

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 7-19-82		SEP 24 1982	
Company MESA PETROLEUM CO. ✓				Connection UNCONNECTED		O. C. D.	
Pool PECOS SLOPE ABO				Formation ABO		Well ARTESIA, OFFICE	
Completion Date 7-19-82		Total Depth 3139'		Plug Back TD 2938'		Elevation 3962'	
Csg. Size 4 1/2"	Wt. 10.5#	d 3003'	Set At 3003'	Perforations: From 2845' To 2869'		Well No. 14	
Tub. Size 2 3/8"	Wt. 4.7#	d 2864'	Set At 2864'	Perforations: From OPEN ENDED		Unit Sec. Twp. Rge. I 19 7S 23E	
Type Well - Single - Prodenhead - G.C. or G.O. Multiple SINGLE				Packer Set At NONE		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 94° @ 3139'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L		H	Gg .65	% CO ₂ 1	% N ₂ 1	% H ₂ S	Prover 2" CRITICAL FLOW PROVER

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
51							750		755		72 HRS S
1.	2" x 1"			34		48	730	87	740		1 HR
2.	2" x 1"			63		48	680	89	720		1 HR
3.	2" x 1"			87		50	610	90	695		1 HR
4.	2" x 1"			110		56	540	91	670		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, Mgd
1	17.09	FLOW PROVER	47	1.012	1.24		1008
2	17.09	FLOW PROVER	76	1.012	1.24		1630
3	17.09	FLOW PROVER	100	1.010	1.24		2140
4	17.09	FLOW PROVER	123	1.004	1.24		2616

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mat./Vol.
1					A.P.I. Gravity of Liquid Hydrocarbons	Dep.
2					Specific Gravity Separator Gas	XXXXXX
3					Specific Gravity Flowing Fluid	XXXXX
4					Critical Pressure	P.S.I.A.
5					Critical Temperature	R

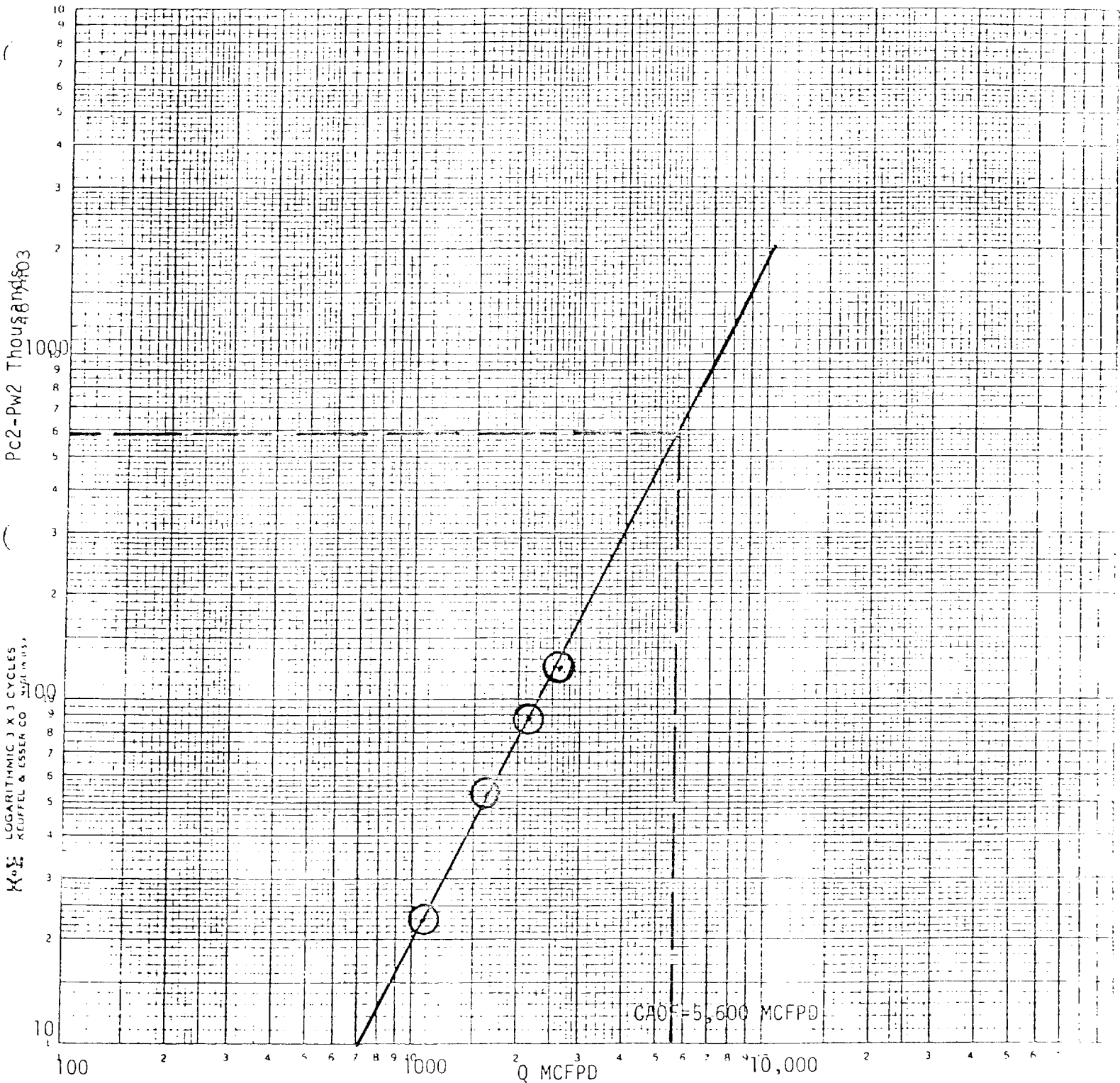
NO.	P _c	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1	768	590			6.6292	2.6239
2		753	567	23		
3		733	537	53		
4		708	501	89		
5		683	466	124		

Absolute Open Flow 5,600 Mgd @ 15.025 Angle of Slope 63° Slope, n .51

Remarks:

Approved By Commission: Conducted By: JAMES CRAIG Calculated By: E.L. BUTTKUSS, JR. Checked By:

Posted ID-2
10-1-82
Comp. + BK



$$N = 1/\text{slope} = \frac{\log Q_2 - \log Q_1}{\log PC2-PW2_2 - \log PC2-PW2_1} = \frac{\log 7300 - \log 2265}{3.86 - 3.35} = .51$$

Cycle Cycle

$$\theta = 63^\circ$$