

City of Red Deer Water Quality – July 2019

In House Testing: Treated Discharge

| Parameter | Units | Monthly Ave |
|----------------|-------|-------------|
| PH | mg/L | 7.96 |
| Turbidity | NTU | 0.06 |
| Total Chlorine | mg/L | 2.06 |
| Alkalinity | mg/L | 130 |

Bacteriological Testing: Various sites within the Distribution System

| Total Samples Analyzed | # Pos. for Total Coliforms | # Pos. for E. coli | # Neg. | Ave. Turbidity (NTU) | Ave Total Chlorine (mg/L) |
|------------------------|----------------------------|--------------------|--------|----------------------|---------------------------|
| 112 | 0 | 0 | 112 | 0.41 | 1.70 |
| % | 0 | 0 | 100 | | |

Sub Contracted Testing: Treated Discharge

| Parameter | Units | Value | GCDWQ MAC |
|--|-------|--------|---------------|
| Fluoride | mg/L | 0.06 | 1.5 |
| Chloride | mg/L | 10 | A/O ≤ 250 |
| Nitrate | mg/L | <0.5 | 45 |
| Nitrite | mg/L | <0.05 | 3 |
| Total Ammonia (as N) | mg/L | <0.05 | NR |
| Sulfate | mg/L | 75 | A/O ≤ 500 |
| Sulfide | mg/L | <0.02 | A/O ≤ 0.05 |
| Total Cyanide | mg/L | 0.003 | 0.2 |
| Total Dissolved Solids | mg/L | 225 | A/O ≤ 500 |
| Total Hardness (mg CaCO ₃ /L) | mg/L | 169 | NR |
| Total Trihalomethanes | mg/L | 0.032 | 0.1 |
| Total Aluminum | mg/L | 0.027 | OG <0.1 |
| Total Arsenic | mg/L | <0.001 | 0.010 (ALARA) |
| Total Barium | mg/L | 0.1 | 1 |
| Total Boron | mg/L | 0.02 | 5 |

| Parameter | Units | Value | GCDWQ MAC |
|------------------|-------|-----------|----------------|
| Total Cadmium | mg/L | <0.00005 | 0.005 |
| Total Calcium | mg/L | 46.3 | NR |
| Total Chromium | mg/L | <0.0005 | 0.05 |
| Total Copper | mg/L | 0.001 | A/O ≤ 1.0 |
| Total Iron | mg/L | <0.1 | A/O ≤ 0.3 |
| Total Lead | mg/L | <0.0001 | 0.005(ALARA) |
| Total Manganese | mg/L | <0.005 | 0.12 AO ≤ 0.02 |
| Total Magnesium | mg/L | - | NR |
| Total Mercury | mg/L | <0.000025 | 0.001 |
| Total Phosphorus | mg/L | <0.08 | NR |
| Total Potassium | mg/L | 1.4 | NR |
| Total Selenium | mg/L | 0.0009 | 0.05 |
| Total Sodium | mg/L | 21.4 | A/O ≤ 200 |
| Total Uranium | mg/L | <0.001 | 0.02 |
| Total Zinc | mg/L | 0.002 | A/O ≤ 5.0 |

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GCDWQ – Guidelines for Canadian Drinking Water Quality

MAC – Maximum Acceptable Concentration

AO – Aesthetic Objective

OG – Operational Guidance

ALARA – As Low As Reasonably Achievable

NR – No Requirement as per GCDWQ