

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 Blanco Formation Mesa Verde County Rio Arriba  
Purchasing Pipeline PACIFIC NORTHWEST PIPELINE CORPORATION Date Test Filed 7-21-58  
Operator PACIFIC NORTHWEST PIPELINE Lease San Juan 29-5 Well No. 20-7  
Unit N Sec. 7 Twp. 23N Rge. 5W Pay Zone: From 5276' To 5700'  
Casing: OD 5 1/2" WT. 14.04 Set At 5280' Tubing: OD 2 3/8" WT. 4.74 T. Perf. 5706'  
Produced Through: Casing        Tubing XXX Gas Gravity: Measured .631 Estimated         
Date of Flow Test: From 6-21-58 To 6-29-58 \* Date S.I.P. Measured 5-17-58  
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 (        ) <sup>2</sup> 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 463 psig + 12 = 475 psia (g)  
Square root chart average reading (        ) <sup>2</sup> x sp. const.        =        psia (g)  
Corrected seven day ave. meter press. (p<sub>f</sub>) (g) + (e)        =        psia (h)  
P<sub>t</sub> = (h) + (f)        = 475 psia (i)  
Wellhead casing shut-in pressure (Dwt) 1105 psig + 12 = 1117 psia (j)  
Wellhead tubing shut-in pressure (Dwt) 913 psig + 12 = 925 psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through        = 925 psia (l)  
Flowing Temp. (Meter Run) 74 °F + 460        = 534 °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l)        = 463 psia (n)

FLOW RATE CALCULATION

Q = 1,483 X  $\left( \frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \text{_____ MCF/da}$   
(Integrated)

DELIVERABILITY CALCULATION

D = Q 1,483  $\left[ \frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \text{_____ MCF/da.}$   
641,719 1.074  
586,738 1.070

SUMMARY

P<sub>c</sub> = 925 psia  
Q = 1483 Mcf/day  
P<sub>w</sub> = 519 psia  
P<sub>d</sub> = 463 psia  
D = 1,528 Mcf/day

Company PACIFIC NORTHWEST PIPELINE CORP.  
By Original signed by G. H. Peppin  
Title District Production Engineer  
Witnessed by         
Company       

- \* This is date of completion test.
- \* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e <sup>-s</sup> )	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> ) R <sup>2</sup>	P <sub>t</sub> <sup>2</sup> (Column i)	P <sub>t</sub> <sup>2</sup> + R <sup>2</sup>	P <sub>w</sub>
8766	0.240	180.257	43.262	225.425	268.687	519

