

F I N A L R E P O R T

HARTLEY BAY BAND COUNCIL

Assessment Studies Water and Wastewater Systems and Associated Water Management Practices at Selected First Nation Communities

Table 4-1
Summary of Water Quality

11-Oct-01

Sample ID	Raw Water	PLC (1)	Plate Settler		Sand Filter	Treated Water		GCDWQ (2)
Sample Location		Effluent	Influent	Effluent	Effluent	Plant Outlet	Distribution	
Physical Tests								
Colour (CU)	16	16	< 5	< 5	< 5	< 5	< 5	15
Conductivity (μ ohms/cm)	44	-	-	-	-	115	113	-
Total Dissolved Solids (mg/L)	19	-	-	-	-	54	56	500
Hardness as CaCO ₃	5.6	-	-	-	-	38.3	37.1	-
pH	7.04	7.76	7.63	7.59	-	8.01	8.01	6.5 - 8.5
Total Suspended Solids	< 3	< 3	11	< 3	< 3	-	-	-
Turbidity (NTU)	1.2	1.3	2.7	0.9	0.8	0.8	0.7	1
Bacteriological Tests								
Coliform Bacteria - Fecal	< 1	-	-	-	< 1	< 1	< 1	0
Coliform Bacteria - Total	25	-	-	-	< 1	< 1	< 1	0
Hetrophic Plate Count (CFU/mL)	130	-	-	-	60	120	-	500
Dissolved Anions (mg/L)								
Alkalinity - Total as CaCO ₃	7	25	14	15	15	30	29	-
Chloride Cl	3.2	-	-	-	-	3.2	3.4	250
Fluoride F	0.04	-	-	-	-	0.02	0.02	1.5
Sulphate SO ₄	5	-	-	-	-	15	15	500
Nutrients (mg/L)								
Nitrate Nitrogen N	< 0.1	-	-	-	-	< 0.1	< 0.1	10.0
Nitrite Nitrogen N	< 0.1	-	-	-	-	< 0.1	< 0.1	1.0
Organic Parameters								
Dissolved Organic Carbon C	2.5	2.9	-	1.0	0.9	-	-	-
Total Organic Carbon C	3.4	3.1	2.8	2.1	1.4	1.4	1.5	-
UV Absorbance (Abs/cm)	0.104	0.098	0.010	0.009	0.007	0.013	0.007	-
Total Metals (mg/L)								
Aluminum Al	0.100	0.089	1.33	0.45	0.038	0.030	0.032	-
Arsenic As	< 0.0001	0.0001	-	-	-	0.0001	0.0001	0.025
Barium Ba	0.002	0.002	-	-	-	0.009	0.009	1.0
Boron B	< 0.05	< 0.05	-	-	-	< 0.05	< 0.05	5.0
Cadmium Cd	< 0.0002	< 0.0002	-	-	-	< 0.0002	< 0.0002	0.005
Calcium Ca	1.81	9.08	-	-	-	14.8	14.3	-
Chromium Cr	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	0.05
Copper Cu	0.039	< 0.001	-	-	-	0.011	0.006	1.0
Iron Fe	0.36	0.08	0.05	< 0.03	0.03	< 0.03	< 0.03	0.3
Lead Pb	0.002	< 0.001	-	-	-	< 0.001	< 0.001	0.01
Magnesium Mg	0.26	0.30	-	-	-	0.36	0.36	-
Manganese Mn	0.010	0.002	-	-	-	< 0.001	0.001	0.05
Mercury Hg	< 0.00005	< 0.00005	-	-	-	< 0.00005	< 0.00005	0.001
Potassium K	0.27	0.25	-	-	-	0.35	0.34	-
Selenium Se	< 0.001	< 0.001	-	-	-	< 0.001	< 0.001	0.01
Sodium Na	3.94	4.38	-	-	-	4.36	4.40	200
Uranium U	0.00012	0.00012	-	-	-	0.00002	0.00003	0.10
Zinc Zn	0.014	< 0.005	-	-	-	< 0.005	< 0.005	5.0
Dissolved Metals (mg/L)								
Aluminum Al	0.058	0.083	0.025	0.035	0.008	0.011	0.012	-
Iron Fe	0.06	0.04	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.3
Uranium U	-	-	-	-	-	-	-	0.10

Notes: 1) PLC (Primary Limestone Contactor)
2) GCDWQ - Guidelines for Canadian Drinking Water Quality, 1996

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Is(are) under consultation