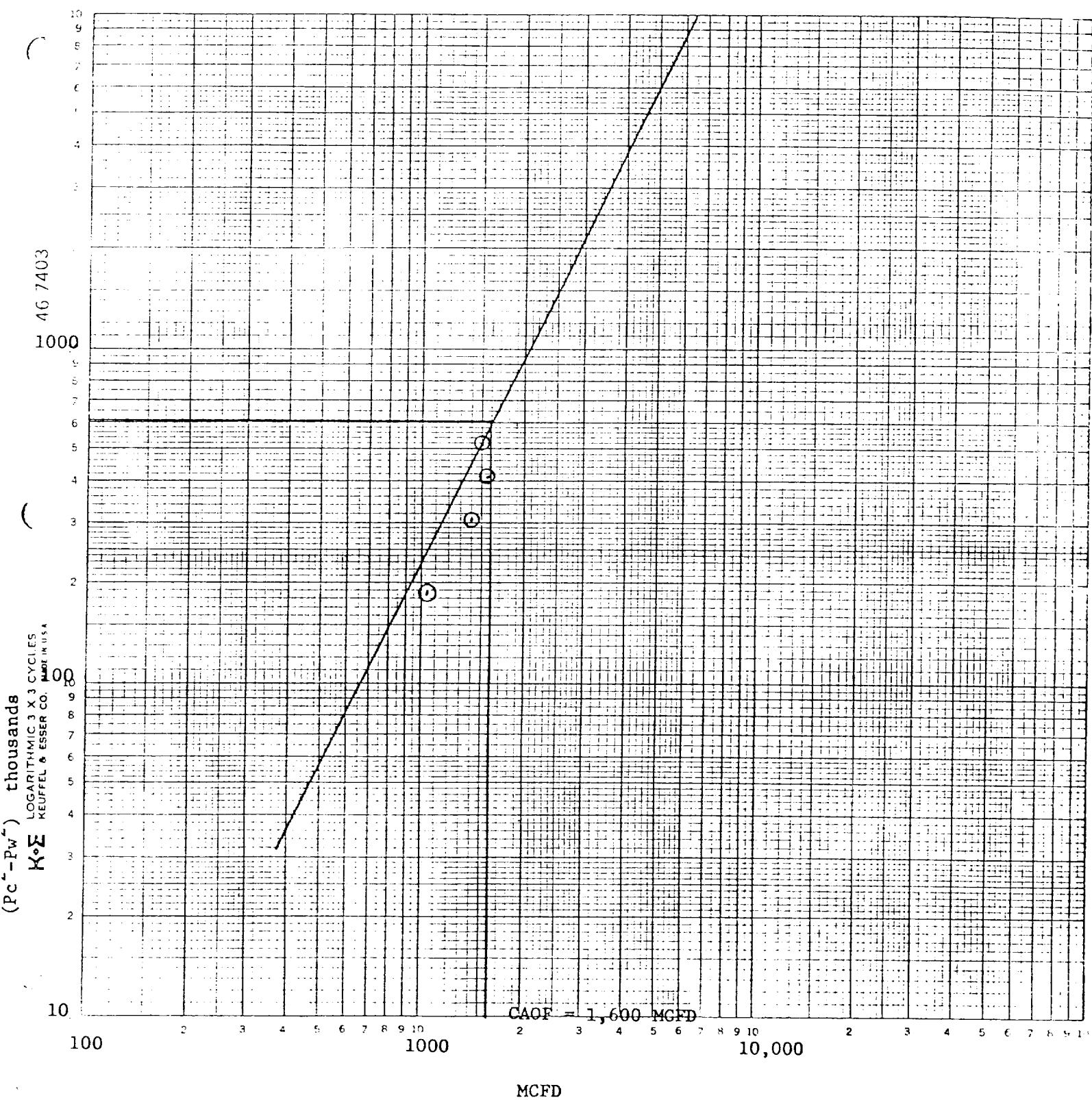


Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 9-22-82																													
Company Mesa Petroleum Co. ✓		Connection Unconnected																													
Pool Undesignated		Formation ABO																													
Completion Date 9-22-82		Total Depth 4,805'	Plug Back TD 4,510'																												
		Elevation 3,730'																													
Casing Size 4 1/2"		Well 10.5#	Set At 4,550'																												
Perforations: From 4,296' To 4,445'		Well No. 2																													
Tubing Size 2 3/8"		Well 4.7#	Set At 4349																												
Perforations: From 4296 To 4445		Unit Sec. Twp. Rge. J 24 6S 26E																													
Type Well - Single - Bradenhead - G.C. or G.O. Multiple Single		Packer Set At None																													
Producing Thru Tubing		Reservoir Temp. °F 102	Mean Annual Temp. °F 60																												
		Baro. Press. - P _g 13.2																													
L H G _g % CO ₂ % N ₂ % H ₂ S Prover		County Chaves																													
		State New Mexico																													
		Meter Run Taps																													
2" ORIFICE WELL TESTER																															
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	Duration of Flow																				
1.	2" ORIFICE	1	1 1/4	18		49	690	58	690		72 hrs.																				
2.	WELL	1	1 1/4	26		31	600	67	605		1 hr																				
3.	TESTER	1	1 1/4	31		41	498	71	519		1 hr																				
4.		1	1 1/4	29		46	394	73	426		1 hr																				
5.							278	76	343		1 hr																				
RATE OF FLOW CALCULATIONS																															
Q	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcd																								
1.	1,073	2" ORIFICE		1.0086	.9608		1,040																								
2.	1,458	WELL		1.0010	.9608		1,402																								
3.	1,640	TESTER		.9981	.9608		1,573																								
4.	1,558			.9948	.9608		1,489																								
Q	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.																										
					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																										
778 P_c² 605 <table border="1" style="width: 100%;"> <tr> <th>P_i²</th> <th>P_w</th> <th>P_w²</th> <th>P_c² - P_w²</th> </tr> <tr> <td>649</td> <td>421</td> <td>184</td> <td></td> </tr> <tr> <td>546</td> <td>298</td> <td>307</td> <td></td> </tr> <tr> <td>442</td> <td>195</td> <td>410</td> <td></td> </tr> <tr> <td>299</td> <td>89</td> <td>516</td> <td></td> </tr> </table> (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1725$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0828$ AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1,600$												P _i ²	P _w	P _w ²	P _c ² - P _w ²	649	421	184		546	298	307		442	195	410		299	89	516	
P _i ²	P _w	P _w ²	P _c ² - P _w ²																												
649	421	184																													
546	298	307																													
442	195	410																													
299	89	516																													
Plot of P_c² - P_w² vs Q yielded a straight line with a θ greater than 63.5° new 63.5° line through highest point.																															
Calculated By: Mike Lynch Calculated By: K.H. Sheffield, Jr. Checked By:																															



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