

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 Astec Formation Pictured Cliffs County San Juan
Purchasing Pipeline Southern Union Gas Company Date Test Filed February 8, 1960
Operator Astec Oil & Gas Company Lease None Well No. 12
Unit A Sec. 10 Twp. 29 Rge. 10 Pay Zone: From 2286 To 2331
Casing: OD 4 1/2 WT. 9.50 Set At 2351 Tubing: OD 1 WT. 1.7 T. Perf. 2303
Produced Through: Casing X Tubing _____ Gas Gravity: Measured 0.639 Estimated _____
Date of Flow Test: From 1/25 To 1/29/60 * Date S.I.P. Measured 10/17/59
Meter Run Size 4 Orifice Size 1.750 Type Chart H 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) _____ °F + 460 _____ = _____ ° Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = _____ psia (n)

Q = 923 (integrated) X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = \text{_____} = \text{1.030}} \right)^* = \text{923}$ MCF/day

DELIVERABILITY CALCULATION

D = Q 923 $\left[\frac{(P_c^2 - P_d^2) = \text{90843}}{(P_c^2 - P_w^2) = \text{373200}} \right]^n \text{0.35} \text{0.9407} = \text{493}$ MCF/day

SUMMARY

P_c = 682 psia Company Astec Oil & Gas Company
Q = 923 Mcf/day By ORIGINAL SIGNED BY L. M. STEVENS
P_w = 302 psia Title Dr. M. Stevens, Dist. Engineer
P_d = 341 psia Witnessed by _____
D = 493 Mcf/day 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
Friction Loss Is Negligible						

OK

