

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Wildcat Formation Ballard Pictured Cliffs County Sandoval  
Initial \_\_\_\_\_ Annual \_\_\_\_\_ Special X Date of Test Oct. 12, 1959  
Company The Superior Oil Company Lease Jicarilla 55 Well No. 2  
Unit M Sec. 35 Twp. 23N Rge. 3W Purchaser El Paso Natural Gas Company  
Casing 4 1/2" Wt. 9.5# I.D. 4.090 Set at 2842' Perf. 2755 To 2773  
Tubing 2" Wt. 4.70# I.D. 1.995 Set at 2777' Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 2755 To 2773 L 2764  $\times G^{Est} 0.680$  -GL 1879.5 Bar.Press. 11.3  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single Gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: Jan. 23, 1956 Packer @ 2701' Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

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

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	( <u>Prover</u> ) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. $h_w$	Temp. $^{\circ}F.$	Press. psig	Temp. $^{\circ}F.$	Press. psig	Temp. $^{\circ}F.$	
SI						606		Packer		
1.	2	3/4	113		62°	113	62°	Packer		3 hours
2.										
3.										
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor $F_t$	Gravity Factor $F_g$	Compress. Factor $F_{pv}$	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.365		124.3	.9981	.9393	1.013	1460
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 $P_c$  \_\_\_\_\_  $(1-e^{-S})$

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
 $P_c$  617.3  $P_c^2$  381.06

No.	$P_w$ $P_t$ (psia)	$P_c^2$	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2$ $(1-e^{-S})$	$P_w^2$	$P_c^2 - P_w^2$	Cal. $P_w$	$\frac{P_w}{P_c}$
1.						15.45	365.61		.201
2.									
3.									
4.									
5.									

Absolute Potential: 1.512 MCFPD; n 0.85  
COMPANY The Superior Oil Company  
ADDRESS P. O. Drawer G, Cortez, Colorado  
AGENT and TITLE J. M. Brittain - Gas Engineer  
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  $P_t$ .

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received <u>5</u>		
Distribution		
Operator	NO. COPIES FURNISHED	
Santa Fe	<u>2</u>	
Production Office	<u>1</u>	
State Land Office		
U. S. G. S.		
Transporter		
File	<u>1</u>	<input checked="" type="checkbox"/>