

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

Form C-122  
Revised 9-1-65

RECEIVED

|                                                                                                                           |  |                                    |  |                            |  |                                                            |  |
|---------------------------------------------------------------------------------------------------------------------------|--|------------------------------------|--|----------------------------|--|------------------------------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |                                    |  | Test Date<br>10-22-72      |  | NOV 10 1972                                                |  |
| Company<br>JAKE L. HAMON                                                                                                  |  |                                    |  | Connection<br>None         |  |                                                            |  |
| Pool<br>Rock Tank <i>Upper Morrow</i>                                                                                     |  |                                    |  | Formation<br>Middle Morrow |  | Unit<br>O. C. C. ARTESIA, OFFICE                           |  |
| Completion Date<br>10-22-72                                                                                               |  | Total Depth<br>10,350              |  | Plug Back TD<br>10,275     |  | Elevation<br>3896 KB                                       |  |
| Csg. Size<br>4 1/2                                                                                                        |  | Wt.<br>11.6                        |  | Set At<br>10,350           |  | Perforations:<br>From To                                   |  |
| Tbg. Size<br>2 3/8                                                                                                        |  | Wt.<br>4.5                         |  | Set At<br>10,350           |  | Perforations:<br>From 10,034 To 10,048<br>10,068 To 10,078 |  |
| Type Well - Single - Blindhead - G.G. or G.O. Multiple<br>Single                                                          |  |                                    |  | Packer Set At<br>9862      |  | Well No.<br>1                                              |  |
| Producing Thru<br>Tbg.                                                                                                    |  | Reservoir Temp. °F<br>184 @ 10,100 |  | Mean Annual Temp. °F       |  | Baro. Press. - P <sub>a</sub>                              |  |
| L<br>10.056                                                                                                               |  | H<br>10.056                        |  | G <sub>g</sub><br>.589     |  | County<br>Eddy                                             |  |
| % CO <sub>2</sub>                                                                                                         |  | % N <sub>2</sub>                   |  | % H <sub>2</sub> S         |  | Prover                                                     |  |
| Meter Run<br>3"                                                                                                           |  | Taps<br>Flange                     |  | 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.        | 3                | x | 1.250        | 752             | 15"                  | 102      | 3151            | 76       |                 |          | 144 hrs.         |
| 2.        | 3                | x | 1.250        | 780             | 24"                  | 110      | 2508            |          |                 |          | 1 hr. 15 min.    |
| 3.        | 3                | x | 1.250        | 797             | 66"                  | 97       | 2398            |          |                 |          | 30 min.          |
| 4.        | 3                | x | 1.500        | 780             | 52"                  | 95       | 2082            |          |                 |          | 1 hr. 45 min.    |
| 5.        |                  |   |              |                 |                      |          | 1760            |          |                 |          | 2 hrs.           |

  

| 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.                        | 6.095                 | 107.14           | 765.2                   | .9619                            | 1.303                         | 1.044                                   | 854                  |
| 2.                        | 6.095                 | 137.97           | 793.2                   | .9551                            | 1.303                         | 1.044                                   | 1,092                |
| 3.                        | 6.095                 | 231.24           | 810.2                   | .9662                            | 1.303                         | 1.051                                   | 1,865                |
| 4.                        | 11.13                 | 203.09           | 793.2                   | .9680                            | 1.303                         | 1.049                                   | 2,991                |
| 5.                        |                       |                  |                         |                                  |                               |                                         |                      |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio | Mcf/bbl. |
|-----|----------------|----------|----------------|------|------------------------------|----------|
| 1.  | 1.14           | 562      | 1.61           | .916 | 161.4                        |          |
| 2.  | 1.18           | 570      | 1.63           | .917 | 50.8 @ 60°                   |          |
| 3.  | 1.21           | 557      | 1.59           | .906 | 589                          |          |
| 4.  | 1.18           | 555      | 1.59           | .909 | XXXXXX                       |          |
| 5.  |                |          |                |      | XXXXXX                       |          |

  

| NO. | P <sub>r</sub> <sup>2</sup> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| 1.  | 3273.7                      | 2749.6         | 7560.3                      | 3156.8                                                    |
| 2.  | 10,717.1                    | 2679.5         | 7179.7                      | 3537.4                                                    |
| 3.  |                             | 2422.0         | 5866.1                      | 4851.0                                                    |
| 4.  |                             | 2150.6         | 4625.1                      | 6092.0                                                    |
| 5.  |                             |                |                             |                                                           |

  

$$(1) \frac{P_r^2}{P_r^2 - P_w^2} = 1.759$$

$$AOF = Q \left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 5.261$$

$$(2) \left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.759$$

  

|                         |       |                |                  |             |          |       |
|-------------------------|-------|----------------|------------------|-------------|----------|-------|
| Absolute Open Flow      | 5,261 | Mcf/d @ 15.025 | Angle of Slope @ | 45°         | Slope, n | 1.000 |
| Remarks:                |       |                |                  |             |          |       |
| Approved By Commission: |       |                |                  |             |          |       |
| Conducted By:           |       | Calculated By: |                  | Checked By: |          |       |
| Cone & Kerley ,         |       | Randy Kiker    |                  |             |          |       |
| Odessa, Texas           |       |                |                  |             |          |       |