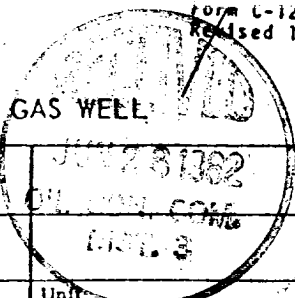


MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

|                                                                                                                                      |            |                         |                   |                                              |                    |                                                                                    |  |                                     |      |
|--------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------|-------------------|----------------------------------------------|--------------------|------------------------------------------------------------------------------------|--|-------------------------------------|------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special |            |                         |                   | Test Date<br>6-15-82                         |                    |  |  |                                     |      |
| Company<br>Amoco Production Company                                                                                                  |            |                         |                   | Connection<br>Northwest Pipeline Corporation |                    |                                                                                    |  |                                     |      |
| Pool<br><i>Indesignated</i>                                                                                                          |            |                         |                   | Formation<br>Gallup                          |                    |                                                                                    |  |                                     |      |
| Completion Date<br>6-1-82                                                                                                            |            | Total Depth<br>8935     |                   | Plug Back TD<br>8726                         |                    | Elevation<br>7406 GL                                                               |  | Farm or Lease Name<br>San Juan 29-4 |      |
| Csg. Size<br>7.000                                                                                                                   | Wt.<br>23  | d<br>6.366              | Set At<br>8935    | Perforations:<br>From 7838 To 8009           |                    | Well No.<br>24                                                                     |  |                                     |      |
| Thq. Size<br>2.375                                                                                                                   | Wt.<br>4.7 | d<br>1.995              | Set At<br>8005    | Perforations:<br>From open To ended          |                    | Unit Sec. Twp. Rge.<br>B 8 29N 4W                                                  |  |                                     |      |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                                    |            |                         |                   |                                              |                    | Packer Set At<br>None                                                              |  | County<br>Rio Arriba                |      |
| Producing Thru<br>Tubing                                                                                                             |            | Reservoir Temp. °F<br>8 |                   | Mean Annual Temp. °F                         |                    | Baro. Press. - P <sub>a</sub>                                                      |  | State<br>New Mexico                 |      |
| L                                                                                                                                    | H          | G <sub>g</sub>          | % 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        | 7 Days           |   |              |                 |                      |             | 1880            |             | 2350            |                  |
| 1.        | 2.375            |   | .750         |                 |                      |             | 97              |             | 417             | 3 hrs            |
| 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 F <sub>g</sub> | Super Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1                         | 12.365                |                  | 109                     | 1.000                 | .9258                         | 1.012                                   | 1263                 |
| 2.                        |                       |                  |                         |                       |                               |                                         |                      |
| 3.                        |                       |                  |                         |                       |                               |                                         |                      |
| 4.                        |                       |                  |                         |                       |                               |                                         |                      |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

| NO. | P <sub>t</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 _____ 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>t</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   | 2361                        | 429            | 184041                      | 5395003                                                   |
| 2.  |                             |                |                             |                                                           |
| 3.  |                             |                |                             |                                                           |
| 4.  |                             |                |                             |                                                           |
| 5.  |                             |                |                             |                                                           |

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0341$       (2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0255$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1295$

|                    |      |                |                  |          |     |
|--------------------|------|----------------|------------------|----------|-----|
| Absolute Open Flow | 1295 | Mcf/d @ 15.025 | Angle of Slope θ | Slope, n | .75 |
|--------------------|------|----------------|------------------|----------|-----|

Remarks: Drillable Bridge Plug at 8100 ft.  
Liner & Casing set at 4615 & 4451

|                      |                                |                                 |             |
|----------------------|--------------------------------|---------------------------------|-------------|
| Approved By Division | Conducted By:<br>J. J. Barnett | Calculated By:<br>J. J. Barnett | Checked By: |
|----------------------|--------------------------------|---------------------------------|-------------|