

ANALYTICAL REPORT

City of Terrace
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Work Order: N24L129

RECEIVED: 30-Dec-2024

Project: Frank Street Wells

Project Number: -

Project Manager: Cole Nutma

REPORTED: 20-Jan-2025

All analyses were performed in accordance with standard procedures published by BC MoE, Health Canada, Environment Canada, the American Public Health Association, or the US EPA.

Northern Laboratories (2010) Ltd.



Jesse Newton
Laboratory Manager

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LAB #	N24L129-01	N24L129-02	N24L129-03
SAMPLED DATE	27-Dec-24	27-Dec-24	27-Dec-24
SAMPLED TIME	08:20	09:10	08:30
SAMPLE ID	Well #3	Well #2	Well #1

	MRL	Units	CDWG			
General Parameters (Water)						
pH	1.0	pH units	7.0-10.5	6.8 [2]	6.6 [2]	6.8 [2]
Alkalinity (total, as CaCO3)	1	mg/L	-	180	160	180
Conductivity	1.0	uS/cm	-	448	423	449
Colour	1	PtCo units	AO <= 15	1	3	3
Turbidity	0.05	NTU	OG < 1	0.28	0.22	0.29
Solids, Total Dissolved / TDS	1.0	mg/L	AO <= 500	280	270	280
Cyanide, Total	0.0020	mg/L	MAC = 0.2	<0.0020 [1]	<0.0020 [1]	<0.0020 [1]
Phosphorus (total)	0.05	mg/L	-	0.17	0.17	0.17

Calculated Parameters (Water)						
Nitrate (as N)	0.10	mg/L	MAC = 10	0.38		0.41
Nitrate (as N)	0.40	mg/L	MAC = 10		0.68	
Hardness, Total (as CaCO3)	0.500	mg/L	-	205	186	205

Anions (Water)						
Chloride	1.0	mg/L	AO <= 250	33.5	35.7	35.3
Fluoride	0.05	mg/L	MAC = 1.5	<0.10	<0.10	<0.10
Nitrite (as N)	0.01	mg/L	MAC = 1	<0.01 [2]	<0.01 [2]	<0.01 [2]
Nitrate + Nitrite (as N)	0.10	mg/L	MAC = 10	0.38 [2]	0.68 [2]	0.41 [2]
Sulfate	1.0	mg/L	AO <= 500	13.8	12.6	14.1

BCMOE Aggregate Hydrocarbons (Water)						
VHw (6-10)	100	ug/L	-	<100 [1]	<100 [1]	<100 [1]
VPHw	100	ug/L	-	<100	<100	<100

Total Metals (Water)						
Aluminum, total	0.0050	mg/L	OG < 0.1	<0.0050	<0.0050	<0.0050
Antimony, total	0.00020	mg/L	MAC = 0.006	<0.00020	<0.00020	<0.00020
Arsenic, total	0.00050	mg/L	MAC = 0.01	0.00057	<0.00050	0.00053
Barium, total	0.0050	mg/L	MAC = 1	0.118	0.0917	0.115
Beryllium, total	0.00010	mg/L	-	<0.00010	<0.00010	<0.00010
Bismuth, total	0.00010	mg/L	-	<0.00010	<0.00010	<0.00010
Boron, total	0.0500	mg/L	MAC = 5	<0.0500	<0.0500	<0.0500
Cadmium, total	0.000010	mg/L	MAC = 0.005	0.000011	0.000013	<0.000010
Calcium, total	0.20	mg/L	-	71.2	63.5	70.8

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Total Metals (continued)					
Chromium, total	0.00050 mg/L	MAC = 0.05	<0.00050	<0.00050	<0.00050
Cobalt, total	0.00010 mg/L	-	<0.00010	<0.00010	<0.00010
Copper, total	0.00040 mg/L	AO = 1 MAC = 2	0.00745	0.0211	0.00379
Iron, total	0.010 mg/L	AO <= 0.3	<0.010	<0.010	<0.010
Lead, total	0.00020 mg/L	MAC = 0.005	0.00057	0.00324	<0.00020
Lithium, total	0.00010 mg/L	-	0.00207	0.00161	0.00194
Magnesium, total	0.010 mg/L	-	6.66	6.69	6.71
Manganese, total	0.00020 mg/L	AO <= 0.02 MAC = 0.12	0.00838	0.00043	0.00788
Mercury, total	0.000010 mg/L	MAC = 0.001	<0.000010	<0.000010	<0.000010
Molybdenum, total	0.00010 mg/L	-	0.00055	0.00040	0.00051
Nickel, total	0.00040 mg/L	-	0.00117	0.00184	<0.00040
Phosphorus, total	0.050 mg/L	-	<0.050	<0.050	<0.050
Potassium, total	0.10 mg/L	-	2.17	2.01	2.19
Selenium, total	0.00050 mg/L	MAC = 0.05	<0.00050	<0.00050	<0.00050
Silicon, total	1.0 mg/L	-	6.3	6.5	6.3
Silver, total	0.000050 mg/L	-	<0.000050	<0.000050	<0.000050
Sodium, total	0.10 mg/L	AO <= 200	13.7	15.3	14.0
Strontium, total	0.0010 mg/L	MAC = 7	0.228	0.214	0.231
Sulfur, total	3.0 mg/L	-	5.1	4.3	5.0
Tellurium, total	0.00050 mg/L	-	<0.00050	<0.00050	<0.00050
Thallium, total	0.000020 mg/L	-	<0.000020	<0.000020	<0.000020
Thorium, total	0.00010 mg/L	-	<0.00010	<0.00010	<0.00010
Tin, total	0.00020 mg/L	-	<0.00020	<0.00020	<0.00020
Titanium, total	0.0050 mg/L	-	<0.0050	<0.0050	<0.0050
Tungsten, total	0.0010 mg/L	-	<0.0010	<0.0010	<0.0010
Uranium, total	0.000020 mg/L	MAC = 0.02	0.000309	0.000254	0.000312
Vanadium, total	0.0050 mg/L	-	<0.0050	<0.0050	<0.0050
Zinc, total	0.0040 mg/L	AO <= 5	<0.0040	0.0211	<0.0040
Zirconium, total	0.00010 mg/L	-	<0.00010	<0.00010	<0.00010

Volatile Organic Compounds (VOC) (Water)

Benzene	0.5 ug/L	MAC = 5	<0.5 [1]	<0.5 [1]	<0.5 [1]
Ethylbenzene	1.0 ug/L	AO = 1.6 MAC = 140	<1.0 [1]	<1.0 [1]	<1.0 [1]

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Volatile Organic Compounds (VOC) (continued)

Methyl tert-butyl ether	1.0 ug/L	AO ≤ 15	<1.0 [1]	<1.0 [1]	<1.0 [1]
Styrene	1.0 ug/L	-	<1.0 [1]	<1.0 [1]	<1.0 [1]
Toluene	1.0 ug/L	AO = 24 MAC = 60	<1.0 [1]	<1.0 [1]	<1.0 [1]
Xylenes (total)	2.0 ug/L	AO = 20 MAC = 90	<2.0 [1]	<2.0 [1]	<2.0 [1]
Toluene-d8	70-130 [surr]	-	92% [1]	98% [1]	103% [1]
4-Bromofluorobenzene	70-130 [surr]	-	78% [1]	84% [1]	88% [1]

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Special Notes

- 1 = The sample was prepared and/or analyzed past the recommended holding time.
- 2 = Sample was received outside of the recommended holding time for some of the requested analyses.

Glossary of Terms

MRL	Method Reporting Limit
<	Less than the reported detection limit (RDL)
mg/L	Milligrams per Litre
NTU	Nephelometric Turbidity Units
pH units	pH units
PtCo units	Platinum Cobalt colour units
ug/L	Micrograms per Litre
uS/cm	Micro Siemens per centimeter
MAC	Maximum Acceptable Concentration. Values above MAC are formatted with red text and solid outline.
AO	Aesthetic Objective (not health related). Values above AO are formatted with a dashed outline.
OG	Operational guideline (for treated water)

Standards / Guidelines Referenced

- CDWG** Canadian Drinking Water Quality Guidelines (2019)
https://www.canada.ca/content/dam/hc-sc/migration/hc-sc/ewh-semt/alt_formats/pdf/pubs/water-eau/sum_guide-res_recom/sum_guide-res_recom-eng.pdf