

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

Form C-122
Revised 9-1-65

C/SF

C-122

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 2-15-82		FEB 25 1982	
Company MESA PETROLEUM CO. ✓			Connection UNCONNECTED		
Pool Pecos Slope UNDESIGNATED-ABO			Formation ABO		Unit ARTESIA, OFFICE
Completion Date 2-15-82		Total Depth 4250'	Plug back To 4187'	Elevation 3703'	Form. or Lease Name ALKALI FEDERAL COM
Csg. Size 4 1/2"	Wt. 10.5#	d 	Set At 4249'	Perforations: From 3732' To 4004'	Well No. 6
Tub. Size 2 3/8"	Wt. 4.7#	d 	Set At 3620'	Perforations: From OPEN END	Unit Sec. Twp. Rge. 0 33 5S 25E
Type Well - Single - Prodenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE	County CHAVES
Producing Thru TUBING		Reservoir Temp. °F 102 @ 4250	Mean Annual Temp. °F 60	Boro. Press. - P _g 13.2	State NEW MEXICO
L	H	G _g .65	% CO ₂ 1	% N ₂ 1	% H ₂ S
Provor CHOKE				Meter Run 	Tag

FLOW DATA						TUBING DATA		CASING 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.		Temp. °F
SI							1000		995		72 HRS ST
1.			12/64	835		71	835	71	805		1 hr
2.	CHOKE		16/64	667		73	667	73	692		1 hr
3.	COEFF		20/64	540		73	540	73	590		1 hr
4.			24/64	436		74	436	74	502		1 hr
5.											

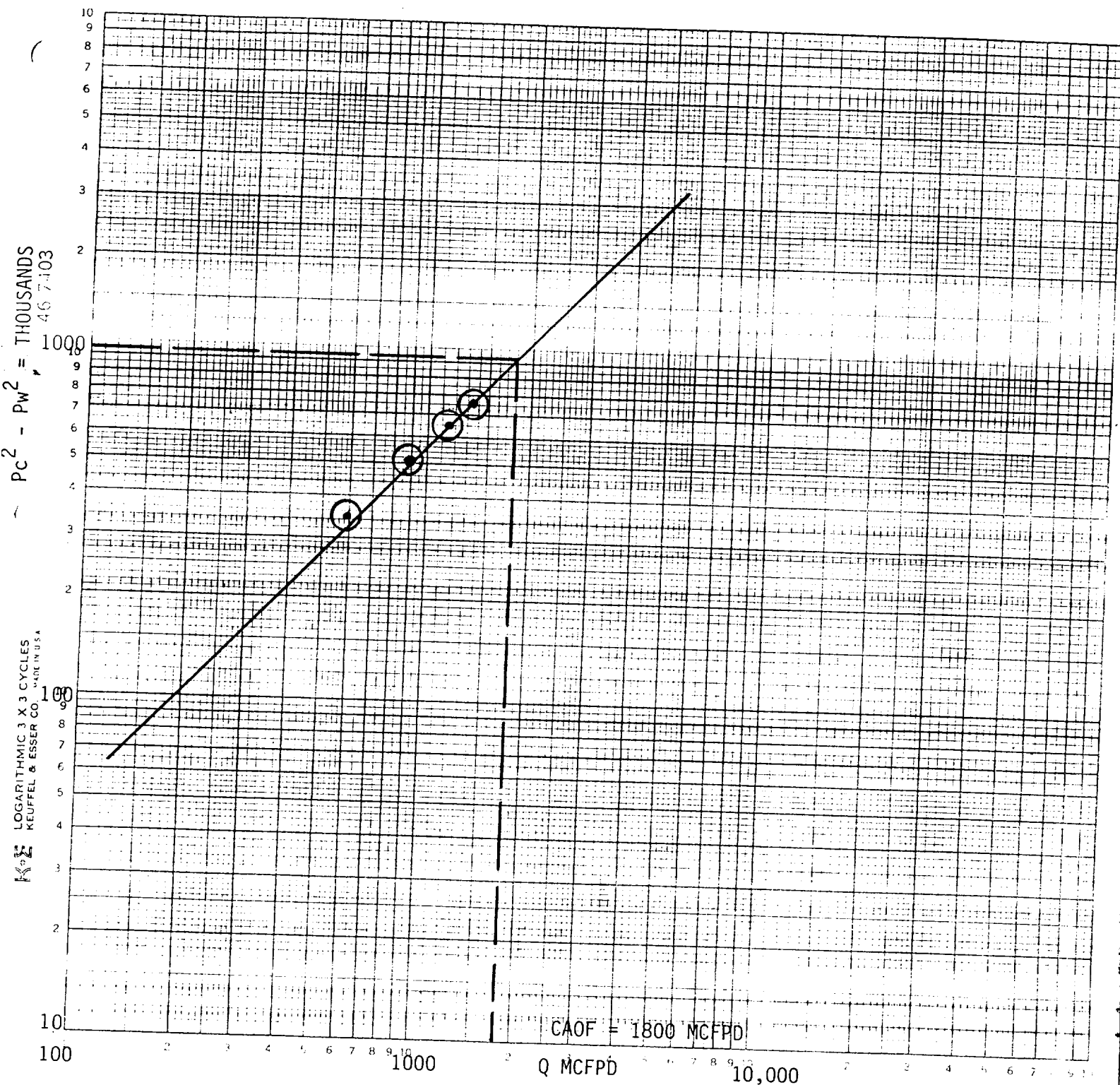
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{sp}	Rate of Flow Q, Mhd
1	.5725	CHOKE	848	.9896	1.240		596
2	1.050	CHOKE	680	.9877	1.240		874
3	1.645	CHOKE	553	.9877	1.240		1114
4	2.388	CHOKE	449	.9868	1.240		1311
5							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 1008	P _c ² 1016	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3529$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3366$
NO.	P _w ²	P _w ²	P _c ² - P _w ²
1	818	669	347
2	705	497	519
3	603	364	652
4	515	265	751
5			

Absolute Open Flow 1,800		Mhd @ 15.025	Angle of Slope θ 46.2°	Slope, n .96
Remarks: _____				
Approved By Commission: _____		Conducted By: JAMES CRAIG	Calculated By: E. L. BUTTROSS, JR	Checked By: _____

MESA PETROLEUM CO.
 ALKALI FEDERAL NO. 6
 CHAVES COUNTY, NEW MEXICO
 FEBRUARY 15, 1982



$$N = 1/\text{SLOPE} = \frac{\text{LOG } Q_2 - \text{LOG } Q_1}{\text{CYCLE}} = \frac{\text{LOG } 1750 - \text{LOG } 190}{\text{CYCLE}} = 3.24 - 2.28 = .96$$

$$\emptyset = 46.2^\circ$$