Table 1: Surface Water Sampling Program

Sample ID	Surface Water Location	Sampling Events											
		28-Jun-12	31-Jul-12	6-Sep-12	25-Oct-12	27-Jun-13	8-Aug-13	12-Sep-13	31-Oct-13	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14
DS-OBD:	Small Lake South of Proposed Overburden Dump									x	x	x	x
WLS	White Lake Stream									x	x	x	x
RW-WL	Receiving Water White Lake									x	x	x	x
RW-PHL	Receiving Water Pumphouse Lake									x	x	x	x
RW-TL	Receiving Water Trout Lake									x	x	x	x
RW-DL	Receiving Water Drum Lake									x	x	x	x
DL-LL	Stream between Drum Lake and Leg Lake									x	x	x	x
RW-LL	Receiving Water Leg Lake									x	x	x	x
DB-Inflow	Stream Inflow to Dumbell Lake									x	x	x	x
DB-Outflow	Stream Outflow to Dumbell Lake	x	x	x	x	x	x	x	x	x	x	x	x
NPB	North Pond Beverly	x	x	x	x	x	x	x	x				

Table 2: GENERAL CHEMISTRY IN WATER

Parameter	Units	RDL	GCDWQ	DS-OBD						WLS			
Sample Date (D/M/Y)				18-Jun-14	21-Jul-14	27-Aug-14	27-Aug-14 (LD)	30-Sep-14	30-Sep-14 (LD)	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14
Calculated Parameters													
Anion Sum	me/L	N/A	NG	0.98	1.01	1.07	-	1.24	-	0.260	0.220	0.250	0.250
Bicarbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	47	50	51	-	61	-	13	11	13	13
Calculated TDS	mg/L	1.0	500 [A]	51	53	56	-	63	-	14	13	14	14
Carbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	<1.0	<1.0	<1.0	-	<1.0	-	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	N/A	NG	0.940	1.03	1.05	-	1.19	-	0.24	0.240	0.240	0.240
Hardness (as $CaCO_3$)	mg/L	1.0	500[B]	45	48	50	-	57	-	11	11	11	11
Ion Balance (% Difference)	%	N/A	NG	2.08	0.980	0.940	-	2.06	-	4.00	4.35	2.04	2.04
Langelier Index (20°C)	N/A	-	NG	-1.05	-0.613	-0.532	-	-0.486	-	-2.70	-2.55	-2.36	-2.45
Langelier Index (4°C)	N/A	-	NG	-1.30	-0.865	-0.784	-	-0.737	-	-2.96	-2.80	-2.61	-2.70
Nitrate (N)	mg/L	0.050	10	0.11	0.061	0.055	-	0.083	-	<0.050	<0.050	<0.050	<0.050
Saturation pH (20°C)	N/A	-	NG	8.57	8.51	8.49	-	8.37	-	9.75	9.83	9.76	9.76
Saturation pH (4°C)	N/A	-	NG	8.82	8.77	8.74	-	8.62	-	10.0	10.1	10.0	10.0
Inorganics													
Total Alkalinity (Total as $CaCO_3$)	mg/L	5.0	NG	47	50	52	-	62	62	13	11	13	13
Dissolved Chloride (Cl)	mg/L	1.0	250 [A]	1.2	<1.0	1.00	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Colour	TCU	5.0	15 [A]	14	8.6	6.9	-	<5.0	<5.0	5.0	<5.0	<5.0	<5.0
Nitrate+Nitrite	mg/L	0.050	NG	0.11	0.061	0.055	-	0.083	0.079	<0.050	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	0.010	1	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.050	NG	<0.050	0.077	0.059	-	0.080	-	<0.050	<0.050	0.054	0.056
Total Organic Carbon (C)	mg/L	0.50	NG	2.0	2.4	1.6	-	1.4	-	0.75	0.55	0.60	0.66
Orthophosphate (P)	mg/L	0.010	NG	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH	units	N/A	6.5 - 8.5 [A]	7.52	7.90	7.95	-	7.88	7.91	7.05	7.28	7.40	7.32
Reactive Silica (SiO_2)	mg/L	0.50	NG	4.4	4.1	4.5	-	4.9	4.9	2.3	2.0	2.2	2.0
Dissolved Sulfate (SO_4)	mg/L	2.0	500 [A]	<2.0	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Turbidity	NTU	0.10	1.0[C]	**1.4**	0.53	<0.10	<0.10	0.47	0.49	0.30	0.31	<0.10	0.22
Conductivity	µS/cm	1.0	NG	89	97	99	-	110	110	23	23	24	23
Dissolved Organic Carbon (C)	mg/L	0.5	-	2.2	1.4	1.4	-	1.2	-	0.84	0.51	0.54	0.79
pH (15 C)	pH	N/A	6..5 - 8.5[A]	7.75	7.82	7.68	-	7.74	-	7.24	7.24	7.24	7.45
Total Suspended Solids	mg/L	1.0	-	1.8	2.6	<1.0	-	<1.0	-	<1.0	<1.0	<1.0	<1.0
Sulphide	mg/L	0.020	0.05	<0.020	<0.020	<0.020	-	<0.020	-	<0.020	<0.020	<0.020	<0.020
Un-ionized Ammonia_N (@ 15C)	mg/L	0.00050	-	<0.00076	0.0014	0.00077	-	0.0012	-	<0.0005	<0.0005	<0.0005	<0.0005

Notes:

LD: Laboratory Duplicate

me/L: milliequivalent per litre

mg/L: miligram per litre

TCU: True Colour Units

NTU: Nephelometric Turbidity Unit

µS/cm: microsiemens per centimetre

N/A: Not Applicable

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds the GCDWQ

[A] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

[B] Public acceptance of hardness varies considerably. Hardness levels in excess of 500 mg/L are normally considered unacceptable. Hardness levels between 80 and 100 mg/L (as CaCO3) provide acceptable balance between corrosion and incrustation.

[C] Turbidity levels should be less than 0.1 NTU; however, chemically assisted filtration </= 0.3 NTU; slow sand or diatomaceous filtration </= 1.0 NTU and membrane filtration </= 0.1 NTU.

Table 2: GENERAL CHEMISTRY IN WATER (CONTINUED)

Parameter	Units	RDL	GCDWQ	RW-WL					RW-PHL					
Sample Date (D/M/Y)				18-Jun-14	21-Jul-14	21-Jul-14 (LD)	27-Aug-14	30-Sep-14	18-Jun-14	18-Jun-14 (LD)	21-Jul-14	21-Jul-14 (LD)	27-Aug-14	30-Sep-14
Calculated Parameters														
Anion Sum	me/L	N/A	NG	0.220	0.220	-	0.240	0.260	0.590	-	0.600	-	0.670	0.700
Bicarbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	11	11	-	12	13	28	-	29	-	33	35
Calculated TDS	mg/L	1.0	500 [A]	13	13	-	14	14	31	-	31	-	34	34
Carbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	<1.0	<1.0	-	<1.0	<1.0	<1.0	-	<1.0	-	<1.0	<1.0
Cation Sum	me/L	N/A	NG	0.250	0.260	-	0.240	0.240	0.580	-	0.630	-	0.680	0.630
Hardness (as $CaCO_3$)	mg/L	1.0	500[B]	11	11	-	11	11	26	-	29	-	32	30
Ion Balance (% Difference)	%	N/A	NG	6.38	8.33	-	0.00	4.00	0.850	-	2.44	-	0.740	5.26
Langelier Index (20°C)	N/A	-	NG	-2.80	-2.45	-	-2.41	-2.45	-1.77	-	-1.25	-	-1.14	-1.24
Langelier Index (4°C)	N/A	-	NG	-3.06	-2.71	-	-2.66	-2.70	-2.02	-	-1.51	-	-1.4	-1.50
Nitrate (N)	mg/L	0.050	10	<0.050	<0.050	-	<0.050	<0.050	<0.050	-	<0.050	-	<0.050	<0.050
Saturation pH (20°C)	N/A	-	NG	9.80	9.81	-	9.77	9.75	9.03	-	8.97	-	8.87	8.89
Saturation pH (4°C)	N/A	-	NG	10.1	10.1	-	10.0	10.0	9.28		9.23	-	9.12	9.14
Inorganics														
Total Alkalinity (Total as $CaCO_3$)	mg/L	5.0	NG	11	11	-	12	13	28	-	29	29	33	35
Dissolved Chloride (Cl)	mg/L	1.0	250 [A]	<1.0	<1.0	-	<1.0	<1.0	1.4	-	1.0	1.1	<1.0	<1.0
Colour	TCU	5.0	15 [A]	<5.0	<5.0	-	<5.0	<5.0	**30**	-	12	13	11	12
Nitrate+Nitrite	mg/L	0.050	NG	<0.050	<0.050	-	<0.050	<0.050	<0.050	-	<0.050	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	0.010	1	<0.010	<0.010	-	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.050	NG	<0.050	0.058	-	<0.050	<0.050	0.073	0.097	0.060	-	<0.050	0.096
Total Organic Carbon (C)	mg/L	0.50	NG	0.91	0.65	0.86	0.76	0.70	3.6	-	3.2	-	3.1	3.5
Orthophosphate (P)	mg/L	0.010	NG	<0.010	<0.010	-	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010
pH	units	N/A	6.5 - 8.5 [A]	7.00	7.36	-	7.37	7.30	7.26	-	7.72	-	7.73	7.65
Reactive Silica (SiO_2)	mg/L	0.50	NG	2.3	2.0	-	2.1	2.1	2.0	-	1.1	1.1	1.6	1.7
Dissolved Sulfate ($S0_4$)	mg/L	2.0	500 [A]	<2.0	<2.0	-	<2.0	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0
Turbidity	NTU	0.10	1.0[C]	0.72	0.20	-	0.16	0.30	0.90	-	0.49	-	0.29	0.58
Conductivity	µS/cm	1.0	NG	24	24	-	24	23	52	-	58	-	64	57
Dissolved Organic Carbon (C)	mg/L	0.5	-	1.2	0.54	-	0.66	0.63	3.4	-	2.5	-	3.0	3.3
pH (15 C)	pH	N/A	6..5 - 8.5[A]	7.25	7.23	7.27	7.13	7.28	7.50	-	7.63	-	7.41	7.55
Total Suspended Solids	mg/L	1.0	-	1.2	1.4	-	<1.0	2.4	2.4	-	1.0	-	1.2	1.2
Sulphide	mg/L	0.020	0.05	<0.020	<0.020	-	<0.020	<0.020	<0.020	-	<0.020	-	<0.020	<0.020
Un-ionized Ammonia_N (@ 15C)	mg/L	0.00050	-	<0.0005	<0.0005	-	<0.0005	<0.0005	0.0006	-	0.00070	-	<0.0005	0.0009

Notes:

LD: Laboratory Duplicate

me/L: milliequivalent per litre

mg/L: miligram per litre

TCU: True Colour Units

NTU: Nephelometric Turbidity Unit

µS/cm: microsiemens per centimetre

N/A: Not Applicable

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds the GCDWQ

[A] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

[B] Public acceptance of hardness varies considerably. Hardness levels in excess of 500 mg/L are normally considered unacceptable. Hardness levels between 80 and 100 mg/L (as CaCO3) provide acceptable balance between corrosion and incrustation.

[C] Turbidity levels should be less than 0.1 NTU; however, chemically assisted filtration </= 0.3 NTU; slow sand or diatomaceous filtration </= 1.0 NTU and membrane filtration </= 0.1 NTU.

Table 2: GENERAL CHEMISTRY IN WATER (CONTINUED)

Parameter	Units	RDL	GCDWQ	RW-TL					RW-DL				
Sample Date (D/M/Y)				18-Jun-14	21-Jul-14	21-Jul-14 (LD)	27-Aug-14	30-Sep-14	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14	30-Sep-14 (LD)
Calculated Parameters													
Anion Sum	me/L	N/A	NG	0.550	0.520	-	0.540	0.600	0.480	0.770	1.26	0.920	-
Bicarbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	27	26	-	27	30	22	38	61	46	-
Calculated TDS	mg/L	1.0	500 [A]	28	27	-	29	31	25	40	62	46	-
Carbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-
Cation Sum	me/L	N/A	NG	0.540	0.570	-	0.590	0.570	0.490	0.830	1.16	0.900	-
Hardness (as $CaCO_3$)	mg/L	1.0	500[B]	25	26	-	28	27	22	39	55	43	-
Ion Balance (% Difference)	%	N/A	NG	0.920	4.59	-	4.42	2.56	1.03	3.75	4.13	1.10	-
Langelier Index (20°C)	N/A	-	NG	-1.70	-1.34	-	-1.35	-1.34	-2.04	-1.02	-0.638	-0.792	-
Langelier Index (4°C)	N/A	-	NG	-1.96	-1.59	-	-1.60	-1.60	-2.29	-1.28	-0.890	-1.04	-
Nitrate (N)	mg/L	0.050	10	<0.050	<0.050	-	<0.050	<0.050	<0.050	<0.050	0.058	<0.050	-
Saturation pH (20°C)	N/A	-	NG	9.08	9.09	-	9.05	9.03	9.19	8.72	8.39	8.61	-
Saturation pH (4°C)	N/A	-	NG	9.34	9.34	-	9.30	9.28	9.44	8.98	8.64	8.86	-
Inorganics													
Total Alkalinity (Total as $CaCO_3$)	mg/L	5.0	NG	27	26	-	27	30	22	39	61	46	-
Dissolved Chloride (Cl)	mg/L	1.0	250 [A]	<1.0	<1.0	-	<1.0	<1.0	1.4	<1.0	1.0	<1.0	-
Colour	TCU	5.0	15 [A]	7.7	<5.0	-	6.0	<5.0	**46**	**16**	15	14	-
Nitrate+Nitrite	mg/L	0.050	NG	<0.050	<0.050	-	<0.050	<0.050	<0.050	<0.050	0.058	<0.050	-
Nitrite (N)	mg/L	0.010	1	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-
Nitrogen (Ammonia Nitrogen)	mg/L	0.050	NG	<0.050	0.083	-	0.063	0.074	<0.050	<0.050	0.080	0.085	-
Total Organic Carbon (C)	mg/L	0.50	NG	1.9	1.4	-	1.4	1.4	5.6	3.3	2.5	3.3	4.0
Orthophosphate (P)	mg/L	0.010	NG	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-
pH	units	N/A	6.5 - 8.5 [A]	7.38	7.75	-	7.70	7.68	7.15	7.70	7.75	7.82	-
Reactive Silica (SiO_2)	mg/L	0.50	NG	2.5	1.6	-	2.1	2.9	1.8	1.8	3.6	2.7	-
Dissolved Sulfate ($S0_4$)	mg/L	2.0	500 [A]	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-
Turbidity	NTU	0.10	1.0[C]	0.80	0.39	-	0.80	0.66	0.89	0.96	0.43	0.44	-
Conductivity	µS/cm	1.0	NG	51	51	51	55	53	43	75	110	81	-
Dissolved Organic Carbon (C)	mg/L	0.5	-	1.6	1.1	-	1.2	1.2	4.8	2.9	2.2	3.0	-
pH (15 C)	pH	N/A	6..5 - 8.5[A]	7.56	7.65	-	7.48	7.47	7.31	7.67	7.65	7.58	-
Total Suspended Solids	mg/L	1.0	-	3.0	<1.0	-	9.8	1.4	<1.0	1.6	2.0	1.0	-
Sulphide	mg/L	0.020	0.05	<0.020	<0.020	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	-
Un-ionized Ammonia_N (@ 15C)	mg/L	0.00050	-	<0.0005	0.001	-	0.0005	0.0006	<0.0005	<0.0005	0.00097	0.00088	-

Notes:

LD: Laboratory Duplicate

me/L: milliequivalent per litre

mg/L: miligram per litre

TCU: True Colour Units

NTU: Nephelometric Turbidity Unit

µS/cm: microsiemens per centimetre

N/A: Not Applicable

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds the GCDWQ

[A] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

[B] Public acceptance of hardness varies considerably. Hardness levels in excess of 500 mg/L are normally considered unacceptable. Hardness levels between 80 and 100 mg/L (as CaCO3) provide acceptable balance between corrosion and incrustation.

[C] Turbidity levels should be less than 0.1 NTU; however, chemically assisted filtration </= 0.3 NTU; slow sand or diatomaceous filtration </= 1.0 NTU and membrane filtration </= 0.1 NTU.

Table 2: GENERAL CHEMISTRY IN WATER (CONTINUED)

Parameter	Units	RDL	GCDWQ	DL-LL					RW-LL			
Sample Date (D/M/Y)				18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14	30-Sep-14 (LD)	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14
Calculated Parameters												
Anion Sum	me/L	N/A	NG	0.420	0.630	0.770	0.590	-	0.570	0.610	0.650	0.620
Bicarbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	19	30	38	29	-	28	29	32	31
Calculated TDS	mg/L	1.0	500 [A]	24	34	41	32	-	31	32	34	33
Carbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	<1.0	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	N/A	NG	0.42	0.650	0.740	0.6	-	0.600	0.620	0.650	0.620
Hardness (as $CaCO_3$)	mg/L	1.0	500[B]	19	30	34	28	-	28	29	31	29
Ion Balance (% Difference)	%	N/A	NG	0	1.56	1.99	0.840	-	2.56	0.810	0.00	0.00
Langelier Index (20°C)	N/A	-	NG	-2.15	-1.17	-0.957	-1.33	-	-1.71	-1.20	-1.1	-1.42
Langelier Index (4°C)	N/A	-	NG	-2.40	-1.42	-1.21	-1.58	-	-1.96	-1.45	-1.35	-1.67
Nitrate (N)	mg/L	0.050	10	<0.050	<0.050	<0.050	<0.050	-	0.068	<0.050	<0.050	<0.050
Saturation pH (20°C)	N/A	-	NG	9.31	8.93	8.75	8.97	-	9.00	8.97	8.9	8.94
Saturation pH (4°C)	N/A	-	NG	9.56	9.18	9.01	9.23	-	9.25	9.22	9.15	9.19
Inorganics												
Total Alkalinity (Total as $CaCO_3$)	mg/L	5.0	NG	19	30	39	29	-	28	29	32	31
Dissolved Chloride (Cl)	mg/L	1.0	250 [A]	1.2	1.2	<1.0	<1.0	-	<1.0	1.1	<1.0	<1.0
Colour	TCU	5.0	15 [A]	**36**	**17**	15	**23**	-	**21**	10	8.7	15
Nitrate+Nitrite	mg/L	0.050	NG	<0.050	<0.050	<0.050	<0.050	-	0.068	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	0.010	1	<0.010	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.050	NG	<0.050	<0.050	0.070	0.093	0.093	0.060	0.056	0.064	0.095
Total Organic Carbon (C)	mg/L	0.50	NG	6.0	3.4	3.1	4.8	-	2.6	2.3	2.3	3.3
Orthophosphate (P)	mg/L	0.010	NG	<0.010	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010
pH	units	N/A	6.5 - 8.5 [A]	7.16	7.76	7.80	7.64	-	7.29	7.77	7.80	7.52
Reactive Silica (SiO_2)	mg/L	0.50	NG	3.3	2.4	4.5	3.2	-	3.0	2.6	2.9	3.0
Dissolved Sulfate ($S0_4$)	mg/L	2.0	500 [A]	<2.0	<2.0	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0
Turbidity	NTU	0.10	1.0[C]	0.96	0.60	0.73	0.35	-	0.40	0.37	<0.10	0.60
Conductivity	µS/cm	1.0	NG	38	61	73	54	-	54	58	61	56
Dissolved Organic Carbon (C)	mg/L	0.5	-	4.7	2.9	2.9	3.9	-	2.9	1.8	2.1	2.9
pH (15 C)	pH	N/A	6..5 - 8.5[A]	7.39	7.62	7.57	7.50	-	7.51	7.61	7.49	7.50
Total Suspended Solids	mg/L	1.0	-	3.0	1.2	1.4	<1.0	-	1.0	<1.0	<1.0	<1.0
Sulphide	mg/L	0.020	0.05	<0.020	<0.020	<0.020	<0.020	-	<0.020	<0.020	<0.020	<0.020
Un-ionized Ammonia_N (@ 15C)	mg/L	0.00050	-	<0.0005	<0.00057	0.00071	0.0008	-	0.0005	0.00062	0.0005	0.0008

Notes:

LD: Laboratory Duplicate

me/L: milliequivalent per litre

mg/L: miligram per litre

TCU: True Colour Units

NTU: Nephelometric Turbidity Unit

µS/cm: microsiemens per centimetre

N/A: Not Applicable

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds the GCDWQ

[A] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

[B] Public acceptance of hardness varies considerably. Hardness levels in excess of 500 mg/L are normally considered unacceptable. Hardness levels between 80 and 100 mg/L (as CaCO3) provide acceptable balance between corrosion and incrustation.

[C] Turbidity levels should be less than 0.1 NTU; however, chemically assisted filtration </= 0.3 NTU; slow sand or diatomaceous filtration </= 1.0 NTU and membrane filtration </= 0.1 NTU.

Table 2: GENERAL CHEMISTRY IN WATER (CONTINUED)

Parameter	Units	RDL	GCDWQ	DB INFLOW						DB OUTFLOW		
Sample Date (D/M/Y)				18-Jun-14	18-Jun-14 (LD)	21-Jul-14	27-Aug-14	27-Aug-14 (LD)	30-Sep-14	21-Jul-14	27-Aug-14	30-Sep-14
Calculated Parameters												
Anion Sum	me/L	N/A	NG	0.630	-	0.740	0.670	-	0.670	0.610	0.670	0.700
Bicarbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	30	-	36	33	-	33	30	33	35
Calculated TDS	mg/L	1.0	500 [A]	34	-	40	36	-	35	33	36	36
Carbonate Alkalinity (calc. as $CaCO_3$)	mg/L	1.0	NG	<1.0	-	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	N/A	NG	0.630	-	0.760	0.680	-	0.67	0.650	0.690	0.660
Hardness (as $CaCO_3$)	mg/L	1.0	500[B]	29	-	36	31	-	31	30	31	31
Ion Balance (% Difference)	%	N/A	NG	0.00	-	1.33	0.740	-	0.00	3.17	1.47	2.94
Langelier Index (20°C)	N/A	-	NG	-1.53	-	-1.02	-1.07	-	-1.17	-1.04	-1.06	-1.12
Langelier Index (4°C)	N/A	-	NG	-1.78	-	-1.27	-1.32	-	-1.42	-1.3	-1.31	-1.37
Nitrate (N)	mg/L	0.050	10	0.088	-	0.099	<0.050	-	0.053	<0.050	<0.050	<0.050
Saturation pH (20°C)	N/A	-	NG	8.95	-	8.81	8.86	-	8.87	8.91	8.86	8.86
Saturation pH (4°C)	N/A	-	NG	9.2	-	9.06	9.12	-	9.12	9.17	9.12	9.11
Inorganics												
Total Alkalinity (Total as $CaCO_3$)	mg/L	5.0	NG	30	-	37	34	-	33	31	34	35
Dissolved Chloride (Cl)	mg/L	1.0	250 [A]	1.1	-	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0
Colour	TCU	5.0	15 [A]	12	-	<5.0	6.3	-	5.7	7.2	6.3	6.9
Nitrate+Nitrite	mg/L	0.050	NG	0.088	-	0.099	<0.050	-	0.053	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	0.010	1	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.050	NG	<0.050	<0.050	<0.050	0.081	-	0.11	<0.050	0.14	0.10
Total Organic Carbon (C)	mg/L	0.50	NG	2.1	-	0.81	2.2	-	2.1	1.8	2.1	1.6
Orthophosphate (P)	mg/L	0.010	NG	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010
pH	units	N/A	6.5 - 8.5 [A]	7.42	-	7.79	7.80	-	7.70	7.87	7.80	7.74
Reactive Silica (SiO_2)	mg/L	0.50	NG	3.2	-	4.6	3.1	-	2.8	2.7	3.2	2.9
Dissolved Sulfate ($S0_4$)	mg/L	2.0	500 [A]	<2.0	-	<2.0	<2.0	-	<2.0	<2.0	<2.0	
Turbidity	NTU	0.10	1.0[C]	**1.1**	-	0.71	0.26	-	0.33	0.36	<0.10	0.35
Conductivity	µS/cm	1.0	NG	58	-	71	65	-	63	62	65	62
Dissolved Organic Carbon (C)	mg/L	0.5	-	1.9	-	0.69	1.9	1.8	1.6	1.7	1.8	1.7
pH (15 C)	pH	N/A	6..5 - 8.5[A]	7.57	-	7.63	7.55	-	7.43	7.66	7.41	7.56
Total Suspended Solids	mg/L	1.0	-	<1.0	-	<1.0	2.0	-	<1.0	<1.0	1.2	1.0
Sulphide	mg/L	0.020	0.05	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	<0.020	<0.020
Un-ionized Ammonia_N (@ 15C)	mg/L	0.00050	-	<0.00051	-	<0.00058	0.0008	-	0.0008	<0.0005	0.001	0.0010

Notes:

LD: Laboratory Duplicate

me/L: milliequivalent per litre

mg/L: miligram per litre

TCU: True Colour Units

NTU: Nephelometric Turbidity Unit

µS/cm: microsiemens per centimetre

N/A: Not Applicable

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds the GCDWQ

[A] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

[B] Public acceptance of hardness varies considerably. Hardness levels in excess of 500 mg/L are normally considered unacceptable. Hardness levels between 80 and 100 mg/L (as CaCO3) provide acceptable balance between corrosion and incrustation.

[C] Turbidity levels should be less than 0.1 NTU; however, chemically assisted filtration </= 0.3 NTU; slow sand or diatomaceous filtration </= 1.0 NTU and membrane filtration </= 0.1 NTU.

Table 3: GENERAL CHEMISTRY IN WATER

Parameter	Units	RDL	GCDWQ	NPB	NPB (FIELD)	NPB	NPB (FIELD)	NPB	NPB (FIELD)	NPB	NPB (FIELD)	NPB	NPB	NPB	NPB
Sample Date (D/M/Y)				28-Jun-12	28-Jun-12	31-Jul-12	31-Jul-12	6-Sep-12	6-Sep-12	25-Oct-12	25-Oct-12	27-Jun-13	8-Aug-13	12-Sep-13	31-Oct-13
Calculated Parameters															
Anion Sum	me/L	N/A	NG	1.33	-	1.37	-	1.33	-	1.36	-	1.34	0.600	1.35	1.39
Bicarbonate Alkalinity (calc. as CaCO3)	mg/L	1.0	NG	60	-	65	-	60	-	61	-	61	30	61	62
Calculated TDS	mg/L	1.0	500 [A]	71.0	-	73.0	-	71.0	-	74.0	-	71		74	76
Carbonate Alkalinity (calc. as CaCO3)	mg/L	1.0	NG	<1.0	-	<1.0	-	<1.0	-	<1.0	-	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	N/A	NG	1.30	-	1.39	-	1.30	-	1.39	-	1.31	1.30	1.43	1.46
Hardness (as $CaCO_3$)	mg/L	1.0	500[B]	62	-	66	-	62	-	65	-	62	61	67	69
Ion Balance (% Difference)	%	N/A	NG	1.14	-	0.720	-	1.14	-	1.09	-	1.13	0.760	2.88	2.46
Langelier Index (20°C)	N/A	-	NG	-0.359	-	-0.321	-	-0.359	-	-0.371	-	-0.561	-0.321	-0.374	-0.519
Langelier Index (4°C)	N/A	-	NG	-0.610	-	-0.573	-	-0.610	-	-0.622	-	-0.812	-0.573	-0.626	-0.771
Nitrate (N)	mg/L	0.050	10	<0.050	-	<0.050	-	<0.050	-	0.092	-	<0.050	<0.050	<0.050	<0.050
Saturation pH (20°C)	N/A	-	NG	8.38	-	8.31	-	8.38	-	8.37	-	8.38	8.39	8.33	8.33
Saturation pH (4°C)	N/A	-	NG	8.63	-	8.56	-	8.63	-	8.62	-	8.63	8.64	8.59	8.58
Field Measurements															
Field pH	N/A	-	6.5-8.5	-	8.09	-	8.00	-	8.09	-	7.38				
Field Temperature	°C	-	15[A]	-	**19.3**	-	**17.7**	-	**19.3**	-	2.70				
Inorganics															
Total Alkalinity (Total as CaCO3)	mg/L	5.0	NG	61	-	66	-	61	-	61	-	62	61	62	62
Dissolved Chloride (Cl)	mg/L	1.0	250 [A]	1.7	-	2.0	-	1.7	-	2.1	-	2	1.6	1.7	2.5
Colour	TCU	5.0	15 [A]	5.1	-	<5.0	-	5.1	-	<5.0	-	<5.0	<5.0	<5.0	5.1
Total Dissolved Solids	mg/L	10.0	500[A]	65	-	65	-	65	-	68	-	75	77	70	59
Nitrate+Nitrite	mg/L	0.050	NG	<0.050	-	<0.050	-	<0.050	-	0.092	-	<0.050	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	0.010	1	<0.010	-	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.050	NG	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.08	0.11	0.11	0.074
Dissolved Organic Carbon (C)	mg/L	0.500	NG	1.6	-	1.4	-	1.6	-	1.8	-	1.3	1.9	1.3	1.5
Total Organic Carbon (C)	mg/L	0.50	NG	1.5	-	1.6	-	1.5	-	1.6	-	1.4	2.1	1.7	1.4
Orthophosphate (P)	mg/L	0.010	NG	<0.010	-	<0..010	-	<0..010	-	<0..010	-	<0..010	<0..010	0.028	<0.010
pH	N/A	N/A	6.5 - 8.5 [A]	8.02	-	7.99	-	8.02	-	8.00	-	7.82	8.07	7.96	7.81
pH (15°C)	N/A	N/A	6.5 - 8.5 [A]		-		-		-		-	7.99	8.04	7.80	7.79
Phenols-4AAP	mg/L	0.0010	NG	0.0012	0.0014	0.0019	-	0.0012	0.0014	0.0016	-	0.0013	0.0018	0.0017	-
Reactive Silica (SiO_2)	mg/L	0.50	NG	6.9	-	6.8	-	6.9	-	6.9	-	7.1	6.8	6.5	6.9
Total Suspended Solids	mg/L	1.0	-	1.0	-	1.8	-	1.0	-	1.2	-	<1.0	<1.0	1.4	<1.0
Dissolved Sulfate (SO_4)	mg/L	2.0	500 [A]	2.7	-	<2.0	-	2.7	-	3.7	-	2.5	2.2	3.0	3.8
Sulphide	mg/L	0.020	0.05	<0.020	-	<0.020	-	<0.020	-	<0.020	-	<0.020	<0.020	<0.020	<0.020
Turbidity	NTU	0.10	1.0[C]	0.23	-	**1.2**	-	0.23	-	0.86	-	0.16	0.42	0.67	0.66
Un-ionized Ammonia_N (@ 15C)	mg/L	0.00050	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0021	0.0033	0.0019	0.0012
Conductivity	µS/cm	1.0	NG	120	-	120	-	120	-	120	-	120	120	130	130

Notes:
LD: Laboratory Duplicate
me/L: milliequivalent per litre
mg/L: miligram per litre
TCU: True Colour Units
NTU: Nephelometric Turbidity Unit
µS/cm: microsiemens per centimetre
N/A: Not Applicable
NG: No guideline available
GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)
Concentration exceeds the GCDWQ

[A] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.
[B] Public acceptance of hardness varies considerably. Hardness levels in excess of 500 mg/L are normally considered unacceptable. Hardness levels between 80 and 100 mg/L (as CaCO3) provide
[C] Turbidity levels should be less than 0.1 NTU; however, chemically assisted filtration </= 0.3 NTU; slow sand or diatomaceous filtration </= 1.0 NTU and membrane filtration </= 0.1 NTU.

Table 3: GENERAL CHEMISTRY IN WATER

Parameter	Units	RDL	GCDWQ	DB OUTFLOW	DB OUTFLOW (FIELD)	DB OUTFLOW	DB OUTFLOW (FIELD)	DB OUTFLOW	DB OUTFLOW (FIELD)	DB OUTFLOW	DB OUTFLOW (FIELD)	DB OUTFLOW	DB OUTFLOW	DB OUTFLOW	DB OUTFLOW
Sample Date (D/M/Y)				28-Jun-12	28-Jun-12	31-Jul-12	31-Jul-12	6-Sep-12	6-Sep-12	25-Oct-12	25-Oct-12	27-Jun-13	8-Aug-13	12-Sep-13	31-Oct-13
Calculated Parameters															
Anion Sum	me/L	N/A	NG	0.620	-	0.630	-	0.620	-	0.640	-	0.63	0.600	0.620	0.710
Bicarbonate Alkalinity (calc. as CaCO$_3$)	mg/L	1.0	NG	31	-	31	-	31	-	32	-	30	30	31	31
Calculated TDS	mg/L	1.0	500 [A]	34.0	-	35.0	-	34.0	-	36.0	-	34		35	38
Carbonate Alkalinity (calc. as CaCO$_3$)	mg/L	1.0	NG	<1.0	-	<1.0	-	<1.0	-	<1.0	-	<1.0	<1.0	<1.0	<1.0
Cation Sum	me/L	N/A	NG	0.700	-	0.750	-	0.700	-	0.730	-	0.65	0.680	0.730	0.720
Hardness (as CaCO$_3$)	mg/L	1.0	500[B]	32	-	35	-	32	-	34	-	30	31	33	33
Ion Balance (% Difference)	%	N/A	NG	6.06	-	8.70	-	6.06	-	6.57	-	1.56	6.25	8.15	0.700
Langelier Index (20°C)	N/A	-	NG	-1.16	-	-1.06	-	-1.16	-	-1.02	-	-1.33	-1.05	-1.11	-1.26
Langelier Index (4°C)	N/A	-	NG	-1.41	-	-1.31	-	-1.41	-	-1.27	-	-1.58	-1.30	-1.37	-1.51
Nitrate (N)	mg/L	0.050	10	<0.050	-	<0.050	-	<0.050	-	0.068	-	0.055	<0.050	<0.050	<0.050
Saturation pH (20°C)	N/A	-	NG	8.89	-	8.86	-	8.89	-	8.87	-	8.93	8.92	8.87	8.88
Saturation pH (4°C)	N/A	-	NG	9.14	-	9.11	-	9.14	-	9.12	-	9.18	9.17	9.13	9.13
Field Measurements															
Field pH	N/A	-	6.5-8.5	-	8.08	-	8.04	-	8.08	-	7.37	-	-	-	-
Field Temperature	°C	-	15[A]	-	**19.8**	-	**18.0**	-	**19.8**	-	0.6	-	-	-	-
Inorganics															
Total Alkalinity (Total as CaCO$_3$)	mg/L	5.0	NG	31	-	32	-	31	-	32	-	30	30	31	31
Dissolved Chloride (Cl)	mg/L	1.0	250 [A]	<1.0	-	<1.0	-	<1.0	-	<1.0	-	1.1	<1.0	<1.0	1.0
Colour	TCU	5.0	15 [A]	7.8	-	6.3	-	7.8	-	7.3	-	5.6	6.5	5.3	10
Total Dissolved Solids	mg/L	10.0	500[A]	30	-	39	-	30	-	38	-	45	34	40	30
Nitrate+Nitrite	mg/L	0.050	NG	<0.050	-	<0.050	-	<0.050	-	0.068	-	0.055	<0.050	<0.050	<0.050
Nitrite (N)	mg/L	0.010	1	<0.010	-	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	<0.010
Nitrogen (Ammonia Nitrogen)	mg/L	0.050	NG	<0.050	<0.050	<0.050	0.064	<0.050	<0.050	<0.050	<0.050	0.075	<0.050	0.091	0.066
Dissolved Organic Carbon (C)	mg/L	0.500	NG	2.1	-	1.7	-	2.1	-	1.9	-	2	1.8	1.5	1.5
Total Organic Carbon (C)	mg/L	0.50	NG	2.3	-	1.8	-	2.3	-	1.8	-	2	2.1	1.7	1.8
Orthophosphate (P)	mg/L	0.010	NG	<0.010	-	<0.010	-	<0.010	-	<0.010	-	<0.010	<0.010	<0.010	<0.010
pH	N/A	N/A	6.5 - 8.5 [A]	7.73	-	7.80	-	7.73	-	7.85	-	7.6	7.87	7.76	7.62
pH (15°C)	N/A	N/A	6.5 - 8.5 [A]	-	-		-		-		-	7.84	7.84	7.56	7.58
Phenols-4AAP	mg/L	0.0010	NG	0.0019	0.0016	0.0011	-	0.0019	0.0016	0.0016	-	0.0012	0.0018	0.0013	
Reactive Silica (SiO$_2$)	mg/L	0.50	NG	2.7	-	2.8	-	2.7	-	3.1	-	2.9	2.9	2.9	2.9
Total Suspended Solids	mg/L	1.0	-	1.0	-	<1.0	-	1.0	-	<1.0	-	<1.0	1.0	<1.0	<1.0
Dissolved Sulfate (SO$_4$)	mg/L	2.0	500 [A]	<2.0	-	<2.0	-	<2.0	-	<2.0	-	<2.0	<2.0	<2.0	2.4
Sulphide	mg/L	0.020	0.05	<0.020	-	<0.020	-	<0.020	-	<0.020	-	<0.020	<0.020	<0.020	<0.020
Turbidity	NTU	0.10	1.0[C]	0.35	-	0.30	-	0.35	-	0.46	-	0.18	0.28	0.16	0.45
Un-ionized Ammonia_N (@ 15C)	mg/L	0.00050	-	<0.00050	<0.00050	<0.00050	0.0028	<0.00050	<0.00050	<0.00050	<0.00050	0.0014	<0.00050	0.0009	0.00069
Conductivity	µS/cm	1.0	NG	61	-	64	-	61	-	65	-	62	67	65	68

Notes:
LD: Laboratory Duplicate
me/L: milliequivalent per litre
mg/L: miligram per litre
TCU: True Colour Units
NTU: Nephelometric Turbidity Unit
µS/cm: microsiemens per centimetre
N/A: Not Applicable
NG: No guideline available
GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)
Concentration exceeds the GCDWQ

[A] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.
[B] Public acceptance of hardness varies considerably. Hardness levels in excess of 500 mg/L are normally considered unacceptable. Hardness levels between 80 and 100 mg/L (as CaCO3) provide acceptable balance
[C] Turbidity levels should be less than 0.1 NTU; however, chemically assisted filtration </= 0.3 NTU; slow sand or diatomaceous filtration </= 1.0 NTU and membrane filtration </= 0.1 NTU.

Table 4: METAL CONCENTRATIONS IN WATER

Parameter	Unit	RDL	GCDWQ	DS-OBD[A]				WLS[A]			
			Sample Date	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14
Aluminum (Al)	ug/L	5.0	100 [B]	41	46	13	10	12	9.0	8.4	8.4
Antimony (Sb)	ug/L	1.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/L	1.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium (Ba)	ug/L	1.0	1000	8.2	7.8	8.1	7.7	2.4	2.2	2.1	2.1
Beryllium (Be)	ug/L	1.0	NG	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bismuth (Bi)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Boron (B)	ug/L	50	5000	<50	<50	<50	<50	<50	<50	<50	<50
Cadmium (Cd)	ug/L	0.010	5	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Calcium (Ca)	ug/L	100	NG	12000	13000	13000	15000	2600	2600	2600	2500
Chromium (Cr)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt (Co)	ug/L	0.40	NG	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Copper (Cu)	ug/L	2.0	1000 [C]	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Iron (Fe)	ug/L	50	300 [C]	110	84	<50	<50	<50	<50	<50	<50
Lead (Pb)	ug/L	0.50	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium (Mg)	ug/L	100	NG	3800	4100	4200	5000	1200	1100	1100	1200
Manganese (Mn)	ug/L	2.0	50[C]	20	28	11	6.7	6.7	2.6	2.8	3.2
Molybdenum (Mo)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Mercury (Hg)	ug/L	0.013	1	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Nickel (Ni)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Phosphorus (P)	ug/L	100	NG	<100	<100	<100	<100	<100	<100	<100	<100
Potassium (K)	ug/L	100	NG	770	1000	890	860	360	430	330	260
Selenium (Se)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sodium (Na)	ug/L	100	200,000 [C]	440	630	500	500	240	260	220	210
Strontium (Sr)	ug/L	2.0	NG	11	12	14	14	4.9	4.5	4.6	5.0
Thallium (Tl)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin (Sn)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium (U)	ug/L	0.10	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium (V)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Zinc (Zn)	ug/L	5.0	5000 [C]	<5.0	9.4	<5.0	<5.0	<5.0	5.5	<5.0	<5.0

Notes:

µg/L: micrograms per litre

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds GCDWQ

[A] Sample was analyzed for Total Metals

[B] Guidelines for aluminum apply only to drinking water treatment plants using aluminum-based coagulants.

[C] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

Table 4: METAL CONCENTRATIONS IN WATER (CONTINUED)

Parameter	Unit	RDL	GCDWQ	RW-WL[A]				RW-PHL[A]			
			Sample Date	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14
Aluminum (Al)	ug/L	5.0	100 [B]	13	18	7.1	17	42	26	22	29
Antimony (Sb)	ug/L	1.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/L	1.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium (Ba)	ug/L	1.0	1000	2.4	2.8	2.3	2.4	10	7.7	8.5	7.5
Beryllium (Be)	ug/L	1.0	NG	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bismuth (Bi)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Boron (B)	ug/L	50	5000	<50	<50	<50	<50	<50	<50	<50	<50
Cadmium (Cd)	ug/L	0.010	5	<0.010	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Calcium (Ca)	ug/L	100	NG	2600	2600	2600	2600	6700	7300	8000	7300
Chromium (Cr)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt (Co)	ug/L	0.40	NG	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Copper (Cu)	ug/L	2.0	1000 [C]	<2.0	2.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Iron (Fe)	ug/L	50	300 [C]	110	82	<50	67	**540**	160	96	100
Lead (Pb)	ug/L	0.50	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium (Mg)	ug/L	100	NG	1200	1100	1100	1100	2300	2700	2900	2700
Manganese (Mn)	ug/L	2.0	50[C]	12	15	<2.0	10	21	16	21	9.5
Molybdenum (Mo)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Mercury (Hg)	ug/L	0.013	0.001	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Nickel (Ni)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Phosphorus (P)	ug/L	100	NG	<100	<100	<100	<100	<100	<100	<100	<100
Potassium (K)	ug/L	100	NG	370	430	330	270	580	730	680	560
Selenium (Se)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sodium (Na)	ug/L	100	200,000 [C]	240	260	230	230	390	440	520	440
Strontium (Sr)	ug/L	2.0	NG	4.6	4.5	5.0	4.7	7.2	7.6	9.3	8.0
Thallium (Tl)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin (Sn)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium (U)	ug/L	0.10	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium (V)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Zinc (Zn)	ug/L	5.0	5000 [C]	<5.0	13	<5.0	<5.0	<5.0	5.3	<5.0	<5.0

Notes:

µg/L: micrograms per litre

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds GCDWQ

[A] Sample was analyzed for Total Metals

[B] Guidelines for aluminum apply only to drinking water treatment plants using aluminum-based coagulants.

[C] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

Table 4: METAL CONCENTRATIONS IN WATER (CONTINUED)

Parameter	Unit	RDL	GCDWQ	RW-TL[A]				RW-DL[A]				
			Sample Date	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14	18-Jun-14	21-Jul-14	21-Jul-14 (LD)	27-Aug-14	30-Sep-14
Aluminum (Al)	ug/L	5.0	100 [B]	11	11	11	8.2	82	33	32	16	31
Antimony (Sb)	ug/L	1.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/L	1.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium (Ba)	ug/L	1.0	1000	4.4	4.0	4.1	5.0	8.6	11	10	12	8.5
Beryllium (Be)	ug/L	1.0	NG	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bismuth (Bi)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Boron (B)	ug/L	50	5000	<50	<50	<50	<50	<50	<50	<50	<50	<50
Cadmium (Cd)	ug/L	0.010	5	<0.010	<0.010	<0.010	<0.010	0.013	<0.010	<0.010	<0.010	<0.010
Calcium (Ca)	ug/L	100	NG	5900	6100	6400	6200	5600	9800	9500	14000	11000
Chromium (Cr)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	2.4	<1.0	<1.0
Cobalt (Co)	ug/L	0.40	NG	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Copper (Cu)	ug/L	2.0	1000 [C]	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Iron (Fe)	ug/L	50	300 [C]	<50	<50	<50	170	**370**	180	170	**310**	100
Lead (Pb)	ug/L	0.50	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium (Mg)	ug/L	100	NG	2600	2700	2800	2700	2000	3400	3300	4900	3900
Manganese (Mn)	ug/L	2.0	50[C]	8.1	4.4	8.8	30	21	39	37	**70**	21
Molybdenum (Mo)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Mercury (Hg)	ug/L	0.013	0.001	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	-	<0.013	<0.013
Nickel (Ni)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Phosphorus (P)	ug/L	100	NG	<100	<100	<100	<100	<100	<100	<100	<100	<100
Potassium (K)	ug/L	100	NG	660	790	700	590	550	880	850	800	610
Selenium (Se)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sodium (Na)	ug/L	100	200,000 [C]	310	450	350	310	370	540	510	480	470
Strontium (Sr)	ug/L	2.0	NG	6.8	7.1	8.2	7.7	6.4	9.9	9.9	12	10
Thallium (Tl)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin (Sn)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	<2.0	<2.0
Uranium (U)	ug/L	0.10	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium (V)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Zinc (Zn)	ug/L	5.0	5000 [C]	<5.0	<5.0	<5.0	<5.0	<5.0	5.1	5.1	<5.0	<5.0

Notes:

µg/L: micrograms per litre

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds GCDWQ

[A] Sample was analyzed for Total Metals

[B] Guidelines for aluminum apply only to drinking water treatment plants using aluminum-based coagulants.

[C] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

Table 4: METAL CONCENTRATIONS IN WATER (CONTINUED)

Parameter	Unit	RDL	GCDWQ	DL-LL[A]				RW-LL[A]			
			Sample Date	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14
Aluminum (Al)	ug/L	5.0	100 [B]	79	34	22	34	41	22	18	29
Antimony (Sb)	ug/L	1.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/L	1.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium (Ba)	ug/L	1.0	1000	9.3	12	14.0	8.9	5.8	6.0	6.1	7.2
Beryllium (Be)	ug/L	1.0	NG	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bismuth (Bi)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Boron (B)	ug/L	50	5000	<50	<50	<50	<50	<50	<50	<50	<50
Cadmium (Cd)	ug/L	0.010	5	<0.010	<0.010	<0.010	<0.010	0.013	0.015	<0.010	<0.010
Calcium (Ca)	ug/L	100	NG	4900	7800	9200	7200	7000	7300	7800	7300
Chromium (Cr)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt (Co)	ug/L	0.40	NG	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Copper (Cu)	ug/L	2.0	1000 [C]	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Iron (Fe)	ug/L	50	300 [C]	**330**	180	200	99	84	<50	<50	75
Lead (Pb)	ug/L	0.50	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium (Mg)	ug/L	100	NG	1500	2500	2700	2400	2600	2600	2800	2600
Manganese (Mn)	ug/L	2.0	50[C]	32	41	32	12	8.7	4.9	3.8	9.0
Molybdenum (Mo)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Mercury (Hg)	ug/L	0.013	0.001	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
Nickel (Ni)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Phosphorus (P)	ug/L	100	NG	<100	<100	<100	<100	<100	<100	<100	<100
Potassium (K)	ug/L	100	NG	640	890	920	600	610	720	680	590
Selenium (Se)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sodium (Na)	ug/L	100	200,000 [C]	400	590	580	470	340	450	370	430
Strontium (Sr)	ug/L	2.0	NG	6.7	11	13	8.9	7.8	8.6	8.8	8.4
Thallium (Tl)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin (Sn)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	ug/L	2.0	NG	2.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium (U)	ug/L	0.10	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium (V)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Zinc (Zn)	ug/L	5.0	5000 [C]	<5.0	5.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes:

µg/L: micrograms per litre

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds GCDWQ

[A] Sample was analyzed for Total Metals

[B] Guidelines for aluminum apply only to drinking water treatment plants using aluminum-based coagulants.

[C] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

Table 4: METAL CONCENTRATIONS IN WATER (CONTINUED)

Parameter	Unit	RDL	GCDWQ	DB INFLOW[A]				DB OUTFLOW[A]		
			Sample Date	18-Jun-14	21-Jul-14	27-Aug-14	30-Sep-14	21-Jul-14	27-Aug-14	30-Sep-14
Aluminum (Al)	ug/L	5.0	100 [B]	25	14	21	11	14	36	18
Antimony (Sb)	ug/L	1.0	6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/L	1.0	10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Barium (Ba)	ug/L	1.0	1000	5.2	3.2	6.3	5.2	5.2	6.8	5.3
Beryllium (Be)	ug/L	1.0	NG	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bismuth (Bi)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Boron (B)	ug/L	50	5000	<50	<50	<50	<50	<50	<50	<50
Cadmium (Cd)	ug/L	0.010	5	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Calcium (Ca)	ug/L	100	NG	7600	8500	8100	8000	7900	8100	7900
Chromium (Cr)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt (Co)	ug/L	0.40	NG	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Copper (Cu)	ug/L	2.0	1000 [C]	<2.0	<2.0	2.3	<2.0	<2.0	<2.0	<2.0
Iron (Fe)	ug/L	50	300 [C]	62	<50	<50	<50	<50	160	63
Lead (Pb)	ug/L	0.50	10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Magnesium (Mg)	ug/L	100	NG	2500	3500	2600	2600	2500	2700	2600
Manganese (Mn)	ug/L	2.0	50[C]	7.9	8.9	9.3	5.1	9.3	23	13
Molybdenum (Mo)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Mercury (Hg)	ug/L	0.013	0.001	<0.013	<0.013	0.028	<0.013	<0.013	<0.013	<0.013
Nickel (Ni)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Phosphorus (P)	ug/L	100	NG	<100	<100	<100	<100	<100	<100	<100
Potassium (K)	ug/L	100	NG	1000	720	1200	1000	1100	1100	990
Selenium (Se)	ug/L	1.0	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Sodium (Na)	ug/L	100	200,000 [C]	410	590	490	410	500	430	430
Strontium (Sr)	ug/L	2.0	NG	12	9.9	13	13	12	13	12
Thallium (Tl)	ug/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin (Sn)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Titanium (Ti)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	3.8	<2.0
Uranium (U)	ug/L	0.10	20	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Vanadium (V)	ug/L	2.0	NG	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Zinc (Zn)	ug/L	5.0	5000 [C]	<5.0	<5.0	7.6	<5.0	5	<5.0	<5.0

Notes:

µg/L: micrograms per litre

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds GCDWQ

[A] Sample was analyzed for Total Metals

[B] Guidelines for aluminum apply only to drinking water treatment plants using aluminum-based coagulants.

[C] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

Table 4: METAL CONCENTRATIONS IN WATER (CONTINUED)

Parameter	Unit	RDL	GCDWQ	NPB	NPB	NPB	NPB	NPB	NPB	NPB	NPB
				28-Jun-12	31-Jul-12	6-Sep-12	25-Oct-12	27-Jun-13	8-Aug-13	12-Sep-13	31-Oct-13
Aluminum (Al)	mg/L	0.0050	0.1 [B]	0.0089	0.014	0.0086	0.0098	0.0088	0.012	0.0056	0.015
Antimony (Sb)	mg/L	0.0010	0.006	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic (As)	mg/L	0.0010	0.01	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium (Ba)	mg/L	0.0010	1	0.016	0.014	0.014	0.022	0.016	0.015	0.016	0.023
Beryllium (Be)	mg/L	0.0010	NG	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth (Bi)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)	mg/L	0.050	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.0050
Cadmium (Cd)	mg/L	0.000017	0.005	<0.000017	<0.000017	<0.000017	<0.000017	<0.000017	0.000021	<0.000017	0.000013
Calcium (Ca)	mg/L	0.10	NG	14	16	16	15	14	14	16	16
Chromium (Cr)	mg/L	0.0010	0.05	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt (Co)	mg/L	0.00040	NG	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Copper (Cu)	mg/L	0.0020	1 [C]	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Iron (Fe)	mg/L	0.050	0.3 [C]	0.050	0.078	0.052	0.22	<0.050	<0.050	<0.050	0.10
Lead (Pb)	mg/L	0.00050	0.01	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Magnesium (Mg)	mg/L	0.10	NG	6.3	6.5	6.8	6.9	6.3	6.2	6.7	6.9
Manganese (Mn)	mg/L	0.0020	0.05 [C]	0.020	0.028	0.029	0.080	0.014	0.019	0.029	0.034
Molybdenum (Mo)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Mercury (Hg)	mg/L	0.000013	0.000001	<0.000013	<0.000013	<0.000013	<0.000013	<0.000013	<0.000013	<0.000013	<0.000013
Nickel (Ni)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Phosphorus (P)	mg/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Potassium (K)	mg/L	0.10	NG	1.3	1.4	1.4	1.5	1.4	1.4	1.5	1.5
Selenium (Se)	mg/L	0.0010	0.05	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Silver (Ag)	mg/L	0.00010	NG	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Sodium (Na)	mg/L	0.10	200 [C]	0.72	0.77	0.78	0.98	0.72	0.72	0.91	0.87
Strontium (Sr)	mg/L	0.0020	NG	0.016	0.016	0.018	0.018	0.017	0.017	0.018	0.019
Thallium (Tl)	mg/L	0.00010	NG	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Titanium (Ti)	mg/L	0.0020	NG	<0.0020	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Uranium (U)	mg/L	0.00010	0.02	0.00020	0.00019	0.00022	0.00021	0.00021	0.00025	0.00024	0.00024
Vanadium (V)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Zinc (Zn)	mg/L	0.0050	5 [C]	<0.0050	0.0052	<0.0050	<0.0050	<0.0050	0.0055	<0.0050	0.0068

Notes:

mg/L: micrograms per litre

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds GCDWQ

[A] Sample was analyzed for Total Metals

[B] Guidelines for aluminum apply only to drinking water treatment plants using aluminum-based coagulants.

[C] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

Table 4: METAL CONCENTRATIONS IN WATER (CONTINUED)

Parameter	Unit	RDL	GCDWQ	DB OUTFLOW	DB OUTFLOW	DB OUTFLOW	DB OUTFLOW	DB OUTFLOW	DB OUTFLOW	DB OUTFLOW	DB OUTFLOW
				28-Jun-12	31-Jul-12	6-Sep-12	25-Oct-12	27-Jun-13	8-Aug-13	12-Sep-13	31-Oct-13
Aluminum (Al)	mg/L	0.0050	0.1 [B]	0.018	0.017	0.012	0.016	0.019	0.019	0.011	0.014
Antimony (Sb)	mg/L	0.0010	0.006	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic (As)	mg/L	0.0010	0.01	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Barium (Ba)	mg/L	0.0010	1	0.0056	0.0056	0.0061	0.0060	0.0051	0.0065	0.0066	0.0063
Beryllium (Be)	mg/L	0.0010	NG	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bismuth (Bi)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)	mg/L	0.050	5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.0050
Cadmium (Cd)	mg/L	0.000017	0.005	<0.000017	<0.000017	0.000018	<0.000017	<0.000017	<0.000017	0.000014	<0.000017
Calcium (Ca)	mg/L	0.10	NG	8.1	8.7	8.7	8.4	7.8	7.9	8.7	8.5
Chromium (Cr)	mg/L	0.0010	0.05	0.0018	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cobalt (Co)	mg/L	0.00040	NG	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Copper (Cu)	mg/L	0.0020	1 [C]	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Iron (Fe)	mg/L	0.050	0.3 [C]	0.053	0.059	<0.050	0.061	0.051	0.056	<0.050	<0.050
Lead (Pb)	mg/L	0.00050	0.01	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Magnesium (Mg)	mg/L	0.10	NG	2.9	3.1	2.9	3.1	2.6	2.7	2.8	3.0
Manganese (Mn)	mg/L	0.0020	0.05 [C]	0.010	0.012	0.0083	0.0066	0.0077	0.012	0.0067	0.0058
Molybdenum (Mo)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Mercury (Hg)	mg/L	0.000013	0.000001	<0.000013	<0.000013	<0.000013	<0.000013	<0.000013	**0.00002**	<0.000013	<0.000013
Nickel (Ni)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Phosphorus (P)	mg/L	0.10	NG	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Potassium (K)	mg/L	0.10	NG	1.2	1.2	1.2	1.2	1.1	1.2	1.2	1.2
Selenium (Se)	mg/L	0.0010	0.05	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Silver (Ag)	mg/L	0.00010	NG	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Sodium (Na)	mg/L	0.10	200 [C]	0.51	0.50	0.49	0.52	0.45	0.54	0.51	0.52
Strontium (Sr)	mg/L	0.0020	NG	0.013	0.013	0.013	0.013	0.012	0.013	0.012	0.013
Thallium (Tl)	mg/L	0.00010	NG	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Titanium (Ti)	mg/L	0.0020	NG	<0.0020	<0.0020	0.0024	0.0023	<0.0020	<0.0020	<0.0020	<0.0020
Uranium (U)	mg/L	0.00010	0.02	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Vanadium (V)	mg/L	0.0020	NG	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Zinc (Zn)	mg/L	0.0050	5 [C]	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0065	<0.0050	<0.0050

Notes:

mg/L: micrograms per litre

NG: No guideline available

GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality (Health Canada, August 2012)

Concentration exceeds GCDWQ

[A] Sample was analyzed for Total Metals

[B] Guidelines for aluminum apply only to drinking water treatment plants using aluminum-based coagulants.

[C] Guideline is an Aesthetic Objective (AO) and is not a health-based guideline.

Table 5: Petroleum Hydrocarbon (PHC) Concentrations in Water

Sample ID	Date Collected	BTEX Parameters (mg/L)				Petroleum Hydrocarbons (mg/L)					Resemblance
		Benzene	Toluene	Ethyl-Benzene	Xylenes	C_6-C_{10}	C_{10}-C_{16}	C_{16}-C_{21}	C_{21}-C_{32}	Modified TPH	
NORTH POND BEVERLY	28/06/2012	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
NORTH POND BEVERLY	31/07/2012	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
NORTH POND BEVERLY	06/09/2012	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
NORTH POND BEVERLY	25/10/2012	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
NORTH POND BEVERLY	27/06/2013	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
NORTH POND BEVERLY	08/08/2013	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
NORTH POND BEVERLY	12/09/2013	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
NORTH POND BEVERLY	31/10/2013	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
DUMBELL DISCHARGE	28/06/2012	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
DUMBELL DISCHARGE	31/07/2012	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
DUMBELL DISCHARGE	06/09/2012	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
DUMBELL DISCHARGE	25/10/2012	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
DUMBELL DISCHARGE	27/06/2013	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
DUMBELL DISCHARGE	08/08/2013	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
DUMBELL DISCHARGE	12/09/2013	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
DUMBELL DISCHARGE	31/10/2013	<0.0010	<0.0010	<0.0010	<0.0020	<0.010	<0.050	<0.050	<0.10	<0.10	NA
RDL		0.0010	0.0010	0.0010	0.0020	0.010	0.050	0.050	0.10	0.10	-
Atlantic PIRI Tier I RBSLs (residential, potable, coarse grained)		0.005	0.024	0.0016	0.02	-	-	-	-	4.4/3.2/7.8	G/F/L
GCDWQ		0.005	0.024	0.0016	0.02	-	-	-	-	-	-

Notes:

BTEX: Benzene, Toluene, Ethylbenzene, Xylenes
TPH: Total Petroleum Hydrocarbons
RDL: Reportable Detection Limit
<: Below Detection Limit
'-': Parameter not analyzed or no guideline
G: Gasoline
F: Fuel Oil
L: Lube Oil
NA: Not Applicable (because PHCs not detected)
PIRI: Partners in [Risk Based Corrective Action] Implementation
RBSLs: Risk Based Screening Levels
GCDWQ: Health Canada Guidelines for Canadian Drinking Water Quality

Concentration exceeds the GCDWQ

Concentration exceeds the Atlantic PIRI Tier I RBSL