

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

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 6-22-81			
Company MESA PETROLEUM COMPANY ✓			Connection UNCONNECTED		
Pool UNDESIGNATED ABO			Formation ABO		Unit
Completion Date 6-22-81		Total Depth 3793'		Plug Back TD 3718	Elevation 3910
Farm or Lease Name NED STATE					
Csg. Size 4 1/2	Wt. 10.5	d 3758	Set At 3758	Perforations: From 2860 To 2953	
Thq. Size 2 3/8	Wt.	d 2759	Set At 2759	Perforations: From OPEN ENDED To	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE	
Producing Thru TUBING		Reservoir Temp. °F 95 @ 3758	Mean Annual Temp. °F 60	Baro. Press. - P _a 13.2	
State NEW MEXICO					
L 2759	H 2759	Gg .65	% CO ₂ 1	% N ₂ 3	% 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
SI							1000		1020		72 HR. ST
1.	2" ORIFICE	1 1/4	1	-	80	930	80	955			1 HR.
2.	WELL	1 1/4	2	-	80	820	80	840			1 HR.
3.	TESTER	1 1/4	2.5	-	80	740	80	760			3/4 HR.
4.		1 1/4	4.0	-	80	610	80	620			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, Mcfd
1	218	2" ORIFICE	WELL	.9813	.9608	-	206
2	311	TESTER		.9813	.9608	-	293
3	350			.9813	.9608	-	330
4	449			.9813	.9608	-	423
5							

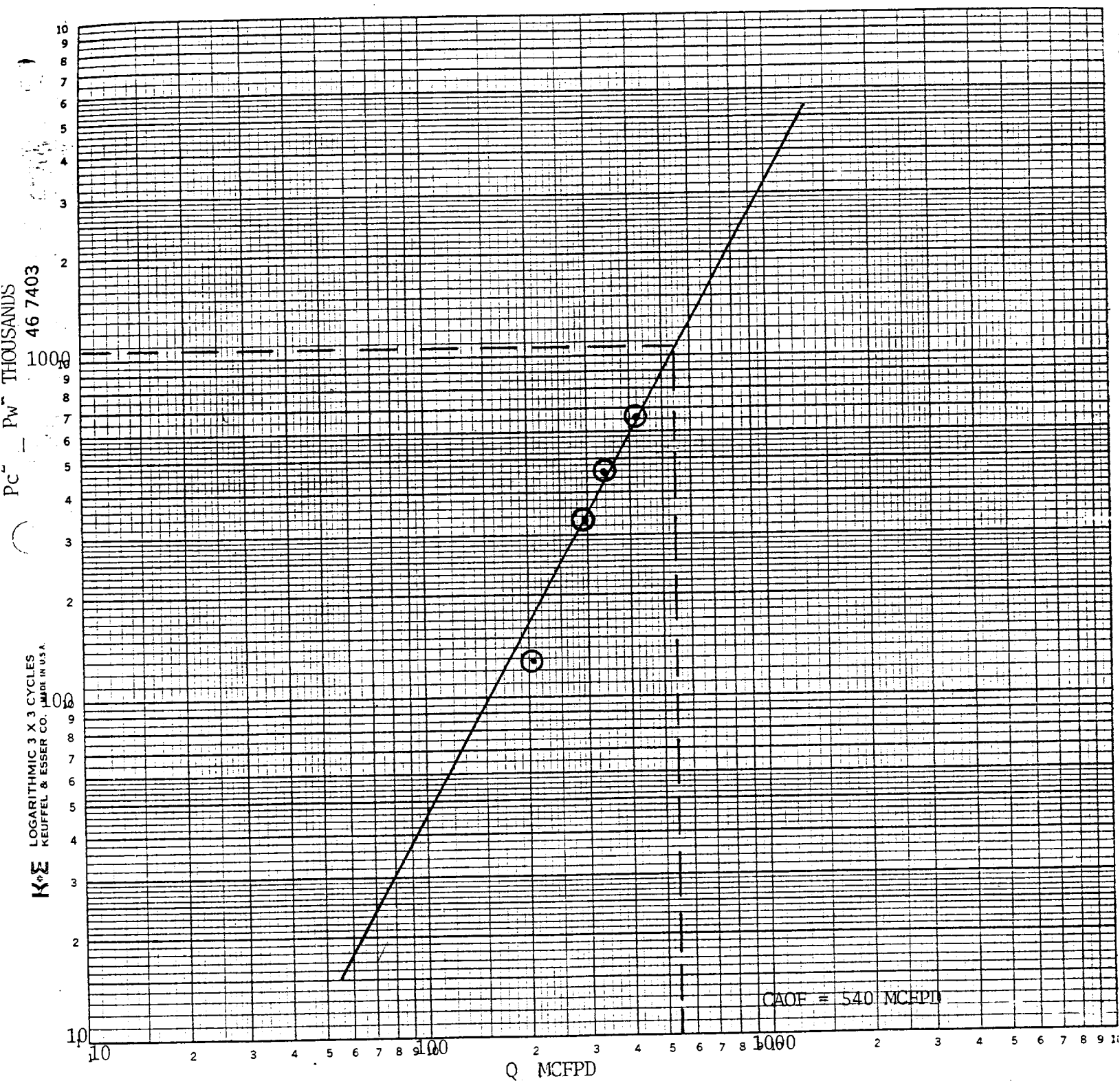
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
1.					A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
2.					Specific Gravity Separator Gas _____ X X X X X X X X
3.					Specific Gravity Flowing Fluid _____ X X X X X
4.					Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
5.				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

P _c 1020	P _c ² 1040	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.5854$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.2885$
NO.	P _i ²	P _w	P _w ²
1		955	912
2		840	706
3		760	578
4		620	384
5			

Absolute Open Flow 540 Mcfd @ 15.025		Angle of Slope @ 61.2°	Slope, n 55
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Remarks:			
Approved By Commission:	Conducted By:	Calculated By: <i>EUB</i>	Checked By:

MED STATE NO. 2
 EC. 5, T9S, R23E
 CHAVES COUNTY, NEW MEXICO
 6-22-81



$$n = \frac{1}{\text{slope}} = \frac{\log Q_2 - \log Q_1}{\text{cycle}} = \frac{\log 540 - \log 150}{\text{cycle}} = \frac{2.73 - 2.18}{\text{cycle}} = .55$$

$$\theta = 61.2^\circ$$