

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 I Annual _____ Special _____ Date of Test 6-24-57
Company PAN AMERICAN PETROLEUM CORP. Lease Archuleta Gas Unit Well No. 2
Unit I Sec. 9 Twp. 39N Rge. 9W Purchaser None
Casing 9-1/2" Wt. 140 I.D. 9.012" Set at 2244' Perf. 2143' To 2194'
Tubing 1-1/2" Wt. 2.30 I.D. 1.900" Set at 2179' Perf. 2173' To 2177'
Gas Pay: From 2137' To 2194' L 2166' xG .45 est. -GL 1400 Bar.Press 12,000
Producing Thru: Casing I Tubing _____ Type Well Single well
Date of Completion: 6-2-57 Packer _____ Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. 73° F.

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) 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	<u>3 inch In</u>	<u>28 days</u>						<u>1011</u>		
1.		<u>0.75"</u>	<u>136</u>		<u>600</u>					<u>3</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>12.3690</u>		<u>146</u>	<u>1.000</u>	<u>0.9408</u>	<u>1.015</u>	<u>2026</u>
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 .45 est.
Specific Gravity Flowing Fluid _____
P_c 1053 P_c 1,100,000

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>20,224</u>	<u>1,000,000</u>		<u>.1975</u>
2.									
3.									
4.									
5.									

Absolute Potential: 2071 MCFPD; n .45

COMPANY PAN AMERICAN PETROLEUM CORPORATION
ADDRESS Box 487, Farmington, New Mexico
AGENT and TITLE L. H. Bauer, Jr., Field 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 .

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