

NEW MEXICO OIL CONSERVATION COMMISSION

File 7-427 OFF

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test October 6, 1961  
"B"

Company Tenneco Oil Company Lease Cornell Dakota Gas Unit Well No. 1

Unit D Sec. 14 Twp. 29 Rge. 12 Purchaser \_\_\_\_\_

Casing 5.5 Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at \_\_\_\_\_ Perf. 6171 To 6336

Tubing 2-3/8 Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at 6150 Perf. \_\_\_\_\_ To \_\_\_\_\_

Gas Pay: From \_\_\_\_\_ To \_\_\_\_\_ L \_\_\_\_\_ xG \_\_\_\_\_ -GL 0.65 Bar.Press. 12.0

Producing Thru: Casing \_\_\_\_\_ Tubing \_\_\_\_\_ Type Well Single Gas  
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: \_\_\_\_\_ Packer \_\_\_\_\_ Reservoir Temp. 178

OBSERVED DATA

Tested Through ~~(Prover)~~ (Choke) ~~(Meter)~~ \_\_\_\_\_ Type ~~(Prover)~~

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						2093		2095		
1.		3/4				335	78	798		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.	12.3550		347	0.9831	0.9608	1.030	4174
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

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

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2107 P<sub>c</sub><sup>2</sup> 4 439 449

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.						656100	3783349		
2.									
3.									
4.									
5.									

Absolute Potential: 4,741 MCFPD; n 0.75 (1.1270)

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

AGENT and TITLE \_\_\_\_\_

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  $P_t$ .