STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

# MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

| Type Test | | | Test Date | |
|---|---|---|---|---|
| [X] Initial | [ ] Annual | [ ] Special | 5-17-81 | |

| Company | Connection | | |
|---|---|---|---|
| Southland Royalty Company | Southern Union Gathering | | |
| **Pool** | **Formation** | | **Unit** |
| Bloomfield | Chacra | | |

| Completion Date | Total Depth | Plug Back TD | Elevation | Farm or Lease Name |
|---|---|---|---|---|
| 3-02-81 | 6385' | 2642' | 5495' GR | Mangum |

| Csg. Size | Wt. | d | Set At | Perforations: | Well No. |
|---|---|---|---|---|---|
| 5.500 | 15.50# | 4.950 | 6385' | From 2642' To 2761' | 4-E |

| Tbg. Size | Wt. | d | Set At | Perforations: | Unit | Sec. | Twp. | Rge. |
|---|---|---|---|---|---|---|---|---|
| 1.900 | 2.76# | 1.610 | 2760' | From To | O | 28 | 29N | 11W |

| Type Well – Single – Bradenhead – G.G. or G.O. Multiple | Packer Set At | County |
|---|---|---|
| Multiple - G.G. | 2869' | San Juan |

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

| L | H | Gg | % $CO_2$ | % $N_2$ | % $H_2S$ | Prover | Meter Run | Taps |
|---|---|---|---|---|---|---|---|---|
| | | .700 | | | | | | |

| | 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 | | | | | | 956 | | 956 | | |
| 1. | 2" | X 3/4" | | | | 129 | | 544 | | 1 hr |
| 2. | | | | | | 109 | | 474 | | 2 hrs |
| 3. | | | | | | 98 | | 426 | | 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 | | 110.2 | 1.0000 | .9258 | 1.0000 | 1262 |
| 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

$P_c$ 968.2 $P_c^2$ 937411.2

| NO | $P_t^2$ | $P_w$ | $P_w^2$ | $P_c^2 - P_w^2$ |
|---|---|---|---|---|
| 1 | | 438.2 | 192019.2 | 745392 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2576$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.2151$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1533$

Absolute Open Flow 1533 Mcfd @ 15.025 | Angle of Slope θ _____ | Slope, n .85

Remarks: _____

| Approved By Division | Conducted By: | Calculated By: | Checked By: |
|---|---|---|---|
| | Tom Wagner | James Smith | L. O. Van Ryan |