

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
Cesar Chavez Elementary School
6609 Riggs Road
Chillum, MD 20782

Mr. Baylor:

On January 12, 2021 and February 15, 2021, a Soil and Land Use Technology, Inc. (SaLUT) Industrial Hygienist conducted an indoor air quality (IAQ) evaluation at Cesar Chavez Elementary School, a property maintained by Prince George's County Public Schools (PGCPS) located at 6609 Riggs Road, Chillum, MD 20782. The inspection was performed in accordance with PGCPS contract number IFB 022-19.

Corrective Measures Implemented by PGCPS

On February 15, 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, PGCPS implemented the following corrective measures in the Classroom 8:

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 Cesar Chavez Elementary School, visited on January 12, 2021, and February 15, 2021.

Table 1.1-Observations

Location	Summary of Observations 01-12-2021
Classroom 8	2'x2' 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.
Classroom 21	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.
Cafeteria	2' x 4' 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.
Main Office	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.
Library	2'x4' ceiling tiles; 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 01-12-2021
Outside Exterior EV Sample	Sunny

Table 1.2-Observations

Location	Summary of Observations 02-15-2021
Classroom 8	2'x2' ceiling tiles and 12"x 12" 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 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 (CO₂)

Under conditions of maximum occupancy, ASHRAE Standard 62.1-2010, Appendix C, infers that the acceptable CO₂ upper limit is the prevailing outdoor CO₂ concentration plus 700 parts per million (ppm). On January 12, 2021, the outdoor (building exterior) CO₂ concentration was approximately 547 ppm therefore indoor concentrations should not exceed approximately 1,247 ppm (700 + 547). The maximum average interior CO₂ concentration detected was 1,015 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: Cesar Chavez Elementary School-Instrumental Screening Levels
January 12, 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 1,247
Classroom 8	64.4	33.0	2	877
Classroom 21	67.1	29.6	2	773
Main Office	64.4	34.3	2	845
Cafeteria	50.9	67.5	0	1,015
Library	59.9	41.9	2	844
Outside Exterior EV Sample	56.3	36.8	2	547

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

µg/m³ - micrograms per cubic meter
RH% - % Relative Humidity
CO₂ - Carbon Dioxide
* - Winter Comfort Range

**Table 2.2: Cesar Chavez Elementary School-Instrumental Screening Levels
February 15, 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 1,241
Classroom 8	63.5	32.9	0	590
Outside Exterior EV Sample	55.4	45.5	0	541

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

µg/m³ - micrograms per cubic meter
RH% - % Relative Humidity
CO₂ - 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 12, 2021, total mold counts in representative samples (spore count/m³ of air) in all the areas inspected were lower than the outdoor concentrations with the exception of Classroom 8. Laboratory analysis follows this report (see attachment).

Table 3.2: Summarizes airborne mold spore sampling results and locations. On February 15, 2021, total mold counts in representative samples (spore count/m³ of air) in all the areas inspected were lower than the outdoor concentrations. Laboratory analysis follows this report (see attachment).

**Table 3.1: Cesar Chavez Elementary School
Measurements of Mold-in-Air Samples
January 12, 2021 (9:30 AM-11:30 AM)**

Spore Types	Classroom 8	Room 21	Main Office	Cafeteria
<i>Alternaria (Ulocladium)</i>	100	-	-	-
<i>Ascospores</i>	490	-	-	-
<i>Aspergillus/Penicillium</i>	-	40	-	40*
<i>Basidiospores</i>	530	80	-	80
<i>Bipolaris++</i>	-	-	-	-
<i>Chaetomium</i>	-	-	-	-
<i>Cladosporium</i>	29,800	200	-	-
<i>Curoularia</i>	100	-	-	-
<i>Epicoccum</i>	300	-	-	-
<i>Fusarium</i>	-	-	-	-
<i>Ganoderma</i>	-	-	-	-
<i>Myxomycetes++</i>	1,200	-	-	-
<i>Pithomyces++</i>	-	-	-	-
<i>Rust</i>	100	-	-	-
<i>Scopulariopsis/Microascus</i>	-	-	-	-
<i>Stachybotrys/Memnoniella</i>	-	-	-	-
<i>Unidentifiable Spores</i>	-	-	-	-
<i>Zygomycetes</i>	40	-	-	-
<i>Nigrospora</i>	-	-	-	-
<i>Hyphal Fragment</i>	740	-	-	-
<i>Insect Fragment</i>	100	-	-	-
<i>Pollen</i>	11,000	-	-	-
Total Fungi	44,500	320	No Trace	120

* Spore Counts per cubic meter of air (Counts/m³).

++Includes other spores with similar morphology.

**Table 3.1: Cesar Chavez Elementary School
Measurements of Mold-in-Air Samples continued
January 12, 2021 (9:30 AM-11:30 AM)**

Spore Types	Library	Outside Exterior EV Sample	Field Blank	
<i>Alternaria (Ulocladium)</i>	-	-	-	-
<i>Ascospores</i>	10*	80	-	-
<i>Aspergillus/Penicillium</i>	-	100	-	-
<i>Basidiospores</i>	-	2,300	-	-
<i>Bipolaris++</i>	-	-	-	-
<i>Chaetomium</i>	-	-	-	-
<i>Cladosporium</i>	-	40	-	-
<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/Memnoniella</i>	-	-	-	-
<i>Unidentifiable Spores</i>	-	-	-	-
<i>Zygomycetes</i>	-	-	-	-
<i>Nigrospora</i>	-	-	-	-
<i>Hyphal Fragment</i>	-	-	-	-
<i>Insect Fragment</i>	-	-	-	-
<i>Pollen</i>	-	-	-	-
Total Fungi	10	2,520	No Trace	

*Spore Counts per cubic meter of air (Counts/m³).

++Includes other spores with similar morphology.

**Table 3.2: Cesar Chavez Elementary School
Measurements of Mold-in-Air Samples continued
February 15, 2021 (9:30 AM-11:30 AM)**

Spore Types	Classroom 8	Outside Exterior EV Sample	Field Blank	
<i>Alternaria (Ulocladium)</i>	-	40*	-	-
<i>Ascospores</i>	-	100	-	-
<i>Aspergillus/Penicillium</i>	-	-	-	-
<i>Basidiospores</i>	-	1,900	-	-
<i>Bipolaris++</i>	-	-	-	-
<i>Chaetomium</i>	-	-	-	-
<i>Cladosporium</i>	10*	300	-	-
<i>Curvularia</i>	-	-	-	-
<i>Epicoccum</i>	-	300	-	-
<i>Fusarium</i>	-	-	-	-
<i>Ganoderma</i>	-	-	-	-
<i>Myxomycetes++</i>	-	-	-	-
<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>	-	-	-	-
Total Fungi	10*	2,640	No Trace	-

*Spore Counts per cubic meter of air (Counts/m³).

++Includes other spores with similar morphology.

Findings and Conclusions

The comfort parameters (i.e., temperature, RH, CO₂, and CO levels) in the representative areas conform to ASHRAE and/or NAAQS guidelines with the exception of the temperature. On January 12, 2021 total mold counts in representative area samples (spore count/m³ of air) in all the areas inspected were lower than the outdoor concentrations, indicating no amplified mold growth with the exception of Classroom 8.

On February 15, 2021, total mold counts in air samples (spore count/m³ of air) in the Classroom 8 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.

5221 Militia Hill Road Plymouth Meeting, PA 19462
Tel/Fax: (610) 828-3102 / (610) 828-3122
<http://www.EMSL.com> / plymouthmeetinglab@emsl.com

EMSL Order: 182100573
Customer ID: SALU50
Customer PO:
Project ID:

Attention: Indika Jayatilake
SaLUT
1818 New York Avenue, NE
Suite 231
Washington, DC 20002
Project: Cesar Chavez ES / PGCPs IAQ

Phone: (301) 595-3783
Fax: (301) 595-3787
Collected Date: 02/15/2021
Received Date: 02/15/2021 05:00 PM
Analyzed Date: 02/19/2021

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

Lab Sample Number:	182100573-0001			182100573-0002			182100573-0003		
Client Sample ID:	1C			02			03		
Volume (L):	75			75					
Sample Location:	Classroom 8			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)	-	-	-	3*	40*	1.5	-	-	-
Ascospores	-	-	-	3	100	3.8	-	-	-
Aspergillus/Penicillium	-	-	-	-	-	-	-	-	-
Basidiospores	-	-	-	44	1900	72	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	1*	10*	100	6	300	11.4	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	6	300	11.4	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	1	10	100	62	2640	100	-	No Trace	-
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	0	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	0*	-
Skin Fragments (1-4)	-	2	-	-	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.

Kevin Ream, Laboratory Manager
or other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Plymouth Meeting, PA AIHA-LAP, LLC-EMLAP Accredited #178659

Initial report from: 02/19/2021 11:30 AM

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



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EMSL Order: 192100292

Customer ID: SALU50

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Collected Date: 01/12/2021

Received Date: 01/13/2021 08:30 AM

Analyzed Date: 01/14/2021

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

Lab Sample Number:	192100292-0001			192100292-0002			192100292-0003		
Client Sample ID:	01			02			03		
Volume (L):	75			75			75		
Sample Location:	CAFETERIA			CLASS RM 8			MAIN OFFICE		
Spore Types	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total
Alternaria (Ulocladium)	-	-	-	3	100	0.3	-	-	-
Ascospores	-	-	-	12	490	1.5	-	-	-
Aspergillus/Penicillium	3*	40*	33.3	-	-	-	-	-	-
Basidiospores	2	80	66.7	13	530	1.6	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	726	29800	91.2	-	-	-
Curvularia	-	-	-	3	100	0.3	-	-	-
Epicoccum	-	-	-	7	300	0.9	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	29	1200	3.7	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	3	100	0.3	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	1	40	0.1	-	-	-
Total Fungi	5	120	100	797	32660	100	-	None Detect	-
Hyphal Fragment	-	-	-	18	740	-	-	-	-
Insect Fragment	-	-	-	3	100	-	-	-	-
Pollen	-	-	-	269	11000	-	-	-	-
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	-	-	4	-	-	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

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

Initial report from: 01/14/2021 05:09 PM

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



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Phone: (301) 595-3783

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Collected Date: 01/12/2021

Received Date: 01/13/2021 08:30 AM

Analyzed Date: 01/14/2021

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:	192100292-0004			192100292-0005			192100292-0006		
	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total	Raw Count	Count/M ³	% of Total
04 75 RM 21				05 75 LIBRARY			06 75 OUTSIDE EXTERIOR EV SAMPLE		
Spore Types									
Alternaria (Ulocladium)	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	1*	10*	100	2	80	3.2
Aspergillus/Penicillium	1	40	12.5	-	-	-	3	100	4
Basidiospores	2	80	25	-	-	-	55	2300	91.3
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	4	200	62.5	-	-	-	1	40	1.6
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	-	-	-
Pithomyces++	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis/Microascus	-	-	-	-	-	-	-	-	-
Stachybotrys/Memnoniella	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	7	320	100	1	10	100	61	2520	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
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.

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: 01/14/2021 05:09 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: 192100292

Customer ID: SALU50

Customer PO:

Project ID:

Attention: Indika Jayatilake

SaLUT

1818 New York Avenue, NE

Suite 231

Washington, DC 20002

Project: CESAR CHAVEZ ES/ PGCPs IAQ

Phone: (301) 595-3783

Fax: (301) 595-3787

Collected Date: 01/12/2021

Received Date: 01/13/2021 08:30 AM

Analyzed Date: 01/14/2021

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

Lab Sample Number:	192100292-0007		
Client Sample ID:	07		
Volume (L):			
Sample Location:	FIELD BLANK		
Spore Types	Raw Count	Count/M³	% of Total
Alternaria (Ullocladium)	-	-	-
Ascospores	-	-	-
Aspergillus/Penicillium	-	-	-
Basidiospores	-	-	-
Bipolaris++	-	-	-
Chaetomium	-	-	-
Cladosporium	-	-	-
Curvularia	-	-	-
Epicoccum	-	-	-
Fusarium	-	-	-
Ganoderma	-	-	-
Myxomycetes++	-	-	-
Pithomyces++	-	-	-
Rust	-	-	-
Scopulariopsis/Microascus	-	-	-
Stachybotrys/Memnoniella	-	-	-
Unidentifiable Spores	-	-	-
Zygomycetes	-	-	-
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.

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EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Microbiology Chain of Custody

EMSL Order Number (Lab Use Only):

182100573

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: Cesar Chavez ES / PGCPs IAQ			Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email				
Location Address: 6609 Riggs Rd, Chillum, MD 20782			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							
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour	<input checked="" type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input type="checkbox"/> 1 Week <input type="checkbox"/> 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)
1 C	Classroom 8	Air		M001	75L	2/15/2021	
02	Outside Exterior EV Sample	Air		M001	75L	2/15/2021	
03	Field Blank	Air		N/A	N/A	2/15/2021	
Client Sample # (s): -			Total # of Samples: 03		Samples Received Chilled? Yes / No		
Relinquished (Client):			Date:		Time:		
Received (Lab): <i>J. Fonseca Drop Box</i>			Date:		Time:		
Comments/Special Instructions:							



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Microbiology Chain of Custody

EMSL Order Number (Lab Use Only):

192100292

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: Cesar Chavez ES / PGCPs IAQ				Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email			
Location Address: 6609 Riggs Rd, Chillum, MD 20782				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							
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input checked="" type="checkbox"/> 48 Hour	<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input type="checkbox"/> 1 Week	<input type="checkbox"/> 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 (Collert 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 (Collert 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 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)
01	Cafeteria	Air		M001	75L	1/12/2021	
02	Classroom 8	Air		M001	75L	1/12/2021	
03	Main Office	Air		M001	75L	1/12/2021	
04	Room 21	Air		M001	75L	1/12/2021	
05	Library	Air		M001	75L	1/12/2021	
06	Outside Exterior EV Sample	Air		M001	75L	1/12/2021	
Client Sample # (s): -		Total # of Samples: 07		Samples Received Chilled? Yes / No			
Relinquished (Client):			Date:	Time:			
Received (Lab): <i>Mucus N/ber PB</i>			Date:	Time:			
Comments/Special Instructions:							

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 EMSL ANALYTICAL, INC.
 BELTSVILLE, MD
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