

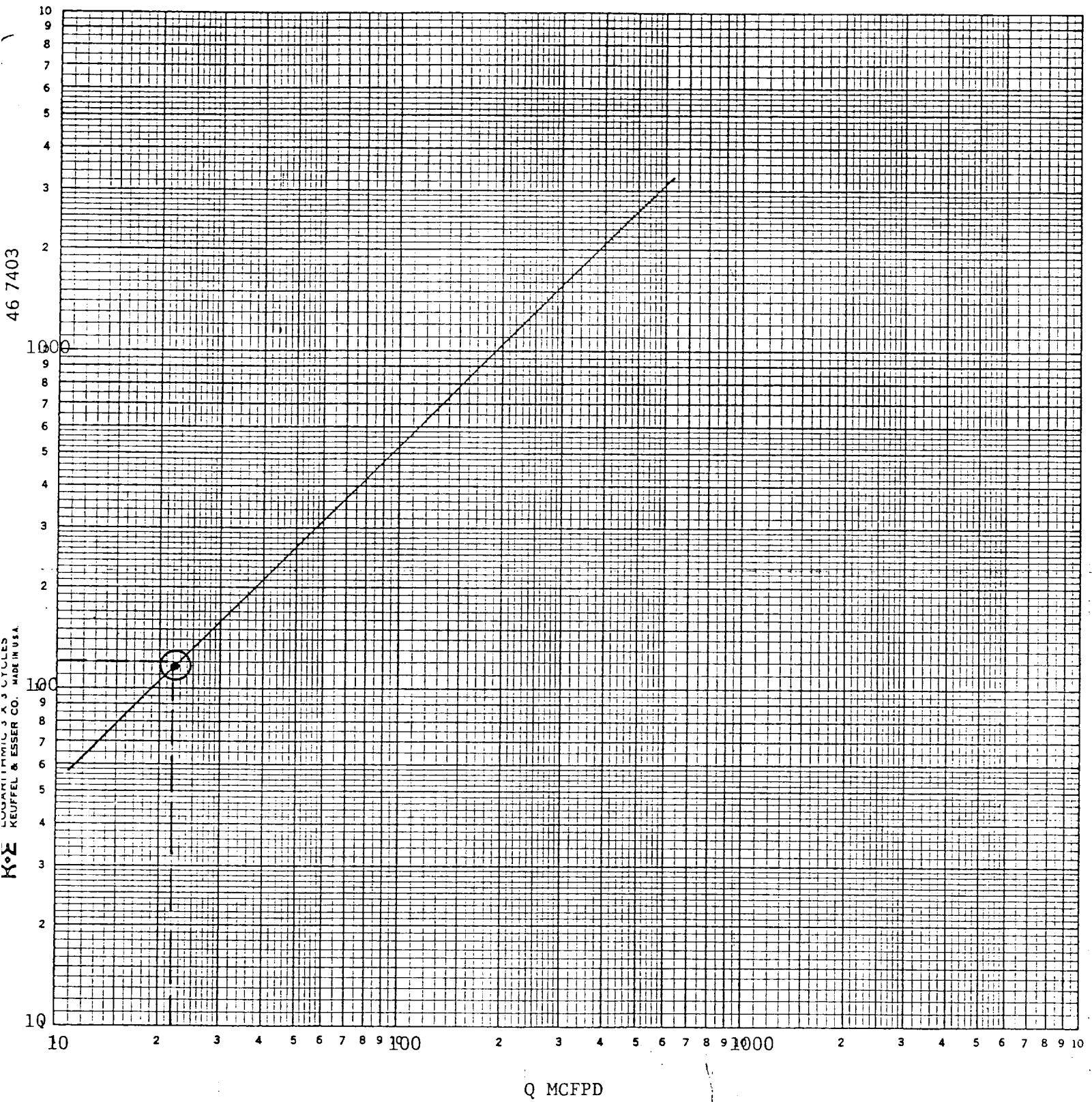
OCT 22 1982

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 10-6-82		O. C. D. ARTESIA, OFFICE																									
Company Mesa Petroleum Co.				Connection Unconnected																											
Pool Pecos Slope ABO				Formation ABO		Unit																									
Completion Date 10-6-82		Total Depth 4396'		Plug Back TD 4355'		Elevation 3516'																									
Farm or Lease Name Lloyds Fed Com																															
Csq. Size 4 1/2"	Wt. 10.5#	Set At 4417'	Perforations: From 4133' To 4153'				Well No. 1																								
Thq. Size 2-3/8"	Wt. 4.7#	Set At 4049'	Perforations: From Open ended to				Unit Sec. Twp. Rge. 0 11 9S 25E																								
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single				Packer Set At None		County Chaves																									
Producing Thru Tubing		Reservoir Temp. °F 99° @ 4396'		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" Orifice	Meter Run Well Tester																								
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																								
SI							72 hr. SI																								
1.	2" Orifice		1/4"	7		53	1 hr.																								
2.	Well Tester																														
3.																															
4.																															
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	23	2" Orifice Well		1.0068	.9608		22																								
2.		Tester			.9608																										
3.					.9608																										
4.					.9608																										
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 348 P_c² 121 <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>NO.</td> <td>P_w</td> <td>P_w²</td> <td>P_c² - P_w²</td> </tr> <tr> <td>1</td> <td>48</td> <td>2</td> <td>119</td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> </tr> </table> (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.0168$ AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 22$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.0168$								NO.	P _w	P _w ²	P _c ² - P _w ²	1	48	2	119	2				3				4				5			
NO.	P _w	P _w ²	P _c ² - P _w ²																												
1	48	2	119																												
2																															
3																															
4																															
5																															
Absolute Open Flow 22 Mcfd @ 15.025 Angle of Slope @ 45° Slope, n 1																															
Remarks: Unable to run four flow rates due to low delivery of well. Assumed N=1 and based calculations on one point test.																															
Approved By Division		Conducted By: James Craig		Calculated By:		Checked By: E.L. Buttross, Jr.																									

Post TD 2
10-29-82
Comp & BK

MESA PETROLEUM CO.
 Lloyds Fed Com No. 1
 Chaves County, New Mexico
 10-7-82



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