

SCHLUMBERGER

**SIDEWALL
NEUTRON POROSITY LOG**
SCHLUMBERGER OF CANADA Calgary Alberta

PROVINCE YUKON TERRITORIES FIELD WILSON WELL ICE BLOW RIVER Y.T. COMPANY IMPERIAL OIL ENTERPRISES LTD.		COMPANY IMPERIAL OIL ENTERPRISES LTD. WELL ICE BLOW RIVER Y.T. FIELD WILSON PROVINCE YUKON TERRITORIES LOCATION 60° 40' 20" N Lat., 137° 00' 00" W Long. Permanent Datum: 137° 00' 00" W Long. 137° 00' 00" W Long. Log Measured from: 16 Ft Above Perm Datum	
Date 22 JUNE 70 Run No ONE First Reading 4139 Loss Reading 39 Feet Measured 4100 Depth Reached 4140 Bottom Driller 132 Csg SOC 781 Csg Driller 782 Mud Nature GEL Dens 9.5 Visc 45 Mud pH 10.0 Water Loss 9.4 Revs 2.0 Rml 1.78 @ BHT 1.13 Rmk @ ppm Cl @ Bit Size 12 1/4"	Date 27 AUG 70 Run No TWO First Reading 9986 Loss Reading 4048 Feet Measured 5938 Depth Reached 4140 Bottom Driller 10027 Csg SOC 4048 Csg Driller 782 Mud Nature GEL Dens 9.1 Visc 46 Mud pH 9.2 Water Loss 15.0 Revs 2.2 Rml 1.91 @ BHT 0.67 Rmk @ ppm Cl @ Bit Size 12 1/4"	Date 9 NOV 70 Run No THREE First Reading 11004 Loss Reading 9990 Feet Measured 4005 Depth Reached 14005 Bottom Driller 14000 Csg SOC 9999 Csg Driller 9998 Mud Nature GEL Dens 9.5 Visc 44 Mud pH 9.5 Water Loss 15.2 Revs 2.1 Rml 1.74 @ BHT 1.01 Rmk @ ppm Cl @ Bit Size 12 1/4"	

REMARKS Drilling Stopped 0600 Circulation Stopped 0800 22 hrs Tool on Bottom 1st Run Service Order #: 7942 BHT 93

Panel No
Cartridge No
Sonde No
Detector No
SFT 116 No

CALIBRATION Gamma Ray Background CPS Test Source PS Galv Deflection Sens Tap 22 440 10.0 24L		Neutron Environmental Cal Drawer In CPS Drawer Out CPS Before 360 210 After 360 210 Neutron Auxiliary Cal CPS Before After
Panel Settings Function Former Temp Comp Setting TC 2 2 2	Mud Wt./Salinity Comp set as per recorded value 9.5 from to from to from to	

This interpretation represents our best judgment. Nevertheless since all interpretations are opinions based solely on inferences from electrical or other measurements, we cannot and do not guarantee the accuracy or correctness of any interpretation and shall not be liable or responsible for any loss, cost, damages, or expenses that may be incurred or sustained resulting from this or any other interpretation.

1 of

REMARKS Drilling Stopped 1200 Circulation Stopped 1400 26 hrs Tool on Bottom 2nd Run Service Order #: 7942 BHT 163

Panel No
Cartridge No
Sonde No
Detector No
SFT 116 No

CALIBRATION Gamma Ray Background CPS Test Source CPS Galv Deflection Sens Tap 16.0 2 2		Neutron Environmental Cal Drawer In CPS Drawer Out CPS Before 370 230 After 370 230 Neutron Auxiliary Cal CPS Before After
Panel Settings Function Former Temp Comp Setting TC 2 2 2	Mud Wt./Salinity Comp set as per recorded value 9.5 from to from to from to	

This interpretation represents our best judgment. Nevertheless since all interpretations are opinions based solely on inferences from electrical or other measurements, we cannot and do not guarantee the accuracy or correctness of any interpretation and shall not be liable or responsible for any loss, cost, damages, or expenses that may be incurred or sustained resulting from this or any other interpretation.

REMARKS Drilling Stopped 1200 Circulation Stopped 1300 21 hrs Tool on Bottom 3rd Run Service Order #: 7942 BHT 202

Panel No
Cartridge No
Sonde No

REMARKS

Drilling Stopped

Circulation Stopped

Tool on Bottom

1st Run Service Order #

BHT 220 °F

Panel No. 163
 Cartridge No. P31-
 Sonde No. 1103
 Detector No.
 SFT-116 No.

BOTTOM HOLE TEMPERATURE: THERM. 1 = 219 °F
 THERM. 2 = 221 °F

CALIBRATION Gamma Ray

Background CPS

Test Source CPS

Galv Deflection

Sens Tap

Neutron Environmental Cal

Drawer In CPS | Drawer Out CPS

30

440

10.0

P31-3

Before 410 | 240

Panel Settings: Function Former Temp Comp Setting TC

Mud Wt/Salinity Comp set as per recorded value

After 410 | 240

LIMIT: Act. 1 2010

220

2

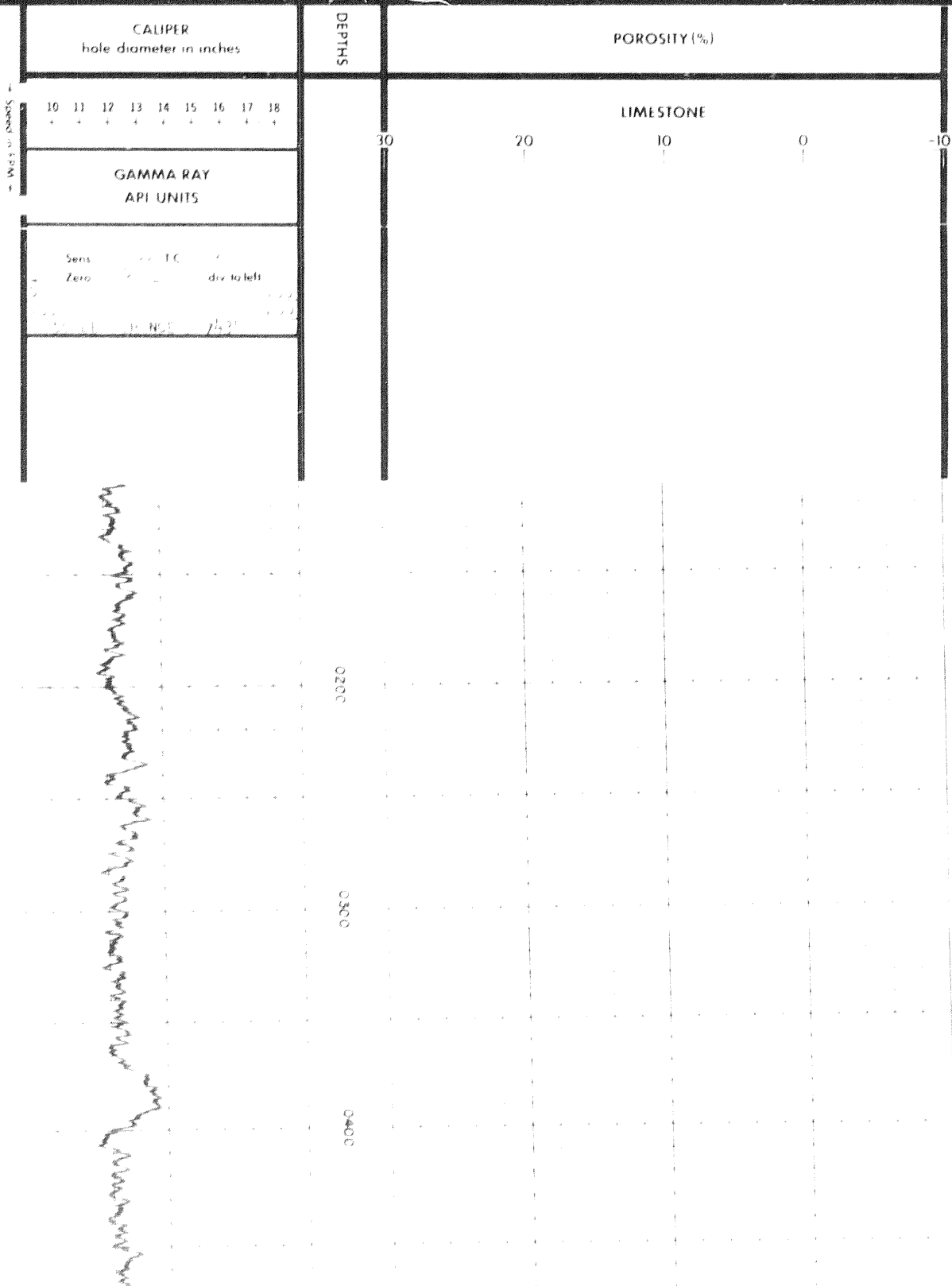
from 0.5 IN to 1.0

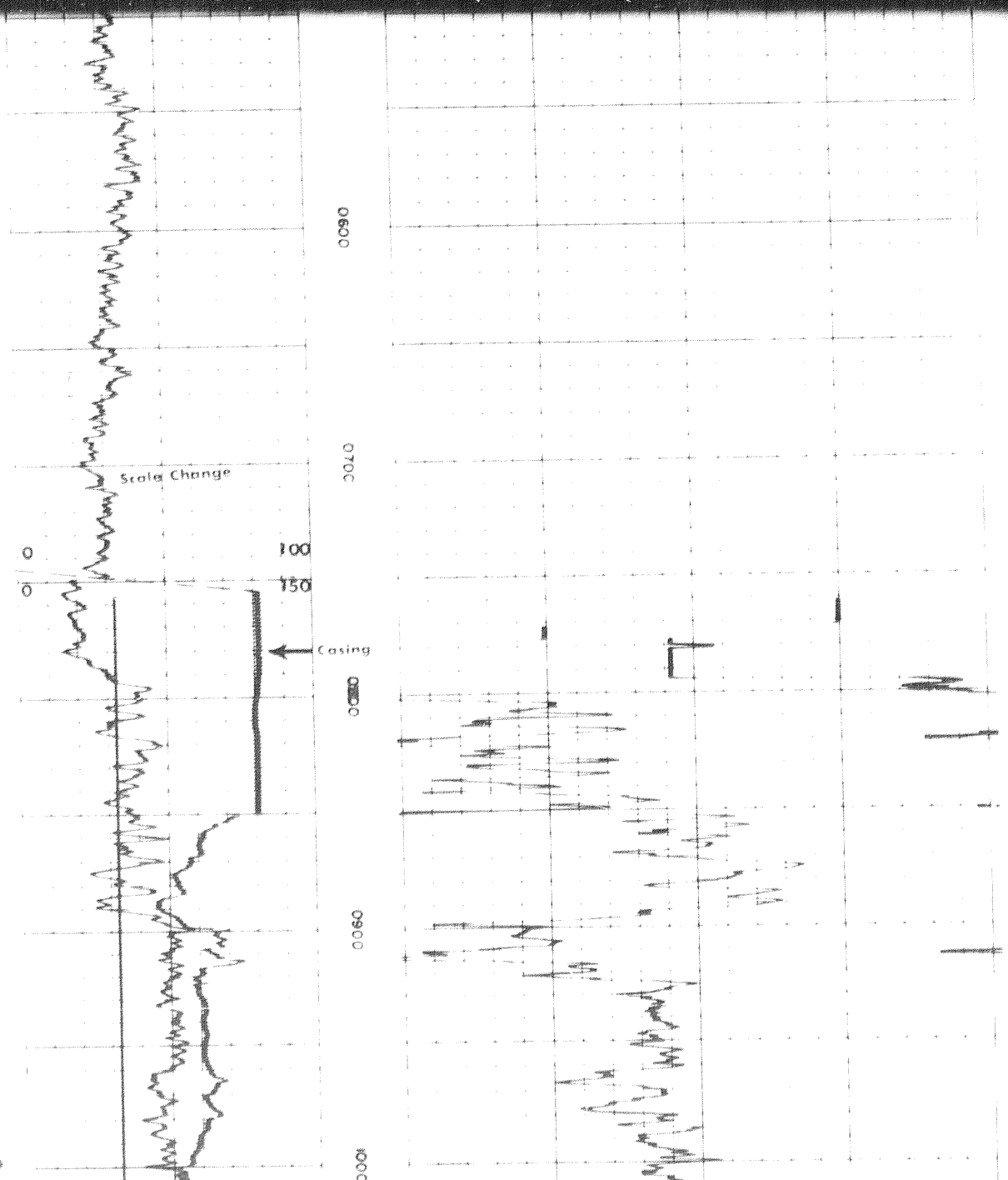
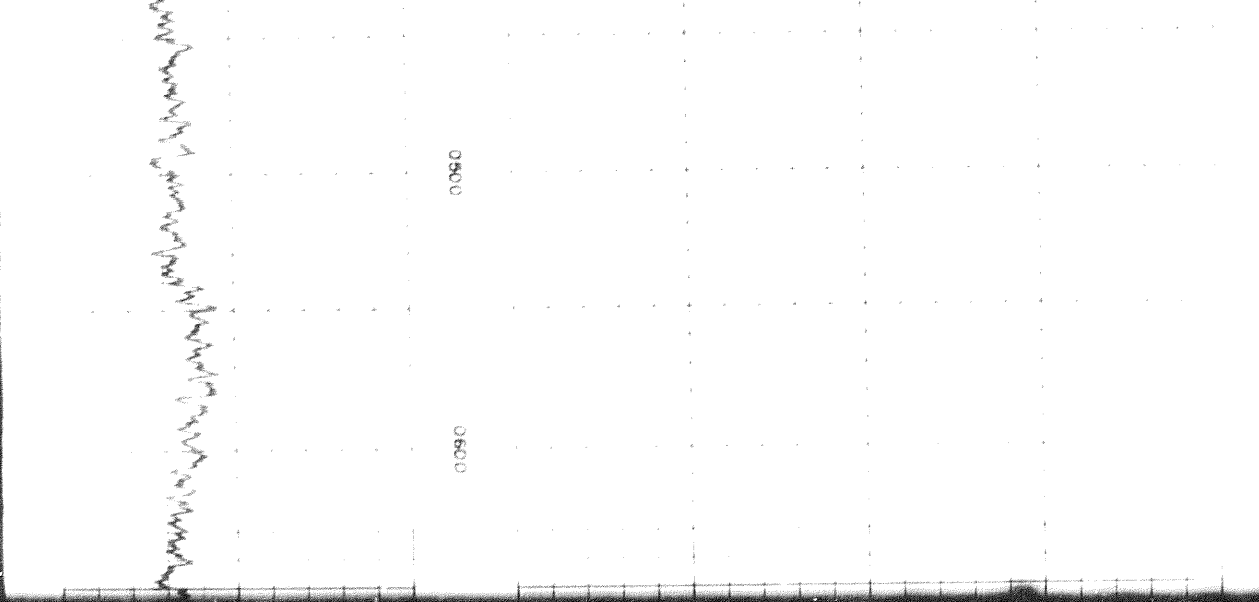
Neutron Auxiliary Cal CPS

Before

After

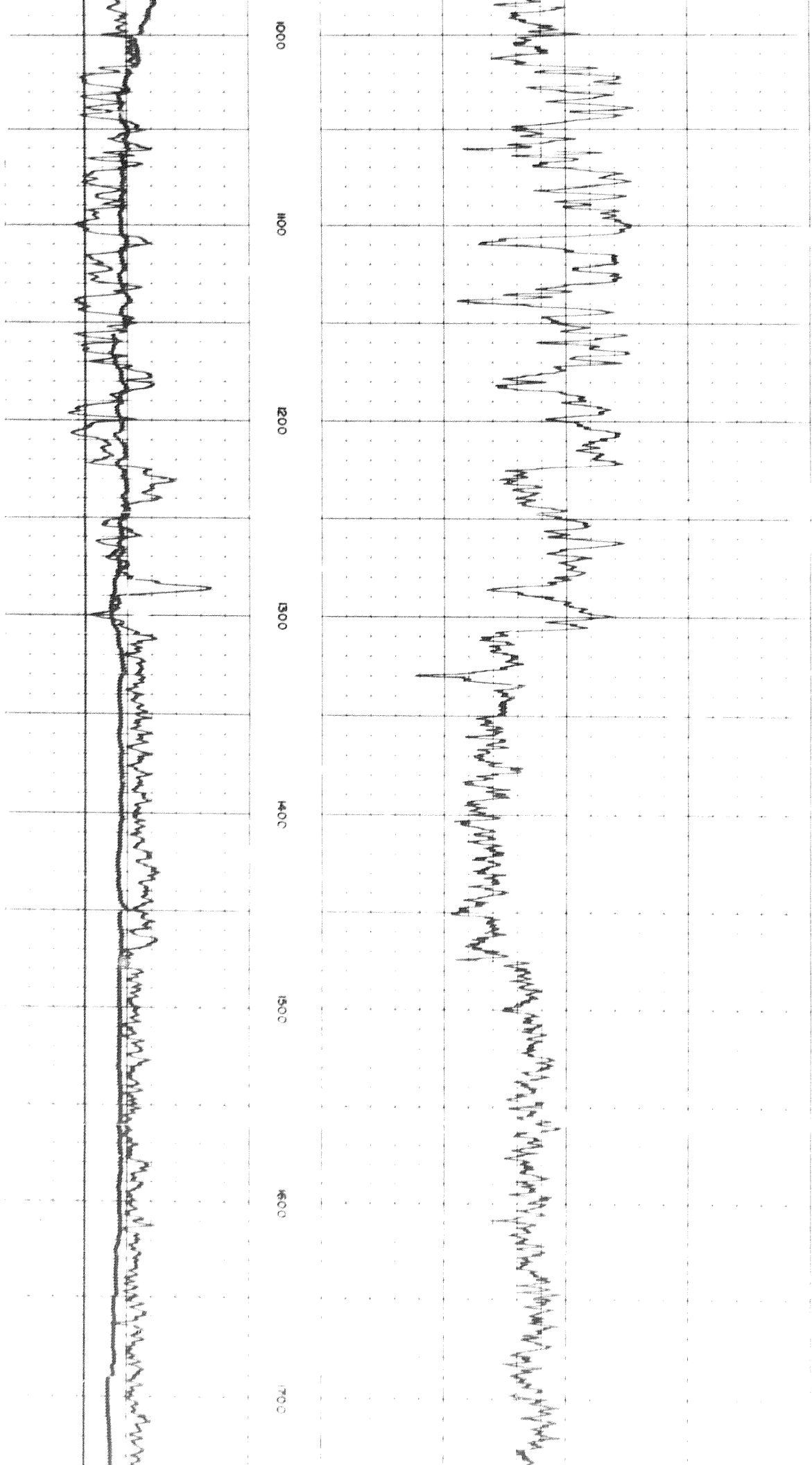
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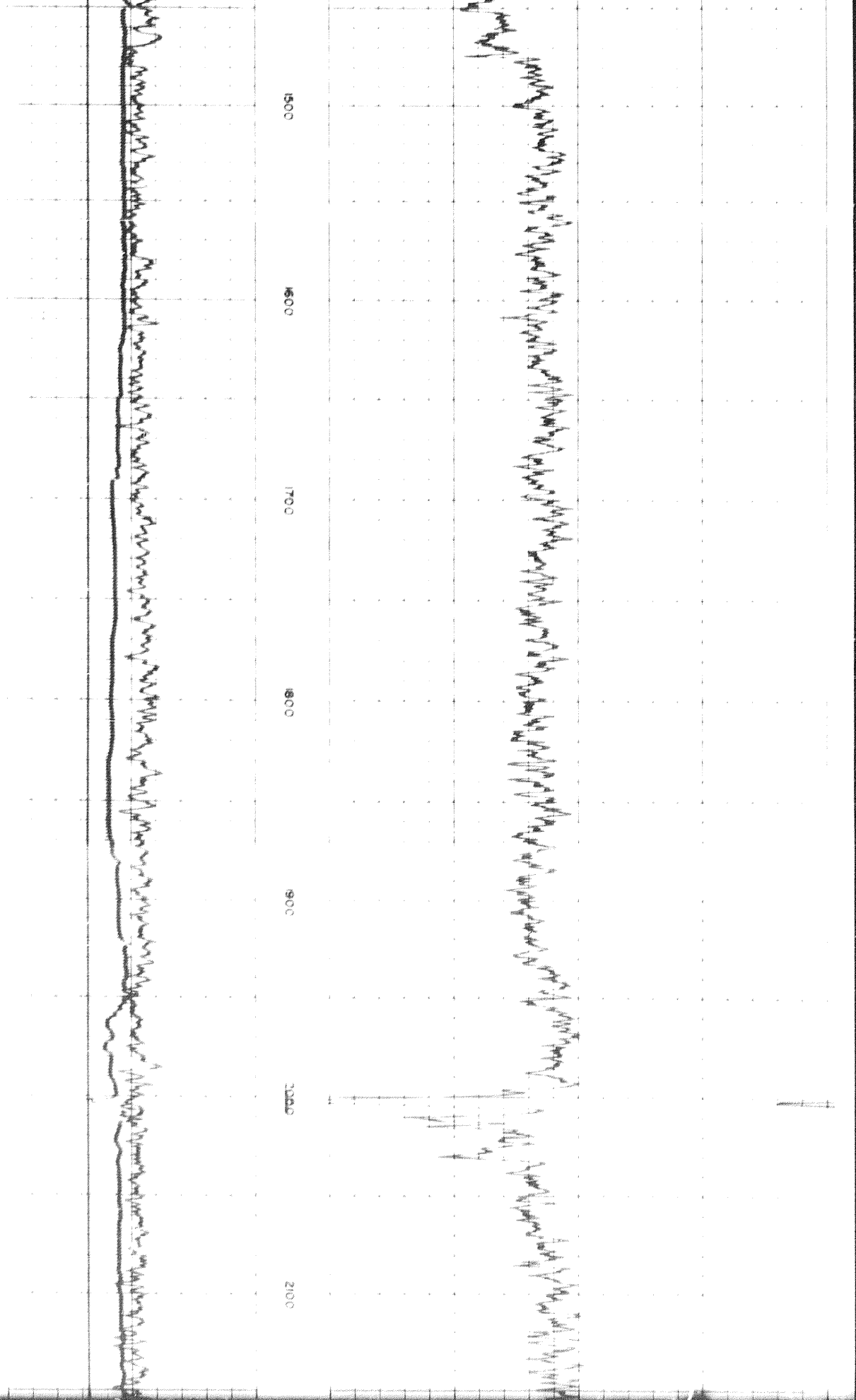


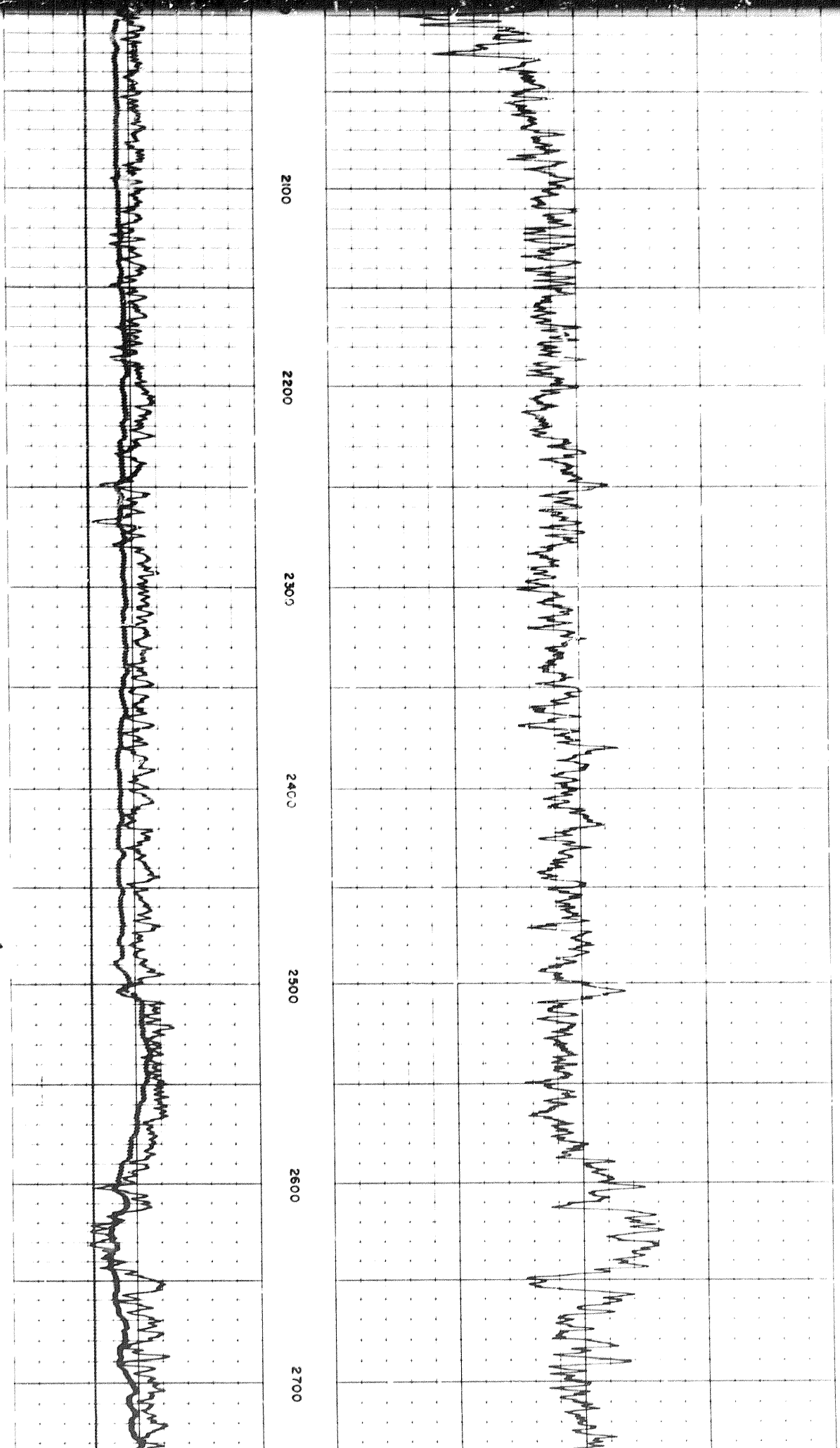


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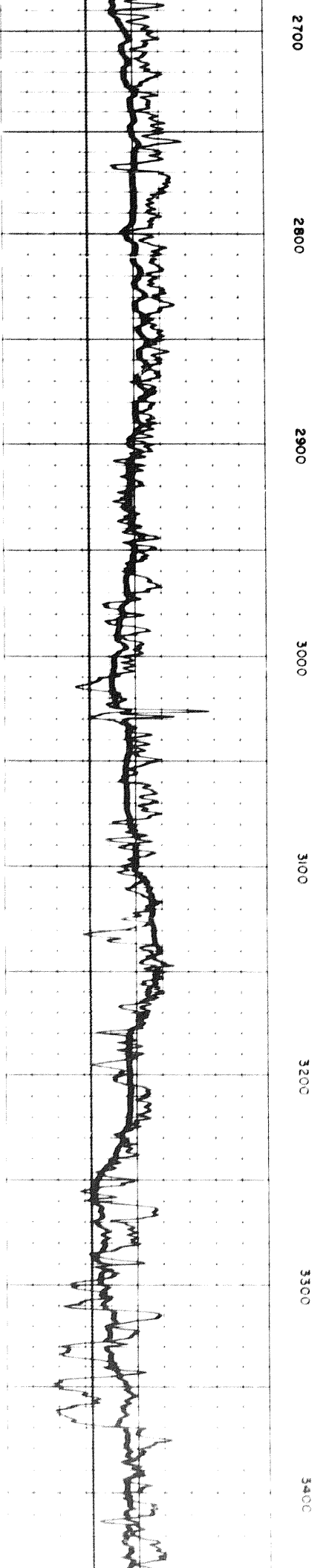
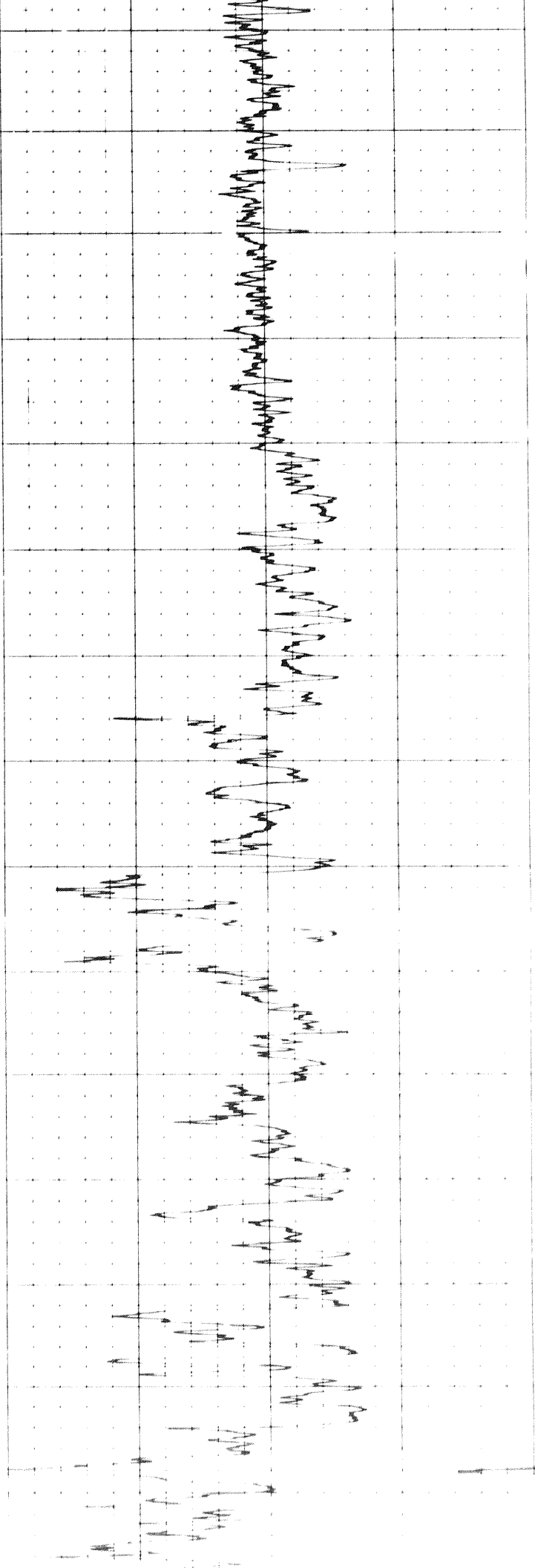
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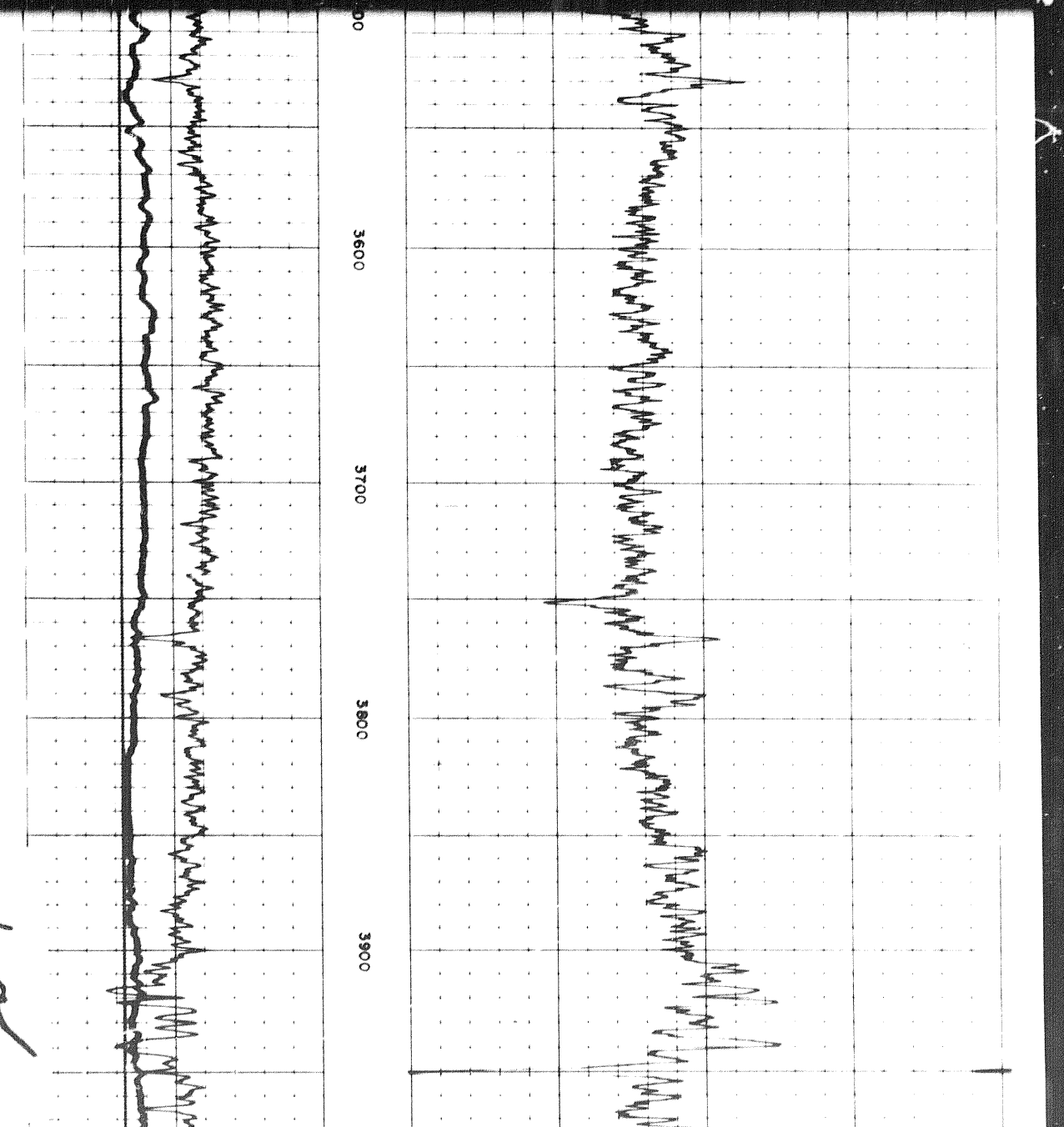
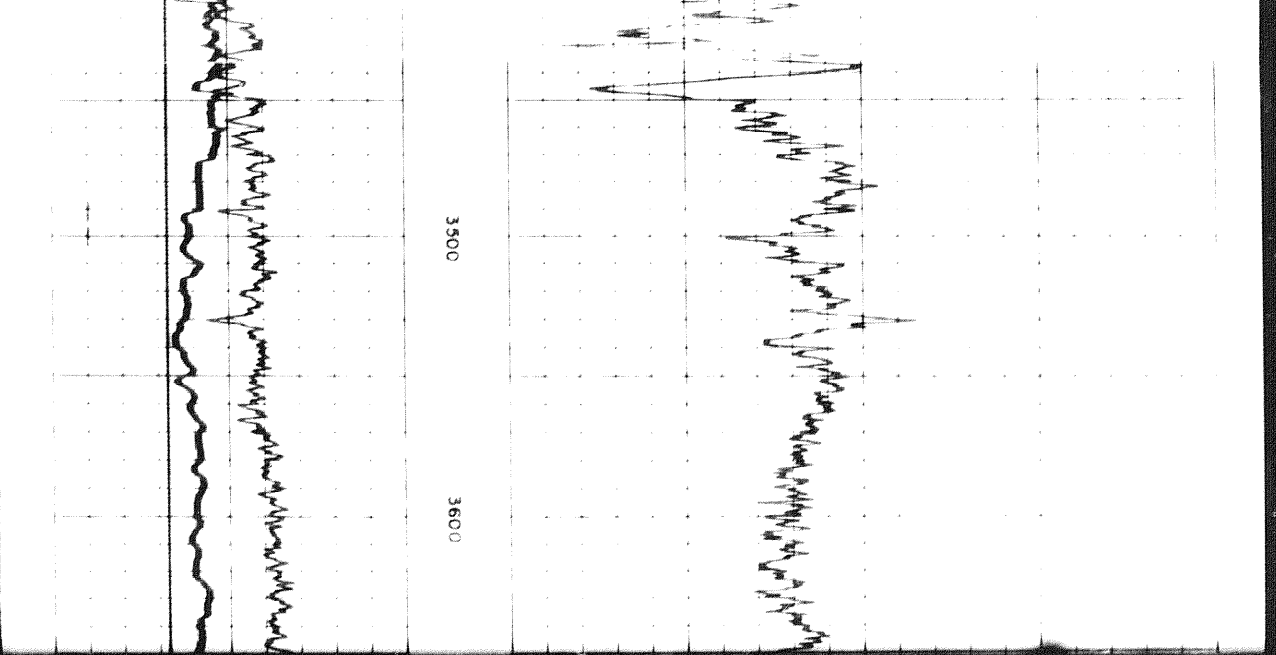






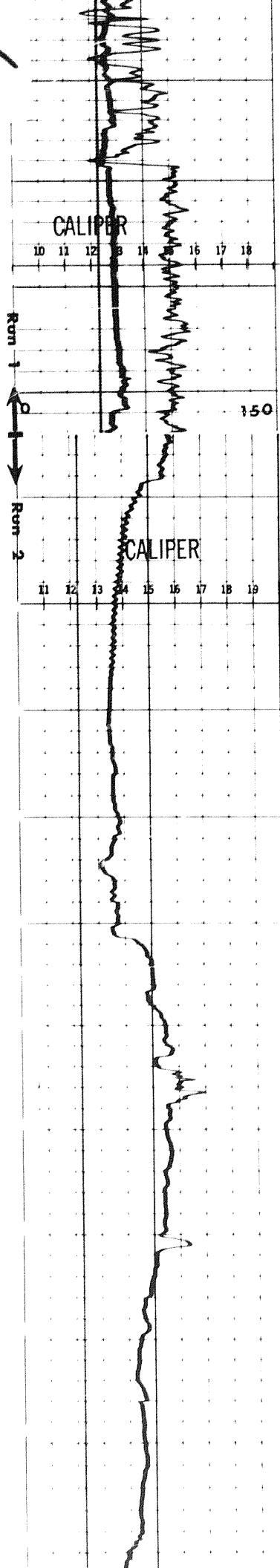
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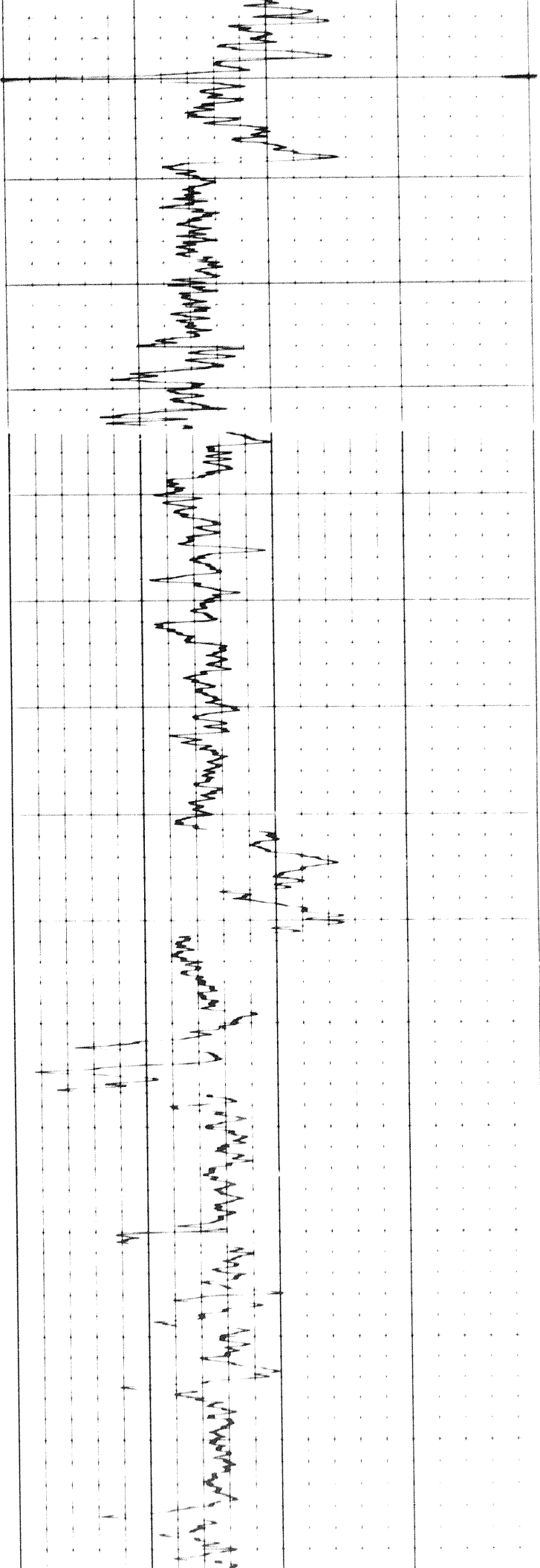


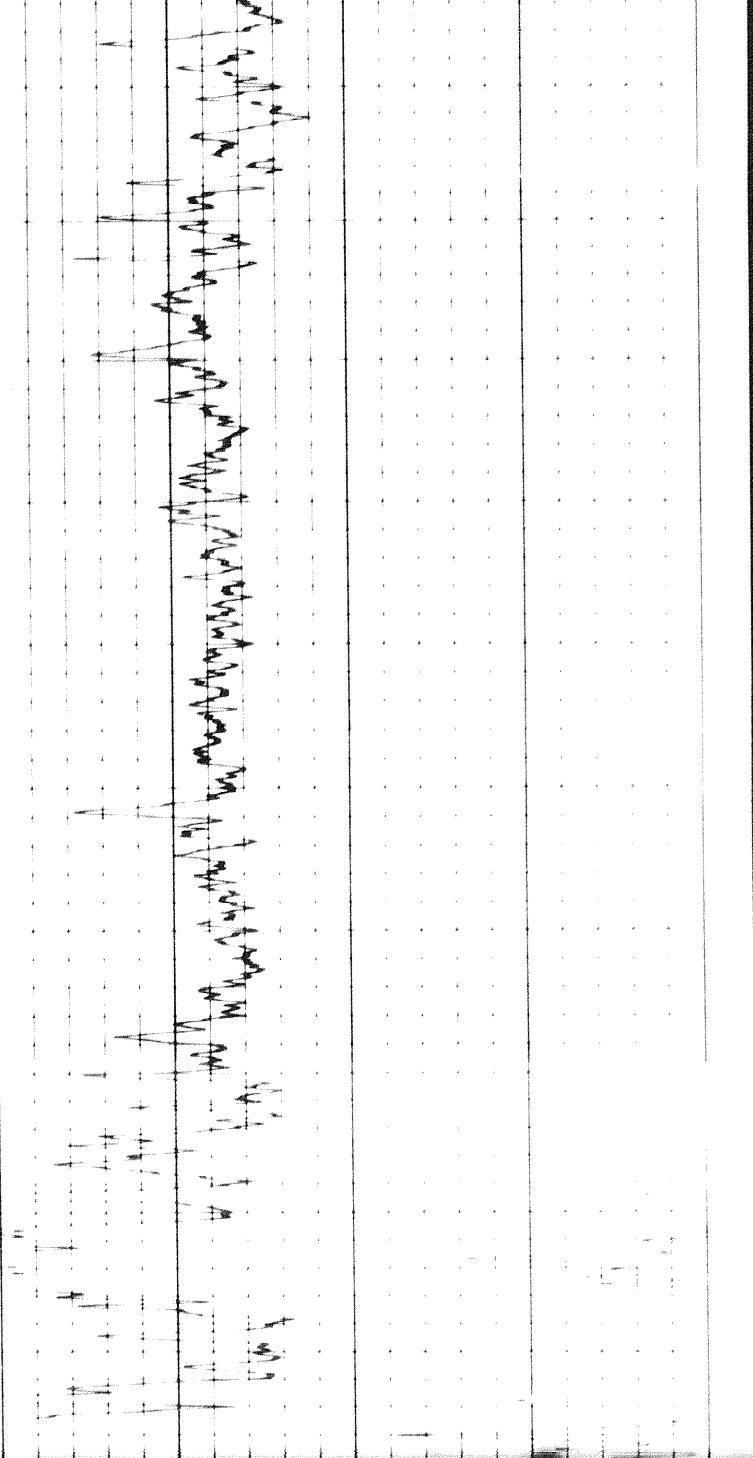
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70



4000 4100 4200 4300 4400 4500 4600





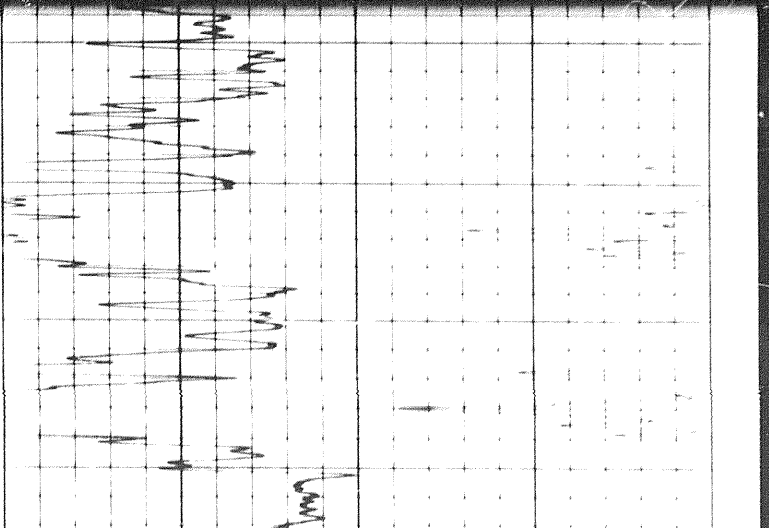
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4800

4900

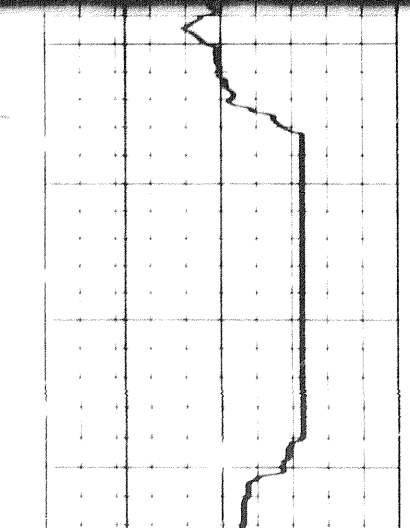
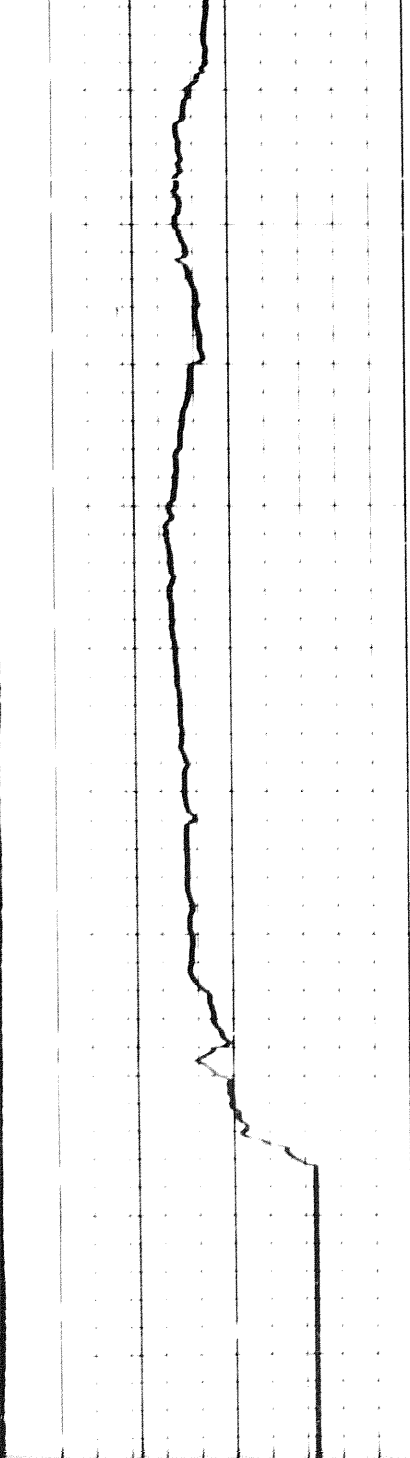
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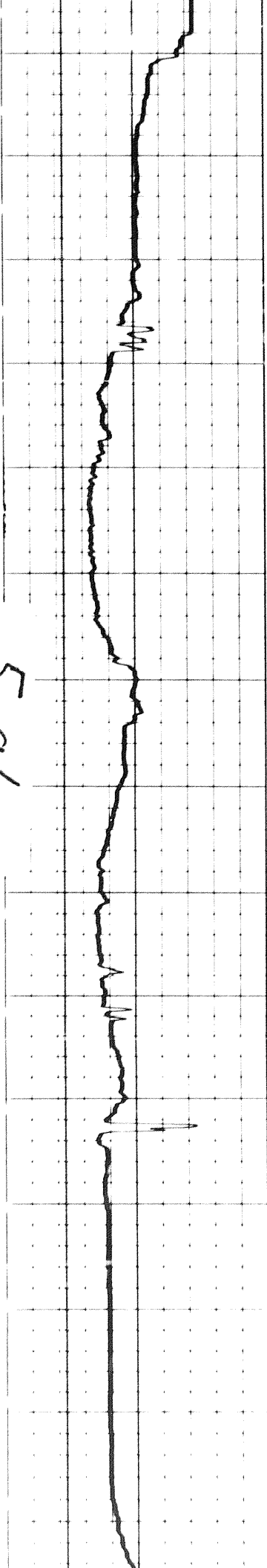


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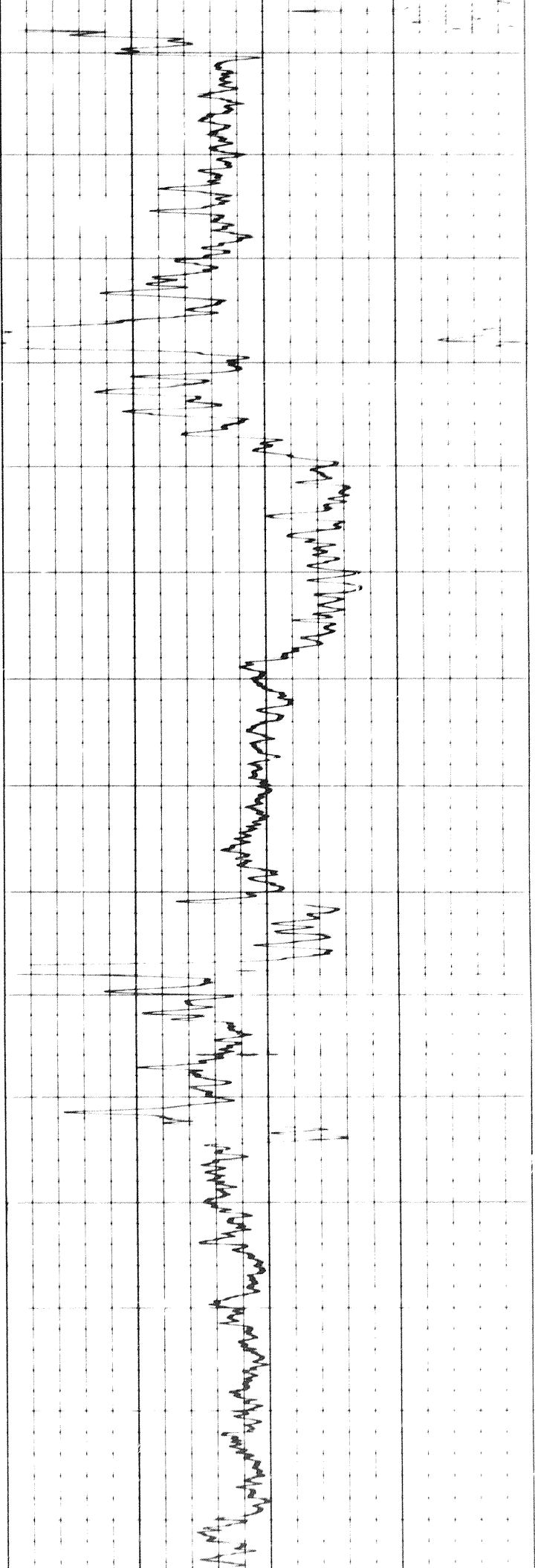
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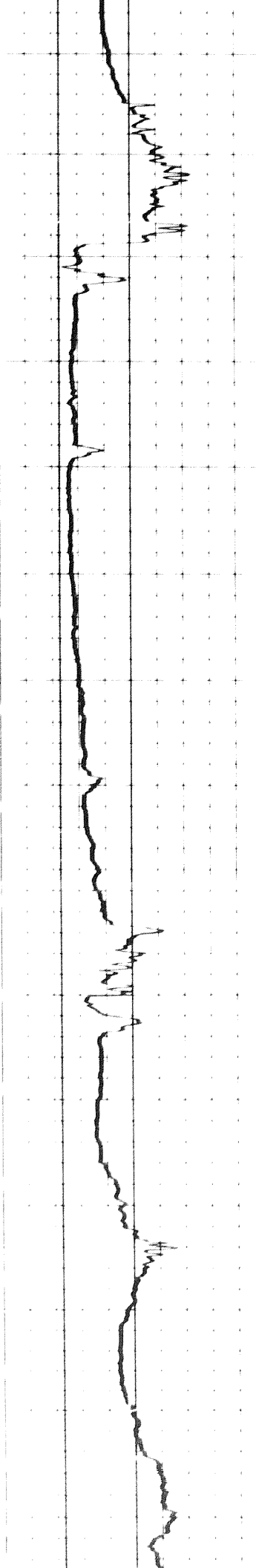


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5200 5300 5400 5500 5600 5700 5800





5900

6000

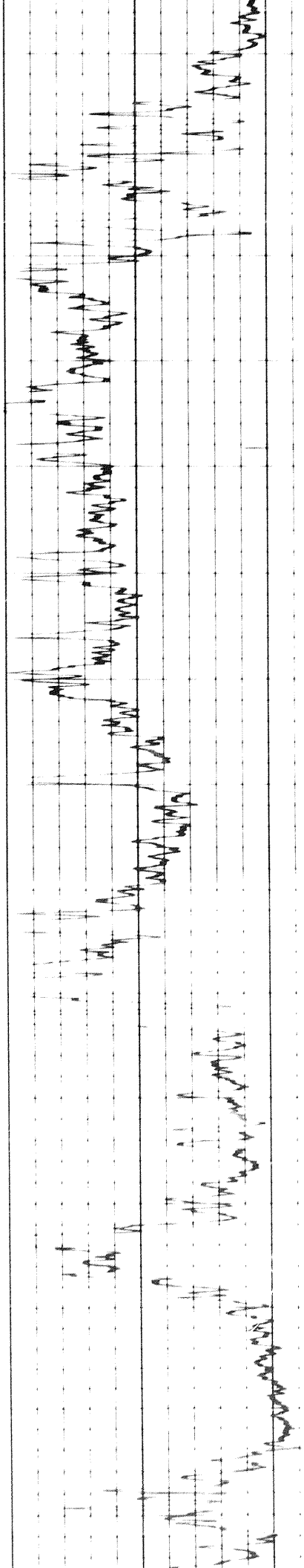
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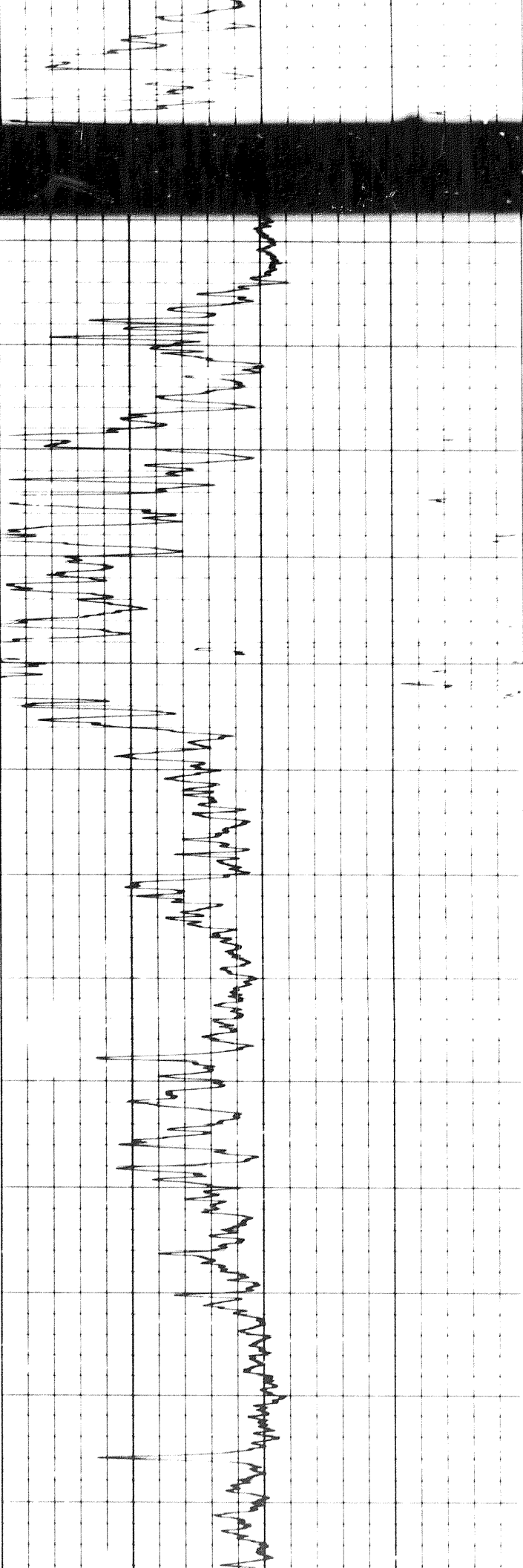
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6300

6400

6500





6600

6500

6600

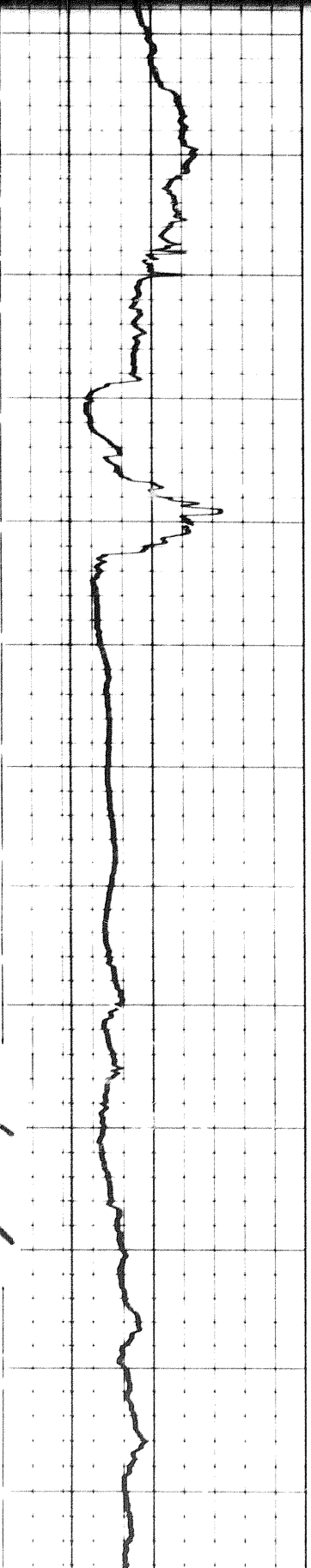
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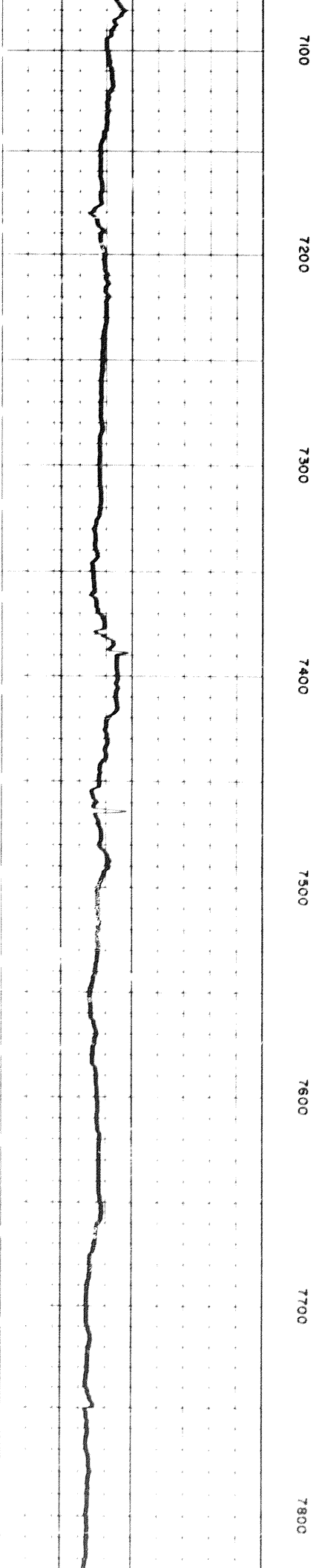
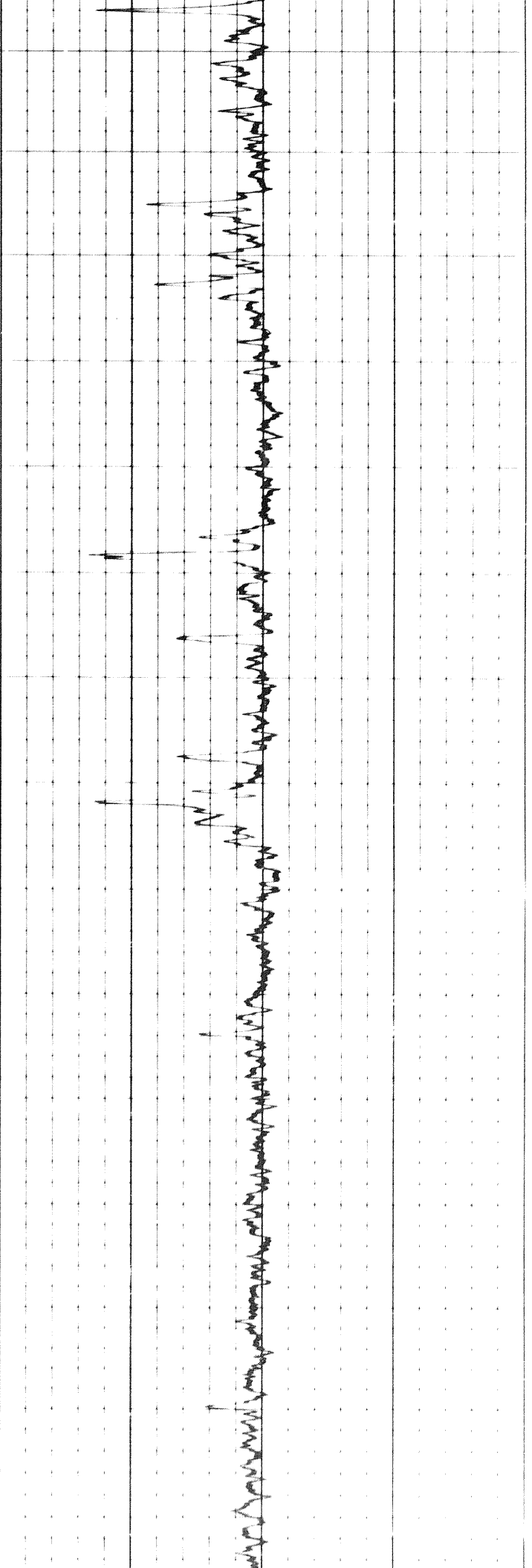
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7000

7100



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7500

7600

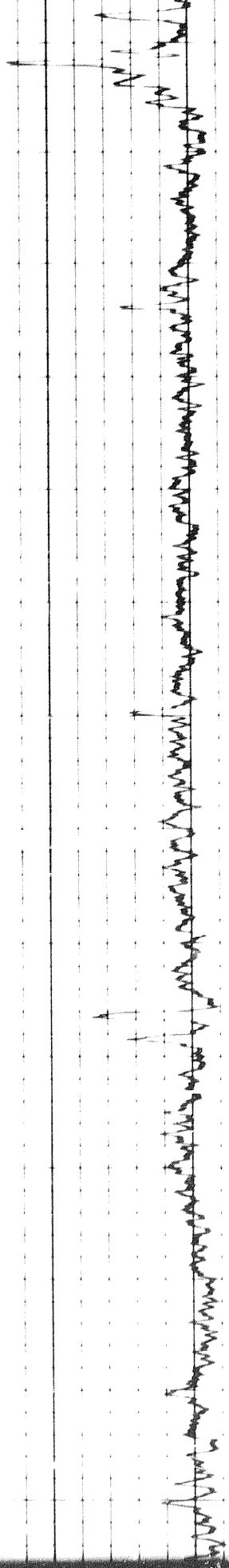
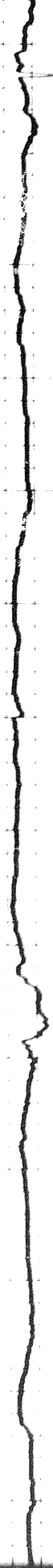
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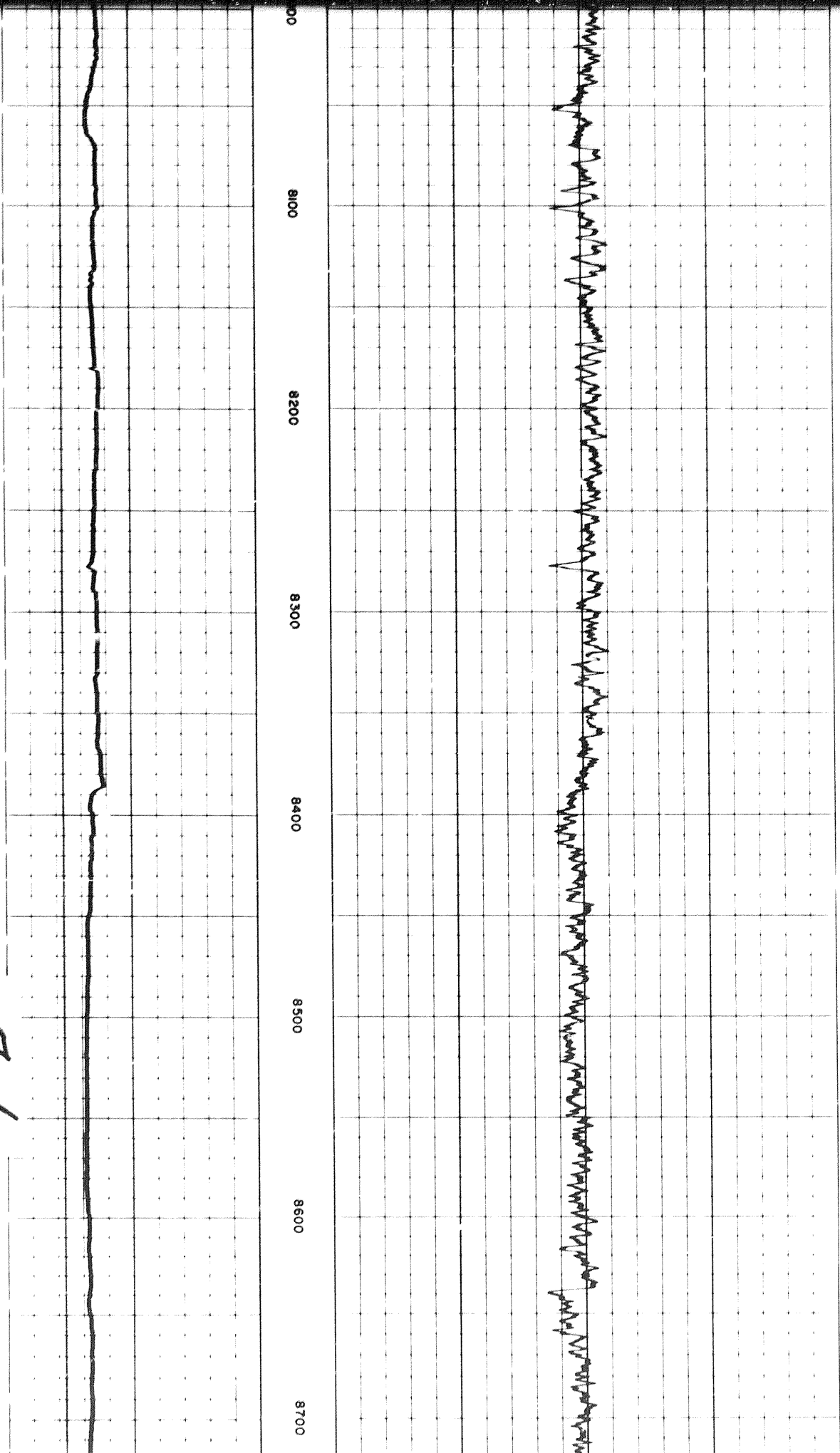
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7900

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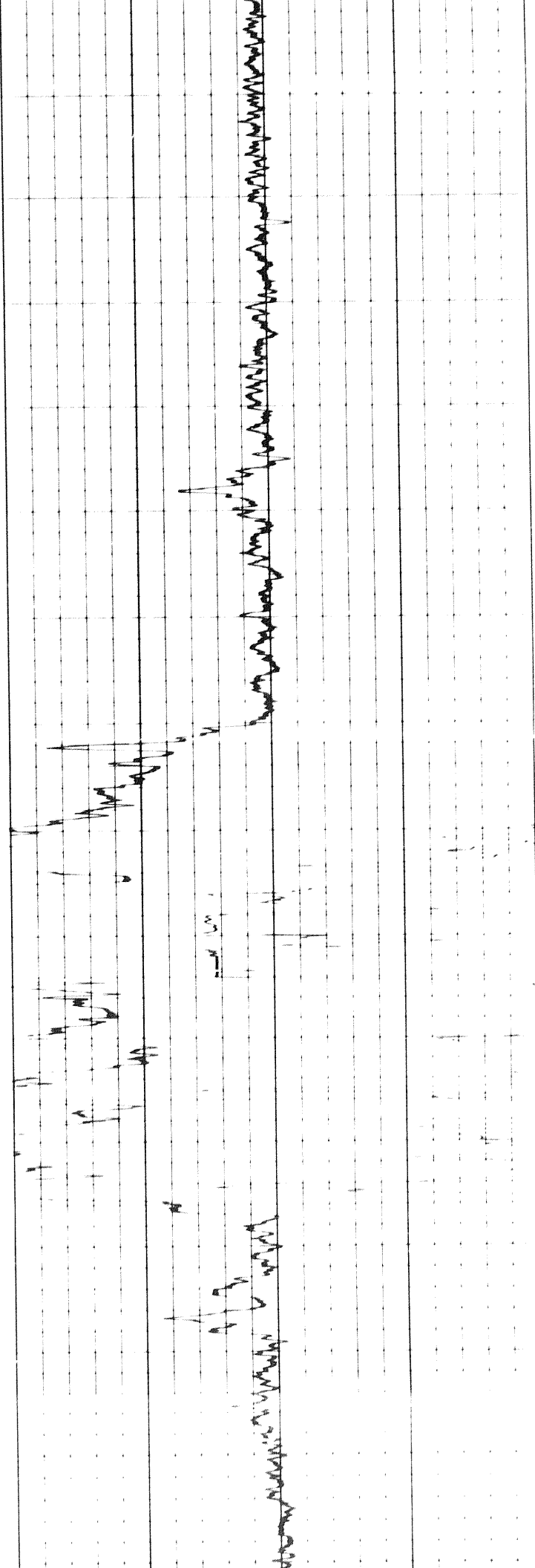
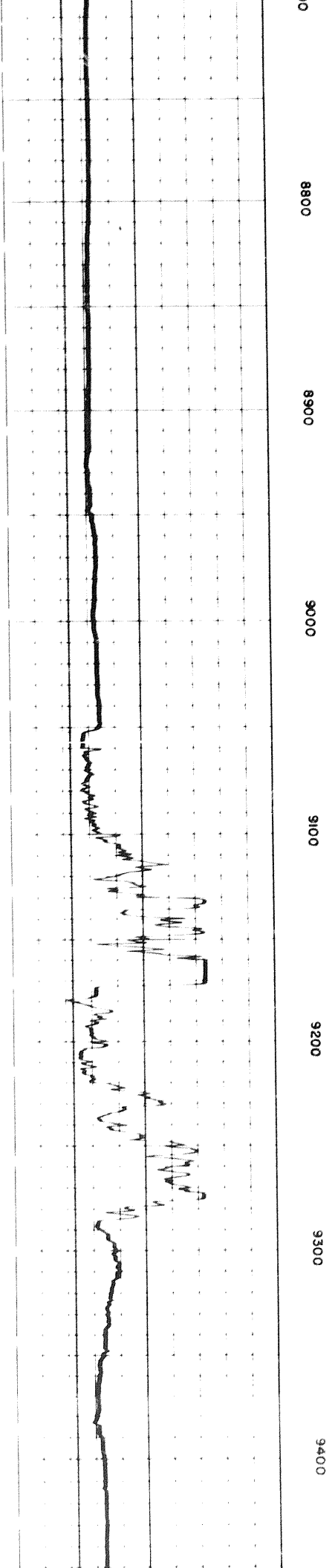
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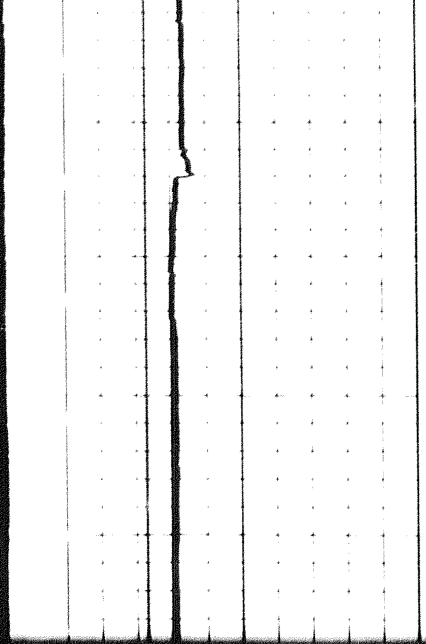




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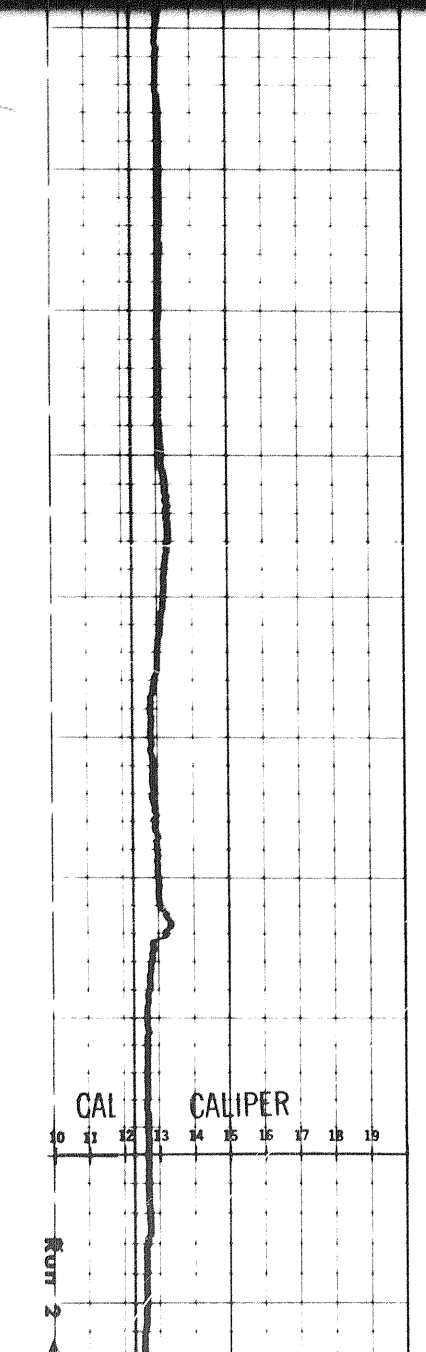
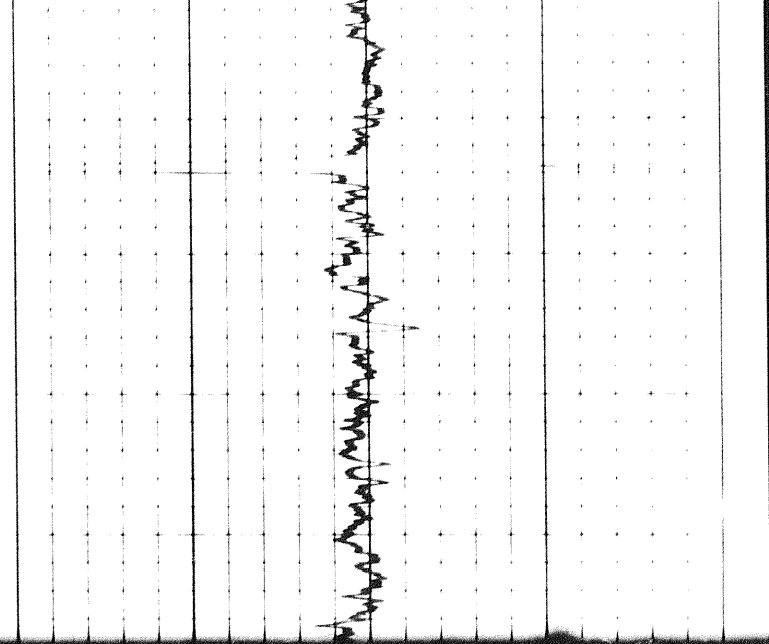
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9500

9600



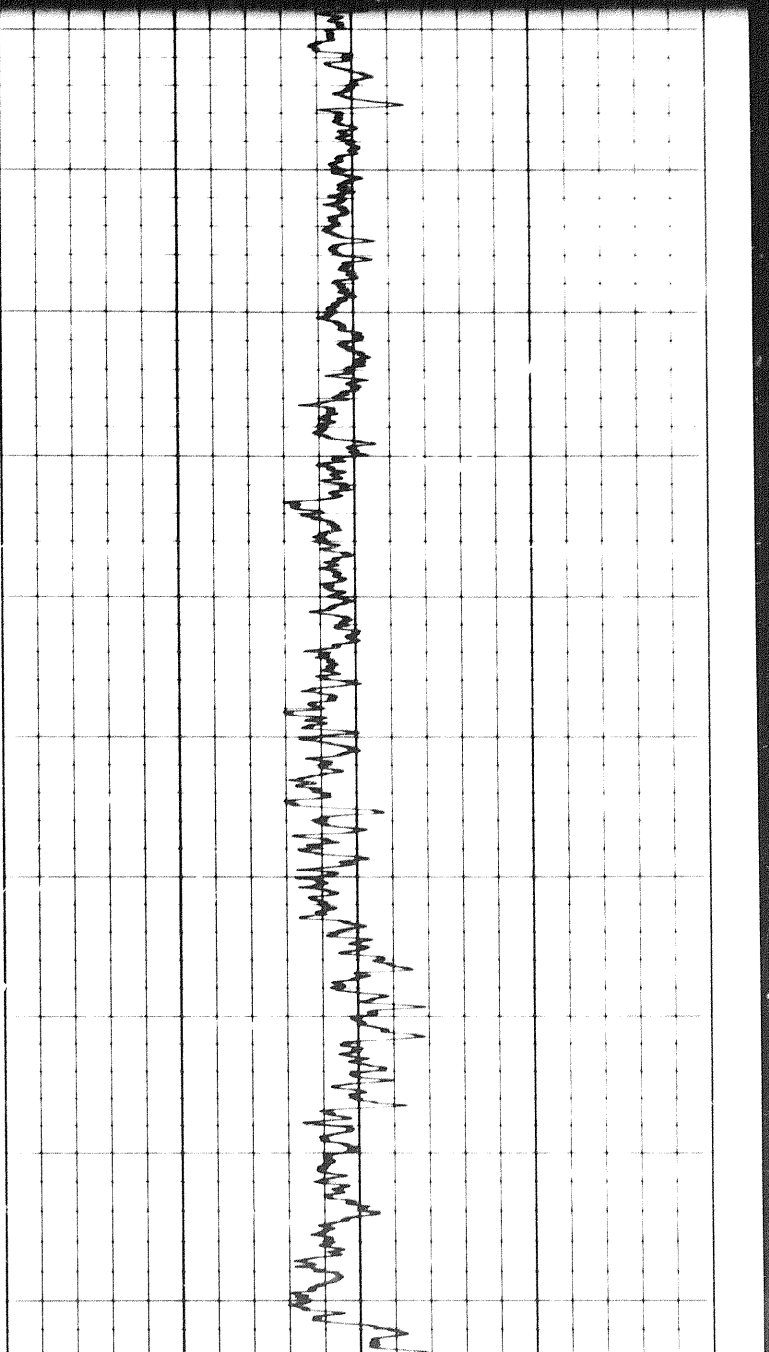
9500

9600

9700

9800

9900



CALIPER

RUN 2

Run 2 → 0 ← Run 3

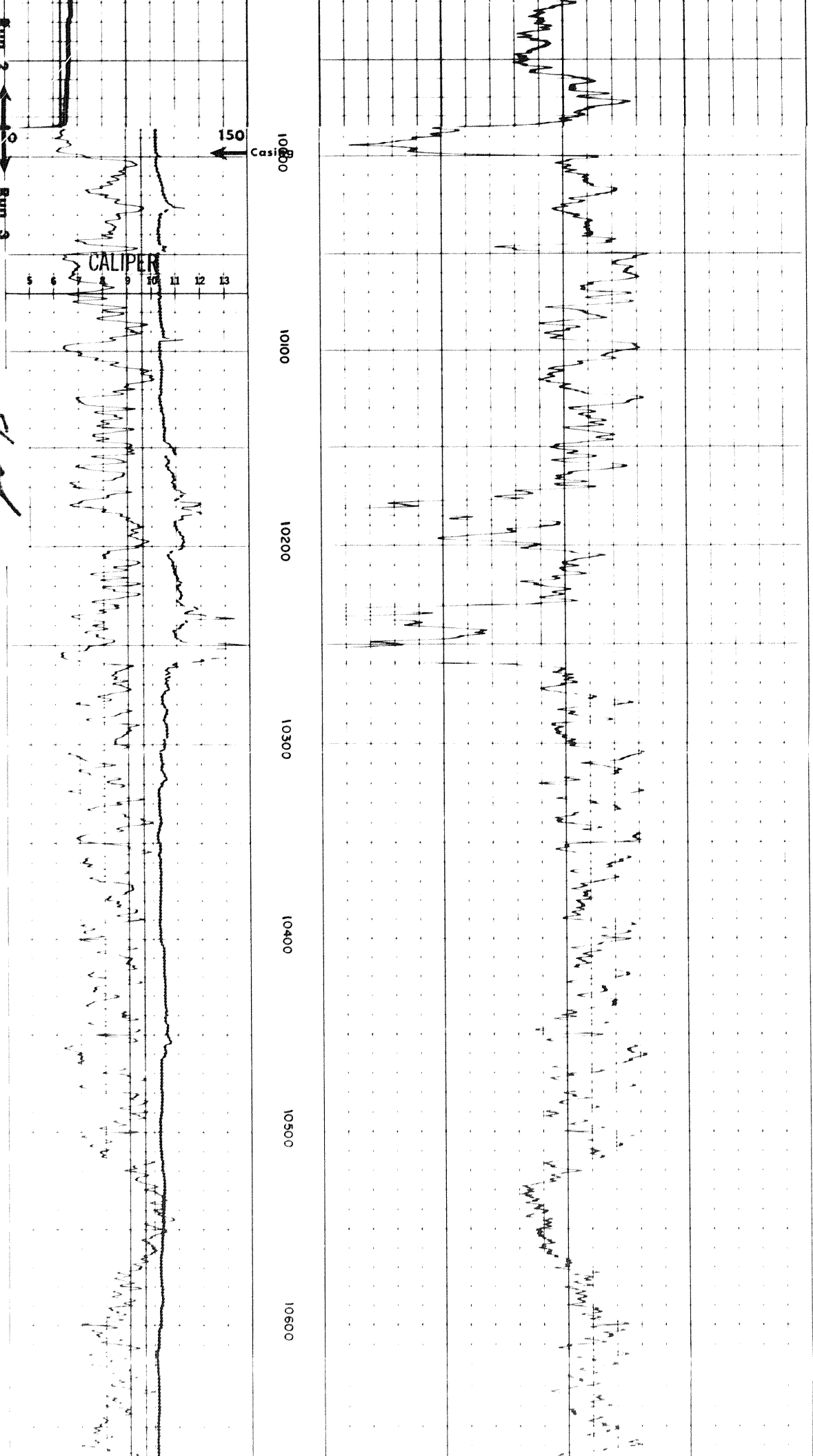
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Case

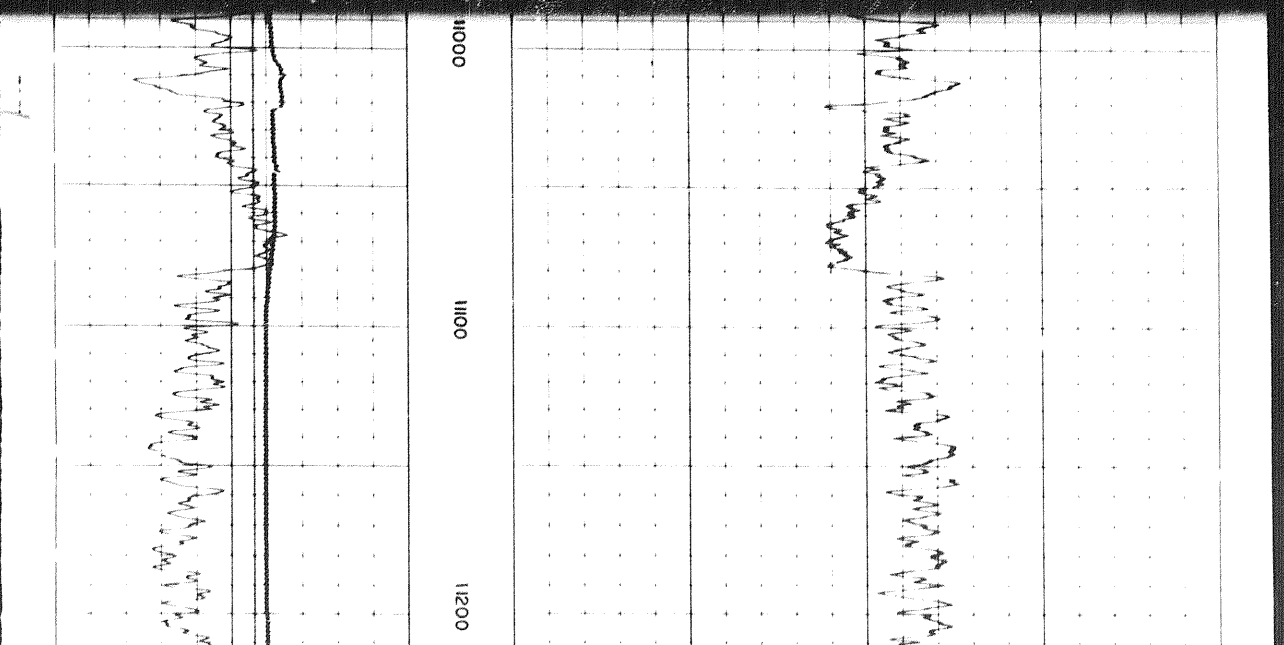
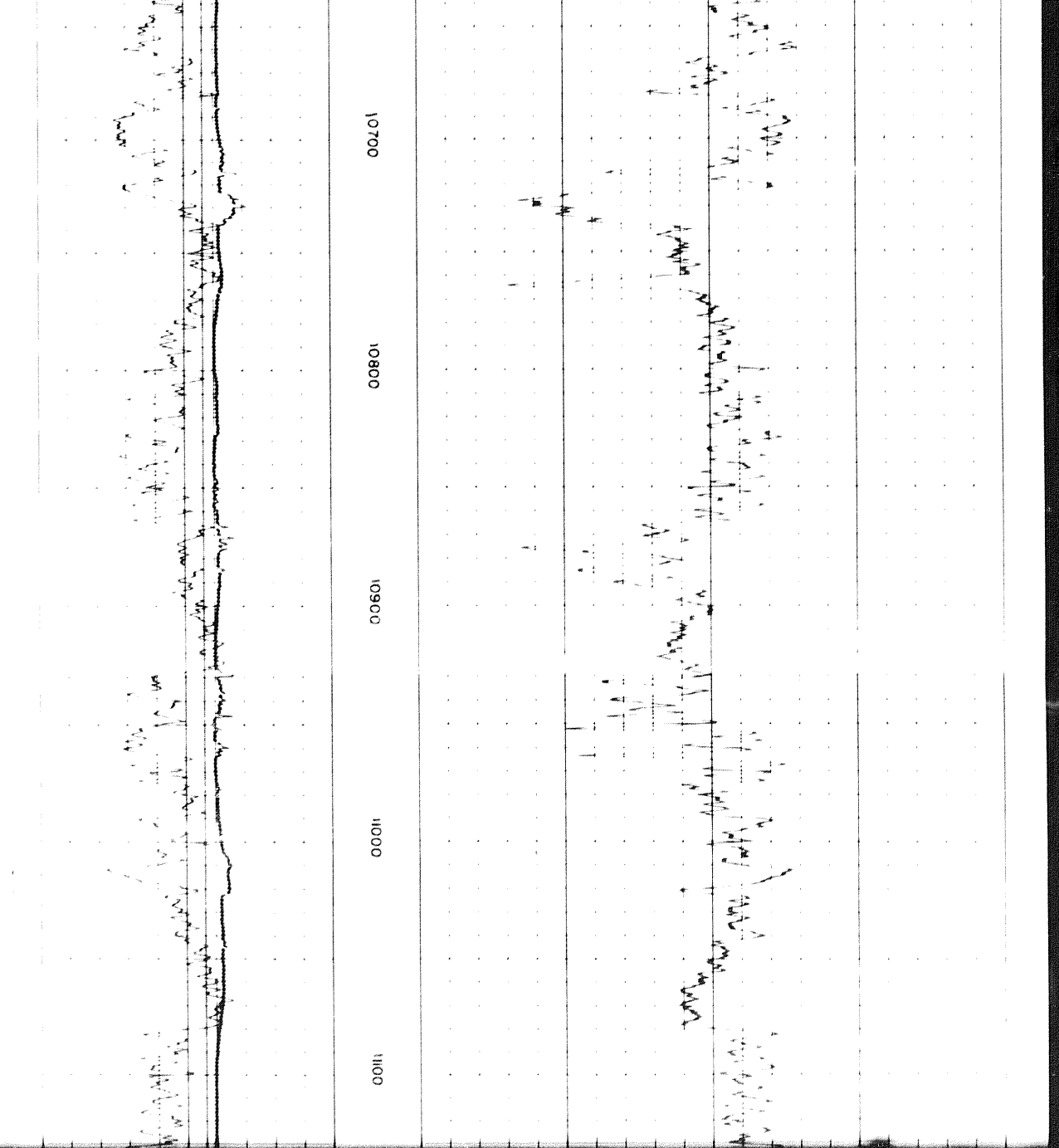
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10100
10200
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10400
10500
10600

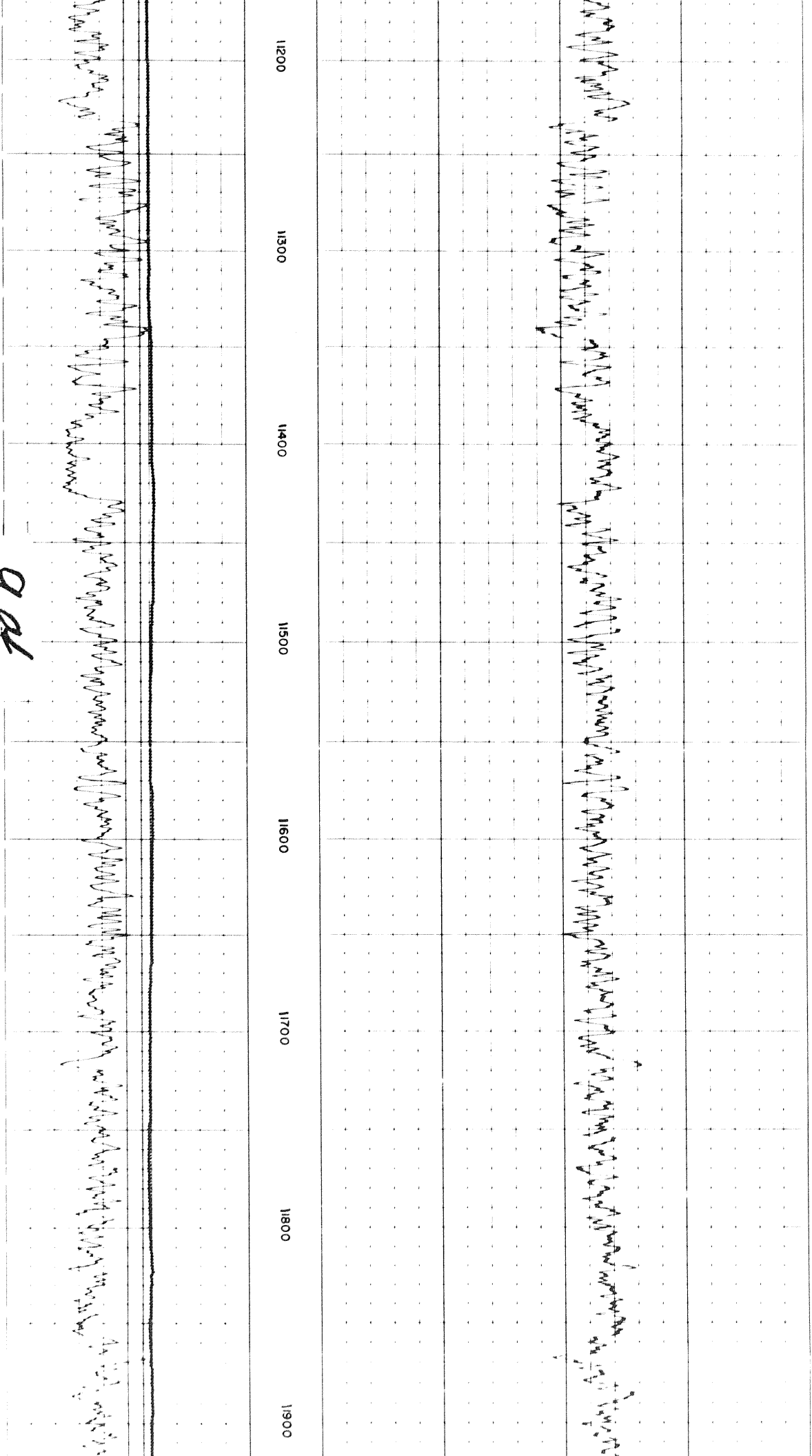
CALIPER

5 6 7 8 9 10 11 12 13

807

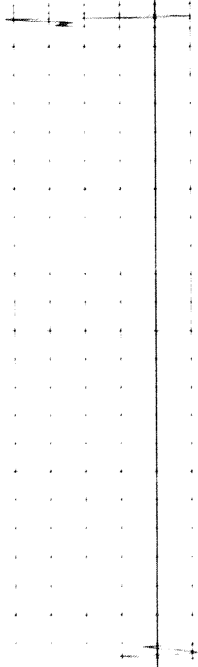






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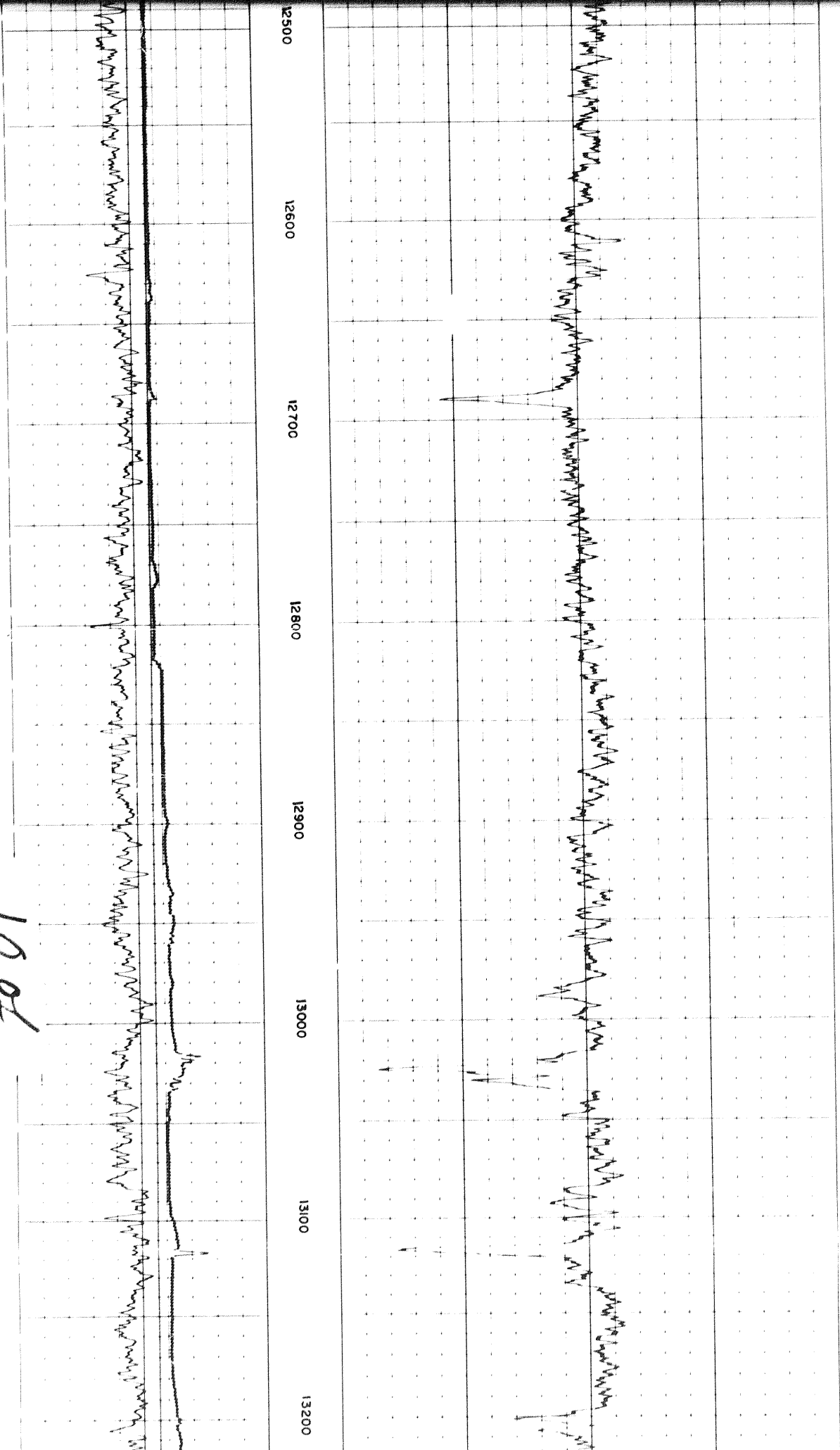
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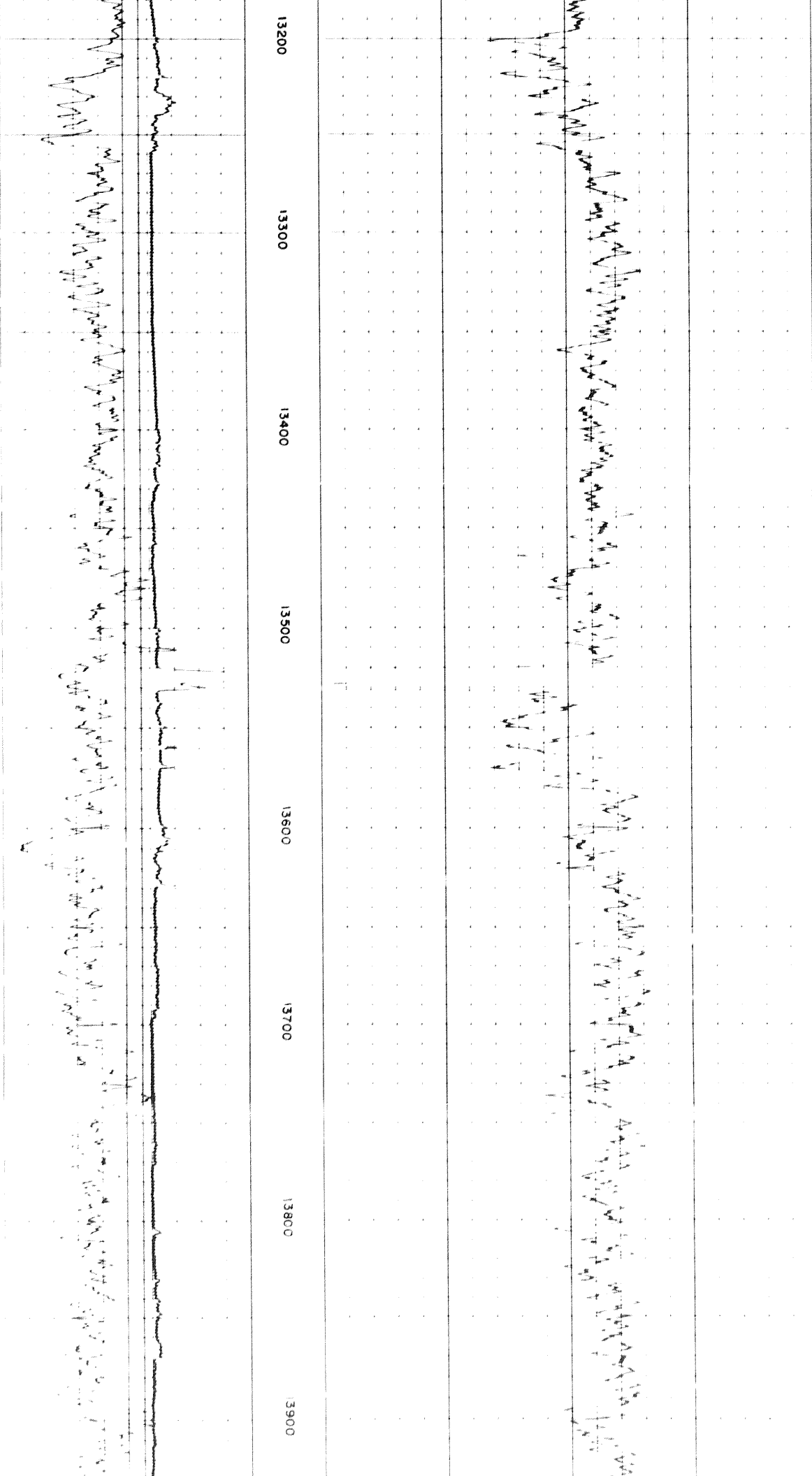


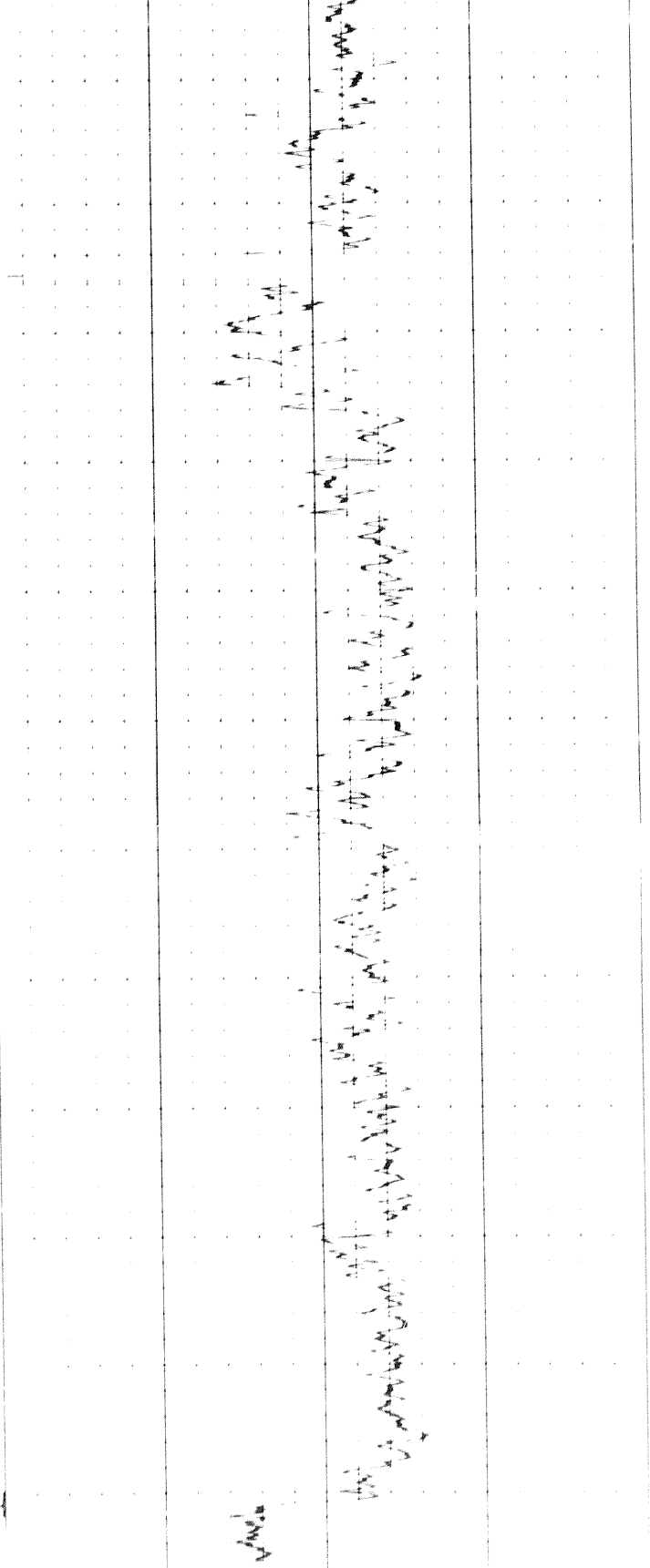
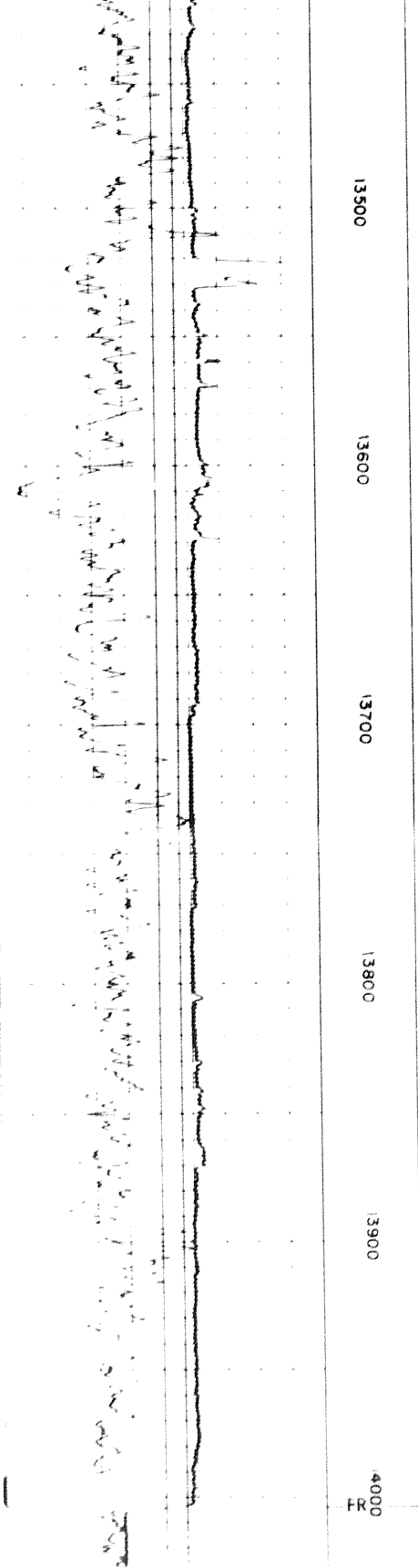
12000 12100 12200 12300 12400 12500 12600

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1007







Sens TC
 Zero div 10 left

14000
FR

Sens	150	T.C.	2
Zero	0	div. to left	
0			150
150			300

GAMMA RAY
API UNITS

Speed in FPM

5 6 7 8 9 10 11 12 13

30 20 10 0 -10

LIMESTONE

CALIPER
hole diameter in inches

DEPTH

POROSITY (%)

DETAIL LOG
5" = 100' RUN 1

CALIPER
hole diameter in inches

DEPTH

POROSITY (%)

Speed in FPM

10 11 12 13 14 15 16 17 18

30 20 10 0 -10

LIMESTONE

GAMMA RAY
API UNITS

Sens	100	T.C.	2
Zero	0	div. to left	
0			100
100			200

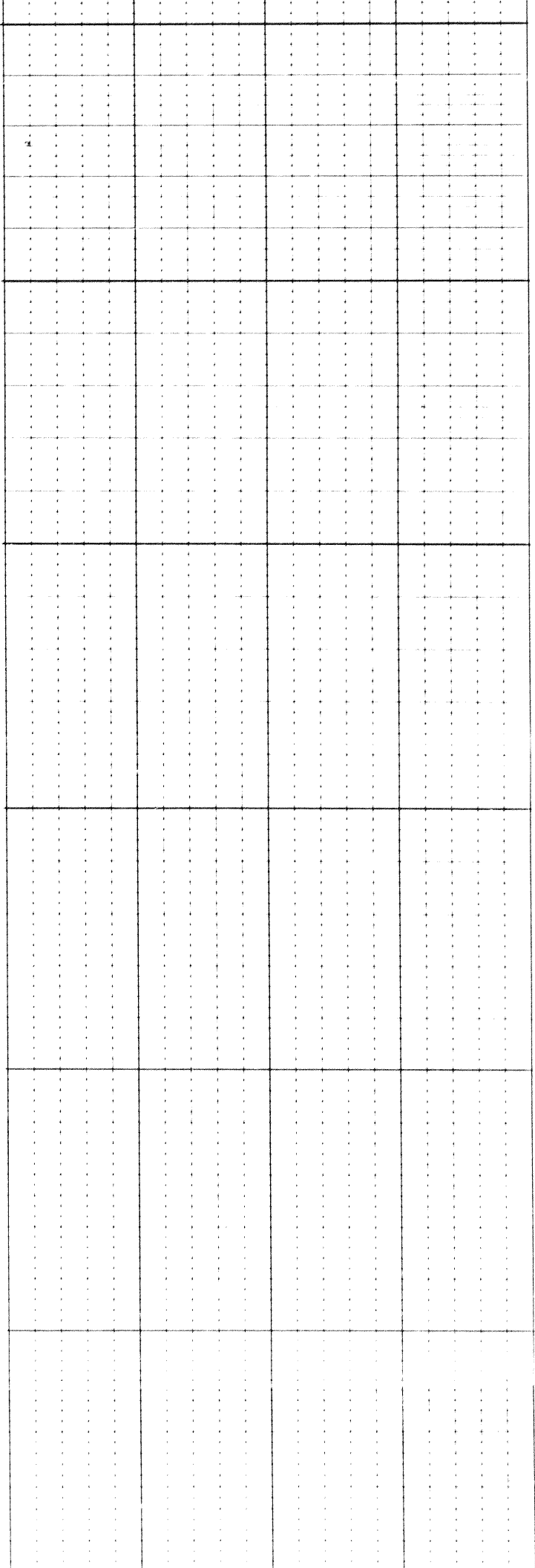
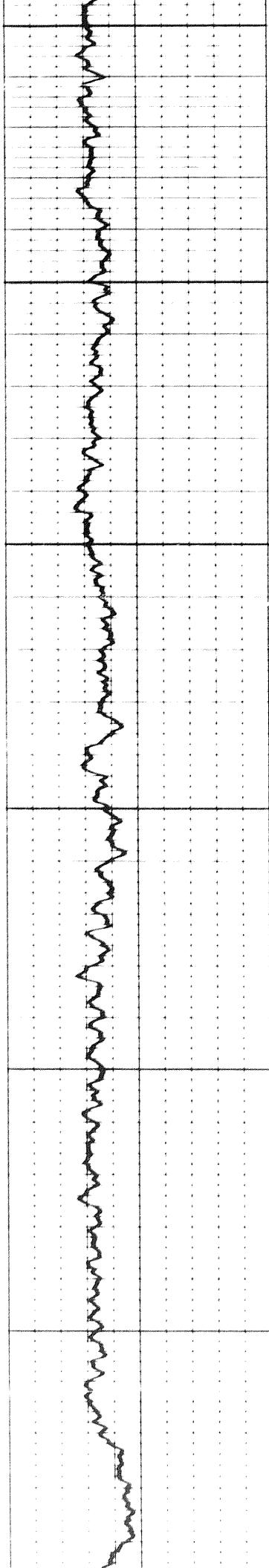
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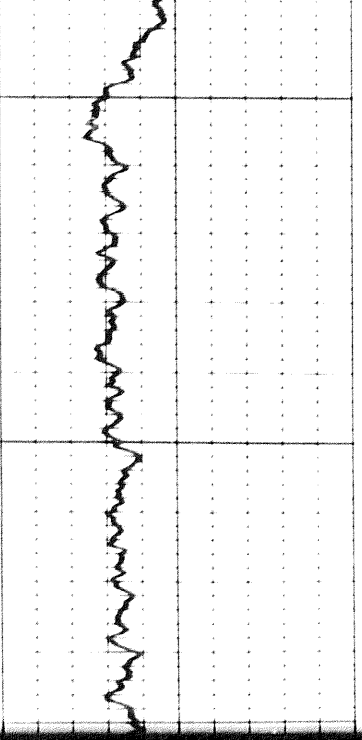
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0100

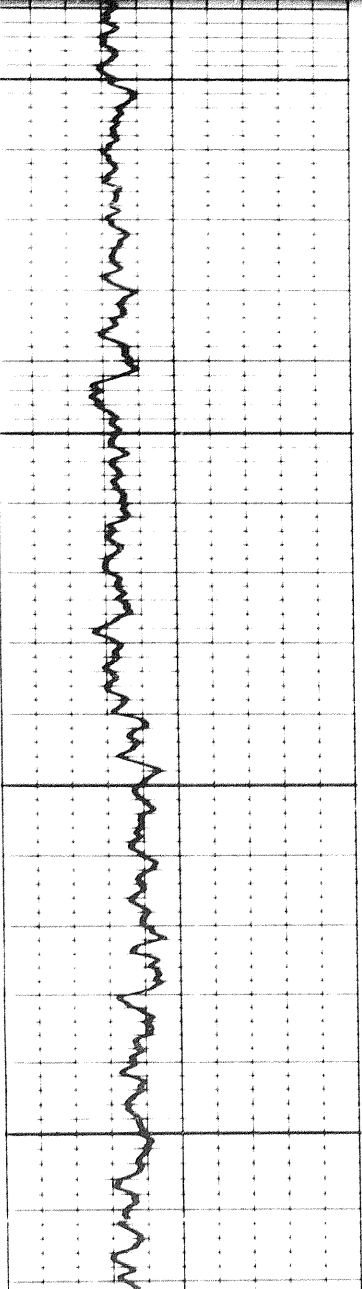
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0300





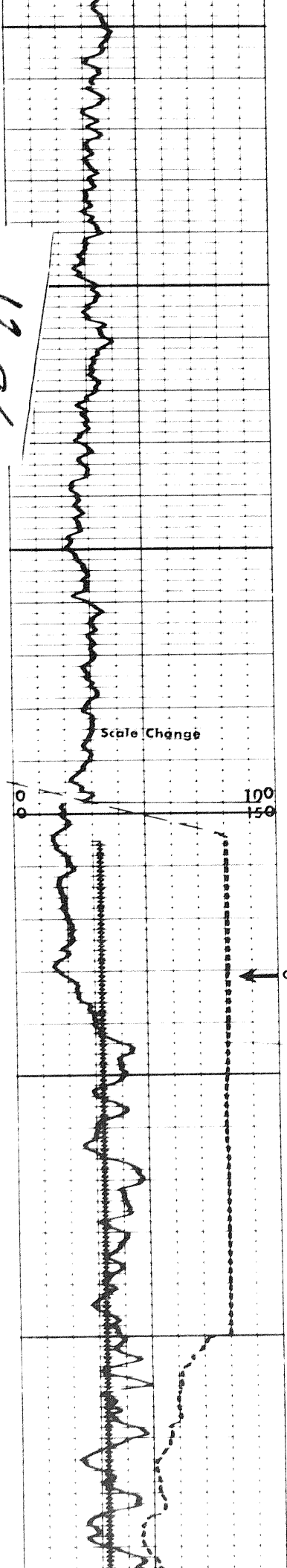
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0500

0600

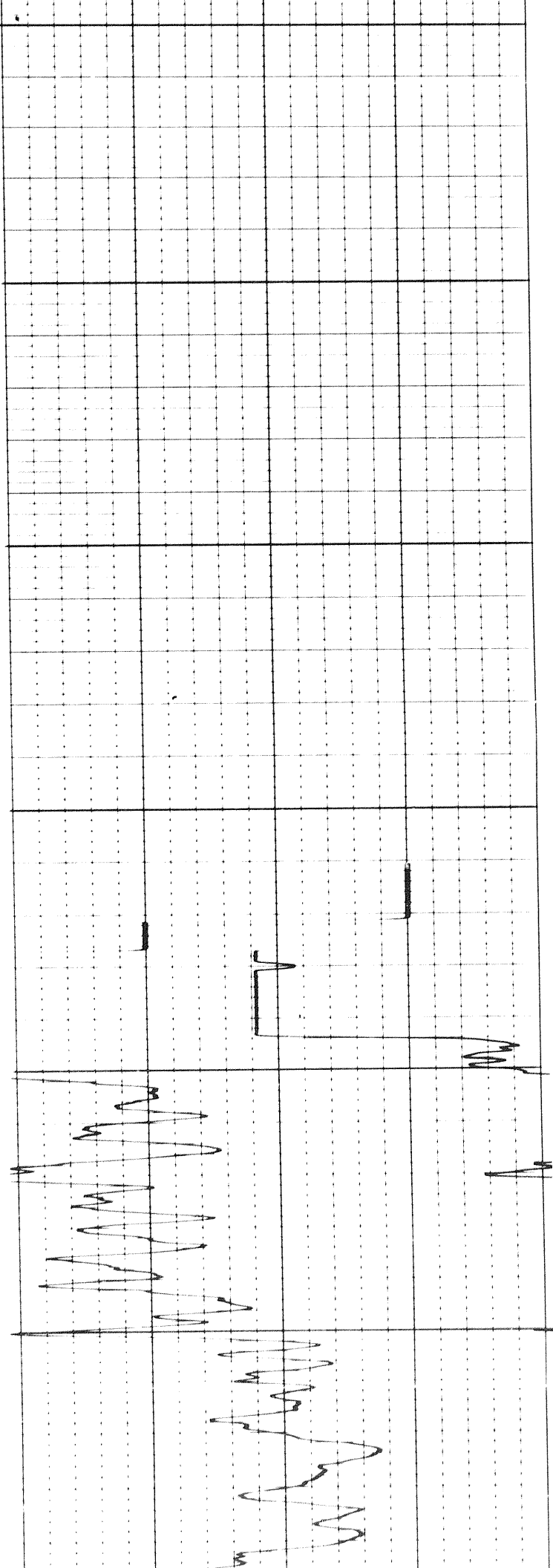
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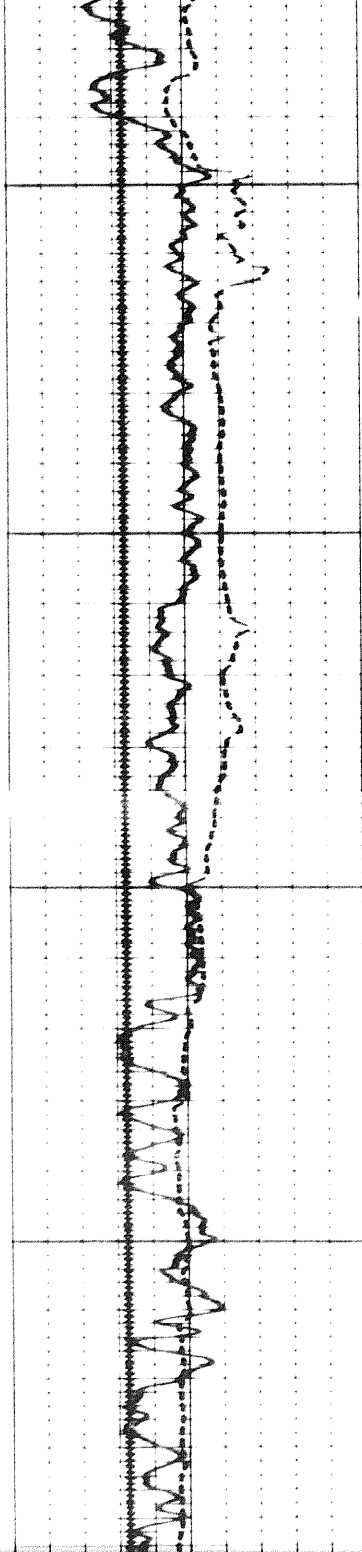


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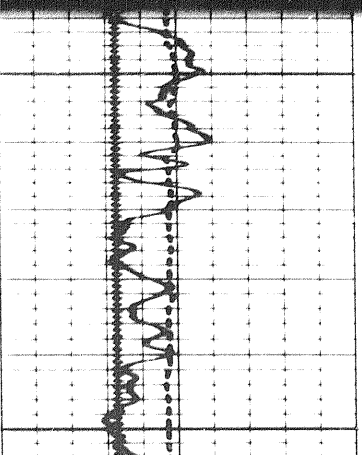
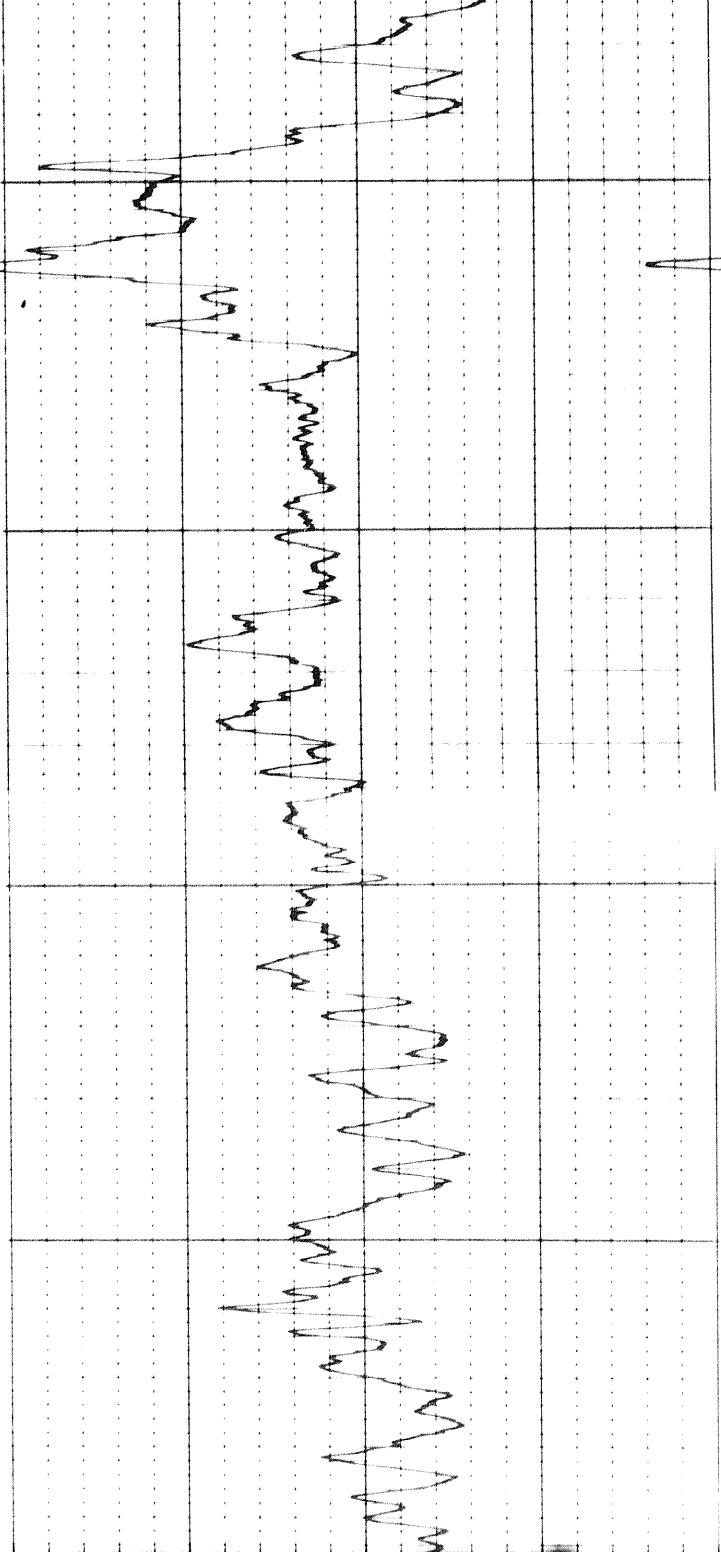
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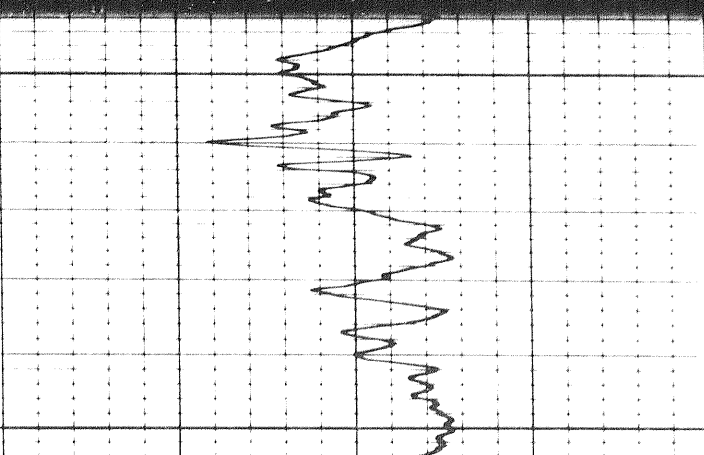


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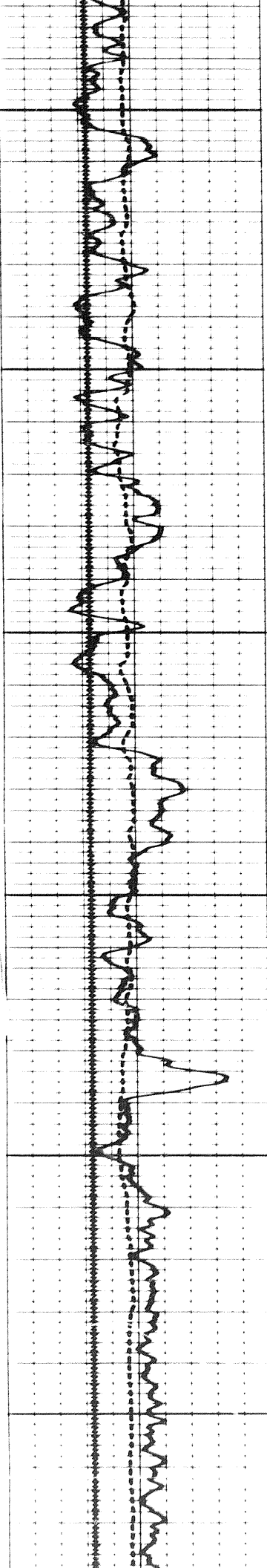
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0001



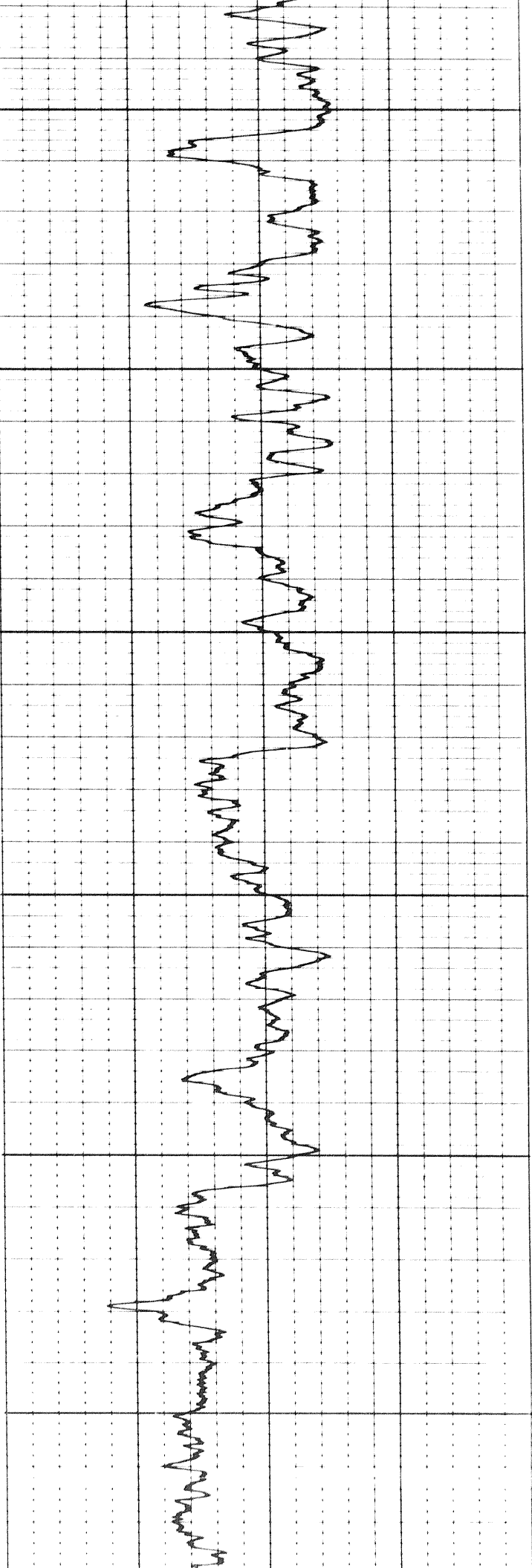
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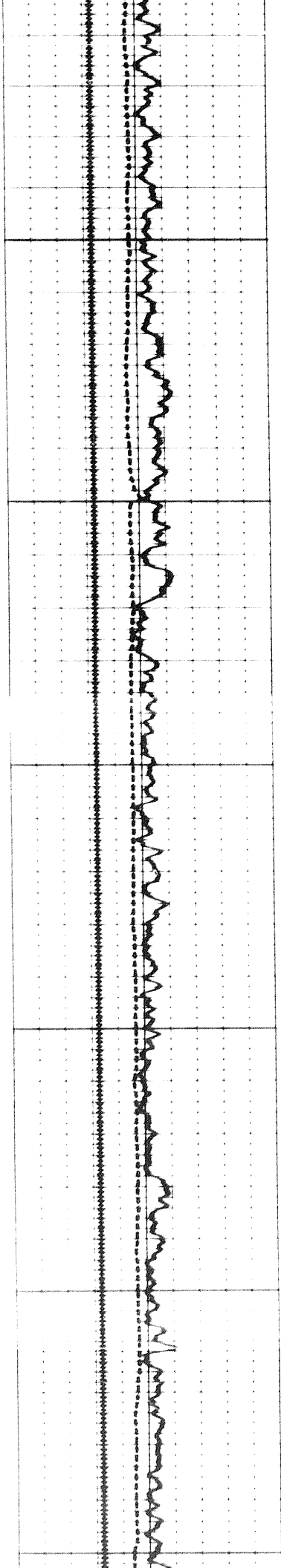


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2000

3000

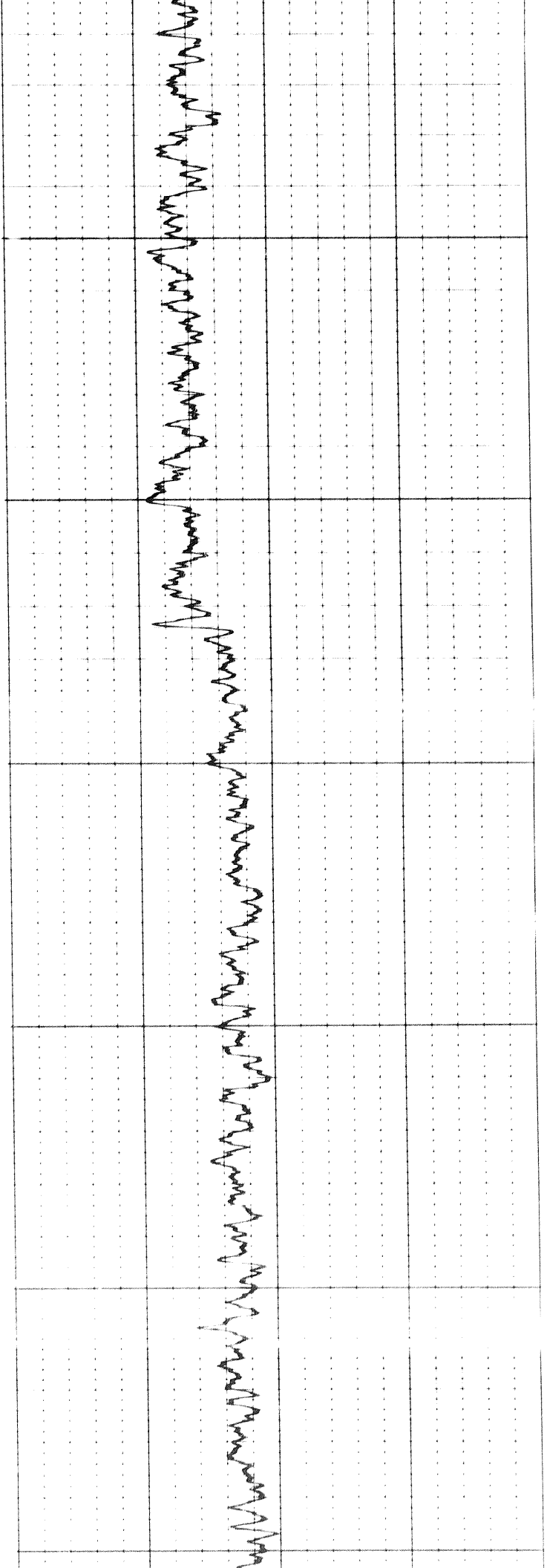


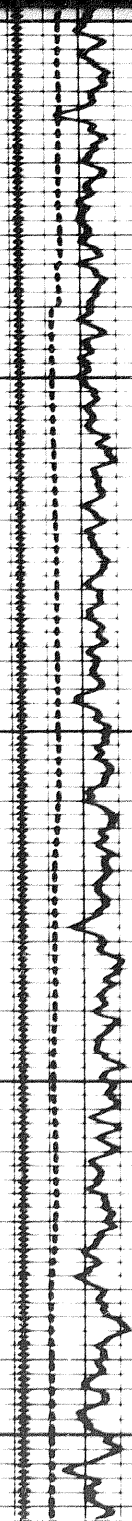
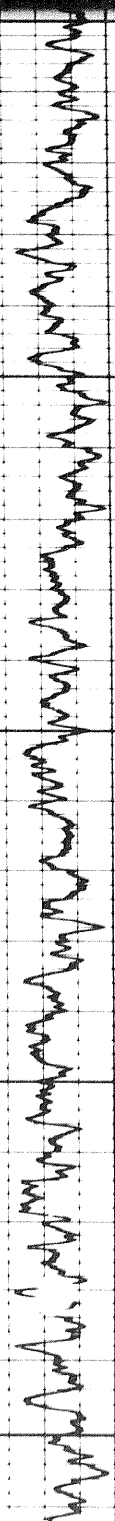
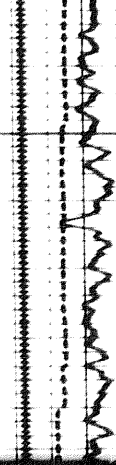
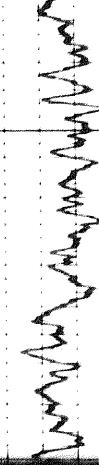


1400

1500

1600



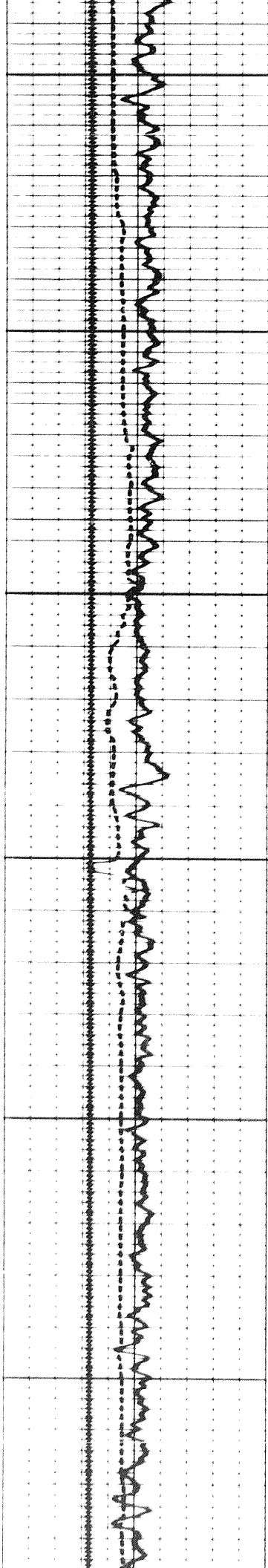


1700

1800

12

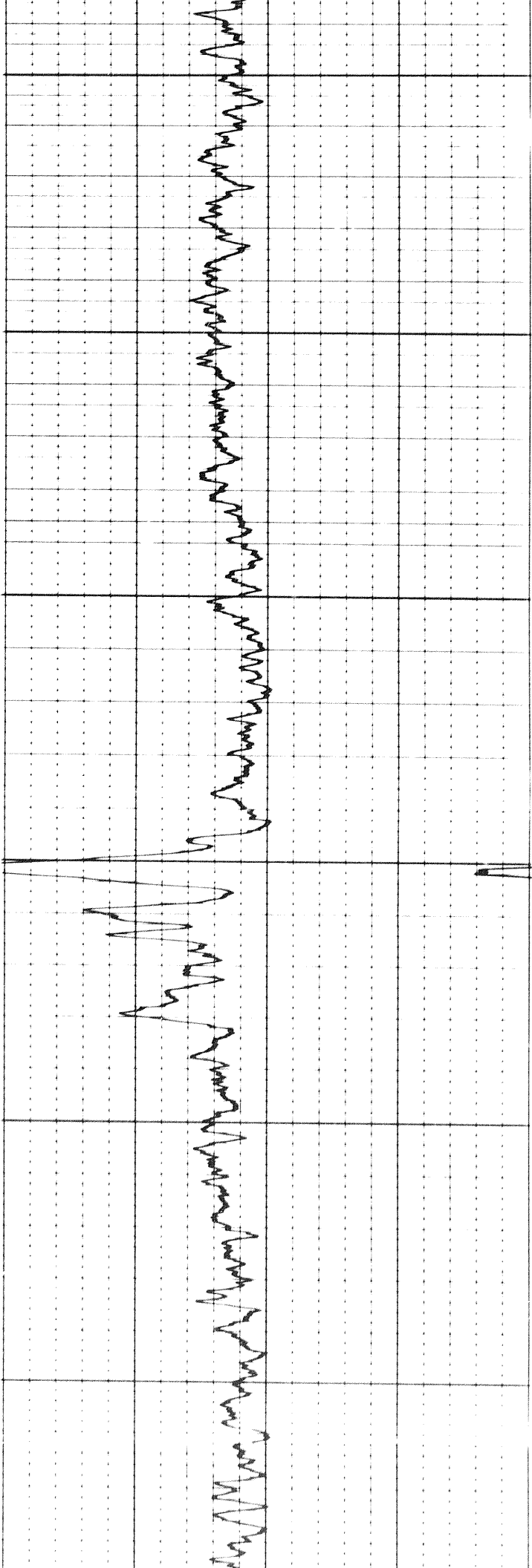
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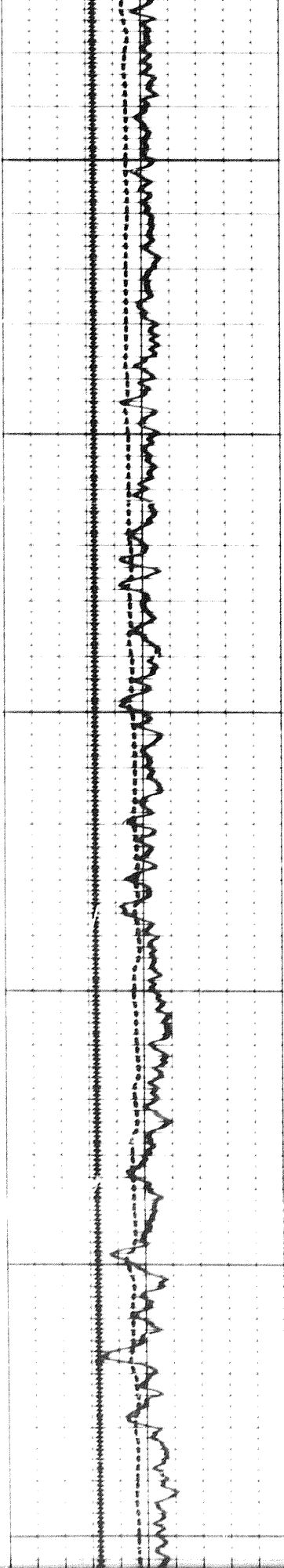


1900

2000

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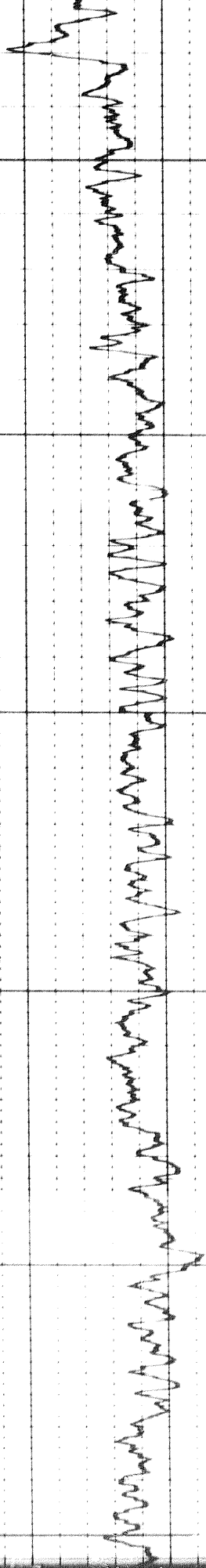




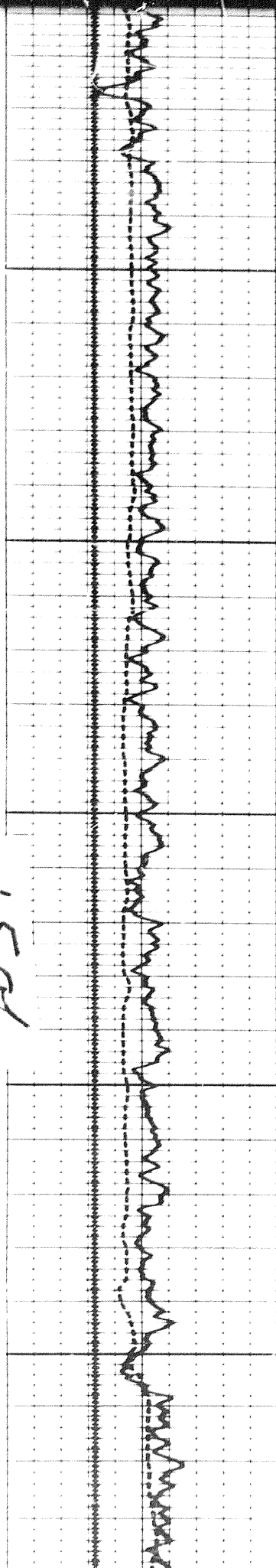
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2200

2300



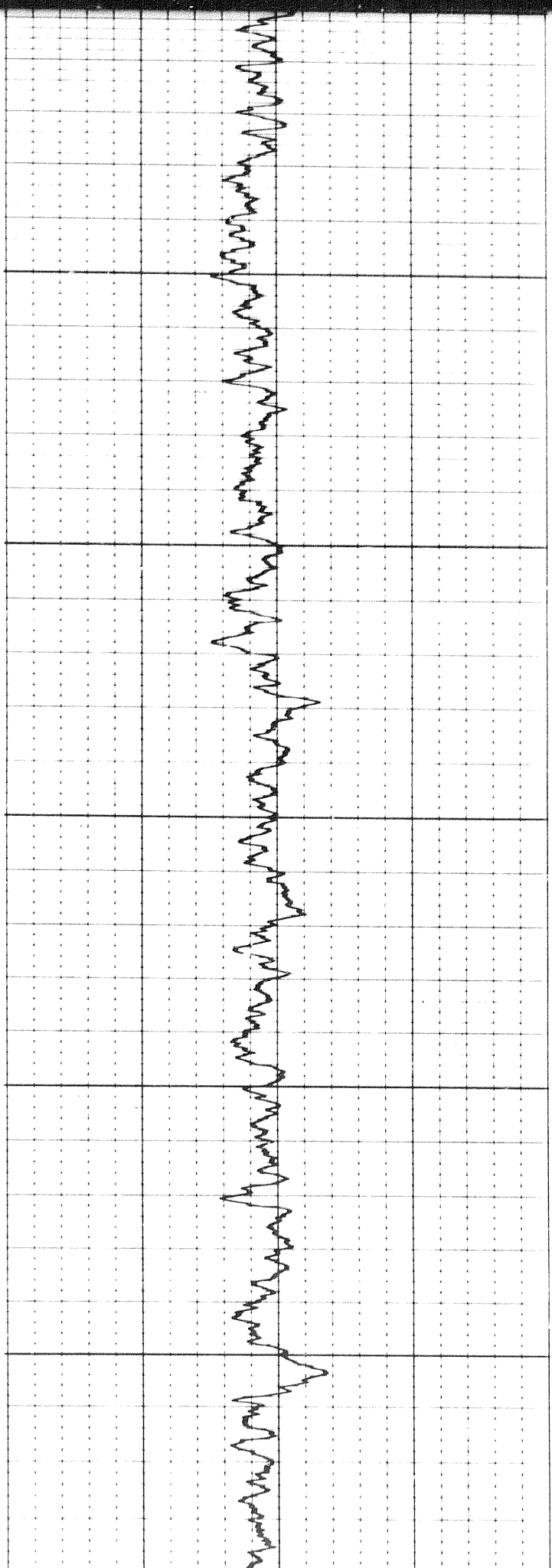
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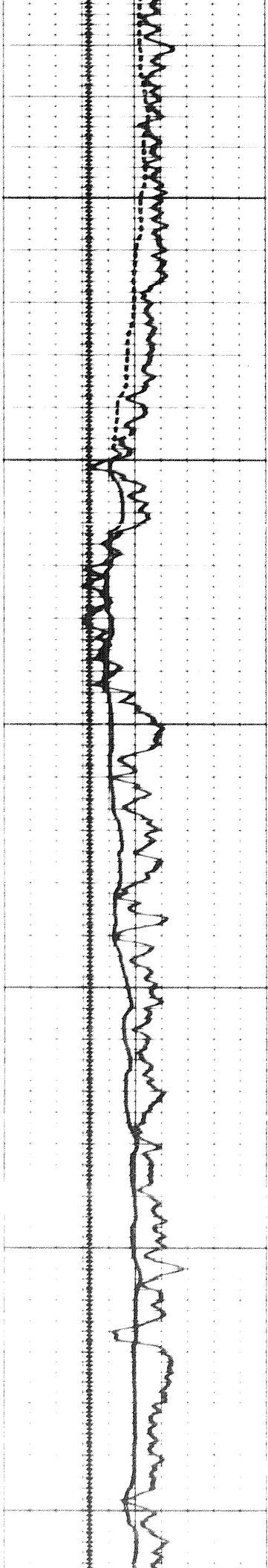


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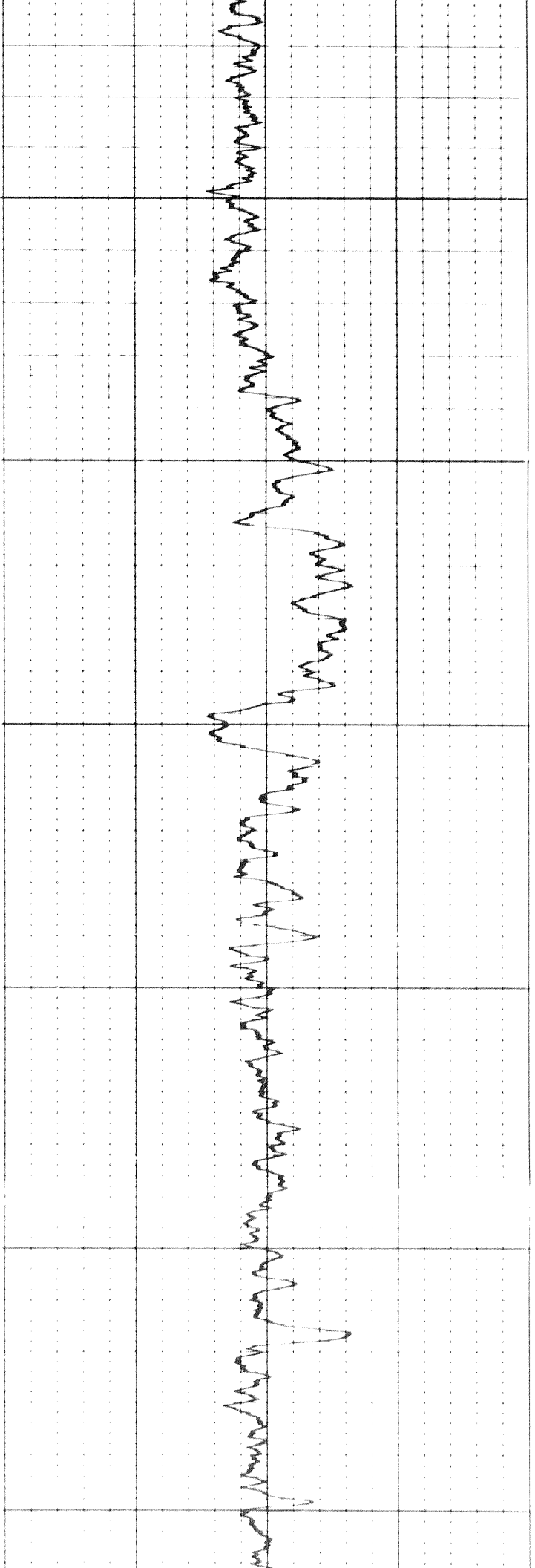


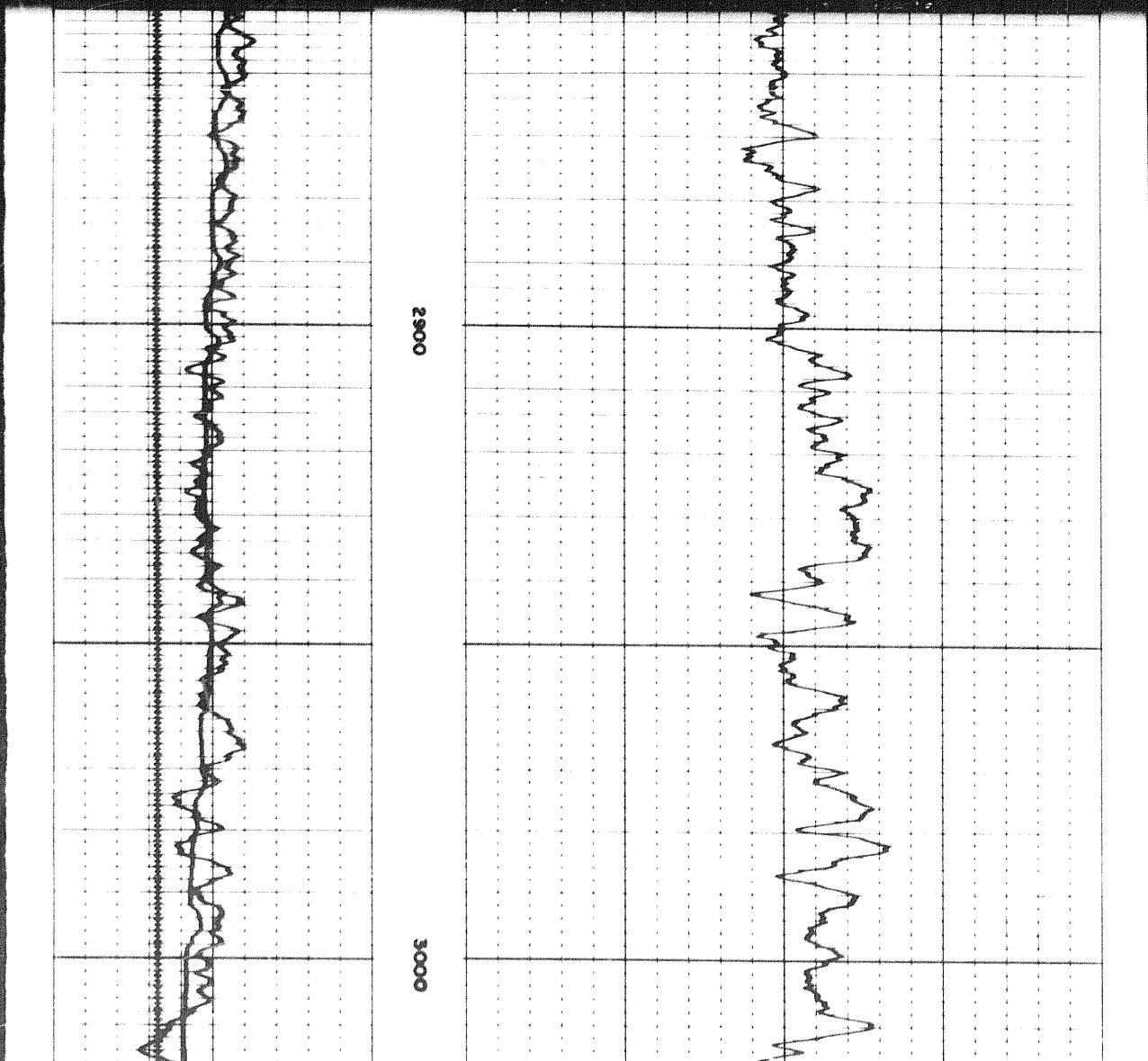
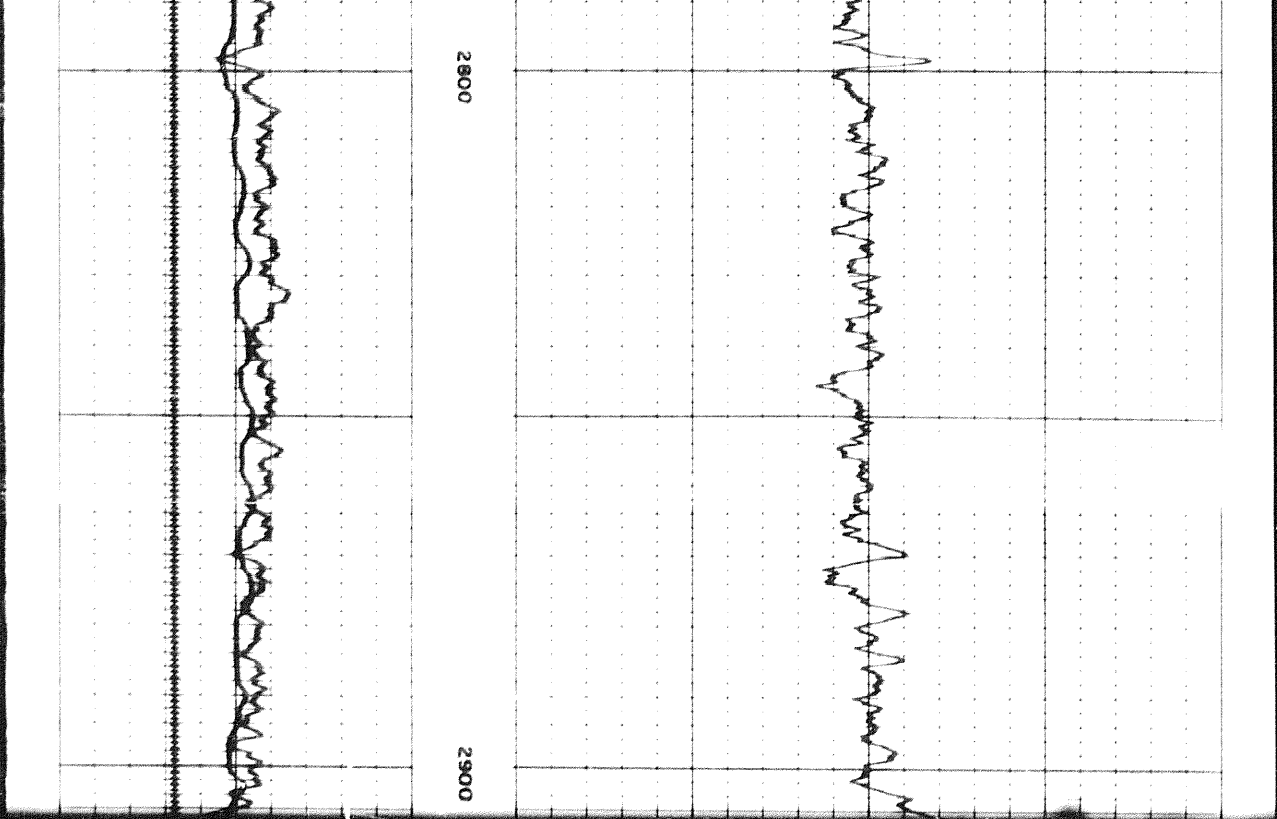


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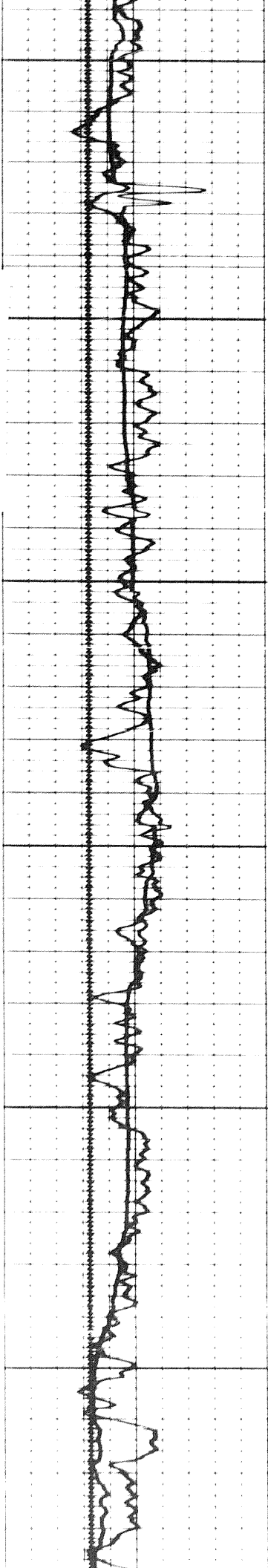
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2800





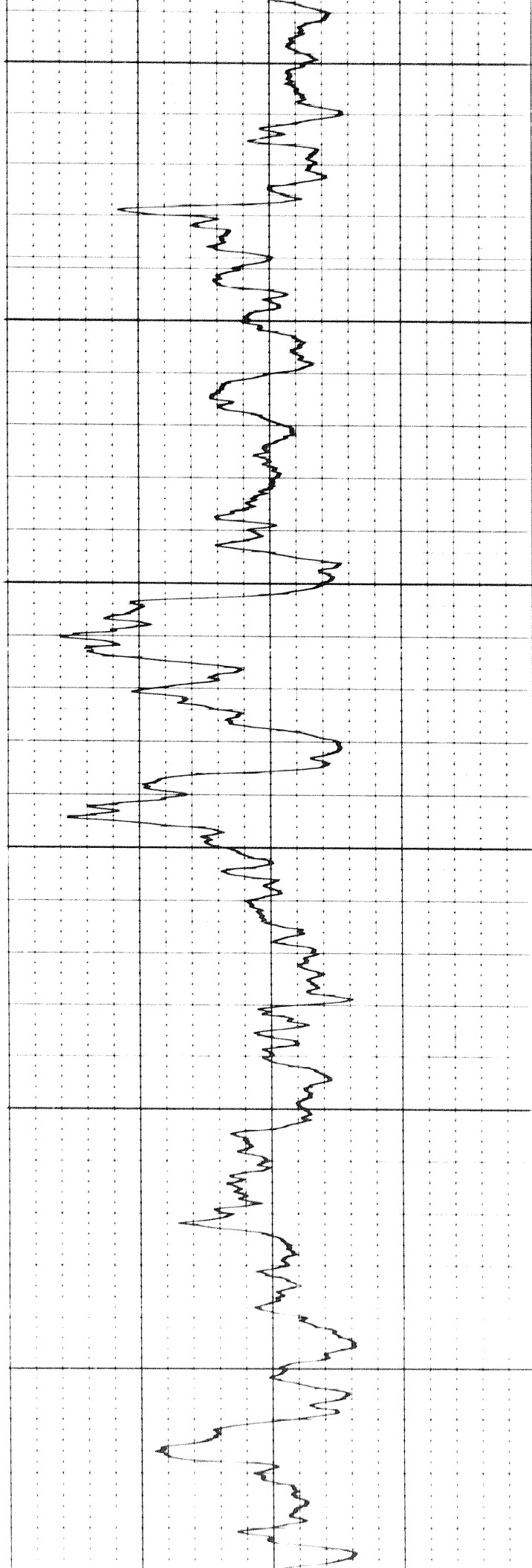
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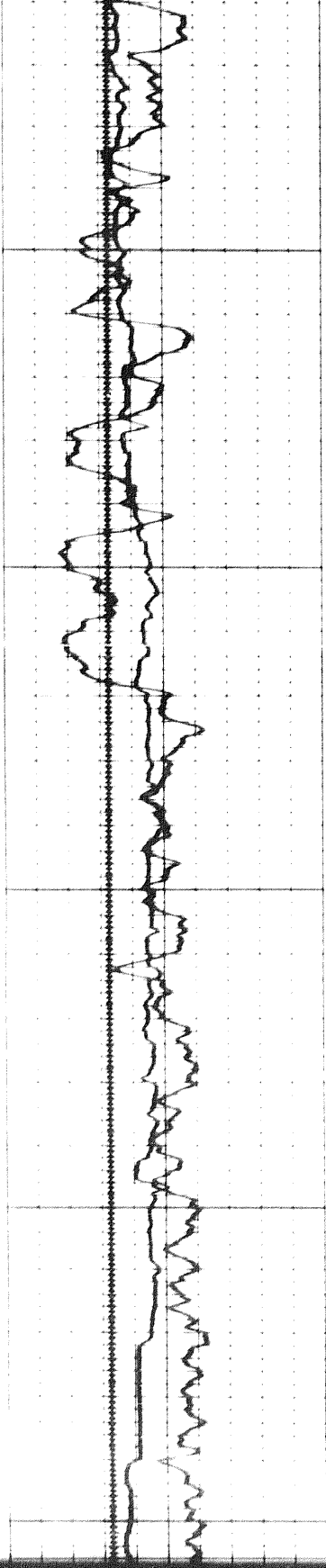


3000

3000

3000

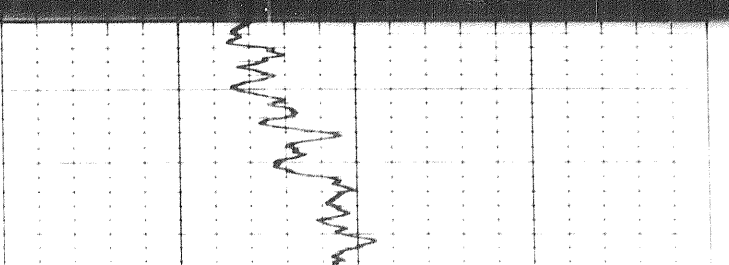
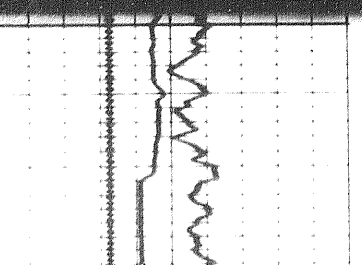
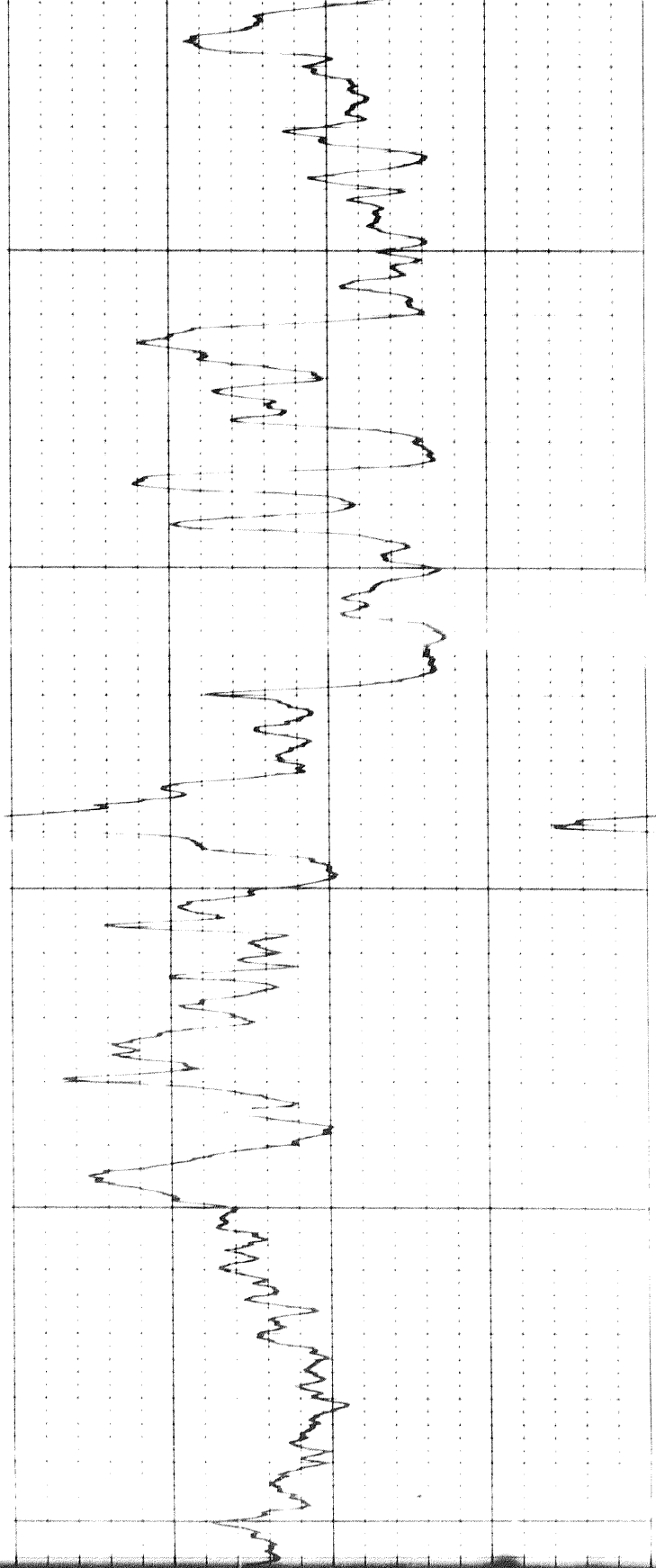




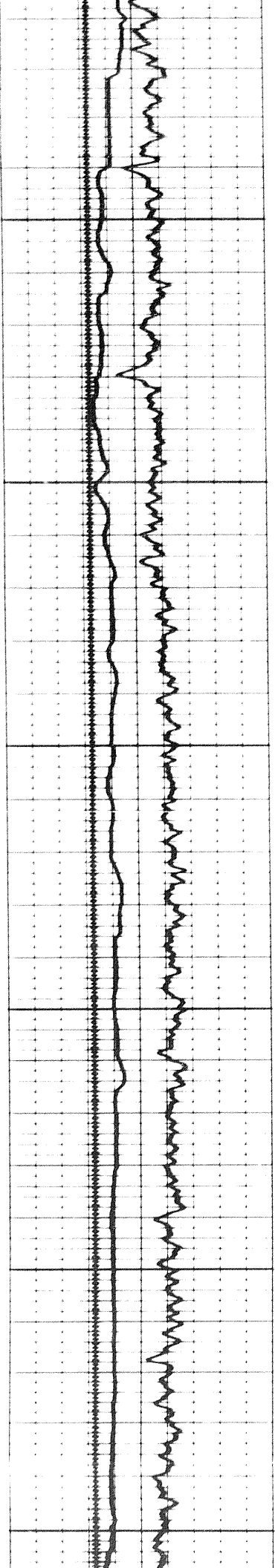
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3400

3500



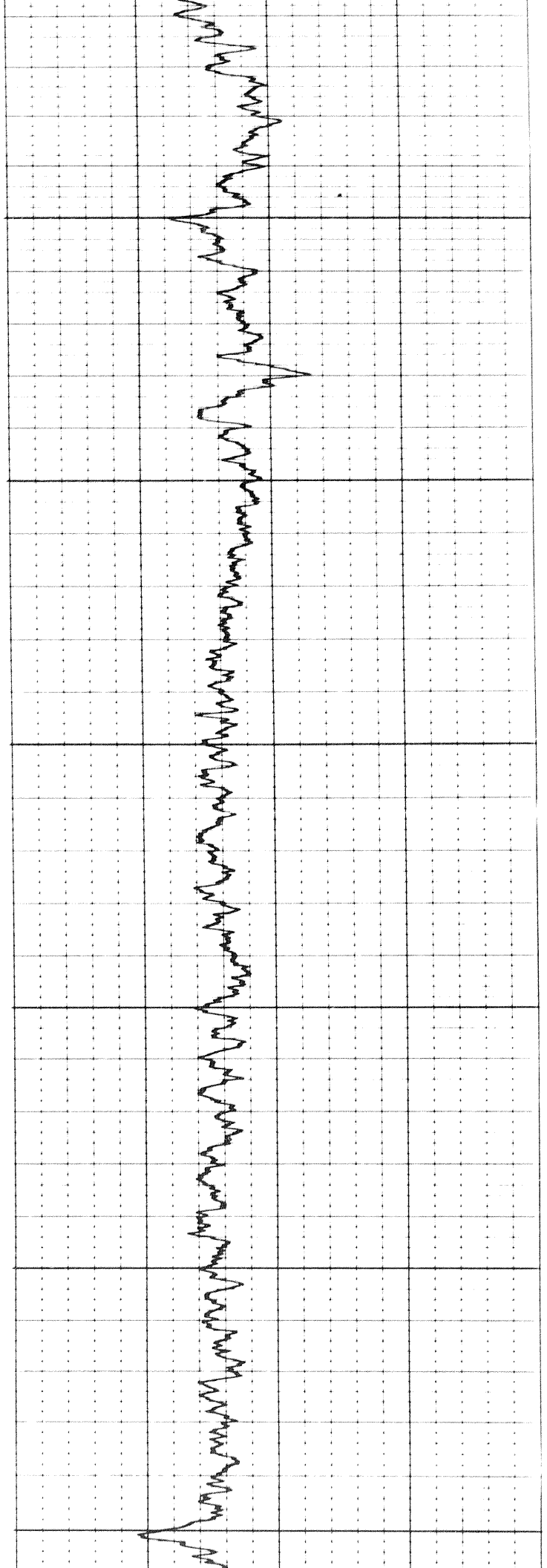
17 of

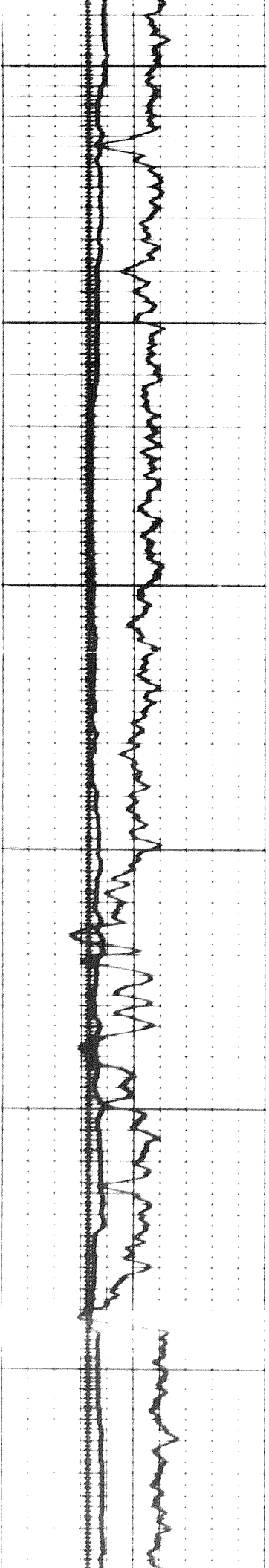


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3600

3700

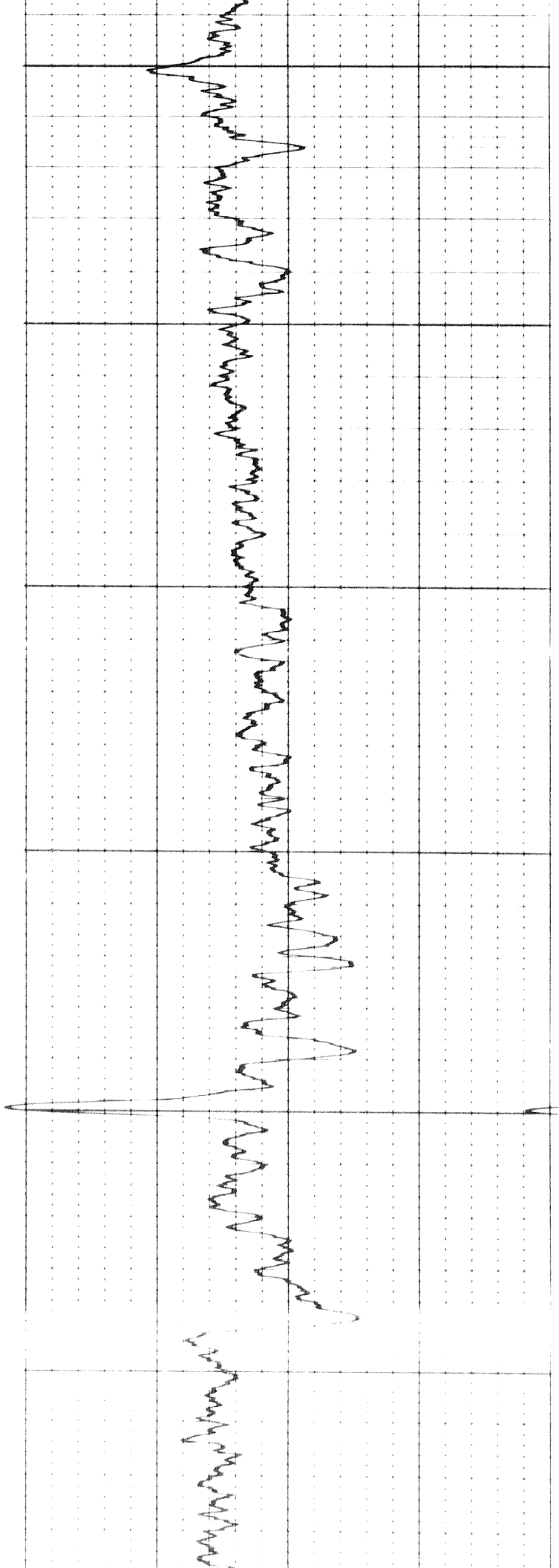




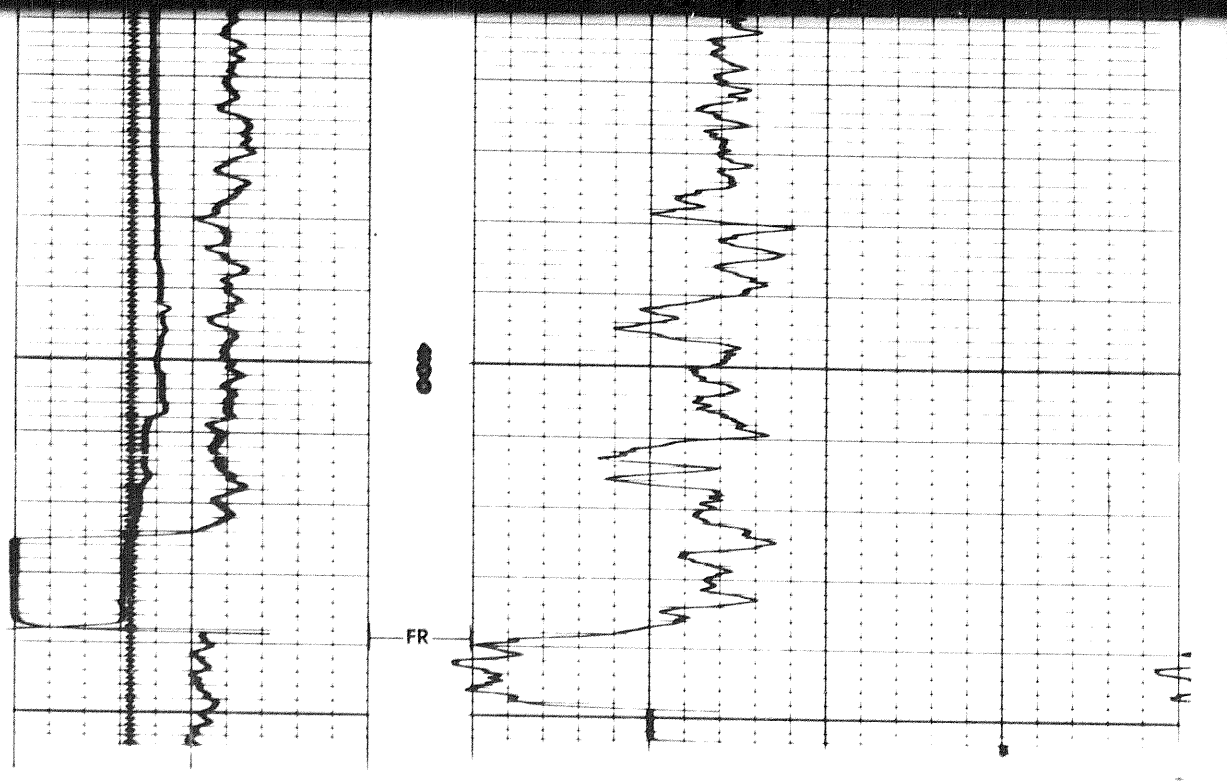
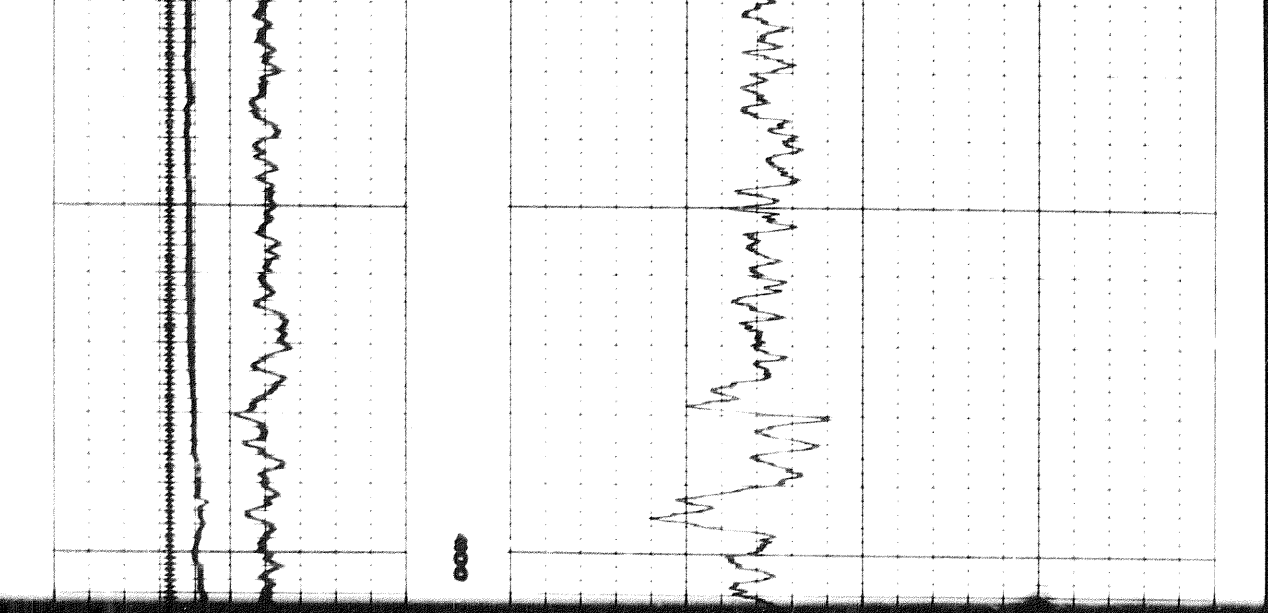
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3900

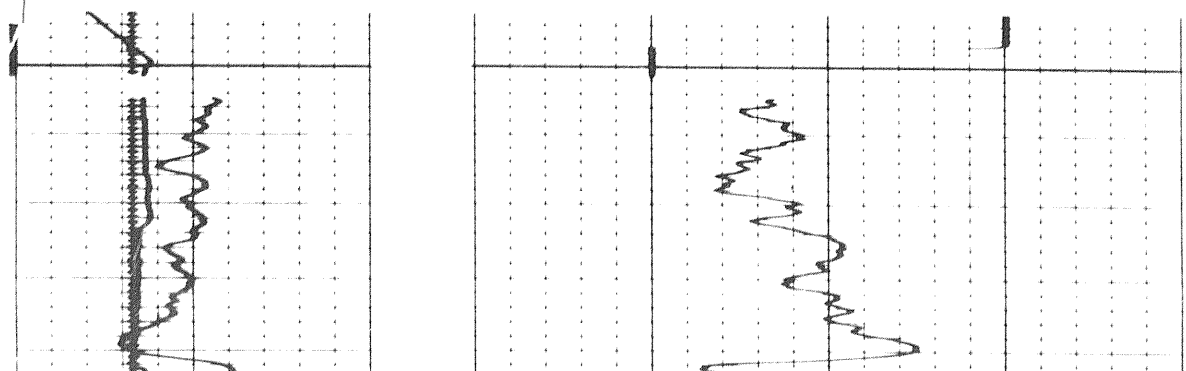
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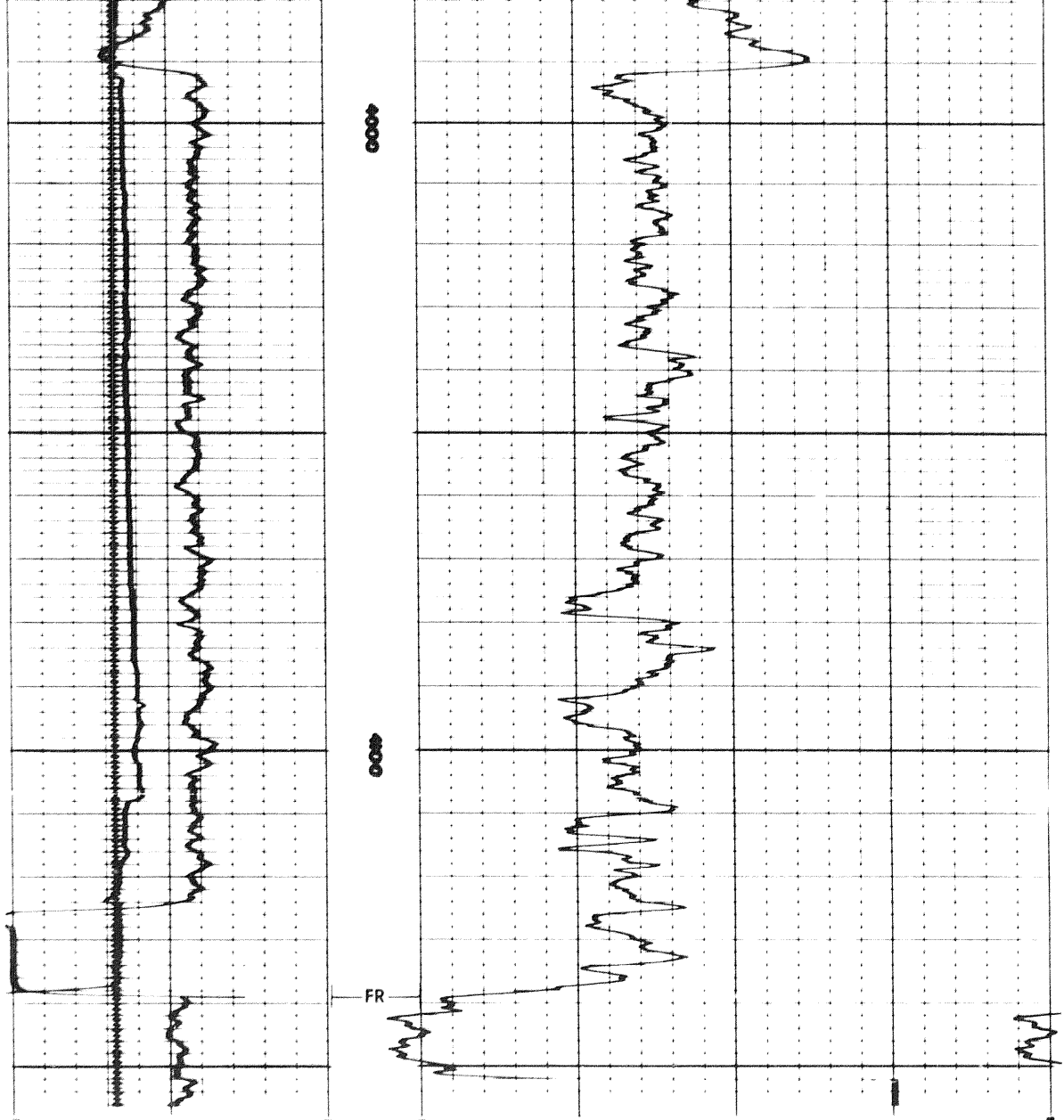


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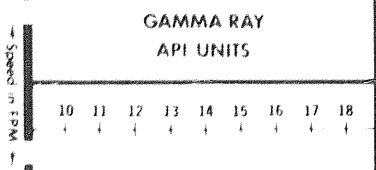


REPEAT SECTION



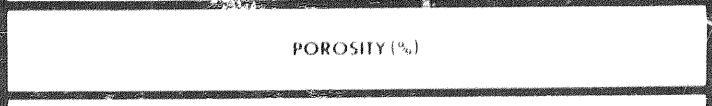


Sens 100 TC ✓
 Zero 0 div to left
 100 300



CALIPER
hole diameter in inches

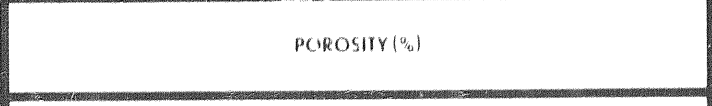
DEPTHS



DETAIL LOG
5" = 100'

CALIPER
hole diameter in inches

DEPTHS



Sens 120 TC 2
 Zero 0 div to left
 100 300

GAMMA RAY
 API UNITS

10 11 12 13 14 15 16 17 18

30 20 10 0 -10
 LIMESTONE

CALIPER
 hole diameter in inches

DEPTH

POROSITY (%)

DETAIL LOG
 5" = 100' R.C. 2

CALIPER
 hole diameter in inches

DEPTH

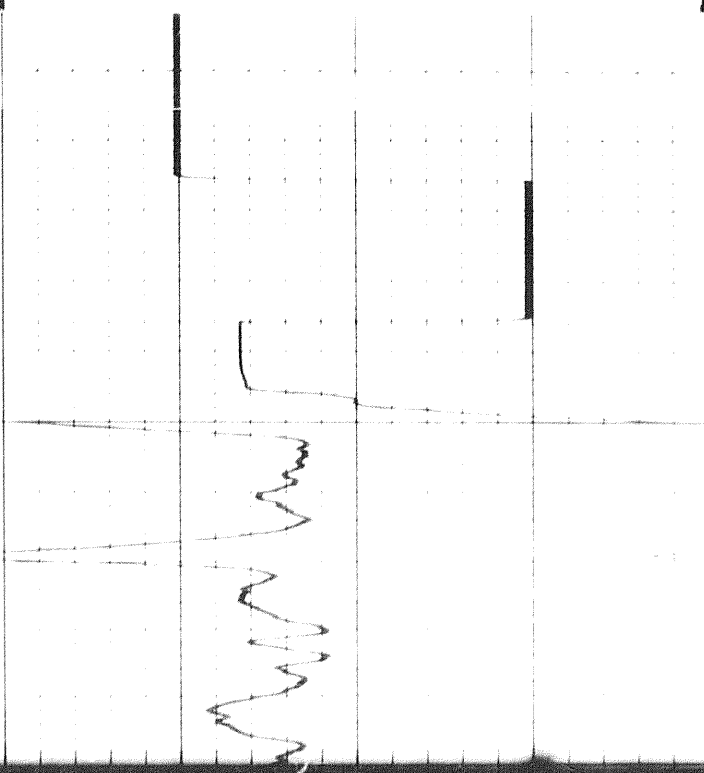
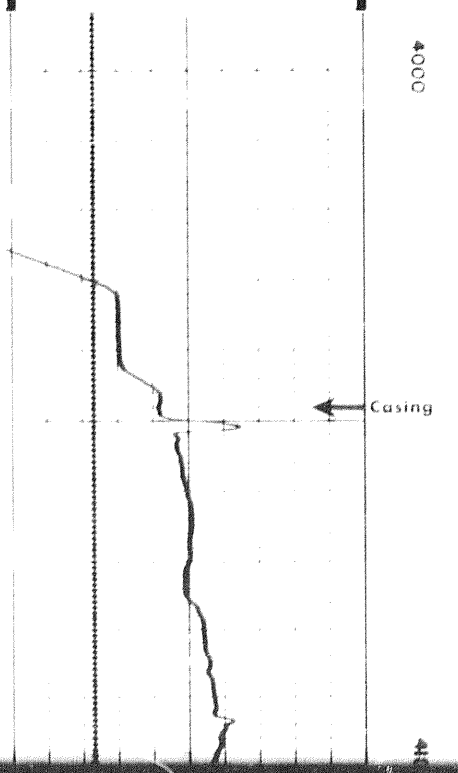
POROSITY (%)

11 12 13 14 15 16 17 18 19
 + + + + + + + + +

30 20 10 0 -10
 LIMESTONE

GAMMA RAY
 API UNITS

Sens TC
 Zero - div to left

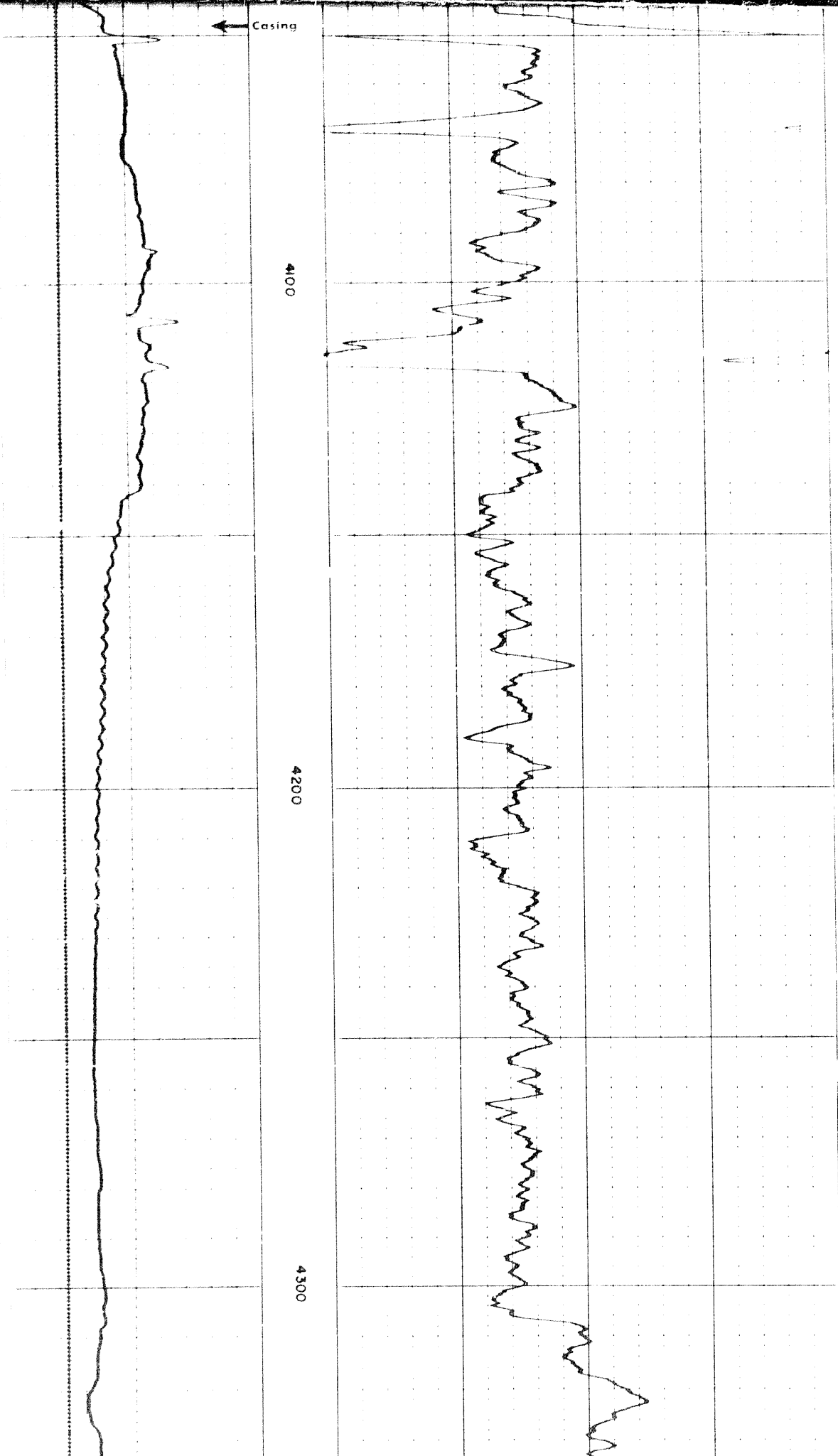


← Casing

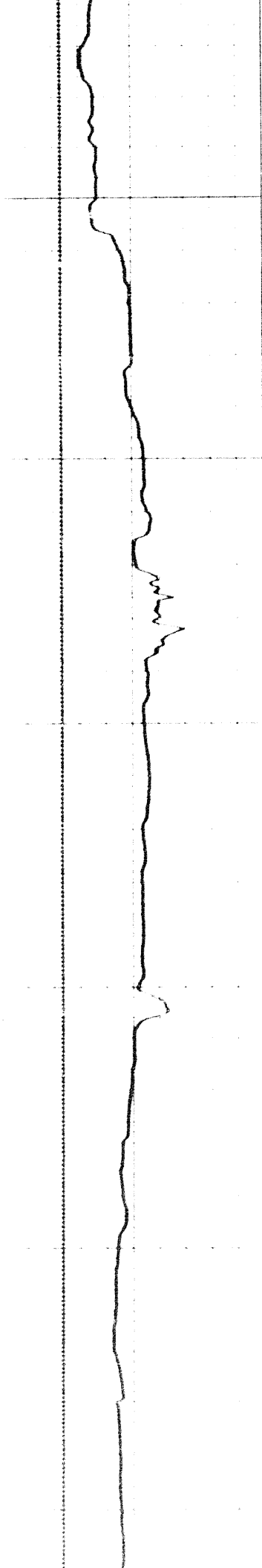
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4200

4300



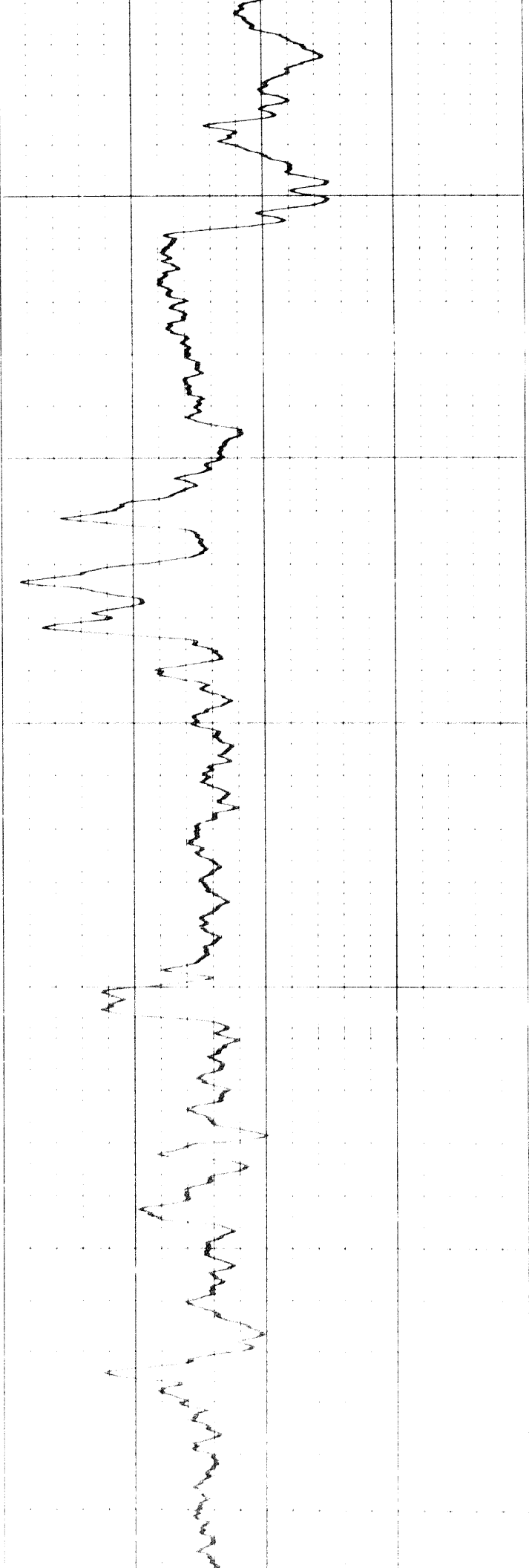
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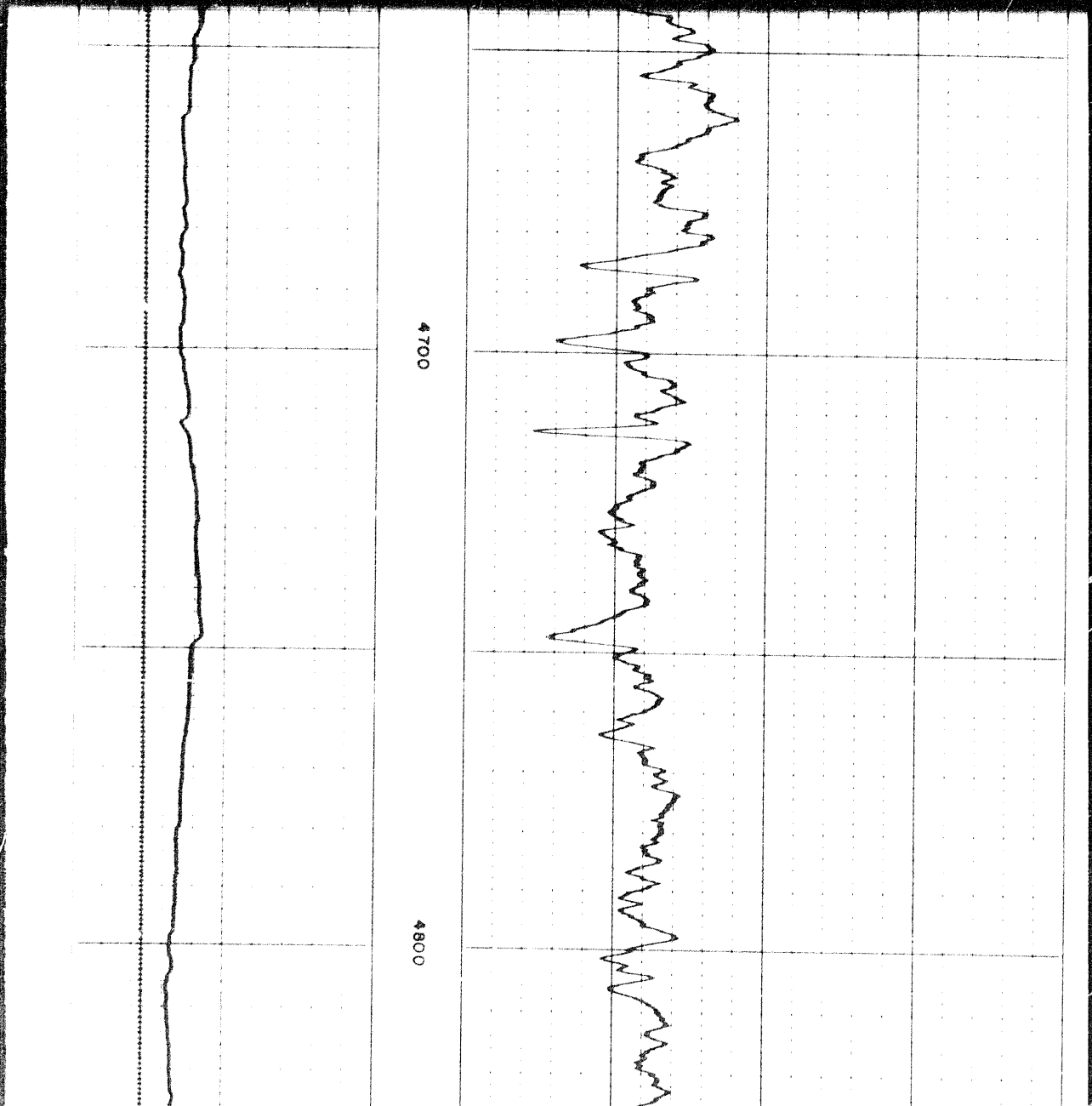
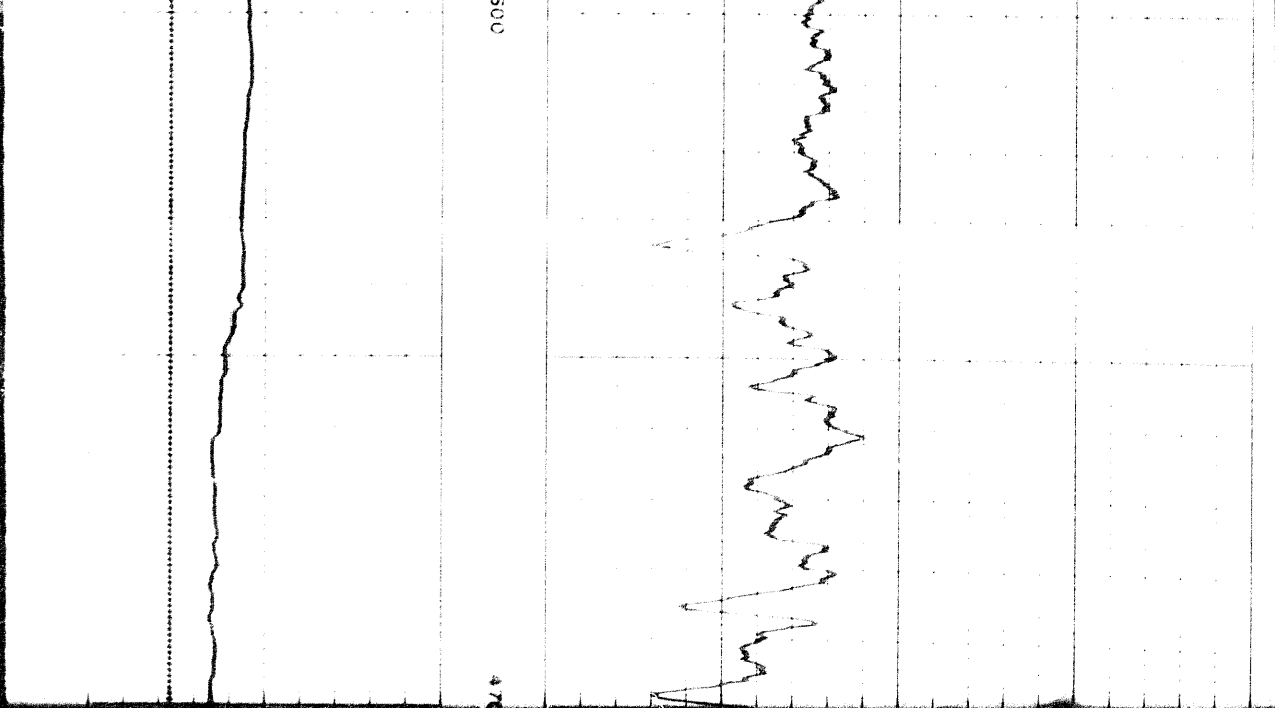


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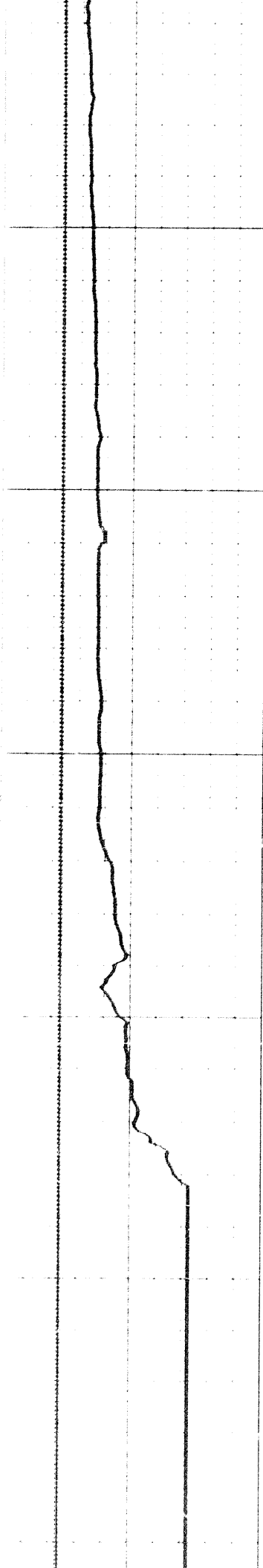
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4600





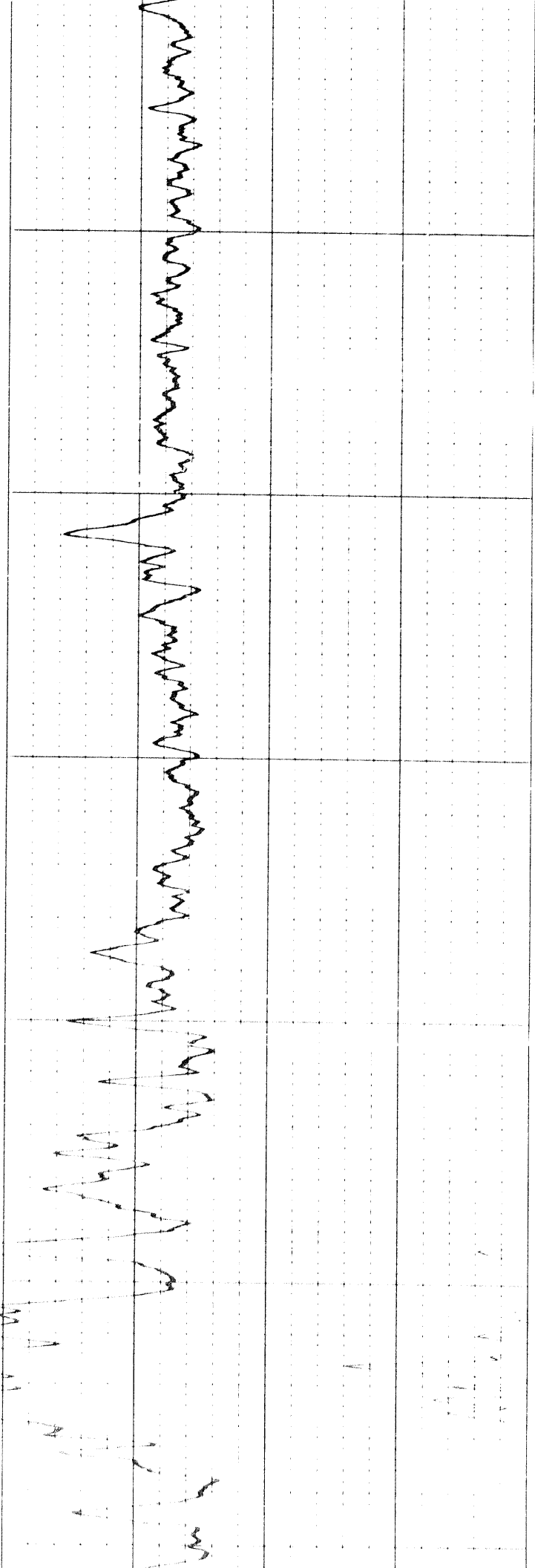
2007



4900

5000

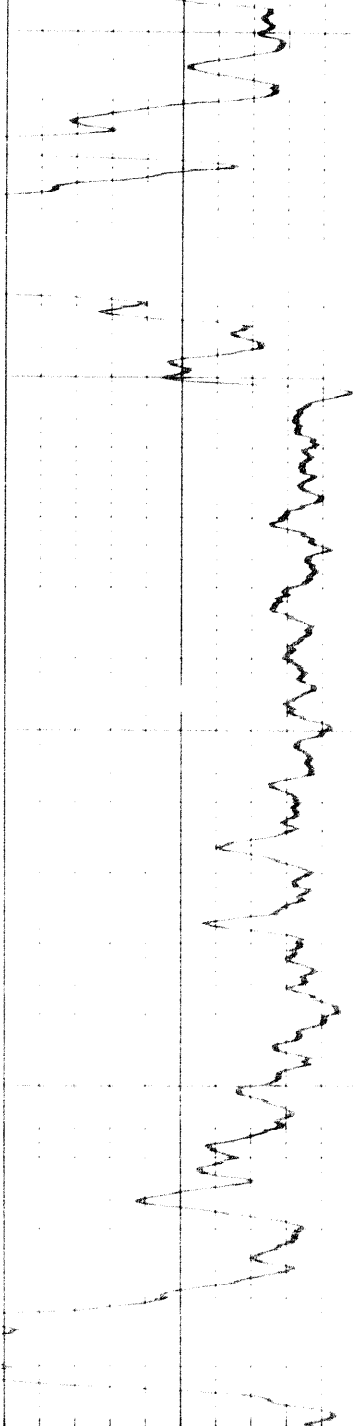
5100



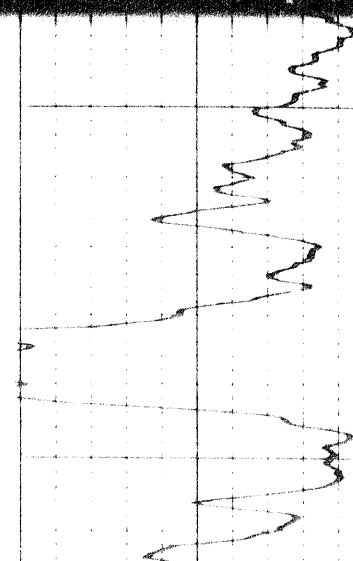
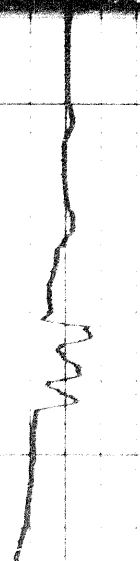
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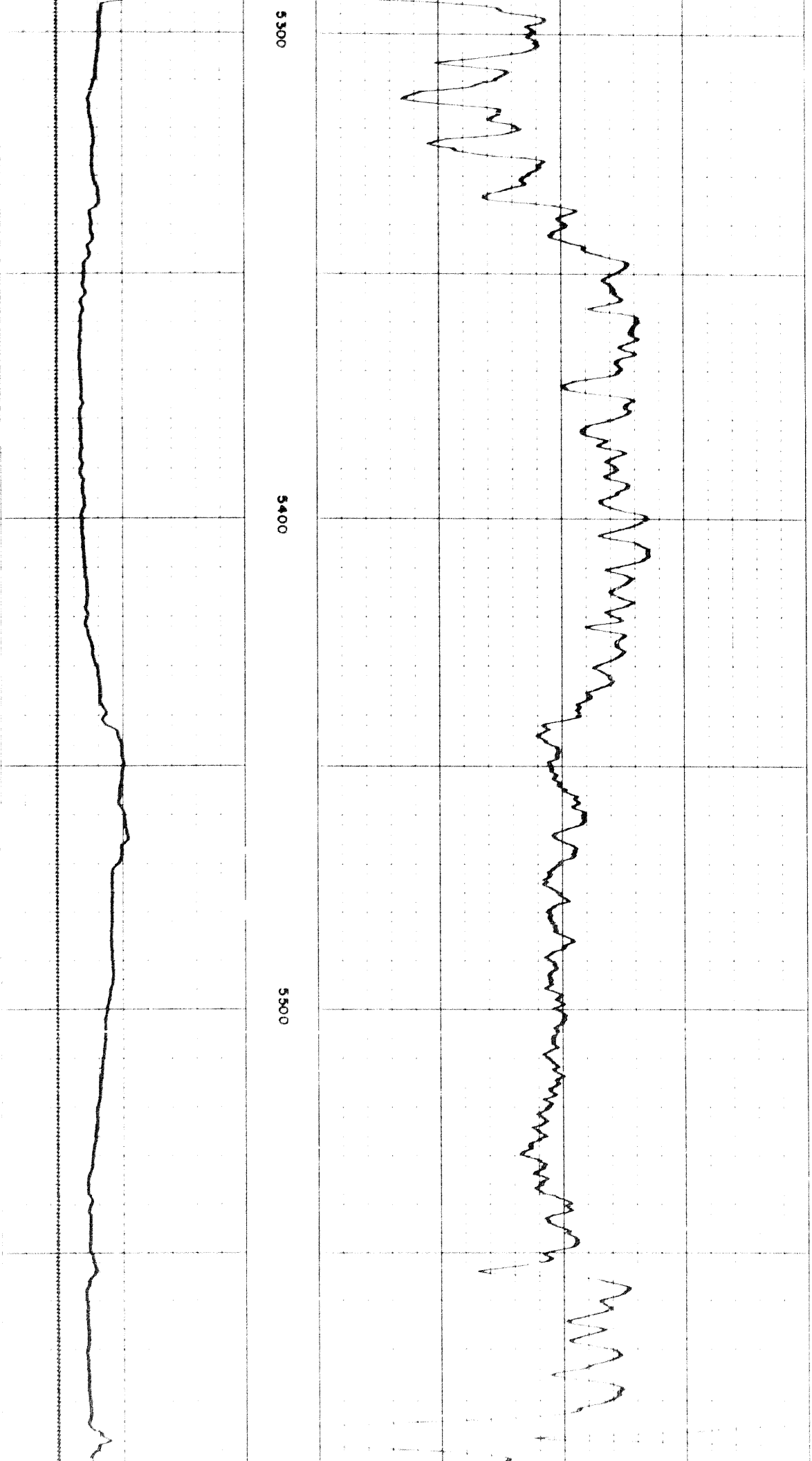
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5300



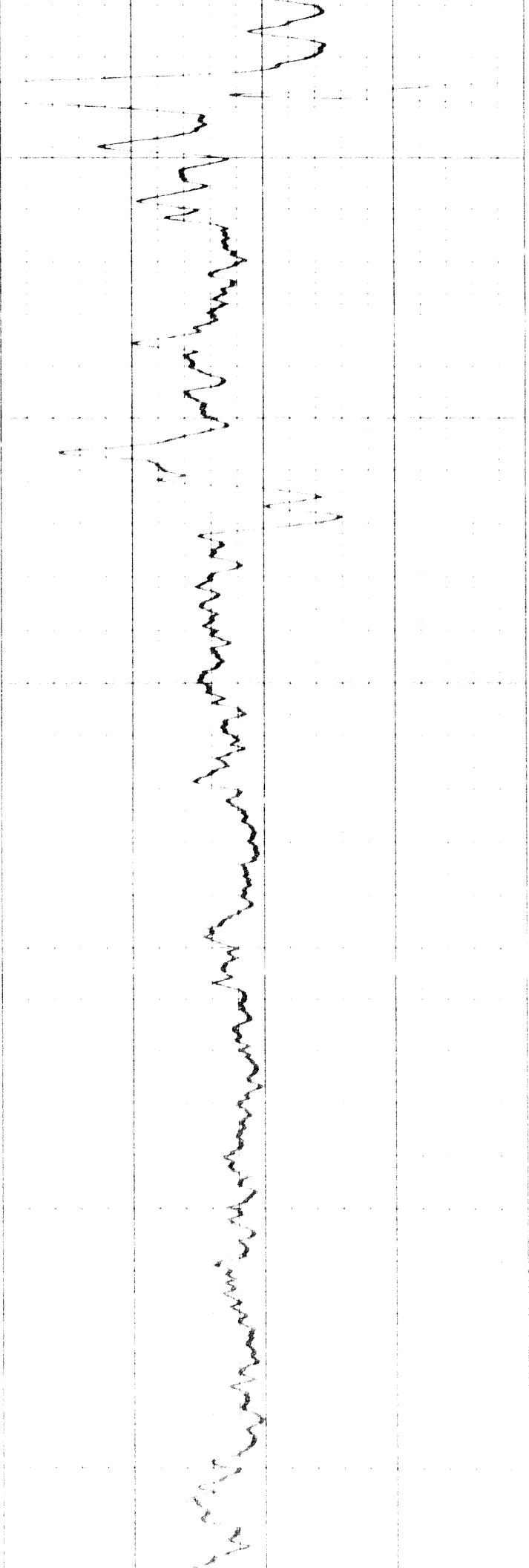
5300





2102

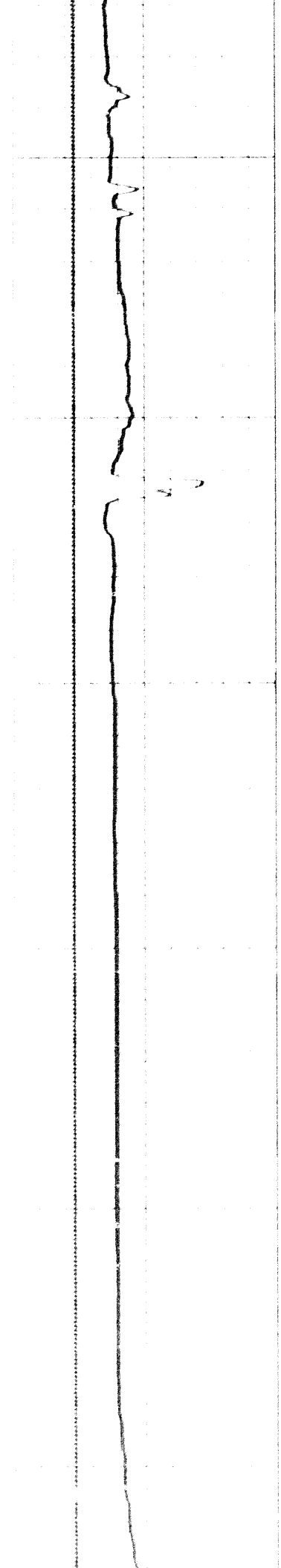
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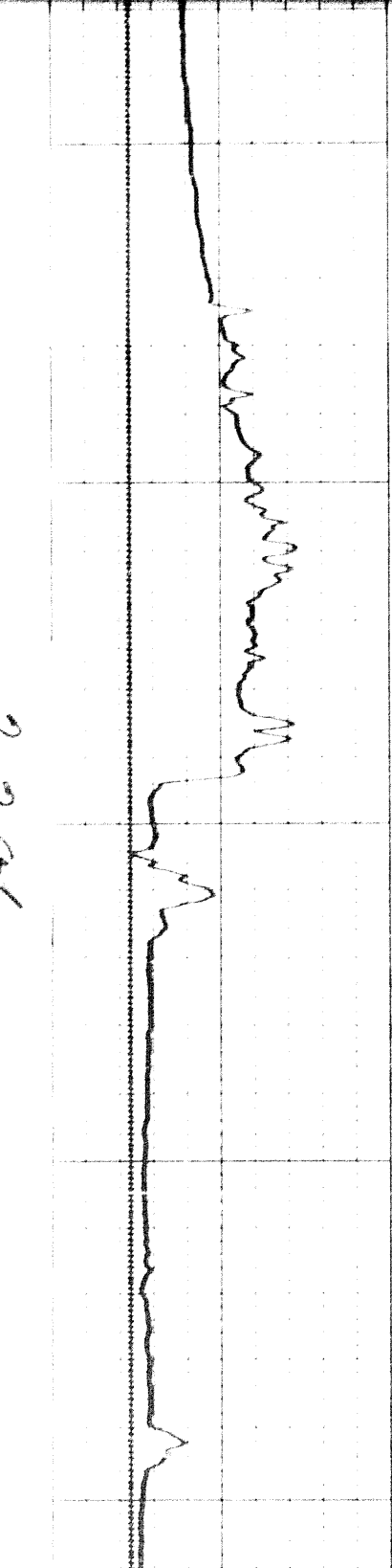
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5700

5800

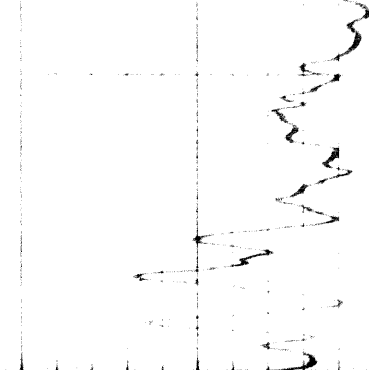
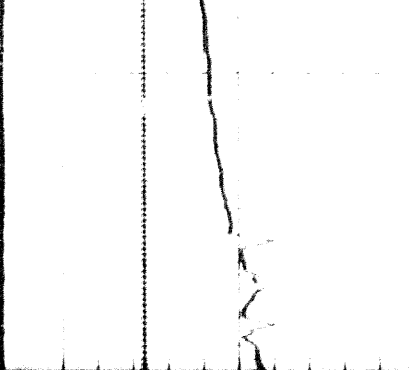
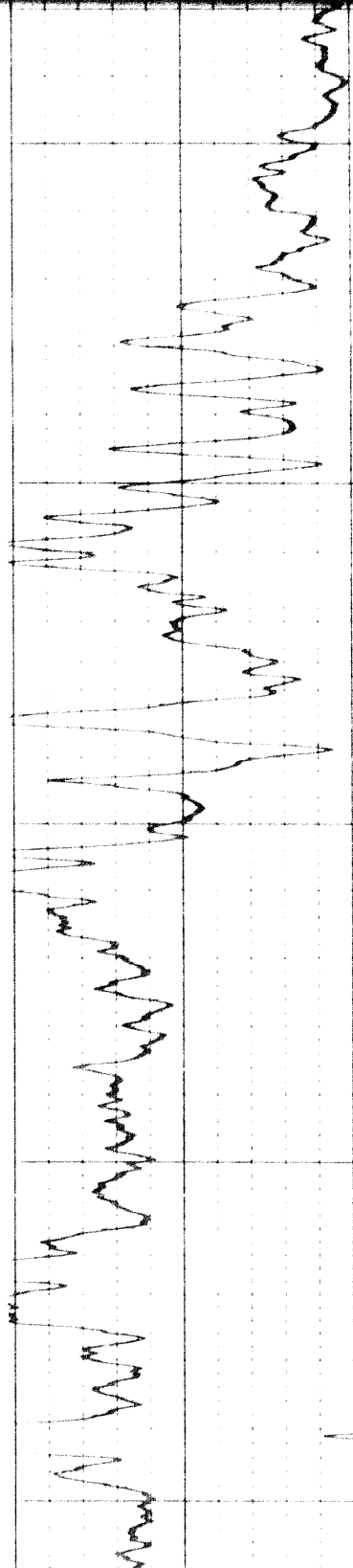


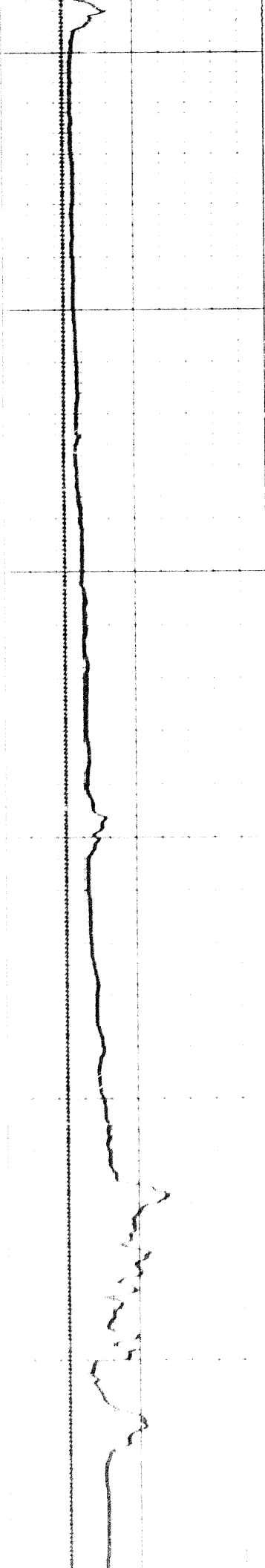
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5900

6000

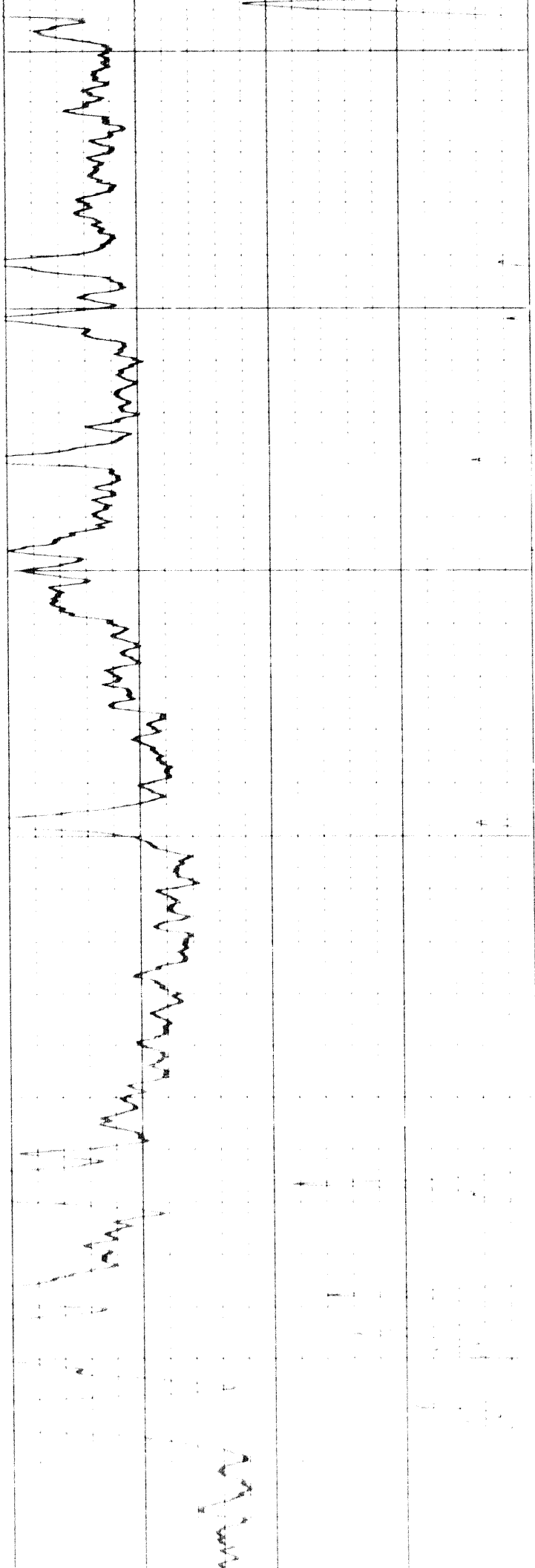




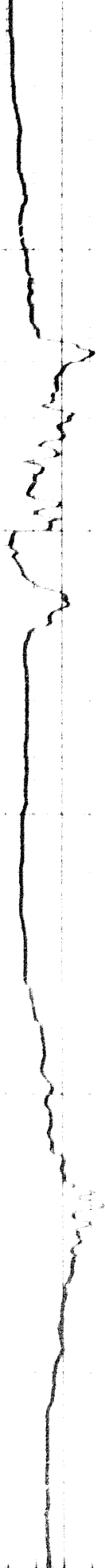
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6200

6300

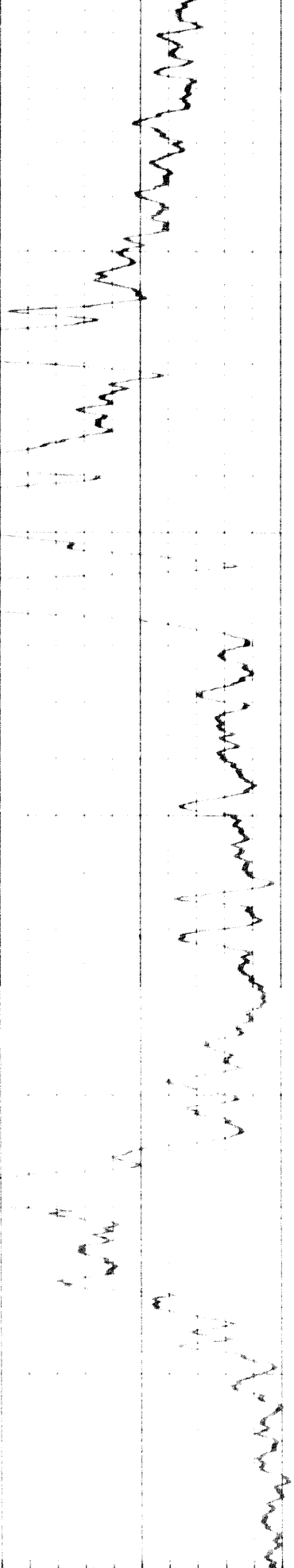


Handwritten signature or mark

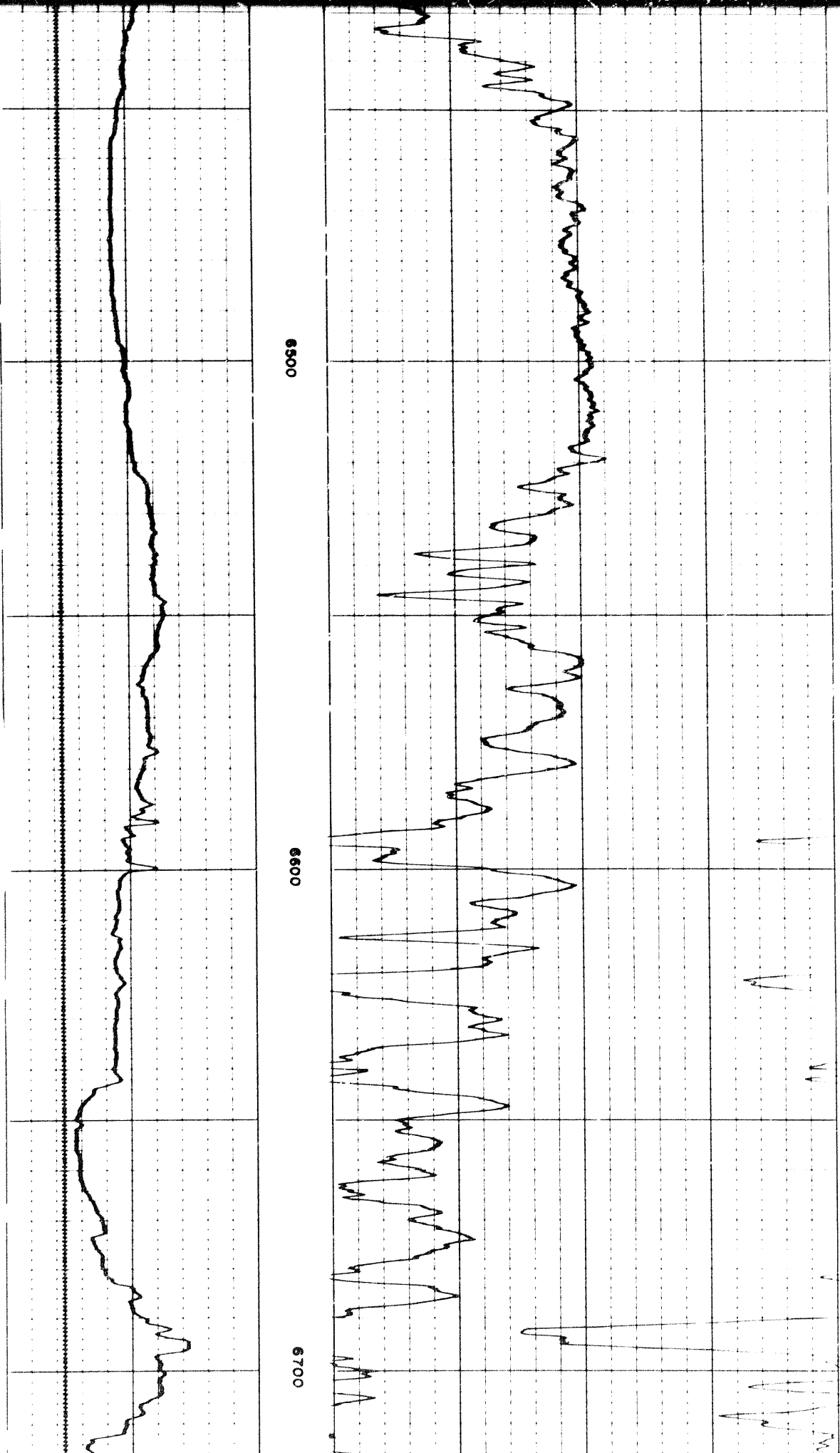


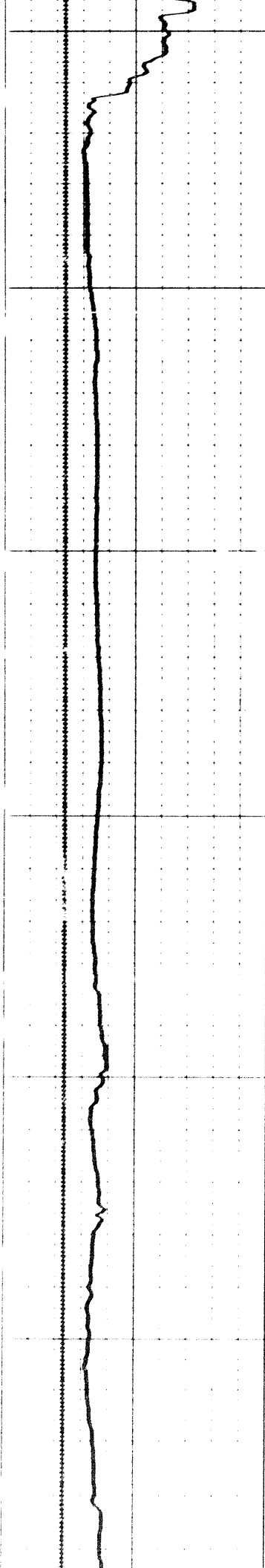
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6400



2307

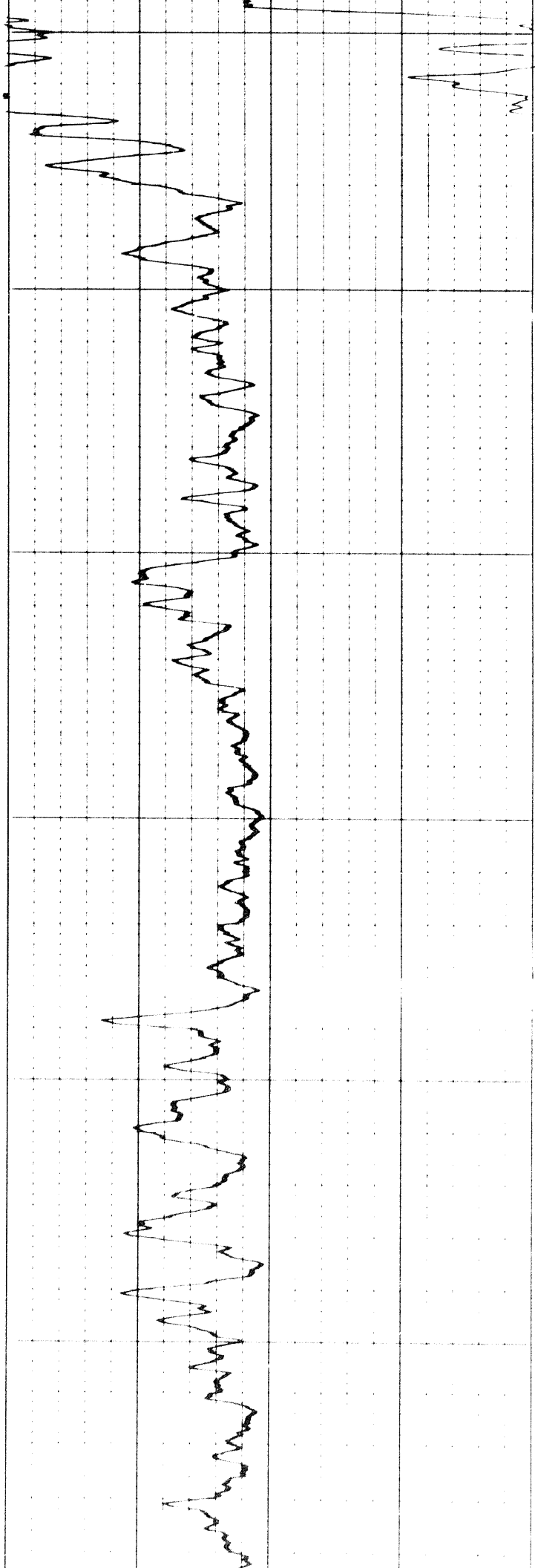




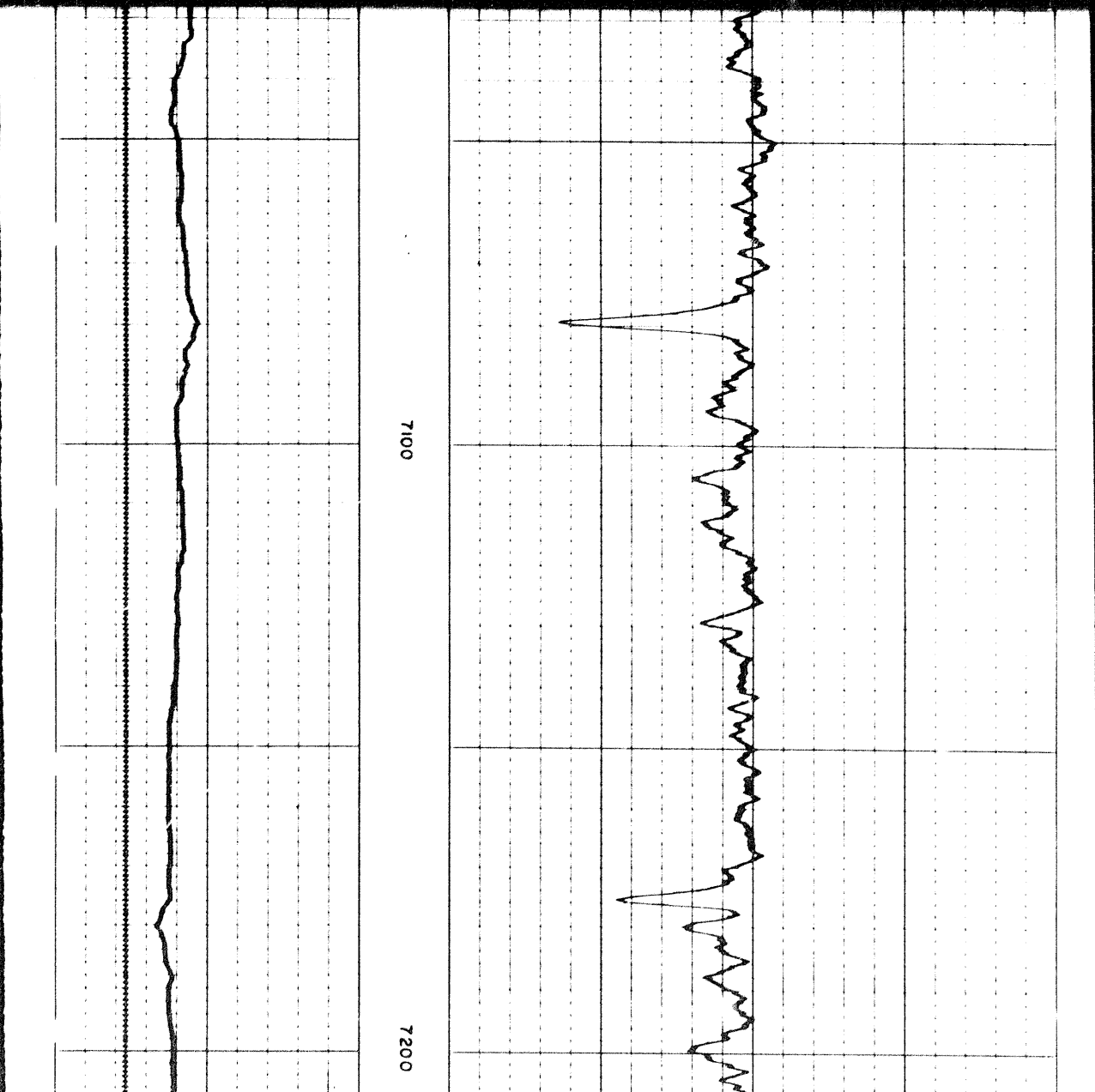
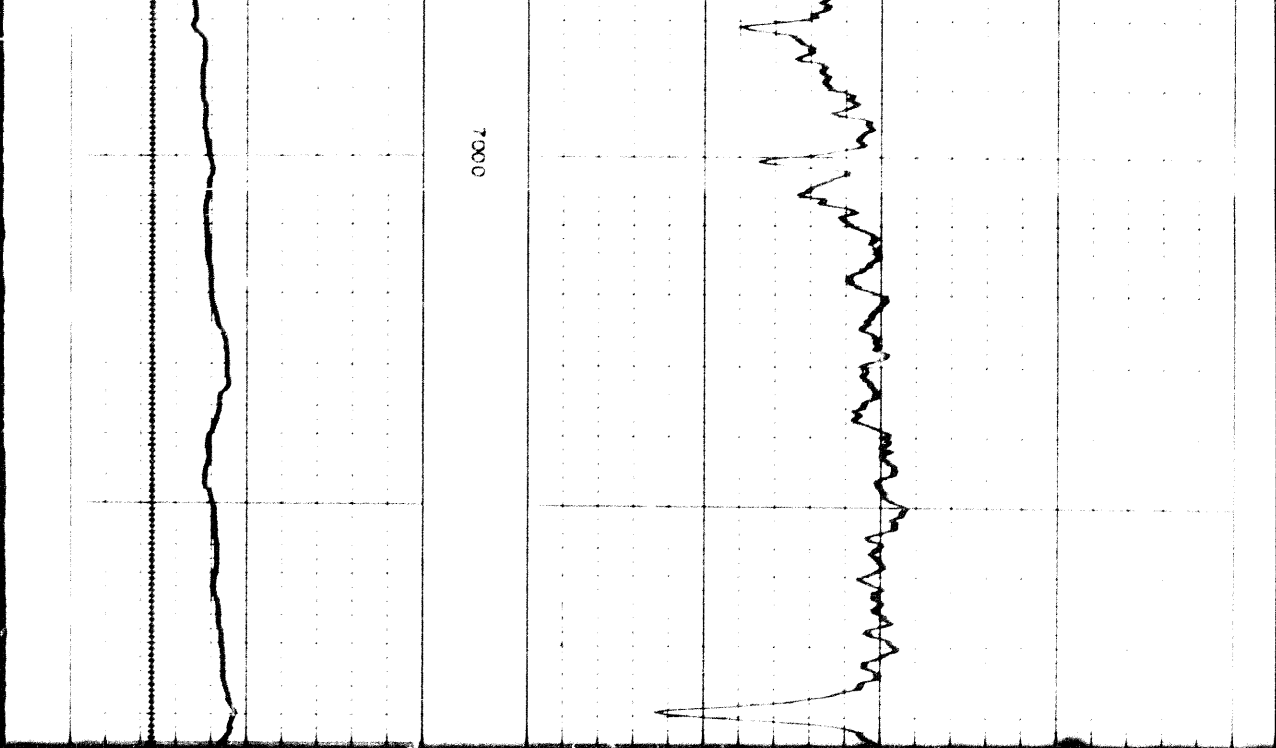
6700

6800

6900



A

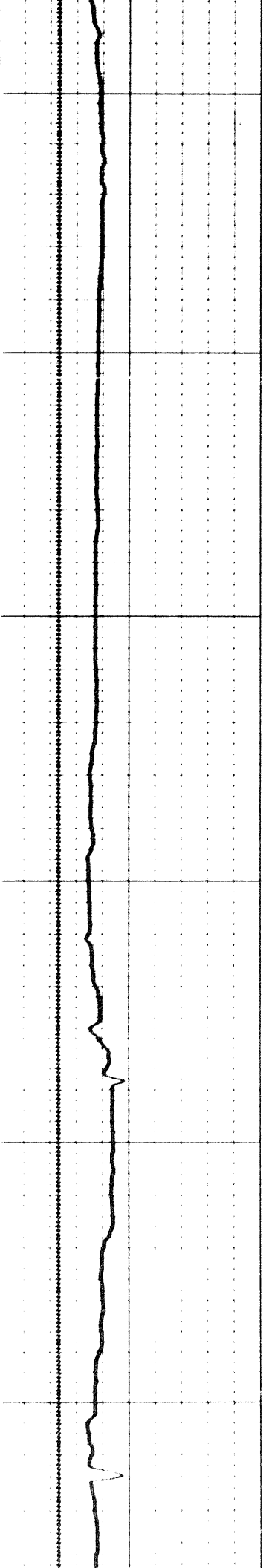


7000

7100

7200

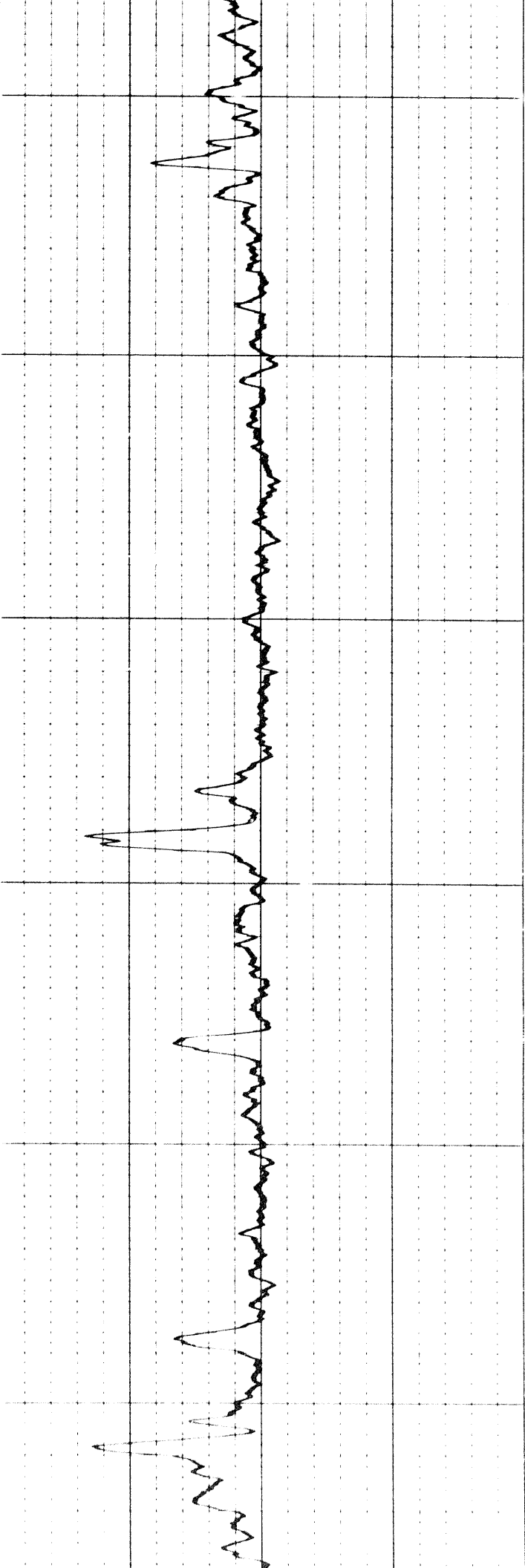
24 ok

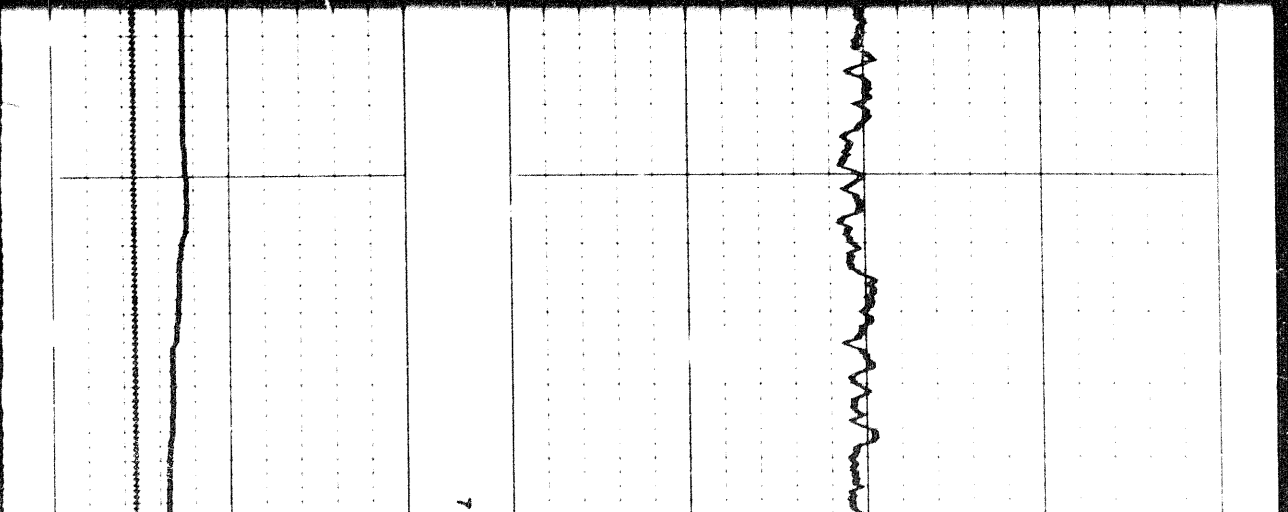
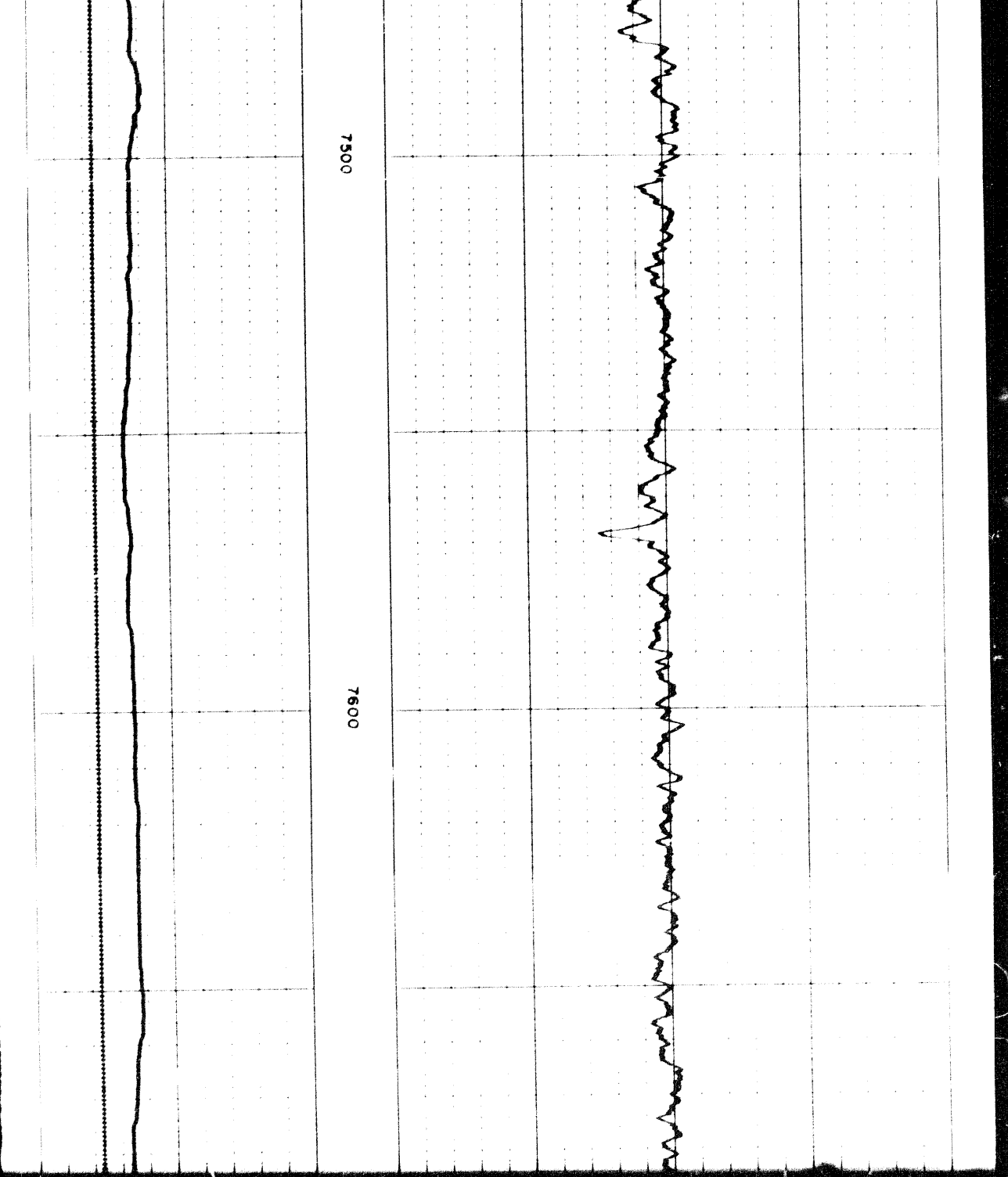


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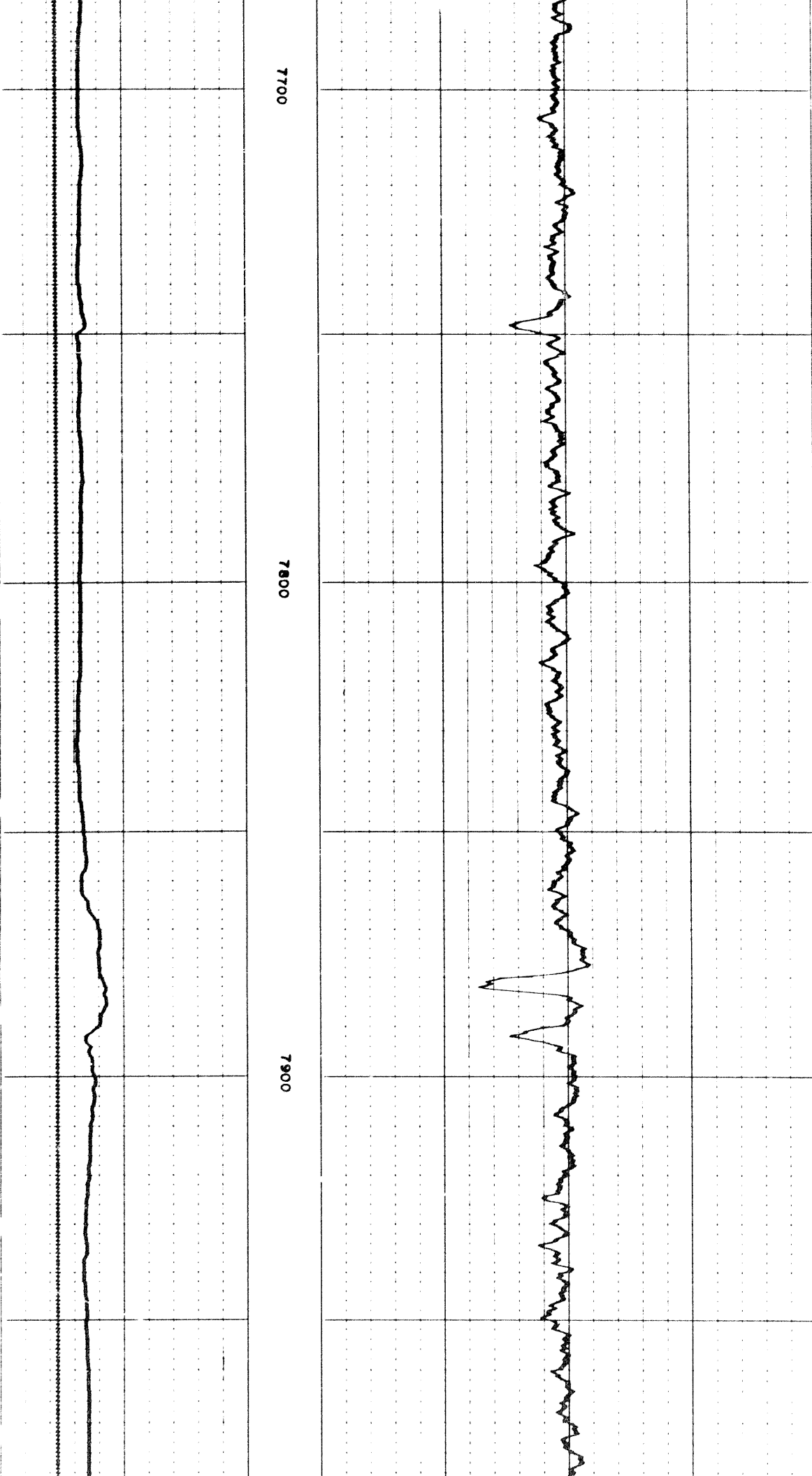
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7400





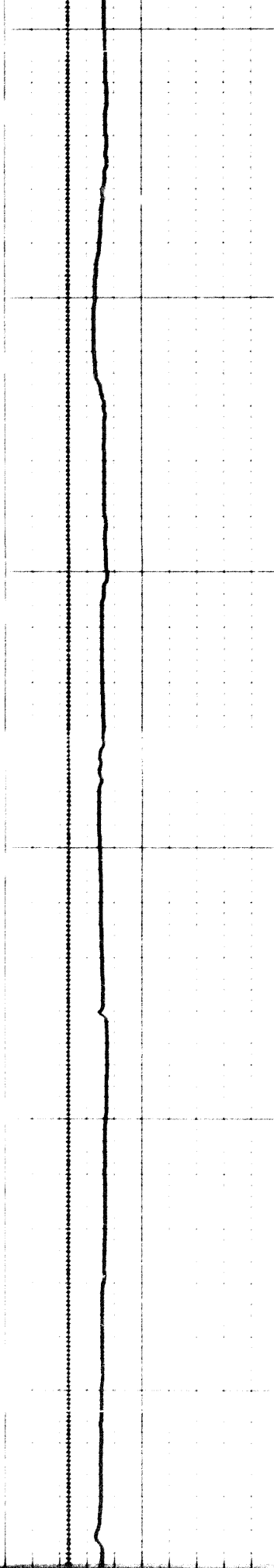
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7700

7800

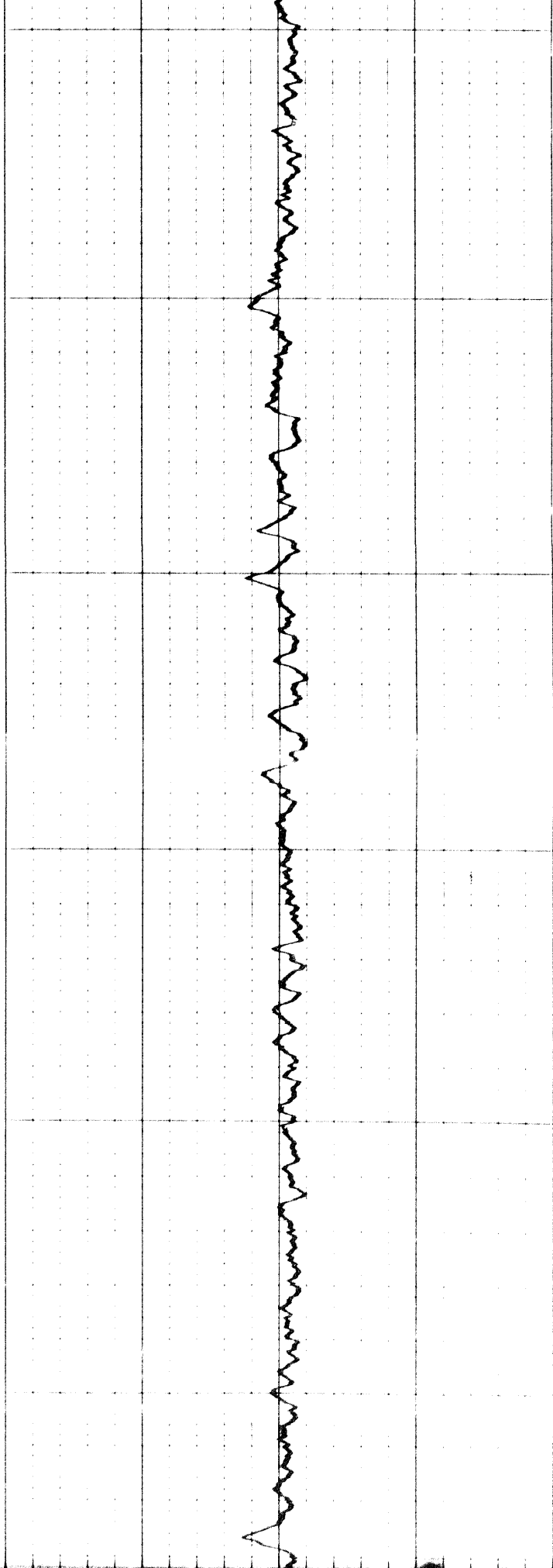
7900



8000

8100

8200





8300

8400

8500

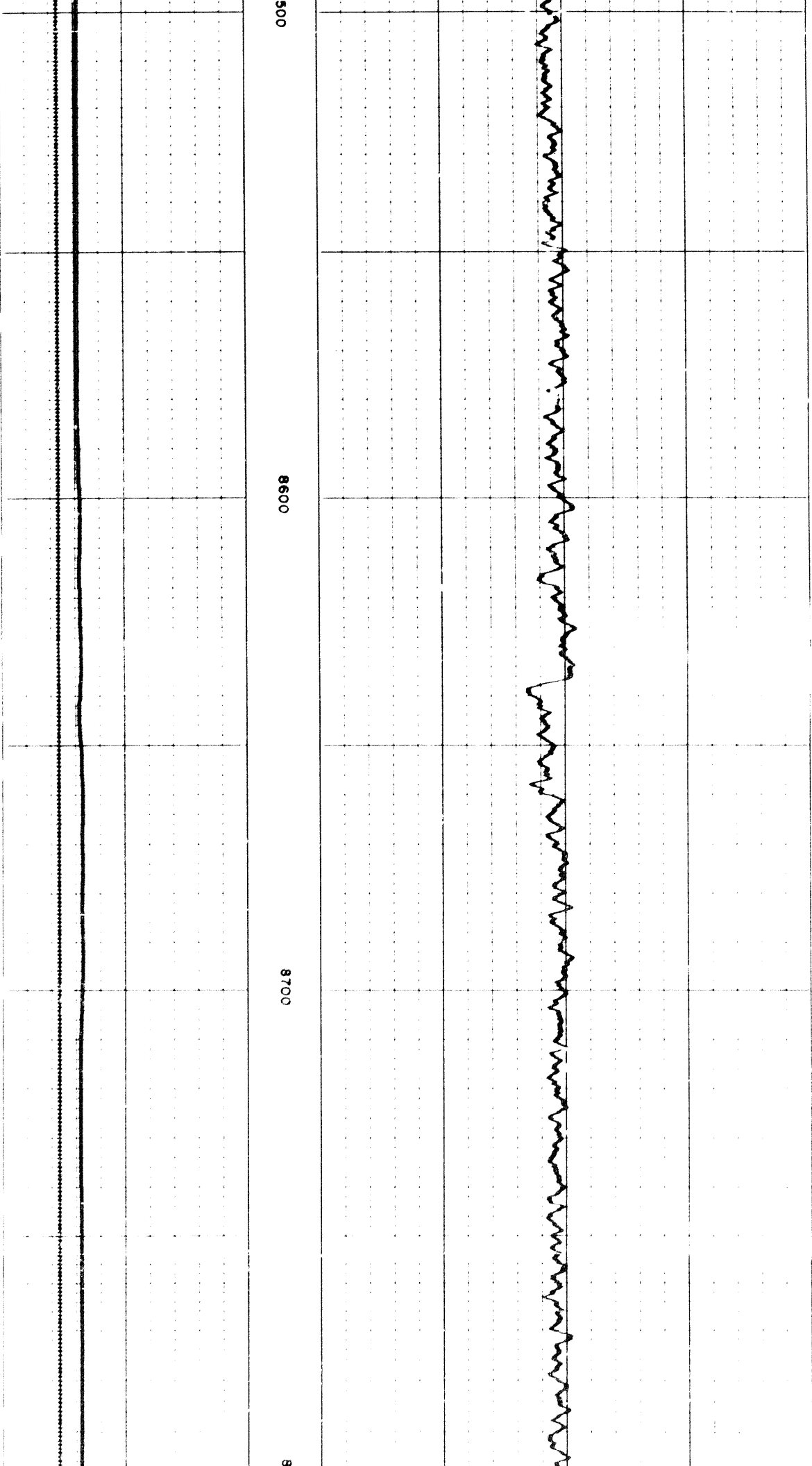
26 of

500

8600

8700

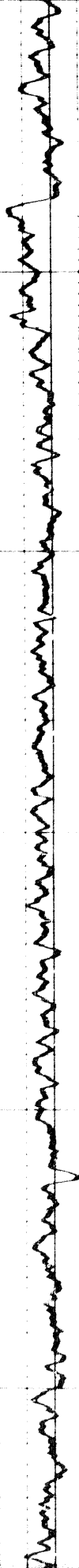
8



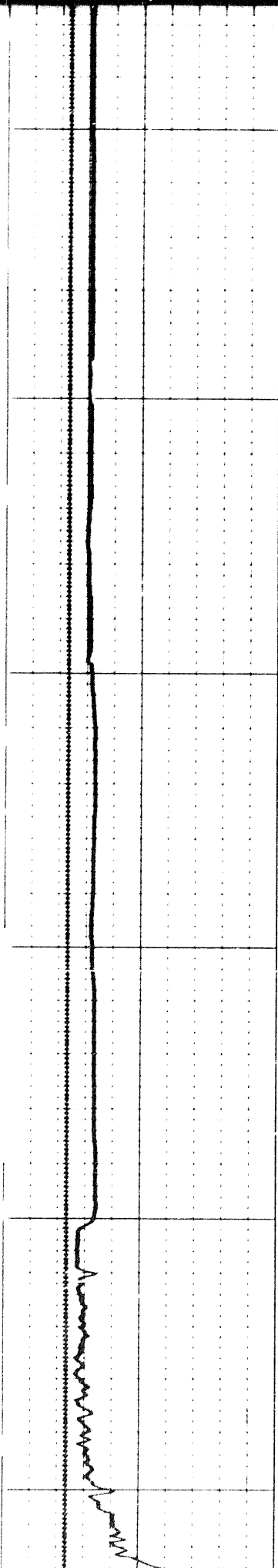
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8700

8800



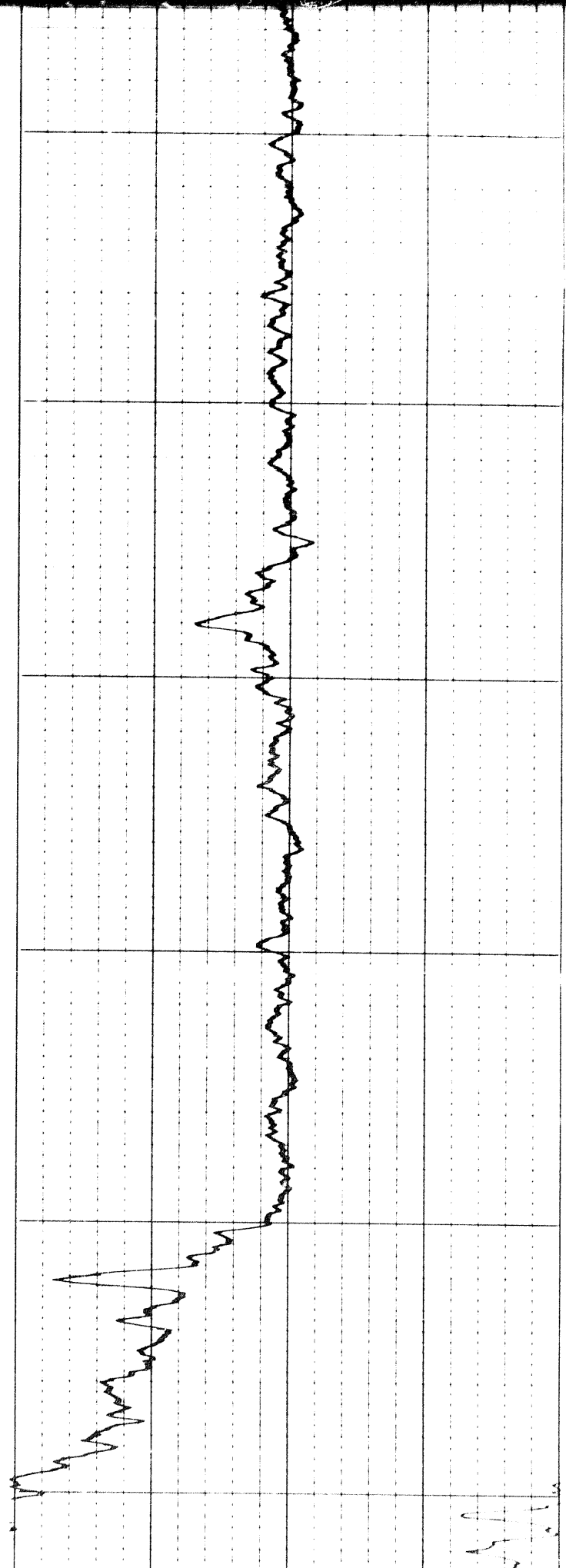
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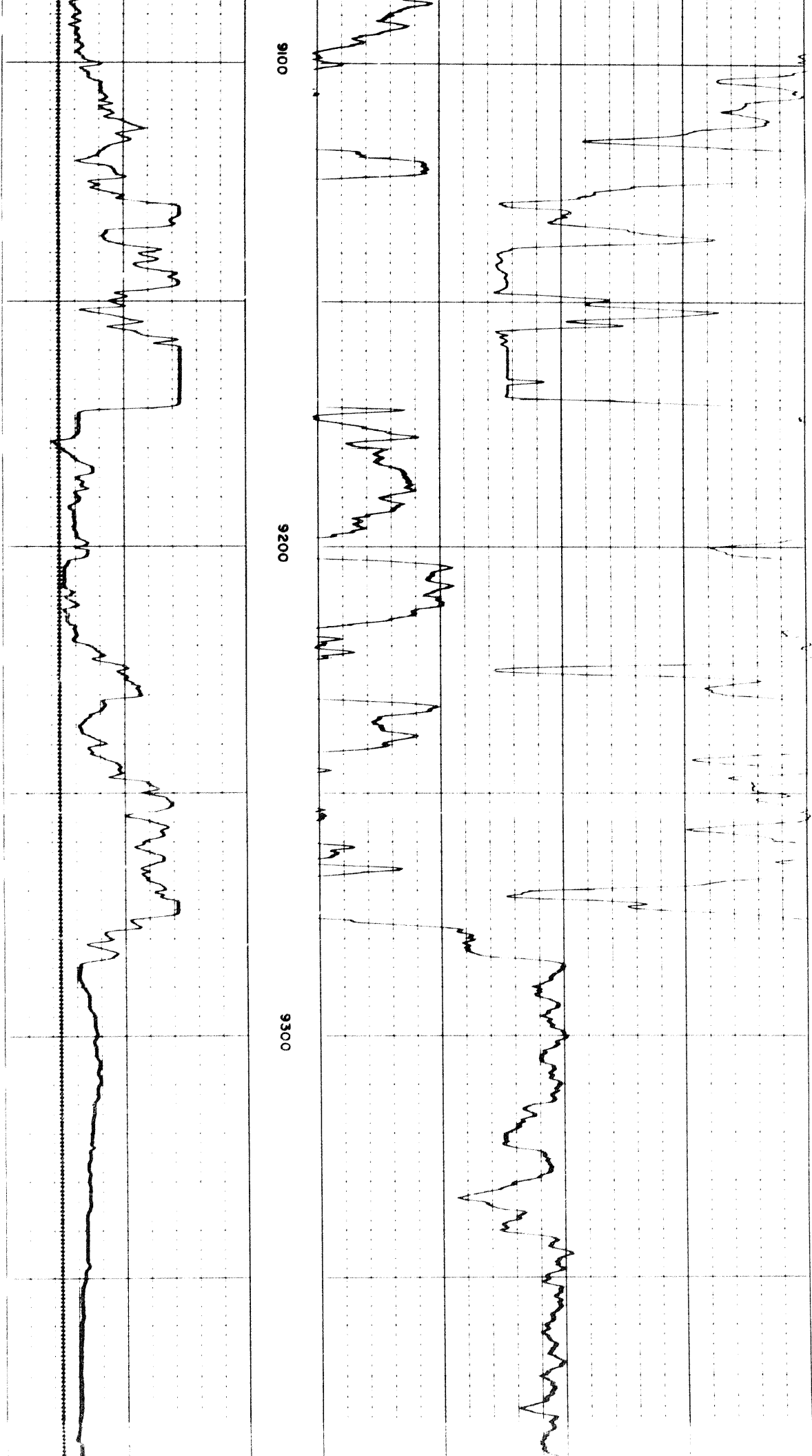
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0006

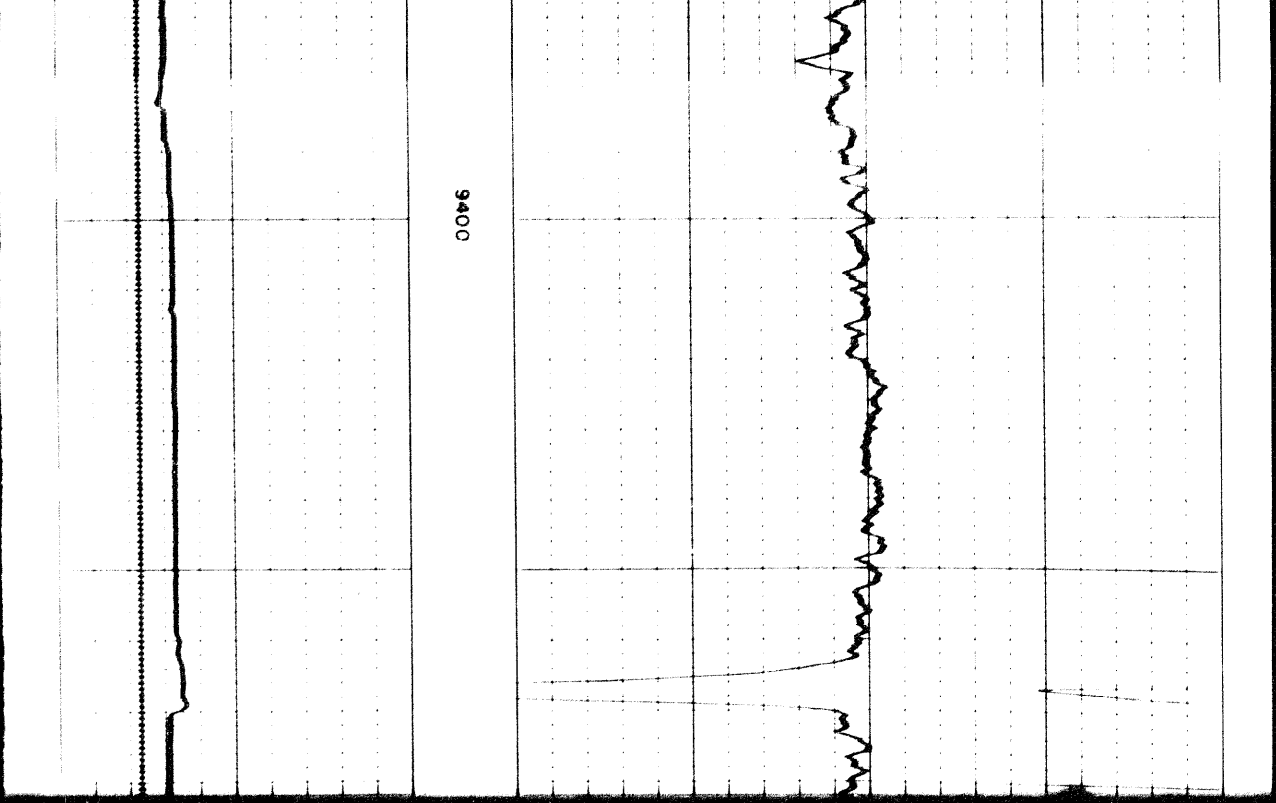
0016



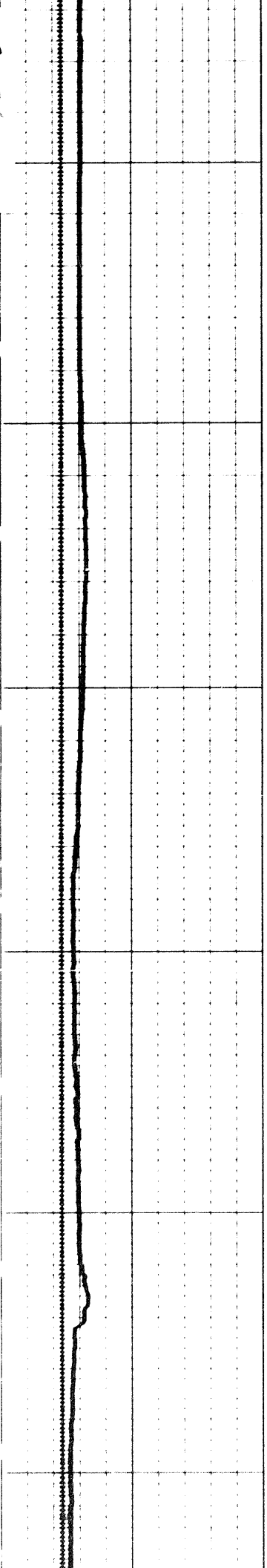
2702



28



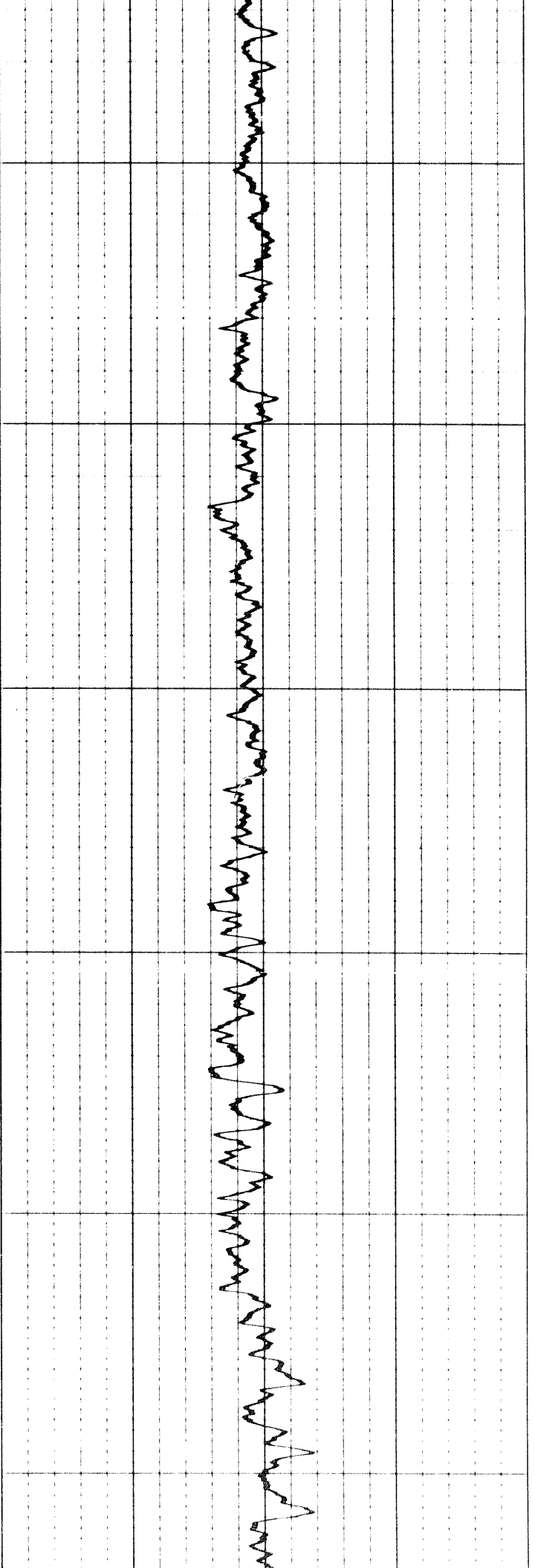
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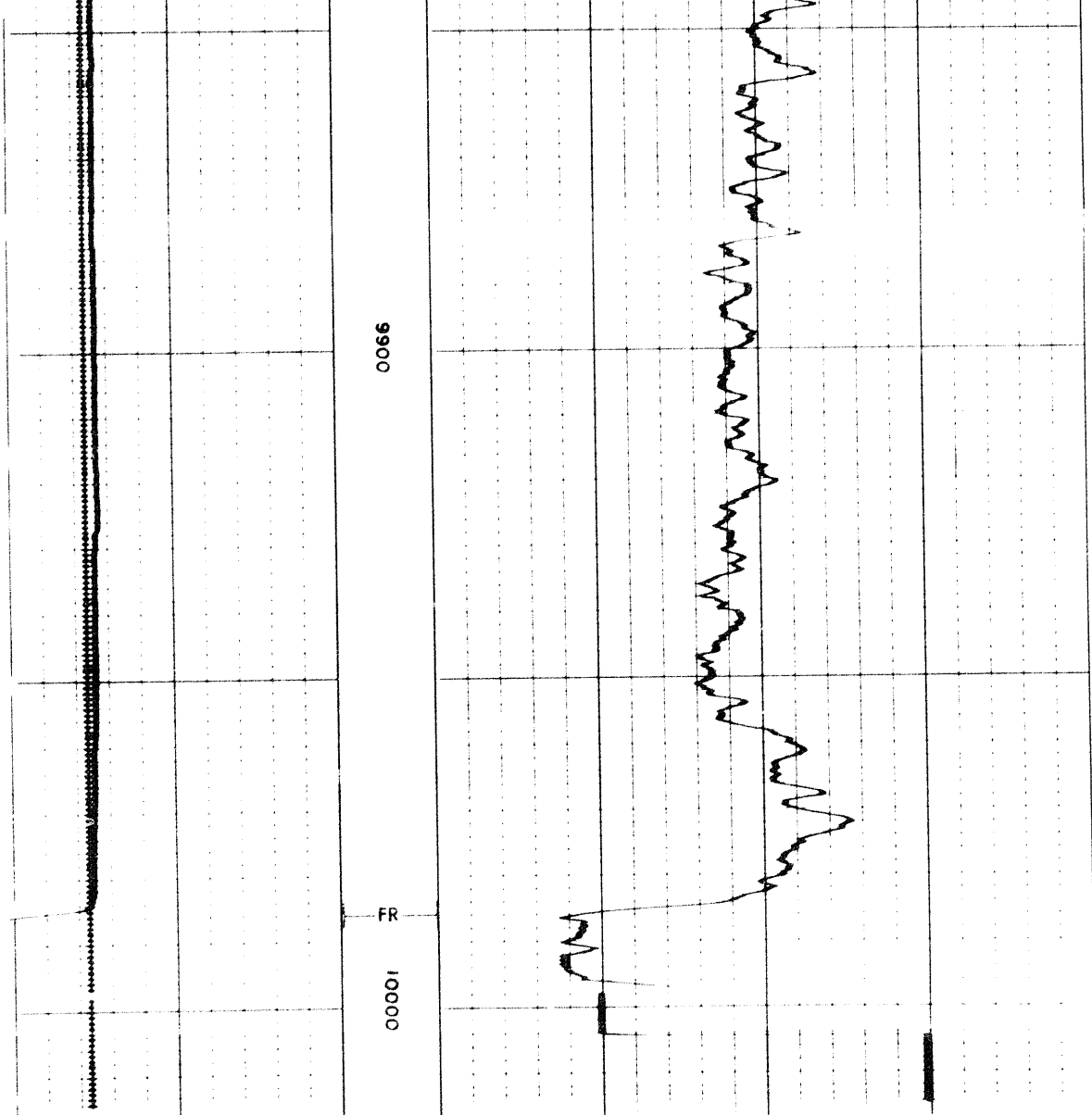


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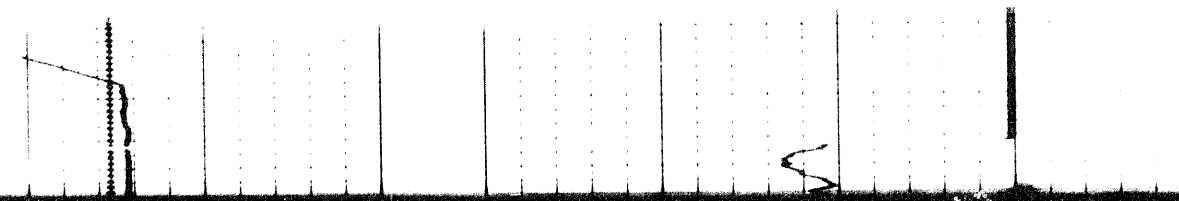
9700

9800





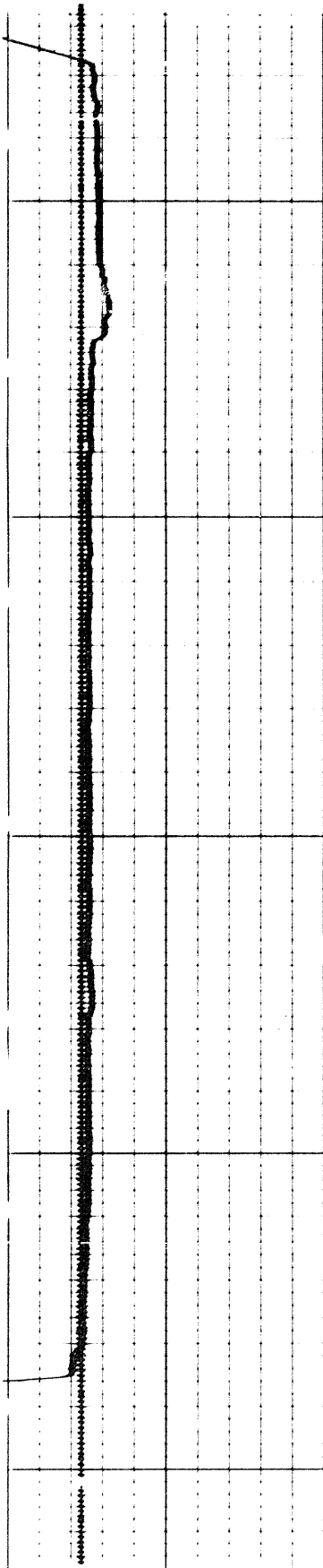
REPEAT SECTION



REPEAT SECTION

REPEAT SECTION

2908

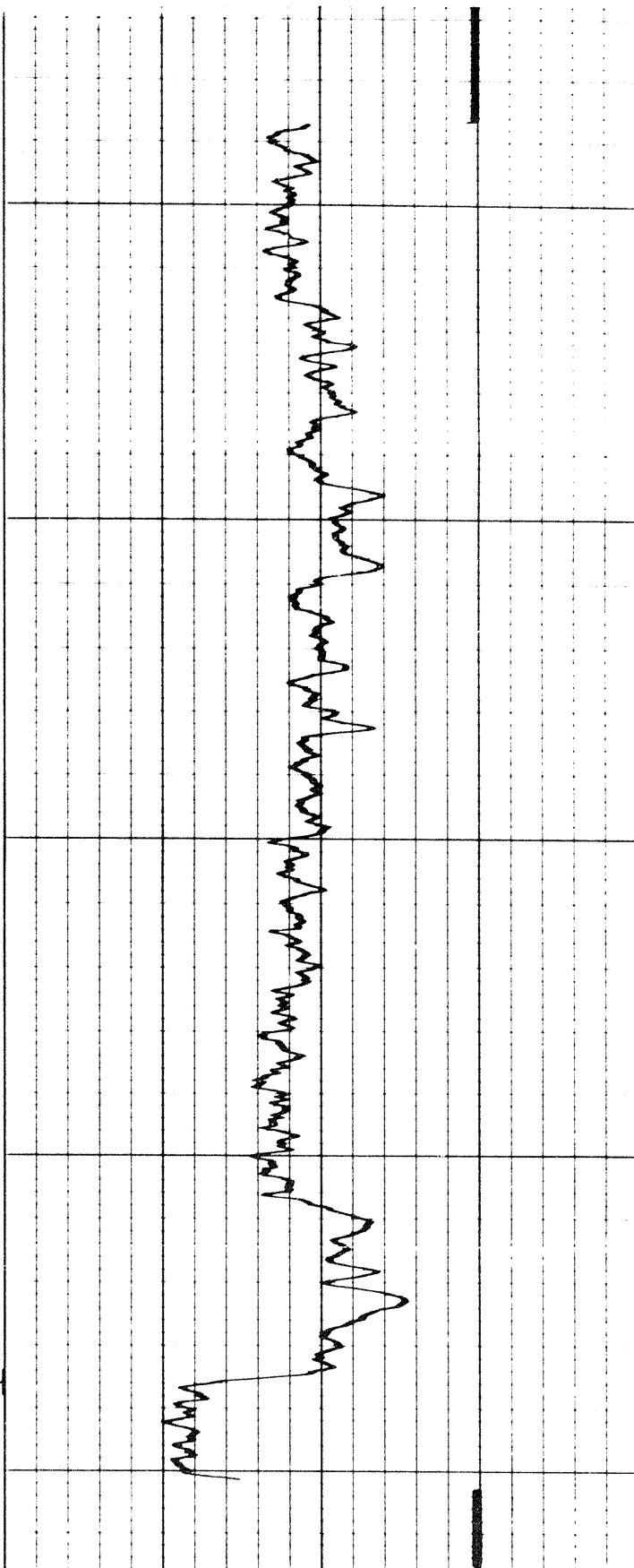


0086

0086

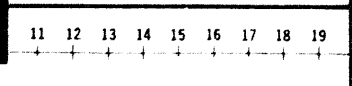
FR

00001



Sens T.C.
 Zero div to left

GAMMA RAY
API UNITS



CALIPER
 hole diameter in inches

DEPTHS

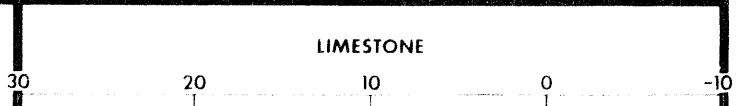
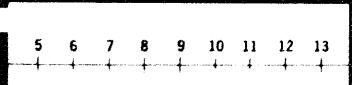
POROSITY (%)

DETAIL LOG
 5" = 100' Run 3

CALIPER
 hole diameter in inches

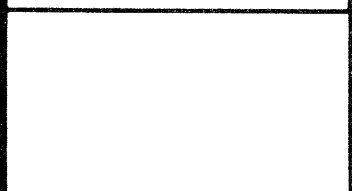
DEPTHS

POROSITY (%)

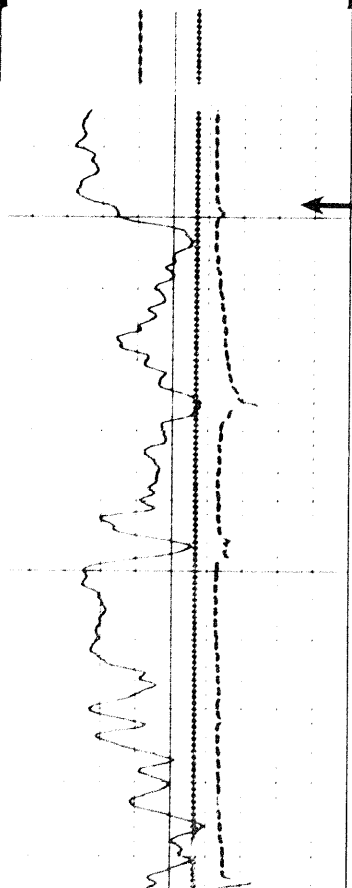


GAMMA RAY
API UNITS

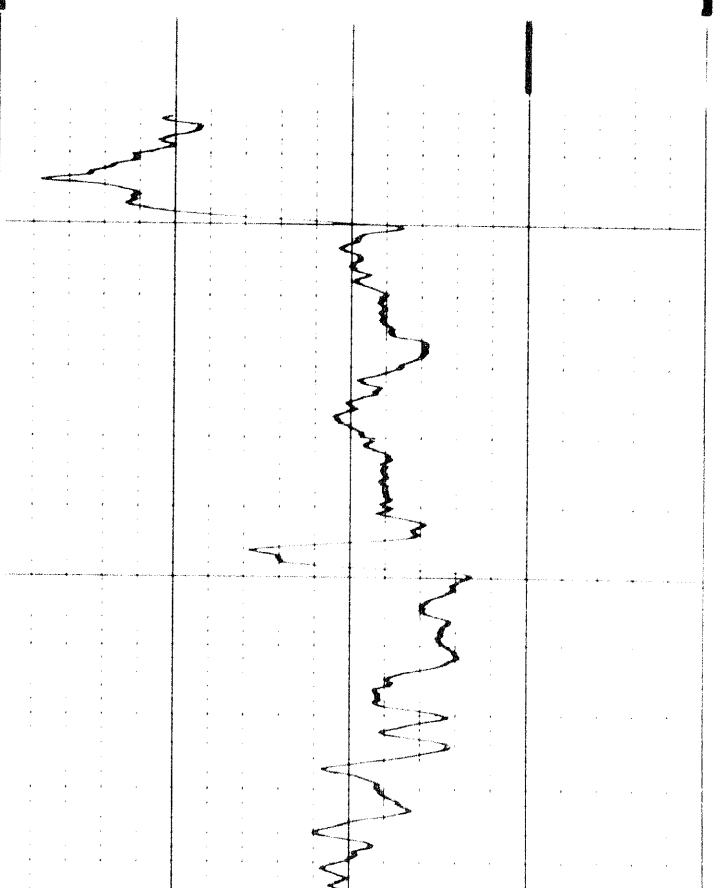
Sens 1.0 T.C. 2
 Zero 9 div to left 120
100 300



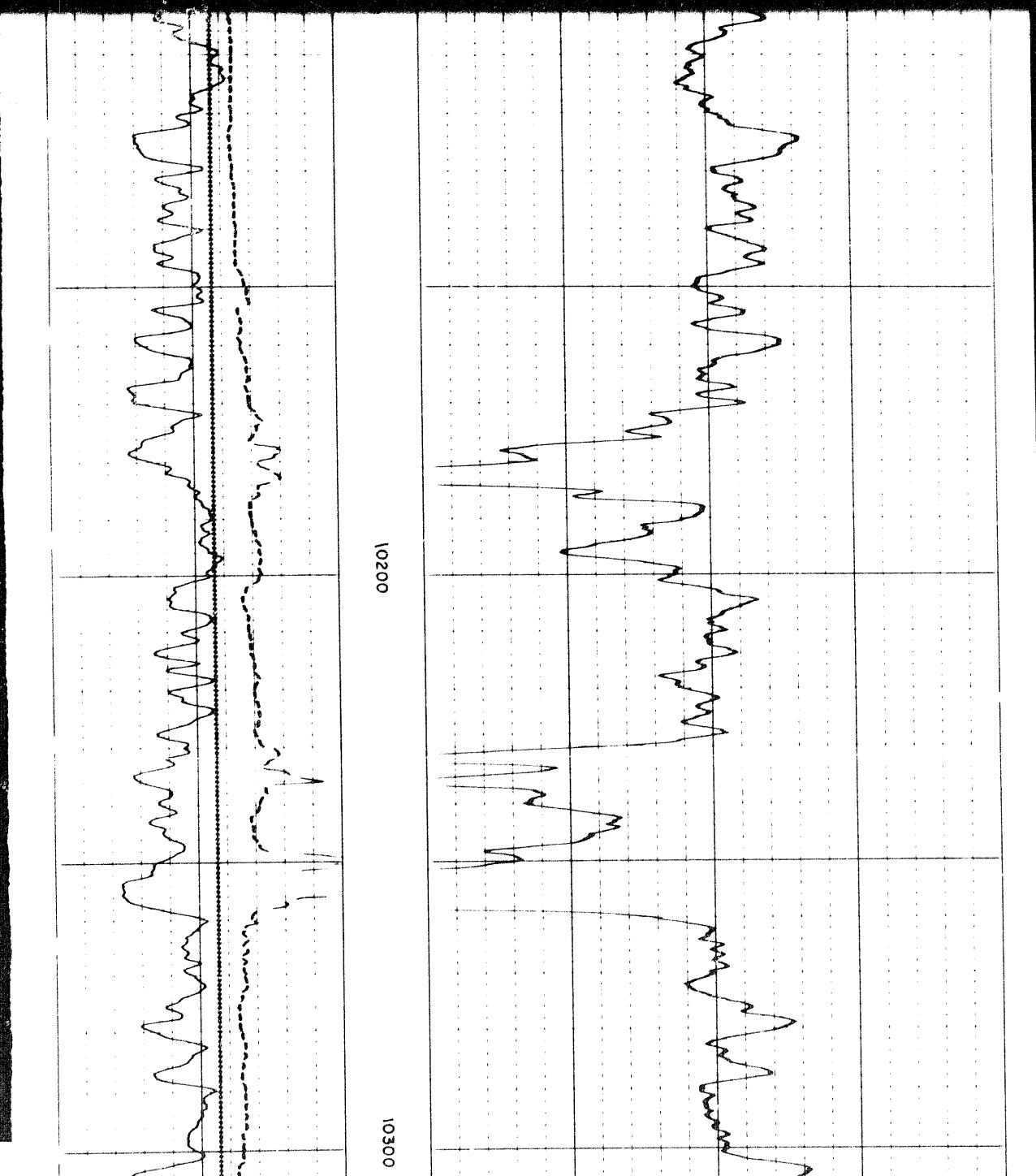
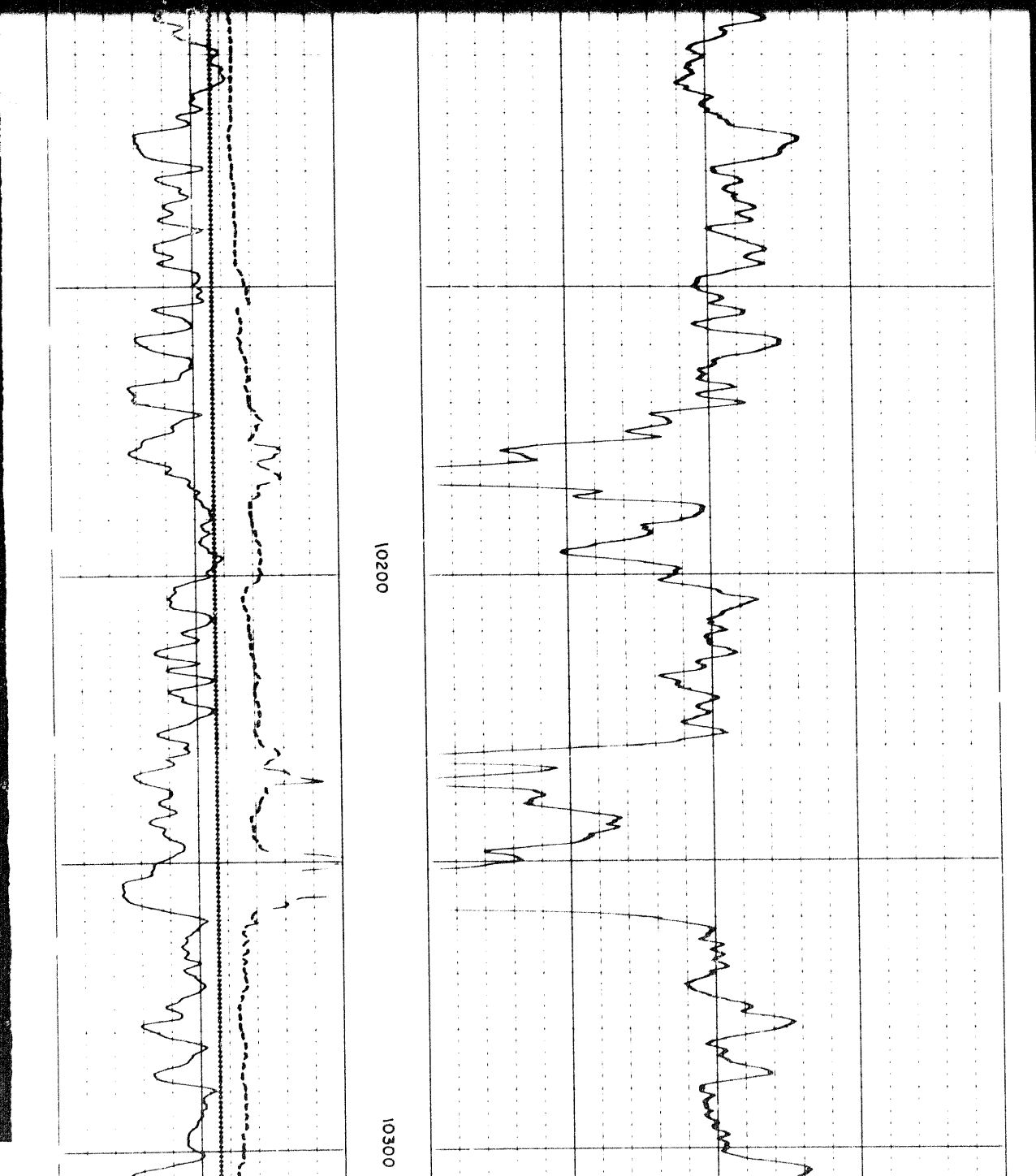
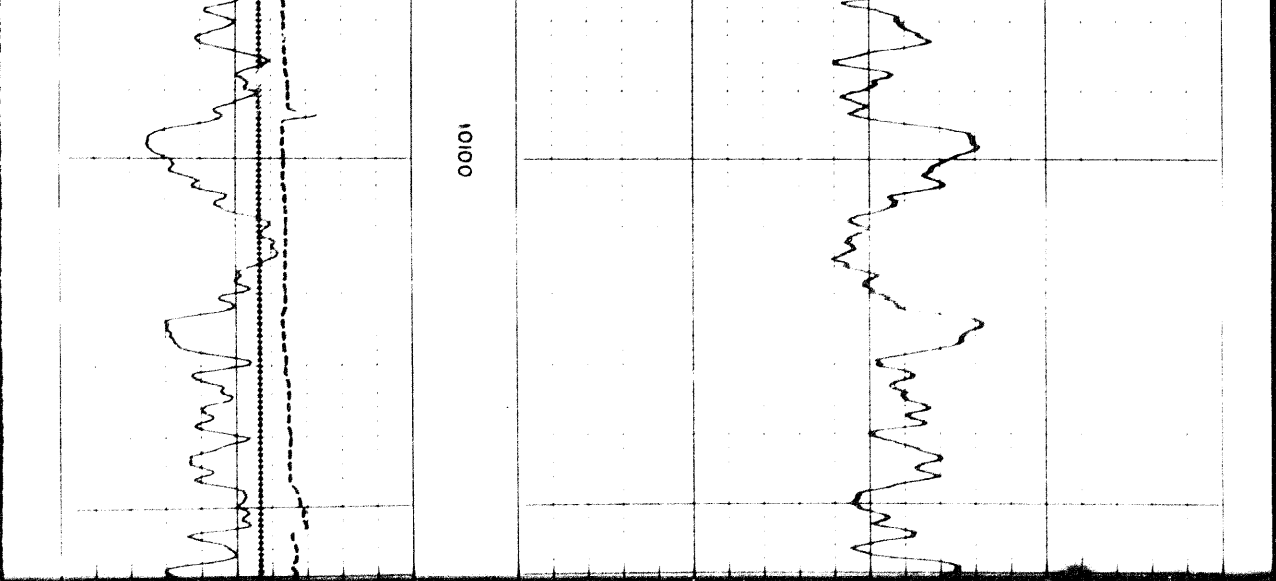
DEPTHS



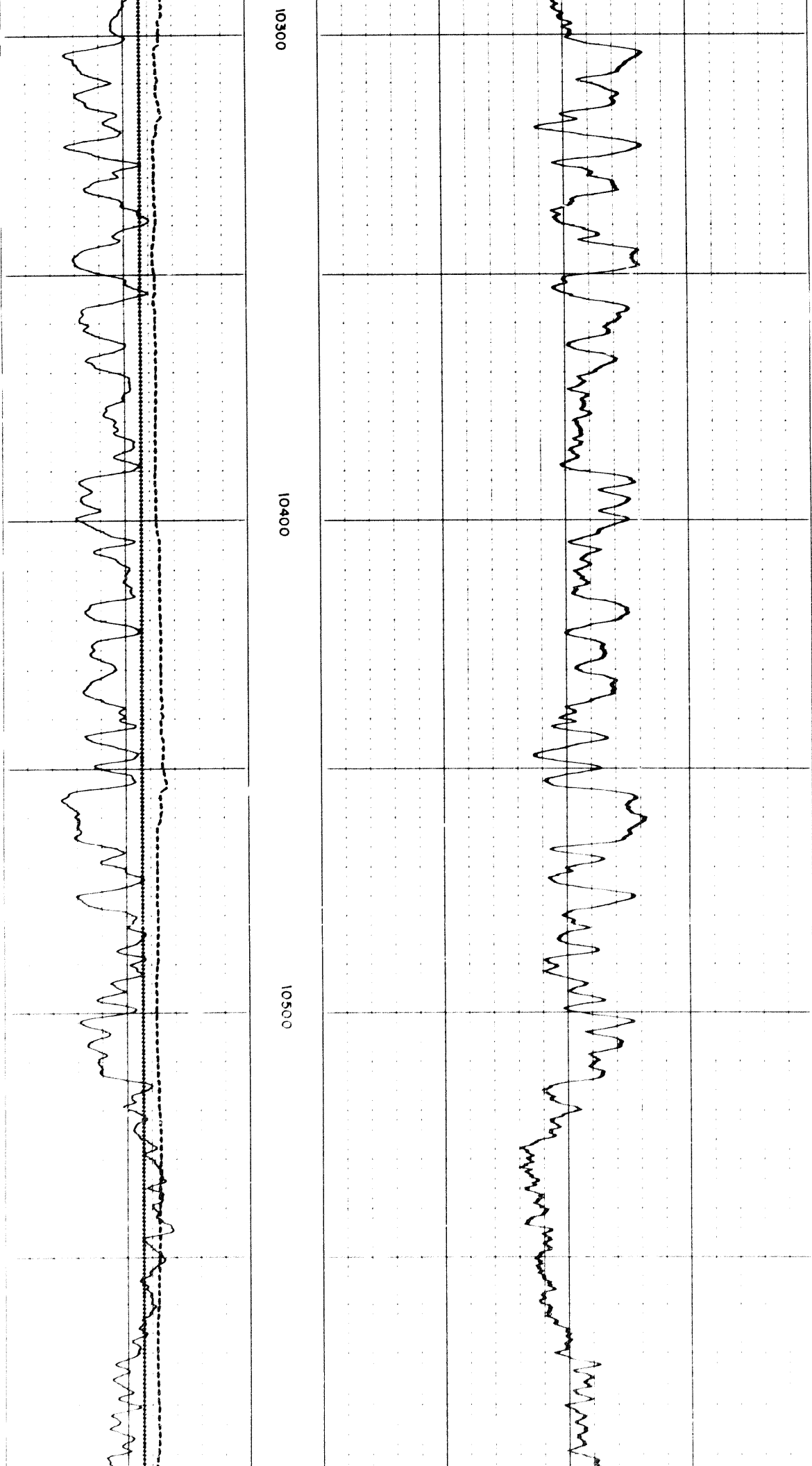
DEPTHS



10000
 Cas 000



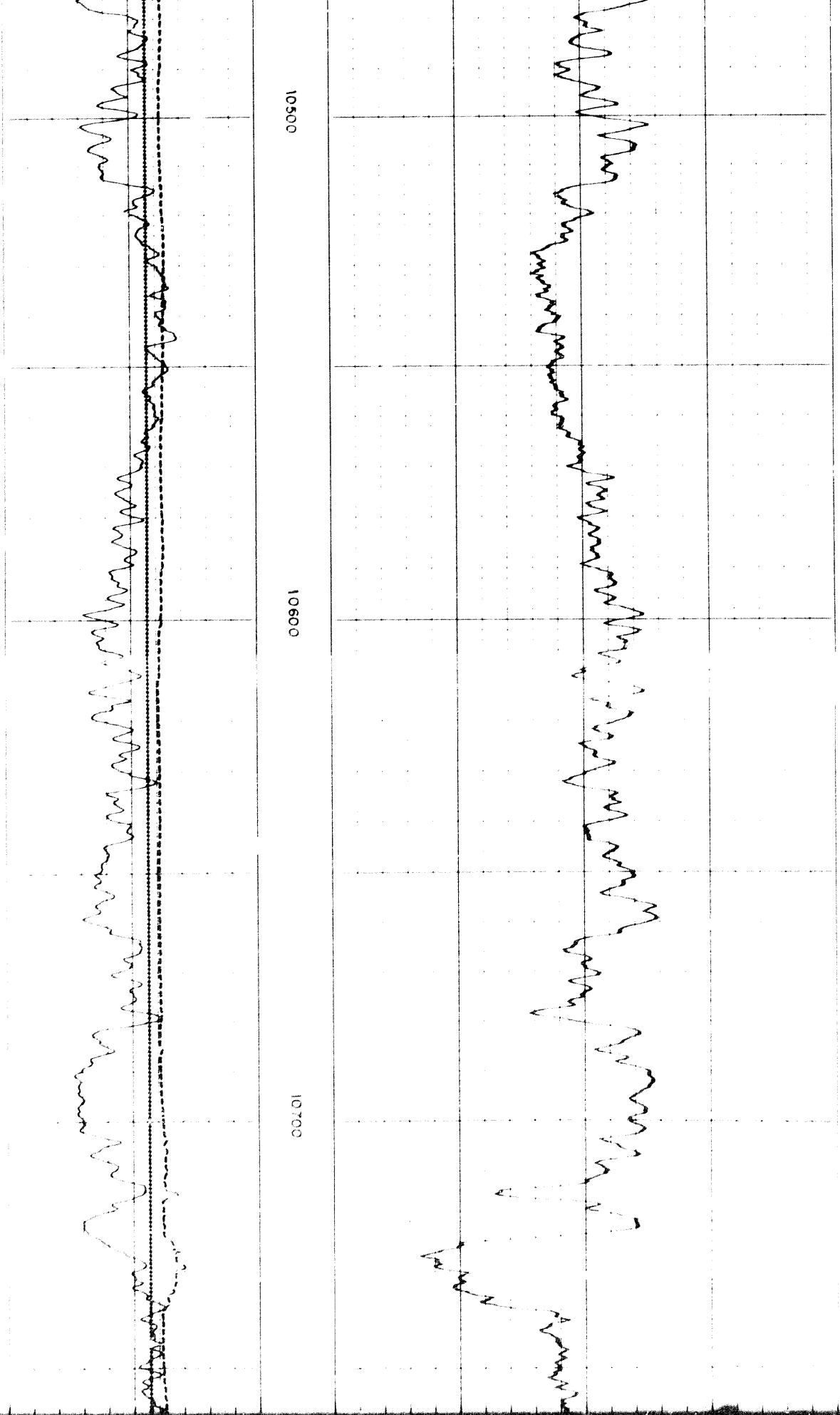
309



10300

10400

10500

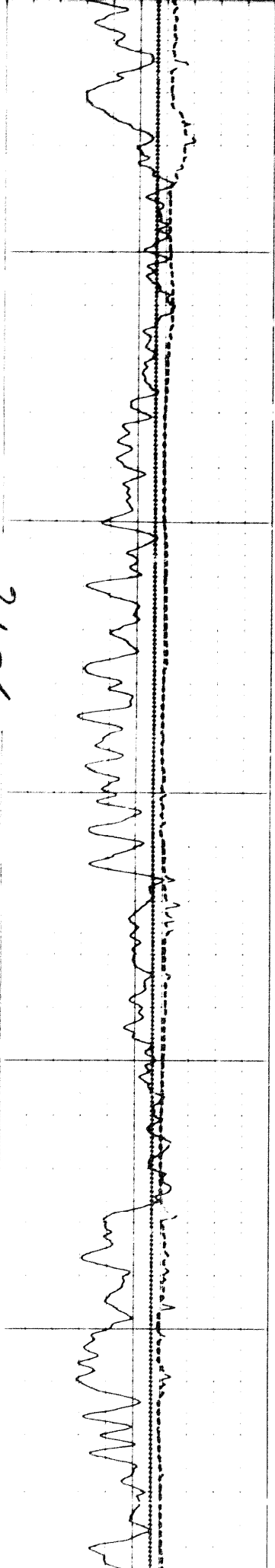


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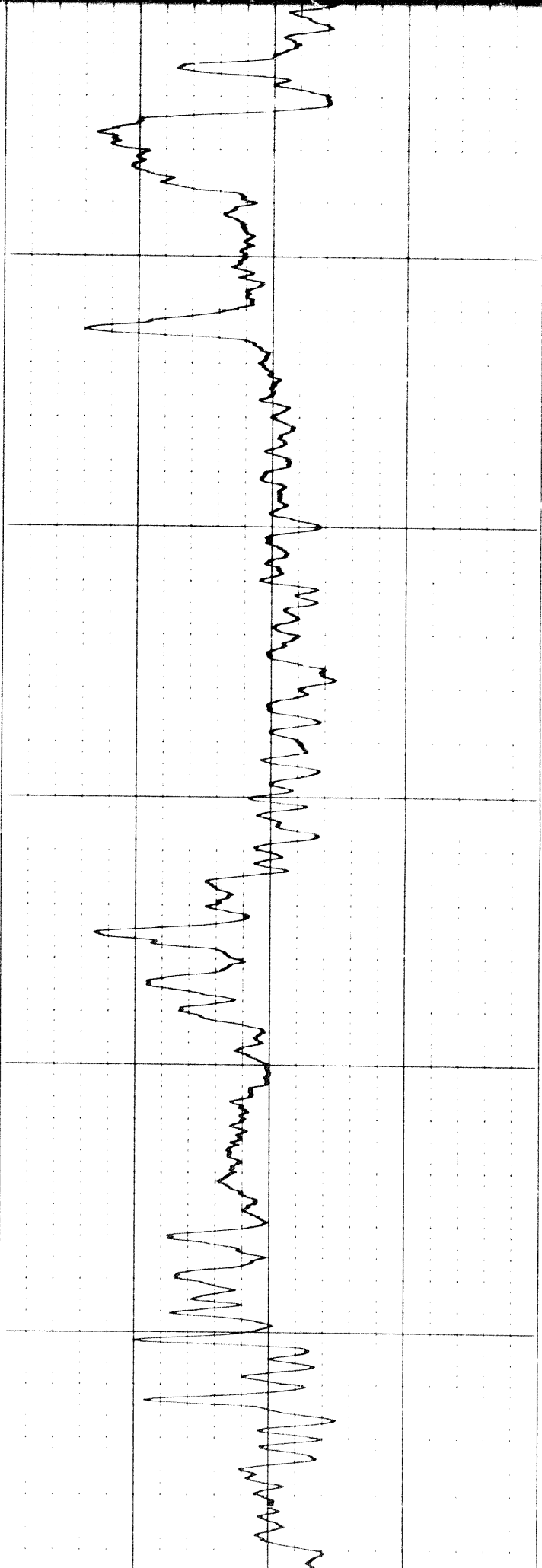
10600

10700

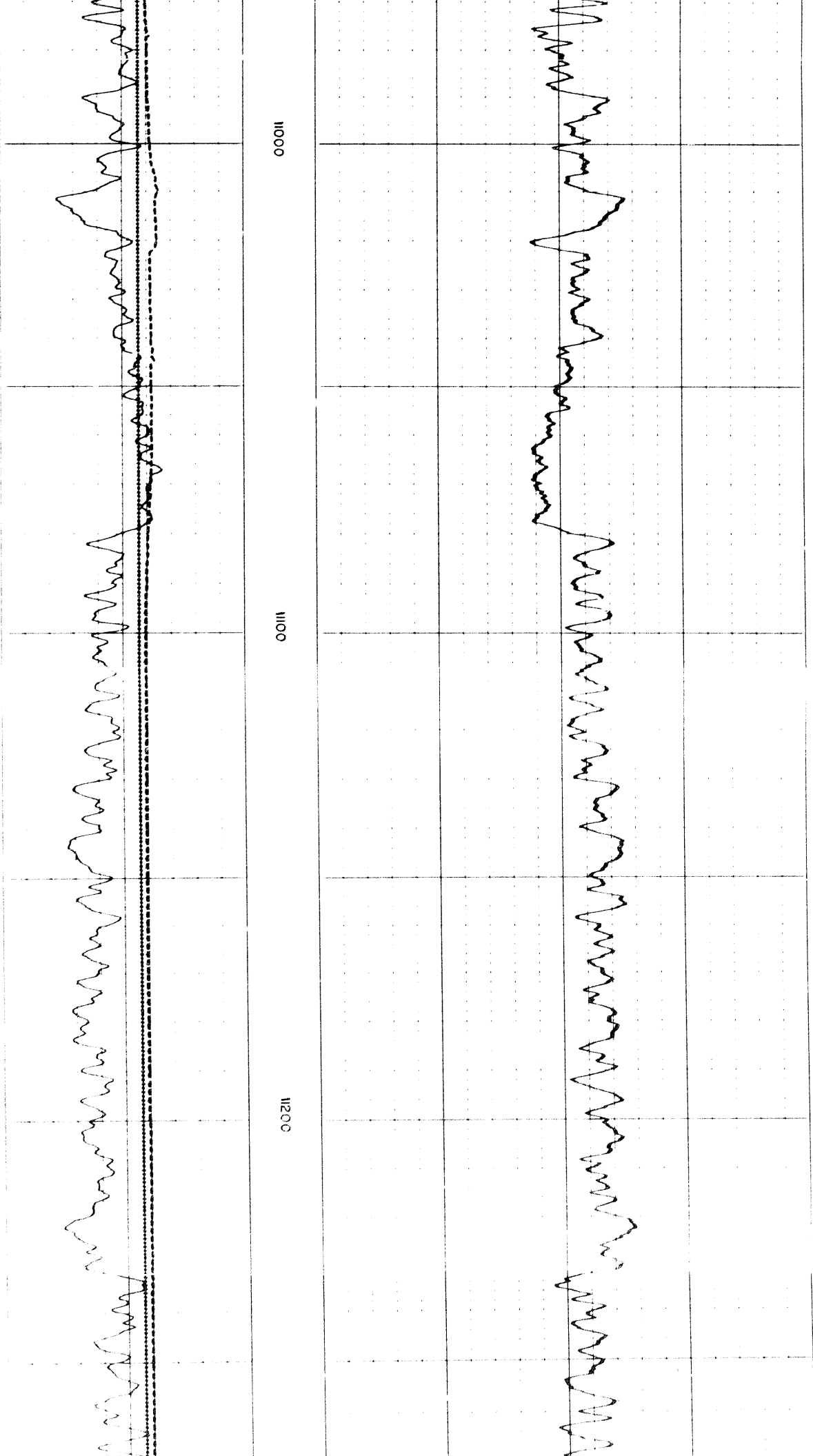
3107



10800



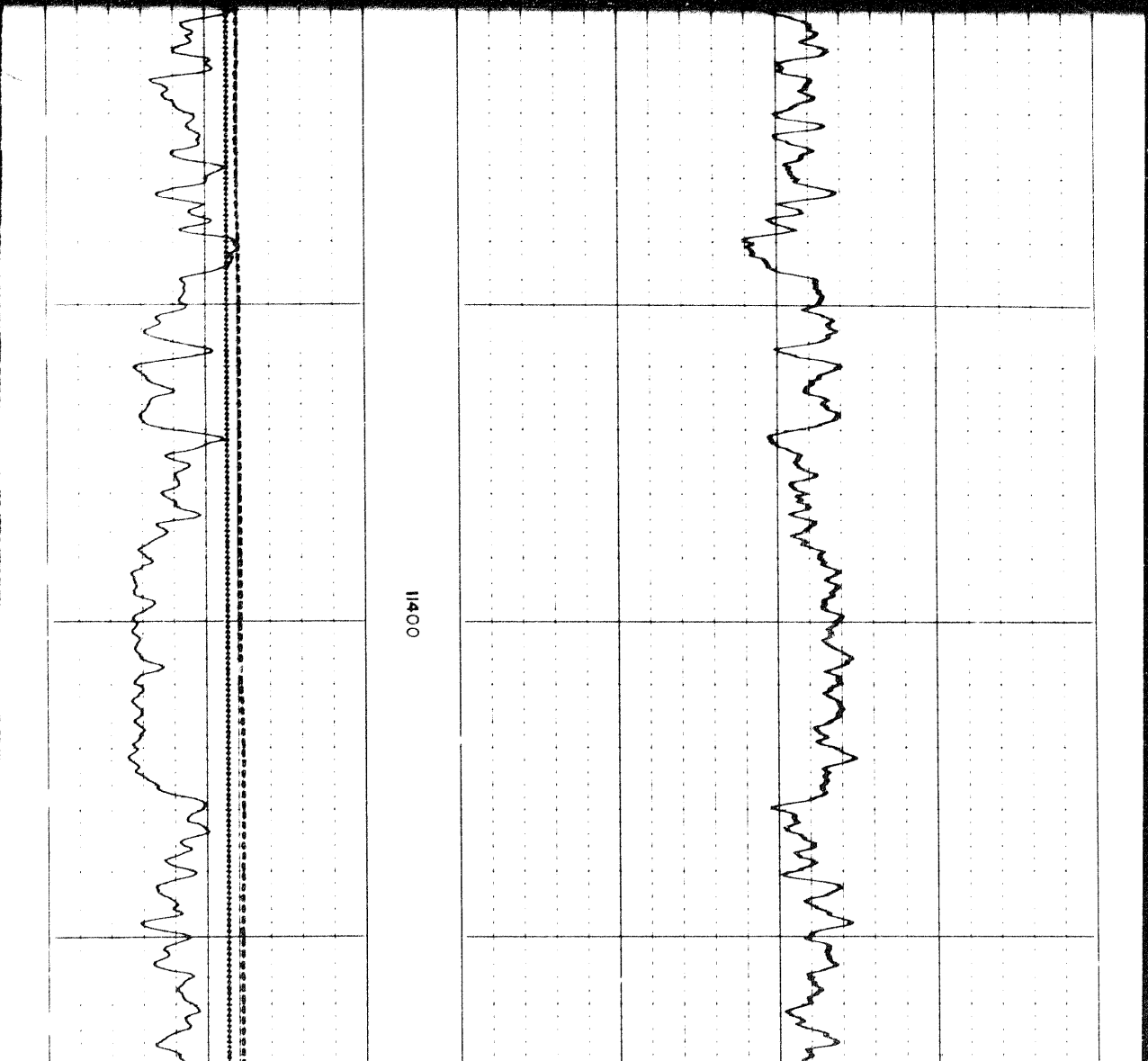
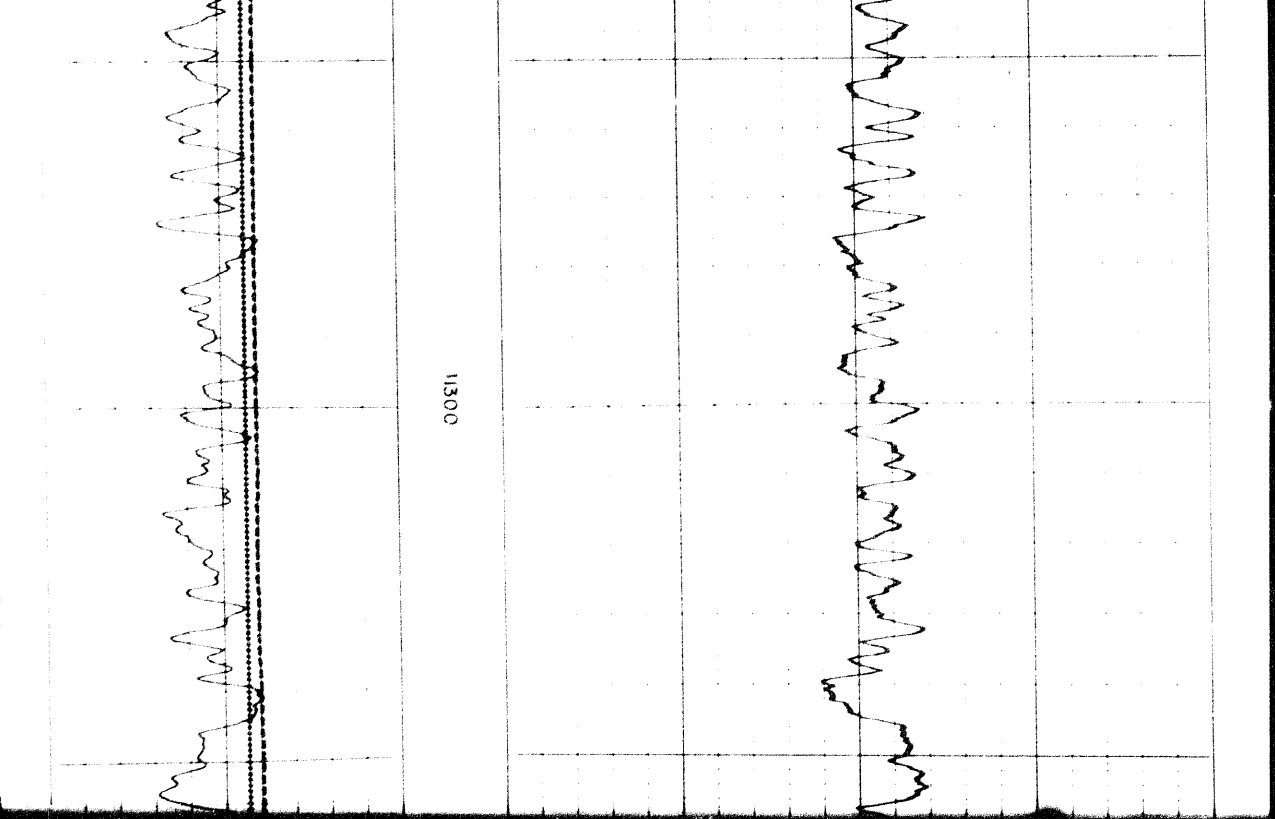
10900



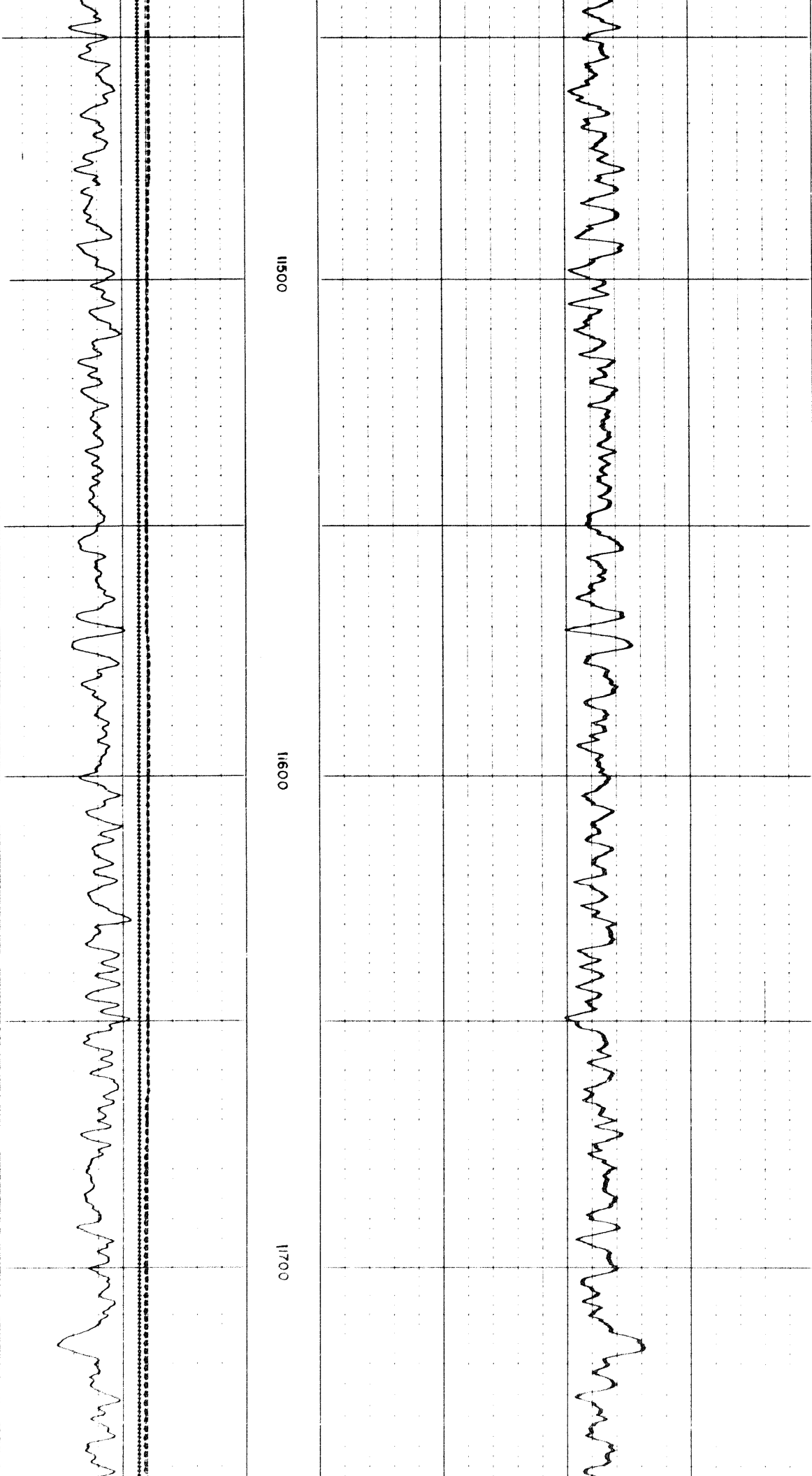
11000

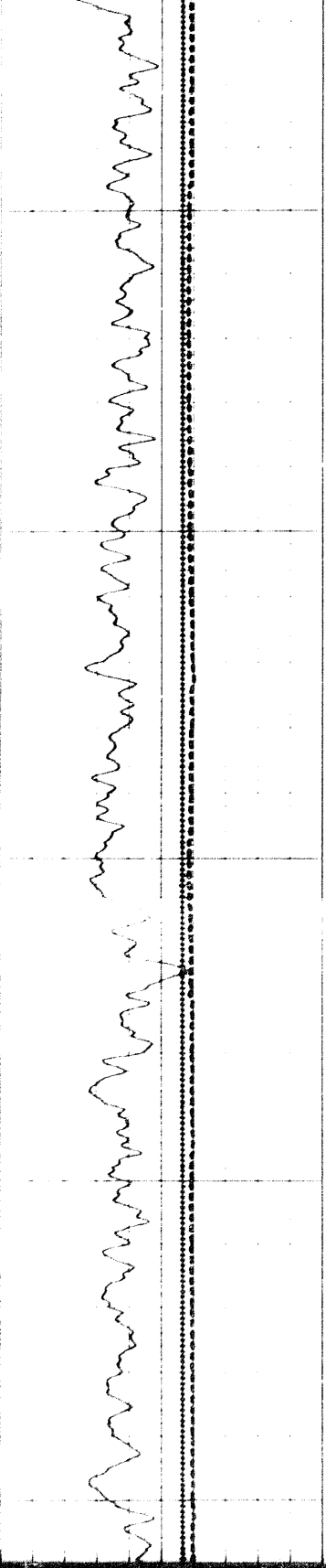
11100

11200



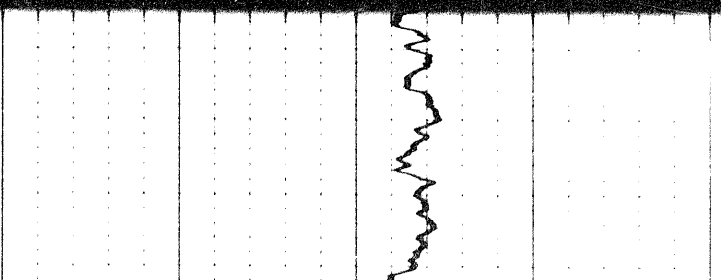
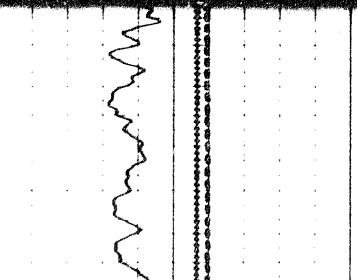
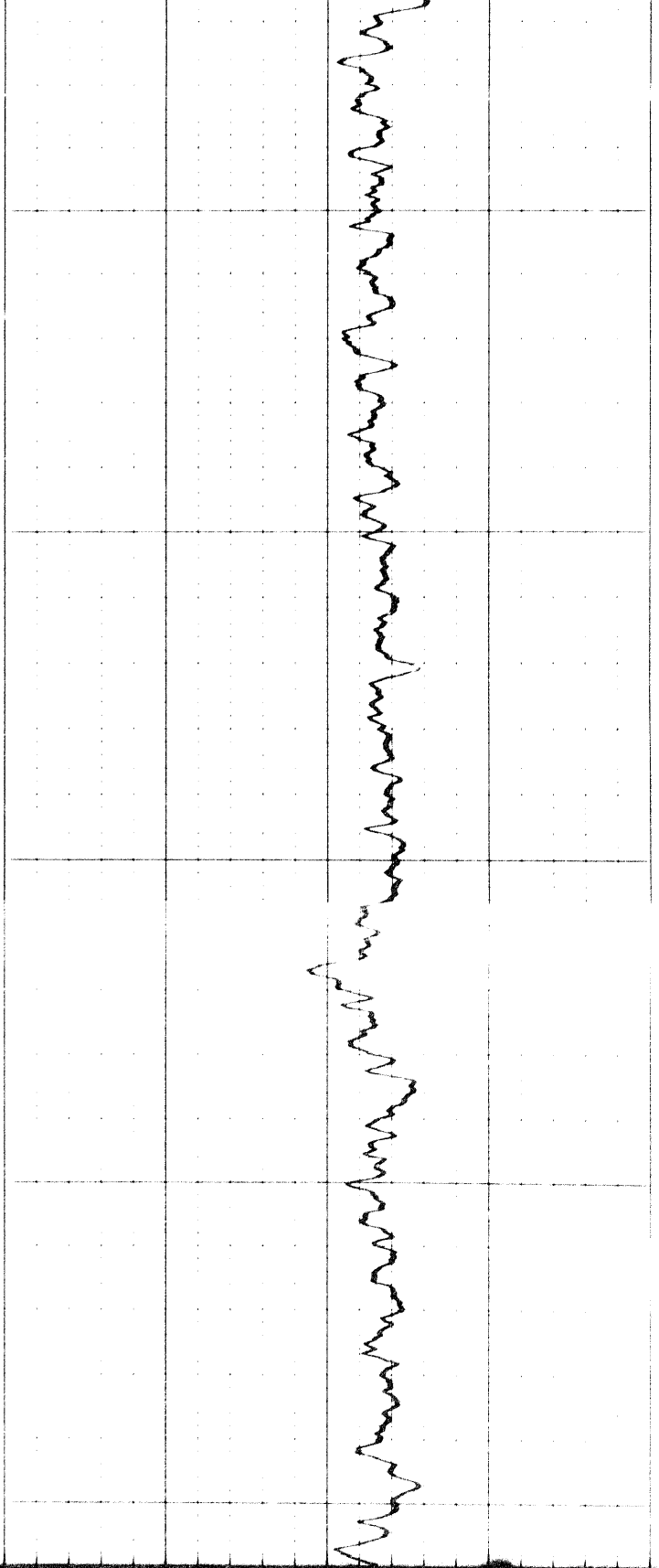
320x

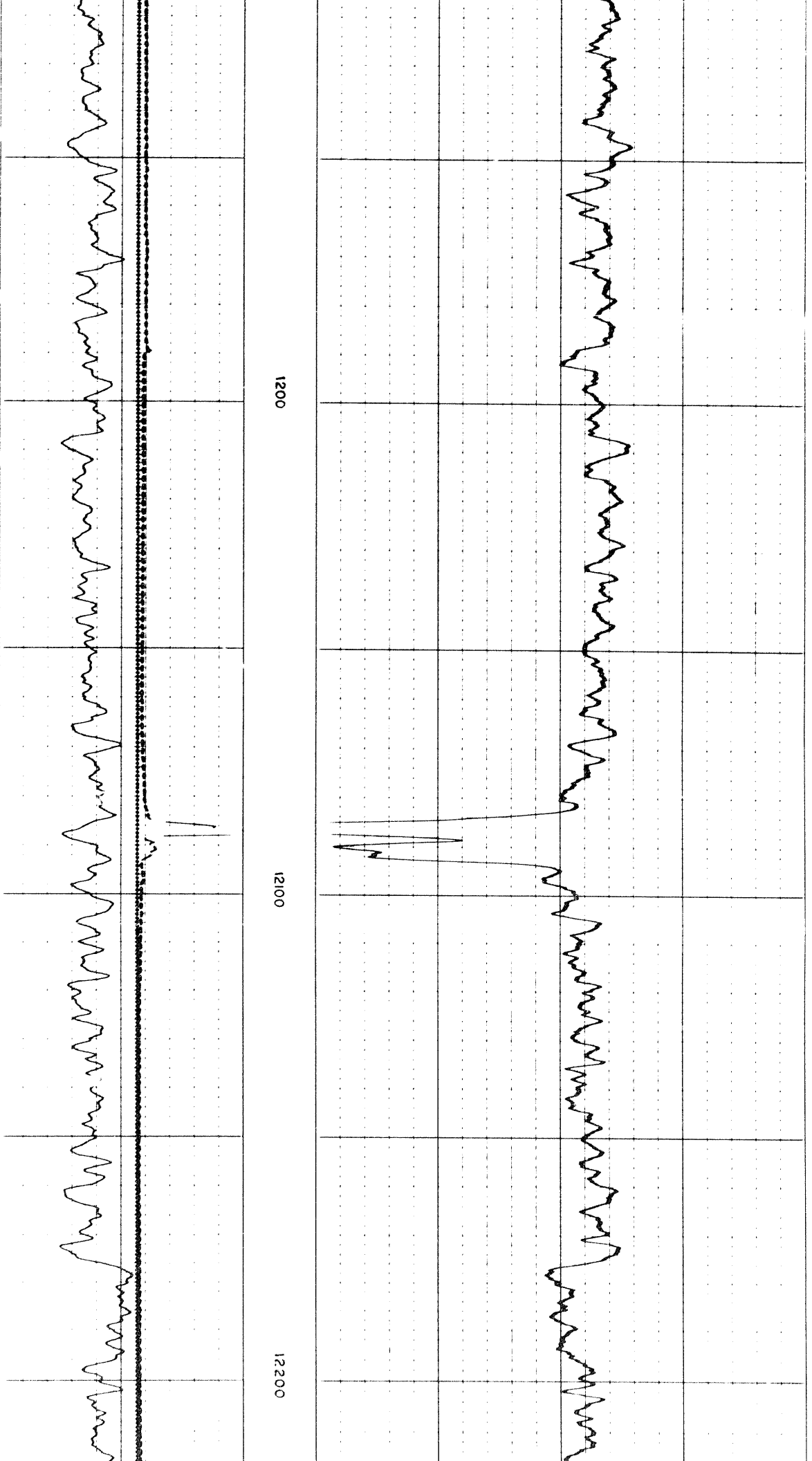




00811

1900



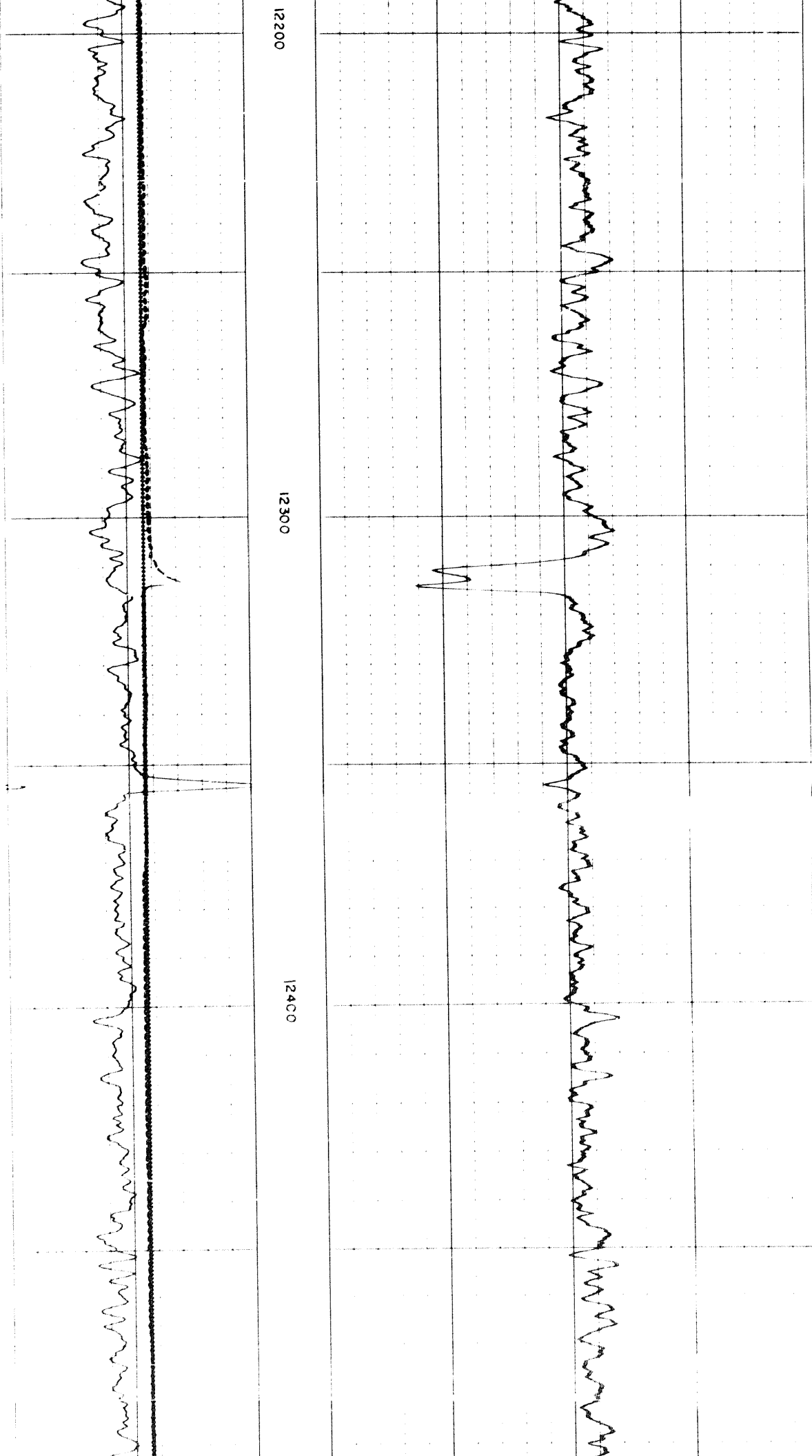


1200

12100

12200

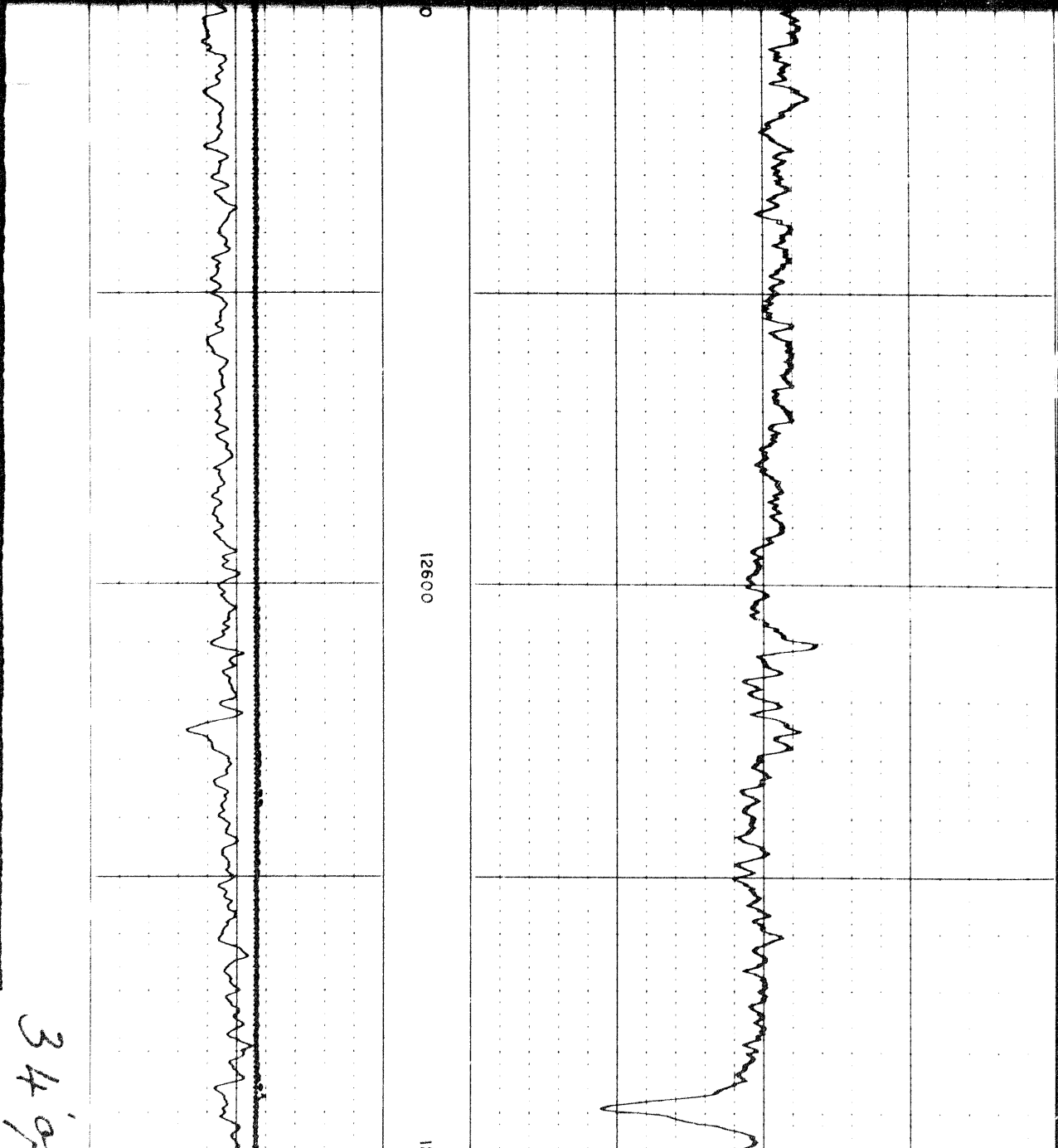
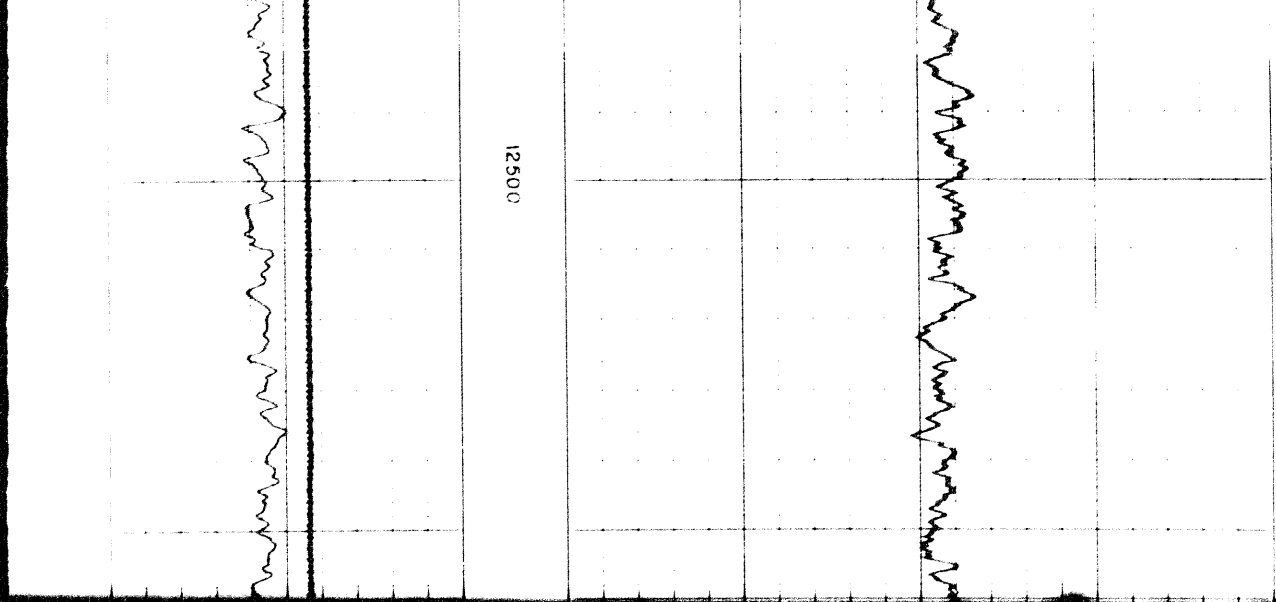
3304



12:00

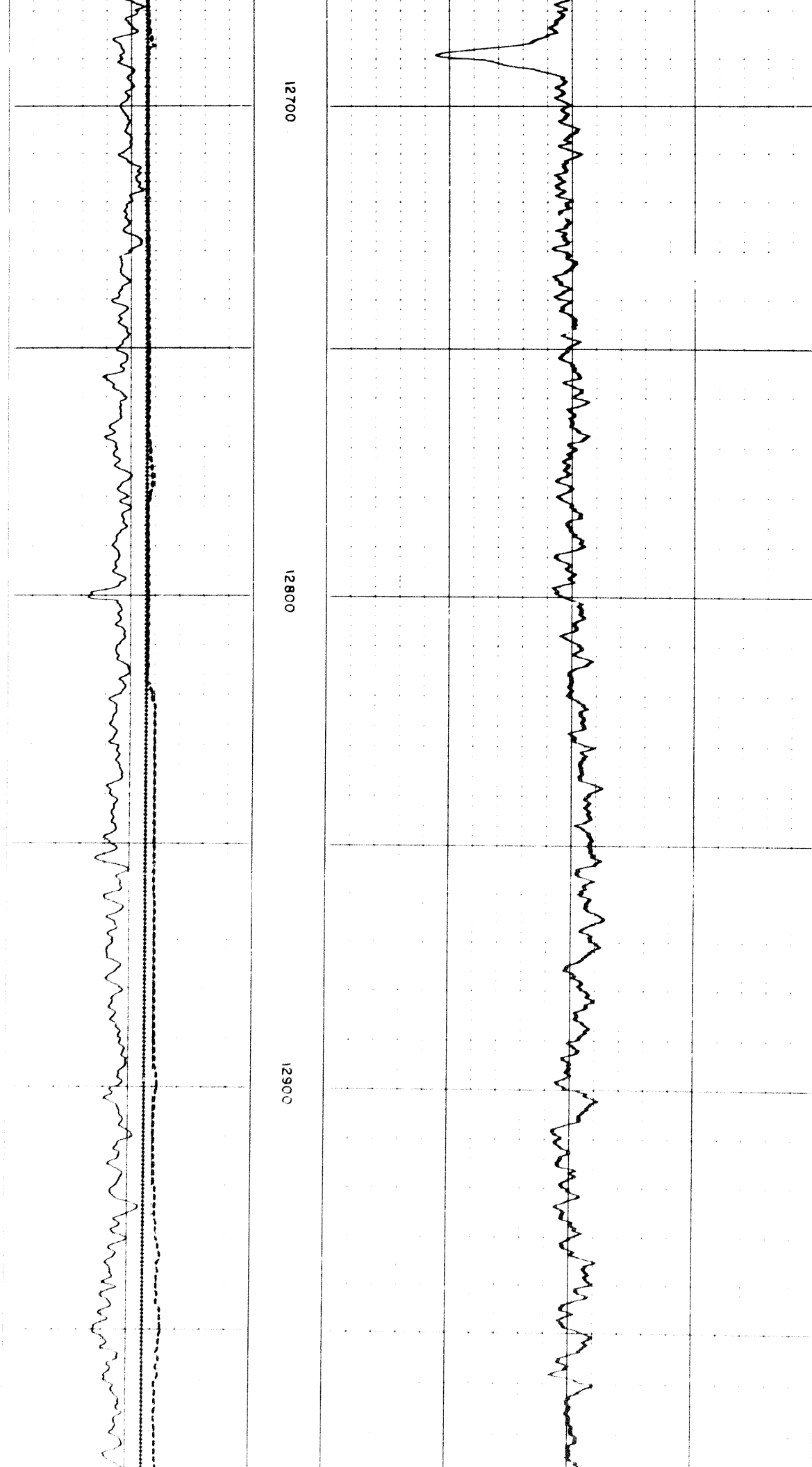
12:30

12:40



340

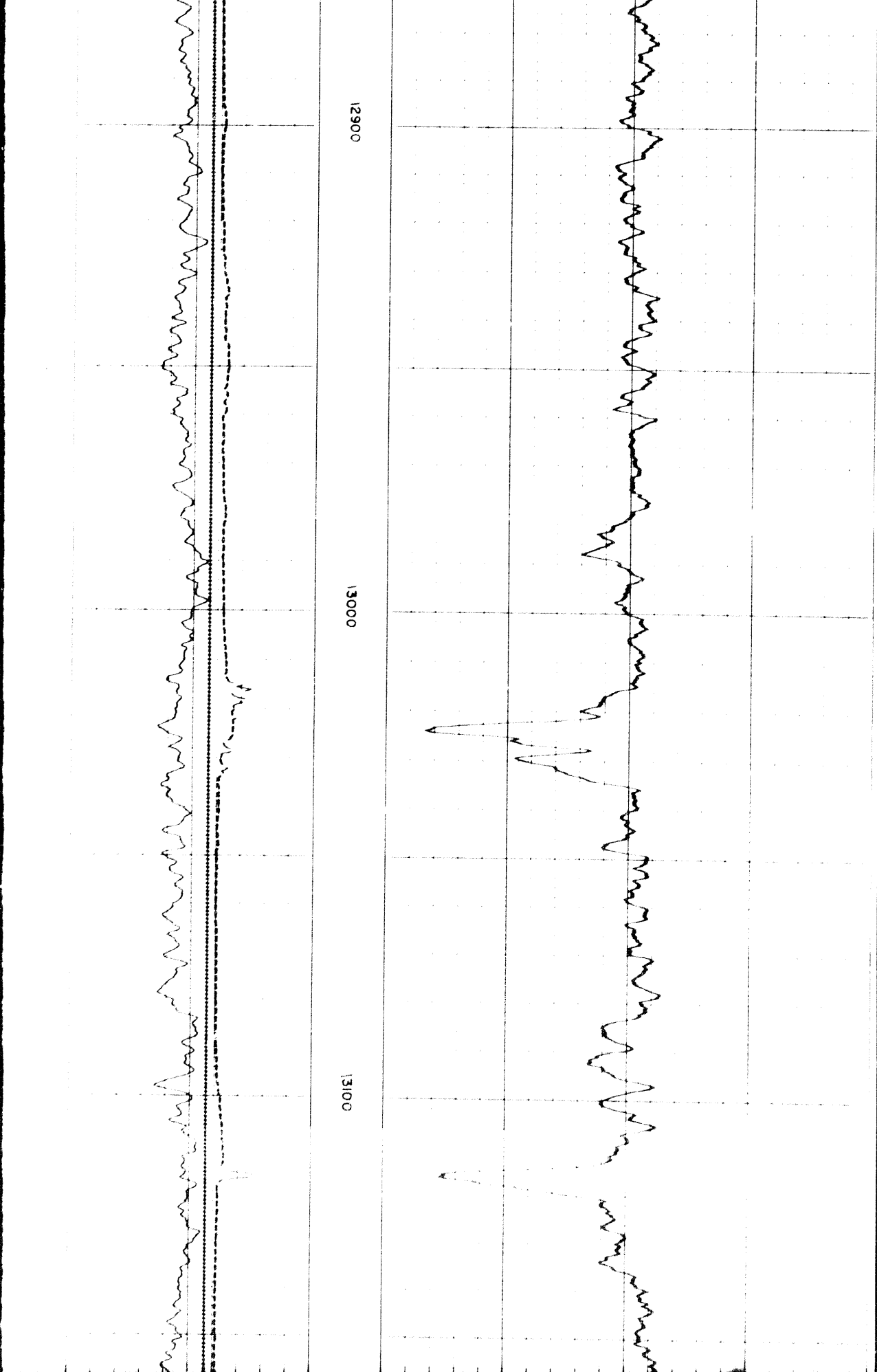
34.07



12700

12800

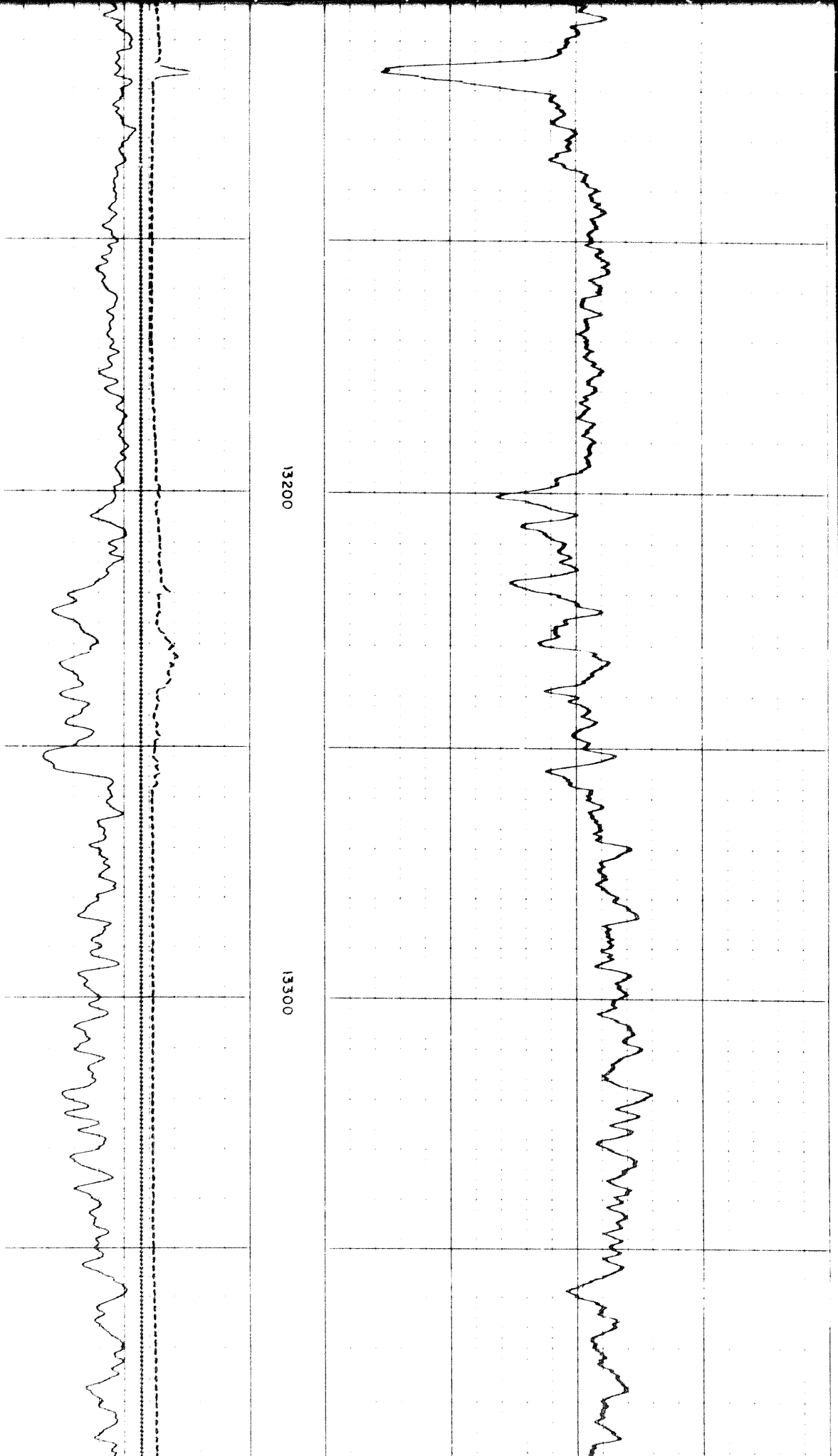
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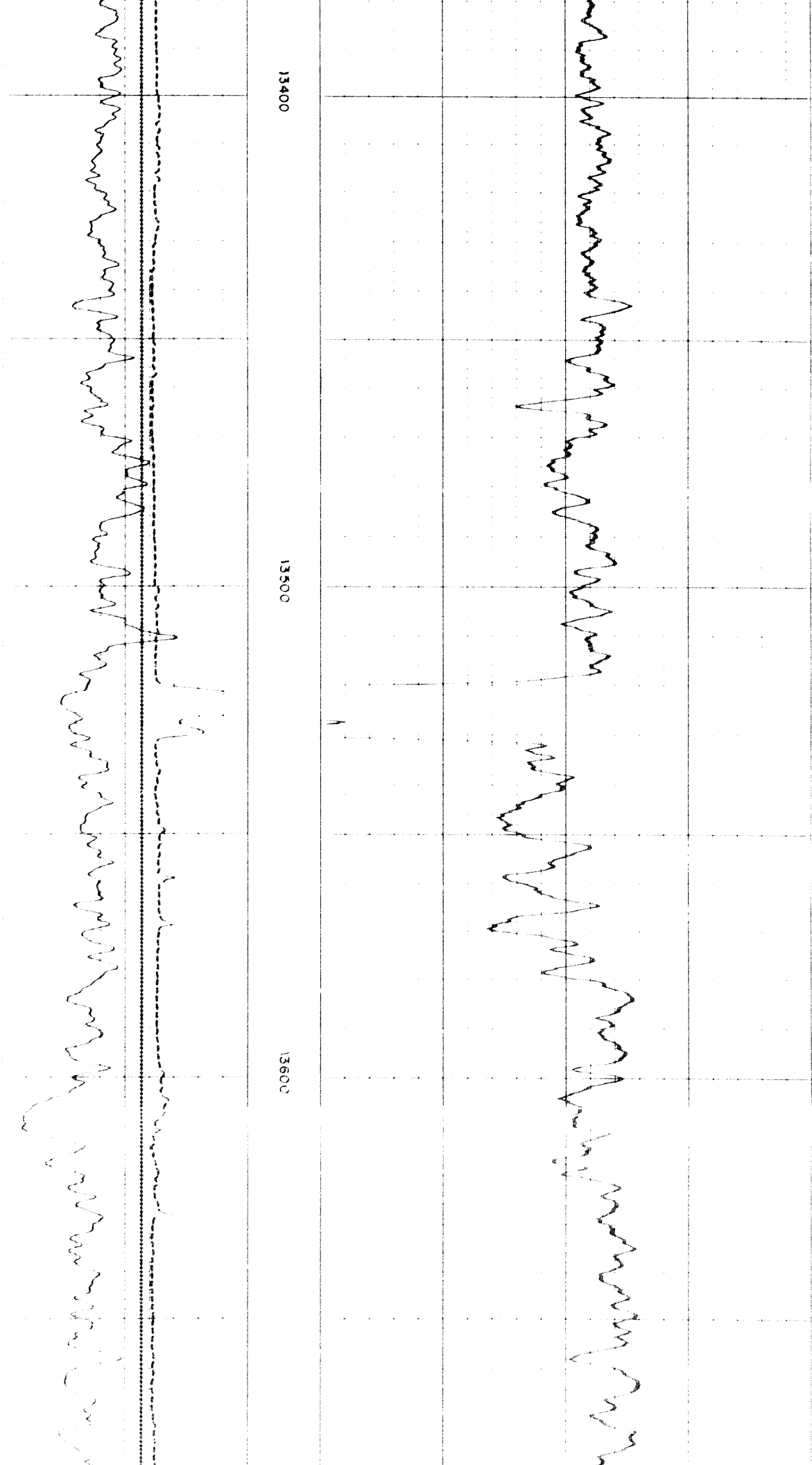
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13000

13100



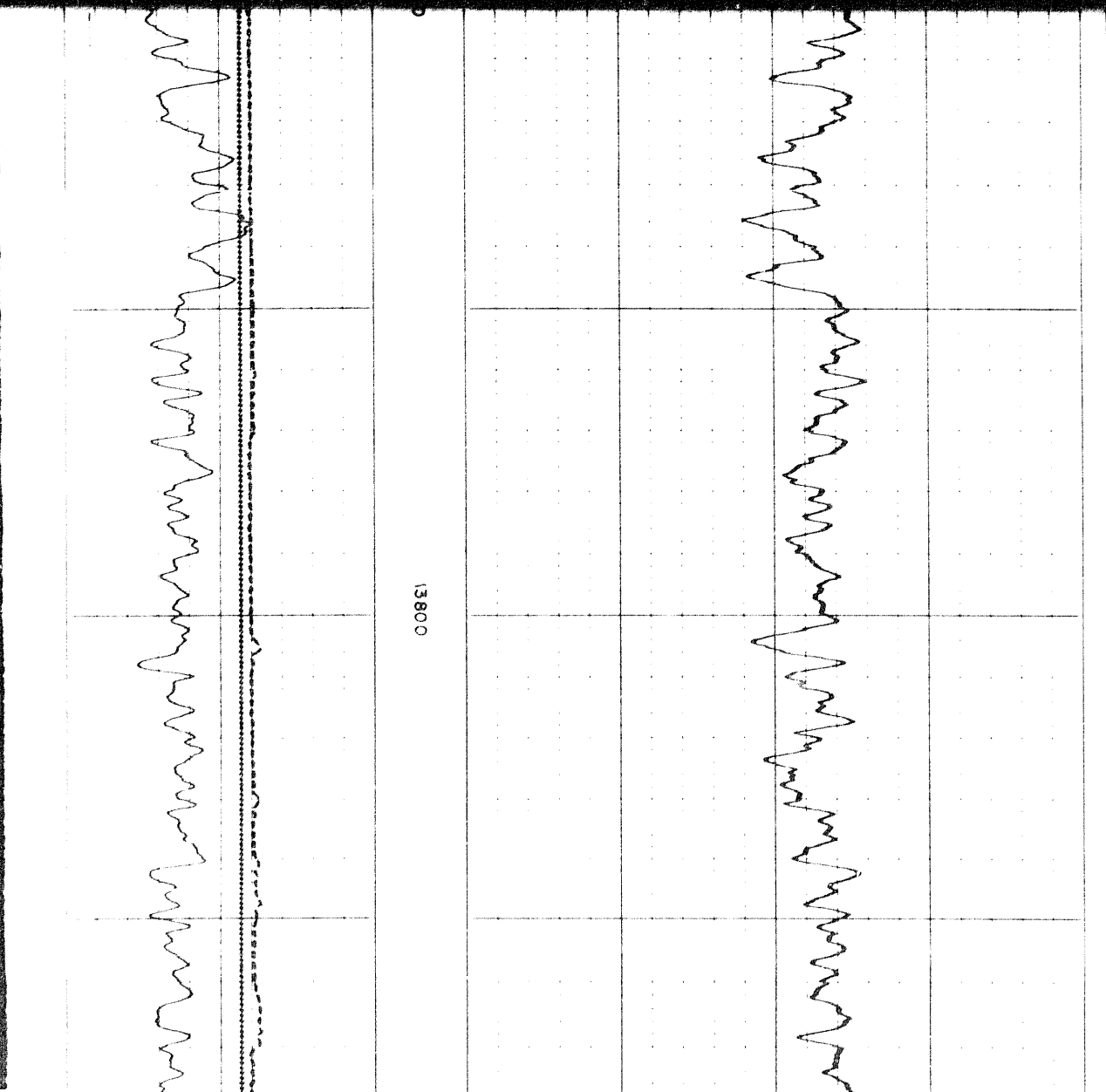
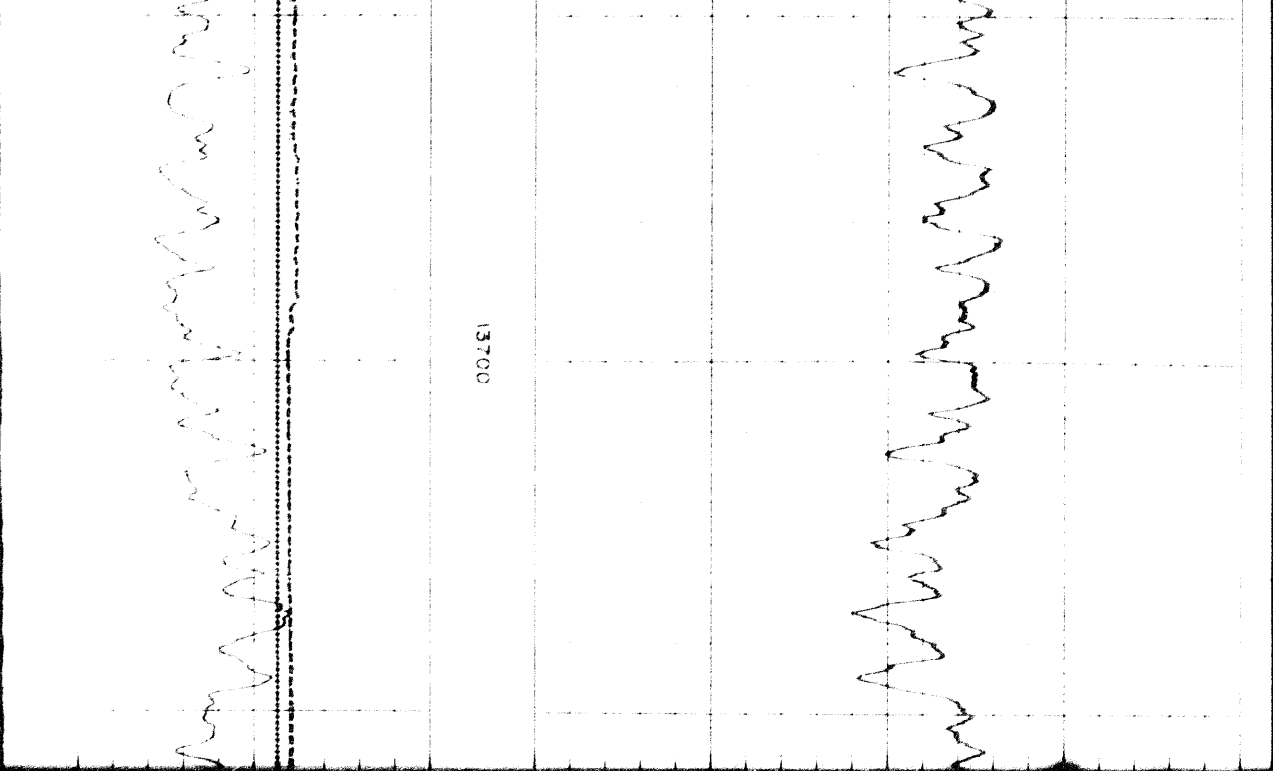
359



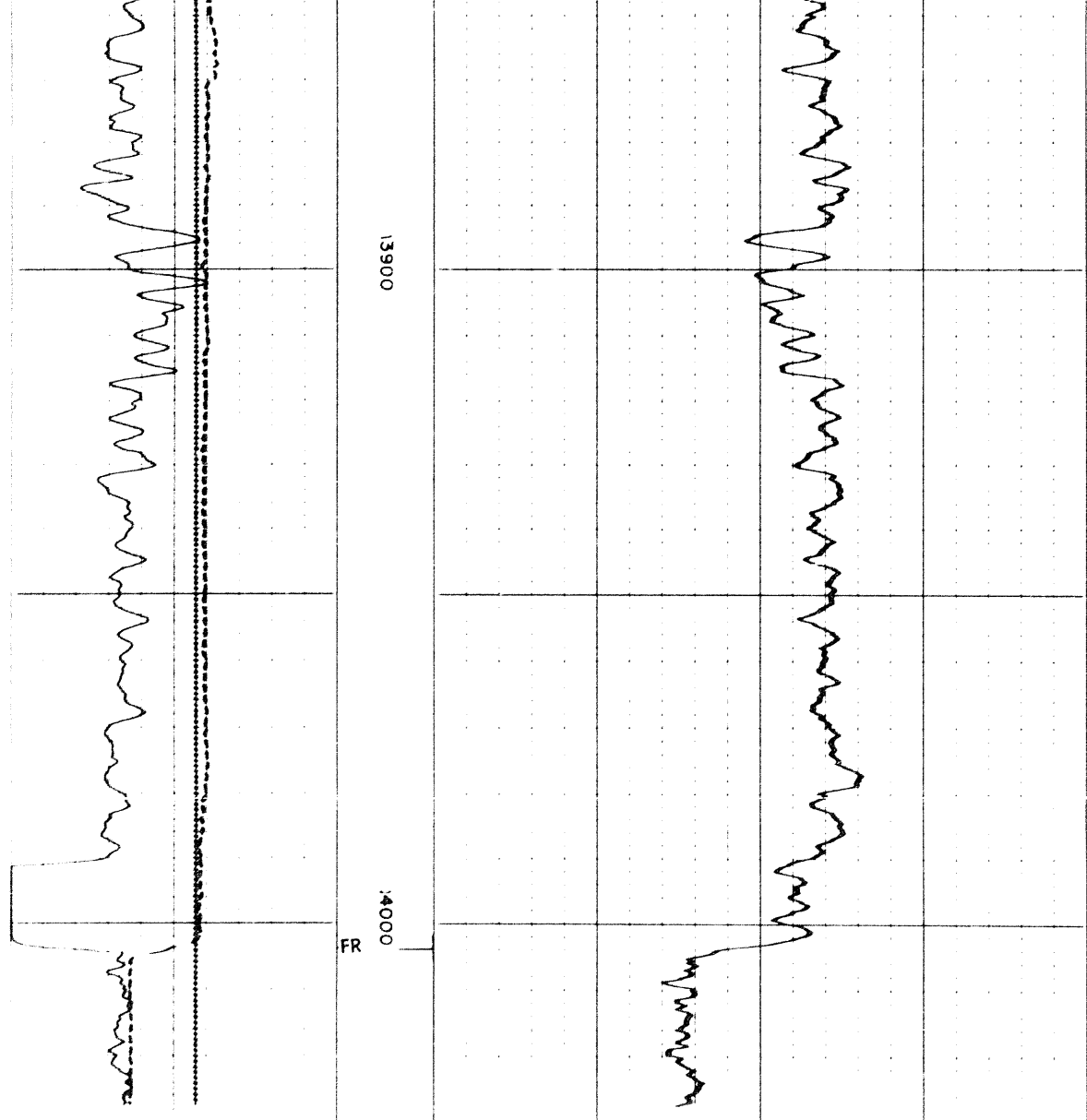
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13500

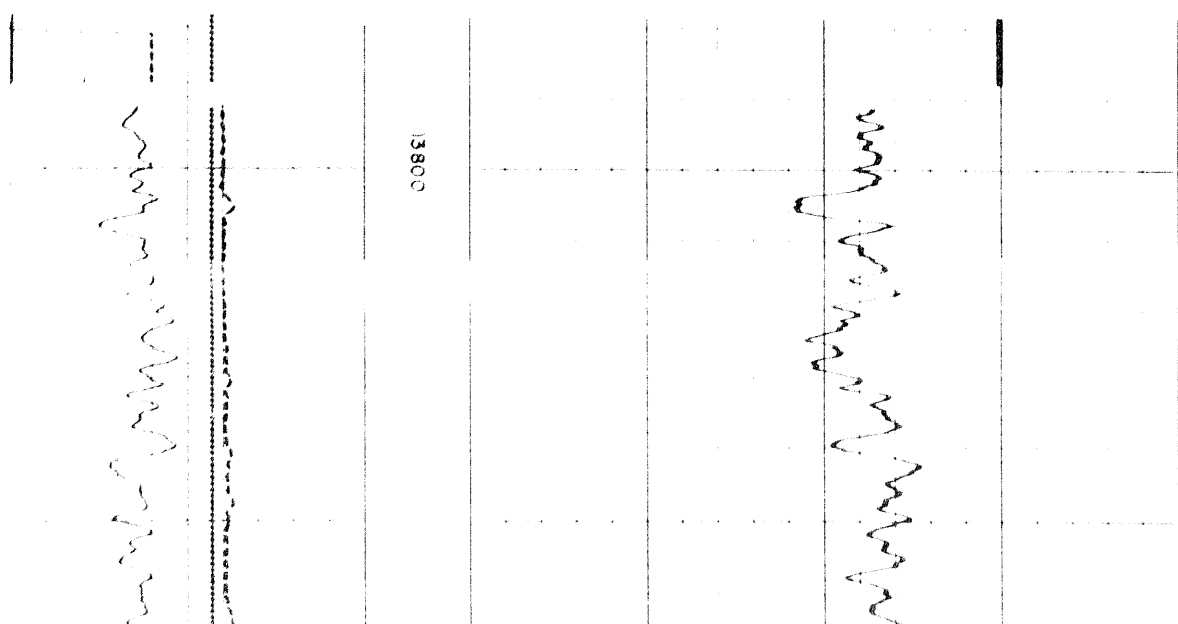
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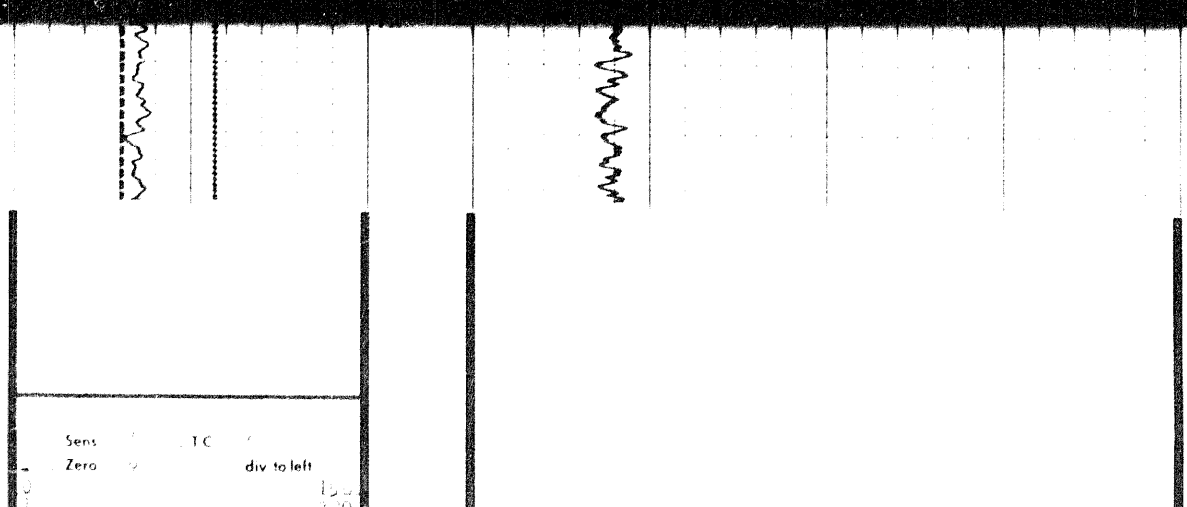
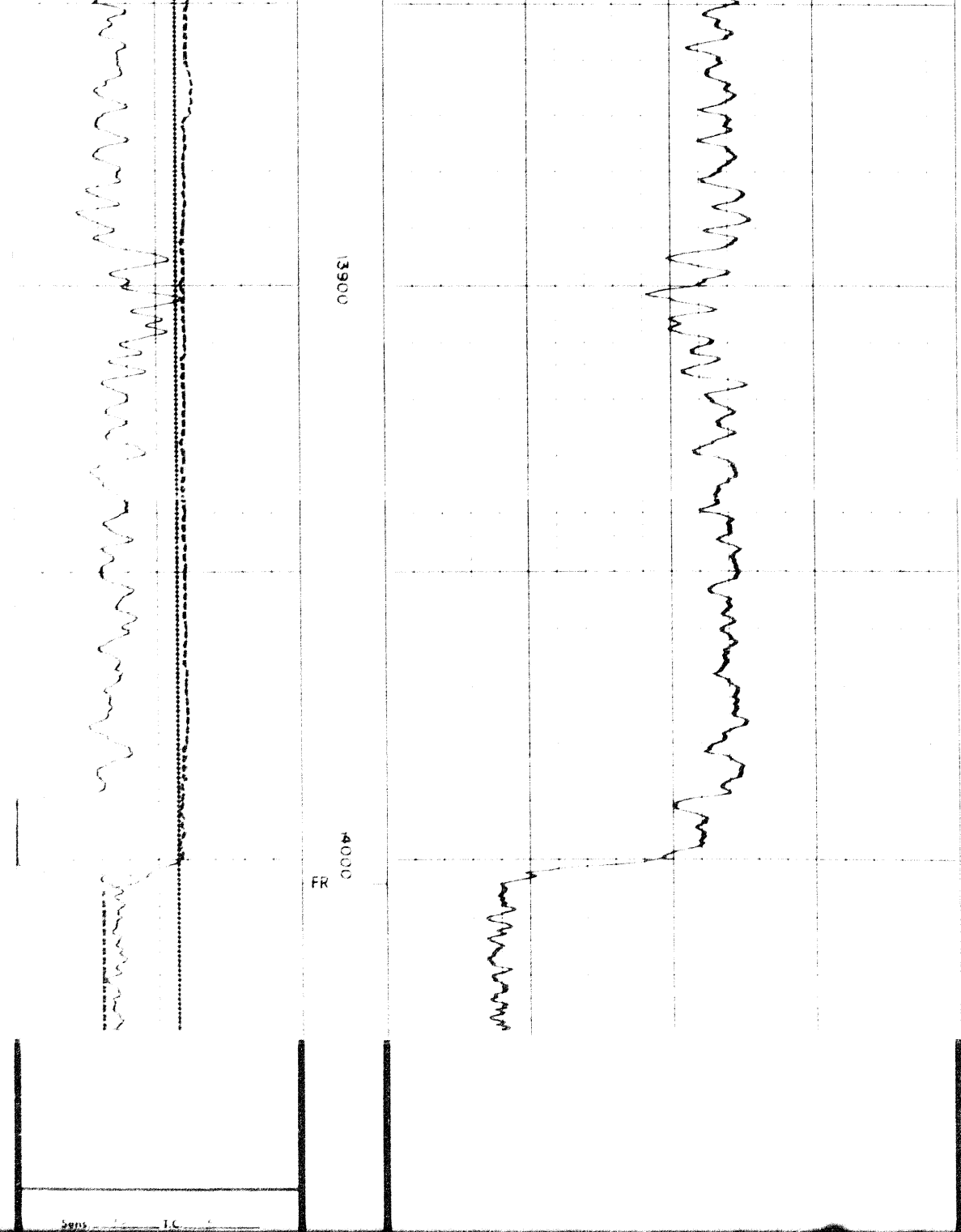


3602



REPEAT SECTION



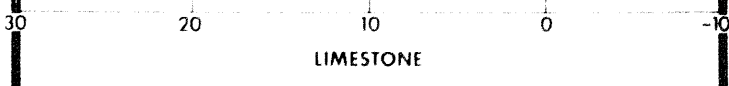
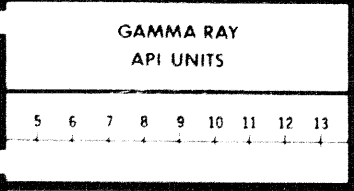


Sens 1.0 TC 1.0
 Zero 2.0 div to left

13900

Sens TC
 Zero div to left
 100 300

Speed in FPM

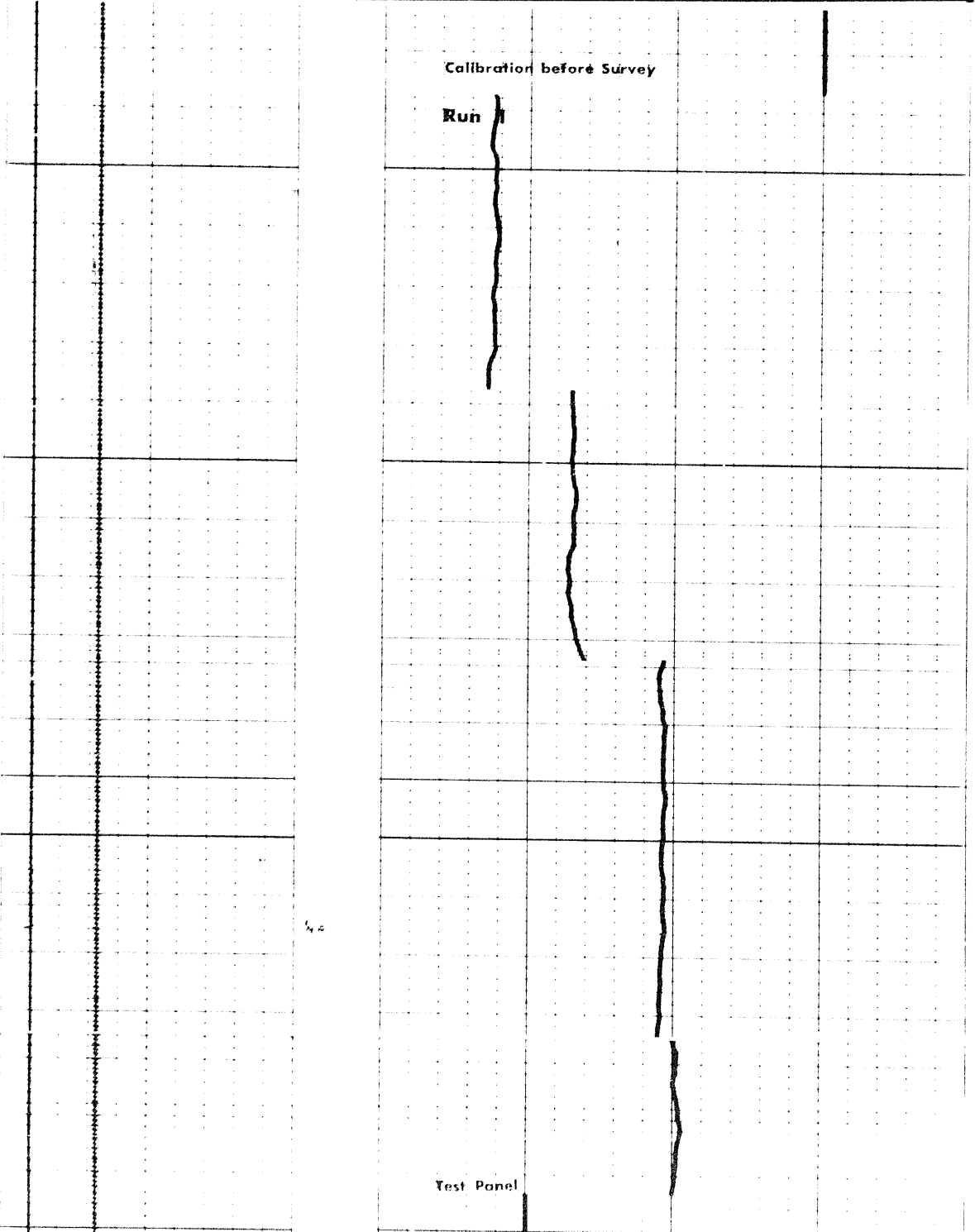


CALIPER
hole diameter in inches

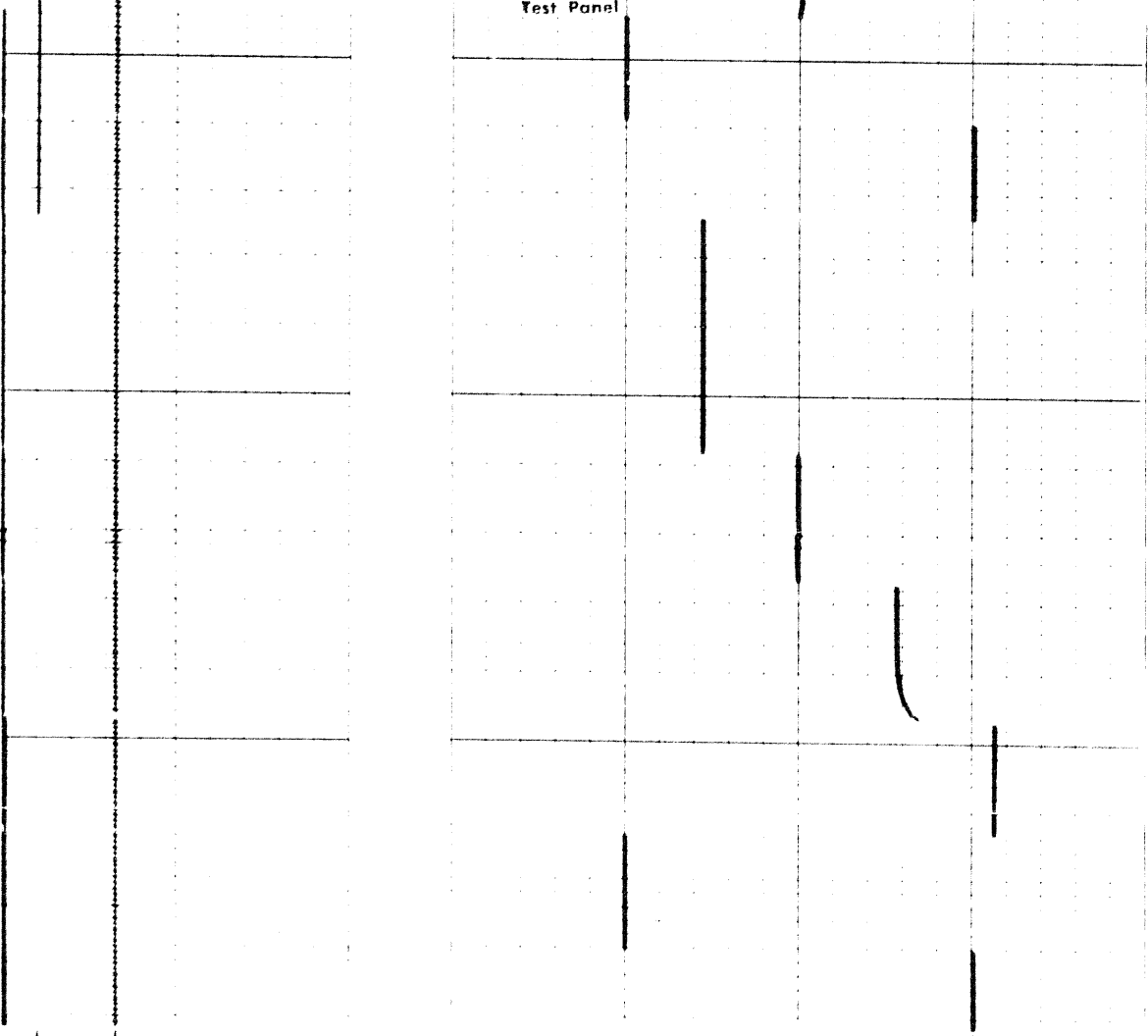
DEPTH

POROSITY (%)

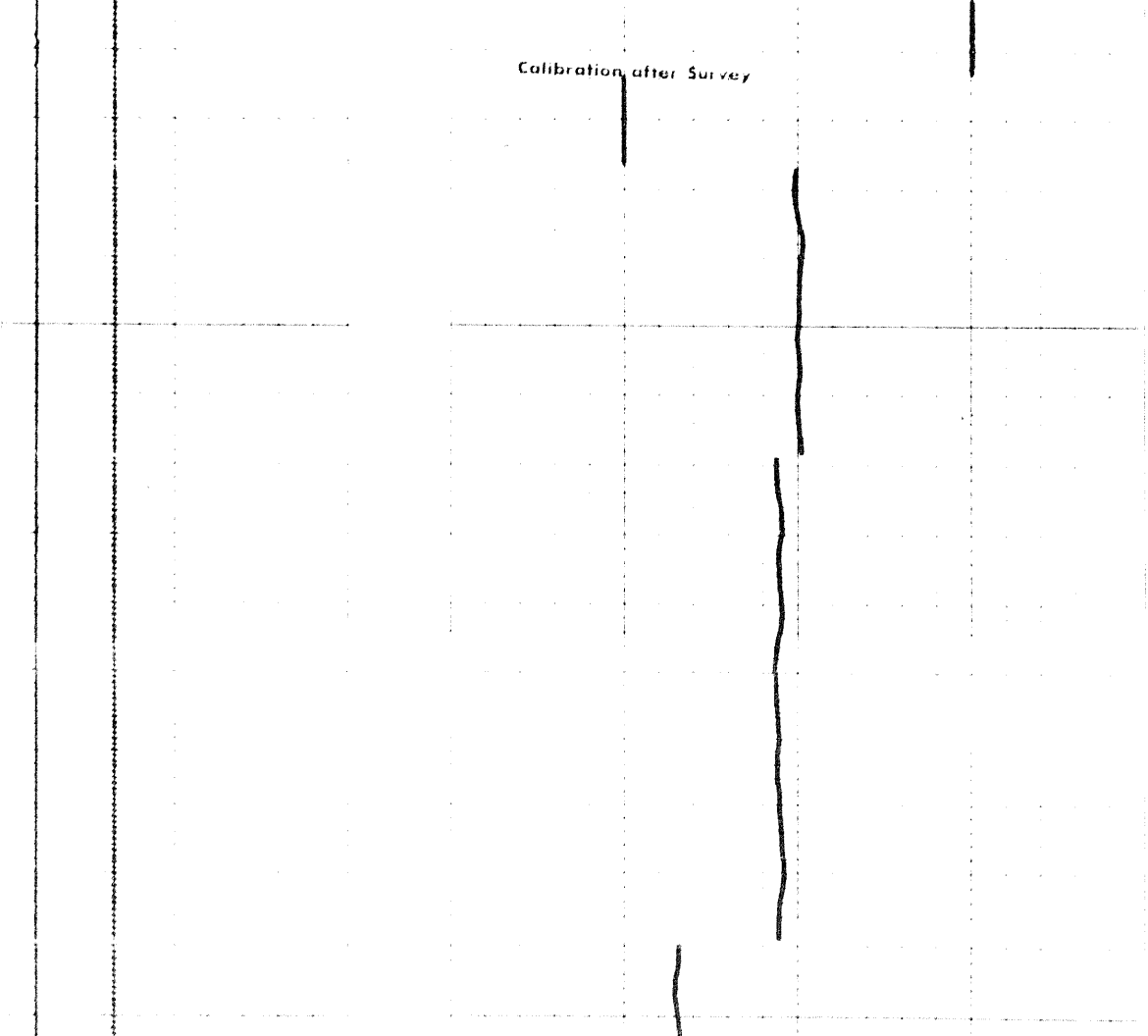
370

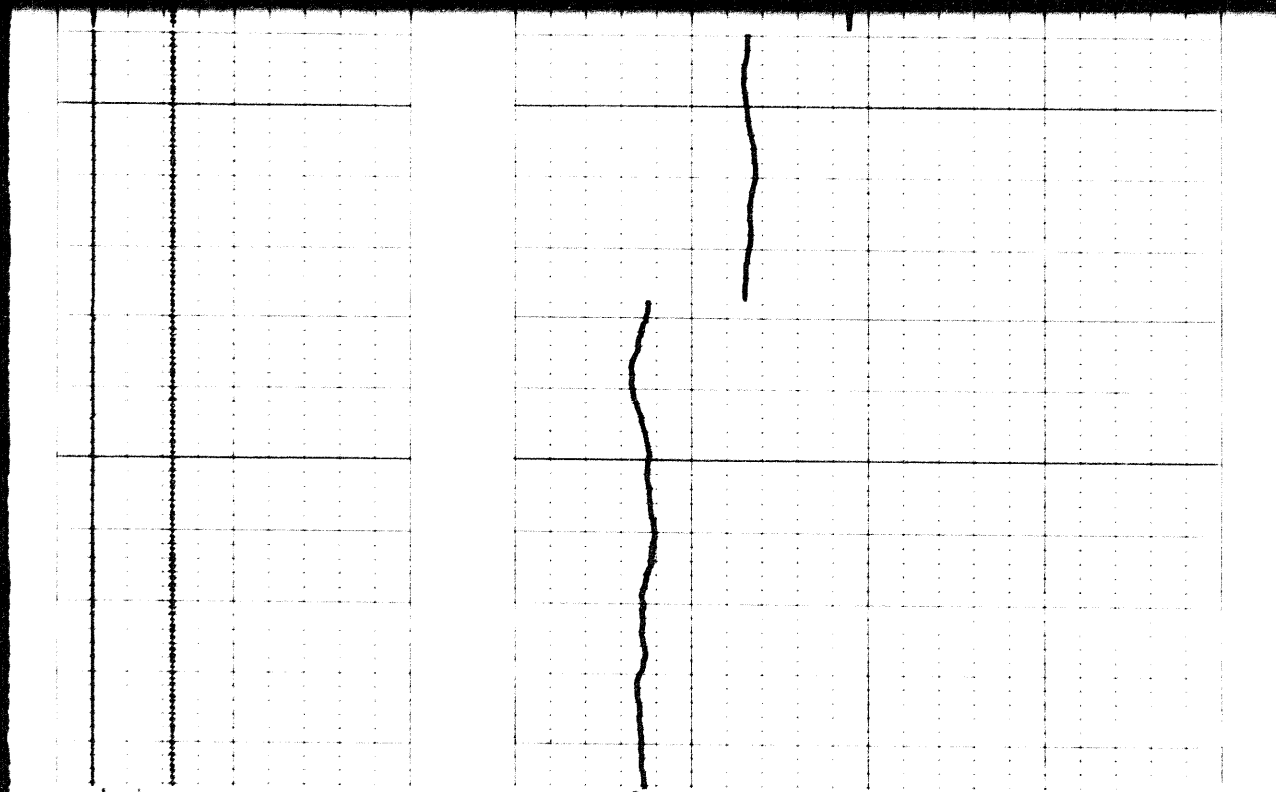
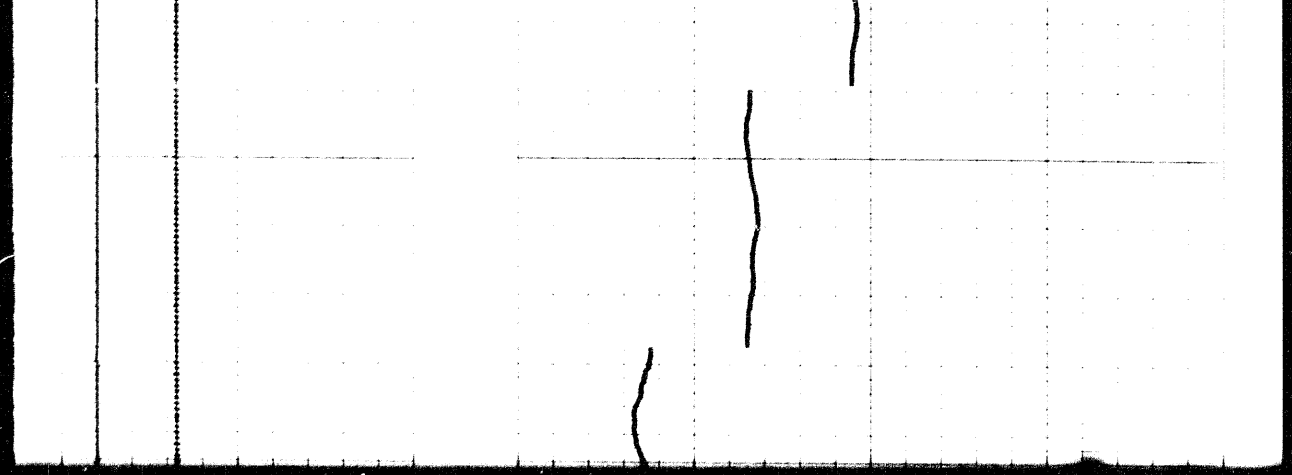


Test Panel



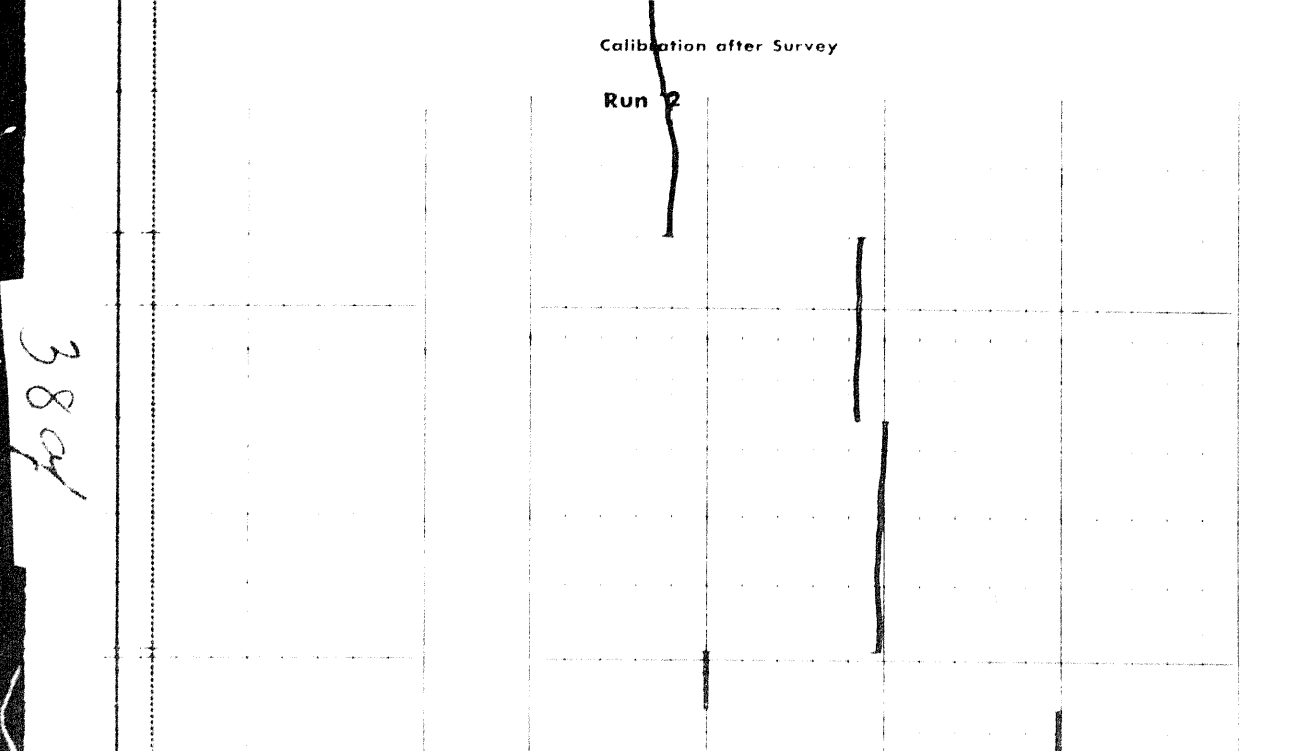
Calibration after Survey



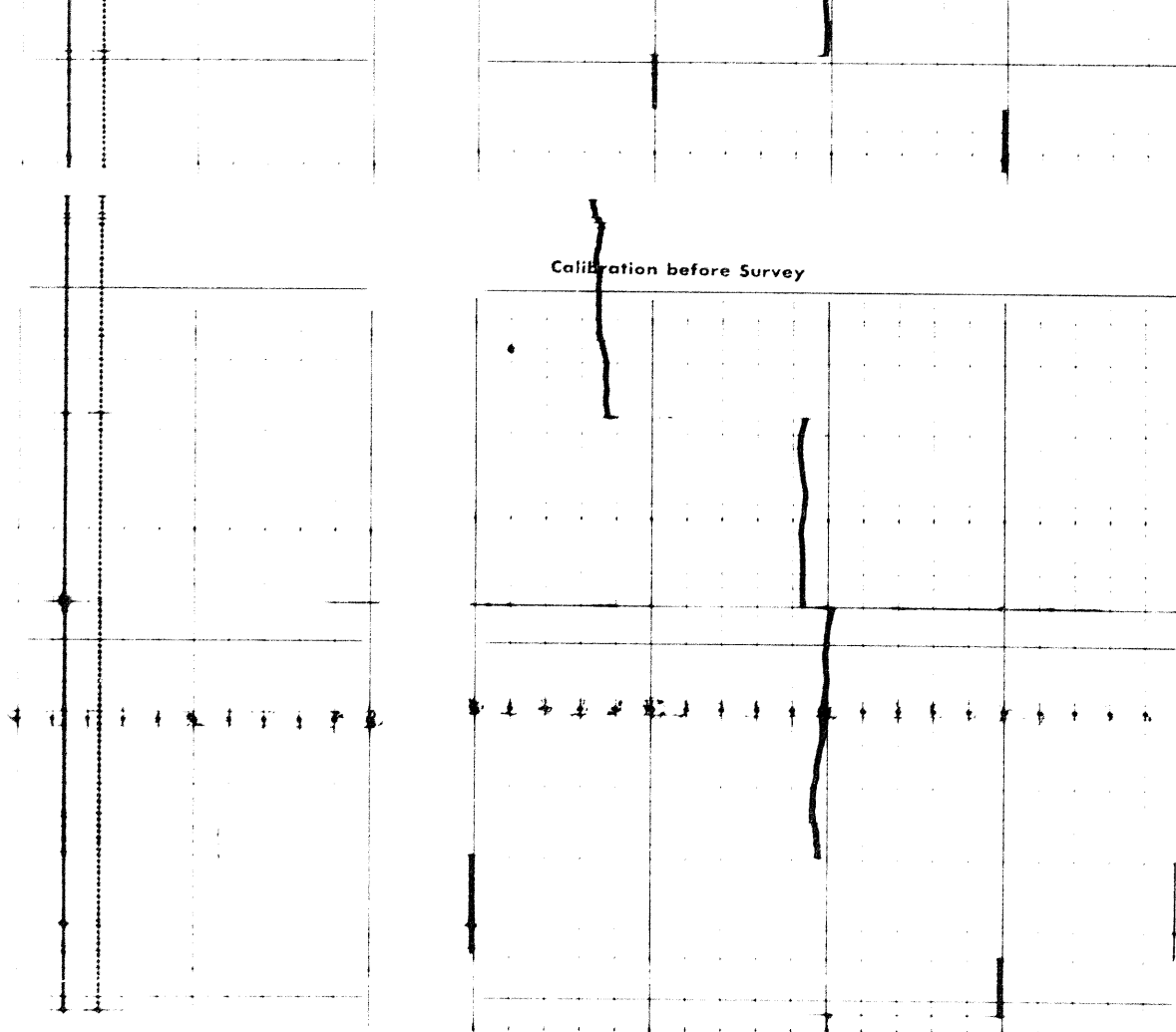


Calibration after Survey

Run 2

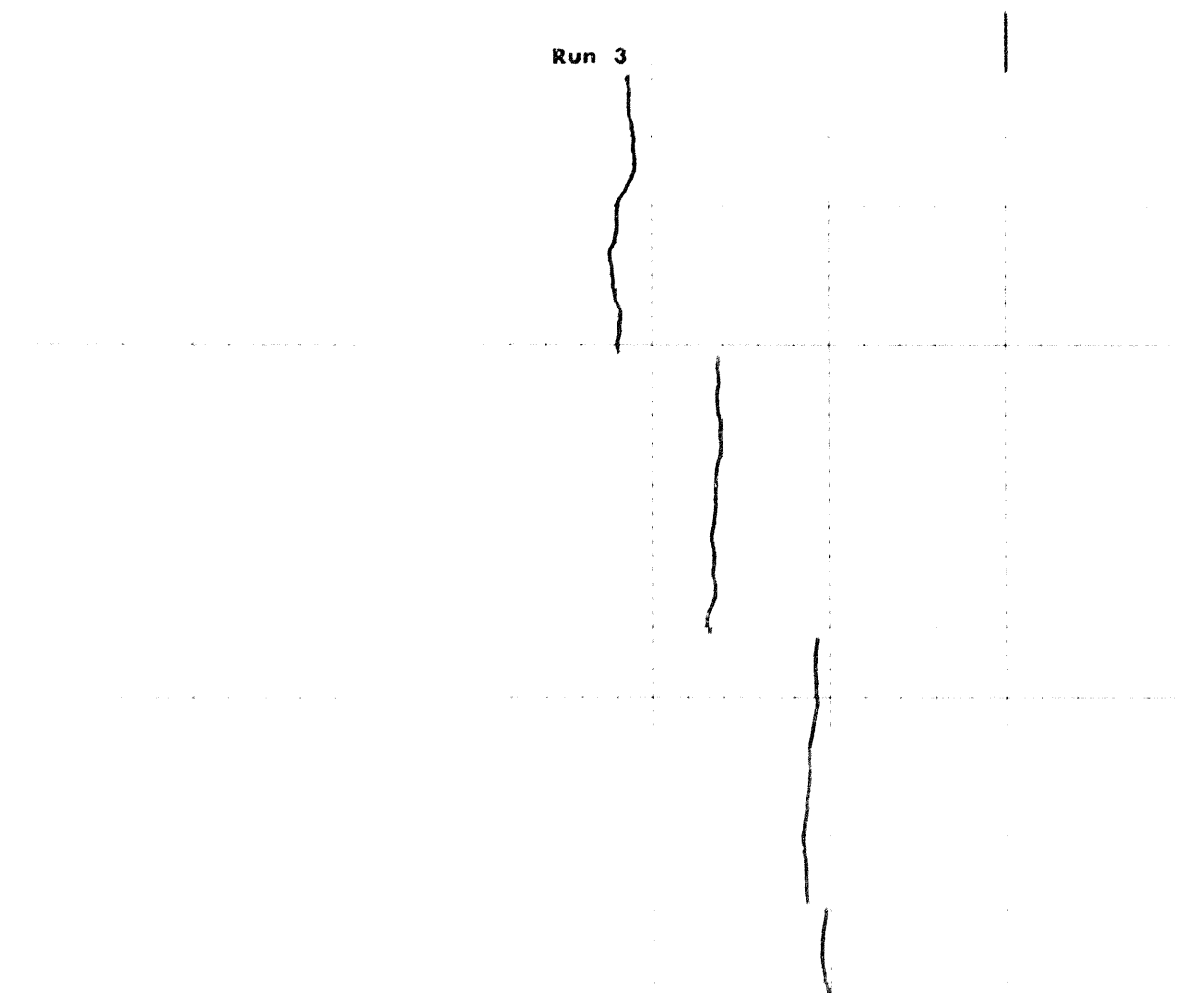


3804



Calibration before Survey

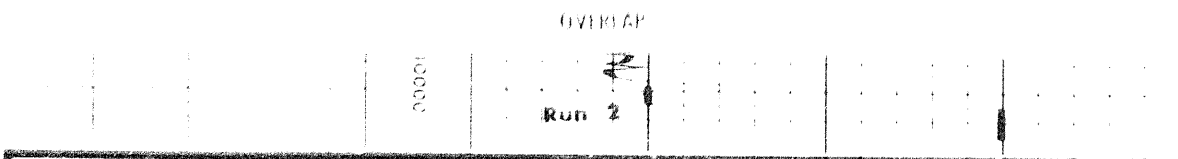
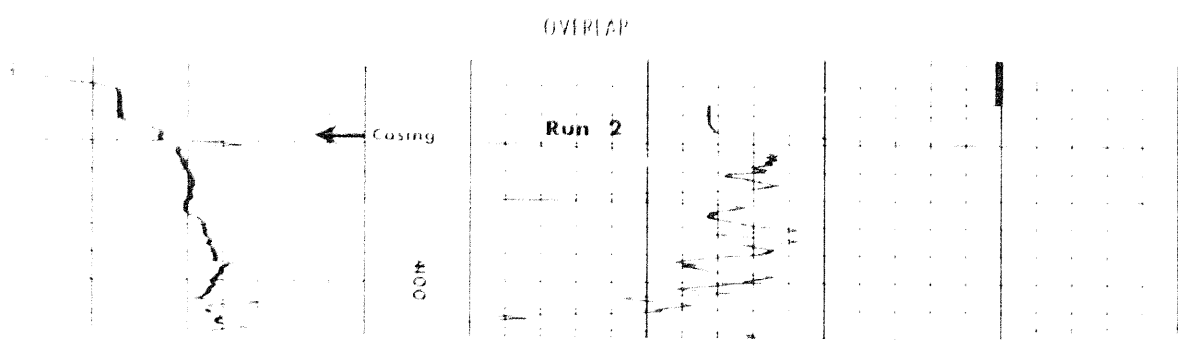
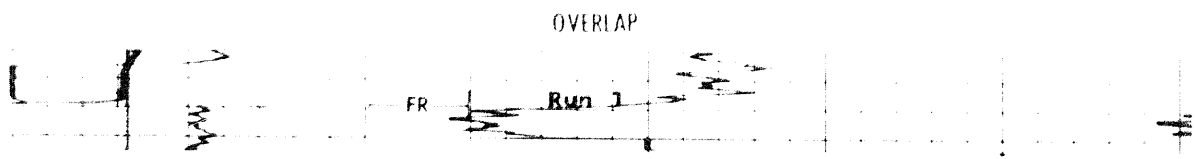
Run 3



Calibration after Survey

39039

Calibration after Survey



DATE		SCHLUMBERGER
WELL		
DEPTH	PROJECT	