

**NEW MEXICO OIL CONSERVATION COMMISSION  
MULTI-POINT BACK PRESSURE TEST FOR GAS WELL**

Form C-122

Revised 12-1-55

|                                                                                                                          |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------|-----------------------|----------------------------------|-----------------------------------------------------------------------|----------------------------------|-----------------------------------------------------------|---------------------------------------------------------------|-------------------------------|-----------------------------|--|
| Pool<br><b>Basin Dakota</b>                                                                                              |                                    |                             |                       | Formation<br><b>Dakota</b>       |                                                                       |                                  |                                                           | County<br><b>San Juan</b>                                     |                               |                             |  |
| Initial<br><b>I</b>                                                                                                      |                                    | Annual                      |                       | Special                          |                                                                       | Date of Test<br><b>1-29-66</b>   |                                                           |                                                               |                               |                             |  |
| Company<br><b>Tenneco Oil Co.</b>                                                                                        |                                    |                             |                       | Lease<br><b>Warren</b>           |                                                                       |                                  |                                                           | Well No.<br><b>1</b>                                          |                               |                             |  |
| Unit<br><b>N</b>                                                                                                         | Sec.<br><b>25</b>                  | Twp.<br><b>28</b>           | Range<br><b>9</b>     |                                  | Purchaser                                                             |                                  |                                                           |                                                               |                               |                             |  |
| Casing<br><b>4.5</b>                                                                                                     | Wt.<br><b>9.5</b><br><b>10.5</b>   | I.D.                        | Set at<br><b>6734</b> |                                  | Perf.<br><b>6991</b>                                                  |                                  | To<br><b>6726</b>                                         |                                                               |                               |                             |  |
| Tubing<br><b>2.375</b>                                                                                                   | Wt.<br><b>4.7</b>                  | I.D.                        | Set at<br><b>6723</b> |                                  | Perf.                                                                 |                                  | To                                                        |                                                               |                               |                             |  |
| Gas Pay:                                                                                                                 | From                               | To                          | L                     | G                                | GL                                                                    | Bar. Press.<br><b>12.0</b>       |                                                           |                                                               |                               |                             |  |
| Producing Through:                                                                                                       |                                    | Casing                      | Tubing<br><b>I</b>    |                                  | Type Well - Single - Braden head - G.G. or G.O. Dual<br><b>Single</b> |                                  |                                                           |                                                               |                               |                             |  |
| Date of Completion                                                                                                       |                                    | Packer                      |                       | Reservoir Temp.<br><b>182</b>    |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| <b>OBSERVED DATA</b>                                                                                                     |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| Tested Through: Prover <input type="checkbox"/> Choke <input checked="" type="checkbox"/> Meter <input type="checkbox"/> |                                    |                             |                       |                                  |                                                                       |                                  |                                                           | Type of Taps                                                  |                               |                             |  |
| <b>FLOW DATA</b>                                                                                                         |                                    |                             |                       |                                  |                                                                       | <b>TUBING DATA</b>               |                                                           | <b>CASING DATA</b>                                            |                               | <b>DURATION OF FLOW HR.</b> |  |
| No.                                                                                                                      | (Prover) (Line) Size               | (Choke) (Orifice) Size      | Press. psig.          | Diff. h <sub>w</sub>             | Temp. °F.                                                             | Press. psig.                     | Temp. °F.                                                 | Press. psig.                                                  | Temp. °F.                     |                             |  |
| 1.                                                                                                                       |                                    |                             |                       |                                  |                                                                       | <b>1655</b>                      |                                                           | <b>2086</b>                                                   |                               | <b>3 Hr.</b>                |  |
| 2.                                                                                                                       |                                    | <b>3/4</b>                  |                       |                                  |                                                                       | <b>277</b>                       | <b>60</b>                                                 | <b>991</b>                                                    |                               |                             |  |
| 3.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| 4.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| 5.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| <b>FLOW CALCULATIONS</b>                                                                                                 |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| No.                                                                                                                      | Coefficient (24 Hour)              | $\sqrt{h_w p_f}$            | Pressure psia         | Flow Temp. Factor F <sub>f</sub> | Gravity Factor F <sub>g</sub>                                         | Compress. Factor F <sub>pv</sub> | Rate of Flow Q-MCF P D @ 15.025 psia                      |                                                               |                               |                             |  |
| 1.                                                                                                                       | <b>12.3650</b>                     |                             | <b>289</b>            | <b>1.0000</b>                    | <b>.9608</b>                                                          | <b>1.030</b>                     | <b>3536</b>                                               |                                                               |                               |                             |  |
| 2.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| 3.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| 4.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| 5.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| <b>PRESSURE CALCULATIONS</b>                                                                                             |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| Gas Liquid Hydrocarbon Ratio _____ cf/bbl.                                                                               |                                    |                             |                       |                                  | Specific Gravity Separator Gas _____                                  |                                  |                                                           |                                                               |                               |                             |  |
| Gravity of Liquid Hydrocarbons _____ deg.                                                                                |                                    |                             |                       |                                  | Specific Gravity Flowing Fluid _____                                  |                                  |                                                           |                                                               |                               |                             |  |
| F <sub>c</sub> _____ (1-e <sup>-S</sup> ) _____                                                                          |                                    |                             |                       |                                  | P <sub>c</sub> <b>2098</b> P <sub>c</sub> <sup>2</sup> <b>4402604</b> |                                  |                                                           |                                                               |                               |                             |  |
| No.                                                                                                                      | P <sub>w</sub> P <sub>t</sub> psia | P <sub>t</sub> <sup>2</sup> | F <sub>c</sub> Q      | (F <sub>c</sub> Q) <sup>2</sup>  | (F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-S</sup> )                  | P <sub>w</sub> <sup>2</sup>      | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | Cal                                                           | P <sub>w</sub> P <sub>c</sub> |                             |  |
| 1.                                                                                                                       | <b>1003</b>                        |                             |                       |                                  |                                                                       | <b>1006009</b>                   | <b>3395795</b>                                            | <b>RECEIVED<br/>FEB 15 1966<br/>OIL CON. COM.<br/>DIST. 3</b> |                               |                             |  |
| 2.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| 3.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| 4.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |
| 5.                                                                                                                       |                                    |                             |                       |                                  |                                                                       |                                  |                                                           |                                                               |                               |                             |  |

ABSOLUTE POTENTIAL: **4295** MCFPD: n **.75** **1.2147**

COMPANY **Tenneco Oil Company** WITNESSED \_\_\_\_\_

ADDRESS **P.O. Box 1714 - Durango, Colorado** COMPANY \_\_\_\_\_

AGENT AND TITLE **J. E. Massey** **J. E. Massey**  
**District Production Engineer**

Company TENNECO OIL COMPANY Lease WARREN Well No. 1  
 Field BASIN DAKOTA County SAN JUAN State NEW MEXICO  
 Formation DAKOTA Test Date JANUARY 29, 1966

Status of Well Shut in 15 days

| DEPTH<br>Feet | PRESSURE<br>Psig | GRADIENT<br>Psi/Ft. |
|---------------|------------------|---------------------|
| 0             | 1655             |                     |
| 3000          | 1828             | 0.058               |
| 5850          | 2261             | 0.152               |
| 6250          | 2431             | 0.425               |
| 6650          | 2601             | 0.425               |
| 6659 Mid-Perf | 2605             | 0.425               |

Datum Pressure Psig

WATER  
 LEVEL  
 5120'

|                         |                    |      |
|-------------------------|--------------------|------|
| Elev. 5884              | Datum              | Ft.  |
| Total Depth 6734        | Perf 6591-6726     | Ft.  |
| Tubing 2 3/8            | in. to 6723        | Ft.  |
| Casing 4 1/2            | in. to 6776        | Ft.  |
| Casing Press. 2086      | Tubing Press. 1655 |      |
| Oil Level               | Water Level 5120   |      |
| Temperature 182         | °F @ 6650          | Ft.  |
| Element No. 11143       | Range 0-5130       |      |
| Last Test Date          |                    |      |
| Pressure Last Test Date |                    | Psig |
| B.H.P. Change           | Psi                |      |

PRESSURE POUNDS PER SQUARE INCH GAUGE

