

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

Form C-122  
Revised 9-1-65

**RECEIVED**

|                                                                                                                           |            |                                   |                       |                                               |                        |                                                   |                 |                                           |            |
|---------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------|-----------------------|-----------------------------------------------|------------------------|---------------------------------------------------|-----------------|-------------------------------------------|------------|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |            |                                   |                       |                                               |                        | Test Date<br>6/1/78                               |                 | JUN - 9 1978                              |            |
| Company<br>Gulf Oil Corp. ✓                                                                                               |            |                                   |                       | Connection<br>Air                             |                        |                                                   |                 |                                           |            |
| Pool<br>Burton Flat <i>Morrow</i>                                                                                         |            |                                   |                       | Formation<br>Morrow                           |                        | Unit<br>F <b>O.C.C.</b><br><b>ARTESIA, OFFICE</b> |                 |                                           |            |
| Completion Date<br>5/24/78                                                                                                |            | Total Depth<br>11235              |                       | Plug Back TD<br>11190                         |                        | Elevation<br>3220                                 |                 | Farm or Lease Name<br>Eddy GE State Comm. |            |
| Csg. Size<br>5 1/2                                                                                                        | Wt.<br>17  | d<br>                             | Set At<br>11235       | Perforations:<br>From 10808 To 11102          |                        | Well No.<br>#2                                    |                 |                                           |            |
| Tbg. Size<br>2 3/8                                                                                                        | Wt.<br>4.7 | d<br>                             | Set At<br>10735       | Perforations:<br>From                      To |                        | Unit<br>F                                         |                 | Sec.<br>23                                | Twp.<br>20 |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single                                                         |            |                                   |                       | Packer Set At<br>10735                        |                        | County<br>Eddy                                    |                 |                                           |            |
| Producing Thru<br>Tbg                                                                                                     |            | Reservoir Temp. °F<br>181 @ 10735 |                       | Mean Annual Temp. °F<br>                      |                        | Baro. Press. - P <sub>a</sub><br>                 |                 | State<br>N.M.                             |            |
| L<br>10735                                                                                                                | H<br>10735 | G <sub>g</sub><br>.628            | % CO <sub>2</sub><br> | % N <sub>2</sub><br>                          | % H <sub>2</sub> S<br> | Prover<br>                                        | Meter Run<br>4" | Taps<br>Flg.                              |            |

  

| 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 |                  |
| SI        |                  |   |              |                 |                      |          | 3375            |          |                 |          | 72 hr.           |
| 1.        | 4                | X | .750         | 575             | 9.0                  | 87       | 3195            |          |                 |          | 1 hr.            |
| 2.        | 4                | X | .750         | 600             | 21.0                 | 95       | 3075            |          |                 |          | 1 hr.            |
| 3.        | 4                | X | .750         | 598             | 42.0                 | 94       | 2885            |          |                 |          | 1 hr.            |
| 4.        | 4                | X | .750         | 595             | 84.0                 | 94       | 2630            |          |                 |          | 1 hr.            |
| 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                         | 2.661                 | 72.76            | 588.2                   | .9750                 | 1.262                         | 1.048                                    | 250                  |
| 2                         | 2.661                 | 113.48           | 613.2                   | .9680                 | 1.262                         | 1.048                                    | 387                  |
| 3                         | 2.661                 | 160.22           | 611.2                   | .9688                 | 1.262                         | 1.047                                    | 546                  |
| 4                         | 2.661                 | 226.03           | 608.2                   | .9688                 | 1.262                         | 1.047                                    | 770                  |
| 5                         |                       |                  |                         |                       |                               |                                          |                      |

  

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</sub> | Z    | Gas Liquid Hydrocarbon Ratio _____ Dry _____ Mcf/bbl. |  |
|-----|----------------|----------|----------------|------|-------------------------------------------------------|--|
| 1.  | .88            | 547      | 1.49           | .911 | A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.      |  |
| 2.  | .92            | 555      | 1.51           | .911 | Specific Gravity Separator Gas .628 X X X X X X X X   |  |
| 3.  | .91            | 554      | 1.51           | .912 | Specific Gravity Flowing Fluid X X X X X              |  |
| 4.  | .91            | 554      | 1.51           | .912 | Critical Pressure 670 P.S.I.A. _____ P.S.I.A.         |  |
| 5.  |                |          |                |      | Critical Temperature 368 R _____ R                    |  |

  

|                                                 |                             |
|-------------------------------------------------|-----------------------------|
| P <sub>c</sub> 3388.2    P <sub>w</sub> 11479.9 |                             |
| NO.                                             | P <sub>r</sub> <sup>2</sup> |
| 1                                               | 3209.3                      |
| 2                                               | 3089.0                      |
| 3                                               | 2900.6                      |
| 4                                               | 2651.9                      |
| 5                                               |                             |

  

|                             |                                                           |                                           |                                                            |
|-----------------------------|-----------------------------------------------------------|-------------------------------------------|------------------------------------------------------------|
| P <sub>w</sub> <sup>2</sup> | P <sub>c</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> | (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.581$ | (2) $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.260$ |
| 10299.6                     | 1180.3                                                    |                                           |                                                            |
| 9541.9                      | 1938.0                                                    |                                           |                                                            |
| 8413.5                      | 3066.4                                                    |                                           |                                                            |
| 7032.6                      | 4447.3                                                    |                                           |                                                            |

  

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.741$

*Peaked first  
AD 24  
6-16-78  
SE*

  

|                    |       |                |                  |        |          |      |
|--------------------|-------|----------------|------------------|--------|----------|------|
| Absolute Open Flow | 1.741 | Mcf/d @ 15.025 | Angle of Slope ° | 49.25° | Slope, n | .860 |
| Remarks:           |       |                |                  |        |          |      |

  

|                         |                             |                               |             |
|-------------------------|-----------------------------|-------------------------------|-------------|
| Approved By Commission: | Conducted By:<br>John Davis | Calculated By:<br>Larry Davis | Checked By: |
|-------------------------|-----------------------------|-------------------------------|-------------|