

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BASIN DAKOTA Formation DAKOTA County XXX SAN JUAN  
Initial XX Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 7/20/64  
Company SOUTHERN UNION PRODUCTION CO Lease NAVAJO INDIAN Well No. 5-B  
Unit L Sec. 30 Twp. 27-N Rge. 8-W Purchaser EL PASO NATURAL GAS COMPANY  
Casing 5-1/2 Wt. 17# I.D. 4.892 Set at 6650 Perf. 6378 To 6640  
Tubing 1-1/2 Wt. 2.90 I.D. 1.610 Set at 6393 Perf. 6383 To 6393  
Gas Pay: From 6378 To 6640 L 6383 xG .735 -GL 4692 Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing XX Type Well DUAL G.G.  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 7-1-64 Packer 6350 Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (~~XXXXXX~~) 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						1975		PACKER		19 DAYS
1.	2"	3/4	293		69°	293	69°			3 MRS.
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.	12.3650		305	.9915	.9035	1.038	3507
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> 16.46 (1-e<sup>-8</sup>) .289

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 1987 P<sub>c</sub> 3948169

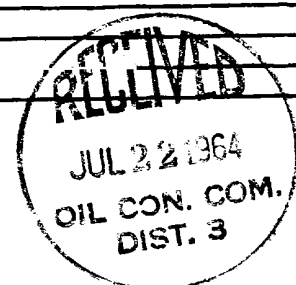
No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-8</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> P <sub>c</sub>
1.	305	93025	57.725	3332.176	962.999	1056024	2892145	1028	.516
2.									
3.									
4.									
5.									

Absolute Potential: 4429 MCFPD; n .75

COMPANY SOUTHERN UNION PRODUCTION COMPANY  
ADDRESS P. O. BOX 808, FARMINGTON, NEW MEXICO  
AGENT and TITLE VERNE S. ROCKWOLD - JR. ENGINEER  
WITNESSED RON HINDRICKS  
COMPANY EL PASO NATURAL GAS CO.

REMARKS

- (3) N.M.O.C.C.  
(1) MR. PAUL CLOTE  
(1) EL PASO NATURAL GAS CO., PRORATION DEPT.  
(1) FILE  
(2) MR. H. L. KINDRICKS, Box 990, FARMINGTON, N.M.



## 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.

$F_{pv}$  = Supercompressability 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  $P_t$ .