

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special			Test Date 2-3-81		
Company Southland Royalty Company			Connection Southern Union Gathering		
Pool Wildhorse			Formation Gallup		
Completion Date 1-5-81		Total Depth 8243'	Plug Back TD 8240'	Elevation 7062' GR	Farm or Lease Name Jic 101
Csg. Size 7.625	Wt. 26.40#	d 6.969	Set At 4086'	Perforations: From To	
5.500	15.5#	4.950	3932'	8242'	
Trg. Size 1.900	Wt. 2.76#	d 1.610	Set At 7540'	Perforations: From 7004' To 7551'	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple - GG			Packer Set At 7652'		County Rio Arriba
Producing Thru Tbg.		Reservoir Temp. °F #	Mean Annual Temp. °F		Baro. Press. - P _a 12.2
L		H	G _g	% CO ₂	% N ₂
			.700		
				% 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.	
SI							460		965	
1.	2" x 3/4"						95		520	1 hr.
2.							27		280	2 hrs.
3.							8		217	3 hrs.
4.										
5.										

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	12.365		20.2	1.0000	.9258	1.0000	231
2.							
3.							
4.							
5.							

NO.	R _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.										
2.										
3.										
4.										
5.										

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1		229.2	52532.6	902387.2
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0582$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 241$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0434$

Absolute Open Flow	241	Mcfd @ 15.025	Angle of Slope @	Slope, n .75
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Remarks:

Approved By Division	Conducted By: Dwayne Horton	Calculated By: James Smith	Checked By: L.O. Van Ryan
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