

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)

**El Paso Natural Gas Co.** **Mesa Verde** **Rio Arriba**  
Pool \_\_\_\_\_ Formation \_\_\_\_\_ County \_\_\_\_\_  
Purchasing Pipeline **El Paso Natural Gas Company** Date Test Filed \_\_\_\_\_  
Operator **El Paso Natural Gas Co.** Lease **San Juan 27-5** Well No. **10**  
Unit **A** Sec. **23** Twp. **27N** Rge. **5W** Pay Zone: From **5050** To **5046**  
Casing: OD **5 1/2** WT. **15.5** Set At **5735** Tubing: OD **2** WT. **4.7** T. Perf. **5503**  
Produced Through: Casing \_\_\_\_\_ Tubing **X** Gas Gravity: Measured **.695** Estimated \_\_\_\_\_  
Date of Flow Test: From **5/21** To **6/8** \* Date S.I.P. Measured **10/13/55**  
Meter Run Size **1/2** Orifice Size \_\_\_\_\_ Type Chart **Sp. Rt.** 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 ( \_\_\_\_\_ ) <sup>2</sup> 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 ( **7.30** ) <sup>2</sup> x sp. const. **1000** \_\_\_\_\_ = **533** psia (g)  
Corrected seven day avge. meter press. (p<sub>f</sub>) (g) + (e) \_\_\_\_\_ = **533** psia (h)  
P<sub>t</sub> = (h) + (f) \_\_\_\_\_ = **533** psia (i)  
Wellhead casing shut-in pressure (Dwt) **960** psig + 12 = **960** psia (j)  
Wellhead tubing shut-in pressure (Dwt) **961** psig + 12 = **976** psia (k)  
P<sub>c</sub> = (j) or (k) whichever well flowed through \_\_\_\_\_ = \_\_\_\_\_ psia (l)  
Flowing Temp. (Meter Run) **70** °F + 460 \_\_\_\_\_ = **488** °Abs (m)  
P<sub>d</sub> = 1/2 P<sub>c</sub> = 1/2 (l) \_\_\_\_\_ = \_\_\_\_\_ psia (n)

FLOW RATE CALCULATION

$$Q = \frac{\text{(integrated)}}{\text{(integrated)}} \times \left( \frac{\sqrt{(c)}}{\sqrt{(d)}} = \frac{\text{_____}}{\text{_____}} = \text{_____} \right) = \text{_____ MCF/day}$$

DELIVERABILITY CALCULATION

$$D = Q \frac{156}{\left[ \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n} = \frac{714,432}{687,958} \times \frac{1.0696}{1.0517} = 164 \text{ MCF/day.}$$

SUMMARY

P<sub>c</sub> = **976** psia  
Q = **156** Mcf/day  
P<sub>w</sub> = **533** psia  
P<sub>d</sub> = **488** psia  
D = **164** Mcf/day

Company **El Paso Natural Gas Company**  
By **Original Signed**  
Title **Lewis D. Galloway**  
Witnessed by \_\_\_\_\_  
Company \_\_\_\_\_

\* This is date of completion test.  
\* Meter error correction factor

REMARKS OR FRICTION CALCULATIONS

GL	(1-e <sup>-s</sup> )	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> ) R <sup>2</sup>	P <sub>t</sub> <sup>2</sup> (Column i)	P <sub>t</sub> <sup>2</sup> + R <sup>2</sup>	P <sub>w</sub>
<b>3000</b>	<b>.214</b>	<b>2.152</b>	<b>529</b>	<b>284,089</b>	<b>284,618</b>	<b>533</b>

D = 156 = 160

OK

