

TABLE 14
ANNUAL GROUNDWATER MONITORING
FLORENCE COPPER INC.
FLORENCE, ARIZONA

Parameter ¹	M1-GL		M2-GU		M3-GL		M4-O		M6-GU		M7-GL		M8-O		M14-GL		M15-GU	
	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)
pH (lab)	Monitor ²	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Bicarbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Calcium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Carbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Chloride	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Nitrate as nitrogen ³	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Potassium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Sodium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Cation/anion balance	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aluminum	Monitor	0.71	Monitor	0.71	Monitor	0.71	Monitor	0.71	Monitor	0.71	Monitor	0.71	NE	0.71	NE	0.71	NE	0.71
Antimony	0.006	0.005	0.016	Monitor	0.006	0.005	0.006	0.005	0.006	0.005	0.006	0.005	0.006	0.005	0.016	NE	0.016	NE
Arsenic	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026
Barium	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6
Beryllium	0.004	0.0032	0.0053	Monitor	0.0053	Monitor	0.0053	NE	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032
Cadmium	0.005	Monitor	0.040	Monitor	0.005	Monitor	0.040	NE	0.005	0.004	0.040	NE	0.005	0.004	0.005	0.004	0.04	NE
Chromium (total)	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08
Cobalt	NE ⁴	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005
Copper	NE	0.51	NE	0.51	NE	0.51	NE	0.51	NE	0.51	NE	0.51	NE	0.8	NE	0.8	NE	0.8
Iron	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2
Lead	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.04	0.05	0.04	0.05	0.04
Manganese	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22
Mercury	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016
Nickel	0.13	NE	0.13	NE	0.13	NE	0.10	0.08	0.10	0.08	0.13	NE	0.1	0.08	0.13	NE	0.13	NE
Selenium	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.027	0.05	0.027	0.05	0.027	0.05	0.04	0.05	0.04	0.05	0.04
Thallium	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016
Zinc	NE	2.5	NE	2.5	NE	2.5	NE	2.5	NE	2.5	NE	2.5	NE	4	NE	4	NE	4
Gross Alpha	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15
Adjusted Gross Alpha (pCi/L) ⁵	15	12	15	12	15	12	15	12	15	12	15	12	15	12	15	12	15	12
Radium 226 + 228 (pCi/L)	5	4	5	4	5	4	5	Monitor	5	4	5	4	5	4	5	4	5	4
Total Uranium Isotopes (pCi/L) ⁵	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total Uranium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total petroleum hydrocarbons- diesel	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Benzene	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004
Ethylbenzene	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56
Toluene	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8
Total Xylene	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8

Notes:

¹ Metals must be analyzed as dissolved metals.

² Monitor = Monitoring required, but no AQL or AL will be established in the permit.

³ Nitrate will be used only for calculation of cation/anion balance because of regional nitrate pollution and none used in processes.

⁴ NE = Not Established

⁵ If the gross alpha particle activity is greater than the AL or AQL, then calculate the adjusted gross alpha particle activity. The adjusted gross alpha particle activity is the gross alpha particle activity, including radium 226, and any other alpha emitters, if present in the water sample, minus radon and total uranium (the sum of uranium 238, uranium 235 and uranium 234 isotopes). The gross alpha analytical procedure (evaporation technique: EPA Method 900.0) drives off radon gas in the water samples. Therefore, the Adjusted Gross Alpha should be calculated using the following formula: (Laboratory Reported Gross Alpha MINUS Sum of the Uranium Isotopes).

⁶ Uranium Isotope activity results must be used for calculating Adjusted Gross Alpha.

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FLORENCE, ARIZONA

Parameter ¹	M16-GU(R)		M17-GL		M18-GU		M19-LBF		M20-O(R)		M21-UBF		M22-O		M23-UBF		M24-O	
	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)
pH (lab)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Bicarbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Calcium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Carbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Chloride	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Nitrate as nitrogen ³	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Potassium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Sodium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Cation/anion balance	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aluminum	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71
Antimony	0.006	0.005	0.016	NE	0.016	NE	0.006	0.005	0.006	0.005	0.016	NE	0.016	NE	0.006	0.005	0.006	0.005
Arsenic	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026
Barium	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6
Beryllium	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032
Cadmium	0.04	NE	0.005	0.004	0.04	NE	0.005	0.004	0.04	NE	0.04	NE	0.04	NE	0.04	NE	0.005	0.004
Chromium (total)	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08
Cobalt	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005
Copper	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8
Iron	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2
Lead	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04
Manganese	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22
Mercury	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016
Nickel	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08
Selenium	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04
Thallium	0.002	0.0016	0.024	NE	0.002	0.0016	0.024	NE	0.024	NE	0.024	NE	0.024	NE	0.024	NE	0.002	0.0016
Zinc	NE	4	NE	4	NE	4	NE	4	NE	4	NE	4	NE	4	NE	4	NE	4
Gross Alpha	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15
Adjusted Gross Alpha (pCi/L) ⁵	15	12	15	12	15	12	15	12	15	12	15	12	15	12	15	12	15	12
Radium 226 + 228 (pCi/L)	5	4	5	4	5	4	5	4	5	4	5	4	5	4	5	4	5	4
Total Uranium Isotopes (pCi/L) ⁵	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total Uranium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total petroleum hydrocarbons- diesel	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Benzene	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004
Ethylbenzene	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56
Toluene	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8
Total Xylene	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8

Notes:

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Parameter ¹	M25-UBF		M26-O		M27-LBF		M28-LBF		M29-UBF		M30-O		M31-LBF		O19-GL		O49-GL(R)	
	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)
pH (lab)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Bicarbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Calcium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Carbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Chloride	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Nitrate as nitrogen ³	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Potassium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Sodium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Cation/anion balance	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aluminum	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71	NE	0.71
Antimony	0.006	0.005	0.016	NE	0.006	0.005	0.006	0.005	0.006	0.005	0.006	0.005	0.006	0.005	0.006	0.005	0.006	0.005
Arsenic	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026
Barium	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6
Beryllium	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032	0.004	0.0032
Cadmium	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004
Chromium (total)	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08
Cobalt	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005	NE	0.005
Copper	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8
Iron	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2	NE	2.2
Lead	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04
Manganese	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22	NE	0.22
Mercury	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016
Nickel	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	0.13	NE	0.1	0.08
Selenium	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04
Thallium	0.024	NE	0.002	0.0016	0.024	NE	0.024	NE	0.024	NE	0.024	NE	0.024	NE	0.024	NE	0.024	NE
Zinc	NE	4	NE	4	NE	4	NE	4	NE	4	NE	4	NE	4	NE	4	NE	4
Gross Alpha	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15	NE	15
Adjusted Gross Alpha (pCi/L) ⁵	15	12	15	12	15	12	15	12	15	12	15	12	15	12	15	12	15	12
Radium 226 + 228 (pCi/L)	5	4	5	4	5	4	5	4	5	4	5	4	5	4	5	4	5	4
Total Uranium Isotopes (pCi/L) ⁵	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total Uranium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total petroleum hydrocarbons- diesel	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Benzene	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004
Ethylbenzene	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56
Toluene	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8
Total Xylene	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8	10	8

Notes:

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Parameter ¹	P19-1-O		P49-O		M52-UBF		M54-LBF		M54-O		M33-UBF (replacement)	
	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)	AQL (mg/L)	AL (mg/L)
pH (lab)	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Bicarbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Calcium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Carbonate	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Chloride	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Nitrate as nitrogen ³	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Potassium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Sodium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Cation/anion balance	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Aluminum	NE	0.71	NE	0.71	NE	0.16	NE	0.16	NE	0.16	Reserved	Reserved
Antimony	0.006	0.005	0.006	0.005	0.006	0.0048	0.006	0.0048	0.006	0.0048	Reserved	Reserved
Arsenic	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	0.05	0.026	Reserved	Reserved
Barium	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	2.0	1.6	Reserved	Reserved
Beryllium	0.0053	NE	0.0053	NE	0.004	0.0032	0.004	0.0032	0.004	0.0032	Reserved	Reserved
Cadmium	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	Reserved	Reserved
Chromium (total)	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	0.10	0.08	Reserved	Reserved
Cobalt	NE	0.005	NE	0.005	NE	0.002	NE	0.002	NE	0.002	Reserved	Reserved
Copper	NE	0.8	NE	0.8	NE	0.8	NE	0.8	NE	0.8	Reserved	Reserved
Iron	NE	2.2	NE	2.2	NE	1.4	NE	1.4	NE	1.4	Reserved	Reserved
Lead	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	Reserved	Reserved
Manganese	NE	0.22	NE	0.22	NE	0.52	NE	0.52	NE	0.52	Reserved	Reserved
Mercury	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	Reserved	Reserved
Nickel	0.13	NE	0.1	0.08	0.1	0.08	0.1	0.08	0.1	0.08	Reserved	Reserved
Selenium	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	0.05	0.04	Reserved	Reserved
Thallium	0.024	NE	0.002	0.0016	0.002	0.0016	0.002	0.0016	0.002	0.0016	Reserved	Reserved
Zinc	NE	4	NE	4	NE	4	NE	4	NE	4	Reserved	Reserved
Gross Alpha	NE	15	NE	15	NE	15	NE	15	NE	15	Reserved	Reserved
Adjusted Gross Alpha (pCi/L) ⁵	15	12	15	12	15	12	15	NE	15	NE	Reserved	Reserved
Radium 226 + 228 (pCi/L)	5	4	5	4	17.2	NE	17.2	NE	17.2	NE	Reserved	Reserved
Total Uranium Isotopes (pCi/L) ⁵	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total Uranium	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Total petroleum hydrocarbons- diesel	Monitor	Monitor	Monitor	Monitor	Monitor	NE	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
Benzene	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004	0.005	0.004
Ethylbenzene	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56	0.7	0.56
Toluene	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8	1.0	0.8
Total Xylene	10	8	10	8	10	8	10	8	10	8	10	8

Notes:

¹ Metals must be analyzed as dissolved metals.

² Monitor = Monitoring required, but no AQL or AL will be established in the permit.

³ Nitrate will be used only for calculation of cation/anion balance because of regional nitrate pollution and none used in processes.

⁴ NE = Not Established

⁵ If the gross alpha particle activity is greater than the AL or AQL, then calculate the adjusted gross alpha particle activity. The adjusted gross alpha particle activity is the gross alpha particle activity, including radium 226, and any other alpha emitters, if present in the water sample, minus radon and total uranium (the sum of uranium 238, uranium 235 and uranium 234 isotopes). The gross alpha analytical procedure (evaporation technique: EPA Method 900.0) drives off radon gas in the water samples. Therefore, the Adjusted Gross Alpha should be calculated using the following formula: (Laboratory Reported Gross Alpha MINUS Sum of the Uranium Isotopes).

⁶ Uranium Isotope activity results must be used for calculating Adjusted Gross Alpha.