

# 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>1-27-86 |  |
| Company<br>TENNECO OIL CO.                                                                                                |  |                     |  | Connection                         |                      |  |
| Pool<br>BLANCO                                                                                                            |  |                     |  | Formation<br>MESA VERDE            |                      |  |
| Completion Date                                                                                                           |  | Total Depth<br>5050 |  | Plug Back TD<br>5013               |                      |  |
|                                                                                                                           |  |                     |  | Elevation                          |                      |  |
| Farm or Lease Name<br>LACKEY B LS                                                                                         |  |                     |  |                                    |                      |  |
| Well No.<br>11A                                                                                                           |  |                     |  |                                    |                      |  |
| Csg. Size 7" 4 1/2"                                                                                                       |  | Set At 2850 5018    |  | Perforations:<br>From 4221 To 4938 |                      |  |
| Trq. Size 2 3/8"                                                                                                          |  | Set At 4714         |  | Perforations:<br>From To           |                      |  |
| Type Well - Single - Rodenhead - G.C. or G.O. Multiple                                                                    |  |                     |  | Packer Set At                      |                      |  |
|                                                                                                                           |  |                     |  | County<br>SAN JUAN                 |                      |  |
| Producing Thru                                                                                                            |  | Reservoir Temp. °F  |  | Baro. Press. - P <sub>a</sub>      |                      |  |
|                                                                                                                           |  |                     |  | State<br>NEW MEXICO                |                      |  |
| L                                                                                                                         |  | H                   |  | G <sub>g</sub>                     |                      |  |
|                                                                                                                           |  |                     |  | .700                               |                      |  |
|                                                                                                                           |  | % 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        |                  |   |              |                 |                      |             | 880             |             | 880             |                  |
| 1.        | 2x6x.75          |   |              |                 |                      |             | 166             |             | 724             | 46               |
| 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 F <sub>L</sub> | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 11                    |                  | 178                     | 1.014                            | 1.195                         | 1.0217                                  | 2424                 |
| 2.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 3.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 4.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 5.                        |                       |                  |                         |                                  |                               |                                         |                      |

  

|     |     |          |                |      |                              |                                       |                                |                                |                   |                      |
|-----|-----|----------|----------------|------|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| NO. | R   | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio | A.P.I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
| 1   | .26 | 506      | 1.31           | .958 |                              |                                       |                                |                                |                   |                      |
| 2.  |     |          |                |      |                              |                                       |                                |                                |                   |                      |
| 3.  |     |          |                |      |                              |                                       |                                |                                |                   |                      |
| 4.  |     |          |                |      |                              |                                       |                                |                                |                   |                      |
| 5.  |     |          |                |      |                              |                                       |                                |                                |                   |                      |

  

|     |                |                |                             |                                                           |
|-----|----------------|----------------|-----------------------------|-----------------------------------------------------------|
| NO. | P <sub>c</sub> | P <sub>w</sub> | F <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
| 1   | 892            | 736            | 541696                      | 253968                                                    |
| 2.  |                |                |                             |                                                           |
| 3.  |                |                |                             |                                                           |
| 4.  |                |                |                             |                                                           |
| 5.  |                |                |                             |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 3.1329$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5708$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.3548$

  

|                    |      |              |                  |              |
|--------------------|------|--------------|------------------|--------------|
| Absolute Open Flow | 5703 | Mcf @ 15.025 | Angle of Slope θ | Slope, n .75 |
|--------------------|------|--------------|------------------|--------------|

  

Remarks:

  

Conducted By:

Calculated By:

Checked By: