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 __September 17, 1961__

Company __Pan American Petroleum Corp.__ Lease __Gallegos Canyon Unit__ Well No. __106__

Unit __A__ Sec. __24__ Twp __29N__ Rge. __13W__ Purchaser __Town of Farmington__

Casing __4½__ Wt. __9.5__ I.D. __4.090__ Set at __6019__ Perf. __5912-5919, 5937-5941__

Tubing __2-3/8__ Wt. __4.70__ I.D. __1.995__ Set at __5916__ Perf. __open ended__ To_____

Gas Pay: From __5912__ To __5941__ L __5916__ xG __.700(est)__-GL __4141__ Bar.Press. __12__

Producing Thru: Casing_____ Tubing __X__ Type Well __Single Gas__

Date of Completion: __9-10-61__ Packer __None__ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. __144__

OBSERVED DATA

Tested Through ~~(Orifice)~~ (Choke) ~~(Nozzle)~~ Type Taps_____

No.	~~(Orifice)~~ (Line) Size	(Choke) ~~(Nozzle)~~ Size	Press. psig	Diff. h_w	Temp. °F.	Tubing Data Press. psig	Temp. °F.	Casing Data Press. psig	Temp. °F.	Duration of Flow Hr.
SI	7 days					2131		227		
1.	2 inch	3/4 inch		375		522	60° est	751	60° est	3 Hr.
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.	12.355		387	1.000	.9258	1.047	4638
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio_____ cf/bbl.   Specific Gravity Separator Gas_____
Gravity of Liquid Hydrocarbons_____ deg.   Specific Gravity Flowing Fluid_____
F_c_____ $(1-e^{-s})$_____ P_c __2139__ P_c^2 __4,575,321__

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.					927,369	3,647,952			
2.									
3.									
4.									
5.									

Absolute Potential: __5496__ MCFPD; n __0.75__

COMPANY __Pan American Petroleum Corporation__
ADDRESS __Box 480, Farmington, New Mexico__
AGENT and TITLE __R. M. Bauer, Jr. - Senior Petroleum 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} = 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.