

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 9-1-65

|                                                                                                                           |  |                                    |  |
|---------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  | Test Date<br>4-29-85               |  |
| Company<br>Amoco Production Company                                                                                       |  | Connection                         |  |
| Pool<br>Bravo Dome Unit <u>Carbon Dioxide Gas</u> <u>640 Acre Area</u>                                                    |  | Formation<br>Tubb                  |  |
| Completion Date<br>3/12/81                                                                                                |  | Total Depth<br>2644                |  |
| Csg. Size<br>5.5                                                                                                          |  | Plug Back TD<br>2597               |  |
| Wt.<br>14                                                                                                                 |  | Elevation GL<br>4891               |  |
| Thg. Size<br>2-7/8"                                                                                                       |  | Perforations:<br>From 2257 To 2508 |  |
| Wt.<br>6.5                                                                                                                |  | Perforations:<br>From To           |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |  | Packer Set At<br>2085'             |  |
| Producing Thru<br>Tubing                                                                                                  |  | Baro. Press. - $P_a$<br>12.2       |  |
| Reservoir Temp. °F<br>90 @ 2383                                                                                           |  | Mean Annual Temp. °F<br>50         |  |
| L<br>2383                                                                                                                 |  | H<br>2383                          |  |
| Gg<br>1.529                                                                                                               |  | % CO <sub>2</sub><br>100           |  |
| % N <sub>2</sub><br>0                                                                                                     |  | % H <sub>2</sub> S<br>0            |  |
| Prover                                                                                                                    |  | Meter Run<br>4.0                   |  |
| Taps<br>Flange                                                                                                            |  | Unit Sec. Twp. Rge.<br>F 17 19 34  |  |
| County<br>Union                                                                                                           |  | State<br>New Mexico                |  |

  

| FLOW DATA |                  |   |              |                 |                      | TUBING DATA |                 | CASING DATA |                 | Duration of Flow |          |
|-----------|------------------|---|--------------|-----------------|----------------------|-------------|-----------------|-------------|-----------------|------------------|----------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | Temp. °F |
| 1.        | 4.026 x 2.375    |   |              | 215             | 36                   | 55          | 227.2           | 50          |                 |                  | 24 hr    |
| 2.        | 4.026 x 2.375    |   |              | 232             | 28                   | 56          | 244.2           | 50          |                 |                  | 24 hr    |
| 3.        | 4.026 x 2.375    |   |              | 258             | 18                   | 58          | 270.2           | 50          |                 |                  | 24 hr    |
| 4.        | 4.026 x 2.375    |   |              | 281             | 10                   | 58          | 293.2           | 50          |                 |                  | 24 hr    |
| 5.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                |                         |                      |                                 |                      |
|---------------------------|-----------------------|------------------|----------------|-------------------------|----------------------|---------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure $P_m$ | Flow Temp. Factor $F_t$ | Gravity Factor $F_g$ | Super Compress. Factor $F_{pv}$ | Rate of Flow Q, Mcfd |
| 1                         |                       |                  |                |                         |                      |                                 | 2093                 |
| 2                         |                       |                  |                |                         |                      |                                 | 1985                 |
| 3                         |                       |                  |                |                         |                      |                                 | 1698                 |
| 4                         |                       |                  |                |                         |                      |                                 | 1323                 |
| 5                         |                       |                  |                |                         |                      |                                 |                      |

  

| NO. | $P_r$ | Temp. °R | $T_r$ | Z | Gas Liquid Hydrocarbon Ratio | A.P.I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|-------|----------|-------|---|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1   |       |          |       |   | 0                            | 0                                     | 1.529                          | X X X X X                      | 1072              | 547                  |
| 2   |       |          |       |   |                              |                                       |                                |                                |                   |                      |
| 3   |       |          |       |   |                              |                                       |                                |                                |                   |                      |
| 4   |       |          |       |   |                              |                                       |                                |                                |                   |                      |
| 5   |       |          |       |   |                              |                                       |                                |                                |                   |                      |

  

| $P_c$ 345.2 | $P_c^2$ 119.2 |         |                 |
|-------------|---------------|---------|-----------------|
| NO.         | $P_r^2$       | $P_w^2$ | $P_c^2 - P_w^2$ |
| 1           |               | 227.2   | 67.543          |
| 2           |               | 244.2   | 59.529          |
| 3           |               | 270.2   | 46.155          |
| 4           |               | 293.2   | 33.197          |
| 5           |               |         |                 |

  

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.764$$

$$ACF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2989$$

$$(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.447$$

  

|                         |      |                |                         |             |     |
|-------------------------|------|----------------|-------------------------|-------------|-----|
| Absolute Open Flow      | 2989 | Mcfd @ 15.025  | Angle of Slope $\theta$ | Slope, n    | .65 |
| Remarks:                |      |                |                         |             |     |
| Approved By Commission: |      |                |                         |             |     |
| Conducted By:           |      | Calculated By: |                         | Checked By: |     |
|                         |      | D. D. Kimble   |                         |             |     |