Schlumberger

CEMENT BOND LOG

COUNTY LEWIS
Field or LOCATION JACKSON PRAIRIE
WELL 17-12N-1W STORAGE UNIT #902
COMPANY JACKSON PRAIRIE

COMPANY JACKSON PRAIRIE GAS STORAGE COMPANY

WELL STORAGE UNIT #902

FIELD JACKSON PRAIRIE

COUNTY LEWIS STATE WASHINGTON

LOCATION 714'N & 182'W FROM THE E/4 CORNER OF:

Sec. 17 Twp. 12N Rge. 1W

Other Services:
FDC/GR
HDT
IES

Permanent Datum: GL, Elev. 522
Log Measured From KB, 11 Ft. Above Perm. Datum
Drilling Measured From KB

Elev.: K.B. 533
D.F. -
G.L. 522

Date	5/24/72	Type Drill Fluid	FGM
Run No.	ONE	Fluid Level	256
Depth — Driller	2865	Max. Rec. Temp.	85 °F
Depth — Logger	2870	Est. Cement Top	SURFACE
Btm. Log Interval	2863	Equip. Location	5106 4401
Top Log Interval	256	Recorded By	WEEKS
Open Hole Size	9-7/8	Witnessed By	LARSEN

CASING REC.	Size	Wt/Ft	Grade	Type Joint	Top	Bottom
Surface String	10-3/4	40.5	J-55	ST & C	SURFACE	617
Prot. String						
Prod. String	7	23	J-55	ST & C	SURFACE	2877
Liner						

PRIMARY CEMENTING DATA

STRING	Surface	Protection	Production	Liner
Vol. of cement	360 SKS.		700 SACKS	
Type of cement	NEAT			
Additive				
Retarder				
Wt. of slurry				
Water loss				
Type fluid in csg.	WATER			
Fluid wt.				

FOLD HERE

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

PRIMARY CEMENTING PROCEDURE

Hour — date	Hours from start of operation
Started pumping cement 0400 5-23	0
Release pressure 0600 5-23	2
Start Cement Bond Log 0830 5-24	26-1/2
Finish Cement Bond Log 1000 5-24	30

Preceding fluid _____ Volume _____ bbls.
Cement pumped _____ bbls./minute

Pipe ROTATED during Pumping: Yes X No
Pipe reciprocated after plug down: Yes ____ min., No ____

Equipment Data

Type centralizers	RUBBER
Logging speed	50'/MIN
Sonde Type	
Cartridge Type	SLC
Cartridge No.	

SQUEEZE JOB DETAIL

	1	2	3	4
Squeeze number				
Date	5-25	5-26		
Depth interval	2860-61	2860-61		
Type cement	NEAT	NEAT		
Volume of cement	75 SKS	100 SKS		
Additive	2% CACL	3% CACL		
Retarder				
Weight of slurry				

Centralizer Depths	Scratcher Depths

6-14

SWS-720-E

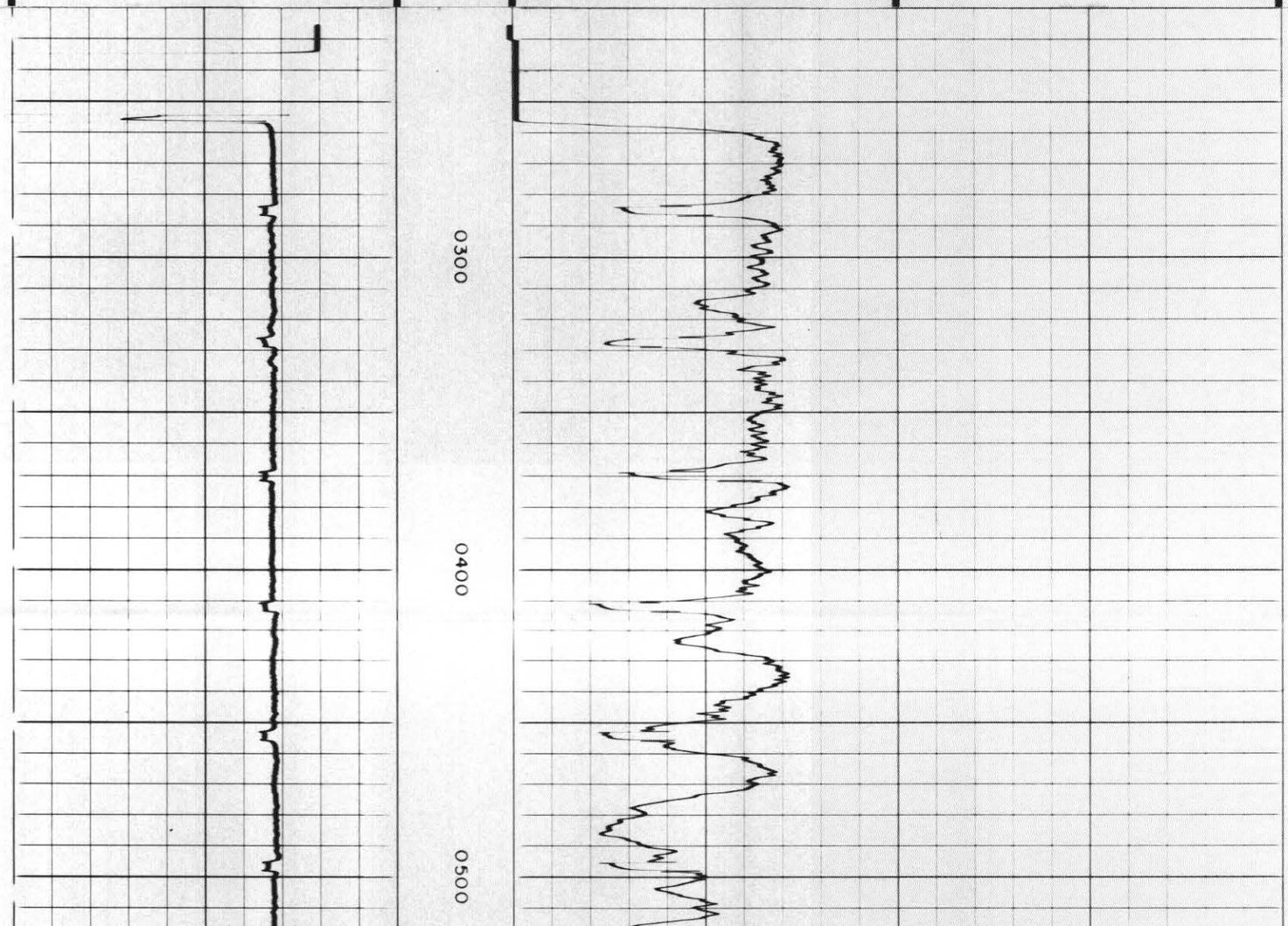
Weight of slurry				
Preceding fluid	WATER	WATER		
Breakdown pressure	1500	1500		
Max. pressure-stage 1				
" " " 2				
" " " 3				
Final maximum pressure	2000	3000		
Started pumping cement				
Released pressure				
Start CBL				
Finish CBL				

AVERAGE WELL DRIFT:
° from to ; ° from to ; ° from to

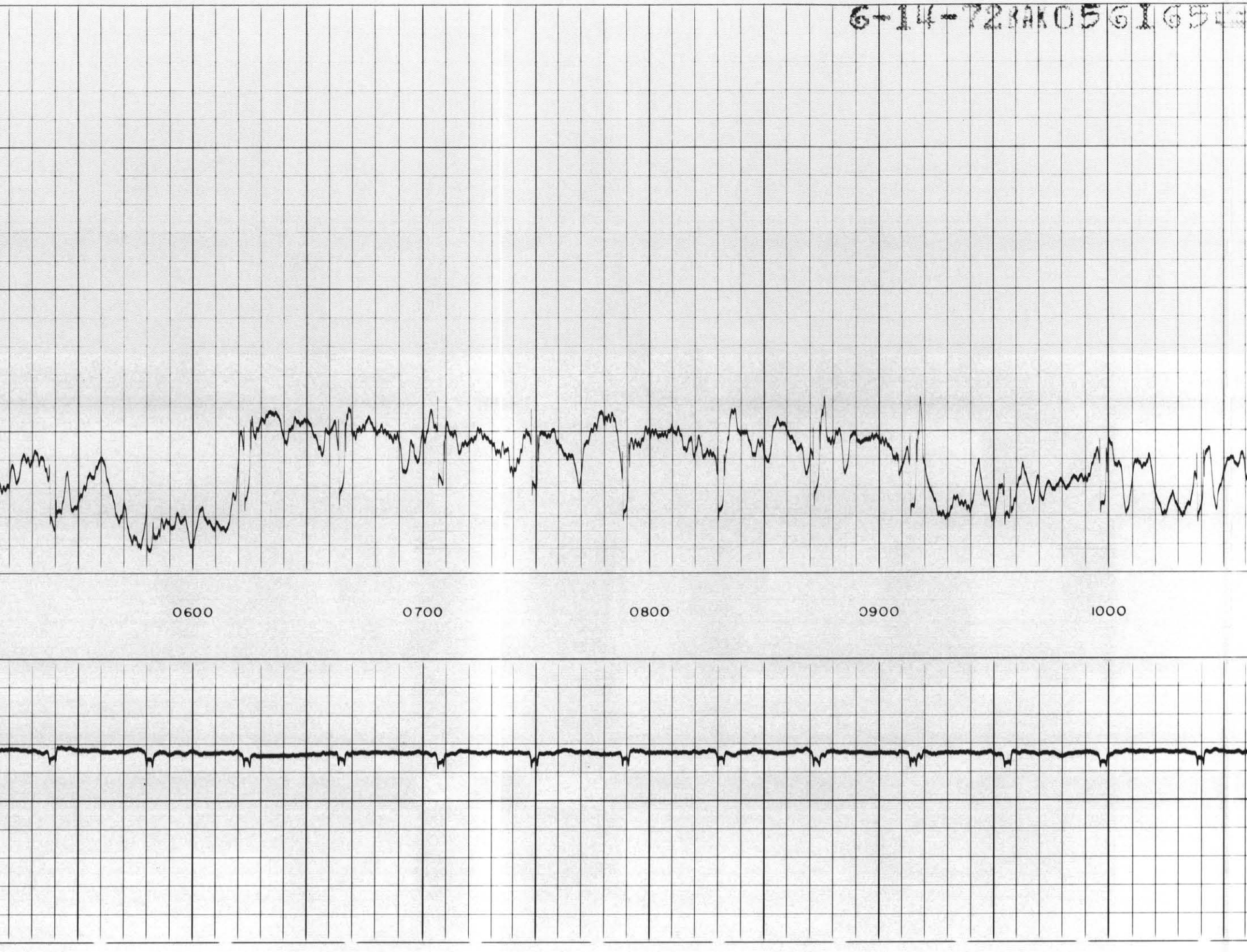
REMARKS

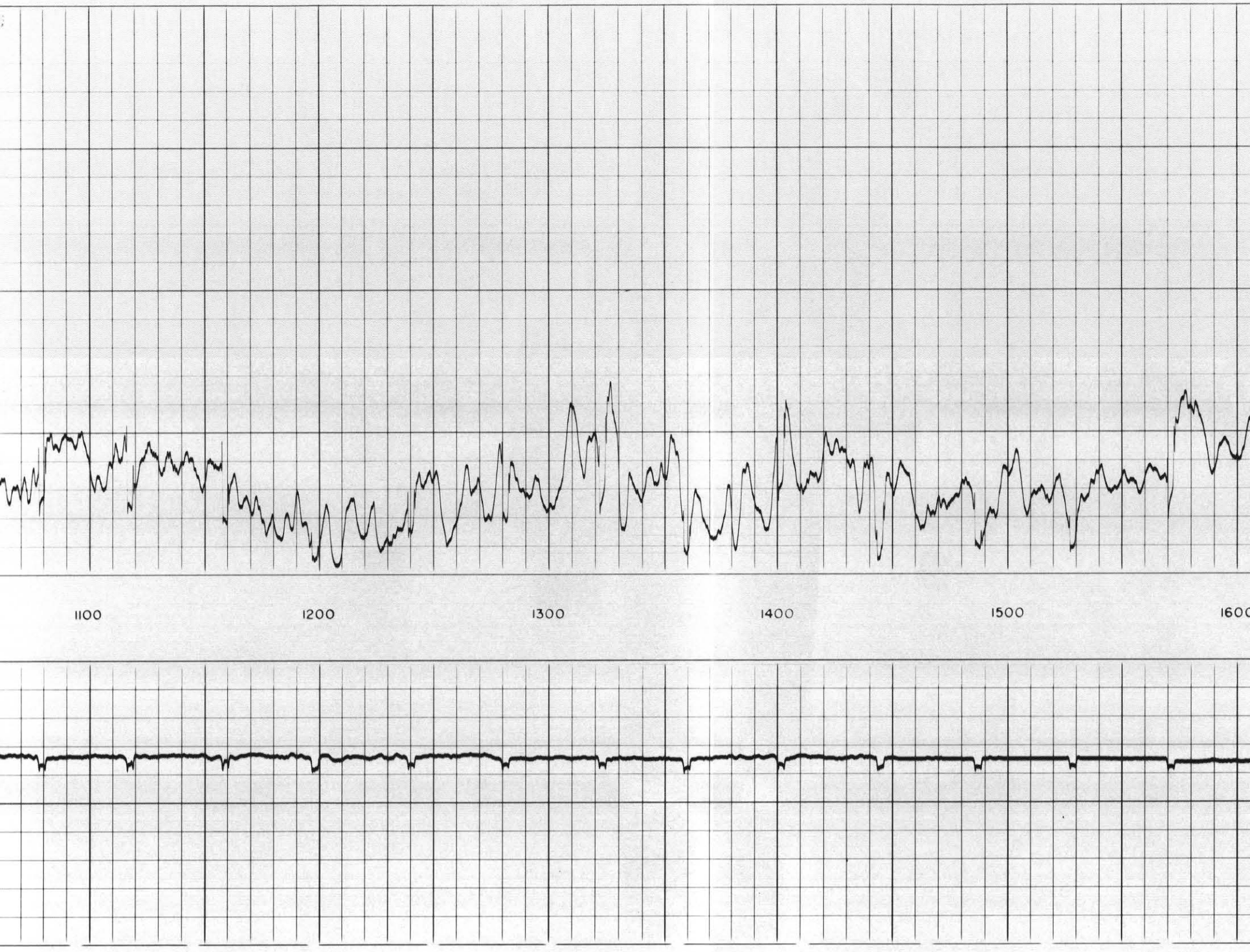
SCRATCHERS		CENTRALIZERS@	
2@2854	3@2090	2831	2239
2@2805	3@1465	2789	2071
3@2720	3@1220	2704	1444
2@2515		2534	1197
2@2560		2493	
3@2260		2365	

SINGLE RECEIVER ΔT microseconds	DEPTHS	BOND LOG millivolts
400 200		BONDING INCREASES ← 0 50



#1 SUNOCO 7-12 KING 1-6 SEC


0600
0700
0800
0900
1000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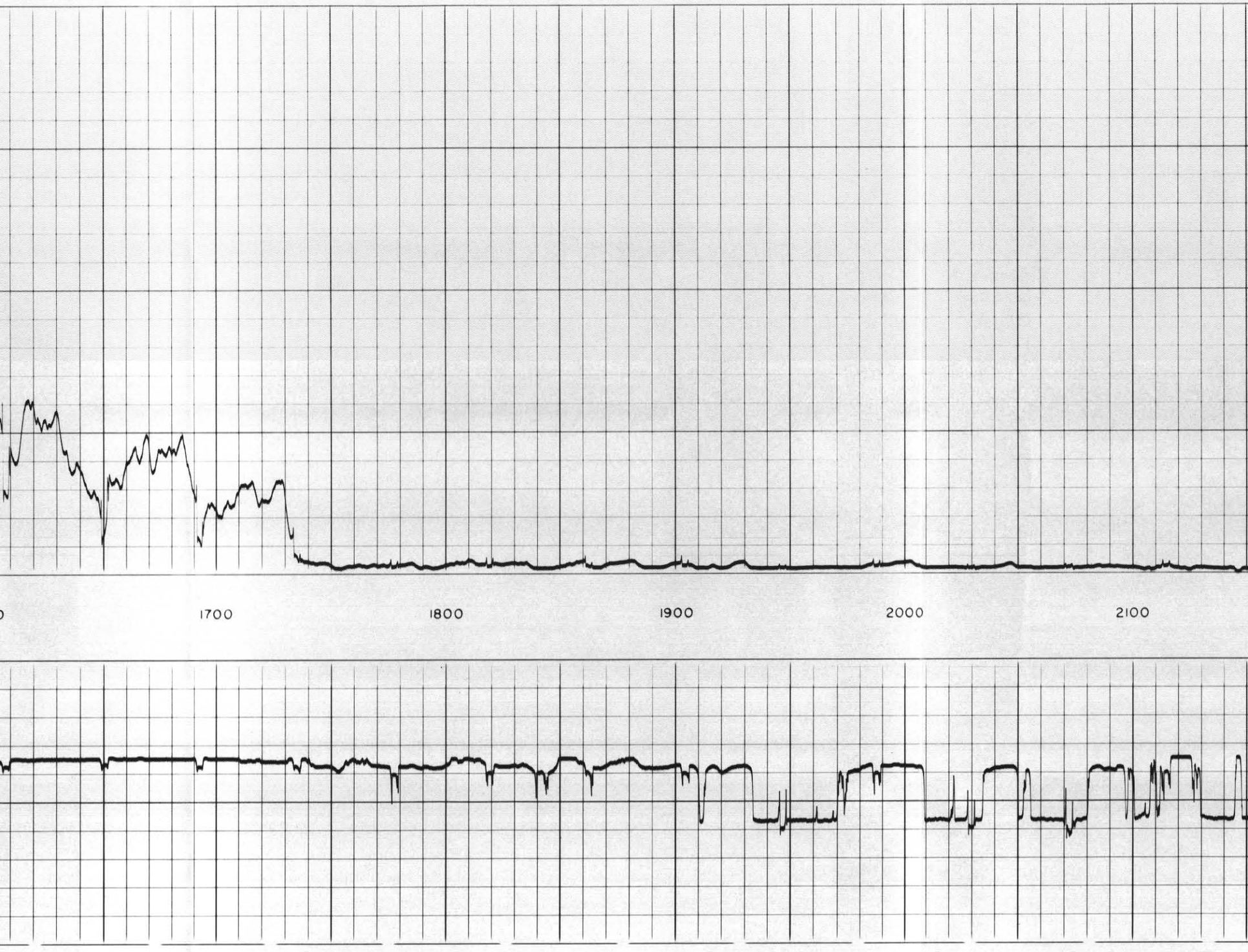
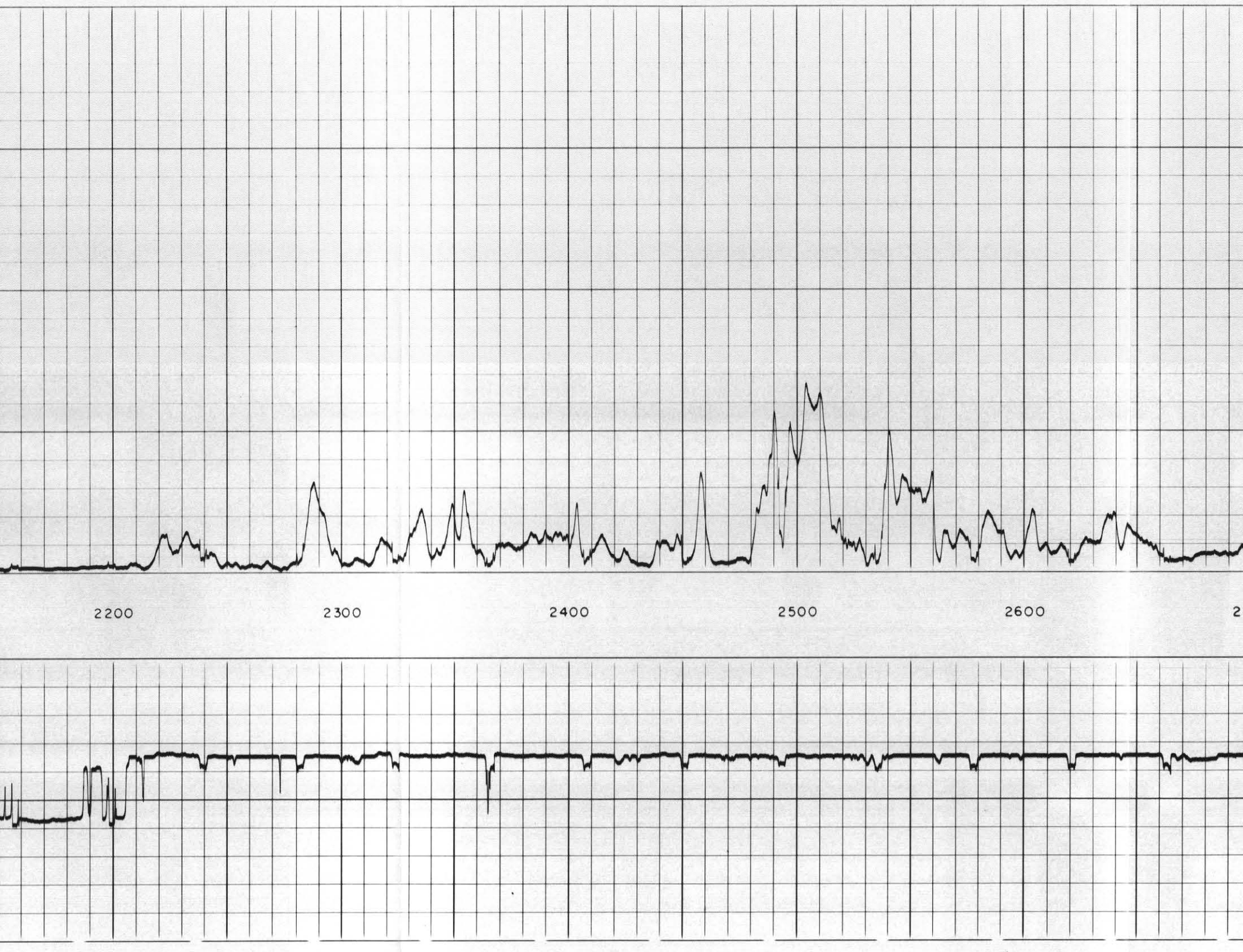
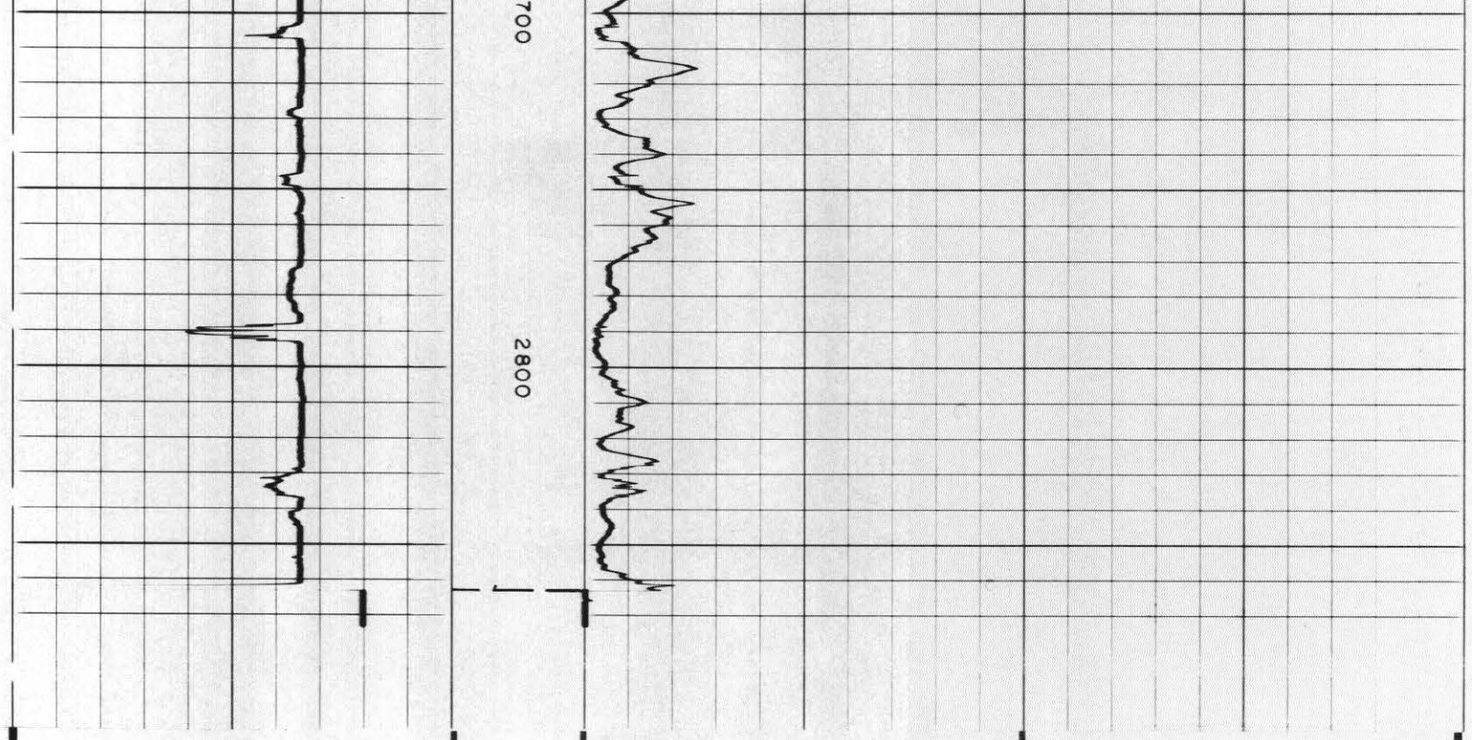
1200
1300
1400
1500
1600


1700
1800
1900
2000
2100


2200
2300
2400
2500
2600



400 200

BONDING INCREASES

0 50

TRANSIT TIME microseconds	DEPTHS	BOND LOG millivolts	

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WELL STORAGE UNIT #902

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COUNTY LEWIS STATE WASHINGTON

SCHL FR 2863
SCHL TD 2870
DRLR TD 2865
Elev:
KB 533
DF -
GL 522

DETAIL LOG

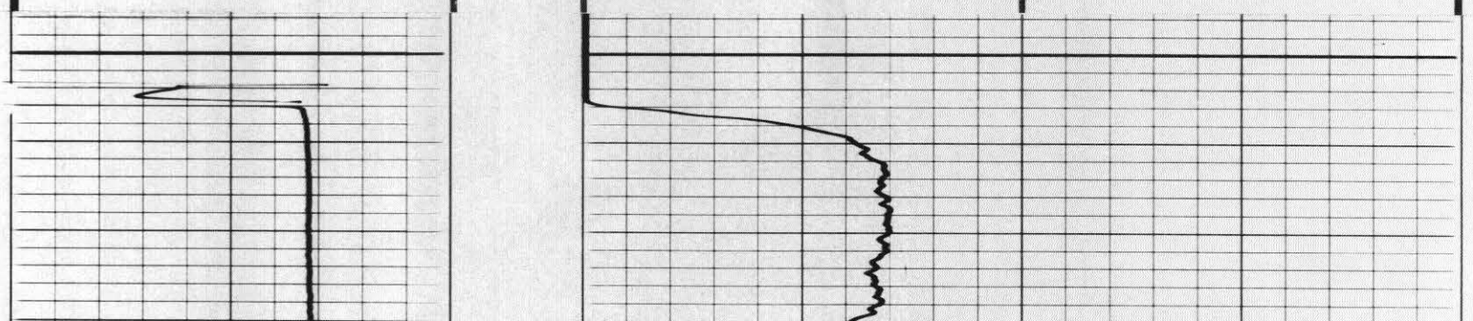
5"=100'

TRANSIT TIME microseconds	DEPTHS	BOND LOG millivolts	

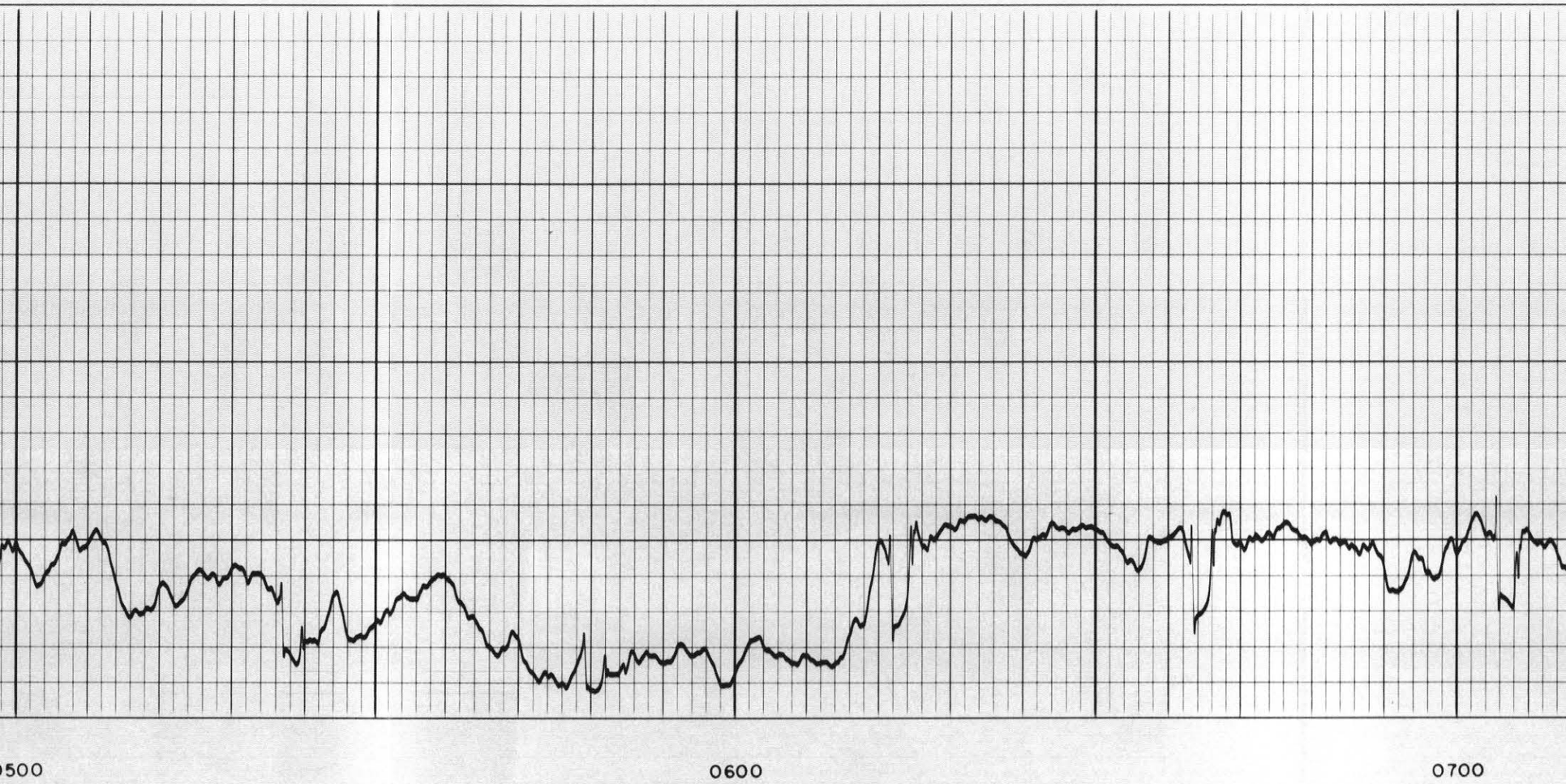
400 200

BONDING INCREASES

0 50



0300
0400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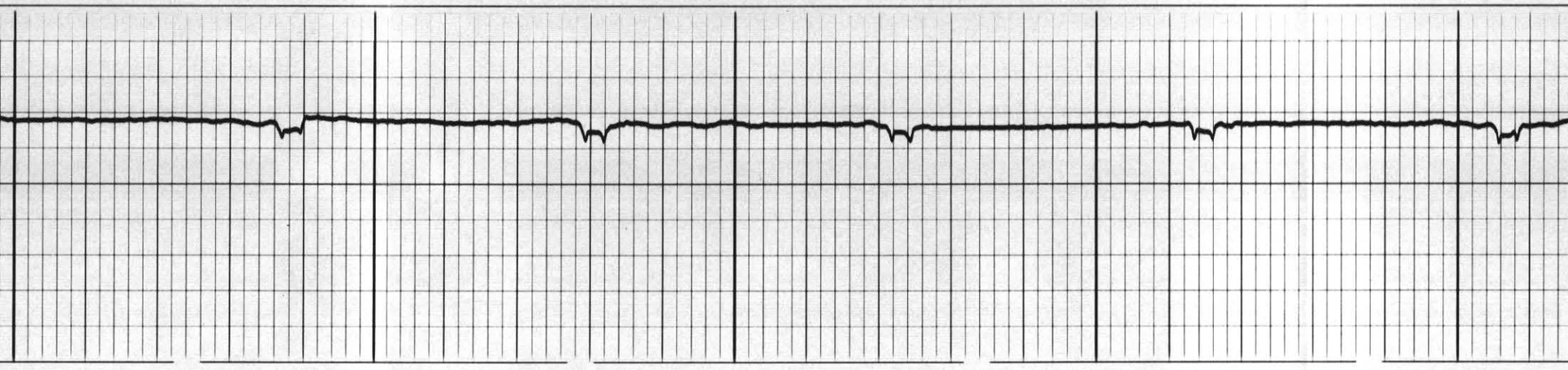
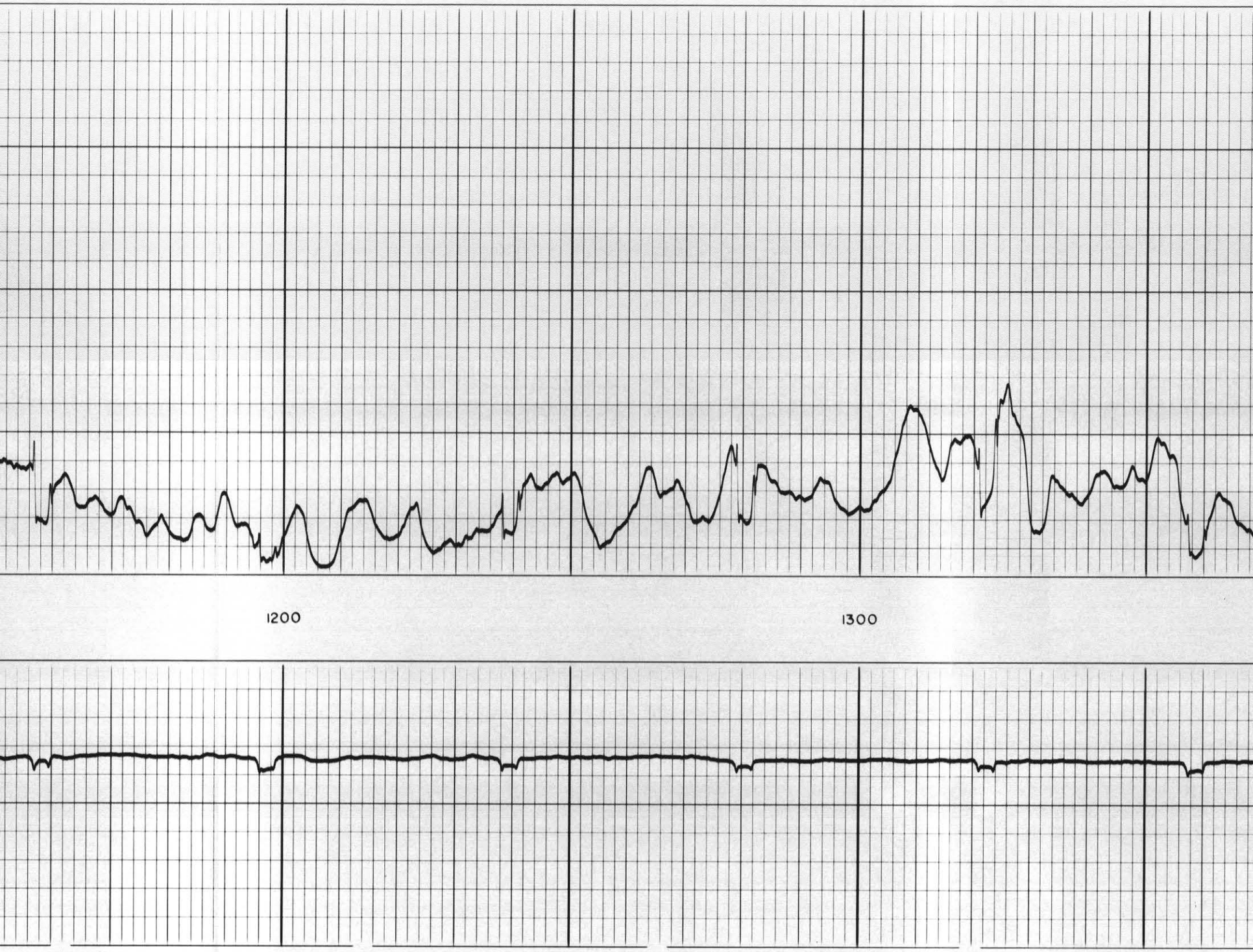
0700



0800
0900

0011
0001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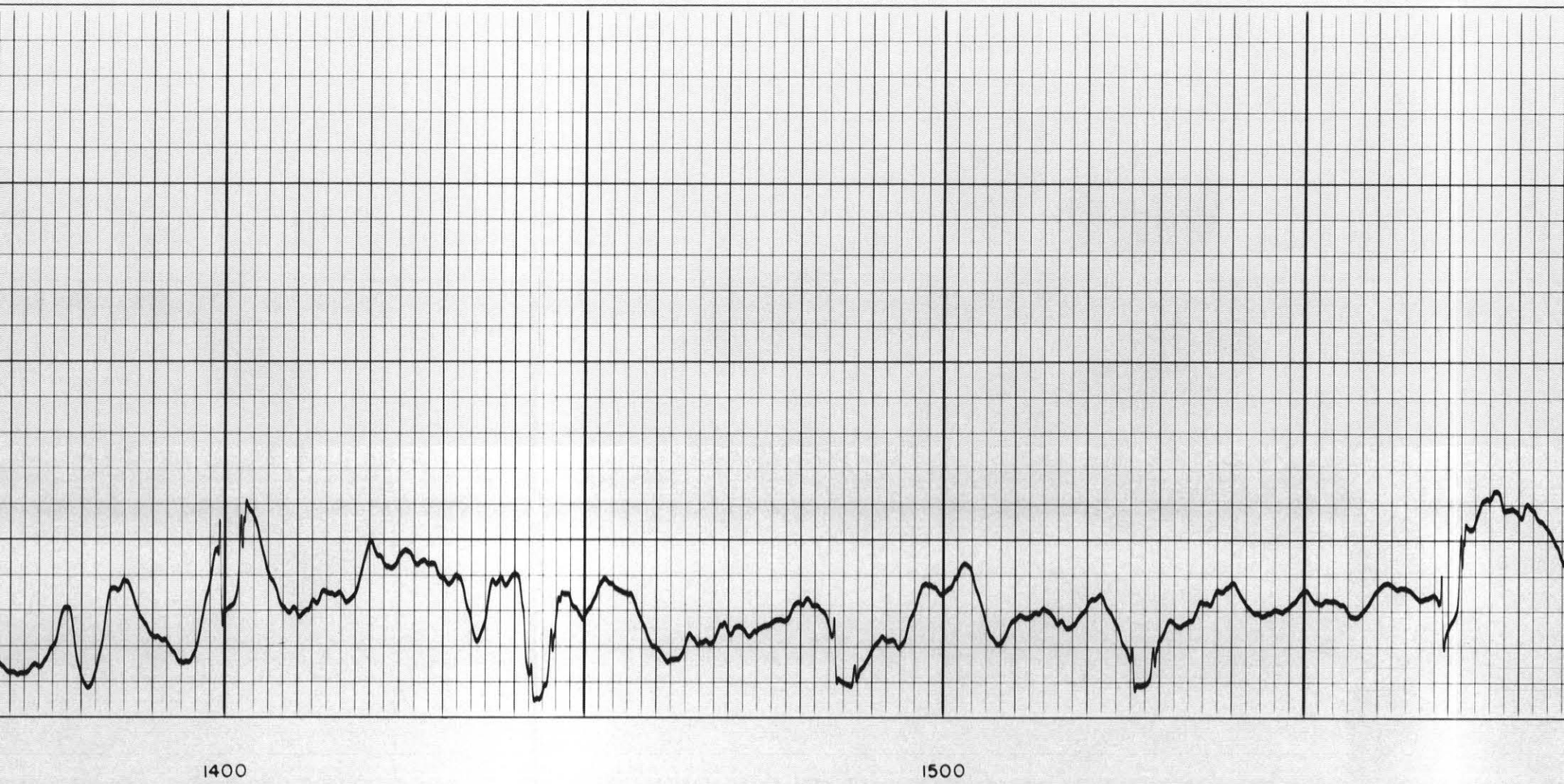
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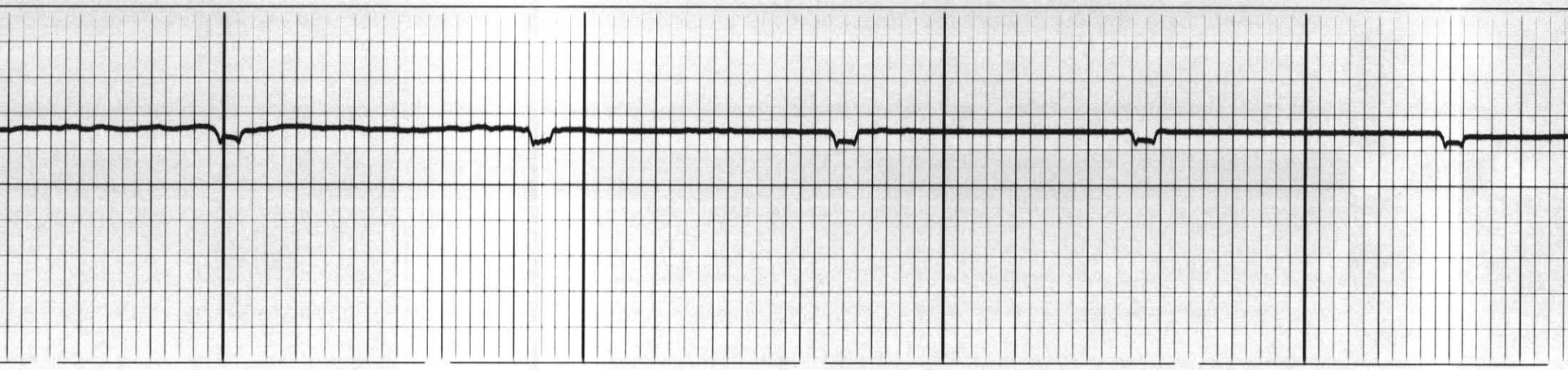
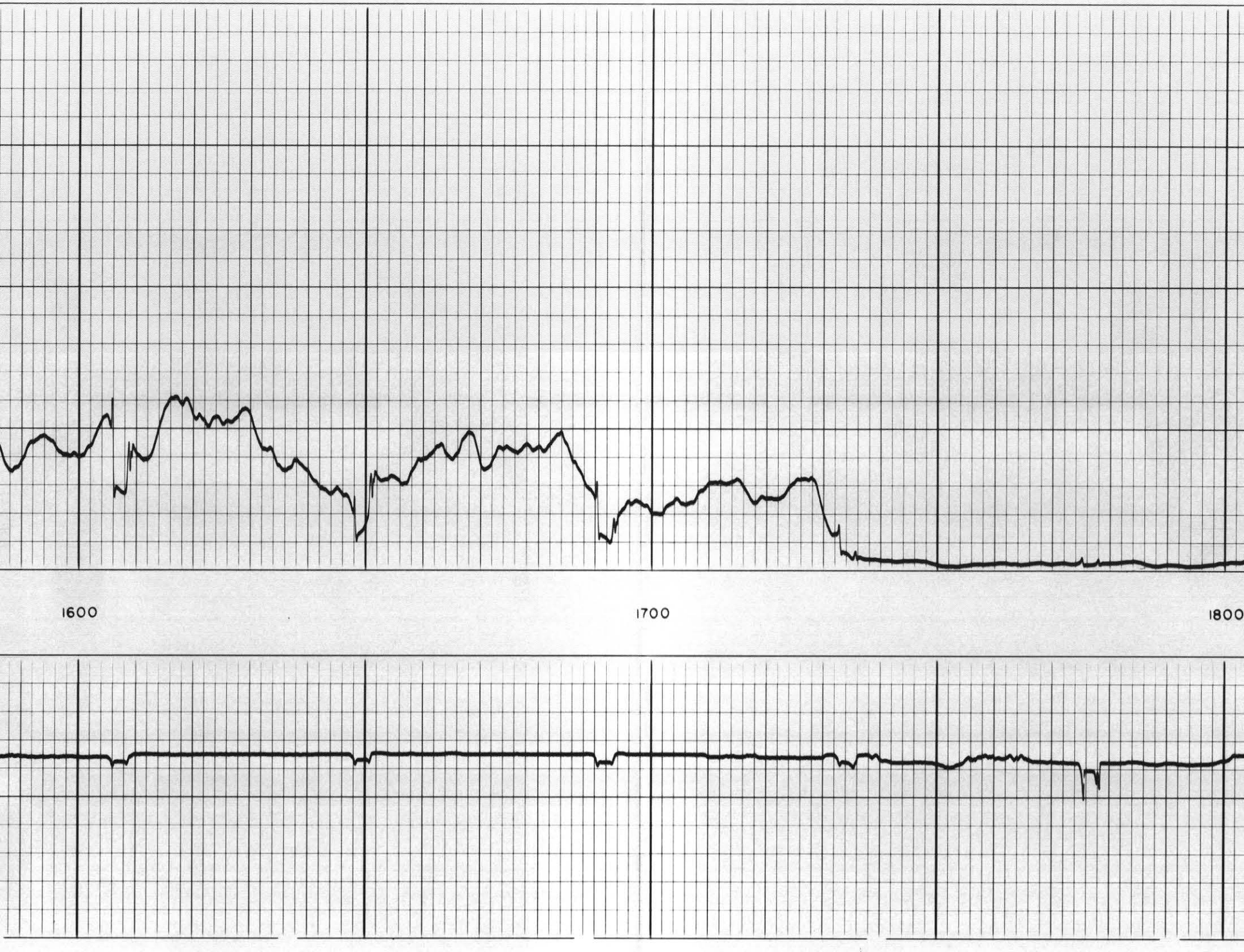
1500

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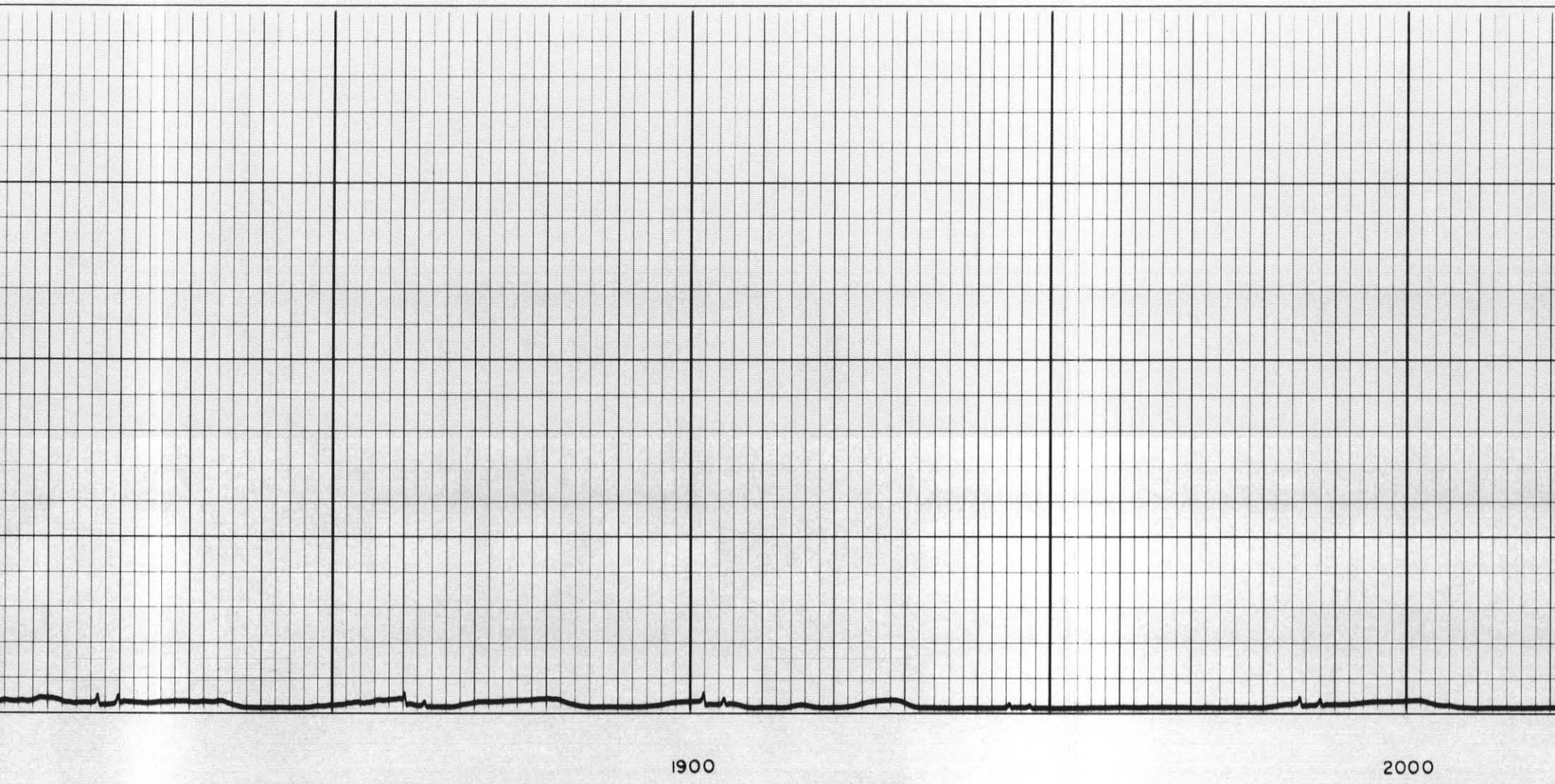
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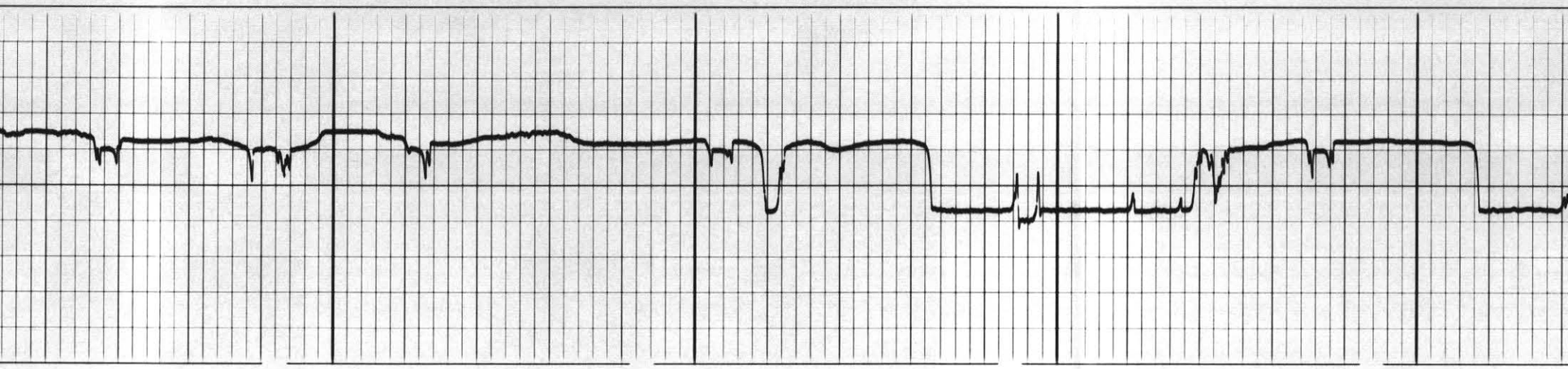
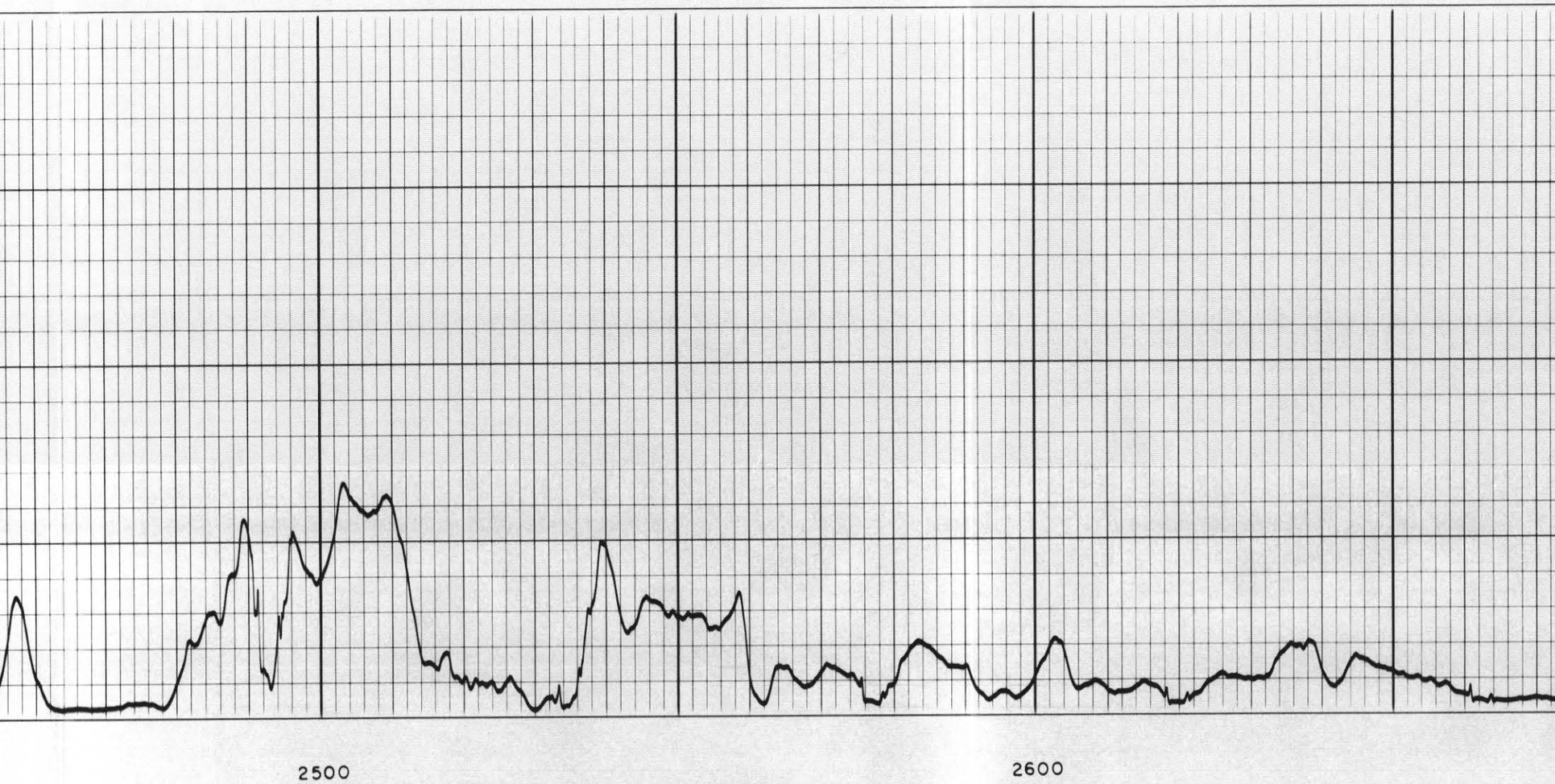
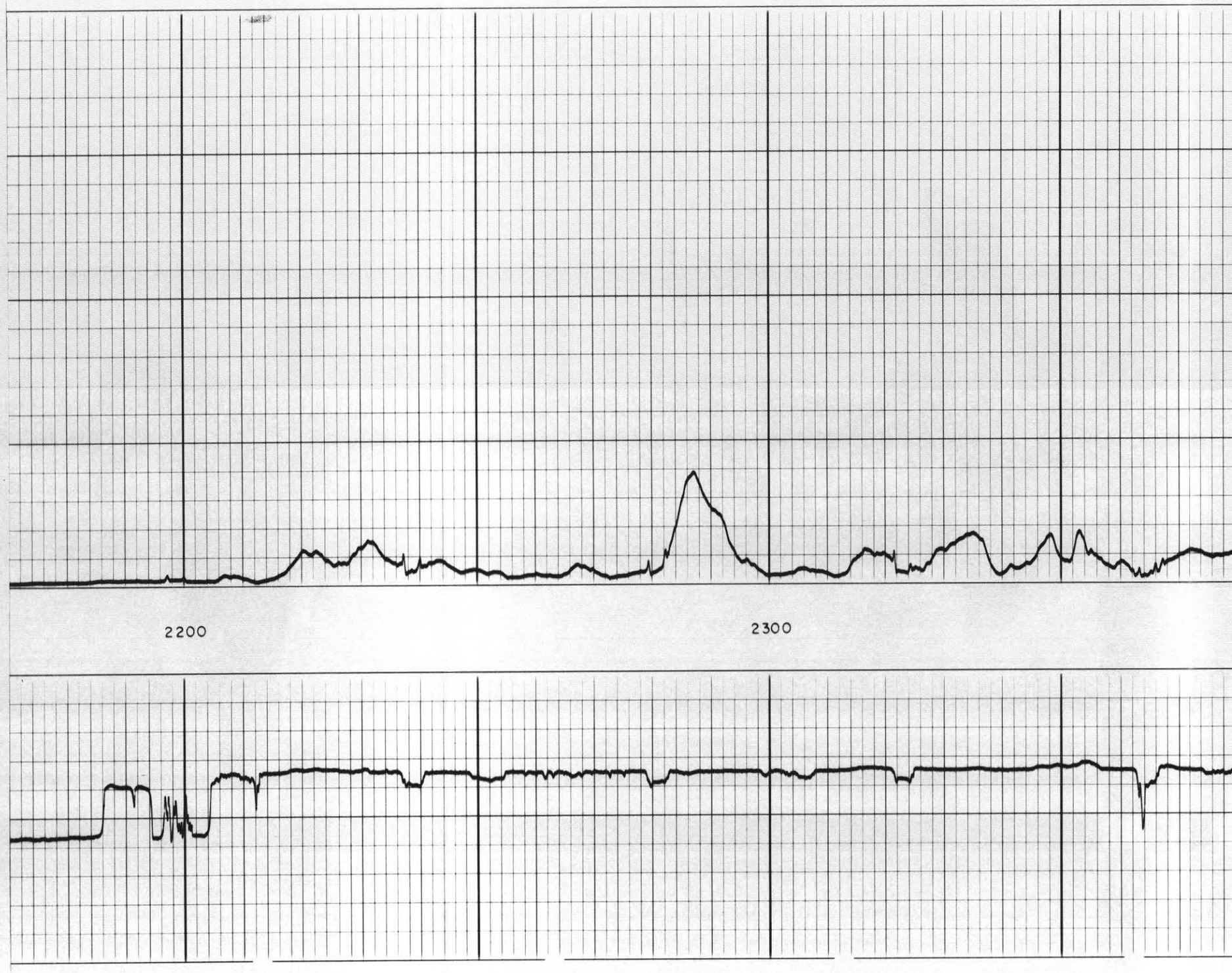


2100
2200

2300
2400


2500
2600

REPEAT SECTION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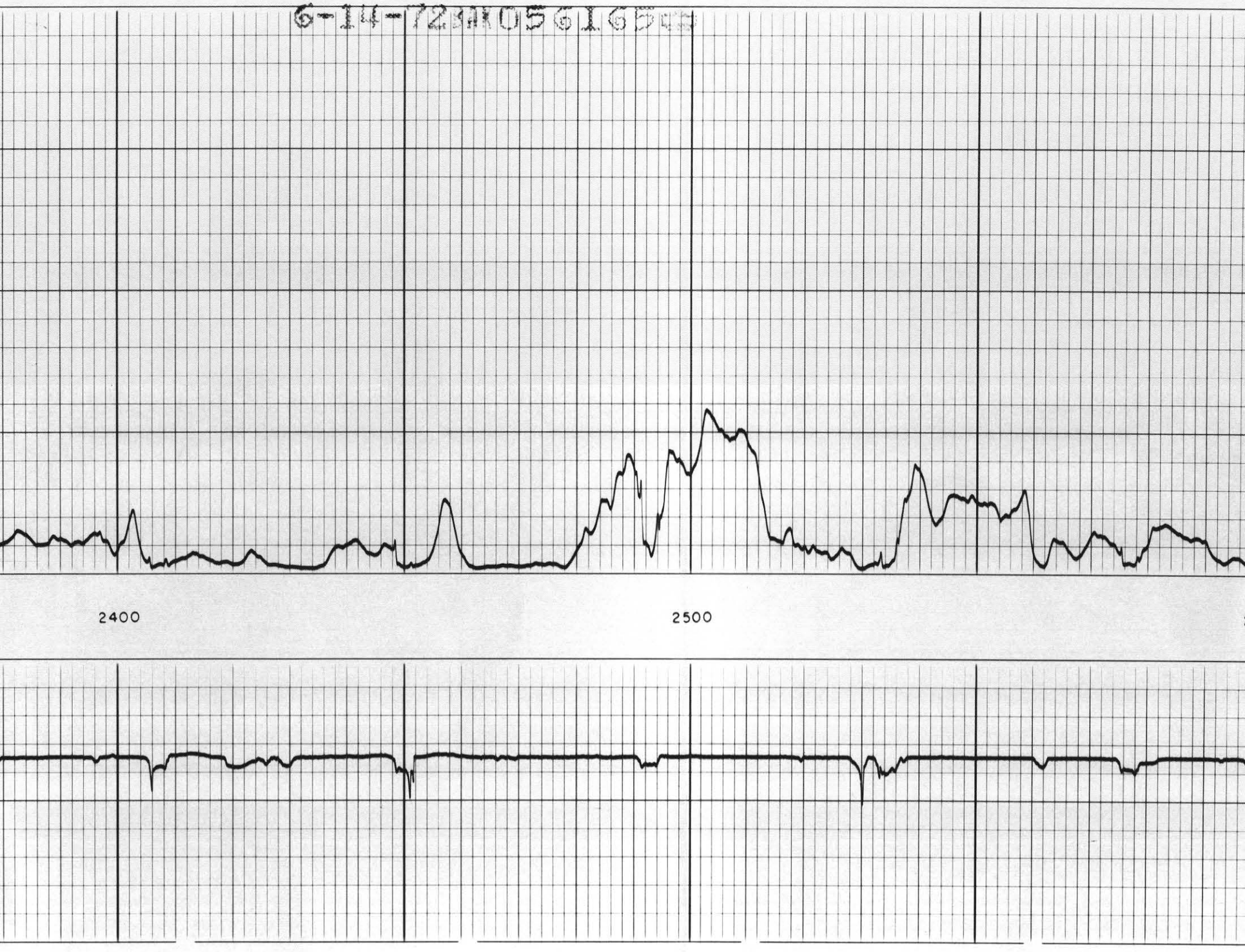
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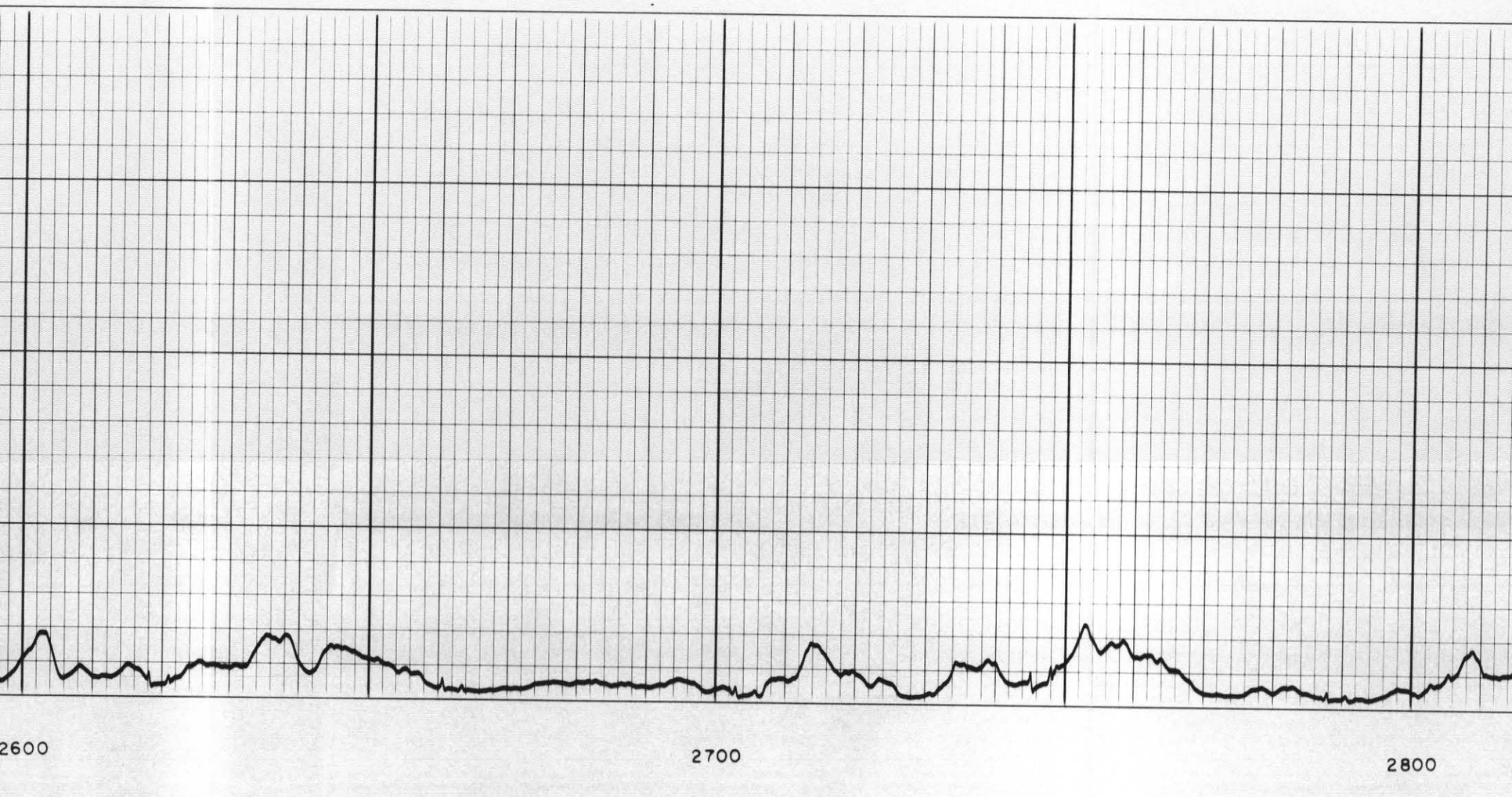
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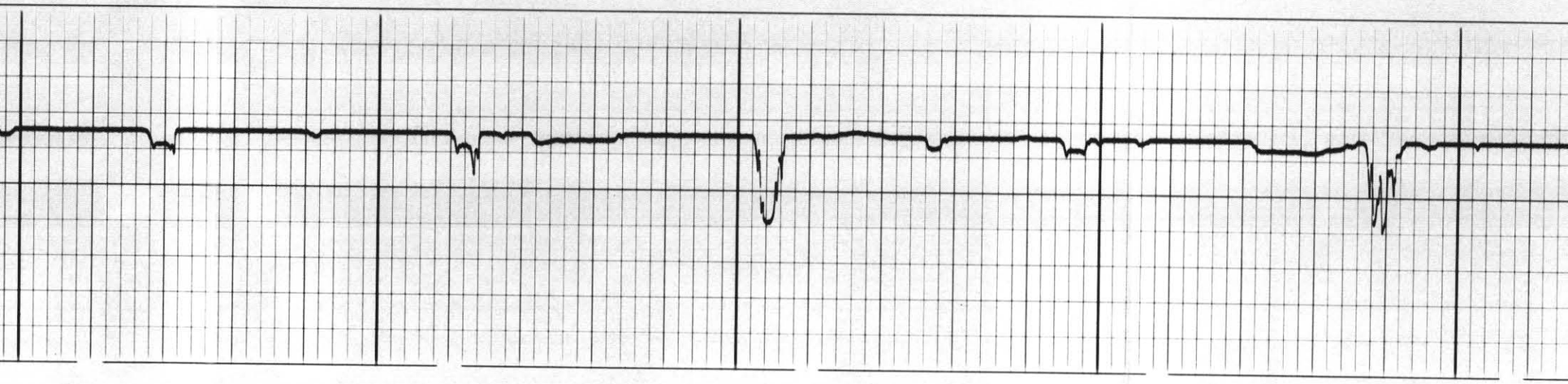

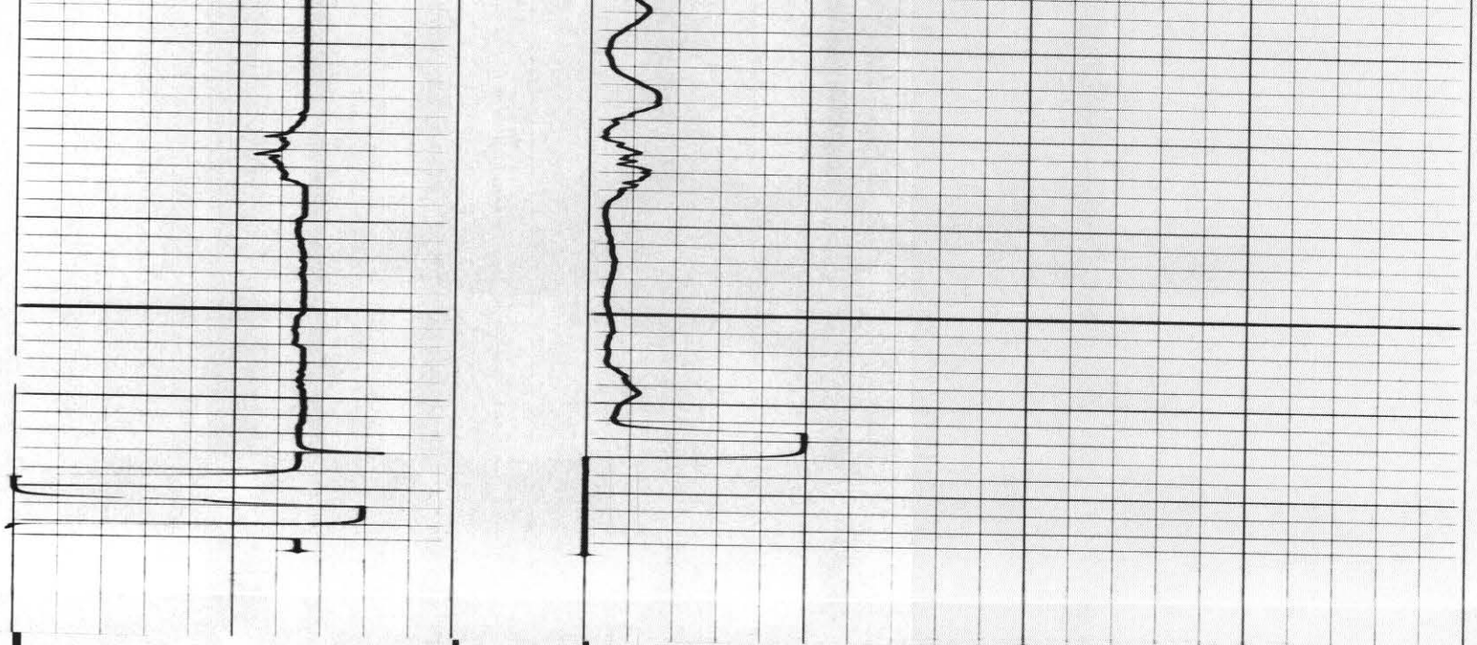

400	200		BONDING INCREASES ← 0	50	
TRANSIT TIME microseconds		DEPTHS	BOND LOG millivolts		

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