

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 Blanco Formation Mesa Verde County San Juan
Purchasing Pipeline Southern Union Gas Company Date Test Filed March 7, 1957
Operator Astec Oil & Gas Company Lease Culpepper-Martin Well No. 7
Unit B Sec. 28 Twp. 32 N Rge. 12 W Pay Zone: From 4842 To 4947
Casing: OD 5 1/2" WT. 15.54 Set At 5028 Tubing: OD 2 3/8" WT. 4.74 T. Perf. 4901
Produced Through: Casing _____ Tubing x Gas Gravity: Measured .710 Estimated _____
Date of Flow Test: From 1-31 To 2-7-57 * Date S.I.P. Measured 9-28-56
Meter Run Size 4 Orifice Size _____ Type Chart Normal Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 625 psig + 12 = 637 psia (a)
Flowing tubing pressure (Dwt) 593 psig + 12 = 605 psia (b)
Flowing meter pressure (Dwt) 590 psig + 12 = 602 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 590 psig + 12 = 602 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 = 3 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 593 psig + 12 = 605 psia (g)
Square root chart average reading () ² x sp. const. = psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 605 psia (h)
P_t = (h) + (f) = 608 psia (i)
Wellhead casing shut-in pressure (Dwt) 1024 psig + 12 = 1036 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1024 psig + 12 = 1036 psia (k)
P_c = (j) or (k) whichever well flowed through = 1036 psia (l)
Flowing Temp. (Meter Run) 76 °F + 460 = 536 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 518 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{1212}{(\text{Integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{1.00}{1.00} = 1.00 \right) = 1212 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{1212}{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} = \frac{804,972}{674,517} \right]^n \cdot \frac{.75}{1.1393}} = 1381 \text{ MCF/day}$$

SUMMARY

P_c = 1036 psia Company AZTEC OIL & GAS COMPANY
Q = 1212 Mcf/day By _____
P_w = 631 psia Title Production Engineer
P_d = 518 psia Witnessed by _____
D = 1381 Mcf/day Company _____

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

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ⁻⁸)	(F _c Q) ²	(F _c Q) ² (1-e ⁻⁸) R ²	P _t ² (Column 1)	P _t ² + R ²	P _w
3480	0.224	129.846	29.085	369.664	398.749	631



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