

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

Form C-122
 Revised 9-1-65
RECEIVED

SEP 16 1982

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 9-6-82			
Company Mesa Petroleum Company				Connection unconnected				ARTESIA, OFFICE	
Pool Pecos Slope ABO				Formation ABO				Unit	
Completion Date 9-6-82		Total Depth 4650'		Plug Back TD 4318'		Elevation 3709'		Form. or Lease Name Sand Com	
Csq. Size 4 1/2	Wt. 10.5#	d	Set At 4387'	Perforations: From 4091' To 4277'		Well No. 1			
Trq. Size 2-3/8	Wt. 4.7#	d	Set At 4192'	Perforations: From open ended To		Unit F	Sec. 10	Twp. 7S	Rge. 26E
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single						Packer Set At none		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 105 @ 4635		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State New Mexico	
L	H	G _g .65	% CO ₂ 1	% N ₂ 1	% H ₂ S	Prover 2" Critical Flow Prover			

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							900		905		72 hr. SI
1.	2" x 1"			34		38	750	92	780		1 hr.
2.	2" x 1"			47		50	520	92	600		1 hr.
3.	2" x 1"			53		58	370	89	470		1 hr.
4.	2" x 1"			54		62	270	85	370		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	17.09	Flow Prover	47	1.022	1.24		1017
2	17.09	" "	60	1.010	1.24		1284
3	17.09	" "	66	1.002	1.24		1401
4	17.09	" "	67	.9981	1.24		1417
5							

NO.	P _f	Temp. °R	T _f	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/Sbl.
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 918	P _c ² 843	
NO.	P _f ²	P _w ²
1	793	629
2	613	376
3	483	233
4	383	147
5		

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.2112$$

$$ADP = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1600$$

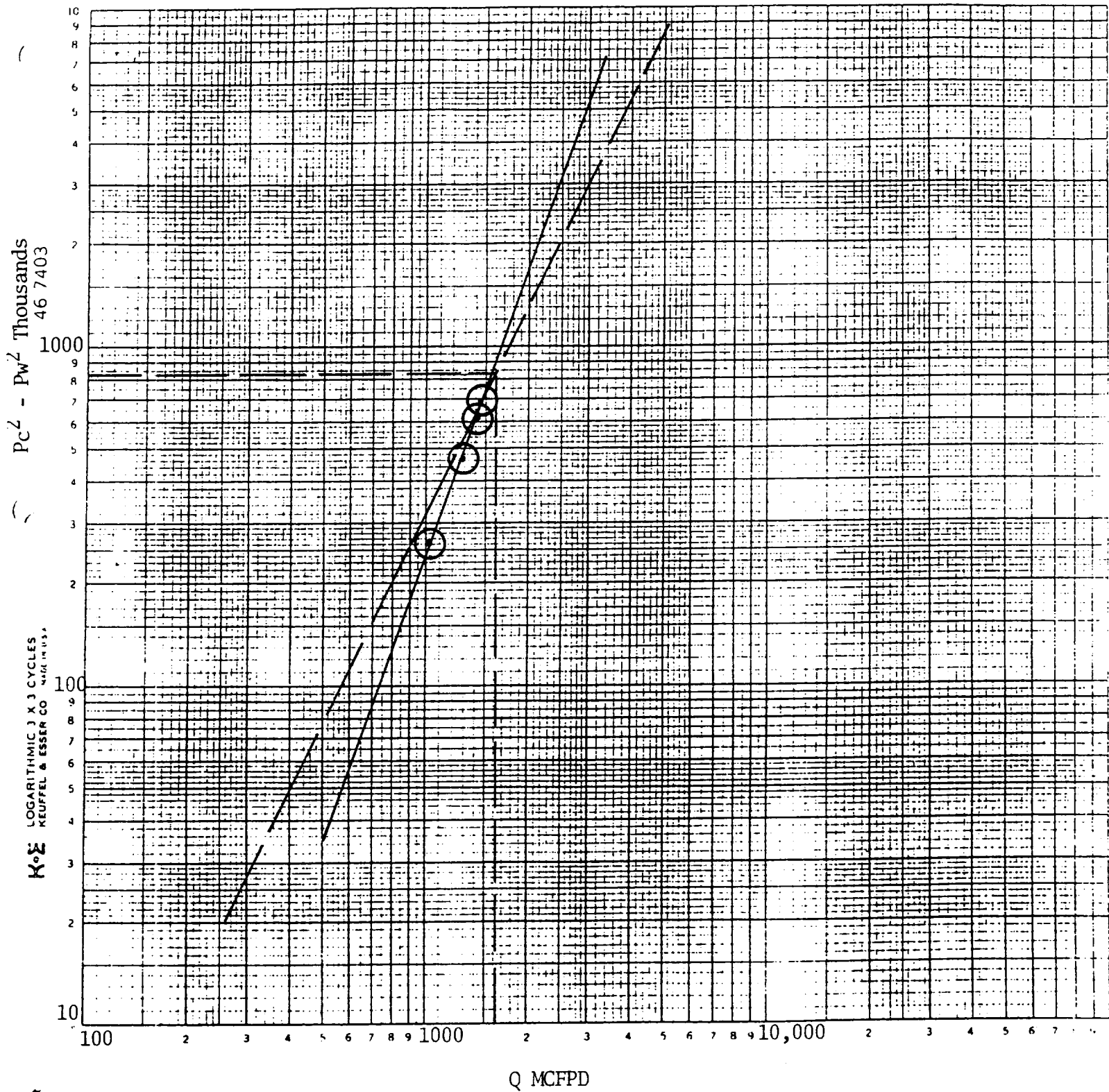
$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.1005$$

Absolute Open Flow 1600	Mold @ 15.025	Angle of Slope θ 63.5°	Slope, n .5
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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: <i>EB 9-14-82</i> E. L. Buttross, Jr.	Checked By:
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MESA PETROLEUM COMPANY
 Sand Com No. 1
 Chaves County, New Mexico
 9/6/82



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