Initial Deliverability Test

Form C-122-A
Revised April 20, 1955

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 Mesaverde County Rio Arriba

Purchasing Pipeline El Paso Natural Gas Company Date Test Filed November 24, 1959

Operator Pacific Northwest Pipeline Lease San Juan 32-8 Well No. 33-9

Unit A Sec. 9 Twp. 31N Rge. 8W Pay Zone: From 5527 To 5987

Casing: OD 5-1/2 WT. 15.5 Set At 6047 Tubing: OD 1-1/4 WT. 2.4 T. Perf. 5943

Produced Through: Casing ^ Tubing XX Gas Gravity: Measured .572 Estimated

Date of Flow Test: From 10-30-59 To 11-7-59 * Date S.I.P. Measured 7-22-59

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 (7.10) ^{2} x sp. const. 10.00	= 504	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	psia	(h)
P_t = (h) + (f)	= 504	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1121	psig + 12 = 1133	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1121	psig + 12 = 1133	psia	(k)
P_c = (j) or (k) whichever well flowed through	= 1133	psia	(l)
Flowing Temp. (Meter Run) 68 °F + 460	= 528	°Abs	(m)
P_d = ½ P_c = ½ (l)	= 566	psia	(n)

FLOW RATE CALCULATION

$$Q = 689 \text{ (integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \quad = \quad \right)^{*} = 689 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\,689 \left[\frac{\left(P_c^2 - P_d^2\right) = 963333}{\left(P_c^2 - P_w^2\right) = 966657} \right]^{n} \frac{(0.9966)^{.75}}{0.9974} = 687 \text{ MCF/da.}$$

SUMMARY

P_c =	1133	psia	
Q =	689	Mcf/day	Company PACIFIC NORTHWEST PIPELINE CORPORATION
P_w =	563	psia	By Original signed by C. H. Peppin
P_d =	566	psia	Title District Proration Engineer
D =	687	Mcf/day	Witnessed by
			Company

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)2$	$\frac{(FcQ)^2 \quad (1-e^{-S})}{R^2}$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
3399	0.219	287.743	63.016	254.016	317.032	

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NOV 25 1959
OIL CON. COM.
DIST. 3