359 DRESHER ROAD HORSHAM, PA 19044 (215) 672-6088 FAX (215) 443-0899 http://www.eagleih.com



December 24, 2020

Mr. David A. Cell, CFEI, EMT-B, HMT Central Bucks School District 320 West Swamp Road Doylestown, PA 18901 dcell@cbsd.org

Re: Eagle Industrial Hygiene Associates, Inc. - Project #201197 Indoor Environmental (IEQ) Evaluation of the A Wing and B119 of Central Bucks West High School, December 19, 2020, Project 201197

Dear Mr. Cell:

Eagle Industrial Hygiene Associates, Inc. completed an indoor environmental quality (IEQ) evaluation of the A Wing and Room B119 on December 19, 2020. The evaluation was completed as part of the district's ongoing efforts to maintain acceptable indoor environmental quality in the A Wing with regard to mold.

The evaluation included a visual inspection of all classrooms, offices, and common areas in A Wing, except the Library, measuring temperature and relative humidity, and the collection of air samples for mold spores. Room B119 was also inspected after its recent ventilation system cleaning and sanitizing.

In summary, A Wing and Room B119 are acceptable for occupancy with regard to mold. There was no suspect mold growth noted on any surface in the evaluation area. The attached report details the findings of the evaluation. Thank you for the opportunity to be of service.

Sincerely,

Keith E. Crawford, CIH

#### INDOOR ENVIRONMENTAL QUALITY EVALUATION Project #201197

A Wing and Room B119 Central Bucks High School West 375 W. Court Street Doylestown, PA 18901

Prepared For:

Mr. David A. Cell, CFEI, EMT-B, HMT Central Bucks School District 320 West Swamp Road Doylestown, PA 18901

Submitted By:

EAGLE INDUSTRIAL HYGIENE ASSOCIATES, INC. 359 DRESHER ROAD HORSHAM, PA 19044

**DECEMBER 24, 2020** 

## INTRODUCTION

Eagle Industrial Hygiene Associates, Inc. completed an indoor environmental quality (IEQ) evaluation of the A Wing and Room B119 on December 19, 2020. The evaluation was completed as part of the district's ongoing efforts to maintain acceptable indoor environmental quality in the A Wing with regard to mold. Mold remediation has recently been completed in the A Wing as part of the fire damage and soot clean-up. B119 has had the ventilation system cleaned and sanitized.

# SCOPE OF WORK

The scope of services included completion of the following tasks:

- Inspected all classrooms, offices, and common areas in the A Wing, except the Library. Room B119 was also inspected and sampled after its recent ventilation system cleaning and sanitizing.
- 2. Measured temperature and relative humidity in each of the rooms.
- 3. Surveyed building materials with an infra-red camera to identify temperature anomalies, which often indicate wet building materials.
- 4. Measured the relative moisture content of suspect building materials identified in the IR scan.
- 5. Collected air samples for mold spores. Samples were collected in each of the classrooms, offices and in common areas. Air samples for mold spores were also collected outdoors as reference.

The samples collected during the evaluation were preserved and transported with a chain-of custody form to Eagle Industrial Hygiene Associates, Inc.'s laboratory (AIHA LAP Accreditation #100421) for analysis of mold spores. Detailed sample information and other supporting data are included as attachments to the report.

All evaluation services were directed by a Certified Industrial Hygienist (CIH) and performed in accordance with generally accepted industrial hygiene guidelines and other current applicable governmental and industry protocols and guidelines for evaluating the indoor environment.

The information outlined in this report is believed to be accurate and true to the best knowledge of the inspector(s). The findings and recommendations contained in this report are based on the observations of the conditions as they existed at the time of the mold evaluation.

## FINDINGS

The following summarizes the findings of the evaluation:

- Mold air sample analysis found total airborne mold spore levels indoors to be less than or approximately equal to outdoors, with similar population dispersions between indoor and outdoor samples, which is the desired condition, except for Room A209, a book storeroom. This room had slightly elevated levels of *Aspergillus/Penicillium sp.* type molds compared to the outdoor samples, likely due to an ongoing plumbing leak, which had wetted a ceiling panel (the panel has since been removed, though not replaced at the time of the evaluation). Air samples are considered acceptable in all areas.
- There was no evidence of mold growth on any surface in the rooms examined.

- There remain small water stains on suspended ceiling panels in several areas of the A Wing, which are due to roof leaks or plumbing leaks from the floor above.
- The IR survey found all building materials to be dry.

# TEMPERATURE AND RELATIVE HUMIDITY MEASUREMENTS

No "ideal" temperature and humidity level is suitable for all building occupants. Many factors, such as personal activity and clothing may affect personal comfort. Guidelines issued by the American Society of Heating, Refrigeration, and Air-conditioning Engineers (ASHRAE) recommend that indoor temperatures in the winter be maintained between 68 and 75°F and temperatures in the summer be maintained between 73 and 79°F. These ranges should be acceptable for sedentary or slightly active persons.

Acceptable relative humidity levels should range from 20–60% year-round. Levels less than 20% in the winter and greater than 60% in the summer should be considered unacceptable. Elevated relative humidity can promote the growth of mold, bacteria, and dust mites, which can aggravate allergies and asthma. Low relative humidity can cause health complaints, including but not limited to sore throats, eye irritation, and dry skin, and static discharges when contacting conducting surfaces.

Location	Relative Humidity (%)	Temperature (F)
Outdoors- 2 locations	19.9 and 13.3	37.1 and 39.0
A101	17.1	67.1
A102	14.3	67.3
A104	12.8	67.0
A106	11.7	67.9
A108	11.5	69.8
A110	13.7	69.0
A112	13.3	69.0
A114	11.4	69.6
A115	12.3	68.7
A116	12.4	66.0
A117	11.8	69.1
A119	12.2	69.1
A121	13.2	69.7
A118	11.3	67.8
A121B	14.1	69.1
A121C	15.1	69.1
A120	11.0	67.8
A123	12.9	68.3
A122	13.5	66.9
Corridor at A100D Stairs	12.7	68.6
B119	14.9	67.0
A202	17.0	68.7
A201	10.2	66.3
A204	10.3	68.0
A209	18.0	67.3

A206	8.4	68.0
A208	10.0	67.5
A210	9.1	66.8
A213	12.4	67.1
A212	9.5	67.2
A215	13.0	68.1
A214	8.7	67.7
A216	9.0	67.0
A221	11.7	67.2
A221A	14.1	66.0
A221B	14.4	67.0
A223	13.5	66.4
A218	10.6	68.6
A220	9.5	68.5
A222	9.0	68.0
A224	12.0	67.9
A227	1.7	69.1
Hallway in front of A202	18.8	63.5
Hallway in front of A215	11.8	68.1

Temperature levels were within or close to acceptable ranges for occupant comfort at all areas evaluated with exception of Rooms A201 and A223 and the corridor by A202. Temperatures in these areas were slightly below recommended levels.

Relative humidity levels were below acceptable ranges for occupant comfort at all areas evaluated. This is not unusual in winter months during periods of cold outdoor weather.

## **RESULTS OF SAMPLE ANALYSIS**

Air samples were collected for analysis of mold spores as part of the evaluation. A summary of the results of analysis of the samples is outlined in Table 1 below. Data detailing the levels of individual spore types are outlined (along with these total spore counts) on the attached laboratory report pages.

Sample Location and Number	Total Count Concentration (structures/m <sup>3</sup> )	Sample Location and Number	Total Count Concentration (structures/m <sup>3</sup> )
#27 Outdoors (background)	270	#52 Outdoors (background)	400
#02 A100E	340	#28 A202	100
		#29 A201	68
		A204	
#21 A106	34	A211	

TABLE 1Total Airborne Mold Spore Levels

Sample Location and Number	Total Count Concentration (structures/m <sup>3</sup> )	Sample Location and Number	Total Count Concentration (structures/m <sup>3</sup> )
#20 A108	<34	#46 A218	100
#19 A110	68	#34 A206	140
#18 A112	68	#35 A208	<34
#16 A114	140	#37 A210	34
#15 A115	100	#36 A213	68
#11 A116	34	#38 A212	240
#13 A117	140	#41 A215	34
#10 A119	100	#43 A221A	170
#07 A121	140	#39 A200C	170
#12 A118	68	#40 A214	100
#08 A121B	100	#47 A216	200
#04 A120	68	#33 A221	100
#06 A123	200	#32 A204	140
#03 A122	100	#42 A221B	170
#05 Corridor at A122	68	#44 A223	34
#09 A121C	100	#45 A221B	34
#14 Corridor at A111	410	#48 A220	68
#01 B119	68	#49 A222	100
#17 A111	68	#50 A224	310
#22 A104	68	#51 A227	270
#23 A107	200	#26 Corridor at A202	200
#24 A101	68	#30 A203	270
#25 A102	<34	#31 A209	980

# CONCLUSION AND RECOMMENDATIONS

The evaluation found the A Wing and Room B119 acceptable for occupancy with regard to mold. Total indoor mold spore levels were less than or approximately equal to total outdoor mold spore levels, and had similar population dispersions, with the exception of A209, a book storeroom. Spore levels for the genus *Aspergillus/Penicillium* were elevated above background or outdoor values in this room. This was likely due to wetted ceiling panels from a plumbing leak. The wetted ceiling panel(s) had been removed but not replaced at the time of the evaluation. Also note that outdoor mold spore levels are often depressed in winter due to snow cover.

Additionally, there was no suspect mold growth noted on any surface. The IR scan found that there were no wet building materials, though there are some water-stained ceiling tiles. The water stains are due to small roof or plumbing leaks.

Finally, temperature levels were within guidelines in most areas, though relative humidity levels were below recommended guidelines, a common occurrence during winter months. Low relative humidity does irritate the respiratory system and eyes, though correcting the phenomena in a healthy manner is not easily accomplished, since humidifiers installed in ventilation systems require substantial maintenance to ensure proper performance and to avoid becoming a source of both fungal and bacterial contamination of the indoor environment from pooled, fetid water in the humidifier.

Based on these findings, it is recommended that plumbing and roof repairs continue, with waterstained ceiling panels replaced as repairs are made.

## SAMPLE COLLECTION AND ANALYSIS METHODS

#### Sample Collection Methods

The airborne fungal structure samples were collected using Air-O-Cell spore traps and a Zefon Model ZBP-200 *BIO-PUMP® PLUS*. Air was drawn through the spore traps by the BIO-PUMP at an airflow rate of 15 liters per minute (lpm). The samples were collected for a measured time period. The sample volume was calculated by multiplying the sample flow rate by the sample collection time.

## **Sample Analysis Methods**

The samples were analyzed by the Eagle Industrial Hygiene Associates, Inc. laboratory. The laboratory is accredited by the American Industrial Hygiene Association (AIHA LAP Accreditation #100421) for microbial sample analysis. The sample analysis results listing the types and quantities of fungi found in the samples are outlined on the laboratory data pages included with this report.

The Air-O-Cell spore traps used to collect the air samples were analyzed by counting and characterizing the spores and fungal structures collected in measured areas of the spore trap, as viewed through a light microscope at a magnification of 400x. The number of spores and structures counted and classified is then used to calculate the airborne concentrations, based on the total surface area of the spore trap, the size of the area viewed through the microscope, and the air volume drawn through the spore trap. The sample results are reported as spores and fungal structures per cubic meter of air (Spores/m<sup>3</sup>).

## **BACKGROUND INFORMATION**

## **Microbial Growth in Buildings**

Microorganisms (bacteria and fungi) are a normal and essential component of all environments. They are needed to break down complex molecules found in organic matter. Microorganisms will grow in almost any environment if they are provided with water and a food source. Microorganisms are almost always found in outdoor air and in the soil. The types and population levels of microorganism will vary from location to location, depending on the local environmental conditions.

Microorganisms are also routinely found in the indoor environment. Doors, windows, and fresh air intakes provide easy access for microorganisms to enter the interiors of buildings. People entering the building are another common pathway for introduction of microbes to the indoor environment.

The normal and expected populations of microbial growth in the indoor environment should not be apparent in a visual inspection of the building interior. Visible microbial growth on building surfaces is an indication of "out of balance" environmental conditions which require correction.

Excessive moisture inside a building from leaks, floods, or other sources can create an environment in which the microorganism population will grow and exceed the levels found outdoors. The type and extent of the microbial growth will depend on the amount of water and available food, temperature, lighting, and other factors. Surface samples can determine the types and quantities of microbial growth in the building.

# Effects of Exposure to Molds

The presence of some microorganisms in large quantities in an indoor environment may cause health problems in some people. Infants, the elderly, and persons with compromised immune systems are more susceptible to the health problems from exposure to molds than healthy members of the general population.

EPA publication "A Brief Guide to Mold, Moisture, and Your Home" (#402-K-02-003) provides the following information about the health effects of mold.

Molds have the potential to cause health problems. Molds produce allergens (substances that can cause allergic reactions), irritants, and in some cases, potentially toxic substances (mycotoxins). Inhaling or touching mold or mold spores may cause allergic reactions in sensitive individuals. Allergic reactions include hay fever type symptoms, such as sneezing, runny nose, red eyes, and skin rash (dermatitis). Allergic reactions to mold are common. They can be immediate or delayed. Molds can also cause asthma attacks in people with asthma that are allergic to mold. In addition, mold exposure can irritate the eyes, skin, nose, throat, and lungs of both mold-allergic and non-allergic people. Symptoms other than the allergic and irritant types are not commonly reported as a result of inhaling mold. Research on mold and health effects is ongoing.

Additional information on health effects of mold exposure can be provided by licensed health care practitioners, the state or local health departments. The reference section of this report lists consensus documents and additional information on mold and bioremediation.

## **Bio-Remediation Activities**

All the currently available consensus guidance documents agree that amplification, i.e., "growth" of mold on building surfaces, requires remediation. The guidance documents also agree that the sources of moisture or water damage that permitted the growth of mold must also be eliminated. Remediation activities should be initiated if visible microbial growth is identified or when surface or air samples in the building find higher than expected microbial levels.

The goal of remediation is to remove or clean contaminated materials in a way that prevents microbes and dust contaminated with microbes from leaving the work area and entering other areas of the building. This work should be done in a way that protects the health of workers performing the abatement and the occupants of the building.

The guiding principles in remediation are as follows:

- Identify and correct the original moisture problem that caused the microbial growth.
- Remove moldy porous materials and remove semi-porous and nonporous material whose structural integrity has been compromised.
- Clean contaminated surface layers of otherwise sound semi-porous and nonporous materials.

• After demolition and surface cleaning work is complete, remove remaining dust and debris from the work area that may contain microorganisms, spores, and the chemicals produced by the growth of the microorganisms.

Decisions to clean or remove contaminated materials are based on the type of material, the extent of the mold contamination, and the structural condition of the material. The amount of contamination and whether the material will be removed or cleaned in place determine the type and extent of controls and protection needed for the remediation work.

Non-porous (e.g., metals, glass, and hard plastics) and semi-porous (e.g., wood, concrete, and plaster) materials that are structurally sound and are visibly moldy can be cleaned and reused. Cleaning should be performed using a combination of a high efficiency particulate (HEPA) vacuum and damp-wiped with a detergent/disinfectant solution.

Porous materials such as ceiling tiles, insulation, and wallboard (drywall, sheet rock, or gypsum board) with more than a small area of contamination should be removed and discarded. Porous materials (e.g., wallboard and fabrics) with a small area of contamination can be cleaned and can be reused if the cleaning is successful. All materials to be reused should be dry and free from visible mold.

The decisions regarding appropriate removal procedures, work area containment, worker protection, and other controls or procedures should be made by a qualified person, such as a Certified Industrial Hygienist, or other environmental professional with appropriate training and experience in bioremediation.

#### References

Currently there are no standards or laws regulating the allowable levels of bio-aerosols in the indoor environment or specifying surface contamination levels at which remediation activities must be initiated.

The following references outline guidance and additional information for the evaluation and remediation of microbial growth in buildings, data on airborne fungi concentrations in buildings and outdoor environments, and information on the health effects of exposure to mold.

This listing, while comprehensive, should not be considered complete, as professionals in the mold evaluation and remediation fields continue to develop and refine their knowledge, and contributions to the advancements in these fields are ongoing.

- 1. American College of Occupational and Environmental Medicine: Adverse Human Health Effects Associated with Molds in the Indoor Environment, Position Paper: ACOEM, February 2011.
- 2. American Conference of Governmental Industrial Hygienists (ACGIH): *Bioaerosols:* Assessment and Control, Cincinnati, OH: ACGIH, 1999.
- 3. American Industrial Hygiene Association (AIHA): Assessment, Remediation, and Post-Remediation Verification of Mold in Buildings. Fairfax, VA: AIHA, 2004.
- 4. American Industrial Hygiene Association (AIHA): *The Facts about Mold,* Operation Outreach Brochure, Fairfax, VA, 2011.
- 5. American Industrial Hygiene Association (AIHA): Hung, L.L., J.D. Miller, and K.H. Dillon (eds.): *Field Guide for the Determination of Biological Contaminants in Environmental Samples, 2nd edition.* Fairfax, VA: AIHA, 2005.
- 6. American Industrial Hygiene Association (AIHA), Prezant, B., D.M. Weekes, and J.D. Miller (eds.): *Recognition, Evaluation and Control of Indoor Mold.* Fairfax, VA: AIHA, 2008.
- 7. American Industrial Hygiene Association (AIHA): *The IAQ Investigator's Guide, 2nd edition*. Fairfax, VA: AIHA, 2006.
- 8. American Industrial Hygiene Association (AIHA), *Report of Microbial Growth Task Force,* Fairfax, VA: AIHA, 2001.
- 9. American Society for Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE): *Limiting Indoor Mold and Dampness in Buildings*, Position Document," June 27, 2012.
- 10. Canadian Construction Association, *Mould Guidelines for the Canadian Construction Industry*, CCA-82-2004 Ottawa, Ontario: CCA, 2004.
- 11. EMLab: *Typical Outdoor Spore Levels*," IAQ Pocket Reference Guide 6<sup>th</sup> Edition, 2011.
- 12. Health Canada: Fungal Contamination in Public Buildings: A Guide to Recognition and Management, Health Canada, 1995.
- 13. Health Canada: *Fungal Contamination in Public Buildings: Health Effects and Investigation Methods*, Ottawa, Ontario, 2004.
- 14. Health Canada: Residential Indoor Air Quality Guidelines: Moulds, 2007.
- 15. Institute of Inspection, Cleaning, and Restoration Certification (IICRC), Standard and Reference Guide for Professional Mold Remediation, S-520, 2008.
- 16. New York City Department of Health and Mental Hygiene, Bureau of Environmental & Occupational Disease Epidemiology: *Guidelines on Assessment and Remediation of Fungi in Indoor Environments,* (April 2000), January 2002.
- 17. National Academy of Sciences, Institute of Medicine (NAS): *Damp Indoor Spaces and Health*, Washington, DC: NAS, May 2004.

- 18. National Institute for Occupational Safety and Health (NIOSH): *Preventing Occupational Respiratory Disease from Exposures Caused by Dampness in Office Buildings, Schools, and Other Nonindustrial Buildings*, Publication # 2013–102. Cincinnati, OH: NIOSH 2012.
- 19. Occupational Safety and Health Administration (OSHA): A Brief Guide to Mold in the Workplace, SHIB03-10-10: OSHA, October 2003.
- 20. U.S. Environmental Protection Agency (EPA), Office of Air and Radiation, Indoor Environments Division: *Mold Remediation in Schools and Commercial Buildings*, EPA 402-K-01-001: EPA, March 2001.
- 21. World Health Organization (WHO): *Guidelines for Indoor Air Quality: Dampness and Mould.* WHO Regional Office for Europe, DK-2100. Copenhagen, Denmark: WHO. 2009.
- 22. Horner, W.E., C. Barnes, R. Codina, and E. Levetin: Guide for interpreting reports from inspections/investigations of indoor mold. *J. Allergy Clin. Immunol.* 121:592-97 (2008).
- 23. Shelton, B., et al: Profiles of Airborne Fungi in Building and Outdoor Environments in the United States, *Applied and Environmental Microbiology*, April 2002, p. 1743-1753.
- 24. Spicer, R.: "Bioaerosol Data Distribution: Probability and Implications for Sampling in Evaluation Problematic Buildings," *Applied Occupation and Environmental Hygiene*, 18: 584-590, 2003.

CHAIN OF CUSTODY	DEP# 46-00564 AIHA# 100421	EAGLE	359 Dresher Road Horsham, PA 19044 215-672-6088 office 215-443-0899 fax
Page 1 of 3	Rev. 10-02-2020	Industrial Hygiene Associa	ates, Inc.
CLIENT: Central Bucks Schoo	district	POINT OF CONTACT: Harrison Hall	PROJECT NO: 201197.1
ADDRESS:			
375 W Court St. Dovlostow	ID DA 19001	PHONE NO: 267-996-7062	LAB NO:
oro w court or, Doylestow	M, FA 10901	E-MAIL: HHall@eagleih.com	2012100
TURNAROUND TIME / SPECIAL INSTRUCT	IONS / COMMENTS:		EAGLE NO:
			E20122109

JOB SITE / DESCRIPTION: Central Bucks High School West spore counts in classrooms, Custodial rooms, and storage rooms on the 1<sup>st</sup> and second floors of A wing.

ANALYTE: Mold Spores		SAMPLE TYP	E: Surface	ANALYTICAL METHOD:	
	1	MEDIA: Bio-1	Гаре		
FIELD SAMPLE NUMBER		SA	MPLE LOCATION / DESCRIPTION		VOLUME/AREA
HH 1219-01	B119				150
HH 1219-02	A100E	E			150
HH 1219-03	A122				150
HH 1219-04	A120				150
HH 1219-05	Hallwa	ay outside of A122			150
HH 1219-06	A123				150
HH 1219-07	A121				150
HH 1219-08	A121E	3			150
HH 1219-09	A1210	;			150
HH 1219-10	A119				150
HH 1219-11	A116				150
HH 1219-12	A118				150
COLLECTED BY:		DATE AND TIME COLLECTED:	RECEIVED BY / CHAIN OF CUSTODY INITIATED	BY: DATE:	TIME:
		12/19/20 08:00	Harrison Hall	12/19/20	15:15
		DATE AND TIME:	RECEIVED BY:	DATE:	TIME:

				2000000
RELINQUISHED BY:		RECEIVED BY:	DATE:	TIME:
SUBMITTED TO LAB BY: Harrison Hall	DATE: 12/19/20	RECEIVED AT LAB BY: OH SAMPLES ACLEPTABLE 52		TIME:

	FOR LAB USE ONLY	
PRE-LOGGED BY:	PREPARED BY: PH	ANALYZED BY: DATE:
DATA VALIDATED BY:	RUSH REPORT BY:	POST-LOGGED BY:
DATA PROCESSED BY:	TEST REPORT REVIEWED BY:	TEST REPORT APPROVED BY: DATE:



Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121927 Sample Description: Outside Exit 2 in Courtyard

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122135

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	3	20	100	37
Aspergillus/Penicillium-like	2	20	68	25
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	1	20	34	13
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	The second second
Epicoccum	1	20	34	13
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	*
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	1	20	34	13
TOTAL	8		270	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121952 Sample Description: Outside in front of Loading Docks on Van

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122160

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	5	20	170	43
Aspergillus/Penicillium-like	5	20	170	43
basidiospores (undifferentiated)	1	20	34	9
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	THE NEW YORK STREET
Chaetomium	ND	20	<34	
Cladosporium	1	20	34	9
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	12		400	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121901 Sample Description: B119

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122109

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	C. Salar Statistics
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	50
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	1	20	34	50
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121902 Sample Description: A100E

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122110

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	THE REAL PROPERTY OF
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	5	20	170	50
Aspergillus/Penicillium-like	2	20	68	20
basidiospores (undifferentiated)	2	20	68	20
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	STREET, DAY
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	1	20	34	10
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	10		340	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121903 Sample Description: A122

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122111

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	A STATE OF A DESIGNATION
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	34
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	1	20	34	34
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	1	20	34	34
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	The second
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	3		100	100
Background Debris (0 - 5)	2		entre and the entre of	

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.



Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121904 Sample Description: A120

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122112

## AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	50
Aspergillus/Penicillium-like	1	20	34	50
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	The second second second
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.



Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121905 Sample Description: Hallway outside A122 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122113

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	100
Aspergillus/Penicillium-like	ND	20	<34	2
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	Designed and the
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris -like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	ALSO LON L'ENTE
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121906 Sample Description: A123

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122114

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	34
Aspergillus/Penicillium-like	3	20	100	50
basidiospores (undifferentiated)	1	20	34	17
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	Real Contraction
Curvularia	ND	20	<34	
Drechslera/Bipolaris -like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	6		200	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121907 Sample Description: A121

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122115

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Results reported as Structures per Cubic Meter of Air (structures/m°)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	STATISTICS IN THE
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	49
Aspergillus/Penicillium-like	1	20	34	24
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	1	20	34	24
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	4		140	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121908 Sample Description: A121B

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122116

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Europal Structure Identification	Fungal Structures	Area of Sample	Concentration	Percentage of
Alternaria	Counted	Viewed (%)	(structures/m <sup>*</sup> )	Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	68
Aspergillus/Penicillium-like	1	20	34	34
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris -like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	3		100	100
Background Debris (0 - 5)	3			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121909 Sample Description: A121C Project #: 201197.1 Lab #: 2012100 Eagle #: E20122117

## AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	A CONTRACTOR
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	3	20	100	100
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	No. of the second
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	CALL STREET BALL
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	A CLARKER
Curvularia	ND	20	<34	
Drechslera/Bipolaris -like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	States of the States
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	3		100	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.



Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121910 Sample Description: A119 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122118

### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	34
Aspergillus/Penicillium-like	1	20	34	34
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	C.C.C.S. States
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	1	20	34	34
Stachybotrys/Memnoniella	ND	20	<34	States of Marine
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	3		100	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121911 Sample Description: A116

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122119

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	Summer and Summer
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	100
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	CONTRACTOR OF
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	Constant and the second
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	1		34	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121912 Sample Description: A118

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122120

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

	Fungal Structures	Area of Sample	Concentration	Percentage of
Fungal Structure Identification	Counted	Viewed (%)	(structures/m <sup>3</sup> )	<b>Total Spores</b>
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	100
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	TAL SHEET AND
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	E STORE STORE
Torula	ND	20	<34	9
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





CHAIN OF CUSTODY RECORD CONTINUATION SHEET

LAB NO:

Page: 2 of 3

Eagle Industrial Hygiene Associates, Inc.

CLIENT: Central Bucks School District

DATA PROCESSED BY:

PROJECT NO: 201197.1

Rev. 8-28-17

2012100

FIELD SAMPLE NUMBER	SAMPLE LOCATION / DESCRIPTION	VOLUME/AREA (N/A)
HH 1219-13	A117	150
HH 1219-14	Hallway outside of A111	150 -
HH 1219-15	A115	150
HH 1219-16	A114	150
HH 1219-17	A111	150
HH 1219-18	A112	150
HH 1219-19	A110	150
HH 1219-20	A108	150
HH 1219-21	A106	150
HH 1219-22	A104	150
HH 1219-23	A107	150
HH1219-24	A101	150
HH 1219-25	A102	150
HH 1219-26	Hallway outside of A202	150
HH 1219-27	Outside Exit 2 in courtyard	150
HH 1219-28	A202	150
HH 1219-29	A201	150
HH 1219-30	A203	150
HH 1219-31	A209	150
HH 1219-32	A204	150
HH 1219-33	A221	150
HH 1219-34	A206	150
HH 1219-35	A208	150
HH 1219-36	A213	150

FOR LAB USE ONLY		
TEST REPORT REVIEWED BY:	TEST REPORT APPROVED BY:	DATE:
1213/1017	Parkla	12/28



Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121913 Sample Description: A117 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122121

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

	Fungal Structures	Area of Sample	Concentration	Percentage of
Fungal Structure Identification	Counted	Viewed (%)	(structures/m <sup>3</sup> )	<b>Total Spores</b>
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	24
Aspergillus/Penicillium-like	2	20	68	49
basidiospores (undifferentiated)	1	20	34	24
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris -like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	and the second se
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	4		140	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121914 Sample Description: Hallway outside of A111

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122122

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

	Fungal	Area of	Concentration	
-	Structures	Sample	Concentration	Percentage of
Fungal Structure Identification	Counted	Viewed (%)	(structures/m <sup>°</sup> )	Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	3	20	100	24
Aspergillus/Penicillium-like	4	20	140	34
basidiospores (undifferentiated)	2	20	68	17
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	SAN STRANG SHALL
Chaetomium	1	20	34	8
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	1	20	34	8
Stachybotrys/Memnoniella	ND	20	<34	States and the
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	Stall, 12 ( die)
hyphal fragments	1	20	34	8
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	12		410	100
Background Debris (0 - 5)	3			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121915 Sample Description: A115

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122123

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	68
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	1	20	34	34
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	Carlos and the
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	3		100	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121916 Sample Description: A114

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122124

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures	Area of Sample	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	24
Aspergillus/Penicillium-like	2	20	68	49
basidiospores (undifferentiated)	ND	20	<34	CALL COLLEGE AND
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	A STATE OF A
Torula	ND	20	<34	
Ulocladium	ND	20	<34	and the second of
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	1	20	34	24
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	4		140	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.







Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121917 Sample Description: A111 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122125

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	In the second
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	50
Aspergillus/Penicillium-like	1	20	34	50
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	and the state of the
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	The second shirt
TOTAL	2		68	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





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Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121918 Sample Description: A112

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122126

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	ALLER AND SHE
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	100
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	-
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121919 Sample Description: A110 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122127

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	50
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	State of the state of the
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	Contractor and the
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	LINE CONSIL
Torula	ND	20	<34	
Ulocladium	ND	20	<34	AREA IN LOW AND
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	1	20	34	50
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121920 Sample Description: A108

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122128

### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	The second states
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	ND	20	<34	AN A STREET
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	and the second states
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	States and the second
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	ND		<34	
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121921 Sample Description: A106 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122129

## AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Eungal Structure Identification	Fungal Structures	Area of Sample	Concentration	Percentage of
Alternaria	Counted	Viewed (%)	(structures/m)	Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	ND	20	<34	
Aspergillus/Penicillium-like	1	20	34	100
basidiospores (undifferentiated)	ND	20	<34	Property Res 2011
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	Standard Street Prove
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	1		34	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121922 Sample Description: A104

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122130

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

	Fungal Structures	Area of Sample	Concentration	Percentage of
Fungal Structure Identification	Counted	Viewed (%)	(structures/m <sup>3</sup> )	Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	50
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	1	20	34	50
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	A REAL PROPERTY OF
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	E Standing To London
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.



Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121923 Sample Description: A107

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122131

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	A DESIGNATION OF THE PARTY OF
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	3	20	100	50
Aspergillus/Penicillium-like	3	20	100	50
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	The state of the second se
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	A DE COMPANY
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	Contraction of the second
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	6		200	100
Background Debris (0 - 5)	2	1		

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121924 Sample Description: A101 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122132

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	50
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	1	20	34	50
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	and the second
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	ALL DE LE
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	Charles and the second
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	A STATE OF STATE
Torula	ND	20	<34	
Ulocladium	ND	20	<34	and the second of
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121925 Sample Description: A102

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122133

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

	Fungal Structures	Area of Sample	Concentration	Percentage of
Fungal Structure Identification	Counted	Viewed (%)	(structures/m <sup>3</sup> )	<b>Total Spores</b>
Alternaria	ND	20	<34	A CONTRACTOR OF STATE
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	ND	20	<34	
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	ND		<34	
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121926 Sample Description: Hallway outside of A202 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122134

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

	Fungal Structures	Area of Sample	Concentration	Percentage of
Fungal Structure Identification	Counted	Viewed (%)	(structures/m <sup>3</sup> )	Total Spores
Alternaria	ND	20	<34	and the second
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	34
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	3	20	100	50
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	1	20	34	17
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	and an an an an an and
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	6		200	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121928 Sample Description: A202 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122136

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	34
Aspergillus/Penicillium-like	2	20	68	68
basidiospores (undifferentiated)	ND	20	<34	A Sector States
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	CLUE EURIAN
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	Manual Provident
TOTAL	3		100	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121929 Sample Description: A201 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122137

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	50
Aspergillus/Penicillium-like	1	20	34	50
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	Service Provide
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.



Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121930 Sample Description: A203

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122138

## **AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS** Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	3	20	100	37
Aspergillus/Penicillium-like	2	20	68	25
basidiospores (undifferentiated)	2	20	68	25
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	LA CANADORA (TO CAR)
Chaetomium	ND	20	<34	
Cladosporium	1	20	34	13
Curvularia	ND	20	<34	
Drechslera/Bipolaris -like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	and stand and a
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	C. S.S. S. S. S. S. S.
TOTAL	8		270	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121931 Sample Description: A209 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122139

## AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

	Fungal	Area of	Concentration	Percentage of
Fungal Structure Identification	Counted	Viewed (%)	(structures/m <sup>3</sup> )	Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	3
Aspergillus/Penicillium-like	17	20	570	58
basidiospores (undifferentiated)	ND	20	<34	South States
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	1	20	34	3
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	Constant on Strength
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	10	20	340	35
Stachybotrys/Memnoniella	ND	20	<34	Contraction of the
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	29		980	100
Background Debris (0 - 5)	2			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.



Eagle Industrial Hygiene Associates, Inc.

Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121932 Sample Description: A204

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122140

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	49
Aspergillus/Penicillium-like	1	20	34	24
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	and the second second
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	STATE AND A STATE OF STATE
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	A STATE OF A STATE
Torula	ND	20	<34	
Ulocladium	ND	20	<34	and the second second
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	1	20	34	24
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	4		140	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121933 Sample Description: A221 Project #: 201197.1 Lab #: 2012100 Eagle #: E20122141

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	3	20	100	100
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	ALC BUSKER
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	Particular Providence
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	3		100	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.



Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121934 Sample Description: A206

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122142

# AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS

Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

	Fungal	Area of	Concentration	Percentage of
Fungal Structure Identification	Counted	Viewed (%)	(structures/m <sup>3</sup> )	Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	2	20	68	49
Aspergillus/Penicillium-like	2	20	68	49
basidiospores (undifferentiated)	ND	20	<34	
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	Carlos and
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL.	4		140	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121935 Sample Description: A208

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122143

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	THE REAL PROPERTY OF
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	ND	20	<34	
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	The second second
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	a construction of
Chaetomium	ND	20	<34	
Cladosporium	ND	20	<34	
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	TALL PLANES
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	ND		<34	
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.





Client: Central Bucks School District 20 Welden Road Doylestown, PA 18901

Location: Central Bucks West High School 375 West Court Street Doylestown, PA 18901

Field Sample #: HH121936 Sample Description: A213

Project #: 201197.1 Lab #: 2012100 Eagle #: E20122144

#### AIRBORNE FUNGAL STRUCTURE SAMPLE ANALYSIS Results reported as Structures per Cubic Meter of Air (structures/m<sup>3</sup>)

Fungal Structure Identification	Fungal Structures Counted	Area of Sample Viewed (%)	Concentration (structures/m <sup>3</sup> )	Percentage of Total Spores
Alternaria	ND	20	<34	
Arthrinium	ND	20	<34	
ascospores (undifferentiated)	1	20	34	50
Aspergillus/Penicillium-like	ND	20	<34	
basidiospores (undifferentiated)	ND	20	<34	CARD STREET
Botrytis	ND	20	<34	
Cercospora	ND	20	<34	Constant of the second
Chaetomium	ND	20	<34	
Cladosporium	1	20	34	50
Curvularia	ND	20	<34	
Drechslera/Bipolaris-like	ND	20	<34	
Epicoccum	ND	20	<34	
Paecilomyces	ND	20	<34	
Pithomyces	ND	20	<34	
Polythrincium	ND	20	<34	
smuts/Myxomycetes/Periconia	ND	20	<34	
Stachybotrys/Memnoniella	ND	20	<34	
Torula	ND	20	<34	
Ulocladium	ND	20	<34	
Zygophiala	ND	20	<34	-
conidiospores	ND	20	<34	
hyphal fragments	ND	20	<34	
miscellaneous/unspecified spores	ND	20	<34	
TOTAL	2		68	100
Background Debris (0 - 5)	1			

ND= None Detected

The minimum reporting limit for this sample is 34 Structures/m<sup>3</sup>

The reported total structure concentration and percentages may not be equal to the sum of the reported individual spore type concentrations and percentages due to the rounding of these numbers.

