

TRETOLITE

Chemicals and Services

PETROLEUM

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NOV 24 1992

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : STATE "D" Com
Well : SWD #1 N-16-20-24
Sample Pt. : TANK

Date : 10/28/92
Date Sampled : 10/20/92
Analysis No. : 2594

ANALYSIS		mg/L		* meq/L
1. pH	7.4			
2. H2S	240 PPM			
3. Specific Gravity	1.010			
4. Total Dissolved Solids		11486.9		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO2		20 PPM		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)				
11. Bicarbonate	HCO3	1084.6	HCO3	17.8
12. Chloride	Cl	5003.9	Cl	141.2
13. Sulfate	SO4	1990.0	SO4	41.4
14. Calcium	Ca	609.2	Ca	30.4
15. Magnesium	Mg	1244.7	Mg	102.4
16. Sodium (calculated)	Na	1553.5	Na	67.6
17. Iron	Fe	1.0		
18. Barium	Ba	0.0		
19. Strontium	Sr	0.0		
20. Total Hardness (CaCO3)		6646.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X meq/L	=	mg/L
30	*Ca <----- *HCO3	Ca (HCO3) 2	81.0	17.8	1441
102	/-----> *SO4	CaSO4	68.1	12.6	859
68	<-----/ *Na <-----> *Cl	CaCl2	55.5		
		Mg (HCO3) 2	73.2		
		MgSO4	60.2	28.8	1734
		MgCl2	47.6	73.6	3503
		NaHCO3	84.0		
		Na2SO4	71.0		
		NaCl	58.4	67.6	3949

Saturation Values Dist. Water 20 C
CaCO3 13 mg/L
CaSO4 * 2H2O 2090 mg/L
BaSO4 2.4 mg/L

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
SUE CRISS