

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 5-21-81	
Company Southland Royalty Company		Connection Southern Union Gathering	
Pool Basin		Formation Dakota	
Completion Date 5-11-81		Total Depth 6800'	
Csg. Size 7.625		Plug Back TD 6710'	
Wt. 26.4#		Elevation 5725' GR	
d 6.969		Perforations: From To	
Set At 2490'		Well No. 18-M	
Perf. Size 5.500		Perforations: From To	
Wt. 15.5#		Unit Sec. Twp. Rge. P 10 29N 10W	
d 4.950		County San Juan	
Set At 6749'		State New Mexico	
Perf. Size 1.900		Meter Run Taps	
Wt. 2.9#		Prover	
d 1.610		Prover	
Set At 6660'		Prover	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple G. G. Multiple		Packor Set At 4577'	
Producing Thru Tubing		Baro. Press. - P _a 12.2	
Reservoir Temp. °F #		Mean Annual Temp. °F	
L H		G _g % CO ₂ % N ₂ % H ₂ S	
.700		Prover	

FLOW DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	TUBING DATA		CASING DATA		Duration of Flow
							Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
SI											
1.	2"	X	3/4"				1076				
2.							43				1 hr
3.							36				2 hrs
4.							17				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		29.2	1.0000	.9258	1.0000	334
2.							
3.							
4.							
5.							

NO.	P _t	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	Mcf/bbl. Deg. P.S.I.A. R
1											
2.											
3.											
4.											
5.											

P_c 1088.2 P_c² 1184179.2

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²
1		29.2	852.6	1183326.6
2				
3				
4				
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0007$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0005$

AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 334$

Absolute Open Flow 334

Remarks: Mcfd @ 15.025 Angle of Slope θ Slope, n .75

Approved By Division

Conducted By:

Dean Lingo

Calculated By:

James Smith

Checked By:

L. O. Van Ryan