

**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: 5-30-85    |                                      |                                 |                     |  |
| Company: Amoco Production Company                                                                                       |           |                              |                         | Connection:                       |                       |                                      |                                 |                     |  |
| Pool: Bravo Dome Carbon Dioxide Gas Unit 640-acre area                                                                  |           |                              |                         | Formation: Tubb                   |                       |                                      | Unit: BDCDGU                    |                     |  |
| Completion Date: 9-5-84                                                                                                 |           | Total Depth: 2990'           |                         | Plug Back TD: 2827'               |                       | Elevation: 4800'                     |                                 | Farm or Lease Name: |  |
| Csg. Size: 7"                                                                                                           | Wt.: 20#  | d:                           | Set At: 2980'           | Perforations: From 2528' To 2610' |                       |                                      | Well No.: 1834 111G             |                     |  |
| Tbg. Size: 3-1/2"                                                                                                       | Wt.: 9.3# | d:                           | Set At: 2406'           | Perforations: From To             |                       |                                      | Unit: G Sec. 11 Twp. 18 Rge. 34 |                     |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single                                                         |           |                              |                         |                                   | Packer Set At: 2375'  |                                      | County: Union                   |                     |  |
| Producing Thru: Tubing                                                                                                  |           | Reservoir Temp. °F: 98 2569' |                         | Mean Annual Temp. °F: 50          |                       | Baro. Press. - P <sub>a</sub> : 12.2 |                                 | State: New Mexico   |  |
| L: 2569'                                                                                                                | H: 2569'  | 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. |                  |
| SI        |                  |   |              |                 |                      |             | 342             |             |                 |                  |
| 1.        | 4.026 x 2.5      |   |              | 206             | 51                   | 58          | 218.2           | 50          |                 |                  |
| 2.        | 4.026 x 2.5      |   |              | 224             | 38                   | 58          | 236.2           | 50          |                 | 24 hrs           |
| 3.        | 4.026 x 2.5      |   |              | 255             | 24                   | 58          | 267.2           | 50          |                 | 24 hrs           |
| 4.        | 4.026 x 2.5      |   |              | 271             | 18                   | 58          | 283.2           | 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 F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         |                       |                  |                         |                       |                               |                                         | 2857                 |
| 2                         |                       |                  |                         |                       |                               |                                         | 2590                 |
| 3                         |                       |                  |                         |                       |                               |                                         | 2221                 |
| 4                         |                       |                  |                         |                       |                               |                                         | 1965                 |
| 5                         |                       |                  |                         |                       |                               |                                         |                      |

  

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

  

|                      |                                     |                |                             |                                                           |                                          |                                                           |
|----------------------|-------------------------------------|----------------|-----------------------------|-----------------------------------------------------------|------------------------------------------|-----------------------------------------------------------|
| P <sub>c</sub> 354.2 | P <sub>c</sub> <sup>2</sup> 125.458 |                |                             |                                                           |                                          |                                                           |
| NO.                  | P <sub>t</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) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.61$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.39$ |
| 1                    |                                     | 218.2          |                             | 77.846                                                    |                                          |                                                           |
| 2                    |                                     | 236.2          |                             | 69.667                                                    |                                          |                                                           |
| 3                    |                                     | 267.2          |                             | 54.062                                                    |                                          |                                                           |
| 4                    |                                     | 283.2          |                             | 45.255                                                    |                                          |                                                           |
| 5                    |                                     |                |                             |                                                           |                                          |                                                           |

  

$AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3971$

  

|                                       |                  |                             |
|---------------------------------------|------------------|-----------------------------|
| Absolute Open Flow 3971 Mcfd @ 15.025 | Angle of Slope θ | Slope, n 69                 |
| Remarks:                              |                  |                             |
|                                       |                  |                             |
| Approved By Commission:               | Conducted By:    | Calculated By: D. D. Kimble |
|                                       |                  | Checked By:                 |

1834 1116

46 7200

LOGARITHMIC 2 x 2 CYCLES  
KEUFFEL & ESSLER CO. MADE IN U.S.A.

K<sub>SE</sub>

AOF = 3971

P<sub>12</sub> = 7.25

Q = MCF

