

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Water Analysis

Morrow

Company.... Nalco/Exxon Energy Chemicals
Well # BONE FLATS 12-5
Lease..... MARATHON
Location... Sec. 12, T-21-S, R-23-E
Date Run... 10/13/1997
Lab Ref #.. 97-OCT-N00768

Sample Temp... 70.0
Date Sampled.. 10/10/1997
Sampled by.... Mark Hermann
Employee # ... 27-011
Analyzed by... DANIEL

Eddy County, NM
Dissolved Gasses

	Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide (H ₂ S)	0.00	16.00	0.00
Carbon Dioxide (CO ₂)	0.00	22.00	0.00
Dissolved Oxygen (O ₂)	0.00	8.00	0.00

Cations

Calcium (Ca++)	1,125.60	20.10	56.00
Magnesium (Mg++)	170.80	12.20	14.00
Sodium (Na+)	22,472.93	23.00	977.08
Barium (Ba++)	2.50	68.70	0.00
Manganese (Mn++)	0.00	27.50	0.00

Anions

Hydroxyl (OH-)	0.00	17.00	0.00
Carbonate (CO ₃ =)	0.00	30.00	0.00
Bicarbonate (HCO ₃ -)	268.84	61.10	4.40
Sulfate (SO ₄ =)	9.00	48.80	0.18
Chloride (Cl-)	37,040.70	35.50	1,043.40

Total Iron (Fe)	16.75	18.60	0.90
Total Dissolved Solids	61,104.62		
Total Hardness As CaCO ₃	3,500.00		
Conductivity MICROMHOS/CM	95,000		

pH 6.650

Specific Gravity 60/60 F. 1.042

CaSO₄ Solubility @ 80 F. 68.63 MEq/L, CaSO₄ scale is ^{not} likely

CaCO₃ Scale Index

70.0	-0.706
80.0	-0.586
90.0	-0.386
100.0	-0.386
110.0	-0.126
120.0	-0.126
130.0	0.234
140.0	0.234
150.0	0.564

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