NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT ☐ ONE POINT BACK PRESSURE TE FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

APR 2 1982

O. C. D.
ARTESIA, OFFICE

C/SF
C-122

Type Test: ☒ Initial ☐ Annual ☐ Special				Test Date: 3-10-82	
Company: MESA PETROLEUM CO.		Connection: UNCONNECTED			Unit
Pool: ~~UNDESIGNATED~~ Pecos Slope ABO		Formation: ABO			
Completion Date: 3-10-82	Total Depth: 4318'	Plug Back TD: 4251'	Elevation: 3689'	Farm or Lease Name: ALKALI FEDERAL COM	
Csg. Size: 4 1/2" / Wt.: 10.5# / d: / Set At: 4318'		Perforations: From 3719' To 3881'		Well No.: 10	
Tbg. Size: 2 3/8" / Wt.: 4.7# / d: / Set At: 3614'		Perforations: From OPEN ENDED To		Unit: M / Sec.: N 34 / Twp.: 5S / Rge.: 25E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: NONE		County: CHAVES	
Producing Thru: TUBING	Reservoir Temp. °F: 102 @ 4318'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: NEW MEXICO	
L	H	Gg: .65	% CO_2: 1	% N_2: 1	% H_2S:
Prover: 2" ORIFICE	Meter Run: WELL TESTER	Taps:			

	FLOW DATA					TUBING DATA		CASING DATA		
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	Duration of Flow
SI						945		960		72 HR SI
1.	2" ORIFICE	1¼	14		67	825	74	845		1 HR
2.	WELL	1¼	23		70	670	75	715		1 HR
3.	TESTER	1¼	28		70	530	70	590		1 HR
4.		1¼	31		74	375	80	560		1 HR
5.										

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P_m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	924	2" ORIFICE WELL		.9933	.9608		882
2.	1369	TESTER		.9905	.9608		1303
3.	1559			.9905	.9608		1484
4.	1664			.9868	.9608		1578
5.							

NO.	P_t	Temp. °R	T_r	Z
1.				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.

Specific Gravity Separator Gas _____ XXXXXXXXXX

Specific Gravity Flowing Fluid XXXXX _____

Critical Pressure _____ P.S.I.A. _____ P.S.I.A.

Critical Temperature _____ R _____ R

P_c 973 P_c^2 947

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		858	736	211
2		728	530	417
3		603	364	583
4		573	328	619
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5299$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.2474$

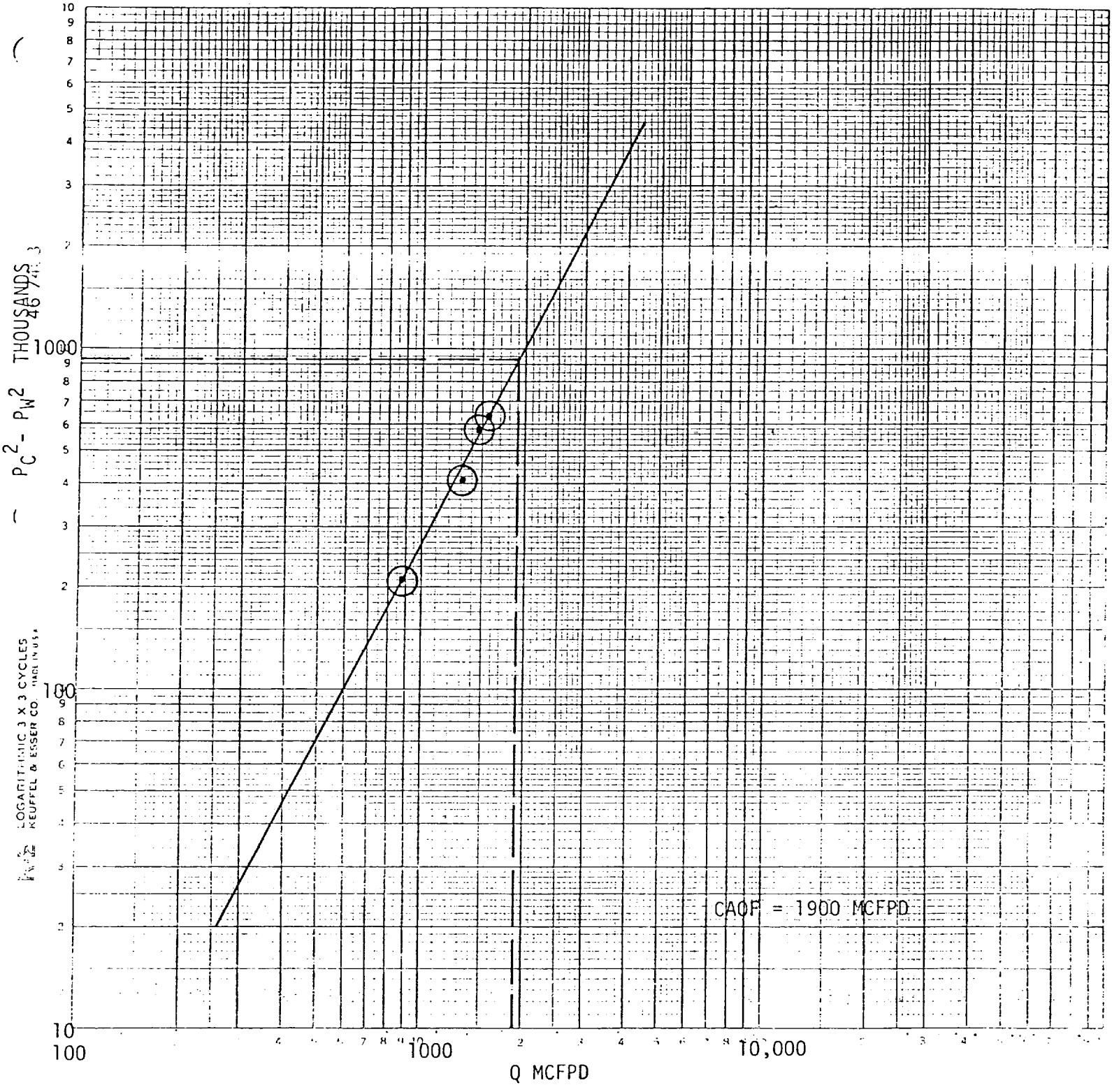
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1900$

Absolute Open Flow 1900 Mcfd @ 15.025 Angle of Slope θ 62.5° Slope, n .52

Remarks: _____

Approved By Commission:	Conducted By: JAMES CRAIG	Calculated By: E. L. BUTTROSS, JR 3-15-82	Checked By:

MESA PETROLEUM CO.
ALKALI FEDERAL COM NO. 10
CHAVES CO., NM
3-10-82



$$N = 1/SLOPE = \frac{LOG\ Q_2 - LOG\ Q_1}{CYCLE} = \frac{LOG\ 2000 - LOG\ 600}{CYCLE} = 3.30 - 2.78 = .52$$

$$\theta = 62.5°$$