

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-2-83			
Company Southland Royalty Company				Connection Southern Union Gathering			
Pool Basin				Formation Dakota		Unit	
Completion Date 7-24-83		Total Depth 6650'		Plug Back TD 6613'		Elevation 5694' GL	
Farmer or Lease Name Cain				Well No. 16E			
Csg. Size 5.500	Wt. 15.5#	d 4.950	Set At 6631	Perforations: From To		Well No. 16E	
Tbg. Size 2.375	Wt. 4.7#	d 1.995	Set At 6550'	Perforations: From 6421' To 6597'		Unit Sec. Twp. Rye. I 30 29N 9W	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At ----		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P _g 12.2	
L		H		Gg		Prover	
				.700		Meter Run	
				% CO ₂		% N ₂	
				% H ₂ S		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
1.	2"	X	3/4"				1870		1863		
2.							269		702		1 hr
3.							260		596		2 hrs
4.							136		511		3 hrs
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcid
1	12.365		148.2	1.0000	.9258	1.0000	1697
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 1882.2 P _c ² 3542576.8				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1		523.2	273738.2	3268938.6
2				
3				
4				
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0837$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0622$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1802$$

Absolute Open Flow 1802 Mcid @ 15.025		Angle of Slope @ _____		Slope, n .75	
Remarks: Medium oil mist thru out test.					

Approved By Division	Conducted By: Larry Jones	Calculated By: James Smith	Checked By: C. C. Parsons
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