



# DUAL INDUCTION LOG

Company VESS OIL CORPORATION  
 Well MILLS A #41  
 Field EL DORADO  
 County BUTLER  
 State KANSAS

Company VESS OIL CORPORATION  
 Well MILLS A #41  
 Field EL DORADO  
 County BUTLER State KANSAS

Location: 2200' FNL & 2000' FWL  
 API # : 15-015-24088-00-00  
 Other Services CDL/CNL/MEL  
 Permanent Datum GROUND LEVEL Elevation 1370'  
 Log Measured From KELLY BUSHING 6' A.G.L.  
 Drilling Measured From KELLY BUSHING  
 SEC 22 TWP 25S RGE 5E  
 Elevation K.B. 1376'  
 D.F. 1374  
 G.L. 1370

Date	08/27/17
Run Number	ONE
Depth Driller	2468
Depth Logger	2468
Bottom Logged Interval	2466
Top Log Interval	SURFACE
Casing Driller	10 3/4" @ 253
Casing Logger	253
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.3/74
pH / Fluid Loss	10.0/6.7
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.1@84
Rmt @ Meas. Temp	.83@84
Rmc @ Meas. Temp	1.32@84
Source of Rmf / Rmc	MEASURED
Rm @ BHT	.90@102
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	///
Maximum Recorded Temperature	102F
Equipment Number	4010
Location	HAYS, KANSAS
Recorded By	GUS PFANENSTIEL
Witnessed By	ROGER MARTIN

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

### Comments

THANK YOU FOR USING ELI WIRELINE, HAYS, KS. (785) 628-6395

DIRECTIONS  
 HAVERHILL RD IN EL DORADO, NORTH OVER  
 TURNPIKE 3/4 NORTH, EAST INTO.



# MAIN PASS

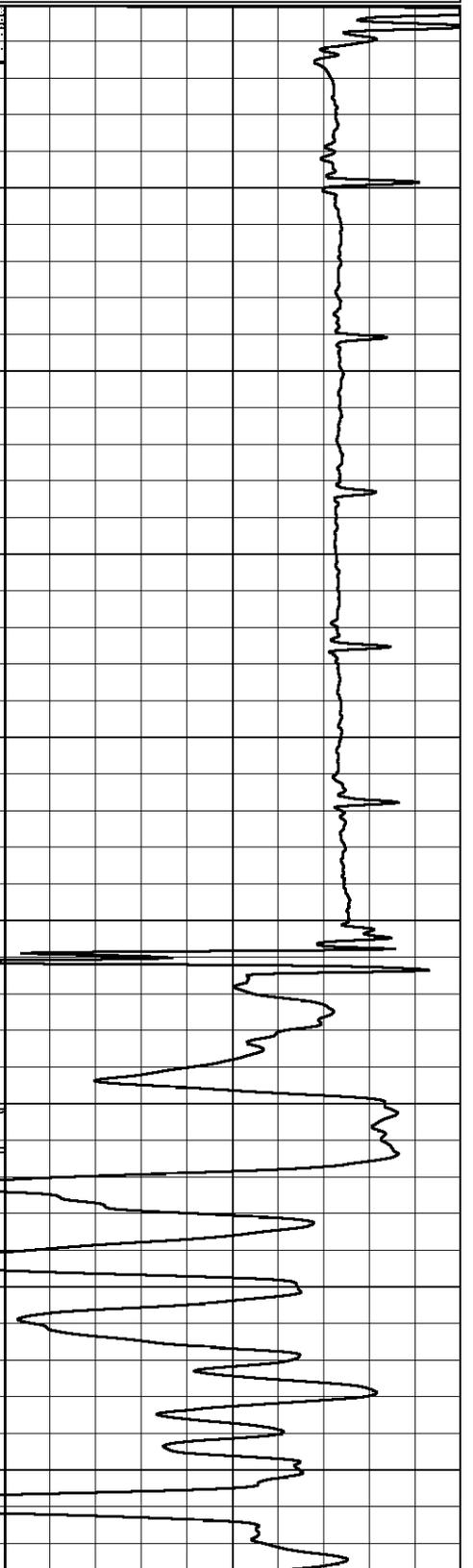
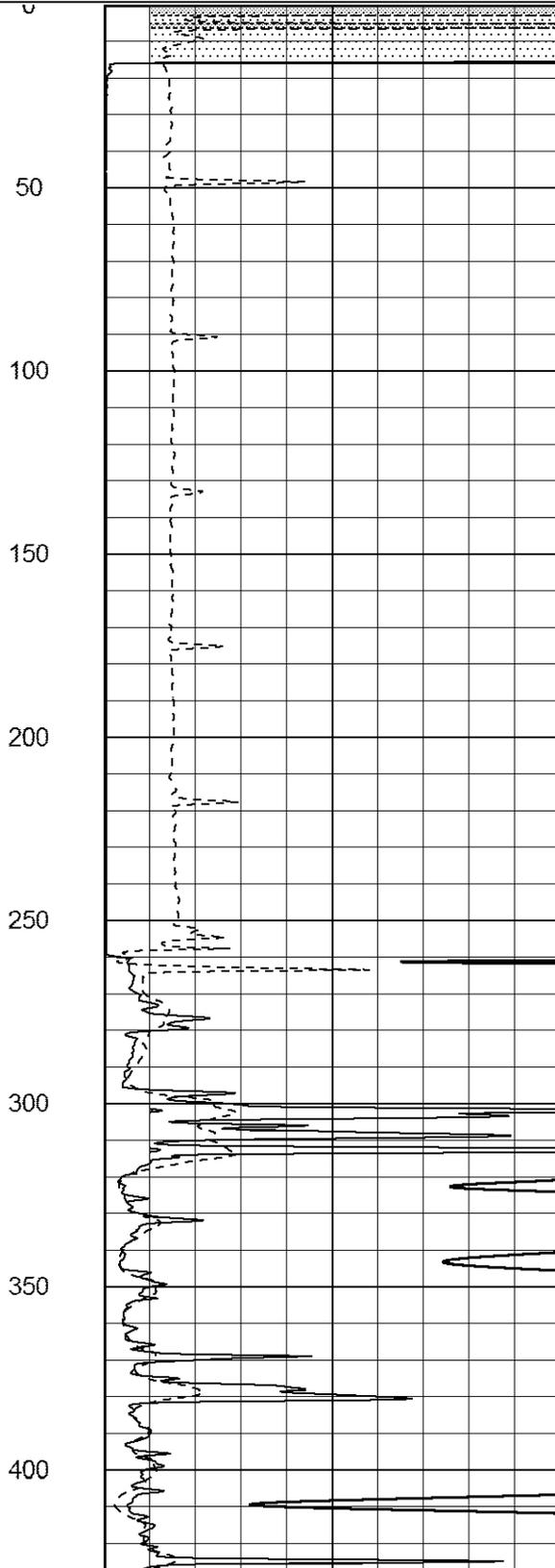
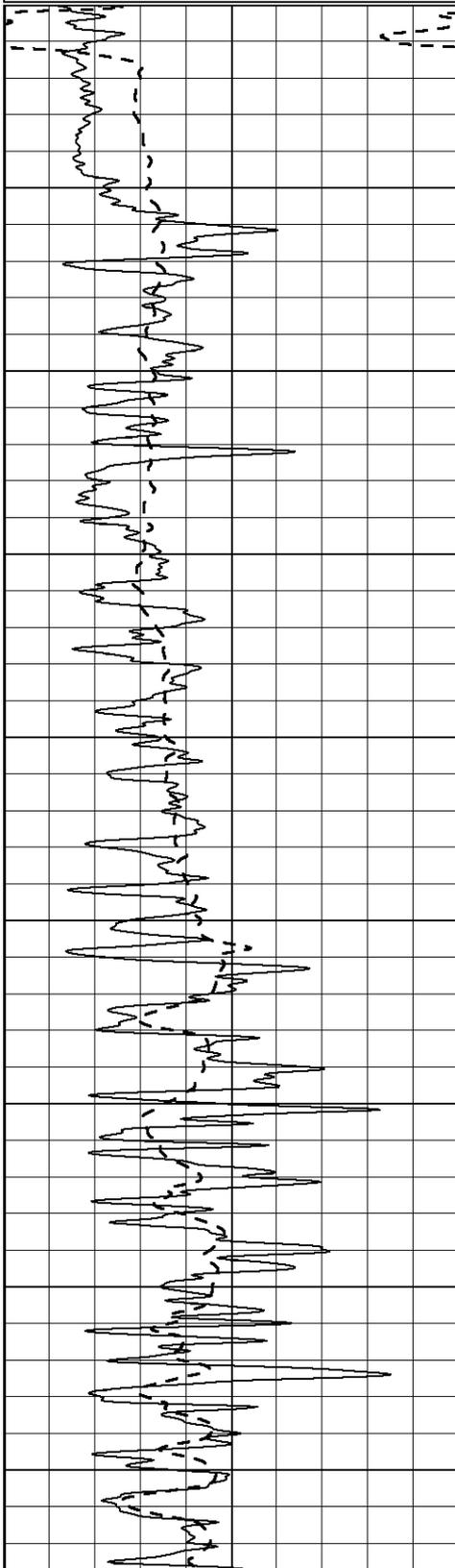
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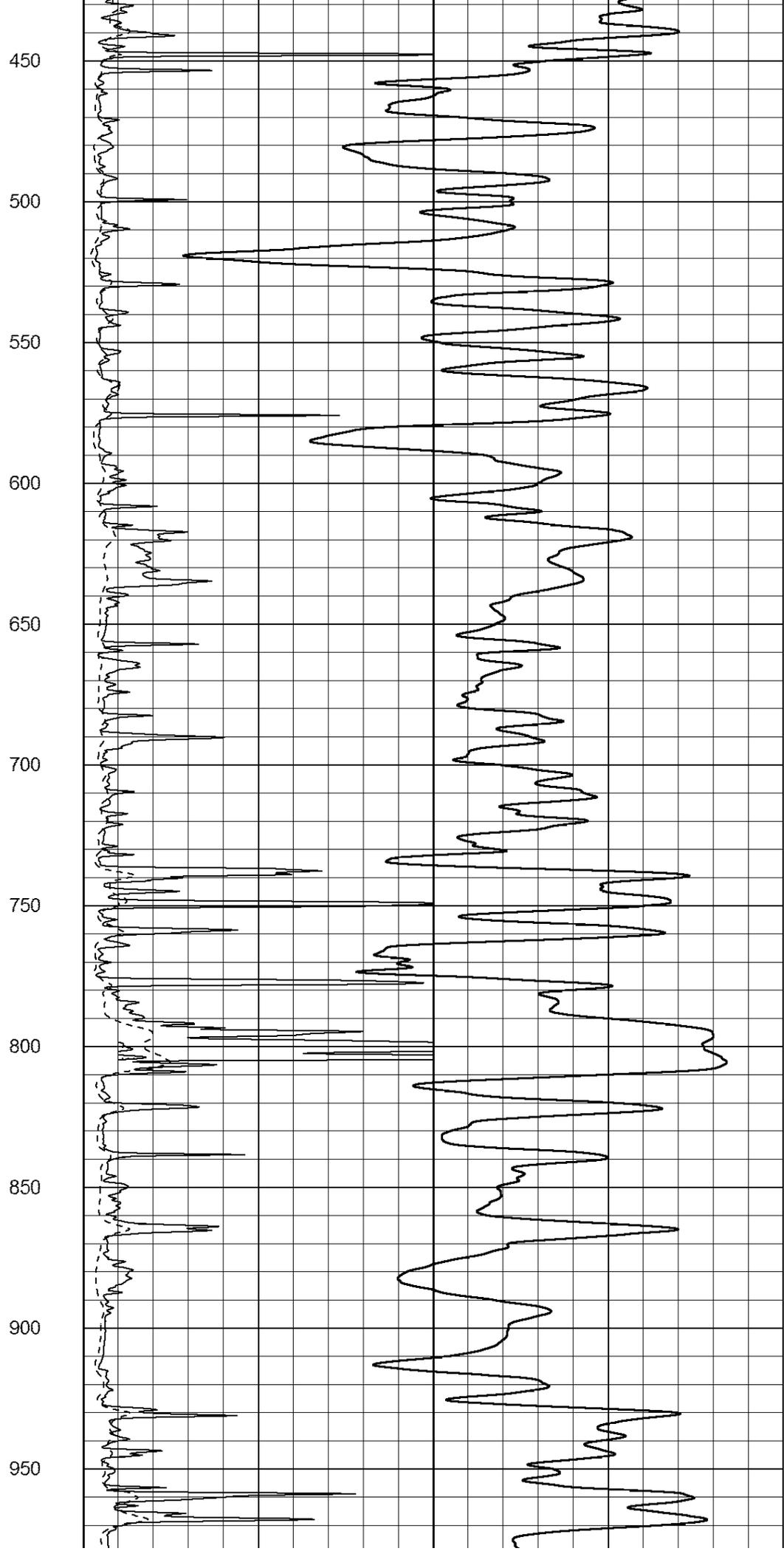
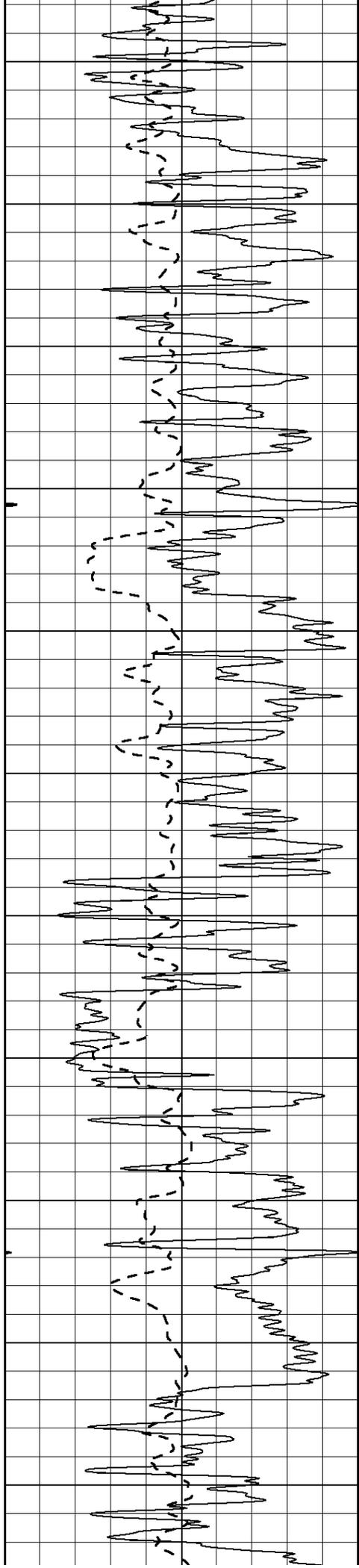
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-100	SP (mV)	100

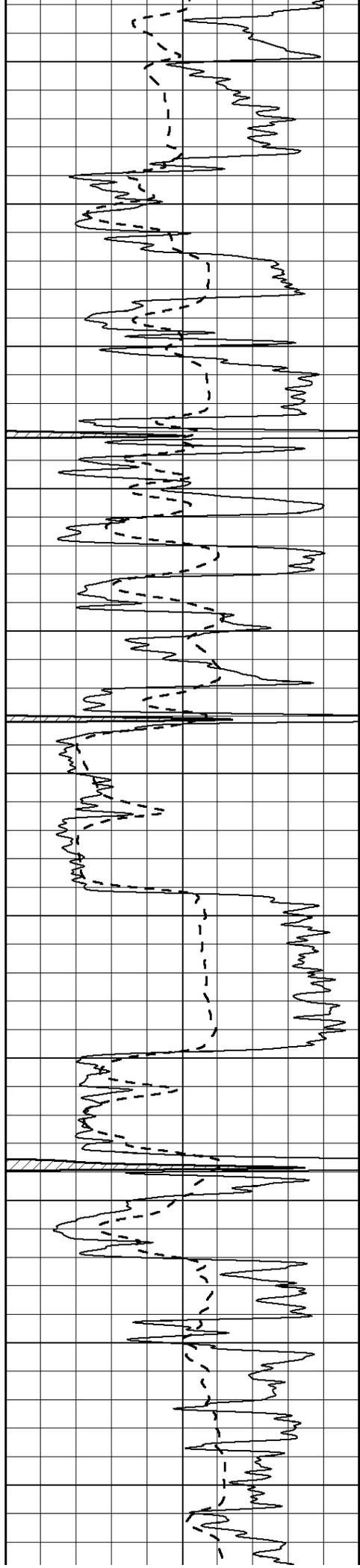
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50

1000	CILD (mmho/m)	0
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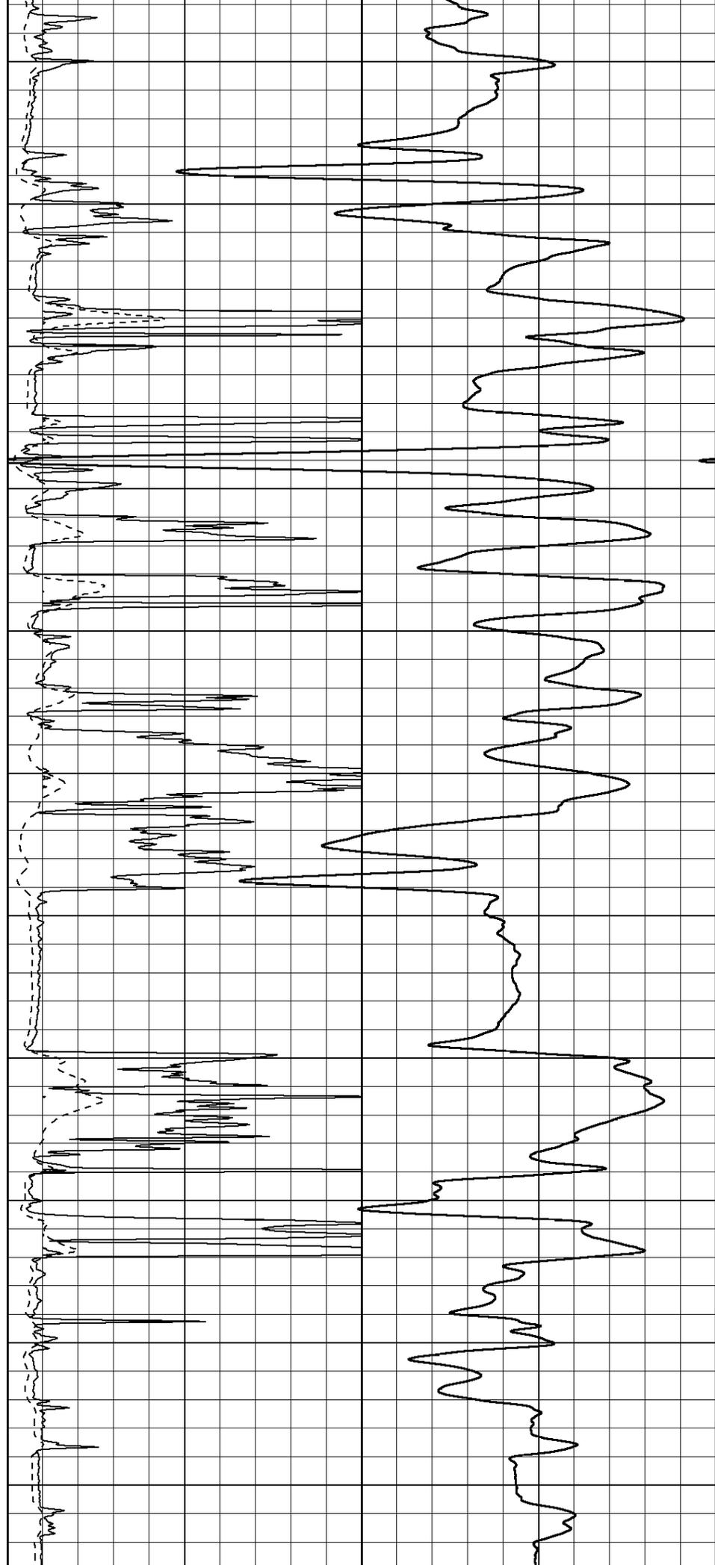
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50	RLL3 X10 (Ohm-m)	500

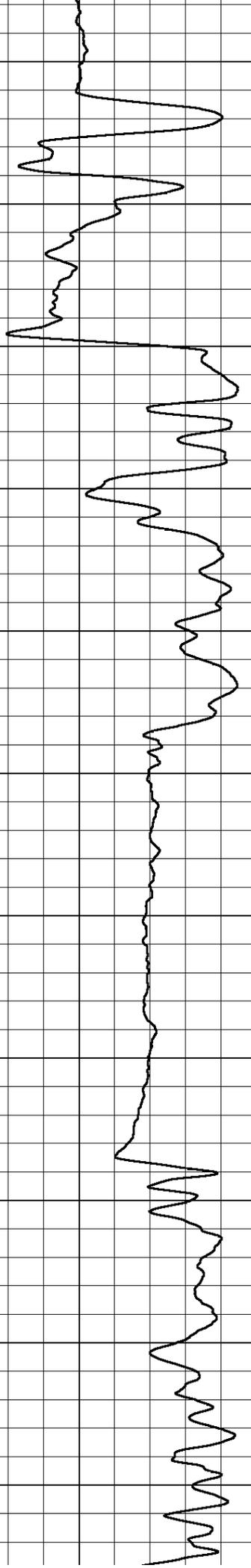
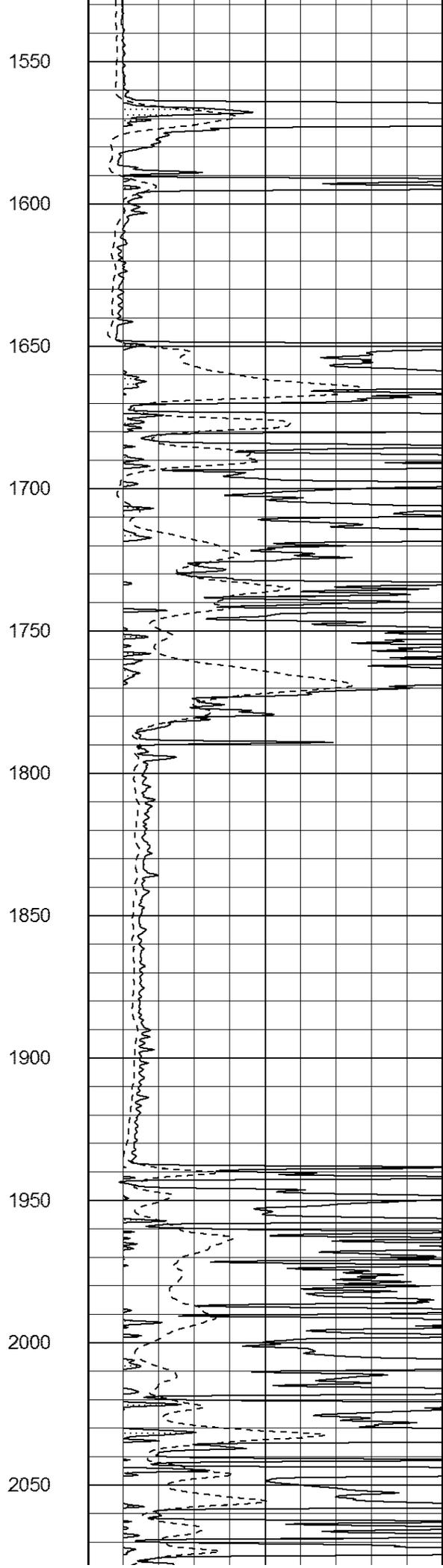
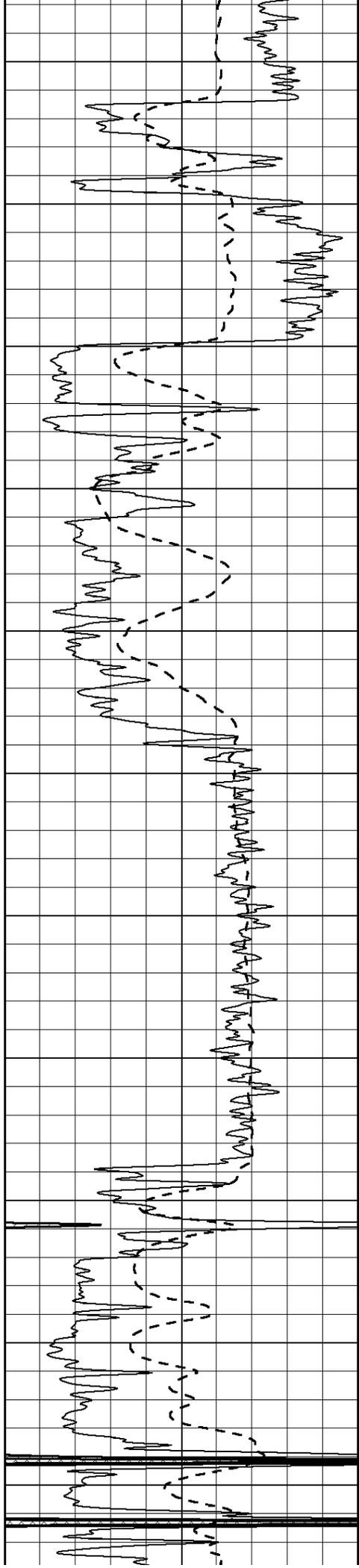


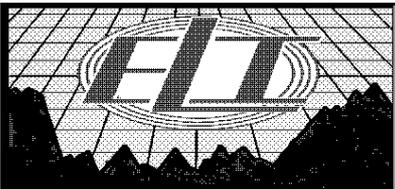
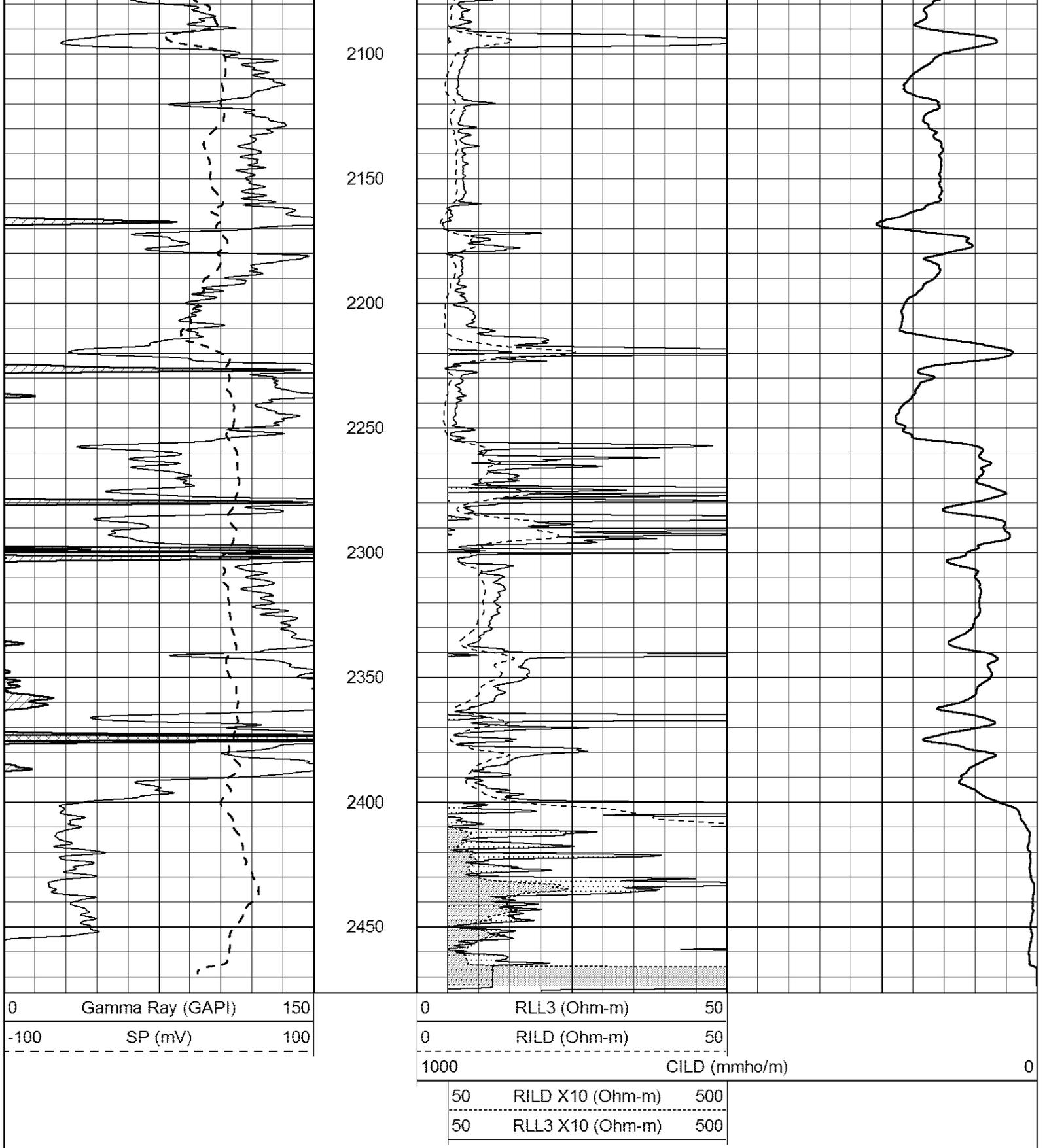




1000  
1050  
1100  
1150  
1200  
1250  
1300  
1350  
1400  
1450  
1500





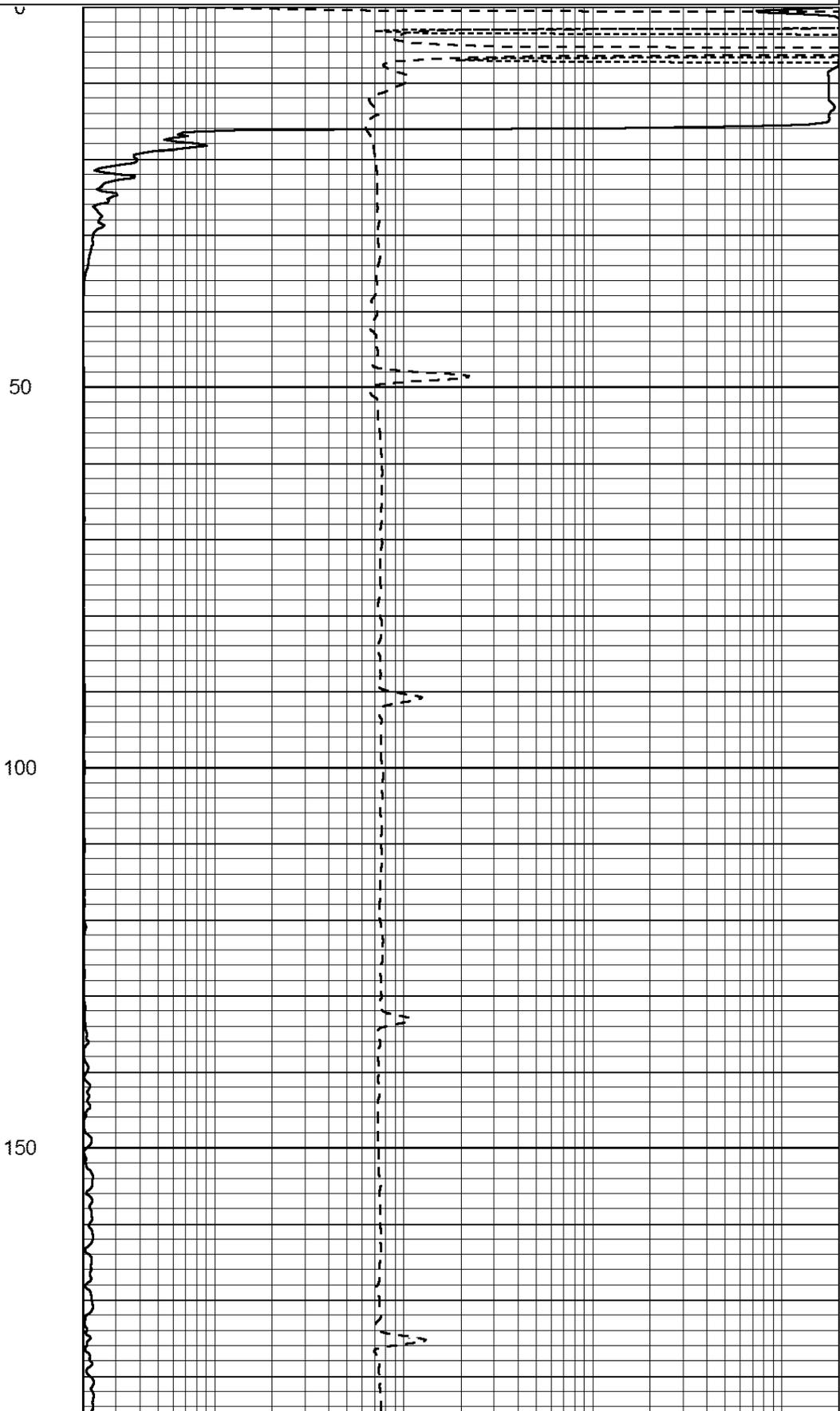
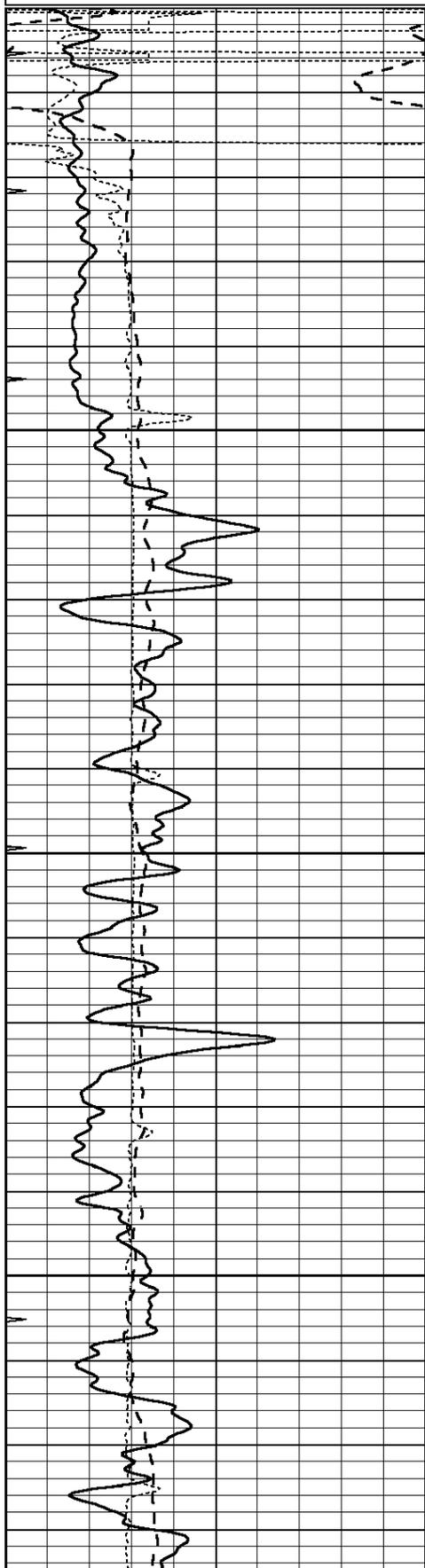


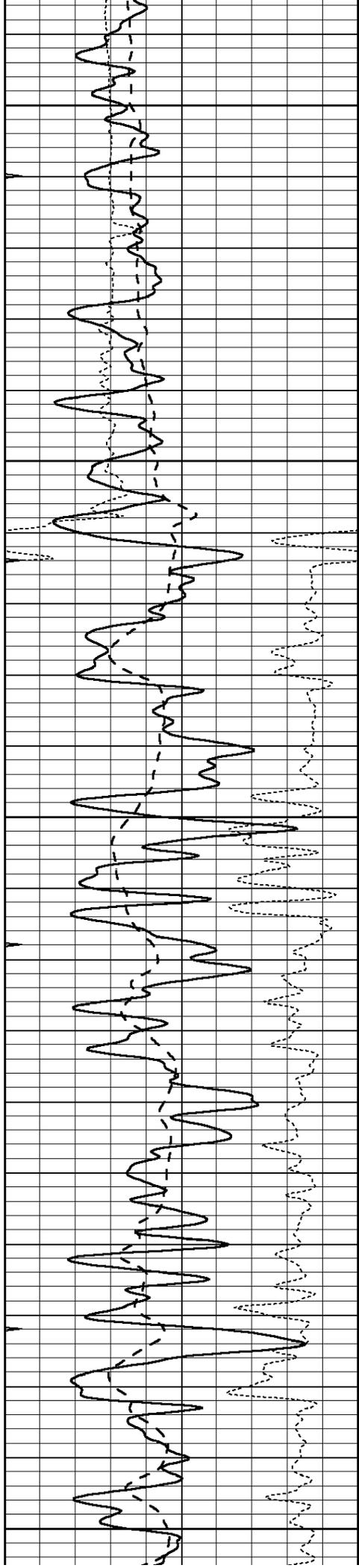
# MAIN PASS

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0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





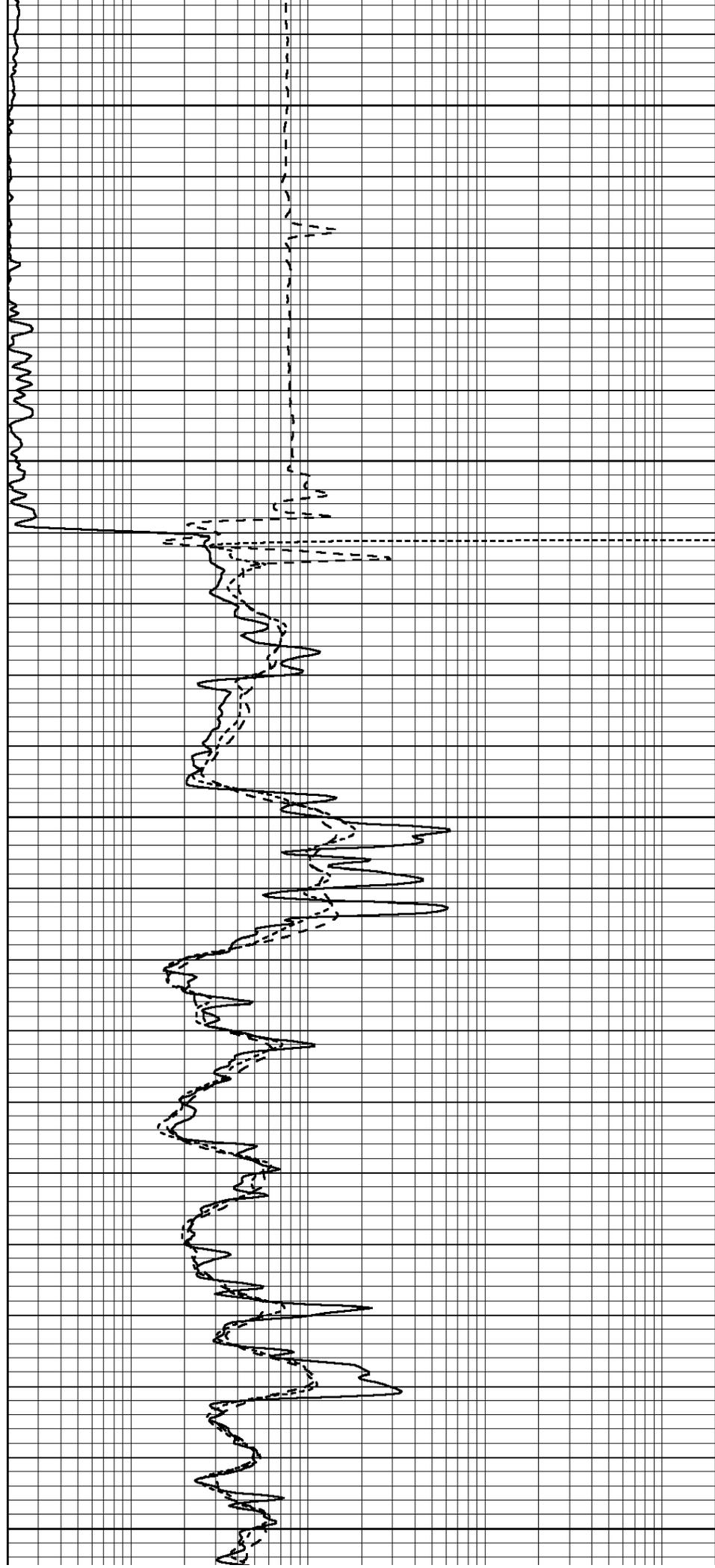
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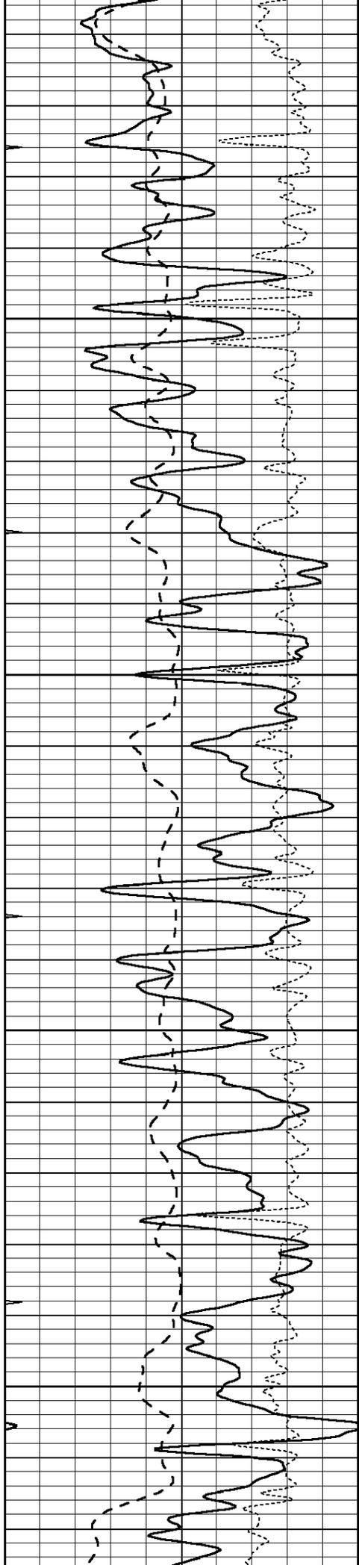
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300

350

400



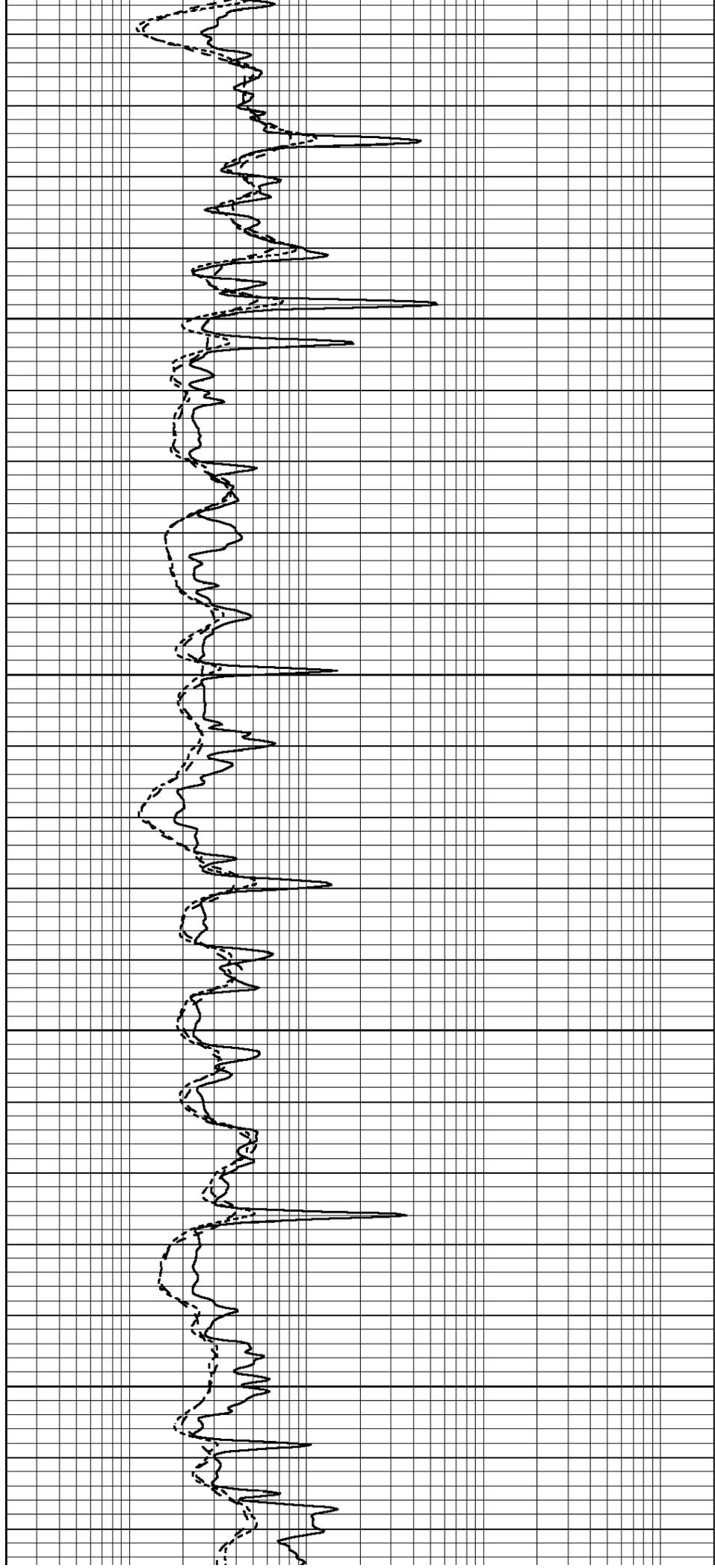


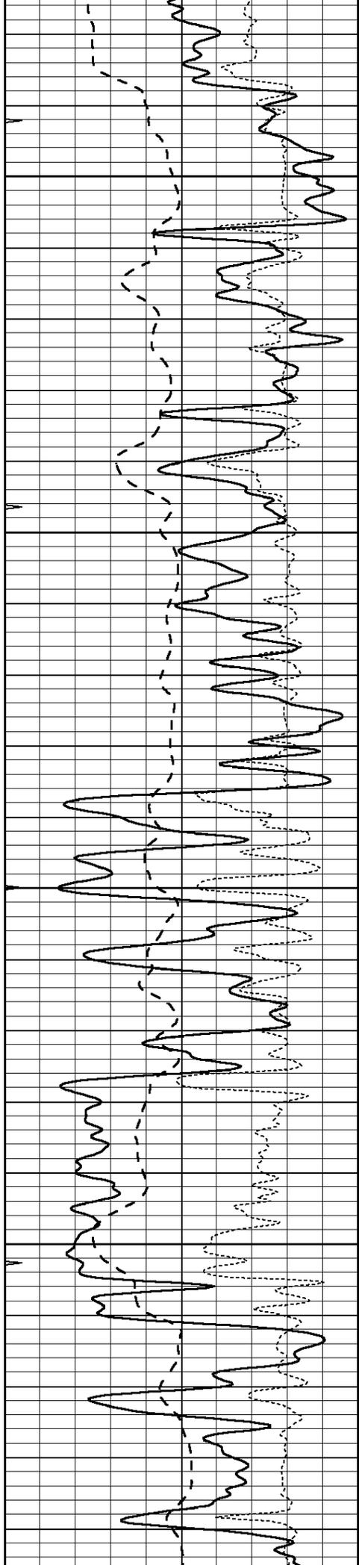
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500

550

600



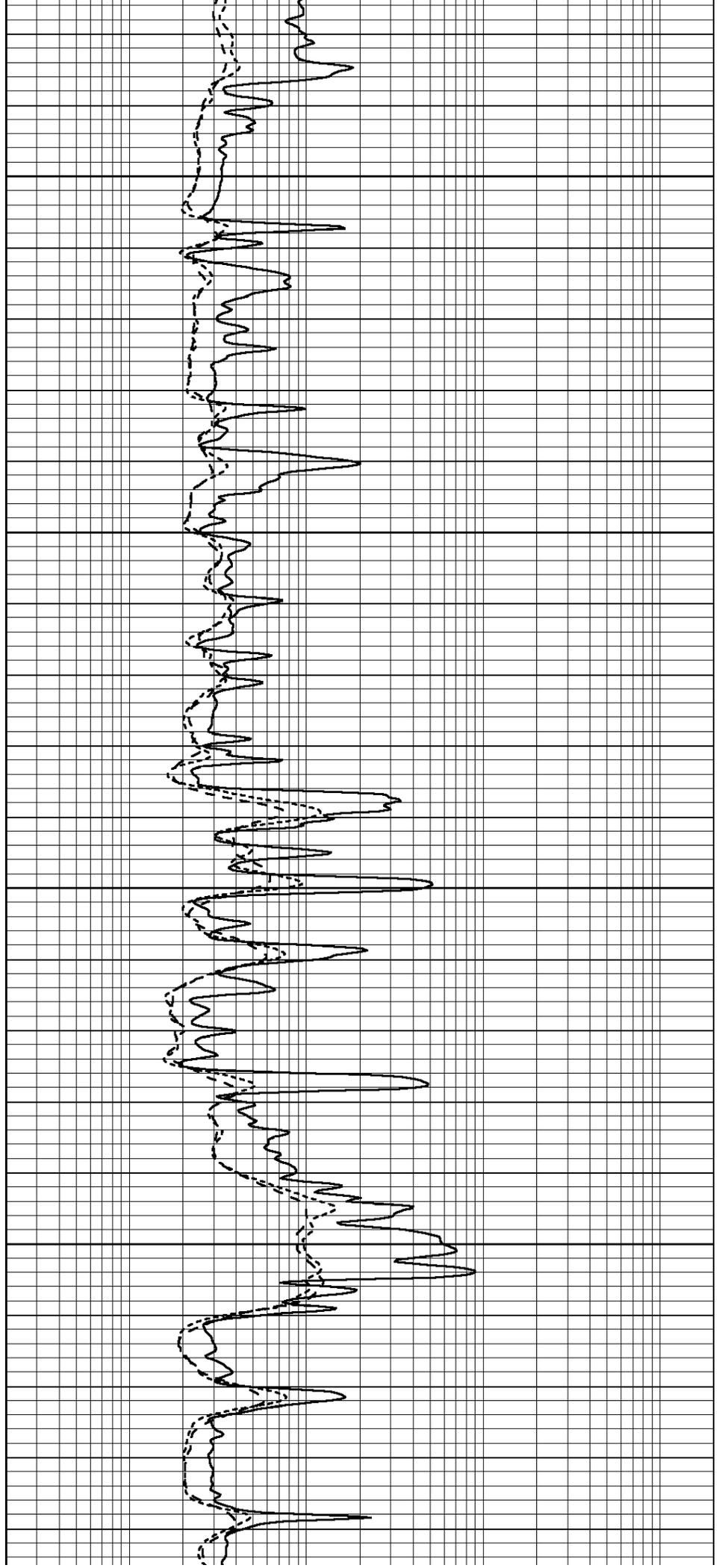


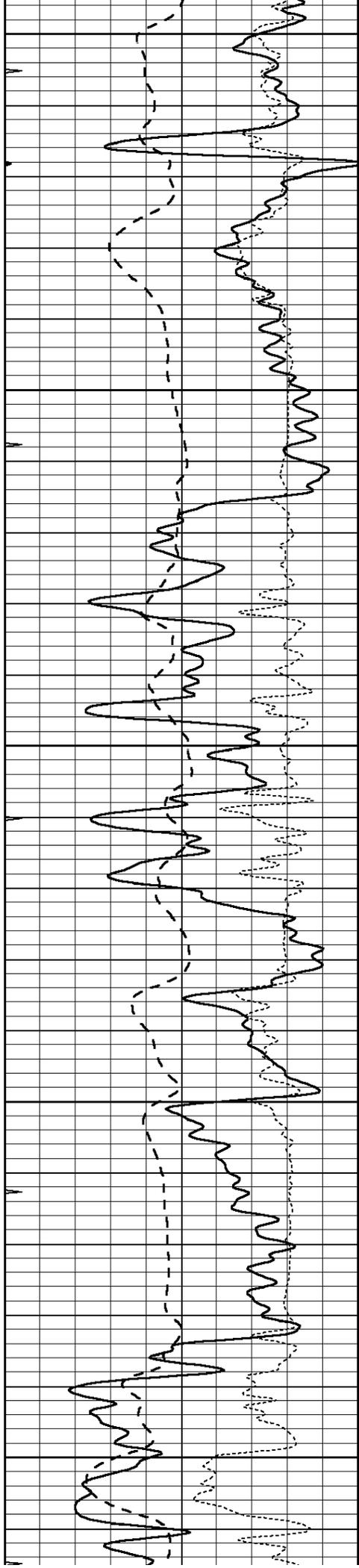
650

700

750

800





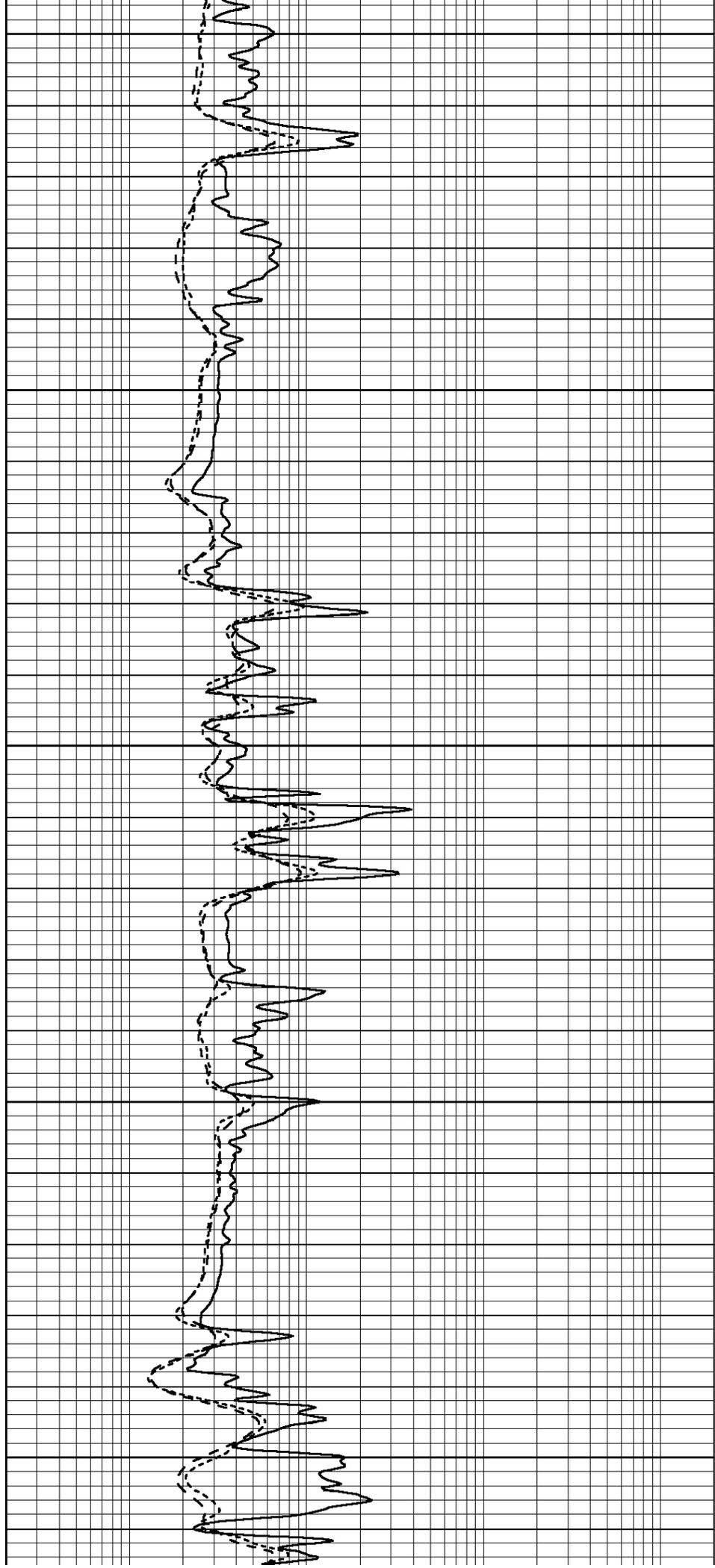
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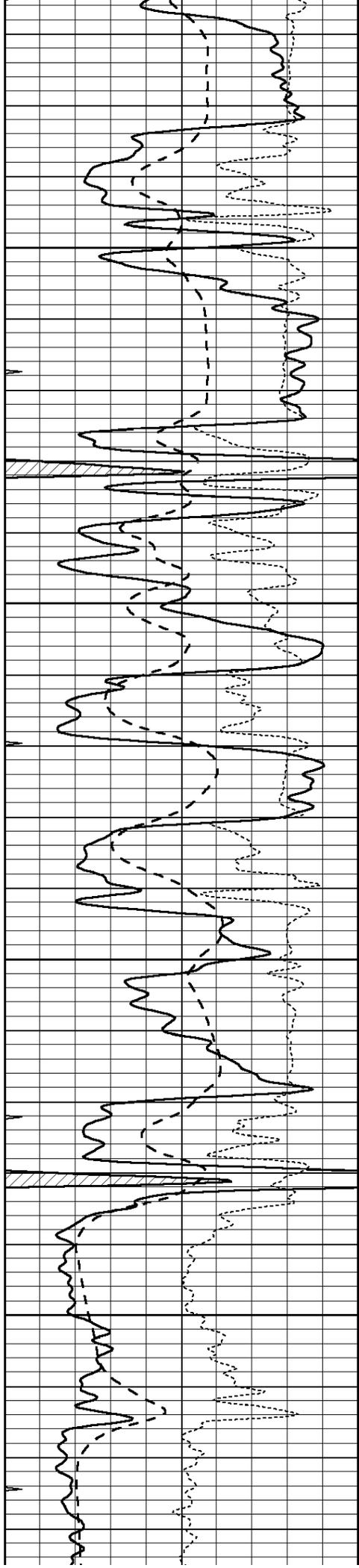
900

950

1000

1050



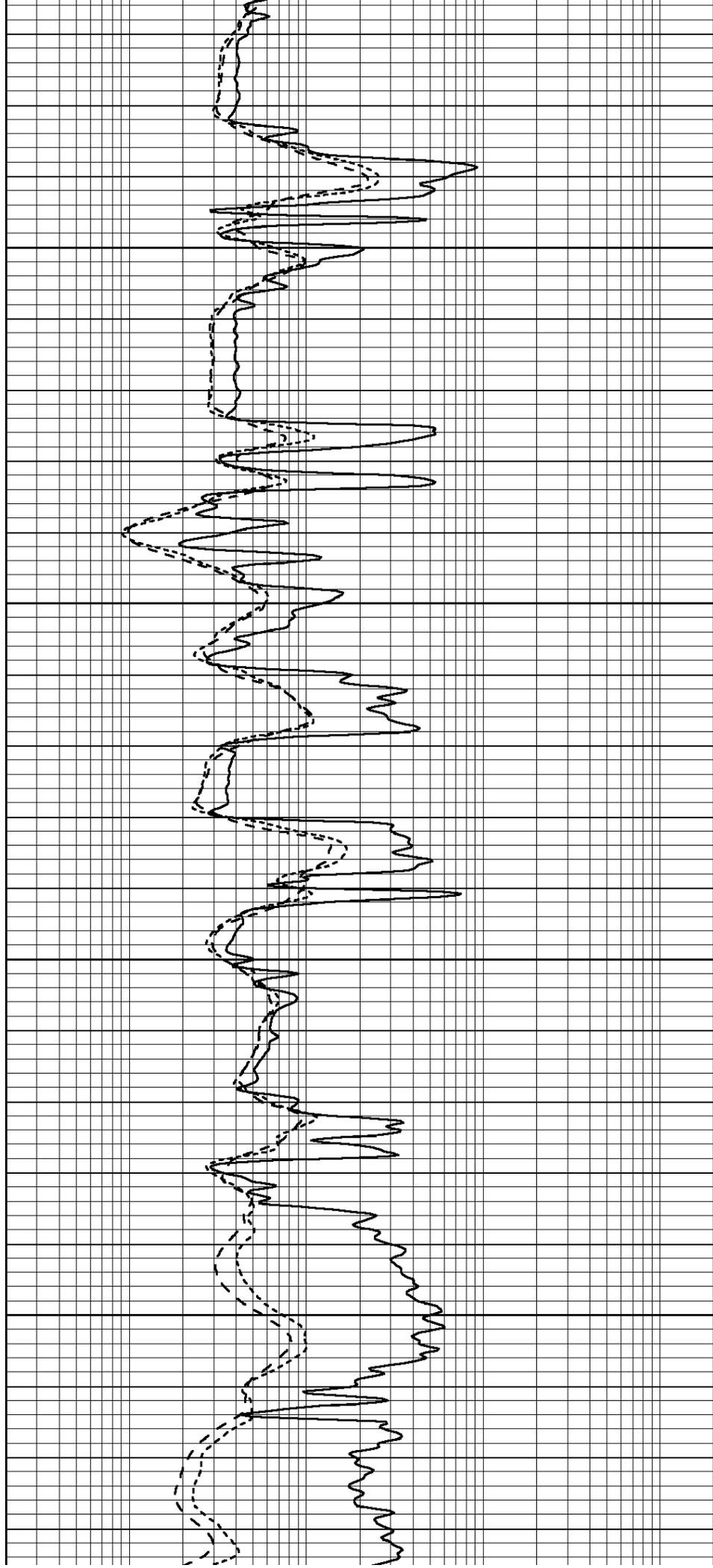


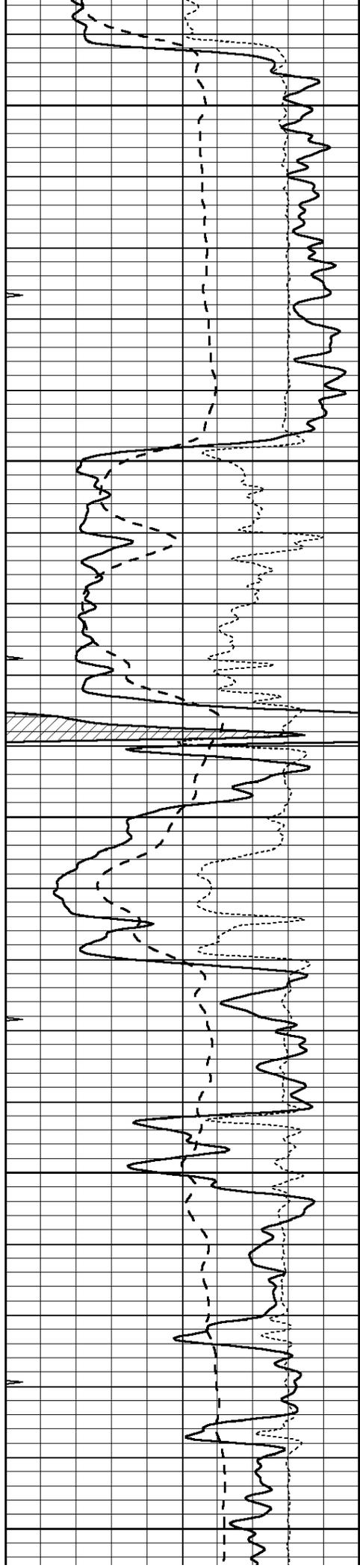
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1150

1200

1250





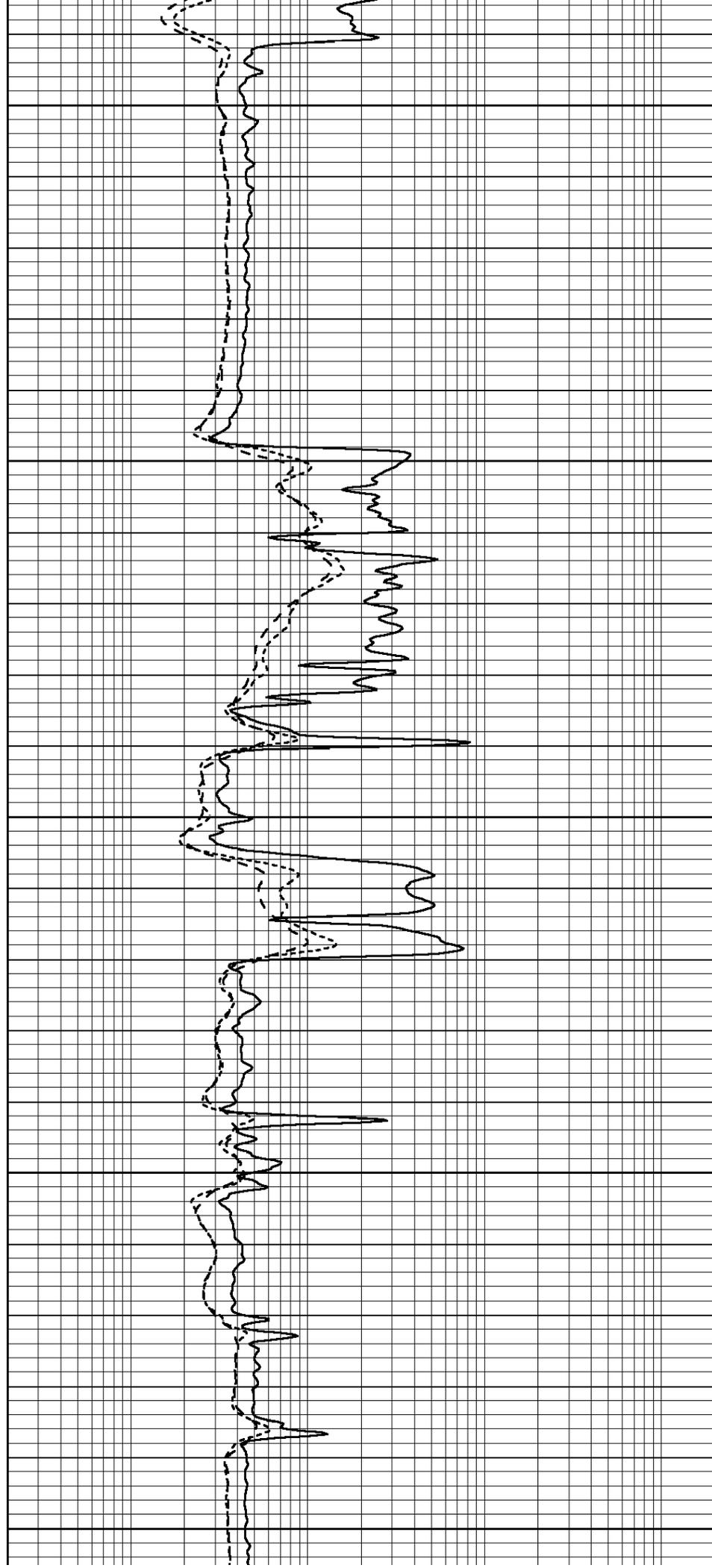
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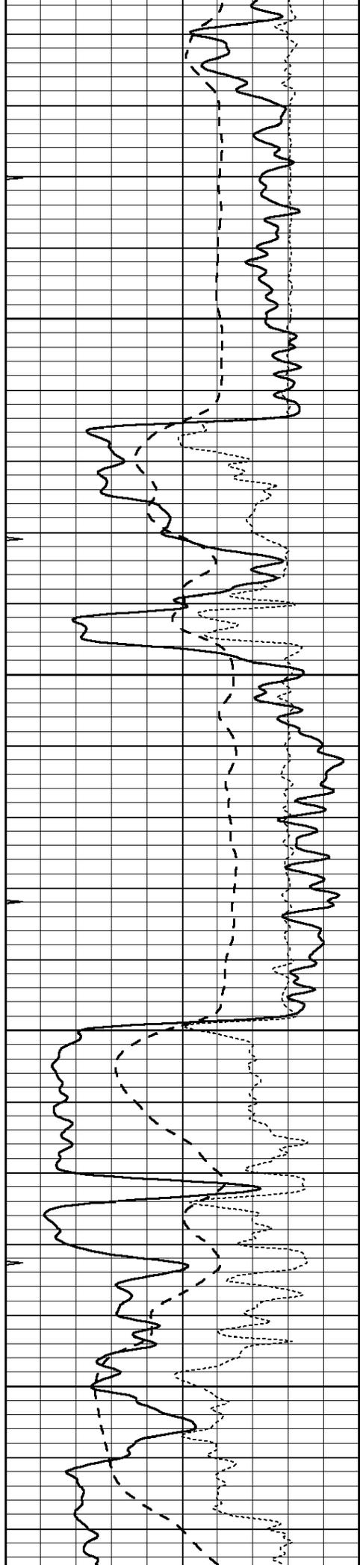
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1400

1450

1500



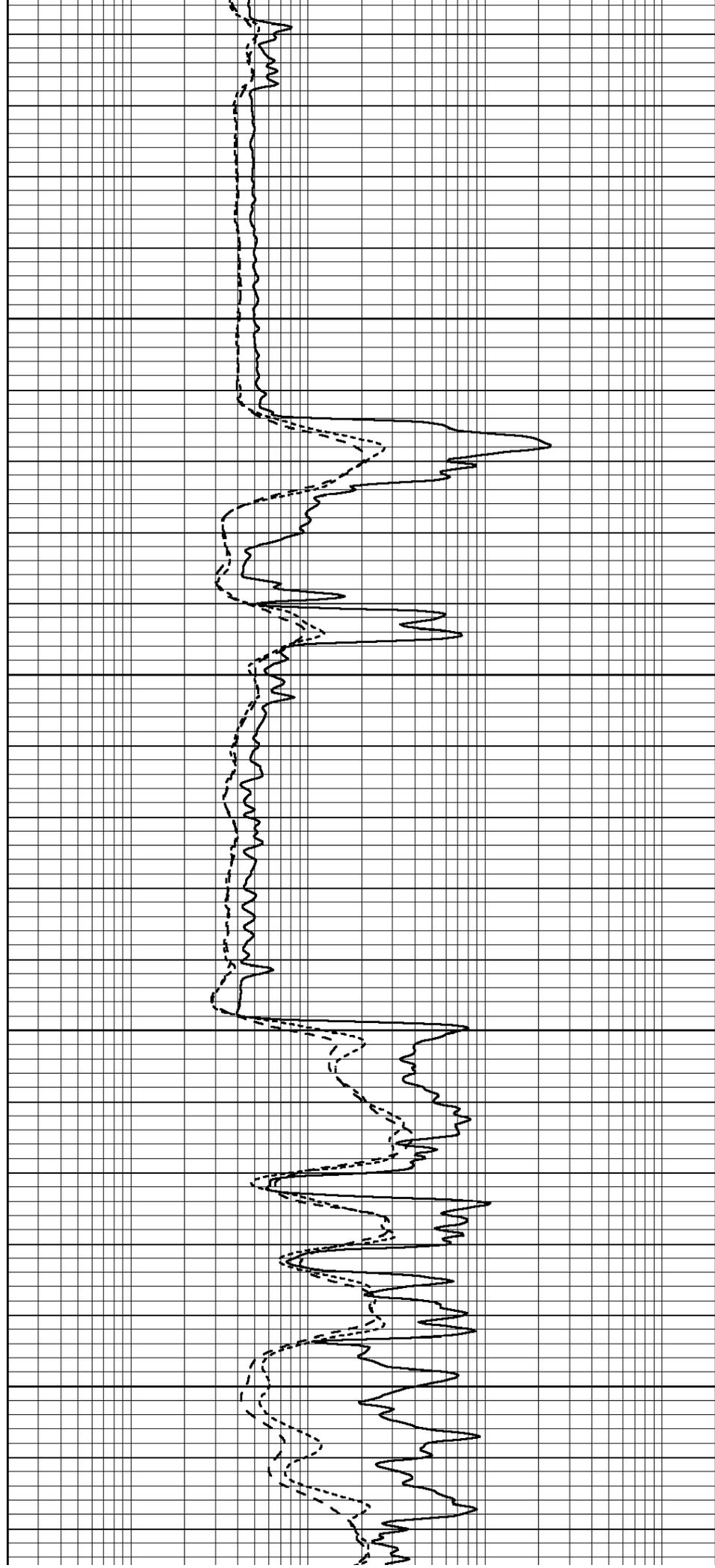


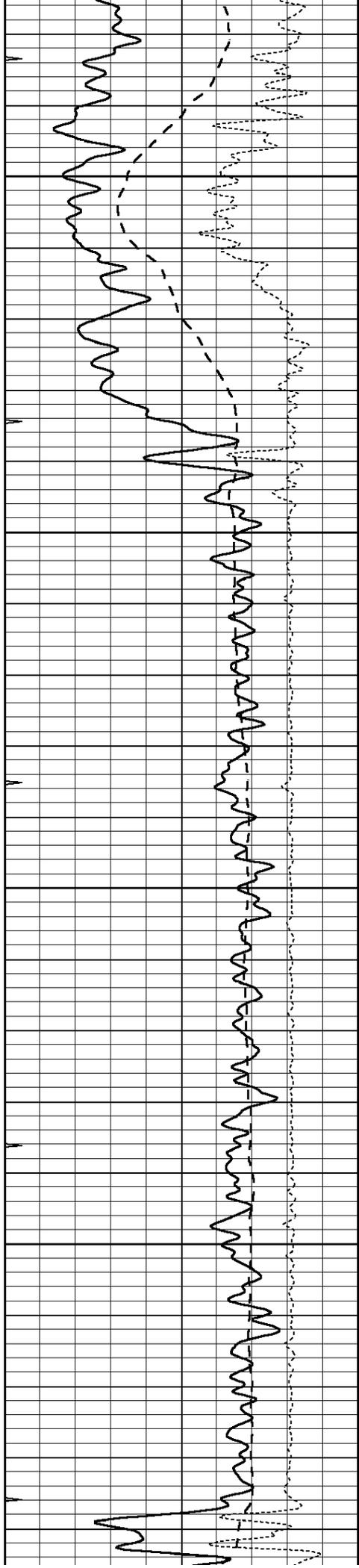
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1600

1650

1700



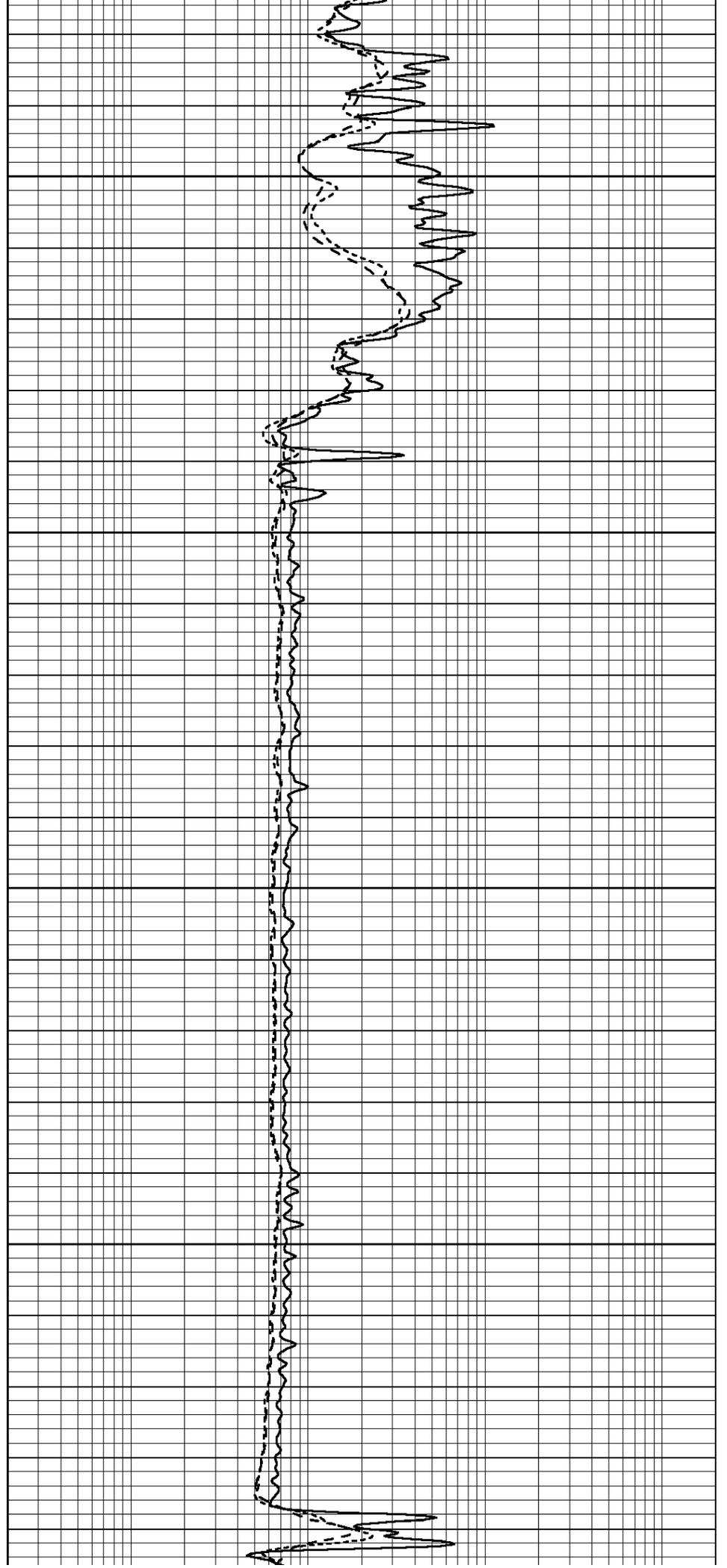


1750

1800

1850

1900

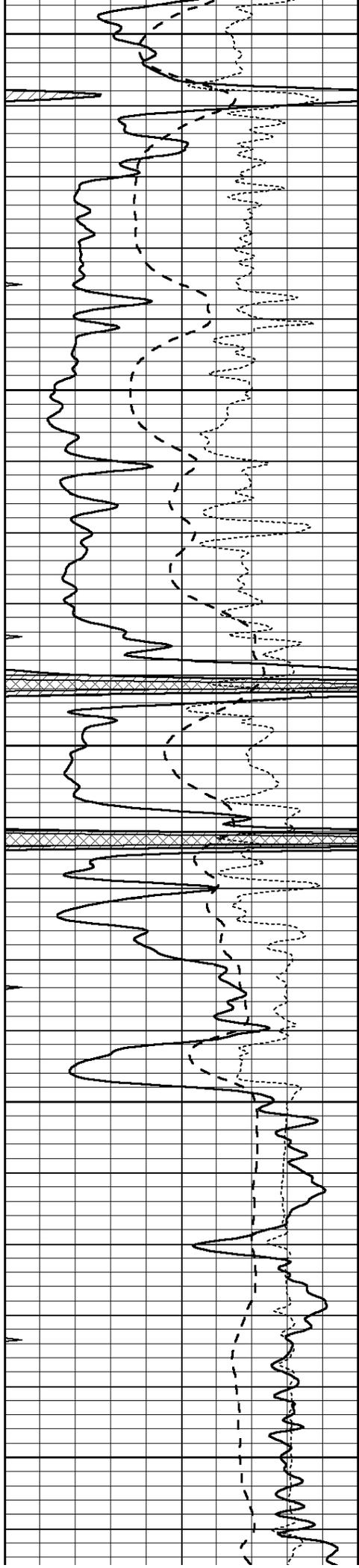


1750

1800

1850

1900



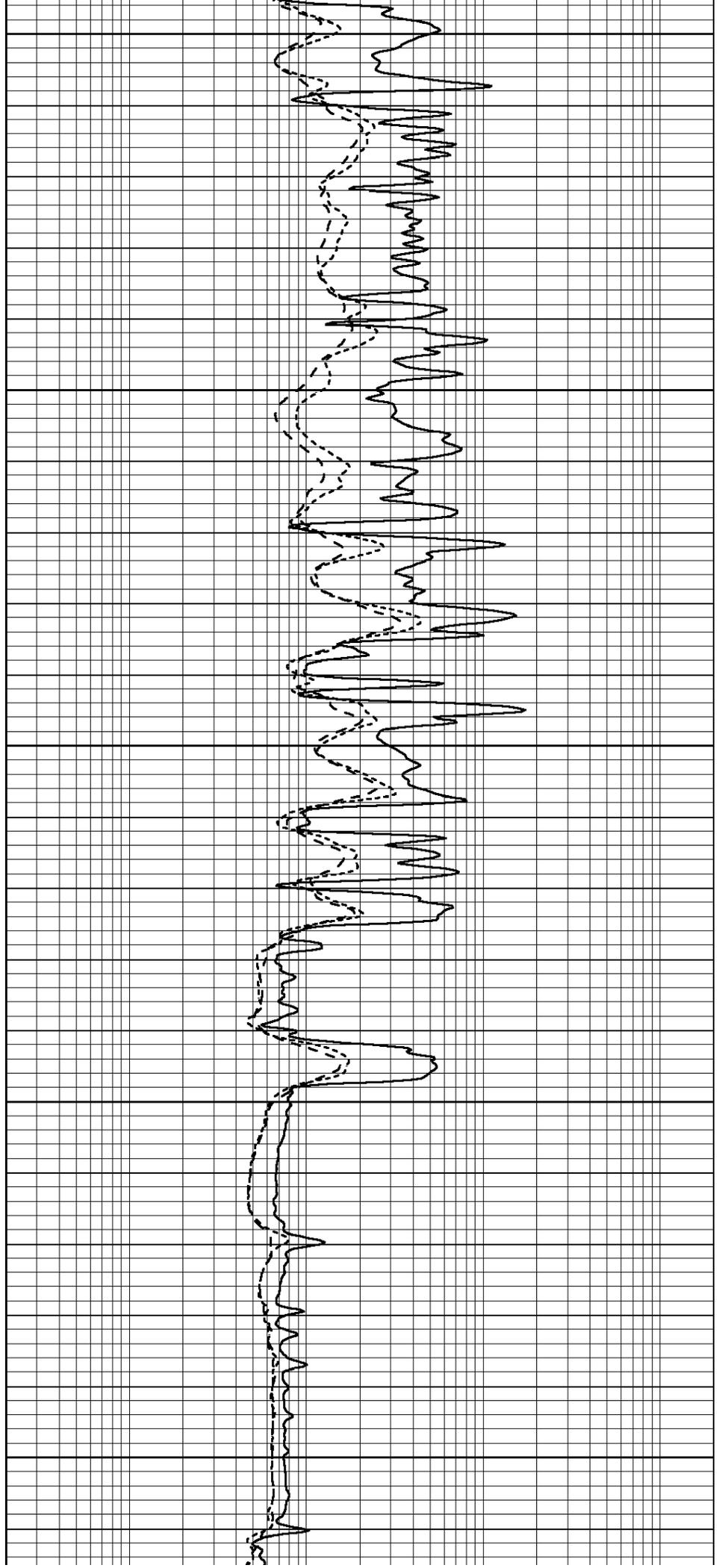
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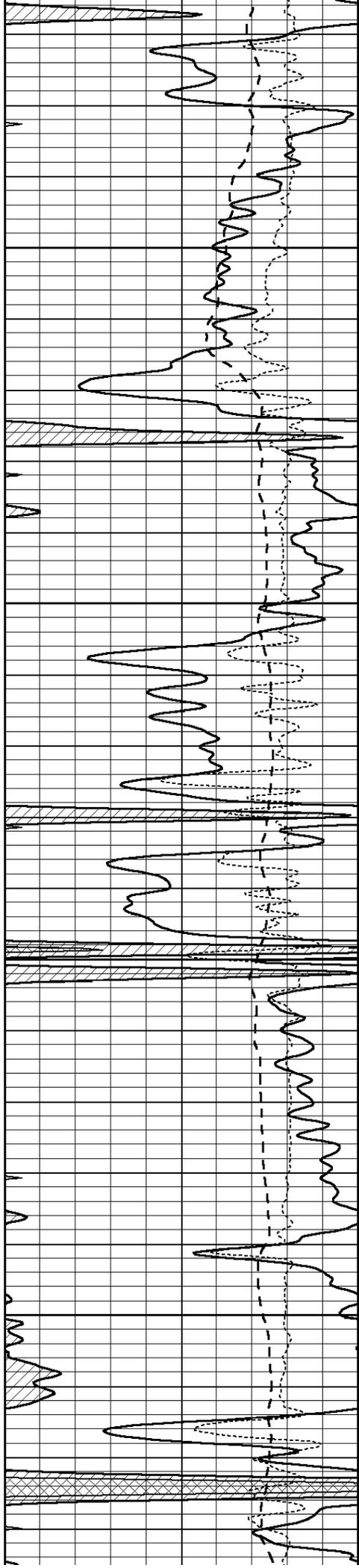
2000

2050

2100

2150



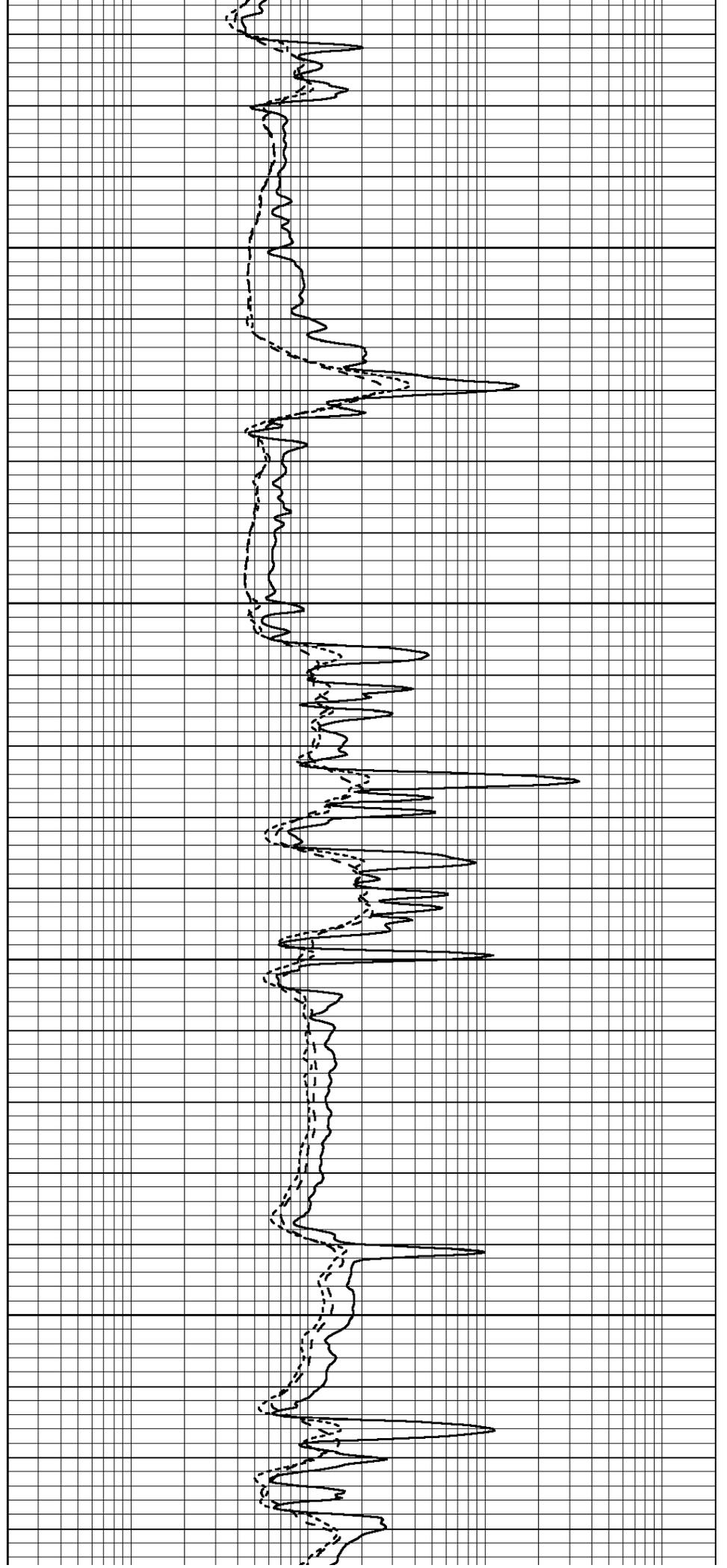


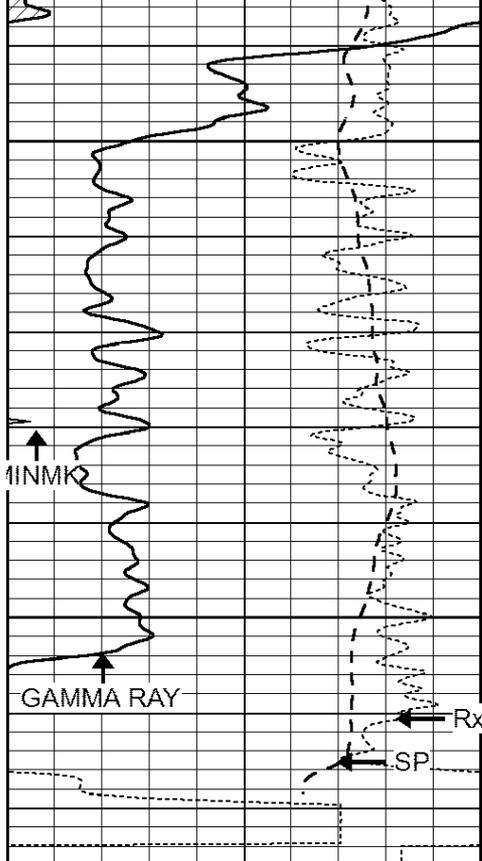
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2250

2300

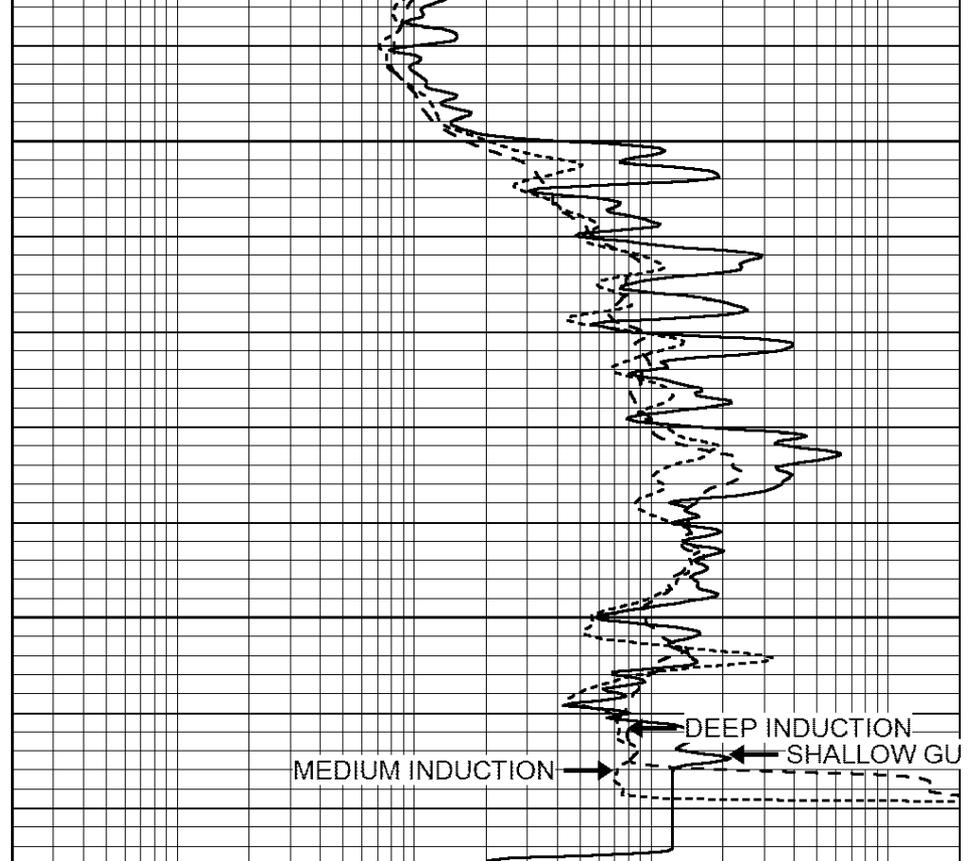
2350





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

2400  
2450  
LTD 2468



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

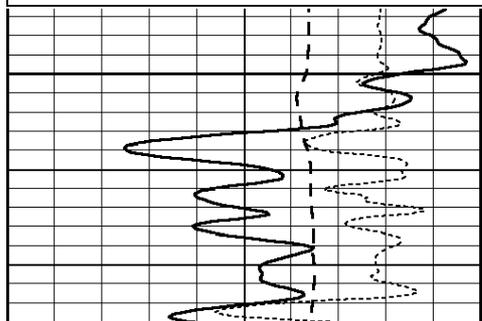


# REPEAT SECTION

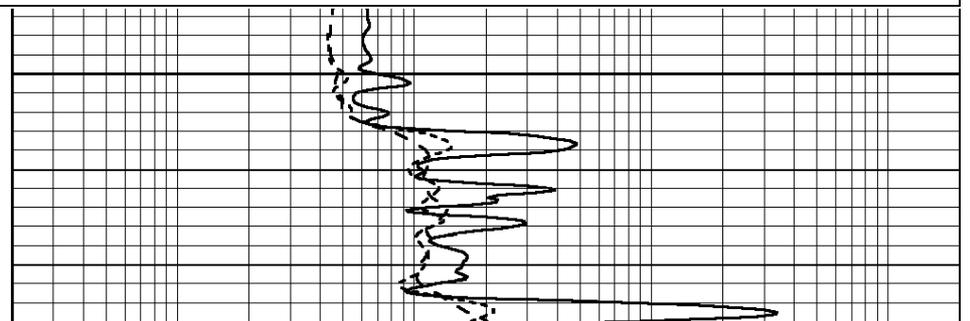
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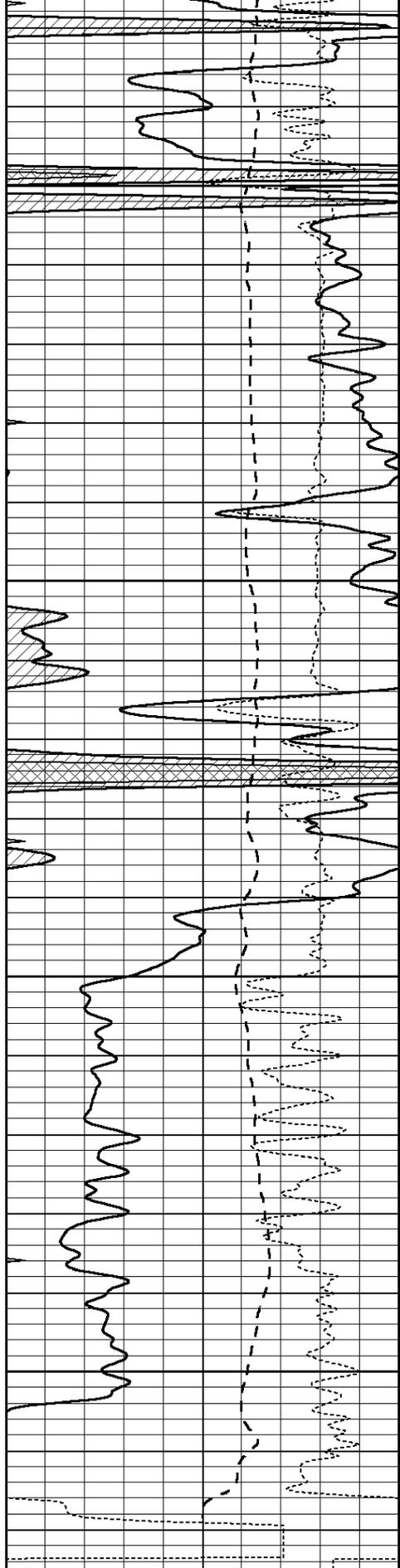
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



2250





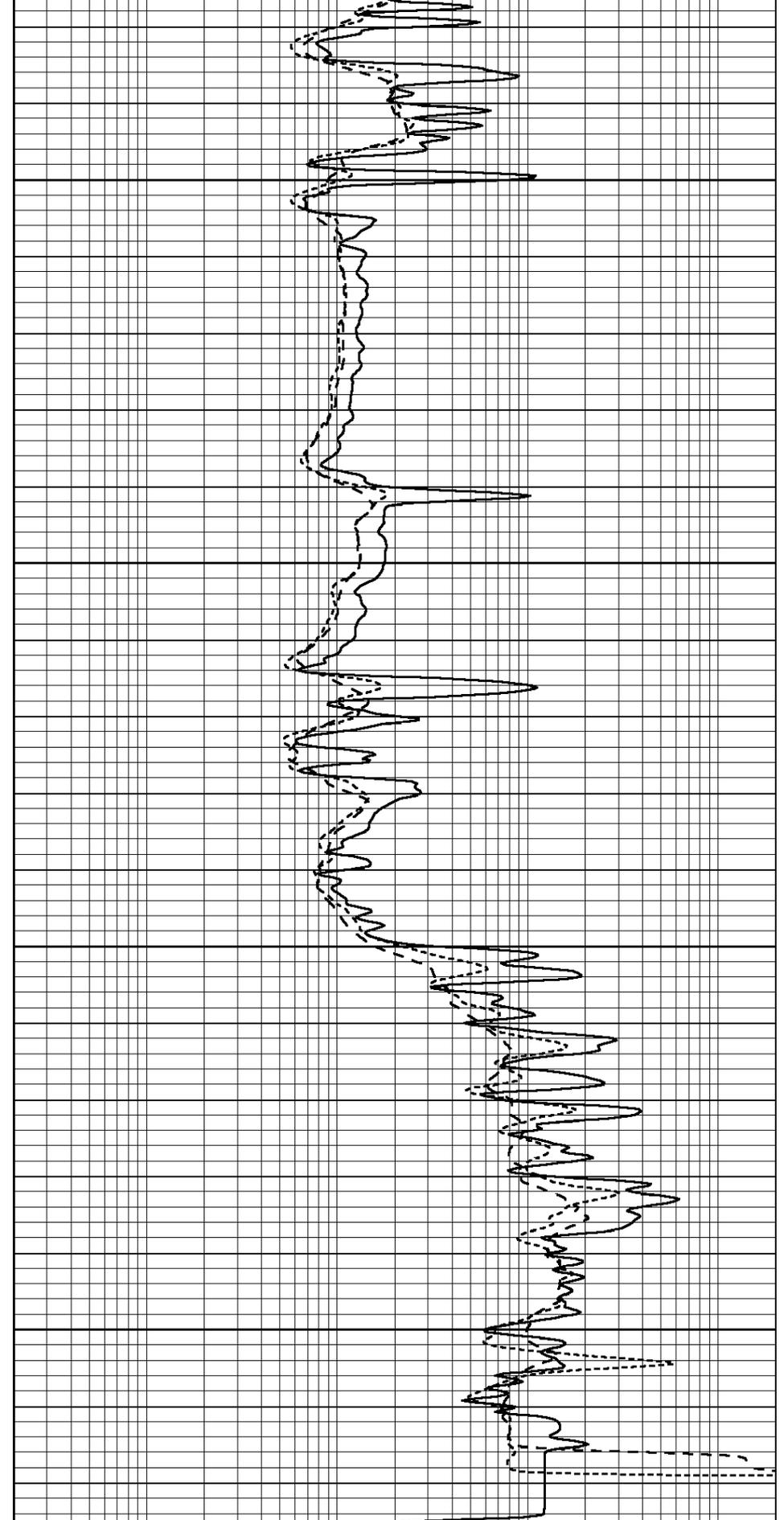
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

2300

2350

2400

2450



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 1815pe.db  
 Dataset Pathname: pass2.1  
 Dataset Creation: Sun Aug 27 17:51:51 2017 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG  
 Surface Cal Performed: Mon Aug 21 11:58:18 2017  
 Downhole Cal Performed: Mon Aug 21 11:58:21 2017  
 After Survey Verification Performed: Mon Aug 21 11:58:23 2017

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	620.000	0.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	590.000	-12.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.017	0.657	V	0.000	400.000	mmho/m	625.153	-10.619
Medium	0.016	0.757	V	0.000	464.000	mmho/m	625.992	-9.739

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	2.011	405.777	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	7.590	503.393	mmho/m	1.000	0.000
LL3		7.500	V		1500.000	Ohm-m		
		0.000	V		20.000	Ohm-m		
		-7.200	V		3800.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
Medium	0.000	0.000	mmho/m	0.000	0.000	mmho/m	0.000	0.000
LL3		1.000	Ohm-m		1.000	Ohm-m		
		0.000	Ohm-m		0.000	Ohm-m		
		1.000	mmho-m		1.000	mmho-m		

Gamma Ray Calibration Report

Serial Number: GR2  
 Tool Model: OPEN  
 Performed: Wed Aug 16 17:13:40 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 0.3800 GAPI/cps