NEW MEXICO OIL CONSERVATION COMMISSION

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 2-1-65

| | | | | | |
|---|---|---|---|---|---|
| Type Test: [X] Initial [ ] Annual | | | Test Date: 11-12-77 | | |
| Company: Aztec Oil & Gas Company | | Connection: Southern Union Gathering | | | |
| Pool: Aztec | | Formation: Pictured Cliffs | | Unit: | |
| Completion Date: 10-27-77 | Total Depth: 2237' | Plug Back TD: 2197' | Elevation: 5702' GR | Farm or Lease Name: Cain | |
| Csg. Size: 2.875 / Wt.: 6.4# / d: 2.441 / Set At: 2237' | | Perforations: From 2076' To 2106' | | Well No.: #21 | |
| Tbg. Size: ---- / Wt.: -- - / d: --- / Set At: -- | | Perforations: From --- To --- | | Unit: P / Sec.: / Twp.: 30-T29N- / Rge.: R9W | |
| Type Well - Single - Bradenhead - G.G. or G.O. Multiple: Single | | Packer Set At: | | County: San Juan | |
| Producing Thru: Csg. | Reservoir Temp. °F: | Mean Annual Temp. °F: | Baro. Press. - $P_a$: 12.2 | State: New Mexico | |
| L: | H: | Gg: .700 | % $CO_2$: | % $N_2$: | % $H_2S$: |
| Prover: | Meter Run: | Taps: | | | |

## FLOW DATA

| NO. | Prover Line Size X Orifice Size | Press. p.s.i.g. | Diff. $h_w$ | Temp. °F | TUBING DATA Press. p.s.i.g. | TUBING DATA Temp. °F | CASING DATA Press. p.s.i.g. | CASING DATA Temp. °F | Duration of Flow |
|---|---|---|---|---|---|---|---|---|---|
| SI | | | | | 576 | | | | |
| 1. | 2" X 3/4" | | | | 118 | | | | 1 hr |
| 2. | | | | | 89 | | | | 2 hrs |
| 3. | | | | | 74 | | | | 3 hrs |
| 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 | 12.365 | | 86.2 | 1.0000 | .9258 | 1.0000 | 987 |
| 2 | | | | | | | |
| 3 | | | | | | | |
| 4. | | | | | | | |
| 5. | | | | | | | |

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

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

$P_c$ 588.2 $P_c^2$ 345,979

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 86.2 | 7,430 | 338,549 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0219$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0186$

AOF = $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n$ = 1,005

Absolute Open Flow 1,005 Mcfd @ Angle of Slope Slope, n .85

Remarks:

Approved By Commission: | Conducted By: Dwayne Horton | Calculated By: James Smith | Checked By: