

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 Elmore Formation Pictured Cliffs County San Juan
Purchasing Pipeline Southern Union Gas Company Date Test Filed February 4, 1960
Operator Arden Oil & Gas Company Lease Arden-Elmore Well No. 2
Unit 3 Sec. 26 Twp. 35N Rge. 4W Pay Zone: From 320 To 320
Casing: OD 4 1/2 WT 9.30 Set At 335 Tubing: OD 2 WT 4.75 T. Perf. 320
Produced Through: Casing Tubing X Gas Gravity: Measured 0.60 Estimated
Date of Flow Test: From 1/7 To 1/15/60 * Date S.I.P. Measured 2/3/60
Meter Run Size 4 Orifice Size 0.575 Type Chart 22 Type Taps 1

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 (7.3) ² x sp. const. 10 = 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) 99 psig + 12 = psia (j)
Wellhead tubing shut-in pressure (Dwt) 99 psig + 12 = psia (k)
P_c = (j) or (k) whichever well flowed through = psia (l)
Flowing Temp. (Meter Run) 92 °F + 460 = °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = psia (n)

FLOW RATE CALCULATION

$$Q = \frac{144}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \frac{144}{1} = 144 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{1/n} = 144 \left[\frac{99^2 - 0^2}{99^2 - 0^2} \right]^{1/1.4196} = 144 \text{ MCF/da.}$$

SUMMARY

P_c = 99 psia
Q = 144 Mcf/day
P_w = 0 psia
P_d = 0 psia
D = 144 Mcf/day
Company Arden 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 ⁻⁸)	(F _c Q) ²	(F _c Q) ² R ²	(1-e ⁻⁸)	P _t ² (Column i)	P _t ² + R ²	P _w
<u>1943</u>	<u>0.397</u>	<u>2.332</u>	<u>0.397</u>	<u> </u>	<u>99.00</u>	<u>99.00</u>	<u>0.0</u>

OK

