



INDOOR AIR QUALITY REPORT

Presented by:

CESA Facilities Management

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C·E·S·A¹⁰

Facilities Management Services



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REPORT SUMMARY

OBJECTIVE

An indoor air quality inspection and sampling were performed on August 9, 2017, at the Cochrane-Fountain City School District K-12 facility. Samples were collected for post renovation air clearance of remediation and cleaning efforts by MAVO in the elementary and high school areas. A total of 12 air o cell cassettes and two tape slide samples were collected. Air o cell samples were collected from the following areas: elementary classrooms 155, 154, corridor near 149, 165, 138, 121, outdoor control sample near door 5, non-affected commons area near gym 224, science room 344, middle school commons area, and ag classroom 271. Tape slide samples were also collected from the wall and roof deck of room 155.

KEY FINDINGS

- No visible mold was observed at the time of inspection. Roof decking was observed to be cleaned and coated. Tape slide samples of the roof deck substrate and wall did not detect any residual mold spores on the surfaces.
- The air samples from inside the school contained significantly fewer spores compared with the outdoor control sample. All interior samples contained less than 500 spores/cubic meter compared with the outdoor air control sample which contained 22,330 spores/cubic meter. This data suggests spore counts inside the building were significantly less than the outdoor air at the time of sampling. It is common to find mold spores in facilities year round. Mold spore levels detected in this study are approximately 50x lower than the outdoor levels.
- No potentially hazardous or mycotoxin producing spores were detected in this study. Mycotoxin producing spores, which can cause serious health effects in certain individuals, were not detected in the samples collected.
- Humidity and temperature readings at the time of sampling showed levels to be within EPA recommendations to prevent mold growth.

NEXT STEPS

- Monitor HVAC system and conduct periodic maintenance to ensure adequate operation and ventilation.
- Continue to inspect the facility for any water intrusion.



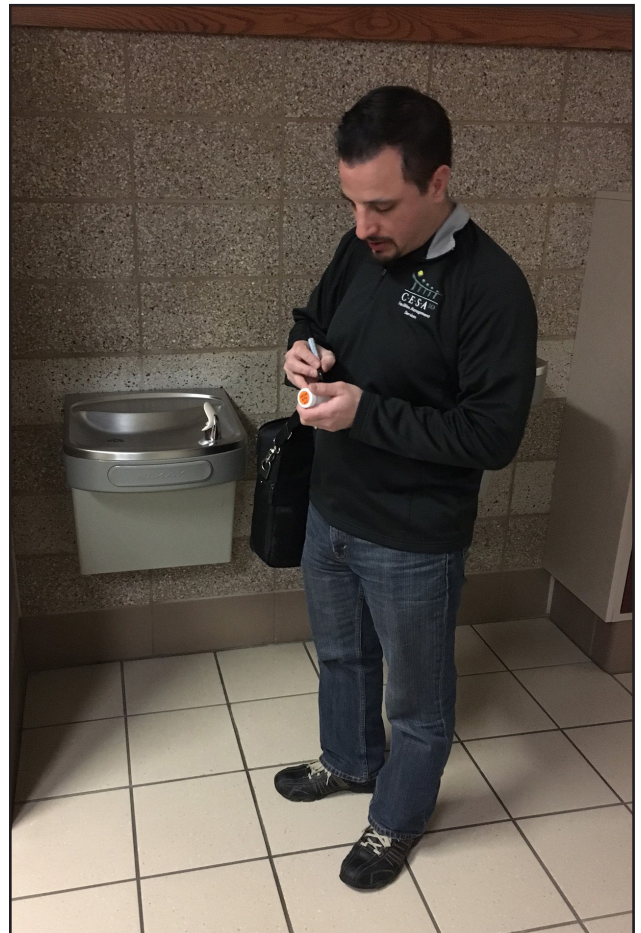
REPORT SUMMARY CONTINUED

REMARKS

This report utilized information provided by the client. All reasonable attempts were made to collect information and utilize site-specific sampling strategies. Thank you for choosing to work with CESA FM's Environmental, Health, and Safety program. If you have any questions or concerns, please contact Lance Gregorich at 715-720-2046 or lgregorich@cesa10.k12.wi.us.

STANDARD OF CARE

The recommendations in this report represent CESA FM's professional opinions. No other warranty is implied.





APPENDIX





Indoor Air Quality Inspection Report

conducted for

Elementary and High School renovation area clearance

District

Cochrane-Fountain City

Address/Location

Cochrane, WI 54622
United States
(44.266776, -91.7047936)

Conducted on

8/9/17, 10:14 AM

Prepared by

Lance Gregorich

Client representative

Garek Barum, Director of Building and Grounds

Disclaimer

The assessors believe the information contained within this risk assessment report to be correct at the time of printing. The assessors do not accept responsibility for any consequences arising from the use of the information herein. The report is based on matters which were observed or came to the attention of the assessors during the day of the assessment and should not be relied upon as an exhaustive record of all possible risks or hazards that may exist or potential improvements that can be made.

Information on the latest workers compensation and OHS / WHS laws can be found at the relevant State WorkCover / WorkSafe Authority.



Confidentiality Statement





In order to maintain the integrity and credibility of the risk assessment processes and to protect the parties involved, it is understood that the assessors will not divulge to unauthorized persons any information obtained during this risk assessment unless legally obligated to do so.





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Audit


Question	Response	Details
Materials and methods		
<p>Materials and Methods Indoor air quality inspection was performed based on guidelines from the EPA's tools for schools. Baseline air sampling was performed using a high volume rotary pump and air-o-cell cassettes. The air-o-cell is a unique air sampling cassette specifically designed for the rapid collection of a wide range of airborne aerosols including mold spores, pollen, insect parts, skin cells fragments, fibers (e.g asbestos, fiberglass, cellulose, clothing fibers, etc) and inorganic particulates (e.g ceramic, fly ash, copy toner, etc). The air-o-cell collects both viable and non-viable sample specimens providing a much broader overview of potential allergen contaminants than conventional sampling techniques. The high volume rotary contact was calibrated to 15 liters/min using a sensidyne gilibrator 2. Ambient air samples were collected through air-o-cell cassettes for a period of 5 minutes for a total volume of 75 liters. Relative temperature and humidity readings were collected at each sample site. All other materials and methods are derived from EMSL analytical methods for sampling air-o-cell, tape slide, and swab ("microbiology sampling guide", www.emsl.com; effective January 1st, 2010.) Inspection methods are based of EPA tools for schools tool kit for indoor air quality assessment and supporting documentation.</p>		
Calibration		
Pre-calibration (average of 10 sample calibrations >14.99 Liters/min)	15.00	
 <p>Appendix 1</p>		
Post-calibration (Average of 10 post calibration samples)	15.02	
 <p>Appendix 2</p>		
General Information		



Question	Response	Details
Is there an Indoor Environmental Quality plan for this facility?	Yes	
Who is the Indoor Environmental Quality coordinator for the facility?		
	Garek Barum	
Has the Indoor Environmental Quality concern form been filed?	N/A	
Description and/or background information regarding the indoor air quality concern.		
	N/A	
Inspection		
Sample Areas		
Area/Sample 1		
Area	Classroom 155	
	Affected	
Sample ID	CFC1	
Sample Location		
  		
<p>Appendix 3 Appendix 4 Appendix 5</p>		
Qtrack IAQ monitor readings		
		
Appendix 6		
Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	



Question	Response	Details
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	N/A	
Area/Sample 2		
Area	Classroom 156	
	Affected	
Sample ID	CFC2	
Sample Location		
  		
<p>Appendix 7 Appendix 8 Appendix 9</p>		
Qtrack IAQ monitor readings		
		
Appendix 10		
Visual mold observed?	No	
Any odors observed in sample area?	No	



Question	Response	Details
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 3		
Area	Corridor outside classroom 149	
	Affected	
Sample ID	CFC3	
Sample Location		
  		
<p>Appendix 11 Appendix 12 Appendix 13</p>		
Qtrack IAQ monitor readings		
		
<p>Appendix 14</p>		
Visual mold observed?	No	




Question	Response	Details
Any odors observed in sample area?	No	
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 4		
Area	Outdoor control (Door 5)	
	Control	
Sample ID	CFC4	
Sample Location		
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Appendix 15</p> </div> <div style="text-align: center;">  <p>Appendix 16</p> </div> </div>		
Qtrack IAQ monitor readings		
Visual mold observed?	N/A	
Any odors observed in sample area?	N/A	
Any water/moisture observed?	N/A	


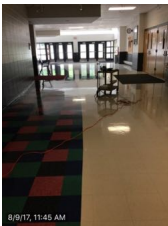

Question	Response	Details
Any building envelope/Roofing issues observed? (Window leaks, wall leaks,door leaks etc)	N/A	
Any plumbing or sanitary system issues observed	N/A	
Any food, storage, Appliance. (Venting,setup), integrated pest management (signs of pests/issues), or chemical issues observed?	N/A	
Any landscaping/grading issues observed?	N/A	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	N/A	
Any other environmental concerns? (Asbestos, lead, etc)	N/A	
Area/Sample 5		
Area	Corridor near classroom 155	
	Control	
Sample ID	CFCA-Tapeslide	
Sample Location		
 <p>Appendix 17</p>		
Qtrack IAQ monitor readings		
Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks,door leaks etc)	No	



Question	Response	Details
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting,setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 6		
Area	Classroom 155	
	Affected	
Sample ID	CFCB-Tapeslide	
Sample Location		
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Appendix 18</p> </div> <div style="text-align: center;">  <p>Appendix 19</p> </div> </div>		
Qtrack IAQ monitor readings		
Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks,door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	

Question	Response	Details
Any food, storage, Appliance. (Venting,setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 7		
Area	Classroom 165	
	Non Affected	
Sample ID	CFC5	
Sample Location		
 <p>Appendix 20</p>		
Qtrack IAQ monitor readings		
 <p>Appendix 21</p>		
Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks,door leaks etc)	No	

Question	Response	Details
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting,setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 8		
Area	Classroom 138	
	Affected	
Sample ID	CFC6	
Sample Location		
 <p>Appendix 22 Appendix 23 Appendix 24</p>		
Qtrack IAQ monitor readings		
 <p>Appendix 25</p>		
Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	

Question	Response	Details
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 9		
Area	Classroom 121	
	Affected	
Sample ID	CFC7	
Sample Location		
 		
<p>Appendix 26 Appendix 27</p>		
Qtrack IAQ monitor readings		
		
Appendix 28		
Visual mold observed?	No	
Any odors observed in sample area?	No	

Question	Response	Details
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks,door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting,setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 10		
Area	Commons area outside Gym 224	
	Non Affected	
Sample ID	CFC8	
Sample Location		
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Appendix 29</p> </div> <div style="text-align: center;">  <p>Appendix 30</p> </div> </div>		
Qtrack IAQ monitor readings		
<div style="text-align: center;">  <p>Appendix 31</p> </div>		

Question	Response	Details
Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 11		
Area	HS Science 334	
	Affected	
Sample ID	CFC9	
Sample Location		
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Appendix 32</p> </div> <div style="text-align: center;">  <p>Appendix 33</p> </div> </div>		
Qtrack IAQ monitor readings		



Appendix 34

Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	N/A	



Appendix 35

Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	

Area/Sample 12		
Area	MS Lounge adjacent to classroom 347	
	Non Affected	
Sample ID	CFC10	
Sample Location		



Appendix 36

Qtrack IAQ monitor readings



Appendix 37

Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	No	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 13		
Area	HS Ag Classroom 271	
	Affected	
Sample ID	CFC11	
Sample Location		



Appendix 38



Appendix 39

Qtrack IAQ monitor readings



Appendix 40

Visual mold observed?	No	
Any odors observed in sample area?	No	
Any water/moisture observed?	No	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	No	
Any plumbing or sanitary system issues observed	No	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	N/A	
Any landscaping/grading issues observed?	No	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	No	
Any other environmental concerns? (Asbestos, lead, etc)	No	
Area/Sample 14		
Area	Blank control	
	Control	
Sample ID	CFC12	
Sample Location		

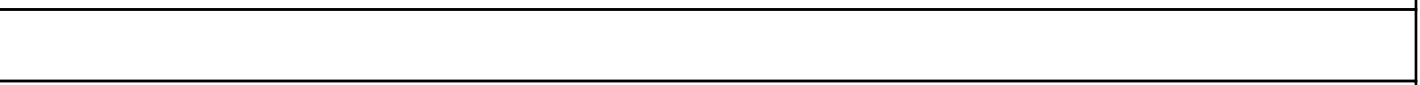


Appendix 41



Qtrack IAQ monitor readings

Visual mold observed?	N/A	
Any odors observed in sample area?	N/A	
Any water/moisture observed?	N/A	
Any building envelope/Roofing issues observed? (Window leaks, wall leaks, door leaks etc)	N/A	
Any plumbing or sanitary system issues observed	N/A	
Any food, storage, Appliance. (Venting, setup), integrated pest management (signs of pests/issues), or chemical issues observed?	N/A	
Any landscaping/grading issues observed?	N/A	
Any HVAC system issues observed? (Intakes, filter, ACs, dehumidification, supply, and venting)	N/A	
Any other environmental concerns? (Asbestos, lead, etc)	N/A	

Map of sample locations



Sign Off

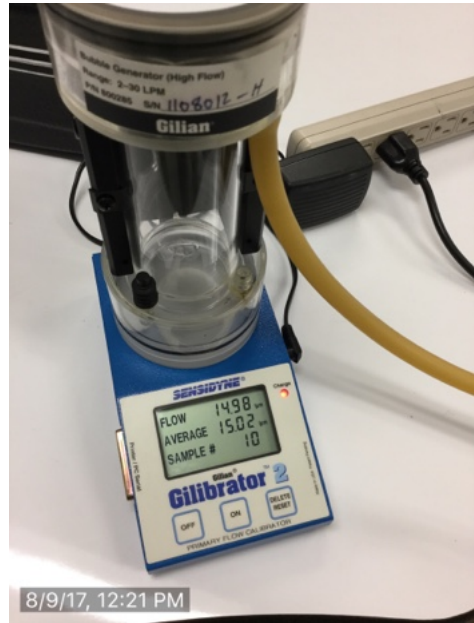
Onsite Representative	Garek Barum	8/9/17 12:33 PM	
CESA 10 Environmental, health, and safety consultant	Lance Gregorich	8/9/17 12:33 PM	
		8/9/17, 12:33 PM	

Question	Response	Details
References		
https://www.epa.gov/iaq-schools/indoor-air-quality-tools-schools-action-kit		
https://www.cdc.gov/niosh/topics/indoorenv/		
https://www.osha.gov/dts/osta/otm/otm_iii/otm_iii_2.html		
http://www.cdc.gov/mold/faqs.htm		
https://www.aiha.org/about-ih/Pages/Improving-Indoor-Air-Quality-at-Work.aspx		
https://www.epa.gov/indoor-air-quality-iaq/improving-indoor-air-quality		

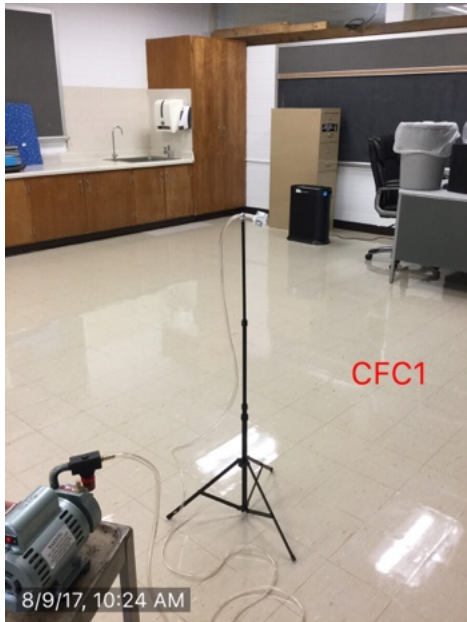
Media



Appendix 1



Appendix 2



Appendix 3



Appendix 4



Appendix 5



Appendix 6



Appendix 7

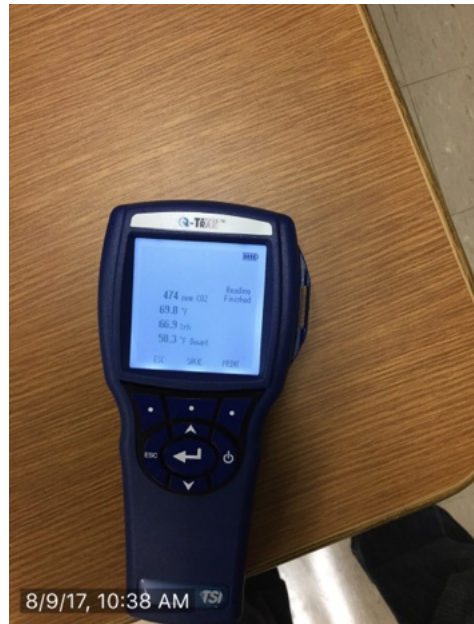


Appendix 8



8/9/17, 10:40 AM

Appendix 9



8/9/17, 10:38 AM

Appendix 10



8/9/17, 10:44 AM

Appendix 11



8/9/17, 10:46 AM

Appendix 12



Appendix 13



Appendix 14



Appendix 15



Appendix 16



Appendix 17



Appendix 18



Appendix 19



Appendix 20



Appendix 21



Appendix 22



Appendix 23



Appendix 24



Appendix 25



Appendix 26



Appendix 27



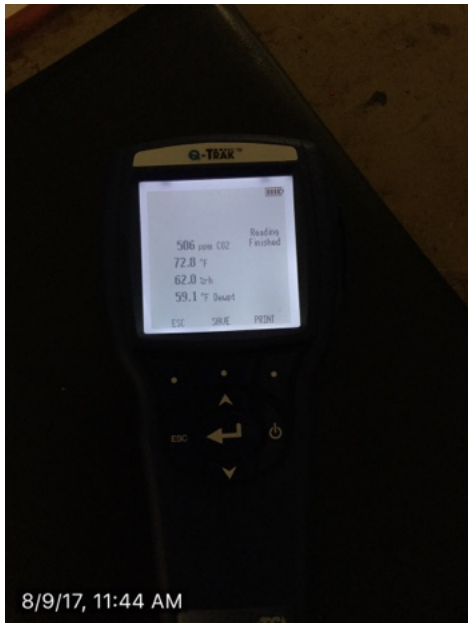
Appendix 28



Appendix 29



Appendix 30



Appendix 31



Appendix 32



Appendix 33



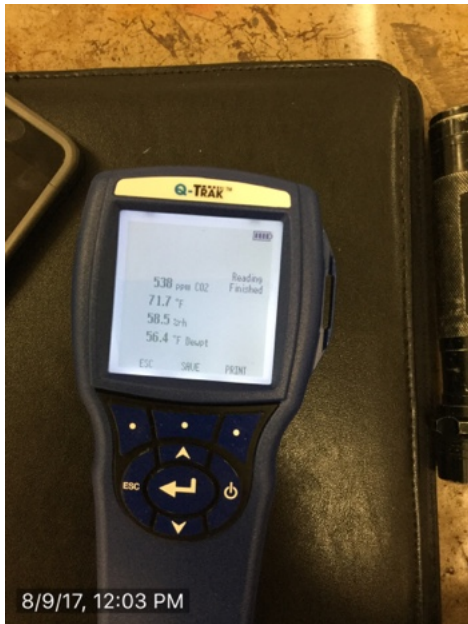
Appendix 34



Appendix 35



Appendix 36



Appendix 37



Appendix 38



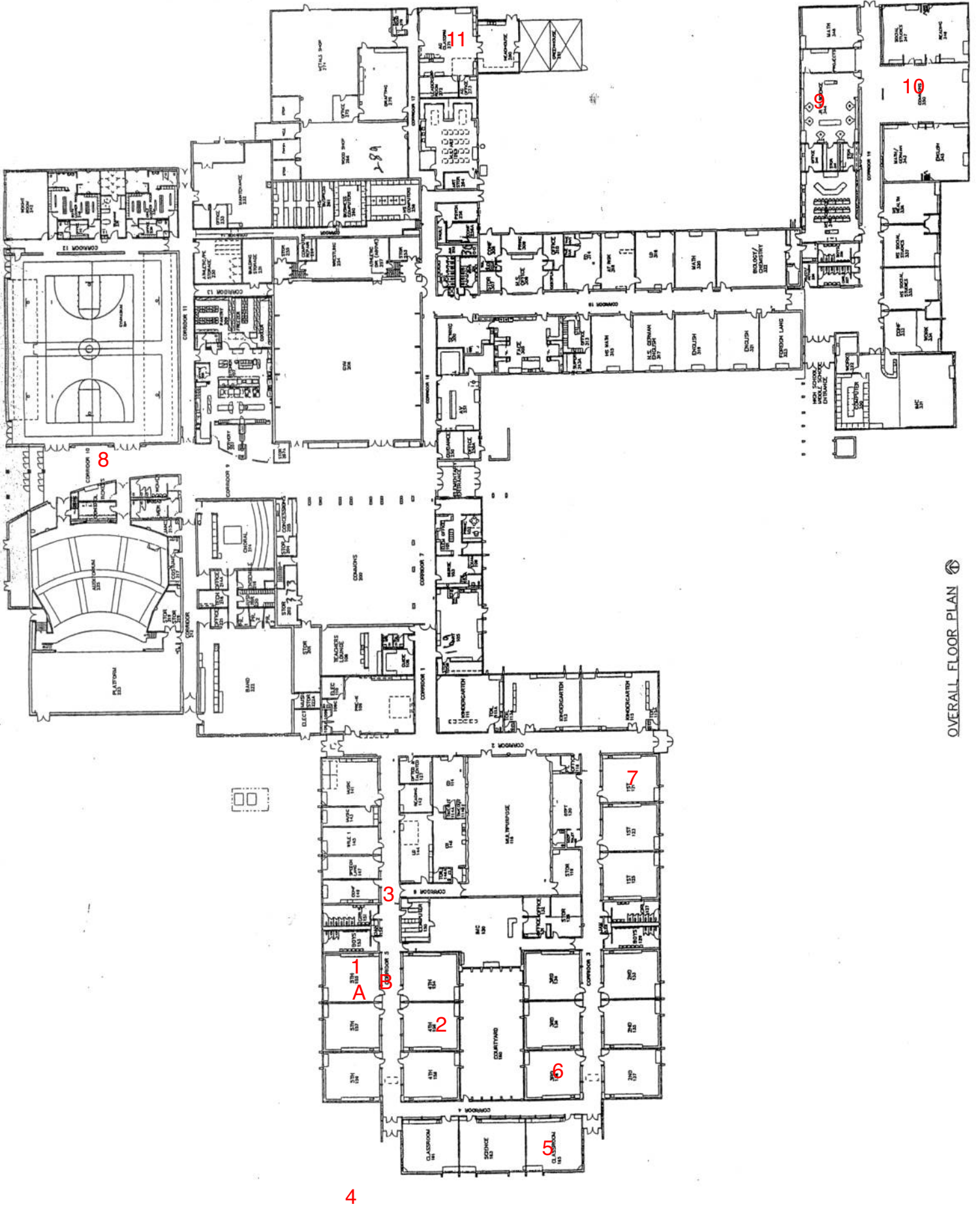
Appendix 39



Appendix 40



Appendix 41



OVERALL FLOOR PLAN



EMSL Analytical, Inc.

14375 23rd Avenue North Minneapolis, Mn 55447

Tel/Fax: (763) 449-4922 / (763) 449-4924

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

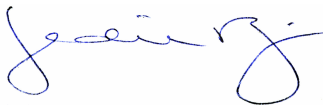
EMSL Order: 351705980
Customer ID: CESA25
Customer PO:
Project ID:

Attn: Lance Gregorich CESA 10 725 West Park Avenue Chippewa Falls, WI 54729	Phone: (715) 720-2046 Fax: Collected: 08/09/2017 Received: 08/14/2017 Analyzed: 08/15/2017
Project:	

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number:	351705980-0001			351705980-0002			351705980-0003		
Client Sample ID:	CFC1			CFC2			CFC3		
Volume (L):	75			75			75		
Sample Location	Classroom 155			Classroom 154			Corridor outside Rm 149		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	2	80	66.7	1	40	16.7	1	40	11.4
Basidiospores	-	-	-	-	-	-	5	200	57.1
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	1	40	33.3	4	200	83.3	2	80	22.9
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	1*	10*	2.9
Pithomyces	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	1*	10*	2.9
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	1*	10*	2.9
Torula	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	3	120	100	5	240	100	11	350	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
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	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut


Jodie Bourgerie, Laboratory Manager
or other approved signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. *** Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn AIHA-LAP, LLC EMLAP 163162

Initial report from: 08/15/2017 11:21:58

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



EMSL Analytical, Inc.

14375 23rd Avenue North Minneapolis, Mn 55447

Tel/Fax: (763) 449-4922 / (763) 449-4924

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

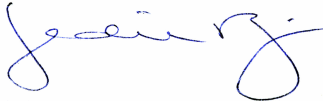
EMSL Order: 351705980
Customer ID: CESA25
Customer PO:
Project ID:

Attn: Lance Gregorich CESA 10 725 West Park Avenue Chippewa Falls, WI 54729	Phone: (715) 720-2046 Fax: Collected: 08/09/2017 Received: 08/14/2017 Analyzed: 08/15/2017
Project:	

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location	351705980-0004 CFC4 75 Outdoor Control (door 5)			351705980-0005 CFC5 75 Classroom 165			351705980-0006 CFC6 75 Classroom 138		
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	4	200	0.9	-	-	-	1	40	20
Ascospores	32	1400	6.3	-	-	-	1	40	20
Aspergillus/Penicillium	22	930	4.2	-	-	-	1	40	20
Basidiospores	147	6200	27.8	-	-	-	1	40	20
Bipolaris++	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	280	11800	52.8	-	-	-	1	40	20
Curvularia	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	36	1500	6.7	-	-	-	-	-	-
Myxomycetes++	1	40	0.2	-	-	-	-	-	-
Pithomyces	-	-	-	-	-	-	-	-	-
Rust	1	40	0.2	1*	10*	100	-	-	-
Scopulariopsis	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	2	80	0.4	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-
Cercospora	9*	100*	0.4	-	-	-	-	-	-
Zygomycetes	1	40	0.2	-	-	-	-	-	-
Total Fungi	535	22330	100	1	10	100	5	200	100
Hyphal Fragment	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-
Pollen	1*	10*	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	13*	-
Skin Fragments (1-4)	-	-	-	-	1	-	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	2	-	-	1	-	-	1	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut


Jodie Bourgerie, Laboratory Manager
or other approved signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. *** Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn AIHA-LAP, LLC EMLAP 163162

Initial report from: 08/15/2017 11:21:58

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



EMSL Analytical, Inc.

14375 23rd Avenue North Minneapolis, Mn 55447

Tel/Fax: (763) 449-4922 / (763) 449-4924

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

EMSL Order: 351705980
Customer ID: CESA25
Customer PO:
Project ID:

Attn: Lance Gregorich
 CESA 10
 725 West Park Avenue
 Chippewa Falls, WI 54729

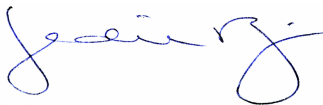
Phone: (715) 720-2046
Fax:
Collected: 08/09/2017
Received: 08/14/2017
Analyzed: 08/15/2017

Project:

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location	351705980-0007 CFC7 75 Classroom 121			351705980-0008 CFC8 75 Commons area adjacent to Gym 224			351705980-0009 CFC9 75 HS Science Classroom 344			
	Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	-	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	1	40	16.7	-	-	-	-
Aspergillus/Penicillium	-	-	-	1	40	16.7	-	-	-	-
Basidiospores	-	-	-	2	80	33.3	8	300	71.4	-
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-	-
Cladosporium	-	-	-	2	80	33.3	2	80	19	-
Curvularia	-	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	-	-	-	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	-	-	-	-	-	-
Myxomycetes++	-	-	-	-	-	-	1	40	9.5	-
Pithomyces	-	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-	-
Scopulariopsis	-	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Cercospora	-	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Total Fungi	-	None Detect	-	6	240	100	11	420	100	-
Hyphal Fragment	-	-	-	1	40	-	-	-	-	-
Insect Fragment	-	-	-	1	40	-	-	-	-	-
Pollen	1	40	-	-	-	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	42	-	-
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	-	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
 Myxomycetes++ = Myxomycetes/Periconia/Smut


 Jodie Bourgerie, Laboratory Manager
 or other approved signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. *** Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn AIHA-LAP, LLC EMLAP 163162

Initial report from: 08/15/2017 11:21:58

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14375 23rd Avenue North Minneapolis, Mn 55447

Tel/Fax: (763) 449-4922 / (763) 449-4924

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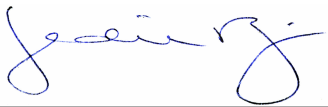
EMSL Order: 351705980
Customer ID: CESA25
Customer PO:
Project ID:

Attn: Lance Gregorich CESA 10 725 West Park Avenue Chippewa Falls, WI 54729	Phone: (715) 720-2046 Fax: Collected: 08/09/2017 Received: 08/14/2017 Analyzed: 08/15/2017
Project:	

Test Report: Air-O-Cell™ Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location	351705980-0010 CFC10 75 MS Commons adjacent Rm 347			351705980-0011 CFC11 75 HS Ag Classroom 271			351705980-0012 CFC12 Field Blank			
	Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	-	-	-	-	-	-	-	-	-	-
Ascospores	-	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	4	200	90.9	-	-	-	-	-	-	-
Basidiospores	-	-	-	1	40	20	-	-	-	-
Bipolaris++	-	-	-	-	-	-	-	-	-	-
Chaetomium	-	-	-	-	-	-	-	-	-	-
Cladosporium	1*	10*	4.5	1	40	20	-	-	-	-
Curvularia	-	-	-	-	-	-	-	-	-	-
Epicoccum	-	-	-	1	40	20	-	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-	-
Ganoderma	1*	10*	4.5	1	40	20	-	-	-	-
Myxomycetes++	-	-	-	1	40	20	-	-	-	-
Pithomyces	-	-	-	-	-	-	-	-	-	-
Rust	-	-	-	-	-	-	-	-	-	-
Scopulariopsis	-	-	-	-	-	-	-	-	-	-
Stachybotrys	-	-	-	-	-	-	-	-	-	-
Torula	-	-	-	-	-	-	-	-	-	-
Ulocladium	-	-	-	-	-	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Cercospora	-	-	-	-	-	-	-	-	-	-
Zygomycetes	-	-	-	-	-	-	-	-	-	-
Total Fungi	6	220	100	5	200	100	-	No Trace	-	-
Hyphal Fragment	-	-	-	-	-	-	-	-	-	-
Insect Fragment	-	-	-	-	-	-	-	-	-	-
Pollen	-	-	-	1	40	-	-	-	-	-
Analyt. Sensitivity 600x	-	42	-	-	42	-	-	0	-	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	-	-	0*	-	-
Skin Fragments (1-4)	-	1	-	-	1	-	-	-	-	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	-	-	-
Background (1-5)	-	1	-	-	1	-	-	-	-	-

Bipolaris++ = Bipolaris/Drechslera/Exserohilum
Myxomycetes++ = Myxomycetes/Periconia/Smut


Jodie Bourgerie, Laboratory Manager
or other approved signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. *** Denotes particles found at 300X. "-" Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

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Initial report from: 08/15/2017 11:21:58

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Order ID: 351705980
Customer ID: CESA25
Customer PO:
Project ID:

Attn: Lance Gregorich
CESA 10
725 West Park Avenue
Chippewa Falls, WI 54729

Phone: (715) 723-0341
Fax:
Collected: 08/09/2017
Received: 08/14/2017
Analyzed: 08/15/2017

Proj:

Test Report: Microscopic Examination of Fungal Spores, Fungal Structures, Hyphae, and Other Particulates from Tape Samples (EMSL Method: M041)

Lab Sample Number:	351705980-0013	351705980-0014			
Client Sample ID:	CFCA	CFCB			
Sample Location:	Wall-Corridor near Rm 155	Roof Deck-Classroom 155			
Spore Types	Category	Category	-	-	-
Agrocybe/Coprinus	-	-	-	-	-
Alternaria	-	-	-	-	-
Ascospores	-	-	-	-	-
Aspergillus/Penicillium	-	-	-	-	-
Basidiospores	-	-	-	-	-
Bipolaris++	-	-	-	-	-
Chaetomium	-	-	-	-	-
Cladosporium	-	-	-	-	-
Curvularia	-	-	-	-	-
Epicoccum	-	-	-	-	-
Fusarium	-	-	-	-	-
Ganoderma	-	-	-	-	-
Myxomycetes++	-	-	-	-	-
Paecilomyces	-	-	-	-	-
Rust	-	-	-	-	-
Scopulariopsis	-	-	-	-	-
Stachybotrys	-	-	-	-	-
Torula	-	-	-	-	-
Ulocladium	-	-	-	-	-
Unidentifiable Spores	-	-	-	-	-
Zygomycetes	-	-	-	-	-
Fibrous Particulate	-	-	-	-	-
Hyphal Fragment	-	-	-	-	-
Insect Fragment	-	-	-	-	-
Pollen	-	-	-	-	-

Sample Comment: 351705980-0013 None Detected
Sample Comment: 351705980-0014 None Detected

Category: Count/per area analyzed
Rare: 1 to 10 Low: 11 to 100 Medium: 101 to 1000 High: >1000
Bipolaris++ = Bipolaris/Dreschlera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut
* = Sample contains fruiting structures and/or hyphae associated with the spores.

Jodie Bourgerie, Laboratory Manager
or Other Approved Signatory

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

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Samples analyzed by EMSL Analytical, Inc. Minneapolis, Mn

Initial report from: 08/15/2017 11:21:58

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Chain of Custody
EMSL Order Number (Lab Use Only)

5980

Minneapolis, MN 55447
PHONE: (763) 449-4922
FAX: (763) 449-4924

EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Company: CESA 10		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 725 West Park Avenue		Third Party Billing requires written authorization from third party	
City: Chippewa Falls	State/Province: WI	Zip/Postal Code: 54729	Country: United States
Report To (Name): Lance Gregorich		Telephone #: 715-720-2046	
Email Address: lgregorich@cesa10.k12.wi.us		Fax #:	Purchase Order:
Project Name/Number:		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: WI		Connecticut Samples: Commercial Residential	

Turnaround Time (TAT) Options* - Please Check

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

*For RUSH TAT's Please Call Ahead to Confirm Lab Hours and Availability. Not all TAT options are valid for every test
Materials Science and IAQ TATs are in Business Days rather than Hours (i.e. 24 Hour = End of Next Business Day)

Asbestos

PCM - Air <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ 8hr. TWA	PLM - Bulk <input type="checkbox"/> PLM EPA 600/R-93/116 <input type="checkbox"/> PLM EPA NOB (<1%) <input type="checkbox"/> NYS 198.1 (friable-NY) <input type="checkbox"/> NYS 198.6 (non-friable-NY) Point Count <input type="checkbox"/> 400 (<0 25%) <input type="checkbox"/> 1000 (<0 1%) Point Count w/ Gravimetric <input type="checkbox"/> 400 (<0 25%) <input type="checkbox"/> 1000 (<0 1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP
TEM - Air <input type="checkbox"/> 4-4.5hr TAT(AHERA ONLY) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe-ASTM D6480	Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0 25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0 1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> EPA Reg. 1 Screening Protocol (Qualitative)
TEM - Water Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking		Other:

Lead (Pb)	Materials Science
Flame Atomic Absorption <input type="checkbox"/> Chips SW846-7000B or AOAC 974 02 <input type="checkbox"/> Soil SW846-7000B/7420 <input type="checkbox"/> Air NIOSH 7082 <input type="checkbox"/> Wastewater SM3111B or SW846-7000B/7420 <input type="checkbox"/> ASTM Wipe SW846-7000B/7420 <input type="checkbox"/> non ASTM Wipe SW846-7000B/7420 <input type="checkbox"/> TCLP SW846-1311/7420/SM 3111B	<input type="checkbox"/> Common Particle ID (large particles) <input type="checkbox"/> Full Particle ID (environmental dust) <input type="checkbox"/> Basic Material ID (solids) <input type="checkbox"/> Advanced Material ID <input type="checkbox"/> Physical Testing (Tensile, Compression) <input type="checkbox"/> Combustion-by-products (soot, char, etc) <input type="checkbox"/> X-Ray Fluorescence (elem. analysis) <input type="checkbox"/> X-Ray Diffraction (Crystalline Part) <input type="checkbox"/> MMVF's (Fibrous glass, RCF's) <input type="checkbox"/> Particle Size (sieve/microscopy/laser) <input type="checkbox"/> Combustible Dust <input type="checkbox"/> Petrographic Examination
Graphite Furnace Atomic Absorption <input type="checkbox"/> Soil SW846-7421 <input type="checkbox"/> Wastewater EPA 200 9 <input type="checkbox"/> Air NIOSH 7105 <input type="checkbox"/> Drinking Water EPA 200.9	ICP <input type="checkbox"/> Air NIOSH 7300 Modified <input type="checkbox"/> non ASTM Wipe SW846-6010B or C <input type="checkbox"/> ASTM Wipe SW846-6010B or C <input type="checkbox"/> Soil SW846-6010 B or C <input type="checkbox"/> Waste Water SW846-6010B or C <input type="checkbox"/> TCLP SW846-6010B or C
Other: <input type="checkbox"/>	Other: <input type="checkbox"/>

Microbiology

Wipe and Bulk Samples <input checked="" type="checkbox"/> Mold & Fungi - Direct Examination <input type="checkbox"/> Mold & Fungi Culture (Genus Only) <input type="checkbox"/> Mold & Fungi Culture (Genus & Species) <input type="checkbox"/> Bacterial Count & ID (Up to Three Types) <input type="checkbox"/> Bacterial Count & ID (Up to Five Types) <input type="checkbox"/> MRSA <input type="checkbox"/> Pseudomonas aeruginosa	Air Samples <input checked="" type="checkbox"/> Mold & Fungi (Spore Trap) <input type="checkbox"/> Mold & Fungi Culture (Genus Only) <input type="checkbox"/> Mold & Fungi (Genus & Species) <input type="checkbox"/> Bacterial Culture & ID (Up to Three Types) <input type="checkbox"/> Bacterial Culture & ID (Up to Five Types) <input type="checkbox"/> Endotoxin Testing
Water Samples <input type="checkbox"/> Total Coliform & E.coli (P/A) <input type="checkbox"/> Fecal Coliform (SM 9222D) <input type="checkbox"/> Sewage Screen <input type="checkbox"/> Heterotrophic Plate Count (SM 9215)	Real Time Q-PCR (See Analytical Guide for Code) Code: Legionella <input type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 Other: <input type="checkbox"/>

****Comments/Special Instructions:** Call 715-271-1762 with questions

Client Sample #'s	-1	Total # of Samples: 14
Relinquished (Client): Lance Gregorich	Date: 8/10/17	Time:
Received (Lab): mclaypool	Date: 8/14/17	Time: 9:00

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

FE 7906 9711 1007

