DEVONIAN ANALYSIS

Permian Treat:

WATER ANALYSIS REPORT

SAMPLE Devonian

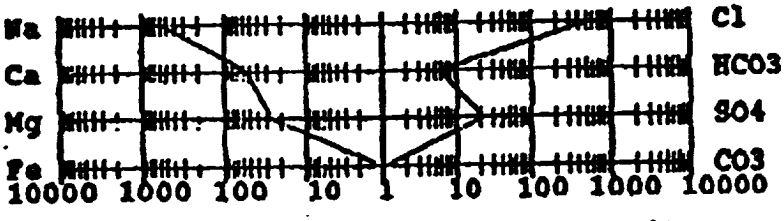
Oil Co. :
Lease : CW Trainer
Well No.: Morse #1 SW/NW Sec 27-T10S-R37E
Salesman:

Sample Loc. : Lea Co, New Mexico
Date Analyzed: 04-January-1996
Date Sampled :

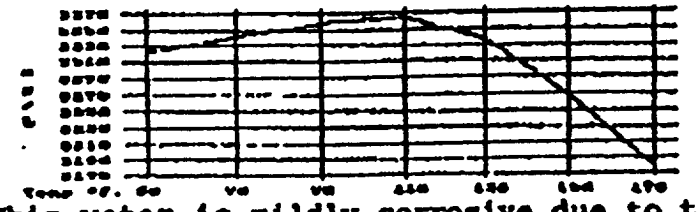
ANALYSIS

			MG/L	EQ. WT.	*MEQ/L
1.	pH		7.280		
2.	Specific Gravity 60/60 F.		1.028		
3.	$CaCO_3$ Saturation Index	@ 80 F.	+0.094		
		@ 140 F.	+1.064		
	Dissolved Gasses				
4.	Hydrogen Sulfide		Not Present		
5.	Carbon Dioxide		Not Determined		
6.	Dissolved Oxygen		Not Determined		
	Cations				
7.	Calcium	(Ca^{++})	1,002	/ 20.1 =	49.85
8.	Magnesium	(Mg^{++})	304	/ 12.2 =	24.92
9.	Sodium	(Na^{+}) (Calculated)	11,869	/ 23.0 =	516.04
10.	Barium	(Ba^{++})	Not Determined		
	Anions				
11.	Hydroxyl	(OH^{-})	0	/ 17.0 =	0.00
12.	Carbonate	(CO_3^{--})	0	/ 30.0 =	0.00
13.	Bicarbonate	(HCO_3^{-})	332	/ 61.1 =	5.43
14.	Sulfate	(SO_4^{--})	1,050	/ 48.8 =	21.52
15.	Chloride	(Cl^{-})	19,995	/ 35.5 =	563.24
16.	Total Dissolved Solids		34,552		
17.	Total Iron (Fe)		4	/ 18.2 =	0.19
18.	Total Hardness As $CaCO_3$		3,753		
19.	Resistivity @ 75 F. (Calculated)		0.235 /cm.		

LOGARITHMIC WATER PATTERN
*meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X *meq/L =	mg/L.
$Ca(HCO_3)_2$	81.04	5.43	440
$CaSO_4$	68.07	21.52	1,465
$CaCl_2$	55.50	22.90	1,271
$Mg(HCO_3)_2$	73.17	0.00	0
$MgSO_4$	60.19	0.00	0
$MgCL_2$	47.62	24.92	1,187
$NaRCO_3$	84.00	0.00	0
$NaSO_4$	71.03	0.00	0
NaCl	58.46	515.42	30,131

*Milli Equivalents per Liter

This water is mildly corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.