



Appendix 2

Water quality parameters for produced water

Table A2-1 Produced water quality parameters

Parameter	Units	Produced Water (90 th percentile)	Legacy Brine (90 th percentile)
Total Dissolved Solids (TDS)	mg/L	23,800	31,500
Electrical Conductivity	mS/cm	19.9	48,400
pH		8.57	9.0-9.84
Total Suspended Solids (TSS)	mg/L		<15
Total Algae Count	Cells/mL	<400,000	<400,000
Carbonate (CO3)	mg/L as CaCO3	730	<19,600
Bicarbonate (HCO3)	mg/L as CaCO3	12,400	<12,200
Alkalinity (Total)	mg/L as CaCO3	12,600	< 31,800
Total Organic Carbon	mg/L	60	<3,290
Dissolved Organic Carbon	mg/L	14	<3,340
Chemical Oxygen Demand	mg/L	2,300	<1,920
Biochemical Oxygen Demand (5 day)	mg/L	16	<598
Chloride (Cl)	mg/L	2,100	<5,510
Sodium (Na)	mg/L	6,500	<18,600
Sulphate (SO4)	mg/L	18	<18
Calcium (Ca)	mg/L	15	<15
Magnesium (Mg)	mg/L	9.2	<13
Potassium (K)	mg/L	81	<530
Strontium (Sr)	mg/L	24.6	<2.53
Barium (Ba)	mg/L	15	<9.3
Fluoride (F)	mg/L	6.4	<19.3
Silica (SiO2)	mg/L	24	<50
Boron (B)	mg/L	1.3	0.25-2.35
Iron (Fe, dissolved)	mg/L	0.52	Not analysed
Cyanide (Total)	mg/L	0.004	0.004
Manganese (Total)	mg/L	0.18	<0.048
Aluminium (Total)	mg/L	6.1	<7.69
Phosphorus (Total)	mg/L	0.63	Not analysed
Ammonia	mg/L as N	16	<16
Nitrate	mg/L as N	0.10	Not analysed
Nitrite	mg/L	0.04	Not Analysed
Nitrogen (Total)	mg/L	40	Not analysed
Total Kjeldahl Nitrogen	mg/L	39	Not Analysed
Copper (Total)	mg/L	0.14	0.001
Zinc (Total)	mg/L	0.15	0.01
Arsenic (Total)	mg/L	0.036	0.001
Chromium (Total)	mg/L	0.04	0.001
Hexavalent Chromium	mg/L	<0.05	Not analysed
Cadmium (Total)	mg/L	0.036	0.0002
Mercury (Total)	mg/L	0.0015	Not analysed
Molybdenum (Total)	mg/L	0.0069	Not analysed
Nickel (Total)	mg/L	0.013	Not analysed
Antimony (Total)	mg/L	0.0011	Not analysed
Selenium (Total)	mg/L	0.054	Not analysed
Tin (Total)	mg/L	0.0027	Not analysed
Uranium (Total)	mg/L	0.0007	Not analysed
Lead (Total)	mg/L	0.013	Not analysed
Beryllium (Total)	mg/L	0.001	Not analysed
Cobalt (Total)	mg/L	0.0035	Not analysed
Iodide (I)	mg/L	0.2	<0.1
Lithium (Total)	mg/L	2.9	Not analysed
Thallium (Total)	mg/L	0.0005	Not analysed
Vanadium (Total)	mg/L	0.016	Not analysed