

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)

72-452

Pool Astec Formation Pictured Cliffs County San Juan
Purchasing Pipeline El Paso Natural Gas Date Test Filed _____

Operator El Paso Natural Gas Lease Porco Well No. 2
Unit 0 Sec. 35 Twp. 30 Rge. 11 Pay Zone: From 3856 To 3880
Casing: CD 5-1/2 WT. 15.5 Set At 2243 Tubing: OD 1-1/4 WT. 2.4 T. Perf. 2147
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .654 Estimated _____
Date of Flow Test: From 8/22/59 To 8/30/59 Date S.I.P. Measured 5/20/59
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 216 psig + 12 = 228 psia (g)
Square root chart average reading (_____) ² x sp. const. _____ = _____ psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 228 psia (h)
P_t = (h) + (i) _____ = 228 psia (i)
Wellhead casing shut-in pressure (Dwt) _____ 599 psig + 12 = 611 psia (j)
Wellhead tubing shut-in pressure (Dwt) _____ 599 psig + 12 = 611 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 611 psia (l)
Flowing Temp. (Meter Run) _____ 69 °F + 460 = _____ °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 306 psia (n)

Q = _____ X $\left(\frac{\text{FLOW RATE CALCULATION}}{\sqrt{(c)}} = \frac{\text{FLOW RATE CALCULATION}}{\sqrt{(d)}}} \right) = \underline{728}$ MCF/day

DELIVERABILITY CALCULATION

D = Q 728 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^n = \underline{706}$ MCF/day

SUMMARY

P_c = 611 psia
Q = 728 Mcf/day
P_w = 288 psia
P_d = 306 psia
D = 706 Mcf/day

Company El Paso Natural Gas
By Original Signed
Title Harold L. Kendrick
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
<u>1401</u>	<u>.097</u>	<u>321.234</u>	<u>31.160</u>	<u>51084</u>	<u>83144</u>	<u>288</u>

D @ 250 = 696

OK



THE UNIVERSITY OF CHICAGO
DIVISION OF THE PHYSICAL SCIENCES
DEPARTMENT OF CHEMISTRY

REPORT OF THE
COMMISSION ON THE
STRUCTURE OF THE
ATOMIC NUCLEUS

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