

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

CORRECTED COPY

DATE November 21, 1973

Operator El Paso Natural Gas Company		Lease San Juan 27-4 U. #16 (OWWO)	
Location 990/S, 990/W, Sec. 17, T27N, R4W		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing: Diameter 5 1/2	Set At: Feet 7990'	Tubing: Diameter 2 3/8"	Set At: Feet 5958'
Pay Zone: From 5712	To 5966	Total Depth: COTD 6000	Shut In 10-10-73
Stimulation Method Sandwater Frac		Flow Through Casing X	Flow Through Tubing

MR Choke Size, Inches 4"	Orifice 2.500	Orifice Choke Constant: C 32.64	Well Tested thru 48/64 choke		
Shut-In Pressure, Casing, PSIG 1165	+ 12 = PSIA 1177	Days Shut-In 42	Shut-In Pressure, Tubing PSIG 709	+ 12 = PSIA 721	
Flowing Pressure: P PSIG WH 267 MR 206	+ 12 = PSIA WH 279 MR 218		Working Pressure: P _w PSIG 576	+ 12 = PSIA 588	
Temperature: T = 63 °F	F _t = .9971	n = .75	F _{pv} (From Tables) 1.023	Gravity .680	F _g = .9393

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

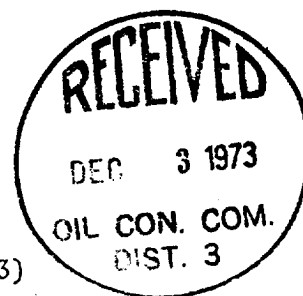
$$Q = \text{Calculated from meter readings} = \underline{4618} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{1385329}{1039585} \right)^n = 4618 (1.3326)^{.75} = 4618 (1.2403)$$

$$Aof = \underline{5728} \text{ MCF/D}$$

Note: Well produced 14 bbl. of 56 gravity oil, no water.

TESTED BY Hardy & Broughton

WITNESSED BY _____

William D. Welch
William D. Welch
Well Test Engineer