

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 Ballard Pictured Cliffs Formation Pictured Cliffs County San Juan
Purchasing Pipeline Southern Union Gas Company Date Test Filed 3-20-56
Operator Southern Union Gas Company Lease Nowson Well No. 2-A
Unit N Sec. 4 Twp. 26-N Rge. 8-W Pay Zone: From 2228' To 2335'
Casing: OD 5 1/4" WT. 15.5# Set At 2233' Tubing: OD 1" WT. 1.7# T. Perf. _____
Produced Through: Casing XX Tubing _____ Gas Gravity: Measured _____ Estimated .660
Date of Flow Test: From 1/16/56 To 1/24/56 * Date S.I.P. Measured 4/5/55
Meter Run Size 4" Orifice Size 7/8" Type Chart Normal Type Taps Flange

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 231 psig + 12 = 243 psia (g)
Square root chart average reading (_____) ² x sp. const. _____ = _____ psia (g)
Corrected seven day avge. meter press. (p_f) (g) + (e) _____ = 243 psia (h)
P_t = (h) + (f) _____ = 243 psia (i)
Wellhead casing shut-in pressure (Dwt) 700 psig + 12 = 712 psia (j)
Wellhead tubing shut-in pressure (Dwt) 700 psig + 12 = 712 psia (k)
P_c = (j) or (k) whichever well flowed through _____ = 712 psia (l)
Flowing Temp. (Meter Run) 60 °F + 460 _____ = 520 °Abs (m)
P_d = 1/2 P_c = 1/2 (l) _____ = 356 psia (n)

FLOW RATE CALCULATION

Q = 268 X $\left(\frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\text{None}}{\text{None}} \right) = \text{None}$ MCF/day
(integrated)

DELIVERABILITY CALCULATION

D = Q 268 $\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} \right]^{0.85} = \frac{380,208}{447,895}^{0.85} = .87000 = \text{251} \text{ MCF/day.}$

SUMMARY

P_c = 712 psia
Q = 268 Mcf/day
P_w = 243 psia
P_d = 356 psia
D = 251 Mcf/day
Company Southern Union Gas Company
By L. S. Muenich
Title Jr. Petroleum 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

Friction Loss Negligible

OK



Figure 10: α and β as a function of γ

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[illegible][illegible]

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Time of Day	Sleeping	Resting	Walking	Standing	Sitting	Eating
0	10	10	5	5	5	5
4	85	10	2	2	2	2
8	10	10	5	5	5	15
12	5	10	10	10	10	20
16	5	10	10	10	10	15
20	10	10	5	5	5	5
24	10	10	5	5	5	5

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I.P. 926 ~~80/D~~ MCF/D After 3 Hrs. SICP 100 PSI After 7 Days GOR _____ Grav. _____ 1st Del. 1-9-55 546

[illegible]

P O O
 Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec.
 PC Co. SJ 4 T 26N R 8W U N Oper. SUG Lse. Newsom No. 2-A