

3-NMOCC  
1-Compass (Farmington)  
1-El Paso Prod.  
2-Compass (Denver) 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 9-12-61  
Company Compass Exploration, Inc. Lease Federal Well No. 1-3  
Unit K Sec. 3 Twp. 26N Rge. 7W Purchaser \_\_\_\_\_  
Casing 5-1/2 Wt. 15.5# I.D. \_\_\_\_\_ Set at 7415 Perf. 7104 To 7326  
Tubing 1-1/2 Wt. 2.75 I.D. \_\_\_\_\_ Set at 7256 Perf. 7256 To \_\_\_\_\_  
Gas Pay: From 7104 To 7326 L 7256 xG .68 -GL 4934 Bar.Press. \_\_\_\_\_  
Producing Thru: Casing \_\_\_\_\_ Tubing X Type Well G.G. - Dual  
Date of Completion: 8-24-61 Packer 7070 Single-Bradenhead-G. G. or G.O. Dual  
Reservoir Temp. G.G. Dual

OBSERVED DATA

Tested Through ~~X(Prover)~~ (Choke) ~~(Prover)~~ Type Taps \_\_\_\_\_

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) <del>(Prover)</del> Size	Press. psig	Diff. h <sub>w</sub>	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.						2405				
2.										
3.		3/4"	365#		63					3 hrs.
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.							
2.	12.365		377	.9971	.9393	1.044	4385
3.							
4.							
5.							

PRESSURE CALCULATIONS

as Liquid Hydrocarbon Ratio \_\_\_\_\_ cf/bbl.  
ravity of Liquid Hydrocarbons \_\_\_\_\_ deg.  
c 16.46 (1-e<sup>-s</sup>) .301  
Specific Gravity Separator Gas \_\_\_\_\_  
Specific Gravity Flowing Fluid \_\_\_\_\_  
P<sub>c</sub> 2417 P<sub>c</sub><sup>2</sup> 5841.889

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.	377	142.129	72.1771	5209.134	1568.07	1710.99	4130.899		1.4142
4.									
5.									

Absolute Potential: 5686 MCFPD; n .75 1.2968  
COMPANY Compass Exploration, Inc.  
ADDRESS Box 1138, Denver, Colorado  
AGENT and TITLE Original signed by T. A. Dugan Engineer  
WITNESSED \_\_\_\_\_  
COMPANY \_\_\_\_\_

REMARKS

RECEIVED  
OIL COM.  
12-3

## 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  $P_t$ .