

ALS ENVIRONMENTAL ANALYTICAL REPORT

| Sample ID Description Sampled Date Sampled Time Client ID | | L1945342-1 | | | | |
|---|-------------------------------------|--------------------|--|--|--|--|
| GB | | | | | | |
| Grouping | Analyte | | | | | |
| WATER | | | | | | |
| Physical Tests | Colour, True (CU) | <5.0 | | | | |
| | Conductivity (uS/cm) | 469 | | | | |
| | Hardness (as CaCO3) (mg/L) | 242 ^{HTC} | | | | |
| | pH (pH) | 8.13 | | | | |
| | Total Dissolved Solids (mg/L) | 302 | | | | |
| | Turbidity (NTU) | <0.10 | | | | |
| | | | | | | |
| Anions and Nutrients | Alkalinity, Total (as CaCO3) (mg/L) | 190 | | | | |
| | Chloride (Cl) (mg/L) | 16.7 | | | | |
| | Fluoride (F) (mg/L) | 0.094 | | | | |
| | Nitrate (as N) (mg/L) | 0.140 | | | | |
| | Nitrite (as N) (mg/L) | <0.0010 | | | | |
| | Sulfate (SO4) (mg/L) | 52.7 | | | | |
| | | | | | | |
| Total Metals | Aluminum (Al)-Total (mg/L) | <0.010 | | | | |
| | Antimony (Sb)-Total (mg/L) | <0.00050 | | | | |
| | Arsenic (As)-Total (mg/L) | 0.00324 | | | | |
| | Barium (Ba)-Total (mg/L) | <0.020 | | | | |
| | Boron (B)-Total (mg/L) | 0.24 | | | | |
| | Cadmium (Cd)-Total (mg/L) | <0.00020 | | | | |
| | Calcium (Ca)-Total (mg/L) | 46.8 | | | | |
| | Chromium (Cr)-Total (mg/L) | 0.0051 | | | | |
| | Copper (Cu)-Total (mg/L) | 0.0049 | | | | |
| | Iron (Fe)-Total (mg/L) | <0.030 | | | | |
| | Lead (Pb)-Total (mg/L) | 0.00079 | | | | |
| | Magnesium (Mg)-Total (mg/L) | 30.4 | | | | |
| | Manganese (Mn)-Total (mg/L) | <0.0020 | | | | |
| | Mercury (Hg)-Total (mg/L) | <0.00020 | | | | |
| | Potassium (K)-Total (mg/L) | 3.97 | | | | |
| | Selenium (Se)-Total (mg/L) | 0.0017 | | | | |
| | Sodium (Na)-Total (mg/L) | 6.8 | | | | |
| | Uranium (U)-Total (mg/L) | <0.00010 | | | | |
| | Zinc (Zn)-Total (mg/L) | <0.050 | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

| QC Type Description | Parameter | Qualifier | Applies to Sample Number(s) |
|---------------------|----------------------|-----------|-----------------------------|
| Matrix Spike | Aluminum (Al)-Total | MS-B | L1945342-1 |
| Matrix Spike | Barium (Ba)-Total | MS-B | L1945342-1 |
| Matrix Spike | Calcium (Ca)-Total | MS-B | L1945342-1 |
| Matrix Spike | Magnesium (Mg)-Total | MS-B | L1945342-1 |
| Matrix Spike | Manganese (Mn)-Total | MS-B | L1945342-1 |
| Matrix Spike | Sodium (Na)-Total | MS-B | L1945342-1 |

Qualifiers for Individual Parameters Listed:

| Qualifier | Description |
|-----------|--|
| HTC | Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable). |
| MS-B | Matrix Spike recovery could not be accurately calculated due to high analyte background in sample. |

Test Method References:

| ALS Test Code | Matrix | Test Description | Method Reference** |
|---|--------|---|--------------------------------|
| ALK-TITR-VA | Water | Alkalinity Species by Titration | APHA 2320 Alkalinity |
| This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values. | | | |
| CL-IC-N-VA | Water | Chloride in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| COLOUR-TRUE-VA | Water | Colour (True) by Spectrometer | BCMOE Colour Single Wavelength |
| This analysis is carried out using procedures adapted from British Columbia Environmental Manual "Colour- Single Wavelength." Colour (True Colour) is determined by filtering a sample through a 0.45 micron membrane filter followed by analysis of the filtrate using the platinum-cobalt colourimetric method. | | | |
| Colour measurements can be highly pH dependent, and apply to the pH of the sample as received (at time of testing), without pH adjustment. Concurrent measurement of sample pH is recommended. | | | |
| EC-PCT-VA | Water | Conductivity (Automated) | APHA 2510 Auto. Conduc. |
| This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode. | | | |
| EC-SCREEN-VA | Water | Conductivity Screen (Internal Use Only) | APHA 2510 |
| Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc. | | | |
| F-IC-N-VA | Water | Fluoride in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| HARDNESS-CALC-VA | Water | Hardness | APHA 2340B |
| Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO ₃ equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation. | | | |
| HG-TOT-CVAFS-VA | Water | Total Hg in Water by CVAFS LOR=50ppt | EPA 1631E (mod) |
| This analysis is carried out using procedures adapted from "Standard Methods for the Examination of Water and Wastewater" published by the American Public Health Association, and with procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846 published by the United States Environmental Protection Agency (EPA). The procedure involves a cold-oxidation of the acidified sample using bromine monochloride prior to reduction of the sample with stannous chloride. Instrumental analysis is by cold vapour atomic fluorescence spectrophotometry or atomic absorption spectrophotometry (EPA Method 245.7). | | | |
| MET-T-CCMS-VA | Water | Total Metals in Water by CRC ICPMS | EPA 200.2/6020A (mod) |
| Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS. | | | |
| Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method. | | | |
| NO2-L-IC-N-VA | Water | Nitrite in Water by IC (Low Level) | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| NO3-L-IC-N-VA | Water | Nitrate in Water by IC (Low Level) | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| PH-PCT-VA | Water | pH by Meter (Automated) | APHA 4500-H pH Value |
| This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode | | | |

Reference Information

It is recommended that this analysis be conducted in the field.

| | | | |
|---|-------|---------------------------------------|---------------------------|
| SO4-IC-N-VA | Water | Sulfate in Water by IC | EPA 300.1 (mod) |
| Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection. | | | |
| TDS-VA | Water | Total Dissolved Solids by Gravimetric | APHA 2540 C - GRAVIMETRIC |
| This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius. | | | |
| TURBIDITY-VA | Water | Turbidity by Meter | APHA 2130 Turbidity |
| This analysis is carried out using procedures adapted from APHA Method 2130 "Turbidity". Turbidity is determined by the nephelometric method. | | | |

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

| Laboratory Definition Code | Laboratory Location |
|----------------------------|---|
| VA | ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA |

Chain of Custody Numbers:

15-602980

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

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.



British Columbia / Yukon

Vancouver, BC
6081 Lougheed Hwy
Dumby Bay
V5A 1W9
After Hours / Emergency
Kamloops, BC
1445 McMillan Rd. Unit 25
V2C 6K7
After Hours / Emergency
Terrace, BC
2912 Moffat Street
Terrace, BC
V2C 6K7

Fort St. John, BC
15345A Dogwood Street
V1J 8W7
After Hours / Emergency
Victoria, BC
#104-1027 Pandora Avenue
V8V 3P5
After Hours / Emergency
Whitby, ON
12 - 151 Industrial Road
Whitby, ON
Y1A 2V3
After Hours / Emergency

Ph: 604-253-4188
Fax: 604-253-6700
Ph: 604-224-4188
Ph: 250-372-3538
Fax: 250-372-3670
Ph: 250-372-1458
Ph: 250-655-2509

Ph: 250-261-5517
Ph: 250-261-5587
Ph: 250-261-4947
Ph: 250-413-3243
Ph: 807-666-6589
Ph: 887-589-0984
Ph: 987-355-6416

Prairies / NWT

Edmonton, AB
9928-87 Avenue NW
Edmonton, AB
T6E 0P5
After Hours / Emergency
Fort McMurray, AB
Day 1, 245 MacDonald Crescent
Fort McMurray, AB
T9H 4B5
After Hours / Emergency
Saskatoon, SK
819 - 58 Street East
Saskatoon, SK
S7K 6X5
After Hours / Emergency
Winnipeg, MB
1325 Nikawa Road East, Unit 12
Winnipeg, MB
R2J 3T4
After Hours / Emergency

Calgary, AB
2559 25th Street NE
Calgary, AB
T2Y 7S5
After Hours / Emergency
Grande Prairie, AB
8505-111th Street
T8V 5W1
After Hours / Emergency
Regina, SK
1119 Ouellet Street
Regina, SK
S4R 6R4
After Hours / Emergency
Yellowknife, NT
115 - 314 Old Airport Road
Yellowknife, NT
X1A 3T3
After Hours / Emergency

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Fax: 780-437-2311
Ph: 780-913-2209
Ph: 780-791-1524
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Ph: 780-714-8482
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Fax: 306-668-6383
Ph: 306-221-7147
Ph: 204-255-9720
Fax: 204-255-9721
Ph: 204-784-0877

Ph: 403-407-1600
Fax: 403-291-0208
Ph: 403-551-1471
Ph: 780-539-5190
Fax: 780-513-2191
Ph: 780-512-4343
Ph: 306-525-0970
Ph: 306-219-9480
Ph: 587-875-5523
Fax: 587-830-4209
Ph: 887-440-5593

Ontario

Thunder Bay, ON
1051 Barton Street
Thunder Bay, ON
P7B 5M0
After Hours / Emergency
Waterloo, ON
60 Northland Road, Unit 1
Waterloo, ON
N2V 2B8
After Hours / Emergency
Mississauga, ON
5700 Coopers Avenue, Unit 30
Mississauga, ON
L4Z 2C9
Richmond Hill, ON
95 West Beaver Creek Road, Unit 1
Richmond Hill, ON
L4B 1H2

Burlington, ON
1436 Morgan Court, Unit 1
Burlington, ON
L7L 0E8
London, ON
309 Exeter Road, Unit #29
London, ON
N6L 1C1
Ottawa, ON
190 Colonel By Road, Unit 7
Nepean, ON
K2E 7J6

Ph: 807-623-6453
Fax: 807-623-7566
Ph: 807-624-4450
Ph: 519-852-8910
Fax: 519-856-9047
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Ph: 905-507-8510
Fax: 905-507-8527
Ph: 905-881-0887
Fax: 905-881-0892

Ph: 905-331-3111
Fax: 905-331-4567
Ph: 519-852-8044
Fax: 519-852-0671
Ph: 519-225-8279
Fax: 913-225-2801

Sample Container, Preservation and Holding Time Table. Keep samples cool (4°C) and ship to an ALS location as soon as possible.
Note: Specific container, preservation and holding times may vary based on regulatory requirements - consult your local ALS laboratory for assistance prior to sampling.

| Analysis | Container | Preservation | Holding Time | Analysis | Container | Preservation | Holding Time |
|---|---|--|------------------------------------|---|---|--|-------------------------------------|
| ROUTINE INORGANICS AND PHYSICALS | | | | ROUTINE INORGANICS AND PHYSICALS | | | |
| Acidity and Alkalinity | 0.5-1 L Plastic | | 14 Days / NA | Ammonia Nitrogen | 250 mL Glass or Plastic | 1:1 Sulfuric Acid (H ₂ SO ₄) | 28 Days / 72 Hours |
| Ammonia (Br. Cl. SO ₄ F) and Electrical Conductivity | 0.5-1 L Plastic | | 28 Days / Unlimited | Nitrate or Nitrite Nitrogen (and Ammonia if preserved) | 0.5-1 L Plastic | | 28 Days / NA |
| Biomass ¹ , Chloride and Chloride | 125 mL Plastic | EDTA (Ethylenediamine) | 28 Days (Chloride 14 Days) / NA | Nitrogen, Kjeldahl, Organic, Total or Dissolved | 250 mL Glass or Plastic | 1:1 Sulfuric Acid (H ₂ SO ₄) | Field Filter for Dissolved |
| BOD, Color and Turbidity | 0.5-1 L Plastic | | 2-4 Days / NA | Nutrients, Available (N, P, K, S) | NA | | NA / 3 Days ¹¹ |
| COD and Phosphate (AAAP) | 125-250 mL Glass | 1:1 Sulfuric Acid (H ₂ SO ₄) | 28 Days / NA | Phosphorus, Reactive (orthophosphate) | 0.5-1 L Plastic | | NA / 2-7 Days ¹¹ |
| Dissolved Oxygen | 300 mL BOD bottle | 1 each, MnSO ₄ & alkaline iodide azide reagents | 9 Hours ¹² / NA | Phosphorus, Total Dissolved | 250 mL Glass or Plastic | 1:1 Sulfuric Acid (H ₂ SO ₄) | Field Filter for Dissolved |
| Dissolved or Total Inorganic Carbon (DIC or TIC) | 125-250 mL Glass | Field Filter for Dissolved | 14 Days / 28 Days | Phosphorus, Total | 250 mL Glass or Plastic | 1:1 Sulfuric Acid (H ₂ SO ₄) | NA |
| Dissolved or Total Organic Carbon (DOC or TOC) | 125-250 mL Glass | 1:1 Sulfuric Acid (H ₂ SO ₄) | 28 Days / 28 Days | Chromium VI (hexavalent) | 125 mL Plastic | 50 % NaOH (BC MoE) or 6N NaOH + Ammonium Buffer (CMoE) | 125-250 mL Jar or Bag |
| Fluoride | 2 x 100-250 mL Amber Glass | Zero Headspace | 7 Days / 7 Days | Mercury, Methyl | 250 mL FLPE | 1:1 Hydrochloric Acid (HCl) ¹³ | Field Filter for Dissolved |
| pH | 0.5-1 L Plastic | | 0-25 Hours / 30 Days ¹⁴ | Mercury, Total or Dissolved | 40 mL Glass Vial | 1:1 Hydrochloric Acid (HCl) | Field Filter for Dissolved |
| Solids (TS, TSS, TDS) | 0.5-1 L Plastic | | 7 Days / NA | Metals, Total or Dissolved | 125-250 mL Plastic | 1:3 Nitric Acid (HNO ₃) to pH=2 | Field Filter for Dissolved |
| Sulfide | 125 - 150 mL Plastic | Zinc Acetate & 6N NaOH | 7 Days / 7 Days | | | | |
| Sulfite | 125 mL Plastic | | 9 Days / NA | | | | |
| NUTRIENTS | | | | HYDROCARBONS | | | |
| Ammonia Nitrogen | 250 mL Glass or Plastic | 1:1 Sulfuric Acid (H ₂ SO ₄) | 28 Days / 72 Hours | F1 Volatile Organic Compounds (VOCs), THMs, 1,4 Dioxane | 2 or 3 x 40 mL Glass Vials ¹⁵ | Sodium Bisulfate ¹⁶ | Zero Headspace |
| Nitrate or Nitrite Nitrogen (and Ammonia if preserved) | 0.5-1 L Plastic | | 28 Days / NA | Volatile Petroleum Hydrocarbons (VPH) | 2 or 3 x 40 mL Glass Vials ¹⁵ | Sodium Bisulfate ¹⁶ | Zero Headspace |
| Nitrogen, Kjeldahl, Organic, Total or Dissolved | 250 mL Glass or Plastic | 1:1 Sulfuric Acid (H ₂ SO ₄) | Field Filter for Dissolved | DCME-CWS F1, BTEX | 2 or 3 x 40 mL Glass Vials ¹⁵ | Sodium Bisulfate ¹⁶ | Zero Headspace |
| Nutrients, Available (N, P, K, S) | NA | | NA / 3 Days ¹¹ | DCME-CWS F2-F4 | 2 x 60 mL Amber Glass Vials ¹⁵ | Sodium Bisulfate ¹⁶ | 125 - 500 mL Jar |
| Phosphorus, Reactive (orthophosphate) | 0.5-1 L Plastic | | NA / 2-7 Days ¹¹ | EPH or LEH/HEPH | 2 x 250 mL Amber Glass with Bore Cap | Sodium Bisulfate ¹⁶ | 125 - 500 mL Jar |
| Phosphorus, Total Dissolved | 250 mL Glass or Plastic | 1:1 Sulfuric Acid (H ₂ SO ₄) | Field Filter for Dissolved | Polyaromatic Hydrocarbons (PAHs) | 2 x 0.25 - 1 L Amber Glass ¹⁷ | Sodium Bisulfate ¹⁶ | 125 - 500 mL Jar |
| Phosphorus, Total | 250 mL Glass or Plastic | 1:1 Sulfuric Acid (H ₂ SO ₄) | NA | Oil & Grease or Mineral Oil & Grease | 2 x 0.25 - 1 L Glass | 1:1 HCl or H ₂ O ₂ | 125 - 500 mL Jar |
| Chromium VI (hexavalent) | 125 mL Plastic | 50 % NaOH (BC MoE) or 6N NaOH + Ammonium Buffer (CMoE) | 125-250 mL Jar or Bag | | | | |
| Mercury, Methyl | 250 mL FLPE | 1:1 Hydrochloric Acid (HCl) ¹³ | Field Filter for Dissolved | | | | |
| Mercury, Total or Dissolved | 40 mL Glass Vial | 1:1 Hydrochloric Acid (HCl) | Field Filter for Dissolved | | | | |
| Metals, Total or Dissolved | 125-250 mL Plastic | 1:3 Nitric Acid (HNO ₃) to pH=2 | Field Filter for Dissolved | | | | |
| ORGANICS | | | | TRACE ORGANICS | | | |
| F1 Volatile Organic Compounds (VOCs), THMs, 1,4 Dioxane | 2 or 3 x 40 mL Glass Vials ¹⁵ | Sodium Bisulfate ¹⁶ | Zero Headspace | Alkylbenzenes (MEA, DPA, DIPA) | 250 mL Amber Glass | 1:3 Nitric Acid (HNO ₃) to pH=2 | 125 - 500 mL Jar |
| Volatile Petroleum Hydrocarbons (VPH) | 2 or 3 x 40 mL Glass Vials ¹⁵ | Sodium Bisulfate ¹⁶ | Zero Headspace | ADX ¹⁸ | 40 - 250 mL Amber Glass | 1:3 Nitric Acid (HNO ₃) to pH=2 | 125 - 500 mL Jar |
| DCME-CWS F1, BTEX | 2 or 3 x 40 mL Glass Vials ¹⁵ | Sodium Bisulfate ¹⁶ | Zero Headspace | C1-C5 Gases | 3 x 40 mL Blue Septa Vials | Sodium Bisulfate ¹⁶ | Zero Headspace |
| DCME-CWS F2-F4 | 2 x 60 mL Amber Glass Vials ¹⁵ | Sodium Bisulfate ¹⁶ | 125 - 500 mL Jar | Dioxins and Furans, PCBs and PBBs | 2 x 1 L Amber Glass | Unlimited / Unlimited | |
| EPH or LEH/HEPH | 2 x 250 mL Amber Glass with Bore Cap | Sodium Bisulfate ¹⁶ | 125 - 500 mL Jar | Formaldehyde/Acetaldehyde | 2 x 40 mL Amber Glass Vials ¹⁹ | Ammonium Chloride-Copper Sulfate | Zero Headspace |
| Polyaromatic Hydrocarbons (PAHs) | 2 x 0.25 - 1 L Amber Glass ¹⁷ | Sodium Bisulfate ¹⁶ | 125 - 500 mL Jar | Organochlorine Pesticides | 1 L Amber Glass | Use Sodium Thiosulfate if chlorinated | 125 - 500 mL Jar |
| Oil & Grease or Mineral Oil & Grease | 2 x 0.25 - 1 L Glass | 1:1 HCl or H ₂ O ₂ | 125 - 500 mL Jar | Glycols | 2 x 40 mL Amber Glass Vials | Use Sodium Thiosulfate if chlorinated | 125 - 500 mL Jar |
| | | | | Hormones and Steroids | 1 L Plastic | Sodium Bisulfate ¹⁶ | 14 Days / 14 Days |
| | | | | Napthalene Acids | 2 x 250 mL Amber Glass | 125 - 500 mL Jar | 7 Days / 14 Days |
| | | | | Nitrobenzenes and Nitroaromatics (Explosives) | 1 L Amber Glass | 125 - 500 mL Jar | 28 Days / 14 Days |
| | | | | Nonylphenol & Ethoxylates - Bisphenol A (BPA) | 1 L Amber Glass | 125 - 500 mL Jar | Unlimited / Unlimited ¹⁸ |
| | | | | PCB | 2 x 0.25 - 1 L Amber Glass | 125 - 500 mL Jar | 14 Days / 14 Days |
| | | | | Perfluorinated Chemicals (PFCA), PFOS, PFQA | 1 L Plastic (PTFE free) | 125-250 mL Jar or Bag | 14 Days / 14 Days |
| | | | | Phenols, Chlorinated and Non-Chlorinated | 2 x 0.5 - 1 L Amber Glass | Ascorbic Acid & Sodium Bisulfate ¹⁶ | 14 Days / 14 Days |
| | | | | Phenyl Polymers (LPR 025 and) or BVOCs | 2 x 1 L Amber Glass | 125 - 500 mL Jar | 7 Days / 14 Days |
| | | | | Resin Acids & Fatty Acids | 2 x 0.5 - 1 L Amber Glass | Ascorbic Acid & NaOH | 14 Days / 14 Days |
| | | | | Sulfonates | 2 x 0.5 - 1 L Amber Glass | Sodium Bisulfate ¹⁶ | 14 Days / 14 Days |
| | | | | Carbamate Pesticides | 1 L Amber Glass | Use Sodium Thiosulfate if chlorinated | 125 - 500 mL Jar |
| | | | | Glyphosate / AMPA | 1 L Plastic | Use Sodium Thiosulfate if chlorinated | 125 - 500 mL Jar |
| | | | | Herbicide Acids | 2 x 1 L Amber Glass | Sodium Bisulfate ¹⁶ | 14 Days / 14 Days |
| | | | | Organochlorine or Organophosphate Pesticides | 2 x 1 L Amber Glass | 125 - 500 mL Jar | 7 Days / 14 Days |
| | | | | Soil Steroid Scan | 1 L Amber Glass | 250 g Poly Bag | 7 Days / 14 Days |
| MICROBIOLOGICAL | | | | MICROBIOLOGICAL | | | |
| Coliforms/Fecal Total Fecal & HPC | 100 - 300 mL Sterilized Plastic | Sodium Thiosulfate | 500 mL Sterilized Jar | Coliforms/Fecal Total Fecal & HPC | 100 - 300 mL Sterilized Plastic | Sodium Thiosulfate | 500 mL Sterilized Jar |
| Microtox | 1 L Amber Glass | | 125-250 mL Jar or Bag | Microtox | 1 L Amber Glass | | 125-250 mL Jar or Bag |

- Additional analyses with the same container type and preservation may be performed - consult the lab for details.
- The number of 40 mL glass vials required (2 or 3) for BTEX & VOC values by lab based on instrumentation. Consult the lab for details.
- Please fill to the top of the marked line on the 60 mL Amber Glass Vials.
- Use Sodium Thiosulfate instead of Sodium Bisulfate if sample is chlorinated.
- CMoE has no preservation requirement for PAHs. 2 x 250 mL Amber Glass required for BC MoE and CMoE. For AB and SK and for Akyland PAHs, ALS requires 2 x 1 L Amber Glass.
- Soil sampling options depend on soil location and condition of soil. Field Method Kit consists of one 5g TrenchCore sampler or similar sampling device, two pre-weighed 40 mL glass vials with methanol preservative and a 1 L plastic bag for methanol. Hand-dug samples consist of a 1 L bag, two 5g TrenchCore samplers and a 125 mL soil jar for moisture. One additional parameter, such as metals or hydrocarbons can also be obtained from the 125 mL soil jar.
- 4 Days hold time for Electrical Conductivity only as per Ontario MISA.
- 3 Days hold time for British Columbia as per BC Ministry of Environment (BC MoE). 4 Days hold time as per CMoE.
- pH in water should be taken in the field as per BC MoE. 4 Days hold time for Ontario MISA and 28 Days hold time for CMoE. 30 Days hold time as received for pH in soil as per CMoE. One year hold time for pH in soil is dried.
- 3 Days hold time as per BC MoE, 5 Days hold time as per Ontario MISA and 7 Days hold time as per CMoE.
- 3 Days hold time until received. Unlimited hold time once soil is dried.
- 3 Days hold time as per BC MoE and 7 Days hold time as per CMoE.
- 40 Days hold time as per BC MoE and 14 Days hold time as per CMoE. Recovered methanol extract from laboratory has a 40 Days hold time as per CMoE.
- 40 Days hold time as per CMoE.
- 14 Days hold time as per Ontario MISA.
- 14 Days hold time as per CMoE. Consult lab for container size if limited sample volume is available.
- 14 Days hold time for water and 60 Days hold time for soil as per CMoE. Ontario labs require 2 x 250 mL Amber Glass + 500 mL Amber Glass.
- 30 Hours hold time as per BC Drinking Water Regulation and 48 Hours as per CMoE.
- Dromate alone does not require preservation.
- 15 Minutes hold time as per CMoE - Field measurement by meter is recommended.
- Use 1:1 Sulfuric Acid (H₂SO₄) for preservation of marine or brackish samples.



Short Holding Time
A Rush Processing

Custody (COC) / Analytical Request Form

Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 15 - 602980

Page of

| | | | | | |
|--|--|--|--|---|--|
| Report To | | Report Format / Distribution | | Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply | |
| Company: <u>Squamish Regional Dist</u> | | Select Report Format: <input checked="" type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL) | | <input checked="" type="checkbox"/> Regular (R) <input type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply <input type="checkbox"/> 4 day [P4] <input type="checkbox"/> 1 Business day [E1] <input type="checkbox"/> <input type="checkbox"/> 3 day [P3] <input type="checkbox"/> Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/> <input type="checkbox"/> 2 day [P2] <input type="checkbox"/> | |
| Contact: <u>Edward Witwicks</u> | | Quality Control (QC) Report with Report <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | <input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX | |
| Phone: <u>604 894 6371 ext 227</u> | | Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX | | Date and Time Required for all E&P TATs: <u>2 PM</u> For tests that can not be performed according to the service level selected, you will be contacted. | |
| Street: <u>1350 Aster Street</u> | | Email 1 or Fax: <u>ewitwicks@srd.bc.ca</u> | | Analysis Request | |
| City/Province: <u>Pemberton - B.C</u> | | Email 2: | | Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below | |
| Postal Code: <u>V0N 2L0</u> | | Email 3: | | METALS (2) Samples MERCURY (2) Samples General (2) Samples | |
| Invoice To: Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO | | Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX | | Company: <u>Squamish Regional Dist</u> Contact: <u>Edward Witwicks</u> Project Information: <u>Oil and Gas Required Fields (client use)</u> | |
| Company: <u>Squamish Regional Dist</u> | | Email 1 or Fax: <u>Vhumpshire@srd.bc.ca</u> | | ALS Account # / Quote #: <u>Gold Bridge</u> Job #: <u>Gold Bridge</u> PO / AFE: LSD: | |
| Contact: <u>Edward Witwicks</u> | | Email 2: | | ALS Lab Work Order # (lab use only) Sample Identification and/or Coordinates (This description will appear on the report) Date (dd-mm-yy) Time (hh:mm) Sample Type Barcode: <u>L1945342-COFC</u> | |
| ALS Contact: | | Sampler: | | Drinking Water (DW) Samples (client use) Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO Are samples for human drinking water use? <input type="checkbox"/> YES <input type="checkbox"/> NO | |
| 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 <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input type="checkbox"/> | | INITIAL SHIPMENT RECEPTION (lab use only) Received by: <u>JE</u> Date: <u>6/20/17</u> Time: <u>9:15 AM</u> FINAL SHIPMENT RECEPTION (lab use only) Received by: <u>JE</u> Date: <u>6/20/17</u> Time: <u>9:15 AM</u> | |