

TRETOLITE

PETROLITE

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O. C. O.
LABORATORY

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : OSAGE
Well : #1 G-21-19-25
Sample Pt. : SWD TANK

Date : 10-26-92
Date Sampled : 10-20-92
Analysis No. : 2589

ANALYSIS	mg/L	* meq/L
1. pH	7.6	
2. H2S	200 PPM	
3. Specific Gravity	1.020	
4. Total Dissolved Solids	24817.6	
5. Suspended Solids		
6. Dissolved Oxygen		
7. Dissolved CO2		
8. Oil In Water		
9. Phenolphthalein Alkalinity (CaCO3)		
10. Methyl Orange Alkalinity (CaCO3)	830.0	
11. Bicarbonate	HCO3 1012.6	HCO3 16.6
12. Chloride	Cl 11911.2	Cl 336.0
13. Sulfate	SO4 3000.0	SO4 62.5
14. Calcium	Ca 1523.0	Ca 76.0
15. Magnesium	Mg 476.5	Mg 39.2
16. Sodium (calculated)	Na 6894.0	Na 299.9
17. Iron	Fe 0.2	
18. Barium	Ba 0.0	
19. Strontium	Sr 0.0	
20. Total Hardness (CaCO3)	5765.2	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
76 *Ca <----- *HCO3	Ca(HCO3)2	81.0	16.6 1345
39 *Mg <----- *SO4	CaSO4	68.1	59.4 4043
300 *Na <----- *Cl	CaCl2	55.5	
	Mg(HCO3)2	73.2	
	MgSO4	60.2	3.1 185
	MgCl2	47.6	36.1 1720
	NaHCO3	84.0	
	Na2SO4	71.0	
	NaCl	58.4	299.9 17524

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

REMARKS: MALLETT - BENNETT - FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
SUE CRISS