

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 Rio Arriba  
 Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9-25-63  
 Company Caulkins Oil Company Lease Breesh "F" Well No. D-11  
 Unit B Sec. 35 Twp. 27N Rge. 6W Purchaser Southern Union Gas Company  
 Casing 4 1/2" Wt. 11.6 I.D. 4.000 Set at 7663 Perf. 7403 To 7632  
 Tubing 2 3/8" Wt. 4.7 I.D. 1.995 Set at 7401 Perf. 7397 To 7401  
 Gas Pay: From 7403 To 7632 L 7397 xG .660 -GL 4882 Bar.Press. 12  
 Producing Thru: Casing No Tubing Yes Type Well Single Gas  
 Date of Completion: 9-13-63 Packer None Reservoir Temp. 180°  
 Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through (XXXXX) (Choke) (XXXXX) 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						2458		2456		7 day SI
1.						310	70°	1072	70°	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.	14.1605		322	1.0048	.9535	1.033	4512
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

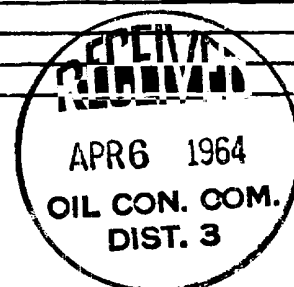
Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
 Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-S</sup>)  
 Specific Gravity Separator Gas \_\_\_\_\_  
 Specific Gravity Flowing Fluid \_\_\_\_\_  
 P<sub>c</sub> 2470 P<sub>c</sub><sup>2</sup> 6,100,900

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.						1,175,056	4,925,844		.439
2.									
3.									
4.									
5.									

Absolute Potential: 5,302 MCFPD; n (1.24) 1.1750

COMPANY Caulkins Oil Company  
 ADDRESS P. O. Box 780, Farmington, New Mexico  
 AGENT and TITLE Frank Gray Superintendent  
 WITNESSED \_\_\_\_\_  
 COMPANY \_\_\_\_\_

REMARKS



## 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  $P_t$ .