



DUAL INDUCTION LOG

Company SATCHELL CREEK PETROLEUM, LLC.

Well CATHEDRAL "A" 4

Field CATHERINE

County ELLIS

State KANSAS

Location:

API #: 15-051-27059-0000
4950' FSL & 4250' FWL
W/2 - NW - NE - NE

Other Services
CDL/CNL/PE
MEL/SONIC

SEC 11 TWP 13S RGE 17W

Permanent Datum GROUND LEVEL Elevation 2041

Log Measured From KELLY BUSHING 6' A.G.L.

Elevation
K.B. 2047
D.F. 2045
G.L. 2041

Date 11/3/22

Run Number ONE

Depth Driller 3690

Depth Logger 3694

Bottom Logged Interval 3692

Top Log Interval 00

Casing Driller 8 5/8" @ 264'

Casing Logger 264

Bit Size 7 7/8"

Type Fluid in Hole CHEMICAL MUD CHLORIDES 11,000 PPM

Density / Viscosity 9.2/51

pH / Fluid Loss 11.4/8.0

Source of Sample FLOWLINE

Rm @ Meas. Temp .610 @ 72F

Rmf @ Meas. Temp .458 @ 72F

Rmc @ Meas. Temp .732 @ 72F

Source of Rmf / Rmc MEASUREMENT

Rm @ BHT .389 @ 113F

Time Circulation Stopped 2 HOURS

Time Logger on Bottom 12:15 P.M.

Maximum Recorded Temperature 113F

Equipment Number 922339

Location HAYS, KANSAS

Recorded By JEFF LUEBBERS

Witnessed By SEAN DEENIHAN

<<< Fold Here >>>

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.

15-051-27059-0000

Comments

THANK YOU FOR USING ELI WIRELINE HAYS, KANSAS (785) 628-6395
DIRECTIONS
VICTORIA, KS. & I-70, N. TO "EMMERAN RD.", 1/4W., S. INTO

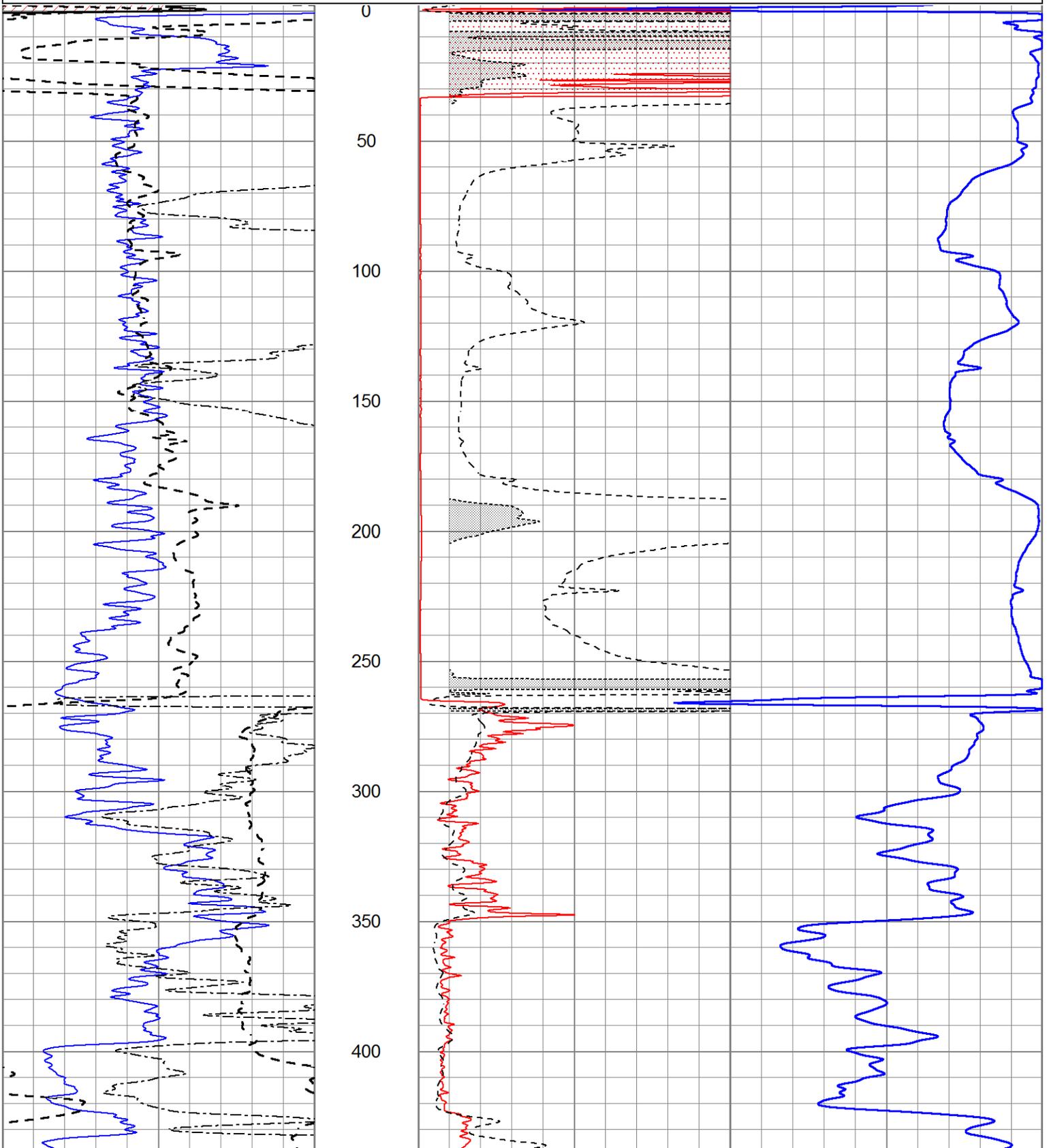


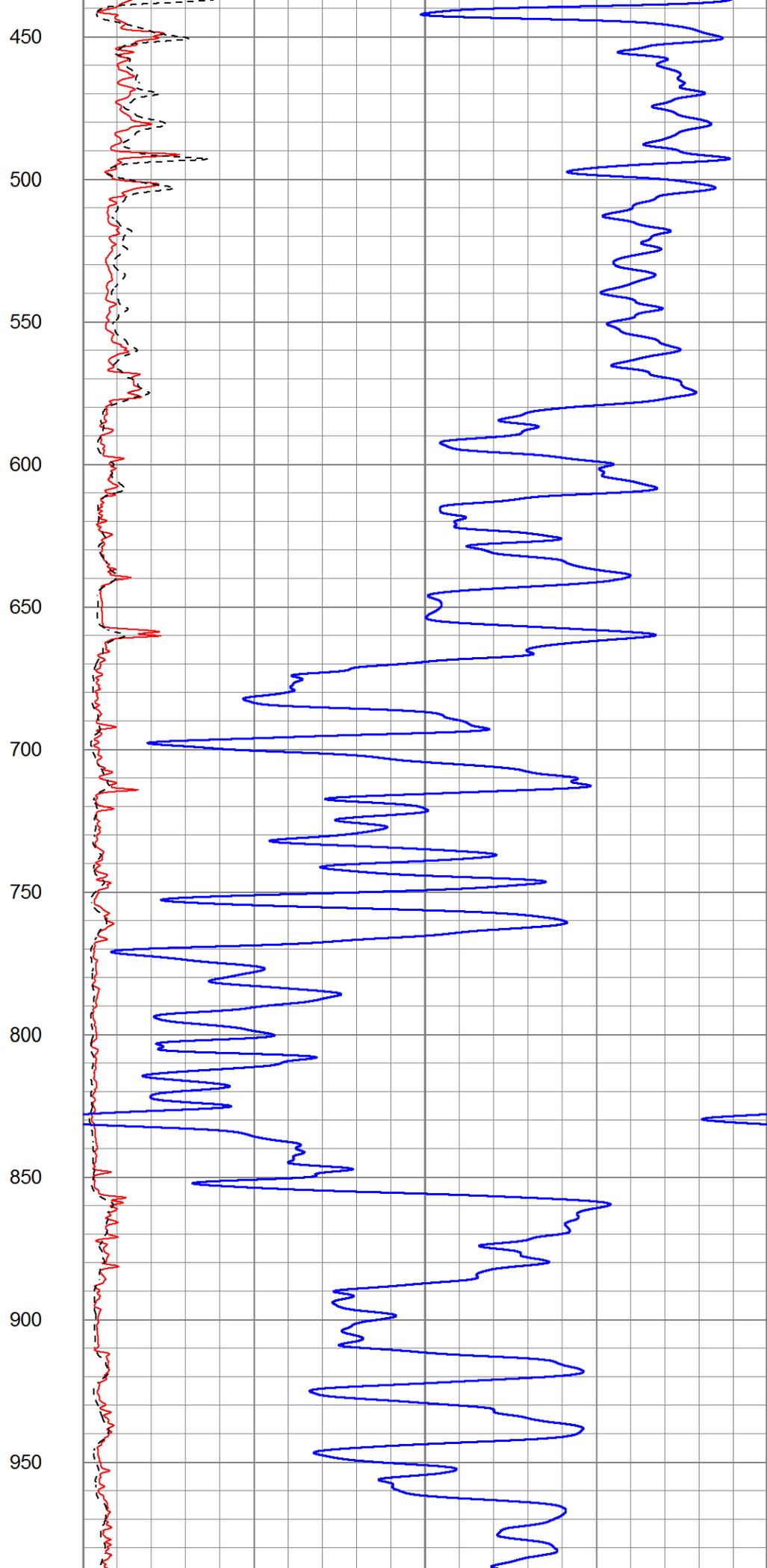
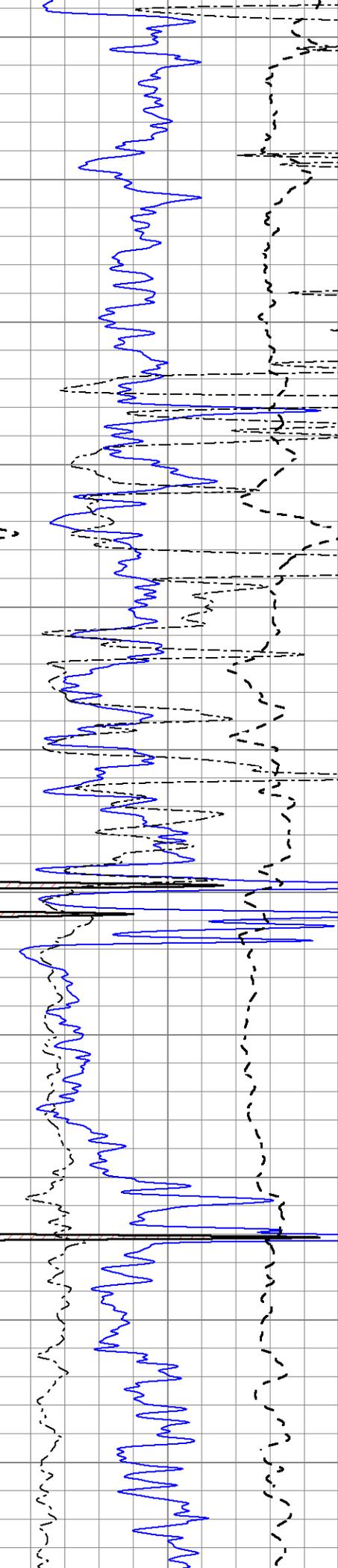
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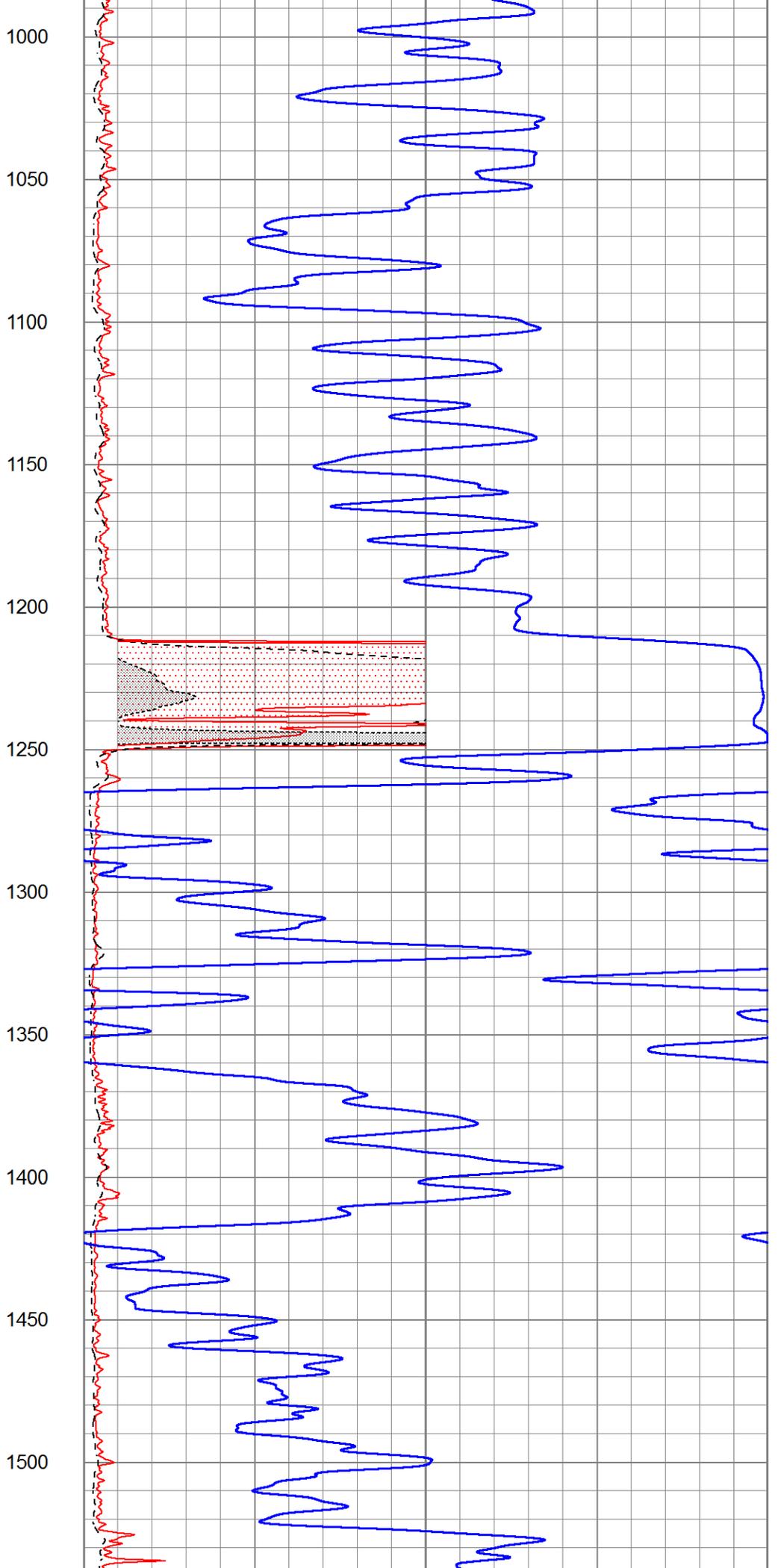
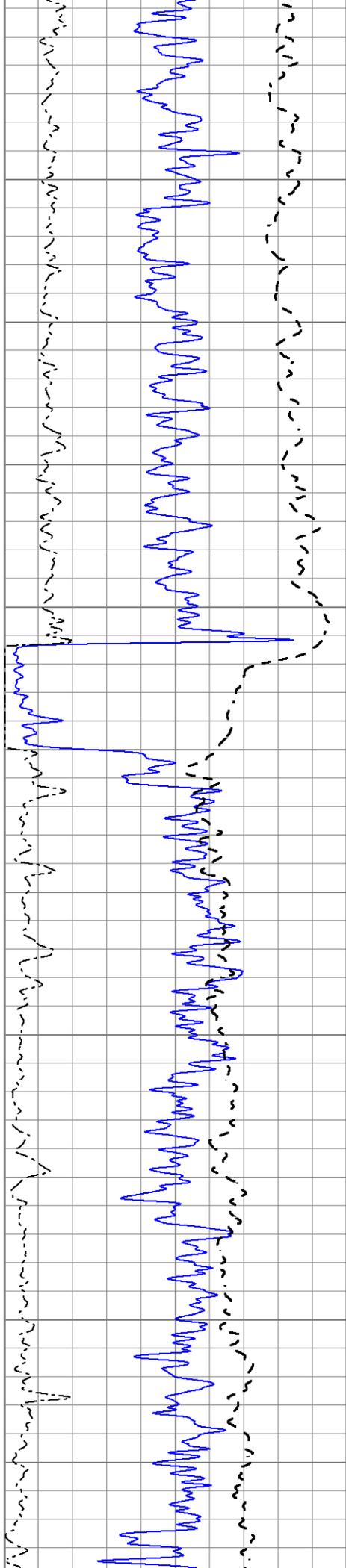
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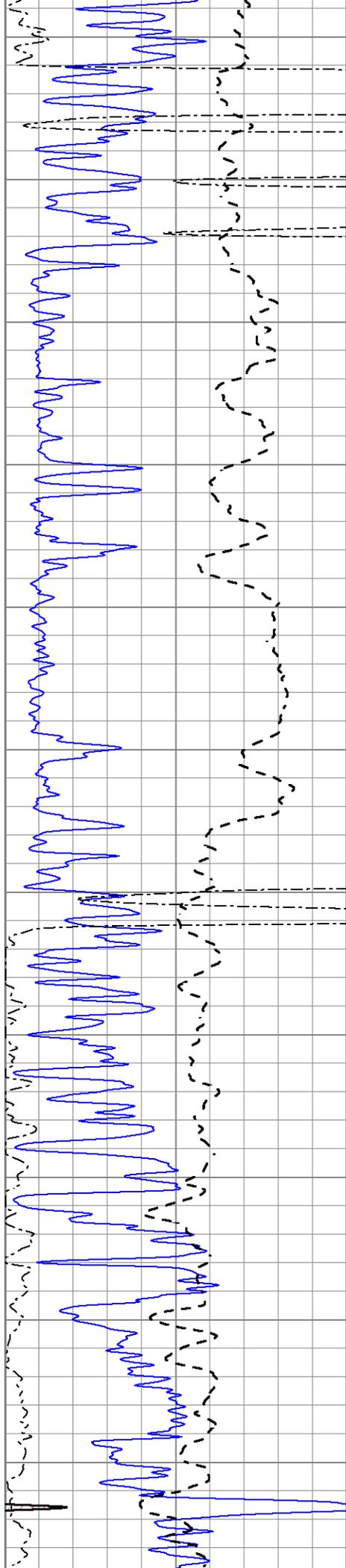
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-100	SP (mV)	100
0	RWA (Ohm-m)	1

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









1550

1600

1650

1700

1750

1800

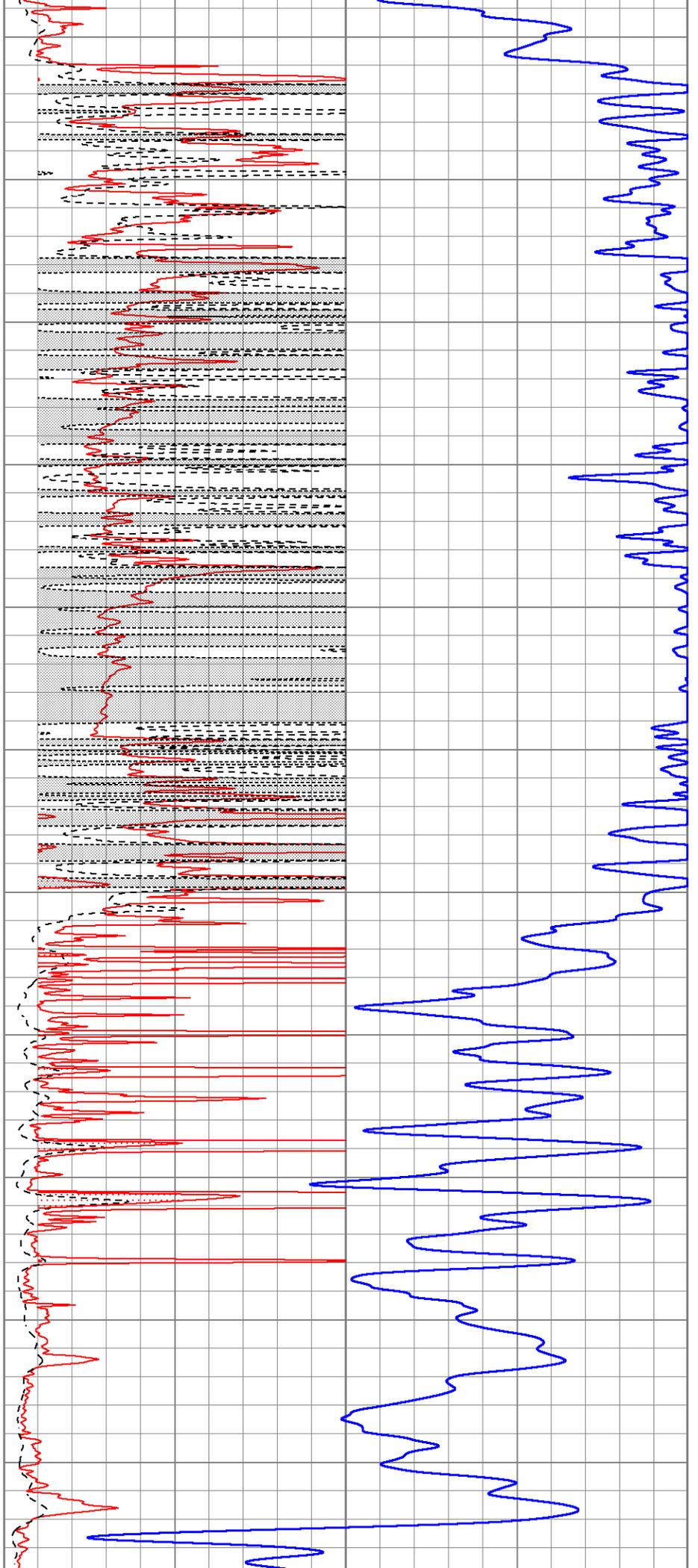
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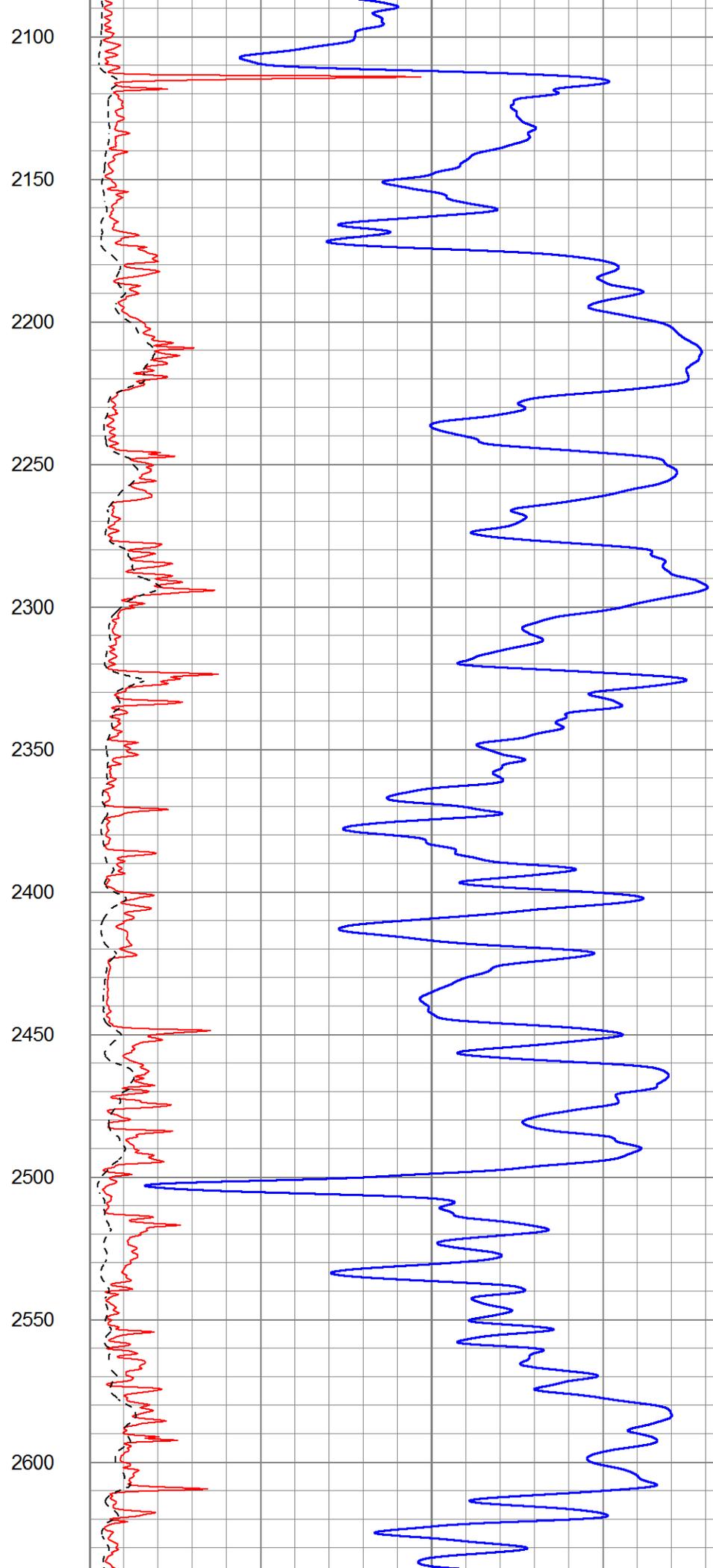
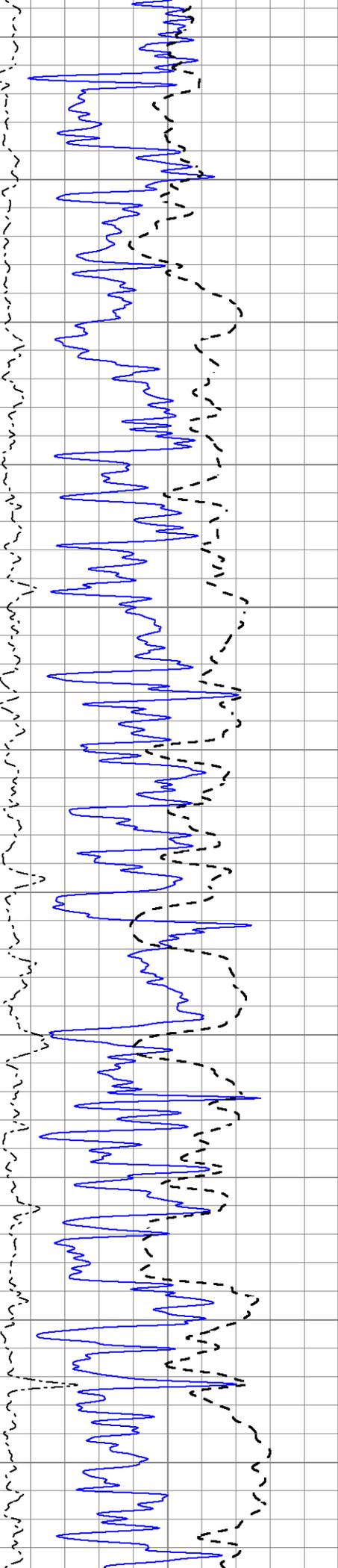
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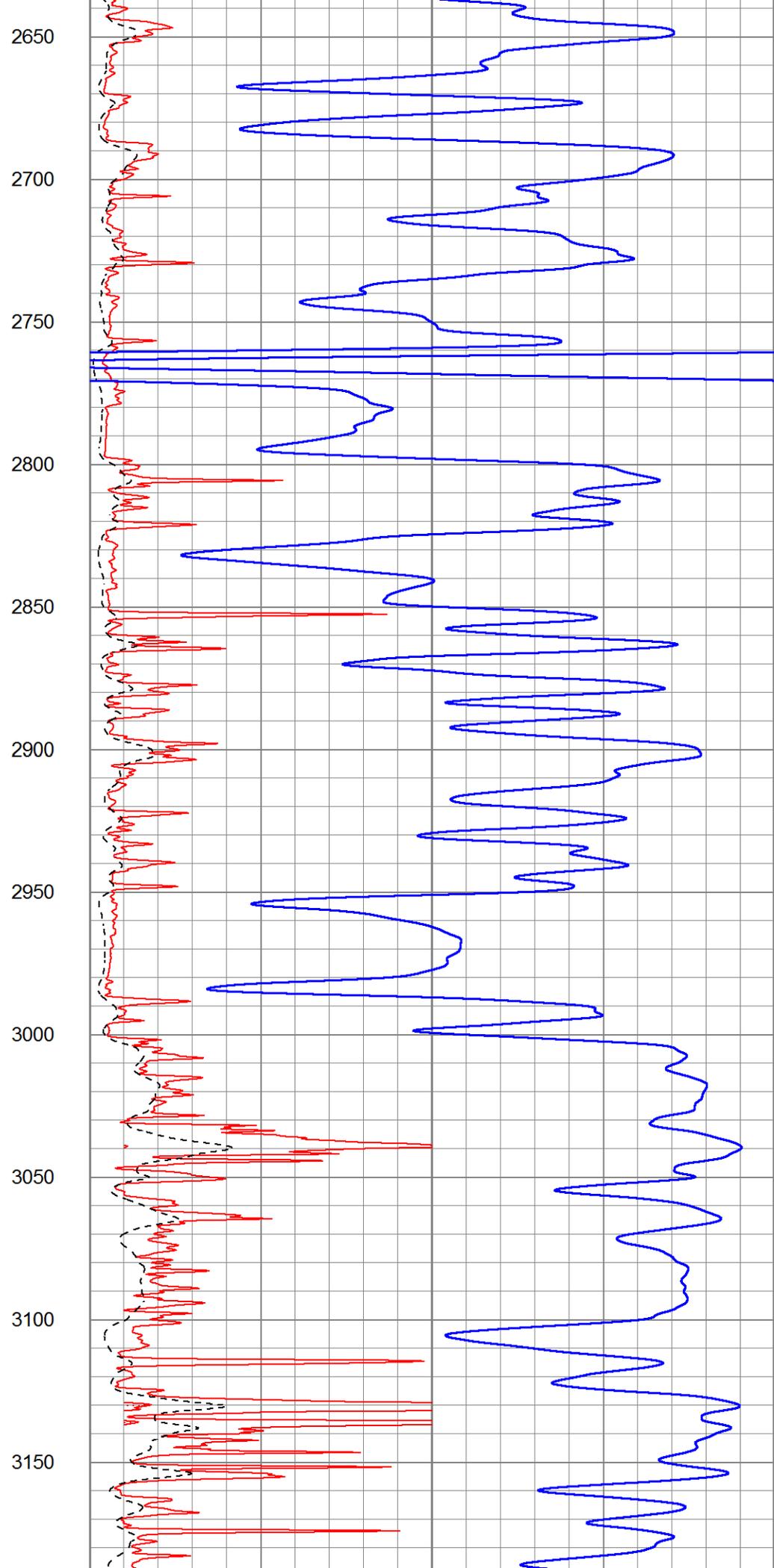
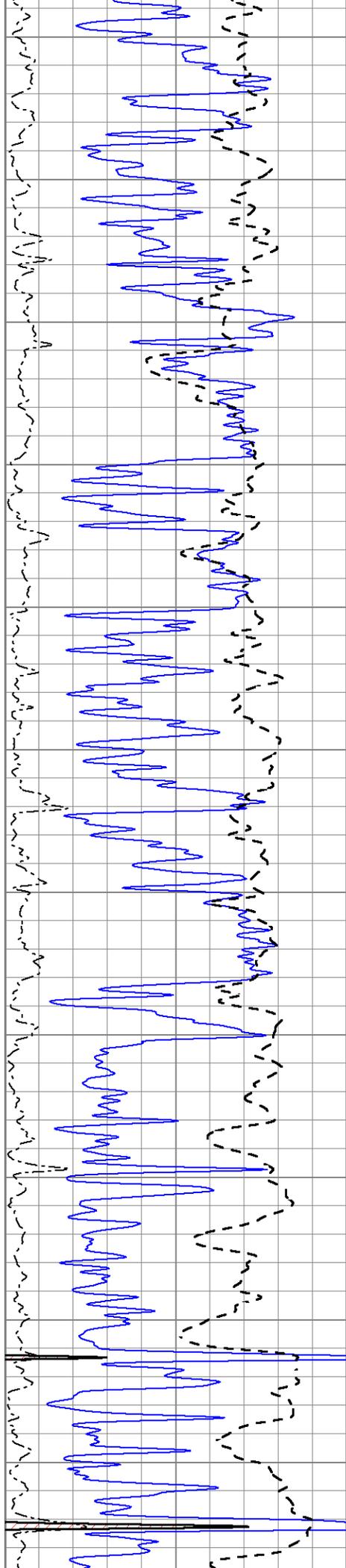
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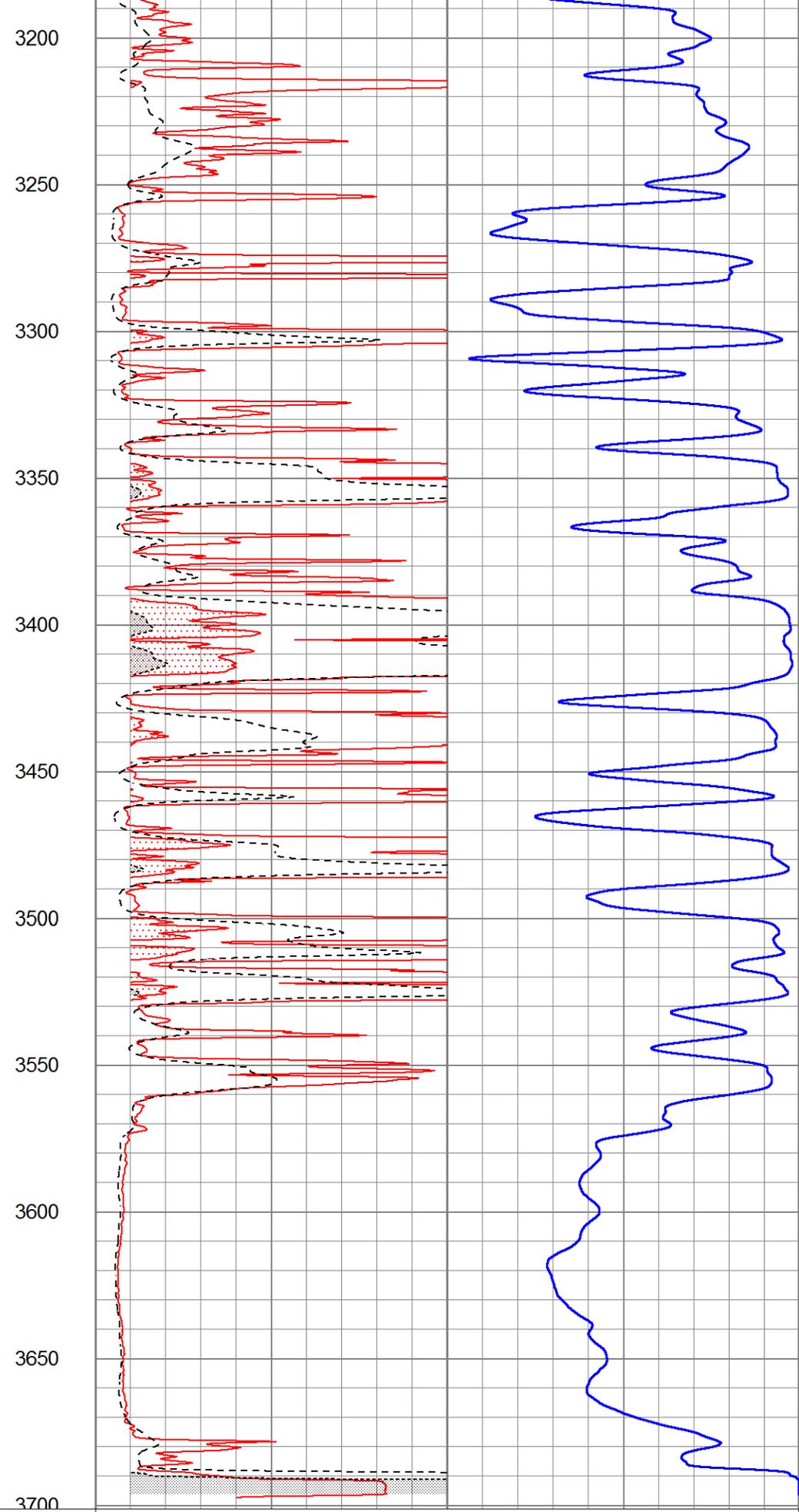
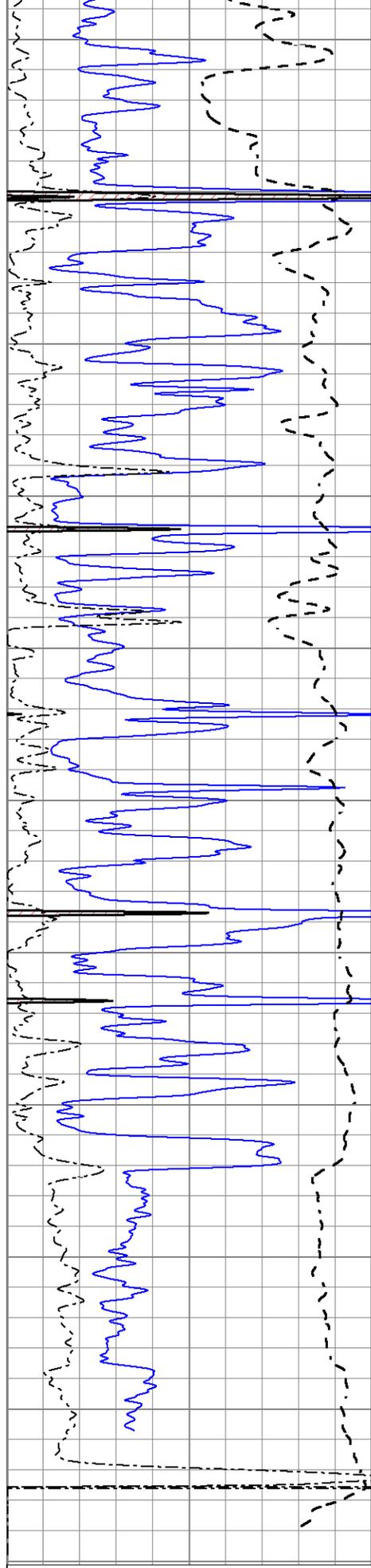
2000

2050









0	Gamma Ray (GAPI)	150
-100	SP (mV)	100
0	RWA (Ohm-m)	1

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

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

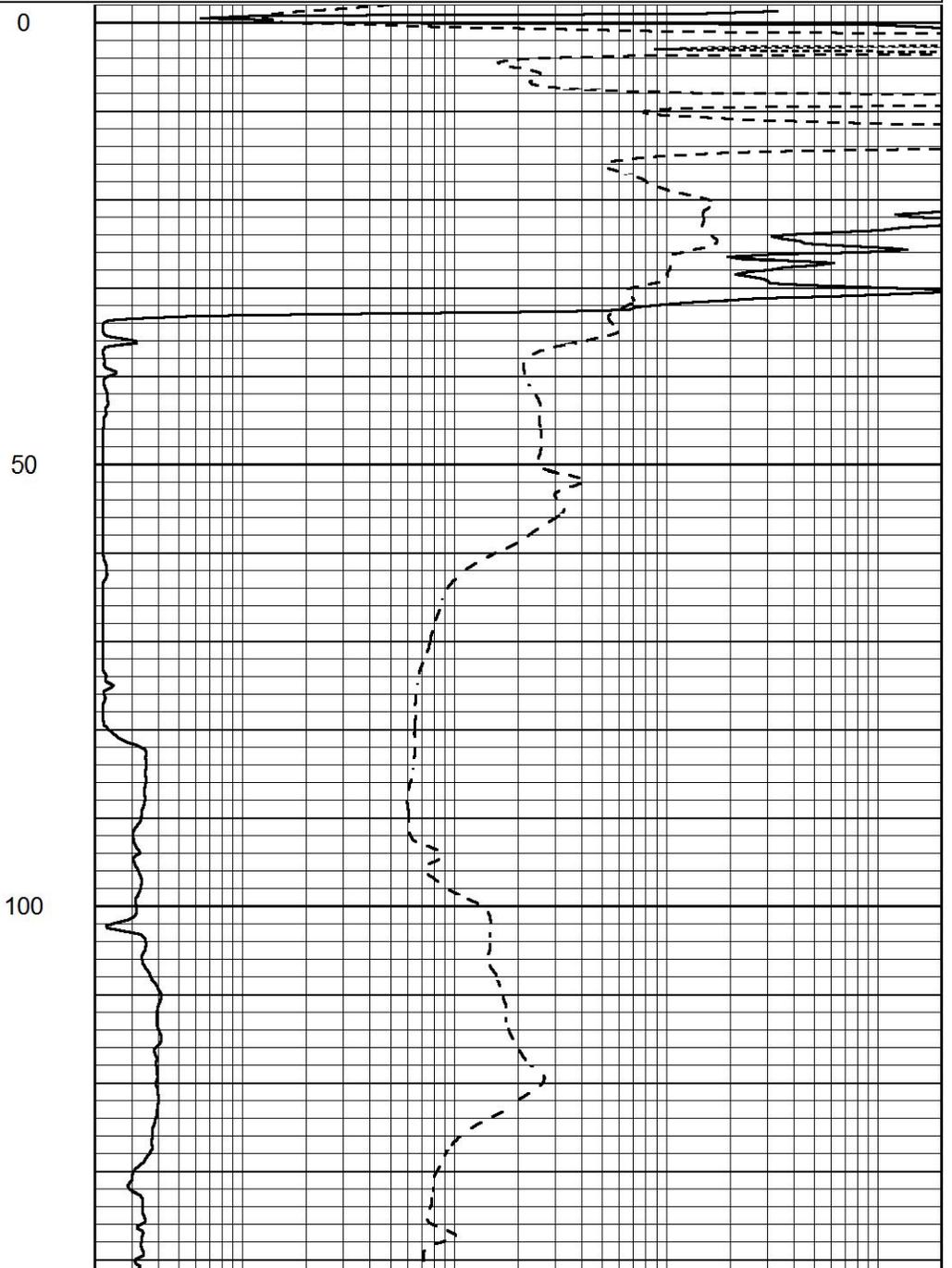
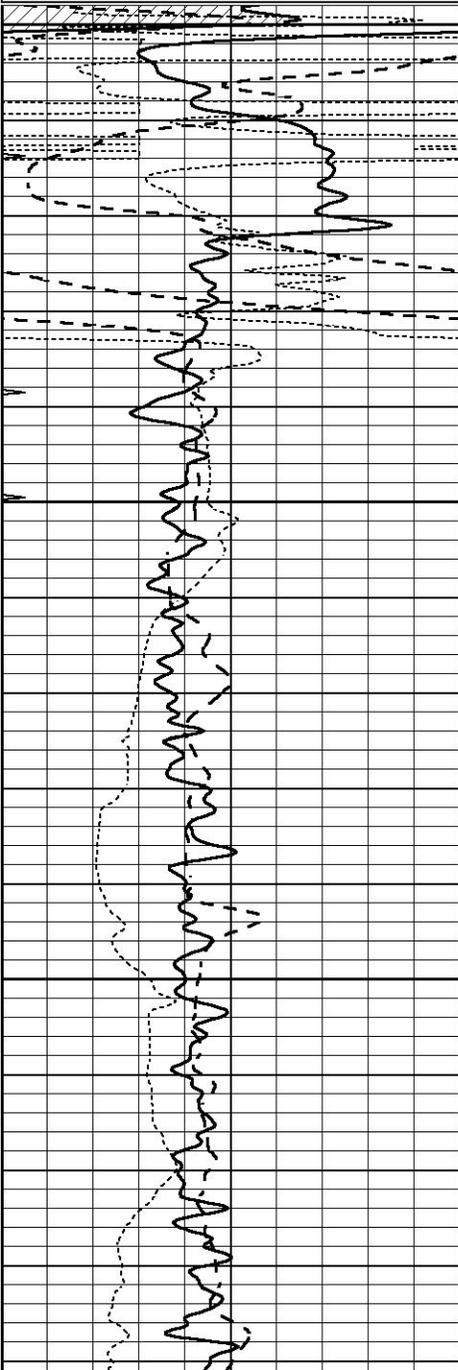


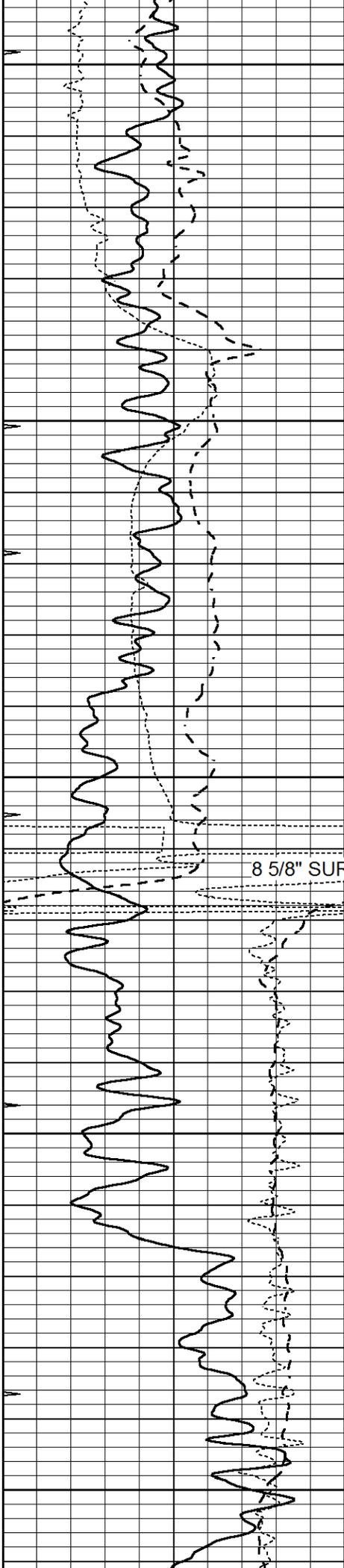
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 Dataset Creation Thu Nov 03 14:31:40 2022
 Charted by Depth in Feet scaled 1:240

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





150

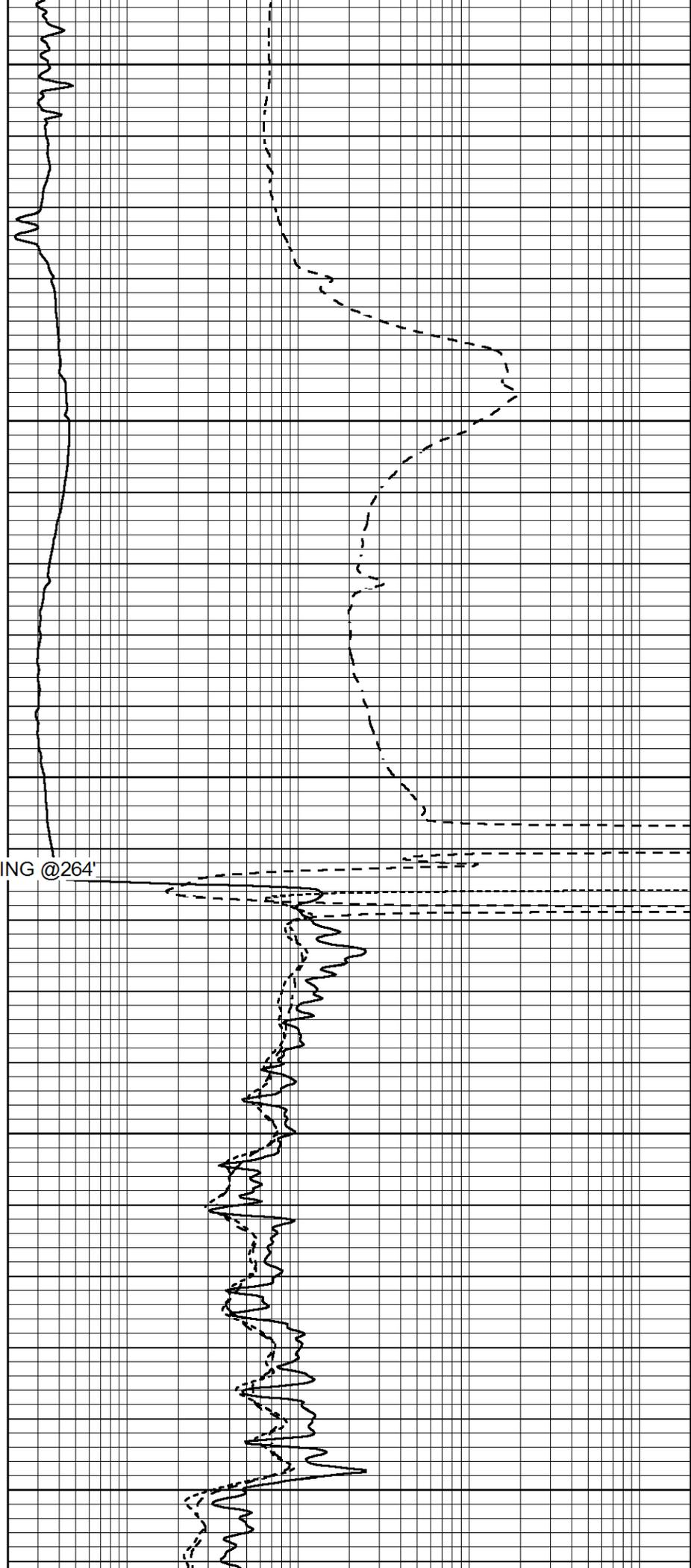
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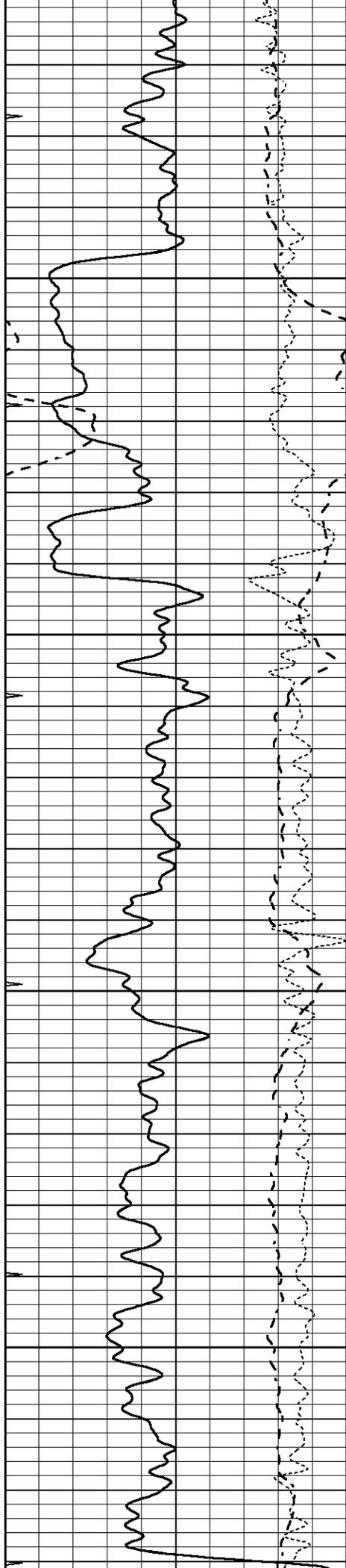
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8 5/8" SURFACE CASING @264'

300

350



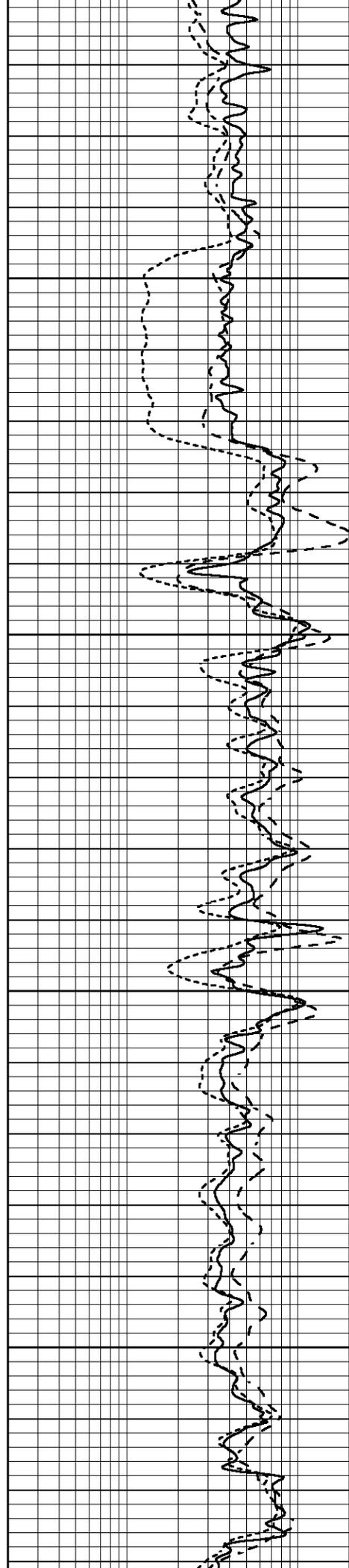


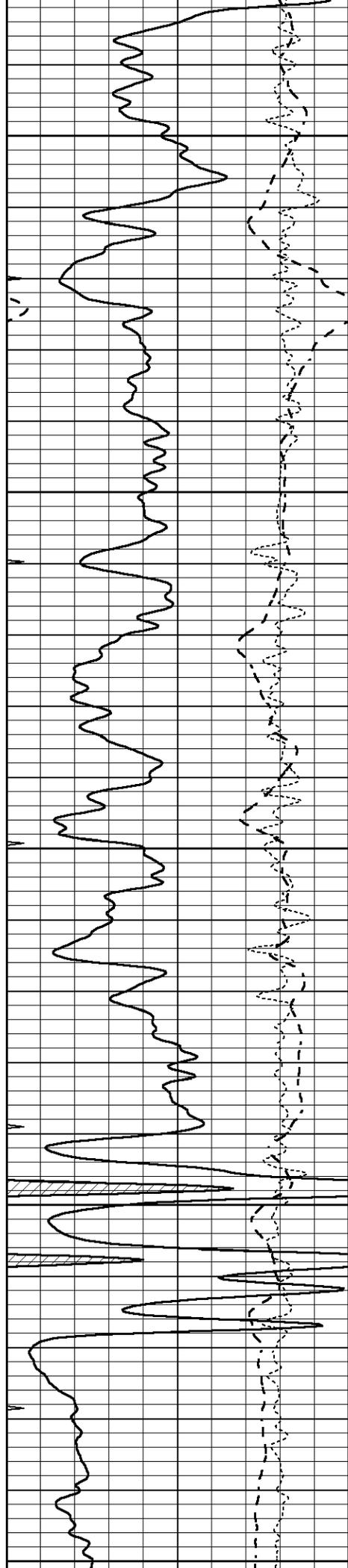
400

450

500

550





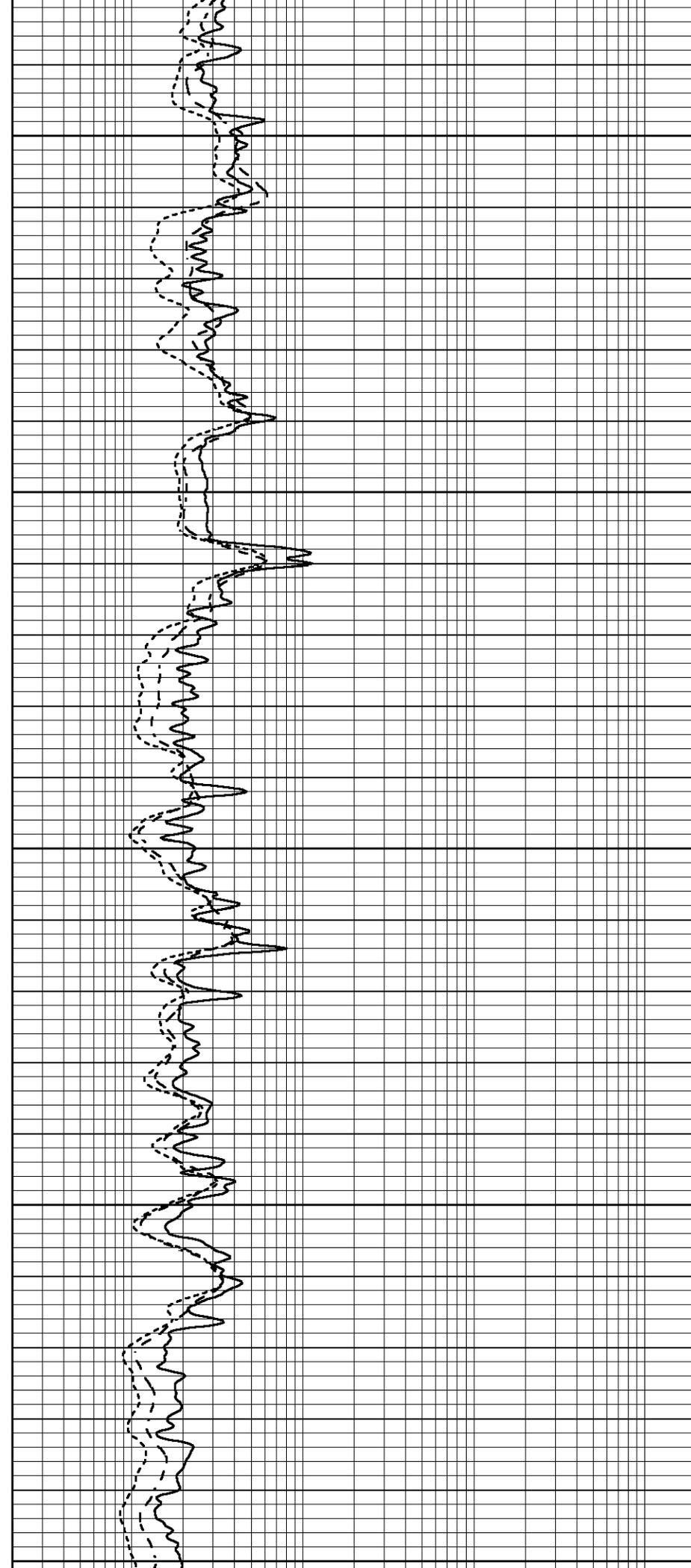
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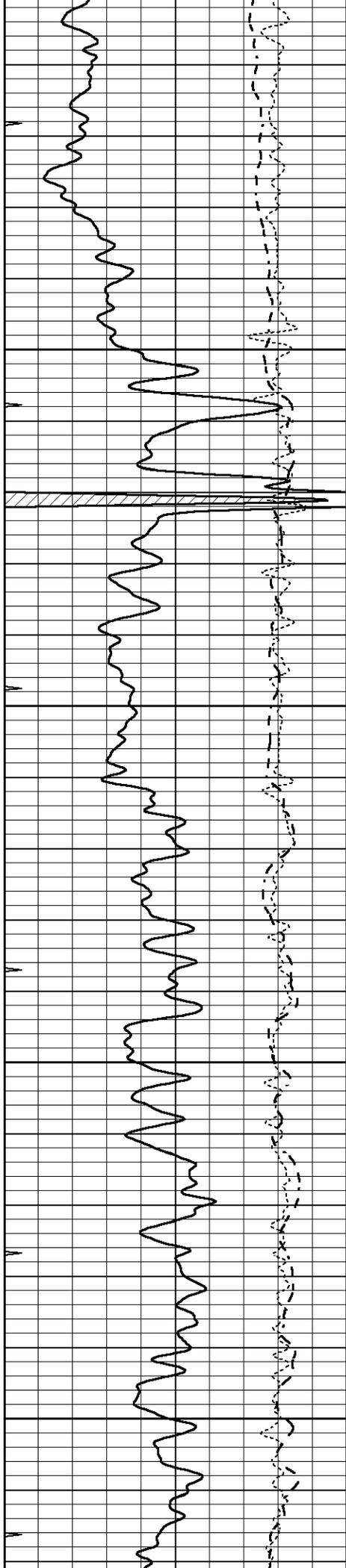
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700

750

800



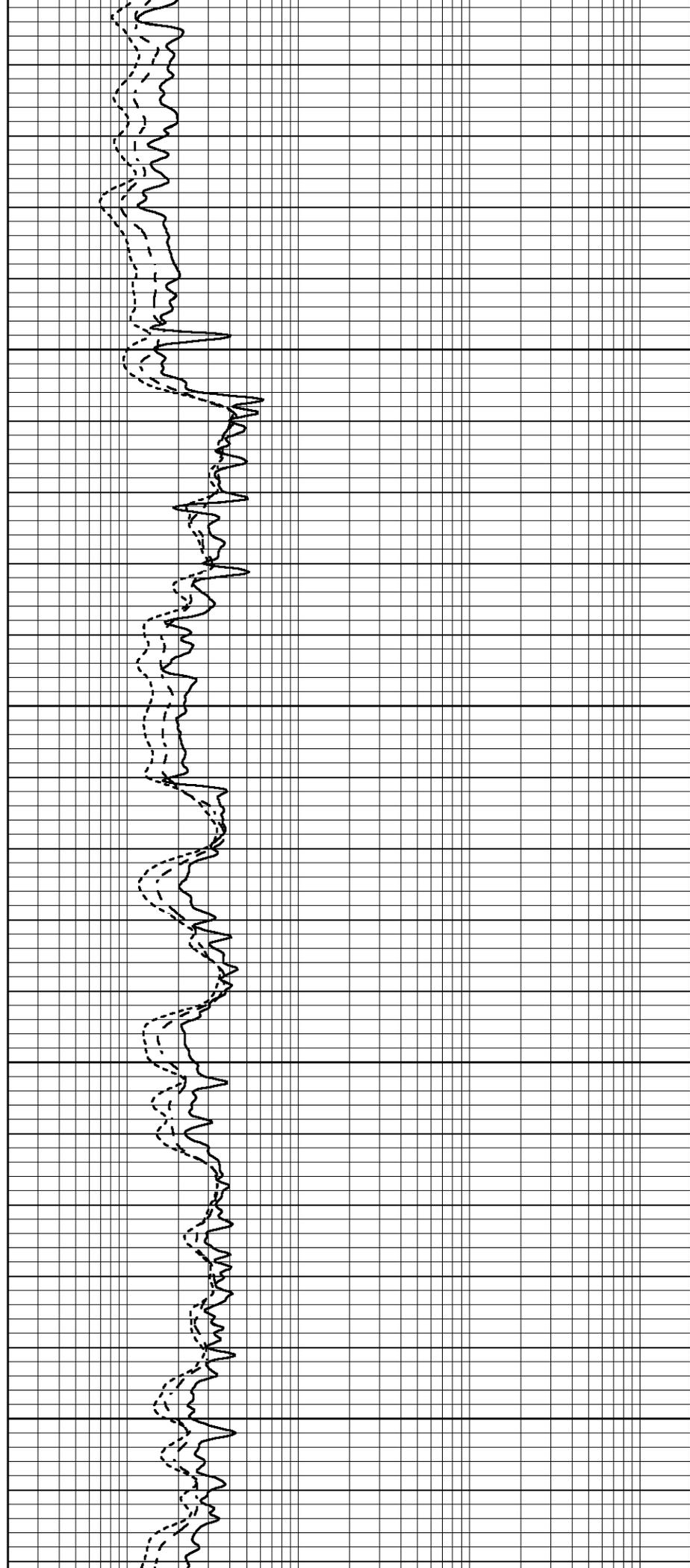


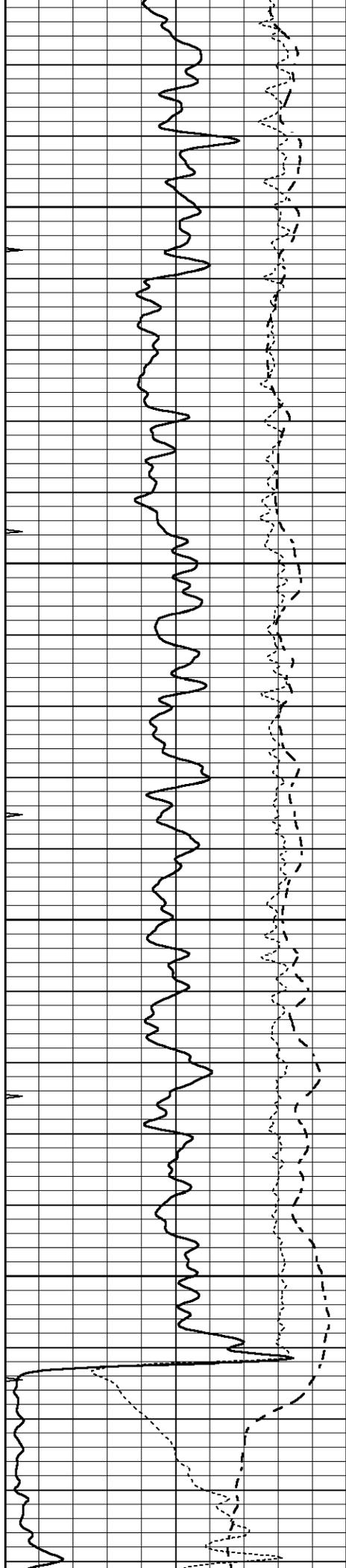
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900

950

1000



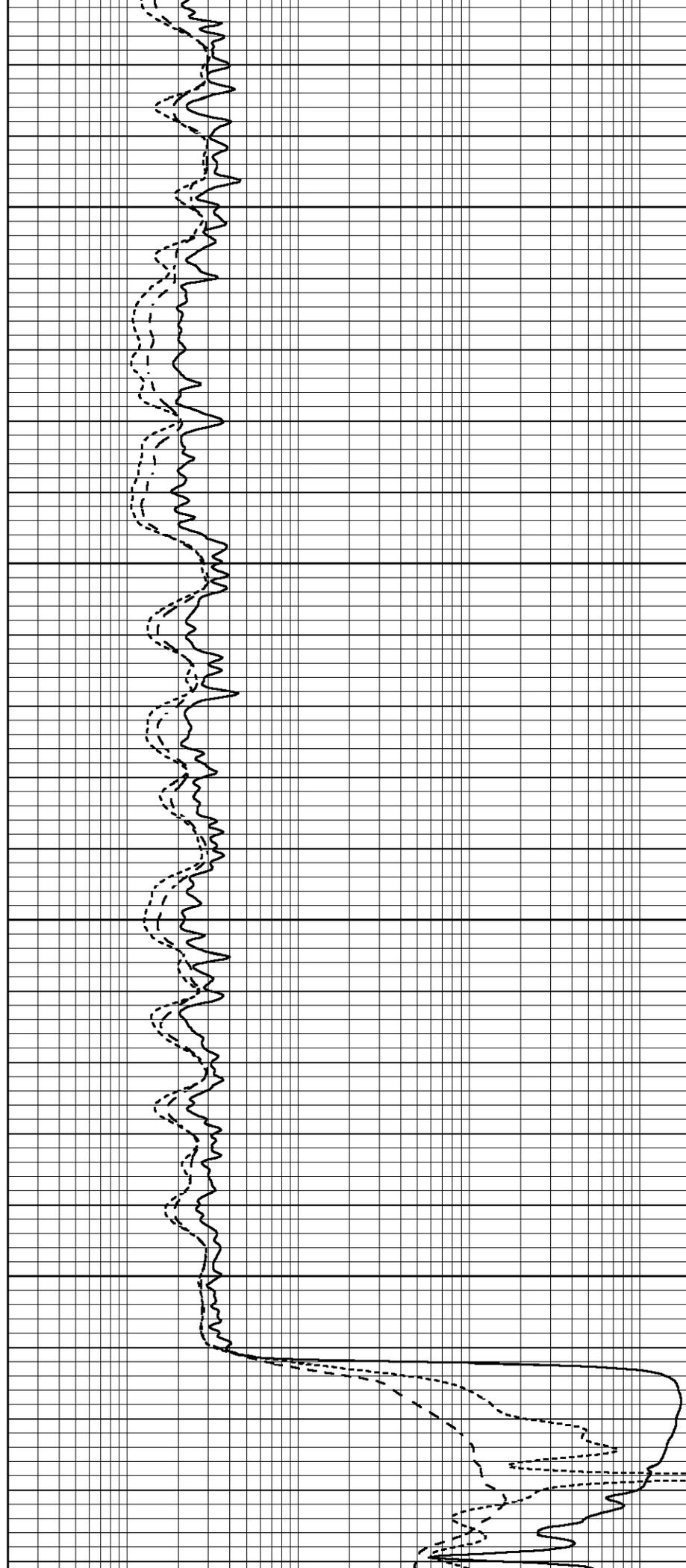


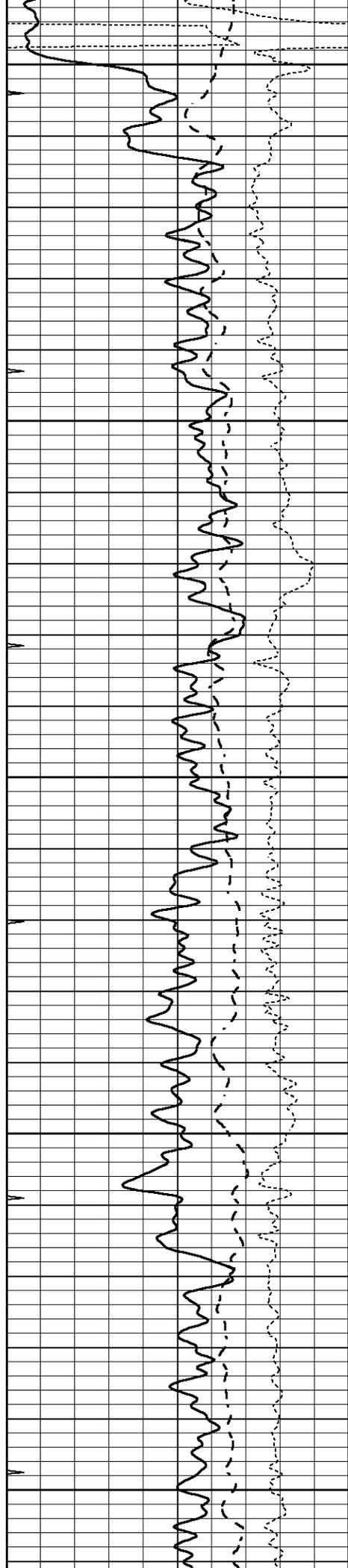
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1100

1150

1200





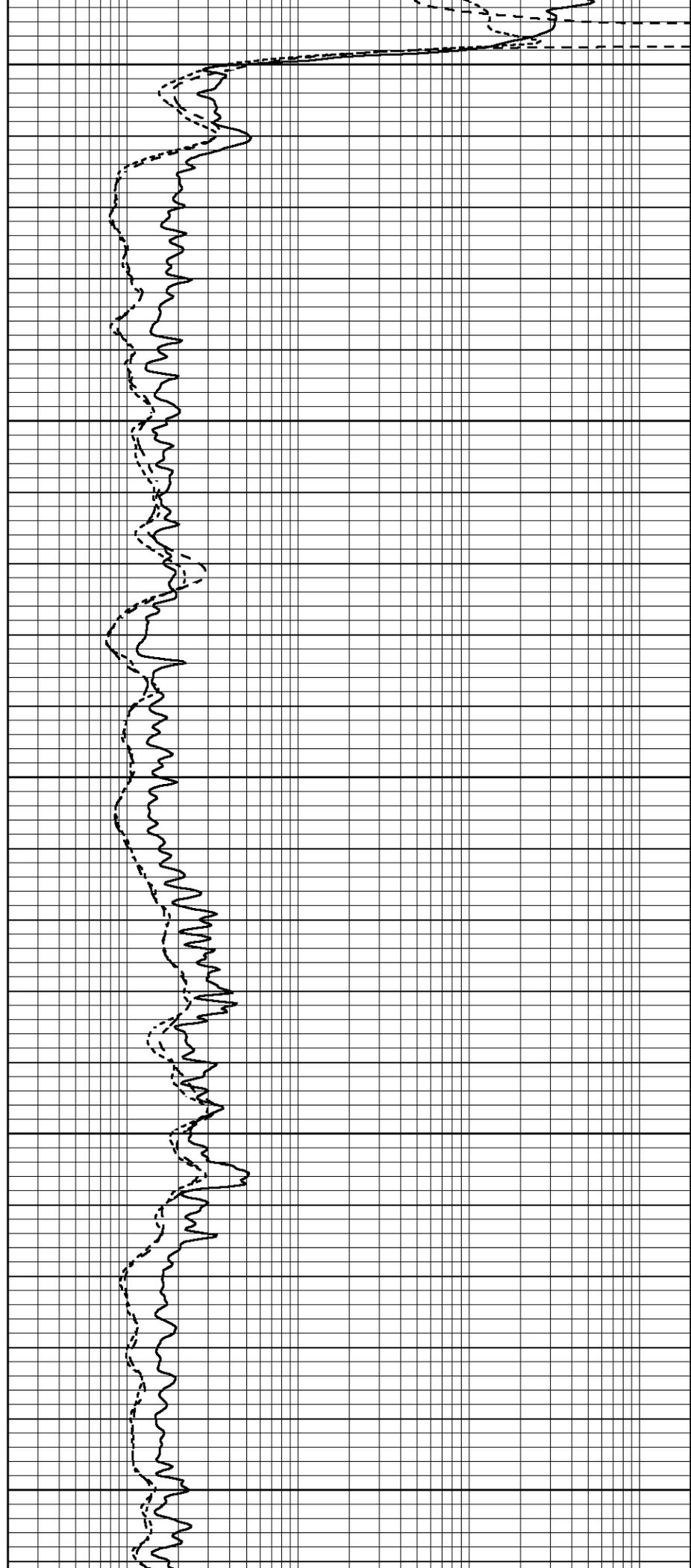
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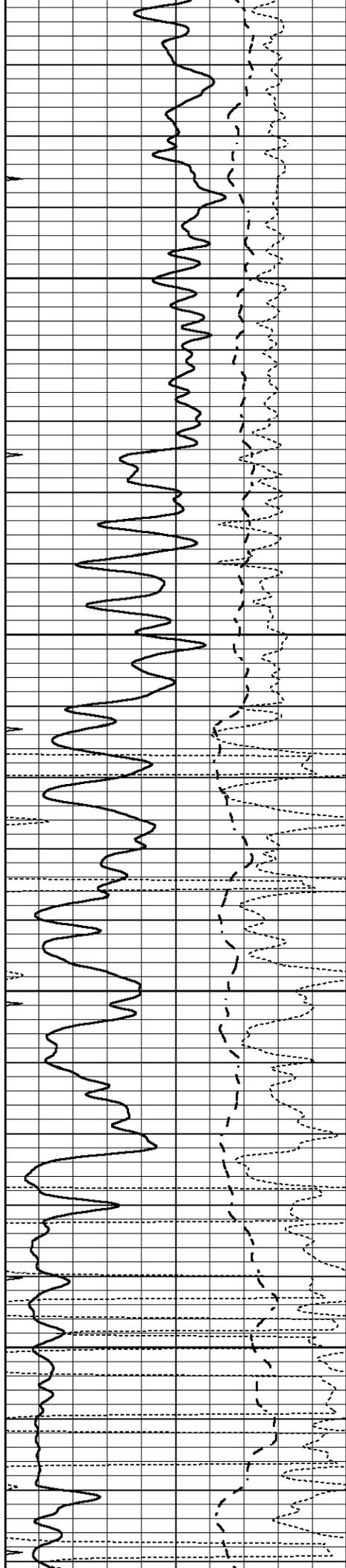
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1350

1400

1450



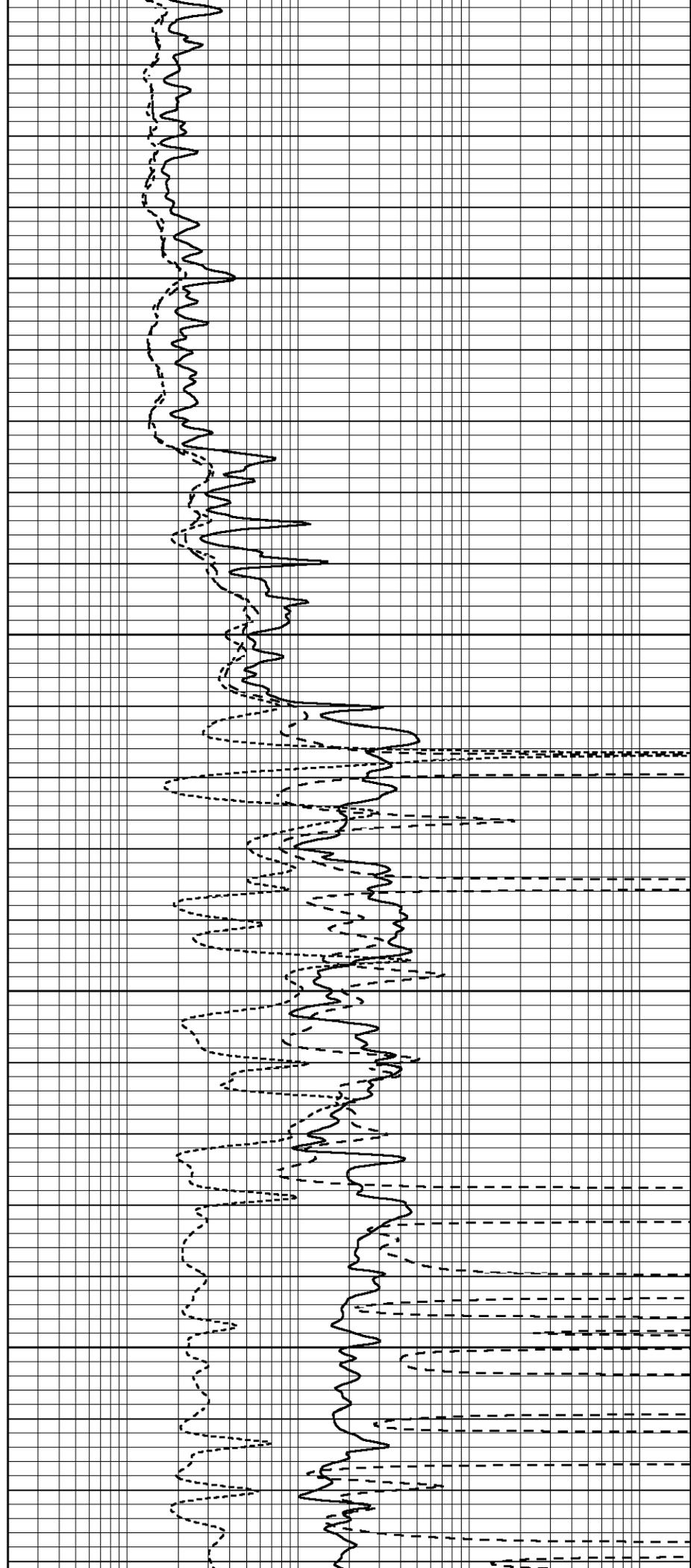


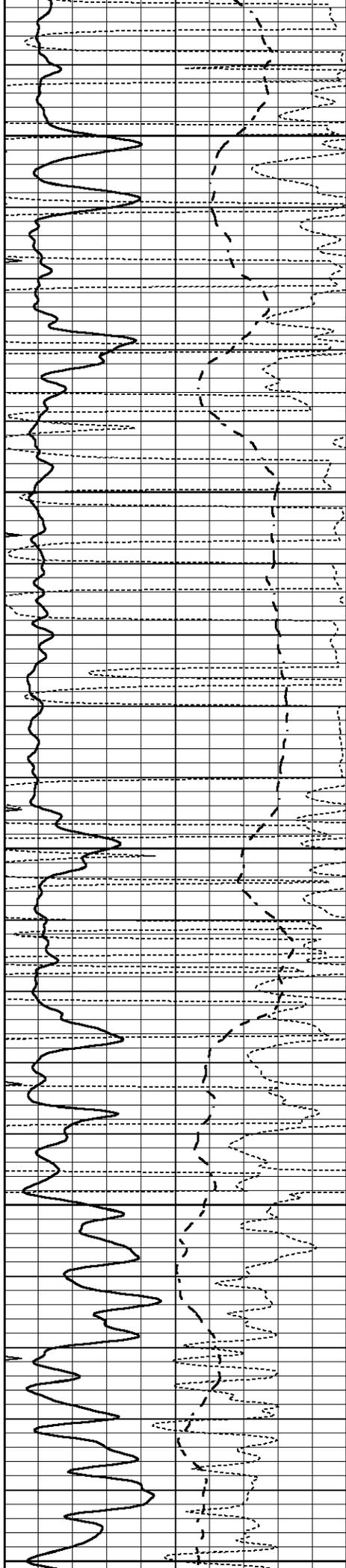
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1550

1600

1650





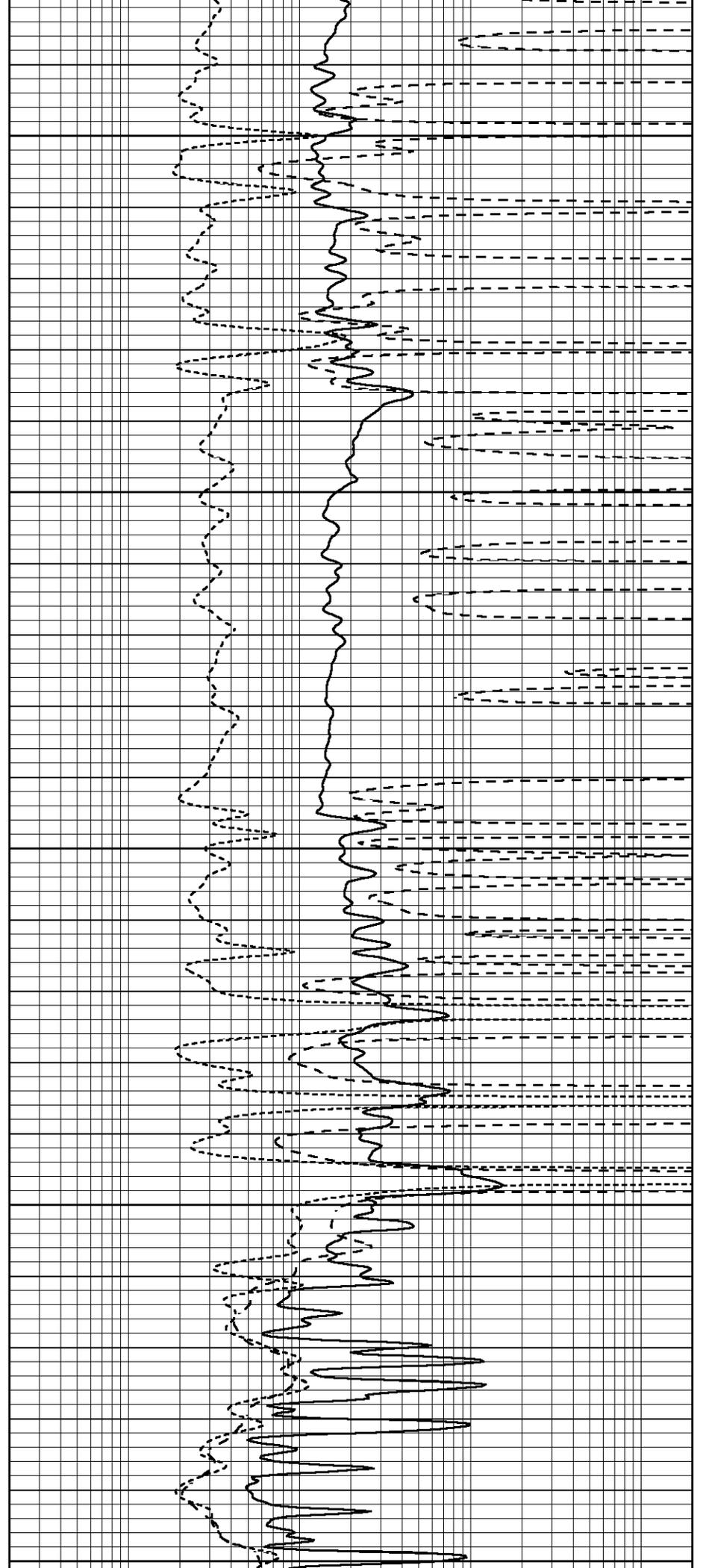
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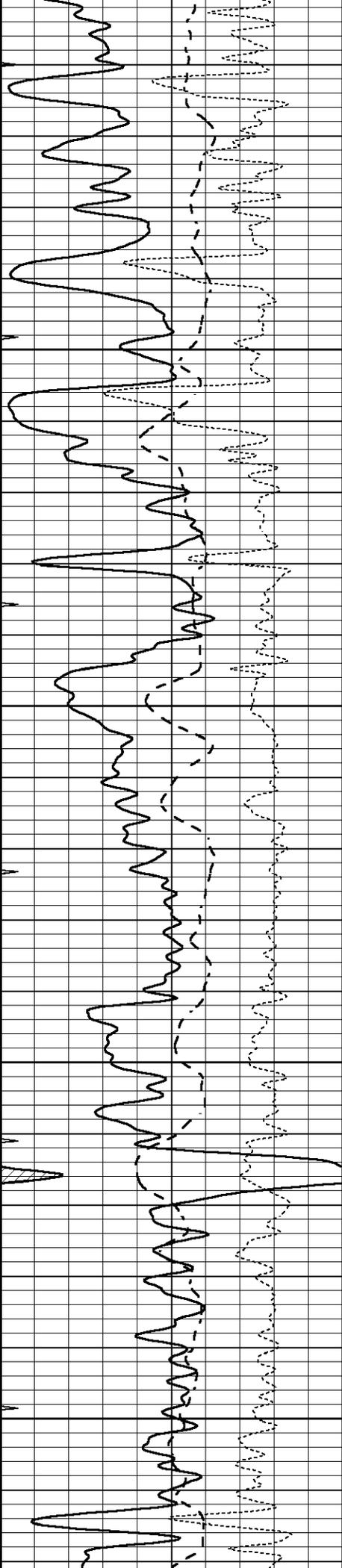
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1900



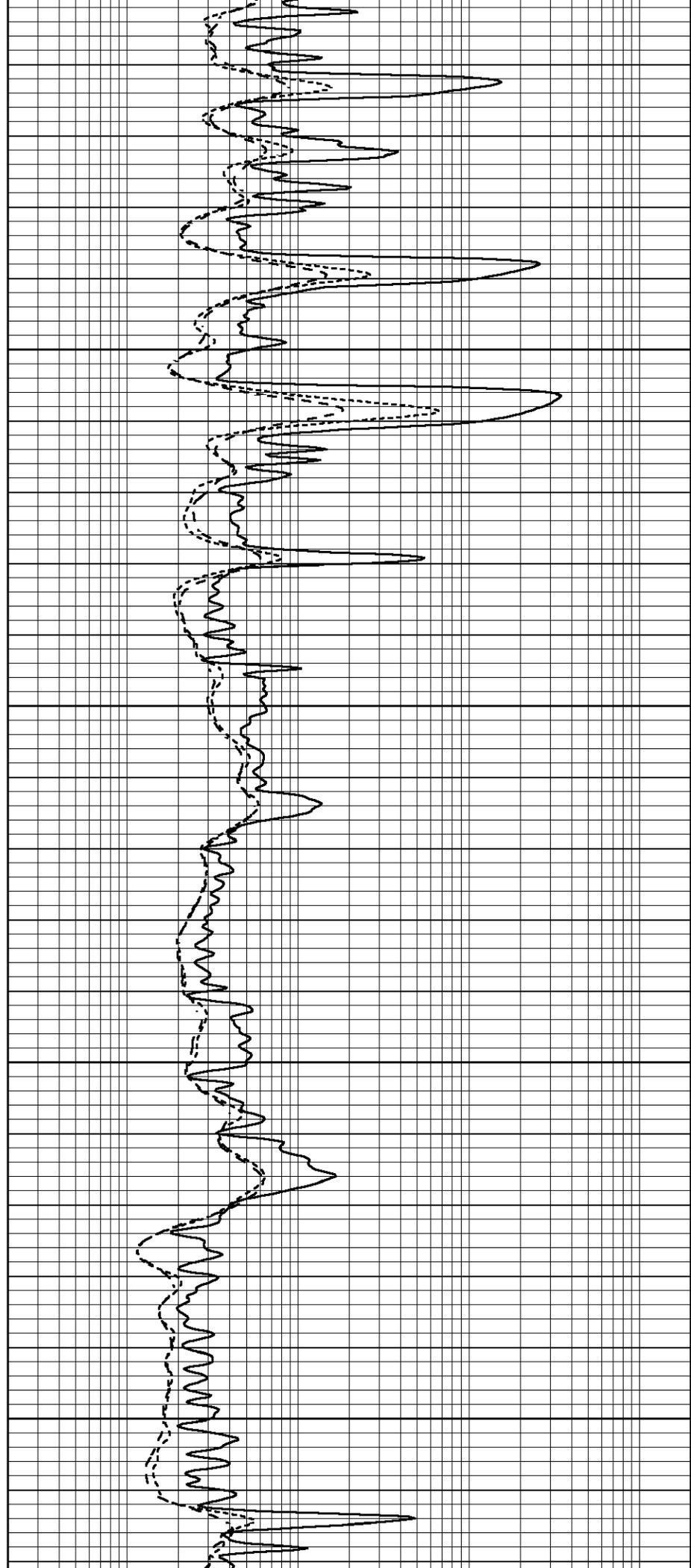


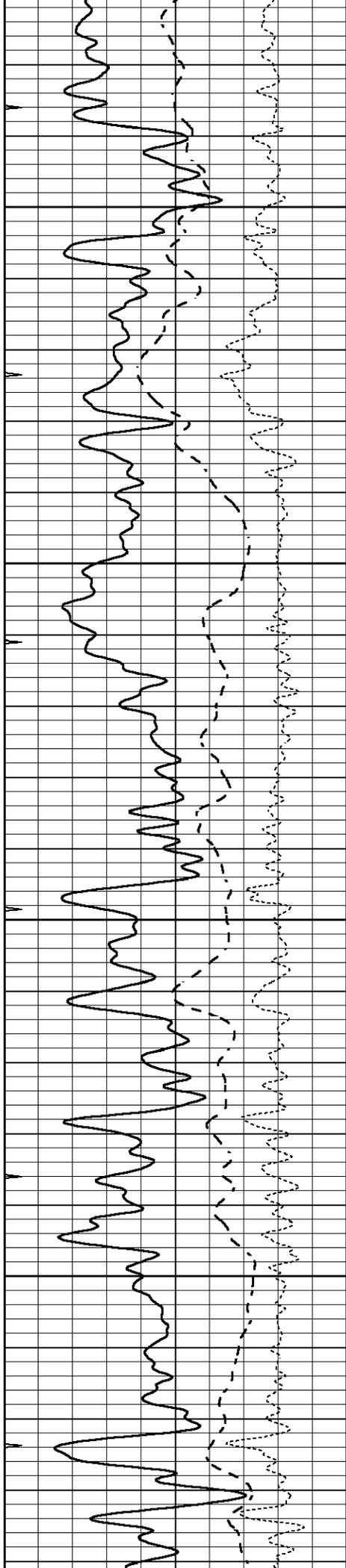
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2000

2050

2100



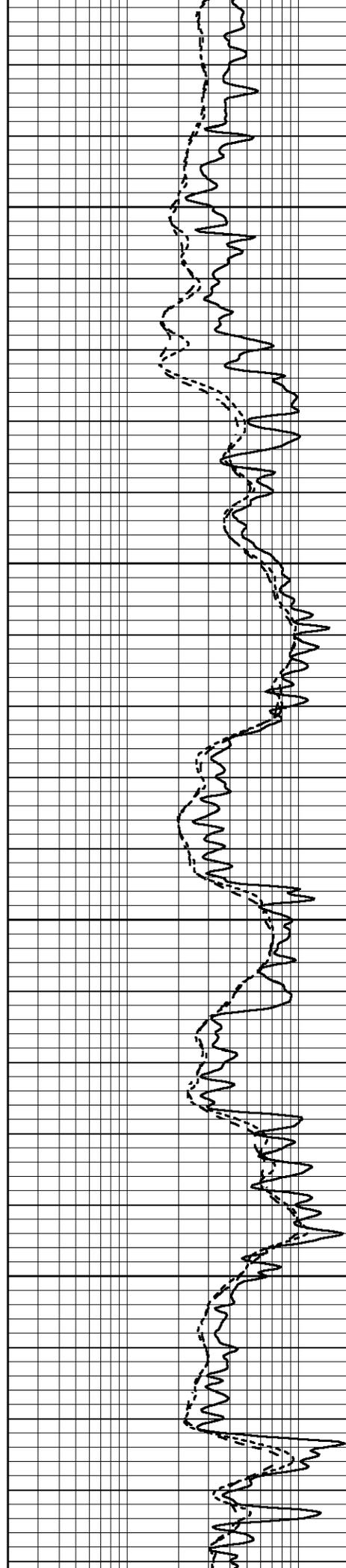


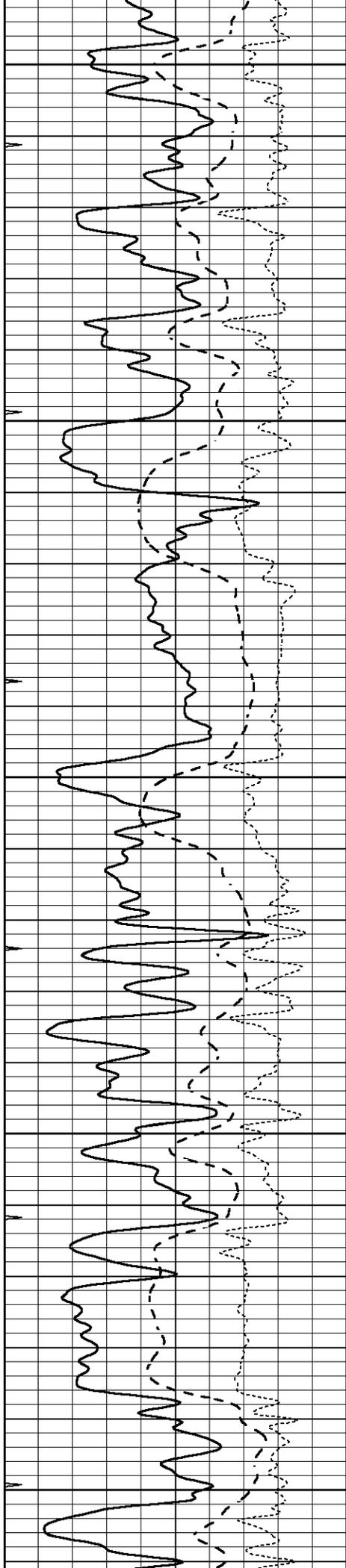
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2200

2250

2300





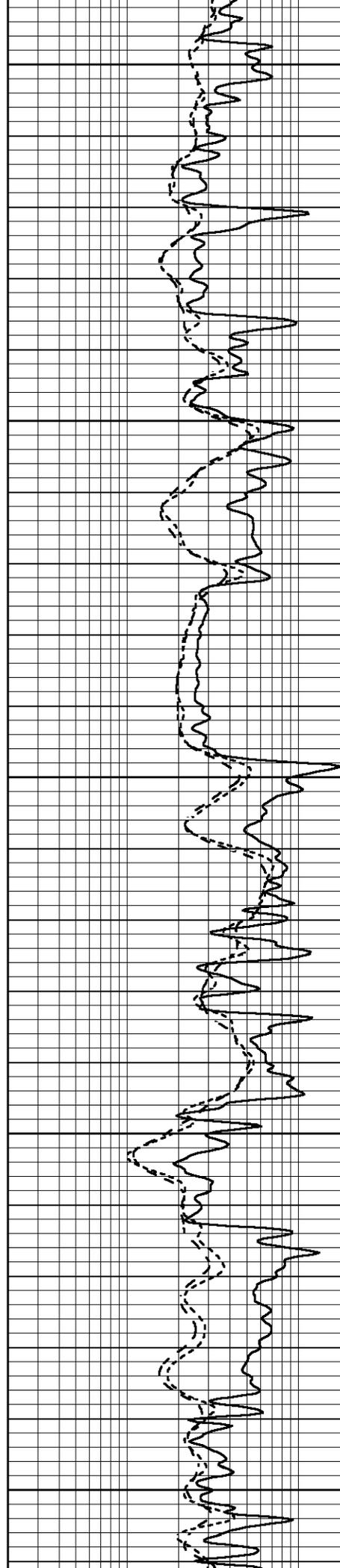
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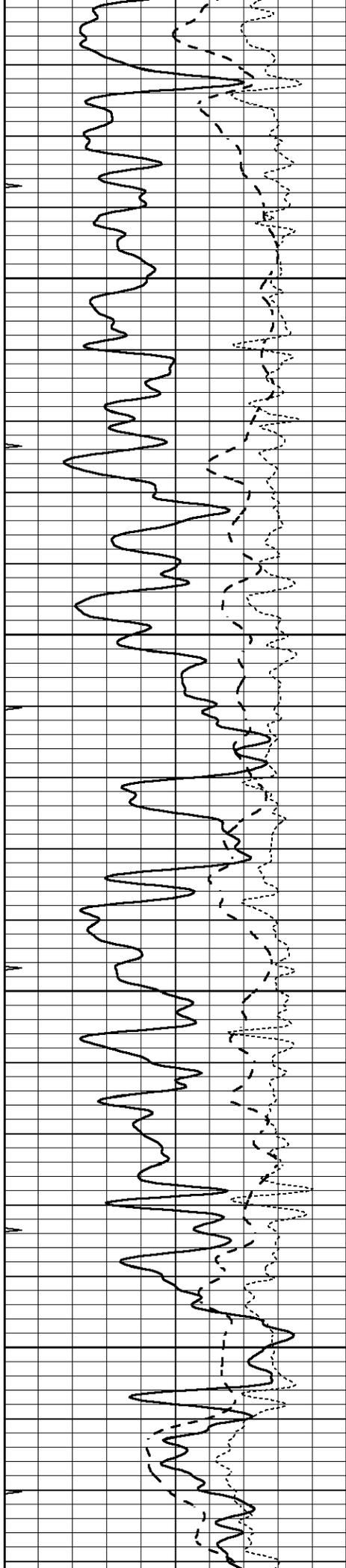
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2450

2500

2550



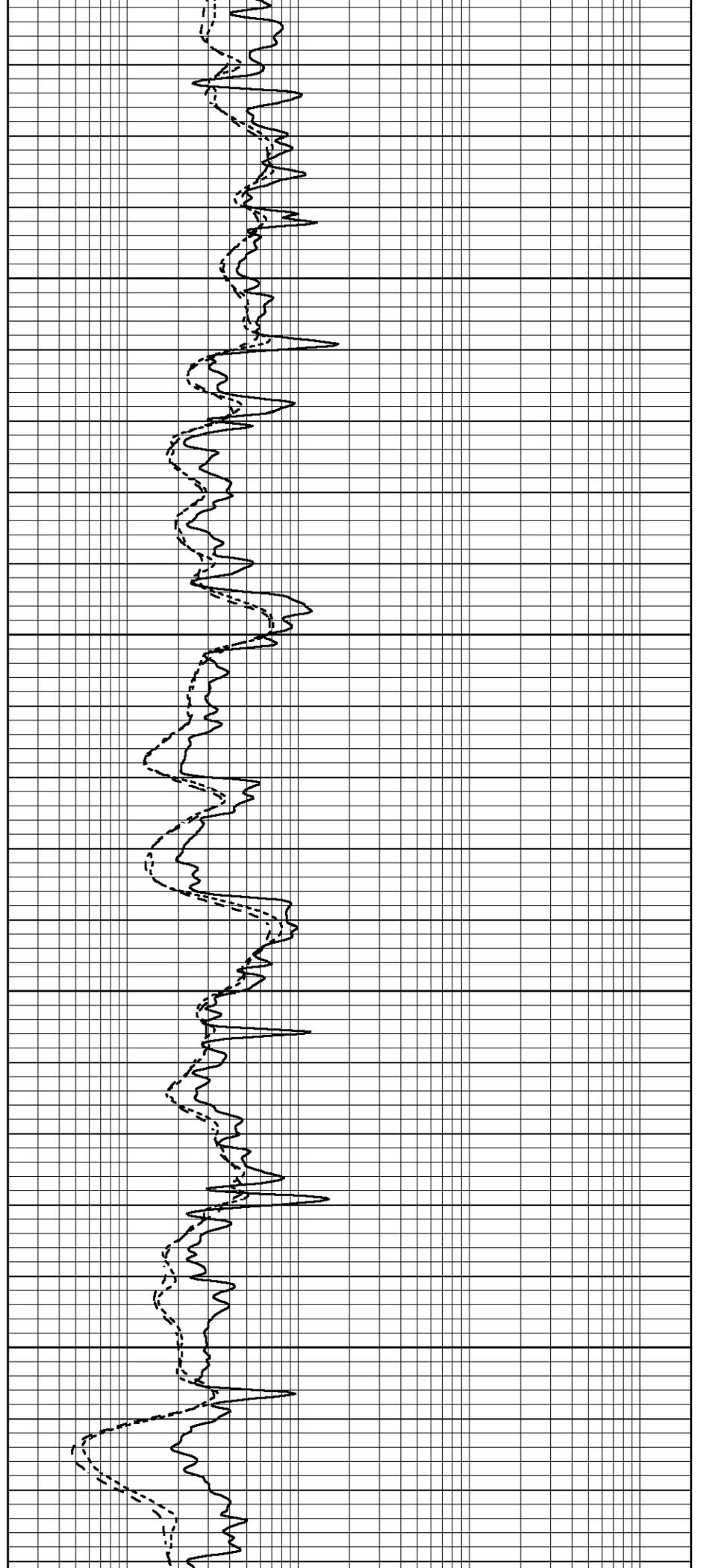


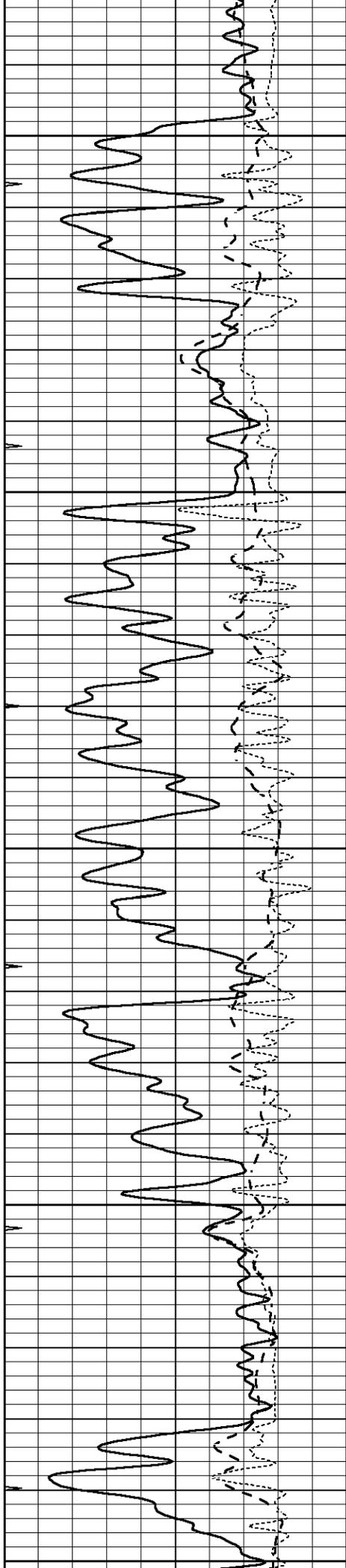
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2650

2700

2750





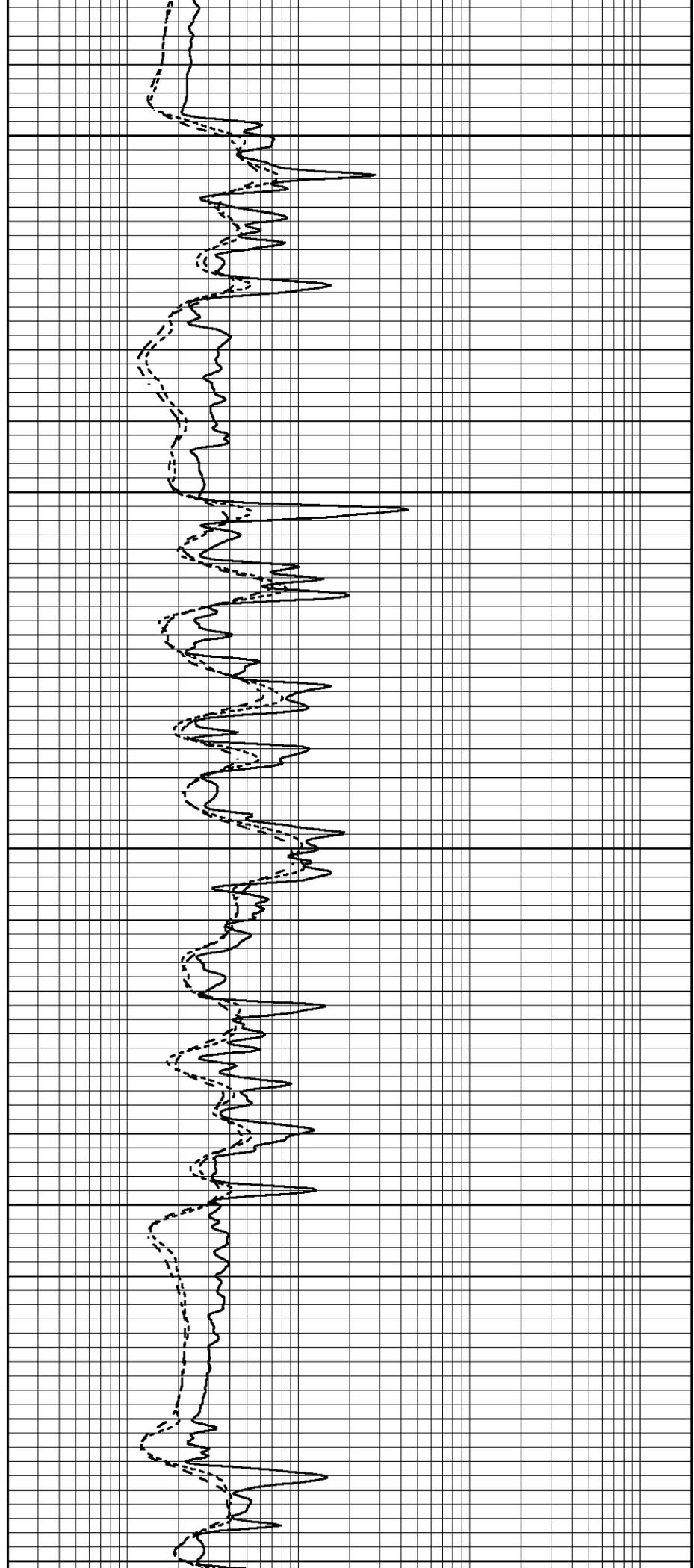
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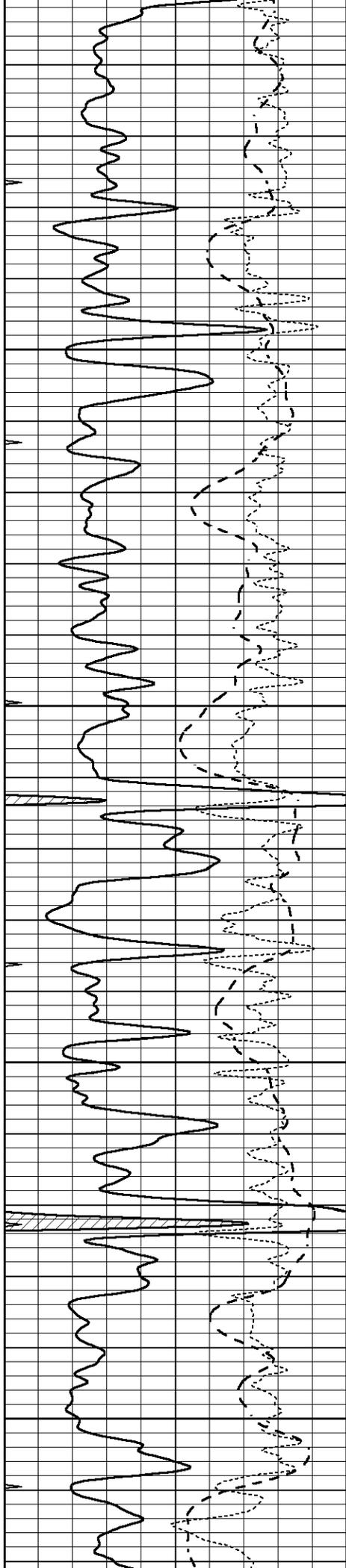
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2900

2950

3000



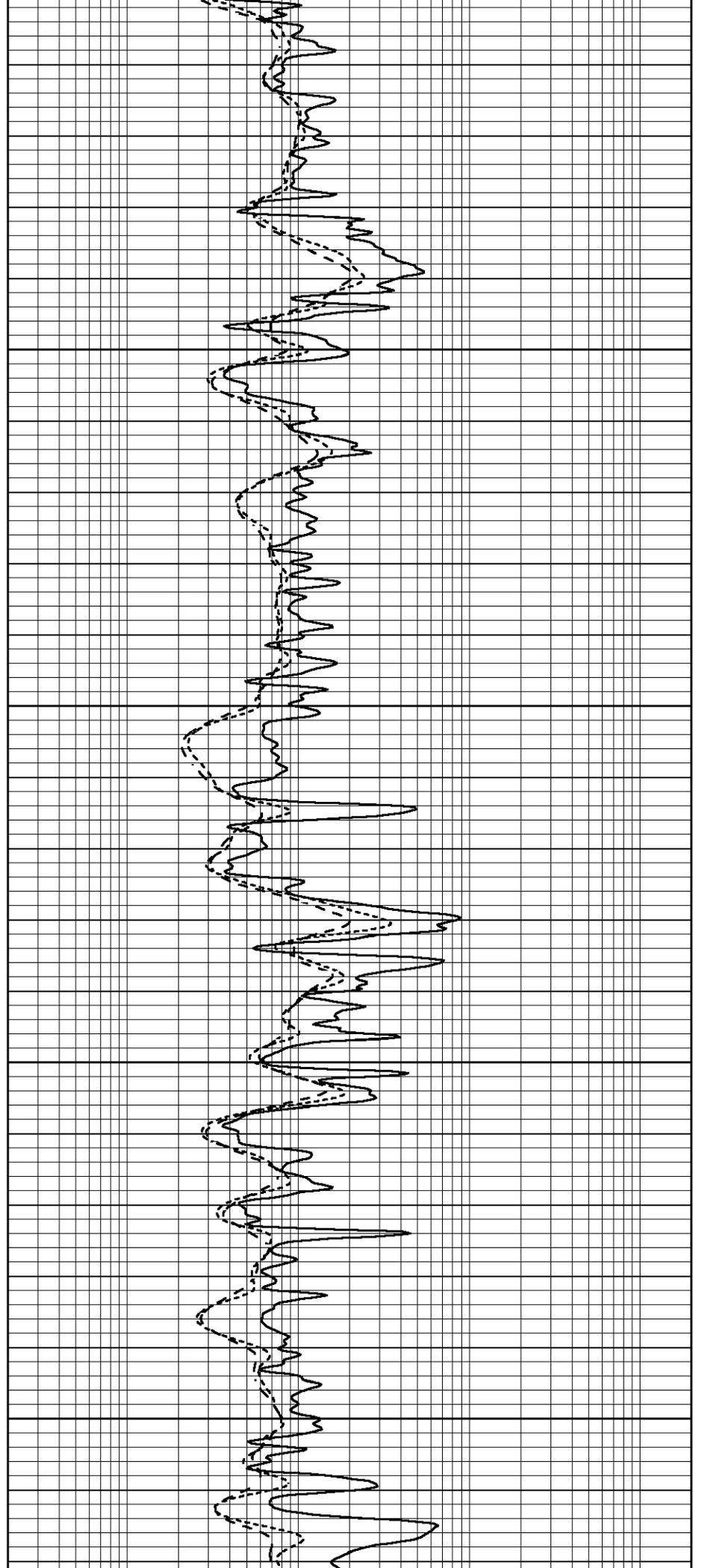


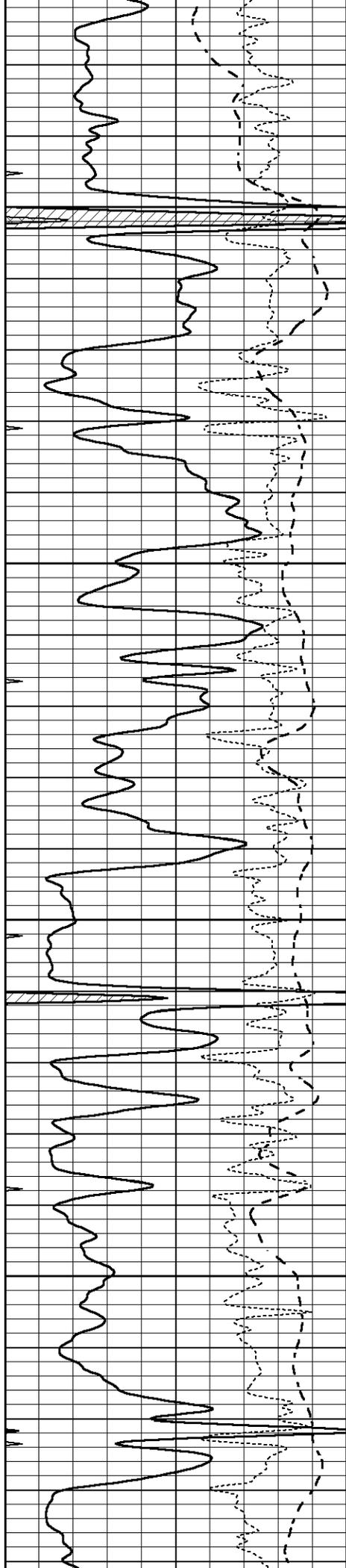
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3100

3150

3200



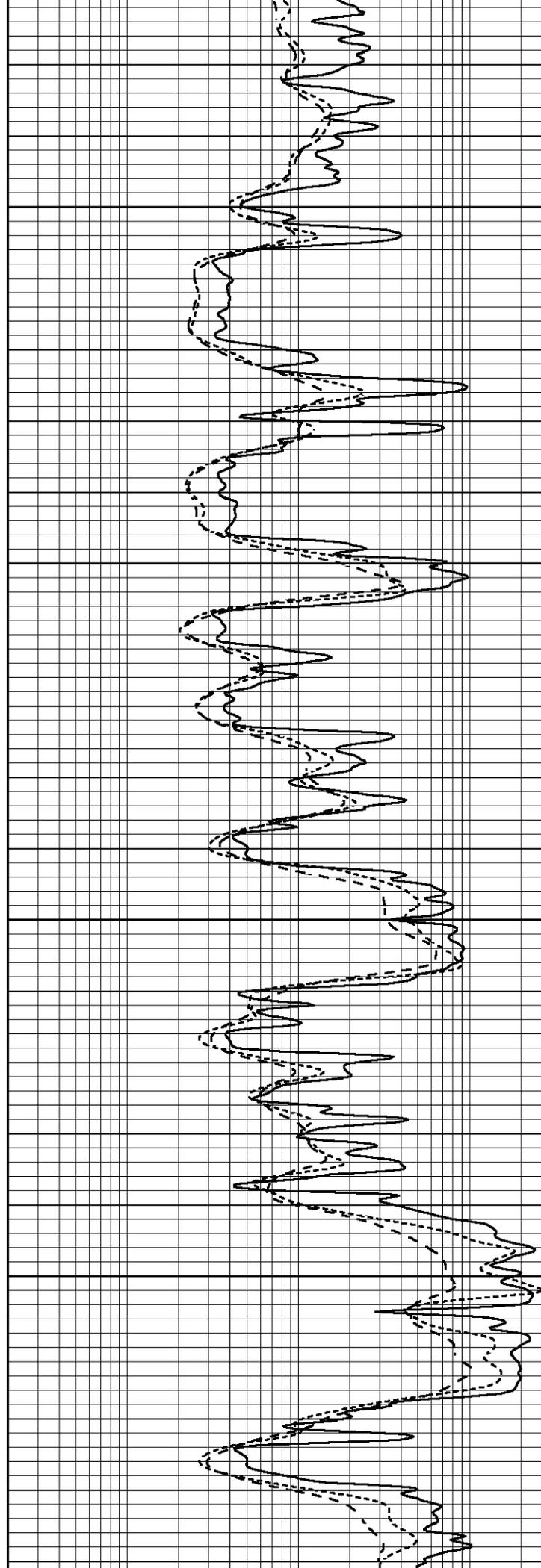


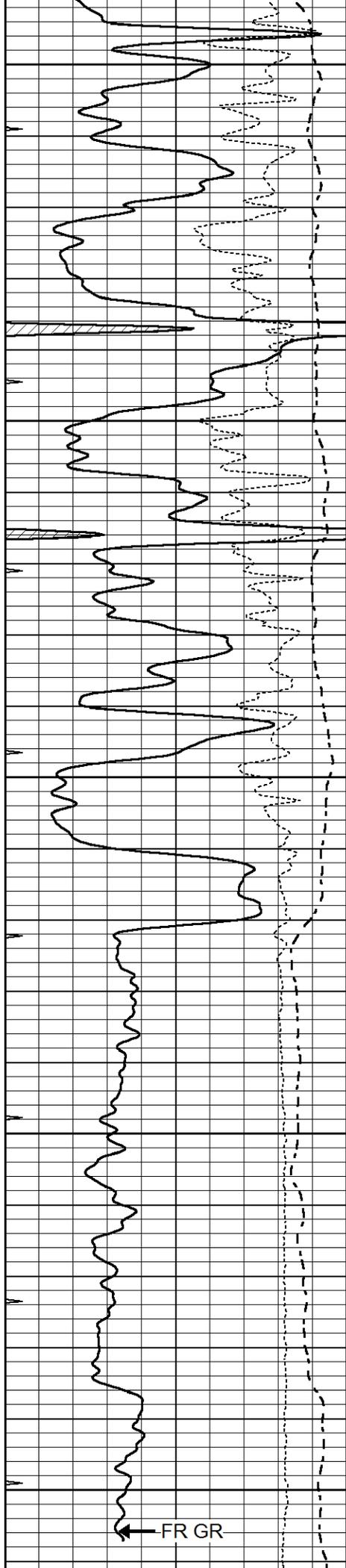
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3300

3350

3400





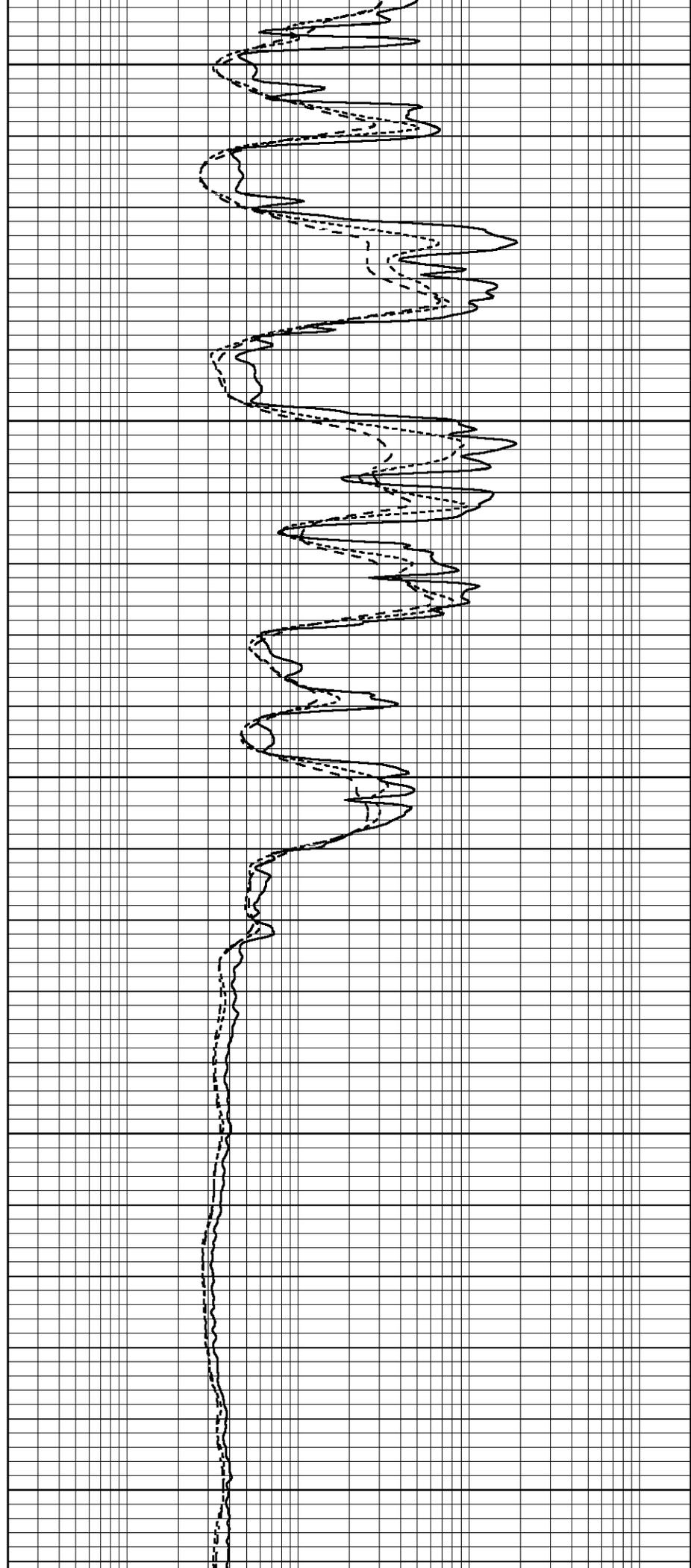
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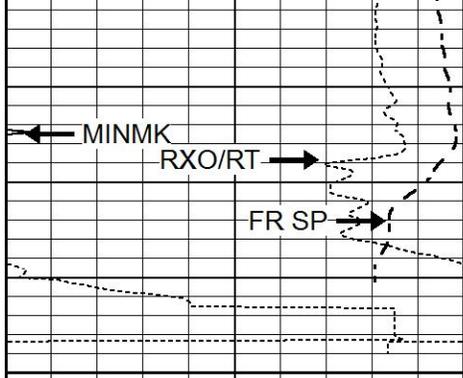
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3550

3600

3650

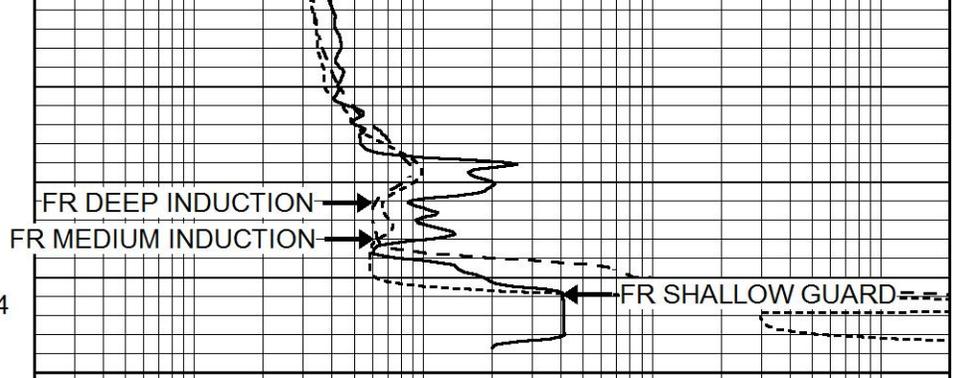




LTD 3694

3700

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

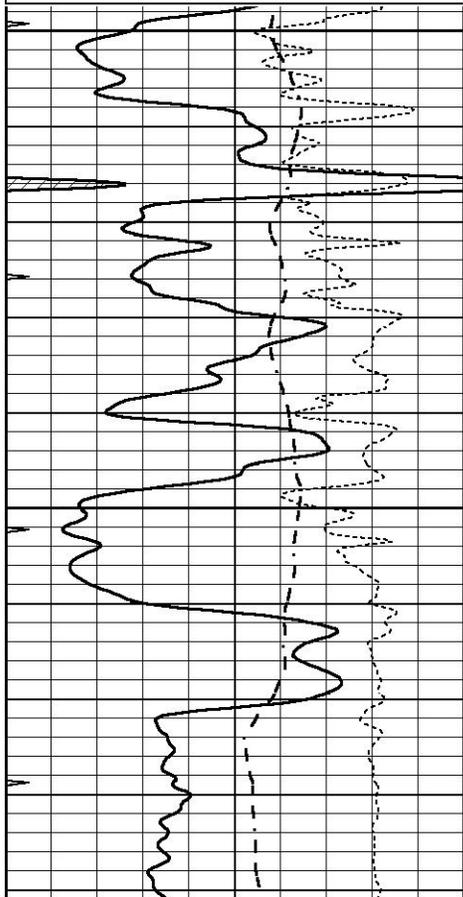


REPEAT SECTION

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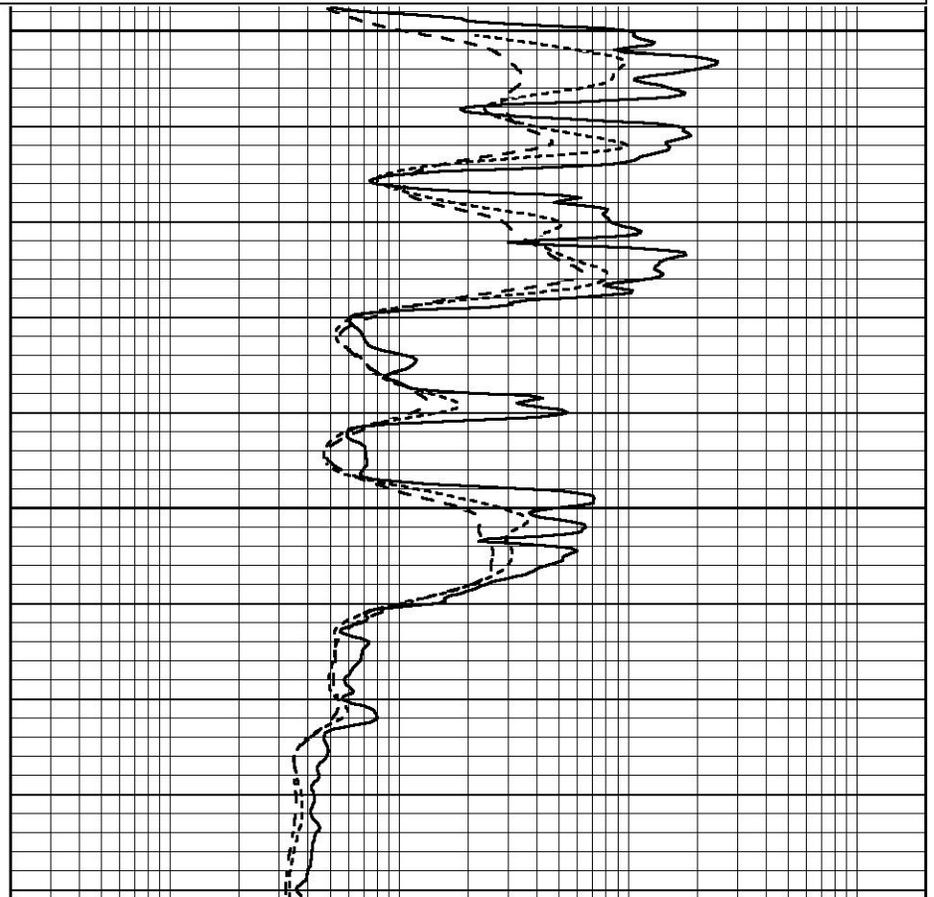
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

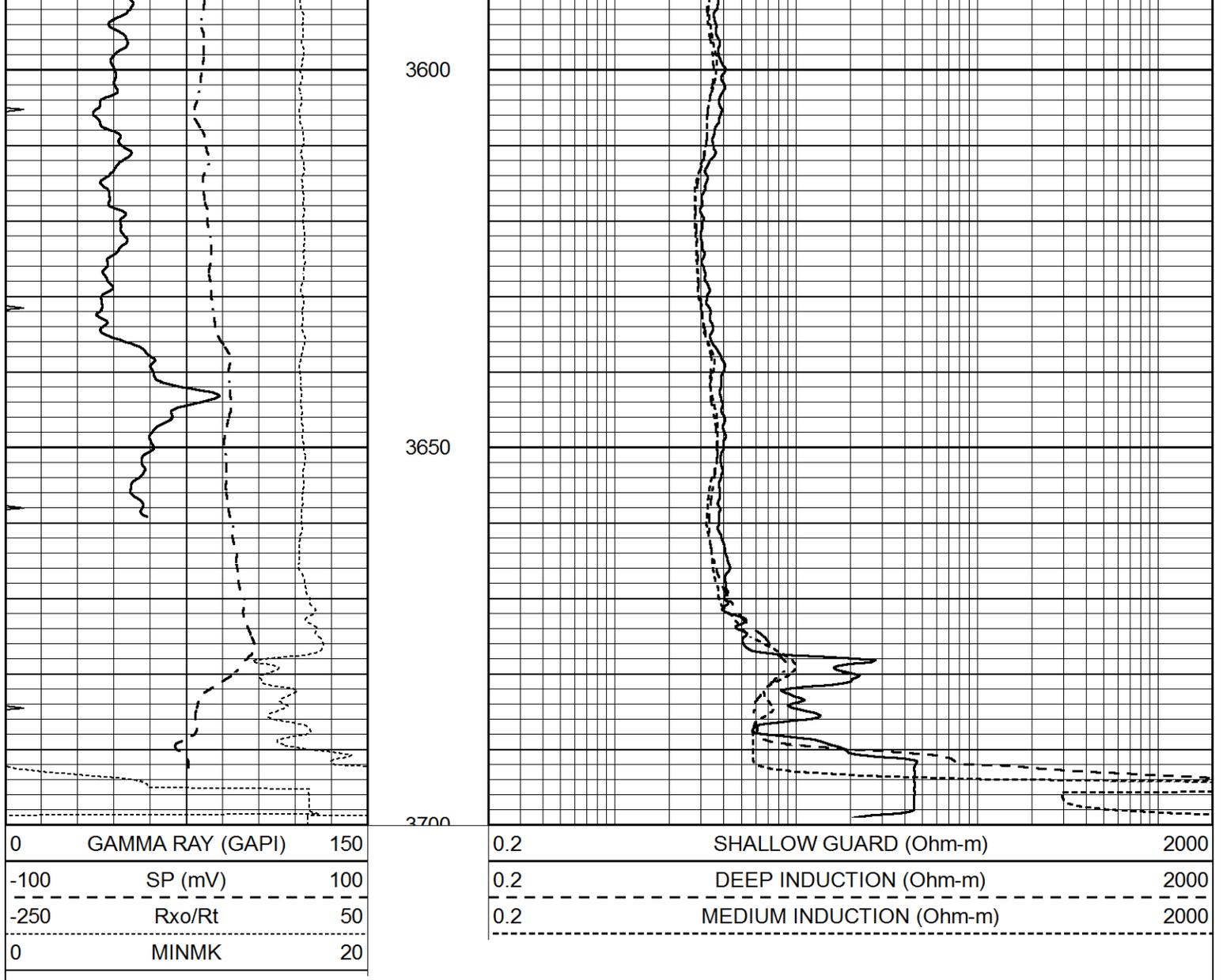
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



3500

3550





Calibration Report

Database File 7260pe.db
 Dataset Pathname pass3.1M
 Dataset Creation Thu Nov 03 14:31:40 2022

Dual Induction Calibration Report

Serial-Model: PROBE8-DILG
 Surface Cal Performed: Thu Nov 03 05:02:47 2022
 Downhole Cal Performed: Mon Jul 28 11:08:27 2008
 After Survey Verification Performed: Mon Jul 28 11:08:27 2008

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.015	0.648	V	0.000	400.000	mmho/m	640.000	5.000
Medium	0.029	0.796	V	0.000	464.000	mmho/m	625.000	-8.000
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		

Litho Density Calibration Report
Serial: 004 Model: PRB

Master Calibration		Performed Tue Aug 02 11:29:35 2022				
	Background	Magnesium	Aluminum	Aluminum+Fe		
Window 1	1154.2	10019.5	3137.9	2795.6	cps	
Window 2	1054.4	8597.6	2733.4	2469.5	cps	
Window 3	902.3	5241.4	1832.1	1719.3	cps	
Window 4	251.9	261.1	255.8	252.9	cps	
Long Space	0.0	7543.2	1679.0	1415.0	cps	
Short Space	4.4	2049.3	1321.7	1116.8	cps	
Rho		1.7100	2.5900	0.0000	g/cc	
Pe		2.0000	2.7500	5.7900		
Rib Angle	: 43.7	Rib Slope	: 0.957	Density/Spine Ratio	: 0.562	
Spine Angle	: 73.7	Spine Slope	: 3.426	Spine Intercept	: -17.2	

Before Survey Verification		Performed Wed Dec 31 18:00:00 1969				
	Background	Magnesium	Aluminum	Aluminum+Fe		
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		

After Survey Verification		Performed Wed Dec 31 18:00:00 1969				
	Background	Magnesium	Aluminum	Aluminum+Fe		
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		

Measured PE

0.0000

0.0000

Compensated Neutron Calibration Report

Serial Number: 070808PMC
Tool Model: NABORS

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: 070558
Tool Model: OPEN_GR
Performed: Wed Nov 02 17:06:49 2022

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.3000 GAPI/cps