

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA  
DUAL COMPLETION

DATE August 14, 1957

|                                                |                            |                                                |                                 |
|------------------------------------------------|----------------------------|------------------------------------------------|---------------------------------|
| Operator<br><b>El Paso Natural Gas Company</b> |                            | Lease<br><b>Warren No. 2</b>                   |                                 |
| Location<br><b>1460S, 1750W 12-28-9</b>        |                            | County<br><b>San Juan</b>                      | State<br><b>New Mexico</b>      |
| Formation<br><b>Mesa Verde</b>                 |                            | Pool<br><b>Blanco</b>                          |                                 |
| Casing Diameter<br><b>7-5/8</b>                | Set At Feet<br><b>2360</b> | Tubing Diameter<br><b>2"</b>                   | Set At Feet<br><b>4510</b>      |
| Pay Zone From<br><b>4368</b>                   | To<br><b>4600</b>          | Total Depth<br><b>4650 c/o 4610 Pkr. @2354</b> |                                 |
| Stimulation Method<br><b>Sand Water Frac</b>   |                            | Flow Through Casing                            | Flow Through Tubing<br><b>X</b> |

|                                                   |                                    |                                 |                                                     |
|---------------------------------------------------|------------------------------------|---------------------------------|-----------------------------------------------------|
| Choke Size, Inches<br><b>.750</b>                 | Choke Constant, C<br><b>12.365</b> | <b>5-1/2 liner 2343 to 2296</b> |                                                     |
| Shut-In Pressure, Casing, PSIG<br><b>855 (PC)</b> | PSIA<br><b>867</b>                 | Days Shut-In<br><b>10</b>       | Shut-In Pressure, Tubing, PSIG<br><b>1017 (MV)</b>  |
| Flowing Pressure, P, PSIG<br><b>313</b>           | PSIA<br><b>325</b>                 |                                 | Working Pressure, Pw, PSIG<br><b>Calculated 602</b> |
| Temperature, T, F<br><b>80</b>                    | F<br><b>.75</b>                    |                                 | Gravity<br><b>1.027 .646</b>                        |

Ending Pictured Cliff SIPC = 857 psig.

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

$$Q = 12.365 \times 325 \times .9813 \times .9645 \times 1.027 = 3906 \text{ MCF/D}$$

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

$$Aof = \left( \frac{1058841}{696437} \right)^n \times 1.5203^{.75} \times 3906 = 1.3695 \times 3906$$

$$Aof = 5349 \text{ MCF/D}$$

TESTED BY **K. C. McBride**

WITNESSED BY **Fred Cook (NMOCC)**

cc: E. J. Coel, Jr. (6)

*L. D. Galloway*  
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