

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 BALLARD Formation P C County RIO ARRIBA
Purchasing Pipeline EL PASO NATURAL GAS CO. Date Test Filed JAN. 12, 1960
Operator KEN BLACKFORD Lease JICARRILA Well No. 2-23
Unit P Sec. 23 Twp. 24 Rge. 5 Pay Zone: From 2414 To 2486
Casing: OD 41/2 WT. Set At 2464 Tubing: OD 2 WT. T. Perf. 2504
Produced Through: Casing Tubing X Gas Gravity: Measured .681 Estimated
Date of Flow Test: From 12 - 22 To 12 - 30 * Date S.I.P. Measured Nov. 1, 1959
Meter Run Size 4" Orifice Size 1.000 Type Chart SR Type Taps 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. 500 = 221 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) = psia (h)
P_t = (h) + (f) = psia (i)
Wellhead casing shut-in pressure (Dwt) 710 psig + 12 = 722 psia (j)
Wellhead tubing shut-in pressure (Dwt) 710 psig + 12 = 722 psia (k)
P_c = (j) or (k) whichever well flowed through = 722 psia (l)
Flowing Temp. (Meter Run) 46 °F + 460 = 506 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 361 psia (n)

FLOW RATE CALCULATION

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

DELIVERABILITY CALCULATION

$$D = Q \text{ } 214 \left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right] = \text{ } \text{ MCF/da.}$$

SUMMARY

P _c =	<u>722</u>	psia	Company	<u>GELECTRIC, INC.</u>
Q =	<u>214</u>	Mcf/day	By	<u>B. H. [Signature]</u>
P _w =	<u>221</u>	psia	Title	<u>AGENT</u>
P _d =	<u>361</u>	psia	Witnessed by	<u> </u>
D =	<u>182</u>	Mcf/day	Company	<u> </u>

* 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