REGIONAL DISTRICT OF NANAIMO

Melrose Well # 1 - Raw Well Water Analysis
3853 Melrose Road

CDWG=Canadian Drinking Water Guidelines
OG= Operational Guidance Value
MAC=Maximum Acceptable Concentration
AO=Aesthetic Objective

Red font indicates non-compliance with Canadian Drinking Water Guidelines

	Units	CDWG		Oct. 19 2005	Oct. 24 2006	Oct. 22 2007	Oct. 14 2008	Oct. 14 2009	Oct. 27 2010	Oct. 19 2011	Oct. 16 2012	Oct. 17 2013	Nov. 4 2014	Oct. 26 2015	Oct. 12 2016
Miscellaneous Inorganics															
Fluoride	mg/L	1.5	MAC	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.1	0.06	0.06	0.06	0.042	0.03
Alkalinity (total as CaCO)	mg/L			81	76	82	69	66	75	86	82	80	72	71.6	79.2
Anions															
Dissolved Sulphate	mg/L	500	AO	<2	<2.0	<2.0	2.6	<2.0	2.1	1.4	2	1.9	1.7	1.83	1.2
Dissolved Chloride	mg/L	250	AO	40.6	51.3	48.1	63	59	55.2	51.5	66	74	70.6	76	75
Nitrite	mg/L	1	MAC	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.05	<0.05	<0.05	<0.0050	<0.050
Miscellaneous															
Apparent Colour	Colour Unit			200	<5	200	500	>150	>150	310	240	26	520	80	400
Nutrients															
Total Ammonia	mg/L										0.17	0.17	0.2	0.23	0.33
Physical Properties															
Conductivity	µS/cm			313	335	333	340	342	349	351	416	425	406	408	401
pH	pH	7.0:10.5	OG	7.3	7.1	6.85	7.1	7	6.8	6.8	7	7	7	7.77	7.71
TDS	mg/L	500	AO	272	220	246	308	272	230	204	298	250	214	264	290
Turbidity	NTU			25.3	38	1.7	24.6	55	34.7	46	40.2	9.4	15	16.6	20.1
Microbiological Parameters															
E.coli	MPN/100mL	<1	MAC		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Coliforms	MPN/100mL	<1	MAC	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Calculated Parameters															
Total Hardness (CaCO)	mg/L			120	120	130	140	140	130	140	150	150	140	143	136
Nitrate	mg/L	10	MAC	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.01	<0.05	<0.05	0.05	<0.020	<0.20
Elements															
Total Mercury	mg/L	0.001	MAC	<0.0001	<0.0001	<0.0001	<0.01	<0.01	<0.00001	<0.00001	<0.0001	<0.00001	<0.00001	<0.00001	<0.00001
Total Metals															
Total Aluminum	mg/L	0.1	OG	0.006	<0.01	0.006	<0.005	<0.005	<0.005	<0.005	0.003	<0.005	<0.005	<0.003	<0.003
Total Antimony	mg/L	0.006	MAC	<0.0002	<0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0001	<0.0002	<0.0001	<0.0005	<0.0005
Total Arsenic	mg/L	0.01	MAC	0.0004	<0.0004	0.0004	0.0003	0.0004	0.0003	0.0004	0.00031	0.0004	0.00034	0.00022	0.00032
Total Barium	mg/L	1	MAC	0.022	0.022	0.026	0.02	0.023	0.024	0.026	0.0283	0.029	0.0302	0.0297	0.0302
Total Beryllium	mg/L									<0.00004	<0.00005	<0.00004	<0.00005	<0.0001	<0.0001
Total Bismuth	mg/L									<0.001	<0.0001	<0.0010	<0.0001	<0.001	<0.001
Total Boron	mg/L	5	MAC	0.007	0.007	0.006	0.005	0.007	<0.005	0.008	0.007	<0.005	0.005	<0.05	<0.050
Total Cadmium	mg/L	0.005	MAC	<0.00001	<0.00002	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Total Chromium	mg/L	0.05	MAC	0.0008	<0.001	0.0011	0.0005	0.0005	0.0005	0.0006	<0.0005	0.0004	0.0006	<0.001	<0.001
Total Cobalt	mg/L									0.00008	<0.0001	0.00005	<0.0001	<0.0005	<0.0005
Total Copper	mg/L	1	AO	0.011	<0.002	<0.001	0.002	0.013	0.003	0.003	0.0025	0.002	0.0018	0.00158	0.00111
Total Iron	mg/L	0.3	AO	8.8	8.6	9.4	8.63	9.36	9.08	8.88	8.9	9.81	9.54	9.43	9.81
Total Lead	mg/L	0.01	MAC	0.0056	0.0006	<0.0001	0.0004	0.0023	0.0001	0.0006	0.0002	0.0009	0.0003	0.00024	<0.0002
Total Manganese	mg/L	0.05	AO	0.224	0.232	0.26	0.211	0.219	0.264	0.27	0.264	0.27	0.265	0.247	0.259
Total Molybdenum	mg/L									<0.0001	0.00006	0.0012	<0.00005	<0.001	<0.001
Total Nickel	mg/L							<0.001	<0.001	<0.001	<0.0002	<0.001	<0.0002	<0.001	<0.001
Total Selenium	mg/L	0.05	MAC	<0.0002	<0.0004	0.0003	<0.0006	<0.0006	<0.0006	0.0051	<0.0001	<0.0006	<0.0001	<0.0001	<0.0001
Total Silicon	mg/L									13.7	15.7	13.9	15	16.5	13.6
Total Silver	mg/L							<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00005	<0.00002	<0.00002
Total Strontium	mg/L									0.07	0.071	0.076	0.0737	0.0648	0.0755
Total Thallium	mg/L									<0.00001	<0.00001	<0.00001	<0.00001	<0.00005	<0.00005
Total Tin	mg/L									<0.0001	0.0004	0.0002	0.0007	<0.005	<0.005
Total Titanium	mg/L									0.006	0.0006	0.0013	0.0006	<0.005	<0.005
Total Uranium	mg/L	0.02	MAC	<0.0005	<0.001	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.00001	<0.0004	<0.00001	<0.0001	<0.0001
Total Vanadium	mg/L									0.0023	0.0014	0.0013	0.0015	<0.005	<0.005
Total Zinc	mg/L	5	AO	0.017	0.022	0.007	0.043	0.038	0.03	0.018	0.0172	0.312	0.187	0.0647	0.0158
Total Zirconium	mg/L													<0.0005	<0.0005
Total Calcium	mg/L			32.3	30.5	34.1	33	33.9	33.4	36.5	38.3	36.5	36.9	36.6	33.9
Total Magnesium	mg/L			10.4	11	11.4	12.9	13.1	11.8	11.5	13.8	14.4	12.8	12.5	12.5
Total Potassium	mg/L			<0.4	<0.08	<0.4	0.2	0.4	0.4	0.8	0.4	0.53	0.4	0.465	0.454
Total Sodium	mg/L	200	AO	7.6	8.3	9.2	8.69	11.5	21.8	12.8	15.1	18	17.1	18.5	17.3
Total Sulphur	mg/L													<3.0	<3.0