

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Tapacito Formation Pictured Cliffs County Rio Arriba  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9/4/64  
Company Socony Mobil Oil Co., Inc. Lease Jicarilla C Well No. 5  
Unit J Sec. 8 Twp. 26N Rge. 3W Purchaser El Paso Natural Gas Co.  
Casing 4-1/2 Wt. 9.5 I.D. \_\_\_\_\_ Set at 3939 Perf. 3761 To 3824  
Tubing 2-3/8 Wt. 4.7 I.D. \_\_\_\_\_ Set at 3770 Perf. \_\_\_\_\_ To \_\_\_\_\_  
Gas Pay: From 3761 To 3824 L 3770 xG Est. 700 -GL 2639 Bar. Press. 120  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: Aug. 28, 1964 Packer No Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) 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.	
SI	2"	0.750				1020	1040	
1.			254			254	54	3 Hrs.
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.	12.3650		266	1.0058	.9636	1.034	3,296
2.							
3.							
4.							
5.							

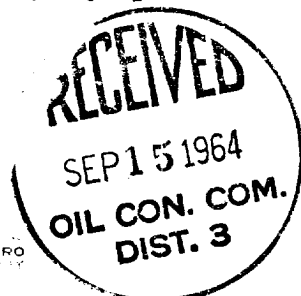
## PRESSURE CALCULATIONS

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 \_\_\_\_\_  
F<sub>c</sub> 1052 P<sub>c</sub> 1106.7

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.	768					589.8	516.9		
2.									
3.									
4.									
5.									

Absolute Potential: 6,295 MCFPD; n .85 2.141<sup>.85</sup> = 1.9100COMPANY Socony Mobil Oil Co., Inc.ADDRESS P.O. Box 778, Farmington, New MexicoAGENT and TITLE R.W. Hensley Prod. ForemanWITNESSED No

COMPANY \_\_\_\_\_

Dist: M Kibre (1)Well File (1)El Paso Nat. Gas (3)Mobil, Fmn. (1)NMOCC (4)REMARKS Well Shut-in 7 days prior to test.

## 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  $P_t$ .