Appendix B – Tabulated Groundwater Quality Data

Legend
Tables B-1 and B-2

BCAWQG I	BC Approved Water Quality Guidelines for Irrigation
BCWWQG I	Working Water Quality Guidelines for British Columbia for Irrigation
BCAWQG L	BC Approved Water Quality Guidelines for Livestock
BCWWQG L	Working Water Quality Guidelines for British Columbia for Livestock
BCAWQG DW	BC Approved Water Quality Guidelines for Drinking Water
GCDWQ AO	Guidelines for Canadian Drinking Water Quality - Aesthetic Objectives
GCDWQ MAC	Guidelines for Canadian Drinking Water Quality - Maximum Acceptable Concentrations
<	Less than reported detection limit
>	Greater than reported upper detection limit
Calc	Calculated guideline. The guideline is dependent on the value of one or more other analytes, and is calculated from a formula or table.
NG	No Guideline
	Highlighted value has a detection limit that is higher than the guideline maximum.
BCAWQG DW	Highlighted value exceeds BCAWQG DW
BCAWQG I	Highlighted value exceeds BCAWQG I
BCAWQG L	Highlighted value exceeds BCAWQG L
BCWWQG I	Highlighted value exceeds BCWWQG I
BCWWQG L	Highlighted value exceeds BCWWQG L
GCDWQ AO	Highlighted value exceeds GCDWQ AO
GCDWQ MAC	Highlighted value exceeds GCDWQ MAC

Table B-1
Groundwater Quality Data collected by Associated in 2016

Analyte	Unit	Guideline							Sampling Location	2016-02	2016-03	2016-04	2016-05	2016-05 (Duplicate)	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12
									Date Sampled	12-Oct-16	12-Oct-16	12-Oct-16	12-Oct-16	12-Oct-16	12-Oct-16	12-Oct-16	09-Nov-16	09-Nov-16	09-Nov-16	09-Nov-16
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO												
Field Results																				
Conductivity	µS/cm	NG	700 [2.1]	NG	NG	NG	NG	NG		481	320	957	1235	1235	322	454	470	150	250	260
Oxidation reduction potential	mV	NG	NG	NG	NG	NG	NG	NG		50	37	68	-33	-33	27	36	103	57	103	114
pH		5.0 - 9.0 [1.1]	NG	5.0 - 9.5 [3.1]	NG	6.5 - 8.5 [5.1]	NG	7.0 - 10.5 [7.1]		7.83	7.54	7.47	7.66	7.66	7.55	7.77	7.43	7.07	7.63	7.75
Temperature	°C	N [1.2]	NG	N [3.2]	NG	15 [5.2]	NG	15		7.3	8.5	12.8	15.7	15.7	12.6	12.4	9.9	5.6	8.1	10.0
Lab Results																				
General																				
Alkalinity (bicarbonate, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		154	117	218	134	136	127	188	190	54	97	99
Alkalinity (carbonate, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Alkalinity (hydroxide, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Alkalinity (phenolphthalein, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Alkalinity (total, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		154	117	218	134	136	127	188	190	54	97	99
Chloride	mg/L	100	NG	600 [3.3]	NG	250 [5.3]	NG	250		3.49	2.92	6.55	2.66	2.59	7.85	7.19	8.92	0.71	5.37	3.07
Conductivity	µS/cm	NG	700 [2.2]	NG	NG	NG	NG	NG		471	286	1060	1390	1390	330	489	440	143	232	241
Hardness, total (dissolved as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		196	125	556	680	721	143	225	205	58.2	98.6	103
pH		5.0 - 9.0 [1.3]	NG	5.0 - 9.5 [3.4]	NG	6.5 - 8.5 [5.4]	NG	7.0 - 10.5 [7.2]		7.89	7.53	7.70	7.77	7.77	7.64	7.90	7.79	7.35	7.75	7.77
Salinity		NG	NG	NG	NG	NG	NG	NG		0.2	0.1	0.6	0.7	0.7	0.2	0.2	0.2	<0.1	0.1	0.1
Sodium Adsorption Ratio		NG	NG	NG	NG	NG	NG	NG		0.5	0.2	0.4	0.7	0.7	0.2	0.5	0.3	0.2	0.2	0.3
Sulphate	mg/L	NG	NG	1000	1000 [4.1]	500	NG	500 [7.3]		89.7	29.9	401	665	667	30.1	64.3	35.2	14.5	13.6	18.1
Total dissolved solids	mg/L	NG	500 [2.3]	NG	1000 [4.2]	NG	NG	500		307	180	804	*1170*	*1170*	205	299	252	83	130	147
Metals																				
Aluminum (dissolved)	mg/L	5 [1.4]	NG	5 [3.5]	NG	0.2 [5.5]	NG	N [7.4]		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Antimony (dissolved)	mg/L	NG	NG	NG	NG	NG	0.006	NG		0.0002	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Arsenic (dissolved)	mg/L	0.100 [1.5]	NG	0.025 [3.6]	NG	0.025 [5.6]	0.010 [6.1]	NG		0.0039	0.0010	0.0025	0.0065	0.0064	0.0006	0.0014	<0.0005	<0.0005	<0.0005	0.0012
Barium (dissolved)	mg/L	NG	NG	NG	NG	NG	1.0	NG		0.064	0.040	0.052	0.013	0.013	0.043	0.145	0.049	0.005	0.029	0.027
Beryllium (dissolved)	mg/L	NG	0.100	NG	0.100	NG	NG	NG		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bismuth (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Boron (dissolved)	mg/L	0.5 [1.6]	NG	5 [3.7]	NG	5 [5.7]	5	NG		0.040	0.027	0.019	0.055	0.058	0.015	0.014	0.017	0.007	0.009	0.011
Cadmium (dissolved)	mg/L	NG	0.0051 [2.4]	NG	0.080 [4.3]	NG	0.005	NG		0.00001	0.00002	0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Calcium (dissolved)	mg/L	NG	NG	NG	1000	NG	NG	NG		60.4	38.6	158	217	232	43.4	71.2	58.8	18.3	31.5	33.9
Chromium (dissolved)	mg/L	NG	0.0049 [2.5]	NG	0.050 [4.4]	NG	0.05	NG		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Cobalt (dissolved)	mg/L	NG	0.050 [2.6]	NG	1	NG	NG	NG		0.00006	0.00006	<0.00005	0.00006	0.00007	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00050
Copper (dissolved)	mg/L	0.200 [1.7]	NG	0.300 [3.8]	NG	0.500 [5.8]	NG	1.0		0.0005	0.0340	0.0015	0.0004	0.0004	0.0016	0.0003	0.0031	0.0073	0.0008	0.0011
Iron (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	0.3		0.026	<0.010	<0.010	0.233	0.244	<0.010	<0.010	<0.010	0.016	<0.010	<0.010
Lead (dissolved)	mg/L	0.200 [1.8]	NG	0.100 [3.9]	NG	0.050 [5.9]	0.010	NG		0.0004	0.0003	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	0.0002	<0.0001	0.0003
Lithium (dissolved)	mg/L	NG	0.75 [2.7]	NG	NG	NG	NG	NG		0.0032	0.0013	0.0073	0.0090	0.0091	0.0016	0.0029	0.0021	0.0004	0.0011	0.0014
Magnesium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		10.9	7.03	39.4	33.7	34.5	8.43	11.4	14.0	3.04	4.84	4.36
Manganese (dissolved)	mg/L	NG	0.200	NG	NG	NG	NG	0.05		0.245	0.535	0.0016	0.170	0.175	0.0002	0.0925	0.0002	0.0111	<0.0002	<0.0002
Mercury (dissolved)	mg/L	0.0020 [1.9]	NG	0.0030 [3.10]	NG	0.0010 [5.10]	0.001	NG		<0.00002	<0.00002	<0.00002	<0.00002		<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
Molybdenum (dissolved)	mg/L	0.05 [1.10]	NG	0.05 [3.11]	NG	0.25 [5.11]	NG	NG		0.0111	0.0028	0.0098	*0.0560*	*0.0577*	0.0025	0.0020	0.0035	0.0004	0.0034	0.0012
Nickel (dissolved)	mg/L	NG	0.200	NG	1	NG	NG	NG		0.0008	0.0002	<0.0002	0.0002	0.0002	<0.0002	<0.0002	<0.0002	0.0004	<0.0002	<0.0002
Selenium (dissolved)	mg/L	0.010 [1.11]	NG	0.0300 [3.12]	NG	0.010 [5.12]	0.05	NG		<0.0005	<0.0005	0.0036	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	0.0005
Silicon (dissolved, as Si)	mg/L	NG	NG	NG	NG	NG	NG	NG		13.9	10.0	12.8	19.0	19.3	8.8	8.4	8.0	6.2	5.4	7.4
Silver (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		0.00031	0.00013	0.00009	0.00008	0.00006	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Sodium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	200		16.8	5.64	19.7	42.7	43.4	6.85	9.61	9.54	3.00	4.63	6.16
Strontium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		0.547	0.216	1.12	3.07	3.12	0.270	0.369	0.409	0.097	0.189	0.166
Sulphur (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		32	10	138	234	234	9	22	11	3	3	5

Table B-1
Groundwater Quality Data collected by Associated in 2016

Analyte	Unit	Guideline							Sampling Location	2016-02	2016-03	2016-04	2016-05	2016-05 (Duplicate)	2016-07	2016-08	2016-09	2016-10	2016-11	2016-12
									Date Sampled	12-Oct-16	12-Oct-16	12-Oct-16	12-Oct-16	12-Oct-16	12-Oct-16	12-Oct-16	09-Nov-16	09-Nov-16	09-Nov-16	09-Nov-16
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO												
Tellurium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Thallium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
Thorium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Tin (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Titanium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Uranium (dissolved)	mg/L	NG	0.010	NG	0.200	NG	0.02	NG		0.00211	0.00123	0.00388	0.00296	0.00309	0.00110	0.00153	0.00082	0.00007	0.00034	0.00055
Vanadium (dissolved)	mg/L	NG	0.100	NG	0.100	NG	NG	NG		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Zinc (dissolved)	mg/L	1.000 [1.12]	NG	2.000 [3.13]	NG	5.0 [5.13]	NG	5.0		0.032	0.006	0.016	0.010	0.011	<0.004	0.022	0.019	0.009	0.016	0.048
Zirconium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Microbiological																				
Background Bacteria	CFU/100 mL	NG	NG	NG	NG	NG	NG	NG					>200	>200						
E. coli (counts)	CFU/100 mL	385 [1.13]	NG	200 [3.14]	NG	0 [5.14]	0 [6.2]	NG		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total coliforms (counts)	CFU/100 mL	NG	NG	NG	NG	NG	0 [6.3]	NG		<1	5	1	<1	<1	<1	<1	<1	<1	<1	<1
Nutrients																				
Ammonia (total, as N)	mg/L	NG	NG	NG	NG	NG	NG	NG		0.076	0.048	0.040	0.196	0.187	0.058	0.054	0.021	0.028	0.027	0.026
Nitrate (as N)	mg/L	NG	NG	100 [3.15]	NG	10 [5.15]	10	NG		0.063	0.176	0.434	<0.010	<0.010	0.784	0.060	0.162	0.051	0.200	0.188
Nitrate + Nitrite (as N)	mg/L	NG	NG	100 [3.16]	NG	10 [5.16]	10 [6.4]	NG		0.063	0.176	0.434	<0.010	<0.010	0.784	0.060	0.162	0.051	0.200	0.188
Nitrate + Nitrite (as N) (calculated)	mg/L	NG	NG	100 [3.17]	NG	10 [5.17]	10 [6.5]	NG		0.063	0.176	0.434	<0.014	<0.014	0.784	0.060	0.162	0.051	0.200	0.188
Nitrite (as N)	mg/L	NG	NG	10 [3.18]	NG	1 [5.18]	1	NG		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Organic nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG		0.074	0.053	0.067	0.109	0.110	<0.050	0.112	0.072	0.056	0.075	0.074
Total nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG		0.213	0.277	0.541	0.305	0.297	0.842	0.226	0.256	0.135	0.302	0.288
Total kjeldahl nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG		0.15	0.10	0.11	0.30	0.30	0.06	0.17	0.09	0.08	0.10	0.10
Phosphorus (dissolved, by ICPMS/ICPOES)	mg/L	NG	NG	NG	NG	N [5.19]	NG	NG		0.04	<0.02	<0.02	0.04	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Phosphorus (total, APHA 4500-P)	mg/L	NG	NG	NG	NG	N [5.20]	NG	NG		0.033	0.014	0.022	0.021	0.020	0.010	0.011	0.009	0.011	0.006	0.007
Phosphorus (dissolved, APHA 4500-P)	mg/L	NG	NG	NG	NG	N [5.21]	NG	NG		0.031	0.010	0.012	0.017	0.018	0.010	0.011	0.006	0.007	0.005	0.007
Potassium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		4.12	1.77	7.14	7.71	7.71	1.80	2.27	1.34	0.33	0.88	1.10

Table B-1
Guideline Notes

1. Notes for BC Approved Water Quality Guidelines for irrigation (BCAWQG I)
General Notes:
The Water Quality Guidelines (Criteria) Reports by BC Ministry of Environment were used as references for the guidelines. (Internet address: http://www.env.gov.bc.ca/wat/wq/wq_guidelines.html). Overview Reports (BC MOE) were used as the references for the guidelines unless the note for specific analyte indicates that the Technical Appendix (BC MOE) was used.
Note 1.1 for pH:
The recommended criterion for irrigation waters is a pH ranging between 5.0 and 9.0. This guideline recognizes that soil acidity, alkalinity and salinity are a concern in agriculture.
Note 1.2 for Temperature:
The recommended guideline for temperature is + or - 1 degree Celsius change from natural ambient background.
Note 1.3 for pH:
The recommended criterion for irrigation waters is a pH ranging between 5.0 and 9.0. This guideline recognizes that soil acidity, alkalinity and salinity are a concern in agriculture.
Note 1.4 for Aluminum (dissolved):
The guideline maximum for total aluminum is 5 mg/L. A separate guideline for dissolved aluminum is not provided.
Note 1.5 for Arsenic (dissolved):
The interim guideline for total arsenic is 100 µg/L.
Note 1.6 for Boron (dissolved):
The guideline for total boron depends on the crop, and varies from 0.5 mg/L to 6 mg/L. The most stringent guideline maximum of 0.5 mg/L, for very sensitive and sensitive crops, was used to identify exceedances for this report.
Note 1.7 for Copper (dissolved):
The guideline maximum for total copper is 200 µg/L.
Note 1.8 for Lead (dissolved):
For neutral and alkaline fine-textured soils the total lead concentration in irrigation water should not exceed 400 µg/L at any time. The concentration of total lead in irrigation water for use on all other soils should not exceed 200 µg/L at any time. / The most stringent guideline maximum was used in this report.
Note 1.9 for Mercury (dissolved):
The guideline maximum for total mercury is 2.0 µg/L.
Note 1.10 for Molybdenum (dissolved):
The guideline maximum for total molybdenum for irrigation of forage crops is 0.05 mg/L. There is no guideline maximum for total molybdenum for irrigation of non-forage crops.
Note 1.11 for Selenium (dissolved):
The guideline for total selenium is 10 µg/L mean. The mean concentrations in the water column are based on at least 5 weekly samples taken over a 30-day period.
Note 1.12 for Zinc (dissolved):
The guideline maximum for total zinc for irrigation is as follows: - Soil pH less than 6: 1000 µg/L. - Soil pH equal to or greater than 6, and less than 7: 2000 µg/L. - Soil pH greater than or equal to 7: 5000 µg/L. / The most stringent guideline maximum was used in this report.
Note 1.13 for E. coli (counts):
The guideline for irrigation for E. coli varies as a function of crop, public access, and livestock access. The guideline maximum for crops eaten raw is less than or equal to 77/100 mL geometric mean. The guideline maximum for public access and livestock access is less than or equal to 385/100 mL geometric mean. The guideline maximum for general irrigation is less than or equal to 1000/100 mL geometric mean. / The guideline for public access and livestock access was used in this report.
2. Notes for Working Water Quality Guidelines for British Columbia for irrigation (BCWWQG I)
General Notes:
Reference: Working Water Quality Guidelines for British Columbia (2015). WWQG values are long-term (i.e. average) concentrations unless identified as a short-term maximum in the “Notes” for a specific analyte. Long-term WWQGs represent average substance concentrations calculated from 5 samples in 30 days. WWQG are given for total substance concentrations unless otherwise noted.

Table B-1
Guideline Notes

Note 2.1 for Conductivity:
The guideline varies from 700 to 5000 µS/cm depending on the type of crop. The most stringent guideline has been used for this report.
Note 2.2 for Conductivity:
The guideline varies from 700 to 5000 µS/cm depending on the type of crop. The most stringent guideline has been used for this report.
Note 2.3 for Total dissolved solids:
The guideline varies from 500 to 3500 mg/L depending on the type of crop. The most stringent guideline has been used for this report.
Note 2.4 for Cadmium (dissolved):
This is a Short-term maximum guideline.
Note 2.5 for Chromium (dissolved):
The guideline for Cr(VI) is 8 µg/L (total). The guideline for Cr(III) is 4.9 µg/L (total). The guideline of 4.9 µg/L for Cr(III) was used, in this report, to identify exceedances for dissolved chromium, and total chromium as a means for determining the potential for exceeding the Cr(VI) and/or Cr(III) guidelines.
Note 2.6 for Cobalt (dissolved):
Continuous or intermittent use on all soils.
Note 2.7 for Lithium (dissolved):
The guideline is 2.5 mg/L for non-citrus crops (May not be protective of barley and other cereal crops; 1.0 mg/L suggested for cereal crops). The guideline is 0.75 mg/L for citrus crops. / The most stringent guideline was used in this report.
3. Notes for BC Approved Water Quality Guidelines for livestock (BCAWQG L)
General Notes:
The Water Quality Guidelines (Criteria) Reports by BC Ministry of Environment were used as references for the guidelines. (Internet address: http://www.env.gov.bc.ca/wat/wq/wq_guidelines.html). Overview Reports (BC MOE) were used as the references for the guidelines unless the note for specific analyte indicates that the Technical Appendix (BC MOE) was used.
Note 3.1 for pH:
pH does not interfere with the palatability of water or the health of livestock.
Note 3.2 for Temperature:
The recommended guideline for temperature is + or - 1 degree Celsius change from natural ambient background.
Note 3.3 for Chloride:
The water quality guideline for chloride for livestock watering is 600 mg/L.
Note 3.4 for pH:
pH does not interfere with the palatability of water or the health of livestock.
Note 3.5 for Aluminum (dissolved):
The guideline maximum for total aluminum is 5 mg/L. A separate guideline for dissolved aluminum is not provided.
Note 3.6 for Arsenic (dissolved):
The interim guideline for total arsenic is 25 µg/L.
Note 3.7 for Boron (dissolved):
The guideline maximum for total boron is 5 mg/L.
Note 3.8 for Copper (dissolved):
The guideline maximum for total copper is 300 µg/L.
Note 3.9 for Lead (dissolved):
The guideline maximum for total lead is 100 µg/L.
Note 3.10 for Mercury (dissolved):
The guideline maximum for total mercury is 3.0 µg/L.
Note 3.11 for Molybdenum (dissolved):
If livestock are consuming forages not irrigated, or if no molybdenum containing fertilizers are applied to grow feed consumed by livestock, then the guideline maximum for total molybdenum is 0.08 mg/L. For all other cases, the guideline maximum for total molybdenum is 0.05 mg/L. / The most stringent guideline maximum was used in this report.
Note 3.12 for Selenium (dissolved):

Table B-1
Guideline Notes

The guideline for total selenium is 30.0 µg/L mean. The mean concentrations in the water column are based on at least 5 weekly samples taken over a 30-day period.
Note 3.13 for Zinc (dissolved):
The guideline maximum for total zinc is 2000 µg/L.
Note 3.14 for E. coli (counts):
The guideline for E. coli varies based on site specific factors including type of livestock, whether livestock are closely confined, and type of water treatment. The guideline for free range animals is “none applicable”. The guideline maximum for general livestock use is 200/100 mL. The guideline maximum for closely confined, no treatment, is 0/100 mL. The guideline maximum for closely confined, disinfection only, is less than or equal to 10/100 mL 90th percentile. The guideline maximum for closely confined, partial treatment, is less than or equal to 100/100 mL 90th percentile. The guideline for closely confined, complete treatment is “none applicable”. / The guideline for general livestock use was used in this report.
Note 3.15 for Nitrate (as N):
Overview Report Update, September 2009.
Note 3.16 for Nitrate + Nitrite (as N):
The guideline maximum for nitrate as nitrogen is 100 mg/l. Where nitrate and nitrite are present, the total nitrate+nitrite nitrogen should not exceed this value. Overview Report Update, September 2009.
Note 3.17 for Nitrate + Nitrite (as N) (calculated):
The guideline maximum for nitrate as nitrogen is 100 mg/l. Where nitrate and nitrite are present, the total nitrate+nitrite nitrogen should not exceed this value. Overview Report Update, September 2009.
Note 3.18 for Nitrite (as N):
Overview Report Update, September 2009.
4. Notes for Working Water Quality Guidelines for British Columbia for livestock (BCWWQG L)
General Notes:
Reference: Working Water Quality Guidelines for British Columbia (2015). WWQG values are long-term (i.e. average) concentrations unless identified as a short-term maximum in the “Notes” for a specific analyte. Long-term WWQGs represent average substance concentrations calculated from 5 samples in 30 days. WWQG are given for total substance concentrations unless otherwise noted.
Note 4.1 for Sulphate:
The guideline is for dissolved sulphate.
Note 4.2 for Total dissolved solids:
The guideline is 1,000-3,000 mg/L, and is species dependent. Maximum of 1000 mg/L is relatively low level of salinity; excellent for all classes of livestock. TDS between 1000 and 3000 mg/L is satisfactory for all classes of livestock and poultry, but some loss in productivity should be anticipated: may cause temporary and mild diarrhoea in livestock not accustomed to them or watery droppings in poultry. / The most stringent guideline was used in this report.
Note 4.3 for Cadmium (dissolved):
This is a Short-term maximum guideline.
Note 4.4 for Chromium (dissolved):
The guideline for Cr(VI) is 50 µg/L (total). The guideline for Cr(III) is 50 µg/L (total). The guideline of 50 µg/L for Cr(VI), and for Cr(III) was used, in this report, to identify exceedances for dissolved chromium, and total chromium as a means for determining the potential for exceeding the Cr(VI) and/or Cr(III) guidelines.
5. Notes for BC Approved Water Quality Guidelines for drinking water (BCAWQG DW)
General Notes:
The Water Quality Guidelines (Criteria) Reports by BC Ministry of Environment were used as references for the guidelines. (Internet address: http://www.env.gov.bc.ca/wat/wq/wq_guidelines.html). Overview Reports (BC MOE) were used as the references for the guidelines unless the note for specific analyte indicates that the Technical Appendix (BC MOE) was used. Drinking water guidelines are, in some cases, for raw water before treatment.

Table B-1
Guideline Notes

Note 5.1 for pH:
Designed to minimize solubilization of heavy metals and salts from water distribution pipes and the precipitation of carbonate salts in the distribution system, and maximize the effectiveness of chlorination. However, natural source water outside the guidelines may be safe to drink from a public health perspective.
Note 5.2 for Temperature:
The guideline for maximum temperature for drinking water is 15 degrees.
Note 5.3 for Chloride:
The guideline maximum for chloride in drinking water (for aesthetic reasons) is 250 mg/L.
Note 5.4 for pH:
Designed to minimize solubilization of heavy metals and salts from water distribution pipes and the precipitation of carbonate salts in the distribution system, and maximize the effectiveness of chlorination. However, natural source water outside the guidelines may be safe to drink from a public health perspective.
Note 5.5 for Aluminum (dissolved):
The guideline maximum for dissolved aluminum is 0.2 mg/L (based on aesthetic considerations). This criterion would apply to both untreated raw water and raw water treated to remove suspended solids.
Note 5.6 for Arsenic (dissolved):
The interim guideline maximum for total arsenic in drinking water is 25 µg/L.
Note 5.7 for Boron (dissolved):
The guideline maximum for total boron in drinking water is 5 mg/L.
Note 5.8 for Copper (dissolved):
In raw drinking water with or without treatment, total copper should not exceed 500 µg/L.
Note 5.9 for Lead (dissolved):
In raw drinking water, with and without treatment, the total lead concentration should not exceed 50 µg/L at any time.
Note 5.10 for Mercury (dissolved):
The concentration of total mercury in raw drinking water should not exceed 1.0 µg/L at any time.
Note 5.11 for Molybdenum (dissolved):
The guideline maximum for total molybdenum in raw untreated drinking water is 0.25 mg/L.
Note 5.12 for Selenium (dissolved):
The guideline maximum for total selenium in drinking water is 10 µg/L.
Note 5.13 for Zinc (dissolved):
The guideline maximum for total zinc in drinking water is 5.0 mg/L.
Note 5.14 for E. coli (counts):
The guideline for raw drinking water depends on the type of water treatment. The guideline maximum for raw drinking water with no treatment is 0/100 mL. The guideline maximum for raw drinking water with disinfection only is less than or equal to 10/100 mL 90th percentile. The guideline maximum for raw drinking water with partial treatment is less than or equal to 100/100 mL 90th percentile. The guideline maximum for raw drinking water with complete treatment is “none applicable”. / The most stringent guideline (no water treatment) was used in this report.
Note 5.15 for Nitrate (as N):
Overview Report Update, September 2009
Note 5.16 for Nitrate + Nitrite (as N):
The guideline maximum for nitrate as nitrogen is 10 mg/l. Where nitrate and nitrite are present, the total nitrate+nitrite nitrogen should not exceed this value. Overview Report Update, September 2009
Note 5.17 for Nitrate + Nitrite (as N) (calculated):
The guideline maximum for nitrate as nitrogen is 10 mg/l. Where nitrate and nitrite are present, the total nitrate+nitrite nitrogen should not exceed this value. Overview Report Update, September 2009
Note 5.18 for Nitrite (as N):
Overview Report Update, September 2009
Note 5.19 for Phosphorus (dissolved, by ICPMS/ICPOES):
For lakes used as a source of drinking water, the total phosphorous concentration should not exceed 10 µg/L. No guideline is recommended for streams.
Note 5.20 for Phosphorus (total, APHA 4500-P):

Table B-1
Guideline Notes

For lakes used as a source of drinking water, the total phosphorous concentration should not exceed 10 µg/L. No guideline is recommended for streams.
Note 5.21 for Phosphorus (dissolved, APHA 4500-P):
For lakes used as a source of drinking water, the total phosphorous concentration should not exceed 10 µg/L. No guideline is recommended for streams.
6. Notes for Guidelines for Canadian Drinking Water Quality - Maximum Acceptable Concentrations (GCDWQ MAC)
Note 6.1 for Arsenic (dissolved):
Every effort should be made to maintain arsenic levels in drinking water as low as reasonably achievable.
Note 6.2 for E. coli (counts):
MAC is none detectable per 100 mL
Note 6.3 for Total coliforms (counts):
The maximum acceptable concentration (MAC) of total coliforms in water leaving a treatment plant and in non-disinfected groundwater leaving the well is none detectable per 100 mL. Total coliforms should be monitored in the distribution system because they are used to indicate changes in water quality. Detection of total coliforms from consecutive samples from the same site or from more than 10% of the samples collected in a given sampling period should be investigated.
Note 6.4 for Nitrate + Nitrite (as N):
The MAC for Nitrate (as N) is 10 mg/L
Note 6.5 for Nitrate + Nitrite (as N) (calculated):
The MAC for Nitrate (as N) is 10 mg/L
7. Notes for Guidelines for Canadian Drinking Water Quality - Aesthetic Objectives (GCDWQ AO)
Note 7.1 for pH:
The operational guideline for pH is a range of 7.0 to 10.5 in finished drinking water.
Note 7.2 for pH:
The operational guideline for pH is a range of 7.0 to 10.5 in finished drinking water.
Note 7.3 for Sulphate:
There may be a laxative effect in some individuals when sulphate levels exceed 500 mg/L. Health authorities should be notified of drinking water sources containing above 500 mg/L.
Note 7.4 for Aluminum (dissolved):
This is an operational guidance value, designed to apply only to drinking water treatment plants using aluminum-based coagulants. The operational guidance value of 0.1 mg/L applies to conventional treatment plants, and 0.2 mg/L applies to other types of treatment systems.

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)
									Date Sampled	05-Jun-03	05-Jun-03	03-Sep-03	21-Mar-13	27-Jun-13	08-Oct-13	24-Mar-14	17-Jun-14	25-Sep-14	10-Dec-14	25-Mar-15	25-Jun-15	16-Sep-15	02-Dec-15
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO															
Lab Results																							
General																							
Alkalinity (phenolphthalein, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Alkalinity (total, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG			515.51		416	381	363	403	392	391	393	382	379	380	378
Bicarbonate Alkalinity (as HCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG					416	381	363	403	392	391	393	382	379	380	378
Carbonate Alkalinity (as CO3)	mg/L	NG	NG	NG	NG	NG	NG	NG					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hydroxide Alkalinity (as OH)	mg/L	NG	NG	NG	NG	NG	NG	NG					<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Biochemical oxygen demand	mg/L	NG	NG	NG	NG	NG	NG	NG					<10	<10	<10	<10	<10	<10	<10	<10	<10		
Bromide	mg/L	NG	NG	NG	NG	NG	NG	NG											<0.1	<0.1	<0.1	<0.1	<0.1
Chemical Oxygen Demand	mg/L	NG	NG	NG	NG	NG	NG	NG					<5	<5	9	<5	<5	<5	<5	<5	<5	<5	<5
Chloride	mg/L	100	NG	600 [3.1]	NG	250 [5.1]	NG	250			6.91		12.5	11.5	10.3	13.4	12.6	12.5	13.2	11.9	10.2	10.5	11.3
Conductivity	µS/cm	NG	700 [2.1]	NG	NG	NG	NG	NG			1286		1100	1030	989	1200	1150	1150	1160	1100	1030	1060	1020
Weak acid dissociable cyanide	mg/L	NG	NG	NG	NG	NG	0.2 [6.1]	NG															
Dissolved oxygen	mg/L	NG	NG	NG	NG	NG	NG	NG															
Fluoride	mg/L	2.0 [1.1]	NG	1.5 [3.2]	NG	1.5	1.5	NG			0.154		0.11	0.11	0.14	0.18	0.13	0.11	0.13	0.15	0.13	<0.1	0.11
Hardness, total (dissolved as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG	727			575	558	546	453	646	595	595	601	554	526	535	534
pH		5.0 - 9.0 [1.2]	NG	5.0 - 9.5 [3.3]	NG	6.5 - 8.5 [5.2]	NG	7.0 - 10.5 [7.1]	7.55	7.55		7.41	7.87	7.87	7.83	7.8	7.74	7.77	7.83	7.8	7.74	7.78	7.81
Sulphate	mg/L	NG	NG	1000	1000 [4.1]	500	NG	500 [7.2]			262.1		205	182	178	264	259	242	249	215	205	192	223
Temperature	°C	N [1.3]	NG	N [3.4]	NG	15 [5.3]	NG	15															
Total dissolved solids	mg/L	NG	500 [2.2]	NG	1000 [4.2]	NG	NG	500															
Total suspended solids	mg/L	N [1.4]	NG	N [3.5]	NG	NG	NG	NG															
Turbidity	NTU	N [1.5]	NG	N [3.6]	NG	N [5.4]	N [6.2]	NG															
Metals																							
Aluminum (dissolved)	mg/L	5 [1.6]	NG	5 [3.7]	NG	0.2 [5.5]	NG	N [7.3]	0.062			<0.065				<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Aluminum (total)	mg/L	5 [1.7]	NG	5 [3.8]	NG	NG	NG	N [7.4]		0.306			<0.005	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Antimony (dissolved)	mg/L	NG	NG	NG	NG	NG	0.006	NG				<0.0005				0.0004	0.0003	0.0002	0.0001	0.0002	0.0001	0.0002	<0.0001
Antimony (total)	mg/L	NG	NG	NG	NG	NG	0.006	NG					0.0002	0.0001	0.0001	0.0002	0.0002	0.0002	0.0005	0.0002	0.0002		
Arsenic (dissolved)	mg/L	0.100 [1.8]	NG	0.025 [3.9]	NG	0.025 [5.6]	0.010 [6.3]	NG	0.00141			0.00177				0.0011	0.0011	0.0012	0.0012	0.0011	0.0012	0.0012	0.0012
Arsenic (total)	mg/L	0.100 [1.9]	NG	0.025 [3.10]	NG	0.025 [5.7]	0.010 [6.4]	NG		0.00167			0.0013	0.0016	0.0021	0.0017	0.0012	0.0013	0.0013	0.0013	0.0013		
Barium (dissolved)	mg/L	NG	NG	NG	NG	NG	1.0	NG	0.105			0.052				0.071	0.061	0.06	0.064	0.062	0.051	0.061	0.065
Barium (total)	mg/L	NG	NG	NG	NG	NG	1.0	NG		0.105			0.063	0.057	0.055	0.072	0.062	0.07	0.074	0.063	0.054		
Beryllium (dissolved)	mg/L	NG	0.100	NG	0.100	NG	NG	NG				<0.003				<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Beryllium (total)	mg/L	NG	0.100	NG	0.100	NG	NG	NG		0.0006			<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Bismuth (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG								<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Bismuth (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Boron (dissolved)	mg/L	0.5 [1.10]	NG	5 [3.11]	NG	5 [5.8]	5	NG	-0.045			<0.05				0.055	0.045	0.046	0.059	0.059	0.055	0.057	0.04
Boron (total)	mg/L	0.5 [1.11]	NG	5	NG	5	5	NG		0.321			0.057	0.082	0.067	0.063	0.048	0.048	0.06	0.076	0.055		
Cadmium (dissolved)	mg/L	NG	0.0051 [2.3]	NG	0.080 [4.3]	NG	0.005	NG				<0.001				0.00004	0.00004	0.00004	0.00004	0.00003	0.00003	0.00002	0.00003
Cadmium (total)	mg/L	NG	0.0051 [2.4]	NG	0.080 [4.4]	NG	0.005	NG					0.00004	0.00004	0.00004	0.00004	0.00004	0.00002	0.00004	0.00005	0.00003		
Calcium (dissolved)	mg/L	NG	NG	NG	1000	NG	NG	NG	121.7			106.352	96	95	80	117	109	114	109	104	94.3	96	88.7
Calcium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG		123.665			94.7	88.2	93	122	109	125	124	103	97.9		
Chromium (dissolved)	mg/L	NG	0.0049 [2.5]	NG	0.050 [4.5]	NG	0.05	NG	0.002			<0.01				0.0035	0.0034	0.0038	0.0038	0.0037	0.0034	0.004	0.0038
Chromium (total)	mg/L	NG	0.0049 [2.6]	NG	0.050 [4.6]	NG	0.05	NG					0.0029	0.0045	0.0046	0.0045	0.0034	0.0042	0.004	0.0033	0.0037		
Cobalt (dissolved)	mg/L	NG	0.050 [2.7]	NG	1	NG	NG	NG				<0.02				<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Cobalt (total)	mg/L	NG	0.050 [2.8]	NG	1	NG	NG	NG					<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005		
Copper (dissolved)	mg/L	0.200 [1.12]	NG	0.300 [3.12]	NG	0.500 [5.9]	NG	1.0				<0.008				0.0137	0.0029	0.0029	0.0037	0.0099	0.0064	0.004	0.002
Copper (total)	mg/L	0.200 [1.13]	NG	0.300	NG	0.500 [5.10]	NG	1.0		0.002			0.0052	0.003	0.005	0.0111	0.0028	0.0031	0.0038	0.0133	0.0056		
Iron (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	0.3				<0.01				0.021	0.013	0.01	0.018	0.024	<0.01	0.011	0.025
Iron (total)	mg/L	NG	NG	NG	NG	NG	NG	0.3		0.027			0.05	0.22	0.49	0.32	0.02	0.05	0.05	0.11	0.07		
Lead (dissolved)	mg/L	0.200 [1.14]	NG	0.100 [3.13]	NG	0.050 [5.11]	0.010	NG				<0.0005				0.0003	<0.0001	0.0001	0.0002	0.0002	0.0002	0.0002	<0.0001
Lead (total)	mg/L	0.200 [1.15]	NG	0.100	NG	0.050 [5.12]	0.010	NG					0.0001	0.0002	0.0003	0.0005	<0.0001	0.0002	0.0002	0.0003	0.0002		

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)
									Date Sampled	05-Jun-03	05-Jun-03	03-Sep-03	21-Mar-13	27-Jun-13	08-Oct-13	24-Mar-14	17-Jun-14	25-Sep-14	10-Dec-14	25-Mar-15	25-Jun-15	16-Sep-15	02-Dec-15
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO															
Lithium (dissolved)	mg/L	NG	0.75 [2.9]	NG	NG	NG	NG	NG								0.0164	0.014	0.0155	0.0148	0.0154	0.0131	0.0148	0.0098
Lithium (total)	mg/L	NG	0.75 [2.10]	NG	NG	NG	NG	NG					0.0151	0.0142	0.0151	0.0172	0.0146	0.0174	0.0167	0.0149	0.0136		
Magnesium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		102.756		75.258	77.6	74.7	61.9	85.9	78.1	75.2	79.9	71.5	70.5	71.8	76
Magnesium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			104		79.1	71.2	72.1	86.3	78.2	75	81.8	84	72		
Manganese (dissolved)	mg/L	NG	0.200	NG	NG	NG	NG	0.05				0.007				0.0018	0.0007	0.0006	0.0011	0.0015	0.0011	0.0011	0.0015
Manganese (total)	mg/L	NG	0.200	NG	NG	NG	NG	0.05					0.0015	0.0019	0.0025	0.0029	0.0007	0.0009	0.0011	0.0026	0.0016		
Mercury (dissolved)	mg/L	0.0020 [1.16]	NG	0.0030 [3.14]	NG	0.0010 [5.13]	0.001	NG				<0.0001				<0.00002	<0.00002	<0.00002	<0.00002	<0.000005	<0.00002	<0.00002	<0.00002
Mercury (total)	mg/L	0.0020	NG	0.0030	NG	0.0010 [5.14]	0.001	NG					<0.00002	0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.000005	<0.00002		
Molybdenum (dissolved)	mg/L	0.05 [1.17]	NG	0.05 [3.15]	NG	0.25 [5.15]	NG	NG				<0.02				0.0028	0.0029	0.0031	0.0032	0.0033	0.0031	0.0034	0.0035
Molybdenum (total)	mg/L	0.05 [1.18]	NG	0.05 [3.16]	NG	0.25 [5.16]	NG	NG			0.007		0.003	0.003	0.0027	0.0029	0.003	0.0032	0.0034	0.0034	0.0038		
Nickel (dissolved)	mg/L	NG	0.200	NG	1	NG	NG	NG				<0.05				0.0007	<0.0002	<0.0002	0.0006	0.0006	0.0005	0.0002	0.0006
Nickel (total)	mg/L	NG	0.200	NG	1	NG	NG	NG					0.0006	0.0008	0.0011	0.0007	0.0007	<0.0002	0.0007	0.0006	0.0005		
Selenium (dissolved)	mg/L	0.010 [1.19]	NG	0.0300 [3.17]	NG	0.010 [5.17]	0.05	NG				<0.0005				0.0078	0.0055	0.0049	0.0059	0.0059	0.0052	0.0057	0.0059
Selenium (total)	mg/L	0.010 [1.20]	NG	0.0300 [3.18]	NG	0.010 [5.18]	0.05	NG					0.0066	0.0062	0.0058	0.0064	0.0055	0.0053	0.0069	0.0062	0.0056		
Silicon (dissolved, as Si)	mg/L	NG	NG	NG	NG	NG	NG	NG		6.846		5.735				11	10.6	9.9	12.8	11.9	11.3	12	11.6
Silicon (dissolved, as SiO2)	mg/L	NG	NG	NG	NG	NG	NG	NG															
Silicon (total, as Si)	mg/L	NG	NG	NG	NG	NG	NG	NG			6.85		11.6	12.3	12.9	11.2	10.8	10.5	12.8	13	11.3		
Silver (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.01				<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Silver (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005		
Sodium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	200		48.47		41.14				42.3	39.7	39.2	41.2	40.4	39.5	41.6	42.8
Sodium (total)	mg/L	NG	NG	NG	NG	NG	NG	200			48.83		44.7	40.9	41.4	42.8	39.7	39.2	42.3	45.7	40.7		
Strontium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		1.367		1.197				1.23	1.16	1.14	1.2	1.12	1	1.09	1.02
Strontium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			1.517		1.08	0.93	1.01	1.24	1.19	1.21	1.27	1.2	1.01		
Sulphur (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG								90	80	78	82	73	68	80	74
Sulphur (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					74	70	68	89	80	72	86	81	65		
Tellurium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG								<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tellurium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
Thallium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG								<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002
Thallium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002	<0.00002		
Thorium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG								<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Thorium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Tin (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.02				<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tin (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
Titanium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.01				<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Titanium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			0.01		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Tungsten (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.05											
Uranium (dissolved)	mg/L	NG	0.010	NG	0.200	NG	0.02	NG								0.00642	0.00562	0.00584	0.00626	0.00621	0.00536	0.00573	0.00559
Uranium (total)	mg/L	NG	0.010	NG	0.200	NG	0.02	NG					0.00555	0.00446	0.00419	0.00669	0.00569	0.00712	0.00645	0.00611	0.00568		
Vanadium (dissolved)	mg/L	NG	0.100	NG	0.100	NG	NG	NG				<0.01				0.001	0.002	0.001	0.001	0.001	0.001	0.002	0.001
Vanadium (total)	mg/L	NG	0.100	NG	0.100	NG	NG	NG			0.001		0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002		
Zinc (dissolved)	mg/L	1.000 [1.21]	NG	2.000 [3.19]	NG	5.0 [5.19]	NG	5.0		0.003		0.006				0.023	<0.004	0.006	0.005	0.008	0.005	<0.004	<0.004
Zinc (total)	mg/L	1.000 [1.22]	NG	2.000	NG	5.0 [5.20]	NG	5.0			0.01		<0.004	<0.004	<0.004	0.018	<0.004	<0.004	0.005	0.01	0.005		
Zirconium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG								<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Zirconium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Microbiological																							
E. coli (counts)	CFU/100 mL	385 [1.23]	NG	200 [3.20]	NG	0 [5.21]	0 [6.5]	NG						<1	<1	<1			<1	<1			
Fecal coliforms (MPN)	MPN/100 mL	1000 [1.24]	NG	200 [3.21]	NG	0 [5.22]	0 [6.6]	NG															
Total coliforms (counts)	CFU/100 mL	NG	NG	NG	NG	NG	0 [6.7]	NG						<1	<1	<1			<1	<1			
Total coliforms (MPN)	MPN/100 mL	NG	NG	NG	NG	NG	0 [6.8]	NG															
Nutrients																							

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)	Keremeos (E251772)
									Date Sampled	05-Jun-03	05-Jun-03	03-Sep-03	21-Mar-13	27-Jun-13	08-Oct-13	24-Mar-14	17-Jun-14	25-Sep-14	10-Dec-14	25-Mar-15	25-Jun-15	16-Sep-15	02-Dec-15
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO															
Ammonia (total, as N)	mg/L	NG	NG	NG	NG	NG	NG	NG			0.0148		<0.02	<0.02	0.021	<0.02	<0.02	<0.02	<0.02	0.023	<0.02	<0.02	<0.02
Nitrate (as N)	mg/L	NG	NG	$100^{3.22}$	NG	$10^{5.23}$	10	NG			3.334		1.83	1.61	1.75	3.02	3.23	3.53	3.36	4.2	3.75	2.71	3.33
Nitrate + Nitrite (as N)	mg/L	NG	NG	$100^{3.23}$	NG	$10^{5.24}$	$10^{6.9}$	NG			3.334		1.83	1.61	1.75	3.02	3.23	3.53	3.36	4.2	3.75	2.71	3.33
Nitrate + Nitrite (as N) (calculated)	mg/L	NG	NG	$100^{3.24}$	NG	$10^{5.25}$	$10^{6.10}$	NG															
Nitrite (as N)	mg/L	NG	NG	$10^{3.25}$	NG	$1^{5.26}$	1	NG					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Organic nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG															
Total nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG					2.07	1.74	1.75	3.02	3.39	3.63	3.46	4.31	3.94		
Total kjeldahl nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG					0.24	0.12	<0.05	<0.05	0.16	0.1	0.1	0.11	0.19		
Dissolved Kjeldahl Nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG			0.029												
Orthophosphate (dissolved, as P)	mg/L	NG	NG	NG	NG	NG	NG	NG															
Phosphorus (total, APHA 4500-P)	mg/L	NG	NG	NG	NG	$N^{5.27}$	NG	NG			0.125		<0.02	<0.02	0.027	<0.02	<0.02	0.024	0.024	<0.02	<0.02		
Phosphorus (dissolved, APHA 4500-P)	mg/L	NG	NG	NG	NG	$N^{5.28}$	NG	NG		0.12		<0.065				<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Potassium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		5.39		4.23				4.73	4.56	4.45	4.57	4.31	4.26	4.6	4.61
Potassium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			5.63		4.71	4.74	4.31	4.72	4.72	4.46	4.8	4.59	4.28		

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 77 (1401032)	Obs Well 203 (1401377)	Obs Well 203 (1401377)	Obs Well 203 (1401377)
									Date Sampled	07-Jul-87	07-Aug-91	08-Jun-94	09-Sep-01	11-Nov-09	09-Aug-10	06-May-91	01-Sep-94	26-Nov-03	09-Aug-10	09-Aug-10	07-Jul-87	11-Oct-89	24-Mar-94
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO															
Lab Results																							
General																							
Alkalinity (phenolphthalein, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		6.4	1.2	<0.5	<0.5	2.7	1.6		<0.5	<1	<0.5	<0.5	13.1	7	10.9
Alkalinity (total, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		57.4	85	101	84.6	83	89		104	108	84	240	103	107	103
Bicarbonate Alkalinity (as HCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG						94	100				100	290			
Carbonate Alkalinity (as CO3)	mg/L	NG	NG	NG	NG	NG	NG	NG						3.2	1.9				<0.5	<0.5			
Hydroxide Alkalinity (as OH)	mg/L	NG	NG	NG	NG	NG	NG	NG															
Biochemical oxygen demand	mg/L	NG	NG	NG	NG	NG	NG	NG															
Bromide	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.05										
Chemical Oxygen Demand	mg/L	NG	NG	NG	NG	NG	NG	NG															
Chloride	mg/L	100	NG	600 [3.1]	NG	250 [5.1]	NG	250		0.8	1	1	1	1.5	1.3	1.4	3.5	3.3	1.6	4.6	1.3	1.2	1
Conductivity	µS/cm	NG	700 [2.1]	NG	NG	NG	NG	NG		115	156	205	157	163	206	55	228	238	209	816	208	235	223
Weak acid dissociable cyanide	mg/L	NG	NG	NG	NG	NG	0.2 [6.1]	NG							<0.0005				<0.0005	<0.0005			
Dissolved oxygen	mg/L	NG	NG	NG	NG	NG	NG	NG										<0.1					
Fluoride	mg/L	2.0 [1.1]	NG	1.5 [3.2]	NG	1.5	1.5	NG		<0.1	<0.1	<0.1	0.07	0.07	0.07	<0.1	<0.1	0.06	0.06	0.11	<0.1	0.12	0.18
Hardness, total (dissolved as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG					55.1		76.4				78.6	441			
pH		5.0 - 9.0 [1.2]	NG	5.0 - 9.5 [3.3]	NG	6.5 - 8.5 [5.2]	NG	7.0 - 10.5 [7.1]		9.2	8.4	8.3	8.34	8.6	8.36		8	8	7.82	8.03		9.2	8.8
Sulphate	mg/L	NG	NG	1000	1000 [4.1]	500	NG	500 [7.2]		<1	<1	7.8	0.5	3.6	22	1	19	19.2	21	190	7.3	19.4	13.8
Temperature	°C	N [1.3]	NG	N [3.4]	NG	15 [5.3]	NG	15										9.6					
Total dissolved solids	mg/L	NG	500 [2.2]	NG	1000 [4.2]	NG	NG	500		58	90	96	90	68	110	36	178	142	150	580	114	154	184
Total suspended solids	mg/L	N [1.4]	NG	N [3.5]	NG	NG	NG	NG															
Turbidity	NTU	N [1.5]	NG	N [3.6]	NG	N [5.4]	N [6.2]	NG						5.2	5.5				4.3	241			
Metals																							
Aluminum (dissolved)	mg/L	5 [1.6]	NG	5 [3.7]	NG	0.2 [5.5]	NG	N [7.3]		<0.02			<0.05		0.003		<0.02		0.0028	0.0043	<0.02		0.1
Aluminum (total)	mg/L	5 [1.7]	NG	5 [3.8]	NG	NG	NG	N [7.4]			0.05	0.12	<0.06	0.0025		0.05	<0.06	0.41					<0.06
Antimony (dissolved)	mg/L	NG	NG	NG	NG	NG	0.006	NG					<0.05		0.00002		<0.015		<0.00002	0.00009			<0.015
Antimony (total)	mg/L	NG	NG	NG	NG	NG	0.006	NG				<0.02	<0.06	<0.00002			<0.02	<0.05					<0.02
Arsenic (dissolved)	mg/L	0.100 [1.8]	NG	0.025 [3.9]	NG	0.025 [5.6]	0.010 [6.3]	NG		0.001			<0.0005		0.00006		<0.04		0.00015	0.00025	<0.001		<0.04
Arsenic (total)	mg/L	0.100 [1.9]	NG	0.025 [3.10]	NG	0.025 [5.7]	0.010 [6.4]	NG		0.001	0.005	<0.04	0.0031	0.00008		<0.001	<0.04	<0.05			<0.001		<0.04
Barium (dissolved)	mg/L	NG	NG	NG	NG	NG	1.0	NG		0.06			0.018		0.00373		0.027		0.00405	0.0928	0.04		0.007
Barium (total)	mg/L	NG	NG	NG	NG	NG	1.0	NG			<0.01	0.036	0.005	0.00424		<0.01	0.031	0.045					0.004
Beryllium (dissolved)	mg/L	NG	0.100	NG	0.100	NG	NG	NG					0.008		<0.00001		<0.001		<0.00001	<0.00001			<0.001
Beryllium (total)	mg/L	NG	0.100	NG	0.100	NG	NG	NG				<0.001	0.011	<0.00001			<0.001	<0.0002					<0.001
Bismuth (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG							<0.000005		<0.02		<0.000005	0.000008			<0.02
Bismuth (total)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.02		<0.000005			<0.02	<0.05					<0.02
Boron (dissolved)	mg/L	0.5 [1.10]	NG	5 [3.11]	NG	5 [5.8]	5	NG		<0.01			<0.01		<0.05		0.02		<0.05	<0.05	0.02		0.032
Boron (total)	mg/L	0.5 [1.11]	NG	5	NG	5	5	NG				0.05	0.01	<0.05			<0.04	0.014					<0.04
Cadmium (dissolved)	mg/L	NG	0.0051 [2.3]	NG	0.080 [4.3]	NG	0.005	NG		<0.01			<0.005		<0.000005		<0.002		<0.000005	<0.000005	<0.01		<0.002
Cadmium (total)	mg/L	NG	0.0051 [2.4]	NG	0.080 [4.4]	NG	0.005	NG		0.01	<0.01	<0.002	<0.006	<0.000005		<0.01	<0.002	<0.002			<0.01		<0.002
Calcium (dissolved)	mg/L	NG	NG	NG	1000	NG	NG	NG		3.75			4.6		8.91		39.7		9.25	134	3.41		12.2
Calcium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG		3.8	5.94	43.8	4.5	4.67		5.26	40.3	40.1			3.48		7.98
Chromium (dissolved)	mg/L	NG	0.0049 [2.5]	NG	0.050 [4.5]	NG	0.05	NG		<0.01			0.008		<0.0001		<0.002		0.0002	<0.0001	<0.01		0.003
Chromium (total)	mg/L	NG	0.0049 [2.6]	NG	0.050 [4.6]	NG	0.05	NG		0.01	<0.01	0.002	<0.006	<0.0001		<0.01	<0.002	<0.005			<0.01		<0.002
Cobalt (dissolved)	mg/L	NG	0.050 [2.7]	NG	1	NG	NG	NG		<0.1			0.008		0.000006		<0.003		0.000008	0.00016	<0.1		<0.003
Cobalt (total)	mg/L	NG	0.050 [2.8]	NG	1	NG	NG	NG		<0.1	<0.1	<0.004	<0.006	0.000009		<0.1	<0.004	<0.005			<0.1		<0.004
Copper (dissolved)	mg/L	0.200 [1.12]	NG	0.300 [3.12]	NG	0.500 [5.9]	NG	1.0		<0.01			0.008		0.00017		0.002		0.00007	<0.00005	<0.01		0.001
Copper (total)	mg/L	0.200 [1.13]	NG	0.300	NG	0.500 [5.10]	NG	1.0		0.01	0.02	0.008	0.007	0.00015		<0.01	0.004	0.006			0.1		0.006
Iron (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	0.3		0.02			<0.005		<0.001		0.005		0.002	0.026	0.01		0.136
Iron (total)	mg/L	NG	NG	NG	NG	NG	NG	0.3		24.1	155	14.5	68.75	0.469		26.2	11.5	15.5			12.8		0.43
Lead (dissolved)	mg/L	0.200 [1.14]	NG	0.100 [3.13]	NG	0.050 [5.11]	0.010	NG		<0.1			<0.05		0.000008		<0.02		<0.000005	0.000024	<0.1		<0.02
Lead (total)	mg/L	0.200 [1.15]	NG	0.100	NG	0.050 [5.12]	0.010	NG		0.1	<0.1	<0.03	<0.06	0.000382		<0.1	<0.03	0.06			<0.1		<0.03

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 77 (1401032)	Obs Well 203 (1401377)	Obs Well 203 (1401377)	Obs Well 203 (1401377)
									Date Sampled	07-Jul-87	07-Aug-91	08-Jun-94	09-Sep-01	11-Nov-09	09-Aug-10	06-May-91	01-Sep-94	26-Nov-03	09-Aug-10	09-Aug-10	07-Jul-87	11-Oct-89	24-Mar-94
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO															
Lithium (dissolved)	mg/L	NG	0.75 [2.9]	NG	NG	NG	NG	NG							0.0041				0.0042	0.0054			
Lithium (total)	mg/L	NG	0.75 [2.10]	NG	NG	NG	NG	NG						0.0038				0.00149					
Magnesium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		5.95			10.6		13.1		5.87		13.5	26.1	17.1		15.9
Magnesium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG		6	10.7	12.1	12	10.7		0.47	5.7	6.24			17.1		13.6
Manganese (dissolved)	mg/L	NG	0.200	NG	NG	NG	NG	0.05		<0.01			0.028		0.0583		0.009		0.0482	0.131	0.02		0.042
Manganese (total)	mg/L	NG	0.200	NG	NG	NG	NG	0.05		0.16	1.23	0.142	0.563	0.0194		0.33	0.231	0.469			0.12		0.04
Mercury (dissolved)	mg/L	0.0020 [1.16]	NG	0.0030 [3.14]	NG	0.0010 [5.13]	0.001	NG															
Mercury (total)	mg/L	0.0020	NG	0.0030	NG	0.0010 [5.14]	0.001	NG															
Molybdenum (dissolved)	mg/L	0.05 [1.17]	NG	0.05 [3.15]	NG	0.25 [5.15]	NG	NG		<0.01			<0.01		0.00182		<0.004		0.00185	0.00383	<0.01		<0.004
Molybdenum (total)	mg/L	0.05 [1.18]	NG	0.05 [3.16]	NG	0.25 [5.16]	NG	NG		0.02	<0.01	<0.004	<0.01	0.00223		<0.01	<0.004	<0.005			<0.01		<0.004
Nickel (dissolved)	mg/L	NG	0.200	NG	1	NG	NG	NG		<0.05			<0.02		0.00016		<0.008		0.00011	0.00158	<0.05		<0.008
Nickel (total)	mg/L	NG	0.200	NG	1	NG	NG	NG		<0.05	<0.05	<0.01	<0.02	0.00011		<0.05	<0.01	<0.008			<0.05		<0.01
Selenium (dissolved)	mg/L	0.010 [1.19]	NG	0.0300 [3.17]	NG	0.010 [5.17]	0.05	NG					<0.05		<0.00004		<0.03		<0.00004	<0.00004			<0.03
Selenium (total)	mg/L	0.010 [1.20]	NG	0.0300 [3.18]	NG	0.010 [5.18]	0.05	NG				<0.03	<0.06	<0.00004			<0.03	<0.03					<0.03
Silicon (dissolved, as Si)	mg/L	NG	NG	NG	NG	NG	NG	NG					0.2		0.182		6.63		0.186	9			6.12
Silicon (dissolved, as SiO2)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.5	0.5	5.2				<0.5	14.4				1.1	2.8	
Silicon (total, as Si)	mg/L	NG	NG	NG	NG	NG	NG	NG				6.6	1.52	1.16			7.2						1.7
Silver (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.01		<0.000005				<0.000005	<0.000005			
Silver (total)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.03	<0.01	<0.000005			<0.03	<0.01					<0.03
Sodium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	200		10.7	11.2		10.6		11.9	4.2			12.2	15.4	14.3	16.4	
Sodium (total)	mg/L	NG	NG	NG	NG	NG	NG	200					11.1	10.6				5.2					
Strontium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG					0.028		0.046		0.189		0.0444	0.854			0.134
Strontium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG				0.283	0.02	0.0339			0.182	0.191					0.116
Sulphur (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG					0.13										
Sulphur (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					0.18	<3				6.6					
Tellurium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG									<0.02						<0.02
Tellurium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.02					<0.02	<0.05					<0.02
Thallium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG							<0.000002		<0.02		<0.000002	<0.000002			<0.02
Thallium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.03		<0.000002			<0.03	<0.03					<0.03
Thorium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG															
Thorium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG															
Tin (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.05		<0.00001		<0.02		<0.00001	0.00003			<0.02
Tin (total)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.02	<0.06	0.00008			<0.02	<0.02					<0.02
Titanium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.002		<0.0005		<0.003		<0.0005	<0.0005			0.005
Titanium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG				0.011	0.003	0.0013			0.005	0.01					<0.003
Tungsten (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG															
Uranium (dissolved)	mg/L	NG	0.010	NG	0.200	NG	0.02	NG							0.000005				0.000006	0.00186			
Uranium (total)	mg/L	NG	0.010	NG	0.200	NG	0.02	NG						0.000005				0.000668					
Vanadium (dissolved)	mg/L	NG	0.100	NG	0.100	NG	NG	NG		<0.01			<0.01		<0.0002		<0.003		<0.0002	<0.0002	<0.01		<0.003
Vanadium (total)	mg/L	NG	0.100	NG	0.100	NG	NG	NG		<0.01	<0.01	<0.003	<0.01	<0.0002		<0.01	<0.003	<0.005			<0.01		<0.003
Zinc (dissolved)	mg/L	1.000 [1.21]	NG	2.000 [3.19]	NG	5.0 [5.19]	NG	5.0		<0.01			0.022		<0.0001		0.004		<0.0001	0.0003	<0.01		0.002
Zinc (total)	mg/L	1.000 [1.22]	NG	2.000	NG	5.0 [5.20]	NG	5.0		<0.01	0.58	0.01	0.012	0.0002		0.75	0.05	0.008			0.04		0.06
Zirconium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG							<0.0001		<0.003		<0.0001	<0.0001			<0.003
Zirconium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG				<0.003		<0.0001			<0.003	<0.005					<0.003
Microbiological																							
E. coli (counts)	CFU/100 mL	385 [1.23]	NG	200 [3.20]	NG	0 [5.21]	0 [6.5]	NG															
Fecal coliforms (MPN)	MPN/100 mL	1000 [1.24]	NG	200 [3.21]	NG	0 [5.22]	0 [6.6]	NG															
Total coliforms (counts)	CFU/100 mL	NG	NG	NG	NG	NG	0 [6.7]	NG															
Total coliforms (MPN)	MPN/100 mL	NG	NG	NG	NG	NG	0 [6.8]	NG															
Nutrients																							

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 75 (1401030)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 76 (141031)	Obs Well 77 (1401032)	Obs Well 203 (1401377)	Obs Well 203 (1401377)	Obs Well 203 (1401377)
									Date Sampled	07-Jul-87	07-Aug-91	08-Jun-94	09-Sep-01	11-Nov-09	09-Aug-10	06-May-91	01-Sep-94	26-Nov-03	09-Aug-10	09-Aug-10	07-Jul-87	11-Oct-89	24-Mar-94
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO															
Ammonia (total, as N)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.005	0.011	<0.005	0.013		0.027		<0.005	<0.005	0.035	0.013	0.045	0.094	0.032
Nitrate (as N)	mg/L	NG	NG	100 [3.22]	NG	10 [5.23]	10	NG					0.01	<0.002	<0.002			0.629	<0.002	<0.002			
Nitrate + Nitrite (as N)	mg/L	NG	NG	100 [3.23]	NG	10 [5.24]	10 [6.9]	NG		0.02	<0.02	<0.02	<0.015	<0.002	<0.002		0.56	0.632	<0.002	<0.002	<0.02	<0.02	<0.02
Nitrate + Nitrite (as N) (calculated)	mg/L	NG	NG	100 [3.24]	NG	10 [5.25]	10 [6.10]	NG						<0.003	<0.003				<0.003	<0.003			
Nitrite (as N)	mg/L	NG	NG	10 [3.25]	NG	1 [5.26]	1	NG			<0.005	<0.005	<0.005	<0.002	<0.002		<0.005	0.003	<0.002	<0.002		<0.005	<0.005
Organic nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG							0.2				0.07	0.09			
Total nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG					0.27	0.08	0.23			0.73	0.1	0.1			
Total kjeldahl nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG		0.03	0.34	0.07		0.08	0.23		<0.04		0.1	0.1	0.17	0.22	0.13
Dissolved Kjeldahl Nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG															
Orthophosphate (dissolved, as P)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.05										
Phosphorus (total, APHA 4500-P)	mg/L	NG	NG	NG	NG	N [5.27]	NG	NG		0.005	0.016	0.01	0.013	0.003	0.003	0.017	0.006	0.04	0.003	0.008	0.007	0.004	0.009
Phosphorus (dissolved, APHA 4500-P)	mg/L	NG	NG	NG	NG	N [5.28]	NG	NG		0.003	<0.003	<0.003	<0.002	<0.002	<0.002		0.004	0.002	0.002	0.007	0.007	<0.003	0.008
Potassium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		2.6	3.4		3.1		3.54	2			3.5	4.23	5.6	5.3	
Potassium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					3.2	3.17				2					

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Obs Well 220 (1401423)	Obs Well 220 (1401423)	Obs Well 220 (1401423)	Princeton (E258958)	Princeton (E258958)	Princeton (E258960)	Princeton (E258960)	E296194	E296194	E296194	E296194	E296194	E296194
									Date Sampled	07-Jul-87	09-Jun-97	09-Sep-01	27-Apr-05	21-Sep-05	27-Apr-05	21-Sep-05	23-Apr-14	11-Sep-14	29-Mar-15	19-Oct-15	10-Apr-16	10-Oct-16
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO														
Lab Results																						
General																						
Alkalinity (phenolphthalein, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5						
Alkalinity (total, as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG		73.4	38.9	41.1	72.3	74.6	96.8	91.4						
Bicarbonate Alkalinity (as HCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Carbonate Alkalinity (as CO3)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Hydroxide Alkalinity (as OH)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Biochemical oxygen demand	mg/L	NG	NG	NG	NG	NG	NG	NG									<10	58	<10	<6	8	<5
Bromide	mg/L	NG	NG	NG	NG	NG	NG	NG			<0.05	<0.05	<0.1	<0.1	<0.1	<0.1						
Chemical Oxygen Demand	mg/L	NG	NG	NG	NG	NG	NG	NG														
Chloride	mg/L	100	NG	600 [3.1]	NG	250 [5.1]	NG	250		1.8	0.47	2.8	3.7	3.9	3.2	1.1	3	5.45	3.01	3.4	3.05	3.99
Conductivity	µS/cm	NG	700 [2.1]	NG	NG	NG	NG	NG		184	84	92	179	181	225	202						
Weak acid dissociable cyanide	mg/L	NG	NG	NG	NG	NG	0.2 [6.1]	NG														
Dissolved oxygen	mg/L	NG	NG	NG	NG	NG	NG	NG														
Fluoride	mg/L	2.0 [1.1]	NG	1.5 [3.2]	NG	1.5	1.5	NG		<0.1	0.05	0.03										
Hardness, total (dissolved as CaCO3)	mg/L	NG	NG	NG	NG	NG	NG	NG			38.3	26.1										
pH		5.0 - 9.0 [1.2]	NG	5.0 - 9.5 [3.3]	NG	6.5 - 8.5 [5.2]	NG	7.0 - 10.5 [7.1]		7.7	7.64	7.59	7.6	7.2	8	7.4						
Sulphate	mg/L	NG	NG	1000	1000 [4.1]	500	NG	500 [7.2]		16	3	3.2	11.8	12.2	15.2	11.6						
Temperature	°C	N [1.3]	NG	N [3.4]	NG	15 [5.3]	NG	15														
Total dissolved solids	mg/L	NG	500 [2.2]	NG	1000 [4.2]	NG	NG	500		116	70	50	118	96	120	110						
Total suspended solids	mg/L	N [1.4]	NG	N [3.5]	NG	NG	NG	NG									21	65	34	9	19	27
Turbidity	NTU	N [1.5]	NG	N [3.6]	NG	N [5.4]	N [6.2]	NG					0.2	0.2	<0.1	0.2						
Metals																						
Aluminum (dissolved)	mg/L	5 [1.6]	NG	5 [3.7]	NG	0.2 [5.5]	NG	N [7.3]		0.08	0.07	<0.05										
Aluminum (total)	mg/L	5 [1.7]	NG	5 [3.8]	NG	NG	NG	N [7.4]			0.55	0.52	0.0018	0.0004	0.0056	0.0018						
Antimony (dissolved)	mg/L	NG	NG	NG	NG	NG	0.006	NG			<0.05	<0.05										
Antimony (total)	mg/L	NG	NG	NG	NG	NG	0.006	NG			<0.06	<0.06	0.000046	0.000047	0.000039	0.000043						
Arsenic (dissolved)	mg/L	0.100 [1.8]	NG	0.025 [3.9]	NG	0.025 [5.6]	0.010 [6.3]	NG		<0.001	<0.0005	<0.0005										
Arsenic (total)	mg/L	0.100 [1.9]	NG	0.025 [3.10]	NG	0.025 [5.7]	0.010 [6.4]	NG		<0.001	<0.06	0.0012	0.0002	0.0002	<0.0001	0.0002						
Barium (dissolved)	mg/L	NG	NG	NG	NG	NG	1.0	NG		0.05	0.004	0.005										
Barium (total)	mg/L	NG	NG	NG	NG	NG	1.0	NG			0.004	0.024	0.0236	0.0225	0.0318	0.0302						
Beryllium (dissolved)	mg/L	NG	0.100	NG	0.100	NG	NG	NG			<0.001	0.002										
Beryllium (total)	mg/L	NG	0.100	NG	0.100	NG	NG	NG			<0.001	0.005	<0.00002	<0.00002	<0.00002	<0.00002						
Bismuth (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Bismuth (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.00002	<0.00002	<0.00002	<0.00002						
Boron (dissolved)	mg/L	0.5 [1.10]	NG	5 [3.11]	NG	5 [5.8]	5	NG		0.01	<0.01	<0.01										
Boron (total)	mg/L	0.5 [1.11]	NG	5	NG	5	5	NG			<0.01	<0.01	0.01	0.012	0.012	0.012						
Cadmium (dissolved)	mg/L	NG	0.0051 [2.3]	NG	0.080 [4.3]	NG	0.005	NG		<0.01	<0.005	<0.005										
Cadmium (total)	mg/L	NG	0.0051 [2.4]	NG	0.080 [4.4]	NG	0.005	NG		<0.01	<0.006	<0.006	<0.00001	<0.00001	<0.00001	<0.00001						
Calcium (dissolved)	mg/L	NG	NG	NG	1000	NG	NG	NG		23.1	10.5	7.9										
Calcium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG		23.2	9.9	8.5	25.7	26.6	32.6	31.5						
Chromium (dissolved)	mg/L	NG	0.0049 [2.5]	NG	0.050 [4.5]	NG	0.05	NG		<0.01	<0.005	<0.005										
Chromium (total)	mg/L	NG	0.0049 [2.6]	NG	0.050 [4.6]	NG	0.05	NG		0.01	0.007	<0.006	<0.0002	<0.0002	<0.0002	<0.0002						
Cobalt (dissolved)	mg/L	NG	0.050 [2.7]	NG	1	NG	NG	NG		<0.1	<0.005	<0.005										
Cobalt (total)	mg/L	NG	0.050 [2.8]	NG	1	NG	NG	NG		<0.1	<0.006	<0.006	<0.000005	<0.000005	<0.000005	<0.000005						
Copper (dissolved)	mg/L	0.200 [1.12]	NG	0.300 [3.12]	NG	0.500 [5.9]	NG	1.0		<0.01	<0.005	<0.005										
Copper (total)	mg/L	0.200 [1.13]	NG	0.300	NG	0.500 [5.10]	NG	1.0		0.02	<0.006	<0.006	0.00223	0.00496	0.00142	0.00105						
Iron (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	0.3		0.02	0.015	<0.005										
Iron (total)	mg/L	NG	NG	NG	NG	NG	NG	0.3		6.99	0.861	33.72	<0.005	<0.005	0.012	0.006						
Lead (dissolved)	mg/L	0.200 [1.14]	NG	0.100 [3.13]	NG	0.050 [5.11]	0.010	NG		<0.1	<0.05	<0.05										
Lead (total)	mg/L	0.200 [1.15]	NG	0.100	NG	0.050 [5.12]	0.010	NG		<0.1	<0.06	<0.06	0.0006	0.00067	0.00016	0.00016						

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Obs Well 220 (1401423)	Obs Well 220 (1401423)	Obs Well 220 (1401423)	Princeton (E258958)	Princeton (E258958)	Princeton (E258960)	Princeton (E258960)	E296194	E296194	E296194	E296194	E296194	E296194
									Date Sampled	07-Jul-87	09-Jun-97	09-Sep-01	27-Apr-05	21-Sep-05	27-Apr-05	21-Sep-05	23-Apr-14	11-Sep-14	29-Mar-15	19-Oct-15	10-Apr-16	10-Oct-16
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO														
Lithium (dissolved)	mg/L	NG	0.75 [2.9]	NG	NG	NG	NG	NG														
Lithium (total)	mg/L	NG	0.75 [2.10]	NG	NG	NG	NG	NG					0.00067	0.00086	0.0013	0.00128						
Magnesium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		5.71	2.8	1.5										
Magnesium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG		5.72	2.7	1.9	4.3	4.43	4.45	4.1						
Manganese (dissolved)	mg/L	NG	0.200	NG	NG	NG	NG	0.05		<0.01	0.001	0.002										
Manganese (total)	mg/L	NG	0.200	NG	NG	NG	NG	0.05		0.04	0.012	0.19	0.00008	<0.000008	0.0002	0.000207						
Mercury (dissolved)	mg/L	0.0020 [1.16]	NG	0.0030 [3.14]	NG	0.0010 [5.13]	0.001	NG														
Mercury (total)	mg/L	0.0020	NG	0.0030	NG	0.0010 [5.14]	0.001	NG														
Molybdenum (dissolved)	mg/L	0.05 [1.17]	NG	0.05 [3.15]	NG	0.25 [5.15]	NG	NG		<0.01	<0.01	<0.01										
Molybdenum (total)	mg/L	0.05 [1.18]	NG	0.05 [3.16]	NG	0.25 [5.16]	NG	NG		0.02	<0.01	<0.01	0.00074	0.00073	0.00082	0.00081						
Nickel (dissolved)	mg/L	NG	0.200	NG	1	NG	NG	NG		<0.05	<0.02	<0.02										
Nickel (total)	mg/L	NG	0.200	NG	1	NG	NG	NG		<0.05	<0.02	<0.02	<0.00005	<0.00005	<0.00005	<0.00005						
Selenium (dissolved)	mg/L	0.010 [1.19]	NG	0.0300 [3.17]	NG	0.010 [5.17]	0.05	NG			<0.05	<0.05										
Selenium (total)	mg/L	0.010 [1.20]	NG	0.0300 [3.18]	NG	0.010 [5.18]	0.05	NG			<0.06	<0.06	0.0004	0.0003	<0.0002	<0.0002						
Silicon (dissolved, as Si)	mg/L	NG	NG	NG	NG	NG	NG	NG			4.24	0.94										
Silicon (dissolved, as SiO2)	mg/L	NG	NG	NG	NG	NG	NG	NG		10.4												
Silicon (total, as Si)	mg/L	NG	NG	NG	NG	NG	NG	NG			5.04	3.62										
Silver (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG			<0.01	<0.01										
Silver (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			<0.01	<0.01	<0.00002	<0.00002	<0.00002	<0.00002						
Sodium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	200		5.5	2.3	4.6										
Sodium (total)	mg/L	NG	NG	NG	NG	NG	NG	200			2.2	4.6	6.11	6.38	10.8	7.46	4.9	4.8	4.9	5.2	5.1	5.14
Strontium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG			0.081	0.058										
Strontium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			0.08	0.072	0.141	0.127	0.142	0.13						
Sulphur (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG			1.21	0.54										
Sulphur (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			1.27	0.56	4	4.1	4.7	3.8						
Tellurium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Tellurium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Thallium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Thallium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.000002	0.000009	<0.000002	0.000005						
Thorium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Thorium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Tin (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG			<0.05	<0.05										
Tin (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			<0.06	<0.06	0.00001	0.00002	0.00001	0.00002						
Titanium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG			<0.002	<0.002										
Titanium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			0.02	0.022	<0.003	<0.003	<0.003	<0.003						
Tungsten (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Uranium (dissolved)	mg/L	NG	0.010	NG	0.200	NG	0.02	NG														
Uranium (total)	mg/L	NG	0.010	NG	0.200	NG	0.02	NG					0.000219	0.000253	0.000193	0.000177						
Vanadium (dissolved)	mg/L	NG	0.100	NG	0.100	NG	NG	NG		<0.01	<0.01	<0.01										
Vanadium (total)	mg/L	NG	0.100	NG	0.100	NG	NG	NG		0.01	<0.01	<0.01	0.0004	0.00036	0.00031	0.00033						
Zinc (dissolved)	mg/L	1.000 [1.21]	NG	2.000 [3.19]	NG	5.0 [5.19]	NG	5.0		0.02	0.003	0.007										
Zinc (total)	mg/L	1.000 [1.22]	NG	2.000	NG	5.0 [5.20]	NG	5.0		0.02	0.031	0.019	0.0016	0.0069	<0.0001	0.0008						
Zirconium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG														
Zirconium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG					<0.005	<0.005	<0.005	<0.005						
Microbiological																						
E. coli (counts)	CFU/100 mL	385 [1.23]	NG	200 [3.20]	NG	0 [5.21]	0 [6.5]	NG														
Fecal coliforms (MPN)	MPN/100 mL	1000 [1.24]	NG	200 [3.21]	NG	0 [5.22]	0 [6.6]	NG									<3	<3	<3	<3	<3	<3
Total coliforms (counts)	CFU/100 mL	NG	NG	NG	NG	NG	0 [6.7]	NG														
Total coliforms (MPN)	MPN/100 mL	NG	NG	NG	NG	NG	0 [6.8]	NG									<3	<3	<3	<3	<3	<3
Nutrients																						

Table B-2
EMS Groundwater Quality Data

Analyte	Unit	Guideline							Sampling Location	Obs Well 220 (1401423)	Obs Well 220 (1401423)	Obs Well 220 (1401423)	Princeton (E258958)	Princeton (E258958)	Princeton (E258960)	Princeton (E258960)	E296194	E296194	E296194	E296194	E296194	E296194
									Date Sampled	07-Jul-87	09-Jun-97	09-Sep-01	27-Apr-05	21-Sep-05	27-Apr-05	21-Sep-05	23-Apr-14	11-Sep-14	29-Mar-15	19-Oct-15	10-Apr-16	10-Oct-16
		BCAWQG I	BCWWQG I	*BCAWQG L*	*BCWWQG L*	BCAWQG DW	GCDWQ MAC	GCDWQ AO														
Ammonia (total, as N)	mg/L	NG	NG	NG	NG	NG	NG	NG		<0.005	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.02	0.02	0.021	<0.02	<0.02	0.044
Nitrate (as N)	mg/L	NG	NG	$100^{3.22}$	NG	$10^{5.23}$	10	NG			<0.002	0.02					0.075	0.022	0.085	0.113	0.082	0.1
Nitrate + Nitrite (as N)	mg/L	NG	NG	$100^{3.23}$	NG	$10^{5.24}$	$10^{6.9}$	NG		0.2		<0.025	0.157	0.215	0.084	0.073	<0.085	0.022	0.085	0.113	0.082	0.1
Nitrate + Nitrite (as N) (calculated)	mg/L	NG	NG	$100^{3.24}$	NG	$10^{5.25}$	$10^{6.10}$	NG			<0.005											
Nitrite (as N)	mg/L	NG	NG	$10^{3.25}$	NG	$1^{5.26}$	1	NG			<0.005	<0.005					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Organic nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG														
Total nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG			0.06	0.27					0.172	0.163	0.144	0.199	0.082	0.1
Total kjeldahl nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG		0.02							0.1	0.14	0.06	0.09	<0.05	<0.05
Dissolved Kjeldahl Nitrogen	mg/L	NG	NG	NG	NG	NG	NG	NG														
Orthophosphate (dissolved, as P)	mg/L	NG	NG	NG	NG	NG	NG	NG			<0.05	<0.05					<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Phosphorus (total, APHA 4500-P)	mg/L	NG	NG	NG	NG	$N^{5.27}$	NG	NG		0.009	0.02	0.025	<0.1	<0.1	<0.1	<0.1	0.06	0.09	0.042	0.025	0.017	0.05
Phosphorus (dissolved, APHA 4500-P)	mg/L	NG	NG	NG	NG	$N^{5.28}$	NG	NG		0.004	0.012	<0.002					0.04	0.05	0.011	0.012	0.01	0.037
Potassium (dissolved)	mg/L	NG	NG	NG	NG	NG	NG	NG		0.7	0.5	0.7										
Potassium (total)	mg/L	NG	NG	NG	NG	NG	NG	NG			0.6	0.9	<1	<1	<1	<1						

Table B-2
Guideline Notes

1. Notes for BC Approved Water Quality Guidelines for irrigation (BCAWQG I)
General Notes:
The Water Quality Guidelines (Criteria) Reports by BC Ministry of Environment were used as references for the guidelines. (Internet address: http://www.env.gov.bc.ca/wat/wq/wq_guidelines.html). Overview Reports (BC MOE) were used as the references for the guidelines unless the note for specific analyte indicates that the Technical Appendix (BC MOE) was used.
Note 1.1 for Fluoride:
Total fluoride in irrigation water should not exceed 1.0 mg/L as a 30-day average or a maximum of 2.0 mg/L.
Note 1.2 for pH:
The recommended criterion for irrigation waters is a pH ranging between 5.0 and 9.0. This guideline recognizes that soil acidity, alkalinity and salinity are a concern in agriculture.
Note 1.3 for Temperature:
The recommended guideline for temperature is + or - 1 degree Celsius change from natural ambient background.
Note 1.4 for Total suspended solids:
Induced suspended sediments should not exceed 20 mg/L when background suspended sediments is less than or equal to 100 mg/L, nor should induced suspended sediments be more than 20 % of background when background is greater than 100 mg/L.
Note 1.5 for Turbidity:
Induced turbidity should not exceed 10 NTU when background turbidity is less than or equal to 50 NTU, nor should induced turbidity be more than 20 % of background when background is greater than 50 NTU.
Note 1.6 for Aluminum (dissolved):
The guideline maximum for total aluminum is 5 mg/L. A separate guideline for dissolved aluminum is not provided.
Note 1.7 for Aluminum (total):
The guideline maximum for total aluminum is 5 mg/L. A separate guideline for dissolved aluminum is not provided.
Note 1.8 for Arsenic (dissolved):
The interim guideline for total arsenic is 100 µg/L.
Note 1.9 for Arsenic (total):
The interim guideline for total arsenic is 100 µg/L.
Note 1.10 for Boron (dissolved):
The guideline for total boron depends on the crop, and varies from 0.5 mg/L to 6 mg/L. The most stringent guideline maximum of 0.5 mg/L, for very sensitive and sensitive crops, was used to identify exceedances for this report.
Note 1.11 for Boron (total):
The guideline for total boron depends on the crop, and varies from 0.5 mg/L to 6 mg/L. The most stringent guideline maximum of 0.5 mg/L, for very sensitive and sensitive crops, was used to identify exceedances for this report.
Note 1.12 for Copper (dissolved):
The guideline maximum for total copper is 200 µg/L.
Note 1.13 for Copper (total):
The guideline maximum for total copper is 200 µg/L.
Note 1.14 for Lead (dissolved):
For neutral and alkaline fine-textured soils the total lead concentration in irrigation water should not exceed 400 µg/L at any time. The concentration of total lead in irrigation water for use on all other soils should not exceed 200 µg/L at any time. / The most stringent guideline maximum was used in this report.
Note 1.15 for Lead (total):
For neutral and alkaline fine-textured soils the total lead concentration in irrigation water should not exceed 400 µg/L at any time. The concentration of total lead in irrigation water for use on all other soils should not exceed 200 µg/L at any time. / The most stringent guideline maximum was used in this report.
Note 1.16 for Mercury (dissolved):
The guideline maximum for total mercury is 2.0 µg/L.
Note 1.17 for Molybdenum (dissolved):
The guideline maximum for total molybdenum for irrigation of forage crops is 0.05 mg/L. There is no guideline maximum for total molybdenum for irrigation of non-forage crops.

Table B-2
Guideline Notes

Note 1.18 for Molybdenum (total):
The guideline maximum for total molybdenum for irrigation of forage crops is 0.05 mg/L. There is no guideline maximum for total molybdenum for irrigation of non-forage crops.
Note 1.19 for Selenium (dissolved):
The guideline for total selenium is 10 µg/L mean. The mean concentrations in the water column are based on at least 5 weekly samples taken over a 30-day period.
Note 1.20 for Selenium (total):
The guideline for total selenium is 10 µg/L mean. The mean concentrations in the water column are based on at least 5 weekly samples taken over a 30-day period.
Note 1.21 for Zinc (dissolved):
The guideline maximum for total zinc for irrigation is as follows: - Soil pH less than 6: 1000 µg/L. - Soil pH equal to or greater than 6, and less than 7: 2000 µg/L. - Soil pH greater than or equal to 7: 5000 µg/L. / The most stringent guideline maximum was used in this report.
Note 1.22 for Zinc (total):
The guideline maximum for total zinc for irrigation is as follows: - Soil pH less than 6: 1000 µg/L. - Soil pH equal to or greater than 6, and less than 7: 2000 µg/L. - Soil pH greater than or equal to 7: 5000 µg/L. / The most stringent guideline maximum was used in this report.
Note 1.23 for E. coli (counts):
The guideline for irrigation for E. coli varies as a function of crop, public access, and livestock access. The guideline maximum for crops eaten raw is less than or equal to 77/100 mL geometric mean. The guideline maximum for public access and livestock access is less than or equal to 385/100 mL geometric mean. The guideline maximum for general irrigation is less than or equal to 1000/100 mL geometric mean. / The guideline for public access and livestock access was used in this report.
Note 1.24 for Fecal coliforms (MPN):
The guideline for irrigation for Fecal coliforms depends on the crop, public access, and livestock access. The guideline maximum for crops eaten raw is less than or equal to 200/100 mL geometric mean. The guideline for public access and livestock access is “none applicable”. The guideline maximum for general irrigation is less than or equal to 1000/100 mL geometric mean. / The guideline for general irrigation was used in this report.
2. Notes for Working Water Quality Guidelines for British Columbia for irrigation (BCWWQG I)
General Notes:
Reference: Working Water Quality Guidelines for British Columbia (2015). WWQG values are long-term (i.e. average) concentrations unless identified as a short-term maximum in the “Notes” for a specific analyte. Long-term WWQGs represent average substance concentrations calculated from 5 samples in 30 days. WWQG are given for total substance concentrations unless otherwise noted.
Note 2.1 for Conductivity:
The guideline varies from 700 to 5000 µS/cm depending on the type of crop. The most stringent guideline has been used for this report.
Note 2.2 for Total dissolved solids:
The guideline varies from 500 to 3500 mg/L depending on the type of crop. The most stringent guideline has been used for this report.
Note 2.3 for Cadmium (dissolved):
This is a Short-term maximum guideline.
Note 2.4 for Cadmium (total):
This is a Short-term maximum guideline.
Note 2.5 for Chromium (dissolved):
The guideline for Cr(VI) is 8 µg/L (total). The guideline for Cr(III) is 4.9 µg/L (total). The guideline of 4.9 µg/L for Cr(III) was used, in this report, to identify exceedances for dissolved chromium, and total chromium as a means for determining the potential for exceeding the Cr(VI) and/or Cr(III) guidelines.

Table B-2
Guideline Notes

Note 2.6 for Chromium (total):
The guideline for Cr(VI) is 8 µg/L (total). The guideline for Cr(III) is 4.9 µg/L (total). The guideline of 4.9 µg/L for Cr(III) was used, in this report, to identify exceedances for dissolved chromium, and total chromium as a means for determining the potential for exceeding the Cr(VI) and/or Cr(III) guidelines.
Note 2.7 for Cobalt (dissolved):
Continuous or intermittent use on all soils.
Note 2.8 for Cobalt (total):
Continuous or intermittent use on all soils.
Note 2.9 for Lithium (dissolved):
The guideline is 2.5 mg/L for non-citrus crops (May not be protective of barley and other cereal crops; 1.0 mg/L suggested for cereal crops). The guideline is 0.75 mg/L for citrus crops. / The most stringent guideline was used in this report.
Note 2.10 for Lithium (total):
The guideline is 2.5 mg/L for non-citrus crops (May not be protective of barley and other cereal crops; 1.0 mg/L suggested for cereal crops). The guideline is 0.75 mg/L for citrus crops. / The most stringent guideline was used in this report.
3. Notes for BC Approved Water Quality Guidelines for livestock (BCAWQG L)
General Notes:
The Water Quality Guidelines (Criteria) Reports by BC Ministry of Environment were used as references for the guidelines. (Internet address: http://www.env.gov.bc.ca/wat/wq/wq_guidelines.html). Overview Reports (BC MOE) were used as the references for the guidelines unless the note for specific analyte indicates that the Technical Appendix (BC MOE) was used.
Note 3.1 for Chloride:
The water quality guideline for chloride for livestock watering is 600 mg/L.
Note 3.2 for Fluoride:
The total fluoride recommendation for dairy cows, breeding stock and other long-lived animals is 1.0 mg/L as a 30-day mean and 1.5 mg/L as a maximum. Total fluoride should not exceed 2.0 mg/L as a 30-day mean or 4.0 mg/L maximum in the drinking water of all other types of livestock, unless fluoride is provided in the diet by bone meal or mineral additives, in which case 1.0 mg/L as a 30-day mean and 2.0 mg/L maximum is recommended. / The most stringent guideline maximum was used in this report.
Note 3.3 for pH:
pH does not interfere with the palatability of water or the health of livestock.
Note 3.4 for Temperature:
The recommended guideline for temperature is + or - 1 degree Celsius change from natural ambient background.
Note 3.5 for Total suspended solids:
Induced suspended sediments should not exceed 10 mg/L when background suspended sediments is less than or equal to 100 mg/L, nor should induced suspended sediments be more than 10 % of background when background is greater than 100 mg/L.
Note 3.6 for Turbidity:
Induced turbidity should not exceed 5 NTU when background turbidity is less than or equal to 50 NTU, nor should induced turbidity be more than 10 % of background when background is greater than 50 NTU.
Note 3.7 for Aluminum (dissolved):
The guideline maximum for total aluminum is 5 mg/L. A separate guideline for dissolved aluminum is not provided.
Note 3.8 for Aluminum (total):
The guideline maximum for total aluminum is 5 mg/L. A separate guideline for dissolved aluminum is not provided.
Note 3.9 for Arsenic (dissolved):
The interim guideline for total arsenic is 25 µg/L.
Note 3.10 for Arsenic (total):
The interim guideline for total arsenic is 25 µg/L.
Note 3.11 for Boron (dissolved):
The guideline maximum for total boron is 5 mg/L.
Note 3.12 for Copper (dissolved):
The guideline maximum for total copper is 300 µg/L.
Note 3.13 for Lead (dissolved):

Table B-2
Guideline Notes

The guideline maximum for total lead is 100 µg/L.
Note 3.14 for Mercury (dissolved):
The guideline maximum for total mercury is 3.0 µg/L.
Note 3.15 for Molybdenum (dissolved):
If livestock are consuming forages not irrigated, or if no molybdenum containing fertilizers are applied to grow feed consumed by livestock, then the guideline maximum for total molybdenum is 0.08 mg/L. For all other cases, the guideline maximum for total molybdenum is 0.05 mg/L. / The most stringent guideline maximum was used in this report.
Note 3.16 for Molybdenum (total):
If livestock are consuming forages not irrigated, or if no molybdenum containing fertilizers are applied to grow feed consumed by livestock, then the guideline maximum for total molybdenum is 0.08 mg/L. For all other cases, the guideline maximum for total molybdenum is 0.05 mg/L. / The most stringent guideline maximum was used in this report.
Note 3.17 for Selenium (dissolved):
The guideline for total selenium is 30.0 µg/L mean. The mean concentrations in the water column are based on at least 5 weekly samples taken over a 30-day period.
Note 3.18 for Selenium (total):
The guideline for total selenium is 30.0 µg/L mean. The mean concentrations in the water column are based on at least 5 weekly samples taken over a 30-day period.
Note 3.19 for Zinc (dissolved):
The guideline maximum for total zinc is 2000 µg/L.
Note 3.20 for E. coli (counts):
The guideline for E. coli varies based on site specific factors including type of livestock, whether livestock are closely confined, and type of water treatment. The guideline for free range animals is “none applicable”. The guideline maximum for general livestock use is 200/100 mL. The guideline maximum for closely confined, no treatment, is 0/100 mL. The guideline maximum for closely confined, disinfection only, is less than or equal to 10/100 mL 90th percentile. The guideline maximum for closely confined, partial treatment, is less than or equal to 100/100 mL 90th percentile. The guideline for closely confined, complete treatment is “none applicable”. / The guideline for general livestock use was used in this report.
Note 3.21 for Fecal coliforms (MPN):
The guideline for Fecal coliforms varies based on site specific factors including type of livestock, whether livestock are closely confined, and type of water treatment. The guideline for free range animals is “none applicable”. The guideline maximum for general livestock use is 200/100 mL. The guideline maximum for closely confined, no treatment, is 0/100 mL. The guideline maximum for closely confined, disinfection only, is less than or equal to 10/100 mL 90th percentile. The guideline maximum for closely confined, partial treatment, is less than or equal to 100/100 mL 90th percentile. The guideline for closely confined, complete treatment is “none applicable”. / The guideline for general livestock use was used in this report.
Note 3.22 for Nitrate (as N):
Overview Report Update, September 2009.
Note 3.23 for Nitrate + Nitrite (as N):
The guideline maximum for nitrate as nitrogen is 100 mg/l. Where nitrate and nitrite are present, the total nitrate+nitrite nitrogen should not exceed this value. Overview Report Update, September 2009.
Note 3.24 for Nitrate + Nitrite (as N) (calculated):
The guideline maximum for nitrate as nitrogen is 100 mg/l. Where nitrate and nitrite are present, the total nitrate+nitrite nitrogen should not exceed this value. Overview Report Update, September 2009.
Note 3.25 for Nitrite (as N):
Overview Report Update, September 2009.
4. Notes for Working Water Quality Guidelines for British Columbia for livestock (BCWWQG L)
General Notes:
Reference: Working Water Quality Guidelines for British Columbia (2015). WWQG values are long-term (i.e. average) concentrations unless identified as a short-term maximum in the “Notes” for a specific analyte. Long-term WWQGs represent average substance concentrations calculated from 5 samples in 30 days. WWQG are given for total substance concentrations unless otherwise noted.

Table B-2
Guideline Notes

Note 4.1 for Sulphate:
The guideline is for dissolved sulphate.
Note 4.2 for Total dissolved solids:
The guideline is 1,000-3,000 mg/L, and is species dependent. Maximum of 1000 mg/L is relatively low level of salinity; excellent for all classes of livestock. TDS between 1000 and 3000 mg/L is satisfactory for all classes of livestock and poultry, but some loss in productivity should be anticipated: may cause temporary and mild diarrhoea in livestock not accustomed to them or watery droppings in poultry. / The most stringent guideline was used in this report.
Note 4.3 for Cadmium (dissolved):
This is a Short-term maximum guideline.
Note 4.4 for Cadmium (total):
This is a Short-term maximum guideline.
Note 4.5 for Chromium (dissolved):
The guideline for Cr(VI) is 50 µg/L (total). The guideline for Cr(III) is 50 µg/L (total). The guideline of 50 µg/L for Cr(VI), and for Cr(III) was used, in this report, to identify exceedances for dissolved chromium, and total chromium as a means for determining the potential for exceeding the Cr(VI) and/or Cr(III) guidelines.
Note 4.6 for Chromium (total):
The guideline for Cr(VI) is 50 µg/L (total). The guideline for Cr(III) is 50 µg/L (total). The guideline of 50 µg/L for Cr(VI), and for Cr(III) was used, in this report, to identify exceedances for dissolved chromium, and total chromium as a means for determining the potential for exceeding the Cr(VI) and/or Cr(III) guidelines.
5. Notes for BC Approved Water Quality Guidelines for drinking water (BCAWQG DW)
General Notes:
The Water Quality Guidelines (Criteria) Reports by BC Ministry of Environment were used as references for the guidelines. (Internet address: http://www.env.gov.bc.ca/wat/wq/wq_guidelines.html). Overview Reports (BC MOE) were used as the references for the guidelines unless the note for specific analyte indicates that the Technical Appendix (BC MOE) was used. Drinking water guidelines are, in some cases, for raw water before treatment.
Note 5.1 for Chloride:
The guideline maximum for chloride in drinking water (for aesthetic reasons) is 250 mg/L.
Note 5.2 for pH:
Designed to minimize solubilization of heavy metals and salts from water distribution pipes and the precipitation of carbonate salts in the distribution system, and maximize the effectiveness of chlorination. However, natural source water outside the guidelines may be safe to drink from a public health perspective.
Note 5.3 for Temperature:
The guideline for maximum temperature for drinking water is 15 degrees.
Note 5.4 for Turbidity:
Turbidity guidelines for raw drinking water follow; • Drinking Water - raw untreated: For raw waters of exceptional clarity (less than or equal to 5 NTU) which normally do not require treatment to reduce natural turbidity, induced turbidity should not exceed 1 NTU and the total turbidity should not exceed 5 NTU at any time. • Drinking Water - raw treated: For raw waters which normally require some form of treatment to reduce natural turbidity to a level that complies with the standard for finished water (5 NTU) in British Columbia, induced turbidity should not exceed 5 NTU when background turbidity is less than or equal to 50 NTU. When background is greater than 50 NTU, the induced turbidity should not be more than 10% of background.
Note 5.5 for Aluminum (dissolved):
The guideline maximum for dissolved aluminum is 0.2 mg/L (based on aesthetic considerations). This criterion would apply to both untreated raw water and raw water treated to remove suspended solids.
Note 5.6 for Arsenic (dissolved):
The interim guideline maximum for total arsenic in drinking water is 25 µg/L.
Note 5.7 for Arsenic (total):
The interim guideline maximum for total arsenic in drinking water is 25 µg/L.
Note 5.8 for Boron (dissolved):
The guideline maximum for total boron in drinking water is 5 mg/L.

Table B-2
Guideline Notes

Note 5.9 for Copper (dissolved):
In raw drinking water with or without treatment, total copper should not exceed 500 µg/L.
Note 5.10 for Copper (total):
In raw drinking water with or without treatment, total copper should not exceed 500 µg/L.
Note 5.11 for Lead (dissolved):
In raw drinking water, with and without treatment, the total lead concentration should not exceed 50 µg/L at any time.
Note 5.12 for Lead (total):
In raw drinking water, with and without treatment, the total lead concentration should not exceed 50 µg/L at any time.
Note 5.13 for Mercury (dissolved):
The concentration of total mercury in raw drinking water should not exceed 1.0 µg/L at any time.
Note 5.14 for Mercury (total):
The concentration of total mercury in raw drinking water should not exceed 1.0 µg/L at any time.
Note 5.15 for Molybdenum (dissolved):
The guideline maximum for total molybdenum in raw untreated drinking water is 0.25 mg/L.
Note 5.16 for Molybdenum (total):
The guideline maximum for total molybdenum in raw untreated drinking water is 0.25 mg/L.
Note 5.17 for Selenium (dissolved):
The guideline maximum for total selenium in drinking water is 10 µg/L.
Note 5.18 for Selenium (total):
The guideline maximum for total selenium in drinking water is 10 µg/L.
Note 5.19 for Zinc (dissolved):
The guideline maximum for total zinc in drinking water is 5.0 mg/L.
Note 5.20 for Zinc (total):
The guideline maximum for total zinc in drinking water is 5.0 mg/L.
Note 5.21 for E. coli (counts):
The guideline for raw drinking water depends on the type of water treatment. The guideline maximum for raw drinking water with no treatment is 0/100 mL. The guideline maximum for raw drinking water with disinfection only is less than or equal to 10/100 mL 90th percentile. The guideline maximum for raw drinking water with partial treatment is less than or equal to 100/100 mL 90th percentile. The guideline maximum for raw drinking water with complete treatment is “none applicable”. / The most stringent guideline (no water treatment) was used in this report.
Note 5.22 for Fecal coliforms (MPN):
The guideline for raw drinking water depends on the type of water treatment. The guideline maximum for raw drinking water with no treatment is 0/100 mL. The guideline maximum for raw drinking water with disinfection only is less than or equal to 10/100 mL 90th percentile. The guideline maximum for raw drinking water with partial treatment is less than or equal to 100/100 mL 90th percentile. The guideline for raw drinking water with complete treatment is “none applicable”. / The most stringent guideline (no water treatment) was used in this report.
Note 5.23 for Nitrate (as N):
Overview Report Update, September 2009
Note 5.24 for Nitrate + Nitrite (as N):
The guideline maximum for nitrate as nitrogen is 10 mg/l. Where nitrate and nitrite are present, the total nitrate+nitrite nitrogen should not exceed this value. Overview Report Update, September 2009
Note 5.25 for Nitrate + Nitrite (as N) (calculated):
The guideline maximum for nitrate as nitrogen is 10 mg/l. Where nitrate and nitrite are present, the total nitrate+nitrite nitrogen should not exceed this value. Overview Report Update, September 2009
Note 5.26 for Nitrite (as N):
Overview Report Update, September 2009
Note 5.27 for Phosphorus (total, APHA 4500-P):
For lakes used as a source of drinking water, the total phosphorous concentration should not exceed 10 µg/L. No guideline is recommended for streams.

Table B-2
Guideline Notes

Note 5.28 for Phosphorus (dissolved, APHA 4500-P):
For lakes used as a source of drinking water, the total phosphorous concentration should not exceed 10 µg/L. No guideline is recommended for streams.
6. Notes for Guidelines for Canadian Drinking Water Quality - Maximum Acceptable Concentrations (GCDWQ MAC)
Note 6.1 for Weak acid dissociable cyanide:
The MAC for free cyanide is 0.2 mg/L. A maximum of 0.2 mg/L was used, in this report, to identify exceedances for weak acid dissociable cyanide as a means for determining the potential for exceeding the free cyanide guideline.
Note 6.2 for Turbidity:
Waterworks systems that use a surface water source or a groundwater source under the direct influence of surface water should filter the source water to meet health-based turbidity limits, as defined for specific treatment technologies. Where possible, filtration systems should be designed and operated to reduce turbidity levels as low as possible, with a treated water turbidity target of less than 0.1 NTU at all times. Where this is not achievable, the treated water turbidity levels from individual filters should meet the requirements described in GCDWQ. For systems that use groundwater that is not under the direct influence of surface water, which are considered less vulnerable to faecal contamination, turbidity should generally be below 1.0 NTU. For effective operation of the distribution system, it is good practice to ensure that water entering the distribution system has turbidity levels below 1.0 NTU.
Note 6.3 for Arsenic (dissolved):
Every effort should be made to maintain arsenic levels in drinking water as low as reasonably achievable.
Note 6.4 for Arsenic (total):
Every effort should be made to maintain arsenic levels in drinking water as low as reasonably achievable.
Note 6.5 for E. coli (counts):
MAC is none detectable per 100 mL
Note 6.6 for Fecal coliforms (MPN):
The GCDWQ does not have a guideline for fecal coliforms. The GCDWQ were revised in 2006 when the guideline for fecal coliforms was deleted, and a guideline for E. coli was added. However the GCDWQ has a guideline for total coliforms that includes the following statement: “The MAC of total coliforms in water leaving a treatment plant in a public system and throughout semi-public and private supply systems is none detectable per 100 mL.” Therefore a guideline of none detectable per 100 mL was used for fecal coliforms for this report. Note that the Drinking Water Protection Regulation (2003), under the BC Drinking Water Protection Act, has a water quality standard for potable water for fecal coliforms of “No detectable fecal coliform bacteria per 100 ml”.
Note 6.7 for Total coliforms (counts):
The maximum acceptable concentration (MAC) of total coliforms in water leaving a treatment plant and in non-disinfected groundwater leaving the well is none detectable per 100 mL. Total coliforms should be monitored in the distribution system because they are used to indicate changes in water quality. Detection of total coliforms from consecutive samples from the same site or from more than 10% of the samples collected in a given sampling period should be investigated.
Note 6.8 for Total coliforms (MPN):
The maximum acceptable concentration (MAC) of total coliforms in water leaving a treatment plant and in non-disinfected groundwater leaving the well is none detectable per 100 mL. Total coliforms should be monitored in the distribution system because they are used to indicate changes in water quality. Detection of total coliforms from consecutive samples from the same site or from more than 10% of the samples collected in a given sampling period should be investigated.
Note 6.9 for Nitrate + Nitrite (as N):
The MAC for Nitrate (as N) is 10 mg/L
Note 6.10 for Nitrate + Nitrite (as N) (calculated):
The MAC for Nitrate (as N) is 10 mg/L
7. Notes for Guidelines for Canadian Drinking Water Quality - Aesthetic Objectives (GCDWQ AO)
Note 7.1 for pH:
The operational guideline for pH is a range of 7.0 to 10.5 in finished drinking water.
Note 7.2 for Sulphate:
There may be a laxative effect in some individuals when sulphate levels exceed 500 mg/L. Health authorities should be notified of drinking water sources containing above 500 mg/L.

Table B-2
Guideline Notes

Note 7.3 for Aluminum (dissolved):
This is an operational guidance value, designed to apply only to drinking water treatment plants using aluminum-based coagulants. The operational guidance value of 0.1 mg/L applies to conventional treatment plants, and 0.2 mg/L applies to other types of treatment systems.
Note 7.4 for Aluminum (total):
This is an operational guidance value, designed to apply only to drinking water treatment plants using aluminum-based coagulants. The operational guidance value of 0.1 mg/L applies to conventional treatment plants, and 0.2 mg/L applies to other types of treatment systems.