

3-MOCC  
 2-Compass (Denver)  
 1-Compass (Farmington) NEW MEXICO OIL CONSERVATION COMMISSION  
 1-File

Form C-122

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Revised 12-1-55

Pool Basin Formation Dakota County Rio Arriba  
 Initial X Annual \_\_\_\_\_ Special \_\_\_\_\_ Date of Test 10-31-61  
 Company Compass Exploration, Inc. Lease Andrith Federal Well No. 1-10  
 Unit 11 Sec. 10 Twp. 26N Rge. 7W Purchaser \_\_\_\_\_  
 Casing 5-1/2 Wt. 15.5 I.D. \_\_\_\_\_ Set at 7485 Perf. 7104 To 7312  
 Tubing 2-3/8 Wt. 4.7 I.D. \_\_\_\_\_ Set at 7305 Perf. Open Ended To \_\_\_\_\_  
 Gas Pay: From 7104 To 7312 L \_\_\_\_\_ xG 0.680 -GL \_\_\_\_\_ Bar.Press. \_\_\_\_\_  
 Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well Single Gas  
 Date of Completion: 10-17-61 Packer \_\_\_\_\_ Reservoir Temp. \_\_\_\_\_  
 Single-Bradenhead-G. G. or G.O. Dual

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 <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	
1.						2082		2359	
2.									
3.	2"	3/4"	188		71			564	3 hrs.
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.							
3.	12.3650		200	0.9896	0.9393	1.022	2349
4.							
5.							

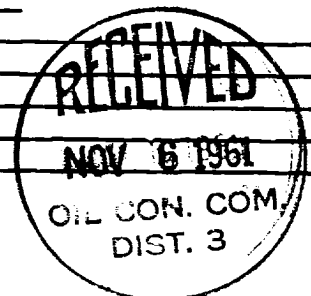
PRESSURE CALCULATIONS

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> 2371 P<sub>c</sub><sup>2</sup> 5621.6

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.									
3.	576					331.7	5289.9		1.0627
4.									
5.									

Absolute Potential: 2459 MCFPD; n .75 1.0467  
 COMPANY Compass Exploration, Inc.  
 ADDRESS 700 Bloomfield Blvd., Farmington, New Mexico  
 AGENT and TITLE E. G. Ellis  
 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  $P_t$ .