

N MEXICO OIL CONSERVATION COMM' ON
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
 Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8-30-79	
Company Yates Petroleum Corp.			Connection Transwestern Pipeline Co.		
Pool Eagle Creek Permo Penn			Formation Cisco		Unit NM 0440087
Completion Date 9-2-77		Total Depth 8417' KB		Plug Back TD 6590' KB	Elevation 3646' GR
Farm or Lease Name Federal "CX"		Well No. 2			
Csg. Size 4-1/2"	Wt. 10.5#	d 4.052	Set At 7185 KB	Perforations: From 6492 To 6496	
Thg. Size 2-3/8"	Wt. 4.7#	d 1.995	Set At 6462 KB	Perforations: From To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 6462' KB	
Producing Thru Tubing		Reservoir Temp. °F 122 @ 6494		Mean Annual Temp. °F 62	
Baro. Press. - P _g 13.2		State New Mexico			
L 6494	H 6494	G _g .693	% CO ₂ 0.42	% N ₂ 0.62	% H ₂ S Nil
Prover 2"		Meter Run 2"		Taps Flange	

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
SI							1729	74			Days
1.	2.067	x	0.500	290	6	75	1633	75			1 hour
2.				290	12	75	1518	76			1 hour
3.				290	25	75	1395	78			1 hour
4.				290	48	75	1270	80			1 hour
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 _{pv}	Rate of Flow Q, Mcfd
1.	1.189	42.65	303.2	.9859	1.265	1.026	65
2.	1.189	60.32	303.2	.9859	1.265	1.026	92
3.	1.189	87.06	303.2	.9859	1.265	1.026	132
4.	1.189	120.64	303.2	.9859	1.265	1.026	183
5.							

NO.	P _i	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio	39.188	Mcf/bbl.
1.	0.451	535	1.466	.950	A.P.I. Gravity of Liquid Hydrocarbons	51.0	Deg.
2.	0.451	535	1.466	.950	Specific Gravity Separator Gas	0.625	XXXXXX
3.	0.451	535	1.466	.950	Specific Gravity Flowing Fluid	XXXXX	0.703
4.	0.451	535	1.466	.950	Critical Pressure	672	P.S.I.A. 669.5
5.					Critical Temperature	365	R 390.5

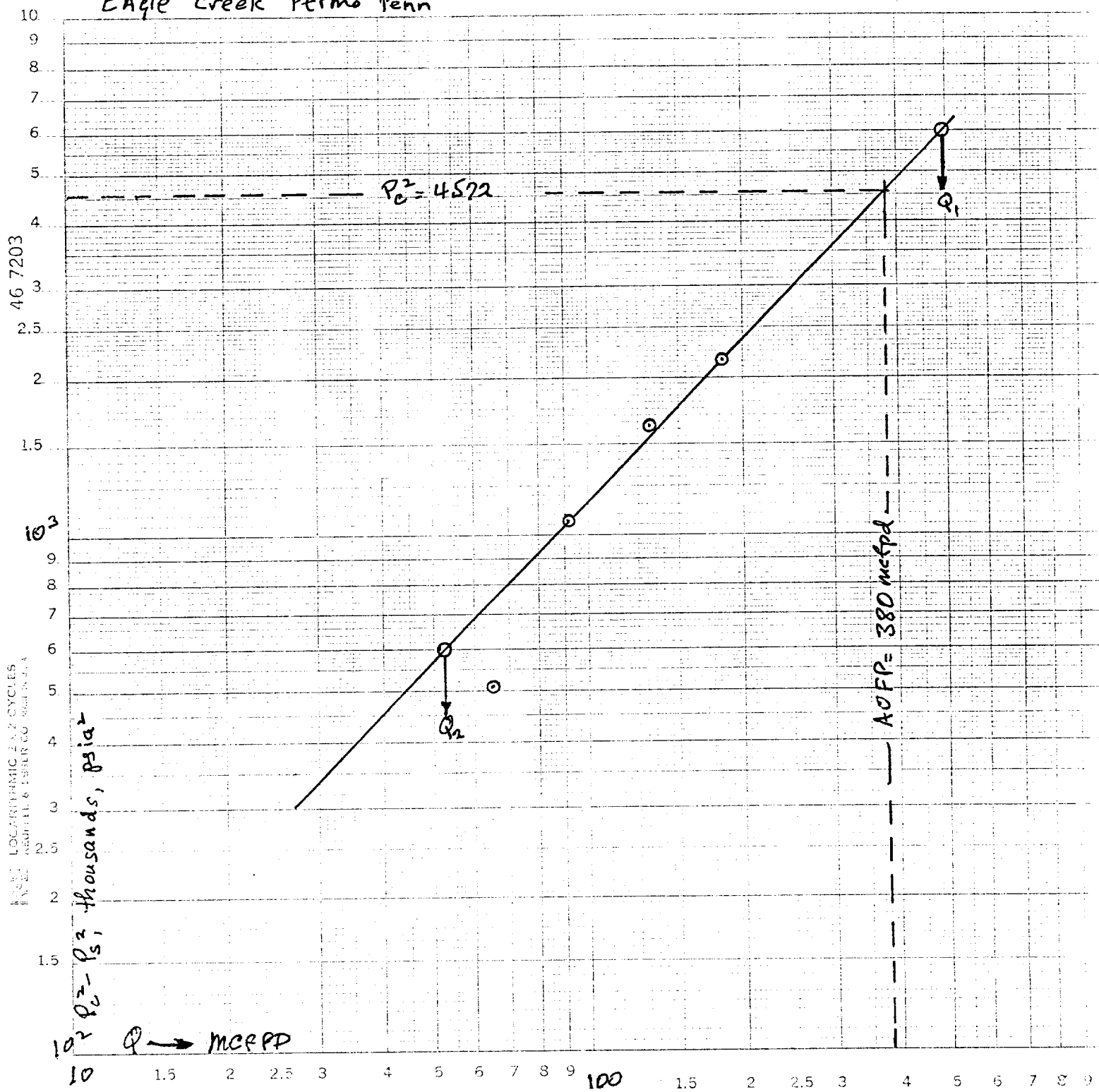
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1196$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.0766$ AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 380$
1.			4062	510	
2.			3504	1068	
3.			2941	1631	
4.			2415	2157	

Absolute Open Flow		380	Mcf/d @ 15.025	Angle of Slope @	45.8 deg	Slope, n	0.9727
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Remarks: Static pressures by Bennett Wireline; Flowing pressures by DWT
 NOTE: Well Unloading

Approved By Commission:	Conducted By: Don Weaver	Calculated By: Eddie Mahfood	Checked By:
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Federal CX No. 2, L-7-18s-2SE
Eagle Creek Permo Penn



$$Q_1 = 493 \text{ mefpd}$$

$$\log Q_1 = 2.6929$$

$$Q_2 = 52.5 \text{ mcfpd}$$

$$\log Q_2 = 1.7202$$

$$n = 0.9227$$

