

N / MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122  
Revised 9-1-65

OCT 29 1968

|                                                                                                                           |  |             |                                  |                    |                             |                        |                                       |                                     |                                      |                                     |  |
|---------------------------------------------------------------------------------------------------------------------------|--|-------------|----------------------------------|--------------------|-----------------------------|------------------------|---------------------------------------|-------------------------------------|--------------------------------------|-------------------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |             |                                  |                    | Test Date<br>9-11-68        |                        | OCT 29 1968                           |                                     |                                      |                                     |  |
| Company<br>Charles B. Read                                                                                                |  |             |                                  | Connection<br>none |                             |                        |                                       | E. L. C.<br>ARTIFICIAL OFFICE       |                                      |                                     |  |
| Pool<br>Wildcat                                                                                                           |  |             |                                  | Formation<br>Cisco |                             |                        |                                       | Unit<br>none                        |                                      |                                     |  |
| Completion Date<br>6/10/68                                                                                                |  |             | Total Depth<br>6511 7/60         |                    | Plug Back TD<br>6433        |                        | Elevation<br>3686' GL                 |                                     | Farm or Lease Name<br>Anderson State |                                     |  |
| Csq. Size<br>4 1/2                                                                                                        |  | Wt.<br>11.6 |                                  | Set At<br>4.00     |                             | 6433                   |                                       | Perforations:<br>From 6351 To 6383  |                                      | Well No.<br>1-Y                     |  |
| Thq. Size<br>2 3/8                                                                                                        |  | Wt.<br>4.7  |                                  | Set At<br>1.995    |                             | 6335                   |                                       | Perforations:<br>From open ended To |                                      | Unit Sec. Twp. Rge.<br>G 14 18S 24E |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |  |             |                                  |                    |                             | Packer Set At<br>6335  |                                       | County<br>Eddy                      |                                      |                                     |  |
| Producing Thru<br>Tubing                                                                                                  |  |             | Reservoir Temp. °F<br>120 @ 6300 |                    | Mean Annual Temp. °F<br>60° |                        | Baro. Press. - P <sub>g</sub><br>13.2 |                                     | State<br>New Mexico                  |                                     |  |
| L<br>6335                                                                                                                 |  | H           |                                  | Gg<br>.660         |                             | % CO <sub>2</sub><br>- |                                       | % N <sub>2</sub><br>-               |                                      | % H <sub>2</sub> S<br>-             |  |
|                                                                                                                           |  |             |                                  |                    |                             | Prover                 |                                       | Meter Run<br>X                      |                                      | 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        |                        |   |                 |                    |             |             | 1537               |             |                    |             | 72                     |
| 1.        | 3                      | X | 1.00            | 370                | 11          | 92          | 1513               | 73          |                    |             | 1.0                    |
| 2.        | 3                      | X | 1.00            | 375                | 22          | 80          | 1466               | 73          |                    |             | 1.75                   |
| 3.        | 3                      | X | 1.00            | 375                | 35          | 76          | 1337               | 77          |                    |             | 2.0                    |
| 4.        | 3                      | X | 1.00            | 375                | 53          | 76          | 1327               | 77          |                    |             | 2.75                   |
| 5.        | 3                      | X | 1.00            | 465                | 35          | 76          | 1119               | 73          |                    |             | 16.5                   |

  

| 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>pv</sub> | Rate of Flow<br>Q, Mcfd |
| 1                         | 4.789                    | 64.92            | 383.2                      | .9706                                  | 1.231                               | 1.034                                         | 334                     |
| 2                         | 4.789                    | 92.41            | 383.2                      | .9313                                  | 1.231                               | 1.037                                         | 554                     |
| 3                         | 4.789                    | 116.6            | 383.2                      | .9350                                  | 1.231                               | 1.038                                         | 703                     |
| 4                         | 4.789                    | 150.1            | 383.2                      | .9350                                  | 1.231                               | 1.038                                         | 905                     |
| 5                         | 4.789                    | 129.4            | 478.2                      | .9350                                  | 1.231                               | 1.046                                         | 798 786                 |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>t</sub> | Z    | Gas Liquid Hydrocarbon Ratio               | Mcft/bbl. |
|-----|----------------|----------|----------------|------|--------------------------------------------|-----------|
| 1.  | .57            | 552      | 1.46           | .936 | A.P.I. Gravity of Liquid Hydrocarbons 56.2 |           |
| 2.  | .58            | 540      | 1.43           | .920 | Specific Gravity Separator Gas             | XXXXXXX   |
| 3.  | .58            | 536      | 1.42           | .929 | Specific Gravity Flowing Fluid             | XXXXX     |
| 4.  | .58            | 536      | 1.42           | .929 | Critical Pressure 670                      | P.S.I.A.  |
| 5.  | .71            | 536      | 1.42           | .914 | Critical Temperature 378                   | R         |

  

| P <sub>c</sub> *1891.2    P <sub>c</sub> <sup>2</sup> 3576.6 |                             |                  |                             |                                                           |
|--------------------------------------------------------------|-----------------------------|------------------|-----------------------------|-----------------------------------------------------------|
| 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                                                            | 1837.2                      | 3561.5           | 15.1                        |                                                           |
| 2                                                            | 1871.2                      | 3501.3           | 75.3                        |                                                           |
| 3                                                            | 1857.2                      | 3449.2           | 127.4                       |                                                           |
| 4                                                            | 1762.2                      | 3105.3           | 471.3                       |                                                           |
| 5                                                            | 1312.2                      | 1721.9           | 1854.7                      |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.928$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1108$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.338$

  

|                                       |  |                         |  |                         |  |
|---------------------------------------|--|-------------------------|--|-------------------------|--|
| Absolute Open Flow 1108 Mcfd @ 15.025 |  | Angle of Slope 0        |  | Slope, n 0.50           |  |
| Remarks: * From BHP bomb set at 6300. |  |                         |  |                         |  |
| Approved By Commission:               |  | Conducted By: M. Morris |  | Checked By: H. L. Smith |  |
|                                       |  |                         |  | W. H. Koller            |  |