

NE. 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 type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special |            |                                  |                          | Test Date<br>5-7-69                    |                           | MAY 22 1969                           |                |
| Company<br>Monsanto Company                                                                                               |            |                                  |                          | Connection<br>Trans Western            |                           | D. C. C.                              |                |
| Pool<br>Rock Tank Upper Morrow Pool                                                                                       |            |                                  |                          | Formation<br>Upper Morrow              |                           | Unit<br>D                             |                |
| Completion Date<br>1-23-68                                                                                                |            | Total Depth<br>11,026            |                          | Plug Back TD<br>10,335                 |                           | Elevation<br>3961                     |                |
| Farm or Lease Name<br>Rock Tank Unit                                                                                      |            |                                  |                          | Well No.<br>1-2                        |                           |                                       |                |
| Csg. Size<br>5 1/2"                                                                                                       | Wt.<br>17  | d<br>4.892                       | Set At<br>10,472         | Perforations:<br>From 9965 To 9978     |                           | Unit Sec. Twp. Rge.<br>D 7 23-S 25E   |                |
| Tbg. Size<br>2 7/8                                                                                                        | Wt.<br>6.5 | d<br>2.441                       | Set At<br>10,204         | Perforations:<br>From 10,290 To 10,324 |                           | County<br>Eddy                        |                |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>GG                                                             |            |                                  |                          | Packer Set At<br>10,200                |                           | State<br>New Mexico                   |                |
| Producing Thru<br>Casing                                                                                                  |            | Reservoir Temp. °F<br>170 @ 9965 |                          | Mean Annual Temp. °F<br>60             |                           | Baro. Press. - P <sub>g</sub><br>13.2 |                |
| L<br>9965                                                                                                                 | H<br>9965  | G <sub>g</sub><br>.586           | % CO <sub>2</sub><br>.72 | % N <sub>2</sub><br>.31                | % H <sub>2</sub> S<br>.01 | Prover<br>X                           | Meter Run<br>X |
| Taps<br>11-1                                                                                                              |            |                                  |                          |                                        |                           |                                       |                |

| 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        |                  |   |              |                  |                      |             |                 |             | 2907            | 64°              | 72 Hrs   |
| 1.        | 2                |   | 1"           | 730              | 5"                   | 63°         |                 |             | 2884            | 76°              | 2 Hrs    |
| 2.        | 2                |   | 1"           | 730              | 27"                  | 60°         |                 |             | 2330            | 73°              | 2 Hrs    |
| 3.        | 2                |   | 1"           | 740              | 58"                  | 72°         |                 |             | 2768            | 73°              | 2 Hrs    |
| 4.        | 2                |   | 1"           | 755              | 89"                  | 60°         |                 |             | 2700            | 79°              | 2 Hrs    |
| 5.        | 2                |   | 1 1/4"       | 750              | 50"                  | 61°         |                 |             | 2613            | 77°              | 2 Hrs    |

| 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                         | 4.946                 | 60.41            | 730                       | .9824                 | 1.306                         | 1.060                                   | 410                  |
| 2                         | 4.946                 | 140.39           | 730                       | .9813                 | 1.306                         | 1.054                                   | 933                  |
| 3                         | 4.946                 | 207.17           | 740                       | .9837                 | 1.306                         | 1.058                                   | 1400                 |
| 4                         | 4.946                 | 259.21           | 755                       | .9843                 | 1.306                         | 1.052                                   | 1768                 |
| 5                         | 8.120                 | 193.64           | 750                       | .9990                 | 1.306                         | 1.063                                   | 2181                 |

|                                                    |   |  |      |     |                                                  |  |  |
|----------------------------------------------------|---|--|------|-----|--------------------------------------------------|--|--|
| NO.    P <sub>r</sub> Temp. °R    T <sub>r</sub> Z |   |  |      |     | Gas Liquid Hydrocarbon Ratio _____ Mct/bbl.      |  |  |
|                                                    |   |  |      |     | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. |  |  |
| 1.                                                 | 1 |  | 1.33 | 1.1 | Specific Gravity Separator Gas .536    XXXXXXXXX |  |  |
| 2.                                                 | 1 |  | 1.33 | 1.1 | Specific Gravity Flowing Fluid XXXXX             |  |  |
| 3.                                                 | 1 |  | 1.33 | 1.1 | Critical Pressure 676    P.S.I.A.    P.S.I.A.    |  |  |
| 4.                                                 | 1 |  | 1.33 | 1.1 | Critical Temperature 353    R    R               |  |  |
| 5.                                                 | 1 |  | 1.33 | 1.1 |                                                  |  |  |

| P <sub>c</sub> 2920.2    P <sub>c</sub> <sup>2</sup> 8528 |                             |                |                             | (1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{8528}{1618}$     |  | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.8448$ |  |
|-----------------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|--|-------------------------------------------------------------|--|
| 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                                                         |                             | 2897.6         | 8396                        | 132                                                       |  |                                                             |  |
| 2                                                         |                             | 2842.6         | 8030                        | 443                                                       |  |                                                             |  |
| 3                                                         |                             | 2782.2         | 7740                        | 768                                                       |  |                                                             |  |
| 4                                                         |                             | 2714.5         | 7368                        | 1160                                                      |  |                                                             |  |
| 5                                                         |                             | 2628.7         | 6910                        | 1618                                                      |  |                                                             |  |

|                                                               |  |                    |  |
|---------------------------------------------------------------|--|--------------------|--|
| ACF = Q $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 6205$ |  |                    |  |
| Absolute Open Flow 6205 Mcfd @ 15.025                         |  | Angle of Slope 57° |  |
|                                                               |  | Slope, n .629      |  |

Remarks: \*Meters set to read psia

|                         |               |                |             |
|-------------------------|---------------|----------------|-------------|
| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|-------------------------|---------------|----------------|-------------|