

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 January 13, 1961

Company Pan American Petroleum Corp. Lease E. H. Pickin Well No. 7

Unit H Sec. 35 Twp. 28N Rge. 11W Purchaser Southern Union Gas Company

Casing 4-1/2 Wt. 9.5 I.D. 4.090 Set at 6300 Perf. 6256-64 To 6284-88

Tubing 2-3/8 Wt. 4.7 I.D. 1.995 Set at 6223 Perf. Open ended To _____

Gas Pay: From 6252 To 6295 L 6223 xG (.700)est. -GL 4356 Bar.Press. 12

Producing Thru: Casing _____ Tubing X Type Well Single gun

Date of Completion: 1-5-61 Packer None Single-Bradenhead-G. G. or G.O. Dual _____ Reservoir Temp. 137° F

OBSERVED DATA

Tested Through (Sucker) (Choke) (None) Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) (Restriction) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Shut in 7 days									
1.	2"	3/4"	671		60 (est.)	2045	60 (est.)	2045		3 hrs.
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.365		683	1.000	0.9258	1.086	8491
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 2057 P_c^2 4,231,249

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	$\frac{P_w}{P_c}$
1.						1,901,641	2,329,608		
2.									
3.									
4.									
5.									

Absolute Potential: 13,280 MCFPD; n 0.75

COMPANY Pan American Petroleum Corporation

ADDRESS Box 480, Farmington, New Mexico

AGENT and TITLE H. M. Bauer, Jr.; Senior Petroleum Engineer

WITNESSED _____

COMPANY _____

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 .