

**NEW MEXICO OIL CONSERVATION COMMISSION  
MULTI-POINT BACK PRESSURE TEST FOR GAS WELL**

Form ~~Q-122~~  
Revised 12-1-55

|                                        |                     |                                     |                                |                                                     |                   |
|----------------------------------------|---------------------|-------------------------------------|--------------------------------|-----------------------------------------------------|-------------------|
| Well<br><b>South Blanco</b>            |                     | Formation<br><b>Pictured Cliffs</b> |                                | County<br><b>Rio Arriba</b>                         |                   |
| Initial<br><b>X</b>                    | Annual              | Special                             | Date of Test<br><b>8-29-78</b> |                                                     |                   |
| Company<br><b>Caulkins Oil Company</b> |                     | Lease<br><b>Breech "C"</b>          |                                | Well No.<br><b>744</b>                              |                   |
| Unit<br><b>A</b>                       | Sec.<br><b>14</b>   | Twp.<br><b>26N</b>                  | Range<br><b>6W</b>             | Purchaser<br><b>Gas Company of New Mexico</b>       |                   |
| Casing<br><b>4 1/2"</b>                | Wt.<br><b>10.5</b>  | I.D.<br><b>4.000</b>                | Set at<br><b>3150</b>          | Perf.<br><b>3074</b>                                | To<br><b>3130</b> |
| Tubing<br><b>1"</b>                    | Wt.<br><b>1.7</b>   | I.D.<br><b>1.049</b>                | Set at<br><b>3075</b>          | Perf.                                               | To                |
| Gas Pay:                               | From<br><b>3074</b> | To<br><b>3130</b>                   | L                              | G                                                   | GL                |
|                                        |                     |                                     | Bar. Press.                    |                                                     |                   |
| Producing Through:                     |                     | Casing                              | Tubing                         | Type Well - Single - Brden head - G.C. or G.C. Dual |                   |
|                                        |                     | <b>yes</b>                          |                                | <b>Single Gas</b>                                   |                   |
| Date of Completion<br><b>8-22-78</b>   |                     | Packer                              |                                | Reservoir Temp.                                     |                   |

**OBSERVED DATA**

| Tested Through: |                            |                              | Prover <input type="checkbox"/> | Choke <input checked="" type="checkbox"/> | Meter <input type="checkbox"/> | Type of Taps    |              |                 |              |                            |
|-----------------|----------------------------|------------------------------|---------------------------------|-------------------------------------------|--------------------------------|-----------------|--------------|-----------------|--------------|----------------------------|
| FLOW DATA       |                            |                              |                                 |                                           |                                | TUBING DATA     |              | CASING DATA     |              | DURATION<br>OF FLOW<br>HR. |
| No.             | (Prover)<br>(Line)<br>Size | (Choke)<br>(Orifice)<br>Size | Press.<br>psig.                 | Diff.<br>h.w                              | Temp.<br>°F.                   | Press.<br>psig. | Temp.<br>°F. | Press.<br>psig. | Temp.<br>°F. |                            |
| 1.              |                            | <b>3/4"</b>                  |                                 |                                           |                                | <b>945</b>      |              | <b>950</b>      |              | <b>7 days</b>              |
| 2.              |                            |                              |                                 |                                           |                                | <b>80</b>       |              | <b>725</b>      |              | <b>3 hrs</b>               |
| 3.              |                            |                              |                                 |                                           |                                |                 |              |                 |              |                            |
| 4.              |                            |                              |                                 |                                           |                                |                 |              |                 |              |                            |
| 5.              |                            |                              |                                 |                                           |                                |                 |              |                 |              |                            |

**FLOW CALCULATIONS**

| No. | Coefficient<br>(24 Hour) | $\sqrt{h_w P_f}$ | Pressure<br>psia | Flow Temp.<br>Factor<br>$F_t$ | Gravity<br>Factor<br>$F_g$ | Compress.<br>Factor<br>$F_{pv}$ | Rate of Flow Q-MCF PD<br>@ 15,025 psia |
|-----|--------------------------|------------------|------------------|-------------------------------|----------------------------|---------------------------------|----------------------------------------|
| 1.  | <b>14.1605</b>           |                  | <b>92</b>        | <b>1.000</b>                  | <b>1.000</b>               | <b>1.000</b>                    | <b>1302</b>                            |
| 2.  |                          |                  |                  |                               |                            |                                 |                                        |
| 3.  |                          |                  |                  |                               |                            |                                 |                                        |
| 4.  |                          |                  |                  |                               |                            |                                 |                                        |
| 5.  |                          |                  |                  |                               |                            |                                 |                                        |

**PRESSURE CALCULATIONS**

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.      Specific Gravity Separator Gas \_\_\_\_\_  
 Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.      Specific Gravity Flowing Fluid \_\_\_\_\_  
 $P_c$  \_\_\_\_\_ (1-e<sup>-S</sup>) \_\_\_\_\_       $P_c$  **962**       $P_c^2$  **927,369**

| No. | $\frac{P_w}{P_t}$ psia | $P_t^2$ | $F_c Q$ | $(F_c Q)^2$ | $\frac{(F_c Q)^2}{(1-e^{-S})}$ | $\frac{P_w^2}{P_c^2}$ | $P_c^2 - P_w^2$ | Cal<br>$\frac{P_w}{P_c}$ | $\frac{P_w}{P_c}$ |
|-----|------------------------|---------|---------|-------------|--------------------------------|-----------------------|-----------------|--------------------------|-------------------|
| 1.  | <b>737</b>             |         |         |             |                                | <b>543,169</b>        | <b>384,200</b>  |                          |                   |
| 2.  |                        |         |         |             |                                |                       |                 |                          |                   |
| 3.  |                        |         |         |             |                                |                       |                 |                          |                   |
| 4.  |                        |         |         |             |                                |                       |                 |                          |                   |
| 5.  |                        |         |         |             |                                |                       |                 |                          |                   |

ABSOLUTE POTENTIAL: 2,753 MCFPD;  $n = 2.41^N = 2.11$

COMPANY Caulkins Oil Company WITNESSED \_\_\_\_\_

ADDRESS PO. Box 780 Farmington, New Mex. COMPANY \_\_\_\_\_

AGENT AND TITLE Douglas Blacett Prod. Foreman