

Pinabete Permit Application Package

Table 18.2-10. Relevant Groundwater Quality Use Criteria

Parameter (units)	Livestock Watering Criteria ¹	Domestic Water Supply Criteria for Surface Water by 2007 Navajo Nation Standards	EPA Secondary Drinking Water Standards ²
Arsenic (mg/L)	0.2	0.01	
Barium (mg/L)		1	
Boron (mg/L)	5	0.63	
Cadmium (mg/L)	0.05	0.005	
Chloride (mg/L)			250
Chromium (mg/L)	1	0.1	
Copper (mg/L)	0.5(D)	1.3	1
Fluoride (mg/L)	2*	4	2
Total iron (mg/L)	-		0.3
Lead (mg/L)	0.1	0.015	
Total manganese (mg/L)	-		0.05
Mercury (mg/L)	0.01	0.002	
Nitrate (mg/L-N)	0.132	10	
pH (su)	6.5-9.0	5.0-9.0	6.5-8.5
Potassium (mg/L)			
Radium-226 (pCi/L)	30**	5**	
Radium-228 (pCi/L)	30**	5**	
Selenium (mg/L)	0.05	0.05	
Silver (mg/L)		0.035	0.1
Sulfate (mg/L)	1000*		250
Total dissolved solids (TDS) (mg/L)	3000*		500
Uranium (mg/L)		0.03	
Zinc (mg/L)	25	2.1	5

¹ Based on Navajo Nation Environmental Protection Agency Water Quality Program, 2008, Navajo Nation Surface Water Quality Standards 2007, passed by Navajo Nation Resources Committee on May 13, 2008 and on other criteria for livestock use as noted

² <http://water.epa.gov/drink/contaminants/secondarystandards.cfm>

* Although there are no Navajo Nation livestock watering criteria for TDS, sulfate and fluoride, TDS concentrations above 3,000 may adversely affect growing/young livestock and waters with sulfate concentrations above 1,000 mg/l and fluoride concentrations above 2 mg/l are not recommended for livestock use (Lardy, G., C. Stoltenow, and R.

** 30 pCi/L criteria for Ra-226 + Ra-228

mg/L - milligram per liter

µS/cm - microsiemens per centimeter

su - standard units

pCi/L - picocuries per liter