

Date: 10-OCT-19 PO No.: 1517879 WO No.: L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: CORR C200 RM C201 DF

Sampled By: Robin Lemay
Date Collected: 02-OCT-19
Lab Sample ID: L2358685-1

Matrix: Water

| Test Description Result Qualifier Measure MAC Objective Analy.  Total Metals   | Vancouver BC V5L 3L4 ATTN: Stephen Thomas   |   |                  | watiix. Wate      | ai    | PAGE | 1 of 11          |
|--|---|---|------------------|-------------------|-------|------|------------------|
| Lead (Pb)-Total  0.00545  mg/L  0.005  08-OC  CDWQG = Health Canada Guideline Limits updated  * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. If present as Nitrate then the limit is 10mg/L < or N.D. = less than detection limit.  * Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality  - A blank entry designates no known limit. | Test Description  | Result  | Qualifier        |                   |       |      | Date<br>Analyzed |
| * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. If present as Nitrate then the limit is 10mg/L < or N.D. = less than detection limit.  * Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality  - A blank entry designates no known limit.   |   | 0.00545   |                  | mg/L              | 0.005 |      | 08-OCT-19        |
| Approved by Edward Ngai  | * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only.  * Turbidity guideline based on membrane filtration. For g Summary Table of Guidelines for Canadian Drinking Wat - A blank entry designates no known limit A shaded value in the Results column exceeds CDWQC  Approved by | . If present as N<br>juidelines on con<br>ter Quality | ventional treatm | ent and slow sand |       |      | ase see          |

Account Manager





Date: 10-OCT-19 **PO No.:** 1517879 WO No.: L2358685

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: CORR D205 RM. D202 DF

Sampled By: Robin Lemay Date Collected: 02-OCT-19 **Lab Sample ID:** L2358685-2 Matrix: Water

PAGE 2 of 11

| Test Description  | Result          | Qualifier                | Units of<br>Measure | CDWQG<br>MAC         | Aesthetic<br>Objective | Date<br>Analyzed |
|---|-----------------|--------------------------|---------------------|----------------------|------------------------|------------------|
| Total Metals<br>Lead (Pb)-Total                             | 0.00297         |                          | mg/L                | 0.005                |                        | 08-OCT-19        |
| CDWQG = Health Canada Guideline Limits updated              | JUNE 2019       |                          |                     |                      |                        |                  |
| * CDWQG for Nitrate+Nitrite-N is the limit for nitrate only | If present as N | l<br>itrate then the lii | mit is 10ma/L < or  | N.D. = less than det | ection limit.          |                  |

- \* Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality
- A blank entry designates no known limit.
- A shaded value in the Results column exceeds CDWQG MAC and/ or Aesthetic Objective.

Approved by

Edward Ngai Account Manager





Date: 10-OCT-19 PO No.: 1517879 WO No.: L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: RM. D116E DF Sampled By: Robin Lemay Date Collected: 02-OCT-19 Lab Sample ID: L2358685-3

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                   |                  | Matrix: Wate        | er           | PAGE                   | 3 of 11          |
|--|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | 0.000822                          |                  | mg/L                | 0.005        |                        | 08-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 CDWG | guidelines on cor<br>ater Quality | ventional treatm | ent and slow sand   |              |                        | se see           |
| Approved by Edward Ngai Account Manager  | <del></del>                       |                  |                     |              |                        |                  |





Date: 10-OCT-19 PO No.: 1517879 WO No.: L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: RM. D125D DF Sampled By: Robin Lemay Date Collected: 02-OCT-19 Lab Sample ID: L2358685-4

Matrix: Water

PAGE 4 of 11

| ·   |                  |                         |                     |                   |                        |                  |
|---|------------------|-------------------------|---------------------|-------------------|------------------------|------------------|
| Test Description  | Result           | Qualifier               | Units of<br>Measure | CDWQG<br>MAC      | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total                             | 0.00483          |                         | mg/L                | 0.005             |                        | 08-OCT-19        |
| CDWQG = Health Canada Guideline Limits updated              | <b>JUNE 2019</b> |                         |                     |                   |                        |                  |
| * CDWOG for Nitrate+Nitrite-N is the limit for nitrate only | If nresent as N  | <br> itrate then the li | mit is 10mg/l - or  | ND - less than de | tection limit          |                  |

- \* CDWQG for Nitrate+Nitrite-N is the limit for nitrate only. If present as Nitrate then the limit is 10mg/L < or N.D. = less than detection limit.
- \* Turbidity guideline based on membrane filtration. For guidelines on conventional treatment and slow sand or diatomaceous earth filtration please see Summary Table of Guidelines for Canadian Drinking Water Quality
- A blank entry designates no known limit.
- A shaded value in the Results column exceeds CDWQG MAC and/ or Aesthetic Objective.

Approved by

Edward Ngai Account Manager





Date: 10-OCT-19 PO No.: 1517879 WO No.: L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: RM D101 FS
Sampled By: Robin Lemay
Date Collected: 02-OCT-19
Lab Sample ID: L2358685-5

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas   |                                   |                  | <b>Matrix:</b> Wa   | ater         | PAGE                   | 5 of 11          |
|---|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description  | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals  Lead (Pb)-Total   | 0.00627                           |                  | mg/L                | 0.005        |                        | 08-OCT-19        |
| CDWQG = Health Canada Guideline Limits updated  | JUNE 2019                         |                  |                     |              |                        |                  |
| * 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  Approved by  Edward Ngai  Account Manager | guidelines on con<br>iter Quality | ventional treatm | ent and slow sa     |              |                        | se see           |





Date: 10-OCT-19 PO No.: 1517879 WO No.: L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: CORR A 125 RM A101A DF

Sampled By: Robin Lemay
Date Collected: 02-OCT-19
Lab Sample ID: L2358685-6

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                   |                  | watrix: wat         | er           | PAGE                   | 6 of 11          |
|--|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals  Lead (Pb)-Total  | 0.000801                          |                  | mg/L                | 0.005        |                        | 08-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 CDWQ | guidelines on cor<br>iter Quality | ventional treatm | ent and slow sand   |              |                        | ase see          |
| Approved by  Edward Ngai  Account Manager  | <u> </u>                          |                  |                     |              |                        |                  |





Date: 10-OCT-19 PO No.: 1517879 WO No.: L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: RM B102 BOB
Sampled By: Robin Lemay
Date Collected: 02-OCT-19
Lab Sample ID: L2358685-7

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                  |                  | watrix: wate        | er           | PAGE                   | 7 of 11          |
|--|----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                           | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | 0.00137                          |                  | mg/L                | 0.005        |                        | 08-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 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<br>ter Quality | ventional treatm | ent and slow sand   |              |                        | ase see          |

Account Manager





**Date:** 10-OCT-19 **PO No.:** 1517879 **WO No.:** L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: CORR B100 RM B103 DF

Sampled By: Robin Lemay
Date Collected: 02-OCT-19
Lab Sample ID: L2358685-8
Matrix: Water

PAGE 8 of 11

| ATTN: Stephen Inomas   |                                   |                  |                     |              |                        |                  |
|--|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | 0.000617                          |                  | mg/L                | 0.005        |                        | 08-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 CDWG | guidelines on con<br>ater Quality | ventional treatm | ent and slow sand   |              |                        | se see           |

Approved by

Edward Ngai Account Manager





**VANCOUVER SCHOOL BOARD Maintenance and Construction** 1549 Clark Drive

**Date:** 10-OCT-19 **PO No.:** 1517879 **WO No.:** L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: RM 106 MINI DF Sampled By: Robin Lemay Date Collected: 02-OCT-19 Lab Sample ID: L2358685-9

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas   |                                   |                  | Watira. Wati        | 31           | PAGE                   | 9 of 11          |
|---|-----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description  | Result                            | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total   | 0.00714                           |                  | mg/L                | 0.005        |                        | 08-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 CDWQ | guidelines on cor<br>ater Quality | ventional treatn | nent and slow sand  |              |                        | ase see          |
| Approved by  Edward Ngai  Account Manager   |                                   |                  |                     |              |                        |                  |

Account Manager





**Date:** 10-OCT-19 **PO No.:** 1517879 **WO No.:** L2358685

LSD:

Project Ref: PRINCE OF WALES SECONDARY

Sample ID: RM 105 MINI DF Sampled By: Robin Lemay Date Collected: 02-OCT-19 Lab Sample ID: L2358685-10

Matrix: Water

| Vancouver BC V5L 3L4 ATTN: Stephen Thomas  |                                  |                  | watrix: wate        | er           | PAGE                   | 10 of 11         |
|--|----------------------------------|------------------|---------------------|--------------|------------------------|------------------|
| Test Description   | Result                           | Qualifier        | Units of<br>Measure | CDWQG<br>MAC | Aesthetic<br>Objective | Date<br>Analyzed |
| Total Metals<br>Lead (Pb)-Total  | 0.00135                          |                  | mg/L                | 0.005        |                        | 08-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 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<br>ter Quality | ventional treatm | ent and slow sand   |              |                        | ase see          |

Account Manager



# **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.

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

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

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

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

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. Calcium

Common major anion of water chemistry. Chloride

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

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

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.

See alkalinity Hydroxide

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.

рΗ 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.

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

Heterotrophic

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.

# Environmental www.aisglobal.com

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

coc Number: 17 - 762157

Canada Toll Free: 1 800 668 9878

Contact and company name below will appear on the final report Report Format / Distribution ow - Contact your AM to confirm all E&P TATs (surcharges may apply) Report To Select Report Format: PDF EXCEL | EDD (DIGITAL) Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply Company: Varouser School Board Stephen Thomas Quality Control (QC) Report with Report Contact: 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%] Phone: Same Day, Weekend or Statutory holiday [E2 -200% EMAIL | MAIL | FAX (Laboratory opening fees may apply) ] Company address below will appear on the final report Select Distribution: 2 day (P2-50%) Email 1 or Fax 35 thomas Qusb be ca dd-mmm-yy hh;mm Date and Time Required for all E&P TATs: City/Province: slemay@ vsb .bc. co-For tests that can not be performed according to the service level selected, you will be contacted. Email 3 Postal Code **Analysis Request** Same as Report To Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below Invoice To YES Invoice Distribution ON HOLD CONTAINERS Copy of Invoice with Report YES | Select Invoice Distribution: MAIL A 15thomas @ v3b.bc.ca Company: Contact: rlenay @ vsb. bc, ca-Oil and Gas Regulred Fields (client use) **Project Information** ALS Account # / Quote #: AFE/Cost Center: PO# Routing Code: Wales Secondar Major/Minor Code: SAMPLES PO / AFE: Requisitioner: ᆼ SD: Location: NUMBER Sampler: Robin ALS Lab Work Order # (lab use only): ALS Contact: Lemay Sample Identification and/or Coordinates Date ALS Sample # Sample Type (lab use only) (dd-mmm-yy) (This description will appear on the report) (hh:mm) DF 7:16an . 6201 7 400 m カ/25つ Km. 02-10-19 8:16 an water B102 02-10-19 8: 22am water 02-10-19 8:31an water Km. Mini 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) SIF Observations No Are samples taken from a Regulated DW System? П П No No Preservatives Added YES NO Cooling Initiated 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: Time: Time: Received by: Received by: MA 1012 REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY