

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

Form C-122
Revised 9-1-60

RECEIVED

C/SF C-122

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 12-20-81		JAN 21 1982	
Company MESA PETROLEUM CO. ✓				Connection UNCONNECTED				O. C. D. ARTESIA, OFFICE	
Pool UNDESIGNATED ABO				Formation ABO				Unit	
Completion Date 12-20-81		Total Length 4250'		Plug Back TD 4200'		Elevation 3603.2'		Farm or Lease Name GERRY FEDERAL	
Coq. Size 4 1/2	Wt. 10.5#	d	Set At 4249'	Perforations: From 3801.5 To 3855		Well No. 1			
Tq. Size 2-3/8	Wt. 4.7#	d	Set At 3700'	Perforations: From OPEN ENDED To		Unit Sec. Twp. Rge. D 1 8 25			
Type well - Single - Production - G.G. or G.O. Multiple SINGLE						Packer Set At NONE		County CHAVES	
Producing Thru TUBING		Reservoir Temp. °F 100@ 4250		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 ₂ S	Prover 2" orifice well tester	Meter Run	Taps	

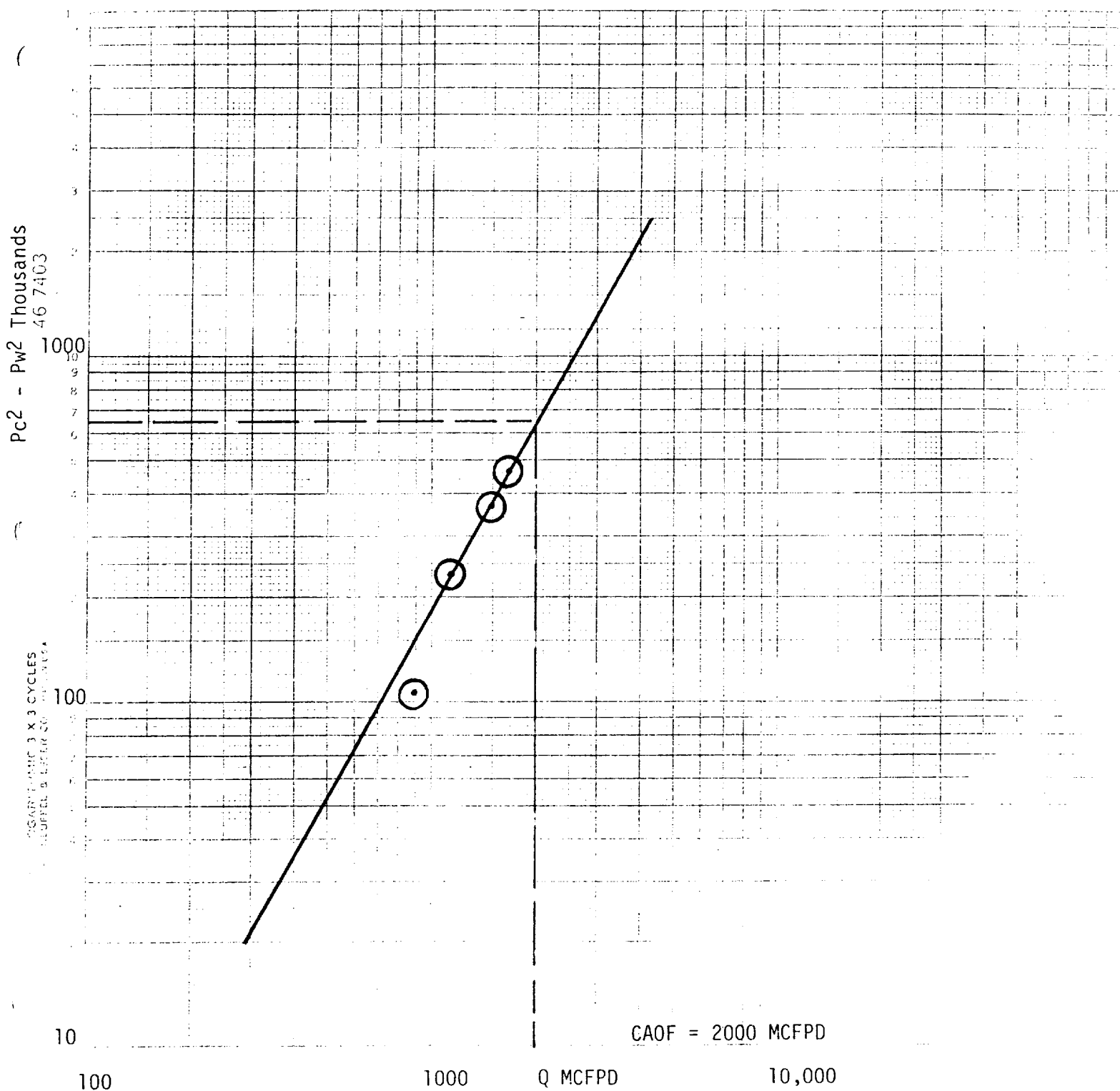
FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.		Temp. °F
51							835		790		48 hr. ST
1.	2" orifice	1 1/4	14			60	755	73	720		1 hr.
2.	well	1 1/4	20			60	640	72	625		1 hr.
3.	tester	1 1/4	28			60	500	75	505		1 hr.
4.		1 1/4	33			60	380	75	400		1 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mgd
1	924	2" orifice well		1.000	.9608		888
2	1160	tester		1.000	.9608		1115
3	1538			1.000	.9608		1478
4	1738			1.000	.9608		1670
5							

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

P _c 803	P _c ² 645	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.3608$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1882$	
NO.	P _t	P _w	P _w ²	P _c ² - P _w ²
1		733	537	108
2		638	407	238
3		518	268	377
4		413	171	474
5				

Absolute Open Flow 2000		Mold @ 15.025	Angle of Slope @ 60.8°	Slope, n .56
Remarks:				
Approved By: _____		Conducted By: James Craig		Calculated By: E. L. Buttross, Jr.
				Checked By:



$$N = 1/\text{Slope} = \frac{\log Q_2 - \log Q_1}{\text{Cycle}} = \frac{\log 2600 - \log 710}{\text{Cycle}} = 3.41 - 2.85 = .56$$

$$\theta = 60.8^\circ$$