

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

72-140

Operator El Paso Natural Gas Lease Russell Well No. 3 (P)
Unit M Sec. 23 Twp. 28 Rge. 8 Pay Zone: From 2338 To 2432
Casing: OD 7-5/8 WT. 26.4 Set At 2537 Tubing: OD 1-1/4 WT. 2.4 T. Perf. 2597
Produced Through: Casing _____ Tubing X Gas Gravity: Measured .634 Estimated _____
Date of Flow Test: From 9/29/58 To 10/7/58 * Date S.I.P. Measured 6/10/58
Meter Run Size _____ Orifice Size _____ Type Chart _____ Type Taps _____

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 _____	psig + 12 = _____	psia	(g)
Square root chart average reading (<u>7.00</u>) ² x sp. const. <u>10</u> _____	= <u>490</u>	psia	(g)
Corrected seven day avge. meter press. (p _f) (g) + (e) _____	= <u>490</u>	psia	(h)
P _t = (h) + (f) _____	= <u>490</u>	psia	(i)
Wellhead casing shut-in pressure (Dwt) _____	<u>1059</u> psig + 12 = <u>1071</u>	psia	(j)
Wellhead tubing shut-in pressure (Dwt) _____	<u>1060</u> psig + 12 = <u>1072</u>	psia	(k)
P _C = (j) or (k) whichever well flowed through _____	= <u>529</u>	psia	(l)
Flowing Temp. (Meter Run) <u>69</u> °F + 460 _____	= <u>536</u>	° Abs	(m)
P _d = ½ P _C = ½ (l) _____	= _____	psia	(n)

Q = _____ X $\left(\frac{\text{FLOW RATE CALCULATION}}{\frac{\sqrt{(c)}}{\sqrt{(d)}}} \right)^* =$ 526 MCF/day

(integrated)

$$D = Q \frac{528}{\left[\frac{(P_c^2 - P_d^2)}{(P_c^2 - P_w^2)} = \frac{861888}{891342} \right]^n} \frac{.9669}{.9718} = 513 \text{ MCF/da.}$$

$P_c =$ 1072 psia
 $Q =$ 528 Mcf/day
 $P_w =$ 508 psia
 $P_d =$ 536 psia
 $D =$ 513 Mcf/day

Company El Paso Natural Gas
By Original Signed
Title Harold L. Kendrick
Witnessed by _____
Company _____

- 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
1520	.105	168,974	17742	246100	257842	508

D at 250 - 611

