Form C-122-A
Revised April 20, 1955

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 South Elanco P.C. Formation Picture Cliff County Rio Arriba

Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 1-20-59

Operator Hugh McMillan Lease Hall Well No. 5

Unit B Sec. 21 Twp. 25N Rge. 3W Pay Zone: From 3785 To 3836

Casing: OD 5½ WT. 14.00 Set At 3890 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 3830

Produced Through: Casing ____ Tubing X Gas Gravity: Measured .644 Estimated ____

Date of Flow Test: From 1-1-59 To 1-7-59 * Date S.I.P. Measured 1-14-59

Meter Run Size 4" Orifice Size 1.000 Type Chart Sq.Rt. Type Taps ____

OBSERVED DATA

Flowing casing pressure (Dwt)	647	psig + 12 =	659	psia (a)
Flowing tubing pressure (Dwt)	~~501~~ 501	psig + 12 =	513	psia (b)
Flowing meter pressure (Dwt)	501	psig + 12 =	513	psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):				
Normal chart reading		psig + 12 =		psia (d)
Square root chart reading (10/0) ^{2} x spring constant	500	=	500	psia (d)
Meter error (c) - (d) or (d) - (c)	±	=	13	psi (e)
Friction loss, Flowing column to meter:				
(b) - (c) Flow through tubing: (a) - (c) Flow through casing		=	0	psi (f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading		psig + 12 =		psia (g)
Square root chart average reading (7.35) ^{2} x sp. const.	500	=	270	psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e)		=	283	psia (h)
P_t = (h) + (f)		=	283	psia (i)
Wellhead casing shut-in pressure (Dwt)	932	psig + 12 =	944	psia (j)
Wellhead tubing shut-in pressure (Dwt)	932	psig + 12 =	944	psia (k)
P_c = (j) or (k) whichever well flowed through		=	944	psia (l)
Flowing Temp. (Meter Run)	49 °F + 460	=	509	°Abs (m)
P_d = ½ P_c = ½ (l)		=	472	psia (n)

FLOW RATE CALCULATION

$$Q = \underset{\text{(integrated)}}{263} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{22.65}{22.36} = 1.0129 \right)^{*} = 266 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{668350}{810021} \right]^{n} = 266 \left[\frac{.8251}{} \right]^{.85} = 266 \times .8492 = 226 \text{ MCF/da.}$$

SUMMARY

P_c =	944	psia
Q =	266	Mcf/day
P_w =	~~285~~ ~~284~~ 284	psia
P_d =	~~472~~ 472	psia
D =	226	Mcf/day

Company Well Production Co.
By N.A. Healy
Title Agent
Witnessed by ____
Company ____

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

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-s})$	$(F_cQ)^2$	$\frac{(F_cQ)^2 (1-e^{-s})}{R^2}$	Pt^2 (Column i)	$P_t^2 + R^2$	P_w
2467	.164	6.255	1.026	80.089	81.115	~~284~~ 285

RECEIVED
JAN 21 1959
OIL CON. COM.
DIST. 3