



Annual Report of Monitoring Riondel Water System

Developed in accordance with the
British Columbia Drinking Water Protection Act

RIONDEL WATER SYSTEM	
Period of Monitoring Covered by this Report:	January 1 - December 31, 2025
Interior Health Permit to Operate Facility Number:	12-098-00377
EOCP Classification:	Small Water system (SWS)
IHA Permit:	Drinking Water System 15 - 300 Connections
Location of Water Supply System:	Riondel, BC

Contact Information:

Regional District of Central Kootenay
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Comprehensive Chemistry Analysis Results

Appendix B

Trihalomethanes/Haloacetic Acid and
Volatile Organic Compounds Monitoring Results

1. Introduction

Riondel is a community located on the east Shore of Kootenay Lake with access off Highway 3A. It is within the RDCK Electoral Area A. The Riondel system was first developed in the mid-1900s to service the Bluebell mine site. It was converted to an RDCK service in 1972 and services 199 active connections.

As part of the British Columbia Provincial *Drinking Water Protection Act (2001)* and *Drinking Water Protection Regulation (2003)* an annual water system report to water users is required. This annual report summarizes information collected and recorded throughout the reporting period, and details additional relevant information to the water system.

2. Water Treatment Objectives

The provincial technical document *Drinking Water Treatment objectives (Microbiological) for Surface Water Supplies in British Columbia (2012)* provides performance targets for water suppliers to ensure the provision of biologically safe drinking water. Interior Health supports water suppliers to meet these objectives as risk to human health is substantially reduced. The general treatment objectives are:

- 4-log (99.99%) removal/inactivation of viruses
- 3-log (99.9%) removal/inactivation of Giardia and Cryptosporidium (oocysts)
- Two separate treatment processes (multi-barrier) for surface water supplies
- Turbidity less than 1 NTU (Nephelometric Turbidity Unit)
- Zero total and fecal coliforms (E. coli)

The Riondel water treatment plant provides biologically safe drinking water to its users and achieves the above listed treatment objectives through various system components installed and maintained at the water treatment plant.

3. Water System Overview

The water system derives source water from Indian Creek. A low, concrete weir with diversion inlets has been built on this creek, which delivers the source water to the treatment plant. Treatment includes a coarse 100-micron self-cleaning screen, followed by membrane filtration for physical removal of some microbiological components and turbidity reduction. Sodium hypochlorite (chlorine) is then added for disinfection of bacteria and viruses prior to entering the 100,000-gallon steel reservoir.

4. Monitoring

The Riondel water system includes monitoring for bacteriological testing (total/fecal coliforms), turbidity, chlorine residual (free and total), consumption, and chemical constituents.

4.1 Bacteriological

Sampling is done four times per month from various locations within the distribution system. Tests for total and fecal coliforms are performed in accordance with the methods outlined in the *Standard Methods for the Examination of Water and Wastewater (2005)*. Colony forming units (cfu) per 100 ml are determined for each sample. Thirteen samples were taken in 2025 with no adverse results.

4.2 Turbidity

Turbidity is measured on the raw and post ultra-filtration (UF) water using both in-line and handheld turbidity meters. The Regional District targets a turbidity level post ultrafiltration treatment below 0.10 NTU. Post UF turbidity levels show as exceeding target within the reporting period due to aging membranes coupled with inaccuracies of in-line analyzers, which were not holding calibration. The inline analyzers and the UF membranes will be replaced in 2026. Certified staff determined risk was not present as integrity tests passed during periods when turbidity readings were confirmed with handheld analyzers. Distribution level turbidity was acceptable during the reporting period. Figure 1 outlines raw water turbidity levels, and Figure 2 outlines treated water turbidity levels.

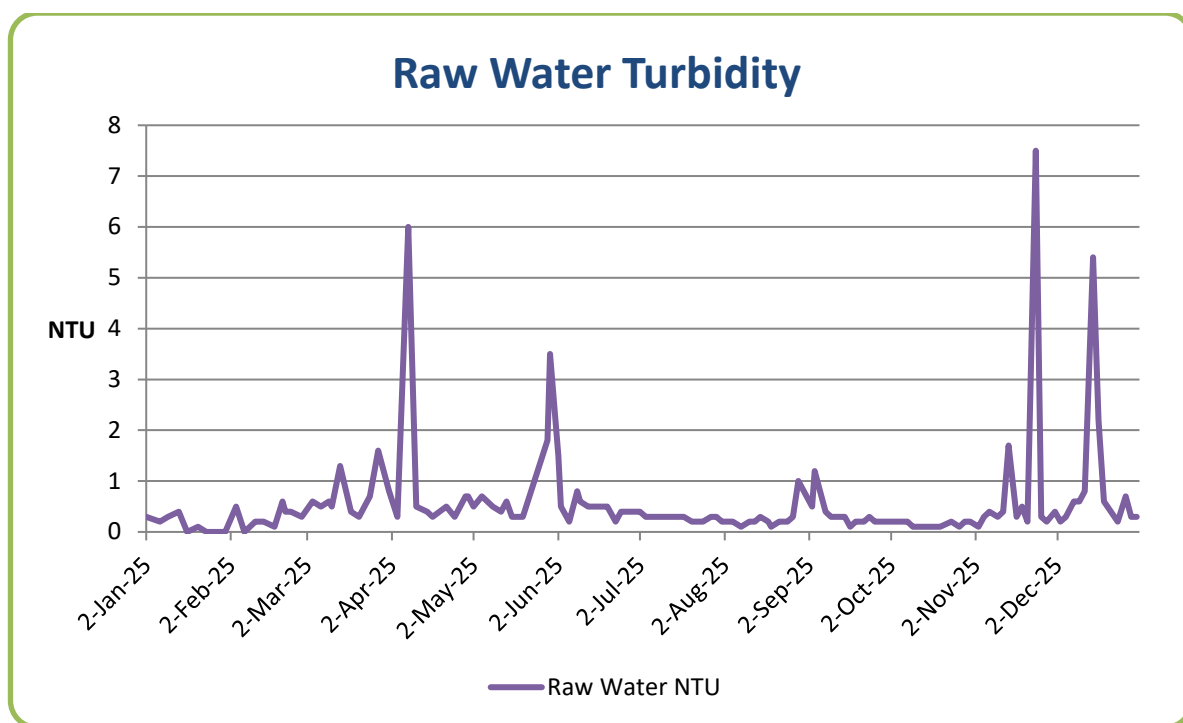


Figure 1 – Raw Water Turbidity Levels for Reporting Period

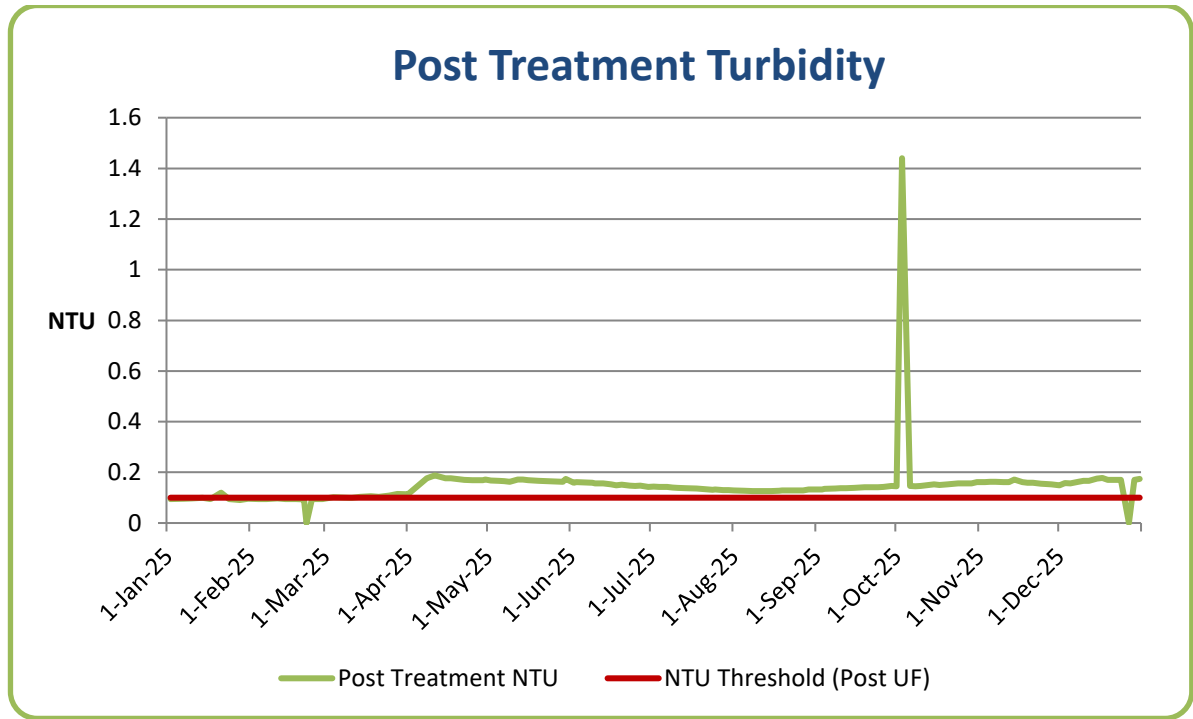


Figure 2 – Post Treatment Turbidity Levels for Reporting Period

4.3 Chlorine Residual

Chlorine residual levels are measured at the water treatment plant and within the distribution system using both in-line and handheld chlorine meters. Figure 3 shows chlorine residual levels at the water treatment plant and within the distribution system. The Regional District targets a minimum chlorine residual of 0.70 mg/l leaving the reservoir to achieve the required 0.2 mg/L in all areas of the distribution system. Post reservoir chlorine levels dropped below the 0.7 mg/L minimum throughout the reporting period due to aging sensors, which have since been replaced. Post reservoir chlorine residual levels were confirmed with a handheld chlorine analyzer, and dosing increased at the treatment plant if targets were not achieved. Chlorine residual levels within the distribution system dropped below the 0.2 mg/L minimum on Mar 10, Nov 17, 19, Dec 12, 17 and 19, 2025 during the reporting period.

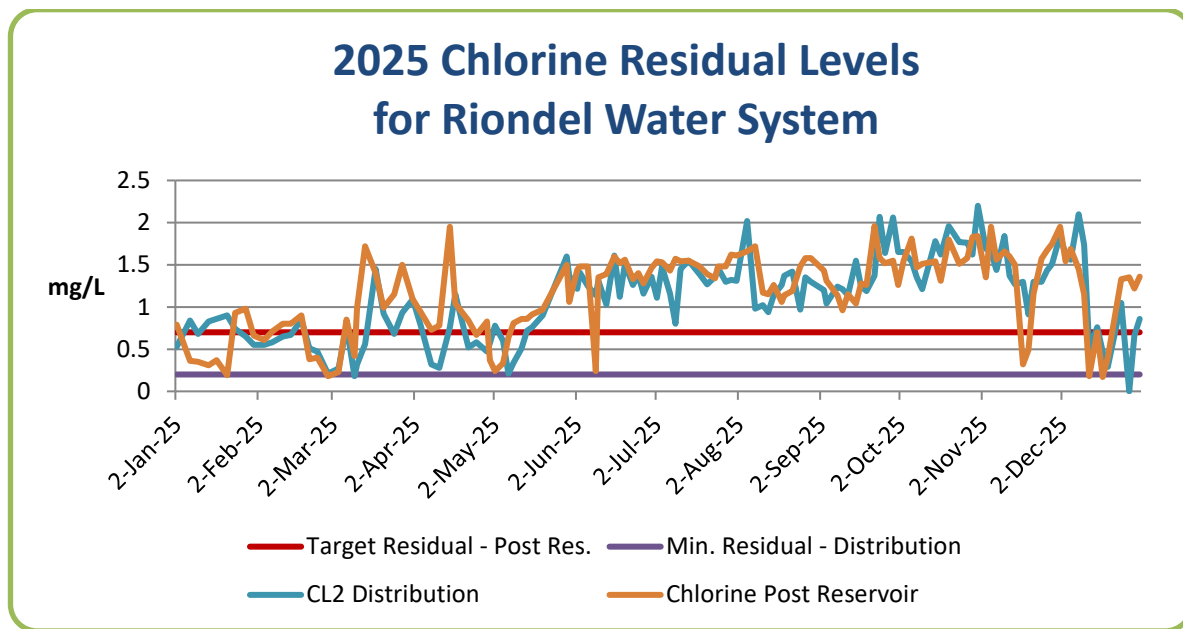


Figure 3 – Free Chlorine Residual Levels for Reporting Period

4.4 Consumption

Flow rates are measured at the ultra-filtration treatment system. The total recorded volume of treated water for the reporting period was 113,021 m3. Figure 4 shows the consumption volume per month for the reporting period.

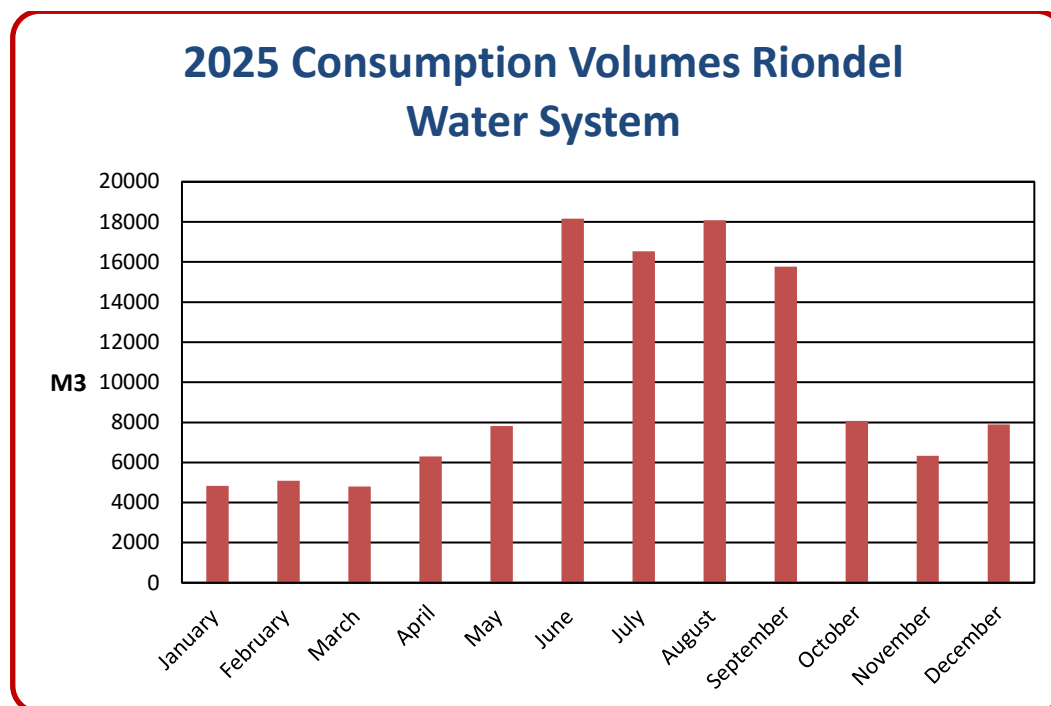


Figure 4 – Treated Water Volumes for Reporting Period

4.5 Chemistry

Comprehensive chemical analysis of water constituents was completed in October 2024. The results in Appendix A show that chemical parameters are below the Maximum Acceptable Concentration (MAC) as detailed in Health Canada’s *Guidelines for Canadian Drinking Water Quality – Summary Table (2024)*.

The RDCK also tested for the chemical disinfection by-products Trihalomethanes/Haloacetic Acids, and Volatile Organic Compounds in April, June and October 2025. These results are presented in Appendix B. In April total HAAs were above MAC, water was therefore resampled in June. The results from June and October show that levels are below the MAC as outlined in the *Guidelines*. These results were communicated to the Environmental Health Officer and are considered satisfactory as they are not repeated exceedances, which would require further investigation.

5. Advisories Issued

The following table describes the Notices and Advisories issued for the reporting period.

Table 1 – Notices and Advisories Issued

Notice/Advisory Type	Dates in Effect	Reason
Boil Water Notice	Sept 18 – Oct 1, 2025	District meter install and valve chamber repairs
Water Quality Advisory	May 11 – June 25	Insufficient CCT due to reservoir level drop
Boil Water Notice	May 23 – June 6	Filtration equipment failure
Boil Water Notice - Localized	July 23 – Aug 11	Main line tie in.

*Each Notice/Advisory was issued a Rescind Notice to notify the public once action was completed and water quality sampling results demonstrated good water quality.

6. Capital Projects and Operations & Maintenance

The following capital projects were completed in 2025:

- Mainline installation and watermain looping for Ainsworth Ave. alley
- Dam and intake cleaning
- Coarse filter repair

The following operations and maintenance items were completed in 2025:

- Annual distribution flushing, valve exercising and, fire hydrant inspections completed
- Repair/replace 2 leaking service valves

7. Water Conservation

Mandatory Stage 1 water conservation measures are in place from June 1 to September 30 every

year. Stage 1 measures permit the watering of lawns, gardens, trees and shrubs only from 7pm to 10am daily. Watering using drip irrigation, a watering can or a hand-held hose is permitted anytime. The RDCK did not implement Stage 2 or 3 conservation measures during the reporting period. Stage 1 measures remained in place until October 2nd, 2025 when all conservation measures were rescinded.

8. Planned Improvements

8.1 *Improvements Required by Operating Permit or Drinking Water Officer*

Interior Health updated the Conditions on Operating Permit in September of 2025. Required updates include:

Condition #1: Submit Monthly Water Quality Reports	Status: Completed
Condition #2: Update Operations & Maintenance Plan	Status: In Progress
Condition #3: Submit Utility Master Plan & Asset Management Plan	Status: In Progress
Condition #4: Update Source Protection Planning Tools	Status: Ongoing

Future planned capital upgrades and actions include the following:

- Water treatment plant membrane filtration replacement
- Intake repairs (2026)
- Water treatment plant upgrades (2026)
- Reservoir replacement (2029)

9. Training and Certification

Table 2 – Operator Certification

OPERATOR	ACTIVE EOCP LEVELS
Allan K. Richardson	WD-II, WT-II, WWC-II, MWWT-I, CH
Cody Peck	WT-II, WD-II, CH
Evan Bjarnason	WT-II, WD-II, CH
Kalen Luck	WT-I, CH
Keith Light	SWS

10. Emergency Response and Contingency Plan

An Emergency Response and Contingency Plan (ERCP) for the Riondel Water System is updated annually. This document includes emergency contact information, a communications plan, and detailed procedures for the following types of incidents:

- broken water main;
- source contamination;
- elevated turbidity levels in treated water;
- fire in a building;
- flood conditions;
- loss of source;
- presence of coliforms or E. coli;
- pump failure;
- power failure; and
- low chlorine residuals.

The *Drinking Water Protection Regulation (2003)*, under Section 13, requires that water suppliers provide an ERCP to address any potential emergencies that may impact the delivery of water and health of those being supplied by the water system. The ERCP must be made accessible to the staff of the water supplier and a copy submitted to the local Environmental Health Officer. The RDCK has fulfilled these requirements for the Riondel Water System.

Appendix A: Comprehensive Chemistry Analysis Results

CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Kootenay - Nelson Box 590 - 202 Lakeside Drive Nelson, BC V1L 5R4	WORK ORDER	24J4105
ATTENTION	Lab Reports	RECEIVED / TEMP	2024-10-31 13:28 / 15.4°C
PO NUMBER		REPORTED	2024-11-26 12:46
PROJECT	Riondel/Sanca Creek	COC NUMBER	B136124
PROJECT INFO			

Introduction:

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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



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

Authorized By:

Hanane El Hannaoui
Junior Account Manager



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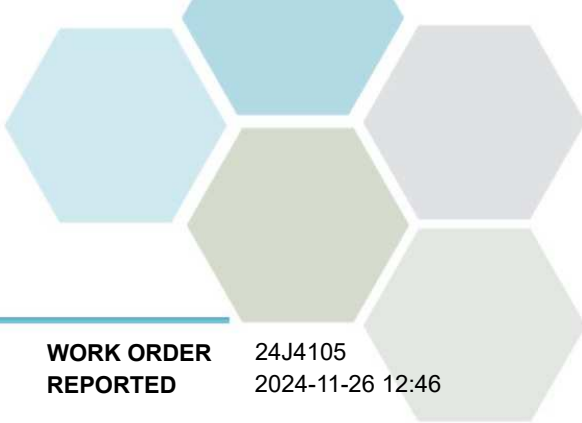
#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
Riondel/Sanca Creek

WORK ORDER REPORTED 24J4105
2024-11-26 12:46

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
Riondel Raw (24J4105-01) Matrix: Water Sampled: 2024-10-30 09:30					
Anions					
Chloride	0.11	AO ≤ 250	0.10 mg/L	2024-11-01	
Fluoride	< 0.10	MAC = 1.5	0.10 mg/L	2024-11-01	
Nitrate (as N)	0.032	MAC = 10	0.010 mg/L	2024-11-01	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2024-11-01	
Sulfate	14.3	AO ≤ 500	1.0 mg/L	2024-11-01	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	103	None Required	0.500 mg/L	N/A	
Solids, Total Dissolved	111	AO ≤ 500	1.00 mg/L	N/A	
General Parameters					
Alkalinity, Total (as CaCO ₃)	86.7	N/A	1.0 mg/L	2024-10-31	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2024-10-31	
Alkalinity, Bicarbonate (as CaCO ₃)	86.7	N/A	1.0 mg/L	2024-10-31	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2024-10-31	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2024-10-31	
Conductivity (EC)	210	N/A	2.0 µS/cm	2024-10-31	
Cyanide, Total	0.0042	MAC = 0.2	0.0020 mg/L	2024-11-04	
pH	7.99	7.0-10.5	0.10 pH units	2024-10-31	HT2
Turbidity	0.12	OG < 1	0.10 NTU	2024-11-01	
Microbiological Parameters					
Coliforms, Total (Q-Tray)	194	MAC = 0	1 MPN/100 mL	2024-10-31	
E. coli (Q-Tray)	< 1	MAC = 0	1 MPN/100 mL	2024-10-31	
Total Metals					
Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2024-11-04	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2024-11-04	
Arsenic, total	< 0.00050	MAC = 0.01	0.00050 mg/L	2024-11-04	
Barium, total	0.0444	MAC = 2	0.0050 mg/L	2024-11-04	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2024-11-04	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010 mg/L	2024-11-04	
Calcium, total	34.5	None Required	0.20 mg/L	2024-11-04	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2024-11-04	
Copper, total	0.00318	MAC = 2	0.00040 mg/L	2024-11-04	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2024-11-04	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2024-11-04	
Magnesium, total	4.05	None Required	0.010 mg/L	2024-11-04	
Manganese, total	0.00057	MAC = 0.12	0.00020 mg/L	2024-11-04	
Potassium, total	3.66	N/A	0.10 mg/L	2024-11-04	
Selenium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2024-11-04	
Sodium, total	1.04	AO ≤ 200	0.10 mg/L	2024-11-04	
Strontium, total	0.0954	MAC = 7	0.0010 mg/L	2024-11-04	
Uranium, total	0.00154	MAC = 0.02	0.000020 mg/L	2024-11-04	



TEST RESULTS

REPORTED TO PROJECT	Regional District of Central Kootenay - Nelson Riondel/Sanca Creek	WORK ORDER REPORTED	24J4105 2024-11-26 12:46
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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Riondel Raw (24J4105-01) Matrix: Water Sampled: 2024-10-30 09:30, Continued						
Total Metals, Continued						
Zinc, total	0.0150	AO ≤ 5	0.0040	mg/L	2024-11-04	

Sample Qualifiers:						
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.					

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
Riondel/Sanca Creek

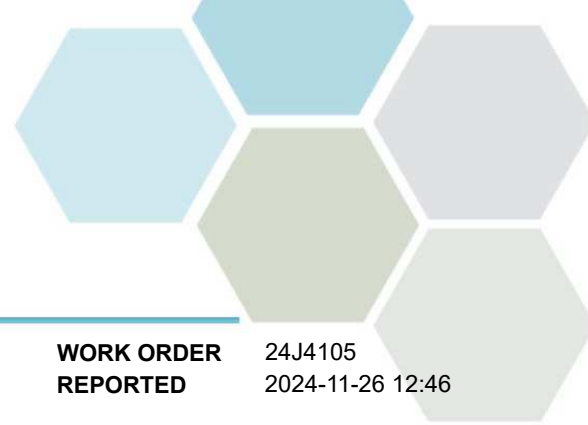
WORK ORDER REPORTED 24J4105
2024-11-26 12:46

Analysis Description	Method Ref.	Technique	Accredited	Location
Alkalinity in Water	SM 2320 B* (2021)	Titration with H2SO4	✓	Kelowna
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Coliforms, Total in Water	SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Conductivity in Water	SM 2510 B (2021)	Conductivity Meter	✓	Kelowna
Cyanide, SAD in Water	ASTM D7511-12	Flow Injection with In-Line UV Digestion and Amperometry	✓	Kelowna
E. coli in Water	SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Hardness in Water	SM 2340 B* (2021)	Calculation: 2.497 [total Ca] + 4.118 [total Mg] (Est)	✓	N/A
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Solids, Total Dissolved in Water	SM 1030 E (2021)	SM 1030 E		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 (2020)	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
AO	Aesthetic Objective
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
MPN/100 mL	Most Probable Number per 100 millilitres
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



APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
Riondel/Sanca Creek

WORK ORDER REPORTED 24J4105
2024-11-26 12:46

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Appendix B: Trihalomethanes/Haloacetic Acid and Volatile Organic Compounds Monitoring Results

CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Kootenay - Erickson 531B 16th Ave. South CRESTON, BC V0B 1G5		
ATTENTION	Allan Richardson	WORK ORDER	25D2549
PO NUMBER	RDCK- Erickson	RECEIVED / TEMP	2025-04-16 13:21 / 14.3°C
PROJECT	Arrow Creek/ Erickson	REPORTED	2025-06-02 16:48
PROJECT INFO		COC NUMBER	B37915

Introduction:

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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.

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Brent Whitehead
Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Erickson
Arrow Creek/ Erickson

WORK ORDER REPORTED 25D2549
2025-06-02 16:48

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Riondel - community center (25D2549-01) Matrix: Drinking Water Sampled: 2025-04-13 10:30						
Calculated Parameters						
Total Trihalomethanes	0.0786	MAC = 0.1	0.00400	mg/L	N/A	
Haloacetic Acids						
Monochloroacetic Acid	0.0029	N/A	0.0020	mg/L	2025-04-24	
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2025-04-24	
Dichloroacetic Acid	0.0419	N/A	0.0020	mg/L	2025-04-24	
Trichloroacetic Acid	0.0443	N/A	0.0020	mg/L	2025-04-24	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2025-04-24	
Total Haloacetic Acids (HAA5)	0.0891	MAC = 0.08	0.00200	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	101		70-130	%	2025-04-24	
Volatile Organic Compounds (VOC)						
Bromodichloromethane	0.0014	N/A	0.0010	mg/L	2025-04-24	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2025-04-24	
Chloroform	0.0772	N/A	0.0010	mg/L	2025-04-24	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2025-04-24	
Surrogate: Toluene-d8	95		70-130	%	2025-04-24	
Surrogate: 4-Bromofluorobenzene	97		70-130	%	2025-04-24	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Erickson
Arrow Creek/ Erickson

WORK ORDER REPORTED 25D2549
2025-06-02 16:48

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

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
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, September 2022\)](#)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

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Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Kootenay - Nelson Box 590 - 202 Lakeside Drive Nelson, BC V1L 5R4		
ATTENTION	Alex Divakovski	WORK ORDER	25F4191
PO NUMBER	RDCK- Riondel	RECEIVED / TEMP	2025-06-30 08:57 / 21.2°C
PROJECT	Riondel	REPORTED	2025-07-08 14:00
PROJECT INFO		COC NUMBER	B37917

Introduction:

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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.

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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.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here:
<https://www.caro.ca/terms-conditions>

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

Authorized By:

Hanane El Hannaoui
Junior Account Manager

1-888-311-8846 | www.caro.ca

#110 4011 Viking Way Richmond, BC V6V 2K9 | #102 3677 Highway 97N Kelowna, BC V1X 5C3 | 17225 109 Avenue Edmonton, AB T5S 1H7 |
#108 4475 Wayburne Drive Burnaby, BC V5G 4X4

TEST RESULTS

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
Riondel

WORK ORDER REPORTED 25F4191
2025-07-08 14:00

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Community Center (25F4191-01) | Matrix: Water | Sampled: 2025-06-20

Calculated Parameters

Total Trihalomethanes	0.0144	MAC = 0.1	0.00400	mg/L	N/A	
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Haloacetic Acids

Monochloroacetic Acid	< 0.0030	N/A	0.0020	mg/L	2025-07-04	RA3
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2025-07-04	
Dichloroacetic Acid	0.0077	N/A	0.0020	mg/L	2025-07-04	
Trichloroacetic Acid	0.0066	N/A	0.0020	mg/L	2025-07-04	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2025-07-04	
Total Haloacetic Acids (HAA5)	0.0143	MAC = 0.08	0.00300	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	106		70-130	%	2025-07-04	

Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2025-07-03	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2025-07-03	
Chloroform	0.0144	N/A	0.0010	mg/L	2025-07-03	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2025-07-03	
Surrogate: Toluene-d8	84		70-130	%	2025-07-03	
Surrogate: 4-Bromofluorobenzene	94		70-130	%	2025-07-03	

1405 Campbell Ave (25F4191-02) | Matrix: Water | Sampled: 2025-06-20

Calculated Parameters

Total Trihalomethanes	0.0184	MAC = 0.1	0.00400	mg/L	N/A	
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Haloacetic Acids

Monochloroacetic Acid	< 0.0030	N/A	0.0020	mg/L	2025-07-04	RA3
Monobromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2025-07-04	
Dichloroacetic Acid	0.0119	N/A	0.0020	mg/L	2025-07-04	
Trichloroacetic Acid	0.0069	N/A	0.0020	mg/L	2025-07-04	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2025-07-04	
Total Haloacetic Acids (HAA5)	0.0187	MAC = 0.08	0.00300	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	103		70-130	%	2025-07-04	

Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2025-07-03	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2025-07-03	
Chloroform	0.0184	N/A	0.0010	mg/L	2025-07-03	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2025-07-03	
Surrogate: Toluene-d8	92		70-130	%	2025-07-03	
Surrogate: 4-Bromofluorobenzene	82		70-130	%	2025-07-03	

Sample Qualifiers:

RA3 The Reporting Limit has been raised due to comparable level detected in the blank(s).

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
Riondel

WORK ORDER REPORTED 25F4191
2025-07-08 14:00

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

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
MAC	Maximum Acceptable Concentration (health based)
mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada, September 2022\)](#)

Note: In some cases, the values displayed on the report represent the lowest guideline and are to be verified by the end user

General Comments:

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CERTIFICATE OF ANALYSIS

REPORTED TO	Regional District of Central Kootenay - Nelson Box 590 - 202 Lakeside Drive Nelson, BC V1L 5R4	WORK ORDER	25J3294
ATTENTION	Alex Divakovski	RECEIVED / TEMP	2025-10-23 13:39 / 4.7°C
PO NUMBER	RDCK- Riondel	REPORTED	2025-11-03 13:21
PROJECT	Riondel	COC NUMBER	B136120
PROJECT INFO			

Introduction:

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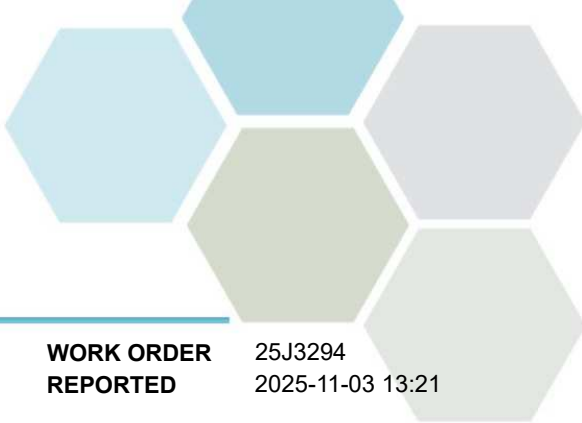
If you have any questions or concerns, please contact me at hhannaoui@caro.ca

Authorized By:

Hanane El Hannaoui
Junior Account Manager

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#108 4475 Wayburne Drive Burnaby, BC V5G 4X4



TEST RESULTS

REPORTED TO PROJECT	Regional District of Central Kootenay - Nelson Riondel	WORK ORDER REPORTED	25J3294 2025-11-03 13:21
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Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Community Center (25J3294-01) | Matrix: Water | Sampled: 2025-10-22 10:45

Calculated Parameters

Total Trihalomethanes	0.0220	MAC = 0.1	0.00400	mg/L	N/A	
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Haloacetic Acids

Monochloroacetic Acid	< 0.0042	N/A	0.0020	mg/L	2025-10-31	RA3
Monobromoacetic Acid	0.0021	N/A	0.0020	mg/L	2025-10-31	
Dichloroacetic Acid	0.0091	N/A	0.0020	mg/L	2025-10-31	
Trichloroacetic Acid	0.0090	N/A	0.0020	mg/L	2025-10-31	
Dibromoacetic Acid	< 0.0020	N/A	0.0020	mg/L	2025-10-31	
Total Haloacetic Acids (HAA5)	0.0202	MAC = 0.08	0.00420	mg/L	N/A	
Surrogate: 2-Bromopropionic Acid	108		70-130	%	2025-10-31	

Volatile Organic Compounds (VOC)

Bromodichloromethane	< 0.0010	N/A	0.0010	mg/L	2025-10-27	
Bromoform	< 0.0010	N/A	0.0010	mg/L	2025-10-27	
Chloroform	0.0220	N/A	0.0010	mg/L	2025-10-27	
Dibromochloromethane	< 0.0010	N/A	0.0010	mg/L	2025-10-27	
Surrogate: Toluene-d8	92		70-130	%	2025-10-27	
Surrogate: 4-Bromofluorobenzene	79		70-130	%	2025-10-27	

Sample Qualifiers:						
RA3	The Reporting Limit has been raised due to comparable level detected in the blank(s).					

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO PROJECT Regional District of Central Kootenay - Nelson
Riondel

WORK ORDER REPORTED 25J3294
2025-11-03 13:21

Analysis Description	Method Ref.	Technique	Accredited	Location
Haloacetic Acids in Water	EPA 552.3*	Liquid-Liquid Microextraction, Derivatization and GC-ECD	✓	Richmond
Trihalomethanes in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond

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

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mg/L	Milligrams per litre
EPA	United States Environmental Protection Agency Test Methods

Guidelines Referenced in this Report:

[Guidelines for Canadian Drinking Water Quality \(Health Canada\)](#)

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