

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 San Dakota Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Company Date Test Filed _____
Operator Adobe Oil Company Lease McBarty Well No. 1
Unit 11 Sec. 22 1/4 Twp. 31N Rge. 13W Pay Zone: From 6240 To 6400
Casing: OD 5 1/2 WT. 15.5 Set At 6475 Tubing: OD 2 3/8 WT. 4.7 T. Perf. 6246
Produced Through: Casing _____ Tubing 11 Gas Gravity: Measured _____ Estimated .67
Date of Flow Test: From 5-22-61 To 5-29-61 * Date S.I.P. Measured 6-6-61
Meter Run Size 4.028 Orifice Size 1" Type Chart 3210 Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 610 psig + 12 = 622 psia (a)
Flowing tubing pressure (Dwt) 520 psig + 12 = 532 psia (b)
Flowing meter pressure (Dwt) 506 psig + 12 = 518 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken:
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7)² x spring constant 10 = 490 psia (d)
Meter error (c) - (d) or (d) - (c) ± = 28 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 14 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)² x sp. const. 10 = 490 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 518 psia (h)
P_t = (h) + (f) = 532 psia (i)
Wellhead casing shut-in pressure (Dwt) 2001 psig + 12 = 2013 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1849 psig + 12 = 1861 psia (k)
P_c = (j) or (k) whichever well flowed through = 1861 psia (l)
Flowing Temp. (Meter Run) 83 °F + 460 = 543 ° Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 930 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{310}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} - \sqrt{(d)}}{\sqrt{(c)} - \sqrt{(d)}} \right) = \frac{22.759 - 22.136}{22.759 - 22.136} = 334 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{334}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = 334 \frac{1}{\left[\frac{1861^2 - 930^2}{1861^2 - 1861^2} \right]^n} = 449 \text{ MCF/da.}$$

SUMMARY

P_c = 1861 psia
Q = 334 Mcf/day
P_w = 682 532 psia
P_d = 930 930 psia
D = 449 Mcf/day

Company Adobe Oil Company
By A. T. Sindel
Title Vice-President
Witnessed by Lonnie Kramer
Company Agent, Adobe Oil 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 i)	P _t ² + R ²	P _w



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General of the Army

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