

Initial Deliverability
TestNEW 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 Formation Dakota County San Juan
Purchasing Pipeline EPNG Co. Date Test Filed 1-22-62
Operator Pioneer Prod. Corp. Lease Cooper Well No. 1
Unit N Sec. 7 Twp. 29N Rge. 11W Pay Zone: From 6280 To 6504
Casing: OD 4 1/2 WT. 9.5 Set At 6543 Tubing: OD 2 3/8 WT. 4.6 T. Perf. 6393
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .654 Estimated _____
Date of Flow Test: From 12-25-61 To 1-1-62 * Date S.I.P. Measured 1-3-62
Meter Run Size 4" Orifice Size 1.500 Type Chart SR Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) Packer psig + 12 = _____ psia (a)
Flowing tubing pressure (Dwt) 760 psig + 12 = 772 psia (b)
Flowing meter pressure (Dwt) 491 psig + 12 = 503 psia (c)
Flowing meter pressure (meter reading when Dwt. measurement taken):
Normal chart reading _____ psig + 12 = _____ psia (d)
Square root chart reading (7.1)² x spring constant 10 = 504 psia (d)
Meter error (c) - (d) or (d) - (c) _____ ± _____ = -1 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing _____ = +269 psi (f)
Seven day average static meter pressure (from meter chart):
Normal chart average reading _____ psig + 12 = _____ psia (g)
Square root chart average reading (7.1)² x sp. const. 10 = 504 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 503 psia (h)
P_t = (h) + (f) _____ = 772 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ psig + 12 = _____ psia (j)
Wellhead tubing shut-in pressure (Dwt) 1772 psig + 12 = 1784 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1784 psia (l)
Flowing Temp. (Meter Run) _____ 75F + 460 _____ = 535 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 892 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{852}{(\text{integrated})} \times \left(\frac{\sqrt{p_c}}{\sqrt{p_d}} = \frac{\sqrt{1784}}{\sqrt{892}} = .9990 \right)^2 = 851 \text{ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{1784^2 - 892^2}{1784^2 - 783^2} = 2.386,992 \right]^{.75}}{(.9238)^{.75}} = 805 \text{ MCF/day}$$

SUMMARY

P_c = 1784 psia
Q = 851 Mcf/day
P_w = 783 psia
P_d = 892 psia
D = 805 Mcf/day

Company Pioneer Prod. Corp.
By Original signed by T. A. [illegible]
Title Consulting 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
4181	.262	64.016	16.773	595.984	612.757	783

RECEIVED

JAN 23 1962

OIL CON. COM.
DIST. 3

