



*Environmental Consulting Services*

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January 27, 2024

**City of Richmond Public Schools**

Department of Facility Service  
1461 A Commerce Road  
Richmond, Virginia 23224

ATTN.: Mr. Ronald Hathaway, Jr.  
Director of Facilities

RE: Moisture & Mold Assessment Report  
***G.H. Reid Elementary School (All Rooms)***  
1301 Whitehead Road  
Richmond, Virginia 23225  
FEI Project Number: FEI-23MI640

Dear Mr. Hathaway:

In accordance with your request, a Moisture & Mold Assessment has been performed at the above reference academic facility. France Environmental, Inc. (FEI) is providing this letter report summarizing our findings and sample results from the fieldwork conducted on November 24, 2023. The investigation was performed by FEI Industrial Hygienists, Mr. Micheal D. Allshouse, Mrs. Christine K. Gyurik and Mr. Kshan X. Sims.

The scope of this assessment was to test for identifiable conditions, if any, that may be affecting the quality of the air in the subject space. The assessment included a visual inspection and air sampling for fungi (mold). At the client's request, air samples were collected from each accessible classroom, office, and academic space within the building. Please find attached with this letter the Laboratory Results; Sample Location Drawing; Photographs of Site Conditions; and Fungal Types/Groups Chart for the air sampling performed.

**VISUAL OBSERVATIONS:**

France Environmental, Inc. performed a visual assessment of the interior areas of the subject spaces. The visual inspection was focused on potential indicators of Indoor Air Quality (IAQ) problems and specifically included areas of visible water damage and visible mold growth. Specific items of interest observed during the inspection are described below:

- Moisture and/or damaged stained lay-in ceiling tiles were observed throughout the building. Staining appears to be from HVAC Duct/Diffuser condensation and past or current pipe and/or roof leaks.
- Visible mold growth was observed throughout the Ceiling Mounted HVAC Units throughout and on the HVAC Ceiling Diffusers located in Room 109.
- Visible mold growth located on the HVAC Pipe Insulation located in Rooms 115 and 116.
- Peeling paint was noticed throughout.

### **TOTAL FUNGAL AIR SAMPLING:**

On November 22, 2023, FEI collected a total of fifty-one (51) airborne fungal (mold) spore samples from the following areas:

- All Classrooms, Offices, Common Areas, Kitchen, Cafeteria, Clinic, Break Rooms, and Media Center.
- Two (2) exterior samples were collected outside the building for comparison purposes. These samples were collected throughout the day and included a pre-sample before interior air samples were collected, and a post interior air sample.

The air samples were collected at an airflow rate of five (5) liters per minute for five (5) minutes totaling twenty-five (25) liters of air.

### ***The results of the fungi samples collected and analyzed are as follows:***

- The results of the air samples collected **did not** indicate airborne fungal amplification when compared to the outside building samples at the time of the air sampling. *(Please Refer To “Mold Air Cassette Sample Analysis Laboratory Results” Appendix)*

Microbiological interpretation of sample results poses a challenge for the health and safety professionals as there are at present no strict numerical guidelines which are appropriate for assessing whether microbial levels inside buildings are “safe” or “normal” spore levels. There are currently no regulatory standards for evaluating airborne fungi concentrations for this or any other facility. As these organisms are present everywhere the standard of care is to perform a risk-based analysis. In general, industry standards effective interpretation is based on the comparison of indoor and outdoor samples. In “Clean” buildings, total airborne spore concentrations are generally less than outdoor spore concentrations with similar genera identified within each environment. The presence or absence of a few non-moisture indicator genera in small numbers (<1,000 Counts/M<sup>3</sup>) identified within interior building areas should not be considered abnormal. However, the presence of moisture indicator mold spores (***Chaetomium; Stachybotrys; Rhodotorula; Trichoderma; and Scopulariopsis***) in any significant amounts may indicate chronic moisture intrusion issues and confirmation that molds have colonized and are amplifying within the building. None of these spores’ types were detected in any of the indoor air samples analyzed.

### **TOTAL FUNGAL SURFACE SAMPLING:**

FEI collected a total of three (3) direct tape lift surface samples from the following areas:

- One (1) sample was collected from the suspect growth found on the Ceiling Plaster of Room 215
- One (1) sample was collected from the suspect growth found on the Ceiling Mounted Metal HVAC Unit in Room 211
- One (1) sample was collected from the suspect growth found on the Ceiling HVAC Pipe Insulation in Room 112

The direct microscopic examination of the surface samples determines whether or not fungi is growing and/or still present on the surfaces sampled, and if so, what kinds of fungi was present.

***The results of the fungi surface sample collected and analyzed are as follows:***

- The results of the surface **sample T1** collected from the suspect growth on the ceiling plaster in Room 215 indicated the presence of ***Cladosporium sp.*** The estimated number of spores on the sample for this species was described by the laboratory as “Heavy”. **Heavy** which the laboratory defines as 200 or more spores observed. Definite Mold Growth. *(Please Refer To “Surface Sample Analysis Laboratory Results” Appendix)*
- The results of the surface **sample T2** collected from the suspect growth on the metal ceiling mounted HVAC Unit in Room 211 indicated the presence of ***Cladosporium sp., and Hyphae.*** The estimated number of spores on the sample for these species was described by the laboratory as “Moderate” and “Heavy”. **Moderate** being defined as (100-200) spores, moderate hyphae – probable growth at sample site. **Heavy** which the laboratory defines as 200 or more spores observed. Definite Mold Growth. The ***Cladosporium sp.*** is Heavy. *(Please Refer To “Surface Sample Analysis Laboratory Results” Appendix)*
- The results of the surface **sample T3** collected from the suspect growth on the ceiling HVAC pipe insulation in Room 112 indicated the presence of ***Cladosporium sp., and Hyphae.*** The estimated number of spores on the sample for these species was described by the laboratory as “Moderate” and “Heavy”. **Moderate** being defined as (100-200) spores, moderate hyphae – probable growth at sample site. **Heavy** which the laboratory defines as 200 or more spores observed. Definite Mold Growth. The ***Cladosporium sp.*** is Heavy. *(Please Refer To “Surface Sample Analysis Laboratory Results” Appendix)*

**COMFORT PARAMETER TESTING:**

FEI also conducted Comfort Parameter Sampling which included Temperature and Relative Humidity by utilizing electronic recording monitors (EXTECH Model 445580 Humidity/Temperature Pen). Measurements were collected throughout the building during the inspection. Description of recommended levels and comfort parameter results are found below.

***TEMPERATURE (T)***

The measurement of the air temperature is used to determine comfort level parameters associated with the indoor environment. The measuring device was used to collect the temperature in each of the rooms inspected. The American Society of Heating, Refrigerating and Air-conditioning Engineers, Inc. (ASHRAE) provides guidance on comfort ranges for temperature depending on the season. These numbers generally range from 68 to 75 Degrees Fahrenheit (°F) during the winter months and from 73°F to 79°F during the summer months. These ranges should be acceptable for sedentary or slightly active persons. The temperature measured in the building ranged from 69.2°F to 78.6°F. The temperatures measured outside were 48.5°F in the morning, 52.1°F mid-day and 60.2°F in the afternoon.

### ***RELATIVE HUMIDITY (RH)***

Measurement of the Relative Humidity are used to indicate comfort level parameters associated with the indoor air. Overly dry or overly humid air are indicators of air quality issues caused by the HVAC system. ASHRAE has set standards that present guidelines for human occupation. Relative Humidity levels below 30% are associated with increased discomfort and drying of the mucus membranes and skin. High humidity can result in condensation and the subsequent development of mold and fungi along with the increase of dust mite propagation. Ideal indoor Relative Humidity for winter months is 35%, while 50% is optimal in the summer months. Relative Humidity levels ≤65% are considered acceptable by ASHRAE standards. The Relative Humidity levels in the building at the time of the sampling ranged from 20.6% to 37.6%. The outside humidity readings were 39.9% in the morning, 35.8% mid-day and 32.1% in the afternoon.

### **CONCLUSIONS/RECOMMENDATIONS:**

- The airborne fungal spore levels for the indoor air samples at the time of this sampling event **do not** indicate active amplification of fungal spores based on comparison to the outdoor fungal spore levels.
- Visible mold-impacted ceiling plaster; metal ceiling mounted HVAC Units; and ceiling HVAC pipe insulation (confirmed by surface sampling) were observed in various areas. It is recommended these items be cleaned in accordance with industry standard mold remediation procedures, such as those outlined in the U.S. Environmental Protection Agency (EPA) publication Mold Remediation in Schools and Commercial Buildings (September 2008).
- As part of an on-going maintenance program, it is recommended that water-stained ceiling tiles, when identified, be investigated to determine the water source and try and correct/reduce the source of the moisture.
- As part of the on-going maintenance & custodial activities, it is recommended that HVAC ceiling diffusers and wall mounted HVAC Units be cleaned (HEPA Vacuumed and wiped down) periodically throughout the year.
- To improve the perception of the buildings indoor air quality, the school system may consider replacing water stained and/or dirty ceiling tiles as an on-going maintenance item.
- As part of the on-going maintenance program, it is recommended HVAC filters and air filtration machines are maintained in good condition with preventative maintenance in accordance with the manufacturer's recommendations.

It is important to note that the reported microbial levels are only reflective of conditions at the time of this test and that microbial populations can vary over time, depending upon a number of conditions, including environmental factors, i.e., temperature and relative humidity. FEI, by virtue of providing the services described in this report, does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state or federal public agencies any conditions at the site that may present a potential danger to public health, safety, or the environment.

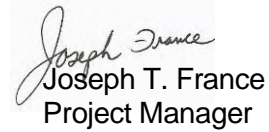
Thank you for choosing FEI as your consultant for this project. If you have any questions, or if we can be of additional service, please contact the undersigned at 804.716.0560.

Respectfully submitted,

**FRANCE ENVIRONMENTAL, INC.**



Micheal D. Allshouse  
Industrial Hygienist



Joseph T. France  
Project Manager

Attachments: Mold Air Cassettes/Tape Lift Analytical Laboratory Report  
Drawing Indicating Sample Locations  
Photographs of Site Conditions  
Fungal Types and Group Chart

**MOLD AIR CASSETTE/TAPE LIFT ANALYTICAL  
LABORATORY RESULTS**

**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800**Analyzed By:**  
Justin B. LivermanAmeriSci Job #:  
**323111129**  
FINAL REPORT**Client: France Environmental, Inc.****Address: 7834 Forest Hill Ave  
Suite 7  
Richmond, VA 23225****Client Job#: FEI-23MI640**  
**Client Job Name: City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,****Date Received: 11/27/23****Date Reported: 11/30/23****Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-01			323111129-02			323111129-03			323111129-04		
Sample Number	2922716			2915864			2922642			2922607		
Sample Name	Pre-Sampling Exterior Front of Building			Main Office			Kitchen			Cafetorium		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	40	n/a	1	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	ND	n/a	ND	40	n/a	1	80	n/a	2	40	n/a	1
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	120	10	3	ND			80	17	2	40	33	1
Basidiospores	320	26	8	40	100	1	200	42	5	40	33	1
Cladosporium sp.	760	61	19	ND			200	42	5	40	33	1
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	40	3	1	ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			ND		
<b>Total Fungal Spores</b>	<b>1240</b>	<b>100</b>	<b>31</b>	<b>40</b>	<b>100</b>	<b>1</b>	<b>480</b>	<b>100</b>	<b>12</b>	<b>120</b>	<b>100</b>	<b>3</b>

ND = None Detected

**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800**Analyzed By:**  
Justin B. Liverman**AmeriSci Job #:**  
**323111129**  
FINAL REPORT**Client: France Environmental, Inc.****Address: 7834 Forest Hill Ave**  
**Suite 7**  
**Richmond, VA 23225****Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,  
Richmond, VA 23225**Date Received:** 11/27/23**Date Reported:** 11/30/23**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-05			323111129-06			323111129-07			323111129-08		
Sample Number	2918623			2918624			2915866			2915867		
Sample Name	Teacher's Lounge			Room 102			Clinic			Room 101		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			2		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	ND	n/a	ND	80	n/a	2	40	n/a	1
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			40	10	1	ND			ND		
Aspergillus/Penicillium	40	17	1	40	10	1	ND			ND		
Basidiospores	160	67	4	240	60	6	ND			40	50	1
Cladosporium sp.	40	17	1	80	20	2	ND			40	50	1
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			ND		
<b>Total Fungal Spores</b>	<b>240</b>	<b>100</b>	<b>6</b>	<b>400</b>	<b>100</b>	<b>10</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>80</b>	<b>100</b>	<b>2</b>

ND = None Detected





**AmeriSci Bio-Chem**

13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800

**Analyzed By:**  
Justin B. Liverman

AmeriSci Job #:  
**323111129**  
FINAL REPORT

**Client: France Environmental, Inc.**

**Address: 7834 Forest Hill Ave  
Suite 7  
Richmond, VA 23225**

**Client Job#: FEI-23MI640**  
**Client Job Name: City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,**

**Date Received: 11/27/23**

**Date Reported: 11/30/23**

**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-09			323111129-10			323111129-11			323111129-12		
Sample Number	2915868			2915869			2915870			2915871		
Sample Name	Room 103			Room 105			Room 106			Room 107		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	40	n/a	1	40	n/a	1	ND	n/a	ND
Mycelial Fragments	40	n/a	1	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	40	20	1	40	14	1	ND			40	100	1
Basidiospores	40	20	1	40	14	1	ND			ND		
Cladosporium sp.	80	40	2	200	71	5	ND			ND		
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	40	20	1	ND			ND			ND		
<b>Total Fungal Spores</b>	<b>200</b>	<b>100</b>	<b>5</b>	<b>280</b>	<b>100</b>	<b>7</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>40</b>	<b>100</b>	<b>1</b>

ND = None Detected

**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800**Analyzed By:**  
Justin B. LivermanAmeriSci Job #:  
**323111129**  
FINAL REPORT**Client: France Environmental, Inc.**Address: 7834 Forest Hill Ave  
Suite 7  
Richmond, VA 23225**Client Job#:** FEI-23MI640**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,  
Richmond, VA 23225**Date Received:** 11/27/23**Date Reported:** 11/30/23**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-13			323111129-14			323111129-15			323111129-16		
Sample Number	2918625			2918626			2918622			2918628		
Sample Name	Room 104			Counsler's Office			Room 108			Room 109		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			2			2		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	80	n/a	2	80	n/a	2	120	n/a	3
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			40	5	1
Aspergillus/Penicillium	ND			40	9	1	80	14	2	120	15	3
Basidiospores	ND			200	45	5	240	43	6	400	50	10
Cladosporium sp.	40	100	1	200	45	5	240	43	6	200	25	5
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			40	5	1
<b>Total Fungal Spores</b>	<b>40</b>	<b>100</b>	<b>1</b>	<b>440</b>	<b>100</b>	<b>11</b>	<b>560</b>	<b>100</b>	<b>14</b>	<b>800</b>	<b>100</b>	<b>20</b>

ND = None Detected

**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800**Analyzed By:**  
Justin B. Liverman**AmeriSci Job #:**  
**323111129**  
FINAL REPORT**Client: France Environmental, Inc.****Address: 7834 Forest Hill Ave**  
**Suite 7**  
**Richmond, VA 23225****Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,  
Richmond, VA 23225**Date Received:** 11/27/23**Date Reported:** 11/30/23**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-17			323111129-18			323111129-19			323111129-20		
Sample Number	2918629			2922673			2922719			2922595		
Sample Name	Room 111			Room 113			Room 116			Room 117		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	2			2			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	120	n/a	3	40	n/a	1	80	n/a	2
Mycelial Fragments	ND	n/a	ND	40	n/a	1	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	80	4	2	ND			ND			ND		
Aspergillus/Penicillium	240	12	6	120	13	3	40	11	1	ND		
Basidiospores	1000	51	25	560	58	14	160	44	4	40	33	1
Cladosporium sp.	640	33	16	240	25	6	160	44	4	40	33	1
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			40	4	1	ND			40	33	1
<b>Total Fungal Spores</b>	<b>1960</b>	<b>100</b>	<b>49</b>	<b>960</b>	<b>100</b>	<b>24</b>	<b>360</b>	<b>100</b>	<b>9</b>	<b>120</b>	<b>100</b>	<b>3</b>

ND = None Detected



**AmeriSci Bio-Chem**

13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800

Analyzed By:  
Justin B. Liverman

AmeriSci Job #:  
**323111129**  
FINAL REPORT

**Client: France Environmental, Inc.**  
**Address: 7834 Forest Hill Ave**  
**Suite 7**  
**Richmond, VA 23225**

**Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,  
Richmond, VA 23225

**Date Received:** 11/27/23  
**Date Reported:** 11/30/23

**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-21			323111129-22			323111129-23			323111129-24		
Sample Number	2918613			2918614			2918615			2918616		
Sample Name	Room 115			Room 114			Room 112			Room 110		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			2			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	40	n/a	1	80	n/a	2	40	n/a	1
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	ND			40	20	1	40	50	1	80	25	2
Basidiospores	40	100	1	80	40	2	ND			40	13	1
Cladosporium sp.	ND			80	40	2	40	50	1	160	50	4
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			40	13	1
<b>Total Fungal Spores</b>	<b>40</b>	<b>100</b>	<b>1</b>	<b>200</b>	<b>100</b>	<b>5</b>	<b>80</b>	<b>100</b>	<b>2</b>	<b>320</b>	<b>100</b>	<b>8</b>

ND = None Detected

**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800**Analyzed By:**  
Justin B. Liverman**AmeriSci Job #:**  
**323111129**  
FINAL REPORT**Client: France Environmental, Inc.****Address: 7834 Forest Hill Ave**  
**Suite 7**  
**Richmond, VA 23225****Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,  
Richmond, VA 23225**Date Received:** 11/27/23**Date Reported:** 11/30/23**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-25			323111129-26			323111129-27			323111129-28		
Sample Number	2918617			2918618			2918619			2922627		
Sample Name	Room 005			Room 004			Room 003			Room 002		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	160	n/a	4	40	n/a	1	160	n/a	4	ND	n/a	ND
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	ND			ND			ND			ND		
Basidiospores	ND			ND			40	100	1	ND		
Cladosporium sp.	80	100	2	ND			ND			ND		
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			ND		
<b>Total Fungal Spores</b>	<b>80</b>	<b>100</b>	<b>2</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>40</b>	<b>100</b>	<b>1</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

ND = None Detected

**AmeriSci Bio-Chem**

13635 GENITO ROAD  
 MIDLOTHIAN, VIRGINIA 23112  
 TEL: (804) 763-1200 • FAX: (804) 763-1800

Analyzed By:  
 Justin B. Liverman

AmeriSci Job #:  
**323111129**  
 FINAL REPORT

**Client: France Environmental, Inc.**

Address: 7834 Forest Hill Ave  
 Suite 7  
 Richmond, VA 23225

**Client Job#:** FEI-23MI640

**Client Job Name:** City Of Richmond Public Schools  
 (CORPS); GH Reid Elementary  
 School;1301 Whitehead Road,  
 Richmond, VA 23225

**Date Received:** 11/27/23**Date Reported:** 11/30/23**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-29			323111129-30			323111129-31			323111129-32		
Sample Number	2922702			2922627			2918674			2915855		
Sample Name	Room 001			1st Floor Corridor by Room 107			Room 201			Room 202/Media Center		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	40	n/a	1	40	n/a	1	80	n/a	2
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	ND			ND			80	29	2	ND		
Basidiospores	ND			40	33	1	160	57	4	80	67	2
Cladosporium sp.	ND			40	33	1	40	14	1	ND		
Curvularia sp.	ND			40	33	1	ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			40	33	1
<b>Total Fungal Spores</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>120</b>	<b>100</b>	<b>3</b>	<b>280</b>	<b>100</b>	<b>7</b>	<b>120</b>	<b>100</b>	<b>3</b>

ND = None Detected

**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800**Analyzed By:**  
Justin B. Liverman**AmeriSci Job #:**  
**323111129**  
FINAL REPORT**Client: France Environmental, Inc.****Address: 7834 Forest Hill Ave**  
**Suite 7**  
**Richmond, VA 23225****Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,  
Richmond, VA 23225**Date Received:** 11/27/23**Date Reported:** 11/30/23**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-33			323111129-34			323111129-35			323111129-36		
Sample Number	2915845			2915846			2915847			2915848		
Sample Name	Room 212			Room 212 1/2			Room 214			Room 216		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	40	n/a	1	40	n/a	1	40	n/a	1
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	80	33	2	40	25	1	ND			40	100	1
Basidiospores	40	17	1	120	75	3	ND			ND		
Cladosporium sp.	120	50	3	ND			ND			ND		
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			ND		
<b>Total Fungal Spores</b>	<b>240</b>	<b>100</b>	<b>6</b>	<b>160</b>	<b>100</b>	<b>4</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>40</b>	<b>100</b>	<b>1</b>

ND = None Detected



**AmeriSci Bio-Chem**

13635 GENITO ROAD  
 MIDLOTHIAN, VIRGINIA 23112  
 TEL: (804) 763-1200 • FAX: (804) 763-1800

**Analyzed By:**  
 Justin B. Liverman

AmeriSci Job #:  
**323111129**  
 FINAL REPORT

**Client: France Environmental, Inc.**

**Address: 7834 Forest Hill Ave  
 Suite 7  
 Richmond, VA 23225**

**Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
 (CORPS); GH Reid Elementary  
 School;1301 Whitehead Road,  
 Richmond, VA 23225

**Date Received:** 11/27/23  
**Date Reported:** 11/30/23

**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-37			323111129-38			323111129-39			323111129-40		
Sample Number	2915849			2915850			2915851			2915852		
Sample Name	Room 217			Room 219			Room 218			Room 215		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			2		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	40	n/a	1
Fibers	80	n/a	2	40	n/a	1	ND	n/a	ND	40	n/a	1
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	80	29	2	ND			ND			ND		
Basidiospores	80	29	2	40	100	1	ND			40	17	1
Cladosporium sp.	120	43	3	ND			ND			200	83	5
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			ND		
<b>Total Fungal Spores</b>	<b>280</b>	<b>100</b>	<b>7</b>	<b>40</b>	<b>100</b>	<b>1</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>240</b>	<b>100</b>	<b>6</b>

ND = None Detected



**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800**Analyzed By:**  
Justin B. Liverman**AmeriSci Job #:**  
**323111129**  
FINAL REPORT**Client: France Environmental, Inc.****Address: 7834 Forest Hill Ave**  
**Suite 7**  
**Richmond, VA 23225****Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,  
Richmond, VA 23225**Date Received:** 11/27/23**Date Reported:** 11/30/23**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-41			323111129-42			323111129-43			323111129-44		
Sample Number	2915853			2915854			2915856			2915857		
Sample Name	Room 213			Room 211			Room 210			Room 209		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	120	n/a	3	80	n/a	2	40	n/a	1
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	ND			ND			ND			ND		
Basidiospores	ND			80	40	2	ND			40	50	1
Cladosporium sp.	ND			120	60	3	ND			40	50	1
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	ND			ND			ND			ND		
<b>Total Fungal Spores</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>200</b>	<b>100</b>	<b>5</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>80</b>	<b>100</b>	<b>2</b>

ND = None Detected



**AmeriSci Bio-Chem**

13635 GENITO ROAD  
 MIDLOTHIAN, VIRGINIA 23112  
 TEL: (804) 763-1200 • FAX: (804) 763-1800

**Analyzed By:**  
 Justin B. Liverman

AmeriSci Job #:  
**323111129**  
 FINAL REPORT

**Client: France Environmental, Inc.**

**Address: 7834 Forest Hill Ave  
 Suite 7  
 Richmond, VA 23225**

**Client Job#: FEI-23MI640**  
**Client Job Name: City Of Richmond Public Schools  
 (CORPS); GH Reid Elementary  
 School;1301 Whitehead Road,**

**Date Received: 11/27/23**  
**Date Reported: 11/30/23**

**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-45			323111129-46			323111129-47			323111129-48		
Sample Number	2915858			2915859			2915860			2915861		
Sample Name	Room 208			Room 207			Room 206			Room 205		
Analysis Date	11/30/2023			11/30/2023			11/30/2023			11/30/2023		
Volume (L)	25			25			25			25		
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40			40		
Background Density	1			1			1			1		
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
Fibers	40	n/a	1	40	n/a	1	40	n/a	1	40	n/a	1
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND			ND		
Aspergillus/Penicillium	80	40	2	ND			ND			ND		
Basidiospores	80	40	2	ND			ND			ND		
Cladosporium sp.	ND			ND			40	100	1	ND		
Curvularia sp.	ND			ND			ND			ND		
Epicoccum sp.	ND			ND			ND			ND		
Myxomycetes/Periconia/Smuts	40	20	1	ND			ND			ND		
<b>Total Fungal Spores</b>	<b>200</b>	<b>100</b>	<b>5</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	<b>40</b>	<b>100</b>	<b>1</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>

ND = None Detected

**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800**Analyzed By:**  
Justin B. LivermanAmeriSci Job #:  
**323111129**  
FINAL REPORT**Client: France Environmental, Inc.**Address: 7834 Forest Hill Ave  
Suite 7  
Richmond, VA 23225**Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,  
Richmond, VA 23225**Date Received:** 11/27/23  
**Date Reported:** 11/30/23**Air Cassette Analytical Report (SOP# 3.24.01)**

AmeriSci Number	323111129-49			323111129-50			323111129-51					
Sample Number	2915863			2915862			2918603					
Sample Name	2nd Floor Corridor By Room 208			Room 203			Post-Sampling Exterior Front of Building					
Analysis Date	11/30/2023			11/30/2023			11/30/2023					
Volume (L)	25			25			25					
Limit of Detection (LOD) (Count/M <sup>3</sup> )	40			40			40					
Background Density	1			1			1					
<b>Other</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Pollen	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND			
Fibers	40	n/a	1	ND	n/a	ND	40	n/a	1			
Mycelial Fragments	ND	n/a	ND	ND	n/a	ND	ND	n/a	ND			
<b>Fungal Identification</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>	<b>Count/M<sup>3</sup></b>	<b>%</b>	<b>Raw Count</b>
Ascospores	ND			ND			ND					
Aspergillus/Penicillium	ND			ND			80	7	2			
Basidiospores	ND			ND			80	7	2			
Cladosporium sp.	120	60	3	40	100	1	920	79	23			
Curvularia sp.	ND			ND			ND					
Epicoccum sp.	40	20	1	ND			ND					
Myxomycetes/Periconia/Smuts	40	20	1	ND			80	7	2			
<b>Total Fungal Spores</b>	<b>200</b>	<b>100</b>	<b>5</b>	<b>40</b>	<b>100</b>	<b>1</b>	<b>1160</b>	<b>100</b>	<b>29</b>			

ND = None Detected

Results relate only to the items tested and are reported mathematically to significant figures.

Name/Title: Justin B. Liverman / AnalystName/Title: Justin B. Liverman / Analyst

Signature:

Reviewed By:

Date: 11/30/23Date: 11/30/23

**AmeriSci Bio-Chem**13635 GENITO ROAD  
MIDLOTHIAN, VIRGINIA 23112  
TEL: (804) 763-1200 • FAX: (804) 763-1800

AmeriSci Job #:

**323111129**

FINAL REPORT

**Client:** France Environmental, Inc.  
**Address:** 7834 Forest Hill Ave  
Suite 7  
Richmond, VA 23225**Client Job#:** FEI-23MI640  
**Client Job Name:** City Of Richmond Public Schools  
(CORPS); GH Reid Elementary  
School;1301 Whitehead Road,**Date Received:** 11/27/23**Date Reported:** 11/30/23**Direct Fungal Identification (SOP# 3.21.01)****AmeriSci Job # 323111129-52****Sample #:** T1 **Sample description:** Room 215 Plaster Ceiling **Analysis Date:** 11/30/23

<u>Fungal Identification</u>	<u>Estimated Amount</u>	<u>Comments</u>
Cladosporium sp.	Heavy	

**AmeriSci Job # 323111129-53****Sample #:** T2 **Sample description:** Room 211 Metal Ceiling Mounted HVAC U **Analysis Date:** 11/30/23

<u>Fungal Identification</u>	<u>Estimated Amount</u>	<u>Comments</u>
Cladosporium sp.	Heavy	
Hyphae	Moderate	

**AmeriSci Job # 323111129-54****Sample #:** T3 **Sample description:** Room 112 Ceiling HVAC Pipe Insulation **Analysis Date:** 11/30/23

<u>Fungal Identification</u>	<u>Estimated Amount</u>	<u>Comments</u>
Cladosporium sp.	Heavy	
Hyphae	Moderate	

Minimum reporting limit is no fungi detected

**Rare: 1 - 10 Spores****Light: 11 - 100 Spores****Moderate: 101 - 200 Spores****Heavy: 200+ Spores**

Results relate only to the items tested.

Name/Title: Justin B. Liverman / AnalystName/Title: Justin B. Liverman / Analyst

Signature:

Reviewed By:

Date: 11/30/23Date: 11/30/23

Page 1 of 1

323 111129  
1129



13635 Genito Road Midlothian, VA 23112  
(804) 763-1200 Phone / (804) 763-1800 Fax

**Requested Services (X Boxes)**

Non-Viable		Culturable			
Spore Trap	Tape Bulk	Andersen, Swab, Bulk			
Fungal Spore Count and Genus ID, pollen, fiber & mycelial fragment count	Fungal Genus Identification - Qualitative	Environmental Fungal Genus ID & Enumeration	Environmental Bacterial Enumeration & Gram Stain ID	Fungal Speciation - Scheduled in Advance Only	Bacterial speciation - Scheduled in Advance Only
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Contact Information			
Company: France Environmental		PO#:	
Address 7834 Forest Hill Ave Suite #7 Richmond, VA 23225			
Results To: FEI	Fax Results? <input type="checkbox"/>	Fax#:	
Phone: 804 716 0580	Email? <input checked="" type="checkbox"/>	Email: FEI Distribution List	

Project Information	Turnaround Time Codes
City of Richmond Public Schools (CORPS) G. H. Reid Elementary School Project 1301 Whitehead Road Name: Richmond, Virginia 23225 Proj. #: FEI-23MI640	STD - Standard: 2 Days (Non-viable) 24 - 24: 24 Hours (Non-viable) R - Rush: 6 hours (Non-viable) C - Culture: 7-14 Days W - Weekends: Scheduled by noon ET Friday Only ***Samples received after 5pm, on weekends or in drop-box, will be considered received the next business day.

Sampling Date(s): **11/24/23**

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (as applicable)	Notes: (Time, Temp, Etc.)
2922716	Pre-Sampling Exterior Front of Building	ST	STD	25 Liters	
2915864	Main Office	ST	STD	25 Liters	
2922642	Kitchen	ST	STD	25 Liters	
2922607	Cafetorium	ST	STD	25 Liters	
2918623	Teacher's Lounge	ST	STD	25 Liters	
2918624	Room 102	ST	STD	25 Liters	
2915866	Clinic	ST	STD	25 Liters	
2915867	Room 101	ST	STD	25 Liters	
2915868	Room 103	ST	STD	25 Liters	
2915869	Room 105	ST	STD	25 Liters	
2915870	Room 106	ST	STD	25 Liters	
2915871	Room 107	ST	STD	25 Liters	

Sample Type Codes	Relinquished By	Date & Time	Received By	Date & Time
AP - Andersen Plate SW - Swab B - Bulk T - Tape ST - Spore Trap: Zefon, Micro5, Cyclex-d, etc.	Micheal D. Allshouse	11/27/23		

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13635 Genito Road Midlothian, VA 23112  
 (804) 763-1200 Phone / (804) 763-1800 Fax

323-11-1129

Requested Services (X Boxes)											
Non-Viable		Culturable									
Spore Trap	Tape Bulk	Andersen, Swab, Bulk									
Fungal Spore Count and Genus ID, pollen, fiber & mycellial fragment count	Fungal Genus Identification - Qualitative	Environmental Fungal Genus ID & Enumeration	Environmental Bacterial Enumeration & Gram Stain ID	Fungal Speciation - Scheduled in Advance Only	Bacterial speciation - Scheduled in Advance Only						
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Contact Information	
Company: France Environmental	PO#:
Address 7834 Forest Hill Ave Suite #7 Richmond, VA 23225	
Results To: FEI	Fax Results? <input type="checkbox"/> Fax#:
Phone: 804 716 0560	Email? <input checked="" type="checkbox"/> Email: FEI Distribution List
Project Information	Turnaround Time Codes
City of Richmond Public Schools (CORPS) G. H. Reid Elementary School Project 1301 Whitehead Road Name: Richmond, Virginia 23225 Proj. #: FEI-23M1640	<b>STD</b> - Standard: 2 Days (Non-viable) <b>24</b> - 24: 24 Hours (Non-viable) <b>R</b> - Rush: 6 hours (Non-viable) <b>C</b> - Culture: 7-14 Days <b>W</b> - Weekends: Scheduled by noon ET Friday Only ***Samples received after 5pm, on weekends or in drop-box, will be considered received the next business day.
Sampling Date(s):	11/24/23

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (as applicable)	Notes: (Time, Temp, Etc.)
2918625	Room 104	ST	STD	25 Liters	
2918626	Counsler's Office	ST	STD	25 Liters	
2918622	Room 108	ST	STD	25 Liters	
2918628	Room 109	ST	STD	25 Liters	
2918629	Room 111	ST	STD	25 Liters	
2922673	Room 113	ST	STD	25 Liters	
2922719	Room 116	ST	STD	25 Liters	
2922595	Room 117	ST	STD	25 Liters	
2918613	Room 115	ST	STD	25 Liters	
2918614	Room 114	ST	STD	25 Liters	
2918615	Room 112	ST	STD	25 Liters	
2918616	Room 110	ST	STD	25 Liters	

Sample Type Codes	
AP - Andersen Plate	T - Tape
SW - Swab	ST - Spore Trap: Zefon, Micro5, Cyclex-d, etc.
B - Bulk	

Relinquished By	Date & Time
Micheal D. Allshouse	11/27/23

Received By	Date & Time
<i>Kompele M...</i>	11.28.23
	(2)

328 111189



13635 Genito Road Midlothian, VA 23112  
 (804) 763-1200 Phone / (804) 763-1800 Fax

Contact Information						Requested Services (X Boxes)						
Company: France Environmental				PO#:		Non-Viable		Culturable				
Address 7834 Forest Hill Ave Suite #7 Richmond, VA 23225						Spore Trap	Tape Bulk	Andersen, Swab, Bulk				
Results To: FEI		Fax Results? <input type="checkbox"/>		Fax#:				Fungal Spore Count and Genus ID, pollen, fiber & mycelial fragment count	Fungal Genus Identification - Qualitative	Environmental Fungal Genus ID & Enumeration	Environmental Bacterial Enumeration & Gram Stain ID	Fungal Speciation - Scheduled in Advance Only
Phone: 804 718 0580		Email? <input checked="" type="checkbox"/>		Email: FEI Distribution List								
Project Information			Turnaround Time Codes									
City of Richmond Public Schools (CORPS) G. H. Reid Elementary School Project 1301 Whitehead Road Name: Richmond, Virginia 23225 Proj. #: FEI-23MI640			<b>STD</b> - Standard: 2 Days (Non-viable) <b>24</b> - 24: 24 Hours (Non-viable) <b>R</b> - Rush: 6 hours (Non-viable) <b>C</b> - Culture: 7-14 Days <b>W</b> - Weekends: Scheduled by noon ET Friday Only ***Samples received after 5pm, on weekends or in drop-box, will be considered received the next business day.									
Sampling Date(s):		11/24/23										
Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (as applicable)	Notes: (Time, Temp, Etc.)							
2918617	Room 005	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2918618	Room 004	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2918619	Room 003	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2922627	Room 002	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2922702	Room 001	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2922627	1st Floor Corridor by Room 107	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2918674	Room 201	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2915855	Room 202/Media Center	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2915845	Room 212	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2915846	Room 212 1/2	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2915847	Room 214	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2915848	Room 216	ST	STD	25 Liters		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample Type Codes		Relinquished By		Date & Time		Received By		Date & Time				
AP - Andersen Plate SW - Swab B - Bulk		T - Tape ST - Spore Trap: Zefon, Micro5, Cyclex-d, etc.		Micheal D. Allshouse		11/27/23						

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13635 Genito Road Midlothian, VA 23112  
(804) 763-1200 Phone / (804) 763-1800 Fax

**Requested Services (X Boxes)**

Non-Viable		Culturable									
Spore Trap	Tape Bulk	Andersen, Swab, Bulk									
Fungal Spore Count and Genus ID, pollen, fiber & mycelial fragment count	Fungal Genus Identification - Qualitative	Environmental Fungal Genus ID & Enumeration	Environmental Bacterial Enumeration & Gram Stain ID	Fungal Speciation - Scheduled in Advance Only	Bacterial speciation - Scheduled in Advance Only						
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Contact Information	
Company: France Environmental	PO#:
Address 7834 Forest Hill Ave Suite #7 Richmond, VA 23225	
Results To: FEI	Fax Results? <input type="checkbox"/> Fax#:
Phone: 804 718 0580	Email? <input checked="" type="checkbox"/> Email: FEI Distribution List
Project Information	Turnaround Time Codes
City of Richmond Public Schools (CORPS) G. H. Reid Elementary School Project Name: 1301 Whitehead Road Richmond, Virginia 23225 Proj. #: FEI-23MI640	<b>STD</b> - Standard: 2 Days (Non-viable) <b>24</b> - 24: 24 Hours (Non-viable) <b>R</b> - Rush: 6 hours (Non-viable) <b>C</b> - Culture: 7-14 Days <b>W</b> - Weekends: Scheduled by noon ET Friday Only ***Samples received after 5pm, on weekends or in drop-box, will be considered received the next business day.
Sampling Date(s):	11/24/23

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (as applicable)	Notes: (Time, Temp, Etc.)
2915849	Room 217	ST	STD	25 Liters	
2915850	Room 219	ST	STD	25 Liters	
2915851	Room 218	ST	STD	25 Liters	
2915852	Room 215	ST	STD	25 Liters	
2915853	Room 213	ST	STD	25 Liters	
2915854	Room 211	ST	STD	25 Liters	
2915856	Room 210	ST	STD	25 Liters	
2915857	Room 209	ST	STD	25 Liters	
2915858	Room 208	ST	STD	25 Liters	
2915859	Room 207	ST	STD	25 Liters	
2915860	Room 206	ST	STD	25 Liters	
2915861	Room 205	ST	STD	25 Liters	

Sample Type Codes	Relinquished By	Date & Time	Received By	Date & Time
AP - Andersen Plate SW - Swab B - Bulk T - Tape ST - Spore Trap: Zefon, Micro5, Cyclex-d, etc.	Micheal D. Allshouse	11/27/23		

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13635 Genito Road Midlothian, VA 23112  
 (804) 763-1200 Phone / (804) 763-1800 Fax

**Requested Services (X Boxes)**

Non-Viable		Culturable							
Spore Trap	Tape Bulk	Andersen, Swab, Bulk							
Fungal Spore Count and Genus ID, pollen, fiber & mycelial fragment count	Fungal Genus Identification - Qualitative	Environmental Fungal Genus ID & Enumeration	Environmental Bacterial Enumeration & Gram Stain ID	Fungal Speciation - Scheduled in Advance Only	Bacterial speciation - Scheduled in Advance Only				
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Contact Information	
Company: France Environmental	PO#:
Address 7834 Forest Hill Ave Suite #7 Richmond, VA 23226	
Results To: FEI	Fax Results? <input type="checkbox"/> Fax#:
Phone: 804 716 0580	Email? <input checked="" type="checkbox"/> Email: FEI Distribution List
Project Information	Turnaround Time Codes
City of Richmond Public Schools (CORPS) G. H. Reid Elementary School Project 1301 Whitehead Road Name: Richmond, Virginia 23225 Proj. #: FEI-23MI640	STD - Standard: 2 Days (Non-viable) 24 - 24: 24 Hours (Non-viable) R - Rush: 6 hours (Non-viable) C - Culture: 7-14 Days W - Weekends: Scheduled by noon ET Friday Only ***Samples received after 5pm, on weekends or in drop-box, will be considered received the next business day.
Sampling Date(s):	11/24/23

Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume/Area (as applicable)	Notes: (Time, Temp, Etc.)
2915863	2nd Floor Corridor By Room 208	ST	STD	25 Liters	
2915862	Room 203	ST	STD	25 Liters	
2918603	Post-Sampling Exterior Front of Building	ST	STD	25 Liters	
T1	Room 215 Plaster Ceiling	ST	STD		
T2	Room 211 Metal Ceiling Mounted HVAC Unit	ST	STD		
T3	Room 112 Ceiling HVAC Pipe Insulation	ST	STD		

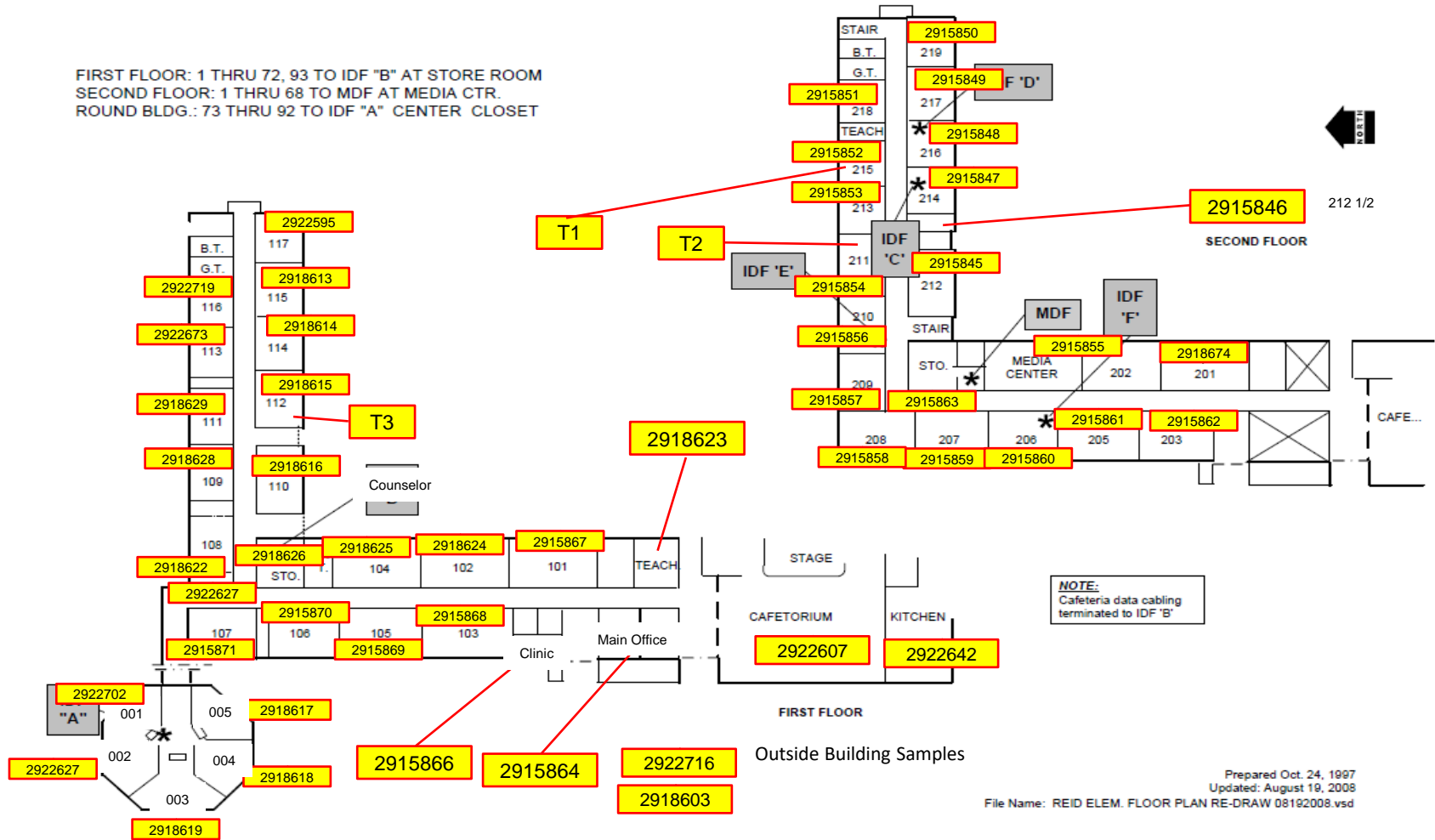
Sample Type Codes		Relinquished By	Date & Time	Received By	Date & Time
AP - Andersen Plate	T - Tape	Micheal D. Allshouse	11/27/23		
SW - Swab	ST - Spore Trap: Zefon, Micro5, Cyclex-d, etc.				
B - Bulk					

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**DRAWING INDICATING SAMPLE LOCATIONS**

FIRST FLOOR: 1 THRU 72, 93 TO IDF "B" AT STORE ROOM  
 SECOND FLOOR: 1 THRU 68 TO MDF AT MEDIA CTR.  
 ROUND BLDG.: 73 THRU 92 TO IDF "A" CENTER CLOSET



**Moisture & Mold Assessment Sample Location Drawing**  
 G.H. Reid Elementary School  
 Richmond, Virginia  
 FEI Project #: FEI-23MI640 Survey Date: 11/24/2023

Prepared Oct. 24, 1997  
 Updated: August 19, 2008  
 File Name: REID ELEM. FLOOR PLAN RE-DRAW 08192008.vsd



## **PHOTOGRAPHS OF SITE CONDITIONS**



**Photograph No. 1**  
Showing Typical Mold Impacted Ceiling Mounted HVAC Units



**Photograph No. 2**  
Showing Typical Mold Impacted Ceiling Mounted HVAC Units & Moisture Staining

**CHART 1**  
**FUNGAL TYPES AND GROUPS**

# Chart 1

## Fungal Types and Groups

These are brief descriptions for general informational purposes:

- Ascospores (ass-co-spo-res)** a large category of spores (produced in a sac-like structure) that are found everywhere in nature and include more than 3,000 genera. Most *Ascospores* of health or IAQ importance are identified separately by their genus (e.g. *Chaetomium*) when possible on a IAQ report, and the *Ascospore* category is used primarily on these reports for a large group of less important spore types often found in quantity on outdoor air samples. On tape samples, *Ascospore* is sometimes also used as a general morphological identification (i.e., the ascus or sac structure is present) for certain samples in those cases when the spores do not appear to represent any of the IAQ significant genera.
- Aspergillus (as-per-jill-us)** allergen/contaminant/opportunistic pathogen, commonly found in the environment around the world. It comprises approximately 200 species and can appear almost any color. Though commonly found on cultures, tape-lifts, and air samples, its spores are indistinguishable from *Penicillium* on non-cultured samples (like tape-lifts and air-o-cells) unless the conidiophore is present. Health effects vary by species, but many species are reported to be allergenic. Some species produce toxins that might have significant health effects in humans. *Aspergillus* is one of the most infectious of molds, but infections are not common in normal immune systems. In immuno-compromised individuals, however, the disease *Aspergillosis* is a very significant and potentially deadly health concern.
- Basidiospores (bah-sid-ee-oh-spo-res)** allergen/contaminant, a general class of spore formed on a structure known as a *basidium*, characteristic of the *Basidiomycete* class (that includes rusts, smuts and mushrooms). This category is commonly found in outdoor air samples. Many species are reported to be allergenic and some species are associated with dry rot in wood. Elevated airborne concentrations indoors might be indicative of water damage or too high of humidity.
- Cladosporium (clad-oh-spore-ee-um)** common allergen/contaminant/very rarely pathogenic, found everywhere, many times the most common and numerous mold found in outdoor air. Indoor concentrations are usually not as high, but it is an important airborne allergen and common agent for hay fever, asthma, and other allergy related symptoms. It can thrive in various indoor environments, appearing light green to black (the black mold on air vent grills is usually *Cladosporium*).
- Curvularia (curve-you-lair-ee-uh)** contaminant/opportunistic pathogen, found in air, soil and textiles. Reported to be allergenic. Rare infections of corneas, nails, and sinuses, primarily in immunocompromised individuals.
- Epicoccum (epp-ee-cock-um)** contaminant/opportunistic pathogen, found in soil, air, water and rotting vegetation and can be commonly found in outdoor air. It is a common allergen and rarely can it cause an infection in the skin.
- Hyphal Elements (high-full)** filamentous, branched structures with cell walls. Hyphae are somewhat analogous to roots or stems in plants whereas the spores would be analogous to the seeds.
- Mycelial Fragments (my-sill-e-ul)** a mass of hyphae; not in the form of large spore producing parts. Hyphae are an individual fungal thread or filament of connected cells. The thread that represents the individual parts of the fungal body.
- Myxomycetes (mix-oh'-my-seat)** general category for commonly found genera usually associated with living and decaying plants as well as decaying wood. Sometimes can be found indoors. Some allergenic properties reported, but generally pose no health concerns to humans or animals.
- Penicillium (pen-uh-sill-ee-um)** contaminant/opportunistic pathogen, one of the most common genera found worldwide in soil and decaying vegetation and indoors in dust, food and various building materials. Common bread mold is a species of *Penicillium*. Spores usually cannot be distinguished from *Aspergillus* on non-cultured samples (like tape-lifts and air-o-cells). It is reported to be allergenic, to cause certain infections in compromised individuals, and some species do produce toxins unhealthy to humans.
- Periconia (per-ee-cone-e-uh)** ubiquitous cosmopolitan. Mostly found in soil, blackened and dead herbaceous stems and leaf spots, grasses, rushes and sedges. Almost always associated with other fungi. Rare case of mycotic keratitis reported. Allergen not studied.

## Chart 1 - Continued

### Fungal Types and Groups

**These are brief descriptions for general informational purposes:**

***Pollen (pol-uhn)***

Pollen is a fine powder produced by certain plants when they reproduce. During the spring, summer, and fall seasons, it's released into the air and picked up by the wind, which brings it to other plants to fertilize them. Inside of these pollen grains are proteins that commonly cause allergic reactions (such as sneezing, runny nose, and itchy eyes) when breathed in. The pollen that's most often responsible for causing allergies comes from grasses, trees, and weeds. Many people with asthma are allergic to pollen. When they breathe it in, it can trigger their asthma symptoms.

***Smuts***

general category for commonly found genera usually associated with living and decaying plants as well as decaying wood. Sometimes can be found indoors. Some allergenic properties reported, but generally pose no health concerns to humans or animals.