

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Time Date 5/27/87				RECEIVED BY			
Company MCKAY OIL CORPORATION				Connection Air				JUL - 1 1987			
Pool West Pecos Slope				Formation Abo				O. C. D.			
Completion Date 5/27/87		Total Depth 3400'		Plug Back TD 3147'		Elevation 4252 KB		ARTESIA, OFFICE			
Ceq. Size 4-1/2"		Wt. 9.5		d 4.090		Set At 3223		Perforations: From 2757.5 To 3121.5		Well No. #11	
Thq. Size 2-3/8"		Wt. 4.7		d 1.995		Set At 2732		Perforations: From To		Unit Sec. Twp. Rge. K 27 6S 22E	
Type Well - Single - Brindenhead - G.C. or G.O. Multiple Single								Packer Set At		County Chaves	
Producing Thru Tubing		Reservoir Temp. °F 92 • 2939.5		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2		State N.M.			
L 2939.5		H 2939.5		G _g 0.628		% CO ₂ 0.215		% N ₂ 5.487		% H ₂ S 0	
Prover 2.00		Meter Run --		Taps --							

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							968		972		SI 72 HRS.
1.	2.000	.250	632	--	68	927	68	936	68	60 MIN	
2.	2.000	.375	567	--	61	843	61	863	61	60 MIN	
3.	2.000	.500	463	--	59	715	59	756	59	60 MIN	
4.	2.000	.750	268	--	56	525	56	611	56	60 MIN	
5.											

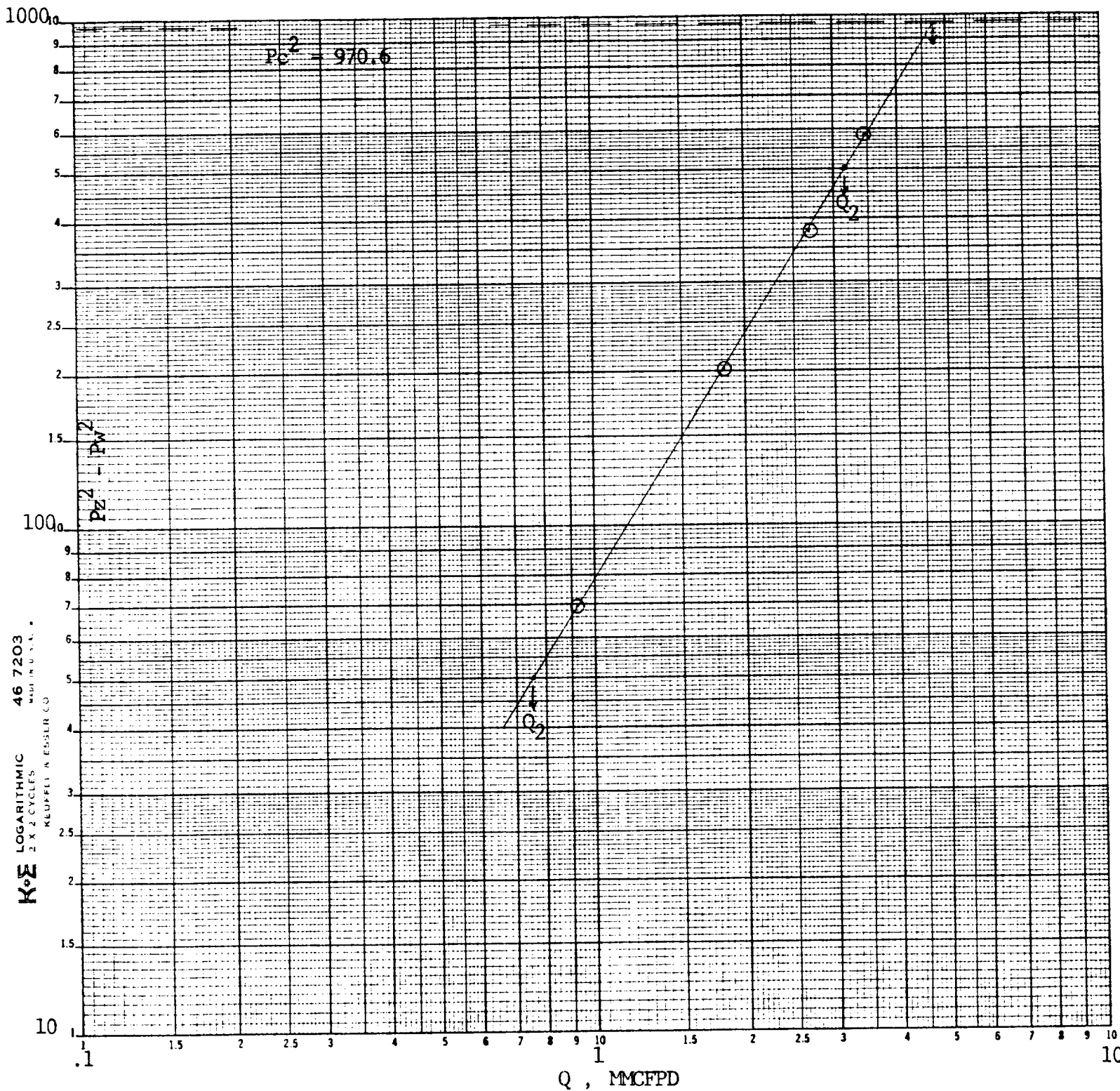
RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	1.087	--	645.2	.9924	1.262	1.052	924
2	2.378	--	580.2	.9990	1.262	1.049	1825
3	4.279	--	476.2	1.0000	1.262	1.040	2674
4	9.453	--	281.2	1.0039	1.262	1.024	3449
5							

NO.	P _t	Temp. °R	T _t	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1	0.97	528	1.50	.904	0	
2	0.88	521	1.48	.908	0	
3	0.72	519	1.48	.924		
4	0.42	516	1.47	.953		
5						

NO.	P _t	P _w	P _w ²	P _t ² - P _w ²	(1) $\frac{P_t^2}{P_t^2 - P_w^2} =$	(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n =$
1		949.2	901.0	69.6	13.945	5.123
2		876.2	767.7	202.9		
3		769.2	591.7	378.9		
4		624.2	389.6	581.0		
5						

Absolute Open Flow <u>4734</u> Mcfd @ 15.025		Angle of Slope @ <u>58.186</u>		Slope, n <u>0.620</u>	
Remarks:					
Approved By Division					
Conducted By: R. Snyder		Calculated By: C. Sanders		Checked By: P. Stewart	

MCKAY OIL CORPORATION
 Remmele Federal Com #11
 Sec. 27, T6S, R22E
 05/27/87



$$Q_1 = 3150 \text{ MCFPD; } \log = 3.49831$$

$$Q_2 = 755 \text{ MCFPD; } \log = 2.87795$$

$$n = .62036$$

$$n = .620$$

$$\text{AOF} = 4734 \text{ MCFPD}$$

