Form C-122-A

Revised April 20, 1955

NEW MEXICO OIL CONSERVATION COMMISSION

# GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, PICTURED CLIFFS, MESAVERDE, & ALL DAKOTA EXCEPT BARKER DOME STORAGE AREA)

Pool Devils Fork Formation Gallup County Rio Arriba

Purchasing Pipeline Southern Union Gas Company Date Test Filed 7/28/60

Operator Killarney Oil Company Lease Brown Well No. 1-24

Unit J Sec. 24 Twp. 24N Rge. 7W Pay Zone: From 5246 To 5520

Casing: OD 5½ WT. 14 Set At 5616 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 5515

Produced Through: Casing ____ Tubing X Gas Gravity: Measured 0.689 Estimated ____

Date of Flow Test: From 6/24/60 To 7/1/60 * Date S.I.P. Measured 7/8/60

Meter Run Size 4.067 Orifice Size 1.000 Type Chart 1-10 Type Taps Fl.

## OBSERVED DATA

| | | | | | |
|---|---|---|---|---|---|
| Flowing casing pressure (Dwt) | 473 | psig + 12 = | 485 | psia | (a) |
| Flowing tubing pressure (Dwt) | 425 | psig + 12 = | 437 | psia | (b) |
| Flowing meter pressure (Dwt) | 425 | psig + 12 = | 437 | psia | (c) |
| Flowing meter pressure (meter reading when Dwt. measurement taken): | | | | | |
| Normal chart reading | | psig + 12 = | | psia | (d) |
| Square root chart reading (6.6)$^2$ x spring constant 10.0 | | = | 436 | psia | (d) |
| Meter error (c) - (d) or (d) - (c) | | ± | 1 | psi | (e) |
| Friction loss, Flowing column to meter: | | | | | |
| (b) - (c) Flow through tubing: (a) - (c) Flow through casing | | = | 0 | psi | (f) |
| Seven day average static meter pressure (from meter chart): | | | | | |
| Normal chart average reading | | psig + 12 = | | psia | (g) |
| Square root chart average reading (____)$^2$ x sp. const. 410 | | = | 422 | psia | (g) |
| Corrected seven day avge. meter press. ($p_f$) (g) + (e) | | = | 423 | psia | (h) |
| $P_t$ = (h) + (f) | | = | 423 | psia | (i) |
| Wellhead casing shut-in pressure (Dwt) | 1470 | psig + 12 = | 1482 | psia | (j) |
| Wellhead tubing shut-in pressure (Dwt) | 1467 | psig + 12 = | 1479 | psia | (k) |
| $P_c$ = (j) or (k) whichever well flowed through | | = | 1479 | psia | (l) |
| Flowing Temp. (Meter Run) 74 °F + 460 | | = | 534 | °Abs | (m) |
| $P_d$ = ½ $P_c$ = ½ (l) | | = | 740 | psia | (n) |

## FLOW RATE CALCULATION

$$Q = 479 \text{ (integrated)} \times \left( \frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{20.905}{20.881} = 1.001 \right)^{*} = 479 \text{ MCF/da}$$

## DELIVERABILITY CALCULATION

$$D = Q\ 479 \left[ \frac{P_c^2 - P_d^2 = 1,639,841}{P_c^2 - P_w^2 = 2,008,333} \right]^{n\ 0.8589} = \frac{}{(0.8165)^n} = 411 \text{ MCF/da.}$$

## SUMMARY

| | | |
|---|---|---|
| $P_c$ = | 1479 | psia |
| Q = | 479 | Mcf/day |
| $P_w$ = | 423 | psia |
| $P_d$ = | 740 | psia |
| D = | 411 | Mcf/day |

Company Killarney Oil Company

By M. B. JONES Morris B. Jones

Title Consulting Engineer

Witnessed by ____

Company ____

* This is date of completion test.

* Meter error correction factor

## REMARKS OR FRICTION CALCULATIONS

| GL | $(1-e^{-S})$ | $(F_cQ)^2$ | $\frac{(FcQ)^2 \quad (1-e^{-S})}{R^2}$ | $Pt^2$ (Column i) | $P_t^2 + R^2$ | $P_w$ |
|---|---|---|---|---|---|---|
| 3740 | 0.238 | 0.753 | 179 | 178,929 | 179,108 | 423.2 |

$F_c$ = 1.812

RECEIVED
JUL 29 1960
OIL CON. COM.
DIST. 3