

GL02701-7

UNIVERSITY OF UTAH
RESEARCH INSTITUTE
EARTH SCIENCE LAB.

SCHLUMBERGER

**BOREHOLE COMPENSATED
SONIC LOG (WITH CALIPER)**

COMPANY STANDARD OIL COMPANY OF CALIFORNIA
P202764 104

WELL HIGHLAND L&L #1

FIELD WILDCAT - NW CALDWELL AREA

COUNTY PAVETTE STATE IDAHO

LOCATION 2210' FWL & 1650' FNL Other Services: YES

Sec. 24 Twp. 6N Rge. 5N

Permanent Datum: GL Elev. 2631 Elev.: K.B. 2647
Log Measured From KB, 16 Ft. Above Perm. Datum D.F.
Drilling Measured From KB G.I. 2631

Date	3-10-73	3-15-73	4-12-73	5-2-73
Run No.	ONE	TWO	THREE	FOUR
Depth—Driller	1068	3060	7423	10669
Depth—Logger	1071	3011	7421	10682
Btm. Log Interval	1070	3008	7420	10681
Top Log Interval	44	1057	2030	1170
Casing—Driller	30" @ 40'	20" @ 1057	13 3/8" @ 3028'	13 3/8" @ 3028
Casing—Logger	44		3030	NA
Bit Size	15"	12 1/4"	9 3/8"	9 3/8"
Type Fluid in Hole	FGM	DEXTRID-GEL	DEXTRID-GEL	DEXTRID-GEL
Dens.	NA	71	69.5	76
Visc.	NA	8.4	7.8	8.0
pH	NA	8.0	8.0	8.5
Fluid Loss	NA	8.0 ml	8.4 ml	10.7 ml
Source of Sample	FLOWLINE	FLOWLINE	FLOWLINE	CIRC
R _m @ Meas. Temp.	10.8 @ 62°F	3.22 @ 66°F	4.69 @ 74°F	4.22 @ 78°F
R _{mc} @ Meas. Temp.	8.0 @ 57°F	2.62 @ 57°F	4.85 @ 77°F	3.56 @ 76°F
R _{mc} @ Meas. Temp.	15.0 @ 61°F	4.89 @ 57°F	2.4 @ 77°F	3.47 @ 76°F
Source: R _m	M	M	M	M
Source: R _{mc}	C	M	M	M
R _m @ BHT	7.9 @ 83°F	1.7 @ 176°F	1.2 @ 263°F	1.35 @ 252°F
Time Since Circ.	2 HRS	5 HRS	5 1/2 HRS	8 1/2 HRS
Max. Rec. Temp.	CONFIDENTIAL	CONFIDENTIAL	263	271
Equip. Location	STOG	STOG	2803 L&L	2817 L&L
Recorded By	THIS ARTICLE ENTICED TO	THIS ARTICLE ENTICED TO	NECKS	NELAND
Witnessed By	THIS ARTICLE ENTICED TO	THIS ARTICLE ENTICED TO	NECKS	GILBERT

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

REMARKS

Changes in Mud Type or Additional Samples

Date	Sample No.	Type	Log	Depth	Scale Up Hole	Scale Down Hole
6-5-73	5					
	11,935					
	11,950					
	11,947					
	10,356					
	13 3/8 @ 3028					
	9 3/8					
	GEL-LIGNITE					
	8.0	5.2				
	10.8	8.0				
	FLOWLINE					
	1.24 @ 78					
	1.05 @ 78					
	1.64 @ 78					
	1.1					
	0.34 @ 290					
	1 1/2 HRS					
	290					
	2803 L&L					
	FRODLEY					
	GILBERT					

* BHT = 24'

TIME START LOGGING - 0845 3-10-73

NOTE: REPEAT SECTION DOES NOT START ON 300' BUT ON 290' - OLD SIZE AND POSITION

Velocity (feet per second) = Interval Transit Time (microseconds per foot) / 1,000,000


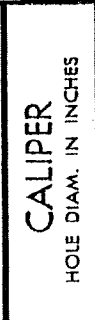
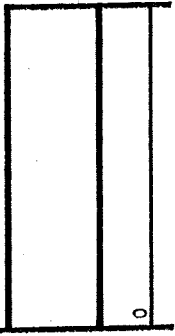
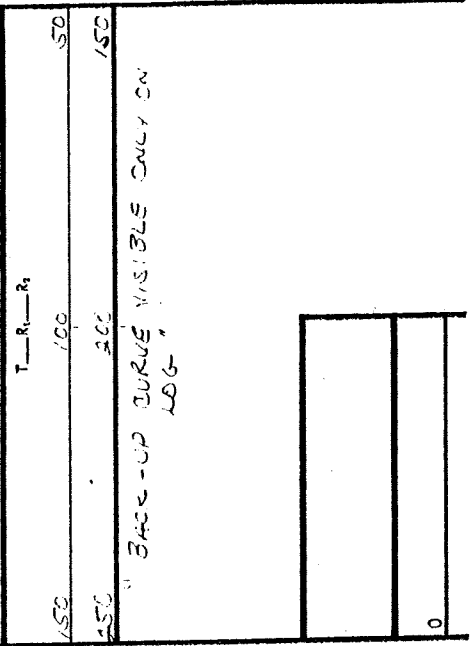
DEPTH	INTERVAL TRANSIT TIME MICROSECONDS PER FOOT	SPONTANEOUS-POTENTIAL MILLIVOLTS	CALIPER HOLE DIAM. IN INCHES
1068			8"
3060			
7423			
10669			

Back-up during run-ins only on 206'

FOR ITS SOLE USE AND BENEFIT.

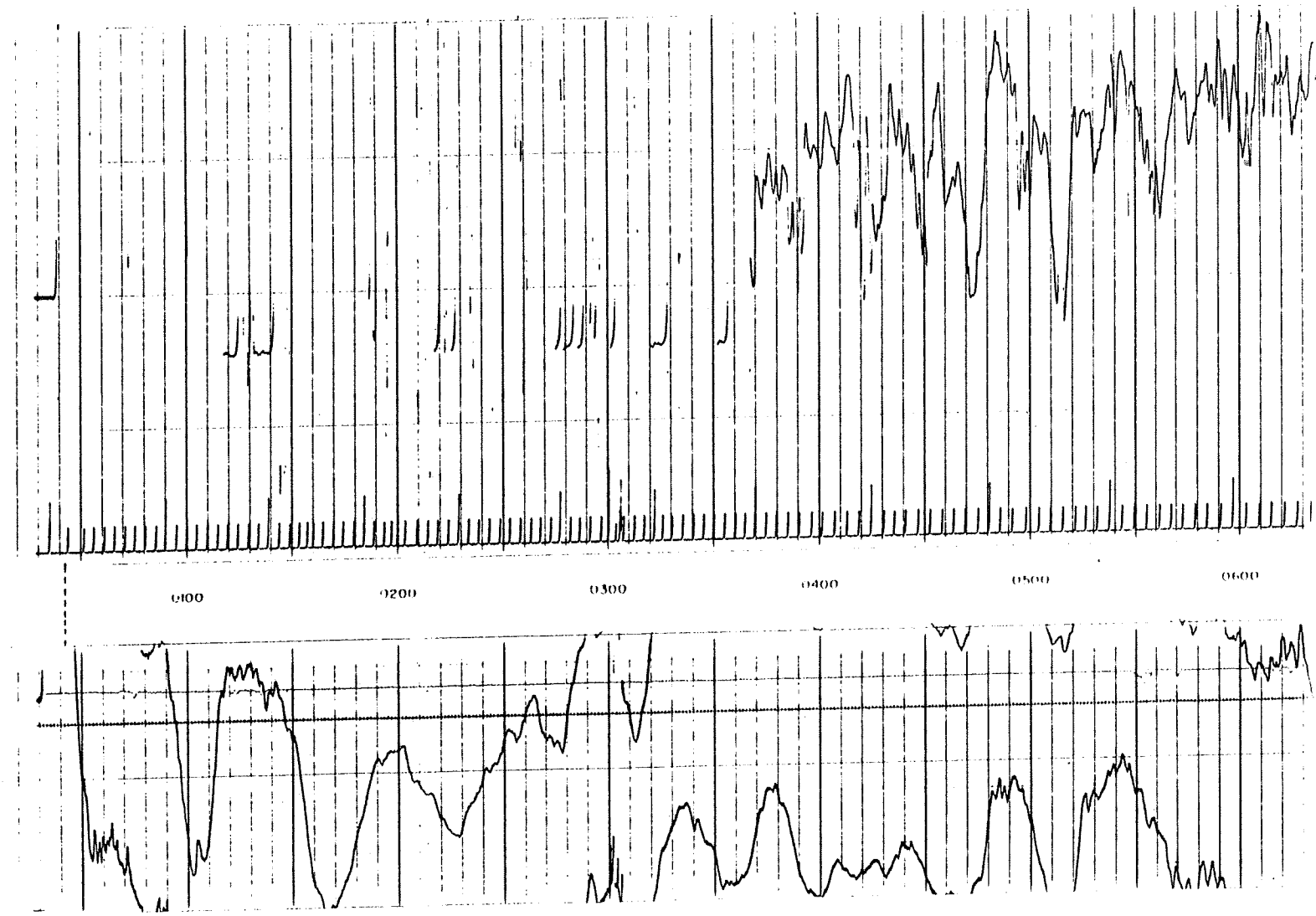
Calif. Penal Code Sec. 499c is applicable

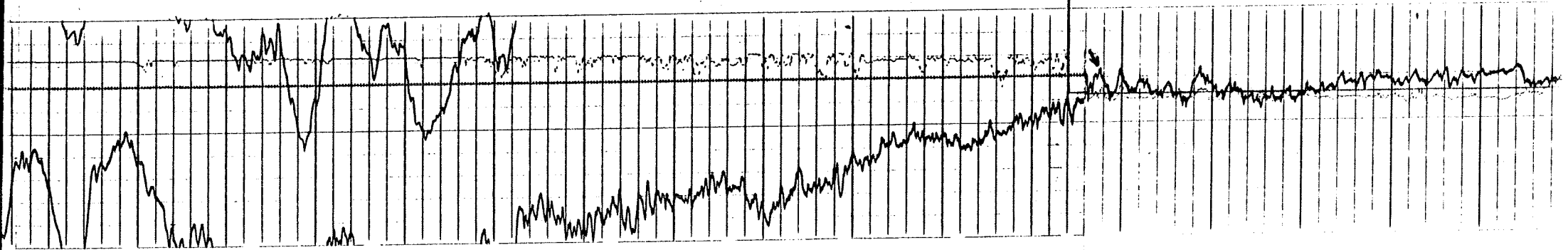
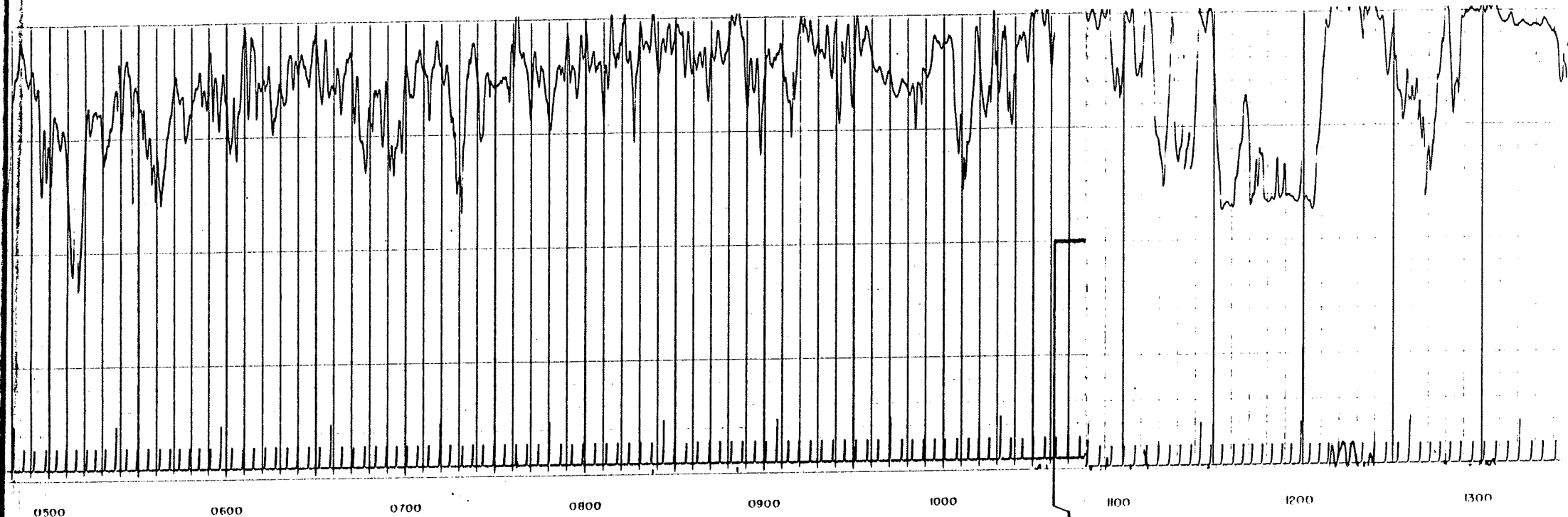
Agreement Dated _____

SPONTANEOUS-POTENTIAL MILLIVOLTS		
	CALIPER HOLE DIAM. IN INCHES 	
DEPTHS		
INTERVAL TRANSIT TIME MICROSECONDS PER FOOT		

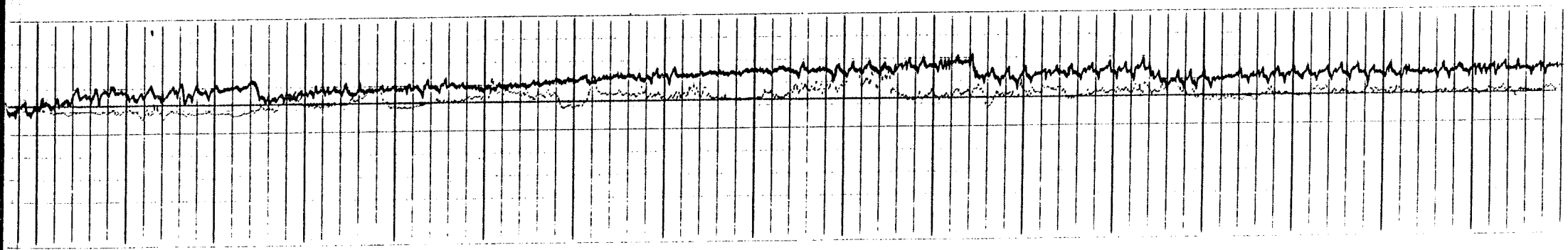
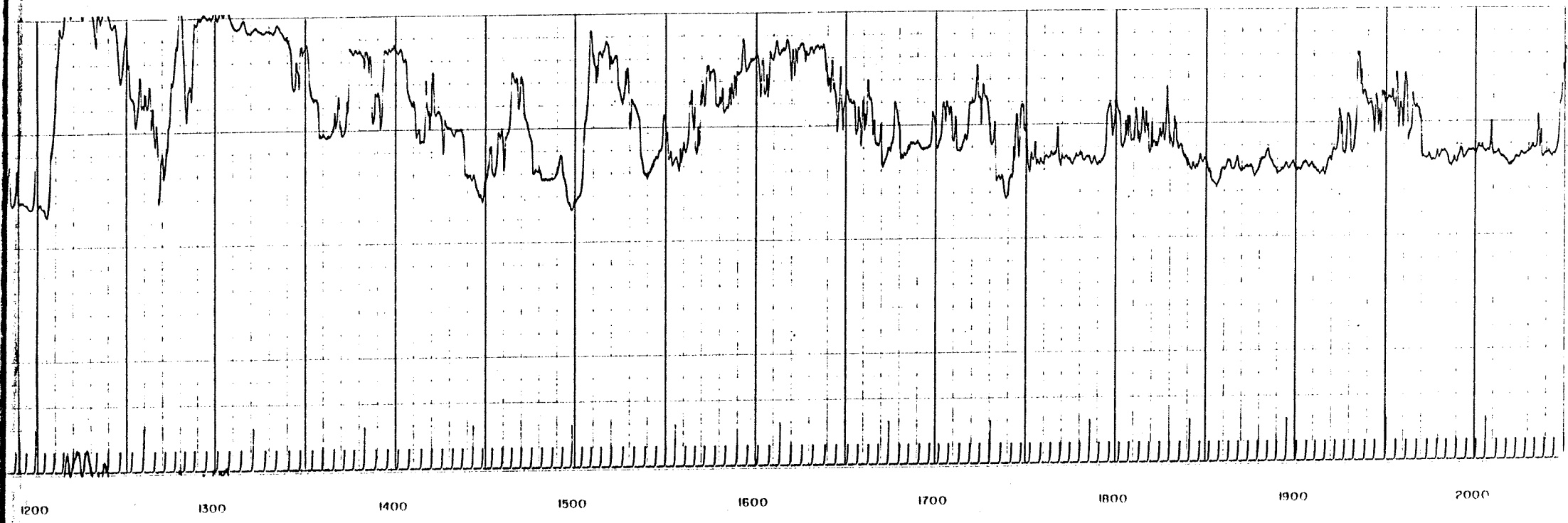
BACK-UP BURGE VISIBLE ONLY ON LOG

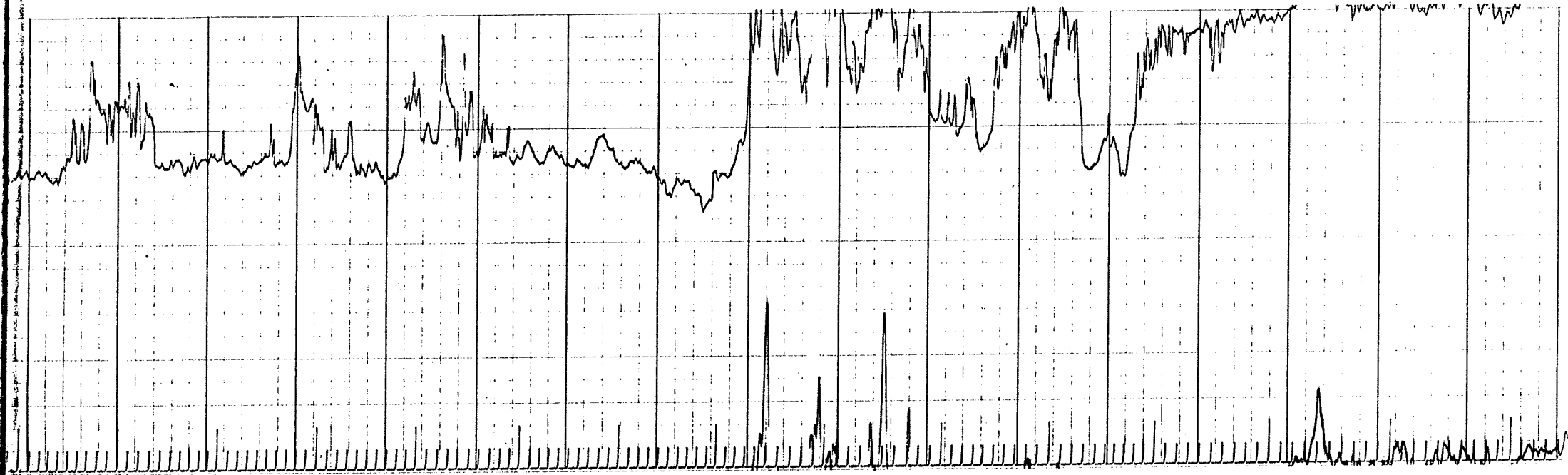
NOTE: MAXIMUM POSSIBLE READING = 16"



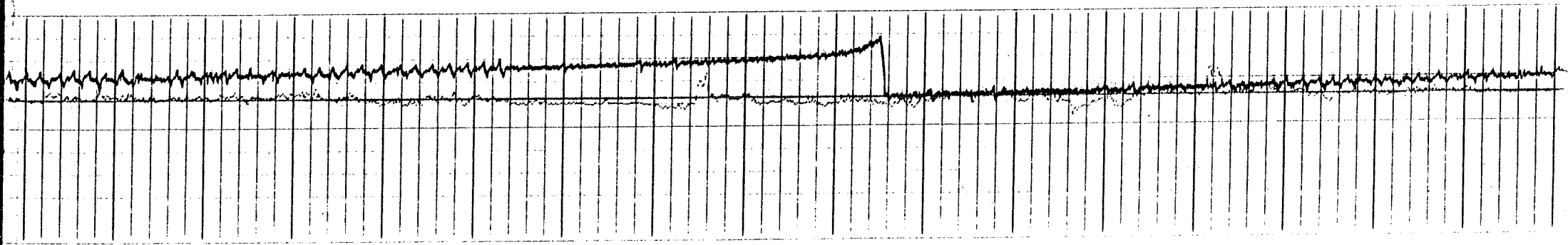


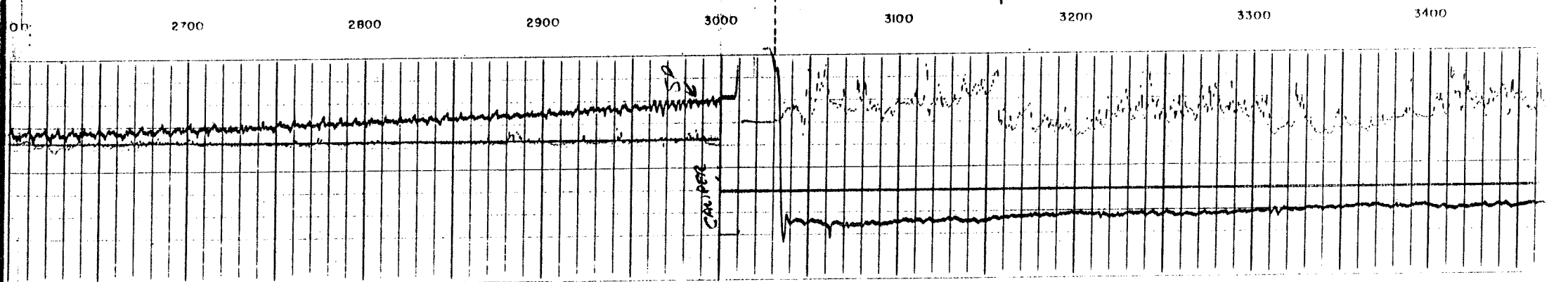
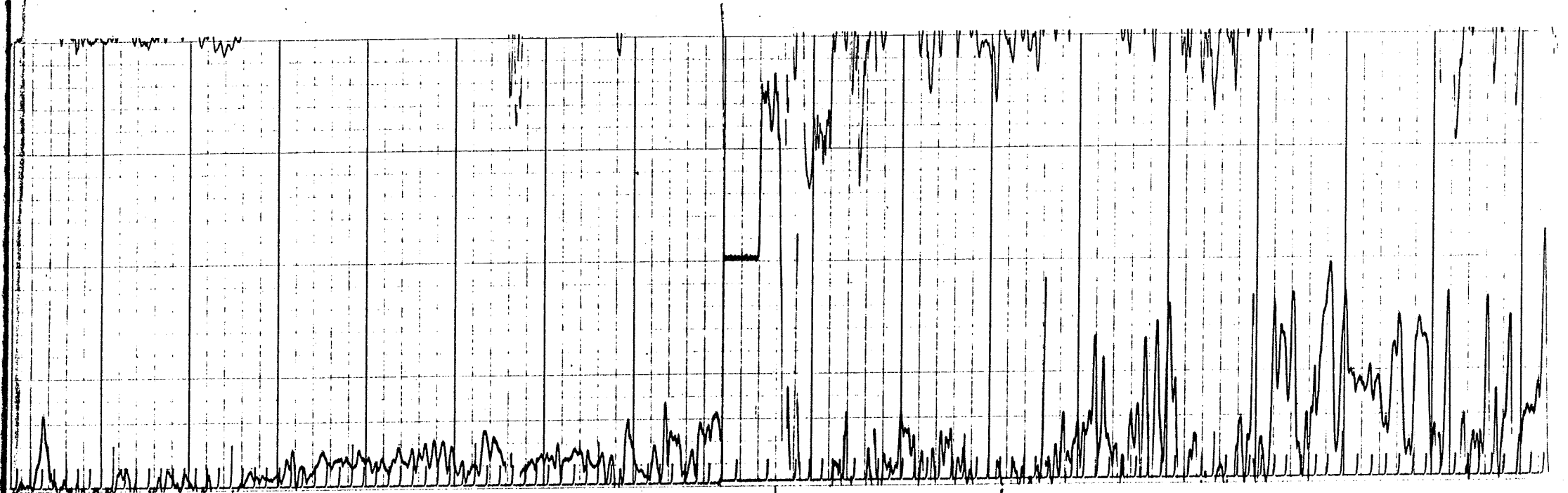
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1900 2000 2100 2200 2300 2400 2500 2600 2700





Oh:

2700

2800

2900

3000

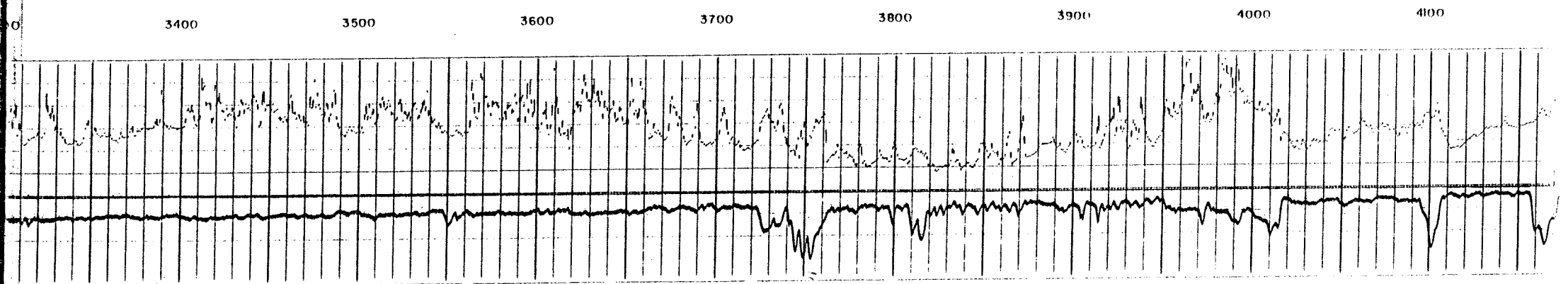
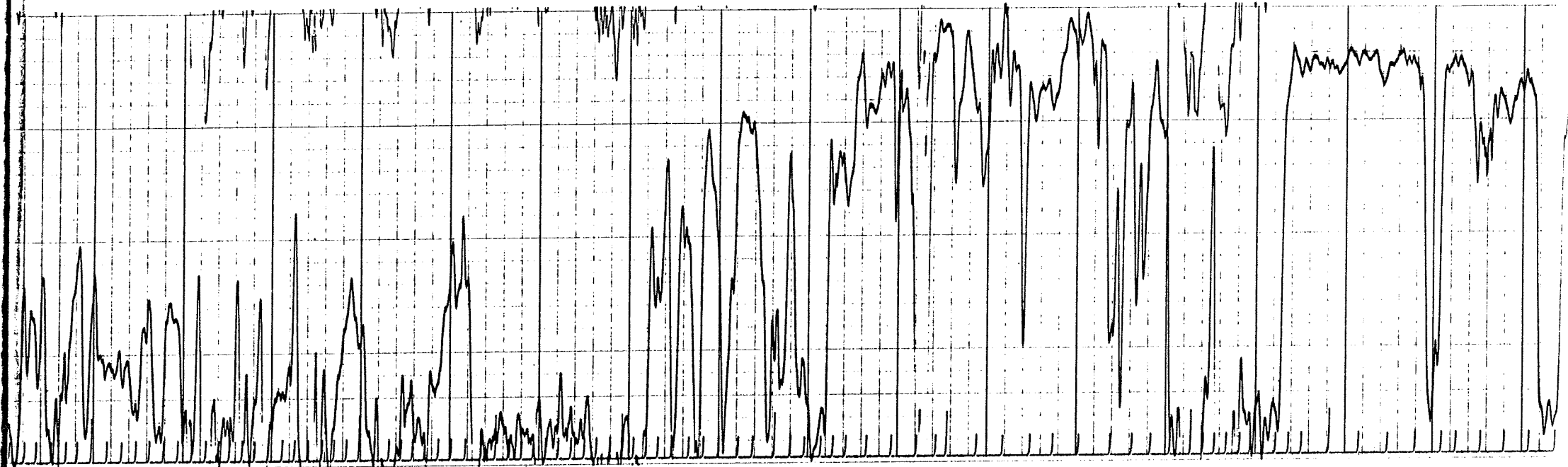
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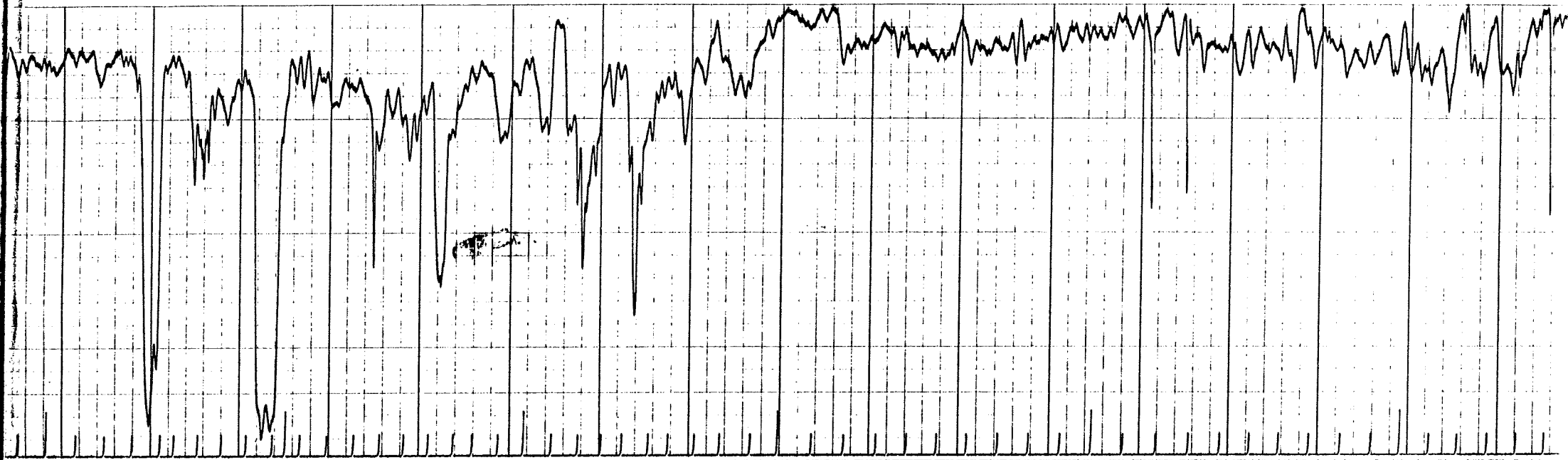
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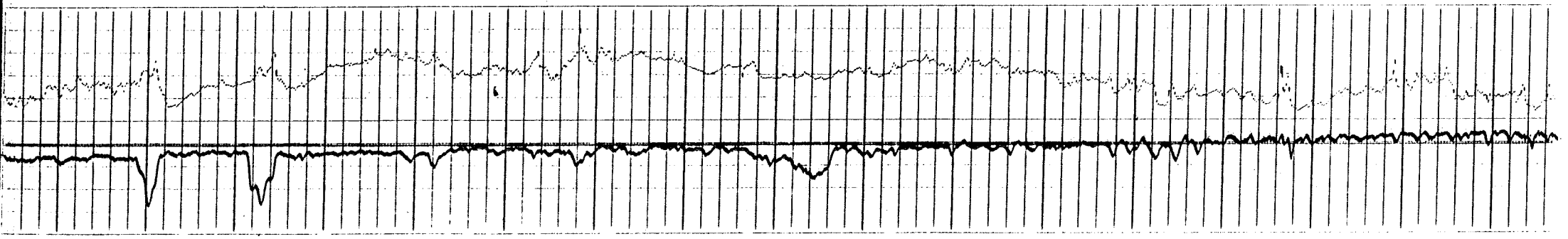
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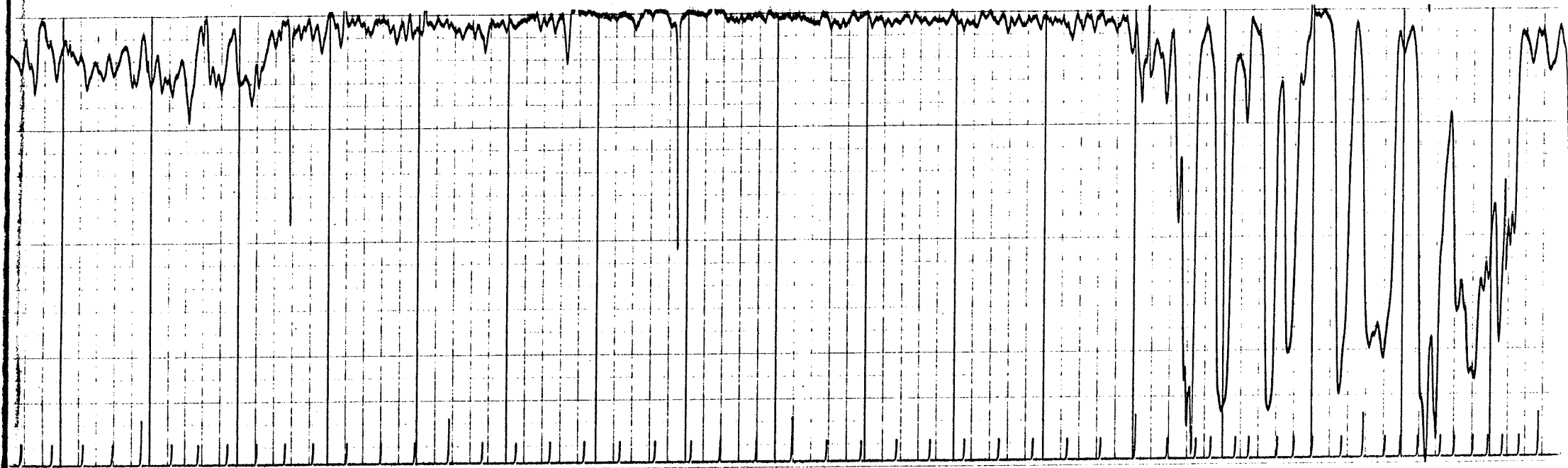
S2





4100 4200 4300 4400 4500 4600 4700 4800





4800

4900

5000

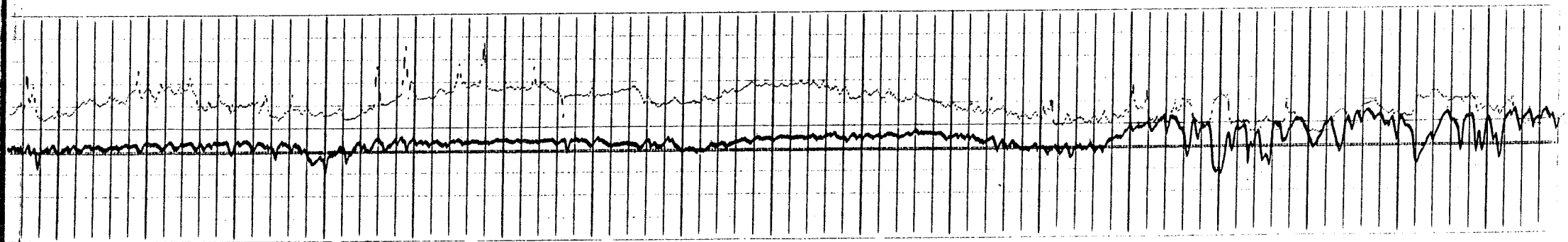
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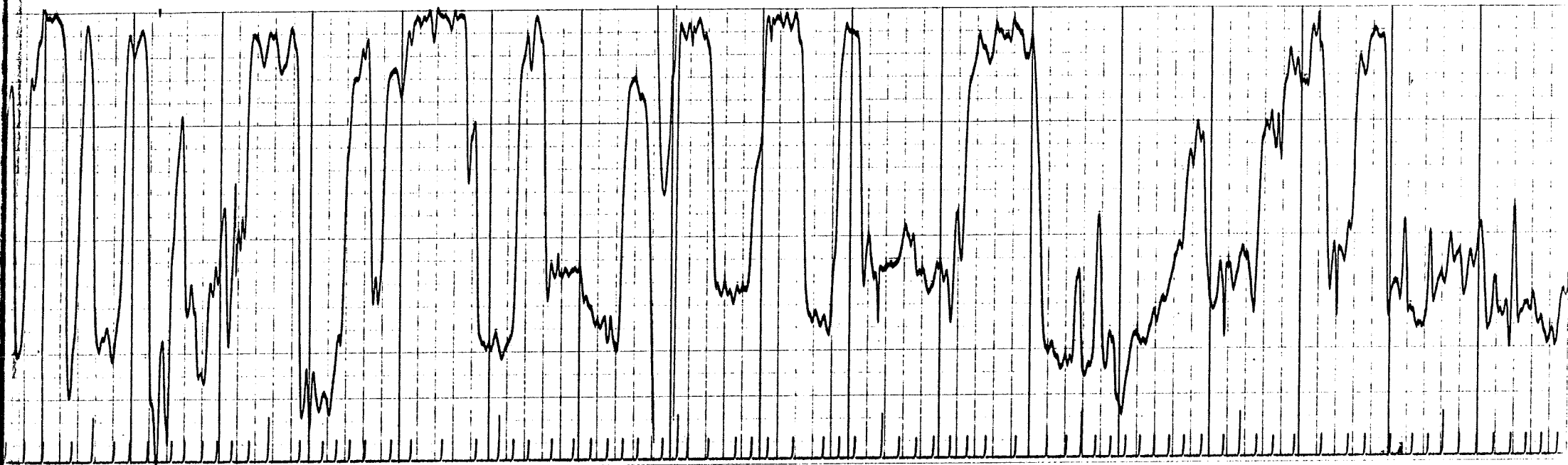
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5400

5500





5500

5600

5700

5800

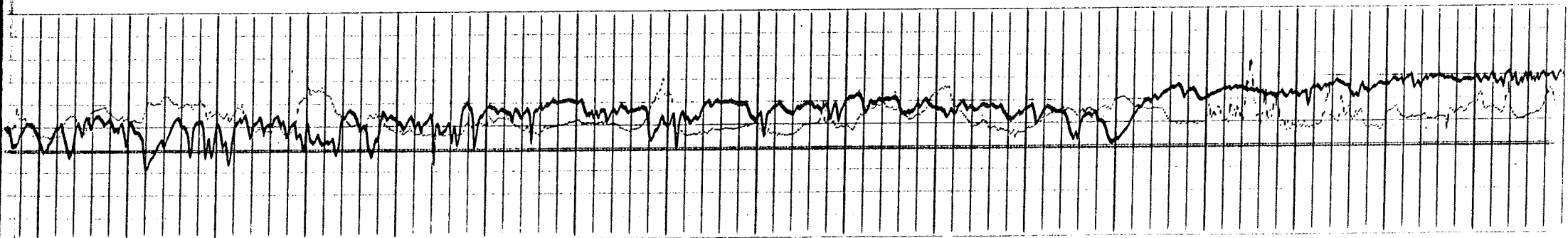
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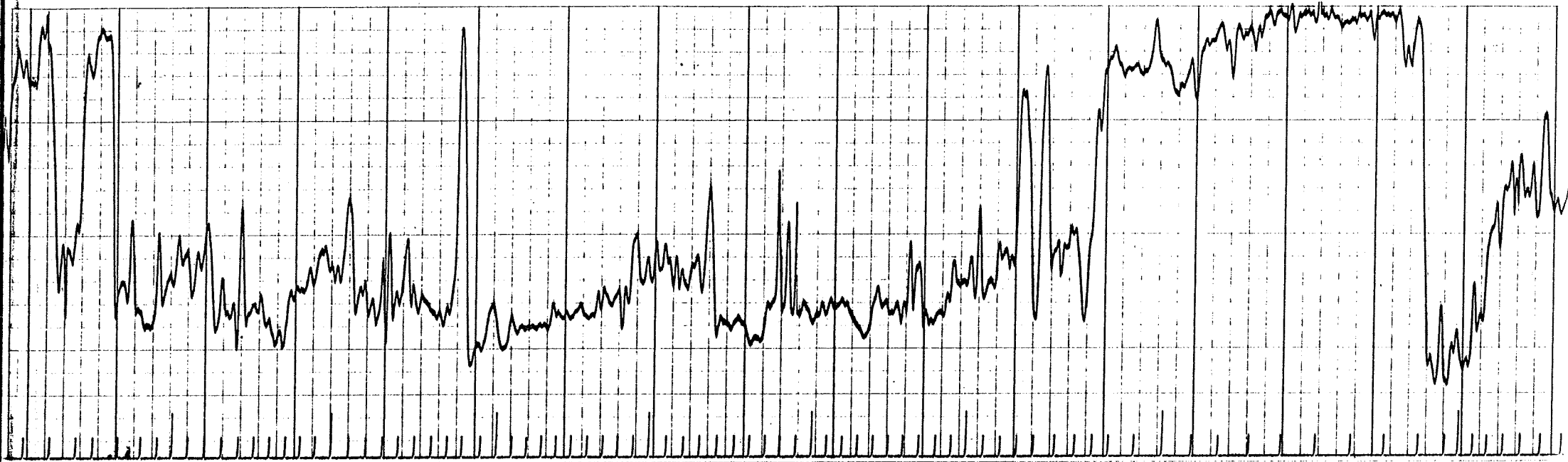
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6200

6300





6200

6300

6400

6500

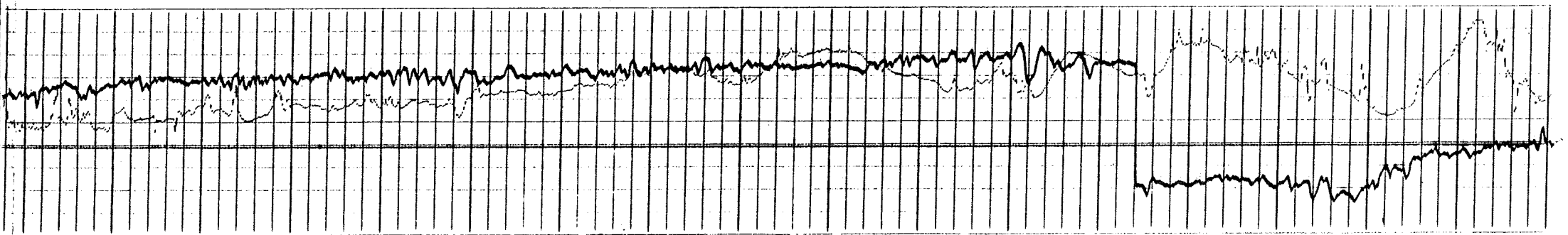
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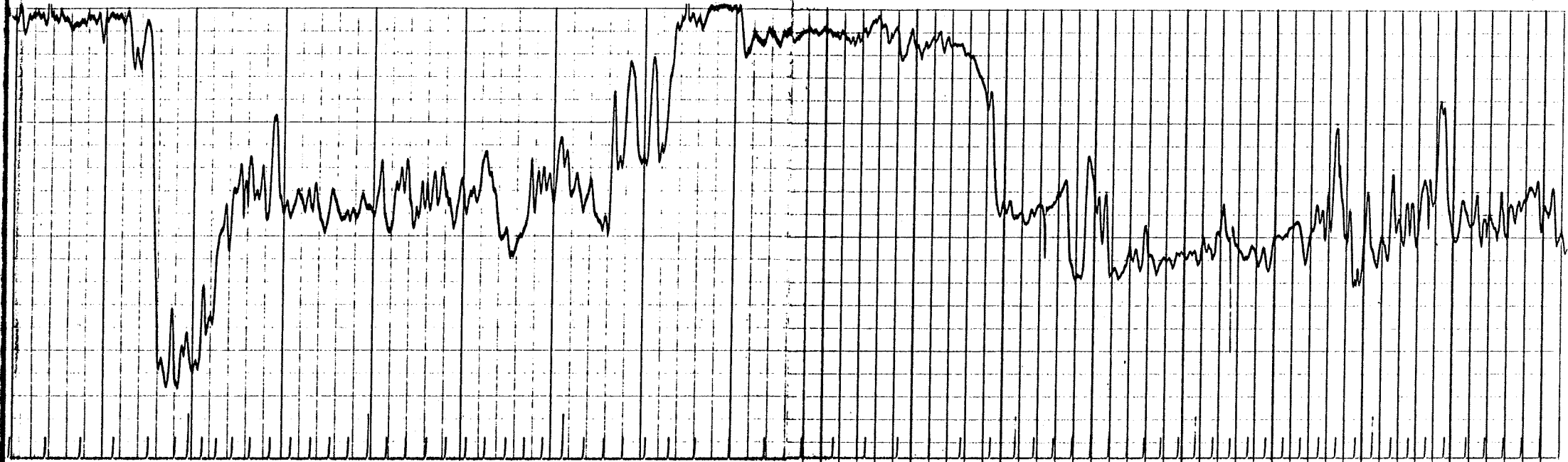
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6800

6900

7000





6900

7000

7100

7200

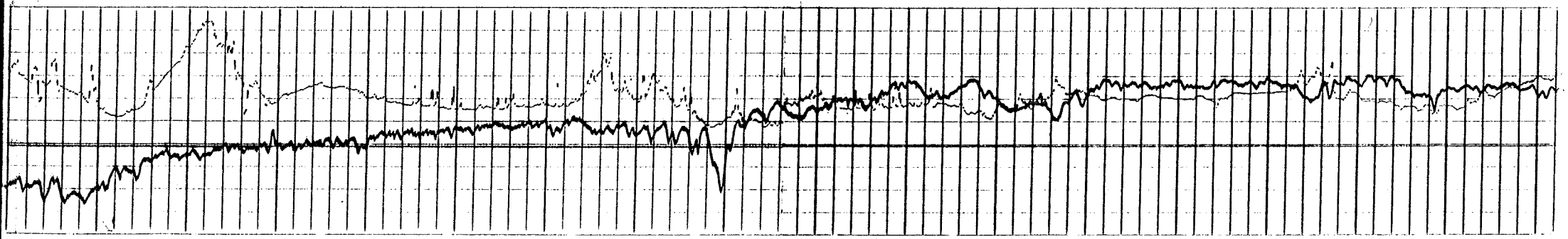
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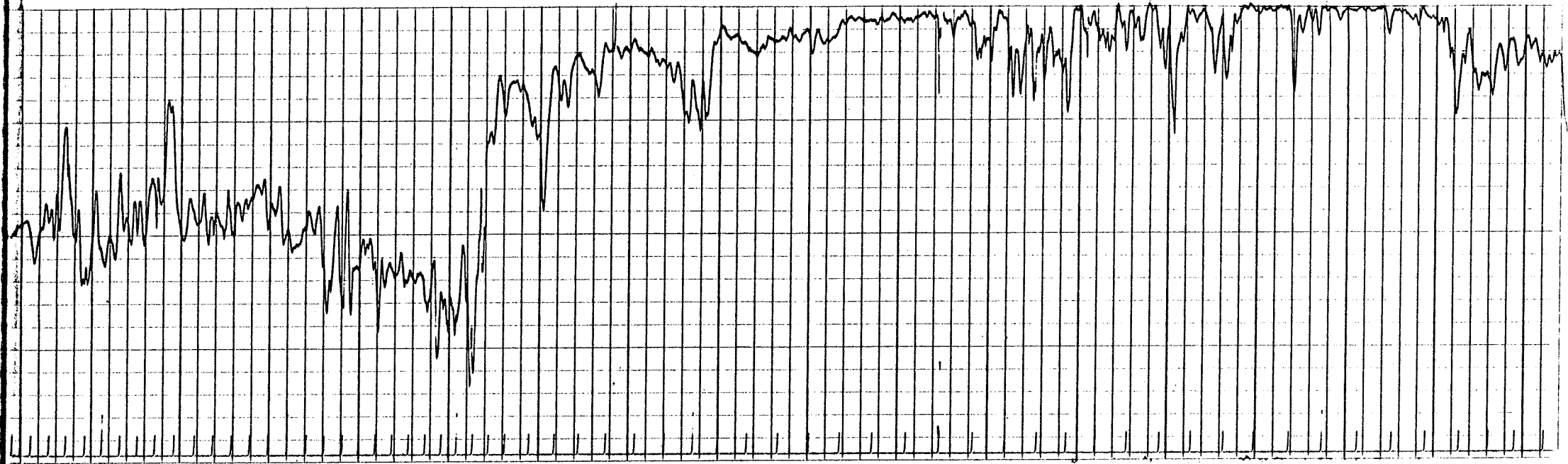
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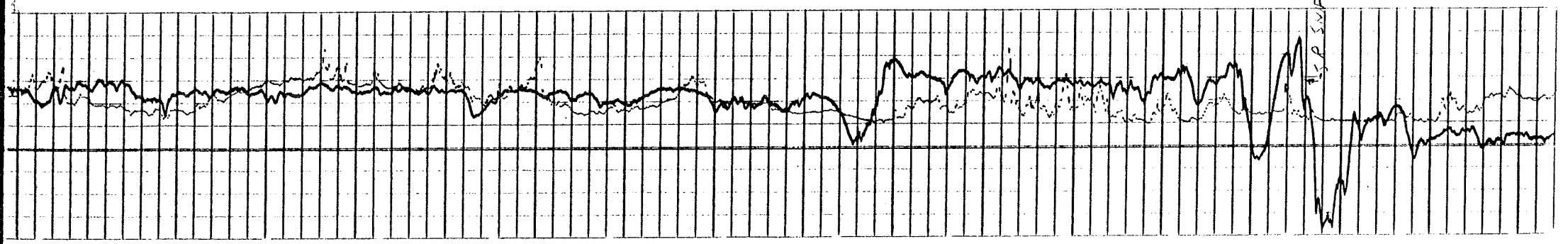
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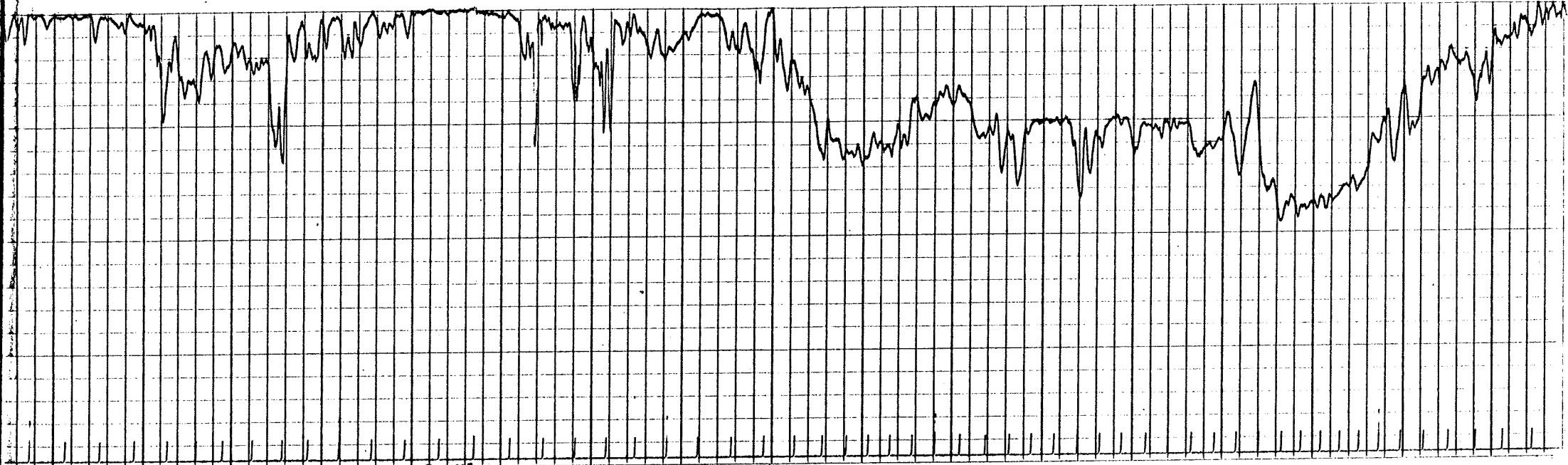
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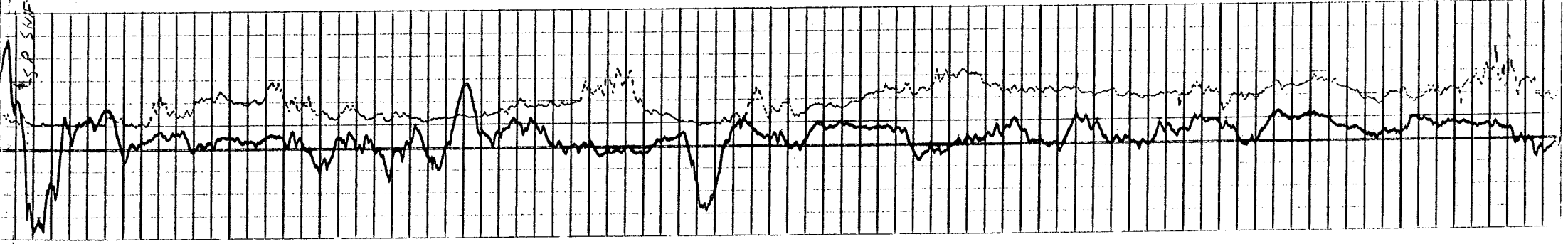
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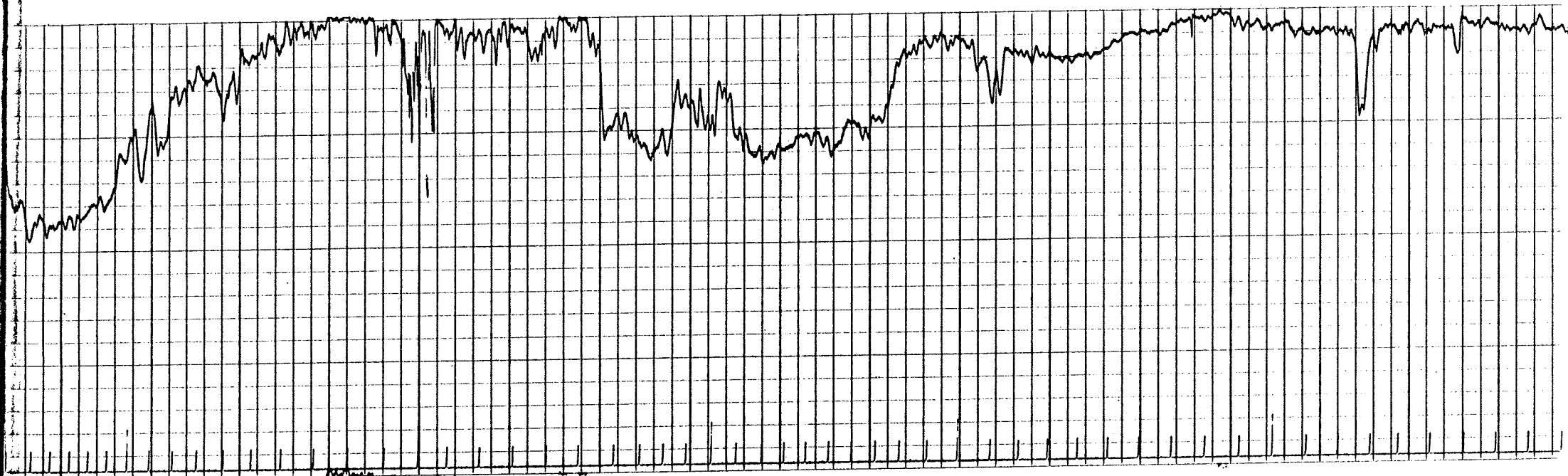


↑ P wave

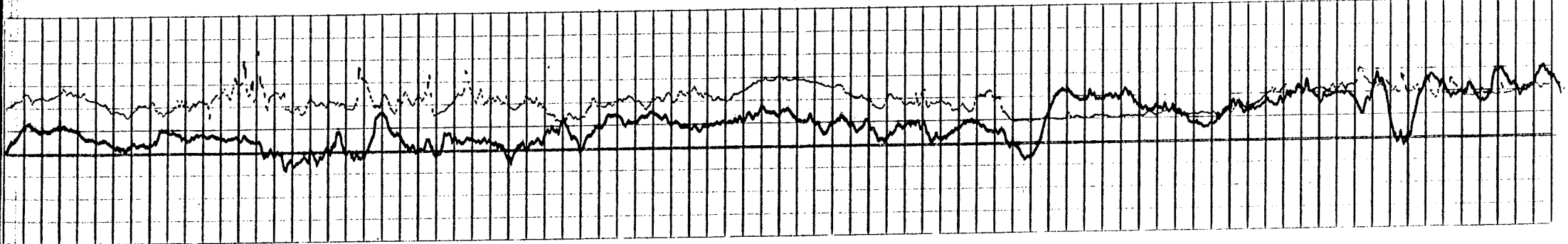


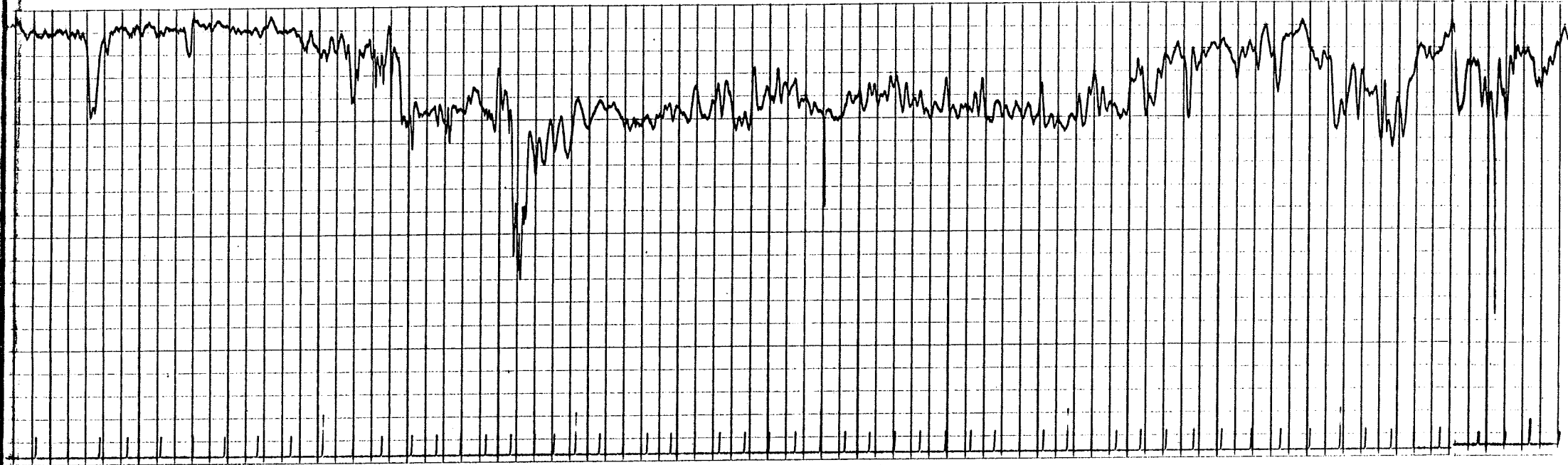
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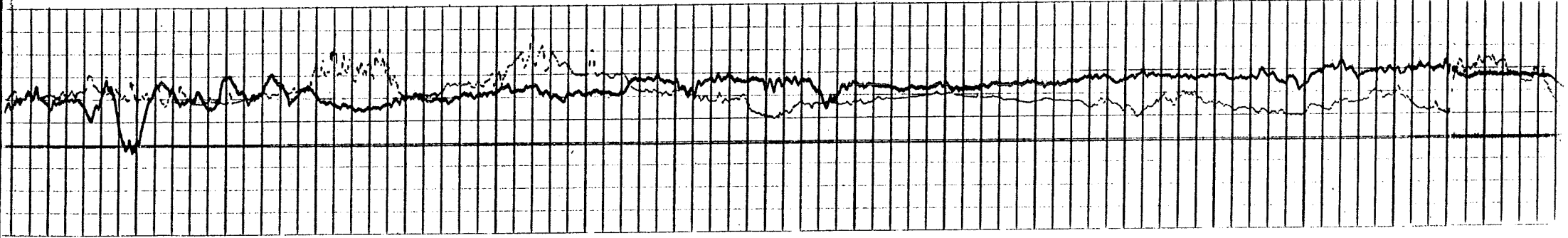


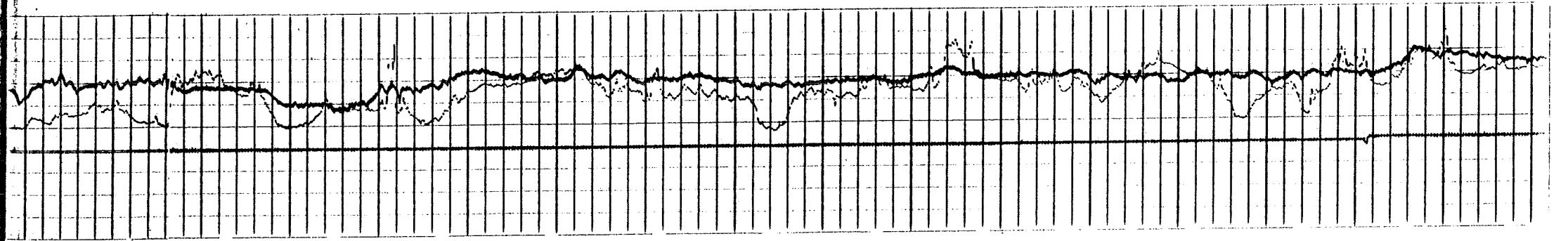
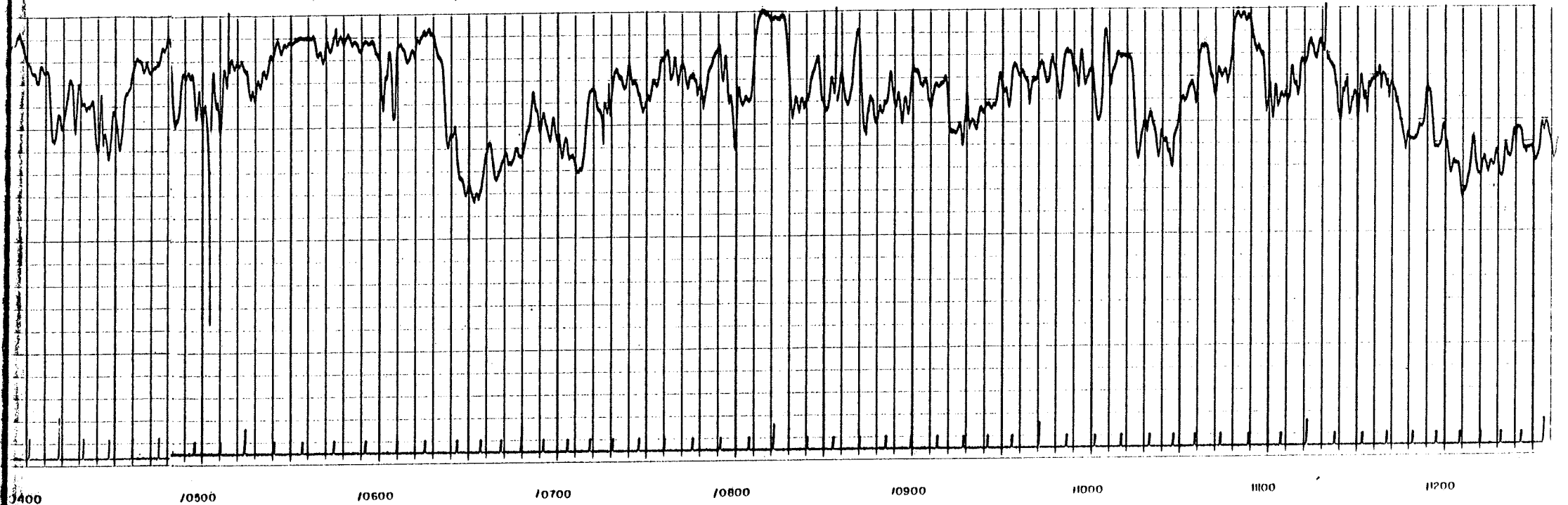
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9700 9800 9900 10000 10100 10200 10300 10400 10500





10400

10500

10600

10700

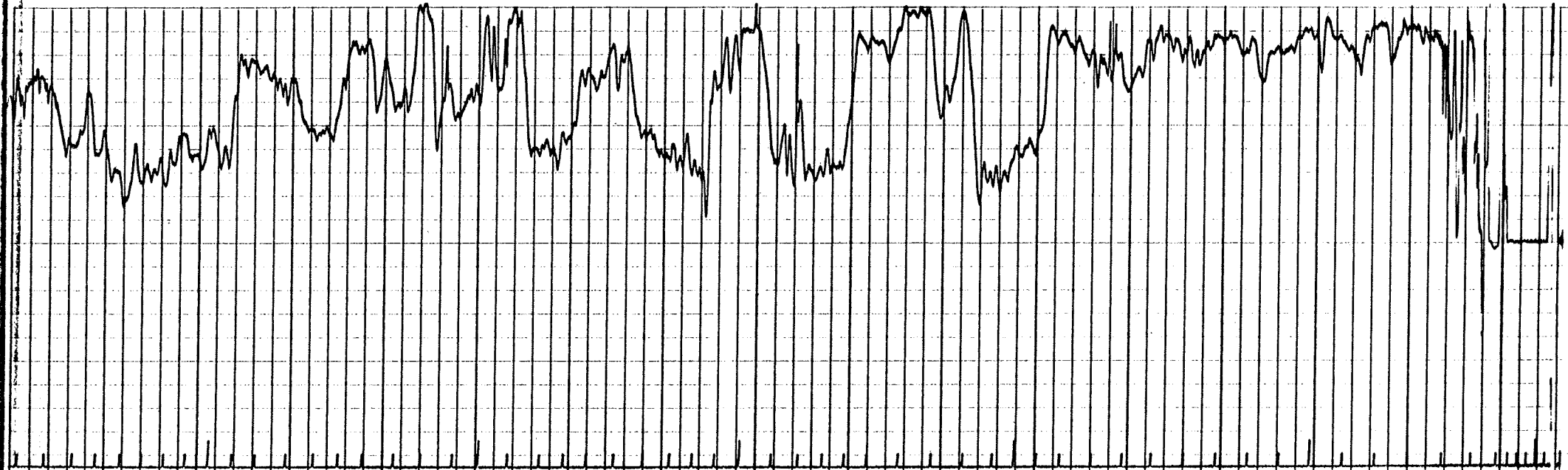
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11200

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