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 Basin Formation Dakota County San Juan

Purchasing Pipeline El Paso Natural Gas Company Date Test Filed 10-24-61

Operator PUBCO PETROLEUM CORP Lease State Well No. 28

Unit B Sec. 36 Twp. 29N Rge. 10W Pay Zone: From 6578 To 6604

Casing: OD 5½" WT. 15½ Set At 6604 Tubing: OD 2" WT. 4.7 T. Perf. 6591

Produced Through: Casing ~~Tubing~~ Tubing X Gas Gravity: Measured .674 Estimated

Date of Flow Test: From 9-20-61 To 9-23-61 * Date S.I.P. Measured 10-5-61 5-23-61

Meter Run Size 4" Orifice Size 1.75 Type Chart Sq. Rt. Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt)	755 psig + 12 =	767	psia	(a)
Flowing tubing pressure (Dwt)	660 psig + 12 =	672	psia	(b)
Flowing meter pressure (Dwt)	480 psig + 12 =	492	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken):				
Normal chart reading	psig + 12 =		psia	(d)
Square root chart reading (7.0)² x spring constant 10	=	490	psia	(d)
Meter error (c) - (d) or (d) - (c) ±	=	2	psi	(e)
Friction loss, Flowing column to meter:				
(b) - (c) Flow through tubing: (a) - (c) Flow through casing	=	180	psi	(f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading	psig + 12 =		psia	(g)
Square root chart average reading (7.15)² x sp. const. 10	=	511	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	513	psia	(h)
P_t = (h) + (f)	=	693	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1951	psig + 12 =	1963	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1951	psig + 12 =	1963	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	1963	psia	(l)
Flowing Temp. (Meter Run) 80 °F + 460	=	540	°Abs	(m)
P_d = ½ P_c = ½ (l)	=	982	psia	(n)

FLOW RATE CALCULATION

$$Q = 1874 \text{ (integrated)} \times \left(\frac{\sqrt{(c)\ 492} = 221,811}{\sqrt{(d)\ 490} \quad 221,359} = 1.002 \right)^{*} = 1,877 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q\ 1877 \left[\frac{P_c^2 - P_d^2 = 2,889,045}{P_c^2 - P_w^2 = 3,287,481} \right]^{n} (0.8788)^{.75}\ 0.9975 = 1,703 \text{ MCF/da.}$$

"D" at 512 - 2,005

SUMMARY

P_c =	1963	psia
Q =	1877	Mcf/day
P_w =	752	psia
P_d =	982	psia
D =	1703	Mcf/day

Company PUBCO PETROLEUM CORP.
By Dan E. Jamieson
Title Field Foreman
Witnessed by Jack Dunning
Company Pubco Petroleum Corp.

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OCT 26 1961
OIL CON. COM.
DIST. 3

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

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-S})$	$(F_cQ)^2$	$\frac{(FcQ)^2}{R^2}$ $(1-e^{-S})$	P_t^2 (Column i)	$P_t^2 + R^2$	P_w
4415	0.275	311,416	85,639	480,249	565,888	752