

NEW MEXICO OIL CONSERVATION COMMISSION  
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form O-122  
Revised 9-1-55

|                                                                                                                           |  |                                       |  |
|---------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------|--|
| Type Test<br><input type="checkbox"/> Initial <input type="checkbox"/> Annual <input checked="" type="checkbox"/> Special |  | Test Date<br>6-27-77                  |  |
| Company<br>CONOCO, INC.                                                                                                   |  | Location<br>NONE                      |  |
| Pool<br>JALMAT                                                                                                            |  | Formation<br>YATES                    |  |
| Completion Date<br>2-10-59                                                                                                |  | Total Depth<br>3192'                  |  |
| Perforations<br>2866' To 2955'                                                                                            |  | Elevation<br>3255' DA                 |  |
| Well No.<br>2                                                                                                             |  | Unit or Loc. Name<br>WELLS A          |  |
| Tubing Size<br>2 7/8"                                                                                                     |  | Casing Size<br>2 1/2"                 |  |
| Tubing Weight<br>15 1/2 #                                                                                                 |  | Casing Weight<br>24 #                 |  |
| Tubing Set At<br>2855'                                                                                                    |  | Casing Set At<br>2855'                |  |
| Type Well - Single - Broadhead - G.C. or G.O. Multiple<br>SINGLE                                                          |  | Packer Set At<br>NONE                 |  |
| Producing thru<br>C3G.                                                                                                    |  | Reservoir Temp. °F<br>80° @ 2967'     |  |
| Mean Annual Temp. °F<br>60°                                                                                               |  | Baro. Press. - P <sub>0</sub><br>13.2 |  |
| State<br>NEW MEXICO                                                                                                       |  | County<br>LEA                         |  |
| L<br>2855'                                                                                                                |  | H<br>2855'                            |  |
| G <sub>g</sub><br>.655                                                                                                    |  | % CO <sub>2</sub><br>1.88             |  |
| % N <sub>2</sub><br>1.67                                                                                                  |  | % H <sub>2</sub> S<br>.47             |  |
| Prover<br>2"                                                                                                              |  | Meter Run<br>FLANGE                   |  |

  

| FLOW DATA |                  |   |              |                 |                      | TUBING DATA |                 | CASING DATA |                 | Duration of Flow |          |
|-----------|------------------|---|--------------|-----------------|----------------------|-------------|-----------------|-------------|-----------------|------------------|----------|
| NO.       | Prover Line Size | x | Orifice Size | Press. p.s.i.g. | Diff. h <sub>w</sub> | Temp. °F    | Press. p.s.i.g. | Temp. °F    | Press. p.s.i.g. |                  | Temp. °F |
| 1         | 2"               | x | 1.250"       | 36              | 3                    | 92          | 630             | 552         | 552             | 552              | 1.102    |
| 2         | 2"               | x | 1.250"       | 37              | 5                    | 92          | 579             | 555         | 555             | 555              | 1.410    |
| 3         | 2"               | x | 1.250"       | 37              | 8                    | 89          | 534             | 463         | 463             | 463              | 1.110    |
| 4         | 2"               | x | 1.250"       | 37              | 14                   | 88          | 448             | 325         | 325             | 325              | 1.400    |

  

| RATE OF FLOW CALCULATIONS |                      |                  |                         |                      |                               |                                         |                     |
|---------------------------|----------------------|------------------|-------------------------|----------------------|-------------------------------|-----------------------------------------|---------------------|
| NO.                       | Coefficient (24.48m) | $\sqrt{h_w P_m}$ | Pressure P <sub>m</sub> | Flow Temp. Factor FL | Gravity Factor F <sub>g</sub> | Super. Compens. Factor, C <sub>pv</sub> | Rate of Flow Q, Mcf |
| 1                         | 8.172                | 9.535            | 36.2                    | .9706                | 1.236                         | NIL                                     | 3.1                 |
| 2                         | 8.172                | 10.643           | 37.2                    | .9733                | 1.236                         | NIL                                     | 1.55                |
| 3                         | 8.172                | 20.048           | 37.2                    | .9732                | 1.236                         | NIL                                     | 1.95                |
| 4                         | 8.172                | 26.510           | 37.2                    | .9741                | 1.236                         | NIL                                     | 2.59                |

  

| NO. | P   | Temp. °R | T <sub>g</sub> | Z   | Gas Liquid Hydrocarbon Ratio | Mc/bbl |
|-----|-----|----------|----------------|-----|------------------------------|--------|
| 1   | .27 | 552      | 1.46           | NIL | DRY .415                     |        |
| 2   | .27 | 550      | 1.46           | NIL | DRY                          |        |
| 3   | .27 | 549      | 1.45           | NIL |                              |        |
| 4   | .27 | 548      | 1.45           | NIL |                              |        |

  

| NO. | P | T <sub>w</sub> | T <sub>g</sub> | T <sub>g</sub> - T <sub>w</sub> | (1) $\frac{P^2}{P^2 - P_w^2}$ | (2) $\left[ \frac{P^2}{P^2 - P_w^2} \right]^n$ |
|-----|---|----------------|----------------|---------------------------------|-------------------------------|------------------------------------------------|
| 1   |   | 643.2          | 413.7          | 229.5                           | 1.712                         | 1.612                                          |
| 2   |   | 592.2          | 350.7          | 241.5                           |                               |                                                |
| 3   |   | 547.2          | 299.4          | 247.8                           |                               |                                                |
| 4   |   | 461.2          | 212.7          | 248.5                           |                               |                                                |

  

|                                           |                 |                 |                  |       |          |      |
|-------------------------------------------|-----------------|-----------------|------------------|-------|----------|------|
| Approx. Slope Factor                      | 4.18            | Mcf @ 15.025    | Angle of Slope @ | 48.4° | Slope, n | .888 |
| Remarks: NO LIQUIDS PRODUCED DURING TEST. |                 |                 |                  |       |          |      |
| NMOCD - HORRIS (2), USGS - HORRIS (2)     |                 |                 |                  |       |          |      |
| Approved by                               | Conducted by    | Checked by      | Checked by       |       |          |      |
|                                           | Tom C. Fliddell | Tom C. Fliddell |                  |       |          |      |