



SURFACE MOLD AND DUST ANALYSIS

EAA Method #: DUST-D01

Client Name : Prism Analytical Technologies

Data Page 1 of 1

Client Project # : 45678

Project : Not Specified

end of data report

Requested by : Not Specified

Date collected : 2/24/21

EAA Project# : 21-0338

Date received : 3/8/21

Sample condition : Acceptable as received

Client Sample#	Sample Description / Location	Analysis Comments	Magnification 500X
1	Affected Drywall 1	High dust, high mold spores/growth	
2	Affected Drywall 2	High dust, moderate mold spores/growth	

SURFACE MOLD SPORE CONCENTRATIONS (Cts./mm ²)			
Category	Sample # -->	1	2
Total Mold Spores (Cts/mm²)		1120.0	72.1
Alternaria			
Aspergillus/Penicillium		1120.0	72.1
Pigmented Asco & Basidio			
Mix tiny, hyal Asco & Basidio			
Botrytis			
Chaetomium			
Cladosporium			
Curvularia			
Drechslera/Bipolaris			
Epicoccum			
Fusarium			
Nigrospora			
Oidium/Peronospora			
Pithomyces			
Rusts			
Smuts / Myxomycetes / Periconia			
Stachybotrys			
Stemphylium			
Torula			
Ulocladium			
Other Hyaline Fungi			
Other Fungi			
Unidentified Fungi			
Mycelia fragments		25.9	8.7
Algal / fern spores			
Insect parts			
POLLEN (Total cts/mm²)		not detected	not detected
Not specified			
Pinus			
COMMON AEROSOLS (cts/mm²)			
Skin cell fragments			
Fiberglass fibers		1.4	1.4
Cellulosic / fabric fibers		1.4	1.4
Unidentified opaque		36.0	7.2
Soil / mineral dust		753.0	692.0
OTHER AEROSOLS (cts/mm²)		not detected	not detected
Statistical Parameters			
Area analyzed (mm ²)--mold/aerosols:		0.69	0.69
Detect limit(Cts/mm ²)--mold/aerosols:		1.44	1.44
Raw Count Conversion Factor			
Microscopic fields counted :		5	5
Microscope field area (mm ²):		0.14	0.14

Results only apply to the items or areas tested.

doc.rev.4 - 1/23/18

Authorized / data reviewed by : Daniel M. Baxter

Date: 6/4/21

SURFACE MOLD AND DUST ANALYSIS -Graphical Report

EAA Method # : DUST-D01



Client Name : Prism Analytical Technologies

Client Project # : 45678

EAA Project# : 21-0338

Sample # : 1

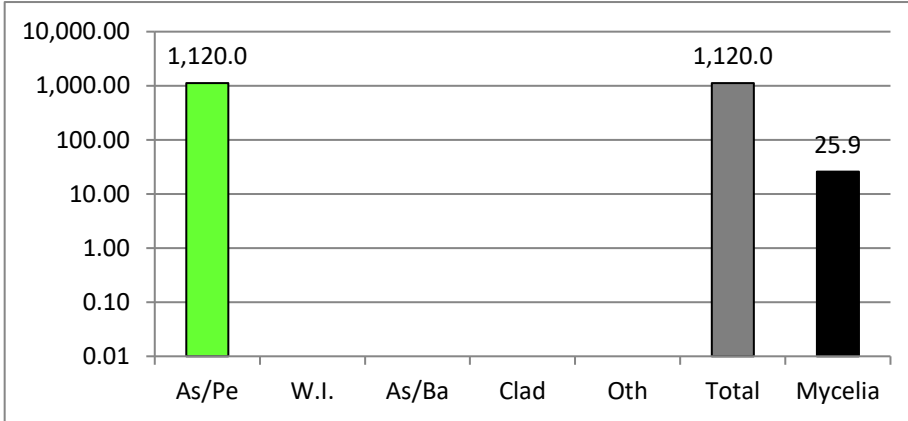
Project : Not Specified

Date Collected : 02/24/21

Description : **Affected Drywall 1**

Graphical page 1 - 1

The following interpretation guidelines are based on average surface mold spore and dust concentration ranges historically measured in indoor office, commercial, and "clean" residential environments. Residential environments experience higher variation and concentrations of certain bioaerosols. The ranges are based on publications by EAA, and 25 years experience providing analysis throughout the county from "clean" and "contaminated" residential and commercial buildings. An explanation for the interpretation of data is given in the accompanying information sheet.



As/Pe = Aspergillus/Penicillium, W.I. = Water indicating fungi (Stachybotrys, Chaetomium, Ulocladium), As/Ba = Asco/Basidiospores, Clad = Cladosporium, Oth = Other

GENERAL SURFACE MOLD SPORE INTERPRETATION GUIDELINES

Mold Spore Category	Concentration Range	Deposition / Growth
Total Spores / mycelia fragments	High	High depo./growth
Aspergillus/Penicillium	High	Growth possible
Chronic Water Indicating Fungi	Not detected	Not detected
Typical Outdoor Fungi	Not detected	Not detected

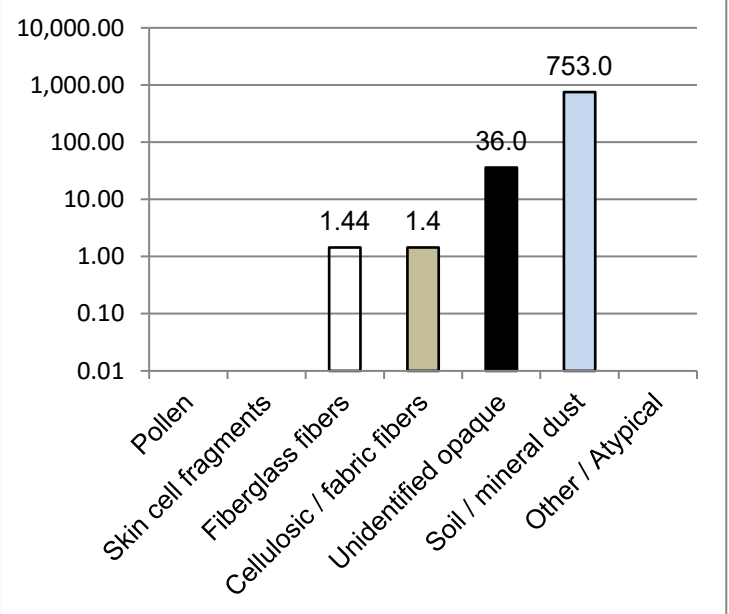
***"Growth" refers to the possible presence of surface mold growth*

*" * Growth likely" of typically outdoor fungi*

All concentrations in particle counts per surface area (cts/mm²)

OTHER AEROSOLS INTERPRETATION GUIDELINES

Particle Category	Concentration range
Pollen	Not detected
Skin cell fragments	Not detected
Fiberglass fibers	High
Cellulosic / fabric fibers	Low - moderate
Unidentified opaque	Low - moderate
Soil / mineral dust	High
Other / Atypical	Not detected



Specific Comments : High dust, high mold spores/growth

Photos not requested

SURFACE MOLD AND DUST ANALYSIS -Graphical Report

EAA Method # : DUST-D01



Client Name : Prism Analytical Technologies

Client Project # : 45678

EAA Project# : 21-0338

Sample # : 2

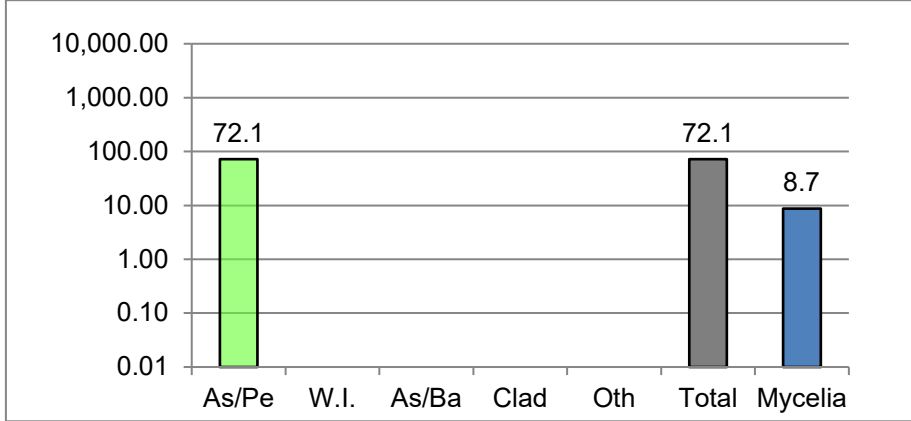
Project : Not Specified

Date Collected : 02/24/21

Description : **Affected Drywall 2**

Graphical page 1 - 2

The following interpretation guidelines are based on average surface mold spore and dust concentration ranges historically measured in indoor office, commercial, and "clean" residential environments. Residential environments experience higher variation and concentrations of certain bioaerosols. The ranges are based on publications by EAA, and 25 years experience providing analysis throughout the county from "clean" and "contaminated" residential and commercial buildings. An explanation for the interpretation of data is given in the accompanying information sheet.



As/Pe = Aspergillus/Penicillium, W.I. = Water indicating fungi (Stachybotrys, Chaetomium, Ulocladium), As/Ba = Asco/Basidiospores, Clad = Cladosporium, Oth = Other

GENERAL SURFACE MOLD SPORE INTERPRETATION GUIDELINES

Mold Spore Category	Concentration Range	Deposition / Growth
Total Spores / mycelia fragments	Moderate	Moderate deposition
Aspergillus/Penicillium	High	Source present
Chronic Water Indicating Fungi	Not detected	Not detected
Typical Outdoor Fungi	Not detected	Not detected

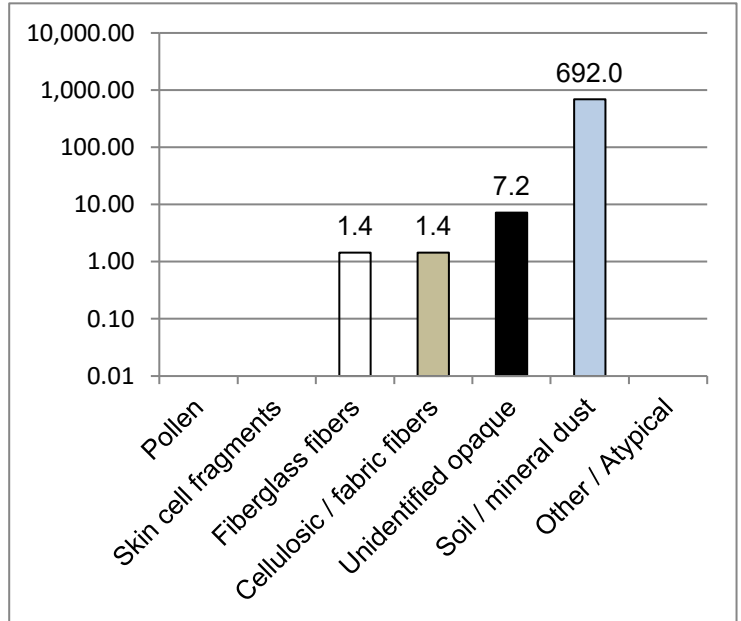
***"Growth" refers to the possible presence of surface mold growth*

*" * Growth likely" of typically outdoor fungi*

All concentrations in particle counts per surface area (cts/mm²)

OTHER AEROSOLS INTERPRETATION GUIDELINES

Particle Category	Concentration range
Pollen	Not detected
Skin cell fragments	Not detected
Fiberglass fibers	High
Cellulosic / fabric fibers	Low - moderate
Unidentified opaque	Very low
Soil / mineral dust	High
Other / Atypical	Not detected



Specific Comments : **High dust, moderate mold spores/growth**

Photos not requested



SURFACE MOLD SPORE INTERPRETATION GUIDELINES

Sample Report

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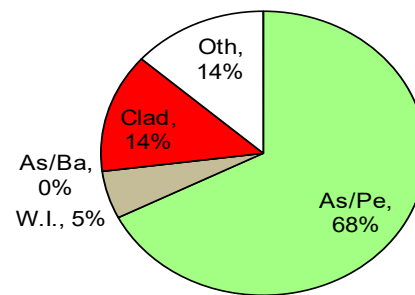
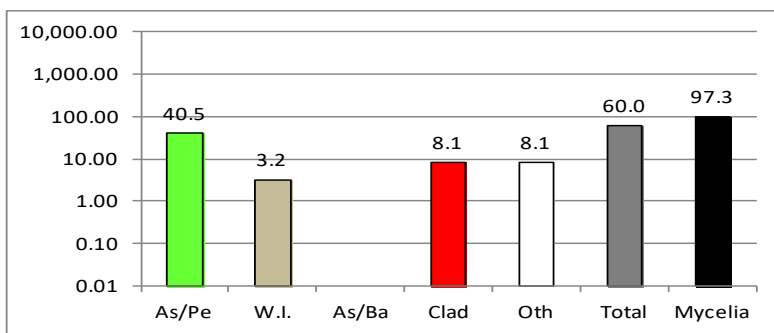
The surface dust interpretation guidelines are based on the average mold spore and aerosol concentration ranges expected indoors. The ranges are based on publications by EAA, and 25 years experience providing analysis throughout the country from "clean" and "contaminated" residential and commercial buildings. Exceptions to any guidelines are always possible, especially in some geographic areas of high vegetation (heavily forested) or low vegetation (desert / snow covered).

Category	Abbrev.	Description / Definition
Total Spores	Total	Total of all enumerated spores
Aspergillus/Penicillium	As/Pe	Spores with Penicillium or Aspergillus morphology
Chronic Water Indicating Fungi	W.I.	Spores consistent wi. "chronic" moisture (Stachybotrys, Chaetomium, Ulocladium)
Typical Outdoor Fungi	--	Spores commonly found in outdoor air (Asco/Basidiopores, Cladosporium, Other)

There is no direct relationship between indoor and outdoor surface mold spore concentrations. Existing peer reviewed mold concentration literature typically refers to indoor/outdoor comparisons of air samples. The variability and magnitude of measured settled surface concentrations can naturally vary by approximately 3 orders of magnitude from less than 0.1 spores/mm² to as high as 100 spores/mm² depending on environmental factors, location, and housekeeping. When "growth" is present, indoor surface spore concentrations and growth structures (mycelia) range from 100 fungal structures/mm² to over 100,000 fungal structures/mm². "High" concentrations have no correlation or relationship to an airborne hazard and simply indicate the presence or absence of growth.

Example Spore Concentration Graph (ct/mm²)

Example Genera Distribution Graph (%)



A series of algorithms using baseline research data developed by EAA simultaneously employ both the concentration and distribution of historical mold spore data to classify the results as compared to average "clean" indoor environments. Fundamental threshold limits of concentration (regardless of outdoor concentrations) are first used to categorize Aspergillus & Penicillium, and Chronic Water Indicating (W.I.) fungi categories as "High", "Moderate", "Low-moderate", "Normal / Typical", and "Low". The Genera distribution is further used to indicate potential indoor growth "sources" verses outdoor "infiltration". The determination of actual indoor growth (in the absence of high spore concentrations) requires the presence of significant "mycelia" growth or other types of growth structures.

BASIC ALGORITHMS - For Average Buildings

Classification	Concentration (Cts/mm ²)			Genera Distribution (Potential Indoor / Outdoor source)		
	As/Pe	W.I.	Outdoor fungi	Classification	As/Pe %	W.I. ct/mm ² Outdoor fungi %
Low	<1.0	<0.1	<0.1	Low (indoor distribution)	<20%	<0.1 <20%
Typical / low	>1.0	>0.1	>0.1	Typical / low	>20%	>0.1 >20%
Low - moderate	> 10	>1.0	>1.0	Source possible	>30%	>1.0 >50%
Moderate	>20	>5	>10	Indoor source present	>50%	>10.0 >70%
High	>50	>10	>20	Outdoor infiltration		>20 ct/mm ²

Although no classification system used to estimate the potential for "contamination" can be perfect, EAA's system follows the basic guidelines outlined in the ACGIH 1999 document Bioaerosols: Assessment and Control and field experience. The calculations use baseline data collected inside buildings, and the variability of concentration and distribution when spore concentrations are relatively low.



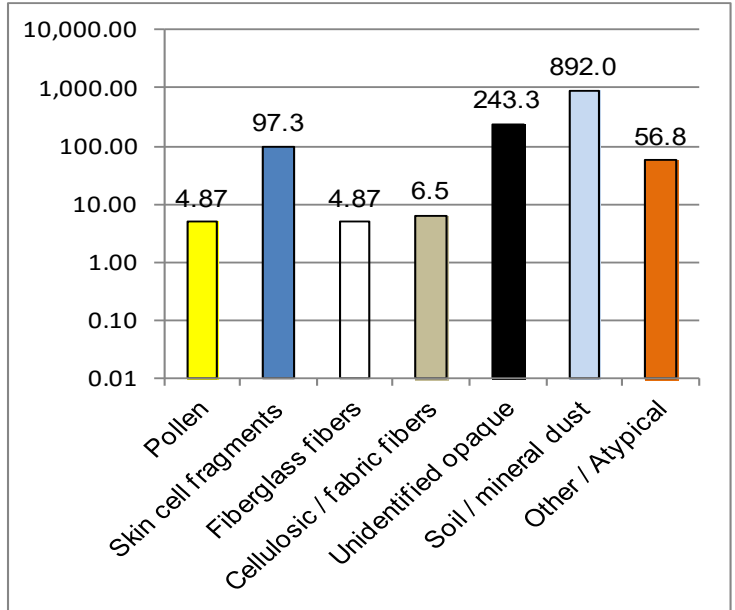
SURFACE DUST INTERPRETATION GUIDELINES

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Sample Report

The aerosol categories used by EAA provide an assessment of the most common dust contaminants within buildings. These indicator categories measure the impact of occupant activity, building maintenance, and dust generated from HVAC systems, building furnishings, or renovation activities. The measured concentrations and assessment of "high" or "moderate" or "low" levels should not be used as indicators of "safe" or "unsafe" conditions, nor should they be confused with EPA or OSHA exposure guidelines. These guidelines are useful as relative comparison criteria in the assessment of buildings. The relevance with building conditions of each aerosol category are illustrated in the EAA Method guide online on the "News and Information Page" at eaabaxter.com

Example Dust Concentration Graph (ct/mm²)



CATEGORY	DESCRIPTION
Pollen	Reproductive spores of flowers
Skin cell fragments	Epithelial cells / dander
Fiberglass	Man-made fibrous glass fibers
Cellulose	Cellulosic, fabric, & synthetic fibers
Uniden. Opaque	Opaque debris biogenic decay / corrosion
Soil / mineral	Crystalline minerals & construction particles
Fire residue	Combustion soot, ash, & char
* Other	Specific unusual / atypical particles <i>(Concentration range similar to cellulose range)</i>
No quantitative assessment or graphical criteria used:	
Insect parts	<i>Concentration range similar to cellulose range</i>
Algae/Fern spores	<i>Concentration range similar to cellulose range</i>

BASIC ALGORITHMS - For Average Buildings

Classification	Concentration (Cts/mm ²)								
	Pollen	Skin Cell Fragments	Fiberglass	Cellulose	Unidentified Opaque	Soil / Minerals	Fire Residue	* Other	
Low	<1.0	<1.0	<0.1	<0.1	<10	<5	<1	<0.1	
Typical / low	>1.0	>1.0	>0.1	>0.1	>10	>5	>1	>0.1	
Low - moderate	>2.0	>10.0	>0.5	>1.0	>20	>10	>5	>1.0	
Moderate	>5.0	>50.0	>0.7	>5.0	>50	>50	>10	>5.0	
High	>10.0	>100.0	>1.0	>10.0	>100	>100	>50	> 10	

* Reported individually under the Special Comments Section - Concentration ranges may vary by type of particle

Note: Pollen level assessment criteria are based on the prevalence of pollen encountered by EAA in indoor environments and not by the general assessment criterion published by the National Allergy Bureau for outdoor levels.

Although no classification system used to estimate potential contamination can cover all conditions, EAA's system follows the basic guidelines outlined in Chapter 14.2.2 of the ACGIH 1999 document Bioaerosols: Assessment and Control by accounting for average baseline data inside buildings. Average levels measured inside buildings without routine HVAC supplied air, or residential dwellings may be higher. **These concentration levels should not be used to assess wall cavities or confined spaces.**