



CERTIFICATE OF ANALYSIS

| | | | |
|---------------------|--|---------------------------------|--|
| REPORTED TO | Interior Health Authority - Penticton 3090 Skaha Lake Rd Penticton, BC V2A 7H2 | WORK ORDER | 21J3402 |
| ATTENTION | Rob Birtles | RECEIVED / TEMP REPORTED | 2021-10-26 09:00 / 2.9°C 2021-11-02 14:43 |
| PO NUMBER | | COC NUMBER | No Number |
| PROJECT | Wildfire Comprehensive 2021 for Rob Birtles | | |
| PROJECT INFO | | | |

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks



You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry



It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve



Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

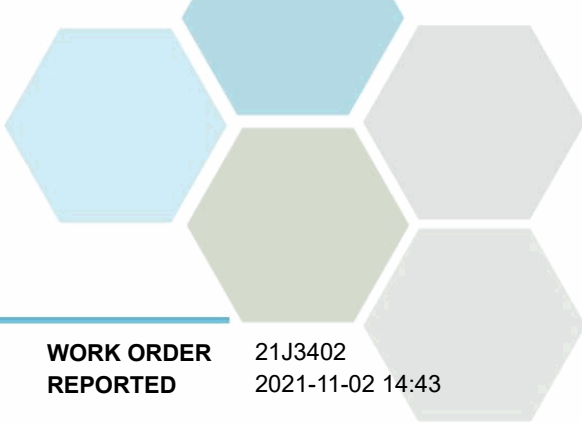
If you have any questions or concerns, please contact me at sgulenchyn@caro.ca

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TEST RESULTS

REPORTED TO PROJECT Interior Health Authority - Penticton
Wildfire Comprehensive 2021 for Rob Birtles

WORK ORDER REPORTED 21J3402
2021-11-02 14:43

| Analyte | Result | Guideline | RL Units | Analyzed | Qualifier |
|---------|--------|-----------|----------|----------|-----------|
|---------|--------|-----------|----------|----------|-----------|

0660248- Packing House (21J3402-01) | Matrix: Water | Sampled: 2021-10-20 11:00

Anions

| | | | | | |
|----------------|---------|-----------|------------|------------|-----|
| Chloride | 8.60 | AO ≤ 250 | 0.10 mg/L | 2021-10-28 | |
| Fluoride | < 0.10 | MAC = 1.5 | 0.10 mg/L | 2021-10-28 | |
| Nitrate (as N) | 0.017 | MAC = 10 | 0.010 mg/L | 2021-10-28 | HT1 |
| Nitrite (as N) | < 0.010 | MAC = 1 | 0.010 mg/L | 2021-10-28 | HT1 |
| Sulfate | 78.7 | AO ≤ 500 | 1.0 mg/L | 2021-10-28 | |

Calculated Parameters

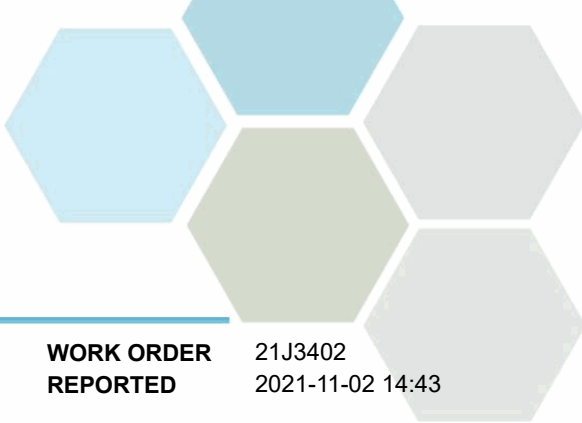
| | | | | | |
|----------------------------|-----|---------------|------------|------------|--|
| Hardness, Total (as CaCO3) | 216 | None Required | 0.500 mg/L | N/A | |
| Langelier Index | 0.5 | N/A | -5.0 | 2021-11-02 | |
| Solids, Total Dissolved | 291 | AO ≤ 500 | 1.00 mg/L | N/A | |

General Parameters

| | | | | | |
|--|----------|-----------|---------------|------------|-----|
| Alkalinity, Total (as CaCO3) | 171 | N/A | 1.0 mg/L | 2021-10-30 | |
| Alkalinity, Phenolphthalein (as CaCO3) | < 1.0 | N/A | 1.0 mg/L | 2021-10-30 | |
| Alkalinity, Bicarbonate (as CaCO3) | 171 | N/A | 1.0 mg/L | 2021-10-30 | |
| Alkalinity, Carbonate (as CaCO3) | < 1.0 | N/A | 1.0 mg/L | 2021-10-30 | |
| Alkalinity, Hydroxide (as CaCO3) | < 1.0 | N/A | 1.0 mg/L | 2021-10-30 | |
| Colour, True | < 5.0 | AO ≤ 15 | 5.0 CU | 2021-10-26 | HT1 |
| Conductivity (EC) | 453 | N/A | 2.0 µS/cm | 2021-10-30 | |
| Cyanide, Total | < 0.0020 | MAC = 0.2 | 0.0020 mg/L | 2021-10-29 | |
| pH | 8.03 | 7.0-10.5 | 0.10 pH units | 2021-10-30 | HT2 |
| Temperature, at pH | 19.7 | N/A | °C | 2021-10-30 | HT2 |
| Turbidity | < 0.10 | OG < 1 | 0.10 NTU | 2021-10-28 | HT1 |

Total Metals

| | | | | | |
|-------------------|------------|---------------|---------------|------------|--|
| Aluminum, total | 0.0134 | OG < 0.1 | 0.0050 mg/L | 2021-10-30 | |
| Antimony, total | < 0.00020 | MAC = 0.006 | 0.00020 mg/L | 2021-10-30 | |
| Arsenic, total | 0.00134 | MAC = 0.01 | 0.00050 mg/L | 2021-10-30 | |
| Barium, total | 0.0262 | MAC = 2 | 0.0050 mg/L | 2021-10-30 | |
| Boron, total | 0.295 | MAC = 5 | 0.0500 mg/L | 2021-10-30 | |
| Cadmium, total | < 0.000010 | MAC = 0.005 | 0.000010 mg/L | 2021-10-30 | |
| Calcium, total | 53.5 | None Required | 0.20 mg/L | 2021-10-30 | |
| Chromium, total | < 0.00050 | MAC = 0.05 | 0.00050 mg/L | 2021-10-30 | |
| Cobalt, total | < 0.00010 | N/A | 0.00010 mg/L | 2021-10-30 | |
| Copper, total | 0.0268 | MAC = 2 | 0.00040 mg/L | 2021-10-30 | |
| Iron, total | < 0.010 | AO ≤ 0.3 | 0.010 mg/L | 2021-10-30 | |
| Lead, total | 0.00026 | MAC = 0.005 | 0.00020 mg/L | 2021-10-30 | |
| Magnesium, total | 20.1 | None Required | 0.010 mg/L | 2021-10-30 | |
| Manganese, total | 0.00134 | MAC = 0.12 | 0.00020 mg/L | 2021-10-30 | |
| Mercury, total | < 0.000010 | MAC = 0.001 | 0.000010 mg/L | 2021-10-30 | |
| Molybdenum, total | 0.00278 | N/A | 0.00010 mg/L | 2021-10-30 | |
| Nickel, total | < 0.00040 | N/A | 0.00040 mg/L | 2021-10-30 | |
| Potassium, total | 1.97 | N/A | 0.10 mg/L | 2021-10-30 | |
| Selenium, total | < 0.00050 | MAC = 0.05 | 0.00050 mg/L | 2021-10-30 | |



TEST RESULTS

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| Analyte | Result | Guideline | RL Units | Analyzed | Qualifier |
|---|----------------|------------|---------------|------------|-----------|
| 0660248- Packing House (21J3402-01) Matrix: Water Sampled: 2021-10-20 11:00, Continued | | | | | |
| <i>Total Metals, Continued</i> | | | | | |
| Sodium, total | 23.8 | AO ≤ 200 | 0.10 mg/L | 2021-10-30 | |
| Strontium, total | 0.305 | 7 | 0.0010 mg/L | 2021-10-30 | |
| Uranium, total | 0.00162 | MAC = 0.02 | 0.000020 mg/L | 2021-10-30 | |
| Zinc, total | 0.0561 | AO ≤ 5 | 0.0040 mg/L | 2021-10-30 | |

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

APPENDIX 1: SUPPORTING INFORMATION

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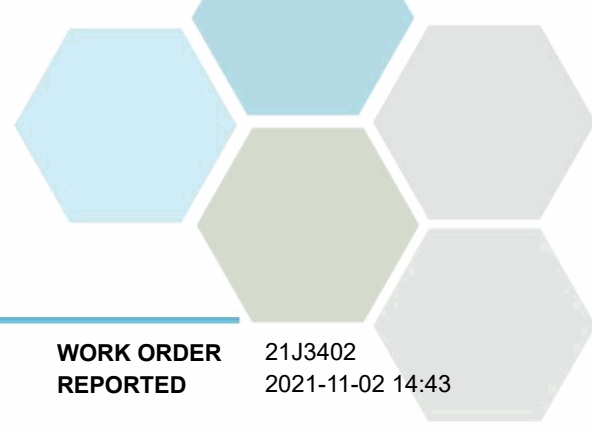
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| Analysis Description | Method Ref. | Technique | Accredited | Location |
|----------------------------------|-----------------------|--|------------|----------|
| Alkalinity in Water | SM 2320 B* (2017) | Titration with H2SO4 | ✓ | Kelowna |
| Anions in Water | SM 4110 B (2017) | Ion Chromatography | ✓ | Kelowna |
| Colour, True in Water | SM 2120 C (2017) | Spectrophotometry (456 nm) | ✓ | Kelowna |
| Conductivity in Water | SM 2510 B (2017) | Conductivity Meter | ✓ | Kelowna |
| Cyanide, SAD in Water | ASTM D7511-12 | Flow Injection with In-Line UV Digestion and Amperometry | ✓ | Kelowna |
| Hardness in Water | SM 2340 B* (2017) | Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est) | ✓ | N/A |
| Langelier Index in Water | SM 2330 B (2017) | Calculation | | N/A |
| Mercury, total in Water | EPA 245.7* | BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS) | ✓ | Richmond |
| pH in Water | SM 4500-H+ B (2017) | Electrometry | ✓ | Kelowna |
| Solids, Total Dissolved in Water | SM 1030 E (2017) | SM 1030 E (2011) | | N/A |
| Total Metals in Water | EPA 200.2 / EPA 6020B | HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS) | ✓ | Richmond |
| Turbidity in Water | SM 2130 B (2017) | Nephelometry | ✓ | Kelowna |

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

| | |
|----------|---|
| RL | Reporting Limit (default) |
| < | Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors |
| °C | Degrees Celcius |
| AO | Aesthetic Objective |
| CU | Colour Units (referenced against a platinum cobalt standard) |
| MAC | Maximum Acceptable Concentration (health based) |
| mg/L | Milligrams per litre |
| NTU | Nephelometric Turbidity Units |
| OG | Operational Guideline (treated water) |
| pH units | pH < 7 = acidic, pH > 7 = basic |
| µS/cm | Microsiemens per centimetre |
| ASTM | ASTM International Test Methods |
| EPA | United States Environmental Protection Agency Test Methods |
| SM | Standard Methods for the Examination of Water and Wastewater, American Public Health Association |



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General Comments:

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Results in **Bold** indicate values that are above CARO's method reporting limits. Any results that are above regulatory limits are highlighted **red**. Please note that results will only be highlighted red if the regulatory limits are included on the CARO report. Any Bold and/or highlighted results do not take into account method uncertainty. If you would like method uncertainty or regulatory limits to be included on your report, please contact your Account Manager: sgulenchyn@caro.ca

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