



March 28, 2023

Mr. David Zeck, CEFM  
Facilities Manager  
**Franklin Township Board of Education**  
3228 Coles Mill Rd.  
Franklinville, NJ 08322

**RE: Indoor Air Quality Inspection Report – March 2023**  
**Reutter Elementary School**  
**Epic Project No. 23-1040**

Dear Mr. Zeck:

**Epic Environmental Services, LLC (Epic)** was retained by the Franklin Township Board of Education (District) to perform indoor air quality inspections for five randomly selected areas at the Reutter Elementary School. 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 and relative humidity data were compared to current New Jersey Indoor Air Quality and industry standards.

Epic Environmental performed the inspections on March 17, 2023.

### **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>

The following rooms/areas were inspected:

Room 1, Room 42, Room 13, Room 29, Room 23

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

**Weather Conditions: Sunny, 60° Fahrenheit, 37% Relative Humidity**

### **Room 1**

No visible mold was observed.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (23%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
No action required at this time.

### **Room 42**

No visible mold was observed.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (25%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
No action required at this time.

### **Room 13**

No visible mold was observed.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (20%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
No action required at this time.

### **Room 29**

No visible mold was observed.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (21%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
Recommendations were made to the district to clean dusty/dirty surfaces.

### **Room 23**

No visible mold was observed.  
No evidence of recent water intrusion was observed.  
Relative humidity was below the ideal range (23%). Temperature was within the acceptable range.  
Airborne mold spore concentrations were near or below outside (background) concentrations.  
Recommendations were made to the district to clean dusty/dirty surfaces.

## Air Sample Results

Air samples were collected in each inspection area. Airborne mold spore concentrations were near or below background (outside) concentrations in all areas.

See Sample Data Summary


## Conclusions and General Recommendations

- Assure steps are taken to maintain a maximum relative humidity concentration of 60% during the summer months. This will reduce the overall probability of triggering mold activity.
- To prevent respiratory discomfort, maintain a minimum relative humidity of 30% and avoid excessively dry air. In cases where low humidity is causing complaints such as dry throats, a humidifier may be used on a temporary basis.

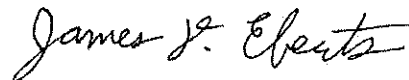
Please do not hesitate to contact me at 856-205-1077 should you have any questions.

An invoice for the completed project is enclosed.

Regards,



Timothy Eberts  
Senior Project Manager  
Epic Environmental Services, LLC



James Eberts  
President  
Epic Environmental Services, LLC

## Sample Data Summary Air Sampling

Air Samples

March 17, 2023

Air Sample Location	Airborne Mold Concentrations (spores/m <sup>3</sup> )	
	Total	Individual Mold Concentrations
Room 1	460	Aspergillus/Penicillium 80 Basidiospores 300 Cladosporium 80
Room 42	340	Basidiospores 300 Pithomyces 40
Room 13	1500	Basidiospores 1000 Cladosporium 500
Room 29	880	Aspergillus/Penicillium 80 Basidiospores 500 Cladosporium 300
Room 23	1140	Ascospores 80 Basidiospores 700 Cladosporium 80 Myxomycetes 200 Unidentifiable Spores 80
Outside	640	Ascospores 40 Aspergillus/Penicillium 80 Basidiospores 200 Cladosporium 200 Myxomycetes 40 Tetraploa 80

- 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.



# 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: 372304121  
Customer ID: EPIC62  
Customer PO: 23-1040  
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:** 03/17/2023  
**Received Date:** 03/18/2023  
**Analyzed Date:** 03/21/2023

**Project:** Reutter ES IAQ

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

Lab Sample Number:	372304121-0001			372304121-0002			372304121-0003		
Client Sample ID:	R - 01			R - 02			R - 03		
Volume (L):	25			25			25		
Sample Location:	Outside			Rm 1			Rm 42		
Spore Types	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	1*	40*	6.3	-	-	-	-	-	-
Aspergillus/Penicillium	1	80	12.5	1	80	17.4	-	-	-
Basidiospores	2	200	31.3	4	300	65.2	4	300	88.2
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	2	200	31.3	1	80	17.4	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	1*	40*	6.3	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	1*	40*	11.8
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Tetraploa	1	80	12.5	-	-	-	-	-	-
<b>Total Fungi</b>	<b>8</b>	<b>640</b>	<b>100</b>	<b>6</b>	<b>460</b>	<b>100</b>	<b>5</b>	<b>340</b>	<b>100</b>
Hyphal Fragment	4	300	-	-	-	-	3	200	-
Insect Fragment	-	-	-	-	-	-	1	80	-
Pollen	54	4300	-	2	200	-	4	300	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	2	-	-	3	-	-	2	-
Fibrous Particulate (1-4)	-	2	-	-	1	-	-	1	-
Background (1-5)	-	3	-	-	3	-	-	3	-

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

Vincent Iuzzolino, M.S., Laboratory Director  
or other Approved Signatory

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

EMSL 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. EMSL 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. 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 in excess of 100 are extrapolated based on the percentage analyzed. Skin & Fibrous ratings: 1 (1-25%), 2 (26-50%), 3 (51-75%), 4 (76-100%) of the background particles.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA LAP, LLC-EMLAP Accredited #106194

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Project: Reutter ES IAQ

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

Lab Sample Number:	372304121-0004			372304121-0005			372304121-0006		
Client Sample ID:	R - 04			R - 05			R - 06		
Volume (L):	25			25			25		
Sample Location:	Rm 13			Rm 29			Rm 23		
Spore Types	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total	Raw Count	Count/m <sup>3</sup>	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	1	80	7
Aspergillus/Penicillium	-	-	-	1	80	9.1	-	-	-
Basidiospores	13	1000	66.7	6	500	56.8	9	700	61.4
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium++	-	-	-	-	-	-	-	-	-
Cladosporium	6	500	33.3	4	300	34.1	1	80	7
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium++	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	2	200	17.5
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	1	80	7
Zygomycetes	-	-	-	-	-	-	-	-	-
Tetraploa	-	-	-	-	-	-	-	-	-
Total Fungi	19	1500	100	11	880	100	14	1140	100
Hyphal Fragment	1	80	-	1	80	-	1	80	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	1	80	-	1	80	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	3	-	-	3	-	-	3	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	3	-	-	3	-	-	3	-

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

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