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: 5-30-85 | |
| Company: Amoco Production Company | | Connection: | | | |
| Pool: Bravo Dome Carbon Dioxide Gas Unit 640-acre area | | Formation: Tubb | | | Unit: BDCDGU |
| Completion Date: 9-4-81 | Total Depth: 2748' | Plug Back TD: 2605 | | Elevation: 4803' | Farm or Lease Name: |
| Csg. Size: 7" / Wt.: 20# / d: / Set At: 2748' | | Perforations: From 2157' To 2337' | | | Well No.: 1834 011G |
| Tbg. Size: 2-3/8" / Wt.: 4.7# / d: / Set At: 2034 | | Perforations: From To | | | Unit: G / Sec.: 1 / Twp.: 18 / Rge.: 34 |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single | | | Packer Set At: 2027' | | County: Union |
| Producing Thru: Tubing | Reservoir Temp. °F: 80° @ 2247' | Mean Annual Temp. °F: 50 | Baro. Press. – $P_a$: 12.2 | | State: New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 2247' | 2247' | 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 | | | | | 307 | | | | |
| 1. | 4.026 x 2.75 | 205 | 32 | 52 | 217.2 | 50 | | | 24 hrs |
| 2. | 4.026 x 2.75 | 222 | 26 | 54 | 234.2 | 50 | | | 24 hrs |
| 3. | 4.026 x 2.75 | 249 | 17 | 56 | 261.2 | 50 | | | 24 hrs |
| 4. | 4.026 x 2.75 | 271 | 11 | 57 | 283.2 | 50 | | | 24 hrs |
| 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 | | | | | | | 2891 |
| 2 | | | | | | | 2704 |
| 3 | | | | | | | 2322 |
| 4 | | | | | | | 1951 |
| 5 | | | | | | | |

| NO. | $P_r$ | 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

$P_c$ 319.2 $P_c^2$ 101.889

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 217.2 | | 54.713 |
| 2 | | 234.2 | | 47.039 |
| 3 | | 261.2 | | 33.663 |
| 4 | | 283.2 | | 21.686 |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.86$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.30$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 3753$

Absolute Open Flow 3753 Mcfd @ 15.025 Angle of Slope θ Slope, n .42

Remarks:

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | | D. D. Kimble | |