

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 Elmer - Mesaverde FORMATION Mesaverde COUNTY San Juan
PURCHASING PIPELINE Southern Union Gathering Co. DATE TEST FILED 4/12/56
OPERATOR Bell-Taylor Oil Corp. LEASE Elmer WELL NO. 2
UNIT 2 SEC. 30 TWP. 35N RGE. 10E PAY ZONE: From 2000 To 1100
CASING: OD 5.500 WT. 37.00 SET AT 900 TUBING: OD 2.375 WT. 1.70 T.Perf. 1000
PRODUCED THROUGH: CASING 1 TUBING 2 GAS GRAVITY: MEASURED 0.607 ESTIMATED 0.607
DATE OF FLOW TEST: From 3/28/56 To 3/30/56 *Date S.I.P. MEASURED 4/12/56
METER RUN SIZE 1.000 ORIFICE SIZE 2.000 TYPE CHART Normal TYPE TAPS Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 73.9 psig + 12 = 73.9 psia (a)
Flowing tubing pressure (Dwt) 62.7 psig + 12 = 62.7 psia (b)
Flowing meter pressure (Dwt) 62.5 psig + 12 = 62.5 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading. 60.0 psig + 12 = 60.0 psia (d)
Square root chart reading () ² x spring constant = psia (d)
Meter error (c) - (d) or (d) - (c). ± = 1.5 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing... = 2 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading. 61.1 psig + 12 = 61.1 psia (g)
Square root chart average reading () ² x sp. const. = psia (g)
Corrected seven day avge. meter press. (pf) (g) + (e) = 62.6 psia (h)
 $P_t = (h) + (f)$ = 64.6 psia (i)
Wellhead casing shut-in pressure (Dwt) 93.5 psig + 12 = 93.5 psia (j)
Wellhead tubing shut-in pressure (Dwt) 93.1 psig + 12 = 93.1 psia (k)
 $P_c = (j)$ or (k) whichever well flowed through. = 93.1 psia (l)
Flowing Temp. (Meter Run). 96 °F + 460 = 96 °Abs (m)
 $P_d = \frac{1}{2} P_c = \frac{1}{2} (l)$ = 46.5 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{2.315}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{25.432}{25.514} = 1.000 \right) = 2.315 \text{ MCF/da.}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{2.315}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = 2.315 \frac{1.5471}{1.000} = 3.577 \text{ MCF/da.}$$

SUMMARY

$P_c =$ 93.5 psia Company Bell-Taylor Oil Corporation
 $Q =$ 2.315 Mcf/day By J. E. Jones & E. Kreger
 $P_w =$ 73.5 psia Title Elmer - Mesaverde
 $P_d =$ 46.5 psia Witnessed by
 $D =$ 3.577 Mcf/day 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
<u>1320</u>	<u>0.215</u>	<u>107.099</u>	<u>105.115</u>	<u>0.215</u>	<u>875.600</u>	<u>980.715</u>	<u>73.5</u>

This is an Initial Deliverability Test.

APR 17 1956
OIL CO. & COM.
DIST. 3

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received		3
DISTRIBUTION		
	By	Date
Operator		
Santa Fe	1	
Proration Office		
State Land Office		
U. S. G. S.	1	
Transporter	1	
File		✓