

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 Pictured Cliffs County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipeline Corporation Date Test Filed 12-5-57
Operator Northwest Production Corp. Lease 4th Well No. 9-30
Unit L Sec. 30 Twp. 26N Rge. 4W Pay Zone: From 3173 To 3214
Casing: OD 5 WT. 11.5 Set At 3295 Tubing: OD 1 1/2 WT. 2.3 T. Perf. 3196
Produced Through: Casing Tubing X Gas Gravity: Measured .672 Estimated
Date of Flow Test: From 11-6-57 To 11-16-57 * Date S.I.P. Measured 8-15-57
Meter Run Size 2 Orifice Size 1.5 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: = 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 640 psig + 12 = 652 psia (g)
Square root chart average reading () ² x sp. const. = psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 652 psia (h)
P_t = (h) + (f) = 652 psia (i)
Wellhead casing shut-in pressure (Dwt) 1051 psig + 12 = 1063 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1051 psig + 12 = 1063 psia (k)
P_c = (j) or (k) whichever well flowed through = 1063 psia (l)
Flowing Temp. (Meter Run) 60 °F + 460 = °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 532 psia (n)

FLOW RATE CALCULATION

Q = X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right)^* = \text{MCF/da}$
(Integrated)

DELIVERABILITY CALCULATION

D = Q 743 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \text{MCF/da.}$
846, 945 1.2448 = 925
636, 343 (1.2904)

SUMMARY

P_c = 1063 psia Company Northwest Production Corp.
Q = 743 Mcf/day By Ray Phillips RAY PHILLIPS
P_w = 640 psia Title Asst Mgr., Prod Operations
P_d = 532 psia Witnessed by
D = 925 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
2148	0.145	334.634	48,522	425,204	473,626	688.2

P_c = 24.62

OK

