

Water Treatment Plant September Report 2024 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	0.062	0.3
Chloramines	mg/L	1.87	n/a ¹
Nitrate-N	mg/L	0.02	10
Fluoride	mg/L	0.80	1.5
Trihalomethanes	mg/L	0.025	0.1
Aluminum	mg/L	0.1510	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		7.57	7.0 - 10.5
Hardness	mg/L	158	n/a ²
TDS - total dissolved solids	mg/L	201	≤ 500
Sulfate	mg/L	46.7	≤ 500
Sodium	mg/L	12.6	≤ 200
Iron	mg/L	<0.01	≤ 0.3
Manganese	mg/L	< 0.005	≤ 0.02

¹ 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.

² 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 3/2024		Sep 9/2024		Sep 16/2024		Sep 23/2024	
	Sample Results		Sample Results		Sample Results		Sample Results	
	Cl ₂	Bac T	Cl ₂	Bac T	Cl ₂	Bac T	Cl ₂	Bac T
Sample 1 North Lethbridge	1.44	N			1.44	N	1.43	N
Sample 2 North Lethbridge	1.40	N			1.37	N		
Sample 3 North Lethbridge	1.48	N	1.52	N	1.54	N	1.67	N
Sample 4 North Lethbridge			1.56	N	1.62	N		
Sample 5 North Lethbridge			1.40	N			1.45	N
Sample 6 North Lethbridge								
Sample 7 North Lethbridge	1.56	N	1.56	N	1.65	N	1.75	N
Sample 8 North Lethbridge			1.56	N	1.65	N		
Sample 9 North Lethbridge	1.35	N	1.20	N	1.21	N		
Sample 10 North Lethbridge	1.50	N						
Sample 11 North Lethbridge	1.60	N	1.66	N	1.63	N	1.56	N
Sample 12 North Lethbridge					1.52	N		
Sample 13 North Lethbridge	1.37	N	1.30	N			0.88	N
Sample 14 North Lethbridge	1.15	N			1.23	N	1.24	N
Sample 15 North Lethbridge			1.31	N			1.69	N
Sample 16 North Lethbridge					1.62	N		
Sample 17 North Lethbridge							1.46	N
Sample 18 South Lethbridge			1.39	N			1.37	N
Sample 19 South Lethbridge	1.56	N						
Sample 20 South Lethbridge	1.40	N	1.54	N	1.57	N	1.67	N
Sample 21 South Lethbridge	1.48	N	1.49	N			1.53	N
Sample 22 South Lethbridge								
Sample 23 South Lethbridge	1.99	N	1.84	N	1.84	N	1.79	N

	Sep 3/2024		Sep 10/2024		Sep 16/2024		Sep 24/2024	
	Sample Results		Sample Results		Sample Results		Sample Results	
	Cl ₂	Bac T	Cl ₂	Bac T	Cl ₂	Bac T	Cl ₂	Bac T
Sample 23 West Lethbridge					1.43	N	1.33	N
Sample 24 West Lethbridge			1.31	N			1.46	N
Sample 25 West Lethbridge					1.55	N		
Sample 26 West Lethbridge	1.45	N	1.32	N	1.43	N		
Sample 27 West Lethbridge			1.38	N	1.55	N		
Sample 28 West Lethbridge			1.27	N			1.43	N
Sample 29 West Lethbridge	1.40	N						
Sample 30 West Lethbridge	1.65	N	1.43	N	1.52	N	1.55	N
Sample 31 West Lethbridge			1.21	N	1.57	N	1.52	N
Sample 32 West Lethbridge							1.24	N
Sample 33 West Lethbridge	1.65	N	1.59	N	1.67	N	1.68	N
Sample 34 West Lethbridge	1.67	N	1.43	N	1.61	N		
Sample 35 West Lethbridge							1.60	N
Sample 36 South Lethbridge							1.59	N
Sample 37 South Lethbridge	1.02	N					1.43	N
Sample 38 South Lethbridge	1.38	N	1.24	N	1.40	N	1.43	N
Sample 39 South Lethbridge	1.45	N						
Sample 40 South Lethbridge	1.46	N	1.47	N	1.65	N	1.58	N
Sample 41 South Lethbridge	1.32	N						
Sample 42 South Lethbridge	1.52	N	1.42	N	1.61	N		
Sample 43 South Lethbridge	1.30	N	1.20	N	1.31	N		
Sample 44 South Lethbridge	1.27	N						
Sample 45 South Lethbridge					1.58	N	1.59	N

Total Negative (N) = 103
Total Positive (P) = 0
Total Re-Samples = 0

Chlorine Residual Minimum = 0.88 mg/L
 Chlorine Residual Maximum = 1.99 mg/L
 Chlorine Residual Average = 1.48 mg/L