



March 12, 2018

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

**RE: Indoor Air Quality Inspection Report**  
**Reutter Elementary School**  
**Epic Project No. 18-1003**

Dear Mr. Rambone:

**Epic Environmental Services, LLC (Epic)** was retained by the Franklin Township Board of Education (District) to perform an indoor air quality inspection at the Reutter Elementary School. The investigation consisted of a visual inspection and the collection of temperature, relative humidity, and carbon dioxide data.

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

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

Epic Environmental performed the inspection on February 28, 2018.

### **Acceptable Temperature, Relative Humidity, and Carbon Dioxide Criteria**

<b>Acceptable Indoor Temperature Range:</b>	<b>68° - 79° Fahrenheit</b>
<b>Carbon Dioxide Trigger Level for Corrective Action:</b>	<b>1,000 ppm</b>
<b>Ideal Relative Humidity Range:</b>	<b>30-60%</b>

The following rooms/areas were inspected: Main Office Suite, Room 21, Room 25, Room 53, Room 29, Room 19, Room 33 (Faculty), Supply Room (Office), All Purpose Room, Library, and Room 44.



## Observations

### Main Office Suite

No issues

### Room 21

No issues

### Room 25

No issues

### Room 53

Slight dust buildup on air supply registers.

### Room 29

Slight dust buildup on air supply registers.

### Room 19

No issues

### Room 33 (Faculty)

No issues

### All Purpose Room

Slight dust buildup on air supply registers.

### Library

No issues

### Room 44

Carbon dioxide levels above 1,000 ppm (1150 ppm). Room was recently unoccupied.

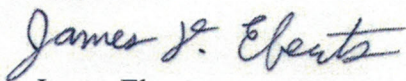
## Recommendations

- Dust build-up was observed on air supply registers in Room 53, Room 29, and All Purpose Room. These registers should be cleaned and put on a routine cleaning schedule.
- Carbon dioxide concentrations were elevated in Room 44. Fresh air must be increased to assure that carbon dioxide concentrations remain below 1,000 ppm.
- Air samples for mold were collected in several areas in the school. Airborne mold concentrations were near or below outside (background) levels.

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,



James Eberts

President

Epic Environmental Services, LLC



## Sample Data Summary

### Air Sampling

Air Samples		February 28, 2018	
Air Sample Location	Airborne Mold Concentrations (spores/m <sup>3</sup> )		
	Total	Individual Mold Concentrations	
Outside by Main Entrance	5,180	Ascospores	80
		Basidiospores	3,600
		Cladosporium	1,500
Room 27	680	Aspergillus/Penicillium	80
		Basidiospores	400
		Cladosporium	200
Faculty Room	1,880	Ascospores	80
		Aspergillus/Penicillium	200
		Basidiospores	1,300
		Cladosporium	300
APR – near Stage	1,480	Alternaria	80
		Aspergillus/Penicillium	80
		Basidiospores	960
		Cladosporium	200
		Epicoccum	80
		Myxomycetes	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.





# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Phone/Fax: (800) 220-3675 / (856) 786-0262  
<http://www.EMSL.com> / [cinnmicrolab@emsl.com](mailto:cinnmicrolab@emsl.com)

Order ID: 371803831  
Customer ID: EPIC62  
Customer PO: 18-1003  
Project ID:

**Attn:** James Eberts  
Epic Environmental Services, LLC  
1930 Brown Road  
Newfield, NJ 08344

Phone: (856) 205-1077  
Fax: (856) 205-0413  
Collected: 02/28/2018  
Received: 03/01/2018  
Analyzed: 03/08/2018

**Proj:** Reutter Elementary School, Franklin Twp BOE - IAQ Inspection

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

Lab Sample Number:	371803831-0001			371803831-0002			371803831-0003		
Client Sample ID:	RES-01			RES-02			RES-03		
Volume (L):	25			25			25		
Sample Location:	Outside By Main Ent			Hallway By Rm 27			Faculty Rm		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	-	-	-	-	-	-	-	-	-
Ascospores	1	80	1.5	-	-	-	1	80	4.3
Aspergillus/Penicillium	-	-	-	1	80	11.8	2	200	10.6
Basidiospores	45	3600	69.5	5	400	58.8	16	1300	69.1
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	19	1500	29	2	200	29.4	4	300	16
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	65	5180	100	8	680	100	23	1880	100
Hyphal Fragment	1	80	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	2	200	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	1	-	-	3	-	-	4	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	2	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum  
Myxomycetes++ = Myxomycetes/Periconia/Smut

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

*Vincent Iuzzolino*

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

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. EMSL maintains liability limited to cost of analysis. 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. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

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

Initial report from: 03/08/2018 10:02:53

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





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200 Route 130 North Cinnaminson, NJ 08077  
Phone/Fax: (800) 220-3675 / (856) 786-0262  
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Order ID: 371803831  
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**Attn:** James Eberts  
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Fax: (856) 205-0413  
Collected: 02/28/2018  
Received: 03/01/2018  
Analyzed: 03/08/2018

**Proj:** Reutter Elementary School, Franklin Twp BOE - IAQ Inspection

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

Lab Sample Number:	371803831-0004		
Client Sample ID:	RES-04		
Volume (L):	25		
Sample Location:	APR - Near Stage		
Spore Types	Raw Count	Count/m <sup>3</sup>	% of Total
Alternaria	1	80	5.4
Ascospores	-	-	-
Aspergillus/Penicillium	1	80	5.4
Basidiospores	12	960	64.9
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	2	200	13.5
Curvularia	-	-	-
Epicoccum	1	80	5.4
Fusarium	-	-	-
Ganoderma	-	-	-
Myxomycetes++	1	80	5.4
Pithomyces	-	-	-
Rust	-	-	-
Scopulariopsis	-	-	-
Stachybotrys	-	-	-
Torula	-	-	-
Ulocladium	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
<b>Total Fungi</b>	<b>18</b>	<b>1480</b>	<b>100</b>
Hyphal Fragment	2	200	-
Insect Fragment	-	-	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	80	-
Analyt. Sensitivity 300x	-	40*	-
Skin Fragments (1-4)	-	3	-
Fibrous Particulate (1-4)	-	1	-
Background (1-5)	-	4	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum  
Myxomycetes++ = Myxomycetes/Periconia/Smut

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

*Vincent Iuzzolino*

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

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. EMSL maintains liability limited to cost of analysis. 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. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

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Initial report from: 03/08/2018 10:02:53

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# Environmental Microbiology Chain of Custody

**EMSL Order Number (Lab Use Only):**

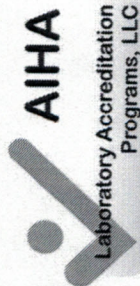
Westmont, NJ  
107 Haddon Avenue  
Westmont, NJ 08108  
PHONE: (856) 858-4800  
FAX: (856) 858-4960

371803831

<b>Company:</b> Epic Environmental Services, LLC		<b>EMSL-Bill to:</b> <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party	
<b>Street:</b> 1930 Brown Road			
<b>City/State/Zip:</b> Newfield, NJ 08344			
<b>Report To (Name):</b> James Eberts		<b>Fax:</b> 856-205-0413	
<b>Telephone:</b> 856-205-1077		<b>Email Address:</b> jeberts@epicenviro.com	
<b>Project Name/Number:</b> Franklin Twp BOE - IAQ Inspection - <i>Reutter Elementary School</i>			
<b>Please Provide Results:</b> Email		<b>Purchase Order:</b> 18-1003	
		<b>State Samples Taken:</b> NJ	
<b>Turnaround Time (TAT) Options* - Please Check</b>			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 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			
*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements.			
<b>Non Culturable Air Samples (Spore Traps)</b>			
<ul style="list-style-type: none"> <li>• M001 Air-O-Cell</li> <li>• M049 BioSIS</li> <li>• M030 Micro 5</li> <li>• M173 Allegro M2</li> <li>• M003 Burkard</li> <li>• M174 MoldSnap</li> <li>• M004 Allergenco</li> <li>• M043 Cyclex</li> <li>• M176 Relle Smart</li> <li>• M032 Allergenco-D</li> <li>• M002 Cyclex-d</li> <li>• M130 Via-Cell</li> <li>• M172 Versa Trap</li> </ul>			
<b>Other Microbiology Test Codes</b>			
<ul style="list-style-type: none"> <li>• M041 Fungal Direct Examination</li> <li>• M005 Viable Fungi ID and Count</li> <li>• M006 Viable Fungi ID and Count (Speciation)</li> <li>• M007 Culturable Fungi</li> <li>• M008 Culturable Fungi (Speciation)</li> <li>• M009 Gram Stain Culturable Bacteria</li> <li>• M010 Bacterial Count and ID - 3 Most Prominent</li> <li>• M011 Bacterial Count and ID - 5 Most Prominent</li> <li>• M013 Sewage Contamination in Buildings</li> <li>• M014 Endotoxin Analysis</li> <li>• M015 Heterotrophic Plate Count</li> <li>• M100 Real Time Q-PCR-ERMI 36 Panel</li> <li>• M018 Total Coliform (Membrane Filtration)</li> <li>• M020 Fecal Streptococcus (Membrane Filtration)</li> <li>• M210-215 Legionella Detection</li> <li>• M026 Recreational Water Screen</li> <li>• M027 Mycotoxin Analysis</li> <li>• M029 Enterococci</li> <li>• M019 Fecal Coliform</li> <li>• M133 MRSA Analysis</li> <li>• M028 Cryptococcus neoformans Detection</li> <li>• M120 Histoplasma capsulatum Detection</li> <li>• M033-39 Allergen Testing</li> <li>• M044 Group Allergen (Cat, Dog, Cockroach, Dustmites)</li> <li>• Other See Analytical Price Guide</li> </ul>			
<b>Preservation Method (Water):</b>			
<b>Name of Sampler:</b> James Eberts		<b>Signature of Sampler:</b> <i>James Eberts</i>	
<b>Sample #</b>	<b>Sample Location</b>	<b>Sample Type</b>	<b>Test Code</b>
RES-01	outside by main Ent	Air	M030
RES-02	Hallway by Rm 27	I	I
RES-03	Faculty Rm	I	I
RES-04	APR near stage	I	I
	End of Sample		
<b>Client Sample # (s):</b>	RES-01 → 04	<b>Total # of Samples:</b>	4
<b>Relinquished (Client):</b> <i>Jan K. A.</i>	<b>Date:</b> 2/28/18	<b>Time:</b> 1530	
<b>Received (Client):</b> <i>PON FV</i>	<b>Date:</b> 3/1/18	<b>Time:</b> 1030	
<b>Comments/Special Instructions:</b>			

RECEIVED  
EMSL  
ANALYTICAL, INC.





## AIHA Laboratory Accreditation Programs, LLC

*acknowledges that*

### EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077  
Laboratory ID: 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 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

#### LABORATORY ACCREDITATION PROGRAMS

- ✓ INDUSTRIAL HYGIENE
- ✓ ENVIRONMENTAL LEAD
- ✓ ENVIRONMENTAL MICROBIOLOGY
- ☐ FOOD
- ☐ UNIQUE SCOPES

Accreditation Expires: September 01, 2018  
Accreditation Expires: September 01, 2018  
Accreditation Expires: September 01, 2018  
Accreditation Expires:  
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 17025:2005 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.

*William Walsh*

*William Walsh, CIH*  
Chairperson, Analytical Accreditation Board

Revision 15: 03/30/2016

*Cheryl O. Morton*

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

Date Issued: 08/31/2016