

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 South Blanco Formation Pictured Cliffs County RA
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed April 7, 1959
Operator Skelly Oil Company Lease Marron Well No. 1
Unit J Sec. 24 Twp. 27N Rge. 8W Pay Zone: From 2870 To 2956
Casing: OD 7" WT. 17# Set At 2856 Tubing: OD 1 WT. 1.70 T. Perf. 2944
Produced Through: Casing X Tubing _____ Gas Gravity: Measured .691 Estimated _____
Date of Flow Test: From 2-27-59 To 3-7-59 * Date S.I.P. Measured 2-23-59
Meter Run Size 4" Orifice Size 1.500 Type Chart Sq. Rt. Type Taps Flange

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 (7.25) ² x sp. const. 5.00 = 263 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = _____ psia (h)
P_t = (h) + (f) _____ = 263 psia (i)
Wellhead casing shut-in pressure (Dwt) 650 psig + 12 = 662 psia (j)
Wellhead tubing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 662 psia (l)
Flowing Temp. (Meter Run) 59 °F + 460 _____ = 519 °Abs (m)
P_d = ½ P_c = ½ (l) _____ = 331 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\left(\frac{V(c)}{V(d)} \right)^{0.5}}{\left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^{0.5}} \times \left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^{0.5} = \text{MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \times \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{0.5} = 1,125 \times \left[\frac{328,683}{369,075} \right]^{0.5} = 1,019 \text{ MCF/day}$$

SUMMARY

P_c = 662 psia
Q = 1125 Mcf/day
P_w = 263 psia
P_d = 331 psia
D = 1019 Mcf/day

Company Skelly Oil Company
By P. E. Cosper (Signed) P. E. Cosper
Title District Superintendent
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 (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
			Negligible			