

Tri-State Smart Home Solutions LLC  
CHRIS FARVER  
GALLIPOLIS, OH 45631

# Certificate of Mold Analysis

Prepared for: CHRIS FARVER  
Phone Number: (740) 208-3966  
Fax Number:  
Project Name: XXXX  
Test Location: Address  
City, State, ZIP  
Chain of Custody #: XXXXX  
Received Date: July 2, 2018  
Report Date: July 3, 2018



Ochoa, Technical and Quality Control Manager

Carlos

Currently there are no Federal regulations for evaluating potential health effects of fungal contamination and remediation. This information is subject to change as more information regarding fungal contaminants becomes available. For more information visit <http://www.epa.gov/mold> or [www.nyc.gov/html/doh/html/epi/mold.shtml](http://www.nyc.gov/html/doh/html/epi/mold.shtml). This document was designed to follow currently known industry guidelines for the interpretation of microbial sampling, analysis, and remediation. Since interpretation of mold analysis reports is a scientific work in progress, it may as such be changed at any time without notice. The client is solely responsible for the use or interpretation. PRO-LAB/SSPTM Inc. makes no express or implied warranties as to health of a property from only the samples sent to their laboratory for analysis. The Client is hereby notified that due to the subjective nature of fungal analysis and the mold growth process, laboratory samples can and do change over time relative to the originally sampled material. PRO-LAB/SSPTM Inc. reserves the right to properly dispose of all samples after the testing of such samples are sufficiently completed or after a 7 day period, whichever is greater.



For more information please contact PRO-LAB at (954) 384-4446 or email [info@prolabinc.com](mailto:info@prolabinc.com)

ANALYSIS METHOD	Spore trap analysis	Spore trap analysis	Direct Microscopic Exam	Direct Microscopic Exam
LOCATION	INDOOR AIR	OUTDOOR AIR	CRAWL SPACE	CRAWL SPACE
COC / LINE #	1145147-1	1145147-2	1145147-3	1145147-4
SAMPLE TYPE & VOLUME	Z5 - 25L	Z5 - 25L	SWAB	BIO-TAPE
SERIAL NUMBER	Q607412	Q607389	25-806	B1634668
COLLECTION DATE	Jun 29, 2018	Jun 29, 2018	Jun 29, 2018	Jun 29, 2018
ANALYSIS DATE	Jul 3, 2018	Jul 3, 2018	Jul 3, 2018	Jul 3, 2018
CONCLUSION	ELEVATED	CONTROL	UNUSUAL	UNUSUAL

IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Mold Present	Mold Present
Cladosporium	3	120	5	13	520	2	X	
Coelomycetes								X
Epicoccum	1	40	2					
Ganoderma	2	80	4	18	720	2		
Hyphae								
Monodictys								X
Oidium/Erysiphe				1	40	<1		
Other Ascospores	5	200	9	25	1,000	3		
Other Basidiospores	11	440	19	742	30,000	91		
Penicillium/Aspergillus	24	960	42					
Polythrincium				6	240	1		
Pyricularia				1	40	<1		
Smuts, myxomycetes	11	440	19	6	240	1		
Unidentified Spores							X	X

<b>TOTAL SPORES</b>	57	2,280	100	812	32,800	100	NA	NA
<b>MINIMUM DETECTION LIMIT*</b>	1	40		1	40		NA	NA
<b>BACKGROUND DEBRIS</b>	Moderate			Light			Not Applicable	
<b>Cellulose Fiber</b>	1	40		2	80			
<b>Fiberglass</b>	1	40		1	40			
<b>OBSERVATIONS &amp; COMMENTS</b>	Non-Biological debris present.						Phialophora present. Presence of current or former growth observed.	
							Presence of current or former growth observed.	

Background debris qualitatively estimates the amount of particles that are not pollen or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Accurate Count, are used to indicate the amount of deposited debris. Light (None to up to 25% obstruction); Medium (26% to up to 75% obstruction); Heavy (76% to up to 90% obstruction); Too Heavy (Greater than 90% obstruction). Increasing amounts of debris will obscure small spores and can prevent spores from impacting onto the slide. The actual number of spores present in the sample is likely higher than reported if the debris estimate is 'Heavy' or 'Too Heavy for Accurate Count'. All calculations are rounded to two significant figures and therefore, the total percentage of spore numbers may not equal 100%.

\* **Minimum Detection Limit.** Based on the volume of air sampled, this is the lowest number of spores that can be detected and is an estimate of the lowest concentration of spores that can be read in the sample. **NA** = Not Applicable.

**Spores that were observed from the samples submitted are listed on this report. If a spore is not listed on this report it was not observed in the samples submitted.**

**Interpretation Guidelines:** A determination is added to the report to help users interpret the mold analysis results. A mold report is only one aspect of an indoor air quality investigation. The most important aspect of mold growth in a living space is the availability of water. Without a source of water, mold generally will not become a problem in buildings. These determinations are in no way meant to imply any health outcomes or financial decisions based solely on this report. For questions relating to medical conditions you should consult an occupational or environmental health physician or professional.

**CONTROL** is a baseline sample showing what the spore count and diversity is at the time of sampling. The control sample(s) is usually collected outside of the structure being tested and used to determine if this sample(s) is similar in diversity and abundance to the inside sample(s).

**ELEVATED** means that the amount and/or diversity of spores, as compared to the control sample(s), and other samples in our database, are higher than expected. This can indicate that fungi have grown because of a water leak or water intrusion. Fungi that are considered to be indicators of water damage include, but are not limited to: *Chaetomium*, *Fusarium*, *Memnoniella*, *Stachybotrys*, *Scopulariopsis*, *Ulocladium*.

**NOT ELEVATED** means that the amount and/or the diversity of spores, as compared to the control sample and other samples in our database, are lower than expected and may indicate no problematic fungal growth.

**UNUSUAL** means that the presence of current or former growth was observed in the analyzed sample. An abundance of spores are present, and/or growth structures including hyphae and/or fruiting bodies are present and associated with one or more of the types of mold/fungi identified in the analyzed sample.

**NORMAL** means that no presence of current or former growth was observed in the analyzed sample. If spores are recorded they are normally what is in the air and have settled on the surface(s) tested.

ANALYSIS METHOD	Direct Microscopic Exam	Direct Microscopic Exam	INTENTIONALLY BLANK	INTENTIONALLY BLANK
LOCATION	STORAGE/ UTILITY ROOM	ATTIC		
COC / LINE #	1145147-5	1145147-6		
SAMPLE TYPE & VOLUME	BIO-TAPE	BIO-TAPE		
SERIAL NUMBER	B1671735	B1680718		
COLLECTION DATE	Jun 29, 2018	Jun 29, 2018		
ANALYSIS DATE	Jul 3, 2018	Jul 3, 2018		
CONCLUSION	NORMAL	UNUSUAL		

IDENTIFICATION	Mold Present	Mold Present	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Cladosporium		X						
Coelomycetes								
Epicoccum								
Ganoderma		X						
Hyphae		X						
Monodictys								
Oidium/Erysiphe								
Other Ascospores								
Other Basidiospores	X	X						
Penicillium/Aspergillus	X							
Polythrincium								
Pyricularia								
Smuts, myxomycetes								
Unidentified Spores								

TOTAL SPORES	NA	NA						
MINIMUM DETECTION LIMIT*	NA	NA						
BACKGROUND DEBRIS	Not Applicable		Not Applicable					

OBSERVATIONS & COMMENTS	No presence of current or former growth observed. Only normally settled spores observed.	Presence of current or former growth observed.		
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Background debris qualitatively estimates the amount of particles that are not pollen or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Accurate Count, are used to indicate the amount of deposited debris. Light (None to up to 25% obstruction); Medium (26% to up to 75% obstruction); Heavy (76% to up to 90% obstruction); Too Heavy (Greater than 90% obstruction). Increasing amounts of debris will obscure small spores and can prevent spores from impacting onto the slide. The actual number of spores present in the sample is likely higher than reported if the debris estimate is 'Heavy' or 'Too Heavy for Accurate Count'. All calculations are rounded to two significant figures and therefore, the total percentage of spore numbers may not equal 100%.

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**Spores that were observed from the samples submitted are listed on this report. If a spore is not listed on this report it was not observed in the samples submitted.**

**Interpretation Guidelines:** A determination is added to the report to help users interpret the mold analysis results. A mold report is only one aspect of an indoor air quality investigation. The most important aspect of mold growth in a living space is the availability of water. Without a source of water, mold generally will not become a problem in buildings. These determinations are in no way meant to imply any health outcomes or financial decisions based solely on this report. For questions relating to medical conditions you should consult an occupational or environmental health physician or professional.

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**ELEVATED** means that the amount and/or diversity of spores, as compared to the control sample(s), and other samples in our database, are higher than expected. This can indicate that fungi have grown because of a water leak or water intrusion. Fungi that are considered to be indicators of water damage include, but are not limited to: *Chaetomium*, *Fusarium*, *Memnoniella*, *Stachybotrys*, *Scopulariopsis*, *Ulocladium*.

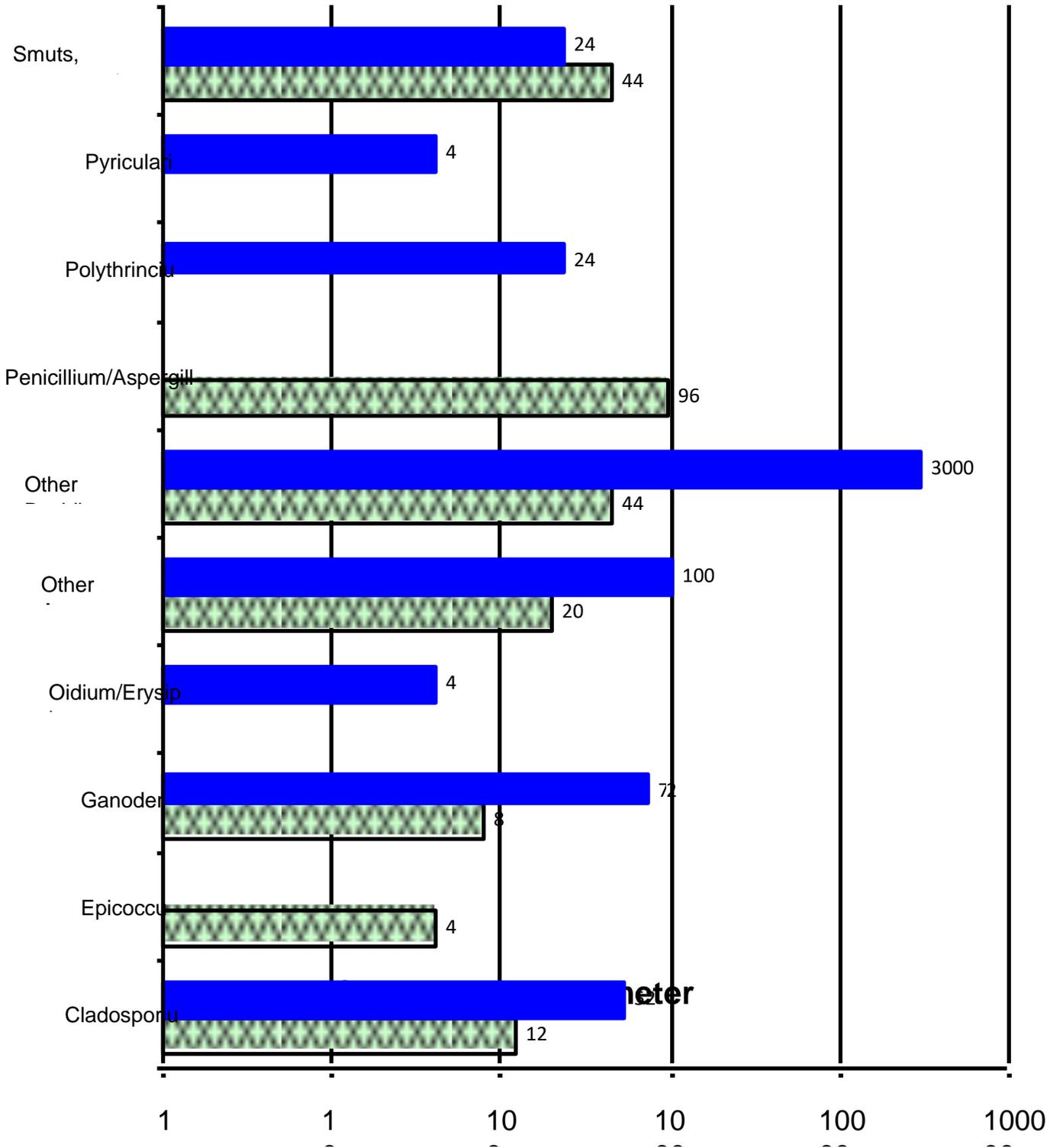
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**UNUSUAL** means that the presence of current or former growth was observed in the analyzed sample. An abundance of spores are present, and/or growth structures including hyphae and/or fruiting bodies are present and associated with one or more of the types of mold/fungi identified in the analyzed sample.

**NORMAL** means that no presence of current or former growth was observed in the analyzed sample. If spores are recorded they are normally what is in the air and have settled on the surface(s) tested.

Chain of Custody # 1145147

Indoor Air  
 Outdoor Air



Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
Cladosporium	The most common spore type reported in the air worldwide. Found on dead and dying plant litter, and soil.	Commonly found on wood and wallboard. Commonly grows on window sills, textiles and foods.	Type I (hay fever and asthma), Type III (hypersensitivity pneumonitis) allergies.	A very common and important allergen source both outdoors and indoors.
Coelomycetes	Commonly found everywhere growing on plants and animals.	Can grow on ceiling tiles, wood, paper	Type I (hay fever and asthma) allergies.	Rarely reported in the air because they are formed in fruiting bodies and generally slimy and therefore, difficult to be sent airborne.
Epicoecum	Commonly found everywhere. Grows on plant debris, insects and soil.	Capable of growing on several different substrates, notably wallboard and paper.	Type I (hay fever and asthma) allergies.	Very common in the summer, especially in the midwest and during harvest time.
Ganoderma	Common everywhere growing on hardwood trees.	None known.	None known.	
Hyphae	Common everywhere.	All substrates.	None known.	Hyphae are the "root-like" food absorption strands common to nearly all fungi. They sometimes can become airborne.
Monodictys	Leaves, stems and wood.	Wood, roof sheeting, linoleum.	None known.	Usually found growing on wood.
Oidium/Erysiphe	Common everywhere in the air, especially in the summer. Plant pathogen on the leaves and stems of many kinds of plants, especially lilacs, grasses, phlox.	None known.	None known.	This is a combination group. Oidium is the non-sexual state of the powdery mildew genus called Erysiphe. They need a living host to grow.
Ascospores	Common everywhere. Constitutes a large part of the airspora outside. Can reach very high numbers in the air outside during the spring and summer. Can increase in numbers during and after rainfalls.	Very few of this group grow inside. The notable exception is Chaetomium, Ascotricha and Peziza.	Little known for most of this group of fungi. Dependent on the type (see Chaetomium and Ascotricha).	
Basidiospores	Commonly found everywhere, especially in the late summer and fall. These spores are from Mushrooms.	Mushrooms are not normally found growing indoors, but can grow on wet lumber, especially in crawlspaces. Sometimes mushrooms can be seen growing in flower pots indoors.	Some allergenicity reported. Type I (hay fever, asthma) and Type III (hypersensitivity pneumonitis).	Among the group of Mushrooms (Basidiomycetes) are dry rot fungi Serpula and Poria that are particularly destructive to buildings.
Penicillium/Aspergillus	Common everywhere. Normally found in the air in small amounts in outdoor air. Grows on nearly everything.	Wetted wallboard, wood, food, leather, etc. Able to grow on many substrates indoors.	Type I (hay fever and asthma) allergies and Type III (hypersensitivity pneumonitis) allergies.	This is a combination group of Penicillium and Aspergillus and is used when only the spores are seen. The spores are so similar that they cannot be reliably separated into their respective genera.
Polythrincium	Rarely seen in air samples. Grows only on specific plants.	Does not grow indoors.	None known.	

Pyricularia	Common everywhere. Grows on grass leaves.	Not known to grow indoors.	None known.	
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1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
Smuts, myxomycetes	Commonly found everywhere, especially on logs, grasses and weeds.	Smuts don't normally grow indoors, but can occasionally be found on things brought from outside and stored in the house. Myxomycetes can occasionally grow indoors, but need lots of water to be established.	Type I (hay fever and asthma) allergies.	Smuts and myxomycetes are a combined group of organisms because their spores look so similar and cannot be reliably distinguished from each other.
Unidentified Spores	Common everywhere. Grow on decaying plant litter and other plant-derived material.	Wetted cellulosic material.	None known.	This group of spores is reserved for spores whose identity is unknown. These kinds of spores have usually never been seen before in spore traps by our laboratory and/or are of such morphology that they cannot be identified with any degree of certainty to a particular genus.