

TRETOLITE

PETROLITE

16010 Barker's Point Lane • Houston, Texas 77079
713 558-5200 • Fax 713 589-4737

RECEIVED

Reply to: P.O. Box 60180
Midland, TX 79711-0180

NOV 24 1992

3.00

WATER ANALYSIS REPORT

Company : YATES PETROLEUM
Address : ARTESIA, NEW MEXICO
Lease : STONEWALL YE ST.
Well : #1 J-30-20-29
Sample Pt. : SWD TANK

Date : 10-28-92
Date Sampled : 10-20-92
Analysis No. : 2593

ANALYSIS	mg/L	* meq/L
1. pH	7.7	
2. H2S	120 PPM	
3. Specific Gravity	1.120	
4. Total Dissolved Solids	186252.1	
5. Suspended Solids		
6. Dissolved Oxygen		
7. Dissolved CO2		
8. Oil In Water		
9. Phenolphthalein Alkalinity (CaCO3)		
10. Methyl Orange Alkalinity (CaCO3)	410.0	
11. Bicarbonate	HCO3 500.2	HCO3 8.2
12. Chloride	Cl 113805.3	Cl 3210.3
13. Sulfate	SO4 1410.0	SO4 29.4
14. Calcium	Ca 11262.5	Ca 562.0
15. Magnesium	Mg 2776.2	Mg 228.4
16. Sodium (calculated)	Na 56497.2	Na 2457.5
17. Iron	Fe 0.7	
18. Barium	Ba 0.0	
19. Strontium	Sr 0.0	
20. Total Hardness (CaCO3)	39555.6	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
562 *Ca <----- *HCO3	Ca(HCO3)2	81.0	665
----- /----->	CaSO4	68.1	1998
228 *Mg -----> *SO4	CaCl2	55.5	29101
----- <----- /	Mg(HCO3)2	73.2	
2457 *Na -----> *Cl	MgSO4	60.2	
-----	MgCl2	47.6	10873
Saturation Values Dist. Water 20 C	NaHCO3	84.0	
CaCO3 13 mg/L	Na2SO4	71.0	
CaSO4 * 2H2O 2090 mg/L	NaCl	58.4	143614
BaSO4 2.4 mg/L			

REMARKS: MALLETT - BENNETT - FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted,
SUE CRISS

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SCALE TENDENCY REPORT

Company	: YATES PETROLEUM	Date	: 10-28-92
Address	: ARTESIA, NEW MEXICO	Date Sampled	: 10-20-92
Lease	: STONEWALL	Analysis No.	: 2593
Well	:	Analyst	: SUE CRISS
Sample Pt.	: SWD TANK		

STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO₃ Scaling Tendency

S.I. = 2.3 at 80 deg. F or 27 deg. C
S.I. = 2.4 at 120 deg. F or 49 deg. C

CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

~~S~~ S = 1577 at 80 deg. F or 27 deg C
S = 1721 at 120 deg. F or 49 deg C

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Respectfully submitted,
SUE CRISS