

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

Form C-122
Revised 9-1-66

RECEIVED

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 6-8-82		JUN 18 1982	
Company MESA PETROLEUM CO. ✓				Connection UNCONNECTED		O. C. D.	
Pool MESA SLOPE ABO				Formation ABO		Unit ARTESIA, OFFICE	
Completion Date 6-8-82		Total Depth 3400'		Plug Back TD 3062'		Elevation 4104'	
Csg. Size 4 1/2"		Wt. 10.5#		Set At 3104'		Perforations: From 2858' To 2989'	
Tq. Size 2 3/8"		Wt. 4.7#		Set At 2765'		Perforations: From OPEN ENDED	
Type Well - Single - Brdenhead - G.G. or G.O. Multiple SINGLE				Packer Set At NONE		Well No. 5	
Producing Thru TUBING		Reservoir Temp. °F 95° @ 3400'		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L		H		G _g		Prover	
				.65		2" CRITICAL FLOW PROVER	
FLOW DATA				TUBING DATA		CASING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Duration of Flow
SI							48 HRS SI
1.	2" x 1"			33		43	1 HR
2.	2" x 1"			54		50	1 HR
3.	2" x 1"			60		56	1 HR
4.	2" x 1"			63		58	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, Mcfd
1.	17.09	FLOW PROVER	46	1.017	1.24		991
2.	17.09	FLOW PROVER	67	1.010	1.24		1434
3.	17.09	FLOW PROVER	73	1.004	1.24		1553
4.	17.09	FLOW PROVER	76	1.002	1.24		1611
5.							
NO.	P _t	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		
$P_c = 833$ $P_c^2 = 694$							
NO.	F _t ²	P _w	P _w ²	P _c ² - P _w ²	$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.3880$		
1.		748	560	134	$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1781$		
2.		668	446	248			
3.		608	370	324			
4.		553	306	388			
5.							
$ADP = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 2,200$					Absolute Open Flow _____ Mcfd @ 15.025 Angle of Slope @ _____ 63.5° Slope, n _____ .5		
Remarks:							
Approved By Commission:		Conducted By: JAMES CRAIG		Calculated By: E.L. BUTTROSS, JR		Checked By: 241	

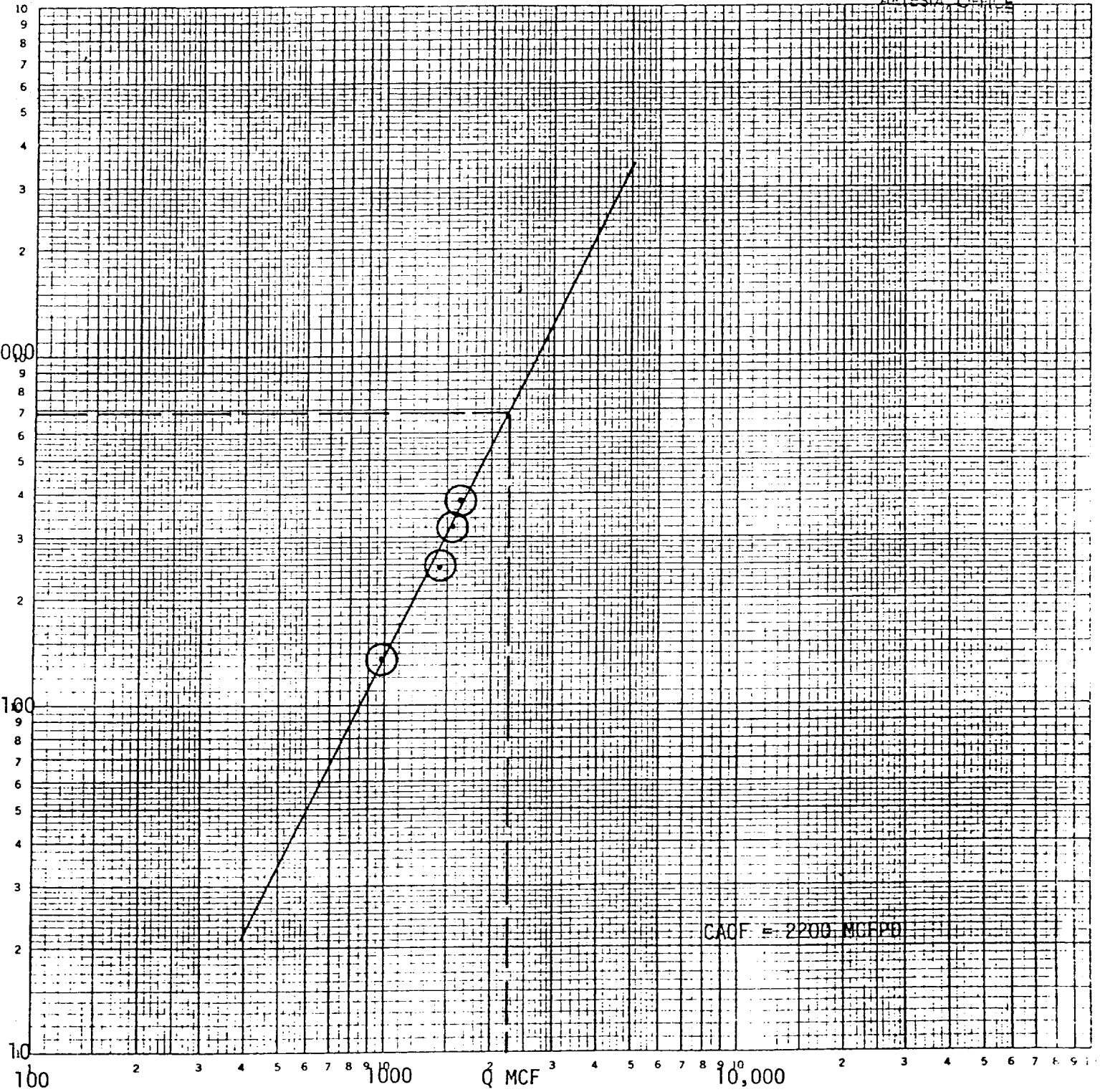
JUN 18 1982

O. C. D.

ARTESIA, OFFICE

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KEUFFEL & ESSER CO. MADE IN U.S.A.



$$N = 1/\text{SLOPE} = \frac{\text{LOG } Q_2 - \text{LOG } Q_1}{\text{CYCLE}} = \frac{\text{LOG } 2700 - \text{LOG } 850}{\text{CYCLE}} = 3.43 - 2.93 = .5$$

$$\theta = 63.5^\circ$$