

## Water Treatment Plant September 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	0.052	0.3
Chloramines	mg/L	1.90	n/a <sup>1</sup>
Nitrate-N	mg/L	0.02	10
Fluoride	mg/L	0.81	1.5
Trihalomethanes	mg/L	0.031	0.1
Aluminum	mg/L	0.1080	2.9
Chromium	mg/L	< 0.0005	0.05
Lead	mg/L	< 0.0001	0.005
Manganese	mg/L	< 0.005	0.12

### Non Health Related

Parameter	Units	Result	AO
pH		7.64	7.0 - 10.5
Hardness	mg/L	158	n/a <sup>2</sup>
TDS - total dissolved solids	mg/L	186	≤ 500
Sulfate	mg/L	36.1	≤ 500
Sodium	mg/L	10.4	≤ 200
Iron	mg/L	0.02	≤ 0.3
Manganese	mg/L	< 0.005	≤ 0.02

---

<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

	Sep 5/2023		Sep 11/2023		Sep 18/2023		Sep 25/2023	
	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	1.58	N	1.67	N				
Sample 2 North Lethbridge	1.57	N			1.62	N	1.43	N
Sample 3 North Lethbridge	1.68	N	1.76	N	1.76	N	1.49	N
Sample 4 North Lethbridge					1.78	N		
Sample 5 North Lethbridge			1.55	N			1.48	N
Sample 6 North Lethbridge	1.87	N	1.84	N	1.84	N		
Sample 7 North Lethbridge	1.86	N	1.69	N	1.82	N	1.66	N
Sample 8 North Lethbridge			1.69	N			1.64	N
Sample 9 North Lethbridge			1.20	N				
Sample 10 North Lethbridge			1.67	N	1.76	N	1.57	N
Sample 11 North Lethbridge	1.87	N	1.71	N	1.85	N	1.68	N
Sample 12 North Lethbridge	1.78	N			1.80	N	1.50	N
Sample 13 North Lethbridge	1.36	N	1.08	N	1.20	N	1.22	N
Sample 14 North Lethbridge								
Sample 15 North Lethbridge								
Sample 16 North Lethbridge	1.51	N	1.24	N				
Sample 17 North Lethbridge	1.60	N						
Sample 18 South Lethbridge							1.45	N
Sample 19 South Lethbridge					1.81	N	1.59	N
Sample 20 South Lethbridge	1.92	N	1.81	N	1.71	N	1.57	N
Sample 21 South Lethbridge	1.74	N						
Sample 22 South Lethbridge					0.59	N		
Sample 23 South Lethbridge	2.06	N	1.83	N	1.91	N	1.82	N

	Sep 5/2023		Sep 11/2023		Sep 19/2023		Sep 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 23 West Lethbridge	1.49	N			1.56	N		
Sample 24 West Lethbridge	1.53	N	1.59	N			1.43	N
Sample 25 West Lethbridge			1.74	N				
Sample 26 West Lethbridge	1.47	N						
Sample 27 West Lethbridge			1.69	N	1.67	N	1.46	N
Sample 28 West Lethbridge			1.58	N	1.65	N		
Sample 29 West Lethbridge	1.39	N						
Sample 30 West Lethbridge	1.74	N	1.76	N	1.80	N	1.50	N
Sample 31 West Lethbridge			1.57	N	1.57	N		
Sample 32 West Lethbridge					1.51	N		
Sample 33 West Lethbridge	1.93	N	1.83	N	1.76	N	1.63	N
Sample 34 West Lethbridge					1.75	N	1.62	N
Sample 35 West Lethbridge								
Sample 36 South Lethbridge					1.89	N	1.58	N
Sample 37 South Lethbridge	1.21	N	1.20	N				
Sample 38 South Lethbridge					1.54	N		
Sample 39 South Lethbridge	1.65	N	1.73	N	1.68	N		
Sample 40 South Lethbridge	1.65	N	1.73	N	1.72	N	1.55	N
Sample 41 South Lethbridge	1.56	N	1.65	N			1.48	N
Sample 42 South Lethbridge	1.88	N	1.73	N			1.59	N
Sample 43 South Lethbridge	1.49	N	1.38	N	1.49	N	1.27	N
Sample 44 South Lethbridge							0.83	N
Sample 45 South Lethbridge							1.54	N

Total Negative (N) = 102  
 Total Positive (P) = 0  
 Total Re-Samples = 0

Chlorine Residual Minimum = 0.59 mg/L  
 Chlorine Residual Maximum = 2.06 mg/L  
 Chlorine Residual Average = 1.61 mg/L