

VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 Date: 24-JUN-19 PO No.: 1517879 WO No.: L2295955

LSD:

Project Ref: KERRISDALE ANNEX

Sample ID: RM 109
Sampled By: Chris Carrell
Date Collected: 20-JUN-19
Lab Sample ID: L2295955-1

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			watrix: wate	er	PAGE	1 of 4
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.00153		mg/L	0.005		22-JUN-19
* CDWQG = Health Canada Guideline Limits updated  * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only  * Turbidity guideline based on membrane filtration. For a Summary Table of Guidelines for Canadian Drinking Wa  - A blank entry designates no known limit.  - A shaded value in the Results column exceeds CDWQ  Approved by  Edward Ngai	guidelines on con ter Quality	ventional treatm	ent and slow sand			ase see

Account Manager

ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700 ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company





VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 Date: 24-JUN-19 PO No.: 1517879 WO No.: L2295955

LSD:

Project Ref: KERRISDALE ANNEX

Sample ID: RM 101
Sampled By: Chris Carrell
Date Collected: 20-JUN-19
Lab Sample ID: L2295955-2

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			watrix. wate	er	PAGE	2 of 4
Test Description	Result Qualif		Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.00281		mg/L	0.005		22-JUN-19
CDWQG = Health Canada Guideline Limits updated  * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only  * Turbidity guideline based on membrane filtration. For Summary Table of Guidelines for Canadian Drinking Wa  - A blank entry designates no known limit.  - A shaded value in the Results column exceeds CDWQ	guidelines on cor ater Quality	ventional treatm	ent and slow sand			ase see
Approved by Edward Ngai	_					

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VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 Date: 24-JUN-19 PO No.: 1517879 WO No.: L2295955

LSD:

Project Ref: KERRISDALE ANNEX

Sample ID: RM 104
Sampled By: Chris Carrell
Date Collected: 20-JUN-19
Lab Sample ID: L2295955-3

Matrix: Water

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			Matrix: Wate	er	PAGE	3 of 4
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.00362		mg/L	0.005		22-JUN-19
* CDWQG = Health Canada Guideline Limits updated  * CDWQG for Nitrate+Nitrite-N is the limit for nitrate onl  * Turbidity guideline based on membrane filtration. For Summary Table of Guidelines for Canadian Drinking W  - A blank entry designates no known limit.  - A shaded value in the Results column exceeds CDWC	guidelines on cor ater Quality	ventional treatm	ent and slow sand			ase see

Account Manager

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PAGE 4 of 4

### **Guidelines & Objectives**

#### Health Canada MAC Health Related Criteria Limits

Nitrate/Nitrite-N\* Criteria limit is 10 mg/L (1.0 mg/L if present as all Nitrite-N). High concentrations may contribute to blue baby syndrome in infants.

Lead\* A cumulative body poison, uncommon in naturally occurring hard waters.

Fluoride\* Present in fluoridated water supplies at 0.8 mg/L to reduce dental caries. Elevated levels causes fluorosis (mottling of teeth).

Total Coliforms\* Criteria is 0 CFU/100mL. Adverse health effects.

E. Coli\* Criteria is 0 CFU/100 mL. Certain E. Coli bacteria can be life threatening.

\*Health Canada Canadian Drinking Water Quality Guidelines (MAC limit)

#### **Aesthetic Objective Concentration Levels**

Alkalinity Acid neutralizing capacity. Usually a measure of carbonate and bicarbonates and calculated and reported as calcium carbonate.

Balance Quality control parameter ratioing cations to anions
Bicarbonate See Alkalinity. Report as the anion HCO3-1
Carbonate See Alkalinity. Reported at the anion CO3-2

See Hardness. Common major cation of water chemistry.

Chloride Common major anion of water chemistry.

Conductance Physical test measuring water salinity (dissolved ions or solids)

Hardness Classical measure or capacity of water to precipitate soap (chiefly calcium and magnesium ions). Causes scaling tendency in

water if carbonates/bicarbonates are present (if >200 mg/L). For drinking water purposes waters with results <200 mg/L are considered acceptable, results >200 mg/L are considered poor but can be tolerated. Results >500 mg/L are unacceptable.

Hydroxide See alkalinity

Magnesium See hardness. Common major cation of water chemistry. Elevated levels (>125 mg/L) may exert a cathartic or diuretic action.

Measure of water acidity/alkalinity. Normal range is 7.0-8.5.

Potassium Common major cation of water chemistry.

Sodium Common major cation of water chemistry. Measure of salinity (saltiness).

Sulphate Common major anion of water chemistry. Elevated levels may exert a cathartic or diuretic action.

Total Dissolved Solids A measure of water salinity.

Iron Causes staining to laundry and porcelain and astringent taste. Oxidizes to red-brown precipitate on exposure to air.

Manganese Elevated levels may cause staining of laundry and porcelain.

Heterotrophic

Calcium

рΗ

Plate Count Criteria is 500 cfu/mL Measure of heterotrophic bacteria present.

#### **GLOSSARY OF REPORT TERMS**

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample mg/kg wwt - milligrams per kilogram based on wet weight of sample mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory. UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

# ALS Environmenta

## Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L2295955-COFC

COC Number: 17 - 828777

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Report To	Contact and company name below will appea	ar on the final report	Report Forma					w - Contact your AM to confirm all E&P TATs (surcharges may apply)											
Company:		Board.	Select Report Format: PDF EXCEL   EDD (DIGITAL)																
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Drinking Water (DW) Samples¹ (client use)  Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)					SAMPLE CONDITION AS RECEIVED (lab use only)  Frozen SIF Observations Yes No														
Are samples taken from a Regulated DW System?					4		_					Yes		-	No		ΗI		
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Are samples for human consumption/ use?  NO PRESERVATIVES					-	. INIITIAL COOLER TEMPERATURES ℃ FINAL COOLER TEMP				TEMPERAT	JRES °C								
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	SHIPMENT RELEASE (client use)	• •	INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)							•					
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REFER TO BACK I	PAGE FOR ALS LOCATIONS AND SAMPLING INF	ORMATION	<u>.                                    </u>	WHI	L . TE - LABORATORY	COPY YELLO	W - CLII	ENT COPY										NONE	2018 FRONT