NEW MEXICO OIL CONSERVATION COMMSSION

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: [X] Initial [ ] Annual [ ] Special — Test Date: 4-29-85

Company: Amoco Production Company — Connection:

Pool: Bravo Dome Carbon Dioxide Gas Unit 640 Acre Area — Formation: Tubb — Unit: BDCDGU

| Completion Date | Total Depth | Plug Back TD | Elevation | Farm or Lease Name |
|---|---|---|---|---|
| 11/3/83 | 2572 | 2517 | 4834 GL | |

| Csg. Size | Wt. | d | Set At | Perforations | Well No. |
|---|---|---|---|---|---|
| 7 | 20 | | 2572 | From 2242 To 2444 | 2034 071G |
| Tbg. Size | Wt. | d | Set At | Perforations | Unit / Sec. / Twp. / Rge. |
| 3.5 | 9.3 | | 2171 | From To | G / 7 / 20 / 34 |

| Type Well – Single – Bradenhead – G.G. or G.O. Multiple | Packer Set At | County |
|---|---|---|
| Single | 2153 | Union |

| Producing Thru | Reservoir Temp. °F | Mean Annual Temp. °F | Baro. Press. – $P_a$ | State |
|---|---|---|---|---|
| Tubing | 90 @ 2343 | 50 | 12.2 | New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 2343 | 2343 | 1.529 | 100 | 0 | 0 | | 4.0 | Flange |

| NO. | FLOW DATA: Prover Line Size X Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | TUBING DATA: Press. p.s.i.g. | Temp. °F | CASING DATA: Press. p.s.i.g. | Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | 312 | | | | |
| 1. | 4.026 x 1.500 | 261 | 2 | 57 | 270 | 50 | | | 24 hr |
| 2. | 4.026 x 1.500 | 235 | 7 | 58 | 243 | 50 | | | 24 hr |
| 3. | 4.026 x 1.500 | 213 | 14 | 59 | 222 | 50 | | | 24 hr |
| 4. | 4.026 x 1.500 | 192 | 23 | 58 | 202 | 50 | | | 24 hr |
| 5. | | | | | | | | | 24 hr |

## 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 | | | | | | | |
| 2. | | | | | | | 285 |
| 3. | | | | | | | 510 |
| 4 | | | | | | | 697 |
| 5. | | | | | | | 854 |

| NO. | $P_t$ | Temp. °R | $T_r$ | Z |
|---|---|---|---|---|
| 1 | | | | |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5 | | | | |

Gas Liquid Hydrocarbon Ratio 0 Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons 0 Deg.
Specific Gravity Separator Gas 1.529 XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX
Critical Pressure 1072 P.S.I.A. ____ P.S.I.A.
Critical Temperature 547 R ____ R

$P_c$ 324.2 $P_c^2$ 105.106

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 282.2 | | 25.469 |
| 2 | | 255.2 | | 39.979 |
| 3 | | 234.2 | | 50.256 |
| 4 | | 214.2 | | 59.224 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.09$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2.09$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1458$

Absolute Open Flow 1458 Mcfd @ 15.025 — Angle of Slope θ ____ — Slope, n 1.0

Remarks:

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | | D. R. White | |