

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE October 17, 1963

Operator <u>El Paso Natural Gas Company</u>		Lease <u>Rincon No. 186 (DK)</u>	
Location <u>840'S, 1570'E, Sec. 33-27N-7W</u>		County <u>Rio Arriba</u>	State <u>New Mexico</u>
Formation <u>Dakota</u>		Pool <u>Basin</u>	
Casing: Diameter <u>5.500</u>	Set At: Feet <u>7548</u>	Tubing: Diameter <u>2.0625</u>	Set At: Feet <u>7427</u>
Pay Zone: From <u>7200</u>	To <u>7448</u>	Total Depth: <u>7549</u>	Shut In <u>10-10-63</u>
Stimulation Method <u>Sand/Water Frac.</u>		Flow Through Casing <u>X</u>	Flow Through Tubing

Choke Size, Inches <u>0.75</u>		Choke Constant: C <u>12.365</u>			
Shut-In Pressure, Casing, PSIG <u>1966</u>	+ 12 = PSIA <u>1978</u>	Days Shut-In <u>7</u>	Shut-In Pressure, Tubing PSIG <u>1498</u>	+ 12 = PSIA <u>1510</u>	
Flowing Pressure: P PSIG <u>138</u>	+ 12 = PSIA <u>150</u>		Working Pressure: Pw PSIG <u>319</u>	+ 12 = PSIA <u>331</u>	
Temperature: T = <u>68</u> °F Ft = <u>.9924</u>	n = <u>.75</u>		Fpv (From Tables) <u>1.013</u>	Gravity Est. <u>.650</u> Fg = <u>.9608</u>	

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

$$Q = (12.365)(150)(.9924)(.9608)(1.013) = \underline{1791} \text{ MCF/D}$$

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

$$Aof = \left(\frac{3,912,484}{3,802,923} \right)^n = (1.0288)^{.75}(1791) = (1.0215)(1791)$$

$$Aof = \underline{1830} \text{ MCF/D}$$

TESTED BY D. E. MortensenChecked by W. D. Dawson

Lewis D. Galloway
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