

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS

**RECEIVED**

|                                                                                                                           |  |                          |  |                                 |                       |                                             |                      |                                |  |
|---------------------------------------------------------------------------------------------------------------------------|--|--------------------------|--|---------------------------------|-----------------------|---------------------------------------------|----------------------|--------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |                          |  |                                 | Test Date<br>8/9/90   |                                             | AUG 17 1990          |                                |  |
| Company<br>Robert L. Bayless                                                                                              |  |                          |  | Connection<br>Robert L. Bayless |                       |                                             |                      | OIL CON. D                     |  |
| Pool<br>East Blanco Pictured Cliffs                                                                                       |  |                          |  | Formation<br>Pictured Cliffs    |                       |                                             |                      | Unit<br>DIST. 3                |  |
| Completion Date<br>7/28/90                                                                                                |  | Total Depth<br>4025' RKB |  | Plug back TD<br>3932' RKB       |                       | Elevation<br>6970' GL                       |                      | Farm or Lease Name<br>Simms    |  |
| Csg. Size<br>4 1/2"                                                                                                       |  | Wt.<br>10.5#             |  | Set At<br>4,052                 |                       | Perforations:<br>From 3635 To 3726          |                      | Well No.<br>7                  |  |
| Tng. Size<br>2 3/8"                                                                                                       |  | Wt.<br>4.7#              |  | Set At<br>1,995                 |                       | Perforations:<br>From To                    |                      | Unit Sec. Twp. Rye.<br>P 12 4W |  |
| Type Well - Single - Drdndhead - G.C. or G.O. Multiple<br>gas-single                                                      |  |                          |  |                                 | Packer Set At<br>none |                                             | County<br>Rio Arriba |                                |  |
| Producing Thru<br>tubing                                                                                                  |  | Reservoir Temp. °F<br>#  |  | Mean Annual Temp. °F            |                       | Baro. Press. - P <sub>g</sub><br>12.0 (est) |                      | State<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. |                  |
| SI        | 8 days           |   |              |                 |                      |             | 1125            |             | 1126            |                  |
| 1.        | 2 inch x .750    |   |              |                 |                      |             | 196             | 60°         | 275             |                  |
| 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>t</sub> | Gravity Factor F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcld |
| 1                         | 12.365                |                  | 207                     | 1.000                            | 1.240                         | 1.021                                   | 3237                 |
| 2.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 3.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 4.                        |                       |                  |                         |                                  |                               |                                         |                      |
| 5.                        |                       |                  |                         |                                  |                               |                                         |                      |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.          |
|-----|----------------|----------|----------------|------|------------------------------------------------------|
| 1   | .309           |          | 1.39           | .961 | 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>r</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_r^2}{P_r^2 - P_w^2} =$ | (2) $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n =$ |
|-----|-----------------------------|-----------------------------|-----------------------------------------------------------|-------------------------------------|------------------------------------------------------|
| 1   |                             | 287                         | 82,369                                                    | 1.0679                              | 1.0574                                               |
| 2   |                             |                             |                                                           |                                     |                                                      |
| 3   |                             |                             |                                                           |                                     |                                                      |
| 4   |                             |                             |                                                           |                                     |                                                      |
| 5   |                             |                             |                                                           |                                     |                                                      |

  

$P_r = 1138$      $P_r^2 = 1,295,044$   
 $AOF = Q \left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3423$

  

|                                       |  |                        |  |              |  |
|---------------------------------------|--|------------------------|--|--------------|--|
| Absolute Open Flow 3423 Mcld @ 15.025 |  | Angle of Slope θ _____ |  | Slope, n .85 |  |
|---------------------------------------|--|------------------------|--|--------------|--|

  

Remarks: very light mist of water during flow test - no sand

  

|                      |                             |                                   |             |
|----------------------|-----------------------------|-----------------------------------|-------------|
| Approved By Division | Conducted By:<br>David Ball | Calculated By:<br>Kevin H. McGord | Checked By: |
|----------------------|-----------------------------|-----------------------------------|-------------|