

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>5-18-81 |                                     |                    |                                |            |
| Company<br>El Paso Natural Gas Company                                                                                    |            |                         |                   | Connection<br>El Paso Natural Gas Company |                      |                                     |                    |                                |            |
| Pool<br>Blanco                                                                                                            |            |                         |                   | Formation<br>Mesa Verde                   |                      |                                     |                    | Unit                           |            |
| Completion Date<br>5-11-81                                                                                                |            | Total Depth<br>5205     |                   | Plug Back TD<br>5189                      |                      | Elevation<br>5994 GL                |                    | Farm or Lease Name<br>Newberry |            |
| Csg. Size<br>*7.000                                                                                                       | Wt.<br>20# | d<br>6.456              | Set At<br>2830    | Perforations:<br>From 4441 To 5125        |                      | Well No.<br>#3A                     |                    |                                |            |
| Tub. Size<br>2.375                                                                                                        | Wt.<br>4.7 | d<br>1.995              | Set At<br>5087    | Perforations:<br>From To                  |                      | Unit<br>0                           | Sec.<br>8          | Twp.<br>31                     | Rge.<br>12 |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |            |                         |                   |                                           | Packer Set At        |                                     | County<br>San Juan |                                |            |
| Producing Thru                                                                                                            |            | Reservoir Temp. *F<br>p |                   | Mean Annual Temp. *F                      |                      | Baro. Press. - P <sub>a</sub><br>12 |                    | State<br>New Mexico            |            |
| L                                                                                                                         | H          | Gg                      | % 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        |                  |   |              |                 |                      |             | 250             |             | 543             |                  | 7 Days   |
| 1.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 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, F <sub>sp</sub> | Rate of Flow Q, Mhd |
| 1.                        |                       |                  |                         |                       |                   |                                         |                     |
| 2.                        |                       |                  |                         |                       |                   |                                         |                     |
| 3.                        |                       |                  |                         |                       |                   |                                         |                     |
| 4.                        |                       |                  |                         |                       |                   |                                         |                     |
| 5.                        |                       |                  |                         |                       |                   |                                         |                     |

  

| NO. | P <sub>f</sub> | 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.  |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 2.  |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 3.  |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 4.  |                |          |                |   |                              |                                       |                                |                                |                   |                      |
| 5.  |                |          |                |   |                              |                                       |                                |                                |                   |                      |

  

| NO. | P <sub>f</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> | P <sub>w</sub> <sup>2</sup> - P <sub>f</sub> <sup>2</sup> | (1) $\frac{P_c^2}{P_f^2 - P_w^2} =$ | (2) $\left[ \frac{P_c^2}{P_f^2 - P_w^2} \right]^n =$ |
|-----|-----------------------------|-----------------------------|-----------------------------------------------------------|-------------------------------------|------------------------------------------------------|
| 1.  |                             |                             |                                                           |                                     |                                                      |
| 2.  |                             |                             |                                                           |                                     |                                                      |
| 3.  |                             |                             |                                                           |                                     |                                                      |
| 4.  |                             |                             |                                                           |                                     |                                                      |
| 5.  |                             |                             |                                                           |                                     |                                                      |

  

| AOP = Q $\left[ \frac{P_f^2}{P_c^2 - P_w^2} \right]^n =$ |  |  |  |
|----------------------------------------------------------|--|--|--|
| 1.                                                       |  |  |  |
| 2.                                                       |  |  |  |
| 3.                                                       |  |  |  |
| 4.                                                       |  |  |  |
| 5.                                                       |  |  |  |

  

|                    |              |                         |          |
|--------------------|--------------|-------------------------|----------|
| Absolute Open Flow | Mcf @ 15.025 | Angle of Slope $\theta$ | Slope, n |
| Remarks            |              |                         |          |

  

|                      |                             |                                 |            |
|----------------------|-----------------------------|---------------------------------|------------|
| Approved by Division | Conducted By<br>Bobby Haire | Calculated By<br>F. R. Headrick | Checked By |
|----------------------|-----------------------------|---------------------------------|------------|