

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 Cavalin Formation Pictured Cliffs County Rio Arriba
Purchasing Pipeline El Paso Natural Gas Co. Date Test Filed 8/16/61
Operator Socony Mobil Oil Co., Inc. Lease Jicarilla "B" Well No. 5
Unit A Sec. 14 Twp. 27N Rge. 3W Pay Zone: From _____ To _____
Casing: OD 7-5/8" WT. 25.4# Set At 3985' Tubing: OD 2-3/8" WT. 4.7# T. Perf. 3742'
Produced Through: Casing _____ Tubing x Gas Gravity: Measured .651 Estimated _____
Date of Flow Test: From 7/21/61 To 7/29/61 * Date S.I.P. Measured 8/5/61
Meter Run Size 4.026" Orifice Size 0.375 Type Chart 1-10-8 Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) _____ psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) 474 psig + 12 = 486 psia (b)
Flowing meter pressure (Dwt) 474 psig + 12 = 486 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (6.98)² x spring constant 10 = 487 psia (d)
Meter error (c) - (d) or (d) - (c) _____ = -1 psi (e)
Friction loss, Flowing column to meter: _____ = _____ psi (f)
(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 (7.00)² x sp. const. 10 = 490 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 489 psia (h)
P_t = (h) + (f) _____ = 499 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 911 psig + 12 = 923 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 923 psia (l)
Flowing Temp. (Meter Run) 73 °F + 460 _____ = 533 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 462 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{45}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} \cdot 486 = .9979}{\sqrt{(d)} \cdot 487} = .9990 \right) = 45 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \cdot 45 \cdot \left[\frac{(P_c^2 - P_d^2) = 638,485}{(P_c^2 - P_w^2) = 612,779} \right]^n \cdot 1.042^{0.85} = 1.0356 = 47 \text{ MCF/da.}$$

SUMMARY

P_c = 923 psia
Q = 45 Mcf/day
P_w = 489 psia
P_d = 462 psia
D = 47 Mcf/day

Company Socony Mobil Oil Co., Inc.
By H. J. Dvoracek
Title Prod. Engr.
Witnessed by _____
Company _____

- * This is date of completion
- * 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
2436	0.162	0.179	0.029	239,121	239,150	489

NMOCC (3)
EPNG (2)
RCM (1)
Fngtn (1)