

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 11-26-81	
Company Southland Royalty Company				Connection Gas Company of New Mexico			
Pool Blanco				Formation Mesa Verde		Unit	
Completion Date 11-10-81		Total Depth 6050'		Plug Back TD 5957'		Elevation 7088' GL	
Farm or Lease Name Arizona Jicarilla "A"							
Gas Size 4.500	Wt. 20#	d 6.456	Set At 3900'	Perforations: From To		Well No. 5-A	
Gas Size 2.375	Wt. 4.7#	d 1.995	Set At 5823'	Perforations: From 5644' To 5885'		Unit Sec. Twp. Rye. K 13 25N 4W	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Multiple - G.G.				Packer Set At 4058'		County Rio Arriba	
Producing Thru Tubing		Reservoir Temp. *F #		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	Duration of Flow
SI							1318				
1.	2"	X	3/4"				222				1 hr
2.							178				2 hrs
3.							118				3 hrs
4.											
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		130.2	1.0000	.9258	1.0000	1490
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	Mcf/bbl. Deq.
1.											
2.											
3.											
4.											
5.											

$P_c = 1330.2$ $P_c^2 = 1769432.0$				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²
1		130.2	16952.0	1752480.0
2				
3				
4				
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.0097$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0072$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1501$$

Absolute Open Flow	1501	Mcf/d @ 15.025	Angle of Slope	Slope, n	.75
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Remarks:

Approved by Division	Conducted By: Dick Irvin	Calculated By: James Smith	Checked By: L. O. Van Ryan
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