

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 27, 1960
OPERATOR Astec Oil & Gas Company LEASE East WELL NO. 4
UNIT B SEC. 24 TWP. 31 RGE. 12 PAY ZONE: From 4867 To 5047
CASING: OD 7 WT. 20 SET AT 4897 TUBING: OD 2 WT. 4.7 T.Perf. 4874
PRODUCED THROUGH: CASING TUBING X GAS GRAVITY: MEASURED 0.668 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 0.300 TYPE CHART S R TYPE TAPS Flg.

OBSERVED DATA

Flowing casing pressure (Dwt) 590 psig + 12 = 602 psia (a)
Flowing tubing pressure (Dwt) 551 psig + 12 = 563 psia (b)
Flowing meter pressure (Dwt) 551 psig + 12 = 563 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading. psig + 12 = psia (d)
Square root chart reading (7.50) ² x spring constant 10 = 563 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. . . = 0 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading. 590 psig + 12 = 562 psia (g)
Square root chart average reading () ² x sp. const. = psia (g)
Corrected seven day avge. meter press. (pf) (g) + (e) = 562 psia (h)
P_t = (h) + (f) = 562 psia (i)
Wellhead casing shut-in pressure (Dwt) 664 psig + 12 = 677 psia (j)
Wellhead tubing shut-in pressure (Dwt) 664 psig + 12 = 675 psia (k)
P_c = (j) or (k) whichever well flowed through. = 675 psia (l)
Flowing Temp. (Meter Run) °F + 460 = °Abs (m)
P_d = $\frac{1}{2}$ P_c = $\frac{1}{2}$ (l) = 338 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{q_k}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{1.0000}{1.0000} \right) = \frac{q_k}{1.0000} \text{ MCF/da.}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{q_k}{1.0000} \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.75} = \frac{1.9534}{1.0000} = \frac{1.9534}{1.0000} \text{ MCF/da.}$$

SUMMARY

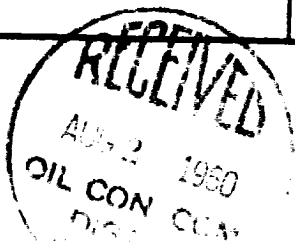
P_c = 675 psia
Q = 94 Mcf/day
P_w = 562 psia
P_d = 338 psia
D = 184 Mcf/day
Company Astec Oil & Gas Company
By ORIGINAL SIGNED BY L. M. STEVENS
Title Dr. Mr. Stevens, Dist. Engr.
Witnessed by
Company

* This is date of completion test.

* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e ^{-S})	(F _c Q) ²	(F _c Q) ² R ²	(1-e ^{-S})	P _t ² (Column 1)	P _t ² + R ²	P _w
Friction Loss Is Negligible							



WAS 1945 WAS - - ZTRC ATAD T221 LIA 140

(To be used for Trinidad, Protected Birds, Mammals, and all Birds except Barker Dogs (Canine Area))

METER RUN SIZE		DATE OF FLOW TEST: From 5/17 To 5/17		GAS GRAVITY: MEASURED 1.10 ESTIMATED 1.10		TUBING: SET AT 1500		PAY ZONE: From 1000 To 1000		UNIT 2		SEC. 34		TWE. 12		LEASE		WELL NO. 1	
PRODUCED THROUGH: CASING		TUBING X		GAS GRAVITY: MEASURED 1.10 ESTIMATED 1.10		TUBING: SET AT 1500		PAY ZONE: From 1000 To 1000		UNIT 2		SEC. 34		TWE. 12		LEASE		WELL NO. 1	
CASING: OD 1 WT. 20		SET AT 1500		TUBING: OD 1 WT. 20		PAY ZONE: From 1000 To 1000		UNIT 2		SEC. 34		TWE. 12		LEASE		WELL NO. 1			
OPERATOR ASSES 100 & GAS COMPANY		LEASE		WELL NO. 1															
PURCHASING PIPELINE		SOUTHERN NATURAL GAS		DATE TEST MADE 5/17/50															
ADDRESS		FORMATION		COUNTY		TOWNSHIP		RANGE		SECTION		TWE. 12		LEASE		WELL NO. 1			

DATA OBSERVED

(a)	Flowing casing pressure (Dwt)	_____	_____
(b)	Flowing tubing pressure (Dwt)	_____	_____
(c)	Flowing meter pressure (Dwt)	_____	_____
(d)	Normal chart reading	_____	_____
(e)	Square root chart reading (_____)	_____	_____
(f)	Water error (c) - (d) or (d) - (e)	_____	_____
(g)	Friction loss, flowing column to meter	_____	_____
(h)	(d) - (c) Flow through tubing (e) - (c) Flow through casing	_____	_____
(i)	Seven day average static meter pressure (from meter chart)	_____	_____
(j)	Normal chart average reading	_____	_____
(k)	Square root chart average reading (_____)	_____	_____
(l)	Corrected seven day avg. meter press. (j) + (k)	_____	_____
(m)	Wellhead casing shut-in pressure (Dwt)	_____	_____
(n)	Wellhead tubing shut-in pressure (Dwt)	_____	_____
(o)	P ₀ = (j) or (n) whichever well flowed through	_____	_____
(p)	Flowing Temp. (Meter Rm)	_____	_____
(q)	P ₀ = P ₀ + P ₁	_____	_____

WOLFE ET AL. CONTAMINATION

$$Q = \frac{MCF/AB}{(Investment)} = \frac{\frac{MCF/AB}{AB}}{\frac{Investment}{AB}} = \frac{MCF/AB}{Investment/AB}$$

LIABILITY CALCULATION

SECRET

SUMMARY

~~Company~~

~~Witnessed by~~

~~TITLE~~

~~BY ORIGINAL SIGNED BY M STEVENS~~

~~Company~~

* * *
* This is date of completion test.
* * *

REMARKS: CALIFORNIA POSITION AS STRANGER

GI	(I-8)	(P.O.)	(Fot)	(L-8)	P ₂	(Column 1)	P ₂ + P ₃	P ₄

