MOLD AND MOISTURE ASSESSMENT REPORT

MARY SCOTT PRESCHOOL

4001 MOSS SIDE AVENUE
RICHMOND, VIRGINIA 23222-4602

ECS PROJECT NO. 47:14153-E

FOR: RICHMOND PUBLIC SCHOOLS FACILITY SERVICES

FEBRUARY 26, 2024

February 26, 2024

Mr. Ronald Hathaway Jr.
Richmond Public Schools Facility Services
1461-A Commerce Road
Richmond, Virginia 23224
Rhathawa@rvaschools.net

ECS Project No. 47:14153-E

Reference: Mold and Moisture Assessment, Mary Scott Preschool, 4001 Moss Side Avenue, Richmond, Virginia

Dear Mr. Hathaway Jr.:

ECS Mid-Atlantic, LLC (ECS) is pleased to provide Richmond Public Schools Facility Services with the results of the above referenced Mold and Moisture Assessment performed at Mary Scott Preschool located at 4001 Moss Side Avenue in Richmond, Virginia. This report summarizes our observations, analytical results, findings, and recommendations related to the work performed. The work described in this report was performed by ECS in general accordance with the Scope of Services described in ECS Proposal Number 47:30369-EP and the terms and conditions of the agreement authorizing those services.

ECS appreciates this opportunity to provide Richmond Public Schools Facility Services with our services. If we can be of further assistance to you, please do not hesitate to contact us.

Sincerely,

ECS Mid-Atlantic, LLC

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1.0 PROJECT DESCRIPTION

The building located at 4001 Moss Side Avenue in Richmond, Virginia is a one-story school building known as Mary Scott Preschool. The building contains approximately 47,508 square feet of space and was reportedly originally constructed in 1952.

Based on information provided by Richmond Public Schools Facility Services representatives, ECS understands that building occupants have reported mold and moisture concerns in the school to Richmond Public School Facility Services. Richmond Public Schools Facility Services has requested ECS conduct a Mold and Moisture Assessment to evaluate these concerns.

2.0 PURPOSE

The purpose of the Mold and Moisture Assessment was to conduct visual observations and testing for mold and moisture to identify evidence of moisture-affected building materials or selective amplification of mold within tested areas of the subject building.

3.0 METHODOLOGY

ECS performed the authorized Scope of Services in general accordance with our proposal, standard industry practices and methods specified by guidelines and industry standards for the identification of mold and moisture-affected building materials.

3.1 Mold and Moisture

The assessment included a non-invasive visual and olfactory survey for evidence of mold and moisture within the subject building. The assessments focused on the client-selected areas indicated by Richmond Public Schools Facility Services. The ECS site personnel observed readily accessible areas and selected building materials to evaluate visible suspect fungal growth and/or moisture impacted materials. A reasonable effort was made to identify water and mold impacted areas; however, this does not imply a guarantee that all possible reservoirs of mold were identified because mold or water-impacted building materials may be hidden by walls, flooring, partitions, etc.

Ambient temperature and relative humidity were measured during the survey using a Q-Trak hand held IAQ meter. The purpose of these measurements was to identify elevated interior humidity levels, which could potentially support indoor mold growth or indicate ongoing moisture problems.

ECS measured the moisture content in various building materials in multiple locations within the surveyed areas utilizing a Protimeter brand hand-held moisture meter. The instrument may be operated in two independent modes. The non-destructive “search mode” uses radio-frequency induction to detect moisture in a substrate. Using the search mode, the Protimeter is capable of detecting moisture in solid, homogeneous materials at depths up to 10 millimeters (0.39 inches). When operated in search mode, the Protimeter produces qualitative readings (“dry”, “at risk”, “wet”) along with a relative numerical reading corresponding to the appropriate qualitative reading. The Protimeter may also be used in “measure mode” to obtain actual moisture percentage readings in wood and other solid, non-conductive materials. Measurements are taken by inserting the pins of a moisture probe into the material being tested. For wood substrates, the moisture percentage is expressed as “% Moisture Content (MC)”; for other materials this number is expressed as “% Wood

Moisture Equivalent (WME)". In general, %MC or %WME values of less than 17 are considered "dry", values greater than or equal to 17 but less than 20 are considered "at risk" for moisture damage, and values of 20 or greater are considered "wet". Values of greater than 17 % typically are considered at risk for mold growth. This was not a comprehensive moisture mapping survey of all building materials within the areas surveyed but rather a non-invasive survey of moisture in select areas of specific building materials which may be impacted by moisture.

Fungal spore air samples were collected using calibrated self contained battery operated air sampling pumps and Allergenco® cassettes. Samples were transported to Environmental Hazards Services located in Richmond, Virginia for analysis. Environmental Hazards Services is accredited by the Environmental Microbiology Laboratory Accreditation Program, administered by the American Industrial Hygiene Association. Air samples were reported to the genus or group level according to the laboratory standard quantification procedures.

Direct samples were collected using pre-packaged tape lift slides used to sample a suspect surface or material. The samples were then placed back into the packaged sealed container for transport to the laboratory for analysis. Note: This is a semi-quantitative test and only indicative of the location sampled and primarily meant to identify the type of mold spores present and associated concentration from the sampled area only. The results may also present concentration ratings reported for hyphal fragments pollen, insect fragments, skin fragments, fibrous particulate, and background matter.

Samples collected were transported/shipped to Environmental Hazards Services (EHS) located in Richmond, Virginia for analysis. EHS is an AIHA (American Industrial Hygiene Association) EMLAP (Environmental Microbiology Laboratory Accreditation Program) accredited laboratory. The samples were analyzed for total spore concentrations in accordance to the laboratory's quantification methods.

It is important to note that fungal spore samples represent a snapshot in time of a constantly changing microbiome. Environmental conditions such as temperature and humidity may influence sample results. The goal of the sampling performed was not to establish precise numerical concentrations over time, but rather to generally identify the dominant fungi in the sampled locations and the general significance of their relative concentrations as compared to outdoor concentrations or unaffected locations.

4.0 RESULTS

The following is a summary of laboratory results, measurements, findings and observations.

Based on our observations and sampling data, ECS does not see any reason why the school should not be continued to be used based on our experience with similar school buildings across the Richmond area and our findings for this study. In general, our air sample results did not indicate any significantly elevated spore trap air samples in the classrooms above outdoor comparison samples. As would be expected with any school building, new or old, areas of mold and moisture were observed and it is our understanding that the recommendations identified in the assessment reports are being addressed or will be addressed by Richmond Public Schools.

4.1 Mold and Moisture

Main School Building

- Moisture staining was observed on the glass block windows in rooms 101 through 108 indicating that moisture is infiltrating the glass block windows in these areas. Mold was observed on some of the mortar joints and caulk associated with the glass block windows;
- One of the high windows in the Cafeteria appeared to be mechanically stuck open and inoperable. This may introduce moisture into the building;
- Mold was observed on CMU walls behind vinyl cove baseboard in the cafeteria;
- Mold was also observed on the interior of the caulking surrounding many of the windows in the east wing;
- Visible moisture was observed in the main "boys" student bathroom where the ceramic tile walls appeared damp, the wall shared with the wet wall mechanical chase showed signs of moisture intrusion along the floor where sealants appeared visibly wet. Suspect mold on the walls and damaged plaster ceilings were observed in the shower area currently being used for storage;
- Suspect mold was observed on debris that has collected on the floor in the wet wall chase between the hallway bathrooms;
- Moisture stained ceiling tiles were observed sporadically in areas in the cafeteria and east wing of the building. In general, the impacted ceiling tiles were determined to be dry at the time of the assessment. Mold impacted ceiling tiles were observed in room 114;
- Mold was observed on and within a majority of the ceiling-mounted fan coil units in the classrooms. Tape lift sampling indicated that significant concentrations of mold exist in these locations;
- Mold was also observed on the plaster ceilings surrounding the top of the fan coil units in most areas, with the most significant impact observed in the Library;
- Suspect mold was observed in the cabinets below the sinks in rooms 104, 106, 112 and 113; ECS was not able to fully access each sink cabinet to inspect for mold or moisture impact because of stored materials in the cabinets. Similar conditions may be present in other sink cabinets in the school.

Exterior Envelope

- The sealants and mortar associated with the glass block style windows was observed to be damaged in many areas;
- The window sash glazing associated with the split sash style windows was observed to be damaged in many areas.

4.1.1 Spore-Trap Air Samples

Fungal spore-trap air samples were collected from classrooms and functionally distinct spaces in the school where students and faculty would be expected to spend the most time. Representative exterior samples were collected for comparison. The following table summarizes the results of sample analysis reported in spore counts per cubic meter of air.

Spore-Trap Sample Results

Sample Number	Sample Location	Total Fungal Spore Concentration (count/cubic meter)
A1	Outdoors, main entrance	2,100
A2	101	87
A3	102	390
A4	103	60
A5	104	770
A6	105	220
A7	106	47
A8	107	150
A9	108	73
A10	109A	100
A11	109B	20
A12	110	230
A13	111	250
A14	112	230
A15	113	470
A16	114	250
A17	Teachers' lounge	1,100
A18	Cafeteria	1,900
A19	Nurses office/Guidance	470
A20	Admin office	1,100
A21	Library	260
A22	Outdoors, main entrance	3,300

Analytical results of the mold air testing determined that total spore counts reported on the interior samples collected were below the level of total airborne mold spores reported on the outside samples. The fungal genera detected were also generally comparable with fungal genera detected outdoors. A small elevation of the individual fungal genera *Penicillium/Aspergillus* above the individual spore count on the outside samples was present on the air sample collected in the Main Office.

During the site assessment, suspect mold was observed on pipe insulation concealed above the plaster ceilings in the Office in an area where the plaster ceiling was damaged. ECS believes this may have contributed to this elevation.

There are currently no accepted regulatory standards or guidelines with respect to acceptable fungal levels inside buildings. It is important to note however that spore trap measurements can fluctuate rapidly and the readings reported should not be used as a definitive indication that mold and or health hazards related to mold are present or absent.

4.1.2 Direct Surface Fungi Samples

Surface tape-lift samples were collected from Room 105 and the Cafeteria. Sample locations were selected from areas suspected to have fungal spore concentrations present due to water staining on building materials, visible mold growth, or other observations made by ECS indicative of possible fungal spore growth. The following table summarizes the results of sample analysis.

The laboratory reports the results in accordance with the following density rating:

- Occasional: 1-5 spores seen per cover slip, growth not likely
- Few: Over 5 spores seen per cover slip, but less than 1 spore seen in 5 fields:, possible indication of growth
- Moderate: At least 1 spore seen in 5 fields, probable indication of growth
- Numerous Several spores seen in every field, indication of growth
- N/A: Not applicable

Direct Surface Fungi Samples

Sample Number	Sample Location	Type and Density Rating
T-1	Cafeteria, East Window Sill	Moderate - *pollen grains* Few - *Drechslera/Bipolaris group spores, smuts, Periconia, myxomycetes* Occasional - Pithomyces *spores, Cladosporium spores, Arthrinium spores, Curvularia spores, ascospores, Spegazzinia spores, Stachybotrys spores*

Sample Number	Sample Location	Type and Density Rating
T-2	Room 105, Ceiling at air unit	Numerous - *Cladosporium spores and hyphal elements* Moderate to Numerous - *Paecilomyces spores, hyphal elements and conidiophores* Few to Moderate - *Penicillium/Aspergillus group spores* Few - *Tritirachium spores, hyphal elements and conidiophores*

The tape lift sampling laboratory results indicate mold in significant concentrations associated with the mold impacted plaster ceiling in Room 105.

Mold spores were identified associated with the window sill sampled in the cafeteria, however, the concentrations identified by the tape lift sampling do not typically indicate active mold growth. The conditions observed were likely caused by occasional moisture impact or elevated relative humidity at certain times of the year. ECS does not believe the concentrations detected to be significant.

There are currently no accepted regulatory standards or guidelines with respect to acceptable fungal levels inside buildings. Surface samples are generally qualitative in that they reflect the type and quantity of mold present only at the sampled location at the time the sample was collected.

4.1.3 Temperature and Humidity

The key to understanding humidity is that warmer air can contain greater quantities of moisture than cooler air. Relative humidity is defined as the ratio of the amount of moisture contained in the air to the maximum amount of moisture the air can contain at that temperature. The dew point temperature is defined as the temperature at which the amount of moisture in the air reaches saturation. The dew point is a more accurate indication of the actual amount of moisture in the air, because it is independent of temperature.

The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) has published several standards for ventilated buildings. *ANSI/ASHRAE Standard 62.1-2019, Ventilation for Acceptable Air Quality* specifies that indoor humidity should be maintained below 60 degrees Fahrenheit (°F) dew point temperature. The EPA recommends that indoor relative humidity be maintained below 60%, ideally 30-50%, to prevent mold growth. The *OSHA Technical Manual,* Section III, Chapter 2 for Indoor Air Quality Investigations specifies a thermal comfort range of 68°F to 76°F and a relative humidity range of 20% to 60% to maximize comfort for all occupants.

The following table summarizes the indoor air temperature and relative humidity readings collected by ECS during the survey.

The temperature and relative humidity readings collected during this assessment were considered normal and within recommended ranges.

Temperature and Relative Humidity

Location	Relative Humidity (%)	Temperature (°F)
Outside, main entrance	40.2	72.8
Main office	44.6	74.6
101	45.8	74.6
102	49.7	73.8
103	46.0	73.7
104	49.0	73.2
105	47.2	73.1
106	51.1	71.8
107	51.3	73.0
108	47.6	72.7
Guidance counselor	46.4	75.3
109-A	44.5	76.9
109-B	44.2	76.2
110	48.1	76.2
111	45.3	76.0
112	50.5	76.0
113	47.4	75.3
114	47.4	75.4
Teachers' lounge	44.8	76.7
Janitors office/storage	42.5	79.1
Library	46.6	74.0
Cafeteria/auditorium	48.4	76.3

4.1.4 Moisture in Building Materials

During the site assessment the moisture meter readings collected from various materials/surfaces throughout the building indicated that the building materials that exhibited evidence of moisture impact tested dry at the time of the survey.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on our understanding of the purpose of the Mold and Moisture Assessment, the results of laboratory analysis, and our findings and observations, ECS presents the following recommendations.

5.1 Mold and Moisture

ECS recommends remediation be performed for all water and mold impacted materials within the surveyed areas as soon as reasonably possible. This includes all materials that have visible suspected mold and/or have been subjected to elevated moisture conditions for greater than 48 hours without proper drying efforts.

General

ECS recommends that a qualified mold remediation/drying contractor be retained to properly remove mold impacted materials. Remediation activities should be performed in general accordance with the guidelines described in EPA's March 2001 document "Mold Remediation in Schools and Commercial Buildings" and under the OSHA 2010 Guidelines for mold removal. Additional remedial guidance documents are also referenced in Section at the end of this report. Workers performing this work should wear proper personal protective equipment (PPE) including HEPA filtered respirators and disposable clothing (per OSHA standards for PPE).

Due to the complexity of the project, ECS recommends that the remediation contractor, the owner, and ECS meet on-site to review the project in order to review and discuss the scope of work.

ECS recommends that a building envelope study be performed for the building by a qualified engineer. Correction of building envelope and water intrusion issues should be performed prior to or concurrent with any remediation activities.

Setup

In general accordance with the EPA and OSHA guidelines, ECS recommends containment of the remediation areas using plastic barriers and tape to create negative pressure containment during removal of mold impacted materials. The contractor should seal HVAC vents in the work area(s), as well as all other penetrations and openings. A HEPA-filtered local exhaust ventilation (negative air machine) should be utilized within the work area directly adjacent to the area(s) being cleaned and should maintain negative pressure and HEPA filtration continuously inside the containment during remediation activities and prior to clearance sampling. [If greater than 100 square feet, or an occupied area adjacent to 30 square feet or more: A manometer should be used to measure the pressure difference between the remediation area and adjacent areas. The target pressure differential in the containment should be -0.02 inches of water gauge.

Scope of Work

All impacted drywall materials that have visible growth and/or have sustained water impacts should be removed in excess of 2 feet beyond the visible extent of mold or water stains where feasible. Further observation of the wall and ceiling systems may be necessary during remediation

efforts to determine if additional materials will need to be removed. **As noted previously, any active moisture leaks into the building should be properly accessed and corrected prior to or concurrent with mold remediation activities. In addition, prior to performing any work the remediation contractor shall review all asbestos reports for the school building.**

ECS makes the following recommendations concerning abatement of mold and/or moisture impacted materials in the building:

Main School Building

- Assessment of the building envelope by a qualified building sciences engineer to determine if the windows and surrounding structure throughout the building should be removed and replaced or can be repaired in order to properly seal the building envelope and prevent further moisture intrusion. The envelope assessment should include an assessment of the integrity of the roof throughout the building as well;
- Moisture staining was observed on the glass block windows in rooms 101 through 108 indicating that moisture is infiltrating the glass block windows in these areas.Mold was observed on some of the mortar joints and caulk associated with the glass block windows. Perform localized cleaning of all the interior surfaces of the glass block windows in the building. Use a mold remediation contractor and perform any mold remediation as described in this protocol, above this section;
- One of the high windows in the Cafeteria appeared to be mechanically stuck open and inoperable. This may introduce moisture into the building; Close this window if it is not supposed to remain open;
- Mold was observed on CMU walls behind vinyl cove baseboard in the cafeteria. ECS recommends that mold be assumed to be present concealed behind vinyl cove baseboard throughout the school. Perform further investigation and determine if mold is concealed behind vinyl cove baseboard in other areas of the school and determine the cause. In the cafeteria and other areas where mold is observed concealed behind vinyl cove baseboard, remove and dispose of the vinyl cove baseboard, perform localized cleaning of these areas and apply an antimicrobial encapsulant to the cleaned areas. Use a mold remediation contractor and perform any mold remediation as described in this protocol, above this section;
- Mold was also observed on the interior of the caulking surrounding many of the windows in the east wing. Perform localized cleaning of the window frame and apply an antimicrobial encapsulant to the cleaned areas. Use a mold remediation contractor or qualified school maintenance staff. Perform any mold remediation as described in this protocol, above this section, as needed.
- Visible moisture was observed in the hallway boy's bathroom where the ceramic tile walls appeared damp; The wall shared with the wet wall mechanical chase showed signs of moisture intrusion along the floor where sealants appeared visibly wet. Suspect mold on the walls and damaged plaster ceilings were observed in the shower area currently being used for storage. Inspect the plumbing fixtures associated with this wall in the bathroom and in the wet wall chase to determine the source of the visible moisture in this area of the hallway boy's bathroom;

- Suspect mold was observed on debris that has collected on the floor in the wet wall chase between the hallway bathrooms. Pipe insulation from a domestic water line was observed to be failing in this chase, which could lead to condensation leaks associated with the pipe run. Repair the pipe insulation as needed (Note: This material contains asbestos). Perform localized cleaning of the wet wall chase and clean all the debris off of the ground. Use a mold remediation contractor or qualified school maintenance staff. Perform any mold remediation as described in this protocol, above this section, as needed. The pipe insulation and any mudded pipe fittings that are present in this chase should be assumed to be asbestos containing. If any of these materials require cleaning or removal then that work should be done by a Virginia licensed Asbestos Abatement Contractor;
- Moisture stained ceiling tiles were observed sporadically in areas in the cafeteria and east wing of the building. In general, the impacted ceiling tiles were determined to be dry at the time of the assessment. Mold impacted ceiling tiles were observed in room 114. Determine and correct the source of moisture impact and then remove and replace the moisture impacted ceiling tiles identified in the building;
- Mold was observed on and within a majority of the ceiling-mounted fan coil units in the classrooms. Tape lift sampling indicated that significant concentrations of mold exist in these locations. ECS recommends complete cleaning of the ceiling mounted fan coil units throughout the school by a qualified mold remediation contractor and inspection by a qualified HVAC engineer or technician. Perform any mold remediation as described in this protocol, above this section, as needed. Additionally, ECS recommends a review of the maintenance and service schedule of these fan coil units to determine if they are being maintained and operating per the manufacturer's recommended specifications. Note: it is ECS' understanding after a discussion with RPS Facility Services that the ceiling mounted fan coil units are scheduled to be removed and replaced with a new type of system at this school;
- Mold was also observed on the plaster ceilings surrounding the top of the ceiling mounted fan coil units in most rooms of the school with the most significant impact observed in the Library; Determine and correct the cause of mold in these locations (most likely associated with moist air being blown by the fan coil units). Perform localized cleaning of the plaster ceiling these areas and apply an antimicrobial encapsulant to the cleaned areas. Use a mold remediation contractor and perform any mold remediation as described in this protocol, above this section;
- Suspect mold was observed in the cabinets below the sinks in rooms 104, 106, 112 and 113.ECS was not able to fully access each sink cabinet to inspect for mold or moisture impact because of stored materials in the cabinets. Similar conditions maybe present in other sink cabinets in the school. Perform further investigation into mold or moisture impact associated with the sink cabinets throughout the school to determine if additional cabinets require remediation. Determine and correct the cause of the mold or moisture staining in these cabinets. Perform localized cleaning of the sink cabinets and apply an antimicrobial encapsulant to the cleaned areas. Use a mold remediation contractor or qualified school maintenance staff. Perform any mold remediation as described in this protocol, above this section, as needed.
- Based on the visible evidence of moisture intrusion associated with the different window systems of the building, ECS recommends further investigation of the exterior perimeter walls behind the fan coil units. ECS recommends assuming that moisture and/or mold

impacted wall systems could be present behind the fan coil units or any other materials that are stored against the exterior perimeter walls. As stated, this should be confirmed by further investigation.

Exterior Envelope

- The sealants and mortar associated with the glass block style windows was observed to be compromised in many area and showed evidence of water intrusion;
- The window sash glazing associated with the split sash style windows was observed to be compromised in many areas.

The findings of the building envelope assessment should determine the feasibility of the repair of the current window systems in the building versus replacement of them. If the current windows will remain then remove and replace any damaged or mold impacted asbestos containing window caulks or window sash glazing. Any work that impacts the window sealants or glazing should be performed by a Virginia Licensed Asbestos Abatement contractor.

Follow-up

Prior to removal of the containment barriers, a post-remediation survey and testing should be performed to assess the remediation efforts. Visible suspect mold and moisture-affected porous materials should not be present in the work area (although ECS recognizes that some semi-porous materials may still have stains present following cleaning). The average moisture content of materials within the work area should be below 0.8% for gypsum, 15% for wood, and 60% for plaster and cement-based materials following remediation efforts. The indoor relative humidity in and around the work area should be below 60%. If the temperature in the work area is above 80°F, the indoor dew point should be below 65°F.

Air sampling should be performed by fungal spore trap method to document mold levels following remediation efforts. Surface sampling may also be performed to assess visible debris or staining remaining in the work area. The results of air sampling should find air samples in and adjacent to the work area to be less than concurrent outdoor samples, and the indoor samples will not find a prevalence of certain fungi considered likely indoor contaminants as determined by rank-order analysis. ECS notes that outdoor concentrations may be suppressed during the winter, and may utilize other references to compare with the indoor sample results on the day of the sampling.

Because of the nature of the environment, complete elimination of all microbial organisms within a building cannot be expected and is not the goal of remediation. The goal of remediation is to restore the affected materials to at least the condition of unaffected materials. It is important to note that the reported mold levels are only reflective of conditions at the time of this test and that mold populations can vary over time, depending upon a number of conditions, including environmental factors (i.e., temperature and relative humidity). If significant mold growth reappears, or if the occupants experience prolonged allergic-type health complaints, they should seek further investigation of the problem.

Note: The purpose of this survey was to evaluate areas where moisture intrusion or suspected visible mold growth has occurred and provide findings and recommendations for remedial work efforts. Identification and recommendations for correction of sources of moisture should be performed by a qualified engineer. Because of the nature of the environment, complete elimination of all microbial organisms within a building cannot be expected and is not the goal of remediation. The goal of remediation is to restore the affected materials to at least the condition of unaffected materials. It is important to note that the reported mold levels are only reflective of conditions at the time of this test and that mold populations can vary over time, depending upon a number of conditions, including environmental factors (i.e., temperature and relative humidity). If significant mold growth reappears, or if the occupants experience prolonged allergic-type health complaints, they should seek further investigation of the problem.

6.0 LIMITATIONS

The conclusions and recommendations presented within this report are based upon a reasonable level of assessment within normal bounds and standards of professional practice for a site in this particular geographic setting. ECS is not responsible or liable for the discovery and elimination of hazards that may potentially cause damage, accidents, or injuries.

During this study, samples were submitted for analysis at an accredited laboratory via polarized light microscopy. As with any similar survey of this nature, actual conditions exist only at the precise locations from which samples were collected. Certain inferences are based on the results of this sampling and related testing to form a professional opinion of conditions in areas beyond those from which the samples were collected. No warranty, expressed or implied, is made.

This survey is not intended to represent an exhaustive research of every potential hazard or condition that may exist, nor does it claim to represent indoor conditions or events that arise after the survey. This report has been prepared in accordance with generally accepted environmental practices. Our conclusions and findings are based, in part, upon information provided to us by others and our site observations. We have not verified the completeness or accuracy of the information provided by others. The scope of services performed was limited to those requested by the Client and does not constitute a full microbial assessment of the site or a comprehensive moisture survey of the site. The data provided in this study is only indicative of conditions sampled at the immediate time of the study.

This report does not warrant against future operations or conditions, nor does it warrant against extant, or future, conditions of a type or at a location not investigated. Because of the nature of this type of work and the difficulties involved in conducting remediation work, ECS cannot guarantee that the methods or recommendations described in this report will eliminate all potential indoor air quality issues. Since performance of the remediation work is also beyond ECS scope of services, ECS also cannot be held responsible for the execution of the remediation work. 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). The work performed in conjunction with this assessment and the data developed is intended as a description of available information at the dates and locations given.

The observations, conclusions, and recommendations pertaining to environmental conditions at the subject site are necessarily limited to conditions observed, and/or materials reviewed at the time this study was undertaken. No warranty, expressed or implied, is made with regard to the conclusions and recommendations presented within this report. This report is provided for the exclusive use of the client. This report is not intended to be used or relied upon in connection with other projects or by other unidentified third parties without the written consent of ECS and the client.

Our recommendations are in part based on federal, state, and local regulations and guidelines. ECS 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. Under this scope of services, ECS assumes no responsibility regarding any response actions initiated as a result of these findings. General compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements.

Appendix I: School Diagram

RICHMOND PUBLIC SCHOOLS

Fire Extinguishers

1-2023

MARY SCOTT ELEMENTARY

(GINTER PARK)

Appendix II: Mold Laboratory Reports

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-10-03081

Received Date: 10/20/2023
Analyzed Date: 10/26/2023, 10/27/2023
Reported Date: 10/27/2023

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Avenue; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-10-03081-001		23-10-03081-002		23-10-03081-003		23-10-03081-004		23-10-03081-005	
Client Sample ID :	A1		A2		A3		A4		A5	
Date Collected :	10/19/2023		10/19/2023		10/19/2023		10/19/2023		10/19/2023	
Collection Location :	OUTDOORS MAIN ENTRANCE		101		102		103		104	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	144	960	3	20	43	290	1	6.7	42	280
Penicillium/Aspergillus group spores	108	720	5	33	5	33	6	40	66	440
Alternaria spores	1	6.7								
Aureobasidium spores	1	6.7							1	6.7
Drechslera/Bipolaris group spores			1	6.7						
Arthrinium spores	4	27			1	6.7				
Curvularia spores	1	6.7	1	6.7			1	6.7		
Torula spores	1	6.7								
Pithomyces spores	4	27							1	6.7
Epicoccum spores	2	13								
Pestalotia spores	3	20								
Cercospora spores	1	6.7								
Nigrospora spores	2	13							1	6.7
Fusarium spores	5	33								
smuts, Periconia, myxomycetes	41	270	3	20	9	60	1	6.7	5	33

Environmental Hazards Services, L.L.C

Client Number: 200625 Report Number: 23-10-03081

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Avenue; Richmond, Virginia

Lab # :	23-10-03081-001		23-10-03081-002		23-10-03081-003		23-10-03081-004		23-10-03081-005	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
TOTAL SPORES(Spores/m3)		2100		87		390		60		770
Analyst:	Kathy Fletcher		Kathy Fletcher		Kathy Fletcher		Kathy Fletcher		Kathy Fletcher	

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-10-03081

Received Date: 10/20/2023
Analyzed Date: 10/26/2023, 10/27/2023
Reported Date: 10/27/2023

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Avenue; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-10-03081-006		23-10-03081-007		23-10-03081-008		23-10-03081-009		23-10-03081-010	
Client Sample ID :	A6		A7		A8		A9		A10	
Date Collected :	10/19/2023		10/19/2023		10/19/2023		10/19/2023		10/19/2023	
Collection Location :	105		106		107		108		109-A	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	11	73	2	13	15	100	10	67	4	27
Penicillium/Aspergillus group spores	19	130	3	20	2	13	1	6.7	9	60
Chaetomium spores	1	6.7								
Epicoccum spores			1	6.7						
smuts, Periconia, myxomycetes	2	13	1	6.7	5	33			2	13
TOTAL SPORES(Spores/m3)		220		47		150		73		100
Analyst:	Kathy Fletcher		Kathy Fletcher		Kathy Fletcher		Kathy Fletcher		Kathy Fletcher	

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-10-03081

Received Date: 10/20/2023
Analyzed Date: 10/26/2023, 10/27/2023
Reported Date: 10/27/2023

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Avenue; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-10-03081-011		23-10-03081-012		23-10-03081-013		23-10-03081-014		23-10-03081-015	
Client Sample ID :	A11		A12		A13		A14		A15	
Date Collected :	10/19/2023		10/19/2023		10/19/2023		10/19/2023		10/19/2023	
Collection Location :	109-B		110		111		112		113	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	1	6.7	21	140	29	190	19	130	45	300
Penicillium/Aspergillus group spores			12	80	5	33	14	93	24	160
Aureobasidium spores					1	6.7				
Pithomyces spores							1	6.7		
Cercospora spores			1	6.7						
Nigrospora spores	1	6.7								
Fusarium spores					1	6.7				
smuts, Periconia, myxomycetes	1	6.7	1	6.7	2	13			1	6.7
TOTAL SPORES(Spores/m3)		20		230		250		230		470
Analyst:	Kathy Fletcher		Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher	

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-10-03081

Received Date: 10/20/2023
Analyzed Date: 10/26/2023, 10/27/2023
Reported Date: 10/27/2023

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Avenue; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-10-03081-016		23-10-03081-017		23-10-03081-018		23-10-03081-019		23-10-03081-020	
Client Sample ID :	A16		A17		A18		A19		A20	
Date Collected :	10/19/2023		10/19/2023		10/19/2023		10/19/2023		10/19/2023	
Collection Location :	114		TEACHER ROOM		CAFETERIA		NURSES OFFICE		ADMIN OFFICE	
Sampling Media :	Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell		Air-O-Cell	
Analytical Sensitivity (spores/m3) :	6.7		6.7		6.7		6.7		6.7	
Volume (L) :	150		150		150		150		150	
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	22	150	78	520	153	1000	38	250	43	290
Penicillium/Aspergillus group spores	15	100	42	280	90	600	13	87	123	820
Aureobasidium spores			1	6.7	5	33	1	6.7		
Drechslera/Bipolaris group spores			1	6.7	1	6.7				
Curvularia spores			1	6.7	1	6.7				
Stachybotrys spores			1	6.7					2	13
Pithomyces spores			1	6.7						
Epicoccum spores			1	6.7						
Pestalotia spores									1	6.7
Fusarium spores			1	6.7						
smuts, Periconia, myxomycetes			41	270	32	210	19	130	2	13
TOTAL SPORES(Spores/m3)		250		1100		1900		470		1100
Analyst:	Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher		Kitana Usher	

Non-Viable Spore Trap Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Report Number: 23-10-03081

Received Date: 10/20/2023
Analyzed Date: 10/26/2023, 10/27/2023
Reported Date: 10/27/2023

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Avenue; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-10-03081-021		23-10-03081-022							
Client Sample ID :	A21		A22							
Date Collected :	10/19/2023		10/19/2023							
Collection Location :	LIBRARY		OUTDOORS MAIN ENTRANCE							
Sampling Media :	Air-O-Cell		Air-O-Cell							
Analytical Sensitivity (spores/m3) :	6.7		6.7							
Volume (L) :	150		150							
Spore ID	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)	Raw Count	Results (Spores/m3)
Cladosporium spores	18	120	356	2400						
Penicillium/Aspergillus group spores	9	60	64	430						
Alternaria spores			3	20						
Aureobasidium spores	1	6.7	3	20						
Drechslera/Bipolaris group spores	1	6.7	1	6.7						
Curvularia spores	1	6.7	2	13						
Pithomyces spores			2	13						
Epicoccum spores			7	47						
Pestalotia spores			1	6.7						
Cercospora spores			4	27						
Fusarium spores			4	27						
Spegazzinia spores			1	6.7						
smuts, Periconia, myxomycetes	9	60	40	270						
Bispora spores			1	6.7						
TOTAL SPORES(Spores/m3)		260		3300						
Analyst:	Kitana Usher		Kitana Usher							

Environmental Hazards Services, L.L.C

Client Number: 200625 Report Number: 23-10-03081

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Avenue; Richmond, Virginia

Sample Narratives:

(Sample 022)	M02:	Large amounts of particulate observed.
(Sample 003)	M02:	Large amounts of particulate observed.

Method: Non-Culturable Spore Trap Examination

Reviewed By Authorized Signatory: Tasha Eaddy

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, volume, etc., was provided by the client. The Client is hereby notified that due to the subjective nature of fungal analysis and the growth process of fungal infestation, laboratory samples can and do change over time relative to the originally sampled material. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.

ENVIRONMENTAL HAZARDS SERVICES, LLC

Mold Chain of Custody Form

Company Name	ECS Mid-Atlantic	Account #	
Company Address	2119 North Hamilton Street	City/State/Zip	Richmond/VA/23230
Phone	804-353-6333	Email	rcurran@ecslimited.com
Project / Testing Address	Mary Scott Preschool, 4001 Moss Side Avenue, Richmond, Virginia		
PO Number	47:14153-E	Collected By	Rob Curran
Collection Date & Time	10/19/23	Outside Air Temp	Indoor Air Temp
Was there any precipitation (rain, sleet or snow) 2 hours of less before taking the samples?	☐ Yes	☑ No	

Turn-Around Time: ◉ 5 Day ○ 3 Day ○ 2 Day ○ 1 Day ○ Same Day / Weekend - Must Call Ahead

SAMPLE TYPE CODES

AIR/ NON VIABLE		SPORE TRAP		SWAB SAMPLE SURFACE	
Bulk	B	Air-O-Cell	AOC	Non Porous	NP
Swab	S	Cyclex D	C	Semi Porous	SP
Bio-Tape	T	BioSiS	B	Porous	P
Wall Check	W	Micro 5	M5		

LAB NUMBER	Client Sample ID	Collection Location	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume (Total Liter)	Swab Samples: Surface Type (NP/SP)	Swab Samples: Area of Mold (Square Feet)	Qualitative Particulate Analysis Additional $10.00 per sample	Comments
1	A1	Outdoors, main entrance	B	AOC	150				3722-0342
2	A2	101	B	AOC	150				3721-9003
3	A3	102	B	AOC	150				3722-0406
4	A4	103	B	AOC	150				3722-0381
5	A5	104	B	AOC	150				3722-0352
6	A6	105	B	AOC	150				3722-0372
7	A7	106	B	AOC	150				3722-0354
8	A8	107	B	AOC	150				3722-0403
9	A9	108	B	AOC	150				3722-0431
10	A10	109-A	B	AOC	150				3722-0353
11	A11	109-B	B	AOC	150				3722-0351
12	A12	110	B	AOC	150				3722-0397
13	A13	111	B	AOC	150				3721-9057

Released By:	Robert Curran	Date:	10/20/23	Time:	11:43 am
Signature:					

LAB USE ONLY – BELOW THIS LINE

Received By: H Humphrey

Signature:

Date: 10/20/23 Time: 11:52 ☑ AM ☐ PM

☐ Portal Contact Added

23-10-03081

Due Date:
10/27/2023
(Friday)
ER

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

3081

ENVIRONMENTAL HAZARDS SERVICES, LLC

Mold Chain of Custody Form

Company Name	ECS Mid-Atlantic	Account #	
Company Address	2119 North Hamilton Street	City/State/Zip	Richmond/VA/23230
Phone	804-353-6333	Email	rcurran@ecslimited.com
Project / Testing Address	Mary Scott Preschool, 4001 Moss Side Avenue, Richmond, Virginia		
PO Number	47:14153-E	Collected By	Rob Curran
Collection Date & Time	10/19/23	Outside Air Temp	Indoor Air Temp
Was there any precipitation (rain, sleet or snow) 2 hours of less before taking the samples?	☐ Yes	☑ No	

Turn-Around Time: ◉ 5 Day ○ 3 Day ○ 2 Day ○ 1 Day ○ Same Day / Weekend - Must Call Ahead

SAMPLE TYPE CODES

AIR/ NON VIABLE		SPORE TRAP		SWAB SAMPLE SURFACE	
Bulk	B	Air-O-Cell	AOC	Non Porous	NP
Swab	S	Cyclex D	C	Semi Porous	SP
Bio-Tape	T	BioSIS	B	Porous	P
Wall Check	W	Micro 5	M5		

LAB NUMBER	Client Sample ID	Collection Location	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume (Total Liter)	Swab Samples: Surface Type (NP/SP)	Swab Samples: Area of Mold (Square Feet)	Qualitative Particulate Analysis Additional $10.00 per sample	Comments
1	A14	112	B	AOC	150				3722-0371
2	A15	113	B	AOC	150				3722-0411
3	A16	114	B	AOC	150				3722-0380
4	A17	Teacher room	B	AOC	150				3722-0383
5	A18	Cafeteria	B	AOC	150				3722-0287
6	A19	Nurses Office	B	AOC	150				3722-0361
7	A20	Admin office	B	AOC	150				3722-0370
8	A21	Library	B	AOC	150				3722-0360
9	A22	Outdoors, main entrance	B	AOC	150				3722-0414
10			B	AOC	150				
11			B	AOC	150				
12			B	AOC	150				
13			B	AOC	150				

Released By:	Robert Curran	Date:	10/20/23	Time:	
Signature:					

LAB USE ONLY – BELOW THIS LINE

Received By: H Humphrey

Signature:

Date: 10,20,23 Time: 11 :52 ☑ AM ☐ PM

☐ Portal Contact Added

EHS Laboratories™

Attach Laboratory Label Here

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

Non-Viable Surface/Bulk Analysis Report

Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237

Telephone: 800.347.4010

Report Number: 23-11-01691

Received Date: 11/10/2023
Analyzed Date: 11/15/2023
Reported Date: 11/16/2023

Client: ECS Mid-Atlantic - Richmond
2119 D North Hamilton St
Richmond, VA 23230

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Ave.; Richmond, Virginia

Client Number:
200625

Fax Number:
804-353-9478

Laboratory Results

Lab # :	23-11-01691-001	Collection Location:	CAFETERIA SILL OF EAST WINDOW
Client Sample ID :	Tape T-1	Date Analyzed:	11/15/2023
Date Collected :	11/8/2023	Analyst:	Felicia Butler

Moderate	pollen grains*
Few	Drechslera/Bipolaris group spores
Few	smuts, Periconia, myxomycetes
Occasional	Pithomyces spores
Occasional	Cladosporium spores
Occasional	Arthrinium spores
Occasional	Curvularia spores
Occasional	ascospores
Occasional	Spegazzinia spores
Occasional	Alternaria spores
Occasional	Stachybotrys spores

Note:

Lab # :	23-11-01691-002	Collection Location:	105 PLASTER CEILING AT AIT UNIT
Client Sample ID :	Tape T-2	Date Analyzed:	11/15/2023
Date Collected :	11/8/2023	Analyst:	Felicia Butler

Numerous	Cladosporium spores and hyphal elements
Few to Moderate	Penicillium/Aspergillus group spores
Moderate to Numerous	Paecilomyces spores, hyphal elements and conidiophores
Few	Tritirachium spores, hyphal elements and conidiophores

Note:

Quantification Key:
Numerous: Several spores seen in every field
Moderate: At least 1 spore seen in 5 fields
Few: Over 5 spores seen per cover slip, but less than 1 spore seen in 5 fields
Occasional: 1-5 spores seen per a cover slip

Environmental Hazards Services, L.L.C

Client Number: 200625 Report Number: 23-11-01691

Project/Test Address: Mary Scott Preschool; 4001 Moss Side Ave.; Richmond, Virginia

Method: Direct Microscopic Exam

Reviewed By Authorized Signatory: 

Tasha Eaddy
QA/QC Clerk

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, volume, etc., was provided by the client. The Client is hereby notified that due to the subjective nature of fungal analysis and the growth process of fungal infestation, laboratory samples can and do change over time relative to the originally sampled material. This report shall not be reproduced except in full, without the written consent of Environmental Hazards Services, L.L.C.

ENVIRONMENTAL HAZARDS SERVICES, LLC

Mold Chain of Custody Form

Company Name	ECS Mid-Atlantic	Account #	
Company Address	2119 North Hamilton Street	City/State/Zip	Richmond/VA/23230
Phone	804-353-6333	Email	rcurran@ecslimited.com
Project / Testing Address	Mary Scott Preschool, 4001 Moss Side Ave, Richmond, Virginia		
PO Number	47:14153 - E	Collected By	Rob Curran
Collection Date & Time	11/08/2023	Outside Air Temp	Indoor Air Temp

Was there any precipitation (rain, sleet or snow) 2 hours of less before taking the samples? ☐ Yes ☑ No

Turn-Around Time: ◉ 5 Day ○ 3 Day ○ 2 Day ○ 1 Day ○ Same Day / Weekend - Must Call Ahead

SAMPLE TYPE CODES

AIR/NON VIABLE		SPORE TRAP		SWAB SAMPLE SURFACE	
Bulk	B	Air-O-Cell	AOC	Non Porous	NP
Swab	S	Cyclex D	C	Semi Porous	SP
Bio-Tape	T	BioSiS	B	Porous	P
Wall Check	W	Micro 5	M5		

LAB NUMBER	Client Sample ID	Collection Location	Sample Type	Air Samples: Spore Trap Type	Air Samples: Air Volume (Total Liter)	Swab Samples: Surface Type (NP/SP)	Swab Samples: Area of Mold (Square Feet)	Qualitative Particulate Analysis Additional $10.00 per sample	Comments
1	T-1	Cafeteria, sill of east window	T						On CMU block surface
2	T-2	105, plaster ceiling at air unit	T						Plaster ceiling
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									

Released By:	Rob curran	Date:	11/09/2023	Time:
Signature:	Robert Curran			

LAB USE ONLY – BELOW THIS LINE

Received By: HHumphrey

Signature:

Date: 11, 10, 23 Time: 4 : 37 ☐ AM ☑ PM

☐ Portal Contact Added

23-11-01691

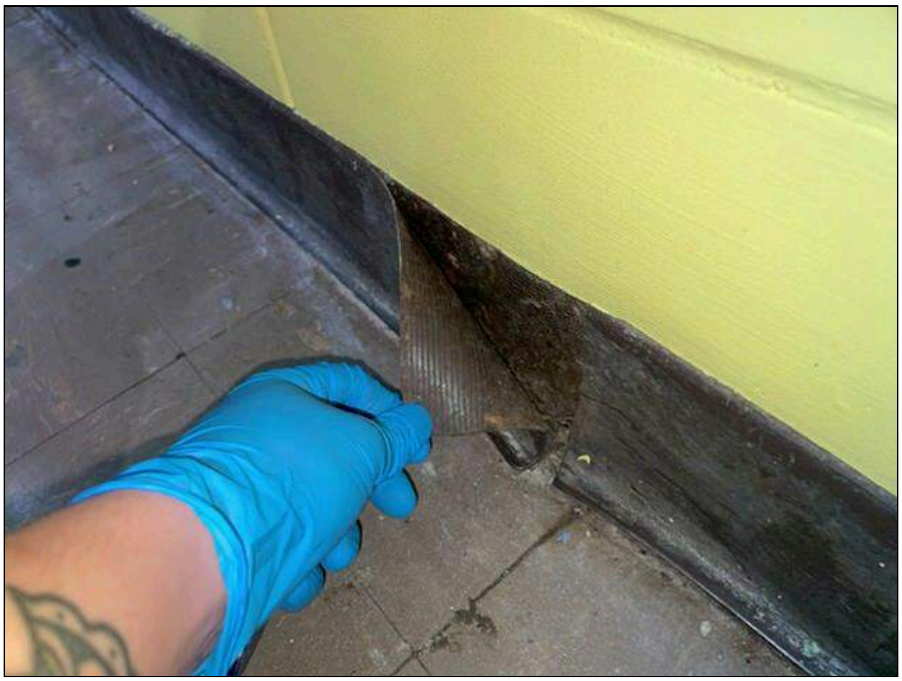
Due Date:
11/17/2023
(Friday)
ER

7469 WHITEPINE RD, RICHMOND, VA 23237 (800)-347-4010

RESULTS VIA CLIENT PORTAL AVAILABLE @ www.leadlab.com

Appendix III: Mold and Moisture Photos

1 - Window apparently stuck open in the Cafeteria



2 - Mold observed behind vinyl cove baseboard in the Cafeteria

3 - Damaged plaster ceiling in the shower in the Boy's Room

4 - Mold observed on the walls in the shower in the Boy's Room

5 - Mold impacted debris on the floor of the wet wall chase between the hall bathrooms

6 - Staining indicating water intrusion through the glass block windows in the main office

7 - Mold on the glass block window mortar in Room 105

8 - Staining indicating water intrusion through the glass block windows in Room 106

9 - Mold on and above a ceiling mounted fan coil in Room 15

10 - Mold observed within the ceiling mounted fan coil in Room 105

11 - Mold observed within the ceiling mounted fan coil in Room 107

12 - Moisture damaged sink cabinet countertop in Room 113

13 - Mold on window frame caulking in an East wing classroom

14 - Mold on window frame caulking in an East wing classroom

15 - Mold observed on a ceiling mounted fan coil in Room 102

16 - Mold observed in the sink cabinet in Room 104

17 - Mold observed in the sink cabinet in Room 106

18 - Mold observed in the sink cabinet in Room 112

19 - Mold on ceiling tiles above the fan coil unit in the Library

Appendix IV: Mold and Moisture Exterior Envelope Photos

1 - Damaged asbestos containing window caulk and glazing

Appendix V: Mold Reference and Guidance Documents

MOLD REFERENCE DOCUMENTS AND GUIDANCE

Standards and Publications

Mold Remediation in Schools and Commercial Buildings, EPA, EPA 402-K-01-001, September 2008

A Brief Guide to Mold in the Workplace, Occupational Safety Health Administration (OSHA), SHIB 03-10-10, updated 11-08-13

ANSI/IICRC S520-2015 Standard and Reference Guide for Professional Mold Remediation, Institute of Inspection, Cleaning, and Restoration Certification, Third Edition

ANSI/IICRC S500-2021 Standard and Reference Guide for Professional Water Damage Restoration, Institute of Inspection, Cleaning, and Restoration Certification, Fifth Edition

Bioaerosols: Assessment and Control, American Conference of Governmental Industrial Hygienists, 1999.

Building Air Quality: A Guide for Building Owners and Facility Managers, National Institute for Occupational Safety and Health (NIOSH) and Environmental Protection Agency (EPA) EPA 402F-91-102, December 1991

Mold Moisture and Your Home, EPA, EPA-402-K-02-003, September 2012

WHO Guidelines for Indoor Air Quality: Dampness and Mould, World Health Organization (WHO), 2009

Guidelines on Assessment and Remediation of Fungi in Indoor Environments, New York City Department of Health and Mental Hygiene, November 2008.

Damp Buildings, Human Health, and HVAC Design, Report of the ASHRAE Multidisciplinary Task Group: Damp Buildings, American Society of Heating, Refrigerating, and Air Conditioning Engineers, 2020

Websites

EPA – Mold Resources, https://www.epa.gov/mold

Centers for Disease Control and Prevention (CDC), https://www.cdc.gov/mold/faqs.htm

Department of Energy and the Environment (DOEE), Mold Assessment and Remediation Licensure Regulations https://doee.dc.gov/service/mold-professional-licensing

Virginia Department of Health, Environmental Health, Public Health Toxicology, Mold https://www.vdh.virginia.gov/environmental-health/public-health-toxicology/mold/