

TRETOLITE

Chemicals and Services


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WATER ANALYSIS REPORT
 Company : POGO PRODUCING
 Address : MIDLAND, TEXAS
 Lease : 28-3
 Well : SWD
 Sample Pt. : TANK

 Date : 10/22/93
 Date Sampled : 10/22/93
 Analysis No. : 370

ANALYSIS		mg/L		* meq/L
1. pH	5.3			
2. H2S	NR			
3. Specific Gravity	1.140			
4. Total Dissolved Solids		223918.2		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO2		NR		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)				
11. Bicarbonate	HCO3	97.0	HCO3	1.6
12. Chloride	Cl	138024.0	Cl	3893.5
13. Sulfate	SO4	375.0	SO4	7.8
14. Calcium	Ca	13600.0	Ca	578.6
15. Magnesium	Mg	2583.6	Mg	212.6
16. Sodium (calculated)	Na	69238.6	Na	3011.7
17. Iron	Fe	NR		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO3)		44600.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt	* meq/L	= mg/
679 *Ca <----- *HCO3	Ca(HCO3)2	81.0	1.6	129
----- /----->	CaSO4	68.1	7.8	531
213 *Mg -----> *SO4	CaCl2	55.5	669.2	37136
----- <----- /	Mg(HCO3)2	73.2		
3012 *Na -----> *Cl	MgSO4	60.2		
	MgCl2	47.6	212.6	10119
Saturation Values Dist. Water 20 C	NaHCO3	34.0		
CaCO3 13 mg/L	Na2SO4	71.0		
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	3011.7	176003
BaSO4 2.4 mg/L				

REMARKS:

----- A. MILLER / FILE

RED TANK 23 SWD

Petrolite Oilfield Chemicals Group

Respectfully submitted,
STEVE TIGERT