

NEW MEXICO OIL CONSERVATION COMMISSION
MULTI-POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 12-1-55

Pool DASIN		Formation DAKOTA		County SAN JUAN	
Initial XX		Annual		Special	
Company SOUTHERN UNION PRODUCTION Co.		Lease HODGES		Date of Test 8/18/67	
Unit C		Sec. 34		Twp. 26 N	
Casing 4.500		Wt. 10.90		I.D. 4.052	
Tubing 1.900		Wt. 2.90		I.D. 1.610	
Gas Pay:		From 6716		To 6937	
Producing Through:		Casing		Tubing XX	
Date of Completion 7/30/67		Packer		Reservoir Temp. SINGLE - GAS	

OBSERVED DATA

Tested Through:		Prover <input type="checkbox"/>		Choke <input checked="" type="checkbox"/>		Meter <input type="checkbox"/>		Type of Taps		
FLOW DATA					TUBING DATA		CASING DATA		DURATION OF FLOW HR.	
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig.	Diff. h _w	Temp. °F.	Press. psig.	Temp. °F.	Press. psig.		Temp. °F.
1.	2	3/4"				2235		2227		8 DAYS
2.						215	64	944		
3.										
4.										
5.										

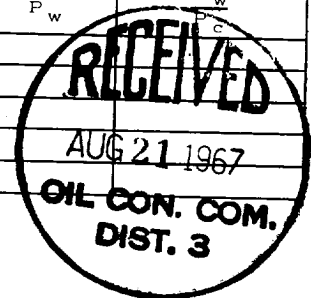
FLOW CALCULATIONS

No.	Coefficient (24 Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCF PD @ 15,025 psia
1.	12.3650		227	.9962	.9258	1.026	2,656
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl. Specific Gravity Separator Gas _____
 Gravity of Liquid Hydrocarbons _____ deg. Specific Gravity Flowing Fluid _____
 F_c _____ (1-e^{-S}) _____ P_c **2247** P_c² **5,049,009**

No.	$\frac{P_w}{P_t}$ psia	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _w ²	P _c ² - P _w ²	Cal P _w	$\frac{P_w}{P_c}$
1.	956					913,936	4,135,073		
2.									
3.									
4.									
5.									



ABSOLUTE POTENTIAL: **3,085** MCFPD; n **.75**

COMPANY **SOUTHERN UNION PRODUCTION COMPANY** WITNESSED **DON MORTON**

ADDRESS **P. O. Box 808, Farmington, N.Mex.** COMPANY **EL PASO NATURAL GAS COMPANY**

AGENT AND TITLE **KENNETH E. RODDY** Original signed by
PRODUCTION TECHNICIAN Kenneth E. Roddy

EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATA

DATE August 18, 1967

Operator SOUTHERN UNION PRODUCTION COMPANY		Lease Hodges No. 12	
Location 1190'N, 1100'W, Sec. 34, T-26-N, R-8-W		County San Juan	State New Mexico
Formation Dakota		Pool Basin	
Casing: Diameter 4.500	Set At: Feet 6987	Tubing: Diameter 1.900	Set At: Feet 6822
Pay Zone: From 6716	To 6937	Total Depth: 6987	Shut In 8-10-67
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches .750		Choke Constant: C 12.365		Company Dist. Only		
Shut-In Pressure, Casing, PSIG 2227	+ 12 = PSIA 2239	Days Shut-In 8	Shut-In Pressure, Tubing PSIG 2235	+ 12 = PSIA 2247		
Flowing Pressure: P PSIG 215	+ 12 = PSIA 227	Working Pressure: P _w PSIG 944	+ 12 = PSIA 956			
Temperature: T = 64 °F Ft = .9962	n = .75	F _p (From Tables) 1.026	Gravity .700	F _g = .9258		

CHOKE VOLUME = Q = C x P_i x F_i x F_g x F_pv

Q = (12.365)(227)(.9962)(.9258)(1.026) = 2656 MCF/D

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

Aof = $\left(\frac{5049009}{4135073} \right)^n = (2656)(1.2210)^{.75} = (2656)(1.1617)$

NOTE: The well produced a light fog of dist. and water throughout the test.

Aof = 3085 MCF/D

TESTED BY Ken Roddy (SUPC)

WITNESSED BY Don Norton (EPNG)

CALCULATED BY H. E. McAnally (EPNG)

H. L. Kendrick
 H. L. Kendrick

