

GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

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

Pool Blanco M. V. Formation Mesa Verde County San Juan
Purchasing Pipeline SOUTHERN UNION GAS COMPANY Date Test Filed 4/3/57

Operator Southern Union Gas Company Lease Quinn Well No. 6
Unit A Sec. 20 Twp. 31N Rge. 8W Pay Zone: From 5310 To 5312
Casing: OD 5 1/2 WT. 13.5 Set At 5839 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 2720
Produced Through: Casing XX Gas Gravity: Measured .673 Estimated
Date of Flow Test: From 3/16/57 To 3/24/57 * Date S.I.P. Measured 11/8/56
Meter Run Size 4" Orifice Size 1 1/2" Type Chart Normal 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 634 psig + 12 = 646 psia (g)
Square root chart average reading (_____) ² x sp. const. _____ = _____ psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = _____ psia (h)
P_t = (h) + (f) _____ = _____ psia (i)
Wellhead casing shut-in pressure (Dwt) 1056 psig + 12 = 1068 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1042 psig + 12 = 1054 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1054 psia (l)
Flowing Temp. (Meter Run) 70 °F + 460 _____ = 530 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 527 psia (n)

FLOW RATE CALCULATION

Q = 770 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right)^*$ = 770 MCF/day
(integrated)

DELIVERABILITY CALCULATION

D = Q 770 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.75}$ 1.1638 = 896 MCF/day

SUMMARY

P_c = 1054 psia
Q = 770 Mcf/day
P_w = 656 psia
P_d = 527 psia
D = 896 Mcf/day
Company SOUTHERN UNION GAS COMPANY
By L.S. Mienmink
Title Exploration 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 (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
<u>3850</u>	<u>0.244</u>	<u>72.41</u>	<u>12.788</u>	<u>417.316</u>	<u>430.104</u>	<u>676</u>



gll