

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATADATE December 28, 1973

Operator El Paso Natural Gas Company		Lease San Juan 29-5 Unit #66	
Location 1500/S, 820/W, Sec. 33, T29N, R5W		County Rio Arriba	State New Mexico
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 7955'	Tubing: Diameter 1 1/2"	Set At: Feet 7878'
Pay Zone: From 7742	To 7900	Total Depth: 7955	Shut In 12-17-73
Stimulation Method Sandwater Frac		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches .750		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 2582	+ 12 = PSIA 2594	Days Shut-In 10	Shut-In Pressure, Tubing PSIG 2580	+ 12 = PSIA 2592	
Flowing Pressure: P PSIG 332	+ 12 = PSIA 344		Working Pressure: P <sub>w</sub> PSIG 512	+ 12 = PSIA 524	
Temperature: T = 58 °F	n = .75		F <sub>pv</sub> (From Tables) 1.028	Gravity .595	F <sub>g</sub> = 1.0041

$$\text{CHOKE VOLUME} = Q = C \times P_r \times F_r \times F_g \times F_{pv}$$

$$Q = (12.365)(344)(1.002)(1.0041)(1.028) = \underline{\quad 4561 \quad} \text{MCF/D}$$

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

$$Aof = Q \left( \frac{6728836}{6454260} \right)^n = 4561(1.0425)^{.75} = 4561(1.0317)$$

$$Aof = \underline{\quad 4706 \quad} \text{MCF/D}$$

Note: Medium fog of drip and water.

TESTED BY Norton

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



*William D. Welch*  
 William D. Welch  
 Well Test Engineer