



**SUPERIOR**  
Hays,  
Kansas

**DUAL INDUCTION  
LOG**

Company RITCHIE EXPLORATION, INC.  
Well BROWN FAMILY #1  
Field WILDCAT  
County FORD  
State KANSAS

Company RITCHIE EXPLORATION, INC.  
Well BROWN FAMILY #1  
Field WILDCAT  
County FORD State KANSAS

Location: API # : 15-057-20746-0000  
1130' FSL & 1745' FWL  
SEC 35 TWP 27S RGE 22W  
Permanent Datum GROUND LEVEL Elevation 2346  
Log Measured From KELLY BUSHING 11' A.G.L.  
Drilling Measured From KELLY BUSHING  
Other Services  
CDL/CNL  
Elevation  
K.B. 2357  
D.F. 2355  
G.L. 2346

Date	9/15/11
Run Number	ONE
Depth Driller	5140
Depth Logger	5140
Bottom Logged Interval	4138
Top Log Interval	00
Casing Driller	8 5/8"@448'
Casing Logger	446
Bit Size	7 7/8"
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/59
pH / Fluid Loss	9.5/10.0
Source of Sample	FLOWLINE
Rm @ Meas. Temp	.560@52F
Rmt @ Meas. Temp	.420@52F
Rmc @ Meas. Temp	.672@52F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.231@126F
Time Circulation Stopped	3 HOURS
Time Logger on Bottom	11:45 A.M.
Maximum Recorded Temperature	126F
Equipment Number	4010
Location	HAYS, KANSAS
Recorded By	JEFF LUEBBERS
Witnessed By	MAX LOVELY

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395  
DIRECTIONS  
FORD, KS.(HWY 400 & 7TH ST.) 2E. TO "RD. 128", 1/2N. TO DEAD END", W. ALONG TREE ROW,NORTH  
THEN BACK EAST TO LOCATION



**SUPERIOR**  
Hays,  
Kansas

**MAIN SECTION**

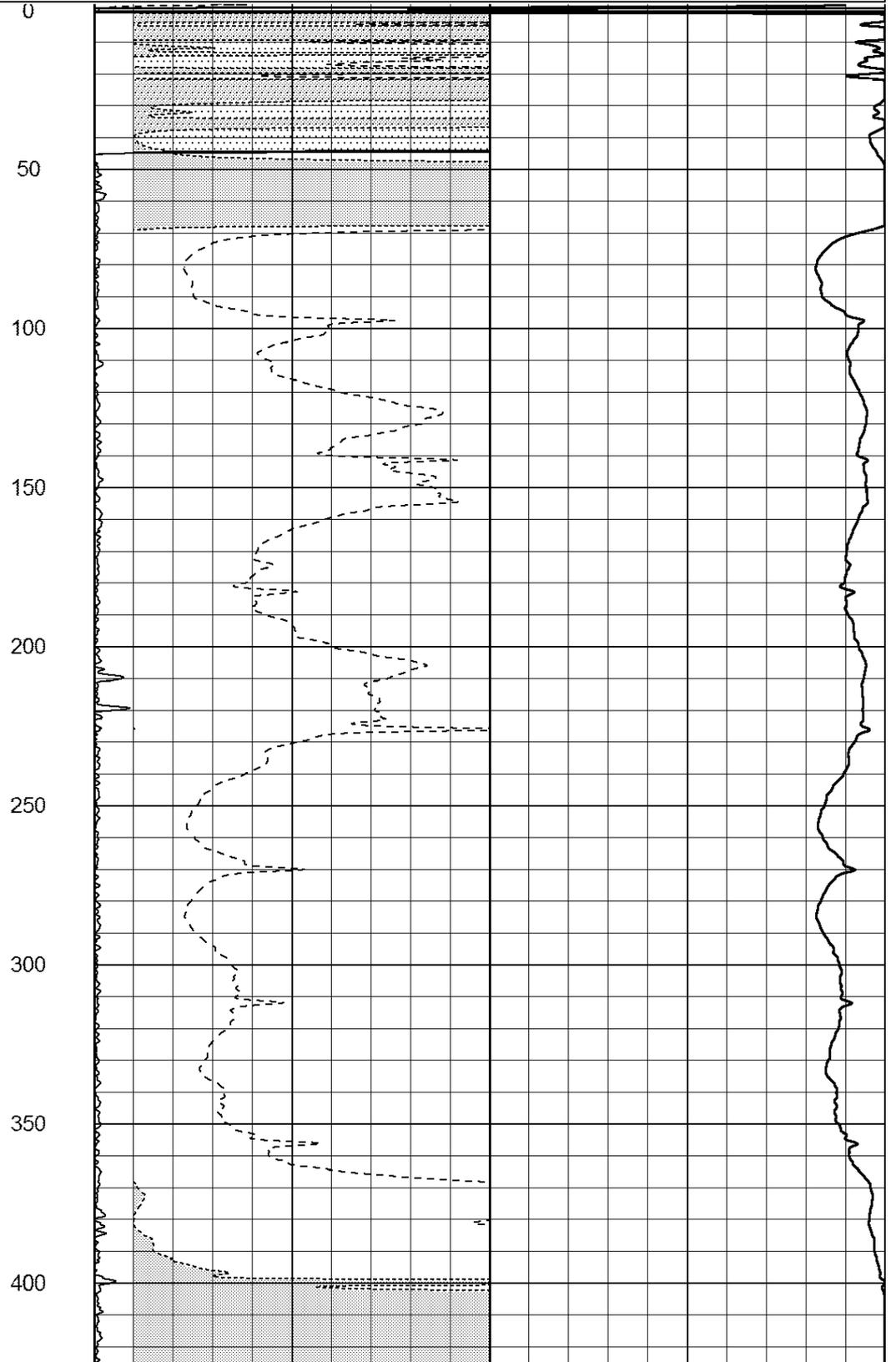
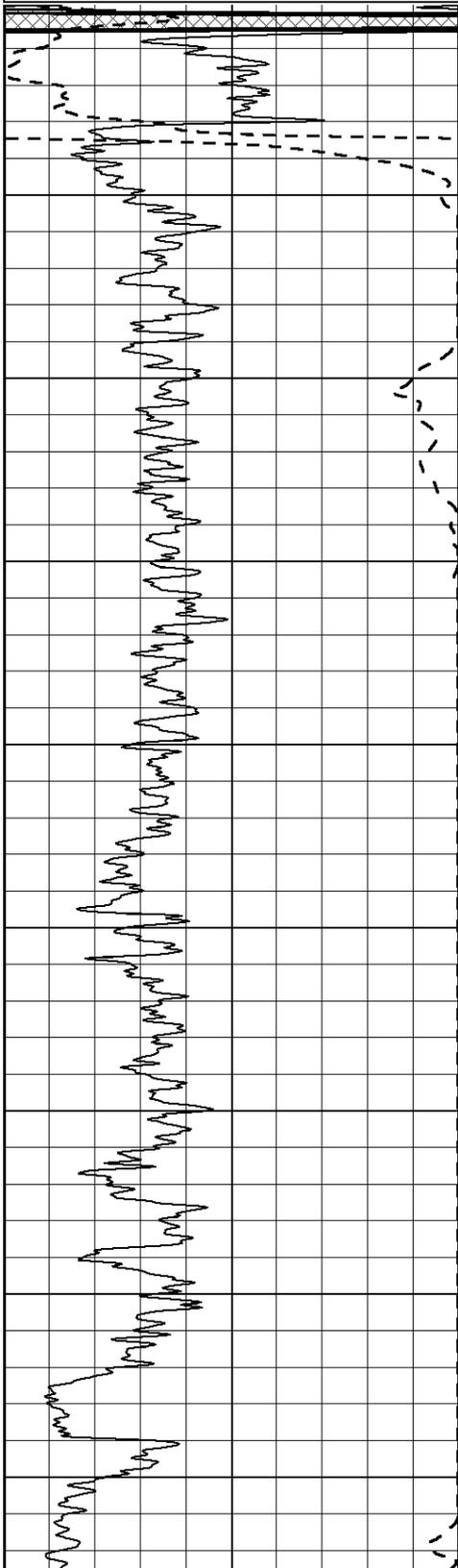
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 Presentation Format: dil2  
 Dataset Creation: Thu Sep 15 13:56:14 2011  
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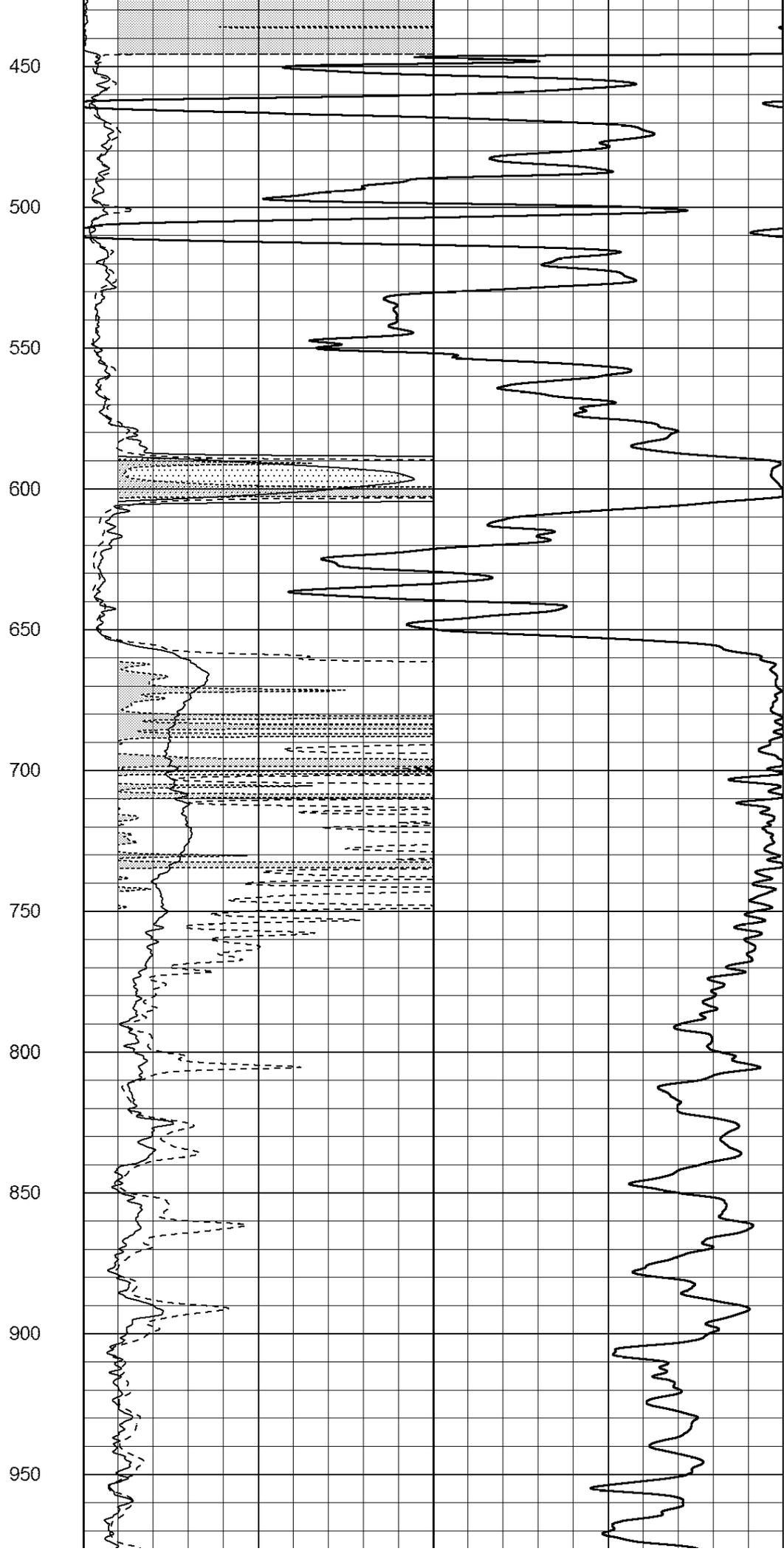
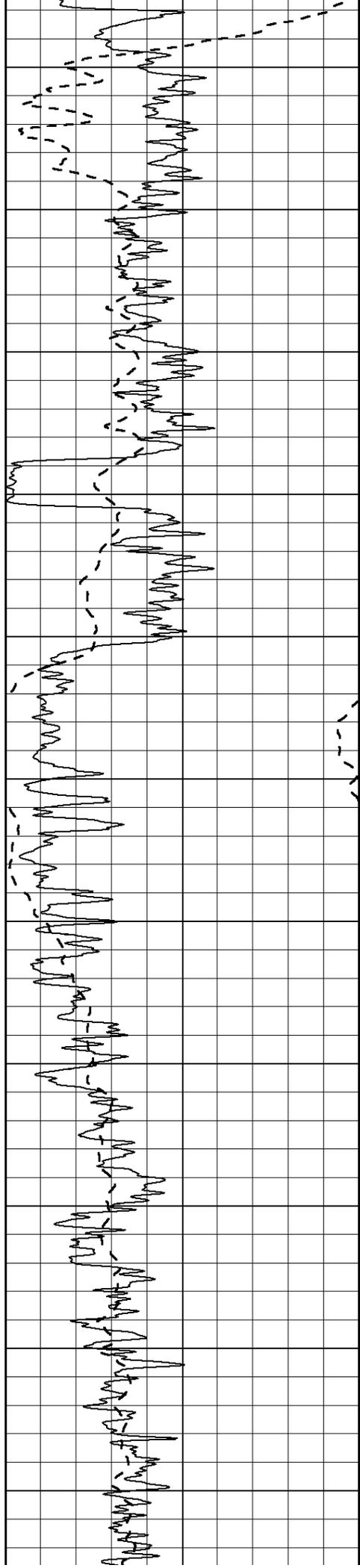
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-100	SP (mV)	100

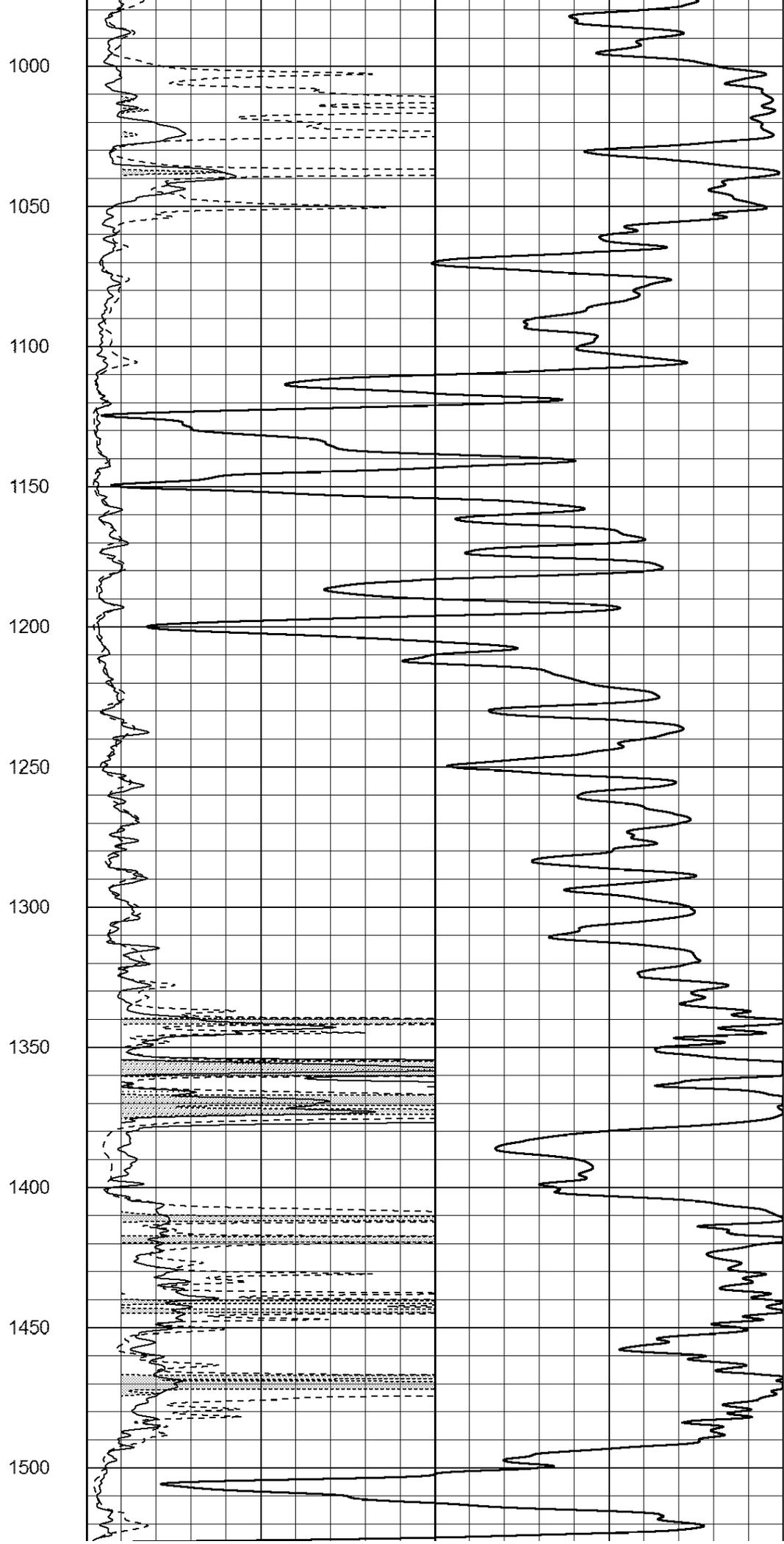
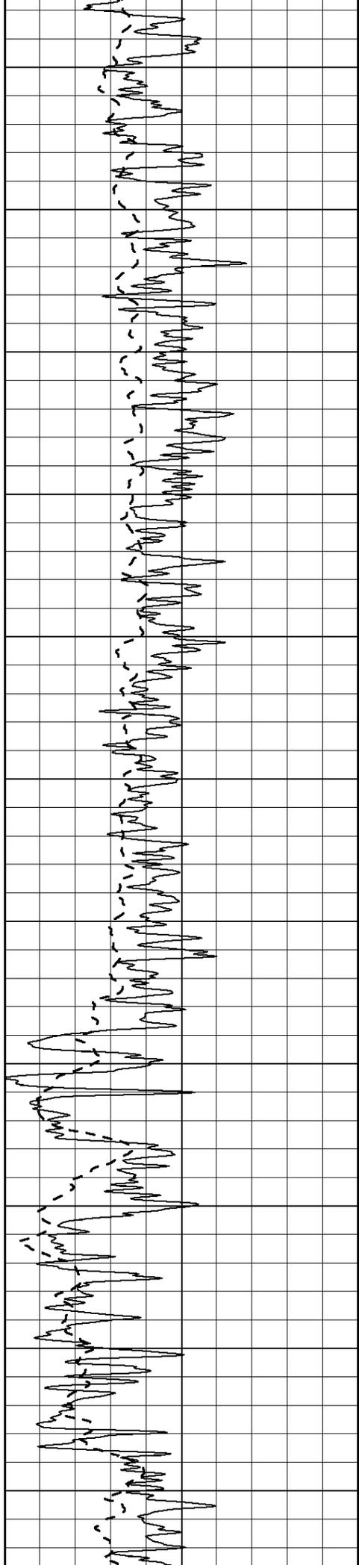
0	RLL3 (Ohm-m)	50
0	RILD (Ohm-m)	50

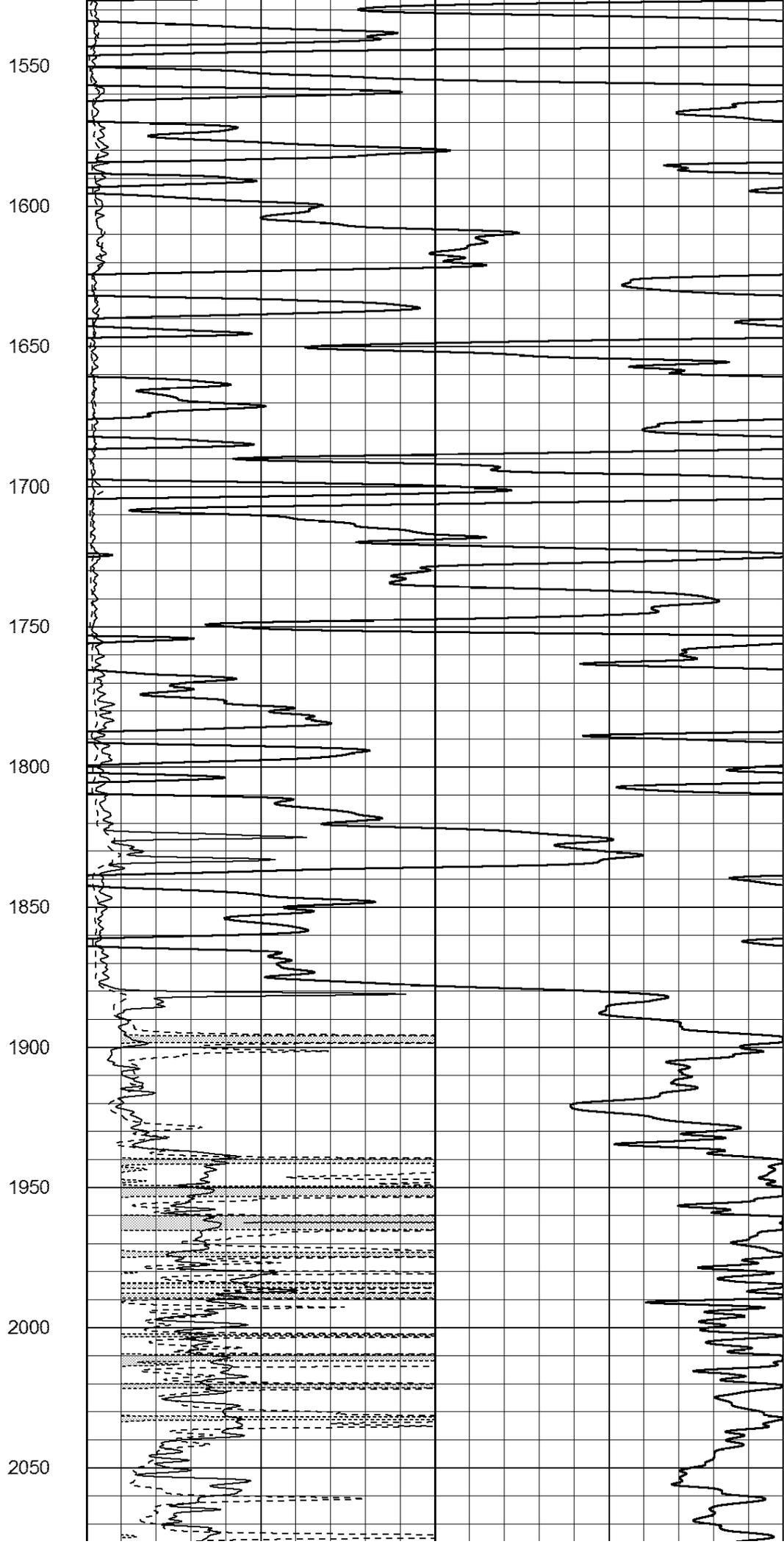
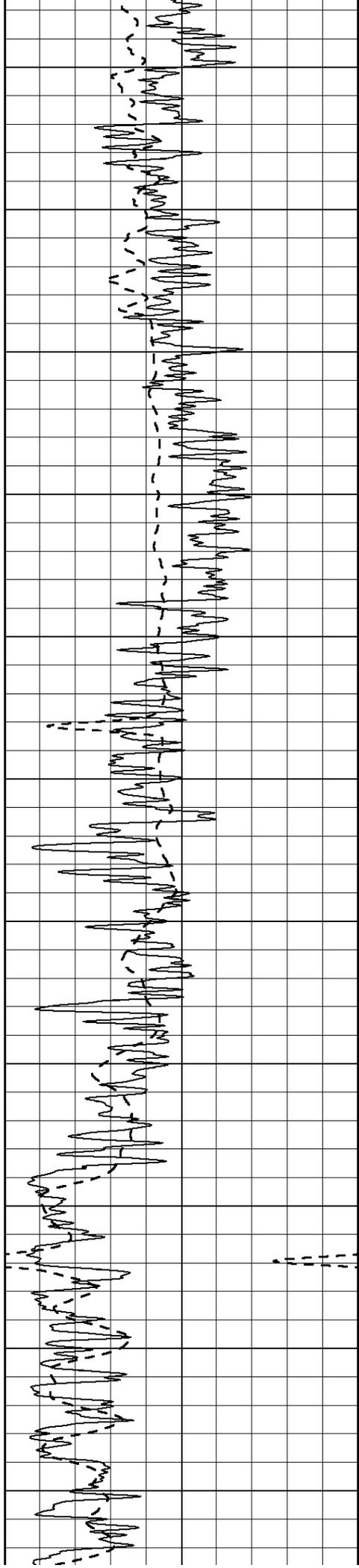
1000	CILD (mmho/m)	0
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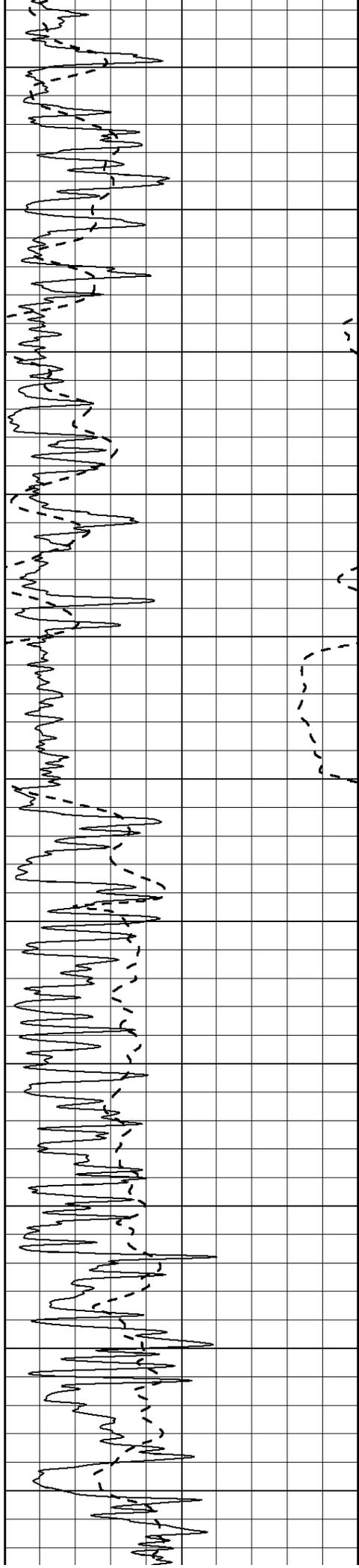
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500











2100

2150

2200

2250

2300

2350

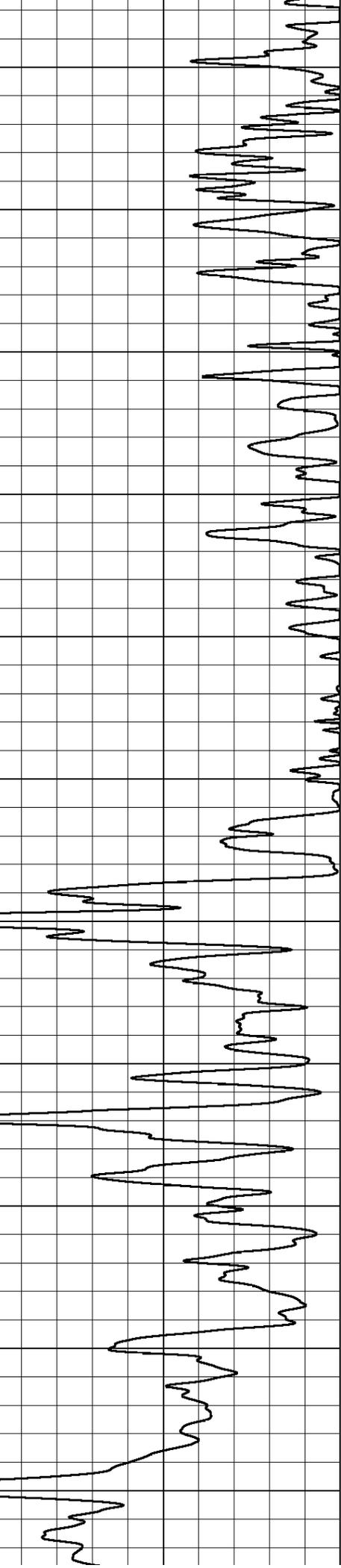
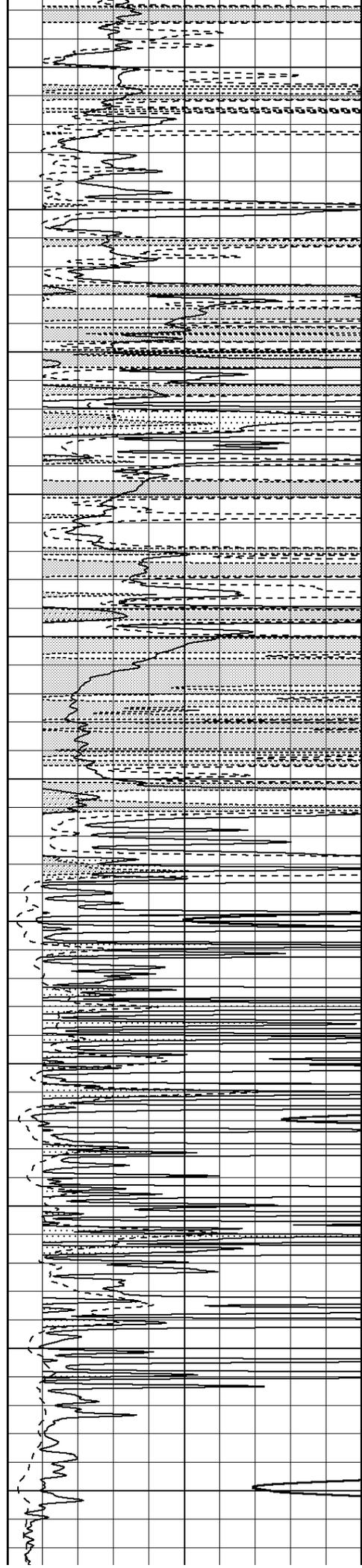
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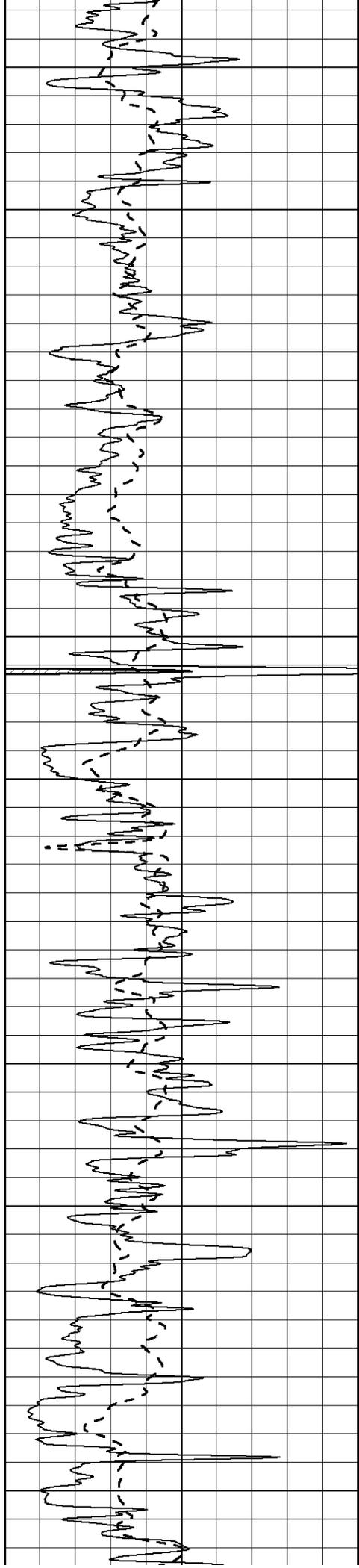
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2550

2600





2650

2700

2750

2800

2850

2900

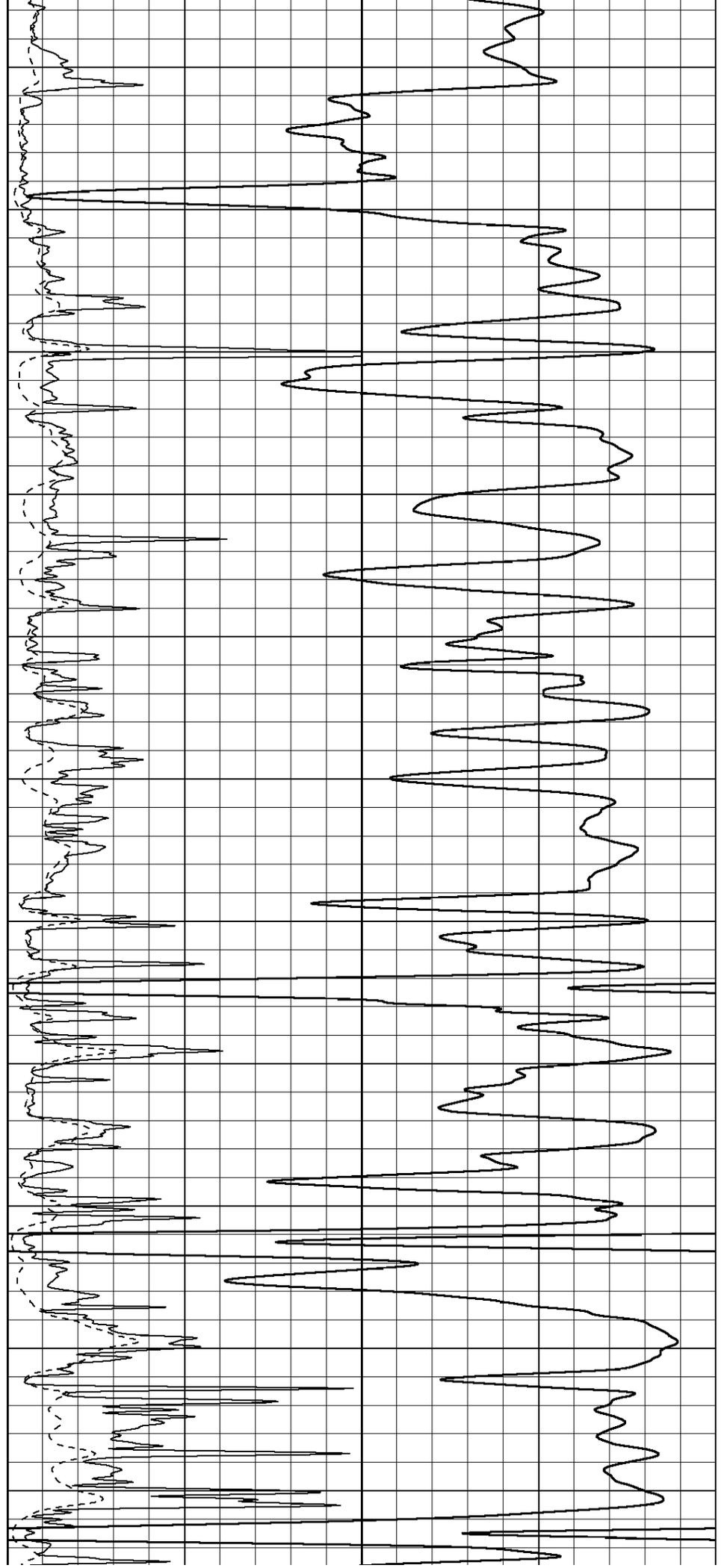
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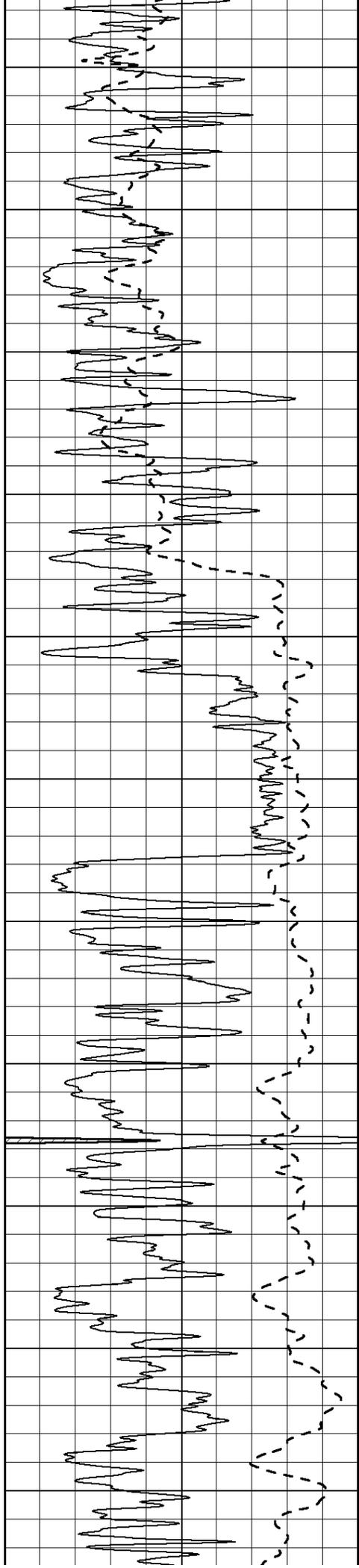
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3150





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3250

3300

3350

3400

3450

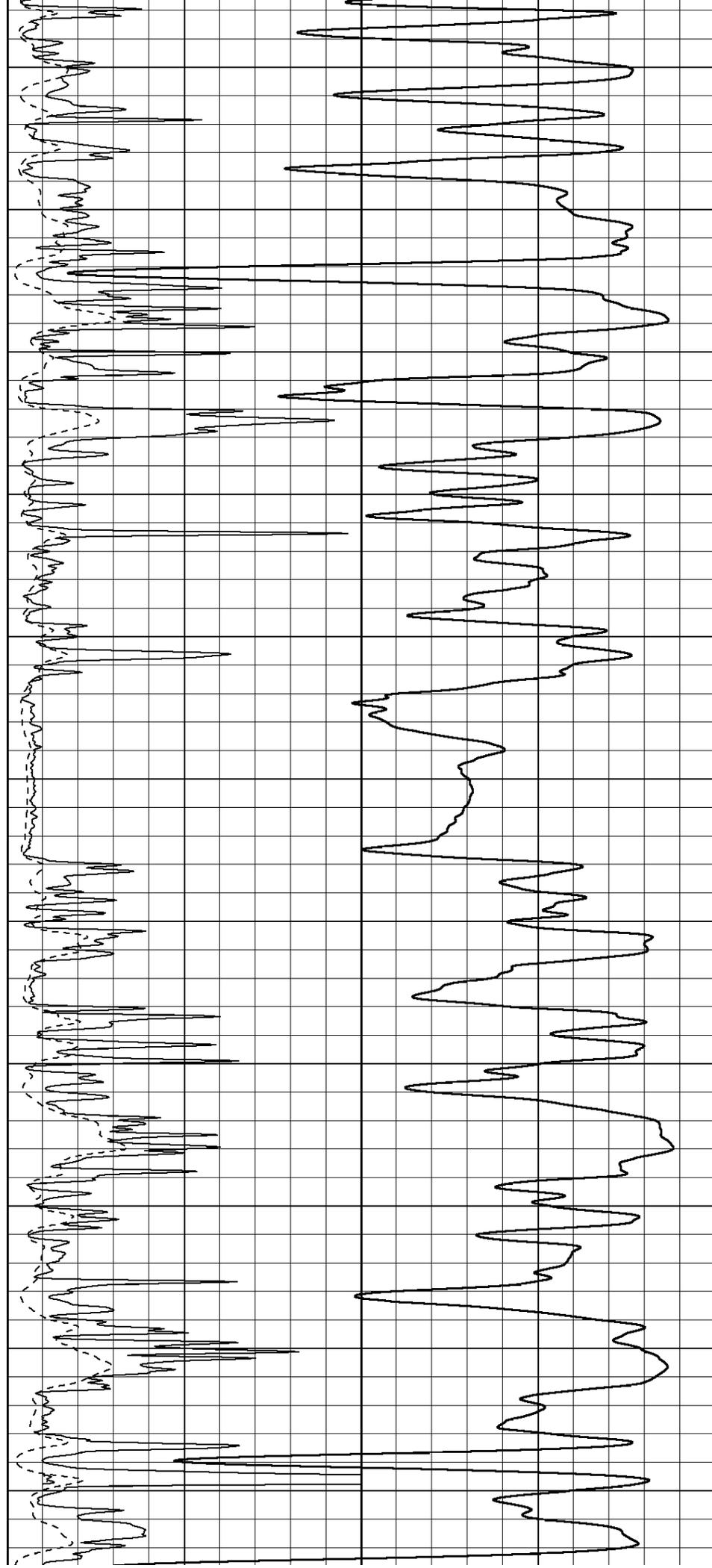
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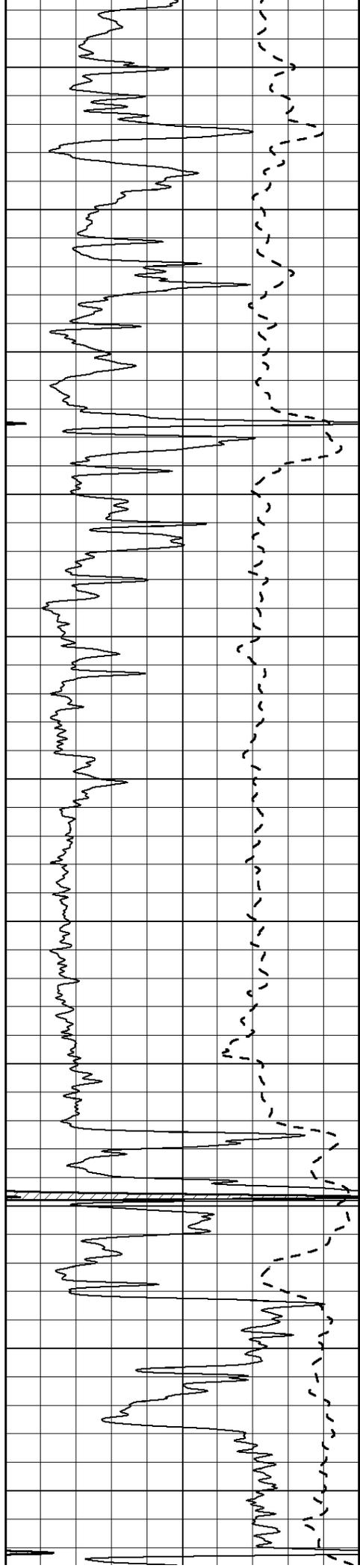
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3800

3850

3900

3950

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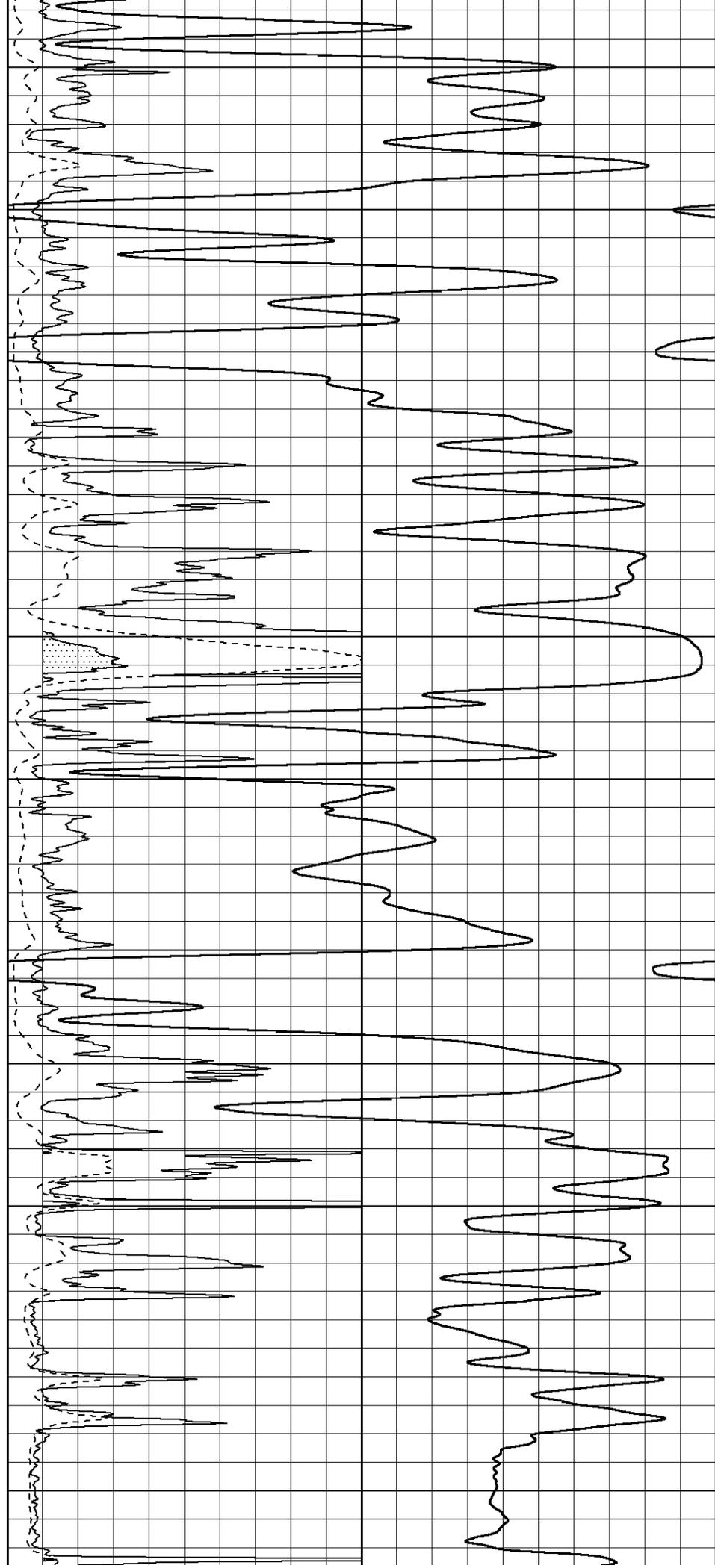
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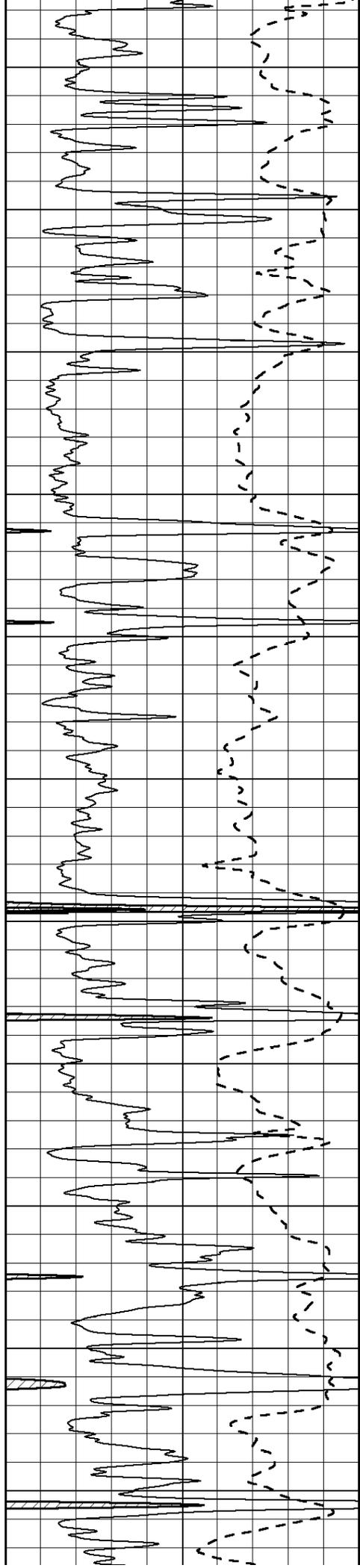
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4200

4250





4300

4350

4400

4450

4500

4550

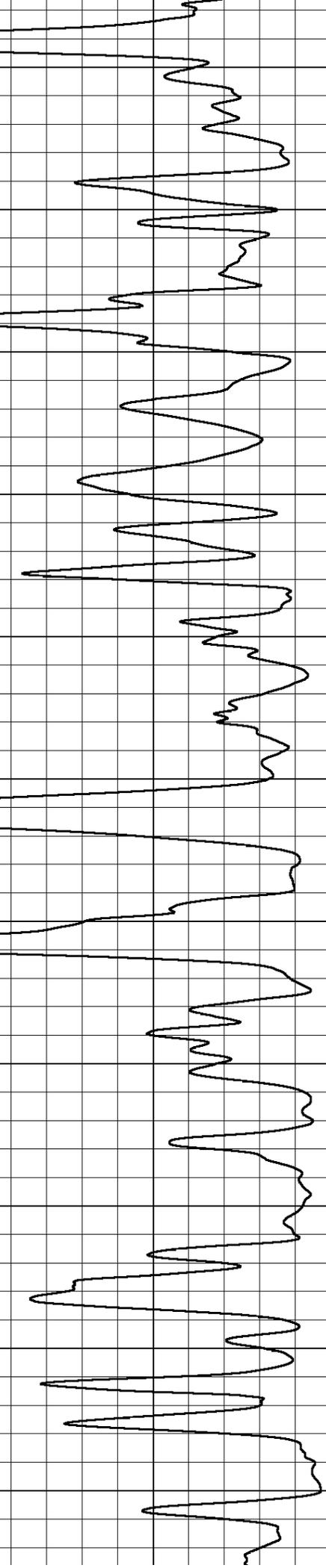
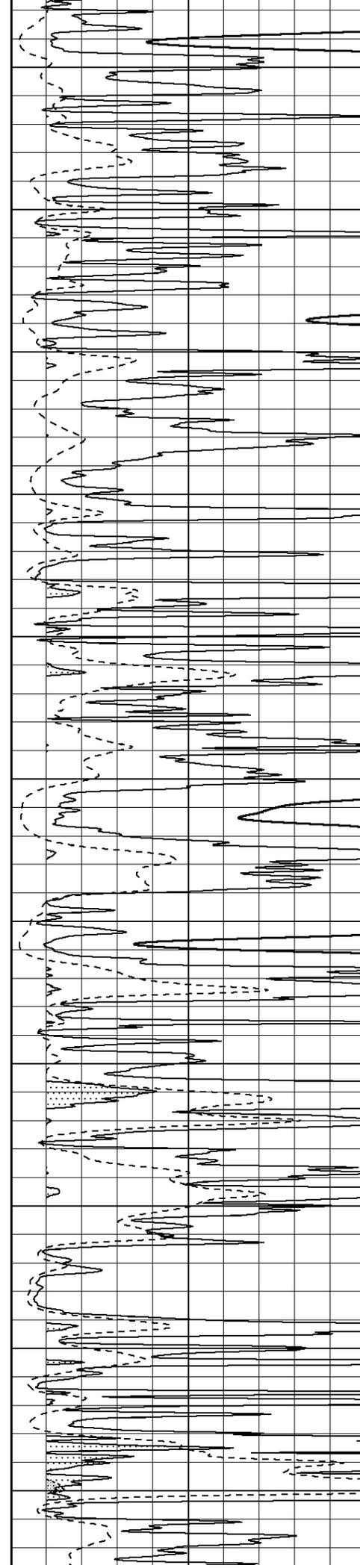
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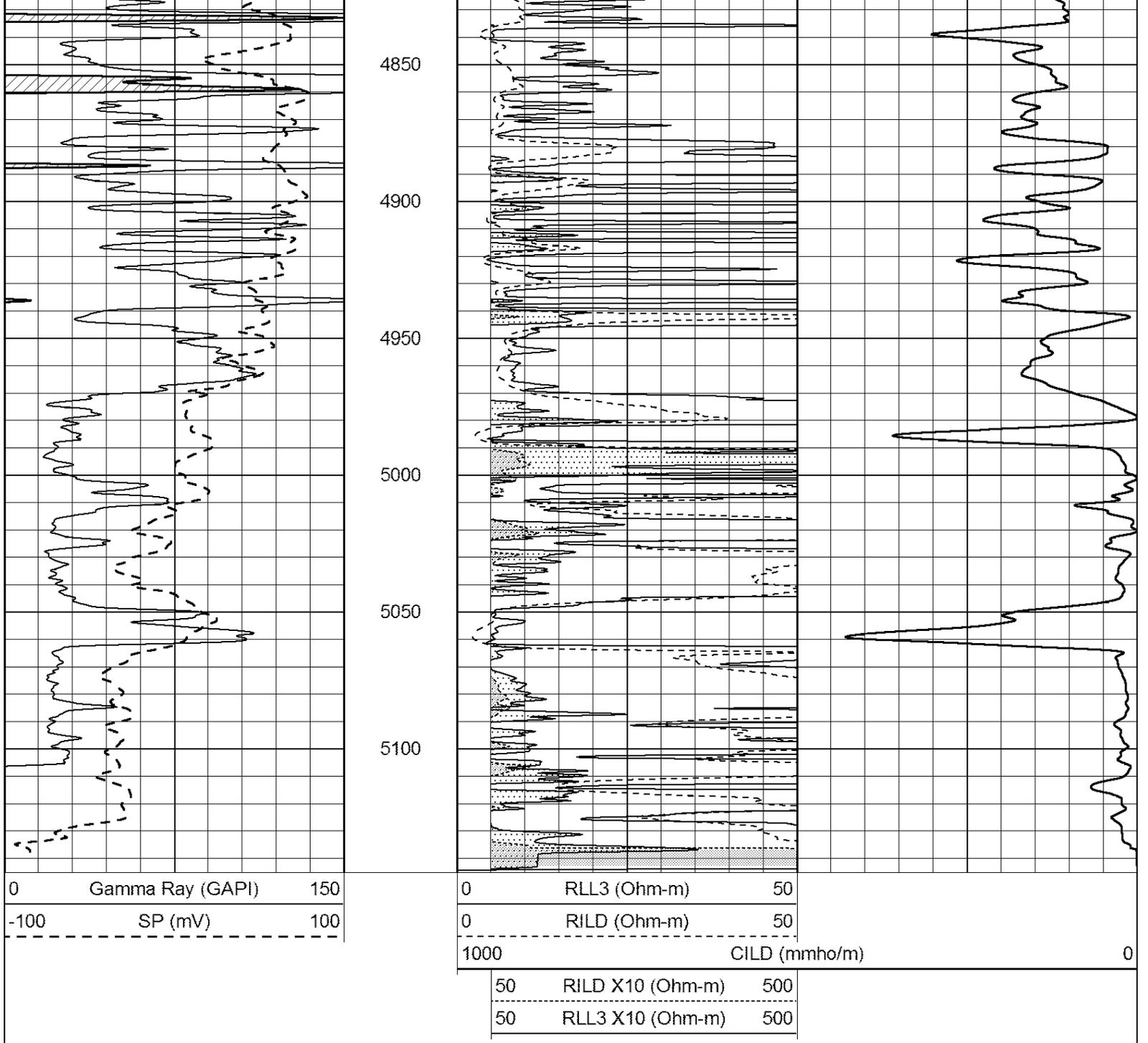
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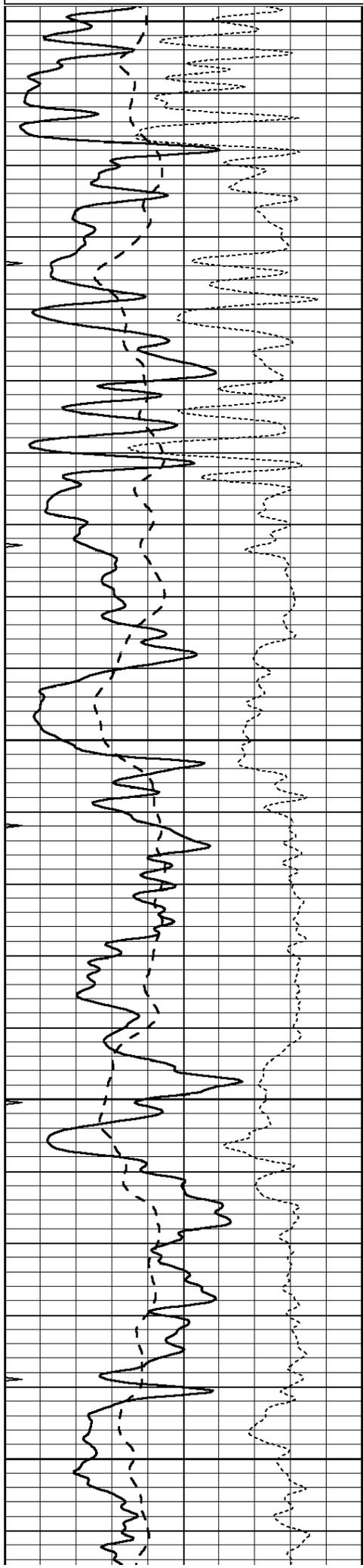
SUPERIOR  
Hays,  
Kansas

# MAIN SECTION

Database File: 007298ddn.db  
 Dataset Pathname: pass3.10  
 Presentation Format: dil  
 Dataset Creation: Thu Sep 15 13:56:14 2011  
 Charted by: Depth in Feet scaled 1:240

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



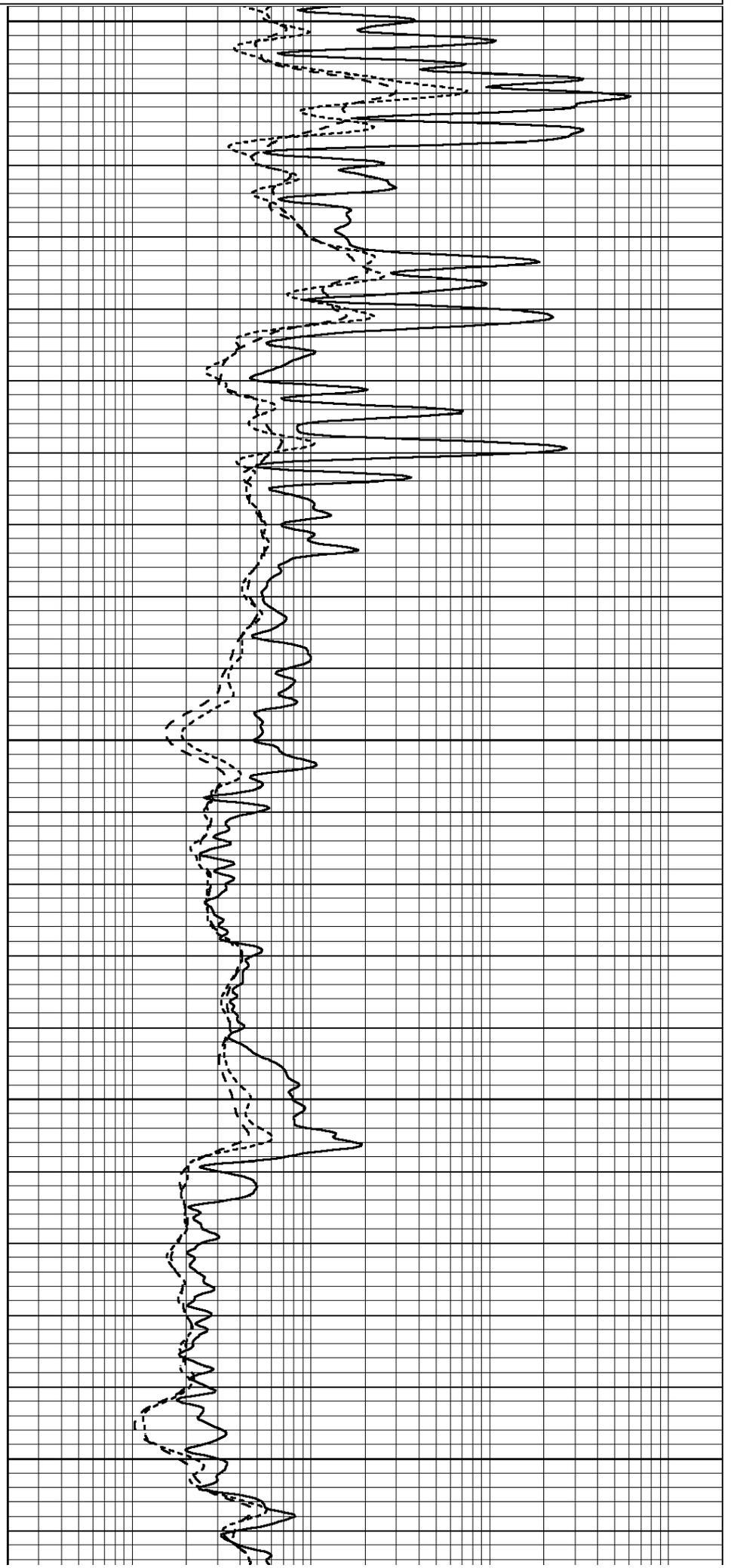
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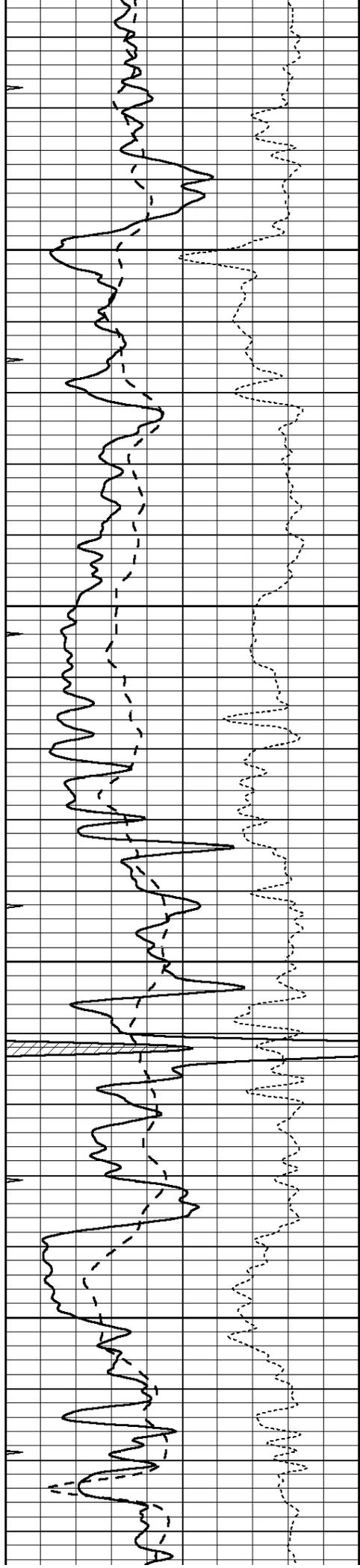
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2600

2650

2700



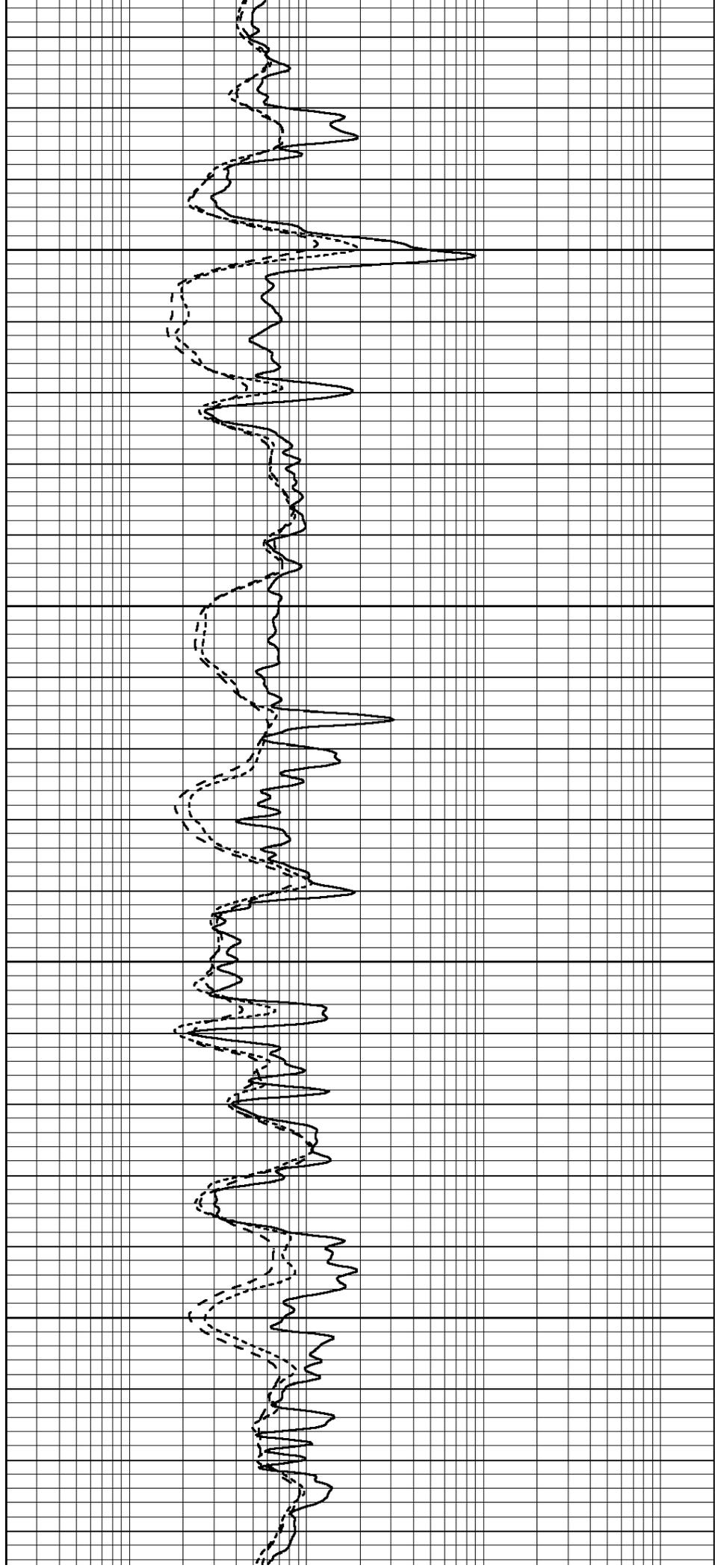


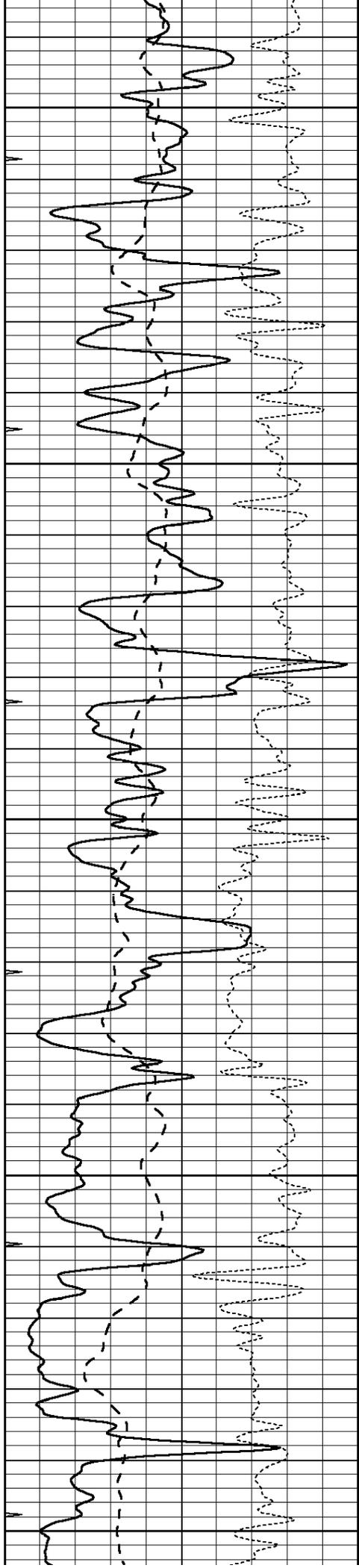
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2850

2900





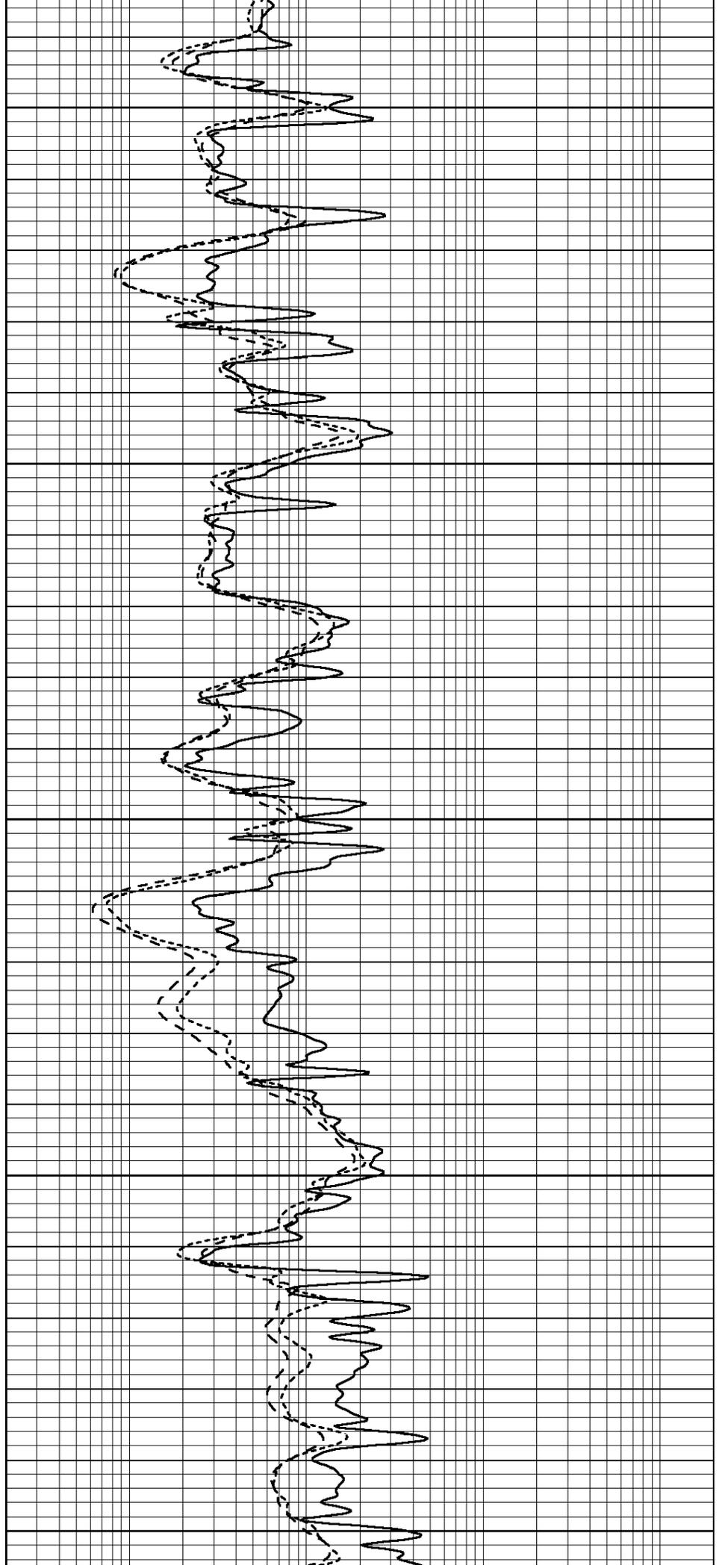
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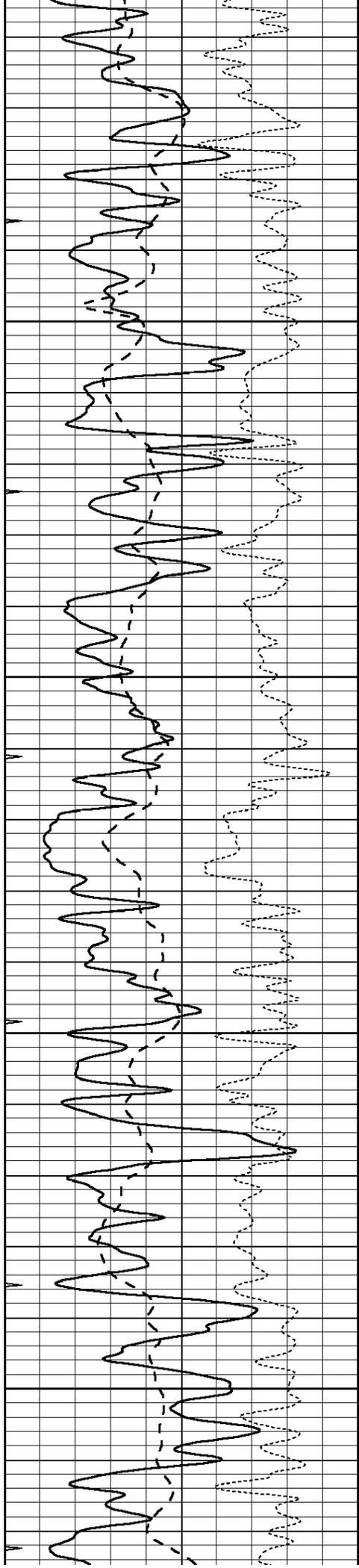
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3050

3100

3150



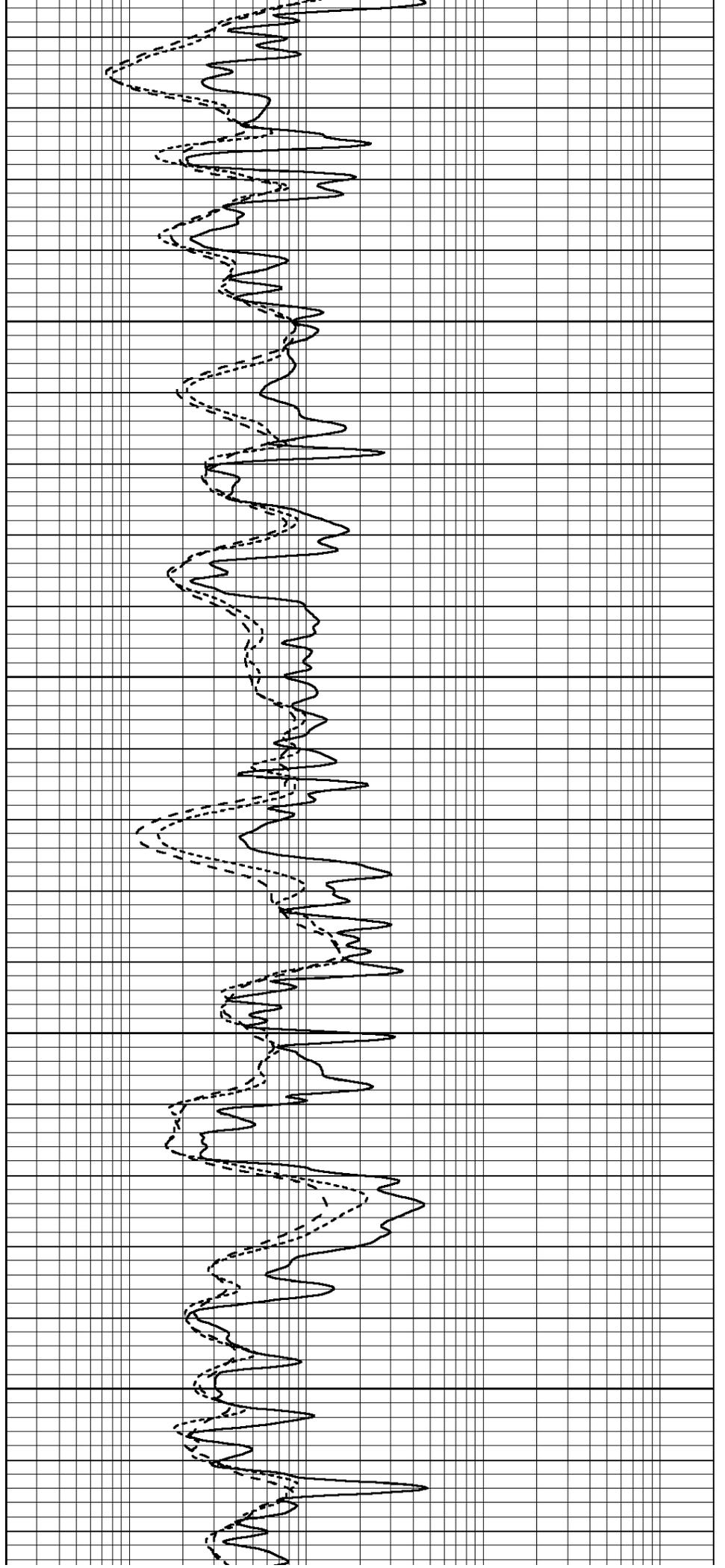


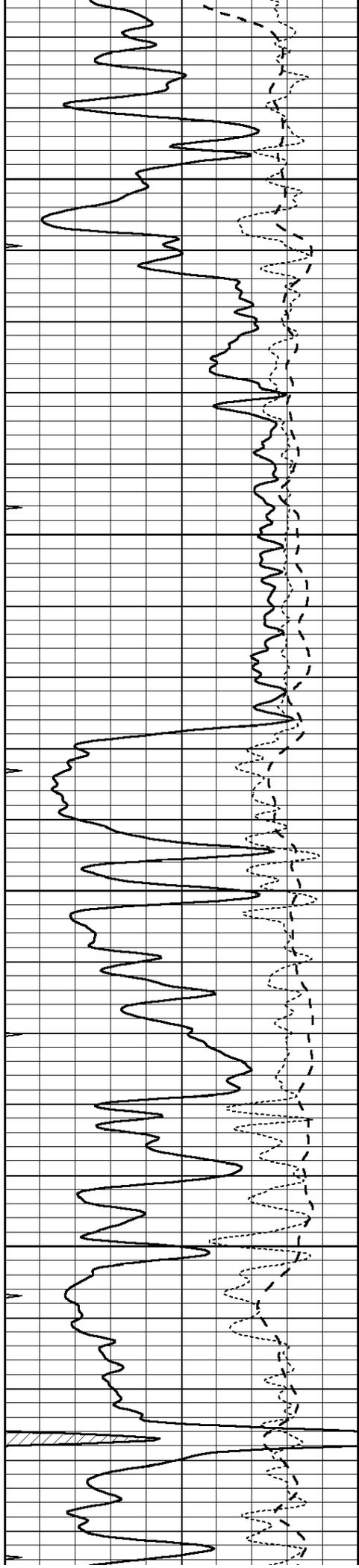
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3250

3300

3350



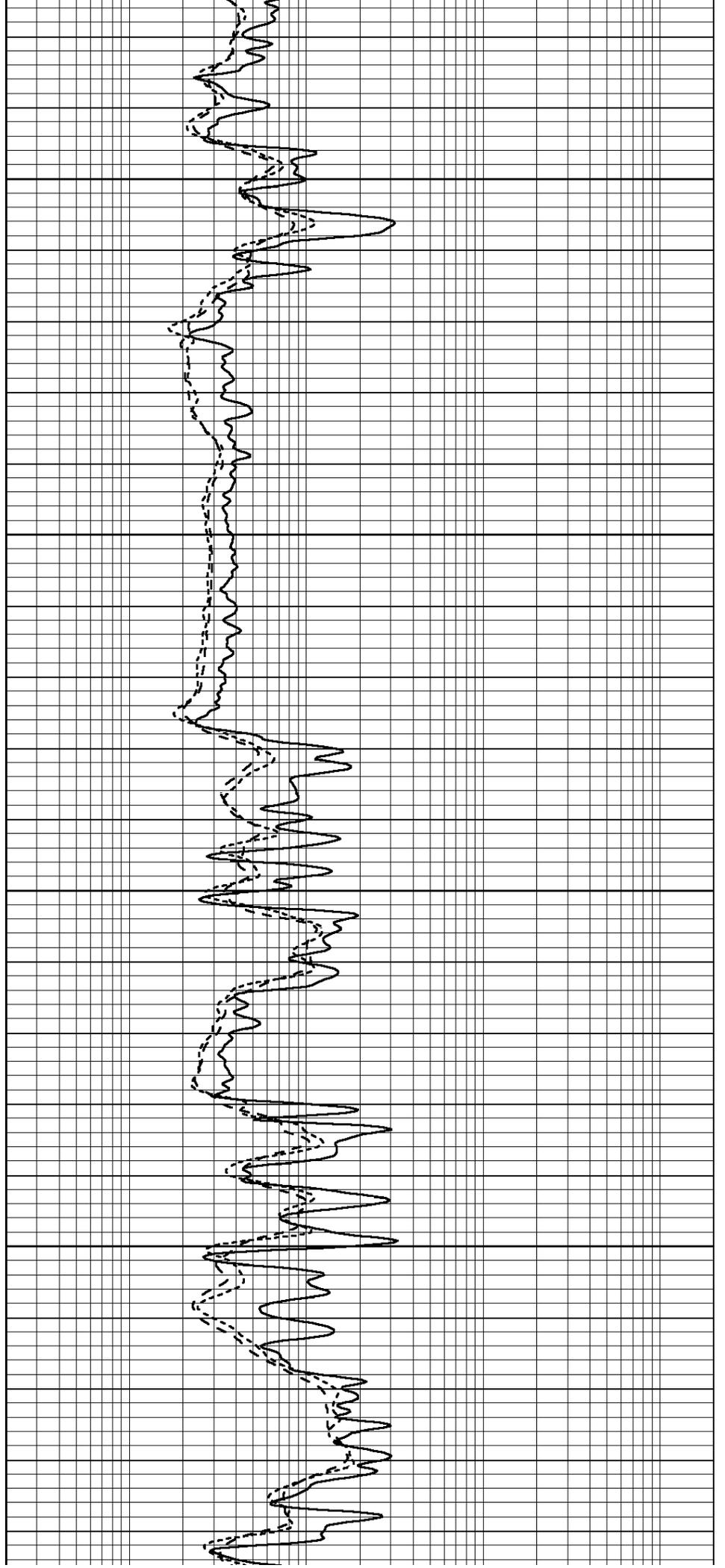


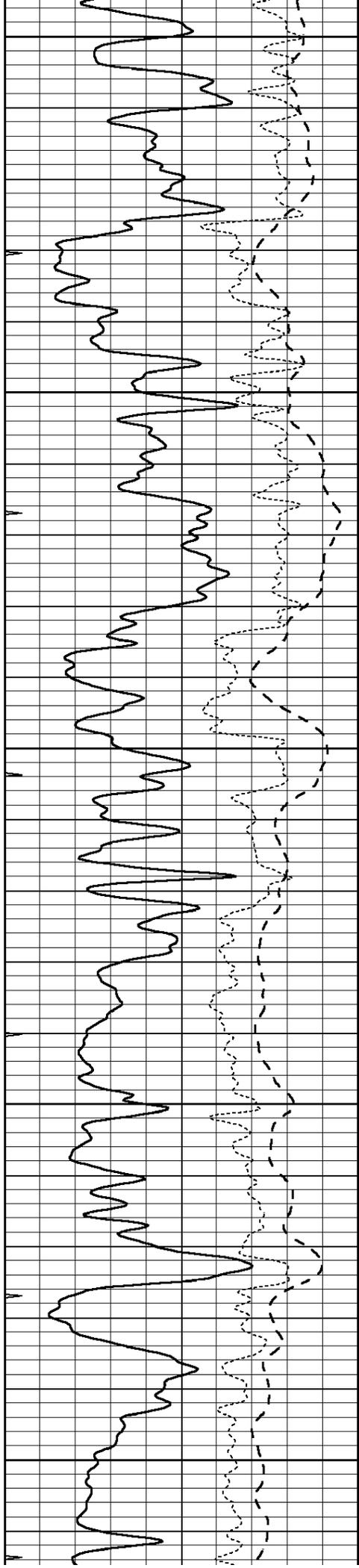
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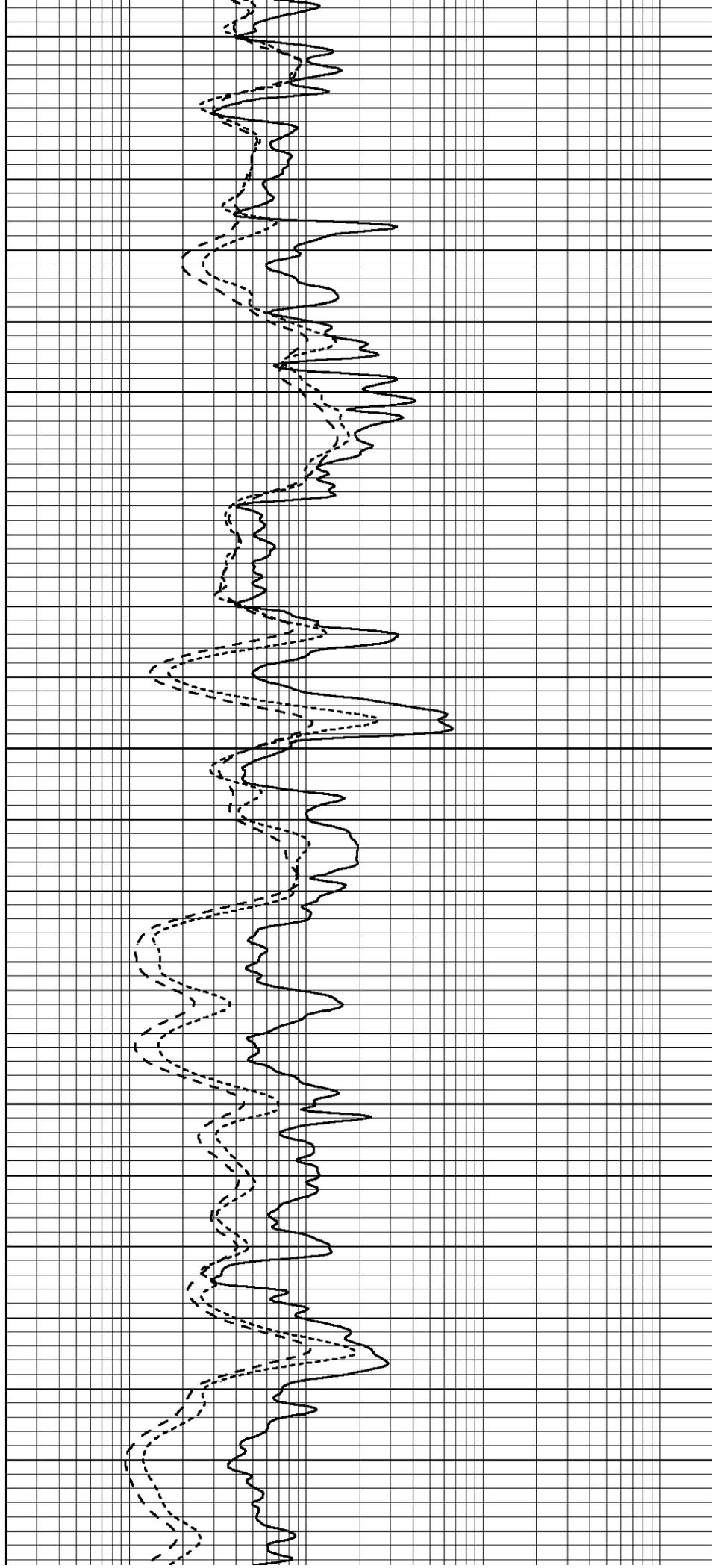
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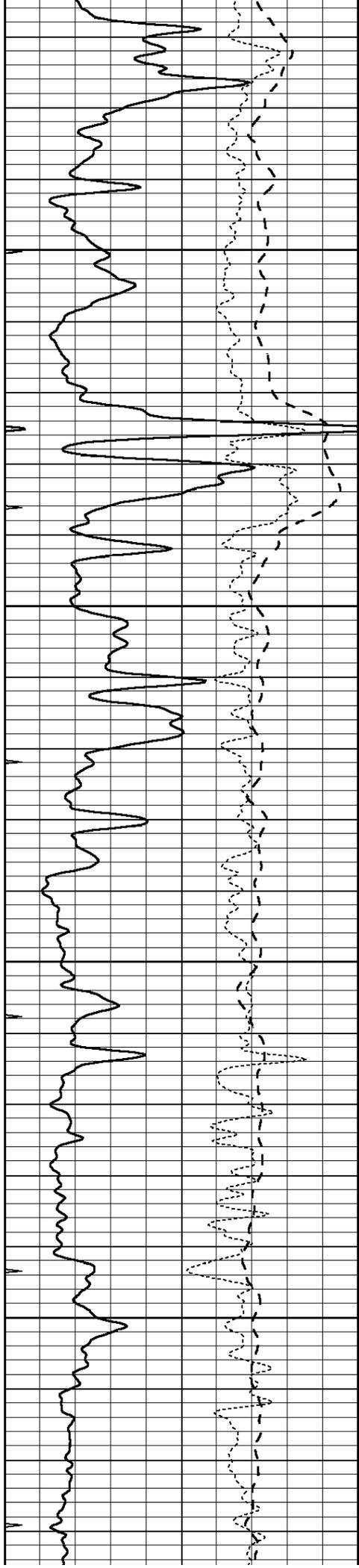
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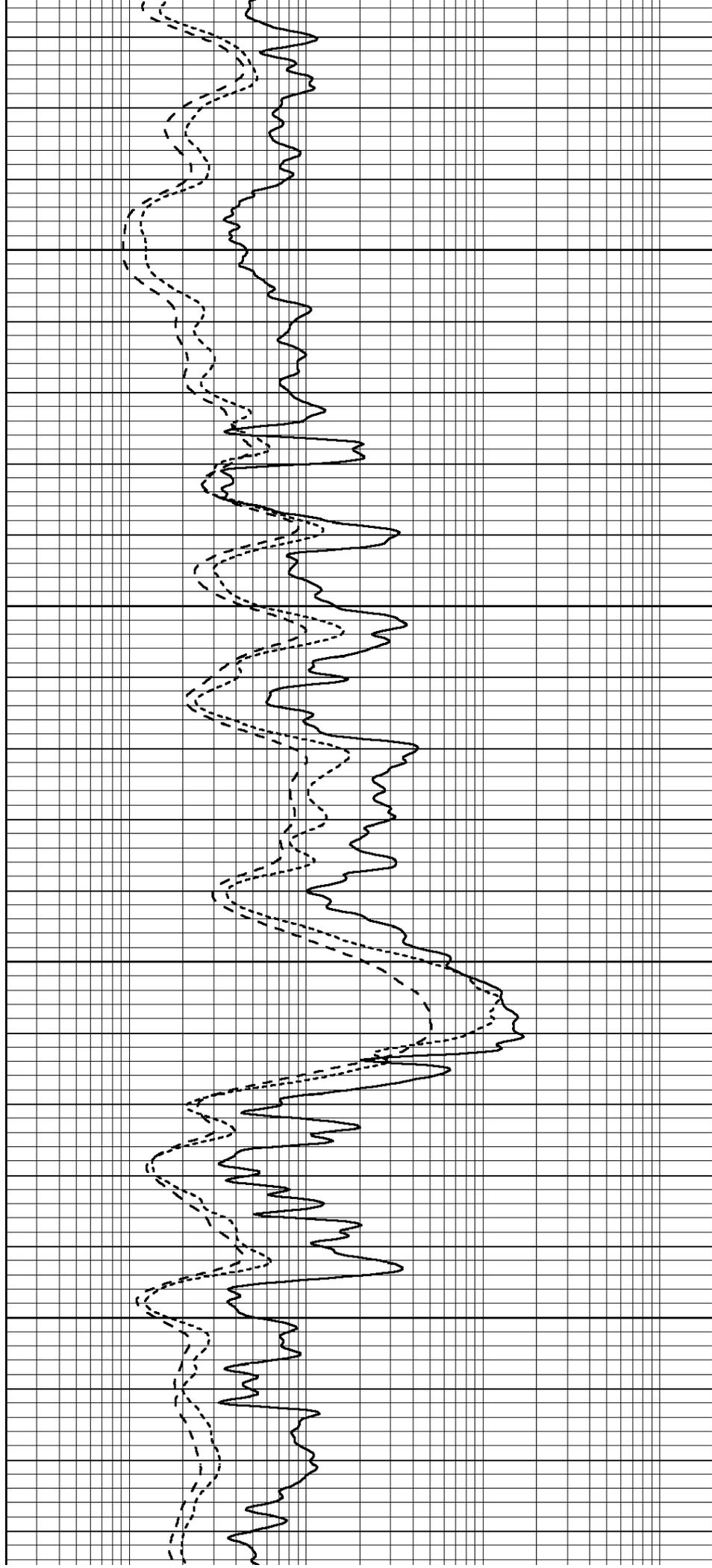


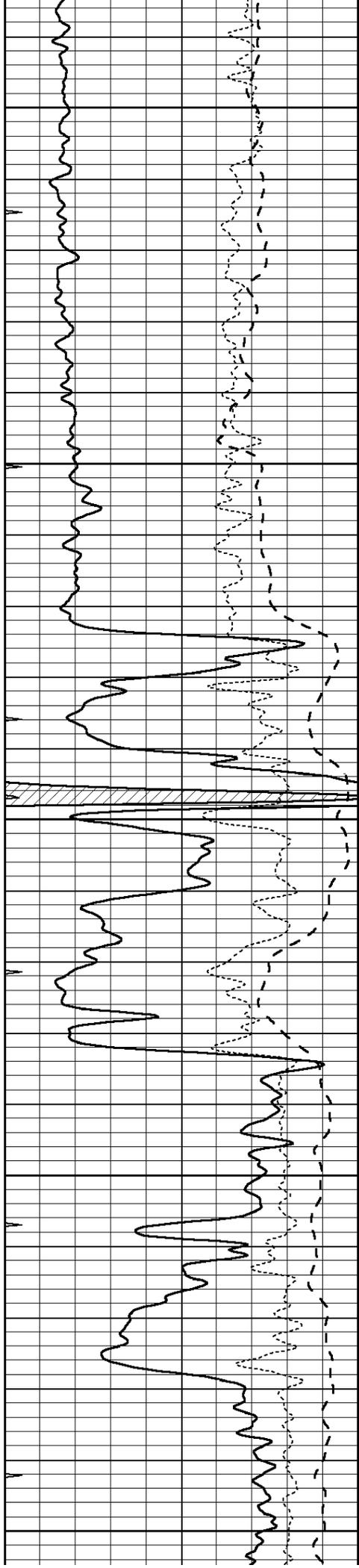
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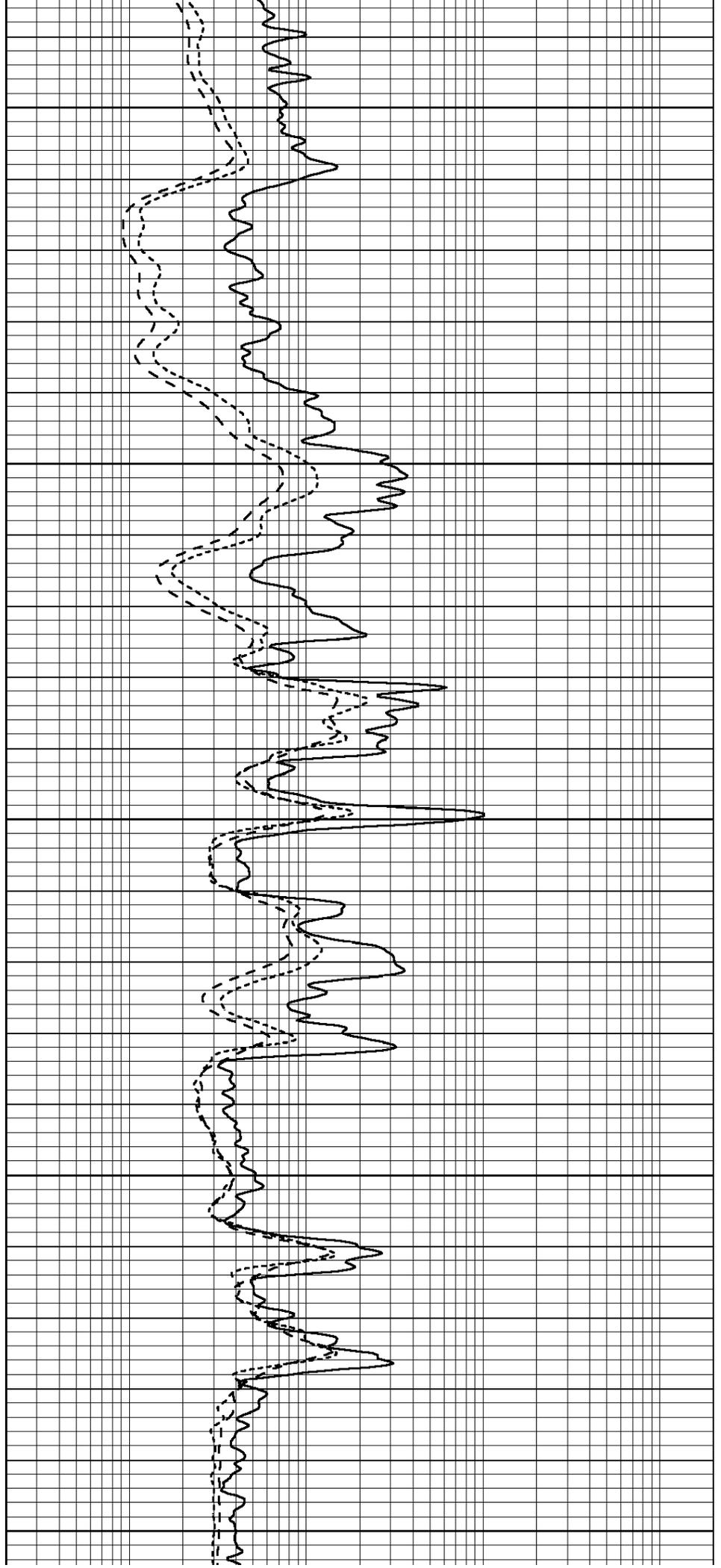
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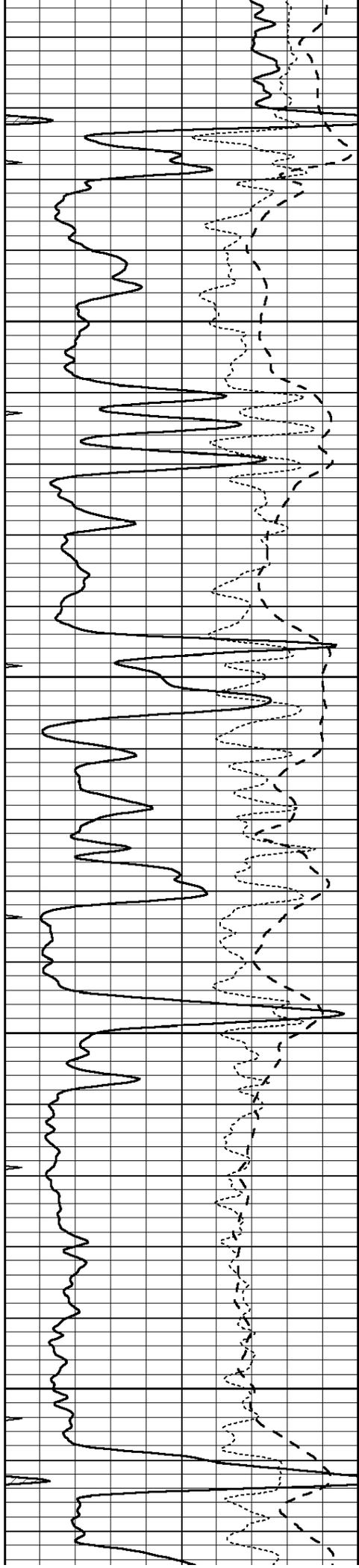
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4150

4200

4250



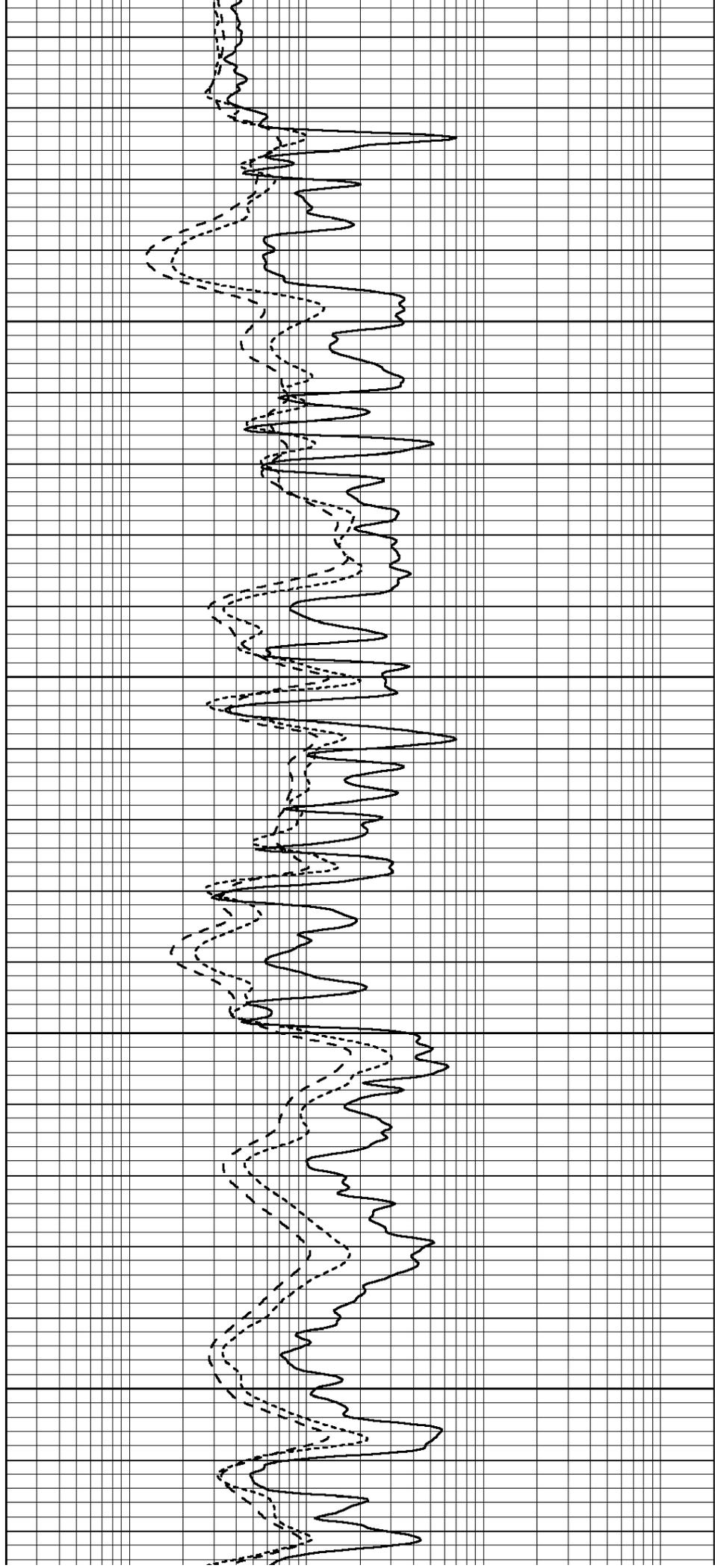


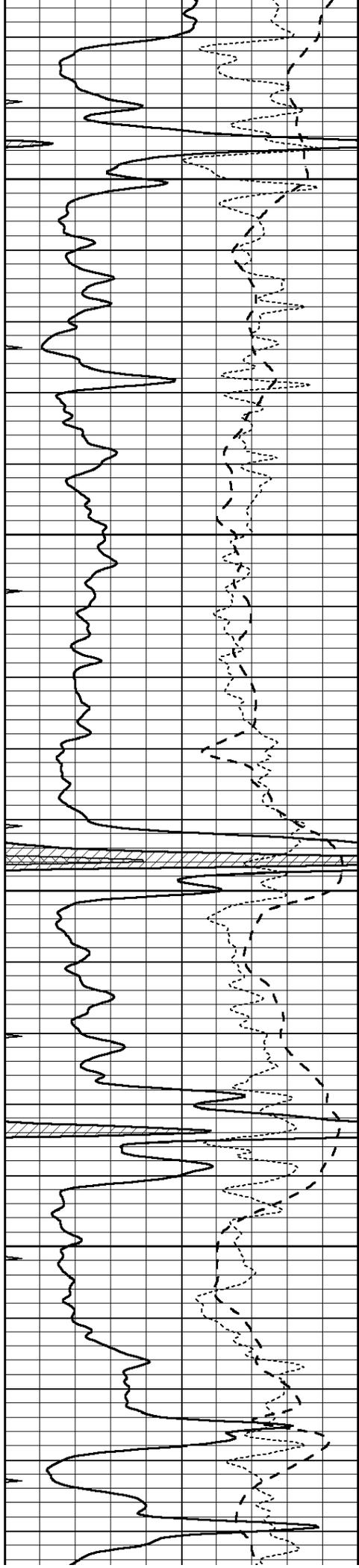
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4400

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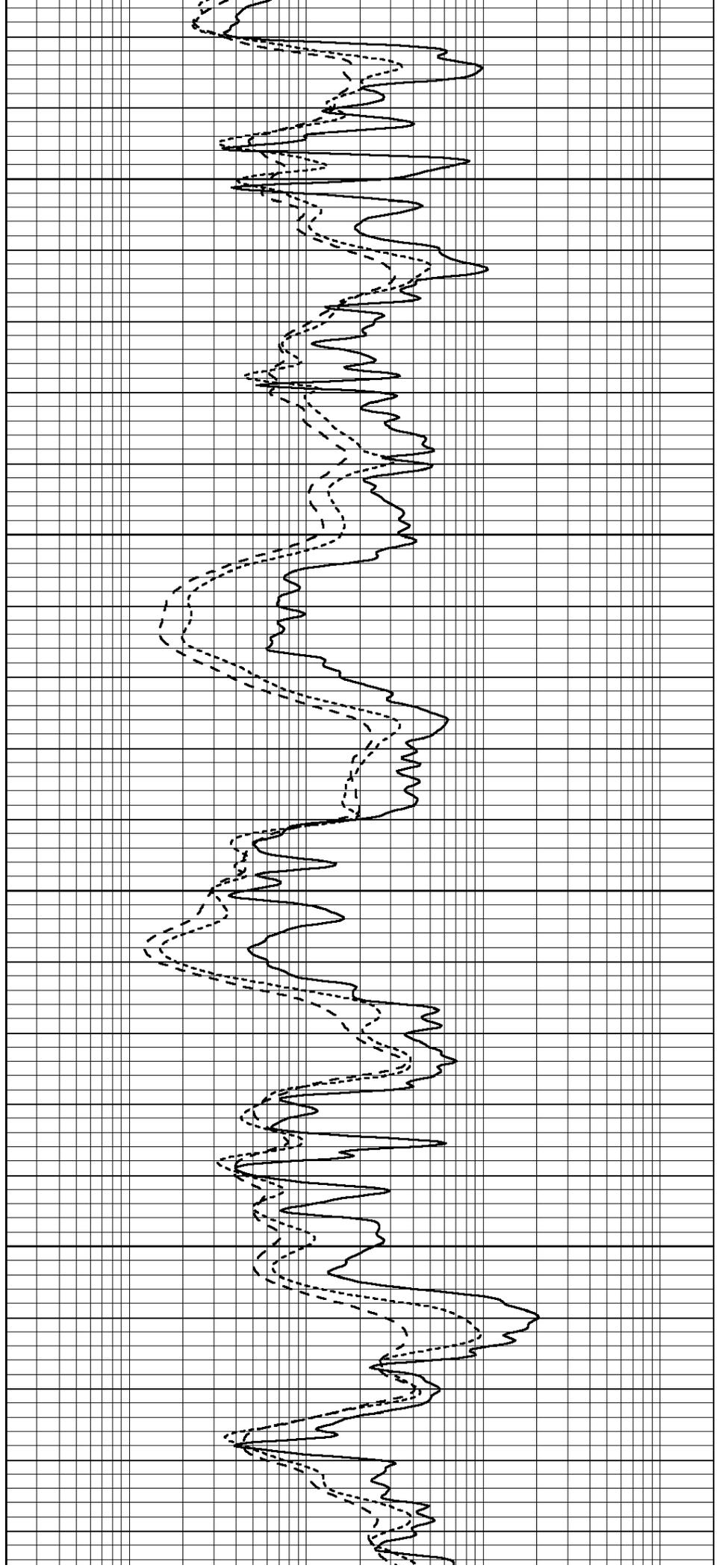


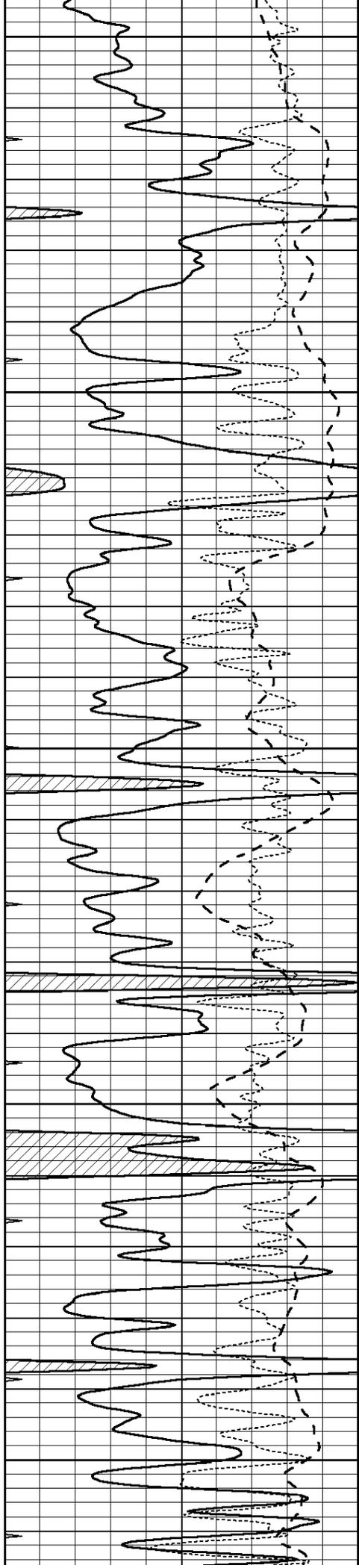
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4600

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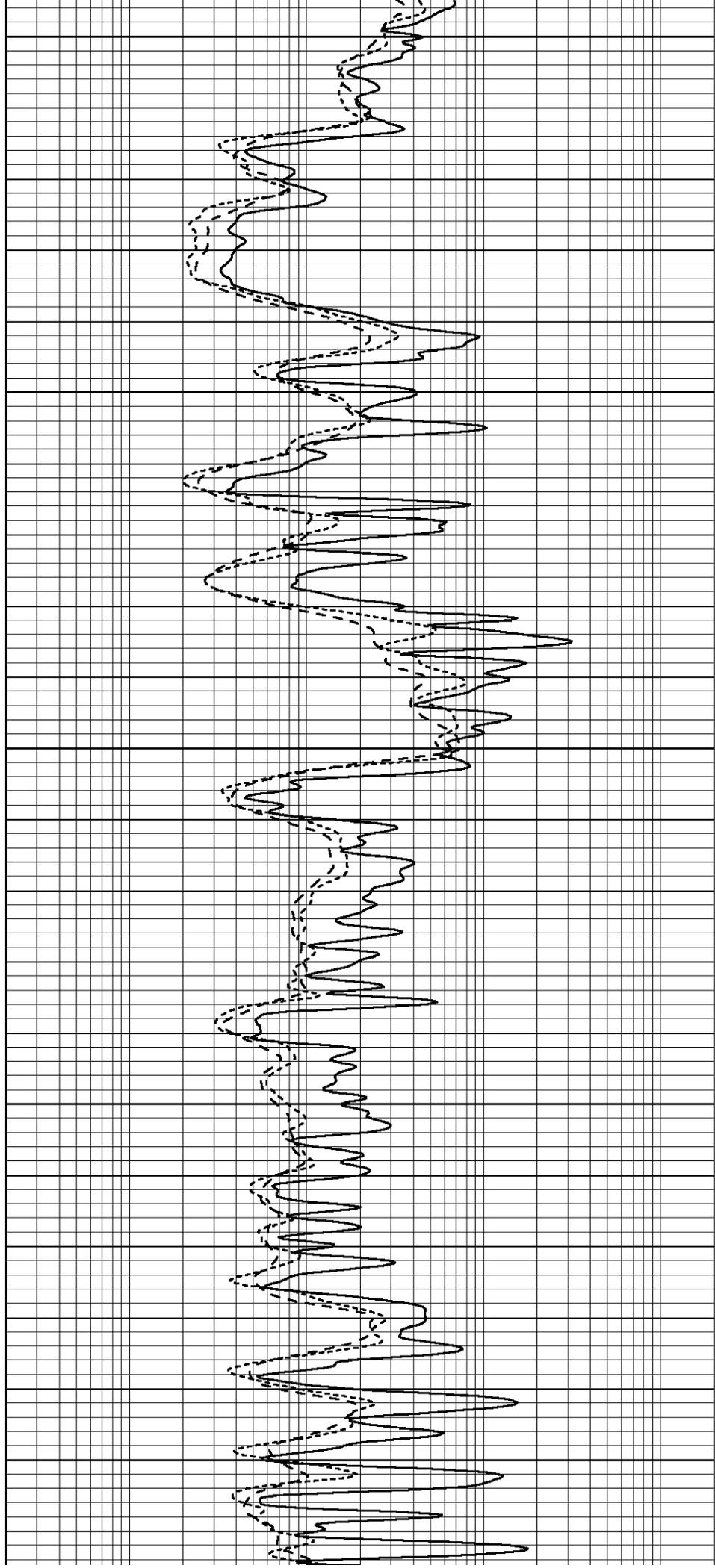
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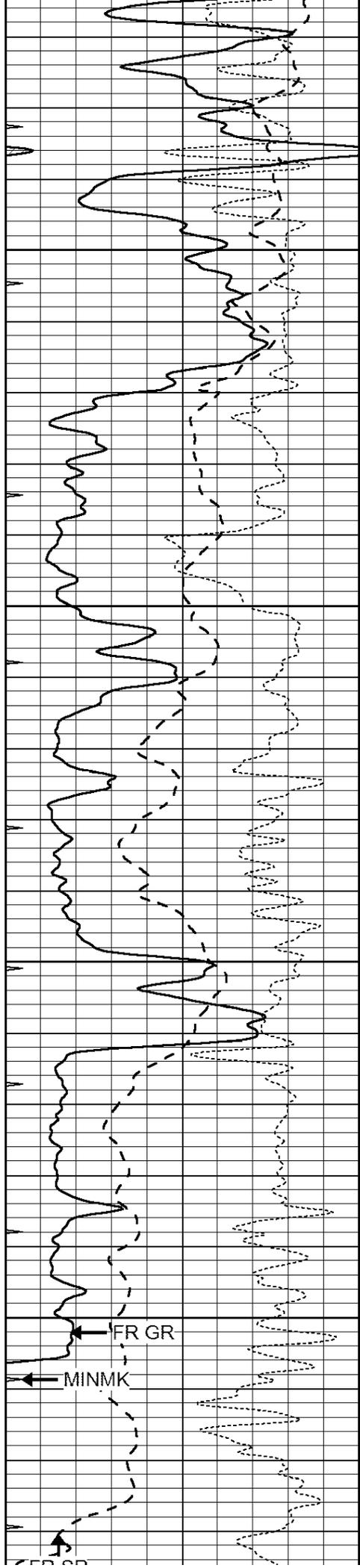
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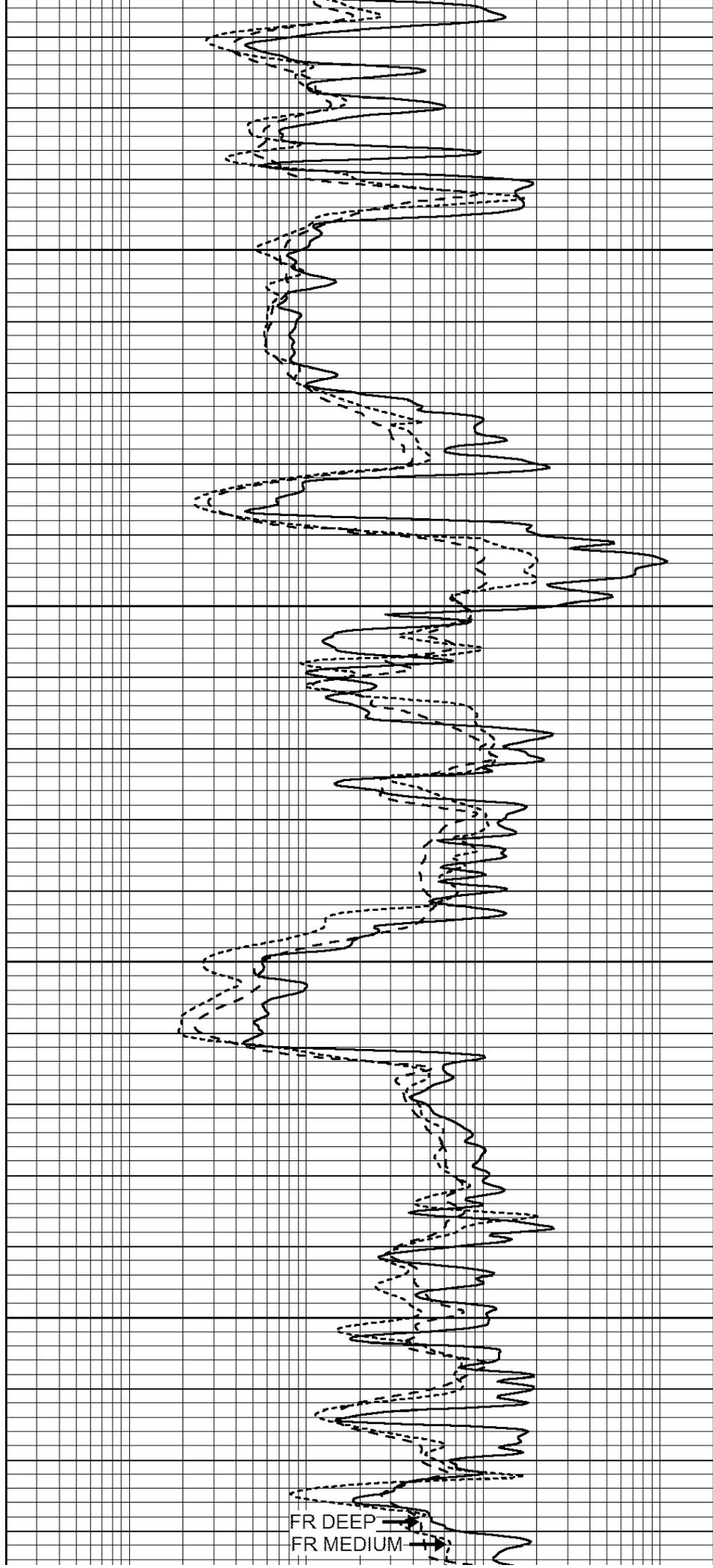


4950

5000

5050

5100



FR DEEP  
FR MEDIUM

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

LTD 5140

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



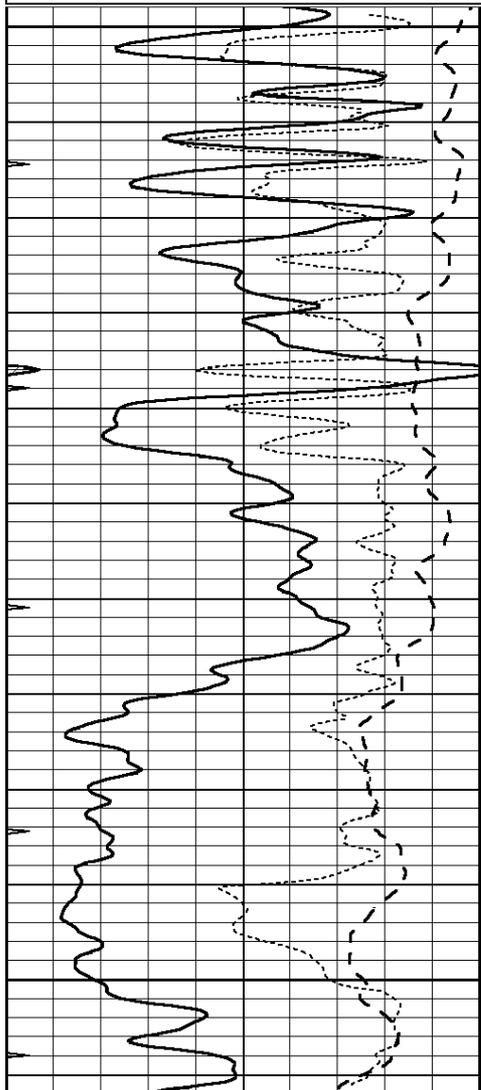
SUPERIOR  
Hays,  
Kansas

# REPEAT SECTION

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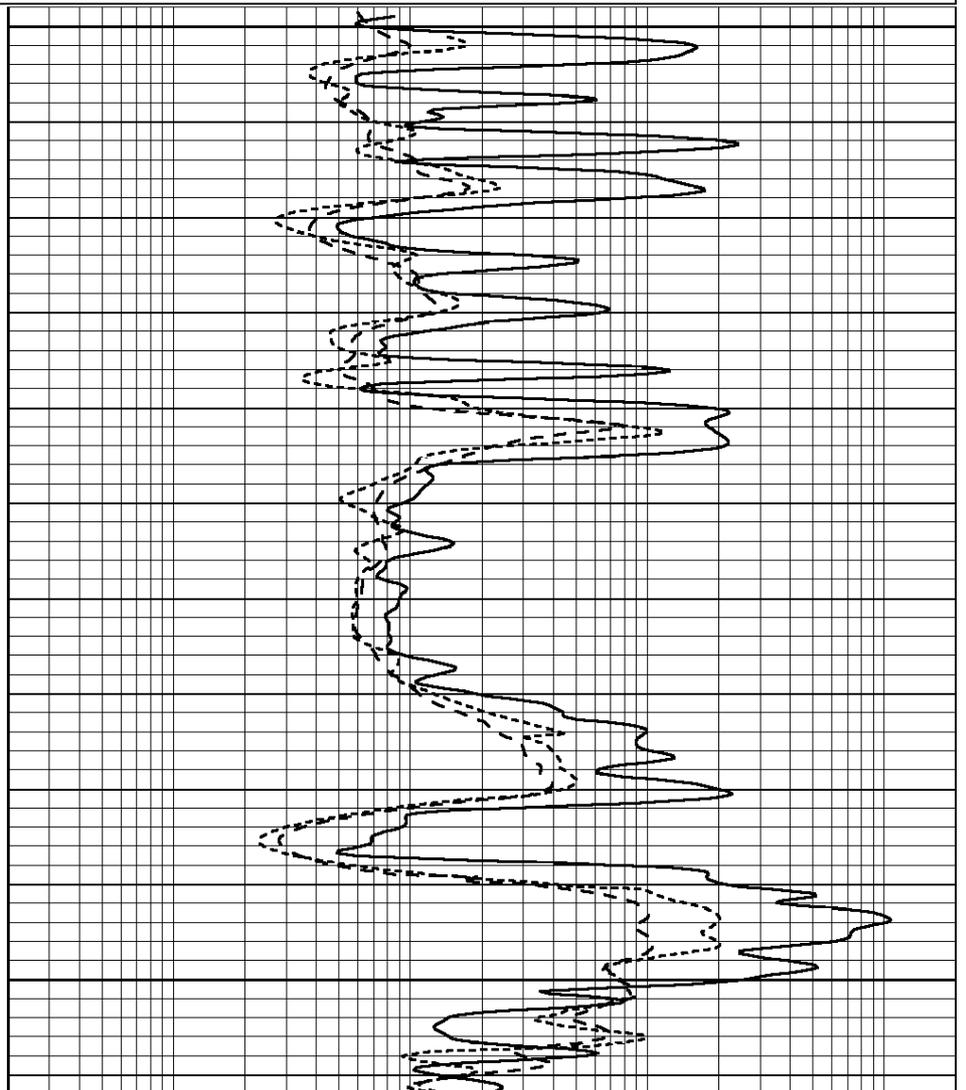
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

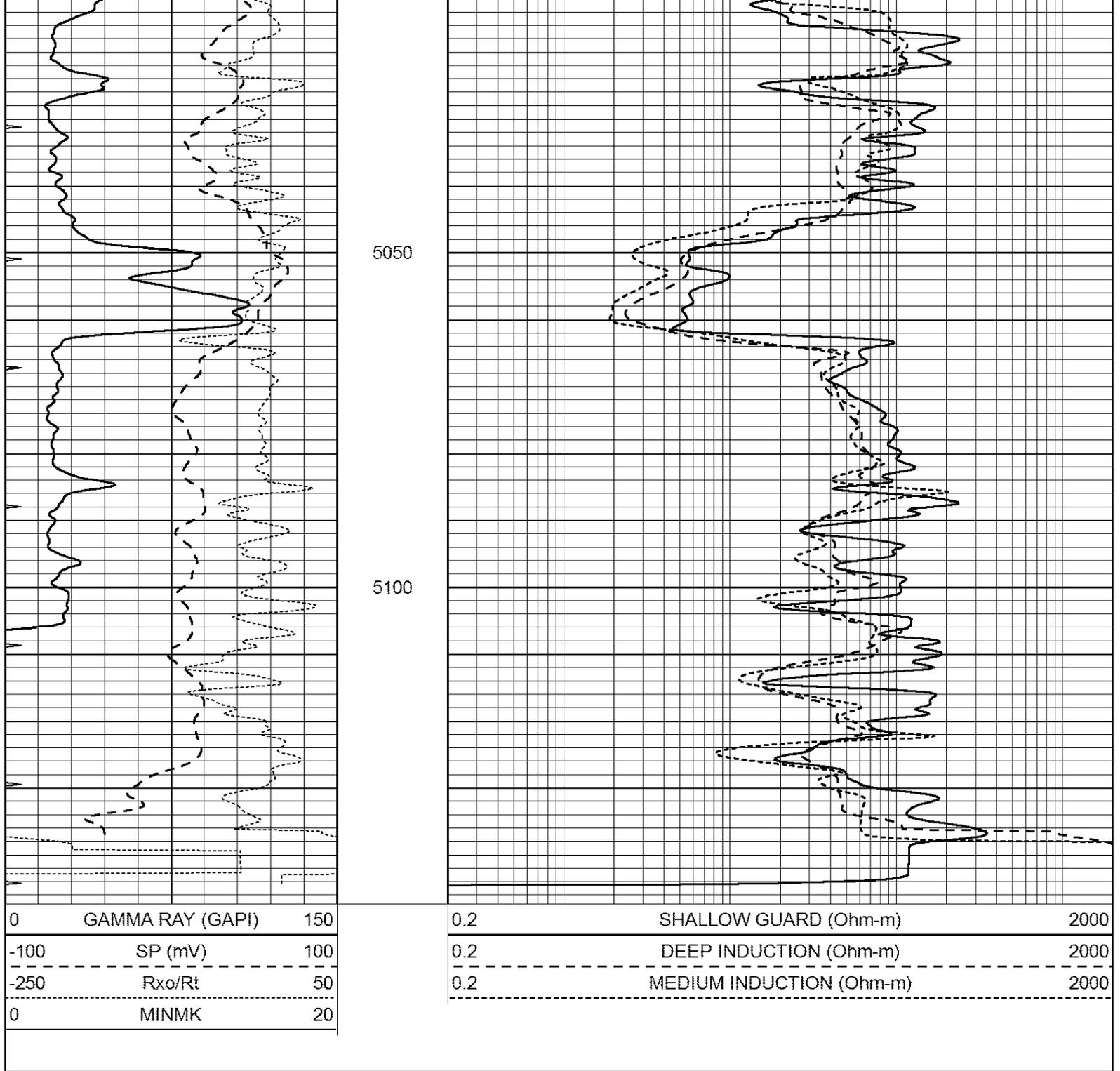


4900

4950

5000





### Calibration Report

Database File: 007298ddn.db  
 Dataset Pathname: pass3.10  
 Dataset Creation: Thu Sep 15 13:56:14 2011

### Dual Induction Calibration Report

Serial-Model: DIL3-GEAR  
 Performed: Thu Sep 15 11:48:25 2011

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho/m	640.000	6.000
Medium	0.013	0.740	V	0.000	462.500	mmho/m	700.000	-10.000

Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho/m	622.059	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho/m	631.393	-4.555

Litho Density Calibration Report  
Serial: 004N    Model: PRB  
Performed Tue Sep 08 13:49:55 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	1535.8	11161.3	3721.6	12498.8	cps
Window 2	1402.6	9435.7	3219.7	10417.7	cps
Window 3	1077.6	4422.0	1779.2	4753.4	cps
Window 4	337.3	342.8	337.4	343.7	cps
Long Space	0.0	8033.1	1817.0	9015.1	cps
Short Space	1.2	1671.8	1138.1	1813.0	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 45.5	Rib Slope	: 1.017	Density/Spine Ratio	: 0.573
Spine Angle	: 75.5	Spine Slope	: 3.865	Spine Intercept	: -19.7

Caliper

	Readings	Reference	
Low Ref	2.8	7.4	
High Ref	4.6	15.0	
Gain: 4.2			Offset: -4.1

Compensated Neutron Calibration Report

Serial Number:    NEU\_11  
Tool Model:        G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	1.00 cps	1.00 cps	1.0000
Long Space	1.00 cps	1.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number:    GR1  
Tool Model:        OPEN  
Performed:        Thu Sep 15 12:37:54 2011

Calibrator Value:    200.0            GAPI

Background Reading:    3.0                cps  
Calibrator Reading:    186.0            cps

Sensitivity:            0.2500            GAPI/cps