

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 WILDCAT MESAVERDE Formation MESA VERDE County RIO ARriba
Purchasing Pipeline PACIFIC NORTHWEST PIPELINE CORP. Date Test Filed JAN 17 1957

Operator Pacific Northwest Pipeline Lease None Unit Well No. 9-11
Unit K Sec. 11 Twp. 31N Rge. 01 Pay Zone: From 5354 To 5697
Casing: OD 5 1/2 WT. 14 Set At 5740 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 5648
Produced Through: Casing - Tubing K Gas Gravity: Measured - Estimated .65
Date of Flow Test: From 12-25-56 To 1-1-57 Date S.I.P. Measured 9-27-55
Meter Run Size - 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 - psig + 12 = - psia (g)
Square root chart average reading (-) ² x sp. const. 463 = 475 psia (g)
Corrected seven day ave. meter press. (p_f) (g) + (e) - = 475 psia (h)
P_t = (h) + (f) - = 475 psia (i)
Wellhead casing shut-in pressure (Dwt) 1162 psig + 12 = 1174 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1174 psig + 12 = 1186 psia (k)
P_c = (j) or (k) whichever well flowed through - = 1186 psia (l)
Flowing Temp. (Meter Run) 69 °F + 460 - = 529 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) - = 593 psia (n)

Q = 263 X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} \right) = \text{MCF/da}$
(Integrated)

DELIVERABILITY CALCULATION

D = Q 263 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.5} \frac{(.8944) - 75}{.9197} = \text{MCF/da.}$
 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right] = \frac{1,034,947}{1,179,540}$

SUMMARY

P_c = 1186 psia
Q = 263 Mcf/day
P_w = 476 psia
P_d = 593 psia
D = 262 Mcf/day

Company Pacific Northwest Pipeline Corp.
By Donald C. Adams
Title Well Test Engineer
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
<u>3671</u>	<u>.234</u>	<u>6116</u>	<u>1431</u>	<u>225,625</u>	<u>227,056</u>	<u>476</u>

3-N.M.O.C.C. - Artes
1-L. G. Tully
1-Standish O & G - (Thornton)
2-File



