

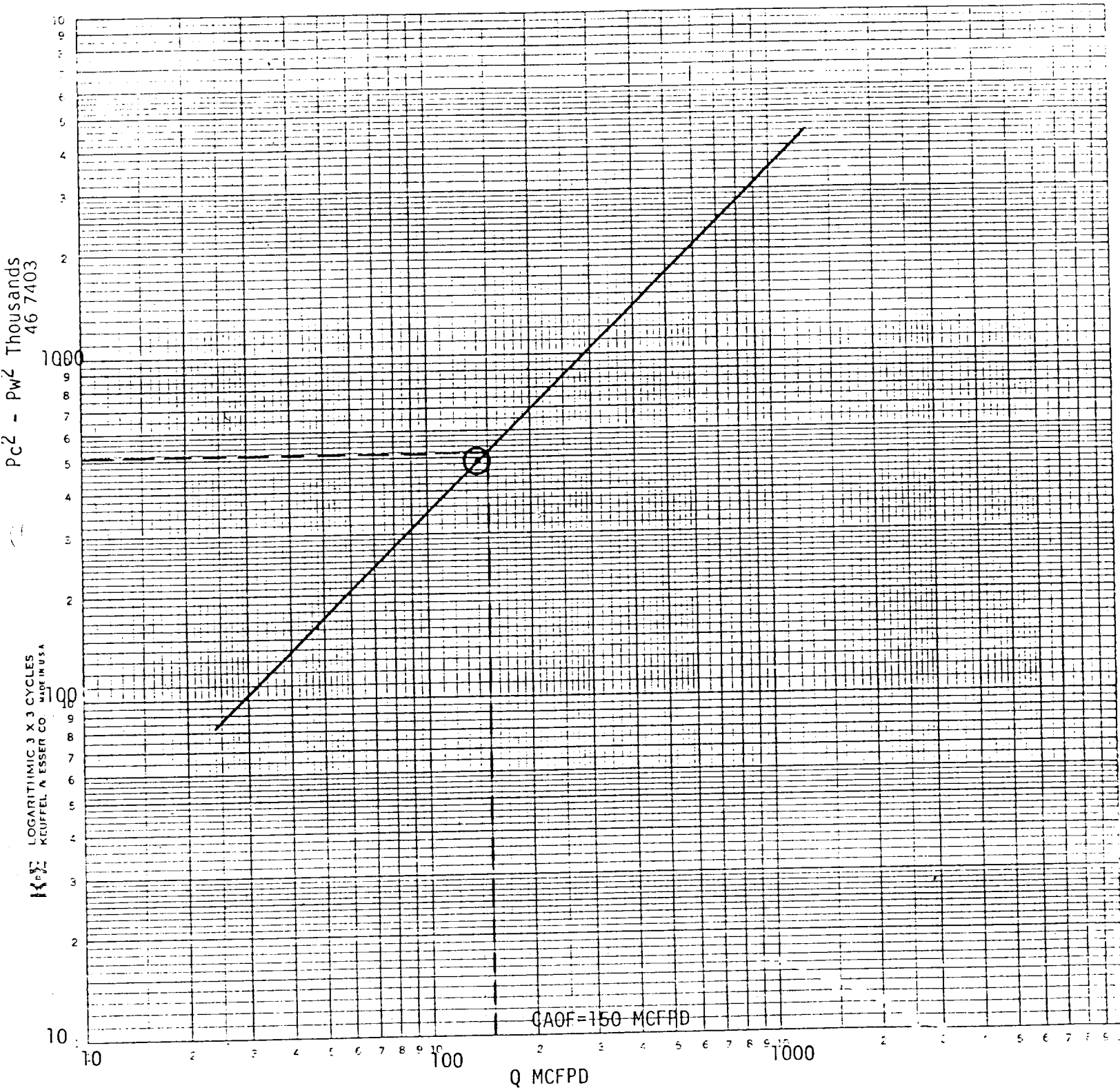
NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT TO ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form O.C.D. 9-1-65
 Revised 9-1-65

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-8-81		DEC 31 1981	
Company Mesa Petroleum Co.				Connection unconnected		O. C. D.	
Pool Undesignated ABO				Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 10-8-81		Total Depth 3471		Plug Back TD 3410		Elevation 3996	
Csg. Size 4 1/2"		Wt. 10.5		Set At 3453		Perforations: From 2820 To 2828	
Tub. Size 2 3/8		Wt. 4.7		Set At 2706		Perforations: From open ended To	
Type well - Single - Provenhead - G.G. or G.O. Multiple single				Packer Set At none		Form or Lease Name Rock Federal	
Producing Thru tubing		Reservoir Temp. °F 95 @ 3471		Mean Annual Temp. °F 60		Buro. Press. - P ₀ 13.2	
L 2706		H 2706		Gg .65		% CO ₂ 1	
				% N ₂ 1		% H ₂ S 2" ORIFICE WELL TESTER	
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. w.	Temp. °F	Press. p.s.i.g.
1.	2" ORIFICE 3/4		4			50	130
2.	Well Tester						60
3.							
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, Mgd
1.	145	2" ORIFICE	WELL	1.0098	.9608		141
2.		Tester					
3.							
4.							
5.							
NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcl/Sbl. A.P.I. Gravity of Liquid Hydrocarbons _____ Deg. Specific Gravity Separator Gas _____ X X X X X X X X Specific Gravity Flowing Fluid _____ X X X X X Critical Pressure _____ P.S.I.A. _____ P.S.I.A. Critical Temperature _____ R _____ R		
1.							
2.							
3.							
4.							
5.							
P _c 713 P _w 508 (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0453$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0453$							
NO.	P _t	P _w	P _w ²	P _c ² - P _w ²			
1.		148	22	486			
2.							
3.							
4.							
5.							
Absolute Open Flow 150 Mgd @ 15.025 Angle of Slope @ 45° Slope, n 1							
Remarks: Unable to run four flow rates due to low delivery at well. Assumed N=1 and based calculations on one point test.							
Approved By Commissioner:		Conducted By: James Craig		Calculated By: E.L. Buttross, Jr.		Checked By:	

MESA PETROLEUM CO.
 Rock Federal No. 4
 Sec. 6, T8S, R23E
 Chaves Co., New Mexico
 10-8-81



ASSUMED $N=1$ and $\theta = 45^\circ$