Jack's Home Inspections, LLC
8707 E. San Lucas Drive
Scottsdale, Arizona 85258
www.jacksinspections.com
602-430-8215

IAC2 LIMITED MOLD INSPECTION REPORT

REPORT #M043016A

CLIENT and SITE DATA:

Date of Inspection: April 30, 2016
Time of Inspection: 10:15 AM
Client Name: Donald Stanley
Property Address:
15240 N Clubgate Dr., #129
Scottsdale, AZ 85254

Age/Year Built: 19 years (1997)

CLIMATE CONDITIONS (outside):

Weather: Overcast
Temperature: 78 Degrees
Humidity Level: 29.4% R/H
Dew Point: 42.2 Degrees
Soil Surface Condition: Dry

AREA INSPECTED and CONDITIONS:

Area Inspected: Interior and attic
Temperature: 77 Degrees
Humidity Level: 28.51 R/H
Attic was 78 Degrees with 28.6 R/H

INSPECTION FEE: $425.00

Inspected by:
Jack Fernstrum
IAC2 Certified Mold Inspector
Arizona Licensed Home Inspector
Certified Residential Thermographer

MOLD: A GROWING CONCERN

The world is both a moldy and dusty place. We are all exposed to mold on a daily basis without evident harm. Recent studies estimate that 50-65% of homes contain some sort of mold problem, exposing an estimated 40 million Americans. Although there are currently no federal standards or recommendations regarding concentrations of mold or mold spores in indoor air environments, clearly there are health risks associated with mold infestations.

Exposure to elevated mold levels can be unhealthy. There are certain individuals who appear to have a greater risk for adverse health effects from mold:

- ✓ Infants and children
- ✓ Elderly
- ✓ Immune-compromised patients
- ✓ Pregnant women
- ✓ Individuals with respiratory conditions (such as allergies, multiple chemical sensitivity and asthma)

There are three ways mold spores can enter the human body:

- ✓ **Inhalation -** Breathing in airborne mold spores.
- ✓ **Skin -** Touching moldy surfaces such as furniture or coming in contact with plants that may have molds.
- ✓ **Ingestion -** Eating toxic fungal species on spoiled food, including nuts, grain, rice and other agricultural products.

Potential health effects from mold:

- ✓ **Toxicosis -** Dramatic and carcinogenic effects have been recorded in animals and humans exposed to high levels of mycotoxins in laboratory studies. Symptoms may include cold and flu-like symptoms, headaches, nosebleeds, dermatitis and immune suppression.
- ✓ **Allergies -** Allergies are the most common symptoms associated with exposure to elevated levels of fungal spores or mold fragments.
- ✓ **Irritation -** Fungi produce volatile organic compounds during degradation of substrates that cause the moldy odor associated with fungal contamination. These compounds can be irritating to mucous membranes, causing headaches and many other symptoms.
- ✓ **Asthma -** 17.3 million Americans have asthma, a respiratory disease that leaves sufferers coughing, wheezing and gasping for air. A 300% increase in the asthma rate over the past 20 years has been directly linked to molds.
- ✓ **Chronic Sinusitis -** Researchers have found that chronic sinusitis is apparently caused by an immune response to fungus (mold). Researchers made this discovery when they found 202 out of 210 patients with chronic sinusitis had fungi in their mucus.

LIMITED MOLD INSPECTION

The Limited Mold Inspection is performed by an IAC2 Certified Mold Inspector.

The Limited Mold Inspection is a limitation of the non-invasive, visual examination of the building. The Limited Mold Inspection does not include a visual examination of the entire building, but is *limited* to a specific area of the building identified and defined by the inspector.

Prior to the inspection, the inspector and client shall agree to the limitations of the visual examination. As a result, potential sources of mold growth in other areas of the building may not be inspected.

The inspector shall perform:

- ✓ a non-invasive, visual examination of the readily accessible, visible, and installed systems and components of only the specific room or area defined by the inspector and agreed to by the client;
- ✓ at least two air samples (one indoor and one outdoor); and
- ✓ possibly one surface sampling at an area of concern.

The inspector shall report:

- ✓ moisture intrusion;
- ✓ water damage;
- ✓ musty odors;
- ✓ apparent mold growth;
- ✓ conditions conducive to mold growth; and
- ✓ the results of a laboratory analysis of all mold samplings taken at the building.

The Limited Mold Inspection is a fast and affordable way to confirm the existence of mold and, if possible, determine the type of mold present in a specific, defined area of the building.

An example of a Limited Mold Inspection:

The inspector's client requests a Limited Mold Inspection. This type of inspection is specifically limited to the under-floor crawlspace of the building. Only the crawlspace will be inspected with a visual examination and at least one mold sample, typically a tape sample, if apparent mold is visible.

SCOPE OF EVALUATION

The scope of this Mold Report was the visual inspection and non-invasive testing of the first floor near the bathroom, second floor near the bathroom and in the attic, and the Laboratory Analysis of the tests performed. No inspection for mold or evaluation of other areas conducive to mold growth were included in this evaluation. Additional testing and evaluation for sources of mold or conditions that might contribute to mold growth in other areas of the home can be arranged for an additional fee.

Equipment Used:

Air samples were taken with a IAQ MegaLite Pump and Z-5 cartridges, with each air sample running for 5 minutes at 15 liters per minute as is standard protocol for this type of test.

Tests Performed:

Number of air samples - 4
Culture Swab Samples - 0
Bio-Tape Samples - 0

Observations:

Moisture Intrusion – No moisture intrusion noted.

Water Damage – None noted

Musty Odors – None noted

Apparent Mold Growth – None found

Conditions Conducive to Mold Growth – No conditions found within the structure.

RECOMMENDATIONS

We have reviewed the laboratory analysis of the samples submitted. Based on the results for the area(s) tested, the building appears to be in normal condition with no elevated readings. Conditions may change that could result in elevated readings, so it is important that you understand that the testing and analysis were for the day of the inspection only.

The four factors necessary for mold growth are: (1) a temperature range between 40° and 100° F; (2) the presence of mold spores; (3) a nutrient base; and (4) moisture. Temperature, food and microbial growth cannot be adequately manipulated to control microbial growth, but moisture can. Moisture is the controlling factor! Therefore, moisture control is the primary strategy to limit and prevent mold growth. Moisture can be in the form of water intrusion, condensation or even high humidity. **KEEP QUESTIONABLE AREAS DRY!**

Results of the Laboratory Analysis of Mold Samplings Follows

PRO-LAB®
1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

JACK'S HOME INSPECTIONS, LLC
8707 E SAN LUCAS DR
SCOTTSDALE, AZ 85258

Certificate of Mold Analysis

Prepared for:	JACK'S HOME INSPECTIONS, LLC
Phone Number:	(602) 430-8215
Fax Number:	
Project Name:	D. STANLEY
Test Location:	15240 N CLUBGATE DR SCOTTSDALE, AZ 85254
Chain of Custody #:	945742
Received Date:	May 3, 2016
Report Date:	May 3, 2016

Erika Piechowski, Technical Manager

Carlos Ochoa, Quality Control Manager

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. 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.

AIHA LAP, LLC
ACCREDITED LABORATORY
ENVIRONMENTAL MICROBIOLOGY
ISO/IEC 17025:2005
WWW.AIHAACCREDITEDLABS.ORG
LAB # 163230

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

PRO-LAB®

1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Prepared for : JACK'S HOME INSPECTIONS, LLC

Test Address : D. STANLEY
15240 N CLUBGATE DR
SCOTTSDALE, AZ 85254

ANALYSIS METHOD	Spore trap analysis	Spore trap analysis	Spore trap analysis	Spore trap analysis
LOCATION	CONTROL OUTSIDE	1ST FL	2ND FL	ATTIC
COC / LINE #	945742-1	945742-2	945742-3	945742-4
SAMPLE TYPE & VOLUME	Z5 - 25L	Z5 - 25L	Z5 - 25L	Z5 - 25L
SERIAL NUMBER	Q364669	Q364704	Q364706	Q363865
COLLECTION DATE	**Apr 30, 2016**	**Apr 30, 2016**	**Apr 30, 2016**	**Apr 30, 2016**
ANALYSIS DATE	**May 3, 2016**	**May 3, 2016**	**May 3, 2016**	**May 3, 2016**
CONCLUSION	**CONTROL**	**NOT ELEVATED**	**NOT ELEVATED**	**NOT ELEVATED**

IDENTIFICATION	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total
Chaetomium										2	80	22
Cladosporium	1	40	14	1	40	50				3	120	33
Other Ascospores	1	40	14							1	40	11
Other Basidiospores	1	40	14							3	120	33
Penicillium/Aspergillus	3	120	43	1	40	50	1	40	33			
Smuts, myxomycetes	1	40	14				2	80	67			
TOTAL SPORES	7	280	100	2	80	100	3	120	100	9	360	100
MINIMUM DETECTION LIMIT*	1	40		1	40		1	40		1	40	
BACKGROUND DEBRIS	Moderate			Moderate			Moderate			Heavy		
Cellulose Fiber				25	1,000		3	120		12	480	
Fiberglass										56	2,200	
Insect Fragments				1	40					1	40	
OBSERVATIONS & COMMENTS	Mostly non-biological debris						Mostly non-biological debris					

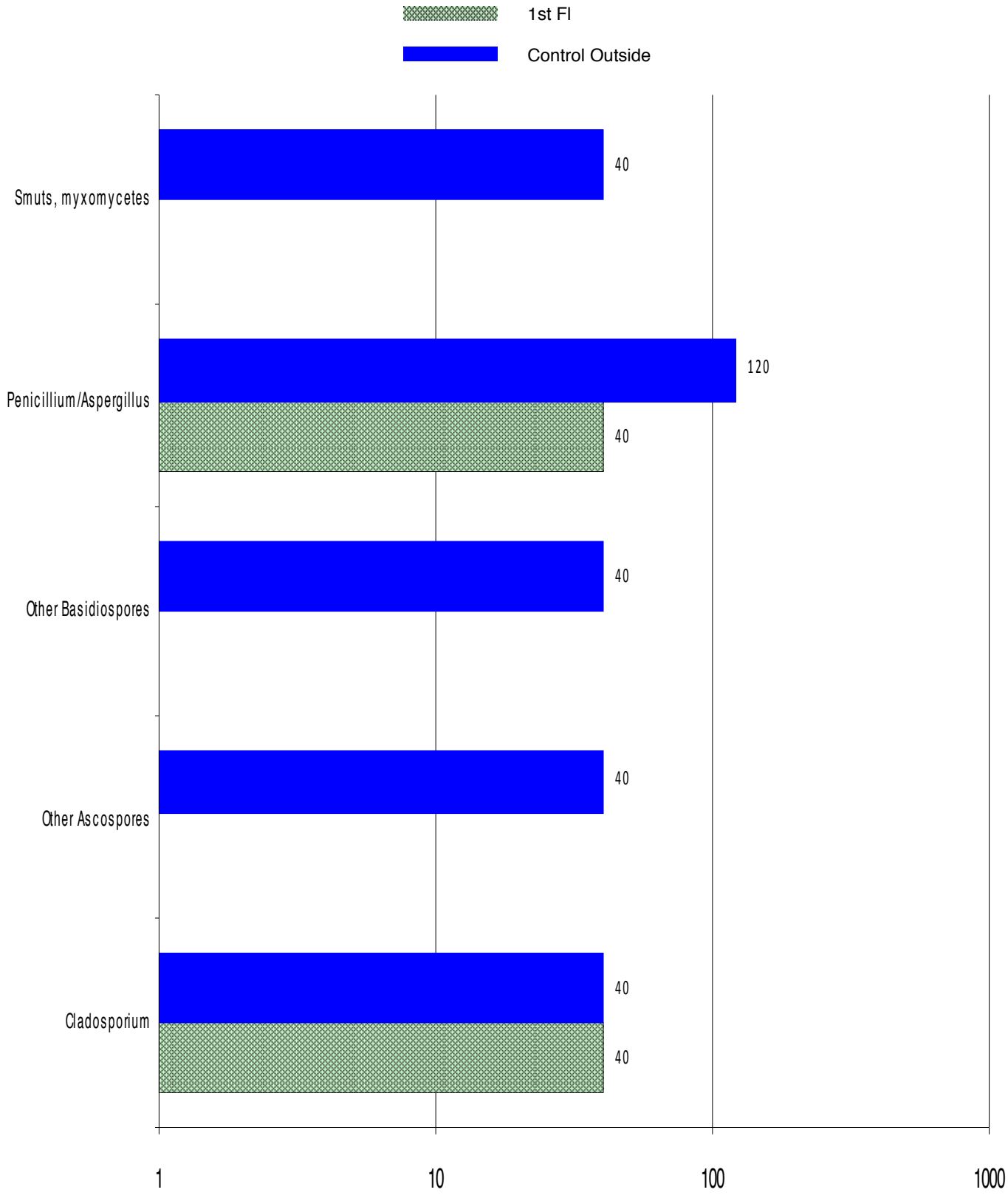
Background debris qualitatively estimates the amount of particles that are not pollen or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Accurate Count, are used to indicate the amount of deposited debris. Increasing amounts of 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.

PRO-LAB®
1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

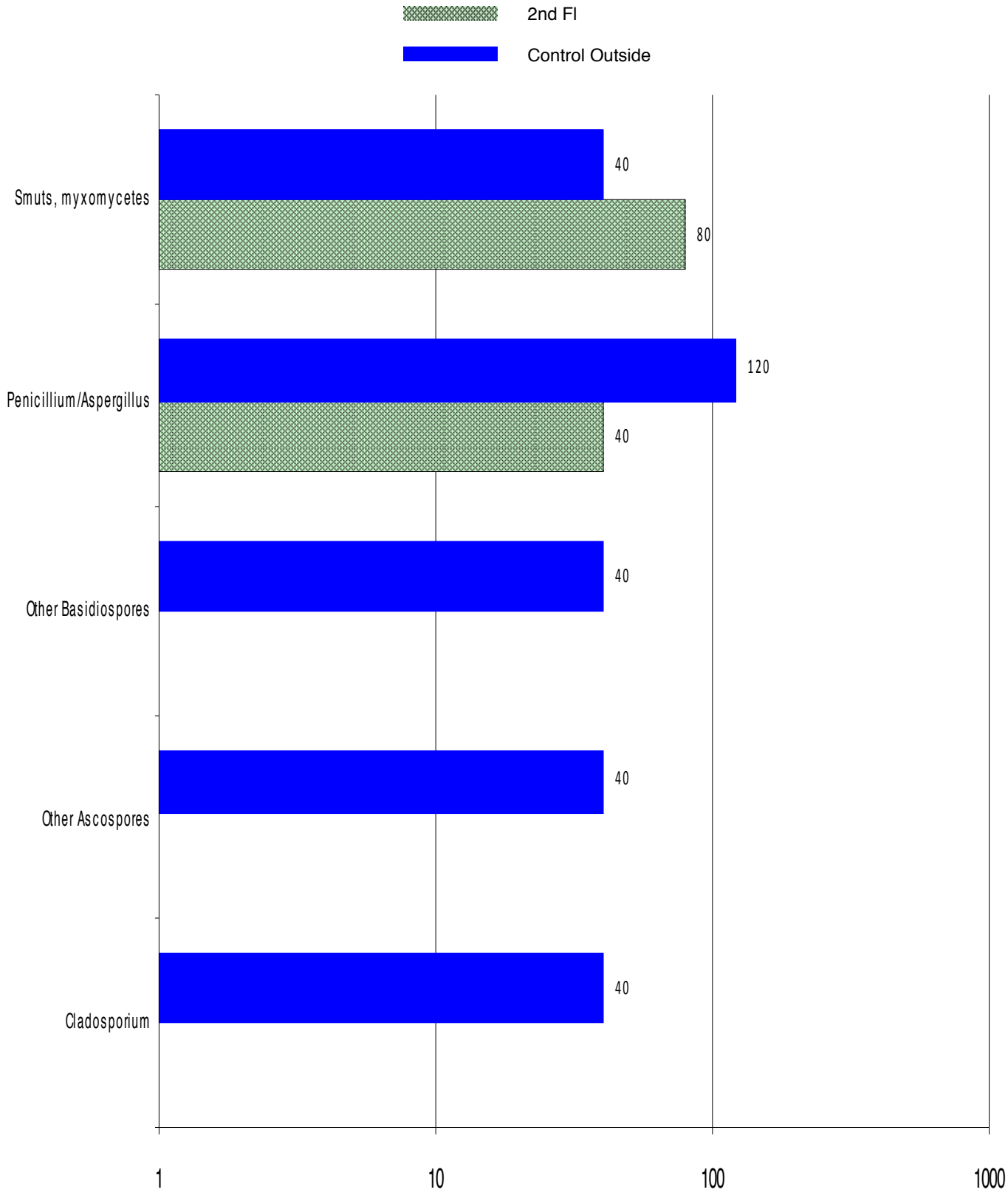
Chain of Custody # 945742



Spores per cubic meter

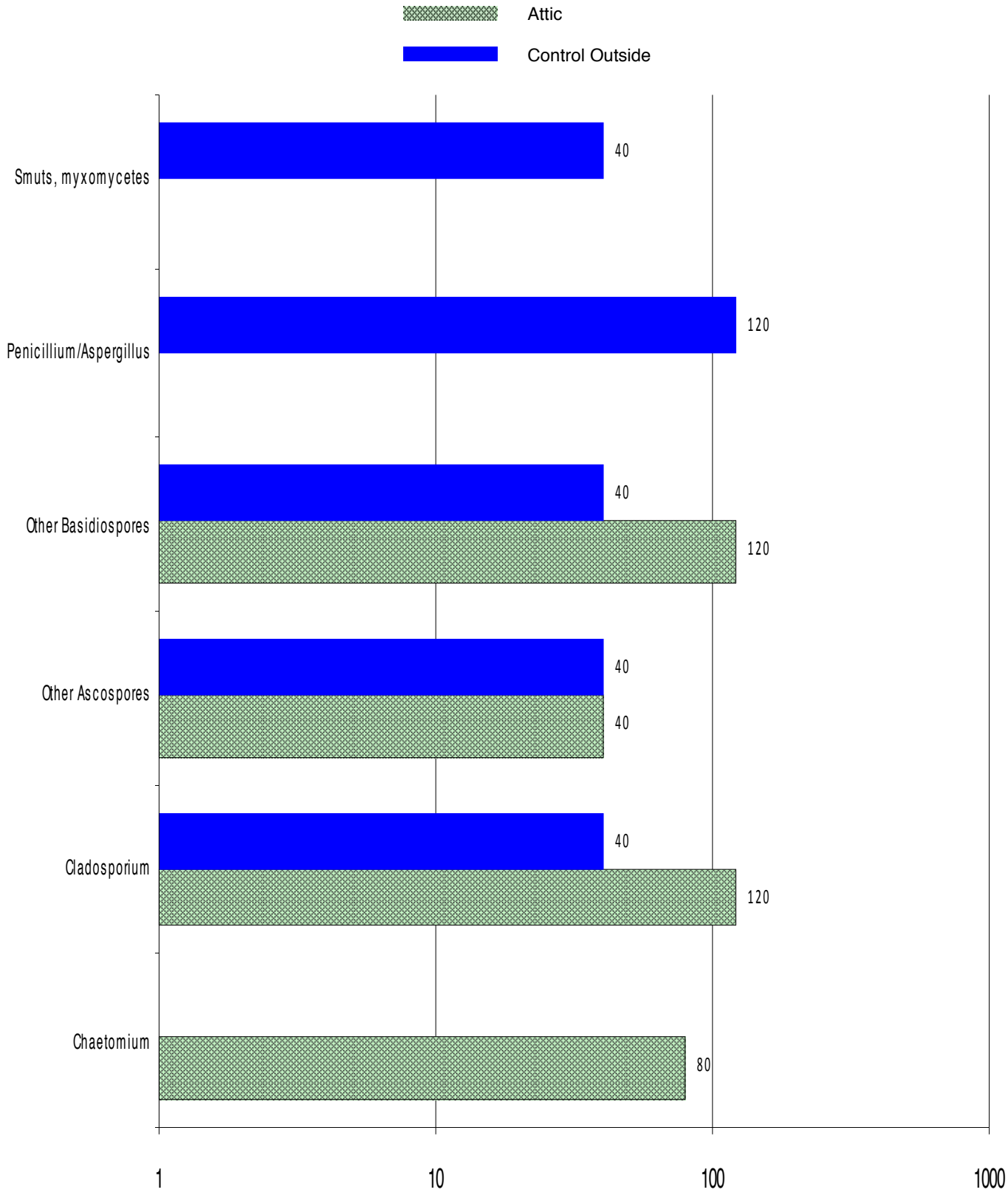
PRO-LAB®
1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Chain of Custody # 945742



PRO-LAB®
1675 North Commerce Parkway, Weston, FL 33326 (954) 384-4446

Chain of Custody # 945742



Spores per cubic meter

Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
Chaetomium	Growing on dung, dead leaves, wood.	Cellulose substrates, especially wallboard, cardboard and wood. Not normally seen growing indoors unless the building material has been wetted. Unusual / Not Normal to be growing indoors.	Type I (hay fever and asthma) allergies.	Chaetomium is a water-indicating mold. Spores of this type of mold should not be observed in significantly higher numbers in the air above background/control. If growth and/or significantly higher than backgroud/control spore numbers are reported, corrective action should be considered to reduce the source of water, moisture levels and/or spore numbers in the living space.
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.
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.
Smuts, myxomycetes	Commonly found everywhere, espcially 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 distinquished from each other.