

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 9-3-80				
Company Southland Royalty Company				Connection Southern Union Gathering					
Pool Easin				Formation Dakota				Unit	
Completion Date 8-25-80		Total Depth 7063'		Plug Back TD 7019'		Elevation 5976' GR		Farm or Lease Name Thompson	
Casing Size 1.625" 5.500"		Wt. 26.40# 15.50#		d 6.969 4.950		Set At 4580' 4426'-7063'		Perforations: From To	
Tubing Size 1.900"		Wt. 2.90#		d 1.610		Set At 7007'		Perforations: From 6853' To 7009'	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple G-Multiple					Packer Set At 5025'		County San Juan		
Producing Thru Tubing		Reservoir Temp. °F 8		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
NC.	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							892				
1.	2" X 3/4"						78				1 Hour
2.							47				2 Hours
3.							33				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	12.365		45.2	1.000	.9258	1.0000	517
2.							
3.							
4.							
5.							

NC.	P _t	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 P.S.I.A.	Critical Temperature °R
1										
2.										
3.										
4.										
5.										

NC.	P _i ²	P _w ²	P _c ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1		45.2	2043.0	815534.6	1.0025	1.0019
2						
3						
4						
5						

Absolute Open Flow 518 Mcfd @ 15.025				Angle of Slope 6		Slope, n .75	
Remarks:							
Approved By Division		Conducted By: Tom Wagner		Calculated By: James Smith		Checked By: L. O. Van Ryan	