

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5-14-80			
Company Southland Royalty Company				Connection Southern Union Gathering					
Pool Basin				Formation Dakota				Unit	
Completion Date 5-7-80		Total Depth 6671'		Plug Back TD 6626'		Elevation 5935'		Farm or Lease Name Cain	
Csq. Size 5.500	Wt. 15.5#	d 4.892	Set At 6671'	Perforations: From To				Well No. #11E	
Tbg. Size 1.900	Wt. 2.9#	d 1.610	Set At 6599'	Perforations: From 6424' To 6604'				Unit Sec. Twp. Rge. 0 15 - 28N - 10W	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple GG-Multiple						Packer Set At 3244'		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F #		Mean Annual Temp. °F		Baro. Press. - P _a 12.2		State New Mexico	
L	H	G _g .700	% CO ₂	% N ₂	% H ₂ S	Prover	Meter Run	Taps	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI							823				
1.	2" X 1 1/2"						225				1 Hours
2.							198				2 Hours
3.							164				3 Hours
4.											
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	5.4315		176.2	1.0000	.9258	1.0000	886
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mc/bbl.
1					A.P.I. Gravity of Liquid Hydrocarbons	Deq.
2.					Specific Gravity Separator Gas	X X X X X X X X
3.					Specific Gravity Flowing Fluid	X X X X X
4.					Critical Pressure	P.S.I.A. P.S.I.A.
5.					Critical Temperature	R R

NO.	P _i	P _w	P _w ²	P _c ² - P _w ²
1		176.2	31046.4	666512.6
2.				
3.				
4.				
5.				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0466$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 917$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0347$

Absolute Open Flow	Mcfd @ 15.025	Angle of Slope @	Slope, n .75
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Remarks:			

Approved by Division	Conducted By: Jim Choquette	Calculated By: James Smith	Checked By: L. O. Van Ryan
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