

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 10-20-81	
Company Southland Royalty Company				Connection Southern Union Gathering			
Pool Basin				Formation Dakota		Unit	
Completion Date 9-30-81		Total Depth 6930'		Plug Back TD 6885'		Elevation 5986' GR	
Farm or Lease Name Holder "A"							
Csg. Size 5.500		Wt. 15.5#		Set At 4.950		Well No. 1-E	
Tbg. Size 1.900		Wt. 2.9#		Set At 1.610		Perforations: From 6736' To 6906'	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple - G.G.				Packer Set At 6208'		Unit Sec. Twp. Rge. H 6 30N 12W	
Producing Thru Tubing		Reservoir Temp. °F P		Mean Annual Temp. °F		Baro. Press. - P _a	
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							964				
1.	2"	X	3/4"				111				1 hr
2.							86				2 hrs
3.							77				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		89.2	1.0000	.9258	1.0000	1021
2.							
3.							
4.							
5.							

NO.	P _t	Temp. °R	T _t	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
3.					Specific Gravity Flowing Fluid _____ X X X X
4.					Critical Pressure _____ P.S.I.A.
5.					Critical Temperature _____ R

P _c 976.2 P _c ² 952966.4				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1		89.2	7956.6	945009.8
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0084$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1027$

(2) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0063$

Absolute Open Flow	1027	Mcfd @ 15.025	Angle of Slope θ	Slope, n .75
Remarks:				

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