

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-22-81			
Company Southland Royalty Company				Connection Southern Union Gathering Company			
Pool Aztec				Formation Pictured Cliffs Ext.			
Completion Date 10-06-81		Total Depth 2920'		Plug Back TD 2899'			
Csg. Size 2.875		Set At 2909'		Elevation 6178' GR			
Perforations: From 2712' To 2810'		Well No. 3		Farm or Lease Name Harper			
Thq. Size -----		Set At -----		Perforations: From ----- To -----			
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple - G.G.				Packer Set At -----			
Producing Thru Casing		Reservoir Temp. °F 8		Baro. Press. - P _a 12.2			
L -----		H -----		Prover -----			
G _g .700		% CO ₂ -----		% H ₂ S -----			
Meter Run -----		Taps -----		County San Juan			
State New Mexico		Prover -----		Meter Run -----			
Taps -----		Prover -----		Meter Run -----			
FLOW DATA							
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w		
1.	2"	X	1/2"	-----	-----		
2.	-----	-----	-----	-----	-----		
3.	-----	-----	-----	-----	-----		
4.	-----	-----	-----	-----	-----		
5.	-----	-----	-----	-----	-----		
TUBING DATA							
NO.	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow		
1.	-----	-----	-----	-----	1 hr		
2.	-----	-----	-----	-----	2 hrs		
3.	-----	-----	-----	-----	3 hrs		
4.	-----	-----	-----	-----	-----		
5.	-----	-----	-----	-----	-----		
CASING DATA							
NO.	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow		
1.	-----	-----	-----	-----	1 hr		
2.	-----	-----	-----	-----	2 hrs		
3.	-----	-----	-----	-----	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.	5.4315	-----	102.2	1.0000	.9258	1.0000	514
2.	-----	-----	-----	-----	-----	-----	-----
3.	-----	-----	-----	-----	-----	-----	-----
4.	-----	-----	-----	-----	-----	-----	-----
5.	-----	-----	-----	-----	-----	-----	-----
NO.	P _i	Temp. °R	T _i	Z	Gas Liquid Hydrocarbon Ratio ----- Mcf/Lbl.		
1.	-----	-----	-----	-----	A.P.I. Gravity of Liquid Hydrocarbons ----- Deg.		
2.	-----	-----	-----	-----	Specific Gravity Separator Gas -----		
3.	-----	-----	-----	-----	Specific Gravity Flowing Fluid -----		
4.	-----	-----	-----	-----	Critical Pressure ----- P.S.I.A.		
5.	-----	-----	-----	-----	Critical Temperature ----- R		
P _c 663.2 P _c ² 439,834.2						(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0243$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0206$	
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 525$		
1.	-----	102.2	10444.8	429384.4	-----		
2.	-----	-----	-----	-----	-----		
3.	-----	-----	-----	-----	-----		
4.	-----	-----	-----	-----	-----		
5.	-----	-----	-----	-----	-----		
Absolute Open Flow ----- Mcfd @ 15.025						Angle of Slope @ ----- Slope, n ----- .85	
Remarks: -----							
Approved By Division -----							
Conducted By: Steve McCament		Calculated By: James Smith		Checked By: L. O. Van Ryan		-----	