

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

Form C-122  
Revised 9-1-65

|                                                                                                                         |           |                                 |                         |                                   |                       |                                      |  |                     |              |
|-------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------|-------------------------|-----------------------------------|-----------------------|--------------------------------------|--|---------------------|--------------|
| Type Test: <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |           |                                 |                         |                                   |                       | Test Date: 5-10-85                   |  |                     |              |
| Company: Amoco Production Company                                                                                       |           |                                 |                         | Connection:                       |                       |                                      |  |                     |              |
| Pool: Bravo Dome Carbon Dioxide Gas Unit 640-acre area                                                                  |           |                                 |                         | Formation: Tubb                   |                       |                                      |  | Unit: BDCDGU        |              |
| Completion Date:                                                                                                        |           | Total Depth: 2750'              |                         | Pore Back TD: 2707'               |                       | Elevation: 4838'                     |  | Farm or Lease Name: |              |
| Csq. Size: 4-1/2"                                                                                                       | Wt.: 9.5# | d:                              | Set At: 2750'           | Perforations: From 2605' To 2640' |                       | Well No.: 1933 281J                  |  |                     |              |
| Tbg. Size: 2-3/8"                                                                                                       | Wt.: 4.7# | d:                              | Set At: 2460'           | Perforations: From To             |                       | Unit: J Soc. 28 Twp. 19 Rge. 33      |  |                     |              |
| Type Well - Single - Bradenhead - G.C. or G.O. Multiple: Single                                                         |           |                                 |                         |                                   |                       | Packer Set At: 2421'                 |  | County: Harding     |              |
| Producing Thru Tubing                                                                                                   |           | Reservoir Temp. °F: 97° @ 2622' |                         | Mean Annual Temp. °F: 50          |                       | Baro. Press. - P <sub>a</sub> : 12.2 |  | State: New Mexico   |              |
| L: 2622'                                                                                                                | H: 2622'  | G <sub>g</sub> : 1.529          | % CO <sub>2</sub> : 100 | % N <sub>2</sub> : 0              | % H <sub>2</sub> S: 0 | Prover:                              |  | Meter Run: 4.0"     | Taps: Flange |

| 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 2.00     |   |              | 220             | 37                   | 54          | 332.2           | 50          |                 |                  | 24 hrs   |
| 2.        | 4.026 x 2.00     |   |              | 239             | 29                   | 55          | 251.2           | 50          |                 |                  | 24 hrs   |
| 3.        | 4.026 x 2.00     |   |              | 253             | 25                   | 56          | 265.2           | 50          |                 |                  | 24 hrs   |
| 4.        | 4.026 x 2.00     |   |              | 272             | 19                   | 57          | 284.2           | 50          |                 |                  | 24 hrs   |
| 5.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                       |                   |                             |                      |
|---------------------------|-----------------------|------------------|-------------------------|-----------------------|-------------------|-----------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor Ft. | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         |                       |                  |                         |                       |                   |                             | 1524                 |
| 2                         |                       |                  |                         |                       |                   |                             | 1422                 |
| 3                         |                       |                  |                         |                       |                   |                             | 1354                 |
| 4                         |                       |                  |                         |                       |                   |                             | 1247                 |
| 5                         |                       |                  |                         |                       |                   |                             |                      |

| NO. | P <sub>t</sub> | Temp. °R | T <sub>f</sub> | Z | Gas Liquid Hydrocarbon Ratio | A.P.L. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|----------------|----------|----------------|---|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1   |                |          |                |   | 0                            | 0                                     | 1.529                          | XXXXXX                         | 1072              | 547                  |
| 2   |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 3   |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 4   |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 5   |                |          |                |   |                              |                                       |                                |                                |                   |                      |

P<sub>c</sub> 368.2    P<sub>c</sub><sup>2</sup> 135.571

| NO. | P <sub>c</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| 1   |                             | 232.2          |                             | 81.654                                                    |
| 2   |                             | 251.2          |                             | 72.470                                                    |
| 3   |                             | 265.2          |                             | 65.240                                                    |
| 4   |                             | 284.2          |                             | 55.934                                                    |
| 5   |                             |                |                             |                                                           |

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.66$       (2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.308$

AOF =  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1994$

|                                        |                             |
|----------------------------------------|-----------------------------|
| Absolute Open Flow: 1994 Mcfd @ 15.025 | Angle of Slope θ: .53       |
| Remarks:                               |                             |
|                                        |                             |
| Approved By Commission:                | Conducted By:               |
|                                        | Calculated By: D. D. Kimble |
|                                        | Checked By:                 |