

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 Angel Peaks Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 9-8-60
Operator PUBCO PETROLEUM CORPORATION Lease Refined Well No. 2
Unit L Sec. 34 Twp. 28N Rge. 10W Pay Zone: From 6594 To 6530
Casing: OD 5 1/2" WT. 15 1/2 Set At 6668 Tubing: OD 2 WT. 4.7 T. Perf. 6554
Produced Through: Casing Tubing X Gas Gravity: Measured .727 Estimated
Date of Flow Test: From 8-15-60 To 8-22-60 * Date S.I.P. Measured 3-11-60
Meter Run Size 4" Orifice Size 2.00 Type Chart 84. Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 1615 psig + 12 = 1027 psia (a)
Flowing tubing pressure (Dwt) 810 psig + 12 = 822 psia (b)
Flowing meter pressure (Dwt) 520 psig + 12 = 532 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading psig + 12 = psia (d)
Square root chart reading (7.25)² x spring constant 10 = 526 psia (d)
Meter error (c) - (d) or (d) - (c) = 46 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing; (a) - (c) Flow through casing = 290 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading psig + 12 = psia (g)
Square root chart average reading (7.25)² x sp. const. 10 = 526 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 532 psia (h)
P_t = (h) + (f) = 822 psia (i)
Wellhead casing shut-in pressure (Dwt) 1916 psig + 12 = 1928 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1986 psig + 12 = 1998 psia (k)
P_c = (j) or (k) whichever well flowed through = 1918 psia (l)
Flowing Temp. (Meter Run) 60 °F + 460 = 520 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 959 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{2,850}{(\text{Integrated})} \times \left(\frac{\sqrt{(c)} \ 532 = 23.06513}{\sqrt{(d)} \ 526 = 22.93469} = 1.00569 \right) = 2,866 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{2,866}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.98777} \cdot 0.98992} = 2,837 \text{ MCF/da.}$$

SUMMARY

"D" at 512 - 3,341
P_c = 1,918 psia Company PUBCO PETROLEUM CORPORATION
Q = 2,866 Mcf/day By B. H. Weyhoff, Jr.
P_w = 941 psia Title Production Engineer
P_d = 959 psia Witnessed by Jack Downing
D = 2,837 Mcf/day Company Pubco Petroleum Corp.

- * 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
4699	0.289	726,087	209,839	675,684	885,523	941

