

March 5, 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  
Frances Fuchs ECCC  
11011 Cherry Hill Road  
Beltsville, MD 20705

Mr. Baylor:

On November 30, 2020 and February 28, 2021 a Soil and Land Use Technology, Inc. (SaLUT) Industrial Hygienist conducted an indoor air quality (IAQ) evaluation at Frances Fuchs ECCC, a property maintained by Prince George's County Public Schools (PGCPS) located at 11011 Cherry Hill Road, Beltsville, MD 20705. The inspection was performed in accordance with PGCPS contract number IFB 022-19.

### **Corrective Measures Implemented by PGPCS**

On February 28, 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 the Hallway next to Classroom 20:

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 Frances Fuchs ECCC, visited on November 30, 2020 and February 28, 2021, respectively.

**Table 1.1-Observations**

<b>Location</b>	<b>Summary of Observations 11-30-2020</b>
Cafeteria	2'x4' ceiling tiles and 1'x1' tile floor; No visual signs of microbial growth, and no odor; One stained ceiling tile; Roof and pipe leaks were repaired; No visible dust on floor/other furniture surfaces; Unit ventilator system.
Hallway next to Janitor room	2'x4' ceiling tiles and 9"x9" 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.
Hallway next to Classroom 5	2'x4' ceiling tiles and 9"x9" tile floor; No visual signs of microbial growth, and no odor; No visible dust on floor/other furniture surfaces; Unit ventilator system and window AC unit.
Hallway next to Classroom 20	2'x4' ceiling tiles and 9"x9" 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.

Location	Summary of Observations 11-30-2020
Hallway next to Classroom 22	2'x4' ceiling tiles and 9"x9" 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	Windy

**Table 1.2-Observations**

Location	Summary of Observations 02-28-2021
Hallway next to Classroom 20	2'x4' ceiling tiles and 9"x9" 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	Windy

### **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 within the ASHRAE recommended ranges in the representative spaces.

#### **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<sub>2</sub>)**

Under conditions of maximum occupancy, ASHRAE Standard 62.1-2010, Appendix C, infers that the acceptable CO<sub>2</sub> upper limit is the prevailing outdoor CO<sub>2</sub> concentration plus 700 parts per million (ppm). On November 28, 2021, the outdoor (building exterior) CO<sub>2</sub> concentration was approximately 600 ppm therefore indoor concentrations should not exceed approximately 1,300 ppm (700 + 600). The maximum average interior CO<sub>2</sub> concentration detected was 588 ppm in the Cafeteria, 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: Frances Fuchs ECCC - Instrumental Screening Levels  
November 30, 2020 (7:30 AM-9:30 AM)**

Sample Location	Temp °F	RH%	CO ppm	CO <sub>2</sub> ppm
Standards	ASHRAE 68 to 75°F*	ASHRAE <65%	NAAQS 9	ASHRAE 1,300
Cafeteria	68.3	50.9	2	588
Hallway next to Janitor room	72.0	54.0	2	491
Hallway next to Classroom 22	74.3	51.8	2	494
Hallway next to Classroom 20	74.3	55.4	2	490
Hallway next to Classroom 5	74.3	46.5	2	484
Outside Exterior EV Sample	62.6	82.0	2	600

PM - Particulate Matter size  
°F - Degrees Fahrenheit  
CO - Carbon Monoxide  
ppm - parts per million

µg/m<sup>3</sup> - micrograms per cubic meter  
RH% - % Relative Humidity  
CO<sub>2</sub> - Carbon Dioxide  
\* - Winter Comfort Range

**Table 2.2: Frances Fuchs ECCC - Instrumental Screening Levels  
February 28, 2021 (7:30 AM-9:30 AM)**

Sample Location	Temp °F	RH%	CO ppm	CO <sub>2</sub> ppm
Standards	ASHRAE 68 to 75°F*	ASHRAE <65%	NAAQS 9	ASHRAE 1,300
Hallway next to Classroom 20	74.3	55.4	2	490
Outside Exterior EV Sample	62.6	82.0	2	600

PM - Particulate Matter size  
°F - Degrees Fahrenheit  
CO - Carbon Monoxide  
ppm - parts per million

µg/m<sup>3</sup> - micrograms per cubic meter  
RH% - % Relative Humidity  
CO<sub>2</sub> - 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 November 30, 2020, total mold counts in representative samples (spore count/m<sup>3</sup> of air) in all the areas inspected were equal than the outdoor concentrations with the exception of the Hallway next to Classroom 20. Laboratory analysis follows this report (see attachment).

**Table 3.2:** Summarizes airborne mold spore sampling results and locations. On February 28, 2021, total mold counts in representative samples (spore count/m<sup>3</sup> of air) in all the areas inspected were lower than the outdoor concentrations. Laboratory analysis follows this report (see attachment).

**Table 3.1: Frances Fuchs ECCC - Measurements of Mold-in-Air Samples  
November 30, 2020 (7:30 AM-9:30 AM)**

Spore Types	Cafeteria	Hallway next to Janitor room	Hallway next to Classroom 22	Hallway next to Classroom 20
<i>Alternaria (Ulocladium)</i>	-	-	10*	-
<i>Ascospores</i>	440	1,700	2,600	2,500
<i>Aspergillus/Penicillium</i>	3,500	870	90	440
<i>Basidiospores</i>	7,380	54,600	68,100	168,000
<i>Bipolaris++</i>				
<i>Chaetomium</i>				
<i>Cladosporium</i>	1,500			300
<i>Curvularia</i>				
<i>Epicoccum</i>				
<i>Fusarium</i>				
<i>Ganoderma</i>				
<i>Myxomycetes++</i>		10*	30*	200
<i>Pithomyces++</i>				
<i>Rust</i>				
<i>Scopulariopsis/Microascus</i>				
<i>Stachybotrys/Memnoniella</i>				
<i>Unidentifiable Spores</i>				
<i>Zygomycetes</i>				
<i>Nigrospora</i>				
<i>Hyphal Fragment</i>			40	
<i>Insect Fragment</i>				
<i>Pollen</i>				
<b>Total Fungi</b>	<b>12,820</b>	<b>57,180</b>	<b>70,870</b>	<b>171,440</b>

\* Spore Counts per cubic meter of air (Counts/m<sup>3</sup>).

++Includes other spores with similar morphology.

**Table 3.1: Frances Fuchs ECCC - Measurements of Mold-in-Air Samples continued  
November 30 2020 (7:30 AM-9:30 AM)**

<b>Spore Types</b>	<b>Hallway next to Classroom 5</b>	<b>Outside Exterior EV Sample</b>	<b>Field Blank</b>
<i>Alternaria (Ulocladium)</i>	10*	-	-
<i>Ascospores</i>	200	9950	-
<i>Aspergillus/Penicillium</i>	50*		-
<i>Basidiospores</i>	48,000	137,000	-
<i>Bipolaris++</i>			-
<i>Chaetomium</i>			-
<i>Cladosporium</i>		100	-
<i>Curvularia</i>			-
<i>Epicoccum</i>			-
<i>Fusarium</i>			-
<i>Ganoderma</i>			-
<i>Myxomycetes++</i>		100	-
<i>Pithomyces++</i>			-
<i>Rust</i>			-
<i>Scopulariopsis/Microascus</i>			-
<i>Stachybotrys/Memnoniella</i>			-
<i>Unidentifiable Spores</i>			-
<i>Zygomycetes</i>			-
<i>Nigrospora</i>			-
<i>Hyphal Fragment</i>			-
<i>Insect Fragment</i>			-
<i>Pollen</i>			-
<b>Total Fungi</b>	<b>48,260</b>	<b>147,150</b>	<b>No Trace</b>

\*Spore Counts per cubic meter of air (Counts/m<sup>3</sup>).

++Includes other spores with similar morphology.

**Table 3.2: Frances Fuchs ECCC - Measurements of Mold-in-Air Samples continued  
February 28, 2021 (7:30 AM-9:30 AM)**

Spore Types	Hallway next to Classroom 20	Outside Exterior EV Sample	Field Blank
<i>Alternaria (Ulocladium)</i>	-	-	-
<i>Ascospores</i>	200	300	-
<i>Aspergillus/Penicillium</i>	40	-	-
<i>Basidiospores</i>	2,300	2,700	-
<i>Bipolaris++</i>	-	-	-
<i>Chaetomium</i>	-	-	-
<i>Cladosporium</i>	-	-	-
<i>Curvularia</i>	-	-	-
<i>Epicoccum</i>	-	-	-
<i>Fusarium</i>	-	-	-
<i>Ganoderma</i>	-	-	-
<i>Myxomycetes++</i>	-	-	-
<i>Pithomyces++</i>	-	-	-
<i>Rust</i>	-	-	-
<i>Scopulariopsis/Microascus</i>	--	-	-
<i>Stachybotrys/Memmoniella</i>	-	-	-
<i>Unidentifiable Spores</i>	-	-	-
<i>Zygomycetes</i>	-	-	-
<i>Nigrospora</i>	-	-	-
<i>Hyphal Fragment</i>	10*	-	-
<i>Insect Fragment</i>	-	-	-
<i>Pollen</i>	-	-	-
<b>Total Fungi</b>	<b>2,550</b>	<b>3,000</b>	<b>No Trace</b>

\*Spore Counts per cubic meter of air (Counts/m<sup>3</sup>).

++Includes other spores with similar morphology.



**Findings and Conclusions**

The comfort parameters (i.e., temperature, RH, CO<sub>2</sub>, and CO levels) in the representative areas conform to ASHRAE and/or NAAQS guidelines. On November 30, 2020, total mold counts in representative area samples (spore count/m<sup>3</sup> of air) in all the areas inspected were lower than the outdoor concentrations, with the exception of the Hallway next to Classroom 20.

On February 28, 2021, total mold counts in air samples (spore count/m<sup>3</sup> of air) in the Hallway next to Classroom 20 were significantly lower than the outdoor concentrations, indicating no amplified mold growth. Based on the observations, mold spore results, and the results of the indoor air quality parameters tested, the corrective actions implemented were determined to be effective.

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.

10768 Baltimore Avenue Beltsville, MD 20705

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

<http://www.EMSL.com> / [beltsvillelab@emsl.com](mailto:beltsvillelab@emsl.com)

EMSL Order: 192011812

Customer ID: SALU50

Customer PO:

Project ID:

**Attention:** Indika Jayatilake

SaLUT

1818 New York Avenue, NE

Suite 231

Washington, DC 20002

**Project:** FRANCES R FUCHS ECCC/PGCPS IAQ - 11011 CHERRY HILL RD, BELTSVILLE, MD 20705

**Phone:** (301) 595-3783

**Fax:** (301) 595-3787

**Collected Date:** 11/30/2020

**Received Date:** 11/30/2020 02:30 PM

**Analyzed Date:** 12/02/2020

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

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	192011812-0001			192011812-0002			192011812-0003			
	Raw Count	Count/M <sup>3</sup>	% of Total	Raw Count	Count/M <sup>3</sup>	% of Total	Raw Count	Count/M <sup>3</sup>	% of Total	
01 75 CAFETERIA				02 75 HW NEXT TO JANITOR RM			03 75 HW NEXT TO RM 22			
<b>Spore Types</b>										
Alternaria (Ulocladium)	-	-	-	-	-	-	1*	10*	0	
Ascospores	10	440	3.4	39	1700	3	59	2600	3.7	
Aspergillus/Penicillium	81	3500	27.3	20	870	1.5	2	90	0.1	
Basidiospores	169	7380	57.6	1250	54600	95.4	1560	68100	96.1	
Bipolaris++	-	-	-	-	-	-	-	-	-	
Chaetomium	-	-	-	-	-	-	-	-	-	
Cladosporium	34	1500	11.7	-	-	-	-	-	-	
Curvularia	-	-	-	-	-	-	-	-	-	
Epicoccum	-	-	-	-	-	-	-	-	-	
Fusarium	-	-	-	-	-	-	-	-	-	
Ganoderma	-	-	-	-	-	-	-	-	-	
Myxomycetes++	-	-	-	1*	10*	0	2*	30*	0	
Pithomyces++	-	-	-	-	-	-	-	-	-	
Rust	-	-	-	-	-	-	-	-	-	
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	
Unidentifiable Spores	-	-	-	-	-	-	-	-	-	
Zygomycetes	-	-	-	-	-	-	-	-	-	
Chaetoconis	-	-	-	1	40	0.1	1*	10*	0	
<b>Total Fungi</b>	<b>294</b>	<b>12820</b>	<b>100</b>	<b>1311</b>	<b>57220</b>	<b>100</b>	<b>1625</b>	<b>70840</b>	<b>100</b>	
Hyphal Fragment	-	-	-	-	-	-	1	40	-	
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	-	-	1	-	
Background (1-5)	-	1	-	-	1	-	-	1	-	

192011812-0001 - Aspergillus conidiophores present in sample.

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

Abubakar Barry, Microbiology Laboratory Manager  
or other Approved Signatory

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. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications 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.

Samples analyzed by EMSL Analytical, Inc. Beltsville, MD AIHA-LAP, LLC-EMLAP Accredited #102891

Initial report from: 12/03/2020 09:12 AM

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

EMSL Order: 192011812

Customer ID: SALU50

Customer PO:

Project ID:

**Attention:** Indika Jayatilake

SaLUT

1818 New York Avenue, NE

Suite 231

Washington, DC 20002

**Project:** FRANCES R FUCHS ECCC/PGCPS IAQ - 11011 CHERRY HILL RD, BELTSVILLE, MD 20705

**Phone:** (301) 595-3783

**Fax:** (301) 595-3787

**Collected Date:** 11/30/2020

**Received Date:** 11/30/2020 02:30 PM

**Analyzed Date:** 12/02/2020

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

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	192011812-0004			192011812-0005			192011812-0006		
	Raw Count	Count/M <sup>3</sup>	% of Total	Raw Count	Count/M <sup>3</sup>	% of Total	Raw Count	Count/M <sup>3</sup>	% of Total
04 75 HW NEXT TO RM 20									
05 75 HW NEXT TO RM 5									
06 75 OUTSIDE EXT EV SAMPLE									
<b>Spore Types</b>									
Alternaria (Ullocladium)	-	-	-	1*	10*	0	-	-	-
Ascospores	57	2500	1.5	4	200	0.4	228	9950	6.8
Aspergillus/Penicillium	10	440	0.3	4*	50*	0.1	-	-	-
Basidiospores	3840	168000	98	1100	48000	99.5	3140	137000	93.1
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	6	300	0.2	-	-	-	3	100	0.1
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	5	200	0.1	-	-	-	3	100	0.1
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Chaetoconis	1*	10*	0	-	-	-	-	-	-
<b>Total Fungi</b>	<b>3919</b>	<b>171450</b>	<b>100</b>	<b>1109</b>	<b>48260</b>	<b>100</b>	<b>3374</b>	<b>147150</b>	<b>100</b>
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	-	-	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

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. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications 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.

Samples analyzed by EMSL Analytical, Inc. Beltsville, MD AIHA-LAP, LLC-EMLAP Accredited #102891

Initial report from: 12/03/2020 09:12 AM

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

EMSL Order: 192011812

Customer ID: SALU50

Customer PO:

Project ID:

**Attention:** Indika Jayatilake

SaLUT

1818 New York Avenue, NE

Suite 231

Washington, DC 20002

**Project:** FRANCES R FUCHS ECCC/PGCPS IAQ - 11011 CHERRY HILL RD, BELTSVILLE, MD 20705

**Phone:** (301) 595-3783

**Fax:** (301) 595-3787

**Collected Date:** 11/30/2020

**Received Date:** 11/30/2020 02:30 PM

**Analyzed Date:** 12/02/2020

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

<b>Lab Sample Number:</b>	192011812-0007		
<b>Client Sample ID:</b>	07		
<b>Volume (L):</b>			
<b>Sample Location:</b>	FIELD BLANK		
<b>Spore Types</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>% of Total</b>
Alternaria (Ulocladium)	-	-	-
Ascospores	-	-	-
Aspergillus/Penicillium	-	-	-
Basidiospores	-	-	-
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	-	-	-
Curvularia	-	-	-
Epicoccum	-	-	-
Fusarium	-	-	-
Ganoderma	-	-	-
Myxomycetes++	-	-	-
Pithomyces++	-	-	-
Rust	-	-	-
Scopulariopsis/Microascus	-	-	-
Stachybotrys/Memnoniella	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
Chaetoconis	-	-	-
<b>Total Fungi</b>	-	<b>No Trace</b>	-
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.

Abubakar Barry, Microbiology Laboratory Manager  
or other Approved Signatory

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. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications 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.

Samples analyzed by EMSL Analytical, Inc. Beltsville, MD AIHA-LAP, LLC-EMLAP Accredited #102891

Initial report from: 12/03/2020 09:12 AM

For information on the fungi listed in this report, please visit the Resources section at [www.emsl.com](http://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> / [cinmicrolab@emsl.com](mailto:cinmicrolab@emsl.com)

**EMSL Order:** 372103038  
**Customer ID:** SALU50  
**Customer PO:**  
**Project ID:**

**Attention:** Indika Jayatilake  
SaLUT  
1818 New York Avenue, NE  
Suite 231  
Washington, DC 20002  
**Project:** Frances R Fuchs ECC / PGCPs IAQ / 11011 Cherry Hill Rd, Beltsville MD 20705

**Phone:** (301) 595-3783  
**Fax:** (301) 595-3787  
**Collected Date:** 02/28/2021  
**Received Date:** 03/03/2021 10:55 AM  
**Analyzed Date:** 03/03/2021

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

Lab Sample Number: Client Sample ID: Volume (L): Sample Location:	372103038-0001 1F 75 H/W Next To Room 20			372103038-0002 2F 75 Outside Exterior EV Sample			372103038-0003 3F 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	4	200	7.9	8	300	10	-	-	-	-
Aspergillus/Penicillium	1	40	1.6	-	-	-	-	-	-	-
Basidiospores	55	2300	90.6	65	2700	90	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	-	-	-	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
<b>Total Fungi</b>	<b>60</b>	<b>2540</b>	<b>100</b>	<b>73</b>	<b>3000</b>	<b>100</b>	-	<b>No Trace</b>	-	-
Hyphal Fragment	1*	10*	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	41	-	-	41	-	-	0	-	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	0*	-	-
Skin Fragments (1-4)	-	2	-	-	1	-	-	-	-	-
Fibrous Particulate (1-4)	-	3	-	-	1	-	-	-	-	-
Background (1-5)	-	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

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. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications 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.  
Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-EMLAP Accredited #100194

Initial report from: 03/04/2021 08:58 AM

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



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Microbiology Chain of Custody

EMSL Order Number (Lab Use Only)

192011812

PHONE:

FAX

Company Name: SaLUT Inc		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 1818 New York Ave NE Suite 231		Third Party Billing requires written authorization from third party	
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: Frances R Fuchs E.C.C / PGCPs IAQ		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Location Address: 11011 Cherry Hill Rd, Beltsville, MD 20705		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> 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: <input type="checkbox"/> Biocide Used in Source (specify): <input type="checkbox"/>			
Public Water Supply Samples: <input type="checkbox"/> 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	M174 MoldSnap	M024 Pseudomonas aeruginosa (MFT*)	M115 Sewage Screen - Water (P/A***)
M030 Micro 5	M032 Allergenco-D	M015 Heterotrophic Plate Count	M116 Sewage Screen - Water (MPN**)
M041 Fungal Direct Examination		M017 Total Coliform & E. coli (Colilert P/A***)	M117 Sewage Screen - Swab (P/A***)
M169 Pollen ID & Enumeration		M018 Total Coliform & E. coli (MFT*)	M013 Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1		M114 Total Coliform & E. coli Enumeration (Colilert MPN**)	M133 Methicillin-resistant Staph aureus (MRSA)
M281 Dust Characterization Level-2		M019 Fecal Coliform (MFT*)	M031 Rapid-growing non-TB Mycobacteria Detection & Enumeration
M005 Viable Fungi- Air Samples (Genus ID & Count)		M020 Fecal Streptococcus (MFT*)	M014 Endotoxin Analysis
M006 Viable Fungi- Air Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)		M029 Enterococci (MFT*)	M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable fungi - Surface Samples (Genus ID & Count)		M129 Enterococci (Enterolert P/A***)	Other See Analytical Price Guide
M008 Culturable fungi - Surface Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)		M180 Real Time qPCR-ERMI 36 Panel	Legionella Analysis Please use EMSL Legionella COC
M009 Bacteria Culture Gram Stain & Count		M025 Sewage Screen -Water (MFT*)	
M010 Bacteria Count & ID - 3 Most Prominent		*MFT= Membrane Filtration Technique	
M011 Bacteria Count & ID - 5 Most Prominent		**MPN= Most Probable Number	
M012 Pseudomonas aeruginosa (P/A***)		***P/A= Presence/Absence	

Name of Sampler: Jude Fonseca      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)
01	Cafeteria	Air		M001	75L	11/30/2020	
02	H/W next to Janitor room	Air		M001	75L	11/30/2020	
03	H/W next to room 22	Air		M001	75L	11/30/2020	
04	H/W next to room 20	Air		M001	75L	11/30/2020	
05	H/W next to room 5	Air		M001	75L	11/30/2020	
06	Outside Exterior EV Sample	Air		M001	75L	11/30/2020	

Client Sample # (s): -      Total # of Samples: 07      Samples Received Chilled? Yes / No

Relinquished (Client):      Date:      Time:      2:28 PM 12/30/20

Received (Lab):      Date:      Time:      2:30 PM 12/30/20

Comments/Special Instructions:

RECEIVED  
 EMSL ANALYTICAL, INC.  
 BELTSVILLE, MD







EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Microbiology Chain of Custody

EMSL Order Number (Lab Use Only):

372103038

PHONE:

FAX:

Company Name: SaLUT Inc.		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 1818 New York Ave NE Suite 231		Third Party Billing requires written authorization from third party	
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: Frances R Fuchs E.C.C / PGCPs IAQ		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Location Address: 11011 Cherry Hill Rd, Beltsville, MD 20705		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> 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: <input type="checkbox"/> Biocide Used in Source (specify): <input type="checkbox"/>			
Public Water Supply Samples: <input type="checkbox"/> 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	M174 MoldSnap	M024 Pseudomonas aeruginosa (MFT*)	M115 Sewage Screen - Water (P/A****)
M030 Micro 5	M032 Allergenco-D	M015 Heterotrophic Plate Count	M116 Sewage Screen - Water (MPN**)
M041 Fungal Direct Examination		M017 Total Coliform & E. coli (Colilert P/A****)	M117 Sewage Screen - Swab (P/A****)
M169 Pollen ID & Enumeration		M018 Total Coliform & E. coli (MFT*)	M013 Sewage Screen - Swab (MFT*)
M280 Dust Characterization Level-1		M114 Total Coliform & E. coli Enumeration (Colilert MPN**)	M133 Methicillin-resistant Staph. aureus (MRSA)
M281 Dust Characterization Level-2		M019 Fecal Coliform (MFT*)	M031 Rapid-growing non-TB Mycobacteria Detection & Enumeration
M005 Viable Fungi- Air Samples (Genus ID & Count)		M020 Fecal Streptococcus (MFT*)	M014 Endotoxin Analysis
M006 Viable Fungi- Air Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)		M029 Enterococci (MFT*)	M044 Group Allergen (Cat, Dog, Cockroach, Dust Mite)
M007 Culturable fungi - Surface Samples (Genus ID & Count)		M129 Enterococci (Enterolert P/A****)	Other See Analytical Price Guide
M008 Culturable fungi - Surface Samples (Includes Penicillium, Aspergillus, Cladosporium, Stachybotrys Species ID & Count)		M180 Real Time qPCR-ERMI 36 Panel	Legionella Analysis Please use EMSL Legionella COC
M009 Bacteria Culture Gram Stain & Count		M025 Sewage Screen -Water (MFT*)	
M010 Bacteria Count & ID - 3 Most Prominent			
M011 Bacteria Count & ID - 5 Most Prominent			
M012 Pseudomonas aeruginosa (P/A****)			

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

*[Signature]*

RECEIVED  
EMSL  
CHAMMINSON, N.J.  
2/28/21  
AM 10:56

Name of Sampler: Jude Fonseka		Signature of Sampler: <i>[Signature]</i>					
Sample #	Sample Location/Description	Sample Type	Potable/ NonPotable (only for waters)	Test Code	Volume/ Area	Date/Time Collected	Temperature (C) (Lab Use Only)
1 F	H/W next to room 20	Air		M001	75L	2/28/2021	
2 F	Outside Exterior EV Sample	Air		M001	75L	2/28/2021	
3 F	Field Blank	Air		N/A	N/A	2/28/2021	

Client Sample # (s): -	Total # of Samples: 03 <i>[Signature]</i>	Samples Received Chilled? Yes / No
Relinquished (Client):	Date:	Time:
Received (Lab): <i>L. Foxworth, Drop Box</i>	Date:	Time:
Comments/Special Instructions: <i>EIA 3/3/21 10:55</i>		

RECEIVED  
EMSL ANALYTICAL, INC.  
BELTSVILLE, MD  
2/21 FEB 21 A 6:21