

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>4-5-82                           |  |                                        |  |
| Company<br>Union Texas Petroleum Corp.                                                                                    |  |                         |  | Connection<br>Gas Co. of New Mexico |  |                                               |  |                                        |  |
| Pool<br>Basin                                                                                                             |  |                         |  | Formation<br>Dakota                 |  |                                               |  | Unit                                   |  |
| Completion Date<br>3-20-1982                                                                                              |  | Total Depth<br>7065     |  | Plug Back TD<br>7017                |  | Elevation<br>5875 G.L.                        |  | Farm or Lease Name<br>Culpepper Martin |  |
| Csg. Size 7 5/8                                                                                                           |  | ID 26.4                 |  | Set At 4456                         |  | Perforations:<br>From 6777 To 6998            |  | Well No.<br>1E                         |  |
| Thq. Size<br>5.500                                                                                                        |  | ID 17 & 15.5            |  | Set At 4299/7062                    |  | Perforations:<br>From To                      |  | Unit Sec. Twp. Rge.<br>P 31 32 12      |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Gas-Gas Dual                                                   |  |                         |  | Packer Set At<br>4898               |  | County<br>San Juan                            |  |                                        |  |
| Producing Thru<br>Tubing                                                                                                  |  | Reservoir Temp. °F<br>B |  | Mean Annual Temp. °F                |  | Baro. Press. - P <sub>a</sub><br>12 psia est. |  | State<br>New Mexico                    |  |
| L                                                                                                                         |  | H                       |  | Cq<br>.650                          |  | % 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. hw | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  |
| SI        | 16 days          |   |              |                 |          |             | 1240            |             |                 |                  |
| 1.        | 2 inch           |   | .750         | 148             |          |             | 148             | 60°         |                 |                  |
| 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 Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         | 12.3650               |                  | 160                     | 1.000                | .9608             | 1.015                       | 1929                 |
| 2.                        |                       |                  |                         |                      |                   |                             |                      |
| 3.                        |                       |                  |                         |                      |                   |                             |                      |
| 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 _____ XXXXXXXXXX  |
| 3.  |                |          |                |   | Specific Gravity Flowing Fluid _____ XXXXX       |
| 4.  |                |          |                |   | Critical Pressure _____ P.S.I.A. _____ P.S.I.A.  |
| 5.  |                |          |                |   | Critical Temperature _____ R _____ R             |

  

|     |                |                |                             |                                                           |                                             |                                                              |
|-----|----------------|----------------|-----------------------------|-----------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------|
| NO. | P <sub>c</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) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.28837$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.20928$ |
| 1   | 1252           | 592            | 350835                      | 1216,669                                                  |                                             |                                                              |
| 2   |                |                |                             |                                                           |                                             |                                                              |
| 3   |                |                |                             |                                                           |                                             |                                                              |
| 4   |                |                |                             |                                                           |                                             |                                                              |
| 5   |                |                |                             |                                                           |                                             |                                                              |

  

|                                          |  |                           |  |                            |  |
|------------------------------------------|--|---------------------------|--|----------------------------|--|
| Absolute Open Flow 2333 Mcfd @ 15.025    |  | Angle of Slope θ _____    |  | Slope, n .75               |  |
| Remarks: Dry gas with show of condensate |  |                           |  |                            |  |
| Approved By Division                     |  | Conducted By: Joe Elledge |  | Calculated By: Joe Elledge |  |
|                                          |  |                           |  | Checked By: Mr. Don Wells  |  |