

172150
Initial Deliverability
Test

NEW MEXICO OIL CONSERVATION COMMISSION
GAS WELL TEST DATA SHEET - - SAN JUAN BASIN

(TO BE USED FOR FRUITLAND, P CTURED CLIFFS, MESAVERDE, & ALL DAKOTA
EXCEPT BARKER DOME STORAGE AREA)

Pool Blanco Formation Mesa Verde County Rio Arriba
Purchasing Pipeline Pacific Northwest Pipeline Corp Date Test Filed _____
Operator EPNG Lease San Juan 30-6 Well No. 31 (N)
Unit N Sec. 33 Twp. 30 Rge. 6 Pay Zone: From 5149 To 5611
Casing: OD 7 WT. 23 1/2 Set At 7440 Tubing: OD 1-1/4 WT. 2.4 T. Perf. 5552
Produced Through: Casing X Tubing _____ Gas Gravity: Measured .667 Estimated _____
Date of Flow Test: From 9-30-59 To 10-8-59 * Date S.I.P. Measured 7-22-59 (20 days)
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

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 465 psig + 12 = 477 psia (g)
Square root chart average reading (_____ ² x sp. const. _____) = 477 psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 477 psia (h)
P_t = (h) + (f) _____ = 477 psia (i)
Wellhead casing shut-in pressure (Dwt) 1019 psig + 12 = 1031 psia (j)
Wellhead tubing shut-in pressure (Dwt) 1011 psig + 12 = 1023 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 1031 psia (l)
Flowing Temp. (Meter Run) 72 °F + 460 _____ = 532 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 516 psia (n)

$$Q = \frac{12439}{8} \times \left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)} = \dots = \dots} \right)^* = 1555 \text{ MCF/da}$$

(Integrated) $\sqrt{(d)} = \dots$

DELIVERABILITY CALCULATION

$$D = Q \frac{1555}{\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{796705}{835432} \right]^n \frac{.9536}{.9650}} = 1501 \text{ MCF/da.}$$

SUMMARY

| | | | | |
|------------------|-------------|---------|--------------|------------------------------------|
| P _c = | <u>1031</u> | psia | Company | <u>El Paso Natural Gas Company</u> |
| Q = | <u>1555</u> | Mcf/day | By | <u>Original Signed</u> |
| P _w = | <u>477</u> | psia | Title | <u>Harold L. Kendrick</u> |
| P _d = | <u>516</u> | psia | Witnessed by | |
| D = | <u>1501</u> | Mcf/day | 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 |
|----|----------------------|---------------------------------|--|---|--|----------------|
| | | | <u>FRICTION NEGLIGIBLE</u> | | | |

D500 = 1506

