

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 Alamosa Formation Mesa Verde County San Juan
Purchasing Pipeline Southern Union Gathering Company Date Test Filed March 5, 1958
Operator Southern Union Gas Company Lease Quinn Well No. 5
Unit N Sec. 18 Twp. 31 N Rge. 8 W Pay Zone: From 4815 To 5235
Casing: OD 2 5/8" WT. 25.2 Set At 4815 Tubing: OD 2 3/8" WT. 4.75 T. Perf. 5223
Produced Through: Casing Tubing XX Gas Gravity: Measured .668 Estimated
Date of Flow Test: From 2/7/58 To 2/14/58 * Date S.I.P. Measured 9/10/56
Meter Run Size 4" Orifice Size 1" 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 554 psig + 12 = 566 psia (g)
Square root chart average reading () ² x sp. const. = psia (g)
Corrected seven day ave. meter press. (p_f) (g) + (e) = 566 psia (h)
P_t = (h) + (f) = 566 psia (i)
Wellhead casing shut-in pressure (Dwt) 807 psig + 12 = 819 psia (j)
Wellhead tubing shut-in pressure (Dwt) 805 psig + 12 = 817 psia (k)
P_c = (j) or (k) whichever well flowed through = 817 psia (l)
Flowing Temp. (Meter Run) 58 °F + 460 = 518 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 409 psia (n)

FLOW RATE CALCULATION

Q = 300 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right)^n = \underline{\hspace{1cm}}$ MCF/da
(integrated)

DELIVERABILITY CALCULATION

D = Q 300 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^{0.75} \times \underline{1.3217} = \underline{397}$ MCF/da.

SUMMARY

P_c = 817 psia
Q = 300 Mcf/day
P_w = 568 psia
P_d = 409 psia
D = 397 Mcf/day

Company Southern Union Gas Company
By Bill McKinney
Title Exploration Dept.
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>3400</u>	<u>0.204</u>	<u>7.958</u>	<u>1.783</u>	<u>300.356</u>	<u>322.139</u>	<u>568</u>



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