c/SF
File

MULTIPOINT A ONE POINT BACK PRESSURE TEST FOR GAS WELL

RECEIVED

SEP 30 1982

O. C. D.

ARTESIA, OFFICE

Type Test: ☒ Initial ☐ Annual ☐ Special | Test Date: 6-19-82

Company: MESA PETROLEUM CO.

Connection: UNCONNECTED

Pool: ~~UNDES~~ PECOS SLOPE ABO

Formation: ABO

Completion Date: 6-19-82

Total Depth: 4350'

Plug Back TD: 4059'

Elevation: 3586'

Farm or Lease Name: STURGEON FED COM

Well No.: 1

Csg. Size	Wt.	d	Set At	Perforations
4 1/2"	10.5#		4135'	From 3672' To 3844'

Tbg. Size	Wt.	d	Set At	Perforations
2 3/8"	4.7#		3684'	From OPEN ENDED

Unit: D | Sec.: 8 | 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: 98° @ 4345'

Mean Annual Temp. °F: 60

Baro. Press. – P_a: 13.2

State: NEW MEXICO

L	H	Gg	% CO_2	% N_2	% H_2S	Prover	Meter Run	Taps
		.65	1	1		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	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI					995		990		72 HRS SI
1.	2" x 1"	49		32	865	84	890		1 HR
2.	2" x 1"	77		42	715	86	775		1 HR
3.	2" x 1"	78		50	545	86	740		1 HR
4.	2" x 1"	81		56	390	87	690		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	62	1.028	1.24		1351
2	17.09	FLOW PROVER	90	1.018	1.24		1942
3	17.09	FLOW PROVER	91	1.008	1.24		1944
4	17.09	FLOW PROVER	94	11004	1.24		2000
5							

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

Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.

A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.

Specific Gravity Separator Gas _____ XXXXXXXXXX

Specific Gravity Flowing Fluid _____ XXXXX _____

Critical Pressure _____ P.S.I.A. _____ P.S.I.A.

Critical Temperature _____ R _____ R

P_c 1003 P_c^2 1006

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		903	815	191
2		788	621	385
3		753	567	439
4		703	494	512
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.9648$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.4017$

$AOF = Q\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 2,800$

Posted FD-2
10-1-82
Camp + BR

Absolute Open Flow: 2,800 Mcfd @ 15.025

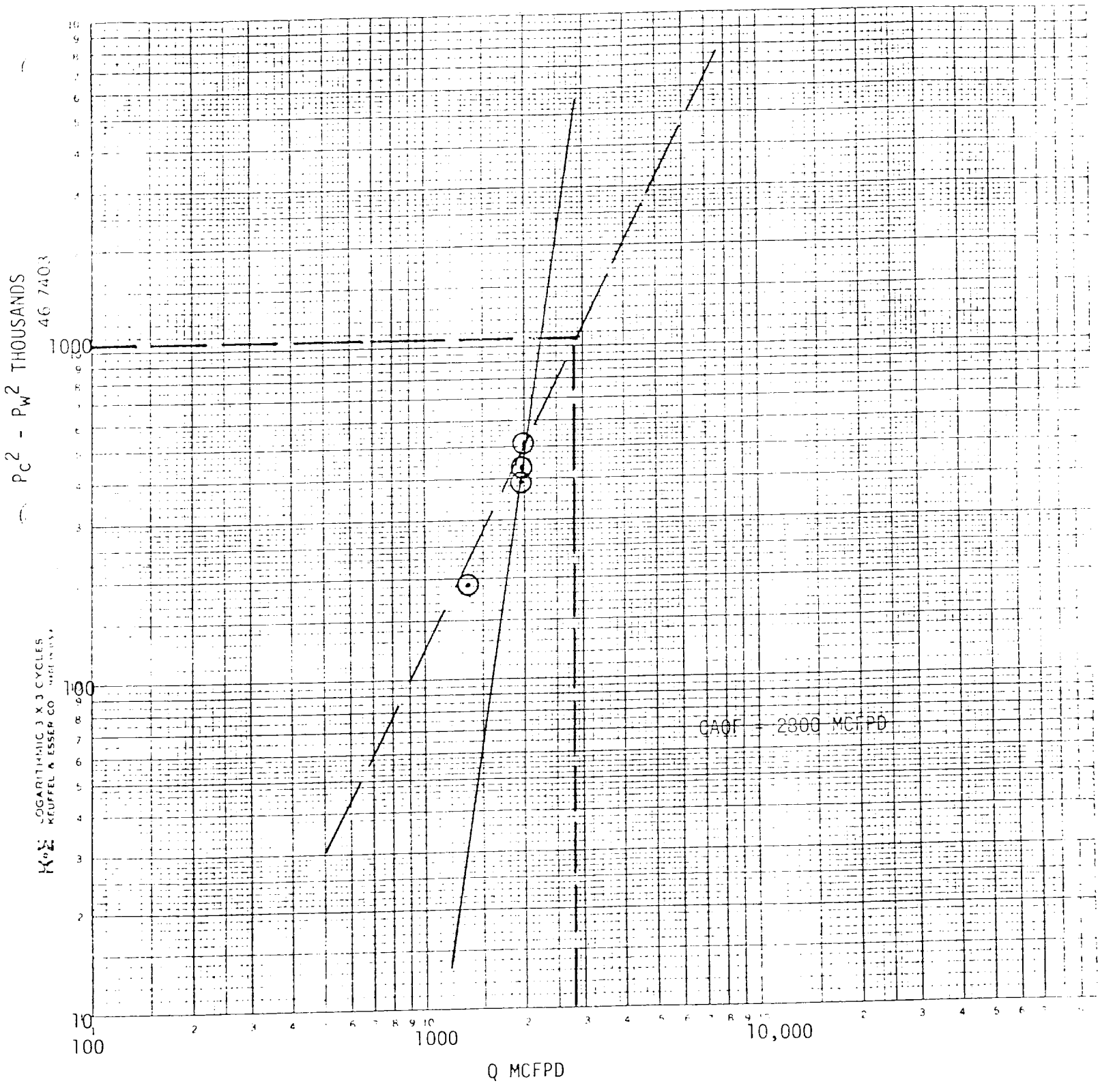
Angle of Slope θ: 63.5°

Slope, n: .5

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

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
	JAMES CRAIG	E.L. BUTTROSS, JR 6-28-82	

[illegible] PETROLEUM CO.
S[illegible]RGEON FED COM #1
CHAVES COUNTY, NM
6-19-82



ASSUMED N = .5AND θ = 63.5°