

## Appendix E – Results of Water Quality Analyses



**Table E.1: Microbiological Examination of Water**

**MON-00203023-A0**

<b>Client Sample ID:</b>		PW-01 21 hrs	PW-01 48 hrs	PW-01 72 hrs	OW-12-1D 65hrs	OW-12-2D 65hrs	OW-12-1S 65hrs
<b>Date Sampled:</b>		Aug 28/12	Aug 29/12	Aug 30/12	Aug 30/12	Aug 30/12	Aug 30/12
<b>Time Sampled:</b>		1:30 PM	4:30 PM	4:30 PM	9:30 AM	9:30 AM	9:30 AM
<b>Analyses</b>	<b>Units</b>						
<b>Coliforms (AOAC 990.11)</b>	mpn/100mL	0	0	2	A *	P *	P *
<b>Faecal Coliforms (SM9222D)</b>	mpn/100mL	0	0	0			
<b>E. coli (AOAC 990.11)</b>	mpn/100mL	0	0	0	A *	A *	A *

A \* = Absence of Coliform & E.Coli as reported by NB Environment Analytical Laboratory

P \* = Presence of Coliform & E.Coli as reported by NB Environment Analytical Laboratory

Table E.2: Analytical Results for General Chemistry

MON-00203023-A0

Client ID:				PW-01 21 hrs	PW-01 48 hrs	PW-01 72 hrs	OW-12-1D 65hrs	OW-12-2D 65hrs	OW-12-1S 65hrs
Date: (YYYY/MM/DD)				Aug 28/12	Aug 29/12	Aug 30/12	Aug 30/12	Aug 30/12	Aug 30/12
	Units	MDL <sup>1</sup>	Guidelines	Results	Results	Results	Results	Results	Results
Alkalinity	mg/L	1		110	100	110	68.4	131	9.34
Ammonia	mg/L	0.05		<0.05	<0.05	<0.05			
Bromide	mg/L	0.10					<0.1	<0.1	<0.1
Calcium	mg/L	0.05		37.50	38.2	38.9	20.2	45.2	2.96
Chloride	mg/L	0.5	250	3.1	3.1	3.1	2.97	3.72	3.03
Conductivity	µS/cm	1		260	265	269	169	268	18.1
Copper	mg/L	0.001	1	<0.001	<0.001	<0.001	<0.010	<0.010	<0.010
Fluoride	mg/L	0.100	1.500				0.149	0.223	<0.1
Iron	mg/L	0.02	0.3	0.03	<0.02	<0.02	3.6	1.8	1.9
Magnesium	mg/L	0.01		3.95	4.07	4.15	3.6	4.74	0.61
Manganese	mg/L	0.001	0.05	0.115	0.127	0.131	0.17	0.42	0.17
Nitrate + Nitrite	mg/L	0.05	10	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Phosphate	mg/L	0.01		<0.01	<0.01	<0.01			
pH		-	6.5 - 8.5	8	8	8	8.85	8.07	7.58
Potassium	mg/L	0.02		1.38	1.37	1.35	1.6	1.7	0.9
r-Silica	mg/L	0.1		9.9	9.8	9.3			
Sodium	mg/L	0.05	200	10	9.81	9.7	9.89	6.99	74.7
Sulfate	mg/L	1	500	16	19	17	14.7	9.46	0.825
Total Organic Carbon	mg/L	0.5		<0.05	<0.5	<0.5			
Turbidity	NTU	0.1		0.6	0.2	0.3	53	4600	1100
Zinc	mg/L	0.001	5	<0.001	<0.001	<0.001	<0.005	<0.005	0.011
<b>Calculated Parameters</b>									
Bicarbonate	mg/L	-		109.00	99.00	119.00	63.8	129.5	0
Carbonate	mg/L	-		1.02	0.93	1.12	4.2	1.4	9.3
Hydroxide	mg/L	-		0.05	0.05	0.05			
Cation sum	meq/L	-		2.67	2.71	2.74	1.978	3.195	3.59
Anion sum	meq/L	-		2.64	2.48	2.86	1.77	2.937	0.301
% difference	mg/L	-		0.60	4.37	-2.12	-5.544	-4.201	-84.55
Theoretical Conductivity	µS/cm	-		251.00	248.00	263.00			
Hardness	mg/L	-		110.00	112.00	114.00	65.2	132	9.9
Ion Sum	mg/L	-		150.00	146.00	158.00			
Saturation pH		-		8.00	8.00	7.90			
Saturation Index 25 C							0.718	0.539	-2.237
Langelier Index		-		0.01	-0.02	0.06			

\* Guideline values provided for comparative purposes only. Guideline values can be exceeded depending on site specific natural water quality. Shaded cells indicate elevated analyte concentrations relative to guideline value (Canadian Drinking Water Quality, CCME 2010).

**Table E.3: Analytical Results for Trace Metals**

MON-00203023-A0

Client ID:				PW-01 21 hrs	PW-01 48 hrs	PW-01 72 hrs	OW-12-1D 65hrs	OW-12-2D 65hrs	OW-12-1S 65hrs
Date: (YYYY/MM/DD)				Aug 27/12	Aug 28/12	Aug 29/12	Aug 30/12	Aug 30/12	Aug 30/12
	Units	MDL <sup>1</sup>	Guidelines	Results	Results	Results	Results	Results	Results
Aluminum	µg/L	1	100	22	3	6	<25	800	92
Antimony	µg/L	0.1	6	0	0.2	0.1	<1.0	4.2	<1
Arsenic	µg/L	1	10	2	2	2	<1.5	1.9	<1.5
Barium	µg/L	1	1000	82	82	84	63	80	193
Beryllium	µg/L	0.1		<0.1	<0.1	<0.1			
Bismuth	µg/L	0.1		<1	<1	<1			
Boron	µg/L	1	5000	45	46	44	27	<10	147
Cadmium	µg/L	0.1	5	<0.01	<0.01	<0.01	<0.5	<0.5	<0.5
Calcium	µg/L	50		37500.0	38200	38900	20200	45200	2960
Chromium	µg/L	1	50	<1	<1	<1	<10	<10	<10
Cobalt	µg/L	0.1		<0.1	<0.1	<0.1			
Copper	µg/L	1	1000	<1	<1	<1	<10	<10	<10
Iron	µg/L	20	300	30	<20	<20	3600	1800	1900
Lead	µg/L	0.1	10	0	0.1	0.1	1.2	15	4.2
Lithium	µg/L	0.1		11.6	11.4	11.3			
Magnesium	µg/L	10		3950.0	4070	4150	3600	4740	610
Manganese	µg/L	1	50	115	127	131	170	420	170
Molybdenum	µg/L	0.1		0.6	0.4	0.8			
Nickel	µg/L	1		<1	<1	<1			
Potassium	µg/L	20		1380.0	1370	1350	1600	1700	900
Rubidium	µg/L	0.1		0.7	0.6	0.6			
Selenium	µg/L	1	10	<1	<1	<1	<1.5	<1.5	<1.5
Silver	µg/L	0.1		<0.1	<0.1	<0.1			
Sodium	µg/L	50	200000	10000	9810	9700	9890	6990	74700
Strontium	µg/L	1		568	584	602			
Tellurium	µg/L	0.1		<0.1	<0.1	<0.1			
Thallium	µg/L	0.1		<0.1	<0.1	<0.1	<1	<1.0	<1.0
Tin	µg/L	0.1		<0.1	<0.1	<0.1			
Uranium	µg/L	0.1	20	0	0.1	0.1	<0.5	3.9	<0.5
Vanadium	µg/L	1		<1	<1	<1			
Zinc	µg/L	1	5000	<1	<1	<1	<5	<5	11

\* Guideline values provided for comparative purposes only. Guideline values can be exceeded depending on site specific natural water quality. Shaded cells indicate elevated analyte concentrations relative to guideline value (Canadian Drinking Water Quality, CCME 2010).