

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

Revised 9-1-65

|                                                                                                                           |   |                            |                   |                         |                      |                                             |
|---------------------------------------------------------------------------------------------------------------------------|---|----------------------------|-------------------|-------------------------|----------------------|---------------------------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |   |                            |                   |                         | Test Date<br>2/11/81 |                                             |
| Company<br>Ladd Petroleum Corp.                                                                                           |   |                            |                   | Connection<br>Wt 5-1981 |                      |                                             |
| Pool<br>Basin Dakota                                                                                                      |   |                            |                   | Formation<br>Dakota     |                      | Unit                                        |
| Completion Date<br>2/04/81                                                                                                |   | Total Depth<br>7050        |                   | Plug Back TD<br>7006    |                      | Elevation<br>6494 GR                        |
| Csg. Size<br>4-1/2                                                                                                        |   | Wt.<br>10.5#               |                   | Set At<br>7050          |                      | Perforations:<br>From 6827 To 6924          |
| Tng. Size<br>1-1/2                                                                                                        |   | Wt.<br>2.9#                |                   | Set At<br>6839          |                      | Perforations:<br>From To                    |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single - Gas                                                   |   |                            |                   | Packer Set At           |                      | County<br>San Juan                          |
| Producing Thru<br>"tbg                                                                                                    |   | Reservoir Temp. °F<br>#    |                   | Mean Annual Temp. °F    |                      | Baro. Press. - P <sub>a</sub><br>New Mexico |
| L                                                                                                                         | H | G <sub>g</sub><br>.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. | Temp. °F |                  |
| SI        |                  |   |              |                 |                      |          | 1360            |          | 1360            |          | 7 days           |
| 1.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |
| 2.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |
| 3.        | 3/4" Pos choke   |   |              | 45              |                      |          |                 |          | 525             |          | 3 hrs            |
| 4.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |
| 5.        |                  |   |              |                 |                      |          |                 |          |                 |          |                  |

  

| RATE OF FLOW CALCULATIONS |                       |                  |               |                               |                                         |                      |
|---------------------------|-----------------------|------------------|---------------|-------------------------------|-----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure Flow | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         |                       |                  |               |                               |                                         |                      |
| 2                         |                       |                  |               |                               |                                         |                      |
| 3                         | 12.365                |                  | 5.7           | 1.002                         | .5608                                   | 679                  |
| 4                         |                       |                  |               |                               |                                         |                      |
| 5                         |                       |                  |               |                               |                                         |                      |

  

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

  

| NO. | P <sub>t</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1809$                   | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^{n \cdot .75} = 1.1328$ |
|-----|-----------------------------|-----------------------------|-----------------------------|-----------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------------|
| 1   |                             |                             |                             |                                                           |                                                              |                                                                         |
| 2   |                             |                             |                             |                                                           |                                                              |                                                                         |
| 3   |                             | 537                         | 288,369                     | 1,594,015                                                 | AOF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 769$ |                                                                         |
| 4   |                             |                             |                             |                                                           |                                                              |                                                                         |
| 5   |                             |                             |                             |                                                           |                                                              |                                                                         |

  

|                    |     |                |                  |              |
|--------------------|-----|----------------|------------------|--------------|
| Absolute Open Flow | 769 | Mcf/d @ 15.025 | Angle of Slope θ | Slope, n .75 |
|--------------------|-----|----------------|------------------|--------------|

  

|          |  |  |  |
|----------|--|--|--|
| Remarks: |  |  |  |
|----------|--|--|--|

  

|                         |                        |                         |             |
|-------------------------|------------------------|-------------------------|-------------|
| Approved By Commission: | Conducted By:<br>Jones | Calculated By:<br>Jones | Checked By: |
|-------------------------|------------------------|-------------------------|-------------|