

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

Form C-122  
 Revised 9-1-65

xc: USCg (5)  
 State (5)  
 T. L. Slife  
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 El Paso Nat. Gas

|                                                                                                                           |            |                                   |                         |                                      |                          |
|---------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------|-------------------------|--------------------------------------|--------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |            |                                   |                         | Test Date<br>7-30-81                 |                          |
| Company<br>MESA PETROLEUM CO.                                                                                             |            |                                   |                         | Connection<br>EL PASO NATURAL GAS    |                          |
| Pool<br>UNDESIGNATED CHACRA                                                                                               |            |                                   |                         | Formation<br>CHACRA                  |                          |
| Completion Date<br>7-30-81                                                                                                |            | Total Depth<br>7485.              |                         | Plug Back TD<br>7014.                |                          |
| Elevation<br>6727.                                                                                                        |            | Farm or Lease Name<br>FEDERAL     |                         |                                      |                          |
| Csg. Size<br>5.500                                                                                                        | Wt.<br>0.  | d<br>0.                           | Set At<br>5.            | Perforations:<br>From 3864. To 3994. |                          |
| Well No.<br>16E                                                                                                           |            |                                   |                         |                                      |                          |
| Tbg. Size<br>2.063                                                                                                        | Wt.<br>3.2 | d<br>1.751                        | Set At<br>3808.         | Perforations:<br>From 0. To 0.       |                          |
| Unit<br>9-27N-8W                                                                                                          |            |                                   |                         |                                      |                          |
| Type Well - Single - Freedomhead - G.G. or G.O. Multiple<br>FLOWING GAS                                                   |            |                                   |                         | Packer Set At<br>0.                  |                          |
| Producing Thru<br>TUBING                                                                                                  |            | Reservoir Temp. °F<br>110.0 3929. |                         | Mean Annual Temp. °F<br>88.0         |                          |
| Baro. Press. - P <sub>a</sub><br>12.2                                                                                     |            | State<br>NEW MEXICO               |                         |                                      |                          |
| L<br>3929.                                                                                                                | H<br>3929. | Gg<br>0.700                       | % CO <sub>2</sub><br>0. | % N <sub>2</sub><br>0.               | % H <sub>2</sub> S<br>0. |
| Prover<br>0.                                                                                                              |            | Meter Run<br>0.                   |                         | Taps<br>0.                           |                          |

  

| 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 |
| 1.        | 1.75 X 0.750     |   |              | 210.            | 0.                   | 78.         | 0.              | 0.          | 210.            | 78.              | 168.0    |
| 2.        |                  |   |              |                 |                      |             |                 |             |                 |                  | 2.0      |
| 3.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 4.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |
| 5.        |                  |   |              |                 |                      |             |                 |             |                 |                  |          |

  

| RATE OF FLOW CALCULATIONS |                       |                  |                         |                                  |                               |                                        |                      |
|---------------------------|-----------------------|------------------|-------------------------|----------------------------------|-------------------------------|----------------------------------------|----------------------|
| NO.                       | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor F <sub>t</sub> | Gravity Factor F <sub>g</sub> | Super Compress. Factor F <sub>pv</sub> | Rate of Flow Q, Mcfd |
| 1.                        | 10.94                 | 0.               | 222.2                   | 0.9881                           | 1.1952                        | 1.0234                                 | 2924.                |
| 2.                        |                       |                  |                         |                                  |                               |                                        |                      |
| 3.                        |                       |                  |                         |                                  |                               |                                        |                      |
| 4.                        |                       |                  |                         |                                  |                               |                                        |                      |
| 5.                        |                       |                  |                         |                                  |                               |                                        |                      |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio | A.P.J. Gravity of Liquid Hydrocarbon | Specific Gravity Separator | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature | Mcf/bbl. | Deg. |
|-----|----------------|----------|----------------|-------|------------------------------|--------------------------------------|----------------------------|--------------------------------|-------------------|----------------------|----------|------|
| 1.  | 0.33           | 538.     | 1.38           | 0.955 |                              |                                      | 0.700                      | XXXXXXX                        | 568.              | 390.                 |          |      |
| 2.  |                |          |                |       |                              |                                      |                            |                                |                   |                      |          |      |
| 3.  |                |          |                |       |                              |                                      |                            |                                |                   |                      |          |      |
| 4.  |                |          |                |       |                              |                                      |                            |                                |                   |                      |          |      |
| 5.  |                |          |                |       |                              |                                      |                            |                                |                   |                      |          |      |

  

| 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.  | 709.7          | 222.2          | 49.                         | 455.                                                      |
| 2.  |                |                |                             |                                                           |
| 3.  |                |                |                             |                                                           |
| 4.  |                |                |                             |                                                           |
| 5.  |                |                |                             |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1081$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3158.$

(2)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1081$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3158.$

  

|                    |  |       |              |                  |      |          |       |
|--------------------|--|-------|--------------|------------------|------|----------|-------|
| Absolute Open Flow |  | 2150. | Mcf @ 15.025 | Angle of Slope @ | 53.1 | Slope, n | 0.750 |
|--------------------|--|-------|--------------|------------------|------|----------|-------|

  

Remarks:

  

|                         |               |                |                                   |
|-------------------------|---------------|----------------|-----------------------------------|
| Approved By Commission: | Conducted By: | Calculated By: | Checked By: <i>John W. Barton</i> |
|-------------------------|---------------|----------------|-----------------------------------|