NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

RECEIVED
JUL 15 1981
O. C. D.
ARTESIA, OFFICE

Type Test: [X] Initial [ ] Annual [ ] Special		Test Date: 6-23-81	
Company: MESA PETROLEUM COMPANY	Connection: UNCONNECTED		Unit
Pool: UNDESIGNATED ABO	Formation: ABO		
Completion Date: 6-23-81	Total Depth: 4224'	Plug Back TD: 3759'	Elevation: 3951
Farm or Lease Name: LAKE TANK			
Csg. Size: 4 1/2 / Wt.: 10.5 / d: / Set At: 3800	Perforations: From 3131 To 3213		Well No.: 1Y
Tbg. Size: 2 3/8 / Wt.: 4.7 / d: / Set At: 3020	Perforations: From OPEN ENDED To		Unit: I / Sec.: 18 / Twp.: 6S / Rge.: 24E
Type Well – Single – Bradenhead – G.G. or G.O. Multiple: SINGLE	Packer Set At: NONE		County: CHAVES
Producing Thru: TUBING	Reservoir Temp. °F: 95° @ 3300'	Mean Annual Temp. °F: 60	Baro. Press. – P_a: 13.2
State: NEW MEXICO			
L: 3020	H: 3020	Gg: .65	% CO_2: 1 / % N_2: 3 / % H_2S:
Prover: 2" ORIFICE WELL TESTER	Meter Run:	Taps:	

FLOW DATA

NO.	Prover Line Size	X Orifice Size	Press. p.s.i.g.	Diff. h_w	Temp. °F	TUBING DATA Press. p.s.i.g.	TUBING DATA Temp. °F	CASING DATA Press. p.s.i.g.	CASING DATA Temp. °F	Duration of Flow
SI						870		875		72 HR. SI
1.	2" ORIFICE	3/4"	4	-	85	720	85	720		1 HR.
2.	WELL	3/4"	8	-	85	640	85	645		1/2 HR.
3.	TESTER	3/4"	8.5	-	85	530	85	580		1/2 HR.
4.		3/4"	9.5	-	85	410	85	530		1/2HR.
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	145	2" ORIFICE		.9768	.9608	-	136
2.	214	WELL		.9768	.9608	-	201
3.	221	TESTER		.9768	.9608	-	207
4.	236			.9768	.9608	-	221
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 _____ XXXXXXXXX
Specific Gravity Flowing Fluid XXXXX _____
Critical Pressure _____ P.S.I.A. _____ P.S.I.A.
Critical Temperature _____ R _____ R

P_c 875 P_c^2 766

NO	P_t^2	P_w	P_w^2	$P_c^2 - P_w^2$
1		720	518	248
2		645	416	350
3		580	336	430
4		530	281	485
5				

(1) $\frac{P_c^2}{P_c^2 - P_w^2} = 1.7814$

(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 1.5067$

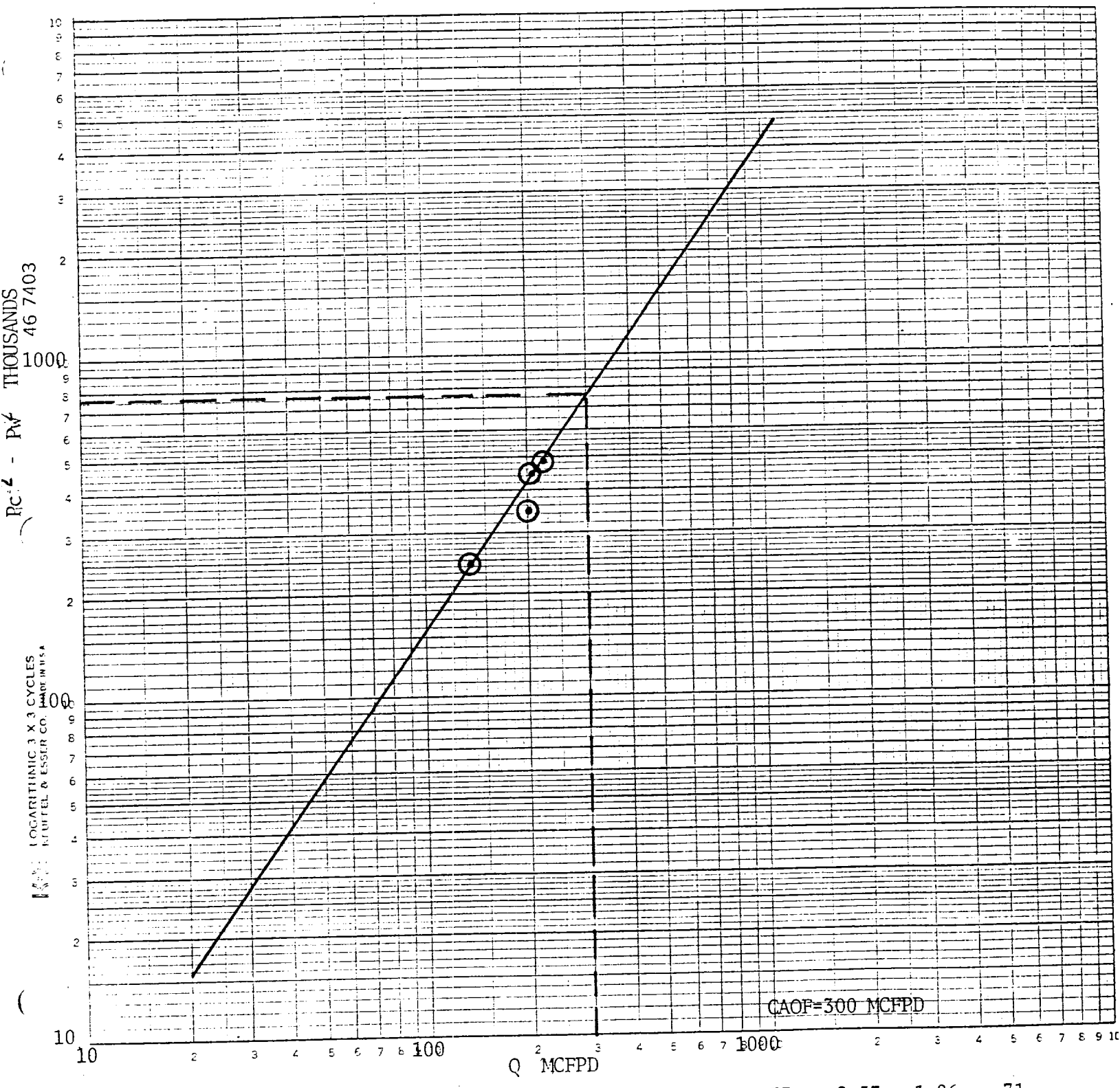
$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2}\right]^n = 300$

Absolute Open Flow 300 Mcfd @ 15.025 | Angle of Slope θ 54.6° | Slope, n .71

Remarks:

Approved By Commission:	Conducted By:	Calculated By: EWB	Checked By:

MESA PETROLEUM CORP.
LAKE TANK 1-Y
SEC. 18, T6S, R24E
CHAVES COUNTY, NEW MEXICO
6-23-81



$$n = 1/\text{slope} = \frac{\text{Log } Q_2 - \text{Log } Q_1}{\text{cycle}} = \frac{\text{Log } 370 - \text{Log } 73}{\text{cycle}} = 2.57 - 1.86 = .71$$

$\theta = 54.6°$