

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

JAN 26 1983

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 5-6-82		O. C. D. ARTESIA, OFFICE	
Company MESA PETROLEUM CO. ✓						Connection UNCONNECTED			
Pool PECOS SLOPE ABO						Formation ABO			
Completion Date 10-29-82		Total Depth 4000'		Plug Back TD 3959'		Elevation 3585' GL		Farm or Lease Name BERRENDO	
Csg. Size 4 1/2		Wt. 10.5#		Set At 4000'		Perforations: From 3170' To 3926'		Well No. 1	
Thq. Size 2 3/8		Wt. 4.7#		Set At 3863'		Perforations: From open ended To		Unit Sec. Twp. Rge. I 5 10S 24E	
Type Well - Single - Bradenhead - G.C. or G.O. Multiple SINGLE						Packer Set At NONE		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 100° @ 4000'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State NEW MEXICO	
L 3863'		H 3863'		Cg .65		% CO ₂ 1		% N ₂ 1	
						% H ₂ S		Prover 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. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							1020		1025		50 hr. SI
1.	2" ORIFICE			1.5		59	60	77	200		1 hr.
2.	WELL										
3.	TESTER										
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	268	2" ORIFICE WELL TESTER		1.0010	.9608		258
2.							
3							
4.							
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 _____ XXXXXX
3.					Specific Gravity Flowing Fluid _____ XXXXX
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5					Critical Temperature _____ R _____ R

P _c 1038 P _c ² 1077		(1) $\frac{P_c^2}{P_r^2 - P_w^2} = 1.0436$		(2) $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 1.0436$	
NO	P _r ²	P _w	P _w ²	P _c ² - P _w ²	
1		213	45	1032	
2					
3					
4					
5					

AOF = Q $\left[\frac{P_c^2}{P_r^2 - P_w^2} \right]^n = 270$

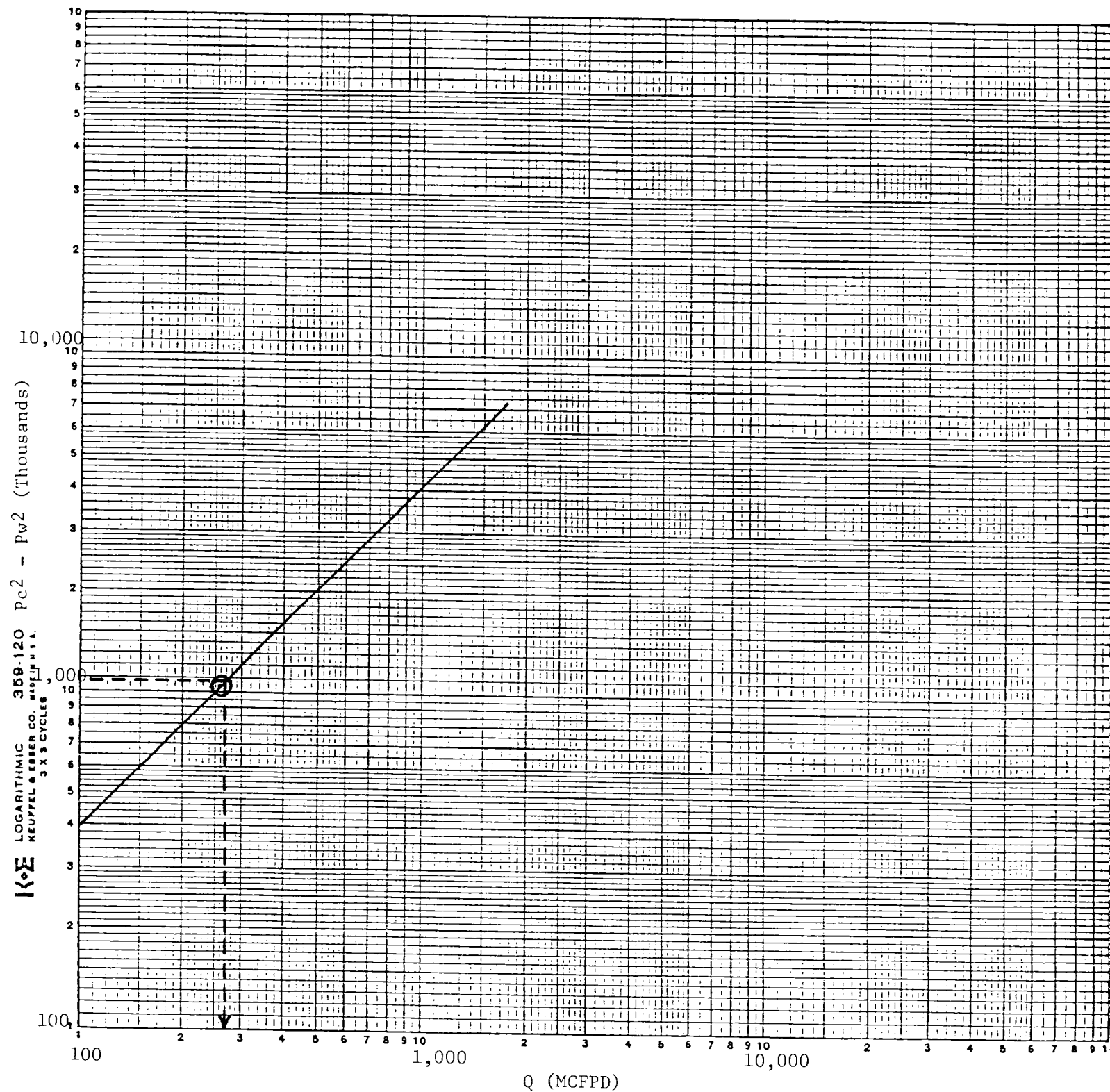
*Fast ID 2
1-21-83
Comp + BK*

Absolute Open Flow 270 _____ 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: by 0071 1-18-83	Checked By:
----------------------	------------------------------	--------------------------------	-------------

BERRENDO #1
 SEC. 5, T10S, R24E
 CHAVES COUNTY, NEW MEXICO



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

CAOF=270