W MEXICO OIL CONSERVATION CON SION

Form C-122
Revised 1-1-65

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED
JUL 2 1974
O. C. C.
ARTESIA, OFFICE

| | | | | | |
|---|---|---|---|---|---|
| Type Test: XX Initial ☐ Annual ☐ Special | | | | Test Date: 5/28/74 | |
| Company: Penroc Oil Corporation | | Connection: None | | | Unit: B |
| Pool: | | Formation: Wolfcamp | | | |
| Completion Date: | Total Depth: 11,100 | | Plug Back TD: 10,900 | Elevation: | Farm or Lease Name: Allied COM |
| Csg. Size: 4½ / Wt.: 16.25 / d: / Set At: 11,100 | | | Perforations: From 8540 To 8623 | | Well No.: 1 |
| Tbg. Size: 2 3/8 / Wt.: / d: / Set At: 10,580 | | | Perforations: From To | | Unit: B / Sec.: 27 / Twp.: 20 / Rge.: 27 |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Dual Gas-Gas | | | Packer Set At: Upper 8464 Lower 10580 | | County: Eddy |
| Producing Thru: Tbg. | Reservoir Temp. °F: 159° @ 8540 | Mean Annual Temp. °F: | Baro. Press. – $P_a$: | | State: New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 8540 | 8540 | .683 | | | | | 3" | Flg. |

| | FLOW DATA | | | | TUBING DATA | | CASING DATA | | |
|---|---|---|---|---|---|---|---|---|---|
| NO. | Prover Line Size X Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | Press. p.s.i.g. | Temp. °F | Press. p.s.i.g. | Temp. °F | Duration of Flow |
| SI | | | | | 2167 | | | | |
| 1. | 3 x 1.500 | 500 | 7.0 | 83 | 1925 | 87 | | | 1 hr. |
| 2. | 3 x 1.500 | 500 | 9.0 | 65 | 1748 | 84 | | | 1 hr. |
| 3. | 3 x 1.500 | 500 | 24.0 | 69 | 1537 | 82 | | | 1 hr. |
| 4. | 3 x 1.500 | 500 | 39.0 | 70 | 1369 | 82 | | | 1 hr. |
| 5. | | | | | | | | | |

## RATE OF FLOW CALCULATIONS

| NO. | Coefficient (24 Hour) | $\sqrt{h_w P_m}$ | Pressure $P_m$ | Flow Temp. Factor Ft. | Gravity Factor Fg | Super Compress. Factor, Fpv | Rate of Flow Q, Mcfd |
|---|---|---|---|---|---|---|---|
| 1 | 11.13 | 59.94 | 513.2 | .9786 | 1.210 | 1.051 | 830 |
| 2 | 11.13 | 67.96 | 513.2 | .9952 | 1.210 | 1.060 | 965 |
| 3 | 11.13 | 110.98 | 513.2 | .9915 | 1.210 | 1.058 | 1568 |
| 4 | 11.13 | 141.47 | 513.2 | .9905 | 1.210 | 1.056 | 1993 |
| 5 | | | | | | | |

| NO. | $P_t$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1 | .77 | 543 | 1.41 | .905 |
| 2 | .77 | 525 | 1.36 | .890 |
| 3 | .77 | 529 | 1.37 | .893 |
| 4 | .77 | 530 | 1.38 | .896 |
| 5 | | | | |

Gas Liquid Hydrocarbon Ratio 12,481 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 51.6 @ 60° Deg.
Specific Gravity Separator Gas .683 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX G Mix = .914
Critical Pressure 669 P.S.I.A. 662 P.S.I.A.
Critical Temperature 385 R 461 R

$P_c$ 2180.2 $P_c^2$ 4753.3

| NO | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|
| 1 | 1939.6 | 3761.9 | 991.4 |
| 2 | 1763.3 | 3109.1 | 1644.2 |
| 3 | 1556.2 | 2421.7 | 2331.6 |
| 4 | 1393.0 | 1940.5 | 2812.8 |
| 5 | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.690$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.690$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3.368$

Absolute Open Flow 3,368 Mcfd @ 15.025 Angle of Slope θ 45 Slope, n 1.000

Remarks: 17.88 Bbls. of distillate made during test.

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Rick Pagan, Reggie Reston | Pagan, Reston | |