

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

Form C-122
Revised 9-1-65

C/SF + C-122

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 10-13-81		OCT 29 1981	
Company Mesa Petroleum Co		Connection Unconnected			
Pool Undesignated ABO		Formation ABO		Unit O. C. D. ARTESIA, OFFICE	
Completion Date 10-13-81		Total Depth 4800		Plug Back TD 4733	
Elevation 3682		Form. or Lease Name Acme			
Csg. Size 4 1/2	Wt. 10.5	Set At 4792	Perforations: From 4534 To 4615		Well No. 3
Tub. Size 2 3/8	Wt. 4.7	Set At 4416	Perforations: From Open ended To		Unit J
					Sec. 30
					Twp. 8S
					Rge. 26E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At None	
Producing Thru Tubing				County Chaves	
Reservoir Temp. °F 102 @ 4800		Mean Annual Temp. °F 60		State New Mexico	
Baro. Press. - P _a 13.2					
L 4416	H 4416	G _g .65	% CO ₂ 1	% N ₂ 1	% H ₂ S
Prover Choke		Meter Run		Taps	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
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	
SI							940		880		48 hr. S
1.	Choke		14/64	880	-	75	880	75	850		1 hr.
2.	Coeff.		18/64	795	-	75	795	75	800		1 hr.
3.			22/64	615	-	80	615	80	740		1 hr.
4.			26/64	525	-	80	525	80	690		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 F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mgd
1	.7924	Choke	893	.9859	1.240		865
2	1.331	Choke	808	.9859	1.240		1314
3	1.999	Choke	628	.9813	1.240		1527
4	2.794	Choke	538	.9813	1.240		1829
5							

NO.	P _t	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mwt/lb.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.					Critical Temperature _____ R _____ R

P _c 893	P _c ² 797	
NO.	P _t ²	P _w ²
1	863	745
2	813	661
3	753	567
4	703	494
5		

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 2.6304$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3,000$$

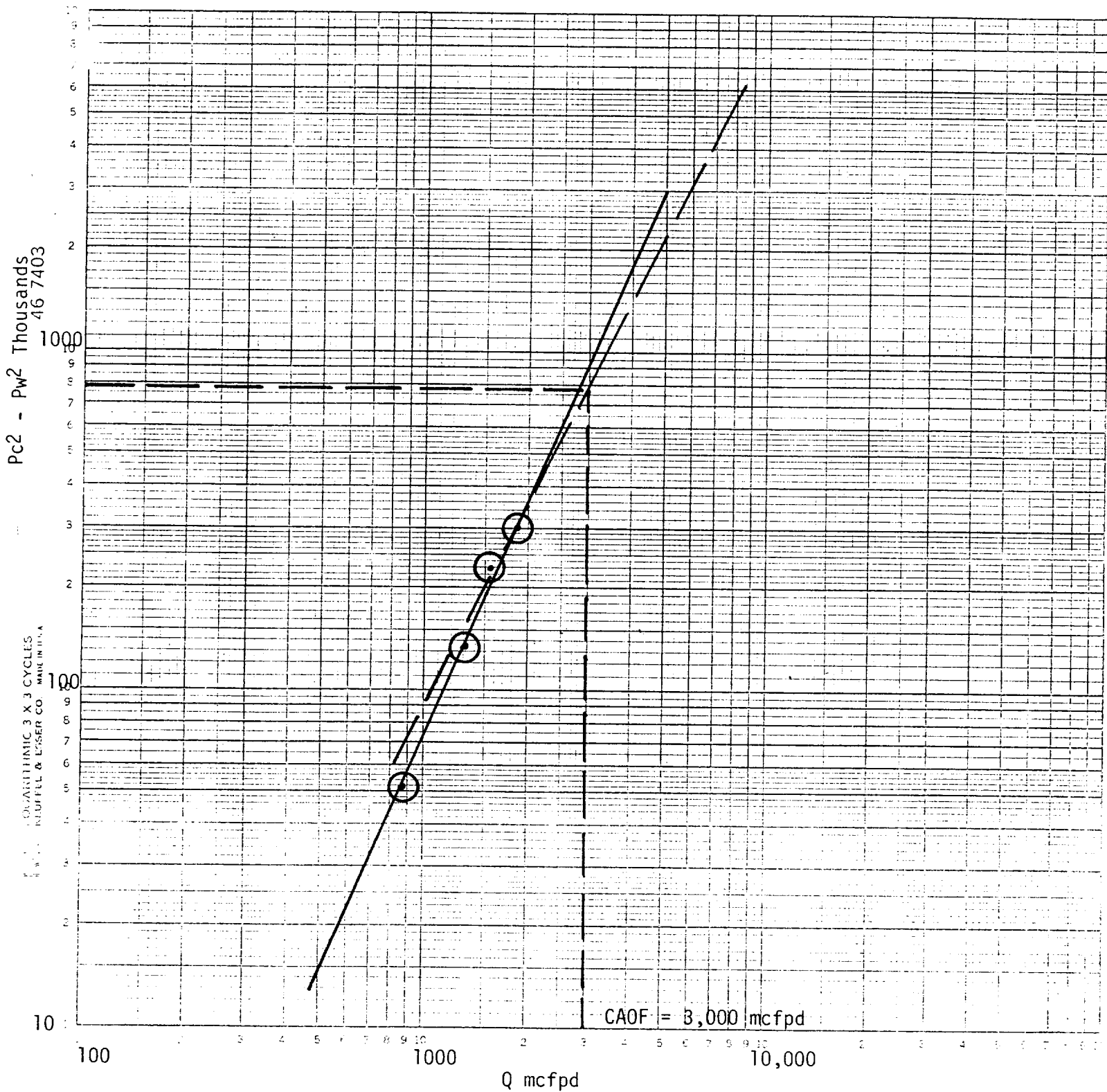
$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.6218$$

Absolute Open Flow 3,000	Mold @ 15.025	Angle of Slope θ 63.5°	Slope, n .5
--------------------------	---------------	------------------------	-------------

Remarks: Plot of P_c² - P_w² vs. Q yielded a straight line with a θ greater than 63.5°. Drew 63.5 line through highest point.

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

Mesa Petroleum Co.
 Acme No. 3
 Sec. 30, T8S, R26E
 Chaves Co., NM.
 10-13-81



Assumed $N = .5$ and $\theta = 63.5^\circ$.