

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE December 4, 1974

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|--|-----------------------|---------------------------------|---------------------|
| Operator El Paso Natural Gas Company | | Lease San Juan 27-4 Unit #77 | |
| Location 1760/S, 1505/E, Sec. 21, T27N, R4W | | County Rio Arriba | State New Mexico |
| Formation Pictured Cliffs | | Pool Tapacito | |
| Casing: Diameter 2.875' | Set At: Feet 4139' | Tubing: Diameter No Tubing | Set At: Feet -- |
| Pay Zone: From 3998' | To 4078' | Total Depth: PBD 4139' 4128' | Shut In 11-27-74 |
| Stimulation Method Sandwater Frac | | Flow Through Casing XX | Flow Through Tubing |

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|--|---------------------|-----------------------------|---|-----------------------|-------------------------|
| Choke Size, Inches .750 | | Choke Constant: C 12.365 | | Tubingless Completion | |
| Shut-In Pressure, Casing, PSIG 1060 | + 12 = PSIA 1072 | Days Shut-In 7 | Shut-In Pressure, Tubing PSIG No Tubing | + 12 = PSIA -- | |
| Flowing Pressure: P PSIG 115 | + 12 = PSIA 127 | | Working Pressure: P _w PSIG Calculated | + 12 = PSIA 169 | |
| Temperature: T = 58 °F | n = .85 | | F _{pv} (From Tables) 1.013 | Gravity .680 | F _g = 0.9393 |

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

$$Q = 12.365 (127) (1.002) (0.9393) (1.013) = \underline{\quad 1497 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{1149184}{1120623} \right)^n = 1497 (1.0255)^{.85} = 1497 (1.0216)$$

$$Aof = \underline{\quad 1530 \quad} \text{ MCF/D}$$

Note: The well produced a heavy fog of paraffin and oil.

TESTED BY F. Johnston

WITNESSED BY _____

Loren W. Fothergill
Loren W. Fothergill
Well Test Engineer