

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

Form C-122  
Revised 9-1-65

RECEIVED

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Type Test ☒ Initial ☐ Annual ☐ Special Test Date 7-22-74 AUG 8 1974

Company MOBIL OIL CORP. Connection — O.C.C.  
ARTESIA, OFFICE

Pool UNDESIGNATED Formation MORROW Unit —

Completion Date 7-15-74 Total Depth 15,585' Plug Back TD 13,717' Elevation 3101 G.L. Farm or Lease Name CORRAL DRAW UNIT

Casing Size 7" Wt. 31.31 lb/ft d 6.094 Set At 14414 Perforations: From 13,621' To 13,702' Well No. 1

Reg. Size 2 7/8" Wt. N-80 d 2.441 Set At 13520 Perforations: From — To — Unit K, 14, 25.5, 29-E

Type Well SINGLE Packer Set At 13520' County EDDY

Producing Thru TUBING Reservoir Temp. °F 200° Mean Annual Temp. °F 60° Baro. Press. - P<sub>a</sub> 13.2 State NEW MEXICO

L 13570 H 13660 G<sub>g</sub> 0.523 % CO<sub>2</sub> 0.77 % N<sub>2</sub> 0.79 % H<sub>2</sub>S — Prover — Meter Run 4" Taps FLANGE

| FLOW DATA |                  |   |              |                 |                            |          | TUBING DATA     |          | CASING DATA     |          | Duration of Flow |
|-----------|------------------|---|--------------|-----------------|----------------------------|----------|-----------------|----------|-----------------|----------|------------------|
| NO.       | Prover Line Size | X | Orifice Size | Press. p.s.i.g. | Diff. In. H <sub>2</sub> O | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F |                  |
| S.        |                  |   |              |                 |                            |          | 5960            |          | 1300            |          | 156 hrs          |
| 1.        | 4 x 2.5          |   |              | 645             | 4                          | 95       | 5207            | 60       | 1500            |          | 1 hr             |
| 2.        | 4 x 2.5          |   |              | 750             | 12                         | 79       | 4805            | 60       | 1500            |          | 1 hr             |
| 3.        | 4 x 2.5          |   |              | 750             | 27                         | 70       | 4555            | 60       | 1500            |          | 1 hr             |
| 4.        | 4 x 2.5          |   |              | 750             | 56                         | 72       | 3858            | 60       | 1500            |          | 1 hr             |
| 5.        | 4 x 2.5          |   |              | 750             | 56                         | 72       | 3600            | 60       | 1500            |          | 24 hrs           |

| 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>sp</sub> | Rate of Flow Q, Mcfd |
| 1.                        | 33.29                 | 51.31            | 652.2                   | 0.9474                | 1.3096                        | 1.0394                                  | 2251                 |
| 2.                        | 33.29                 | 117.20           | 763.2                   | 0.9222                | 1.3096                        | 1.0512                                  | 5280                 |
| 3.                        | 33.29                 | 143.54           | 763.2                   | 0.9205                | 1.3096                        | 1.0555                                  | 6544                 |
| 4.                        | 33.29                 | 206.73           | 763.2                   | 0.9226                | 1.3096                        | 1.0547                                  | 9399                 |
| 5.                        | 33.29                 | 206.72           | 763.2                   | 0.9226                | 1.3096                        | 1.0547                                  | 9399                 |

| NO. | P <sub>r</sub> | Temp. °R | T <sub>r</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.  | 0.97           | 555      | 1.60           | 0.925 |                              |                                       | 0.533                          |                                |                   |                      |
| 2.  | 1.13           | 539      | 1.55           | 0.923 |                              |                                       |                                |                                |                   |                      |
| 3.  | 1.13           | 539      | 1.53           | 0.921 |                              |                                       |                                |                                |                   |                      |
| 4.  | 1.13           | 532      | 1.53           | 0.922 |                              |                                       |                                |                                |                   |                      |
| 5.  | 1.13           | 532      | 1.53           | 0.922 |                              |                                       |                                |                                |                   |                      |

(1)  $\frac{P_c^2}{P_c^2 - P_w^2} = 1.838$  (2)  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.076$

NO. 1 2 3 4 5

$P_c^2$  27250.4 23195.7 20822.4 14986.1 14034.0

$P_w^2$  5.2224 4365.8 4141.4 4034.0 16273.7

$R_w^2$  2756.2 23647.1 28543.4 14132.6 19403.3

$P_c^2 - P_w^2$  21727.6 18829.9 16681.0 10952.1 24130.3

AOF = Q  $\left[ \frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 19517$

Absolute Open Flow 19517 Mcfd @ 15.025 Angle of Slope 39.811 Slope, n 1.179

Remarks: —

Approved By Commission: — Conducted By: A.R. ALAMEDDINE Calculated By: K.W. LEWIS Checked By: A.R. ALAMEDDINE

AR 11/1/74