

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5-28-81			
Company Southland Royalty Company				Connection Southern Union Gathering					
Pool Basin				Formation Dakota				Unit	
Completion Date 5-18-81		Total Depth 6772'		Plug Back TD 6729'		Elevation 5741' GR		Farm or Lease Name Hare	
Csq. Size 5.500	Wt. 15.5#	d 4.950	Set At 6772'	Perforations: From To		Well No. 17-E			
Trq. Size 1.900	Wt. 2.9#	d 1.610	Set At 6694'	Perforations: From 6559' To 6704'		Unit Sec. Twp. Rge. F 15 29N 10W			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G.G. - Multiple						Packer Set At 4658'		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F θ		Mean Annual Temp. °F		Baro. Press. - P _a 12.2		State New Mexico	
L	H	Gg	% 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.	
SI							849			
1.	2"	X	3/4"				68			1 hr
2.							47			2 hrs
3.							37			3 hrs
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	12.365		49.2	1.0000	.9258	1.0000	563
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
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.
5.					Critical Temperature _____ R

P _c 861.2	P _c ² 741665.4	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0033$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0025$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		49.2	2420.6	739244.8
2				
3				
4				
5				

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 565$

Absolute Open Flow _____ 565 _____ Mcfd @ 15.025	Angle of Slope θ _____	Slope, n _____ .75 _____
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Remarks: _____

Approved By Division	Conducted By: Dean Lingo	Calculated By: James Smith	Checked By: L.O. Van Ryan
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