

## Water Treatment Plant June Report 2023 Water Quality Summary

### Acronyms

**MAC** = Maximum acceptable concentration established by Health Canada  
**AO** = Aesthetic objective (no health based limit) suggested by Health Canada  
**NTU** = Nephelometric Turbidity Unit  
**mg/L** = milligrams per litre or one part per million

### Health Related

Parameter	Units	Result	MAC
Turbidity	NTU	0.060	0.3
Chloramines	mg/L	1.97	n/a <sup>1</sup>
Nitrate-N	mg/L	0.04	10
Fluoride	mg/L	0.79	1.5
Trihalomethanes	mg/L	0.024	0.1
Aluminum	mg/L	0.3930	2.9
Chromium	mg/L	< 0.0005	0.05
Lead	mg/L	0.0003	0.005
Manganese	mg/L	< 0.005	0.12

### Non Health Related

Parameter	Units	Result	AO
pH		7.58	7.0 - 10.5
Hardness	mg/L	158	n/a <sup>2</sup>
TDS - total dissolved solids	mg/L	188	≤ 500
Sulfate	mg/L	32.7	≤ 500
Sodium	mg/L	10.2	≤ 200
Iron	mg/L	< 0.01	≤ 0.3
Manganese	mg/L	< 0.005	≤ 0.02

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<sup>1</sup> Guideline value not necessary due to low toxicity at concentrations found in drinking water. Chloramine residuals in most Canadian drinking water distribution systems are typically below 4 mg/L.

<sup>2</sup> Although hardness may have significant aesthetic effects, a guideline has not been established because public acceptance of hardness may vary considerably according to the local conditions; major contributor to hardness (calcium & magnesium) are not of direct public health concern

## Treated Water - Distribution System

### BACTERIOLOGICAL / SECONDARY DISINFECTION

	Jun 5/2023		Jun 12/2023		Jun 19/2023		Jun 26/2023	
	Sample Results		Sample Results		Sample Results		Sample Results	
	Cl <sub>2</sub>	BacT	Cl <sub>2</sub>	BacT	Cl <sub>2</sub>	BacT	Cl <sub>2</sub>	BacT
Sample 1 North Lethbridge	1.79	N			1.54	N	1.54	N
Sample 2 North Lethbridge			1.54	N	1.51	N		
Sample 3 North Lethbridge	1.83	N	1.56	N	1.57	N	1.66	N
Sample 4 North Lethbridge			1.59	N				
Sample 5 North Lethbridge	1.80	N						
Sample 6 North Lethbridge					1.55	N		
Sample 7 North Lethbridge	1.90	N	1.42	N	1.48	N	1.60	N
Sample 8 North Lethbridge							1.69	N
Sample 9 North Lethbridge							1.40	N
Sample 10 North Lethbridge	1.88	N			1.64	N		
Sample 11 North Lethbridge	1.94	N	1.64	N	1.72	N	1.72	N
Sample 12 North Lethbridge	1.71	N	1.37	N	1.59	N	1.35	N
Sample 13 North Lethbridge	1.55	N					1.48	N
Sample 14 North Lethbridge			1.54	N			1.50	N
Sample 15 North Lethbridge	1.79	N	1.27	N				
Sample 16 North Lethbridge	1.58	N	2.06	N	1.46	N		
Sample 17 North Lethbridge					1.46	N		
Sample 18 South Lethbridge							1.43	N
Sample 19 South Lethbridge	1.68	N	1.76	N	1.68	N		
Sample 20 South Lethbridge	1.79	N	1.77	N	1.22	N	1.64	N
Sample 21 South Lethbridge			1.76	N				
Sample 22 South Lethbridge								
Sample 23 South Lethbridge	1.98	N	2.17	N	2.01	N	2.19	N

	Jun 6/2023		Jun 13/2023		Jun 20/2023		Jun 27/2023	
	Sample Results		Sample Results		Sample Results		Sample Results	
	Cl <sub>2</sub>	BacT	Cl <sub>2</sub>	BacT	Cl <sub>2</sub>	BacT	Cl <sub>2</sub>	BacT
Sample 23 West Lethbridge			1.53	N	1.49	N		
Sample 24 West Lethbridge	1.63	N	1.54	N	1.44	N	1.56	N
Sample 25 West Lethbridge	1.68	N			1.64	N		
Sample 26 West Lethbridge			1.47	N	1.20	N		
Sample 27 West Lethbridge	1.64	N					1.71	N
Sample 28 West Lethbridge	1.59	N					1.51	N
Sample 29 West Lethbridge			1.45	N				
Sample 30 West Lethbridge	1.59	N	1.53	N	1.62	N	1.68	N
Sample 31 West Lethbridge			1.49	N	1.40	N		
Sample 32 West Lethbridge								
Sample 33 West Lethbridge	1.62	N	1.65	N	1.69	N	1.70	N
Sample 34 West Lethbridge	1.77	N			1.68	N		
Sample 35 West Lethbridge	1.65	N					1.63	N
Sample 36 South Lethbridge	1.68	N					1.78	N
Sample 37 South Lethbridge	1.44	N	1.34	N			1.43	N
Sample 38 South Lethbridge	1.51	N	1.45	N	1.47	N		
Sample 39 South Lethbridge					1.60	N	1.61	N
Sample 40 South Lethbridge	1.55	N	1.55	N	1.67	N	1.58	N
Sample 41 South Lethbridge			1.53	N				
Sample 42 South Lethbridge					1.60	N		
Sample 43 South Lethbridge							1.45	N
Sample 44 South Lethbridge	1.32	N	1.33	N			1.31	N
Sample 45 South Lethbridge							1.68	N

Total Negative (N) = 101  
 Total Positive (P) = 0  
 Total Re-Samples = 0

Chlorine Residual Minimum = 1.20 mg/L  
 Chlorine Residual Maximum = 2.19 mg/L  
 Chlorine Residual Average = 1.60 mg/L