

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED BY
FEB 01 1984

Type Test 4 POINT ☒ Initial ☐ Annual ☐ Special				Test Date 1-28-84		O. C. D. 1980 ARTESIA OFFICE	
Company STEVENS OPERATING				Connection AIR NEW WELL		1980 FWL	
Pool PECOS SLOPE <i>abo</i>				Formation ABO		Unit FE	
Completion Date 1-18-84		Total Depth 4322		Plug Lines 4245		Elevation 3627.7 3671	
Casing Size 4.500		ID 11.6		Set At 4.000		Perforations: From 4121.2 To 4185	
Tubing Size 2.375		ID 4.7		Set At 1.995		Perforations: From 0 To 0	
Form or Lease Name HELEN COLLINS FED.				Well No. #4			
Type Well - Single - Dradhead - G.C. or G.O. Multiple SINGLE				Packoff Set At 0		County CHAVES	
Producing thru TUBING		Reservoir Temp. °F 113 4153		Mean Annual Temp. °F 60°		Baro. Press. - P _a 13.2	
L 4153		H 4153		C _g 0.695		% CO ₂ 0	
				% N ₂ 0		% H ₂ S 0	
				Provor 2.0		Motor Run 0	
						Taps FLANGE	

FLOW DATA						TUBING DATA		B.H.P. DATA		Duration of Flow	
NO.	Provor 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.	CHOKE	of Flow
51							937	60			71.0
1.	2.00 X 0.219			898	0	61	898	60	0	48/64	1.0
2.	2.00 X 0.313			828	0	62	828	60	0	48/64	1.0
3.	2.00 X 0.375			765	0	63	765	60	0	48/64	1.0
4.	2.00 X 0.438			584	0	62	584	60	0	48/64	1.0
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super. Compress. Factor, F _{sp}	Rate of Flow Q, Mgd
1	0.84	0	911.2	0.9990	1.1995	1.1153	1022.
2	1.67	0	841.2	0.9981	1.1995	1.1047	1862.
3	2.37	0	778.2	0.9971	1.1995	1.0955	2420.
4	3.41	0	597.2	0.9981	1.1995	1.0727	2614.
5							

NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	1.36	521.	1.34	0.804	0	
2	1.26	522.	1.34	0.819	0	
3	1.17	523.	1.35	0.833	0.695	XXXXXXX
4	0.89	522.	1.34	0.869	0.695	XXXXXXX
5						

NO.	P ₁	P _w	P ₁ ²	P _w ²	P ₁ ² - P _w ²	(1) $\frac{P_c^2}{P_1^2 - P_w^2} = 3.9956$	(2) $\left[\frac{P_c^2}{P_1^2 - P_w^2} \right]^n = 2.4811$
1	830.	918.	843.	60.			
2	708.	866.	749.	154.			
3	606.	822.	676.	226.			
4	357.	666.	443.	460.			
5							

Absolute Open Flow 6004.		Mgd @ 15.025		Angle of Slope 56.75		Slope, n 0.656	
Remarks							
Approved By: Commission							
Conducted By: RICHARD TOWNLEY							
Calculated By: BENNETT & CATHEY							
Checked By:							

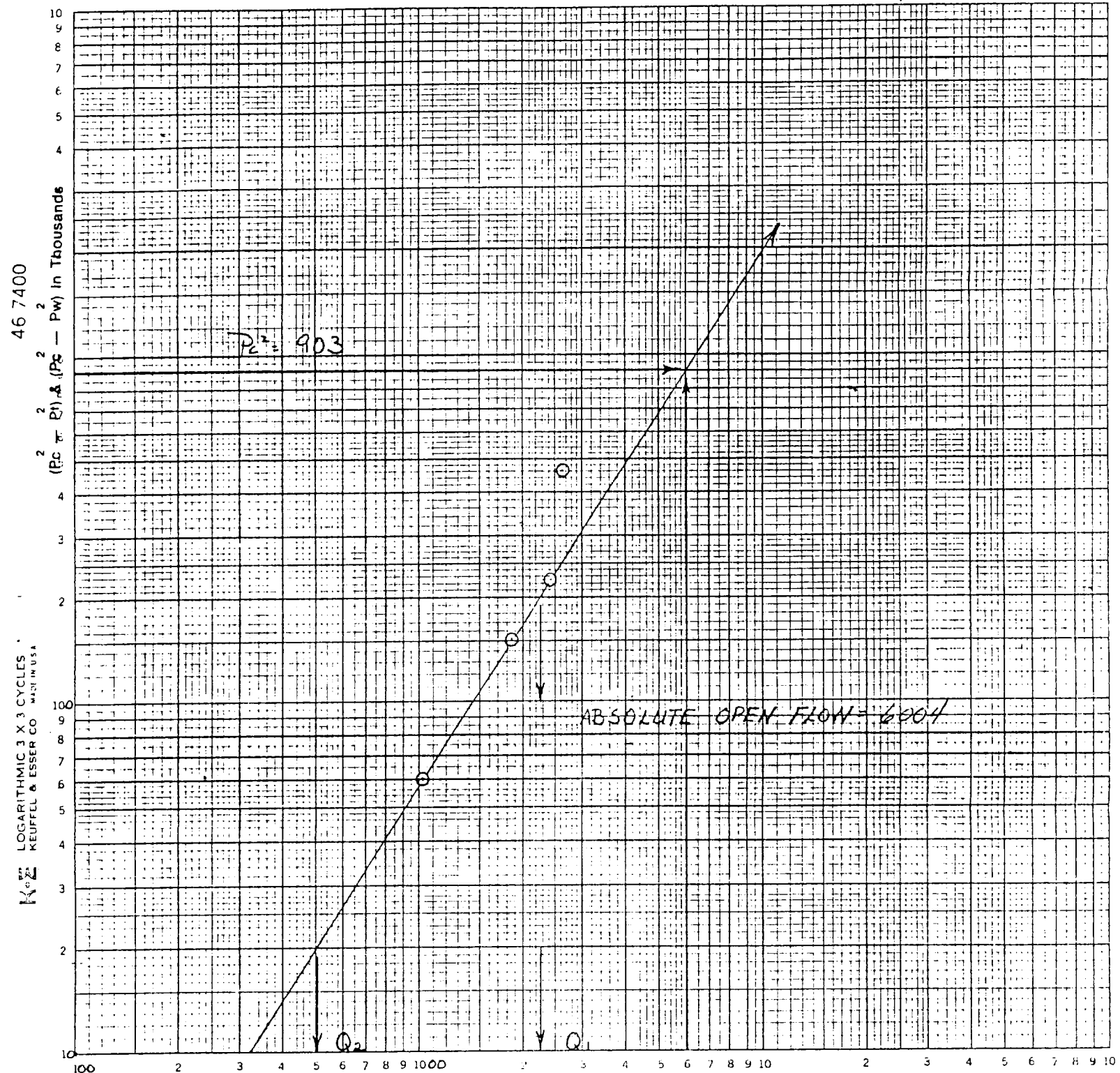
BACK PRESSURE CUF

Operator STEVENS OPERATING Lease HELLEN COLLINS FED. Well No. 4
 County CHAVES Field PECOS SLOPE Location 9 75 26E
 Date of Test 1-28-84 Slope "n" 0.656 Angle of Slope 56.75

Calc. Abs. Potential

6004

MCF/D



Q in MCF/Day

$$\overline{\Delta P}_1^2 \quad P_c^2 - P_w^2 = \underline{200}$$

$$\overline{\Delta P}_2^2 \quad P_c^2 - P_w^2 = \underline{60}$$

$$Q_1 = \underline{2287}$$

$$\text{LOG } Q_1 = \underline{3.3593}$$

$$\text{LOG } Q_2 = \underline{2.7033}$$

$$n = \underline{0.656}$$