

TYPICAL WATER ANALYSIS
SAN ANDRES FORMATION
LEA COUNTY, NEW MEXICO

ANALYSIS		PPM or Mg/L	PPM or Meq./L	Ionic P P M	
1. PH	7.25				
2. H ₂ S	Pos.				
3. CO ₂	Pos.				
4. Specific Gravity	1.12				
5. Phenol Alkalinity (C=CO ₂)		0.0			
6. M.P. Alkalinity (C=CO ₂)		520.0			
7. Bicarbonate (C=CO ₂)		520.0	10.4	HCO ₃	634
8. Chlorides (Cl)		187,000.0	5,267.6	CL	187,000
9. Sulphates (SO ₄)		2,800.0	58.33	SO ₄	2,800
10. Total Hardness (C=CO ₂)		10,000.0			
11. Calcium (C=CO ₂)		5,750.0	115.0	Ca	2,300
12. Magnesium (C=CO ₂)		4,250.0	85.0	Mg	1,037
13. Sodium (Na)			5,135.73	Na	118,122
14. Magnesium Barium (Ba)				NO ₃	0
15. Iron (Fe)					
16. Total Dissolved Solids					311,893

BEFORE EXAMINER STAMETS
OIL CONSERVATION DIVISION
SAGE EXHIBIT NO. 7
CASE NO. 7738
Submitted by SAGE
Hearing Date 11/23/82

To: Mr. Bob Munsell
425 Hamilton Building
Wichita Falls, Texas 76301

Laboratory No. 1082169
Samples received 10-18-82
Results reported 10-20-82

Company: Sage Oil Company

Project: CK lease in New Mexico

Subject: To make the determinations listed below on produced water from CK lease.
Sample submitted by Bob Munsell.

<u>DETERMINATION</u>	<u>MG/L</u>
Aluminum, as Al	0.00
Arsenic, as As	0.000
Barium, as Ba	0
Boron, as B	22.0
Cadmium, as Cd	0.07
Chloride, as Cl	75,280
Chromium, as Cr	0.00
Cobalt, as Co	10.0
Copper, as Cu	0.00
Cyanide, as CN	0.0
Fluoride, as F	0.0
Iron, as Fe	8.7
Lead, as Pb	1.00
Manganese, as Mn	1.00
Mercury, as Hg	0.000
Molybdenum, as Mo	<100
Nickel, as Ni	1.40
Nitrate Nitrogen, as N	0.0
pH	7.8
Sulfate, as SO ₄	3,223
Total Dissolved Solids, evaporated	119,180
Zinc, as Zn	0.40

Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

cc: Mr. Johnny Mulloy, Foy Boyd
Associates, Midland

W. Reagan White, B.S.

To: Mr. Bob Munsell
425 Hamilton Building
Wichita Falls, Texas 76301

Laboratory No. 1082170
Samples received 10-18-82
Results reported 10-20-82

Company: Sage Oil Company

Project: Hobbs "O" lease in New Mexico

Subject: To make the determinations listed below on produced water from Hobbs "O" lease. Sample submitted by Bob Munsell.

<u>DETERMINATION</u>	<u>MG/L</u>
Aluminum, as Al	0.00
Arsenic, as As	0.000
Barium, as Ba	0
Boron, as B	17.50
Cadmium, as Cd	0.00
Chloride, as Cl	13,139
Chromium, as Cr	0.00
Cobalt, as Co	5.0
Copper, as Cu	0.00
Cyanide, as CN	0.0
Fluoride, as F	2.0
Iron, as Fe	22.6
Lead, as Pb	0.00
Manganese, as Mn	0.00
Mercury, as Hg	0.0000
Molybdenum, as Mo	<100
Nickel, as Ni	0.00
Nitrate Nitrogen, as N	0.0
pH	7.3
Sulfate, as SO ₄	2,370
Total Dissolved Solids, evaporated	20,412
Zinc, as Zn	0.40

Remarks: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

W. Reagan White, B.S.

cc: Mr. Johnny Mulloy, Foy Boyd
Associates, Midland