Bio-Chem Consulting Services Ltd.

Analytical Test Report

Test Report #: BC14251A **Revision #:** Sample **Issue Date:** 13-Jan-10

Client: Mould Testers Inc. **Code:**
Contact: John Pen
Job #: 1313 Mockingbird Lane **P.O.#:**
Address: 105 Main Street
Calgary AB
T1H 4J8
Internal Project #: BC14251
Sampled By: J.P.
Sample Location: 1313 Mockingbird Lane
Sample Date: 23-Dec-09
Date Received: 23-Dec-09

Analytical	# of Pages
Cassette Exam	2
Direct	1
Viable	1
Identification	1
Comments	1
Total (incl. Cover)	7

Comments: None.

Approved By: _____

Michael Sheppard, B.Sc.
Supervisor, Analytical Services Division

1) THIS REPORT MAY NOT BE REPRODUCED IN PART WITHOUT THE EXPRESSED WRITTEN CONSENT OF THE LABORATORY.
2) ANY REMAINING SAMPLES WILL BE DISPOSED OF 30 DAYS FOLLOWING ANALYSIS. CONTACT THE LABORATORY IF ADDITIONAL SAMPLE STORAGE TIME IS REQUIRED.
3) ALL LABORATORY ANALYSES INCORPORATE STANDARD QC PROTOCOLS; HOWEVER, UNSIGNED TEST REPORTS ARE PRELIMINARY AND UNOFFICIAL.
4) REPORTED TEST RESULTS RELATE ONLY TO THE SAMPLES AS RECEIVED BY THE LABORATORY.
5) BIO-CHEM CONSULTING SERVICES LTD. ASSUMES NO LIABILITY FOR THE USE OR INTERPRETATION OF THE TEST RESULTS.
6) WHERE APPLICABLE, ESTIMATION OF THE MEASUREMENT UNCERTAINTY IS AVAILABLE ON REQUEST.

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Bio-Chem Consulting Services Ltd.

CERTIFICATE OF ANALYSIS
Fungal Spore Trap Data

B.C. Project No. : BC14251 **Date Analyzed:** 28-Dec-09
Client Job No.: 1313 Mockingbird Lane **Page Issue Date:** 28-Dec-09

Sample	Location	Serial #	Vol. (L)	% Trace	D.L.	Background
1	Control #1	476611	75	12.6	100	Moderate
2	Control #2	476613	75	30.6	40	Moderate
3	Control #3	476612	75	30.6	40	Moderate
4	Basement	476621	75	30.6	40	Moderate

	Sample Number											
	1			2			3			4		
Probable Genus / Group	Cts	Cts/m^3	X	Cts	Cts/m^3	X	Cts	Cts/m^3	X	Cts	Cts/m^3	X
Acremonium - like	3	300		2	90		1	40				X
Alternaria	1	100				X	2	90				
Arthrinium												
Ascospores			X				1	40				
Basidiospores	3	300		1	40		5	200		1	40	
Bipolaris/Drechslera - like												
Botrytis												
Cercospora - like												
Chaetomium												
Cladosporium	533	57000		32	1400		92	4000		2	90	
Curvularia												
Epicoccum			X			X	1	40				
Fusarium												
Ganoderma				1	40							
Memnoniella												
Nigrospora												
Penicillium/Aspergillus - like	1	100		3	100							
Pestalotiopsis/Pestalotia												
Pithomyces												
Polythrincium												
Rusts, Smuts, Periconia, Myxo.	5	500		2	90		6	300				
Scopulariopsis - like												
Spegazzinia												
Stachybotrys												X
Stemphylium												
Tetraploa												
Torula						X						
Trichoderma - like												
Ulocladium												
Zygophiala												
Non-Specified Spore	16	1700		9	400		20	870				
Hyphal Fragments	11	1200		5	200		14	610				
TOTAL SPORES / m^3	**61000**			**2400**			**6200**			**130**		

"**X**" indicates the presence of the Genus/Group, however at a concentration below the Detection Limit of the analysis.
"**D.L.**" Detection Limit

Comments:
None.

Bio-Chem Consulting Services Ltd.

CERTIFICATE OF ANALYSIS
Fungal Spore Trap Data

B.C. Project No. : BC14251 **Date Analyzed:** 28-Dec-09
Client Job No.: 1313 Mockingbird Lane **Page Issue Date:** 28-Dec-09

Sample	Location	Serial #	Vol. (L)	% Trace	D.L.	Background
5	Main	476626	75	30.6	40	Moderate
6	Upper	476623	75	30.6	40	Moderate
7	Attic	476622	75	30.6	40	Moderate
8	Garage	476633	75	30.6	40	Moderate

	Sample Number											
	5			6			7			8		
Probable Genus / Group	Cts	Cts/m^3	X	Cts	Cts/m^3	X	Cts	Cts/m^3	X	Cts	Cts/m^3	X
Acremonium - like	3	100		1	40		1	40		1	40	
Alternaria	1	40							X			X
Arthrinium												
Ascospores							1	40		1	40	
Basidiospores	1	40		1	40		1	40		1	40	
Bipolaris/Drechslera - like												
Botrytis												
Cercospora - like												
Chaetomium												
Cladosporium	5	200		2	90		14	610		16	700	
Curvularia												
Epicoccum												
Fusarium												
Ganoderma							1	40				
Memnoniella												
Nigrospora												
Penicillium/Aspergillus - like	1	40		4	200							
Pestalotiopsis/Pestalotia												
Pithomyces												
Polythrincium												
Rusts, Smuts, Periconia, Myxo.										1	40	
Scopulariopsis - like												
Spegazzinia												
Stachybotrys				1	40							
Stemphylium												
Tetraploa												
Torula												
Trichoderma - like												
Ulocladium												
Zygophiala												
Non-Specified Spore	2	90					2	90				
Hyphal Fragments			X				3	100				X
TOTAL SPORES / m^3	**510**			**410**			**960**			**860**		

"**X**" indicates the presence of the Genus/Group, however at a concentration below the Detection Limit of the analysis.
"**D.L.**" Detection Limit

Comments:
None.

Bio-Chem Consulting Services Ltd.

CERTIFICATE OF ANALYSIS
Environmental Microbiology Report

B.C. Project No. : BC14251
Client Job No.: 1313 Mockingbird Lane

Date Analyzed: 28-Dec-09
Page Issue Date: 28-Dec-09

Sample Description	Observation/Comments	Relative Abundance	Distribution
17: TL-01 - Main Floor Kitchen Behind Fridge	Rusts/Smuts/Periconia	Very Low	HH
	Cladosporium	Very Low	HH
18: MS-02 - Drywall, Mainfloor Living Room Inspection Port and Window	*Arthrinium*	Very Low	HH
	Ulocladium	Moderate	SH
	Aspergillus / Penicillium (like)	Very Low	HH
	Acremonium (like)	Very Low	HH
	Ascospores	Very Low	HH
	Hyphal Fragments	High	SH
19: MS-03 - Basement Bathroom Wall Linoleum	*Cladosporium*	Very Low	HH
	Acremonium (like)	Low	MH
	Hyphal Fragments	Low	MH
20: TL-04 - Basement, S Wall Wood Stud	*Ophiostoma*	Moderate	MH
	Acremonium (like)	Low	MH
	Phoma	Low	HH
	Aspergillus / Penicillium (like)	Low	MH
	Non-specified Spores	Very Low	HH
	Hyphal Fragments	Low	SH

Relative Abundance Descriptions (approximate magnification: X400; Field of View (FOV): 0.15mm^2)

Very Low: much less than 1 spore/structure observed per FOV
Low: <1 spore/structure observed per FOV
Moderate: 1 to 100 spores/structures observed per FOV
High: >100 spores/structures observed per FOV
Very High: much greater than 100 spores/structures observed per FOV

Distribution (Heterogenicity) Descriptions

HH: Highly Heterogeneous
MH: Moderately Heterogeneous
SH: Somewhat Heterogeneous
UD: Uniform (Homogeneous) Distribution

Bio-Chem Consulting Services Ltd.

CERTIFICATE OF ANALYSIS
Environmental Microbiology Report

B.C. Project No. : BC14251
Sub-Contracted: No
Client Job No.: 1313 Mockingbird Lane

Date Analyzed: 23-Dec-09
Page Issue Date: 30-Dec-09

Sample Description	Fungi (cfu/m3)				
9: Control #1	>3400				
10: Control #2	880				
11: Control #3	1100				
12: Basement	70				
13: Main	320				
14: Upper	130				
15: Attic	330				
16: Garage	340				

Sample volume (for each listed above): 100 L (RCS-Plus sampler)

Bio-Chem Consulting Services Ltd.

CERTIFICATE OF ANALYSIS
Fungal Identification

B.C. Project No. : BC14251
Sub-Contracted: No
Client Job No.: 1313 Mockingbird Lane

Date Analyzed: 23-Dec-09
Page Issue Date: 13-Jan-10

Detailed Species Distribution (Approximate Conc.)	Sample							
	9	10	11	12	14	15	16	
	Control 1	Control 2	Control 3	Basement	Upper	Attic	Garage	
Aspergillus versicolor				16				
Cladosporium cladosporioides	+	174	308					
Cladosporium herbarum	+	652	715	39	80	330	274	
Cladosporium macrocarpum							11	
Epicoccum nigrum		11						
Penicillium brevicompactum					10			
Penicillium chrysogenum				16	30		33	
Penicillium expansum			11					
Ulocladium chartarum					10			
Yeast (Total)	+	22	55					
Non-sporulating (Total)	+	22	11				22	
Total (cfu/m3)	>3400	880	1100	70	130	330	340	

Detailed Species Distribution (%)	Sample							
	9	10	11	12	14	15	16	
	Control 1	Control 2	Control 3	Basement	Upper	Attic	Garage	
Aspergillus versicolor				22.2				
Cladosporium cladosporioides	+	19.8	28.0					
Cladosporium herbarum	+	74.1	65.0	55.6	61.5	100.0	80.6	
Cladosporium macrocarpum							3.2	
Epicoccum nigrum		1.2						
Penicillium brevicompactum					7.7			
Penicillium chrysogenum				22.2	23.1		9.7	
Penicillium expansum			1.0					
Ulocladium chartarum					7.7			
Yeast (Total)	+	2.5	5.0					
Non-sporulating (Total)	+	2.5	1.0				6.5	
Total (%)	N/A	100.1	100.0	100.0	100.0	100.0	100.0	

+ indicates the presence, but unable to quantify due to excessive growth upon the test strip.

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CERTIFICATE OF ANALYSIS
Comments

B.C. Project No. : BC14251 **Page Issue Date:** 13-Jan-10
Sub-Contracted: No
Client Job No.: 1313 Mockingbird Lane

Human-Health Related Comments Regarding Specific Fungal Species							
Species	BSL	Virulence	Freq.	Type I	Type III	Tox.	CHR
Aspergillus versicolor	1	OP	R	X	X	X	X
Cladosporium cladosporioides	1	OP	R	X		X	X
Cladosporium herbarum	1	OP	R	X		X	
Cladosporium macrocarpum	1			X			
Epicoccum nigrum	1	OP	R	X		X	
Penicillium brevicompactum	1	OP	?	X		X	
Penicillium chrysogenum	1	OP	R	X	X	X	X
Penicillium expansum	1			X		X	
Ulocladium chartarum	1	OP	?				X

BSL	Biosafety Level Classification (CDC) 1: Not known to cause disease in healthy adult humans 2: Moderate Risk 3: High Risk
Virulence	Opportunistic (OP), or Virulent (VP) Pathogen
Frequency (of Clinical Cases)	R: Rare U: Uncommon UR: Uncommon, but Regular C: Common ?: Degree of virulence unknown
Type I	Type I (immediate) allergenic response
Type III	Type III (delayed) allergenic response
Tox.	Potentially Toxigenic - known to produce mycotoxins
CHR	Species listed within Table 1 of CHR's MGO policy document (Oct/07)

Note:	The Health-Related information listed above represents information compliled from resources available within our facility on the date of report issue. This information is intended to be used as a guideline for the interpretation of the data, but does not represent an exhaustive literature review. Bio-Chem Consulting Services does not assume any liability for the intrepretation or use of the provided information.