

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WEL

FILED  
JUN 4 1982  
OIL CON. COM.  
DIST. 3

|                                                                                                                           |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-----------------------------|----------------------|----------|------------------------------|------------------------|------------------|--------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |                             | Test Date<br>6-1-82                             |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Company<br>Curtis J. Little                                                                                               |                             | Connection<br>El Paso Natural Gas Co.           |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Pool<br>Ballard                                                                                                           |                             | Formation<br>Pictured Cliff                     |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Completion Date<br>5-24-82                                                                                                |                             | Total Depth<br>2306                             | Plug Back TD<br>2297                                  |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Elevation<br>6196 G.L.                                                                                                    |                             | Farm or Lease Name<br>Foster                    |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Csg. Size<br>2.875                                                                                                        |                             | Well No.<br>3                                   |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Trg. Size<br>Slim Hole                                                                                                    |                             | Perforations:<br>From 2164 To 2223              |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Type Well - Single - Brodenhead - G.G. or G.O. Multiple<br>Single                                                         |                             | Packer Set At<br>None                           | County<br>Rio Arriba                                  |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Producing Thru<br>Casing                                                                                                  |                             | Baro. Press. - P <sub>a</sub><br>12 psia (.est) | State<br>New Mexico                                   |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| L      H                                                                                                                  |                             | C <sub>g</sub><br>.650(est.)                    | % CO <sub>2</sub> % N <sub>2</sub> % H <sub>2</sub> S |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| FLOW DATA                                                                                                                 |                             | TUBING DATA                                     |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| NO.                                                                                                                       | Prover Line Size            | X                                               | Orifice Size                                          | Press. p.s.i.g.                                           | Diff. hw                                                                                                 | Temp. °F                    | Press. p.s.i.g.      | Temp. °F | Press. p.s.i.g.              | Temp. °F               | Duration of Flow |              |
| 1                                                                                                                         | 7 days                      |                                                 |                                                       |                                                           |                                                                                                          |                             | 526                  |          |                              |                        |                  |              |
| 2                                                                                                                         | 2 inch                      |                                                 | .750                                                  | 56                                                        |                                                                                                          |                             | 56                   | 60°      |                              |                        | 3 hours          |              |
| 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 Fg                                                                                        | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |          |                              |                        |                  |              |
| 1                                                                                                                         | 12.3650                     |                                                 | 68                                                    | 1.000                                                     | .9608                                                                                                    | 1.007                       | 8.4                  |          |                              |                        |                  |              |
| 2                                                                                                                         |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| 3                                                                                                                         |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| 4                                                                                                                         |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| 5                                                                                                                         |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| NO.                                                                                                                       | P <sub>f</sub>              | Temp. °R                                        | T <sub>f</sub>                                        | Z                                                         | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.                                                              |                             |                      |          |                              |                        |                  |              |
| 1                                                                                                                         |                             |                                                 |                                                       |                                                           | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.                                                         |                             |                      |          |                              |                        |                  |              |
| 2                                                                                                                         |                             |                                                 |                                                       |                                                           | Specific Gravity Separator Gas _____ XXXXXXXXXX                                                          |                             |                      |          |                              |                        |                  |              |
| 3                                                                                                                         |                             |                                                 |                                                       |                                                           | Specific Gravity Flowing Fluid _____ XXXXX                                                               |                             |                      |          |                              |                        |                  |              |
| 4                                                                                                                         |                             |                                                 |                                                       |                                                           | Critical Pressure _____ P.S.I.A. _____ P.S.I.A.                                                          |                             |                      |          |                              |                        |                  |              |
| 5                                                                                                                         |                             |                                                 |                                                       |                                                           | Critical Temperature _____ R _____ R                                                                     |                             |                      |          |                              |                        |                  |              |
| P <sub>c</sub> 538      P <sub>c</sub> <sup>2</sup> 289444                                                                |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| NO.                                                                                                                       | P <sub>f</sub> <sup>2</sup> | 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) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.02335$ (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.01981$ |                             |                      |          |                              |                        |                  |              |
| 1                                                                                                                         |                             | 81                                              | 6604                                                  | 282840                                                    |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| 2                                                                                                                         |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| 3                                                                                                                         |                             | calculated                                      |                                                       |                                                           | AOF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 830$                                             |                             |                      |          |                              |                        |                  |              |
| 4                                                                                                                         |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| 5                                                                                                                         |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Absolute Open Flow 830                                                                                                    |                             |                                                 |                                                       |                                                           | Mcf/d @ 15.025                                                                                           |                             |                      |          |                              | Angle of Slope θ _____ |                  | Slope, n .85 |
| Remarks: completely dry gas                                                                                               |                             |                                                 |                                                       |                                                           |                                                                                                          |                             |                      |          |                              |                        |                  |              |
| Approved By Division                                                                                                      |                             |                                                 | Conducted By: Joe Elledge                             |                                                           |                                                                                                          | Calculated By: Joe Elledge  |                      |          | Checked By: Curtis J. Little |                        |                  |              |