

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 2-18-83			
Company Mesa Petroleum Co.				Connection El Paso Natural Gas					
Pool Basin Dakota				Formation Dakota				Unit	
Completion Date 3-2-83		Total Depth 6650		Plug Back TD 5550		Elevation 5970 GR		Farm or Lease Name McLeod	
Coq. Size 5 1/2	Wt. 15.5	d 4.950	Set At 6650	Perforations: From 6344 To 6510		Well No. 2E			
Thq. Size 2 3/8	Wt. 4.7	d 1.995	Set At 6488	Perforations: From To		Unit Sec. Twp. Rge. E 34 28N 10W			
Type Well - Single - Brdenhead - G.G. or G.O. Multiple Single						Packer Set At -		County San Juan	
Producing Thru Tubing		Reservoir Temp. °F P		Mean Annual Temp. °F		Baro. Press. - P _a 12.2		State New Mexico	
L	H	G _g 0.670	% CO ₂ -	% N ₂ -	% H ₂ S -	Prover 2"	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
1.	2	x	3/4	40	-	59.0	40	59	320	59.0	3 hr
2.											
3.											
4.											
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	9.453	-	52.2	1.001	1.222	1.007	608
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Dry	Mcf/bbl.
1	0.078	519	1.359	0.986	A.P.I. Gravity of Liquid Hydrocarbon	-	Deq.
2.					Specific Gravity Separator	0.670	X X X X X X X X
3.					Specific Gravity Flowing Fluid	X X X X X	
4.					Critical Pressure	669	P.S.I.A.
5.					Critical Temperature	382	R

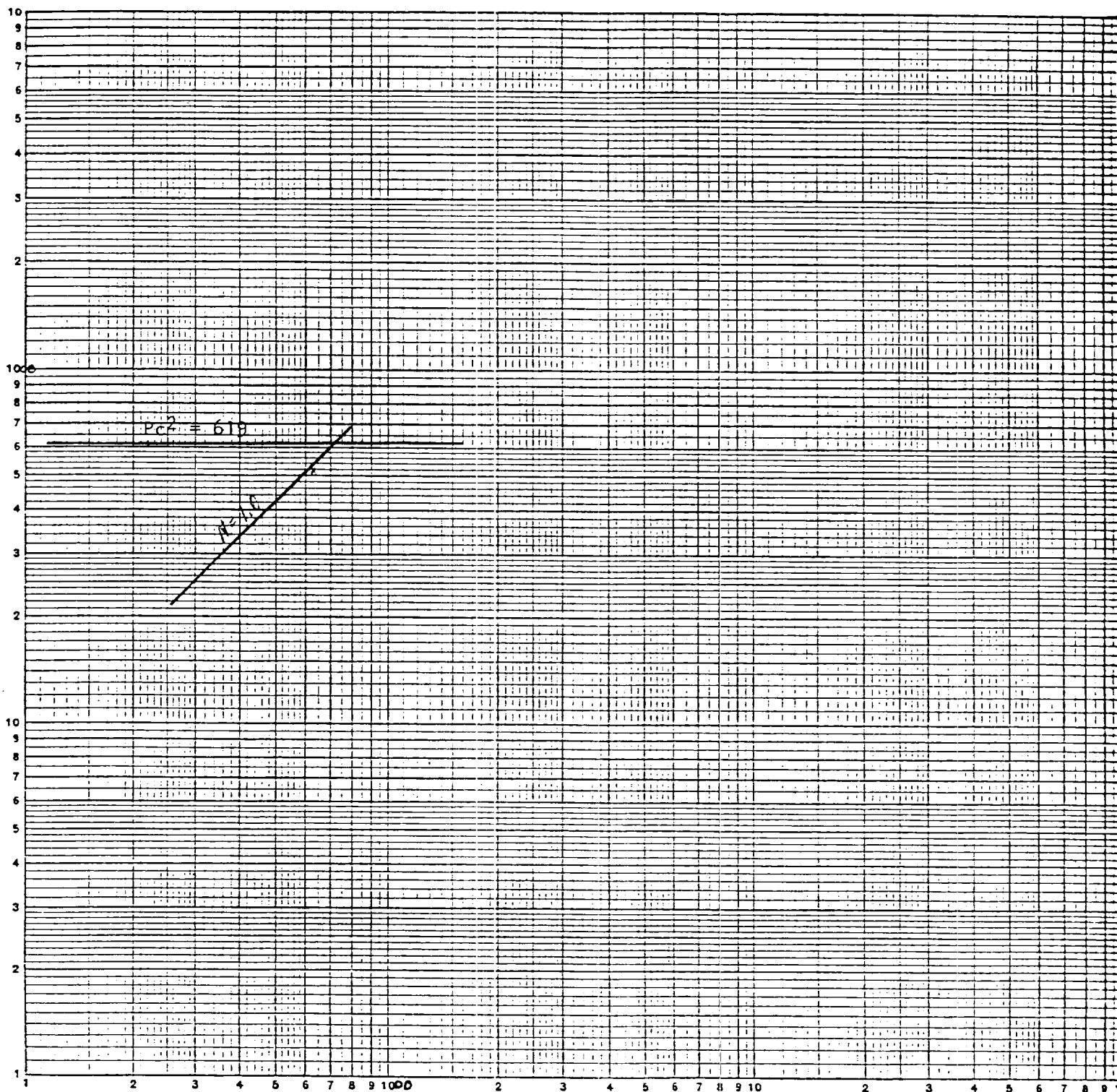
NO.	P _i ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n =$
1		332	110.3	509.4	1.216	1.103
2.						
3.						
4.						
5.						

Absolute Open Flow 670 Mcfd @ 15.025				Angle of Slope 45°		Slope, n 1	
Remarks: Assume N = 1, angle of slope = 45°							

Approved By Division	Conducted By: C. James	Calculated By: M. Houston	Checked By:
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$P_C^2 - P_W^2$

LOGARITHMIC 359-120
NEUFFEL & EBER CO. MADE IN U.S.A.
3 X 3 CYCLES



$Q, \text{ MCFD}$