

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DUAL COMPLETION

DATE February 20, 1964

Operator El Paso Natural Gas Company		Lease Turner Hughes No. 14 (DK)	
Location 1783'N, 1090'E, Sec. 4, T-27-N, R-9-W		County San Juan	State New Mexico
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 7129	Tubing: Diameter 2.0625	Set At: Feet 6871
Pay Zone: From 6907	To 7014	Total Depth: 7129	Shut In 2-10-64
Stimulation Method Sand Water Frec.		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches 0.750		Choke Constant: C 12.365		Packer set at 4850'	
Shut-In Pressure, Casing, (MV) 963	PSIG	+ 12 = PSIA 975	Days Shut-In 10	Shut-In Pressure, Tubing (DK) 1954	PSIG
Flowing Pressure: P 128	PSIG	+ 12 = PSIA 140		Working Pressure: P _w (Calc.)	PSIG
Temperature: T = 65 °F		n =		F _{pv} (From Tables)	Gravity
F _t = .9952		.75		1.018	.750 F _g = .8944

Initial SIPT (MV) = 966 psig

Final SIPC (MV) = 967 psig

CHOKE VOLUME = Q = C × P_t × F_t × F_g × F_{pv}

$$Q = (12.365)(140)(.9952)(.8944)(1.018) = 1569 \text{ MCF/D}$$

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

$$A_{of} = \left(\frac{3865156}{3711492} \right)^n = (1569)(1.0414)^{.75} - (1569)(1.0309)$$

$$A_{of} = 1617 \text{ MCF/D}$$

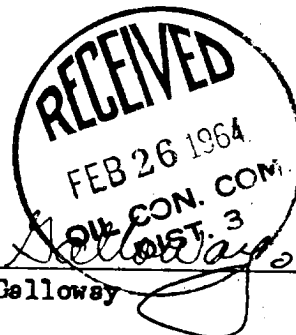
NOTE: Unloaded large slug of water right after opening, then produced slugs of oil throughout remainder of test.

TESTED BY R. F. Headrick & D. E. Mortensen

Calculated by

W. D. Dawson

Checked by Tom B. Grant



Lewis D. Galloway
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