

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Basin Formation Dakota County San Juan  
Initial XX Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 10-16-64  
Company PURCO PETROLEUM CORP. Lease State Well No. 33  
Unit II Sec. 32 Twp. 27N Rge. 9W Purchaser El Paso Natural Gas Company  
Casing 4 1/2 Wt. 10.5 I.D. \_\_\_\_\_ Set at 6932 Perf. 6686 To 6812  
Tubing 2.3/8 Wt. 4.7 I.D. \_\_\_\_\_ Set at 6605 Perf. Flow out plug To \_\_\_\_\_  
Gas Pay: From 6686 To 6812 L 6605 xG .650 -GL \_\_\_\_\_ Bar.Press. 12-025  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single-Gas  
Date of Completion: 10-9-64 Packer \_\_\_\_\_ Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter)

Type Taps Flange

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										
1.	2"	3/4	575		77	2015 575		2015 1210	77	1 hour
2.	2"	3/4	520		79	520		1105	79	2 hours
3.	2"	3/4	467		84	467		1120	84	3 hours
4.										
5.										

## FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	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.	12.365		479	.9777	.9688	1.042	5797.43
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

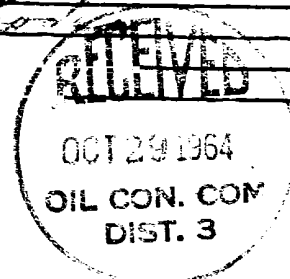
Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-s</sup>)

Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2027 P<sub>c</sub> 4,108,729

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.									
2.						1,065,021			
3.									
4.									
5.									

Absolute Potential: 7,260 MCFPD; n \_\_\_\_\_  
COMPANY PURCO PETROLEUM CORP.  
ADDRESS P.O. Box P. Artes. New Mexico  
AGENT and TITLE Glen O. Rhodes, Field Foreman  
WITNESSED Jack Dunning  
COMPANY Purco Petroleum Corp.

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  $P_t$ .