

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 Tapacito Extn Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipeline Corporation Date Test Filed 7-16-57

Operator Northwest Production Corp. Lease "M" Well No. 9-6
Unit H Sec. 6 Twp. 26N Rge. 4W Pay Zone: From 3912 To 3947
Casing: OD 5 WT. 11.5 Set At 4045 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 3973
Produced Through: Casing Tubing X Gas Gravity: Measured .660 Estimated
Date of Flow Test: From 6-8-57 To 6-16-57 * Date S.I.P. Measured 4-26-57
Meter Run Size 2" Orifice Size 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 343 psig + 12 = 357 psia (g)
Square root chart average reading () ² x sp. const. = psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = psia (h)
P_t = (h) + (f) = 357 psia (i)
Wellhead casing shut-in pressure (Dwt) 1070 psig + 12 = 1082 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1022 psig + 12 = 1034 psia (k)
P_c = (j) or (k) whichever well flowed through = 1034 psia (l)
Flowing Temp. (Meter Run) °F + 460 = ° Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 517 psia (n)

$$Q = \frac{1460}{(\text{integrated})} \times \left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} \right) = \text{MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{1460}{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} = \frac{801.867}{726.112} \right]^n} \frac{1.0880}{1.0880} = 1988 \text{ MCF/da.}$$

SUMMARY

P_c = 1034 psia
Q = 1460 Mcf/day
P_w = 585.7 psia
P_d = 517 psia
D = 1988 Mcf/day
Company Northwest Production Corporation
By Ray Phillips RAY PHILLIPS
Title Asst Mgr, Prod Operations
Witnessed by
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
2622	0.174	188.431	32.787	310.249	343.036	585.7

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