

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

Form C-122  
Revised 5-1-66

CASE NO. 22

RECEIVED

|                                                                                                                           |  |                 |  |                                     |  |                            |  |                            |  |
|---------------------------------------------------------------------------------------------------------------------------|--|-----------------|--|-------------------------------------|--|----------------------------|--|----------------------------|--|
| Type Test<br><input checked="" type="checkbox"/> Initial <input type="checkbox"/> Annual <input type="checkbox"/> Special |  |                 |  |                                     |  | Test Date<br>11/18/81      |  | NOV 25 1981                |  |
| Company<br>Gulf Oil Corp. ✓                                                                                               |  |                 |  | Location<br>El Paso Natural Gas Co. |  |                            |  |                            |  |
| Well<br>Burton Flat                                                                                                       |  |                 |  | Formation<br>Morrow                 |  |                            |  | User<br>O. C. D.           |  |
| Completion Date<br>11/5/81                                                                                                |  |                 |  | Total Depth<br>11425                |  | Perforation<br>11175       |  | Elevation<br>GL 3317       |  |
| Well No.<br>2                                                                                                             |  |                 |  | Perforation<br>From 11018 To 11140  |  |                            |  | Eddy FV St. Cont.          |  |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple<br>Single Gas                                                     |  |                 |  | Packer Set At<br>10962              |  |                            |  | County<br>Eddy             |  |
| Producing Thru<br>Tbg.                                                                                                    |  |                 |  | Reservoir Temp. °F<br>184 @ 10962   |  | Mean Annual Temp. °F<br>60 |  | State<br>NM                |  |
| L<br>10962                                                                                                                |  | H<br>10962      |  | G <sub>g</sub><br>.7033             |  | % CO <sub>2</sub><br>9.478 |  | % H <sub>2</sub> S<br>.500 |  |
| Prover                                                                                                                    |  | Meter Run<br>4" |  | Temp.<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 |
| 51        |                  |   |              |                 |                      |             | 3090            |             |                 |                  | 72 hrs.  |
| 1.        | 4 X 1.000        |   |              | 450             | 10.0                 | 96          | 2945            |             |                 |                  | 1 hrs.   |
| 2.        | 4 X 1.000        |   |              | 450             | 18.0                 | 94          | 2800            |             |                 |                  | 1 hrs.   |
| 3.        | 4 X 1.000        |   |              | 455             | 45.0                 | 88          | 2530            |             |                 |                  | 1 hrs.   |
| 4.        | 4 X 1.000        |   |              | 455             | 86.0                 | 100         | 2180            |             |                 |                  | 1 hrs.   |
| 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 Fg | Super. Compress. Factor, F <sub>pv</sub> | Rate of Flow Q, Mscf/d |
| 1                         | 4.753                 | 68.06            | 463.2                   | .9671                | 1.193             | 1.037                                    | 387                    |
| 2                         | 4.753                 | 91.31            | 463.2                   | .9688                | 1.193             | 1.038                                    | 521                    |
| 3                         | 4.753                 | 145.15           | 468.2                   | .9741                | 1.193             | 1.039                                    | 833                    |
| 4                         | 4.753                 | 200.66           | 468.3                   | .9636                | 1.193             | 1.036                                    | 1136                   |
| 5                         |                       |                  |                         |                      |                   |                                          |                        |

  

| NO. | P <sub>f</sub> | Temp. °R | T <sub>f</sub> | Z    | Gas Liquid Hydrocarbon Ratio | A.P.I. Gravity of Liquid Hydrocarbons | Specific Gravity Separator Gas | Specific Gravity Flowing Fluid | Critical Pressure | Critical Temperature |
|-----|----------------|----------|----------------|------|------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------|----------------------|
| 1   | .66            | 556      | 1.48           | .930 | dry                          |                                       |                                |                                | 707               | 376                  |
| 2   | .66            | 554      | 1.47           | .929 |                              |                                       |                                |                                |                   |                      |
| 3   | .66            | 548      | 1.46           | .927 |                              |                                       |                                |                                |                   |                      |
| 4   | .66            | 560      | 1.49           | .932 |                              |                                       |                                |                                |                   |                      |
| 5   |                |          |                |      |                              |                                       |                                |                                |                   |                      |

  

| NO. | P <sub>f</sub> | P <sub>w</sub> | P <sub>w</sub> ' | P <sub>f</sub> <sup>2</sup> - P <sub>w</sub> <sup>2</sup> |
|-----|----------------|----------------|------------------|-----------------------------------------------------------|
| 1   |                | 2958.2         | 8750.9           | 878.9                                                     |
| 2   |                | 2816.6         | 7933.2           | 1696.6                                                    |
| 3   |                | 2549.5         | 6500.0           | 3129.9                                                    |
| 4   |                | 2204.4         | 4859.4           | 4770.5                                                    |
| 5   |                |                |                  |                                                           |

  

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 2.019$

ADP = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.917$

(2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.688$

  

|                    |       |                 |                |        |          |      |
|--------------------|-------|-----------------|----------------|--------|----------|------|
| Absolute Open Flow | 1,917 | Mscf/d @ 15.025 | Angle of Slope | 53.25° | Slope, n | .745 |
|--------------------|-------|-----------------|----------------|--------|----------|------|

  

Remarks:

  

|                        |                      |                |             |
|------------------------|----------------------|----------------|-------------|
| Approved By Commission | Contacted By:        | Calculated By: | Checked By: |
|                        | Davis Services, Inc. | Rick Pagan     |             |

Posted ID  
 + Comp. Back  
 SI  
 12-4-81