



December 12, 2024

Mr. Robert Mortka  
Director of Facilities  
**Black Horse Pike Regional Board of Education**  
580 Erial Rd.  
Blackwood, NJ 08102

**RE: Indoor Air Quality Inspection Report – November 2024**  
**Black Horse Pike Regional Administration Building**  
**Epic Project No. 24-4505**

Dear Mr. Mortka:

**Epic Environmental Services, LLC (Epic)** was retained by the Black Horse Pike Board of Education (District) to perform indoor air quality inspections for two randomly selected areas at the Black Horse Pike Regional Administration Building. The inspections consisted of visual observations and the collection of temperature and relative humidity data. Additionally, samples for airborne mold spores were collected in the inspection areas.

The visual inspections focused on signs of moisture, water intrusion, and visible mold growth.

Temperature, carbon dioxide, and relative humidity data were compared to current New Jersey Indoor Air Quality and industry standards.

Epic Environmental performed the inspections on November 26, 2024.

### **Acceptable Temperature and Relative Humidity Criteria**

<b>Acceptable Indoor Temperature Range:</b>	<b>68° - 79° Fahrenheit</b>
<b>Ideal Relative Humidity Range:</b>	<b>30-60%</b>
<b>Acceptable Carbon Dioxide Limit:</b>	<b>1,000 parts per million (ppm)</b>

The following rooms/areas were inspected:

Assistant RA Office, Sec. to Superintendent

## **Observations, Comments, and Recommendations**

### **Weather: Sunny, 50° Fahrenheit, 42% Relative Humidity**

#### **Assistant RA Office**

No visible mold was observed.

No evidence of recent water intrusion was observed.

Relative humidity was within the ideal range (45%). Temperature was within the acceptable range.

Airborne mold spore concentrations were near or below outside (background) concentrations.

Carbon dioxide concentrations were above the allowable limit (1300 ppm).

Check HVAC settings to ensure proper fresh air introduction into the space.

#### **Sec. to the Superintendent**

No visible mold was observed.

No evidence of recent water intrusion was observed.

Relative humidity was within the ideal range (47%). Temperature was within the acceptable range.

Airborne mold spore concentrations were near or below outside (background) concentrations.

Carbon dioxide concentrations were above the allowable limit (1200 ppm).

Check HVAC settings to ensure proper fresh air introduction into the space.

## **General Conclusions and Recommendations**

#### **Overall Assessment**

1. Indoor air quality complies with New Jersey standards for temperature and humidity.
2. No visible signs of mold or water intrusion were found in the assessed areas.
3. Relative humidity levels were maintained within the optimal range of 45-47%.
4. Carbon dioxide levels were elevated, measuring between 1200-1300 ppm, exceeding the recommended guideline of 1000 ppm.

#### **Environmental Controls**

1. Maintain relative humidity above 30% during the cooler seasons.
2. Enhance fresh air ventilation to lower CO2 levels below the 1000 ppm threshold.

#### **Ongoing Monitoring**

1. Establish a regular monitoring program for CO2 levels.
2. Continue routine inspections of indoor air quality.
3. Maintain a reporting system for staff to address moisture and mold concerns.

Please do not hesitate to contact me at 856-205-1077 should you have any questions.

An invoice for the completed project is enclosed.

Regards,



Tim Eberts  
Senior Project Manager  
Epic Environmental Services, LLC



James Eberts  
President  
Epic Environmental Services, LLC

## Sample Data Summary

### Air Sampling

#### Air Samples

November 26, 2024

Air Sample Location	Airborne Mold Concentrations (spores/m <sup>3</sup> )	
	Total	Individual Mold Concentrations
Assistant RA Office	2280	Basidiospores 1700
		Bipolaris 80
		Cladosporium 300
		Myxomycetes 200
Sec. to Superintendent	1320	Ascospores 80
		Basidiospores 200
		Bipolaris 40
		Cladosporium 600
		Epicoccum 80
		Myxomycetes 80
		Pithomyces 80
		Rust 80
Outside	19700	Torula 80
		Ascospores 500
		Aspergillus/Penicillium 500
		Basidiospores 14400
		Cladosporium 4300

- Total mold counts found in **green** indicate a total airborne mold level NEAR or BELOW the outside (background) level.
- Total mold counts found in **red** indicate a total airborne mold level significantly ABOVE the outside (background) level, and may be an indicator of active mold growth.
- Individual molds listed in **green** indicate an individual airborne mold level NEAR or BELOW outside the (background) level.
- Individual molds listed in **purple** were not found in the background sample, but not considered evidence of a water/moisture issue or active mold growth.
- Individual molds listed in **red** indicate an individual airborne mold level significantly ABOVE the outside (background) level, and may be an indicator of active mold growth in the area.

Airborne mold spore concentrations were near or below background (outside) concentrations in all areas.



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-0262

<http://www.EMSL.com> / [cinnmicrolab@emsl.com](mailto:cinnmicrolab@emsl.com)

EMSL Order: 372420567

Customer ID: EPIC62

Customer PO:

Project ID:

**Attention:** James Eberts  
Epic Environmental Services, LLC  
80 Fork Bridge Road  
Pittsgrove, NJ 08318

**Phone:** (856) 205-1077

**Fax:** (856) 205-0413

**Collected Date:** 11/26/2024

**Received Date:** 11/26/2024

**Analyzed Date:** 11/27/2024

**Project:** BHP Admin Bldg IAQ

## Test Report: Micro-5(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	372420567-0001 A-01 25 Outside			372420567-0002 A-02 25 Assistant RA Office			372420567-0003 A-03 25 Sec. to Superintendent		
Spore Types	Raw Count†	Count/m³	% of Total	Raw Count†	Count/m³	% of Total	Raw Count†	Count/m³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	6	500	2.5	-	-	-	1	80	6.1
Aspergillus/Penicillium++	6	500	2.5	-	-	-	-	-	-
Basidiospores	106(180)	14400	73.1	21	1700	74.6	3	200	15.2
Bipolaris++	-	-	-	1	80	3.5	1	40*	3
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	54	4300	21.8	4	300	13.2	7	600	45.5
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	1	80	6.1
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	2	200	8.8	1	80	6.1
Pithomyces++	-	-	-	-	-	-	1	80	6.1
Rust	-	-	-	-	-	-	1	80	6.1
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Torula++	-	-	-	-	-	-	1	80	6.1
Total Fungi	246	19700	100	28	2280	100	17	1320	100
Hyphal Fragment	-	-	-	1	80	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	1	-	-	3	-	-	3	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	3	-	-	4	-

++ Includes other spores with similar morphology; see EMSL's fungal glossary for each specific category.

† Due to method stopping rules, extrapolated raw counts are reported in parenthesis.

No discernable field blank was submitted with this group of samples.

EMSL Analytical, Inc. maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. EMSL Analytical, Inc. bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Skin Fragment and Fibrous Particulate ratings are based on the percent of non-fungal material they represent: 1 (1-25%), 2 (26-50%), 3 (51-75%), or 4 (76-100%). Background ratings are based on the total area covered by non-fungal particles: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-99%), or 5 (100%; overloaded). High levels of background particulate can obscure spores and other particulates, leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "" Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts >= 100 are extrapolated based on the percentage analyzed.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA LAP, LLC-EMLAP Accredited #100194

Initial report from: 12/02/2024 09:25 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://www.emsl.com)





## Microbiology Chain of Custody Form

EMSL Order Number / Lab Use Only

EMSL Analytical, Inc.  
200 Route 130 NorthCinnaminson, NJ 08077  
PHONE: 1-800-220-3675  
EMAIL: c@emsl.com

372420567

If Bill-To is the same as Report-To leave this section blank. Third-party billing requires written authorization.

Customer Information	Customer ID:				Billing Information	Billing ID:			
	Company Name:	Epic Environmental Services, LLC				Company Name:	Epic Environmental Services, LLC		
	Contact Name:	James Eberts				Billing Contact:	James Eberts		
	Street Address:	80 Fork Bridge Road				Street Address:	80 Fork Bridge Road		
	City, State, Zip:	Pittsgrove	NJ	08318		Country:	US		
	Phone:	856-205-1077				Phone:	856-205-1077		
	Email(s) for Report:	jeberts@epicenviro.com				Email(s) for Invoice:			

Project Information			
Project Name/No:	BHP Admin Bldg 1A2		Purchase Order:
EMSL LIMS Project ID: (If applicable, EMSL will provide)	State Samples Collected:	Zip Code Samples Collected:	State of Connecticut (CT) must select project location: <input type="checkbox"/> Commercial (Taxable) <input type="checkbox"/> Residential (Non-taxable)
Sampled By Name:	Sampled By Signature:		No. of Samples in Shipment
Timothy Eberts			3

Sterile, Sodium Thiosulfate Preserved Bottle Used: <input type="checkbox"/> Biocide Used in Source (specify)			
Public Water Supply Samples: <input type="checkbox"/> Note: All results may automatically be reported to DOH if required by State.			
Turn-Around-Time (TAT) Please call ahead for large projects and/or turnaround times 6 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 32* Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week

MICROBIOLOGY TEST CODES			
M001 Air-O-Cell	M174 MoldSnap	M012 Pseudomonas aeruginosa (P/A**)	M115 Sewage Screen - Water (P/A**)
M030 Micro 5	M032 Allergenco-D	M024 Pseudomonas aeruginosa (MFT*)	M116 Sewage Screen - Water (MPN**)
M041 Fungal Direct Examination		M015 Heterotrophic Plate Count	M117 Sewage Screen - Swab (P/A**)
M169 Pollen ID & Enumeration		M017 Total Coliform & E. Coli (Colilert P/A**)	M013 Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1		M018 Total Coliform & E. Coli (MFT*)	M730 Methicillin-resistant Staph. aureus (MRSA)
M281 Dust Characterization Level-2		M114 Total Coliform & E. Coli Enumeration (Colilert MPN**)	M031 Rapid-growing non-TB Mycobacteria Detection & Enumeration
M005 Viable Fungi-Air Samples (Genus ID & Count)		M019 Fecal Coliform (MFT*)	M014 Endotoxin Analysis
M006 Viable Fungi-Air Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)		M020 Fecal Streptococcus (MFT*)	M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable Fungi-Surface Samples (Genus ID & Count)		M029 Enterococci (MFT*)	M095 Bacteroides
M008 Culturable Fungi-Surface Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)		M129 Enterococci (Enterolert P/A**)	Other - See Analytical Price Guide for Test Code
M009 Bacteria Culture Gram Stain & Count		M180 Real Time qPCR-ERMI 36 Panel	Legionella Analysis Please use EMSL Legionella COC
M010 Bacteria Count & ID - 3 Most Prominent		M025 Sewage Screen - Water (MFT*)	
M011 Bacteria Count & ID - 5 Most Prominent		*MFT = Membrane Filtration Technique	
		**MPN = Most Probable Number	
		***P/A = Presence/Absence	

Sample #	Sample Location/Description	Sample Type (Matrix)	Potable / Non-Potable (Only for Water)	Test Code	Volume/Area	Date / Time Collected	Temperature (Lab Use Only)
Example: Sample 1	Kitchen	Water	Potable	M017	1,000 ml	1/1/2021 3:30pm	
A-01	Outside	Air		M030	25L	11/26/24 0931	
A-02	Assistant RA office					0740	
A-03	Sec. to. Superintendent					0947	

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by:	Date/Time:
	11/26/24 1300	Angie Muel	11/26/24 1300
Relinquished by:	Date/Time:	Received by:	Date/Time:

Controlled Document - COC-34 Micro R13 03/02/2021



AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL Analytical, Inc.'s Laboratory Terms and Conditions are incorporated into this Chain of Custody by reference in their entirety. Submission of samples to EMSL Analytical, Inc. constitutes acceptance and acknowledgment of all terms and conditions by Customer.

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**AIHA Laboratory Accreditation Programs, LLC**

acknowledges that

**EMSL Analytical, Inc.**

**200 Route 130 North Cinnaminson, NJ 08077**

**Laboratory ID: LAP-100194**

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA LAP), LLC accreditation to the ISO/IEC 17025:2017 international standard, General Requirements for the Competence of Testing and Calibration Laboratories in the following:

**LABORATORY ACCREDITATION PROGRAMS**

<input checked="" type="checkbox"/>	<b>INDUSTRIAL HYGIENE</b>	Accreditation Expires: January 01, 2025
<input checked="" type="checkbox"/>	<b>ENVIRONMENTAL LEAD</b>	Accreditation Expires: January 01, 2025
<input checked="" type="checkbox"/>	<b>ENVIRONMENTAL MICROBIOLOGY</b>	Accreditation Expires: January 01, 2025
<input type="checkbox"/>	<b>FOOD</b>	Accreditation Expires:
<input type="checkbox"/>	<b>UNIQUE SCOPES</b>	Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached Scope of Accreditation. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2017 and AIHA LAP, LLC requirements. This certificate is not valid without the attached Scope of Accreditation. Please review the AIHA LAP, LLC website ([www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org)) for the most current Scope.

Cheryl O Morton  
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision20: 06/07/2022

Date Issued: 01/01/2023