

Schlumberger

DUAL LATEROLOG

PROVINCE YUKON TERRITORY
 FIELD WILDCAT
 WELL COLUMBIA GAS ET AL
 KOTANEELEE YT H-38
 COMPANY COLUMBIA GAS DEVELOPMENT
 OF CANADA LTD.

COMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD.
 WELL COLUMBIA GAS ET AL KOTANEELEE YT
 FIELD WILDCAT
 PROVINCE YUKON TERRITORY
 LOCATION 60° 07' 16" N LAT
 124° 06' 03" W LONG
 Permanent Datum GL Elev. 2225
 Log Measured From KB 25 Ft. Above Perm. Datum
 Other Services: 100' FDC - CNL - GR - BHT, WE - VDL - HDT - ELL, ELEV. KB 2250, GL 2225, CBF

Date	15 OCT 77
Run No	ONE
First Reading	1277
Last Reading	1841
Fee Measured	192
Depth Reached	12785
Bottom Driller	12789
Log SOC	1.84
Csg. Driller	1.85
Mud Nature	KPL
Dens.	1.04
Visc.	37
Mud pH	10.0
Water Loss	15.0
Rms	176 @ 6' of
Rmf	135 @ 3' of
Rmc @ BHT	326 @ 52' of
Source of Sample	CIRCULATED
Bit Size	8 1/2"
Op. Rig Time	6.5 HRS
Truck No.	OSU-C 399 F10N1
Recorded By	SUMBUQUIST
Witness	LANE

REMARKS LOG TAPED.
 Drilling Stopped 1715/13th Circulation Stopped 2130 / 13th Tool on Bottom 2200/14th 1st Run Service Order No. 12456 B.H.T. 300 of

REPEAT RAN AT TOP OF OPEN HOLE
 DUE TO HIGH TEMPERATURES AT TD.

Stand Off = 1.5 Inches
 Cartridge No. A 779
 Panel No. B 227
 Sonde No. B 795
 Mem. No. AB 862
 G.R. Cart No. KG 405
 TTR. No. DB 761
 Cent. Device FIN STANDOFF

DLP GR CALIBRATION
 NO COUNTS

GAMMA RAY CALIBRATION:
 Background CPS. Test Source CPS. Galv. Increase Divisions Panel Sens. Tap for Cal.
 10.0 165

Time Entering Hole 2030/14th
 Time Bottom Reached 2200/14th
 Time Last Off (Bottom) 2200/14th
 Distance TD to Thermometer 34'
 Time Out Of Hole 2030/15th
 BHT No. 1 299 of
 BHT No. 2 300 of

Mud Resistivities
 Rm No. 1 0.208 ohm · m @ 90 of = 0.062 ohm · m @ BHT
 Rm No. 2 0.204 ohm · m @ 89 of = 0.0605 ohm · m @ BHT
 Rm No. 3 ohm · m @ of = ohm · m @ BHT

Rw from Drill Stem Test
 DST No. Rw = ohm · m @ of
 DST No. Rw = ohm · m @ of LOG TAPED
 DST No. R_w = ohm · m @ of Yes No

SPONTANEOUS-POTENTIAL
 MILLIVOLTS

DEPTHS

RESISTIVITY
 OHMS. M² M

DEEP LATEROLOG

DST No.

Rw =

ohm m @

*F

LOG TAPED

DST No.

Rw =

ohm m @

*F

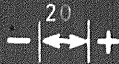
Yes

No

SPONTANEOUS-POTENTIAL MILLIVOLTS

DEPTHS

RESISTIVITY OHMS M² M



GAMMA RAY API UNITS

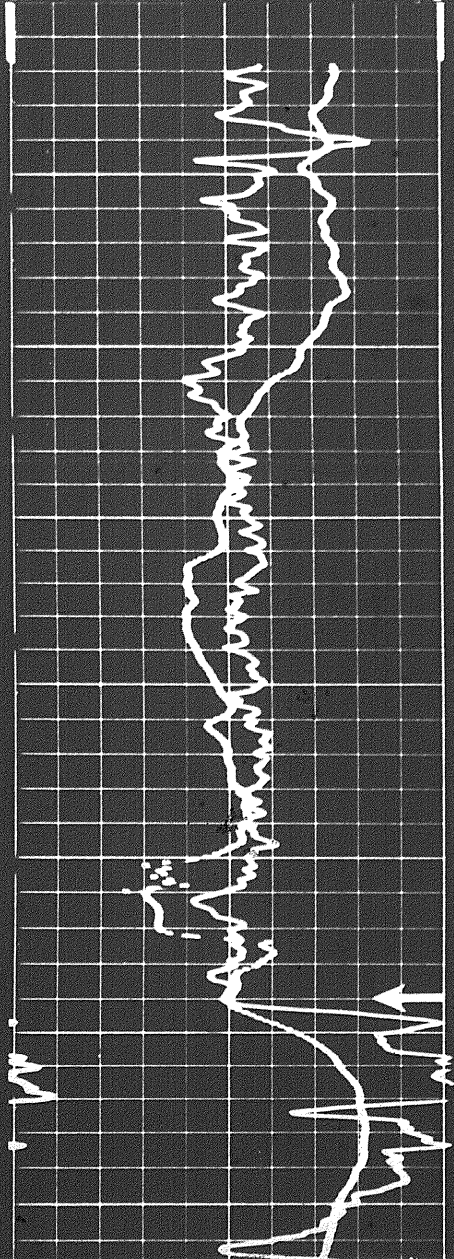
DEEP LATEROLOG

0.2 1.0 10 100 1000 2000

SHALLOW LATEROLOG

0.2 1.0 10 100 1000 2000

Speed in FPM
Sens. 15 T.C. 1
Zero div. to left 150
15 300



10600

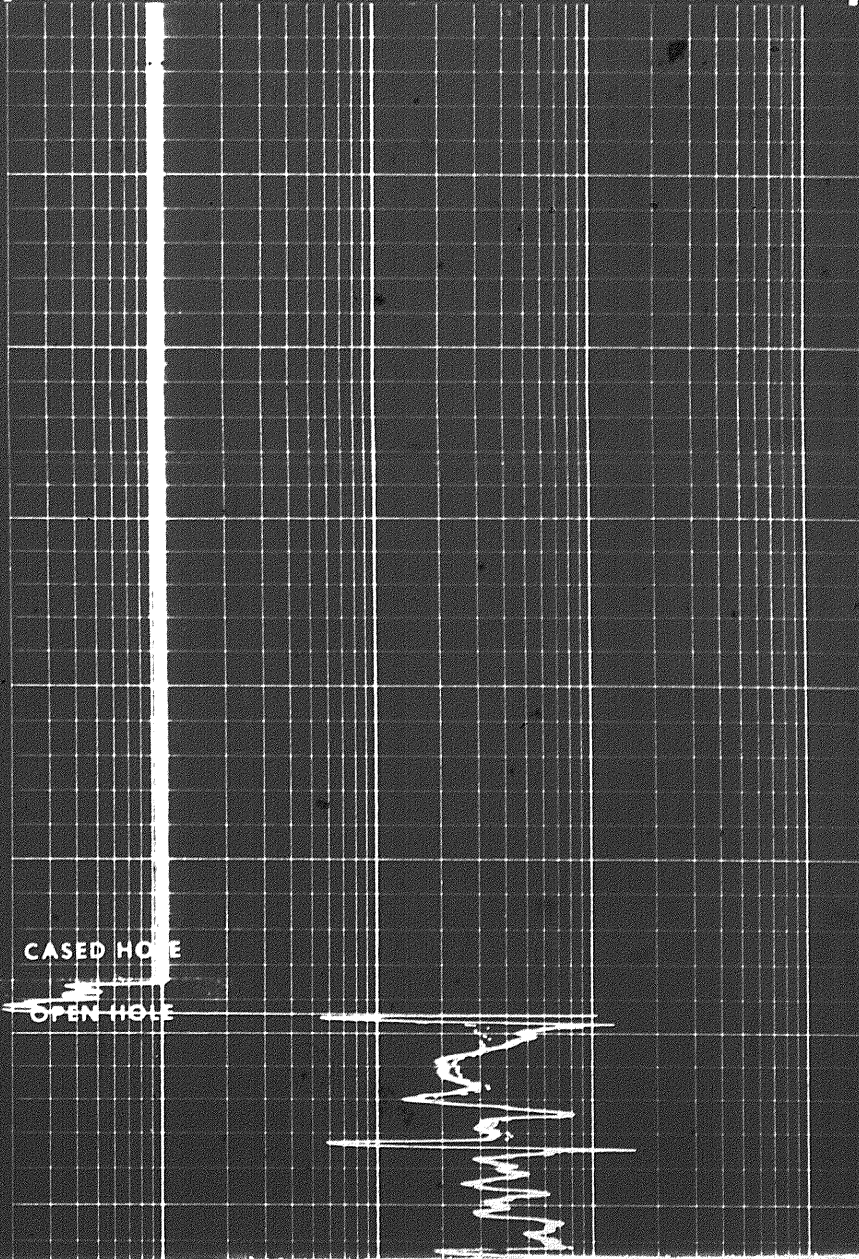
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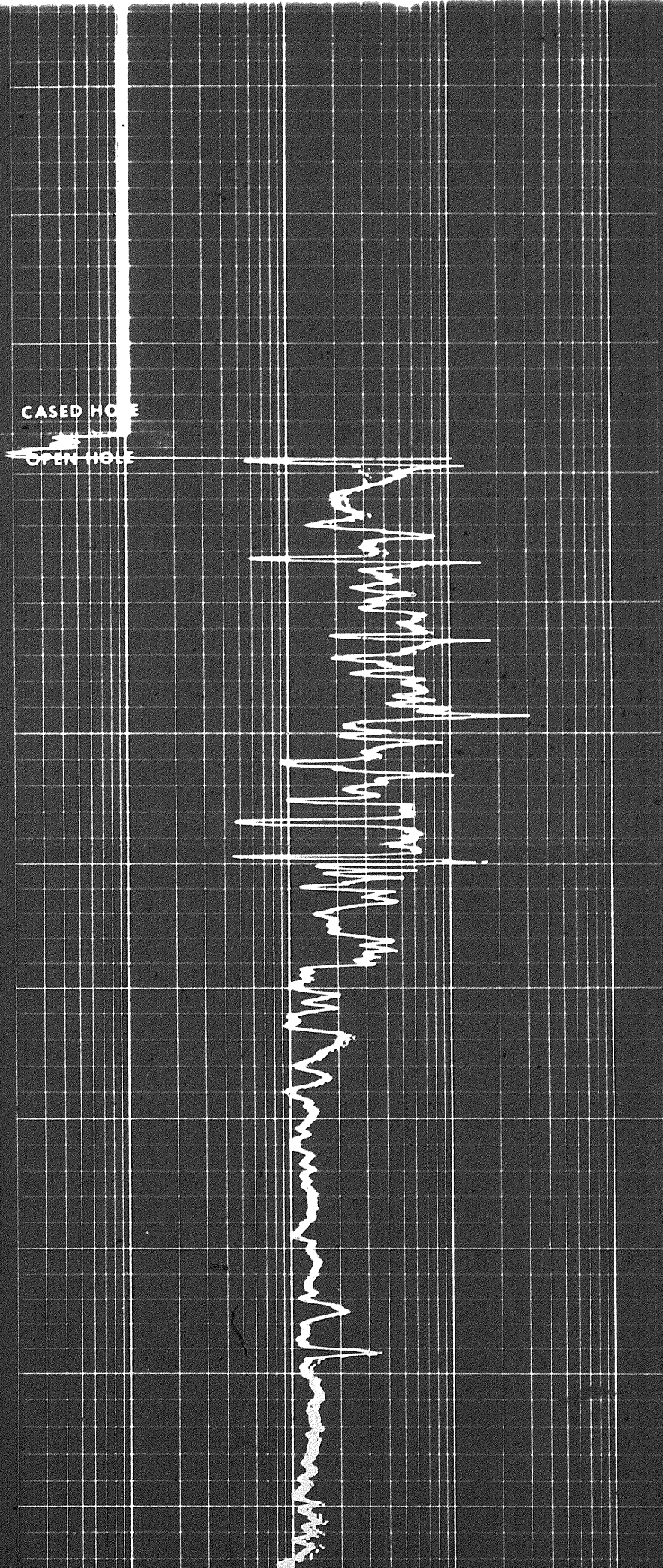
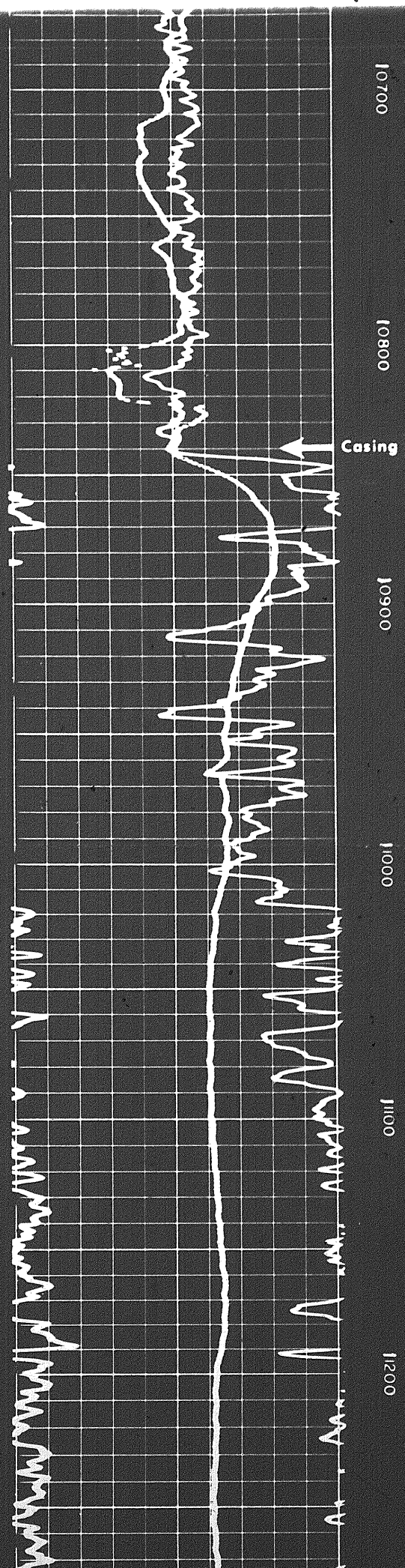
10800

10900

Casing

CASED HOLE
OPEN HOLE





10700

10800

10900

11000

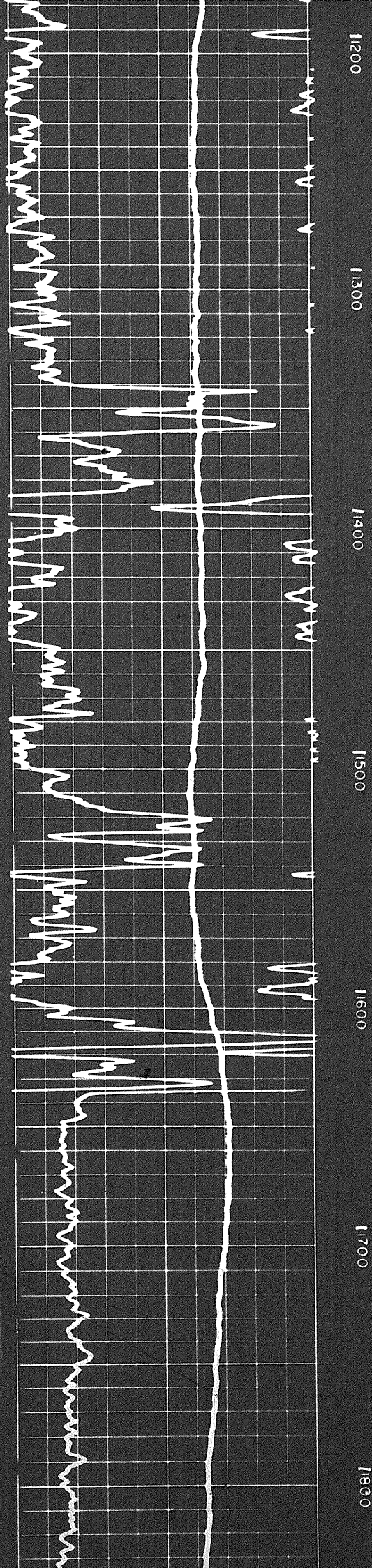
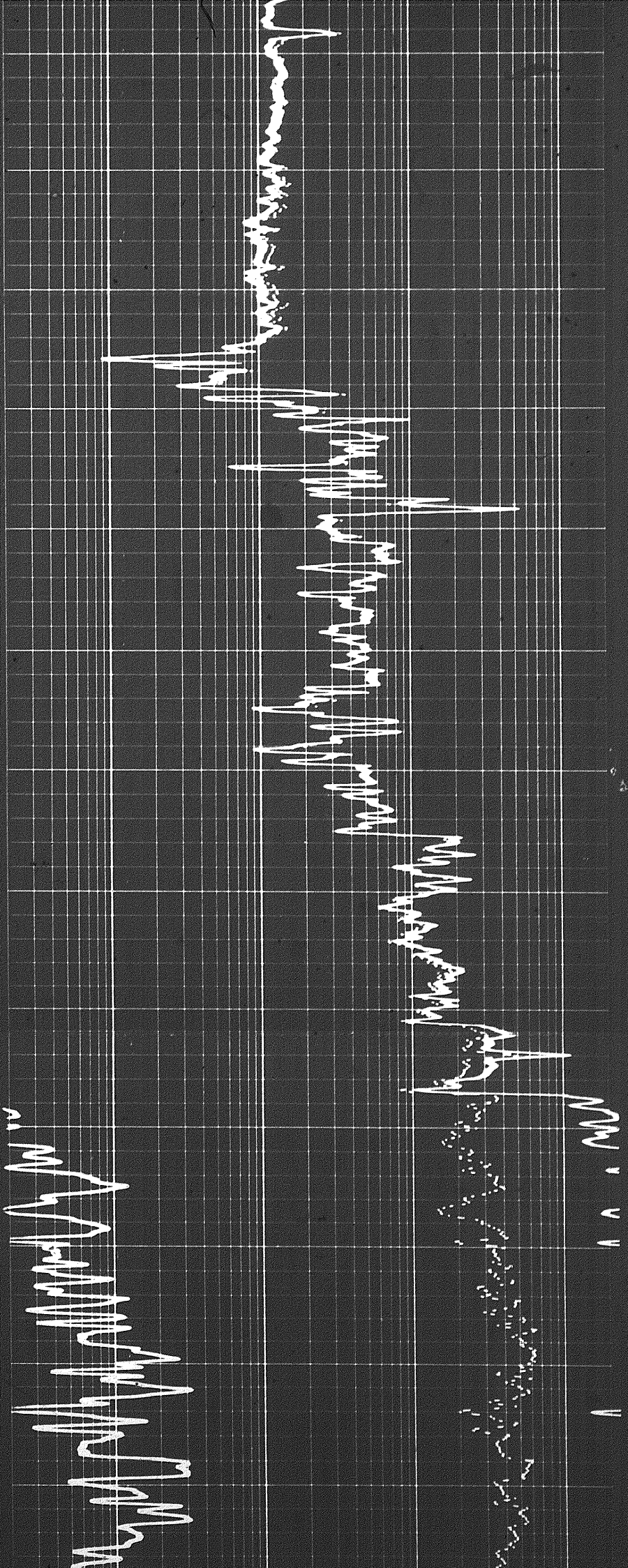
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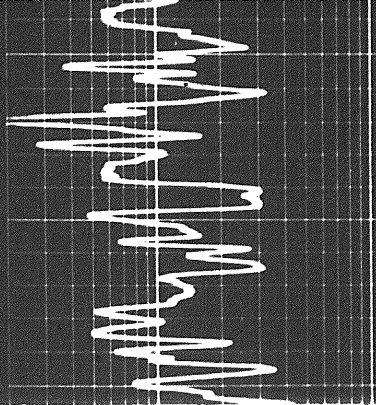
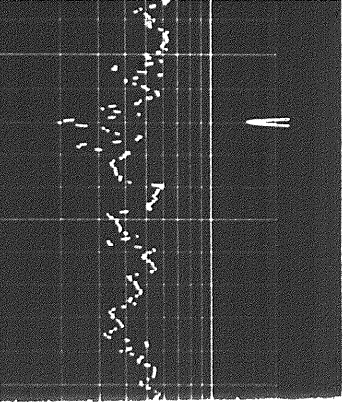
Casing

CASED HOLE

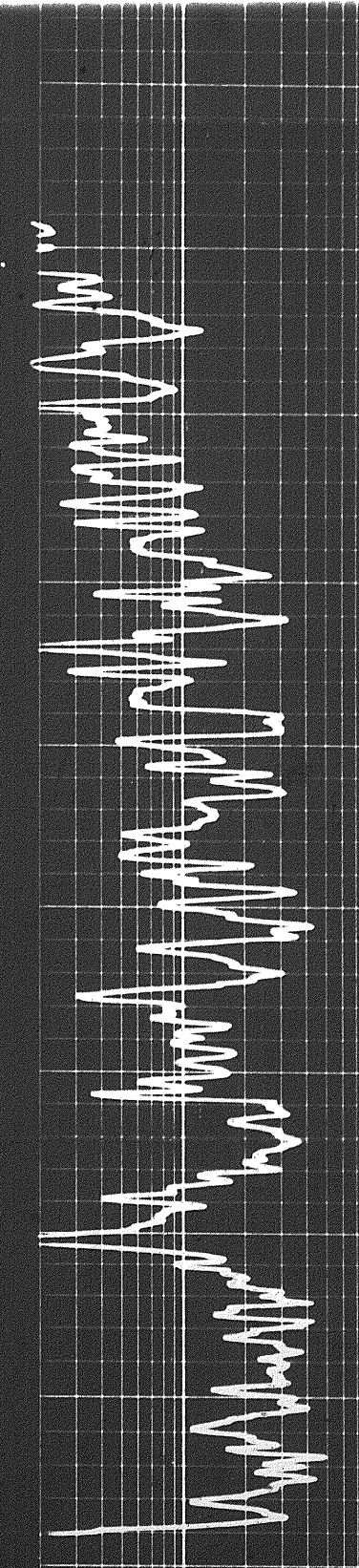
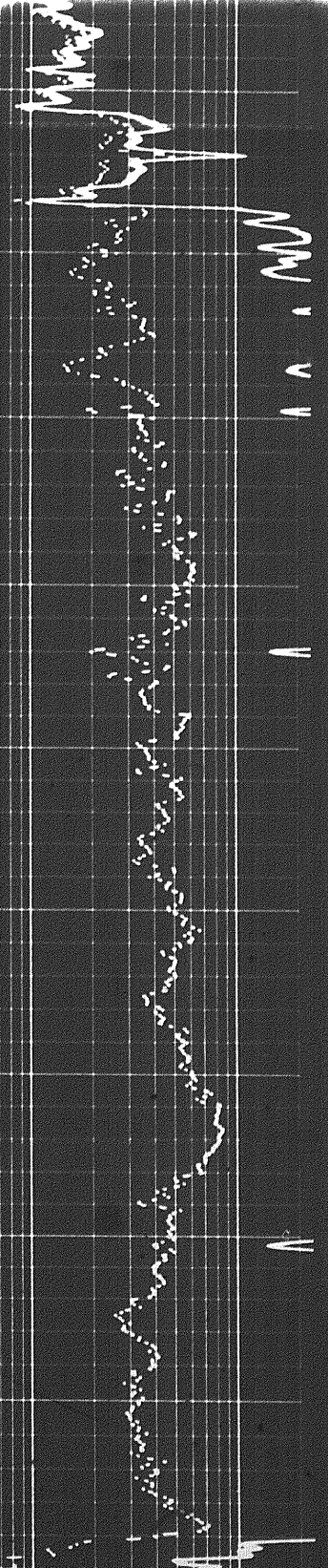
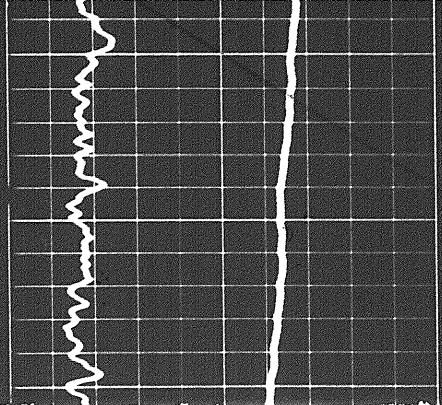
OPEN HOLE



2 of



11890



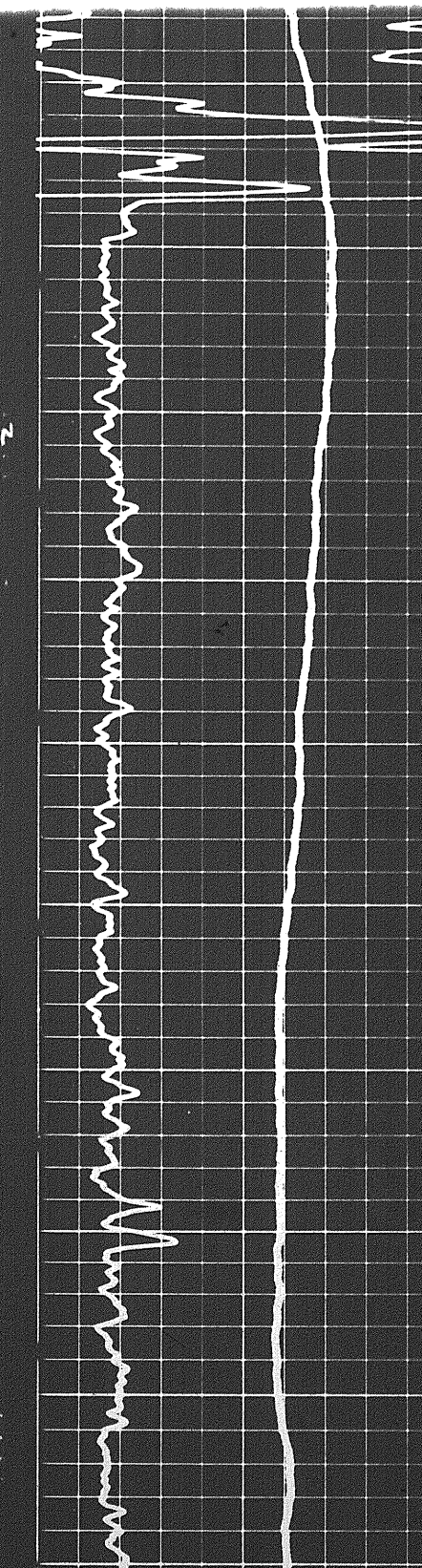
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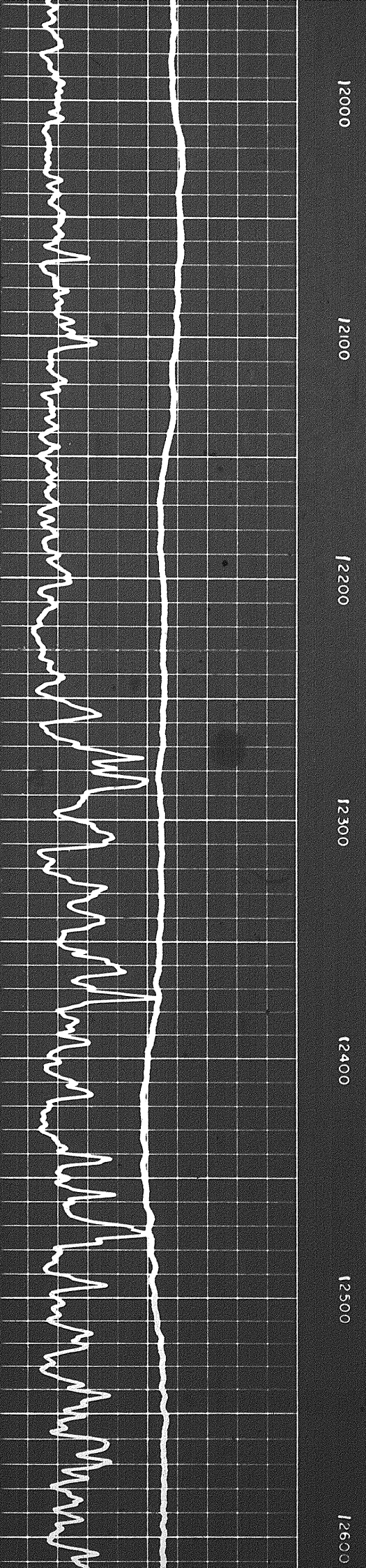
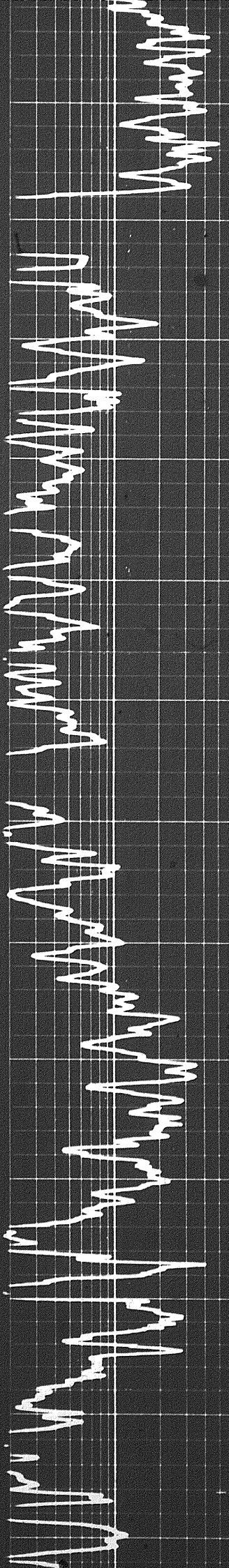
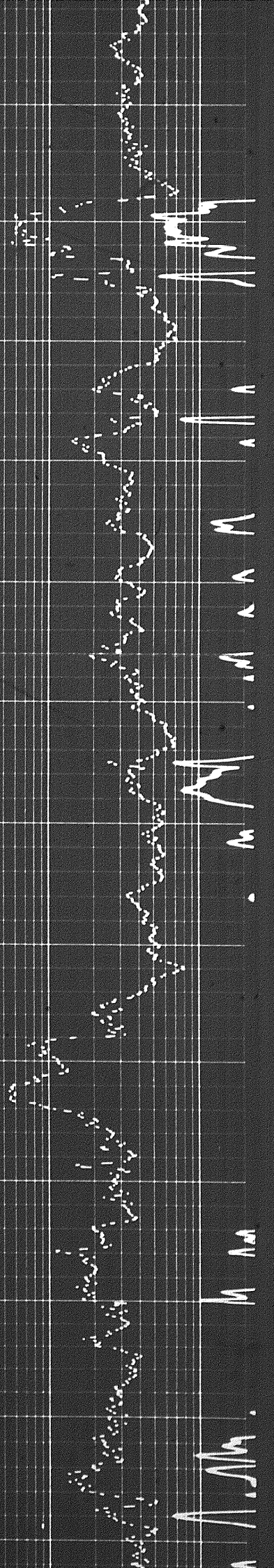
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11900

12000



2



12000

12100

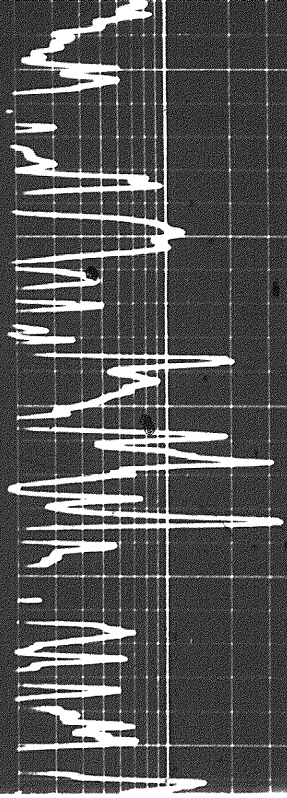
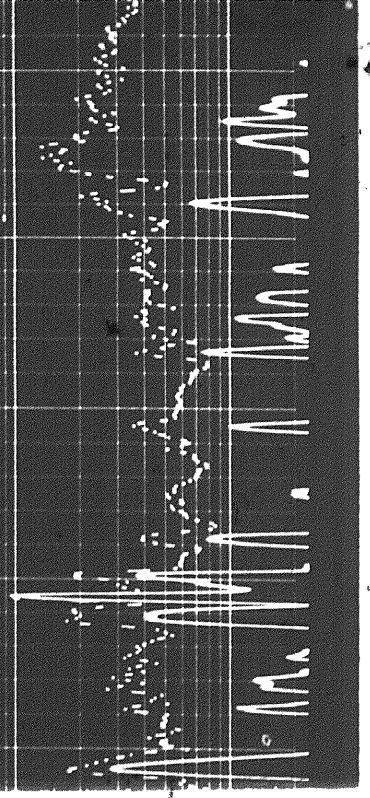
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12300

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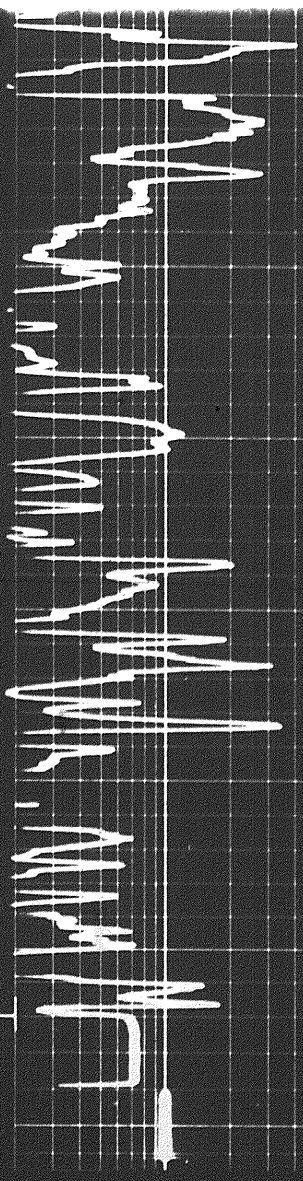
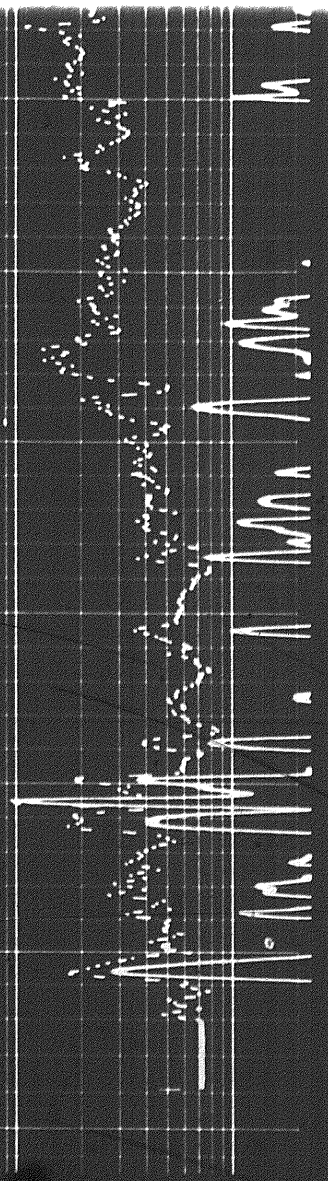
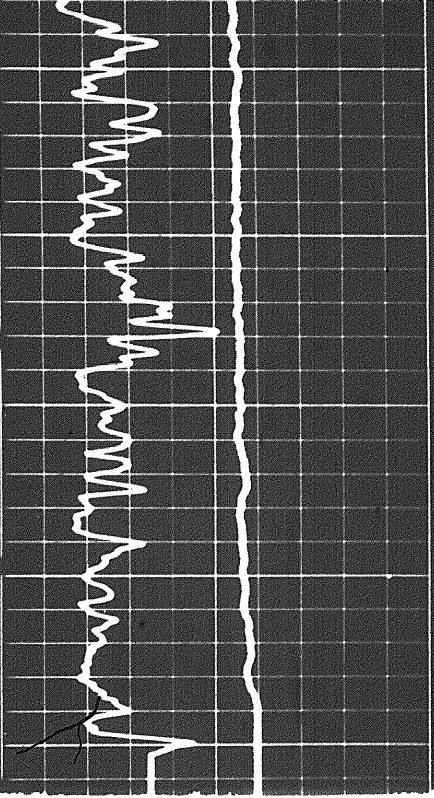
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12600



12600

12700



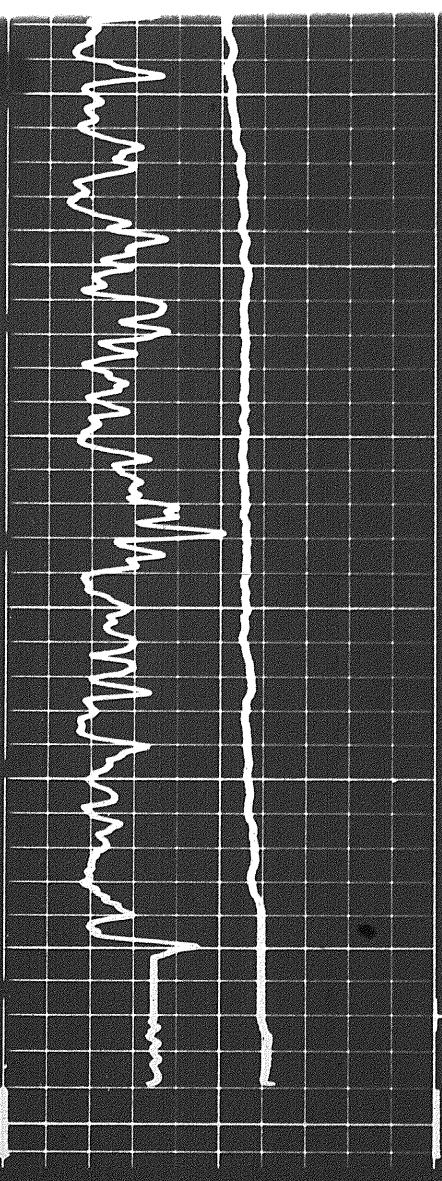
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12600

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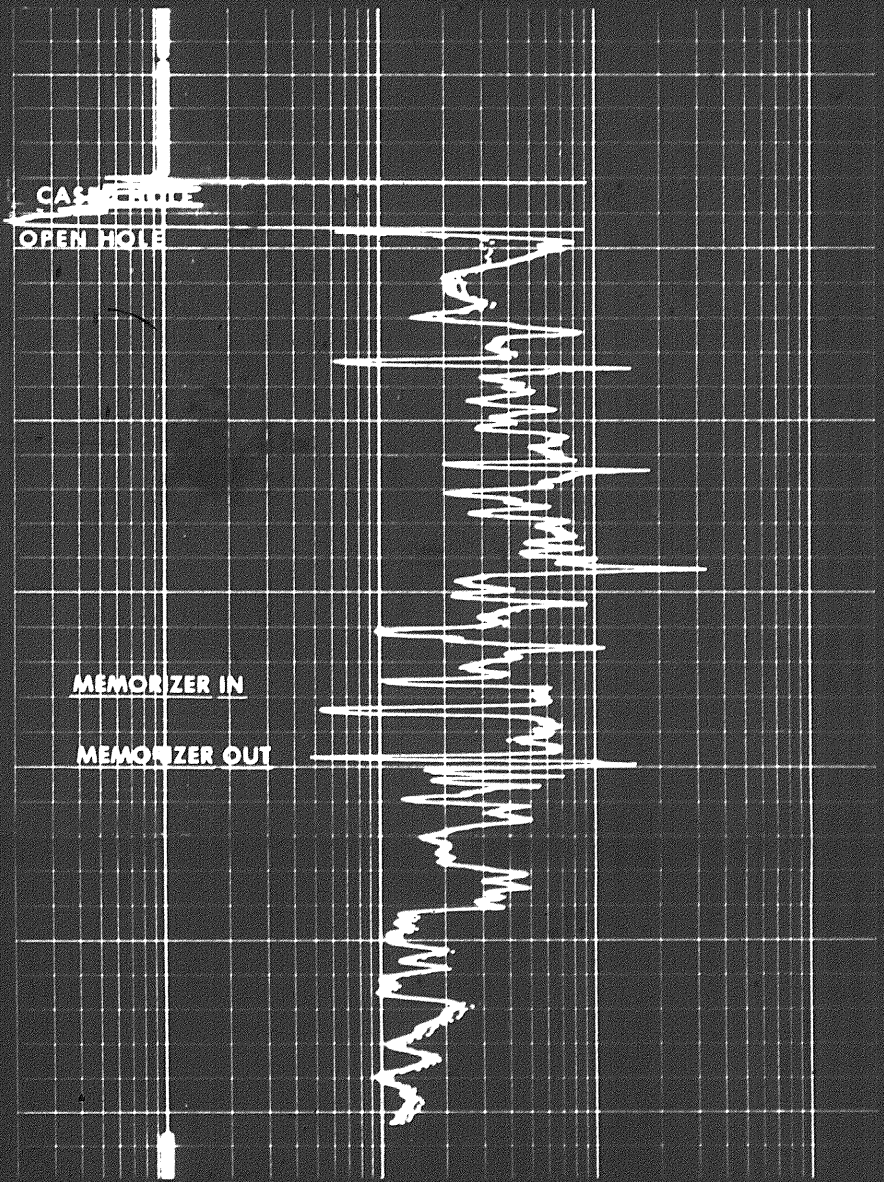
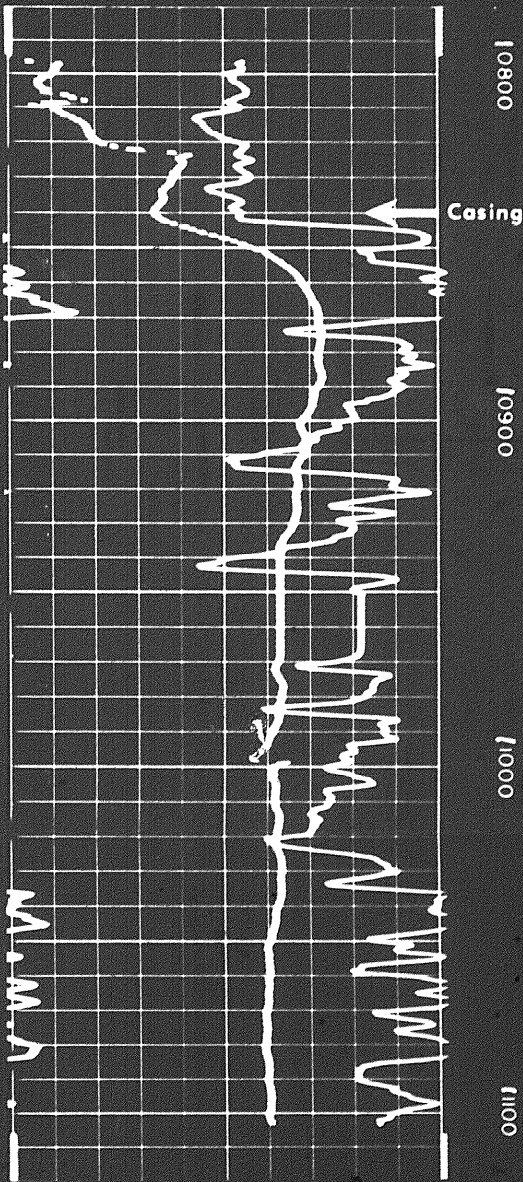
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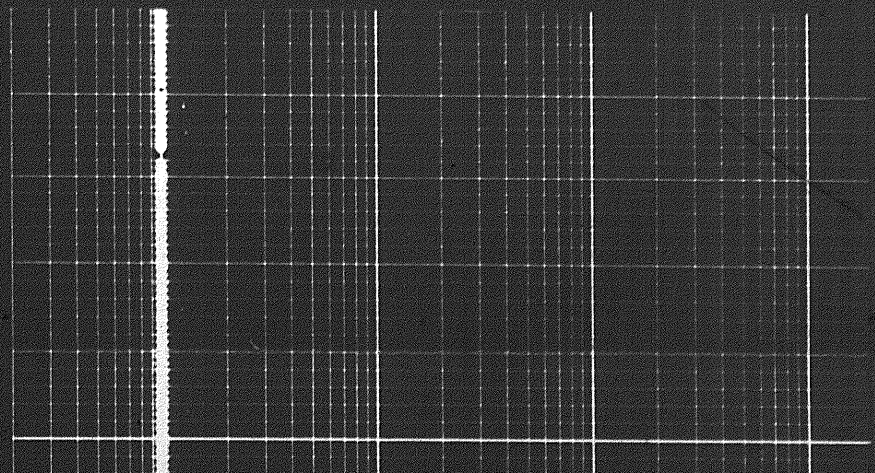
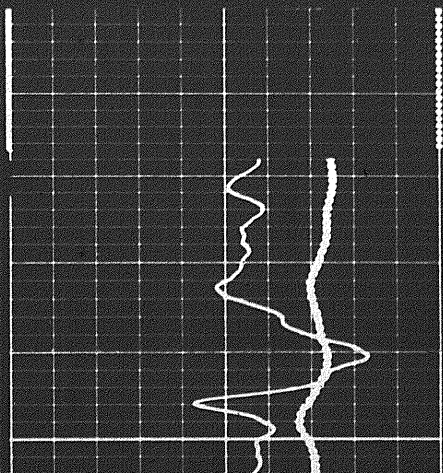


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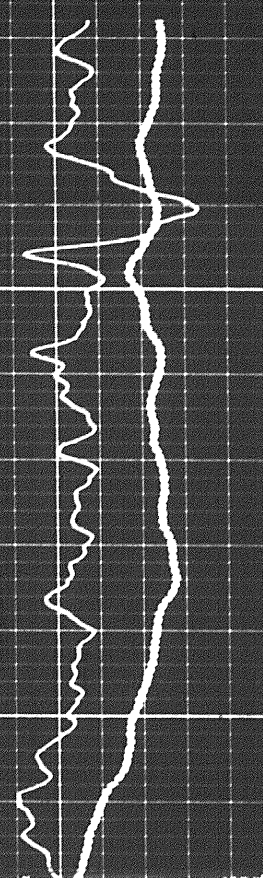
REPEAT SECTION



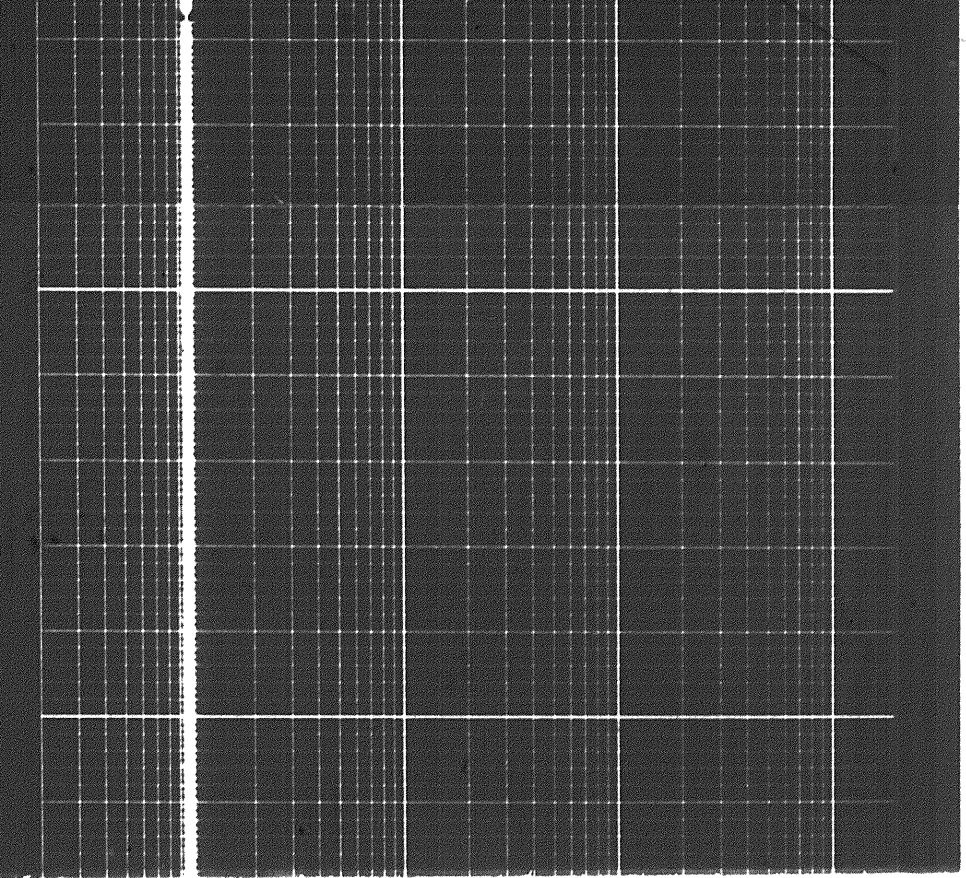
DETAIL LOG
5" = 100'



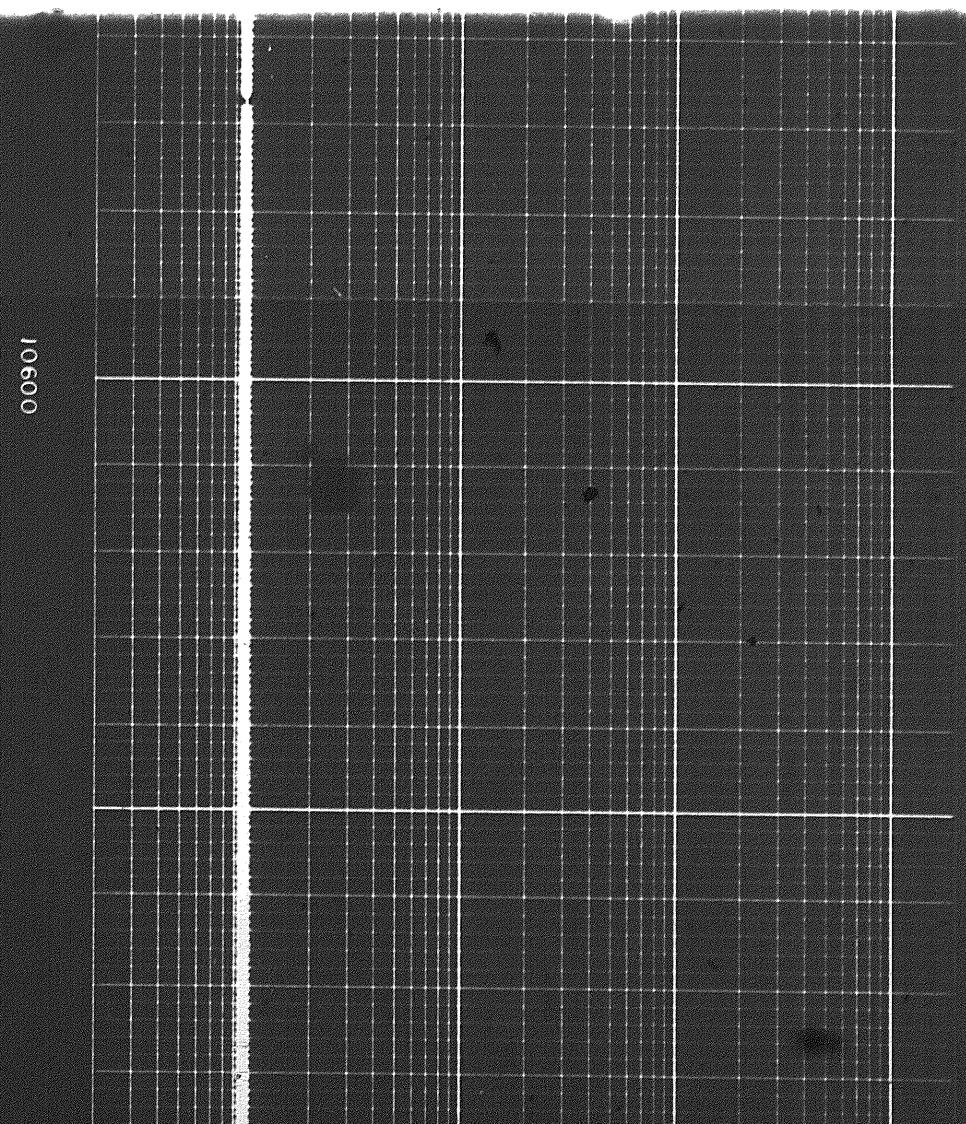
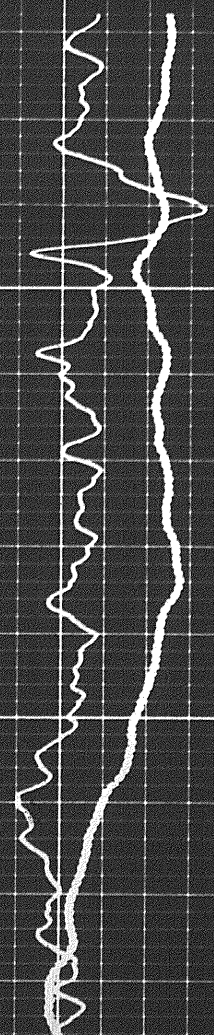
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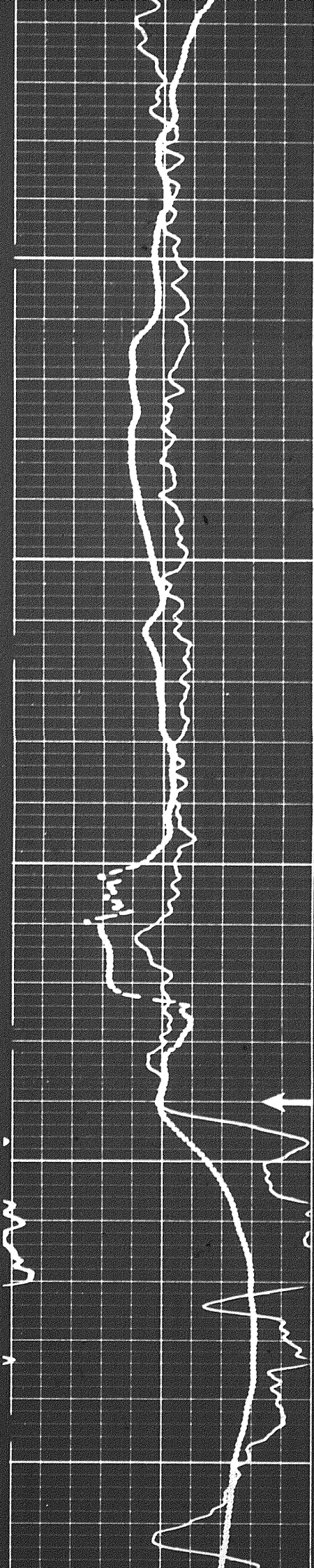


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10600





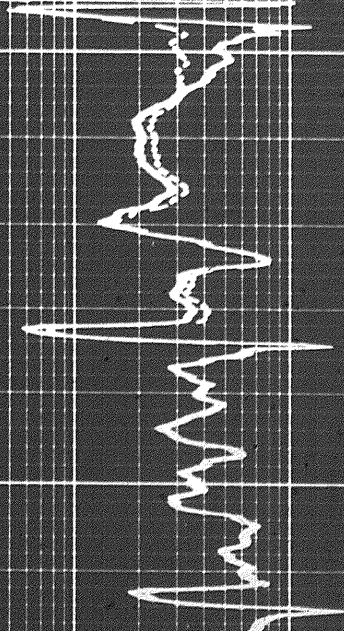
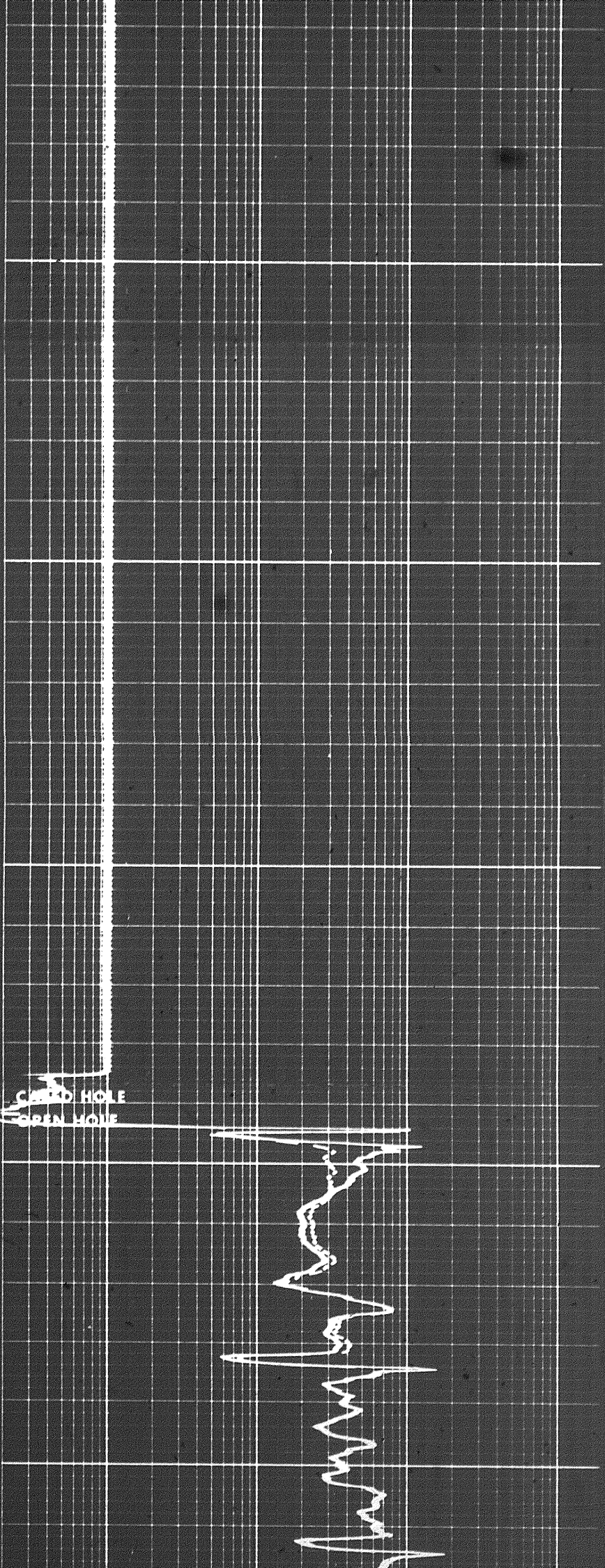
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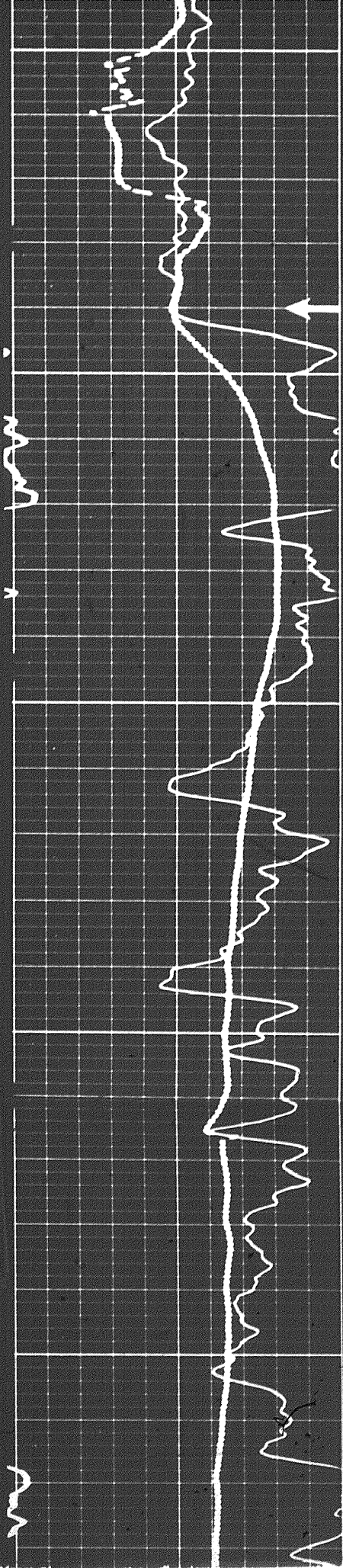
10900

Casing

CASED HOLE
OPEN HOLE



5 of



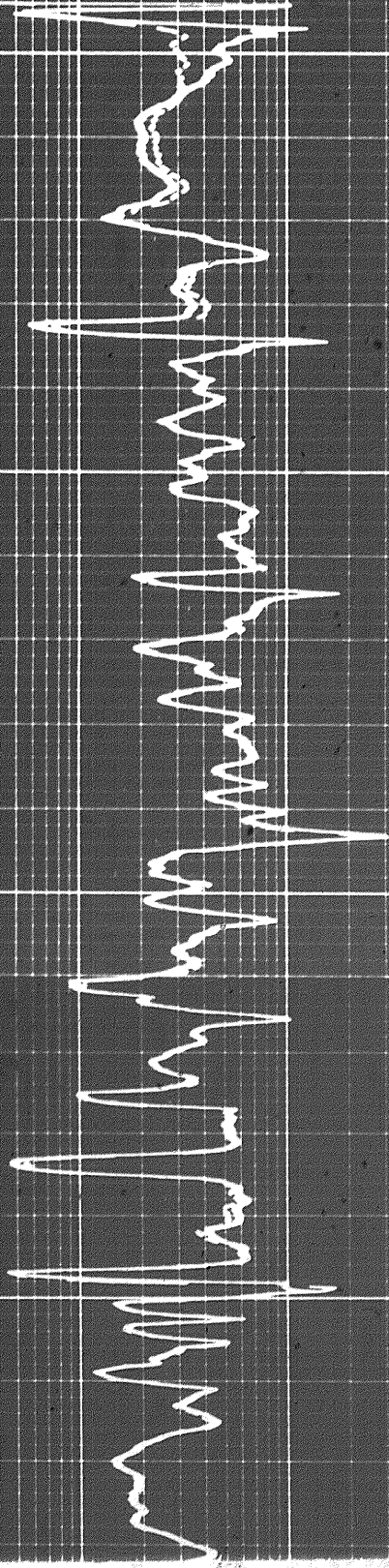
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Casing

10900

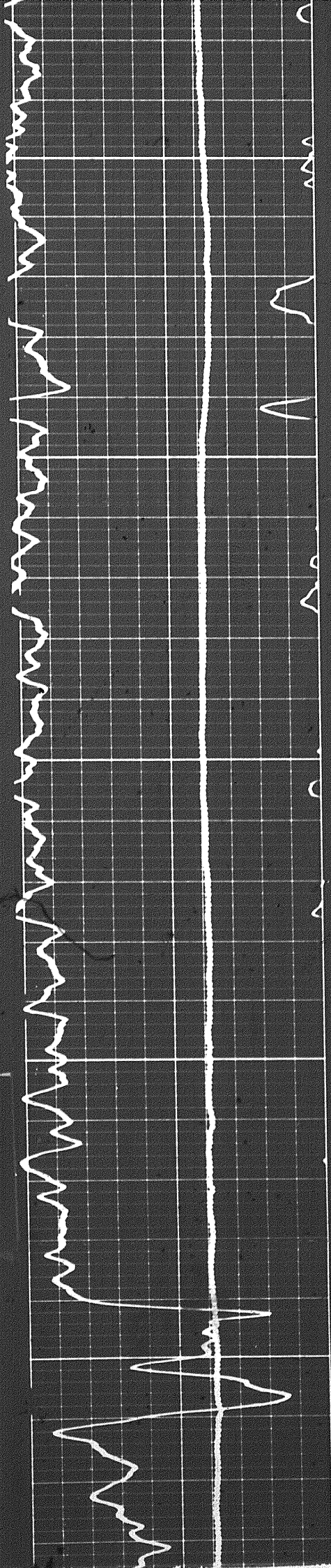
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CASED HOLE
OPEN HOLE



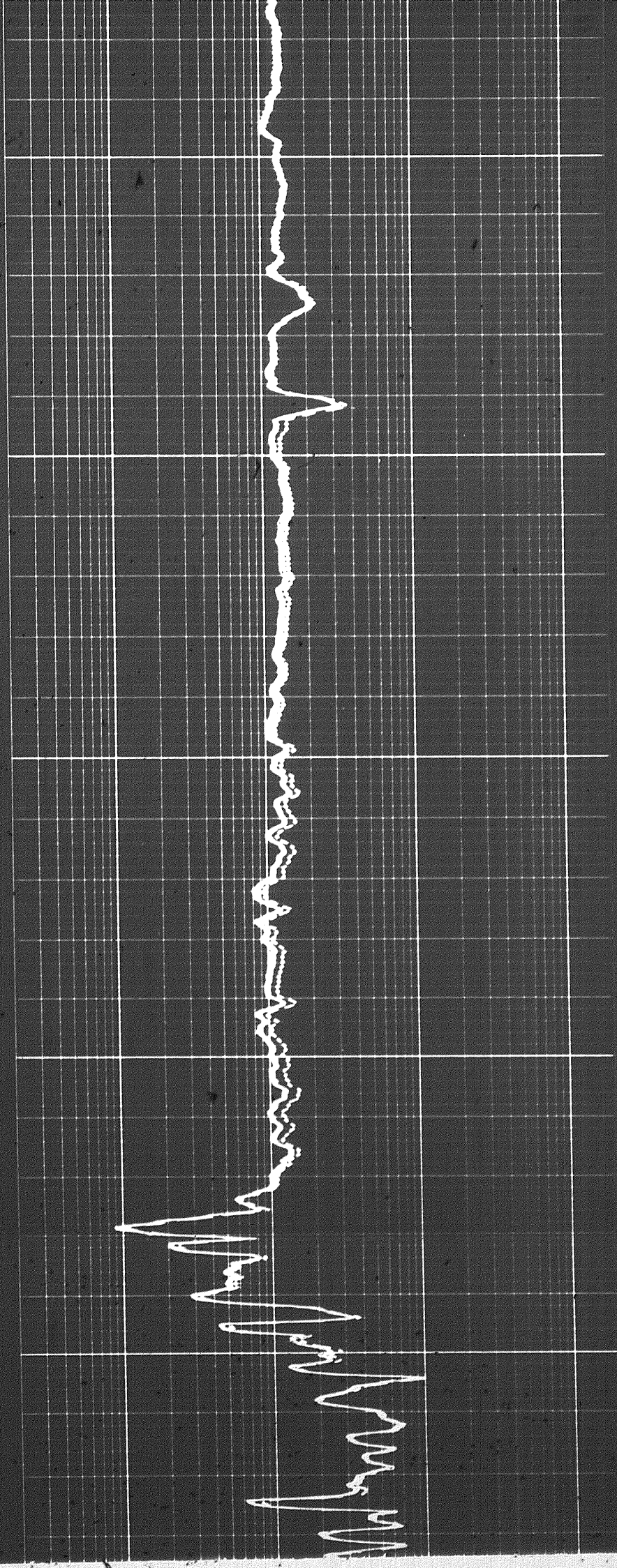
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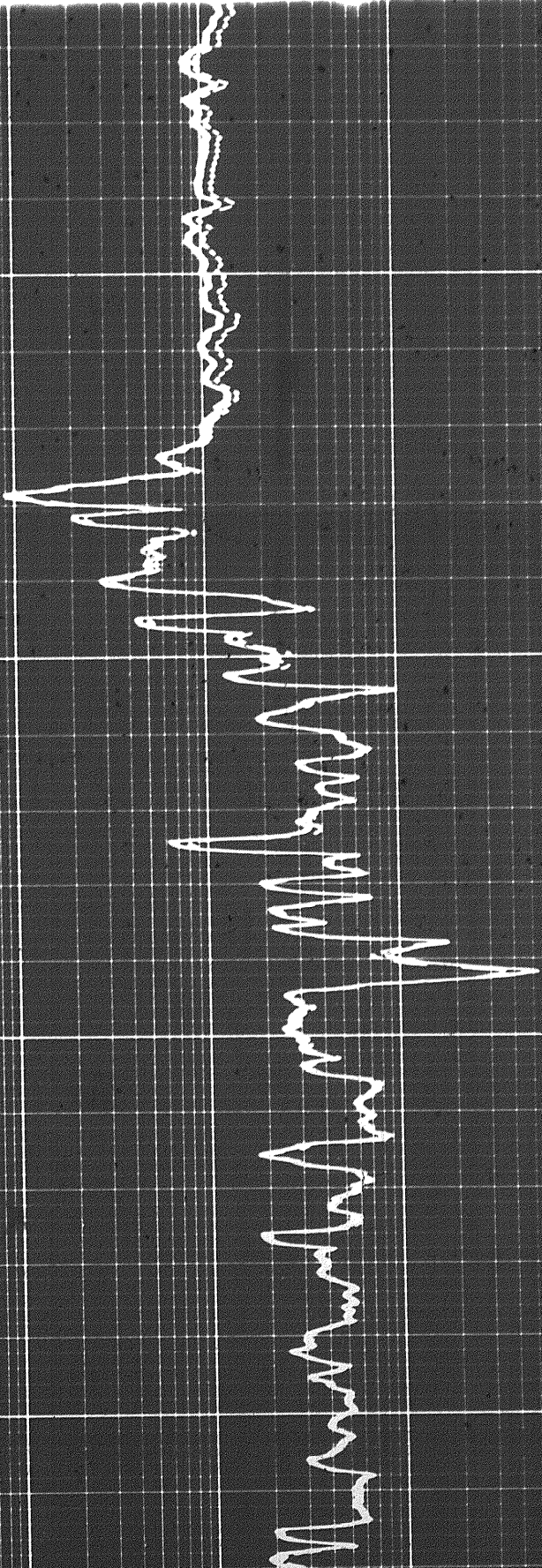
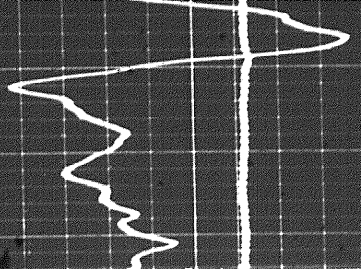
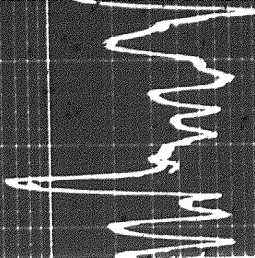
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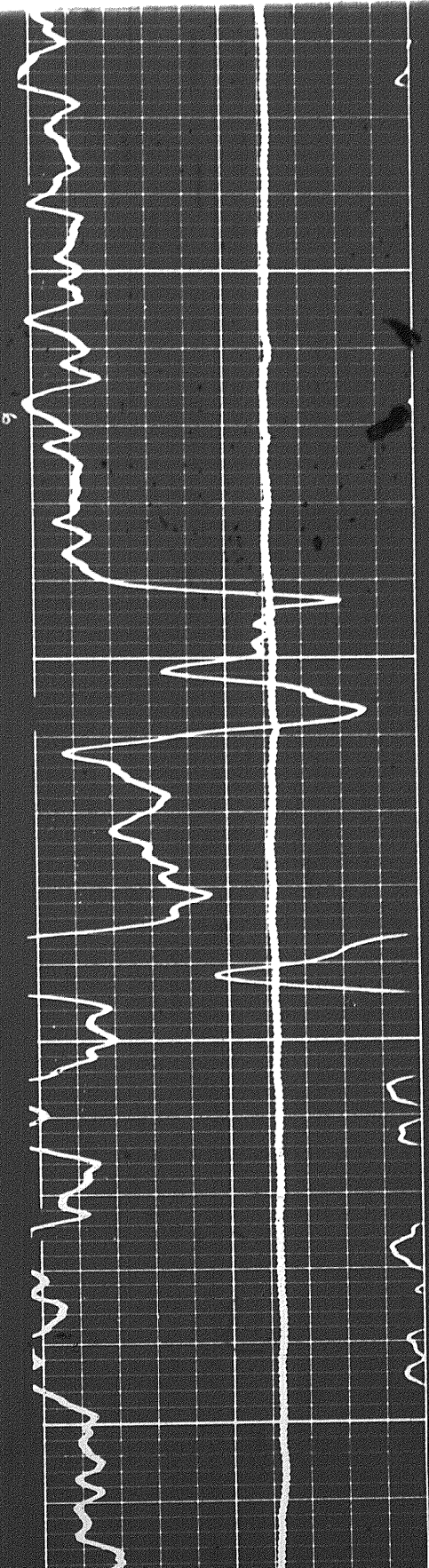
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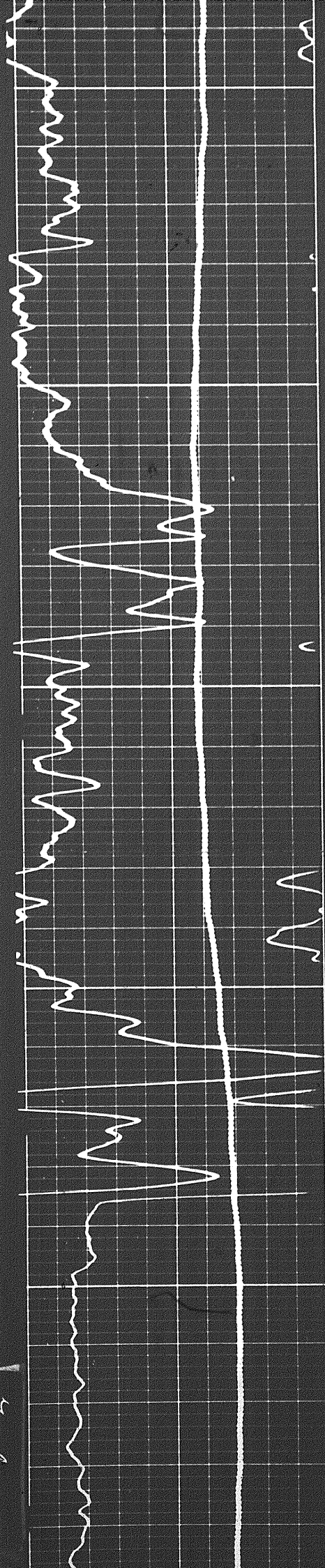
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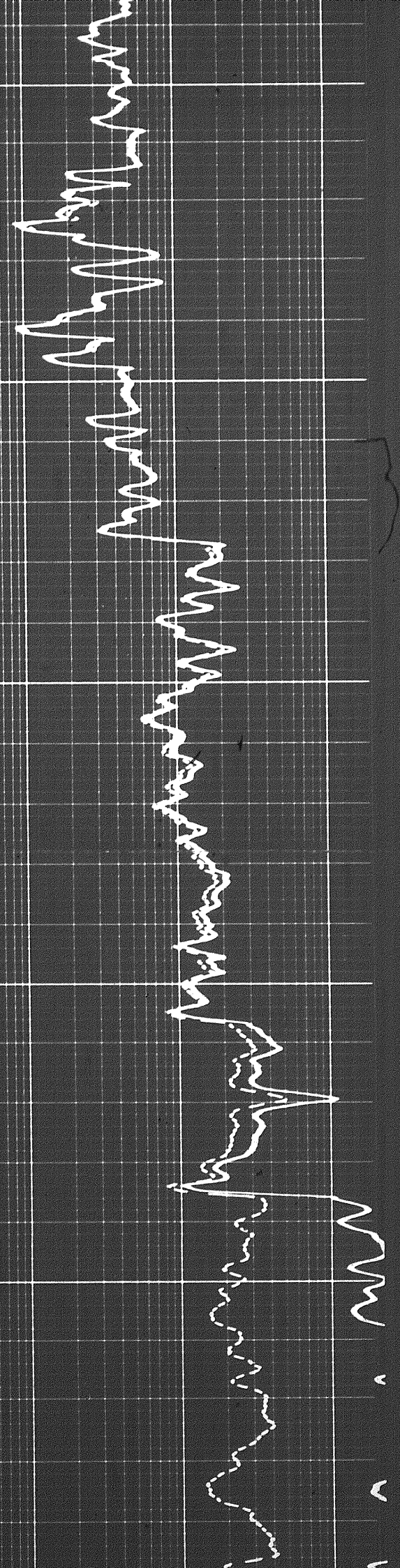
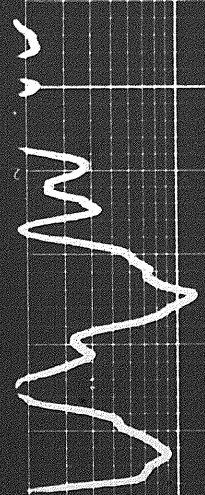
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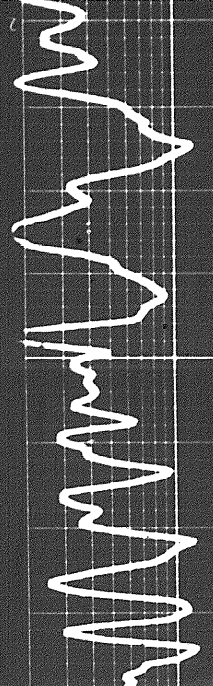
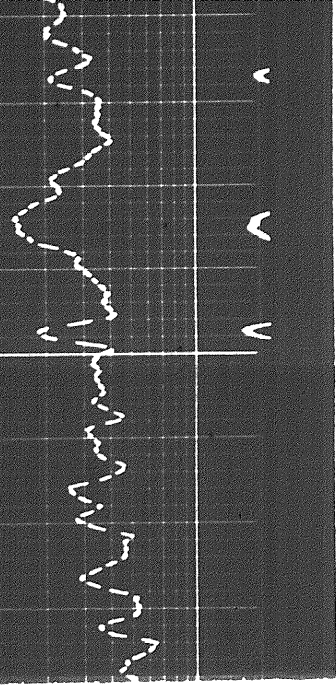
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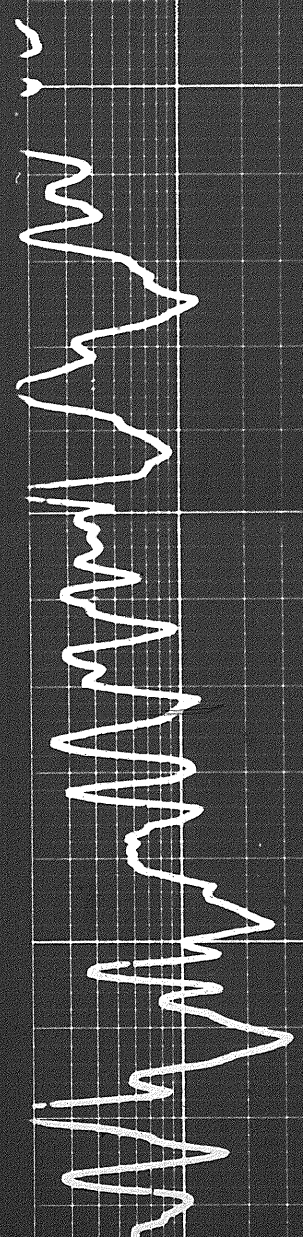
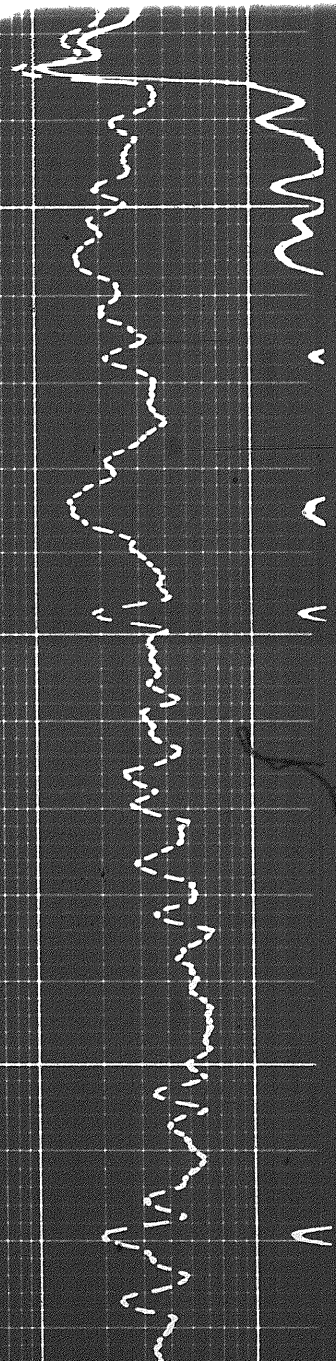
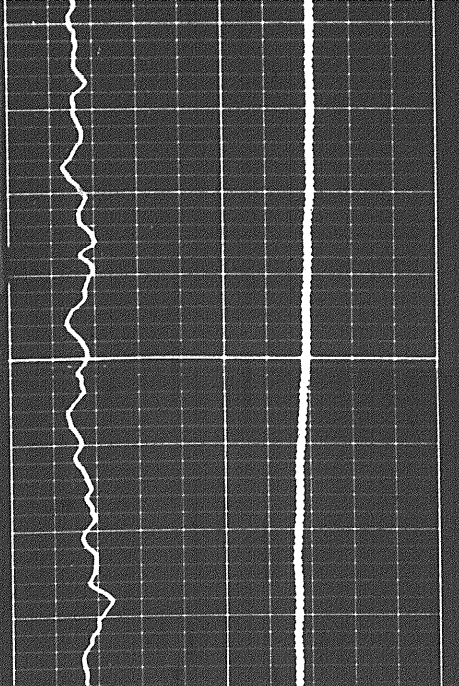
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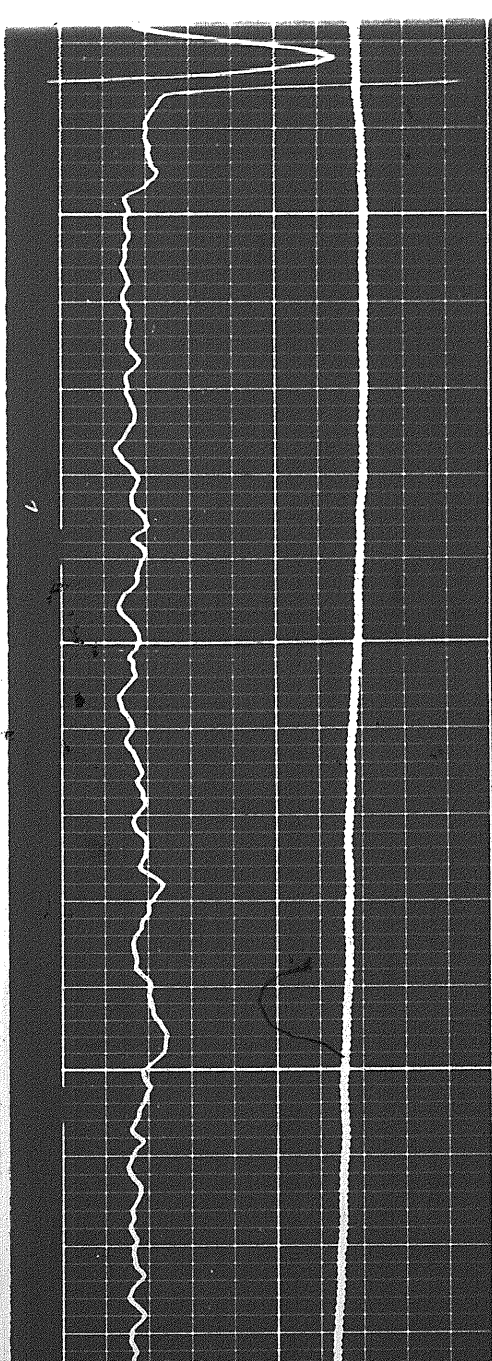


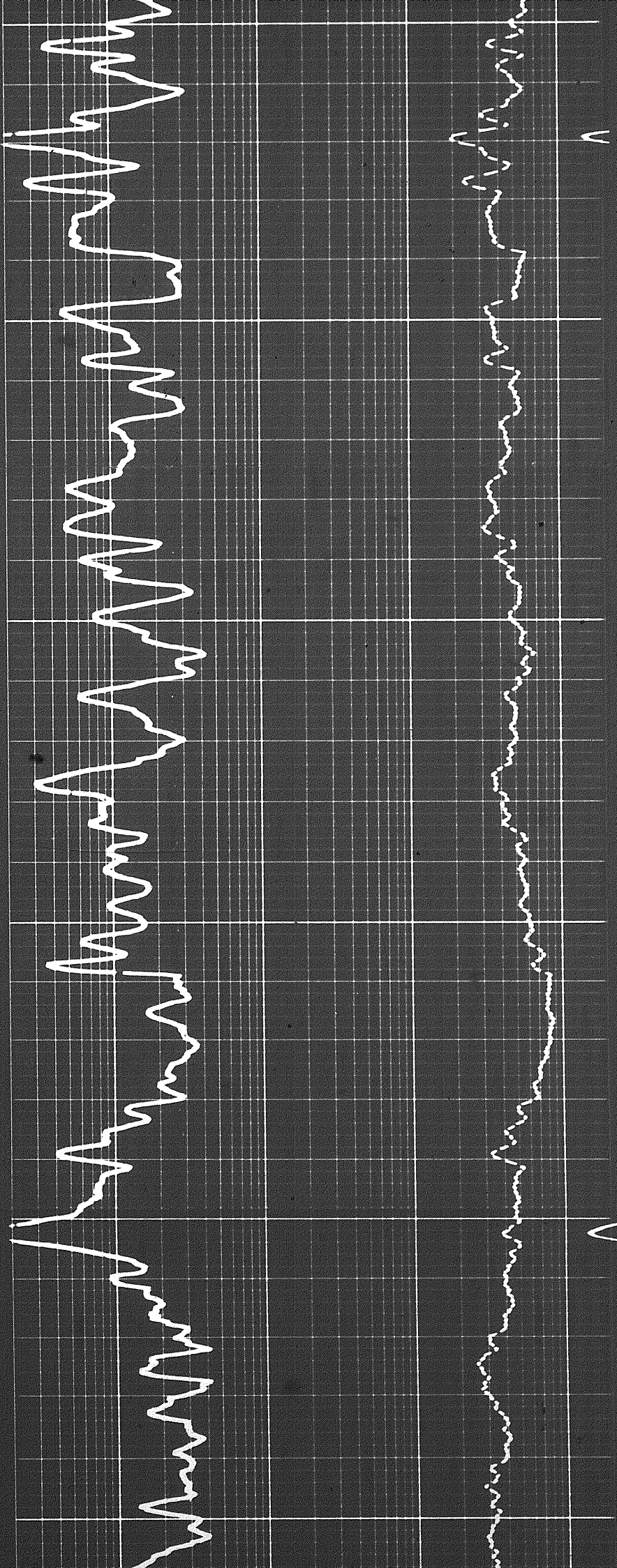


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11700

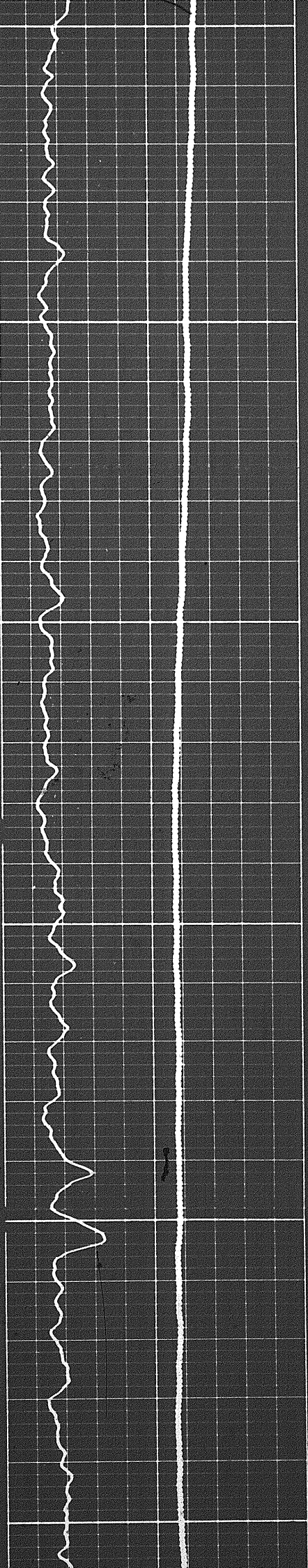


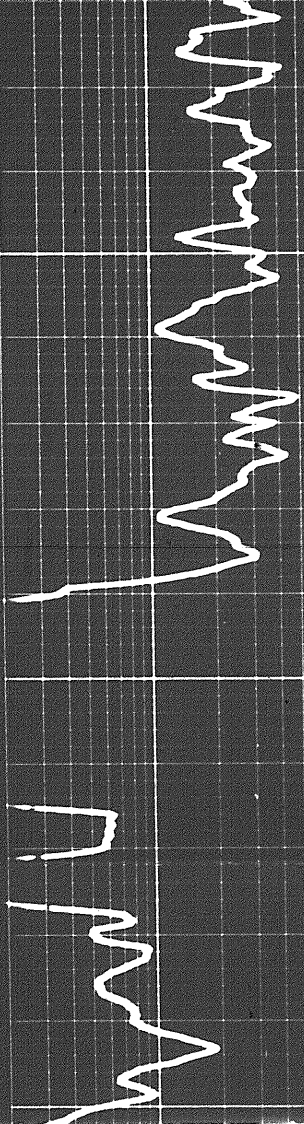
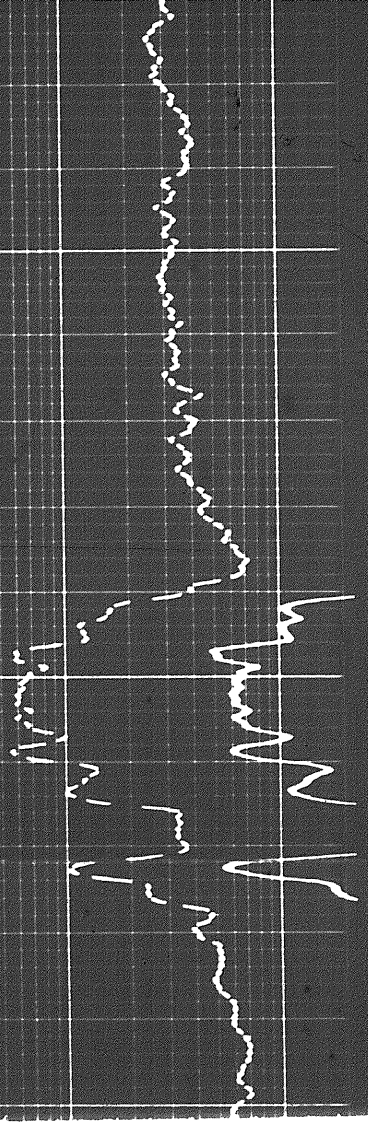


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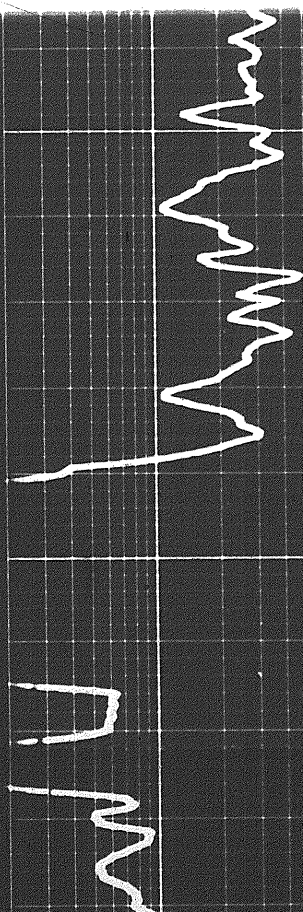
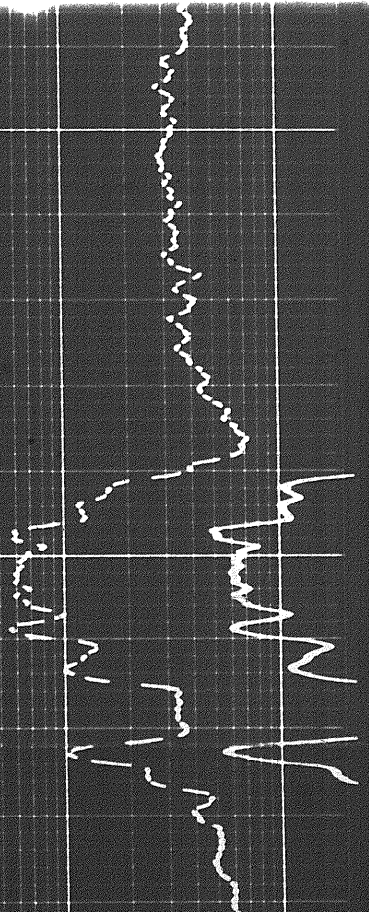
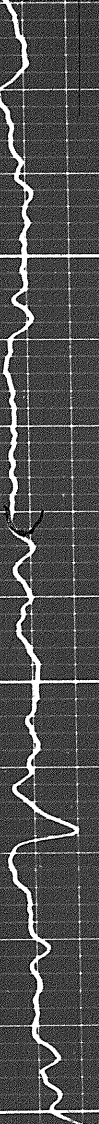
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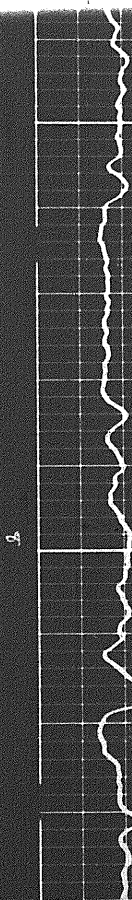


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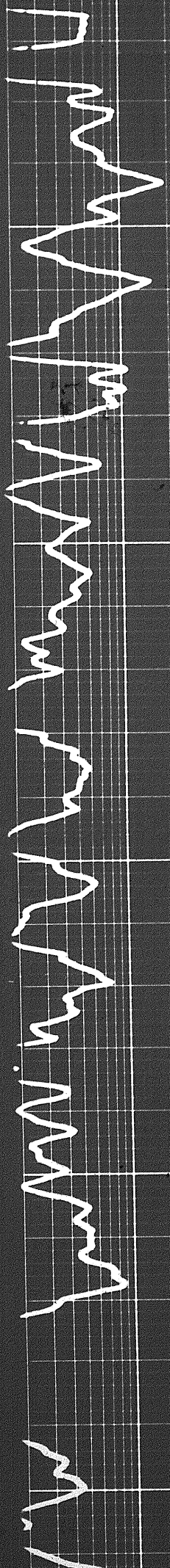
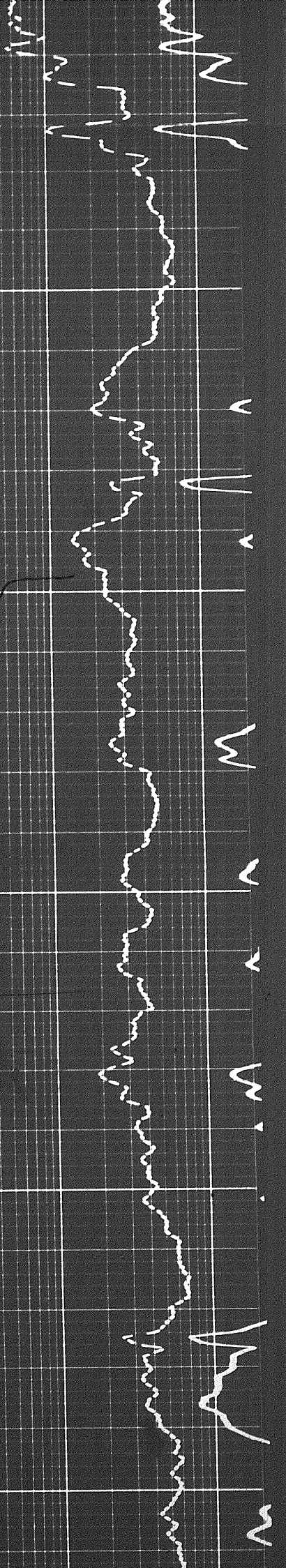
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12000



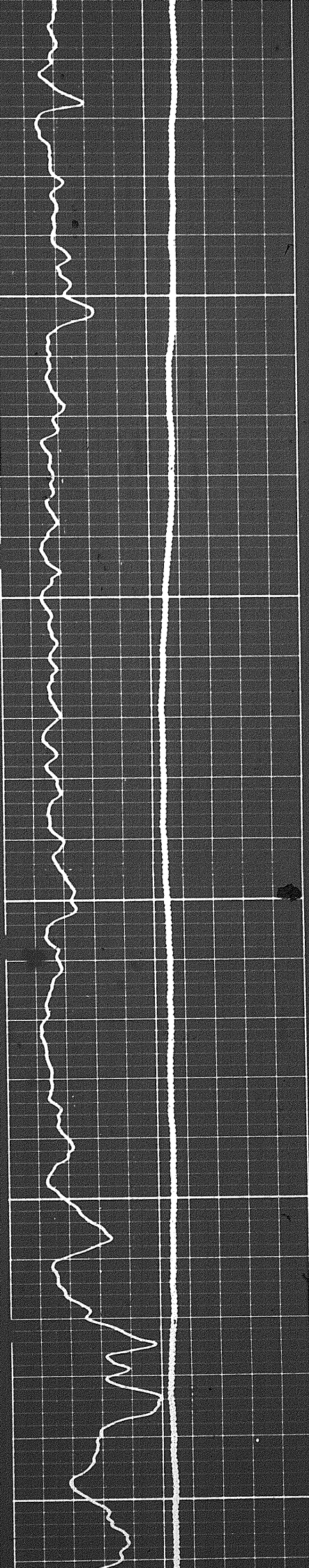
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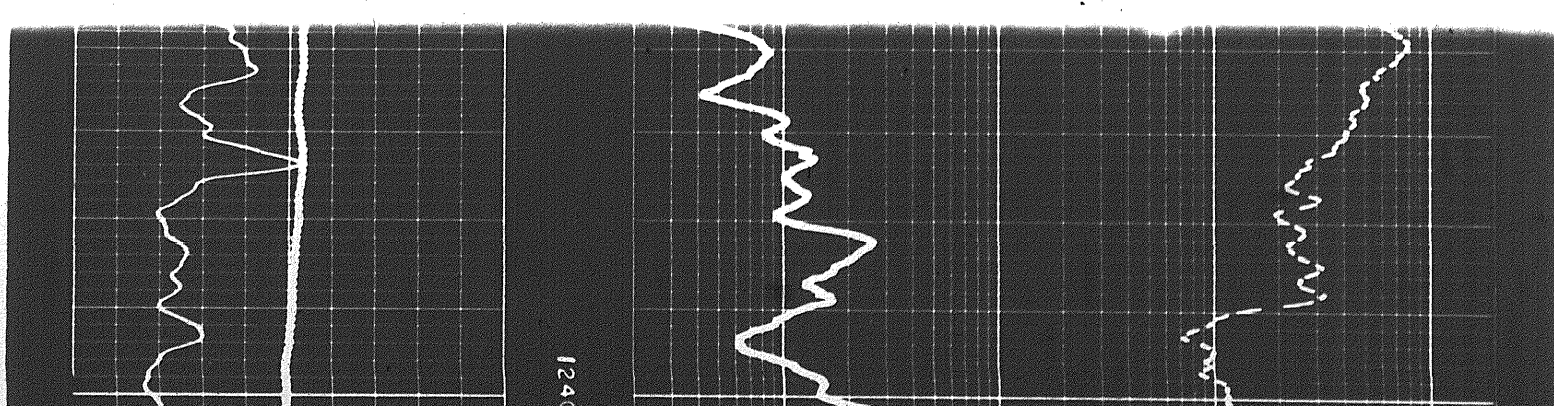
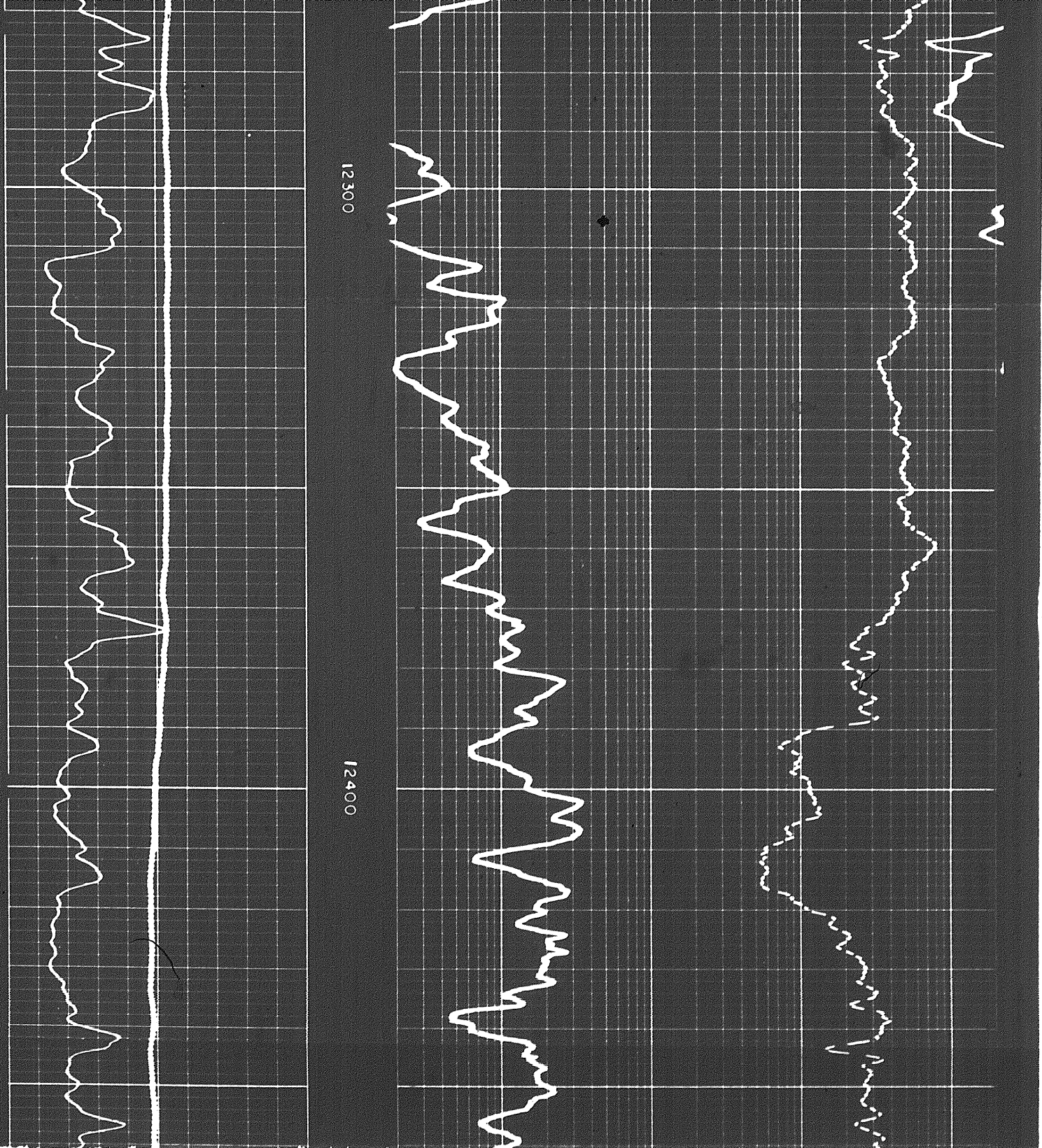


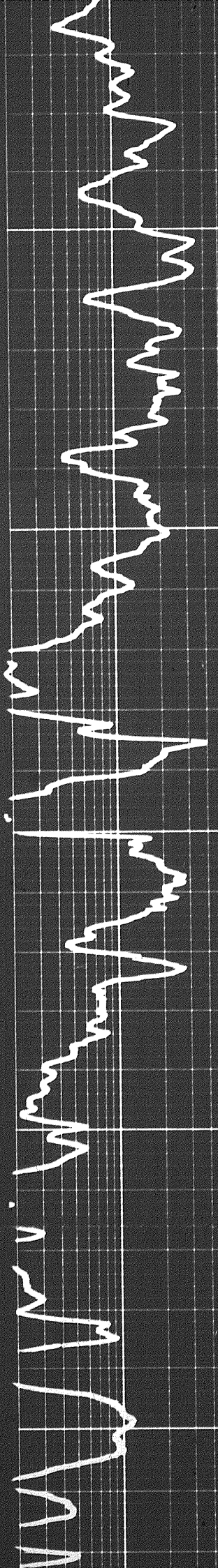
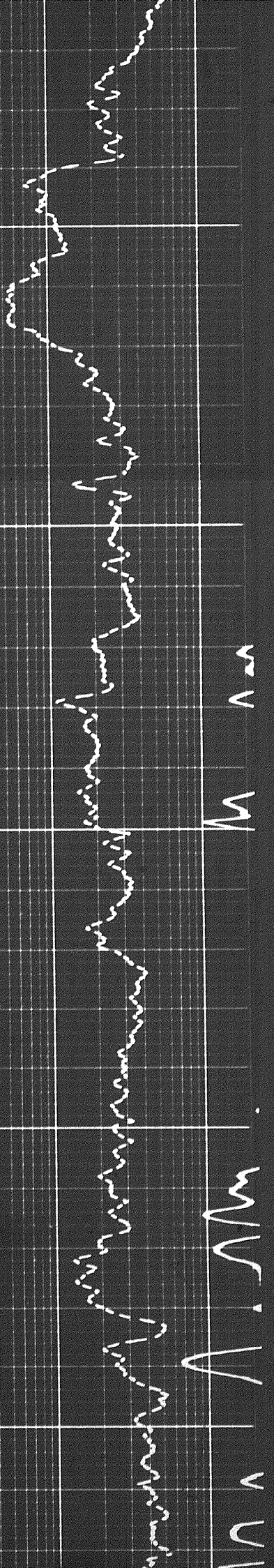
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12200

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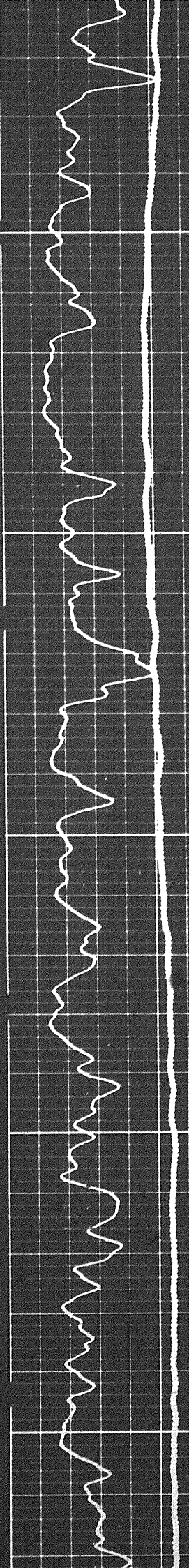




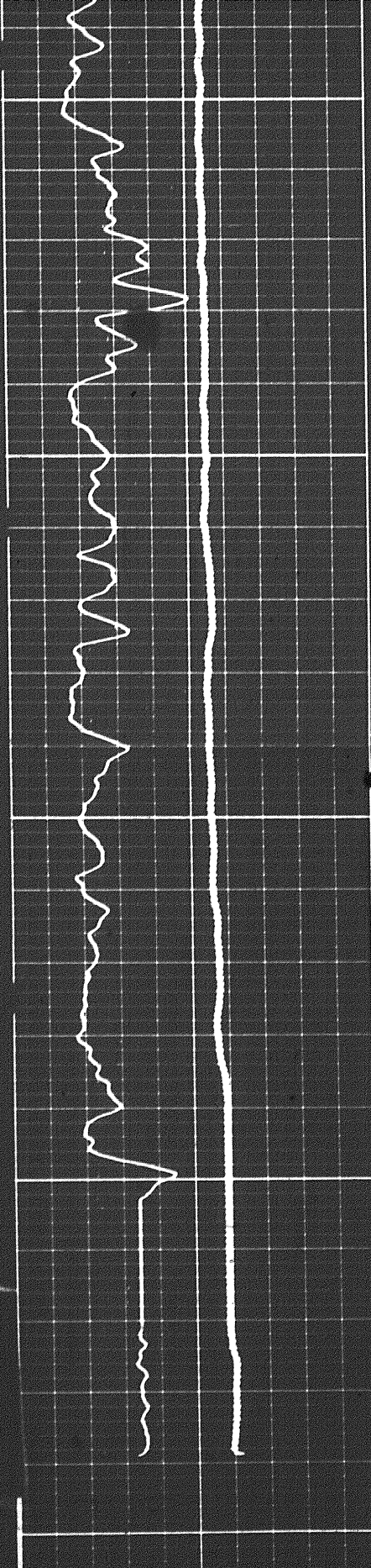
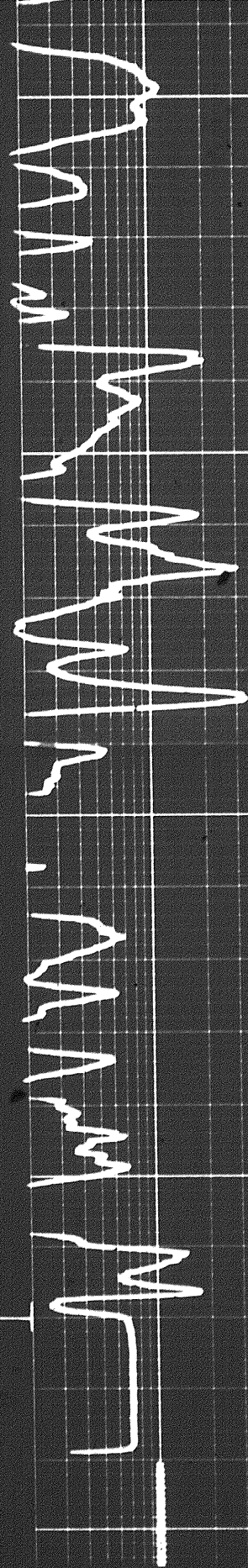
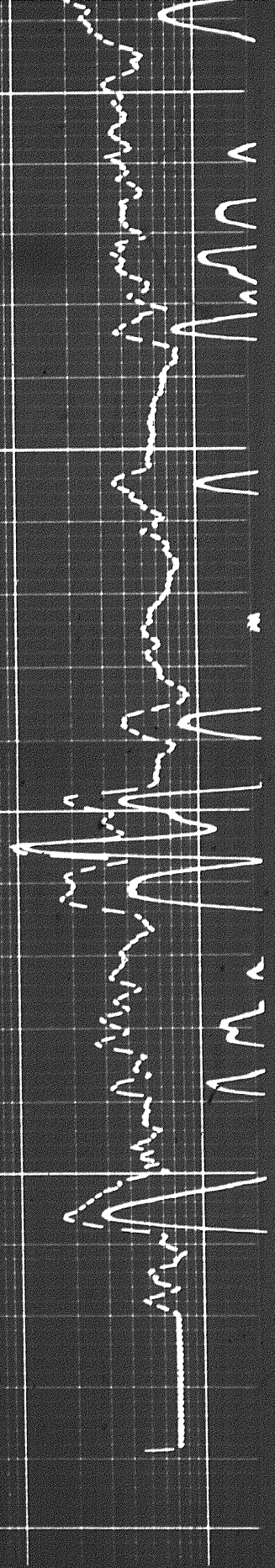
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12500

12600



9



12600

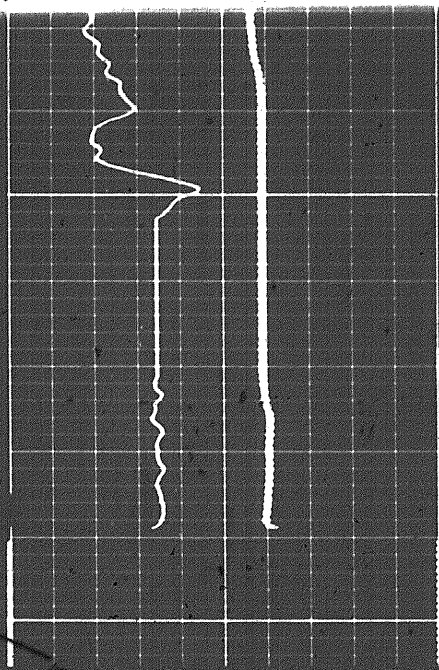
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FR

12800

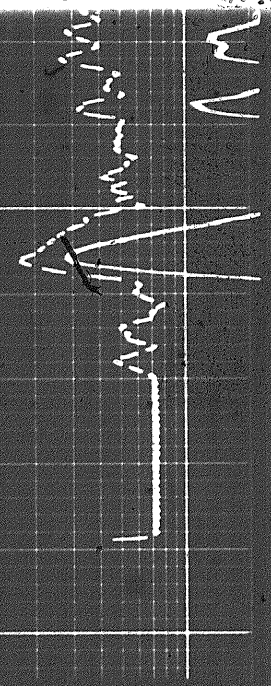
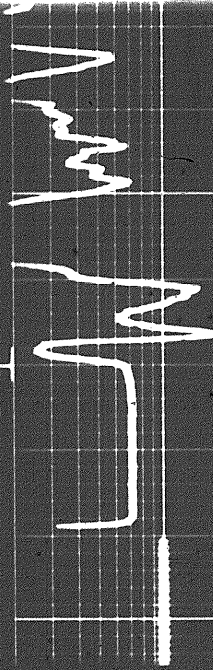
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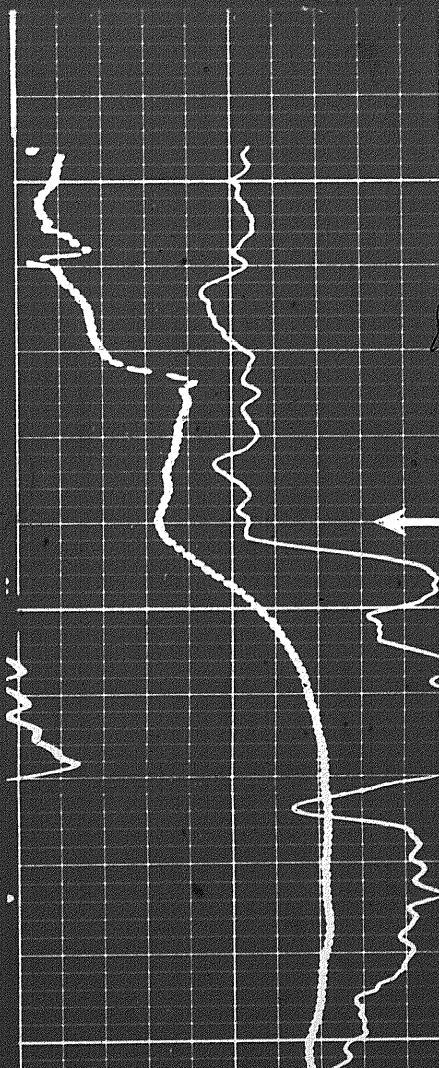


FR

12800



REPEAT SECTION



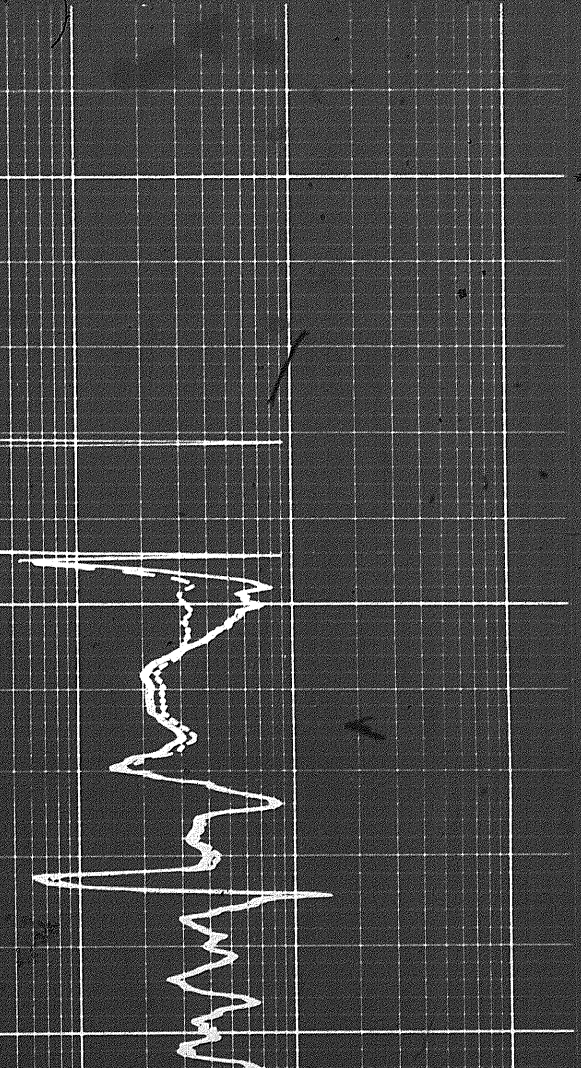
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Casing

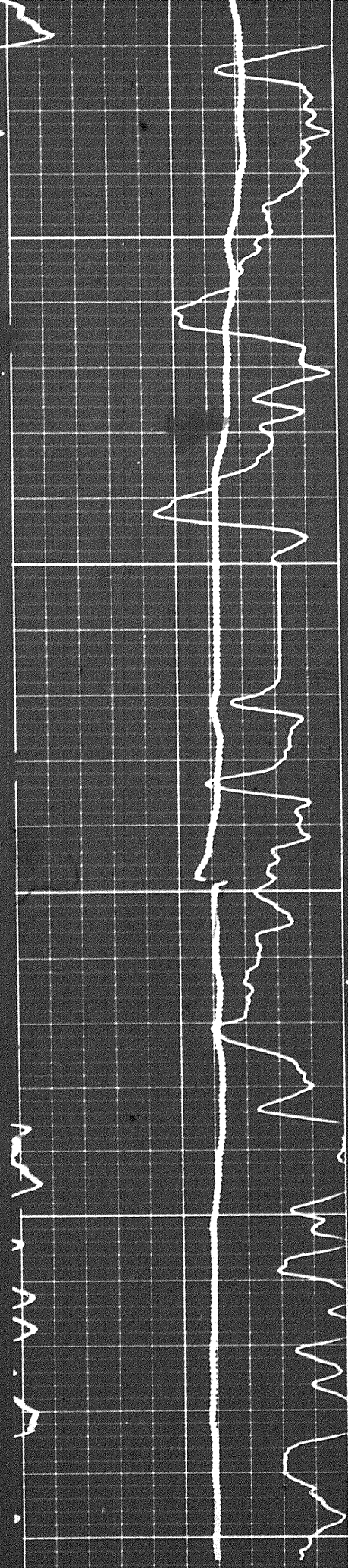
10900



CASED HOLE
OPEN HOLE



1121



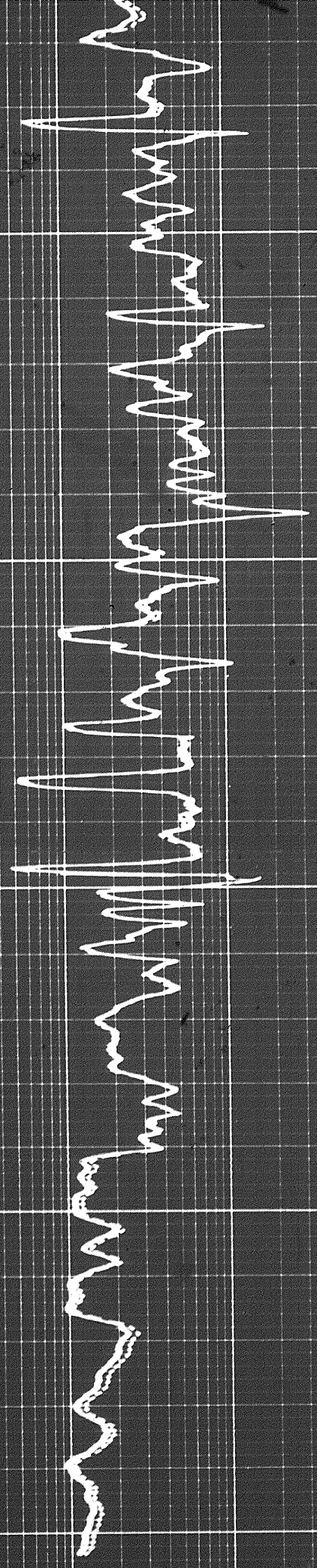
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1000

11100

MEMORIZER IN

MEMORIZER OUT

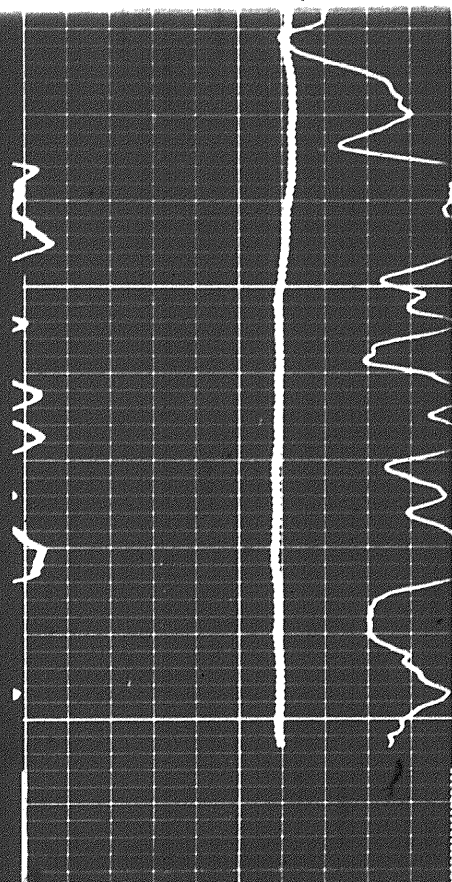


Speed

Sens. 15

T.C. 1

1100



Sens. 15

T.C. 1

Zero div. to left

15

300

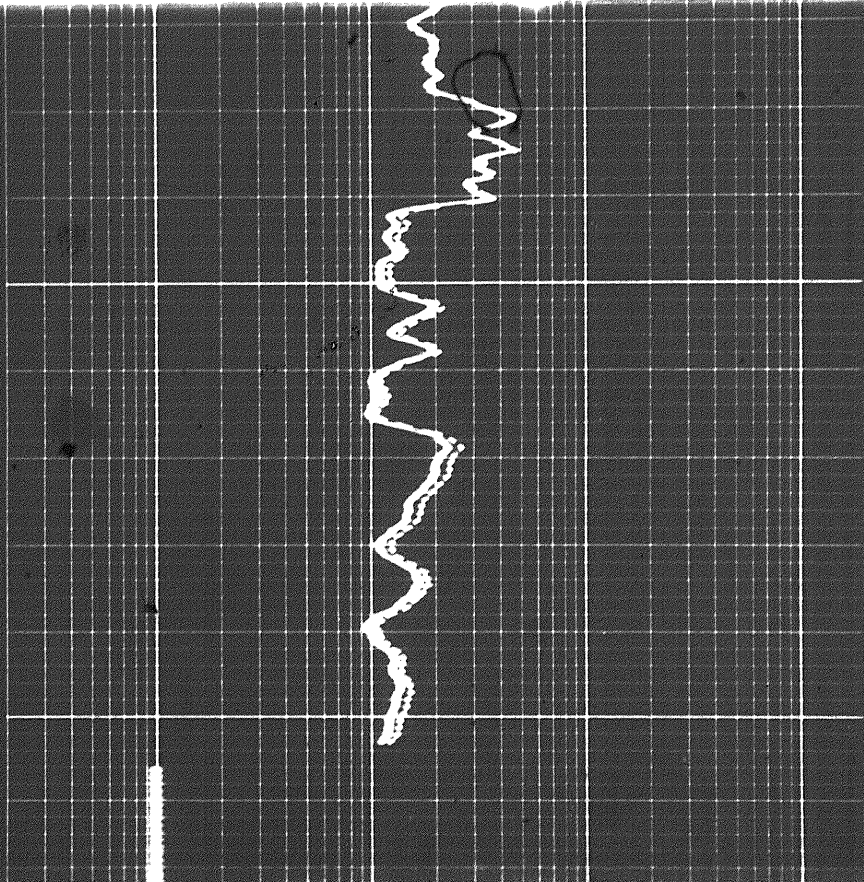
GAMMA RAY
API UNITS

- | +
20

SPONTANEOUS-POTENTIAL
MILLIVOLTS

DEPTHS

1100



SHALLOW LATEROLOG

0.2 1.0 10 100 1000 2000

DEEP LATEROLOG

0.2 1.0 10 100 1000 2000

RESISTIVITY
OHMS. M²/M



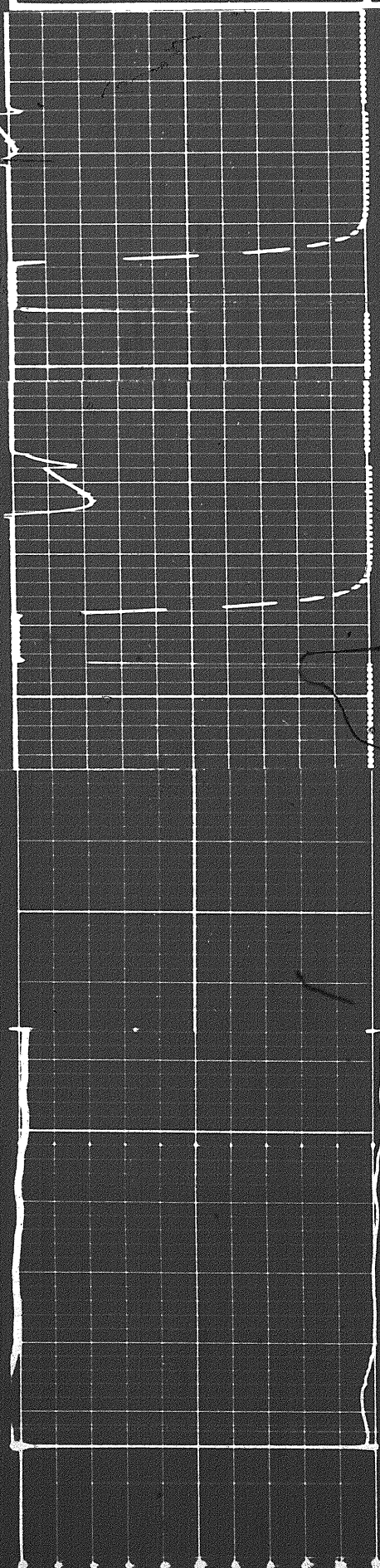
DEEP LATEROLOG



SPONTANEOUS-POTENTIAL
MILLIVOLTS

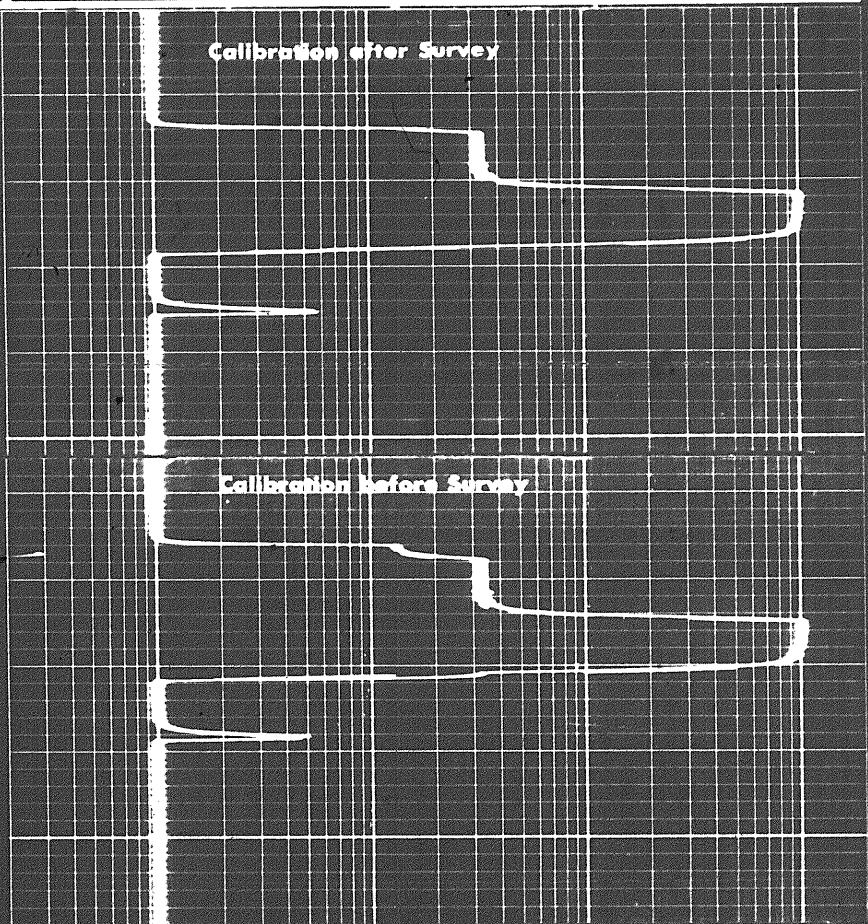
DEPTHS

RESISTIVITY
OHMS M²/M

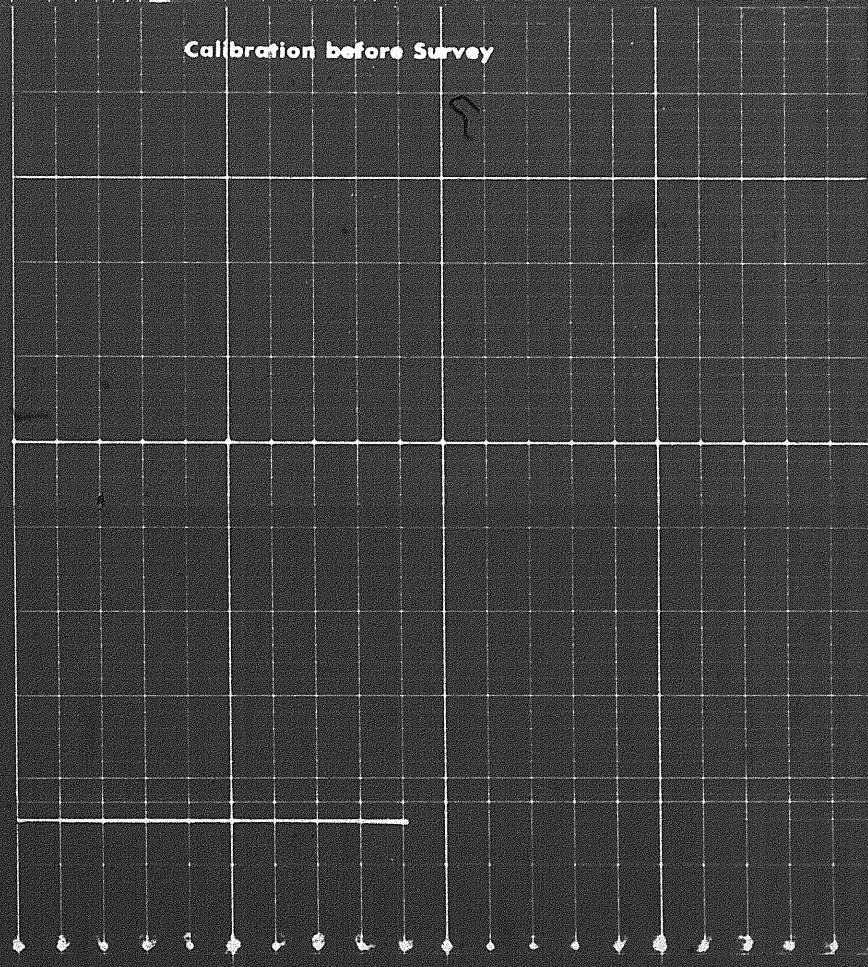


1
5
4
3
2
1
1
5
4
3
2
1

Calibration after Survey



Calibration before Survey



Calibration before Survey

5

4

120

120

3

2

1

SEQUENTIAL DUAL LATEROLOG CALIBRATION CODING

- 1. MECHANICAL ZERO
- 2. CABLE BALANCE ADJUST - LLd ONLY

Speed in FPM

Sens. 15 T.C. 1
 Zero div. to left 15
 15 30

GAMMA RAY
API UNITS

- | ↔ | +
20

SPONTANEOUS-POTENTIAL
MILLIVOLTS

SHALLOW LATEROLOG

0.2 1.0 10 100 1000 2000

DEEP LATEROLOG

0.2 1.0 10 100 1000 2000

DEPTHS

RESISTIVITY
OHMS M²/M

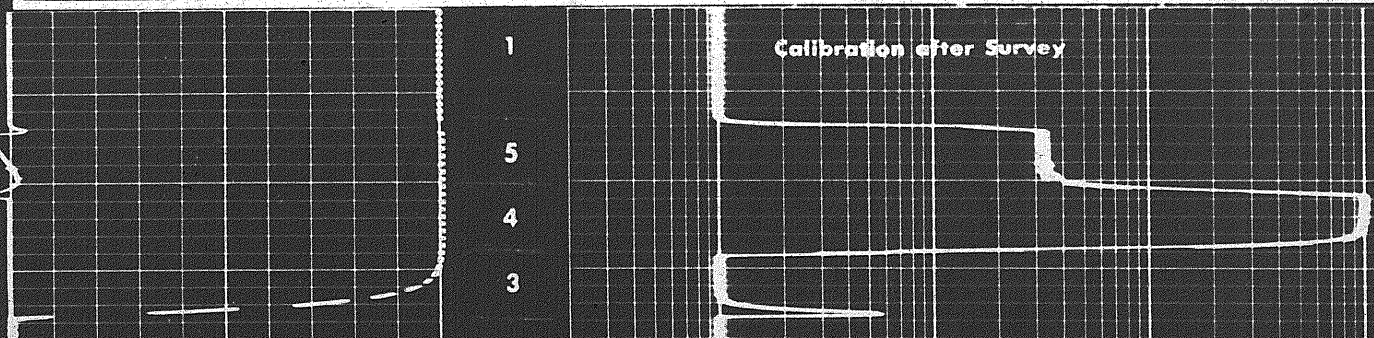
1

5

4

3

Calibration after Survey



Calibration after Survey

1

5

4

3

2

1

Calibration before Survey

1

5

4

3

2

1

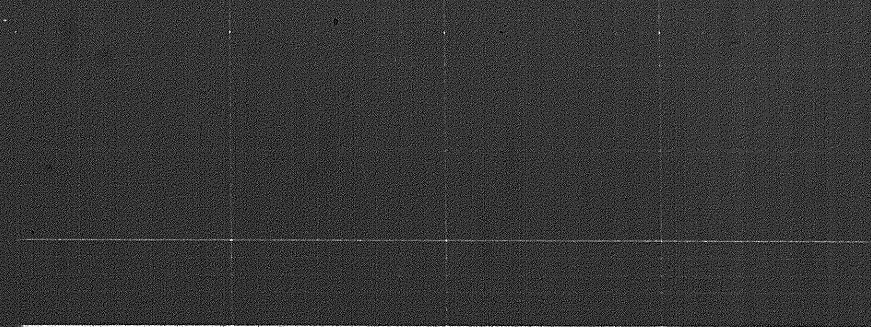
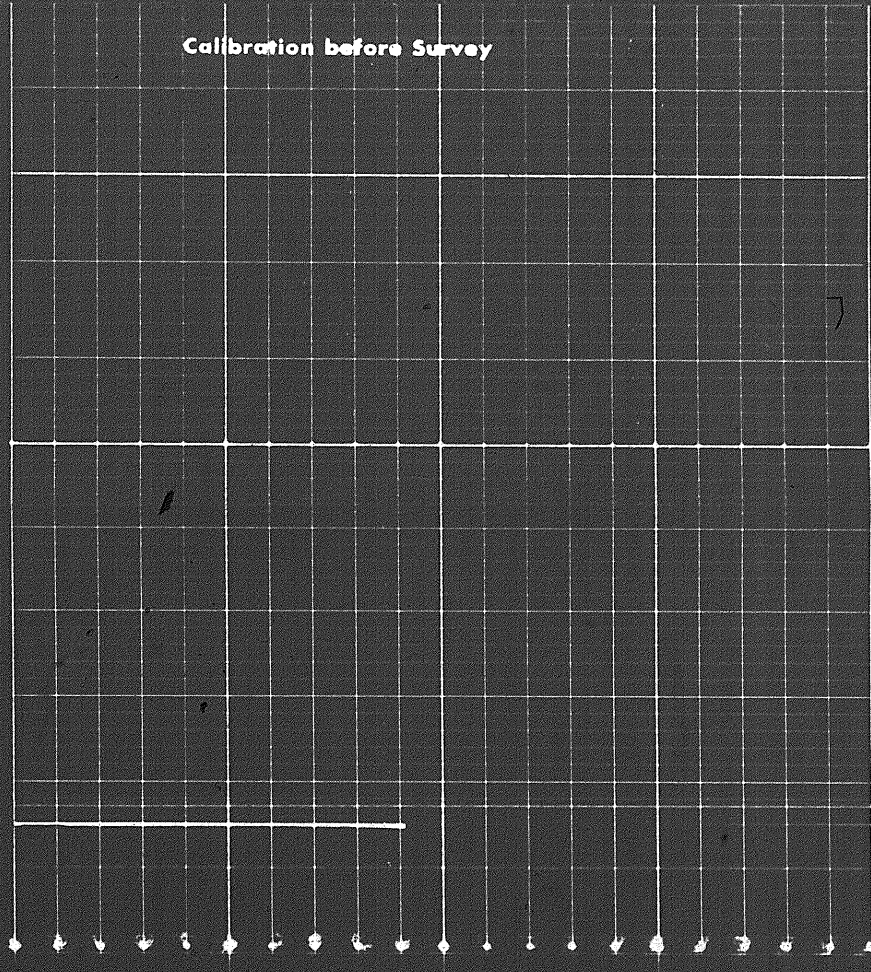
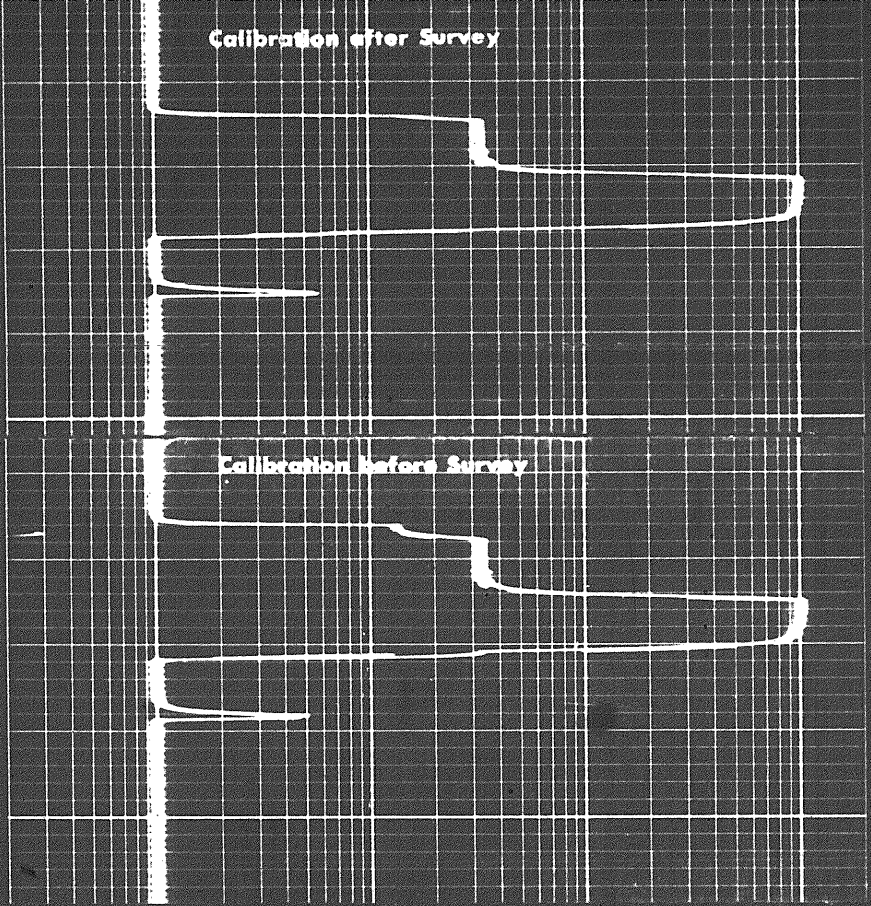
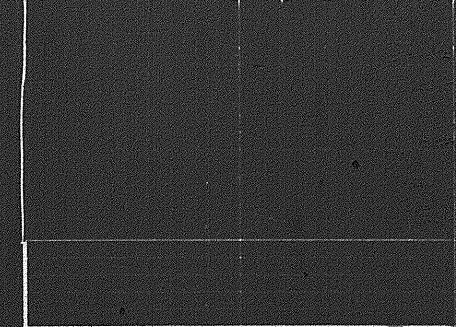
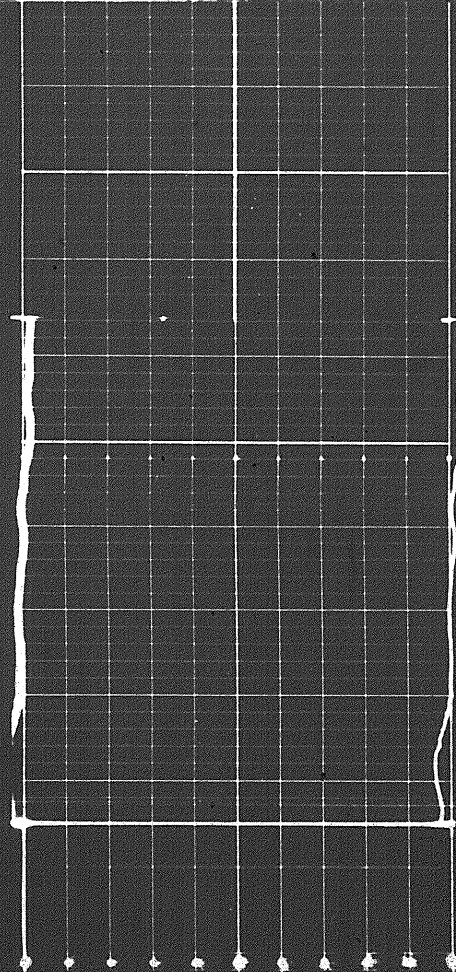
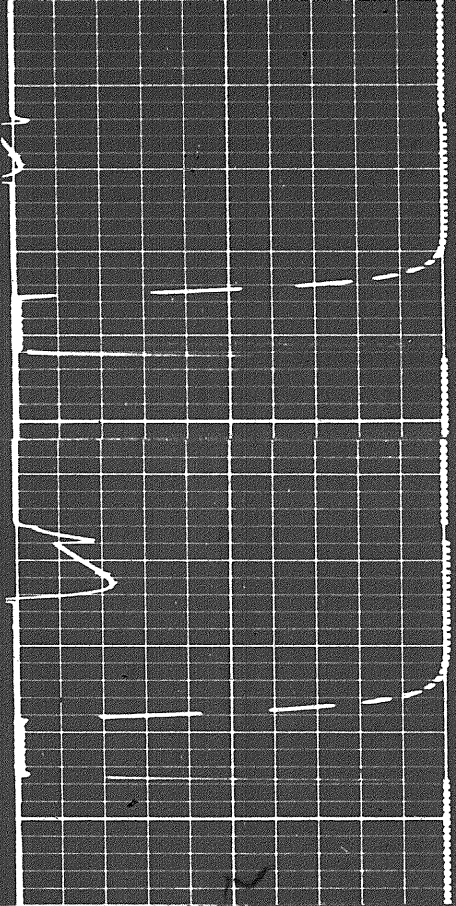
Calibration before Survey

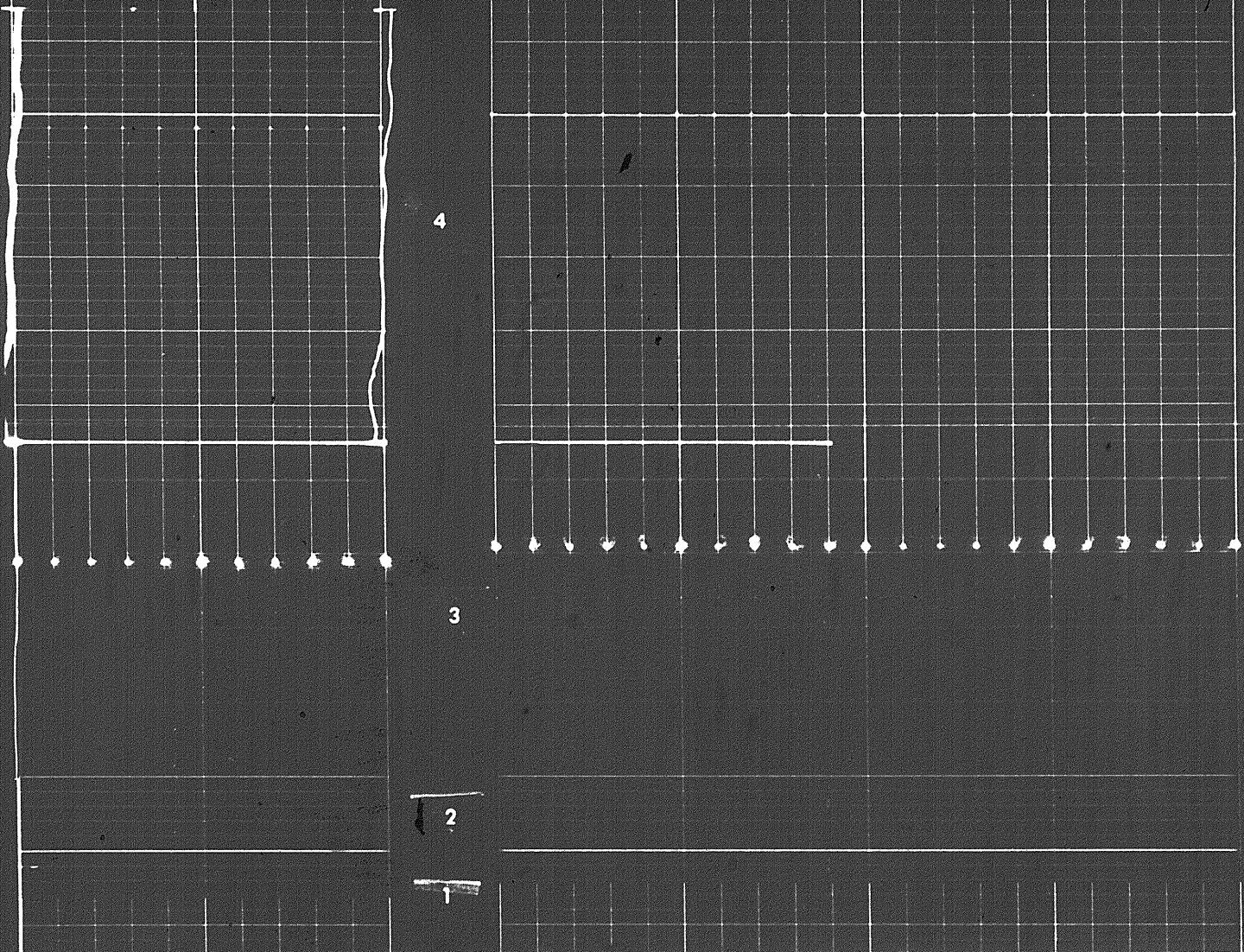
5

4

3

2





SEQUENTIAL DUAL LATEROLOG CALIBRATION CODING

1. MECHANICAL ZERO
2. CABLE BALANCE ADJUST - LLd ONLY
3. FUNCTION FORMER 1000 ohm-m
4. FUNCTION FORMER 1 ohm-m
5. MEMORIZER ADJUST - LLd ONLY (DOES NOT APPLY IF GR IS NOT RUN)
6. CALIBRATE LLd - 17 ohm-m
 LLs - 29 ohm-m

13 of 13

COMPANY COLUMBIA GAS DEVELOPMENT OF CANADA LTD.
 WELL COLUMBIA GAS ET AL ROTANDELEE YT H-38
 FIELD WILDCAT
 PROVINCE YUKON TERRITORY

SCHL. FR 12770
 SCHL. TD 12785
 DRLR. TD 12789
 Elev.:
 KB 2250
 DF _____
 GL 2225