

MARTIN WATER LABORATORIES, INC.

P.O. Box 1468 Phone 943-3234 or 663-1040
Monahans, Texas 79756

RESULT OF WATER ANALYSES

709 W. Indiana Phone 683-4521
Midland, Texas 79701

TO: Mr. Jim Blount
400 W. Illinois, Suite 1000, Midland, TX

LABORATORY NO. 692162
SAMPLE RECEIVED 6-16-92
RESULTS REPORTED 9-22-92

API WATER ANALYSIS REPORT FORM

Company <u>Mitchell Energy</u>		Sample No.		Date Sampled	
Field <u>Tonto, S.</u> <u>North Pearl</u>		Legal Description		County or Parish <u>Lea</u>	
Lease or Unit <u>Geronimo Federal</u>		Well <u>#7</u>	Depth	Formation <u>Yates/Seven Rivers</u>	Water, B/D <u>NM</u>
Type of Water (Produced, Supply, etc.) <u>Produced</u>			Sampling Point		Sampled By

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na (calc.)	<u>6,527</u>	<u>283.8</u>
Calcium, Ca	<u>1,350</u>	<u>67.5</u>
Magnesium, Mg	<u>443</u>	<u>36.5</u>
Barium, Ba		

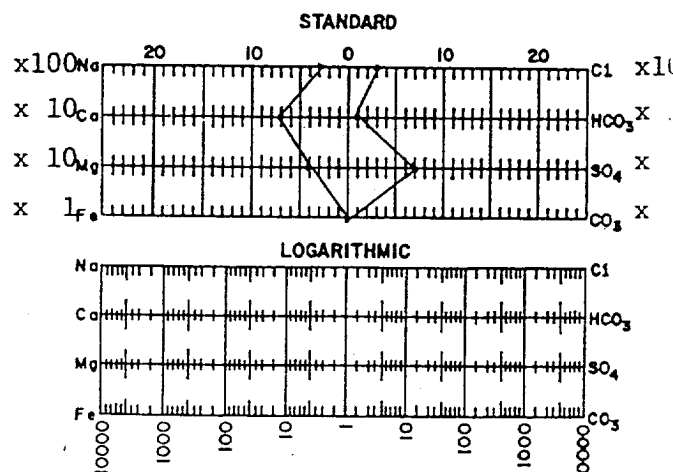
OTHER PROPERTIES

pH	<u>7.57</u>
Specific Gravity, 60/60 F.	<u>1.0199</u>
Resistivity (ohm-meters) <u>77° F.</u>	<u>0.350</u>
Total Hardness, as CaCO ₃	<u>5,200</u>

ANIONS

Chloride, Cl	<u>11,008</u>	<u>310.4</u>
Sulfate, SO ₄	<u>3,151</u>	<u>65.5</u>
Carbonate, CO ₃	<u>0</u>	<u>0.0</u>
Bicarbonate, HCO ₃	<u>720</u>	<u>11.8</u>

WATER PATTERNS — me/l




Total Dissolved Solids (calc.)

23,199

Iron, Fe (total) 0.20 0.0
Sulfide, as H₂S 32.0

REMARKS & RECOMMENDATIONS: We have no records of either Yates or Seven Rivers waters sufficiently near this field for use in comparing with the above. Our more distant records show wide variations in the characteristics of both Yates and Seven Rivers; therefore, we would not feel confident in using them to draw a conclusion regarding the origin of this water. However, we would basically consider the characteristics to be that of a natural subsurface water. We do note that the water from this well is similar to the water from well #10 except for a substantial difference in the sulfate level.


Waylan C. Martin, M.A.