

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Mesaverte Formation Mesa Verde County Bio Arriba  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test June 2, 1958  
Company Southern Union Gas Co. Lease San Juan Unit 29-7 Well No. 64  
Unit \_\_\_\_\_ Sec. 11 Twp. T-29N Rge. R-7W Purchaser El Paso Natural Gas Co.  
Casing 7 5/8" Wt. 26.4 I.D. 6.969 Set at 3130-5680 Perf. 1960 To 5180  
Tubing 2 3/8" Wt. 4.7 I.D. 1.995 Set at 5180 Perf. 5150 To 5180  
Gas Pay: From 1960 To 5180 L \_\_\_\_\_ xG 0.67 -GL \_\_\_\_\_ Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single Gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: May 10, 1958 Packer \_\_\_\_\_ Reservoir Temp. Single Gas

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI						1070		1083		7 days
1.		3/4"	377		72°	377	72°	986		3 hours
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.			389	0.9887	0.9463	1.041	4,685
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 1095 P<sub>c</sub> 1199

P<sub>w</sub> 998 P<sub>w</sub> 996

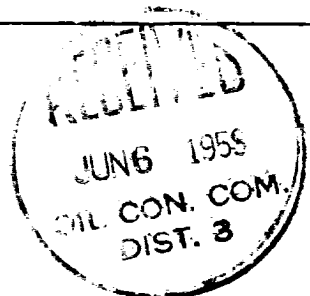
No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-s</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> /P <sub>c</sub>
1.						996	203		0.910
2.									
3.									
4.									
5.									

Absolute Potential: 17,800 MCFPD; n 0.75

COMPANY SOUTHERN UNION GAS COMPANY  
ADDRESS P. O. Box 815, Farmington, New Mexico  
AGENT and TITLE Thomas E. Fenne, Jr. Engineer  
WITNESSED Richard Prester  
COMPANY El Paso Natural Gas Company

## REMARKS

1. 5 1/2" casing set as a liner, top at 3130, bottom at 5680.



## INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

## NOMENCLATURE

$Q$  = Actual rate of flow at end of flow period at W. H. working pressure ( $P_w$ ).  
MCF/da. @ 15.025 psia and 60° F.

$P_c$  = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.  
psia

$P_w$  = Static wellhead working pressure as determined at the end of flow period.  
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

$P_t$  = Flowing wellhead pressure (tubing if flowing through tubing, casing if  
flowing through casing.) psia

$P_f$  = Meter pressure, psia.

$h_w$  = Differential meter pressure, inches water.

$F_g$  = Gravity correction factor.

$F_t$  = Flowing temperature correction factor.

$F_{pv}$  = Supercompressibility factor.

$n$  = Slope of back pressure curve.

Note: If  $P_w$  cannot be taken because of manner of completion or condition of well, then  $P_w$  must be calculated by adding the pressure drop due to friction within the flow string to  $P_t$ .

OIL CONSERVATION COMMISSION	
ADMINISTRATIVE OFFICE	
No. Comm. Form 100	3
DATE RECEIVED	
BY	
Operator	
Santa Fe	1
Production Office	
State Land Office	
U. S. G. S.	1
Transportation	
File	1