

**ANALYTICAL REPORT**

City of Terrace  
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**Work Order:** N20F127

**RECEIVED:** 18-Jun-2020

Project: Frank Street Wells  
Project Number: -  
Project Manager: Robert Hoekstra

**REPORTED:** 10-Jul-2020

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.**

**Dean Browne For Jesse Newton**  
Laboratory Manager

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**City of Terrace - Frank Street Wells**

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LAB #	N20F127-01	N20F127-02	N20F127-03
SAMPLED DATE	17-Jun-20	17-Jun-20	17-Jun-20
SAMPLED TIME	11:35	10:50	10:55
SAMPLE ID	Well #1	Well #2	Well #3

**MRL Units                      CDWG**

### General Parameters (Water)

pH	1.0 pH units	7.0-10.5	<b>7.4</b>	<b>7.2</b>	<b>7.6</b>
Alkalinity (total, as CaCO <sub>3</sub> )	1 mg/L	-	<b>180</b>	<b>160</b>	<b>180</b>
Conductivity	1.0 uS/cm	-	<b>488</b>	<b>447</b>	<b>472</b>
Colour	1 PtCo units	AO <= 15	<b>2</b>	<b>1</b>	<b>2</b>
Turbidity	0.05 NTU	MAC = 1	<b>0.17</b>	<b>0.58</b>	<b>0.16</b>
Solids, Total Dissolved / TDS	1.0 mg/L	AO <= 500	<b>290</b>	<b>260</b>	<b>280</b>
Cyanide, Total	0.0020 mg/L	MAC = 0.2	<0.0020	<0.0020	<0.0020
Phosphorus (total)	0.05 mg/L	-	<0.1	<0.1	<0.1

### Calculated Parameters (Water)

Nitrate (as N)	0.10 mg/L	MAC = 10	<b>0.31</b>		
Nitrate (as N)	0.20 mg/L	MAC = 10			<b>0.30</b>
Nitrate (as N)	0.50 mg/L	MAC = 10		<b>0.70</b>	
Hardness, Total (as CaCO <sub>3</sub> )	0.500 mg/L	-	<b>199</b>	<b>180</b>	<b>192</b>

### Anions (Water)

Chloride	1.0 mg/L	AO <= 250	<b>38.2</b>	<b>38.2</b>	<b>35.4</b>
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	<0.01	<0.01
Nitrate + Nitrite (as N)	0.10 mg/L	MAC = 10	<b>0.31</b>	<b>0.70</b>	<b>0.30</b>
Sulfate	1.0 mg/L	AO <= 500	<b>14.4</b>	<b>12.8</b>	<b>16.5</b>

### BCMOE Aggregate Hydrocarbons (Water)

VHw (6-10)	100 ug/L	-	<100	<100	<100
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	<b>0.00051</b>	<b>0.00059</b>	<b>0.00061</b>
Barium, total	0.0050 mg/L	MAC = 1	<b>0.105</b>	<b>0.0835</b>	<b>0.108</b>
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	<b>0.000011</b>	<b>0.000053</b>	<b>0.000028</b>
Calcium, total	0.20 mg/L	-	<b>66.7</b>	<b>59.9</b>	<b>64.6</b>

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<b>Total Metals (continued)</b>					
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	<b>0.00142</b>	<b>0.0115</b>	<b>0.00817</b>
Iron, total	0.010 mg/L	AO <= 0.3	<0.010	<b>0.233</b>	<0.010
Lead, total	0.00020 mg/L	MAC = 0.005	<b>0.00229</b>	<b>0.0124</b>	<b>0.00037</b>
Lithium, total	0.00010 mg/L	-	<b>0.00195</b>	<b>0.00160</b>	<b>0.00195</b>
Magnesium, total	0.010 mg/L	-	<b>7.77</b>	<b>7.28</b>	<b>7.38</b>
Manganese, total	0.00020 mg/L	AO <= 0.02 MAC = 0.12	<0.00020	<0.00020	<b>0.00634</b>
Mercury, total	0.000010 mg/L	MAC = 0.001	<0.000010	<0.000010	<0.000010
Molybdenum, total	0.00010 mg/L	-	<b>0.00120</b>	<b>0.00119</b>	<b>0.00117</b>
Nickel, total	0.00040 mg/L	-	<0.00040	<b>0.00153</b>	<0.00040
Phosphorus, total	0.050 mg/L	-	<0.050	<0.050	<0.050
Potassium, total	0.10 mg/L	-	<b>2.11</b>	<b>1.83</b>	<b>1.97</b>
Selenium, total	0.00050 mg/L	MAC = 0.05	<0.00050	<0.00050	<0.00050
Silicon, total	1.0 mg/L	-	<b>6.0</b>	<b>6.2</b>	<b>5.7</b>
Silver, total	0.000050 mg/L	-	<0.000050	<0.000050	<0.000050
Sodium, total	0.10 mg/L	AO <= 200	<b>16.5</b>	<b>16.3</b>	<b>13.6</b>
Strontium, total	0.0010 mg/L	MAC = 7	<b>0.237</b>	<b>0.218</b>	<b>0.228</b>
Sulfur, total	3.0 mg/L	-	<b>5.0</b>	<b>4.0</b>	<b>5.6</b>
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	<b>0.00099</b>	<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	<b>0.000344</b>	<b>0.000289</b>	<b>0.000351</b>
Vanadium, total	0.0010 mg/L	-	<b>0.0019</b>	<b>0.0021</b>	<b>0.0018</b>
Zinc, total	0.0040 mg/L	AO <= 5	<b>0.0075</b>	<b>0.0745</b>	<b>0.0087</b>
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	<0.5	<0.5
Ethylbenzene	1.0 ug/L	AO = 1.6 MAC = 140	<1.0	<1.0	<1.0

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<b>Volatile Organic Compounds (VOC) (continued)</b>					
Methyl tert-butyl ether	1.0 ug/L	AO <= 15	<1.0	<1.0	<1.0
Styrene	1.0 ug/L	-	<1.0	<1.0	<1.0
Toluene	1.0 ug/L	AO = 24 MAC = 60	<1.0	<1.0	<1.0
Xylenes (total)	2.0 ug/L	AO = 20 MAC = 90	<2.0	<2.0	<2.0
Toluene-d8	70-130 [surr]	-	96%	97%	93%
4-Bromofluorobenzene	70-130 [surr]	-	61% [2]	63% [2]	61% [2]

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### Special Notes

2 = Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.

### 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
<b>MAC</b>	Maximum Acceptable Concentration. Values above MAC are formatted with <b>red</b> text and solid outline.
<b>AO</b>	Aesthetic Objective (not health related). Values above AO are formatted with a dashed outline.
<b>OG</b>	Operational guideline (for treated water)

### Standards / Guidelines Referenced

<b>CDWG</b>	Canadian Drinking Water Quality Guidelines (2019) <a href="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">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</a>
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