

TRETOLITE

Chemicals and Services

PETROLITE

16010 Barker's Point Lane • Houston, Texas 77079
713 558-5200 • Telex: 4620346 • FAX: 713 589-4737

Reply to: P.O. Box FF
Artesia, New Mexico 88210
(505) 746-3588 Phone
(505) 746-3580 Fax

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : HILLVIEW
Well : #13
Sample Pt. : WELLHEAD

Date : 11/16/92
Date Sampled : 11/13/92
Analysis No. : 233

ANALYSIS		mg/L	* meq/L	
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1.	pH	7.4		
2.	H ₂ S	250 PPM		
3.	Specific Gravity	1.005		
4.	Total Dissolved Solids	11483.8		
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 ₃ 902.0	HCO ₃	14.8
12.	Chloride	Cl 3961.0	Cl	111.7
13.	Sulfate	SO ₄ 2875.0	SO ₄	59.9
14.	Calcium	Ca 1056.0	Ca	52.7
15.	Magnesium	Mg 430.6	Mg	35.4
16.	Sodium (calculated)	Na 2259.2	Na	98.3
17.	Iron	Fe NR		
18.	Barium	Ba NR		
19.	Strontium	Sr NR		
20.	Total Hardness (CaCO ₃)	4410.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter				Compound Equiv wt X meq/L = mg/L							
+-----+				-----							
53	*Ca	<-----	*HCO3	15	Ca (HCO3) 2	81.0	14.8	1198			
-----	/	-----	>	-----	CaSO4	68.1	37.9	2580			
35	*Mg	-----	> *SO4	60	CaCl2	55.5					
-----		<-----	/	-----	Mg (HCO3) 2	73.2					
98	*Na	-----	> *Cl	112	MgSO4	60.2	22.0	1321			
+-----+				+-----+	MgCl2	47.6	13.5	641			
Saturation Values Dist. Water 20 C				NaHCO3				84.0			
CaCO3				13 mg/L	Na2SO4				71.0		
CaSO4 * 2H2O				2090 mg/L	NaCl				58.4	98.3	5743
BaSO4				2.4 mg/L							

REMARKS:

----- L. MALLETT / FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
STEVE TIGERT