

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE October 19, 1973

Operator <b>El Paso Natural Gas Company</b>		Lease <b>Vaughn #25 (CH)</b>	
Location <b>1180/N, 1180/E Sec. 28, T26N, R6W</b>		County <b>Rio Arriba</b>	State <b>New Mexico</b>
Formation <b>Chacra</b>		Pool <b>Otero</b>	
Casing: Diameter <b>2.875</b>	Set At: Feet <b>3945'</b>	Tubing: Diameter <b>No Tubing</b>	Set At: Feet
Pay Zone: From <b>3804</b>	To <b>3910'</b>	Total Depth: <b>3945</b>	Shut In <b>10-9-73</b>
Stimulation Method <b>Sandwater Frac</b>		Flow Through Casing <b>X</b>	Flow Through Tubing

Choke Size, Inches <b>.750</b>		Choke Constant: C <b>12.365</b>		Tubingless Completion	
Shut-In Pressure, Casing, PSIG <b>833</b>	+ 12 = PSIA <b>845</b>	Days Shut-In <b>10</b>	Shut-In Pressure, Tubing PSIG <b>No Tubing</b>	+ 12 = PSIA	
Flowing Pressure: P PSIG <b>17</b>	+ 12 = PSIA <b>29</b>		Working Pressure: P <sub>w</sub> PSIG <b>Calculated</b>	+ 12 = PSIA <b>37</b>	
Temperature: T = <b>60 °F</b>	n = <b>.75</b>		F <sub>p</sub> v (From Tables) <b>1.004</b>	Gravity <b>.655</b>	F <sub>g</sub> = <b>.9571</b>

$$\text{CHOKE VOLUME} = Q = C \times P_t \times F_t \times F_g \times F_{pv}$$

$$Q = (12.365)(29)(1.000)(.9571)(1.004) = \underline{345} \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{714025}{712656} \right)^n = 345 (1.0019)^{.75} = 345 (1.0014)$$

$$Aof = \underline{345} \text{ MCF/D}$$

Note: Well produced a light fog of  
of water throughout the test.

TESTED BY B.J.B.

WITNESSED BY \_\_\_\_\_

*William D. Welch*

William D. Welch  
Well Test Engineer

