EW MEXICO OIL CONSERVATION CO SION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED

DEC 11 1981

O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 11-13-81	
Company: Mesa Petroleum Co.		Connection: Unconnected			
Pool: Undesignated ABO		Formation: ABO		Unit:	
Completion Date: 11-13-81	Total Depth: 4237	Plug Back TD: ~~4111~~ 3970		Elevation: 3768	Farm or Lease Name: Alkali Federal
Csg. Size: 4 1/2 / Wt.: 10.5 / d:	Set At: 4236	Perforations: From 3730 To 3844			Well No.: 4
Tbg. Size: 2 3/8 / Wt.: 4.7 / d:	Set At: 3610	Perforations: From open ended To			Unit: D / Sec.: 22 / 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 @ 4237	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2		State: New Mexico
L: 3610	H: 3610	Gg: .65	% CO_2: 1	% N_2: 1	% H_2S:
Prover: 2" Orifice Well Tester	Meter Run:	Taps:			

FLOW DATA / TUBING DATA / CASING DATA

NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI							940		895		24 hr. SI
1.	2" Orifice		1 1/4	9		67	880	82	840		1 hr.
2.	Well		1 1/4	24		68	760	83	735		1 hr.
3.	Tester		1 1/4	37		70	590	82	580		1 hr.
4.			1 1/4	40		70	440	84	450		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	708	2" Orifice	Well	.9933	.9608		676
2	1390	Tester		.9924	.9608		1325
3	1885			.9905	.9608		1794
4	1991			.9905	.9608		1895
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 918 P_c^2 823

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		853	728	95
2		748	560	263
3		593	352	471
4		463	214	609
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3514$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1625$

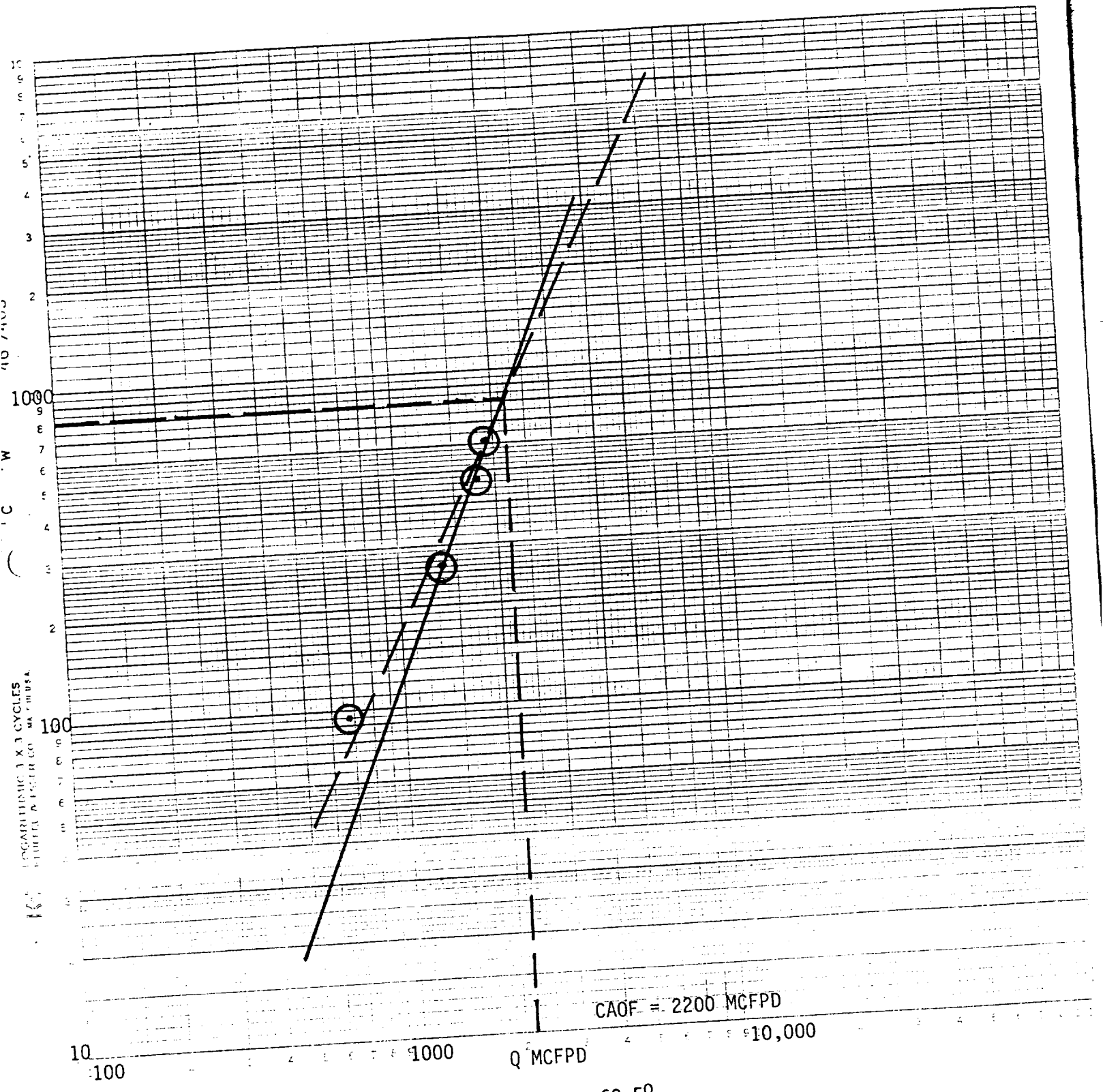
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2{,}200$

Absolute Open Flow 2,200 Mcfd @ 15.025 Angle of Slope θ 63.5° Slope, n .5

Remarks: Plot of $P_c^2 - P_w^2$ yielded a straight line with A θ greater than 63.5°. Assumed n=.5 and drew 63.5° line through highest point.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	James Craig	E.L. Buttross, Jr. 12-23-81	

Mesa Petroleum Co.
Alkali Federal No. 4
Sec. 22, T5S, R25E
Chaves Co., NM
11-13-81



Assumed N = .5 and $\theta = 63.5^{o}$