

TRETOLITE

Chemicals and Services


 16010 Barker's Point Lane • Houston, Texas 77079
 713 558-5200 • Telex: 4620346 • FAX: 713 589-4707

 Reply to: P.O. Box FF
 Artesia, New Mexico 88210
 (505) 746-3588 Phone
 (505) 746-3580 Fax
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. H ₂ S	NR		
3. Specific Gravity	1.140		
4. Total Dissolved Solids		223918.2	
5. Suspended Solids		NR	
6. Dissolved Oxygen		NR	
7. Dissolved CO ₂		NR	
8. Oil In Water		NR	
9. Phenolphthalein Alkalinity (CaCO ₃)			
10. Methyl Orange Alkalinity (CaCO ₃)			
11. Bicarbonate	HCO ₃	97.0	HCO ₃ 1.6
12. Chloride	Cl	138024.0	Cl 3393.5
13. Sulfate	SO ₄	375.0	SO ₄ 7.8
14. Calcium	Ca	13600.0	Ca 578.6
15. Magnesium	Mg	2583.6	Mg 112.6
16. Sodium (calculated)	Na	69238.6	Na 3011.7
17. Iron	Fe	NR	
18. Barium	Ba	NR	
19. Strontium	Sr	NR	
20. Total Hardness (CaCO ₃)		44600.0	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter				Compound	Equiv wt	X meq/L	= mg/
+-----+				-----			
679	*Ca <-----	*HCO ₃	2	Ca (HCO ₃) ₂	81.0	1.6	129
	/----->			CaSO ₄	68.1	7.8	531
213	*Mg ----->	*SO ₄	8	CaCl ₂	55.5	669.2	37136
	<-----/			Mg (HCO ₃) ₂	73.2		
3012	*Na ----->	*Cl	3893	MgSO ₄	60.2		
				MgCl ₂	47.6	212.6	10119
Saturation Values Dist. Water 20 C				NaHCO ₃	84.0		
CaCO ₃		13 mg/L		Na ₂ SO ₄	71.0		
CaSO ₄ * 2H ₂ O		2090 mg/L		NaCl	58.4	3011.7	176003
BaSO ₄		2.4 mg/L					

REMARKS:

A. MILLER / FILE

RED TANK 23 SWD

Petrolite Oilfield Chemicals Group

Respectfully submitted,
STEVE TIGERT