STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

JUL 13 1983

Form C-122
Revised 10-1-78

95F File

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 7-6-83	
Company: Mesa Petroleum Co. ✓		Connection: Unconnected			
Pool: West Pecos Slope ABO		Formation: ABO		Unit:	
Completion Date: 7-2-83	Total Depth: 3200'	Plug Back TD: 3147'	Elevation: 4115'	Farm or Lease Name: Carol Fed Com	
Csg. Size: 4 1/2 / Wt.: 10.5# / d: / Set At: 3199'		Perforations: From 2783' To 2931'		Well No.: 13	
Tbg. Size: 2 3/8 / Wt.: 4.7# / d: / Set At: 2923'		Perforations: From OPEN ENDED To		Unit: G / Sec.: 1 / Twp.: 7S / Rge.: 22E	
Type Well – Single – Bradenhead – G.C. or G.O. Multiple: Single		Packer Set At: None		County: Chaves	
Producing Thru: Tubing	Reservoir Temp. °F: 91° @ 3200'	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" CRITICAL FLOW PROVER	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	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					824		884		72 hr SI
1.	2" X 1"	67		46	737	83	780		1 hr
2.	2" X 1"	90		50	610	90	680		1 hr
3.	2" X 1"	99		54	450	87	550		1 hr
4.	2" X 1"	100		60	310	88	410		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	80	1.014	1.24		1719
2.	17.09	FLOW PROVER	103	1.010	1.24		2204
3	17.09	FLOW PROVER	112	1.006	1.24		2387
4.	17.09	FLOW PROVER	113	1.000	1.24		2394
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 _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 897 P_c^2 805

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		793	629	176
2		693	480	325
3		568	323	482
4		423	179	626
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.2859$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.1339$

Post FP-2
8-3-83
Comp + RR

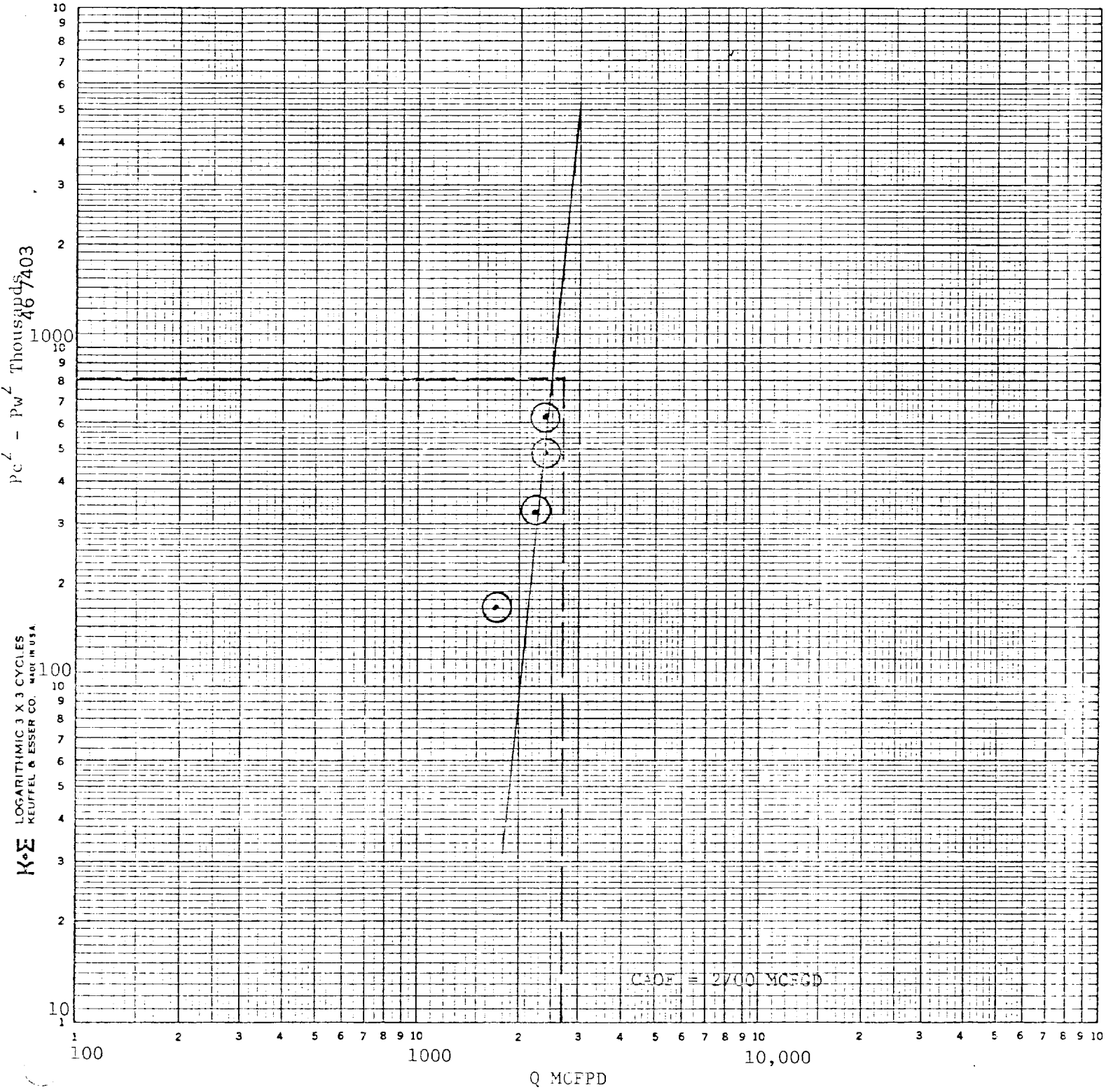
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2700$

Absolute Open Flow 2,700 Mcfd @ 15.025 | Angle of Slope θ 63.5° | Slope, n .5

Remarks: Plot of $Pc^2 - Pw^2$ vs. Q yielded a straight line with a θ greater than 63.5°. Drew 63.5° line through the highest point.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	James Craig	E. L. Buttross, Jr. SLB 7-11-83	

Mesa Petroleum Co.
Carol Fed Com #13
Chaves Co., NM
7-6-83



Assumed N = .5 and θ = 63.5°