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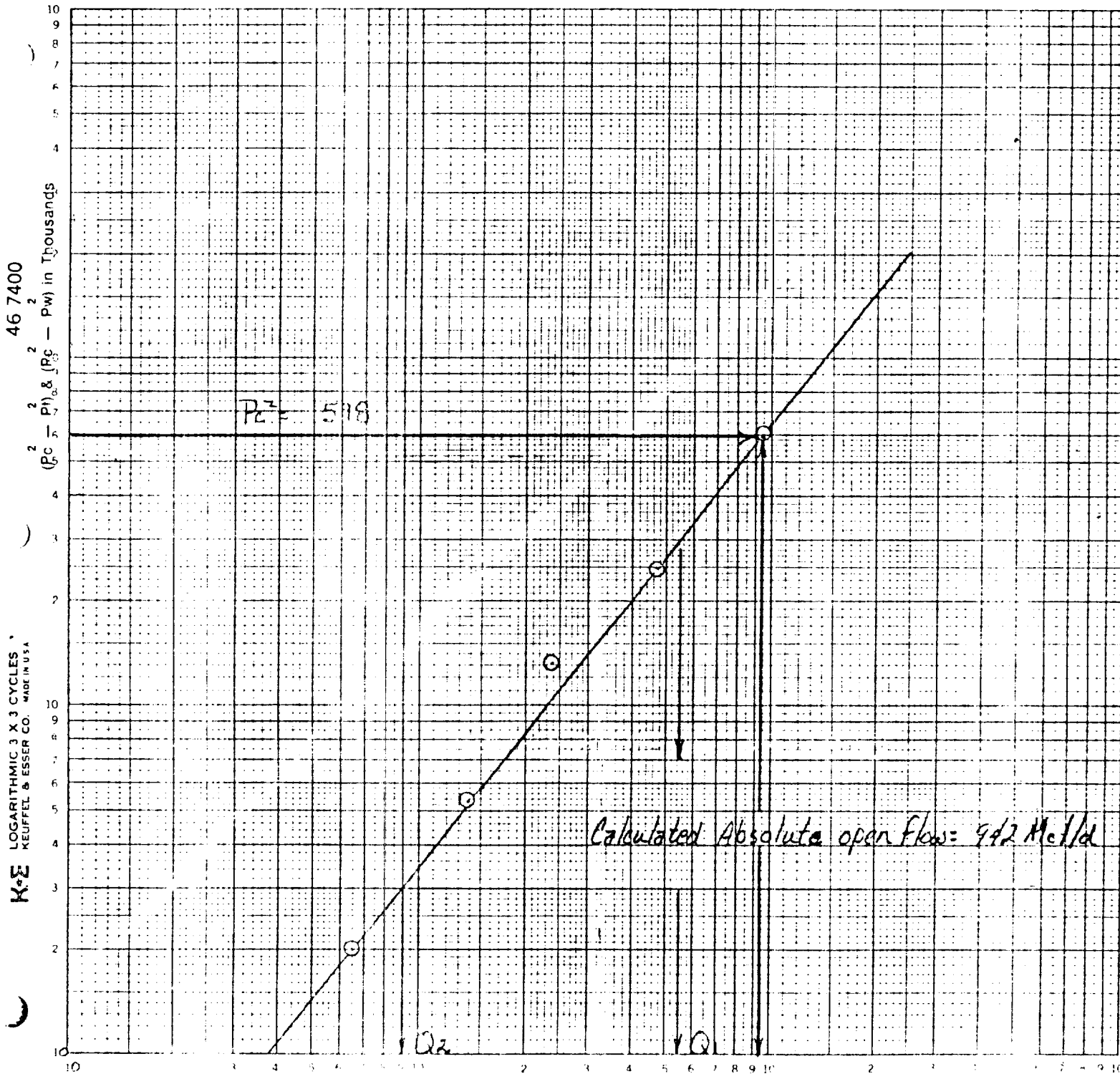
MAY -8 1987
NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL
O.C.O.
ARTESIA, OFFICE

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 1-13-87	
Company McKay Oil Corp.				Connection to air			
Pool Pecos Slope Abo				Formation Abo			
Completion Date 3-10-87		Total Depth 3500		Plug Back L. 3392		Elevation 4165	
Casing Size 4.5		WT. 9.5		d 4.090		Set At 3450	
Perforations: From 2968.5 To 3204.5		Well No. 3		Unit F		Sec. Twp. Rye. 8 6S 23E	
Type Well - Single - Packerhead - O.G. or G.O. Multiple single		Packer Set At none		County Chaves		State New Mexico	
Producing Thru tubing		Reservoir Temp. °F 100° 3086		Mean Annual Temp. °F 60		Baro. Press. - P _a 13.2	
L 3086		H 3086		Cg .609		% CO ₂ 0	
				% N ₂ 5.828		% H ₂ S 0	
				Provor 2.000		Motor Run 0	
				Taps 0			
FLOW DATA						TUBING DATA	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. in. hw	Temp. °F	Duration of Flow
51							72hrs
1.	2.000		.0625	745	0.0	72	60min
2.	2.000		.09375	725	0.0	74	60min
3.	2.000		.125	665	0.0	75	60min
4.	2.000		.1875	577	0.0	75	60min
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. Compens. Factor, Fpv	Rate of Flow Q, Mhd
1	.0640	0.00	758.2	.9887	1.281	1.055	65
2	.1410	0.00	738.2	.9868	1.281	1.052	138
3	.2648	0.00	678.2	.9859	1.281	1.048	238
4	.6082	0.00	590.2	.9859	1.281	1.041	472
5							
NO.	P ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio _____ Mcf/bbl.		
1	1.15	532	1.54	.899	A.P.I. Gravity of Liquid Hydrocarbons _____ Deg.		
2	1.12	534	1.55	.903	Specific Gravity Separator Gas .609 XXXXXXXXXX		
3	1.03	535	1.55	.910	Specific Gravity Flowing Fluid XXXXXX .609		
4	.80	535	1.55	.922	Critical Pressure 660 P.S.I.A. 660 P.S.I.A.		
5					Critical Temperature 345 °R 345 °R		
P ₁ 773.2 P ₂ 598					(1) $\frac{P_2^2}{P_1^2 - P_2^2} = 2.4210$ (2) $\left[\frac{P_2^2}{P_1^2 - P_2^2} \right]^n = 1.9948$		
NO.	P ₁	P ₂	P ₃	P ₄	AOR = Q $\left[\frac{P_1^2}{P_2^2 - P_1^2} \right]^n = 941.5$		
1	575	760.2	578	20			
2	545	720.2	548	33			
3	460	683.2	467	131			
4	348	392.2	355	247			
5							
Absolute Open Flow _____ Mhd @ 15.025				Angle of Slope _____		Slope, _____ 0.781	
Remarks _____							
Approved By Commission		Checked By		Calculated By		Checked By	

BACK PRESSURE CURVE

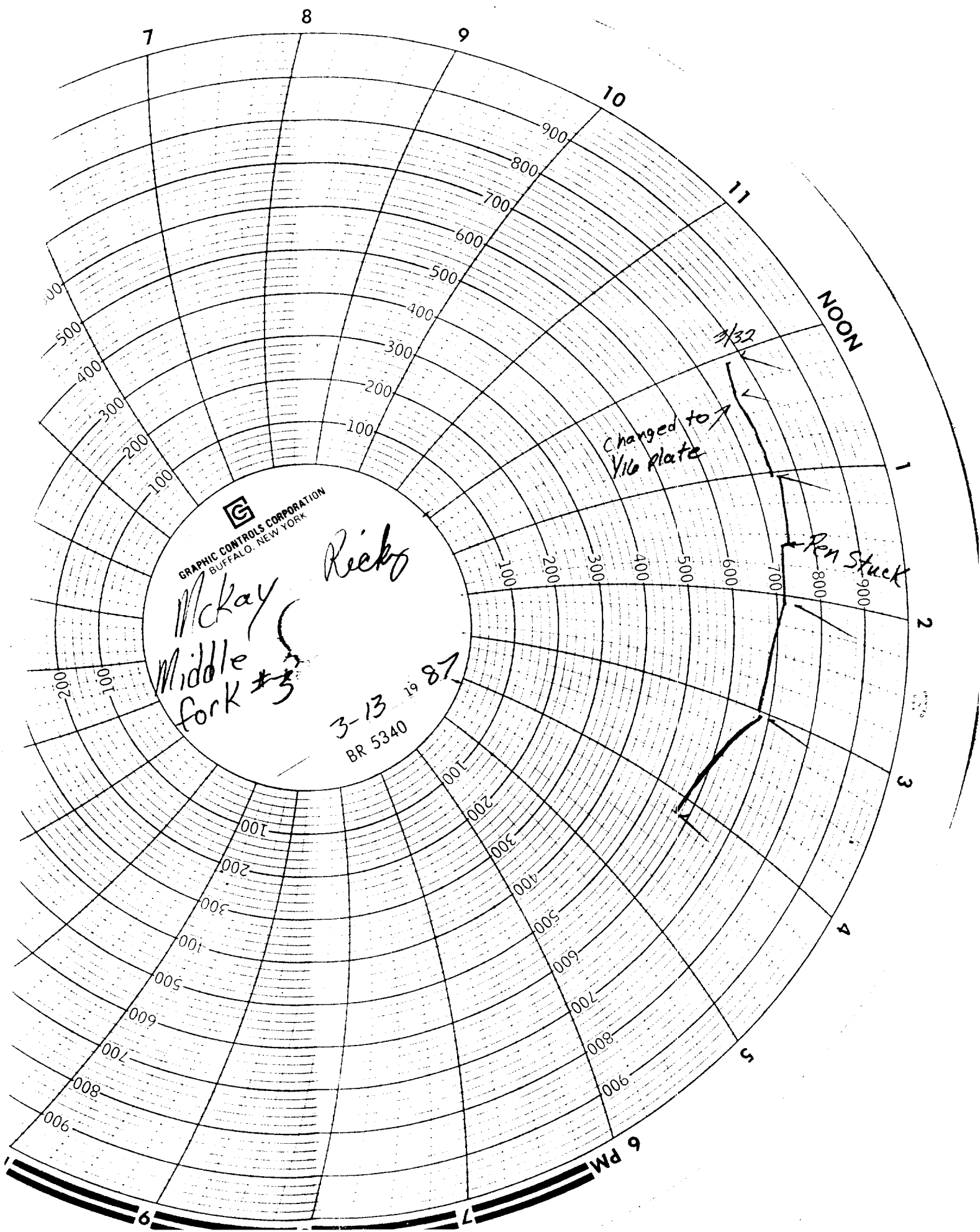
Operator McKay Oil Corp Lease Middle Fork Fed. Well No. 3
 County Chaves Field West Pecos Slope Location F 8 6S 23E
 Date of Test 3-13-87 Slope "n" 0.781 Angle of Slope 52°
 Calc. Abs. Potential 942 MCF/D



ΔP_1^2 $P_c^2 - P_w^2 =$ 300
 ΔP_2^2 $P_c^2 - P_w^2 =$ 30
 $Q_1 =$ 543.5
 $Q_2 =$ 90

Q in MCF/Day

$\log Q_1 =$ 2.7352
 $\log Q_2 =$ 1.9512
 $n =$ 0.781





PRECISION SERVICE INC.
Flow Measurement Engineers
Analysis Results Summary
Casper, WY 82601

Run No. 313-8
Date Run 03/13/87
Date Sampled 03/13/87

Analysis For: BENNETT & CATHEY WRLN.

Lease: MIDDLE FORK FEDERAL #3

Producer MCKAY OIL CORP.

Location CHINA DRAW

County CHAVES

State NEW MEXICO

Purpose WELL TEST

Sampled By B & C WRLN.

Sampling Temp. 60 °F

Atmos Temp. °F

Volume/day 432 MCF

Formation ARO

Pressure on Bomb 575

PSIG; Line Pressure 588.2 PSIA PSIG

Gas Component

Analysis

Press. Base: 14.73

Mol. %

Liq. %

GPM
Per MCF

Carbon Dioxide CO₂

Oxygen O₂

Nitrogen N₂

Hydrogen Sulfide H₂S

Methane C₁

Ethane C₂

Propane C₃

Iso-Butane IC₄

Nor-Butane NC₄

Iso-Pentane IC₅

Nor-Pentane NC₅

Hexanes plus

Hexanes C₆

Heptanes

Heptanes Plus C₇+

Total

Pentane + G.P.M.

Propane + GPM

26-lb Gasoline

BTU Dry

BTU Wet

Calc. Specific Gravity

@ Std. Press. 14.696

BTU Dry

BTU Wet

Calc. Vap. Press. #/Sq.In.

Reid Vap. Press. #/Sq.In.

Z Factor

N Value

Ave Mol Wt

Ave Cu Ft/Gal

Run by JEFFREY A. PROPP

Calculated By JEFFREY A. PROPP

Ethane + GPM

.946

Remarks:

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Distribution: