

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

SF file
Form C-122
REVISED 10-75
RECEIVED

JUN 4 1982

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 5-3-82		O. C. D. ARTESIA, OFFICE	
Company Yates Petroleum Corporation				Connection Transwestern Pipeline Co.			
Pool Pecos Slope				Formation Abo		Unit	
Completion Date 3-5-82		Total Depth 4265		Plug Back TD 4257		Elevation 3745.3	
Csg. Size 4 1/2"		Wt. 9.5		Set At 4265		Perforations: From 3729 To 3826	
Trq. Size 2-3/8"		Wt. 4.7		Set At 3722		Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At -		County Chaves	
Producing Thru tbng		Reservoir Temp. °F 95 @ 3.722		Mean Annual Temp. °F 62 deg		Buro. Press. - P _g 13.2	
L 3722		H 3722		G _g .637		% CO ₂ 1.18	
				% N ₂ 3.94		% H ₂ S NIL	
				Prover -		Meter Run 2"	
						Type flanged	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover 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.		Temp. °F
51							980				days
1.	4.026 x 1.250			180	43	72	845	62			24 hrs
2.	4.026 x 1.250			200	129.8	72	484	62			24 hrs
3.	4.026 x 1.250			190	57.2	70	705	62			24 hrs
4.	4.026 x 1.250			180	50.3	73	812	62			24 hrs
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	8.120	91.1	193.2	.9887	1.253	1.016	932
2	8.120	166.3	213.2	.9887	1.253	1.016	1700
3	8.120	107.8	203.2	.9905	1.253	1.017	1105
4	8.120	98.5	193.2	.9877	1.253	1.016	1006
5.							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio <u>Dry</u> Mcf/bbl.	
	.29	532	1.49	.969	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.	
	.32	532	1.49	.969	Specific Gravity Separator Gas <u>.637</u>	XXXXXX
	.31	530	1.48	.967	Specific Gravity Flowing Fluid <u>XXXXXX</u>	
	.29	533	1.49	.969	Critical Pressure <u>665</u> P.S.I.A.	665 P.S.I.A.
5.					Critical Temperature <u>357</u> °R	357 °R

P _c 993.2	P _c ² 986		
NO.	P _t ²	P _w	P _w ²
1	728.2		739.1
2	248.2		286.0
3	510.2		526.0
4	673.2		687.0
5			

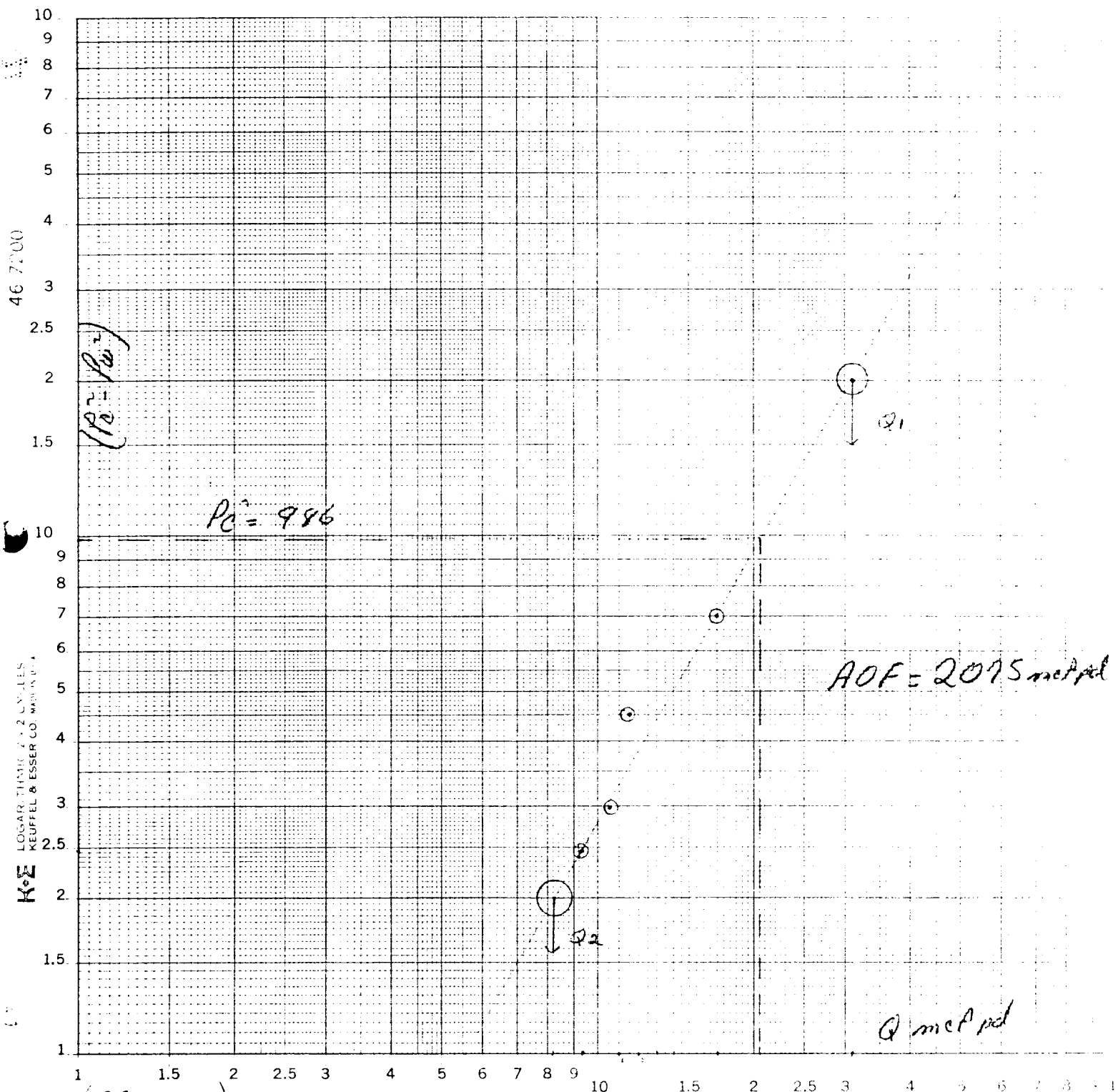
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \underline{3.994}$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{2.226}$

AOIF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{2075 \text{ mcfpd}}$

Absolute Open Flow <u>2075 mcfpd</u>	Mcf @ 15.025	Angle of Slope @ _____	Slope, n <u>.578</u>
Remarks: _____			

Approved By Commission:	Conducted By: David Weaver	Calculated By: Brent Mulliniks	Checked By:
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Hewitt, IM. pad #2
 O-25-68-25E
 Chaves, New Mex CO



$$(P_c^2 - P_w^2)_1 = 2,000$$

$$(P_c^2 - P_w^2)_2 = 2,00$$

$$Q_1 = 3100$$

$$Q_2 = 820$$

$$\log Q_1 = 3.49136$$

$$\log Q_2 = 2.91381$$

$$n = .57755$$

$$n = .558$$