



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

DUAL INDUCTION LOG

Company		IA OPERATING, INC	
Well		SONDE 15-1	
Field		UNNAMED	
County		FINNEY	
State		KANSAS	
Location:		API # : 15-055-22180 SE NENE NE 354' FNL & 124' FEL	
Permanent Datum Log Measured From Drilling Measured From		GROUND LEVEL KELLY BUSHING 11' A.G.L. KELLY BUSHING	
SEC 15 TWP 22S RGE 31W		Elevation K.B. 2906 D.F. 2904 G.L. 2895	
Date	OCTOBER 17, 2012		
Run Number	ONE		
Depth Driller	5035		
Depth Logger	5029		
Bottom Logged Interval	5027		
Top Log Interval	0		
Casing Driller	8 5/8" @ 348		
Casing Logger	347		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.4/62		
pH / Fluid Loss	9.5/7.0		
Source of Sample	FLOWLINE		
Rim @ Meas. Temp	1.1 @ 62F		
Rmf @ Meas. Temp	.82 @ 62F		
Rmc @ Meas. Temp	1.32 @ 62F		
Source of Rmf / Rmc	MEASURED		
Rim @ BHT	.54 @ 125F		
Time Circulation Stopped	4 HOURS		
Time Logger on Bottom	2:00 PM		
Maximum Recorded Temperature	125F		
Equipment Number	680		
Location	HAYS, KS.		
Recorded By	MIKE GARRISON		
Witnessed By	TERRY MCLEOD		

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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 (785) 628-6395
 DIRECTIONS
 SCOTT CITY, 22 SOUTH TO TENNIS RD, 9 EAST, 1 SOUTH, 1/2 EAST, SOUTH INTO



NABORS
 COMPLETION
 & PRODUCTION

MAIN SECTION

Database File:

009976.db

Dataset Pathname:

pass3.2

Presentation Format:

_dil2

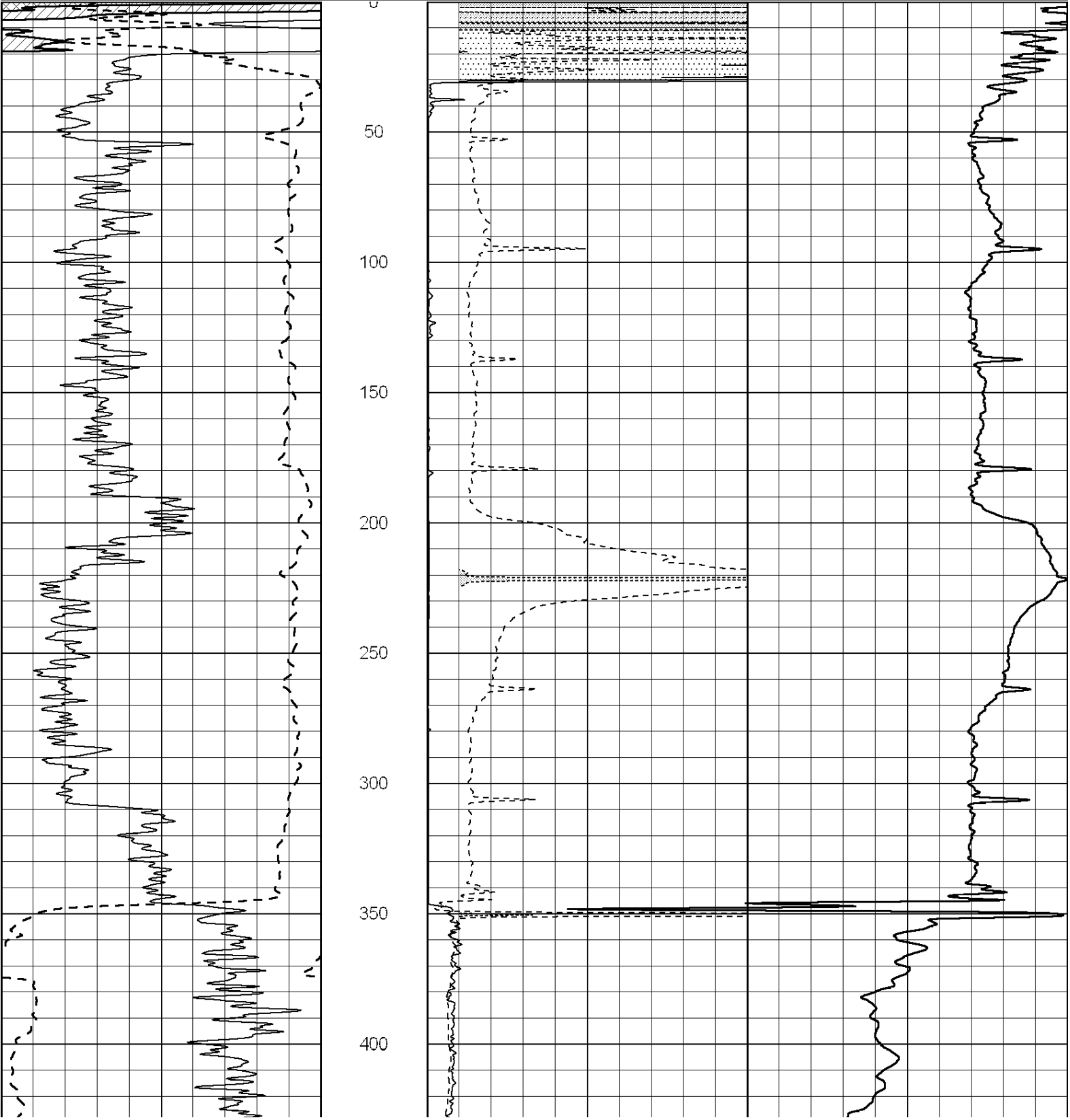
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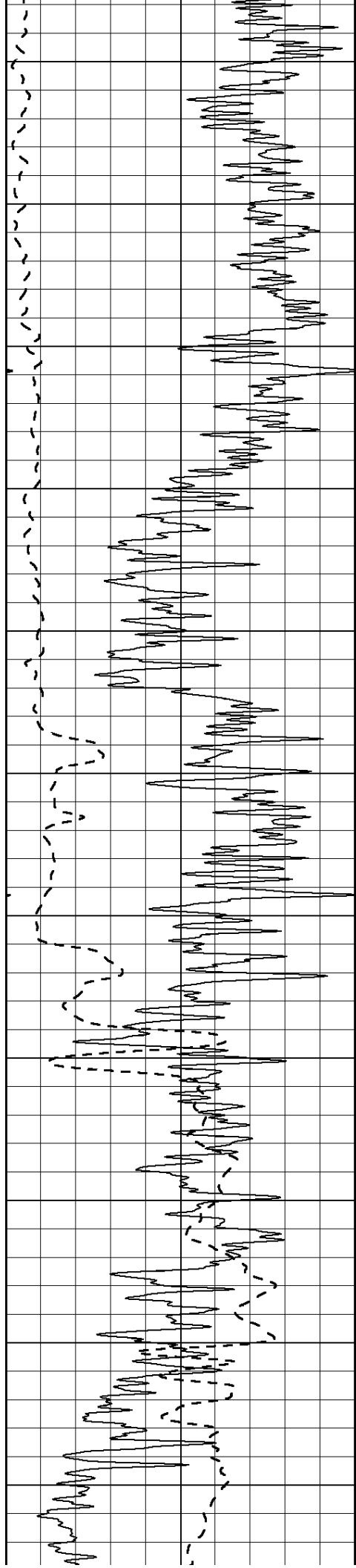
Wed Oct 17 15:48:32 2012 by Calc Open-Cased 090629

Charted by:

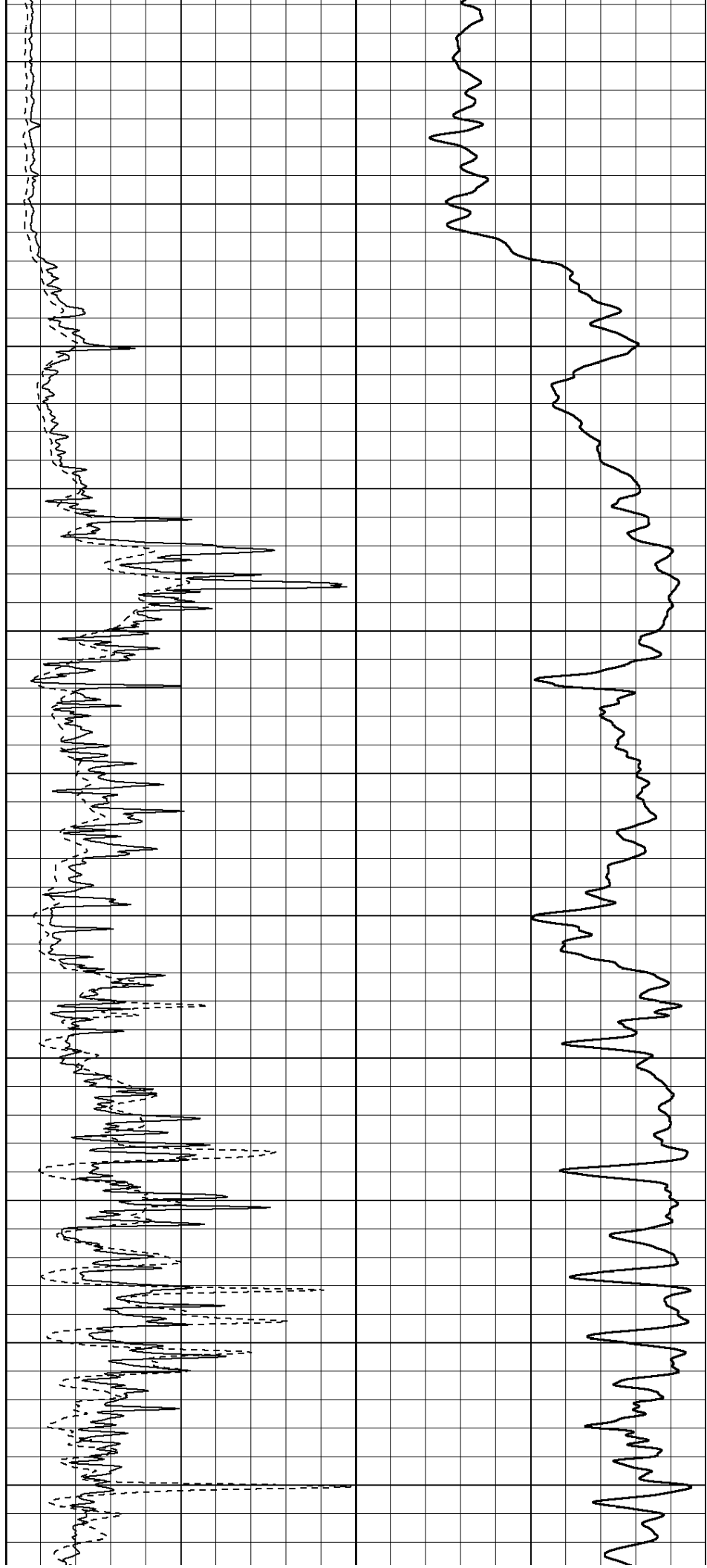
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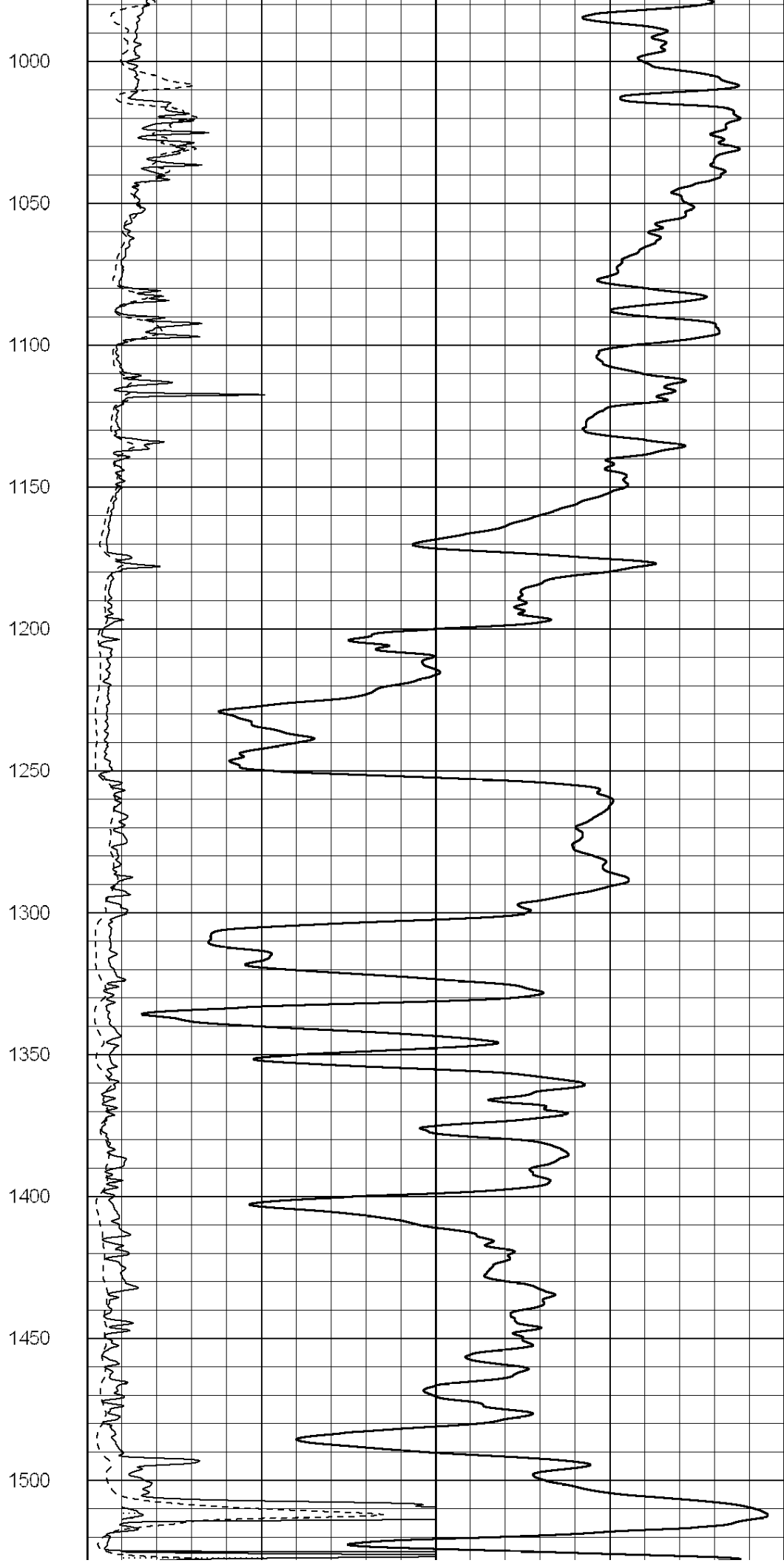
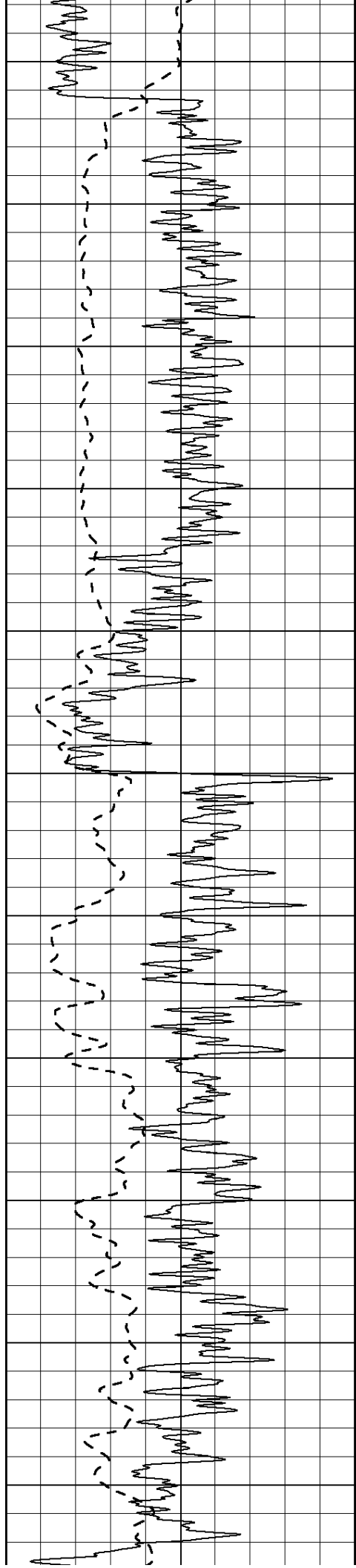
0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50	
-100	SP (mV)	100	0	Deep Induction (Ohm-m)	50	
-----			-----			
			1000		CILD (mmho/m)	0
			50	RILD X10 (Ohm-m)	500	
			50	RLL3 X10 (Ohm-m)	500	
-----			-----			

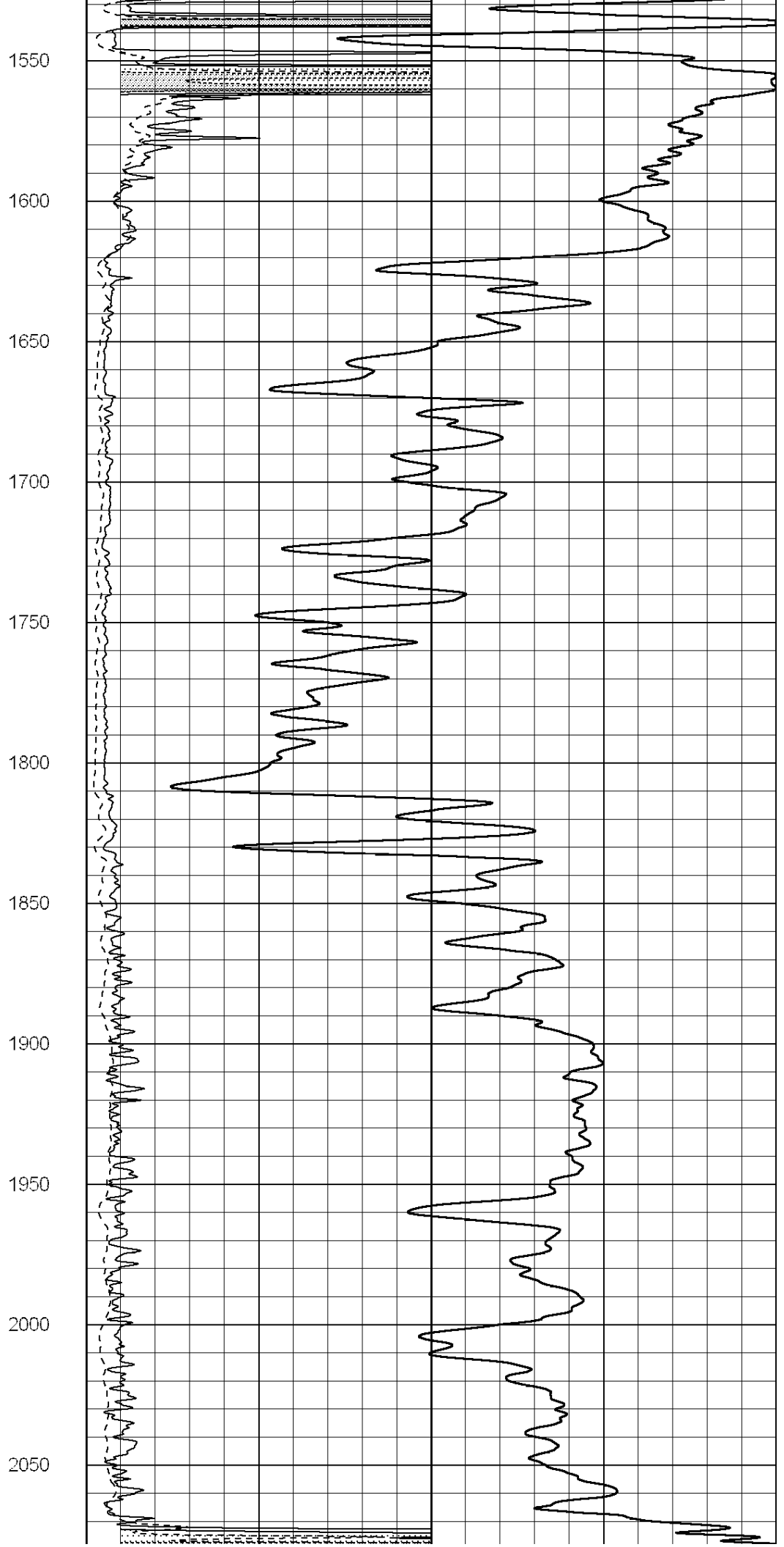
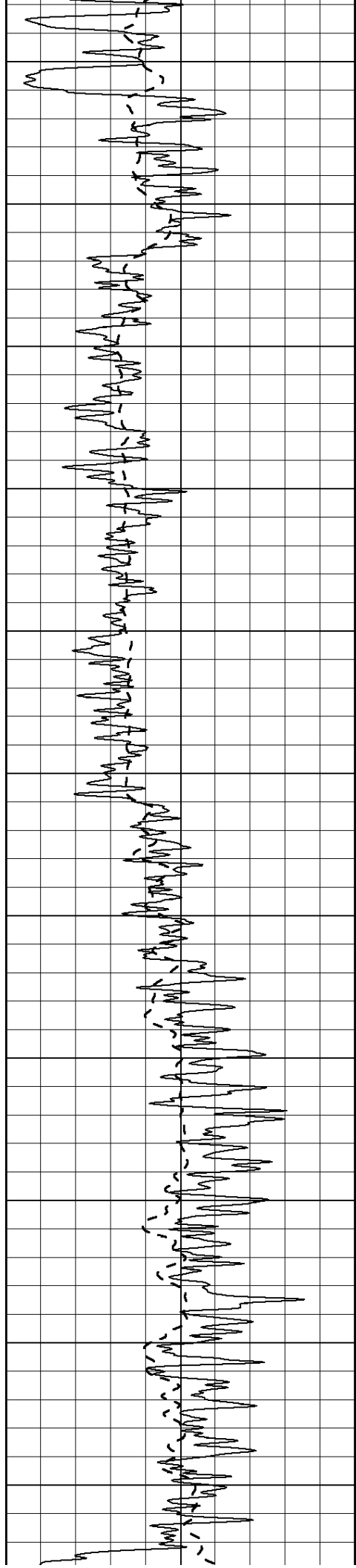


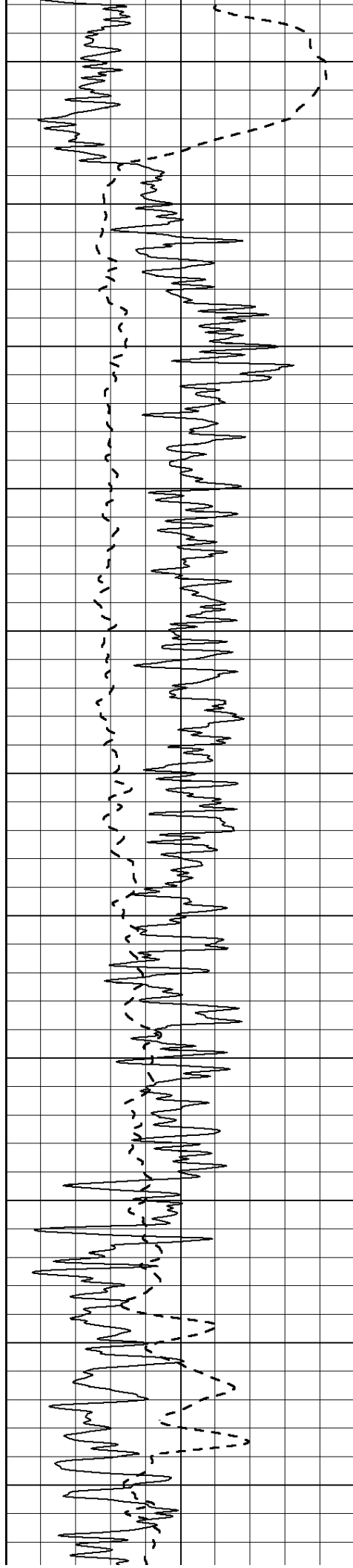


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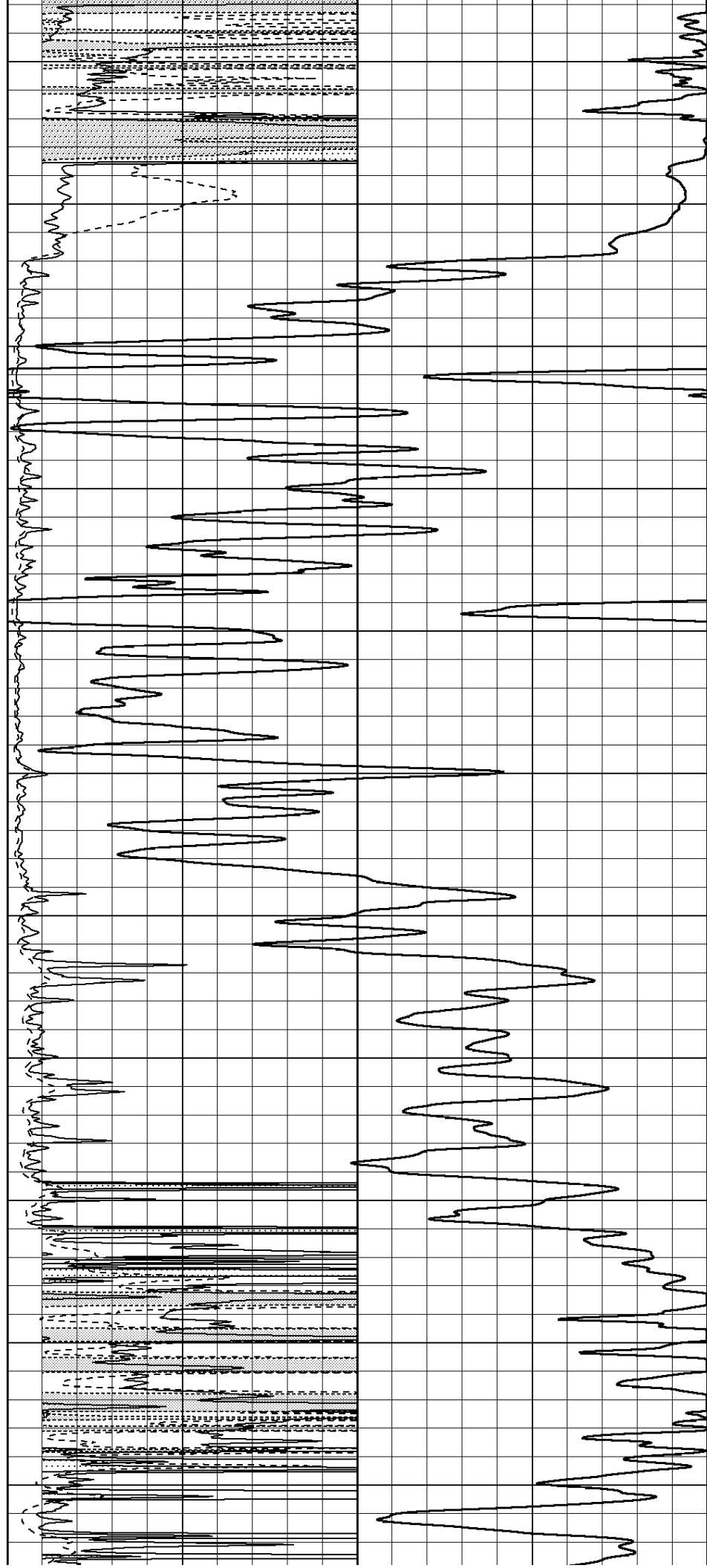
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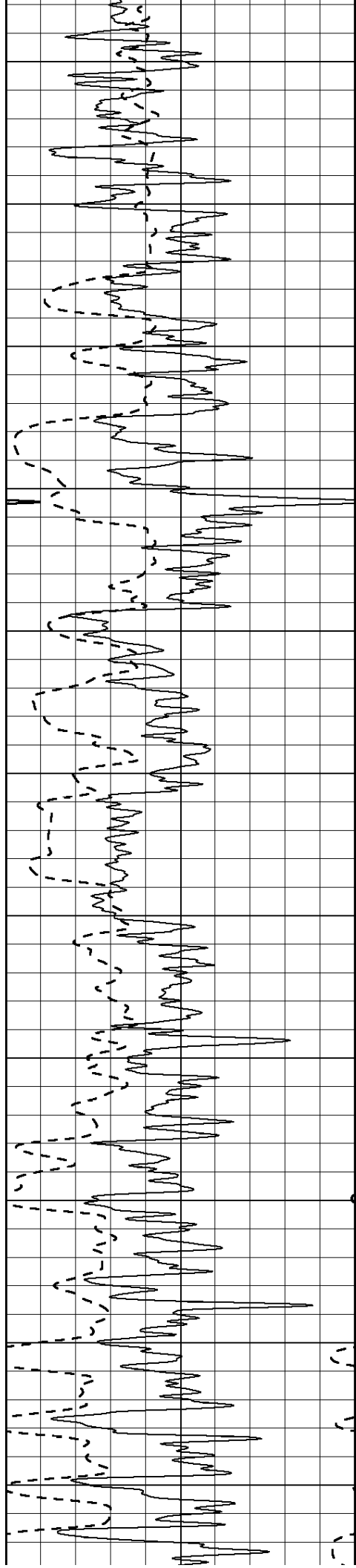
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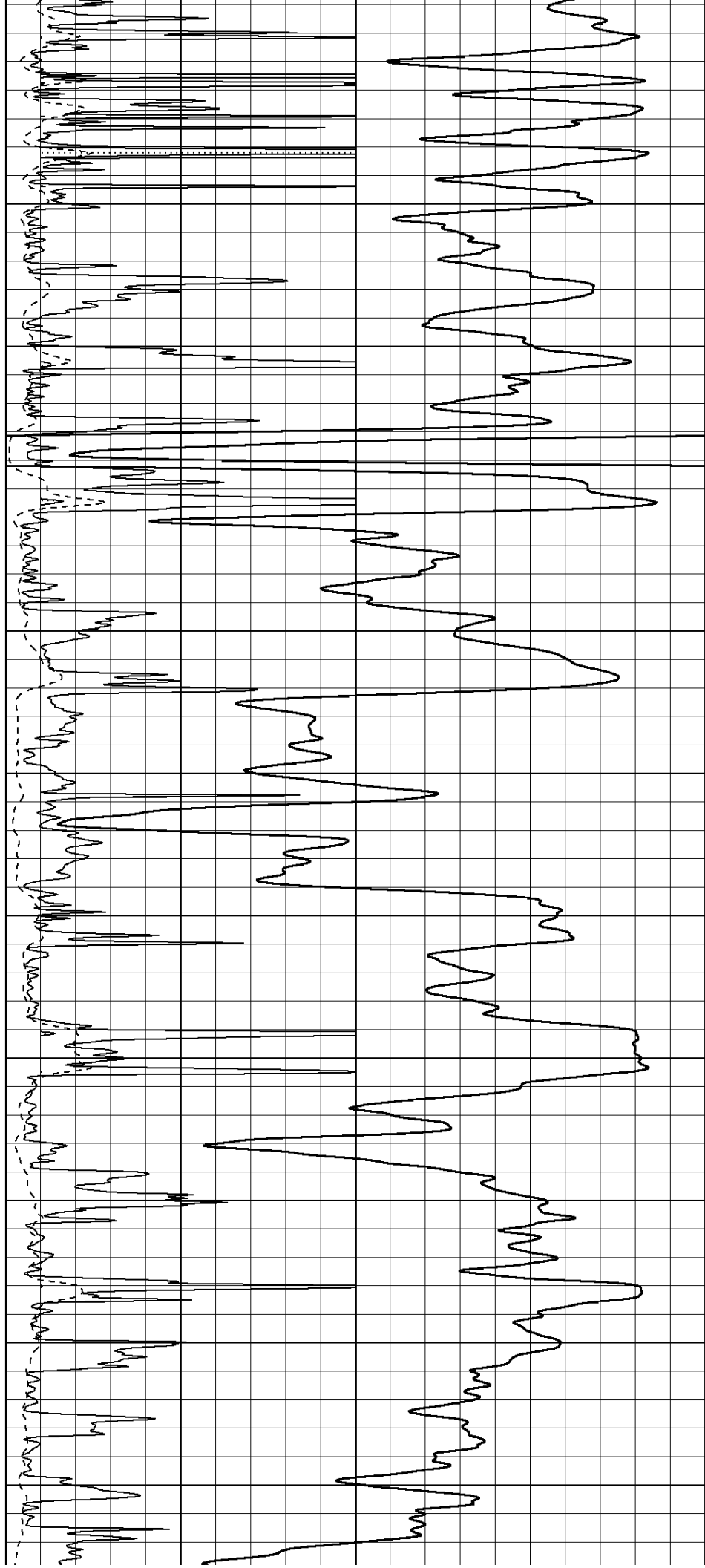
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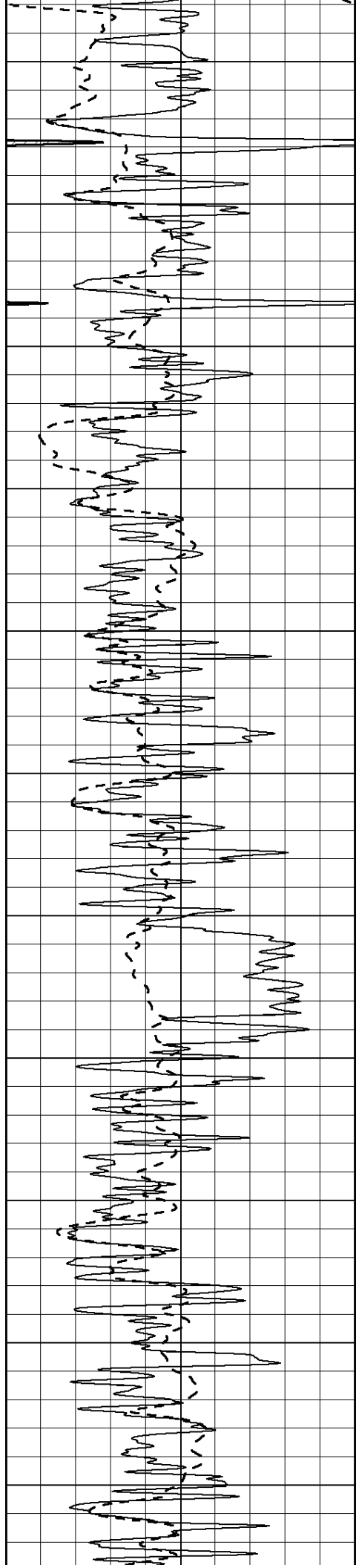
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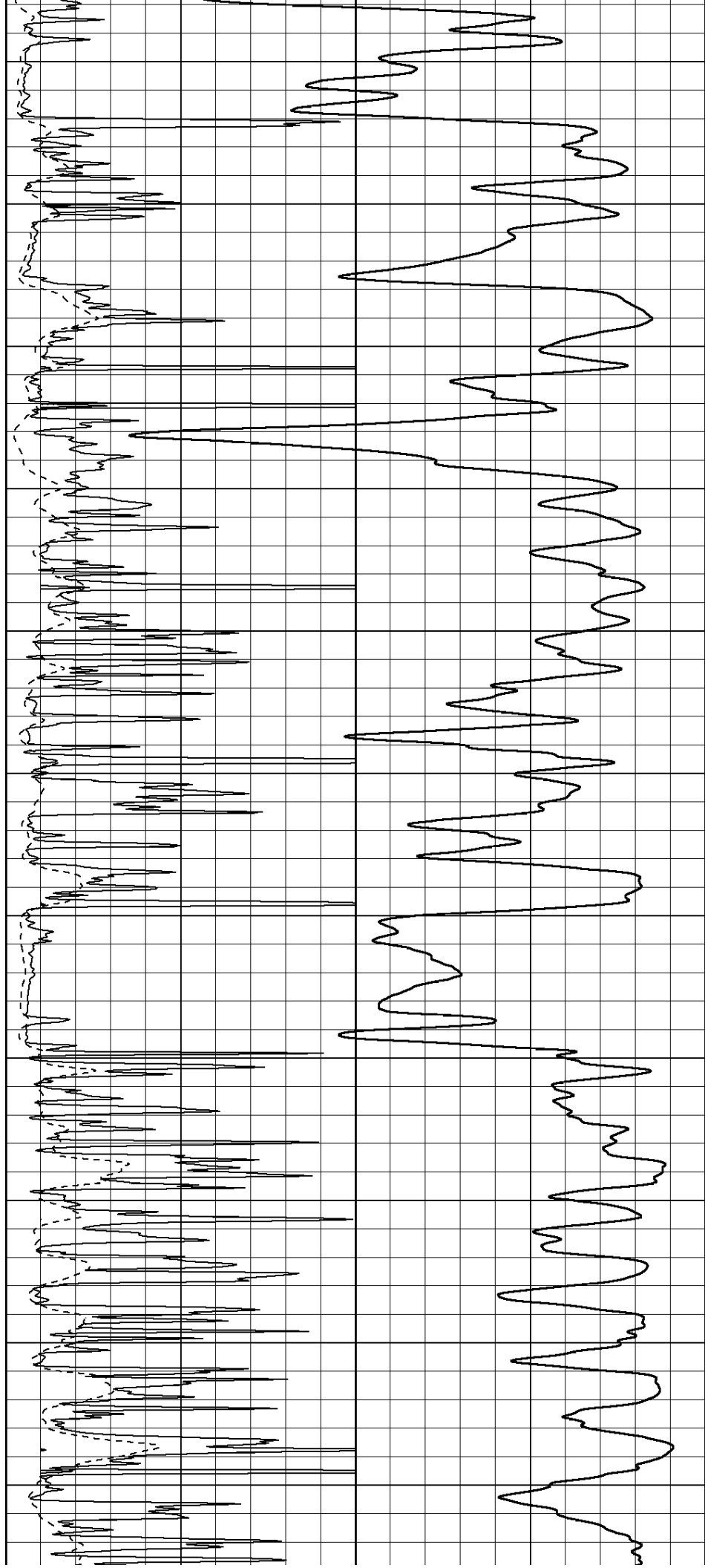
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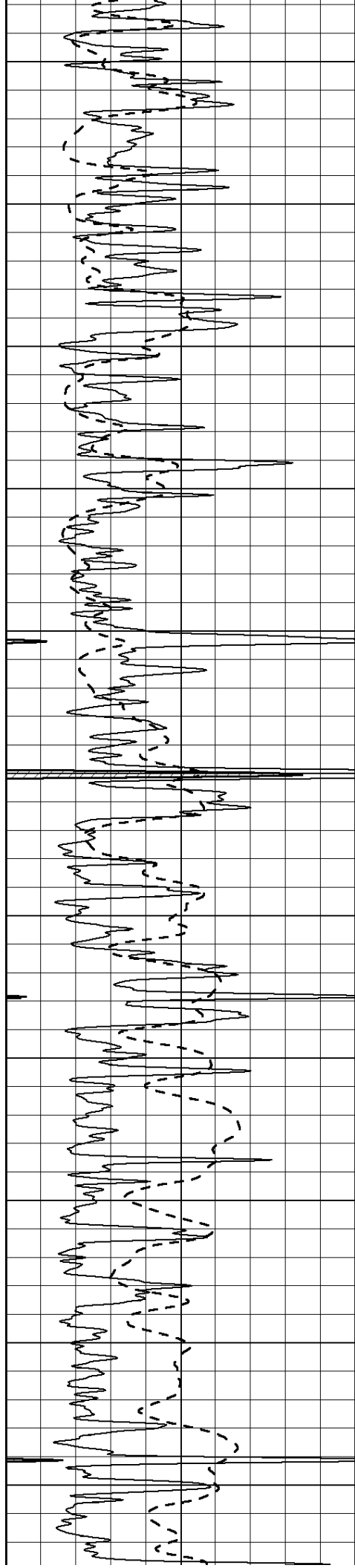
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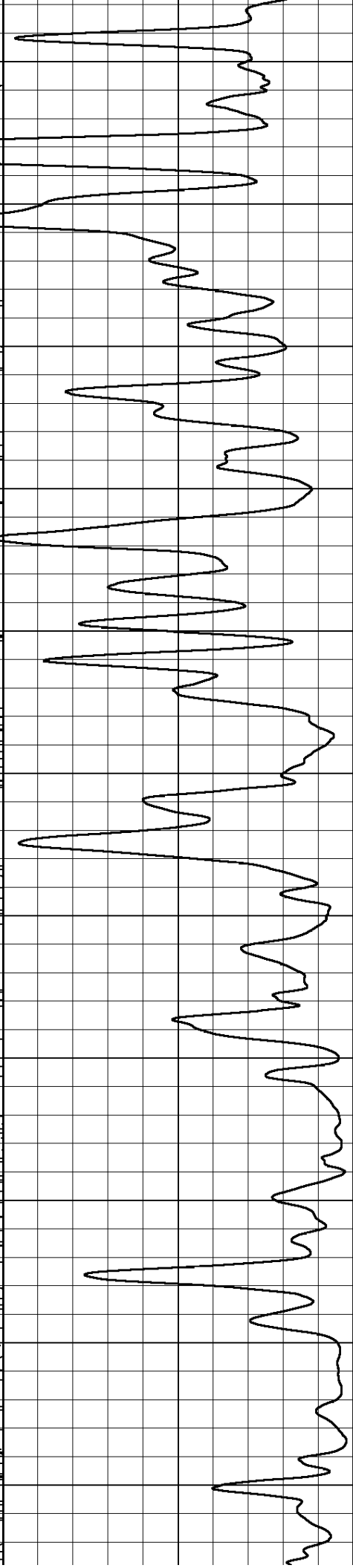
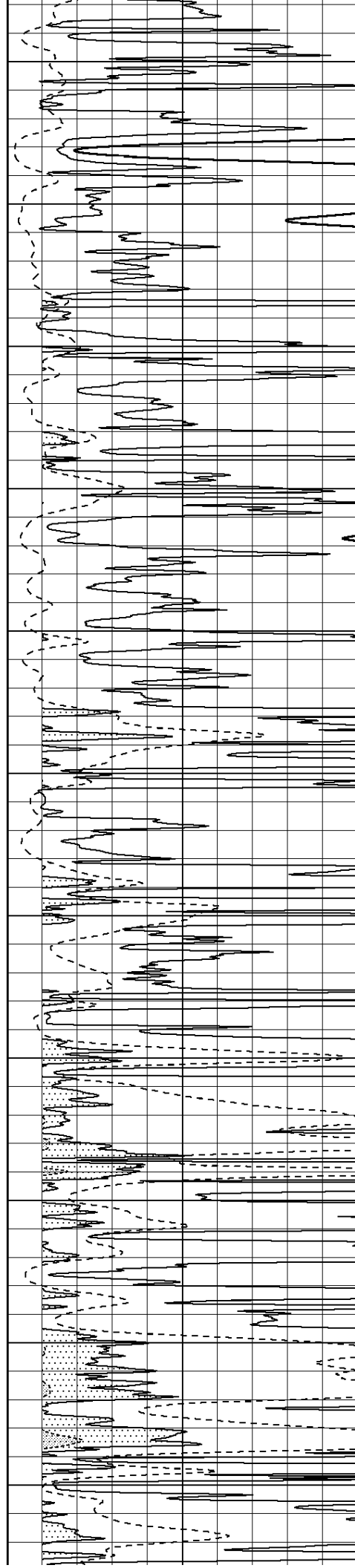
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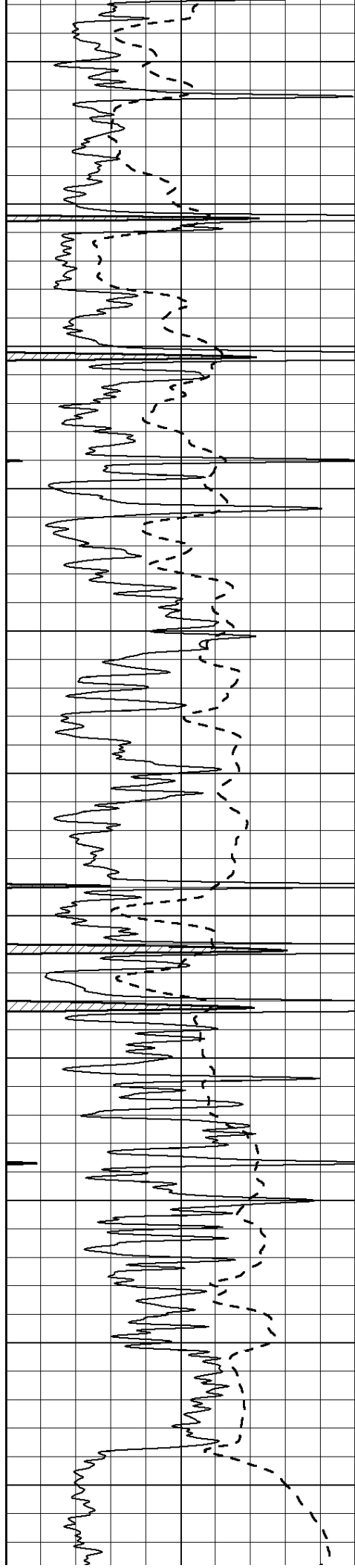
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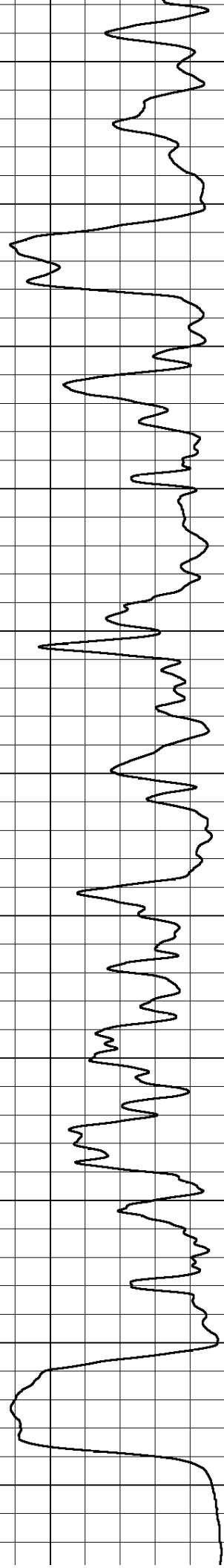
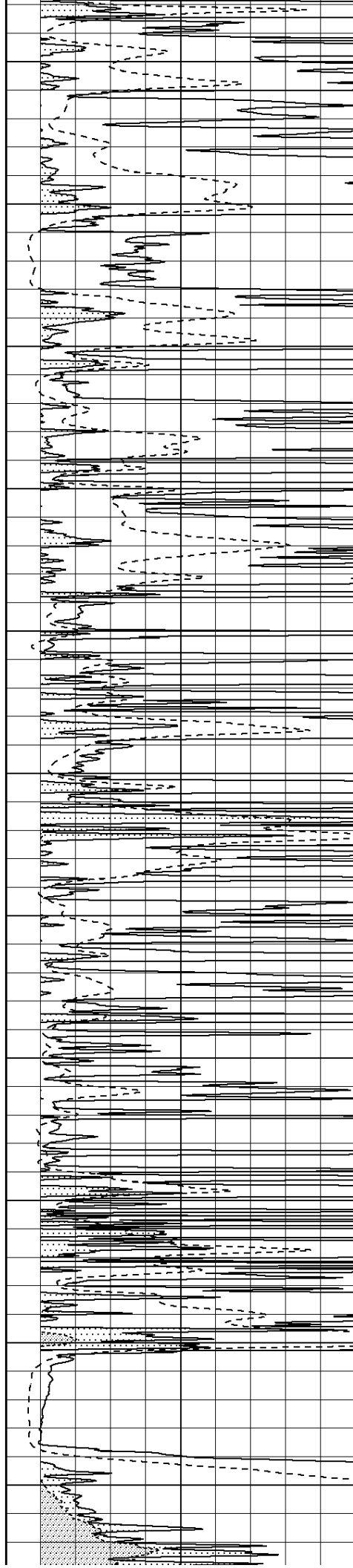
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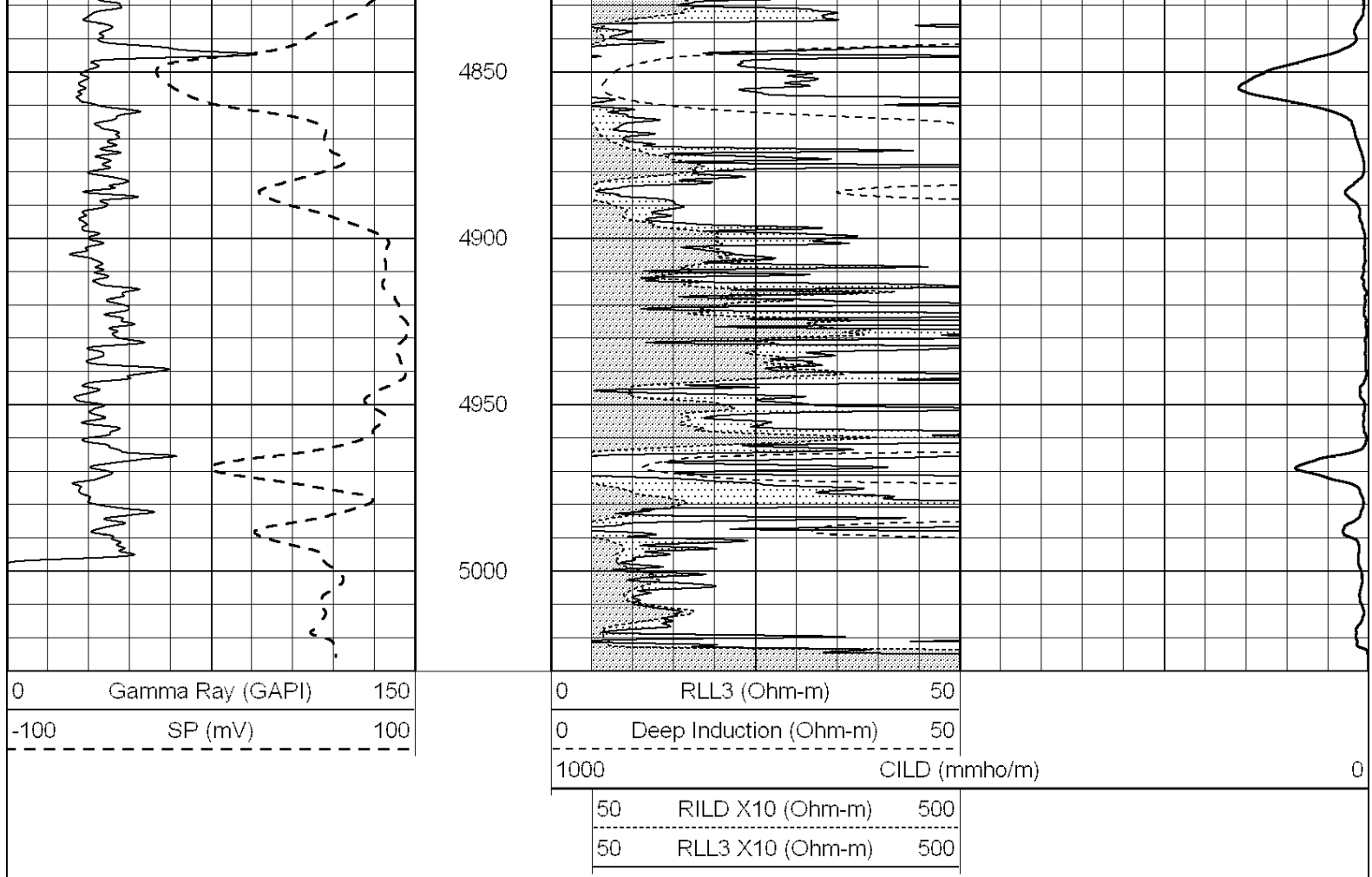
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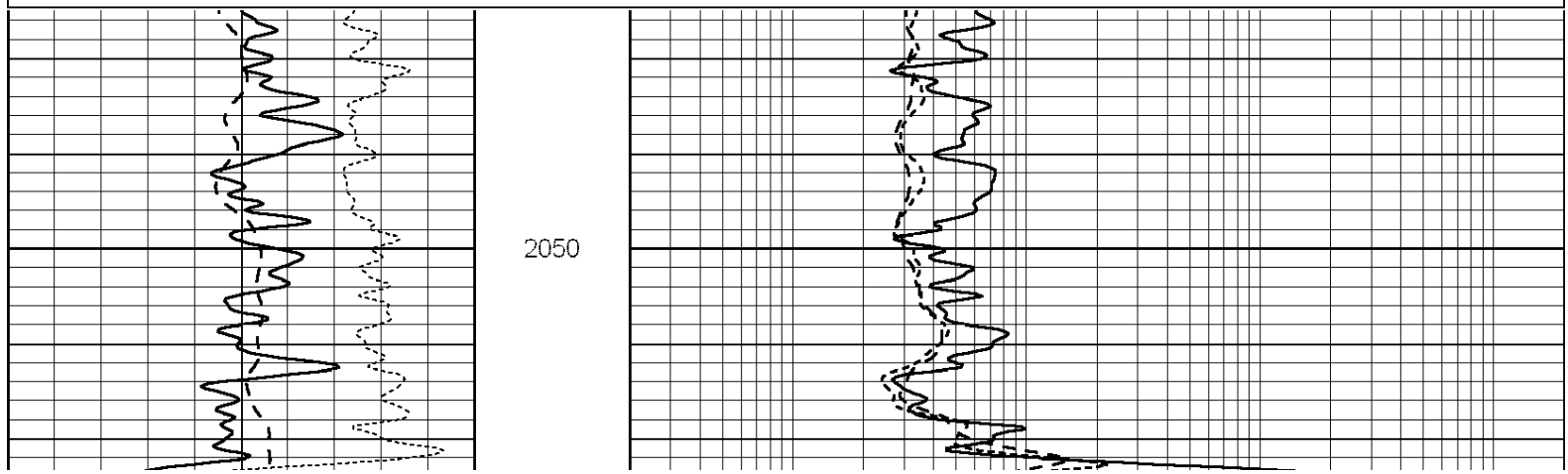
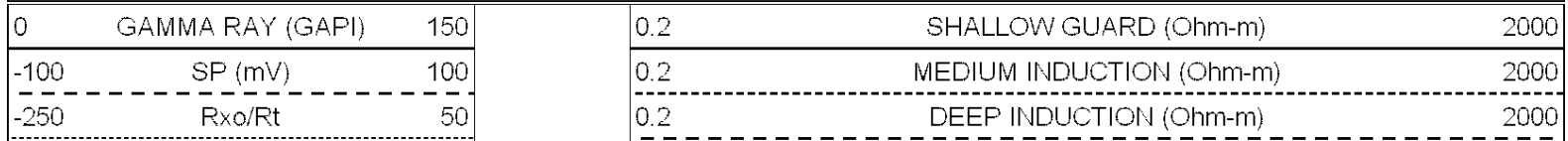


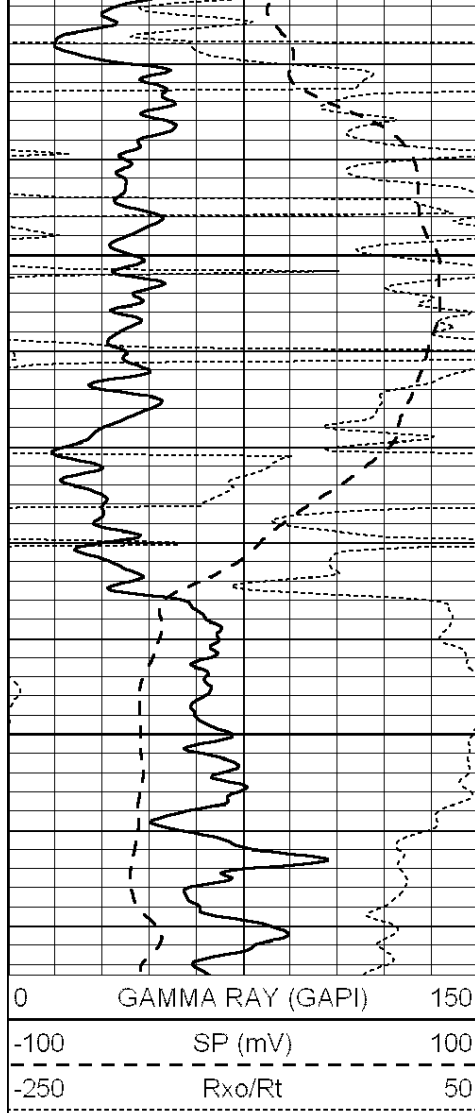


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MAIN SECTION

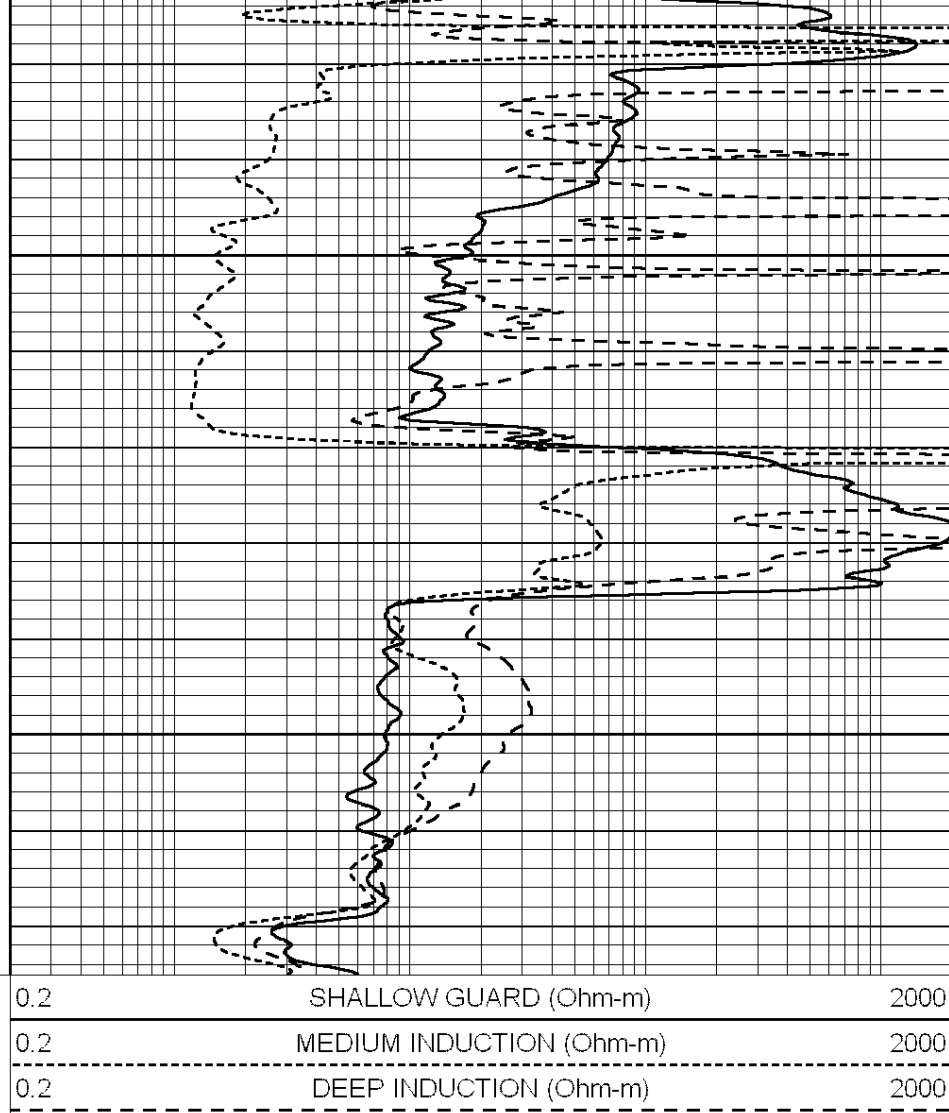
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Dataset Pathname: pass3.2
Presentation Format: _dil
Dataset Creation: Wed Oct 17 15:48:32 2012 by Calc Open-Cased 090629
Charted by: Depth in Feet scaled 1:240





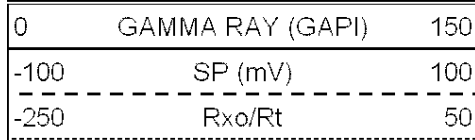
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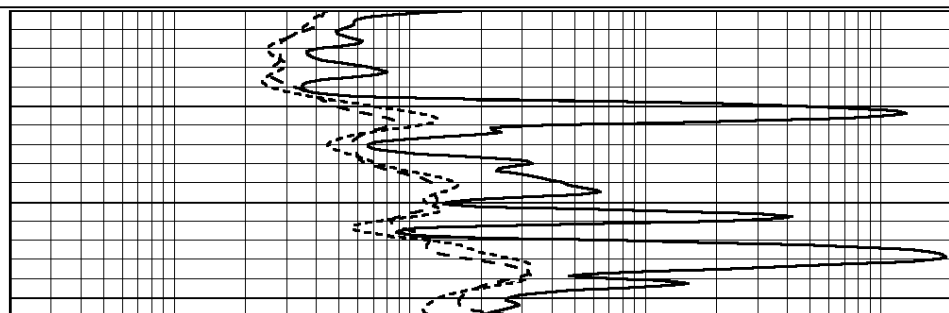
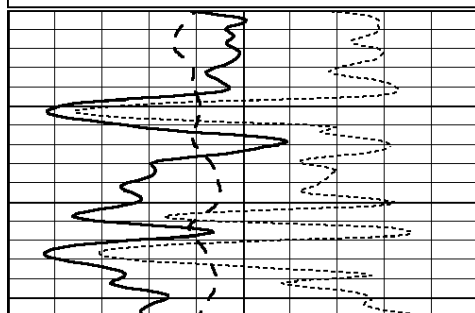
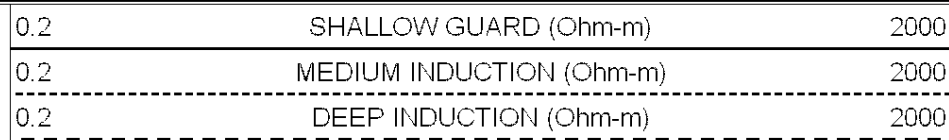


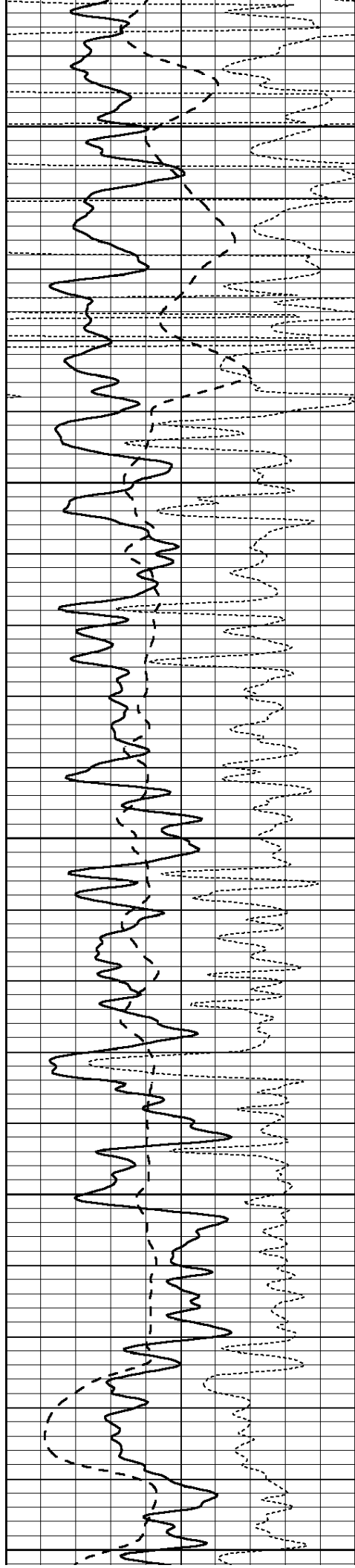
MAIN SECTION

Database File: 009976.db
 Dataset Pathname: pass3.2
 Presentation Format: _dil
 Dataset Creation: Wed Oct 17 15:48:32 2012 by Calc Open-Cased 090629
 Charted by: Depth in Feet scaled 1:240



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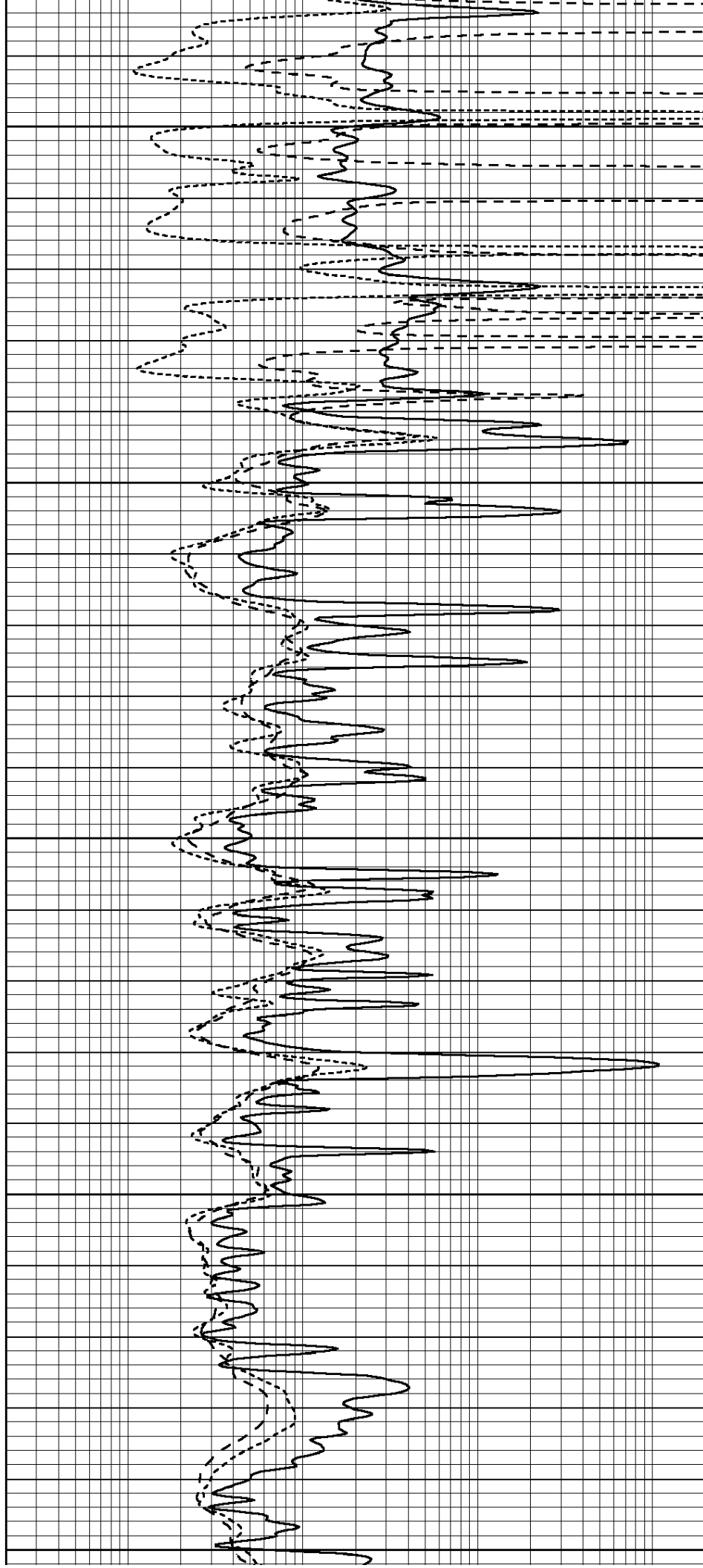
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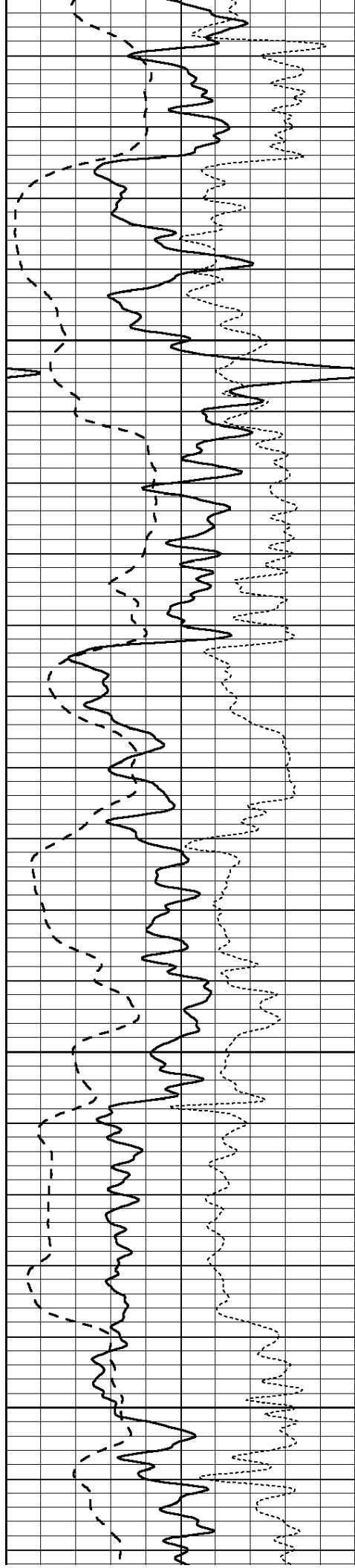
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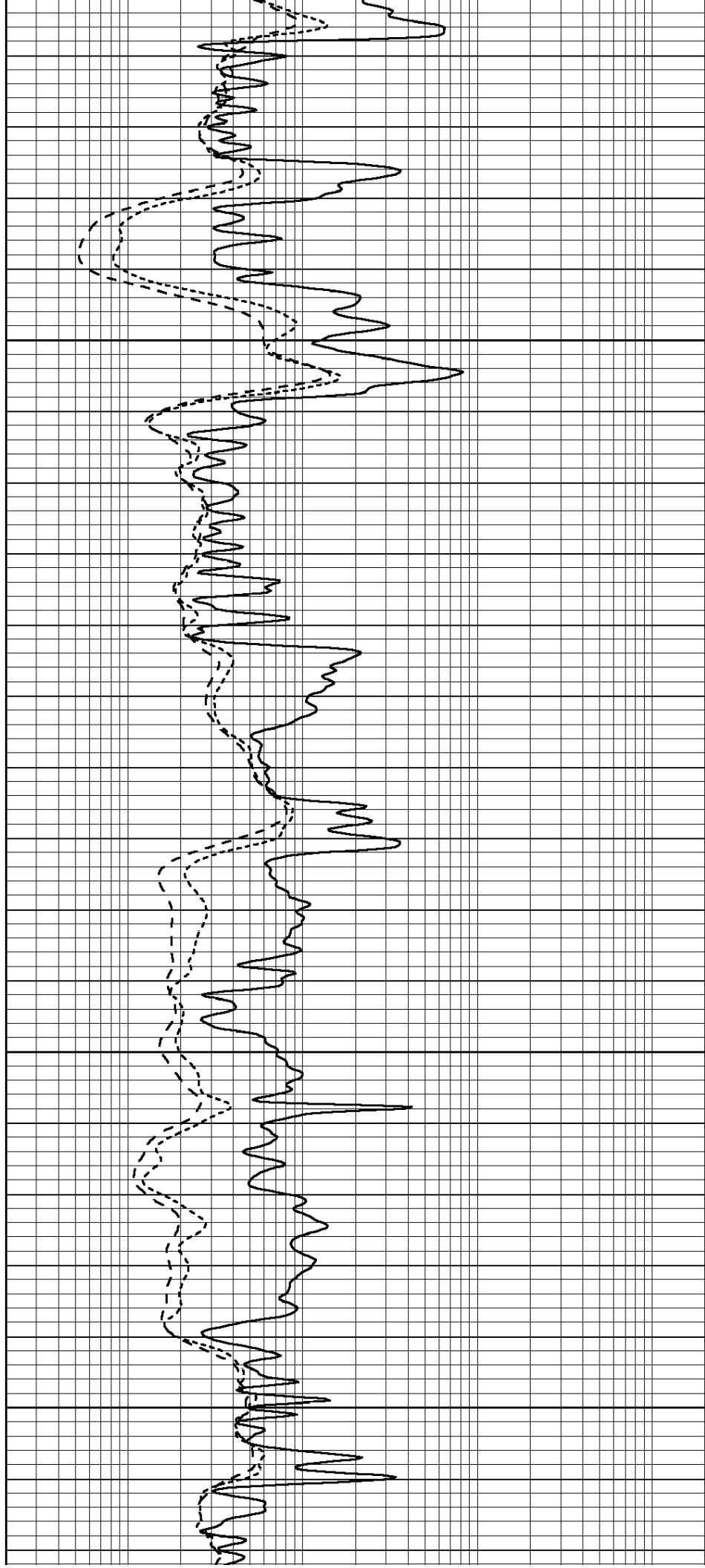


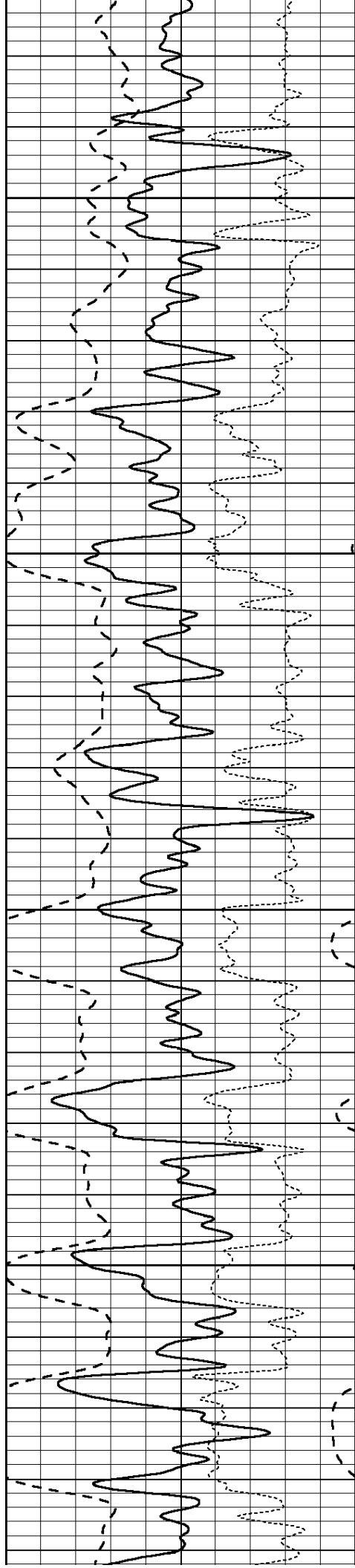
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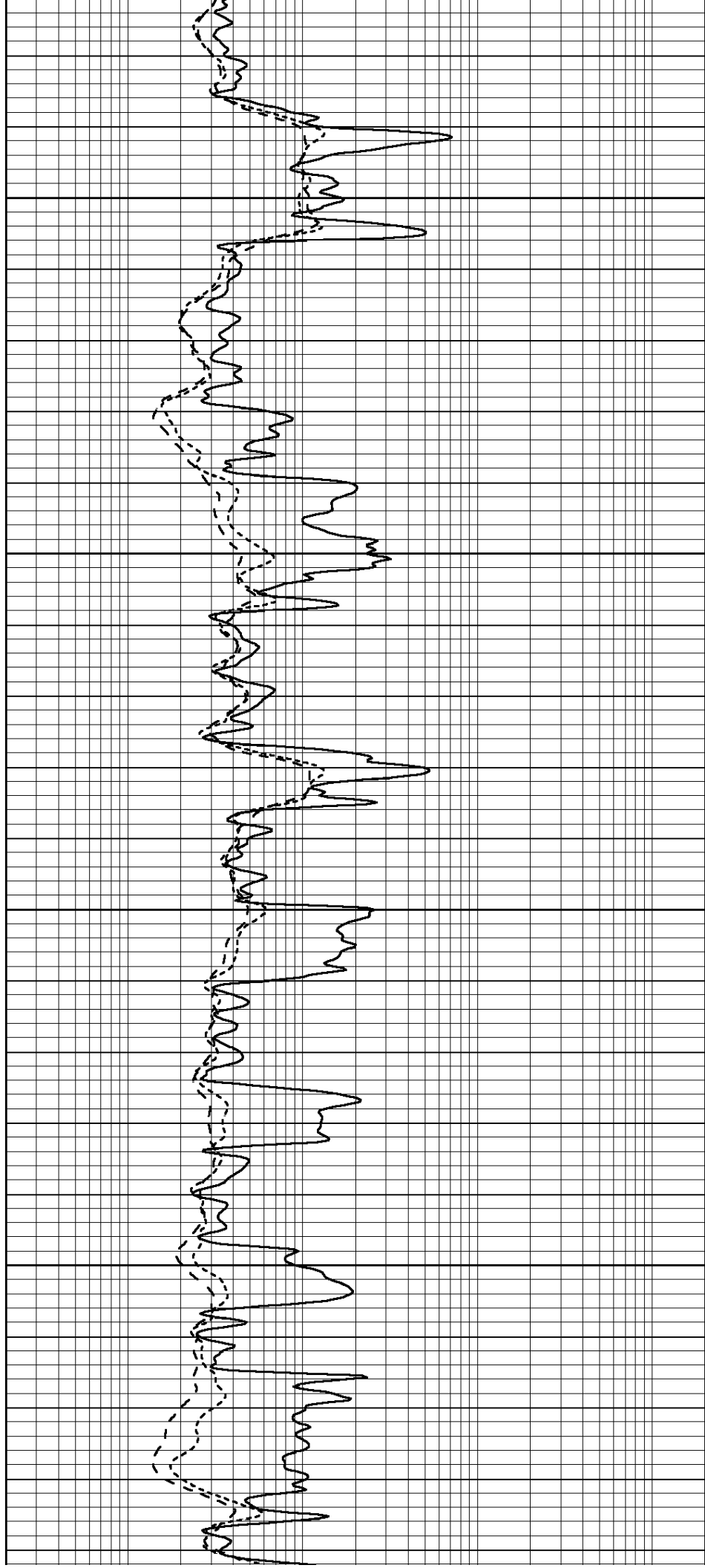


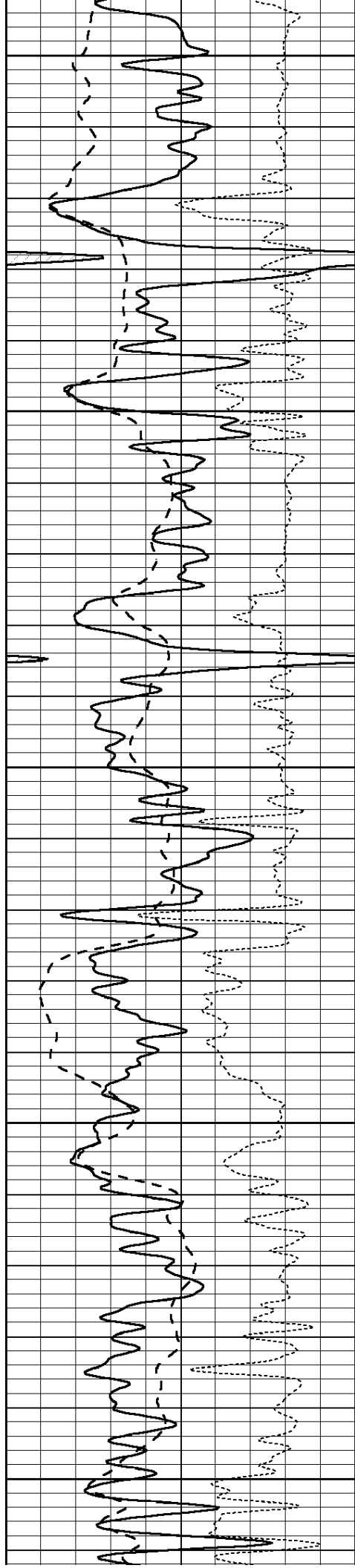
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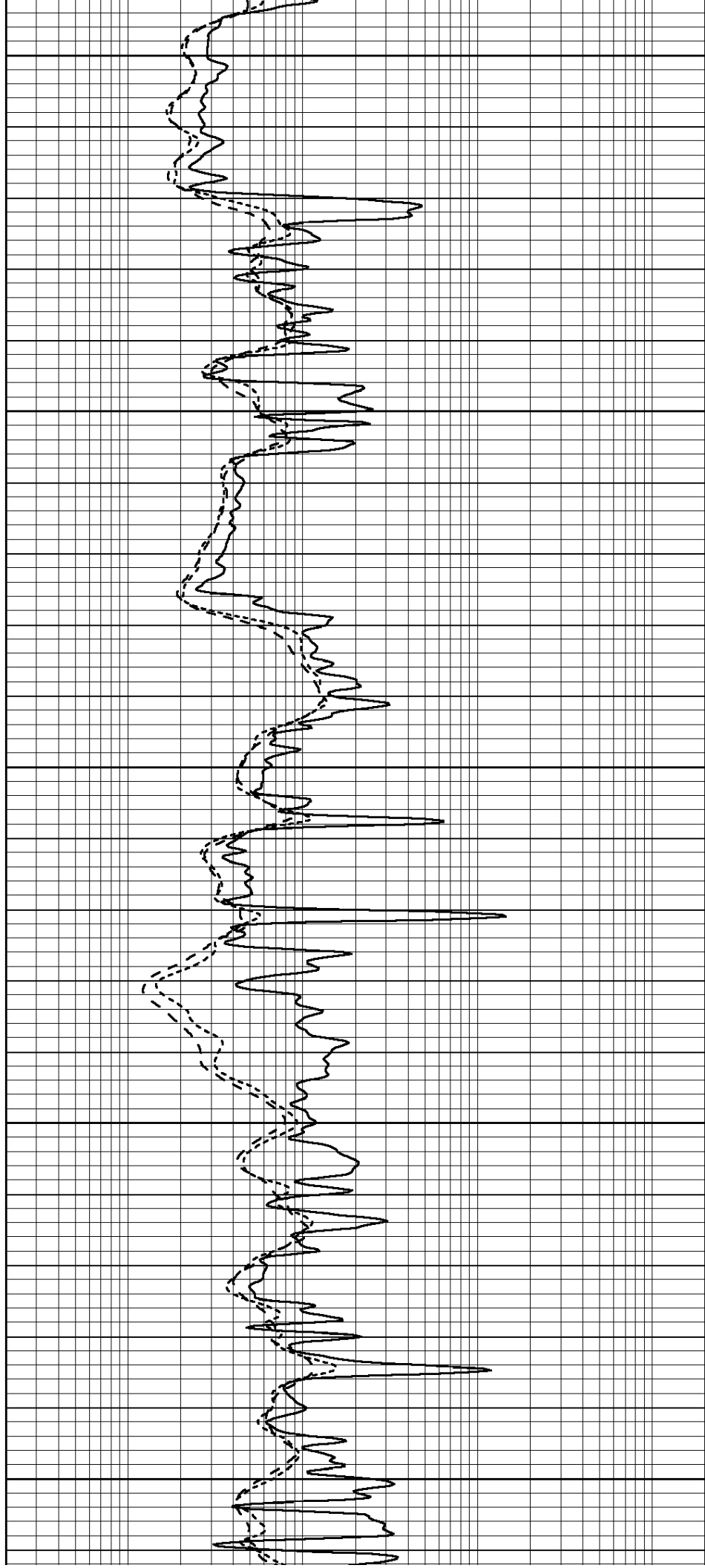
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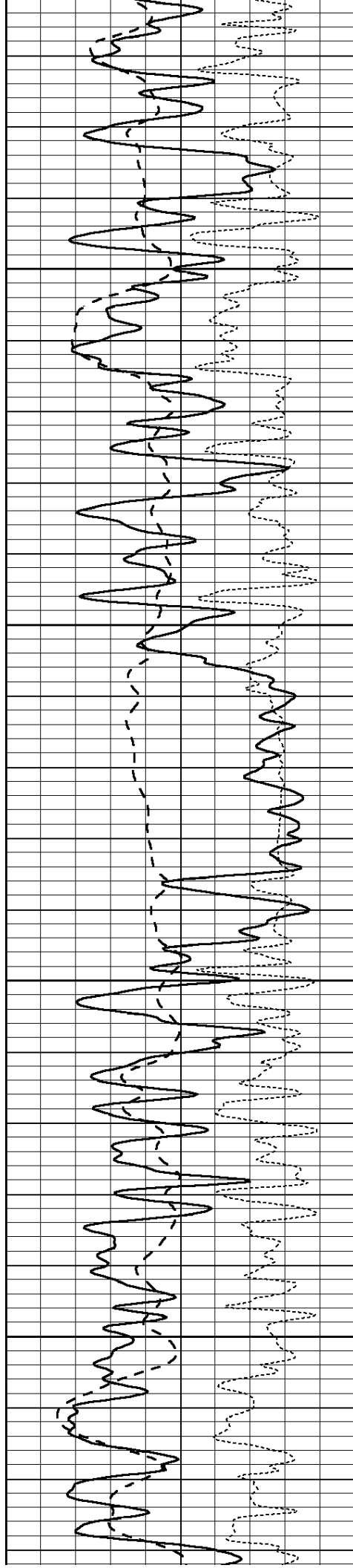
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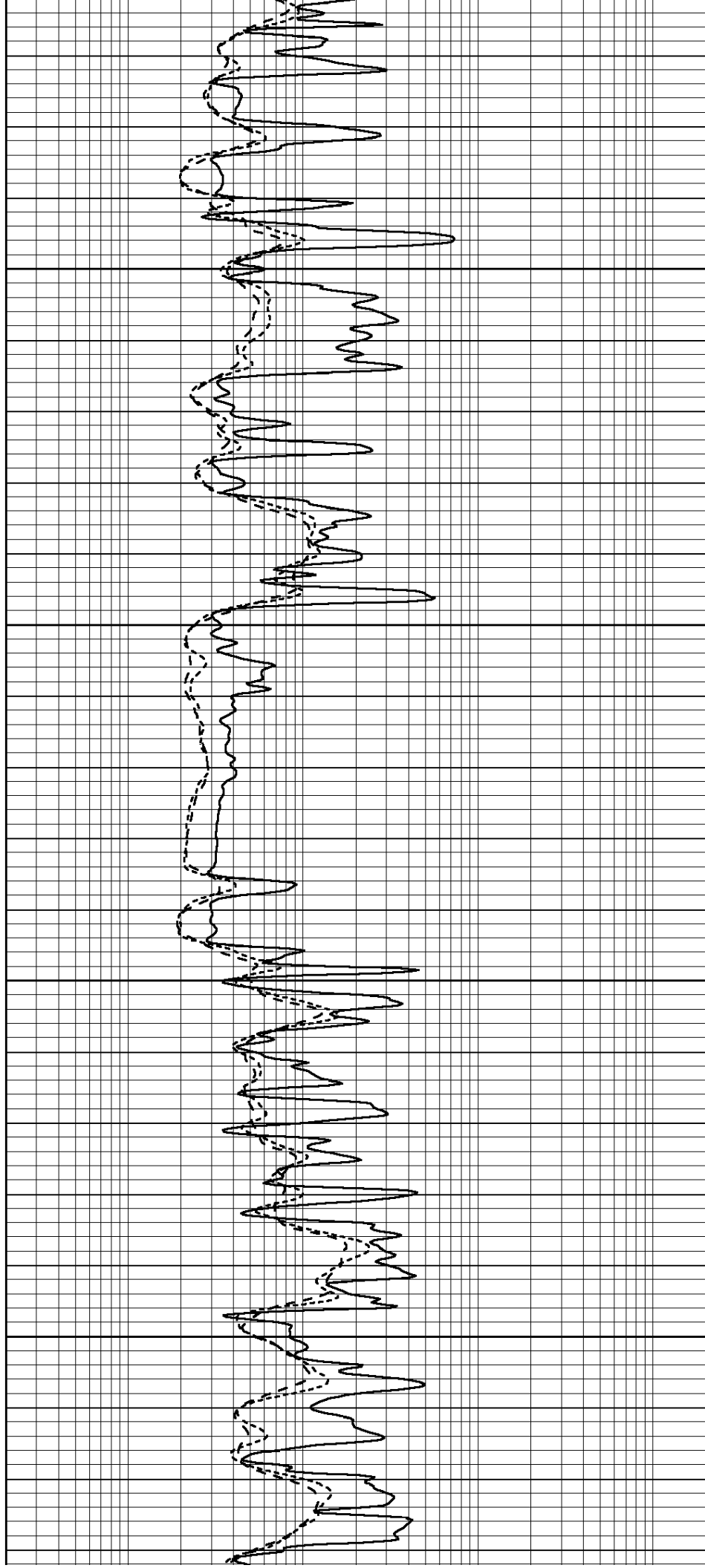


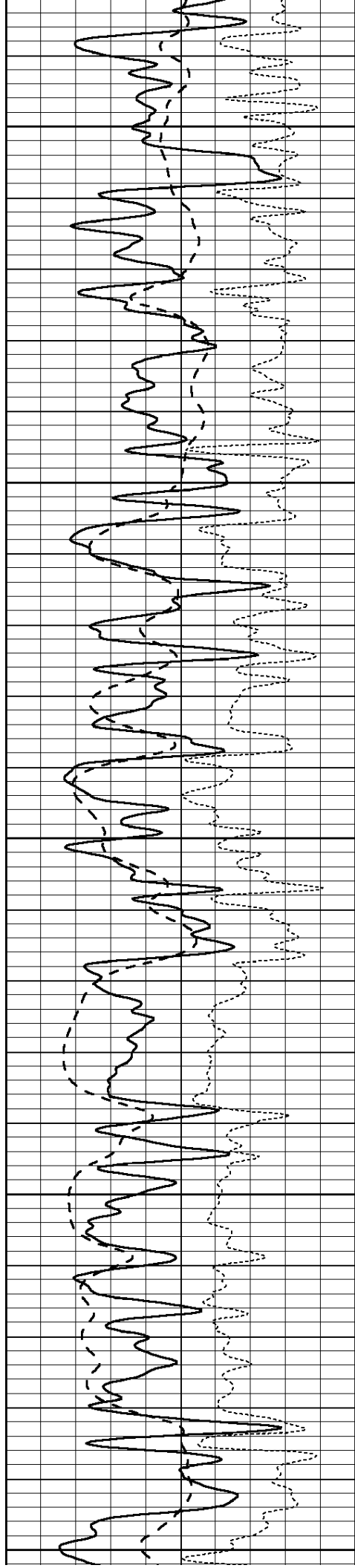
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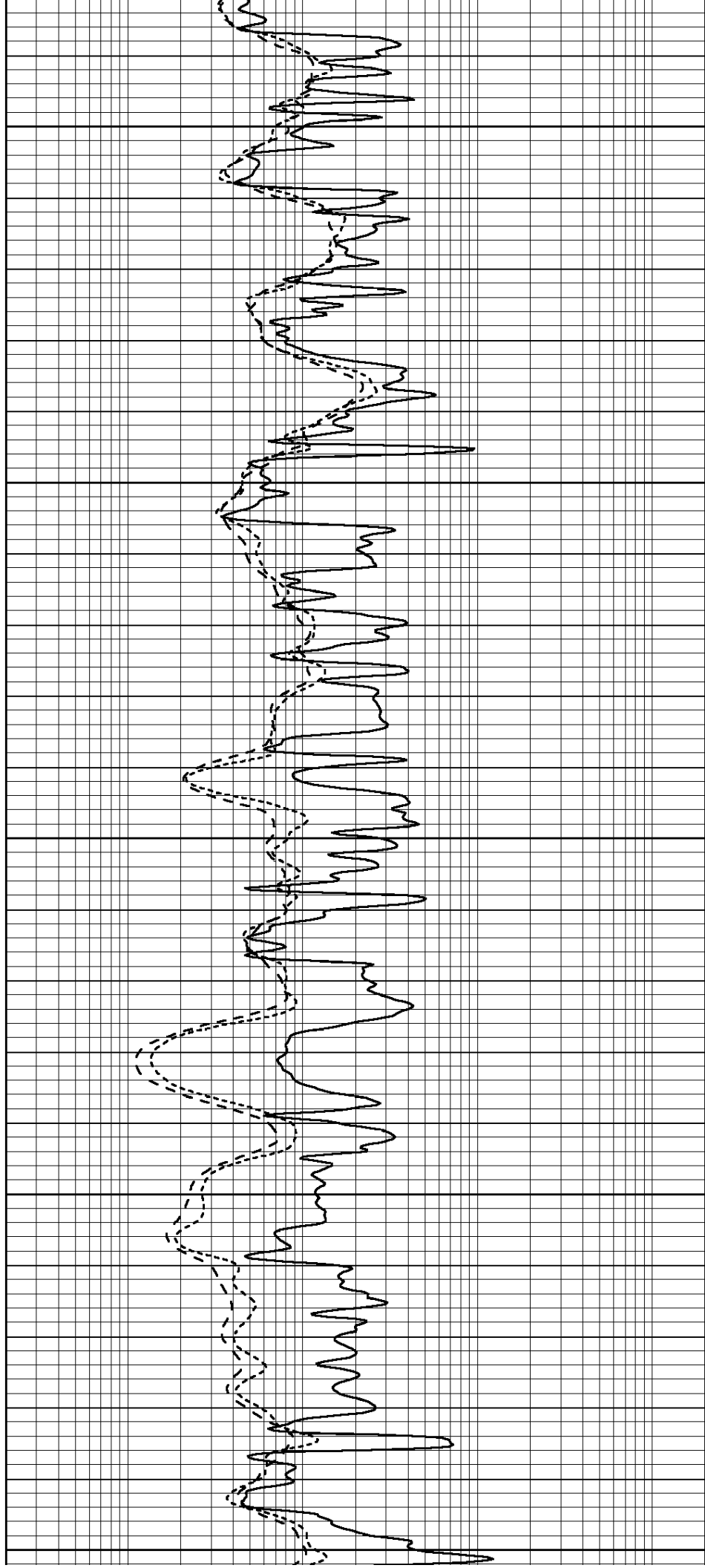
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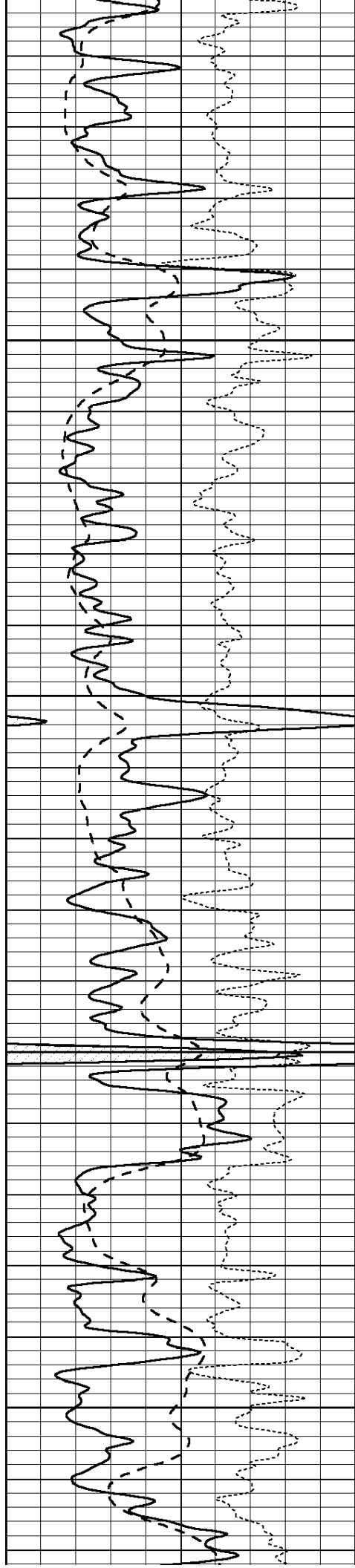
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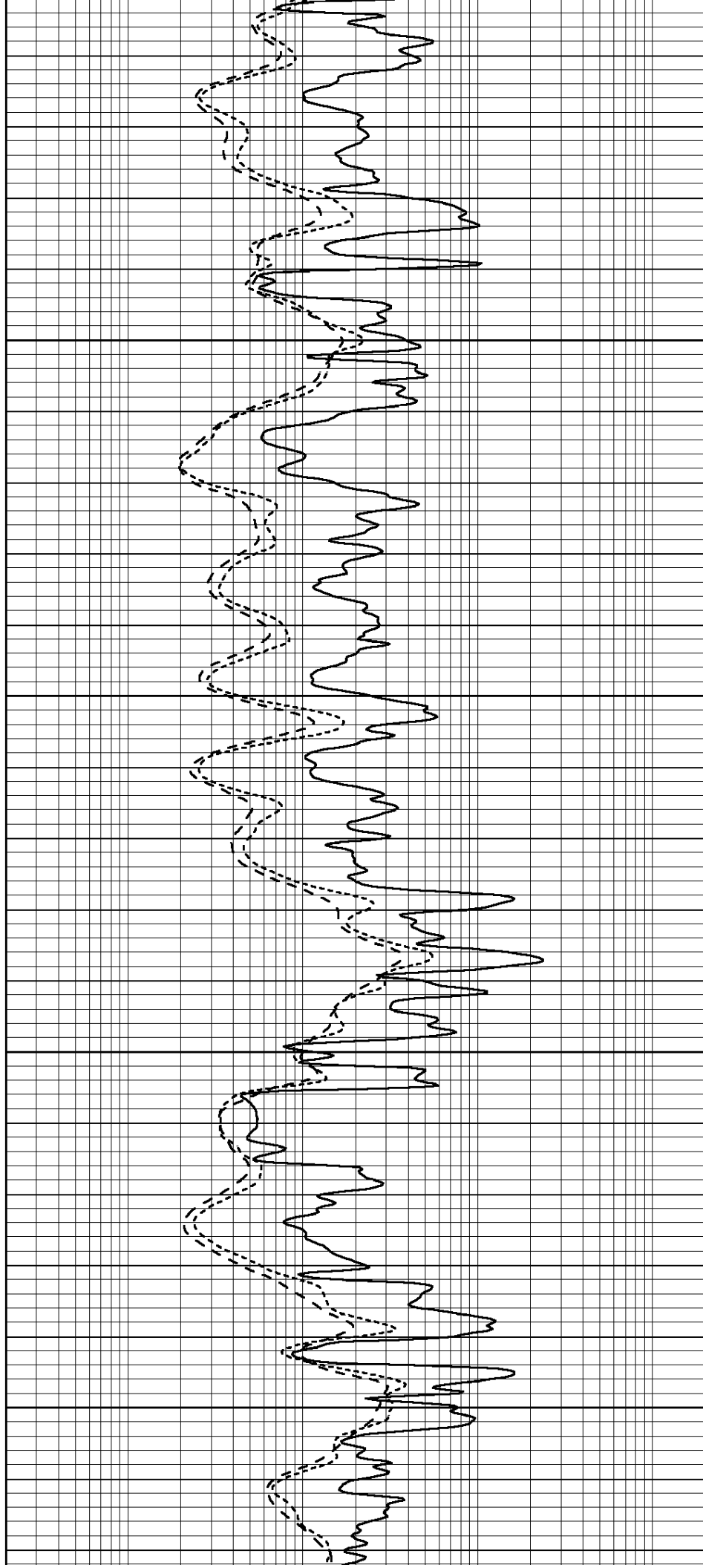


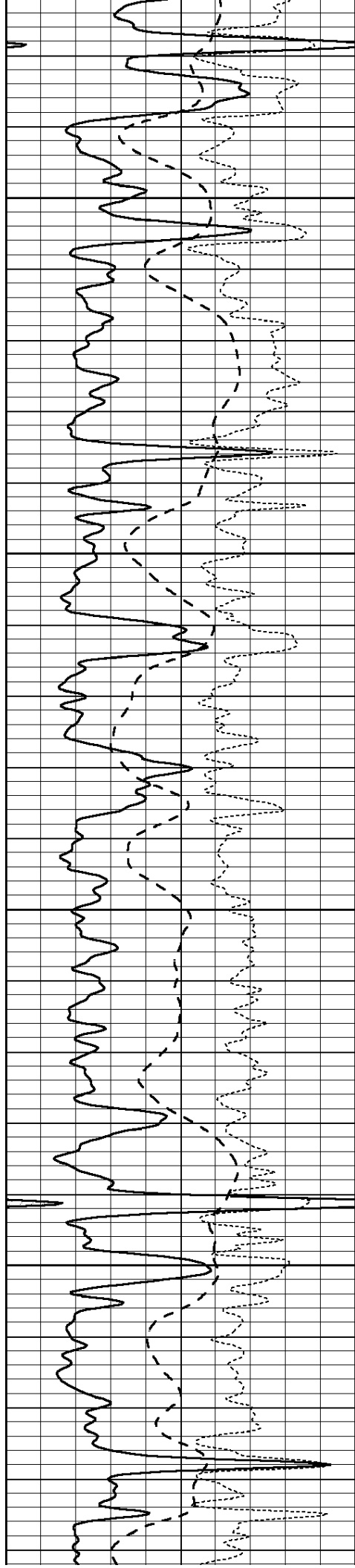
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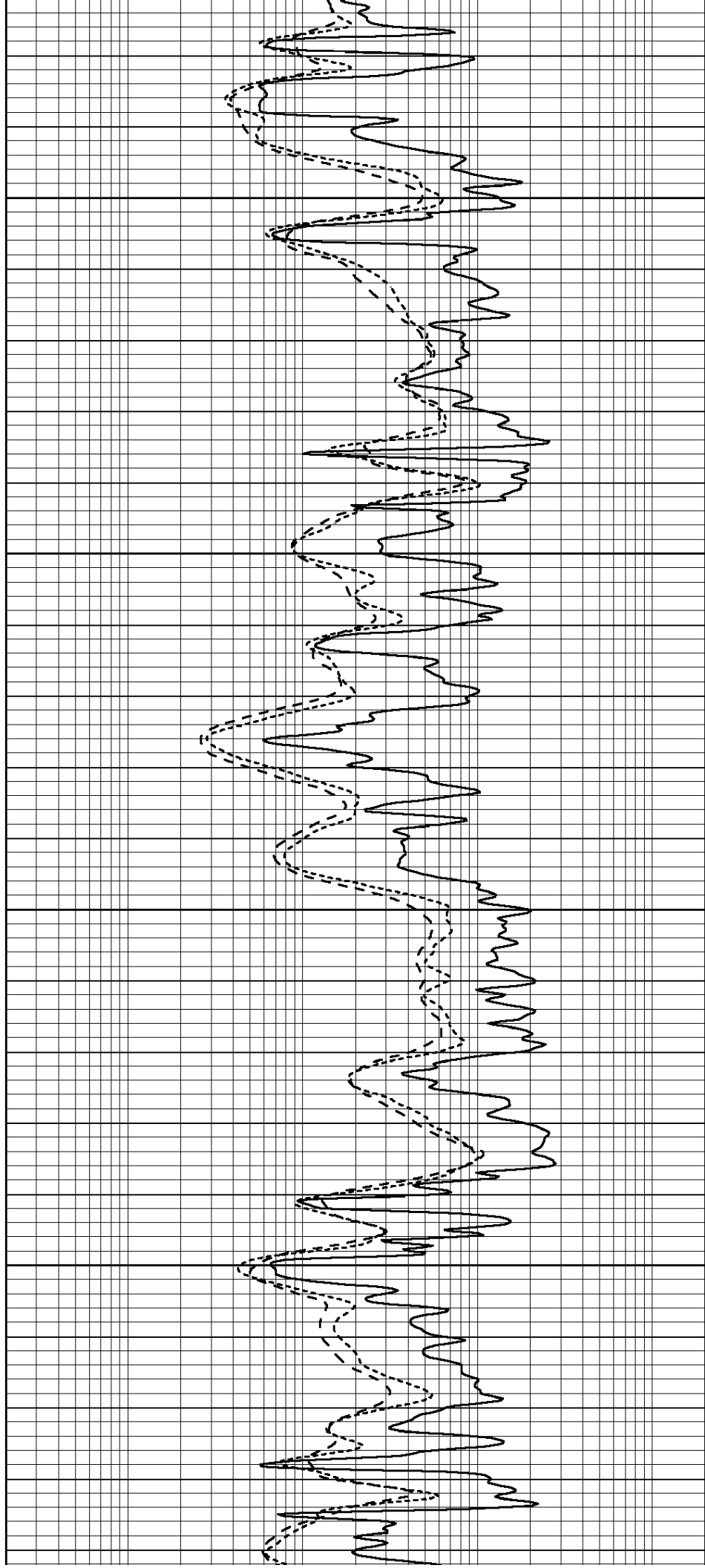


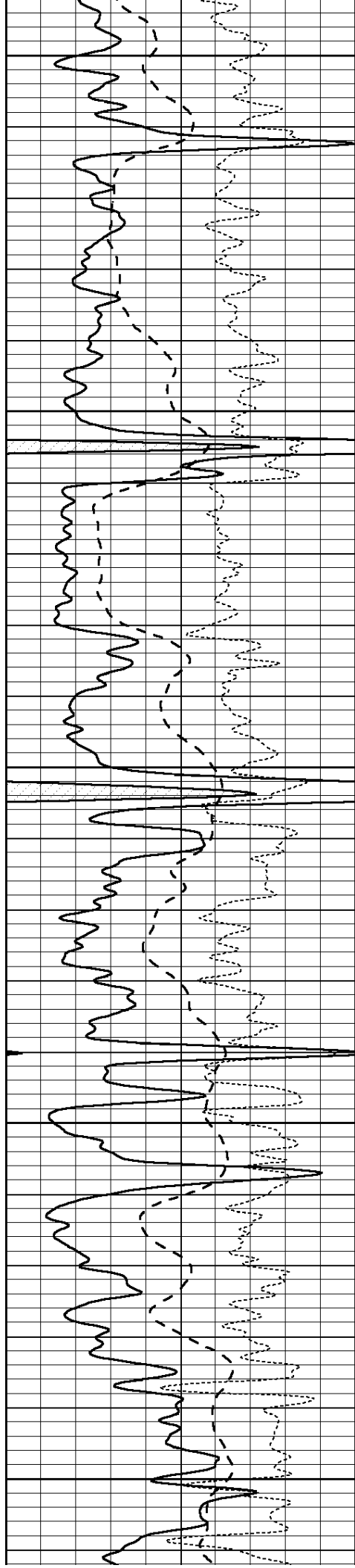
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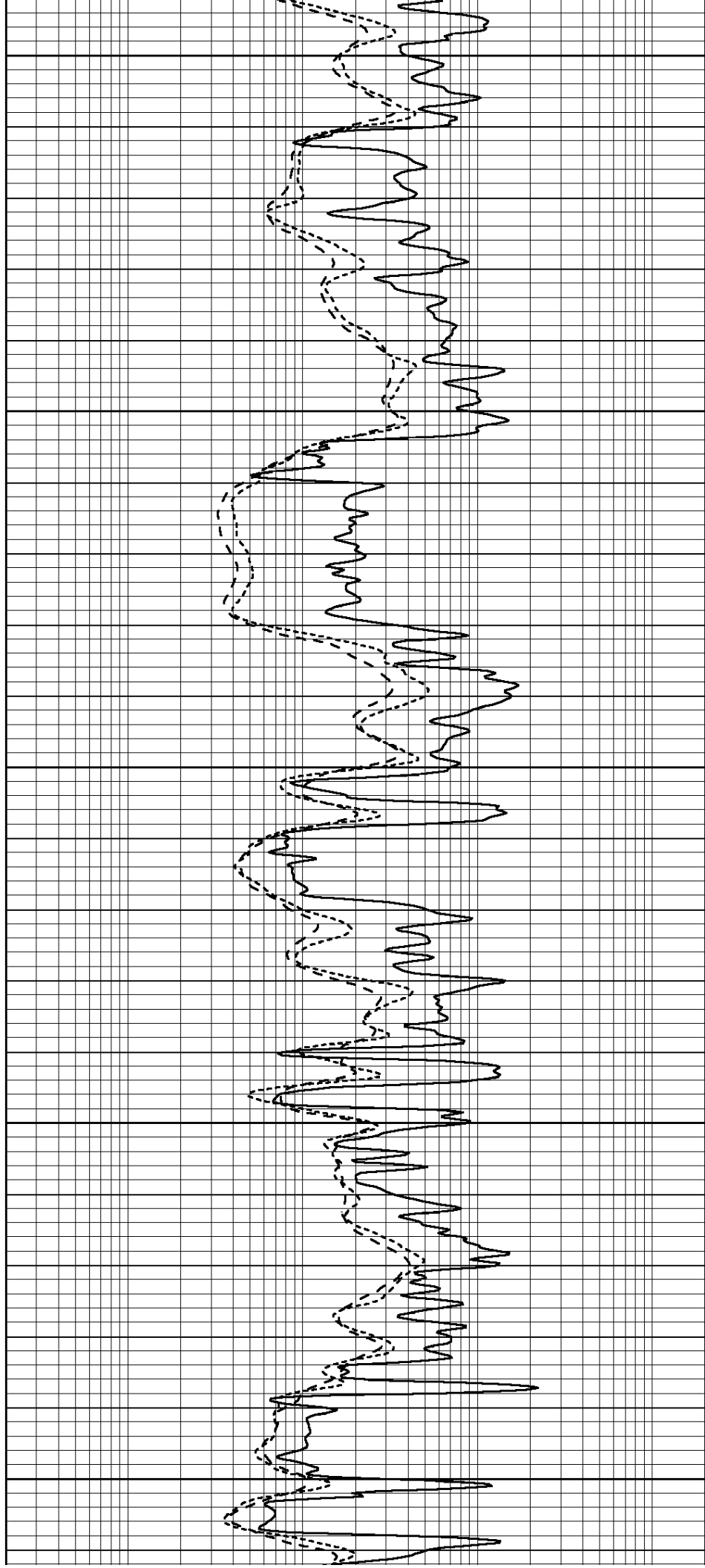
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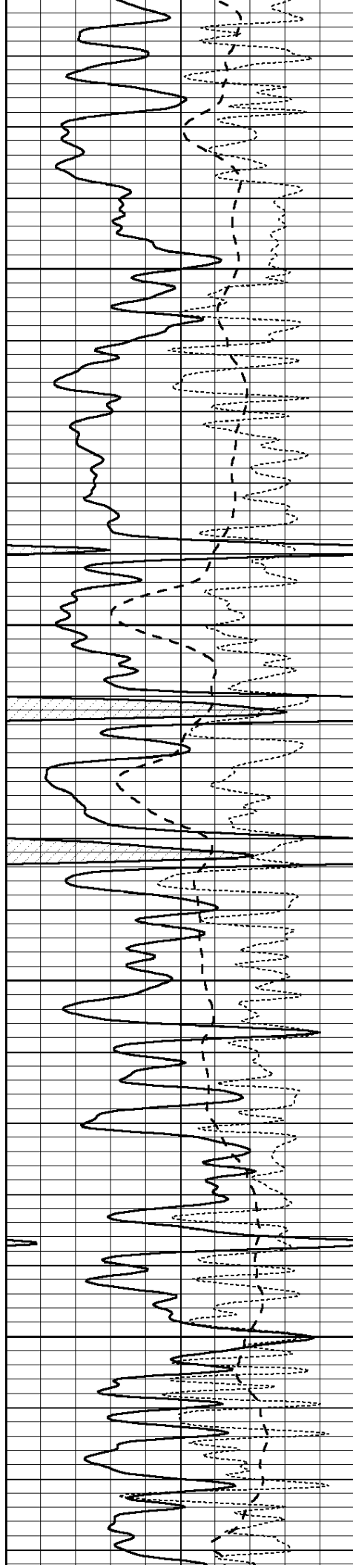
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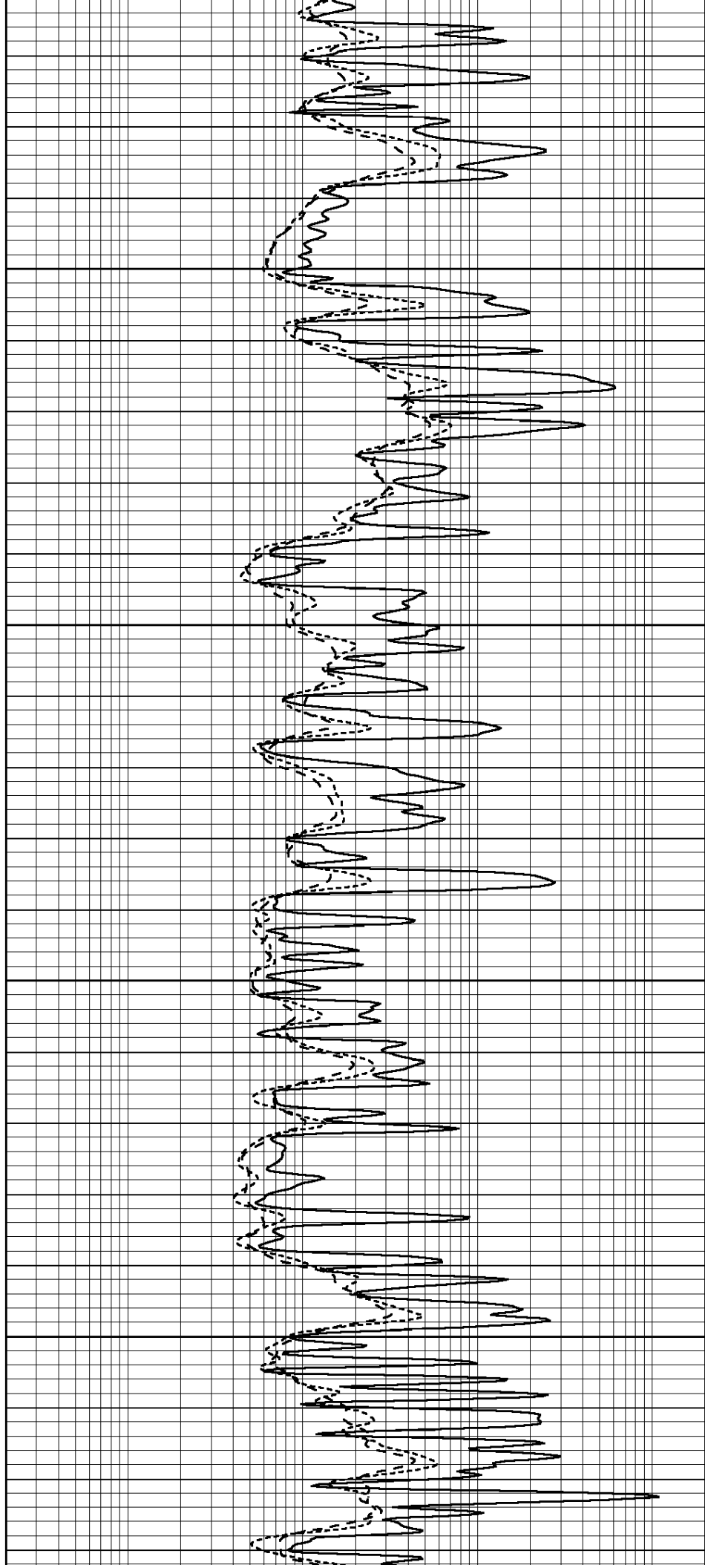


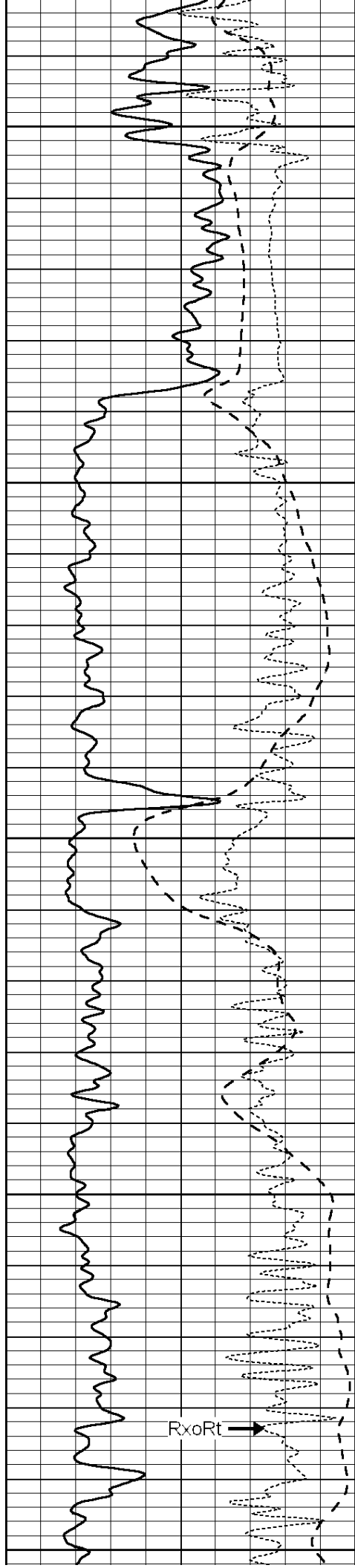
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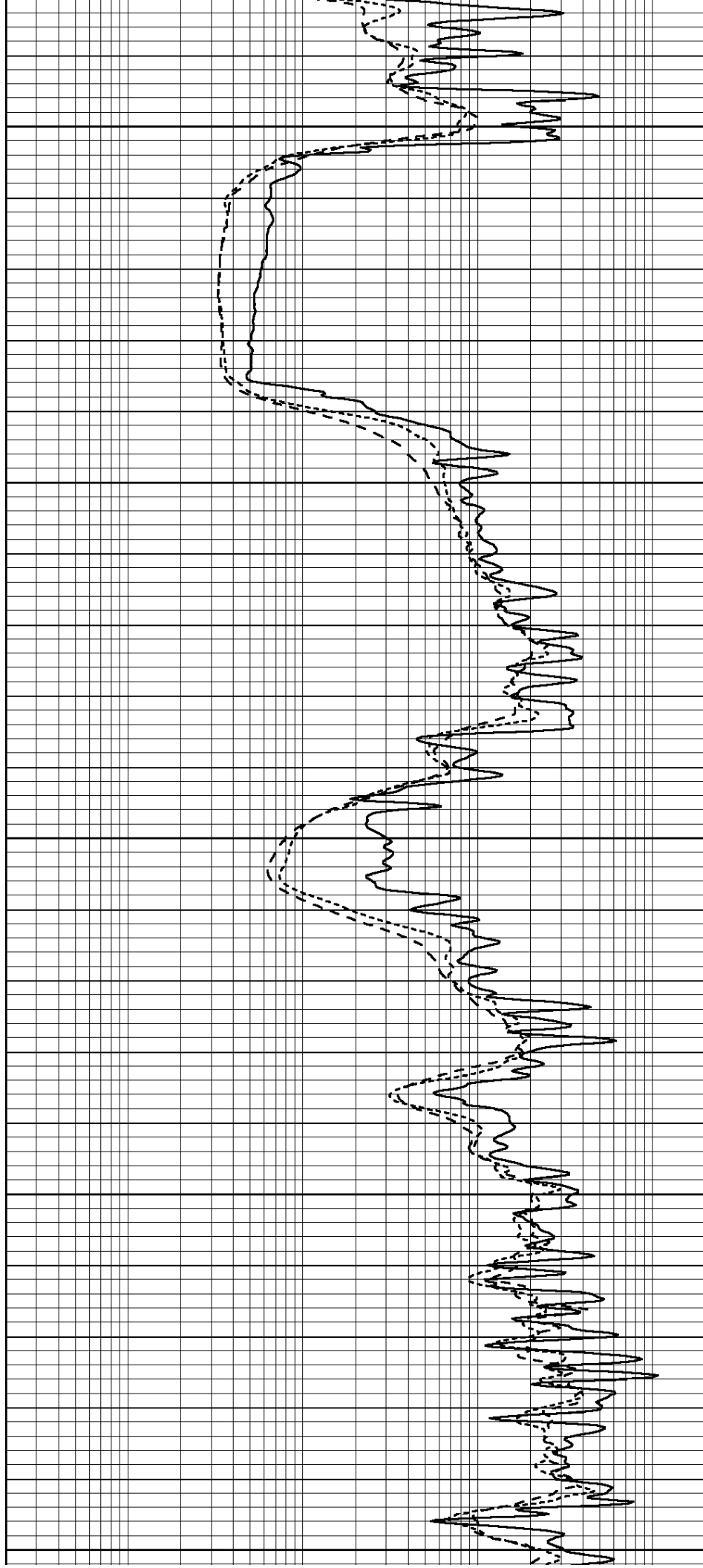
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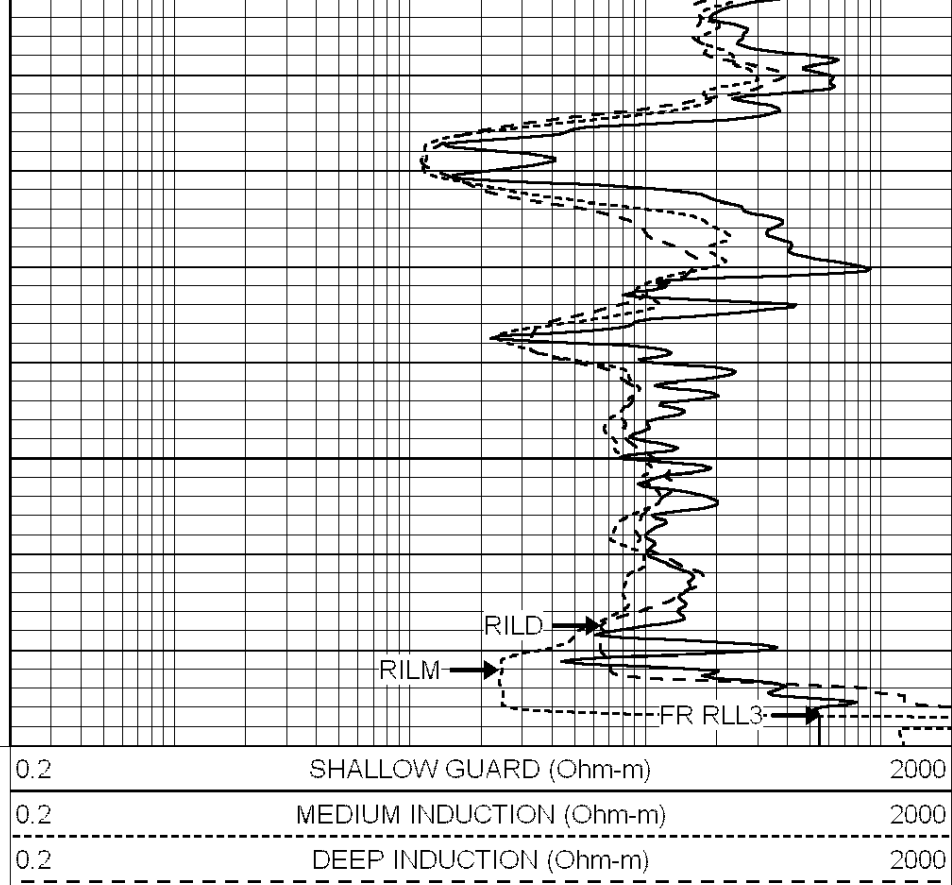
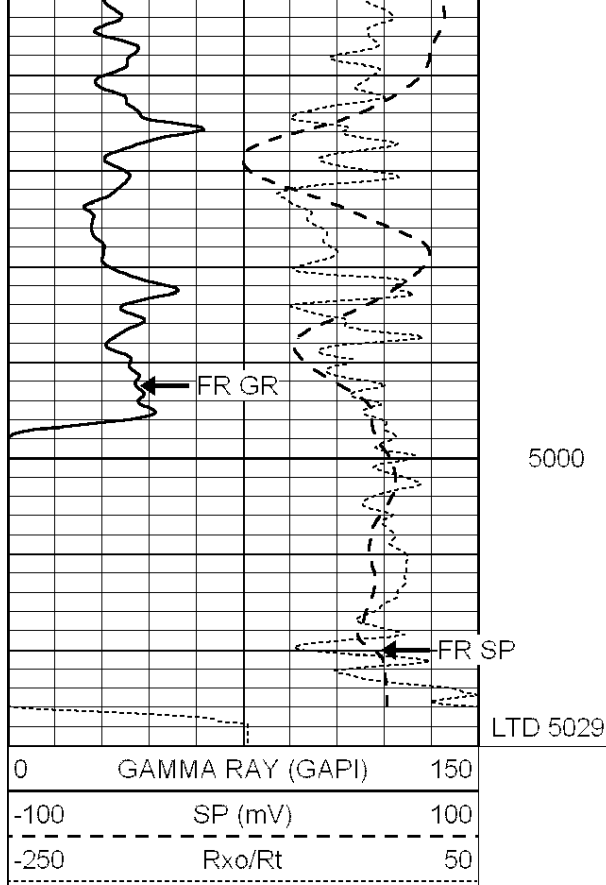
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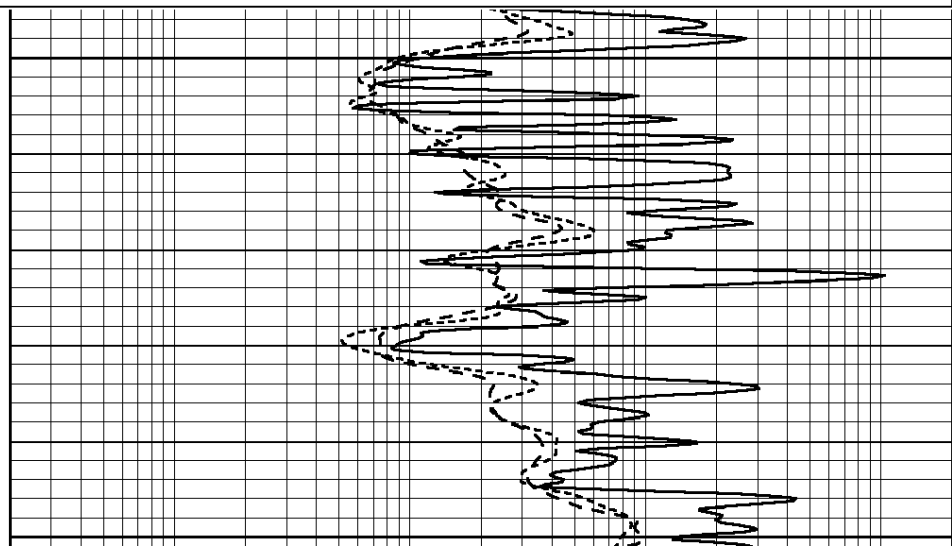
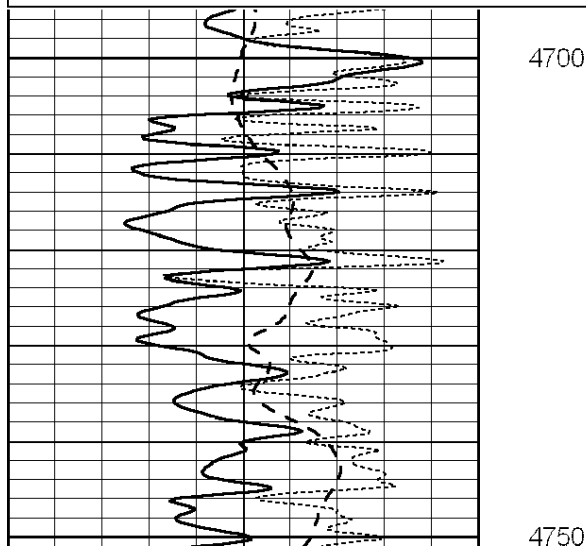
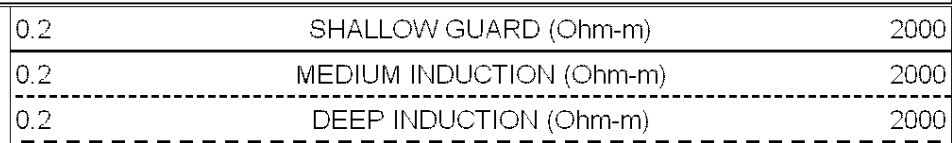
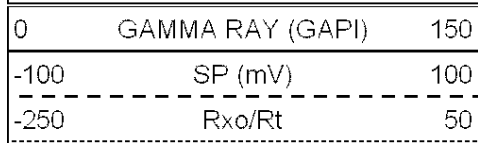
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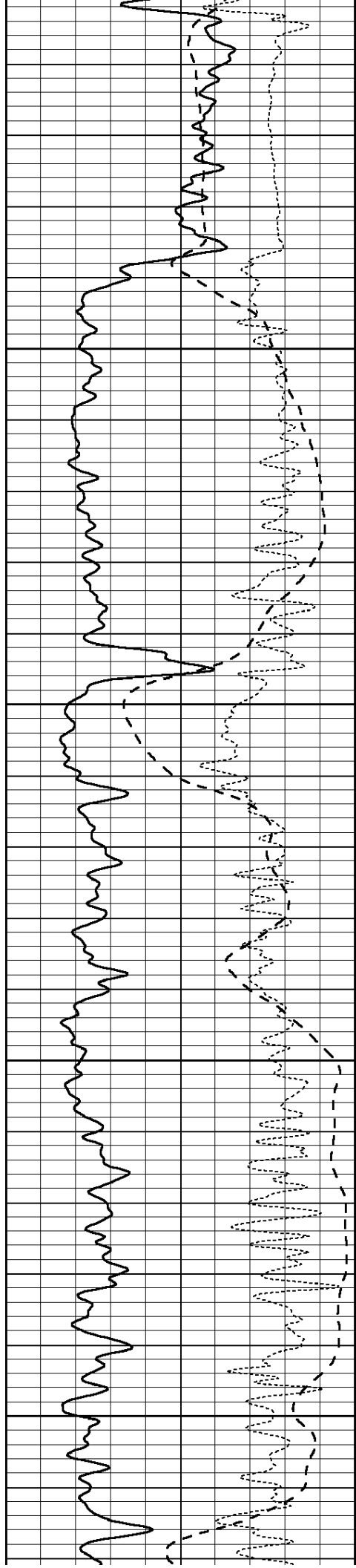




REPEAT SECTION

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 Charted by: Depth in Feet scaled 1:240



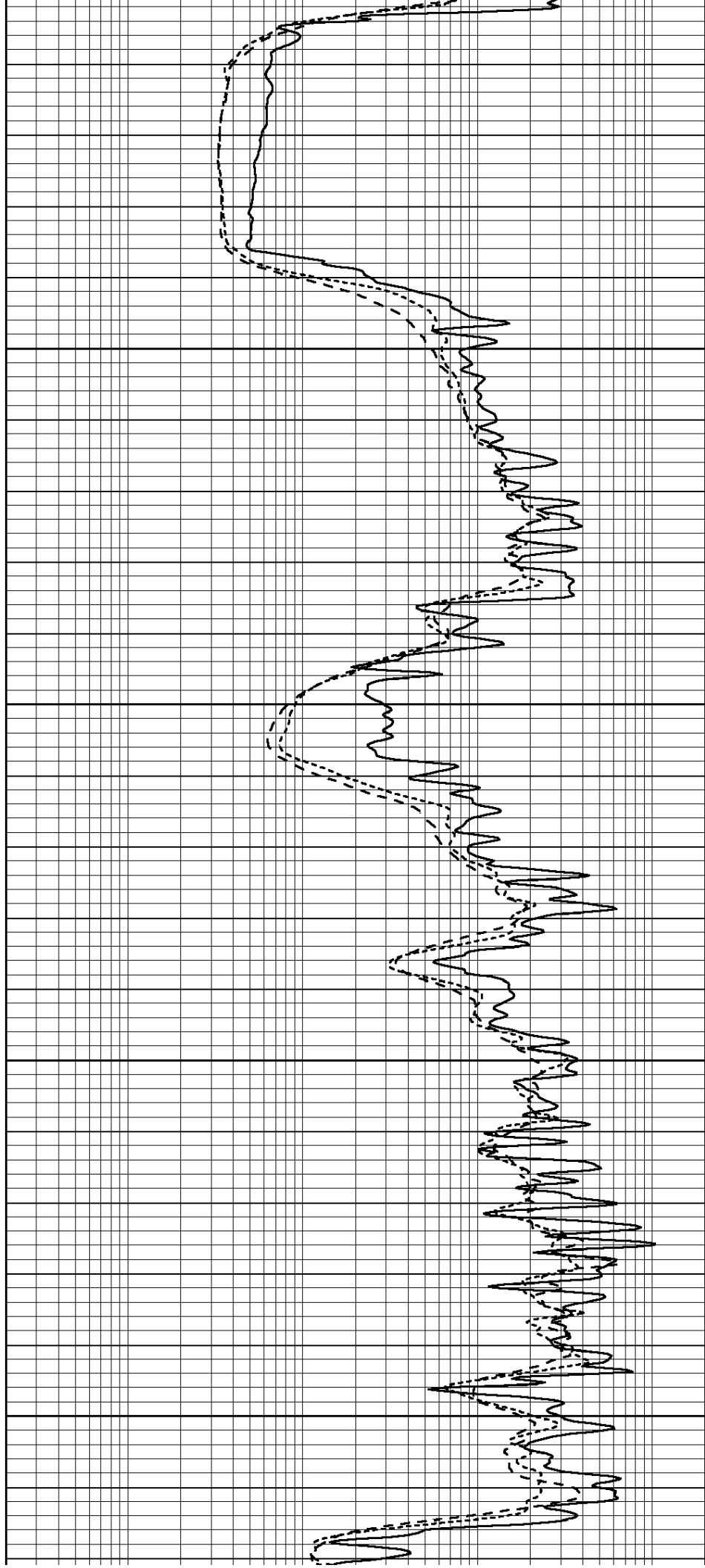


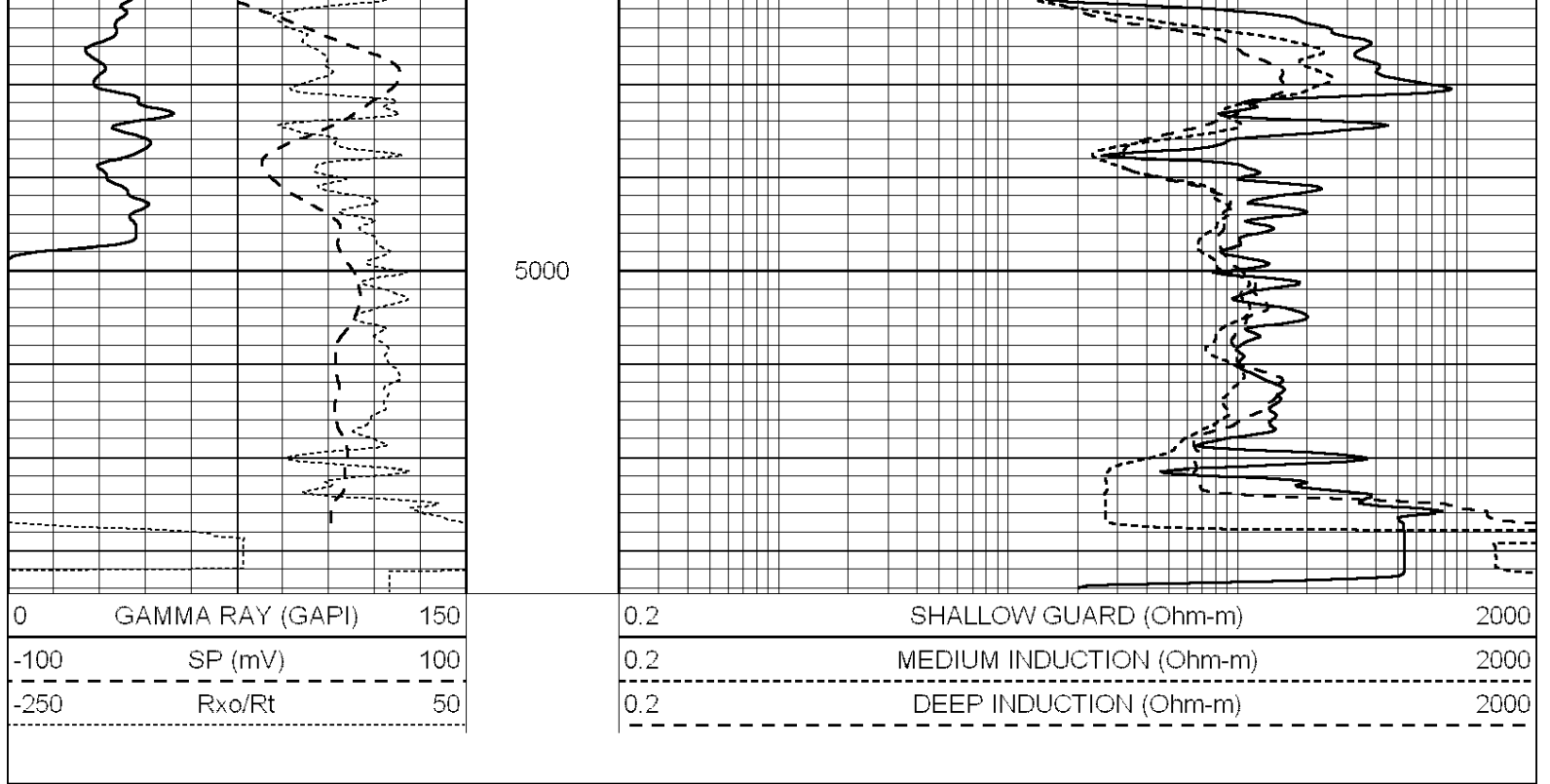
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Calibration Report									
Database File:		009976.db							
Dataset Pathname:		pass3.2							
Dataset Creation:		Wed Oct 17 15:48:32 2012 by Calc Open-Cased 090629							
Dual Induction Calibration Report									
Serial-Model:				PROBE8-DILG					
Surface Cal Performed:				Fri Aug 01 06:33:19 2008					
Downhole Cal Performed:				Mon Jul 28 11:08:27 2008					
After Survey Verification Performed:				Mon Jul 28 11:08:27 2008					
Surface Calibration									
		Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b	
Deep	0.015	0.648	V	0.000	400.000	mmho/m	632.616	-9.730	
Medium	0.029	0.796	V	0.000	464.000	mmho/m	605.049	-17.680	
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		

Compensated Density Calibration Report

Serial-Model:	GEAR4-GEARHART
Source / Verifier:	143 / 143
Master Calibration Performed:	Mon Mar 19 19:07:19 2012

Master Calibration						
	Density			Far Detector	Near Detector	
Magnesium	1.710	g/cc		1015.91	497.51	cps
Aluminum	2.600	g/cc		227.67	350.20	cps
	Spine Angle = 76.79			Density/Spine Ratio = 0.579		
	Size			Reading		
Small Ring	8.00	in		3.21	V	
Large Ring	14.00	in		5.46	V	

Compensated Neutron Calibration Report

Serial Number:	6I
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:	#8	
Tool Model:	OPEN	
Performed:	Mon Jun 13 16:56:43 2011	
Calibrator Value:	150.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	175.0	cps
Sensitivity:	0.8371	GAPI/cps