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February 24, 2020

Prince Georges County Environmental Safety Office 13306 Old Marlboro Pike Upper Marlboro, MD 20772

Attention: Mr. Alex Baylor

RE: Indoor Air Quality Screening Report

Global Project Number: 20-064

School: Winship Wheatley Early Childhood Center

Dear Mr. Baylor,

On December 8, 2020, Global Inc.'s (GLOBAL) team of Industrial Hygienists under the supervision of Certified Industrial Hygienist, Dr. Channa Bambaradeniya, conducted an Indoor Air Quality Screening at Winship Wheatley Early Childhood Center located at 8801 Ritchie Dr, Capitol Heights, MD 20743.

#### Methodology

The IAQ evaluation included a visual assessment, sampling for non-viable mold spores in air, and measurement of comfort parameters (temperature, humidity, carbon dioxide, and carbon monoxide) in randomly selected representative locations within the building. GLOBAL's inspector conducted a walkthrough with Prince Georges County Public School (PGCPS) personnel present. Rooms were selected in a random manner throughout the building so as to prevent sampling bias.

During the visual assessment of representative locations, and when noted, GLOBAL documented those areas with suspected mold growth, water intrusions, and wet conditions that have the potential to lead to mold growth. GLOBAL also noted any unusual odors. At least one microbial air sample was collected for every 10,000 Square Feet (SF) of space in the building and the analytical results for the interior spaces were compared to an outdoor (ambient) sample collected on the same day.

Microbial samples (including a field blank for quality control) were delivered under strict chain-of-custody procedures were to Hayes Microbial Consulting - an AIHA EMPAT-certified laboratory in Midlothian, Virginia for analysis by microscopy. The sample chain-of-custody and laboratory report is attached.



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#### **Observations**

The general observations in the seven indoor locations inspected are summarized in Table 1 below:

Table 1: Observations

Location	Observations
Room B115	No issues
Multi-purpose Room	No issues
Classroom 12	No issues
Classroom 1	Warped ceiling tiles present
Classroom 16	Warped ceiling tiles present
Homemaking	Warped ceiling tiles present
Room A105	No issues

### Comfort Parameter Measurements and Mold-in-Air Sample Results

The comfort parameter measurements and status of fungal ecology is summarized in Table 2 and Table 3.

### **Temperature**

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) have published recommendations for year-round acceptable temperatures in Standard 55-2016 (*Thermal Environmental Conditions for Human Occupancy*). The winter comfort range is 68 to 75°F and the summer comfort range is 73 to 79°F. It is important to note that ASHRAE standards are intended as a suggested guideline as opposed to a regulation. The indoor temperature reading in Homemaking room was slightly lower than the ASHRAE Standard.

#### Relative Humidity (RH)

Relative humidity is a key factor for mold growth. Mold has the potential of growing on suitable surfaces with humidity levels above 60%. ASHRAE standard 62.1-2013 (*Ventilation for Acceptable Indoor Air Quality*) recommends a maximum indoor relative humidity of 65% to preclude the likelihood of condensation on cool surfaces encouraging mold growth. The indoor relative humidity readings in the multi-purpose room was above the ASHRAE recommended level of 65%.

#### Carbon Monoxide

Carbon monoxide (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 the



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major sources of CO. All registered CO concentrations were below the EPA National Ambient Air Quality Standard (NAAQS) of 9 ppm.

#### Carbon Dioxide

Under conditions of maximum occupancy, ASHRAE Standard 62.1-2013, Appendix C, infers that the acceptable carbon dioxide upper limit is the prevailing outdoor carbon dioxide concentration plus 700 parts per million (ppm). On December 8, 2020, the outdoor (ambient) carbon dioxide concentration was approximately 392 ppm so indoor concentrations should not exceed approximately 1092 ppm (700 + 392). All indoor carbon dioxide measurements were within the ASHRAE standards.

#### 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 fungal ecology profile should be consistent with what is encountered outdoors and the spore concentrations should be below the ambient levels. Laboratory analytical results are attached at the end of this report.

The analytical results of indoor air samples collected from Room A105 on December 8,2020 indicated an elevated presence of *Aspergillus/Penicillium*. The horizontal surfaces of Room A105 were thoroughly recleaned, and air scrubbers with HEPA filters were operated for 24-36 hours. Subsequently, Room A105 was reinspected on February 23, 2021, and the analytical results of air samples collected indicated normal fungal ecology. Laboratory analytical results are attached at the end of this report.

**Table 2: Air Quality Results** 

Sample Location	Temp <sup>0</sup> F	RH%	CO ppm	CO2 ppm	Normal Fungal
Standards	ASHRAE 68 to 75°F	ASHRAE <65%	NAAQS <9	ASHRAE 1092	Ecology?
Ambient	59.4	23	0	392	-
Room B115	69.2	27	0	420	Yes
Multi-purpose Room	70.9	25	0	401	Yes
Classroom 12	71.8	23	0	413	Yes
Classroom 1	67.7	21	0	396	Yes



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Sample Location	Temp <sup>0</sup> F	RH%	CO ppm	CO2 ppm	Normal Fungal
Standards	ASHRAE 68 to 75°F	ASHRAE <65%	NAAQS <9	ASHRAE 1092	Ecology?
Classroom 16	68.8	21	0	425	Yes
Homemaking	77	21	0	385	Yes
Room A105	70.1	23	0	402	No

Table 3: Air Quality Results (Inspected on 2/23/2021)

Sample Location	Temp <sup>0</sup> F	RH%	CO ppm	CO2 ppm	Normal Fungal
Standards	ASHRAE 68 to 75°F	ASHRAE <65%	NAAQS <9	ASHRAE 1109	Ecology?
Ambient	61.0	31	0	409	-
Room A105	75.0	21	0	431	Yes

#### **Conclusions and Recommendations**

Among the comfort parameters measured, the indoor temperature readings were lower than the ASHRAE recommended range for winter. The indoor temperature should be maintained at the ASHRAE recommended range for general comfort.

The indoor mold sample collected from the Room A105 indicated an elevated presence of *Aspergillus/Penicillium* during the screening performed on December 8, 2020, while the other mold sample was found to have a normal fungal ecology for an indoor environment. Room A105 was thoroughly recleaned and resampled on February 23, 2021, and the analytical results indicated normal fungal ecology.

It has been our pleasure to conduct these IAQ Screening services for the Prince Georges County Public School system. If you have any questions, please feel free to contact us.



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Regards,

Channa Bambaradeniya, Ph.D., CIH, CSP, CHMM Certified Industrial Hygienist

Global, Inc.

Mobile: 443-691-0455



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## ATTACHMENT I

Air Sample Analytical Results and Chain-Of-Custody Form





Analysis Report prepared for

# Global, Inc.

1818 New York Ave. Suite 217 Washington, DC, 20002

Phone: (443) 691-0455

BB203 PGCPS Indoor Air Quality Inspection H. Winship Wheatley

Collected: **December 8, 2020**Received: **December 9, 2020**Reported: **December 9, 2020** 

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 9 samples by FedEx in good condition for this project on December 9th, 2020.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC..

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

Steve Hayes, BSMT(ASCP) Laboratory Director

Hayes Microbial Consulting, LLC.



EPA Laboratory ID: VA01419



plan N. Hayes

Lab ID: #188863



DPH License: #PH-0198

1818 New York Ave. Suite 217 Washington, DC, 20002 (443) 691-0455

### **BB203**

PGCPS Indoor Air Quality Inspection H. Winship Wheatley

# #20045963

# Spore Trap. Spore Trap Blank

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					SOP - HM	C#101	

Sample Number	1	HWW-1	208-01	2	HWW-1	208-02	3	HWW-1	208-03	4	HWW-1	208-04	
Sample Name		Ambient			B115			M.P.R.			Classroom 12		
Sample Volume		75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>		
Background		2			2			2			2		
Fragments		ND			ND			ND			ND		
Organism	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	Raw Count	Count / m <sup>3</sup>	% of Total	
Alternaria			10 01 10001	Thur Count		10 01 1000	Tiun Count			Thurs Count		100110101	
Ascospores	2	27	12.5%	3	40	33.3%							
Aspergillus Penicillium	2	27	12.5%	5	67	55.6%	5	67	83.3%	2	27	100.0%	
Basidiospores													
Bipolaris Drechslera													
Chaetomium													
Cladosporium	11	147	68.8%										
Curvularia													
Epicoccum	1	13	6.3%										
Fusarium													
Memnoniella													
Myxomycetes							1	13	16.7%				
Pithomyces				1	13	11.1%							
Stachybotrys													
Stemphylium													
Torula													
Ulocladium													
Total	16	214	100%	9	120	100%	6	80	100%	2	27	100%	

Water Damage Indicator

Common Allergen

Slightly Higher than Baseline

Significantly Higher than Baseline

Ratio Abnormality

Collected: Dec 8, 2020

Received: Dec 9, 2020

Reported: Dec 9, 2020 Reviewed By:

Project Analyst:

Shareef Abdelgadir, MS

Date:

12 - 09 - 2020

Steve Hayes, BSMT

Date:

12 - 09 - 2020

3005 East Boundary Terrace, Suite F. Middothian, VA. 23112

(804) 562-3435

contact@hayesmicrobial.com

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### **BB203**

PGCPS Indoor Air Quality Inspection H. Winship Wheatley

# #20045963

#### **Spore Trap, Spore Trap Blank** SOP - HMC#101

Sample Number	5	HWW-1	208-05	6	HWW-1	208-06	7	HWW-1	208-07	8	HWW-1	208-08	
Sample Name	C	Classroom 1		C	Classroom 16			Homemaking			A105		
Sample Volume		75.00 liter			75.00 liter			75.00 liter			75.00 liter		
Reporting Limit		13 spores/m <sup>3</sup>			13 spores/m <sup>3</sup>	1		13 spores/m <sup>3</sup>	1	13 spores/m <sup>3</sup>			
Background		2			2			2			2		
Fragments	13/m³				ND			ND			ND		
Organism	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	Raw Count	Count / m <sup>3</sup>	% of Total	
Alternaria													
Ascospores													
Aspergillus Penicillium										56	747	96.6%	
Basidiospores							1	13	50.0%				
Bipolaris Drechslera													
Chaetomium													
Cladosporium	4	53	100.0%	2	27	100.0%							
Curvularia													
Epicoccum							1	13	50.0%				
Fusarium													
Memnoniella													
Myxomycetes										2	27	3.4%	
Pithomyces													
Stachybotrys													
Stemphylium													
Torula													
Ulocladium													

Water Damage Indicator

Total

Common Allergen

100%

Slightly Higher than Baseline

Date:

100%

12 - 09 - 2020

27

Significantly Higher than Baseline

26

Ratio Abnormality

774

58

Collected: Dec 8, 2020

Shareef Abdelgadir, MS

Project Analyst:

53

4

Received: Dec 9, 2020

2

Reviewed By:

2

Reported: Dec 9, 2020

Steve Hayes, BSMT

Date:

12 - 09 - 2020

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100%

100%

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## **BB203**

PGCPS Indoor Air Quality Inspection H. Winship Wheatley

#20045963

#### **Spore Trap, Spore Trap Blank** SOP - HMC#101

9 Sample Number Sample Name Field Blank Sample Volume 0.00 liter Reporting Limit 1 spore/m<sup>3</sup> NBD Background ND Fragments Count / m3 **Raw Count** % of Total Organism Alternaria Ascospores Aspergillus|Penicillium Basidiospores Bipolaris|Drechslera Chaetomium Cladosporium Curvularia Epicoccum Fusarium Memnoniella Myxomycetes Pithomyces Stachybotrys Stemphylium Torula Ulocladium Total ND ND

Water Damage Indicator

Collected: Dec 8, 2020

Common Allergen

Slightly Higher than Baseline

Significantly Higher than Baseline

Ratio Abnormality

Received: Dec 9, 2020

Reported: Dec 9, 2020

Project Analyst:

Shareef Abdelgadir, MS

12 - 09 - 2020

Date:

Reviewed By:

Steve Hayes, BSMT Stephen N. Abyus

Date:

12 - 09 - 2020

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Page: 4 of 7

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### **BB203** PGCPS Indoor Air Quality Inspection H. Winship Wheatley

#20045963

# **Spore Trap Information**

Reporting Limit	The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated.
Blanks	Results have not been corrected for field or laboratory blanks.
Background	The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows:
	<ul> <li>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</li> <li>1: &lt;5% of field occluded. No spores will be uncountable.</li> <li>2: 5-25% of field occluded.</li> <li>3: 25-75% of field occluded.</li> <li>4: 75-90% of field occluded.</li> <li>5: &gt;90% of field occluded. Suggested recollection of sample.</li> </ul>
Fragments	Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification.
Control Comparisons	There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments.
Water Damage Indicator	Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.
Common Allergen	Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.
Slightly Higher than Baseline	Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.  Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.
Significantly Higher than Baseline	
Ratio Abnormality	Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.
Color Coding	Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damag indicators.



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# **BB203** PGCPS Indoor Air Quality Inspection H. Winship Wheatley

#20045963

# **Organism Descriptions**

Ascospores	Habitat:	A large group consisting of more than 3000 species of fungi. Common plant pathogens and outdoor numbers become very high following rain. Most of the genera are indistinguishable by spore trap analysis and are combined on the report.
	Effects:	Health affects are poorly studied, but many are likely to be allergenic.
Aspergillus Penicillium	Habitat:	The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates.
	Effects:	This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions.
Basidiospores	Habitat:	A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet conditions they can cause structural damage to buildings.
	Effects:	Common allergens and are also associated with hypersensitivity pneumonitis.
Cladosporium	Habitat:	One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.
	Effects:	A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.
Epicoccum	Habitat:	It is found in soil and plant litter and is a plant pathogen. It can grow indoors on a variety of substrates, including paper and textiles and is commonly found on wet drywall.
	Effects:	It is a common allergen. No cases of infection have been reported in humans.
Myxomycetes	Habitat:	Found on decaying plant material and as a plant pathogen.
	Effects:	Some allergenic properties reported, but generally pose no health concerns to humans.



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**BB203** PGCPS Indoor Air Quality Inspection H. Winship Wheatley

#20045963

**Organism Descriptions** 

**Pithomyces** 

Common fungus isolated from soil, decaying plant material. Rarely found indoors. Habitat:

Allergenic properties are poorly studied. No cases of infection in humans. Effects:





Job Number: BB203

Collector: Kenna Leonzo

Company:

Address:

Job Name: pGCPS Indoor Air Quality

20002

Inspection - H Winship Wheatley

SHIP: FEDEX - PAK SO DATE: 12-09-2020

8160 4410 5406

Mobile: 2404358771 Email: Kennal@globalingusa net

Date	Collected:	12/08/20						·		24043		Kennal@globalincusa.net		
Date	Analysis Ty				And do		· · · · · · · · · · · · · · · · · · ·				mail results	s to channab@globalincusa.net		
		s	l d Aifi Ai	- 0 F	Analysis De	<u>.</u>			-	Turnaround		Accepted Media Types		
Spor	re Trap	<del> </del>			tion of Fungal				24	Hour	Air Cassettes, Impact Slides			
	<u>-</u> -	S+			Dander, Fiber,			<del></del>	24	Hour	Air Cassettes, Impact Slides			
Direc	et ID	D			ımeration of sp		/celium		24	Hour	Bio-Tape, 1	「ape, Swab, Bulk, Agar Plate		
		D+			Quantitative s				24	Hour	Bio-Tape, 7	Tape, Swab, Bulk, Agar Plate		
Cultu	ıre	C1	<del></del>		tion of Mold on				7 [	Day	Air Plate, A	Agar Plate, Swab, Bulk		
		C2			ion of Bacteria				4[	Day	Air Plate, A	gar Plate, Swab, Bulk		
		C3	Identificatio	n & Enumerat	tion of Mold an	d Bacteria			7 [	Day	Air Plate, A	gar Plate, Swab, Bulk		
		C5		reen for Sewa					2 [	Day	Agar Plate,	, Swab, Bulk		
Parti	cle	TPA	Total Partice	ılate Analysis	, ID & Count (D	oes Not Incl	ude Mold)		24	Hour	Air Cassett	res, Impact Slides, Bio-Tape		
#	Num	ber		Sample				Analysi	s	Volume		Notes		
1_	HWW-	1208-01	Ambient					S	*****	75 L				
2	HWW-	1208-02	B115					S		75 L				
3	HWW-	1208-03	M.P.R					S		75 L				
4	HWW-1	1208-04	Classro	om 12				S		75 L				
5	HWW-	1208-05	Classroo	om 1				S		75 L				
6	HWW-	1208-06	Classroo	om 16				s	75 L					
7	HWW-1	1208-07	Homema	aking				S		75 L				
8	HWW-1	1208-08	A105					S		75 L				
9	field	Blank						S						
10	_													
11			:											
12					-									
13														
14														
15														
16				-										
Rele	ased by: K	lenna	Leonzo		Date: /2	18/20	Received	Ву:	1		M	Date: 1 .9.2()		

Hayes Microbial Consulting, LLC.

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Form #20, Rev.3, March 23, 2019 Chain of Custody





Analysis Report prepared for

# Global, Inc.

1818 New York Ave. Suite 217 Washington, DC, 20002

Phone: (443) 691-0455

20-064 IAQ Reinspection Winship Wheatley Early Childhood Center

> Collected: February 23, 2021 Received: February 24, 2021 Reported: February 24, 2021

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 2 samples by FedEx in good condition for this project on February 24th, 2021.

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC..

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial. In no event, shall Hayes Microbial or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of the use of these test results.

Steve Hayes, BSMT(ASCP)
Laboratory Director

Hayes Microbial Consulting, LLC.



EPA Laboratory ID: VA01419



phon N. Hoyes

Lab ID: #188863



DPH License: #PH-0198

### **Shane Prabuddha** Global, Inc.

1818 New York Ave. Suite 217 Washington, DC, 20002 (443) 691-0455

# 20-064

**IAQ** Reinspection Winship Wheatley Early Childhood Center #21006028

Spore Trap SOP - HMC#101

Sample Number	1	0	1	2	0	2				
Sample Name		Ambient		Cla	Classroom A105					
Sample Volume		75.00 liter		75.00 liter						
Reporting Limit		13 spores/m <sup>3</sup>		-	13 spores/m <sup>3</sup>					
Background		2			2					
Fragments		ND			ND					
Organism	Raw Count	Count / m <sup>3</sup>	% of Total	Raw Count	Count / m <sup>3</sup>	% of Total				
Alternaria										
Ascospores										
Aspergillus Penicillium	2	27	50.0%							
Basidiospores	1	13	25.0%							
Bipolaris Drechslera										
Chaetomium										
Cladosporium	1	13	25.0%	1	13	50.0%				
Curvularia										
Epicoccum										
Fusarium										
Memnoniella										
Myxomycetes				1	13	50.0%				
Pithomyces										
Stachybotrys										
Stemphylium										
Torula										
Ulocladium										
Total	4	53	100%	2	26	100%				
Water Damage Indicator Common Allergen			Slightly Higher than Baseline			igher than Baseline	Ratio	Abnormality		

Collected: Feb 23, 2021

Received: Feb 24, 2021

Reported: Feb 24, 2021

Project Analyst:

Shareef Abdelgadir, MS

Date: 02 - 24 - 2021 Reviewed By:

Steve Hayes, BSMT

Date:

02 - 24 - 2021

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Page: 2 of 4

### **Shane Prabuddha** Global, Inc.

1818 New York Ave. Suite 217 Washington, DC, 20002 (443) 691-0455

### 20-064 IAQ Reinspection Winship Wheatley Early Childhood Center

#21006028

## **Spore Trap Information**

Reporting Limit	The Reporting Limit is the lowest number of spores that can be detected based on the total volume of the sample collected and the percentage of the slide that is counted. At Hayes Microbial, 100% of the slide is read so the LOD is based solely on the total volume. Raw spore counts that exceed 500 spores will be estimated.
Blanks	Results have not been corrected for field or laboratory blanks.
Background	The Background is the amount of debris that is present in the sample. This debris consists of skin cells, dirt, dust, pollen, drywall dust and other organic and non-organic matter. As the background density increases, the likelihood of spores, especially small spores such as those of Aspergillus and Penicillium may be obscured. The background is rated on a scale of 1 to 5 and each level is determined as follows:
	<ul> <li>NBD: No background detected due to possible pump or cassette malfunction. Recollect sample. (Field Blanks will display NBD)</li> <li>1: &lt;5% of field occluded. No spores will be uncountable.</li> <li>2: 5-25% of field occluded.</li> <li>3: 25-75% of field occluded.</li> <li>4: 75-90% of field occluded.</li> <li>5: &gt;90% of field occluded. Suggested recollection of sample.</li> </ul>
Fragments	Fragments are small pieces of fungal mycelium or spores. They are not identifiable as to type and when present in very large numbers, may indicate the presence of mold amplification.
Control Comparisons	There are no national standards for the numbers of fungal spores that may be present in the indoor environment. As a general rule and guideline that is widely accepted in the indoor air quality field, the numbers and types of spores that are present in the indoor environment should not exceed those that are present outdoors at any given time. There will always be some mold spores present in "normal" indoor environments. The purpose of sampling and counting spores is to help determine whether an abnormal condition exists within the indoor environment and if it does, to help pinpoint the area of contamination. Spore counts should not be used as the sole determining factor of mold contamination. There are many factors that can cause anomalies in the comparison of indoor and outdoor samples due to the dynamic nature of both of those environments.
Water Damage Indicator	Blue: These molds are commonly seen in conditions of prolonged water intrusion and usually indicate a problem.
Common Allergen	Green: Although all molds are potential allergens, these are the most common allergens that may be found indoors.
Slightly Higher than Baseline	Orange: The spore count is slightly higher than the outside count and may or may not indicate a source of contamination.  Red: The spore count is significantly higher than the baseline count and probably indicates a source of contamination.
Significantly Higher than Baseline	
Ratio Abnormality	Violet: The types of spores found indoors should be similar to the ones that were identified in the baseline sample. Significant increases (more than 25%) in the ratio of a particular spore type may indicate the presence of abnormal levels of mold, even if the total number of spores of that type is lower in the indoor environment than it was outdoors.
Color Coding	Fungi that are present in indoor samples at levels lower than 200 per cubic meter are not color coded on the report, unless they are one of the water damag indicators.



### **Shane Prabuddha** Global, Inc.

1818 New York Ave. Suite 217 Washington, DC, 20002 (443) 691-0455

### 20-064 IAQ Reinspection Winship Wheatley Early Childhood Center

#21006028

## **Organism Descriptions**

Habitat:	t: The most common fungi isolated from the environment. Very common in soil and on decaying plant material. Are able to grow well indoors on a wide variety of substrates.						
Effects:	This group contains common allergens and many can cause hypersensitivity pneumonitis. They may cause extrinsic asthma, and many are opportunistic pathogens. Many species produce mycotoxins which may be associated with disease in humans and other animals. Toxin production is dependent on the species, the food source, competition with other organisms, and other environmental conditions.						
Habitat: A common group of Fungi that includes the mushrooms and bracket fungi. They are saprophytes and plant pathogens. In wet cond can cause structural damage to buildings.							
Effects:	Common allergens and are also associated with hypersensitivity pneumonitis.						
Habitat:	One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.						
Effects:	A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.						
Habitat:	Found on decaying plant material and as a plant pathogen.						
Effects:	Some allergenic properties reported, but generally pose no health concerns to humans.						
	Effects:  Habitat:  Effects:  Habitat:  Habitat:						





Collector: Shane Prabuddha

Date Collected: 02 23 2

Job Number: 20-064

Company: Global Inc.

Address: 1818 New York Avenue Sute 217

Washingston Washington 20002

Job Name: IAQ Reinspection Winship wheatley Early childhood Center N

SHIP: FEDEX - BOX 50 DATE: 02-24-2021

MOLD 21006028

8160 4410 5623

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Mobile: 443-691-0455 Email: Channab@globalincusa.net

Note:

Analysis Type		pe	Analysis Description				Turnaround		Accepted Media Types				
Spor	Spore Trap S		Identification & Enumeration of Fungal Spores			24 Hour		Air Cassettes, Impact Slides					
		S+	Spore Trap Analysis with Dander, Fiber, and Pollen counts				24 Hour		Air Cassettes, Impact Slides				
Direct ID D			ID & Semi-Quantative Enumeration of spores and mycelium				24 Hour		Bio-Tape, Tape, Swab, Bulk, Agar Plate				
		D+	Direct Analysis with Fully Quantitative spore count				24 Hour		Bio-Tape, Tape, Swab, Bulk, Agar Plate				
Culture C1			Identification & Enumeration of Mold only				7 Day		Air Plate, Agar Plate, Swab, Bulk				
		C2	Identification & Enumeration of Bacteria only				4 Day		Air Plate, Agar Plate, Swab, Bulk				
C3			Identification & Enumeration of Mold and Bacteria				7 Day		Air Pla	Air Plate, Agar Plate, Swab, Bulk			
		C5	Coliform Screen for Sewage Bacteria				2 D	Day Agar Plate, Swab, Bulk					
Parti	Particle T		Total Particulate Analysis, ID & Count (Does Not Include Mold)				24	Hour	Air Cassettes, Impact Slides, Bio-Tape				
#	Num	nber		Sample	Analysis		Volume		Marian Mariana America	Notes			
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Relea	ased by: Sha	ane Prabud	ldha	Date: 02/23/2/	Received	By:	n	6			Date: 2/8	1991	

Hayes Microbial Consulting, LLC.

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Form #20, Rev.3, March 23, 2019 Chain of Custody