



*Effective and Economical
Environmental Solutions*

**Limited Mold Air Sampling
Orchard Hill Elementary School
244 Orchard Road
Skillman, NJ 08558
Karl Environmental Group Project: 26-08660**

October 15, 2026

Prepared for:
Mr. Michael O'Neill
Buildings & Grounds Supervisor
Montgomery Township Board of Education
1014 Route 601
Skillman, NJ 08558

Prepared by:
Karl Environmental Group
20 Lauck Road
Mohnton, PA 19540
Tel: (800) 527-5581
Fax: (610) 856-5040



20 Lauck Road
Mohnton, PA 19540
Tel: (800) 527-5581
Fax: (610) 856-5040
Web: www.karlenv.com

October 15, 2026

Mr. Michael O'Neill
Buildings & Grounds Supervisor
Montgomery Township Board of Education
1014 Route 601
Skillman, NJ 08558

**Re: Limited Mold Air Sampling
Orchard Hill Elementary School
244 Orchard Road
Skillman, NJ 08558
Karl Environmental Group Project: 26-08660**

Dear Mr. O'Neill:

Thank you for selecting Karl Environmental Group ("Karl Environmental") for this project. This report details the methods and findings of the limited mold air sampling performed at Orchard Hill Elementary School located at 244 Orchard Road, Skillman, NJ (the "Facility") on October 15, 2026.

1.0 EXECUTIVE SUMMARY

Airborne mold sampling determined that mold spore concentrations within Room 65 and 66 were within normal ranges.

2.0 PROJECT BACKGROUND

Mold sampling was requested for rooms 65 and 66 of Orchard Elementary School. Karl Environmental conducted airborne mold spore sampling to determine if elevated mold spore concentrations were present in the air. The following investigative practices were conducted:

- Visual inspection for signs of mold growth
- Air sampling and laboratory analysis for airborne mold spore concentrations



3.0 VISUAL INSPECTION

Karl Environmental performed a visual inspection in the areas of the Facility listed in Section 2.0. The purpose of the inspection was to identify visible suspected mold growth. The inspection was limited to the observation of readily accessible areas and did not include the removal of furniture, wall coverings, other items, or the inspection of ventilation systems. The inspection identified the following conditions at the Facility:

- At the time of testing, no visual signs of mold were detected

4.0 INTRODUCTION TO MOLD

Mold spores are found everywhere, indoors, and outdoors. Some mold types are associated with wet building materials, and are known as moisture indicators, while others are more commonly associated with the outdoors in plant material or soil substrate. Like pollen and other airborne contaminants, mold spores can trigger asthma or allergy attacks as well as adversely affect those with suppressed immune systems. Individual sensitivity plays a major role in mold reactions, and spore concentrations that do not affect one individual may cause reactions in another.

Mold concentrations vary with season and other conditions, making it difficult for regulating bodies to create indices for “safe” indoor mold amounts. For those with mold sensitivities, any amount may trigger discomfort. It is therefore wise to reduce indoor mold to as low a level as possible.

5.0 MOLD SAMPLING METHODOLOGY

Karl Environmental collected a total of two (2) air samples from inside the Facility on October 15, 2026, from the locations outlined in Section 2.0. The collection of both indoor and outdoor air samples allows for the comparison of the volume of spores in the air as well as the diversity of the sample composition to assess air quality inside the Facility.

Air samples were collected using individual Allergenco-D® biocassettes and a BUCK BioAire Pump® set to draw air at 15 liters per minute for 10 minutes per sample, resulting in a sample volume of 150 liters. The pump was calibrated prior to use. Upon collection, all samples were sealed and recorded on a Chain of Custody and sent to CEI Labs of Cary, North Carolina, for analysis. CEI Labs, Inc. is an American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program (EMLAP) accredited laboratory (#103025).



6.0 MOLD SAMPLING RESULTS

Mold air sampling results from the Facility and outside are summarized in Table 1.

Table 1: Mold Analytical Results Summary (Air Samples) - October 5, 2026

Sample I.D.	Location	Total spores /m ³	Number of Species Positively Identified	Predominant Species by Percentage	Other Notable Species Present
65	Room 65	710	1	Basidiospores (100%)	N/A
66	Room 66	710	3	Basidiospores (96%)	N/A
OUT	Outside	27,000	9	Basidiospores (95%)	N/A

A mold glossary is attached. Laboratory analytical results and the chain of custody are included in this report.

7.0 CONCLUSIONS & RECOMMENDATIONS

Based upon the observed conditions and the laboratory analytical mold results of samples collected from the Facility, Karl Environmental is of the opinion that the mold concentrations within the testing sites are within normal range.

8.0 LIMITATIONS

The main purpose of the investigation outlined within this report was to identify and report signs of potential mold growth along with conditions that are conducive to mold growth as evident to the hygienist on the day of the investigation. The investigation was a non-intrusive, visual examination and included only visible and readily accessible components and systems. This investigation was not an inspection of mechanical systems and did not attempt to identify physical defects in any component or system.

The hygienist did not dismantle and/or move equipment, systems, furniture, appliances, floor coverings, finished or fastened surfaces or components, personal property or other items to conduct this investigation or otherwise to expose concealed or inaccessible conditions. The investigation did not include destructive testing of any kind. Sampling was completed in the locations denoted in this text.



The investigation and report are not a guarantee or a warranty that the surfaces and items in the areas of investigation are mold-free, or that concealed conditions conducive to mold do not or will not exist. Problems may exist even though signs of such may not be present during an investigation.

9.0 CLOSING

Thank you for using Karl to assist you with this project. Please do not hesitate to call if you have any questions relating to this report or for any other environmental health and safety concerns.

Respectfully submitted,
Karl Environmental Group

Angela Meas
Industrial Hygienist
Karl Environmental Group
Office: (610)-856-7700
Fax: (610)-856-5040
Cell: 484-345-9846
Email: ameas@karlenv.com

Attachment A – Mold Glossary
Attachment B – Laboratory Results/COC



Attachment A Mold Glossary



It is important to note when reading the information presented here, that the presence of a particular species of mold spores does not confirm the presence of a particular mycotoxin, and individual sensitivity will play a major role, as well. Spore concentrations that do not affect one individual may cause reactions in another. The following information is presented as an overview of the mold spores identified in and around your property, and is intended to be used only as general information or a glossary.

Alternaria: This genus comprises a large number of saprobes and plant pathogens. In humans, it is recognized to cause type I and type II allergic responses. Because of the large size of the spores, it can be deposited in the nose, mouth, and upper respiratory tract. It has been known to cause Baker's asthma, farmer's lung, and hay fever. Certain species of *Alternaria* have the capability to produce tenuazonic acid and altertoxin, both mycotoxins. There are approximately 40-50 different species of *Alternaria*. It is one of the more common fungi found in nature.

Arthriniium: This fungus is a saprobe (an organism that derives nourishment from non-living or decaying matter) and is found on plant material. There is no known mycotoxin production and only one of the approximately twenty species of *Arthriniium* is a potential allergen.

Ascospores: Ascospores are ubiquitous in nature and are commonly found in the outdoor environment. This group contains possible allergens, mycotoxin producers, and opportunistic human pathogens.

Aspergillus/Penicillium: *Penicillium* spores are ubiquitous in the environment. These spores are easily aerosolized and can cause a variety of symptoms including allergic reactions, keratitis, hypersensitivities and pneumonitis. Most of these symptoms occur if the individual is immunocompromised in some way (HIV, cancer, etc). *Aspergillus* species can produce a variety of symptoms and disease for an affected individual. There are over 175 different *Aspergillus* species, and they can produce fungal hypersensitivities. Both *Penicillium* and *Aspergillus* spores share similar morphology on non-viable analysis and therefore are lumped together into the same group.

Basidiospores: Basidiospores are agents of wood rot and have the potential to produce a variety of toxins. Members of this family produce type I and III fungal hypersensitivity reactions.

Bipolaris/Drechslera: This group of fungi constitutes the most commonly reported causes of allergic fungal sinusitis. They produce type I fungal hypersensitivity in humans. In the wild, they are plant parasites and are recovered from this type of material. *Bipolaris* sp. has been reported to produce sterigmatocystin, a mycotoxin. Because of the microscopic similarities between the two genera, they are grouped together on both viable and non-viable analysis.

Chaetomium: This genus is often found on materials containing cellulose, or other wet materials. It is also considered part of the ascomycete group because its spores are released from a sac called an ascus. *Chaetomium* can produce type I fungal hypersensitivity and has caused onychomycosis (nail infections). *Chaetomium* species can also produce mycotoxins, such as chaetomin.

Cladosporium: *Cladosporium* spores are commonly found on dead plants, food, textiles and a variety of other surfaces. This genus comprises perhaps the most common spores in both the indoor and outdoor environment. Some species produce a mycotoxin, epicladosporic acid that acts in an immunosuppressive manner. Illnesses caused by this genus can include phaeohyphomycosis, chromoblastomycosis, hay fever, and common allergies.

Culvularia: *Culvularia* species is found on plant material and is considered a saprobe. It has been reported to cause type I hypersensitivity and to be a cause of allergic fungal sinusitis.



Epicoccum: Epicoccum is a saprophyte and considered a weakly parasitic secondary invader of plants, moldy paper, and textiles. Epicoccum is usually isolated with Cladosporium species or Aureobasidium species. It produces the mycotoxins flavipin and epicorazine A&B. It also has the potential to produce type I fungal hypersensitivity reactions.

Nigrospora: Nigrospora sp. is usually considered a contaminant; its pathogenesis is not well studied. It has been associated with type I allergic responses and is usually found in plant material as a saprobe.

Periconia/Smuts/Myxomycetes: Smuts and Myxomycetes are parasitic plant pathogens and can produce type I fungal hypersensitivity reactions. There are occasions where Periconia have been implicated in mycotic keratitis, but this is a rare event. All three are typically grouped together due to their association with plants, the outdoors, and because they share similar microscopic morphology.

Pithomyces: Pithomyces is commonly found on grass and decaying plant material. It has the potential to produce the mycotoxin sporidesmin.

Scopulariosis - Most species in this genus are soil species, but are also found in food and building materials. Grows where water is abundant. Very little is known about the health effects of this type of mold.

Spegazzinia: No current information is known on the toxicity of this mold type. It is normally found outdoors in soil and plant life.

Stachybotrys: Stachybotrys grows well on wet media, preferably containing cellulose. It proliferates in the indoor environment, growing on wallpaper, gypsum board, and textiles. It has worldwide distribution and has been reported to cause dermatitis, cough, rhinitis, headache, although no definitive reports of human infections have been verified. It has the ability to cause type I hypersensitivity and some species produce the following mycotoxins: satratoxin, varrucarins and roridins.

Stemphylium: Stemphylium has been reported to be a type I allergen and is considered a contaminant. It is usually isolated from dead materials and is either parasitic or saprophytic.

Rusts: Rusts are serious plant pathogens associated with cereal crops. These smut teliospores can serve as potential allergens.

Torula: Torula is a saprophyte and is reported to produce type I fungal hypersensitivity. It is typically found in wood containing materials.

Trichoderma: Trichoderma is commonly isolated in soils, air and in plant materials. It is usually considered non pathogenic, however, it has the possibility to produce trichothecene mycotoxins and symptoms similar to that of "Sick Building Syndrome." Trichoderma is also considered a type I and III allergen. In the laboratory, Trichoderma can be a contaminant due to the fact that it can produce confluent growth and take over an entire culture.



Attachment B

Laboratory Results/COC

October 13, 2026

Angela Meas
Karl & Associates
20 Lauck Road
Mohnton, PA 19540

CLIENT PROJECT: 26-08660, Orchard Hill School
LAB CODE: 794210-1

Dear Angela,

Enclosed are mold analysis results for air samples received at our laboratory on 10/13/26. The samples were analyzed for mold spores using nonviable direct microscopy.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Kamila Reichert,
Laboratory Director

AIHA LAP 103025

MOLD SPORE TRAP REPORT
By: Nonviable Direct Microscopy

Prepared for

Karl & Associates

CLIENT PROJECT: 26-08660, Orchard Hill School

LAB CODE: 794210-1

TEST METHOD: CEI Method 110

REPORT DATE: 10/13/26



Lab Code: 794210-1
Date Received: 10/13/26
Date Analyzed: 10/13/26
Date Reported: 10/13/26

Method: CEI Method 110

		Client ID	65				66				OUT			
		Lab ID												
		Location												
		Volume												
IDENTIFICATION		Raw Counts	% Analyzed	Spores per m³	% of Total	Raw Counts	% Analyzed	Spores per m³	% of Total	Raw Counts	% Analyzed	Spores per m³	% of Total	
Predominantly Outdoor	Alternaria													
	Arthrinium													
	Ascospores - Non-Specified					3	100	20	3	90	100	600	2	
	Basidiospores - Non-Specified	106	100	707	100	102	100	680	96	275	7	26193	95	
	Bipolaris/Drechslera-like													
	Cercospora - Like									2	100	13	<1	
	Curvularia									1	100	7	<1	
	Epicoccum									1	100	7	<1	
	Helicomyces*													
	Nigrospora									1	100	7	<1	
	Peronospora													
	Myxomycetes/Periconia/Smuts/Rusts									1	100	7	<1	
	Pithomyces													
	Spegazzinia													
	Stemphylium													
Tetraploa														
Torula														
Non-specified spore										1	100	7	<1	
Total		106		710	100%	106		710	100%	464		27000	100%	
Background Debris		2				1				1				
Pollen Count														
Hyphal Fragments														
Analytical Sensitivity (Spores/m³)		6.7				6.7				6.7				

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.



Built Environment Testing

MOLD SPORE TRAP REPORT

By: Nonviable Direct Microscopy

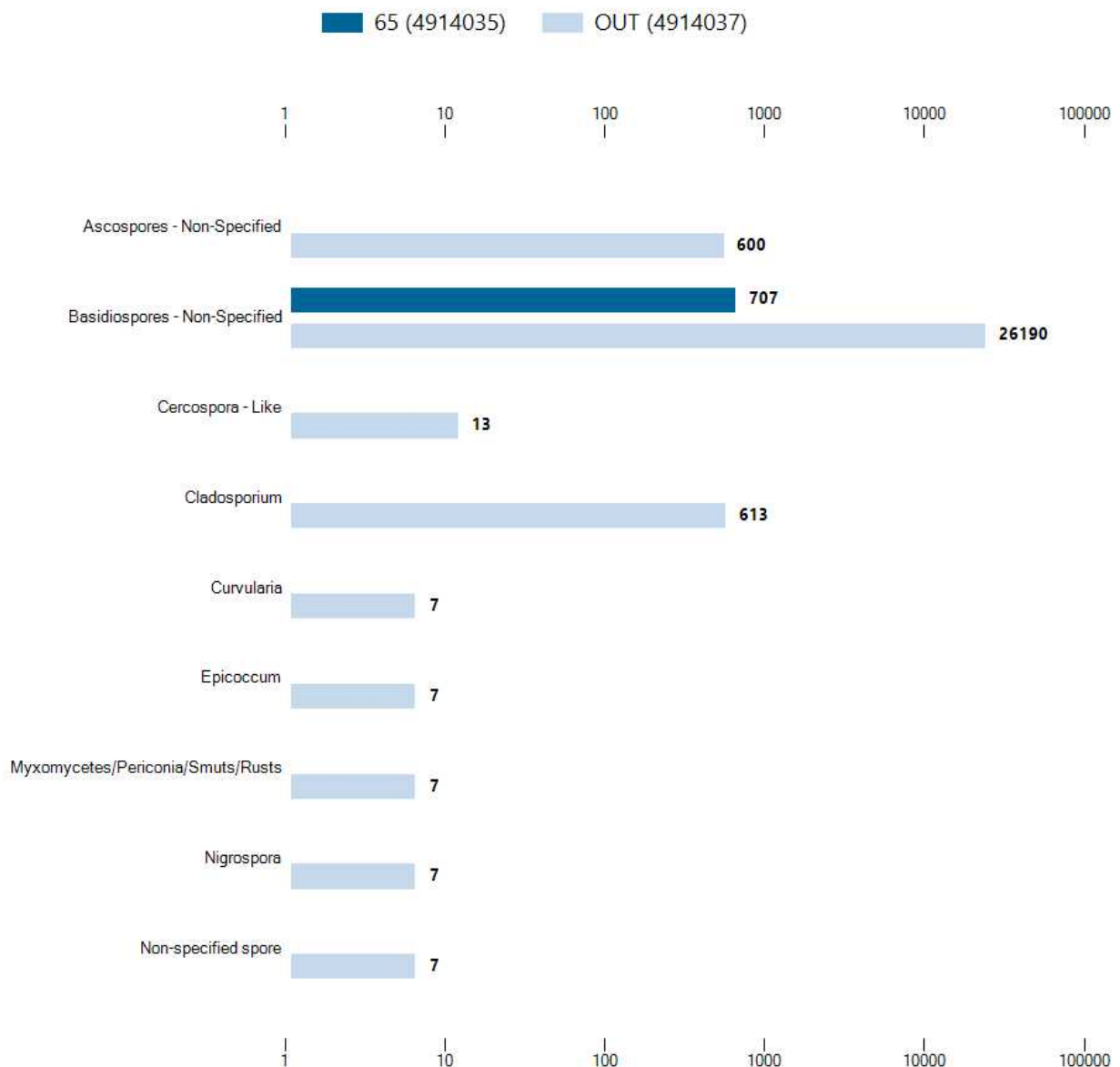
Client: Karl & Associates
20 Lauck Road
Mohnton, PA 19540

Lab Code: 794210-1
Date Received: 10/13/26
Date Analyzed: 10/13/26
Date Reported: 10/13/26

Project: 26-08660, Orchard Hill School

Method: CEI Method 110

Calculated spores per cubic meter





Built Environment Testing

MOLD SPORE TRAP REPORT

By: Nonviable Direct Microscopy

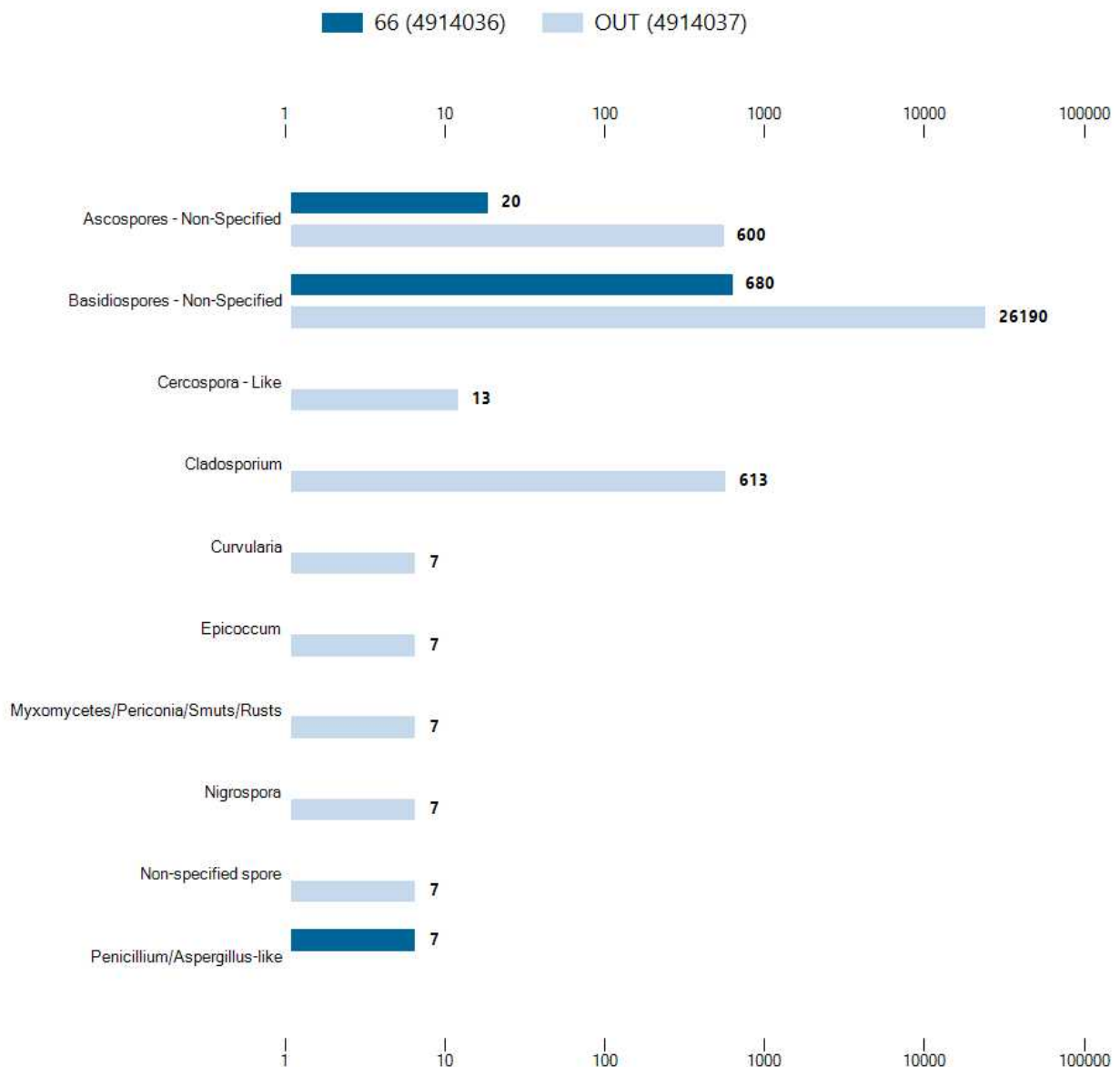
Client: Karl & Associates
20 Lauck Road
Mohnton, PA 19540

Lab Code: 794210-1
Date Received: 10/13/26
Date Analyzed: 10/13/26
Date Reported: 10/13/26

Project: 26-08660, Orchard Hill School

Method: CEI Method 110

Calculated spores per cubic meter



SPORE CLASSIFICATION:

For purposes of this report, identified mold spores are classified into three general categories depending on environmental conditions the spore is most commonly associated with:

- 1) PREDOMINANTLY OUTDOOR:** Most commonly found growing outdoors and are not usually associated with indoor mold sources.
- 2) INDOOR / OUTDOOR:** Commonly grow in both indoor and outdoor environments.
- 3) WATER INDICATOR:** Most commonly associated with indoor mold growth in buildings with long-term water intrusion issues.

**PREDOMINANTLY
OUTDOOR**

**INDOOR /
OUTDOOR**

**WATER
INDICATOR**

SPORE CLASSIFICATION:

Background debris is the amount of non-fungal particulates present in the trace including dust, fibers, skin scales, dust mites, and insect parts. A debris rating is assigned each trace from 0 (lowest) to 5 (highest). A higher debris rating means samples are more difficult to analyze, and spores, especially smaller spores like *Aspergillus* / *Penicilium*, may be obscured. Counts with debris ratings of 4 or 5 should be regarded as minimal counts with actual counts assumed to be significantly higher. A further explanation of the debris rating is listed below:

- 0 - None Detected.** No debris observed.
- 1 - Trace.** Field of view obscured < 5 %.Counts unaffected.
- 2 - Light.** Field of view obscured 5 % to 25 %.Counts slightly affected.
- 3 - Moderate.** Field of view obscured 25 % to 75 % .Actual counts may be higher than reported counts.
- 4 - Heavy.** Field of view obscured 75 % to 90 % .Actual counts may be significantly higher than reported counts.
- 5 - Very Heavy.** Field of view obscured > 90 % .Actual counts may be significantly higher than reported counts. Resampling may be necessary.

DEFINITION OF TERMS:

Analytical Sensitivity: Spore per cubic meter (concentration) divided by raw count.

Limit of Detection: One Spore

Hyphal Fragments: Hyphal fragments are broken pieces of fungal hyphae and constitute the vegetative structure of the fungus.

Pollen Count: Pollen grains(Pollen) are the male reproductive structures of Angiosperm plants. These are counted only as pollen and not classified to Genus level.

Raw Counts: The number of spores counted by the analyst.

% Analyzed: The amount of the trace that was analyzed for each individual spore type.If large amounts of any spore type(s) exist, counts may be extrapolated.

% of Total: Percentage of the sample that is made up of each spore type.

INDOOR AND OUTDOOR COMPARISONS:

There are no current Federal standards regarding permissible levels of airborne fungi that may be present in buildings. Mold spores are ubiquitous to our planet and it is expected that some spores will be present in normal indoor environments.A general guideline that is widely accepted in the industrial hygiene industry is that the types and numbers of mold spores present in the indoor environment should be similar to those present in the outdoor environment.If inside spore counts are significantly higher than outside counts this may indicate a potential mold problem.The comparison of outdoor and indoor spore types and concentrations is a useful tool in assessing abnormal mold contamination; however, it should not be the sole determining factor in evaluating health risks and remediation strategies.

	SPORE NAME	COMMON HABITAT	ALLERGENIC POTENTIAL	MYCOTOXIN POTENTIAL
Predominantly Outdoor	Alternaria	Soil, seeds, plants, carpet, textiles, window frames, air	X	X
	Arthrinium	Soil, plant materials, decaying wood	X	
	Ascospores - Non-Specified	Plants, soil, cellulose-containing materials, air		
	Basidiospores - Non-Specified	Soil, plants, wood, cellulose-containing materials, air		
	Bipolaris/Drechslera - Like	Grasses, plant material, decaying food, soil		
	Cercospora - Like	Plants		
	Curvularia	Soil, plant materials, cellulose-containing materials	X	
	Epicoccum	Plants, soil, seeds, carpet, air	X	
	Helicomyces*	Plants		
	Nigrospora	Plants, soil		
	Peronospora	Plants		
	Myxomycetes/Periconia/Smuts /Rusts	Plants, air	X	
	Pithomyces	Soil, plant material, air		
	Spegazzinia	Soil, plants		
	Stemphylium	Dead plants, cellulose-containing materials		
	Tetraploa	Plants		
	Torula	Soil, plants		
	Non-specified spore	Various		
Indoor/ Outdoor	Aspergillus/Penicillium - Like	Soil, food, carpet, HVAC, air	X	X
	Cladosporium	Plants, woody plants, food, soil, paint, textiles, carpet, HVAC, air	X	
	Fusarium	Soil, plants, seed, fruits, grains		X
Water Indicator	Chaetomium	Cellulose-containing materials, soil, seeds, dung	X	X
	Stachybotrys	Paper, wallpaper, gypsum board	X	X
	Trichoderma - Like	Soil, decaying wood, plant material, cellulose-containing materials	X	X
	Ulocladium	Soil, grasses, wood, paper		

* Heliocomyces includes Helicosporium

METHOD: CEI Method 110

All samples received in acceptable condition. Information provided by customer includes customer sample ID, location and volume. Analytical results are not corrected for field and laboratory blanks.

Eurofins Built Environment Testing East, LLC bears no responsibility for client sampling methods and makes no warranty representation regarding the accuracy of client-supplied information in preparing and presenting analytical results. Eurofins Built Environment Testing East, LLC maintains liability limited to the cost of analysis, except for Eurofins Built Environment Testing East, LLC's own willful misconduct or gross negligence. Interpretation of the analytical results is the sole responsibility of the customer. Test results relate only to the items tested and cannot be extrapolated to anything larger than their original intent. This report may not be reproduced, except in full, without written approval by Eurofins Built Environment Testing East, LLC.

The overall intralaboratory relative standard deviation (Sr) for the lab = 0.2.

Spore count range	10-100	101-350	>350
Intralaboratory Sr	0.25	0.2	0.1



Eva Leslie
Analyst

DATA QA:



Andy Matelski
10/13/2026

APPROVED BY:



Kamila Reichert,
Laboratory Director



Built Environment Testing

RES Job #: 794210

SUBMITTED BY	INVOICE TO	CONTACT INFORMATION	SERIES
Company: Karl & Associates	Company: Karl & Associates	Contact: Angela Meas	-1 Micro Rush 8
Address: 20 Lauck Road	Address: 20 Lauck Road	Phone: (610) 856-7700	
Mohnton, PA 19540	Mohnton, PA 19540	Fax:	
		Cell: (484) 345-9846	
Project Number and/or P.O. #: None Given	Project Zip Code:	Final Data Deliverable Email Address: ameas@karlenv.com (+ 8 ADDNL. CONTACTS)	
Project Description/Location: 26-08660, Orchard Hill School			

ASBESTOS LABORATORY					REQUESTED ANALYSIS										VALID MATRIX CODES				LAB NOTES			
PLM / PCM / TEM / NYS DTL RUSH PRIORITY STANDARD					PLM	TEM	PCM	NYS	DUST	METALS	ORGANICS	VIABLES	MEDICAL	MOLD - Spore Trap Analysis (ASTM D7391-20)	Air = A		Bulk = B					
															Dust = D		Food = F					
CHEMISTRY LABORATORY															Paint = P		Soil = S					
Dust RUSH PRIORITY STANDARD															Surface = SU		Swab = SW					
Metals RUSH PRIORITY STANDARD															Tape = T		Wipe = W					
															Drinking Water = DW							
															Waste Water = WW							
Organics* SAME DAY RUSH PRIORITY STANDARD															**ASTM E1792 approved wipe media only**							
MICROBIOLOGY LABORATORY															Sample Volume (L) / Area	Sample Temperature (°C)	Length (or Aliquots) x Width (or Area) (Aliquot)	Matrix Code		# of Containers	Date Collected mm/dd/yy	Time Collected hh:mm
Viable Analysis** PRIORITY STANDARD																						
Medical Device Analysis RUSH STANDARD																						
Mold Analysis RUSH PRIORITY STANDARD																						
Turnaround times establish a laboratory priority, subject to laboratory volume and are not guaranteed. Additional fees apply for afterhours, weekends and holidays.																						
Special Instructions:																						

Eurofins Built Environment Testing East, LLC establishes a unique Lab Sample ID, for each sample, by preceding each unique Client Sample ID with the laboratory RES Job Number.

Eurofins Built Environment Testing East, LLC will analyze incoming samples based on information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing, client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET30. Failure to comply with payment terms may result in a 18% APR finance charge.

Relinquished By:	Date/Time: 10/13/2026 10:29:39	Sample Condition: Acceptable
Received By: 	Carlos Romero Date/Time: 10/13/2026 12:03:41	Carrier: Fed-Ex

Karl & Associates
Sample Locations

RES #: 794210
Project Number and/or P.O. #: None Given
Project Description/Location: 26-08660, Orchard Hill School

Client Sample ID	Sample Location
65	Room 65
66	Room 66
OUT	Outside

Fax: (610) 856-5040

794210

20 Lauck Road
Mohnton, PA 19540

Karl/K&A Job # :	26-08660	Project Location :	Orchard Hill School
Date of Sample :	10/12/26	Project Manager :	Angela Meas
Project Client :	Montgomery BOE	Email :	ameas@karlenv.com

☐ 4 Hour ☐ 8 Hour ☐ 24 Hour ☐ 48 Hour ☐ 3-5 Days ☐ 7-14 Days ☒ Other same day

[illegible]Lab: Eurobins CEI

Relinquished By:

Date/Time:

Notes:

Received by:

Date/Time:

Same outdoor sample as 26-0866