



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

DUAL INDUCTION LOG

Company LOTUS OPERATING COMPANY, LLC. Well #4 ROSE Field STRANATHAN / HARDTNER County BARBER State KANSAS		Company LOTUS OPERATING COMPANY, LLC. Well #4 ROSE Field STRANATHAN / HARDTNER County BARBER State KANSAS	
Location: API # : 15-007-24236-0000 N/2 - NW - SE		Other Services CDL/CNL/PE MEL/SON/FF	
Permanent Datum GROUND LEVEL Elevation 1383 Log Measured From KELLY BUSHING 13' A.G.L. Drilling Measured From KELLY BUSHING		Elevation K.B. 1396 D.F. 1394 G.L. 1383	
Date	10/10/14		
Run Number	ONE		
Depth Driller	5385		
Depth Logger	5390		
Bottom Logged Interval	5388		
Top Log Interval	00		
Casing Driller	10 3/4" @ 298'		
Casing Logger	298		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 3,500 PPM	
Density / Viscosity	9.4/44		
pH / Fluid Loss	8.0/10.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	.800 @ 85F		
Rinf @ Meas. Temp	.600 @ 85F		
Rmc @ Meas. Temp	.960 @ 85F		
Source of Rinf / Rmc	MEASUREMENT		
Rim @ BHT	.531 @ 128F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	10:30 P.M.		
Maximum Recorded Temperature	128F		
Equipment Number	4854		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	TIM HELLMAN		

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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., 15 1/2S. ON HWY 281 PAST "HAWKINS RD.", 1/2 W. INTO

Database File:

25893pe.db

Dataset Pathname:

pass3.9

Presentation Format:

dil2

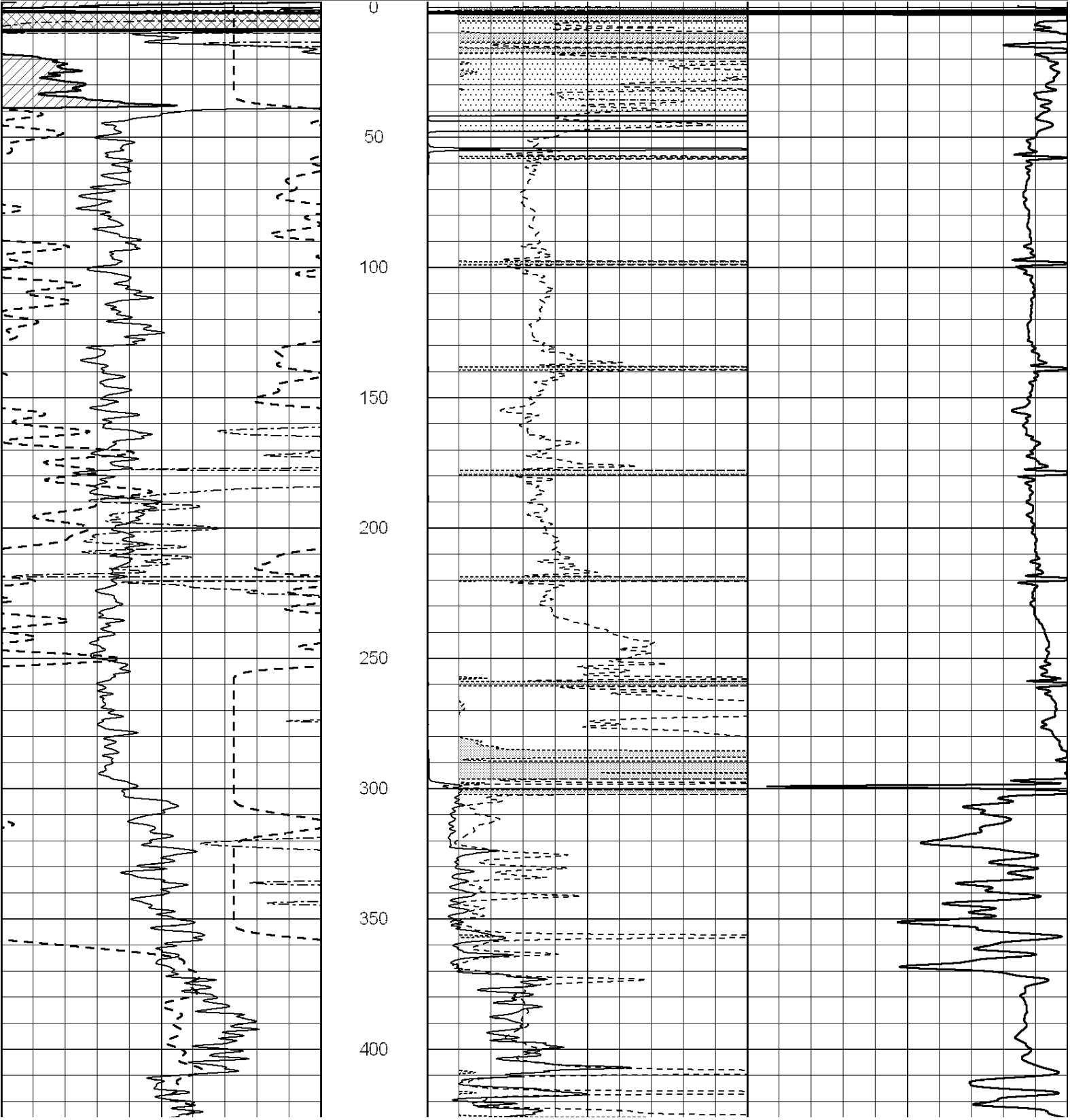
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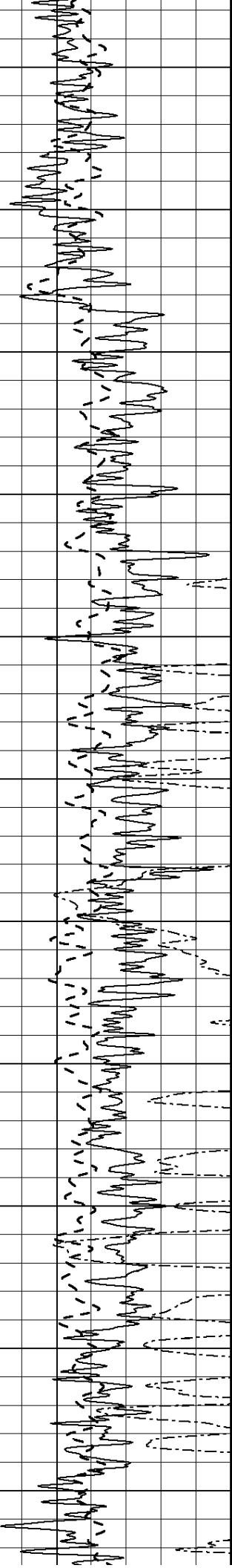
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Charted by:

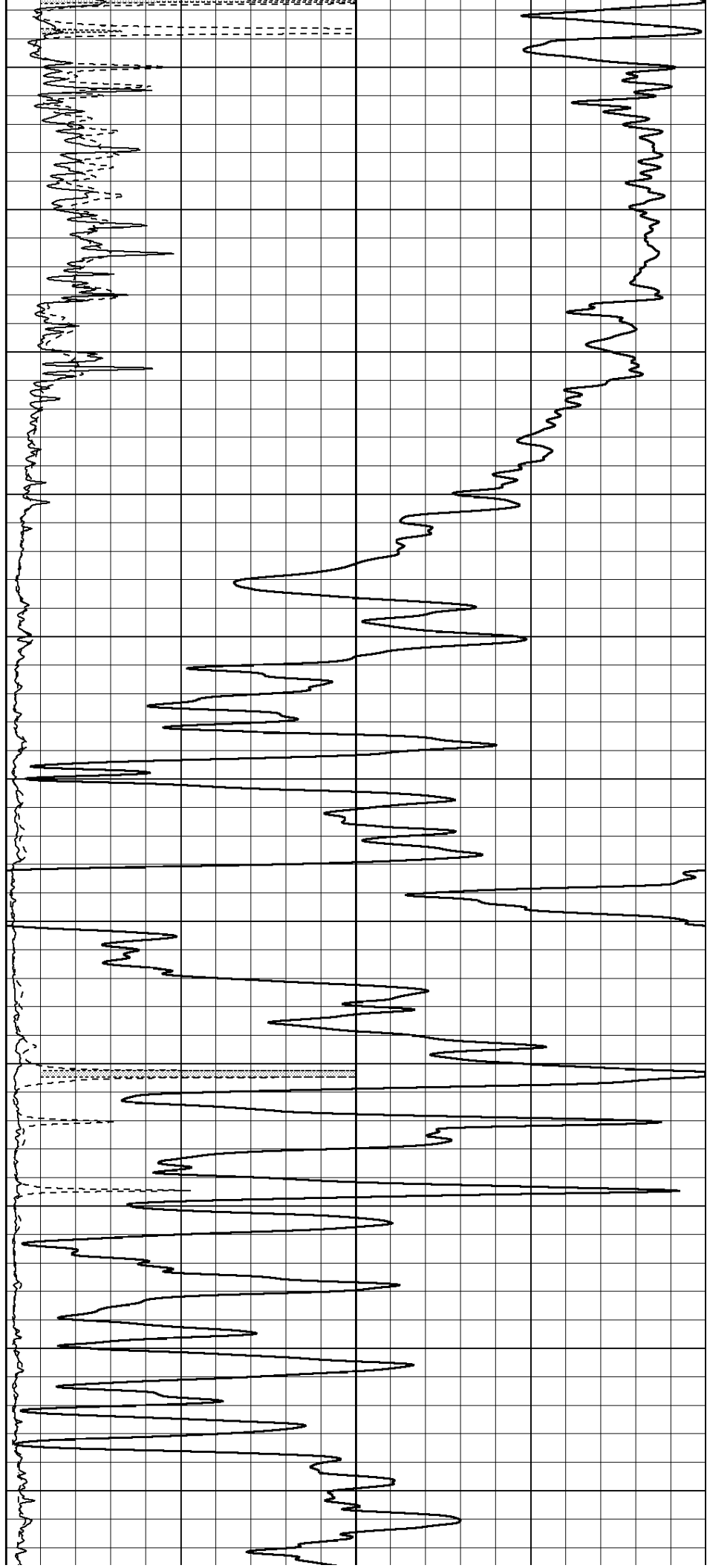
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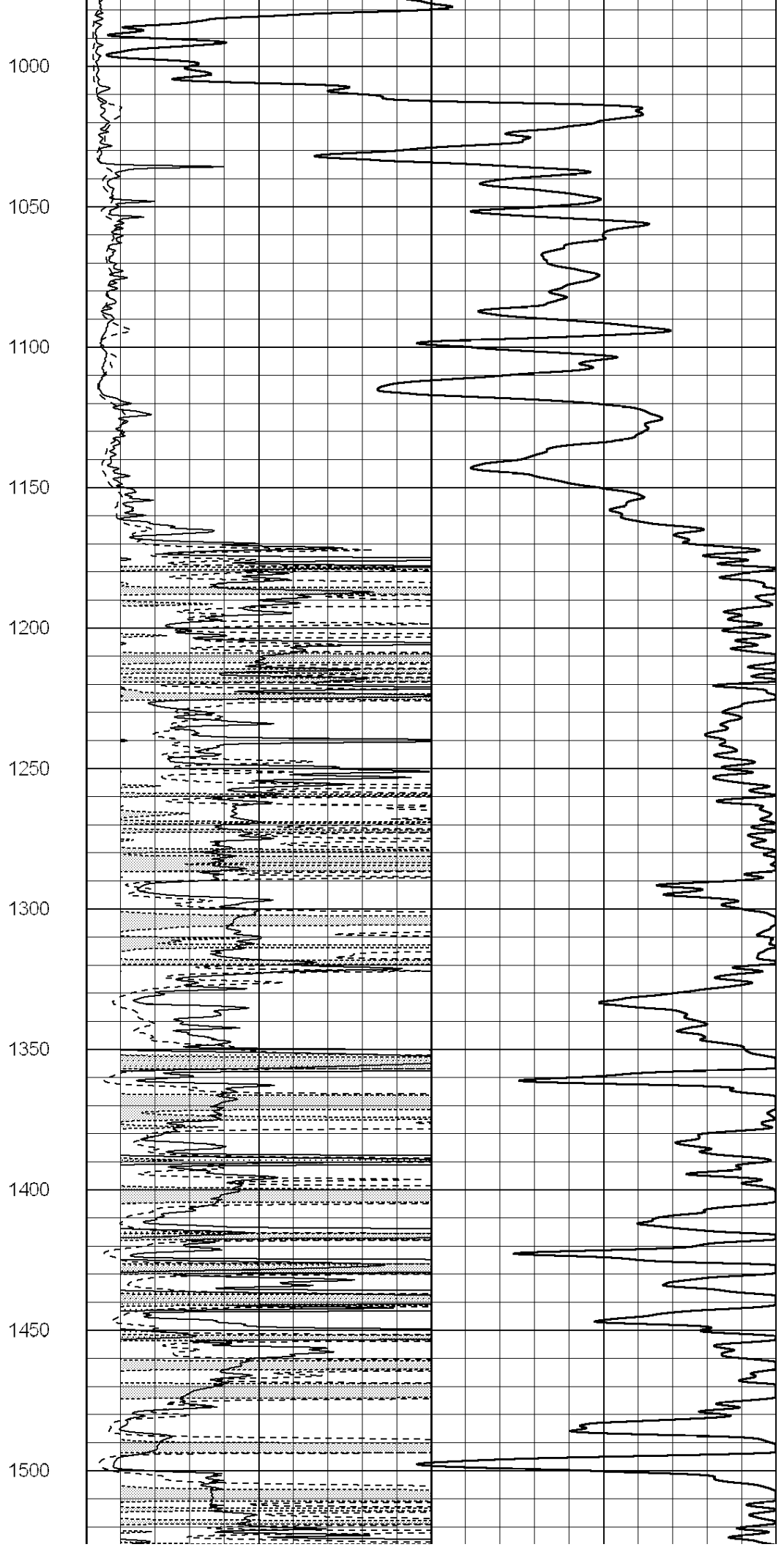
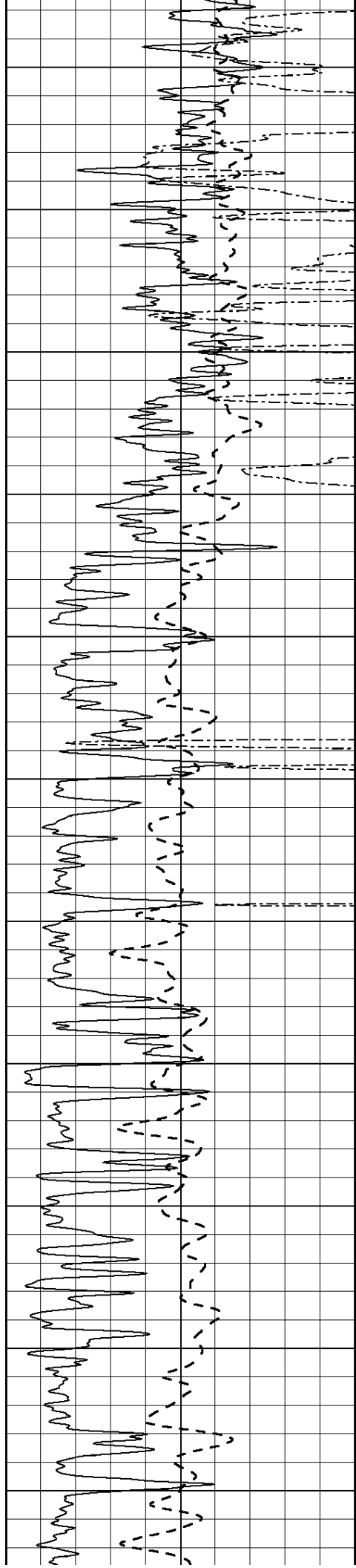
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-100	SP (mV)	100	0	RILD (Ohm-m)	50	
0	RWA (Ohm-m)	1	1000	CILD (mmho/m)		0
			50	RILD X10 (Ohm-m)	500	
			50	RLL3 X10 (Ohm-m)	500	

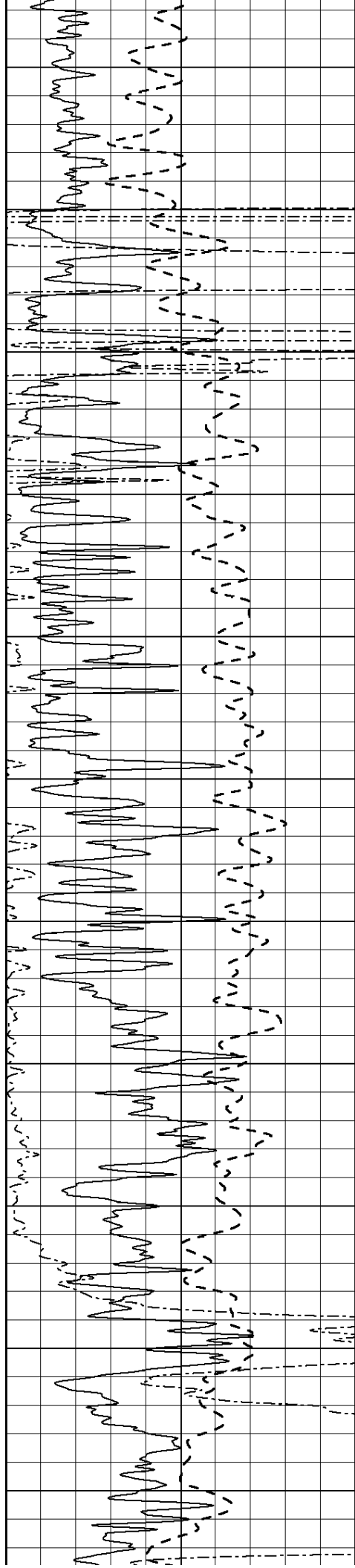




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1800

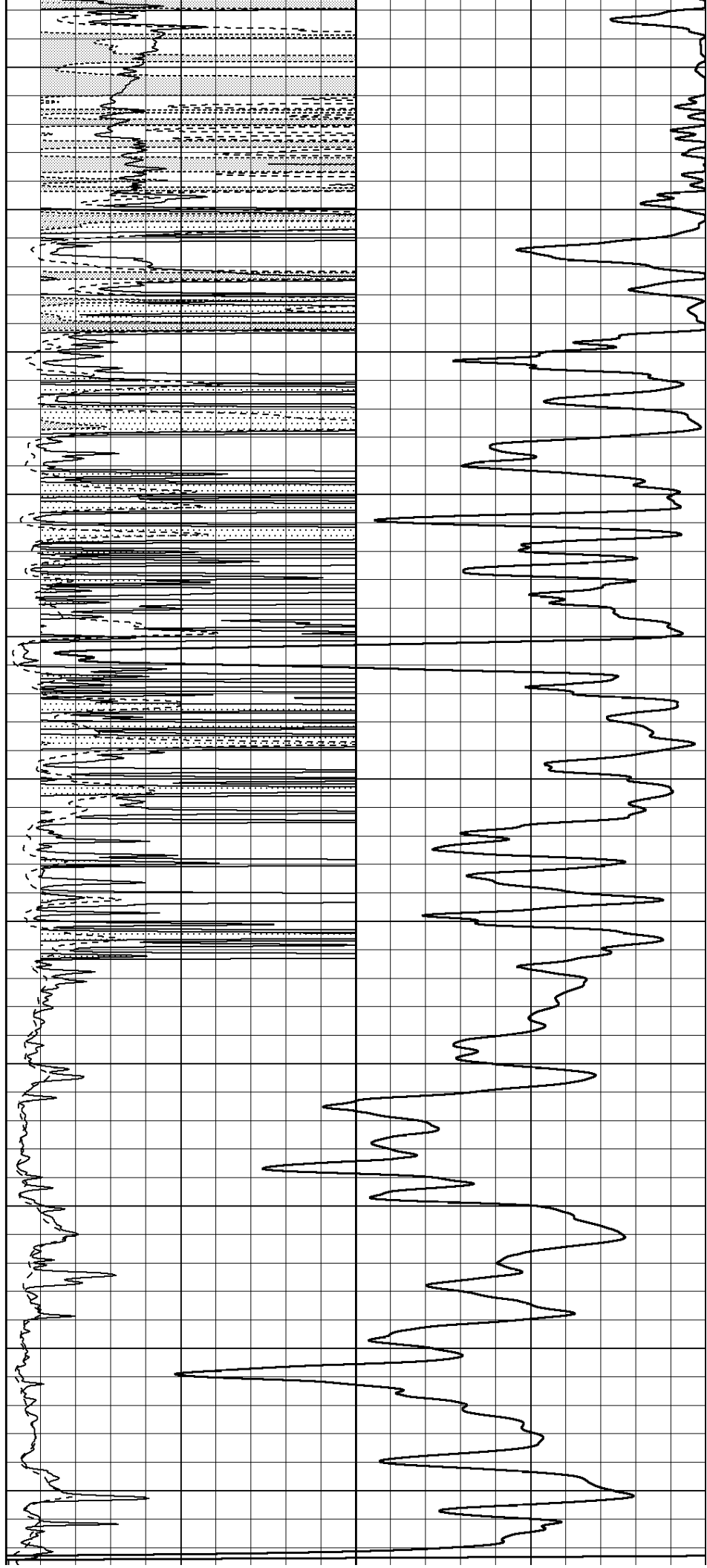
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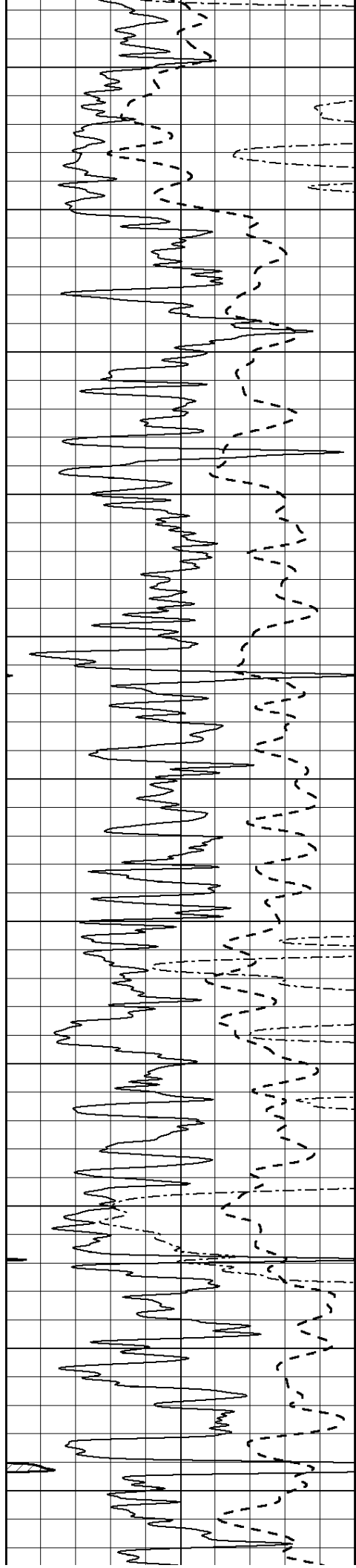
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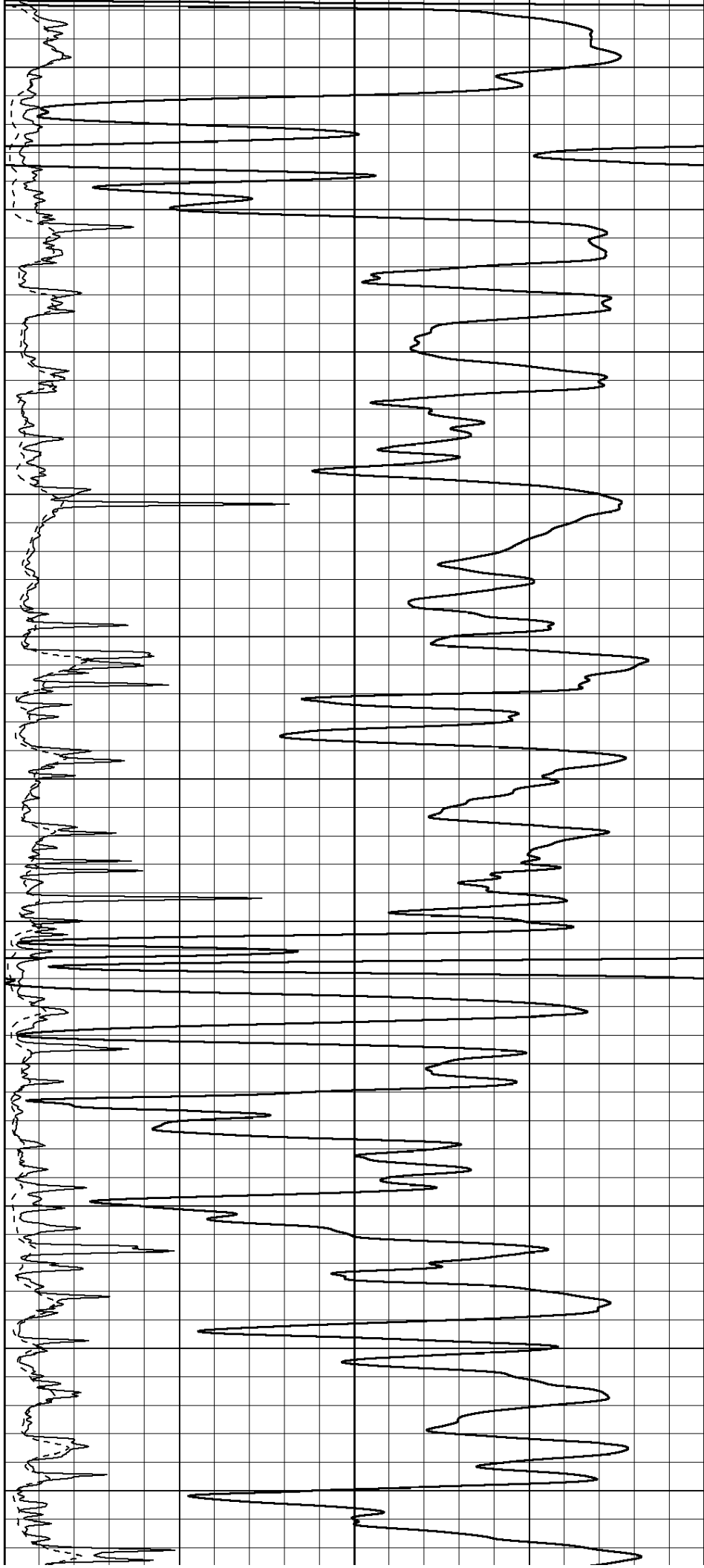
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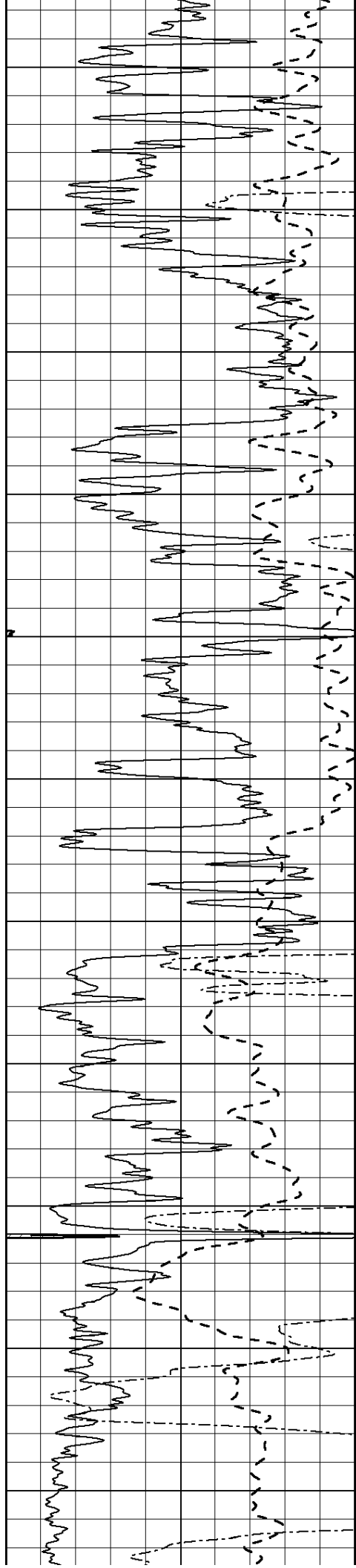
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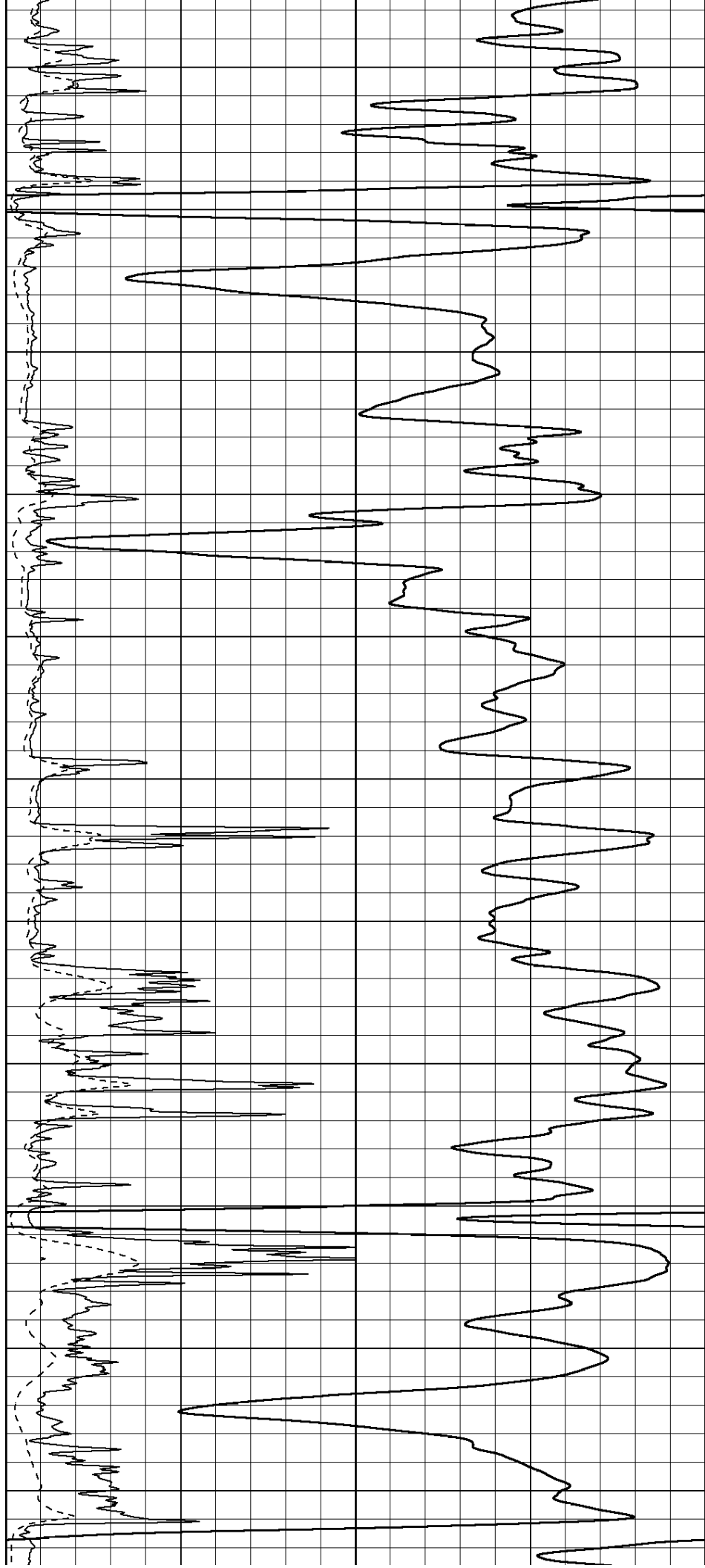
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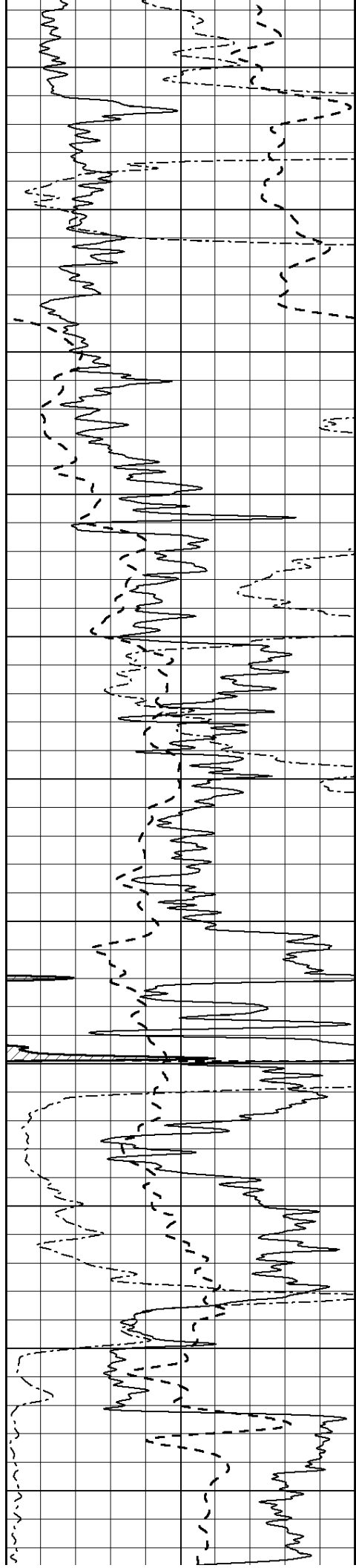
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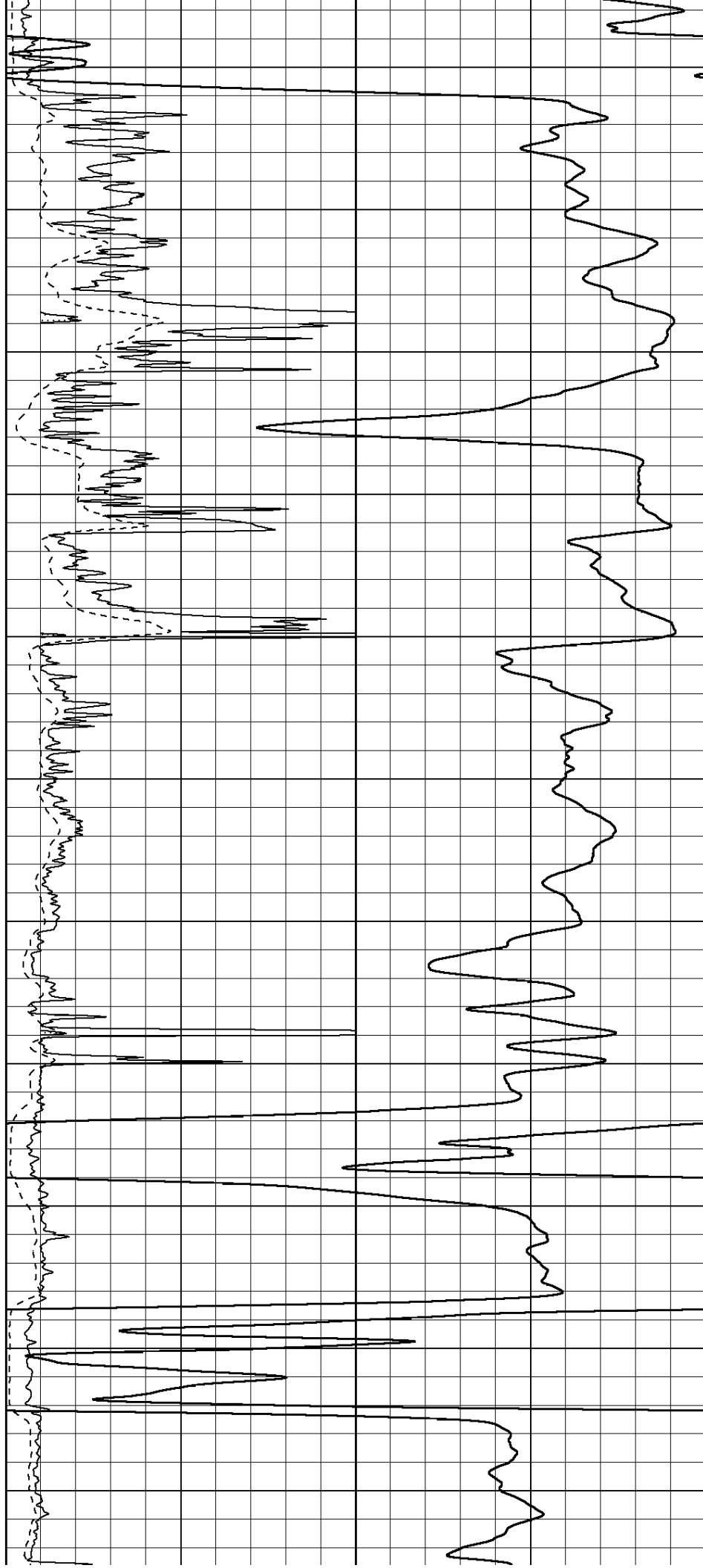
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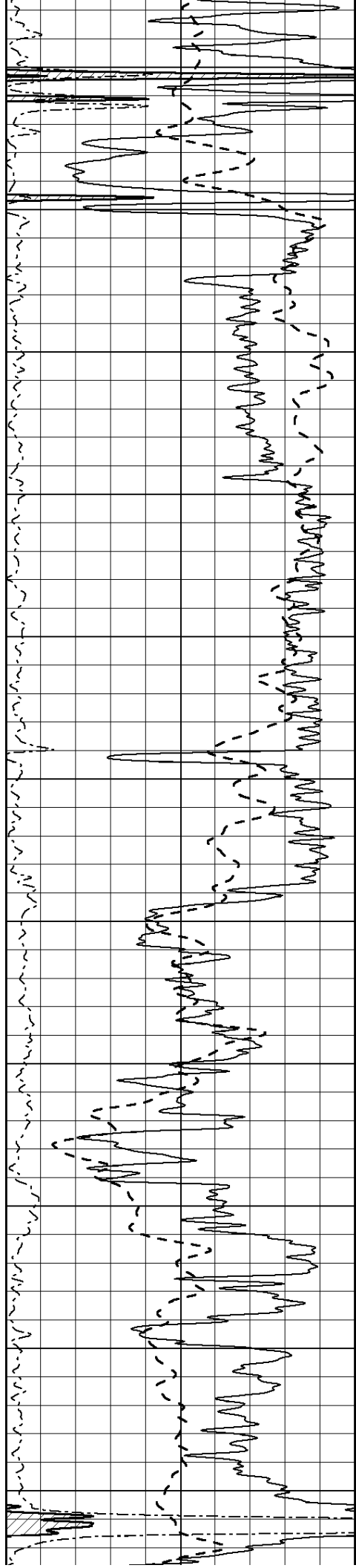
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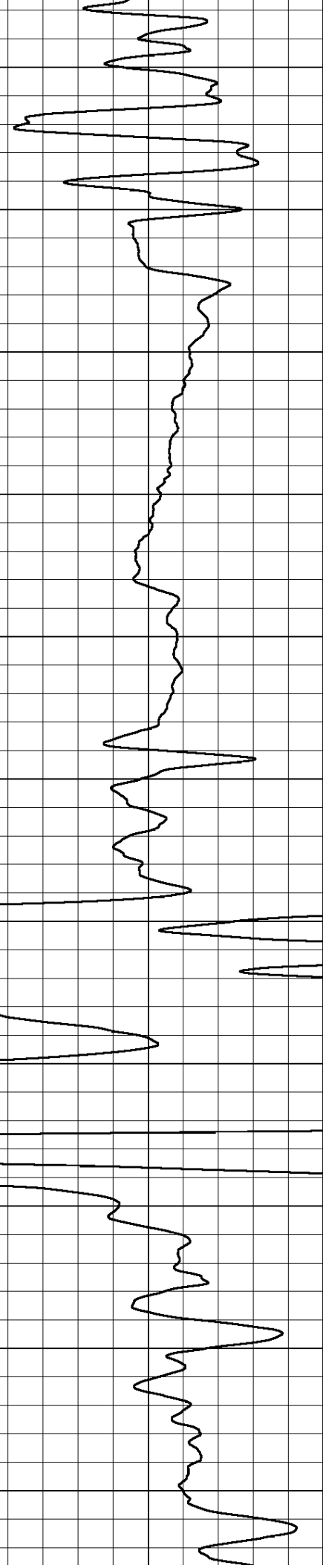
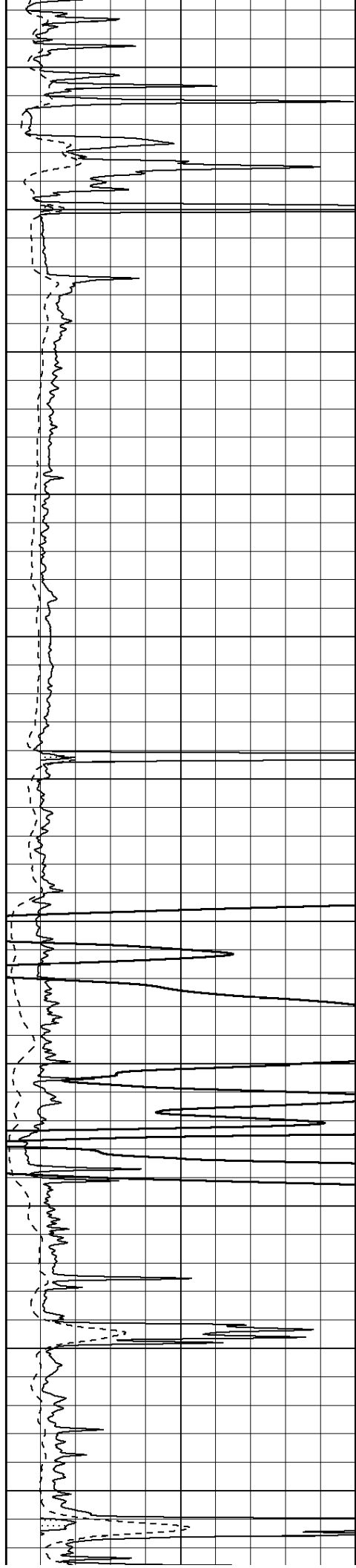
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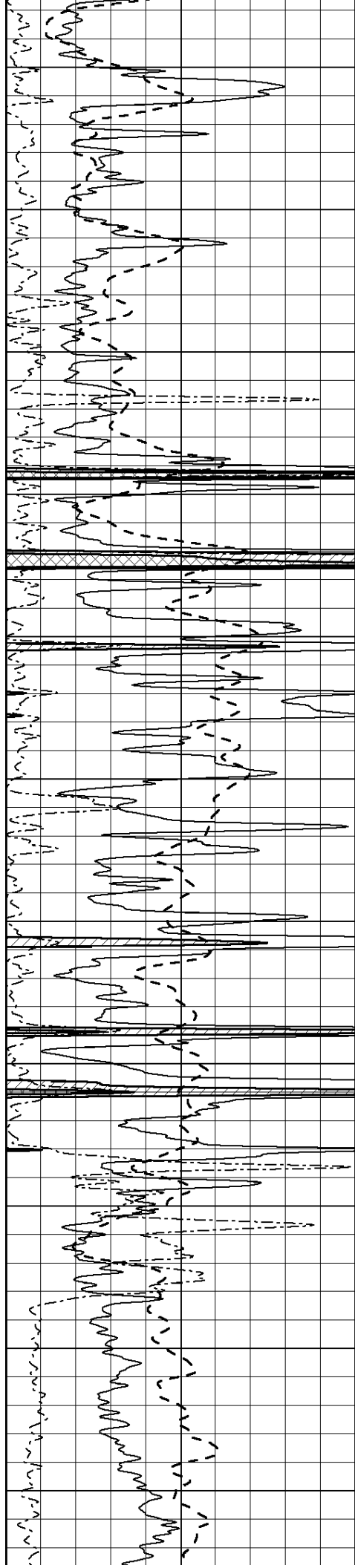
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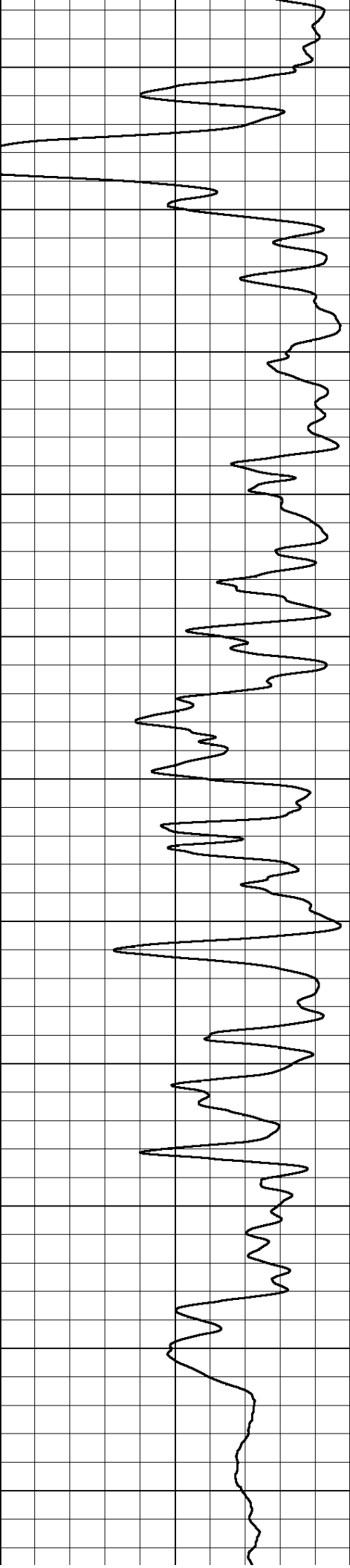
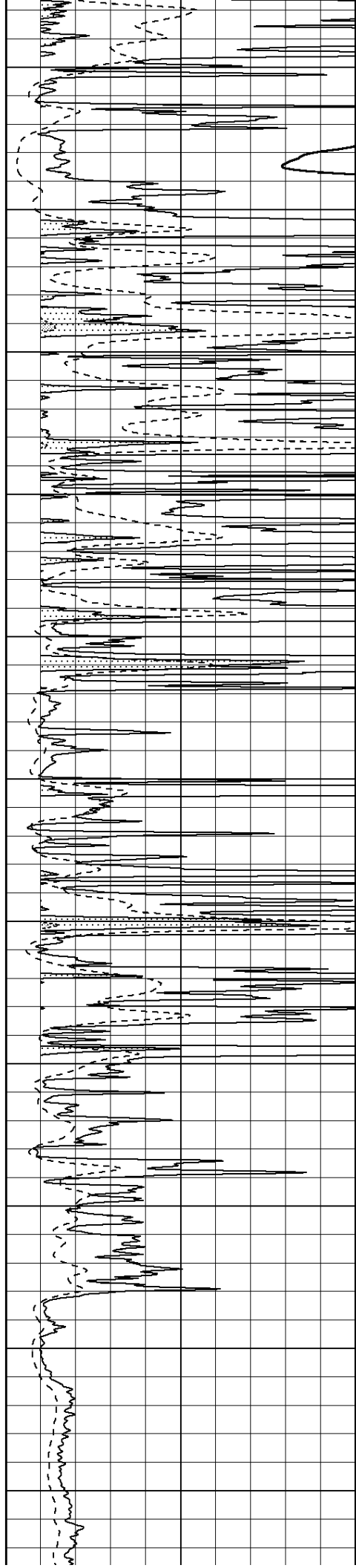
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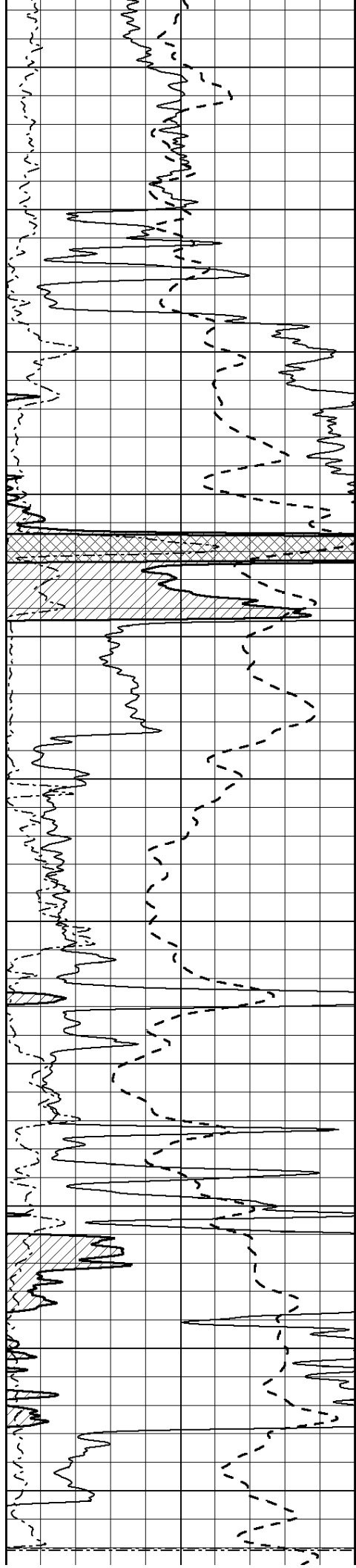
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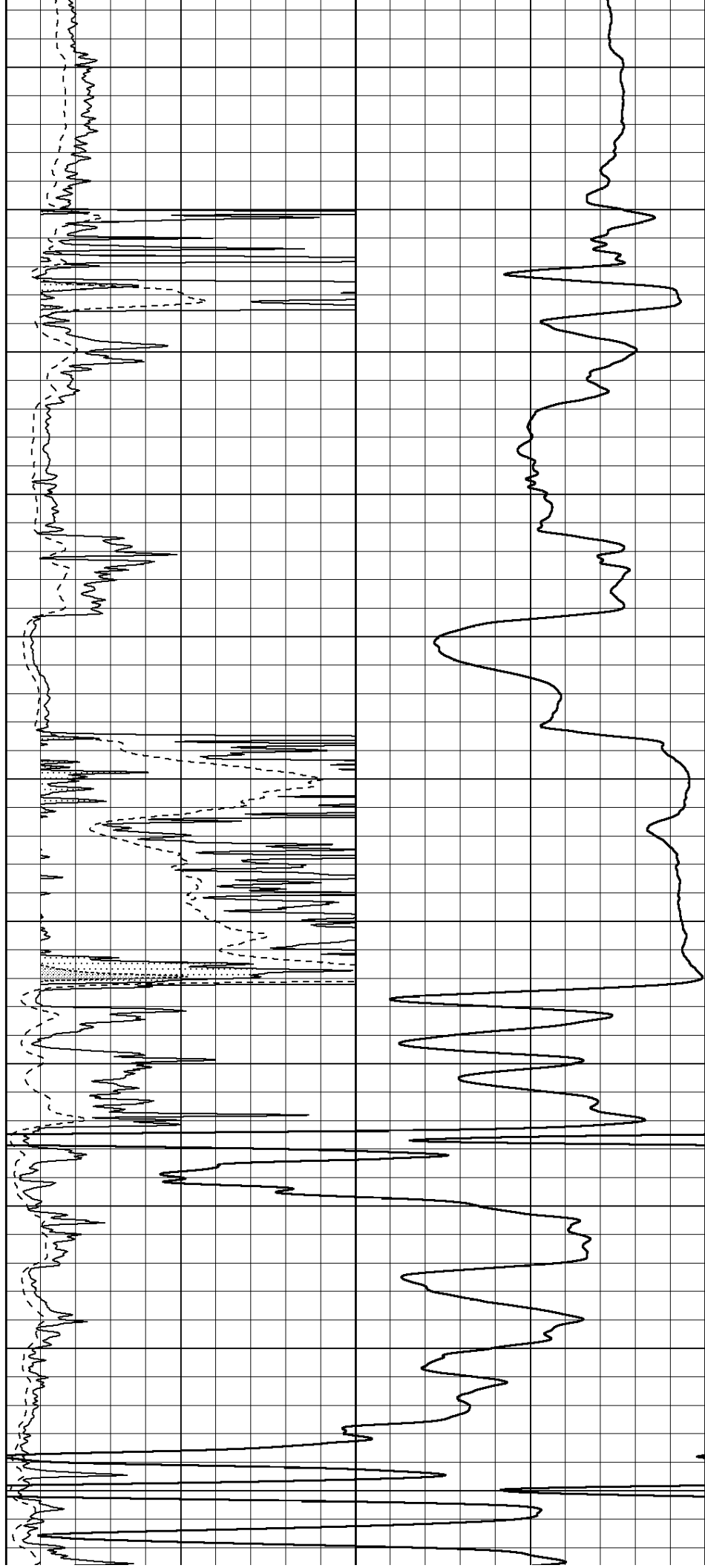
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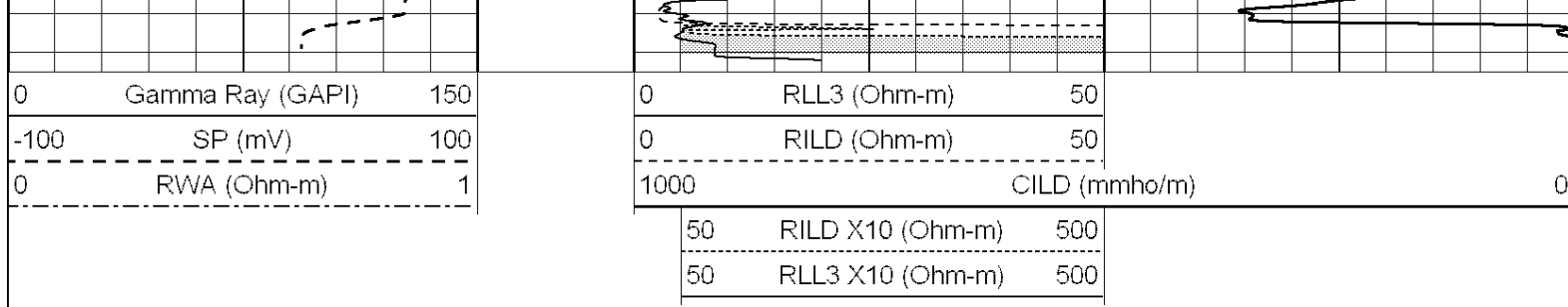
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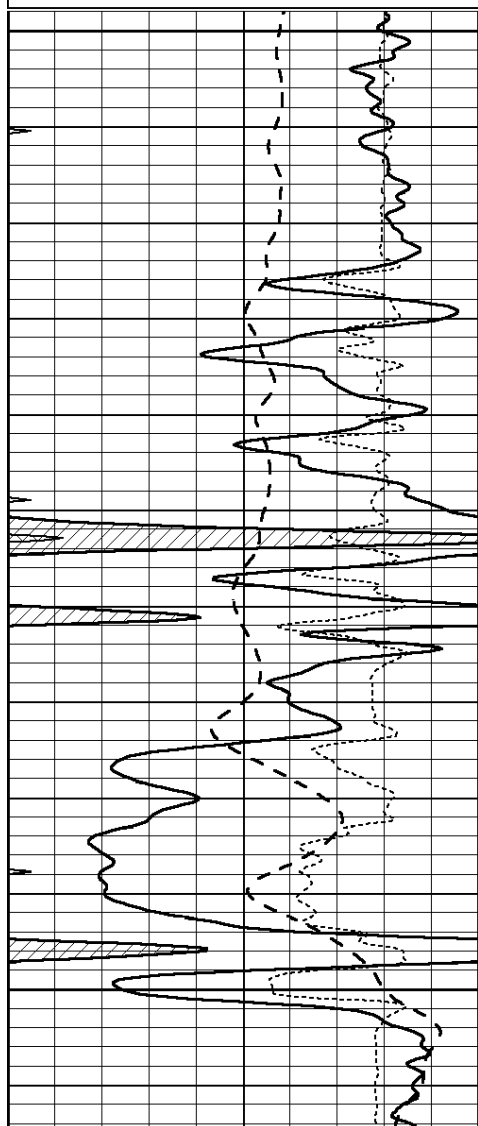
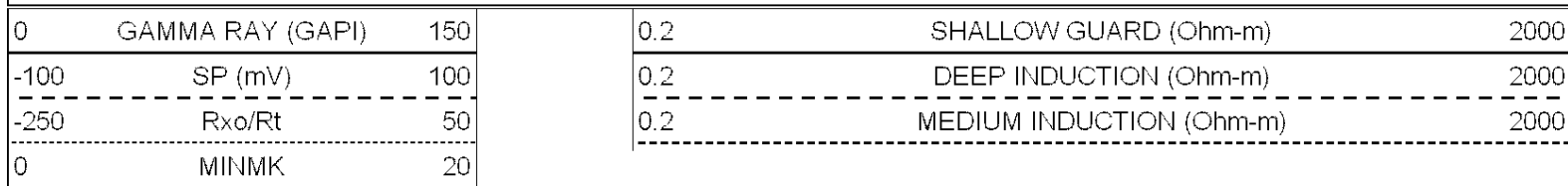
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MAIN SECTION

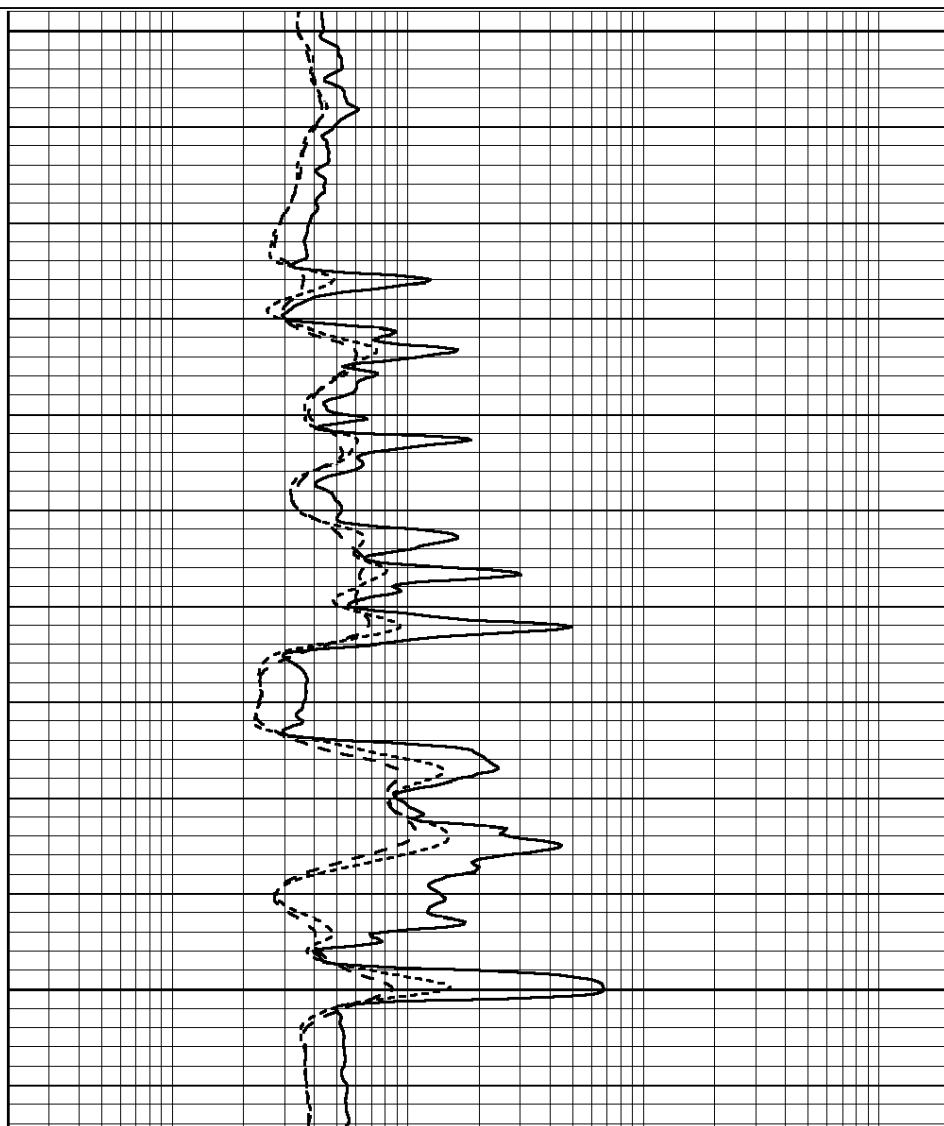
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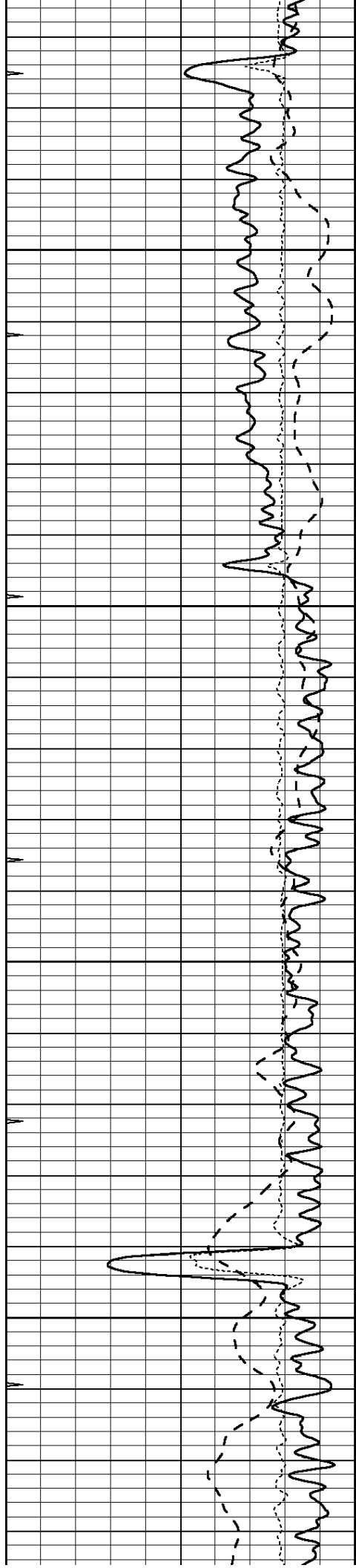


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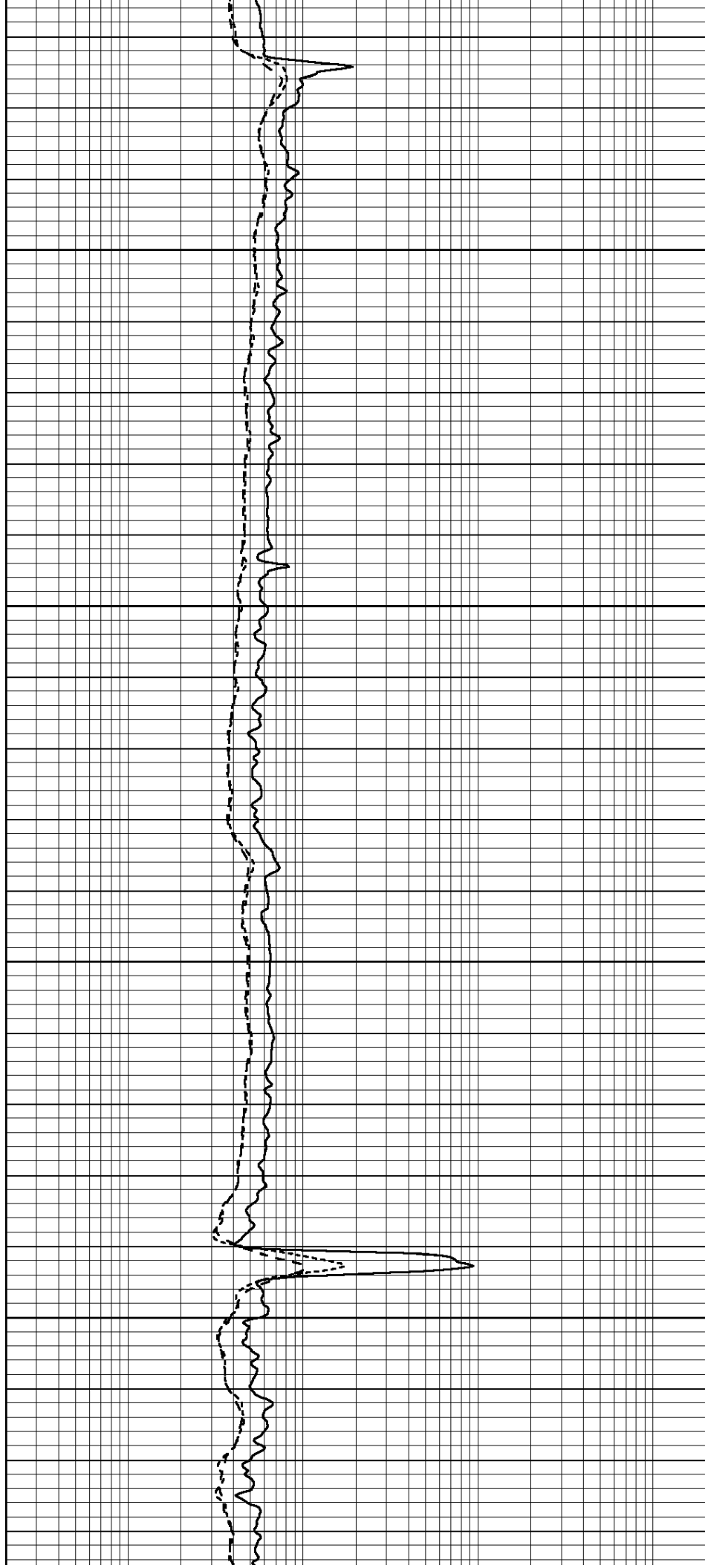


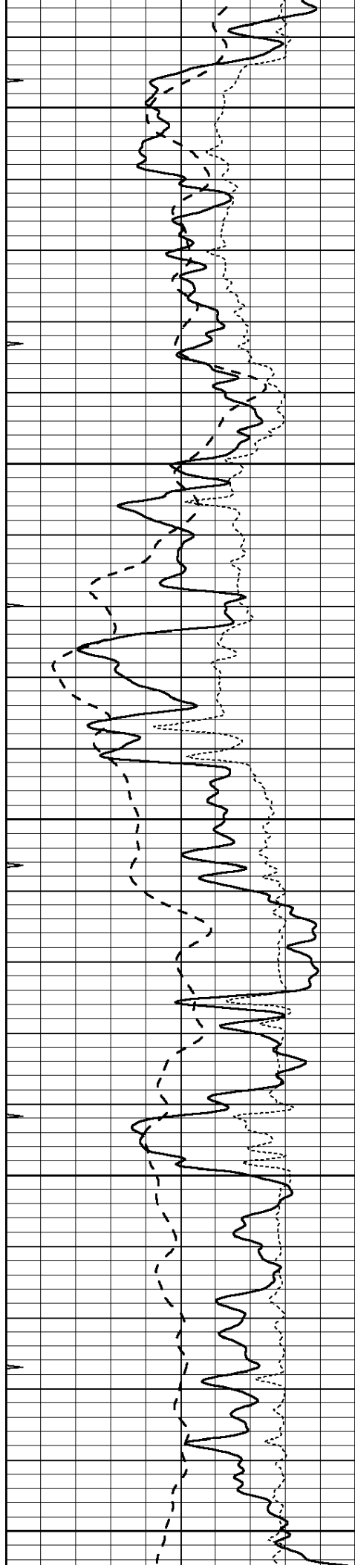
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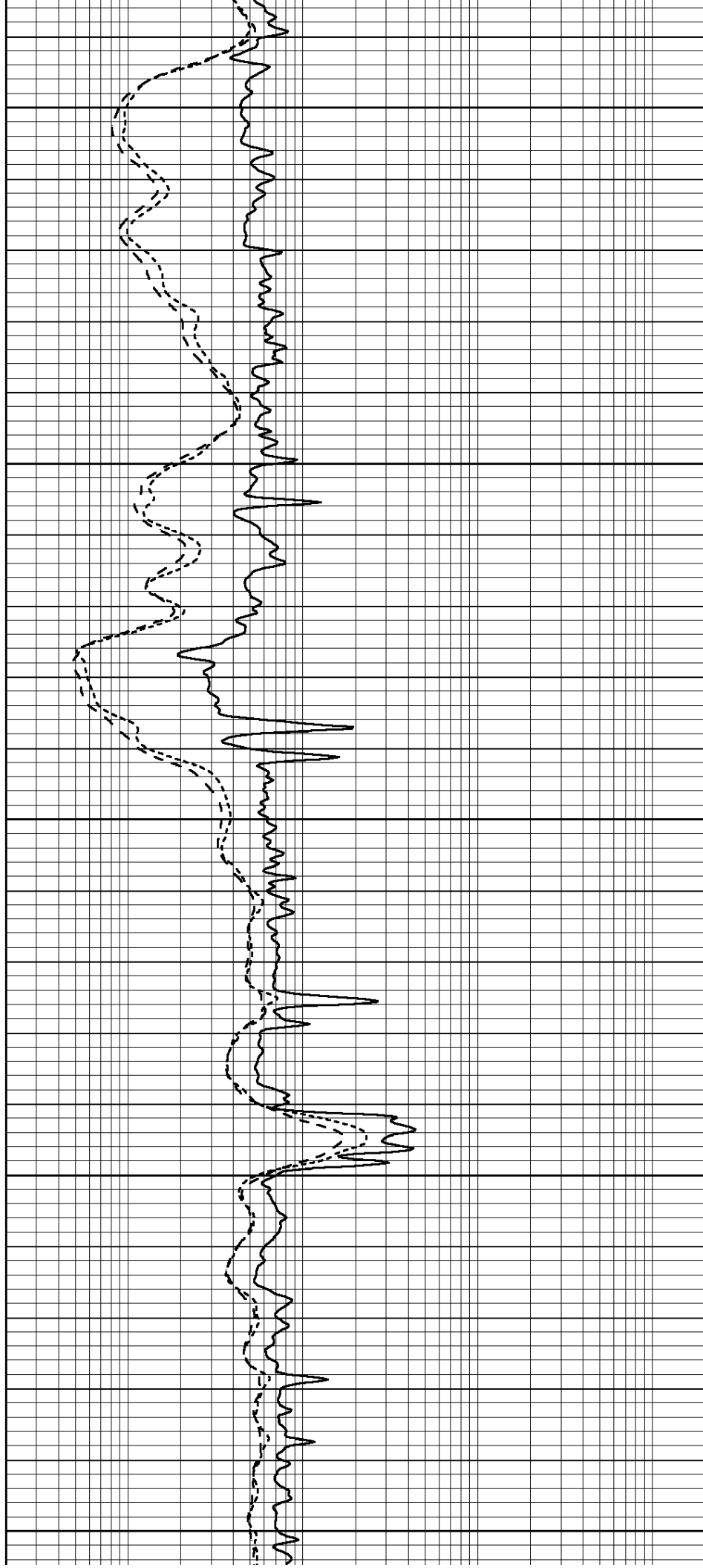
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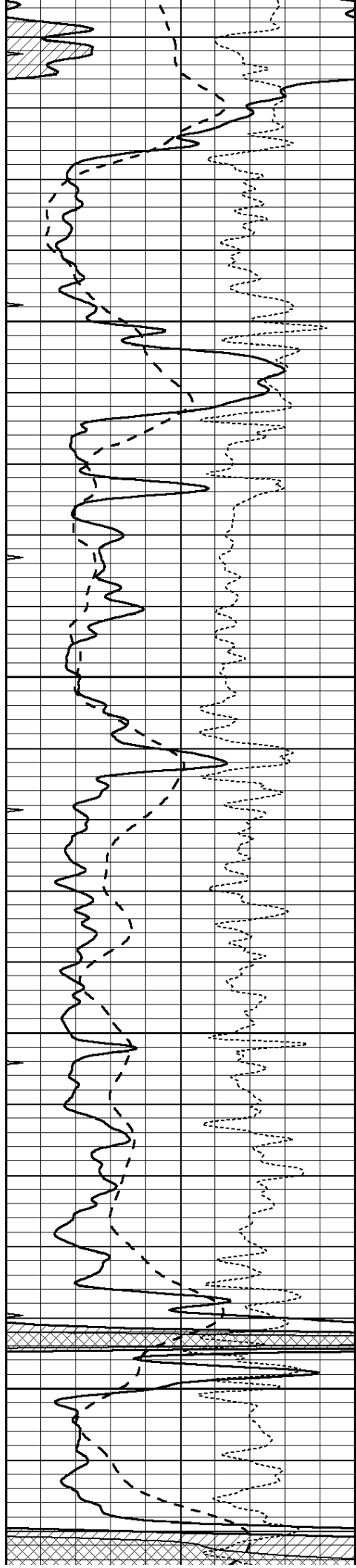
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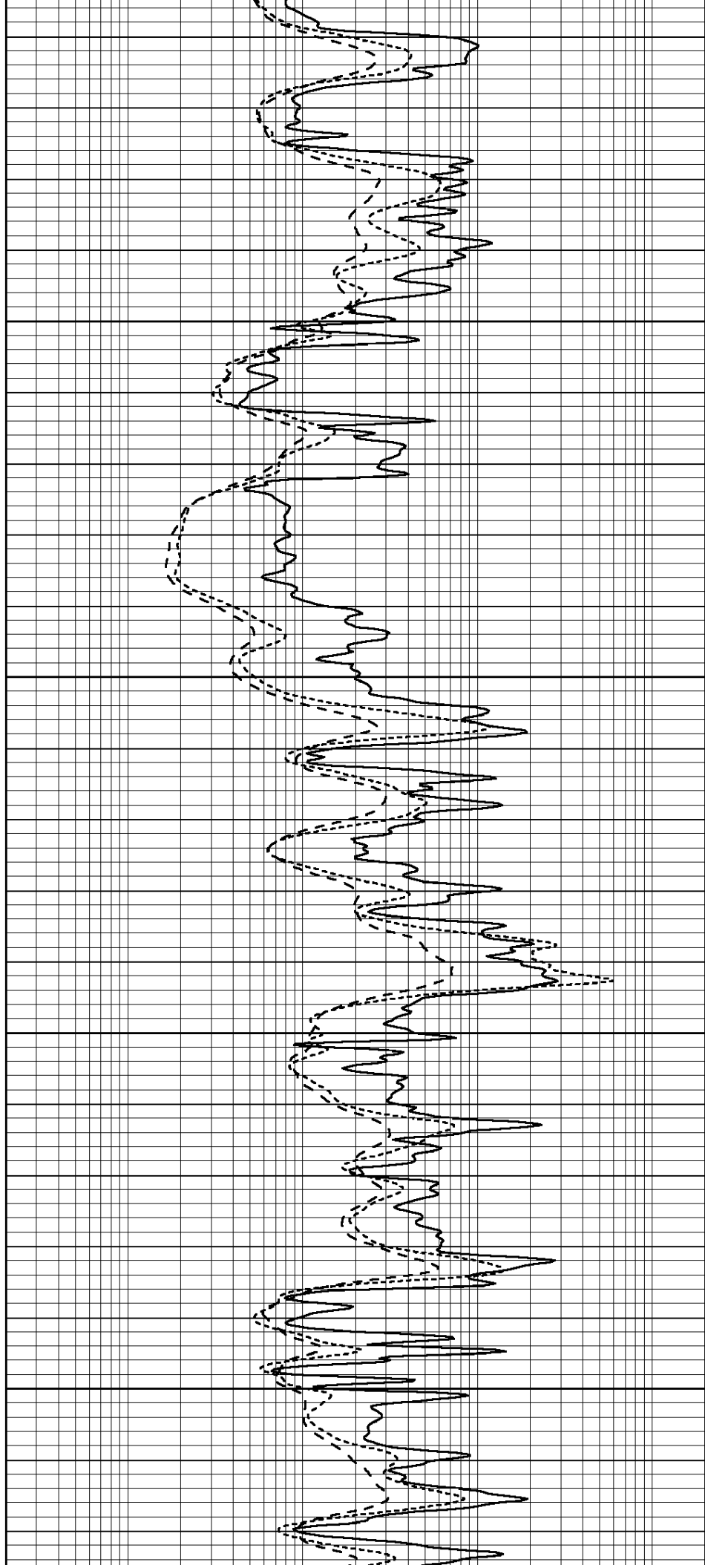


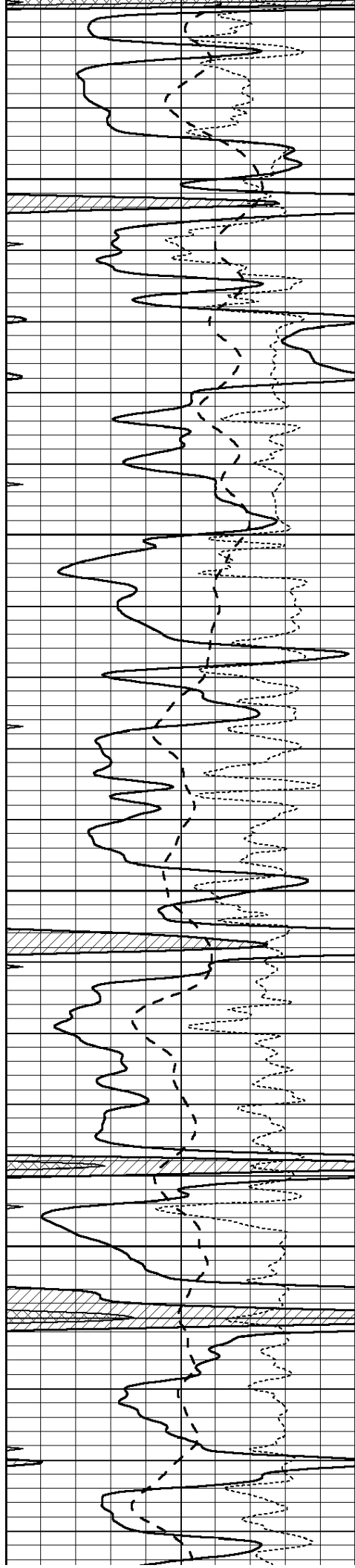
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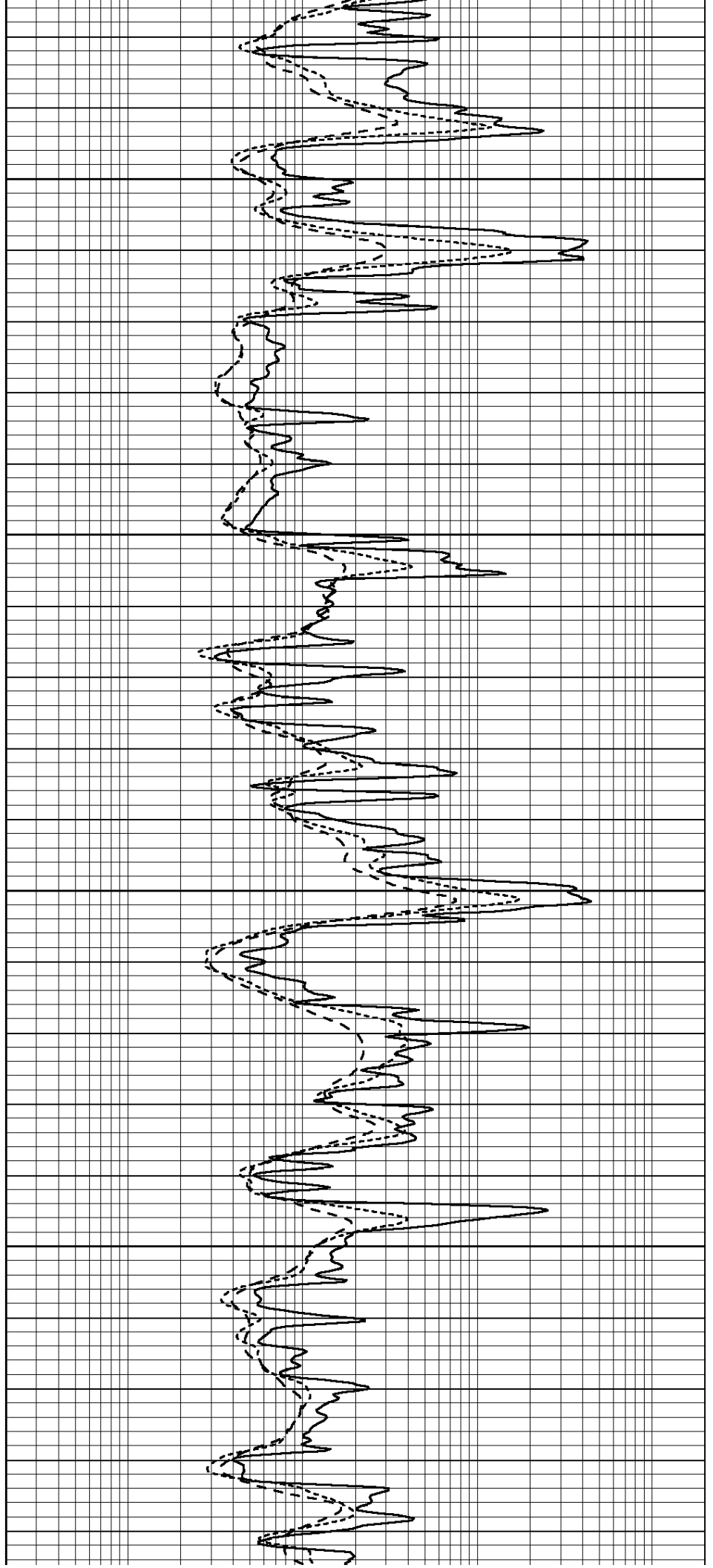


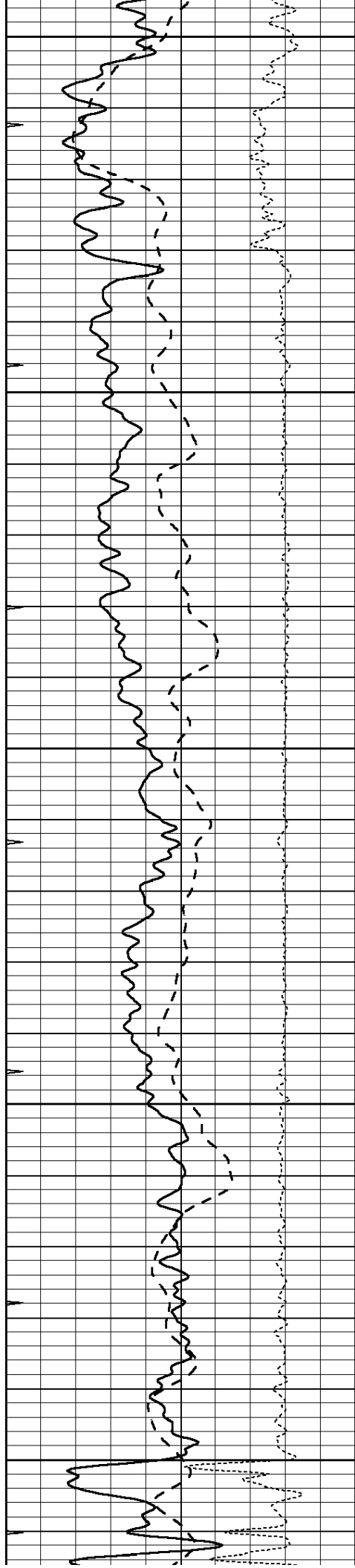
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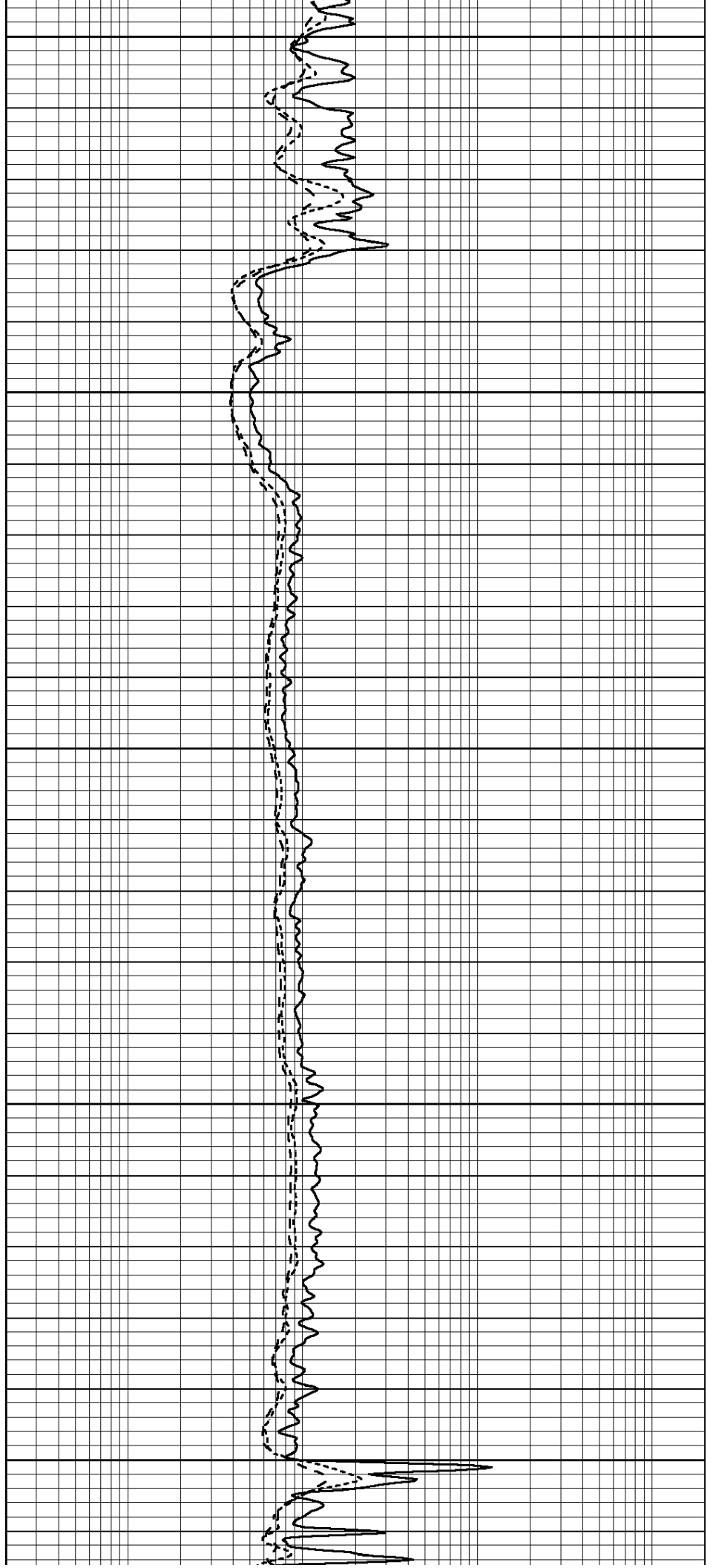
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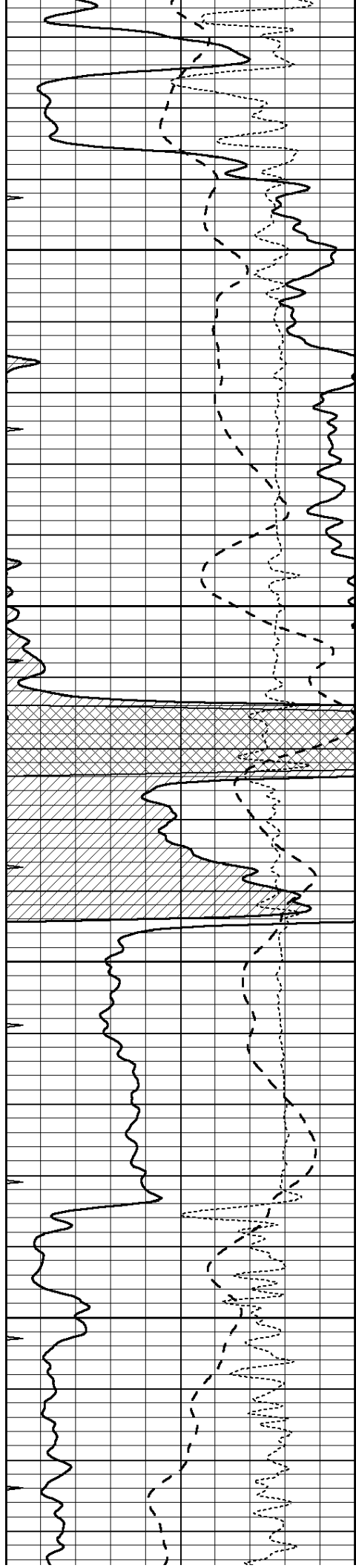
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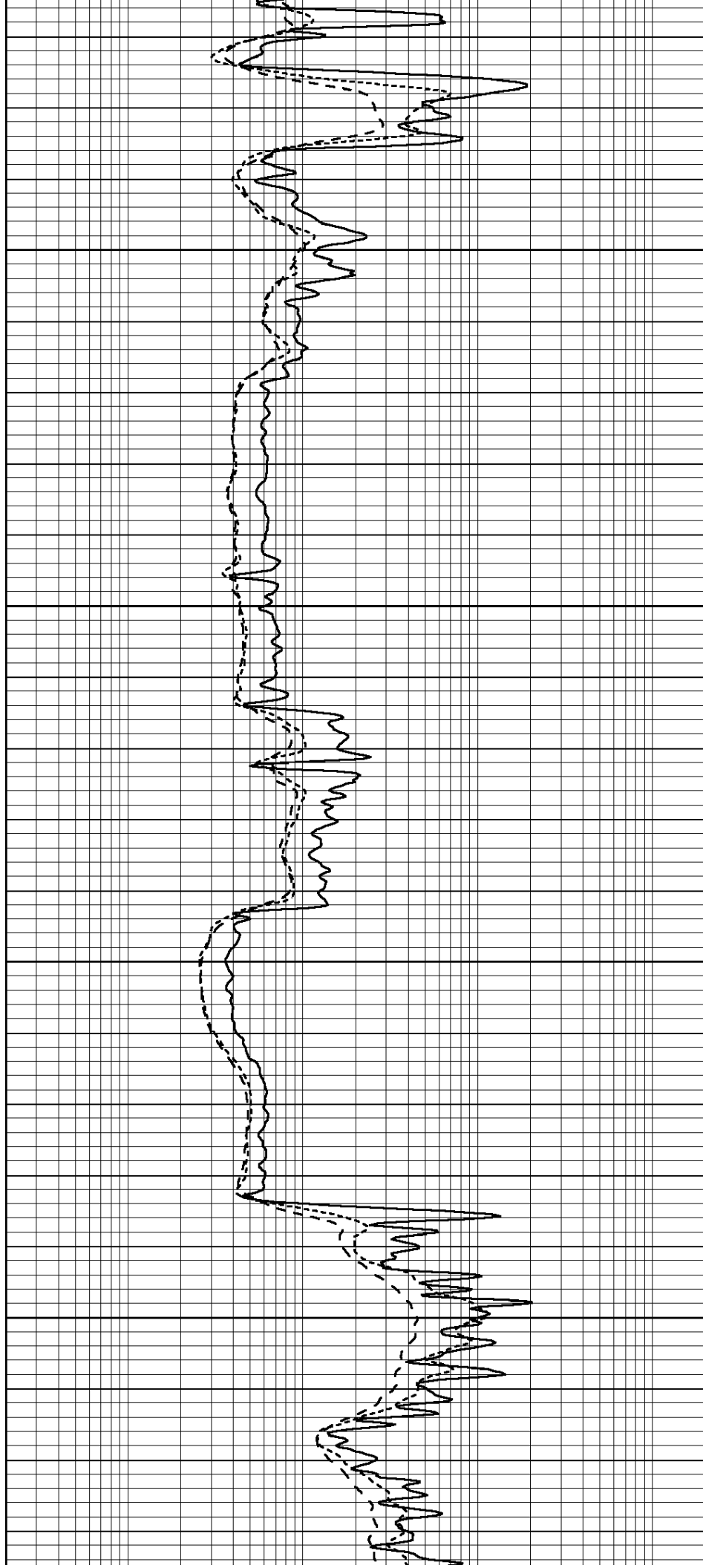


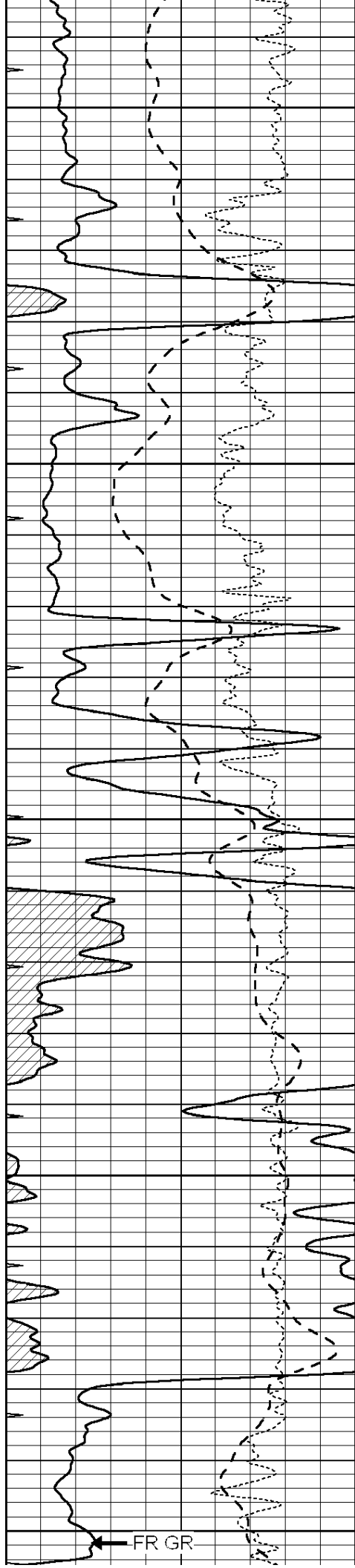
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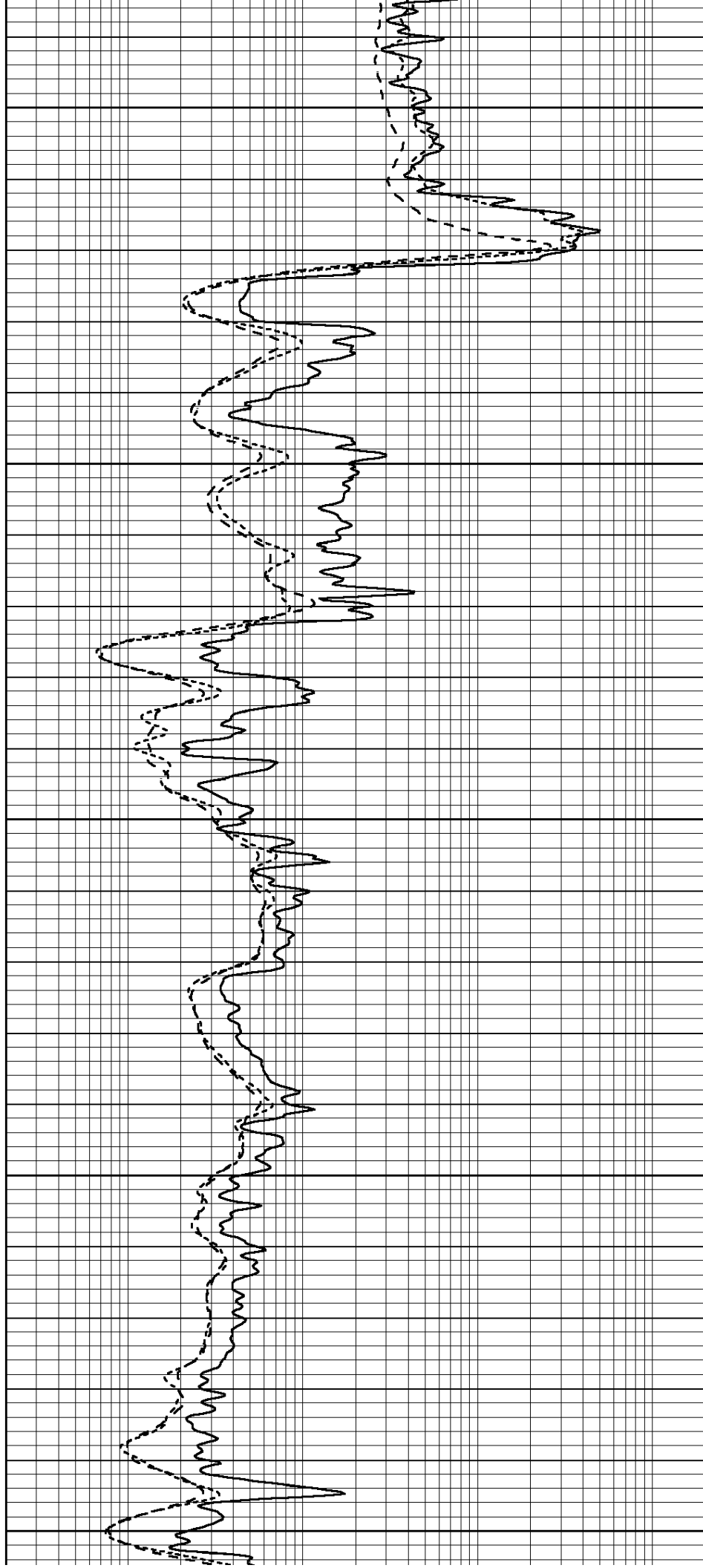
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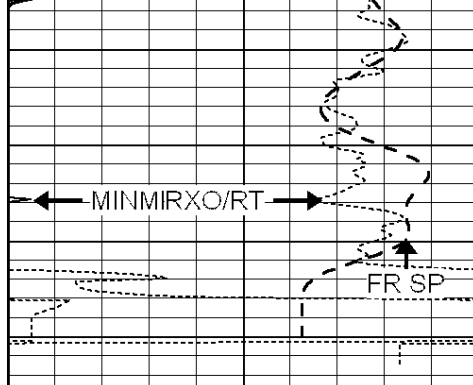
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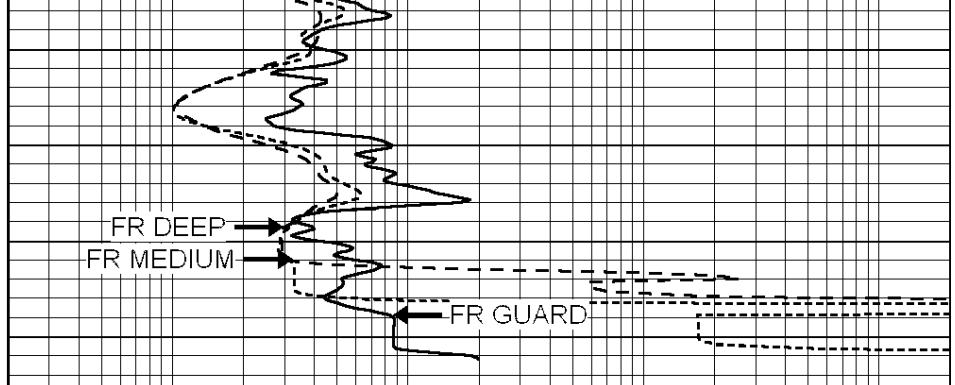
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LTD 5390

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

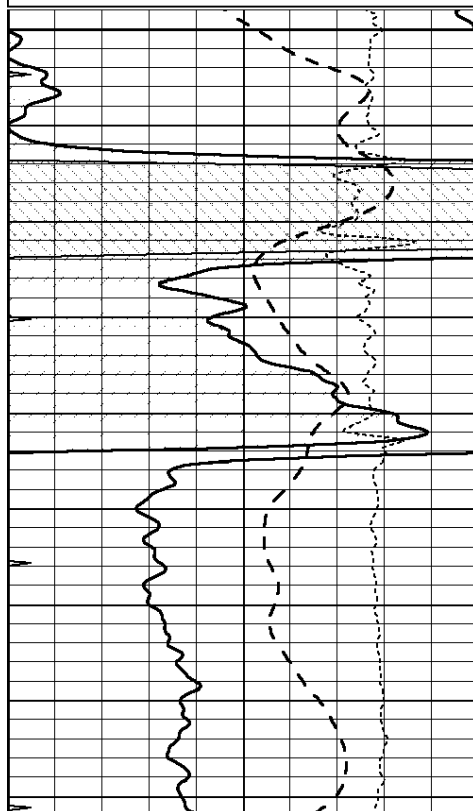


REPEAT SECTION

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 Charted by: Depth in Feet scaled 1:240

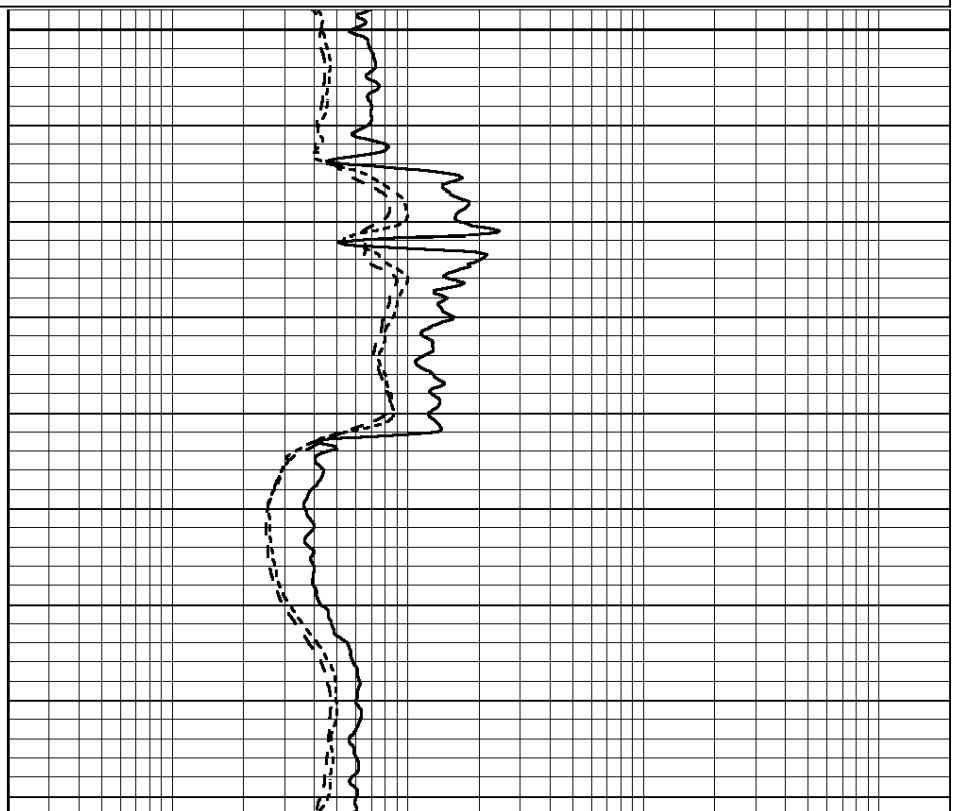
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-250	Rxo/Rt	50
0	MINMK	20

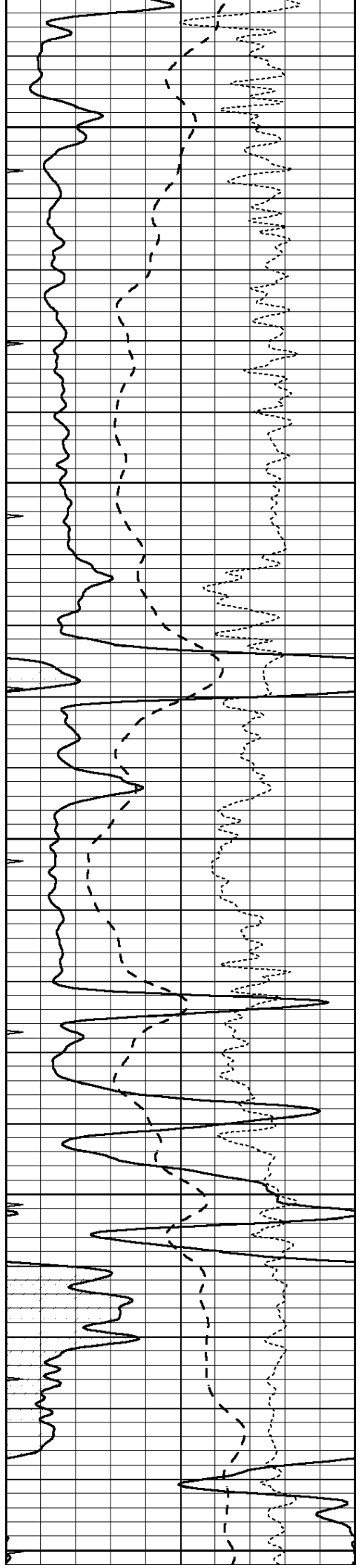
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0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



5000

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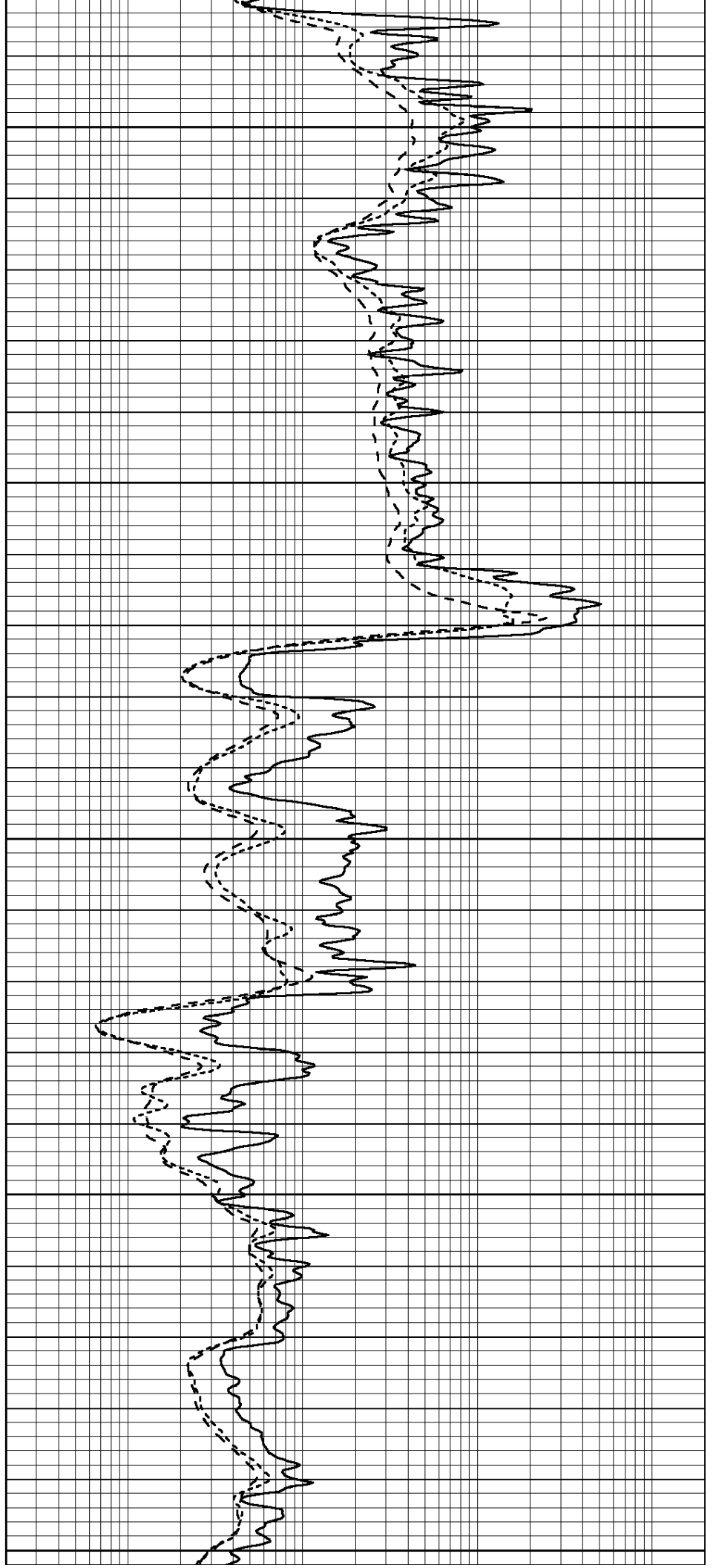
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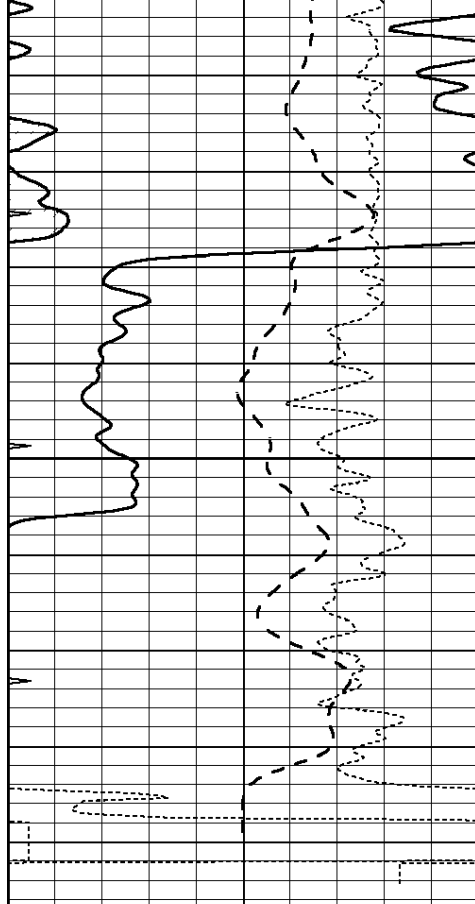
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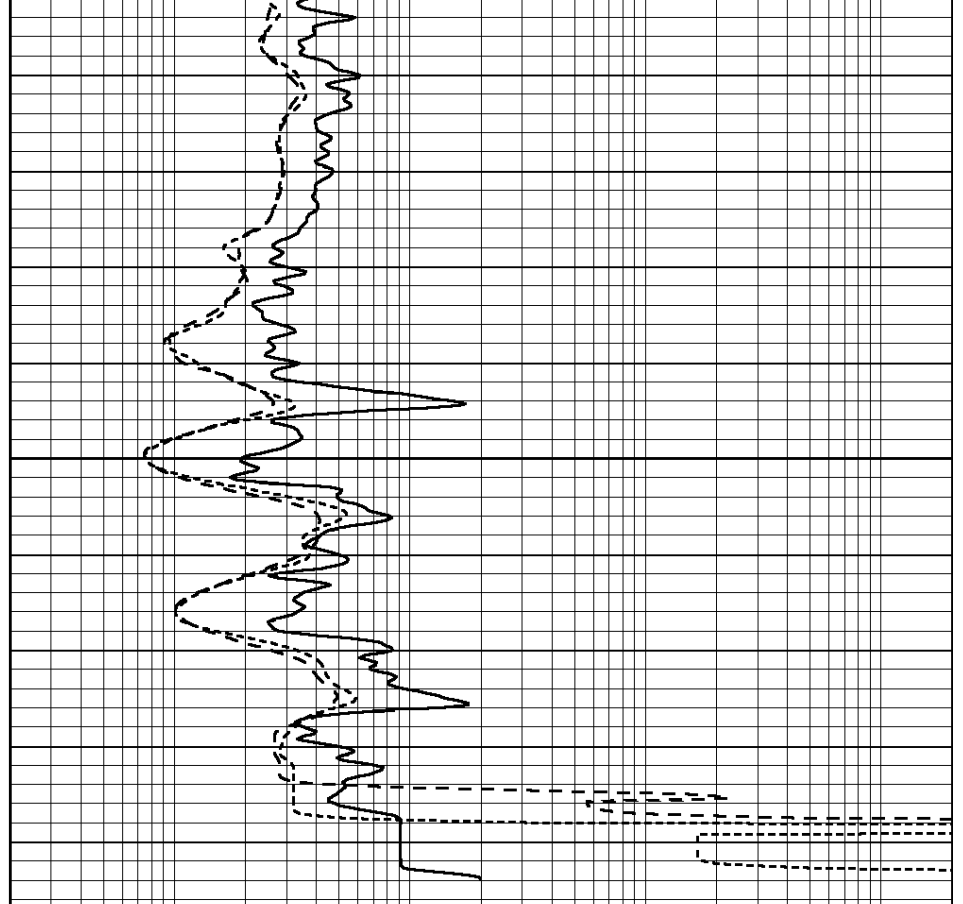
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0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

5350



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: 25893pe.db
 Dataset Pathname: pass3.9
 Dataset Creation: Sat Oct 11 00:25:26 2014

Dual Induction Calibration Report

Serial-Model: PROBE9-DILG
 Surface Cal Performed: Thu Oct 09 11:37:56 2014
 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
Deep	-0.014	0.629	V	0.000	400.000	mmho/m	650.000	-13.000
Medium	0.039	0.728	V	0.000	464.000	mmho/m	670.000	-34.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.011	0.610	V	0.000	400.000	mmho/m	667.135	-7.256
Medium	0.005	0.712	V	0.000	464.000	mmho/m	655.677	-3.102

Downhole Calibration

Readings				References			Results	
	Zero	Cal		Zero	Cal		m'	b'

Serial Number: Tool Model:		070808 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:	070558		
Tool Model:	OPEN_GR		
Performed:	Mon Jun 30 21:53:39 2014		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.2800	GAPI/cps	