

Madrona Well Water Analysis Results

Madrona Well # 4: Northwest Bay Logging Road

Canadian Drinking Water Guidelines Package

MAC=Maximum Acceptable Concentration IMAC= Interim Maximum Acceptable Concentration AO= Asthetic Objective
 CDWG=Canadian Drinking Water Guidelines BCAWQG=British Columbia Approved Water Quality Guidelines

Red font indicates non-compliance with Canadian Drinking Water Guidelines

* raw well water



Parameter	Water Quality Guidelines			16-Oct	22-Oct	24-Nov	19-Oct	24-Oct	23-Oct	23-Oct	21-Oct	
	Units	CDWG	BCAWQG	2002	2003	2004	2005	2006	2007	2008	2009	2010
Color	CU	15	</=15 AO	8	13	6	5	<5	8	7	12	
Conductivity	µS		700 MAC	275	363	357	340	311	339	338	336	
Total Dissolved Solids	mg/L	500	</=500 AO	127	207	220	280	200	207	228	190	
Hardness (CaCO3)	mg/L	80-100	</=500 AO	37.2	30	28	25	27	30	33	31	
pH	pH units	6.5-8.5	6.5-8.5 AO	8.50	8.48	8.7	8.50	8.4	8.34	8.64	8.6	
Turbidity	NTU's	5	1 MAC	0.10	0.41	<0.5	<0.5	0.6	<0.5	<0.5	0.8	
Alkalinity	mg/L			126	160	140	140	130	130	130	130	
Chloride	mg/L	250	</=250 AO	15.35	22.6	23.9	20.5	17.1	19.1	21.3	20.1	
Fluoride	mg/L	1.5	1.5 MAC	0.13	<0.6	<1.0	<1.0	<1.0	<1.0	1.3	<1.0	
Sulfate	mg/L	500	</=500 AO	1.90	1.70	<2	4.80	3.6	4.5	5	5.1	
Nitrate (N)	mg/L	10	10 MAC	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Nitrite (N)	mg/L	1		<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
T-Aluminium	mg/L		0.2 MAC	0.024	<0.005	0.017	<0.005	0.027	0.007	<0.005	<0.005	
T-Antimony	mg/L		0.006 MAC	<0.0002	<0.0002	<0.0002	<0.0002	<0.0004	<0.0002	<0.0002	<0.0002	
T-Arsenic	mg/L	0.025	0.025 IMAC	0.0103	0.0106	0.0113	0.0099	0.0089	0.0088	0.0089	0.0084	
T-Barium	mg/L	1.0	1 MAC	0.010	0.011	0.011	0.010	0.009	0.01	0.009	0.01	
T-Boron	mg/L	5.0	5 MAC	0.119	0.185	0.212	0.192	0.16	0.18	0.171	0.162	
T-Cadmium	mg/L	0.005		<0.00001	<0.00001	<0.00001	<0.00001	<0.00002	<0.00001	<0.00001	<0.00001	
T-Calcium	mg/L			10.3	8.1	<0.2	6.6	7.5	7.9	8.61	8.07	
T-Chromium	mg/L	0.05	0.05 MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0004	<0.0004	
T-Copper	mg/L	1.0	</=1 MAC	0.002	0.002	0.004	<0.001	<0.002	<0.001	<0.001	0.002	
T-Iron	mg/L	0.3	</=0.3 AO	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	<0.02	<0.010	
T-Lead	mg/L	0.01	0.01 MAC	0.0002	0.0004	0.0016	0.0002	<0.0002	<0.0001	0.0002	0.0001	
T-Lithium	mg/l										<0.001	
T-Magnesium	mg/L		</=700 AO	2.8	2.3	2.4	2	2.1	2.4	2.77	2.53	
T-Manganese	mg/L	0.05	</=0.05 AO	0.030	0.015	0.018	0.012	0.02	0.013	0.0138	0.0139	
T-Mercury	mg/L	0.001	0.001 MAC	<0.0002	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.01	<0.01	
T-Nickel	mg/l										<0.001	
T-Phosphorus	mg/l										0.31	
T-Potassium	mg/L			1.5	1.4	1.6	1.4	1.5	1.6	1.6	1.7	
T-Selenium	mg/L	0.01	0.01 MAC	<0.0002	<0.0002	0.0009	<0.0002	<0.0004	0.0002	<0.0006	<0.0006	
T-Silver											<0.00001	
T-Sodium	mg/L	200	</=200 AO	48.8	63.1	70.9	68.5	57.1	62.4	63	63.4	
T-Uranium	mg/L	0.1	0.1 MAC	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0004	<0.0004	
T-Zinc	mg/L	5	<5 AO	0.014	0.003	0.034	0.014	0.028	0.006	0.01	0.005	
Total Coliforms	cfu/100ml	<1	<1 cfu/100ml			<1	<1	<1	<1	<1	<1	
Fecal Coliforms	cfu/100ml	<1	<1 cfu/100ml			<1	<1	<1	<1	<1	<1	
E.coli	cfu/100ml	<1	<1 cfu/100ml					<1	<1	<1	<1	

Wall Brook Well Water Analysis Results
Wall Brook Well # 1: 1610 Northwest Bay Road
 Canadian Drinking Water Guidelines Package

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Parameter	Water Quality Guidelines			23-Oct	21-Oct	19-Oct	2011	2012	2013	2014	2015	2016
	Units	CDWG	BCAWQG	2008	2009	2010						
Total Ammonia (N)	mg/L					0.12						
Color	CU	15	<=15	AO	<5	10	20					
Conductivity	µS		700	MAC	331	327	321					
Total Dissolved Solids	mg/L	500	<=500	AO	208	208	180					
Hardness (CaCO3)	mg/L	80-100	<=500	AO	140	130	130					
pH	pH units	6.5-8.5	6.5-8.5	AO	8.22	8.10	8.0					
Turbidity	NTU's	5	1	MAC	<0.5	0.80	0.90					
Alkalinity	mg/L				160	160	130					
Chloride	mg/L	250	<=250	AO	7.9	5.7	9.2					
Fluoride	mg/L	1.5	1.5	MAC	1.6	<1.0	<1.0					
Sulfate	mg/L	500	<=500	AO	6.60	6.10	8.80					
Nitrate (N)	mg/L	10	10	MAC	<.01	<.01	<.01					
Nitrite (N)	mg/L	1			<.01	<.01	<.01					
T-Aluminum	mg/L		0.2	MAC	<0.005	0.037	<0.005					
T-Antimony	mg/L		0.006	MAC	<0.0002	<0.0002	<0.0002					
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0029	0.0033	0.0031					
T-Barium	mg/L	1.0	1	MAC	0.014	0.015	0.014					
T-Boron	mg/L	5.0	5	MAC	0.051	0.05	0.048					
T-Cadmium	mg/L	0.005			<0.00001	<0.00001	0.00001					
T-Calcium	mg/L				35	31.9	32.5					
T-Chromium	mg/L	0.05	0.05	MAC	<0.0004	<0.0004	0.001					
T-Copper	mg/L	1.0	<=1	MAC	0.003	0.005	0.011					
T-Iron	mg/L	0.3	<=0.3	AO	<0.02	0.036	<0.01					
T-Lead	mg/L	0.01	0.01	MAC	0.0006	0.001	0.0011					
T-Lithium	mg/L					<0.001	<0.001					
T-Magnesium	mg/L		<=700	AO	12.6	11.8	11.1					
T-Manganese	mg/L	0.05	<=0.05	AO	0.107	0.113	0.104					
T-Mercury	mg/L	0.001	0.001	MAC	<0.01	<0.01	<0.00001					
T-Nickel	mg/L					<0.00001	<0.001					
T-Phosphorus	mg/L					0.157	0.138					
T-Potassium	mg/L				1.4	1.4	1.1					
T-Selenium	mg/L	0.01	0.01	MAC	<0.0006	<0.0006	<0.0006					
T-Silver	mg/L					<0.00001	<0.00001					
T-Sodium	mg/L	200	<=200	AO	20.5	18.2	20.6					
T-Uranium	mg/L	0.1	0.1	MAC	<0.0004	<0.0004	<0.0004					
T-Zinc	mg/L	5	<5	AO	0.016	0.034	0.019					
Total Coliforms	cfu/100ml	<1	<1	cfu/100ml	<1	<1	<1.0					
Fecal Coliforms	cfu/100ml	<1	<1	cfu/100ml	<1	<1	<1.0					
E.coli	cfu/100ml	<1	<1	cfu/100ml	<1	<1	<1.0					

Madrona Well Water Analysis Results

Madrona Well # 8: Stonelake Drive

Canadian Drinking Water Guidelines Package

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Parameter	Water Quality Guidelines			23-Oct	21-Oct	19-Oct	2011	2012	2013	2014	2015	2016
	Units	CDWG	BCAWQG	2008	2009	2010						
Total Ammonia (N)	mg/L					<0.01						
Color	CU	15	<=15	AO	<5	71	<5					
Conductivity	µS		700	MAC	325	336	351					
Total Dissolved Solids	mg/L	500	<=500	AO	222	204	192					
Hardness (CaCO3)	mg/L	80-100	<=500	AO	160	160	180					
pH	pH units	6.5-8.5	6.5-8.5	AO	8.17	7.90	7.8					
Turbidity	NTU's	5	1	MAC	<0.5	0.70	<0.5					
Alkalinity	mg/L				140	150	140					
Chloride	mg/L	250	<=250	AO	10.3	8	8.6					
Fluoride	mg/L	1.5	1.5	MAC	1.7	<1.0	<1.0					
Sulfate	mg/L	500	<=500	AO	10.80	9.50	10.00					
Nitrate (N)	mg/L	10	10	MAC	1.4	1.3	<0.1					
Nitrite (N)	mg/L	1			<0.1	<0.1	<0.1					
T-Aluminum	mg/L		0.2	MAC	<0.005	<0.005	<0.005					
T-Antimony	mg/L		0.006	MAC	<0.0002	<0.0002	<0.0002					
T-Arsenic	mg/L	0.025	0.025	IMAC	0.0016	0.0016	0.0014					
T-Barium	mg/L	1.0	1	MAC	0.007	0.008	0.008					
T-Boron	mg/L	5.0	5	MAC	0.016	0.014	0.015					
T-Cadmium	mg/L	0.005			<0.00001	<0.00001	<0.00001					
T-Calcium	mg/L				44.3	42.4	48.4					
T-Chromium	mg/L	0.05	0.05	MAC	0.0007	0.0008	0.0014					
T-Copper	mg/L	1.0	<=1	MAC	0.006	0.192	0.005					
T-Iron	mg/L	0.3	<=0.3	AO	<0.02	1.28	<0.01					
T-Lead	mg/L	0.01	0.01	MAC	0.0004	0.0235	0.0005					
T-Lithium	mg/L					0.001	0.001					
T-Magnesium	mg/L		<=700	AO	12.7	12.2	13.2					
T-Manganese	mg/L	0.05	<=0.05	AO	0.000	0.003	<0.005					
T-Mercury	mg/L	0.001	0.001	MAC	<0.01	<0.01	<0.00001					
T-Nickel	mg/L					0.001	<0.001					
T-Phosphorus	mg/L						0.017					
T-Potassium	mg/L				0.7	0.7	0.4					
T-Selenium	mg/L	0.01	0.01	MAC	<0.0006	<0.0006	<0.0006					
T-Silver	mg/L					0.00001	<0.00001					
T-Sodium	mg/L	200	<=200	AO	7.8	7.03	7.12					
T-Uranium	mg/L	0.1	0.1	MAC	<0.0004	<0.0004	<0.0004					
T-Zinc	mg/L	5	<5	AO	0.008	0.077	0.006					
Total Coliforms	cfu/100ml	<1	<1	cfu/100ml	<1	<1	<1.0					
Fecal Coliforms	cfu/100ml	<1	<1	cfu/100ml	<1	<1						
E.coli	cfu/100ml	<1	<1	cfu/100ml	<1	<1	<1.0					