3 - NMOCC / 1 - L. M. Parrish, Jr. 1 - Compass (Denver) 1 - File

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Form C-122 Revised 12-1-55

OIL CON. COM.

Poo	l Bas	in - D	akota	Fc	ormation		Dakota).	County	Rio A	riba		
Initial X Annual Special Date of Test 11/30/62 Company Compass Exploration, Inc. Lease Northwest Lindrith Well No. 2-4													
Unit r Sec. 4 Twp. 26N Rge. 7W Purchaser													
17.0 Casing 5-1/2 Wt. 15.5 I.D. Set at 7479 Perf. 7160 To 7322													
	Tubing 1-1/2 Wt. 2.75 I.D. Set at 7020 Perf. Open Ended To												
	Gas Pay: From 7160 To 7322 L xG .65 _GL 4563 Bar.Press												
Prod	Producing Thru: Casing Tubing Type Well Dual - Gas Single-Bradenhead-G. G. or G.O. Dual												
Date of Completion: 11/19/62 Packer 7010 Reservoir Temp.													
OBSERVED DATA													
Tested Through (Recent) (Choke) (Medical) Type Taps													
								ng Data Casing Data					
No	(Prover) (Line)	(Cho	ke) I	Press.	Diff.	Temp.	Press	. Temp.	Press.	Temp.	D	uration of Flow	
	Size	Si	ze	psig	h _w	o _F .	psig	°F.	psig	°F∙		Hr.	
SI 1.									2485				
2. 3.	2"	3/4	1"	292		71				<u> </u>	3 1	ours	
3. 4.													
4. 5.													
—-г	FLOW CALCULATIONS Coefficient Pressure Flow Temp. Gravity Compress. Rate of Flow												
No.				, 		Factor		Factor	Factor		Q-MCFPD		
1.	(24-Hou	√ h _w p _j	:	psia	Ft		Fg	Fpv		@ 15.025 psia			
2.	10.3/5			30		000	× 1	.9608	100	20	267	Ω	
3 c 4 c 5 c	12.365			304		.9896		.9000	1.029		3678		
<u> </u>													
					PRI	ESSURE C	CALCUTATI	IONS					
Gas Liquid Hydrocarbon Ratio cf/bbl. Specific Gravity Separator Gas Specific Gravity Flowing Fluid Specific Gravity Flowing Fluid													
$P_{c} = 16.46$ $(1-e^{-5})$.282 $P_{c} = 2497$ $P_{c}^{2} = 6.235.009$													
No.	$P_{\mathbf{w}}$	Pt	Fc	1	$(F_cQ)^2$	(F	$\left(\frac{cQ}{c-s}\right)^2$	P _w 2	$P_c^2 - P_w^2$	I	1.	Pw Pc	
-	Pt (psia)	psia)				(]	e ^{-s})			- F	<u></u>	P _C	
1. 2. 3.	304	00 47	6 60.	540	266E 0'	73 103	2 557	1125.967	5.109.0	A2	- -	1.2204	
4.	304	92-41	O OU.	740	700J•U	בטו בו	70 774	++679701	7,107,0				
5. MCFPD; n75 1.1611													
COMPANY COMPASS EXPLORATION, INC.													
AGE	RESS	E/2	Plis	1138, E. S	Farmin.	gton, N Produ	ction Su	ipt.					
WITNESSED COMPANY													
						REM	MARKS		6	THV	10		
									/KL	PLIA	\		

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 \equiv 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
- Pw- Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia
- Pt Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia
- Pf Meter pressure, psia.
- $h_{\mbox{w}}$ Differential meter pressure, inches water.
- Fg Gravity correction factor.
- $F_{\mbox{t}}$ Flowing temperature correction factor.
- Fpv Supercompressability factor.
- n I Slope of back pressure curve.

Note: If $P_{\mathbf{W}}$ cannot be taken because of manner of completion or condition of well, then $P_{\mathbf{W}}$ must be calculated by adding the pressure drop due to friction within the flow string to $P_{\mathbf{t}}$.