

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE August 5, 1977

Operator El Paso Natural Gas Company		Lease San Juan 27-4 Unit #16-A	
Location NW 17-27-04		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Tapacito	
Casing: Diameter 4 1/2	Set At: Feet 6110'	Tubing: Diameter 1 1/4	Set At: Feet 3625'
Pay Zone: From 3514	To 3604	Total Depth: 6110	Shut In 7-17-77
Stimulation Method Sandwater Frac		Flow Through Casing XX	Flow Through Tubing

Meter Choke Size, Inches 4" M.R. plate		Orifice 2.750		Meter Choke Constant: C 41.10		Well tested through 3/4" variable choke	
Shut-In Pressure, Casing, PSIG 1040		+ 12 = PSIA 1052		Days Shut-In 18		Shut-In Pressure, Tubing PSIG 955	
Flowing Pressure: P M.P. 54		PSIG W.H. 132		+ 12 = PSIA MR 66		Working Pressure: P _w PSIG 143	
Temperature: T = 51 °F		F _t = 1.009		n = .85		F _{pv} (From Tables) 1.010	
						Gravity .650 F _g = 1.240	

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

$$Q = \text{Calculated from orifice meter readings} = 2195 \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{1106704}{1082679} \right)^n = 2195 (1.0222)^{.85} = 2195 (1.0188)$$

$$Aof = 2236 \text{ MCF/D}$$

Note: Well vented 372 MCF of dry gas throughout test.

TESTED BY D. Howell

WITNESSED BY

C. R. Wagner
Well Test Engineer

