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

Form C-122
Revised 9-1-65

RECEIVED
MAY 17 1982
O. C. D.
ARTESIA, OFFICE

c/SF
File

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 5-3-82	
Company: Mesa Petroleum Co.	Connection: UNCONNECTED			Unit
Pool: UNDESIGNATED	Formation: ABO			
Completion Date: 5-3-82	Total Depth: 3403'	Plug Back TD: 3361'	Elevation: 4041.5'	Farm or Lease Name: CHINA FEDERAL
Csg. Size: 4 1/2" / Wt.: 10.5# / d: / Set At: 3403'		Perforations: From 2842' To 2976'		Well No.: 3
Tbg. Size: 2 3/8" / Wt.: 4.7# / d: / Set At: 2760'		Perforations: From OPEN ENDED To		Unit: E / Sec.: 17 / Twp.: 7S / Rge.: 23E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: NONE		County: CHAVES
Producing Thru: TUBING	Reservoir Temp. °F: 100 @ 3403	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.65	1	1		2" CRITICAL FLOW PROVER		

	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					815		813		72 HR SI
1.	2" X 1"	42		40	700	70	725		1 HR
2.	2" X 1"	51		45	600	75	675		1 HR
3.	2" X 1"	60		43	530	74	630		1 HR
4.	2" X 1"	65		50	460	68	585		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	17.09	FLOW PROVER	55	1.020	1.240		1188
2.	17.09	FLOW PROVER	64	1.015	1.240		1377
3.	17.09	FLOW PROVER	73	1.017	1.240		1573
4.	17.09	FLOW PROVER	78	1.017	1.240		1669
5.							

NO.	P_r	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 _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 826 P_c^2 683

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		738	545	138
2		688	473	210
3		643	413	270
4		598	358	325
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 2.1015$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4497$

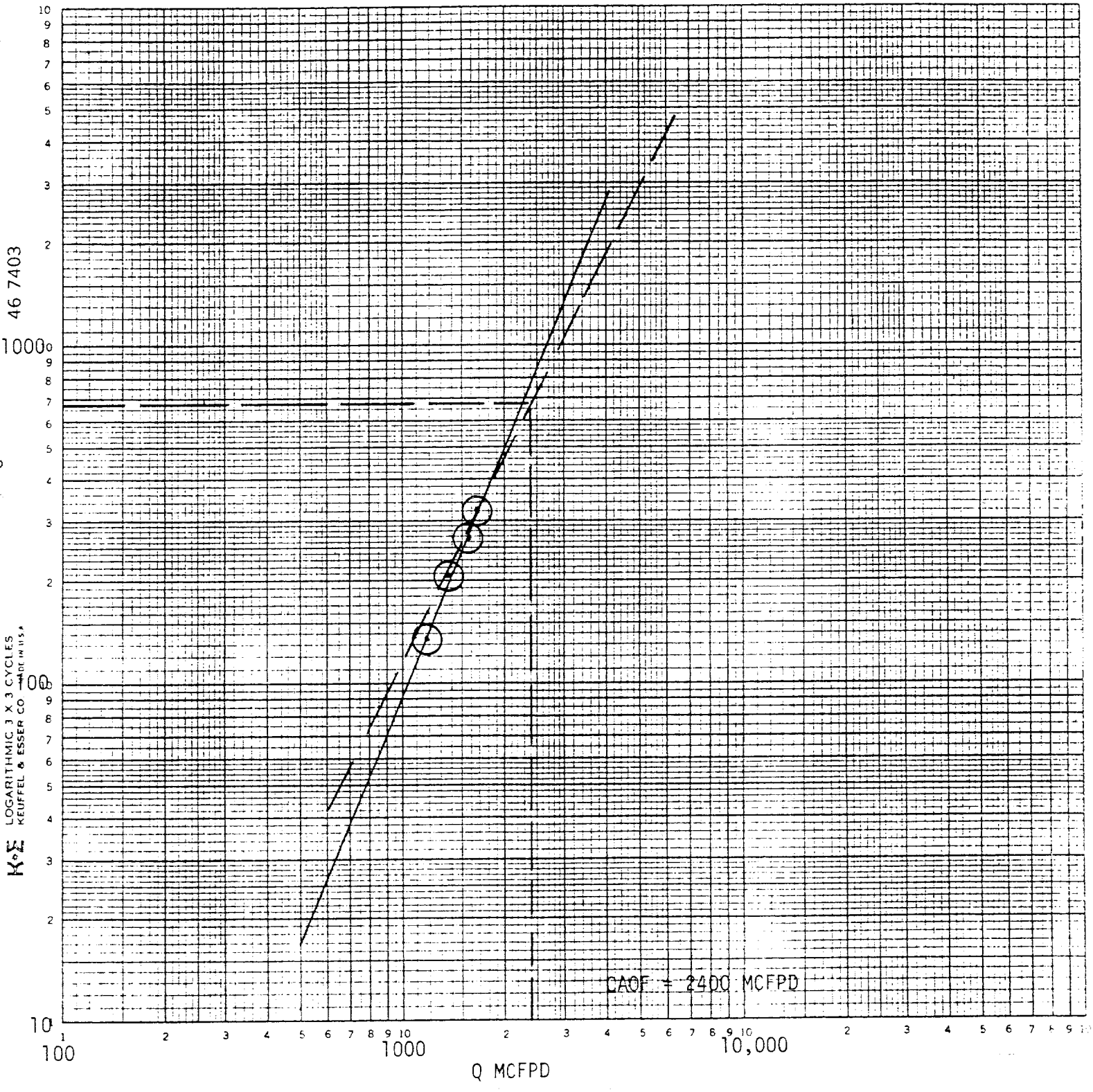
$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2400$

Absolute Open Flow 2400 Mcfd @ 15.025 Angle of Slope θ 63.5° Slope, n .5

Remarks: PLOT OF $P_c^2 - P_w^2$ VS. Q YIELDED A STRAIGHT LINE WITH A θ GREATER THAN 63.5°. DREW 6.35° LINE THROUGH HIGHEST POINT.

Approved By Commission:	Conducted By: JAMES CRAIG	Calculated By: E. L. BUTTROSS, JR. 5-6-82	Checked By:

MESA PETROLEUM CO.
CHINA FEDERAL NO. 3
CHAVES CO., NM
5-3-82



ASSUMED N = .5 AND θ = 63.5°