

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool BADIN DAKOTA Formation DAKOTA County SAN JUAN  
Initial XX Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 10-12-63  
Company SOUTHERN UNION PRODUCTION CO. Lease NO CORO Well No. 7  
Unit 814 Sec. 4 Twp. 30-NORTH Rge. 13-WEST Purchaser EL PASO NATURAL GAS COMPANY  
Casing 4 1/2 Wt. 10.50 I.D. 4.052 Set at 6514 Perf. 6284 To 6478  
Tubing 1 1/2 Wt. 2.90 I.D. 1.620 Set at 6408 Perf. 6398 To 6408  
Gas Pay: From 6284 To 6478 L 6398 xG .710 -GL 15.43 Bar.Press. 12.0  
Producing Thru: Casing \_\_\_\_\_ Tubing XX Type Well SINGLE GAS  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 10-8-63 Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (BEVEL) (Choke) (NEVER) Type Taps \_\_\_\_\_

Flow Data						Tubing Data		Casing Data		Duration of Flow Hr.
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.	2	3/4	245		740	245	740	826		7 DAY
2.										3 HRS.
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.	12.3690		297	.9868	.9193	1.029	2966
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> 1985 P<sub>c</sub><sup>2</sup> 3940.2

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.						702.2	3238.0		.422
2.									
3.									
4.									
5.									

Absolute Potential: 3437 MCFPD; n .75  
COMPANY SOUTHERN UNION PRODUCTION COMPANY  
ADDRESS POST OFFICE BOX 886, FARMINGTON, N. MEX.  
AGENT and TITLE VERNE BARKHOLD, JUNIOR ENGINEER  
WITNESSED HERMAN McANALLY  
COMPANY EL PASO NATURAL GAS COMPANY

OCT 22 1963

OIL GC.

DIST. 3

- (3) NEW MEXICO OIL CONSERVATION COMMISSION REMARKS  
(1) MR. PAUL J. CLOTE  
(1) EL PASO NATURAL GAS COMPANY - PROBATION DEPT. BOX 1492, EL PASO, TEXAS  
(2) MR. H. L. KEMERICKS, P. O. BOX 990, FARMINGTON, NEW MEXICO  
(1) FILE

## 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  $P_t$ .