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N. M. O. C. C. COPY  
NEW MEXICO RECONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122  
Revised 9-1-65

JUL 25 1974

|                                                                                                                                      |              |                                             |                           |                                      |                           |
|--------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------|---------------------------|--------------------------------------|---------------------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special |              | Test Date<br>7-13-74                        |                           | <b>RECEIVED</b>                      |                           |
| Company<br>Morris R. Antweil                                                                                                         |              | Connection<br>ARTESIA. OFFICE               |                           |                                      |                           |
| Pool<br>Artesia - minor<br>Undersignated                                                                                             |              | Formation<br>Morrow                         |                           | Unit<br>U.S. GEOLOGICAL SURVEY       |                           |
| Completion Date<br>7-10-74                                                                                                           |              | Total Depth<br>11,000                       |                           | Plug Back TD<br>-11,000 / 10950      |                           |
| Elevation<br>3219 KB                                                                                                                 |              | Form of Lease Name<br>Western Reserves Fed. |                           | Well No.<br>1                        |                           |
| Cas. Size<br>5-1/2                                                                                                                   | Wt.<br>20#   | d<br>4.778                                  | Set At<br>11,000          | Perforations:<br>From 10709 To 10862 |                           |
| Tub. Size<br>2-3/8                                                                                                                   | Wt.<br>4.70# | d<br>1.995                                  | Set At<br>10,620          | Perforations:<br>From None To        |                           |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                                    |              |                                             |                           | Packer Set At<br>10,620              |                           |
| Producing Thru<br>Tubing                                                                                                             |              | Reservoir Temp. °F<br>180 @ 10709           |                           | Mean Annual Temp. °F<br>60           |                           |
| Baro. Press. - P <sub>a</sub><br>13.2                                                                                                |              | County<br>Eddy                              |                           | State<br>New Mexico                  |                           |
| L<br>10,620                                                                                                                          | H<br>10,620  | G <sub>g</sub><br>.601                      | % CO <sub>2</sub><br>.791 | % N <sub>2</sub><br>.217             | % H <sub>2</sub> S<br>Nil |
| Prover                                                                                                                               |              | Meter Run<br>4.026                          |                           | Taps<br>Flange                       |                           |

  

| FLOW DATA |                        |   |                 |                    |             | TUBING DATA |                    | CASING DATA |                    | Duration<br>of<br>Flow |             |
|-----------|------------------------|---|-----------------|--------------------|-------------|-------------|--------------------|-------------|--------------------|------------------------|-------------|
| NO.       | Prover<br>Line<br>Size | X | Orifice<br>Size | Press.<br>p.s.i.g. | Diff.<br>hw | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F | Press.<br>p.s.i.g. |                        | Temp.<br>°F |
| SI        |                        |   |                 |                    |             |             | 3500               | 70          | Packer             |                        | 72 hrs.     |
| 1.        | 4.026 x 1.250          |   |                 | 810                | 14          | 105         | 3350               | 69          |                    | 7/16 in. o.d.          | 1 hr.       |
| 2.        | 4.026 x 1.250          |   |                 | 807                | 41          | 81          | 3104               | 69          |                    | 1/2 in. o.d.           | 1 "         |
| 3.        | 4.026 x 1.750          |   |                 | 810                | 25          | 64          | 2681               | 70          |                    | 1/2 in. o.d.           | 1 "         |
| 4.        | 4.026 x 1.750          |   |                 | 810                | 46          | 62          | 2119               | 70          |                    | 1/2 in. o.d.           | 1 "         |
| 5.        |                        |   |                 |                    |             |             |                    |             |                    |                        |             |

  

| 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>sp</sub> | Rate of Flow<br>Q, Mcfd |
| 1                         | 7.469                    | 107.354          | 823.2                      | .9594                                  | 1.2899                              | 1.050                                         | 1,042                   |
| 2                         | 7.469                    | 183.380          | 820.2                      | .9804                                  | 1.2899                              | 1.060                                         | 1,836                   |
| 3                         | 14.93                    | 143.457          | 823.2                      | .9962                                  | 1.2899                              | 1.067                                         | 2,937                   |
| 4                         | 14.93                    | 194.595          | 823.2                      | .9981                                  | 1.2899                              | 1.067                                         | 3,991                   |
| 5                         |                          |                  |                            |                                        |                                     |                                               |                         |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio | Super Compress. Factor, F <sub>sp</sub> | Rate of Flow |
|-----|----------------|----------|----------------|------|------------------------------|-----------------------------------------|--------------|
| 1   | 1.22           | 565      | 1.60           | .907 | 485.5                        | 1.050                                   | 1,042        |
| 2   | 1.22           | 541      | 1.53           | .890 | 50.8                         | 1.060                                   | 1,836        |
| 3   | 1.22           | 524      | 1.48           | .879 | .601                         | 1.067                                   | 2,937        |
| 4   | 1.22           | 522      | 1.48           | .879 | .607                         | 1.067                                   | 3,991        |
| 5   |                |          |                |      |                              |                                         |              |

  

| NO. | P <sub>r</sub> | P <sub>w</sub> | P <sub>w</sub> <sup>2</sup> | P <sub>r</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_r^2}{P_r^2 - P_w^2}$ | (2) $\left[ \frac{P_r^2}{P_r^2 - P_w^2} \right]^n$ |
|-----|----------------|----------------|-----------------------------|-----------------------------------------------------------|-----------------------------------|----------------------------------------------------|
| 1   | 11311.1        |                | 11354.9                     | 987.7                                                     | 1.68675                           | 1.45150                                            |
| 2   | 9716.9         |                | 9837.0                      | 2505.6                                                    |                                   |                                                    |
| 3   | 7258.7         |                | 7530.6                      | 4811.9                                                    |                                   |                                                    |
| 4   | 4546.3         |                | 5025.2                      | 7317.4                                                    |                                   |                                                    |
| 5   |                |                |                             |                                                           |                                   |                                                    |

  

|                         |  |       |  |                     |  |                  |  |                |  |          |  |             |  |  |  |
|-------------------------|--|-------|--|---------------------|--|------------------|--|----------------|--|----------|--|-------------|--|--|--|
| Absolute Open Flow      |  | 5,793 |  | Mcf/d @ 15.025      |  | Angle of Slope @ |  | 54.52286       |  | Slope, n |  | .71269      |  |  |  |
| Remarks:                |  |       |  |                     |  |                  |  |                |  |          |  |             |  |  |  |
| Approved by Commission: |  |       |  | Conducted By:       |  |                  |  | Calculated By: |  |          |  | Checked By: |  |  |  |
|                         |  |       |  | Cone & Kerley, Inc. |  |                  |  | Joe Rampy      |  |          |  | Bill Kerley |  |  |  |

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10-4-74