

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE September 22, 1975

Operator El Paso Natural Gas Company		Lease Howell A #1-A	
Location 1682/S, 990/E, Sec. 8, T30N, R8W		County San Juan	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 4.500	Set At: Feet 5783'	Tubing: Diameter 2.375	Set At: Feet 5665'
Pay Zone: From 4825'	To 5681'	Total Depth: PBDT 5783' 5767'	Shut In 9-8-75
Stimulation Method Sandwater Frac		Flow Through Casing	Flow Through Tubing XX

Plate Choke Size, Inches 2.500 4" M.R.		Meter Choke Constant: C 32.64		Tested thru 3/4" variable choke	
Shut-In Pressure, Casing, 647	PSIG	+ 12 = PSIA 659	Days Shut-In 14	Shut-In Pressure, Tubing 470	PSIG + 12 = PSIA 482
Flowing Pressure: P WH 215 MR 62	PSIG	+ 12 = PSIA WH 237 MR 74		Working Pressure: Pw 557	PSIG + 12 = PSIA 569
Temperature: T = 50 °F Ft = 1.010		n = .75		Fpv (From Tables) 1.010	Gravity .650 Fg = 1.240

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

$$Q = \text{Calculated from orifice meter readings} = \underline{2841} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{434281}{110520} \right)^n = 2841(3.9294)^{.75} = 2841(2.7909)$$

$$Aof = \underline{7929} \text{ MCF/D}$$

Note: During the test the well produced 6.32 Bbls of water, and 357.58 MCF of gas was vented to atmosphere.

TESTED BY Norton & Hardy

WITNESSED BY _____

Larry W. Brink
Well Test Engineer

