

**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>1-29-88                   |                           |
| Company<br>Marshall Pipe & Supply                                                                                         |             |                                 |                | Connection<br>None                                   |                           |                                        |                           |
| Pool<br>Tule-Montoya                                                                                                      |             |                                 |                | Formation<br>Montoya                                 |                           | Unit                                   |                           |
| Completion Date                                                                                                           |             | Total Depth<br>7200             |                | Plug Back TD<br>7200                                 |                           | Elevation<br>4388 GL                   |                           |
| Farm or Lease Name<br>Speight                                                                                             |             |                                 |                |                                                      |                           |                                        |                           |
| Cas. Size<br>5 1/2"                                                                                                       | Wt.<br>17#  | d                               | Set At<br>7200 | Perforations:<br>From 6780-82, 6784-92<br>To 6984-92 |                           | Well No.<br>1 Tubing                   |                           |
| Tbg. Size<br>2 3/8"                                                                                                       | Wt.<br>4.7# | d                               | Set At<br>7077 | Perforations:<br>From 7084 to 98'                    |                           | Unit Sec. Twp. Rge.<br>S4 22 2 S. 29 E |                           |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>G.G. Dual                                                      |             |                                 |                | Packer Set At<br>7050                                |                           | County<br>Roosevelt                    |                           |
| Producing Thru<br>Tubing                                                                                                  |             | Reservoir Temp. °F<br>145° 7077 |                | Mean Annual Temp. °F<br>60°                          |                           | Baro. Press. - P <sub>a</sub><br>13.2  |                           |
| L<br>7077                                                                                                                 |             | H<br>7077                       | Gg<br>.716     | % CO <sub>2</sub><br>.356                            | % N <sub>2</sub><br>0.369 | % H <sub>2</sub> S<br>0                | Prover<br>Meter Run<br>4" |
|                                                                                                                           |             |                                 |                |                                                      |                           | Taps<br>Flange                         |                           |

  

| FLOW DATA |                  |   |              |                 |          | TUBING DATA |                 | CASING DATA |                 | Duration of Flow |          |
|-----------|------------------|---|--------------|-----------------|----------|-------------|-----------------|-------------|-----------------|------------------|----------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. hw | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | Temp. °F |
| SI        |                  |   |              |                 |          |             | 1846            |             | G.G. Dual       | CHOKE            | 48 Hrs.  |
| 1.        | 4                | X | 1.250        | 510             | 2.00     | 73°         | 1485            |             | G.G. Dual       | 6/64             | 1 Hr.    |
| 2.        | 4                | X | 1.250        | 510             | 3.00     | 76          | 1290            |             | G.G. Dual       | 8/64             | 1 Hr.    |
| 3.        | 4                | X | 1.250        | 510             | 4.00     | 75          | 1073            |             | G.G. Dual       | 10/64            | 1 Hr.    |
| 4.        | 4                | X | 1.250        | 510             | 8.00     | 80          | 792             |             | G.G. Dual       | 12/64            | 1 Hr.    |
| 5.        |                  |   |              |                 |          |             |                 |             |                 |                  |          |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                                  |                               |                                         |                      |
|---------------------------|-----------------------|------------------|-------------------------|----------------------------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 7.469                 | 32.35            | 523.2                   | .9877                            | 1.182                         | 1.048                                   | 296                  |
| 2                         | 7.469                 | 39.62            | 523.2                   | .9850                            | 1.182                         | 1.048                                   | 361                  |
| 3                         | 7.469                 | 48.75            | 523.2                   | .9859                            | 1.182                         | 1.048                                   | 417                  |
| 4                         | 7.469                 | 64.70            | 523.2                   | .9813                            |                               | 1.043                                   | 587                  |
| 5                         |                       |                  |                         |                                  |                               |                                         |                      |

  

| NO. | R <sub>f</sub> | Temp. °R | T <sub>f</sub> | Z    | Gas Liquid Hydrocarbon Ratio 69.2 | A.P.I. Gravity of Liquid Hydrocarbons 69.9 @ 60° | Specific Gravity Separator Gas .716 | Specific Gravity Flowing Fluid X X X X X | Critical Pressure *650 | Critical Temperature *366 | P.S.I.A. | P.S.I.A. |
|-----|----------------|----------|----------------|------|-----------------------------------|--------------------------------------------------|-------------------------------------|------------------------------------------|------------------------|---------------------------|----------|----------|
| 1.  | .80            | 533      | 1.46           | .910 |                                   |                                                  |                                     |                                          |                        |                           |          |          |
| 2.  | .80            | 536      | 1.46           | .910 |                                   |                                                  |                                     |                                          |                        |                           |          |          |
| 3.  | .80            | 535      | 1.46           | .910 |                                   |                                                  |                                     |                                          |                        |                           |          |          |
| 4.  | .80            | 540      | 1.48           | .920 |                                   |                                                  |                                     |                                          |                        |                           |          |          |
| 5.  |                |          |                |      |                                   |                                                  |                                     |                                          |                        |                           |          |          |

  

| P <sub>c</sub> 1859.2    P <sub>c</sub> <sup>2</sup> 3456.6 |                             |                             |                                                           |
|-------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------------------------------------|
| NO.                                                         | P <sub>f</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> - P <sub>f</sub> <sup>2</sup> |
| 1                                                           |                             | 2246.7                      | 1209.9                                                    |
| 2                                                           |                             | 1701.6                      | 1755.0                                                    |
| 3                                                           |                             | 1184.3                      | 2272.3                                                    |
| 4                                                           |                             | 657.7                       | 2798.9                                                    |
| 5                                                           |                             |                             |                                                           |

  

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.235$$

$$AOIF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = .725$$

$$(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.235$$

  

|                                      |                   |                |
|--------------------------------------|-------------------|----------------|
| Absolute Open Flow 725 Mcfd @ 15.025 | Angle of Slope 45 | Slope, n 1.000 |
|--------------------------------------|-------------------|----------------|

  

Remarks: \* Corrected to 9.369% N<sub>2</sub>  
Made 1.00 Bbls. condensate.

  

|                                                                          |                       |                      |                   |
|--------------------------------------------------------------------------|-----------------------|----------------------|-------------------|
| Approved By Commission:<br>SIGNED BY JERRY SEXTON<br>DISTRICT SUPERVISOR | Conducted By:<br>W.S. | Calculated By:<br>BM | Checked By:<br>BM |
|--------------------------------------------------------------------------|-----------------------|----------------------|-------------------|

**FEB 22 1988**