Soil and Land Use Technology, Inc.
1818 New York Ave. NE, Ste 231, Washington, DC 20002
Telephone: (301) 595-3783
www.salutinc.com

March 10, 2021

Prince George's County Public Schools
Environmental Safety Office
13306 Old Marlboro Pike
Upper Marlboro, MD 20772

Attention: Alex Baylor
alex.baylor@pgcps.org

Subject: Indoor Air Quality Survey
Greenbelt Elementary School
66 Ridge Road
Greenbelt, MD 20770

Mr. Baylor:

On January 29, 2021 and March 4, 2021, a Soil and Land Use Technology, Inc. (SaLUT) Industrial Hygienist conducted an indoor air quality (IAQ) evaluation at Greenbelt Elementary School, a property maintained by Prince George's County Public Schools (PGCPS) located at 66 Ridge Road, Greenbelt, MD 20770. The inspection was performed in accordance with PGCPS contract number IFB 022-19.

Corrective Measures Implemented by PGPCS

On March 4, 2021, as part of this assessment, SaLUT conducted the IAQ evaluation, including IAQ instrumentation screening, and observations in affected areas. Prior to this assessment, in response to an initial assessment, PGPCS implemented the following corrective measures in Room 3, Room 13B, Room 26, Room 29:

1. Identify and clearly assess the affected area;
2. Remove and replace moldy and stained ceiling tiles;
3. Thorough cleanup throughout the affected areas;
4. Operate air scrubbers with HEPA filters in the impacted areas;
5. Monitor and evaluate clean-up operation to determine effectiveness.

Methodology

The IAQ evaluation conducted by SaLUT included a visual assessment, IAQ instrumentation screening, and a collection of interior air samples for mold in

representative locations throughout the building. Additionally, one building exterior environmental air sample was taken for comparison.

Air-borne fungal spore samples were collected on *Air-O-Cell* cassettes using a Buck BioAire calibrated pump. The air samples were taken between three and five feet from the ground. In tandem with collecting mold samples, real-time readings for carbon dioxide, carbon monoxide, temperature and relative humidity were collected using a Fluke 975 Air Meter in representative areas within the facility.

The fungal spore air samples were delivered to EMSL Analytical, Inc. of Beltsville, Maryland for analysis. Fungal spores and particulates in air samples were analyzed by Optical Microscopy (methods EMSL 05-TP-003 and ASTM D7391). The sample chain-of-custody and laboratory reports are attached.

Observations

The table below summarizes the main observations from the IAQ survey at Greenbelt Elementary School, visited on January 29, 2021, and March 4, 2021, respectively.

Table 1.1-Observations

Location	Summary of Observations 01-29-2021
Main Office	2'x4' ceiling tiles and 12"x 12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Media Center	2'x4' ceiling tiles and carpet; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Multi-Purpose Room	No ceiling tiles and 12"x 12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Room 3	2'x4' ceiling tiles and 12"x12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.

Location	Summary of Observations 01-29-2021
Room 9	2'x4' ceiling tiles and 12"x12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Room 13B	2'x4' ceiling tiles and 12"x12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Room 26	2'x4' ceiling tiles and 12"x12" tile floor; No visual signs of microbial growth; Mild odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Room 29	2'x4' ceiling tiles and 12"x12" tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; No visible dust around ventilator; Central AC.
Outside Exterior EV Sample	Cold and windy

Table 1.2-Observations

Location	Summary of Observations 03-04-2021
Room 3	2'x4' ceiling tiles and 12"x12" tile floor; Stained ceiling tiles were replaced.
Room 13B	2'x4' ceiling tiles and 12"x12" tile floor; Stained ceiling tiles were replaced.
Room 26	2'x4' ceiling tiles and 12"x12" tile floor; Stained ceiling tiles were replaced.
Room 29	2'x4' ceiling tiles and 12"x12" tile floor; Stained ceiling tiles were replaced.
Outside Exterior EV Sample	Sunny

Measurements of Indoor Environmental Quality Parameters

Table 2 depicts a summary of average measurements of comfort.

Temperature

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) have published recommendations for year round acceptable temperatures in Standard 55-2010 *Thermal Environmental Conditions for Human Occupancy*. The winter

comfort range is 20 to 24°C (68 to 75°F) and 23 to 26°C (73 to 79°F) is the summer comfort range. The temperature readings were lower than the ASHRAE recommended ranges in the Main Office.

Relative Humidity (RH)

RH is a key factor for mold growth. Mold has the potential of growing on suitable surfaces with humidity levels above 60%. ASHRAE Standard 62.1-2010 *Ventilation for Acceptable Indoor Air Quality* recommends a maximum indoor RH of 65% to preclude the likelihood of condensation on cool surfaces encouraging mold growth. The RH readings were within the ASHRAE recommended ranges in the representative areas.

Carbon Dioxide (CO_2)

Under conditions of maximum occupancy, ASHRAE Standard 62.1-2010, Appendix C, infers that the acceptable CO_2 upper limit is the prevailing outdoor CO_2 concentration plus 700 parts per million (ppm). On January 29, 2021, the outdoor (building exterior) CO_2 concentration was approximately 420 ppm therefore indoor concentrations should not exceed approximately 1,120 ppm (700 + 420). The maximum average interior CO_2 concentration detected was 545 ppm in the Main Office, a range within the ASHRAE recommendations, per Table 2.1 below.

Carbon Monoxide (CO)

CO is a colorless and odorless gas that is produced by the incomplete combustion of carbon containing fuels. Oil, gasoline, diesel fuels, wood, coke, and coal are major sources of CO. All registered CO concentrations were below the EPA National Ambient Air Quality Standard (NAAQS) of 9 ppm, per Table 2.1 below.

Table 2.1: Greenbelt Elementary School - Instrumental Screening Levels
January 29, 2021 (9:30 AM-11:30 AM)

Sample Location	Temp °F	RH%	CO ppm	CO_2 ppm
Standards	**ASHRAE 68 to 75°F***	**ASHRAE <65%**	**NAAQS 9**	**ASHRAE 1,120**
Main Office	52.6	22.9	0	545
Media Center	68.0	16.1	0	465
Multi-Purpose Room	70.7	15.4	0	473
Room 3	70.0	14.3	0	458
Room 9	70.0	17.0	0	434
Room 13B	73.4	13.1	0	449
Room 26	71.6	13.6	0	438
Room 29	70.7	13.6	0	438
Outside Exterior EV Sample	50.0	14.7	0	420

PM – Particulate Matter size
°F – Degrees Fahrenheit
CO – Carbon Monoxide
ppm – parts per million
µg/m³ – micrograms per cubic meter
RH% - % Relative Humidity
CO_2 – Carbon Dioxide
* - Winter Comfort Range

Table 2.2: Greenbelt Elementary School - Instrumental Screening Levels
March 4, 2021 (9:30 AM-11:30 AM)

Sample Location	Temp °F	RH%	CO ppm	CO_2 ppm
Standards	**ASHRAE 68 to 75°F***	**ASHRAE <65%**	**NAAQS 9**	**ASHRAE 1,164**
Room 3	69.8	23.8	0	468
Room 13B	68.0	23.8	0	469
Room 26	68.0	23.1	0	494
Room 29	66.2	23.5	0	475
Outside Exterior EV Sample	69.8	25.8	0	464

PM – Particulate Matter size
°F – Degrees Fahrenheit
CO – Carbon Monoxide
ppm – parts per million
µg/m^3 – micrograms per cubic meter
RH% - % Relative Humidity
CO_2 – Carbon Dioxide
* - Winter Comfort Range

Mold-in-Air Samples

There are no definitive regulations or standardized guidelines for addressing airborne mold in an indoor setting. If building systems (ventilation, envelope) are functioning properly, the indoor population profile should mimic what is encountered outdoors and the concentrations should be below the outdoor (building exterior) environmental sample levels.

Table 3.1: Summarizes airborne mold spore sampling results and locations. On January 29, 2021, total mold counts in representative samples (spore count/m^3 of air) in all the areas inspected were lower than the outdoor concentrations with the exception of Room 3, Room 9 and Room 13B. Laboratory analysis follows this report (see attachment).

Table 3.2: Summarizes airborne mold spore sampling results and locations. On March 4, 2021, total mold counts in representative samples (spore count/m^3 of air) in all the areas inspected were lower than the outdoor concentrations with the exception of Room 3 and Room 13B. Laboratory analysis follows this report (see attachment).

Table 3.1: Greenbelt Elementary School
Measurements of Mold-in-Air Samples
January 29, 2021 (9:30 AM-11:30 AM)

Spore Types	Main Office	Media Center	Multi-Purpose Room	Room 3	Room 9
Alternaria (Ulocladium)	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	100	7,140	780
Basidiospores	40	-	-	660	40
Bipolaris++	-	-	-	-	-
Chaetomium	-	-	-	-	-
Cladosporium	-	80	100	200	40
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	40	-	-	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	40	-	40
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Nigrospora	-	-	-	-	40
Hyphal Fragment	-	40	80	40	100
Insect Fragment	-	40	-	-	-
Pollen	-	-	-	-	40
Total Fungi	**40**	**200**	**320**	**8,040**	**1,080**

* Spore Counts per cubic meter of air (Counts/m^3).
++Includes other spores with similar morphology.

Table 3.1: Greenbelt Elementary School
Measurements of Mold-in-Air Samples continued
January 29, 2021 (9:30 AM-11:30 AM)

Spore Types	Room 13B	Room 26	Room 29	Outside Exterior EV Sample	Field Blank
Alternaria (Ulocladium)	-	-	-	10*	-
Ascospores	-	40	40	-	-
Aspergillus/Penicillium	940	80	40	200	-
Basidiospores	200	40	-	40	-
Bipolaris++	-	-	-	-	-
Chaetomium	-	-	-	-	-
Cladosporium	450	80	200	100	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	10*	-
Fusarium	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	10*	-
Pithomyces++	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-
Stachybotrys/Memnoniella	300	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Nigrospora	-	-	-	-	-
Hyphal Fragment	100	40	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-
Total Fungi	**1,990**	**280**	**280**	**370**	**No Trace**

*Spore Counts per cubic meter of air (Counts/m^3).
++Includes other spores with similar morphology.

Table 3.2: Greenbelt Elementary School
Measurements of Mold-in-Air Samples continued
March 4, 2021 (9:30 AM-11:30 AM)

Spore Types	Room 3	Room 13B	Room 26	Room 29	Outside Exterior EV Sample	Field Blank
Alternaria (Ulocladium)	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-
Aspergillus/Penicillium	200	90	-	-	-	-
Basidiospores	-	90	-	-	90	-
Bipolaris++	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-
Myxomycetes++	-	-	-		-	-
Pithomyces++	-	-	-	-	-	-
Rust	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-
Pollen	-	-	-	-	-	-
Total Fungi	**200**	**180**	**No Trace**	**No Trace**	**90**	**No Trace**

*Spore Counts per cubic meter of air (Counts/m^3).
++Includes other spores with similar morphology.

Findings and Conclusions

The comfort parameters (i.e., temperature, RH, CO_2, and CO levels) in the representative areas conform to ASHRAE and/or NAAQS guidelines with the exception of the temperature in the Main Office. On January 29, 2021 total mold counts in representative area samples (spore count/m^3 of air) in all the areas inspected were lower than the outdoor concentrations with the exception of Room 3, and Room 13B, indicating amplified mold growth.

On March 4, 2021, total mold counts in air samples (spore count/m^3 of air) in the areas tested were significantly lower than the outdoor concentrations, with the exception of Room 3 and Room 13B. However, those mold in air sample results did not indicate amplified mold growth.

Thank you for the opportunity to provide industrial hygiene services for PGCPS. If you have any questions, please contact me at 301.595.3783.

Sincerely,

Chaminda Jayatilake, PE, CIH, CSP, CHMM
Certified Industrial Hygienist
Soil and Land Use Technology Inc. (SaLUT)

Attachment

Attachment - Mold Spore Sample Analytical Results and Chain-of-Custody Forms

Attachment

Mold Spore Sample Analytical Results and Chain-of-Custody Forms

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

EMSL Order: 372101508
Customer ID: SALU50
Customer PO:
Project ID:

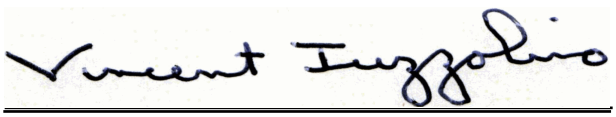
Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: PGPCS IAQ Reports 19-035 Greenbelt ES

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 01/29/2021
Received Date: 02/01/2021 09:00 AM
Analyzed Date: 02/03/2021

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

Lab Sample Number:	372101508-0001			372101508-0002			372101508-0003		
Client Sample ID:	31325225			31325239			31917655		
Volume (L):	75			75			75		
Sample Location:	Main Office			Media Center			Multi Purpose Room		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	3	100	41.7
Basidiospores	1	40	100	-	-	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	2	80	66.7	3	100	41.7
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	1	40	33.3	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	1	40	16.7
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Paecilomyces-like	-	-	-	-	-	-	-	-	-
Total Fungi	**1**	**40**	**100**	**3**	**120**	**100**	**7**	**240**	**100**
Hyphal Fragment	-	-	-	1	40	-	2	80	-
Insect Fragment	-	-	-	1	40	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	2	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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



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

Initial report from: 02/03/2021 04:44 PM

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
Tel/Fax: (800) 220-3675 / (856) 786-0262
http://www.EMSL.com / cinnmicrolab@emsl.com

EMSL Order: 372101508
Customer ID: SALU50
Customer PO:
Project ID:

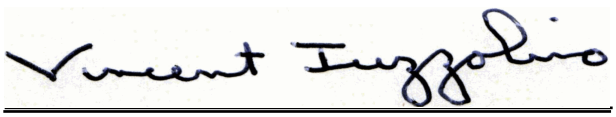
Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: PGPCS IAQ Reports 19-035 Greenbelt ES

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 01/29/2021
Received Date: 02/01/2021 09:00 AM
Analyzed Date: 02/03/2021

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

Lab Sample Number:	372101508-0004			372101508-0005			372101508-0006		
Client Sample ID:	31917671			31886673			31917612		
Volume (L):	75			75			75		
Sample Location:	Room 29			Room 13B			Room 26		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	1	40	14.3	-	-	-	1	40	16.7
Aspergillus/Penicillium	1	40	14.3	23	940	49.7	2	80	33.3
Basidiospores	-	-	-	6	200	10.6	1	40	16.7
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	4	200	71.4	11	450	23.8	2	80	33.3
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	8	300	15.9	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Nigrospora	-	-	-	-	-	-	-	-	-
Paecilomyces-like	-	-	-	-	-	-	-	-	-
Total Fungi	**6**	**280**	**100**	**48**	**1890**	**100**	**6**	**240**	**100**
Hyphal Fragment	-	-	-	3	100	-	1	40	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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



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

Initial report from: 02/03/2021 04:44 PM

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

Tel/Fax: (800) 220-3675 / (856) 786-0262

http://www.EMSL.com / cinnmicrolab@emsl.com

EMSL Order: 372101508
Customer ID: SALU50
Customer PO:
Project ID:

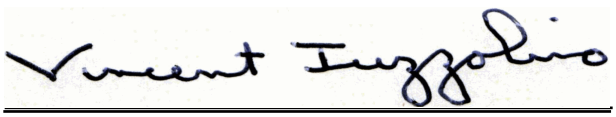
Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: PGPCS IAQ Reports 19-035 Greenbelt ES

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 01/29/2021
Received Date: 02/01/2021 09:00 AM
Analyzed Date: 02/03/2021

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

Lab Sample Number:	372101508-0007			372101508-0008			372101508-0009		
Client Sample ID:	31907617			31917729			31917605		
Volume (L):	75			75			75		
Sample Location:	Room 9			Room 3			Outside Sample		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	1*	10*	2.7
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	19	780	83	174	7140	79.3	4	200	54.1
Basidiospores	1	40	4.3	16	660	7.3	1	40	10.8
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	1	40	4.3	5	200	2.2	3	100	27
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	1*	10*	2.7
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	1*	10*	2.7
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	1	40	4.3	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Nigrospora	1	40	4.3	-	-	-	-	-	-
Paecilomyces-like	-	-	-	25	1000	11.1	-	-	-
Total Fungi	**23**	**940**	**100**	**220**	**9000**	**100**	**11**	**370**	**100**
Hyphal Fragment	3	100	-	1	40	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	1	40	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	41	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	2	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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



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

Initial report from: 02/03/2021 04:44 PM

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
Tel/Fax: (800) 220-3675 / (856) 786-0262
http://www.EMSL.com / cinnmicrolab@emsl.com

EMSL Order: 372101508
Customer ID: SALU50
Customer PO:
Project ID:

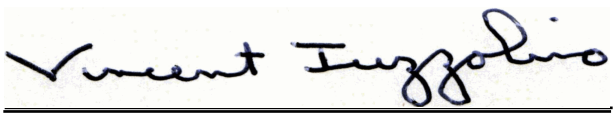
Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: PGPCS IAQ Reports 19-035 Greenbelt ES

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 01/29/2021
Received Date: 02/01/2021 09:00 AM
Analyzed Date: 02/03/2021

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

Lab Sample Number:	372101508-0010								
Client Sample ID:	31917638								
Volume (L):									
Sample Location:	Field Blank								
Spore Types	**Raw Count**	**Count/M³**	**% of Total**						
Alternaria (Ulocladium)	-	-	-						
Ascospores	-	-	-						
Aspergillus/Penicillium	-	-	-						
Basidiospores	-	-	-						
Bipolaris++	-	-	-						
Chaetomium	-	-	-						
Cladosporium	-	-	-						
Curvularia	-	-	-						
Epicoccum	-	-	-						
Fusarium	-	-	-						
Ganoderma	-	-	-						
Myxomycetes++	-	-	-						
Pithomyces++	-	-	-						
Rust	-	-	-						
Scopulariopsis/Microascus	-	-	-						
Stachybotrys/Memnoniella	-	-	-						
Unidentifiable Spores	-	-	-						
Zygomycetes	-	-	-						
Nigrospora	-	-	-						
Paecilomyces-like	-	-	-						
Total Fungi	**-**	**No Trace**	**-**						
Hyphal Fragment	-	-	-						
Insect Fragment	-	-	-						
Pollen	-	-	-						
Analyt. Sensitivity 600x	-	0	-						
Analyt. Sensitivity 300x	-	0*	-						
Skin Fragments (1-4)	-	-	-						
Fibrous Particulate (1-4)	-	-	-						
Background (1-5)	-	-	-						

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



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

Initial report from: 02/03/2021 04:44 PM

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

EMSL Analytical, Inc.

10768 Baltimore Avenue Beltsville, MD 20705

Tel/Fax: (301) 937-5700 / (301) 937-5701

http://www.EMSL.com / beltsvillelab@emsl.com

EMSL Order: 192102005
Customer ID: SALU50
Customer PO:
Project ID:

Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: GREENBELT ELEMENTARY SCHOOL/PGCPS IAQ

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 03/04/2021
Received Date: 03/04/2021 04:46 PM
Analyzed Date: 03/08/2021

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

Lab Sample Number:	192102005-0001			192102005-0002			192102005-0003		
Client Sample ID:	1G			2G			3G		
Volume (L):	75			75			75		
Sample Location:	RM 29			RM26			RM13B		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	7*	90*	50
Basidiospores	-	-	-	-	-	-	2	90	50
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**-**	**None Detect**	**-**	**-**	**None Detect**	**-**	**9**	**180**	**100**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	-	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	1	-	-	1	-

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

Abubakar Barry, Microbiology Laboratory Manager or other Approved Signatory

Initial report from: 03/08/2021 02:53 PM

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

EMSL Analytical, Inc.

10768 Baltimore Avenue Beltsville, MD 20705

Tel/Fax: (301) 937-5700 / (301) 937-5701

http://www.EMSL.com / beltsvillelab@emsl.com

EMSL Order: 192102005
Customer ID: SALU50
Customer PO:
Project ID:

Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: GREENBELT ELEMENTARY SCHOOL/PGCPS IAQ

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 03/04/2021
Received Date: 03/04/2021 04:46 PM
Analyzed Date: 03/08/2021

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

Lab Sample Number:	192102005-0004			192102005-0005			192102005-0006		
Client Sample ID:	4G			5G			6G		
Volume (L):	75			75					
Sample Location:	RM 3			OUTSIDE EXTERIOR EV SAMPLE			FIELD BLANK		
Spore Types	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**	**Raw Count**	**Count/M³**	**% of Total**
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	4	200	100	-	-	-	-	-	-
Basidiospores	-	-	-	2	90	100	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	**4**	**200**	**100**	**2**	**90**	**100**	**-**	**No Trace**	**-**
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	44	-	-	44	-	-	0	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	0*	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	-	-
Background (1-5)	-	1	-	-	1	-	-	-	-

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

Abubakar Barry, Microbiology Laboratory Manager or other Approved Signatory

Initial report from: 03/08/2021 02:53 PM

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

OrderID: 372101508

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*): 372101508

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL Analytical, Inc.
10768 Baltimore Avenue
Beltsville, MD 20705
PHONE: (301) 937-5700
FAX: (301) 937-5701

RECEIVED EMSL CINNAMINSON, NJ 21 FEB 1 AM 11:21

Company Name: SaLUT		**EMSL-Bill to:** ☑ Same ☐ Different If 'Bill To' is different, note instructions in Comments *Third Party Billing requires written authorization from third party.*	
Street: 1818 New York Avenue, NE Suite 231			
City: Washington	**State/Province:** DC	**Zip/Postal Code:** 20002	**Country:** US
Report To (Name): Indika Jayatilake		**Telephone #:** 301-595-3783	
Email Address: ijayatilake@salutinc.com		**Fax #:** 301-595-3787	**Purchase Order:**
Project Name/Number: PGPCS IAQ Reports 19-035 Greenbelt ES		**Please Provide Results:** ☐ Fax ☑ Email	
U.S. State Samples Taken: MD	**Project Zip Code:**	**Connecticut Samples:** ☐ Commercial ☐ Residential	

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify):** ☐

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by state.**

Turnaround Time (TAT) Options - Please Check

☐ 3 Hour	☐ 6 Hour	☐ 24 Hour	☐ 48 Hour	■ 72 Hour	☐ 96 Hour	☐ 1 Week	☐ 2 Week

Microbiology Test Codes

M001 Air-O-Cell
M030 Micro 5
M174 MoldSnap
M032 Allergenco-D
M041 Fungal Direct Examination
M169 Pollen ID & Enumeration
M280 Dust Characterization Level-1
M281 Dust Characterization Level-2
M005 Viable Fungi- Air Samples (Genus ID & Count)
M006 Viable Fungi- Air Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M007 Culturable fungi - Surface Samples (Genus ID & Count)
M008 Culturable fungi - Surface Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M009 Bacteria Culture Gram Stain & Count
M010 Bacteria Count & ID - 3 Most Prominent
M011 Bacteria Count & ID - 5 Most Prominent

M012 *Pseudomonas aeruginosa* (P/A***)
M024 *Pseudomonas aeruginosa* (MFT*)
M015 Heterotrophic Plate Count
M017 Total Coliform & *E. coli* (Colilert P/A***)
M018 Total Coliform & *E. coli* (MFT*)
M114 Total Coliform & *E. coli* Enumeration (Colilert MPN**)
M019 Fecal Coliform (MFT*)
M020 Fecal *Streptococcus* (MFT*)
M029 *Enterococci* (MFT*)
M129 *Enterococci* (Enterolert P/A***)
M180 Real Time qPCR-ERMI 36 Panel
M025 Sewage Screen –Water (MFT*)

M115 Sewage Screen - Water (P/A***)
M116 Sewage Screen - Water (MPN**)
M117 Sewage Screen - Swab (P/A***)
M013 Sewage Screen - Swab (MFT*)
M133 *Methicillin-resistant Staph. aureus* (MRSA)
M031 Rapid-growing non-TB *Mycobacteria* Detection & Enumeration
M014 Endotoxin Analysis
M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
Other See Analytical Price Guide
***Legionella* Analysis** Please use EMSL *Legionella* COC

*MFT= Membrane Filtration Technique
**MPN= Most Probable Number
***P/A= Presence/Absence

Name of Sampler: Jay Nchang **Signature of Sampler:**

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
Example A1	Kitchen Sink/Tap	Water	☒ P ☐ NP	M017	100 mL	9/1/13 4:00 PM	
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				
			☐ P ☐ NP				

Client Sample # (s): -

Total # of Samples: 10

Samples Received Chilled? Yes / No (Lab Use Only)

Relinquished (Client): Jay Nchang **Date:** 1/29/2021 **Time:** 13:45

Received (Lab): FX **Date:** 2/1/21 **Time:** 9:00

Comments/Special Instructions:

Controlled Document – COC-34 Micro R8 11/14/2017

OrderID: 372101508

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*): 372101508

EMSL Analytical, Inc.
10768 Baltimore Avenue
Beltsville, MD 20705
PHONE: (301) 937-5700
FAX: (301) 937-5701

Additional pages of the chain of custody are only necessary if needed for additional sample information.

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (Only for Waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
3132 5225	Main Office	Air	☐P ☐NP	Mool	75L	1/29/21 9:09	
3132 5239	Media Center	Air	☐P ☐NP	Mool	75L	1/29/21 9:16	
3191 7655	Multi Purpose Room	Air	☐P ☐NP	Mool	75L	1/29/21 9:23	
3191 7671	Room 29	Air	☐P ☐NP	Mool	75L	1/29/21 9:28	
3188 6673	Room 13B	Air	☐P ☐NP	Mool	75L	1/29/21 9:36	
3191 7612	Room 26	Air	☐P ☐NP	Mool	75L	9:38 1/29/21	
3191 7617	Room 9	Air	☐P ☐NP	Mool	75l	1/29/21 9:45	
3191 7729	Room 3	Air	☐P ☐NP	Mool	75l	1/29/21 9:47	
3191 7605	Outside Sample	Air	☐P ☐NP	Mool	75l	1/29/21 9:51	
3191 7638	Field Blank	Air	☐P ☐NP	Mool	-	1/29/21 10:05	
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				
			☐P ☐NP				

Comments/Special Instructions:

Controlled Document – COC-34 Micro R8 11/14/2017

OrderID: 192102005

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Microbiology Chain of Custody

EMSL Order Number (*Lab Use Only*): 192102005

PHONE:
FAX:

Company Name: SaLUT Inc.	**EMSL-Bill to:** ☒ Same ☐ Different If Bill to is Different note instructions in Comments** *Third Party Billing requires written authorization from third party*
Street: 1818 New York Ave NE Suite 231	
City: Washington **State/Province:** DC	**Zip/Postal Code:** 20002 **Country:** USA
Report To (Name): Indika Jayatilake	**Telephone #:** 301-595-3783
Email Address: ijayatilake@salutinc.com	**Fax #:** **Purchase Order:**
Project Number/Location: Greenbelt Elementary School / PGCPS IAQ	**Please Provide Results:** ☐ Fax ☒ Email
Location Address:	**Connecticut Samples:** ☐ Commercial ☐ Residential

**Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide. TATs are subject to methodology requirements*

Sterile, Sodium Thiosulfate Preserved Bottle Used: ☐ **Biocide Used in Source (specify):** ☐

Public Water Supply Samples: ☐ **Note: All results may automatically be reported to DOH if required by state.**

Turnaround Time (TAT) Options * - Please Check

☐ 3 Hour	☐ 6 Hour	☐ 24 Hour	☐ 48 Hour	☒ 72 Hour	☐ 96 Hour	☐ 1 Week	☐ 2 Week

Microbiology Test Codes

M001 Air-O-Cell
M030 Micro 5
M174 MoldSnap
M032 Allergenco-D
M041 Fungal Direct Examination
M169 Pollen ID & Enumeration
M280 Dust Characterization Level-1
M281 Dust Characterization Level-2
M005 Viable Fungi- Air Samples (Genus ID & Count)
M006 Viable Fungi- Air Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M007 Culturable fungi - Surface Samples (Genus ID & Count)
M008 Culturable fungi - Surface Samples (Includes *Penicillium, Aspergillus, Cladosporium, Stachybotrys* Species ID & Count)
M009 Bacteria Culture Gram Stain & Count
M010 Bacteria Count & ID - 3 Most Prominent
M011 Bacteria Count & ID - 5 Most Prominent
M012 Pseudomonas aeruginosa (P/A***)

M024 Pseudomonas aeruginosa (MFT*)
M015 Heterotrophic Plate Count
M017 Total Coliform & E. coli (Colilert P/A***)
M018 Total Coliform & E. coli (MFT*)
M114 Total Coliform & E. coli Enumeration (Colilert MPN**)
M019 Fecal Coliform (MFT*)
M020 Fecal Streptococcus (MFT*)
M029 Enterococci (MFT*)
M129 Enterococci (Enterolert P/A***)
M180 Real Time qPCR-ERMI 36 Panel
M025 Sewage Screen –Water (MFT*)

M115 Sewage Screen - Water (P/A***)
M116 Sewage Screen - Water (MPN**)
M117 Sewage Screen - Swab (P/A***)
M013 Sewage Screen - Swab (MFT*)
M133 Methicillin-resistant Staph. aureus (MRSA)
M031 Rapid-growing non-TB Mycobacteria Detection & Enumeration
M014 Endotoxin Analysis
M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
Other See Analytical Price Guide
Legionella Analysis Please use EMSL Legionella COC

*MFT= Membrane Filtration Technique
**MPN= Most Probable Number
***P/A= Presence/Absence

Name of Sampler: Jude Fonseka **Signature of Sampler:**

Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (only for waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (°C) (Lab Use Only)
1 G	Room 29	Air		M001	75L	3/4/2021	
2 G	Room 26	Air		M001	75L	3/4/2021	
3 G	Room 13B	Air		M001	75L	3/4/2021	
4 G	Room 3	Air		M001	75L	3/4/2021	
5 G	Outside Exterior EV Sample	Air		M001	75L	3/4/2021	
6 G	Field Blank	Air		N/A	N/A	3/4/2021	

Client Sample # (s): -
Total # of Samples: 06
Samples Received Chilled? Yes / No

Relinquished (Client): **Date:** **Time:**
Received (Lab): Marcus Nabee DB **Date:** **Time:**

Comments/Special Instructions:

RECEIVED
EMSL ANALYTICAL, INC.
BELTSVILLE, MD
2021 MAR -4 P 4:19

Page 1 of _____

Controlled Document – COC-34 Micro R7.2 8/23/2017