

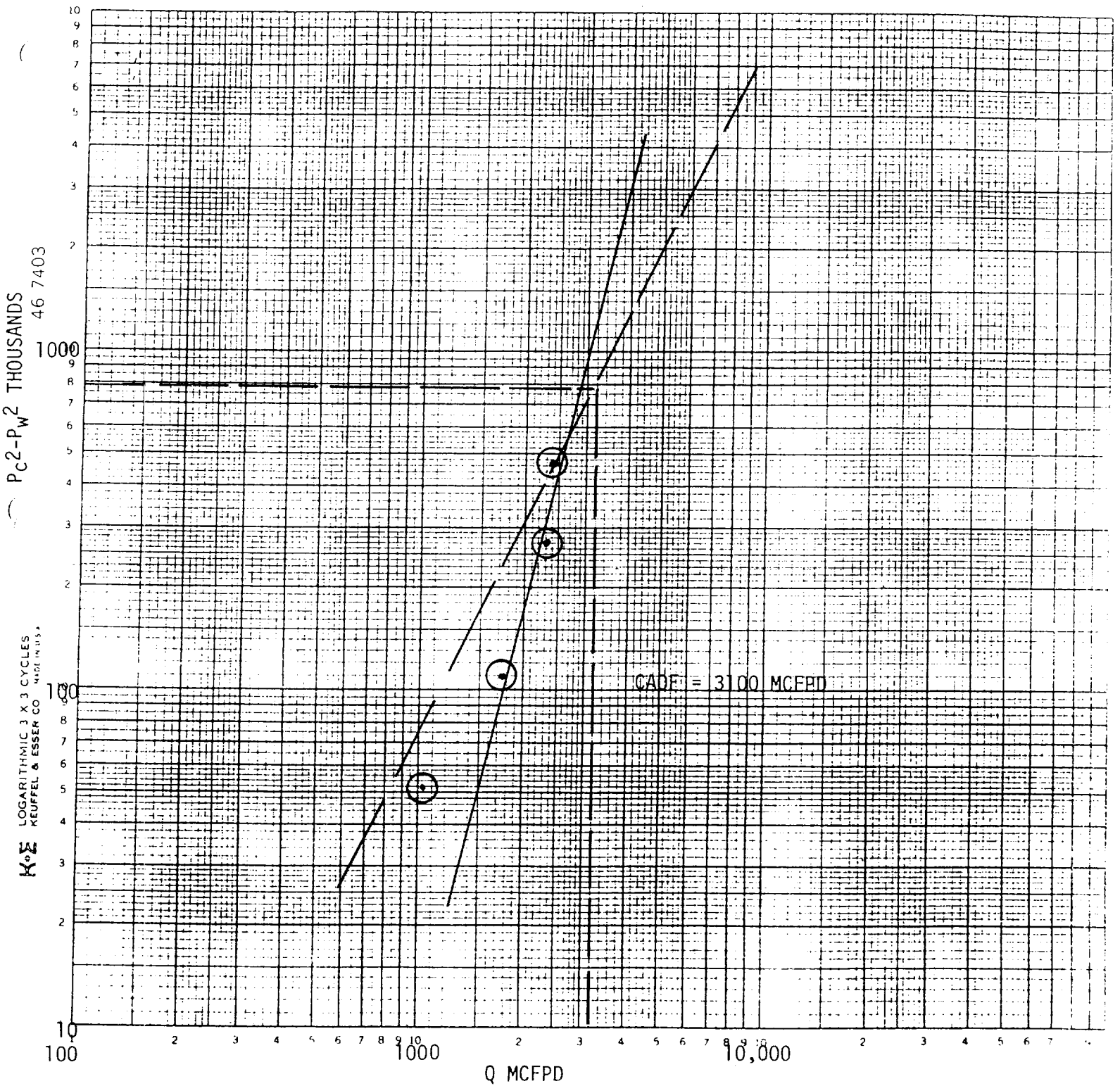
cl's file

SEP 29 1982

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-26-82		O. C. D.	
Company MESA PETROLEUM CO.				Connection UNCONNECTED		ARTESIA, OFFICE	
Pool UNDESIGNATED ABO				Formation ABO		Unit	
Completion Date 6-26-82		Total Depth WLTD 3111'		Plug Back TD 3065'		Elevation 4090'	
Csg. Size 4 1/2"		Set At 10.5#		Perforations: From 2862' To 3009'		Well No. 8	
Tub. Size 2 3/8"		Set At 4.7#		Perforations: From OPEN ENDED		Unit Sec. Twp. Rge. A 19 7S 23E	
Type Well - Single - Prodenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 95° @ 3111'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L		H		G _g		Prover	
				.65		2" CRITICAL FLOW PROVER	
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
51							72 HRS \$1
1.	2" x 1"			34		40	1 HR
2.	2" x 1"			67		40	1 HR
3.	2" x 1"			96		48	1 HR
4.	2" x 1"			98		52	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	FLOW PROVER	47	1.020	1.24		1016
2.	17.09	FLOW PROVER	80	1.020	1.24		1729
3.	17.09	FLOW PROVER	109	1.012	1.24		2337
4.	17.09	FLOW PROVER	111	1.008	1.24		2371
5.							
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/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 883		P _c ² 780		(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.6847$		(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2979$	
NO	P _w	P _w ²	P _c ² - P _w ²	ADP = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3,100$			
1	853	728	52				
2	818	669	111				
3	713	508	272				
4	563	317	463				
5							
Absolute Open Flow 3,100 Mcfd @ 15.025				Angle of Slope θ 63.5°		Slope, n .5	
Remarks: Plot of P _c ² - P _w ² vs Q yield a straight line with a θ greater than 63.5°. Drew 63.5° line through highest point.							
Approved By Commission:		Conducted By: JAMES CRAIG		Calculated By: E.L. BUTTROSS, JR		Checked By:	

Posted ID-2
10-1-82
Camp + BK

MESA PETROLEUM CO.
CHINA FEDERAL NO. 8
CHAVES CO., NM
6-26-82



ASSUMED $N = .5$ AND $\theta = 63.5^\circ$