

Impact Water Analysis Report



SYSTEM IDENTIFICATION

Company: Merchant Land and Cattle
Location: Scharbauer Watering
Sample Source: Tank
Salesman: David Garcia

Sample ID#: 89924

Sample Date: 12-20-2017

Report Date: 01-02-2018

WATER CHEMISTRY

CATIONS

Calcium(as Ca)	14.85
Magnesium(as Mg)	2.74
Barium(as Ba)	0.04
Strontium(as Sr)	0.35
Potassium(as K)	0.06
Lithium(as Li)	0.00
Iron(as Fe)	0.10
Manganese(as Mn)	0.01

ANIONS

Chloride(as Cl)	300.00
Sulfate(as SO ₄)	324.00
Dissolved CO ₂ (as CO ₂)	ND
Bicarbonate(as HCO ₃)	354.15
H ₂ S (as H ₂ S)	ND
Boron(as B)	12.71

PARAMETERS

Temperature(°F)	77.00
Sample pH	8.53
Conductivity	1959
T.D.S.	1540
Resistivity	510.46
Sp.Gr.(g/mL)	1.00

SCALE AND CORROSION POTENTIAL

Temp. (°F)	Press. (atm)	Calcite CaCO ₃		Anhydrite CaSO ₄		Gypsum CaSO ₄ *2H ₂ O		Barite BaSO ₄		Celestite SrSO ₄		Siderite FeCO ₃		Mackawenite FeS		CO ₂ (mpy)	pCO ₂ (atm)
70.00	1.00	3.06	8.42	0.00635	-1406	0.0109	-1161	2.76	0.0380	0.0168	-39.84	1.07	< 0.001	0.00	-0.0666	0.00838	0.00205
75.45	10.00	2.82	7.37	0.00632	-1406	0.0106	-1176	2.40	0.0347	0.0166	-40.26	1.20	< 0.001	0.00	-0.0729	0.0129	0.0113
80.91	19.00	2.60	6.38	0.00632	-1400	0.0103	-1189	2.11	0.0312	0.0165	-40.48	1.61	0.00305	0.00	-0.0794	0.00889	0.0205
86.36	28.00	2.38	5.43	0.00638	-1389	0.0101	-1200	1.86	0.0275	0.0165	-40.53	2.22	0.00630	0.00	-0.0863	0.00101	0.0298
91.82	37.00	2.17	4.54	0.00647	-1372	0.00992	-1209	1.65	0.0235	0.0165	-40.44	3.03	0.0110	0.00	-0.0935	0.0120	0.0390
97.27	46.00	1.97	3.72	0.00660	-1352	0.00975	-1217	1.48	0.0193	0.0166	-40.24	4.08	0.0175	0.00	-0.101	0.0114	0.0483
102.73	55.00	1.79	2.99	0.00677	-1326	0.00961	-1223	1.34	0.0149	0.0168	-39.95	5.32	0.0257	0.00	-0.109	0.0110	0.0575
108.18	64.00	1.62	2.32	0.00699	-1298	0.00990	-1197	1.21	0.0102	0.0169	-39.63	6.74	0.0359	0.00	-0.117	0.00988	0.0668
113.64	73.00	1.47	1.75	0.00725	-1265	0.0102	-1168	1.10	0.00518	0.0170	-39.33	8.22	0.0473	0.00	-0.125	0.00873	0.0760
119.09	82.00	1.34	1.24	0.00756	-1230	0.0106	-1141	0.995	>-0.001	0.0172	-39.06	9.69	0.0598	0.00	-0.134	0.00778	0.0852
124.55	91.00	1.22	0.805	0.00791	-1193	0.0109	-1115	0.905	-0.00627	0.0173	-38.81	11.02	0.0720	0.00	-0.144	0.00695	0.0945
130.00	100.00	1.12	0.429	0.00832	-1153	0.0113	-1090	0.824	-0.0127	0.0174	-38.58	12.13	0.0834	0.00	-0.154	0.00621	0.104
		xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	xSAT	mg/L	xSAT	mg/L		

Saturation Levels (xSAT) are the ratio of ion activity to solubility, e.g. {Ca}{CO₃}/K_{sp}. pCO₂ (atm) is the partial pressure of CO₂ in the gas phase.
mg/L scale is the quantity of precipitation (or dissolution) required to instantaneously bring the water to equilibrium.

