

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 UNDESIGNATED Formation DAKOTA County SAN JUAN
Purchasing Pipeline EL PASO NATURAL GAS COMPANY Date Test Filed 12-31-59
Operator HENSON-MARTIN-GRUBER DRILLING CORP. Lease MAYERS-KIDDLE Well No. 1
Unit A Sec. 18 Twp. 27N Rge. 12W Pay Zone: From 5905 To 5923
Casing: OD 5-1/2" WT. 17# Set At 6030 Tubing: OD 2-3/8" WT. 4.7 T. Perf. 5937
Produced Through: Casing Tubing X Gas Gravity: Measured 0.657 Estimated
Date of Flow Test: From 10-15-59 To 10-22-59 Date S.I.P. Measured 7-1-59
Meter Run Size 4" Orifice Size 0.750 Type Chart Sq. Rt. Type Tap 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 (6.65)² x sp. const. 10 = 442 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 442 psia (h)
 = 442 psia (i)
P_t = (h) + (f)
Wellhead casing shut-in pressure (Dwt) 1791 psig + 12 = 1803 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1789 psig + 12 = 1801 psia (k)
P_c = (j) or (k) whichever well flowed through = 1801 psia (l)
Flowing Temp. (Meter Run) 85 °F + 460 = 545 ° Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 901 psia (n)

FLOW RATE CALCULATION

$$Q = \text{(Integrated)} \times \left(\frac{\sqrt{(c)}}{\sqrt{(d)}} \right) = \text{MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \times \left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^{0.844} = 127 \text{ MCF/da.}$$

SUMMARY

P_c = 1801 psia
Q = 150 Mcf/day
P_w = 442 psia
P_d = 901 psia
D = 127 Mcf/day

Company HENSON-MARTIN-GRUBER DRILLING CORP.
By [Signature]
Title Engineer
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
			Friction negligible			

OK