

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE December 10, 1973

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|--|-----------------------|----------------------------------|---------------------|
| Operator El Paso Natural Gas Company | | Lease San Juan 27-5 Unit #160 | |
| Location 1800/N, 1500/W, Sec. 31, T27N, R5W | | County Rio Arriba | State New Mexico |
| Formation Pictured Cliffs | | Pool So. Blanco | |
| Casing: Diameter 2.875 | Set At: Feet 3340' | Tubing: Diameter No Tubing | Set At: Feet |
| Pay Zone: From 3258 | To 3220 | Total Depth: 3340 | Shut In 11-27-73 |
| Stimulation Method Sandwater Frac | | Flow Through Casing X | Flow Through Tubing |

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|-----------------------------------|------------------------|-----------------------|--|--|-------------------------|
| MR Choke Size, Inches 4" | Orifice 2.500 | Orifice 32.64 | Well Tested thru 48/64 choke | | |
| Shut-In Pressure, Casing, 1011 | PSIG | + 12 = PSIA 1023 | Days Shut-In 12 | Shut-In Pressure, Tubing No Tubing | PSIG + 12 = PSIA |
| Flowing Pressure: P WH 109 | PSIG MR 70 | + 12 = PSIA WH 121 | MR 82 | Working Pressure: P _w Calculated | PSIG + 12 = PSIA 163 |
| Temperature: T = 62 °F | F _t = .9981 | n = .85 | F _{pv} (From Tables) 1.004 | Gravity .655 | F _g = .9571 |

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

$$Q = \text{Calculated from meter readings} = \underline{\quad 1648 \quad} \text{ MCF/D}$$

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

$$Aof = Q \left(\frac{1046529}{1019960} \right)^n = 1648 (1.0261)^{.85} = 1648(1.0221)$$

$$Aof = \underline{\quad 1684 \quad} \text{ MCF/D}$$

Note: Produced 1.5 Bbl. water.

TESTED BY Norton & Goodwin

WITNESSED BY _____

William D. Welch
William D. Welch
Well Test Engineer

