

Schlumberger

**BOREHOLE COMPENSATED
SONIC LOG**
SCHLUMBERGER OF CANADA Calgary, Alberta

PROVINCE YUKON TERRITORY
FIELD WILDCAT
WELL COLUMBIA ET AL KOTANFEEFE
COMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD

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WELL COLUMBIA ET AL KOTANFEEFE
FIELD WILDCAT
PROVINCE YUKON TERRITORY
LOCATION 60° 06' 27" N 101° 12' 40" W
Log Measured From KB ELEV. 2013
Other Services FDC-CNL

Date	4 JULY 78	Run No	ONE
First Reading	9980	Log Measured From	KB
Last Reading	3420	Elev	2013
Feet Measured	6560	Fl. Above Perm. Datum	25
Depth Reached	9991	ELEV. KB	KB
Bottom Driller	9989	GL	GL
Csg SOC	3420	CBF	CBF
Csg Driller	3421		
Mud Nature	KCL		
Dens Visc	85		
Mud pH	9.5		
Water Loss	30.0		
Res @ BHT	0.14 @ 65 °F		
Rmf @	0.04 @ 205 °F		
Rmc @	0.09 @ 68 °F		
Bit Size	0.21 @ 66 °F		
Spun	2		
Oper. Reg. Time	6 HRS		
Truck No	OSU-6 339		
Recorded By	CROKINGHARD		
Witness	GILBERTSON		

REMARKS LOG TAPED
Drilling Stopped 0015 / 4th Circulation Stopped 1445 / 4th Tool on Bottom 0330 / 5th 1st Run Service Order # 30833
B.H.T. 205 °F

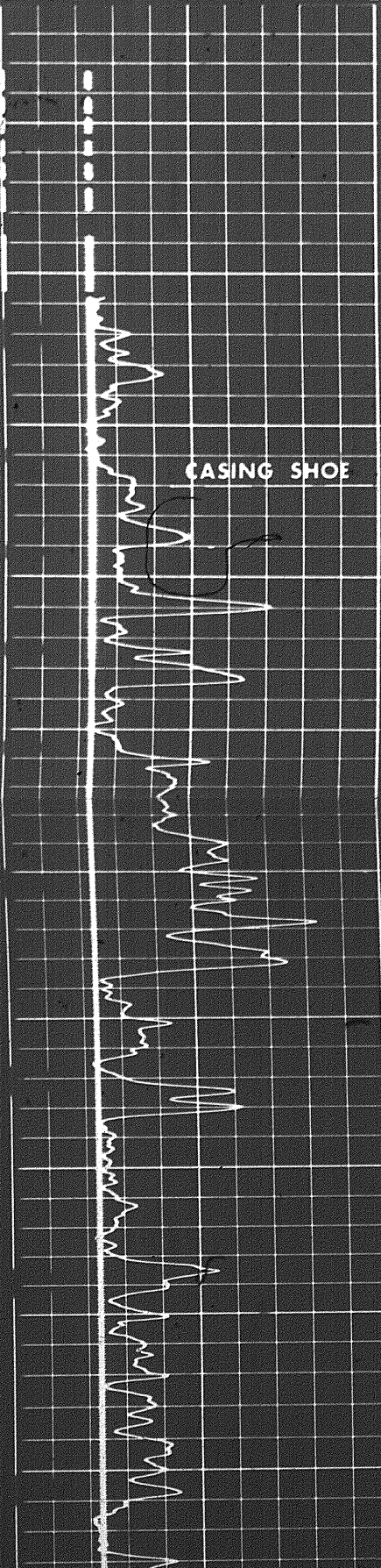
Caliper No. D 358
Cartridge No. KR 122 FA 5.3
Panel No. JJ 316
Sonde No. NA 1096
Centralizer Type CME-Z & MCD
CSG Size 13 3/8 In.
CSG Wt. 72 lb./ft.
CALIPER FAILED WHEN RUNNING IN HOLE

GAMMA RAY CALIBRATION: ECH-KG 1437 SGC-JAA 1439
Background CPS 70 Test Source CPS 490 Galv. Increase Divisions 10.0 Panel Sens. Top for Cal. 16

GAMMA RAY API UNITS		DEPTHS	SONIC INTERVAL TRANSIT TIME microseconds per foot	
Sens 150	TC AUTO		240	190
Zero 0	div. to left	140	90	40
150				
300				
CALIPER hole diameter in inches				
11	12	13	14	15
16	17	18	19	

CALIPER
hole diameter in inches

11 12 13 14 15 16 17 18 19



3300

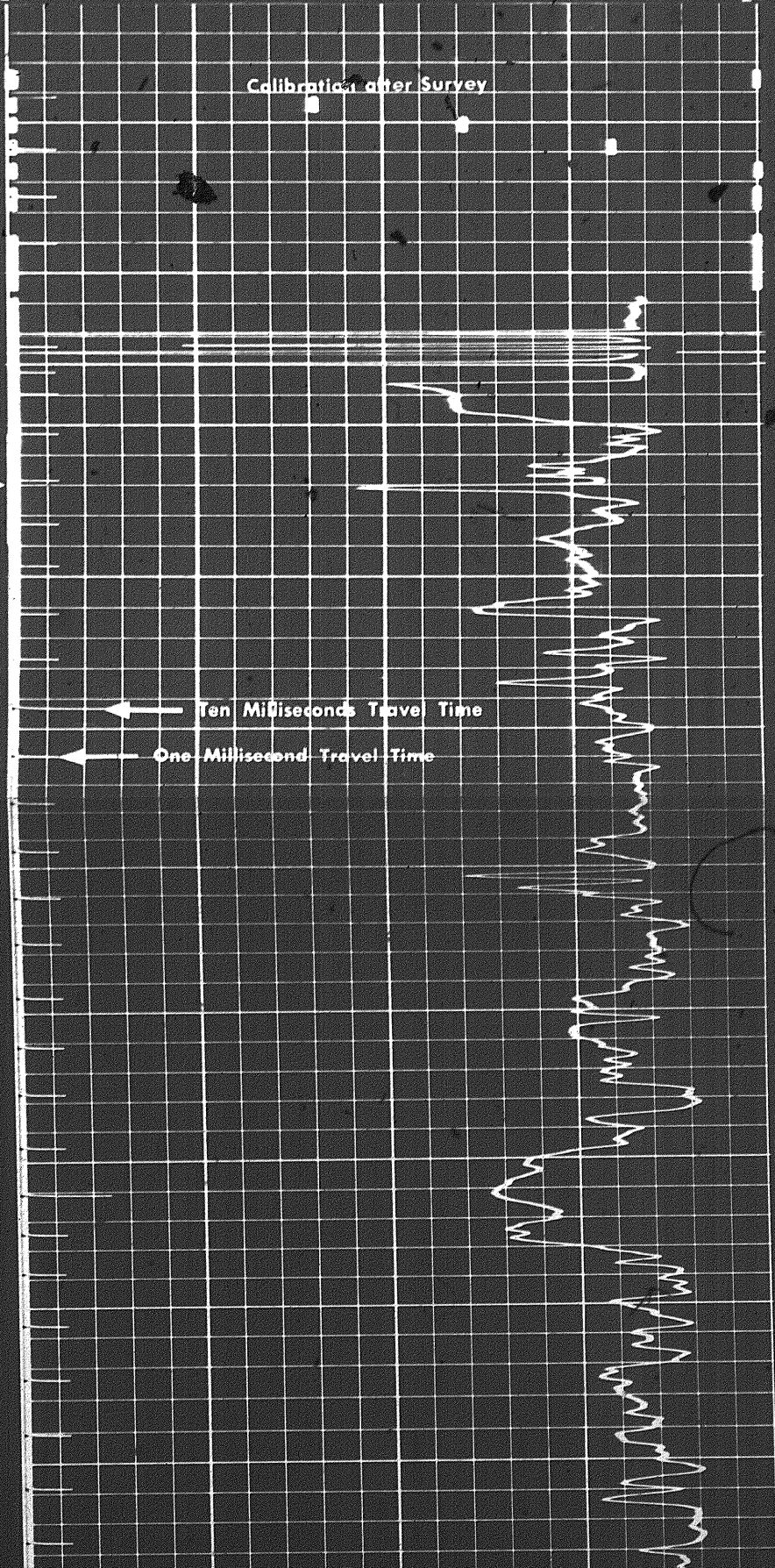
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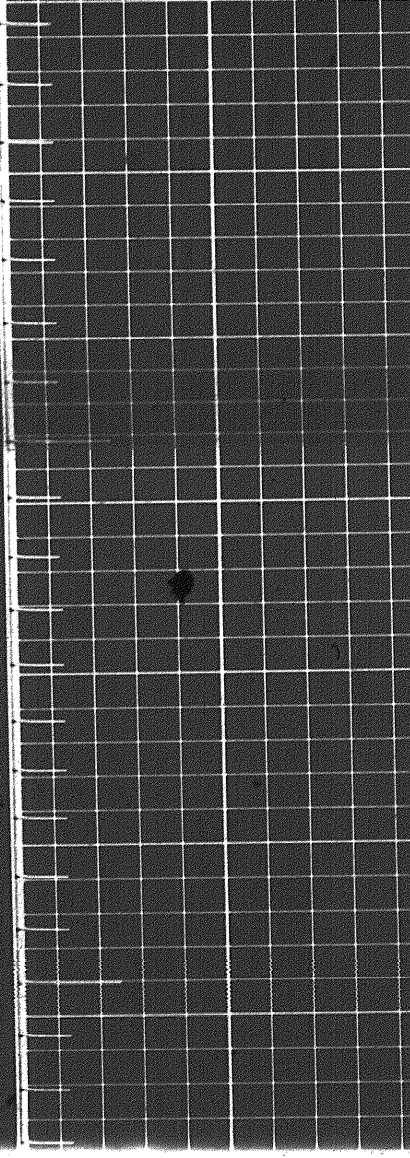
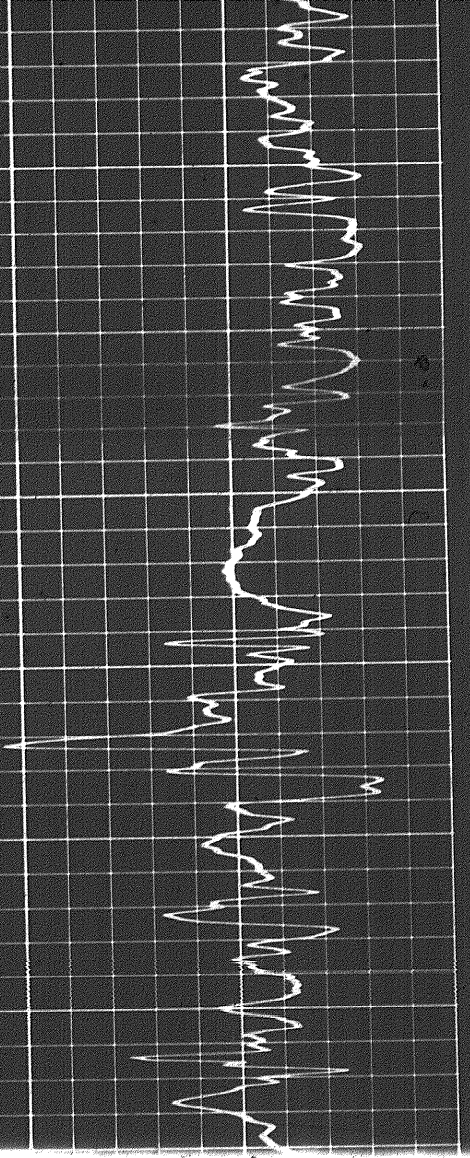
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Calibration after Survey

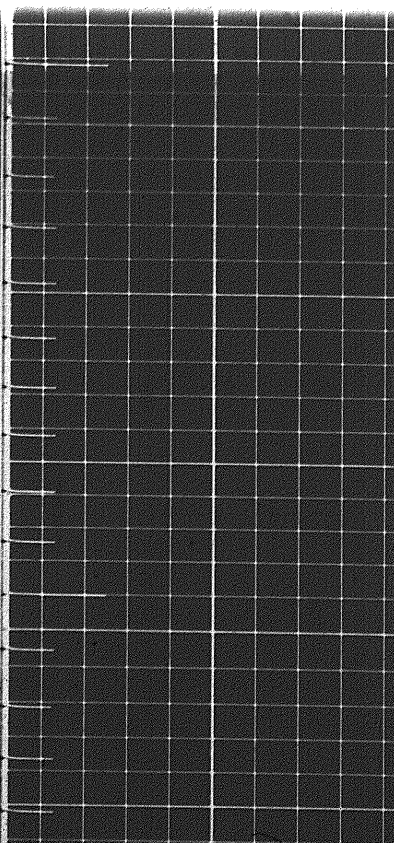
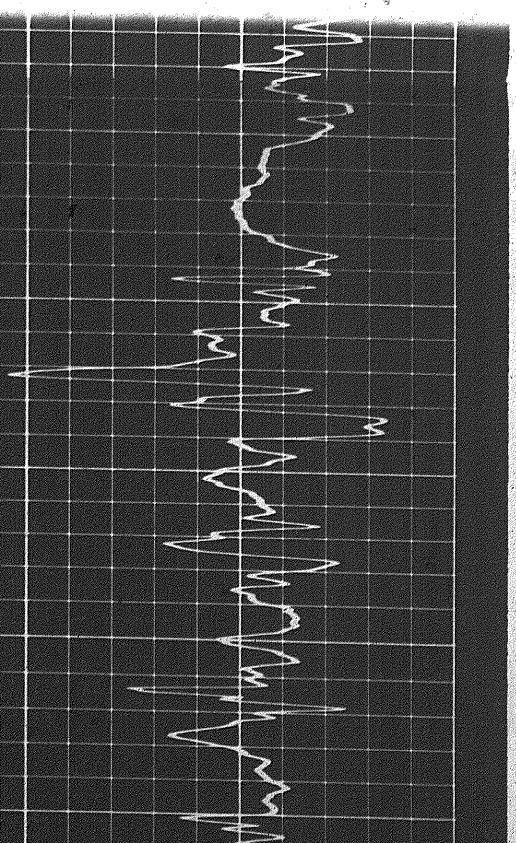
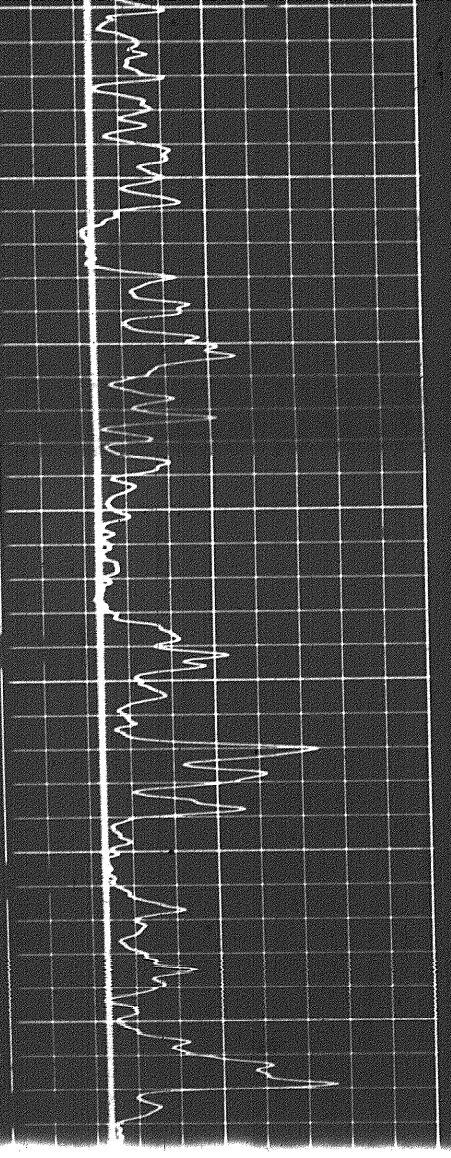


Ten Milliseconds Travel Time

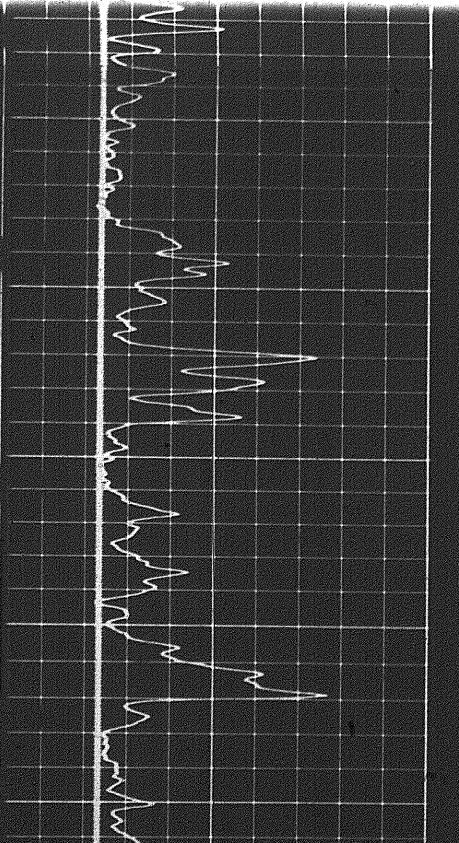
One Millisecond Travel Time



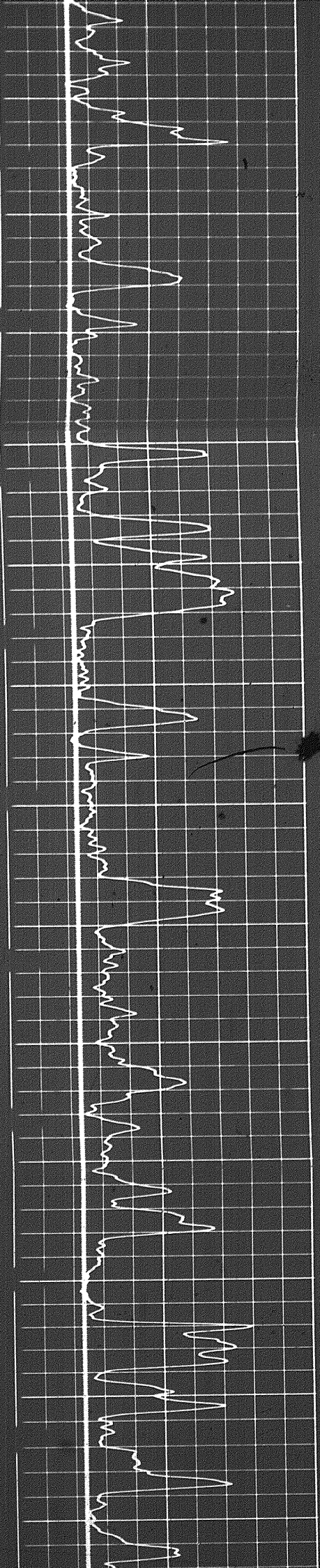
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3900 4000



2



4000

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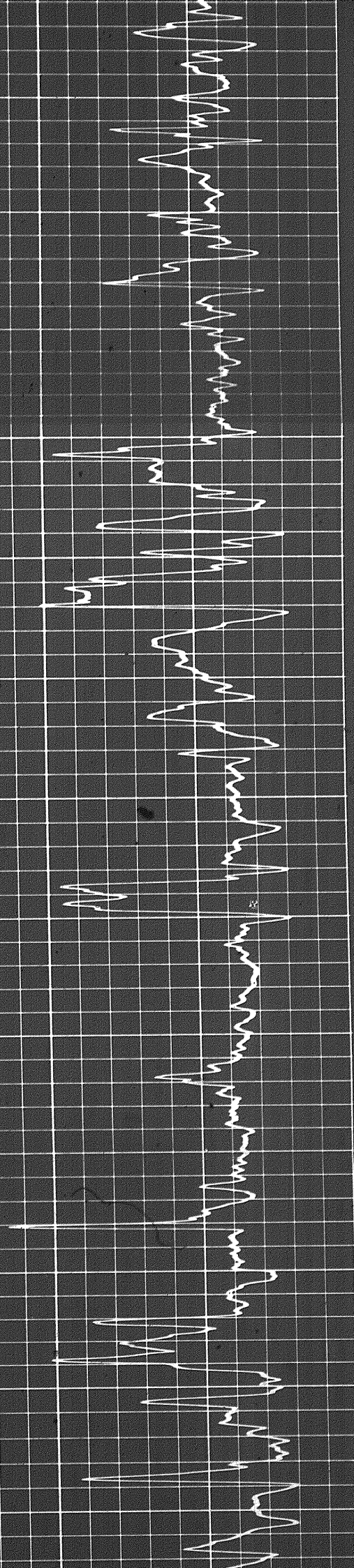
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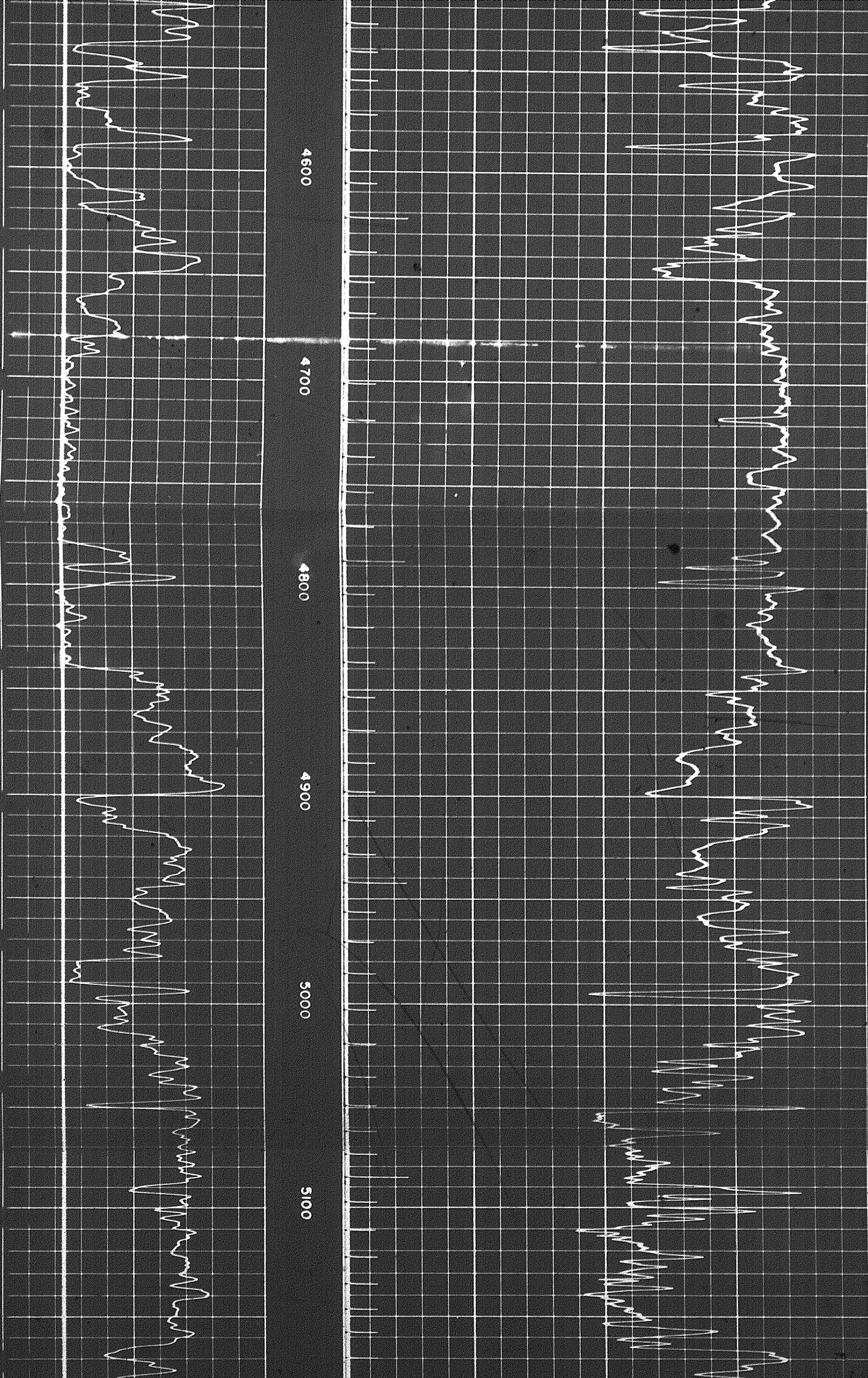
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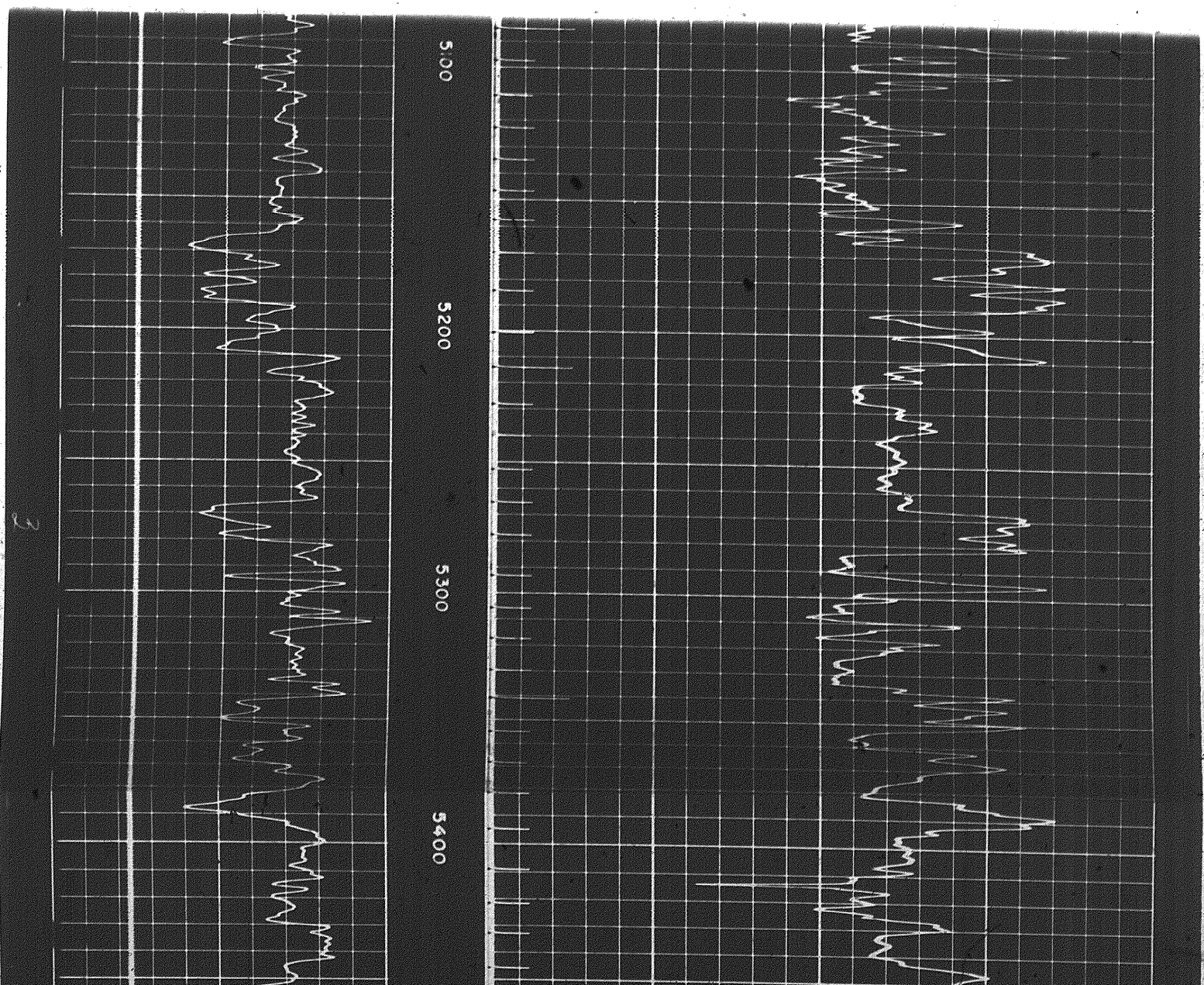
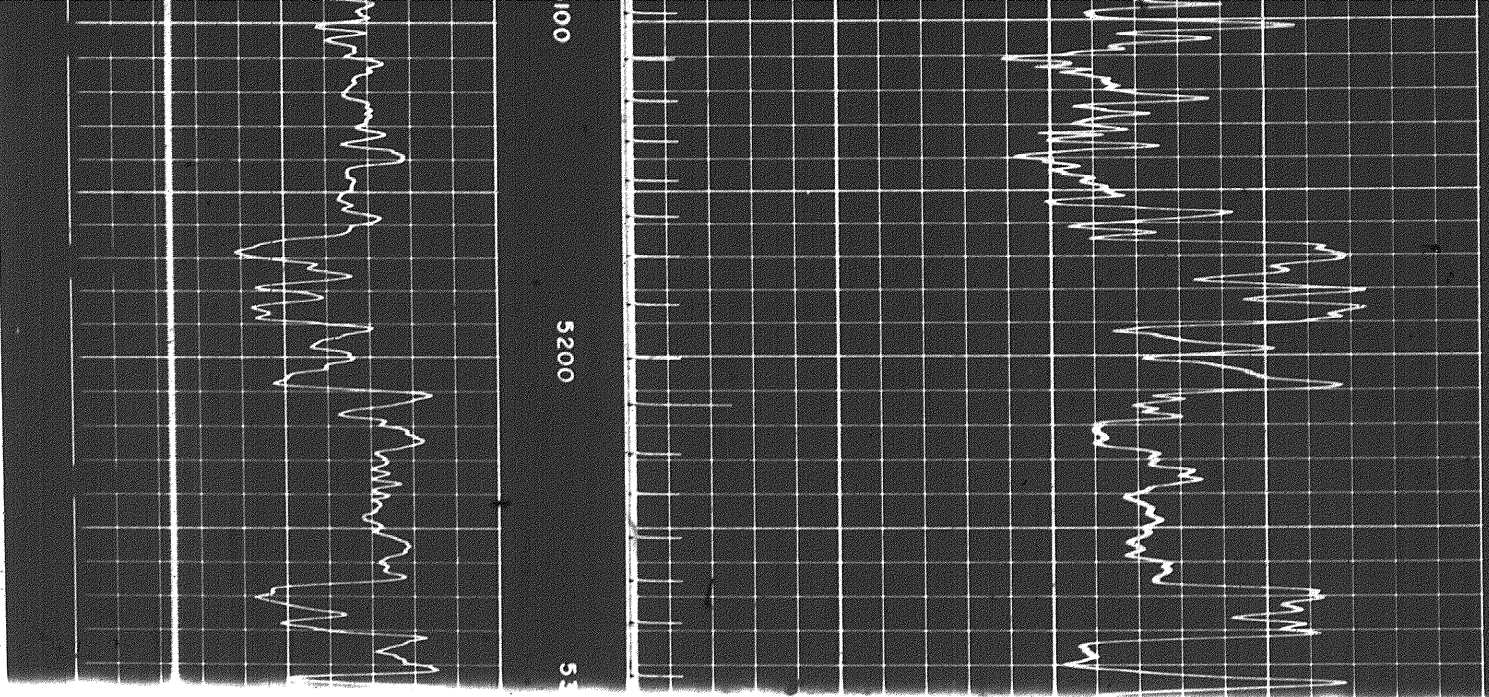
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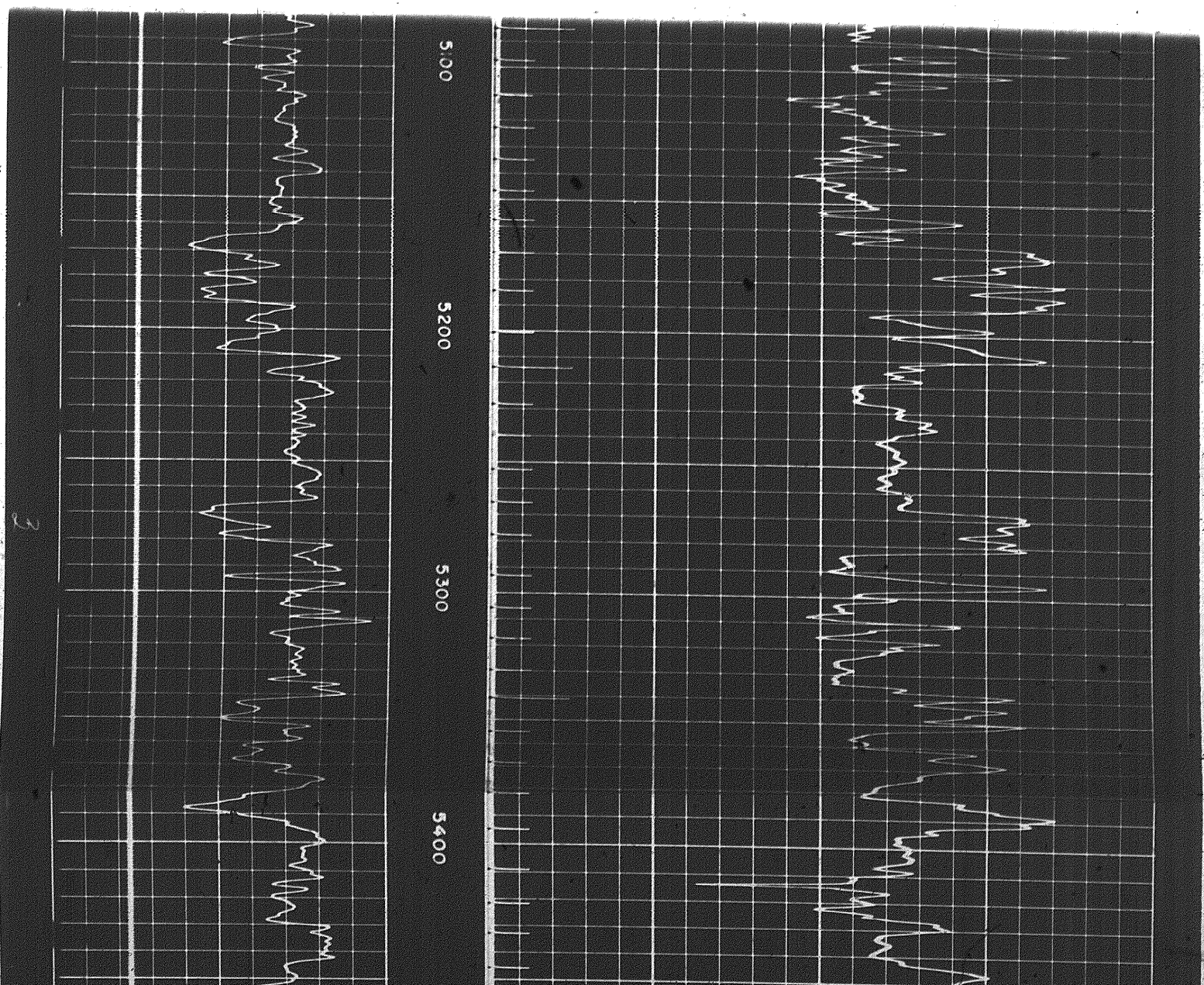
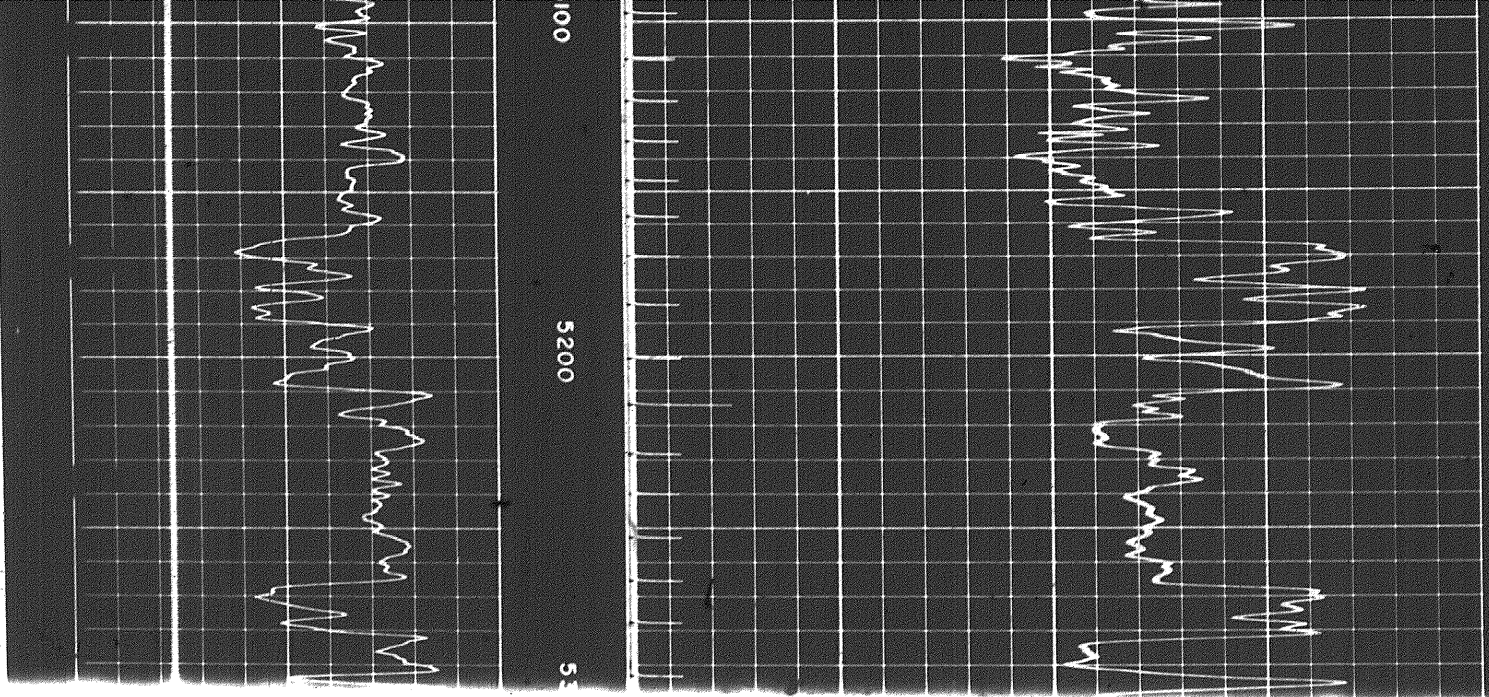
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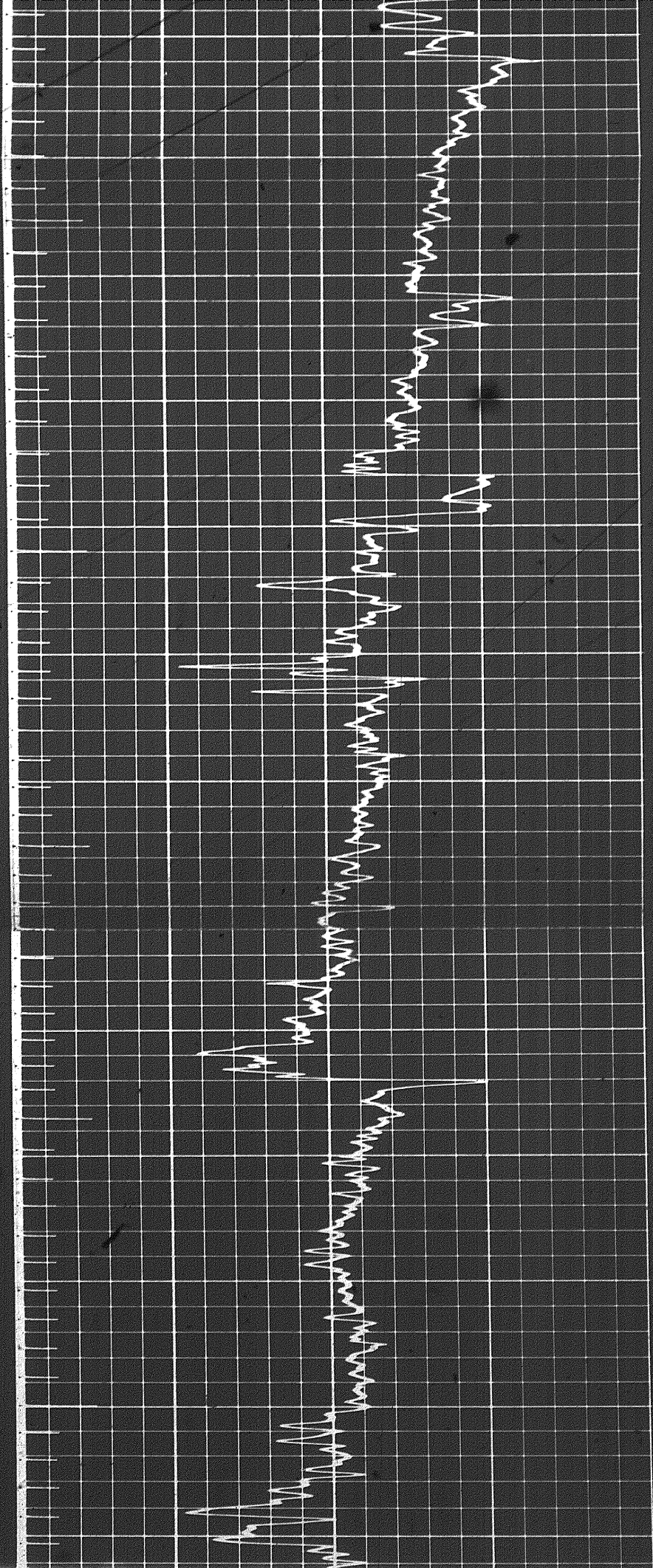
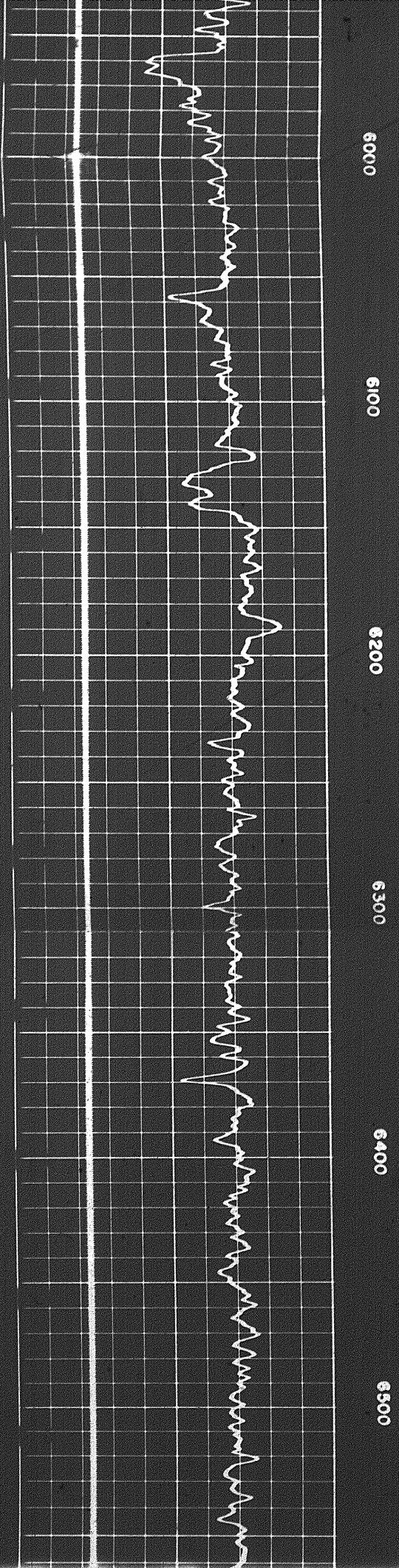
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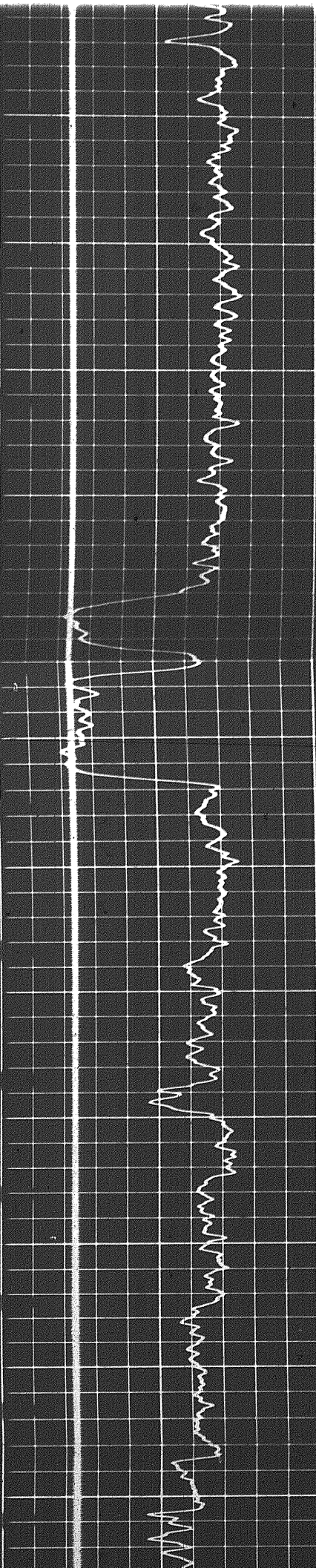












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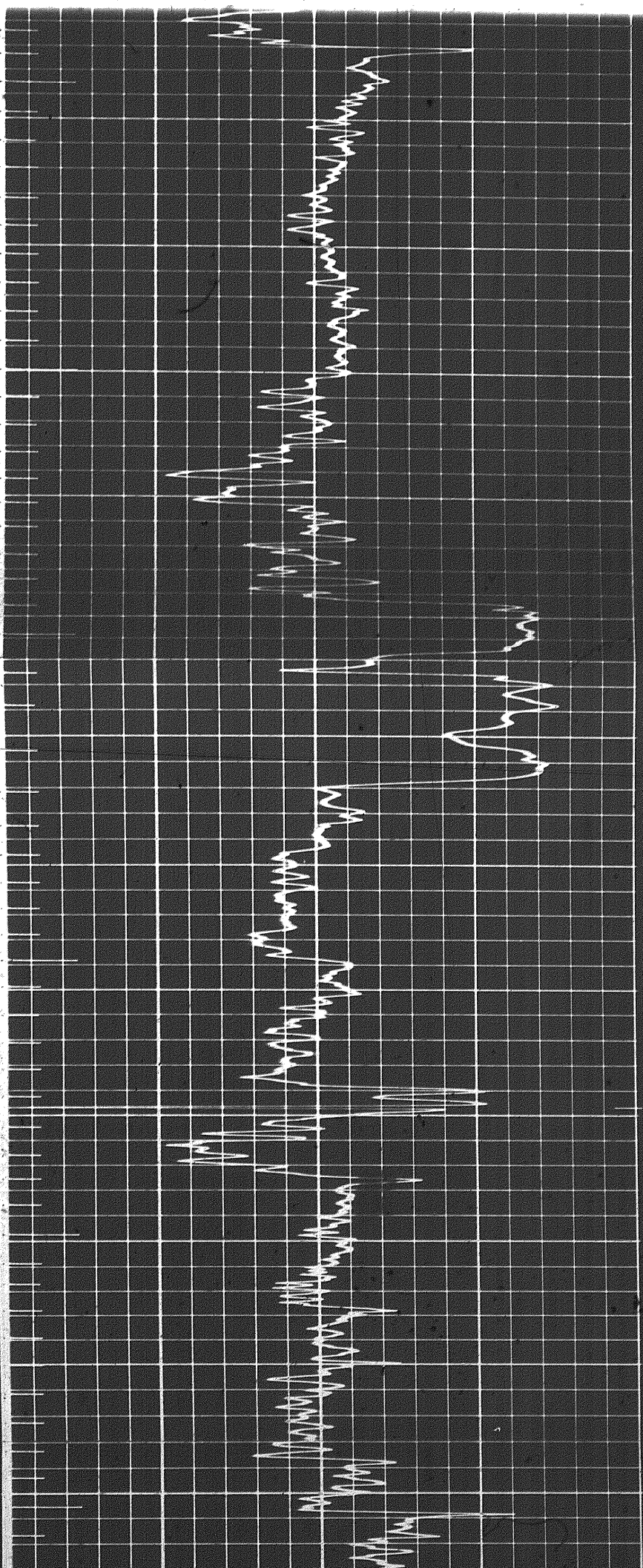
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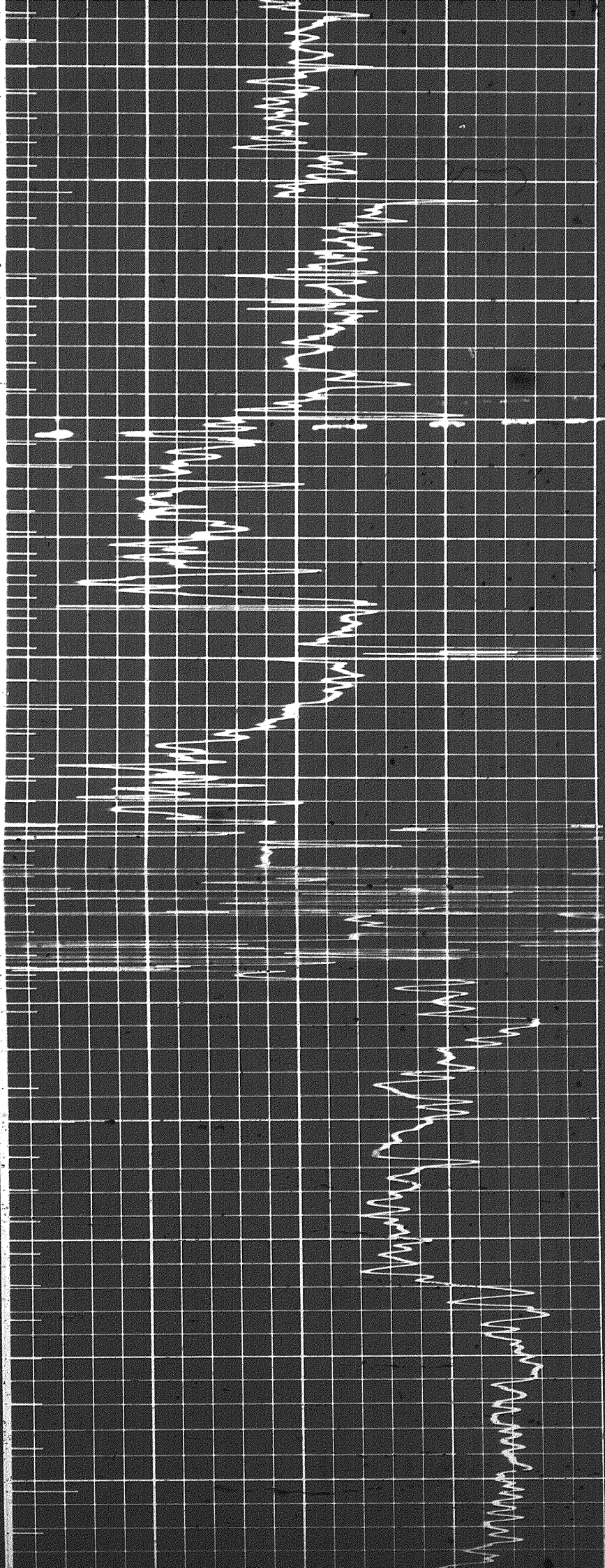
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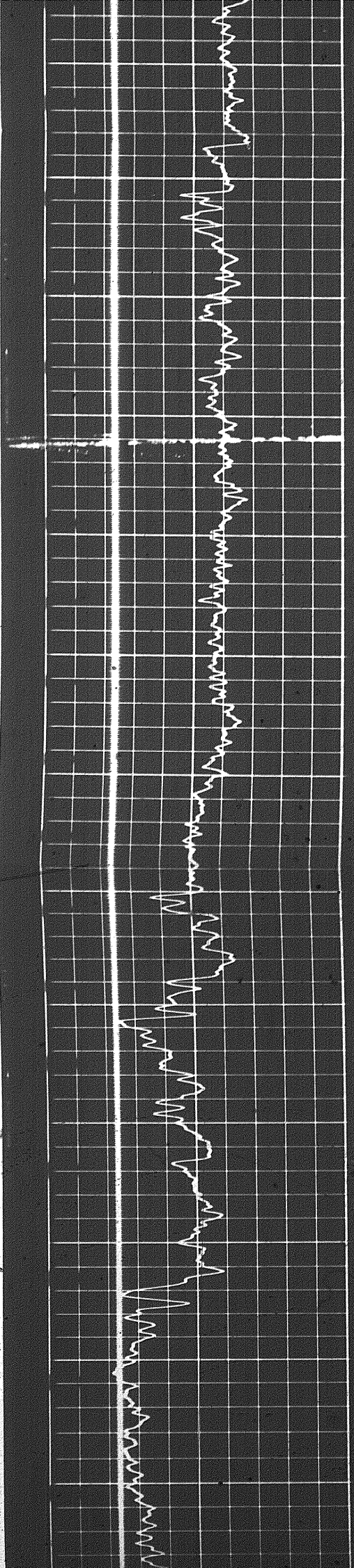
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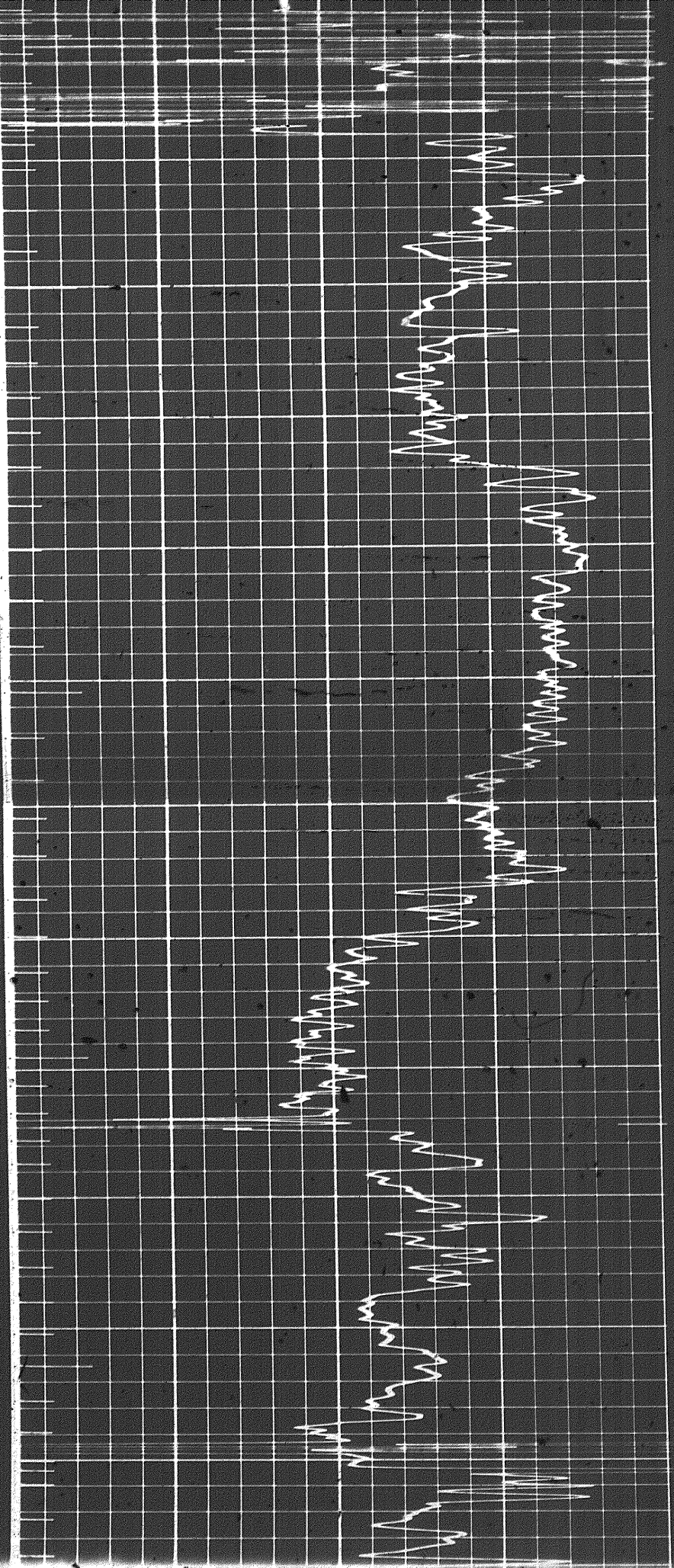
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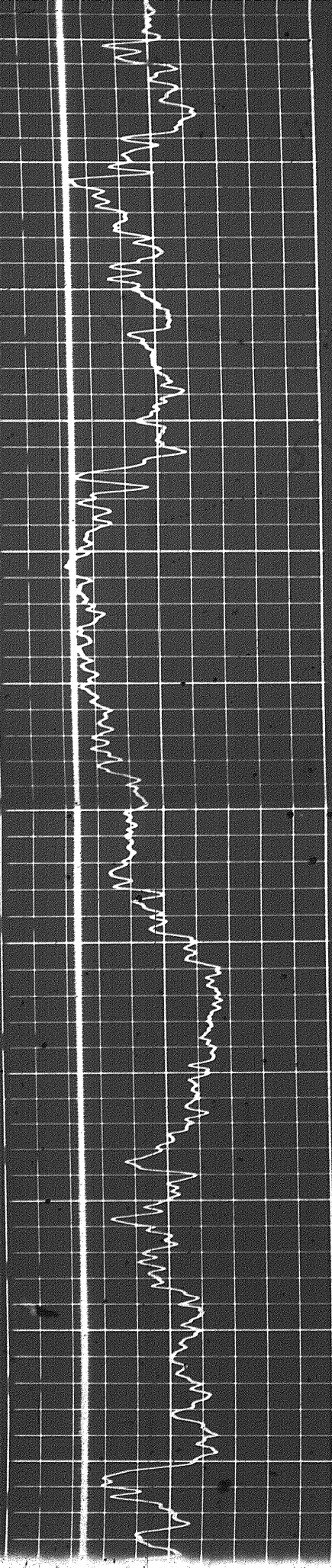
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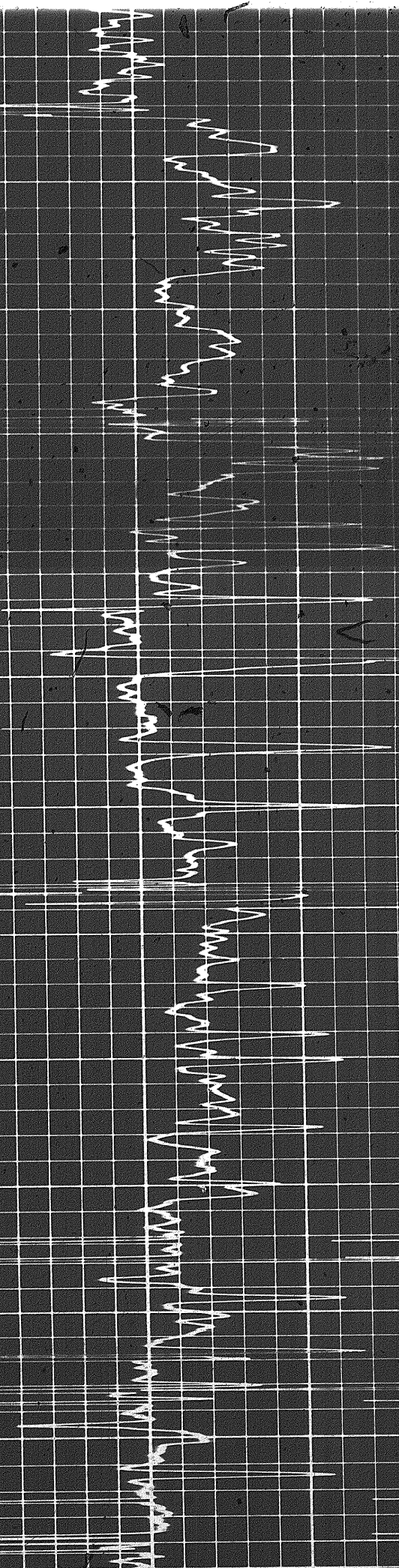
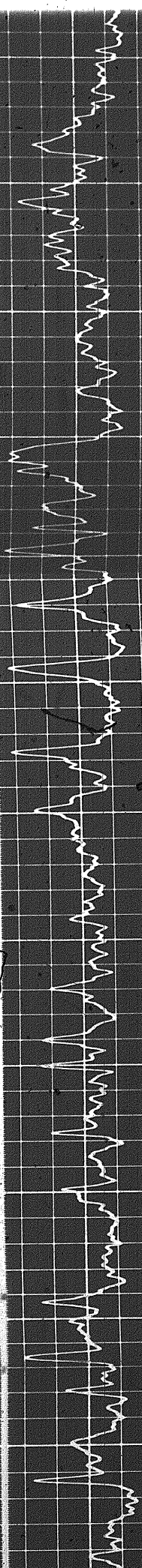
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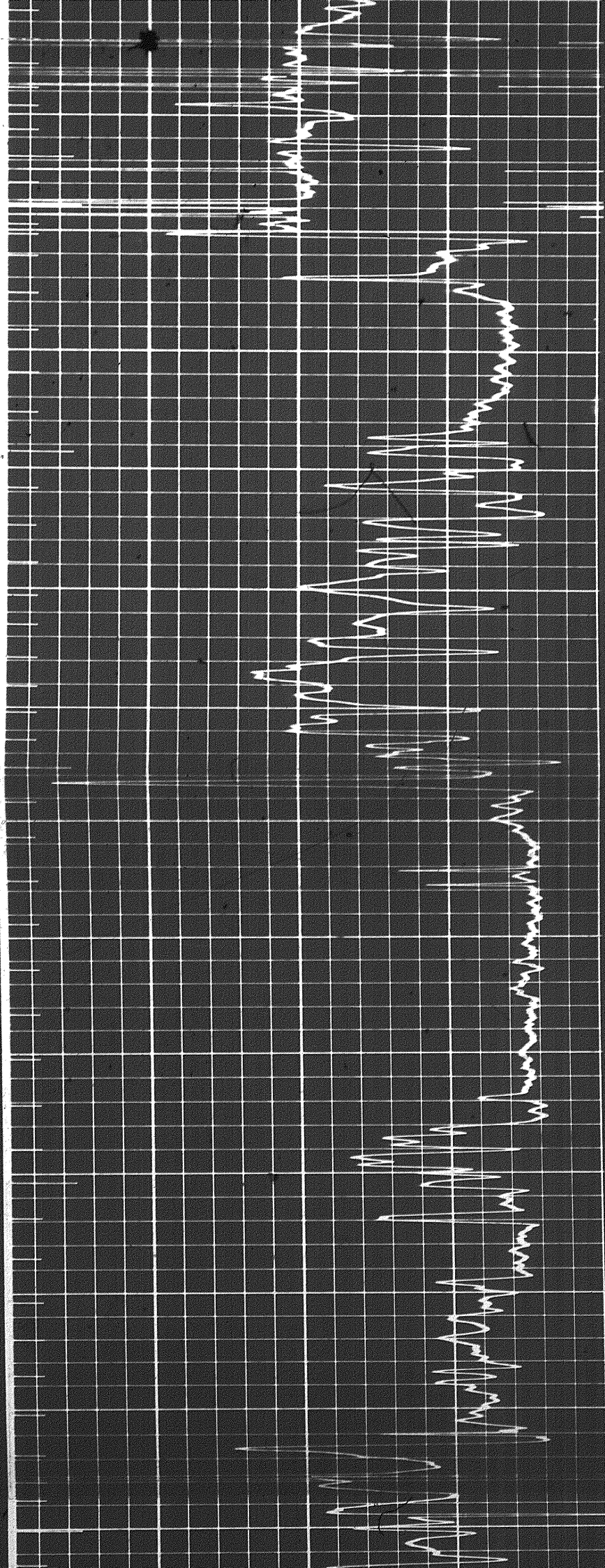
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8200

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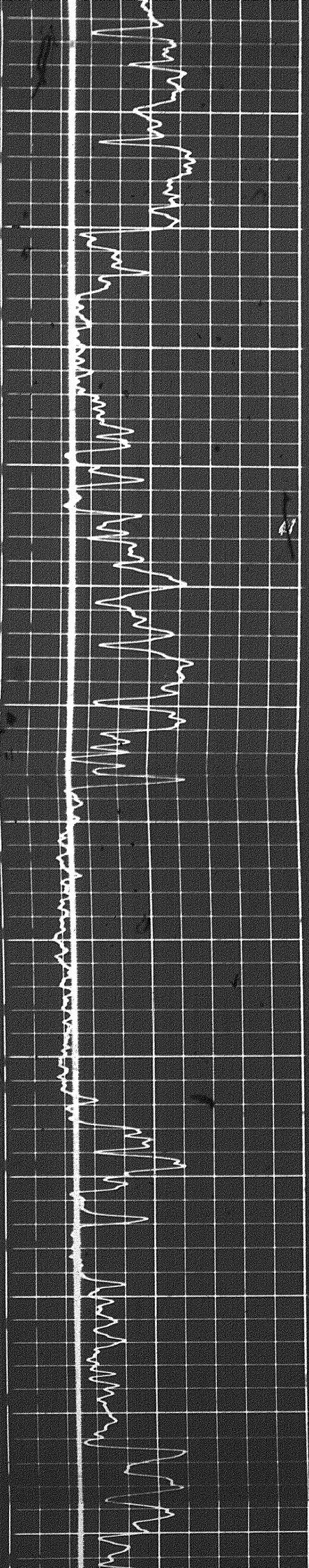
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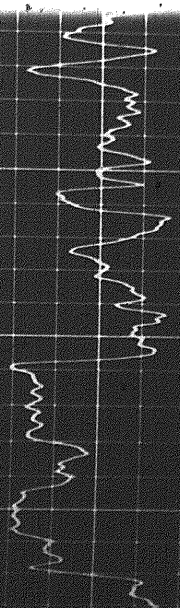
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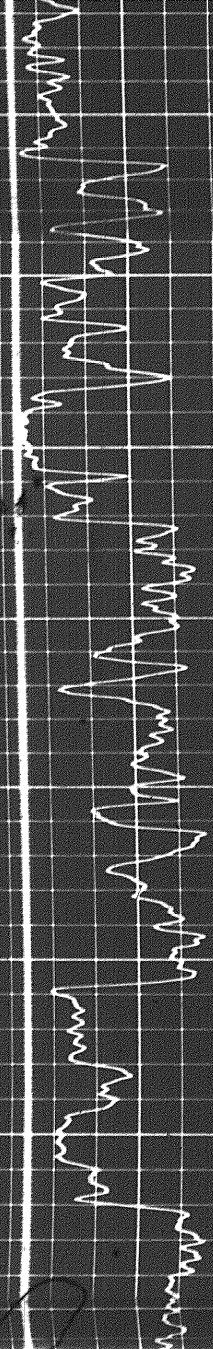
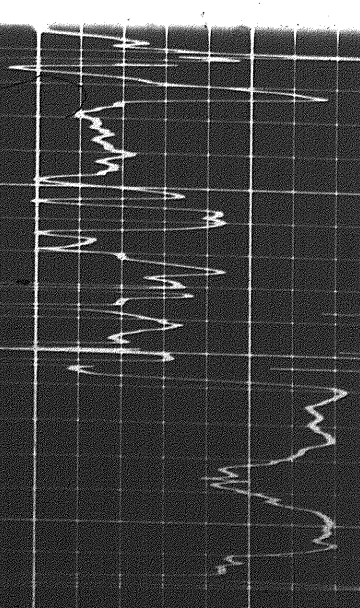
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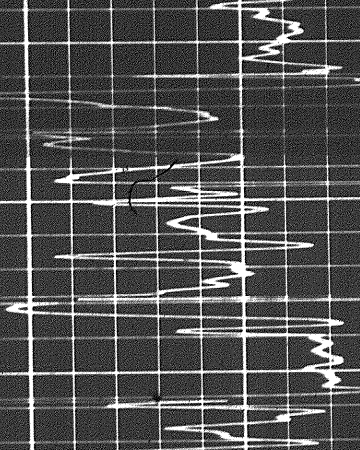
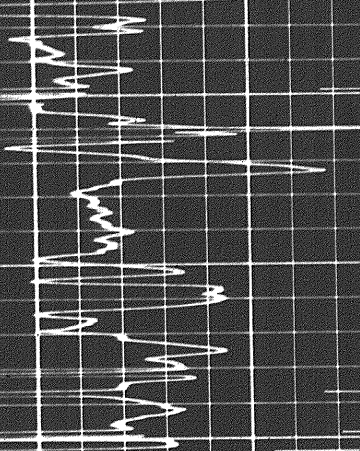
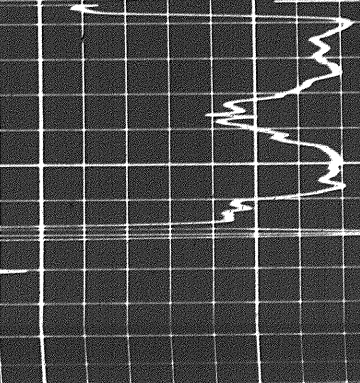
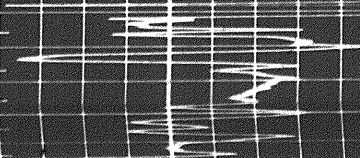


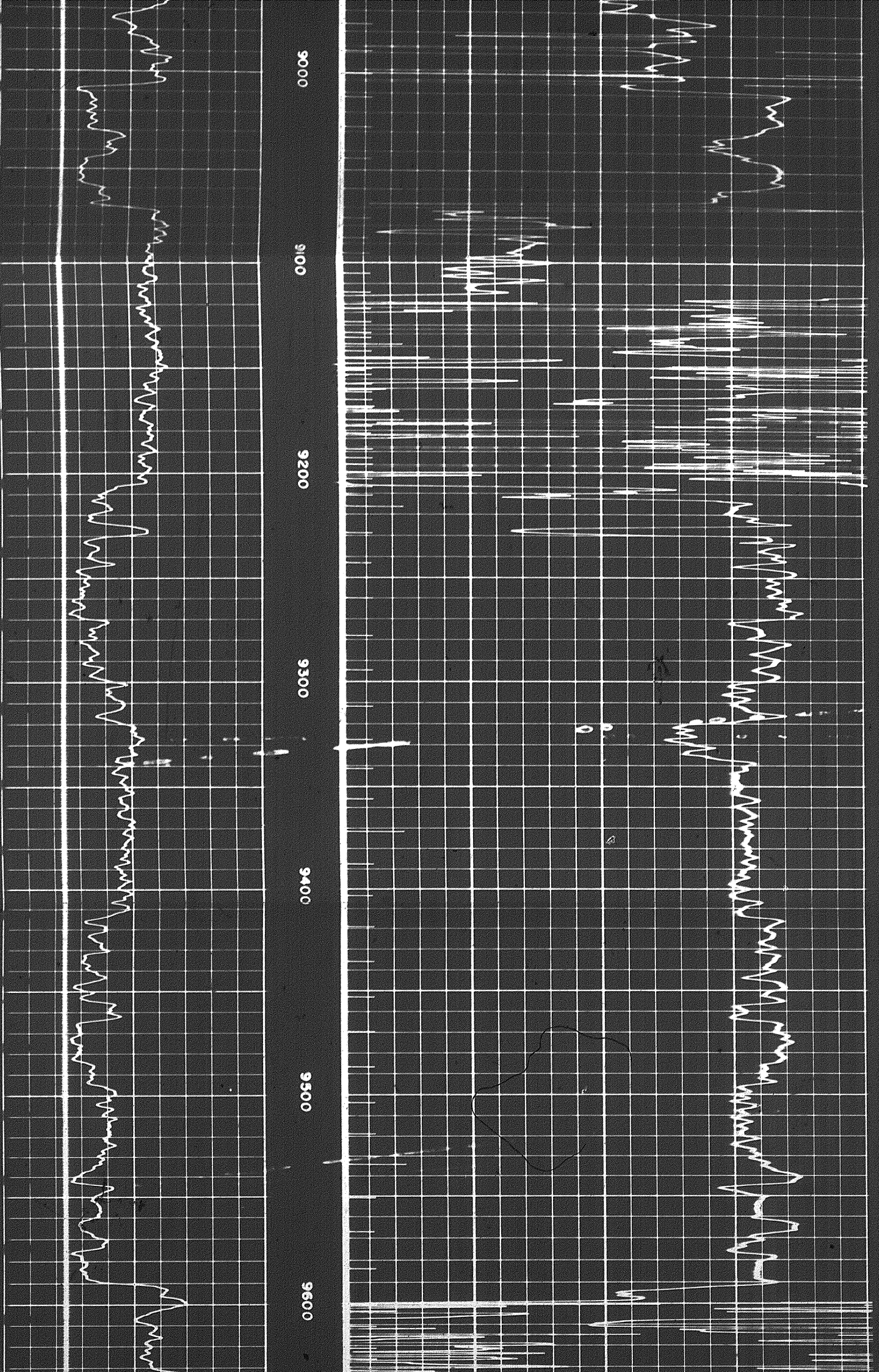
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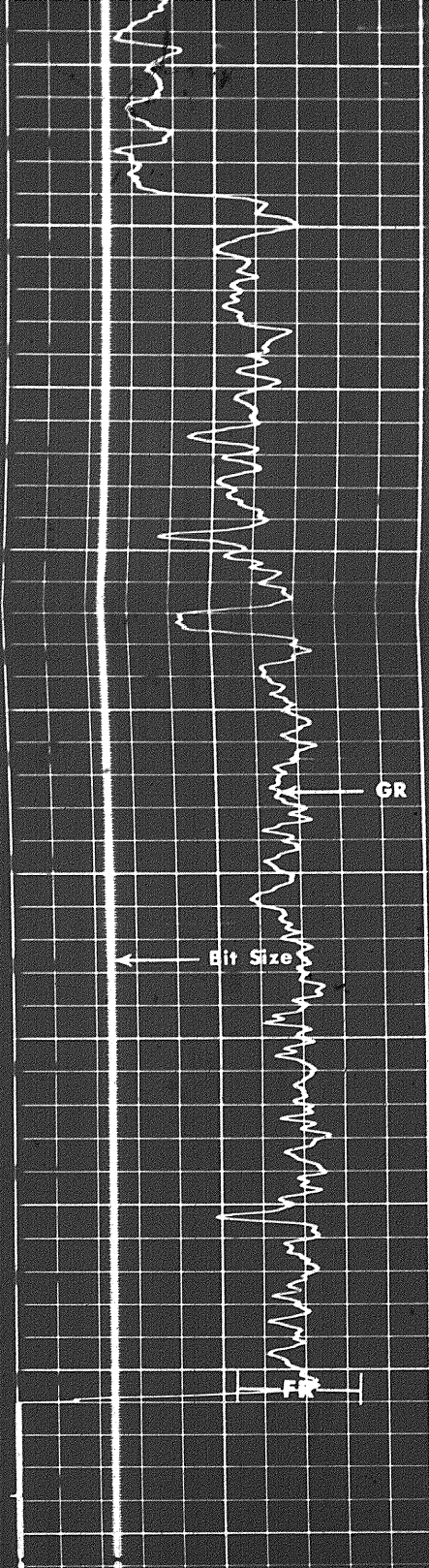
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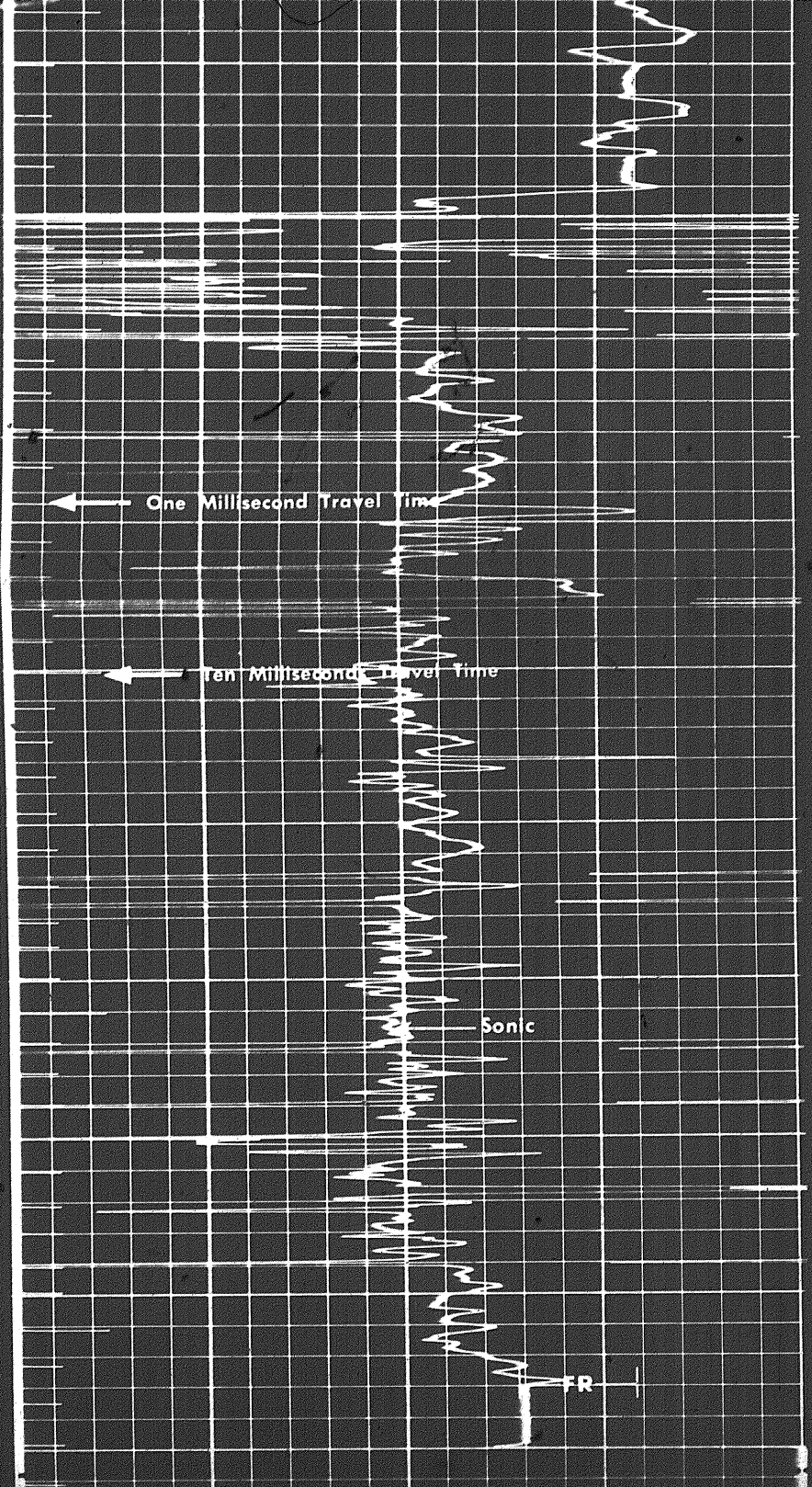
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9600
9700
9800
9900
10000



11 12 13 14 15 16 17 18 19

CALIPER
hole diameter in inches

Sens. 150 T.C. AUTO
Zero 0 div. to left
150
300

Speed in FPM

240 190 140
140 90 40

Speed in FPM	CALIPER hole diameter in inches				
	Sens. 150	T.C. AUTO		240	190
	Zero 0	div. to left	150		
			300	140	90

GAMMA RAY API UNITS	DEPTHS	SONIC INTERVAL TRANSIT TIME microseconds per foot
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DETAIL LOG
5" = 100'

GAMMA RAY API UNITS	DEPTHS	SONIC INTERVAL TRANSIT TIME microseconds per foot
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Speed in FPM	CALIPER hole diameter in inches				
	Sens. 150	T.C. AUTO		140	90
	Zero	div. to left	300		

GAMMA RAY API UNITS	DEPTHS	SONIC INTERVAL TRANSIT TIME microseconds per foot
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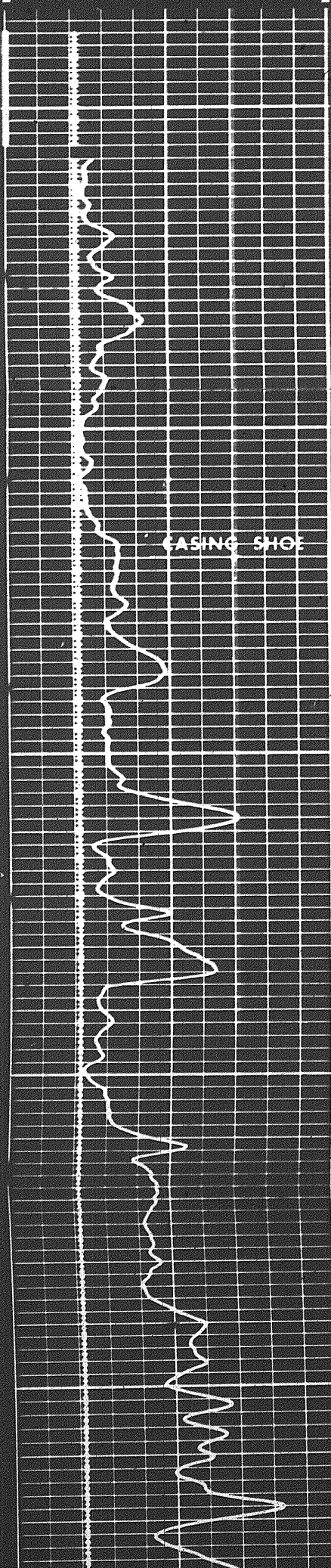
Speed in FPM	CALIPER hole diameter in inches				
	Sens. 150	T.C. AUTO		140	90
	Zero	div. to left	300		

DETAIL LOG
5" = 100'

GAMMA RAY API UNITS	DEPTHS	SONIC INTERVAL TRANSIT TIME microseconds per foot
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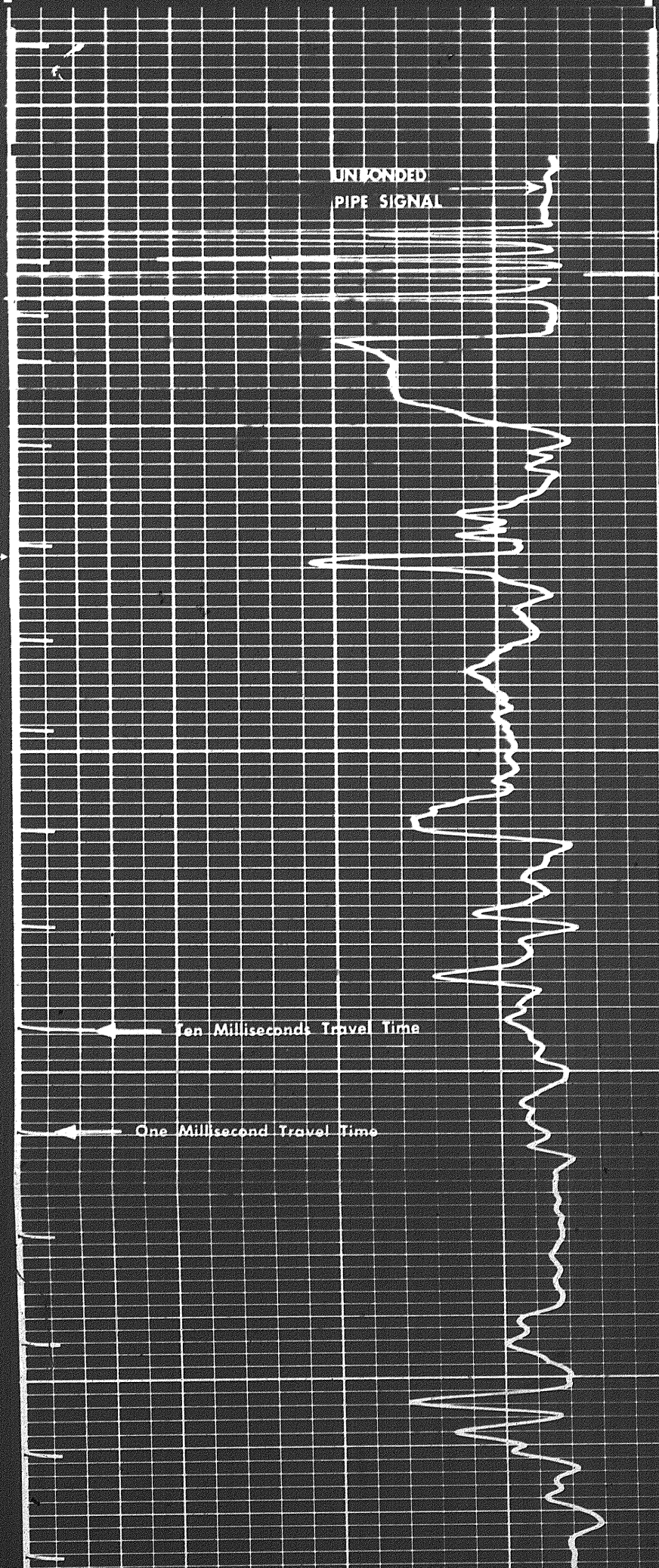
Speed in FPM	CALIPER hole diameter in inches				
	Sens. 150	T.C. AUTO			
	Zero	div. to left	300		

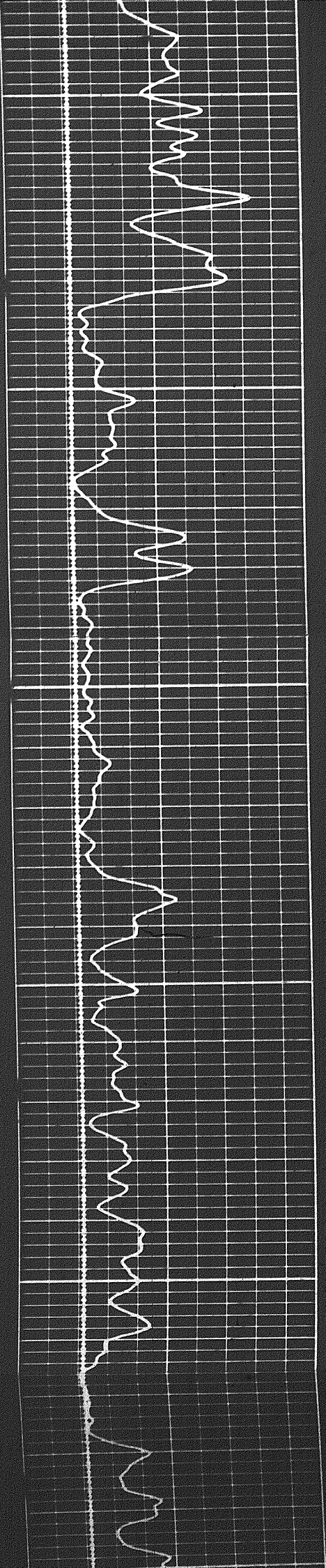
11	12	13	14	15	16	17	18	19
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0002

0003

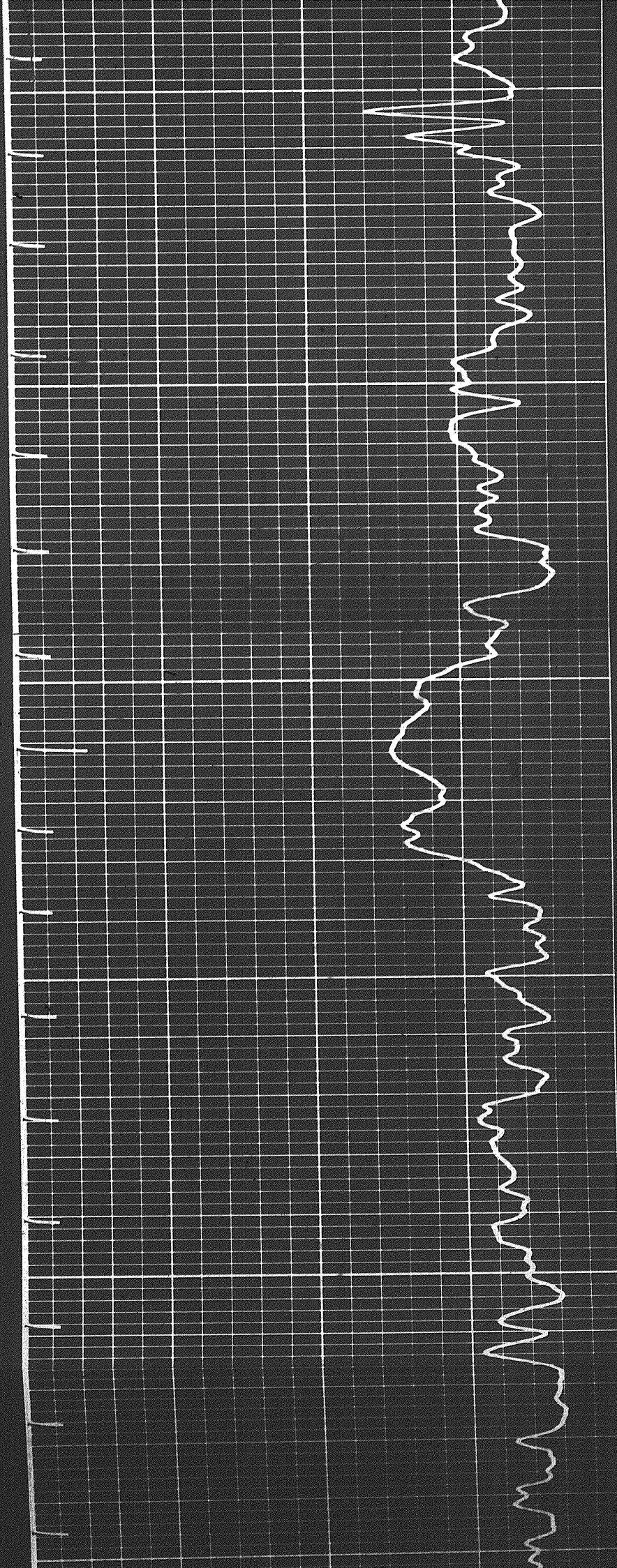


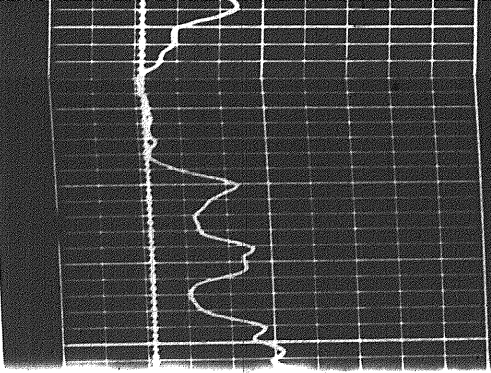


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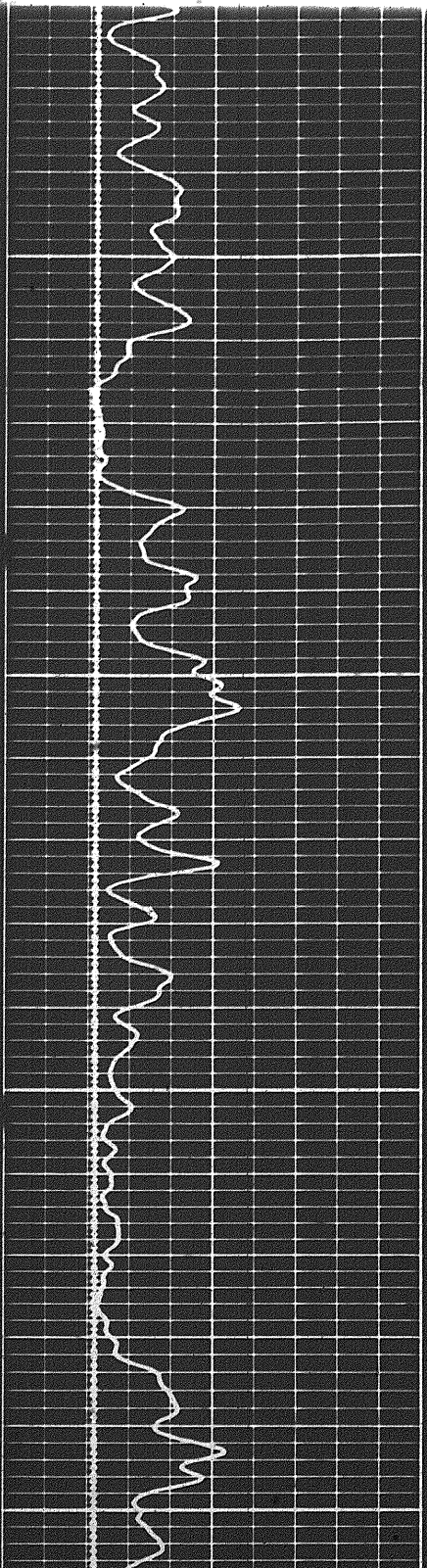
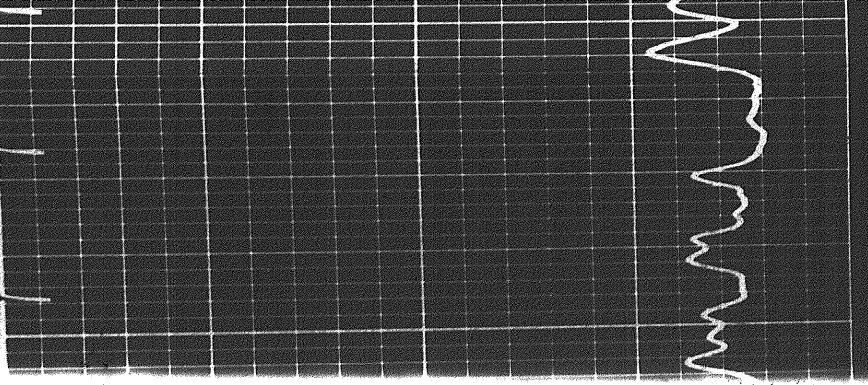
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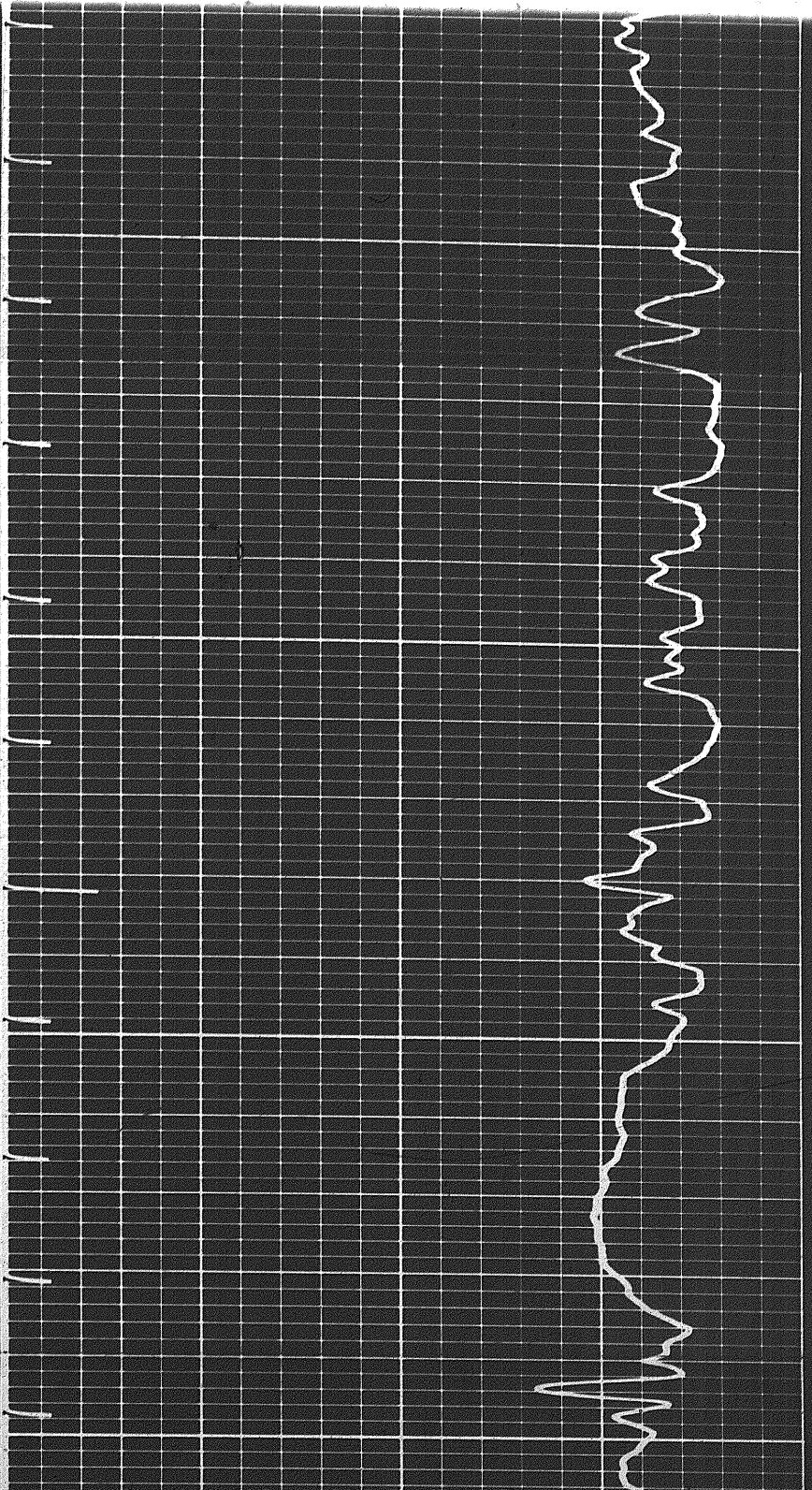


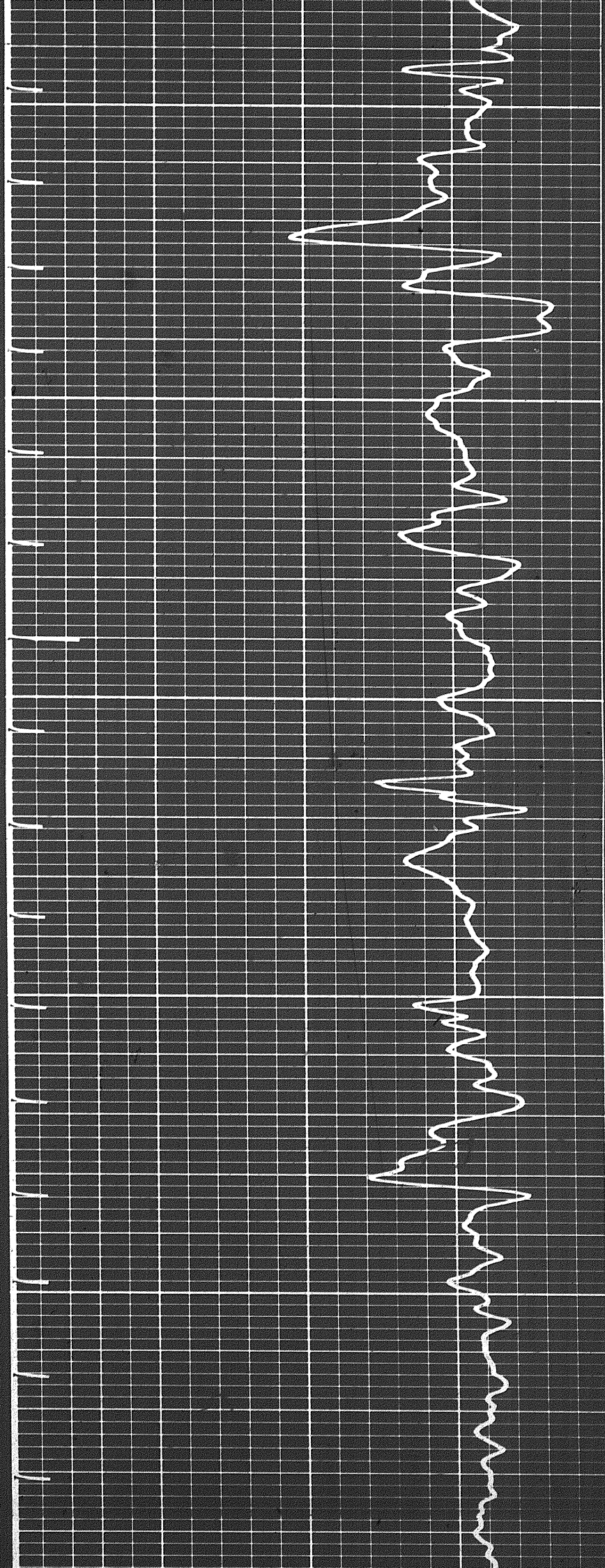
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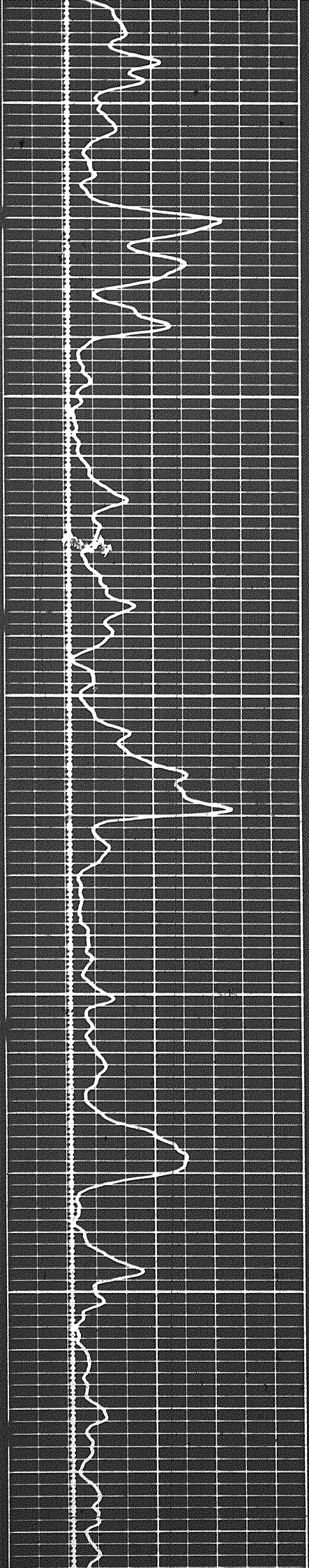


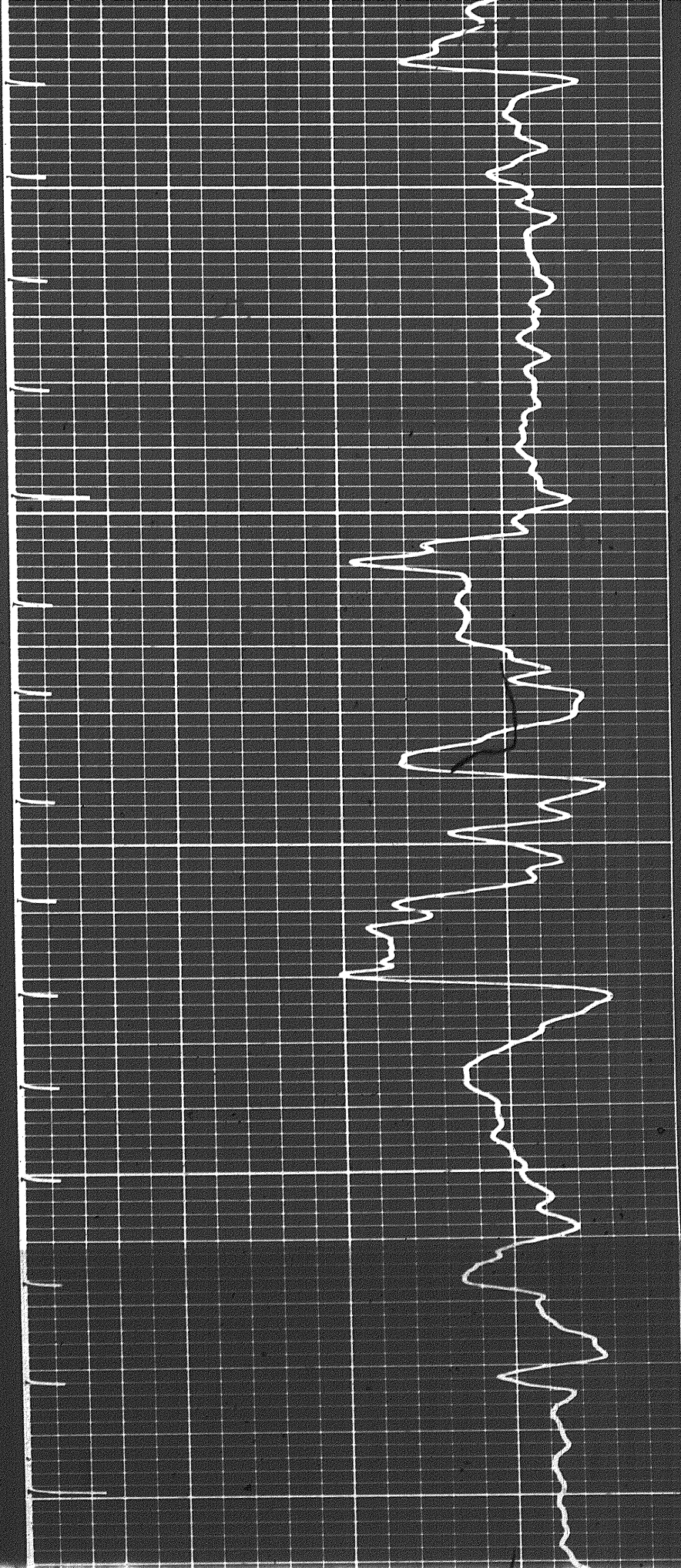


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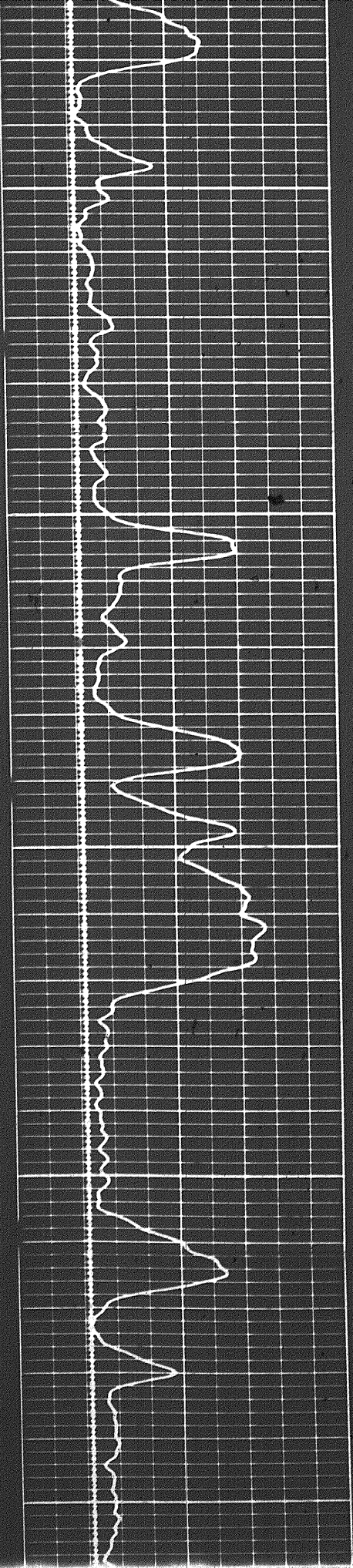




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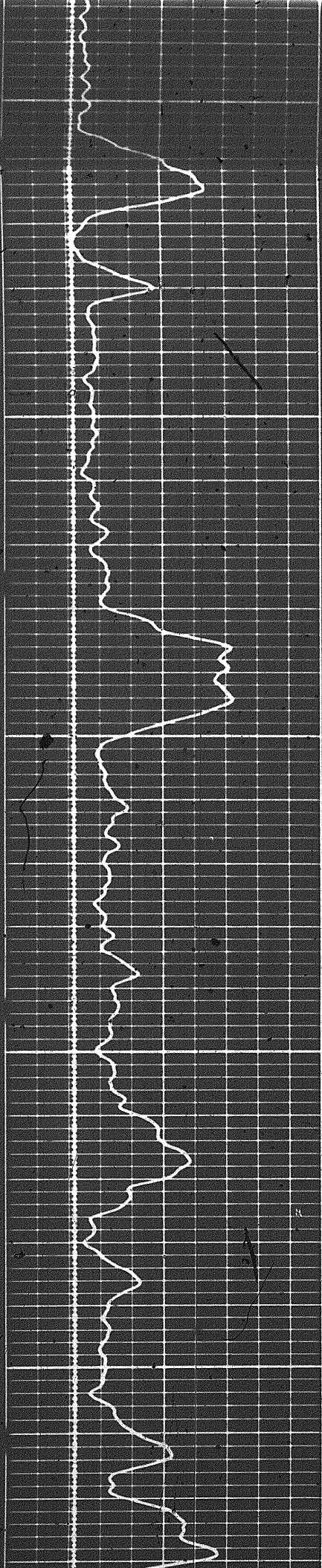
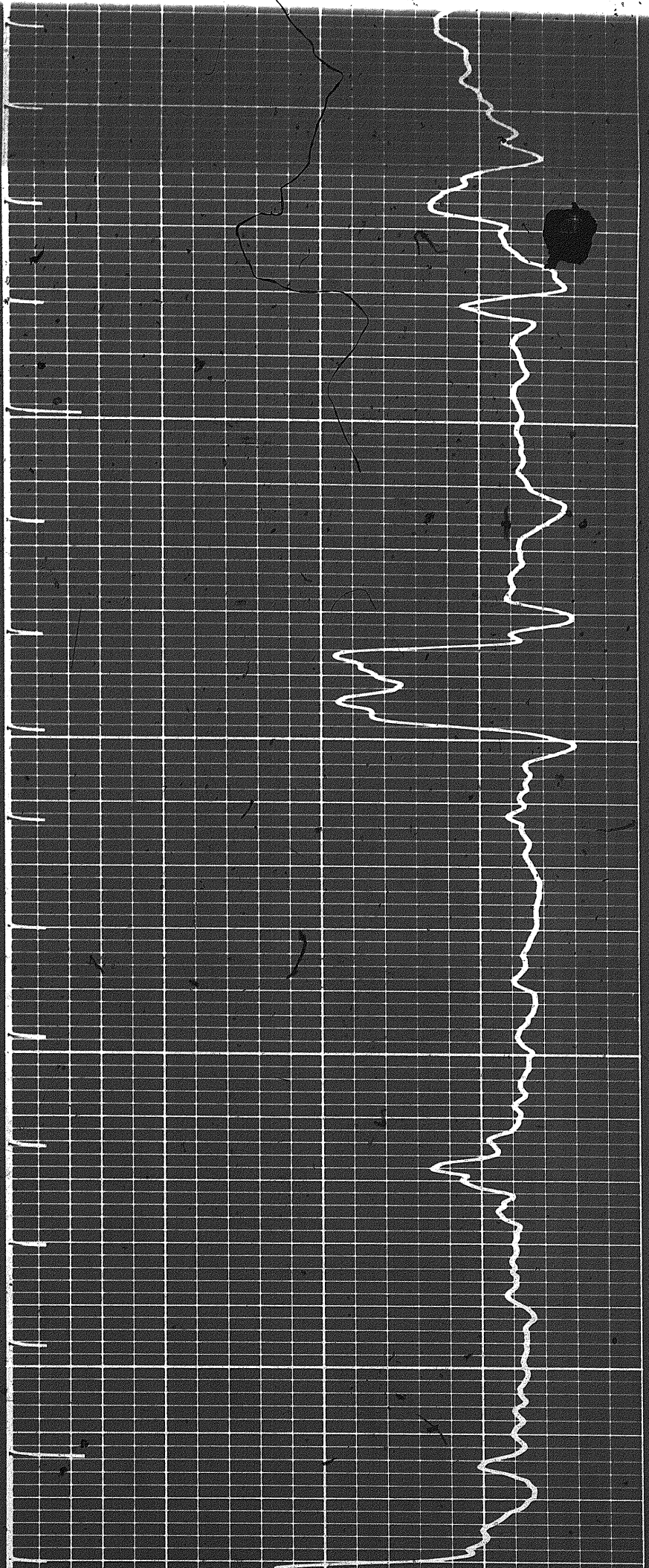
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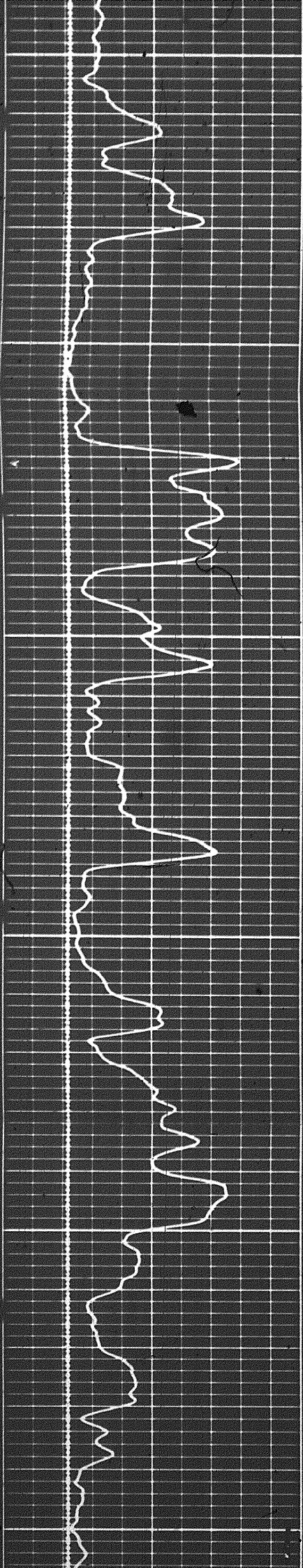
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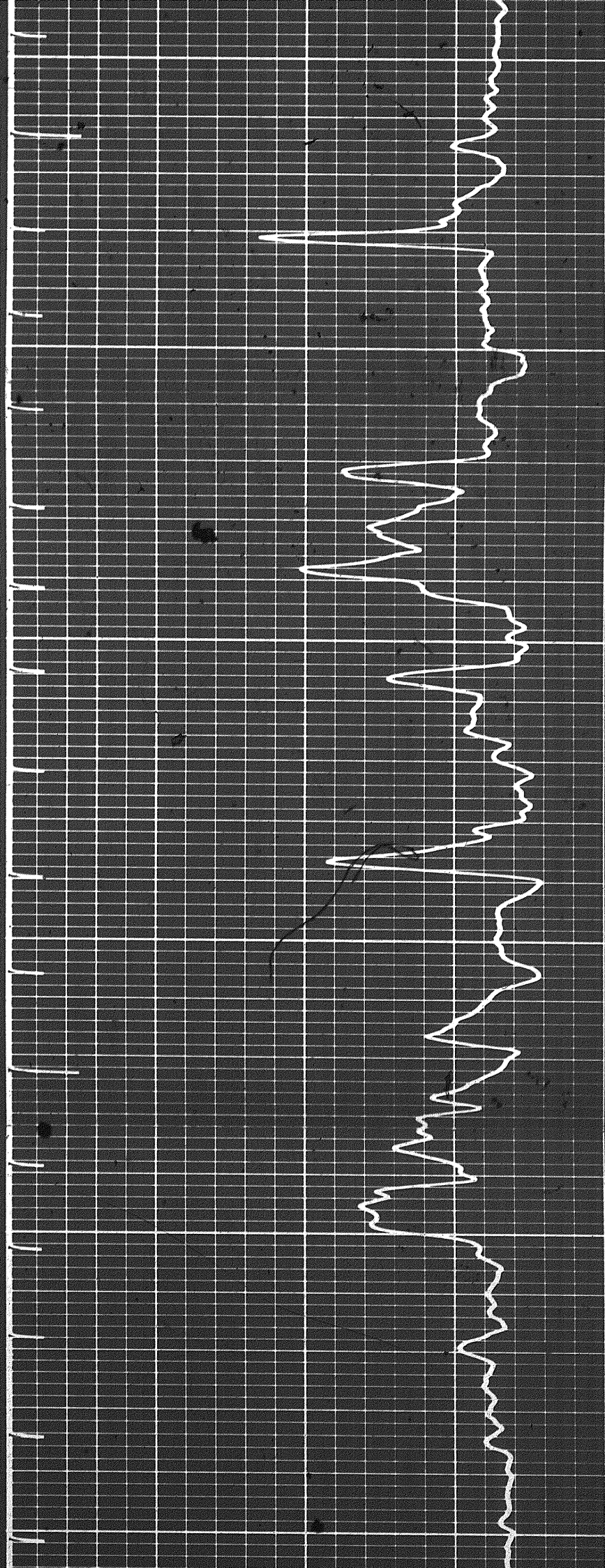


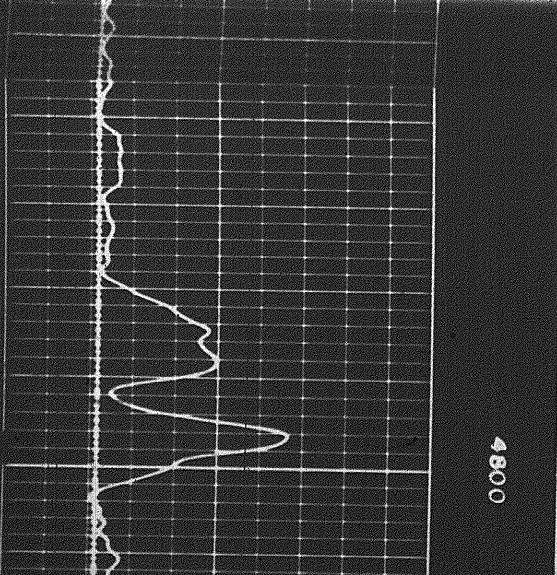
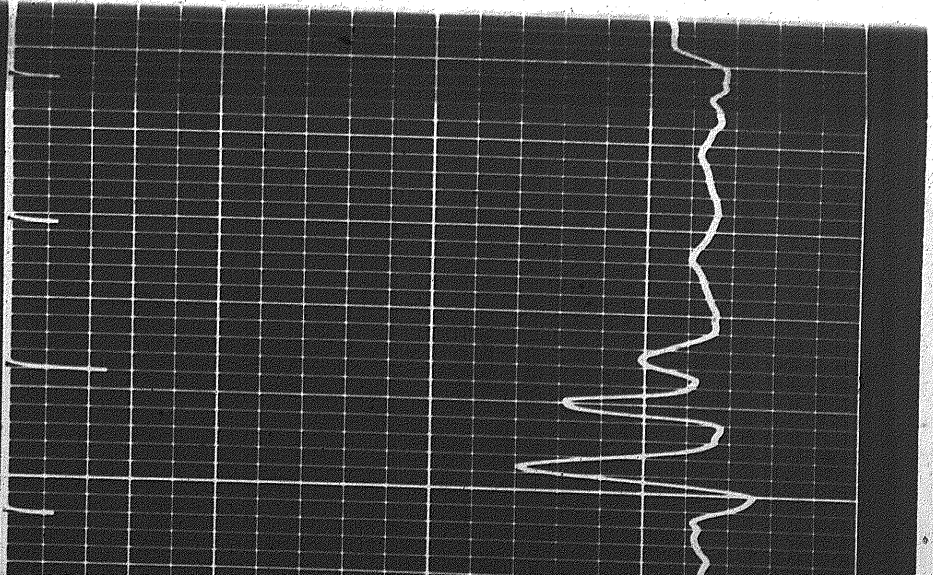
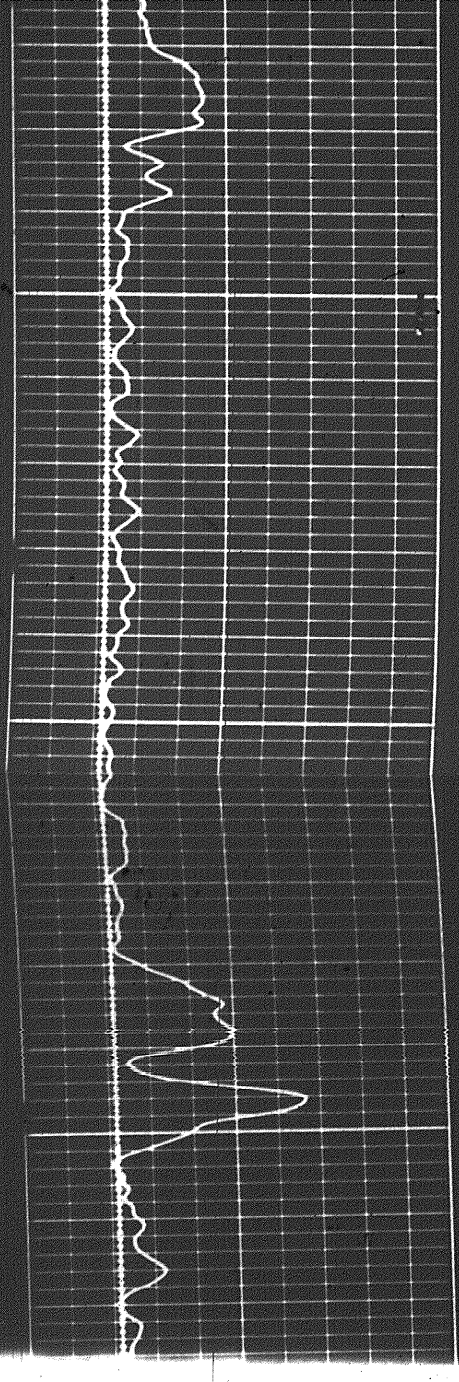
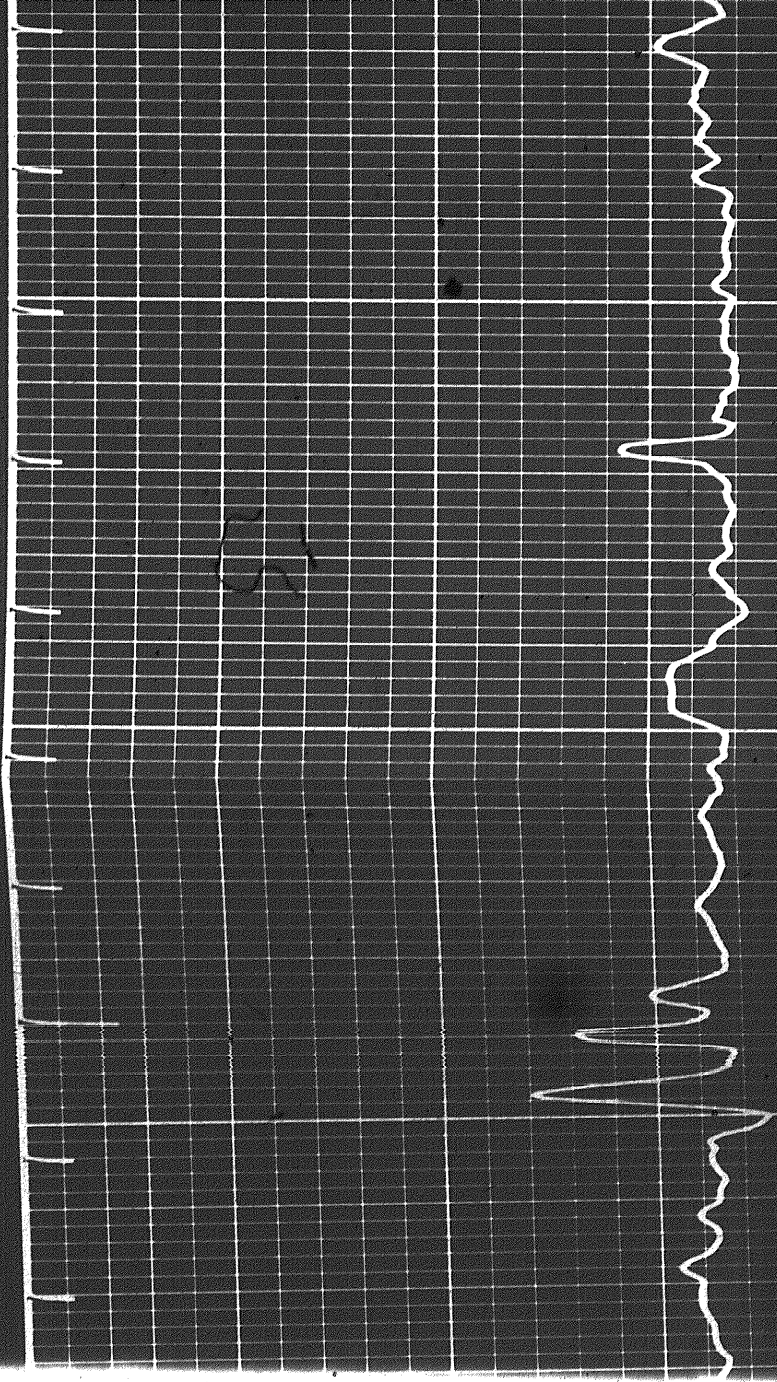


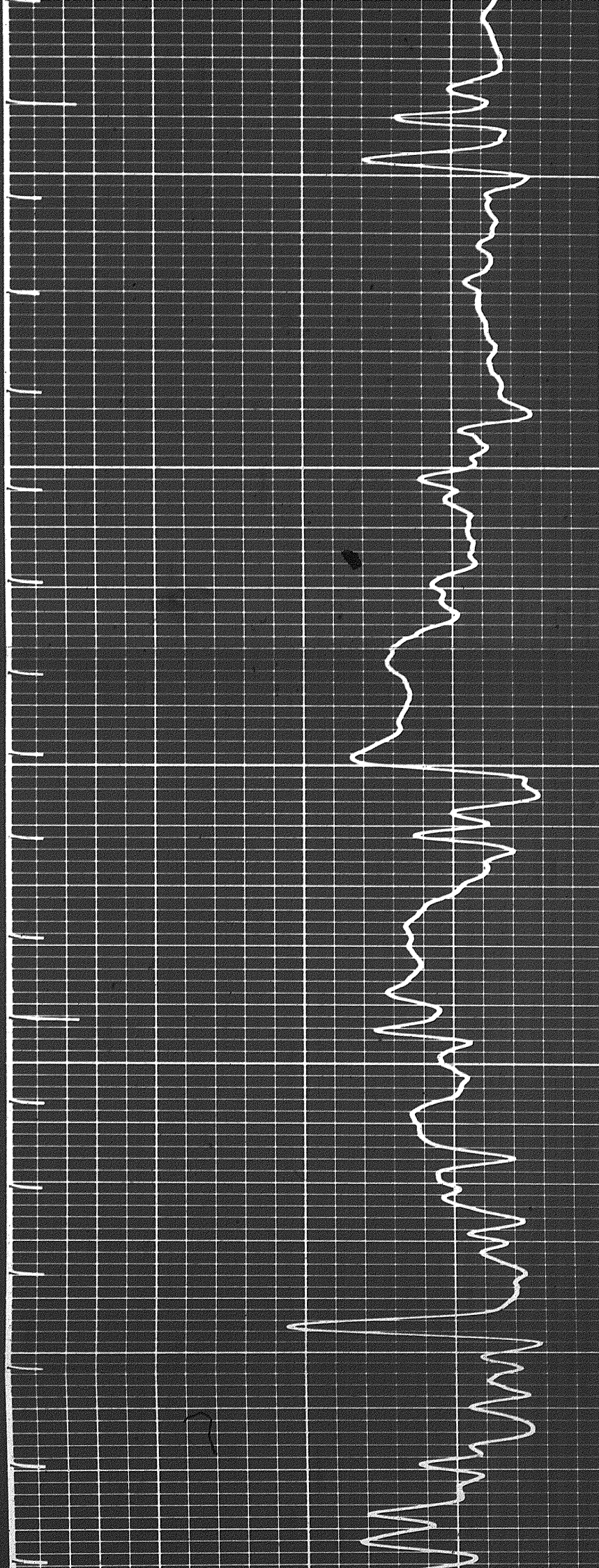
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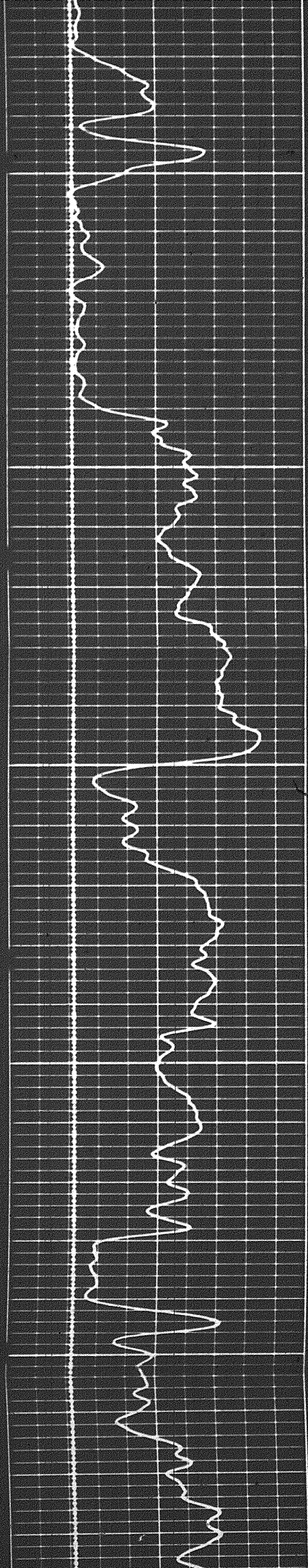


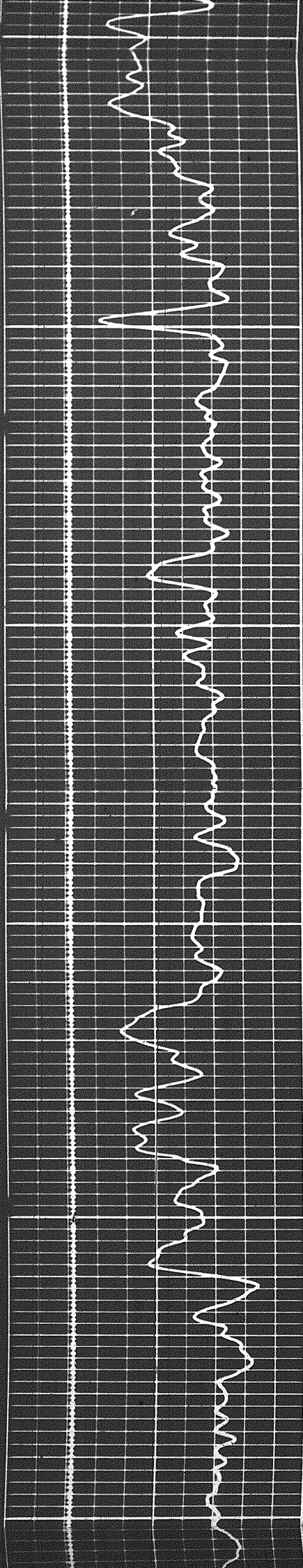


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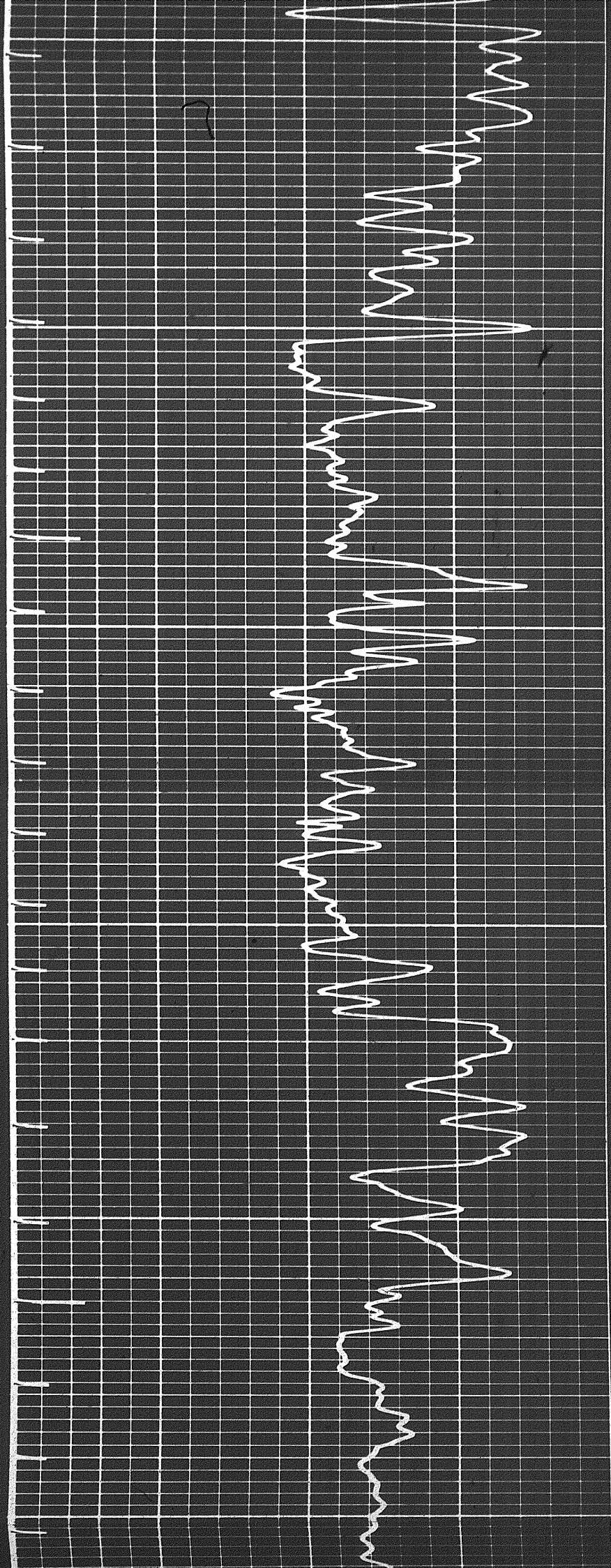


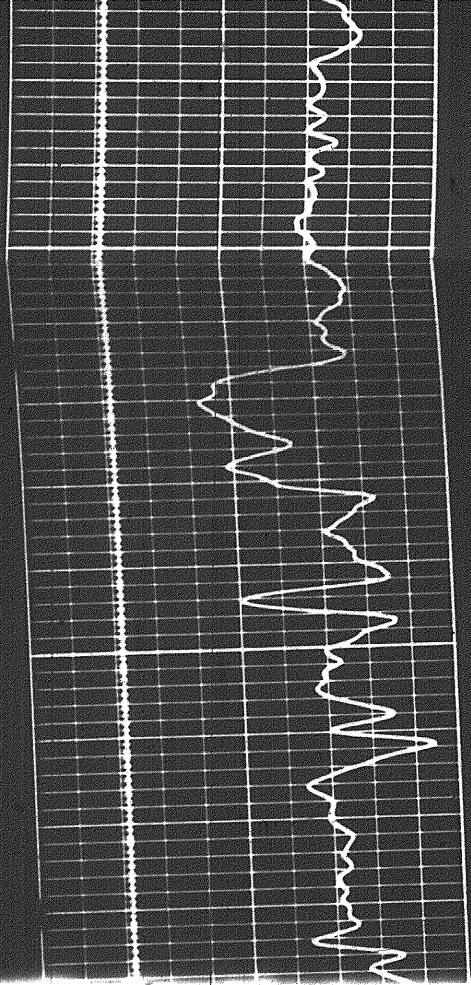


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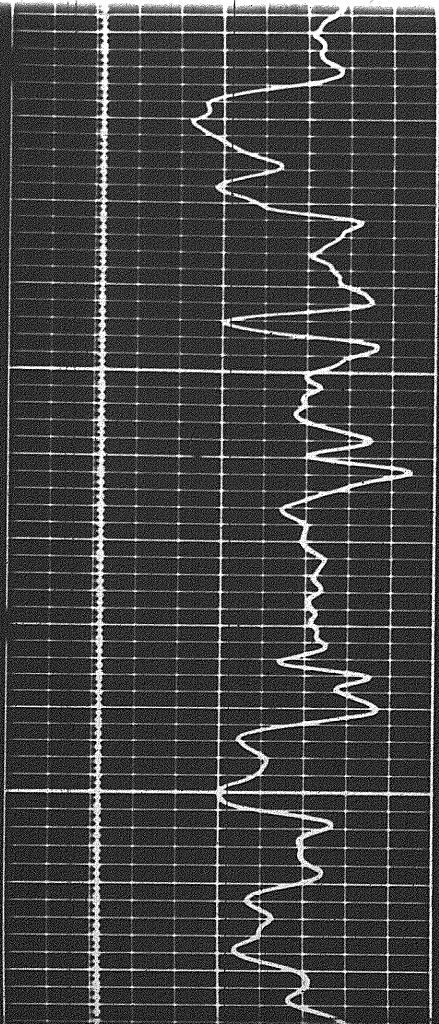
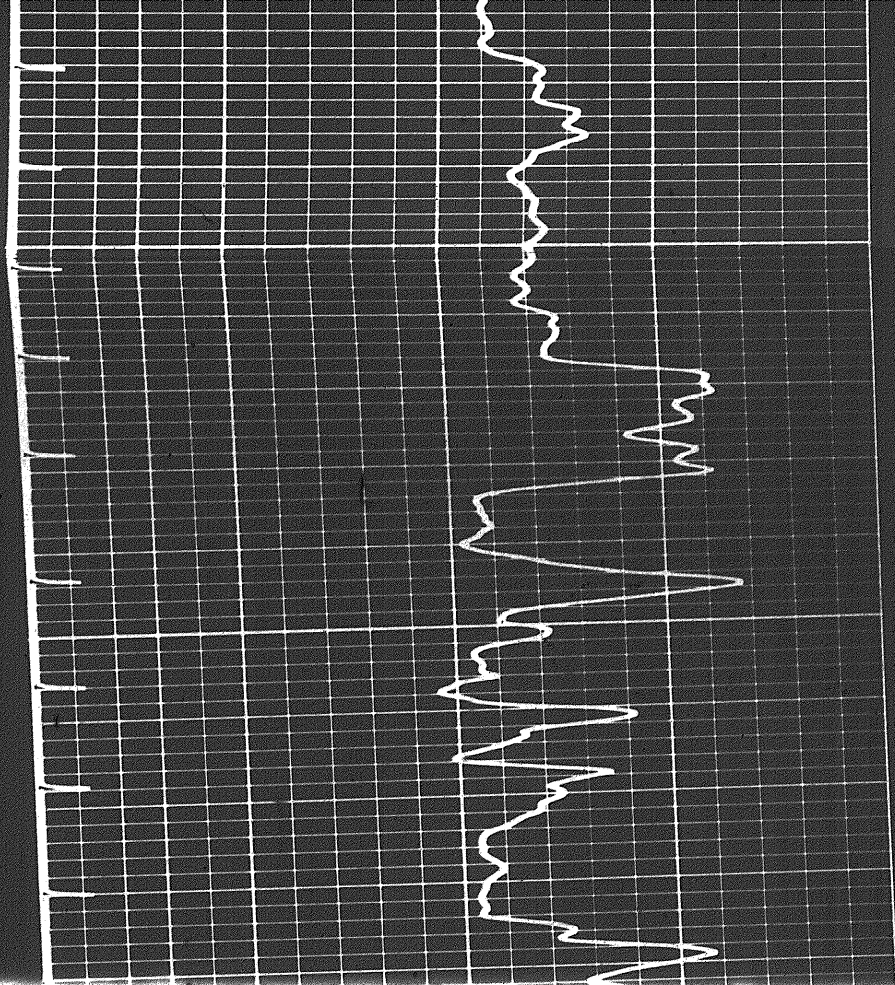
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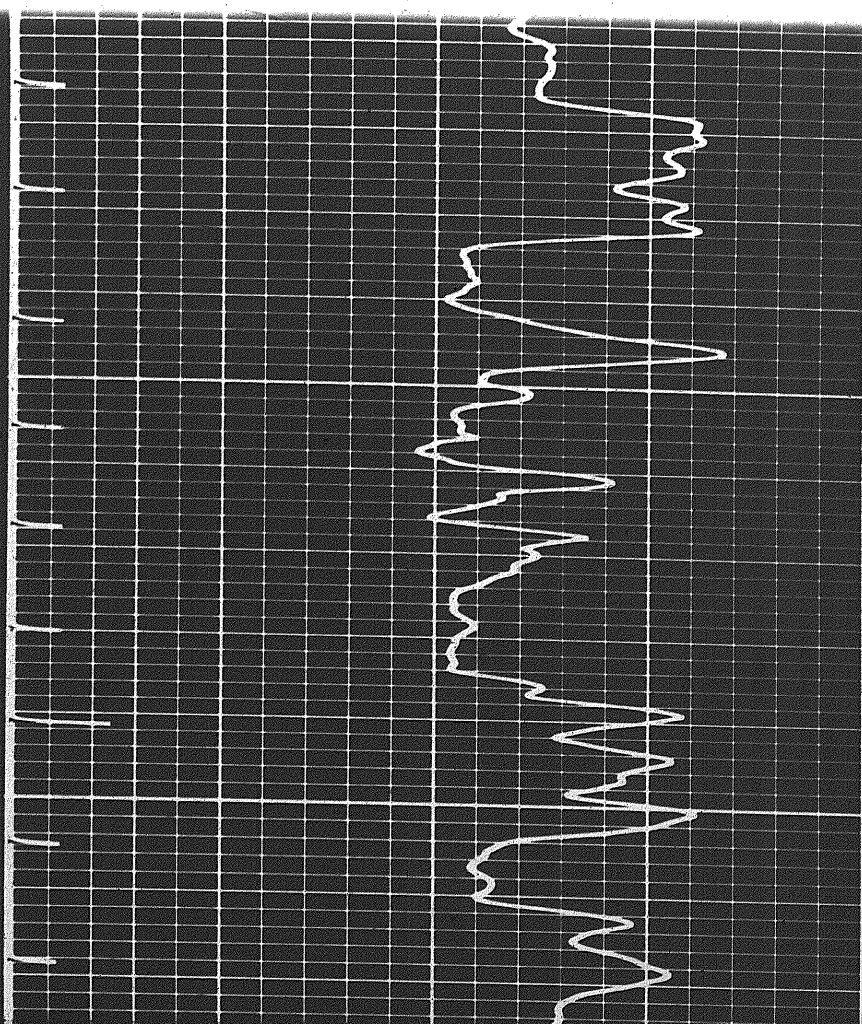


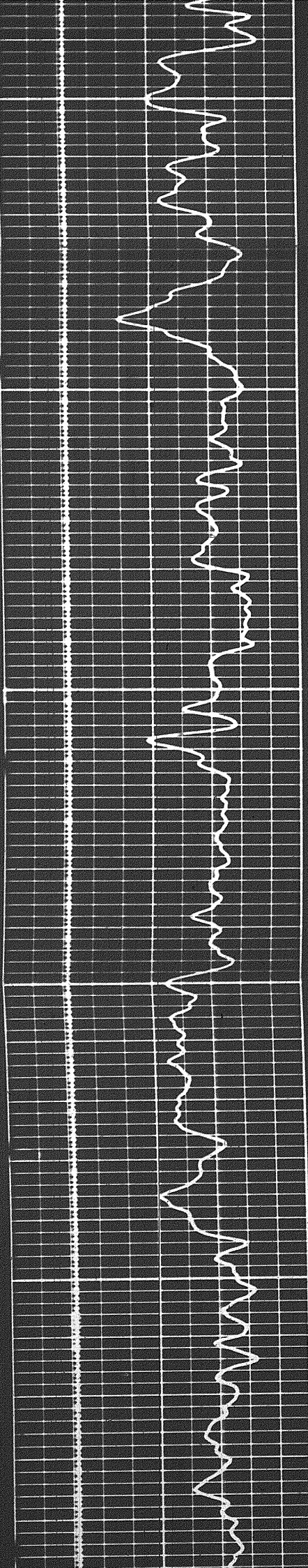


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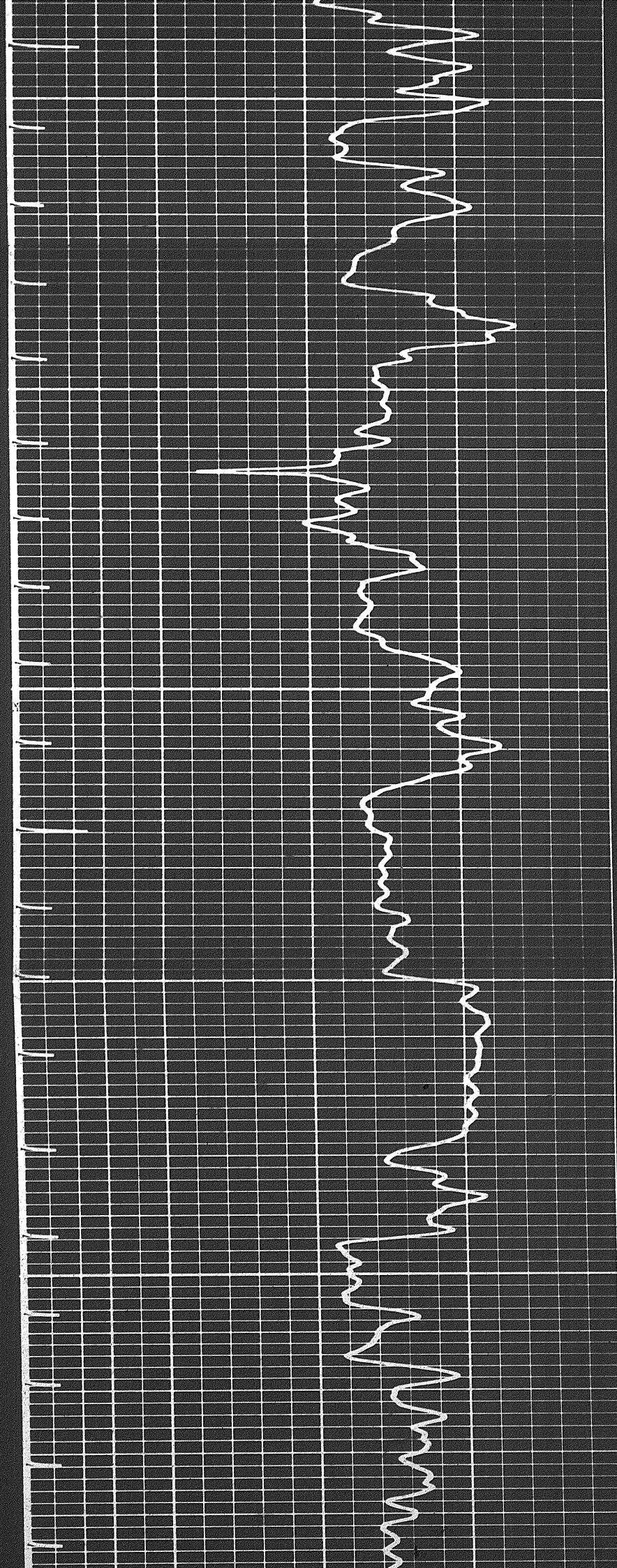


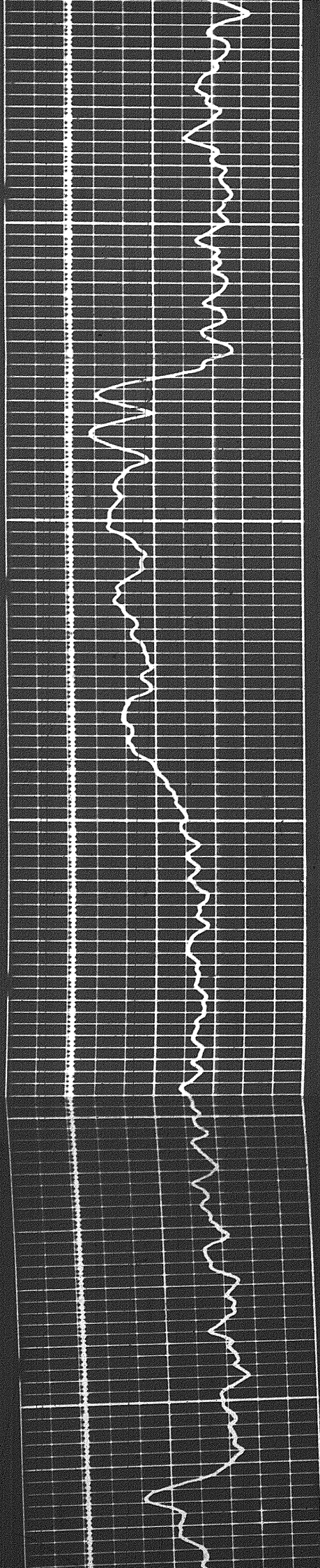


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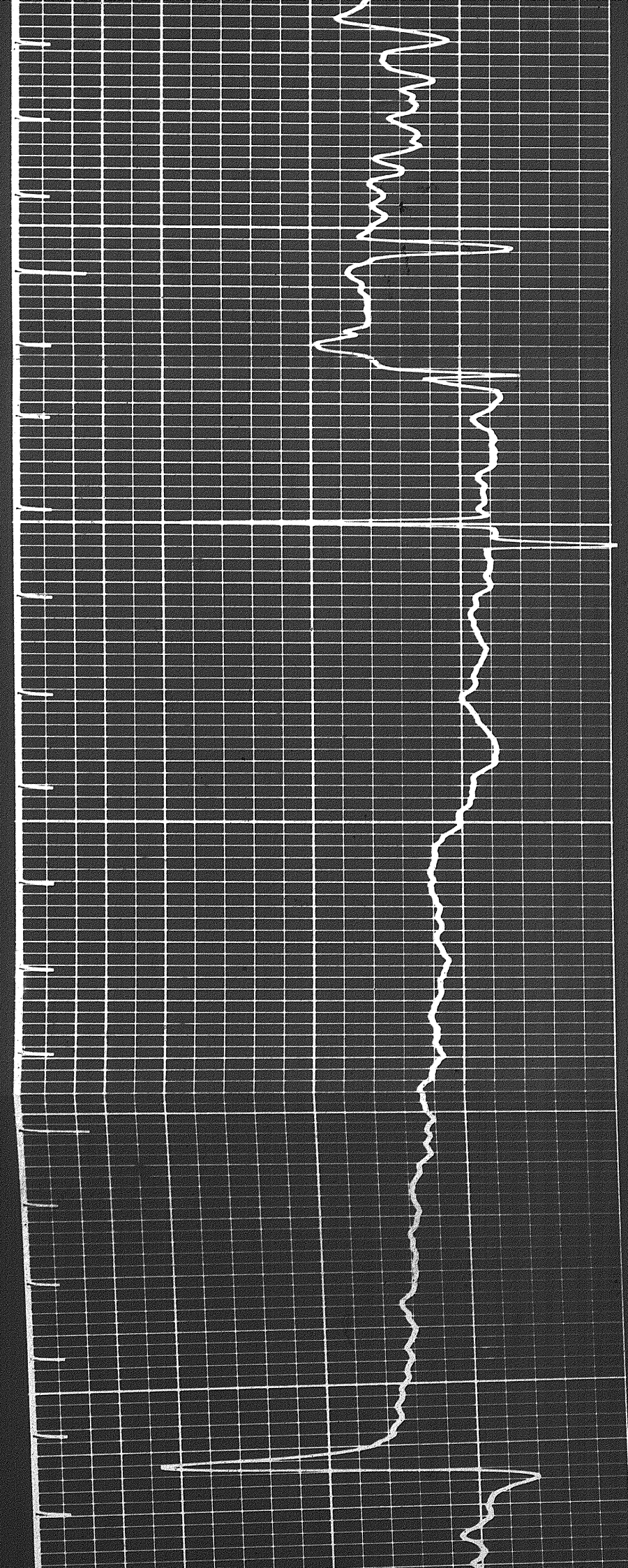


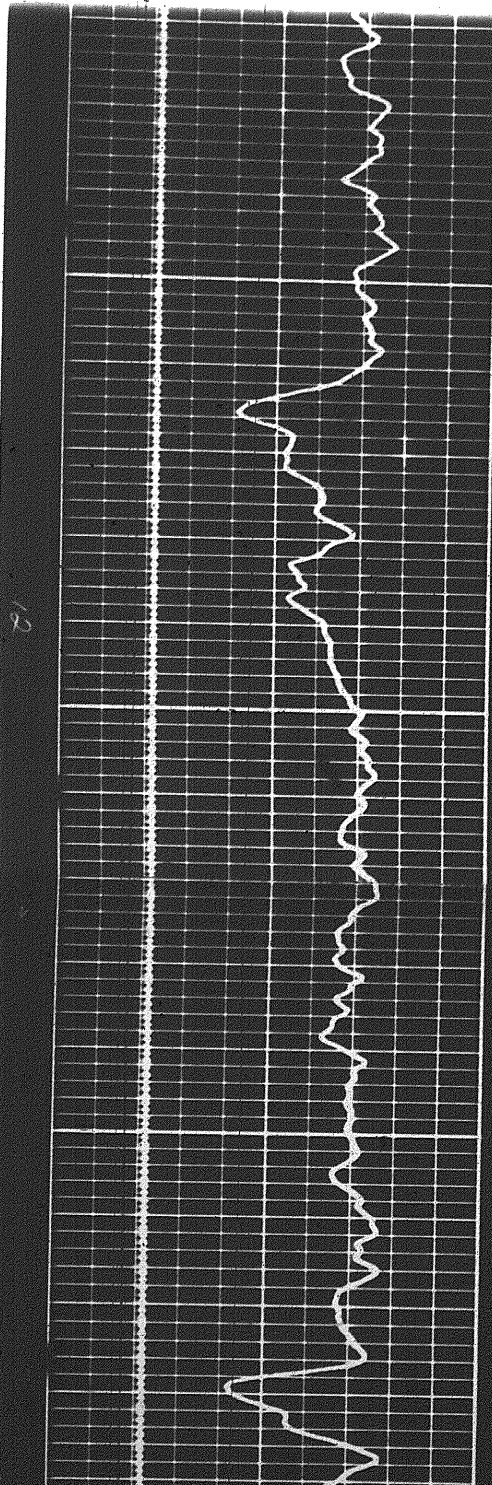


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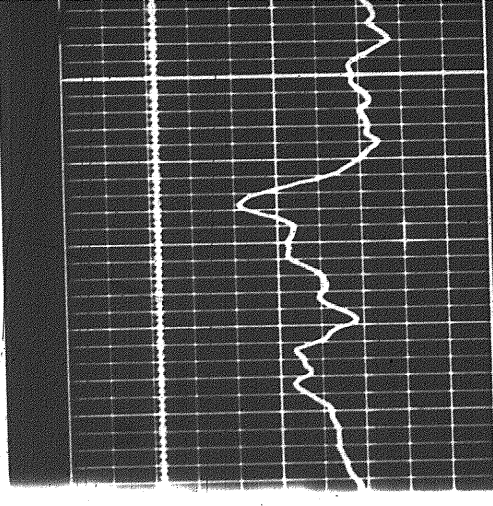
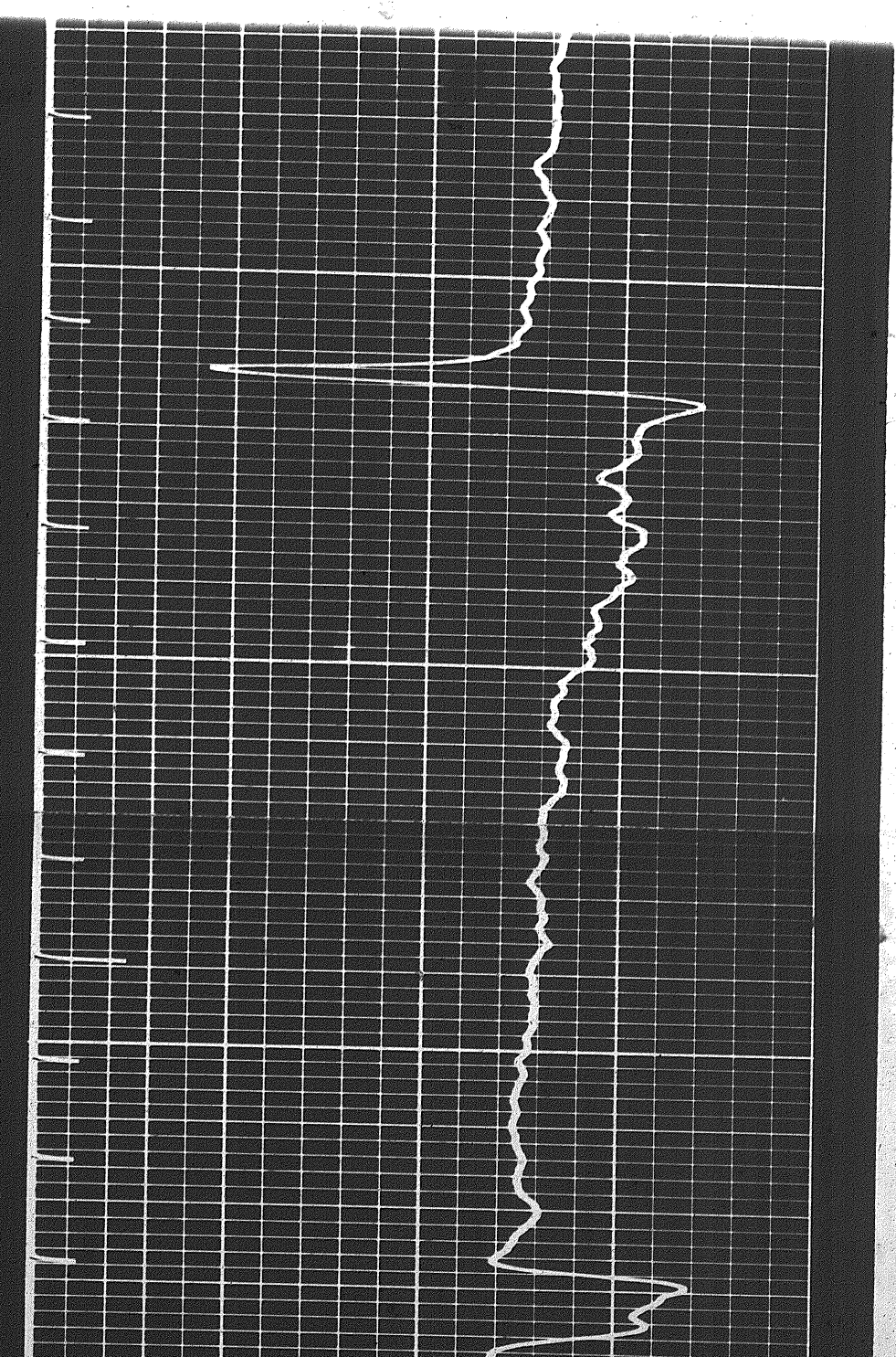
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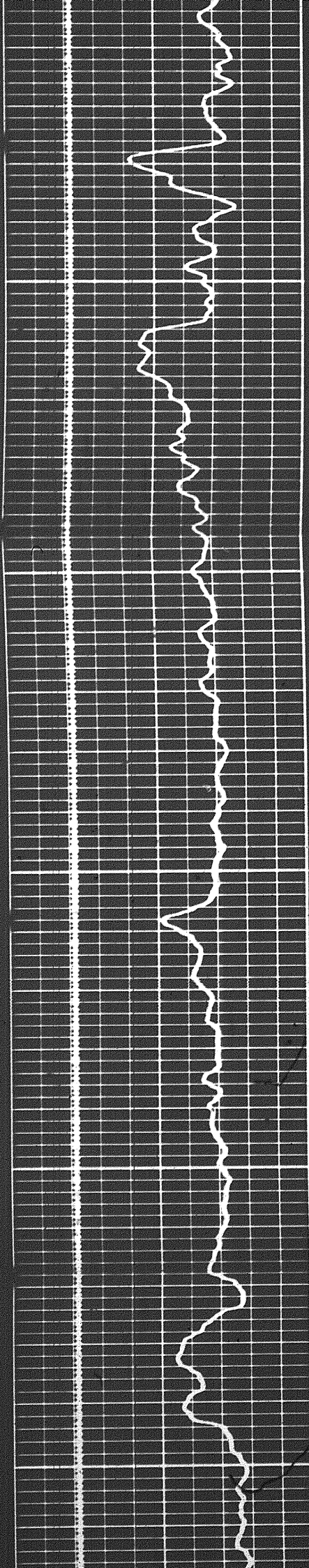


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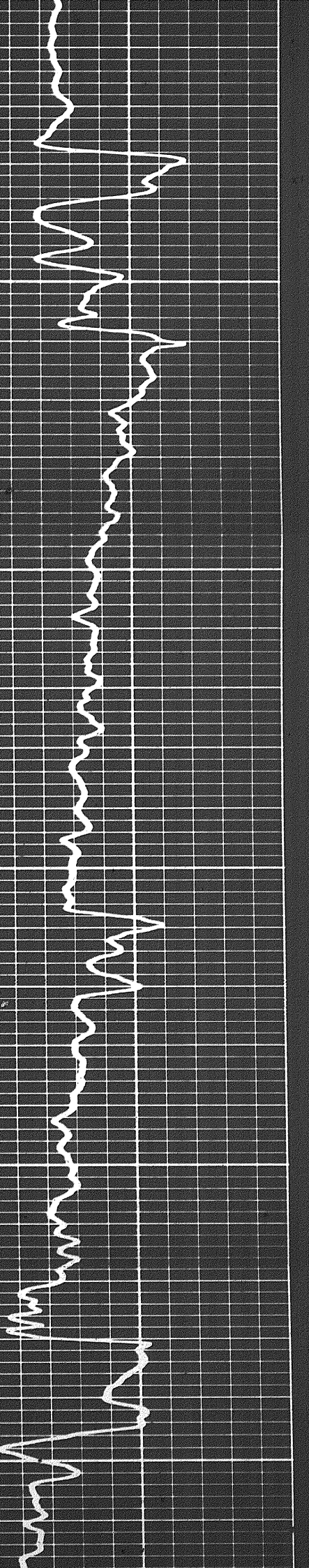
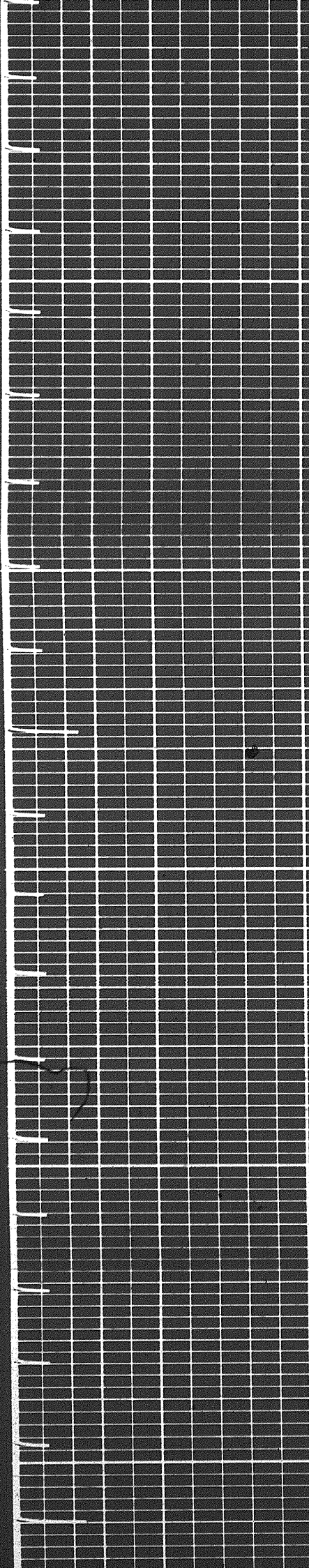


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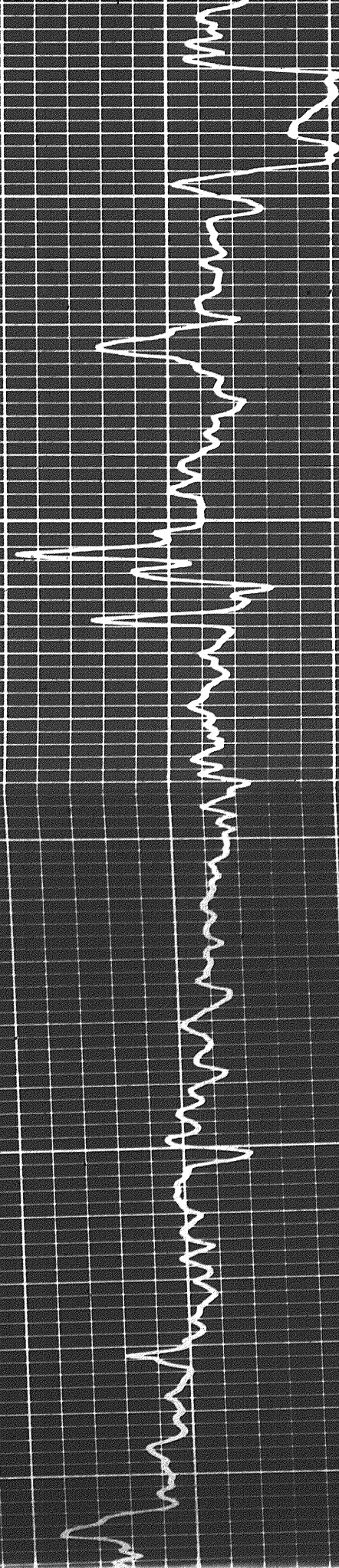
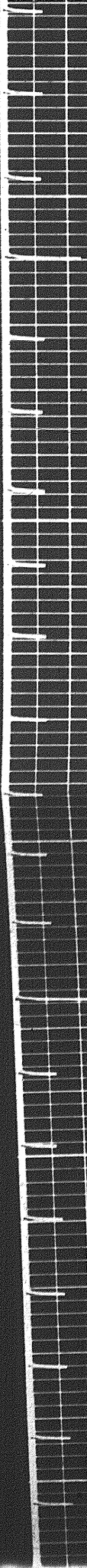
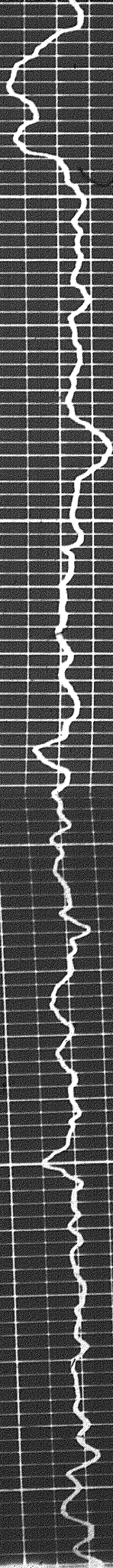
60 bpm

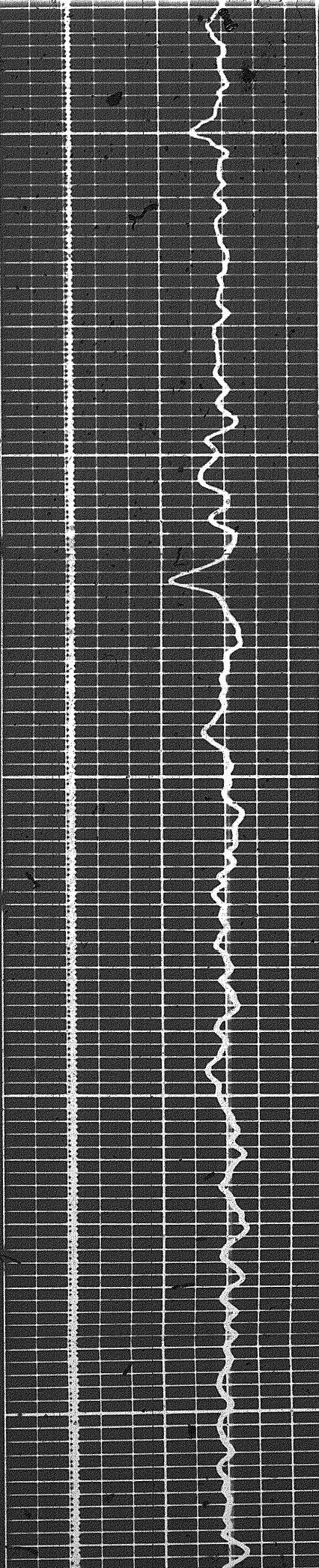
60 bpm



6200

6300

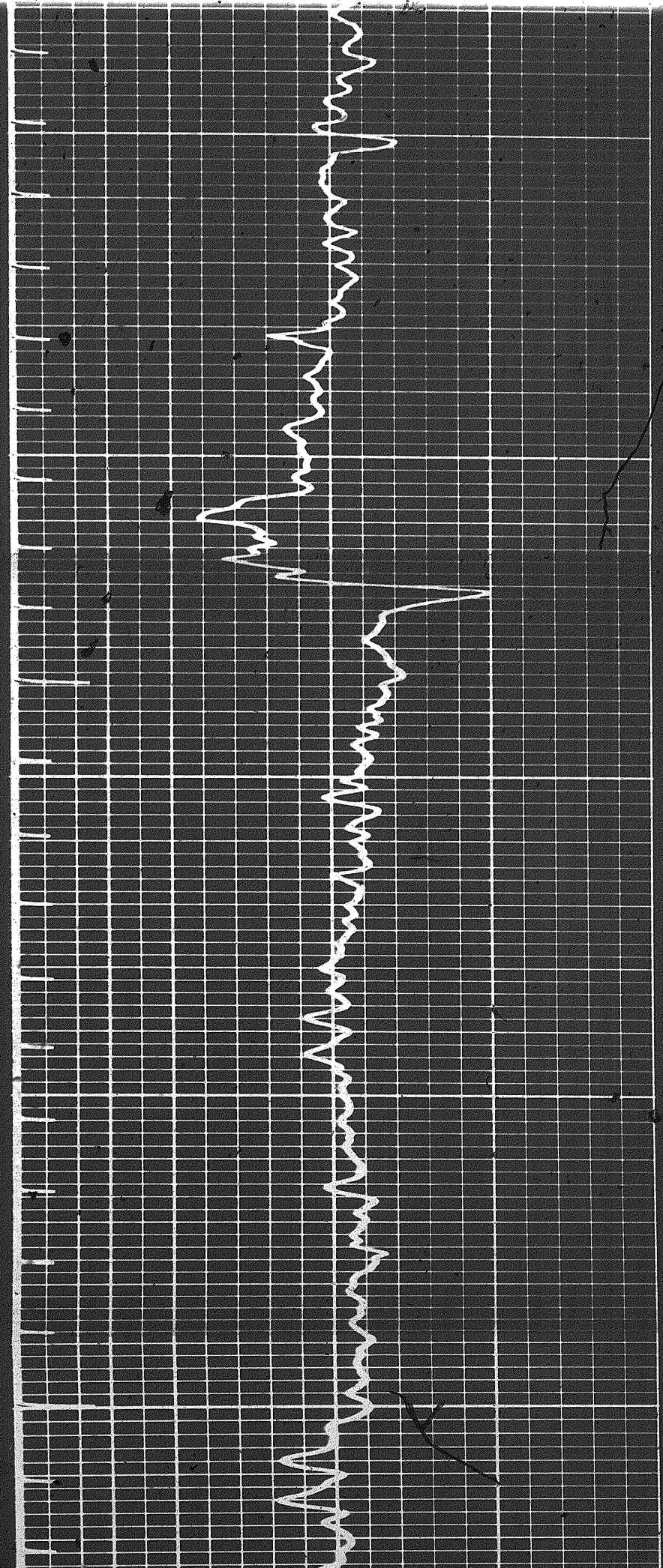


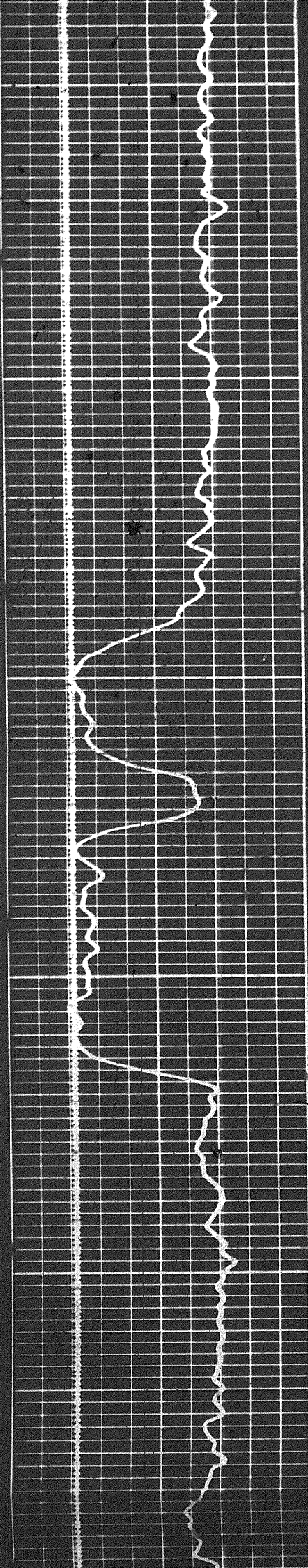


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6400

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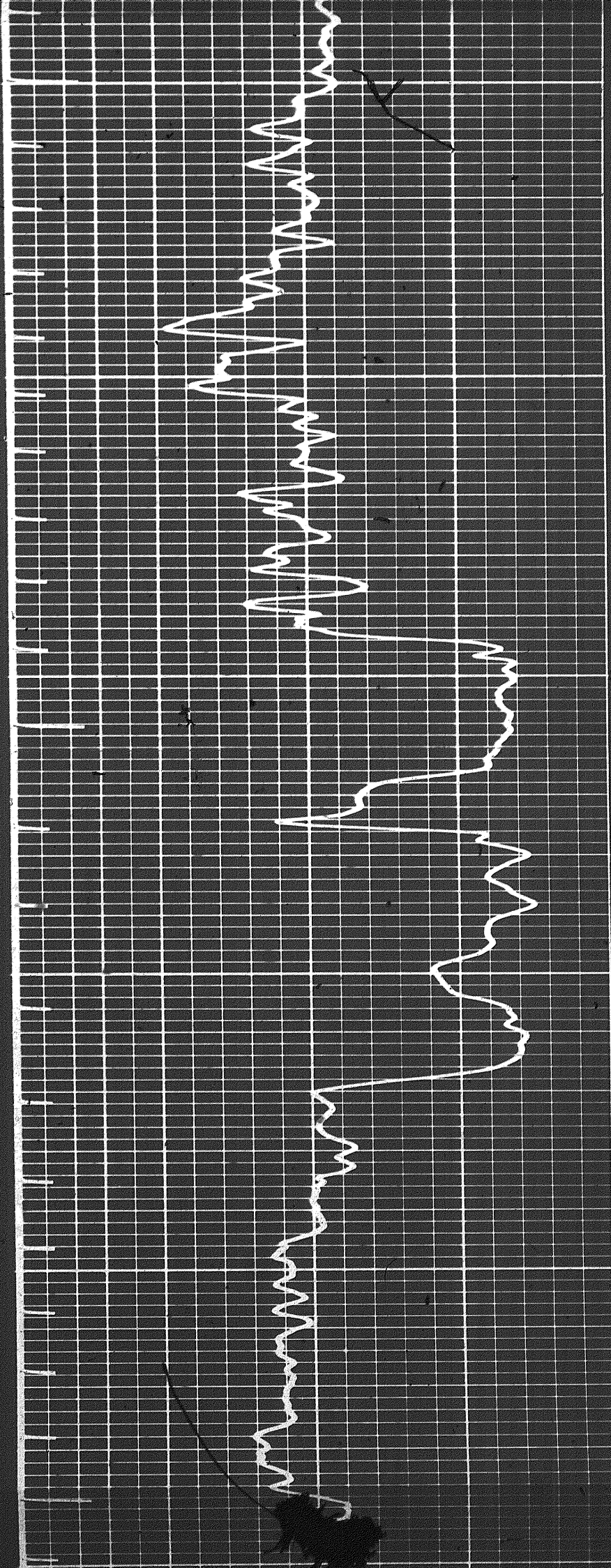


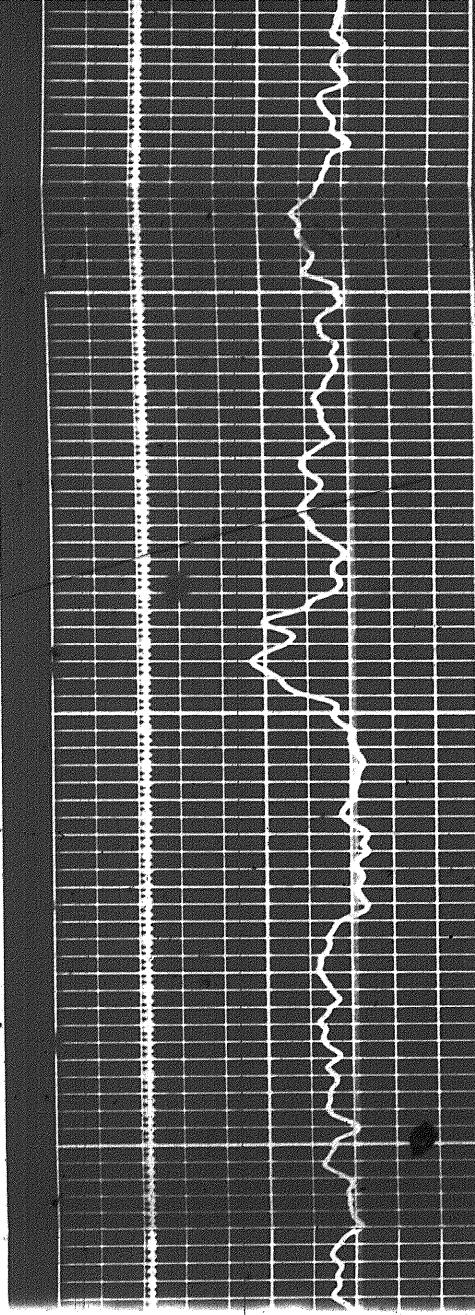


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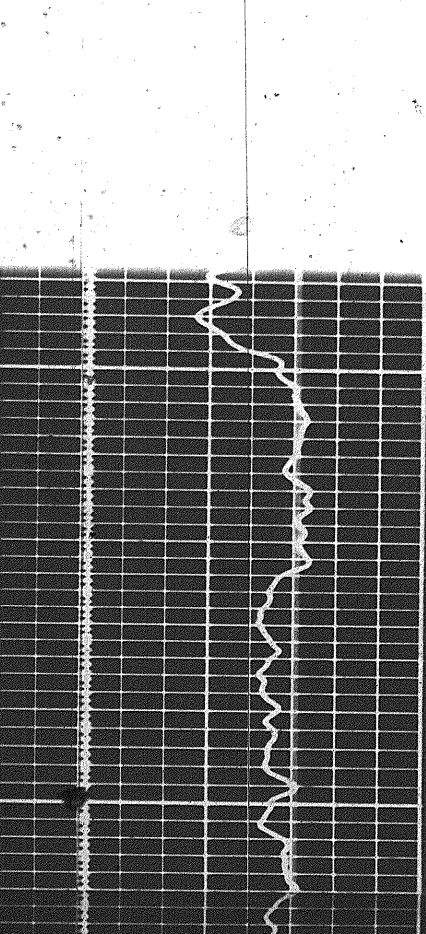
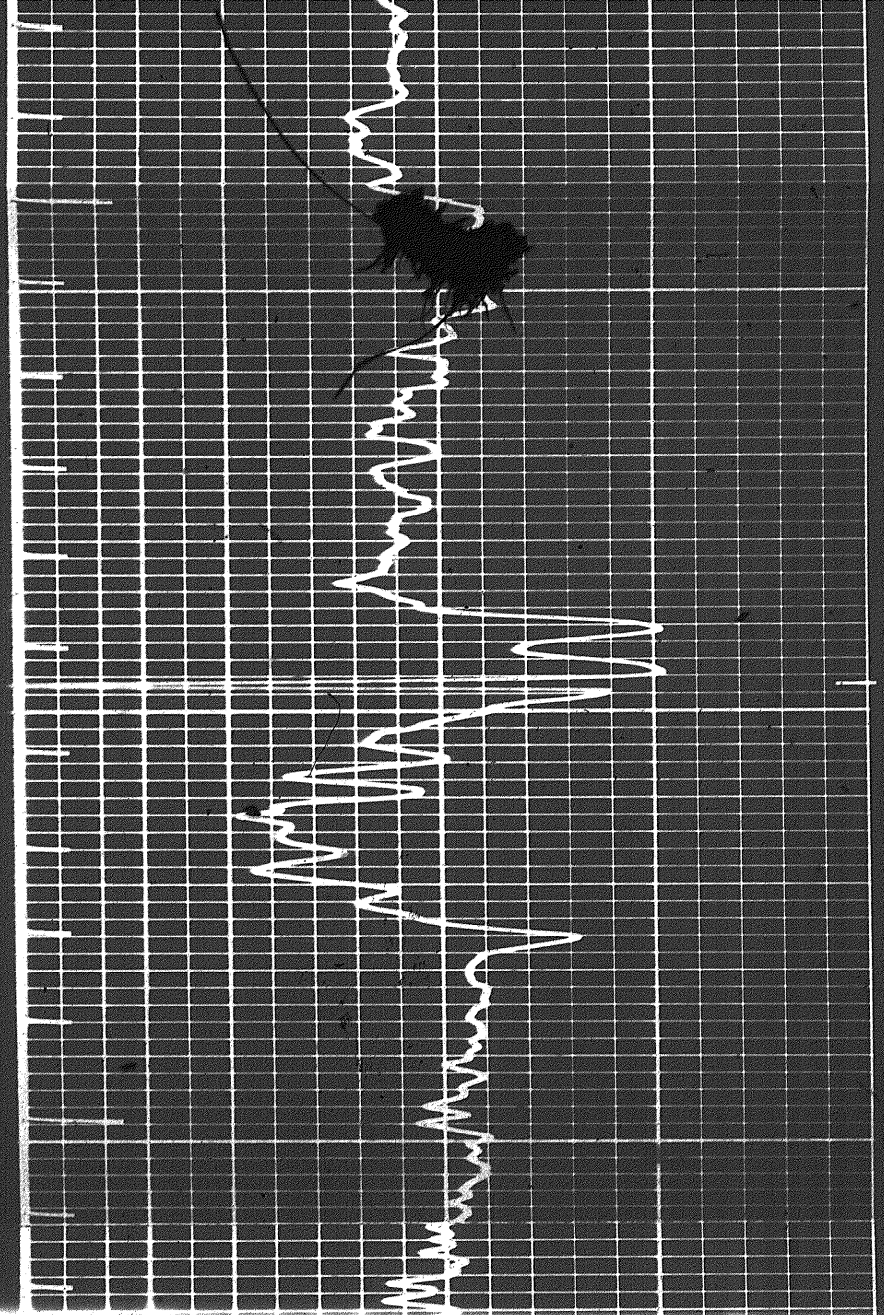
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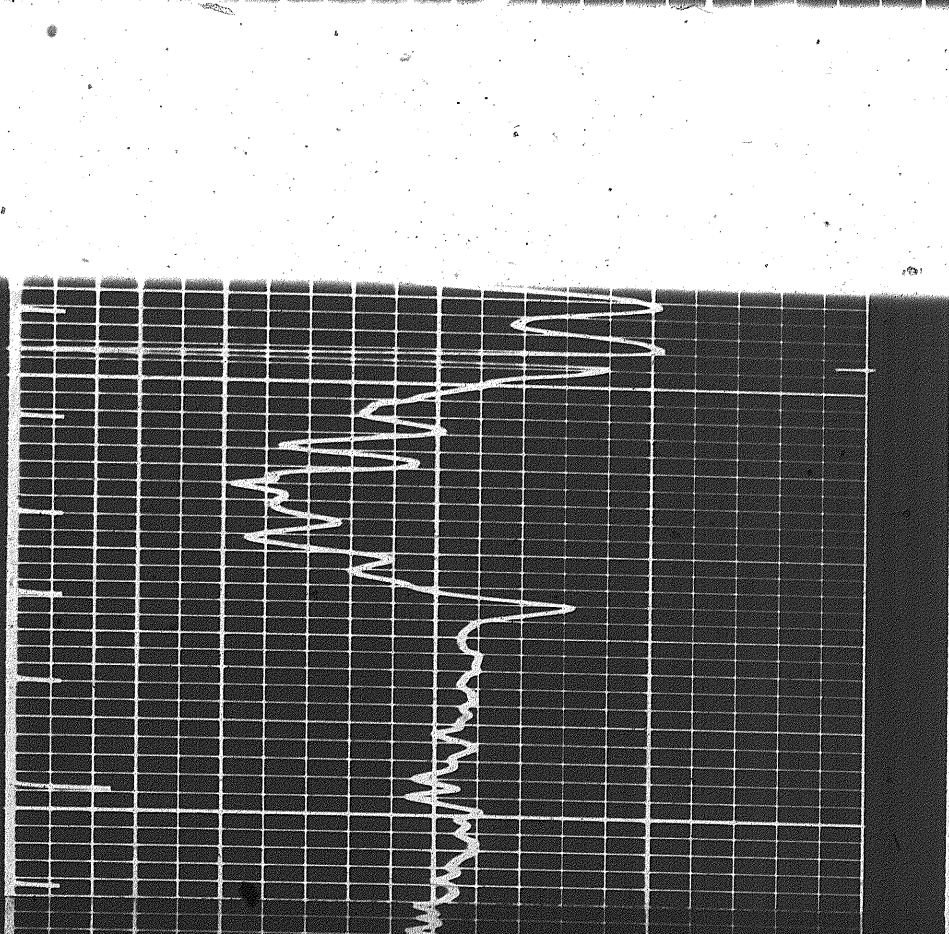


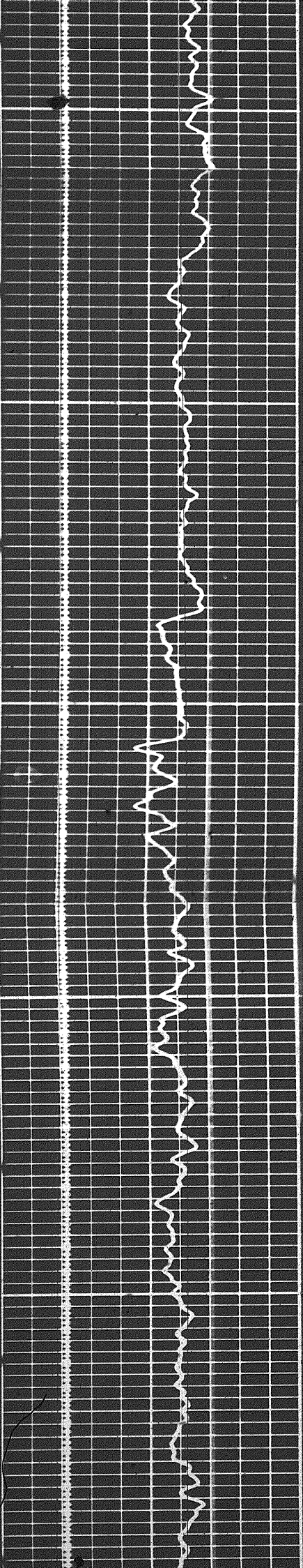


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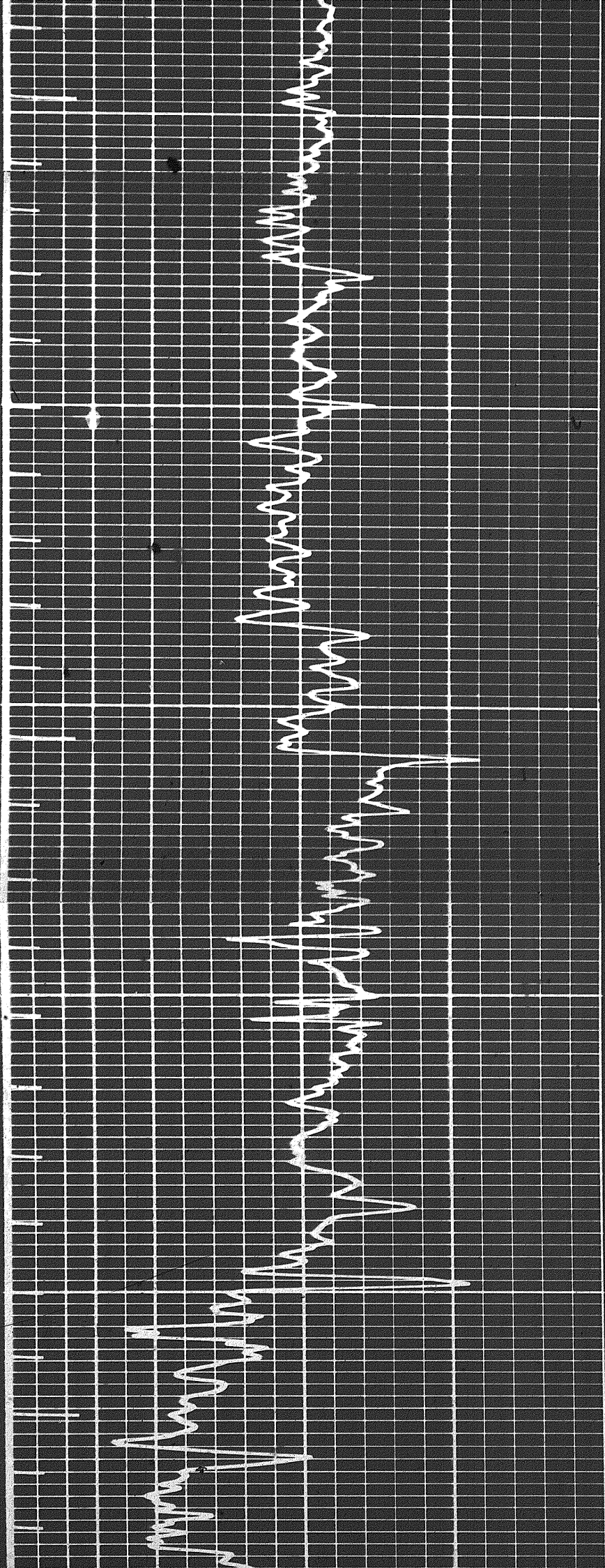
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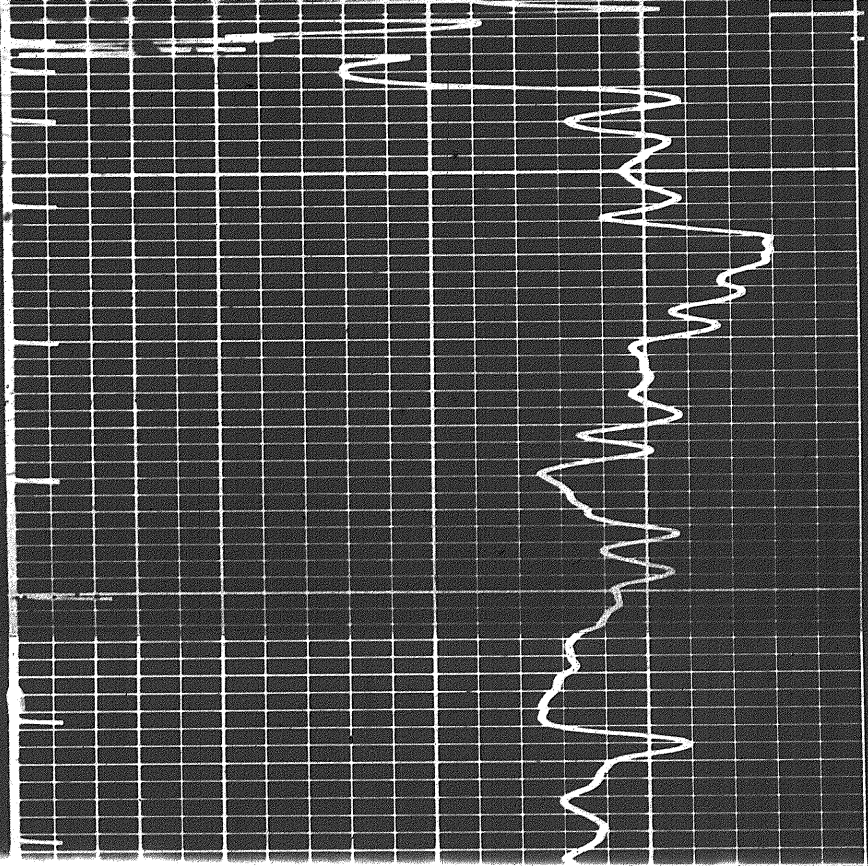




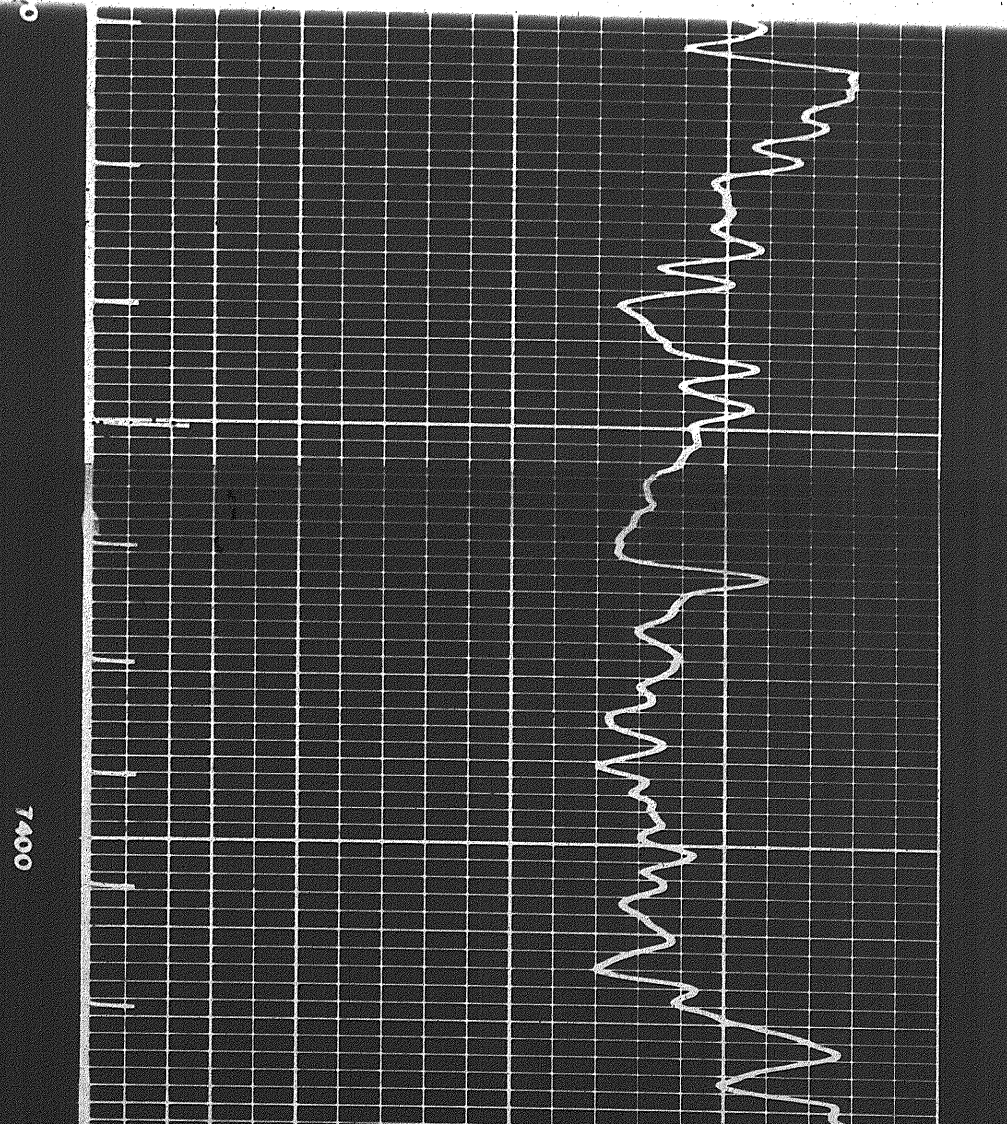
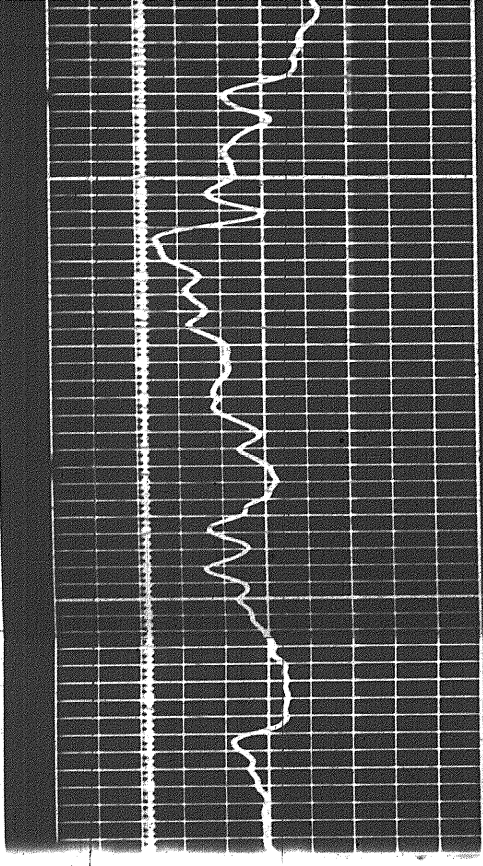
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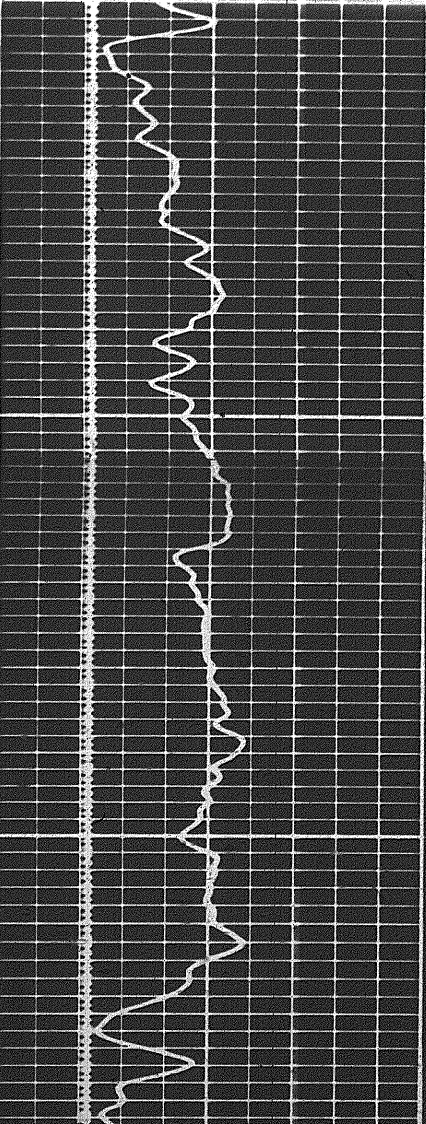




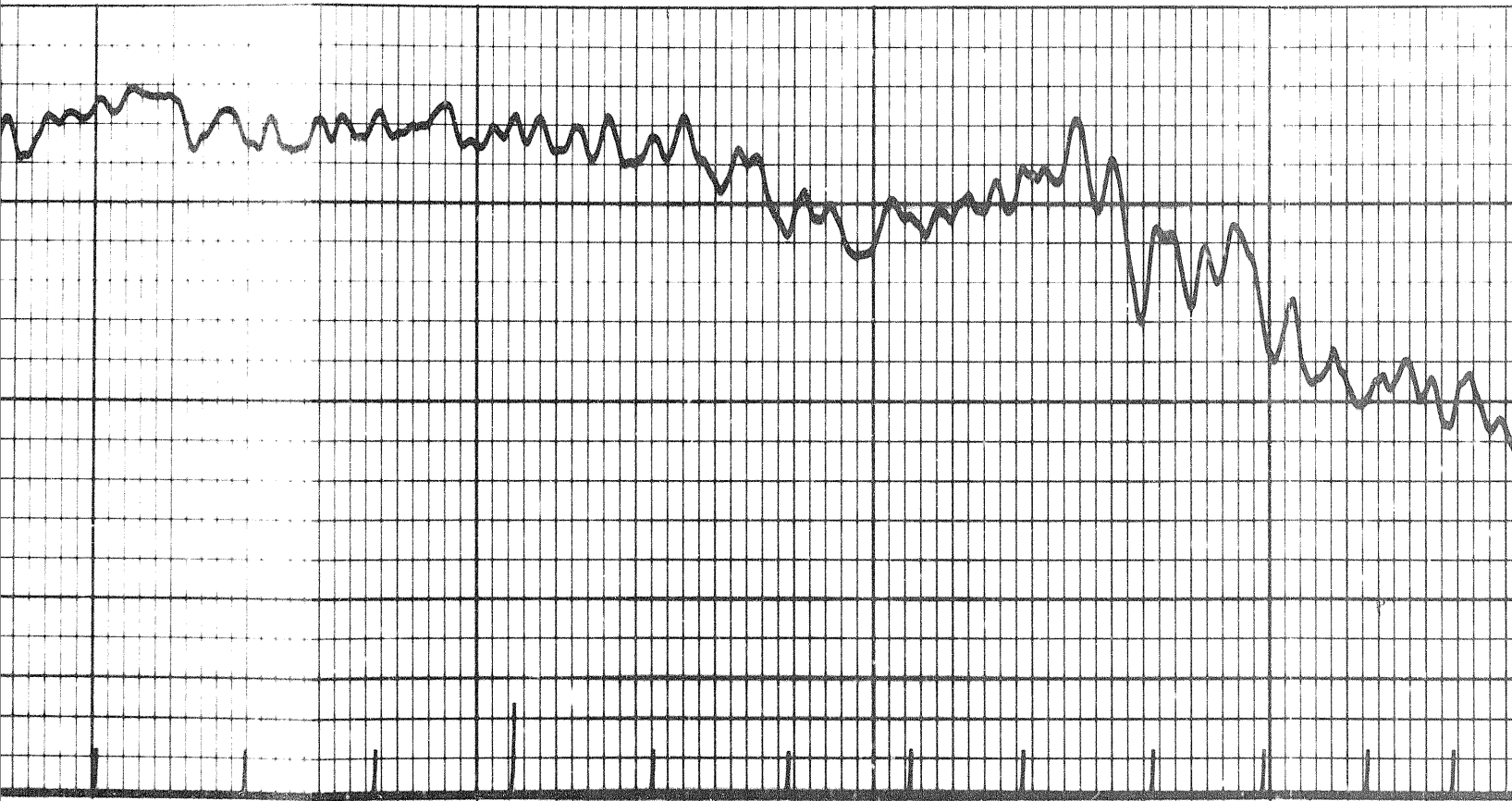
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7400

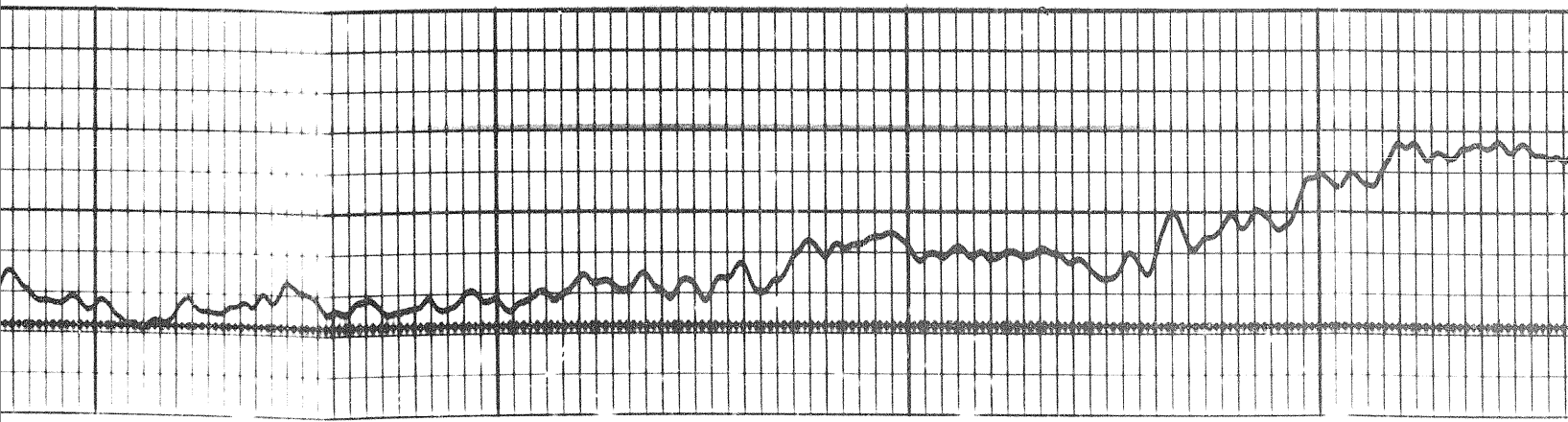


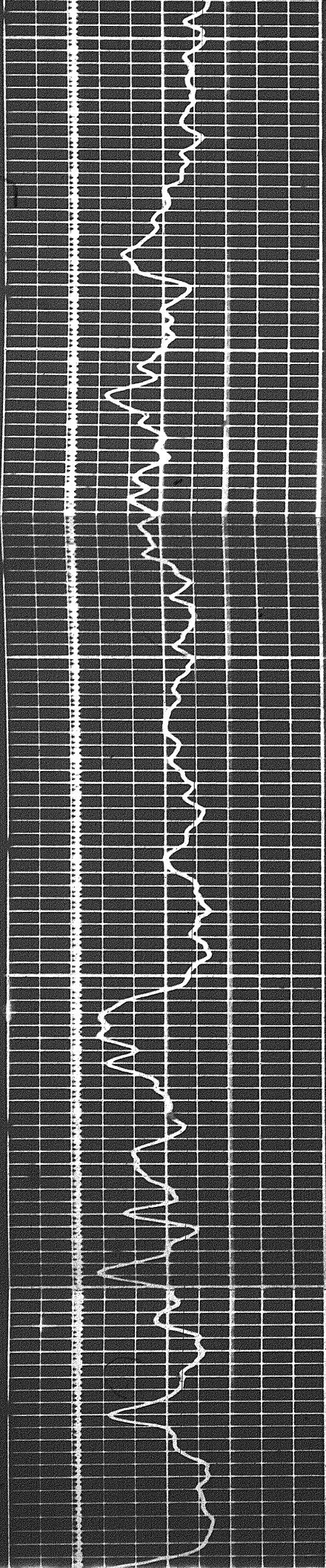
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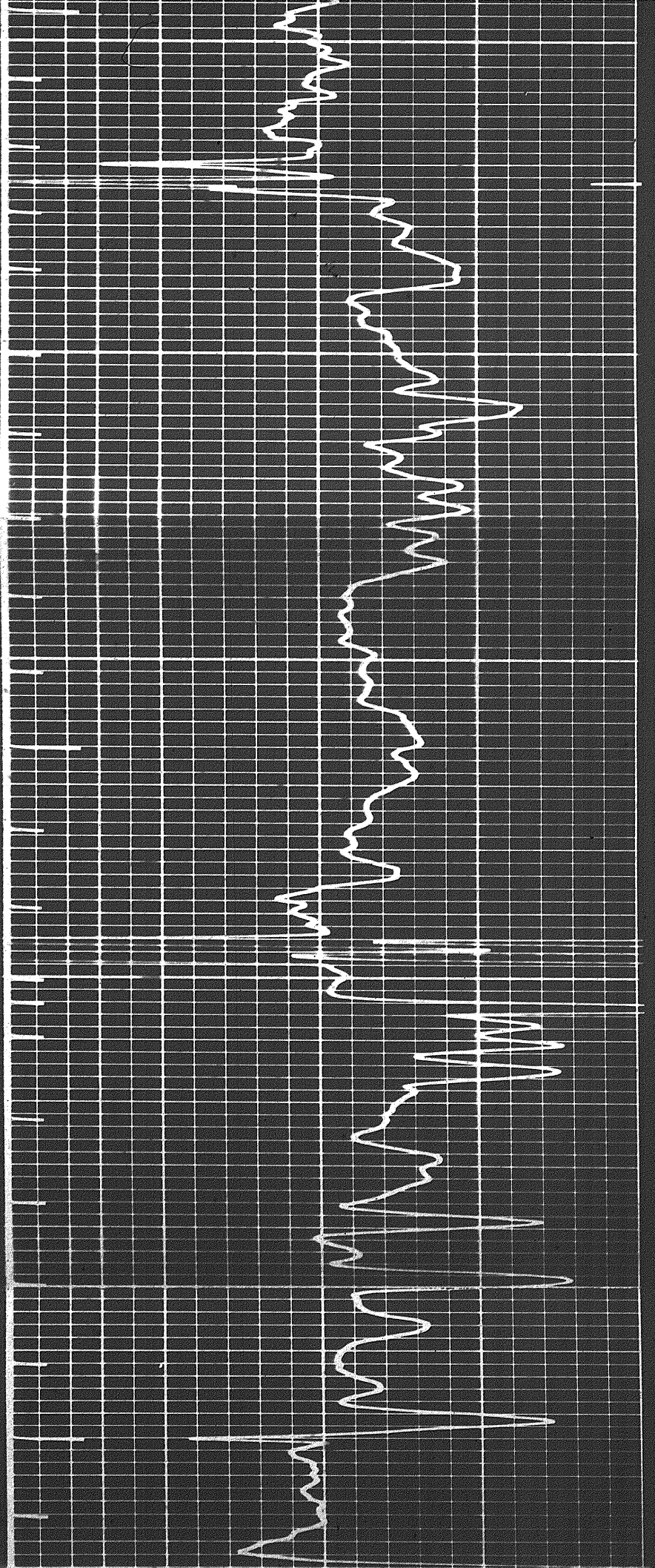
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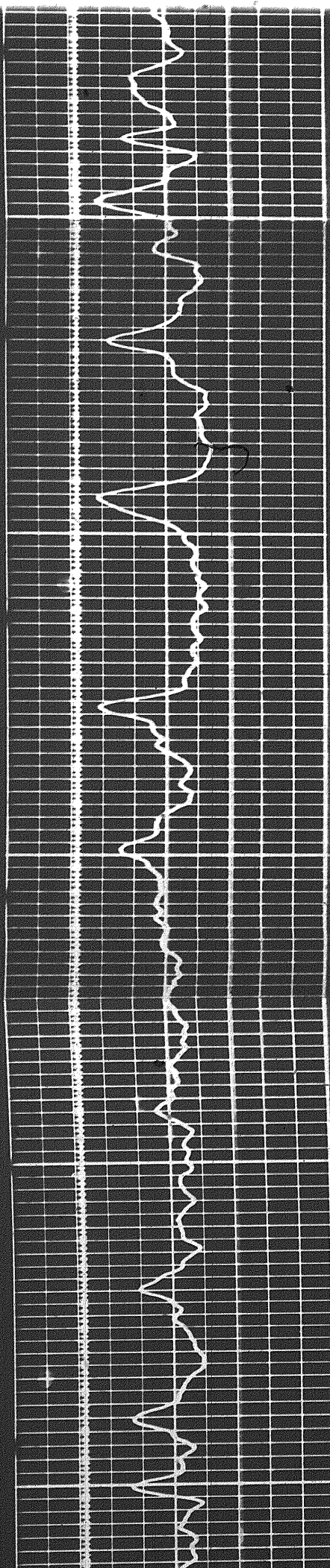




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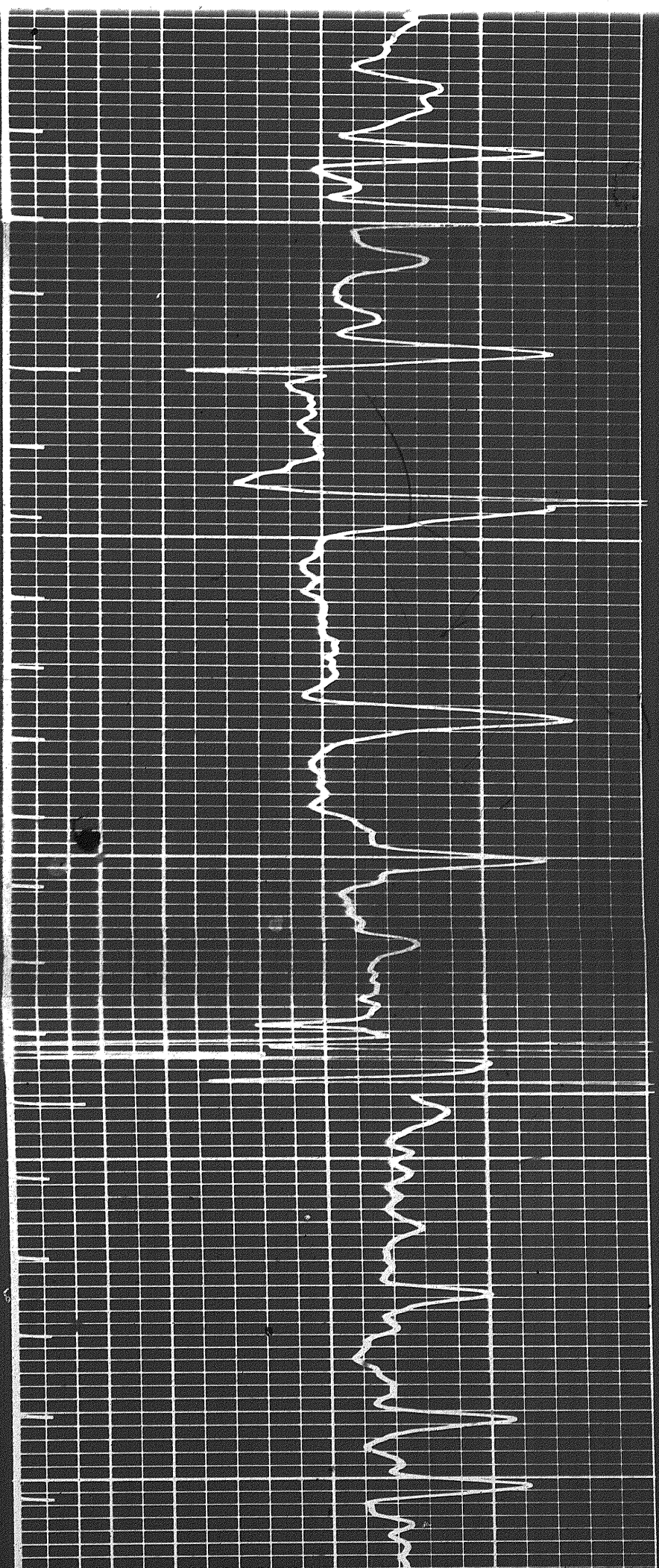
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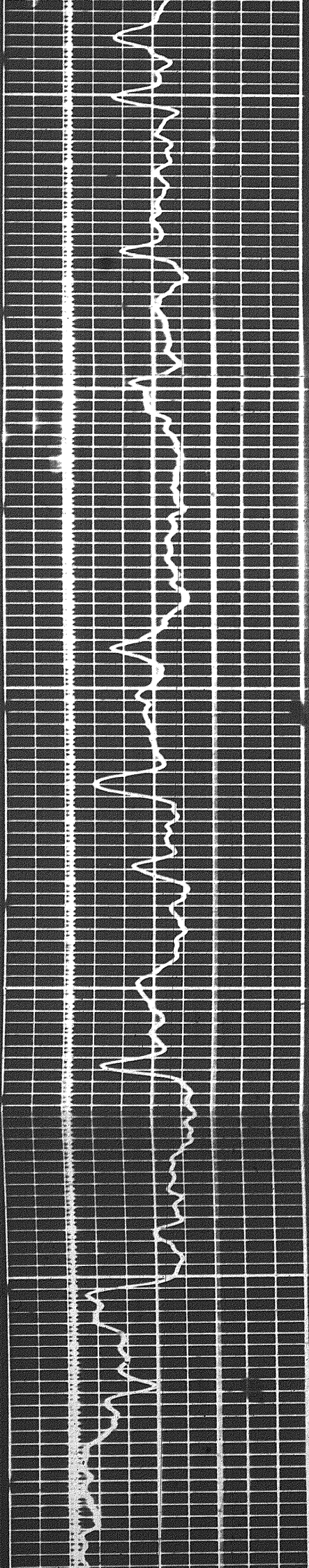




7500

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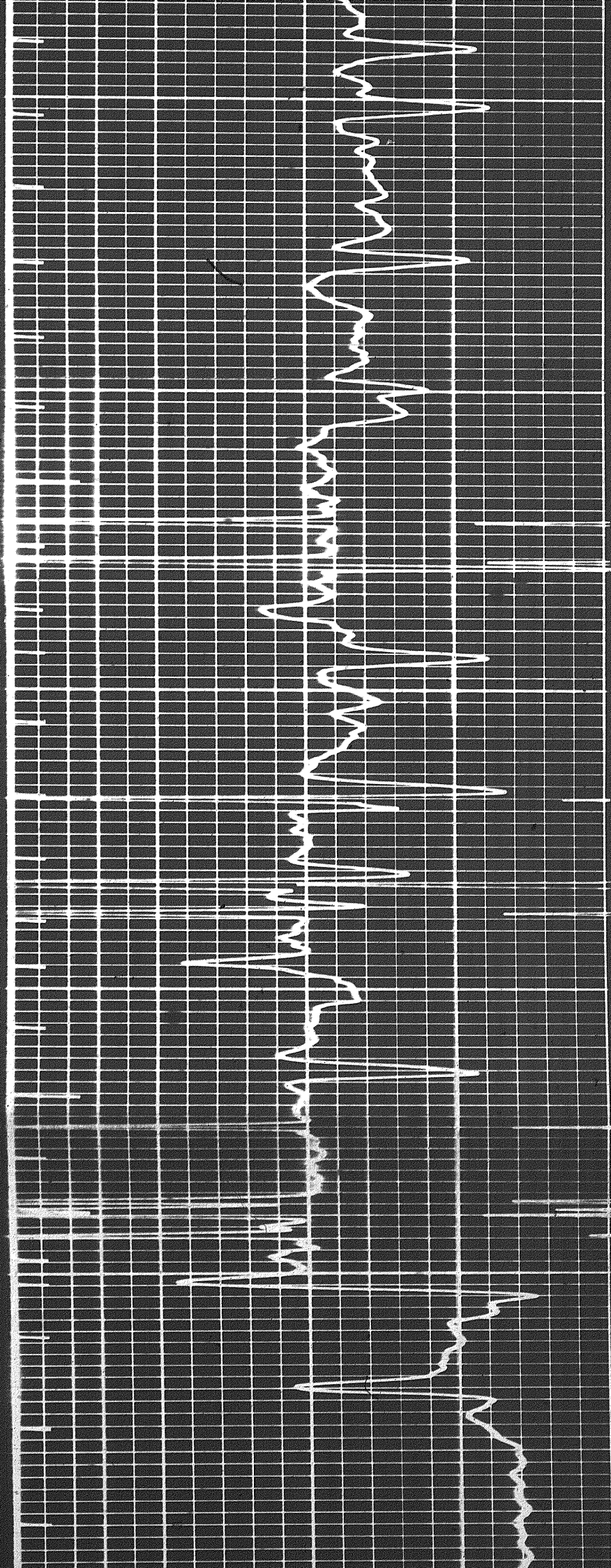


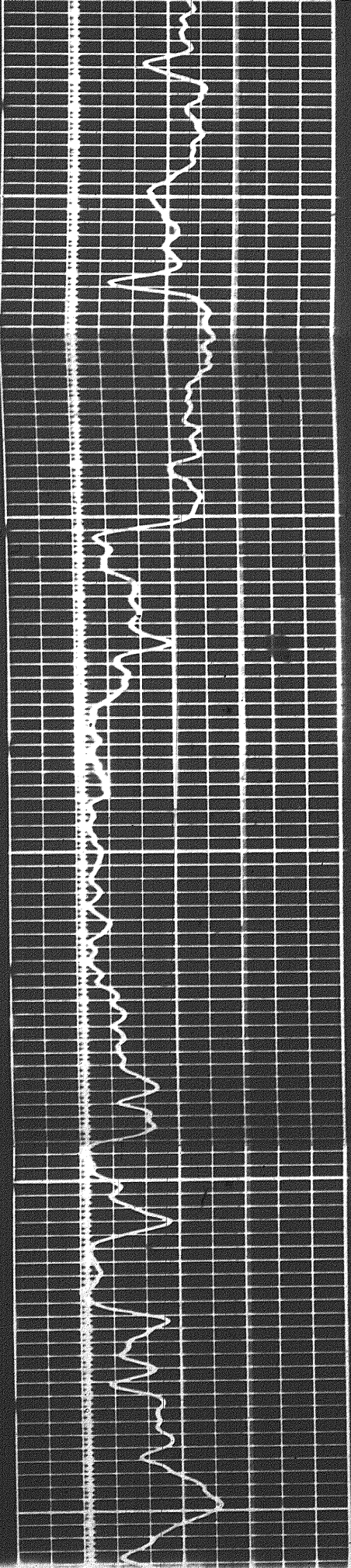


8000

8200

83

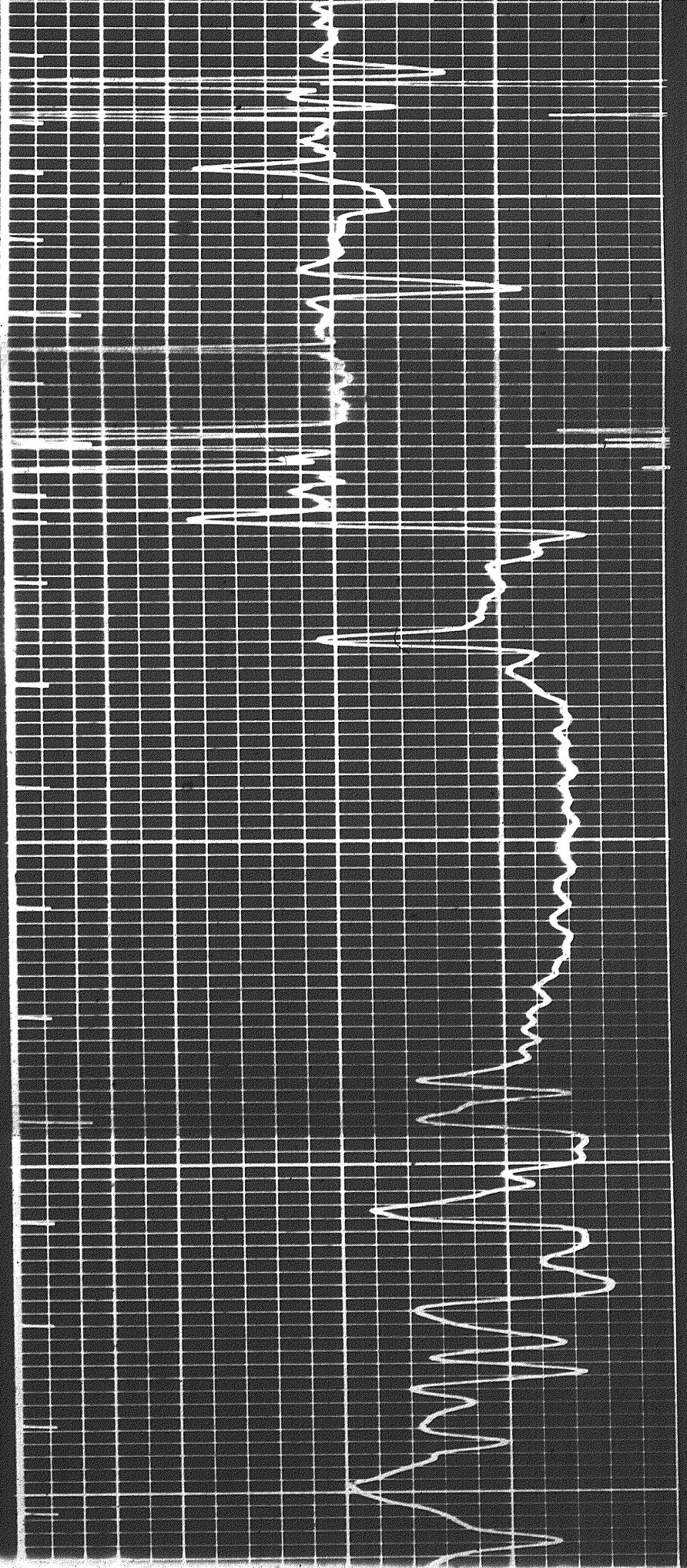


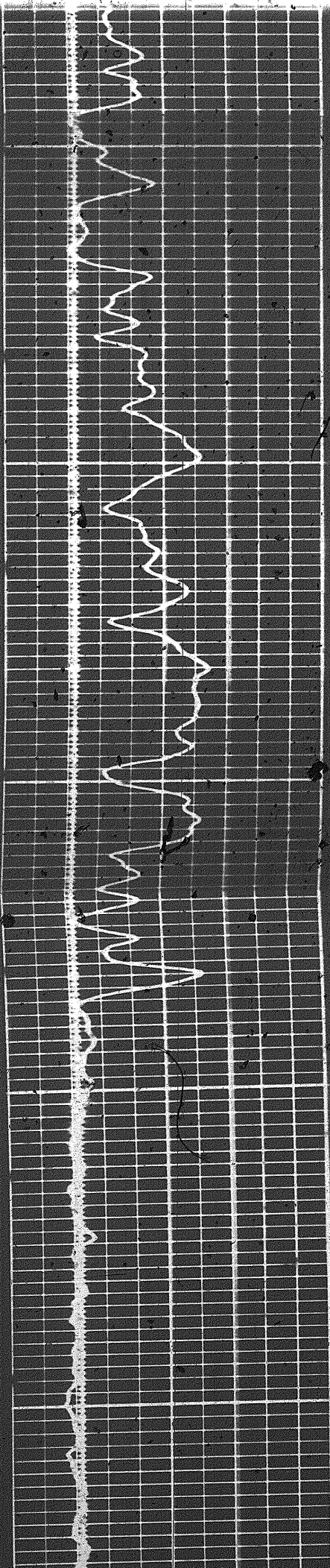


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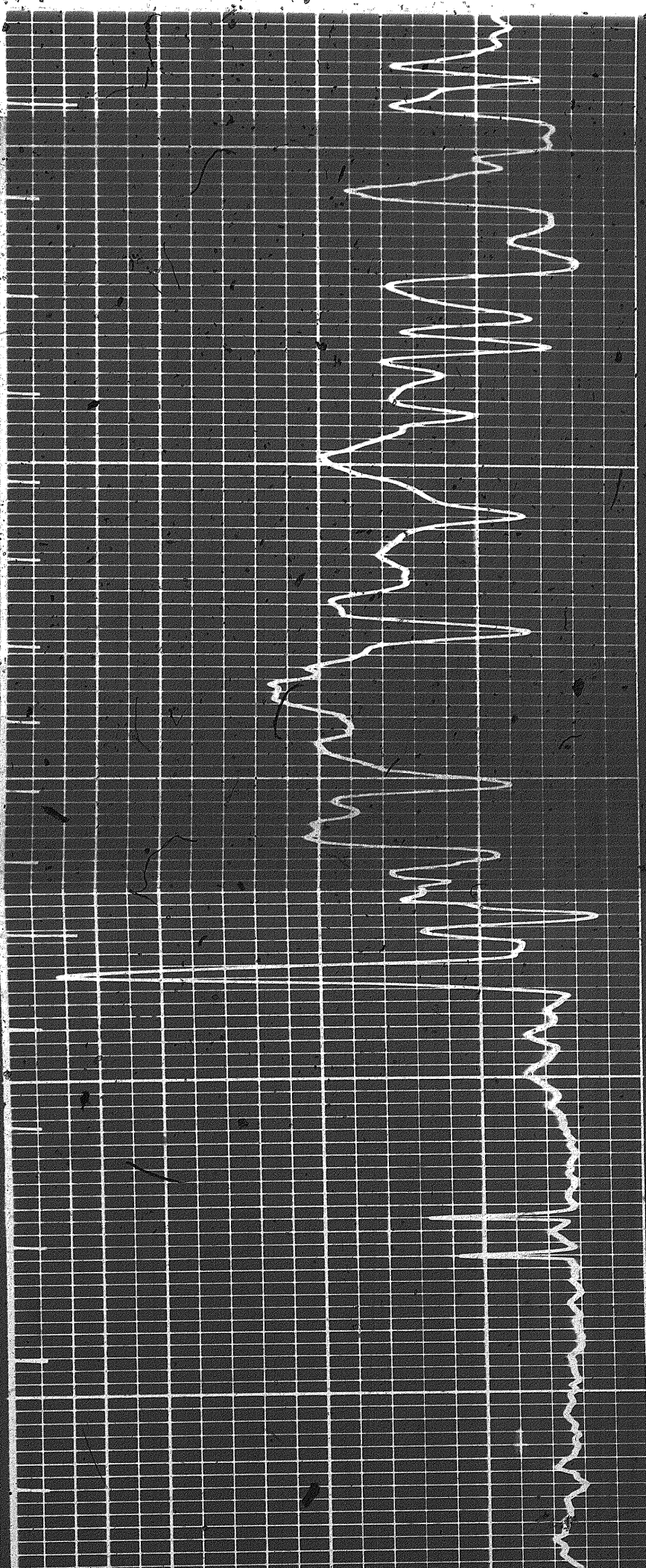
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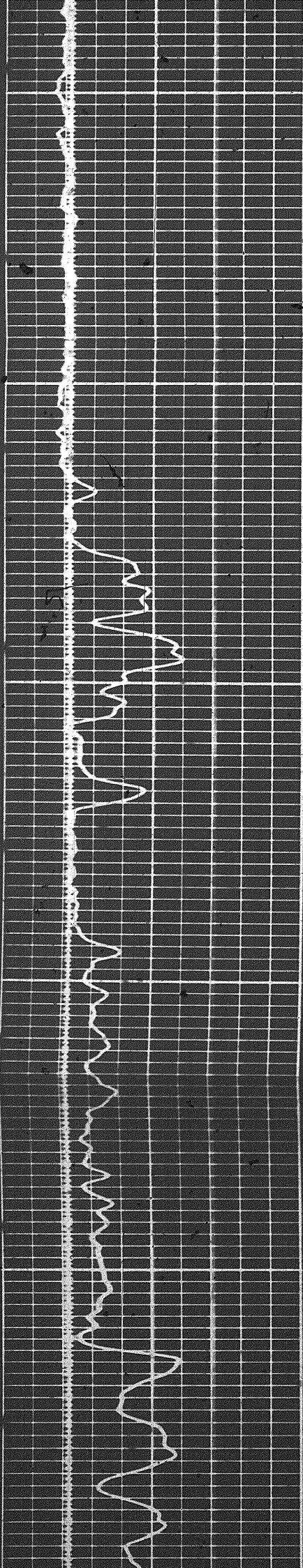




0008

0009

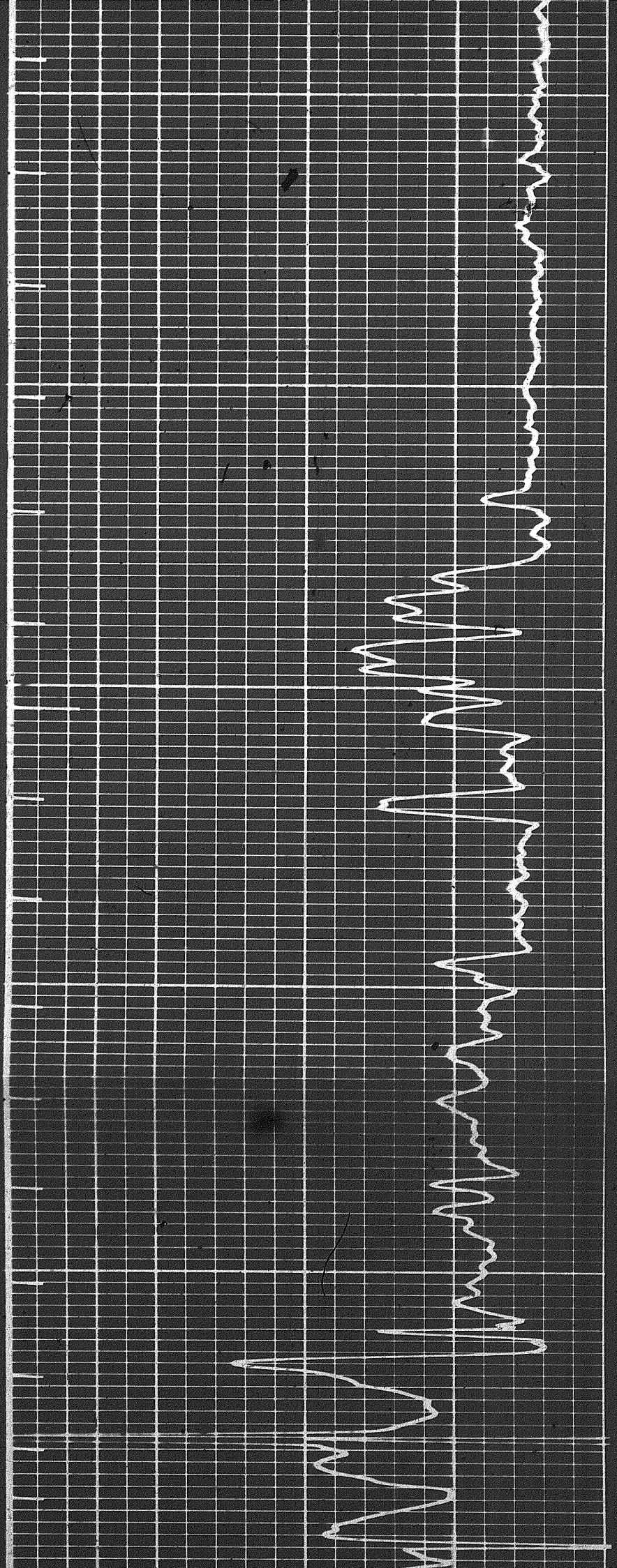


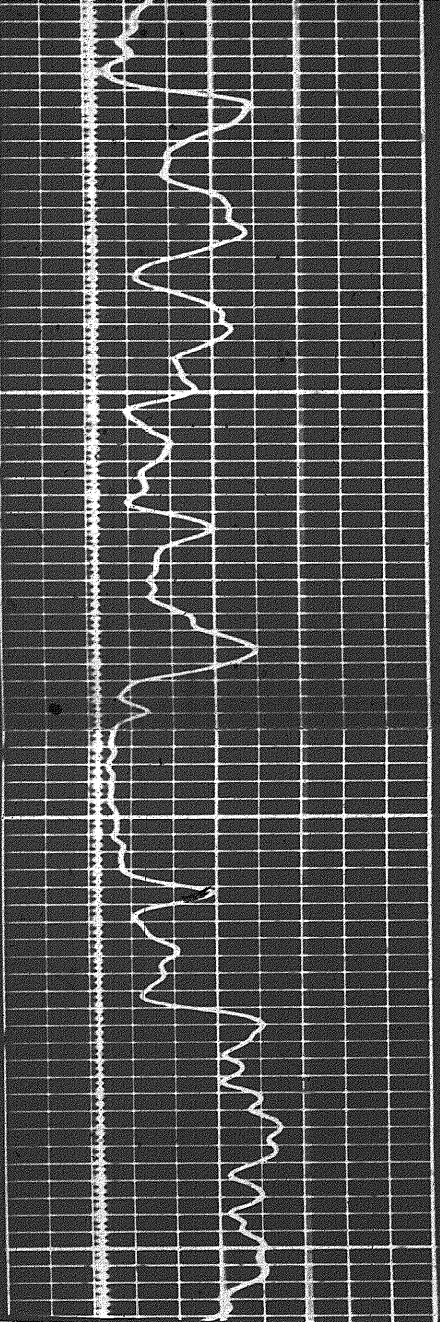


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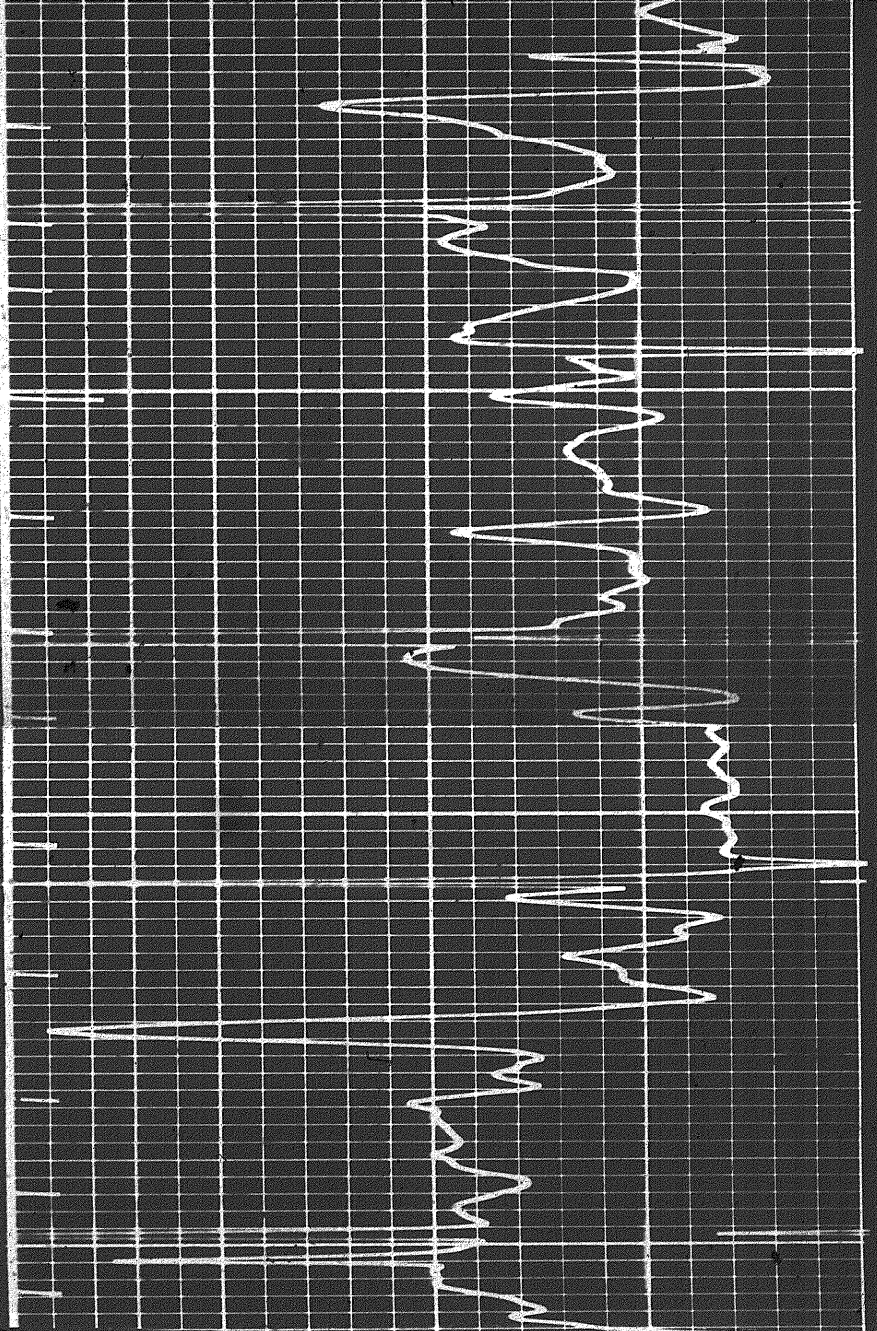
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88

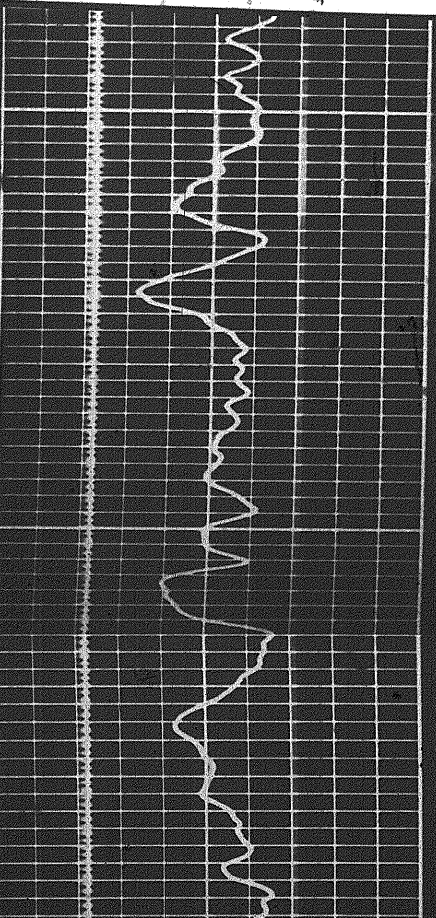




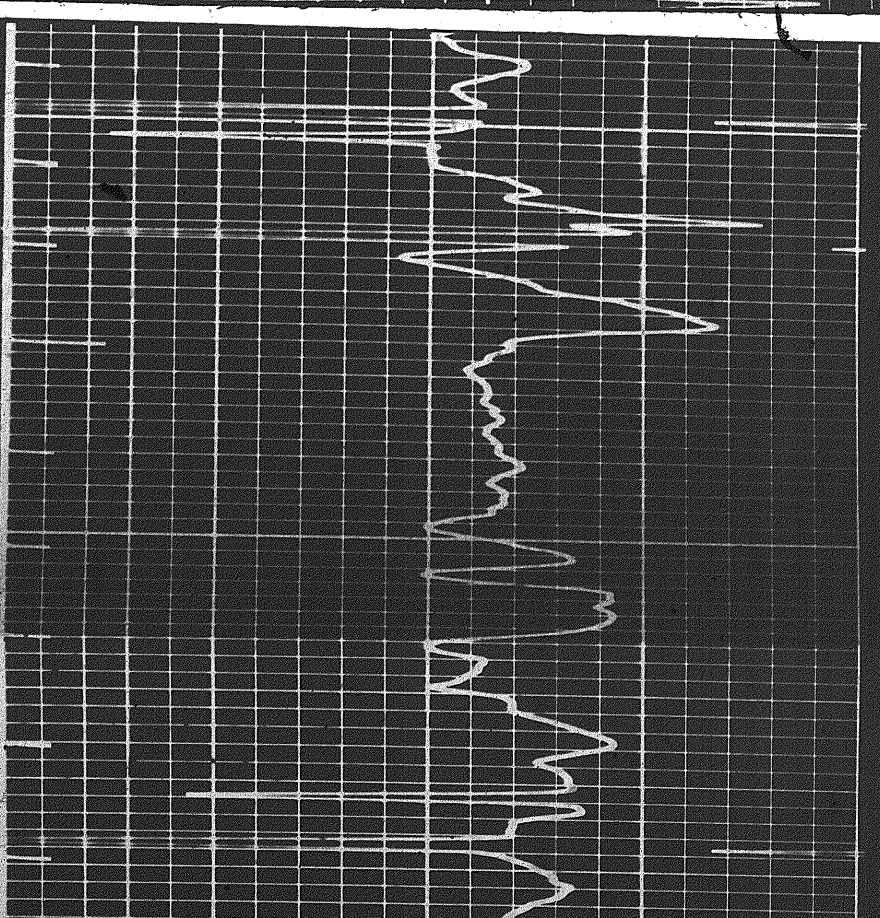
0.05 S

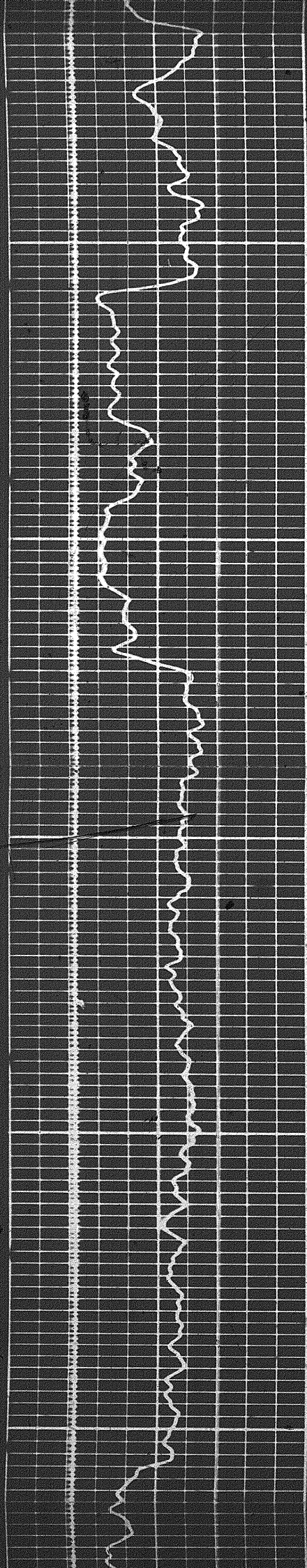


0.05 S



0.05 S

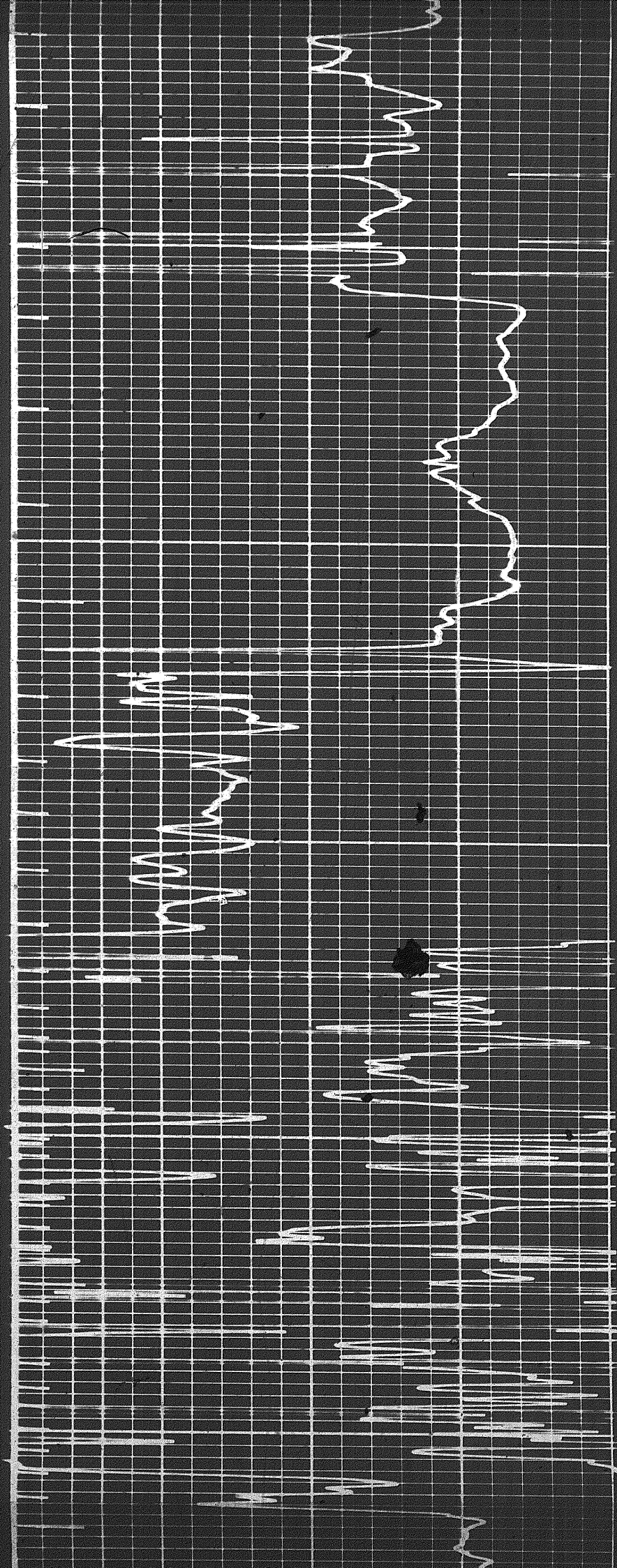


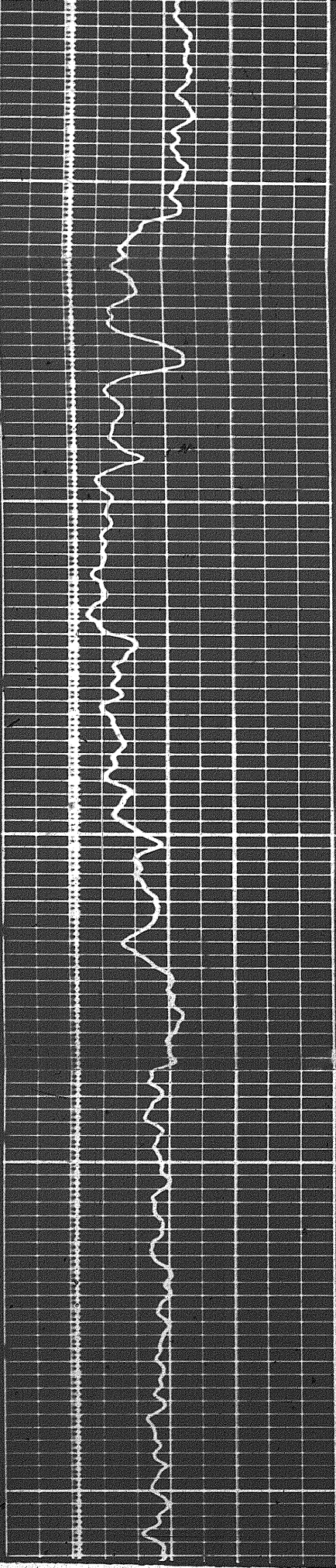


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8100

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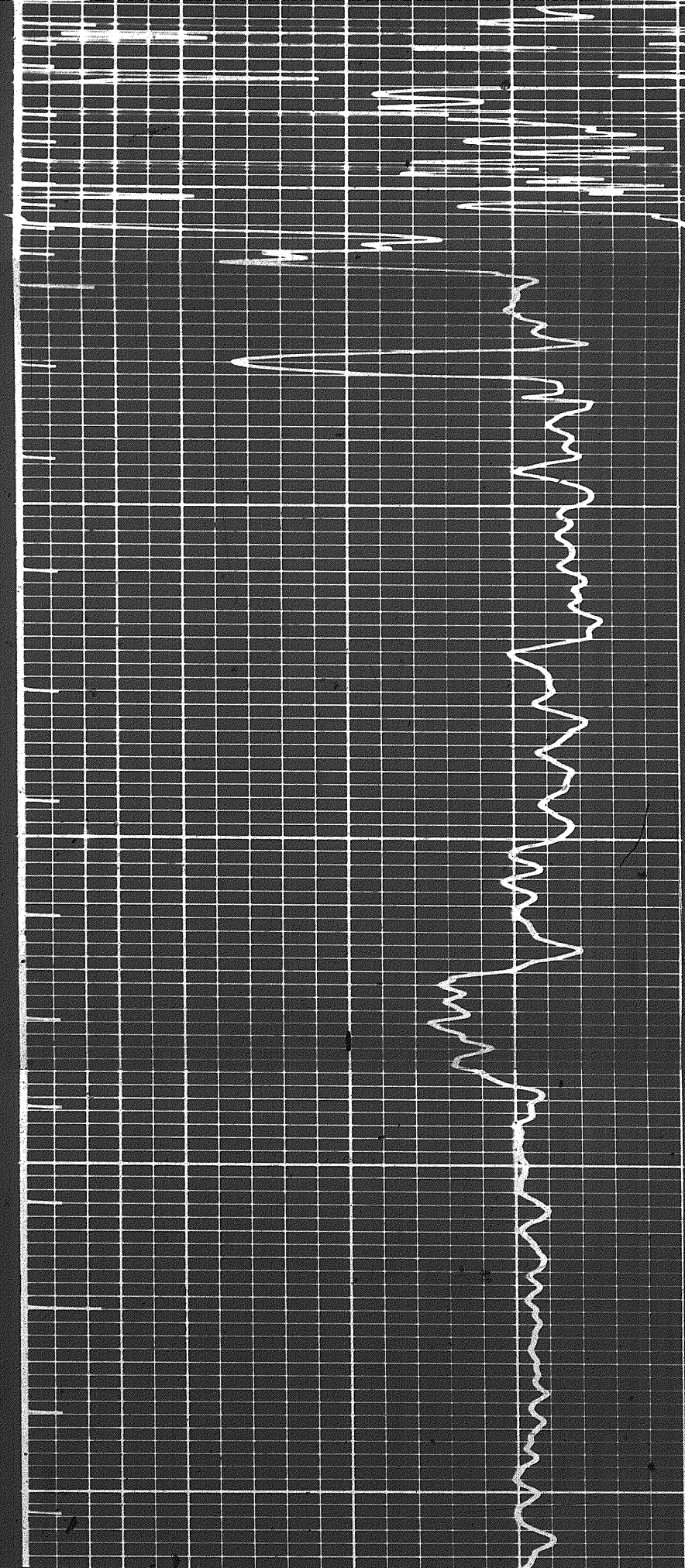




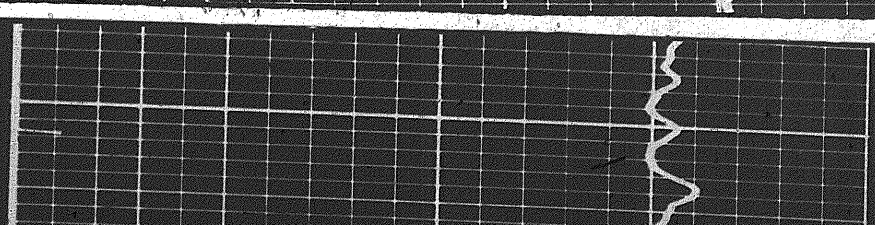
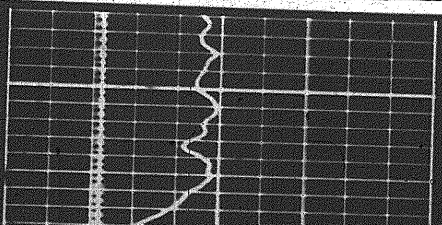
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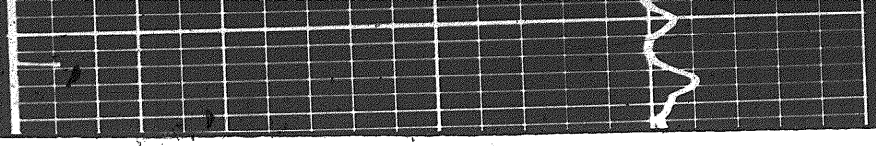
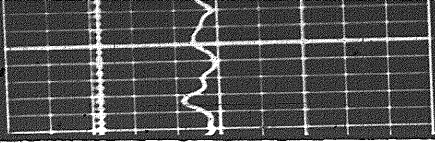
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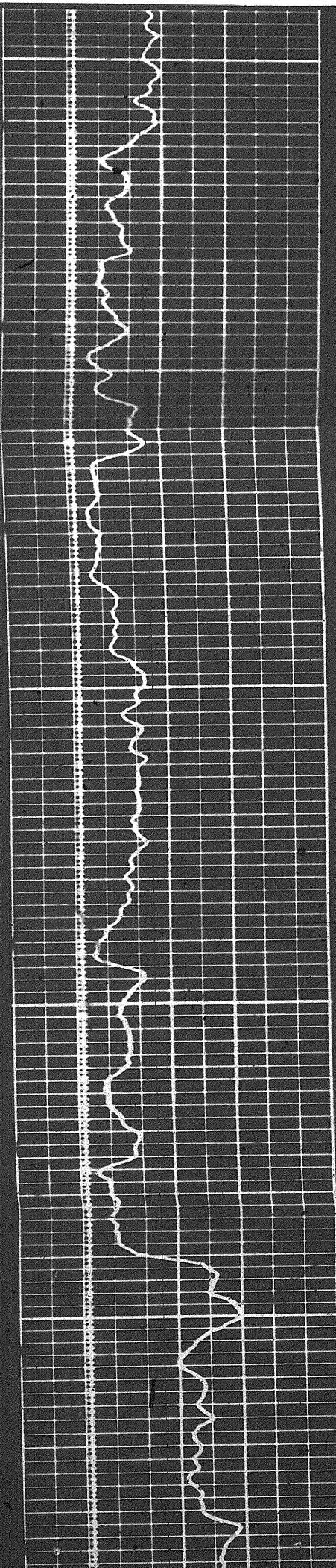
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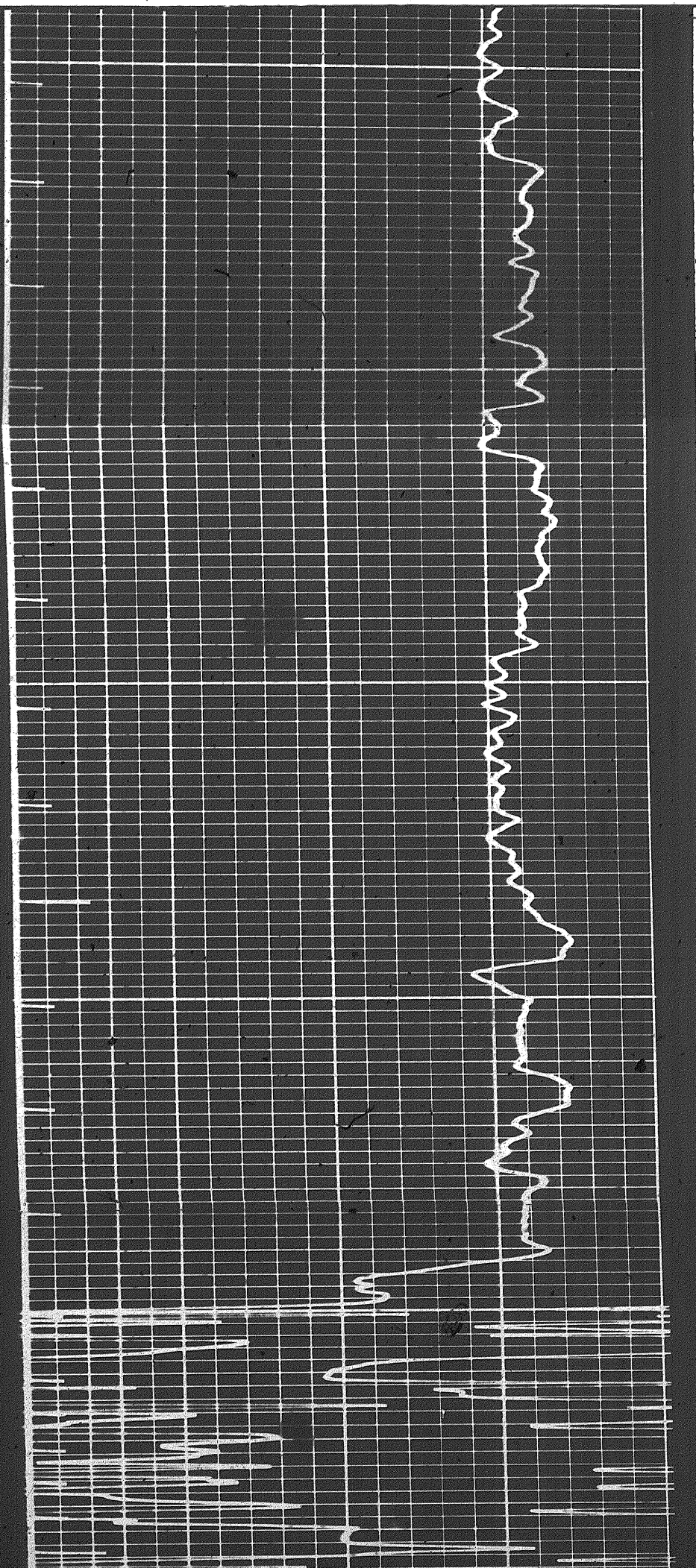
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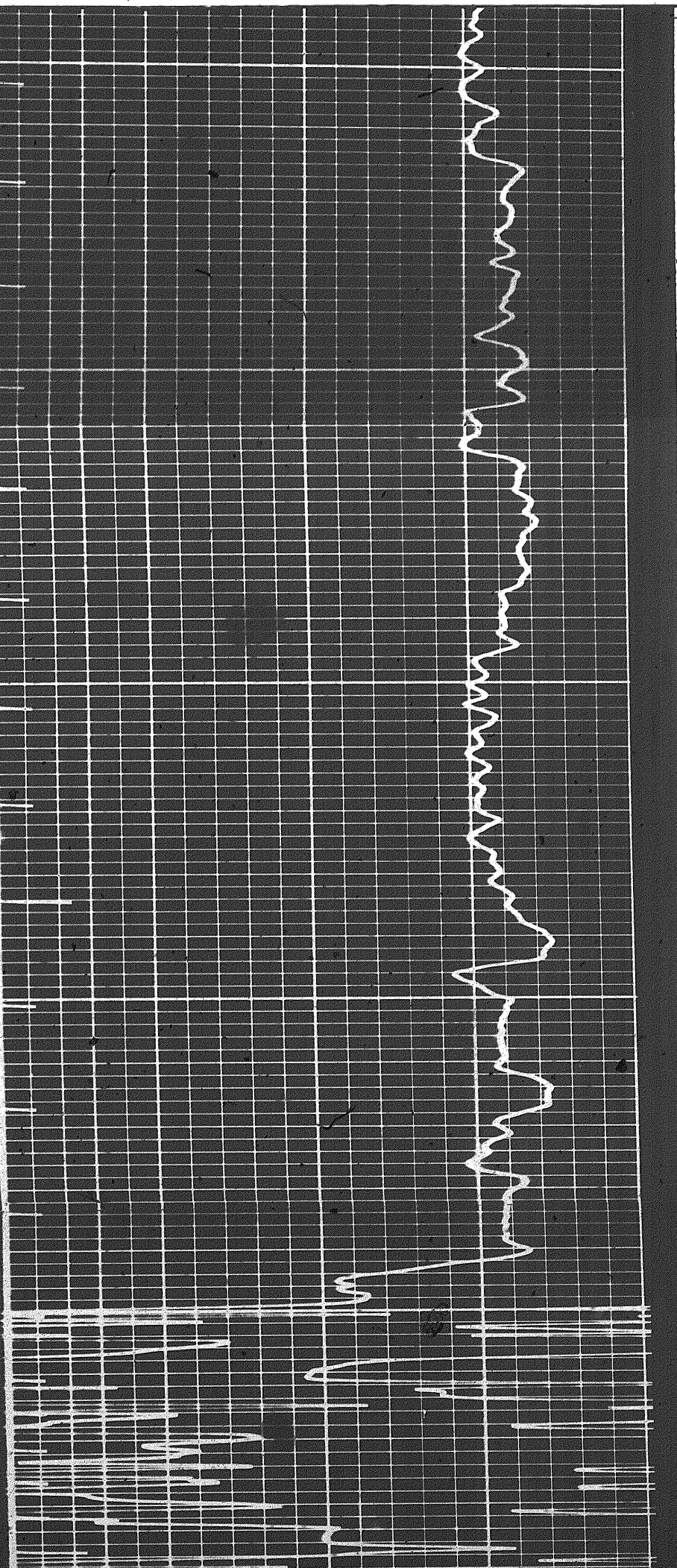
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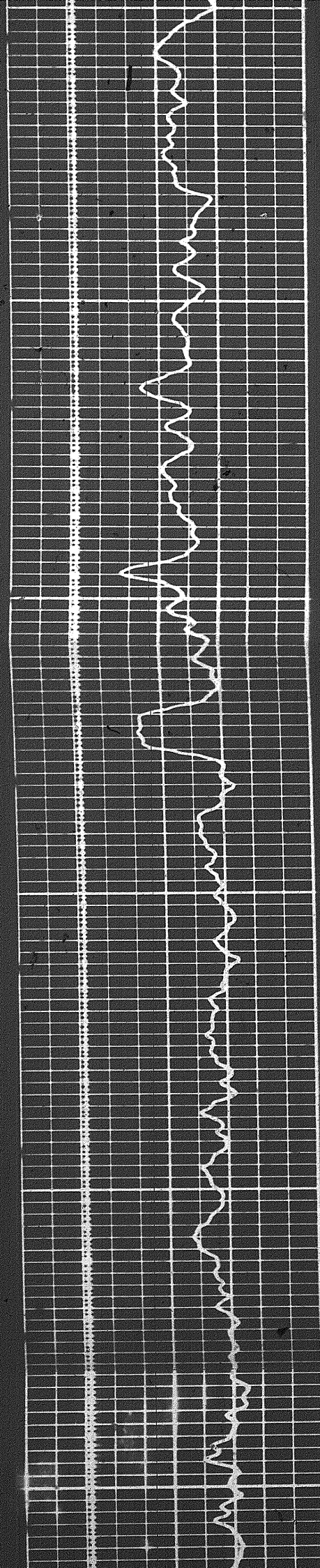


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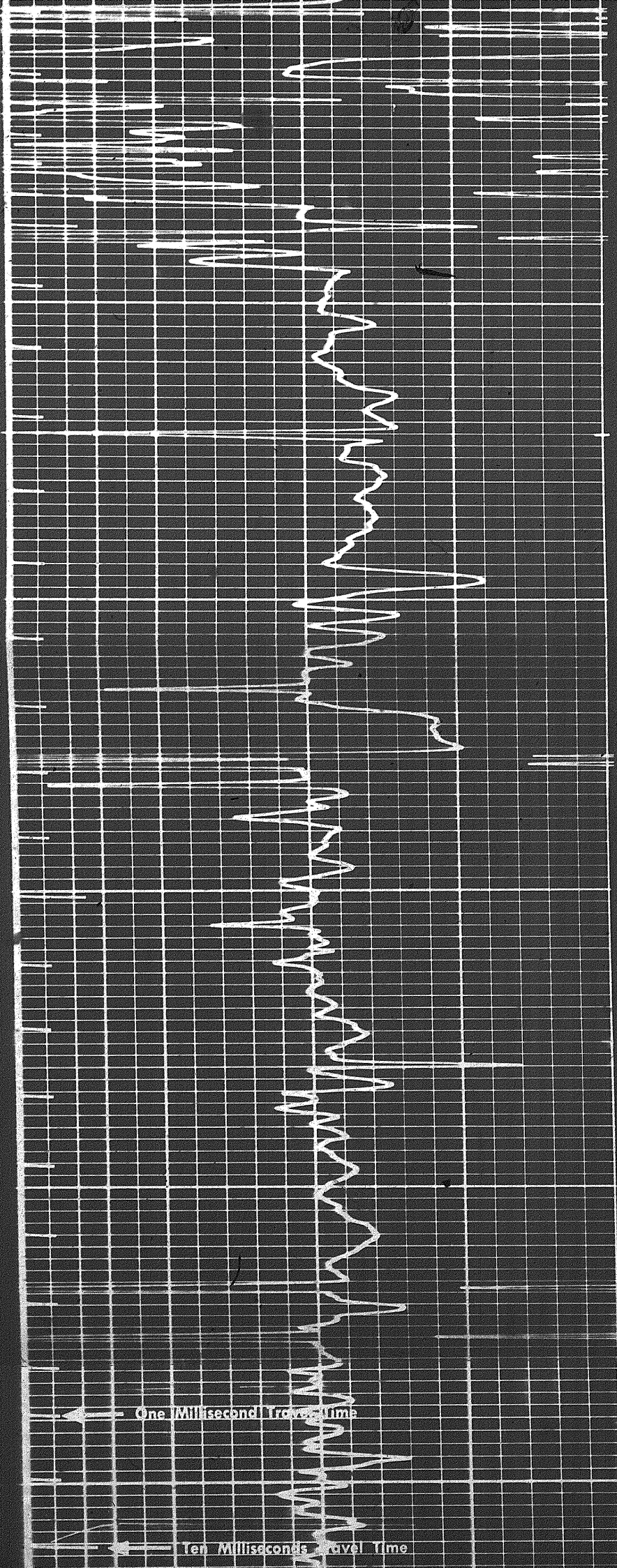




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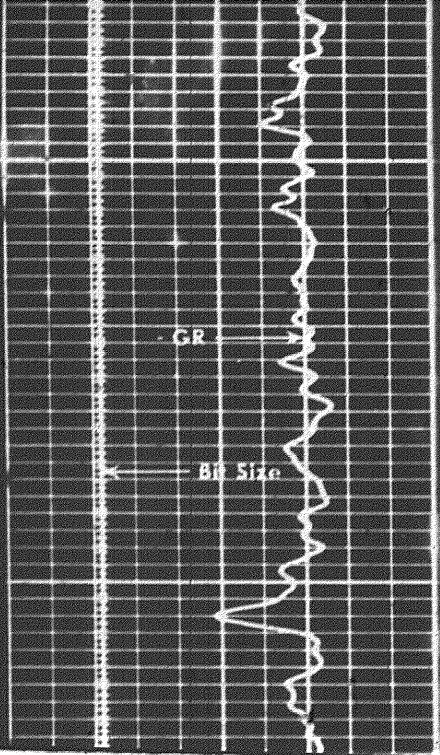
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9800

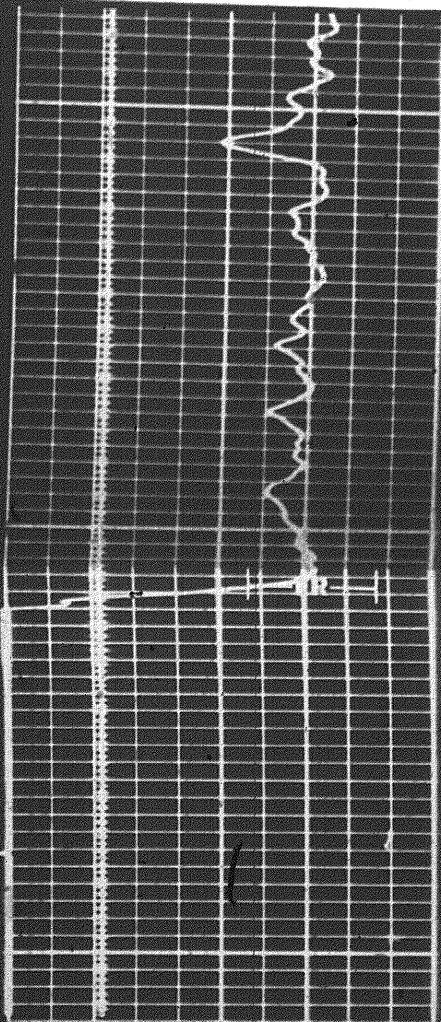
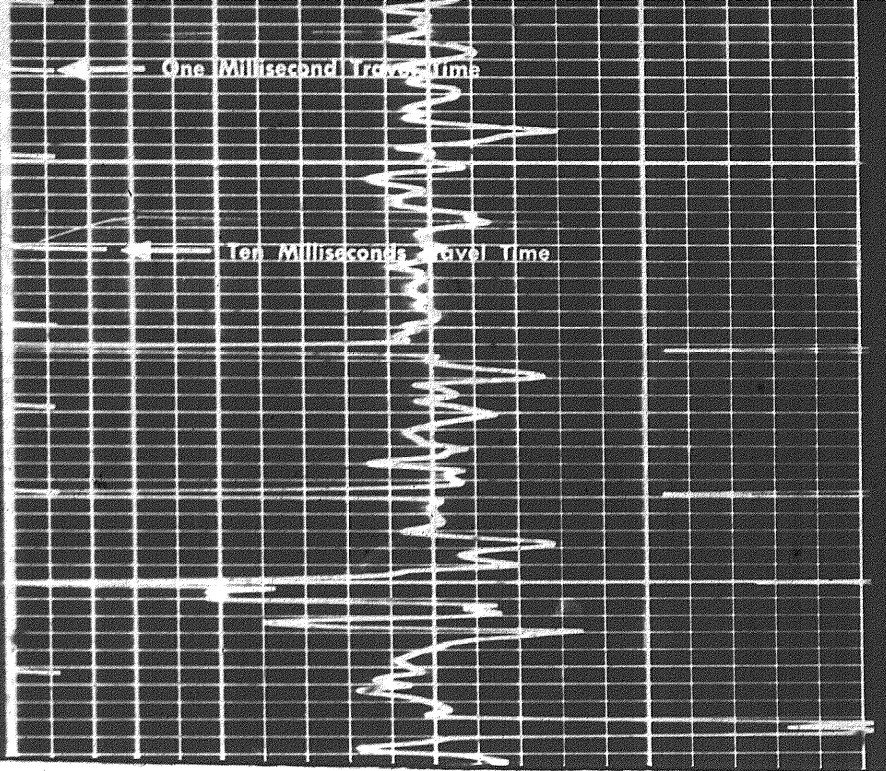


← One Millisecond Travel Time

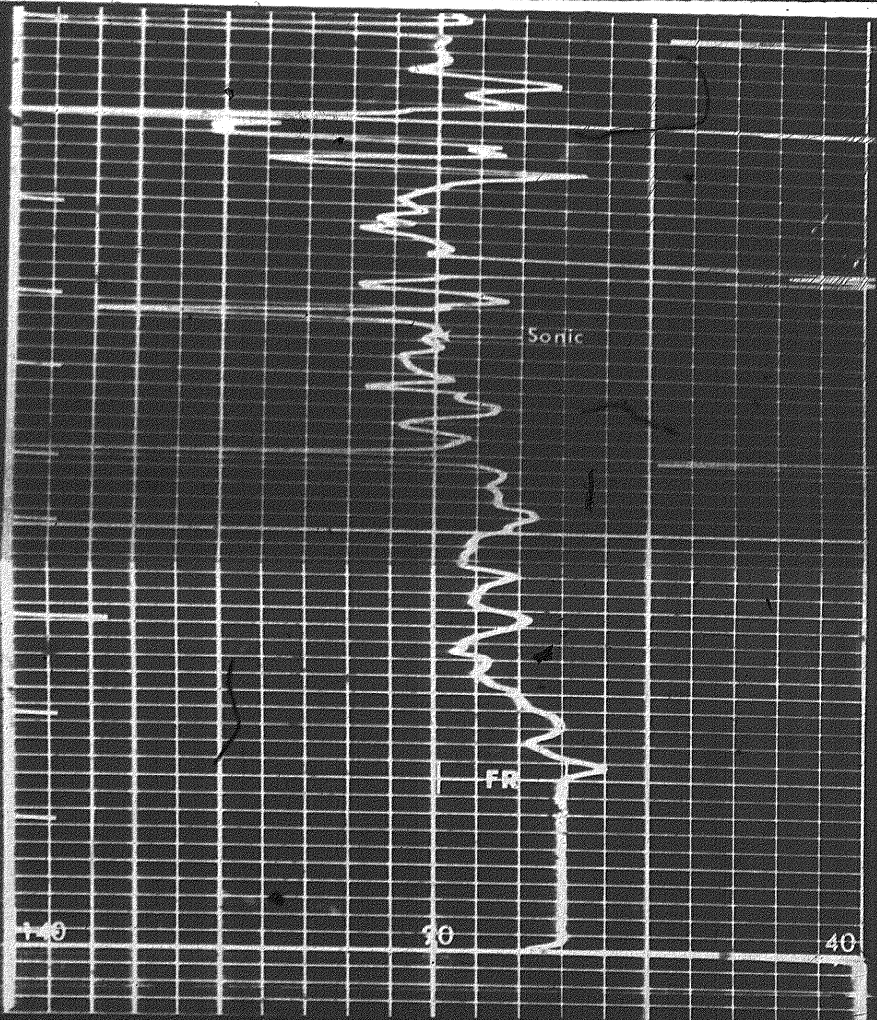
← Ten Milliseconds Travel Time



0065



0065



0061

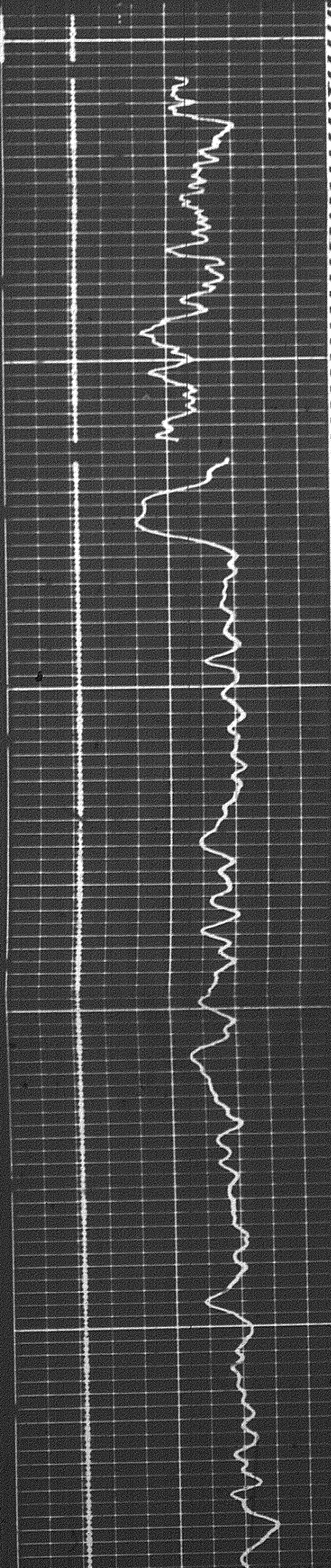
REPEAT SECTION

X1165

LOG

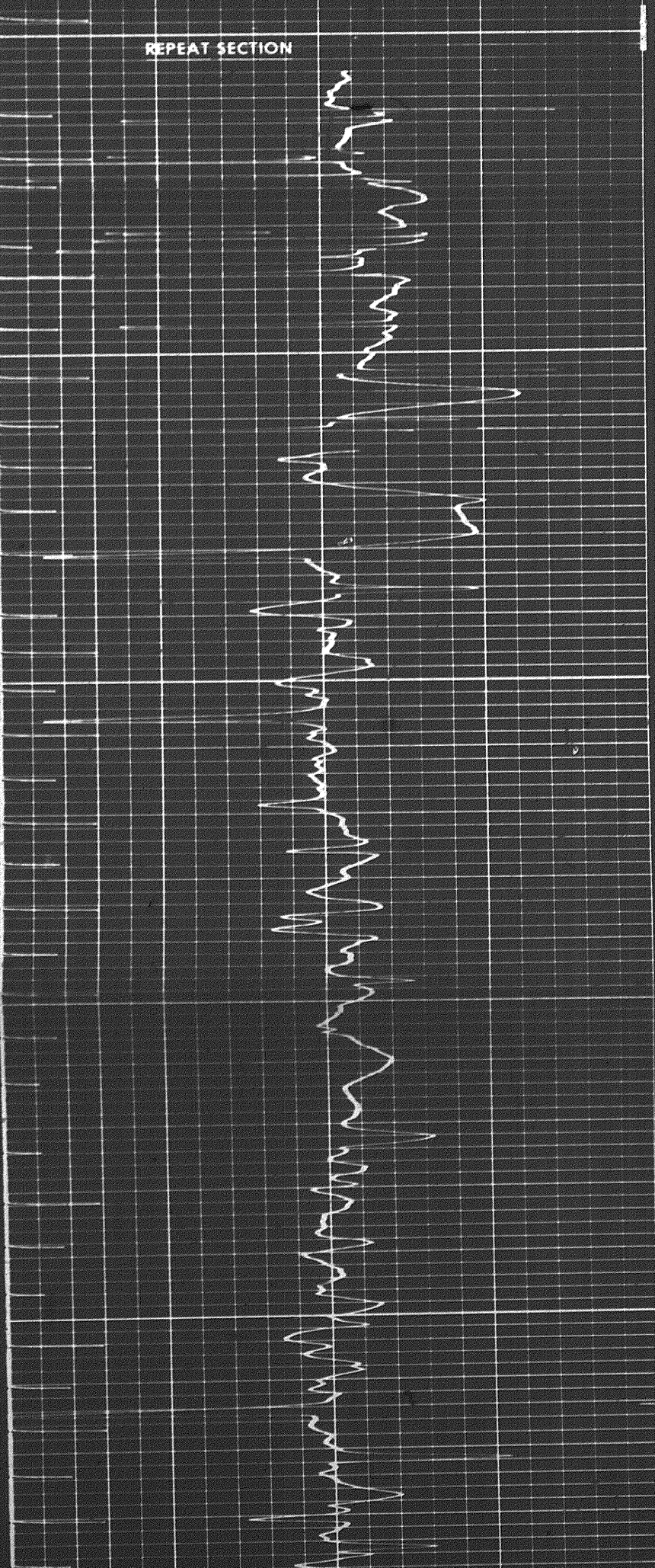
REPEAT SECTION

X1165

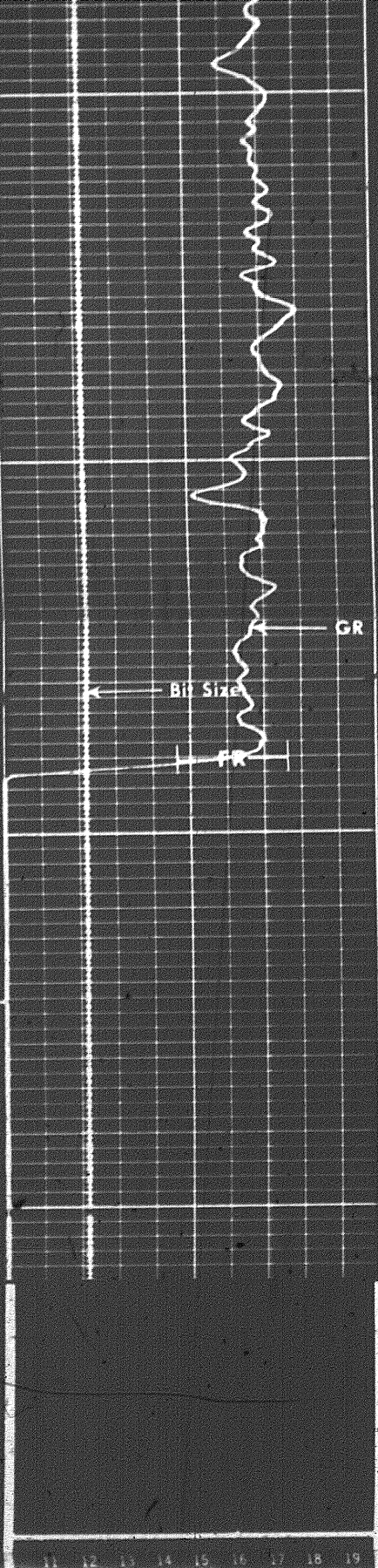


LOG INVALID — MEMORIZER OUT

9000

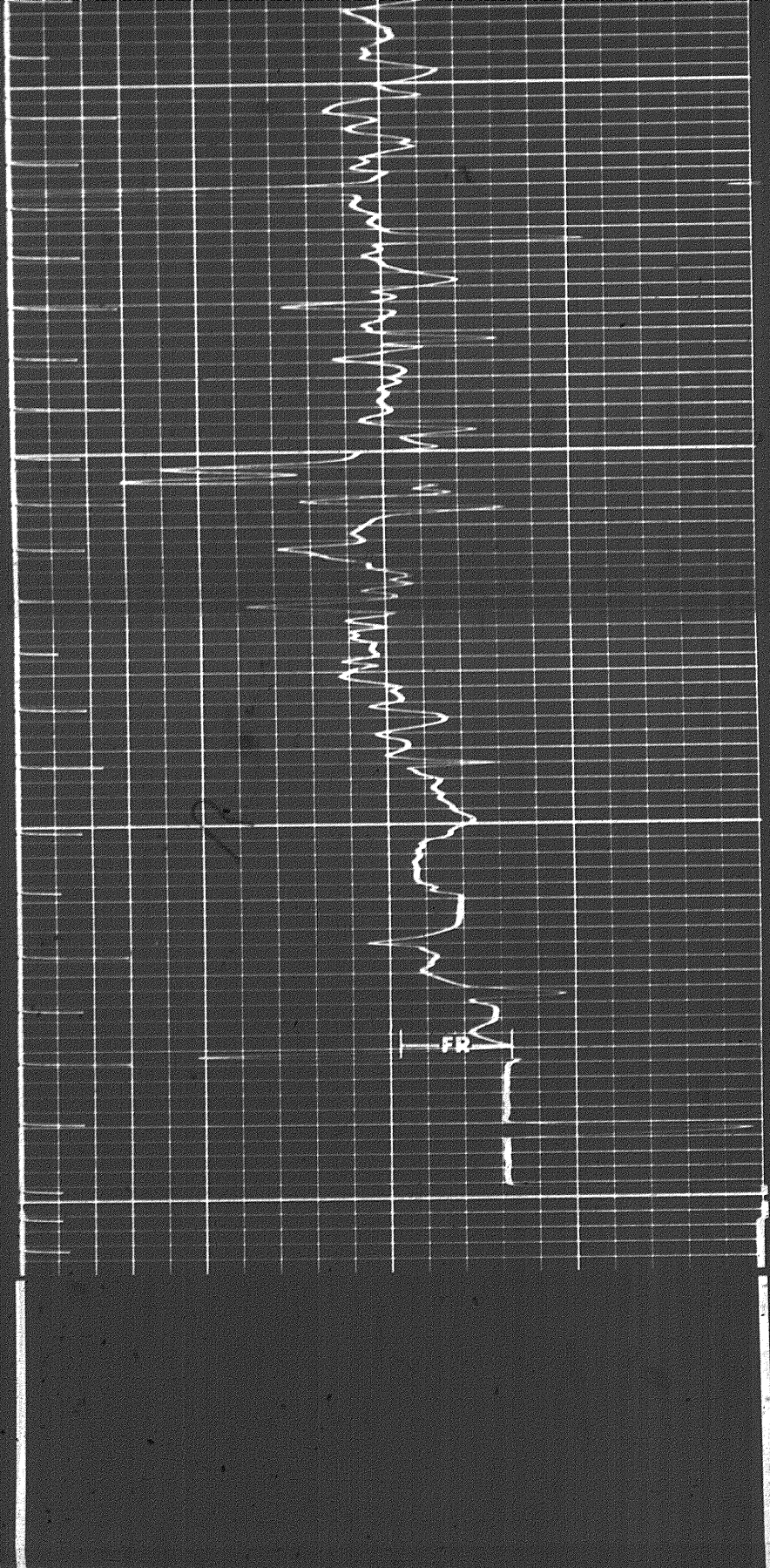


REPEAT SECTION



0066

10001



11 12 13 14 15 16 17 18 19

001

100

11 12 13 14 15 16 17 18 19

CALIPER
hole diameter in inches

Sens. 150 T.C. AUTO
Zero 0 div. to left 150
150 300

Speed in FPM

140 90 40
240 190 140

GAMMA RAY
API UNITS

DEPTH

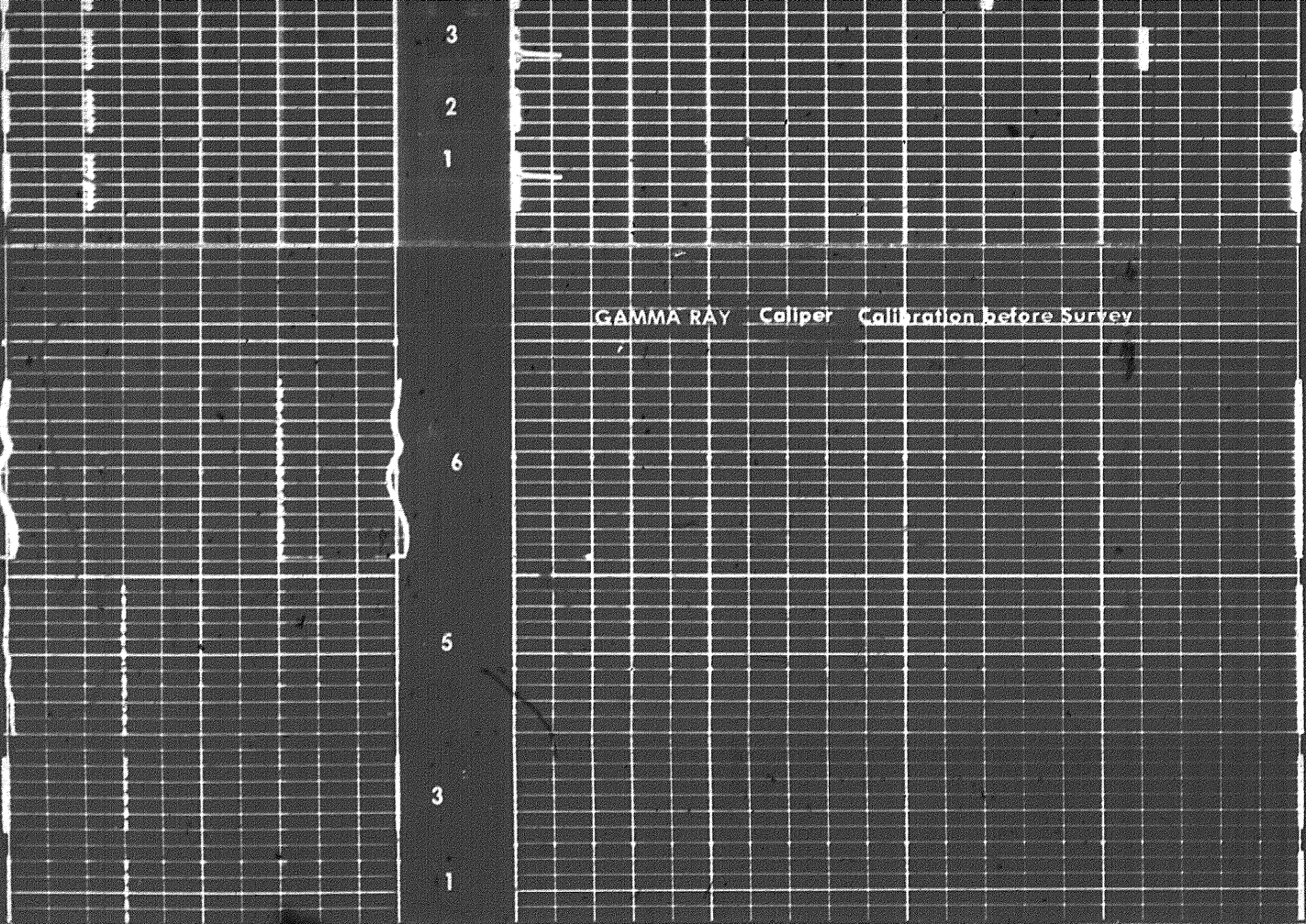
SONIC
INTERVAL TRANSIT TIME
microseconds per foot

6
5
4
3
2
1

Calibration before Survey

6
5
4
3
2
1

Calibration after Survey



BOREHOLE COMPENSATED SONIC CALIBRATION CODING

- 1. MECHANICAL ZERO
- 2. 40 μ SEC/FT
- 3. 60 μ SEC FT
- 4. 80 μ SEC/FT
- 5. 100 μ SEC/FT
- 6. 140 μ SEC/FT

GAMMA RAY CALIBRATION CODING

- 1. MECHANICAL ZERO
- 2. ELECTRICAL ZERO
- 3. RECORDER SENSITIVITY
- 4. MEMORIZER SENSITIVITY
- 5. BACKGROUND
- 6. CALIBRATION

COMPANY ALBERTA GAS DEVELOPMENT OF CANADA LTD
 WELL ALBERTA ET AL ROTANEELE 101 1-1
 FIELD _____
 PROVINCE YUKON TERRITORY

SCHL. FR 9980
 SCHL. TD 999
 DRLR. TD 9889
 Elev. _____
 KB 2438
 DF _____
 GL 2013