



SUPERIOR
Hays,
Kansas

DUAL
INDUCTION
LOG

Company RITCHIE EXPLORATION, INC.
 Well #1 COPELAND 19D
 Field WILDCAT
 County FORD State KANSAS

Company RITCHIE EXPLORATION, INC.
 Well #1 COPELAND 19D
 Field WILDCAT
 County FORD
 State KANSAS

Location: API #: 15-057-20724-0000
 915' FSL & 1920' FEL
 N/2 - SW - SE
 SEC 19 TWP 28S RGE 22W
 Permanent Datum GROUND LEVEL Elevation 2470
 Log Measured From KELLY BUSHING 12' A.G.L.
 Drilling Measured From KELLY BUSHING
 Other Services
 CDL/CNL
 Elevation
 K.B. 2482
 D.F. 2480
 G.L. 2470

Date	5-7-11		
Run Number	ONE		
Depth Driller	5308		
Depth Logger	5309		
Bottom Logged Interval	5307		
Top Log Interval	0		
Casing Driller	361		
Casing Logger	360		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 9000	
Density / Viscosity	9.2 / 60		
pH / Fluid Loss	8.5 / 12.4		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	0.65 @ 82F		
Rmf @ Meas. Temp	0.49 @ 82F		
Rmc @ Meas. Temp	0.78 @ 82F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.440 @ 121F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom			
Maximum Recorded Temperature	121F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	JEFF GRONEWEG		
Witnessed By	MIKE ENGELBRECHT		

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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.

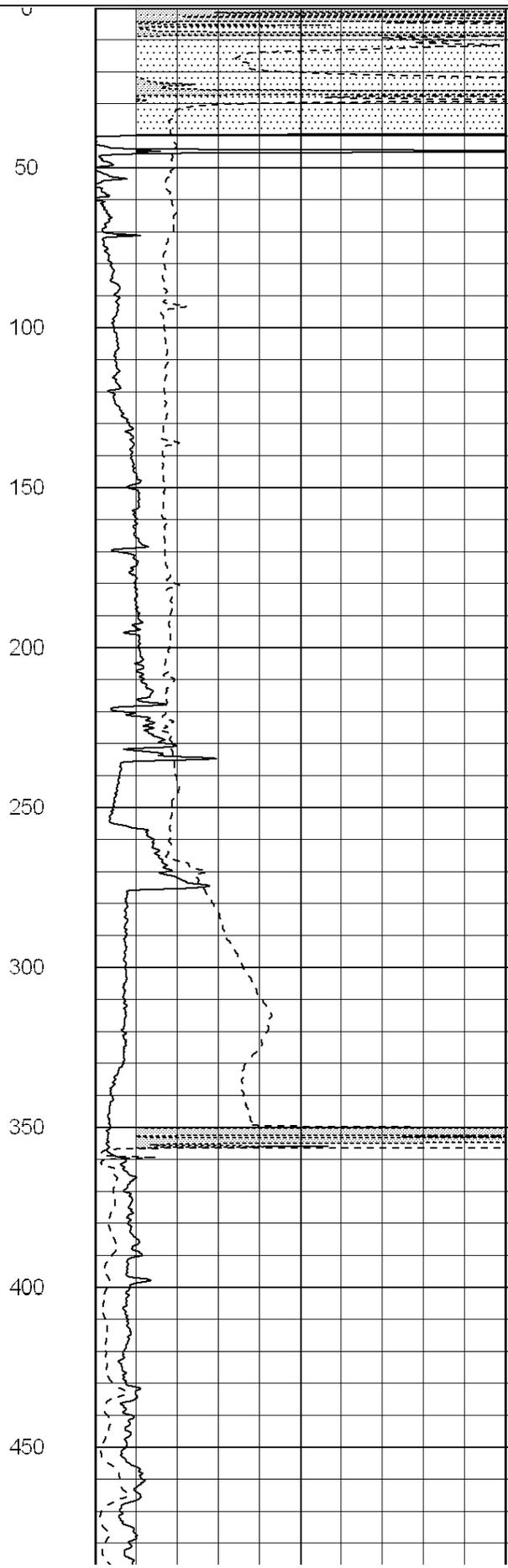
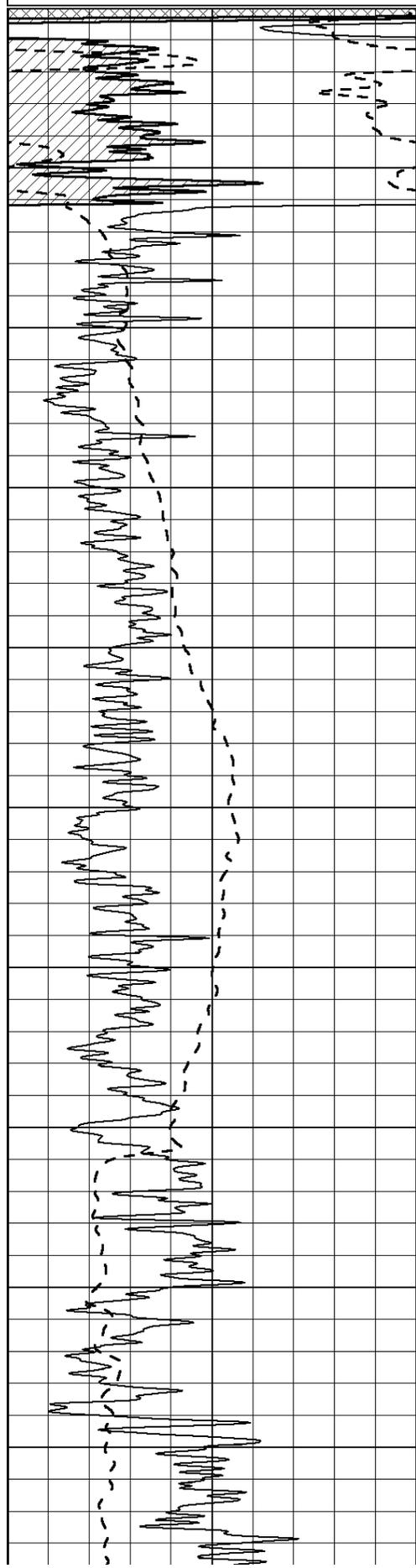
Comments

SUPERIOR WELL SERVICES
 785-628-6395
THANK YOU FOR YOUR BUSINESS
 DIRECTIONS: FORD, KS - 3 MILES SOUTH - 3/4 MILE WEST
 NORTH INTO

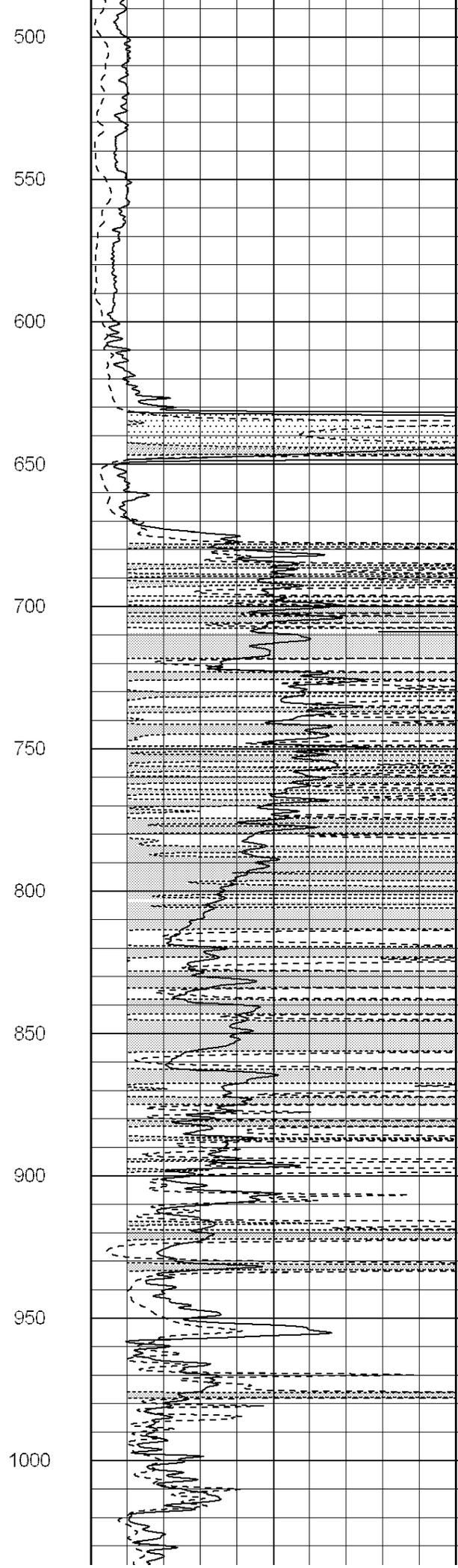
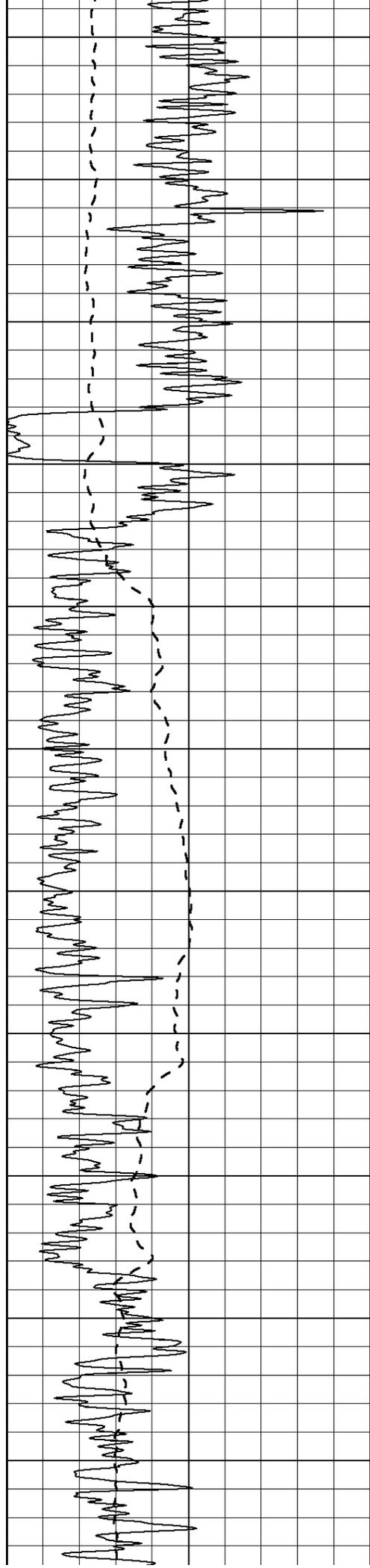
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-100	SP (mV)	100

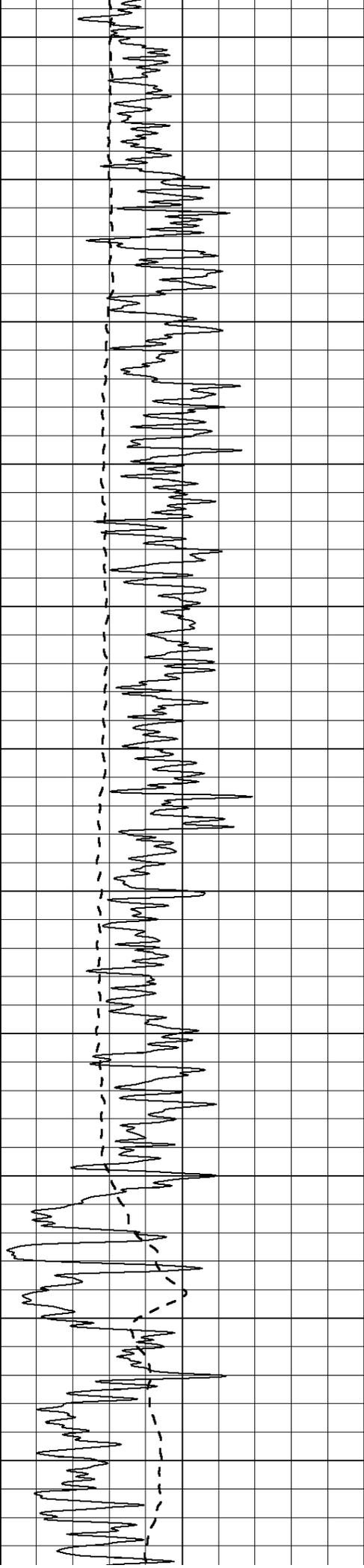
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500



0
50
100
150
200
250
300
350
400
450





1050

1100

1150

1200

1250

1300

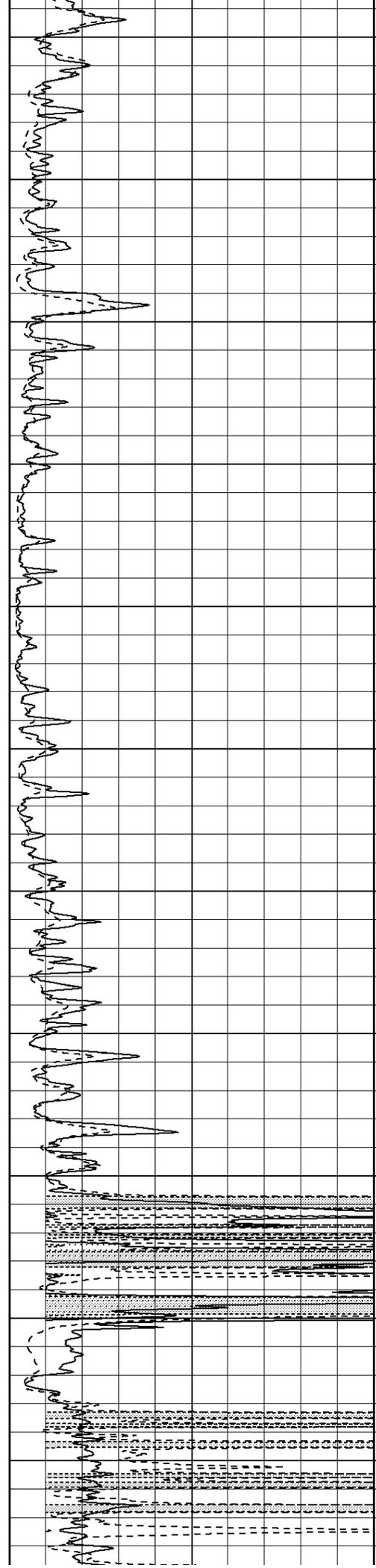
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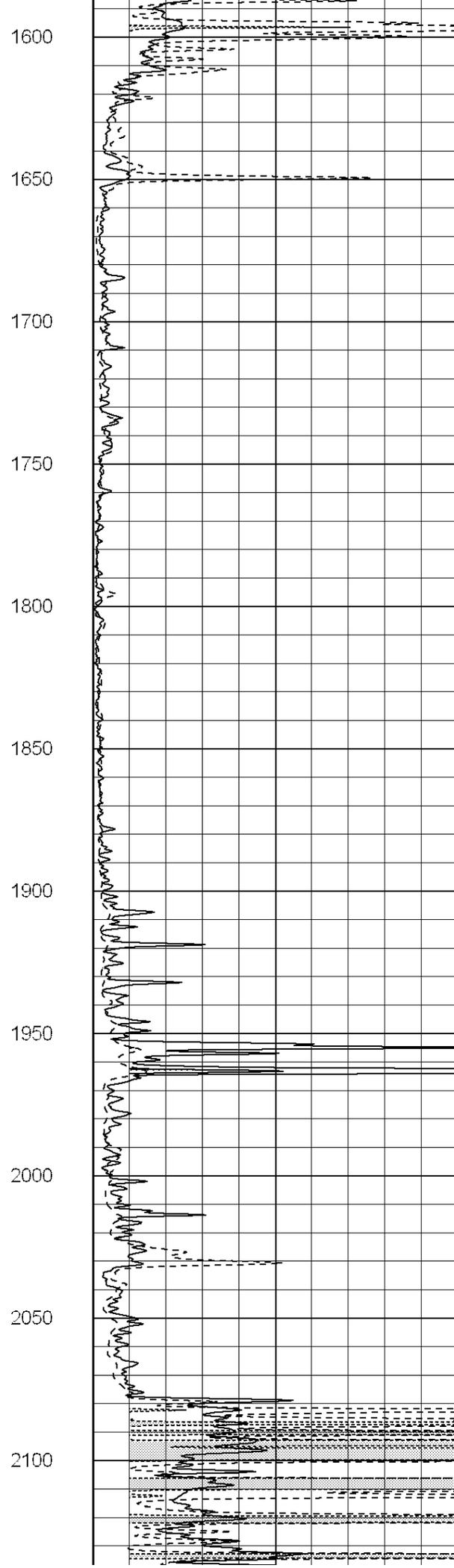
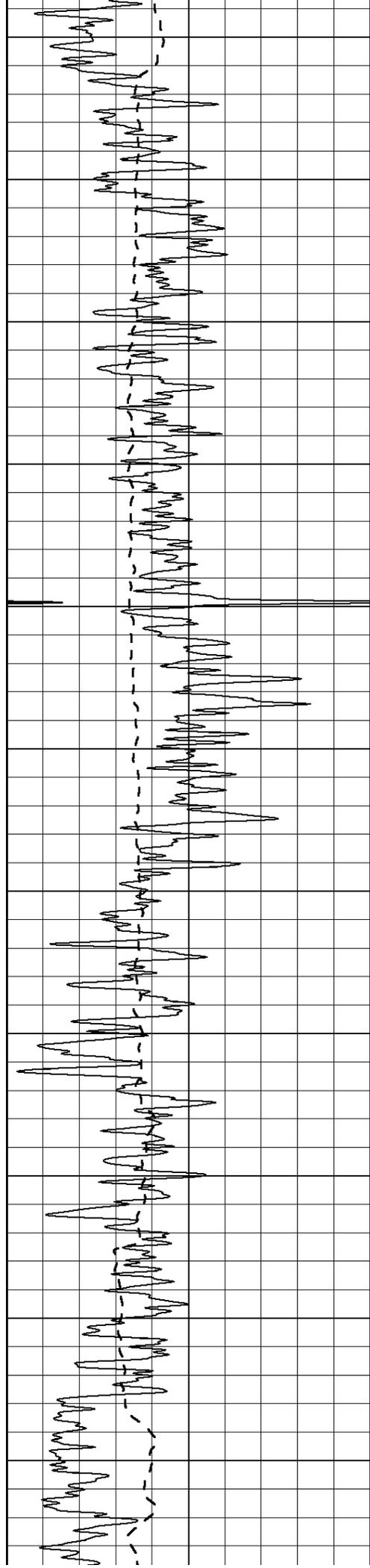
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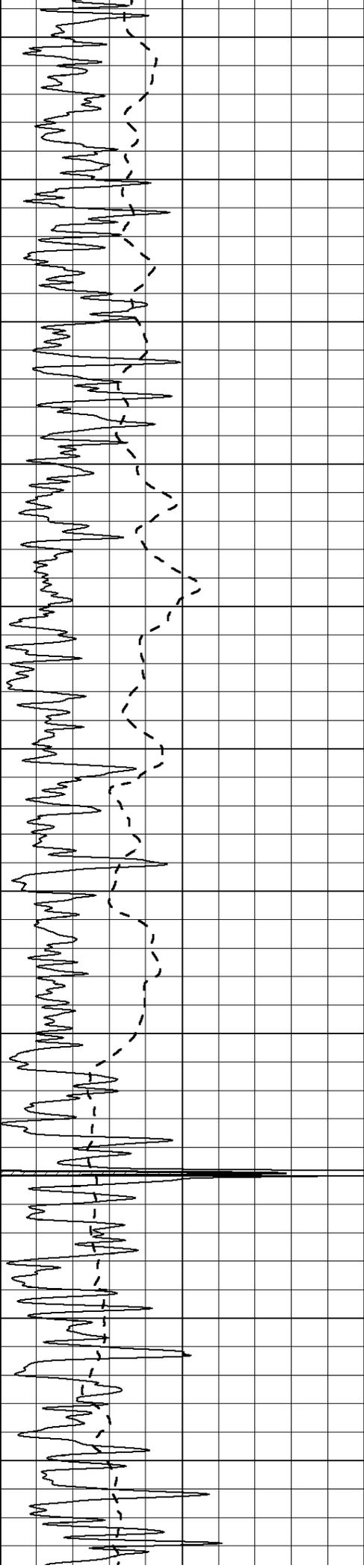
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1500

1550







2150

2200

2250

2300

2350

2400

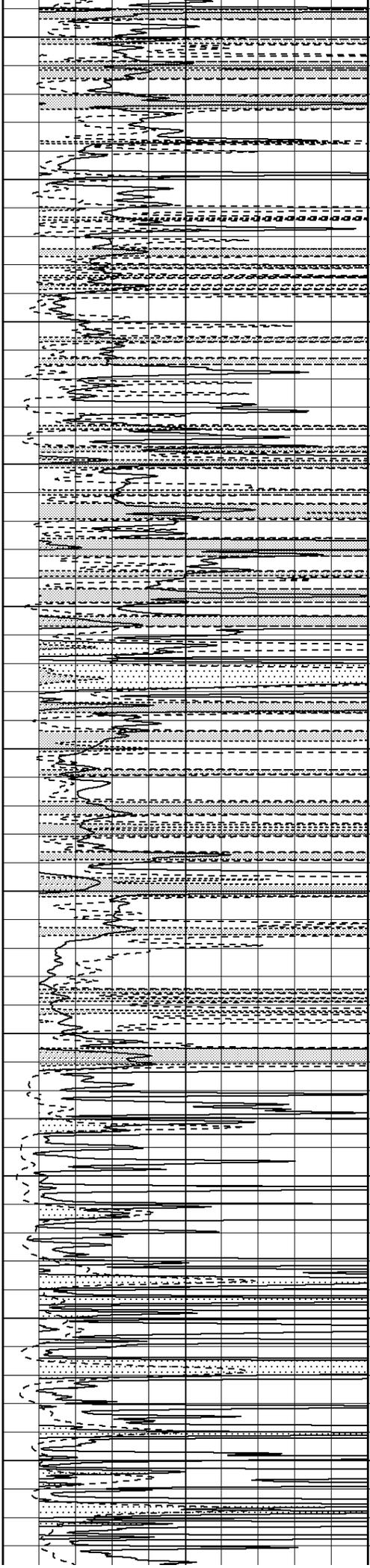
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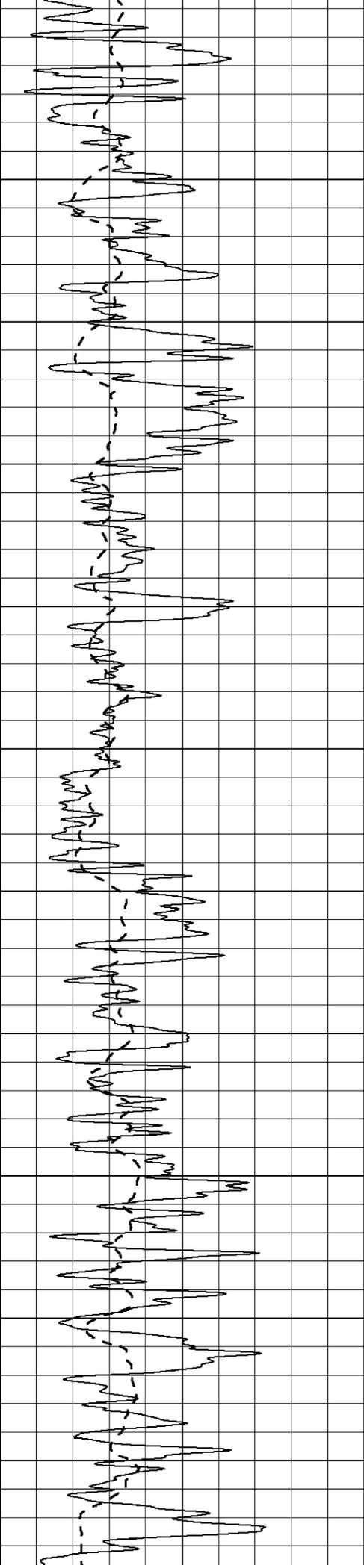
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2550

2600

2650





2700

2750

2800

2850

2900

2950

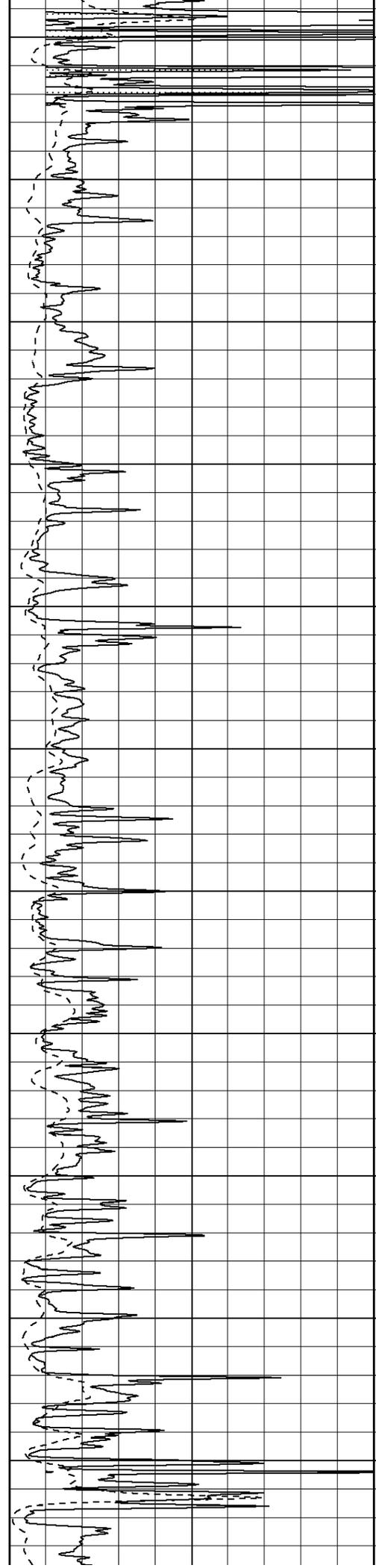
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3050

3100

3150

3200



3250

3300

3350

3400

3450

3500

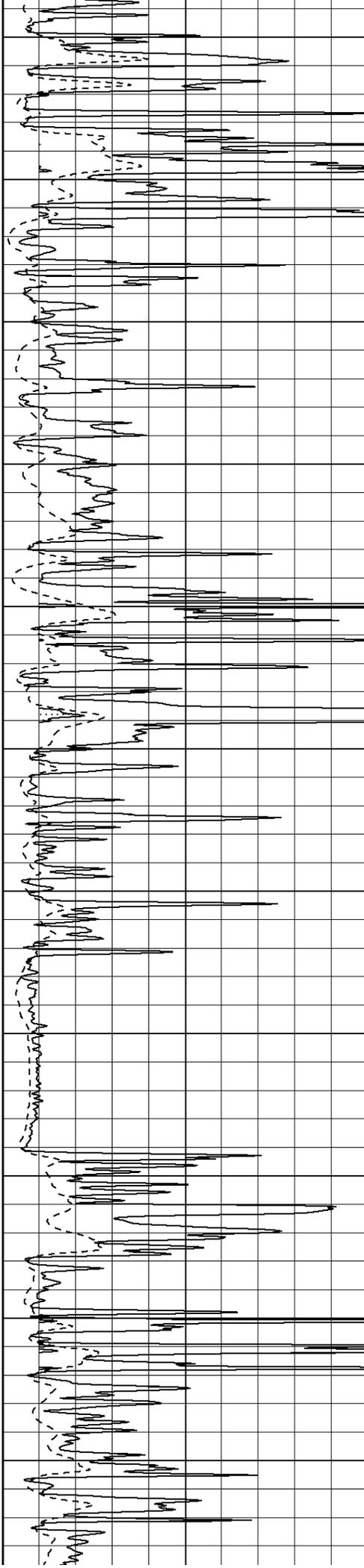
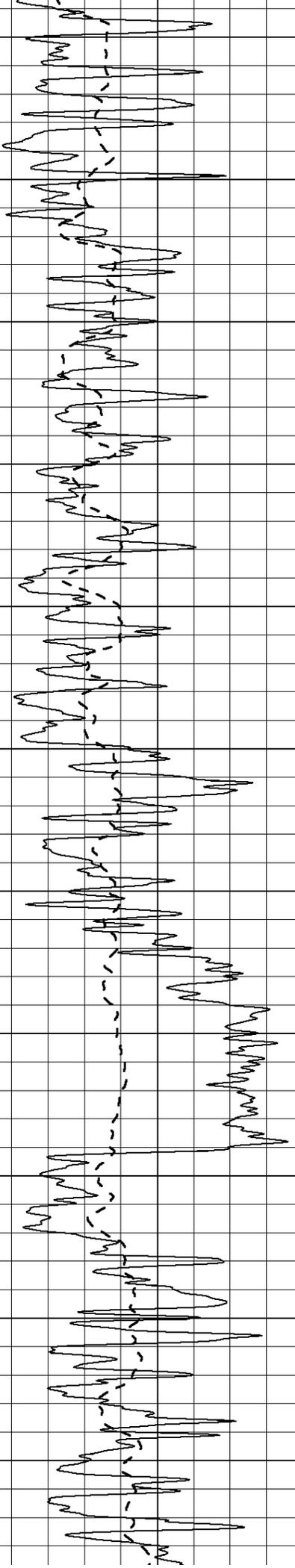
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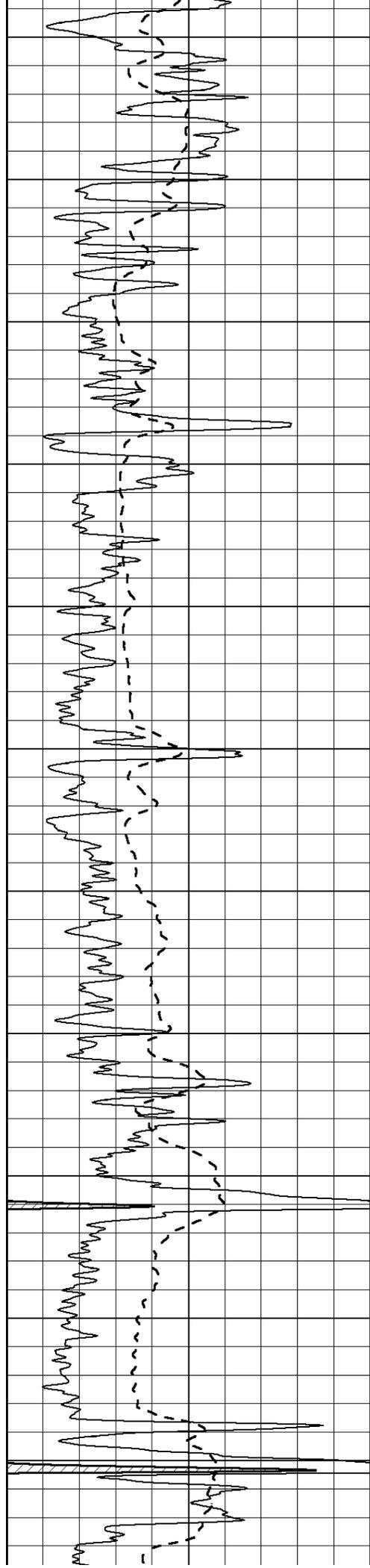
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3650

3700

3750





3800

3850

3900

3950

4000

4050

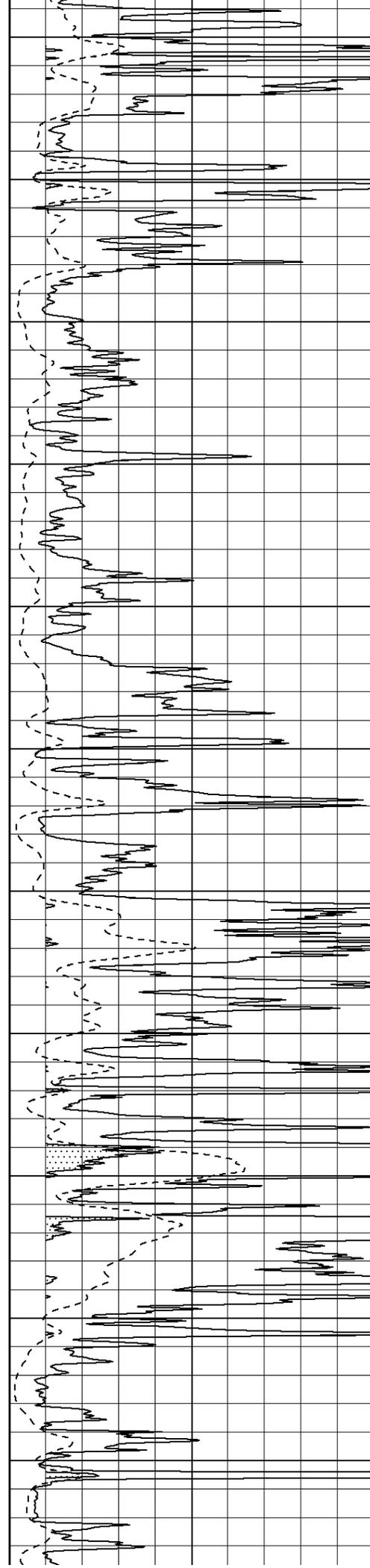
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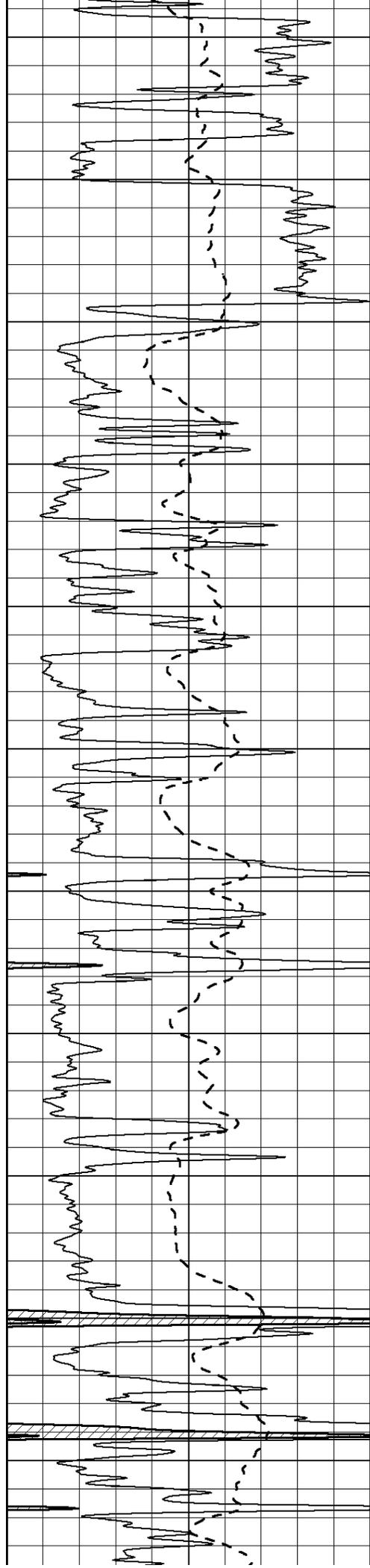
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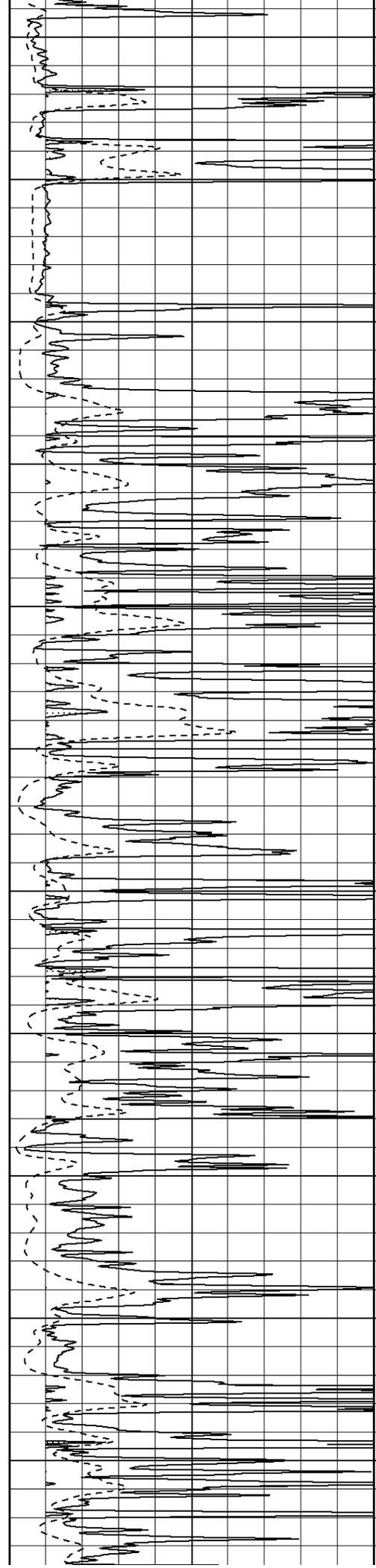
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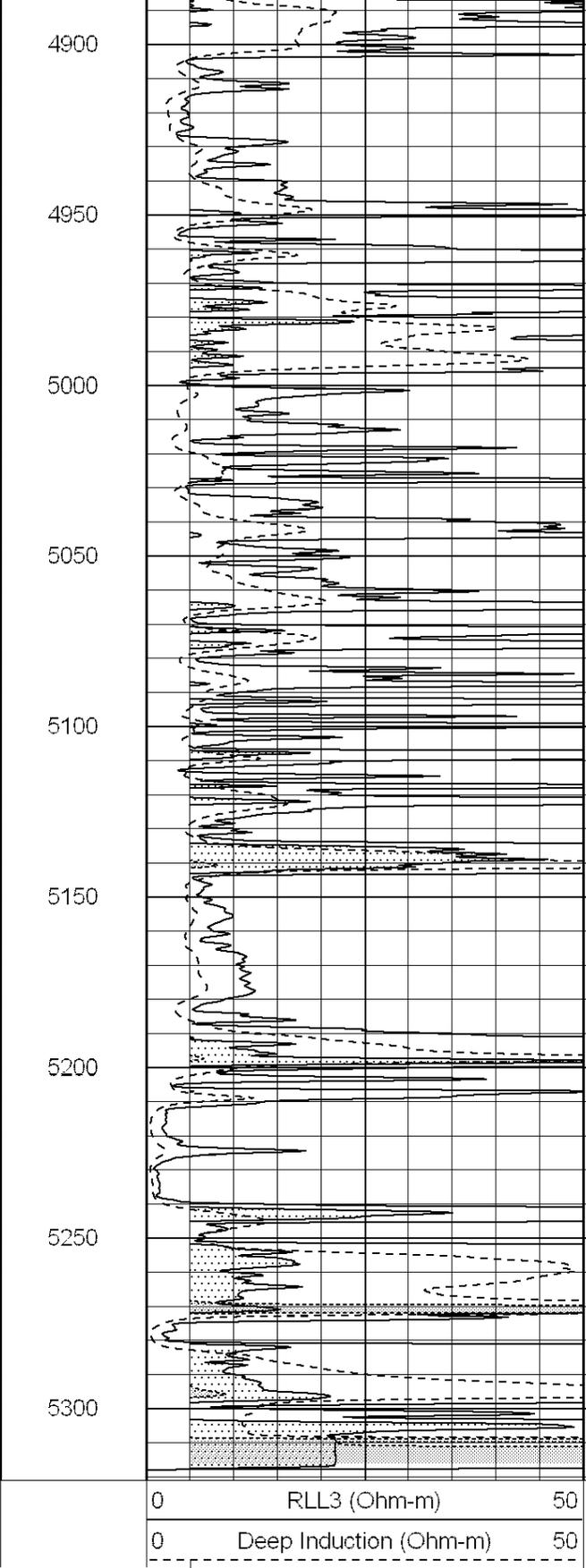
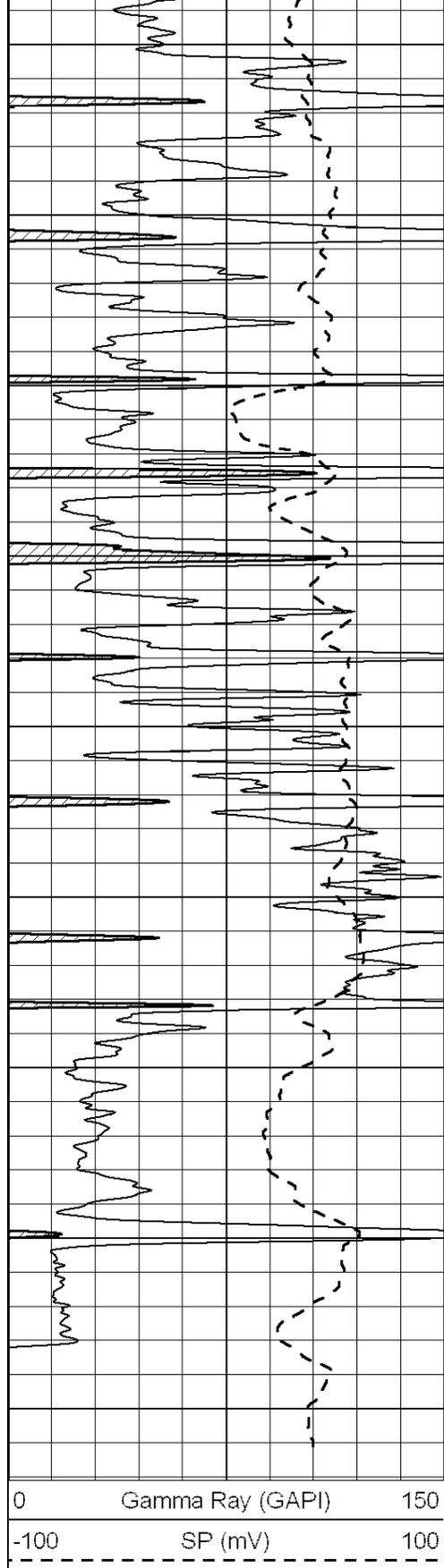
4300





4350
4400
4450
4500
4550
4600
4650
4700
4750
4800
4850





0	Gamma Ray (GAPI)	150
-100	SP (mV)	100

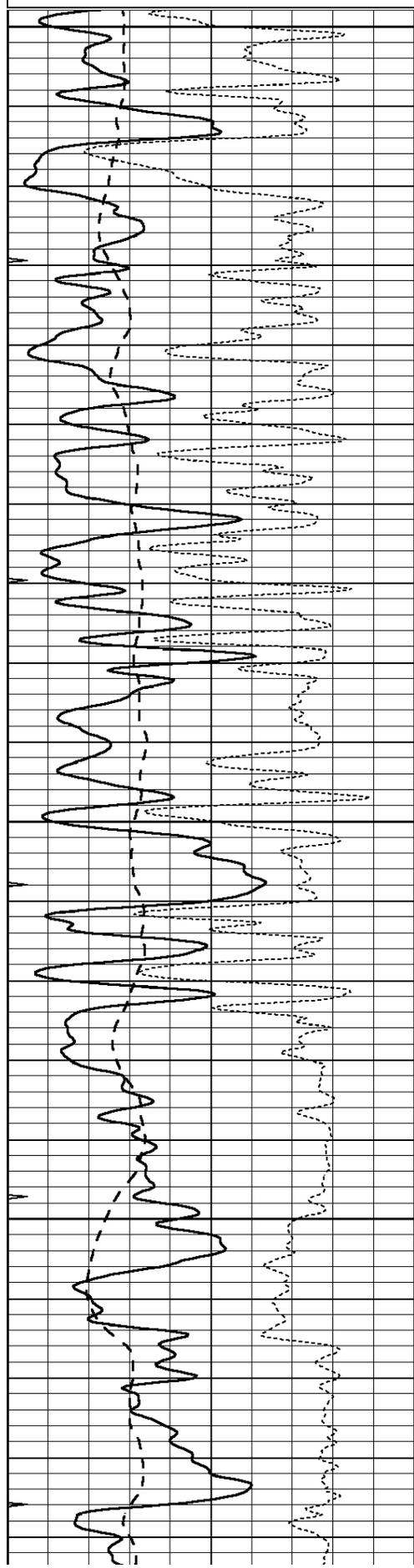
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50

50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

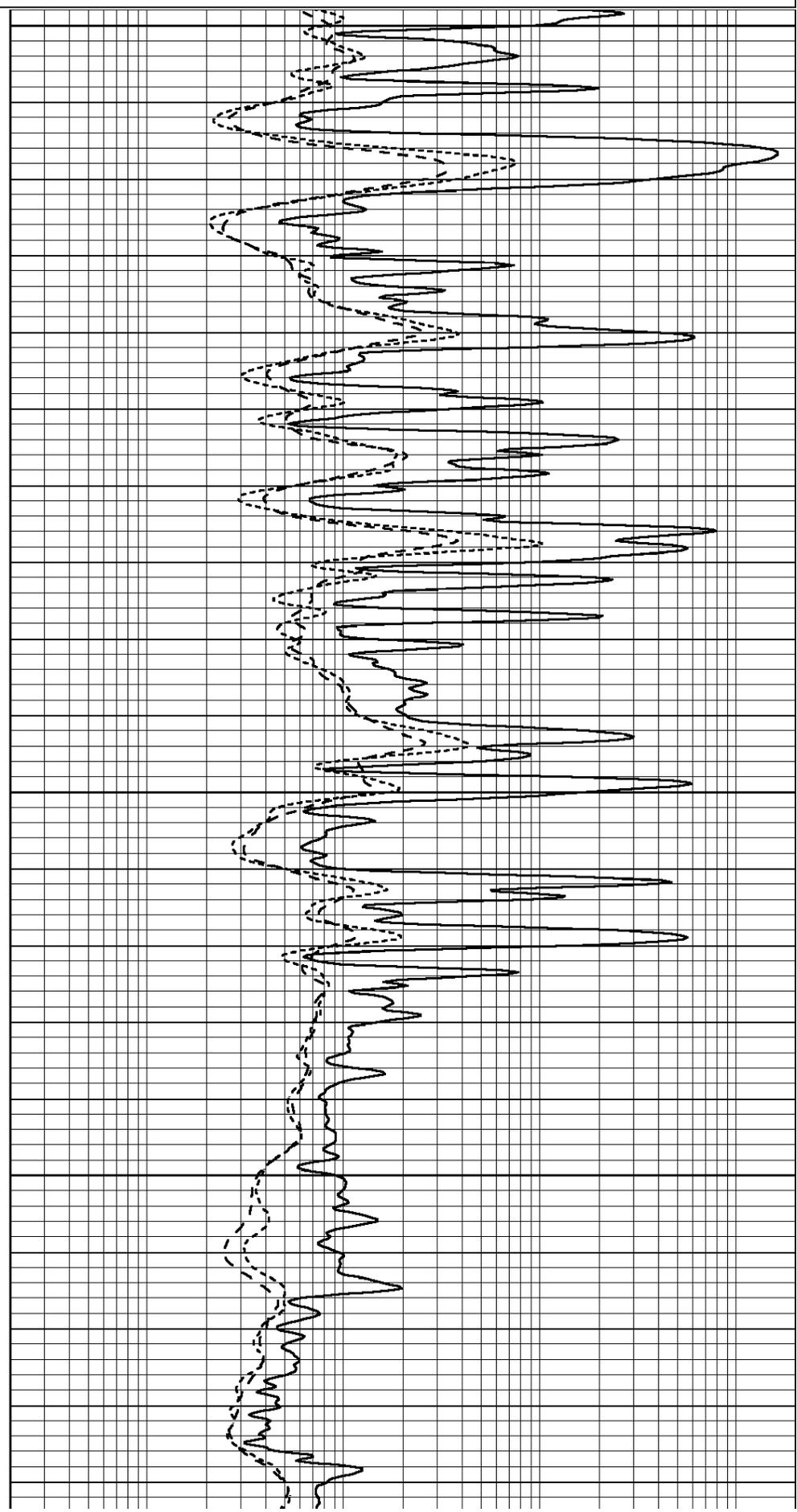
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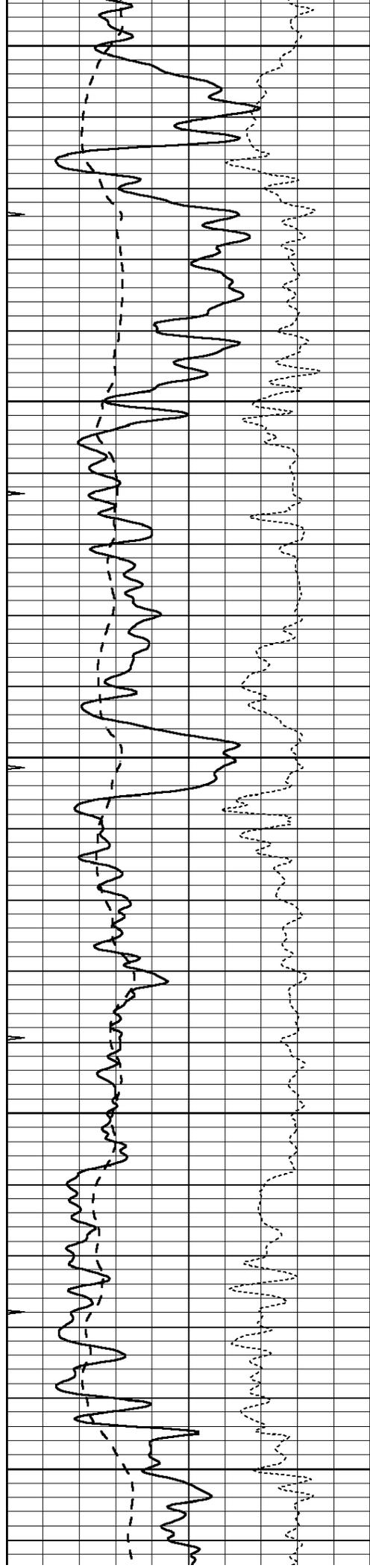
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



2600
2650
2700
2750





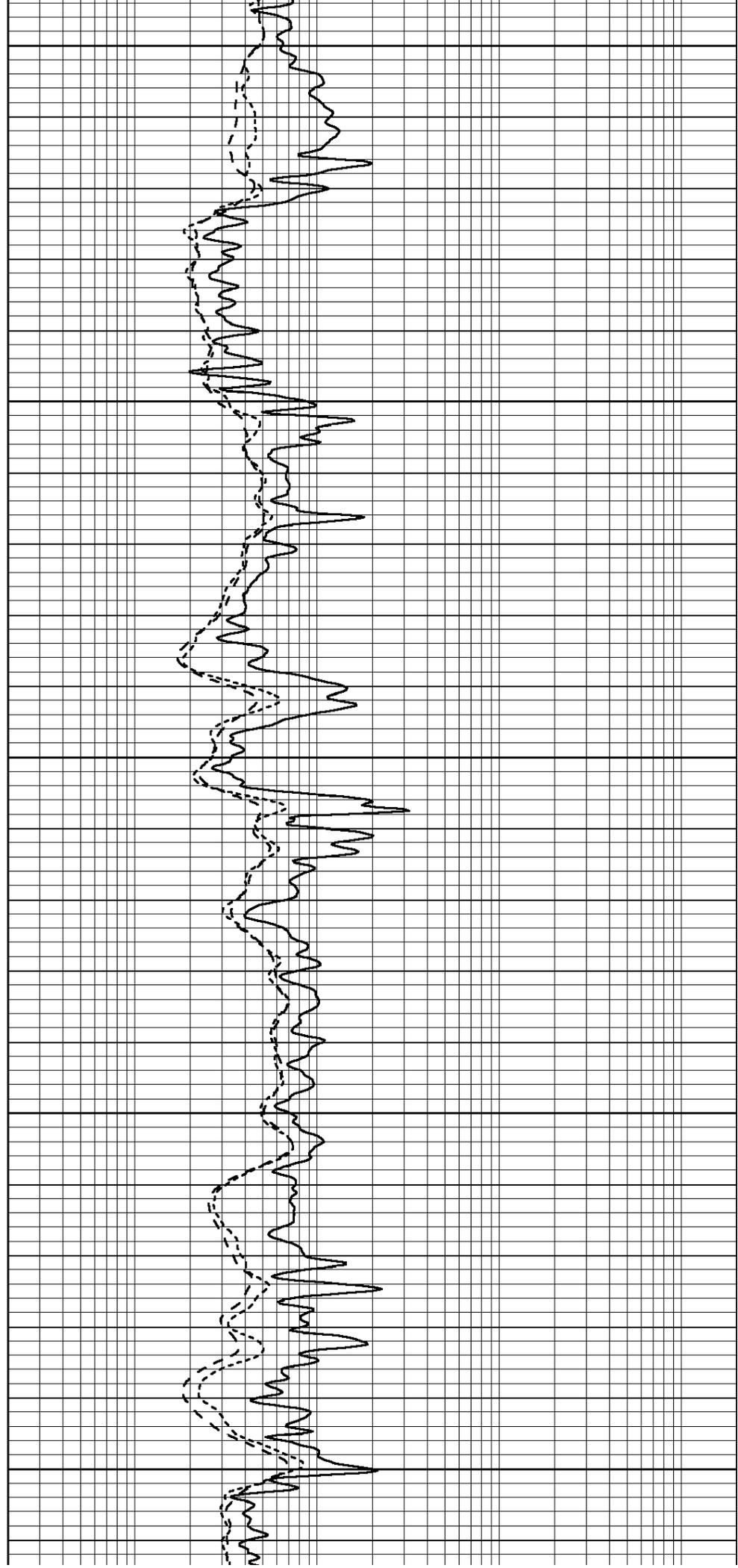
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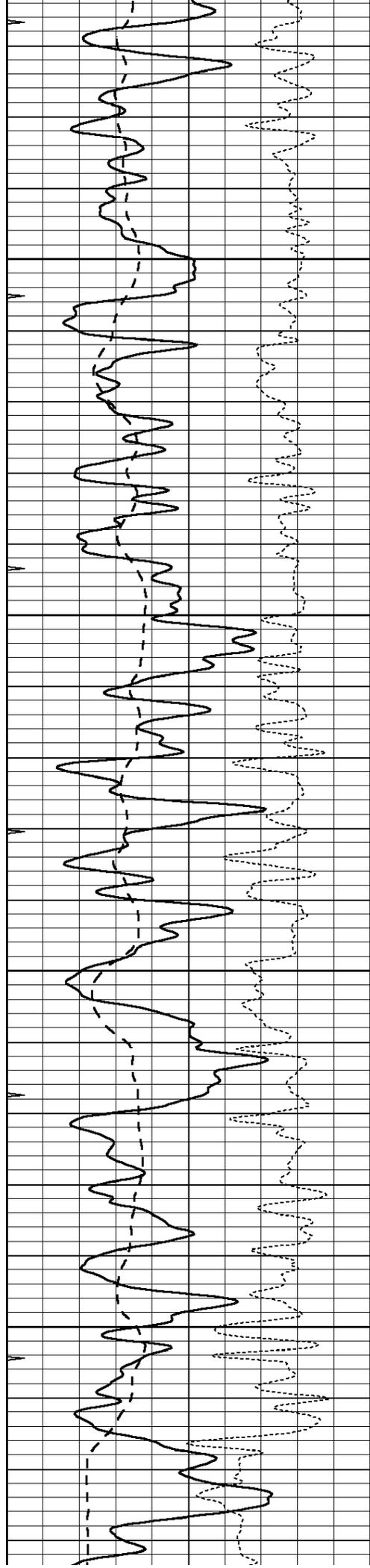
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2900

2950

3000



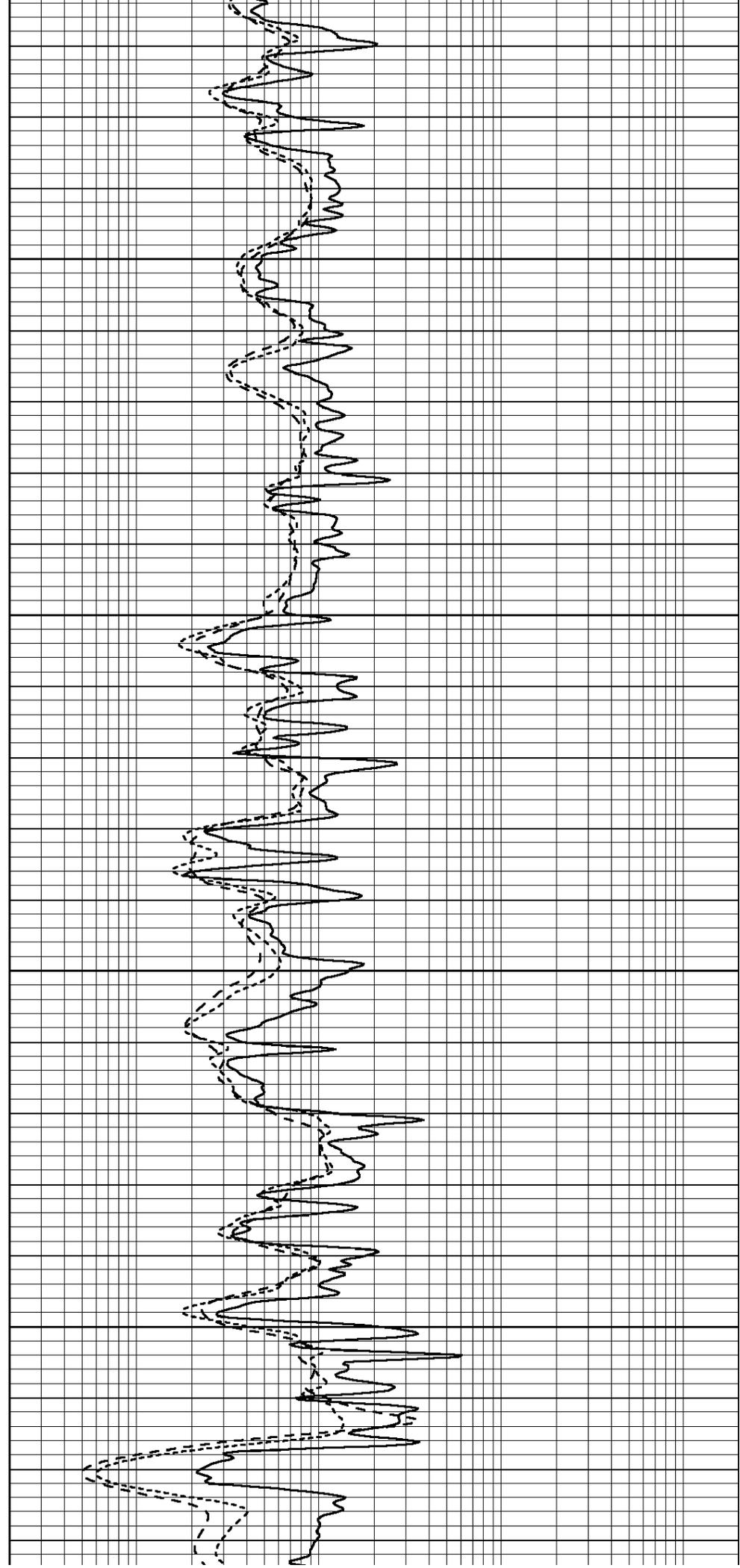


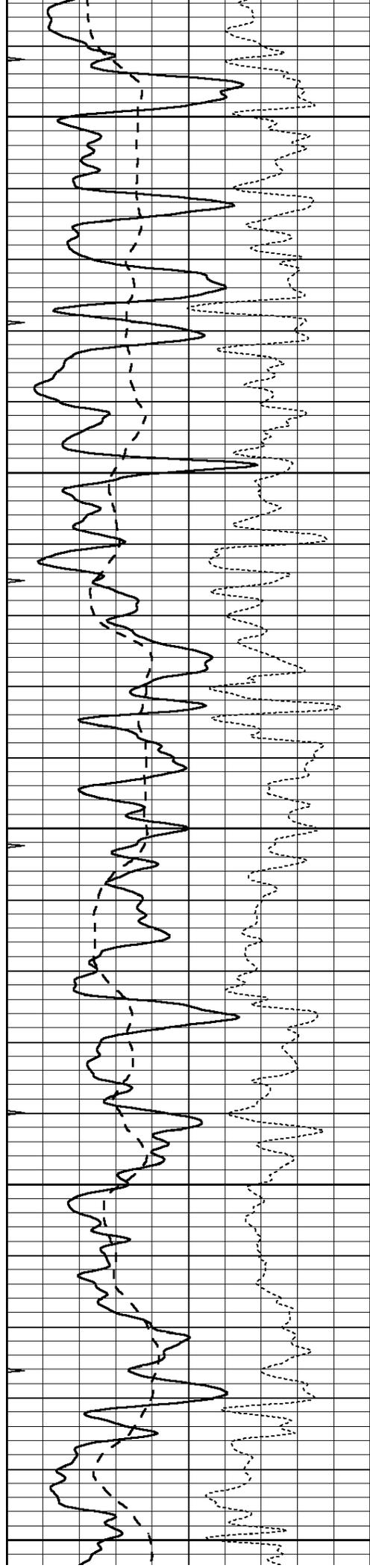
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3150

3200





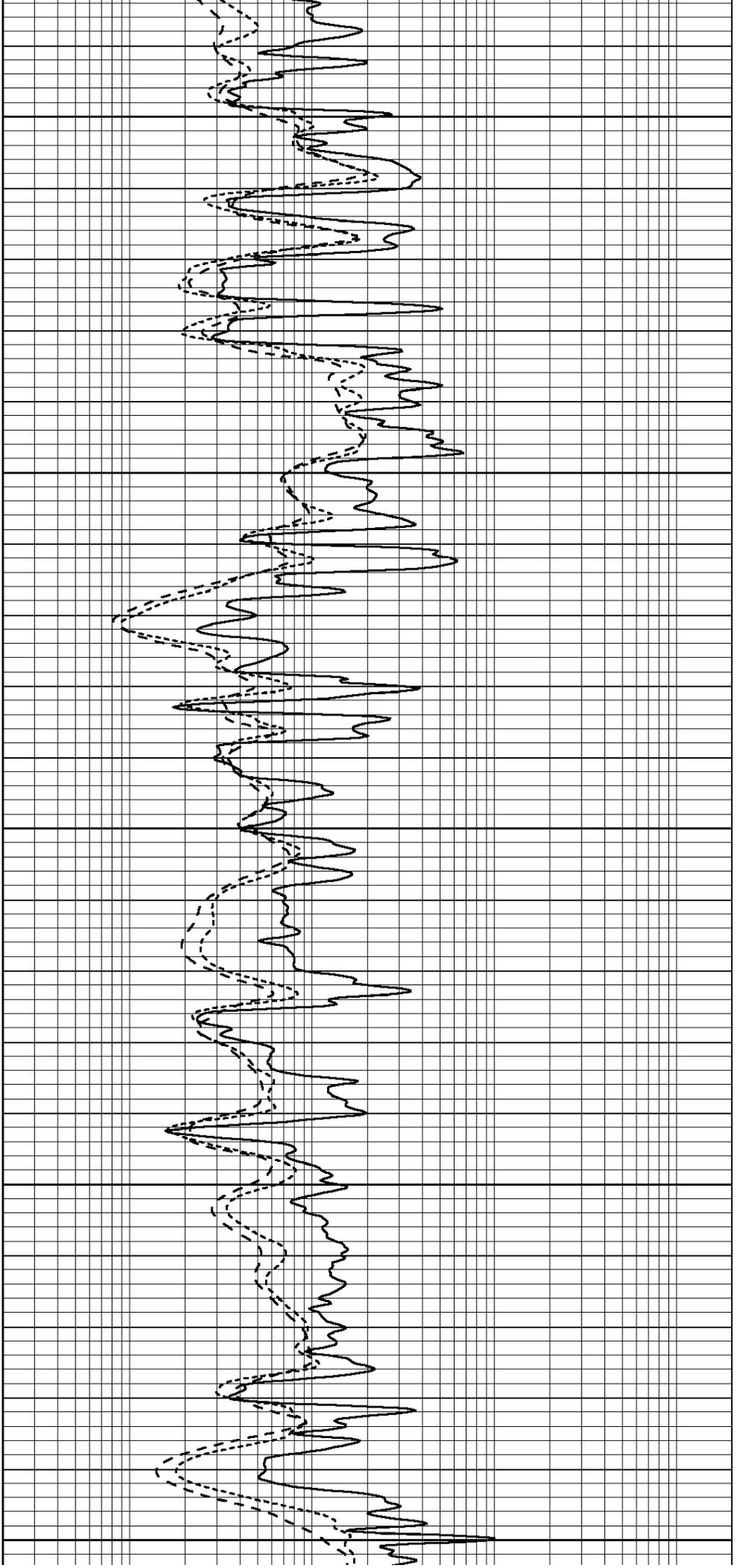
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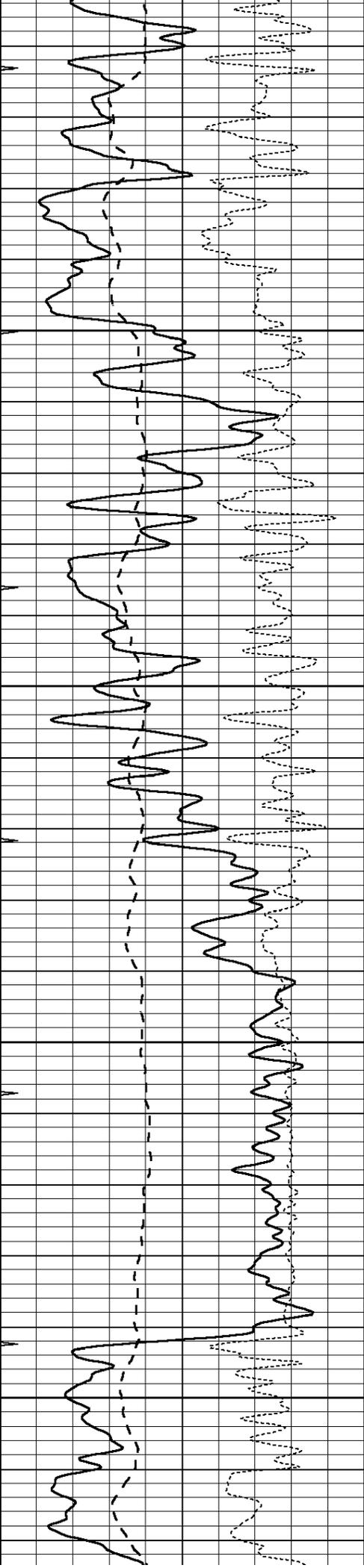
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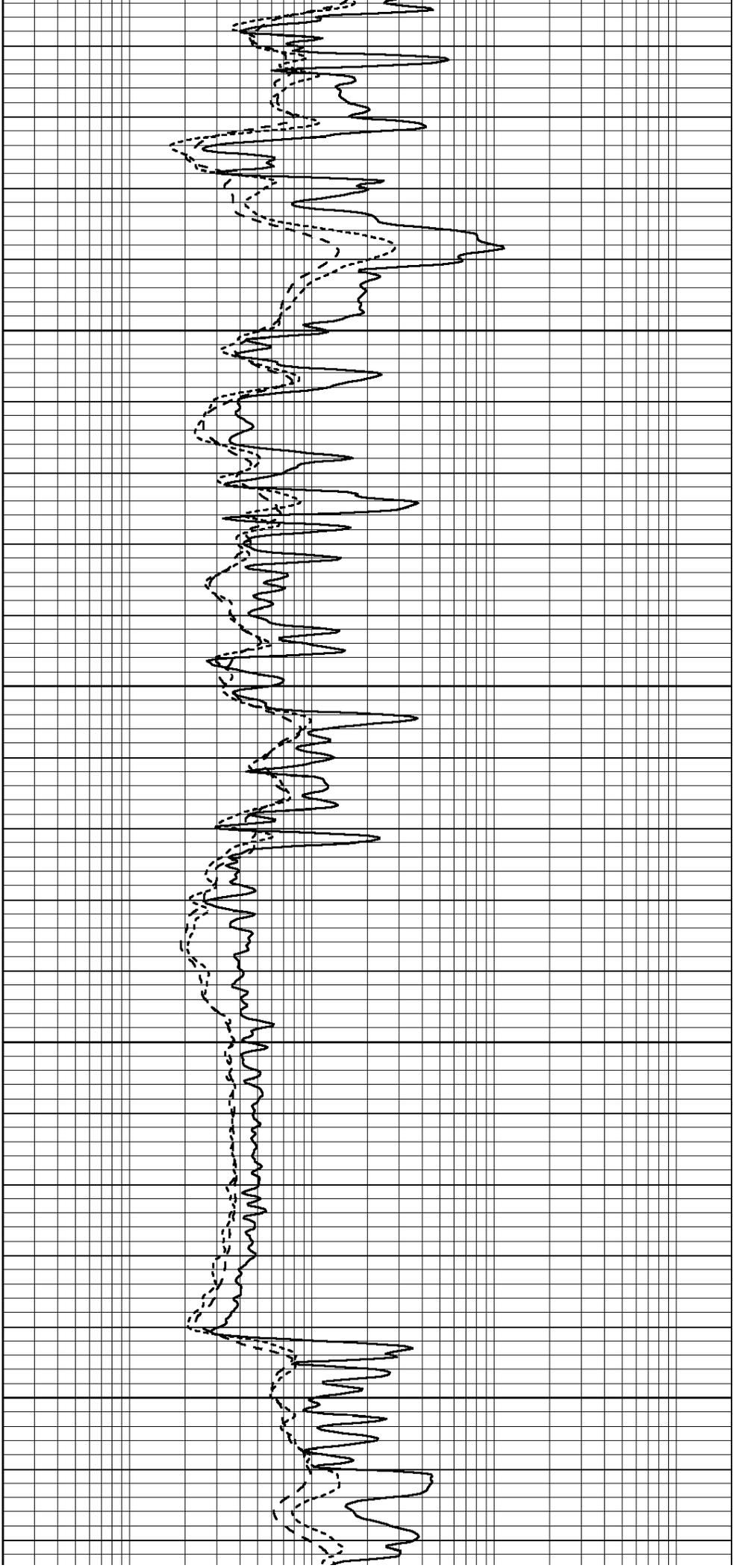


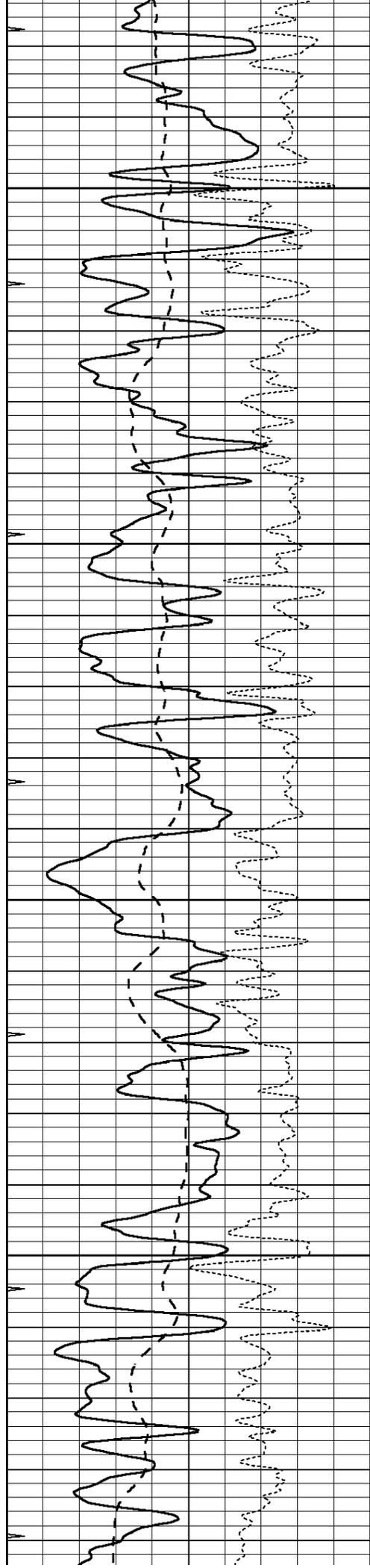
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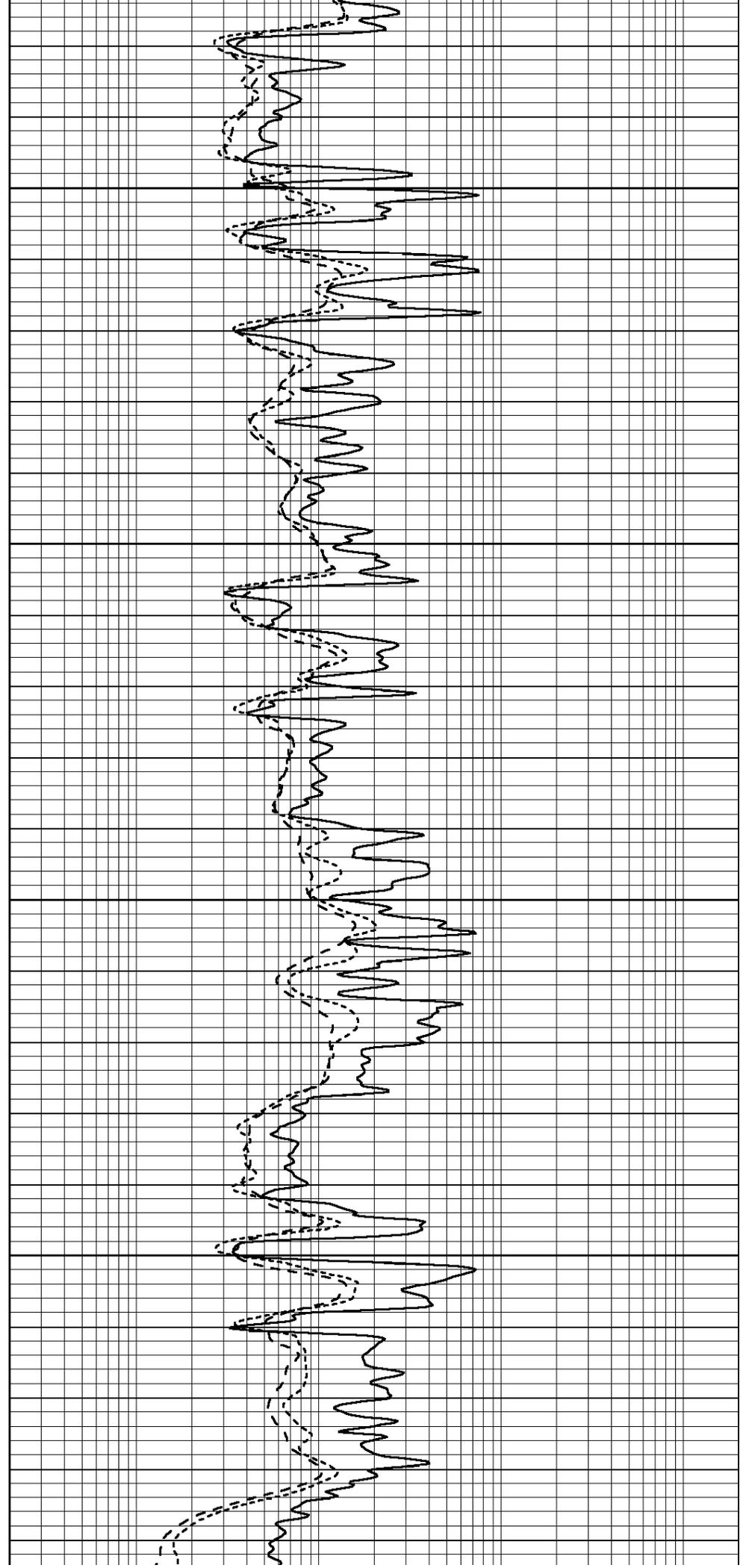


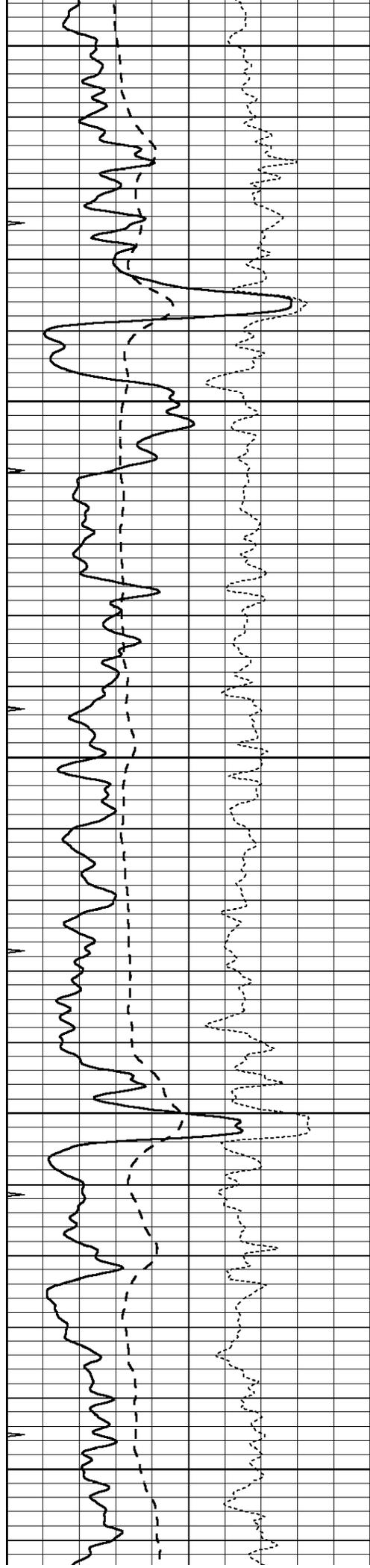
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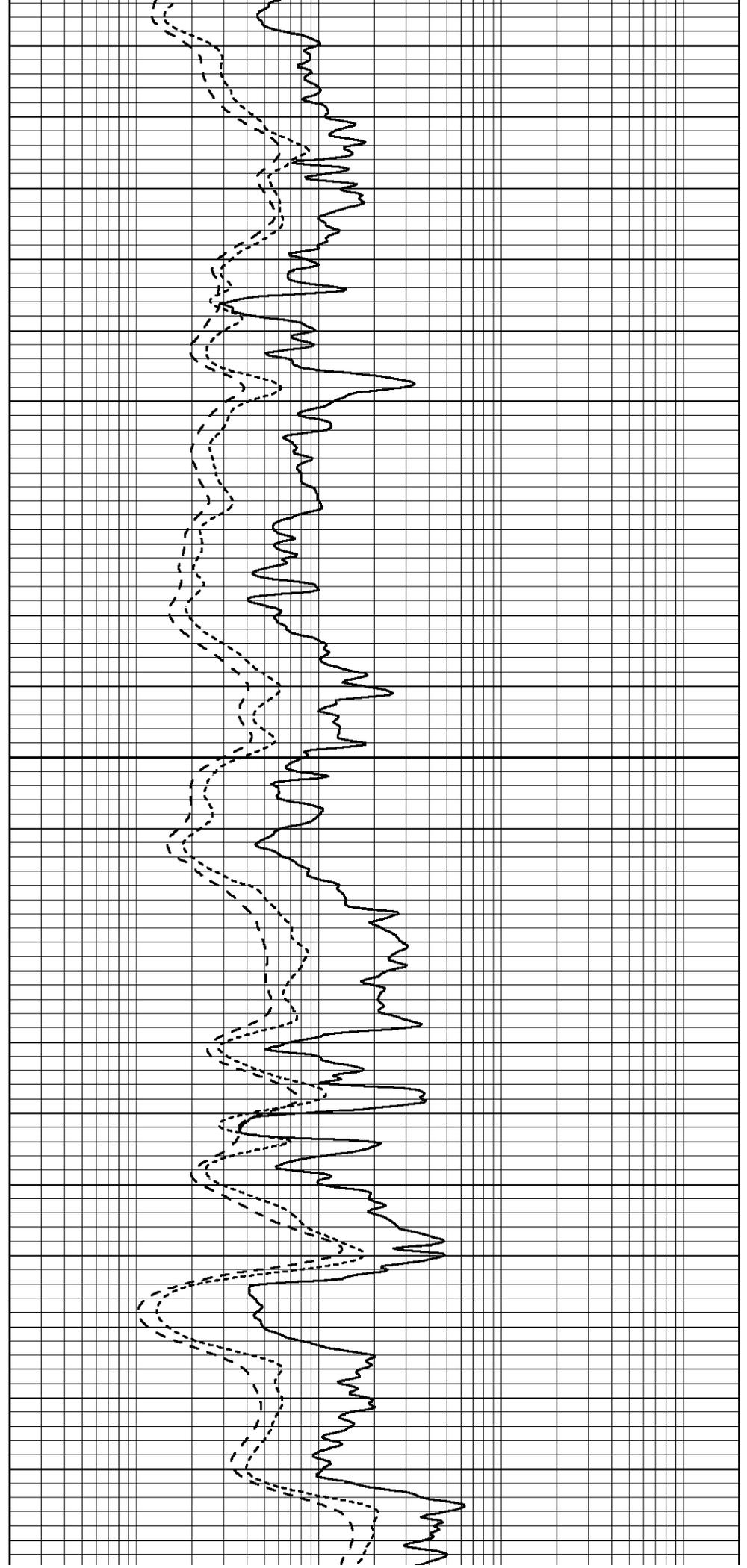
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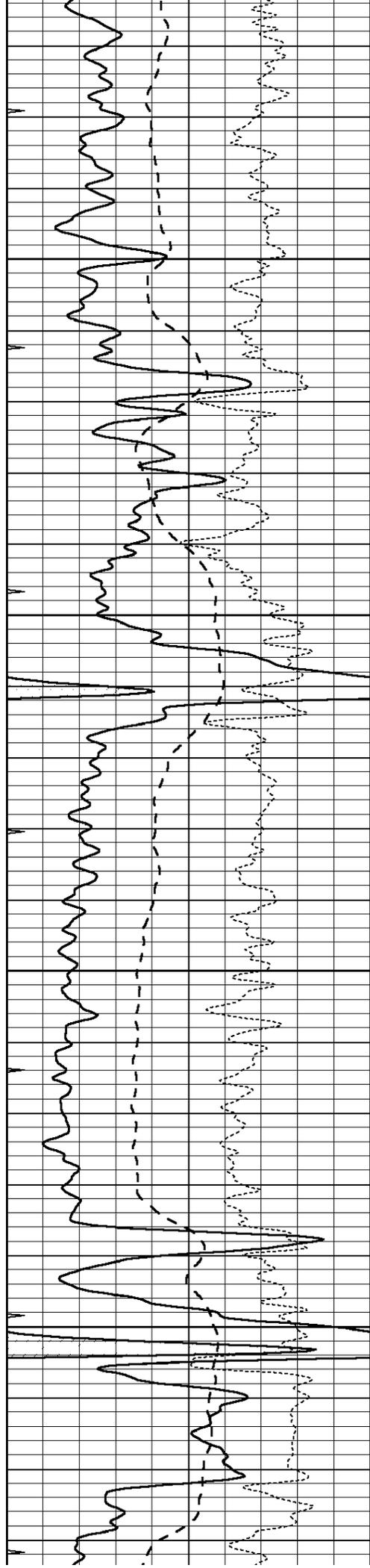
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4050

4100



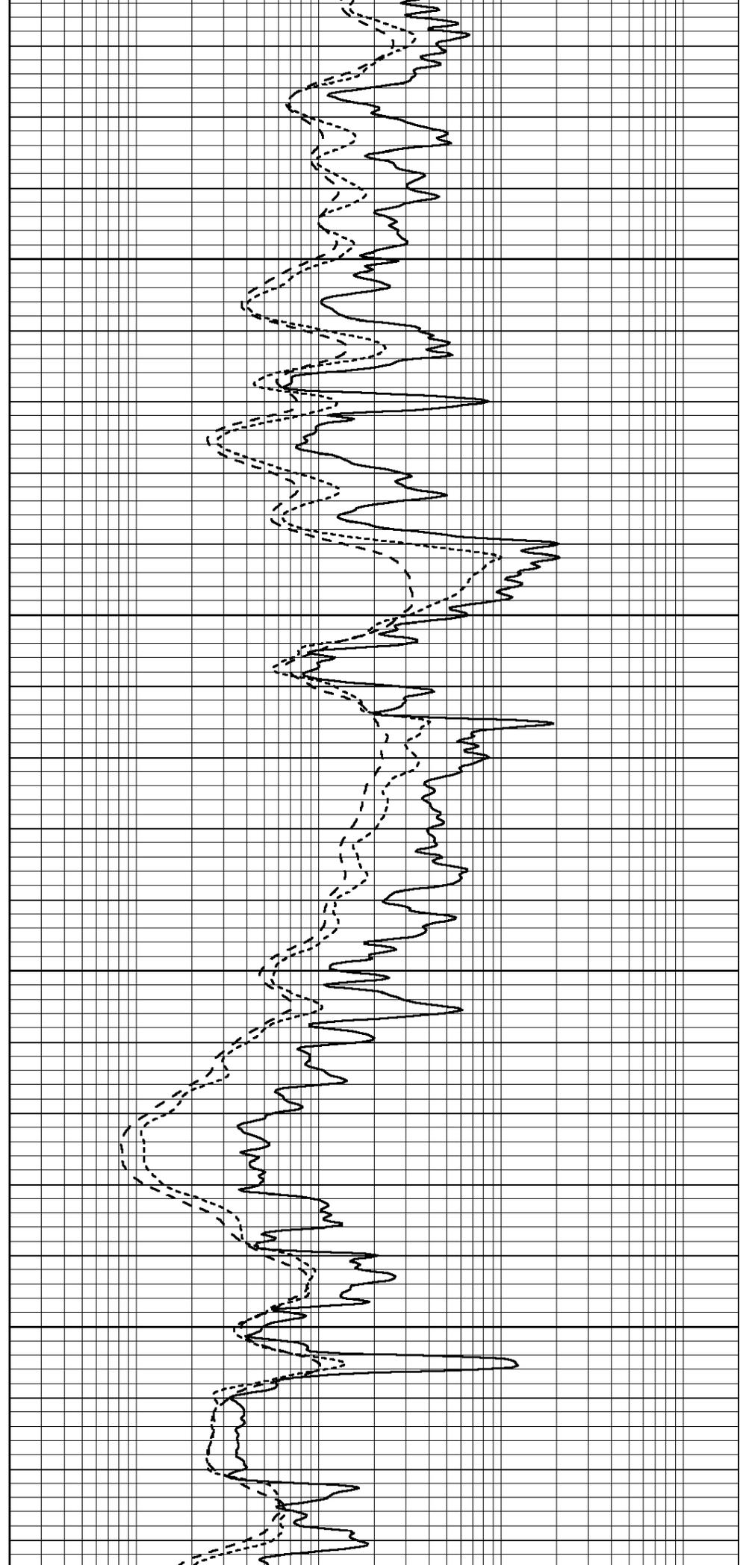


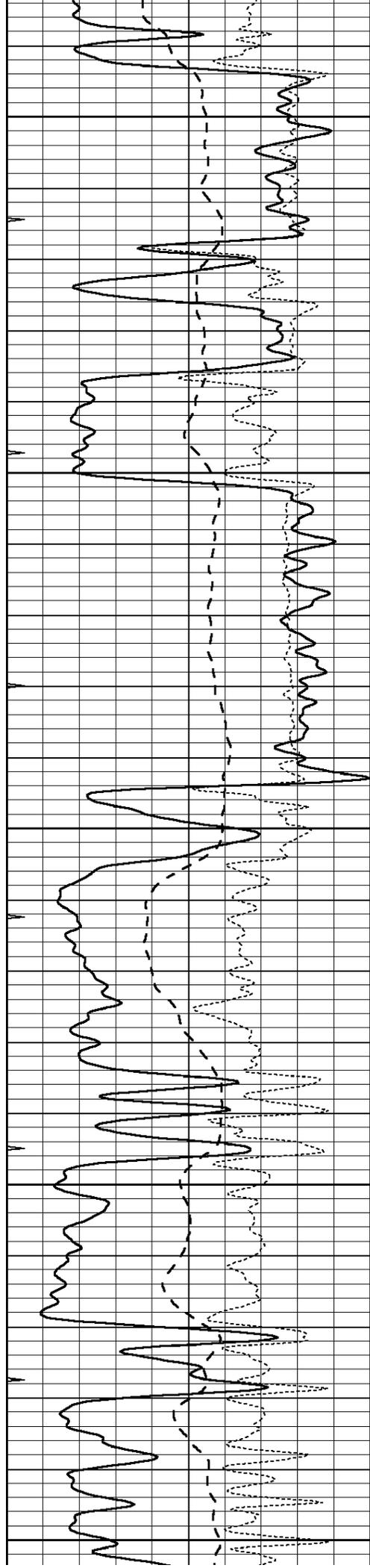
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4300





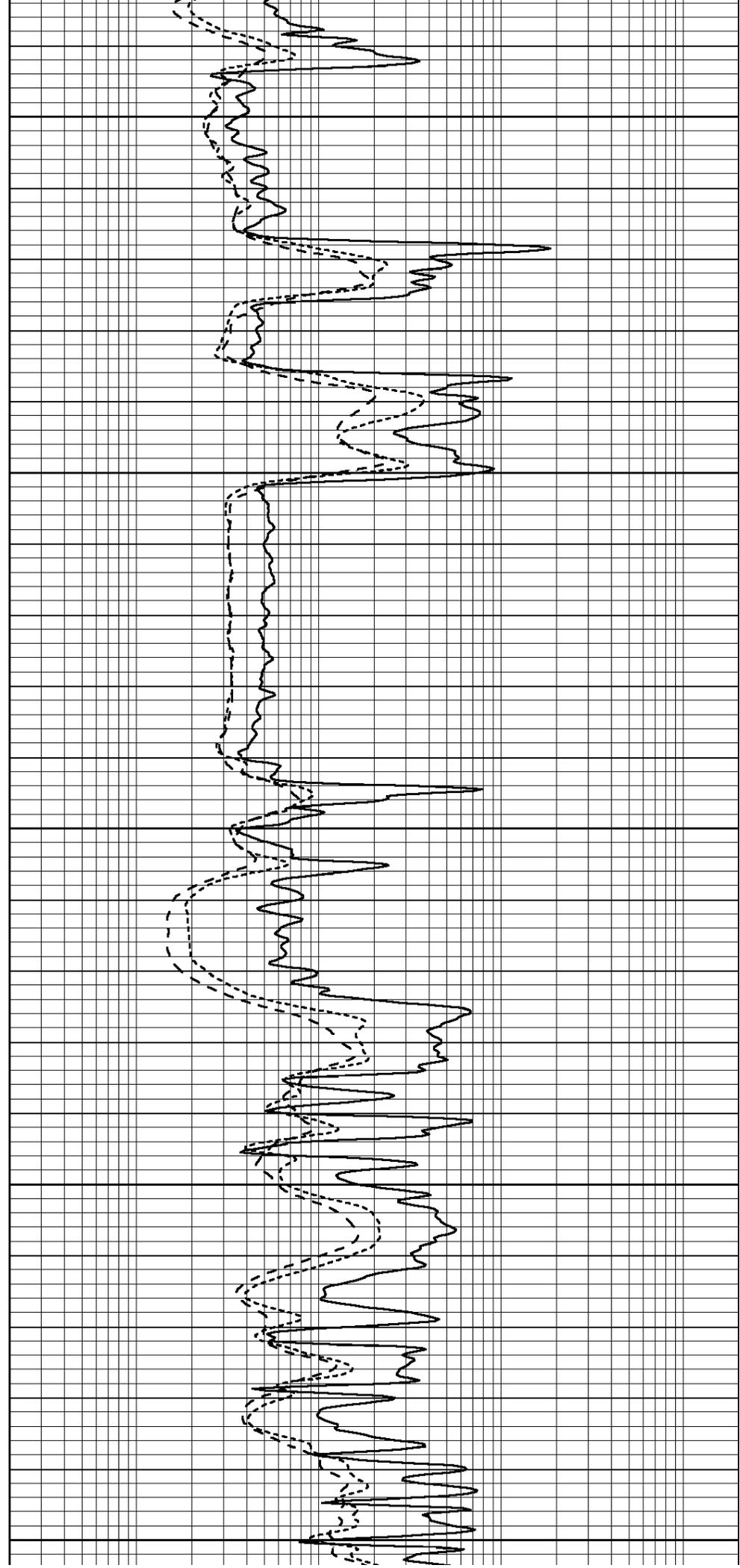
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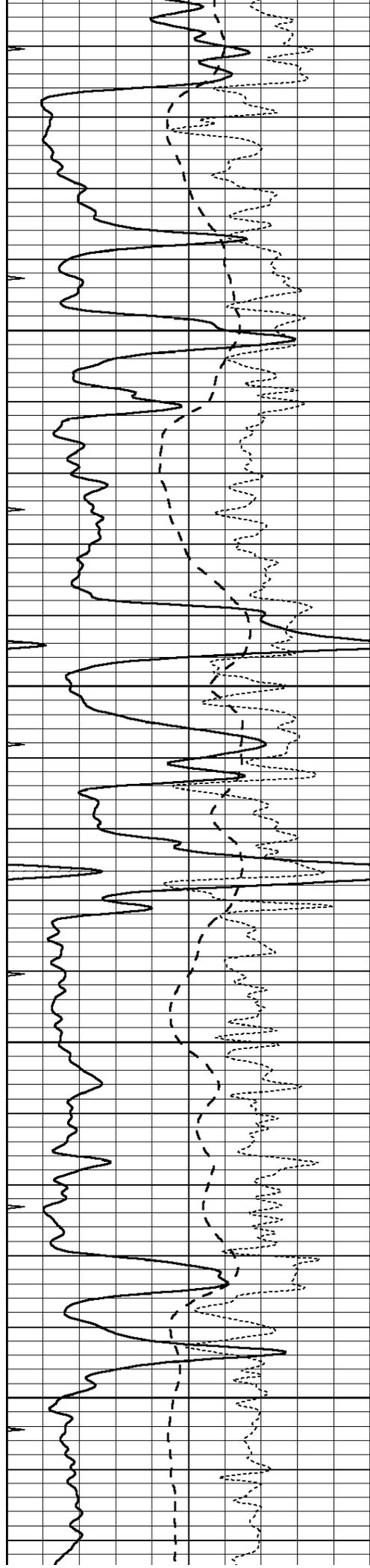
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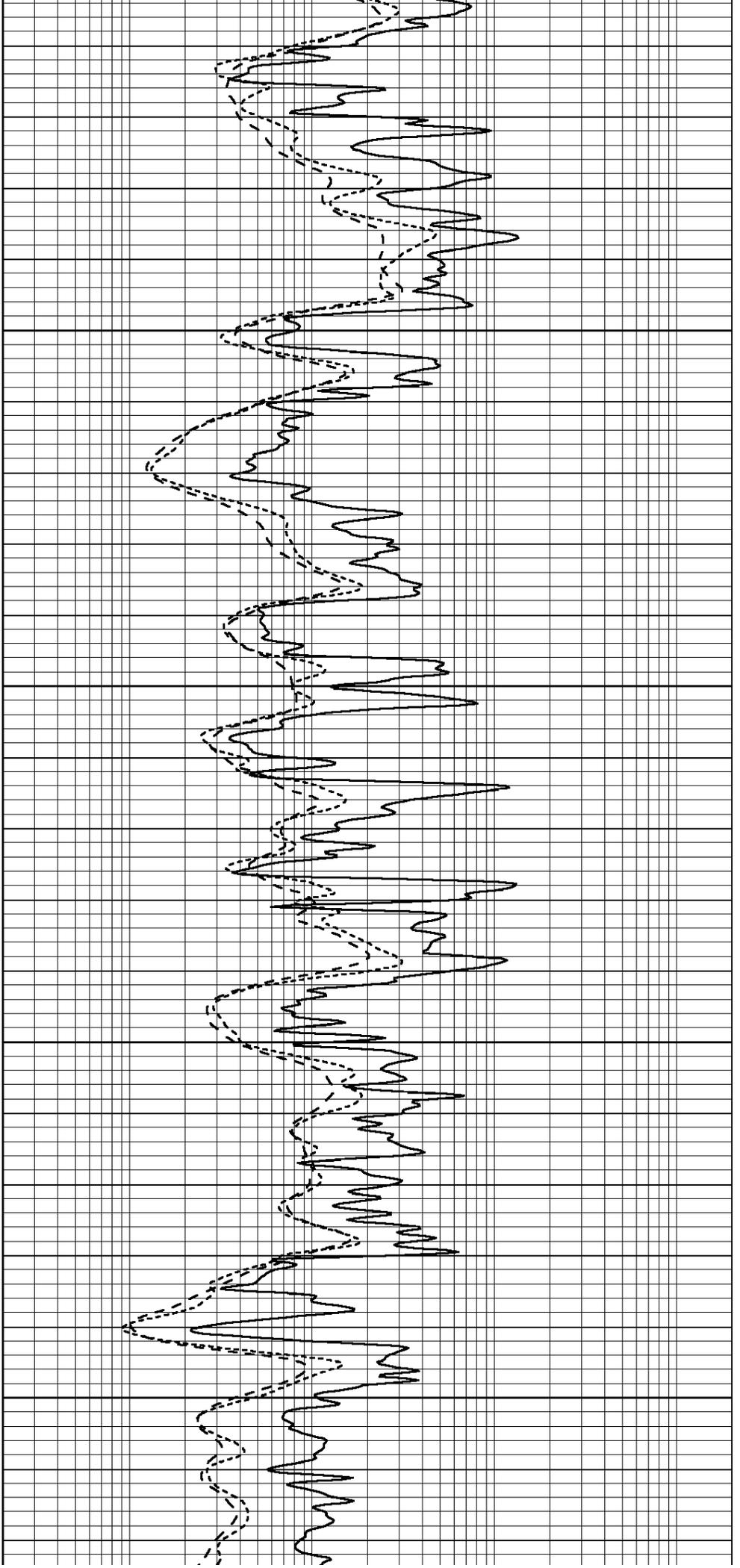


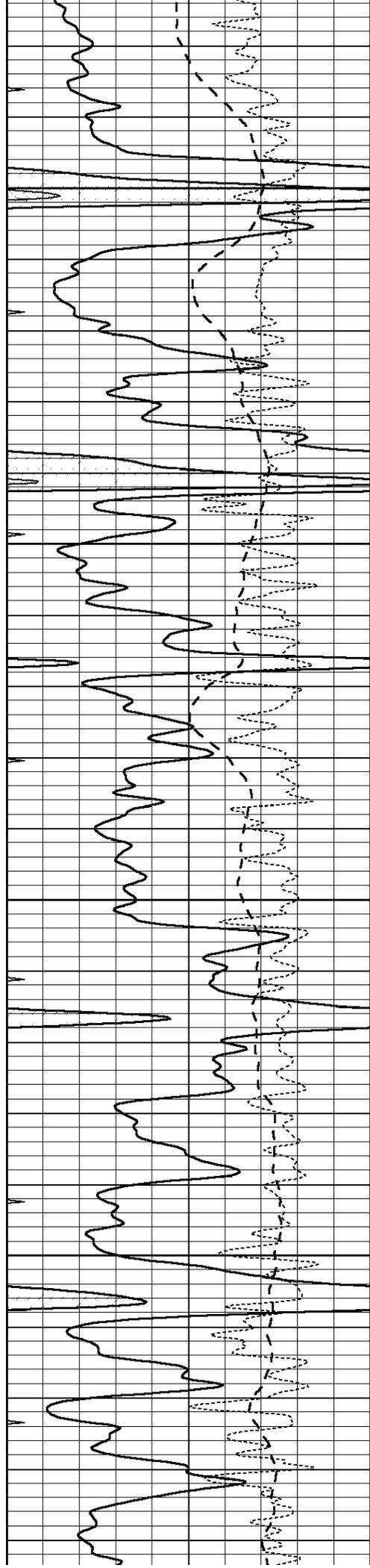
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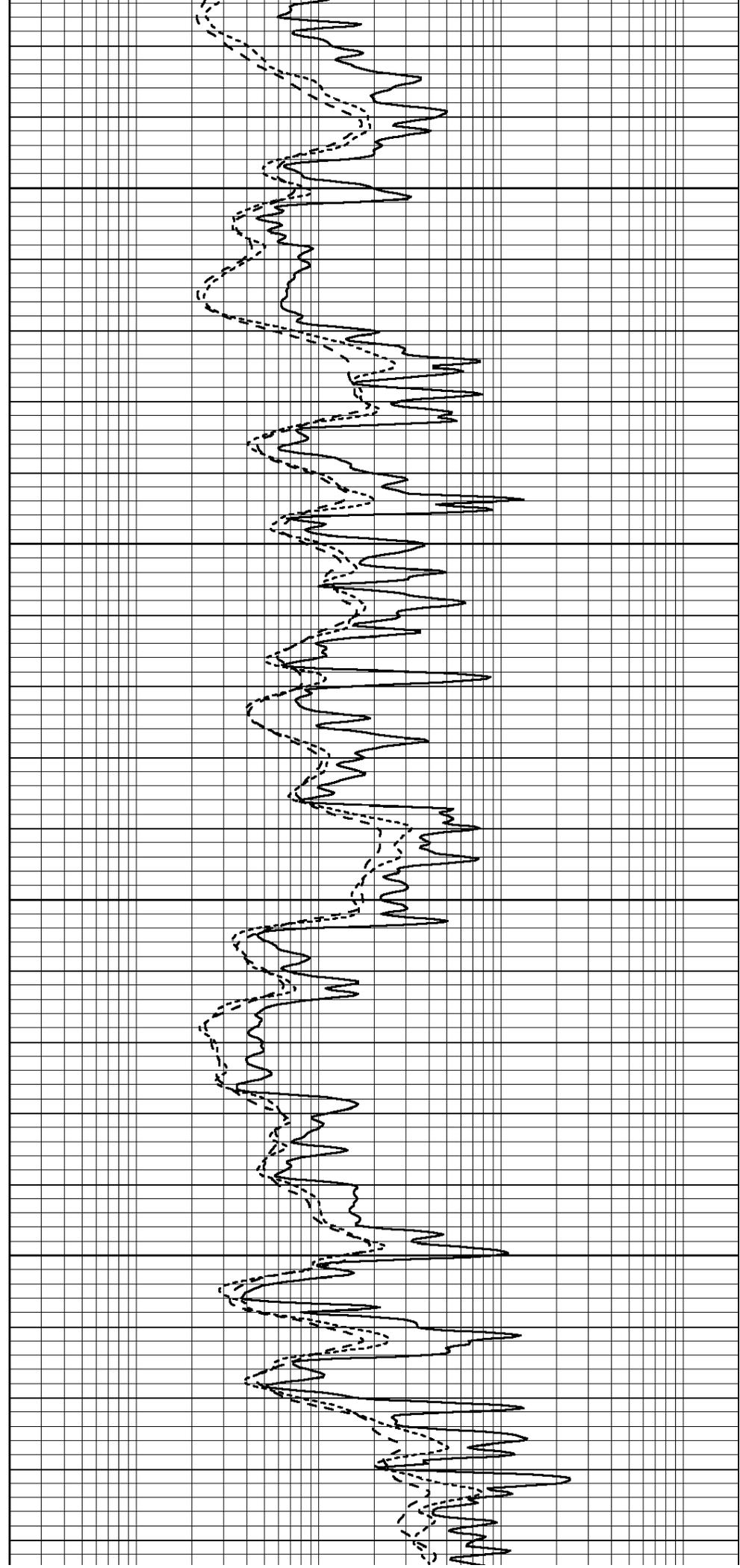


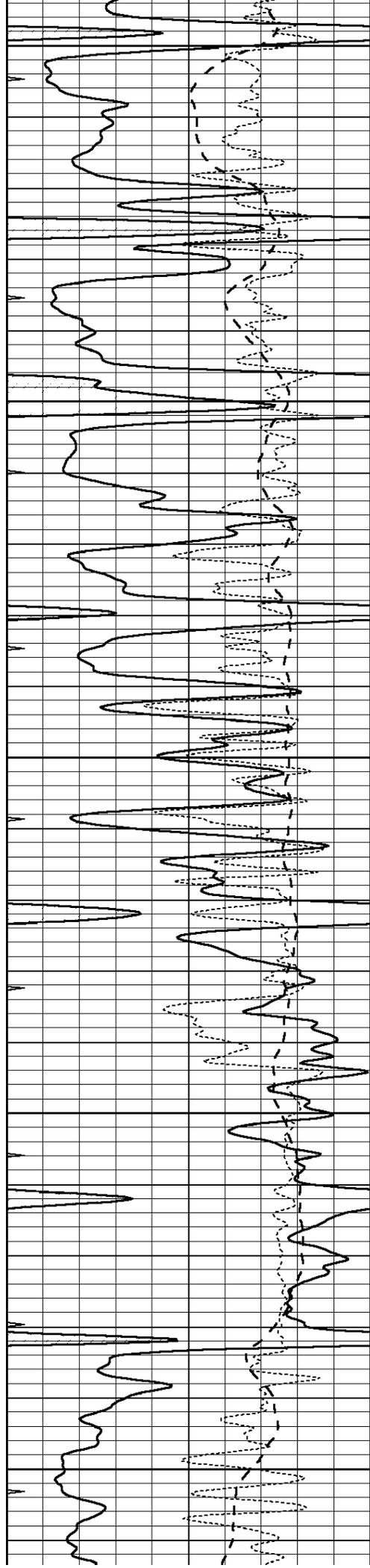
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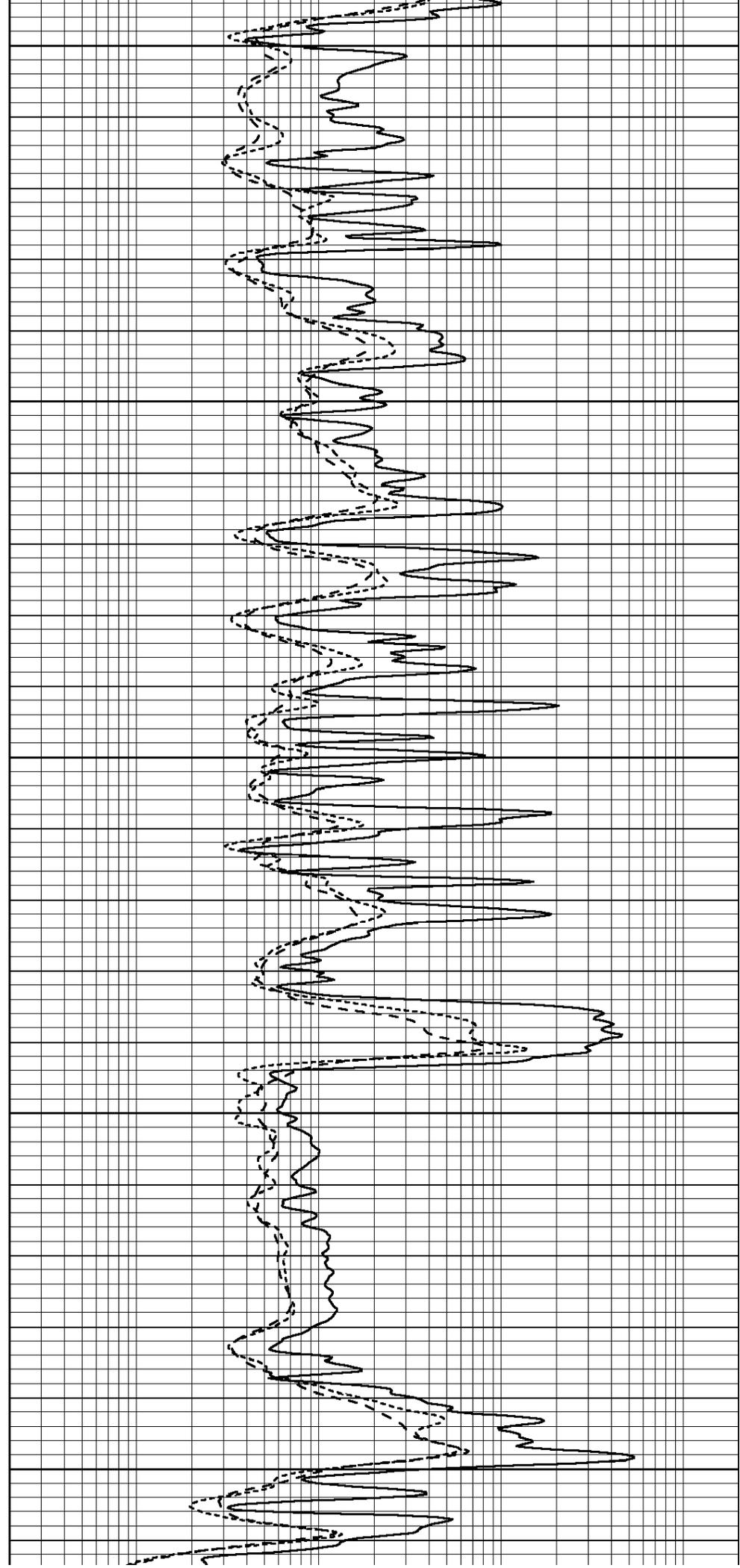
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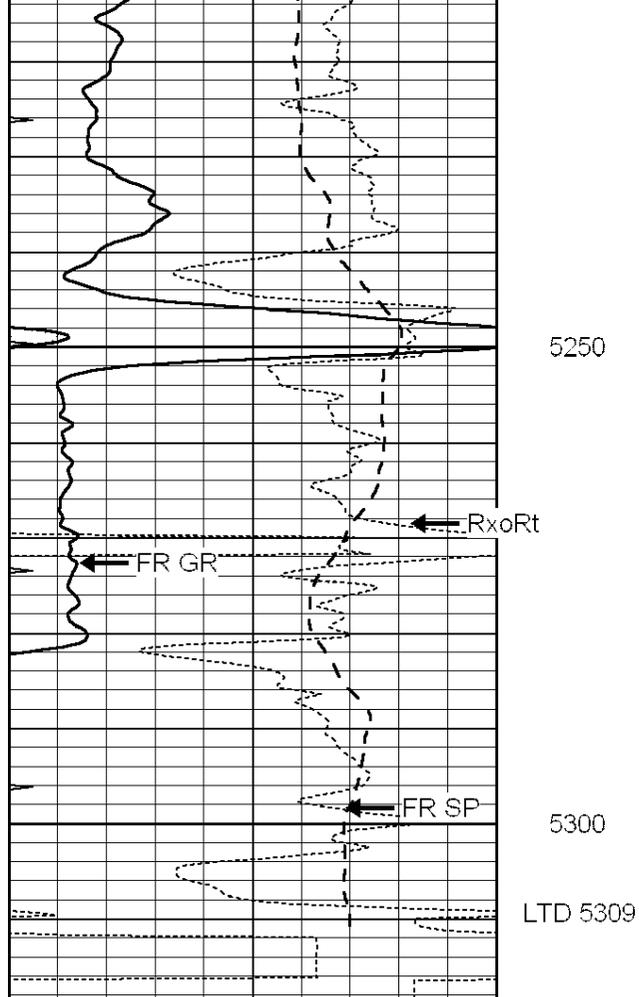
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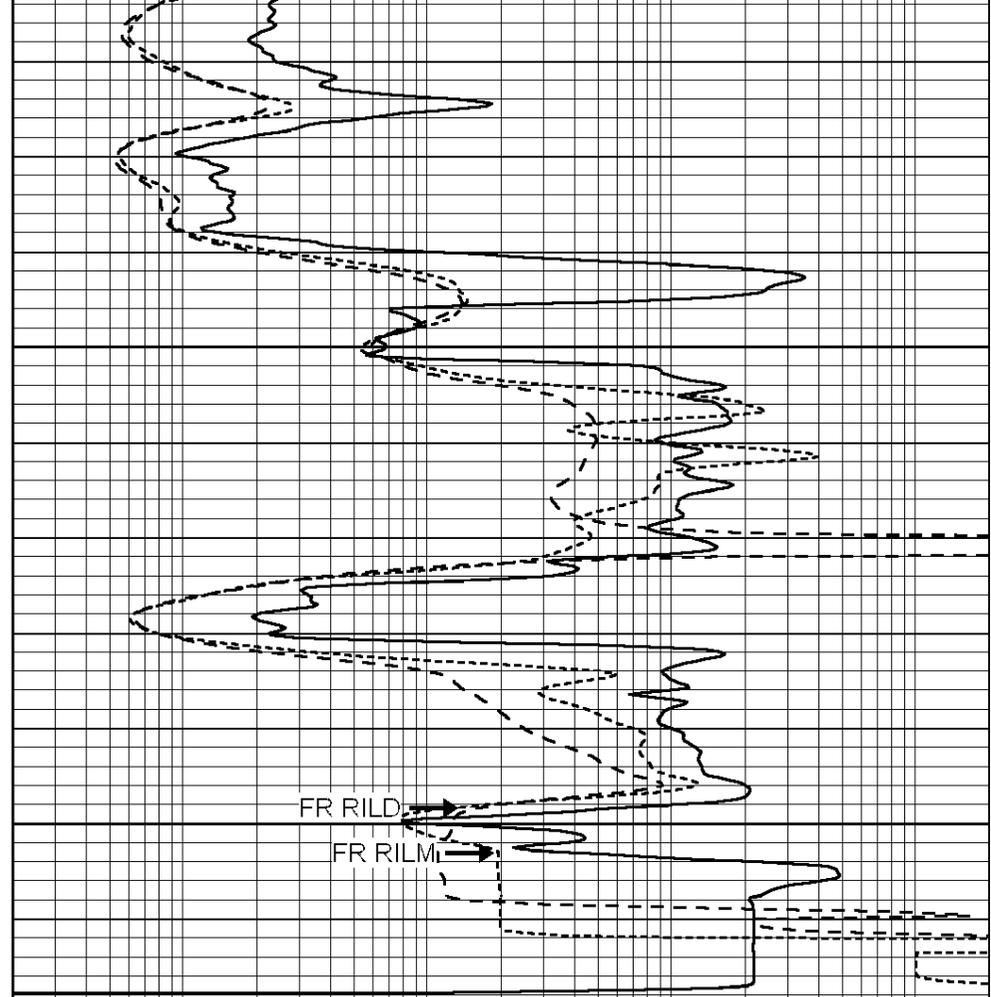
5150

5200





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20



0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



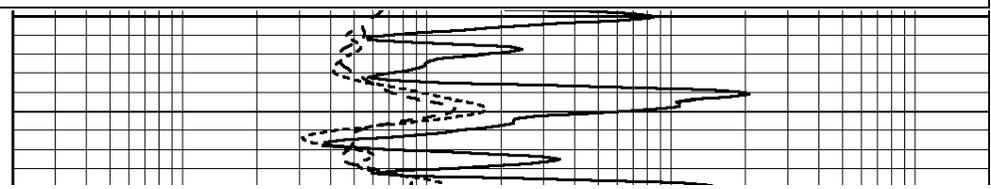
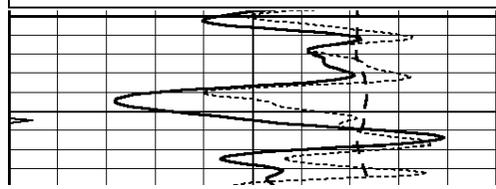
SUPERIOR
Hays,
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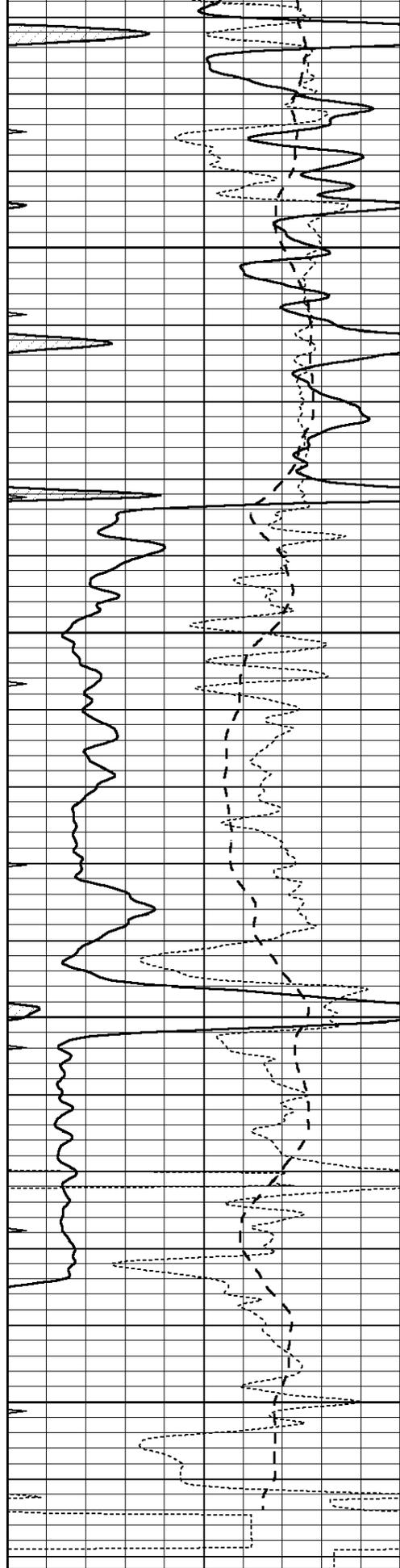
REPEAT SECTION

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-250	RxoRt	50
0	MINMK	20

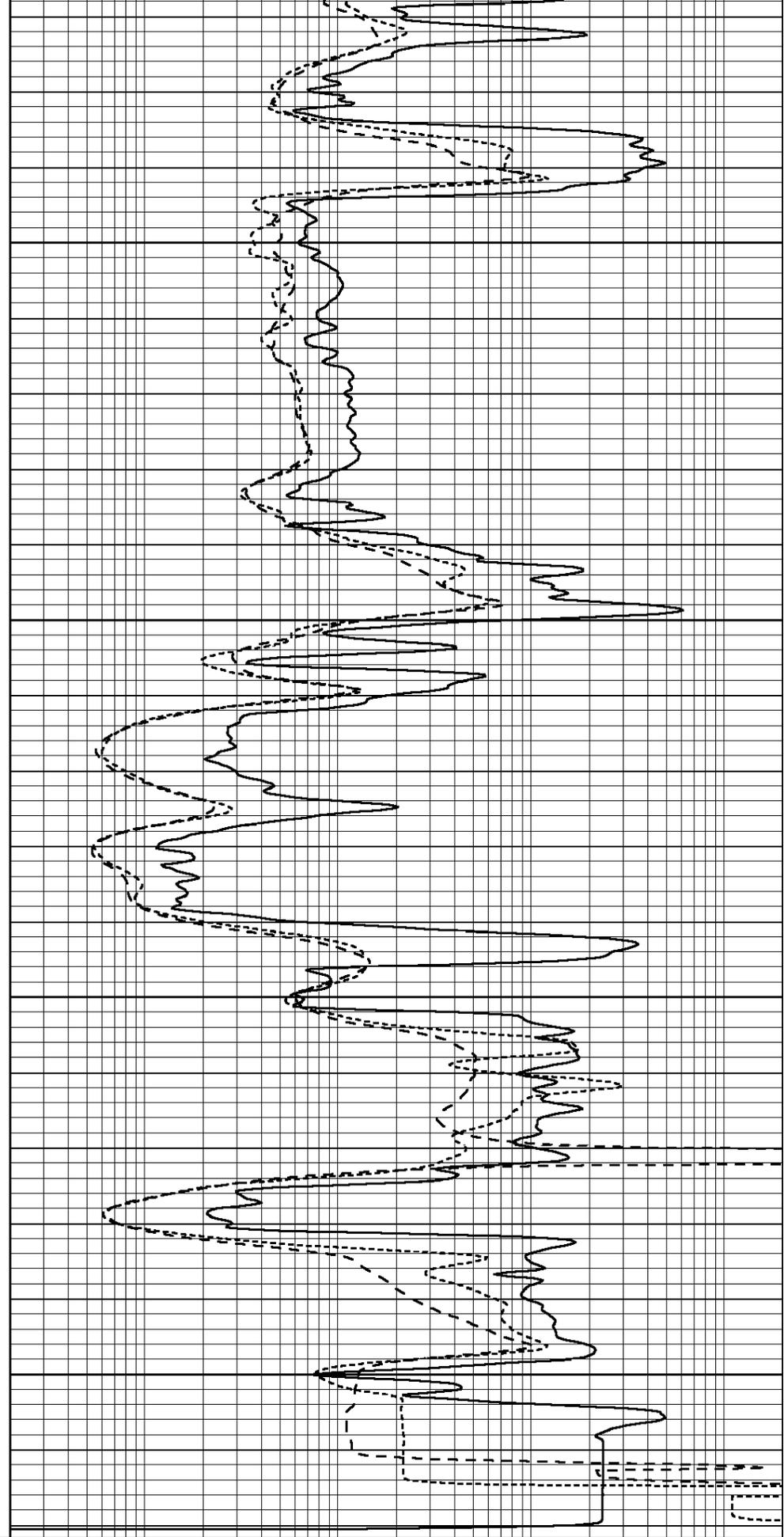
0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000





0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50

5150
5200
5250
5300



0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 006913ddn.db
 Dataset Pathname: pass3.1
 Dataset Creation: Sat May 07 06:50:18 2011 by Calc Open-Cased 090629

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
 Performed: Sat Apr 30 08:45:49 2011

Loop:	Readings			References			Results	
	Air	Loop	V	Air	Loop	mmho/m	m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	570.000	-4.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	560.000	-16.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho/m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho/m	627.607	-6.064

Compensated Density Calibration Report

Serial-Model: GEAR1-GEARHART
 Source / Verifier: 147 / 147
 Master Calibration Performed: Thu Apr 28 02:24:48 2011

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.710	g/cc	1243.76	629.14	cps
Aluminum	2.590	g/cc	282.16	435.01	cps
Spine Angle = 76.03			Density/Spine Ratio = 0.576		
	Size		Reading		
Small Ring	8.60	in	3.82	V	
Large Ring	14.20	in	6.37	V	

Compensated Neutron Calibration Report

Serial Number: NUE_2I
 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: GR5
 Tool Model: OPEN
 Performed: Wed May 04 07:37:10 2011

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity:

0.6800

GAPI/cps