

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Astee-Pictured Cliffs Formation Pictured Cliffs County San Juan
(Deal with Astee-Fruitland)
Initial _____ Annual _____ Special X Date of Test October 29, 1959
Company Pan American Petroleum Corp. Lease Abrams Gas Unit "A" Well No. 1
Unit I Sec. 29 Twp. 29N Rge. 10W Purchaser El Paso Natural Gas Company
Casing 2-1/2 Wt. 14 I.D. 5.012 Set at 1875 Perf. 1813 To 1836
Tubing 1-1/2 Wt. 2.9 I.D. 1.610 Set at 1813 Perf. open ended; no perforations
Gas Pay: From 1813 To 1836 L 1813 xG 0.65 (est.) GL 1178 Bar. Press. 12
Producing Thru: Casing _____ Tubing X Type Well Gas-Gas Dual
Single-Bradenhead-G. G. or G.O. Dual
Date of Completion: 10-22-59 Packer 1780 Reservoir Temp. 95° F

OBSERVED DATA

Tested Through (Branched) (Choke) (Natural)

Type Taps _____

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Line) Size	(Choke) Size	Press. psig	Diff. h_w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI	Shot	in 7 days								
1.	2"	3/4"	75		65° (est.)	75				3 hours
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		86	1.000	0.9408	1.000	1031
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.
Gravity of Liquid Hydrocarbons _____ deg.
 F_c 16.46 $(1-e^{-S})$ 0.082

Specific Gravity Separator Gas _____
Specific Gravity Flowing Fluid _____
 P_c 827 P_c^2 277,729

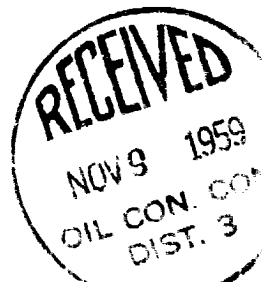
No.	P_w P_t (psia)	P_t^2	$F_c Q$	$(F_c Q)^2$	$(F_c Q)^2 (1-e^{-S})$	P_w^2	$P_c^2 - P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	86	7396	16.97	287.921	23,614	7396	264,719	176	
2.									
3.									
4.									
5.									

Absolute Potential: 1140 MCFPD; n 0.85COMPANY Pan American Petroleum CorporationADDRESS Box 487, Farmington, New MexicoAGENT and TITLE E. H. Bauer, Jr., Area Engineer *R. H. Bauer, Jr.*

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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