Apex EHS Services Inc.
1519 Keehn Road, Kelowna, BC V1X 5T3
Phone: 250-868-0667 Email: apex@apexehs.ca

September 12, 2019

APEX Project Number: SD8318-004

School District 83
5911 Auto Road SE,
Salmon Arm, BC

Attention: Glynn Warnica

Mould Air Sampling Results Letter

Project Address: Parkview Elementary - 605 Parksville Street, Sicamous, BC

Introduction

Apex EHS Services Inc. (Apex) was retained by School District 83 to conduct mould air sampling at Parkview Elementary School located at 605 Parksville Street, Sicamous, BC.

Scope of Work

Apex's scope of work included the following:

- Collection and submittal to a qualified laboratory seven mould air samples including four samples within the school, two outdoor reference samples and one field blank for quality control purposes;
- Preparation of this letter.

Methodology

The air samples were collected on September 11, 2019 by Hayley Uyeyama, *Project Coordinator* of Apex. Photographs of sampling locations are appended to the end of this report.

The assessor collected spore trap air samples using Allergenco-D impactor cassettes using a constant flow Bio-pump. The assessor calibrated the pump before and after each sample.

Spore trap sample analysis was conducted by Sporometrics Inc. located in Toronto, Ontario. Sporometrics is accredited by the American Industrial Hygiene Association (AIHA) Environmental Microbiology Laboratory Accreditation Program.

Mould Air Sampling Results

The results of air sampling for mould require careful interpretation. There are no accepted numerical criteria for indoor fungal spore concentrations. The accepted practice among leading authorities is comparison of samples in areas of concern with outdoor and/or indoor control samples. An acceptable condition is indicated when concentrations of airborne fungal particles are not significantly elevated when compared to concentrations in the control samples, and the types of fungal particulate do not differ significantly from those present in the control samples.

Mould air samples collected within the West corridor, Main Office, Northwest Foyer and Central Corridor were quantitatively lower and qualitatively similar to outdoor reference samples.

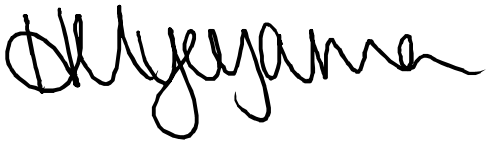
Sample results indicate that mould growth was not impacting on air quality at the time of sampling.

Laboratory analytical results are attached to this report.

Closure

This project was limited to mould air sampling only. No inspection of the building was conducted at the time of sampling.

Prepared By:



Hayley Uyeyama, B.Sc., EPt
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for Apex EHS Services
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Reviewed by:

Jeff Widmer, B.Sc., EP(OH&S)
Operations Manager
for Apex EHS Services
Tel: 250-868-0667
Email: jwidmer@apexehs.ca

Attached:
Terms of Reference
Mould Air Sampling Laboratory Results

TERMS OF REFERENCE

- This report has been prepared in accordance with generally-accepted consulting practices and the level of care for hazardous materials and occupational health and safety consulting services. No other warranty, expressed or implied, is made.
- This report should be read in conjunction with all other communication between Apex EHS Services and the client with respect to the subject site.
- This report has been prepared in response to the specific objectives of the client as stated when Apex EHS Services was retained to carry out this project.
- This report has been prepared for the sole use of the client and no other party may rely on this report or any component of this report.
- This report remains the copyright of Apex EHS Services.
- Apex EHS Services accepts no responsibility for any damages to a third party resulting from the use of this report.
- This report is based on the conditions observed at the date of the assessment and is limited specifically to the areas defined in the report.
- Apex EHS Services has relied on any information provided by the client regarding the subject site and has assumed this information is accurate and truthful.
- This report in written or digital format must not be altered in any way by the client.

	Mould air sample collected within the West corridor.
	Mould air sample collected within the Main office.
	Mould air sample collected within the Northwest Foyer.

	Mould air sample collected within the Central Corridor

Sporometrics Inc.
219 Dufferin Street, Suite 20C, Toronto, ON M6K 1Y9 - t.416-516-1660 - f.416-516-1670 - www.sporometrics.com

RESULTS OF LABORATORY ANALYSES: JOB NO. 33045.00

To:	Jeff Widmer	**Date of report:**	2019/09/12
Company:	Apex EHS Services	**Date of sampling:**	2019/09/11
Client Project:	SD8318-004	**Analyst:**	Mike Saleh
Client Address:	1519 Keehn Rd., Kelowna, BC V1X 5T3	**Date Received:**	2019/09/12

SPORE TRAP SAMPLE NO.:[a]	**3043444**		**3043432**		**3043441**		**3043449**		**3043439**		**3043437**	
Location:	West Corridor		Central Corridor		NW Foyer		Main Office		Outdoor (East)		Outdoor (North)	
Serial #:	3043444		3043432		3043441		3043449		3043439		3043437	
Expiry date:	2020/06		2020/06		2020/06		2020/06		2020/06		2020/06	
Volume (L):	150		150		150		150		150		150	
Magnification (x):	1000		1000		1000		1000		600		600	
Background (rating)[b]:	4+		4+		4+		4+		2+		2+	
No. of transects enumerated:	10		10		10		10		1		1	
FUNGAL IDENTIFICATION[c]:	**COMPOSITION (raw count) approx. elements / m³ [d]**											
Alternaria NOS		-		-	(1)	44		-		-		-
ascospores NOS		-	(tr)	tr		-		-	(5)	1300	(2)	530
Aspergillus / Penicillium NOS	(2)	88	(2)	88	(2)	88	(2)	88		-		-
basidiospores NOS	(103)	4500	(87)	3800	(60)	2600	(48)	2100	(137)	37000	(141)	38000
Botrytis NOS		-		-		-		-		-	(tr)	tr
Cladosporium NOS	(2)	88	(2)	88	(2)	88	(2)	88	(2)	530	(1)	270
hyphal fragments, pigmented	(tr)	tr	(1)	44	(3)	130		-		-	(tr)	tr
myxomycete / smut spores NOS		-	(1)	44	(2)	88		-		-	(tr)	tr
Pithomyces NOS		-		-		-		-	(tr)	tr		-
rust spores NOS		-		-	(1)	44		-		-		-
SUMMARY DATA[e]:												
TOTAL (raw count)		107		93		71		52		144		144
LOD (elements / m³)		44		44		44		44		267		267
TOTAL (elements / m³)		**4,700**		**4,100**		**3,100**		**2,300**		**38,000**		**38,000**

AIHA LAP, LLC LAB NO: 171117

Samples were received in satisfactory condition and tested in accordance with SOP 5.4.1.1.2 These results relate only to the samples tested.

[a] Analysis compliant with ASTM D7391–09 *Standard Test Method for Categorization and Quantification of Airborne Fungal Structures in an Inertial Impaction Sample by Optical Microscopy.* Note that samples with excessive spore counts or background (4+ or higher) are unsuitable for ASTM compliant analysis.

[b] Rating (amount of trace occluded with particulate matter): **0+** = no particulate matter detected, **1+** = >0 to approx. 5%, **2+** = approx. 5% to 25%, **3+** = approx. 25% to 75%, **4+** = approx. 75% to 90%, **5+** = >90%, Negative bias increases with increasing background rating.

[c] Identification to genus level, taxonomic group or morphological category, where appropriate; **NOS** = Not otherwise specified.

[d] Evaluated in Nomarski Differential Interference Contrast (DIC) microscopy; **tr** = observed outside of enumerated transects; **-** = not detected.

[e] Total elements / m³ expressed at two significant digits; **LOD** = Limit of detection; **NFEO** = No fungal elements observed.

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Client Address:	1519 Keehn Rd., Kelowna, BC V1X 5T3	**Date Received:**	2019/09/12

SPORE TRAP SAMPLE NO.:[a]	**3043446**	**-**	**-**	**-**	**-**	**-**
Location:	Blank					
Serial #:	3043446					
Expiry date:	2020/06					
Volume (L):	N/A					
Magnification (x):	600					
Background (rating)[b]:	1+					
No. of transects enumerated:	10					
FUNGAL IDENTIFICATION[c]:	**COMPOSITION (raw count) approx. elements / m³ [d]**					
Alternaria NOS	-					
ascospores NOS	-					
Aspergillus / Penicillium NOS	-					
basidiospores NOS	-					
Botrytis NOS	-					
Cladosporium NOS	-					
hyphal fragments, pigmented	-					
myxomycete / smut spores NOS	-					
Pithomyces NOS	-					
rust spores NOS	-					
SUMMARY DATA[e]:						
TOTAL (raw count)	NFEO					
LOD (elements / m³)	N/A					
TOTAL (elements / m³)	**N/A**					

AIHA LAP, LLC LAB NO: 171117

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END OF REPORT

Examined By

Mike Saleh, MHSc

Analyst

Released By

Susan Du, MSc

Analyst