

TRETOLITE DIVISION

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 Reply to:
 P.O. Box 1140
 Artesia, NM
 88211-7531

WATER ANALYSIS REPORT

Company	: YATES PETROLEUM	Date	: 02/07/96
Address	: ARTESIA, NM	Date Sampled	: 02/06/96
Lease	: AMARANTH "AMG"	Analysis No.	: 0222
Well	: #1		
Sample Pt.	: TANK		

ANALYSIS		mg/L	* meq/L	
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1.	pH	6.0		
2.	H2S	0 PPM		
3.	Specific Gravity	1.035		
4.	Total Dissolved Solids	51744.7		
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 146.0	HCO3	2.4
12.	Chloride	Cl 31524.0	Cl	889.3
13.	Sulfate	SO4 75.0	SO4	1.6
14.	Calcium	Ca 1860.0	Ca	92.8
15.	Magnesium	Mg 293.2	Mg	24.1
16.	Sodium (calculated)	Na 17846.5	Na	776.3
17.	Iron	Fe NR		
18.	Barium	Ba NR		
19.	Strontium	Sr NR		
20.	Total Hardness (CaCO3)	5852.0		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
+-----+			
93 *Ca <----- *HCO3 2	Ca (HCO3)2	81.0	194
----- /-----> -----	CaSO4	68.1	106
24 *Mg -----> *SO4 2	CaCl2	55.5	4931
----- <-----/ -----	Mg (HCO3)2	73.2	
776 *Na -----> *Cl 889	MgSO4	60.2	
+-----+	MgCl2	47.6	1148
Saturation Values Dist. Water 20 C	NaHCO3	84.0	
CaCO3 13 mg/L	Na2SO4	71.0	
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	45365
BaSO4 2.4 mg/L			

REMARKS:

----- ANDY MILLER