

3-NMCCC  
1-Case  
1-Reese  
1-File  
1-El Paso - Lou Galloway

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122  
Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Aztec-Fruitland Ext Formation Fruitland County San Juan  
Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 8-18-58  
Company Paul Case Lease Sullivan Well No. 4  
Unit L Sec. 25 Twp. 29N Rge. 11W Purchaser \_\_\_\_\_  
Casing 5 1/2 Wt. 14# I.D. \_\_\_\_\_ Set at 1820 Perf. 1584 To 1574  
Tubing 1 1/2 Wt. 2.4 I.D. \_\_\_\_\_ Set at 1751 Perf. 1751 To 1747  
Gas Pay: From \_\_\_\_\_ To \_\_\_\_\_ L 1554 xG .560 -GL 871 Bar.Press. \_\_\_\_\_  
Producing Thru: Casing X Tubing \_\_\_\_\_ Type Well GG Dual  
Date of Completion: 8-8-58 Packer Baker Model A Reservoir Temp. \_\_\_\_\_

1594

OBSERVED DATA

Tested Through (Brown) (Choke) (Mason) 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.	
1.						618	622	
2.		3/4"	56			616	62	3 hrs
3.								
4.								
5.								

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	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.							
2.	12.3650		68	.9951	1.0351	1.00	869
3.							
4.							
5.							

PRESSURE CALCULATIONS

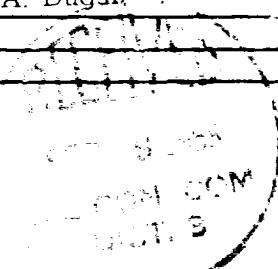
Gas Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
Gravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
P<sub>c</sub> 1.217 (1-e<sup>-s</sup>) .060  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 634 P<sub>c</sub><sup>2</sup> 402

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.									
2.	68	4.62	1.059	1.118	0.67	5.29	397		1.013
3.									
4.									
5.									

Absolute Potential: 879 MCFPD; n 1.01111

COMPANY Paul Case  
ADDRESS Box 1022, Albuquerque, New Mexico  
AGENT and TITLE T. A. Dugan, Consulting Engineer Original signed by T. A. Dugan  
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  $P_t$ .