

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE May 6, 1974

Operator <u>El Paso Natural Gas Company</u>		Lease <u>Hubbell #10 (PC)</u>	
Location <u>1017/S, 990/E, Sec. 19, T29N, R10W</u>		County <u>San Juan</u>	State <u>New Mexico</u>
Formation <u>Pictured Cliffs</u>		Pool <u>Aztec</u>	
Casing: Diameter <u>2.875</u>	Set At: Feet <u>1873'</u>	Tubing: Diameter <u>No Tubing</u>	Set At: Feet <u>--</u>
Pay Zone: From <u>1726'</u>	To <u>1744'</u>	Total Depth: <u>PBTD</u> <u>2876' 1863'</u>	Shut In <u>4-18-74</u>
Stimulation Method <u>Sandwater Frac</u>		Flow Through Casing <u>XX</u>	Flow Through Tubing

Choke Size, Inches <u>.750</u>		Choke Constant: C <u>12.365</u>		Tubingless Completion	
Shut-In Pressure, Casing, PSIG <u>523</u>	+ 12 = PSIA <u>535</u>	Days Shut-In <u>18</u>	Shut-In Pressure, Tubing PSIG <u>No Tubing</u>	+ 12 = PSIA <u>--</u>	
Flowing Pressure: P PSIG <u>125</u>	+ 12 = PSIA <u>137</u>	Working Pressure: Pw PSIG <u>Calculated</u>	+ 12 = PSIA <u>159</u>		
Temperature: T = <u>62</u> °F	Ft = <u>.9981</u>	n = <u>.85</u>	Fpv (From Tables) <u>1.0120</u>	Gravity <u>.650</u>	Fg = <u>.9608</u>

$$\text{CHOKE VOLUME} = Q = C \times P_i \times F_i \times F_g \times F_{pv}$$

$$Q = 12.365(137)(.9981)(.9608)(1.0120) = \underline{1644} \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

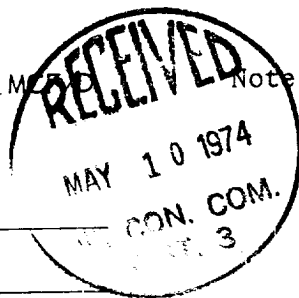
$$Aof = Q \left(\frac{286225}{260944} \right)^n = 1644(1.0969)^{.85} = 1644(1.0818)$$

$$Aof = \underline{1778} \text{ MCF/D}$$

Note: The well produced a light fog of water and distillate throughout the test.

TESTED BY Wagner

WITNESSED BY _____



Loren W. Fothergill

Loren W. Fothergill
Well Test Engineer