

TRETOLITE DIVISION

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 Reply to:
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 Artesia, NM
 88211-7531

WATER ANALYSIS REPORT

 Company : MACK ENERGY
 Address : ARTESIA, NEW MEXICO
 Lease : LANGLEY A FED. COM
 Well : #1
 Sample Pt. : WELLHEAD

 Date : 02/25/94
 Date Sampled : 02/24/94
 Analysis No. : 1135

ANALYSIS		mg/L		* meq/L
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1. pH	6.8			
2. H2S	<1 PPM			
3. Specific Gravity	1.125			
4. Total Dissolved Solids		212505.0		
5. Suspended Solids		NR		
6. Dissolved Oxygen		NR		
7. Dissolved CO2		600 PPM		
8. Oil In Water		NR		
9. Phenolphthalein Alkalinity (CaCO3)				
10. Methyl Orange Alkalinity (CaCO3)		170.0		
11. Bicarbonate	HCO3	207.4	HCO3	3.4
12. Chloride	Cl	129735.3	Cl	3659.7
13. Sulfate	SO4	1750.0	SO4	36.4
14. Calcium	Ca	5803.6	Ca	289.6
15. Magnesium	Mg	4064.6	Mg	334.4
16. Sodium (calculated)	Na	70706.0	Na	3075.5
17. Iron	Fe	238.0		
18. Barium	Ba	NR		
19. Strontium	Sr	NR		
20. Total Hardness (CaCO3)		31228.1		

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter		Compound	Equiv wt X meq/L	= mg/L
-----		-----	-----	-----
290 *Ca <----- *HCO3	3	Ca (HCO3) 2	81.0	276
----- /----->	-----	CaSO4	68.1	2480
334 *Mg -----> *SO4	36	CaCl2	55.5	13859
----- <----- /	-----	Mg (HCO3) 2	73.2	
3076 *Na -----> *Cl	3660	MgSO4	60.2	
-----	-----	MgCl2	47.6	15919
Saturation Values Dist. Water 20 C		NaHCO3	84.0	
CaCO3 13 mg/L		Na2SO4	71.0	
CaSO4 * 2H2O 2090 mg/L		NaCl	58.4	179733
BaSO4 2.4 mg/L				

REMARKS:

----- C. CULP / FILE

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MAR 22 1994

CONGRESS
OFFICE