

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Dakota County San Juan

Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 10-7-63

Company PAN AMERICAN PETROLEUM CORP. Lease Gallegos Canyon Unit Well No. 138

Unit P Sec. 7 Twp. 28N Rge. 11W Purchaser El Paso Natural Gas Company

Casing 14-1/2 Wt. 10.5 I.D. 4.052 Set at 6187 Perf. 6070-6096 To 5997-6003, 6015-19

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6072 Perf. \_\_\_\_\_ To \_\_\_\_\_

Gas Pay: From 6019 To 6070 L 6044 .70 est. -GL \_\_\_\_\_ Bar.Press. 12

Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well \_\_\_\_\_

Date of Completion: 9-30-63 Packer None Reservoir Temp. \_\_\_\_\_

OBSERVED DATA

Tested Through (Prover) (Choke) (Reservoir) Type Taps Flange

No.	Flow Data			Wellbore 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	7 days					1934	1934	
1.	2" days	3/4"	240			954	1380	3 hrs.
2.								
3.								
4.								
5.								

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wPF}}$	Pressure psia	Flow Temp. °F.	Gravity Factor $F_g$	Compress. Factor $F_{pv}$	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.3650		252	1.000	.9258	1.030	2971
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cc/psi.

Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.

$F_c$  \_\_\_\_\_  $(1-e^{-S})$

Specific Gravity Separator Gas \_\_\_\_\_

Specific Gravity Flowing Fluid \_\_\_\_\_

$P_c$  1946  $P_c^2$  3,786,916

No.	$P_w$ $P_t$ (psia)	$P_t^2$	$F_c Q$	$(F_c Q)^2$	$P_c^2$	$P_c^2 - P_w^2$	Cal. $P_w$	$P_w / P_c$
1.					1,937,664	1,849,252		
2.								
3.								
4.								
5.								

Absolute Potential: 5086 MCFPD: .75

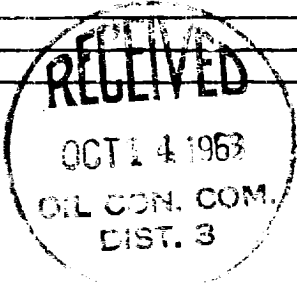
COMPANY PAN AMERICAN PETROLEUM CORPORATION

ADDRESS Box 480, Farmington, New Mexico

AGENT and TITLE F. L. Nabors, District Engineer

WITNESSED By \_\_\_\_\_

COMPANY F. W. Foell ORIGINAL SIGNED BY \_\_\_\_\_



## 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  $P_t$ .