

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>4-13-73       |                                       |
| Company<br>Read & Stevens, Inc                                                                                            |                                  | Connection<br>(Pending)    |                                       |
| Pool<br>Buffalo Valley Penn                                                                                               |                                  | Formation<br>Atoka - Penn. |                                       |
| Completion Date<br>3-31-73                                                                                                | Total Depth<br>8815              | Plug Back TD<br>8769       | Elevation<br>3601 G.L.                |
| Farm or Lease Name<br>Langley Comm                                                                                        |                                  | Well No.<br>1              |                                       |
| Csg. Size<br>5 1/2                                                                                                        | Wt.<br>15-17                     | d<br>5                     | Set At<br>8815                        |
| Perforations:<br>From 8626 To 8646                                                                                        |                                  | Well No.<br>1              |                                       |
| Tbg. Size<br>2 3/8                                                                                                        | Wt.<br>4.7                       | d<br>1.995                 | Set At<br>8393                        |
| Perforations:<br>From NONE To                                                                                             |                                  | Unit<br>C                  |                                       |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |                                  | Packer Set At<br>8393      | County<br>Chaves                      |
| Producing Thru<br>Tubing                                                                                                  | Reservoir Temp. °F<br>128 @ 8500 | Mean Annual Temp. °F<br>60 | Baro. Press. - P <sub>a</sub><br>13.2 |
| State<br>New Mexico                                                                                                       |                                  | Unit<br>C                  |                                       |
| L<br>8626                                                                                                                 | H<br>8626                        | G <sub>g</sub><br>0.625    | % CO <sub>2</sub><br>—                |
| % N <sub>2</sub><br>—                                                                                                     |                                  | % H <sub>2</sub> S<br>—    | Prover<br>—                           |
| Meter Run<br>4.026                                                                                                        |                                  | Taps<br>Flange             |                                       |

  

| FLOW DATA |                  |     |              |                 | TUBING DATA |          | CASING DATA     |          | Duration of Flow |                 |           |
|-----------|------------------|-----|--------------|-----------------|-------------|----------|-----------------|----------|------------------|-----------------|-----------|
| NO.       | Prover Line Size | X   | Orifice Size | Press. p.s.i.g. | Diff. hw    | Temp. °F | Press. p.s.i.g. | Temp. °F |                  | Press. p.s.i.g. | Temp. °F  |
| SI        | —                | —   | —            | —               | —           | —        | 1675            | —        | —                | —               | 72 hrs SI |
| 1.        | 4.026            | 1.5 | 440          | 8               | 99          | 1540     | 74              | PKR      | —                | —               | 60"       |
| 2.        | 4.026            | 1.5 | 420          | 24              | 82          | 1410     | 74              | "        | —                | —               | 60"       |
| 3.        | 4.026            | 1.5 | 460          | 36              | 84          | 1315     | 74              | "        | —                | —               | 30"       |
| 4.        | 4.026            | 1.5 | 460          | 52              | 84          | 1200     | 74              | "        | —                | —               | 30"       |
| 5.        |                  |     |              |                 |             |          |                 |          |                  |                 |           |

  

| 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                         | 10.84                 | 60.21            | 453.2                   | 0.9645                | 1.265                         | 1.033                                   | 822.6                |
| 2                         | 10.84                 | 101.96           | 433.2                   | 0.9795                | 1.265                         | 1.037                                   | 1420.1               |
| 3                         | 10.84                 | 130.52           | 473.2                   | 0.9777                | 1.265                         | 1.038                                   | 1816.4               |
| 4                         | 10.84                 | 156.86           | 473.2                   | 0.9777                | 1.265                         | 1.038                                   | 2182.9               |
| 5.                        |                       |                  |                         |                       |                               |                                         |                      |

  

| NO. | P <sub>t</sub> | Temp. °R | T <sub>r</sub> | Z     | Gas Liquid Hydrocarbon Ratio | Mcf/bbl. |
|-----|----------------|----------|----------------|-------|------------------------------|----------|
| 1.  | 0.675          | 559      | 1.532          | 0.937 | 133.33                       |          |
| 2.  | 0.646          | 542      | 1.485          | 0.930 | 63                           |          |
| 3.  | 0.705          | 544      | 1.490          | 0.928 |                              |          |
| 4.  | 0.705          | 544      | 1.490          | 0.928 |                              |          |
| 5.  |                |          |                |       |                              |          |

  

| NO. | P <sub>t</sub> | P <sub>w</sub> | P <sub>c</sub> | R <sub>w</sub> | P <sub>c</sub> - R <sub>w</sub> | (1) $\frac{P_c^2}{P_c^2 - R_w^2}$ | (2) $\left[ \frac{P_c^2}{P_c^2 - R_w^2} \right]^n$ |
|-----|----------------|----------------|----------------|----------------|---------------------------------|-----------------------------------|----------------------------------------------------|
| 1   | —              | 2012.2         | 4048.9         | 730.6          |                                 |                                   |                                                    |
| 2   | —              | 1866.2         | 3482.7         | 1296.8         |                                 |                                   |                                                    |
| 3   | —              | 1760.2         | 3098.3         | 1681.2         |                                 |                                   |                                                    |
| 4   | —              | 1634.2         | 2670.6         | 2108.9         |                                 |                                   |                                                    |
| 5   |                |                |                |                |                                 |                                   |                                                    |

  

|                                      |  |                             |                              |                 |
|--------------------------------------|--|-----------------------------|------------------------------|-----------------|
| Absolute Open Flow<br>4800           |  | Mcf/d @ 15.025              | Angle of Slope @             | Slope, n<br>949 |
| Remarks: * From BHP Bomb set @ 8650' |  |                             |                              |                 |
| Approved By Commission:              |  | Conducted By:<br>D. A. Snow | Calculated By:<br>D. A. Snow | Checked By:     |