

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 Black Formation Dakota County San Juan
Purchasing Pipeline Southern Union Gas Company Date Test Filed April 27, 1961
Operator Antero Oil and Gas Company Lease Thompson Well No. 6-3
Unit 8 Sec. 37 Twp. 32N Rge. 10W Pay Zone: From 7850 To 7956
Casing: OD 30 WT. 24 Set At 7850 Tubing: OD 2 3/8 WT. 1.7 T. Perf. 6994
Produced Through: Casing Tubing X Gas Gravity: Measured 0.708 Estimated
Date of Flow Test: From 3/31 To 4/7 * Date S.I.P. Measured 2/23/60
Meter Run Size 1 Orifice Size Type Chart Type Taps 7

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 ()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) psig + 12 = psia (j)
Wellhead tubing shut-in pressure (Dwt) psig + 12 = psia (k)
P_c = (j) or (k) whichever well flowed through = psia (l)
Flowing Temp. (Meter Run) 65 °F + 460 = °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = psia (n)

Q = 170 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = \text{ } = \text{ }} \right)^* = \text{ }$ MCF/da
(integrated) $\sqrt{(d)} = \text{ }$

DELIVERABILITY CALCULATION

D = Q 170 $\left[\frac{(P_c^2 - P_d^2) = \text{ }}{(P_c^2 - P_w^2) = \text{ }} \right]^{0.75} = \text{ }$ MCF/da.

SUMMARY

P_c = 1796 psia
Q = 170 Mcf/day
P_w = 157 psia
P_d = 146 psia
D = 146 Mcf/day

Company Antero Oil and Gas Company
By
Title L. H. Stevens, Dist. Eng.
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>4003</u>	<u>0.708</u>	<u>2.504</u>	<u>0.708</u>	<u>286,004</u>	<u>286,004</u>	<u>157</u>

81

