

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>01-22-82                 |  |
| Company<br>Northwest Pipeline Corporation                                                                                 |  |                         |  | Connection<br>New Completion |  |                                       |  |
| Pool<br>So. Los Pinos                                                                                                     |  |                         |  | Formation<br>Pictured Cliffs |  | Unit<br>San Juan 32-8                 |  |
| Completion Date<br>01-02-82                                                                                               |  | Total Depth<br>6484'    |  | Plug Back TD<br>4117'        |  | Elevation<br>7077'                    |  |
| Csg. Size<br>4.500                                                                                                        |  | Wt.<br>10.5             |  | Set At<br>4140'-6484'        |  | Perforations:<br>From 3978' To 4036'  |  |
| Csg. Size<br>1.660                                                                                                        |  | Wt.<br>2.33             |  | Set At<br>3999'              |  | Perforations:<br>To                   |  |
| Type Well - Single - Broadhead - G.G. or G.O. Multiple<br>Gas - Multiple Completion                                       |  |                         |  |                              |  | Packer Set At<br>4117'                |  |
| Producing Thru<br>Tubing                                                                                                  |  | Reservoir Temp. °F<br>8 |  | Mean Annual Temp. °F         |  | Baro. Press. - P <sub>a</sub><br>12.0 |  |
| L                                                                                                                         |  | H                       |  | Gas est.<br>.594             |  | % CO <sub>2</sub>                     |  |
|                                                                                                                           |  |                         |  |                              |  | % N <sub>2</sub>                      |  |
|                                                                                                                           |  |                         |  |                              |  | % H <sub>2</sub> S                    |  |
|                                                                                                                           |  |                         |  |                              |  | positive<br>choke                     |  |
|                                                                                                                           |  |                         |  |                              |  | Meter Run                             |  |
|                                                                                                                           |  |                         |  |                              |  | Taps                                  |  |

  

| 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>h <sub>w</sub> | Temp.<br>°F     | Press.<br>p.s.i.g. | Temp.<br>°F | Press.<br>p.s.i.g. | Temp.<br>°F |                        |
| SI        |                        |   |                 |                    |                         |                 | 1496               |             | 1496               |             | SIP                    |
| 1.        | 2"                     | X | .750"           | 185                |                         | 42 <sup>0</sup> | 185                |             | 1050               |             | 3 hrs.                 |
| 2.        |                        |   |                 |                    |                         |                 |                    |             |                    |             |                        |
| 3.        |                        |   |                 |                    |                         |                 |                    |             |                    |             |                        |
| 4.        |                        |   |                 |                    |                         |                 |                    |             |                    |             |                        |
| 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                         | 9.604                    |                  | 197                        | 1.018                                  | 1.298                               | 1.015                                         | 2538                    |
| 2.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 3.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 4.                        |                          |                  |                            |                                        |                                     |                                               |                         |
| 5.                        |                          |                  |                            |                                        |                                     |                                               |                         |

  

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

  

| P <sub>c</sub> 1508      P <sub>c</sub> <sup>2</sup> 2274064 |                             |                |                             |                                                           |
|--------------------------------------------------------------|-----------------------------|----------------|-----------------------------|-----------------------------------------------------------|
| NO.                                                          | P <sub>i</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                                                            |                             | 1062           | 1127844                     | 1146220                                                   |
| 2                                                            |                             |                |                             |                                                           |
| 3                                                            |                             |                |                             |                                                           |
| 4                                                            |                             |                |                             |                                                           |
| 5                                                            |                             |                |                             |                                                           |

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9840$

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 4,243$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6717$

  

|                    |       |               |                  |              |
|--------------------|-------|---------------|------------------|--------------|
| Absolute Open Flow | 4,243 | Mcfd @ 15.025 | Angle of Slope @ | Slope, n .75 |
|--------------------|-------|---------------|------------------|--------------|

Remarks: Produced a light mist of water and condensate throughout test. Vented 374 MCF.

  

|                         |                                  |                                  |                               |
|-------------------------|----------------------------------|----------------------------------|-------------------------------|
| Approved By Commission: | Conducted By:<br>Fred S. Hamrick | Calculated By:<br>B.J. Broughton | Checked By:<br><br>B.J.B./skw |
|-------------------------|----------------------------------|----------------------------------|-------------------------------|