

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 *West Kutz* Formation DAKOTA County SAN JUAN
Purchasing Pipeline EL PASO NATURAL GAS COMPANY Date Test Filed April 20, 1960
Operator Benson-Martin-Greer Drilling Corp. Lease SHIPP Well No. 1
Unit 0 Sec. 1 Twp. 27N Rge. 13W Pay Zone: From 5882 To 6017
Casing: OD 5-1/2 WT. 17 Set At 6040 Tubing: OD 2" EUE WT. 4.7 T. Perf. 5955
Produced Through: Casing Tubing X Gas Gravity: Measured 0.670 Estimated
Date of Flow Test: From 3-14-1960 To 3-22-1960 Date S.I.P. Measured Dec., 10, 1959
Meter Run Size 4" Orifice Size 2.250 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 (7.05) ² x sp. const. 10 = 497 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = 497 psia (h)
P_t = (h) + (f) = 497 psia (i)
Wellhead casing shut-in pressure (Dwt) 2144 psig + 12 = 2156 psia (j)
Wellhead tubing shut-in pressure (Dwt) 2128 psig + 12 = 2140 psia (k)
P_c = (j) or (k) whichever well flowed through = 2140 psia (l)
Flowing Temp. (Meter Run) 71 °F + 460 = 531 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 1070 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{V(c)}{V(d)} \times \left(\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right)^{1/2} = \text{MCF/da}$$

(Integrated)

DELIVERABILITY CALCULATION

$$D = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 2453 \text{ MCF/da.}$$

2.829 3.434,700 0.867 2453

SUMMARY

P_c = 2140 psia
Q = 2829 Mcf/day
P_w = 652 psia
P_d = 1070 psia
D = 2453 Mcf/day

Company Benson-Martin-Greer 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
3990	0.252	707,560	178,305	247,009	425,314	652



