

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE November 2, 1973

Operator El Paso Natural Gas Company		Lease San Juan 27-5 Unit #170	
Location 1840/S, 825/W, Sec. 34, T27N, R5W		County Rio Arriba	State New Mexico
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 7690'	Tubing: Diameter 1 1/2	Set At: Feet 7656'
Pay Zone: From 7454	To 7650	Total Depth: 7690	Shut In 10-13-73
Stimulation Method Sandwater Frac		Flow Through Casing XX	Flow Through Tubing

Choke Size, Inches 2.750" P1.; 4" M.R.		Plate Choke Constant: C 41.10		Tested through a 3/4" Variable Choke	
Shut-In Pressure, Casing, 2650	PSIG	+ 12 = PSIA 2662	Days Shut-In 20	Shut-In Pressure, Tubing 1954	PSIG + 12 = PSIA 1966
Flowing Pressure: P 57 M.R., 177 W.H.	PSIG	+ 12 = PSIA 69 M.R., 189 W.H.		Working Pressure: P _w 517	PSIG + 12 = PSIA 529
Temperature: T = 68 °F		n = .75		F _{pv} (From Tables) 1.008	Gravity .655 F_g = 1.236

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

$$Q = \text{Calculated from orifice meter readings} = \underline{\quad 3043 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{7086244}{6806403} \right)^n = (3043)(1.0411)^{.75} = (3043)(1.0307)$$

$$Aof = \underline{\quad 3136 \quad} \text{ MCF/D}$$

Note; The well produced 9.5 bbls of 58.6° API Gravity oil and 37 bbls of water during the test.

TESTED BY B.J. Broughton & J.B. Goodwin

WITNESSED BY _____

H. E. McAnally
Well Test Engineer

