

COASTAL ENVIRONMENTAL PO BOX 167 HAMMONTON, NJ 08330

# **Certificate of Mold Analysis**

Prepared for:

COASTAL ENVIRONMENTAL

Phone Number:

Fax Number:

Project Name:

WASHINGTON TWP GIGENLOCK ES

Test Location:

251 WOODBURY TURNERSVILLE RD

SEWELL, NJ

Chain of Custody #:

1080460

Received Date:

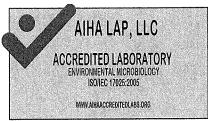
October 18, 2017

Report Date:

October 18, 2017

Carlos Ochoa, Technical and 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 available. For more information visit http://www.epa.gov/mold 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.



LAB # 163230

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



Prepared for: COASTAL ENVIRONMENTAL

NA = Not Applicable.

Test Address: WASHINGTON TWP GUENLOCK ES

251 WOODBURY TURNERSVILLE RD

SEWELL, NJ

	1											
ANALYSIS METHOD	Spe	ore trap anal	ysis	Spo	ore trap anal	ysis	Sp	ore trap anal	ysis	Spo	ore trap anal	ysis
LOCATION	A٨	IBIENT FRO	NT	A!	MBIENT BAG	CK		RM 25			RM 23	
COC / LINE #		1080460-1			1080460-2			1080460-3			1080460-4	
SAMPLE TYPE & VOLUME	Alf	R-O-CELL -	75L	Alf	R-O-CELL -	75L	All	R-O-CELL -	75L	Alf	R-O-CELL - 1	75L
SERIAL NUMBER		24935282			24935329			24935394			24935427	
COLLECTION DATE		Oct 16, 2017	7		Oct 16, 2017	7		Oct 16, 201	7		Oct 16, 2017	7
ANALYSIS DATE		Oct 18, 2017	7		Oct 18, 2017	7		Oct 18, 201	7		Oct 18, 201	7
CONCLUSION		CONTROL		NO.	OT ELEVAT	ED	N/	OT ELEVAT	ED	NO.	OT ELEVAT	ED
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Alternaria	4	53	2	8	110	5						
Bipolaris/Drechslera	4	53	2									
Cercospora	4	53	2									
Cladosporium	32	430	14	76	1,000	43	20	270	84			
Curvularia	4	53	2									
Epicoccum	4	53	2									
Ganoderma	4	53	2									
Other Ascospores	48	640	20	24	320	14		· · · · · · · · · · · · · · · · · · ·		4	53	14
Other Basidiospores	112	1,500	48	44	590	25	4	53	16	8	110	29
Penicillium/Aspergillus	12	160	5	4	53	2				8	110	29
Pithomyces				4	53	2						
Rusts	44	53	2	4	53	2						
Smuts, myxomycetes				12	160	7				8	110	29
Ulocladium	4	53	2									<u></u>
TOTAL SPORES	236	3,154	100	176	2,339	100	24	323	100	28	383	100
MINIMUM DETECTION LIMIT'	4	53		4	53		4	53		4	53	
BACKGROUND DEBRIS		Light			Light			Light			Light	
Cellulose Fiber										4	53	
Plant Fragments	4	53										
Pollen												
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%.

\* 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.

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 ELEVATED means that the amount and/or diversity or spores, as compared to the control samples (s) and other samples in our database, are higher than expected. This can indicate that fundaments water leak or water introducing. That are not limited to: Chaetomium, Fusarium, Memoniella, Stachybotyps, Scopulariopsis, Ulocadium.

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/fungl 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.



Prepared for: COASTAL ENVIRONMENTAL

NA = Not Applicable.

Test Address: WASHINGTON TWP GUENLOCK ES

251 WOODBURY TURNERSVILLE RD

SEWELL, NJ

ANALYSIS METHOD	Spi	ore trap anal	lysis	Spo	ore trap anal	ysis	Sp	ore trap anal	ysis	Spi	ore trap anal	ysis
LOCATION		RM 27			RM 20			RM 13		FACUI	TY RM OLD	BLDG
COC / LINE #		1080460-5			1080460-6			1080460-7			1080460-8	
SAMPLE TYPE & VOLUME	All	R-O-CELL -	75L	Alf	R-O-CELL -	75L	All	R-O-CELL -	75L	All	R-O-CELL -	75L
SERIAL NUMBER		24935458			24935386			24935528			24935390	
COLLECTION DATE		Oct 16, 201	7		Oct 16, 201	7		Oct 16, 201	7		Oct 16, 201	7
ANALYSIS DATE		Oct 18, 201	7		Oct 18, 201	7		Oct 18, 201	7		Oct 18, 201	7
CONCLUSION	N(	OT ELEVAT	ED	N	OT ELEVAT	ED	N <sub>1</sub>	OT ELEVAT	ED	N	OT ELEVAT	ED
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Alternaria	,											
Bipolaris/Drechslera												
Cercospora												
Cladosporium	4	53	11				4	53	33			
Curvularia				4	53	14				4	53	33
Epicoccum												
Ganoderma												
Other Ascospores	4	53	11	4	53	14						
Other Basidiospores	12	160	34	4	53	14	8	110	67	4	53	33
Penicillium/Aspergillus	16	210	44	8	110	29						
Pithomyces				4	53	14						
Rusts												
Smuts, myxomycetes				4	53	14				4	53	33
Ulocladium	<u> </u>							l			L	
TOTAL SPORES	36	476	100	28	375	100	12	163	100	12	159	100
MINIMUM DETECTION LIMIT'	4	53		4	53		4	53		4	53	
BACKGROUND DEBRIS		Light			Light			Light			Light	
Cellulose Fiber	4	53		4	53					4	53	
Plant Fragments												
Pollen												
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 tikely higher than reported if the зо в объявают, инставліну апточнь от черть мін obscure sman spores and can prevent spores from impacing onto the side. The actual number of spores present in the sample is likely ingligher than reported it is debris estimate is 'Heavy for '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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ELEVATED means that the amount and/or diversity or spores, as compared to the control samples(s), and other samples in our database, are higher than expected. This can indicate that further because or a water leak or water intrusion. Fungi that are considered to be indicators of water damage include, but are not limited to: Cheefornium, Fusarium, Memonoiella, Stachybotypris, Scopulariopsis, Ulocadium.

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 dentified in the analyzed sample.

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Prepared for: COASTAL ENVIRONMENTAL Test Address: WASHINGTON TWP GUENLOCK ES

251 WOODBURY TURNERSVILLE RD

SEWELL, NJ

ANALYSIS METHOD	Sn	ore trap anal	veie	Sno	ore trap anal	vele	Sn	ore trap anal	veie	Sn	ore trap anal	veie
LOCATION		VI 2 OLD BLI			M 1 OLD BLI			M 5 OLD BL			vi 7 OLD BLI	
COC / LINE #	N1	1080460-9	JG	NI	1080460-10		N.	1080460-11		N	1080460-12	
SAMPLE TYPE & VOLUME	Λ17	R-O-CELL - 1	761	AIT	R-O-CELL -		Δ.11	R-O-CELL -		Λ11	R-O-CELL -	
***************************************	Alf		/ OL	Air		/ DL	All		/ OL	All	24935381	/ OL
SERIAL NUMBER	<b></b>	24935456	_		24933598			24935520				
COLLECTION DATE		Oct 16, 2017			Oct 16, 201			Oct 16, 201			Oct 16, 201	
ANALYSIS DATE	Color Constitution	Oct 18, 201	Service Control of Control	CHARLES ATTRACTOR	Oct 18, 201	sees and the day were	Manual Contraction	Oct 18, 201	iliyyddig fyn i Met diwlgi	Course, William Press.	Oct 18, 201	100000000000000000000000000000000000000
CONCLUSION		OT ELEVAT			OT ELEVAT			OT ELEVAT		<u> </u>	OT ELEVAT	
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Alternaria	=======================================											
Bipolaris/Drechslera												
Cercospora												
Cladosporium	12	160	27	12	160	60	4	53	14	4	53	20
Curvularia												
Epicoccum	4	53	9									
Ganoderma												
Other Ascospores	4	53	9							4	53	20
Other Basidiospores	8	110	19	4	53	20	16	210	56	8	110	41
Penicillium/Aspergillus	4	53	9									
Pithomyces												
Rusts	. 4	53	9									
Smuts, myxomycetes	8	110	19	4	53	20	8	110	29	4	53	20
Ulocladium												
TOTAL SPORES	44	592	100	20	266	100	28	373	100	20	269	100
MINIMUM DETECTION LIMIT'	4	53		4	53		4	53		4	53	
BACKGROUND DEBRIS		Light			Light			Light			Light	
Cellulose Fiber	4	53		4	53							
Plant Fragments												
Pollen				4	53							
OBSERVATIONS & COMMENTS												

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Chain of Custody # 1080460

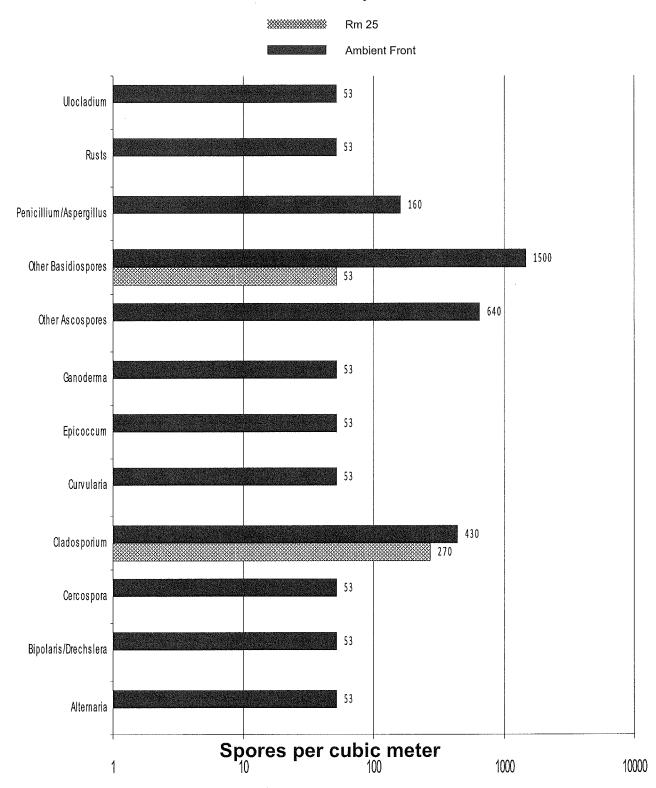
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Ambient Back

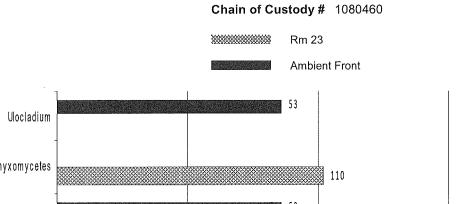
Spores per cubic meter

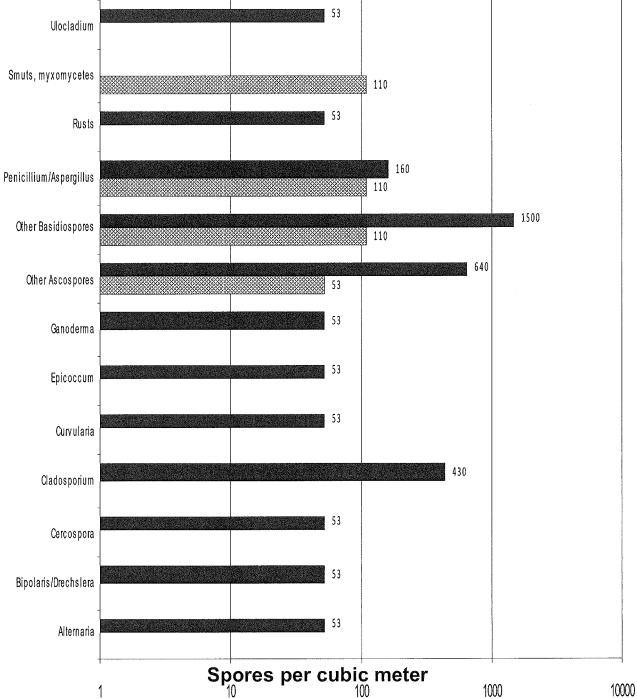




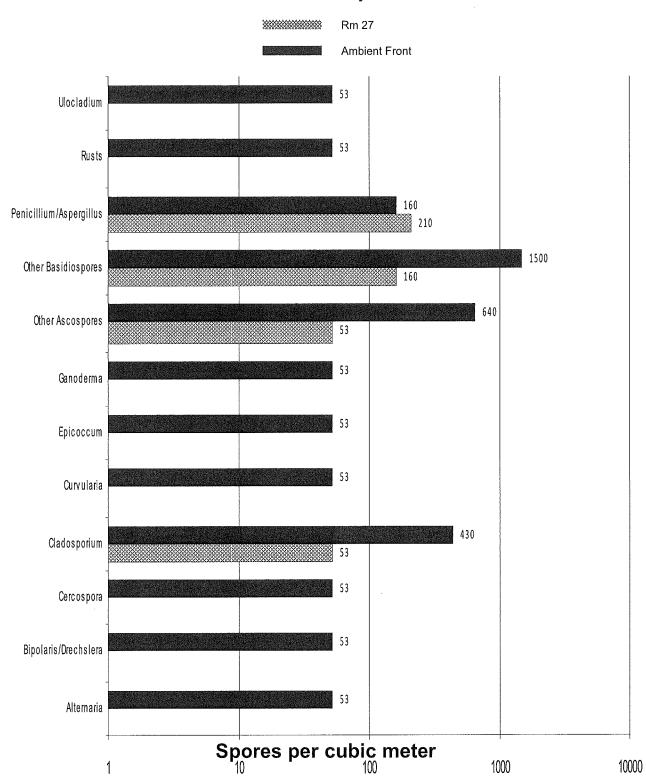




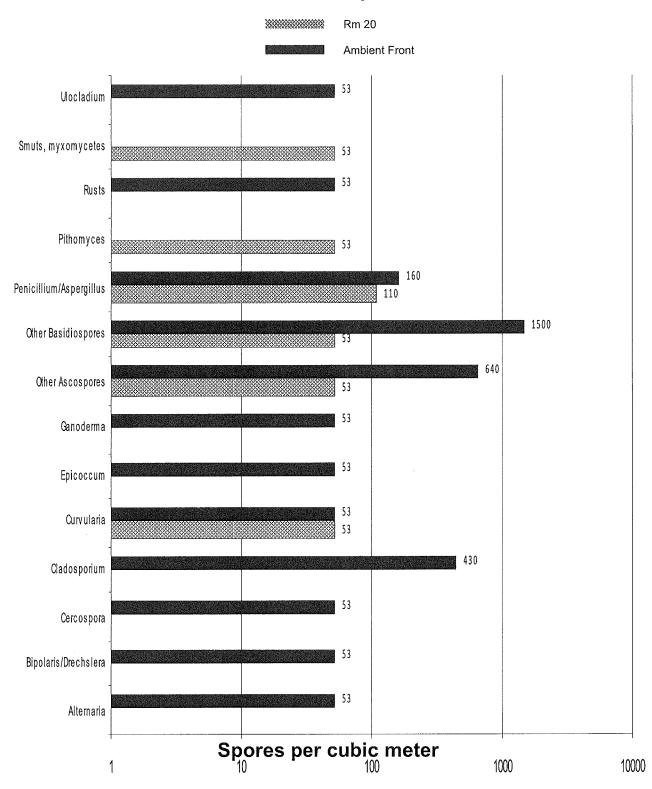






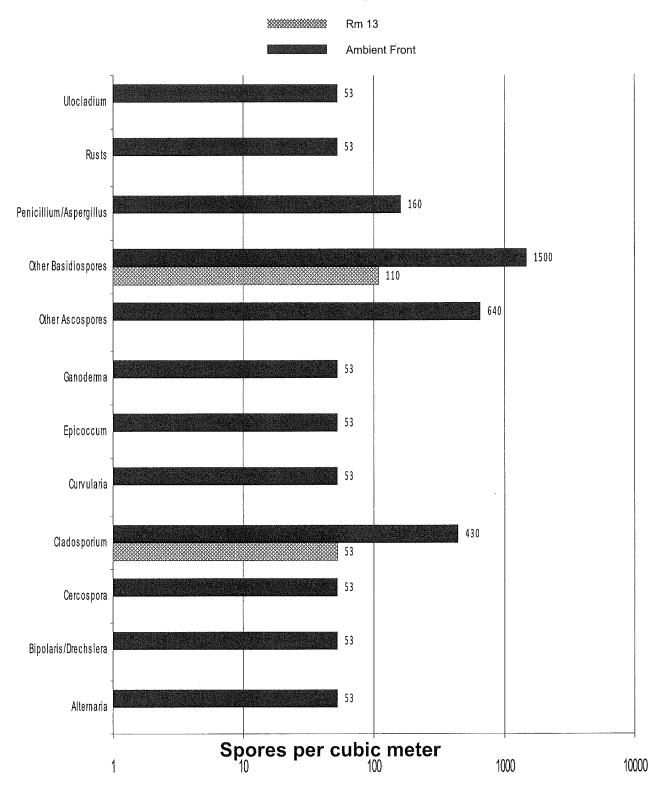




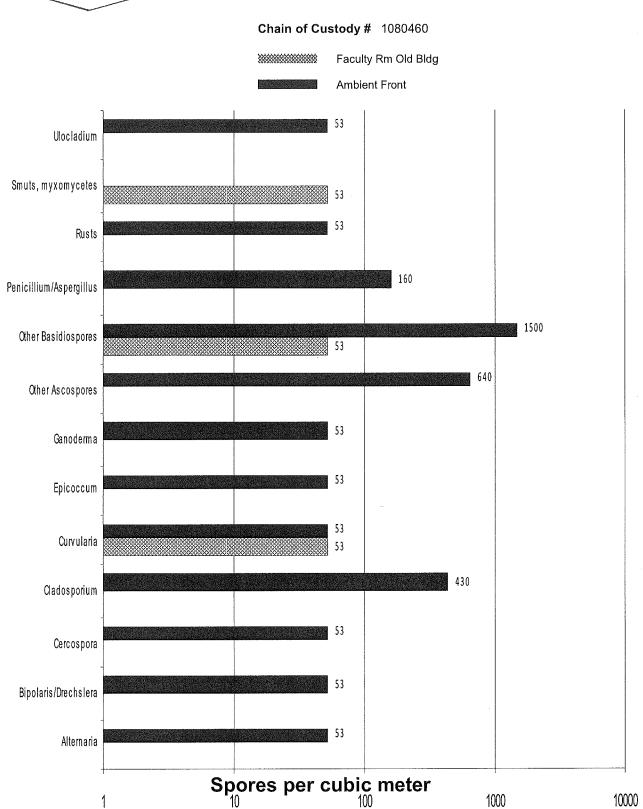








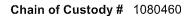


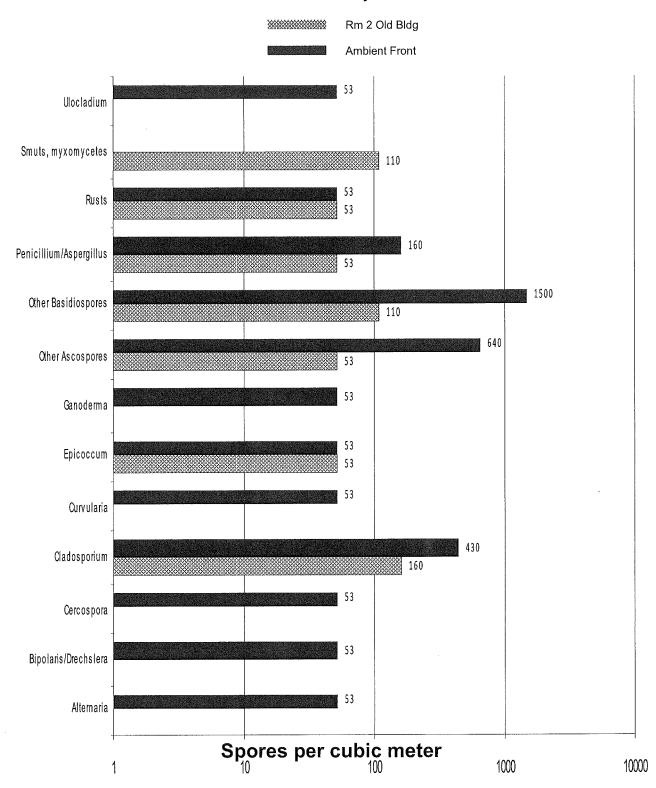


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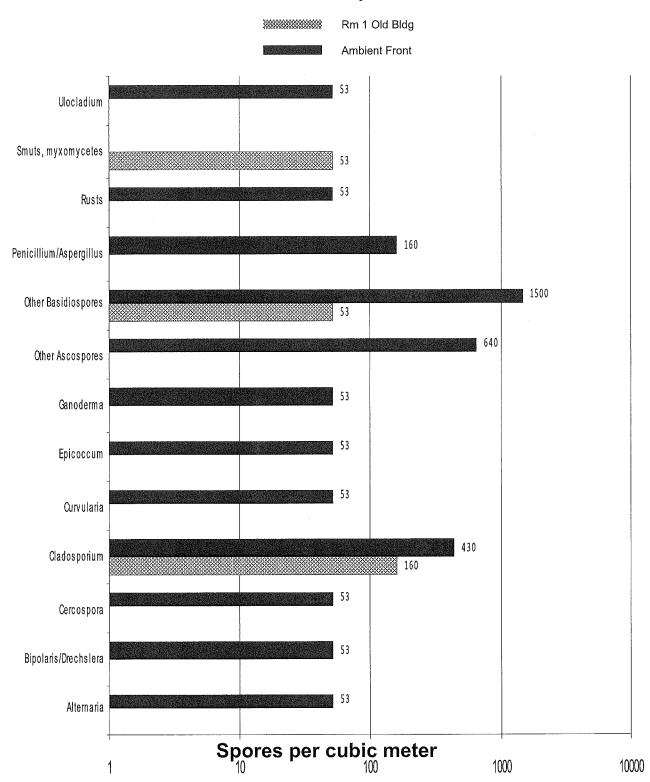
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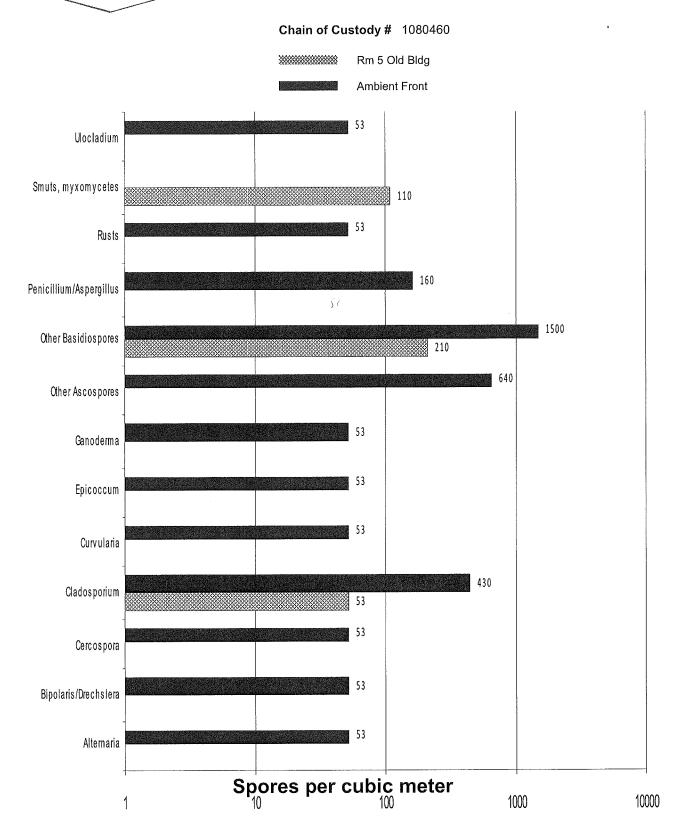






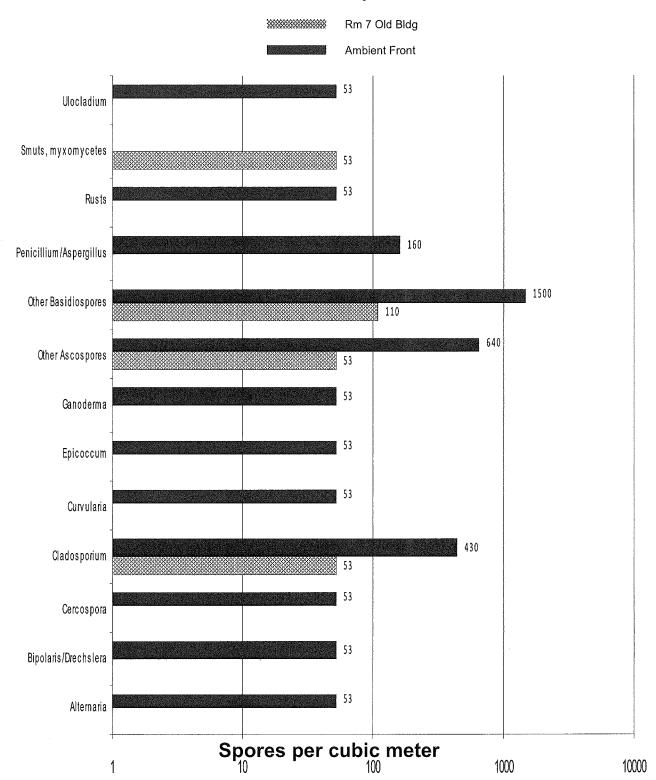














	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
Alternaria	One of the most commonly reported airborne spores worldwide. Often common in outdoor air. Usually not observed in large nubmers in outdoor air. Soil, dead or dying plants, foodstuffs, textiles	Wallboard paper backing, wood, other various cellulose-containing materials. Commonly found in settled dust and as normal settled spores on carpets, drapes, textiles, etc.	Common allergen. Type i allergies (hay fever and asthma); Type III hypersensitivty pneumonitis. Common cause of extrinsic asthma.	Alternaria is commonly found in elevated numbers on water-intruded building materials and in higher spore numbers in the air with respect to the outside when growth on wet building materials occurs.
Bipolaris/Drechslera	Common everywhere. Frequently associated with grasses, but also found on plant material, decaying food, and soil.		Common Type I (hay fever and asthma), fungal sinusitis.	This is a group of like-looking spores that include Bipolaris, Drechslera, Exserohilum, and sometimes Helminosporium. They cannot be consistently separated by spore morphology and are thus grouped together. Must be cultured to consistly separate the genera.
Cercospora	Common everywhere, especially growing on leaves.	Not known to grow indoors.	None known.	
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.
Curvularia	Commonly found everywhere on soil and plant debris.	Capable of growing on many cellulytic substrates like wallboard and wood.	Type I (hay fever and asthma) and common cause of allergenic sinusitis.	
Epicoccum	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.	
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 crawispaces. 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.



Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
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.
Pithomyces	Commonly seen everywhere growing dead leaves, soil and grasses.	Not normally found growing indoors, sometimes on wallboard.	None known.	
Rusts	Common everywhere growing on grasses, trees and other living plants.	Does not grow indoors.	Type I (hay fever and asthma) allergies.	Rust requires a living plant host to complete part of its lifecycle and thus, is not normally found growing indoors except perhaps on an infected house plant.
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.
Ulocladium	Grows on wood, dung, decaying plant litter, and soil.	Wetted wood, cellulosic material and textiles. Uncommon / Unusual to see this growing indoors.	Type I allergies (hay fever and asthma).	Wet spored mold that generally must be dried out and disturbed before spores can be found in the air. Spores of this type of mold should not be observed in significant numbers in the air above background/control. If growth and/or significantly higher than background/control spore numbers are reported, corrective action should be considered to eliminate the water source, reduce moisture levels and/or spore numbers in the living space.



COASTAL ENVIRONMENTAL PO BOX 167 HAMMONTON, NJ 08330

# **Certificate of Mold Analysis**

Prepared for:

COASTAL ENVIRONMENTAL

Phone Number:

Fax Number:

Project Name:

WASHINGTON TWP SCHOOL DIST - HURFFVILLE SCHOOL

Test Location:

200 HURFFVILLE RD

SEWELL, NJ

Chain of Custody #:-

1079998

Received Date:

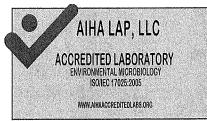
October 17, 2017

Report Date:

October 17, 2017

Carlos Ochoa, Technical and 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.



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Test Address: WASHINGTON TWP SCHOOL DIST - HURFFVILLE SCHOOL

200 HURFFVILLE RD SEWELL, NJ

ANALYSIS METHOD	Sno	ore trap anal	vele	Sno	ore trap anal	veie	Sne	ore trap anal	veis	Soc	ore trap anal	vsis
LOCATION		BIENT FRO	•		MBIENT BAG		Op.	RM 102	yolo		RM 111	10.0
COC / LINE #	FAIV	1079998-1	/11/		1079998-2	JIX		1079998-3			1079998-4	
SAMPLE TYPE & VOLUME	AIF	R-O-CELL -	75L	Alf	R-O-CELL -	75L	All	R-O-CELL -	75L	Alf	R-O-CELL - T	75L
SERIAL NUMBER		24933620			24933629			24933595			24933599	
COLLECTION DATE		Oct 13, 2017	7		Oct 13, 2017	7		Oct 13, 201	7		Oct 13, 2017	,
ANALYSIS DATE		Oct 17, 2017	7		Oct 17, 201	7		Oct 17, 201	7		Oct 17, 2017	7
CONCLUSION	NO	T ELEVAT	ED		CONTROL		N	OT ELEVAT	ED	NO.	OT ELEVATI	ED
IDENTIFICATION	Raw Count	Spores per m³	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Cladosporium	4	53	3	28	370	16						
Ganoderma	4	53	3									
Other Ascospores	20	270	17	8	110	5						
Other Basidiospores	88	1,200	76	132	1,800	79	4	53	100	4	53	33
Penicillium/Aspergillus										8	110	67
TOTAL SPORES	116	1,576	100	168	2,280	100	4	53	100	12	163	100
MINIMUM DETECTION LIMIT'	4	53		4	53		4	53		4	53	
BACKGROUND DEBRIS		Light			Light			Light			Light	
Cellulose Fiber	4	53										
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%.

\* 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, Memoniella, Stachybotyrs, 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. If spores are recorded they are normally what is in the air and have settled on the surface(s) tested.



Prepared for: COASTAL ENVIRONMENTAL

Test Address: WASHINGTON TWP SCHOOL DIST - HURFFVILLE SCHOOL

200 HURFFVILLE RD SEWELL, NJ

ANALYSIS METHOD	Spo	ore trap ana	lysis	Spo	ore trap anal	ysis	Sp	ore trap anal	ysis	INTEN	TIONALLY E	BLANK
LOCATION		RM 116			RM 119			RM 134				
COC / LINE #		1079998-5			1079998-6			1079998-7			upa	
SAMPLE TYPE & VOLUME	Alf	R-O-CELL -	75L	Alf	R-O-CELL -	75L	All	R-O-CELL -	75L			
SERIAL NUMBER		24933642			24933627			24933640				
COLLECTION DATE		Oct 13, 201	7		Oct 13, 201	7		Oct 13, 201	7			
ANALYSIS DATE		Oct 17, 201	7		Oct 17, 201	7		Oct 17, 201	7			
CONCLUSION	N(	OT ELEVAT	ED .	N	OT ELEVAT	ED	N	OT ELEVAT	ED			15575
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Cladosporium							4	53	11			
Ganoderma												
Other Ascospores							4	53	11			
Other Basidiospores							4	53	11			
Penicillium/Aspergillus					,		24	320	67	<u></u>		
TOTAL SPORES							36	479	100			
MINIMUM DETECTION LIMIT'	4	53		4	53		. 4	53				
BACKGROUND DEBRIS		Light			Light			Light				
OBSERVATIONS & COMMENTS	No Fungi [	Detected.		No Fungi E	Detected.							

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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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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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.

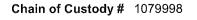


Chain of Custody # 1079998

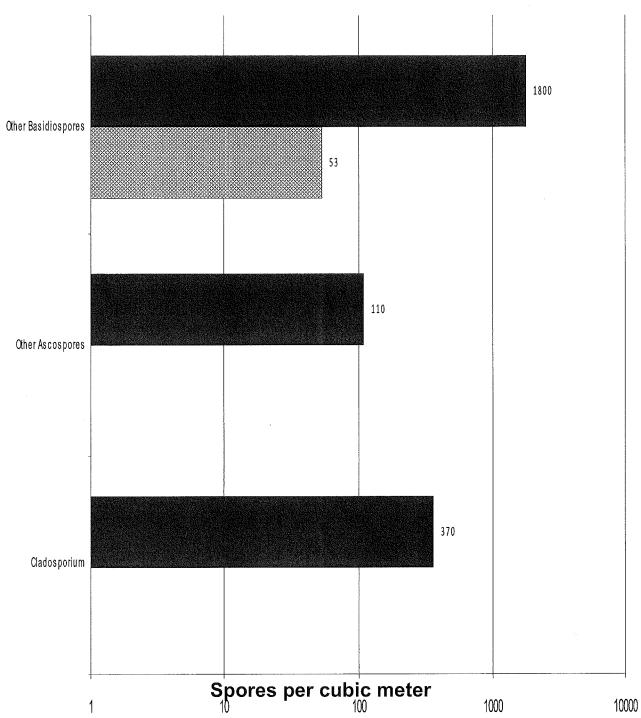
Ambient Front

Spores per cubic meter





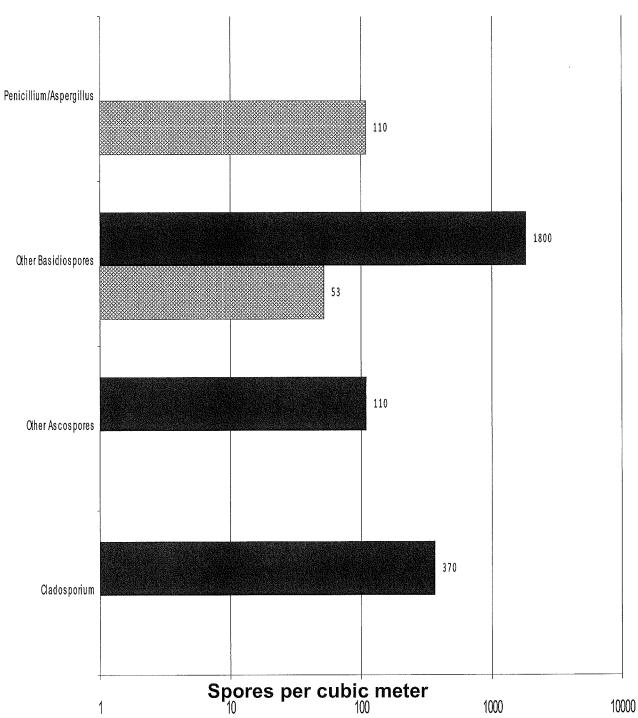




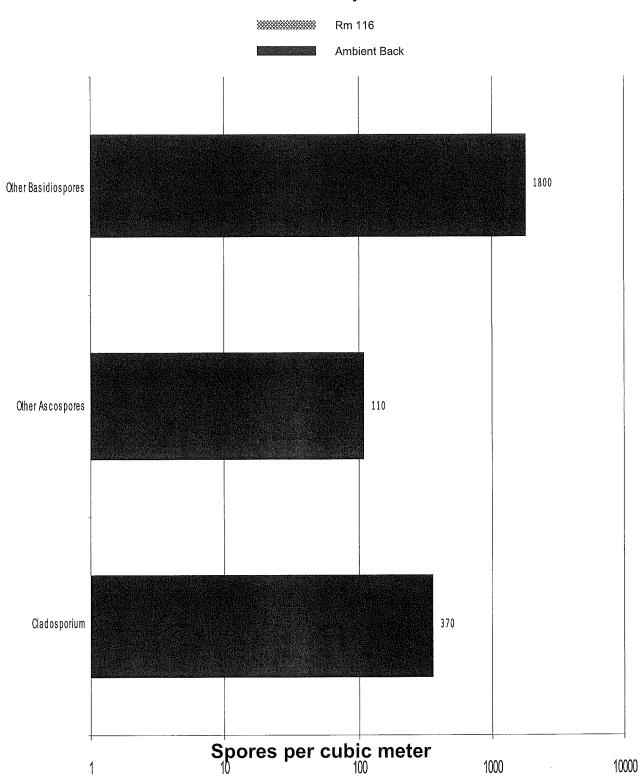






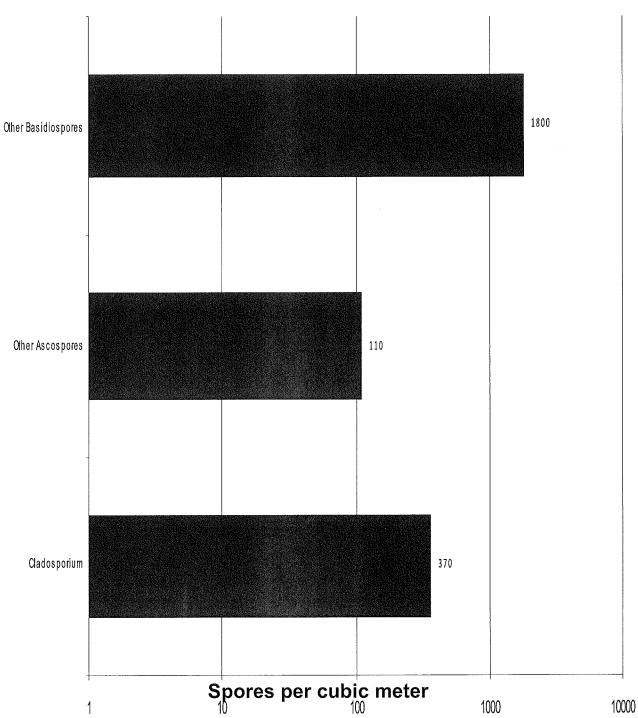




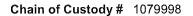




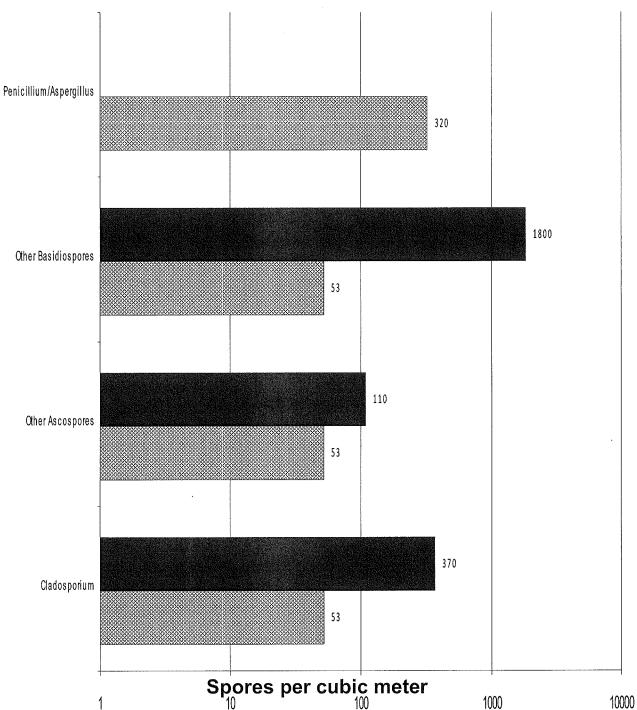














Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
Cladosporium	The most common spore type reported in the air worldwide. Found on dead and dying plant litter, and soil.	Commonly found on wood and wallboard. Commonly grows on window sills, 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.
Ganoderma	Common everywhere growing on hardwood trees.	None known.	None known.	
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.



COASTAL ENVIRONMENTAL PO BOX 167 HAMMONTON, NJ 08330

# **Certificate of Mold Analysis**

Prepared for:

COASTAL ENVIRONMENTAL

Phone Number:

Fax Number:

Project Name:

WASHINGTON TWP SCHOOL DIST

Test Location:

ORCHARD VALLEY MS 238 ØITMAN DOWNER

SEWELL, NJ

Chain of Custody #:

1080000

Received Date:

October 17, 2017

Report Date:

October 17, 2017

Carlos Ochoa, Technical and 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.



LAB#163230

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



Prepared for: COASTAL ENVIRONMENTAL

Test Address: WASHINGTON TWP SCHOOL DIST

ORCHARD VALLEY MS 238 OITMAN DOWNER

SEWELL, NJ

ANALYSIS METHOD	Spe	ore trap anal	vsis	Sne	ore trap anal	ivsis	Sp	ore trap anal	vsis	Sp	ore trap anal	vsis
LOCATION	<del> </del>	MBIENT FRO			MBIENT BA	-		RM 104	,,	1	RM 118	<i>y</i>
COC / LINE #		1080000-1			1080000-2			1080000-3			1080000-4	
SAMPLE TYPE & VOLUME	Alf	R-O-CELL -	75L	Alf	R-O-CELL -	75L	All	R-O-CELL -	75L	All	R-O-CELL -	75L
SERIAL NUMBER		24933639			24933622			24933588			24933634	
COLLECTION DATE		Oct 13, 201	7		Oct 13, 201	7		Oct 13, 201	7		Oct 13, 201	7
ANALYSIS DATE		Oct 17, 201	7		Oct 17, 201	7	,	Oct 17, 201	7		Oct 17, 201	7
CONCLUSION		CONTROL			CONTROL		N N	OT ELEVAT	ED .	N	OT ELEVAT	ED
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Cladosporium	24	320	31									
Epicoccum	4	53	5									
Other Ascospores				4	53	5						
Other Basidiospores	36	480	47	68	910	85						
Penicillium/Aspergillus	4	53	5	-11.4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.			4	53	100			
Smuts, myxomycetes	. 8	110	11	4	53	5						
Torula	<u></u>			4	53	5						
TOTAL SPORES	76	1,016	100	80	1,069	100	4	53	100			
MINIMUM DETECTION LIMIT	4	53		4	53		4	53		4	53	<u> </u>
BACKGROUND DEBRIS		Light			Light			Light			Light	
Cellulose Fiber	4	53								4	53	
Pollen				4	53							<u> </u>
OBSERVATIONS & COMMENTS										No Fungi [	Detected.	

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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NA = Not Applicable.

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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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Prepared for: COASTAL ENVIRONMENTAL

Test Address: WASHINGTON TWP SCHOOL DIST

ORCHARD VALLEY MS 238 OITMAN DOWNER

SEWELL, NJ

										i		
ANALYSIS METHOD	Spi	ore trap anal	ysis	Spo	ore trap anal	ysis	Sp	ore trap anal	ysis	INTEN	ITIONALLY	BLANK
LOCATION		RM 121			RM 211			RM 214				-
COC / LINE #		1080000-5			1080000-6			1080000-7				
SAMPLE TYPE & VOLUME	Alf	R-O-CELL -	75L	Alf	R-O-CELL -	75L	All	R-O-CELL -	75L			
SERIAL NUMBER		24933602			24933593			24933612				
COLLECTION DATE		Oct 13, 2017	7		Oct 13, 201	7		Oct 13, 201	7			
ANALYSIS DATE		Oct 17, 2017	7		Oct 17, 201	7		Oct 17, 201	7			
CONCLUSION	N	OT ELEVAT	ED	N(	OT ELEVAT	ED	N(	OT ELEVAT	ED			
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Cladosporium												
Epicoccum												
Other Ascospores							4	53	33			
Other Basidiospores	4	53	50	8	110	67	4	53	33			
Penicillium/Aspergillus	4	53	50	4	53	33	4	53	33			
Smuts, myxomycetes												
Torula												
TOTAL SPORES	8	106	100	12	163	100	12	159	100			
MINIMUM DETECTION LIMIT	4	53		4	53	4.5	4	53				
BACKGROUND DEBRIS		Light			Light			Light				
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%.

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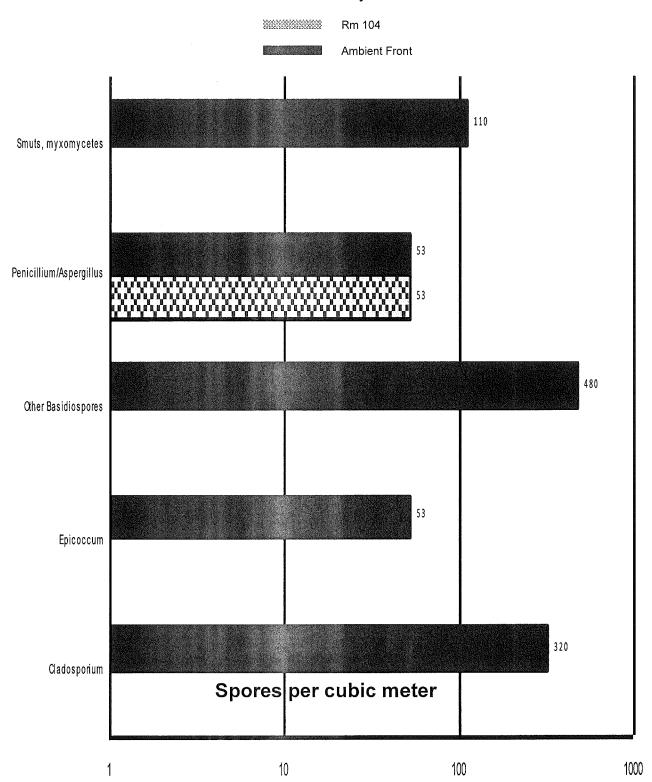
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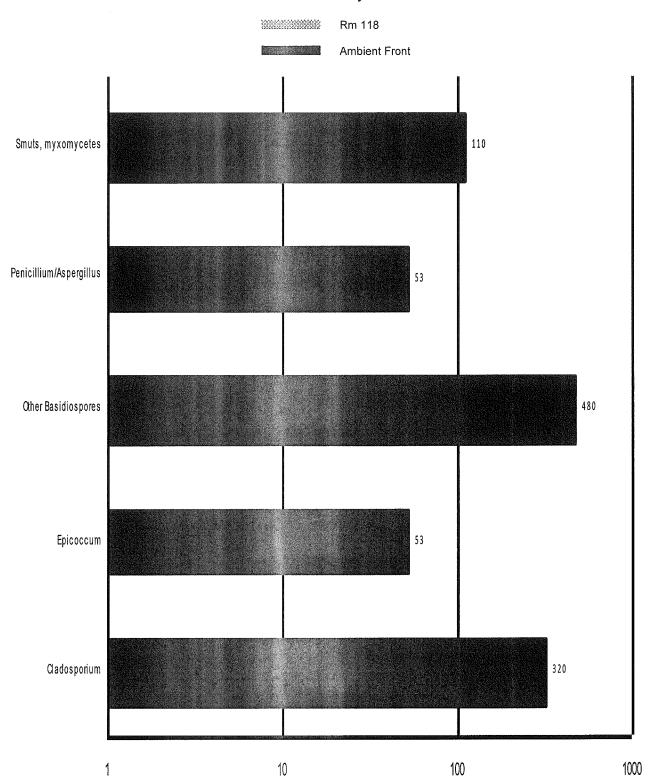
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NORMAL means that no presence of current or former growth was observed in the analyzed sample.

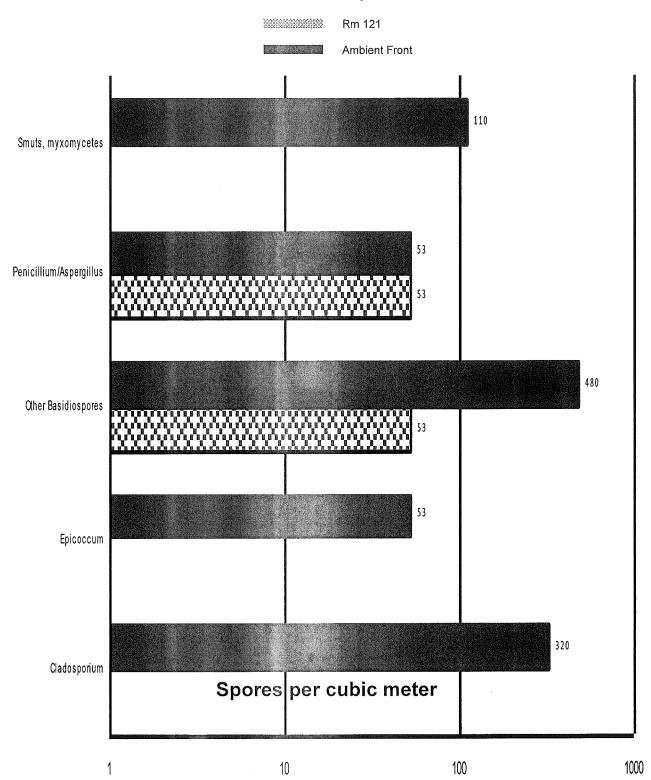






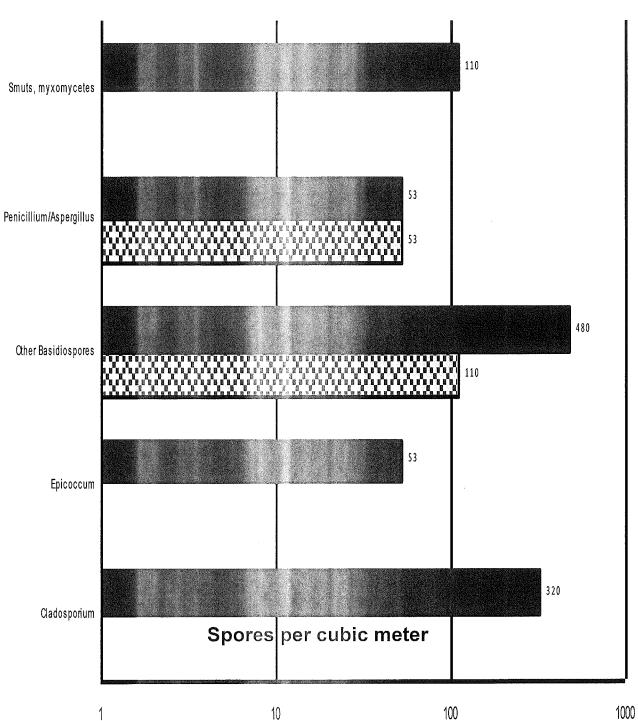






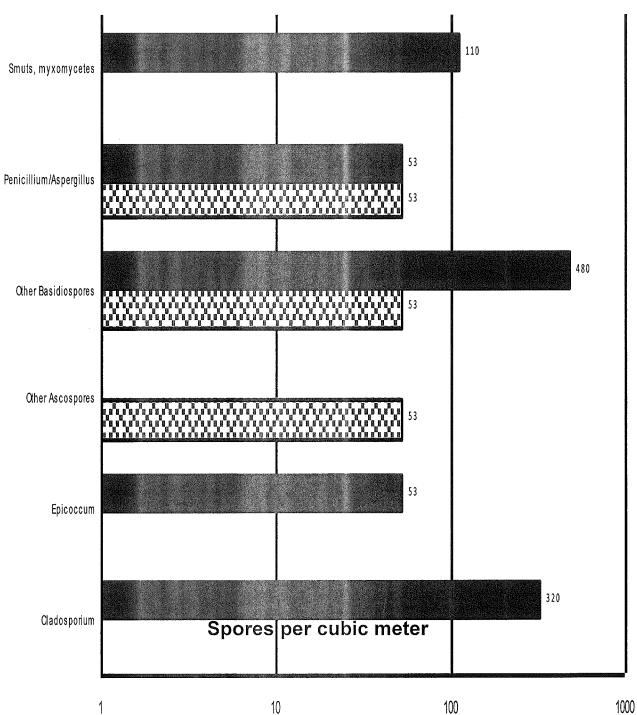














Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
Cladosporium	The most common spore type reported in the air worldwide. Found on dead and dying plant litter, and soil.	Commonly found on wood and wallboard. Commonly grows on window sills, 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.
Epicoccum	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.
Ascospores	Common everywhere. Constitutes a large part of the airspora outside. Can reach very high rumbers 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 Chaetornium, 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.
Torula	Common everywhere growing on soil, decaying and dead leaves, and grasses.	Wallboard and other cellulose- based materials.	Type I (hay fever and asthma) allergies.	٠



### EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-0262
http://www.EMSL.com / cinnmicrolab@emsl.com

EMSL Order: 371722846 Customer ID: COAS80

Customer PO: Project ID:

Attn: Cathy Ledden

Coastal Environmental Compliance, LLC

PO Box 167

Hammonton, NJ 08037-0167

**Phone:** (609) 820-9312

Fax: (609) 561-6197

Collected: 10/17/2017

Received: 10/18/2017

Analyzed: 10/18/2017

Project: Washington Twp - Thomas Jefferson

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L):	:	371722846-000 <sup>-</sup> TJ-1 75	1		371722846-000 TJ-2 75	2	:	371722846-000 TJ-3 75	3
Sample Location		Ambient Front			Ambient Back			Room 105 Art	
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	_	-	-	- '	_		- 1	-	•
Ascospores	18	790	12.6	19	830	13.6	3	100	24.4
Aspergillus/Penicillium	21	920	14.7	15	660	10.8	2	90	22
Basidiospores	59	2600	41.5	53	2300	37.6	1	40	9.8
Bipolaris++		-	-	-	~		•	· - **.	- ' ' '
Chaetomium	-	-	-	-	-	-	-	-	-
Cladosporium	33	1400	22.3	41	1800	29.4	2	90	22
Curvularia	1	40	0.6	2*	30*	0.5	-	-	-
Epicoccum	1*	10*	0.2	_	-	기 시 설립하다	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	1	40	0.6	4	200	3.3	-	-	- '''
Myxomycetes++	9	400	6.4	5	200	3.3	2	90	22
Pithomyces	5*	70*	1.1	2	90	1.5	•	_	-
Rust	-	-	-	-	-	-	-	-	-
Scopulariopsis	-	-	-	-	-		-	-	•
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula		-	-	1*	10*	0.2	North E	-	· •
Ulocladium	-	-	-	_	-	-	-	-	-
Unidentifiable Spores		-	-	-	-		•	-	-
Zygomycetes	-	-	_	-	-	-	-	-	-
Total Fungi	148	6270	100	142	6120	100	10	410	100
Hyphal Fragment	1	40	-	1	40	- '	1	40	-
Insect Fragment	-	-	-	-			-		
Pollen	1	40	-	3	100	-	-	-	-
Analyt, Sensitivity 600x	-	44	-	-	44	1	- 1 d	44	
Analyt. Sensitivity 300x	-	13*	-	-	13*	-		13*	-
Skin Fragments (1-4)	<b>.</b>	1	-	-	1			1	
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)		2	_	-	2	는 그들의 제	<u> </u>	1	<u> </u>

Bipolaris++ = Bipolaris/Drechslera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut

No discernable field blank was submitted with this group of samples.

Voment Tuggolino

Vincent luzzolino, M.S., Laboratory Manager or other approved signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. \*\*\*

Denotes particles found at 300X. \*\*.\* Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations.

Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC--EMLAP Lab 100194

Initial report from: 10/18/2017 12:29:28



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-0262
http://www.EMSL.com / cinnmicrolab@emsl.com

EMSL Order: 371722846 Customer ID: COAS80

Customer PO: Project ID:

Attn: Cathy Ledden

Coastal Environmental Compliance, LLC

PO Box 167

Hammonton, NJ 08037-0167

Phone: (609) 820-9312

Fax: (609) 561-6197

Collected: 10/17/2017

Received: 10/18/2017

Analyzed: 10/18/2017

Project: Washington Twp - Thomas Jefferson

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number: Client Sample ID:	;	371722846-0004 TJ-4	4		371722846-0005 TJ-5	5		371722846-000 TJ-6	6
Volume (L): Sample Location		75 Room 8A			75 Room 106			75 Ms. Wade	
Spore Types	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total	Raw Count	Count/m³	% of Total
Alternaria	- '	-	-	1 '	40	2.8	- '	· - · · ·	• 1145 2 14 14 1
Ascospores	-	-	-	-	-	-	-	-	-
Aspergillus/Penicillium	3	100	22.7	13	570	39.9	1	40	10.5
Basidiospores	5	200	45.5	6	300	21	7	300	78.9
Bipolaris++	-	-	-	-	-		-	· -	<del>-</del> ' '
Chaetomium	-	-	-	-	-	<u>-</u>	-	-	-
Cladosporium	. 1	40	9.1	1	40	2.8	1	40	10.5
Curvularia	1*	10*	2.3	-	-	~	-	-	-
Epicoccum	-	-	-	1	40	2.8	-	-	-
Fusarium	-	-	-	-	-	-	-	-	-
Ganoderma	-	-	-	-	% <u>-</u>		-	-	· · · ·
Myxomycetes++	2	90	20.5	10	440	30,8	-	-	<del></del>
Pithomyces	-	-	· -	-	-	4044	-	-	
Rust	_	-	-	-	-	-	-	-	
Scopulariopsis	-	-	-	-	-		-	<b>-</b> .	-
Stachybotrys	-	-	-	-	-	-	-	-	-
Torula	-	-	. <del>-</del>	-		33 <b>.</b>	-	-	•
Ulocladium	-	-	-	-	-	-	-	-	
Unidentifiable Spores	<u>ت</u>	· -	- '	-	-		`	-	<del>-</del>
Zygomycetes	-	-	-	-	-	-	-	-	-
Total Fungi	12	440	100	32	1430	100	9	380	100
Hyphal Fragment	1	40	-	1	40	-	2*	30*	<del>.</del>
Insect Fragment	-	. <del>-</del>	-	-	4 =		-	<u>.</u>	
Pollen	+	-	-	-	-	-		-	
Analyt, Sensitivity 600x	-	44	-	-	44		-	44	-
Analyt. Sensitivity 300x	-	13*	-	-	13*	· -	-	13*	<del>-</del>
Skin Fragments (1-4)	-	3	-	-	2	44.5	-	1	-
Fibrous Particulate (1-4)	-	1	-	-	1	-	-	1	-
Background (1-5)	-	1	-	-	2	525 <u>-</u> 53	-	1	

Bipolaris++ = Bipolaris/Drechslera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut

No discernable field blank was submitted with this group of samples.

Vouent Tuzzolio

Vincent luzzolino, M.S., Laboratory Manager or other approved signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "\*\*
Denotes particles found at 300X." Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL, EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC--EMLAP Lab 100194

Initial report from: 10/18/2017 12:29:28



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077
Tel/Fax: (800) 220-3675 / (856) 786-0262
http://www.EMSL.com / cinnmicrolab@emsl.com

EMSL Order: 371722846 Customer ID: COAS80

Customer PO: Project ID:

Attn: Cathy Ledden

Coastal Environmental Compliance, LLC

PO Box 167

Hammonton, NJ 08037-0167

**Phone:** (609) 820-9312

Fax: (609) 561-6197

Collected: 10/17/2017

Received: 10/18/2017

Analyzed: 10/18/2017

Project: Washington Twp - Thomas Jefferson

Test Report: Air-O-Cell(™) Analysis of Fungal Spores & Particulates by Optical Microscopy (Methods EMSL 05-TP-003, ASTM D7391)

Lab Sample Number: Client Sample ID: Volume (L): Sample Location		371722846-0007 TJ-7 75 Room 21		
Spore Types	Raw Count	Count/m³	% of Total	
Alternaria	-	-		
Ascospores	1	40	3	
Aspergillus/Penicillium	4	200	15	
Basidiospores	13	570	42.9	1. 1988 8 UNSUL MILITED 1997 1997 1997 1997 1997 1997 1997 199
Bipolaris++	-	-	~	
Chaetomium	-	-	-	A CONTRACTOR OF THE CONTRACTOR
Cladosporium	5	200	15	
Curvularia	1*	10*	0.8	
Epicoccum	1*	10*	8.0	
Fusarium		-	-	
Ganoderma		300	22.6	New Control of the Co
Myxomycetes++ Pithomyces	8	300	22.6	managang ang telebrah managaga ang telebrah m
Rust	· · · ·	-	-	
Scopulariopsis	-		_	A STANDARD COMMITTEE OF COMMITTEE CO
Stachybotrys	-	_	_	
Torula	_	_	_	
Ulocladium	-	_	_	
Unidentifiable Spores	· <u>-</u>	-	-	
Zygomycetes	_	-	-	·
Total Fungi	33	1330	100	
Hyphal Fragment	-	-	_	
Insect Fragment	-	-	-	
Pollen	-	_	-	
Analyt, Sensitivity 600x	-	44	-	
Analyt. Sensitivity 300x	-	13*	-	
Skin Fragments (1-4)	-	2	-	· · · · · · · · · · · · · · · · · · ·
Fibrous Particulate (1-4)	-	1	-	
Background (1-5)		2	~	· · · · · · · · · · · · · · · · · · ·

Bipolaris++ = Bipolaris/Drechslera/Exserohilum Myxomycetes++ = Myxomycetes/Periconia/Smut

No discernable field blank was submitted with this group of samples.

Vouent Tuzzolio

Vincent luzzolino, M.S., Laboratory Manager or other approved signatory

High levels of background particulate can obscure spores and other particulates leading to underestimation. Background levels of 5 indicate an overloading of background particulates, prohibiting accurate detection and quantification. Present = Spores detected on overloaded samples. Results are not blank corrected unless otherwise noted. The detection limit is equal to one fungal spore, structure, pollen, fiber particle or insect fragment. "\*\*"

Denotes particles found at 300X, \*\*\* Denotes not detected. Due to method stopping rules, raw counts in excess of 100 are extrapolated based on the percentage analyzed. EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL, EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC--EMLAP Lab 100194

Initial report from: 10/18/2017 12:29:28



COASTAL ENVIRONMENTAL PO BOX 167 HAMMONTON, NJ 08330

# Certificate of Mold Analysis

Prepared for:

COASTAL ENVIRONMENTAL

Phone Number:

Fax Number:

Project Name:

WASHINGTON TWP SCHOOL DIST - WEDGEWOOD

Test Location:

236 HUNTVILLE RD

SEWELL, NJ

Chain of Custody #:

1080003

Received Date:

October 17, 2017

Report Date:

October 17, 2017

Carlos Ochoa, Technical and 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/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.



LAB#163230

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



Prepared for: COASTAL ENVIRONMENTAL

Test Address: WASHINGTON TWP SCHOOL DIST - WEDGEWOOD

236 HUNTVILLE RD SEWELL, NJ

ANALYSIS METHOD	Spo	ore trap anal	vsis	Spe	ore trap anal	vsis	Spi	ore trap anal	ysis	Spo	re trap anal	ysis
LOCATION	l	BIENT - FRO			MBIENT - BA	-	·	ROOM 3	•		ROOM 8	
COC / LINE #		1080003-1			1080003-2			1080003-3			1080003-4	
SAMPLE TYPE & VOLUME	Alf	R-O-CELL - 1	75L	Alf	R-O-CELL -	75L	Alf	R-O-CELL -	75L	AIF	R-O-CELL - 1	75L
SERIAL NUMBER		24935498			24933644			24933601			24933628	
COLLECTION DATE		Oct 13, 2017	7		Oct 13, 201	7		Oct 13, 201	7	- 1	Oct 13, 2017	7
ANALYSIS DATE		Oct 17, 2017	7		Oct 17, 201	7		Oct 17, 201	7		Oct 17, 201	7
CONCLUSION		CONTROL		N	OT ELEVAT	ED	N(	OT ELEVAT	ED	NO	OT ELEVAT	ED
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Cladosporium	8	110	10									
Ganoderma	8	110	10	4	53	7						
Other Ascospores	4	53	5	12	160	21						
Other Basidiospores	60	800	75	36	480	64						
Penicillium/Aspergillus							4	53	100	4	53	33
Smuts, myxomycetes				4	53	7				8	110	67
TOTAL SPORES	80	1,073	100	56	746	100	4	53	100	12	163	100
MINIMUM DETECTION LIMIT'	4	53		4	53		4	53	l	4	53	
BACKGROUND DEBRIS		Light			Light			Light			Light	
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 for '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.

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

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 fungl 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, Memonniella, Stachybotrys, Scopulariopsis, Ulocladium.

NOT ELEVATED means that the amount and/or the diversity of spores, as compared to the control sample in our database, are higher than expected. This can indicate that fungl 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, Memonniella, 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.



Prepared for: COASTAL ENVIRONMENTAL

Test Address: WASHINGTON TWP SCHOOL DIST - WEDGEWOOD

236 HUNTVILLE RD SEWELL, NJ

ANALYSIS METHOD	Spe	ore trap anal	ysis	Spi	ore trap ana	lysis	Sp	ore trap ana	ysis	INTEN	ITIONALLY	BLANK
LOCATION		ROOM 14			ROOM 26		!	ROOM 46				
COC / LINE #		1080003-5			1080003-6			1080003-7				
SAMPLE TYPE & VOLUME	All	R-O-CELL -	75L	All	R-O-CELL -	75L	Al	R-O-CELL -	75L		***	
SERIAL NUMBER		24933621			24933623			24933638				
COLLECTION DATE		Oct 13, 201	7		Oct 13, 201	7		Oct 13, 201	7			
ANALYSIS DATE		Oct 17, 201	7		Oct 17, 201	7		Oct 17, 201	7			:
CONCLUSION	N(	OT ELEVAT	ED	N	OT ELEVAT	ED	N	OT ELEVAT	ED			
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Cladosporium				4	53	50						
Ganoderma												
Other Ascospores												
Other Basidiospores												
Penicillium/Aspergillus							4	53	50			
Smuts, myxomycetes				4	53	50	4	53	50			<u> </u>
TOTAL SPORES				8	106	100	8	106	100			
MINIMUM DETECTION LIMIT'	4	53		4	53		4	53			ļ	
BACKGROUND DEBRIS		Light			Light			Light				
Cellulose Fiber				4	53							
OBSERVATIONS & COMMENTS	No Fungi [	Detected.										

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 fungl average grown because of a water letter of the control sample (s), and other samples in our database, are higher than expected. This can indicate that fungl average grown because of a water letter of the control sample (s), and other samples in our database, are lower than expected. This can indicate that fungl average grown because of a water intrusion. Fungl that are considered to be indicators of water damage include, but are not limited to: Cheetomium, Fusarium, Memoniella, 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.



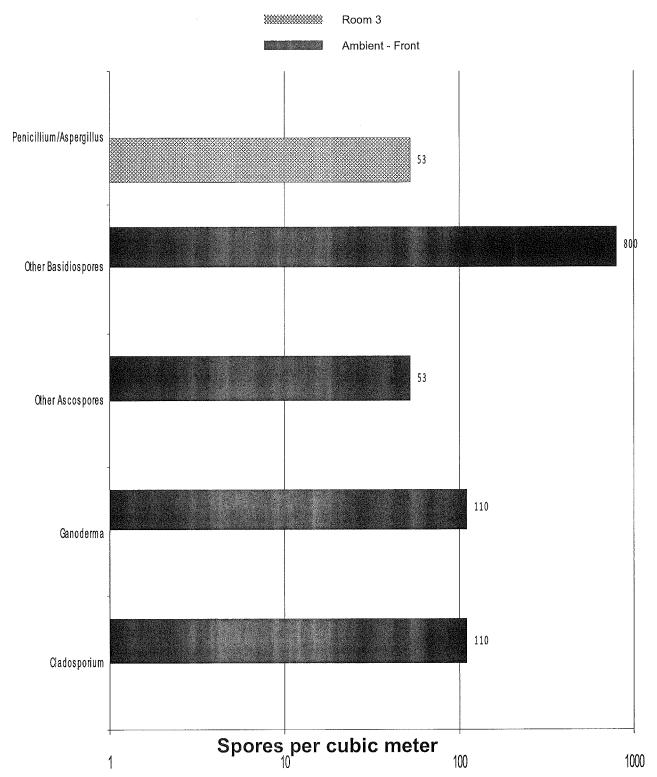
Chain of Custody # 1080003

\*\*\*\*\* Ambient - Back

Spores per cubic meter



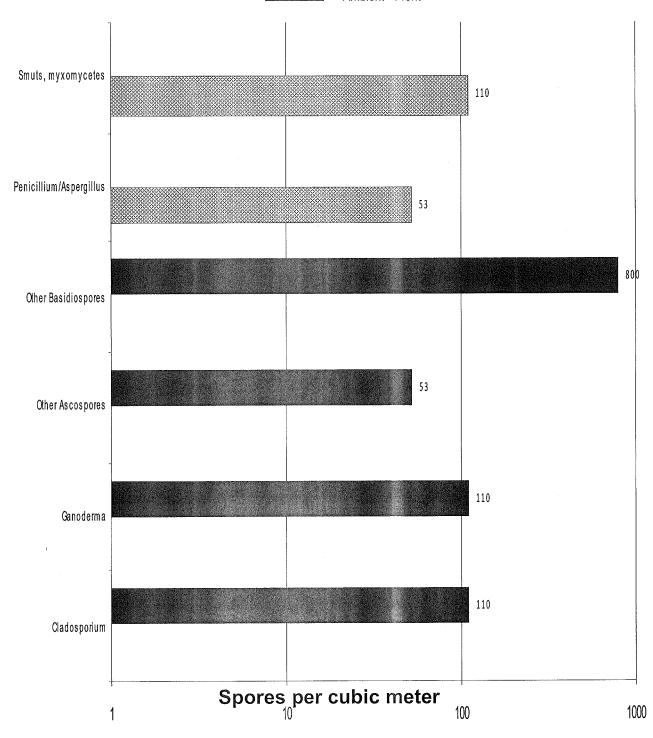








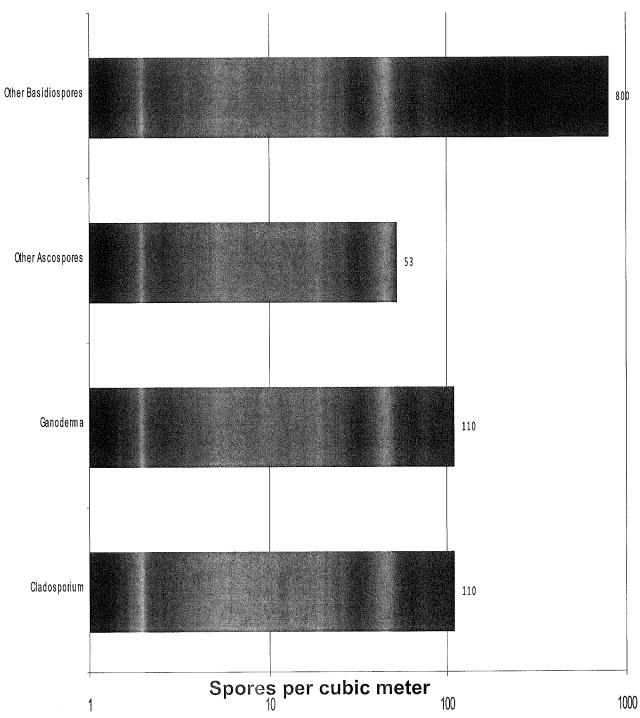








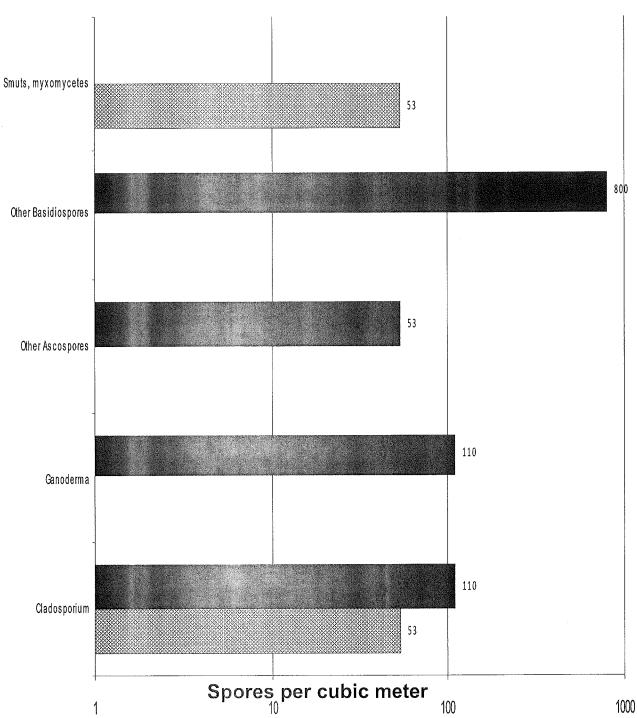








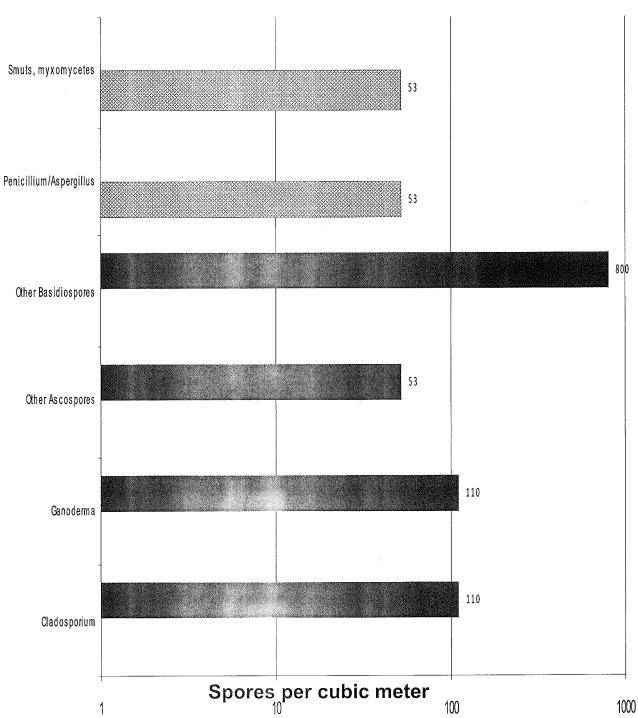






### Chain of Custody # 1080003







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.
Ganoderma	Common everywhere growing on hardwood trees.	None known.	None known.	
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 well tumber, 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 distinguished from each other.



COASTAL ENVIRONMENTAL PO BOX 167 HAMMONTON, NJ 08330

# **Certificate of Mold Analysis**

Prepared for:

COASTAL ENVIRONMENTAL

Phone Number:

Fax Number:

Project Name:

WASHINTON TWP WHITMAN ES

Test Location:

827 WHITMEN SCHOOL RD

TURNERSVILLE, NJ

Chain of Custody #:

1080461

Received Date:

October 18, 2017

Report Date:

October 18, 2017

Carlos Ochoa, Technical and 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.



LAB # 163230

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



Prepared for: COASTAL ENVIRONMENTAL

Test Address: WASHINTON TWP WHITMAN ES

827 WHITMEN SCHOOL RD TURNERSVILLE, NJ

								•				
ANALYSIS METHOD	Spo	ore trap anal	ysis	Spo	ore trap anal	ysis	Sp	ore trap anal	ysis	Spo	ore trap anal	ysis
LOCATION	AN	IBIENT FRO	INT	Al	MBIENT BA	СК		RM 18			RM 24	
COC / LINE #		1080461-1			1080461-2			1080461-3			1080461-4	
SAMPLE TYPE & VOLUME	AIR	R-O-CELL - 1	50L	AIR	R-O-CELL - 1	150L	AIF	R-O-CELL - 1	50L	AIR	-O-CELL - 1	50L
SERIAL NUMBER		24935424			24935500			24935393			24935443	
COLLECTION DATE		Oct 16, 2017	7		Oct 16, 201	7		Oct 16, 201	7		Oct 16, 201	7
ANALYSIS DATE		Oct 18, 2017	7		Oct 18, 201	7		Oct 18, 201	7		Oct 18, 201	7
CONCLUSION		CONTROL			CONTROL		N/	OT ELEVAT	ED	N(	OT ELEVAT	ED
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Bipolaris/Drechslera	4	27	2									
Cercospora	4	27	2									
Cladosporium	20	130	8	20	130	12						
Epicoccum	4	27	2	8	53	5						
Ganoderma	12	80	5	4	27	2				4	27	25
Nigrospora	4	27	2.									ļ
Other Ascospores	32	210	14	24	160	15						
Other Basidiospores	76	510	33	96	640	59				4	27	25
Penicillium/Aspergillus	68	450	29							4	27	25
Rusts	4	27	2	4	27	2						ļ
Smuts, myxomycetes	4	27	2	8	53	5		<u> </u>		4	27	25
TOTAL SPORES	232	1,542	100	164	1,090	100				16	108	100
MINIMUM DETECTION LIMIT	4	27		4	27	L	4	27		4	27	<u> </u>
BACKGROUND DEBRIS		Light			Light			Light			Light	
OBSERVATIONS & COMMENTS							No Fungi [	Detected.				

Background debris qualitatively estimates the amount of particles that are not polien or spores and directly affects the accuracy of the spore counts. The categories of Light, Moderate, Heavy and Too Heavy for Eackground geons 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 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 for Accurate Count's 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.

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. If soores are recorded they are normally what is in the air and have settled on the surface/s) tested.

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.



**Prepared for:** COASTAL ENVIRONMENTAL

Test Address: WASHINTON TWP WHITMAN ES

827 WHITMEN SCHOOL RD TURNERSVILLE, NJ

ANALYSIS METHOD	Spi	ore trap anal	ysis	Sp	ore trap ana	lysis	Sp	ore trap ana	lysis	INTEN	ITIONALLY I	BLANK
LOCATION		RM 105			RM 5			RM 8				
COC / LINE #		1080461-5			1080461-6			1080461-7				
SAMPLE TYPE & VOLUME	AIF	R-O-CELL - 1	150L	AIF	R-O-CELL -	150L	AIF	R-O-CELL - 1	150L			
SERIAL NUMBER		24935442			24935414			24935370				
COLLECTION DATE		Oct 16, 201	7		Oct 16, 201	7		Oct 16, 201	7			
ANALYSIS DATE		Oct 18, 201	7		Oct 18, 201	7		Oct 18, 201	7			
CONCLUSION	N	OT ELEVAT	ED	N	OT ELEVAT	ED	N N	OT ELEVAT	ED			
IDENTIFICATION	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total	Raw Count	Spores per m³	Percent of Total	Raw Count	Spores per m <sup>3</sup>	Percent of Total
Bipolaris/Drechslera												
Cercospora												
Cladosporium	4	27	50									
Epicoccum												
Ganoderma				4	27	33						
Nigrospora												
Other Ascospores				4	27	33						<u> </u>
Other Basidiospores				4	27	33						ļ
Penicillium/Aspergillus	4	27	50								ļ	
Rusts												ļ
Smuts, myxomycetes			<u> </u>	<u> </u>				<u></u>		<u> </u>		<u></u>
TOTAL SPORES	8	54	100	12	81	100			T	:		
MINIMUM DETECTION LIMIT	4	27		4	27		4	27				
BACKGROUND DEBRIS		Light			Light		<u> </u>	Light				
Cellulose Fiber	4	27										
Pollen	4	27							<u> </u>		<u></u>	1
OBSERVATIONS & COMMENTS							No Fungi I	Detected.				

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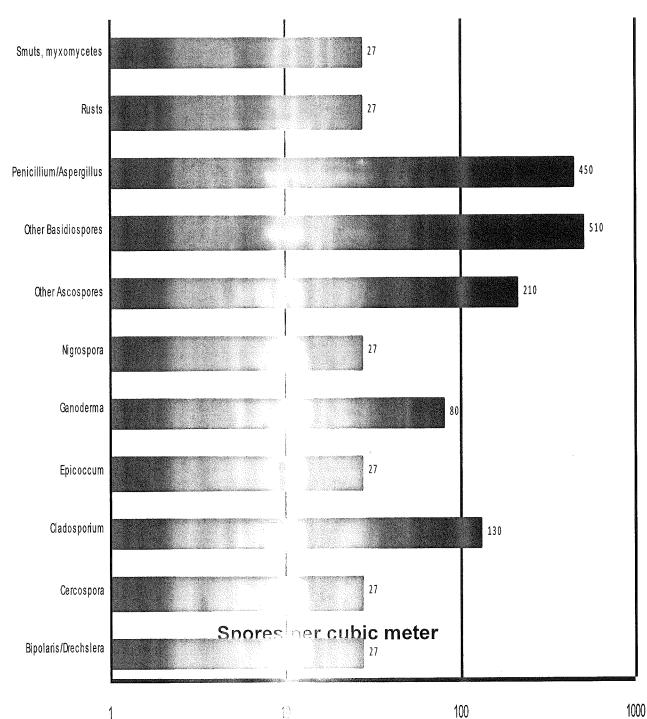
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## Chain of Custody # 1080461

Rm 18

Ambient Front

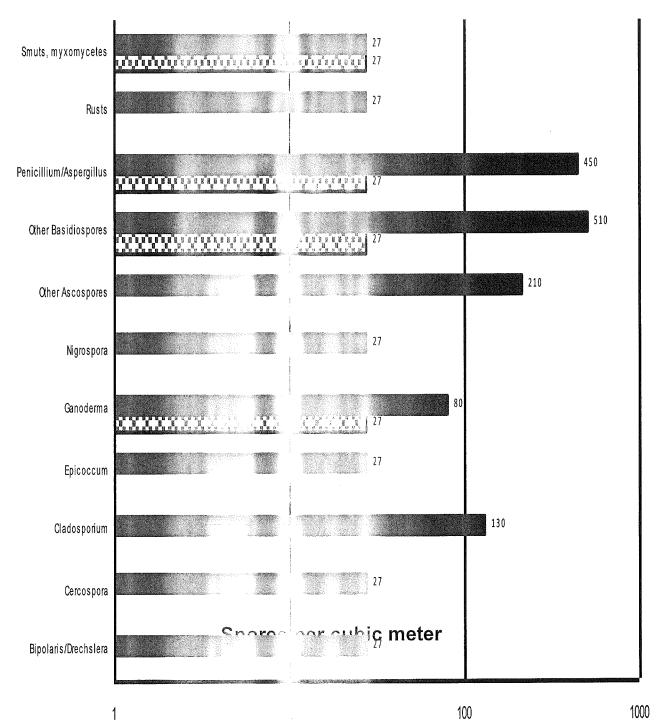




### Chain of Custody # 1080461

8 Rm 24

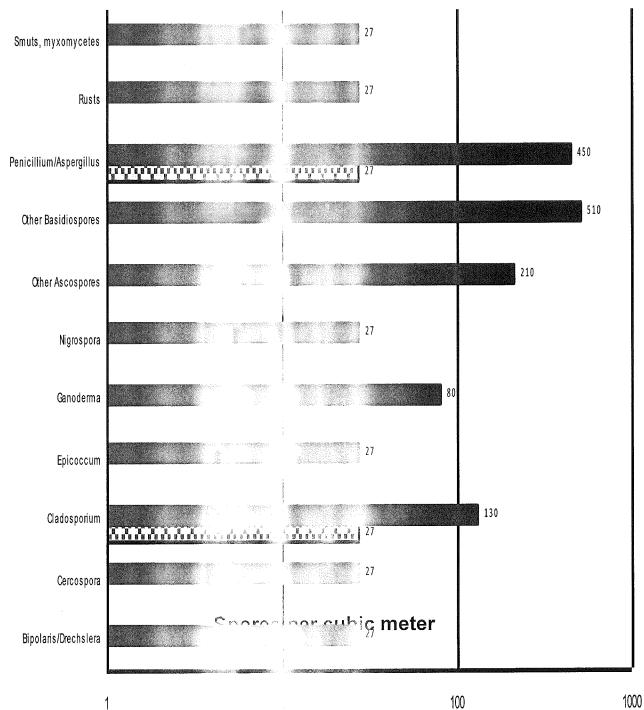
Ambient Front





### Chain of Custody # 1080461



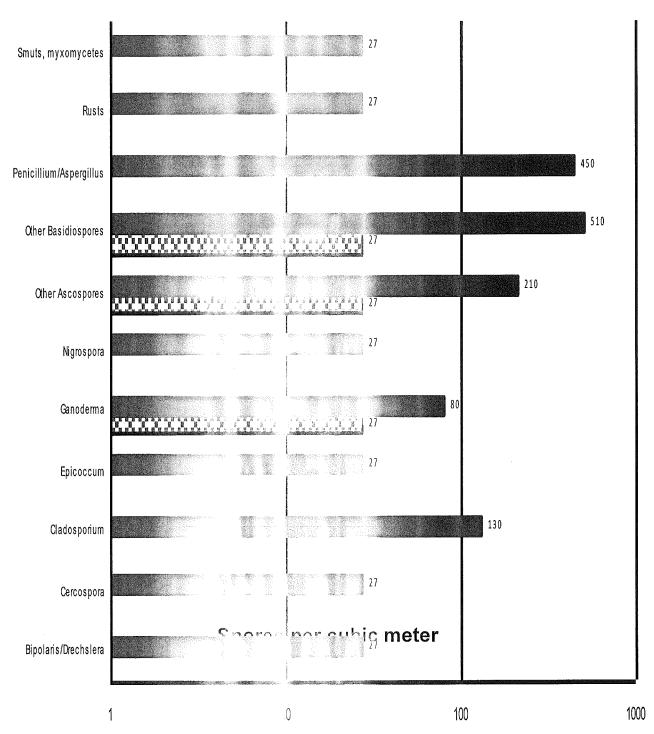




### Chain of Custody # 1080461

% Rm 5

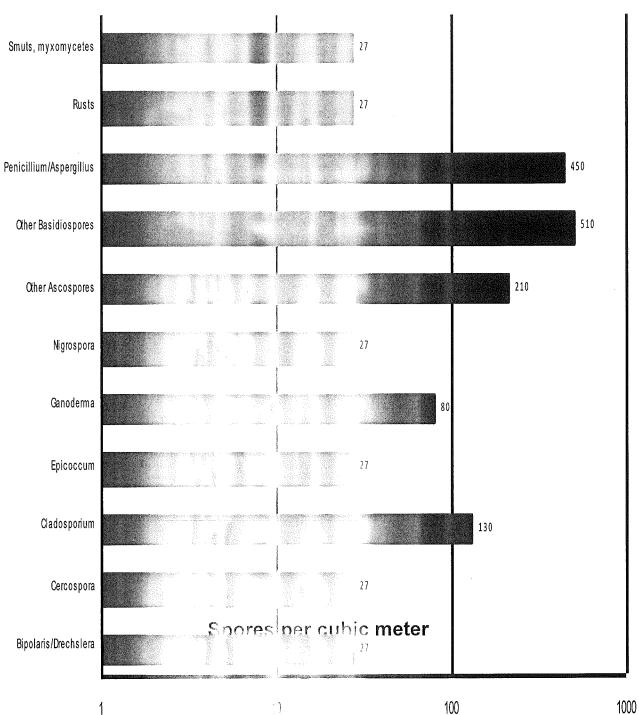
Ambient Front





### Chain of Custody # 1080461







Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Not an opinion or interpretation	Comments
Bipolaris/Drechslera	Common everywhere. Frequently associated with grasses, but also found on plant material, decaying food, and soil.		Common Type I (hay fever and asthma), fungal sinusitis.	This is a group of like-looking spores that include Bipolaris. Drechslera, Exserohilum, and sometimes Helminosporium. They cannot be consistently separated by spore morphology and are thus grouped together. Must be cultured to consistly separate the genera.
Cercospora	Common everywhere, especially growing on leaves.	Not known to grow indoors.	None known.	
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.
Epicocoum	Commonly found everywhere. Grows on plant debits, insects and soil.	Capable of growing on several different substrates, notably wallboard and pager.	Type I (hay fever and asthma) allergies.	Very common in the summer, especially in the midwest and during harvest time.
Sandana Sandana	Common everywhere prewing on hardwood trees.	None known.	None known.	
Nigrospora	Commonly found everywhere. Grows on decaying plant material	Does not normally grow on building materials, but occasionally can be found growing on wallboard.	Type I (hay fever and asthma) allergies.	Very distinctive spore that is easy to identify.
Ascospores	Common everywhere. Constitutes a large part of the arispora 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.
Rusts	Common everywhere growing on grasses, trees and other living plants.	Does not grow indoors.	Type I (hay fever and asthma) allergies.	Rust requires a living plant host to complete part of its lifecycle and thus, is not normally found growing indoors except perhaps on an infected house plant.



Identification	Outdoor Habitat	Indoor Habitat	Possible Allergic Potential Comments Not an opinion or interpretation	Comments
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.