

TRETOLITE

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WATER ANALYSIS REPORT

Company : VH WESTBROOK
Address :
Lease : ZATTU CRUSHING FED
Well : 2
Sample Pt. : WELLHEAD

Date : 08-05-93
Date Sampled : 08-04-93
Analysis No. : 692

ANALYSIS		mg/L	* meq/L	
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1.	pH	7.0		
2.	H ₂ S	NR		
3.	Specific Gravity	1.015		
4.	Total Dissolved Solids	19779.5		
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)	319.0		
11.	Bicarbonate	HCO ₃	389.2	HCO ₃ 6.4
12.	Chloride	Cl	11017.9	Cl 310.8
13.	Sulfate	SO ₄	1550.0	SO ₄ 32.3
14.	Calcium	Ca	1635.3	Ca 81.6
15.	Magnesium	Mg	1089.1	Mg 89.6
16.	Sodium (calculated)	Na	4098.1	Na 178.3
17.	Iron	Fe	NR	
18.	Barium	Ba	NR	
19.	Strontium	Sr	NR	
20.	Total Hardness (CaCO ₃)		8567.7	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter

82	*Ca <-----	*HCO ₃	6
90	/----->		
	*Mg ----->	*SO ₄	32
	<-----/		
178	*Na ----->	*Cl	311

Saturation Values Dist. Water 20 C

CaCO ₃	13 mg/L
CaSO ₄ * 2H ₂ O	2090 mg/L
BaSO ₄	2.4 mg/L

Compound	Equiv wt	X meq/L	= mg/L
Ca(HCO ₃) ₂	81.0	6.4	517
CaSO ₄	68.1	32.3	2197
CaCl ₂	55.5	42.9	2383
Mg(HCO ₃) ₂	73.2		
MgSO ₄	60.2		
MgCl ₂	47.6	89.6	4265
NaHCO ₃	84.0		
Na ₂ SO ₄	71.0		
NaCl	58.4	178.3	10417

REMARKS: ACID ENGINEERING / WARD HAWKINS
----- FILE

Petrolite Oilfield Chemicals Group

Respectfully submitted
ROZANNE JOHNSON

RECEIVED

SEP 01 1993

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