

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 Basin Dakota Formation Dakota County San Juan
Purchasing Pipeline El Paso Natural Gas Date Test Filed _____
Operator Adobe Oil Company Lease Harris Well No. 1
Unit 1 Sec. 22 Twp. 31N Rge. 13W Pay Zone: From 6246 To 6400
Casing: OD 34 WT. 13.5 Set At 6475 Tubing: OD 2-3/8 WT. 4.7 T. Perf. 6346
Produced Through: Casing _____ Tubing 1 Gas Gravity: Measured _____ Estimated _____
Date of Flow Test: From 3-23-61 To 3-23-61 * Date S.I.P. Measured 6-6-61
Meter Run Size 4.027 Orifice Size 1.00 Type Chart SK 10 Type Taps 71 ps.

OBSERVED DATA

Flowing casing pressure (Dwt) 587 psig + 12 = 599 psia (a)
Flowing tubing pressure (Dwt) 492 psig + 12 = 504 psia (b)
Flowing meter pressure (Dwt) 479 psig + 12 = 491 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) ± 1 = 1 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = 13 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) = 491 psia (h)
P_t = (h) + (f) = 504 psia (i)
Wellhead casing shut-in pressure (Dwt) 1604 psig + 12 = 1616 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1617 psig + 12 = 1629 psia (k)
P_c = (j) or (k) whichever well flowed through = 1629 psia (l)
Flowing Temp. (Meter Run) 81 °F + 460 = 541 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 814 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{Q}{(\text{integrated})} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{491}{490} = \frac{22.138}{22.135} = 1.00102 \right) = 646 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 646 \left[\frac{1,991,045}{2,388,998} \right]^{.8722} = 563 \text{ MCF/da.}$$

SUMMARY

P_c = 1629 psia Company Adobe Oil Company
Q = 646 Mcf/day By _____
P_w = 513 psia Title _____
P_d = 814 psia Witnessed By A. J. Stadel, Vice President
D = 563 Mcf/day Company Lennie Kruger
Company 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 (1-e ^{-S}) R ²	P _t ² (Column i)	P _t ² + R ²	P _w
4391	.267	39.803	10.627	254.016	264.643	514.4



