NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco-Pictured Cliffs Formation Pictured Cliffs County San Juan

Initial X Annual Special Date of Test 6-19-57

Company PAN AMERICAN PETROLEUM CORP. Lease M. D. Heath "A" Well No. 4

Unit P Sec. 9 Twp. 29N Rge. 9W Purchaser Sunshine

Casing 4½ Wt. 9.5 & 10.50 I.D. 4.12 & 3.9 Set at 2833 Perf. 2702 To 2754

Tubing 1-1/4 Wt. 2.3 I.D. 1.380 Set at 2690 Perf. 2674 To 2690

Gas Pay: From 2702 To 2754 L 2728 xG .65 est. -GL 1513 Bar.Press. 12

Producing Thru: Casing X Tubing Type Well Single - Gas
Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 6-6-57 Packer Reservoir Temp. 90° F

OBSERVED DATA

Tested Through (Prover) (Choke) (Orifice) Type Taps

	Flow Data					Tubing Data		Casing Data		
No.	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	Duration of Flow Hr.
SI	Shut-In	12 days				1000		1000		
1.		¾	280			210	60	282	60	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		292	1.0000	.9608	1.025	2978
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 .65 est.
P_c 1012 P_c^2 1,024,144

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	P_w / P_c
1.						80,284	943,860		.289
2.									
3.									
4.									
5.									

Absolute Potential: 3,017 MCFPD; n .85
COMPANY PAN AMERICAN PETROLEUM CORPORATION
ADDRESS Box 487, Farmington, New Mexico
AGENT and TITLE R. M. Sauer, Jr., Field Engineer R M Sauer, Jr.
WITNESSED
COMPANY

REMARKS

RECEIVED
SEP 9 1957
OIL CON. COM.
DIST. 3

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.