#### Housebusters Inspectors have been providing Home Inspections Since 1990



Home & Environmental Inspection Service

Our Inspectors have Over 40 years Experience in the Building Industry ASHI National Certified Inspectors Healthy Home Evalutions Certified Mold Sampling Mold Assessment of Laboratory Report WV & PA State Certified Inspectors FHA Fee Paid Inspectors FHA 203 K Consultant Licensed Professional Engineer Septic Inspection Well Water Bacteria Sampling EIFS Moisture Testing New Construction " Stage Inspections"

Trainer - Proctor NAHB National Association of Home Builders BPI Building Performance Institute Construction Expert & Expert Witness www.housebustersinc.com

304-933-6422 \* 800-847-3500

info@housebustersinc.com

Housebusters Inspection Service 909 Johnson Avenue, Bridgeport, WV 26330 53 N. Morgantown St Fairchance, PA 15436



#### **This Inspection Report has been**

#### **Prepared for:**

Client Street City, State, zipcode



Location of the Property Street City, State, zipcode

Report prepared by Charles Roskovensky, Inspector

Housebusters Inspection Service 909 Johnson Avenue, Bridgeport, WV 26330 53 N. Morgantown St Fairchance, PA 15436



INSPECTION LOCATION: Street	Mold Assessment	Client: Date
City, State, zipcode	Invoice#:	Street City, State, zip code

These samples indicate that the mold spore count on the Interior is GREATER than the mold spore count in the Exterior air compared to the Interior air quality.

Observed newly installed drywall that could have been stored at the distribution center on the exterior where it could have been exposed to weather conditions. There was no visible evidence of mold growing in the basement area and there was a dehumidifier operating at the time of the inspection. When the RH relative humidity is greater than 50% mold can begin to grow. As you can see from the data the mold is growing where the RH is elevated, but is reduced on the 1st floor.

Exterior:		Basement:		First Floo	<u>r</u>
RH	<u>78.4%</u>	<u>RH</u>	<u>65.3%</u>	<u>RH</u>	<u>49.2%</u>
Temp	<u>83.8F</u>	Temp	<u>80.4F</u>	Temp	<u>83.5F</u>

#### What does this data indicate?

The mold spore count is elevated in the basement area and is greater than the mold on the exterior. No visible evidence was viewed, however, the newly installed drywall and the fact that the RH was elevated could be (2) contributing factors. The personal possessions stored in this area could also be a factor. HBI always suggest a second opinion from a mold remediation company based upon this document to allow for an honest assessment.

d. Do D	С	harles Roskovensky
/ hale forkowing	ASHI	#93267 American Society of Home Inspectors
4	WVHI	#HI50230650-0860 West Virginia Inspector
	BPI	#5003798 Energy Auditor, Trainer & Test Proctor
Charles Roskovensky	FHA	#Q478 Fee Paid Inspector2-10
	FHA	#P1891 203K Consultant
	#295	Warranty 2-10 FHA Fee Paid Inspector
	NAHB	National Association of Home Builders, Trainer and Test Proctor
	ECAN	#1848 Air Quality & Mold Testing Certified

#### CONTRACT AGREEMENT WITH HOUSEBUSTERS, INC.

The National Home Inspectors Standards require the client to sign a contract agreement. If for any reason a contract is not signed, the terms of the agreement are deemed to be accepted when payment is made for this report. This is a VISUAL INSPECTION REPORT, NOT A WARRANTY. In the event any problem is discovered following the inspection, the maximum liability is the fee paid for the Inspection. In the event any problem is discovered within the first 30 days after the property closing, the client must contact Housebusters, Inc. immediately by telephone and follow-up with a written letter within 14 days, so that representatives of the company may review any areas of concern and/or problems or the client waives the right to make any claim. Client agrees not to disturb, repair or have repaired anything which may constitute evidence relating to the complaint, except in the case of an emergency "Any dispute, controversy, interpretation or claim, including claims for, but not limited to, breach of contract, any form of negligence, fraud or misrepresentation arising out of, from or related to the inspection or inspection report shall be submitted to final and binding arbitration. Each party shall chose one arbitrator and the two arbitrators shall select an impartial arbitrator within 14 days. The decision of any two arbitrators shall be final and binding and a judgment on the Award may be entered in any Court of competent jurisdiction."

SHOULD CLIENT INSTITUTE ANY LEGAL ACTION AGAINST HOUSEBUSTERS, INC. OR THE INSPECTOR IN ANY OTHER FORUM, CLIENT SHALL BE RESPONSIBLE FOR ALL ATTORNEY FEES, EXPENSES AND COSTS, WITHOUT LIMITATION, INCURRED BY THE CORPORATION AND/OR THE INSPECTOR.

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Invoice#:

City, State, zipcode

Client:

Client

Street

Layout of where Sampling was taking

What sampling means:	Sample 1: Exterior		Sample 2: Basem	ent	Sample 3: First Flo	oor
The mold spore count on the exterior is 493, mold spore count on the interior is 1560. These are elevated levels that indicate living in this house could have a chronic effect on some individuals. Mold is growing within the house in the basement area and should be remediated by a professional.	Altermaria Ascospores Aspergillus-penicillium Basidiospores Bipotaris Cladosporium Curvularia Hyphal Fragments Pollen Pitomyces Rust Smut and Myxomyces/Periconia	000000 1547 493 2093 000000 160 000000 000000 000000 000000 000000 0000	Altermaria Ascospores Aspergillus-penicillium Basidiospores Bipotaris Cladosporium Curvularia Hyphal Fragments Pollen Pitomyces Rust Smut and Myxomyces/Periconia	000000 147 1560 107 000000 000000 000000 000000 000000 0000	Altermaria Ascospores Aspergillus-penicillium Basidiospores Bipotaris Cladosporium Curvularia Hyphal Fragments Pollen Pitomyces Rust Smut and Myxomyces/Periconia	000000 000000 227 000000 13 000000 000000 000000 000000 000000 0000

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#### Sampling areas: Exterior rear deck:



**Basement near the furnace:** 



First floor near the furnace return register:



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INSPECTION LOCATION: Street	Mold Assessment	Client: Date
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# Many health effects are caused by exposure to the interior environment of Water Damaged Buildings (WDB).

The complex mixture of contaminents present in the air and in the dust in WDB form a toxic chemical stew. There are so many possible sources of these toxic compounds found in WDB that can lead to the variety of symptoms caused by mold illness, **no single compound** can be identified as the sole cause of the inflammatory responses, or the illness, seen in affected patients. Since no one thing can be deemed as solely responsible for the sickness, the sole cause becomes the WDB itself.

Health Effects and Symptoms of Mold Exposure typically begin as a chronic issue and over time escalates into an acute issue that can be a medical issues for many years when not detected. When the HVAC system does not have proper air changes per each room, the air becomes dormant and stagnant. This allows mold to begin to grow from within the house.

Problems of water damage in buildings along with mold growth are on the rise.

Often the damage and health hazards are completely concealed. When water damage or mold does become apparent on surfaces or through musty smells, the problems has often been present for a long time. Some mold species can also invade the human body, causing a multitude of health symptoms that are often associated with many common diseases or conditions. If mold spores are visible, what you see might just be a small example of what lurks hidden elsewhere.

Stachybotrys chartarum and Aspergillus/Penicillium, are just two of the most common building-related molds that can cause serious health issues. All mold fungi break down organic material, as a part of decomposition. This recycling is a good thing for soil. However, in human bodies, mold fungus can deplete the immune system, thus supporting and accelerating many diseases. This article focuses on the most common symptoms associated with mold exposure and mold illness, as well as solutions we can use to protect ourselves.

## The most common symptoms of mold exposure listed by major health organizations including the EPA and CDC include:

Headaches Allergies Breathing Difficulties Coughing Colds Flu-Like Symptoms Aching Muscles Sore Throat Nausea Vomiting Diarrhea Constipation Fever Sinus Congestion Runny Nose Sneezing

Since these symptoms are very similar to virus or bacterial infection symptoms, as well as the common flu, possible environmental causes are often overlooked. It is important to keep in mind that when one is exposed lar basis, the body can become hyper-sensitive and react everywhere, even though the cause may be from one particular location.

#### <u>These are some more common symptoms of mold exposure which are often</u> <u>overlooked.</u>

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INSPECTION LOCATION: Street	Mold Assessment	Client: Date
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Fatigue, Malaise Nosebleeds Eye and Vision Problems Earaches Dandruff Hair Loss Fatigue Hearing Loss Irritability Memory Loss Learning Difficulties Brain Fog/ Focus Challenges Difficulty Speaking Seizures Skin Sores Rashes Sleep disorders Dizziness Light-headedness Vertigo

Weight Loss Weight Gain Anger Rage Anxiety Drug abuse Headache Ringing in the Ears

# Many diseases have been scientifically linked to mold exposure. Mold exposure compromises the immune system even more when other health challenges are a burden. These diseases include:

Asthma Allergies **Bleeding Lungs Dermatitis** Weight Gain Weight Loss Anger, Rage Eczema Anxiety Bi-Polar Disorder Drug Abuse Addiction Chronic Fatigue Fibromyalgia Depression Alzheimer's Disease Multiple Sclerosis Insomnia Neuropathy OCD Panic Disorder Paranoia Schizoid Syndrome Hives **Kidney Failure Infections** Death Heavy Metal Toxicity Lyme Disease ADD/ADHD Parkinson's Disease Cancer Hormone Disruption Thyroid Disease

#### Can mold really contribute to all of these health challenges?

Once the immune system is compromised by mold fungus, additional damage by any number of toxins, bacteria or viruses can destroy our bodies, and affect even our brain. Mold commonly enters the body through breathing in spores. However, it can also enter through the skin and even the eyes. Once inside, mold can reproduce itself often using our own bodies, organs, tissues, and even our blood, for food.

More research is certainly needed, however, it is likely that mold fungus in the body creates irritation, which leads to inflammation. Once the body starts an inflammatory process, it often

becomes a systemic condition. We must stop the cascading inflammatory process by eliminating mold exposure and then

rebuilding the immune system. While more research is needed, it is very possible that mold and other toxins which affect air quality in buildings may even be a significant contributor to all immune disorders and immune system diseases.

#### INFLAMMATORY IMMUNE DISORDERS AND DISEASES

Cancer Diabetes Rheumatoid Arthritis Heart Disease Bursitis Laryngitis Gingivitis Tendonitis

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Gastritis Celiac Disease

Diverticulitis Sepsis & Inflammatory Bowel Disease

Unfortunately, few doctors or building professionals know or understand how environment and mold can impact health. There are tests for mold in blood and urine, though these tests are not well known. Thanks to the internet and many avenues of information sharing, more and the numbers of doctors who are becoming aware is growing. Many of the doctors and other health professionals who are educated on mold and toxins have been affected themselves. They have been frustrated by the lack of information and often this frustration becomes the source of their energy to research to protect their own families or their own health.

Antibiotics are the typical solutions many doctors have come to rely on regardless of symptoms. However, mold fungus is not a typical bacteria or a bacteria at all. In fact, fungus are their own species of living organism that can adapt to antibiotics. Steroids are often prescribed to counter inflammation without considering the cause of the inflammation to eliminate the source. Steroid use for mold exposure patients can have devastating results, as the steroids depress the body's natural immune system even further. Imagine, noticing that your car's engine light is on. Would you go to a dealership to have them cut the wire to the engine light so you don't see the warning?

Or do we try to get to the root cause of the engine light alert to avoid further damage to the engine or other systems. Why has conventional medicine become focused on eliminating symptoms without evaluating causes?

Both antibiotics and steroids depress the immune system, making the body less able to fight off mold fungus invasions, or other bacteria including Lyme bacteria, which is a disease commonly associated with mold exposure. With a depressed immune system, other health challenges get worse and worse, and can adversely affecting more systems of the body. And the stronger the antibiotics, and the longer you have to be on them, the worse th side effects. Antibiotics and steroids make health effects from mold exposure worse, not better.

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### Air Analytical Report

Prepared For: Charles Roskovensky Housebusters Inspection Service 909 Johnson Avenue Bridgeport, WV 26330 (304) 933-6422 **AEML Batch: 000000** 

### Project/Site:

#### Street, City, State, zipcode



Joshun Kinsly

Authorized for release by: Joshua Krinsky Technical Director TEXAS Department of State Health Services License LAB#1020

This report may not be reproduced except in its etirety and with written approval from AEML, Inc. For questions please contact the laboratory at the e-mail address or telephone number listed on this page. Results pertain only to the sample(s) as received by the laboratory and presented on the accompanying Chain of Custody.

1301 E Atlantic Blvd., Suite 5, Pompano Beach, FL 33060 • Phone: (954) 333-8149 • Fax: (954) 333-8151 • www.aemlinc.com



### **Table of Contents**

Client: Charles Roskovensky Housebusters Inspection Service 909 Johnson Avenue Bridgeport, WV 26330 AEML Batch: 000000

Project/Site: Street, City, State, zipcode

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### **Project Narrative**

Client: Charles Roskovensky Housebusters Inspection Service 909 Johnson Avenue Bridgeport, WV 26330 AEML Batch: 000000

Project/Site: Street, City, State, zipcode

#### Receipt

The sample(s) contained in this report were collected on Date and recieved by AEML, Inc. Microbiolgy Laboratories on Date. All samples were received in good condition unless otherwise noted in the results section of this report or on the accompanying Chain of Custody.

#### **Sample Analysis**

Analyses were performed in accordance to AEML, Inc.'s Standard Operating Procedures and Quality Assurance Program. No deviations were made to these procedures unless noted in the results section of this report. Any additional information that the laboratory believes relevant will be noted as Data Qualifiers accompanying the sample results.

#### **Quality Assurance**

AEML, Inc. has developed and implemented policies and procedures that adhere to the General Requirements for the Competence of Testing and Calibration Laboratories, ISO/IEC 17025:2005. These procedures have been reviewed by an independent outside organization and the laboratory has been accredited by the American Association for Laboratory Accreditation for Biological Testing (A2LA Testing Cert #2572.01). AEML, Inc. is also licensed by the Texas Department of State Health Services (Lab#1020). AEML, Inc. is an active participant in the AIHA EMPAT Proficiency Testing Program.

The laboratory is staffed by highly trained and experienced professionals. AEML, Inc. utilizes state of the art equipment that is of the most recent technology available for fungal spore identification and quantification. AEML, Inc. has the most up to date data systems available with capabilities to provide standard reports in hardcopy and electronic data deliverables.



### Sample Summary

Client: Charles Roskovensky Housebusters Inspection Service 909 Johnson Avenue Bridgeport, WV 26330 AEML Batch: 000000

Project/Site: Street, City, State, zipcode

Lab Sample ID	Client Sample ID	Media	Collected	Received	
180809K080	235116 Exterior	Allergenco D	8/7/2018	8/9/2018	
180809K081	235105 Basement	Allergenco D	8/7/2018	8/9/2018	
180809K082	235111 First Floor	Allergenco D	8/7/2018	8/9/2018	



### **Detection Summary**

Client: Charles Roskovensky Housebusters Inspection Service 909 Johnson Avenue Bridgeport, WV 26330 AEML Batch: 000000

Project/Site: Street, City, State, zipcode

Lab Sample ID	Client Sample ID	Spore Type	Result / Count/m <sup>3</sup>
1000001/000	225116 Exterior	Accessor	1 5 4 7
1000098000	233116 EXTEND	Ascospores	1,547
		Aspergillus/Penicillum-Like	493
		Basidiospores	2,093
		Cladosporium	160
		Pithomyces	120
		Rust	13
		Smut/Myxomyces/Periconia	13
180809K081	235105 Basement	Ascospores	147
		Aspergillus/Penicillium-Like	1,560
		Basidiospores	107
		Smut/Myxomyces/Periconia	13
		Hyphal Fragments	13
180809K082	235111 First Floor	Aspergillus/Penicillium-Like	227
		Cladosporium	13

Charles Roskovensky Housebusters Inspection Service 909 Johnson Avenue Bridgeport, WV 26330



AEML, Inc. 1301 E. Atlantic Blvd., Suite 5 Pompano Beach, FL 33060 Phone: (954) 333-8149

Fax: (954) 333-8151

Project: Street

City, State, zipcode

Batch: 000000 Sampled: 2018

> Received: 2018 Analysis Date: 2018 Report Date: 2018

#### AEML Test: A001 Spore Trap Analysis

AEML Test: A001 Spore Trap Analysis					email: custome	rserv	ice@aemlinc.co	m		
Sample ID:	180	809K080		180	809K081		180	809K082		
Client Sample ID:	23511	235116 Exterior			235105 Basement			235111 First Floor		
Volume Sampled (L):		75		75			75			
Media:	Aller	rgenco D		Aller	Allergenco D			Allergenco D		
Percent of Trace Analyzed:	100% at 60	0X Magnificatior	1	100% at 60	0X Magnification	1	100% at 60	0X Magnificatio	n	
Spore Types	Raw Count	Count/m <sup>3</sup>	%	Raw Count	Count/m <sup>3</sup>	%	Raw Count	Count/m <sup>3</sup>	%	
Alternaria		_	-	_	—	-	-	-	_	
Arthrinium	I	_	_	-	_	-	_	_	_	
Ascospores	116	1,547	35	11	147	8	_	_		
Aspergillus/Penicillium-Like	37	493	11	117	1,560	85	17	227	94	
Basidiospores	157	2,093	47	8	107	6	_	_		
Bipolaris/Dreschlera	_		_	_		-	_		_	
Botrytis	_	_	_	_	_	-	-	-	-	
Chaetomium	-	_	_	_	_	-	-	-	Τ-	
Cladosporium	12	160	4	_	_	-	1	13	6	
Curvularia	_	_	_	_	_	-	-	-	-	
Epicoccum	_	_	_	_	_	-	-	-	-	
Fusarium	_	_	_	_	_	-	-	-	-	
Ganoderma		_	-	_	_	-	_	_		
Memnoniella		_	-	_	_	-	_	_		
Nigrospora		_	-	_	_	-	_	_		
Oidium/Peronospora		_	-	_	_	-	_	_		
Pithomyces	9	120	3	_		-	_	_	_	
Rust	1	13	<1	_		-	_	_	_	
Smut/Myxomyces/Periconia	1	13	<1	1	13	<1	_	_	_	
Stachybotrys		_	_	_		-	_	_	_	
Torula		_	_	_		-	_	_	_	
Ulocladium		_	_	_		-	_	_	_	
Unidentified Spores		_	_	_		-	_	_	_	
Total Spores	333	4,440		137	1,827		18	240		
Hyphal Fragments	_			1	13		_			
Pollen	_						_			
Debris Rating		3			3			3		
Detection Limit		13			13			13		

Joshun Kinsly

Joshua Krinsky **Technical Director** 





### Project: Street, City, State, zipcode





### **Definitions and Glossary**

#### Definitions

**Mold** - A fungus that grows in the form of multicellular filaments called hyphae. Molds cause biodegradation of natural materials, which is necessary in nature but can become unwanted when it causes food spoilage or damage to property. Some diseases of animals and humans can be caused by certain molds. These diseases may result from allergic sensitivity to mold spores, from growth of pathogenic molds within the body, or from the effects of ingested or inhaled toxic compounds (mycotoxins) produced by molds.

**Fungi** - A Kingdom composed of eukaryotic organisms that include unicellular microorganisms such as molds, yeasts, smuts, and mushrooms. Fungi receive nutrients by absorbing disolved molecules and are referred to as nature's decomposers.

**Spores** - Produced by molds and fungi as units of reproduction that have adapted for dispersal. Spores can disperse through the air, by insects, animals, or humans and remain dormant on a surface for years until favorable conditions for growth occur.

**Mycotoxin** - A toxic secondary metabolite produced by mold. The term 'mycotoxin' is usually reserved for the toxic chemical products produced by fungi that readily colonize crops. One mold species may produce many different mycotoxins, and the same mycotoxin may be produced by several species.

#### Glossary

Sample ID - A unique internal identification assigned to the sample by the laboratory for traceability of the sample.

**Client Sample ID** - An identification given to the sample and provided to the laboratory by the person who collected the sample. This is typically the location the sample was collected.

**Volume Sampled** - The volume of air that was sampled displayed in liters. This is based on the flow rate of the sampling pump in Liters per minute and the time, in minutes, that the sample was collected.

Media - The device used for collection of the sample.

**Percent of Trace Analyzed** - The percent of the trace that was analyzed by the laboratory. When 100% of the trace is analyzed at 600X magnification, the entire impaction area of the sample is analyzed at a high level of magnification and provides the highest quality analysis.

Raw Count - Spore count present in the sample received by the laboratory.

**Count/m<sup>3</sup>** - An extrapolated count of spores that would be present in a cubic meter of air. This calculation is based on the volume of air sampled and the raw count.



### **Definitions and Glossary**

#### Glossary

**Percent (%)** - Percent composition of the sample. This is a breakdown of the percentage of the total spore count of the sample that each spore comprises.

**Debris Rating** - Background debris can interfere with the analyst's ability to analyze and accurately report the counts for each analyte. Therefore, a Debris Level system of 0-5 will be reported for each sample to aid clients in their interpretation of the data.

**Debris Level: 0** - No non-microbial particulates were observed in the impaction area. Since most air samples contain at least some debris, this indicates that the sample is either a blank sample submitted to the lab as a control, that there was an error sampling, or that a defective spore trap cassette was used.

Debris Level: 1 - A minimal amount of background particulates are present. The background debris has no effect on the reported results.

**Debris Level: 2** - Non-microbial particulates are covering up to 25% of the trace.

Debris Level: 3 - Non-microbial particulates are covering 26% to 75% of the trace.

Debris Level: 4 - Non-microbial particulates are covering 76% to 90% of the trace.

**Debris Level: 5** - Non-microbial particulates are covering greater than 90% of the trace. An accurate count is not possible. A range of spores is reported based on the number of spores observed in and around the borders of the trace.

Debris Levels of 2, 3, or 4 contain background debris that could mask the presence of an analyte. The higher the level of debris, the greater the chance that this could occur.

**Detection Limit** - Also known as Method Detection Limit. This is the minimum number of spores that would need to be present in one cubic meter of air in order for one spore to be detected by this analysis. This calculation is based on the volume of air sampled and the percent of the trace analyzed.

#### Remediation

**Remediation** - The process correcting, or remedying, any issues in the building that were identified by a mold assessor. This may include cleaning or removing any contaminated material, as well as, identifying and correcting any conditions that may be favorable for mold growth.

AEML, Inc. makes no claims pertaining to the necessity of remediation. The results contained in this report should be used in conjunction with a physical inspection of the property to determine what, if any, actions are necessary.







Considered water damage indicator.



Alternaria	
Description	Characteristics
These are a common plant pathogen involved in the decomposition of plants. In the indoor environment they are found growing on a variety of substrates including sheetrock and other building materials. They are common allergens causing hay fever or hypersensitivity reactions.	

Arthrinium	
Description	Characteristics
These are a plant pathogen found in soil and decomposing plant material. Not typically found growing indoors. One species has been determined to be an allergen.	

Ascospores			
Description		Characteristics	
These are a very large group of spores that are found everywhere in nature. They are commonly found outdoors and associated with rain and moisture. Some species grow well indoors on damp materials. Ascospores have allergenic potential, however, it is species dependent.	2		







Considered water damage indicator.



Aspergillus/Penicillium-Like	
Description	Characteristics
These are two of the most common genera in the world. They can be found everywhere in nature, both indoors and outdoors. Indoors they can be found on water damaged wallpaper, carpet, and other organic materials. They can also grow well in conditions of high humidity. Many species are allergens and a common cause of respiratory irritation. Some species are human and animal pathogens and can cause infection.	

Basidiospores		
Description	Characteristics	
These are primarily comprised of mushrooms and shelf fungi. They are typically found outdoors. Occasionally they are found indoors growing on any organic matter causing dry rot. Some species can be an allergen to sensitive individuals.		

Bipolaris/Dreschlera	
Description	Characteristics
These are a plant pathogen typically found outdoors on grasses, grains, and decaying food. Indoors they can be found on plants and building materials. They are an allergen that can affect the nose, skin, eyes and upper respiratory track.	





These are a plant pathogen typically found growing on vegetation particularly in temperate and subtropical climates. Indoors they can be found growing on plants. They are a potential allergen causing hay fever and asthma effects.

window sills, in bathrooms, and A/C systems. They are a common allergen when airborne.

Chaetomium	
Description	Characteristics
These are typically found indoors on water damaged cellulose containing materials such as paper, sheetrock, and wallpaper. Not well studied but possible allergen with hay fever and asthma effects.	
Cladosporium	
Description	Characteristics
One of the most common genera in both the indoor and outdoor environments. Indoors they grow well in damp environments and areas where condensation builds. They are often found on textiles,	

Potential to produce

mycotoxins.

Characteristics

EL







Considered water damage indicator.



Curvularia	
Description	Characteristics
Primarily found outdoors on plants and soil especially in subtropical and tropical environments. Indoors they grow on a variety of building materials. They are a common allergen causing hay fever, asthma, and allergic fungal sinusitis.	

Epicoccum	
Description	Characteristics
Outdoors they are found in the soil, air, and rotting vegetation. Indoors they grow well on a variety of building materials such as paper and textiles. They are a potential allergen with hay fever, asthma, and skin allergy effects.	

Fusarium	
Description	Characteristics
Indoors they are typically found under very wet conditions. Some places they can be found are dust in carpet and mattresses, damp walls, wallpaper, and duct liner. They are a potential allergen causing hay fever and asthma effects.	







Considered water damage indicator.



Ganoderma	
Description	Characteristics
These are shelf mushrooms that are typically found growing outdoors on wood causing white rot, root rot, and stem rot. They are a possible allergen at high concentrations.	

Memnoniella	
Description	Characteristics
These are mycotoxin producing spores related to and often found in conjunction with Stachybotrys. These grow well on water damaged cellulose containing building materials such as sheetrock, paper, wallpaper, and textiles.	
Nigrospora	
Description	Characteristics
These are typically found on decaying plant material and soil and are usually not found growing indoors. They are a potential allergen causing hay fever and asthma effects.	







Considered water damage indicator.



Oidium/Peronospora	
Description	Characteristics
These are plant pathogens that are common obligate parasites on leaves, stems, flowers, and fruits of higher living plants.	

Pithomyces	
Description	Characteristics
These are typically found on dead leaves and stems of plants. Rarely found growing indoors; however, they grow well on paper indoors given the right conditions.	

Rust	
Description	Characteristics
These are parasitic plant pathogens that grow on plants, grass, and trees. They are rarely found growing indoors since they require a living host, and therefore typically not found on cellulose containing building materials. They are a potential allergen causing hay fever and asthma effects.	







Potential allergen.

Considered water damage indicator.



Potential to produce mycotoxins.

Smut/Myxomyces/Periconia	
Description	Characteristics
This is a grouping of several genera organizeed together in a general category that are mostly associated with living and decaying plants, wood, soil, grass, cereal crops, weeds, and flowering plants. These are rarely found growing indoors. They are a potential allergen causing hay fever and asthma effects.	

Stachybotrys	
Description	Characteristics
These are typically found indoors growing on water damaged cellulose containing building materials such as sheetrock, paper, and ceiling tiles. They are often referred to as "toxic black mold." They have the ability to produce mycotoxins which may cause a burning sensation in the mouth, throat, and nasal passages. Chronic exposure has been known to cause headaches, diarrhea, memory loss, and brain damage.	
Torula	
Description	Characteristics

These are typically found growing outdoors on leaves, roots, wood, and soil. Indoors they can be found growing on water damaged cellulose, paper, wicker, straw baskets and ceiling tiles. They are a potential allergen causing hay fever and asthma effects.







Considered water damage indicator.



Ulocladium	
Description	Characteristics
Requires very wet conditions and can commonly be found indoors in damp or wet areas such as bathrooms, kitchens, basements, and around windows. These grow well on cellulose containing materials such as paper and straw and on water damaged building material such as sheetrock. They are a common allergen causing hay fever and asthma effects.	

Unidentified Spores	
Description	Characteristics
This is a grouping of spores that are unable to be categorized due to a variety of reasons. They may be weathered, disfigured, or otherwise lacking the morphological structures necessary to identify the genus.	

Hyphal Fragments	
Description	Characteristics
These are branched filamentous structures with cell walls. Hyphae are somewhat analogous to stems or roots in plants whereas the spores would be analogous to the seeds. Large quantities present may indicate an active fungal colony or active fungal growth in the structure.	





The information provided in this report is not intended to provide medical advice. This report is designed to be used for building diagnostic purposes only. Any determination of exposure or potential for exposure should be formed using the results in this report in conjunction with a physical inspection of the property. A medical professional must be consulted for any medical or health related information.



### **References and Links**

Environmental Protection Agency (EPA) - <u>www.epa.gov/mold/</u>

 A Brief Guide to Mold, Moisture, and Your Home
 •
 www2.epa.gov/mold/brief-guide-mold-moisture-and-your-home

 Should You Have the Air Ducts in Your Home Cleaned?
 •
 www2.epa.gov/indoor-air-quality-iaq/should-you-have-air-ducts-your-home-cleaned

 Flood Cleanup - Avoiding Indoor Air Quality Problems
 •
 www2.epa.gov/indoor-air-quality-iaq/flood-cleanup-protect-indoor-air-quality

Center for Disease Control and Prevention (CDC) - <u>www.cdc.gov/mold/</u>

General Information - <u>www.cdc.gov/mold/basics.htm</u>

Cleanup and Remediation - <u>www.cdc.gov/mold/cleanup.htm</u>

Occupational Safety & Health Administration (OSHA) - www.osha.gov/SLTC/molds

American Academy of Allergy, Asthma & Immunology (AAAAI) - <u>www.aaaai.org</u>

Institute of Inspection, Cleaning and Restoration Certification (IICRC) - <u>www.iicrc.org</u>

Information and recommendations about mold can vary based on location and climate. More information can be found through your local state's and county's Indoor Air Quality programs. Links for your state's environmental agencies can be found through the EPA's website at: <a href="http://www2.epa.gov/indoor-air-quality-iaq/find-regional-and-state-indoor-air-quality-contact-information">http://www2.epa.gov/indoor-air-quality-iaq/find-regional-and-state-indoor-air-quality-contact-information</a>