

Microbial
Air
Fungal Spore
Counts/Identification

Site
Bragg School

Client
Chester Twp School District

Date of Sampling
October 18, 2018

Report Date
October 24, 2018

Prepared by

AERO Environmental Services Inc.

275 Route 10 East, Suite 220-306
Succasunna, NJ 07876
973-920-9061 (Tel)
973-529-0335(Fax)

AERO ENVIRONMENTAL SERVICES, INC.

CLIENT: Mr. Drew Vanderzee
Facilities Manager
Chester Twp School District
50 North Road, Building 4
Chester, NJ 07930

REPORT DATE: October 24, 2018

SERVICE: •Microbial Air Spore Counts & Identification by Direct Examination

**DATE of
SAMPLING:** October 18, 2018

SITE: Dickerson School

SAMPLED BY: Michael S. Berta

SCOPE of WORK: Perform background mold air sampling of Room 128 and 120A. Room 123 was used for comparison to Rooms 128 & 120A. Background air samples were collected to determine fungal spore levels that existed.

During the sampling an inspection was performed of the rooms and no visible mold was found.

An outdoor sample was also collected for comparison to indoor samples collected.

DISCUSSION

Microbial Sampling The goal of microbial sampling is to help determine whether microbial particulates present in a particular environment are affecting or causing irritation in certain individuals. While we are typically surrounded by a wide variety of different microorganisms every day, sampling provides us with a method to establish in a scientific way whether the environment in question contains microorganisms than would normally be present.

Microbial spores are literally everywhere. Levels rise and fall with the season. Microbials grow and produce their spore wherever there is enough moisture and nutrients. They exist in the air we breathe, on surfaces we touch, and flourish within our buildings and homes.

Currently there are no widely accepted protocols or regulations regarding microbial air sampling. In the absence of standards, we typically expect indoor spore counts not be significantly higher than outdoor spore counts, with the same general distribution of spore types present. A building with open doors and windows with heavy foot traffic may average 95 - 100% of the outdoor level. In addition dusty interiors may exceed 100% of the outdoors to some degree, but will still mirror the outdoor distribution of spore types.

The presence or absence of a few spore types in small numbers should not be considered abnormal. In addition to the normal influx of outdoor organisms into a building, additional organisms can grow within the building. This occurs when there is just the right combination of factors, including the proper temperature, humidity and material on which the organisms can grow. Some of these conditions are inherent to the building structure while others are related to the furnishings.

Microbial Air Sampling

Fungal air samples (spore trap cassettes) were collected from Room 128 (A-1), Room 120A (A-3) and Room 123 (A-2) for comparison & Outside the building (A-4) for comparison to indoor samples collected.

The samples were collected utilizing a high volume air sampling pump, calibrated to 15 liters per minute, for duration of five (5) minutes. The sample collection with spore trap cassettes involved drawing air into 37 millimeter cassettes containing adhesive coated glass cover slips. The sample bearing covers slips were viewed under a compound microscope equipped for bright field and polarized light applications. Spore quantification reported as total, meaning they include both viable and non-viable fungal spores per cubic meter.

SAMPLING RESULTS:

AIRBORNE TOTAL FUNGAL SPORE RESULTS

Sample ID	Location	Results Counts/m ³	Type of fungal Spores Found
A-1	Room 128	550 40 300 Total 890	Basidiospores Cladosporium Myxomycetes
A-2	Room 123	40 350 40 500 Total 930	Ascospores Basidiospores Cladosporium Myxomycetes
A-3	Room 120A	400 40 350 Total 790	Basidiospores Cladosporium Myxomycetes
A-4	Outside of School	300 40 1100 500 40 40 5850 40 Total 7910	Ascospores Aspergillus/Penicillium Basidiospores Cladosporium Epicoccum Ganoderma Myxomycetes Rust

The inside total spore concentrations found in Room 128, 123, 120A are much lower than the outside sample collected, with similar spore types found. This indicates a significant mold source was not found in the air of Room 128 or 120A or any of the locations tested at the time of sampling.

CONCLUSION

Based on the air sampling performed, elevated levels of mold spores were not found at the time of testing in Room 128 or Room 120A. No recognized mold hazards were found and the rooms may be occupied.

If after reviewing this report you have any questions, please contact me directly at 973-920-9061.

Sincerely,

Michel S Berta

Michael S. Berta, CSP, CPEA, CMC
Environmental Safety & Health Manager

Attachments:

EMSL- Analysis Results



EMSL Analytical, Inc.

2205 Corporate Plaza Parkway SE, Suite 200 Smyrna, GA 30080

Phone/Fax: (770) 956-9150 / (770) 956-9181

<http://www.EMSL.com> / atlantalab@emsl.com

Order ID: 071807455

Customer ID: AERO50

Customer PO:

Project ID:

Attn: Michael Berta
AERO Environmental Services, Inc
275 Route 10 East
Suite 220-306
Succasunna, NJ 07876

Phone: (973) 920-9061
Fax: (973) 529-0335
Collected: 10/18/2018
Received: 10/22/2018
Analyzed: 10/22/2018

Proj: Bragg School - AOC

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

Lab Sample Number:	071807455-0001	071807455-0002	071807455-0003	071807455-0004	
Client Sample ID:	A-1	A-2	A-3	A-4	
Volume (L):	75	75	75	75	
Sample Location:	Room 128	Room 123	Room 120A	Outside by Exit 2 &	
Spore Types	Count/m³	Count/m³	Count/m³	Count/m³	
Alternaria (Ulocladium)	-	-	-	-	
Ascospores	-	40	-	300	
Aspergillus/Penicillium	-	-	-	40	
Basidiospores	550	350	400	1100	
Bipolaris++	-	-	-	-	
Chaetomium	-	-	-	-	
Cladosporium	40	40	40	500	
Curvularia	-	-	-	-	
Epicoccum	-	-	-	40	
Fusarium	-	-	-	-	
Ganoderma	-	-	-	40	
Myxomycetes++	300	500	350	5850	
Pithomyces++	-	-	-	-	
Rust	-	-	-	40	
Scopulariopsis/Microascus	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	
Unidentifiable Spores	-	-	-	-	
Zygomycetes	-	-	-	-	
Total Fungi	890	930	790	7910	
Hyphal Fragment	-	-	-	40	
Insect Fragment	-	-	-	-	
Pollen	-	-	-	-	
Analyt. Sensitivity 600x	44	44	44	44	
Analyt. Sensitivity 300x	13*	13*	13*	13*	
Skin Fragments (1-4)	1	1	1	1	
Fibrous Particulate (1-4)	1	1	1	1	
Background (1-5)	1	1	1	1	

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

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

Michael Murphy

Michael Murphy
or Other Approved Signatory

Samples received in good condition 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. 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 analyzed by EMSL Analytical, Inc Smyrna, GA AIHA-LAP, LLC -EMLAP Accredited #100662

Initial report from: 10/22/2018 14:19:18

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



Microbiology Laboratory Chain of Custody

EMSL Order Number (Lab Use Only):

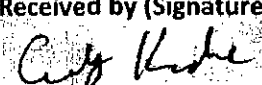
Corporate - Cinnaminson, NJ
200 Route 130 North
Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
FAX: (856) 786-5974

071807455

Company: AERO Environmental Services		EMSL-Bill to: ☒ Same ☐ Different			
Street: 275 Rt 10 East, 220-306		If Bill to is Different note instructions in Comments**			
City/State/Zip: Succasunna, NJ 07876		Third Party Billing requires written authorization from third party			
Report To (Name): Michael Berta		Fax: 973 529 0335			
Telephone: 973 920 9061		Email Address: mberta@aeroenvironmental.net			
Project Name/Number: Bragg School - AOC					
Please Provide Results: Email		Purchase Order:			
		State Samples Taken: NJ			
Turnaround Time (TAT) Options* - Please Check					
☐ 3 Hour ☐ 6 Hour ☒ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week					
*Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements					
Non Culturable Air Samples (Spore Traps)					
<ul style="list-style-type: none"> • M001 Air-O-Cell • M049 BioSIS • M030 Micro 5 		<ul style="list-style-type: none"> • M173 Allegro M2 • M003 Burkard • M174 MoldSnap 			
<ul style="list-style-type: none"> • M004 Allergenco • M043 Cyclex • M176 Rette Smart 		<ul style="list-style-type: none"> • M032 Allergenco-D • M002 Cyclex-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 - 5 Most Prominent • M013 Sewage Contamination in Buildings 		<ul style="list-style-type: none"> • M014 Endotoxin Analysis • M015 Heterotrophic Plate Count • M180 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"> • M029 Enterococci • M019 Fecal Coliform • M133 MRSA Analysis • M028 Cryptococcus neoformans Detection • M120 Histoplasma capsulatum Detection • M033-39 Allergen Testing • M044 Group Allergen (Cat, Dog, Cockroach, Dustmites) • Other See Analytical Price Guide 					
Preservation Method (Water):					
Name of Sampler: Michael Berta		Signature of Sampler: MB			
Sample #	Sample Location	Sample Type	Test Code	Volume/Area	Date/Time Collected
A-1	Room 128	Air	M001	75L	10/18/18 1611/1616
A-2	Room 123	Air	M001	75L	10/18/18 1620/1625
A-3	Room 120A	Air	M001	75L	10/18/18 1629/1634
A-4	outside By Exit 2 & Room 119	Air	M001	75L	10/18/18 1642/1647
Client Sample # (s): A-1 - A-4		Total # of Samples: 4			
Relinquished (Client): [Signature]		Date: 10/18/18	Time: 1725		
Received (Client): [Signature]		Date: 10/19/18	Time: 940PM		
Comments/Special Instructions:					

EMSL Analytical, Inc.

Sample Transfer Form

Receiving Lab:	EMSL- Manhattan	Phone Number:	(212) 292-0051
		Fax Number:	(212) 290-0058
Relinquished to:	EMSL- ATLANTA	Phone Number:	(770) 956-9150
		Fax Number:	
Does new lab hold equivalent or additional accreditation? *			☒ Yes ☐ No
EMSL Customer ID # (if known):	AERO50		
Client Name:	AERO Environmental Services, Inc S.S.		
Client Project:	BRAGG SCHOOL - AOC		
Tests to be Performed:	M001 4 SAMPLES		
Date Received:	10/19/18		
Date Relinquished:	10/19/18		
Date Due:	24 HOURS		
Special Instructions: (e.g. Work Order # , required qualifications, project specific procedures/modifications)	EMSL FX : 795592999770		
Relinquished by (Signature): 	Date: 10/19/18	Received by (Signature): 	Date: 9:00 PM 10-22-18
Relinquished by (Signature):	Date:	Received by (Signature):	Date:
Customer Agreement- Please sign form and send to the receiving laboratory. By signing below, you agree to permit the above named receiving lab to transfer samples to a separate EMSL lab with equivalent qualifications* for analysis. The final report will be issued from the analyzing laboratory. Ensure any requirements are listed in special instructions.			
Name (please print):	Signature:	Agent of:	Date:
<i>If this is a recurring project or sample type that may require samples to be relinquished on a regular basis, a Standing Agreement form must be completed.</i>			

* Receiving and analyzing labs shall be aware of required qualifications of project prior to transfer of samples.

Note: If customer has been notified and approved this transfer verbally or by e-mail, the receiving lab must sign for the customer above. EMSL employee filling out form on behalf of customer shall print name of person to whom they spoke, date agreement was received, and then sign under Signature.

Use of this FedEx shipping label is subject to the following restrictions and conditions:

IMPORTANT! Do not duplicate this label. Each package must contain a unique tracking number in order to maintain tracking and billing integrity.

Disclaimer



SHIP DATE: 18OCT18
ACTWTGT: 1.00 LB
CAD: 102509583WSX12500

ORIGIN ID: ARXA
CONTACT NAME:
AERO ENVIRONMENTAL SERVICES, INC -
275 ROUTE 10 EAST SUITE 220-306
(973) 920-9061

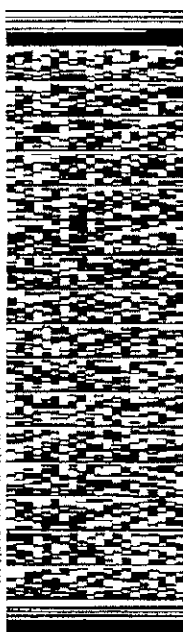
SUCCASUNNA, NJ 07878
UNITED STATES US

TO SAMPLE RECEIVING
EMSL ANALYTICAL, INC.
307 WEST 38TH STREET

NEW YORK NY 10018

REF: ARL-WEB(M)
RWJA: AEROS0
DEPT:
PO:
INV: (212) 290-0051

EMA:



RETURNS MON-FRI
PRIORITY OVERNIGHT

7955 9299 9770

TRK# 0221

10018

NY-13



ORIGIN ID: MTPA (212) 290-0051

EMSL ANALYTICAL, INC.
307 WEST 38TH STREET

NEW YORK, NY 10018
UNITED STATES US

SHIP DATE: 19OCT18
ACTWGT: 1.00 LB
CAD: 110624818/WSX13200
DIMS: 1x1x1 IN

BILL RECIPIENT

TO **SAMPLE RECEIVING**
EMSL ANALYTICAL, INC
2205 CORPORATE PLAZA PARKWAY SE
SUITE 200
SMYRNA GA 30080

552J1/89F8100/5

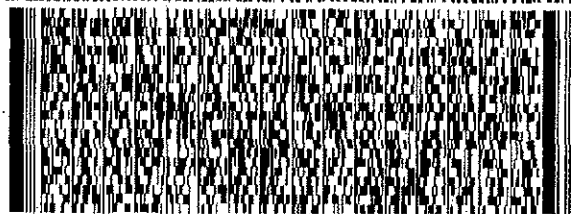
(770) 956-9150

REF:

INV:

DEPT:

PO:



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