

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 8-12-80			
Company Southland Royalty Company				Connection Southern Union Gathering					
Pool Basin				Formation Dakota				Unit	
Completion Date 8-5-80		Total Depth 7480'		Plug Back TD 7449'		Elevation 6928' GL		Farm or Lease Name East	
Gr. Size 7.000 4.500	Wt. 23# 11.6 & 10.5	d 6.366 4.052	Set At 5030' 4962'-7480'	Perforations: From To				Well No. #7E	
Thg. Size 2.375	Wt. 4.7#	d 1.995	Set At 7413'	Perforations: From 7284' To 7445'				Unit L	Sec. 14
Type Well - Single - Bradenhead - G.C. or G.O. Multiple GG-Multiple				Packer Set At 4906'				County San Juan	
Producing Thru Tubing		Reservoir Temp. °F #		Mean Annual Temp. °F 12.2		Baro. Press. - P _a		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
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							1506			
1.	2" X 3/4"						161			1 Hour
2.							109			2 Hours
3.							88			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 _{sp}	Rate of Flow Q, Mcfd
1	12.365		100.2	1.0000	.9258	1.0000	1147
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

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0044$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0033$
1		100.2	10040.0	2294891.2		
2						
3						
4						
5						

$AOG = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1151$

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

Approved By Division	Conducted By: Steve Kellanaers	Calculated By: James Smith	Checked By: L. O. Van Ryan
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