

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5-6-81			
Company Southland Royalty Company				Connection Southern Union Gathering					
Pool Harris Mesa				Formation Chacra				Unit	
Completion Date 4-18-81		Total Depth 5030'		Plug Back TD 4985'		Elevation 6323' GR		Farm or Lease Name Hanks	
Csg. Size 5.500	Wt. 14#	d 5.012	Set At 5029'	Perforations: From 3440' To 3460'		Well No. 25			
Tub. Size 1.900	Wt. 2.76#	d 1.610	Set At 3460'	Perforations: From To		Unit Sec. Twp. Rge. B 6 27N 9W			
Type Well - Single - Brodenhead - G.G. or G.O. Multiple Multiple - G.G.						Packer Set At 3594'		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F 8		Mean Annual Temp. °F		Baro. Press. - P _a 12.2		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	
SI							982		982		
1.	2"	x	3/4"				46		173		1 hr
2.							19		93		2 hrs
3.							14		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		26.2	1.0000	.9258	1.0000	300
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 <td>Deq.</td>	Deq.
2.					Specific Gravity Separator Gas <td>XXXXXX</td>	XXXXXX
3.					Specific Gravity Flowing Fluid <td></td>	
4.					Critical Pressure <td>P.S.I.A.</td>	P.S.I.A.
5.					Critical Temperature <td>R</td>	R

NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1		89.2	7956.6	980477.0
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0081$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 302$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0069$

Absolute Open Flow	302	Mcfd @ 15.025	Angle of Slope θ	Slope, n .85
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Remarks:

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