

1 EPNQ
1 File

Initial Deliverability
Test

Form C-122-A
Revised April 20, 1955

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 El Paso Natural Gas Co. Date Test Filed July 20, 1962
Operator Pioneer Prod. Corp. Lease Airport Well No. 2
Unit P Sec. 8 Twp. 29N Rge. 13W Pay Zone: From 5742 To 5924
Casing: OD 4 1/2" WT. 10.5# Set At 5995 Tubing: OD 2 3/8" WT. 4.7# T. Perf. 5925
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .714 Estimated _____
Date of Flow Test: From 6-28-62 To 7-5-62 * Date S.I.P. Measured 7-12-62
Meter Run Size 4" Orifice Size 1.00 Type Chart S.R. Type Taps _____

OBSERVED DATA

Flowing casing pressure (Dwt) 1055 psig + 12 = 1067 psia (a)
Flowing tubing pressure (Dwt) 514 psig + 12 = 526 psia (b)
Flowing meter pressure (Dwt) 512 psig + 12 = 524 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) ± = +20 psi (e)
Friction loss, Flowing column to meter:
(b) - (c) Flow through tubing: (a) - (c) Flow through casing = +2 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) = 517 psia (h)
P_t = (h) + (f) = 519 psia (i)
Wellhead casing shut-in pressure (Dwt) 1503 psig + 12 = 1515 psia (j)
Wellhead tubing shut-in pressure (Dwt) 712 psig + 12 = 724 psia (k)
P_c = (j) or (k) whichever well flowed through = 1515 psia (l)
Flowing Temp. (Meter Run) 87 °F + 460 = 547 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) = 758 psia (n)

FLOW RATE CALCULATION

$$Q = \frac{96}{(\text{Integrated})} \times \left(\frac{\sqrt{(c)} = \frac{1.0397}{\sqrt{(d)}} = 1.0197} \right)^* = 96 \text{ MCF/da}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{96}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^{.75} \frac{.8848}{(.8494)^{.75}}} = 85 \text{ MCF/da.}$$

SUMMARY

P_c = 1515 psia
Q = 96 Mcf/day
P_w = 519 psia
P_d = 758 psia
D = 85 Mcf/day

Company Pioneer Production Corp.
By Original signed by F. A. Edgar
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
4230	.265	.815	.216	269.361	269.577	519

* Csg pressure used as P_c because of large differential between tubing and casing shut in pressures.

RECEIVED
JUL 25 1962
OIL CON. COM.
DIST. 3