

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special					Test Date 7-11-83			
Company Southland Royalty Company				Connection Southern Union Gathering				
Pool Otero				Formation Chacra Ext.				Unit 1573
Completion Date 7-2-83		Total Depth 3230'		Plug Back TD 3222'		Elevation 5740' GL		Form or Lease Name Reid
Csq. Size 2.875	Wt. 6.4#	d 2.441	Set At 3230'	Perforations: From 2968' To 3098'			Well No. 26	
Tbg. Size ---	Wt. ---	d ---	Set At ----	Perforations: From --- To ---			Unit Sec. Twp. Rge. N 7 28N 9W	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single					Packer Set At -----		County San Juan	
Producing Thru Casing		Reservoir Temp. °F #		Mean Annual Temp. °F		Baro. Press. - P _a 12.2		State New Mexico
L	H	Gg .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									1006		
1.	2"	X	3/4"						300		1 hr
2.									220		2 hrs
3.									189		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		201.2	1.0000	.9258	1.0000	2303
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. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 1018.2 P _c ² 1036731.2				
NO	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		201.2	40481.4	996249.8
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0406$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2373$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0303$