

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test: ☒ Initial ☐ Annual ☐ Special						Test Date: 8-2-84	
Company: Gulf Oil Exp. & Prod				Connection: Air			
Field: South Antelope Ridge				Formation: Atoka			
Completion Date: 7-25-84		Total Depth: 15562		Plug Back To: 15513		Elevation:	
Casing Size: 7 5/8		ID:		Set At: 15562		Perforations: From 15401 To 15424	
Tr. Size: 2 7/8 2 3/8		WT: 7.9 4.7		Set At: 15727 15366		Perforations: From To	
Type Well - Single - Protobed - G.G. or G.O. Multiple						Packer Set At: 15366	
Producing Thru: Tbg						State: NM	
Reservoir Temp. °F: 190 @ 11592		Mean Annual Temp. °F: 60°		Baro. Press. - P _a : 13.2		County: Lea	
L: *11592	R: *11592	G _g : .5997	% CO ₂ : 1.144	% N ₂ : .383	% H ₂ S:	Prover:	Meter Run: 4"
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Duration of Flow
1.	4 X 1.500			574	2.0	95	26.5 hrs
2.	4 X 1.500			585	5.0	88	1 hr
3.	4 X 1.500			584	6.5	94	1 hr
4.	4 X 1.500			590	8.0	86	1 hr
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 _{sp}	Rate of Flow Q, Mfd
1	10.84	34.27	587.2	.9680	1.291	1.041	483
2	10.84	54.69	598.2	.9741	1.291	1.044	778
3	10.84	62.30	597.2	.9688	1.291	1.041	879
4	10.84	69.47	603.2	.9759	1.291	1.044	990
Gas Liquid Hydrocarbon Ratio: 21.736 Mol/Std.							
A.P.L. Gravity of Liquid Hydrocarbons: 51.5 @ 60							
NO.	P _r	Temp. °R	T _r	Z	Specific Gravity Separator Gas: .5997		
1	.88	555	1.55	.923	Specific Gravity Flowing Fluid: .7383		
2	.89	548	1.53	.918	Critical Pressure: 671 P.S.I.A.		
3	.89	554	1.55	.922	Critical Temperature: 358 °F		
4	.90	546	1.53	.917	Rate of Flow: 402 M		
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.232$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.154$							
NO.	P _r	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1143$		
1		7814.5	6106.6	2474.1			
2		6356.2	4040.1	4540.6			
3		5042.6	2542.8	6037.9			
4		4018.6	1614.9	6965.8			
Absolute Open Flow: 1,143 M/d @ 15.025				Angle of Slope: 55.5°		Slope, n: .689	
Remarks: * Equivalent flow length for single string of 2 3/8 4.7# tbg. Produced 6 bbls. of condensate during the test.							
Approved By Commission:		Conducted By: B & P Well Testers		Calculated By: Rick Pagan		Checked By:	