

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-10-80	
Company Southland Royalty Company			Connection Southern Union Gathering		
Pool Basin			Formation Dakota		Unit
Completion Date 6-3-80		Total Depth 6595'		Plug Back TD 6549'	Elevation 5784' GR
Farm or Lease Name McClanahan					
Csq. Size 5.500	Wt. 15.5#	d 4.950	Set At 6595'	Perforations: From To	
Trg. Size 1.900	Wt. 2.90#	d 1.610	Set At 6499'	Perforations: From 6312' To 6500'	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple GG-Multiple				Packer Set At 4527'	Well No. #19E
Producing Thru Tubing		Reservoir Temp. °F 8	Mean Annual Temp. °F	Baro. Press. - P _a 12.1	County San Juan
State New Mexico					
L	H	G _g	% 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							970				
1.	2" X 1/2"						328				1 Hour
2.							224				2 Hours
3.							280				3 Hours
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	5.4315		292.2	1.0000	.9258	1.0000	1469
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 _____
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

$P_c = 982.2$ $P_c^2 = 964716.8$				
NO.	P _r ²	P _w	P _w ²	P _c ² - P _w ²
1		292.2	85380.8	879336.0
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0971$

AOI* = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1575$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0720$

BT. 3

Absolute Open Flow	1575	Mcf @ 15.025	Angle of Slope θ	Slope, n	25
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Remarks: _____

Approved By Division	Conducted By: Jim Choquette	Calculated By: James Smith	Checked By: L. O. Van Ryan
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