

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 12-08-83	
Company Southland Royalty Company		Connection Southern Union Gathering	
Pool Kutz		Formation Fruitland	
Completion Date 11-17-83	Total Depth 1850'	Plug Back TD 1842'	Elevation 5698' GL
Csg. Size 2.875		Well 6.4#	Set At 2.441
Perforations: From 1470' To 1482'		Well No. 9	
Perforations: From ----- To -----		Unit Sec. Twp. Rye. N 14 28N 11W	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At -----	
Producing Thru Casing		Baro. Press. - P _a 12.2	
County San Juan		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.		Temp. °F
1.	2" X 3/4"								345		
2.									88		1 hr
3.									71		2 hrs
4.									62		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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	12.365		74.2	1.0000	.9258	1.0000	849
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

$P_c = 357.2$ $P_c^2 = 127591.8$				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1.		74.2	5505.6	122086.2
2.				
3.				
4.				
5.				

$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0451$

$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0382$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 881$

Absolute Open Flow	881	Mcfd @ 15.025	Angle of Slope @	Slope, n	.85
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Remarks: _____

Approved By Division	Conducted By: Larry Bannowsky	Calculated By: James Smith	Checked By: R.E. Fielder
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