

TRETOLITE DIVISION(505) 746-3588
Fax (505) 746-3580Reply to:
P.O. Box 1140
Artesia, NM
88211-7531**WATER ANALYSIS REPORT**

Company	: YATES PETROLEUM	Date	: 03/30/96
Address	: ARTESIA, NM	Date Sampled	: 03/29/96
Lease	: POLO "AOP" FEDERAL	Analysis No.	: 0260
Well	: #4		
Sample Pt.	: WELLHEAD		

ANALYSIS		mg/L		* meq/L	
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1.	pH	7.1			
2.	H2S	180 PPM			
3.	Specific Gravity	1.000			
4.	Total Dissolved Solids	16214.7			
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	1146.0	HCO3	18.8
12.	Chloride	Cl	8946.0	Cl	252.4
13.	Sulfate	SO4	250.0	SO4	5.2
14.	Calcium	Ca	1200.0	Ca	59.9
15.	Magnesium	Mg	340.8	Mg	28.0
16.	Sodium (calculated)	Na	4331.9	Na	188.4
17.	Iron	Fe	NR		
18.	Barium	Ba	NR		
19.	Strontium	Sr	NR		
20.	Total Hardness (CaCO3)		4400.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter				Compound Equiv wt X meq/L = mg/L			
+-----+				+-----+			
60	*Ca <-----	*HCO3	19	Ca(HCO3)2	81.0	18.8	1522
	/----->			CaSO4	68.1	5.2	354
28	*Mg ----->	*SO4	5	CaCl2	55.5	35.9	1992
	<-----/			Mg(HCO3)2	73.2		
188	*Na ----->	*Cl	252	MgSO4	60.2		
				MgCl2	47.6	28.0	1335
Saturation Values Dist. Water 20 C				NaHCO3	84.0		
	CaCO3	13 mg/L		Na2SO4	71.0		
	CaSO4 * 2H2O	2090 mg/L		NaCl	58.4	188.4	11012
	BaSO4	2.4 mg/L					

REMARKS:

----- ANDY MILLER

Petrolite Oilfield Chemicals Group

Respectfully submitted,
ANDY MILLER