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: 03-30-77 | |
| Company: Merrion & Bayless | Connection: | | | |
| Pool: N.I.P.P. | Formation: Picture Cliff | | Unit: | |
| Completion Date: 03-03-77 | Total Depth: 1350' | Plug Back TD: 1187' | Elevation: 5989' | Farm or Lease Name: Chaco |
| Csg. Size: 2-7/8" / Wt.: 6.5#/ft. / d: 2.441 / Set At: 1340' | | Perforations: From 1113' To 1139' | | Well No.: 1 |
| Tbg. Size: / Wt.: / d: / Set At: | | Perforations: From To | | Unit: F / Sec.: 18 / Twp.: 26N / Rge.: 12W |
| Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single (no tubing) | | Packer Set At: | | County: San Juan |
| Producing Thru: Casing | Reservoir Temp. °F: 76.9° @ 1126' | Mean Annual Temp. °F: 50°F | Baro. Press. – $P_a$: 12.2 PSIA | State: New Mexico |

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| 1126 | 1126 | 0.65 est. | | | | 2" | | |

## FLOW DATA / TUBING DATA / CASING DATA

| NO. | Prover Line Size | X Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | Tubing Press. p.s.i.g. | Tubing Temp. °F | Casing Press. p.s.i.g. | Casing Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|---|
| SI | 7 days | | | | | | | 231 | 58° | |
| 1. | 2" | 3/4" | 16 PSIG | | | | | 17 PSIG | 59.5° | .50 Hrs. |
| 2. | | | | | | | | | | |
| 3. | | | | | | | | | | |
| 4. | | | | | | | | | | |
| 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 | 9.453 | | 29.2 | 1.0005 | 1.240 | 1.003 | 344 |
| 2. | | | | | | | |
| 3. | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

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

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

$P_c$ 243.2 $P_c^2$ 59146

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | 942 | 34.2 | 1,167 | 57,979 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{59,146}{57,979} = 1.020^{(.85)}$ $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.017$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 350 MCF/day

Absolute Open Flow 350 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n 0.85

Remarks:

| Approved By Commission: | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Steven S. Dunn | Steven S. Dunn | Robert L. Bayless |