

CONFIDENTIAL

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See Rule 401 & Rule 1122

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
5040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator					Lease or Unit Name					SOUTHERN CROSS "20"				
Type Test ☒ Initial ☐ Annual ☐ Special										Test Date 6/19/00		Well No. 1		
Completion Date 4/25/00			Total Depth 8700			Plug Back TD 8630			Elevation 3808		Unit Ltr - Sec - TWP - Rge 20 18-S 24- E			
Csg. Size 4 1/2		Wt. 11.6		d 4		Set At 8700		Perforations: From: 8273 To: 8290			County EDDY			
Tbg. Size 2 3/8		Wt. 4.7		d 1.995		Set At 8237		Perforations: From: To:			Pool <i>N Antelope Sink Morrow</i>			
Type Well-Single-Bradenhead-G.G. or G.O. Multiple SINGLE								Packer Set At 8184		Formation MORROW				
Producing Thru Tbg. Size		Reservoir Temp. °F 156.4		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2			Connection SALES					
L 8237		H 8237		Gg 0.608		%CO ₂ 0.528		%N ₂ 0.575		%H ₂ S N/A		Prover N/A		
				Meter Run 4.026								Taps FLG		
FLOW DATA					TUBING DATA					CASING DATA				
No.	Prover Line Size	Orifice x 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	Press p.s.i.g.	Temp. °F	Duration of Flow		
SI						2245	N/A	PKR	N/A					
1	4.026 X 1.750		341	10.7	96	1127						1 HR.		
2	4.026 X 1.750		361	17.3	93	1071						1 HR.		
3	4.026 X 1.750		408	32.7	88	1012						1 HR.		
4	4.026 X 1.750		493	52.3	86	970						1 HR.		
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								1011						
2	GAS VOLUMES		MEASURED	BY	TOTAL	FLOW	METER	1591						
3								2169						
4								2917						
5														
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 29.121 Mcf bbl.									
1					A.P. I. Gravity of Liquid Hydrocarbons 54.7 Deg.									
2	TOTAL	FLOW	METER		Specific Gravity Separator Gas 0.608 XXXXXXXX									
3					Specific Gravity Flowing Fluid N/A XXXXXX									
4					Critical Pressure 674 P.S.I.A. 671 P.S.I.A.									
5					Critical Temperature 354 R. 388 R									
P _c 2258.2 P _{c2} 5099.5														
No.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.298$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.298$									
1	1300.1	1150.7	1324.1	3775.3	$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.787$									
2	1175.5	1111.6	1235.7	3863.8										
3	1051	1078.8	1163.8	3935.7										
4	966.7	1082.3	1171.3	3928.2										
5														
Absolute Open Flow 3.787 Mcfd @ 15.025					Angle of Slope (°) 45					Slope n: 1				
Remarks: *WELL MADE 11 BBLS OF 54.7 API GRAVITY CONDENSATE DURING TEST.														
Approved By Division:				Conducted By: PRO WELL TESTING				Calculated By: MB				Checked By: BM		