

Permian Region
510 N Elliot
Odessa, TX 79761
(915)332-8822

WATER ANALYSIS REPORT

OIL FIELD CHEMICAL DIVISION

Anadarko Petroleum Corp.
Company Arco Oil and Gas

Field Young Strawn

Lease or Unit Young Federal

Well 1

Formation

Sample Location

Analysis Number

Lab ID Number

Sample Identification

Sampled By Arco Oil and Gas

Sample Date October 1, 1989

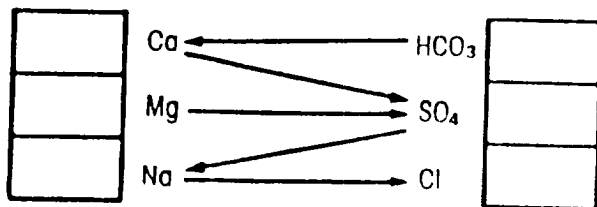
Sales Engineer

Location

DISSOLVED SOLIDS	Cations	mg/l		meg/l	Anions	mg/l		meg/l
	Sodium, Na ⁺ (calc.)	29,716	÷ 23	1,292	Chloride, Cl ⁻	62,000	÷ 35.5	1,746
	Calcium, Ca ⁺²	9,800	÷ 20	490	Bicarbonate, HCO ₃ ⁻	875	÷ 61	14
	Magnesium, Mg ⁺²	1,850	÷ 12.2	20.7	Sulfate, So ₄ ⁻²	2,100	÷ 48	43
	Iron, Fe ⁺²	12	÷ 27.9	.43	Carbonate, CO ₃ ⁻²	0	÷ 30	0
	Barium, Ba ⁺²		÷ 68.7		Hydroxide, OH ⁻		÷ 17	
	Strontium, Sr ⁺²		÷ 43.8		Sulfide, S (total)		÷ 16	
		32,546		1,803		64,975		1,803
	Total Dissolved Solids (calc.)					97,521	mg/l	

DISSOLVED GASES	Hydrogen Sulfide, H ₂ S	mg/l	Carbon Dioxide, CO ₂	mg/l	Oxygen, O ₂	
	OTHER PROPERTIES					
	pH	7.1	Alkalinity	mg/l (CaCO ₃)		Specific Gravity

PROBABLE MINERAL COMPOSITION



Saturation Values	Distilled Water 20°C
Ca CO ₃	13 mg/l
Ca SO ₄ = 2H ₂ O	2,090 mg/l
Mg CO ₃	103 mg/l

Compound	Equiv. Wt.	X	meg/l	=	mg/l
Ca(HCO ₃) ₂	81.04				
Ca SO ₄	68.07				
Ca Cl ₂	55.50				
Mg (HCO ₃) ₂	73.17				
Mg SO ₄	60.19				
Mg Cl ₂	47.62				
Na HCO ₃	84.00				
Na ₂ SO ₄	71.03				
Na Cl	58.46				

ANALYST

ANALYSIS

DATE