

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 20, 1961
Company Pan American Petroleum Corp. Lease Johnson Gas Unit "B" Well No. 1
Unit 0 Sec. 15 Twp. 30N Rge. 12E Purchaser -
Casing 4-1/2" Wt. 11.6# I.D. 4.000" Set at 6661' Perf. 6517' To 6527'
Tubing 2-3/8" Wt. 4.7# I.D. 1.995 Set at 6504 Perf. open ended To -
Gas Pay: From 6517' To 6527' L 6504 xG (.700)est -GL 4553 Bar.Press. 12
Producing Thru: Casing _____ Tubing X Type Well Single-Gas
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 9-19-61 Packer None Reservoir Temp. 143° F

OBSERVED DATA

Tested Through (Pressure) (Choke) (None) Type Taps -

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	Shut-in	7 days				1968		1964		
1.	2 in.	3/4 in.	201			280	60° (est)	524	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.	12.365		213	1.000	.9298	1.025	2.99
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 1976 P_c² 3,904,576

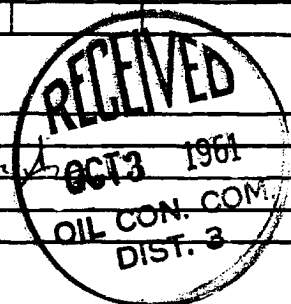
No.	P _w P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-S})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w /P _c
1.						287,296	3,617,280		
2.									
3.									
4.									
5.									

Absolute Potential: 2646 MCFPD; n 0.75COMPANY Pan American Petroleum CorporationADDRESS Box 480, Farmington, New MexicoAGENT and TITLE A. E. 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 .