FAST TRACK RESTORATION
CLEANING SERVICES
WATER | FIRE | MOLD

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Summary of Laboratory Analysis for Air Quality

Prepared for:

Arthur A. Richards Junior High School

St. Croix V.I. 00840

Prepared By:

Fast Track Restoration Services

Fast Track Restoration Services
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December 11, 2023

Davidson Charlemagne
Virgin Islands Department of Education
Plant Operations

Re: In-door Air Quality Testing at Arthur A. Richards Junior High School

Scope of Work and Methods

Fast Track Restoration and Cleaning Services performed a mold removal of contaminated walls, mold-remediation, restoration, and air quality assessments to the following areas *(main office, main office lobby, main office staff lounge, library, TR-101C, payroll office, & file room)* located at Arthur A. Richards Junior Hugh School located at #20 & 21 Stoney Ground, Frederiksted, St. Croix 00840; and have prepared this report summarizing our inspection findings and laboratory results of the indoor air quality.

Air Sampling and Analysis

The air sampling methodology utilized for this project was designed to quantify the respective airborne presence of fungal spores in the interior workspaces in relationship to what is naturally occurring outdoors, commonly referred to as normal fungal ecology. Air samples are collected by utilizing a high volume-sampling pump calibrated to a flow rate of 5 liters per 5 minutes. The pump then impacts the drawn air into an "Pro5" cassette. The cassette is a fully contained microscopic slide and media that collects any airborne fungal spores and hyphae particles by impaction on the media.

A control/baseline air sample was collected outdoors for comparison purposes; an indoor air samples were collected in and near workspaces where mold-remediation and restoration were performed. After sample collection, the cassettes are re-sealed and placed into individual plastic bags and shipped via overnight courier to Pro-Lab. for direct microscopic examination. There, a microbiologist examined the slides to identify the type, and determine the airborne concentration of, fungal spores present. Spore identification is to genus level unless otherwise specified.

Summary of Laboratory Analysis

Six air samples were collected from inside the building, and two air samples from outside was analyzed. The outside sample which is the "control" is a baseline sample showing what the spore

count and diversity is at the time of sampling. The laboratory analysis from the collected outdoor sample reveals the total spore measurements of the outside environment show total counts from 24 under very dry conditions to 800 counts per cubic meter under humid conditions in the rainy season. The outside sample showed 107 c/m3 of which Aspergillus/Penicillium was the prevalent mold spore.

Interpretation:

The indoor air sample was consistent with normal fungal ecology and showed no elevated presence of airborne mold spore concentrations existing. The concentrating levels are within acceptable limits according to the industry standards. However, mold spores count in all areas tested were approaching an elevated state and showed a slight proximity to the samples collected from the external environment. Therefore, all areas tested should be monitored, and preventative measures are recommended.

The sample results can be found in the laboratory report.

Recommendations:

1. Mold remediation to reduce spore levels and address the water leaks or moisture issue promptly:
    - The main office: presence of moisture on three walls under the A/C in TR-101C.
    - TR 101: presence of moisture on two walls
    - TR101A office: presence of moisture on two and half wet walls.
    - Library: presence of moisture on three wet walls.

Recommended Remediation Steps:

a. **Source Identification and Elimination:**
    - Conduct a thorough inspection to identify and rectify any water leaks, plumbing issues, or areas of excessive moisture.
    - Address and repair any water damage promptly.

b. **Cleaning and Removal:**
    - Engage professional mold remediation services to safely clean and remove visible mold growth.
    - Dispose of contaminated materials properly according to regulations.

c. **Ventilation and Dehumidification:**
    - Improve ventilation in damp areas to reduce humidity levels.
    - Install dehumidifiers in areas prone to high humidity.

d. **Sealing and Encapsulation:**
    - Seal and encapsulate porous surfaces after mold removal to prevent future growth.
    - Use mold-resistant paints and materials where applicable.

e. **HVAC System Inspection:**
    - Inspect and clean HVAC systems, including air ducts and filters, to prevent the spread of mold spores.
    - Consider installing high-efficiency particulate air (HEPA) filters.

f. **Post-Remediation Verification:**
   - After remediation, conduct another air quality test to ensure that mold spore levels have returned to acceptable levels.

g. **Preventive Measures:**
   - Educate occupants about proper ventilation practices and mold prevention strategies.
   - Regularly inspect and maintain the property to address potential moisture issues promptly.

Conclusion 1: The above recommendations aim to address the identified moisture issues at the identified offices tested at Arthur A. Richards Junior High School effectively. Engaging professional mold remediation services is strongly advised to ensure a thorough and safe remediation process.

2. Deep cleaning recommended to bring spore levels down in the payroll offices and file room.

Conclusion 2: Based on the air quality testing, the mold concentration levels are generally within acceptable ranges. However, it is advisable for the client to take preventative measures to maintain a healthier indoor environment.

Vidal Davis,

Vidal Davis

Certified Microbial Remediation Specialist

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

FAST TRACK RESTORATION

FORT LAUDERDALE, FL 33325

Certificate of Mold Analysis

Prepared for:	FAST TRACK RESTORATION
Phone Number:	(678) 772-5787
Fax Number:	
Project Name:	ARTHUR A. RICHARDS JR HIGH SCHOOL
Test Location:	20 & 21 ESTATE STONEY GROUND
	FREDERIKSTED , 00840
Report Number:	1693783
Received Date:	December 5, 2023
Report Date:	December 5, 2023

Diana Sauri, Laboratory Director or other approved signatory

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.

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

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Prepared for : FAST TRACK RESTORATION

Test Address : ARTHUR A. RICHARDS JR HIGH SCHOOL
20 & 21 ESTATE STONEY GROUND
FREDERIKSTED , 00840

ANALYSIS METHOD	6110 Air Direct Examination	6110 Air Direct Examination	6110 Air Direct Examination	6110 Air Direct Examination
LOCATION	MAIN OFFICE LOBBY	LUNCH AREA/KITCHEN/ OFFICE	OUTSIDE	TR-101C OFFICE
COC / LINE #	1693783 - 1	1693783 - 2	1693783 - 3	1693783 - 4
SAMPLE TYPE	PRO-15	PRO-15	PRO-15	PRO-15
VOLUME	225.00L	225.00L	225.00L	225.00L
SERIAL NUMBER	Q2360578	Q2360558	Q2358391	Q2360582
COLLECTION DATE	**Nov 30, 2023**	**Nov 30, 2023**	**Nov 30, 2023**	**Nov 30, 2023**
ANALYSIS DATE	**Dec 5, 2023**	**Dec 5, 2023**	**Dec 5, 2023**	**Dec 5, 2023**
CONCLUSION	**NOT ELEVATED**	**NOT ELEVATED**	**CONTROL**	**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
Cladosporium	4	18	33	4	18	50	4	18	17	4	18	100
Other Ascospores							4	18	17			
Penicillium/Aspergillus	8	36	67	4	18	50	16	71	66			
TOTAL SPORES	12	54	100	8	36	100	24	107	100	4	18	100
MINIMUM DETECTION LIMIT*	4	18		4	18		4	18		4	18	
BACKGROUND DEBRIS	Light			Light			Light			Light		
Cellulose Fiber	8	36					4	18				
OBSERVATIONS & COMMENTS												

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%. The effect of the results relate only to the items tested. The methods used in this analysis have been validated and is fit for the intended use. R "version" indicated after the lab ID# indicates a sample with amended data. PRO-LAB/SSPTM Inc. does not perform any sample collection. The information is supplied by the customer and can affect the validity of results. The results apply to the sample as received.

*** 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
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Prepared for : FAST TRACK RESTORATION

Test Address : ARTHUR A. RICHARDS JR HIGH SCHOOL
20 & 21 ESTATE STONEY GROUND
FREDERIKSTED , 00840

ANALYSIS METHOD	6110 Air Direct Examination			6110 Air Direct Examination			INTENTIONALLY BLANK			INTENTIONALLY BLANK		
LOCATION	PAY ROLL OFFICE			FILE ROOM								
COC / LINE #	1693783 - 5			1693783 - 6								
SAMPLE TYPE	PRO-15			PRO-15								
VOLUME	225.00L			225.00L								
SERIAL NUMBER	Q2387377			Q2386409								
COLLECTION DATE	**Nov 30, 2023**			**Nov 30, 2023**								
ANALYSIS DATE	**Dec 5, 2023**			**Dec 5, 2023**								
CONCLUSION	**NOT ELEVATED**			**NOT ELEVATED**								
IDENTIFICATION	Raw Count	Spores per m^3	Percent of Total	Raw Count	Spores per m^3	Percent of Total						
Cladosporium	4	18	100	4	18	20						
Other Ascospores												
Penicillium/Aspergillus				16	71	80						
TOTAL SPORES	4	18	100	20	89	100						
MINIMUM DETECTION LIMIT*	4	18		4	18							
BACKGROUND DEBRIS	Light			Light								
Cellulose Fiber												
OBSERVATIONS & COMMENTS												

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%. The effect of the results relate only to the items tested. The methods used in this analysis have been validated and is fit for the intended use. R "version" indicated after the lab ID# indicates a sample with amended data. PRO-LAB/SSPTM Inc. does not perform any sample collection. The information is supplied by the customer and can affect the validity of results. The results apply to the sample as received.

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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.

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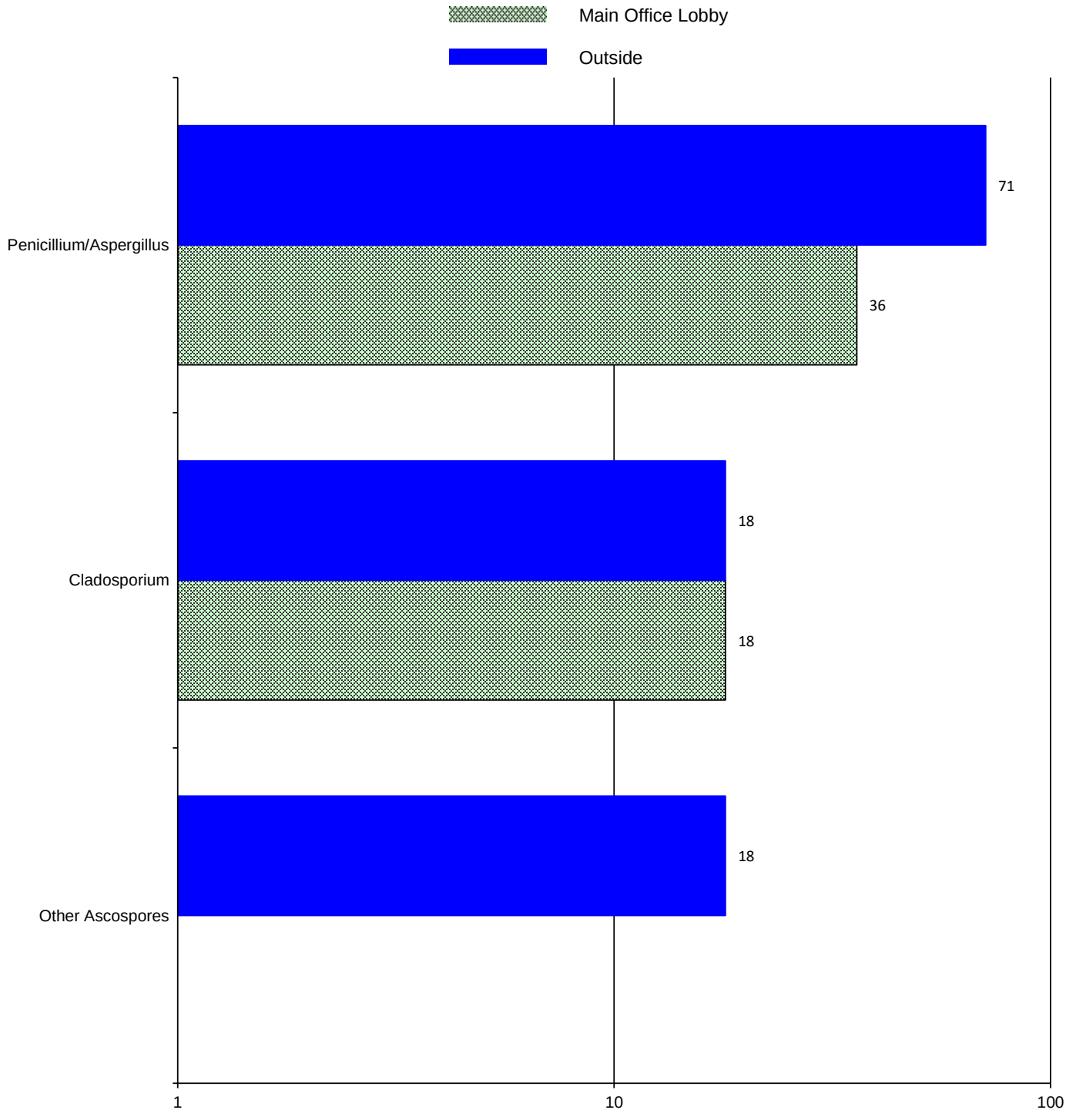
Chain of Custody # 1693783



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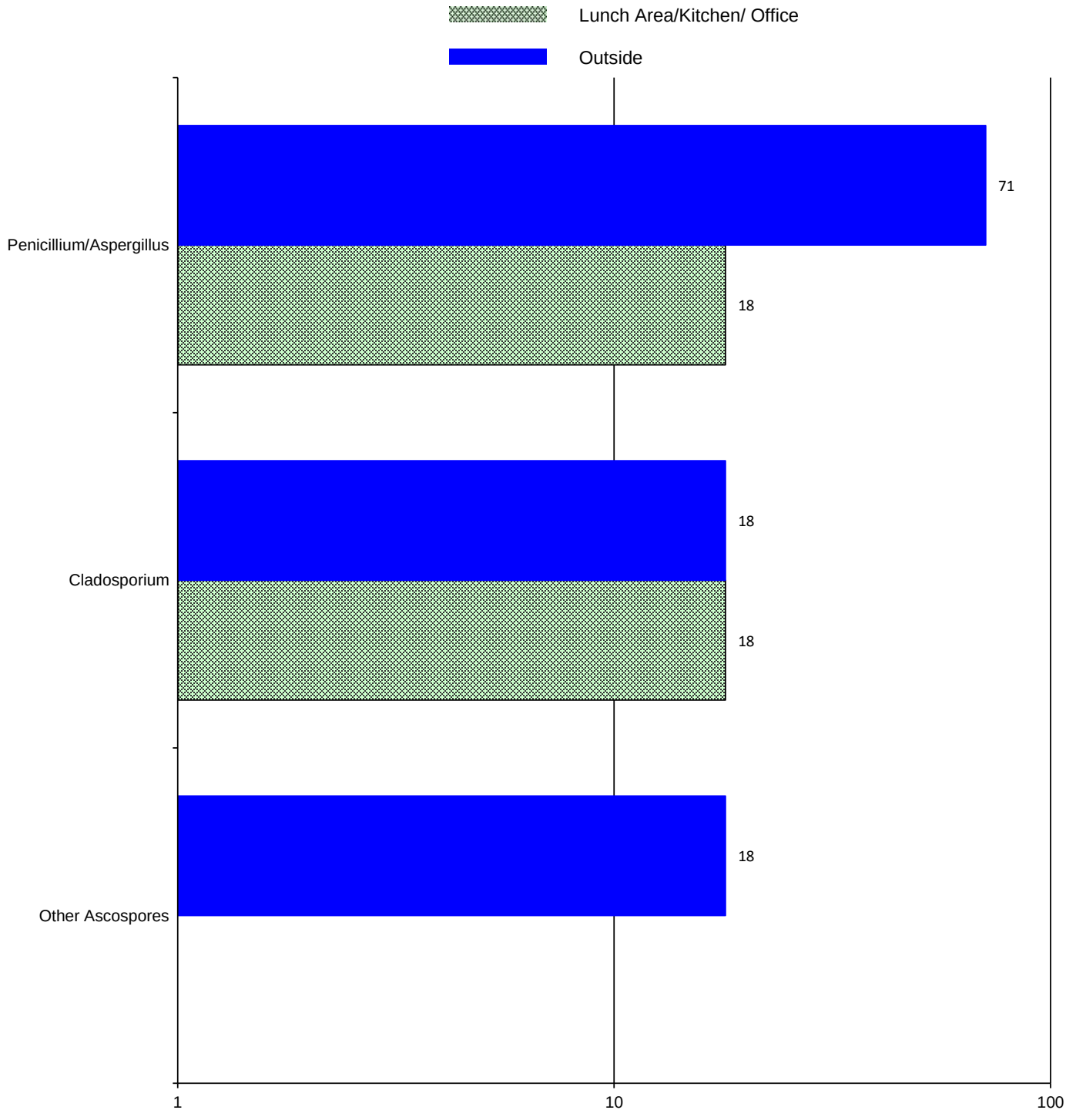

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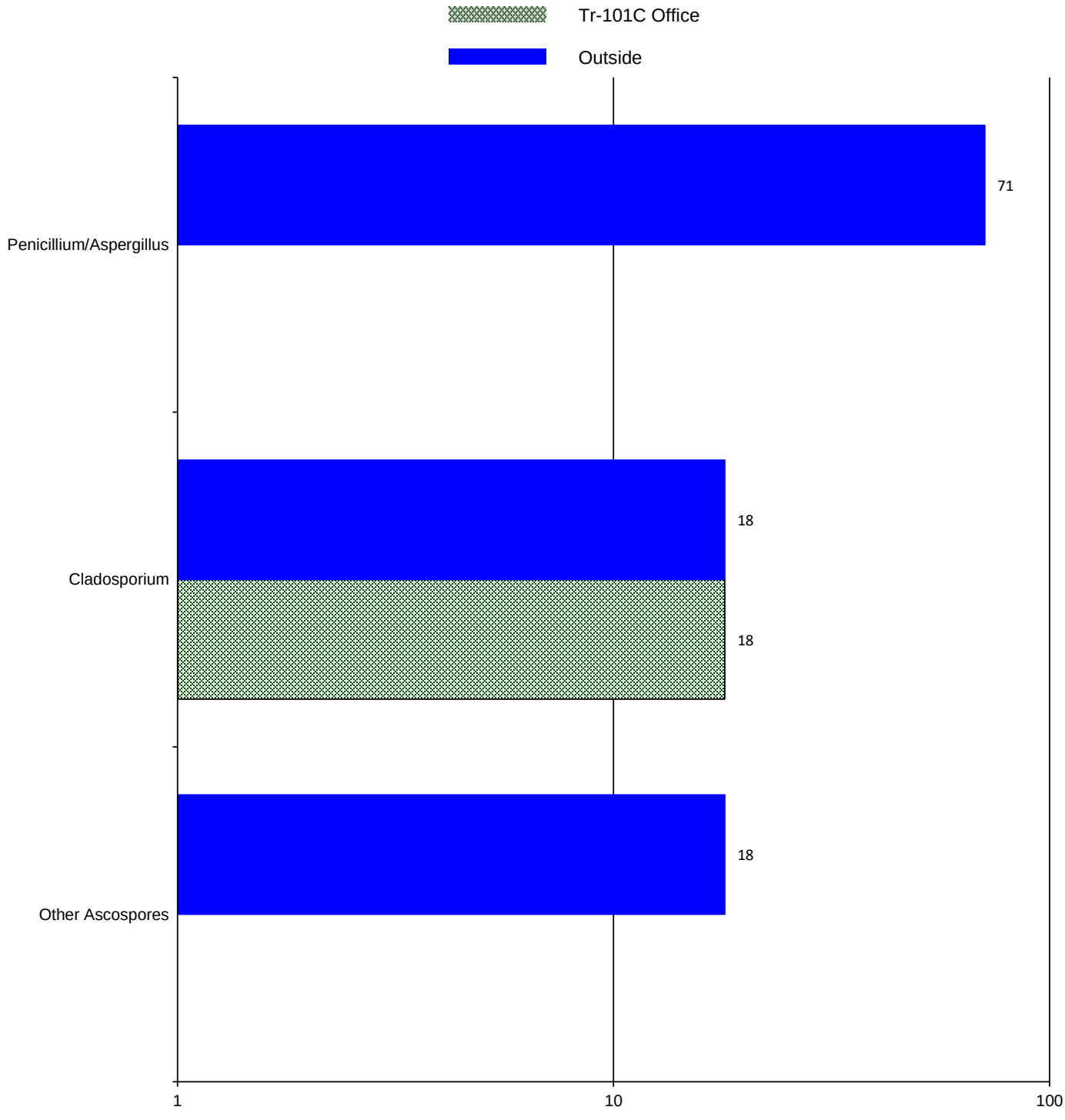

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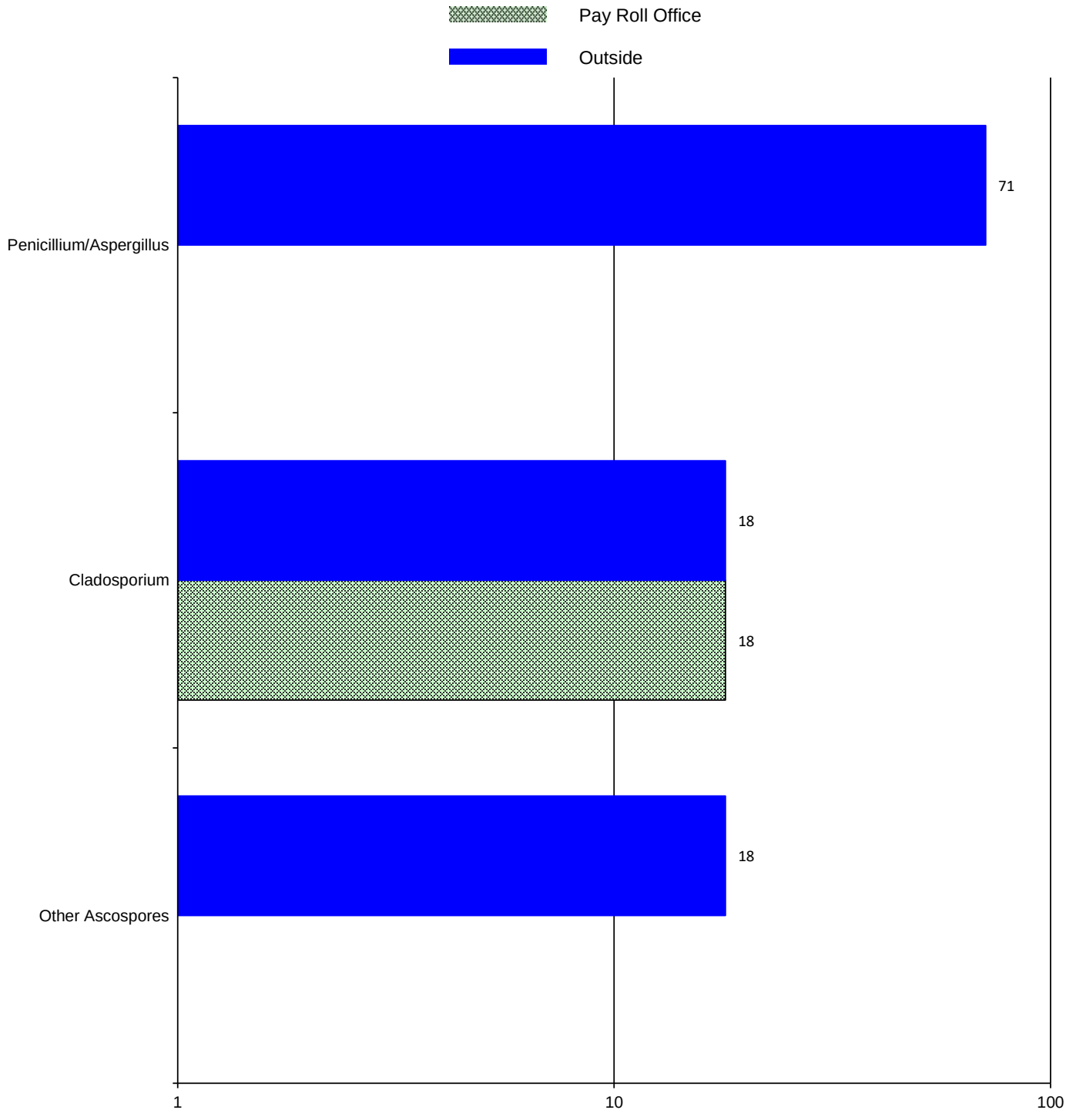

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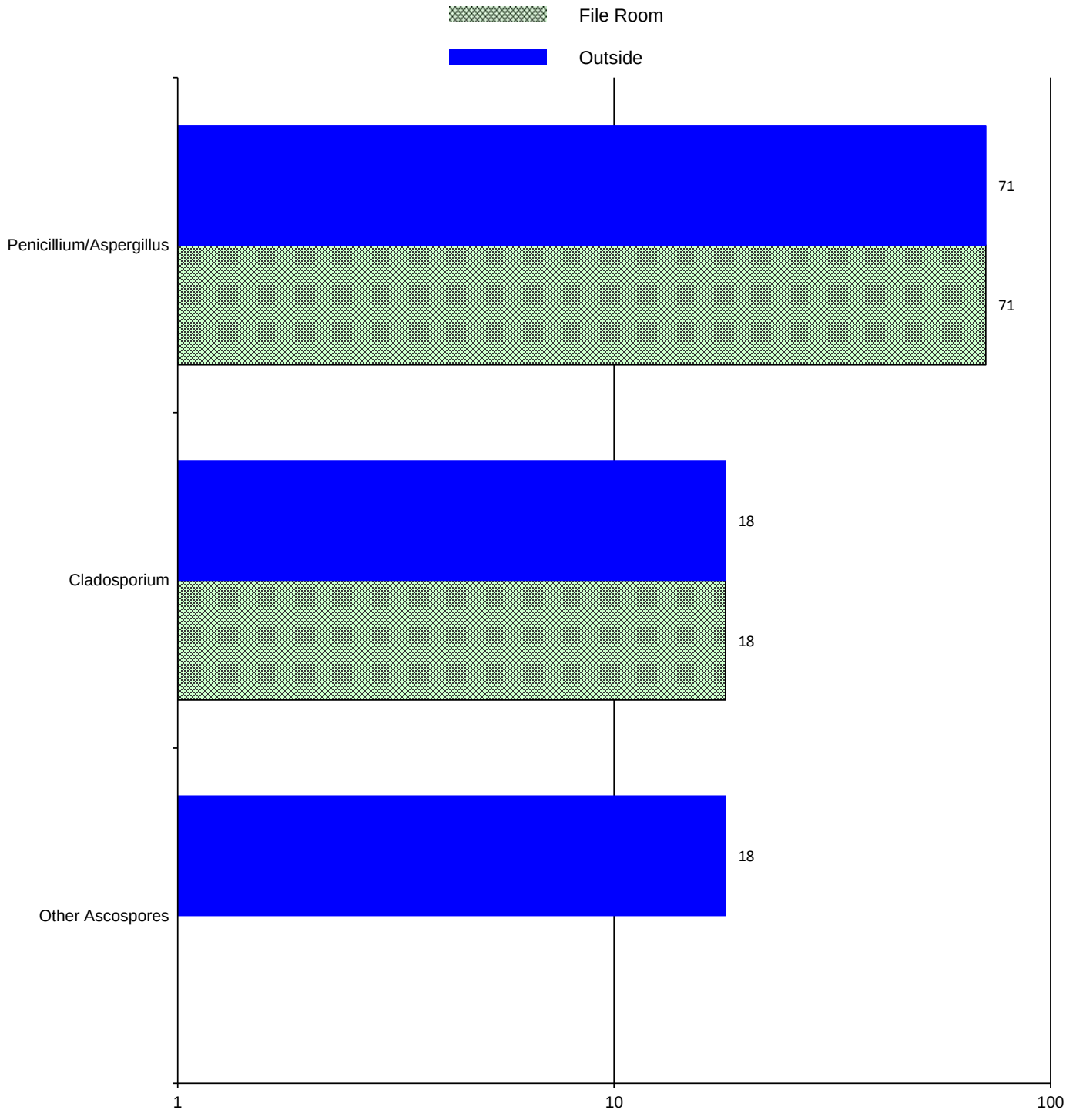

Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
Cladosporium	The most common spore type reported in the air worldwide. Found on dead and dying plant litter, and soil.	Commonly found on wood and wallboard. Commonly grows on window sills, 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.
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).	
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.