



August 19, 2019

Mr. Samuel Teague
Facilities Manager
Delsea Regional High School District
Fries Mill Road
Franklinville, NJ 08322

RE: Indoor Air Quality Inspection Report – August 2019
Delsea Middle School
Epic Project No. 19-3330

Dear Mr. Teague:

Epic Environmental Services, LLC (Epic) was retained by the Delsea Regional High School District (District) to perform indoor air quality inspections for six randomly selected areas at the Delsea Middle School. The inspections consisted of visual observations and the collection of temperature/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 was compared to current New Jersey Indoor Air Quality and industry standards.

Epic Environmental performed the inspection August 8, 2019.

Acceptable Temperature, Relative Humidity, and Carbon Dioxide Criteria

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

The following rooms/areas were inspected:

Room A-5, Room B-1, Room B-7, Room C-6, Room C-8, Room D-1

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: Cloudy, 86° Fahrenheit, 54% Relative Humidity

Room A-5

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (49%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room B-1

Minor visible mold was observed on wooden surfaces.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (54%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
Cleaning is recommended on all wooden surfaces.

Room B-7

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was elevated (61%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room C-6

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (55%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room C-8

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (54%). Temperature was within the normal range.
Airborne mold spore concentrations were near or below outside (background) concentrations.
No action required at this time.

Room D-1

No visible mold was observed.
No evidence of recent water intrusion was observed.
Relative humidity was within acceptable range (49%). 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 6 random locations throughout the school. Airborne mold spore concentrations were near or below background (outside) concentrations.

See Sample Data Summary

Conclusions

- Assure steps are taken to reduce relative humidity to a maximum of 60% during the summer cooling season. Although most mold activity is not likely to start until extended periods of 75% or higher relative humidity are experienced, it is recommended to have the goal of 60%.

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 August 8, 2019

Air Sample Location	Airborne Mold Concentrations (spores/m ³)	
	Total	Individual Mold Concentrations
Room A-5	1,780	Aspergillus/Penicillium 80
		Basidiospores 1,500
		Cladosporium 200
Room B-1	160	Cladosporium 80
		Myxomycetes++ 80
Room B-7	500	Basidiospores 500
Room C-6	1,680	Ascospores 80
		Aspergillus/Penicillium 80
		Basidiospores 1,400
		Cladosporium 80
Room C-8	1,400	Ganoderma 40
		Basidiospores 1,400
Room D-1	18,620	Ascospores 80
		Basidiospores 18,300
		Cladosporium 200
		Rust 40
Outside by Gym	76,920	Alternaria (Ulocladium) 40
		Ascospores 3000
		Basidiospores 68,000
		Cladosporium 4,400
		Curvularia 80
		Ganoderma 80
		Myxomycetes++ 400
		Pithomyces 40
		Unidentifiable Spores 200
		Blakeslea/Choanephora 200
		Cercospora++ 200
		Pyricularia 80
		Zygomycetes/Schizothyrium 200

- 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.

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 Fax: 856.205.0413



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: 371917623
Customer ID: EPIC62
Customer PO: 19-3330
Project ID:

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

Phone: (856) 205-1077
Fax: (856) 205-0413
Collected: 08/08/2019
Received: 08/09/2019
Analyzed: 08/15/2019

Proj: Delsea BOE - High School

Test Report: Micro-6™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Lab Sample Number:	371917623-0001			371917623-0002			371917623-0003		
Client Sample ID:	DMS-01			DMS-02			DMS-03		
Volume (L):	25			25			25		
Sample Location:	Outside Gym			Room A-5			Room B-1		
Spore Types	Raw Count	Count/m ²	% of Total	Raw Count	Count/m ²	% of Total	Raw Count	Count/m ²	% of Total
Alternaria (Ulocladium)	1*	40*	0.1	-	-	-	-	-	-
Ascospores	38	3000	3.9	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	1	80	4.5	-	-	-
Basidiospores	850	68000	88.4	19	1500	84.3	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	55	4400	5.7	2	200	11.2	1	80	50
Curvularia	1	80	0.1	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	1	80	0.1	-	-	-	-	-	-
Myxomycetes++	5	400	0.5	-	-	-	1	80	50
Pithomyces++	1*	40*	0.1	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	2	200	0.3	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Blakeslea/Choanephora	3	200	0.3	-	-	-	-	-	-
Cercospora++	2	200	0.3	-	-	-	-	-	-
Pyricularia	1	80	0.1	-	-	-	-	-	-
Zygothia/Schizothyrium	2	200	0.3	-	-	-	-	-	-
Total Fungi	962	78920	100	22	1780	100	2	160	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	1	80	-	-	-	-	-	-	-
Pollen	1	80	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	1	-	-	3	-	-	2	-
Fibrous Particulate (1-4)	-	2	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	3	-	-	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 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 relies 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 ABA-LAP, LLC-EMLAP Lab 100194

Initial report from: 08/16/2019 11:54:22

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



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: 371917623
Customer ID: EPIC62
Customer PO: 19-3330
Project ID:

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

Phone: (856) 205-1077
Fax: (856) 205-0413
Collected: 08/08/2019
Received: 08/09/2019
Analyzed: 08/15/2019

Proj: Delsea BOE - High School

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

Lab Sample Number:	371917623-0004			371917623-0005			371917623-0006		
Client Sample ID:	DMS-04			DMS-05			DMS-06		
Volume (L):	25			25			25		
Sample Location:	Room B-7			Room C-6			Room C-8		
Spore Types	Raw Count	Count/m ²	% of Total	Raw Count	Count/m ²	% of Total	Raw Count	Count/m ²	% of Total
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	1	80	4.8	-	-	-
Aspergillus/Penicillium	-	-	-	1	80	4.8	-	-	-
Basidiospores	6	500	100	17	1400	83.3	18	1400	100
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	1	80	4.8	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	1*	40*	2.4	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Phycomycetes++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Blakeslea/Choanephora	-	-	-	-	-	-	-	-	-
Cercospora++	-	-	-	-	-	-	-	-	-
Pyricularia	-	-	-	-	-	-	-	-	-
Zygomycetes/Schizothyrium	-	-	-	-	-	-	-	-	-
Total Fungi	6	800	100	21	1680	100	18	1400	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	80	-	-	80	-	-	80	-
Analyt. Sensitivity 300x	-	40*	-	-	40*	-	-	40*	-
Skin Fragments (1-4)	-	3	-	-	3	-	-	3	-
Fibrous Particulate (1-4)	-	2	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	2	-	-	1	-

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

Vincent Iuzzolino

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

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Samples analyzed by EMSL Analytical, Inc., Cinnaminson, NJ. ANM-LAP, LLC-EMSLAP Lab 100194

Initial report from: 08/16/2019 11:54:22

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Phone: (856) 205-1077
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Collected: 08/08/2019
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Analyzed: 08/15/2019

Proj: Delsea BOE - High School

Test Report: Micro-6(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods MICRO-SOP-201, ASTM D7391)

Spore Types	Raw Count	Count/m ²	% of Total
Lab Sample Number:	371917623-0007		
Client Sample ID:	DMS-07		
Volume (L):	25		
Sample Location:	Room D-1		
Alternaria (Ulocladium)	-	-	-
Ascospores	1	80	0.4
Aspergillus/Penicillium	-	-	-
Basidiospores	229	18300	98.3
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	2	200	1.1
Curvularia	-	-	-
Epicoccum	-	-	-
Fusarium	-	-	-
Ganoderma	-	-	-
Myxomycetes++	-	-	-
Pithomyces++	-	-	-
Rust	1*	40*	0.2
Scopulariopsis/Microascus	-	-	-
Stachybotrys/Memnoniella	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
Blakeslea/Choanophora	-	-	-
Cercospora++	-	-	-
Pyricularia	-	-	-
Zygothia/Schizothyrium	-	-	-
Total Fungi	233	18620	100
Hyphal Fragment	-	-	-
Insect Fragment	1	80	-
Pollen	-	-	-
Analyt. Sensitivity 600x	-	80	-
Analyt. Sensitivity 300x	-	40*	-
Skin Fragments (1-4)	-	3	-
Fibrous Particulate (1-4)	-	1	-
Background (1-5)	-	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

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Initial report from: 08/16/2019 11:54:22

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



Environmental Microbiology Chain of Custody

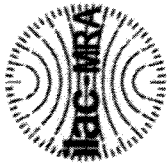
RECEIVED
CINNAMINSON, NJ

Westmont, NJ
107 Haddon Avenue
Westmont, NJ 08108
PHONE: (856) 858-4800
FAX: (856) 858-4080

EMSL Order Number (Lab Use Only)

371917623 AM10:16

Company: Epic Environmental Services, LLC		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>if Bill to is Different note instructions in Comments**</small>			
Street: 1930 Brown Road		<i>Third Party Billing requires written authorization from third party</i>			
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: Delsea BOE High School					
Please Provide Results: Email		Purchase Order: 19-3330	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-Count • M048 Bio-SAS • M030 Micro 5 	<ul style="list-style-type: none"> • M173 Alegro M2 • M003 Burkard • M174 MoldSnap 	<ul style="list-style-type: none"> • M004 Allergenco • M043 Cyclax • M176 Rolle Smart 	<ul style="list-style-type: none"> • M032 Allergenco-D • M002 Cyclax-d • M130 Via-Cell • M172 Versa Trap 		
Other Microbiology Test Codes					
<ul style="list-style-type: none"> • M041 Fungal Direct Examination • M005 Viable Fung ID and Count • M006 Viable Fung ID and Count (Speciation) • M007 Culturable Fung • M008 Culturable Fung (Speciation) • M009 Gram Stain Culturable Bacteria • M010 Bacterial Count and ID - 3 Most Prominent • M011 Bacterial Count and ID - 5 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 • M024 Recreational Water Screen • M027 Mycotoxin Analysis 	<ul style="list-style-type: none"> • M028 Enterococci • M019 Fecal Coliform • M133 MRSA Analysis • M026 Cryptococcus neoformans: Detection • M120 Histoplasma capsulatum Detection • M033-38 Allergen Testing • M044 Group Allergen (Cat, Dog, Cockroach, Dustmites) • Other See Analytical Price Guide 			
Preservation Method (Water):					
Name of Sampler: James Eberts		Signature of Sampler: <i>[Signature]</i>			
Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
DMS-01	Outside Gym	AIR	M030	5Lm, 63L	8/8/19 1300
DMS-02	Room A-5				1308
DMS-03	Room B-1				1316
DMS-04	Room B-7				1325
DMS-05	Room C-6				1341
DMS-06	Room C-8				1350
DMS-07	Room D-1				1400
Client Sample # (s): DMS-01 - DMS-07		Total # of Samples:		7 <input checked="" type="checkbox"/>	
Relinquished (Client): <i>[Signature]</i>		Date: 8/9/19	Time: 1000		
Received (Client): <i>[Signature]</i>		Date: 8/9/19	Time: 10:15am		
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

- INDUSTRIAL HYGIENE** Accreditation Expires: November 01, 2020
- ENVIRONMENTAL LEAD** Accreditation Expires: November 01, 2020
- ENVIRONMENTAL MICROBIOLOGY** Accreditation Expires: November 01, 2020
- FOOD** Accreditation Expires:
- 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.

Beth Bair

Elizabeth Bair
Chairperson, Analytical Accreditation Board

Revision 17 – 09/11/2018

Cheryl O. Morton

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

Date Issued: 11/30/2018