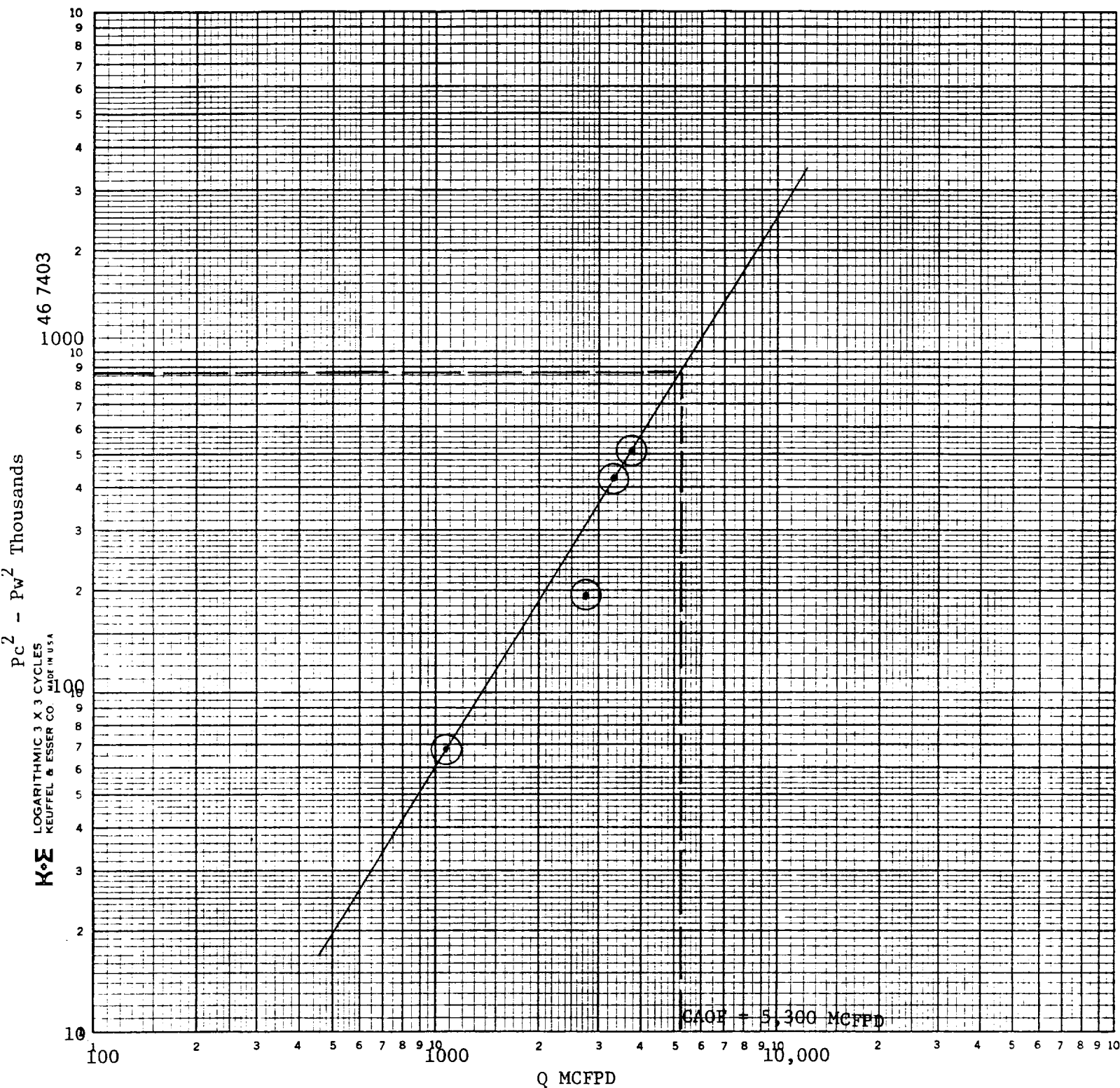


c/sr
File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special			Test Date 1-3-84																																	
Company MESA PETROLEUM CO. ✓			Connection UNCONNECTED																																	
Pool WEST-PECOS SLOPE ABO			Formation ABO			Unit																														
Completion Date 12-31-83		Total Depth 4200	Plug Back TD 4127		Elevation 3659	Farm or Lease Name TRAVIS FED COM																														
Csg. Size 4 1/2	Wt. 10.5#	Set At 4195	Perforations: From 3712 To 3874		To 3967	Well No. 1																														
Thg. Size 2 3/8	Wt. 4.7#	Set At 3987	Perforations: From OPEN ENDED To			Unit Sec. Twp. Rye. M 20 6S 26E																														
Type Well - Single - Brdenhead - G.C. or G.O. Multiple SINGLE			Packer Set At NONE		County CHAVES																															
Producing Thru TUBING		Reservoir Temp. °F 94° @ 4200	Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	State NEW MEXICO																														
L	H	Gg .65	% CO ₂ 1	% N ₂ 1	% H ₂ S	Prover 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																														
SI																																				
1.	2" x 1"		37		32	880																														
2.	2" x 1"		114		36	720																														
3.	2" x 1"		143		50	550																														
4.	2" x 1"		164		56	442																														
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}																														
1	17.09	FLOW PROVER	50	1.028	1.24																															
2.	"	"	127	1.024	1.24																															
3	"	"	156	1.010	1.24																															
4.	"	"	177	1.004	1.24																															
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 _____ XXXXXXXXXX																															
3.					Specific Gravity Flowing Fluid _____ XXXXXX																															
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.																															
5.					Critical Temperature _____ R _____ R																															
P_c 938 P_c² 879 <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>NO.</td> <td>P_i²</td> <td>P_w</td> <td>P_w²</td> <td>P_c² - P_w²</td> </tr> <tr> <td>1</td> <td></td> <td>901</td> <td>811</td> <td>68</td> </tr> <tr> <td>2</td> <td></td> <td>828</td> <td>685</td> <td>194</td> </tr> <tr> <td>3</td> <td></td> <td>668</td> <td>446</td> <td>433</td> </tr> <tr> <td>4</td> <td></td> <td>613</td> <td>375</td> <td>504</td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> $(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.7000$ $AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 5,300$ $(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.4000$ Post ID-2 2-24-84 Camp & BK							NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	1		901	811	68	2		828	685	194	3		668	446	433	4		613	375	504	5				
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²																																
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2		828	685	194																																
3		668	446	433																																
4		613	375	504																																
5																																				
Absolute Open Flow 5,300			Mcf @ 15.025		Angle of Slope 54.5°	Slope, n .7																														
Remarks:																																				
Approved By Division		Conducted By: JAMES CRAIG		Calculated By: <u>SAB 1-9-84</u> E. L. BUTTROSS, JR.		Checked By:																														

MECO PETROLEUM CO.
 TRAILS FED COM #1
 CHAVES COUNTY, NEW MEXICO
 1-3-84



$$N = 1/\text{Slope} = \frac{\log Q_2 - \log Q_1}{\text{Cycle}} = \frac{3.8 - 3.1}{.7} = .7$$

$$\theta = 54.5^\circ$$