

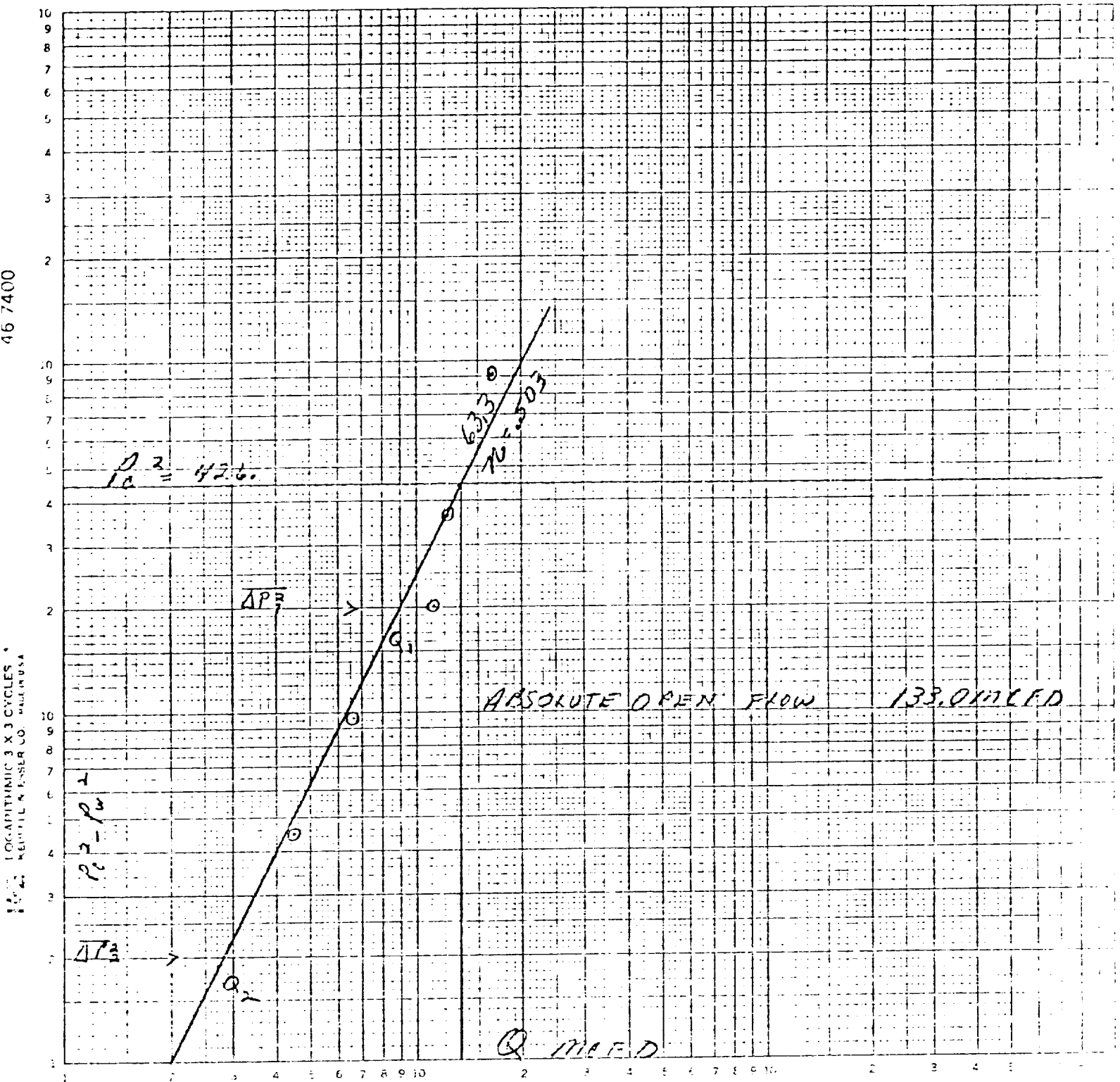
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File

Type Test ☒ Initial ☐ FOUR POINT ☐ Annual ☐ Special				Test Date 11-5-82		NOV 18 1982					
Company MC KAY PETROLEUM				Connection AIR NEW WELL		O. C. D.					
Pool W. PECOS SLOPE U.D. <i>ABO</i>				Formation ABO		ARTESIA, OFFICE J					
Completion Date 3-18-82 10-27-82		Total Depth 3233		Plug Hole 1 3192		Elevation 3995' <i>GL</i>					
Well Size 4.500		Wt. 10.5		Set At 3233 2383		Perforations: From 2472-2473 To 2495-2610					
Tub. Size 2.375		Wt. 4.7		Set At 2436 2352		Perforations: From OPEN To ENDED					
Type Well - Single - Freehead - O.O. or A.O. Multiple SINGLE				Packer Set At NONE		Well No. 1					
Producing thru TUBING		Reservoir Temp. °F 93 @ 2483		Mean Annual Temp. °F 60		Base. Press. - P _a 13.2					
L 2483		H 2483		Q _g 0.881		% CO ₂ 32.22					
				% H ₂ 3.30		% H ₂ S 0					
				Proves 2.00		Meter Run 0					
FLOW DATA				TUBING DATA		B.H.P. DATA					
NO.	Proves Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. hg	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	CHOKE	Duration of Flow
SI							639	53			336.0
1.	2.00 X		0.063	604	0	59	604	57	0	48/64	1 HR
2.	2.00 X		0.188	89	0	56	561	53	0	6/64	1 HR
3.	2.00 X		0.188	159	0	61	462	55	0	7/64	1 HR
4.	2.00 X		0.188	174	0	67	241	58	0	10/64	1 HR
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (34 Hour)	$\sqrt{h/P_a}$	Pressure P _a	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mscf				
1	0.06	0	617.2	1.0010	1.0654	1.0607	45				
2	0.61	0	102.2	1.0039	1.0654	1.0097	67				
3	0.61	0	172.2	0.9990	1.0654	1.0159	113				
4	0.61	0	187.2	0.9933	1.0654	1.0166	122				
5											
NO.	R	Temp. °R	T	Z	Gas Liquid Hydrocarbon Ratio _____ Mol./Bbl.						
1	0.78	519	1.36	0.889	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.						
2	0.13	516	1.35	0.981	Specific Gravity Separator Gas 0.881						
3	0.22	521	1.36	0.959	Specific Gravity Flowing Fluid XXXXX						
4	0.24	527	1.38	0.958	Critical Pressure 795 P.S.I.A.						
5					Critical Temperature 383 P.S.I.A.						
$P_1 = 652.8$ $P_2 = 426$					$(1) \frac{P_1^2}{P_2^2 - P_1^2} = 1.1792$ $(2) \left[\frac{R^2}{P_2^2 - P_1^2} \right]^{1/2} = 1.0864$						
NO.	P ₁ ²	P ₂ ²	R ₁ ²	P ₂ ² - R ₁ ²	$AOF = 0 \left[\frac{R^2}{P_2^2 - P_1^2} \right]^{1/2} = 133$						
1	381.	617	381	45	<i>Post ID-2</i> <i>11-26-82</i> <i>Copy of BK</i>						
2	330.	575	330	96							
3	226.	476	226	200							
4	65.	254	65	361							
5											
Absolute Open Flow 133. Mscf @ 15.025					Angle of Slope 63.3		Slope, n 0.503				
Remarks:											
Approved By Consultant		Tested By		Calculated By		Checked By					
N BENNETT		BENNETT-CATHEY									

SHERRILL, E. C. JR.
Well No. 1
Unit A, 528, T8S, R12W
Cherokee County

11-5-82



$$\Delta P_1 P_2^2 P_1^2 = 200$$

$$\Delta P_2 P_2^2 P_1^2 = 20$$

$$Q_1 = 90.0 \text{ MCFD}$$

$$Q_2 = 28.3 \text{ MCFD}$$

$$\log Q_1 = 1.9542$$

$$\log Q_2 = 1.4512$$

$$72 = 503$$