



3301 N.W. 55TH ST., FT. LAUDERDALE, FL 33309
888-854-0477

PREPARED FOR: OCEAN STATE ANALYTICAL SERVICES

TEST ADDRESS: 215 COLUMBIA ST WAKEFIELD, RI 02879

CERTIFICATE OF MOLD ANALYSIS

PREPARED FOR:

OCEAN STATE ANALYTICAL SERVICES

PHONE NUMBER: (401) 474-6586

EMAIL: JLSALTZMAN@AOL.COM

TEST LOCATION:

SOUTH KINGSTON HIGH SCHOOL

215 COLUMBIA ST

WAKEFIELD, RI 02879

CHAIN OF CUSTODY # 52306522

COLLECTED: WED NOVEMBER 06, 2019

RECEIVED: THU NOVEMBER 07, 2019

REPORTED: THU NOVEMBER 07, 2019

APPROVED BY:

JOHN D. SHANE PHD
LABORATORY MANAGER

VERSION: 1.0 (A VERSION NUMBER GREATER THAN ONE (1) INDICATES THAT THE DATA IN THIS REPORT HAS BEEN AMENDED)

EPA regulations or standards for airborne or surface mold concentrations have not been established. There are also no EPA regulations or standards for evaluating health effects due to mold exposure. Information about mold can be found at www.epa.gov/mold.

All samples were received in an acceptable condition for analysis unless noted specifically in the Comments section under a particular sample. All results relate only to the samples submitted for analysis.

A version greater than 1.0 indicates that the lab report has been revised.

IF YOU HAVE QUESTIONS REGARDING THIS REPORT, PLEASE CONTACT INSPECTORLAB AT (888) 854-0477 OR EMAIL ASK@INSPECTORLAB.COM.

Detailed Mold Report (WATER-INDICATING FUNGI, IF PRESENT, ARE SHOWN BELOW IN RED)

| | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Analysis Method | Air Analysis | Air Analysis | Air Analysis | Air Analysis |
| Lab Sample # | 52306522-1 | 52306522-2 | 52306522-3 | 52306522-4 |
| Sample Identification | 29136689 | 29136696 | 29136721 | 28825528 |
| Sample Location | CONTROL | ROOM 114 A | ROOM 114 | ROOM 115 |
| Sample Type / Metric | Air-O-Cell/150L | Air-O-Cell/150L | Air-O-Cell/150L | Air-O-Cell/150L |
| Analysis Date | Thu November 07, 2019 | Thu November 07, 2019 | Thu November 07, 2019 | Thu November 07, 2019 |
| Determination | CONTROL | NORMAL | NORMAL | NORMAL |

| Fungal Types Identified | Raw Count | Spores / m ³ | % of Total | Raw Count | Spores / m ³ | % of Total | Raw Count | Spores / m ³ | % of Total | Raw Count | Spores / m ³ | % of Total |
|--------------------------------|-----------|-------------------------|------------|-----------|-------------------------|------------|-----------|-------------------------|------------|-----------|-------------------------|------------|
| **Non-Problem Fungi | | | | | | | | | | | | |
| Ascospores | 37 | 248 | 57 | --- | --- | --- | 1 | 7 | 3 | --- | --- | --- |
| Basidiospores | 12 | 80 | 18 | --- | --- | --- | 12 | 80 | 41 | 3 | 20 | 5 |
| Cladosporium | 4 | 27 | 6 | 2 | 13 | 48 | 6 | 40 | 20 | 45 | 302 | 84 |
| Epicoccum | --- | --- | --- | --- | --- | --- | 3 | 20 | 10 | --- | --- | --- |
| Glomastix | 10 | 67 | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Myrothecium | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1 | 7 | 1 |
| Penicillium/Aspergillus | --- | --- | --- | 1 | 7 | 25 | 5 | 34 | 17 | --- | --- | --- |
| Pithomyces | --- | --- | --- | --- | --- | --- | 1 | 7 | 3 | --- | --- | --- |
| Smut/Myxomycetes | 1 | 7 | 1 | --- | --- | --- | 1 | 7 | 3 | 4 | 27 | 7 |
| Unclassified Pigmented Spores | --- | --- | --- | 1 | 7 | 25 | --- | --- | --- | --- | --- | --- |
| Total Spore Count | 64 | 429 | 100 | 4 | 27 | 100 | 29 | 195 | 100 | 53 | 356 | 100 |
| Minimum Detection Limit | 7 | | | 7 | | | 7 | | | 7 | | |

| Background Debris | | | | | | | | | | | | |
|--------------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Cellulose Fibers | --- | --- | --- | 13 | 87 | 9 | 44 | 295 | 17 | 15 | 101 | 8 |
| Fiberglass | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1 | 7 | <1 |
| Minerals | 3 | 20 | 42 | --- | --- | --- | 9 | 60 | 3 | 8 | 54 | 4 |
| Pollen | 1 | 7 | 14 | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Skin Cells | 3 | 20 | 42 | 125 | 838 | 87 | 186 | 1246 | 71 | 114 | 764 | 66 |
| Soot | --- | --- | --- | 3 | 20 | 2 | 9 | 60 | 3 | 2 | 13 | 1 |
| Starch Grains | --- | --- | --- | --- | --- | --- | 11 | 74 | 4 | 31 | 208 | 18 |
| Synthetic Fibers | --- | --- | --- | 2 | 13 | 1 | --- | --- | --- | --- | --- | --- |

| Comments/Definitions | CONTROL | NORMAL | NORMAL | NORMAL |
|--|---|---|---|---|
| Raw Count: Actual number of spores observed and counted. Spores/m³: Spores per cubic meter. % of Total: Percentage of a particular spore in relation to total number of spores. X: Spore type was observed. --- : Spore type was not observed. | CONTROL samples are normally taken outside a building to provide a baseline from which samples on the interior of the building are compared. Outside air is considered normal whatever the mold counts may be. LIGHT DEBRIS: The debris present in the sample likely had no effect on the accuracy of the mold count. | Mold counts are within a NORMAL RANGE and there is no indication, based on the mold counts, that there is any exposure concern to the occupants. MODERATE DEBRIS: The debris present in the sample likely had limited effect on the accuracy of the mold count. | Mold counts are within a NORMAL RANGE and there is no indication, based on the mold counts, that there is any exposure concern to the occupants. The LIGHT DEBRIS present in the sample likely had no effect on the accuracy of the mold count. | Mold counts are within a NORMAL RANGE and there is no indication, based on the mold counts, that there is any exposure concern to the occupants. MODERATE DEBRIS: The debris present in the sample likely had limited effect on the accuracy of the mold count. |

** Non-Problem Fungi are less capable or do not grow on wetted building materials. They are commonly found in the air outside and infiltrate into indoor air naturally. High numbers of any one of these spore types as compared to the Control sample may indicate that they are growing on wetted building materials indoors. Spore types not listed in this report were not observed. Background debris estimates the amount of non-spore particles. Increasing amount of debris will affect the accuracy of the spore counts. Total percent may not equal 100% due to rounding.

Detailed Mold Report

(WATER-INDICATING FUNGI, IF PRESENT, ARE SHOWN BELOW IN RED)

| | | | | |
|-----------------------|-----------------------|---------------------|---------------------|---------------------|
| Analysis Method | Air Analysis | Intentionally Blank | Intentionally Blank | Intentionally Blank |
| Lab Sample # | 52306522-5 | | | |
| Sample Identification | 28825527 | | | |
| Sample Location | HALL 1st FLOOR | | | |
| Sample Type / Metric | Air-O-Cell/150L | | | |
| Analysis Date | Thu November 07, 2019 | | | |
| Determination | NORMAL | | | |

| Fungal Types Identified | Raw Count | Spores / m ³ | % of Total | | | |
|---|---|-------------------------|------------|---------------------|---------------------|---------------------|
| **Non-Problem Fungi | | | | | | |
| Epicoccum | 2 | 13 | 13 | | | |
| Penicillium/Aspergillus | 9 | 60 | 60 | | | |
| Smut/Myxomycetes | 4 | 27 | 27 | | | |
| Total Spore Count | 15 | 100 | 100 | | | |
| Minimum Detection Limit | 7 | | | | | |
| Background Debris | | | | | | |
| Cellulose Fibers | 24 | 161 | 12 | | | |
| Insect Fragments | 1 | 7 | <1 | | | |
| Minerals | 7 | 47 | 3 | | | |
| Skin Cells | 132 | 884 | 69 | | | |
| Soot | 8 | 54 | 4 | | | |
| Starch Grains | 18 | 121 | 9 | | | |
| Comments/Definitions Raw Count: Actual number of spores observed and counted. Spores/m³: Spores per cubic meter. % of Total: Percentage of a particular spore in relation to total number of spores. X: Spore type was observed. --- : Spore type was not observed. | Mold counts are within a NORMAL RANGE and there is no indication, based on the mold counts, that there is any exposure concern to the occupants. The LIGHT DEBRIS present in the sample likely had no effect on the accuracy of the mold count. | | | INTENTIONALLY BLANK | INTENTIONALLY BLANK | INTENTIONALLY BLANK |

**** Non-Problem Fungi** are less capable or do not grow on wetted building materials. They are commonly found in the air outside and infiltrate into indoor air naturally. High numbers of any one of these spore types as compared to the Control sample may indicate that they are growing on wetted building materials indoors.

Spore types not listed in this report were not observed.

Background debris estimates the amount of non-spore particles. Increasing amount of debris will affect the accuracy of the spore counts. Total percent may not equal 100% due to rounding.

Introduction

All spores found in indoor air are also normally found in outdoor air because most originate or live in the soil and on dead or decaying plants. Therefore, it is not unusual to find mold spores in indoor air. This Mold Glossary is only intended to provide general information about the mold found in the samples that were provided to the laboratory.

Ascospores

Outdoor Habitat: Soil and decaying vegetation, dead and dying insects. These spores constitute a large part of the spores in the air and can be found in the air in very large numbers in the spring and summer, especially during and up to three (3) days after a rain.

Indoor Habitat: Very few of fungi that produce ascospores grow indoors. Some fungi that produce ascospores are recognizable by their spores and when observed are listed under their own categories. Wetted wood and gypsum wallboard paper

Allergy Potential: Depends on the type of fungus producing the ascospores.

Disease Potential: Not normally pathogenic as a group

Toxin Potential: None known

Comments: Ascospores are produced from a very large group of fungi. Notable ascospores that are considered problematic for indoor environments are Chaetomium, Peziza, and Ascotracha. If these types of ascspores are observed they will be listed in the report under their own names.

Basidiospores

Outdoor Habitat: These are mushroom spores and are common everywhere outside, especially in the late summer and fall.

Indoor Habitat: Mushrooms can grow on very wet wood products, especially on footer plates, basements, and crawlspaces. Sometimes mushrooms can be observed growing in potted plants indoors.

Allergy Potential: Rarely reported, but some Type I (hay fever, asthma) and Type III (hypersensitivity pneumonitis) has been reported.

Disease Potential: None known

Toxin Potential: None known

Comments: Mushroom spores are commonly found indoors, especially when the outdoor spore count is high. When spores of this group are derived from wood rotting fungi, including dry rot (*Serpula* and *Poria*), they can be especially destructive to buildings. When spores from destructive types of mushrooms (dry and wet rot group) are observed in the sample they are listed under their own names on the report.

Cladosporium

Outdoor Habitat: Cladosporium is one of the most common environmental fungi observed worldwide and is widely reported from soil and decaying vegetation.

Cladosporium herbarum and C. cladosporioides are among the most frequently encountered species, both in outdoor and indoor environments.

Indoor Habitat: Wetted wood and gypsum wallboard paper, paper products, textiles, rubber, window sills. Cladosporium has the ability to grow at low temperatures and can thus, grow on rubber gaskets and food in refrigerators.

Allergy Potential: Type I (hay fever, asthma) - an important and common outdoor allergen

Disease Potential: Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals. Cladosporium are some of the most common species reported as indoor contaminants, occasionally linked to health problems.

Toxin Potential: Cladosporium has two known toxins (cladosporin and emodin). These toxins are not known to be highly toxic. There is no evidence in the literature of toxic effects associated to inhalation of Cladosporium conidia (spores) indoors.

Comments: The most commonly reported spore in the outdoor air worldwide. This makes Cladosporium one of the most commonly reported and abundant spore types both indoors and outdoors. The prevalence of this spore can vary throughout the year, but is especially high in late summer and autumn, especially where cereal crops are commonly planted.

An important and common allergen source.

Epicoccum

Outdoor Habitat: Epicoccum is a widespread cosmopolitan that grows on dead or decaying organic matter, wood, textiles, paper, a variety of foods, insects and human skin. It is commonly found in the soil. Epicoccum spores are more prevalent on dry, windy days, with higher counts late in the day.

Indoor Habitat: Capable of growing on a wide variety of substrates and manufactured products found indoors when wetted such as gypsum board, floors, carpets, mattress dust, and house plants.

Allergy Potential: Type I (hay fever, asthma)

Disease Potential: None known

Toxin Potential: None known

Comments: Very common in outdoor air in the summer months, especially in the midwest USA during harvest times.

PREPARED FOR: OCEAN STATE ANALYTICAL SERVICES

TEST ADDRESS: 215 COLUMBIA ST WAKEFIELD, RI 02879

Gliomastix**Outdoor Habitat:** Soil and decaying vegetation**Indoor Habitat:** Wetted wood and gypsum wallboard paper**Allergy Potential:** None known**Disease Potential:** None known**Toxin Potential:** Some known**Comments:** Similar growth and habitat requirements as *Stachybotrys*.
Some toxic and mutagenic properties are known for this kind of mold.***Myrothecium*****Outdoor Habitat:** Soil and decaying vegetation**Indoor Habitat:** Wetted wood and gypsum wallboard paper**Allergy Potential:** Unknown**Disease Potential:** None known**Toxin Potential:****Comments:** Spores can be dispersed into the air when old and dry.***Penicillium/Aspergillus*****Outdoor Habitat:** Soil and decaying vegetation, textiles, fruits. These spores are commonly observed and are a normal part of outside air.**Indoor Habitat:** Wetted wood and gypsum wallboard paper, textiles, leather, able to grow on many types of substrates.**Allergy Potential:** Type I (hay fever, asthma), Type III (hypersensitivity pneumonitis)**Disease Potential:** Opportunistic pathogen in immunocompromised persons, not normally a pathogen in healthy individuals.**Toxin Potential:** Several known**Comments:** Extremely common in indoor air in low amounts. This type of spore should not constitute an overwhelming percentage and/or be present in very high numbers as compared to the outside (control).

These two genera are grouped together because they cannot be reliably differentiated into their respective genera based solely on spore morphology.

PREPARED FOR: OCEAN STATE ANALYTICAL SERVICES

TEST ADDRESS: 215 COLUMBIA ST WAKEFIELD, RI 02879

Pithomyces**Outdoor Habitat:** Soil and decaying vegetation and their spores are easily dispersed into the air by wind**Indoor Habitat:** Wetted wood and gypsum wallboard paper**Allergy Potential:** None known**Disease Potential:** None known**Toxin Potential:** One known (sporidesmin)**Comments:** A very common spore type in the air. Can be a water indicator mold type indoors***Smut/Myxomycetes*****Outdoor Habitat:** Soil and decaying vegetation and wood, especially dead stumps and bark**Indoor Habitat:** Not known to grow indoors, sometimes found on firewood**Allergy Potential:** Type I (hay fever, asthma), rare**Disease Potential:** None known**Toxin Potential:** None known**Comments:** These two groups are difficult to distinguish due to their "round, brown" morphology. Smuts are especially common in the environment and can be seen in indoor air samples even during the winter in homes because the spores can get trapped in carpets***Unclassified Pigmented Spores*****Outdoor Habitat:** None specified**Indoor Habitat:** None specified**Allergy Potential:** Unknown**Disease Potential:** None known**Toxin Potential:** Unknown**Comments:** Unknown spores that have at least some color, but do not have enough distinctive characteristics to be identified as any particular type of spore.

This type of spore may also be new to science and therefore, unclassified.