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 San Juan

PURCHASING PIPELINE Southern Union Gathering System DATE TEST FILED July 28, 1960

OPERATOR Aztec Oil & Gas Company LEASE Richardson WELL NO. 3

UNIT C SEC. 22 TWP. 31 RGE. 12 PAY ZONE: From 5020 To 5336

CASING: OD 7 WT. 20 SET AT 4999 TUBING: OD 2 WT. 4.7 T.Perf. 5290

PRODUCED THROUGH: CASING ____ TUBING X GAS GRAVITY: MEASURED 0.700 ESTIMATED ____

DATE OF FLOW TEST: From 5/31 To 6/7 *Date S.I.P. MEASURED 6/14/60

METER RUN SIZE 4 ORIFICE SIZE 0.500 TYPE CHART S R TYPE TAPS Flg.

OBSERVED DATA

Flowing casing pressure (Dwt)	564 psig + 12 =	576	psia	(a)
Flowing tubing pressure (Dwt)	527 psig + 12 =	539	psia	(b)
Flowing meter pressure (Dwt)	527 psig + 12 =	539	psia	(c)
Flowing meter pressure (meter reading when Dwt. measurement taken:				
Normal chart reading	____ psig + 12 =	____	psia	(d)
Square root chart reading (7.35)^2 x spring constant 10	=	540	psia	(d)
Meter error (c) - (d) or (d) - (c) ±	=	-1	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	521 psig + 12 =	533	psia	(g)
Square root chart average reading (____)^2 x sp. const.	=	____	psia	(g)
Corrected seven day avge. meter press. (p_f) (g) + (e)	=	532	psia	(h)
P_t = (h) + (f)	=	532	psia	(i)
Wellhead casing shut-in pressure (Dwt)	704 psig + 12 =	716	psia	(j)
Wellhead tubing shut-in pressure (Dwt)	699 psig + 12 =	711	psia	(k)
P_c = (j) or (k) whichever well flowed through	=	711	psia	(l)
Flowing Temp. (Meter Run) ____ °F + 460	=	711	°Abs	(m)
$P_d = \frac{1}{2} P_c = \frac{1}{2}$ (l)	=	356	psia	(n)

FLOW RATE CALCULATION

$$Q = \underset{\text{(integrated)}}{53} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{(0.9981)}{} = 0.9990 \right)^{0.5} = 53 \text{ MCF/da.}$$

DELIVERABILITY CALCULATION

$$D = Q \; 53 \left[\frac{\left| P_c^2 - P_d^2 \right| = 510185}{\left| P_c^2 - P_w^2 \right| = 368497} \right]^{n\,0.75} 1.4901 = 79 \text{ MCF/da.}$$

SUMMARY

P_c =	711 psia	Company	
Q =	53 Mcf/day	By	Aztec Oil & Gas Company
P_w =	532 psia	Title	ORIGINAL SIGNED BY L. M. STEVENS L. M. Stevens, Dist. Mgr.
P_d =	356 psia	Witnessed by	
D =	79 Mcf/day	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 1)	$P_t^2 + R^2$	P_w
Friction Loss Is Negligible						

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AUG 2 1960
OIL CON. COM.
DIST. 3

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GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(To be used for Fruitland, Pictured Cliffs, Mesaverde, & all Dakota except Barker Dome Storage Area)

POOL [illegible] FORMATION [illegible] COUNTY [illegible]

PURCHASING PIPELINE Southern Union Gathering System DATE TEST FILED [illegible]

OPERATOR Aztec Oil & Gas Company LEASE [illegible] WELL NO. [illegible]

UNIT [illegible] SEC. [illegible] TWP. [illegible] RGE. [illegible] PAY ZONE: From [illegible] To [illegible]

CASING: OD 7 WT. 20 [illegible] TUBING: OD 2 WT. [illegible] T.Perf. [illegible]

PRODUCED THROUGH: CASING ___ TUBING X GAS GRAVITY: MEASURED [illegible] ESTIMATED ___

DATE OF FLOW TEST: From [illegible] To [illegible] *Date S.I.P. MEASURED [illegible]

METER RUN SIZE ___ ORIFICE SIZE [illegible] TYPE CHART [illegible] TYPE TAPS [illegible]

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 (___)² x sp. const. ___ = ___ psia (g)
Corrected seven day avge. meter press. (p~f~) (g) + (e) = ___ psia (h)
P_t = (h) + (f) = ___ psia (i)
Wellhead casing shut-in pressure (Dwt) ___ psig + 12 = ___ psia (j)
Wellhead tubing shut-in pressure (Dwt) ___ psig + 12 = ___ psia (k)
P_c = (j) or (k) whichever well flowed through = ___ psia (l)
Flowing Temp. (Meter Run) ___ °F + 460 = ___ °Abs (m)
$P_d = \frac{1}{2} P_c = \frac{1}{2}$ (l) = ___ psia (n)

FLOW RATE CALCULATION

Q = ___ X (integrated) $\sqrt{\frac{(c)}{(d)}}$ = ___ = ___ MCF/da.

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{n} = \text{___} \left[\frac{\text{___}}{\text{___}} \right]^{0.75} = \text{___ MCF/da.}$$

SUMMARY

P_c = ___ psia
Q = ___ Mcf/day
P_w = ___ psia
P_d = ___ psia
D = ___ Mcf/day

Company Aztec Oil & Gas Company
By ORIGINAL SIGNED BY [illegible]
Title [illegible]
Witnessed by ___
Company ___

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

REMARKS OR FRICTION CALCULATIONS

GL	$(1-e^{-s})$	$(F_cQ)^2$	$(F_cQ)^2(1-e^{-s})$ / R^2	P_t^2 (Column i)	$P_t^2 + R^2$	P_w
Friction Loss Is Negligible						