

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11/29/90	
Company Mobil Producing TX & NM Inc.			Connection Enron		
Pool Blaine 01G			Formation Blaine		Unit
Completion Date 11/25/90		Total Depth 6619'	Plug Back TD 6387'		Elevation 0
Farm or Lease Name Marshall Com					
Csg. Size 5.000	Wt. 15.0	d -0-	Set At 6619	Perforations: From 5504 To 5648	
Well No. 2					
Tub. Size 2-3/8	Wt. 4.70	d -0-	Set At 5407'	Perforations: From 0 To 0	
Unit Sec. Twp. Rge. F 34 21S 37E					
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 5419'	
County Lea					
Producing Thru		Reservoir Temp. °F 115.5 5576	Mean Annual Temp. °F 60.0		Baro. Press. - P _z 13.2
State NM					
L 5576.	H 5576.	G _g .680	% CO ₂ .23	% N ₂ 2.00	% H ₂ S .00
Prover .0		Meter Run 4.0	Taps Flange		

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	Duration of Flow
SI							600.	36.			24.0
1.	4.03 X 2.000			70.	7.0	36.	465.	36.	0.	0.	.5
2.	4.03 X 2.000			75.	21.0	38.	358.	38.	0.	0.	.5
3.	4.03 X 2.000			75.	25.0	38.	320.	38.	0.	0.	.5
4.	4.03 X 2.000			75.	31.0	36.	250.	36.	0.	0.	.5
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	19.81	24.13	83.2	1.0239	1.2127	1.0100	600.
2	19.81	43.04	88.2	1.0218	1.2127	1.0105	1068.
3	19.81	46.96	88.2	1.0218	1.2127	1.0105	1165.
4	19.81	52.29	88.2	1.0239	1.2127	1.0106	1300.
5.							

NO.	R	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio 75.7 Mcf/bbl.
1	.12	496.	1.31	.980	A.P.I. Gravity of Liquid Hydrocarbons 39.2 Deg.
2	.13	498.	1.32	.979	Specific Gravity Separator Gas .680
3	.13	498.	1.32	.979	Specific Gravity Flowing Fluid .890
4	.13	496.	1.31	.979	Critical Pressure 666. P.S.I.A.
5					Critical Temperature 378. R

P _c 6.20.0 P _c ² 384.				
NO.	P _i	P _w	P _w ²	P _c ² - P _w ²
1	229.	489.	239.	145.
2	138.	404.	163.	222.
3	111.	375.	141.	244.
4	69.	327.	107.	278.
5				

$$(1) \frac{P_c^2}{P_c^2 - P_w^2} = 1.3845$$

$$AOF = Q \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1775$$

$$(2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 1.3845$$

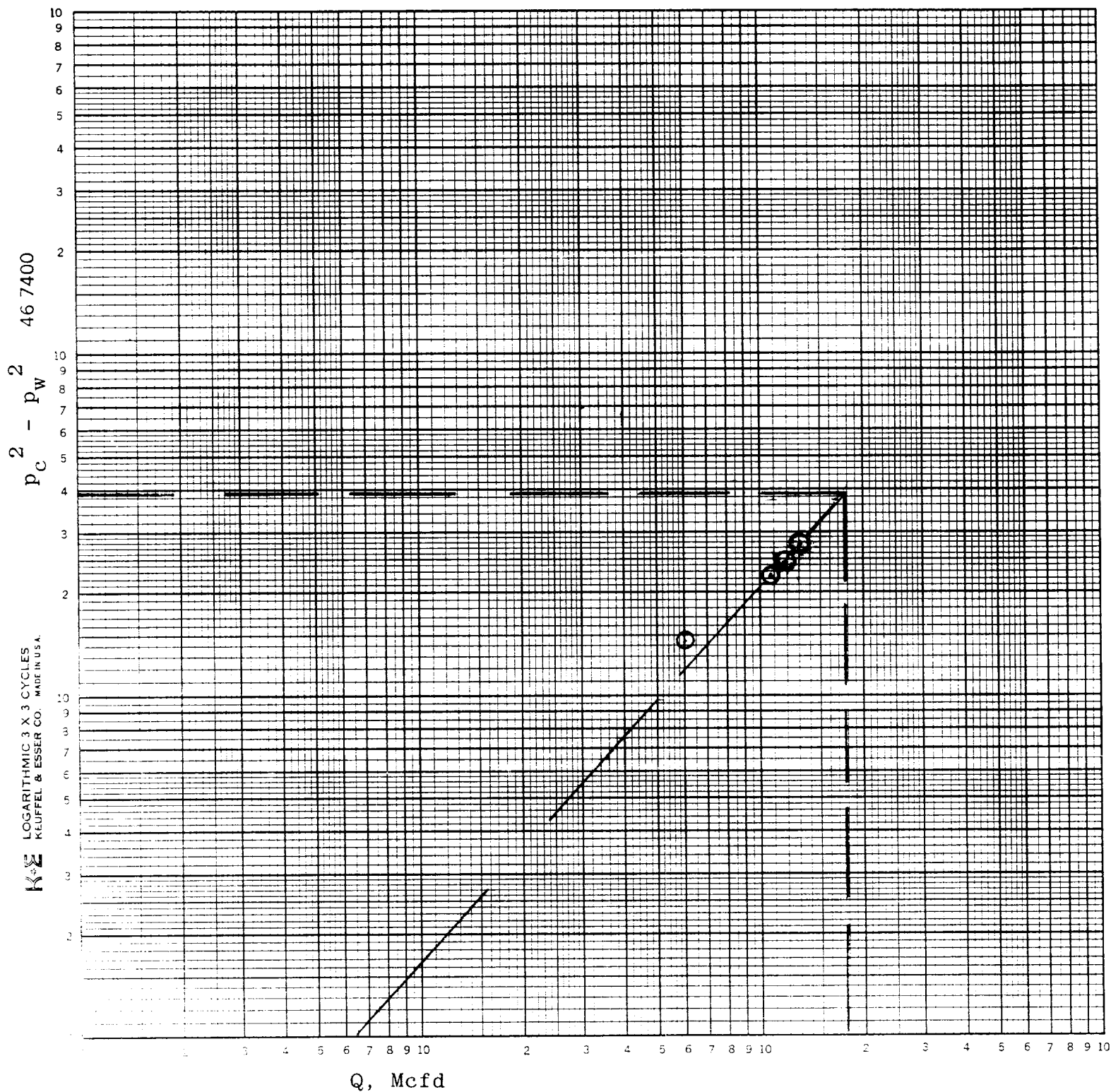
Absolute Open Flow 1775 Mcfd @ 15.025	Angle of Slope θ 47.5	Slope, n 916
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Remarks:

Approved By Division	Conducted By:	Calculated By:	Checked By:
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GAS WELL
BACK PRESSURE CURVE

Company Mobil Prod. Tx & NM, Inc.
Well Marshall Com #2
Location _____
County Lea
Date 11-29-90



$$e = 47.5$$

$$N = .916$$

$$Q = 1775$$