

## OIL CONSERVATION DIVISION

P. O. BOX 2088

Form C-122  
Revised 10-1-78

STATE OF NEW MEXICO

SANTA FE, NEW MEXICO 87501

ENERGY AND MINERALS DEPARTMENT

## MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

|                                                                                                                           |  |                         |  |                                       |                       |                                              |                      |                                     |  |
|---------------------------------------------------------------------------------------------------------------------------|--|-------------------------|--|---------------------------------------|-----------------------|----------------------------------------------|----------------------|-------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |                         |  |                                       | Test Date<br>3/4/87   |                                              |                      |                                     |  |
| Company<br>Robert L. Bayless                                                                                              |  |                         |  | Connection<br>None                    |                       |                                              |                      |                                     |  |
| Pool<br>Wildcat                                                                                                           |  |                         |  | Formation<br>Pictured Cliffs          |                       |                                              |                      | Unit                                |  |
| Completion Date<br>2/7/87                                                                                                 |  | Total Depth<br>4023     |  | Plug back TD<br>3961                  |                       | Elevation<br>7214' GL                        |                      | Farm or Lease Name<br>Jicarilla 461 |  |
| Csg. Size<br>4 1/2                                                                                                        |  | Wt.<br>11.6             |  | d<br>4.000                            |                       | Set At<br>4012                               |                      | Perforations:<br>From 3651 To 3763  |  |
| Trg. Size<br>1 1/2                                                                                                        |  | Wt.<br>2.9              |  | d<br>1.610                            |                       | Set At<br>3691                               |                      | Perforations:<br>From To            |  |
| Type Well - Single - Brdenhead - G.G. or G.O. Multiple<br>Single                                                          |  |                         |  |                                       | Packer Set At<br>None |                                              | County<br>Rio Arriba |                                     |  |
| Producing Thru tubing<br>L                                                                                                |  | Reservoir Temp. °F<br>H |  | Mean Annual Temp. °F<br>Cg .65 (est.) |                       | Baro. Press. - P <sub>a</sub><br>12.0 (est.) |                      | State<br>New Mexico                 |  |
| L                                                                                                                         |  | H                       |  | Cg .65 (est.)                         |                       | % CO <sub>2</sub>                            |                      | % N <sub>2</sub>                    |  |
|                                                                                                                           |  |                         |  |                                       |                       | % H <sub>2</sub> S                           |                      | Prover                              |  |
|                                                                                                                           |  |                         |  |                                       |                       |                                              |                      | Meter Run                           |  |
|                                                                                                                           |  |                         |  |                                       |                       |                                              |                      | Taps                                |  |

  

| 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        | 25 days          |   |              |                 |                      |             | 1085            |             | 1090            |                  |
| 1.        | 2 inch x .750    |   |              |                 |                      |             | 76              | 60° F       | 702             |                  |
| 2.        |                  |   |              |                 |                      |             |                 |             |                 |                  |
| 3.        |                  |   |              |                 |                      |             |                 |             |                 |                  |
| 4.        |                  |   |              |                 |                      |             |                 |             |                 |                  |
| 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>sp</sub> | Rate of Flow Q, Mcfd |
| 1                         | 12.365                |                  | 88                      | 1.0000                | .9608                         | 1.009                                   | 1055                 |
| 2.                        |                       |                  |                         |                       |                               |                                         |                      |
| 3.                        |                       |                  |                         |                       |                               |                                         |                      |
| 4.                        |                       |                  |                         |                       |                               |                                         |                      |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

  

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

  

| NO. | P <sub>t</sub> | 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   |                | 702            | 492,804                     | 721,600                                                   |
| 2   |                |                |                             |                                                           |
| 3   |                |                |                             |                                                           |
| 4   |                |                |                             |                                                           |
| 5   |                |                |                             |                                                           |

  

|                                                               |  |                                                             |  |
|---------------------------------------------------------------|--|-------------------------------------------------------------|--|
| $(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.6829$                    |  | $(2) \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.5565$ |  |
| $AOF = Q \left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1642$ |  |                                                             |  |

  

|                                       |  |                  |  |              |  |
|---------------------------------------|--|------------------|--|--------------|--|
| Absolute Open Flow 1642 Mcfd @ 15.025 |  | Angle of Slope θ |  | Slope, n .85 |  |
|---------------------------------------|--|------------------|--|--------------|--|

  

|                                    |  |  |  |
|------------------------------------|--|--|--|
| Remarks: Mist of water during test |  |  |  |
|------------------------------------|--|--|--|

  

|                      |                            |                |             |
|----------------------|----------------------------|----------------|-------------|
| Approved By Division | Conducted By: Kevin McGord | Calculated By: | Checked By: |
|----------------------|----------------------------|----------------|-------------|