

Initial Deliverability Test

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 El Estero Mesaverde Formation Mesaverde County San Juan
Purchasing Pipeline El Estero Mesaverde Date Test Filed JAN 17 1957
Operator El Estero Mesaverde Lease El Estero Mesaverde Well No. 543
Unit A Sec. 34 Twp. 35 Rge. 6 Pay Zone: From 3000 To 5700
Casing: OD 7" WT 20 & 22 Set At 4000 Tubing: OD 2-3/8 WT 4.7 T. Perf. 2000
Produced Through: Casing I Tubing I Gas Gravity: Measured 0.90 Estimated 0.90
Date of Flow Test: From 12-11-56 To 12-19-56 * Date S.I.P. Measured 12-14-56
Meter Run Size 1" Orifice Size 1/8" Type Chart 1" Type Taps 1"

OBSERVED DATA

Flowing casing pressure (Dwt) 3000 psig + 12 = 3012 psia (a)
Flowing tubing pressure (Dwt) 2000 psig + 12 = 2012 psia (b)
Flowing meter pressure (Dwt) 1500 psig + 12 = 1512 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading 1500 psig + 12 = 1512 psia (d)
Square root chart reading (1500)² x spring constant 1 = 1500 psia (d)
Meter error (c) - (d) or (d) - (c) 0 ± = 0 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 1500 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading 1500 psig + 12 = 1512 psia (g)
Square root chart average reading (1500)² x sp. const. 1 = 1500 psia (g)
Corrected seven day ave. meter press. (p_f) (g) + (e) = 1500 psia (h)
P_t = (h) + (f) = 1500 psia (i)
Wellhead casing shut-in pressure (Dwt) 3000 psig + 12 = 3012 psia (j)
Wellhead tubing shut-in pressure (Dwt) 2000 psig + 12 = 2012 psia (k)
P_c = (j) or (k) whichever well flowed through 3012 psia (l)
Flowing Temp. (Meter Run) 60 °F + 460 = 520 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 1506 psia (n)

FLOW RATE CALCULATION

Q = 536 X $\left(\frac{V(c)}{V(d)} \right)^{0.5} =$ 536 MCF/da
(Integrated)

DELIVERABILITY CALCULATION

D = Q 536 $\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.5} =$ 536 MCF/da

SUMMARY

P_c = 3012 psia
Q = 536 Mcf/day
P_w = 1506 psia
P_d = 1506 psia
D = 536 Mcf/day
Company El Estero Mesaverde
By John L. Smith
Title Engineer
Witnessed by John L. Smith
Company El Estero Mesaverde

- * 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 (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
<u>3000</u>	<u>0.99</u>	<u>2000</u>	<u>1960</u>	<u>3012</u>	<u>3012</u>	<u>1506</u>



