

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT / ONE POINT BACK PRESSURE TEST OR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 7-24-1972	
Company Thunderbird Oil Corp.				Connection None			
Pool Wildcat				Formation Atoka			
Completion Date 7-24-1972		Total Length 13,556		Plug Back TD 13,306		Elevation 4,212 GL	
Casing Size 5-1/2"		Wt. 20 #		Set At 4.778		Perforations: 13,470	
Tubing Size 2-1/2"		Wt. 6.5 #		Set At 2.441		Perforations: 12,776	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single						Packer Set At 12,776	
Producing Thru Tubing		Reservoir Temp. °F 160 @ 12,875		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 12,874		H 12,874		G _g 1.073		% CO ₂ 0.36	
				% N ₂ 2.20		% H ₂ S 0.00	
				Prover 2"		Meter Run 2"	
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.	2.000 x 1.000					68	1 hr.
2.	2.000 x 1.000					68	1 hr.
3.	2.000 x 1.250					68	1 hr.
4.	2.000 x 1.250					68	1 hr.
5.							
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 _{pv}	Rate of Flow Q, Mcfd
1.	17.09		20.2	0.9924	0.9654	1.000	330
2.	17.09		26.2	0.9924	0.9654	1.000	429
3.	27.63		42.2	0.9924	0.9654	1.000	1,117
4.	27.63		53.2	0.9924	0.9654	1.000	1,408
5.							
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 12.328 Mcf/bbl.		
1.					A.P.I. Gravity of Liquid Hydrocarbons 60.5 Deg.		
2.					Specific Gravity Separator Gas 0.870		
3.					Specific Gravity Flowing Fluid 1.073		
4.					Critical Pressure 654 P.S.I.A.		
5.					Critical Temperature 515 °R		
P _c 5,798* P _c ² 33,617							
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.141$		
1.			5,225*	6,316	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.134$		
2.			5,025*	8,366			
3.			3,154*	23,669			
4.			2,038*	29,464			
5.					AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.597$		
Absolute Open Flow 1,597 Mcfd @ 15.025					Angle of Slope θ 0.951		
Remarks: * Bottom hole shut in pressure and bottom hole flowing pressures measured with bottom hole recording guage.							
Approved By Commission:		Conducted By:		Calculated By:		Checked By:	

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OIL CONSERVATION COMM.
HODGES, R. H.