

VANCOUVER SCHOOL BOARD Maintenance and Construction 1549 Clark Drive Vancouver BC V5L 3L4 **Date:** 16-OCT-19 **PO No.:** 1517879 **WO No.:** L2362041

LSD:

Project Ref: QUEEN VICTORIA ELEMENTARY

Sample ID: RM.115 DF
Sampled By: ROBIN LEMAY

Date Collected: 08-OCT-19
Lab Sample ID: L2362041-1
Matrix: WATER

PAGE 1 of 4

ATTN: Stephen Thomas						
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000276		mg/L	0.005		13-OCT-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 CDWC	guidelines on con iter Quality	ventional treatm	ent and slow sand			se see

Approved by

Edward Ngai 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:** 16-OCT-19 **PO No.:** 1517879 **WO No.:** L2362041

LSD:

Project Ref: QUEEN VICTORIA ELEMENTARY

Sample ID: RM.122A DF
Sampled By: ROBIN LEMAY
Date Collected: 08-OCT-19
Lab Sample ID: L2362041-2
Matrix: WATER

ATTN: Stephen Thomas					PAGE	2 of 4
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000163		mg/L	0.005		11-OCT-19
* CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. It * Turbidity guideline based on membrane filtration. For guid Summary Table of Guidelines for Canadian Drinking Water - A blank entry designates no known limit A shaded value in the Results column exceeds CDWQG N	delines on con Quality	ventional treatm	ent and slow sand			se see

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LSD:

Project Ref: QUEEN VICTORIA ELEMENTARY

Sample ID: RM.125 DF
Sampled By: ROBIN LEMAY
Date Collected: 08-OCT-19
Lab Sample ID: L2362041-3
Matrix: WATER

Vancouver BC V5L 3L4 ATTN: Stephen Thomas			matrix: WAT		PAGE	3 of 4
Test Description	Result	Qualifier	Units of Measure	CDWQG MAC	Aesthetic Objective	Date Analyzed
Total Metals Lead (Pb)-Total	0.000260		mg/L	0.005		12-OCT-19
CDWQG = Health Canada Guideline Limits updated	JUNE 2019	Standardh an dha P		N.D. Jasa da a da		
 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 con iter Quality	ventional treatm	ent and slow sand			se see
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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.

Manganese* Criteria limit is 0.12 mg/L. Possible neurological effects in infants.

*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

Calcium 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.

Heterotrophic

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.



Chain of Custody (COC) / Analytical Request Form

L 2362041-COFC

C Number: 17 - 756189

of

Canada Toll Free: 1 800 668 9878 www.alsglobal.com

Report To Contact and company name below will appear on the final report Report Format / Distrib -select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply) Company PDF DECEL BDD (DIGITAL) Regular [R] Standard TAT If received by 3 pm - business days - no surcharges apply Stephen Thomas 604 713-5637 Contact Quality Control (QC) Report with Report YES NO 4 day [P4-20%] 1 Business day [E - 100%] Compare Results to Criteria on Report - provide details below if box checked 3 day [P3-25%] Same Day, Weekend or Statutory holiday [E2 -200% Select Distribution: EMAIL MAIL FAX (Laboratory opening fees may apply)] Company address below will appear on the final report 2 day [P2-50%] Email 1 or Fax 35thomas@usb.bc.ca Street: Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm City/Province: remayersb.bc.ca or tests that can not be performed according to the service level selected, you will be contacted. Postal Code: Analysis Request Invoice To Same as Report To + ✓ YES NO Invoice Distribution Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below ON HOLD CONTAINERS Select Invoice Distribution: EMAIL MAIL FAX Copy of Invoice with Report YES NO Email 1 or Fax sothomas @usb.bc.ca Company: Contact: rlemay@usb.bc.ca Project Information Oil and Gas Required Fields (client use) ALS Account # / Quote #: AFE/Cost Center: PO# torra Elementary Major/Minor Code: Routing Code: SAMPLES PO/AFE: Requisitioner: 9 LSD: Location: NUMBER Sampler: Robin ALS Lab Work Order # (lab use only): ALS Contact: Lenay Sample Identification and/or Coordinates Date ALS Sample # Sample Type (lab use only) (This description will appear on the report) (dd-mmm-yy) (hh:mm) SAMPLE CONDITION AS RECEIVED (lab use only) Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below Drinking Water (DW) Samples1 (client use) (electronic COC only) Frozen SIF Observations No Are samples taken from a Regulated DW System?, Ice Packs 🔲 Ice Cubes 🔲 Custody seal intact YES NO Cooling Initiated 🖊 No preservatives added Are samples for human consumption/ use? INITIAL COOLER TEMPERATURES °C FINAL COOLER TEMPERATURES °C YES | NO SHIPMENT RELEASE (client use) INITIAL SHIPMENT RECEPTION (lab use only) FINAL SHIPMENT RECEPTION (lab use only) Released by: Received by: Time: Time: Received by: REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY