

PETROLITE

WATER ANALYSIS REPORT

Company : SANTA FE Date : 10/19/95
 Address : ARTESIA, NM Date Sampled : 10/18/95
 Lease : STRELING SILVER 33 Analysis No. : 015
 Well : BATTERY
 Sample Pt. : TANK 33-236-31e

ANALYSIS	mg/L	* meq/L
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1. pH	5.5	
2. H ₂ S	0 PPM	
3. Specific Gravity	1.200	
4. Total Dissolved Solids	289914.9	
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)		
11. Bicarbonate HCO ₃	24.0	HCO ₃ 0.4
12. Chloride Cl	179346.0	Cl 5059.1
13. Sulfate SO ₄	50.0	SO ₄ 1.0
14. Calcium Ca	20520.0	Ca 1024.0
15. Magnesium Mg	3171.1	Mg 260.9
16. Sodium (calculated) Na	86803.7	Na 3775.7
17. Iron Fe	NR	
18. Barium Ba	NR	
19. Strontium Sr	NR	
20. Total Hardness (CaCO ₃)	64300.0	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	= mg/L
+-----+	-----	-----	-----
1024 *Ca <----- *HCO ₃	Ca(HCO ₃) ₂	81.0 0.4	32
----- /----->	CaSO ₄	68.1 1.0	71
261 *Mg -----> *SO ₄	CaCl ₂	55.5 1022.5	56739
----- <-----/	Mg(HCO ₃) ₂	73.2	
3776 *Na -----> *Cl	MgSO ₄	60.2	
+-----+	MgCl ₂	47.6 260.9	12420
Saturation Values Dist. Water 20 C	NaHCO ₃	84.0	
CaCO ₃ 13 mg/L	Na ₂ SO ₄	71.0	
CaSO ₄ * 2H ₂ O 2090 mg/L	NaCl	58.4 3775.7	220653
BaSO ₄ 2.4 mg/L			

REMARKS:

----- ANDY MILLER

Petroliite Oilfield Chemicals Group

Respectfully submitted,
SHAWNA MATTHEWS