

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

Form C-122
Revised 9-1-63

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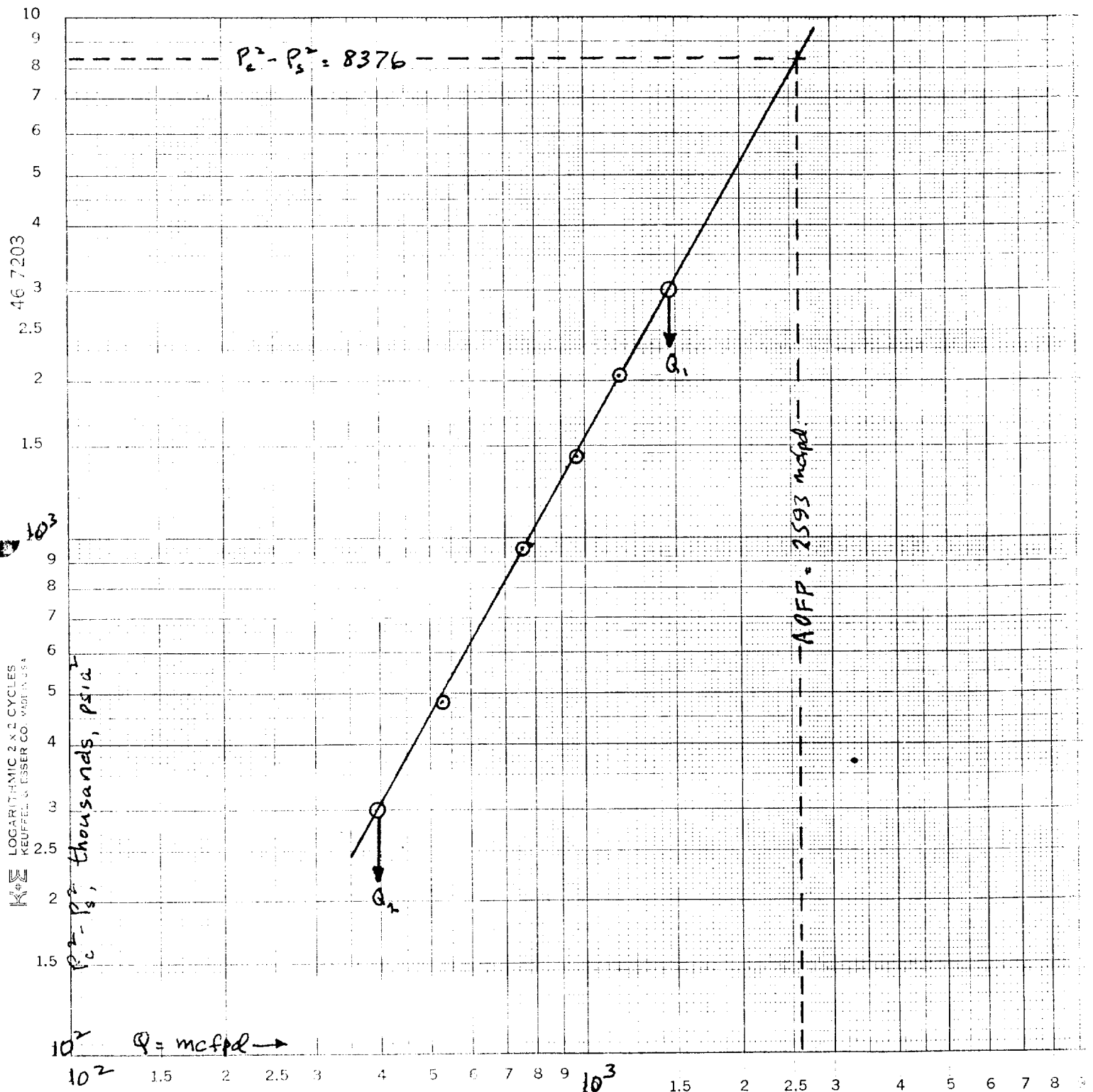
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O. C. D.
ARTESIA, OFFICE

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 9-29-80	
Company Yates Petroleum Corporation		Connection Transwestern Pipeline Co.	
Pool E. Eagle Creek Atoka Morrow		Formation Atoka-Morrow	
Completion Date 5-27-80		Total Depth 8295	Plug Back TD 8150
Elevation 3557 KB		Farm or Lease Name Jackson Estate BY	
Csg. Size 5 1/2	Wt. 17#	d 4.892	Set At 8287 KB
Perforations: From 7824	To 8073		
Well No. 9			
Thq. Size 2 7/8	Wt. 6.5#	d 2.441	Set At 7788 KB
Perforations: From	To		
Unit T	Sec. 22	Twp. 17S	Rge. 25E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 7788 KB	County Eddy
Producing Thru Tubing	Reservoir Temp. °F 138	Mean Annual Temp. °F 62	State New Mexico
Baro. Press. - P _a 13.2			
L 7855	H 7855	G _g 0.732	% CO ₂ 2.99
% N ₂ 0.68	% H ₂ S N ₂	Prover -	Meter Run 2
Taps Flanged			
FLOW DATA			
NO.	Prover Line Size	x	Orifice Size
SI			
1.	2.067	x	1.000
2.	2.067	x	1.000
3.	2.067	x	1.000
4.	2.067	x	1.000
5.			
Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.
279	19	73	2165
280	39	73	2106
280	63	73	2043
281	92	73	1977
			1899
TUBING DATA			
Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F
2165	62	2106	66
2043	69	1977	71
1899	73		
CASING DATA			
Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F
Duration of Flow Days			
			1 hour
			1 hour
			1 hour
			1 hour
RATE OF FLOW CALCULATIONS			
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m
1	5.724	74.51	292.2
2	5.724	106.93	293.2
3	5.724	135.91	293.2
4	5.724	164.52	294.2
5			
Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf
0.9877	1.219	1.0276	528
0.9877	1.219	1.0276	757
0.9877	1.219	1.0276	963
0.9877	1.219	1.0276	1165
NO.	P _r	Temp. °R	T _r
1	0.429	533	1.418
2	0.430	533	1.418
3	0.430	533	1.418
4	0.432	533	1.418
5			
Z	Gas Liquid Hydrocarbon Ratio 48.28 Mcf/bbl.		
	A.P.I. Gravity of Liquid Hydrocarbons 57.4 Deg.		
	Specific Gravity Separator Gas 0.673		
	Specific Gravity Flowing Fluid X X X X X		
	Critical Pressure 681 P.S.I.A.		
	Critical Temperature 376 R		
	725 P.S.I.A.		
	411.5 R		
P _c 2984	P _c ² 8376		
NO.	P _r ²	P _w	P _w ²
1			7895
2			7426
3			6948
4			6325
5			2051
(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.084$			
(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2.2254$			
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2593$			
Absolute Open Flow 2593 Mscf @ 15.025		Angle of Slope θ 60.4 dry	
Slope, n 0.5685			
Remarks: Static pressures by Bennett Wireline. Flowing pressures by DWT.			
Calculations work sheet C122D attached.			
Approved By Commission:		Conducted By:	
David Weaver		Eddie Mahfood	
Calculated By:		Checked By:	

YPC - Jackson Estate BY No. 9

L-22-17s-25E, E. Eagle Creek Atoka-Morrow, Eddy Co, N.M.



$$Q_1 = 1455 \text{ mcfpd} \quad \log Q_1 = 3.1629$$

$$Q_2 = 393 \text{ mcfpd} \quad \log Q_2 = 2.5944$$

$$n = 0.5685$$

C-122D

9-29-80

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411.5

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