*			H					0 3	PL/IE
Torula sp.									
Ulocladium sp.		- 27							RUH
Chaetomium sp.					1 1			1	
Pithomyces sp.							1	13	2.44
Epicoccum sp.								1	
Polythrincium sp.									
Pestalotia sp.			*		1			1	
Cercospora sp.									
Rusts						***		1	
Nigrospora sp.			->->						
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		1 1			 			 	
Background debris (1-5)**	2			2			3		
Sample Volume (liters)	75			75	2 =		75		
Jampie volunie (iliela)	.1			2			1 10		



DATE

Work Order: 1901028

PSI, Inc

850 Poplar Street Pittsburgh, PA 15220 Reported: 1/9/19

Project Number: 08161784

Analyzed: 1/9/19

Received: 1/3/19

Project Name: Pine-Richland

Attn: Mike Kopar

Sampled: 12/27/18

Analyst: TV

AIHA-I AP 11 C 1 ab #100373

TX License: LAB0145

TEST METHOD: PSI-WI-620-816

AIHA-LAP, LLC. Lab #100373		TX License:	LAB0145			
LAB NUMBER:		004A			005A	
Client ID:		8506			8509	
Location:		Rm 219			Rm 120	
Comments:						
Detection Limit(spores/m³):		13			13	
Hyphal Fragments	1	13				
Pollen	1	13				
Sample Description:		Air-O-Cell			Air-O-Cell	
	raw ct.	spores/m ³	%	raw ct.	spores/m3	%
Cladosporium sp.	3	40	27.27	1	13	50.00
Ascospores					.]	
Basidiospores						
Smuts/Myxomycetes	2	27	18.18			
Peronospora/Oidium sp.						
Pen./Asp. Group	6	80	54.55			
Alternaria sp.						
Drechslera/Bipolaris			•			
Spegazzinia sp.						
Tetraploa sp.		1				
Curvularia sp.						
Stachybotrys sp.						
Unknown/Brown*				1	13	50.00
Torula sp.		1				
Ulocladium sp.						
Chaetomium sp.		1				
Pithomyces sp.						
Epicoccum sp.					1	
Polythrincium sp.						
Pestalotia sp.		1 1				
Cercospora sp.						
Rusts		1				
Nigrospora sp.						
Background debris (1-5)**	3			2		
Sample Volume (liters)	75			75		
TOTAL [‡]	11	150	100	2	26	100

Total % may not equal 100 due to rounding.





PSI, Inc

Work Order: 1901028

850 Poplar Street

Attn: Mike Kopar

Reported: 1/9/19

Project Number: 08161784

Project Name: Pine-Richland

Pittsburgh, PA 15220

Analyzed: 1/9/19

aryzed: 1/3/13

DATE

Received: 1/3/19 Sampled: 12/27/18

Analyst: TV

Specific Sample Comments:

General Report Comments:

- * Unknown/brown are spores without a distinctive morphology on spore traps and non-viable surface samples.
- ** Background debris is the amount of particulate matter present on the slide and is graded from 1-5 with 1 being very little, while a debris rating of 5 is unreadable.

The higher the rating the more likelihood spores may be underestimated.

A rating of 4 should be interpreted as minimal counts and may actually be higher than reported.

‡ Total spores/m³ has been rounded to two significant figures to reflect analytical precision.

All samples were analyzed at 400x or 600x magnification unless noted.

The reporting limit is one spore/item adjusted for volume. Entire trace was analyzed unless noted.

Results relate only to items tested. Results are not corrected for blank data.

This report may not be reproduced except in full, without written approval of PSI, Inc.

Samples will be disposed of within thirty (30) days unless notified in writing by the client.

Results based on volume measurement provided by the client.

Disclaimer: The laboratory is not responsible for interpretation of test results or for methods used during sampling.

All samples were in acceptable condition unless noted.

Respectfully submitted, PSI, Inc.

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Jack Maake, Approved Signatory

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IH Laboratory	850 Popiar Street	Pittsburgh, PA 15220	412-922-4001 ext. 313/272		ce To:					•
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						Company:	Attn:	Address:	Telephone:	Email:
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Project Information	PINE Kick UND	1807180	Richland Clementes School	72-17-18	Send Results To:					
	Project Name:	Project No:	PO Number:	Sample Date:		Company:	Attn:	Address:	Telephone:	Email:

Reque	Requested Turn Around Time	ae	100	Section Police	Em	Environmental Conditions	atal Con	ditions	The second of the second of	Sample Analysis		C/ode
Same Day	1-2 Day (24-48 hr)	3-5 Day		Fog	Rain	Wind Snow Clear	now G	kar	Temperature:	Direct Exam		30
		X	Light					3	Inside Outside	e Fungal Culture & Genus ID (non-speciation)	ectation)	FC/6
Requested Date:			Moderate						/	Fungal Culture & Genus ID Speciation (top 3 species)	on (top 3 species)	FC/G sp.
Laborate	Laboratory Use Only	N · A	Неачу				1		Relative Humidity	Bacteria w/Genus ID (3 most predominant	minant)	BAC
All Samples In Acceptable Condition:	table Condition:								Inside Outside	e Sewage Screen		55
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	7 LPV	F	13/19		7) CV	1/2/13	1000



DATE

Work Order: 1901029

PSI, Inc

Reported: 1/9/19

Project Number: 08161784

850 Poplar Street Pittsburgh, PA 15220

Analyzed: 1/9/19

Project Name: Pine-Richland

Attn: Mike Kopar

Received: 1/3/19 Sampled: 1/2/19

Analyst: TV

AIHA-LAP, LLC. Lab #100373 TX License: LAB0145 TEST METHOD: PSI-WI-620-816

AIHA-LAP, LLC. Lab #100373		TX License:	LABU145			TEST METHOD: PSI-WI-620-816			
LAB NUMBER:		001A 002A		003A					
Client ID:		6112	12 8538		8531				
Location:		Rm C112		Rm B103		Rm B120			
Comments:									_
Detection Limit(spores/m³):		13			13			13	
Hyphal Fragments	2	27		1	13		4	53	
Pollen									
Sample Description:		Air-O-Cell			Air-O-Cell			Air-O-Cell	**********
	raw ct.	spores/m ³	%	raw ct.	spores/m3	%	raw ct.	spores/m ³	%
Cladosporium sp.	9	120	75.00	. 8	110	100.00	10	130	76.92
Ascospores	1	13	8.33				1	13	7.69
Basidiospores									
Smuts/Myxomycetes	1	13	8.33						
Peronospora/Oidium sp.									
Pen./Asp. Group								1	
Alternaria sp.					56				l k
Drechslera/Bipolaris								1 1	
Spegazzinia sp.									
Tetraploa sp.								1	
Curvularia sp.									
Stachybotrys sp.		i i						1	
Unknown/Brown*	1	13	8.33				2	27	15.38
Torula sp.									
Ulocladium sp.	1				14				
Chaetomium sp.		i i							
Pithomyces sp.									
Epicoccum sp.					1				
Polythrincium sp.									
Pestalotia sp.								i i	
Cercospora sp.				= =					1, 3 × ×,
Rusts									
Nigrospora sp.		- 11							
								1	
Background debris (1-5)**	3	T ==		2			3) o ===0/0	
Sample Volume (liters)	75			75			75	II BERNER	
TOTAL ‡	12	160	100	8	110	100	13	170	100



DATE

Work Order: 1901029

PSI, Inc

Reported: 1/9/19

Project Number: 08161784

850 Poplar Street

Analyzed: 1/9/19

Project Name: Pine-Richland

Pittsburgh, PA 15220

Received: 1/3/19 Sampled: 1/2/19 e manner i mic manna

Attn: Mike Kopar

Analyst: TV

AIHA-LAP, LLC. Lab #100373 TX License: LAB0145 TEST METHOD: PSI-WI-620-816

AIHA-LAP, LLC. Lab #100373	IX License: LAB0145		0054					
LAB NUMBER:		004A		005A				
Client ID:		8517		8510				
Location:	Rm C136		Rm C118					
Comments:		-						
Detection Limit(spores/m³):		13		13				
Hyphal Fragments				5	67			
Pollen								
Sample Description:		Air-O-Cell			Air-O-Cell			
	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%		
Cladosporium sp.	2	27	100.00	23	310	79.31		
Ascospores								
Basidiospores				1	13	3.45		
Smuts/Myxomycetes				1	13	3.45		
Peronospora/Oldium sp.								
Pen./Asp. Group	L			3	40	10.34		
Alternaria sp.								
Drechslera/Bipolaris								
Spegazzinia sp.								
Tetraploa sp.								
Curvularia sp.								
Stachybotrys sp.								
Unknown/Brown*								
Torula sp.		1 1						
Ulocladium sp.								
Chaetomium sp.								
Pithomyces sp.		1						
Epicoccum sp.					1			
Polythrincium sp.						8		
Pestalotia sp.	Ì							
Cercospora sp.								
Rusts				1	13	3.45		
Nigrospora sp.								
-					1			
		1						
		1						
	1							
Background debris (1-5)**	2			3				
Sample Volume (liters)	75	f= 1	46.5	75		400		
TOTAL ‡	2	27	100	29	390	100		

Total % may not equal 100 due to rounding.





PSI. Inc.

Pittsburgh, PA 15220

Attn: Mike Kopar

850 Poplar Street

DATE

Work Order: 1901029

Project Name: Pine-Richland

Reported: 1/9/19 Analyzed: 1/9/19

Project Number: 08161784

Received: 1/3/19

Sampled: 1/2/19

Analyst: TV

Specific Sample Comments:

General Report Comments:

- * Unknown/brown are spores without a distinctive morphology on spore traps and non-viable surface samples.
- ** Background debris is the amount of particulate matter present on the slide and is graded from 1-5 with 1 being very little, while a debris rating of 5 is unreadable.

The higher the rating the more likelihood spores may be underestimated.

A rating of 4 should be interpreted as minimal counts and may actually be higher than reported.

‡ Total spores/m³ has been rounded to two significant figures to reflect analytical precision.

All samples were analyzed at 400x or 600x magnification unless noted.

The reporting limit is one spore/item adjusted for volume. Entire trace was analyzed unless noted.

Results relate only to items tested. Results are not corrected for blank data.

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Samples will be disposed of within thirty (30) days unless notified in writing by the client.

Results based on volume measurement provided by the client.

Disclaimer: The laboratory is not responsible for interpretation of test results or for methods used during sampling.

All samples were in acceptable condition unless noted.

Respectfully submitted, PSI, Inc.

Jack Maake, Approved Signatory

1901029 CHAIN OF CUSTODY - MOLD

Project Information	PINE RICHUND	V81617180	Nexter)	51-7-1	Send Results To:	
*	roject Name:	roject No:	O Number:	ample Date:		

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IH Laboratory 850 Poplar Street Pittsburgh, PA 15220 412-922-4001 ext. 313/272

Company: Address: Trelephone: Final Note: President Condition		Send Results To:					Send Invaice To:	2	
Requested Turn Around Time Fewfrommental Conditions Fewfrommental Con	Company:				Comp	any:		9	
Requested Turn Around Time Frequencies	Attn:				Attn:				
Fequested Turn Around Time Ferviconnessis Contistions Ferviconnessis Contistions Ferviconnessis Contistions Ferviconnessis Contistion Ferviconnessis Contistio	Address:				Addre	sss:			
Requested Turn Around Time Fewfrenmental Conditions Fewfrenmental Conditions 1 - 2 Day (13 - 48 Mr) 3 - 5 Day 13 - 48 Mr) 14 Day 14 Day 15 Day	relephone:	*			Telep	hone:			
Tepting Time 1-2 Dis (14-48 hr) 35 Sigy Heavy	Email:				Email			•	
1-2 Day (24-48 hr) 3-5 Day Light Lind Sample Lind Lind Cotage Cota	Regule	ested Turn Around Time		Environm	ental Conditio	51	Sample Analysis	2	C/ode
Notes:	Same Day	1	Fog	Rain Wind	Snow Clear		Direct Exam		25
Apply. Apply.		lacksquare				_		ciation]	FC/G
Use Only Y . N Received by: Heavy III III III III IIII IIIIIIIIIIIIIII	Requested Date:		Moderate			1	Fungal Culture & Genus ID Speciatio	on (top 3 species)	FC/G sp.
Location Description	Laborate	, ,,	Heavy		<i>t</i> a	Relative Humidity	Bacteria w/Genus ID (3 most predon	minant)	BAC
	All Samples in Accep	stable Condition:							SS
	Comments		Mores:			1	Legionella Culture		ņ
Fe 10 Location Description Sample Type Code Total Volume/ Area Sample Analysis Notes: Sample Aur Type Code Total Volume/ Area Code Sample Type Code Sample Type Code Sample Type Lift	Shipping Charges Ap	- Aldo					Other (list)		Oth
E Date/Time Date/Time Received by: Date/Time Date/Time Code Notes: Air			Sample			Sample Analysis		Sample Type	Code
Political Poli	Sample ID	Location Description	Type Code	Jotal Vol.	ume/ Area	Code	Notes:	ਮੁਦ	4
0 103 Pape Lift Pape Lift Pape Lift	2112	RM C112	Aic	75	٠,	0.2.		Swab	\$
6 120 C 1/8 C 1/8 Relinquished by: Date/Time Received by:	8538	13 103				-		Tape Lift	11
C / 1/8 Water C / 1/8 Relinquished by: Date/Time Received by:	P531	A 170						Bulk/Dust	OΒ
Relinquished by: Date/Time Date/Time Received by:	8517	C 13t						Plate	Р
Other (fi	8510	8117						Water	W
elinquished by: Date/Time Received by:								Other (list)	٥
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Special Instructions / Comments:



DATE

Work Order: 1901030

PSI, Inc 850 Poplar Street Reported: 1/9/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/9/19 Received: 1/3/19

Project Name: Pine-Richland

Attn: Mike Kopar

Sampled: 1/2/19 Analyst: JM

Client ID:	LAB NUMBER:		001A		002A		TEST METHOD: PSI-WI-620-816			
Comments:										
Detection Limit(spores/m³): 13	Location:									
Hyphal Fragments						•••				
Pollen Sample Description:	Detection Limit(spores/m³):					13			13	
Cladosportum sp. 1	Hyphal Fragments	1	13		2	27		2	27	
Taw ct. Spores/m³ % raw ct. Spores/m³ % Faw ct. Spores/m³ Spores	Pollen		<u> </u>			<u> </u>		<u> </u>		
1 13 50.00 5 67 68	Sample Description:								Air-O-Cell	
Ascospores 1 13 33.33		raw ct.	spores/m ³	%	raw ct.	spores/m3	%	raw ct.	spores/m ³	%
Basidospores 1 13 33.33 1 13 50.00 1 13 1 13 1 13 1 14 15 15 15 15 15 15	Cladosporium sp.			10	1	13	50.00	5	67	62.50
Peronospora/Oldium sp.	Ascospores	1	13	33.33				1		
Peronospora/Oldium sp.	Basidiospores							3 2		
Spegazzinia sp.	Smuts/Myxomycetes	1	13	33.33	1	13	50.00	1	13	12.50
Alternaria sp. Drechslera/Bipolaris Drechslera/Bipolaris Spegazzinia sp. Tetrapioa sp. Curvularia sp. Stachybotrys sp. Unknown/Brown* Torula sp. Ulocladium sp. Chaetomium sp. Pithomyces sp. Epicoccum sp. Polythrincium sp. Pestalotia sp. Cercospora sp. Rusts Nigrospora sp. Background debris (1-5)** 2 2 3 1 13 13 13 33.33	Peronospora/Oidium sp.									0 11
Drechslera/Bipolaris	Pen./Asp. Group									
Spegazzinia sp.	Alternaria sp.				- 31					
Tetraploa sp. Curvularia sp. 1 13 33.33 Stachybotrys sp. Unknown/Brown* Torula sp. Ulocladium sp. Chaetomium sp. Pithomyces sp. Epicoccum sp. Polythrincium sp. Pestalotia sp. Cercospora sp. Rusts Nigrospora sp. Nigrospora sp. Background debris (1-5)** 2 2 3	Drechslera/Bipolaris							1	13	12.50
Curvularia sp. 1 13 33.33	Spegazzinia sp.									(3) (3)
Curvularia sp. 1 13 33.33	Tetraploa sp.		T							
Stachybotrys sp. 1 13 1 Unknown/Brown* 1 13 1 Torula sp. 1 13 1 Ulocladium sp. 2 2 3 Ulocladium sp. 1 2 3 Ulocladium sp. 2 3 3 3 Ulocladium sp. 3		1 1	13	33.33						
Unknown/Brown*	-									
Ulocladium sp.					115			1	13	12.50
Ulocladium sp.	Torula sp.									
Chaetomium sp.										- ,
Pithomyces sp.			1							
Epicoccum sp.										
Polythrincium sp.										
Pestalotia sp.										
Cercospora sp.			1							
Rusts Nigrospora sp. In a control of the control o					i Vai		5	-		
Nigrospora sp.			1 1			1				
Background debris (1-5)** 2 2 3		100 1								
Sample Volume (liters) 75 75 75		-		W 3.					7,212	
	Sample Volume (liters)		60	400			400	1	440	100



DATE

Work Order: 1901030

PSI, Inc

Reported: 1/9/19

Project Number: 08161784

850 Poplar Street

Analyzed: 1/9/19

Project Name: Pine-Richland

Pittsburgh, PA 15220

Received: 1/3/19 Sampled: 1/2/19

Analyst: JM

Attn: Mike Kopar

AIHA-LAP, LLC. Lab #100373	Т	TX License: LAB0145		0054			TEST METHOD: PSI-WI-620-81			
LAB NUMBER:		004A			005A			006A		
Client ID:		8534		8504-2			8523			
Location:		Gate Rm	!		Rm 203			Rm 201		
Comments:										
Detection Limit(spores/m³):		13			13			13		
Hyphal Fragments	26	350		1	13		2	27		
Pollen										
Sample Description:	l	Air-O-Cell			Air-O-Cell			Air-O-Cell		
	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	
Cladosporium sp.	119	1600	81.51				3	40	50.00	
Ascospores	6	80	4.11	1	13	50.00				
Basidiospores	3	40	2.05				1	13	16.67	
Smuts/Myxomycetes	3	40	2.05	1	13	50.00	1	13	16.67	
Peronospora/Oidium sp.										
Pen./Asp. Group	8	110	5.48							
Alternaria sp.										
Drechslera/Bipolaris	2	27	1.37				1			
Spegazzinia sp.		1								
Tetraploa sp.										
Curvularia sp.		1								
Stachybotrys sp.		1			1					
Unknown/Brown*	3	40	2.05				1	13	16.67	
Torula sp.					1 1					
Ulocladium sp.										
Chaetomium sp.		1								
Pithomyces sp.	1	13	0.68							
Epicoccum sp.		1			1 1					
Polythrincium sp.								1 1		
Pestalotia sp.		 					 			
Cercospora sp.					1					
Rusts										
Nigrospora sp.	1	13	0.68							
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	+	 			+ +		 	 		
Background debris (1-5)**	4	-		2	-		4			
Sample Volume (liters)	75			<u> 75</u>	H .		75			
TOTAL [‡]	146	2,000	100	2	26	100	6	79	100	



DATE

Work Order: 1901030

PSI, Inc 850 Poplar Street Reported: 1/9/19 Analyzed: 1/9/19 Project Number: 08161784

Analyst: JM

Pittsburgh, PA 15220

Received: 1/3/19 Sampled: 1/2/19 Project Name: Pine-Richland

Attn: Mike Kopar

AIHA-LAP, LLC. Lab #100373	1	TX License: LAB0145		0004			TEST METHOD: PSI-WI-620-816			
LAB NUMBER:		007A			008A			009A		
Client ID:		8520			8527			8524		
Location:		Rm 401			Rm 208			Rm 313		
Comments:						-				
Detection Limit(spores/m³):		13		13		13				
Hyphal Fragments	1	13		1	13		2	27	- 40	
Pollen										
Sample Description:		Air-O-Cell			Air-O-Cell			Air-O-Cell		
	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	
Cladosporium sp.	1	13	20.00		FEE		1	13	25.00	
Ascospores	3	40	60.00	1	13	33.33	1	13	25.00	
Basidiospores				1	13	33.33	ns-1 ¹³	13	25.00	
Smuts/Myxomycetes	1	13	20.00							
Peronospora/Oidium sp.		_							·	
Pen./Asp. Group										
Alternaria sp.				1		M = 1				
Drechslera/Bipolaris										
Spegazzinia sp.									.33	
Tetraploa sp.					1			1		
Curvularia sp.					i iliyaa a					
Stachybotrys sp.		1						1		
Unknown/Brown*				1	13	33.33	1	13	25.00	
Torula sp.					1					
Ulocladium sp.	-		= =						_,	
Chaetomium sp.		1			1 1	,		1		
Pithomyces sp.					1					
Epicoccum sp.								1	-	
Polythrincium sp.							8		r galage	
Pestalotia sp.					1			1		
Cercospora sp.					V 2	101				
Rusts								1		
Nigrospora sp.	- 1					c	US ENN	, I W	. 153	
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	1						†	1		
Background debris (1-5)**	3			3		=, -	3			
Sample Volume (liters)	75			75			75			
TOTAL ‡	5	66	100	3	39	100	4	52	100	



DATE

Work Order: 1901030

PSI, Inc 850 Poplar Street Reported: 1/9/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/9/19 Received: 1/3/19 Sampled: 1/2/19 Project Name: Pine-Richland

Attn: Mike Kopar

Analyst: JM

TEST METHOD: PSI-WI-620-816

AIHA-LAP, LLC. Lab #100373	TX License: LAB0145					
LAB NUMBER:	010A					
Client ID:		8532				
Location:		Rm 306				
Comments:						
Detection Limit(spores/m³):		13				
Hyphal Fragments	29	390				
Pollen						
Sample Description:		Air-O-Cell	_			
	raw ct.	spores/m ³	%			
Cladosporium sp.	154	2100	84.62			
Ascospores	6	80	3.30			
Basidiospores	2	27	1.10			
Smuts/Myxomycetes	3	40	1.65			
Peronospora/Oidium sp.						
Pen./Asp. Group	12	160	6.59			
Alternaria sp.	1	13	0.55			
Drechslera/Bipolaris						
Spegazzinia sp.						
Tetraploa sp.		1				
Curvularia sp.	1	13	0.55			
Stachybotrys sp.						
Unknown/Brown*	2	27	1.10			
Torula sp.						
Ulocladium sp.						
Chaetomium sp.						
Pithomyces sp.						
Epicoccum sp.						
Polythrincium sp.						
Pestalotia sp.		1				
Cercospora sp.	1	13	0.55			
Rusts						
Nigrospora sp.						
		1				
Background debris (1-5)**	4					
Sample Volume (liters)	75					
TOTAL [‡]	182	2,500	100			



PSI, Inc 850 Poplar Street DATE

Work Order: 1901030

Pittsburgh, PA 15220

Reported: 1/9/19 Analyzed: 1/9/19 Project Number: 08161784

Attn: Mike Kopar

Received: 1/3/19

Sampled: 1/2/19

Project Name: Pine-Richland

Analyst: JM

Specific Sample Comments:

General Report Comments:

- * Unknown/brown are spores without a distinctive morphology on spore traps and non-viable surface samples.
- ** Background debris is the amount of particulate matter present on the slide and is graded from 1-5 with 1 being very little, while a debris rating of 5 is unreadable.

The higher the rating the more likelihood spores may be underestimated.

A rating of 4 should be interpreted as minimal counts and may actually be higher than reported.

‡ Total spores/m³ has been rounded to two significant figures to reflect analytical precision.

All samples were analyzed at 400x or 600x magnification unless noted.

The reporting limit is one spore/item adjusted for volume. Entire trace was analyzed unless noted.

Results relate only to items tested. Results are not corrected for blank data.

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Samples will be disposed of within thirty (30) days unless notified in writing by the client.

Results based on volume measurement provided by the client.

Disclaimer: The laboratory is not responsible for interpretation of test results or for methods used during sampling.

All samples were in acceptable condition unless noted.

Respectfully submitted, PSI, Inc.

Tim Voltz, Approved Signatory

1901030 CHAIN OF CUSTODY - MOLD

	Project information
Project Name:	FINE RICHUMO
Project No:	18617180
PO Number:	MIDDLE TE HOW C
Sample Date:	61.1.1

	Project Information
roject Name:	PINE RICHUMO
roject No:	180
O Number:	MIDDLE TEHON C
ample Date:	(-1.19
	Send Results To:
ompany:	
ttn:	M. Kopar
ddress:	
elephone:	
mail:	

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412-922-4001 ext. 313/272 Pittsburgh, PA 15220 iH Laboratory 850 Poplar Street

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n:	M. Kopar					Attn:	::			7	
dress:						Ado	Address:				
ephone:						Tele	Telephone:				
ail:	9					Email:	淵			•	
Reques	Requested Turn Around Time		1111	En	vironmen	Environmental Conditions	ions	1	Sample Analysis		C/ode
Same Day	1-2 Day (24-48 hr) 3-5 Day		Fog	Rain	Wind Snow	now Clear	ar Temperature	re:	Direct Exam		JG.
		Light					apjsul	Outside	Fungal Culture & Genus ID (non-speciation)	ation)	FC/G
juested Date:		Moderate	rate			*	`		Fungal Culture & Genus ID Speciation (top 3 species)	(top 3 species)	FC/G sp.
Laborato	Laboratory Use Only Y · N	Heavy				: 45	Relative Humidity	hidity	Bacterla w/Genus ID (3 most predominant)	inant)	BAC
Samples in Acceptable Condition	able Condition:	N C	_				Inside 0	Outside	Sewage Screen		55
nments:		NOTE					,		Legionella Culture		ΙC
pping Charges Apply:	ly:								Other (list)		Oth
Ci elemen			Sample	100	-54		Sample Analysis	is		Sample Type	Code
odiliple 10	בסרשתים הפצרו להחום		Type Code	1117	Joral Volume/ Area	e) Aica	Code		MOLES	Air	٧
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Special Instructions / Comments:



DATE

Work Order: 1901031

PSI, Inc 850 Poplar Street Reported: 1/9/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/9/19

Project Name: Pine-Richland

Attn: Mike Kopar

Received: 1/3/19 Sampled: 12/27/18

Analyst: TV

AIHA-I AP II.C Lab #100373

TX License: LAB0145

TEST METHOD: PSI-WI-620-816

AIHA-LAP, LLC. Lab #100373		TX License:	LAB0145				TEST ME	THOD: PSI-V	VI-620-816
LAB NUMBER:		001A			002A			003A	
Client ID:		8485			8492			8490	
Location:	F	Rm 001 Chon	us		Rm 424		Rm	008 Planetai	ium
Comments:		_							
Detection Limit(spores/m³):		13			13			13	
Hyphal Fragments				1	13		2	27	4.5
Pollen									
Sample Description:		Air-O-Cell			Air-O-Cell			Air-O-Cell	
•	raw ct.	spores/m3	%	raw ct.	spores/m3	%	raw ct.	spores/m3	%
Cladosporium sp.	1	13	33.33		7 1		12	·	
Ascospores				2	27	66.67	1	13	33.33
Basidiospores	1_	13	33.33				1	13	33.33
Smuts/Myxomycetes							1	13	33.33
Peronospora/Oidium sp.	ш	1						1	
Pen./Asp. Group		1							
Alternaria sp.							1		
Drechslera/Bipolaris							 		
Spegazzinia sp.		i							
Tetraploa sp.		1	,						
Curvularia sp.		107		2					22 111112
Stachybotrys sp.								 	
Unknown/Brown*	1	13	33.33	ą.					
Torula sp.		10	33.33	f				- 1	
Ulocladium sp.					-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			_
Chaetomium sp.	-							-	\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.\.
							4		
Pithomyces sp.		1					 		
Epicoccum sp.	>	-							
Polythrincium sp.	7								2 - 74
Pestalotia sp.									
Cercospora sp.			X						- 60.3
Rusts									
Nigrospora sp.	,			1	13	33.33		ļ	-1, -1
		 							
							ļ		
								ļ	
								ļl	
	 						-	-	
			i						
Background debris (1-5)**	2			2			2	0.000	a lini
Sample Volume (liters)	75		75 >	75			75		
TOTAL ‡	3	39	100	3	40	100	3	39	100



DATE

Work Order: 1901031

PSI, Inc 850 Poplar Street Reported: 1/9/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/9/19 Received: 1/3/19 Sampled: 12/27/18 Project Name: Pine-Richland

Attn: Mike Kopar

Analyst: TV

AIHA-LAP, LLC, Lab #100373 TX License: LAB0145 TEST METHOD: PSI-WI-620-816

AIHA-LAP, LLC. Lab #100373		TX License:	LAB0145				IEST ME	THOD: PSI-V	VI-620-81
LAB NUMBER:		004A			005A			006A	
Client ID:		8496			2267			2330	
Location:	:	Rm 105			Office			Rm 41	
Comments:		•							
Detection Limit(spores/m³):		13			13		<u> </u>	13	
Hyphal Fragments				1	13		1	13	
Pollen]							
Sample Description:		Air-O-Cell			Air-O-Cell			Air-O-Cell	
	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%
Cladosporium sp.	1	13	25.00	7	93	43.75	1	13	8.33
Ascospores				4	53	25.00	3	40	25.00
Basidiospores									
Smuts/Myxomycetes	1	13	25.00						
Peronospora/Oidium sp.									182
Pen./Asp. Group	2	27	50.00	4	53	25.00	7	93	58.33
Alternaria sp.									
Drechslera/Bipolaris									
Spegazzinia sp.		=							
Tetraploa sp.		<u> </u>				<u> </u>			
Curvularia sp.									
Stachybotrys sp.							1	13	8.33
Unknown/Brown*				1	13	6.25			
Torula sp.		1							
Ulocladium sp.									
Chaetomium sp.				Ī					
Pithomyces sp.									
Epicoccum sp.									
Polythrincium sp.									
Pestalotia sp.		1							
Cercospora sp.						T W			
Rusts									
Nigrospora sp.									
	i								
							Ì		
"									
Background debris (1-5)**	2			3			3		
Sample Volume (liters)	75			75			75		
TOTAL ‡	4	53	100	16	210	100	12	160	100



DATE

Work Order: 1901031

850 Poplar Street

Attn: Mike Kopar

PSI, Inc

Pittsburgh, PA 15220

Reported: 1/9/19

Analyzed: 1/9/19

Received: 1/3/19

Sampled: 12/27/18

Project Number: 08161784

Project Name: Pine-Richland

Analyst: TV

AIHA-LAP, LLC. Lab #100373 TX License: LAB0145 **TEST METHOD: PSI-WI-620-816** LAB NUMBER: 007A 008A 009A Client ID: 2303 2369 8503 Location: Rm 100 Rm 201 Rm 303 Comments: Detection Limit(spores/m3): 13 13 13 13 **Hyphal Fragments** 1 Pollen Air-O-Cell Air-O-Cell Air-O-Cell Sample Description: spores/m³ raw ct. spores/m3 % raw ct. % raw ct. spores/m3 % Cladosporium sp. 27 33.33 50.00 2 13 1 13 Ascospores 16.67 **Basidiospores** Smuts/Myxomycetes 1 13 16.67 Peronospora/Oidium sp. Pen./Asp. Group 2 27 33.33 Alternaria sp. Drechslera/Bipolaris Spegazzinia sp. Tetraploa sp. Curvularia sp. Stachybotrys sp. Unknown/Brown* 13 50.00 1 13 100.00 Torula sp. Ulocladium sp. Chaetomium sp. Pithomyces sp. Epicoccum sp. Polythrincium sp. Pestalotia sp. Cercospora sp. Rusts Nigrospora sp. Background debris (1-5)** 2 2 1 Sample Volume (liters) 75 75 75 TOTAL ‡ 100 6 80 100 2 26 100 1 13



DATE

Work Order: 1901031

PSI, Inc 850 Poplar Street Reported: 1/9/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/9/19 Received: 1/3/19 Project Name: Pine-Richland

Sampled: 12/27/18

Analyst: TV

Attn: Mike Kopar

TX License: LAB0145 TEST METHOD: PSI-WI-620-816

AIHA-LAP, LLC. Lab #100373		TX License:	LAB0145
LAB NUMBER:		010A	
Client ID:		8511	·
Location:		Rm 319 LGI	
Comments:	<u> </u>		
Detection Limit(spores/m³):		13	
Hyphal Fragments	1		
Pollen	<u> </u>		
Sample Description:		Air-O-Cell	
	raw ct.	spores/m3	%
Cladosporium sp.	2	27	66.67
Ascospores	1	13	33.33
Basidiospores		—	
Smuts/Myxomycetes			
Peronospora/Oidium sp.			
Pen./Asp. Group		1	
Alternaria sp.			
Drechslera/Bipolaris			
Spegazzinia sp.			
Tetraploa sp.		 	
Curvularia sp.			
Stachybotrys sp.	<u> </u>	1	
Unknown/Brown*			
Torula sp.			
Ulocladium sp.		 	
Chaetomium sp.		†	
Pithomyces sp.		 	
Epicoccum sp.		 	
Polythrincium sp.		 	
Pestalotia sp.	i e	† †	
Cercospora sp.			
Rusts		1	
Nigrospora sp.			
<u>9::</u>			
		†	
	†"		
		 	
Background debris (1-5)**	2		
Sample Volume (liters)	75		
TOTAL T	3	40	100





PSI, Inc.

850 Poplar Street Pittsburgh, PA 15220

Attn: Mike Kopar

DATE

Work Order: 1901031

Reported: 1/9/19

Project Number: 08161784

Analyst: TV

Analyzed: 1/9/19

Received: 1/3/19

Sampled: 12/27/18

Project Name: Pine-Richland

Specific Sample Comments:

General Report Comments:

- * Unknown/brown are spores without a distinctive morphology on spore traps and non-viable surface samples.
- ** Background debris is the amount of particulate matter present on the slide and is graded from 1-5 with 1 being very little, while a debris rating of 5 is unreadable.

The higher the rating the more likelihood spores may be underestimated.

A rating of 4 should be interpreted as minimal counts and may actually be higher than reported.

‡ Total spores/m³ has been rounded to two significant figures to reflect analytical precision.

All samples were analyzed at 400x or 600x magnification unless noted.

The reporting limit is one spore/item adjusted for volume. Entire trace was analyzed unless noted.

Results relate only to items tested. Results are not corrected for blank data.

This report may not be reproduced except in full, without written approval of PSI, Inc.

Samples will be disposed of within thirty (30) days unless notified in writing by the client.

Results based on volume measurement provided by the client.

Disclaimer: The laboratory is not responsible for interpretation of test results or for methods used during sampling.

All samples were in acceptable condition unless noted.

Respectfully submitted, PSI, Inc.

Brake

Jack Maake, Approved Signatory

(90103) CHAIN OF CUSTODY - MOLD

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	Project miormation		ă							9	יו רפה	olatol y	
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<u> </u>	48U1180	,									Pittsbu	Pittsburgh, PA 15220	
	1416H 16140	ړ							20254		412-92	412-922-4001 ext. 313/272	3/272
Ш	12.27.15												
	Send Results To:				r===					Send Invoice To:	To:		
L							Сотрапу:	any:				+	
							Attn:						
L							Address:	:55:			İ		
L							Telep	Telephone:					
							Email:			26)			
teo	Requested Turn Around Time			1	nvironn	lental (Environmental Conditions	27	100	S	Sample Analysis		C/ode
1	1-2 Day (24-48 hr) 3-5 Dgy		Fog	Rain	Wind	Snow	Clear	Temperature	rature:	Direct Exam			DE
Ļ	X	Light						Inside	Outside	Fungal Culture & Genus ID (non-speciation)	us ID (non-speci	ation)	FC/G
Ш		Moderate	te .							Fungal Culture & Genus ID Speciation (top 3 species)	us ID Speciation	(top 3 species)	FC/G sp.
ځ	Laboratory Use Only Y · N	Heavy					•	Relative	Relative Humidity	Bacteria w/Genus ID (3 most predominant)	(3 most predomi	inant)	BAC
able	All Samples In Acceptable Condition:	-			1			Inside	Outside	Sewage Screen			SS
		NOVE S	_					'		Legionella Culture			Ŋ
Shipping Charges Apply:	I X III									Other (list)			Oth
			Sample					Sample Analysis	lysis			Sample Type	Code
	Location Description		Type Code		iotal Volume/ Area	nme/ /	Area	Code		Notes:		Air	4
	PM OU CHOWS		AIR		75	ب		0.8.				Swab	Ş
			-		::			•				Fape Lift	TL
	pu ous planetarium								Ties.			Bulk/Dust	80
	(m 105								ì			Plate	ď
	office		_							u.		Water	W
	/w 4/											Other (list)	0
Щ	pm 100												
	/m 201								•				
	PM 303 .							-					
ļ					ŀ								

Special Instructions / Comments:

Date/Time

Received by:

Date/Time 1/3/19

Relinquished by:

CHENT

PM 319



DATE

Work Order: 1901032

PSI, Inc 850 Poplar Street Reported: 1/10/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/10/19 Received: 1/3/19

Project Name: Pine-Richland

Attn: Mike Kopar

Sampled: 12/27/18

Analyst: JM

<u>AIHA-LAP, LLC. Lab #100373</u>		TX License:	LAB0145				TEST ME	THOD: PSI-V	VI-620-81
LAB NUMBER:		001A			002A			003A	
Client ID:		8491			8507		ļ	8505	
Location:		Library			Rm 206			Rm 314	
Comments:									
Detection Limit(spores/m³):		13			13			13	
Hyphal Fragments	1	13		1	13		1	13	
Pollen							-		
Sample Description:	1	Air-O-Cell			Air-O-Cell			Air-O-Cell	
<u> </u>	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	raw ct.	spores/m3	%
Cladosporium sp.	1	13	33.33				2	27	50.00
Ascospores									
Basidiospores								-	
Smuts/Myxomycetes	1	13	33.33	1	13	100.00	1	13	25.00
Peronospora/Oidium sp.				- ,					
Pen./Asp. Group	<u> </u>								
Alternaria sp.							1	13	25.00
Drechslera/Bipolaris					1 1				
Spegazzinia sp.								- 5	111111
Tetraploa sp.		1 1			1	*			
Curvularia sp.					= % 1				4 4
Stachybotrys sp.									
Unknown/Brown*	1	13	33.33	31	1_000		· .		1.= 1
Torula sp.						.:			
Ulocladium sp.									
Chaetomium sp.									
Pithomyces sp.									
Epicoccum sp.		1			ŀ				
Polythrincium sp.									
Pestalotia sp.					i			 	
Cercospora sp.									
Rusts								1	
Nigrospora sp.	TS T								- Y.N
	 	1						1	
	 	1						1	
	†			1					
	<u> </u>	1						+ +	
· · · · · · · · · · · · · · · · · · ·	<u> </u>	† †							-
Background debris (1-5)**	3	-		3			3	34	
Sample Volume (liters)	75		× 5	75	8		75		4 3
TOTAL [‡]	3	39	100	1	13	100	4	53	100



DATE

Work Order: 1901032

PSI, Inc

Reported: 1/10/19

Project Number: 08161784

850 Poplar Street

Analyzed: 1/10/19

Project Name: Pine-Richland

Pittsburgh, PA 15220

Received: 1/3/19 Sampled: 12/27/18 tivalile. Fille-Alcillatio

Attn: Mike Kopar

Analyst: JM

AIHA-LAP, LLC. Lab #100373 LAB NUMBER:	T	TX License: 004A		1	005A		TEST MET	006A	
Client ID:	+	Rm 103			Rm 243			Rm 702	
011011(10)	+-								
Location:		Rm 103			Rm 243			Rm 702	
Comments:									
Detection Limit(spores/m³):	<u> </u>	13			13			13	
Hyphai Fragments	2	27		1	13		11	13	
Pollen		<u> </u>			<u> </u>				
Sample Description:	<u> </u>	Air-O-Cell			Air-O-Cell			Air-O-Cell	
	raw ct.	spores/m3	%	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%
Cladosporium sp.	2	27	28.57	1	13	50.00			
Ascospores							1	13	50.00
Basidiospores	1	13	14.29						
Smuts/Myxomycetes	2	27	28.57	1	13	50.00			
Peronospora/Oidium sp.									
Pen./Asp. Group									
Alternaria sp.									
Drechslera/Bipolaris					1				
Spegazzinia sp.									
Tetraploa sp.									
Curvularia sp.									
Stachybotrys sp.									
Unknown/Brown*	2	27	28.57				1	13	50.00
Torula sp.									
Ulocladium sp.									
Chaetomium sp.		1			1 1		<u> </u>		
Pithomyces sp.				11.30				!	
Epicoccum sp.						• • •	-	1	
Polythrincium sp.					1				
Pestalotia sp.								1	
Cercospora sp.									
Rusts		 						1	
Nigrospora sp.									
rigicopola op.					1				
		 			 				
					+			† †	
	+			 	+ +		 	+	
	+			 	+ +		 	+ +	
	 				+			+ +	
Background debris (1-5)**	2			2			2		
Sample Volume (liters)	75			75			75		
TOTAL ‡	7	94	100	2	26	100	2	26	100



DATE

Work Order: 1901032

PSI, Inc 850 Poplar Street Reported: 1/10/19

Project Number: 08161784

Pittsburgh, PA 15220

Analyzed: 1/10/19 Received: 1/3/19 Sampled: 12/27/18 Project Name: Pine-Richland

Attn: Mike Kopar

Analyst: JM

AIHA-LAP, LLC. Lab #100373 TEST METHOD: PSI-WI-620-816 TX License: LAB0145

AIHA-LAP, LLC. Lab #100373		TX License:	: LAB0145				TEST ME	THOD: PSI-V	/I-620-81
LAB NUMBER:		007A			A800			009A	
Client ID:		2298			8482			2282	
Location:		Rm 308			Rm 802			Rm 633	
Comments:	1								•
Detection Limit(spores/m³):		13			13			13	
Hyphal Fragments	1	13		1	13	IE		T	· =
Pollen									
Sample Description:		Air-O-Cell			Air-O-Cell			Air-O-Cell	
	raw ct.	spores/m ³	%	raw ct.	spores/m ³	%	raw ct.	spores/m3	%
Cladosporium sp.	2	27	40.00	2	27	50.00			
Ascospores				1	13	25.00	1	13	50.00
Basidiospores				1	13	25.00	_1	13	50.00
Smuts/Myxomycetes	1	13	20.00						
Peronospora/Oidium sp.			=						a 1-
Pen./Asp. Group								T	
Alternaria sp.									
Drechslera/Bipolaris									
Spegazzinia sp.									, IIIIES,
Tetraploa sp.									
Curvularia sp.					1		Ella ,i		, D
Stachybotrys sp.					1 1			1	
Unknown/Brown*	1	13	20.00	*	To				
Torula sp.									
Ulocladium sp.									
Chaetomium sp.									
Pithomyces sp.	1	13	20.00						
Epicoccum sp.							<u> </u>		
Polythrincium sp.	-								
Pestalotia sp.									
Cercospora sp.									100
Rusts		1				'	1		
Nigrospora sp.					XX 001				Ter II
		:							
Background debris (1-5)**	3			3			3		g jone
Sample Volume (liters)	75			75		4	75		
TOTAL ‡	5	66	100	4	53	100	2	26	100



DATE

Work Order: 1901032

PSI, Inc

Reported: 1/10/19

Project Number: 08161784

850 Poplar Street

Analyzed: 1/10/19

Project Name: Pine-Richland

Pittsburgh, PA 15220

Received: 1/3/19 Sampled: 12/27/18 1011

Attn: Mike Kopar

Analyst: JM

AIHA-LAP, LLC. Lab #100373 TX License: LAB0145 TEST METHOD: PSI-Wi-620-816

AIHA-LAP, LLC. Lab #100373		TX License:	LAB0145
LAB NUMBER:		010A	
Client ID:		8497	
Location:		Rm 521	
Comments:			
Detection Limit(spores/m³):		13	
Hyphal Fragments	1	13	
Pollen	<u> </u>		
Sample Description:		Air-O-Cell	
	raw ct.	spores/m ³	%
Cladosporium sp.			
Ascospores	1	13	16.67
Basidiospores	1	13	16.67
Smuts/Myxomycetes	2	27	33.33
Peronospora/Oidium sp.			- 8
Pen./Asp. Group		1	
Alternaria sp.			
Drechslera/Bipolaris			
Spegazzinia sp.	i		
Tetrapioa sp.			
Curvularia sp.	1	13	16.67
Stachybotrys sp.			
Unknown/Brown*	1 =	13	16.67
Torula sp.	-	1	
Ulocladium sp.			
Chaetomium sp.			
Pithomyces sp.			
Epicoccum sp.			
Polythrincium sp.			
Pestalotia sp.		1	
Cercospora sp.			
Rusts		1	
Nigrospora sp.			
		1	
			
		† †	
		†	
Background debris (1-5)**	3		
Sample Volume (liters)	75		
TOTAL ‡	6	79	100
IVIAL		19	100



PSI, Inc

850 Poplar Street

Pittsburgh, PA 15220

DATE

Work Order: 1901032

1/10/19

Project Number: 08161784

Analyzed: 1/10/19

Reported:

Project Name: Pine-Richland

Attn: Mike Kopar

Received: 1/3/19

Sampled: 12/27/18

Analyst: JM

Specific Sample Comments:

General Report Comments:

- * Unknown/brown are spores without a distinctive morphology on spore traps and non-viable surface samples.
- ** Background debris is the amount of particulate matter present on the slide and is graded from 1-5 with 1 being very little, while a debris rating of 5 is unreadable.

The higher the rating the more likelihood spores may be underestimated.

A rating of 4 should be interpreted as minimal counts and may actually be higher than reported.

‡ Total spores/m³ has been rounded to two significant figures to reflect analytical precision.

All samples were analyzed at 400x or 600x magnification unless noted.

The reporting limit is one spore/item adjusted for volume. Entire trace was analyzed unless noted.

Results relate only to items tested. Results are not corrected for blank data.

This report may not be reproduced except in full, without written approval of PSI, Inc.

Samples will be disposed of within thirty (30) days unless notified in writing by the client.

Results based on volume measurement provided by the client.

Disclaimer: The laboratory is not responsible for interpretation of test results or for methods used during sampling.

All samples were in acceptable condition unless noted.

Respectfully submitted, PSI, Inc.

Tim Voltz, Approved Signatory

. 1901032 CHAIN OF CUSTODY - MOLD

	Project Information	
Project Name:	PINE RICHTUND	
Project No:	13617130	
PO Number:	€0±0	
Sample Date:	δ)-C1·2)	
	Send Results To:	- 15
Company:		Com
Attn:	M. Kotas	Attu
Address:		Add
Telephone:	2	Tele
Email:		Ema

IH Laboratory 850 Poplar Street Pittsburgh, PA 15220 412-922-4001 ext. 313/272						
intertek	Send Invoice To:	0.				
OMESSAGE OF	100 miles	Company:	Attn:	Address:	Telephone:	Email:

Reques	Requested Turn Around Time	ime			Enviro	Environmental Conditions	Condition	ZI.		eS
Same Day	1.2 Day (24.48 hr)	3-5 Dgy		Fog Ra	in Wir	Rain Wind Snow Clear	Clear	Temperature.	rature:	Direct Exam
		X	Light					Inside	Outside	Fungal Culture & Genu
Requested Date:			Moderate							Fungal Culture & Genu
Laborato	Laboratory Use Only	N · Y	Heavy				·	Relative	Relative Humidity	Bacteria w/Genus ID (
All Samples in Acceptable Condition	able Condition:	×						inside	Outside	Sewage Screen
Comments		-	. Sa . O.		100					Legionella Culture
Shipping Charges Apply	: Alc									Other (list)

		Sample Analysis	C/ode
sture:		Direct Exam	DE
Outside		Fungal Culture & Genus ID (non-speciation)	FC/G
		Fungal Culture & Genus ID Speciation (top 3 species)	FC/G sp.
umidity		Bacteria w/Genus ID (3 most predominant)	BAC
Outside		Sewage Screen	55
		egionella Culture	וכ
	1	Other (list)	Oth

		Sample	A STATE OF THE PARTY OF THE PAR	Sample Analysis		Sample Type	Code
Sample ID	Location Description	Type Code	Total Volume/ Area	Code	Notes:	Aır	А
المكرها	VE)617	Avc	756	0.8,		Swab	S
8507	Am 206	-		,		Tape Lift	7
5054	אות שות			-3		Bulk/Dust	80
120 (03	Pm 103			33		Plate	. a.
E 143	243 M					Water	*
101 M	20C W					Other (list)	0
2298	Km 308						
2548	208 M						
1261	lm 633.			-			
1423	pm 521		(36)				
Y-1							

Relinquished by:	Date/Time	Received by:	Date/Time
CH CH	1/3/19	651 MB	13/19 1300
			, , ,

Special Instructions / Comments: