

## MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco-Pictured Cliffs Formation Pictured Cliffs County San Juan  
Initial 2 Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9-18-59  
Company Pan American Petroleum Corp. Lease Likins Gas Unit "A" Well No. 2  
Unit J Sec. 34 Twp. 30N Rge. 9W Purchaser El Paso Natural Gas Company  
Casing 1-1/2 Wt. 9.5 I.D. 4.070 Set at 2495 Perf. 2405 To 2436  
Tubing 1-1/4 Wt. 2.3 I.D. 1.380 Set at 2415 Perf. 2404 To 2415  
Gas Pay: From 2405 To 2436 L 2405 xG 0.65 (est.) GL 1563 Bar.Press. 12  
Producing Thru: Casing 2 Tubing \_\_\_\_\_ Type Well Single Gas  
Single-Bradenhead-G. G. or G.O. Dual  
Date of Completion: 9-11-59 Packer none Reservoir Temp. 95°F.

## OBSERVED DATA

Tested Through (Pressure) (Choke) (Meter) Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) Size	Press. psig	Diff. $h_w$	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Start in 7 days.					930		930		
1.	2"	1/2"	510		60°(est.)	542	60°(est.)	510	60°(est.)	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.	12.345		522	1.000	0.9408	1.027	6555
2.							
3.							
4.							
5.							

## PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 $F_c$  \_\_\_\_\_ ( $1-e^{-s}$ )  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
 $P_c$  942  $P_c^2$  887,364

No.	$P_w$ $P_t$ (psia)	$P_t^2$	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2$ ( $1-e^{-s}$ )	$P_w^2$	$P_c^2 - P_w^2$	Cal. $P_w$	$P_w$ $P_c$
1.						304,916	580,448		
2.									
3.									
4.									
5.									

Absolute Potential: 9400 MCFPD; n 0.83  
COMPANY Pan American Petroleum Corporation  
ADDRESS Box 187, Farmington, New Mexico  
AGENT and TITLE R. M. Bauer, Jr., Area 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.

$F_{pv}$  = Supercompressibility 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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