MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool __Basin Dakota__ Formation __Dakota__ County __San Juan__

Initial __X__ Annual_____ Special_____ Date of Test __7-14-64__

Company __PAN AMERICAN PETROLEUM CORP.__ Lease __P. O. Pipkin__ Well No. __3__

Unit __A__ Sec. __17__ Twp. __128__ Rge. __10W__ Purchaser _____

Casing __4-1/2__ Wt. __10.5__ I.D. __4072__ Set at __6415__ Perf. __6316-40__ To __6257-62__   6218-30

Tubing __2-3/8__ Wt. __4.7__ I.D. __1.995__ Set at __6233__ Perf. __6225__ To __6219__

Gas Pay: From __6218__ To __6342__ L __6233__ xG __.700__ -GL __4398__ Bar.Press. __12__

Producing Thru: Casing_____ Tubing __X__ Type Well __Single__
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: __7-3-64__ Packer __None__ Reservoir Temp. _____

OBSERVED DATA

Tested Through (Burner) (Choke) (Bottom)   Type Taps __Flange__

No.	(Burner) (Line) (Orifice) Size	(Choke) 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	11 Days					1944		1937		
1.	2 Inch	.750	513			513	60° est.	1858	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.	12.3650		527	1.0000	.9250	1.045	6443
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 __1944__ P_c^2 __3,825,936__

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.						1,102,500	2,723,436		
2.									
3.									
4.									
5.									

Absolute Potential: __8313__ MCFPD; n __.75__
COMPANY __PAN AMERICAN PETROLEUM CORPORATION__
ADDRESS __Box 480, Farmington, New Mexico__
AGENT and TITLE __F. L. Ashers, District Engineer__
WITNESSED __By: ORIGINAL SIGNED BY F. W. Foot__
COMPANY _____

REMARKS
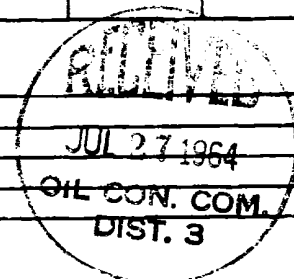
INSTRUCTIONS

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.