STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RECEIVED
SEP 14 1983
O. C. D.
ARTESIA, OFFICE

Form C-122
Revised 10-1-78

c/SF file

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test: [X] Initial [ ] Annual [ ] Special				Test Date: 9-11-83	
Company: MESA PETROLEUM CO.		Connection: UNCONNECTED			
Pool: WEST PECOS SLOPE ABO		Formation: ABO		Unit	
Completion Date: 9-7-83	Total Depth: 3200	Plug Back TD: 3119	Elevation: 4188	Farm or Lease Name: DEBBIE FEDERAL	
Csg. Size: 4 1/2 / Wt.: 10.5# / d / Set At: 3193		Perforations: From 2874 To 2917		Well No.: 2	
Tbg. Size: 2 3/8 / Wt.: 4.7# / d / Set At: 2925		Perforations: From OPEN ENDED To		Unit: C / Sec.: 30 / Twp.: 7S / Rge.: 23E	
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE		Packer Set At: NONE		County: CHAVES	
Producing Thru: TUBING	Reservoir Temp. °F: 89° @ 3194	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2	State: NEW MEXICO	
L: 2925	H: 2925	Cg: .65	% CO_2: 1	% N_2: 1	% H_2S:
Prover: 2" CRITICAL FLOW PROVER	Meter Run:	Taps:			

NO.	FLOW DATA: Prover Line Size X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA: Press. p.s.i.g.	Temp. °F	CASING DATA: Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					710		775		72 hr SI
1.	2" x 1"	27		52	560	75	640		1 hr
2.	2" x 1"	38		56	410	75	490		1 hr
3.	2" x 1"	42		62	295	78	370		1 hr
4.	2" x 1"	43		65	215	79	290		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 Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	17.09	FLOW PROVER	40	1.008	1.24		854
2.	17.09	FLOW PROVER	51	1.004	1.24		1085
3	17.09	FLOW PROVER	55	.9981	1.24		1163
4.	17.09	FLOW PROVER	56	.9952	1.24		1181
5.							

NO.	P_t	Temp. °R	T_t	Z
1				
2.				
3.				
4.				
5.				

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.
A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.
Specific Gravity Separator Gas _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 788 P_c^2 621

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		653	426	195
2		503	253	368
3		383	147	474
4		303	92	529
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.1739$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.0835$

$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.300$

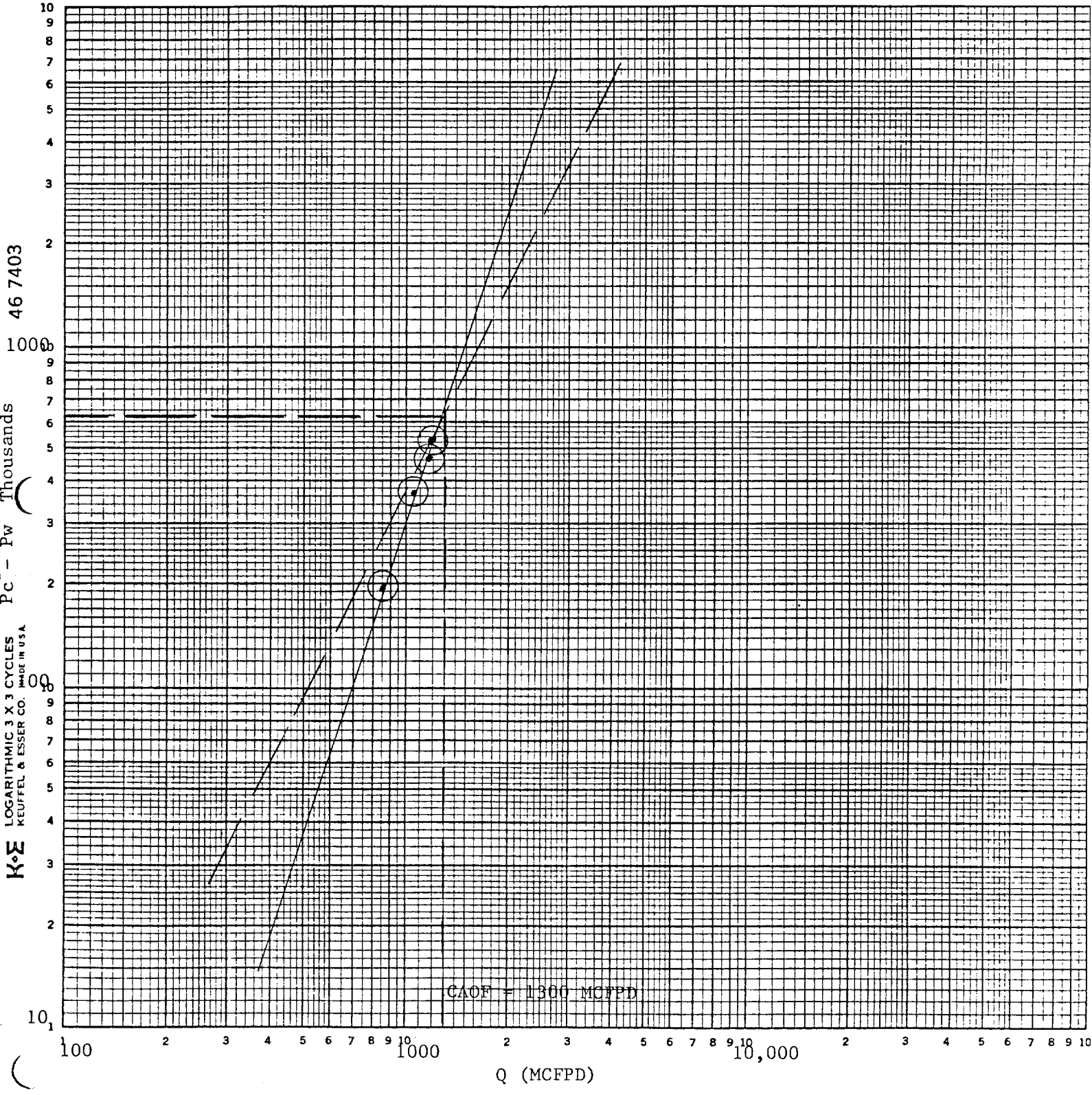
Post ID-2
9-23-83
Comp + BK

Absolute Open Flow 1.300 Mcfd @ 15.025 | Angle of Slope θ 63.5° | Slope, n .5

Remarks: Plot of Pc^2-Pw^2 Vs Q yielded a straight line with a θ greater than 63.5°. Drew 63.5° line through highest point.

Approved By Division	Conducted By:	Calculated By:	Checked By:
	JAMES CRAIG	E. L. BUTTROSS, JR. 9-13-83	

MESA PETROLEUM CO.
DEBBIE FEDERAL No. 2
CHAVES COUNTY, NEW MEXICO
9-11-83



ASSUMED $\theta=63.5^{\circ}$ & N=.5