



**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL INDUCTION
LOG**

Company WHITE EXPLORATION, INC.
Well CHAIN RANCH "A" #2
Field WILDCAT
County BARBER
State KANSAS

Company WHITE EXPLORATION, INC.
Well CHAIN RANCH "A" #2
Field WILDCAT
County BARBER State KANSAS

Location: API # : 15-007-24018-0000
2050' FNL & 330' FEL
SEC 1 TWP 31S RGE 12W
Permanent Datum GROUND LEVEL Elevation 1689
Log Measured From KELLY BUSHING 10' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
MEL/SON/FF
Elevation
K.B. 1699
D.F. 1697
G.L. 1689

Date	5/20/13		
Run Number	ONE		
Depth Driller	4548		
Depth Logger	4548		
Bottom Logged Interval	4546		
Top Log Interval	00		
Casing Driller	8 5/8"@310'		
Casing Logger	307		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 5,000 PPM	
Density / Viscosity	9.5/44		
pH / Fluid Loss	9.5/12.8		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.680@88F		
Rmf @ Meas. Temp	.510@88F		
Rmc @ Meas. Temp	.816@88F		
Source of Rmf / Rmc	MEASUREMENT		
Rim @ BHT	.495@121F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	7:30 P.M.		
Maximum Recorded Temperature	121F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	TOM WILLIAMS		

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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 "NABORS" HAYS, KANSAS (785) 628-6395
DIRECTIONS
MEDICINE LODGE, KS., 6N. ON HWY 281 TO (99 SPRINGS SIGN) JOG 1/2 N.E. TO "GAILLANDIA RD.", TURN RIGHT & GO 1 E. AROUND CURVES TO CATTLE GUARD, 1S. ON LEASE RD. IN PASTURE



MAIN SECTION

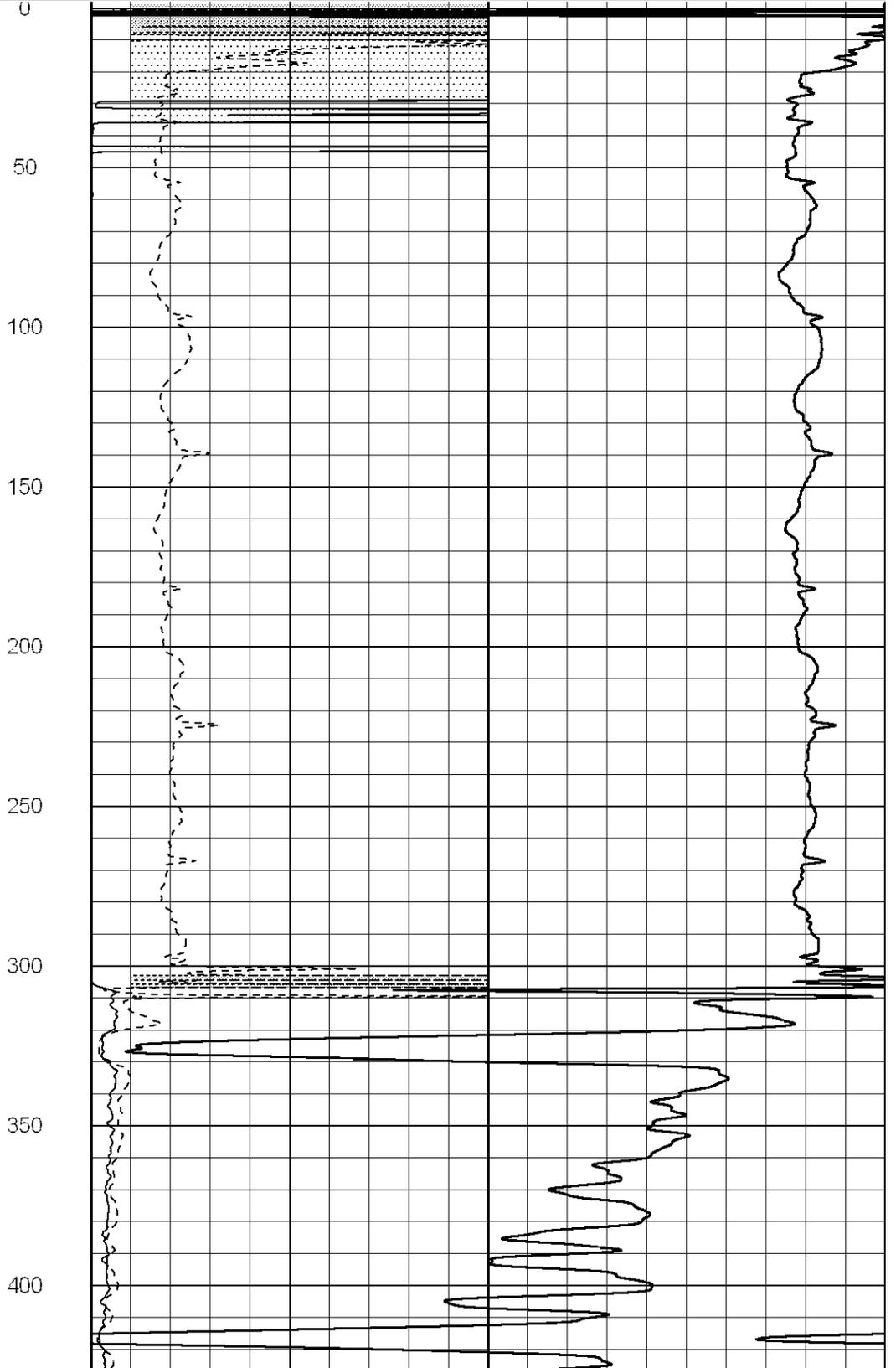
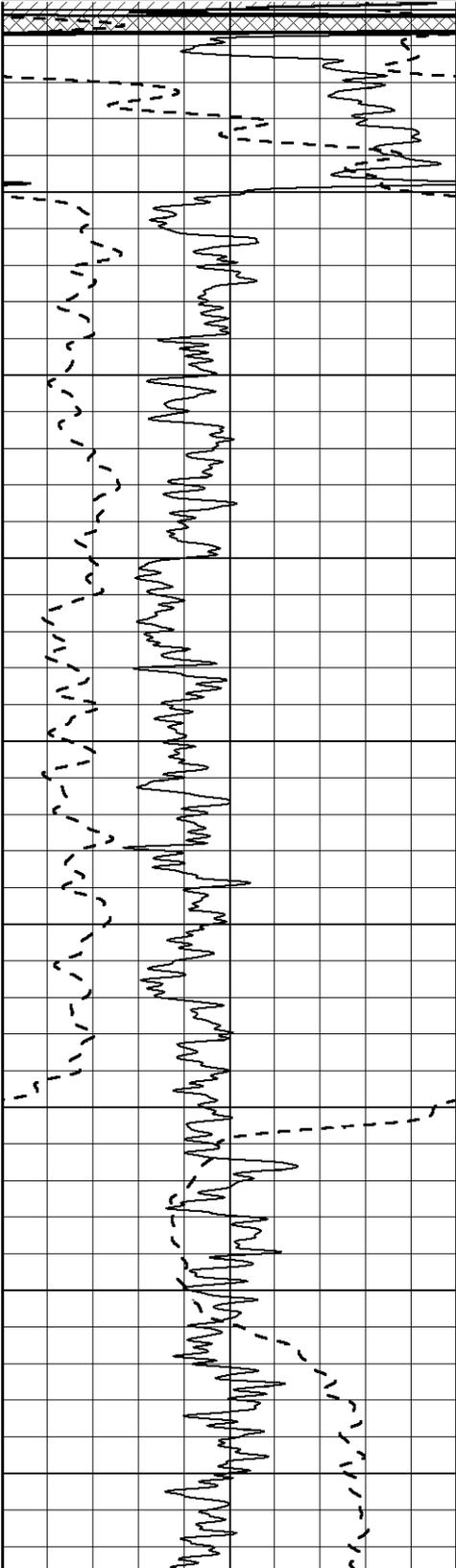
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 Charted by: Depth in Feet scaled 1:600

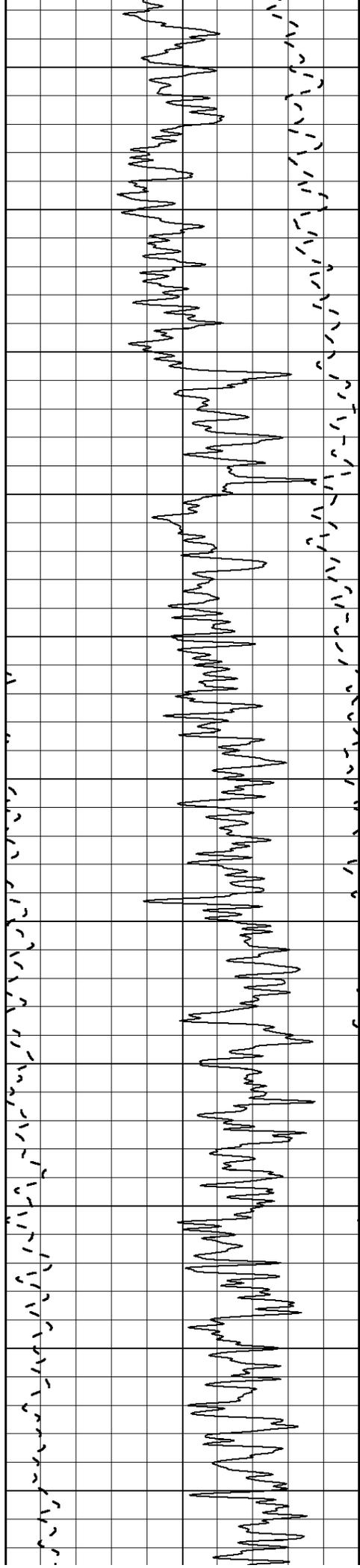
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-100	SP (mV)	100

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





450

500

550

600

650

700

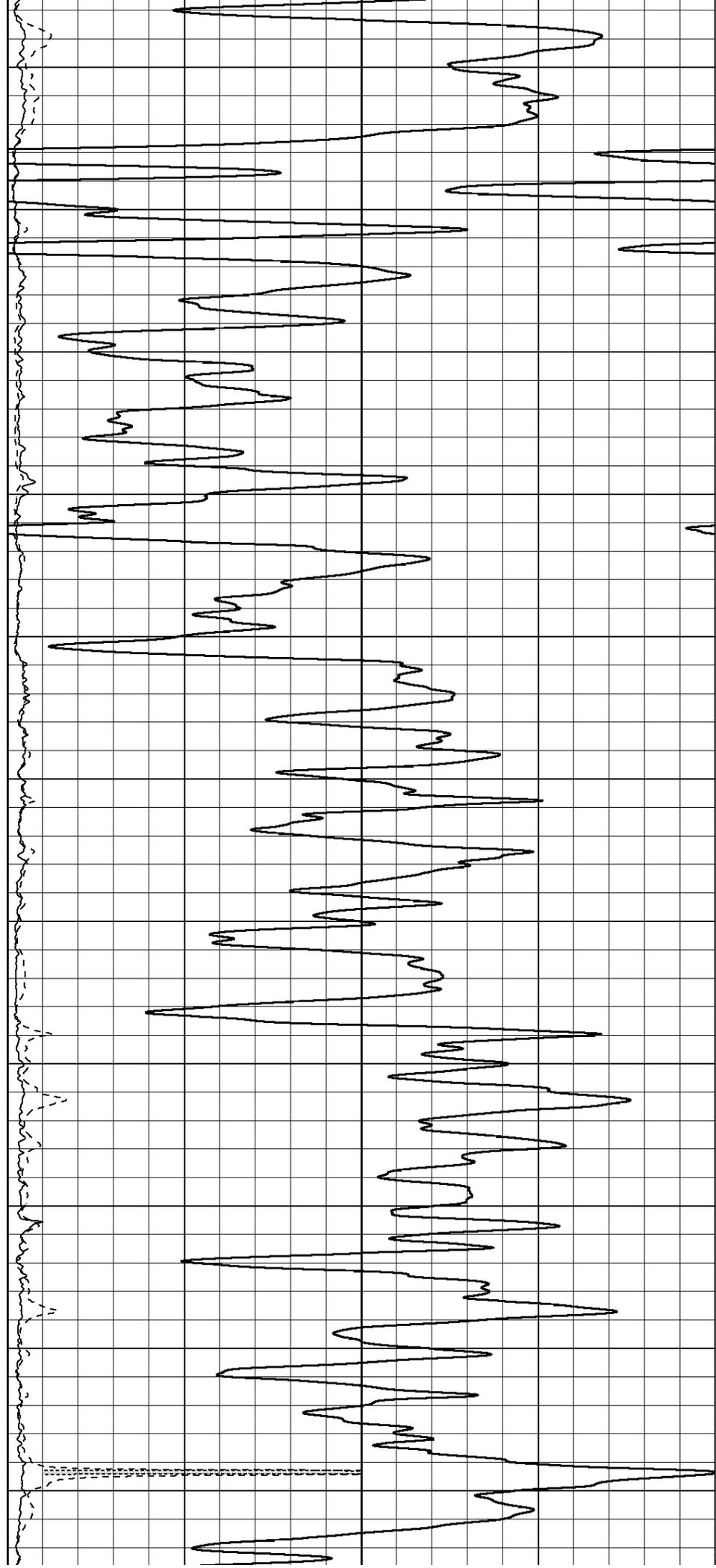
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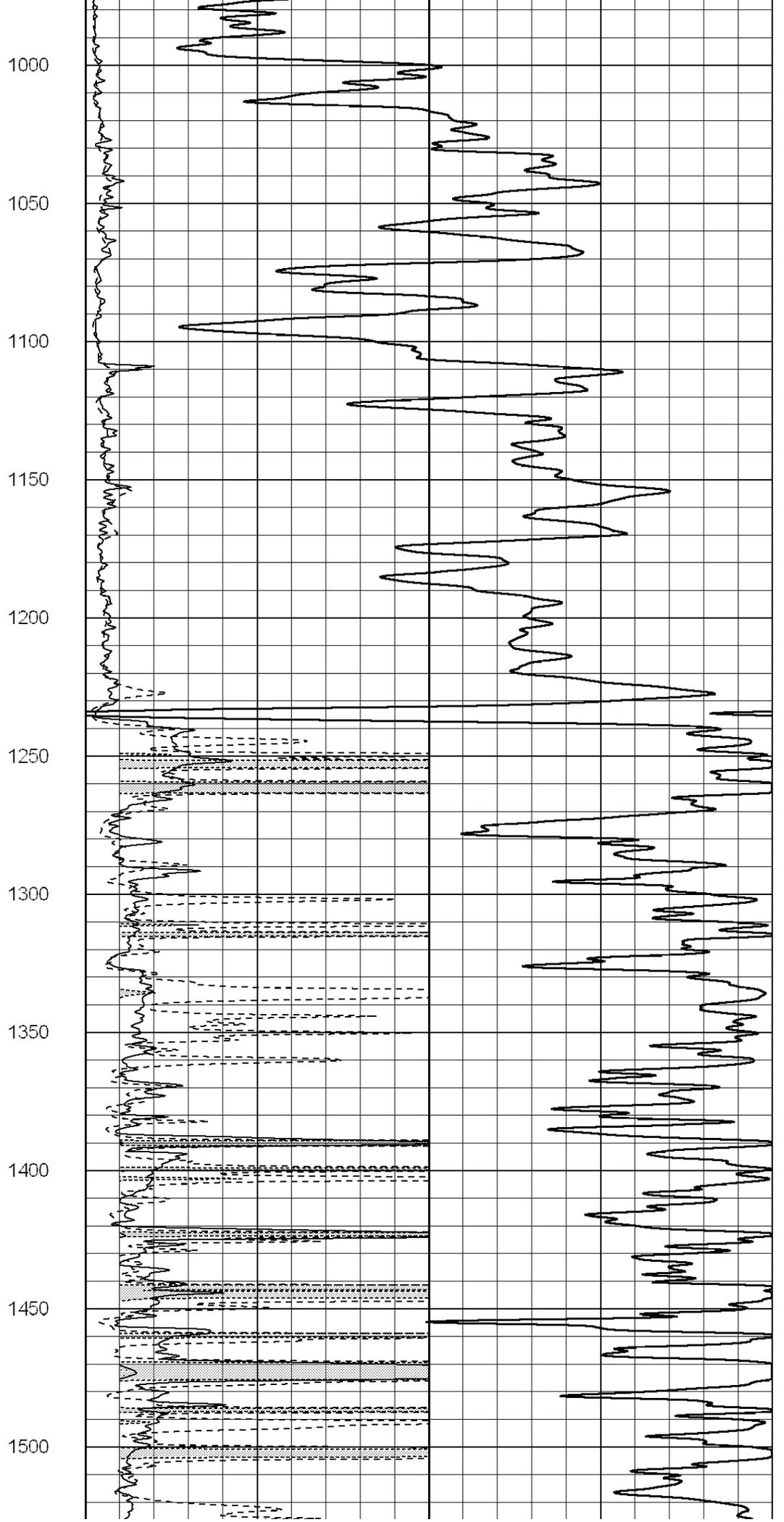
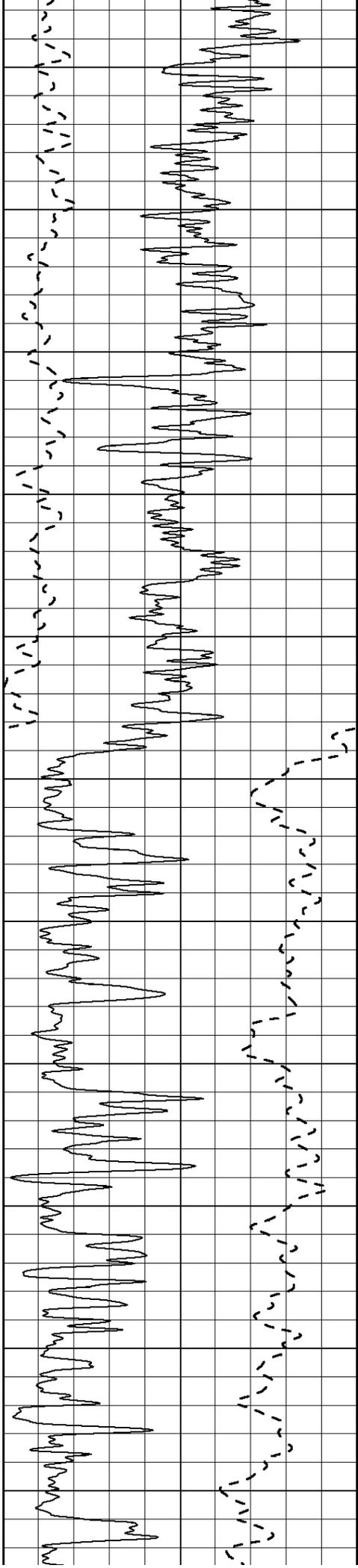
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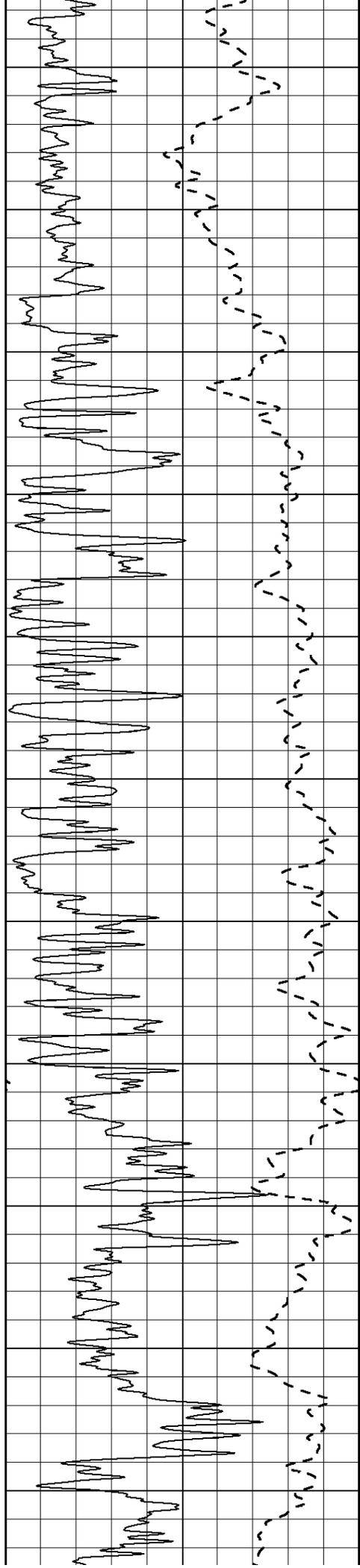
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900

950







1550

1600

1650

1700

1750

1800

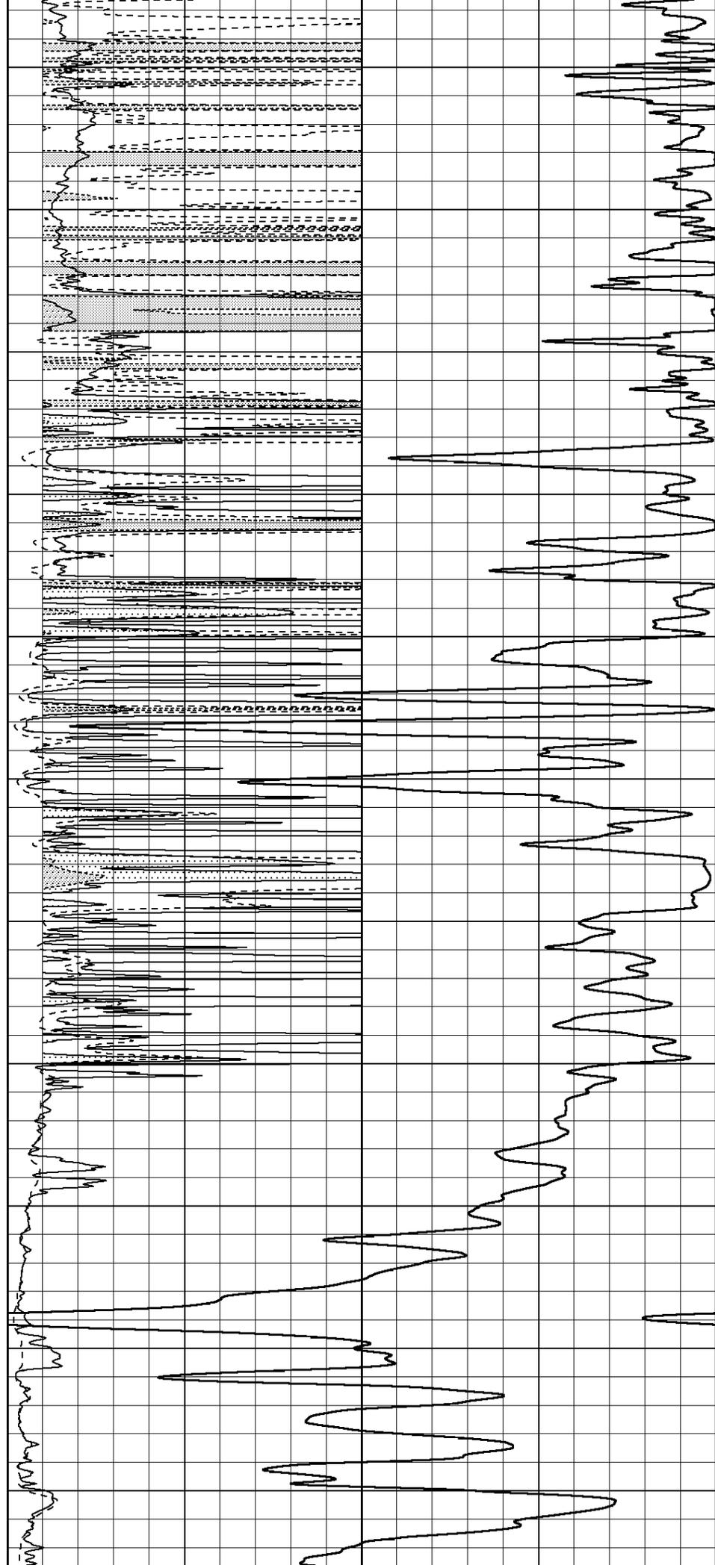
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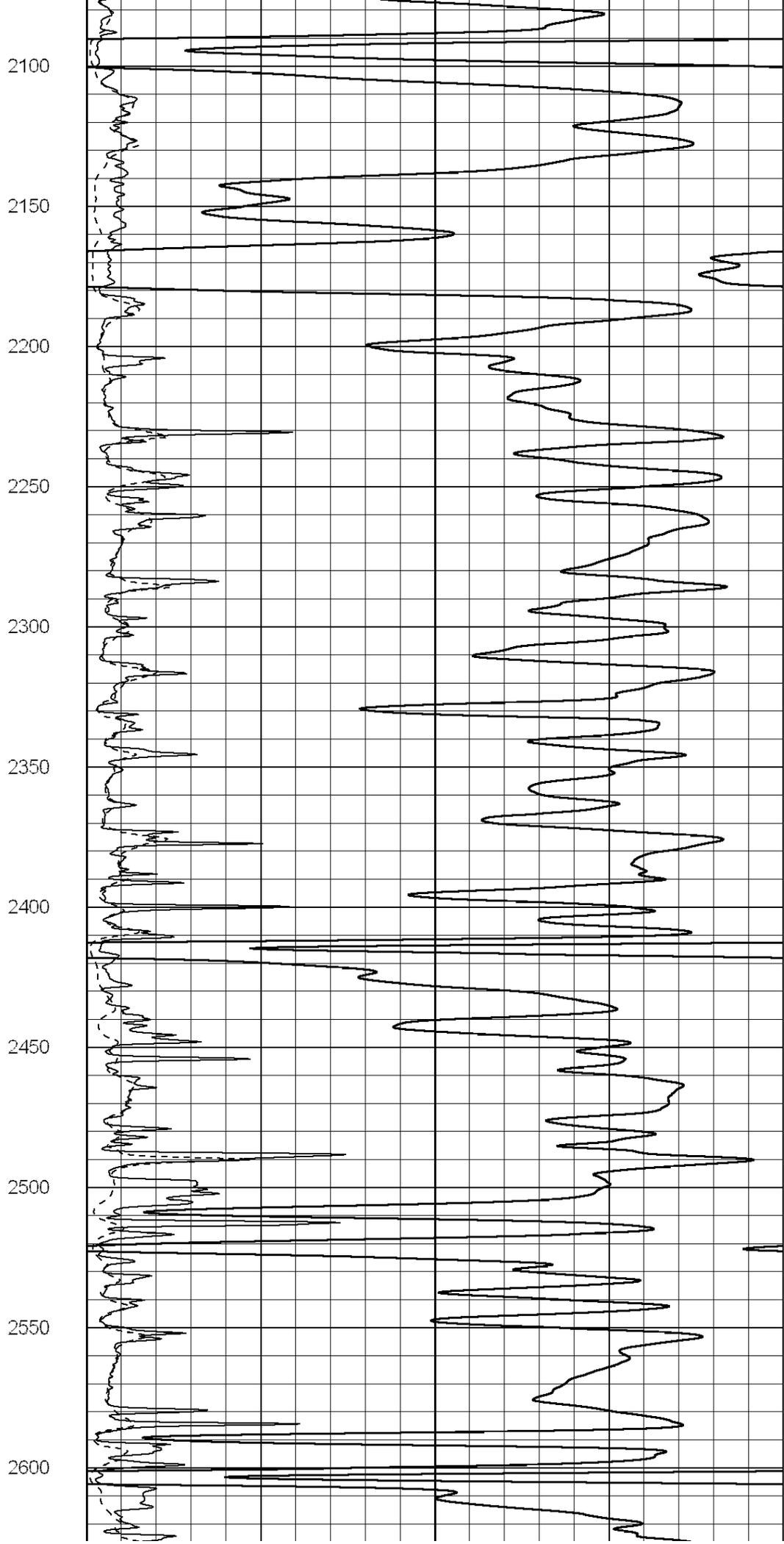
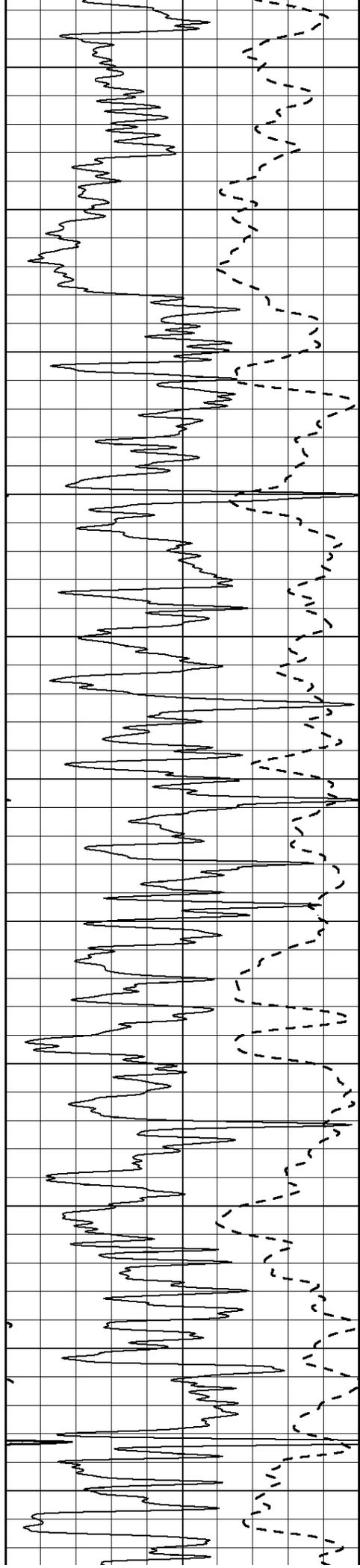
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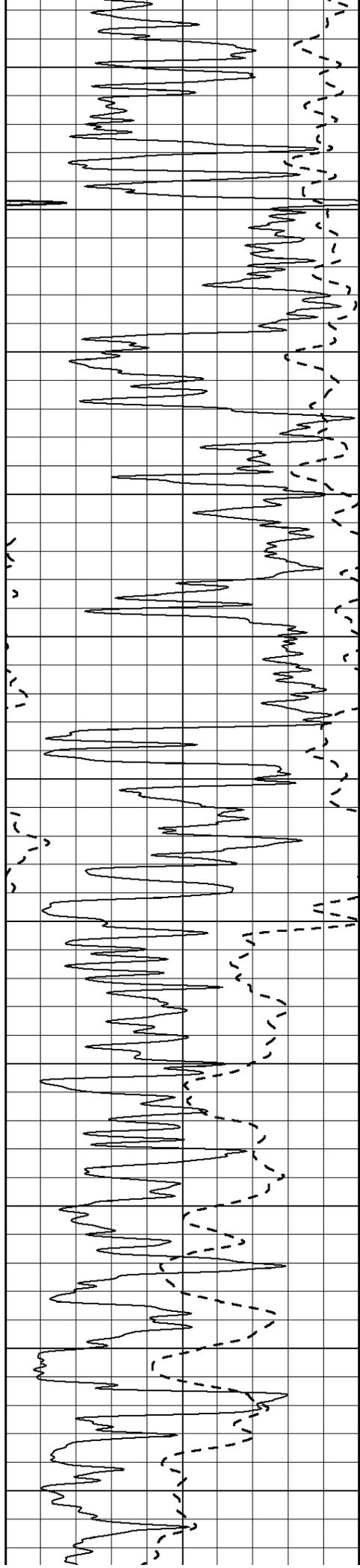
1950

2000

2050







2650

2700

2750

2800

2850

2900

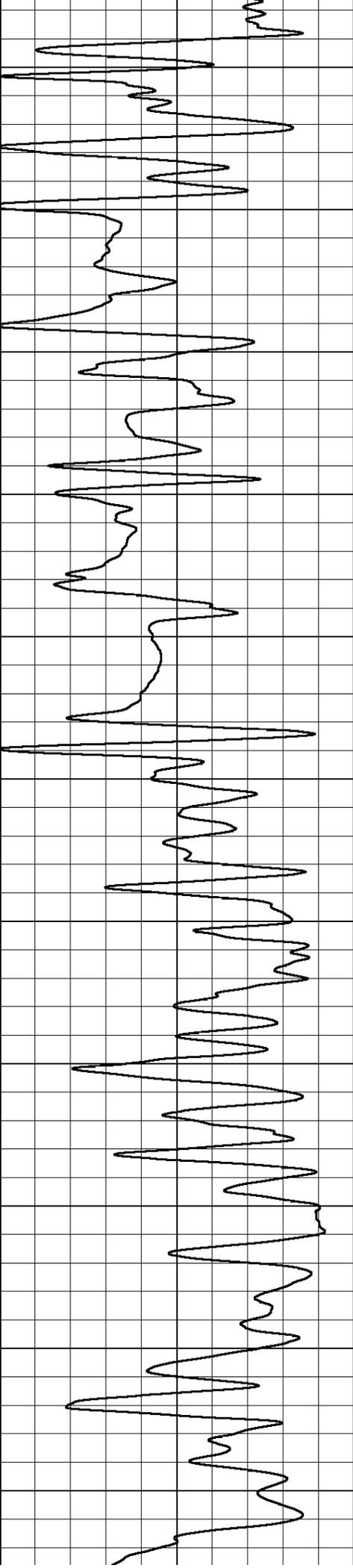
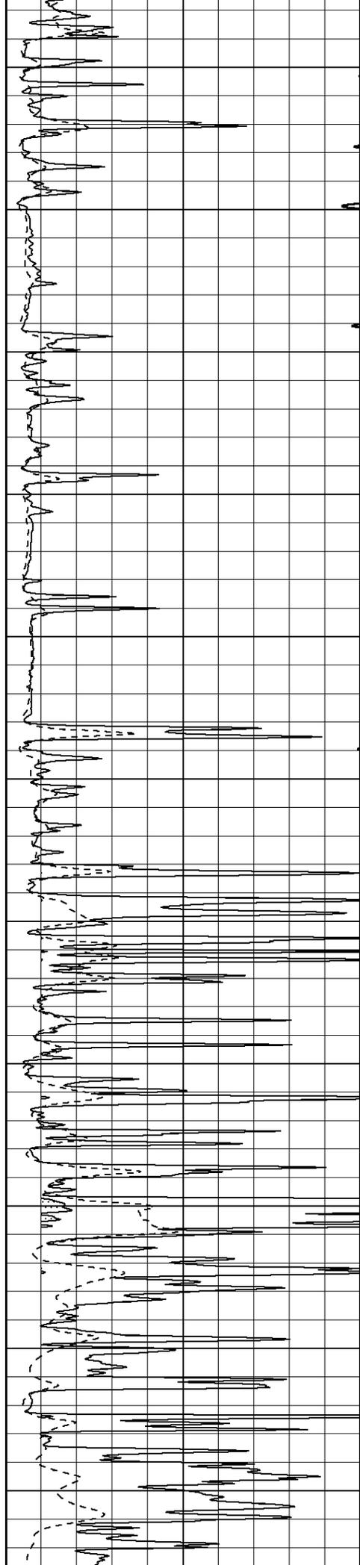
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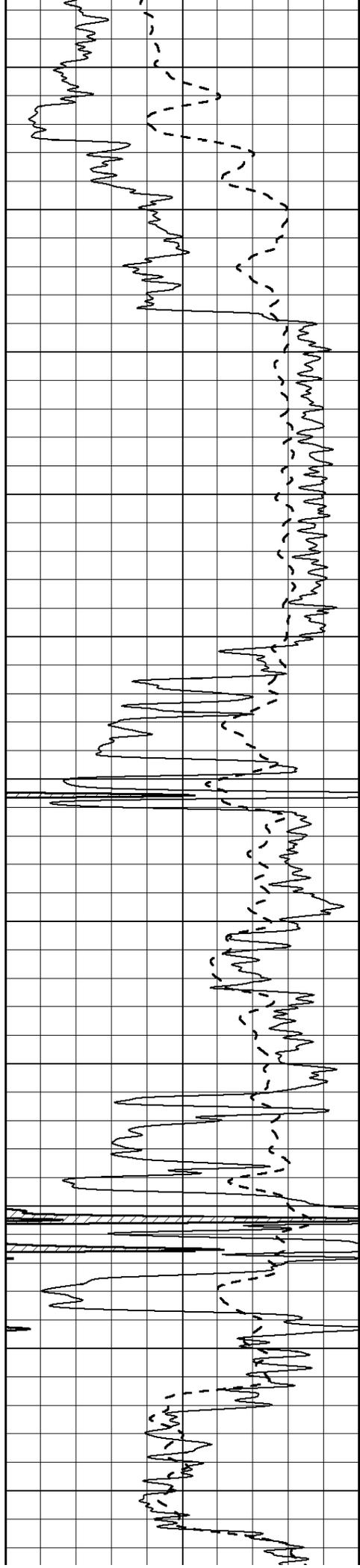
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3050

3100

3150





3200

3250

3300

3350

3400

3450

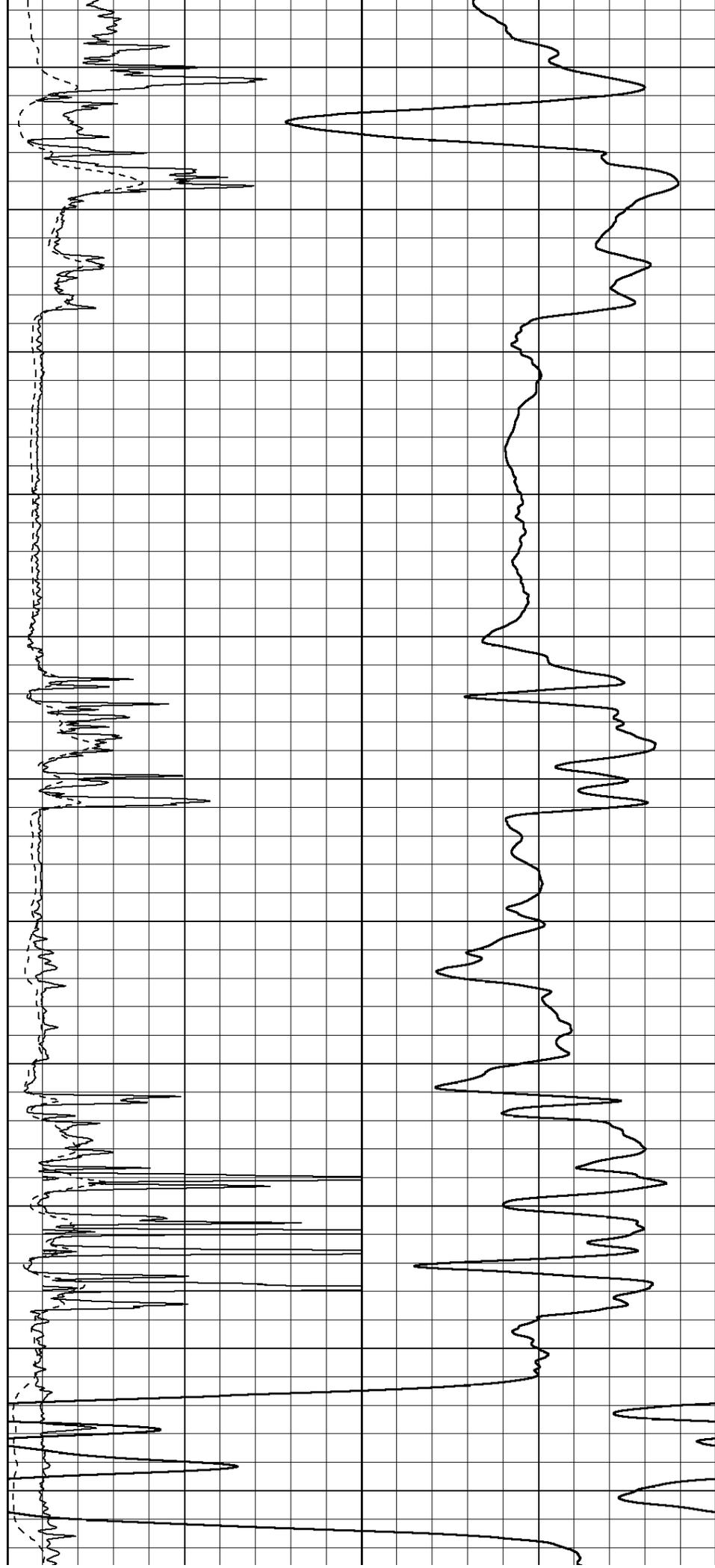
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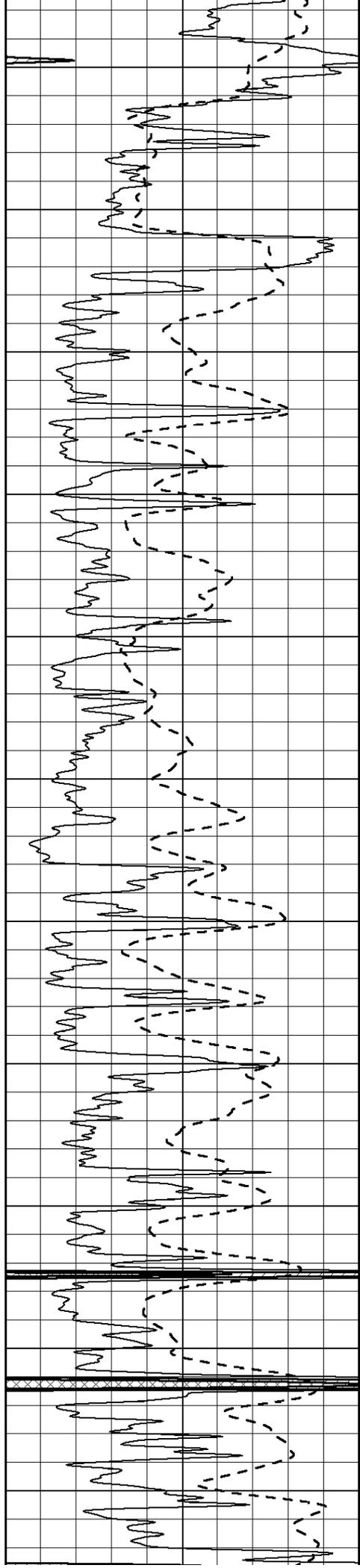
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3600

3650

3700





3750

3800

3850

3900

3950

4000

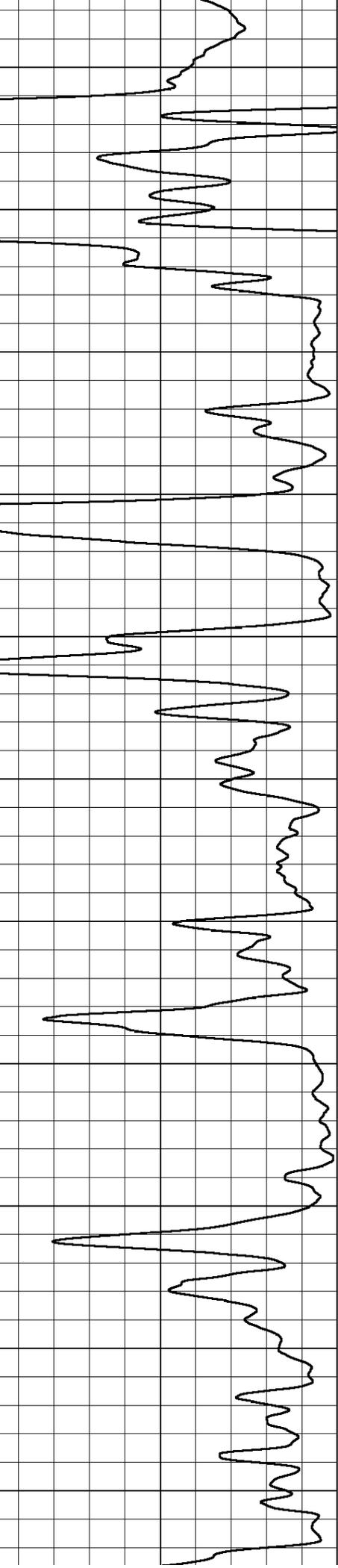
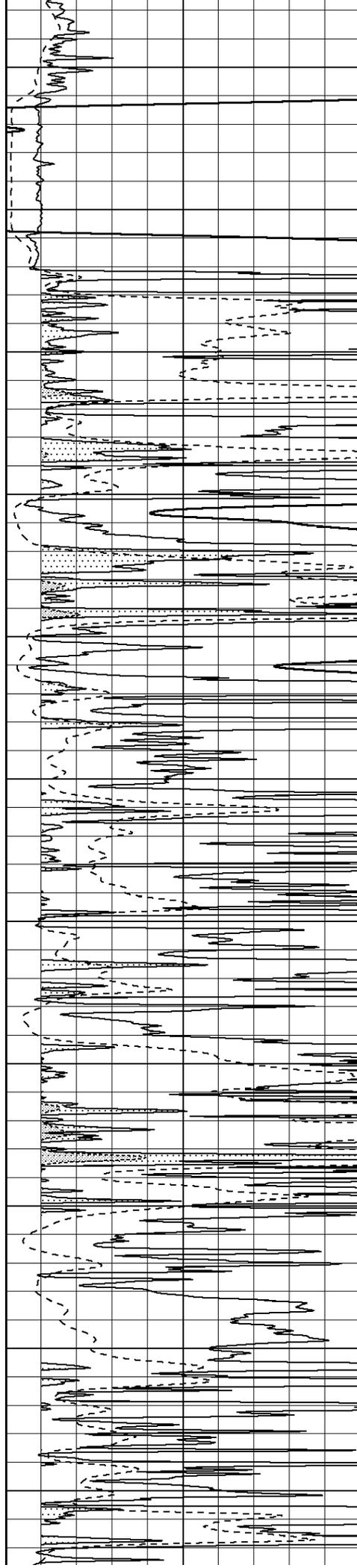
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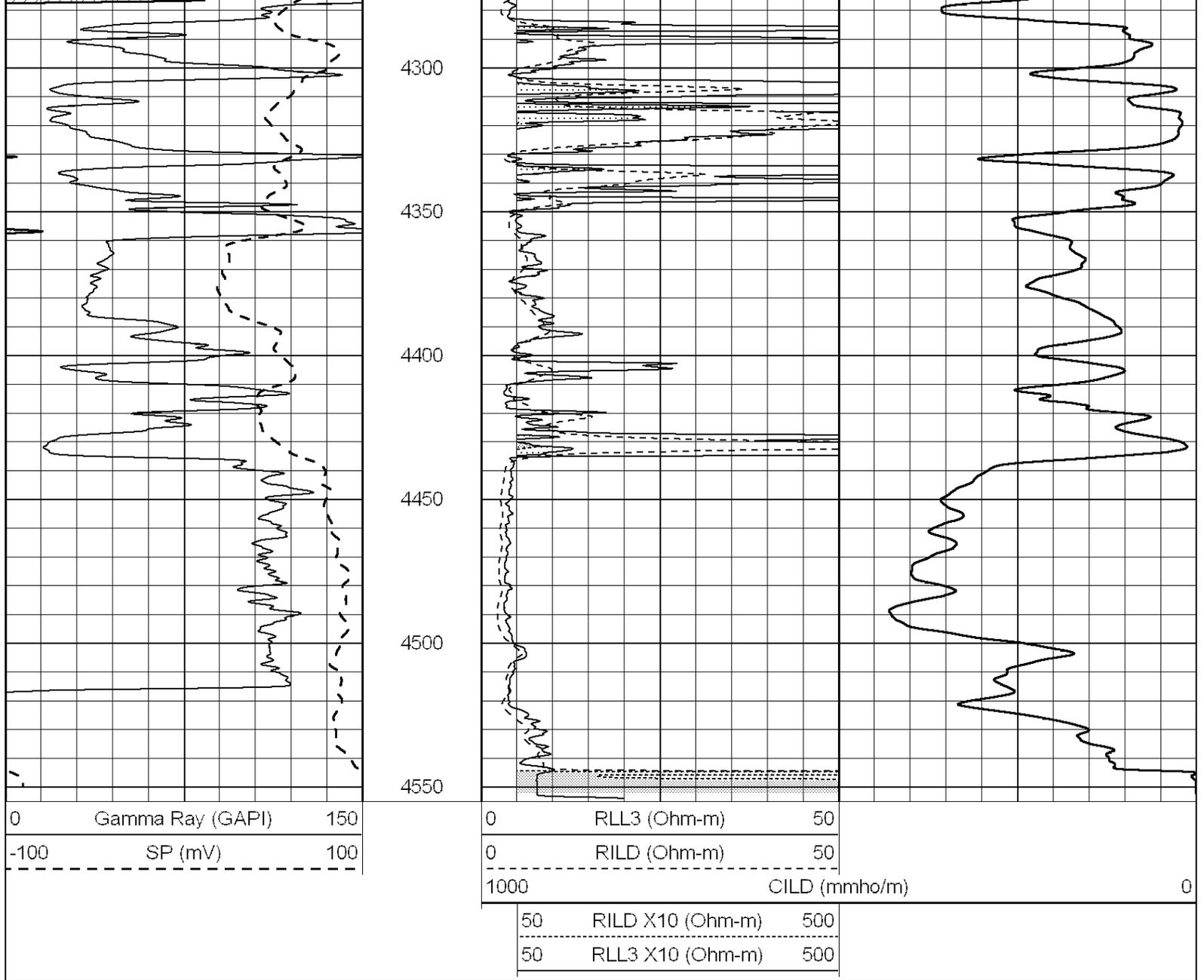
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4150

4200

4250





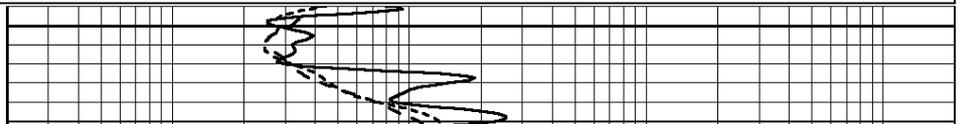
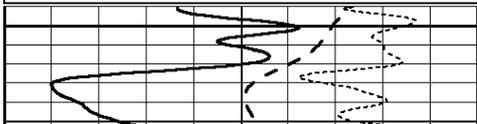
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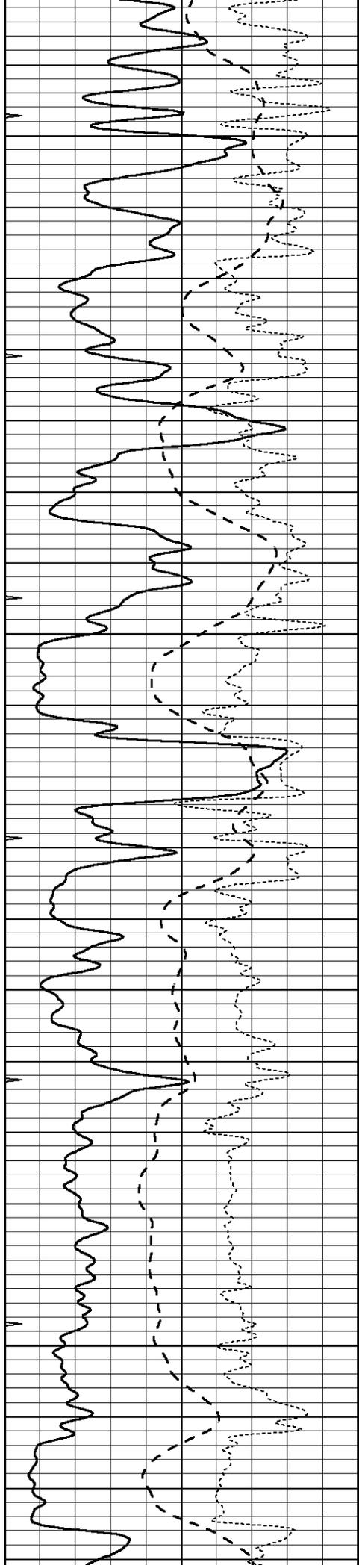
MAIN SECTION

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 Dataset Pathname: pass3.6
 Presentation Format: dil
 Dataset Creation: Mon May 20 21:14:24 2013 by Calc SOC 120430
 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



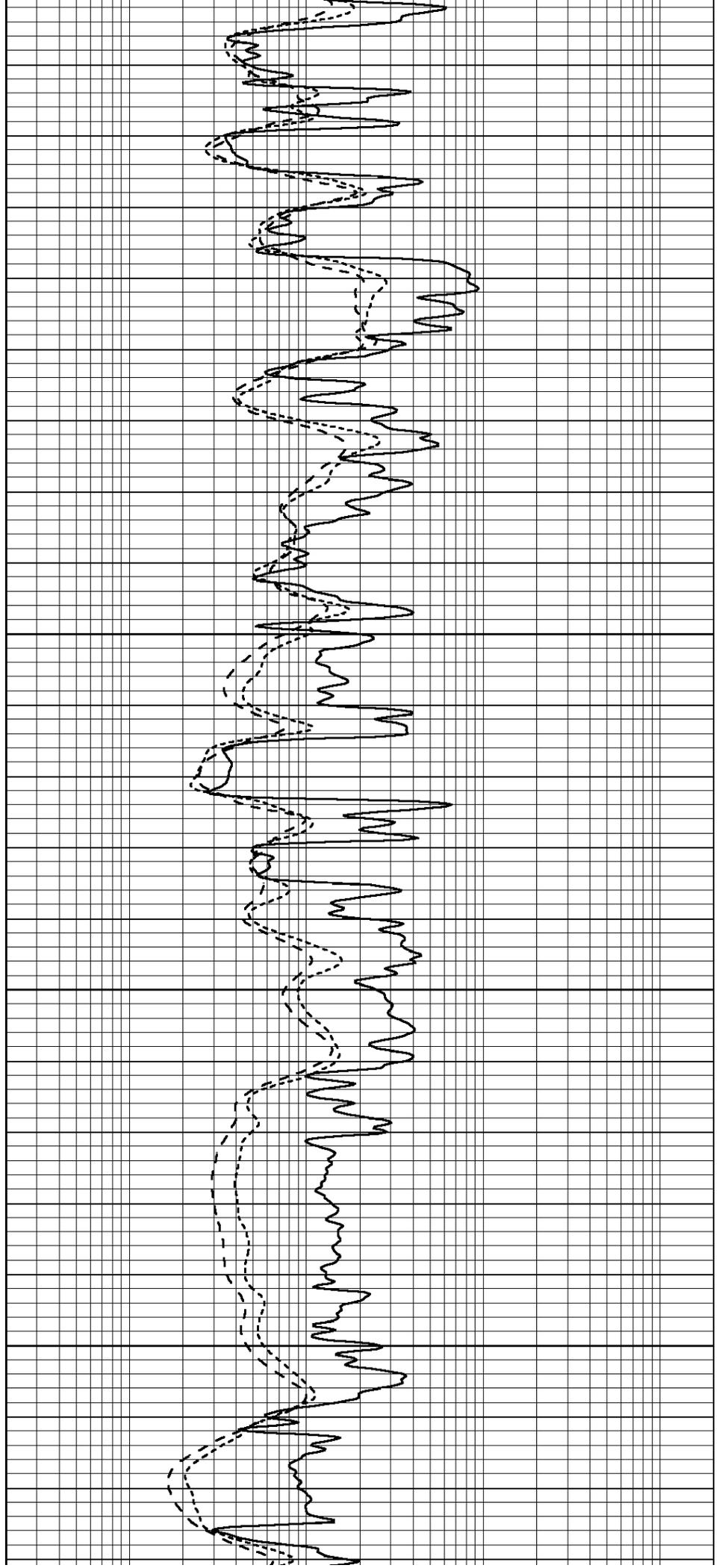


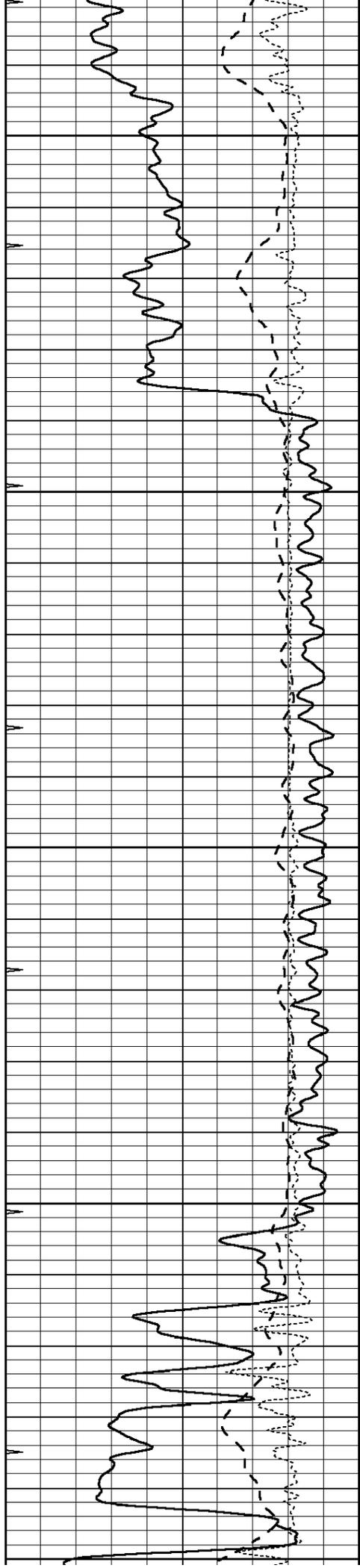
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3100

3150

3200





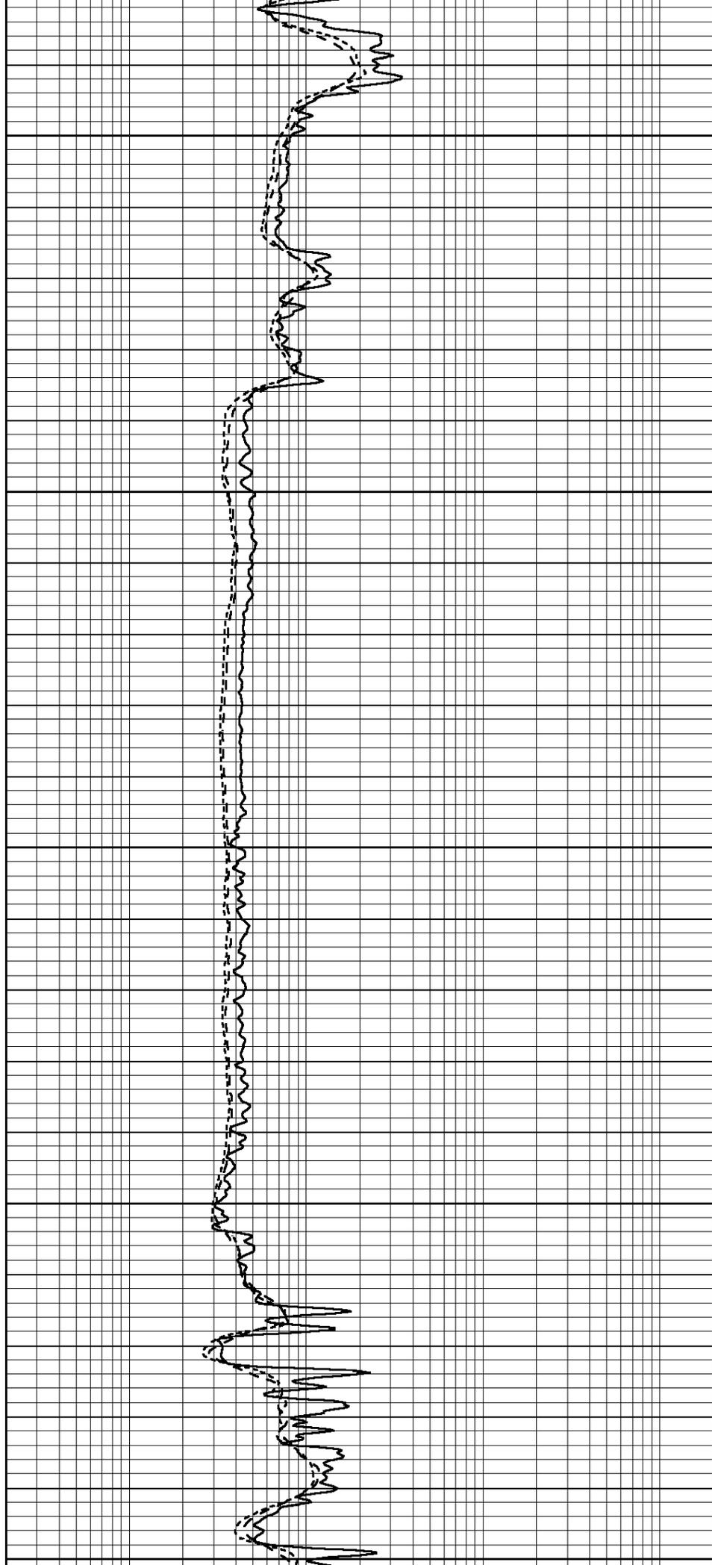
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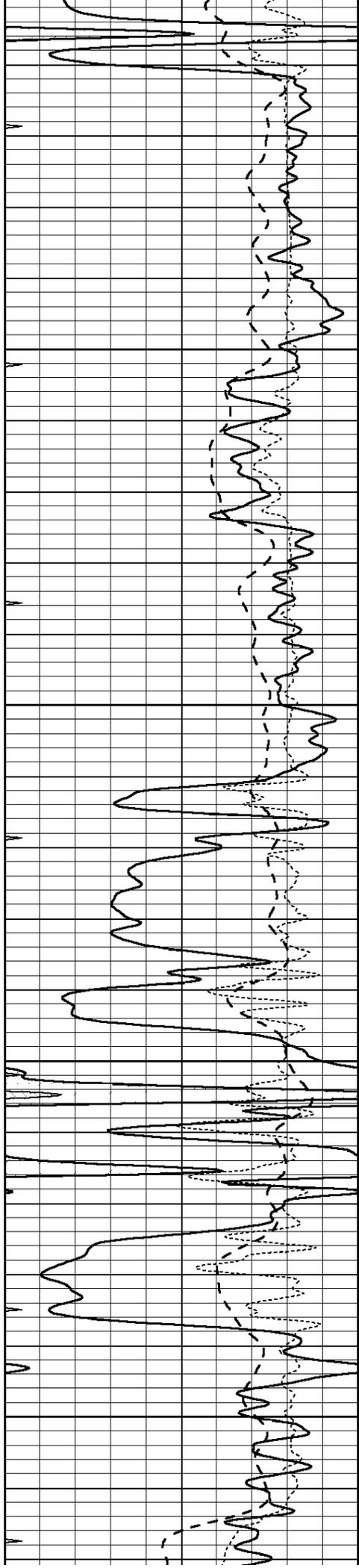
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3350

3400

3450



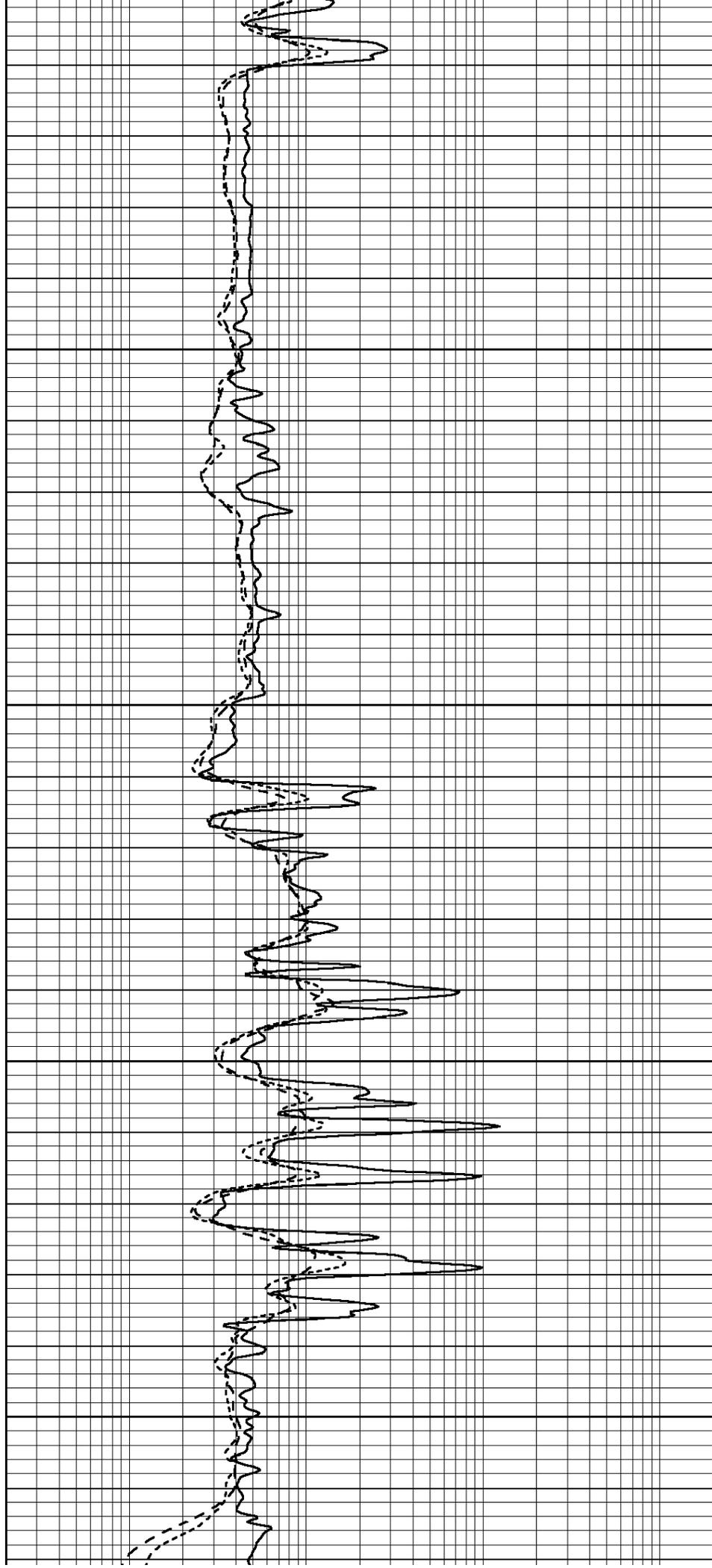


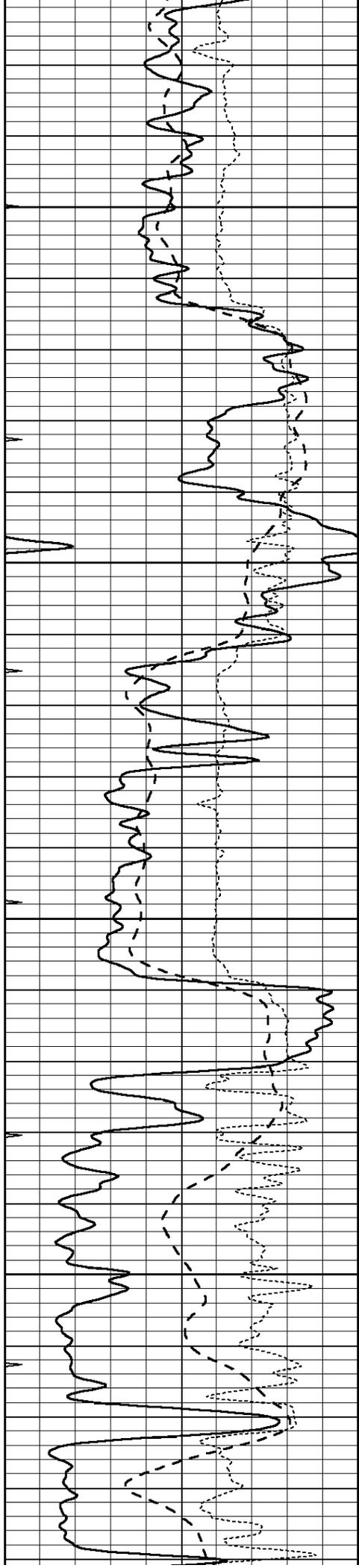
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3600

3650



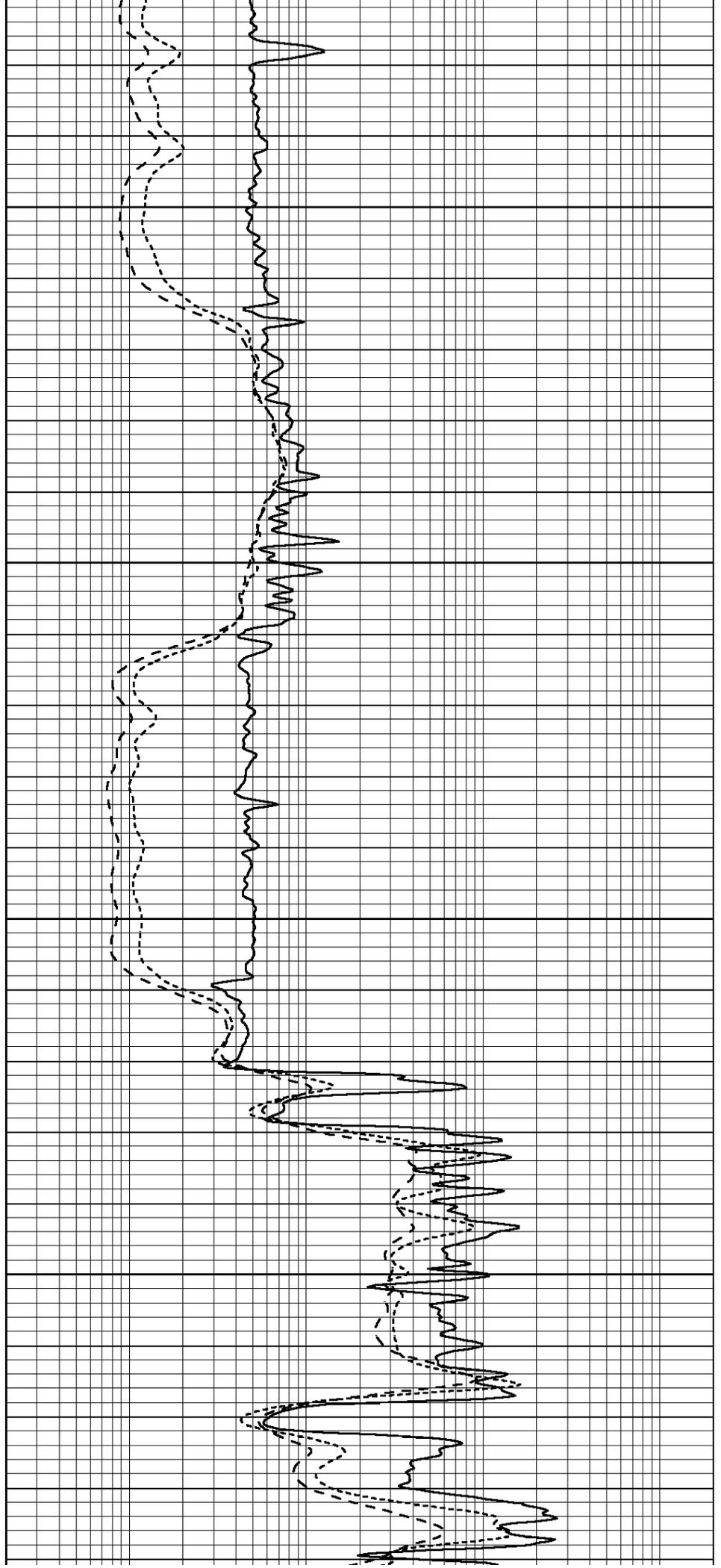


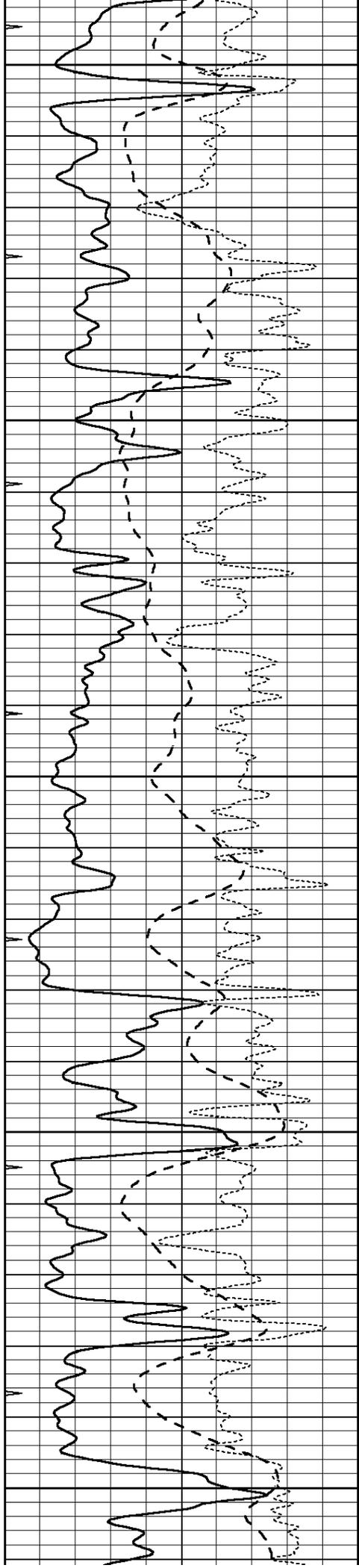
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3750

3800

3850





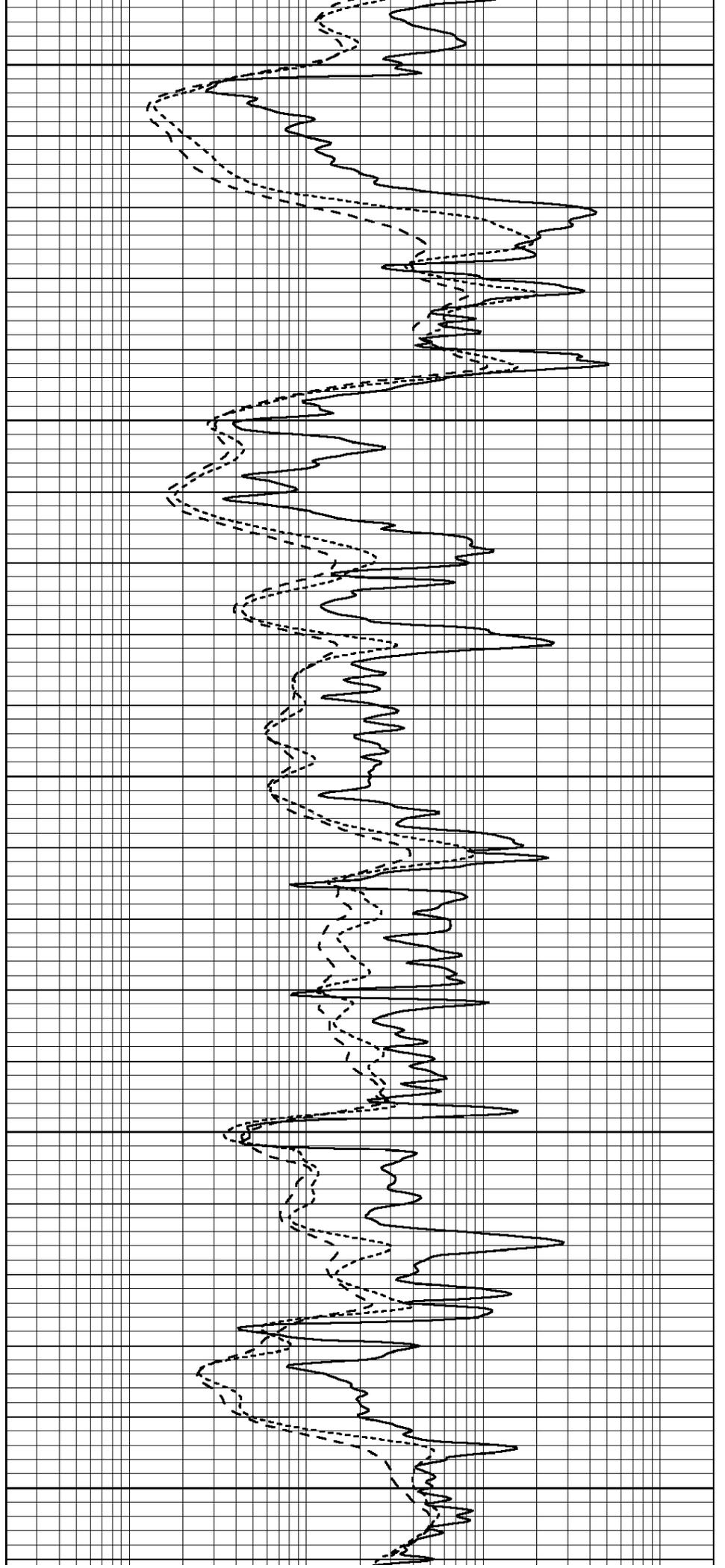
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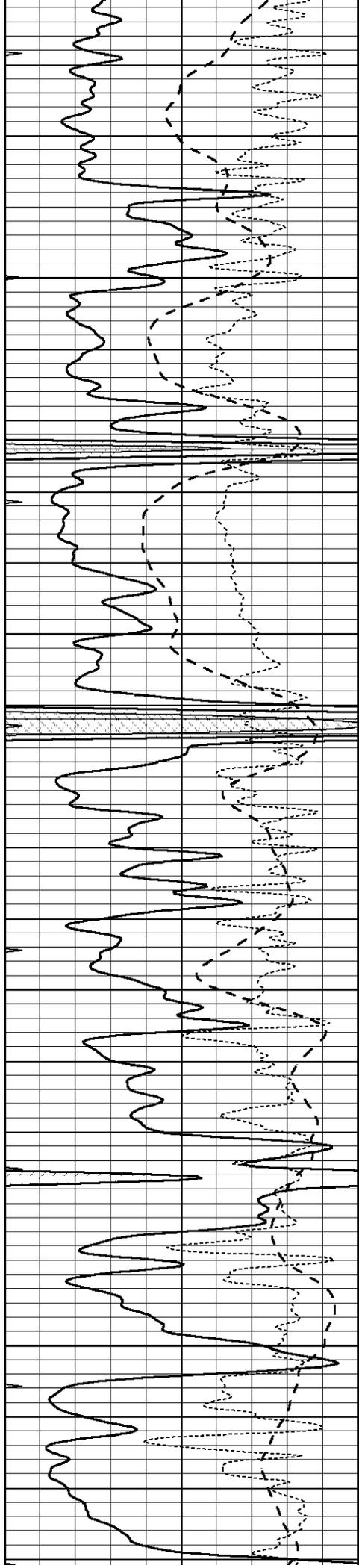
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4000

4050

4100



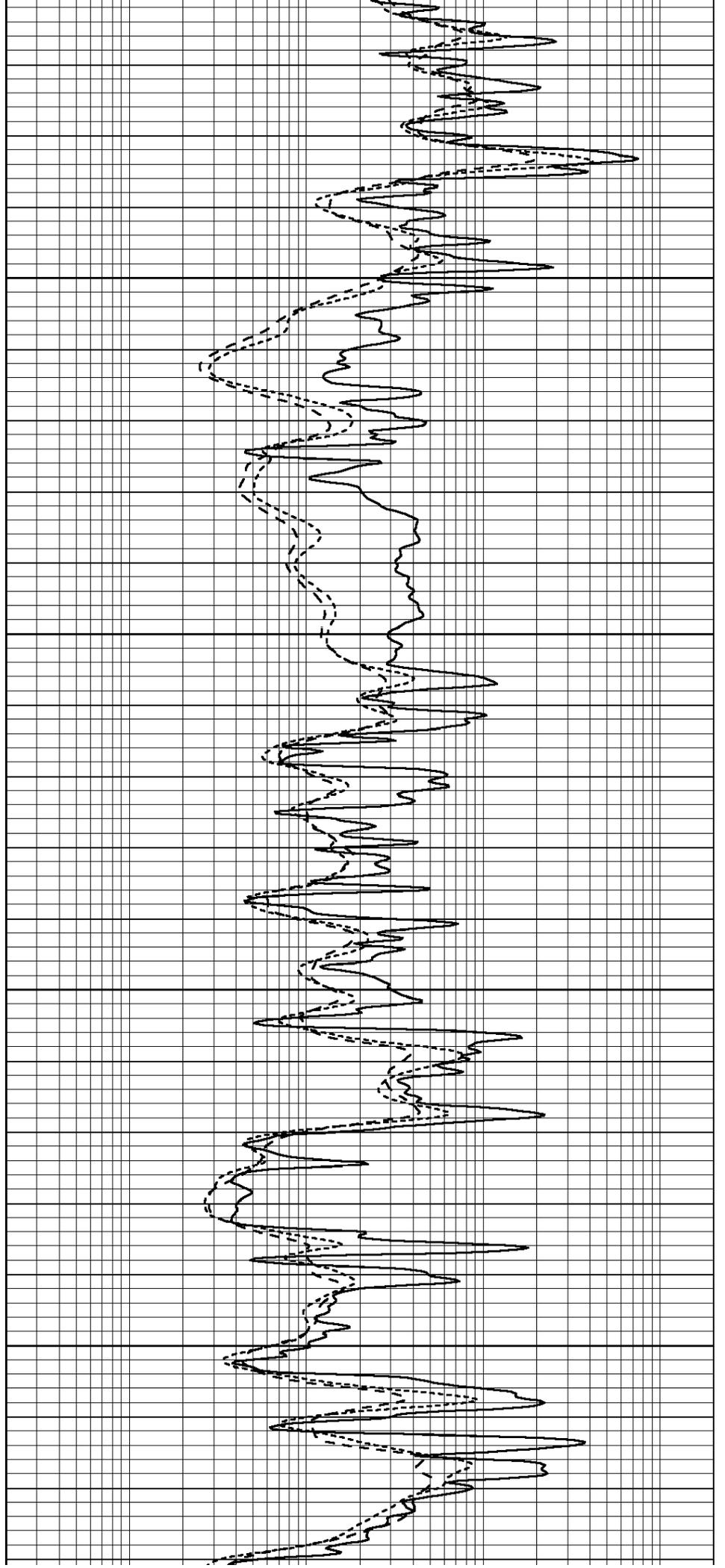


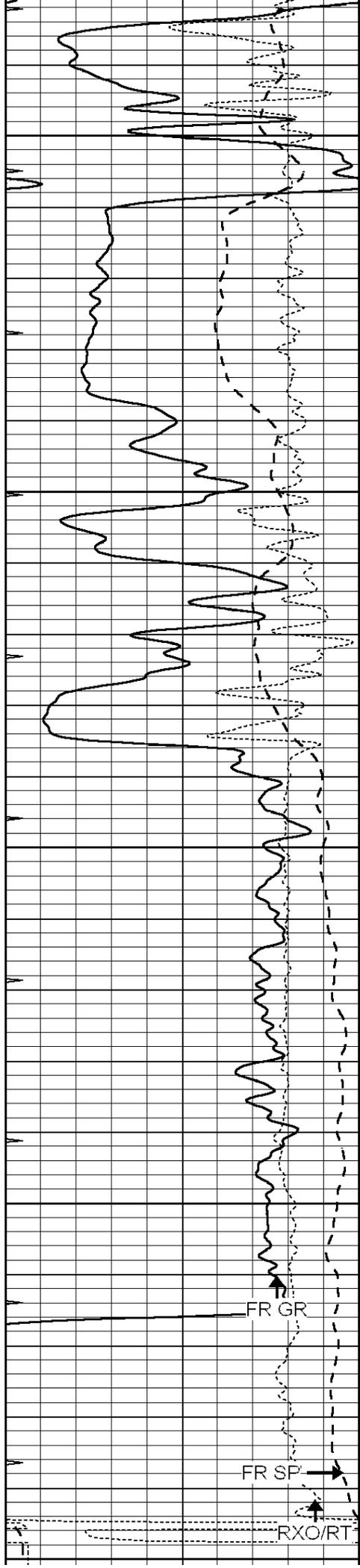
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4200

4250

4300





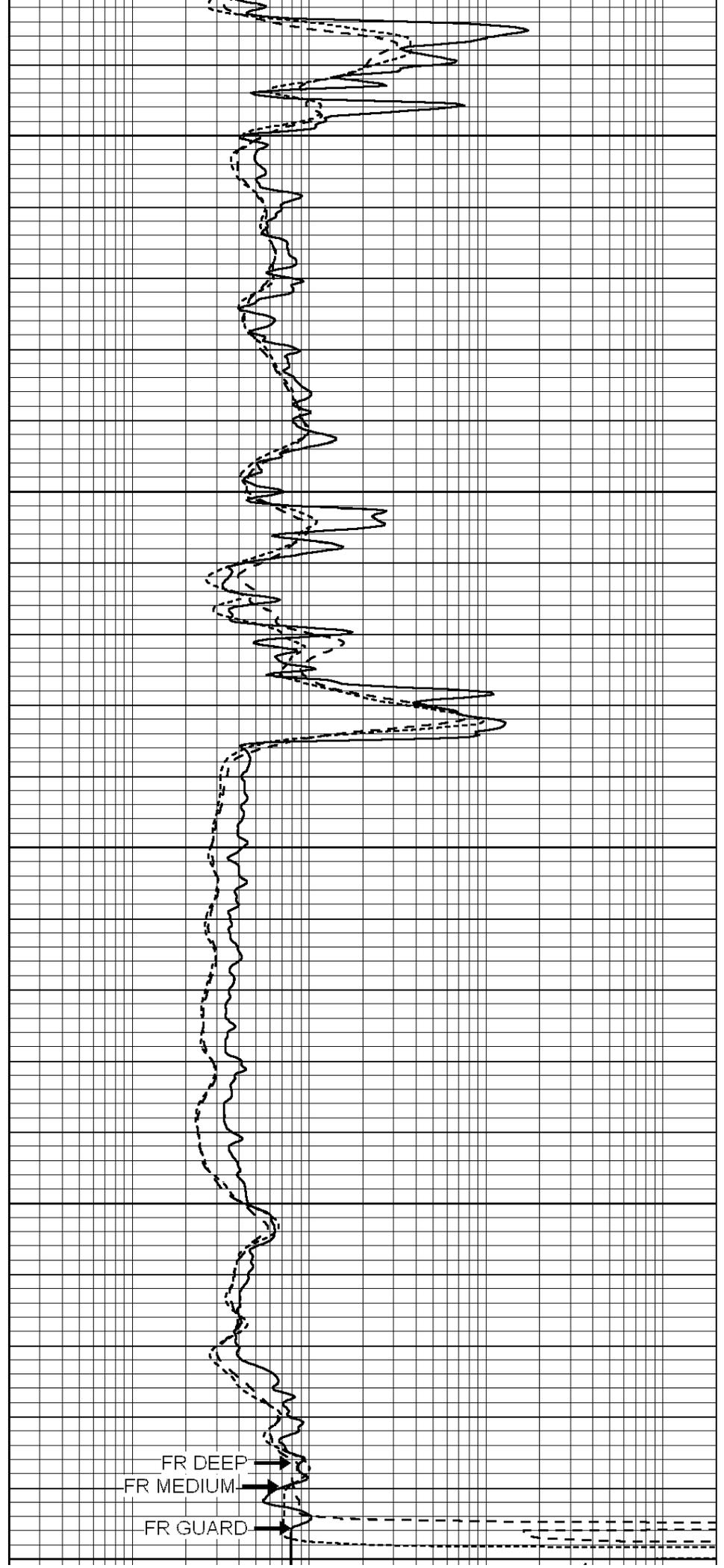
4350

4400

4450

4500

LTD 4548
4550



4350

4400

4450

4500

FR DEEP
FR MEDIUM
FR GUARD

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

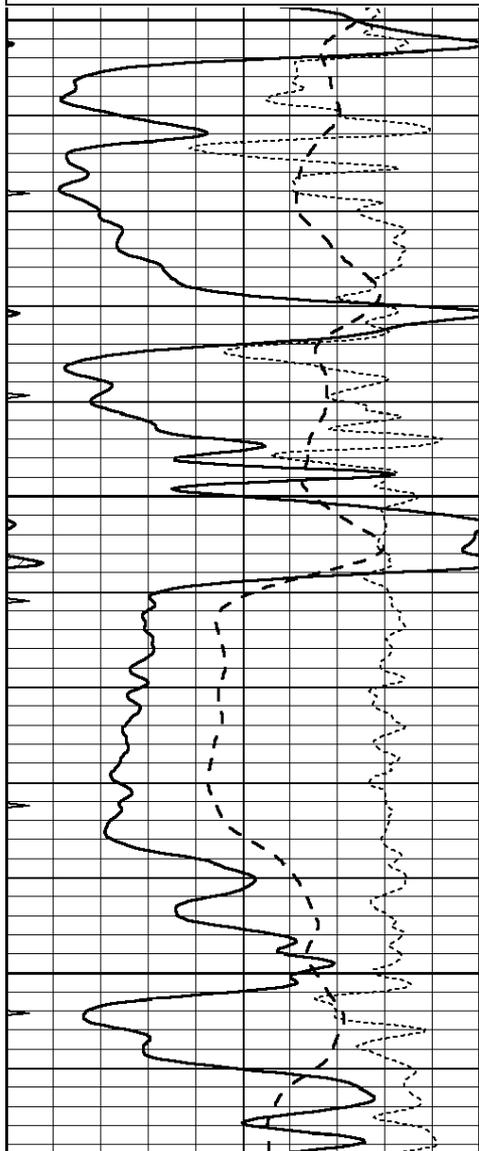


REPEAT SECTION

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 Dataset Pathname: pass2.4
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 Charted by: Depth in Feet scaled 1:240

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

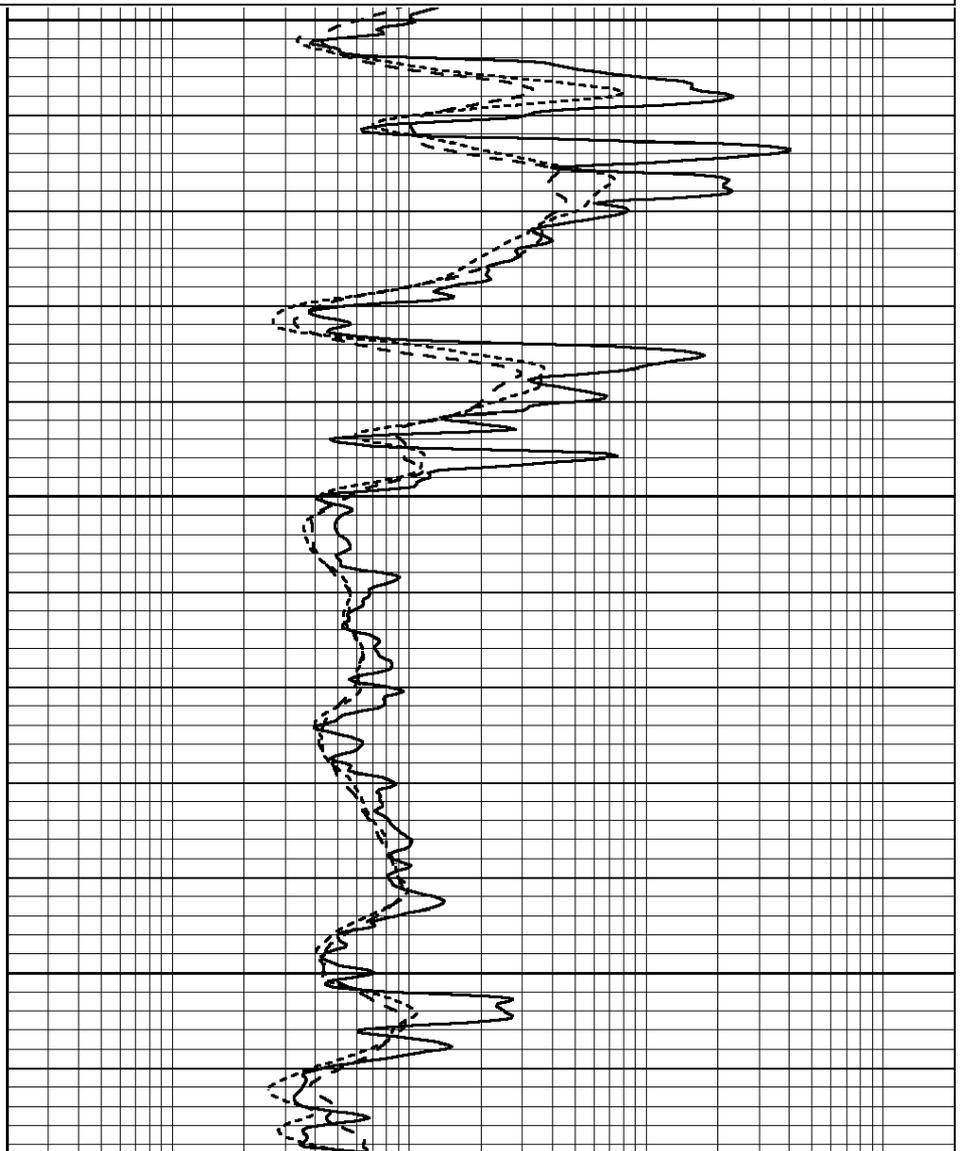
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

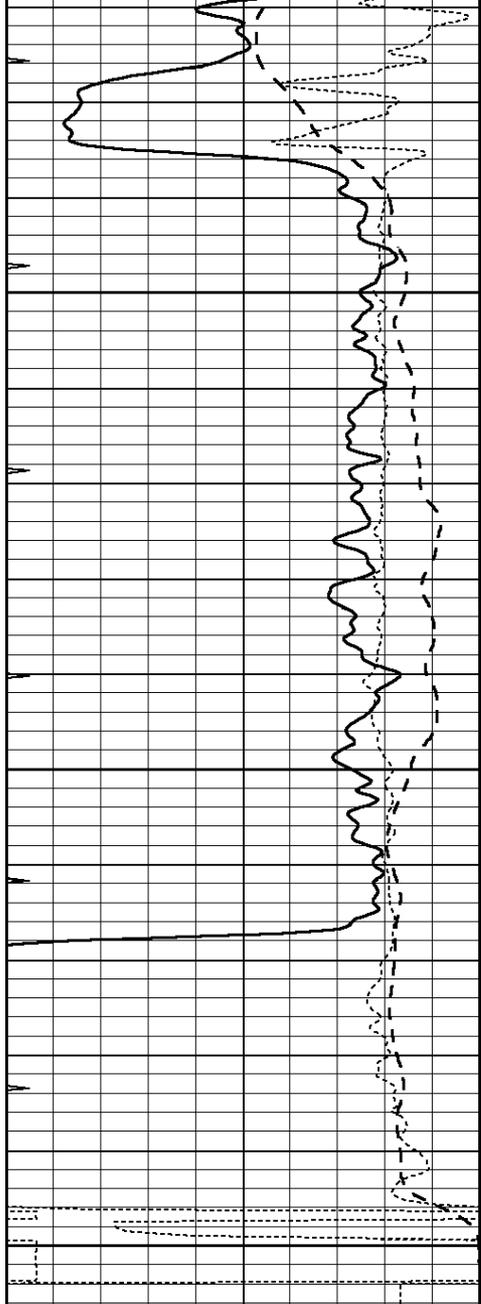


4300

4350

4400



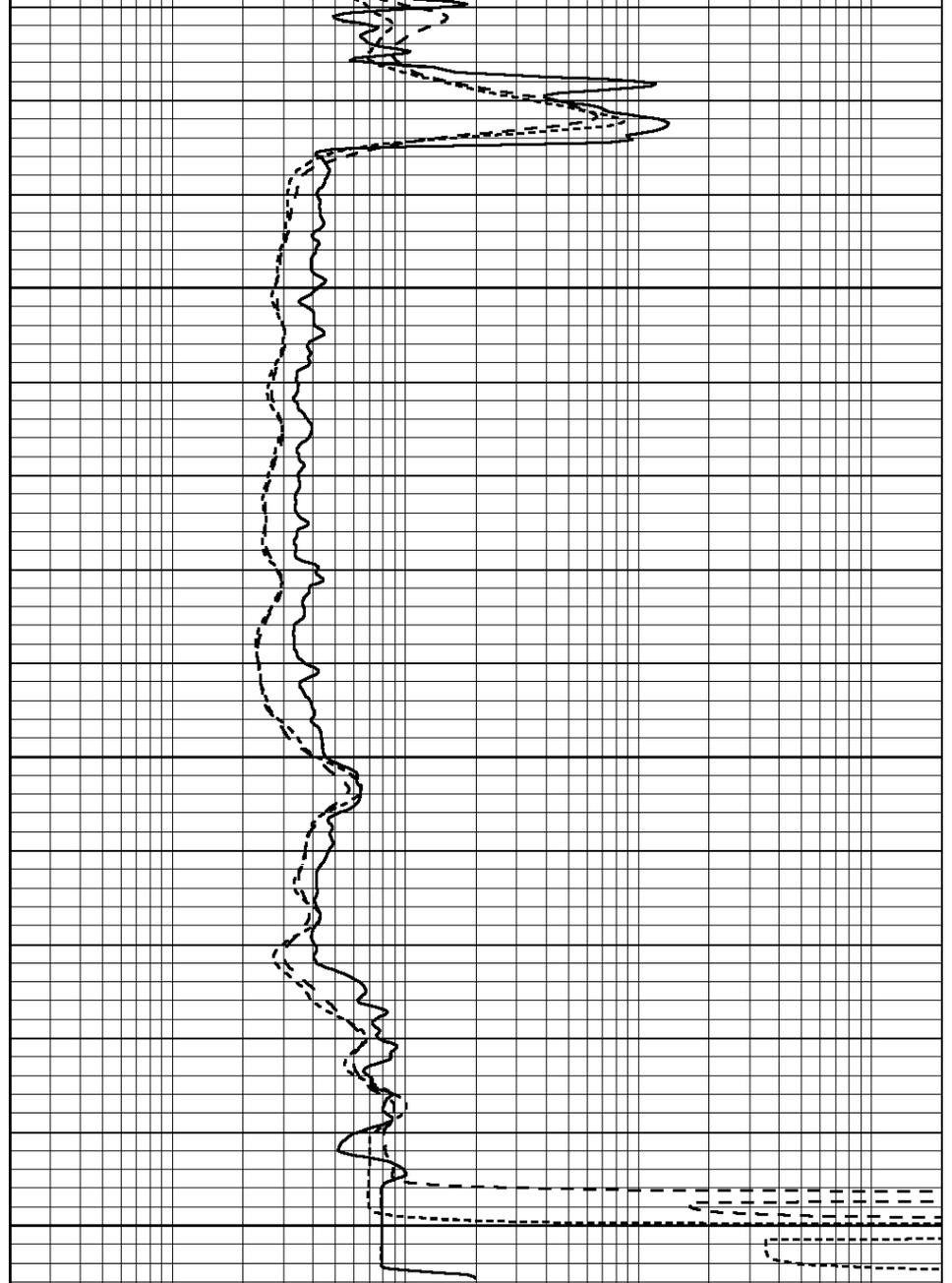


4450

4500

4550

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

Calibration Report

Database File: 010910pe.db
 Dataset Pathname: pass3.6
 Dataset Creation: Mon May 20 21:14:24 2013 by Calc SOC 120430

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Mon May 20 12:15:25 2013
 Downhole Cal Performed: Mon Jul 28 12:02:56 2008
 After Survey Verification Performed: Mon Jul 28 12:02:56 2008

Surface Calibration

Readings

References

Results

Loop: Air Loop Air Loop m b

Window 1	0.0	0.0	0.0	0.0	cps
Window 2	0.0	0.0	0.0	0.0	cps
Window 3	0.0	0.0	0.0	0.0	cps
Window 4	0.0	0.0	0.0	0.0	cps
Long Space	0.0	0.0	0.0	0.0	cps
Short Space	0.0	0.0	0.0	0.0	cps
Measured Rho		0.0000	0.0000	0.0000	g/cc
Measured Correction		0.0000	0.0000	0.0000	g/cc
Measured Pe			0.0000	0.0000	

Compensated Neutron Calibration Report

Serial Number: 070808
Tool Model: Probe

PRE-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

Gamma Ray Calibration Report

Serial Number: 070559
Tool Model: OPEN_GR
Performed: Mon Apr 15 10:30:52 2013

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3500 GAPI/cps