

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 4-20-64
 Company PAN AMERICAN PETROLEUM CORP. Lease E. B. Sullivan Gas Unit Well No. 3
 Unit B Sec. 11 Twp. 27N Rge. 10W Purchaser _____
 Casing 4-1/2 Wt. 20.5 I.D. 4.032 Set at 6408 Perf. 6275-00/6312 To 6322/6364/90
 Tubing 3-3/8 Wt. 4.7 I.D. 1.995 Set at 6395 Perf. 6223 To 6230
 Gas Pay: From 6275 To 6390 L 6333 xG .700 -GL 6439 Bar.Press. 13
 Producing Thru: Casing _____ Tubing X Type Well Single
 Date of Completion: 4-13-64 Packer None Reservoir Temp. _____
 Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through (REMOVE) (Choke) (REMOVE) Type Taps Flange

No.	Flow Data			Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	
SI	<u>1 inch</u>	<u>.750</u>	<u>257</u>			<u>1933</u>	<u>1933</u>	
1.	<u>1 inch</u>	<u>.750</u>	<u>257</u>			<u>1933</u>	<u>1933</u>	<u>3 hr.</u>
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.	<u>12.3030</u>		<u>260</u>	<u>1.000</u>	<u>.6222</u>	<u>1.000</u>	<u>277</u>
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 1944 P_c² 3,777,216

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	P _w P _c
1.						<u>648,000</u>	<u>3,412,400</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 3481 MCFPD; n .75
 COMPANY PAN AMERICAN PETROLEUM CORPORATION
 ADDRESS Suite 600, Santa Fe, New Mexico
 AGENT and TITLE V. L. Hubers, District Engineer
 WITNESSED [Signature]
 COMPANY V. W. Feall

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} = 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 .