

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 PC County San Juan
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 5/19/58
Operator Northwest Production Corp. Lease San Juan 27-8 Well No. 4-13
Unit 0 Sec. 13 Twp. 27N Rge. 8W Pay Zone: From 2548 To 2590
Casing: OD 5 WT. 11.5 Set At 2543 Tubing: OD 1-1/4 WT. 2.3 T. Perf. 2546
Produced Through: Casing Tubing X Gas Gravity: Measured .735 Estimated
Date of Flow Test: From 4-21-58 To 4-29-58 * Date S.I.P. Measured 11-4-57
Meter Run Size 4. Orifice Size 1.500 Type Chart Type Taps

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 (7.35)² x sp. const. 5.00 = 270 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 270 psia (h)
P_t = (h) + (f) = 270 psia (i)
Wellhead casing shut-in pressure (Dwt) 863 psig + 12 = 863 psia (j)
Wellhead tubing shut-in pressure (Dwt) 863 psig + 12 = 864 psia (k)
P_c = (j) or (k) whichever well flowed through = 864 psia (l)
Flowing Temp. (Meter Run) 88 °F + 460 = 548 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 432 psia (n)

Q = X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{V(c)}}{\sqrt{V(d)}}} \right)^* = \text{MCF/day}$
(Integrated)

DELIVERABILITY CALCULATION

D = Q 863 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = \frac{0.8849}{(0.8849)^2} = \text{MCF/day}$
550,873
646,525

SUMMARY

P_c = 864 psia Company Northwest Production Corp.
Q = 863 Mcf/day By Ray Phillips RAY PHILLIPS
P_w = 216 psia Title Mgr., Production Operations
P_d = 432 psia Witnessed by
D = 863 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
1871	0.187	213,100	27,071	72,900	99,971	216.2

P_c = 24.63

[Signature]

