Confidential Mold Assessment Report

LOCATED AT:
8675309 Good St
Richmond, VA 23235

PREPARED EXCLUSIVELY FOR:
Andrew Ripp

INSPECTED ON:
Wednesday, July 5, 2023

Inspector: Dan
Burgess Inspections
530-C Southlake Blvd
(804) 794-1423

Lab Report Explanations

Our report is designed to be clear, easy to understand, and helpful. Please take the time to review it carefully. If there is anything you would like us to explain, or if there is other information you would like, please feel free to call us. We would be happy to answer any questions you may have.

We screened for the organisms listed on page two of the lab report. If there are numbers across the rows, that organism was found. If there are no numbers, those organisms were not found.

We highly recommend you take these results to your allergen doctor or other equally qualified person in this field.

Page Four of the lab report explains what the highlighted colors mean. The end of the lab report has a description of each organism found.

All buildings have mold to some degree. There is no such thing as a mold free building . If the mold levels are a concern, we recommend taking the results to a qualified doctor or allergist. The mold levels can be reduced by using a qualified mold remediation specialist.

Mold affects everyone differently and what is listed as low on the lab report may cause you to have some type of symptoms. Again, please consult a qualified individual to discuss these results if you have any concerns.

Temperature and seasonal change have a significant impact on the growth rate of mold. Cold weather may cause mold to grow at a slower rate, while hotter, moist weather can cause it to increase. This can also have an impact on the mycotoxins produced, as it is directly affected by temperature and humidity. Consult a remediation professional if you are unsure of the severity of mold in your building.

INTRODUCTORY NOTES

INSPECTION DATE
7/5/2023

START TIME
12:00:00 PM

SQUARE FOOTAGE
2180

YEAR BUILT
1957

AGE
66 year(s)

TEMPERATURE
80s to 90s

WEATHER
Sunny

RAIN IN THE LAST 3 DAYS
Yes

ORIENTATION
4: We will describe the locations of this property, left or right, as though viewing it from the front door.

GENERAL NOTES

5: We verify the calibration of our machines before each use.

Exterior

Inspection notes pertain to moisture issues or visible mold-like substance. Condition and/or operation is not inspected.

LOCATION OF OUTSIDE AIR SAMPLE

6: The exterior sample was taken in the back yard near the play ground.

GENERAL EXTERIOR NOTES

7: The rear left corner of the roof appeared to have loose shingles near the gutters. This can be conducive to moisture intrusion.

Interior

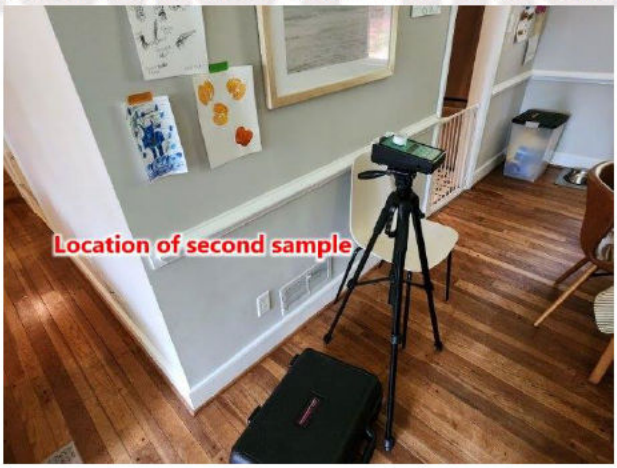
Inspection notes pertain to moisture issues or visible mold-like substance. Condition and/or operation is not inspected.

LOCATIONS OF INDOOR AIR SAMPLES

8: The first sample was taken in the lower level play room by the ceiling supply vent.

The second sample was taken on the mid level in the dining room at the wall supply.

The third sample was taken on the upper level in the rear front bedroom at the center of the room.

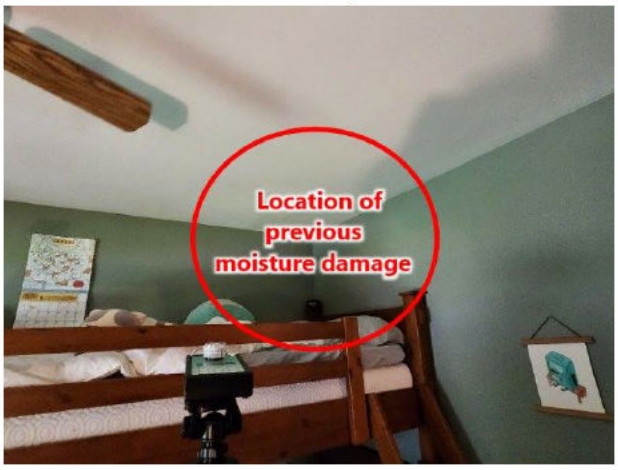


GENERAL INTERIOR NOTES

9: The upper level bathroom vent appeared to be functioning improperly as excess moisture was built up within the bathroom. This can be conducive to mold and moisture intrusion in the home.

Note: clients have stated that mold issues have occurred in the past in the bathroom.

10: The clients stated that previous moisture damage occurred in the upper level front left bedroom.



Lab Results

EXPLANATION OF RESULTS FROM LAB REPORT

11: The lab results indicate that all spores found were within normal ranges of the exterior baseline sample.

Conclusion

The conclusion below is our opinion and should be verified by a professional remediator. A remediator s opinion should always outweigh ours.

CONCLUSION BASED ON LAB REPORT

12: Based on the results of the lab and the conditions within the house it is a strong possibility that the bathroom vent is the source of previous mold in the bathroom. It is recommended that the vent should be replaced/improved for proper ventilation/ removal of excess moisture buildup.

HAYES MICROBIAL CONSULTING

#23027039

Analysis Report prepared for

Burgess Inspections, Inc.

530 C Southlake Blvd
Richmond, VA 23236

Phone: **(804) 794-1423**

Ric [redacted] 35

Collected: **July 5, 2023**
Received: **July 6, 2023**
Reported: **July 6, 2023**

We would like to thank you for trusting Hayes Microbial for your analytical needs!
We received 4 samples by Drop Off in good condition for this project on July 6th, 2023

The results in this analysis pertain only to this job, collected on the stated date, and should not be used in the interpretation of any other job. Information supplied by the customer can affect the validity of results. These results apply only to the samples as received. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

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

Steve Hayes, BSMT(ASCP)
Laboratory Director
Hayes Microbial Consulting, LLC.

EPA Laboratory ID: VA01419

Lab ID: #188863

DPH License: #PH-0198

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Spore Trap
SOP - HMC#101

Sample Number*	1	36361572		2	36363354		3	36361560		4	36363353	
Sample Name*	Exterior - Back Yard Rear Playground			Basement Playroom @ Ceiling Supply			First Floor Dining Area @ Wall Supply			Upstairs Front Left Bedroom		
Sample Volume*	150 L			150 L			150 L			150 L		
Reporting Limit	7 spores/m³			7 spores/m³			7 spores/m³			7 spores/m³		
Background	2			2			3			3		
Fragments	20/m³			ND			ND			ND		
Organism	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Alternaria	3	20	<1%							1	7	12 5%
Ascospores	245	1600	23.3%				2	13	50.0%			
Aspergillus|Penicillium												
Basidiospores	364	2400	34.6%							2	13	25.0%
Bipolaris|Drechslera												
Chaetomium												
Cladosporium	426	2800	40 5%	1	7	100 0%				1	7	12 5%
Curvularia	1	7	<1%				1	7	25.0%			
Epicoccum	4	27	<1%									
Fusarium												
Memnoniella												
Myxomycetes	2	13	<1%				1	7	25.0%	2	13	25.0%
Pithomyces	3	20	<1%							2	13	25 0%
Polythrincium	3	20	<1%									
Sporidesmium	1	7	<1%									
Stachybotrys												
Stemphylium												
Torula												
Ulocladium												
Total	1052	6914	100%	1	7	100%	4	27	100%	8	53	100%

Water Damage Indicator | Common Allergen | Slightly Higher than Baseline | Significantly Higher than Baseline | Ratio Abnormality

* indicates data provided by the customer

Collected **Jul 5, 2023** Received **Jul 6, 2023** Reported **Jul 6, 2023** Revision **2**

HAYES MICROBIAL CONSULTING

Project Analyst
Joseph Lape,

Date
07 - 06 - 2023

Reviewed By
Tammy Poole,

Date
07 - 06 - 2023

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Particle Analysis

This test is not covered under our AIHA LAP, LLC Scope of Accreditation.

Sample Number*	1	36361572		2	36363354		3	36361560		4	36363353	
Sample Name*	Exterior - Back Yard Rear Playground			Basement Playroom @ Ceiling Supply			First Floor Dining Area @ Wall Supply			Upstairs Front Left Bedroom		
Sample Volume*	150.00 liter			150.00 liter			150.00 liter			150.00 liter		
Reporting Limit	7 particles/m³			7 particles/m³			7 particles/m³			7 particles/m³		
Particle	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**	**Raw Count**	**Count / m³**	**% of Total**
Dander	2	13	11 8%	308	2053	96 3%	378	2520	94 3%	440	2933	93 2%
Cellulose Fibers				3	20	<1%	11	73	2.7%	9	60	1.9%
Synthetic Fibers							1	7	<1%			
Aciniform-like Soot				1	7	<1%	2	13	<1%			
Ash and Char like Soot				2	13	<1%	1	7	<1%	6	40	1 3%
Fiberglass							4	27	<1%	2	13	<1%
Wood Fibers												
Pollen	5	33	29.4%	1	7	<1%						
Plant Hair	1	7	5 9%				1	7	<1%			
Animal Hair												
Human Hair												
Feather Barbule										1	7	<1%
Opaque Particles				1	7	<1%				3	20	<1%
Silicates	6	40	35.3%	4	27	1.3%	3	20	<1%	11	73	2.3%
Gypsum												
Talc												
Mineral Salts												
Rust												
Carpet Beetle Larvae												
Dust Mites / Parts												
Insect Parts	3	20	17 6%									
Insect Frass												
Ink / Toner												
Starch												
Total	17	113	100%	320	2134	100%	401	2674	100%	472	3146	100%

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Spore Trap Information

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

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Total Particulate Analysis Information

Our Total Particulate Analysis test is based on the initial screening procedures from ASTM #D6602 Our Lab only uses light, polarized light, and phase contrast microscopy No SEM or X ray defraction is performed Below are some guidelines to help find totals for the most common particle counts analyzed by light microscopy

Particle		Air *	Surface *
Dander	Home (Carpeted Areas)	1,000-6,000 / M^3	10,000-16,000 / cm^2
	Home (Hard Surface Areas)	500 5,000 / M^3	5,000 16,000 / cm^2
	Office or Classroom (Carpeted)	4,000-12,000 / M^3	14,000-24,000 / cm^2
	Office or Classroom (Hard Surface Areas)	3,000 10,000 / M^3	12,000 20,000 / cm^2
Cellulose Fibers		0-250 / M^3	0-1,600 / cm^2
Synthetic Fibers		0 250 / M^3	0 1,600 / cm^2
Fiberglass Fibers		0-60 / M^3	0-400 / cm^2
Gypsum Fibers		0 400 / M^3	0 1,800 / cm^2
Talc		0-250 / M^3	0-2,000 / cm^2
Dust Mites (parts)		0 30 / M^3	0 200 / cm^2
Insect Parts		0-30 / M^3	0-200 / cm^2
Animal Hair		0 30 / M^3	0 200 / cm^2
Wood Fibers		0-60 / M^3	0-200 / cm^2
Plant Hairs		0 60 / M^3	0 200 / cm^2
Human Hair		0-60 / M^3	0-200 / cm^2
Carpet Beetle Larvae		0 40 / M^3	0 200 / cm^2
Insect Frass		0-40 / M^3	0-400 / cm^2
Feather Barbules		0 40 / M^3	0 200 / cm^2
Opaque Particles		0-100 / M^3	0-600 / cm^2
Starch		0 40 / M^3	0 200 / cm^2
Rust		0-60 / M^3	0-400 / cm^2
Ash and Char like Soot		0 100 / M^3	0 300 / cm^2
Aciniform-like Soot		0-100 / M^3	0-800 / cm^2
Silicates	(Varies greatly depending on area)	0 500 / M^3	0 2,800 / cm^2
Pollen	(Varies with outdoor pollen levels and whether there are live indoor plants)	0-500 / M^3	0-2,800 / cm^2

** Estimated Normal Ranges are based on prior experience There are no standard ranges for this form of testing*

M^3 Cubic Meter cm^2 Square Centimeter

Aciniform-like Soot	**Habitat:**	Also known as black carbon, aciniform soot comes from the combustion of oil based or hydrocarbon containing materials This type of soot should not be confused with Carbon Black, which is a manufactured product that has been used in commerce for over a century and consists of a fine black powder of nearly pure elemental carbon
	Effects:	Sources are from the combustion of waste oil, fuel oil, gasoline fuel, diesel fuel, coal, coal-tar pitch, oil shale, rubber, plastics and resins, natural gas fireplaces and stoves, candles etc.
Alternaria	**Habitat:**	Commonly found outdoors in soil and decaying plants. Indoors, it is commonly found on window sills and other horizontal surfaces.
	Effects:	A common allergen and has been associated with hypersensitivity pneumonitis Alternaria is capable of producing toxic metabolites which may be associated with disease in humans or animals Occasionally an agent of onychomycosis, ulcerated cutaneous infection and chronic sinusitis, principally in the immunocompromised patient
Ascospores	**Habitat:**	A large group consisting of more than 3000 species of fungi Common plant pathogens and outdoor numbers become very high following rain Most of the genera are indistinguishable by spore trap analysis and are combined on the report
	Effects:	Health affects are poorly studied, but many are likely to be allergenic.
Ash and Char-like Soot	**Habitat:**	Ash-like soot is formed from the combustion of wood and paper products. Char-like soot comes from the incomplete combustion of wood and paper products.
	Effects:	Sources are wood fireplaces, house fires, forest fires, and burning of leaves and other yard debris
Basidiospores	**Habitat:**	A common group of Fungi that includes the mushrooms and bracket fungi They are saprophytes and plant pathogens In wet conditions they can cause structural damage to buildings
	Effects:	Common allergens and are also associated with hypersensitivity pneumonitis.
Cellulose Fibers	**Habitat:**	Cellulose fibers are natural fibers from plant material.
	Effects:	Sources of cellulose fibers are paper, cardboard, insulation material

Cladosporium	**Habitat:**	One of the most common genera worldwide. Found in soil and plant debris and on the leaf surfaces of living plants. The outdoor numbers are lower in the winter and often relatively high in the summer, especially in high humidity. The outdoor numbers often spike in the late afternoon and evening. Indoors, it can be found growing on textiles, wood, sheetrock, moist window sills and in HVAC supply ducts.
	Effects:	A common allergen, producing more than 10 allergenic antigens and a common cause of hypersensitivity pneumonitis.
Curvularia	**Habitat:**	They exist in soil and plant debris, and are plant pathogens.
	Effects:	They are allergenic and a common cause of allergic fungal sinusitis. An occasional cause of human infection, including keratitis, sinusitis, onychomycosis, mycetoma, pneumonia, endocarditis and desseminated infection, primarily in the immunocompromised.
Dander	**Habitat:**	Dander is dead skin cells. The average person sheds about 600,000 skin cells per day.
	Effects:	Sources are people and animals.
Epicoccum	**Habitat:**	It is found in soil and plant litter and is a plant pathogen. It can grow indoors on a variety of substrates, including paper and textiles and is commonly found on wet drywall.
	Effects:	It is a common allergen. No cases of infection have been reported in humans.
Feather Barbule	**Habitat:**	Any of the individual parts that make up a feather.
	Effects:	Sources are birds.
Fiberglass	**Habitat:**	Fiberglass Glass or Glass wool is an insulating material made from fibers of glass arranged using a binder into a texture similar to wool. The process traps many small pockets of air between the glass, and these small air pockets result in the thermal insulation properties.
	Effects:	Fibrous glass can be a skin and respiratory irritant.

Insect Parts	**Habitat:**	Pieces of insects such as arms, wings, antennae, etc
	Effects:	Insects
Myxomycetes	**Habitat:**	Found on decaying plant material and as a plant pathogen.
	Effects:	Some allergenic properties reported, but generally pose no health concerns to humans
Opaque Particles	**Habitat:**	Particles that are not characteristic of other opaque particles that can be identified such as soot If significant amounts are present, further analysis by SEM and Xray Diffraction are suggested to help determine the makeup and possible sources
	Effects:	Unknown until characterization is determined.
Pithomyces	**Habitat:**	Common fungus isolated from soil, decaying plant material. Rarely found indoors.
	Effects:	Allergenic properties are poorly studied No cases of infection in humans
Plant Hair	**Habitat:**	Hairs or pieces from plant material
	Effects:	Plants
Pollen	**Habitat:**	Reproductive structures of trees, grasses and plants.
	Effects:	Trees, grasses and plants

Polythrincium	**Habitat:**	Found in soil and occasionally on plants
	Effects:	No known health effects. Allergenic properties are poorly studied.
Silicates	**Habitat:**	Silicates comprise the majority of the Earth's crust. Sand, Portland cement, and thousands of minerals are examples of silicates. Also includes quartz.
	Effects:	Sources are sand, cement and drywall
Sporidesmium	**Habitat:**	Found on wood and decaying plant matter
	Effects:	Health effects are poorly studied.
Synthetic Fibers	**Habitat:**	Synthetic fibers are man-made fibers such as nylon, polyester, and polyolefin.
	Effects:	Sources of synthetic fibers are carpet, upholstery and clothing