

## 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>7-24-81          |           |                                            |            |
| Company<br>Amoco Production Company                                                                                                  |             |                         |                   | Connection<br>El Paso Natural Gas Company |                    |                               |           |                                            |            |
| Pool<br>B S Mesa                                                                                                                     |             |                         |                   | Formation<br>Gallup                       |                    |                               |           | Unit                                       |            |
| Completion Date<br>4-12-81                                                                                                           |             | Total Depth<br>8254     |                   | Plug Back TD<br>8230                      |                    | Elevation<br>7123             |           | Farm or Lease Name<br>Jicarilla Apache 102 |            |
| Req. Size<br>4.500                                                                                                                   | Wt.<br>10.5 | d<br>4.052              | Set At<br>8254    | Perforations:<br>From 7524      To 7534   |                    | Well No.<br>14E               |           |                                            |            |
| Req. Size<br>2.375                                                                                                                   | Wt.<br>4.7  | d<br>1.995              | Set At<br>8159    | Perforations:<br>From 7971      To        |                    | Unit<br>M                     | Sec.<br>9 | Twp.<br>26N                                | Rge.<br>4W |
| Type Well - Single - Brodenhead - G.G. or G.O. Multiple<br>Commingled                                                                |             |                         |                   |                                           |                    | Packer Set At<br>7977         |           | County<br>Rio Arriba                       |            |
| Producing Thru<br>Tubing                                                                                                             |             | Reservoir Temp. °F<br>P |                   | 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. | Temp. °F | Flow             |
| SI        | 103 Days         |   |              |                 |                      |          | 1227            |          | 1250            |          |                  |
| 1.        | 2.375            |   | .750         |                 |                      |          | 22              |          | 126             |          | 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 Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
| 1                         | 12.365                |                  | 34                      | 1.000                 | .9258             | 1.004                       | 391                  |
| 2.                        |                       |                  |                         |                       |                   |                             |                      |
| 3.                        |                       |                  |                         |                       |                   |                             |                      |
| 4.                        |                       |                  |                         |                       |                   |                             |                      |
| 5.                        |                       |                  |                         |                       |                   |                             |                      |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z | Gas Liquid Hydrocarbon Ratio          | Mcf/bbl. |
|-----|----------------|----------|----------------|---|---------------------------------------|----------|
| 1.  |                |          |                |   | A.P.I. Gravity of Liquid Hydrocarbons | Deq.     |
| 2.  |                |          |                |   | Specific Gravity Separator Gas        | XXXXXX   |
| 3.  |                |          |                |   | Specific Gravity Flowing Fluid        | XXXXXX   |
| 4.  |                |          |                |   | Critical Pressure                     | P.S.I.A. |
| 5.  |                |          |                |   | Critical Temperature                  | R        |

  

| NO. | P <sub>c</sub> | P <sub>c</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) $\frac{P_c^2}{P_c^2 - P_w^2} =$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$ |
|-----|----------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|-------------------------------------|------------------------------------------------------|
| 1   | 1262           | 1592644                     | 138            | 19044                       | 1573500                                                   | 1.0121                              | 1.0091                                               |
| 2.  |                |                             |                |                             |                                                           |                                     |                                                      |
| 3.  |                |                             |                |                             |                                                           |                                     |                                                      |
| 4.  |                |                             |                |                             |                                                           |                                     |                                                      |
| 5.  |                |                             |                |                             |                                                           |                                     |                                                      |

  

|                                                                                                         |                      |                               |                 |
|---------------------------------------------------------------------------------------------------------|----------------------|-------------------------------|-----------------|
| Absolute Open Flow <u>395</u> Mcfd @ 15.025      Angle of Slope $\theta$ _____      Slope, n <u>.75</u> |                      |                               |                 |
| Remarks: <u>Slicing sleeve Set @ 7971</u>                                                               |                      |                               |                 |
|                                                                                                         |                      |                               |                 |
| Approved By Division                                                                                    | Conducted By:<br>JJB | Calculated By:<br>J J Barnett | Checked By:<br> |