

## Report Transmission Cover Page

Bill To: City of Maple Ridge 11995 Haney Place Maple Ridge, BC, Canada V2X 6A9	Project ID: Project Name: Firehall # 2 Well Project Location: LSD: P.O.:	Lot ID: <b>1475469</b> Control Number: Date Received: Feb 22, 2021 Date Reported: Feb 25, 2021 Report Number: 2596753
Attn: Accounts Payable	Proj. Acct. code:	
Sampled By:		
Company:		

Contact	Company	Address
Mike Albrecht	City of Maple Ridge	Maple Ridge, BC V3S 8P8 Phone: (604) 363-6671 Fax: Email: malbrecht@mapleridge.ca

Delivery	Format	Deliverables
Email - Single Report	PDF	COA
Email - Single Report	PDF	Invoice
Email - Single Report	PDF	Test Report

### Notes To Clients:

- Feb 25, 2021 - The analysis of water sample 1475469-1 is below Maximum Acceptable Concentrations for the chemical and bacteriological health related guidelines specified by the September 2020 Guidelines for Canadian Drinking Water Quality for the parameters tested.

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## Analytical Report

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<b>Reference Number</b>	1475469-1
<b>Sample Date</b>	February 22, 2021
<b>Sample Time</b>	08:40
<b>Sample Location</b>	
<b>Sample Description</b>	Firehall # 2 Well / 8.3 °C
<b>Sample Matrix</b>	Drinking Water

Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments	
<b>Metals Extractable</b>						
Aluminum	Extractable mg/L	0.002	0.001	0.1	Below OG	
Antimony	Extractable mg/L	<0.00002	0.00002	0.006	Below MAC	
Arsenic	Extractable mg/L	0.0017	0.0001	0.010	Below MAC	
Barium	Extractable mg/L	<0.0001	0.0001	2.0	Below MAC	
Boron	Extractable mg/L	0.005	0.002	5	Below MAC	
Cadmium	Extractable mg/L	<0.00001	0.00001	0.007	Below MAC	
Chromium	Extractable mg/L	<0.00005	0.00005	0.05	Below MAC	
Copper	Extractable mg/L	<0.0005	0.0005	1 AO; 2 MAC	Below AO	
Lead	Extractable mg/L	0.00002	0.00001	0.005	Below MAC	
Selenium	Extractable mg/L	<0.0002	0.0002	0.05	Below MAC	
Strontium	Extractable mg/L	<0.0001	0.0001	7.0	Below MAC	
Uranium	Extractable mg/L	<0.00001	0.00001	0.02	Below MAC	
Vanadium	Extractable mg/L	<0.00005	0.00005			
Zinc	Extractable mg/L	0.0020	0.0005	5.0	Below AO	
<b>Microbiological Analysis</b>						
Total Coliforms	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
Escherichia coli	Enzyme Substrate Test	MPN/100 mL	<1.0	1.0	0 per 100 mL	Below MAC
<b>Physical and Aggregate Properties</b>						
Colour	True	Colour units	<5	5		
Turbidity		NTU	0.22	0.1	0.1	Above OG
<b>Routine Water</b>						
pH - Holding Time			Exceeded			
pH	at 25 °C		7.92	0.01	7.0-10.5	Within Range
Electrical Conductivity		µS/cm at 25 °C	108	1		
Calcium	Extractable	mg/L	0.03	0.01		
Iron	Extractable	mg/L	<0.004	0.004	0.3	Below AO
Magnesium	Extractable	mg/L	<0.02	0.02		
Manganese	Extractable	mg/L	<0.001	0.001	0.02 AO; 0.12 MAC	Below AO
Potassium	Extractable	mg/L	0.09	0.04		
Silicon	Extractable	mg/L	7.1	0.005		
Sodium	Extractable	mg/L	24	0.1	200	Below AO
T-Alkalinity	as CaCO3	mg/L	58	5		
Chloride	Dissolved	mg/L	0.78	0.05	250	Below AO
Fluoride	Dissolved	mg/L	0.04	0.01	1.5	Below MAC
Nitrate - N	Dissolved	mg/L	<0.01	0.01	10	Below MAC
Nitrite - N	Dissolved	mg/L	<0.01	0.01	1	Below MAC
Sulfate (SO4)	Dissolved	mg/L	1.4	0.1	500	Below AO

**Analytical Report**

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<b>Sample Matrix</b>	Drinking Water

Analyte	Units	Result	Nominal Detection Limit	Guideline Limit	Guideline Comments
<b>Routine Water - Continued</b>					
Hardness	as CaCO3 (extractable)	mg/L	<1.0	1	
Total Dissolved Solids	Extractable	mg/L	80	1	500 Below AO

Approved by:   
 Max Hewitt  
 Operations Manager

## Methodology and Notes

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## Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (BC)	APHA	* Alkalinity - Titration Method, 2320 B	Feb 23, 2021	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	* Conductivity, 2510 B	Feb 23, 2021	Element Vancouver
Alk, pH, EC, Turb in water (BC)	APHA	* pH - Electrometric Method, 4500-H+ B	Feb 23, 2021	Element Vancouver
Anions by IEC in water (VAN)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	Feb 22, 2021	Element Vancouver
Metals SemiTrace (Extractable) in water (VAN)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	Feb 23, 2021	Element Vancouver
Total and E-Coli - Colilert - DW (VAN)	APHA	Enzyme Substrate Test, APHA 9223 B	Feb 22, 2021	Element Vancouver
Trace Metals (extractable) in Water (VAN)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	Feb 23, 2021	Element Vancouver
True Color in water (VAN)	APHA	* Spectrophotometric - Single Wavelength Method, 2120 C	Feb 22, 2021	Element Vancouver
Turbidity - Water (VAN)	APHA	* Turbidity - Nephelometric Method, 2130 B	Feb 22, 2021	Element Vancouver

\* Reference Method Modified

## References

APHA	Standard Methods for the Examination of Water and Wastewater
US EPA	US Environmental Protection Agency Test Methods

## Guidelines

Guideline Description	Health Canada GCDWQ
Guideline Source	Guidelines for Canadian Drinking Water Quality, Health Canada, Sept 2020
Guideline Comments	MAC = Maximum Acceptable Concentration AO = Aesthetic Objective OG = Operational Guideline for Water Treatment Plants (does not apply to private groundwater wells). Refer to Health Canada for complete guidelines at <a href="http://www.hc-sc.gc.ca">www.hc-sc.gc.ca</a>

## Comments:

- Feb 25, 2021 - The analysis of water sample 1475469-1 is below Maximum Acceptable Concentrations for the chemical and bacteriological health related guidelines specified by the September 2020 Guidelines for Canadian Drinking Water Quality for the parameters tested.

The comparison of test results to guideline limits is provided for information purposes only. This is not to be taken as a statement of conformance / nonconformance to any guideline, regulation or limit. The data user is responsible for all conclusions drawn with respect to the data and is advised to consult official regulatory references when evaluating compliance.

Please direct any inquiries regarding this report to our Client Services group.  
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