

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 South Blanco Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Southern Union Gas Company Date Test Filed February 8, 1960
Operator Astec Oil & Gas Company Lease Arimo-Jicarilla Well No. 5
Unit P Sec. 25 Twp. 25 Rge. 4 Pay Zone: From 3600 To 3636
Casing: OD 4.5 WT. 9.90 Set At 3680 Tubing: OD 2 WT. 4.7 T. Perf. 3631
Produced Through: Casing XX Tubing XX Gas Gravity: Measured 0.638 Estimated
Date of Flow Test: From 1/16 To 1/24/60 * Date S.I.P. Measured 2/15/59
Meter Run Size 4 Orifice Size 1.250 Type Chart SR Type Taps 2

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 (7.70)² x sp. const. 10 = 502 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 502 psia (h)
P_t = (h) + (f) = 502 psia (i)
Wellhead casing shut-in pressure (Dwt) 900 psig + 12 = 912 psia (j)
Wellhead tubing shut-in pressure (Dwt) 900 psig + 12 = 912 psia (k)
P_c = (j) or (k) whichever well flowed through = 912 psia (l)
Flowing Temp. (Meter Run) 71 °F + 460 = 531 °Abs (m)
P_d = ½ P_c = ½ (l) = 456 psia (n)

Q = 667 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{1.000}{1.000} \right)^2 = \underline{667} MCF/da
(Integrated)$

DELIVERABILITY CALCULATION

D = Q 667 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.85} = \underline{841} MCF/da.
 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \frac{62308}{474673}$$

SUMMARY

P_c = 912 psia
Q = 667 Mcf/day
P_w = 598 psia
P_d = 456 psia
D = 841 Mcf/day

Company Astec Oil & Gas Company
By ORIGINAL SIGNED BY L. M. STEVENS
Title L. M. Stevens, Dist. 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
<u>2534</u>	<u>0.168</u>	<u>39.385</u>	<u>6.607</u>		<u>350.464</u>	<u>357.072</u>	<u>397.5</u>

This flow test interrupted after 126 hours. Permission to file test granted by
Commission's District Supervisor on Feb. 4, 1960

OK





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