

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 9-1-65

|                                                                                                                           |             |                         |                   |                                    |                      |                               |               |                                   |  |
|---------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------|-------------------|------------------------------------|----------------------|-------------------------------|---------------|-----------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |             |                         |                   |                                    | Test Date<br>12/1/73 |                               |               |                                   |  |
| Company<br>El Paso Natural Gas Company                                                                                    |             |                         |                   | Connection<br>None                 |                      |                               |               |                                   |  |
| Pool<br>Rhodes                                                                                                            |             |                         |                   | Formation<br>Yates                 |                      |                               |               | Unit<br>F                         |  |
| Completion Date<br>12-1-73                                                                                                |             | Total Depth<br>3190     |                   | Plug Back TD<br>3133               |                      | Elevation<br>3002.9           |               | Farm or Lease Name<br>Rhodes GSU  |  |
| Csg. Size<br>4 1/2                                                                                                        | Wt.<br>10.5 | d                       | Set At<br>3187    | Perforations:<br>From 3905 To 3095 |                      |                               |               | Well No.<br>7                     |  |
| Tbg. Size<br>2 3/8                                                                                                        | Wt.<br>4.7  | d                       | Set At<br>2765    | Perforations:<br>From To           |                      |                               |               | Unit Sec. Twp. Rge.<br>F 15 26 37 |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple                                                                   |             |                         |                   |                                    | Packer Set At        |                               | County<br>Lea |                                   |  |
| Producing Thru                                                                                                            |             | Reservoir Temp. °F<br>@ |                   | Mean Annual Temp. °F               |                      | Baro. Press. - P <sub>a</sub> |               | State<br>New Mexico               |  |
| L                                                                                                                         | H           | Gg<br>.650 Assumed      | % CO <sub>2</sub> | % N <sub>2</sub>                   | % H <sub>2</sub> S   | Prover<br>2"                  | Meter Run     | Taps                              |  |

  

| FLOW DATA |                      |      |              |                    |                         | TUBING DATA |                    | CASING DATA |                    | Duration of Flow |             |
|-----------|----------------------|------|--------------|--------------------|-------------------------|-------------|--------------------|-------------|--------------------|------------------|-------------|
| NO.       | Prover<br>XXX<br>XXX | X    | Orifice Size | Press.<br>p.s.i.g. | Diff.<br>h <sub>w</sub> | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F | Press.<br>p.s.i.g. |                  | Temp.<br>°F |
| SI        |                      |      |              |                    |                         |             | 514                |             | 514                |                  | 16 hr.      |
| 1.        | 2 x                  | 3/16 |              | 505                |                         | 65          | 505                | 60          | 507                | 60               | 30 Min      |
| 2.        | 2 x                  | 7/32 |              | 501                |                         | 67          | 501                | 62          | 504                | 62               | 30 Min      |
| 3.        | 2 x                  | 5/16 |              | 486                |                         | 69          | 486                | 63          | 497                | 63               | 30 Min      |
| 4.        | 2 x                  | 7/16 |              | 448                |                         | 70          | 448                | 66          | 484                | 66               | 30 Min      |
| 5.        | 2 x                  | 1/2  |              | 421                |                         | 70          | 421                | 67          | 479                | 67               | 30 Min.     |

  

| RATE OF FLOW CALCULATIONS |                          |                  |                            |                                        |                                     |                                               |                         |
|---------------------------|--------------------------|------------------|----------------------------|----------------------------------------|-------------------------------------|-----------------------------------------------|-------------------------|
| NO.                       | Coefficient<br>(24 Hour) | $\sqrt{h_w P_m}$ | Pressure<br>P <sub>m</sub> | Flow Temp.<br>Factor<br>F <sub>t</sub> | Gravity<br>Factor<br>F <sub>g</sub> | Super<br>Compress.<br>Factor, F <sub>pv</sub> | Rate of Flow<br>Q, Mcfd |
| 1                         | .6082                    |                  | 518.2                      | .9952                                  | 1.240                               | 1.052                                         | 409                     |
| 2                         | .8393                    |                  | 314.2                      | .9933                                  | 1.240                               | 1.051                                         | 559                     |
| 3                         | 1.672                    |                  | 499.2                      | .9915                                  | 1.240                               | 1.050                                         | 1,077                   |
| 4                         | 3.408                    |                  | 461.2                      | .9905                                  | 1.240                               | 1.046                                         | 2,019                   |
| 5                         | 4.279                    |                  | 434.2                      | .9905                                  | 1.240                               | 1.043                                         | 2,380                   |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>t</sub> | Z    | Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.               |
|-----|----------------|----------|----------------|------|-----------------------------------------------------------|
| 1.  | .77            | 525      | 1.40           | .903 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.          |
| 2.  | .77            | 527      | 1.41           | .905 | Specific Gravity Separator Gas _____ X X X X X X X X      |
| 3.  | .75            | 579      | 1.41           | .907 | Specific Gravity Flowing Fluid _____ X X X X X            |
| 4.  | .69            | 530      | 1.41           | .914 | Critical Pressure _____ 670 _____ P.S.I.A. _____ P.S.I.A. |
| 5.  | .65            | 530      | 1.41           | .919 | Critical Temperature _____ 375 _____ 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) $\frac{P_c^2}{P_c^2 - P_w^2} = 7.806$                       | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 7.806$ |
|-----|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------|
| 1   |                             | 520.2          | 270.6                       | 7.3                                                       | ACF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 18,578$ |                                                            |
| 2   |                             | 517.2          | 267.5                       | 10.4                                                      |                                                                 |                                                            |
| 3   |                             | 510.2          | 260.3                       | 17.6                                                      |                                                                 |                                                            |
| 4   |                             | 497.2          | 247.2                       | 30.7                                                      |                                                                 |                                                            |
| 5   |                             | 492.2          | 242.3                       | 35.6                                                      |                                                                 |                                                            |

  

|                                                   |  |                               |                |
|---------------------------------------------------|--|-------------------------------|----------------|
| Absolute Open Flow <u>18,578</u> Mcfd @ 15.025    |  | Angle of Slope $\theta$ _____ | Slope, n _____ |
| Remarks: <u>No Fluid was made at these rates.</u> |  |                               |                |

  

|                             |                                      |                             |             |
|-----------------------------|--------------------------------------|-----------------------------|-------------|
| Approved By Commission:<br> | Conducted By:<br>R. Reston, R. Pagan | Calculated By:<br>R. Reston | Checked By: |
|-----------------------------|--------------------------------------|-----------------------------|-------------|