

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 Formation Dakota County San Juan
Purchasing Pipeline EPNG Co. Date Test Filed 1-22-62
Operator Pioneer Prod. Corp. Lease Fruitt Well No. 1
Unit E Sec. 4 Twp. 29N Rge. 13W Pay Zone: From 5841 To 6021
Casing: OD 4 1/2 WT. 10.5 Set At 6105 Tubing: OD 1 1/2 WT. 2.4 T. Perf. 6004
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .703 Estimated _____
Date of Flow Test: From 12-17-61 To 12-25-61 Date S.I.P. Measured 1-8-62
Meter Run Size 4" Orifice Size 1.250 Type Chart SR Type Taps Flange

OBSERVED DATA

Flowing casing pressure (Dwt) 830 psig + 12 = 842 psia (a)
Flowing tubing pressure (Dwt) 522 psig + 12 = 534 psia (b)
Flowing meter pressure (Dwt) 493 psig + 12 = 505 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 _____ = +29 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) _____ = 505 psia (h)
P_t = (h) + (f) _____ = 534 psia (i)
Wellhead casing shut-in pressure (Dwt) 1494 psig + 12 = 1506 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1486 psig + 12 = 1498 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1498 psia (l)
Flowing Temp. (Meter Run) 73 °F + 460 _____ = 533 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 749 psia (n)

FLCW RATE CALCULATION

$$Q = \frac{703}{(\text{integrated})} \times \left(\frac{\sqrt{(c)} = \sqrt{1.0020} = 1.0010}{\sqrt{(d)}} \right) = 704 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{704}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.75} \cdot \frac{.9204}{(.8953)^{.75}}} = 648 \text{ MCF/da.}$$

SUMMARY

P_c = 1498 psia
Q = 704 Mcf/day
P_w = 604 psia
P_d = 749 psia
D = 648 Mcf/day

Company Pioneer Prod. Corp.
By Original signed by J. A. Dugan
Title Consulting Engineer
Witnessed by _____
Company _____

RECEIVED
JAN 23 1962
OIL CON. C
DIST. 3

- * 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
4221	.264	298.562	79.084	285.156	364.240	604