

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool South Blanco Formation Pictured Cliffs County San Juan  
 Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 9/8/60  
 Company Aptec Oil & Gas Company Lease Arisson-Juanilla Well No. 9-3  
 Unit L Sec. 9 Twp. 26N Rge. 9W Purchaser \_\_\_\_\_  
 Casing 2 7/8 Wt. 6.70 I.D. 2.442 Set at 3666 Perf. 3606 To 3632  
 Tubing \_\_\_\_\_ Wt. \_\_\_\_\_ I.D. \_\_\_\_\_ Set at \_\_\_\_\_ Perf. \_\_\_\_\_ To \_\_\_\_\_  
 Gas Pay: From 3606 To 3632 L 3606 xG 0.65(B) -GL 2343 Bar.Press. 12  
 Producing Thru: Casing X Tubing \_\_\_\_\_ Type Well Single  
 Date of Completion: 9/1/60 Packer \_\_\_\_\_ Reservoir Temp. 63  
 Single-Bradenhead-G. G. or G.O. Dual

OBSERVED DATA

Tested Through ~~2 7/8~~ (Choke) (annular) Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
SI								<u>335</u>		<u>7 days</u>
1.		<u>0.75</u>						<u>335</u>	<u>60 (30)</u>	<u>3 hrs.</u>
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_{wpf}}$	Pressure psia	Flow Temp. Factor F <sub>t</sub>	Gravity Factor F <sub>g</sub>	Compress. Factor F <sub>pv</sub>	Rate of Flow Q-MCFPD @ 15.025 psia
1.	<u>12.365</u>		<u>290</u>	<u>1.0000</u>	<u>0.9608</u>	<u>1.025</u>	<u>2922</u>
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
 Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
 F<sub>c</sub> \_\_\_\_\_ (1-e<sup>-S</sup>)  
 Specific Gravity Separator Gas \_\_\_\_\_  
 Specific Gravity Flowing Fluid \_\_\_\_\_  
 P<sub>c</sub> 697 P<sub>c</sub><sup>2</sup> 804.609

No.	P <sub>w</sub> P <sub>t</sub> (psia)	P <sub>t</sub> <sup>2</sup>	F <sub>c</sub> Q	(F <sub>c</sub> Q) <sup>2</sup>	(F <sub>c</sub> Q) <sup>2</sup> (1-e <sup>-S</sup> )	P <sub>w</sub> <sup>2</sup>	P <sub>c</sub> <sup>2</sup> -P <sub>w</sub> <sup>2</sup>	Cal. P <sub>w</sub>	P <sub>w</sub> /P <sub>c</sub>
1.	<u>290</u>	<u>97.600</u>	<u>16.880</u>	<u>283.985</u>	<u>41.325</u>	<u>98.909</u>	<u>705.704</u>	<u>319</u>	
2.									
3.									
4.									
5.									

Absolute Potential: 3666 MCFPD; n 0.85  
 COMPANY Aptec Oil & Gas Company  
 ADDRESS Denver & 570, 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  $P_t$ .