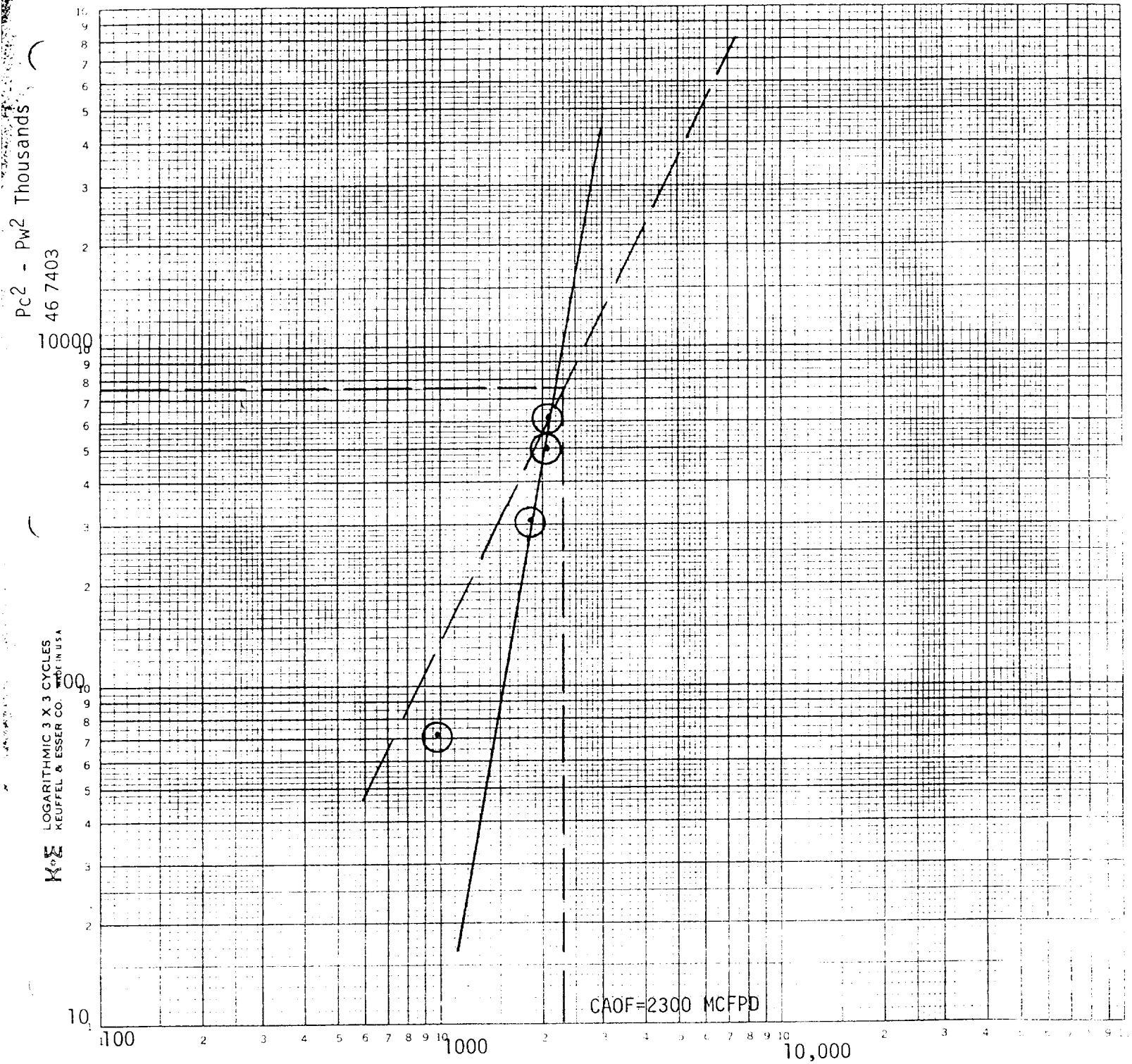


NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12-10-81		JAN 6 1982 O. C. D. ARTESIA, OFFICE Alkali Federal	
Company Mesa Petroleum Co. ✓				Connection Unconnected			
Pool Undesignated ABO				Formation ABO			
Completion Date 12-10-81		Total Depth 4253		Plug Back TD 4197		Elevation 3763'	
Csg. Size 4 1/2	Wt. 10.5#	d	Set At 4250'	Perforations: From 3754 To 3898		Well No. 3	
Tbg. Size 2 3/8	Wt. 4.7#	d	Set At 3650'	Perforations: From open ended To		Unit Sec. Twp. Rge. M 22 5S 25E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single				Packer Set At none		County Chaves	
Producing Thru tubing		Reservoir Temp. °F 102 @ 4253		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L		H		Gg		Prover	
				.65		2" ORIFICE WELL TESTER	
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
SI							72 hr SI
1.	2" ORIFICE		1 1/4	16		40	1 hr
2.	WELL		1 1/4	38		62	1 hr
3.	TESTER		1 1/4	44		64	1 hr
4.			1 1/4	45		65 °	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	1004	2" ORIFICE WELL		1.0198	.9608		984
2	1907	TESTER		.9981	.9608		1829
3	2127			.9962	.9608		2035
4	2170			.9952	.9608		2074
5							
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mct/bbl.		
1					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2					Specific Gravity Separator Gas _____ X X X X X X X X		
3					Specific Gravity Flowing Fluid _____ X X X X X		
4					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.		
5					Critical Temperature _____ R _____ R		
P _c 928		P _c ² 784		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2524$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1191$	
NO.	P _w	P _w ²	P _c ² - P _w ²	ACF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2300$			
1	843	711	73				
2	688	473	311				
3	533	284	500				
4	398	158	626				
Absolute Oper. Flow 2300		Mcfd @ 15.025		Angle of Slope θ 63.5°		Slope, n .5	
Remarks:							
Approved By Commission:		Conducted By: James Craig		Calculated By: E.L. Buttross, Jr.		Checked By:	



Assumed $N=.5$ and $\theta = 63.5^\circ$