

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 So. Blanco P.C. Formation Pictured Cliffs County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 1-14-59
Operator Western Natural Gas Company Lease Marron Well No. 5
Unit H Sec. 23 Twp. 27-N Rge. 8-W Pay Zone: From 2224 To 2268
Casing: OD 5½ WT. 15.5 Set At 2331 Tubing: OD 1.315 WT. 1.70 T. Perf. 2240
Produced Through: Casing X Tubing _____ Gas Gravity: Measured 0.648 Estimated _____
Date of Flow Test: From 12-22-58 To 12-30-58 * Date S.I.P. Measured 10-28-58
Meter Run Size 4.026 Orifice Size 1.250 Type Chart L-10 Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 254 psig + 12 = 266 psia (a)
Flowing tubing pressure (Dwt) 280 psig + 12 = 292 psia (b)
Flowing meter pressure (Dwt) 253 psig + 12 = 265 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.16)² x spring constant 5 = 256.3 psia (d)
Meter error (c) - (d) or (d) - (c) ± = 8.7 psi (e)
Friction loss, Flowing column to meter: _____ = 1.0 psi (f)
(b) - (c) Flow through tubing: (a) - (c) Flow through casing
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.10)² x sp. const. 5 = 252.1 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 260.8 psia (h)
= 261.8 psia (i)
P_t = (h) + (f) _____ psia (j)
Wellhead casing shut-in pressure (Dwt) 709 psig + 12 = 721 psia (j)
Wellhead tubing shut-in pressure (Dwt) 709 psig + 12 = 721 psia (k)
P_c = (j) or (k) whichever well flowed through _____ psia (l)
Flowing Temp. (Meter Run) 60 °F + 460 = 520 ° Abs (m)
P_d = ½ P_c = ½ (l) _____ psia (n)

FLOW RATE CALCULATION

$$Q = \frac{504}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = 16.28 = 1.017}{\sqrt{(d)} = 16.01} \right) = 513 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{513}{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} = \frac{389,881}{451,302} \right]^n (0.8639)^{.85} = (0.8832) = 453 \text{ MCF/day.}}$$

SUMMARY

P_c = 721 psia Company Western Natural Gas
Q = 513 Mcf/day By Calvin M. Raynes
P_w = 261.8 psia Title Petroleum Engineer
P_d = 360.5 psia Witnessed by _____
D = 453 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 Neglected			

