

Pool Emmet Form 30 Queen Lea  
 Initial X Annual 9-21-56  
 Company Gulf Oil Corporation Sunshine No. 2  
 Unit N Sec. 30 Twp 20S R. 37E Meridian Basin FL Co.  
 Casing 5-1/2" Wt. 17.0# I.D. 4.892" Set 3722' 3310' 3522'  
 Tubing 2-3/8" Wt. 4.7# I.D. 1.995" Set 3588'  
 Gas Pay: From 3310 To 3522 3310 0.670 2218 Bar.Press. 13.2  
 Producing Thru: Casing X Single Completion  
 Date of Completion: 6-28-55 Packer No Bar.Press.

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps Pipe

| No. | Flow Data            |                        |             |           |           | Casing Data |           | Duration of Flow Hr. |
|-----|----------------------|------------------------|-------------|-----------|-----------|-------------|-----------|----------------------|
|     | (Prover) (Line) Size | (Choke) (Orifice) Size | Press. psig | Temp. °F. | Temp. °F. | Press. psig | Temp. °F. |                      |
| SI  |                      |                        |             |           |           | 953.3       |           | 72                   |
| 1.  | 4                    | 2.50                   | 460.0       | 5.5       | 67        | 881.5       |           | 24                   |
| 2.  | 4                    | 2.50                   | 463.9       | 10.8      | 60        | 868.2       |           | 24                   |
| 3.  | 4                    | 2.50                   | 469.2       | 21.1      | 58        | 813.6       |           | 24                   |
| 4.  | 4                    | 2.50                   | 466.0       | 33.4      | 58        | 811.0       |           | 24                   |
| 5.  |                      |                        |             |           |           |             |           |                      |

| No. | Coefficient (24-Hour) | Y      | Q     | Q      | Q      | Q     | Rate of Flow Q-MCFPD @ 15.025 psia |
|-----|-----------------------|--------|-------|--------|--------|-------|------------------------------------|
| 1.  | 54.44                 | 51.02  | 473.2 | 0.9933 | 0.9463 | 1.044 | 2723                               |
| 2.  | 54.44                 | 78.78  | 477.1 | 1.0000 | 0.9463 | 1.046 | 3868                               |
| 3.  | 54.44                 | 100.90 | 482.1 | 1.0019 | 0.9463 | 10.48 | 5458                               |
| 4.  | 54.44                 | 126.50 | 479.2 | 1.0019 | 0.9463 | 1.048 | 6843                               |
| 5.  |                       |        |       |        |        |       |                                    |

CO2 = 2.91%  
 N2 = 1.75%

Gas Liquid Hydrocarbon Ratio 1.812 (1-lb-5)  
 Gravity of Liquid Hydrocarbons 0.112  
 Gravity Separator Gas 966.5 934.1

| No. | P <sub>t</sub> (psia) | P <sub>w</sub> | P <sub>c</sub> | P <sub>h</sub> | P <sub>h</sub> | P <sub>h</sub> | Cal. P <sub>w</sub> | P <sub>h</sub> /P <sub>c</sub> |
|-----|-----------------------|----------------|----------------|----------------|----------------|----------------|---------------------|--------------------------------|
| 1.  | 894.7                 | 800.5          | 4.940          | 24.40          | 3.465          | 804.0          | 130.1               | .93                            |
| 2.  | 881.4                 | 776.9          | 7.009          | 49.13          | 6.976          | 783.9          | 150.2               | .92                            |
| 3.  | 856.8                 | 734.1          | 9.890          | 97.81          | 13.890         | 748.0          | 186.1               | .89                            |
| 4.  | 824.2                 | 679.3          | 12.400         | 153.8          | 21.840         | 701.1          | 233.0               | .87                            |
| 5.  |                       |                |                |                |                |                |                     |                                |

Absolute Potential: 27,434 1.00  
 COMPANY Gulf Oil Corporation  
 ADDRESS Box 2167, Hobbs, N. .  
 AGENT and TITLE \_\_\_\_\_  
 WITNESSED \_\_\_\_\_  
 COMPANY \_\_\_\_\_

Retest. Average slope in excess of 1.00. Slope of 1.00 drawn through highest rate of flow

100-100-100  
 100-100-100

## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.). psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.). psia

$P_f$  = Meter pressure, psia

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressibility factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .