RECEIVED

DEC 31 1980

O. C. D.
ARTESIA, OFFICE

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

Form C-122
Revised 9-1-65

ACCEPTED FOR RECORD
RETURN TO CHESTER
DEC 30 1980
U.S. GEOLOGICAL SURVEY
ROSWELL, NEW MEXICO

Type Test: [X] Initial [ ] Annual [ ] Special			Test Date: 12-10-80	
Company: Mesa Petroleum Co.	Connection: To Be Determined			Unit
Pool: ~~Undesignated Abo~~ Pecos Slope-Abo Gas	Formation: Abo			
Completion Date: 12-10-80	Total Depth: 4300'	Plug Back TD: 4222'	Elevation: 4014'	Farm or Lease Name: Stancel Fed.
Csg. Size: 4 1/2 / Wt.: 10.5 / d: / Set At: 4299'	Perforations: From 3710' To 3830'			Well No.: 2
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: / Set At: 3807'	Perforations: From Open ended			Unit: E/H Sec.: 22 Twp.: 5S Rge.: 24E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: Single	Packer Set At: None			County: Chaves
Producing Thru: Tubing	Reservoir Temp. °F: 97° @ 4299	Mean Annual Temp. °F: .60	Baro. Press. – P_a: 13.2	State: New Mexico
L: 3807 / H: 3807	Gg: .68	% CO_2: .5	% N_2: 10	% H_2S: / Prover: 2" / Meter Run: Orifice 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	Tubing Press. p.s.i.g.	Tubing Temp. °F	Casing Press. p.s.i.g.	Casing Temp. °F	Duration of Flow
SI					998		992	-	72 Hr + SI
1.	2" Orifice 3/4	4	-	60	700	80	720	-	1/2 hr
2.	Well 3/4	20	-	60	570	80	600	-	1/2 hr
3.	Tester 1 1/4	6	-	60	500	80	520	-	1/2 hr
4.	1 1/4	14	-	60	490	80	508	-	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	145	2" Orifice	Well	1.000	.9393	-	136
2.	375	tester		1.000	.9393	-	352
3.	561			1.000	.9393	-	527
4.	924			1.000	.9393	-	868
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 992 P_c^2 984

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		720	518	466
2		600	360	624
3		520	270	714
4		508	258	726
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3553$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.3553$

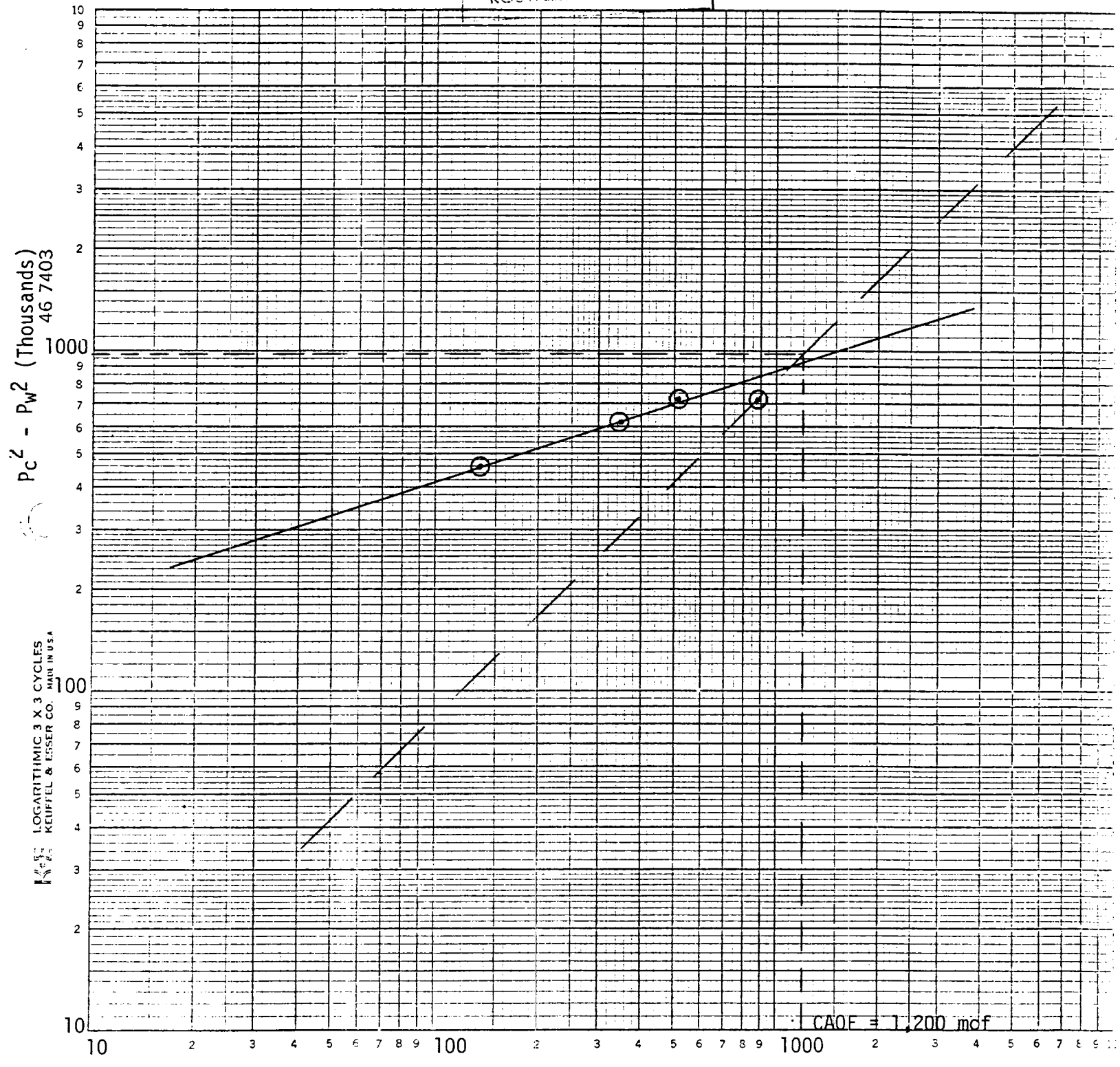
AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.200$

Absolute Open Flow 1,200 Mcfd @ 15.025 Angle of Slope θ 45° Slope, n 1

Remarks: Plot of $P_c^2 - P_w^2$ vs. Q yielded a straight line with a θ less than 45°. Drew 45° line through highest point.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	E. L. BUTTROSS, JR.	E. L. BUTTROSS, JR.	

Mesa Petroleum Co.
Stancel Federal No. 2
Sec. 22, T5S, R24E
Chaves Co., New Mexico
12/10/80



θ = 45° n = 1 assumed, actual θ less than 45°.