

Initial Deliverability
Test

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 Basin Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 1-27-61
Operator Sunshine Royalty Co. Lease Southern Union Well No. 1-B
Unit B Sec. 3 Twp. 29N Rge. 13W Pay Zone: From 6074 To 6200
Casing: OD 5 1/2 WT. 15.5 Set At 628 Tubing: OD 2 3/8 WT. 4.7 T. Perf 6100
Produced Through: Casing Tubing X Gas Gravity: Measured .673 Estimated
Date of Flow Test: From 1-7-61 To 1-15-61 * Date S.I.P. Measured 4-17-61
Meter Run Size 4" Orifice Size 2.000 Type Chart S.R. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) psig + 12 = psia (a)
Flowing tubing pressure (Dwt) psig + 12 = psia (b)
Flowing meter pressure (Dwt) psig + 12 = psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading ()² x spring constant = psia (d)
Meter error (c) - (d) or (d) - (c) ± = psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = psia (g)
Square root chart average reading (7.0)² x sp. const. 10 = 490 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 490 psia (h)
P_t = (h) + (f) = 490 psia (i)
Wellhead casing shut-in pressure (Dwt) 1982 psig + 12 = 1994 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1970 psig + 12 = 1982 psia (k)
P_c = (j) or (k) whichever well flowed through = 1982 psia (l)
Flowing Temp. (Meter Run) 64 °F + 460 = 524 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 991 psia (n)

FLOW RATE CALCULATION

Q = 813 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right)^* = \underline{813}$ MCF/da
(Integrated)

DELIVERABILITY CALCULATION

D = Q 813 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n \cdot \frac{.80207}{.8475} = \underline{689}$ MCF/da.
2,946,243
3,673,299

SUMMARY

P_c = 1982 psia
Q = 813 Mcf/day
P_w = 505 psia
P_d = 991 psia
D = 689 Mcf/day

Company Sunshine Royalty Co.
By J. A. Wagon
Title Engineer
Witnessed by
Company

* This is date of completion test.
* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² R ²	(1-e ^{-S})	P _t ² (Column i)	P _t ² + R ²	P _w
4105	.258	58.43	15.		240	255	505



