

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. 2
UNIT D SEC. 23 TWP. 31 RGE. 12 PAY ZONE: From 9210 To 5269
CASING: OD 7 WT. 20 SET AT 4976 TUBING: OD 2 WT. 4.7 T.Perf. 5165
PRODUCED THROUGH: CASING TUBING X GAS GRAVITY: MEASURED 0.681 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 0.375 TYPE CHART SR TYPE TAPS F

OBSERVED DATA

Flowing casing pressure (Dwt) 592 psig + 12 = 604 psia (a)
Flowing tubing pressure (Dwt) 592 psig + 12 = 544 psia (b)
Flowing meter pressure (Dwt) 592 psig + 12 = 544 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading. psig + 12 = psia (d)
Square root chart reading (7.40)² x spring constant = 548 psia (d)
Meter error (c) - (d) or (d) - (c) ± = 4 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 = 548 psia (g)
Square root chart average reading (7.40)² x sp. const. = 548 psia (g)
Corrected seven day avge. meter press. (P_f) (g) + (e) = 544 psia (h)
P_t = (h) + (f) = 544 psia (i)
Wellhead casing shut-in pressure (Dwt) 801 psig + 12 = 813 psia (j)
Wellhead tubing shut-in pressure (Dwt) 799 psig + 12 = 811 psia (k)
P_c = (j) or (k) whichever well flowed through. = 811 psia (l)
Flowing Temp. (Meter Run) °F + 460 = °Abs (m)
P_d = $\frac{1}{2}$ P_c = $\frac{1}{2}$ (l) = 406 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\text{(integrated)}}{\text{(integrated)}} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right)^{0.5} = \frac{(0.9927)^{0.5}}{0.9963} = 74 \text{ MCF/da.}$$

DELIVERABILITY CALCULATION

$$D = Q \times \frac{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{n 0.75}}{1.2607} = 93 \text{ MCF/da.}$$

SUMMARY

P_c = 811 psia
Q = 74 Mcf/day
P_w = 544 psia
P_d = 406 psia
D = 93 Mcf/day

Company Astec Oil & 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 _c Q) ²	(FcQ) ²	(1-e ^{-s})	P _t ² (Column 1)	P _t ² + R ²	P _w
			R ²				
Friction Loss Is Negligible							



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

(To be used for Field Office, District Office, and all other
except District Office)

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GENERAL DATA
(a) Date
(b) Date
(c) Date
(d) Date
(e) Date
(f) Date
(g) Date
(h) Date
(i) Date
(j) Date
(k) Date
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FIELD DATA

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