

March 18, 2020

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

RE: Indoor Air Quality Inspection Report – March 2020
Reutter Elementary School
Epic Project No. 20-1033

Dear Mr. Rambone:

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 11, 2020.

Acceptable Temperature and Relative Humidity Criteria

Acceptable Indoor Temperature Range:	68° - 79° Fahrenheit
Ideal Relative Humidity Range:	30-60%

The following rooms/areas were inspected:

Room 17, Room 16, Room 13, Room 29, Room 3

HEALTH

Epic Environmental Services, LLC
Tele: 856.205.1077

SAFETY

1930 Brown Road
www.epicenviro.com

ENVIRONMENT

Newfield, New Jersey 08344
Fax: 856.205.0413

Observations, Comments, and Recommendations

Weather Conditions: Cloudy, 59° Fahrenheit, 35% Relative Humidity

Room 17

Mold was observed on closet doors/surfaces.
No evidence of recent water intrusion was observed.
Relative humidity was below the ideal range (21%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
Recommendations to clean all surfaces using a product designed to kill mold and running air scrubbers to filter residual airborne mold were made.

Room 16

Mold was observed on closet doors/surfaces.
No evidence of recent water intrusion was observed.
Relative humidity was below the ideal range (22%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
Recommendations to clean all surfaces using a product designed to kill mold and running air scrubbers to filter residual airborne mold were made.

Room 13

Mold was observed on closet doors/surfaces.
No evidence of recent water intrusion was observed.
Relative humidity was below the ideal range (21%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
Recommendations to clean all surfaces using a product designed to kill mold and running air scrubbers to filter residual airborne mold were made.

Room 29

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was below the ideal range (22%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room 3

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 normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Air Sample Results

Air samples were collected in five random locations throughout the school. Airborne mold spore concentrations were near or below background concentrations in all locations.

See Sample Data Summary

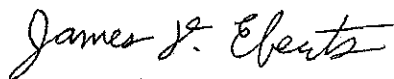
Conclusions and General Recommendations

- The visible mold identified in Room 13, Room 16, and Room 17 are likely a result of elevated relative humidity in the areas during the summer months. Steps must be taken to reduce relative humidity during the cooling season to below the ideal maximum of 60%.
- Assure steps are taken to maintain relative humidity above 30% during the winter season. Sensitive persons may experience dryness/general discomfort of the upper respiratory system in low relative humidity situations.

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

HEALTH

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Sample Data Summary

Air Sampling

Air Samples

March 11, 2020

Air Sample Location	Airborne Mold Concentrations (spores/m ³)		
	Total	Individual Mold Concentrations	
Room 17	160	Aspergillus/Penicillium	80
		Basidiospores	80
Room 16	780	Aspergillus/Penicillium	200
		Basidiospores	500
		Myxomycetes	80
Room 13	500	Aspergillus/Penicillium	200
		Basidiospores	300
Room 29	360	Aspergillus/Penicillium	80
		Basidiospores	80
		Cladosporium	200
Room 3	1240	Ascospores	80
		Aspergillus/Penicillium	200
		Basidiospores	960
Outside	2480	Ascospores	80
		Aspergillus/Penicillium	200
		Basidiospores	2200

- 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 at or below background (outside) concentrations.



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

Order ID: 372004903
Customer ID: EPIC62
Customer PO: 20-1033
Project ID:

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

Phone: (856) 205-1077
Fax: (856) 205-0413
Collected: 03/11/2020
Received: 03/13/2020
Analyzed: 03/16/2020

Proj: Franklin Township BOE IAQ - Ruetter ES

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

Lab Sample Number:	372004903-0001			372004903-0002			372004903-0003		
Client Sample ID:	R-01			R-02			R-03		
Volume (L):	25			25			25		
Sample Location:	Room 17			Room 16			Room 13		
Spore Types	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	1	80	50	3	200	25.6	3	200	40
Basidiospores	1	80	50	6	500	64.1	4	300	60
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	1	80	10.3	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	2	160	100	10	780	100	7	500	100
Hyphal Fragment	2	200	-	13	1000	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	3	200	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	2	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	4	-	-	4	-	-	2	-

++ 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.

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 shipping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. 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. When the information supplied by the customer can affect the validity of the result, it will be noted on the report.
Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIRA-LAP, LLC-EMSLAP Lab 100194

Initial report from: 03/16/2020 12:46:44

For information on the fungi listed in this report please visit the Resources section at www.emsl.com



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Analyzed: 03/16/2020

Proj: Franklin Township BOE IAQ - Ruetter ES

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

Lab Sample Number:	372004903-0004			372004903-0005			372004903-0006		
Client Sample ID:	R-04			R-05			R-06		
Volume (L):	25			25			25		
Sample Location:	Room 29			Room 3			Outside		
Spore Types	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total	Raw Count	Count/m ³	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	1	80	6.5	1	80	3.2
Aspergillus/Penicillium	1	80	22.2	2	200	16.1	3	200	8.1
Basidiospores	1	80	22.2	12	960	77.4	27	2200	88.7
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	2	200	55.6	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	4	360	100	15	1240	100	31	2480	100
Hyphal Fragment	2	200	-	1	80	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	3	200	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	2	-	-	2	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	-	-	1	-

++ 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.

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. 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. When the information supplied by the customer can affect the validity of the result, it will be noted on the report.
Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AHA-LAP, LLC-EMSLAP Lab 100194

Initial report from: 03/16/2020 12:46:44

For information on the fungi listed in this report please visit the Resources section at www.emsl.com



Environmental Microbiology Chain of Custody

EMSL Order Number (Lab Use Only):

372004903

RECEIVED
EMSL
CINNAMINSON, NJ
Westmont, NJ
107 Haddon Avenue
Westmont, NJ 08083 P 1:17
PHONE: (856) 858-4800
FAX: (856) 858-4960

Company: Epic Environmental Services, LLC		EMSL-BIT to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If BIT is Different note instructions in Comments</small>			
Street: 1930 Brown Road		<small>Third Party Billing requires written authorization from third party</small>			
City/State/Zip: Newfield, NJ 08344					
Report To (Name): James Eberts		Fax: 856-205-0413			
Telephone: 856-205-1077		Email Address: jeberts@epicenviro.com			
Project Name/Number: Franklin Twp BOE IAQ - <i>Re-test ES</i>					
Please Provide Results: Email		Purchase Order: 20-1033	State Samples Taken: NJ		
Turnaround Time (TAT) Options* - Please Check					
<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					
<small>*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements</small>					
Non-Culturable Air Samples (Spore Traps)					
<ul style="list-style-type: none"> • M001 Air-O-Cal • M048 BioSIS • M030 Micro 5 	<ul style="list-style-type: none"> • M173 Alegro M2 • M003 Burkard • M174 MokuSnap 	<ul style="list-style-type: none"> • M004 Allergenco • M043 Cyclax • M176 Felo Smart 	<ul style="list-style-type: none"> • M032 Allergenco-D • M002 Cyclax-d • M130 Via-Cell 		
Other Microbiology Test Codes					
<ul style="list-style-type: none"> • M041 Fungal Direct Examination • M005 Viable Fungi ID and Count • M006 Viable Fungi ID and Count (Speciation) • M007 Culturable Fungi • M008 Culturable Fungi (Speciation) • M009 Gram Stain Culturable Bacteria • M010 Bacterial Count and ID - 3 Most Prominent • M011 Bacterial Count and ID - 6 Most Prominent • M013 Sewage Contamination in Buildings 	<ul style="list-style-type: none"> • M014 Endotoxin Analysis • M015 Heterotrophic Plate Count • M100 Real Time q-PCR-ERMI 36 Panel • M018 Total Coliform (Membrane Filtration) • M020 Fecal Streptococcus (Membrane Filtration) • M210-215 Legionella Detection • M026 Recreational Water Screen • M027 Mycotoxin Analysis 	<ul style="list-style-type: none"> • M025 Enterococci • M019 Fecal Coliform • M133 MRSA Analysis • M028 Cryptosporidium neoliformans Detection • M120 Histoplasma capsulatum Detection • M033-39 Allergen Testing (Cat, Dog, Cockroach, Dustmites) • Other See Analytical Price Guide 			
Preservation Method (Water):					
Name of Sampler: <i>Timothy Eberts</i>		Signature of Sampler: <i>[Signature]</i>			
Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
R-01	RM 17	AIR	M030	25L	3/11/20 1451
R-02	RM 16				1501
R-03	RM 13				1510
R-04	RM 29				1518
R-05	RM 3				1525
R-06	Outside				1534
Client Sample # (s): <i>R-01 - R-06</i>		Total # of Samples: <i>6</i>			
Relinquished (Client): <i>[Signature]</i>		Date: <i>3/13/20</i>	Time: <i>1230</i>		
Received (Client): <i>[Signature]</i>		Date: <i>3.13.20</i>	Time: <i>115</i>		
Comments/Special Instructions:					



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

- | | |
|--|--|
| <input checked="" type="checkbox"/> INDUSTRIAL HYGIENE | Accreditation Expires: November 01, 2020 |
| <input checked="" type="checkbox"/> ENVIRONMENTAL LEAD | Accreditation Expires: November 01, 2020 |
| <input checked="" type="checkbox"/> ENVIRONMENTAL MICROBIOLOGY | Accreditation Expires: November 01, 2020 |
| <input type="checkbox"/> FOOD | Accreditation Expires: |
| <input type="checkbox"/> UNIQUE SCOPES | 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) for the most current Scope.

Elizabeth Bair

Elizabeth Bair
Chairperson, Analytical Accreditation Board

Cheryl G. Morton

Cheryl G. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 17 - 09/11/2018

Date Issued: 11/30/2018