

## NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Indesignated Formation Pictured Cliffs County Rio Arriba  
Initial x Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 7-31-57  
Company Magnolia Petroleum Company Lease Jicarilla "G" Well No. 3 IT-P.C.  
Unit M Sec. 35 Twp. 27N Rge. 3W Purchaser Pacific Northwest  
Casing 7 5/8 Wt. 24# I.D. 7.025 Set at 4212 Perf. 3804 To 3885  
Tubing 2 3/8 Wt. 14.7# I.D. 1.995 Set at 3,775 Perf. - To -  
Gas Pay: From 3795 To 3885 L \_\_\_\_\_ xG 0.68(est) -GL \_\_\_\_\_ Bar.Press. \_\_\_\_\_  
Producing Thru: Casing \_\_\_\_\_ Tubing x Type Well G. G. Dual  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 7-12-57 Packer None Reservoir Temp. \_\_\_\_\_

## OBSERVED DATA

Tested Through (Proven) (Choke) (Water) Type Taps -

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Proven) (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"	0.750	19	-	66	1039	66	1039	-	3 hours
2.										
3.										
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.	12.3650	-	61	.9913	.9393	-	704.4
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 0.68  
P<sub>c</sub> 1.051 P<sub>c</sub> 1.1046

No.	P <sub>w</sub> Box (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.	271					73.4	1031.2		
2.									
3.									
4.									
5.									

Absolute Potential: 74.7 MCFPD; n 0.85COMPANY MAGNOLIA PETROLEUM COMPANYADDRESS Box 2406, Hobbs, New MexicoAGENT and TITLE W. J. H. H. H.

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  $P_t$ .

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