

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Basin Dakota Formation Bakken County San Juan
Initial X Annual _____ Special _____ Date of Test June 24, 1964
Company PAN AMERICAN PETROLEUM CORP. Lease Colleges Canyon Unit-Bak. Well No. 164
Unit M Sec. 35 Twp. 22-N Rge. 12-W Purchaser _____
Casing 4 1/2" Wt. 10.50 I.D. 4.052 Set at 6435' Perf. 6209-21'/6232-42' To 6300-20'/6231-36'
Tubing 2-3/8" Wt. 4.70 I.D. 1.975 Set at 6210' Perf. 6173' To 6179'
Gas Pay: From 6209' To 6236' L 6273' xG .700 -GL 4201' Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well Single
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: June 17, 1964 Packer None Reservoir Temp. _____

OBSERVED DATA

Tested Through (Bottom) (Choke) (Mudline) Type Taps Flange

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	2"					1934		1930		
1.	9 days	.750	242			242	60°	630	60°	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.	12.3630		234	1.0000	.9238	1.030	2893
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

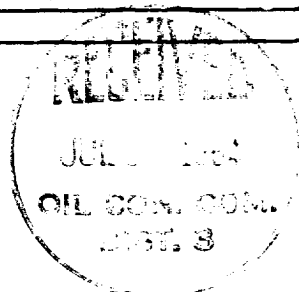
Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
 F_c _____ $(1-e^{-s})$

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
 P_c 1944 P_c^2 3,768,136

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	$\frac{P_w}{F_c}$
1.						422,300	3,442,436		
2.									
3.									
4.									
5.									

Absolute Potential: 3843 MCFPD; n .75
COMPANY Pan American Petroleum Corporation
ADDRESS Box 480, Farmington, New Mexico
AGENT and TITLE Fred L. Mahers, District Engineer ORIGINAL SIGNED BY _____
WITNESSED _____ E. W. Eaton, Jr.
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 .