

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Undesignated Formation Flathead Cliffs County San Juan

Initial X Annual _____ Special _____ Date of Test 4/29/60

Company Antec Oil & Gas Company Lease Granier Well No. 10

Unit E Sec. 18 Twp. 31N Rge. 11W Purchaser _____

Casing 2 7/8 Wt. 6.90 I.D. 2.441 Set at 2865 Perf. 2748 To 2768

Tubing _____ Wt. _____ I.D. _____ Set at _____ Perf. _____ To _____

Gas Pay: From 2748 To 2768 L 2748 xG 0.65 -GL 1786 Bar.Press. 12

Producing Thru: Casing X Tubing _____ Type Well Single

Date of Completion: 4/29/60 Packer _____ Single-Bradenhead-G. G. or G.O. Dual Reservoir Temp. _____

OBSERVED DATA

Tested Through 2748 (Choke) 2768 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>724</u>		<u>7 days</u>
1.		<u>0.750</u>						<u>70</u>	<u>60</u>	<u>3 hrs.</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>12.363</u>		<u>82</u>	<u>1.000</u>	<u>0.9806</u>	<u>1.009</u>	<u>1003</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio _____ cf/bbl.

Gravity of Liquid Hydrocarbons _____ deg.

P_c _____ (1-e^{-s}) _____

Specific Gravity Separator Gas _____

Specific Gravity Flowing Fluid _____

P_c 736 P_c^2 541,696

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>82</u>	<u>6.724</u>	<u>5.508</u>	<u>3.033</u>	<u>1.782</u>	<u>10.726</u>	<u>511.100</u>		
2.									
3.									
4.									
5.									

Absolute Potential: 1000 MCFPD; n 0.53

COMPANY Antec Oil & Gas Company

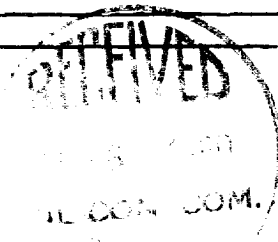
ADDRESS Box # 755, Farmington, New Mexico

AGENT and TITLE ORIGINAL SIGNED BY L. M. STEVENS L. M. Stevens, Dist. 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} = 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 .