



## Environmental Resources Group

3125 Sovereign Drive • Suite B • Lansing, MI • 48911  
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September 19, 2024

Brian Lieber  
Facility Director  
Okemos Public Schools  
4000 Okemos Road  
Okemos, Michigan 48664

**RE: The Public Montessori at Central, Room 128  
4406 Okemos Road, Okemos, Michigan  
ERG Project No.: 240451**

Dear Mr. Lieber:

Environmental Resources Group, LLC. (ERG) is pleased to provide the following report of findings.

On Wednesday, September 4, 2024, ERG conducted a visual inspection and air quality testing in Room 128 following carpet cleaning and drying which was performed by GFL Environmental. The cleaning was requested following the observation of what was believed to be a dime sized area of visible mold on the carpet.

During the inspection of Room 128, ERG observed the following:

- No musty, earthy or other odors
- No observable odor in the carpet
- A single water marked ceiling tile near the room entrance
- Multiple fans in operation
- A room air filtration device in operation
- Supply air diffusers and return air grilles were clean

Following the visual inspection, air samples were collected from the room and a settled dust sample was collected from the carpet.

The air samples and dust sample were submitted to and analyzed in the ERG Indoor Air Quality Laboratory pursuant to the requirements of modified ASTM International Standard D-7391-09. A copy of the laboratory report is attached for your review.

The results of air sample analysis indicated a slightly elevated *Aspergillus/Penicillium* concentration which, although slightly elevated, was below the *Aspergillus/Penicillium* concentration outdoors. No highly



allergenic mold spores were detected, and the mold, pollen and other particulate concentrations otherwise met the Baxter Criteria (previously discussed).

The results of dust sample analysis indicated fewer than 1% spores in the dust in the carpet which is considered clean. However, highly allergenic mold was detected in the carpet (*Pithomyces*). The presence of highly allergenic mold is a confounding factor, and ERG believes highly allergenic mold should be removed.

As a result of these findings, ERG recommends one of two options.

The first option is to HEPA vacuum the carpet with a beater bar attachment in two perpendicular directions.

The second option involves removing the carpet and replacing it with a hard floor surface. Please be aware that vinyl asbestos tile are known to exist below the carpet. As such, carpet removal should be conducted by a State of Michigan licensed asbestos removal contractor as floor tile are likely to stick to the carpet as it is removed. Once the carpet is removed, the vinyl floor tile should also be removed in a way that maintains their non-friable condition. The underlying black floor tile mastic was found not to contain asbestos. The mastic may need to be removed to accommodate the new floor installation, but the mastic can be removed without further asbestos related consideration.

Although not required by law following the removal of non-friable asbestos containing material, ERG recommends conducted air quality testing after the floor tile removal work is complete to ensure airborne fiber concentrations are below 0.01 fibers per cubic centimeter of air.

Lastly, remove the water marked ceiling tile and replace it with a new tile.

Should you have any questions or need additional information feel free to contact us.

Sincerely,

**ENVIRONMENTAL RESOURCES GROUP**

A handwritten signature in dark ink that reads "Phillip A. Peterson". The signature is fluid and cursive.

Phillip A. Peterson  
Senior Project Manager

Enc



AIR SAMPLE DATA SHEET  
AND LABORATORY DATA



PROJECT NUMBER 240451 DATE 9/4/2024

PROJECT Okemos Public Montessori at Central Sampled By: Phil Peterson & Protmex MS6508

CLIENT Okemos Public Schools Analyzed By: ERG

**AIR SAMPLE DATA SHEET**

SAMPLE #	TYPE	DESCRIPTION	TIME ON TIME OFF	SAMPLE TIME (MIN)	FLOW ON FLOW OFF (L/MIN)	AVERAGE FLOW	VOLUME (LITERS)	RESULTS		
								T (° F)	RH (%)	Other
1	BA	Room 128, 7' West of Entry door	6:55	5	15.8	15.8	79	71.9	62.5	See attached data sheets
			7:00		15.8					
2	BA	Room 128, 6' Southeast of metal cabinet	7:03	5	15.8	15.8	79	71.9	62	See attached data sheets
			7:08		15.8					
3	BA	Field blank	7:10	-	-	-	0	-		See attached data sheets
			-		-					
4	MV	Room center	7:12	-	-	-	0	-		See attached data sheets
			-		-					
5	BA	Out-of-doors, 70' South of Door 21	7:21	5	15.8	15.8	79	71.9	73	See attached data sheets
			7:26		15.8					
										See attached data sheets
										See attached data sheets
										See attached data sheets
										See attached data sheets
										See attached data sheets

Sample types: CO - CARBON MONOXIDE  
 CO<sub>2</sub> - CARBON DIOXIDE  
 O<sub>2</sub> - OXYGEN  
 H<sub>2</sub>S - HYDROGEN SULFIDE  
 LEL - LOWER EXPLOSIVE LIMIT  
 T - TEMPERATURE  
 RH - RELATIVE HUMIDITY  
 FB - FIELD BLANK  
 B - BULK  
 MV - MICROVACUUM  
 BA - BIOAEROSOL  
 V - VARIOUS





# IAQ Bioaerosol Analytical Report

## ERG Project Number: 240451

**Client Name:** Okemos Public Schools  
**Project Name:** Room 128 - Learning Center

Date of Sample Collection: 9/4/2024 Report Date: 9/4/2024  
 Date of Submittal: 9/4/2024 Analyst: Kaila Schwanitz  
 Date of Analysis: 9/4/2024 Minimum Reporting Limit: 60 s/m³

**Sample #**

**Sample Location**

5								
Out-of-doors, 70' S of door 21								
structures/ sample	s/m³	% trace scanned	structures/ sample	s/m³	% trace scanned	structures/ sample	s/m³	% trace scanned
<i>Alternaria</i>	ND							
Ascospore	478	6100	20.3%					
<i>Aspergillus/Penicillium</i>	84	1100	20.3%					
Basidiospore	ND							
<i>Botrytis</i>	ND							
<i>Chaetomium</i>	ND							
<i>Cladosporium</i>	10	100	20.3%					
<i>Curvularia</i>	ND							
<i>Drechslera/Bipolaris</i>	ND							
<i>Epicoccum</i>	ND							
<i>Erysiphae/Oidium</i>	ND							
<i>Fusarium</i>	ND							
Hyphal Fragments	ND							
<i>Nigrospora</i>	ND							
<i>Periconia/Myxomycete/Smut</i>	ND							
<i>Ulocladium/Pithomyces</i>	ND							
Rhizopus	ND							
<i>Stachybotrys</i>	ND							
<i>Stemphylium</i>	ND							
<i>Torula</i>	ND							
Miscellaneous/Unidentified Spores	ND							
<b>Total</b>	<b>572</b>	<b>7300</b>						

**Pollen**

Grass	ND							
Tree	ND							
Other/Unknown Pollen	30	400	20.3%					
<b>Total</b>	<b>30</b>	<b>400</b>						

**Other Particulate**

Cellulose Fibers	10	100	20.3%					
Fibrous Glass	ND							
Synthetic Fibers	15	200	20.3%					
Mineral Fibers	ND							
Opaque Particles	74	940	20.3%					
Insect Fragments	ND							
<b>Total</b>	<b>99</b>	<b>1240</b>						
*Debris rating	1							

Notes:

All samples prepared and analyzed per the modified ASTM D7391-09.

# IAQ Surface Sample Analytical Results

ERG Project Number: 240451



Client Name: Okemos Public Schools  
 Project Name: Room 128 - Learning Center

Date of Sample Collection: 9/4/2024  
 Date of Submittal: 9/4/2024  
 Date of Analysis: 9/4/2024

Report Date: 9/4/2024  
 Analyst: Kaila Schwanitz

<b>Sample #</b>	4		
<b>Sample Type</b>	Microvacuum		
<b>Sample Location</b>	Room center on carpet		
<b>Spores, Pollen, and Other Particulate (In decreasing order of abundance)</b>	Non Fibrous Matter Opaque Particles <i>Aspergillus/Penicillium</i> Synthetic Fibers <i>Pithomyces</i>		
<b>Notes:</b>	This sample contains less than 1% spores.		

Surface samples were analyzed pursuant to the requirements of the ASTM International Standard D-7391.



**Comments**

\*Debris rating (% obstructed by particulate matter ): 0= no particulate matter detected, 1= >0-5%, 2= 6%-25%, 3= 26%-76%, 4= 75%-90%, 5= >90%. Where debris rating =5, fungal/pollen/other particulate are reported as "present." For debris ratings 2-4, negative bias is expected. The degree of negative bias increases with the percent of the trace that is obstructed.

Samples were received in acceptable condition, unless otherwise indicated. Results relate only to items tested. Results are reported in units of structures per cubic meter of air (s/m<sup>3</sup>), except blank samples, where the actual number of observed particles are reported. Spore types listed without a count or other data indicate that the specific analyte was not detected during the course of sample analysis. Spores of the genera *Aspergillus* and *Penicillium* are categorized together due to their small size and spherical shape with few distinguishing characteristics. Other similar spores will be categorized as *Aspergillus/Penicillium* unless fruiting bodies allow more precise identifications.

ND= none detected (minimum of 20.3% trace scanned) unless otherwise reported .

Minimum Reporting Limit represents the lowest calculated limit in this report.

This report shall not be reproduced, except in full, without written approval of the laboratory.

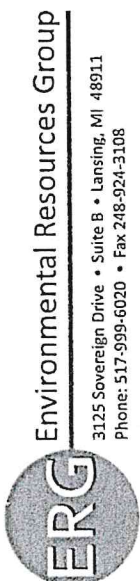
Flow Rate is in liters per minute. Time is reported in minutes.

The enclosed data from Environmental Resources Group, LLC (ERG) is for sample(s) collected by our client. The client bears all risk relative to the use of this data, including any course of action or inaction. Further, ERG asserts that the data pertains only to the submitted sample(s). ERG makes no representation or guarantee about the source of the material analyzed, the suitability of the sample size, sample frequency or sample distribution, or the relationship of the submitted sample(s) to the area sampled.

Approved Signatory: \_\_\_\_\_ 

Date: 9/4/2024




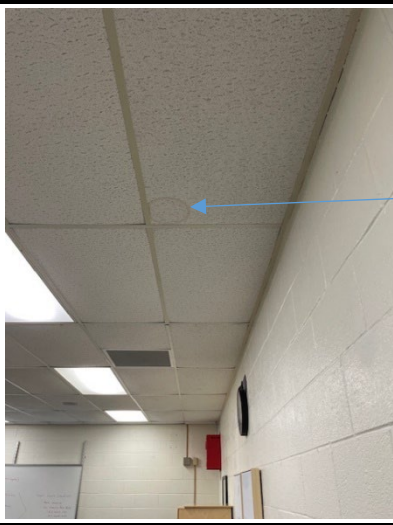



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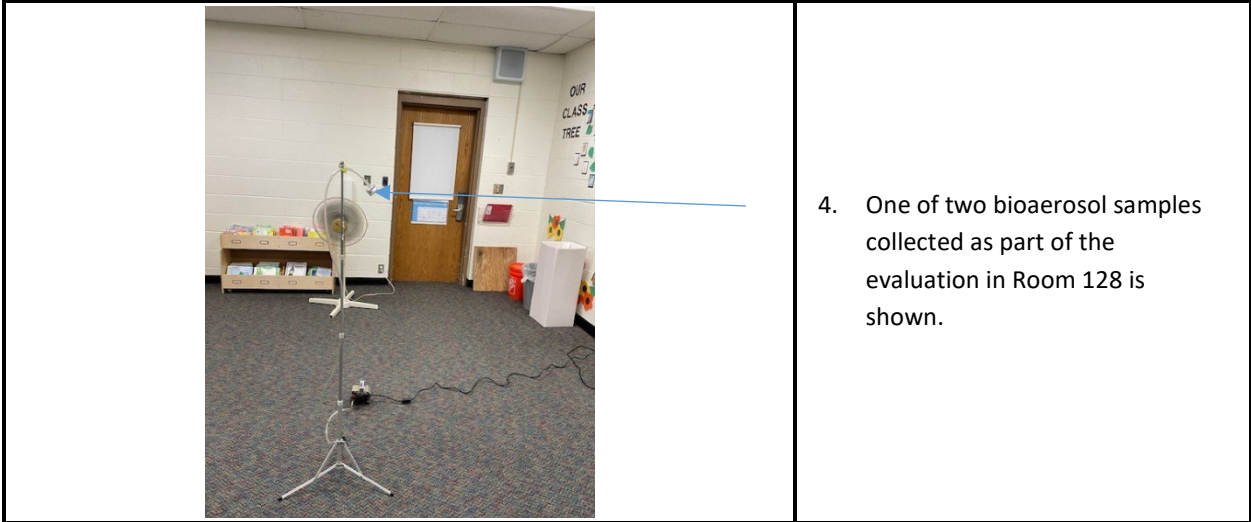
Client Name: <u>Okeemos Public Schools</u>		Matrix Code	
Contact Person: <u>PLW@ERG</u>	S Soil		GW Ground Water
Project Name/Number: <u>OFM, Room 128 (Learning Center) / 2/01/15</u>	A Air		SW Surface Water
Project Location: <u>Okeemos, MI</u>	O Oil		W Wastewater
Email Distribution List:	B Bulks		X Other: Specify
Phone No.:	PARAMETERS		
Purchase Order No.:	# OF CONTAINERS		
Date	Time	Sample #	Client Sample Descriptor
09/04/14	see	1	Room 128, 7' W of entry door
	a.s.d.s	2	Room 128, 6' SE of metal cabinet
		3	Field Blank
		4	Room center on carpet
		5	Out-of-doors, 70' N of door 21
Remarks: <u>79L (15.8 LPM for 5 minutes)</u>			
79L			
OL			
MV			
79L			
Samples received in acceptable condition <input checked="" type="checkbox"/>			
Comments:		Date/Time	Received By:
		09/04/14 08:14	<i>Phillip LaRab</i>
Relinquished By:		Date/Time	Received By:
			<i>Phillip LaRab</i>
Relinquished By:		Date/Time	Received By Laboratory:
			<i>Phillip LaRab</i>
LAB USE ONLY			
Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY		ERG project number:	Temperature upon receipt at Lab (if applicable):
Same day	<input checked="" type="checkbox"/> 1 bus. day	3 bus. days	4 bus. days
5-7 bus. days (standard)	Other (specify time/date requirement):		
Please see back for terms and conditions			



DIGITAL PHOTOGRAPH LOG

		<p>1. Room 128 as viewed on the morning of September 4, 2024. The room was clean, had no musty odors and the carpet was dry.</p>
		<p>2. A watermarked ceiling tile was observed near the entry door. No visible mold was observed in the tile.</p>
		<p>3. A room air filter was present and in operation in the room.</p>

Photograph Date: September 4, 2024  
Photo taken by: Phil Peterson  
Site: OPM, Room 128 (Learning Center)  
ERG Project #: 240451



4. One of two bioaerosol samples collected as part of the evaluation in Room 128 is shown.