

EXICO OIL CONSERVATION CO
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

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File
Form C-122
Revised 9-1-65

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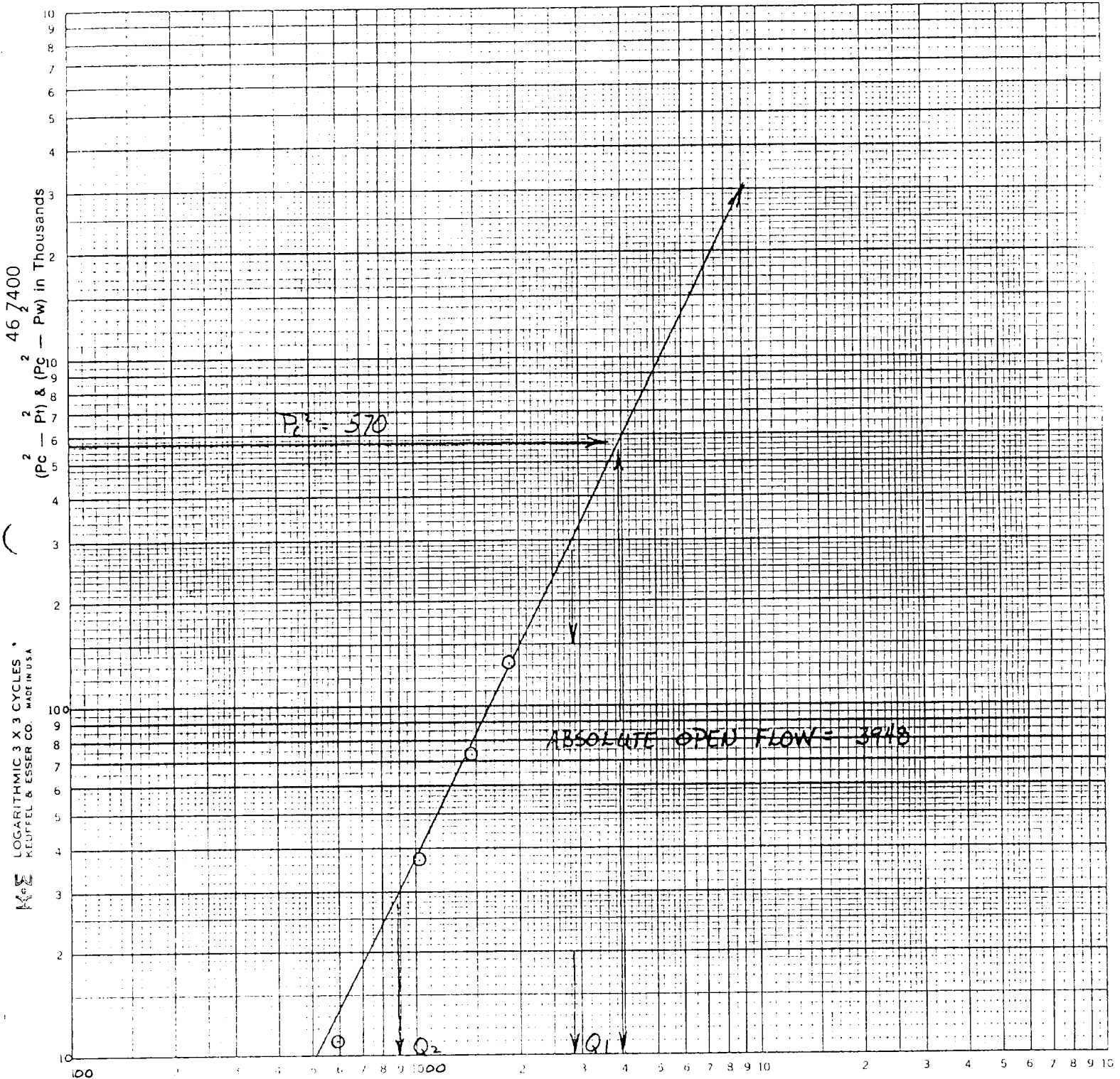
O. C. B.

ARTESIA, OFFICE

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special						Test Date 2-25-84	
Company STEVENS OPERATING				Connection TO AIR			
Pool PECOS SLOPE				Formation ABO			
Completion Date 2-22-84 3-20-84		Total Depth 4378 4379		Plug Back 4374		Elevation 3671	
Casing Size 4.500		Wt. 11.6		ID 4.052		Set At 4374	
Perforations: From 3932		To 4377		Well No. #5		Farm or Lease Name HELEN COLLINS FEDERAL	
Tubing Size 2.375		Wt. 4.7		ID .995		Unit Sec. Twp. Rge. G 9 7S 26E	
Type Well - Single - Windhead - G.O. or G.O. Multiple SINGLE						Packer Set At 3818	
Producing thru TUBING		Reservoir Temp. °F 100 3818		Mean Annual Temp. °F 60.0		Baro. Press. - P _a 13.2	
L 3936		H 3818		C _g 0.672		% CO ₂ 3.00	
				% N ₂ 4.72		% H ₂ O 0	
				Prover 2.0		Motor Run 0	
						Taps FLANGE	
FLOW DATA				TUBING DATA		B.H.P. DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.
NO.							Temp. °F
51							744.
1.	2.00 X 0.188			736.	0	62	736.
2.	2.00 X 0.250			712.	0	66	712.
3.	2.00 X 0.313			667.	0	67	667.
4.	2.00 X 0.375			610.	0	67	610.
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 _{sp}	Rate of Flow Q, Mcfd
1	0.61	0	749.2	0.9981	1.2199	1.0695	592.
2	1.08	0	725.2	0.9943	1.2199	1.0652	1016.
3	1.67	0	680.2	0.9933	1.2199	1.0609	1458.
4	2.37	0	623.2	0.9933	1.2199	1.0558	1892.
5							
NO.	R _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.		
					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
1	1.11	522.	1.44	0.874	Specific Gravity Separator Gas _____ 0.672		
2	1.08	526.	1.45	0.881	Specific Gravity Flowing Fluid _____ 0.672		
3	1.01	527.	1.45	0.888	Critical Pressure _____ 674. P.C.I.A.		
4	0.92	527.	1.45	0.897	Critical Temperature _____ 363. °R		
5							
P _c 754.9 P _c ² 570.					(1) $\frac{P_c^2}{P_a^2 - P_w^2} = 4.3233$		
					(2) $\left[\frac{P_c^2}{P_a^2 - P_w^2} \right]^n = 2.0869$		
NO.	P _a ²	P _w ²	P _a ² - P _w ²				
1	684.	748.	559.				
2	652.	730.	533.				
3	607.	705.	497.				
4	535.	662.	438.				
5							
AOF = Q $\left[\frac{P_c^2}{P_a^2 - P_w^2} \right]^n = 3948.$							
Absolute Open Flow _____ 3948. Mcfd @ 15.025				Angle of Slope _____ 63.3		Slope, n _____ 0.503	
Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA PRESSURE ELEMENTS.							
Approved by Commission		Conducted by		Calculated by		Checked by	

BACK PRESSURE CURVE

Operator Sterens Operating Lease Hellen Collins Well No. 5
 County Chaves Field Pecos Slope Location 9-75-26E
 Date of Test 2-25-84 Slope "n" 0.503 Angle of Slope 63.3
 Calc. Abs. Potential 3948 MCF/D



$$\overline{\Delta P}_1^2 \quad P_c^2 - P_w^2 = \underline{300}$$

$$\overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 = \underline{30}$$

$$Q_1 = \underline{2850}$$

Q in MCF/Day

$$\text{LOG } Q_1 = \underline{3.4548}$$

$$\text{LOG } Q_2 = \underline{2.9518}$$

$$n = \underline{0.503}$$