

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 9-03-81	
Company Southland Royalty Company		Connection Southern Union Gathering	
Pool Undesignated		Formation Fruitland	
Completion Date 8-13-81		Total Depth 3050'	Plug Back TD 3006'
		Elevation 6378' GR	Farm or Lease Name Moore
Csq. Size 4.500	Wt. 10.5#	d 4.052	Set At 3038'
Perforations: From 2456' To 2544'		Well No. 3	
Perforations: From To		Unit J	Sec. 35
		Twp. 32N	Rye. 12W
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple - G.G.			Packer Set At 2616'
Producing Thru Casing			County San Juan
Reservoir Temp. °F p			State New Mexico
Mean Annual Temp. °F 12.2			
L	H	Gq .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.		Temp. °F
1.	2"	X	3/4"						1028		
2.									118		1 hr
3.									86		2 hrs
4.									72		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, Mcfd
1	12.365		84.2	1.0000	.9258	1.0000	964
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.										
2.										
3.										
4.										
5.										

P _c 1040.2 P _c ² 1082016.0			
NO.	P _r ²	P _w	P _w ²
1		84.2	7089.6
2			
3			
4			
5			

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0066$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 969$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0056$

Absolute Open Flow	969	Mcf/d @ 15.025	Angle of Slope θ	Slope, n .85
Remarks:				
Approved By Division	Conducted By: Dick Irvin	Calculated By: James Smith	Checked By: L.O. Van Ryan	