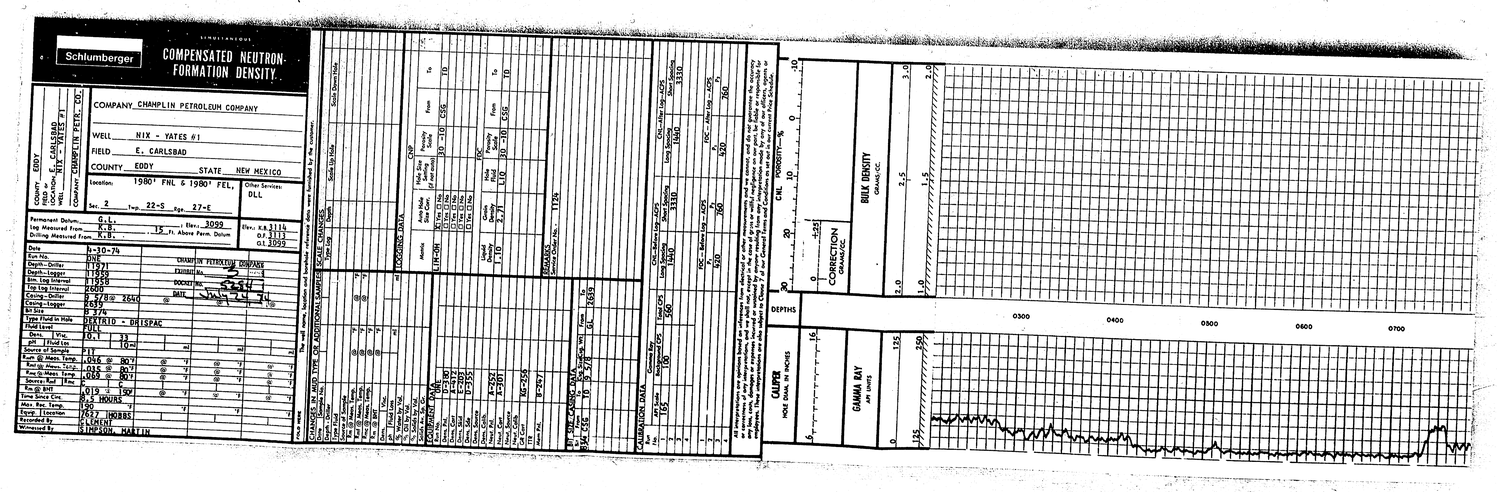
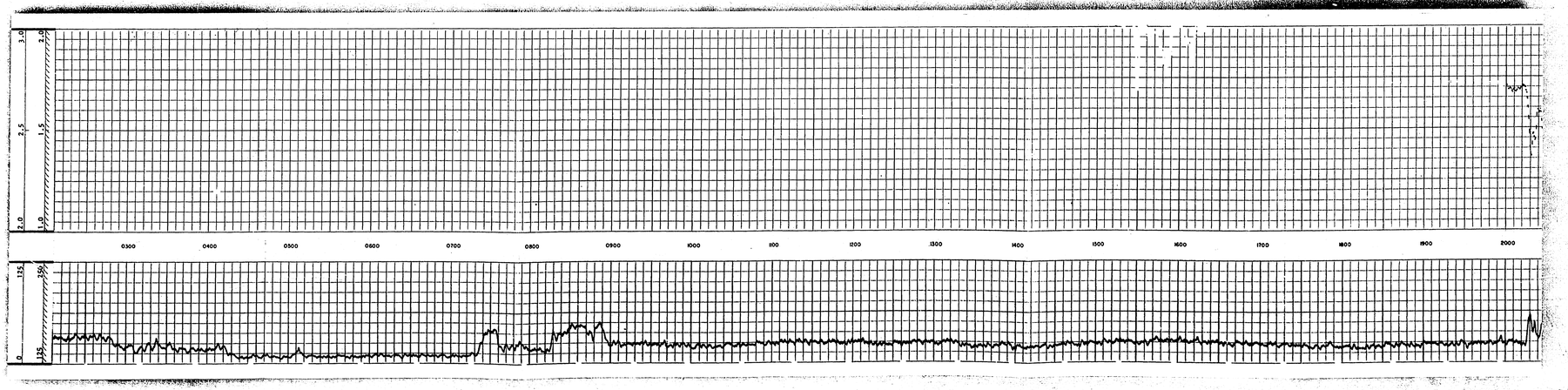
Case No.
5284

Large Exhibits

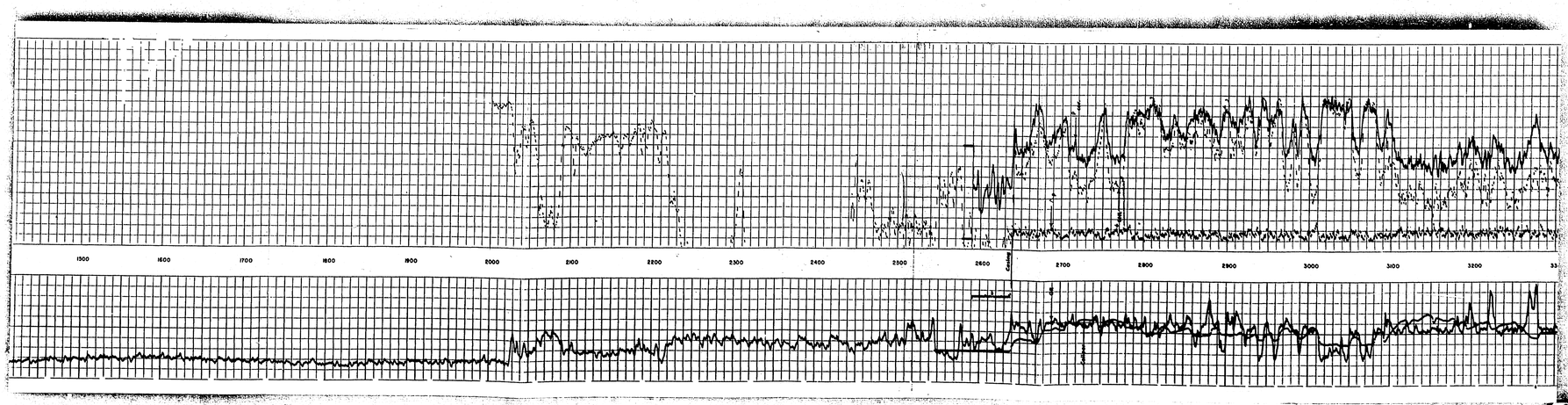
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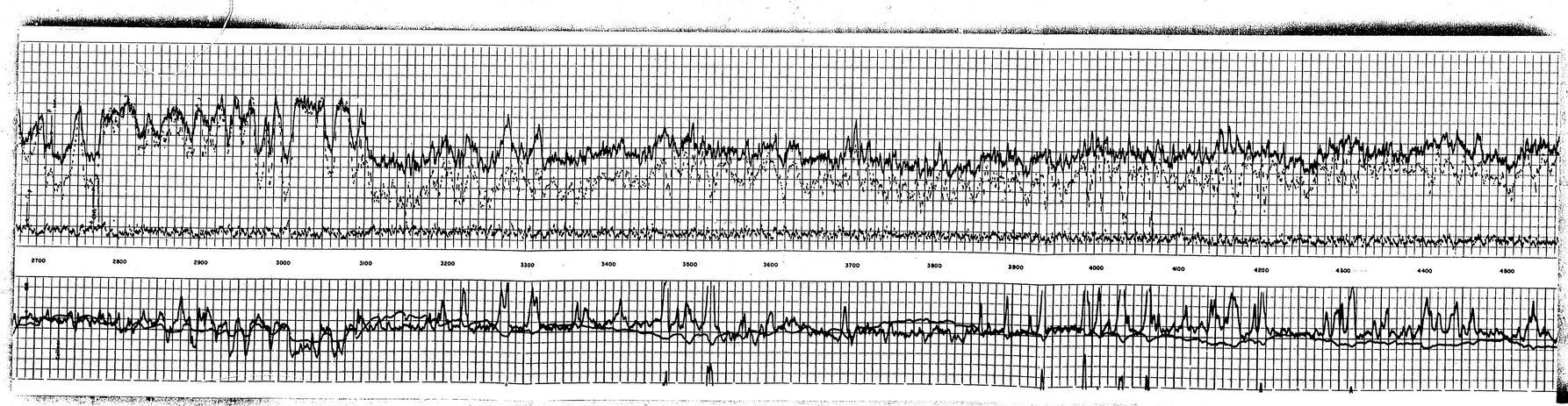
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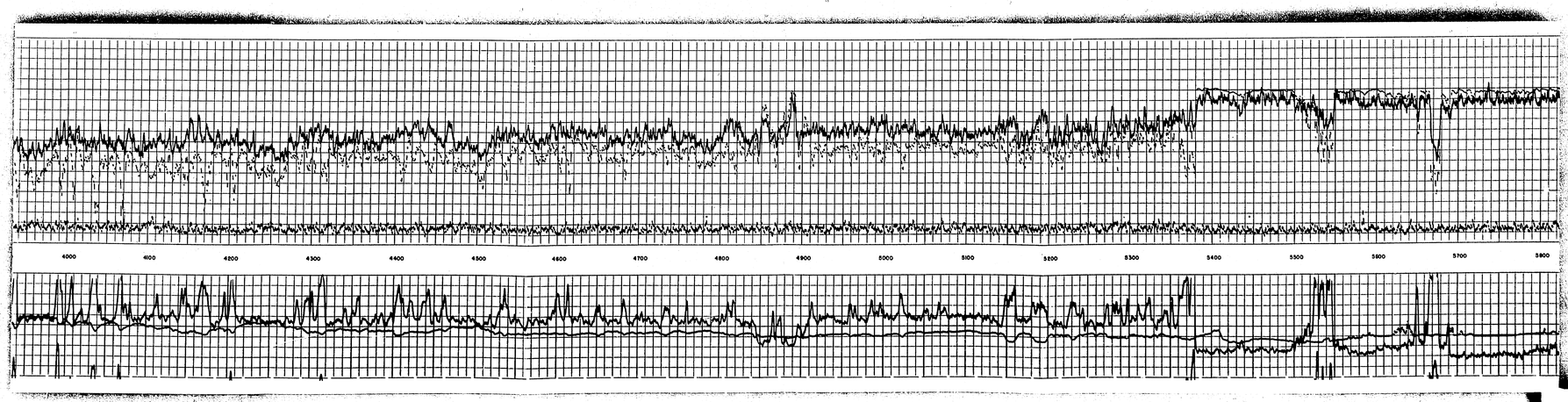
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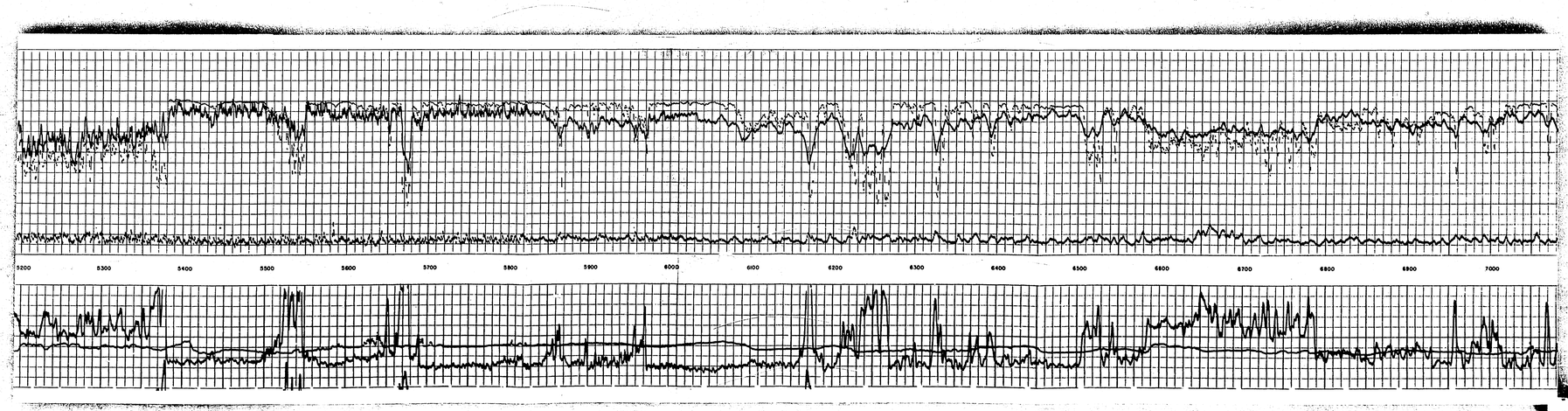


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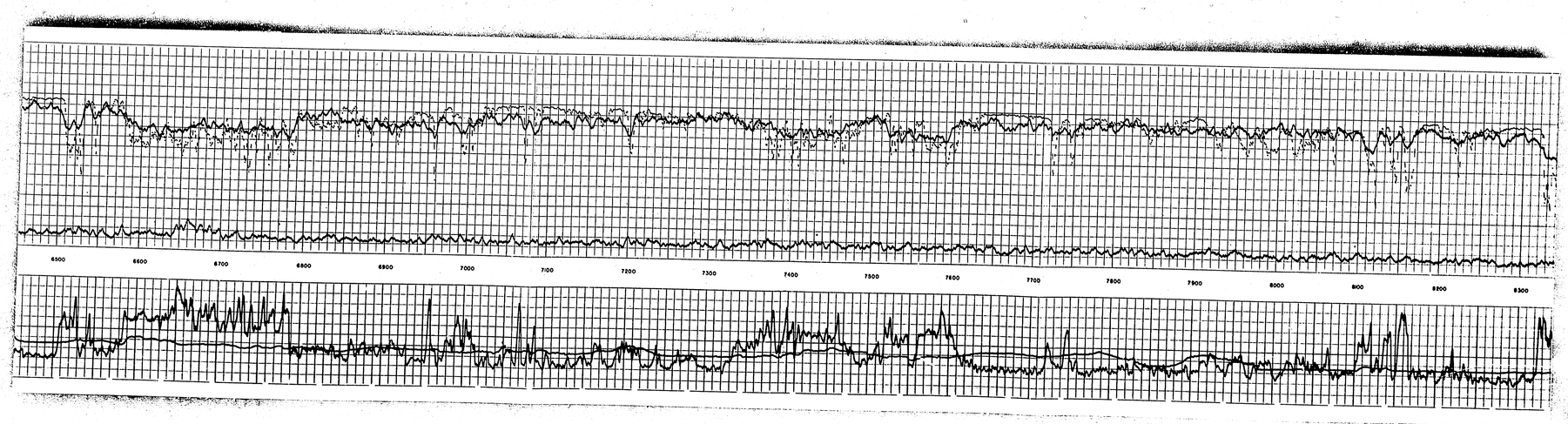


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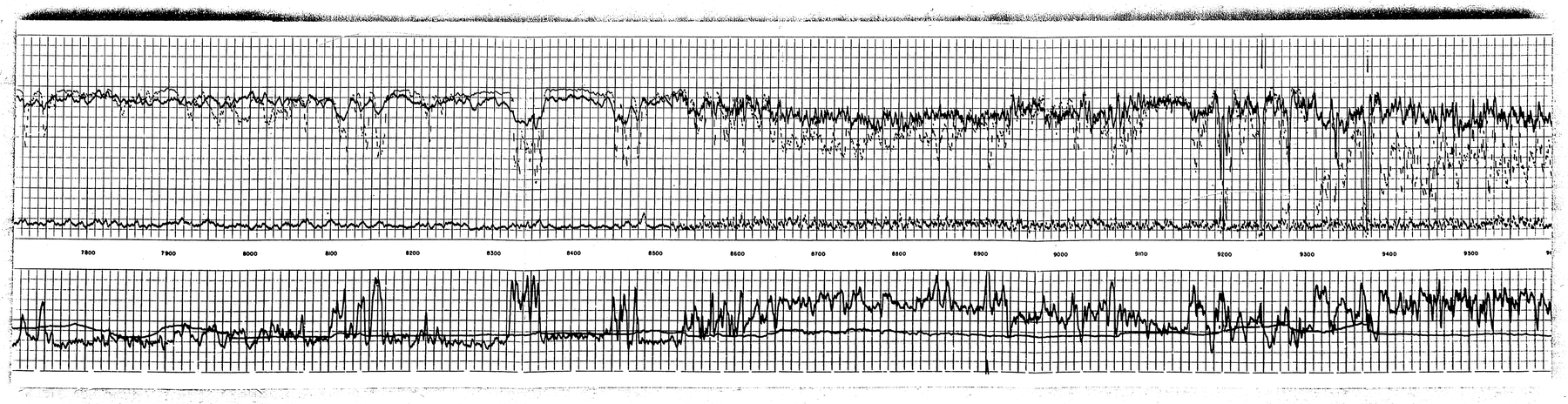
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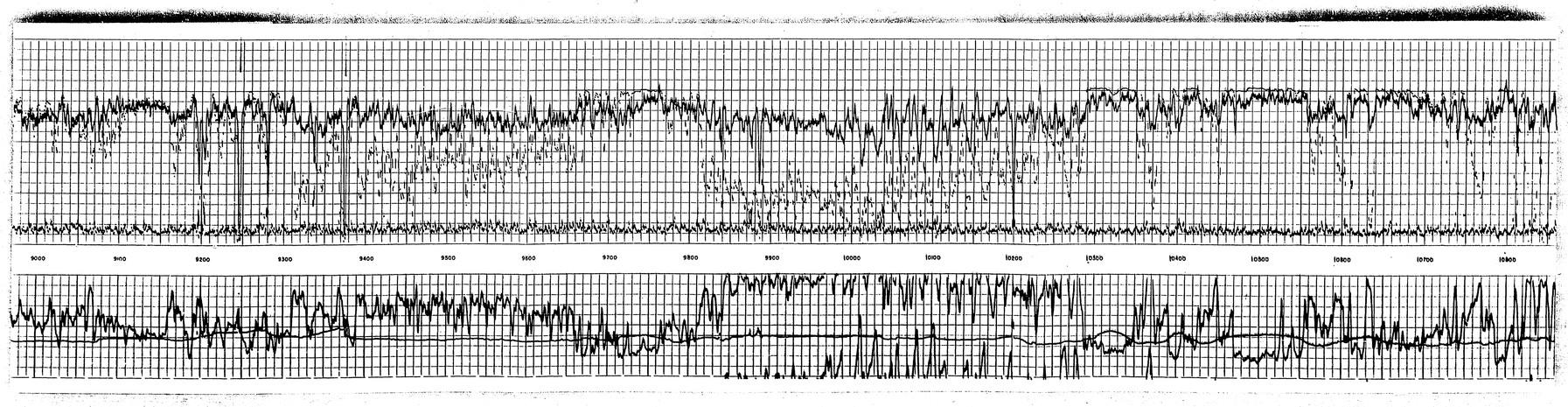
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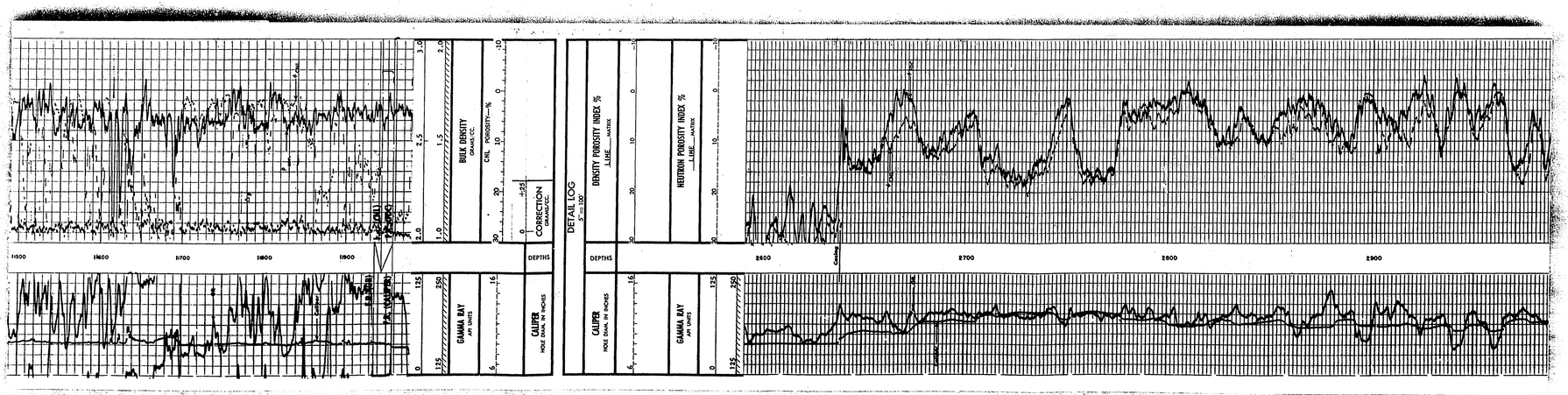


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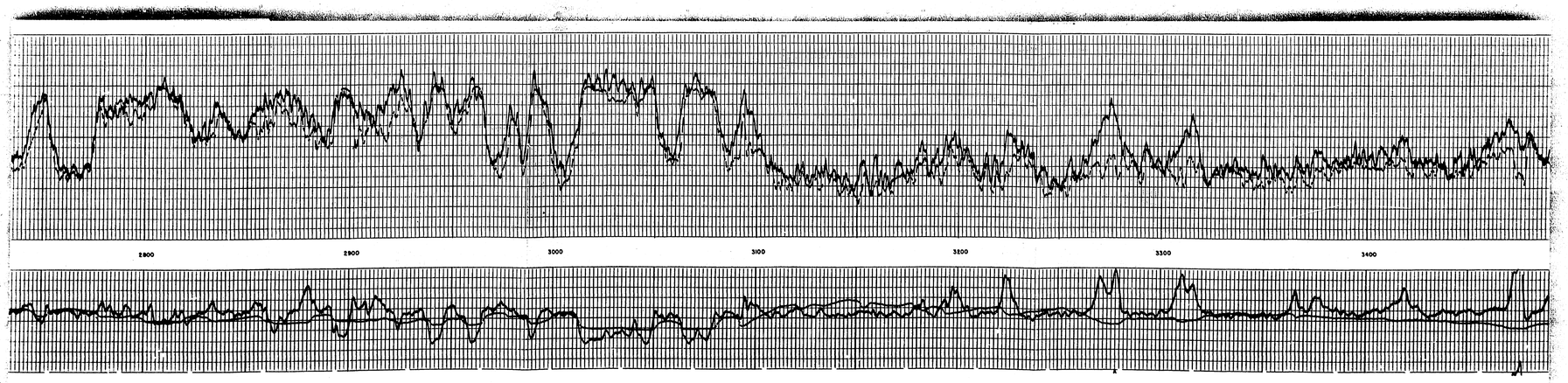
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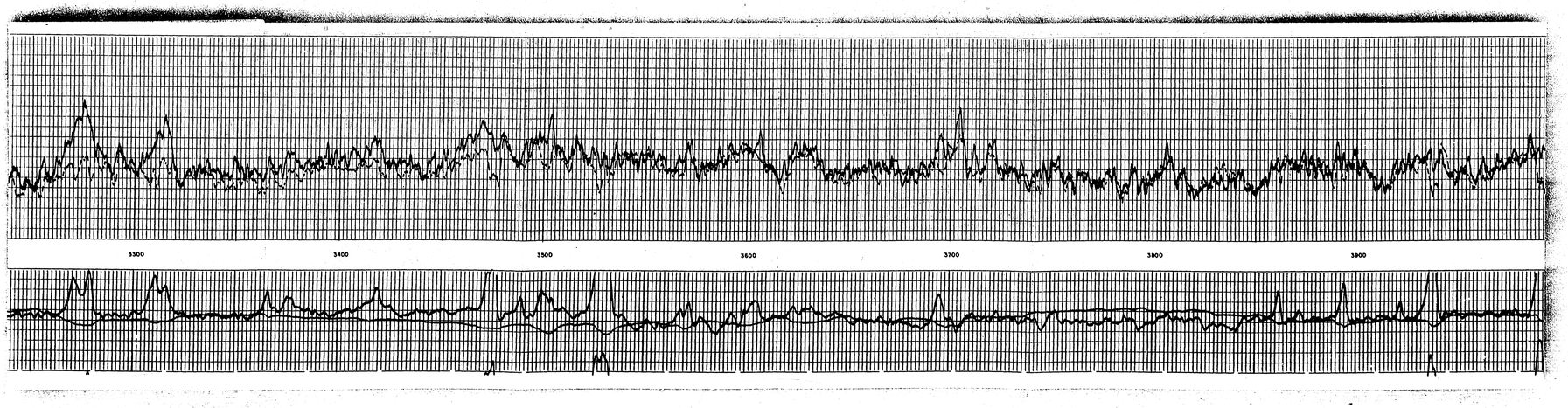
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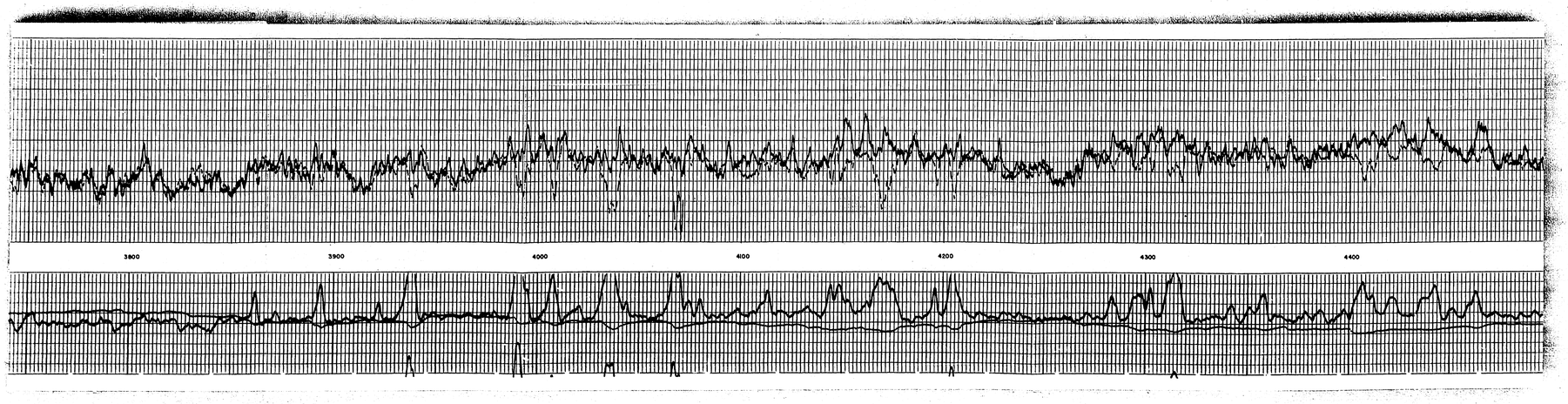
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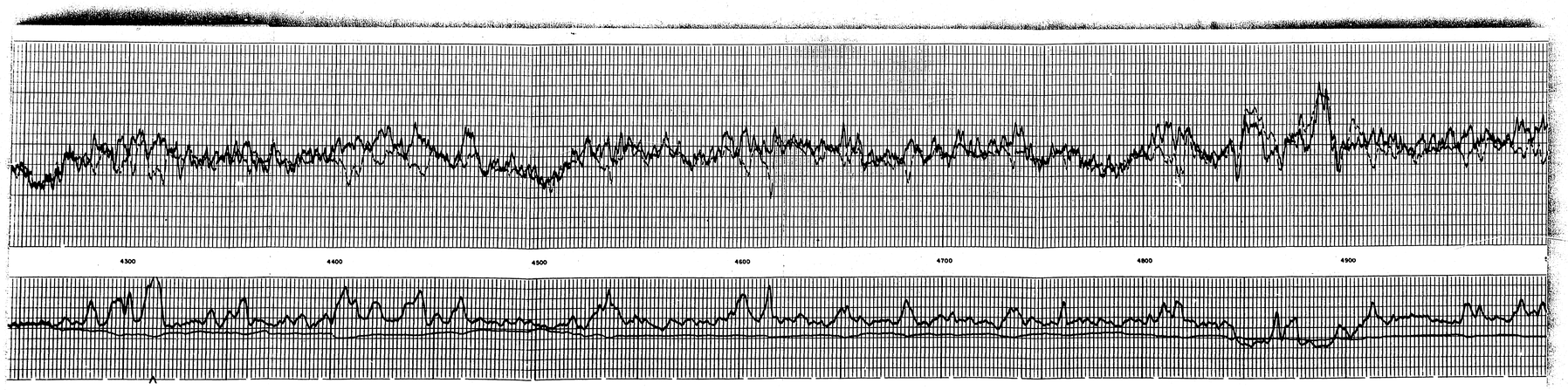
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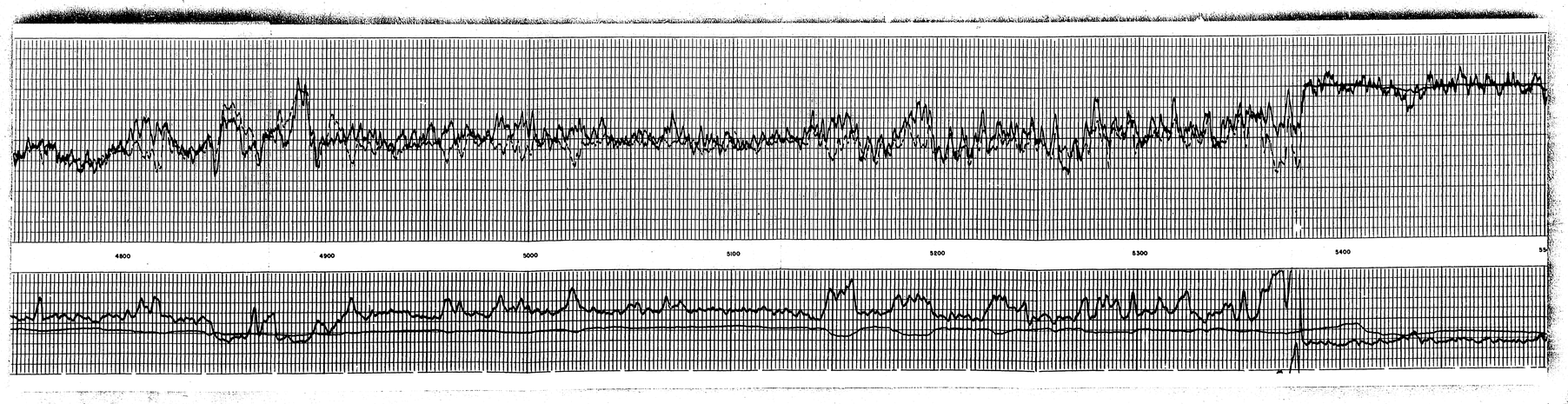
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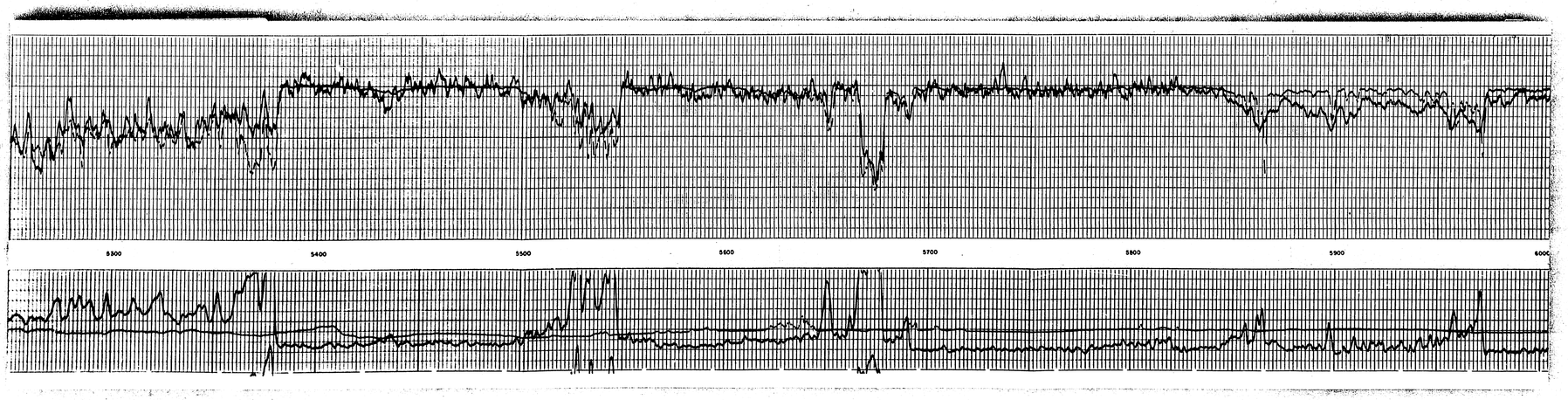
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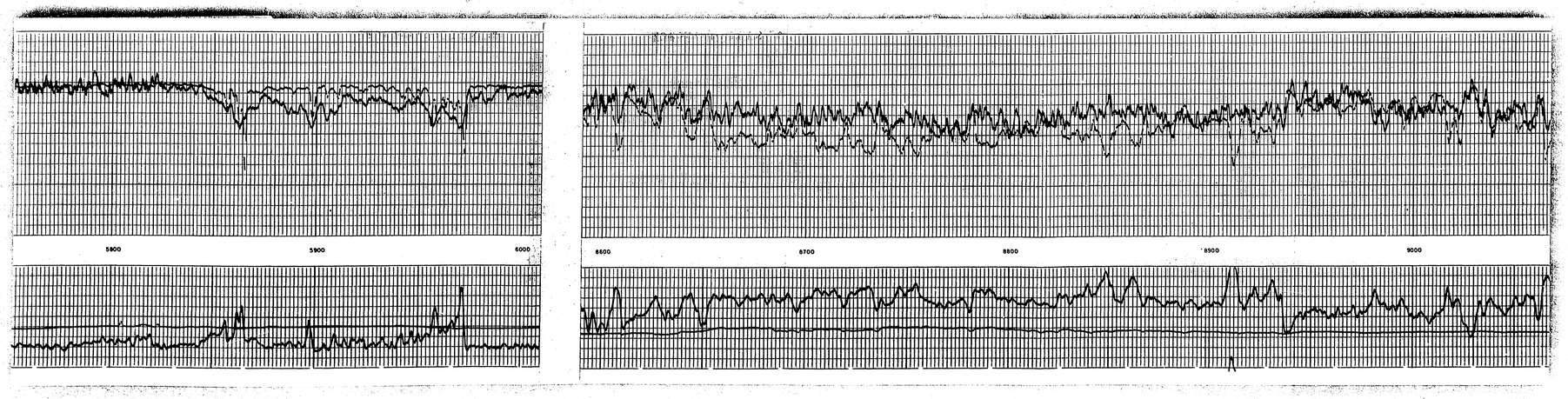
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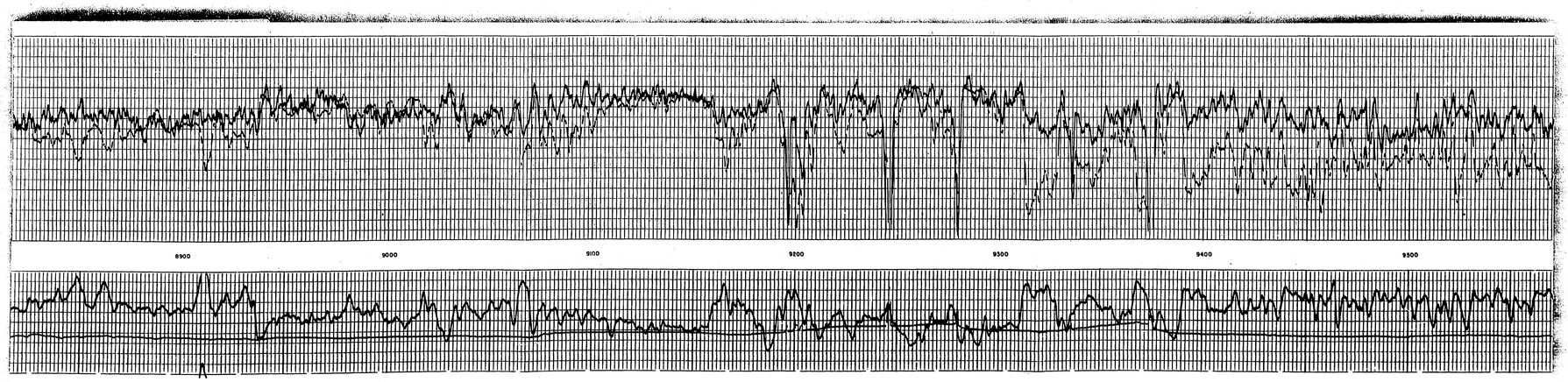
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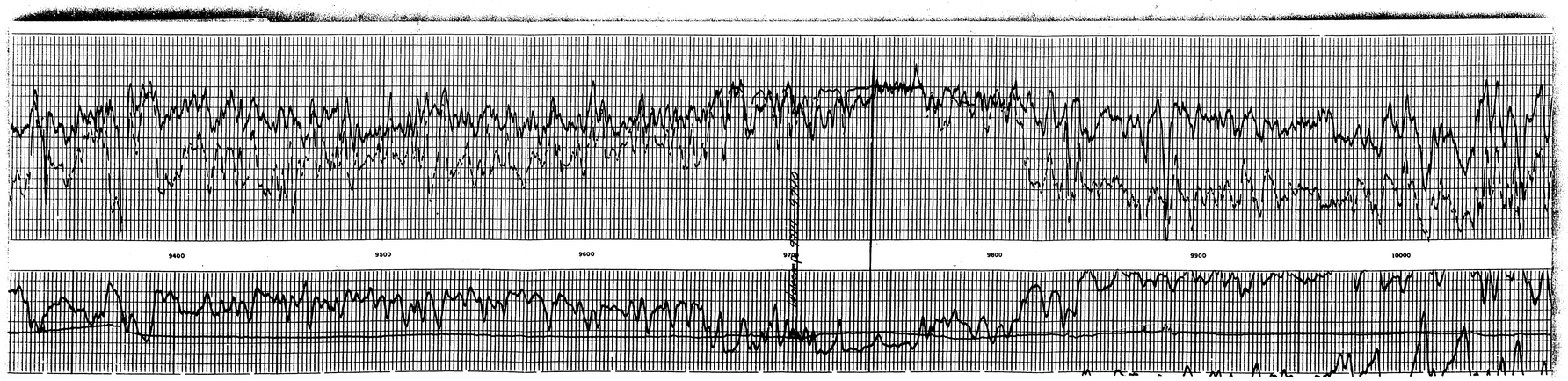
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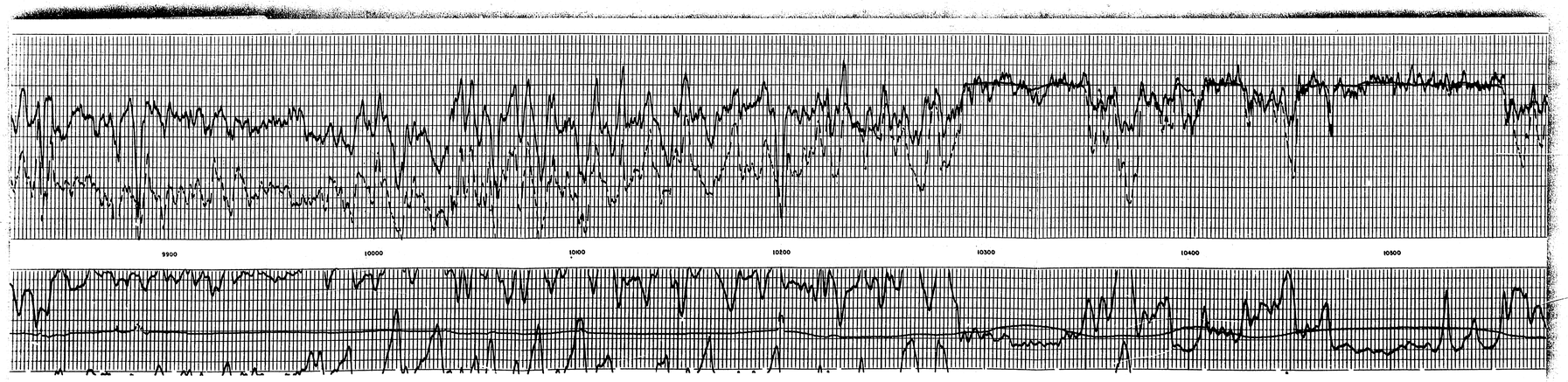
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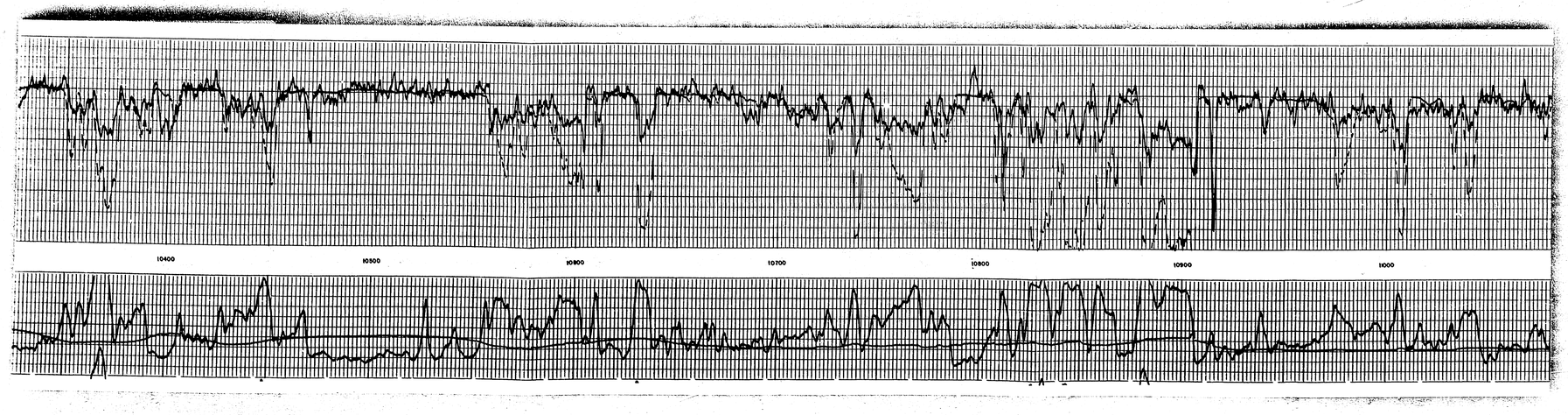
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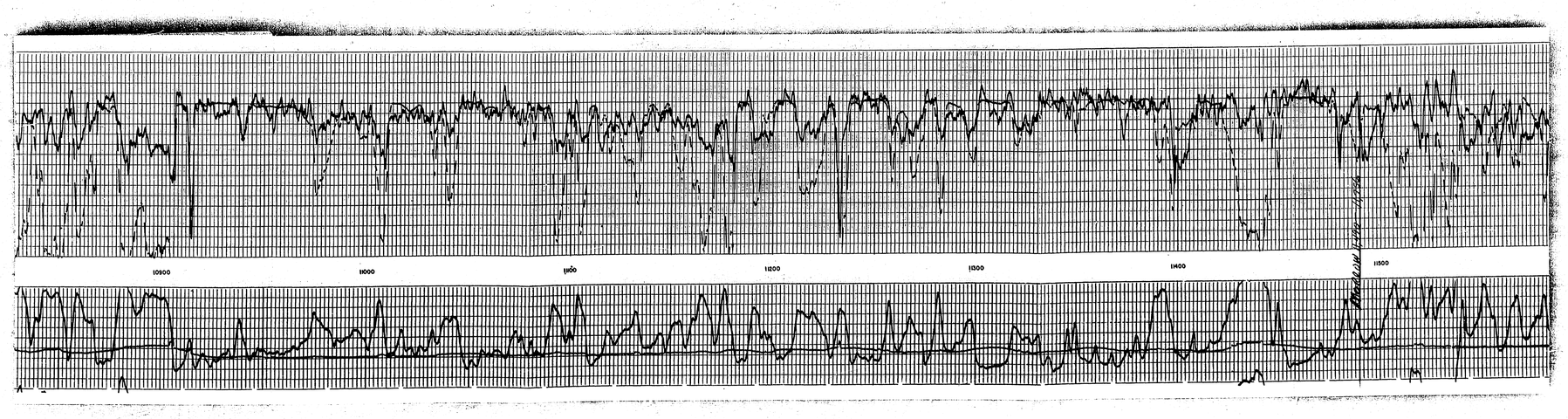
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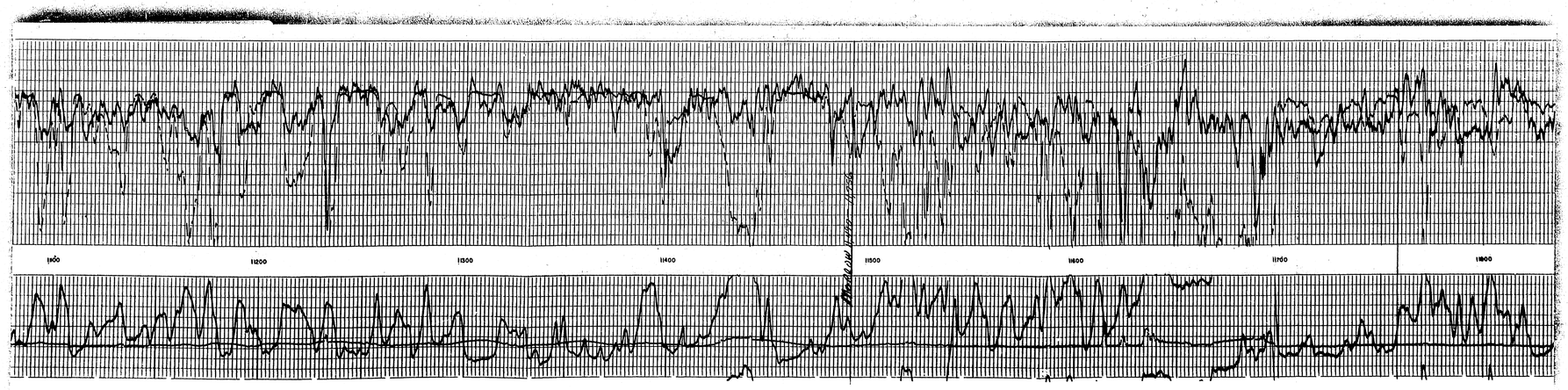
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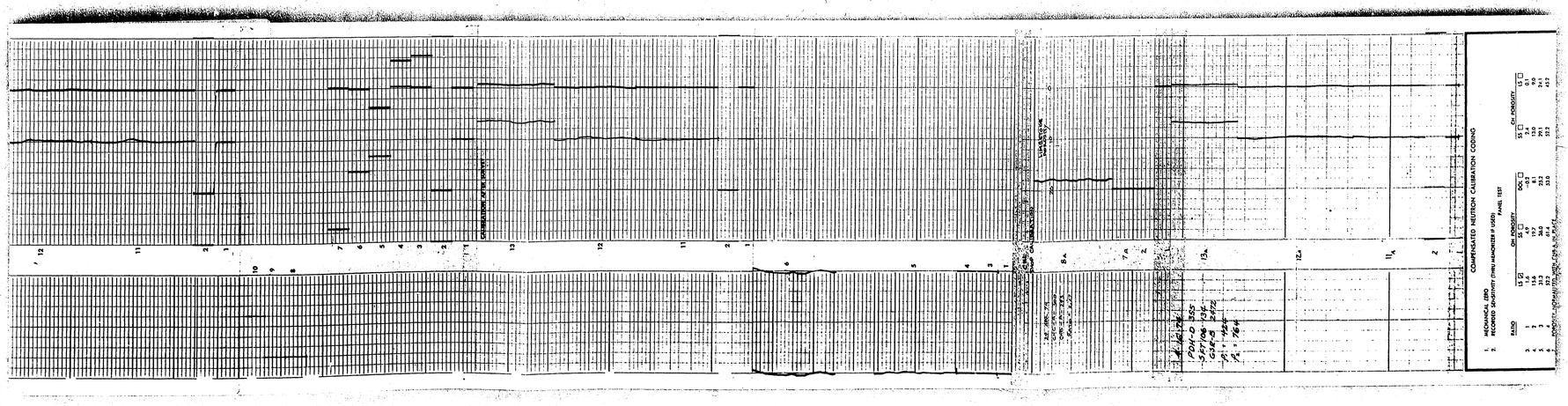


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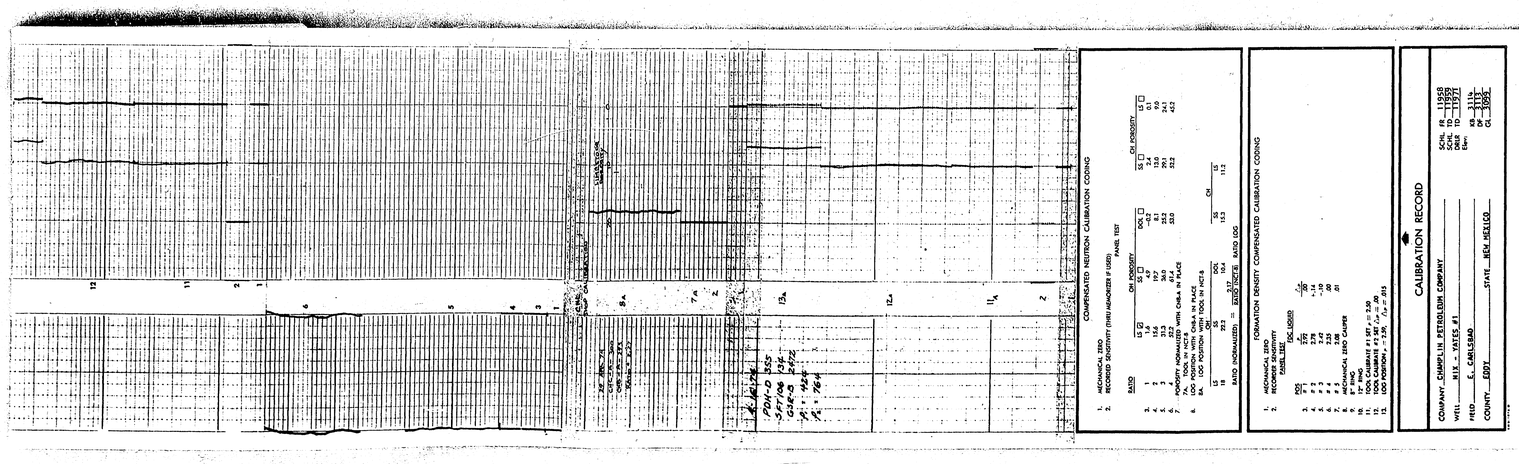


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W.R.N.C.F. MICROGRAPHICS

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COMPENSATED NEUTRON CALIBRATION CODING

1. MECHANICAL ZERO
2. RECORDED SENSITIVITY (FIRST MEASURED IF USED)

PANEL TEST

RANGE		LS	CH POROSITY	SS	DOL	SS	CH POROSITY	LS
3.	1	115	4	197	81	73	4	80
4.	2	154	8	197	81	136	8	90
5.	3	213	12	262	261	206	12	421
6.		272		814	330	322		

7. POROSITY NORMALIZED WITH CHA-A IN PLACE
   7A. TOOL IN HOLE
8. LOG POSITION WITH CHA-A IN PLACE
   8A. LOG POSITION WITH TOOL IN HOLE

LS	SS	DOL	SS	LS
19	253	154	133	113
		317		

9. RADIO NORMALIZED = RADIO TOOLS AUTO LOG

FORMATION DENSITY COMPENSATED CALIBRATION CODING

1. MECHANICAL ZERO
2. RECORDED SENSITIVITY

PANEL TEST

POS	DC VOLTS	$\frac{\Delta\rho}{\Delta V}$
1.	1.75	.98
2.	2.3	1.14
3.	2.7	.10
4.	3.2	.00
5.	3.8	.01

6. MECHANICAL ZERO CHECK
7. 8" RHC
8. 12" RHC
9. TOOL CALIBRATE AT SET ρ_b = 2.20
10. TOOL CALIBRATE AT SET ρ_b = 2.65
11. LOG POSITION, ρ_b = 2.20 / ρ_b = 2.65

CALIBRATION RECORD

COMPANY CHAMPLIN PETROLEUM COMPANY		SCHL FR 11958	
		SCHL TD 11975	
WELL MIX - YATES #1		DRLR TD 11975	
FIELD E. CARLSBAD		Elev: KB 3114	
		DF 3103	
COUNTY EDDY	STATE NEW MEXICO	GL 3092	

V.N.M.C.F. MICROGRAPHICS
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Schlumberger

DUAL LATEROLOG

COMPANY CHAMPLIN PETROLEUM COMPANY

WELL NIX - YATES #1

FIELD E. CARLSBAD

COUNTY EDDY STATE NEW MEXICO

LOCATION: 1980' FNL & 1980' FEL

Other Services: CNL-FDC

Sec. 2 Twp. 22-S Rge. 27-E

COUNTY EDDY
FIELD E. CARLSBAD
WELL NIX - YATES #1
COMPANY CHAMPLIN PETR. CO

Permanent Datum	G.L.	Elev. 3099	Elev.: K.B. 3114
Log Measured From	K.B.	15ft. Above Perm. Datum	D.F. 3113
Drilling Measured From	K.B.		G.L. 3099

Date	6-1-74		
Run No.	ONE		
Depth—Driller	11971		
Depth—Logger	11959		
Btm. Log Interval	11965		
Top Log Interval	2613		
Casing—Driller	8 5/8" @ 2640	@	@
Casing—Logger	2632		
Bit Size	8 3/4		
Type Fluid in Hole	DEXTRID - DRISPAC		
Dens. / Visc.	10.1 / 33		
pH / Fluid Loss	10 ml	ml	ml
Source of Sample	FLT		
R_m @ Meas. Temp.	.065 @ 80 °F	@ °F	@ °F
R_mf @ Meas. Temp.	.035 @ 80 °F	@ °F	@ °F
R_mc @ Meas. Temp.	.069 @ 80 °F	@ °F	@ °F
Source: R_m / R_mf	C / C		
R_m @ BHT	.019 @ 190 °F	@ °F	@ °F
Time Since Circ.	20 HOURS		
Max. Rec. Temp.	190 °F	°F	°F
Equip. / Location	7627 / HOBBS		
Recorded By	CLEMENT		
Witnessed By	SIMPSON, MARTIN		

CHAMPLIN PETROLEUM COMPANY
EXHIBIT No. 4
DOCKET No. 56-74
DATE 6-26-74

The well name, location and borehole reference data were furnished by the customer.

CHANGES IN MUD TYPE OR ADDITIONAL SAMPLES SCALE CHANGES

Depth	Mud Type

Open / Scale Up Hole / Scale Down Hole / Type Log

REMARKS — Serial No. — 1126

Run No.	ONE
Cat. No.	A-278
Loc. No.	A-247
Max. Rec. Temp.	B-287
Elev. Perm. Datum	
G L Read No.	8-719
Time Log Int.	
Driller's T.D.	66
Logger's T.D.	CHK-CHK-F. INT. SPRING

CALIBRATION DATA

RECORDED CAL.	
CALIBRATION	
GAMMA RAY	

SOURCE: CAL. / DIVISION

DAILY INDX.

SPEC. TAP / MTOR CALI.

SPEC. TAP / RECORD

TIME / CONST.

All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our General Terms and Conditions as set out in our current Price Schedule.

RESISTIVITY
Ohms/M²/m

SHALLOW LATEROLOG: .2 1.0 10 100 1000

DEEP LATEROLOG: .2 1.0 10 100 1000

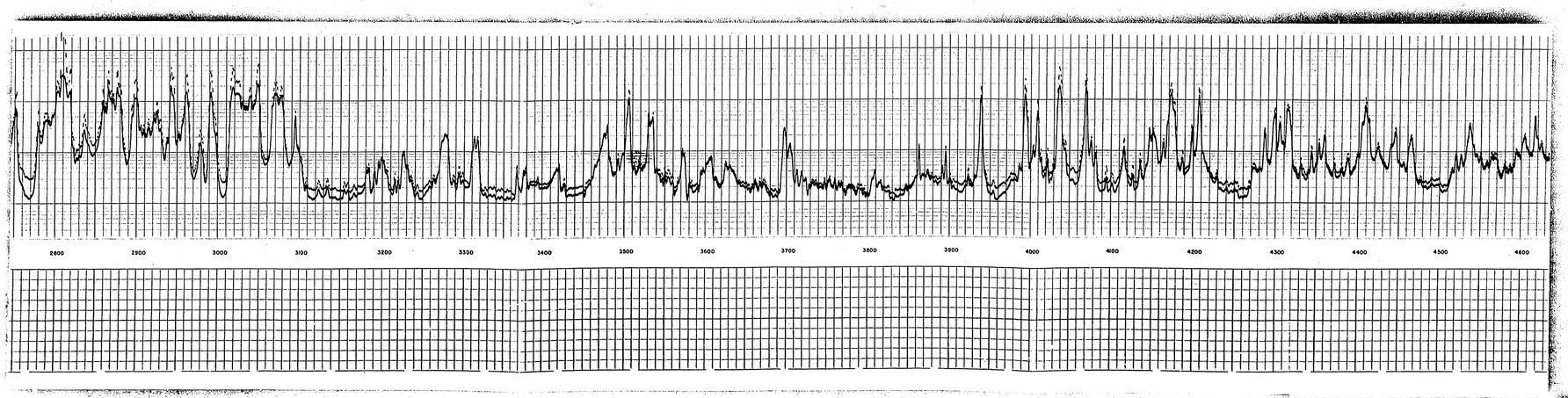
DEPTHS

Casing

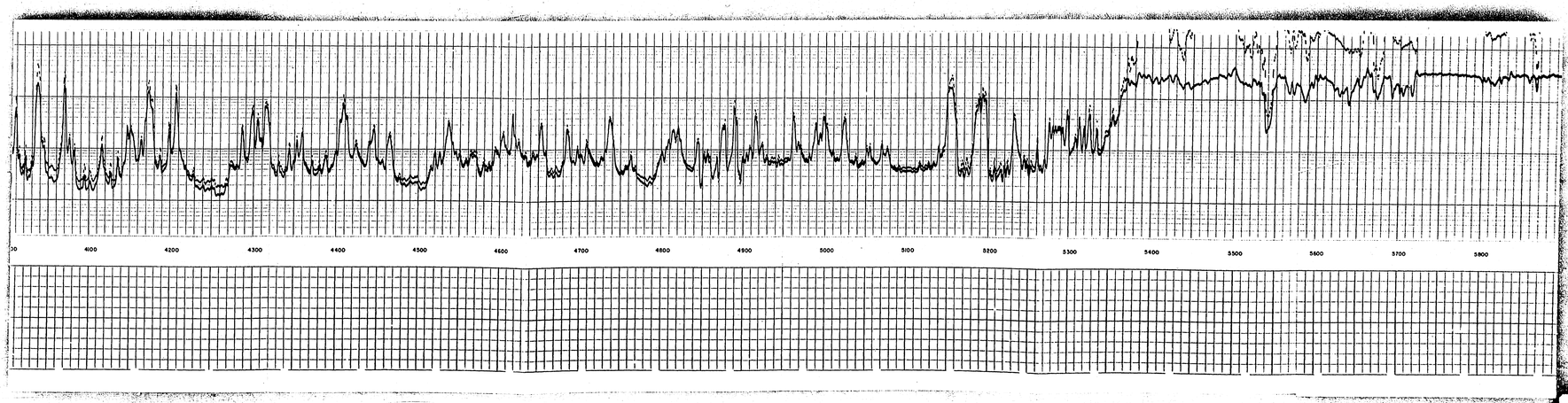
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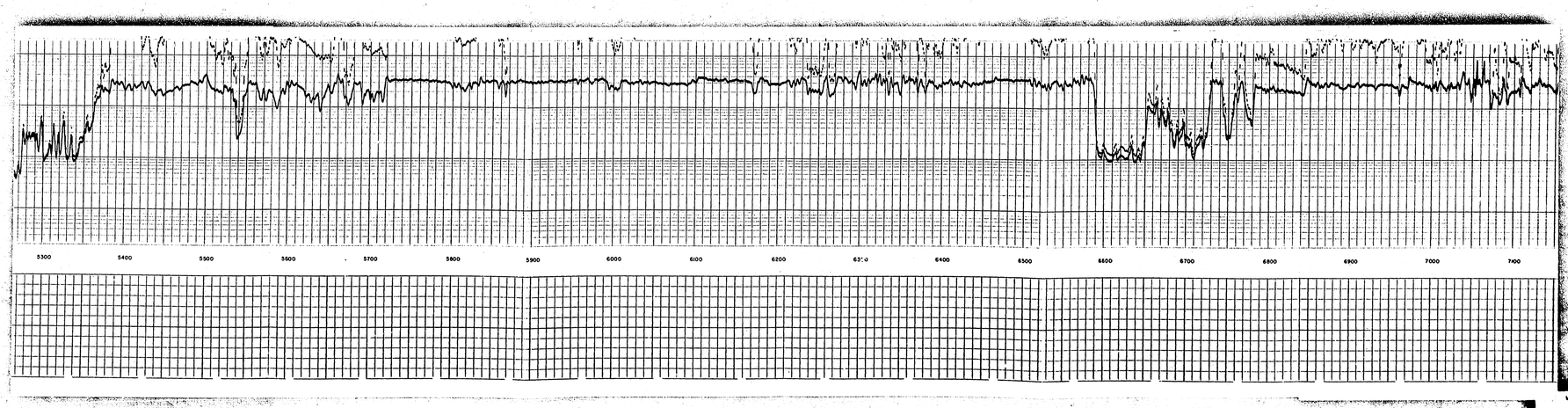


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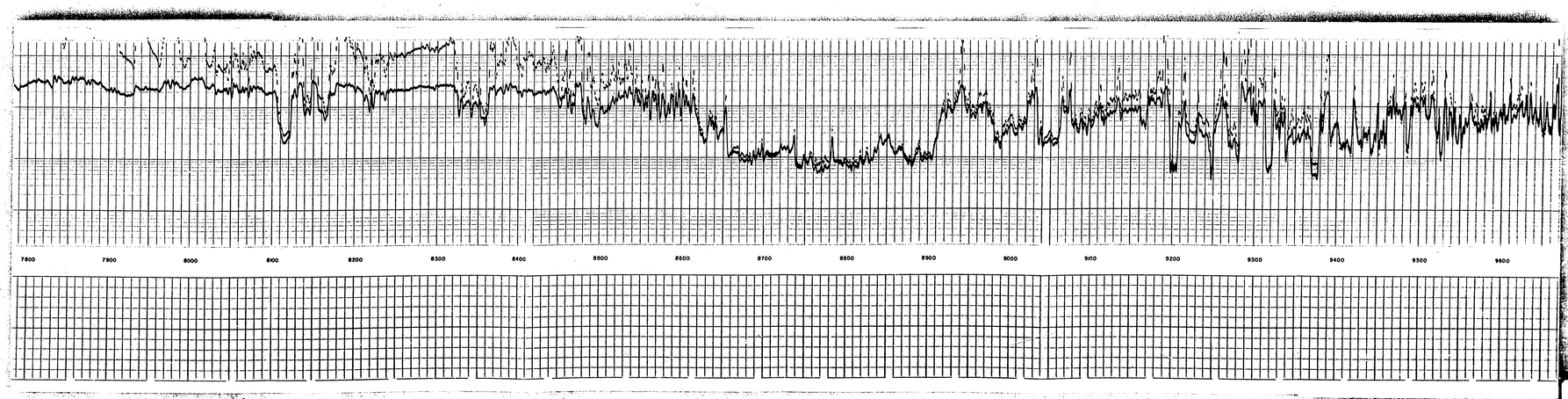


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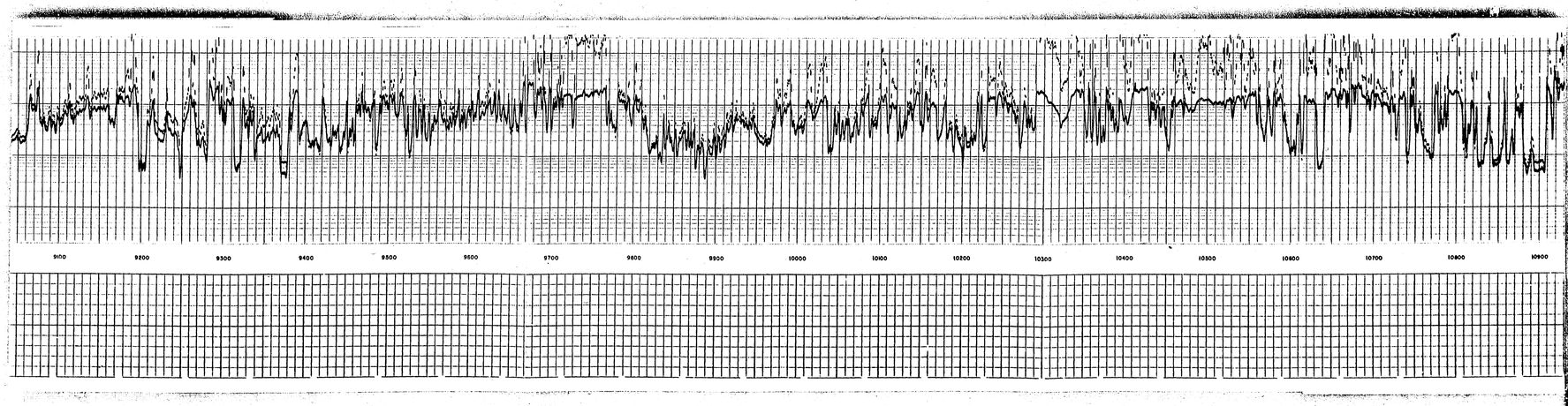
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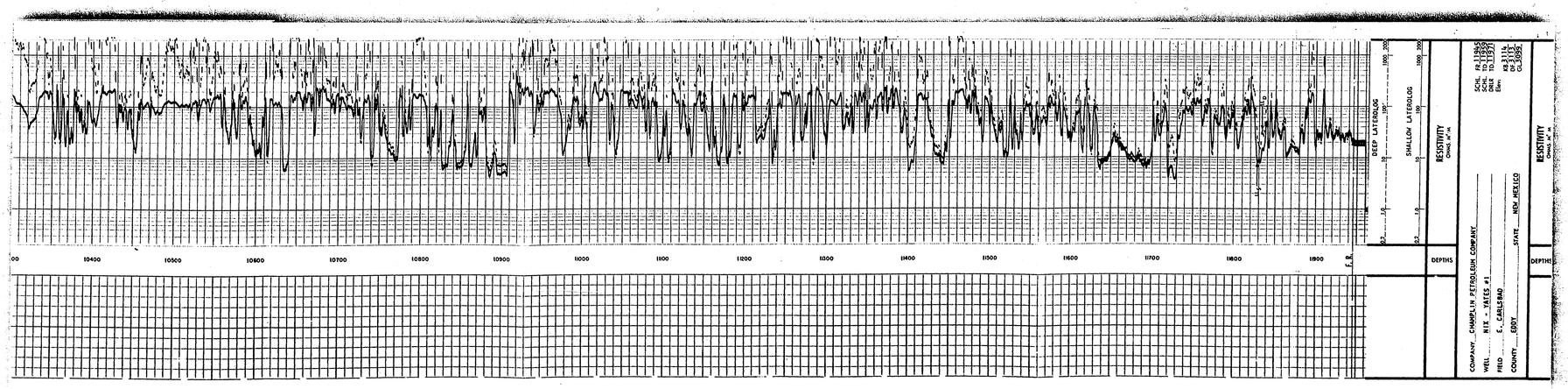
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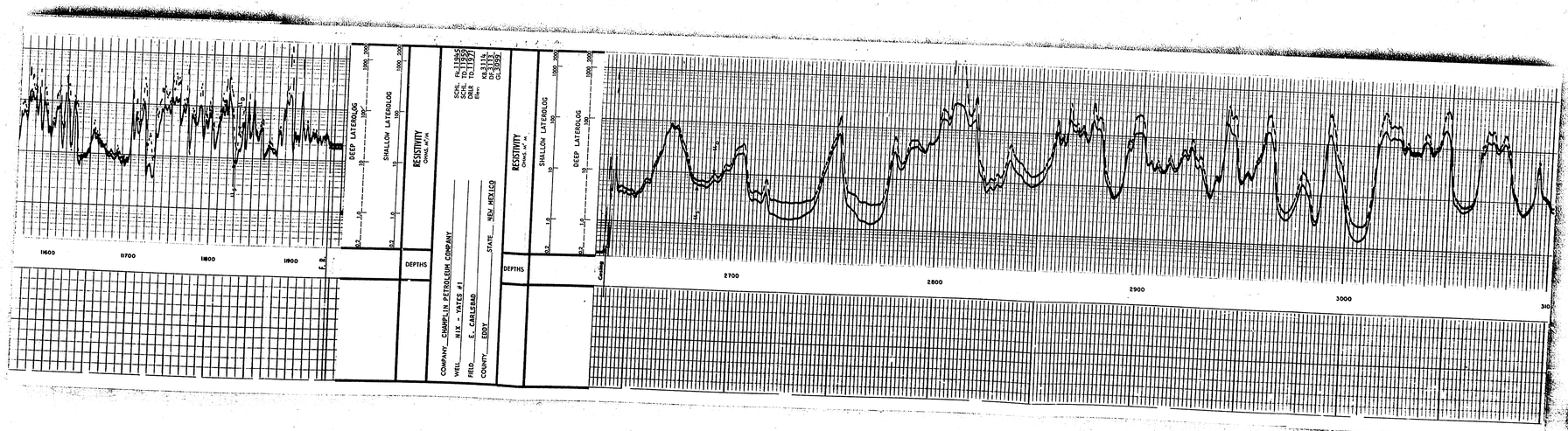
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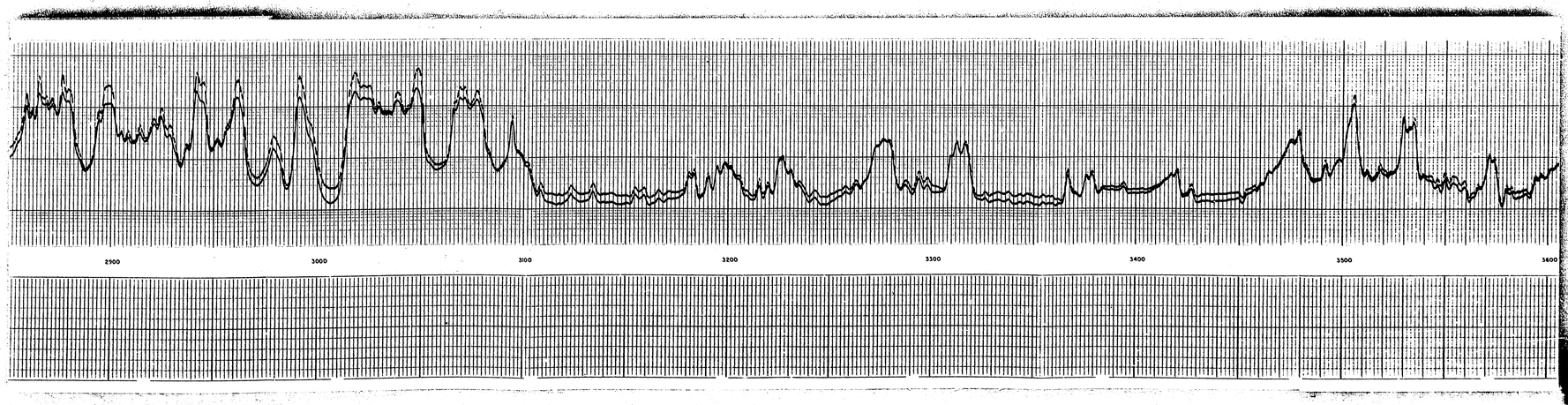
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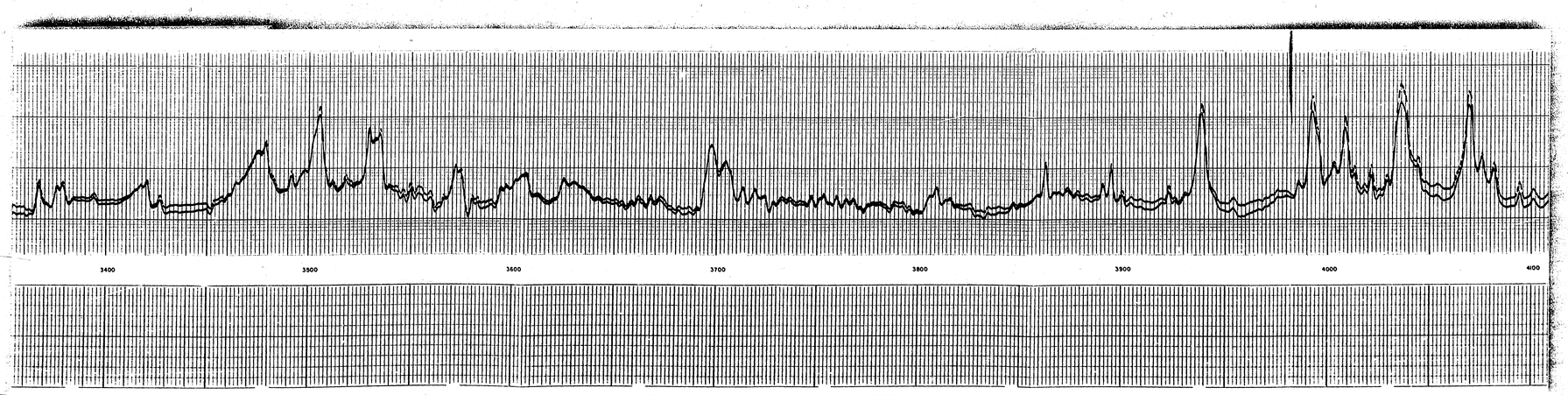
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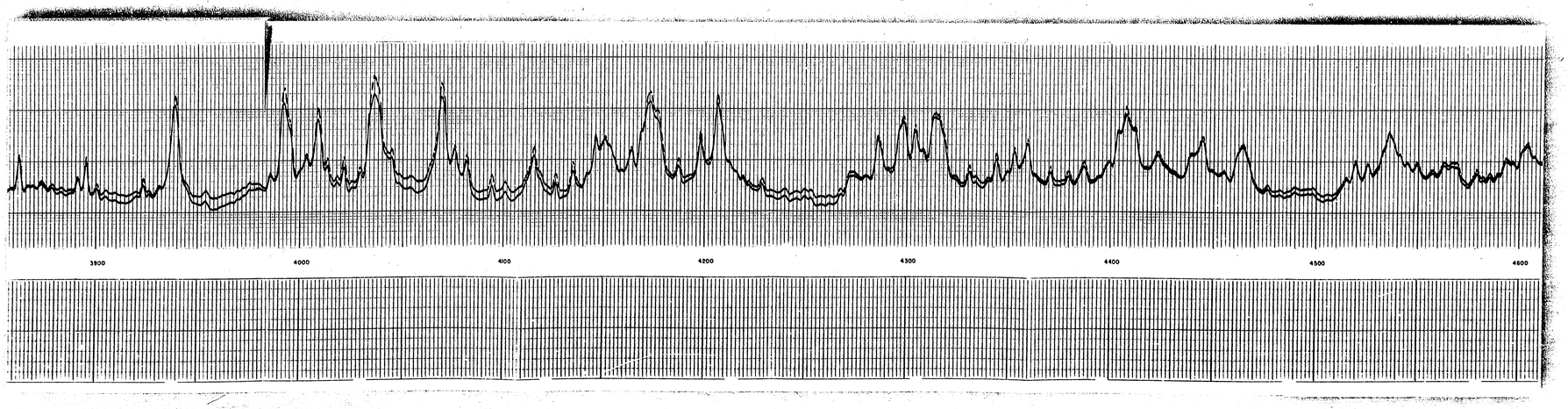


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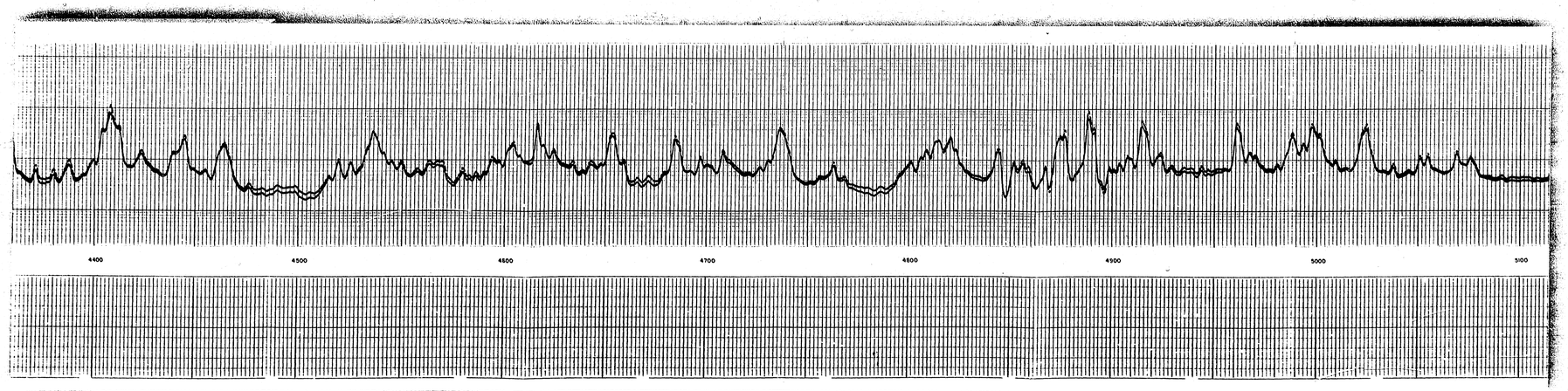


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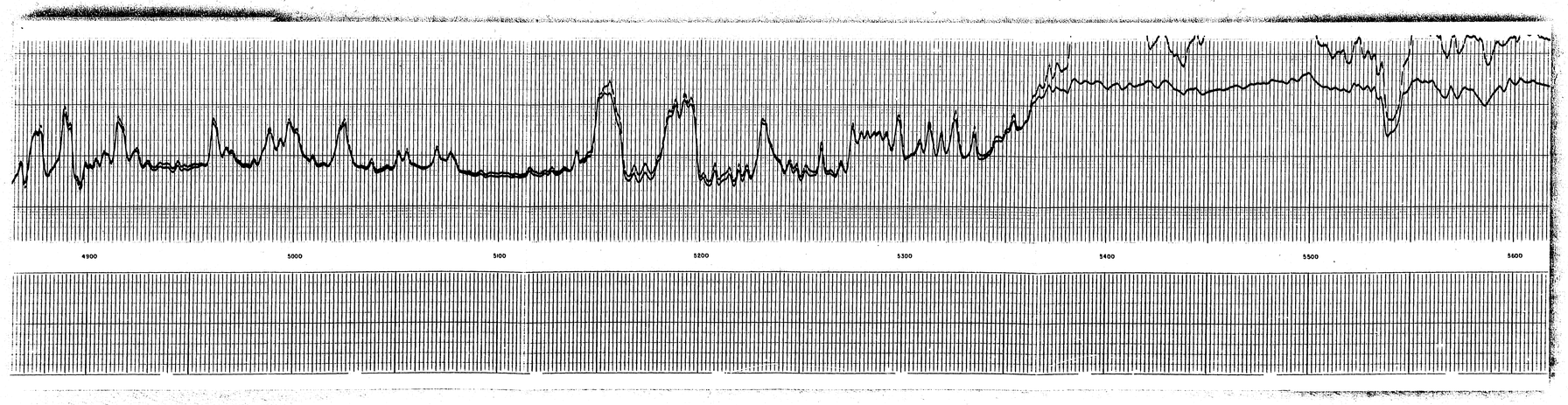
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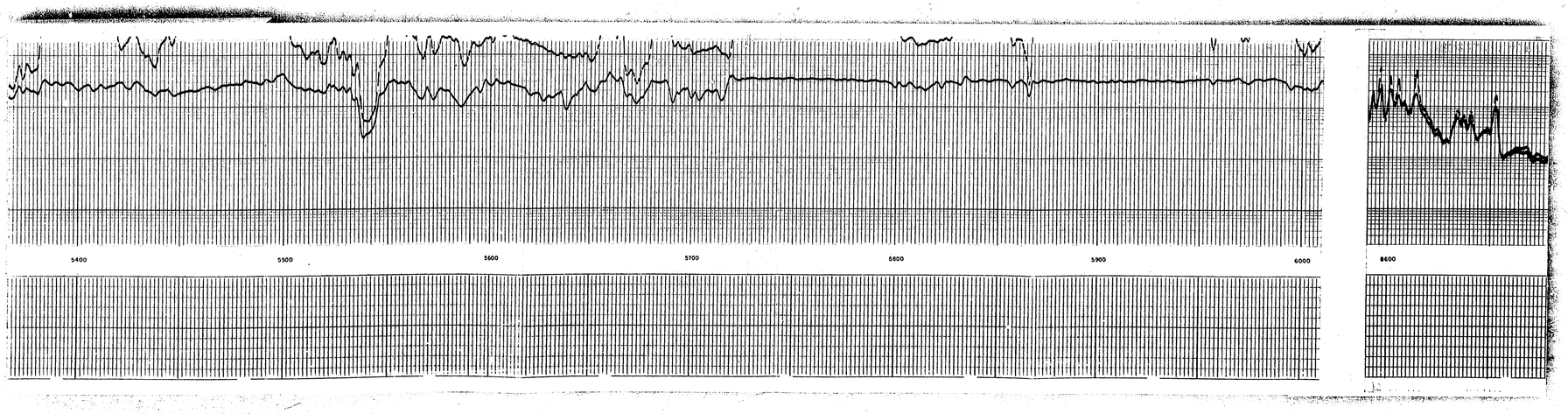
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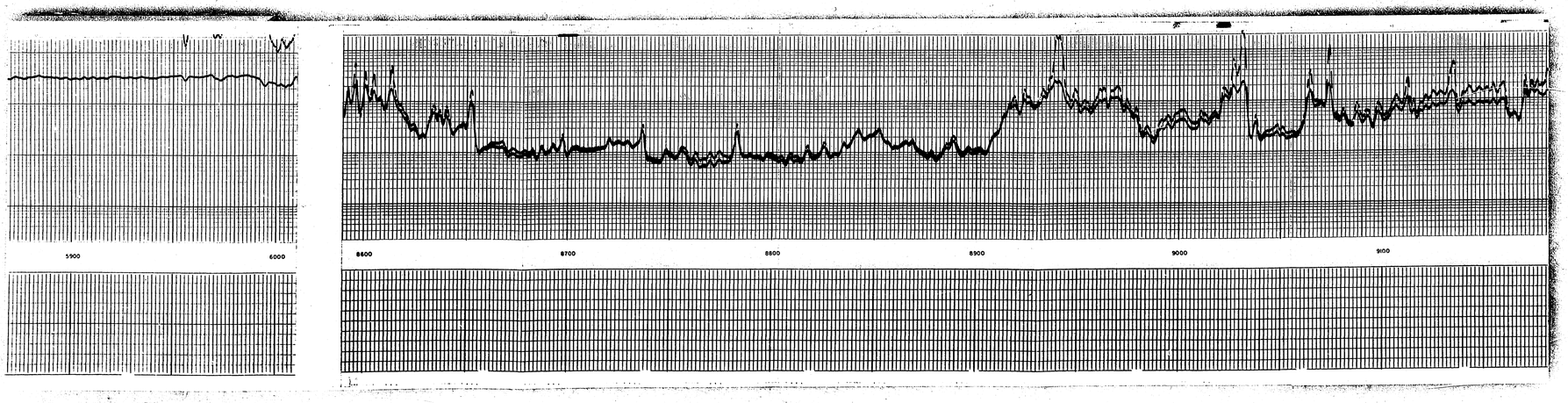
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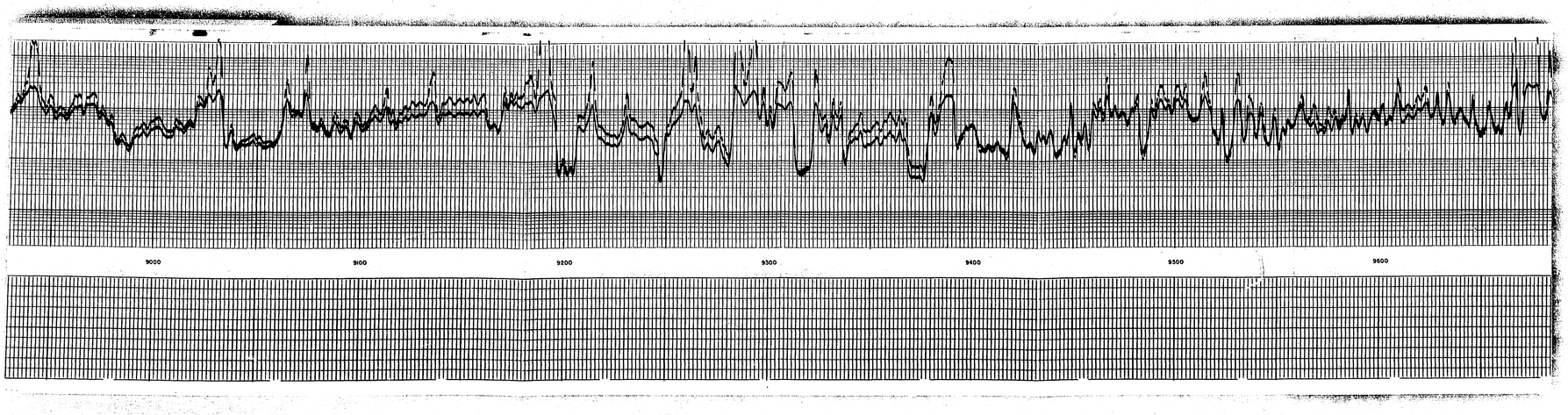
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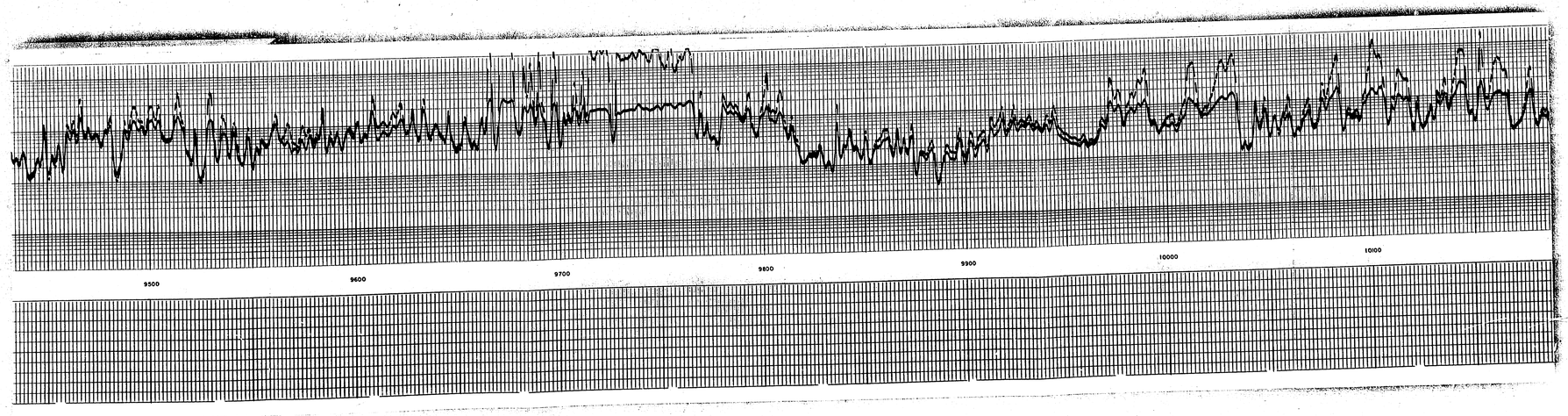
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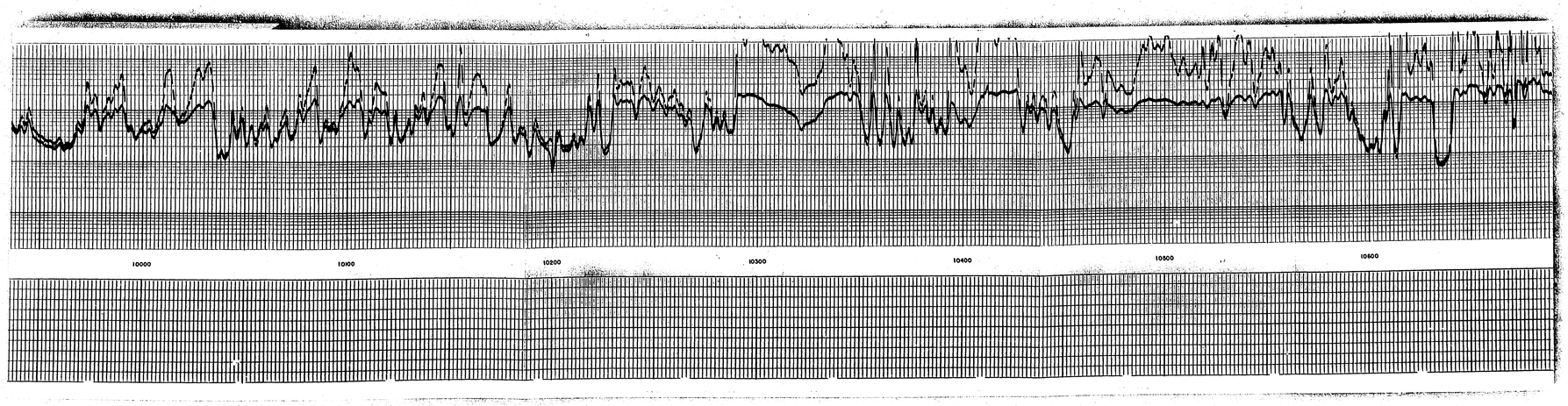
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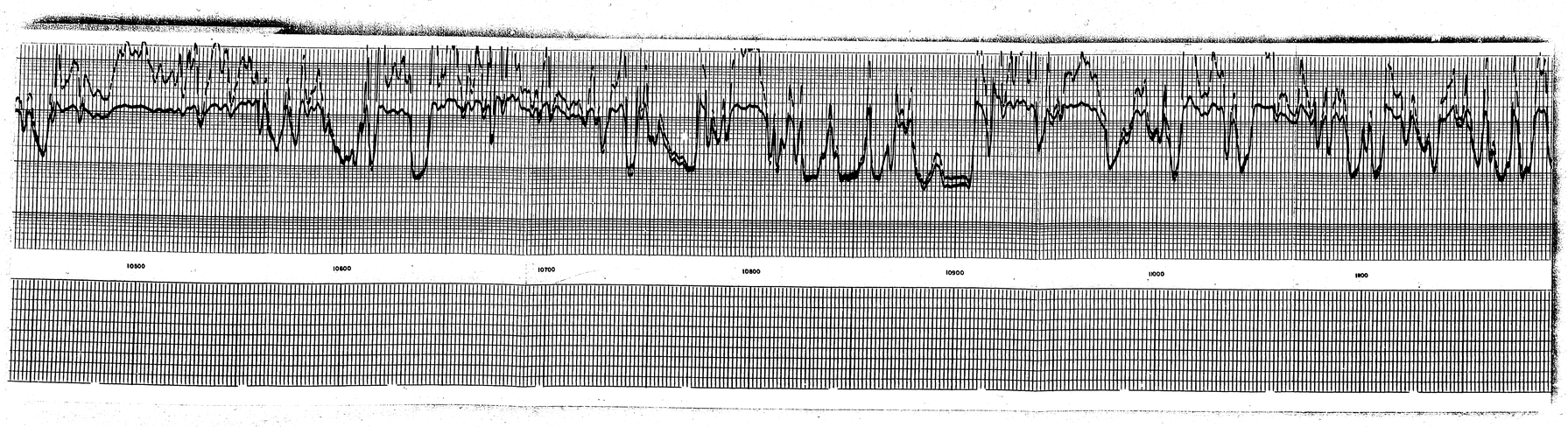
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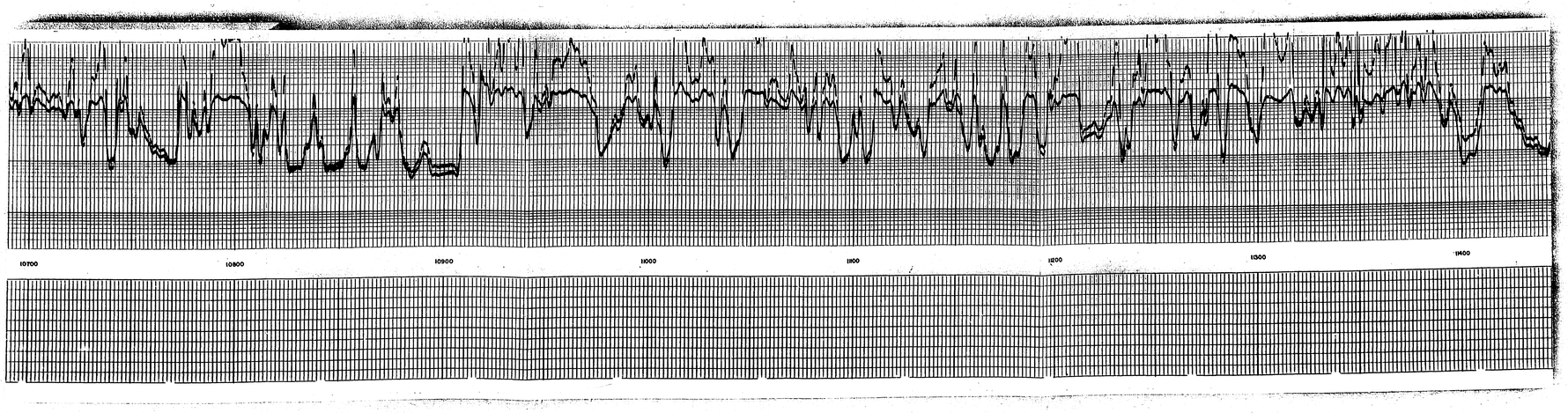
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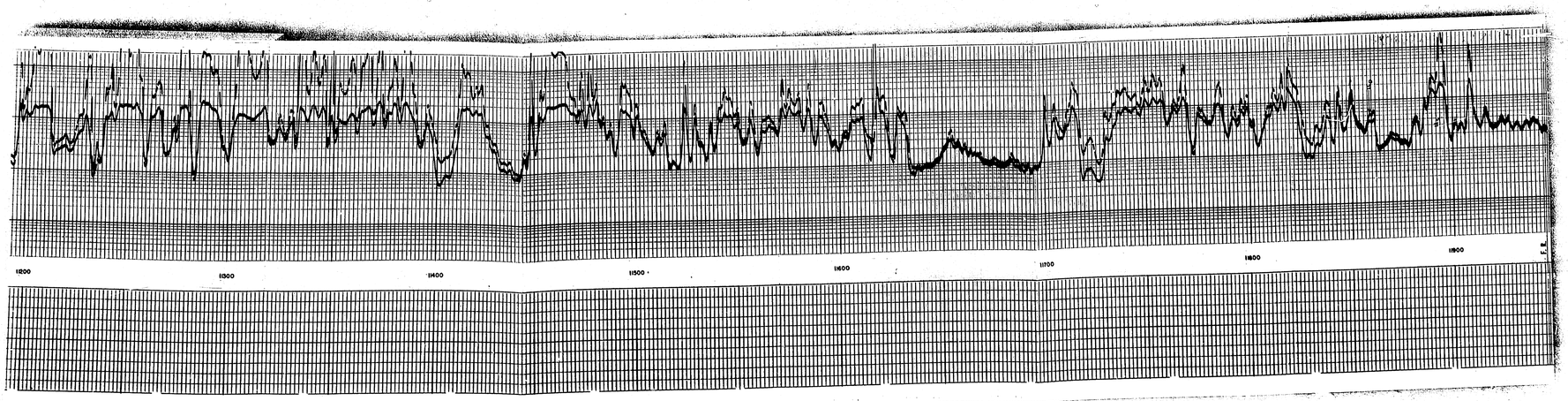
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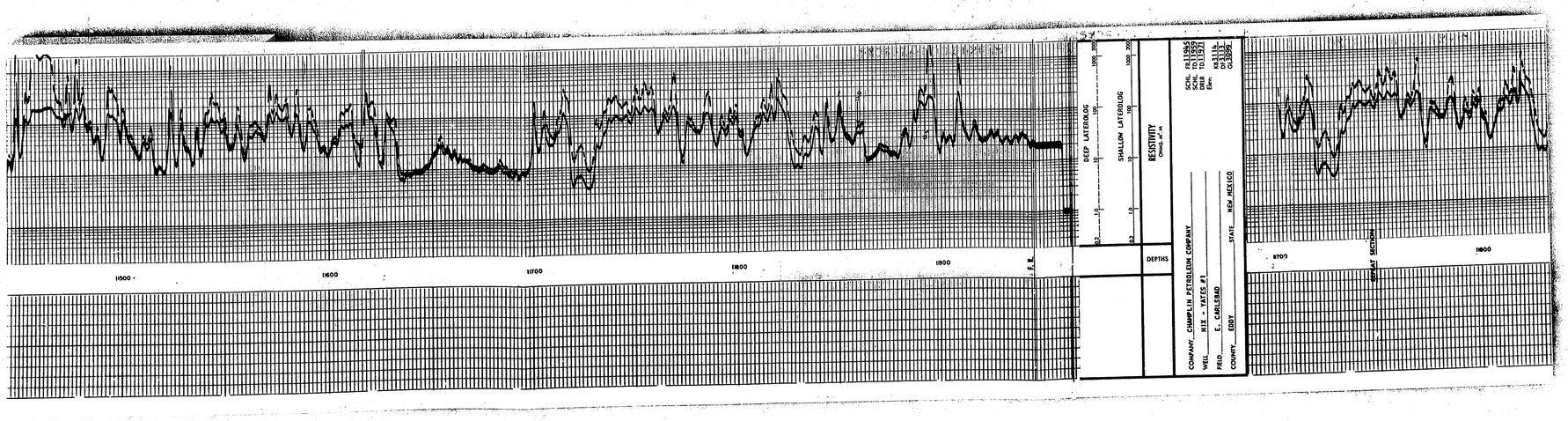
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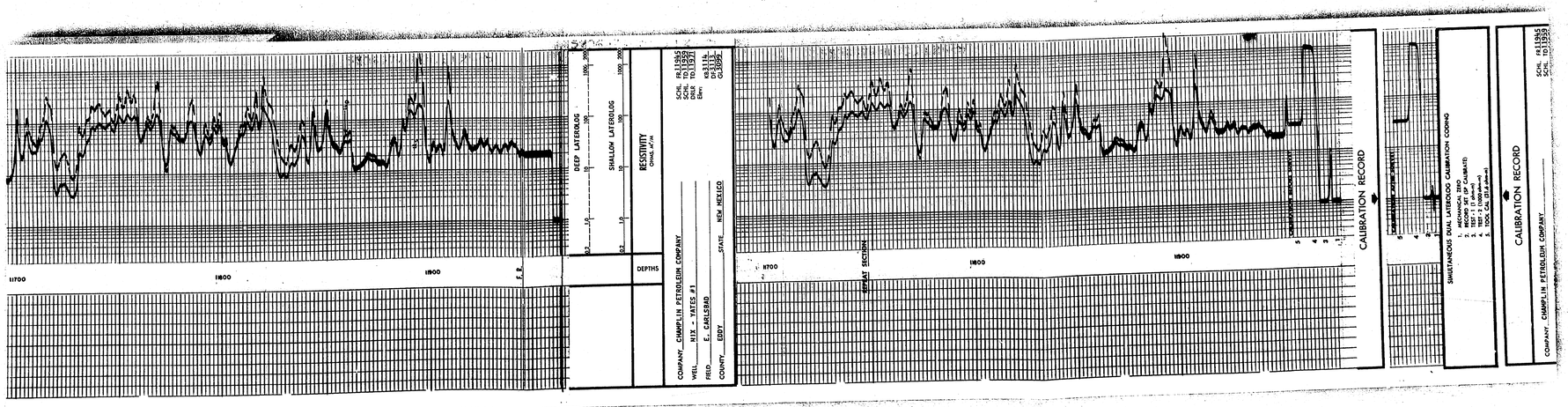
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