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 Southern Union Gas Company Date Test Filed Jan. 8, 1961

Operator Aztec Oil and Gas Company Lease McClanahan Well No. 18-D

Unit A Sec. 13 Twp. 28 Rge. 10 Pay Zone: From 6272 To 6396

Casing: OD 4½ WT. 9.50 Set At 6450 Tubing: OD 2 3/8 WT. 4.70 T. Perf. 6194

Produced Through: Casing ____ Tubing X Gas Gravity: Measured 0.682 Estimated ____

Date of Flow Test: From 12/7 To 12/15 * Date S.I.P. Measured 12/23/60

Meter Run Size 4 Orifice Size 2.500 Type Chart S R Type Taps Flg.

OBSERVED DATA

Flowing casing pressure (Dwt)	809 psig + 12 =	821	psia	(a)
Flowing tubing pressure (Dwt)	731 psig + 12 =	743	psia	(b)
Flowing meter pressure (Dwt)	583 psig + 12 =	595	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken):				
Normal chart reading	psig + 12 =		psia	(d)
Square root chart reading (7.80) ^{2} x spring constant 10	=	608	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	=	148	psi	(f)
Seven day average static meter pressure (from meter chart):				
Normal chart average reading 596	psig + 12 =	608	psia	(g)
Square root chart average reading (____) ^{2} x sp. const.	=		psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	595	psia	(h)
P_t = (h) + (f)	=	743	psia	(i)
Wellhead casing shut-in pressure (Dwt) 1779	psig + 12 =	1791	psia	(j)
Wellhead tubing shut-in pressure (Dwt) 1774	psig + 12 =	1786	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	1786	psia	(l)
Flowing Temp. (Meter Run) 82 °F + 460	=	542	°Abs	(m)
P_d = ½ P_c = ½ (l)	=	893	psia	(n)

FLOW RATE CALCULATION

$$Q = 2360 \text{ (integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = (0.9786) = 0.9893 \right)^{0.5} = 2335 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{(P_c^2 - P_d^2) = 2392347}{(P_c^2 - P_w^2) = 2510505} \right]^{n\ 0.75} = 0.9645 = 2252 \text{ MCF/da.}$$

SUMMARY

P_c =	1786	psia
Q =	2335	Mcf/day
P_w =	820	psia
P_d =	893	psia
D =	2252	Mcf/day

Company Aztec Oil and Gas Company

By ORIGINAL SIGNED BY L. M. STEVENS

Title L. M. Stevens, Dist. Engr.

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
4224	0.264	481.978	127.242	552.049	679.291	820