

## MESA PETROLEUM CO.

## OPEN FLOW TEST DATA

COMPANY DISTRIBUTION ONLY

DATE May 22, 1978

|                                             |                              |                                          |                                  |
|---------------------------------------------|------------------------------|------------------------------------------|----------------------------------|
| Operator<br><b>Mesa Petroleum Co.</b>       |                              | Lease<br><b>State Com S #15-A (F-PM)</b> |                                  |
| Location<br><b>NW 36-32-12</b>              |                              | County<br><b>San Juan</b>                | State<br><b>New Mexico</b>       |
| Formation<br><b>Pictured Cliffs</b>         |                              | Pool<br><b>Blanco</b>                    |                                  |
| Casing: Diameter<br><b>7.00</b>             | Set At: Feet<br><b>3227'</b> | Tubing: Diameter<br><b>2 1/16</b>        | Set At: Feet<br><b>2834'</b>     |
| Pay Zone: From<br><b>2962</b>               | To<br><b>2968'</b>           | Total Depth:<br><b>3227'</b>             | Shut In<br><b>5-11-78</b>        |
| Stimulation Method<br><b>Sandwater Frac</b> |                              | Flow Through Casing                      | Flow Through Tubing<br><b>XX</b> |

|                                             |                          |                                    |                                             |                           |                   |
|---------------------------------------------|--------------------------|------------------------------------|---------------------------------------------|---------------------------|-------------------|
| Choke Size, Inches<br><b>.750</b>           |                          | Choke Constant: C<br><b>12.365</b> |                                             |                           |                   |
| Shut-In Pressure, Casing, PSIG<br><b>--</b> | + 12 = PSIA<br><b>--</b> | Days Shut-In<br><b>11</b>          | Shut-In Pressure, Tubing PSIG<br><b>935</b> | + 12 = PSIA<br><b>947</b> |                   |
| Flowing Pressure: P PSIG<br><b>33</b>       | + 12 = PSIA<br><b>45</b> |                                    | Working Pressure: Pw PSIG<br><b>Calc.</b>   | + 12 = PSIA<br><b>91</b>  |                   |
| Temperature:<br>T = <b>60</b> °F            | Ft = <b>1.000</b>        | n = <b>.85</b>                     | Fpv (From Tables)<br><b>1.004</b>           | Gravity<br><b>.670</b>    | Fg = <b>.9463</b> |

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

$$Q = 12.365(45)(1.000)(.9463)(1.004) = \underline{\hspace{2cm}} 529 \text{ MCF/D}$$

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

$$Aof = Q \left( \frac{896809}{888528} \right)^n = (1.0093)^{.85} = (529) = (1.0079)(529)$$

$$Aof = \underline{\hspace{2cm}} 533 \text{ MCF/D}$$

Note: Well blew light fog of water throughout test.

TESTED BY P. Green- Mesa Petroleum Co.WITNESSED BY C. R. Wagner- EPNG Co.

*C. R. Wagner*

