

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 4-23-81			
Company Southland Royalty Company				Connection Southern Union Gathering					
Pool Basin				Formation Dakota				Unit	
Completion Date 4-7-81		Total Depth 7239'		Plug Back TD 7073'		Elevation 6091' GR		Farm or Lease Name Nye	
Csg 7.625" Wt. 26.40# Size 4.000		d 6.969 4.950 3.476		Set At 4835' 4221'-6931' 6805'-7216'		Perforations: From To		Well No. 14-E	
Thq. Size 1.900		Wt. 2.76#		d 1.610		Set At 7162'		Perforations: From 7014' To 7194'	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple - G.G.				Packer Set At 5198'				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		Cq .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.	
SI							1768			
1.	2"	X	3/4"				140			1 hr
2.							100			2 hrs
3.							80			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		92.2	1.0000	.9258	1.0000	1055
2.							
3.							
4.							
5.							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbon	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature	Mcf/bbl.	Deg.	P.S.I.A.	P.S.I.A.
1.														
2.														
3.														
4.														
5.														

P _c 1780.2 P _c ² 3169112.0					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0027$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0020$	
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²				
1		92.2	8500.8	3160611				
2								
3								
4								
5								

Absolute Open Flow 1057 Mcfd @ 15.025					Angle of Slope θ		Slope, n .75	
Remarks:								

Approved By Division	Conducted By: Mike Cattaneo	Calculated By: James Smith	Checked By: L.O. Van Ryan
----------------------	--------------------------------	-------------------------------	------------------------------