

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE / September 17, 1957

Operator El Paso Natural Gas Company		Lease San Juan 28-7 Unit No. 73	
Location 990'N, 1090'E, Sec. 28-28-7		County Rio Arriba	State New Mexico
Formation Pictured Cliffs		Pool Undesignated	
Casing: Diameter 7-5/8	Set At: Feet 2864	Tubing: Diameter 1-1/4	Set At: Feet 2764
5-1/2 liner - 2791 to 5059			
Pay Zone From: 2680	To: 2724	Total Depth: 5062 - c/o - 4990	
Stimulation Method Sand Water Frac.		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches .750		Choke Coefficient C 12.365	
Shut-In Pressure, Casing, PSIG 939	PSIA 951	Days Shut-In 12	Shut-In Pressure, Tubing, PSIG PC - 939
Flowing Pressure: P PC Casing - 81	PSIG 93		Working Pressure: Pw, PSIG 82
Temperature, T 74	Gravity .850		Flow Through Tables 1.006

Starting SIPT MV - 1048 psig; Final - 1049 psig. Packer at 2869. Sleeve at 2676

CHOKE VOLUME $Q_c = C \times P_c \times F_c \times F_g \times F_v$

$$Q_c = 12.365 \times 93 \times .9868 \times .9645 \times 1.006 = 1101 \text{ MCF/D}$$

$$Q_{OF} = A_{OF} \times Q_c \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$A_{OF} \left(\frac{904,401}{895,565} \right)^n \cdot 1.0098^{-.85} \times 1101 = 1.0083 \times 1101$$

$$A_{OF} = 1110 \text{ MCF/D}$$

Dick Ullrich and Bob Davis

cc: E. S. Oberly (6)

L. D. Calloway
L. D. Calloway



FOR YOUR SERVICE IN COMMISSION

100-443887-100

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971). The concentration of chlorophylls was expressed as $\mu\text{g mL}^{-1}$ of the sample.

[illegible]

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADUAL COMPLETIONDATE September 26, 1957

Operator El Paso Natural Gas Company		Lease San Juan 28-7 Unit No. 73	
Location 990'H, 1090'E, Sec. 28-28-7		County Rio Arriba	State New Mexico
Formation Mesa Verde		Pool Blanco	
Casing Diameter 7-5/8	Set At: Feet 2864	Tubing Diameter 2	Set At: Feet 4969
Pay Zone: From 4338	To 4980	Total Depth: 5062 - c/o 4990	
Stimulation Method Sand Water Frac.		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches 0.75	Choke Constant: C 12.365		5-1/2" liner at 2791 to 5059	
Shut-In Pressure, Casing, PSIG PC 980	+ 12 = PSIA 992	Days Shut-In 21	Shut-In Pressure, Tubing PSIG 1071	+ 12 = PSIA 1083
Flowing Pressure: P PSIG 371	+ 12 = PSIA 383		Working Pressure: P _w PSIG Calculated	+ 12 = PSIA 740
Temperature: T °F 72	n .75		F _{pv} (From Tables) 1.039	Gravity .670

Final SIPC (PC) - 983 psig; packer at 2869; Garrett sleeve at 2676

CHOKE VOLUME = Q C x P_c x F_c x F_g x F_{pv}Q **12.365 x 383 x .9887 x .9463 x 1.039** **4604** MCF/D

$$\text{OPEN FLOW } A_{of} = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$A_{of} = \left(\frac{1,172,889}{625,289} \right)^n = 1.8757^{.75} \times 4604 = 1.6030 \times 4604$$

A_{of} = **7380** MCF/DTESTED BY R. A. Ullrich

WITNESSED BY _____

cc: E. S. Oberly (6)



L. D. Galloway
L. D. Galloway

OIL CONSERVATION COMMISSION

AZTEC DISTRICT OFFICE

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