

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 8/28/81	
Company Southland Royalty Company		Connection Southern Union Gathering	
Pool Basin		Formation Dakota	
Completion Date 8-08-81		Total Depth 6478'	Plug Back TD 6437'
		Elevation 5613' GR	
Farm or Lease Name Cozzens		Well No. 6-E	
Csq. Size 5.500	Wt. 15.5#	d 4.950	Set At 6478'
Tbg. Size 2.375	Wt. 4.7#	d 1.995	Set At 6409'
Perforations: From To		Perforations: From 6215' To 6450'	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single - G.G.		Packer Set At -----	
Producing Thru Tubing		Reservoir Temp. °F P	Mean Annual Temp. °F P
		Baro. Press. - P _g 12.2	
State New Mexico		County San Juan	
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							1333		1333		
1.	2"	X	3/4"				185		761		1 hr
2.							79		537		2 hrs
3.							43		487		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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	12.365		55.2	1.0000	.9258	1.0000	632
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/Lbl.	Deq.	P.S.I.A.	R
1.														
2.														
3.														
4.														
5.														

P _c 1345.2 P _c ² 1809563.0	
NO.	P _i ² P _w P _w ² P _c ² - P _w ²
1	499.2 249200.6 1560362
2	
3	
4	
5	

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1597$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1175$
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 706$	

Absolute Open Flow	706	Mcf/d @ 15.025	Angle of Slope @	Slope, n .75
Remarks:				

Approved By Division	Conducted By: Kelly Maxwell	Calculated By: James Smith	Checked By: L. O. Van Ryan
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