



PIONEER
Pioneer Energy Services

**DUAL IND / DUAL COMP
POROSITY LOG**

Company **EXTRACTION OIL & GAS**
Well **COYOTE TRAILS NO. 34S-20-11C**
Field **WATTENBERG**
County **WELD**
State **COLORADO**

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Well **COYOTE TRAILS NO. 34S-20-11C**
Field **WATTENBERG**
County **WELD** State **COLORADO**

Location: API #: 05-123-45991-00

1146' FSL & 2121' FEL

SEC 28 TWP 1N RGE 68W

Permanent Datum **GROUND LEVEL** Elevation **5270'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Other Services
NONE
K.B. 5299'
D.F. N/A
G.L. 5270'

Date **2/18/2018**

Run Number	ONE		
Depth Driller	8280'		
Depth Logger	8280'		
Bottom Logged Interval	8279'		
Top Log Interval	1600'		
Casing Driller	9.625" @ 1620'		
Casing Logger	1620'		
Bit Size	8.5"		
Type Fluid in Hole	OIL BASED MUD		
Salinity, ppm CL	N/A		
Density / Viscosity	9.0 N/A		
pH / Fluid Loss	N/A N/A		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	N/A @ N/A		
Rmf @ Meas. Temp	N/A @ N/A		
Rmc @ Meas. Temp	N/A @ N/A		
Source of Rmf / Rmc	CHARTS		
Rm @ BHT	N/A @ N/A		
Operating Rig Time	3 HOURS		
Max Rec. Temp. F	N/A		
Equipment Number	108		
Location	HAYS		
Recorded By	J. HENRICKSON		
Witnessed By	KALYN HOLGATE		

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

SO # 68FA

NO FOCUS TOOL DUE TO OIL BASED MUD

Log Measured From: KELLY BUSHING

29 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES

www.pioneerenergy.com

785-625-3858

Your Pioneer Energy Services Crew

Engineer: J. HENRICKSON

Operator:

Operator:

Operator:

This Log Record Was Witnessed By

Primary Witness: KALYN HOLGATE











Secondary Witness:

Secondary Witness:

Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 8.5	degF 100	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 0	mV 0	degF 0	Off	ft 0

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90			CNT-M&W (tk10-MW)	5.50	3.50	100.00
	29.15						
LSD DCAL SSD	20.85			CDL-M&W (168-986)	8.50	4.00	250.00
	20.83						
	20.35						
RLL3 RLL3F	15.80			DIL-M&W (PSI 978)	18.50	3.50	220.00
	15.79						
CILD	8.00						

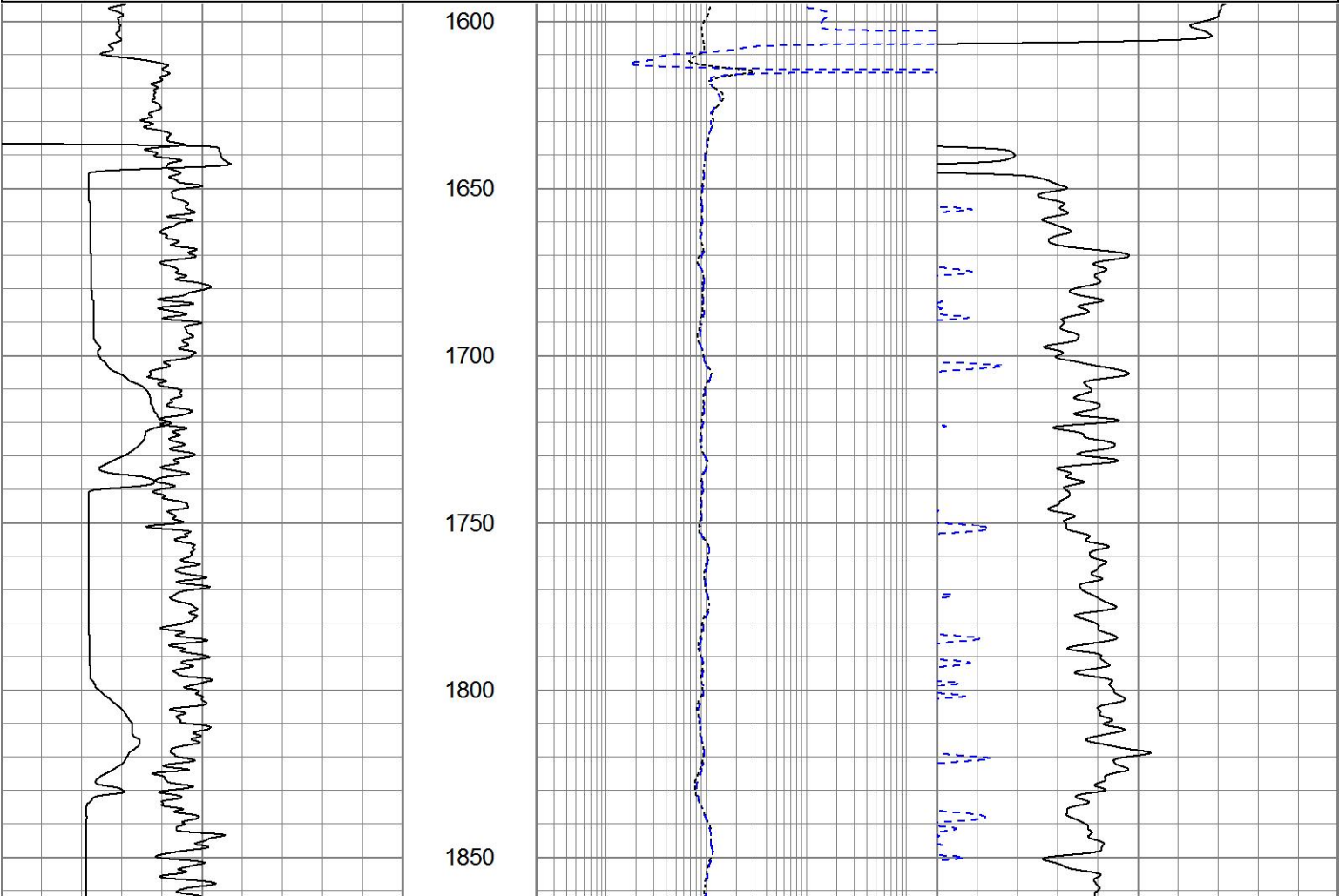
CILM	4.70								
SP	0.20								
Dataset: extraction_coyote_trails.db: field/well/stack/pass2.1 Total length: 35.50 ft Total weight: 620.00 lb O.D.: 4.00 in									

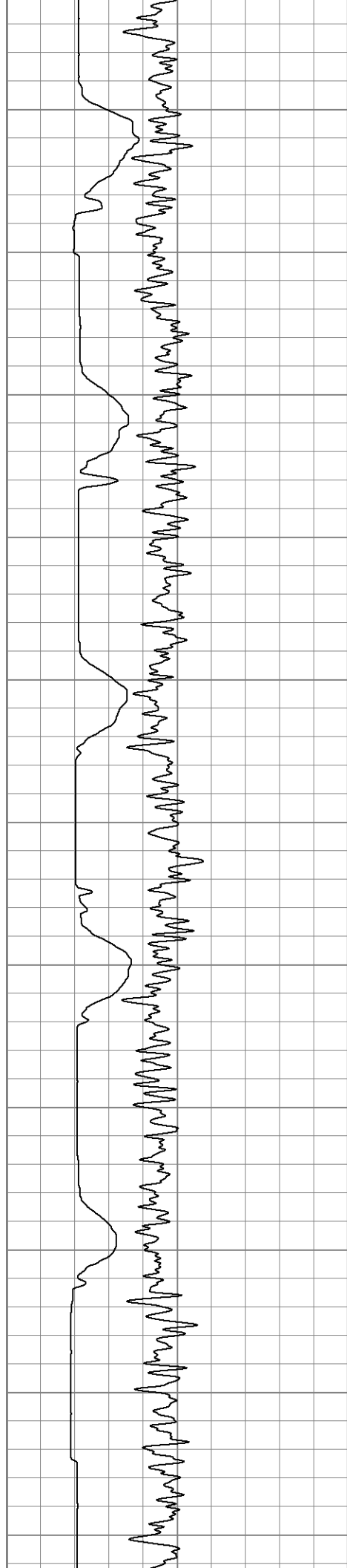


MAIN PASS

Database File	extraction_coyote_trails.db
Dataset Pathname	stack/pass2.1
Presentation Format	split
Dataset Creation	Sun Feb 18 05:16:23 2018
Charted by	Depth in Feet scaled 1:600

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6	DCAL (in)	16		0.2 (Ohm-m) 2000	30	CNLS (pu)	0
6	DCAL (in)	16		DEEP INDUCTION			
				0.2 (Ohm-m) 2000			





1900

1950

2000

2050

2100

2150

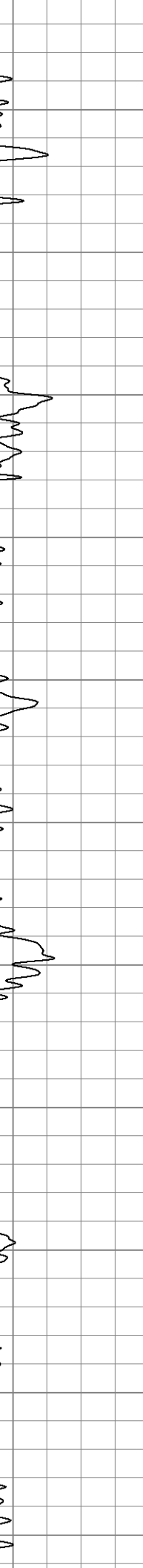
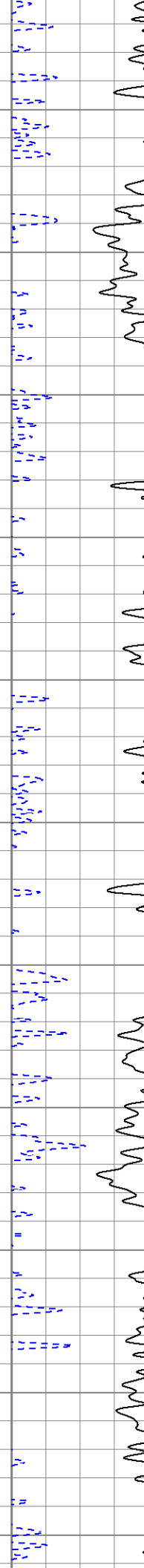
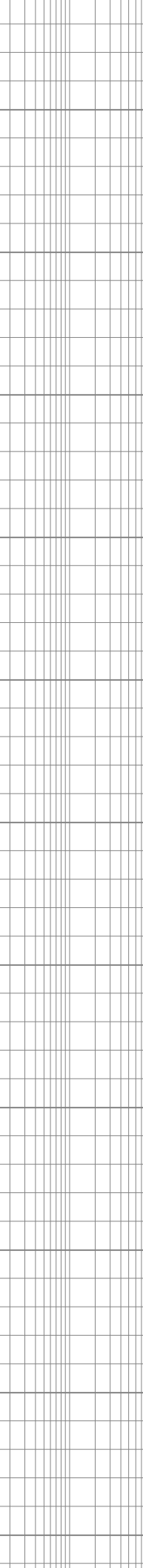
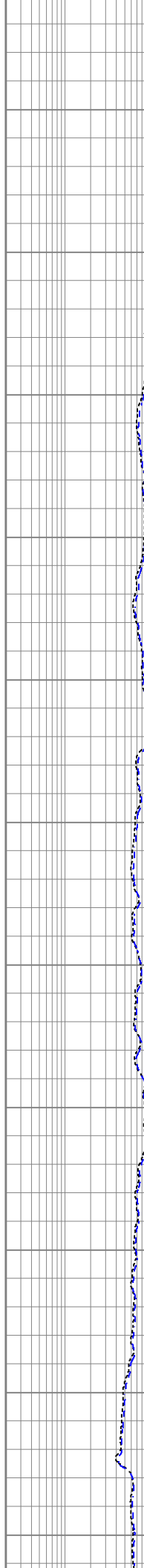
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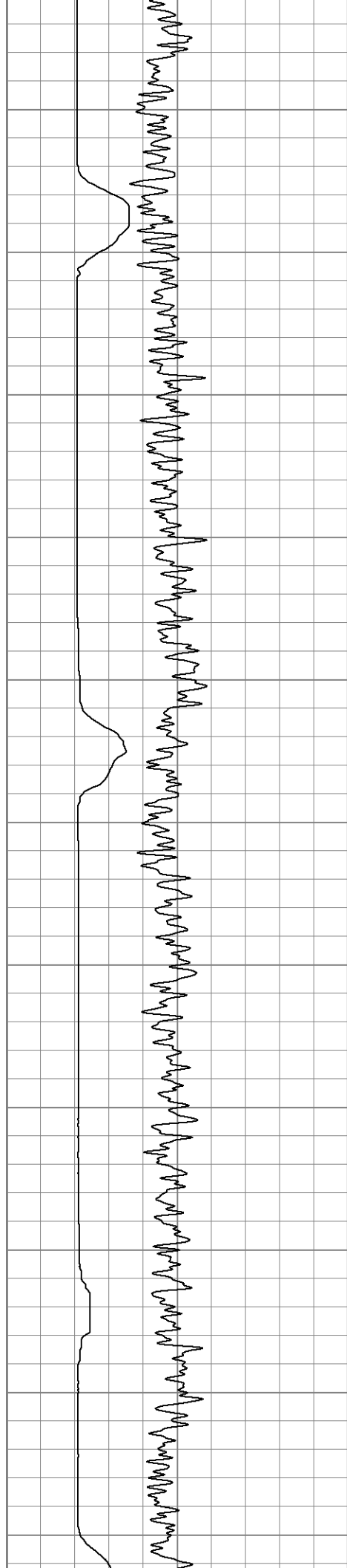
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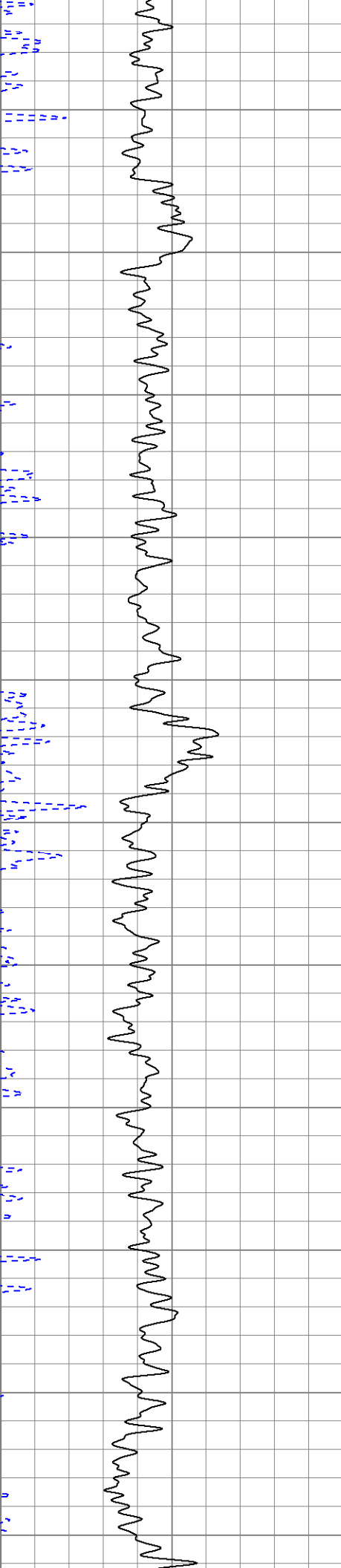
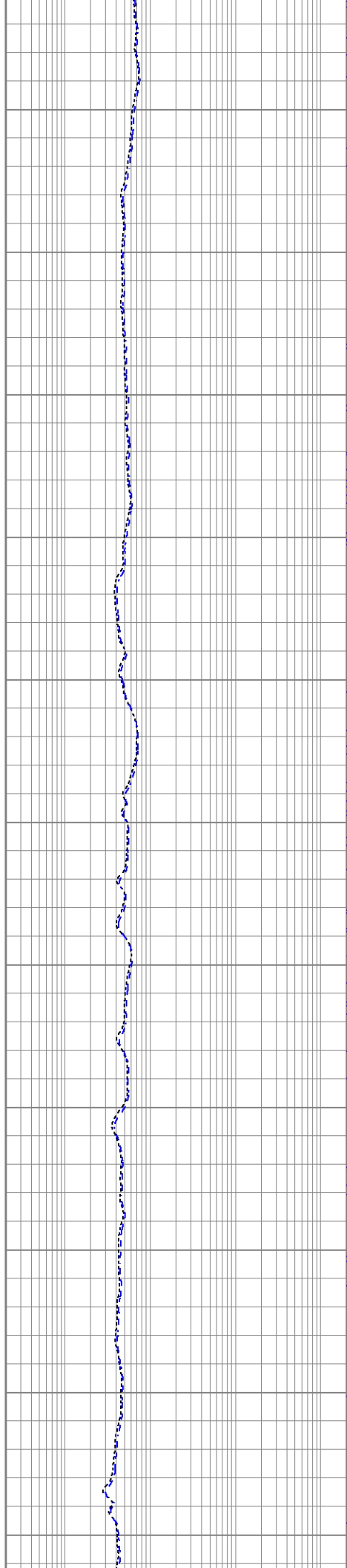
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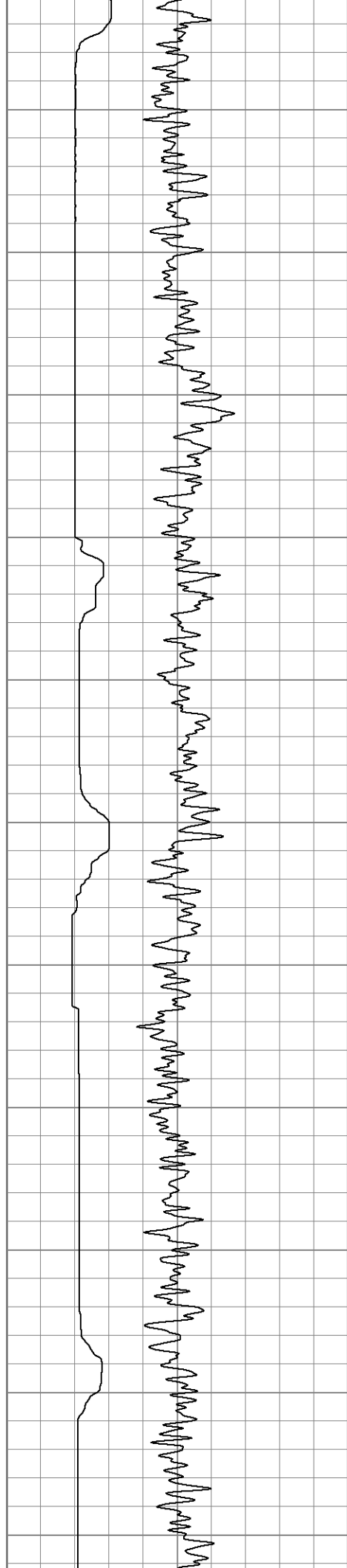
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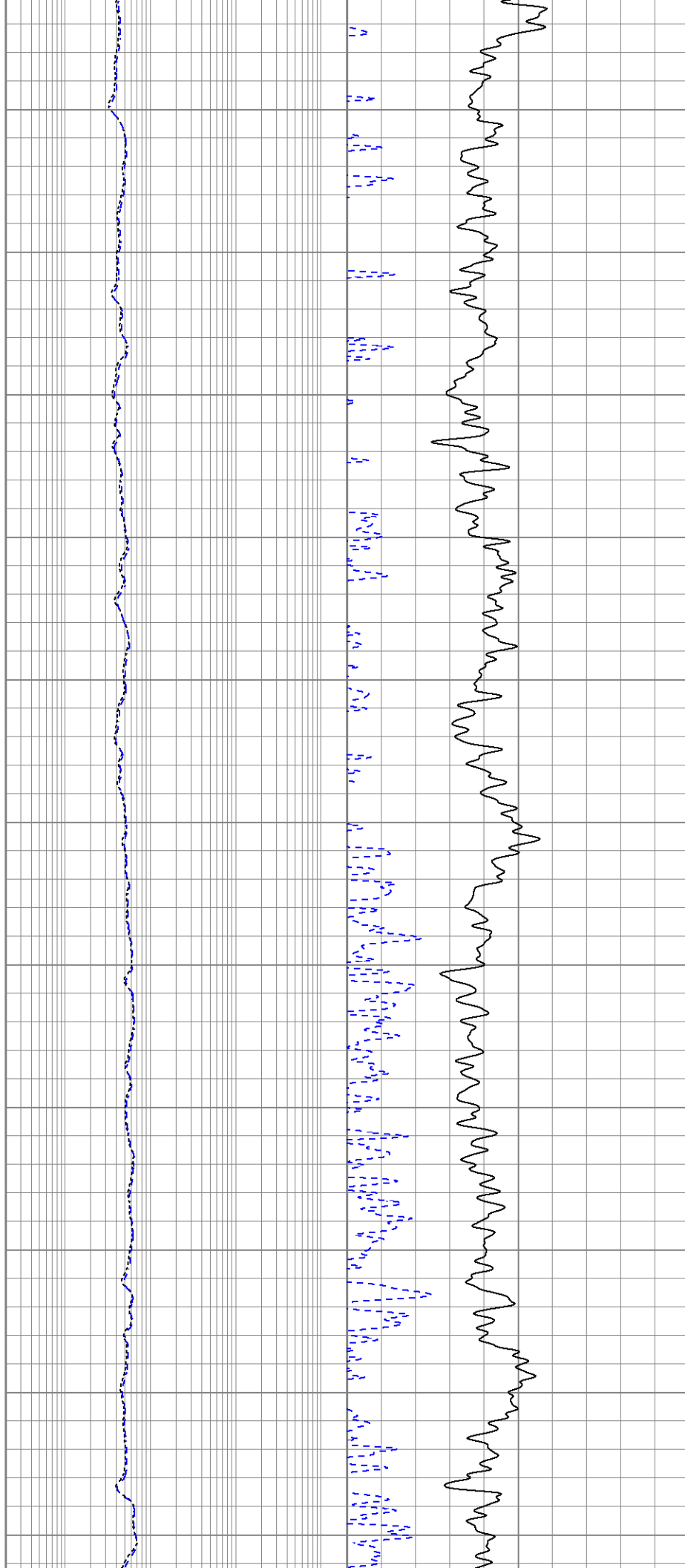
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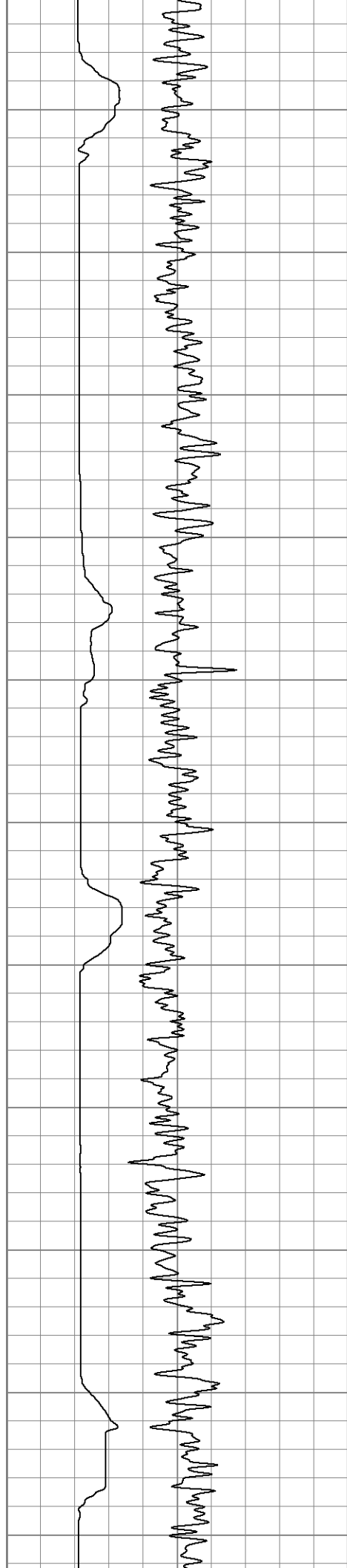
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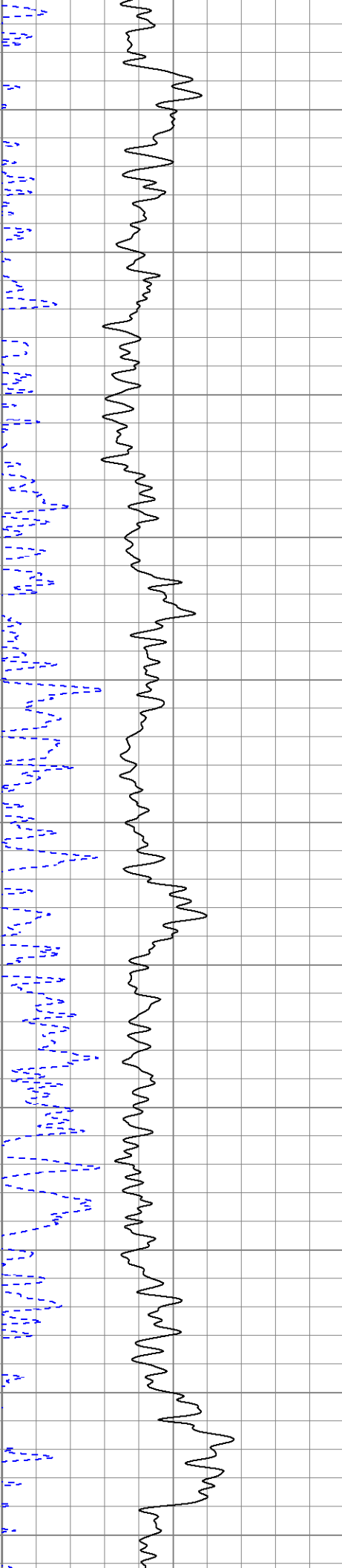
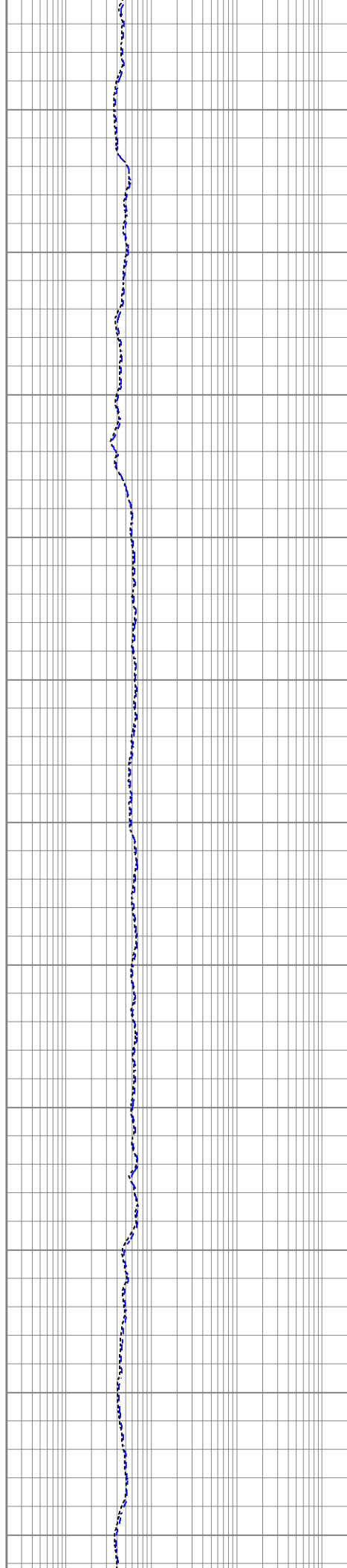
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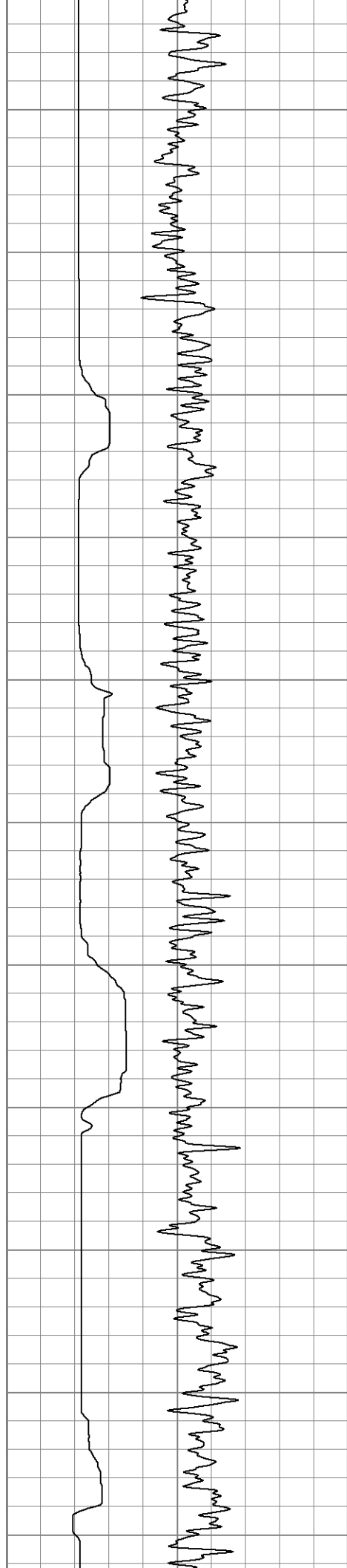
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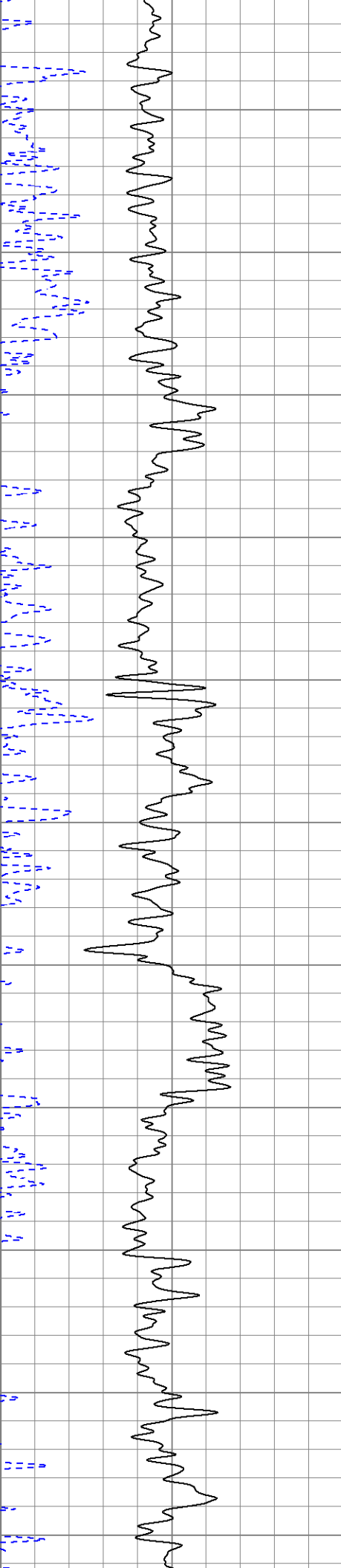
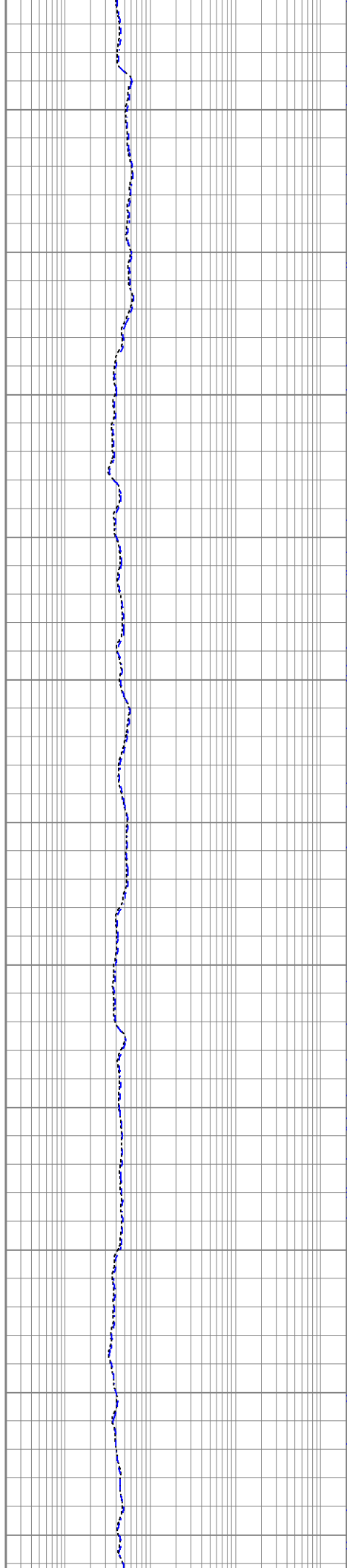
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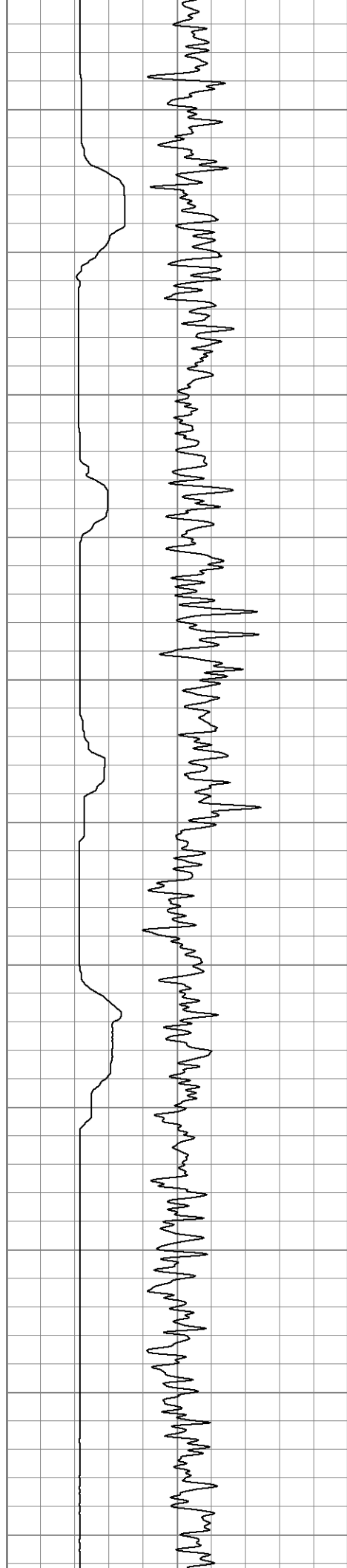
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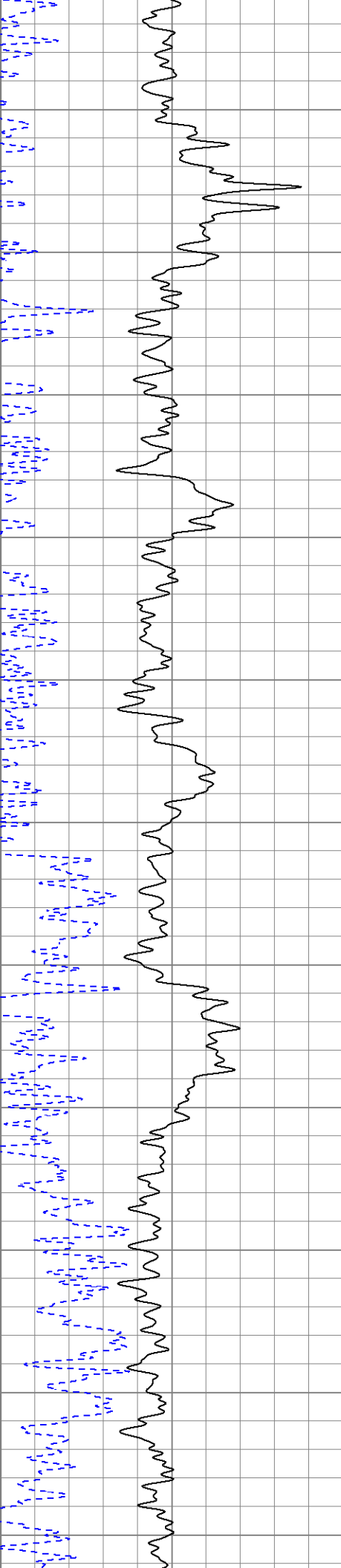
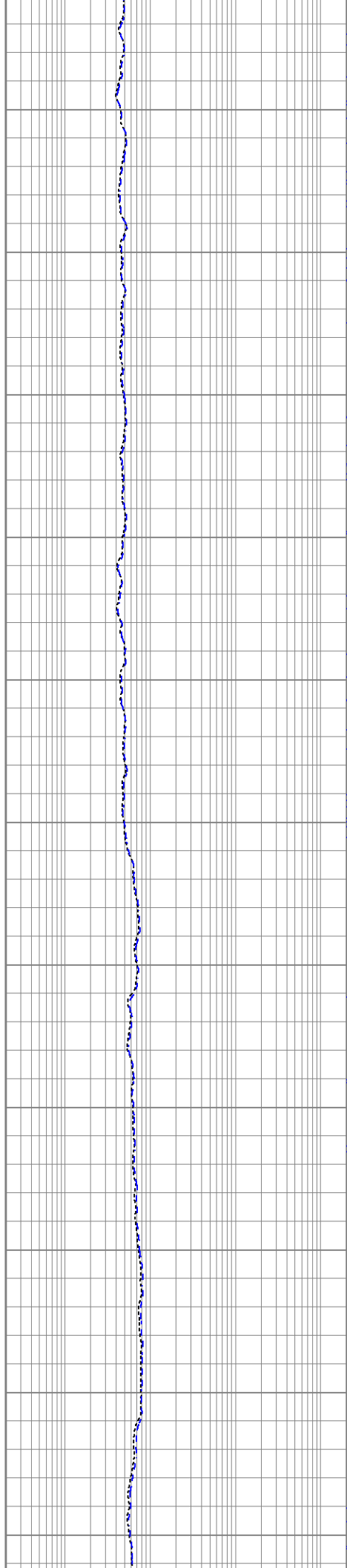
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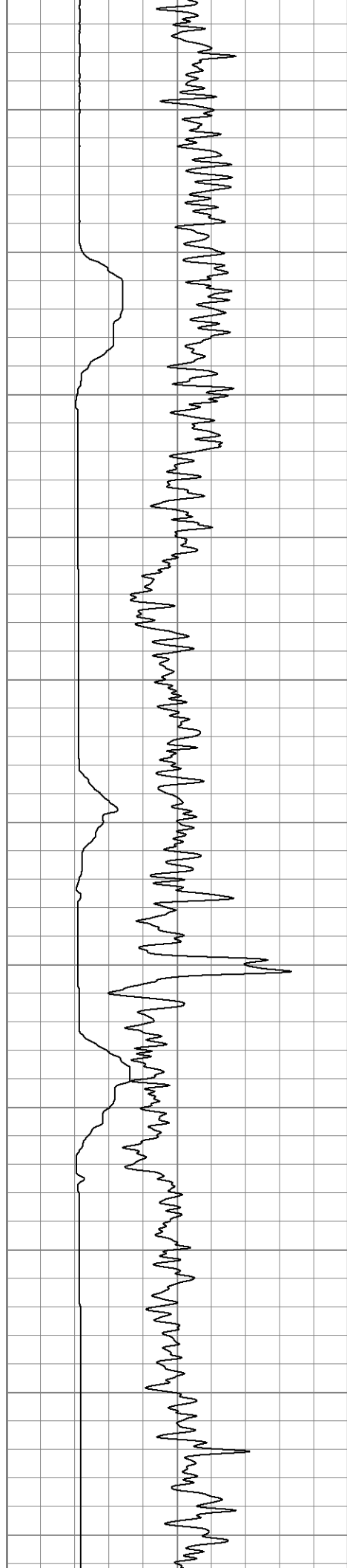
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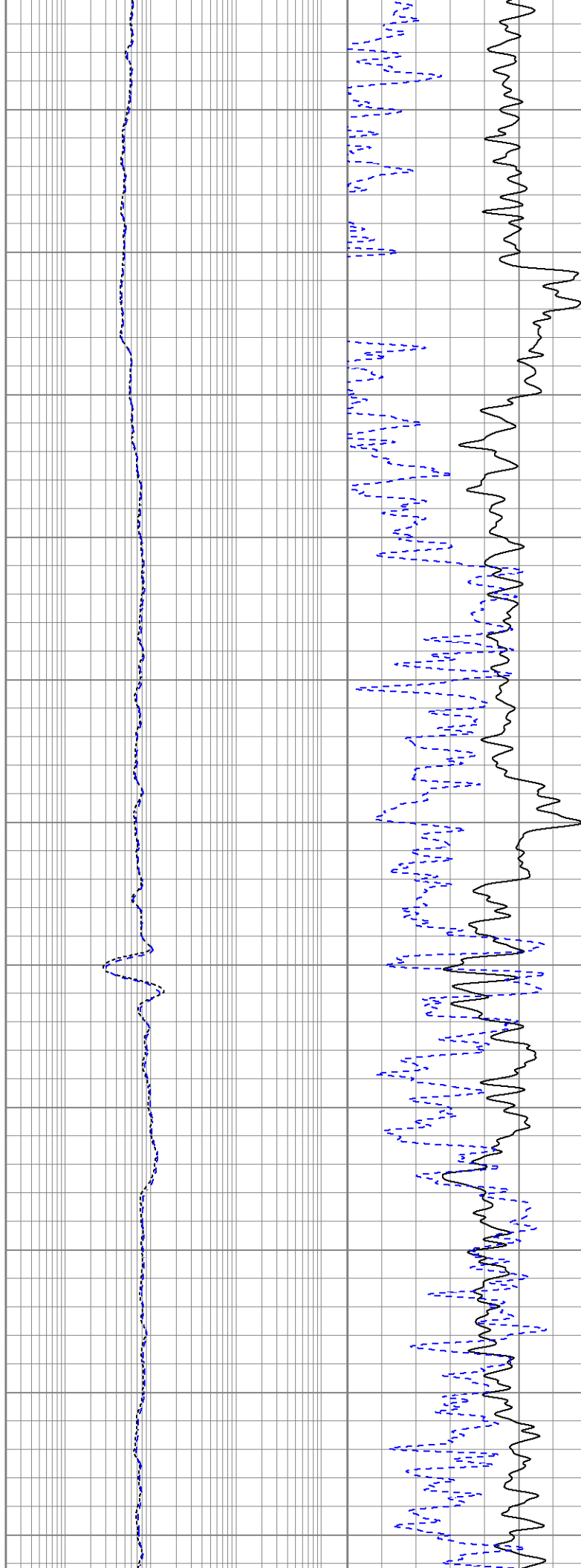
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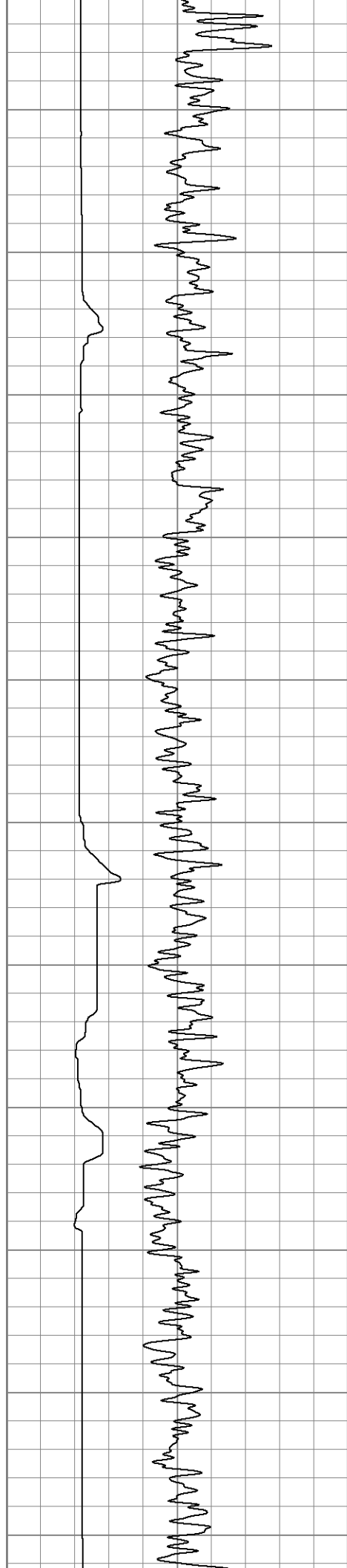
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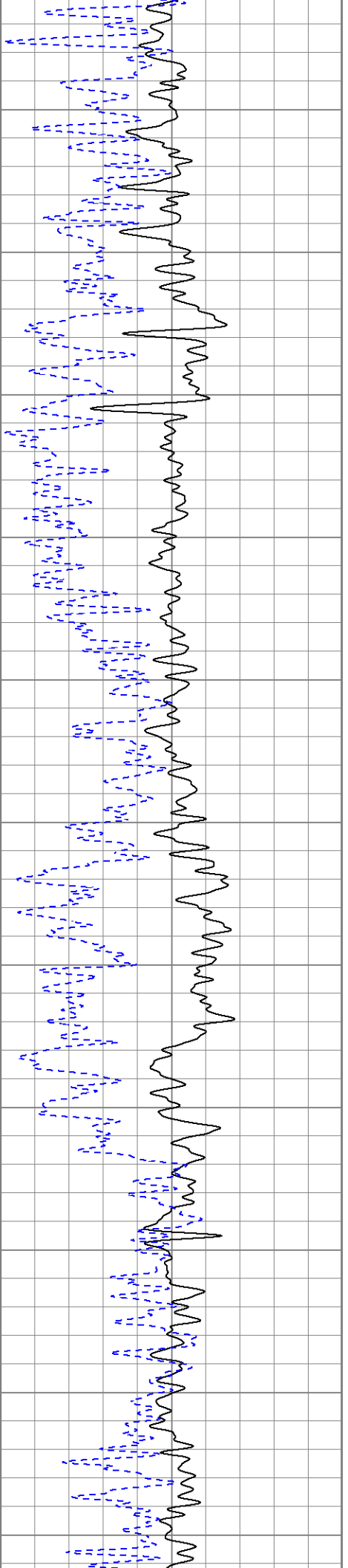
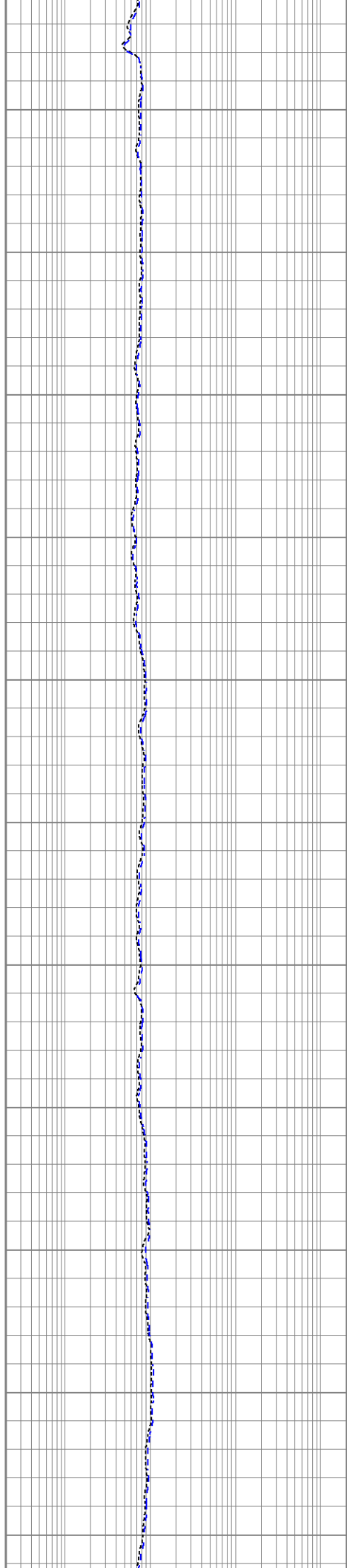
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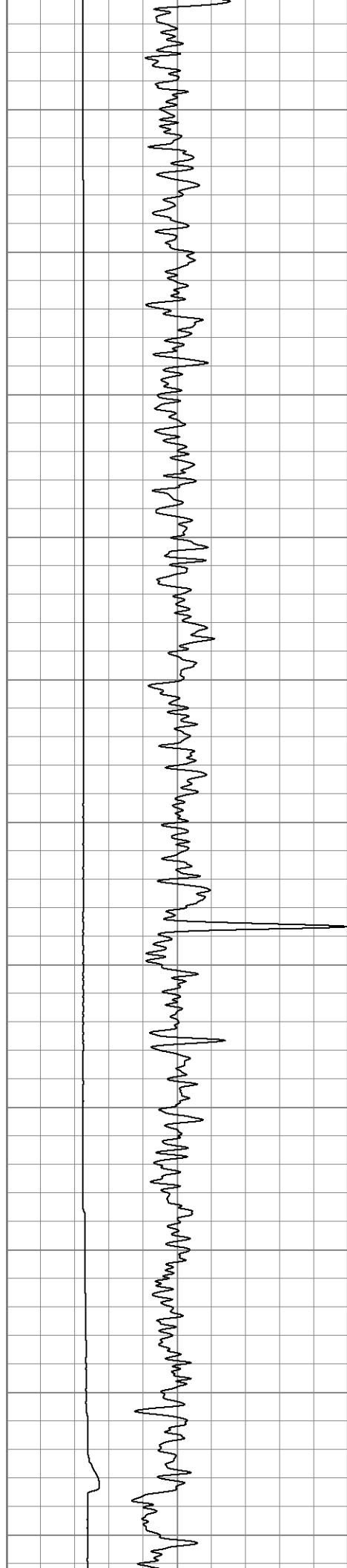
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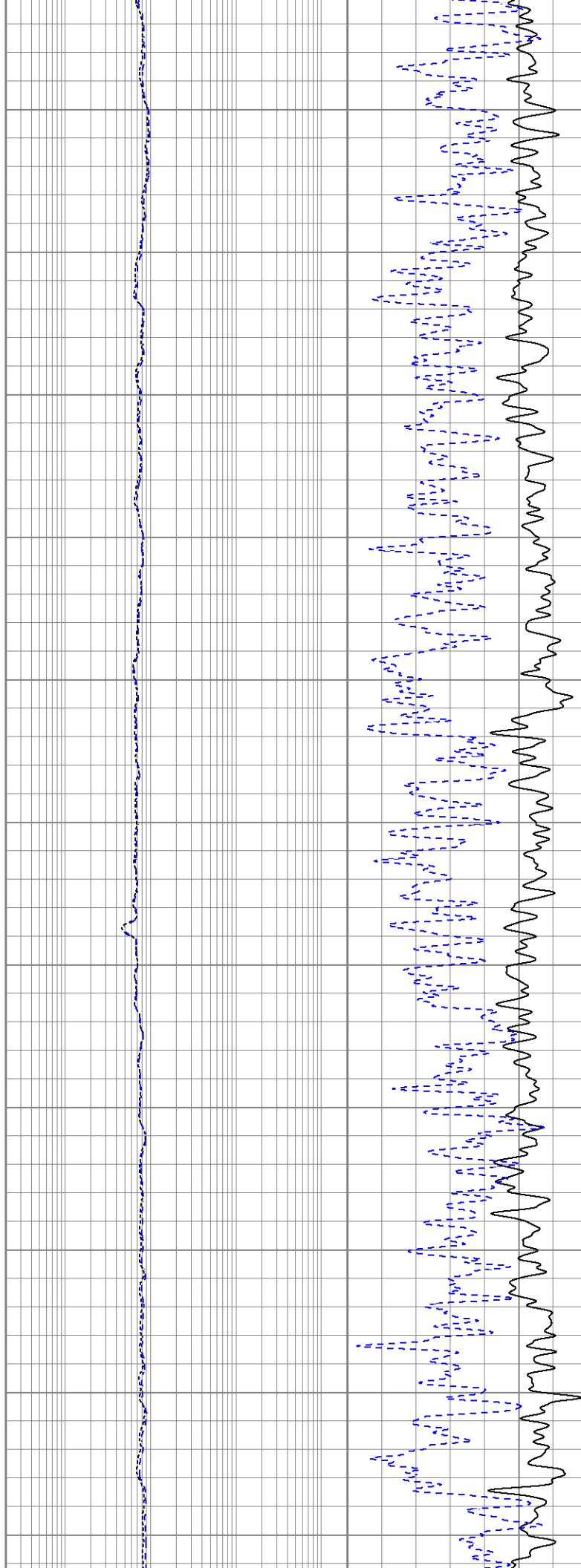
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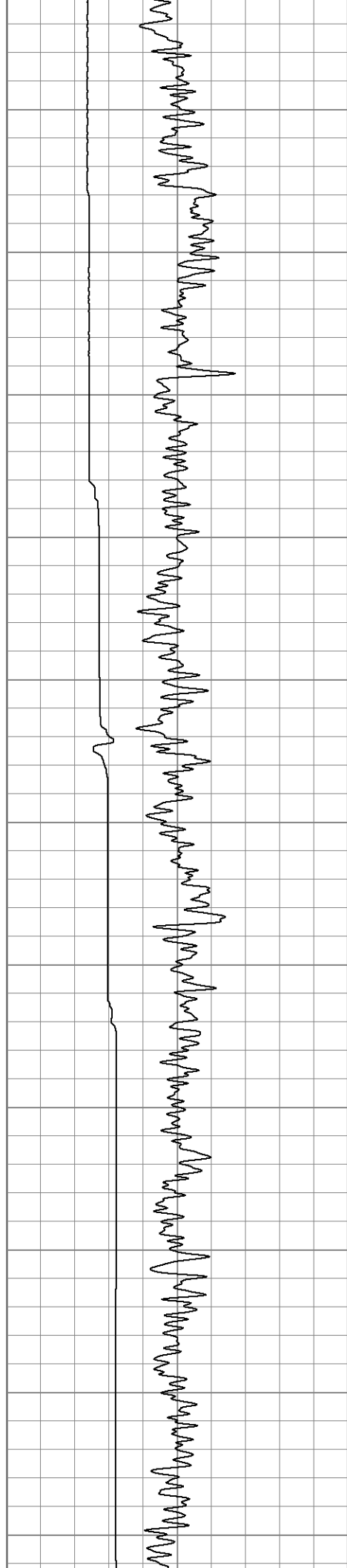
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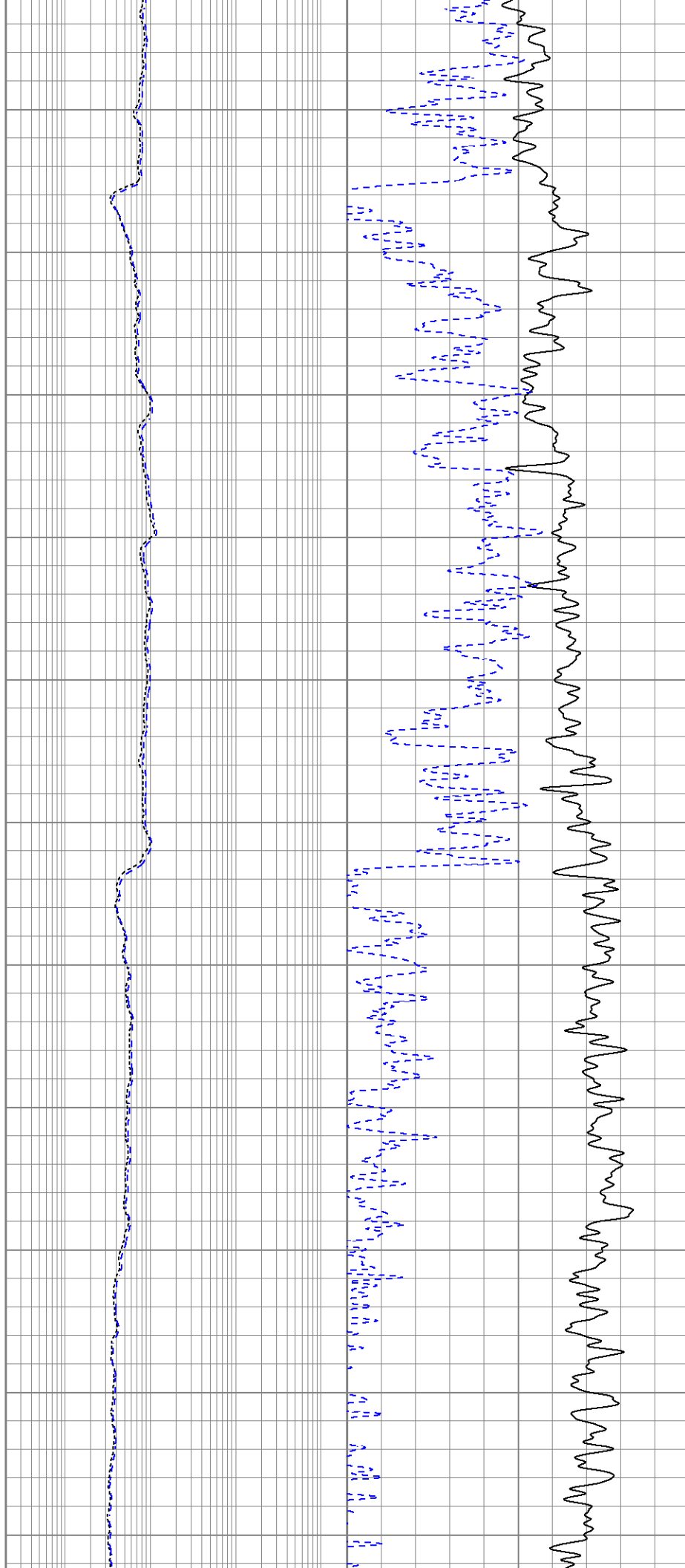
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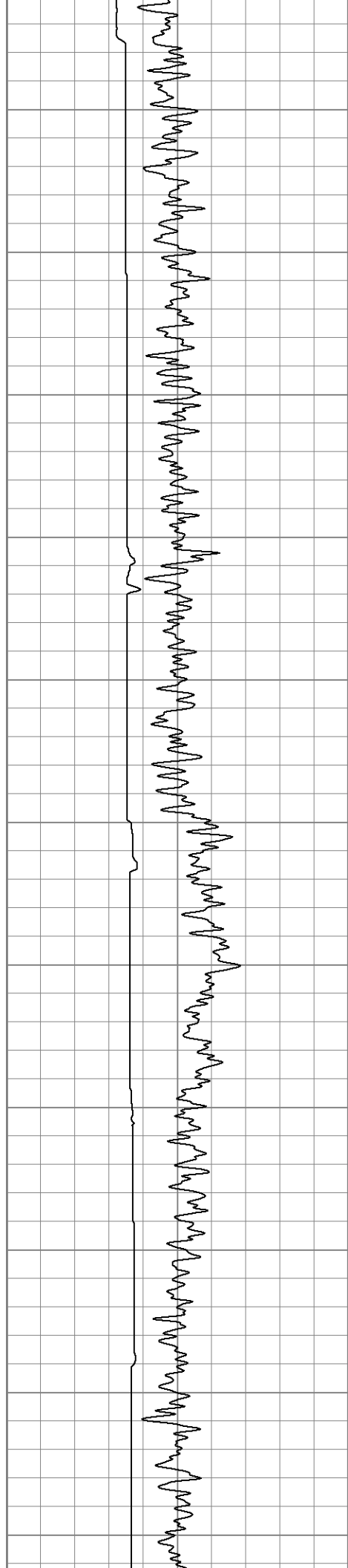
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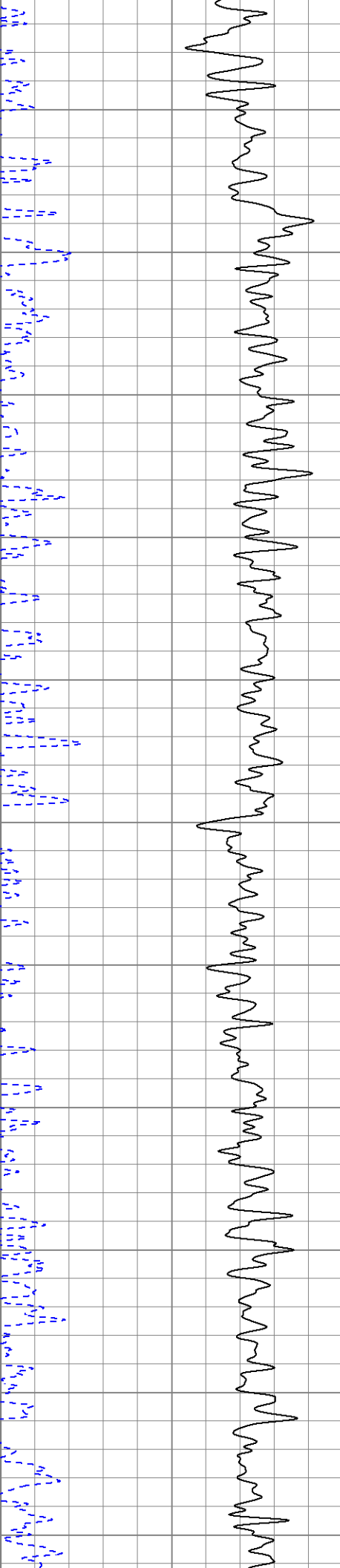
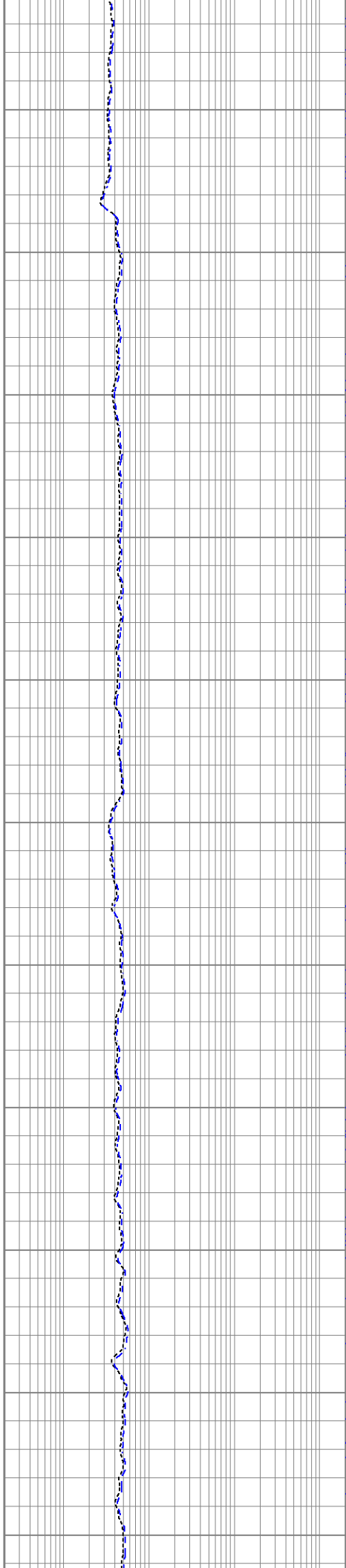
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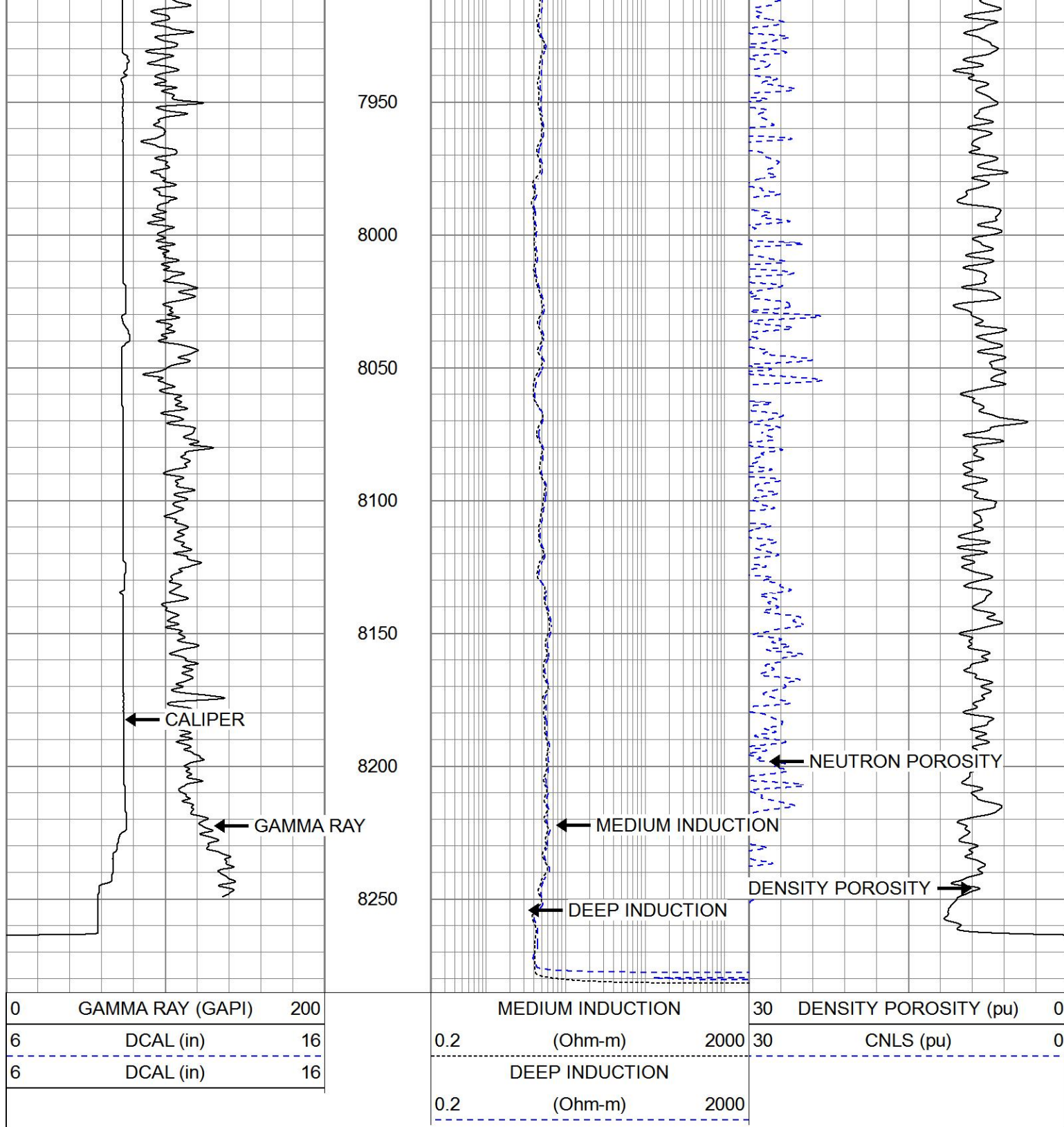
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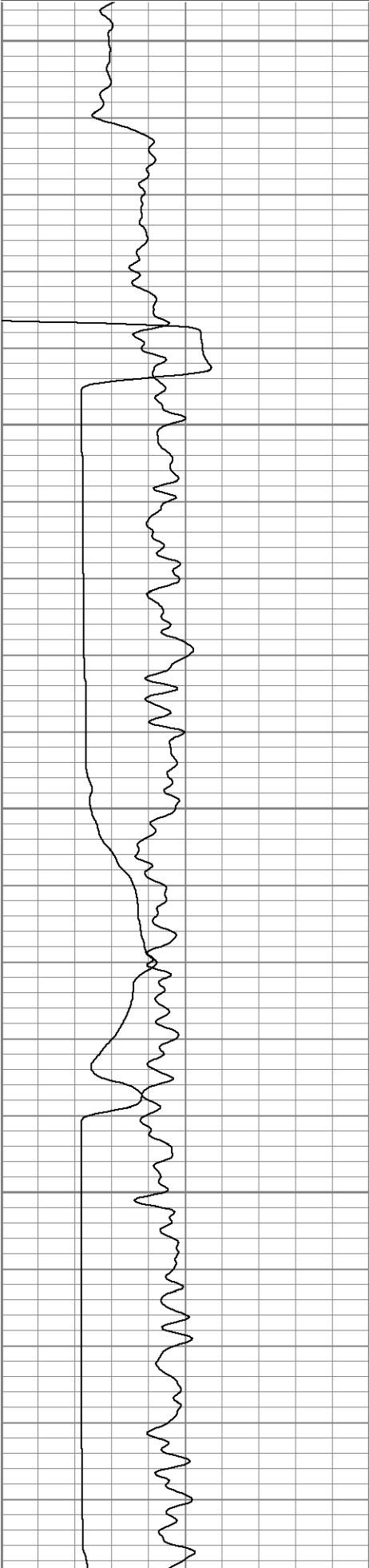
MAIN PASS

Database File extraction_coyote_trails.db
 Dataset Pathname stack/pass2.1
 Presentation Format split
 Dataset Creation Sun Feb 18 05:16:23 2018
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	200	MEDIUM INDUCTION	30	DENSITY POROSITY (pu)	0
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6	DCAL (in)	16
6	DCAL (in)	16

0.2	(Ohm-m)	2000	30	CNLS (pu)	0
DEEP INDUCTION					
0.2	(Ohm-m)	2000			

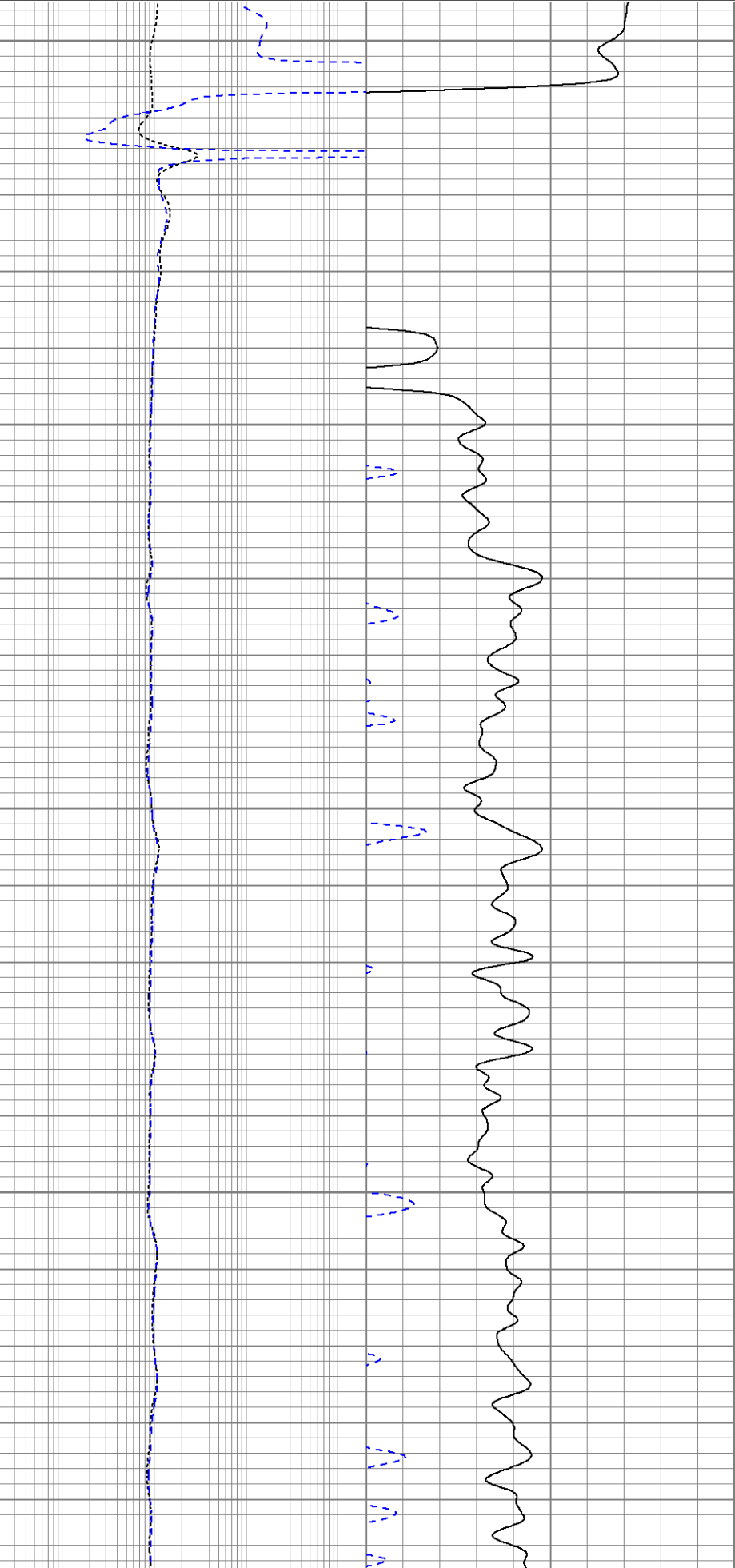


1600

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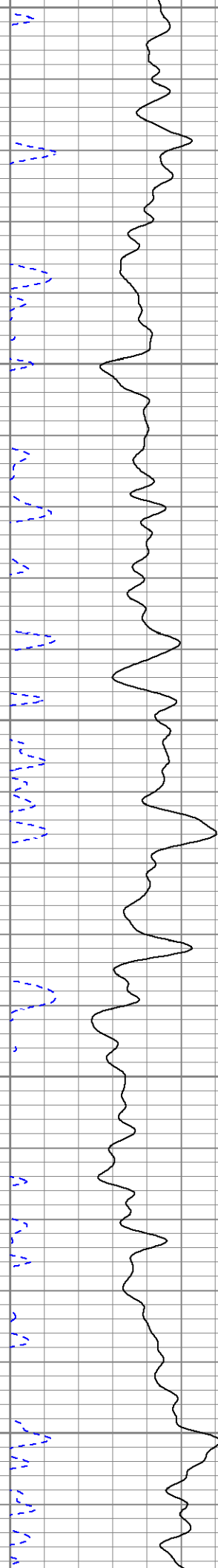
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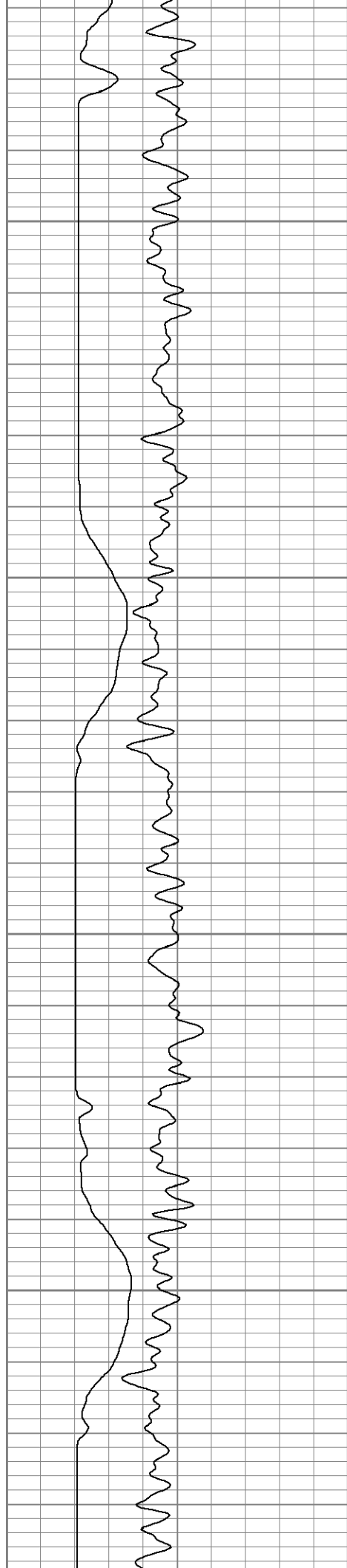
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1900

1950

2000



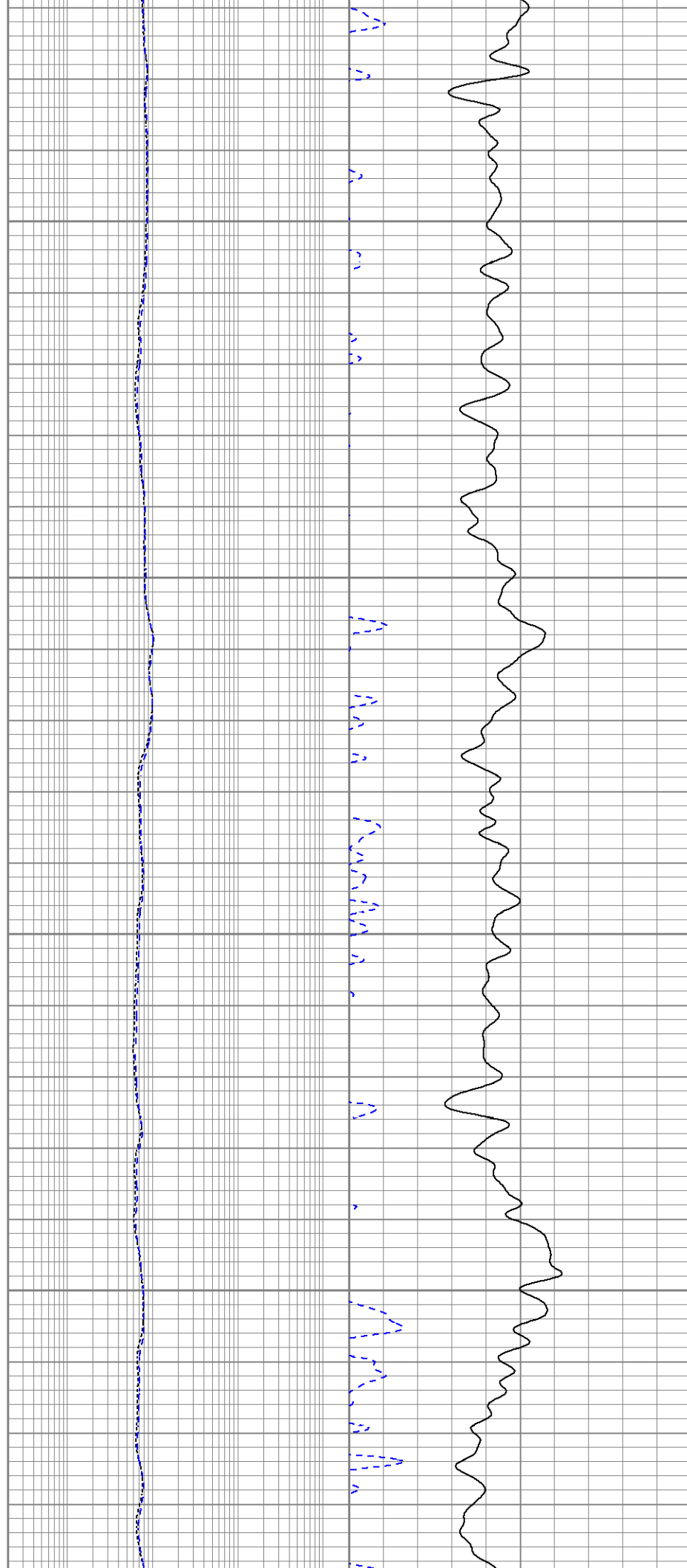


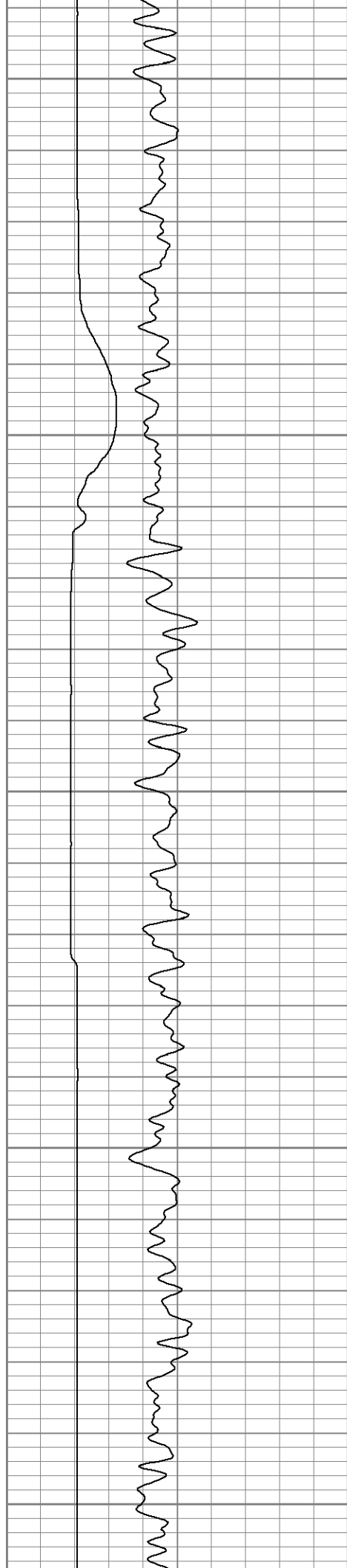
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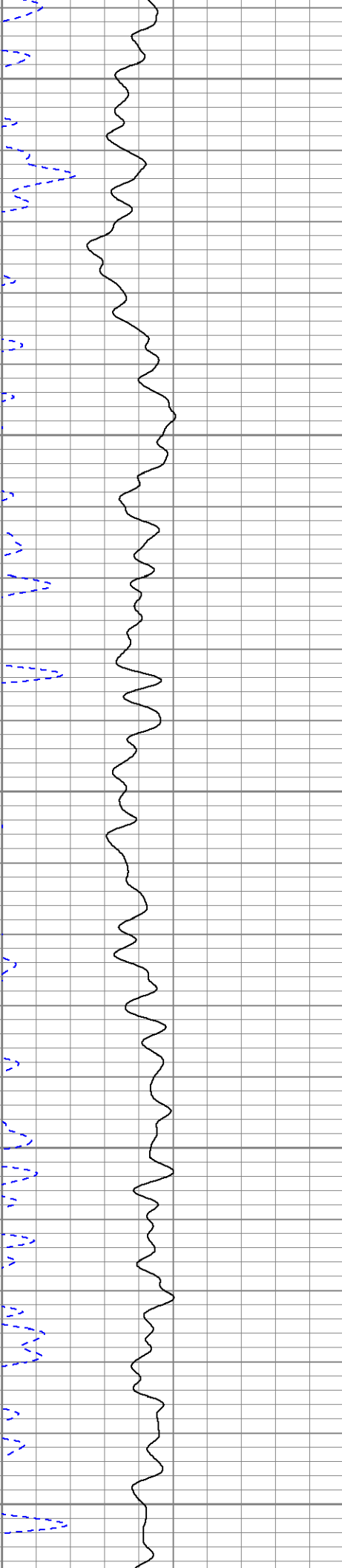
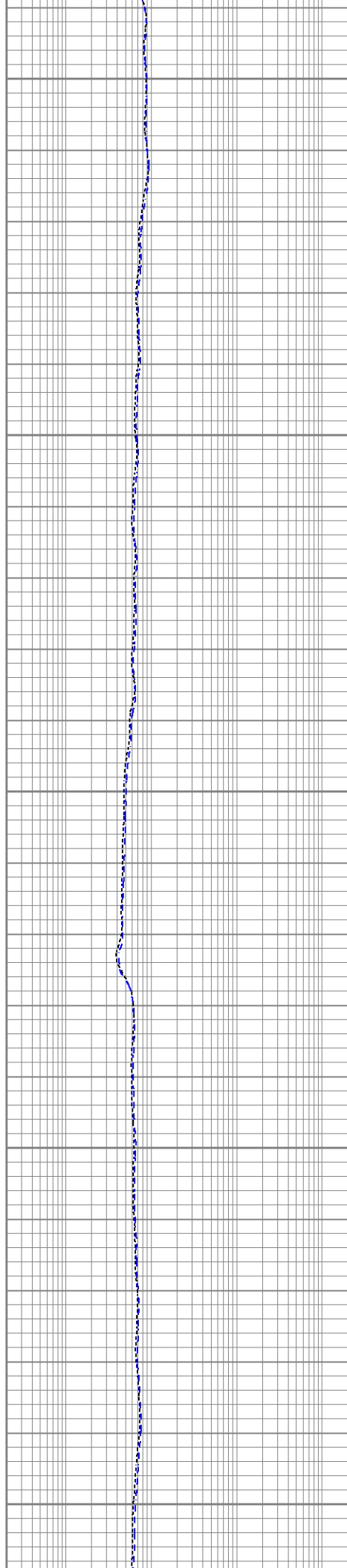
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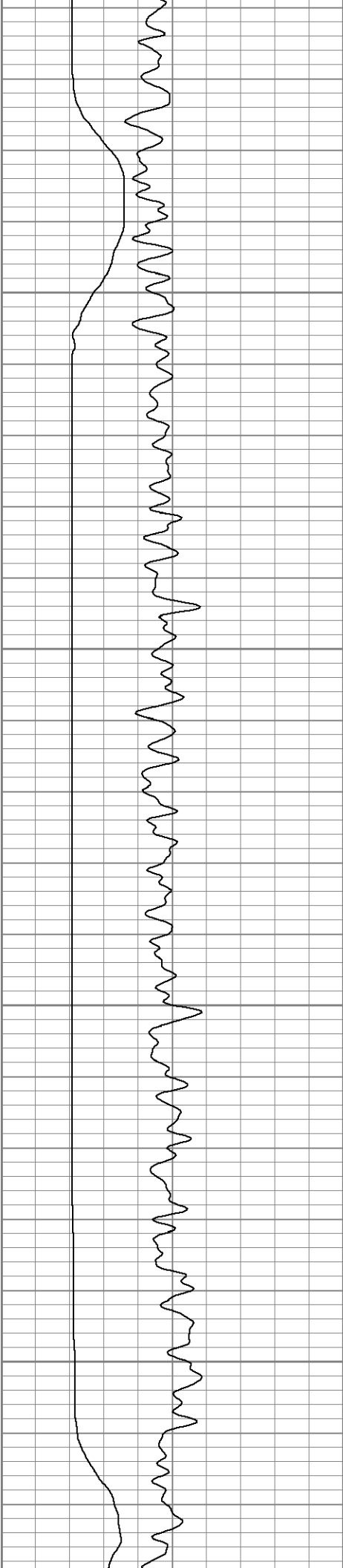
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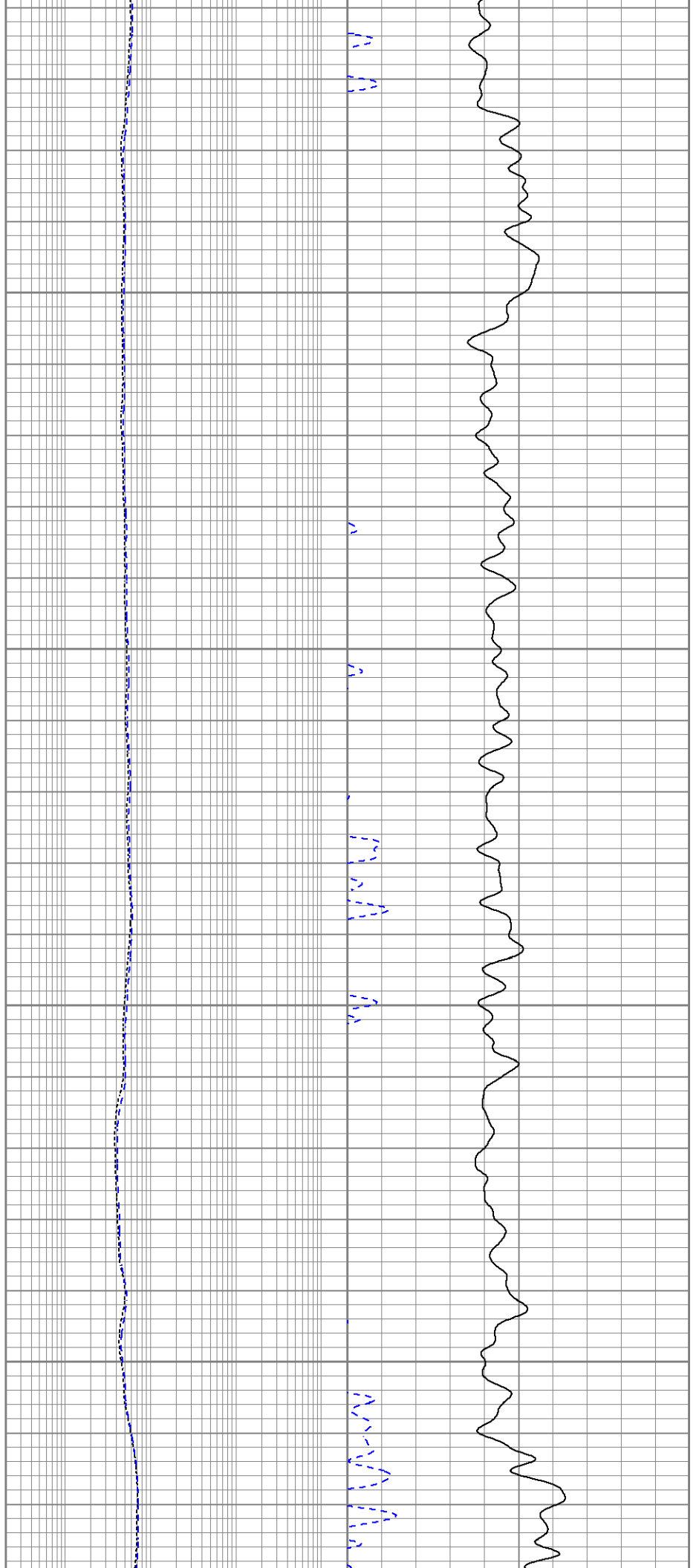


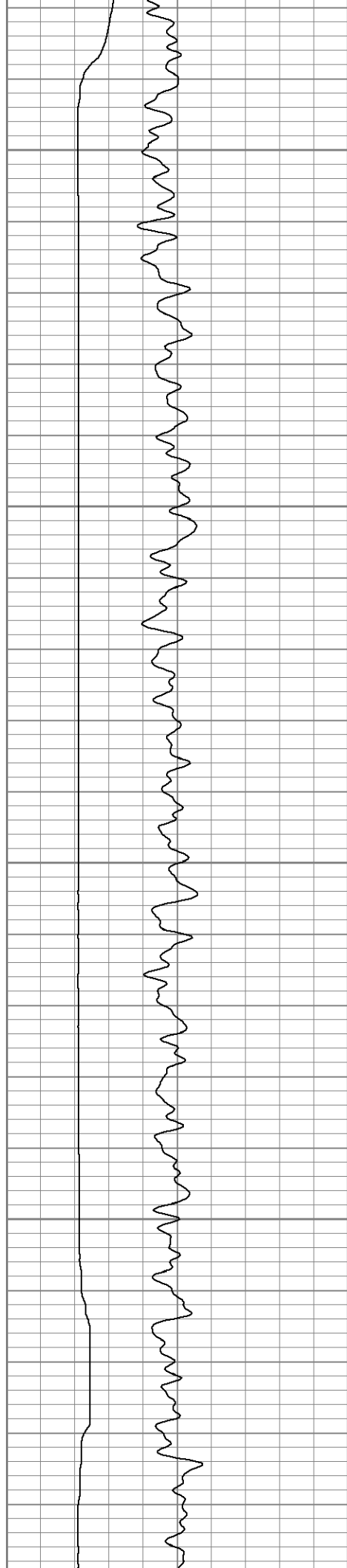
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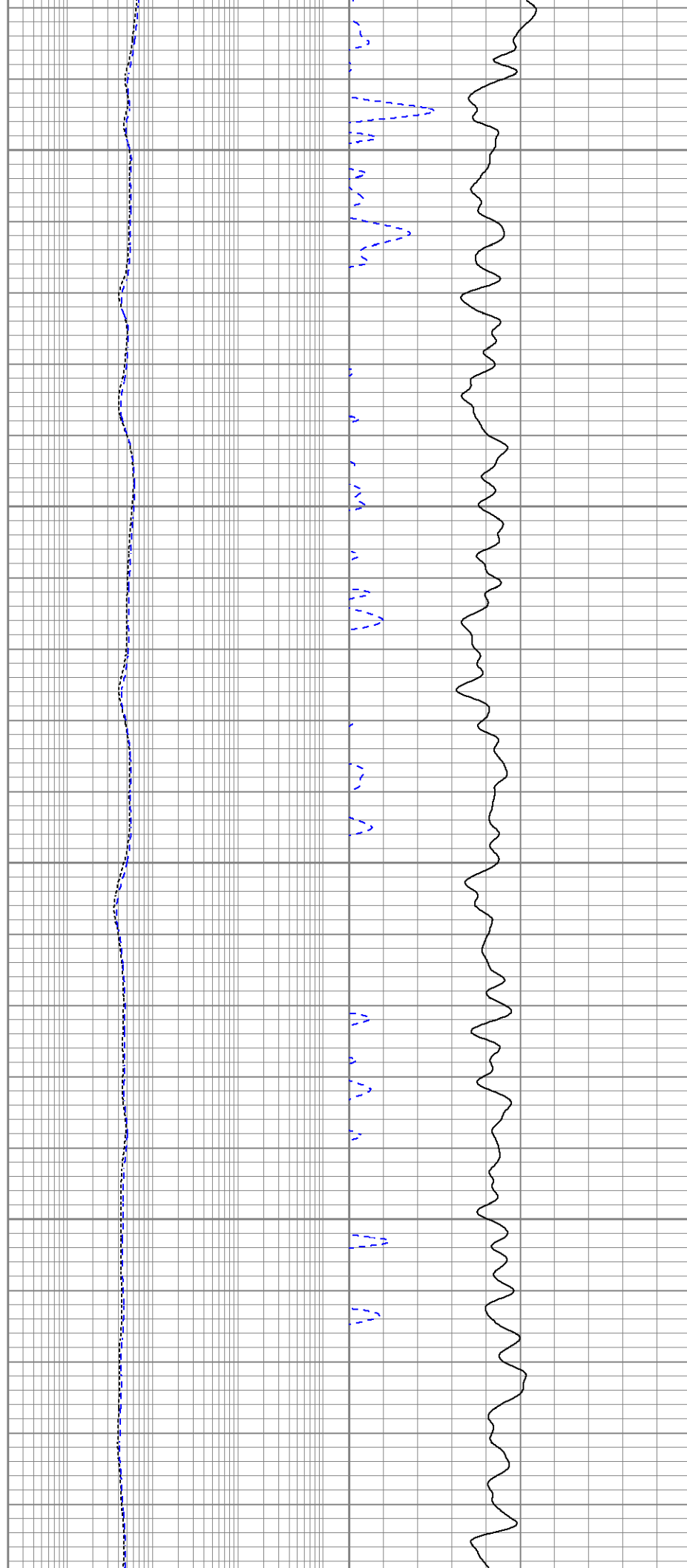


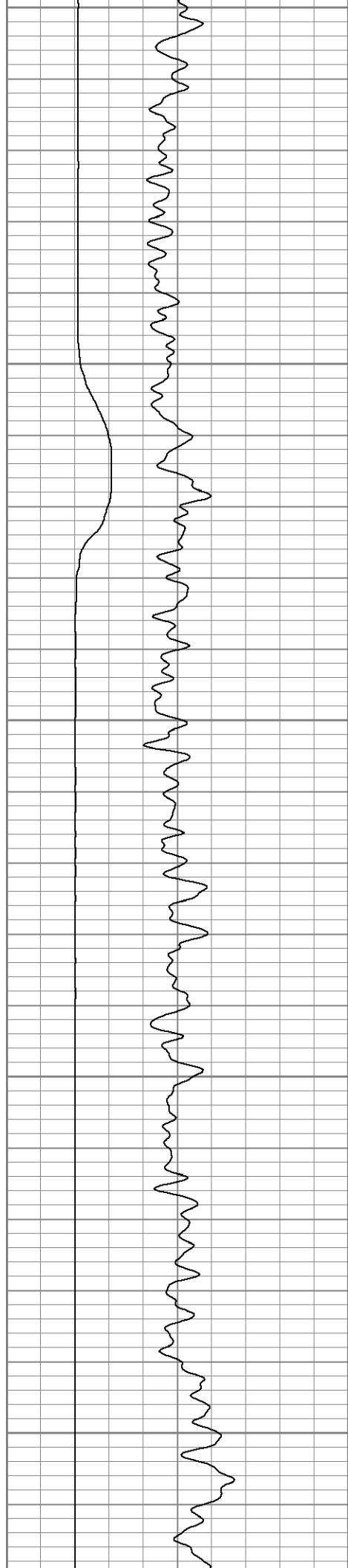
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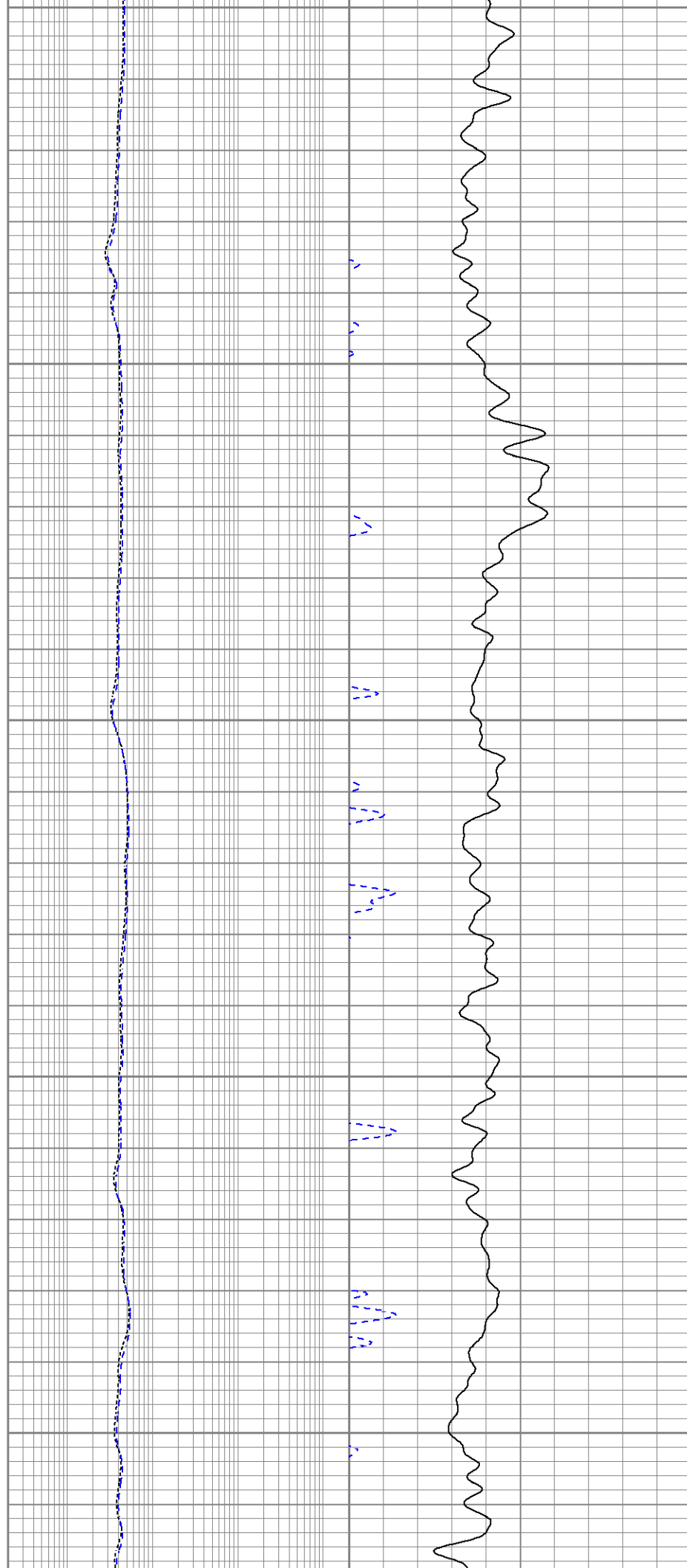
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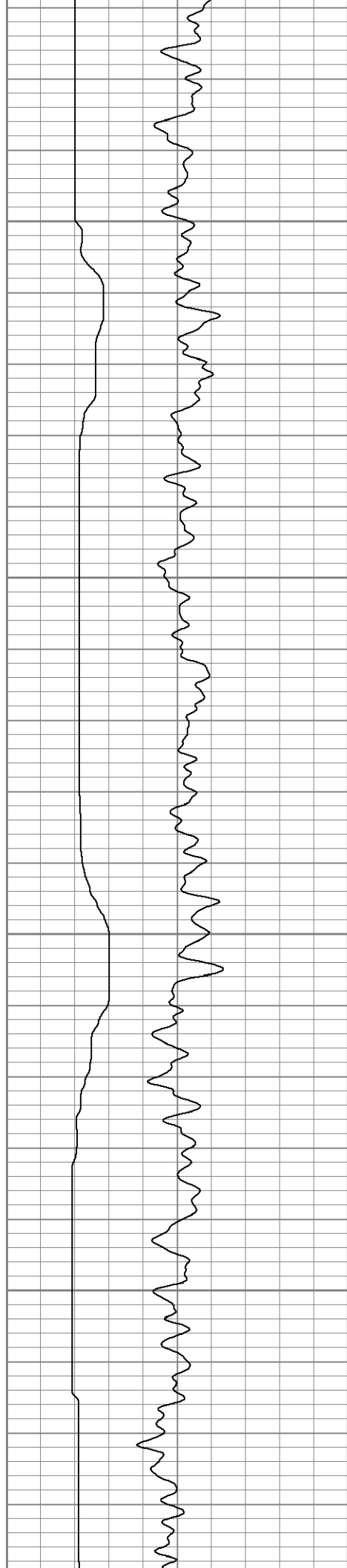
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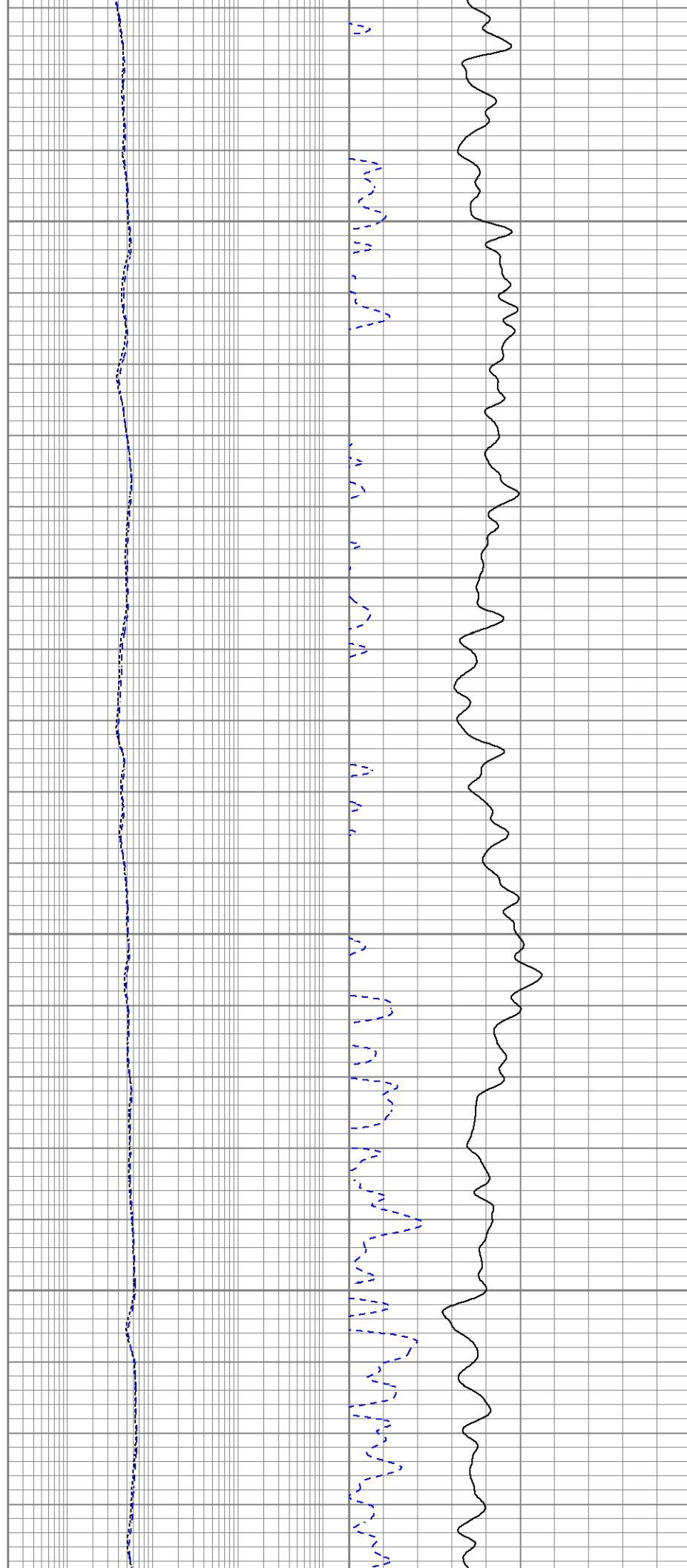


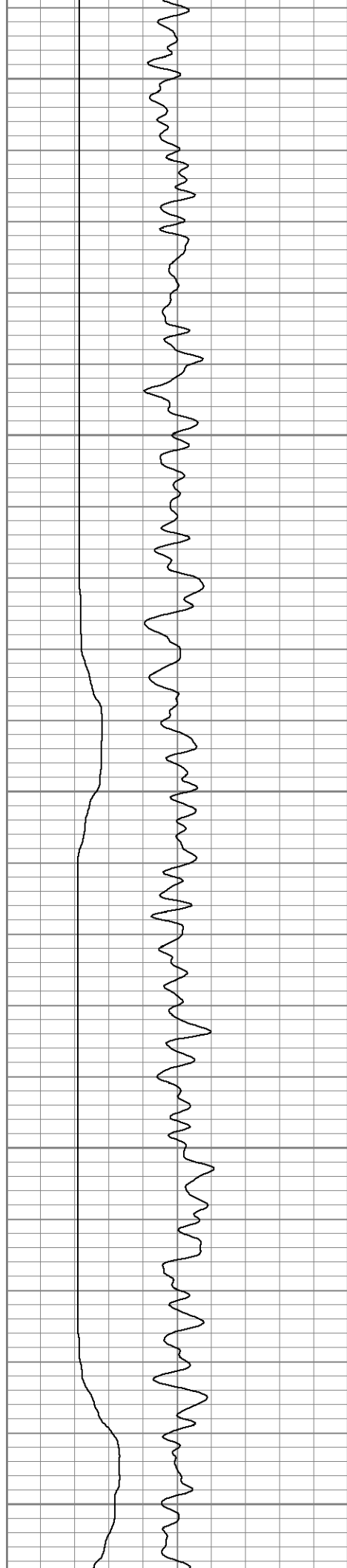
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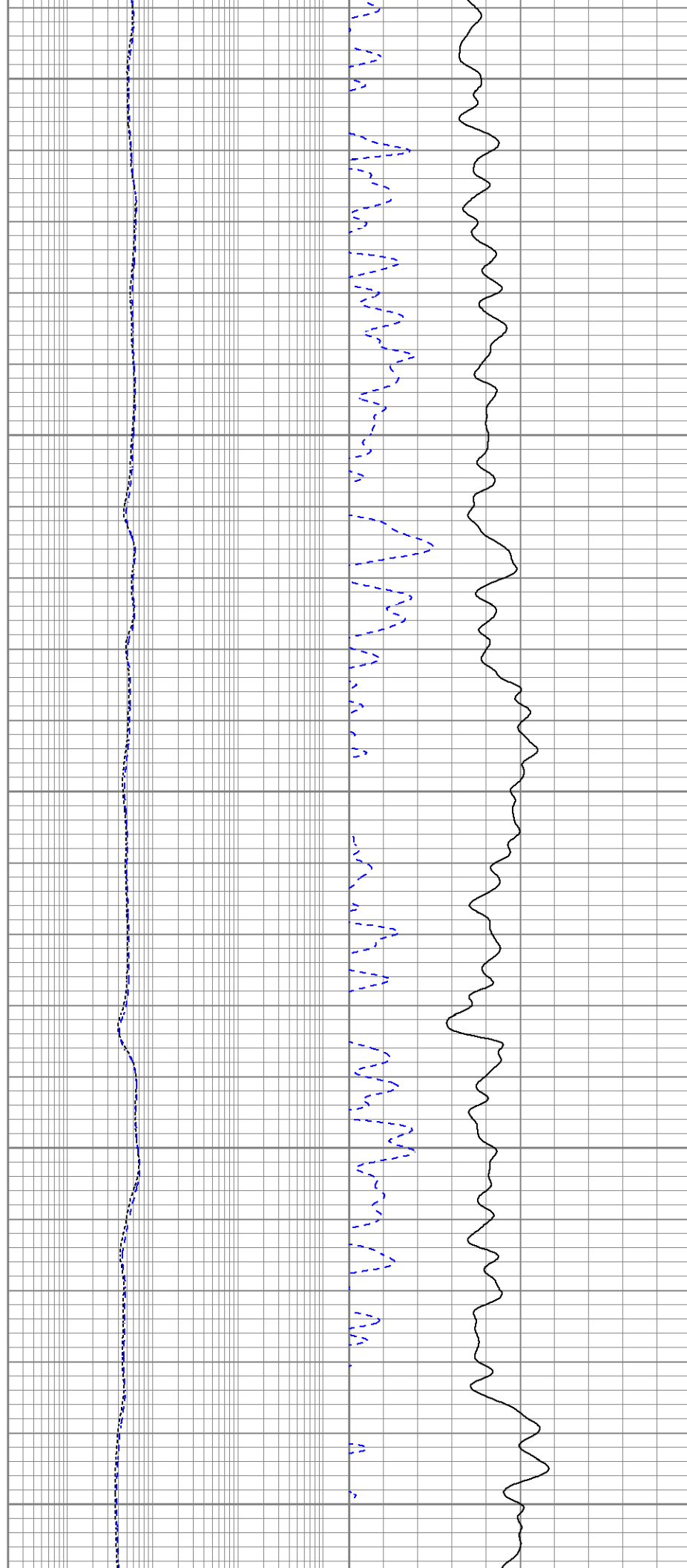
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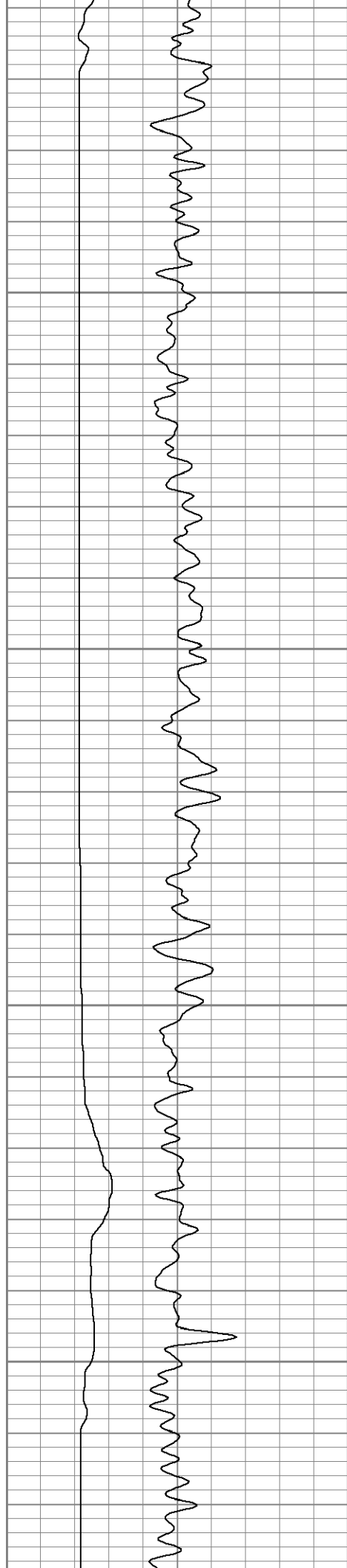
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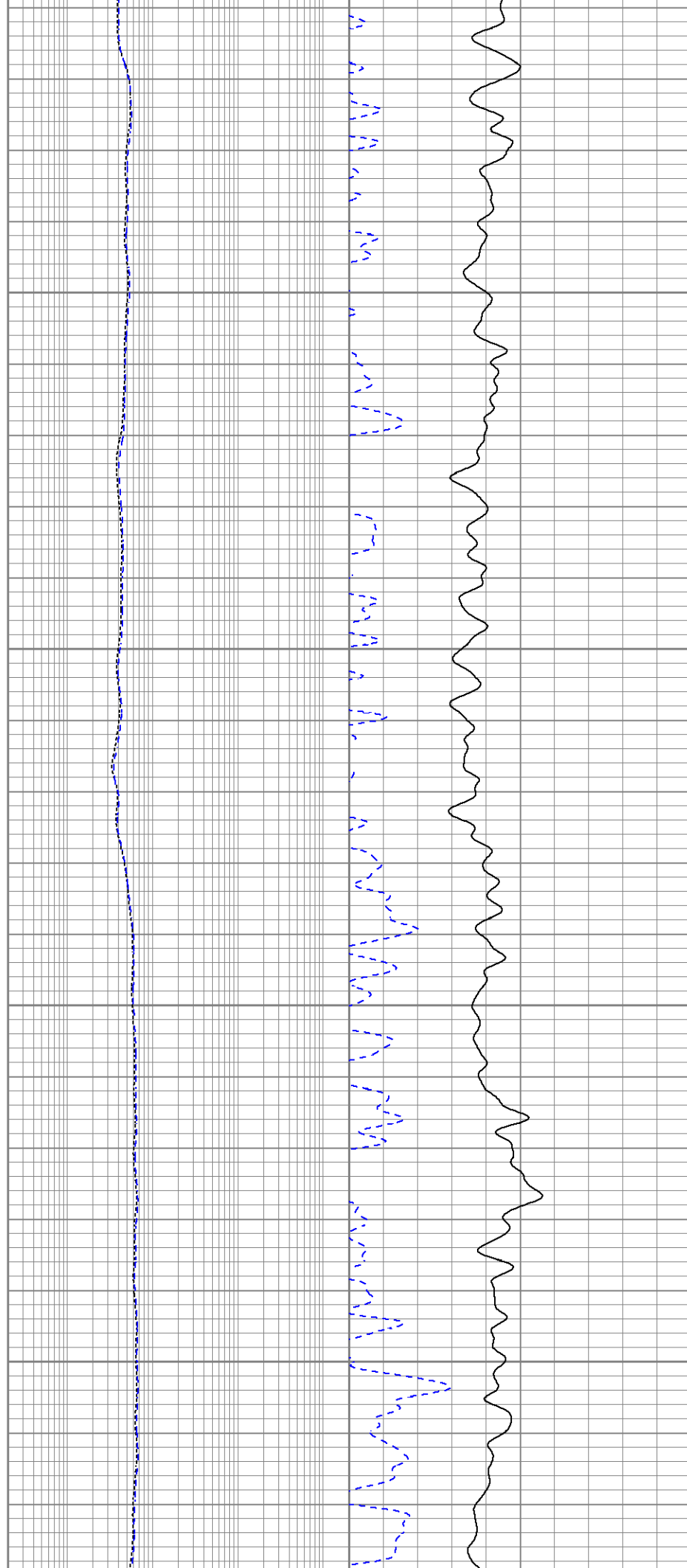


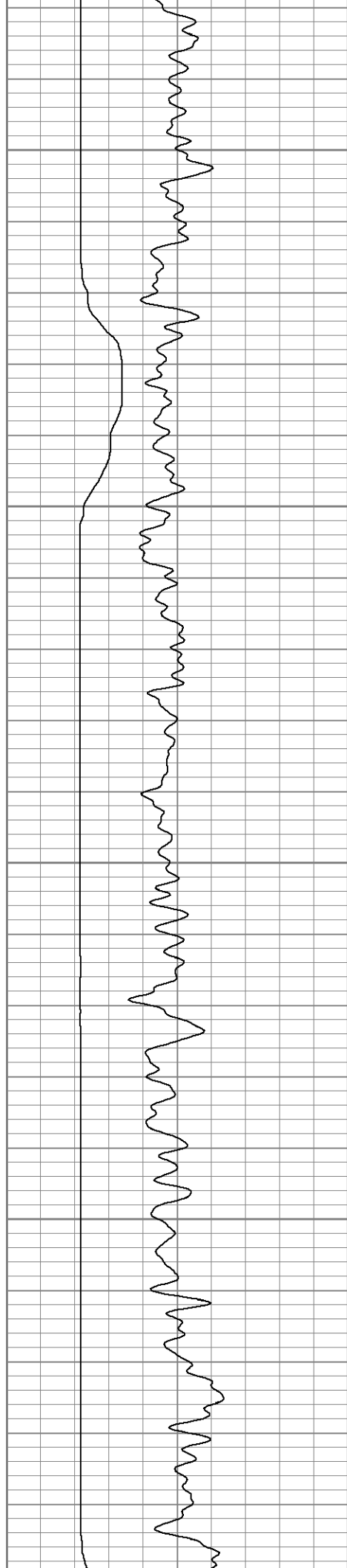
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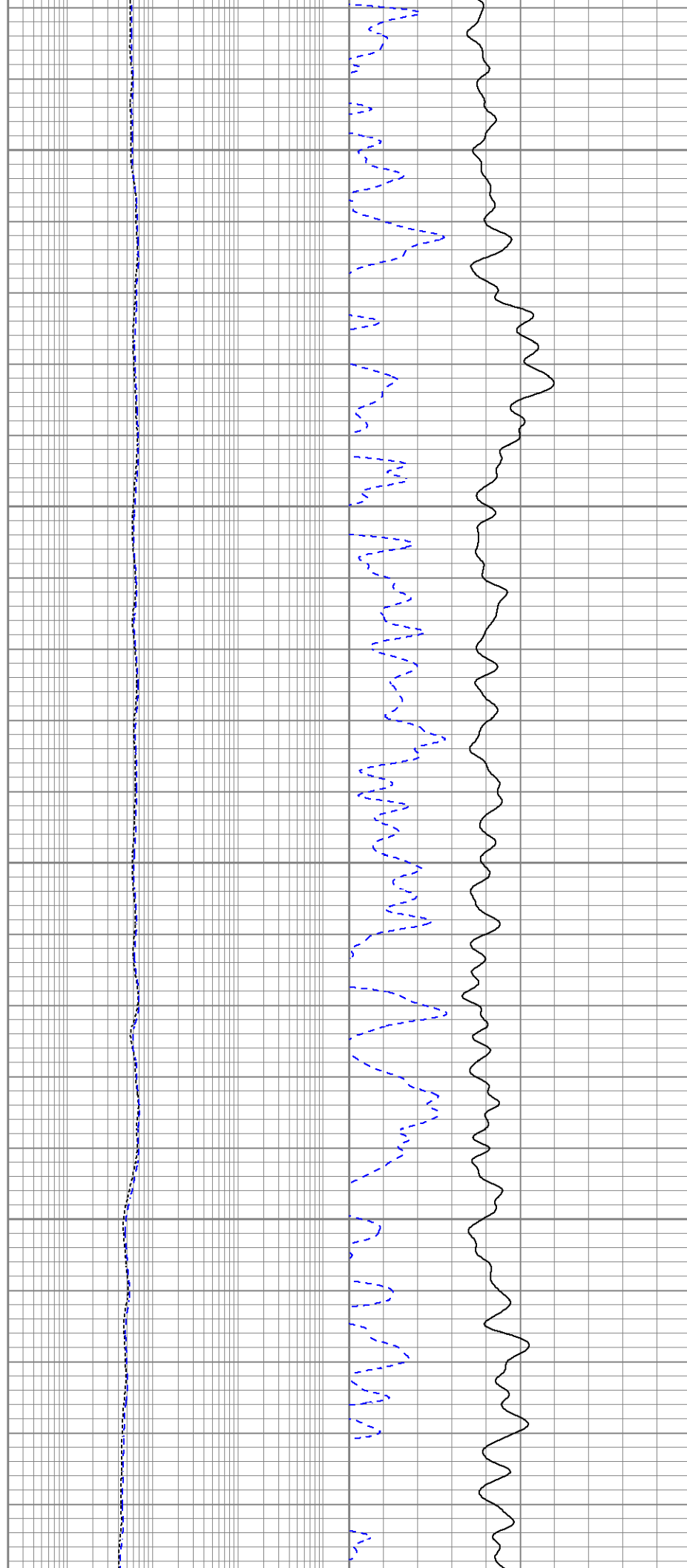


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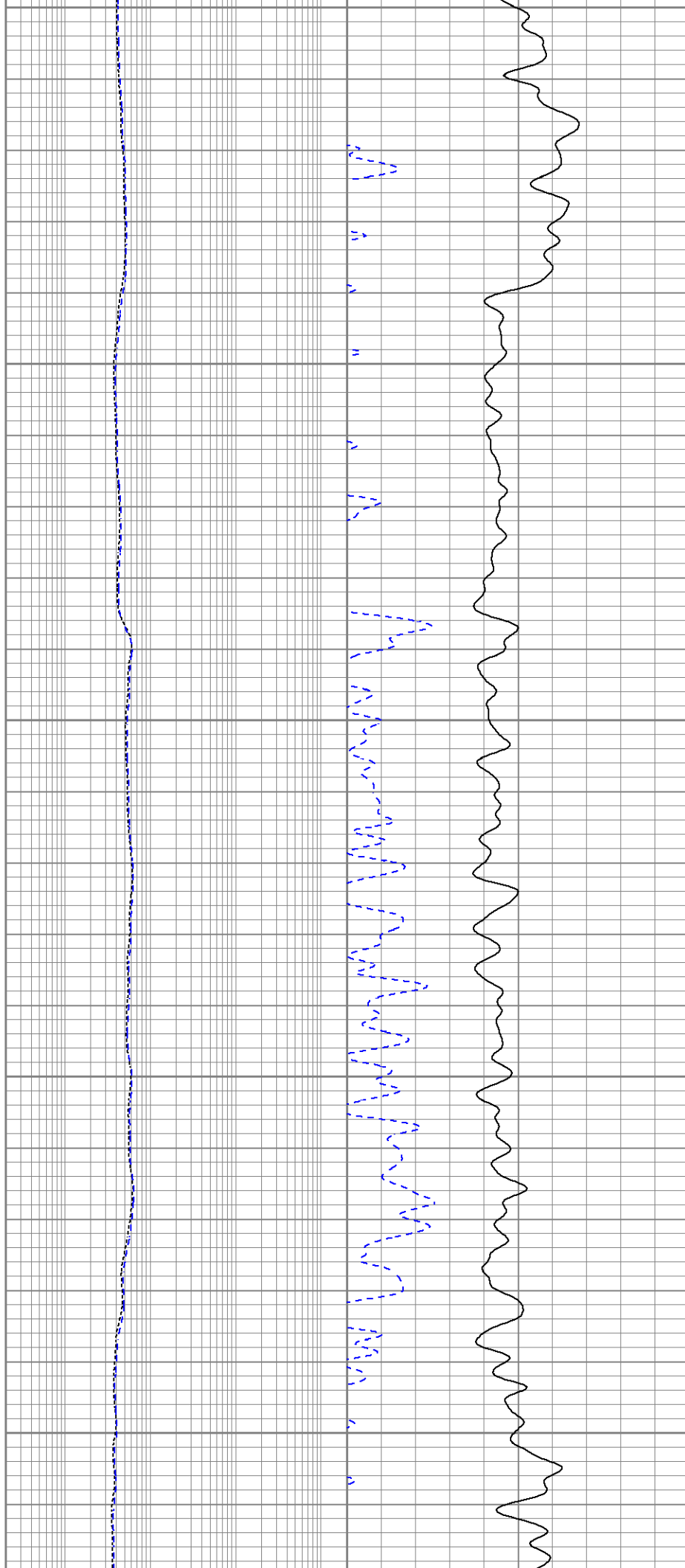
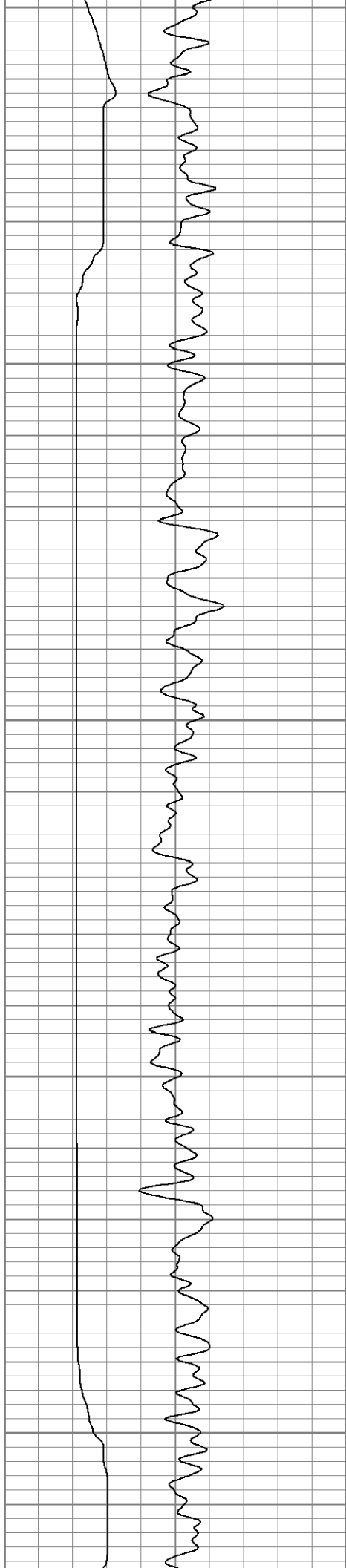
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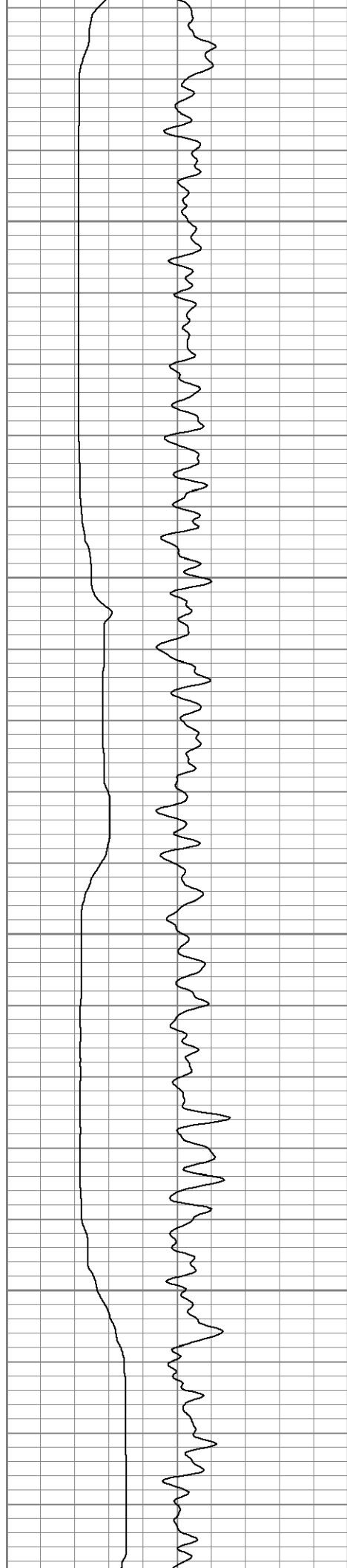
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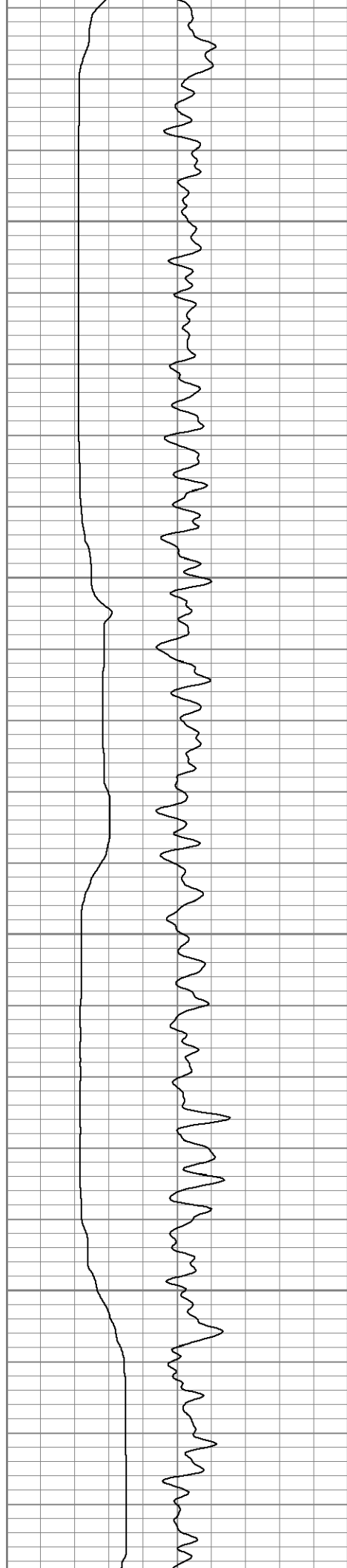
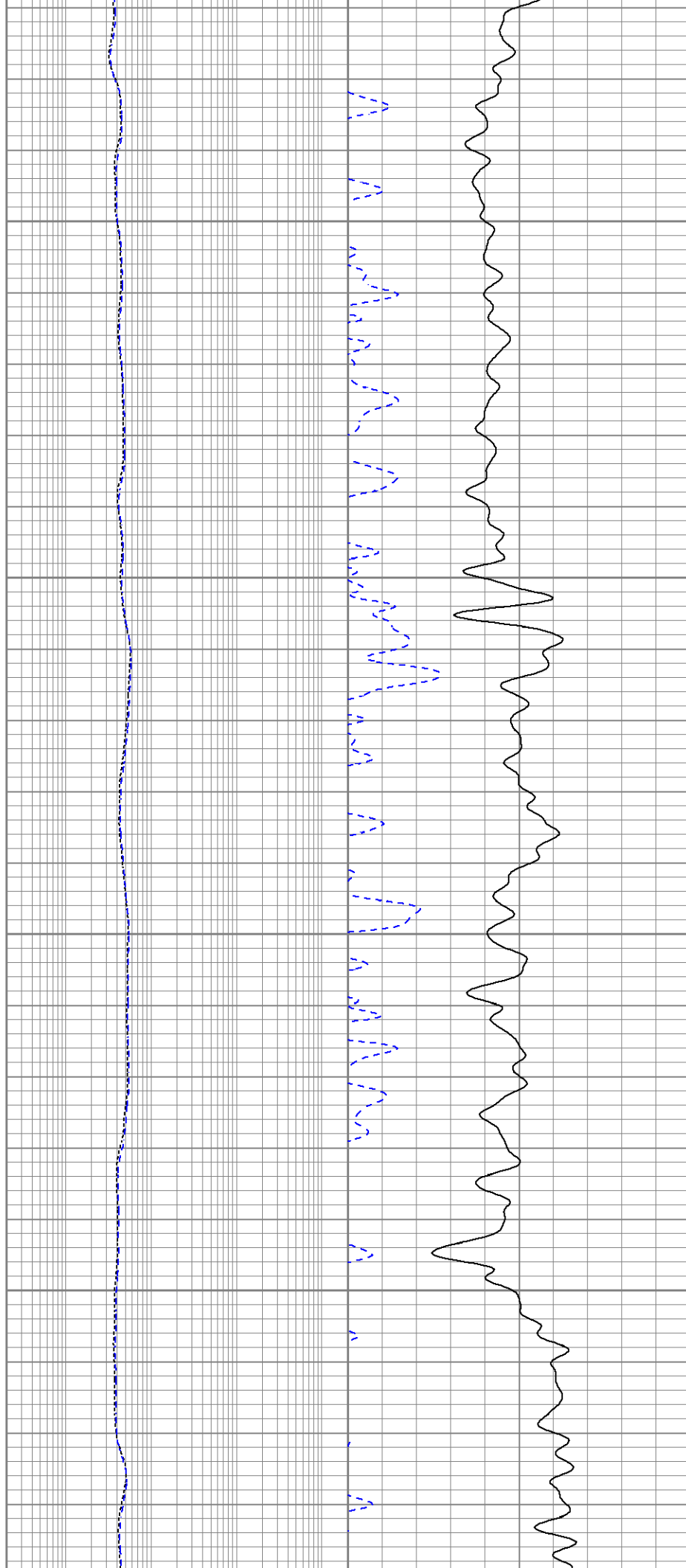


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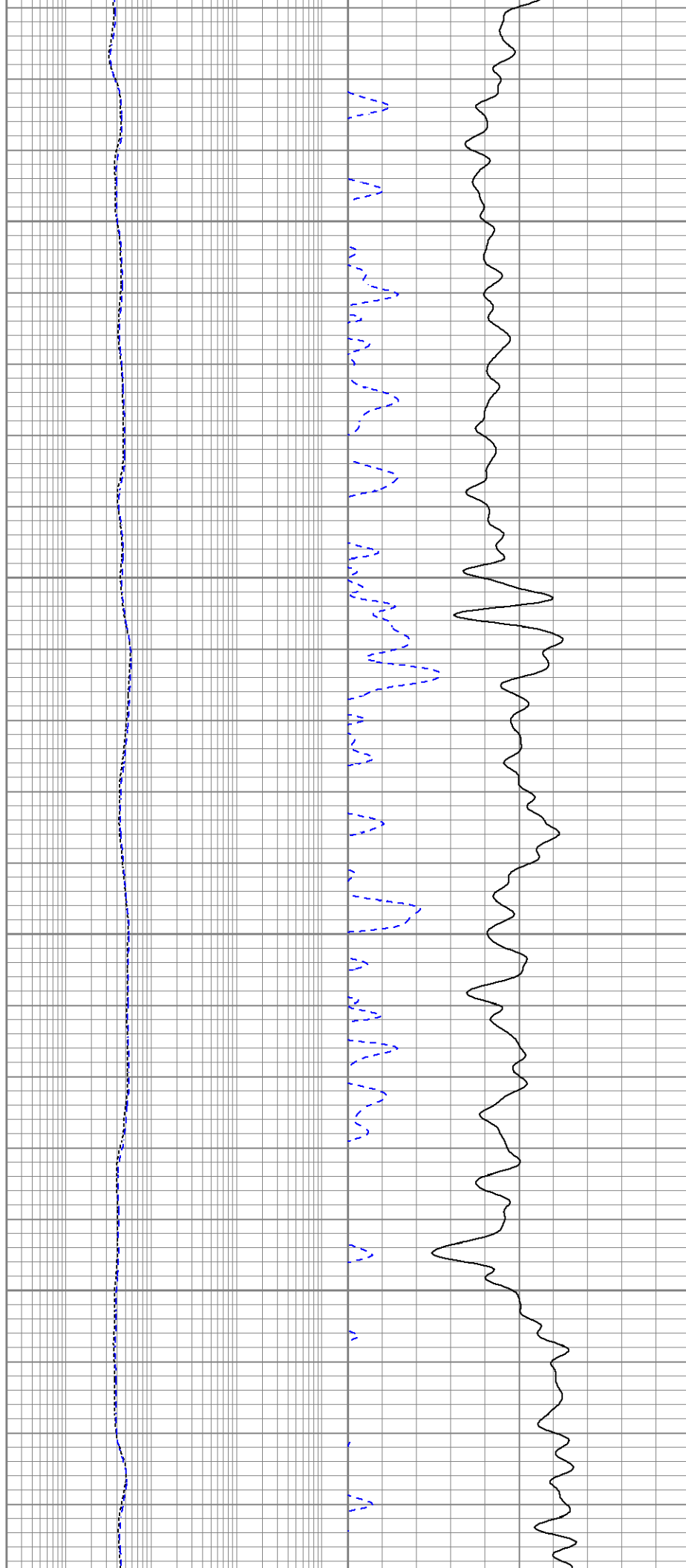


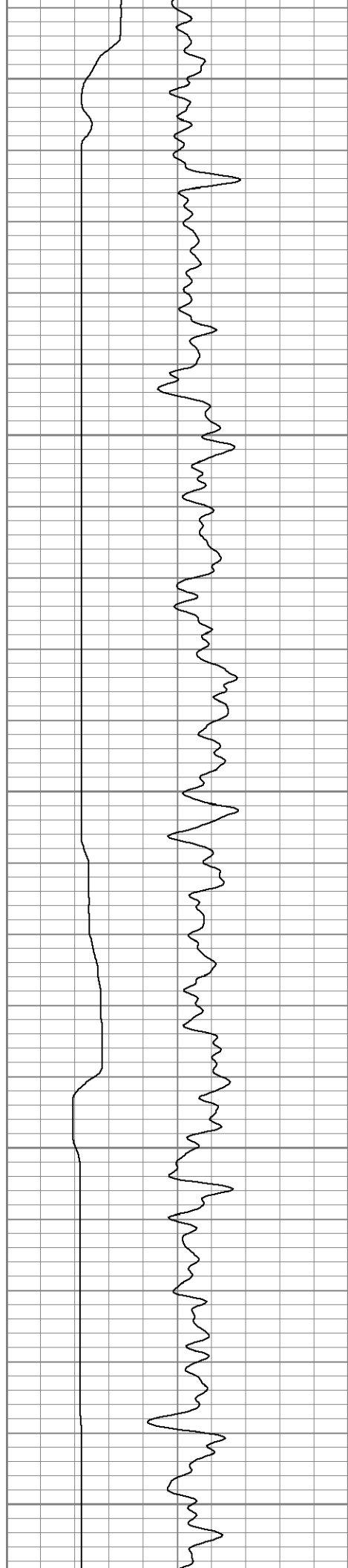
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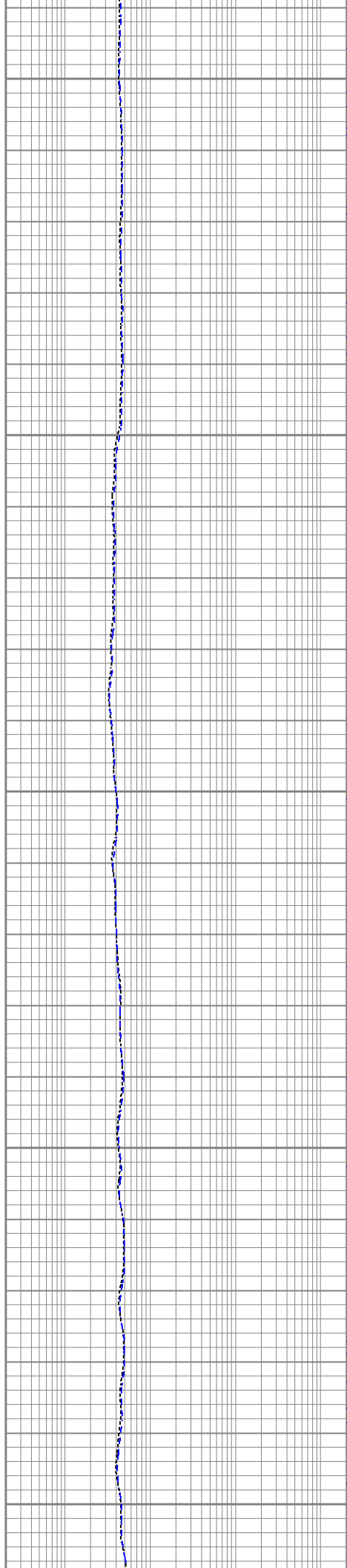
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On May 11

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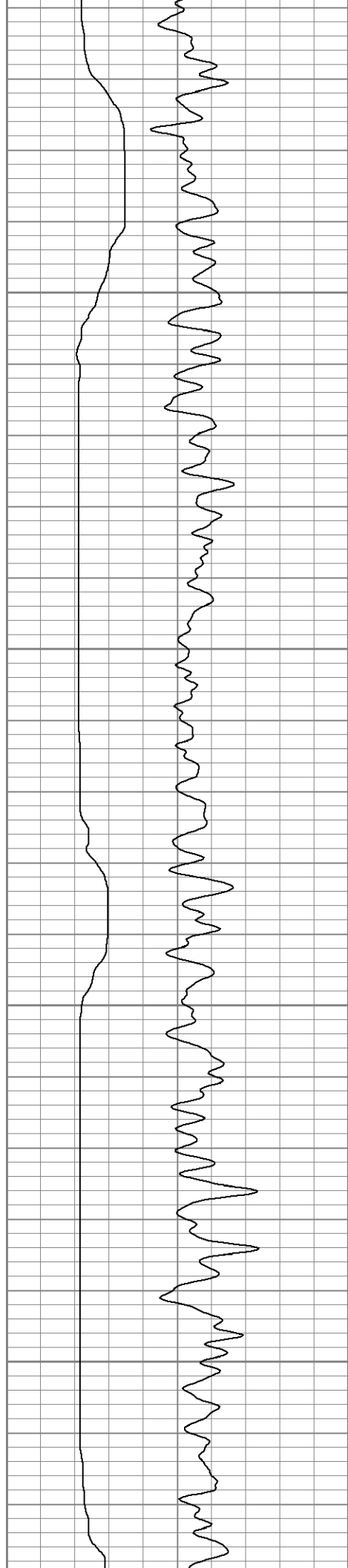
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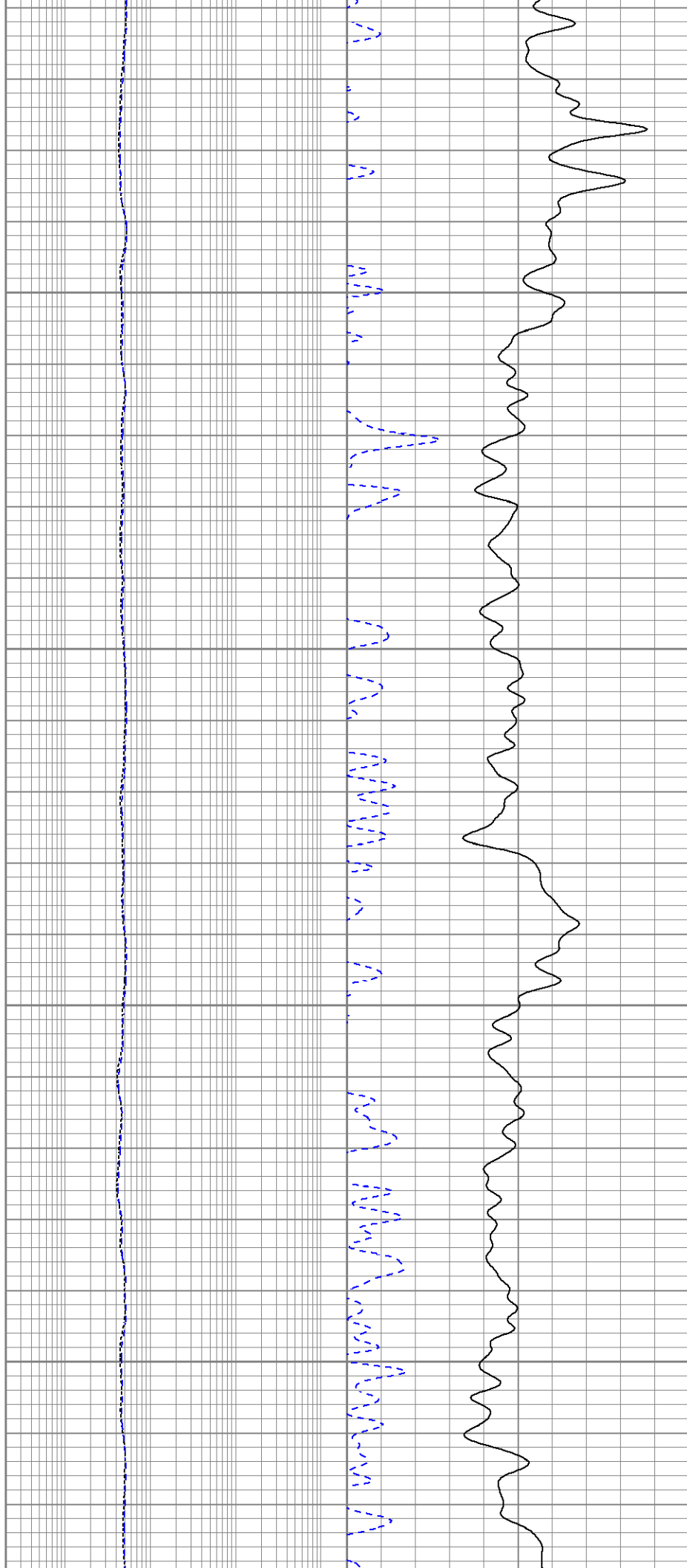


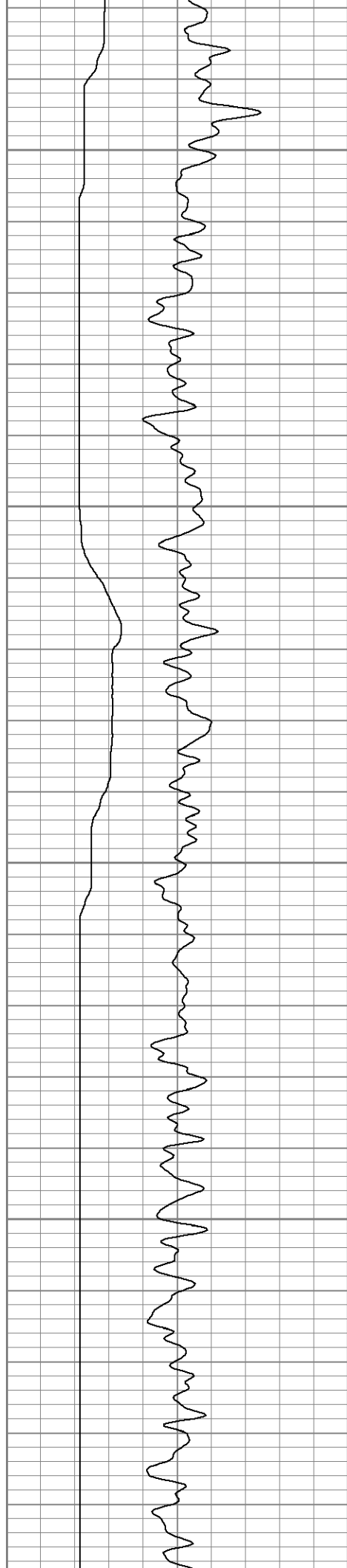
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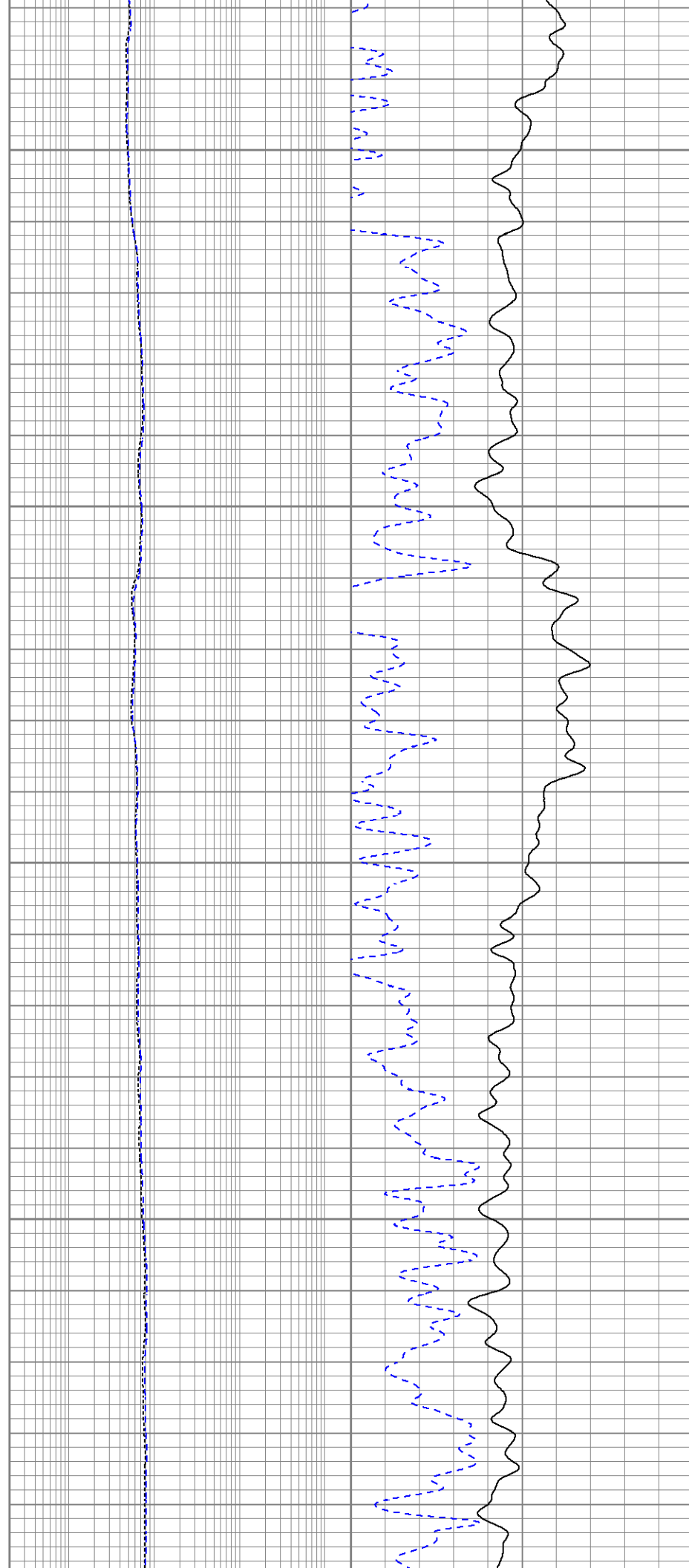


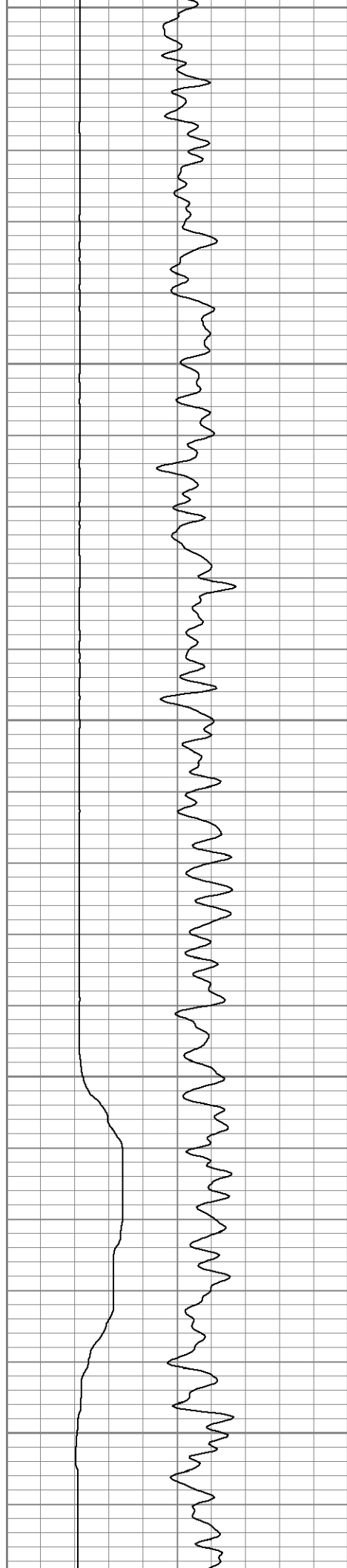
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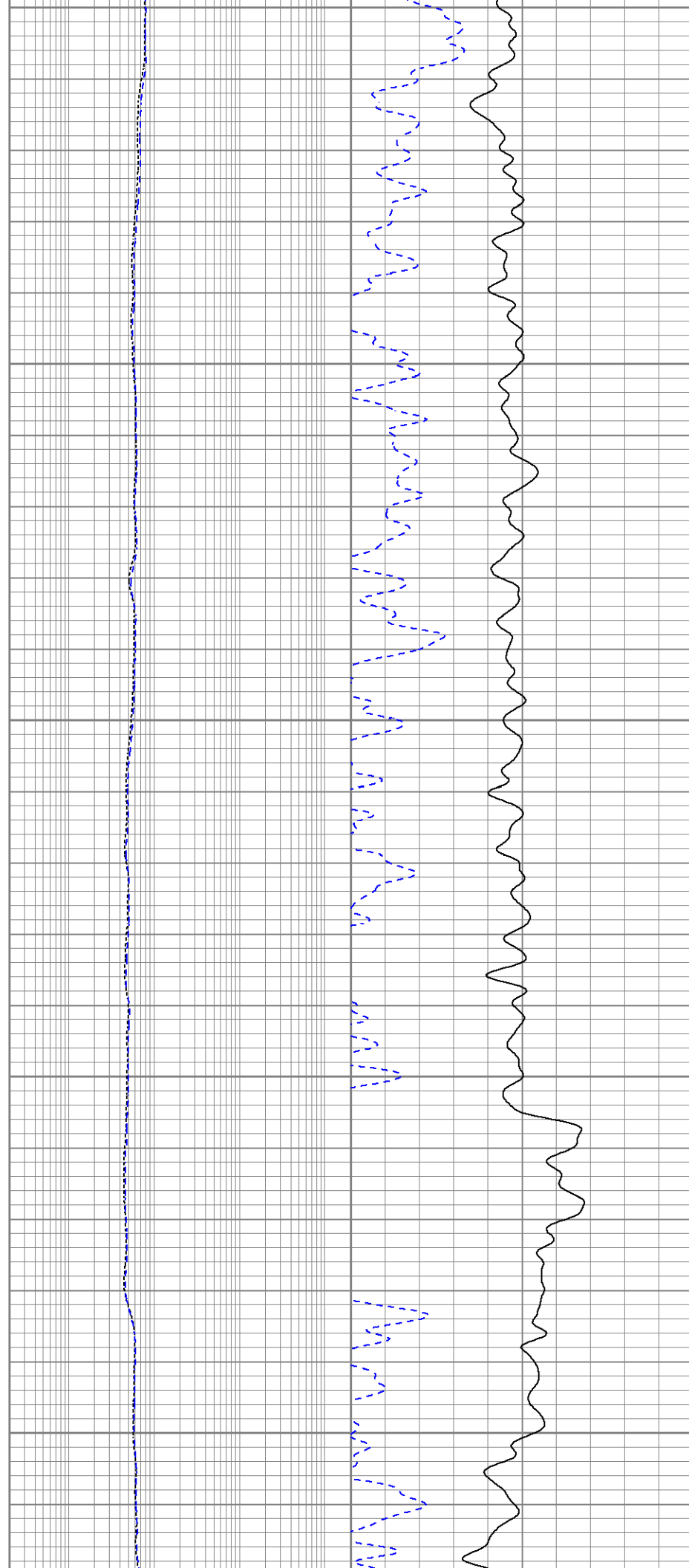
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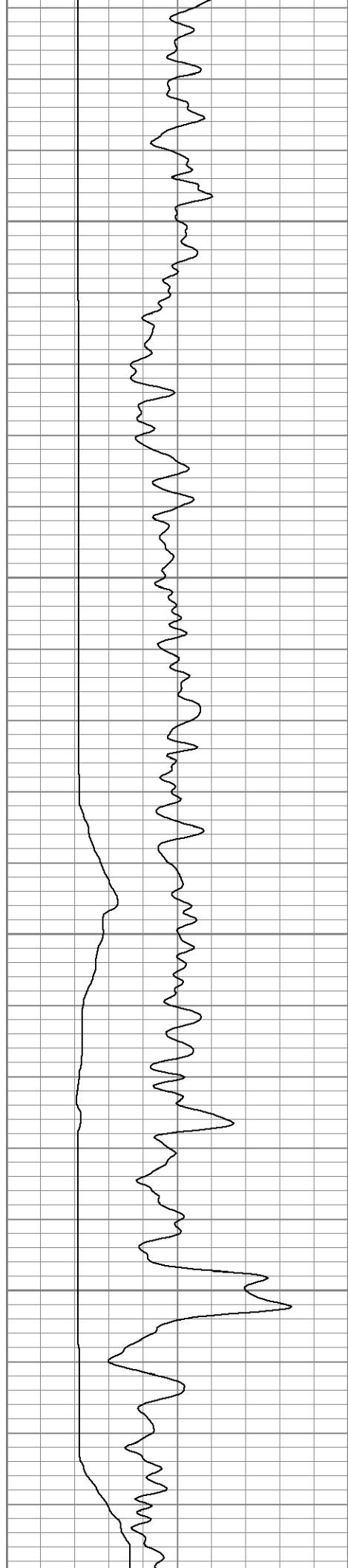
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5300



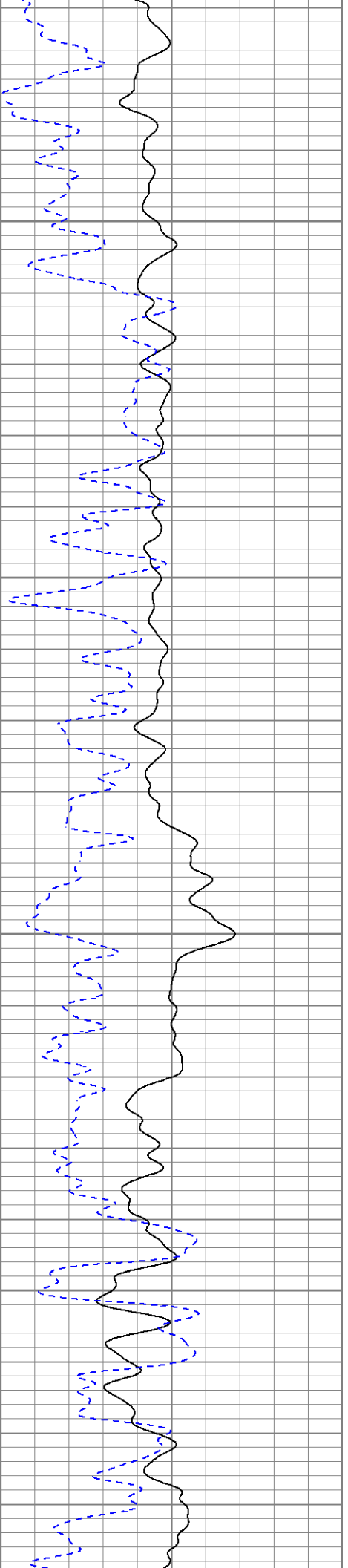
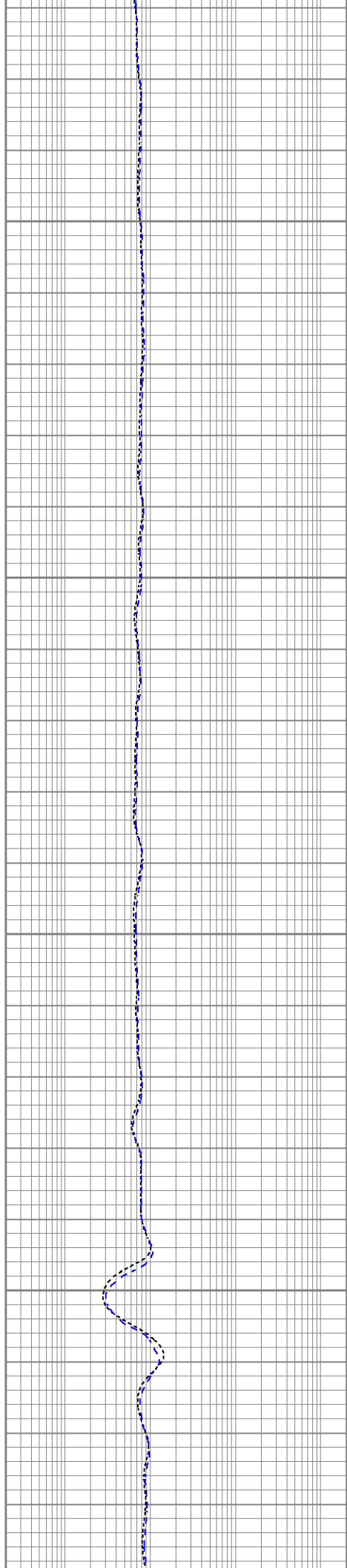


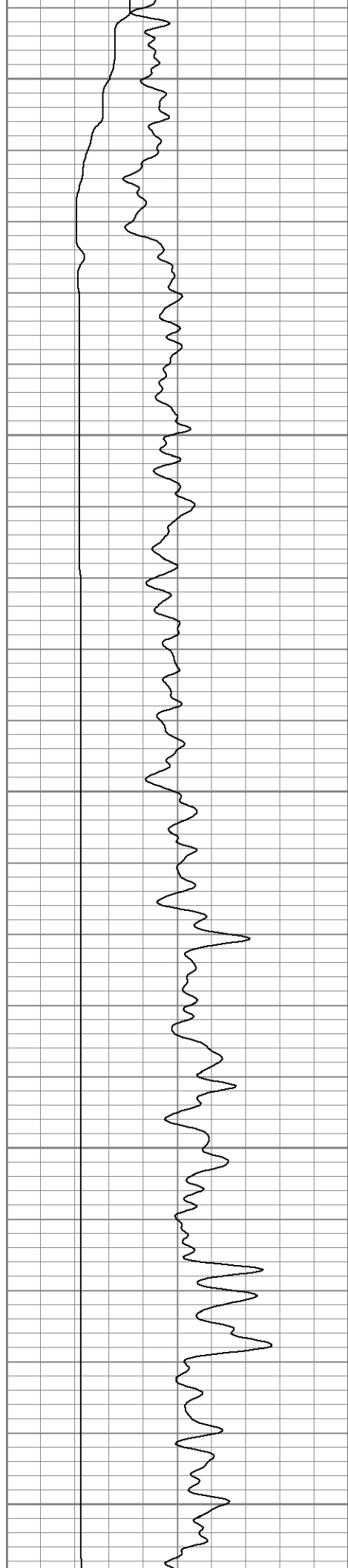
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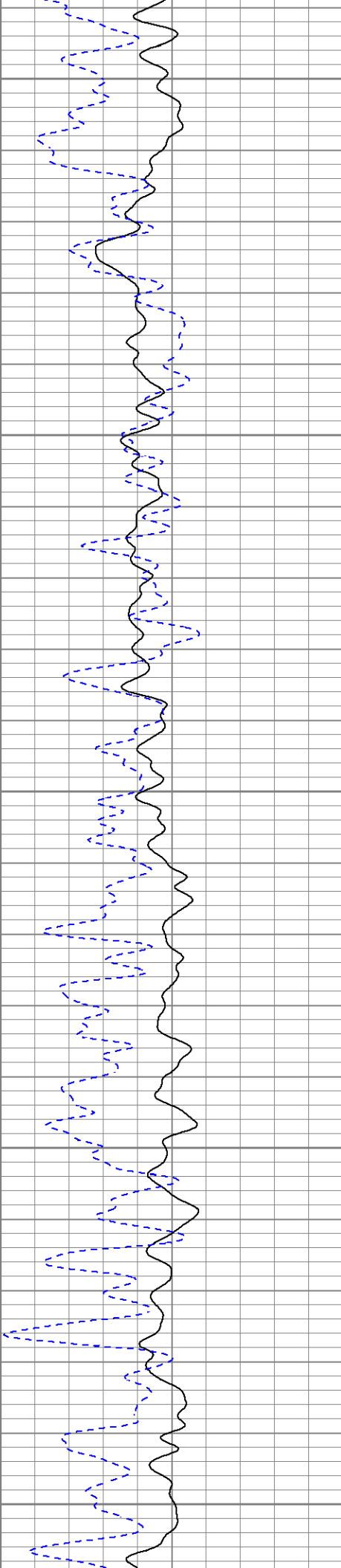
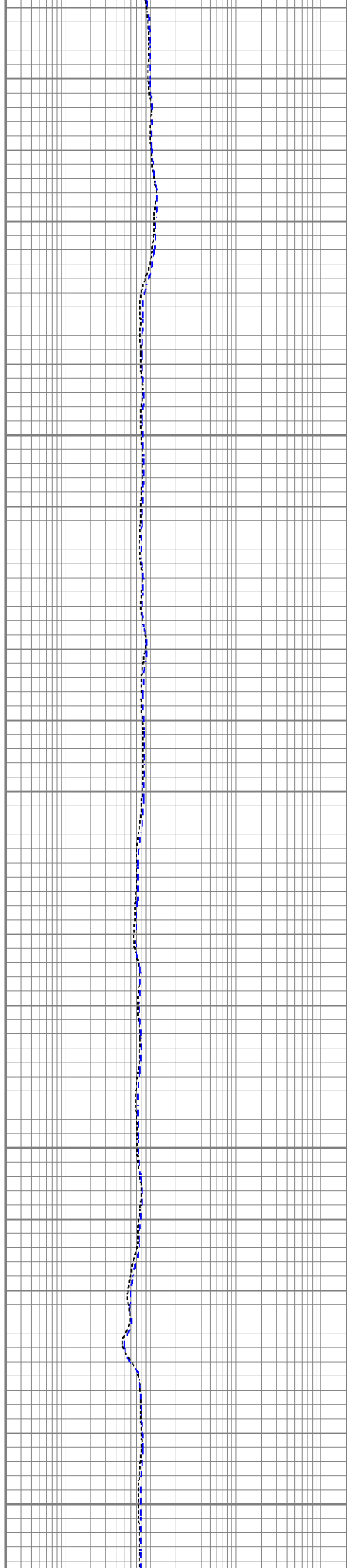
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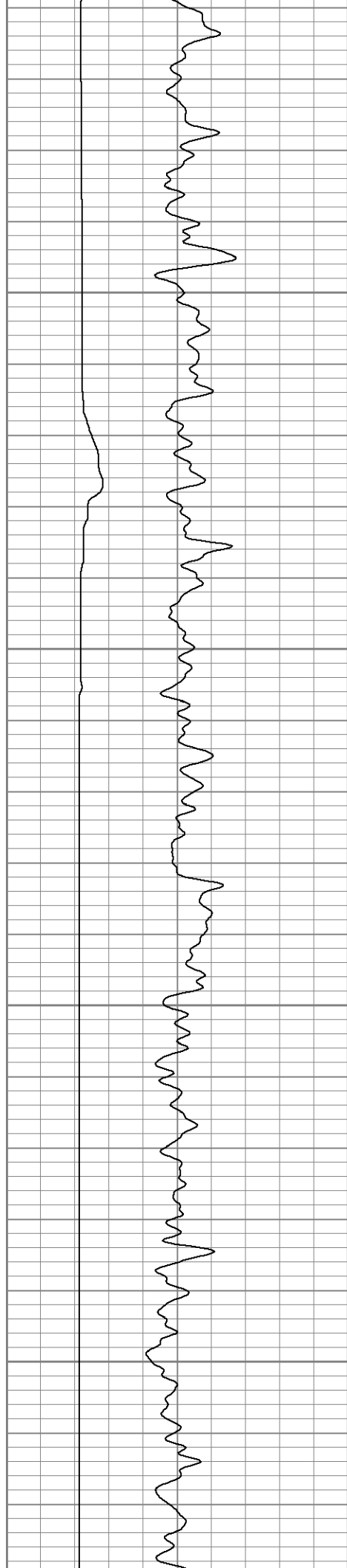
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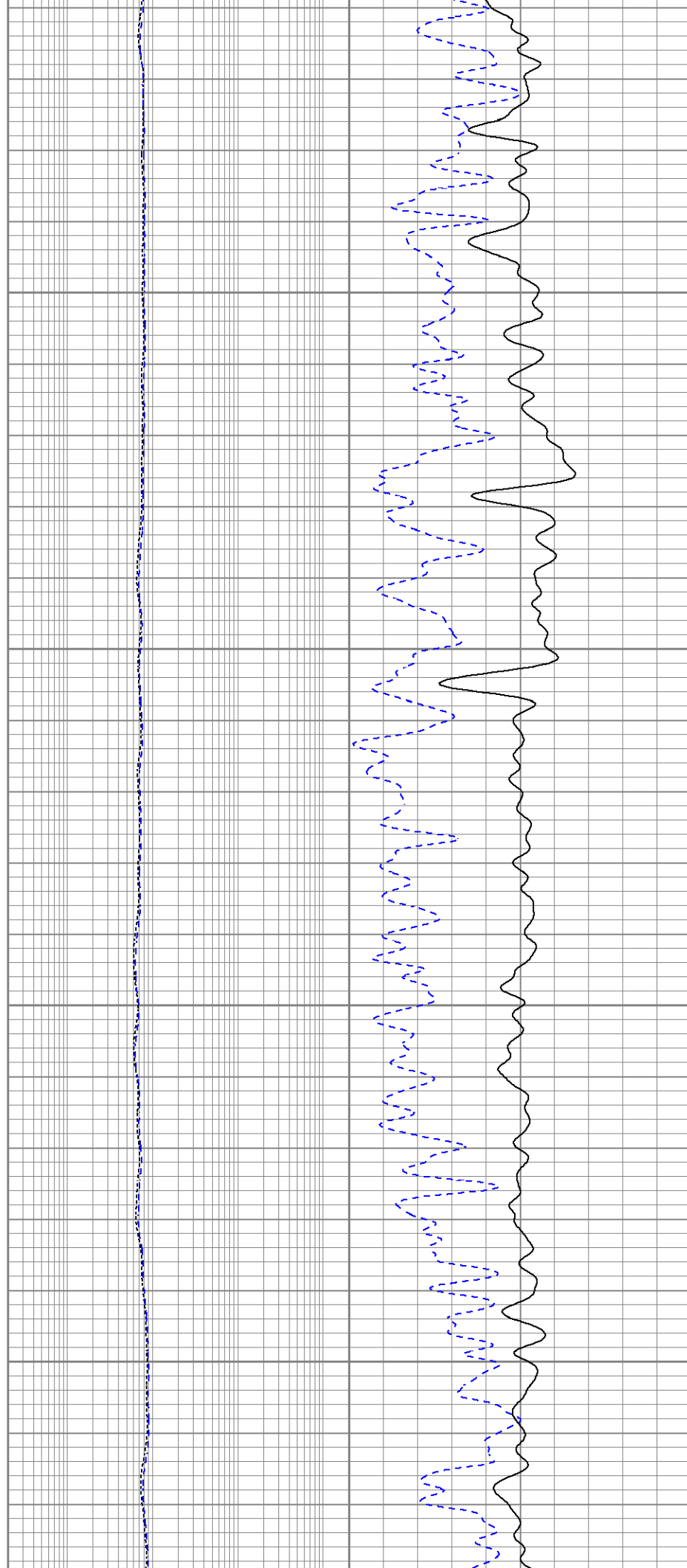


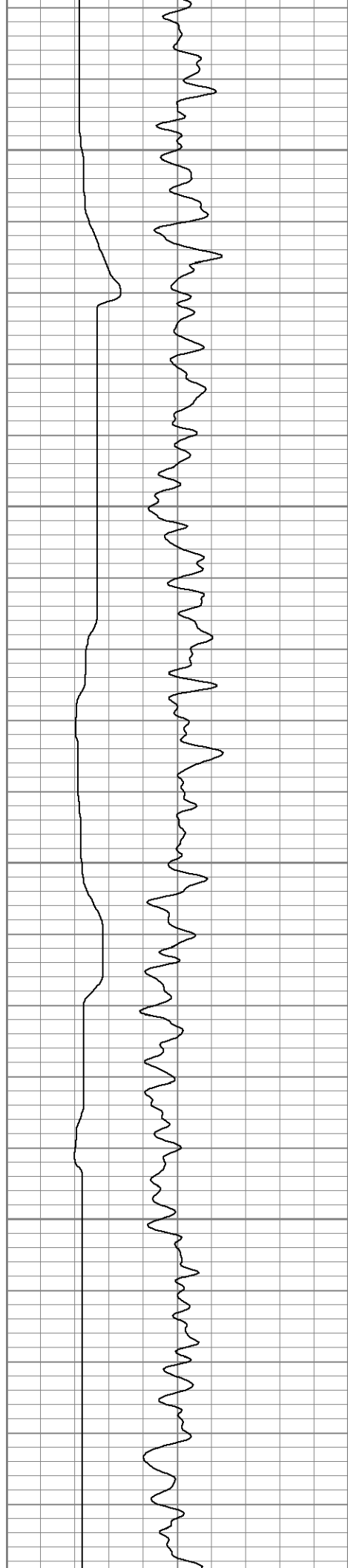
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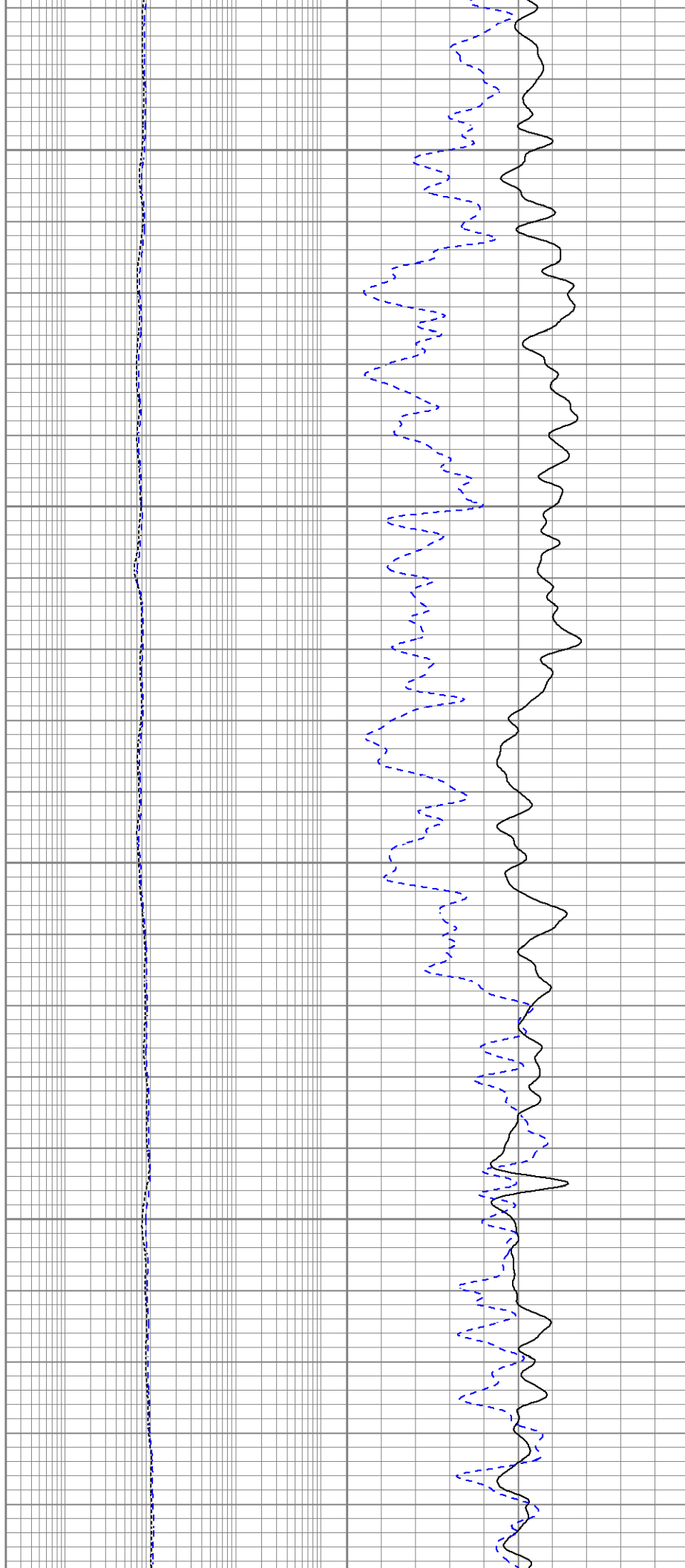


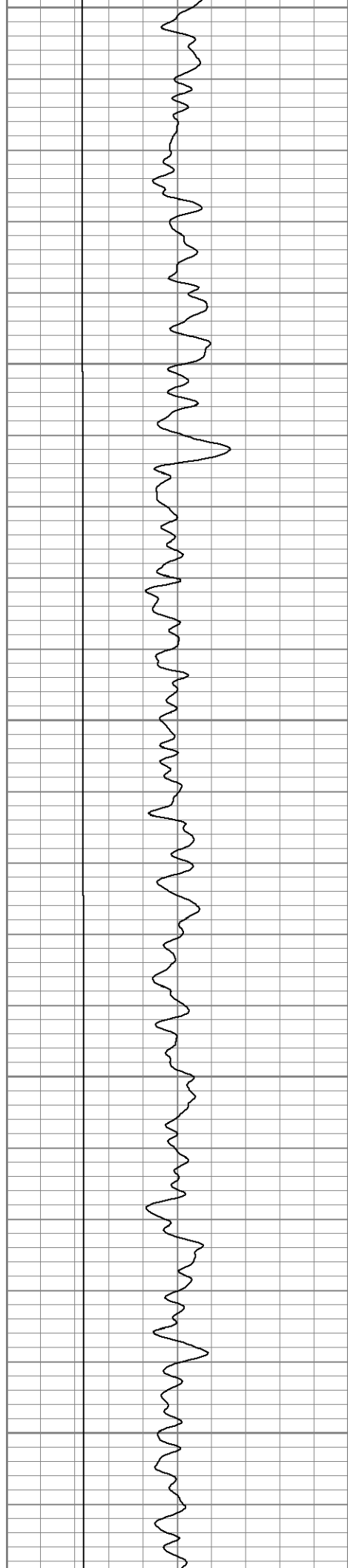
6000

6050

6100

6150





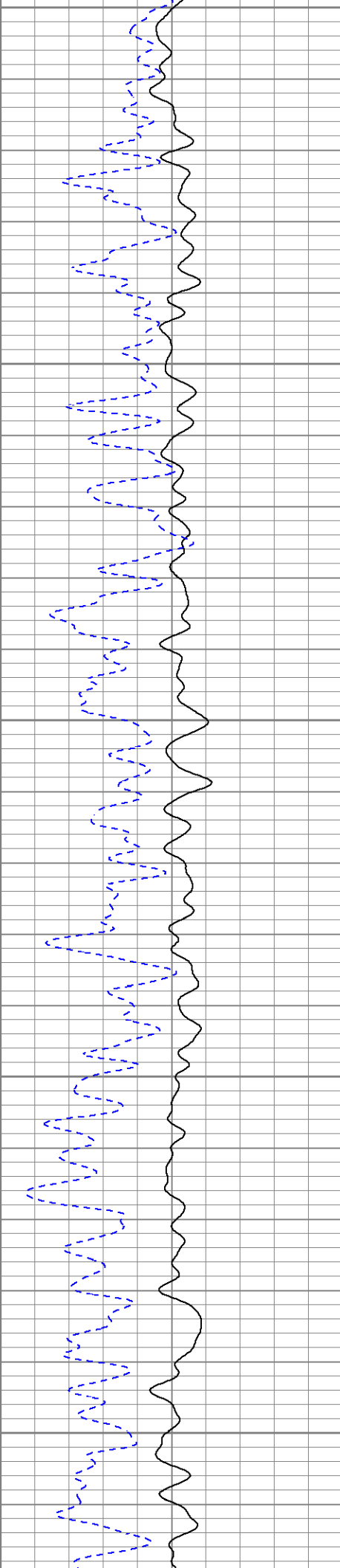
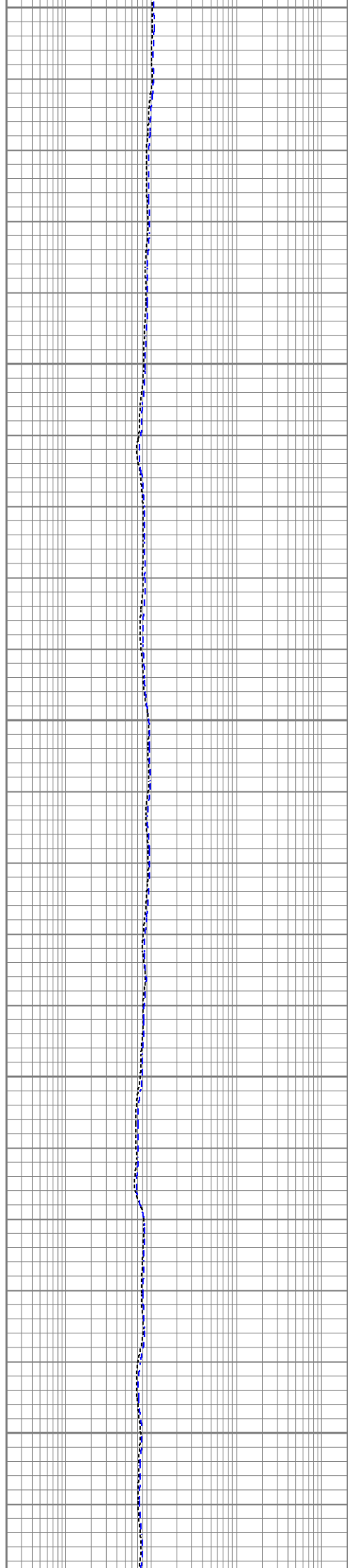
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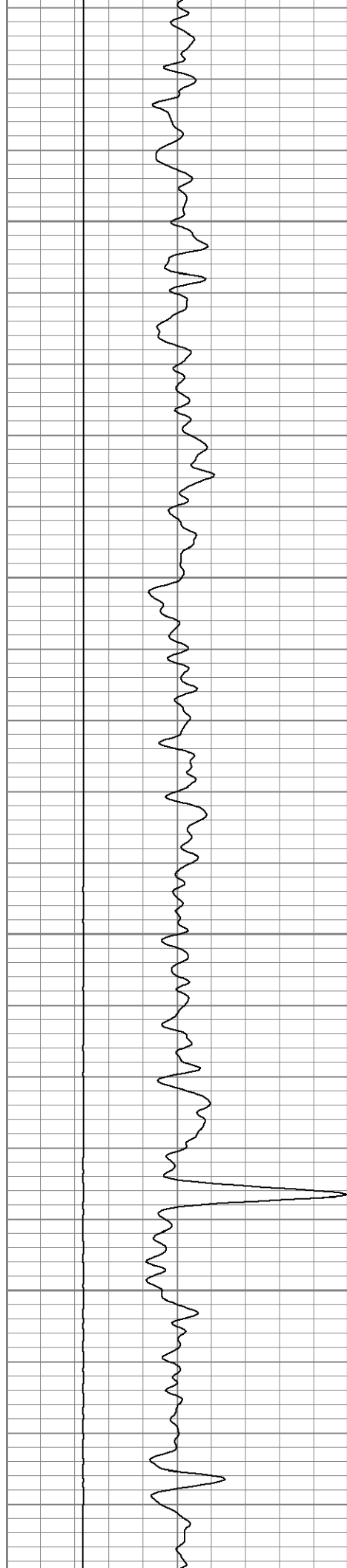
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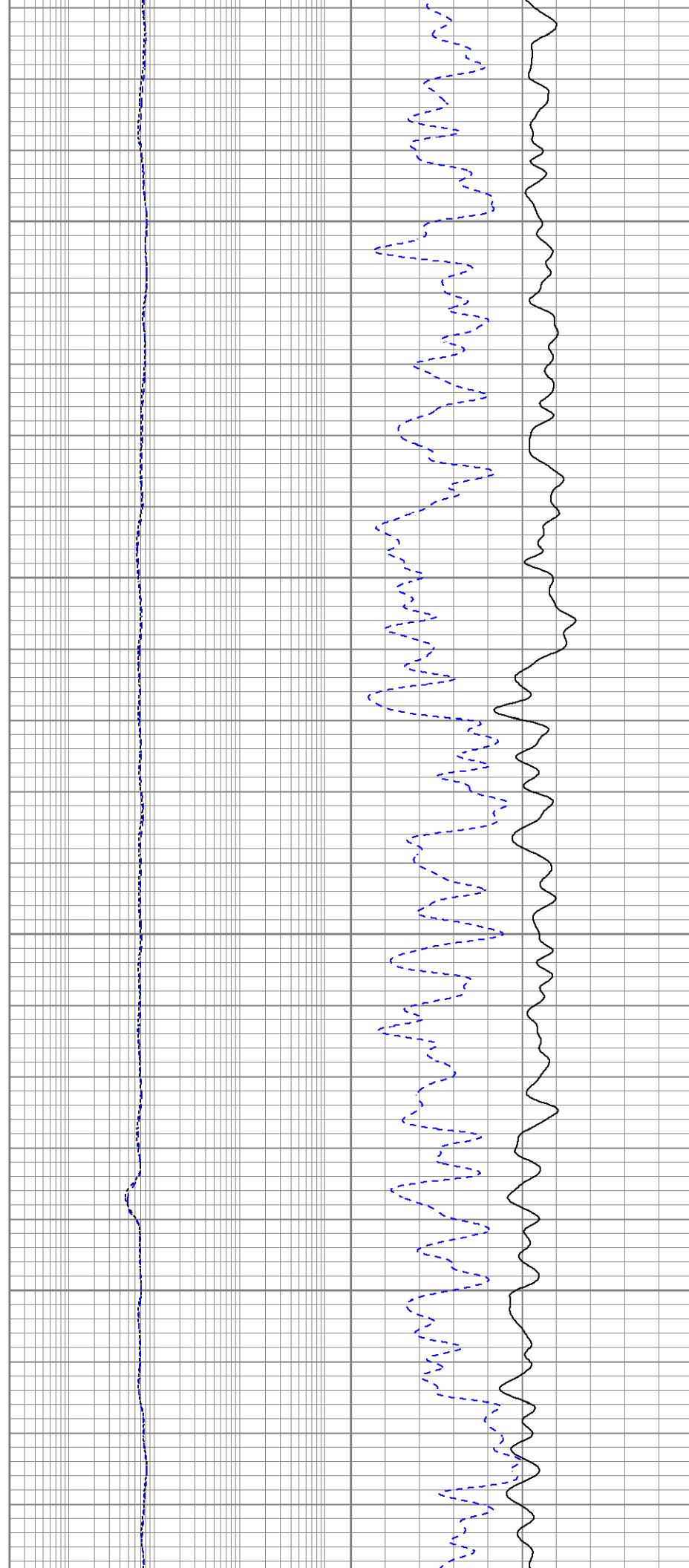


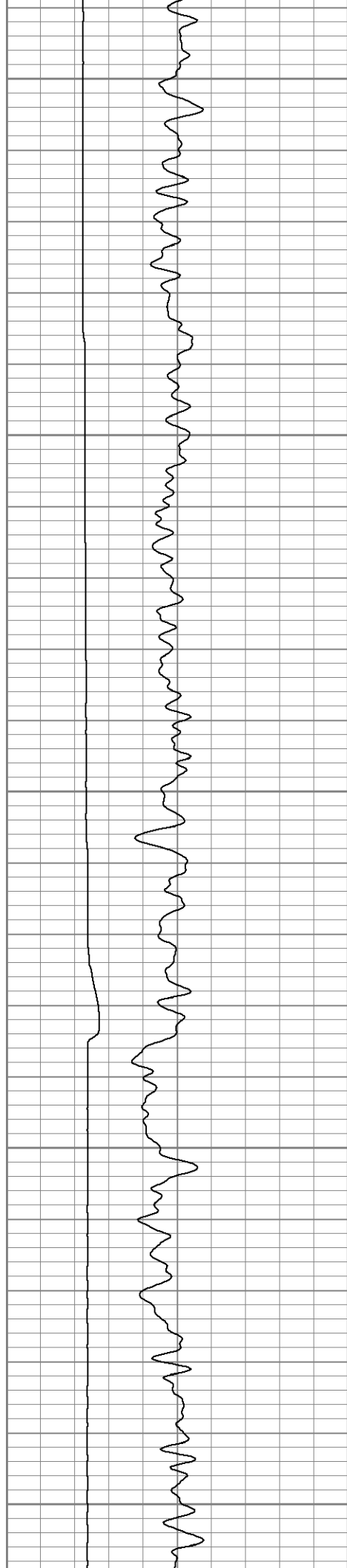
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6600





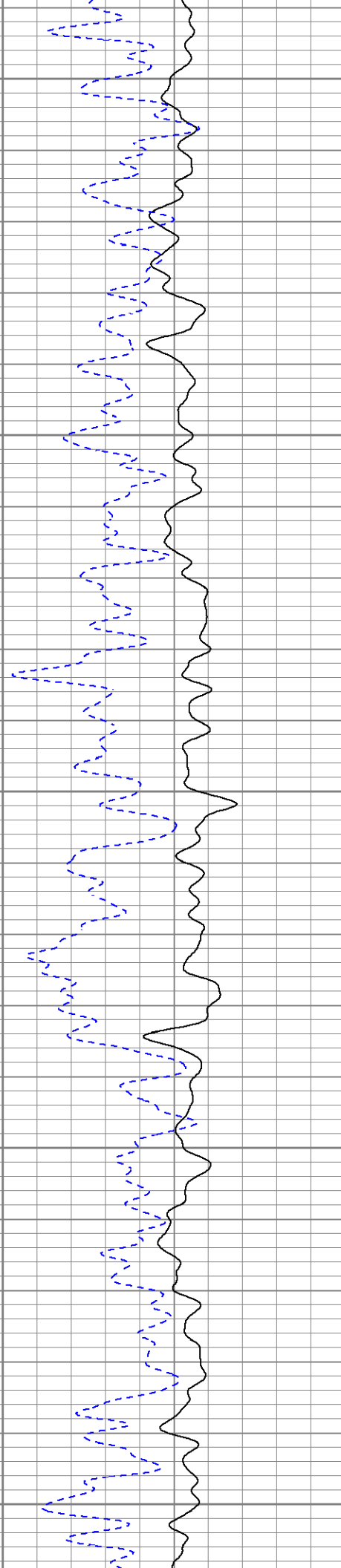
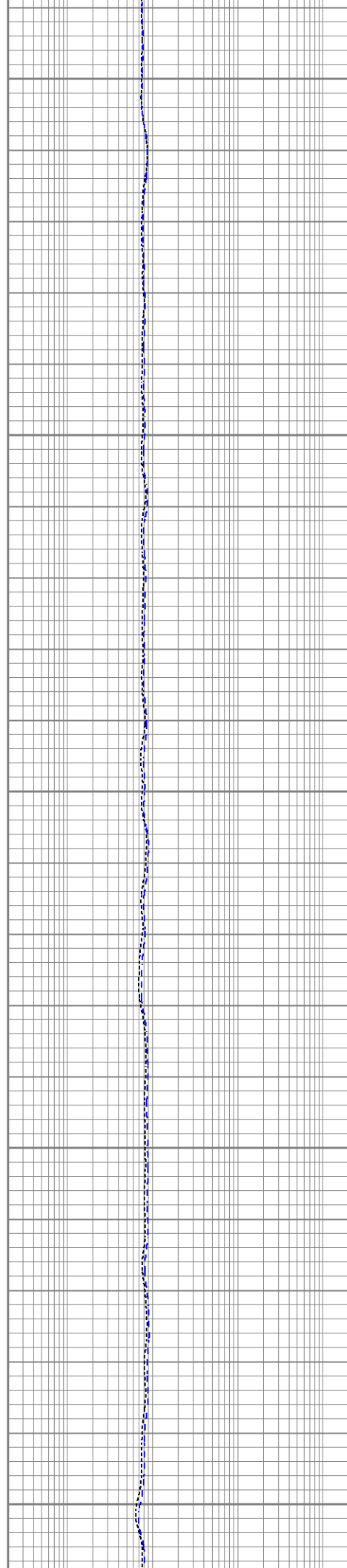
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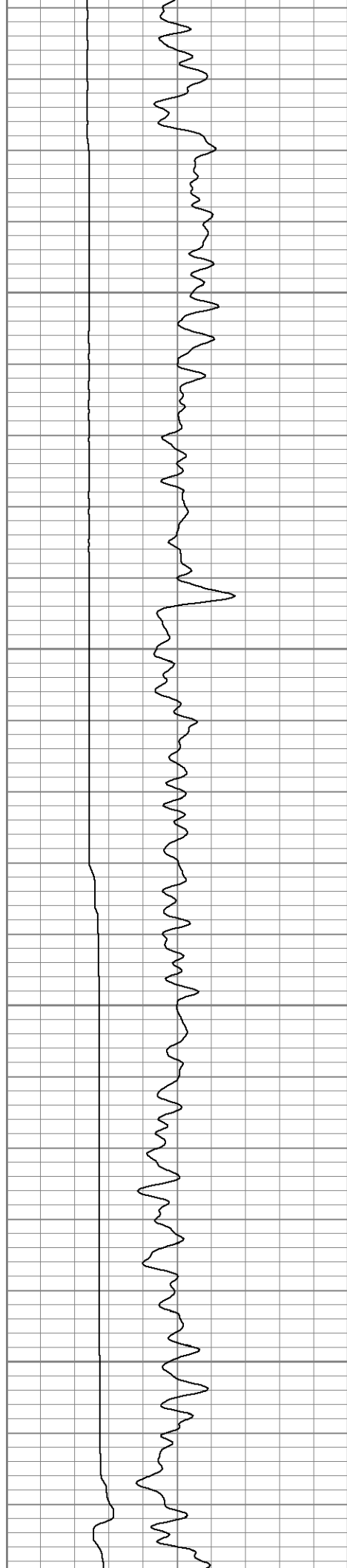
6700

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6800

6850



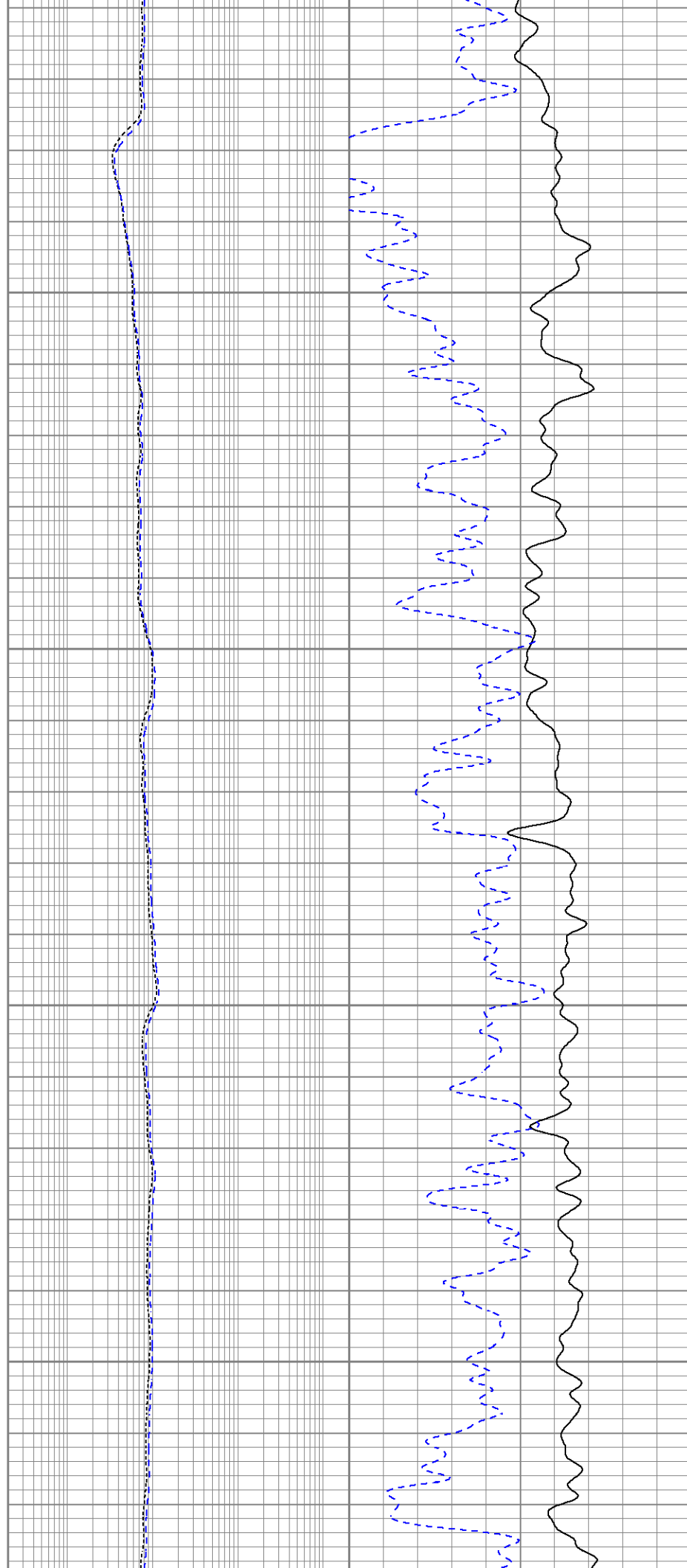


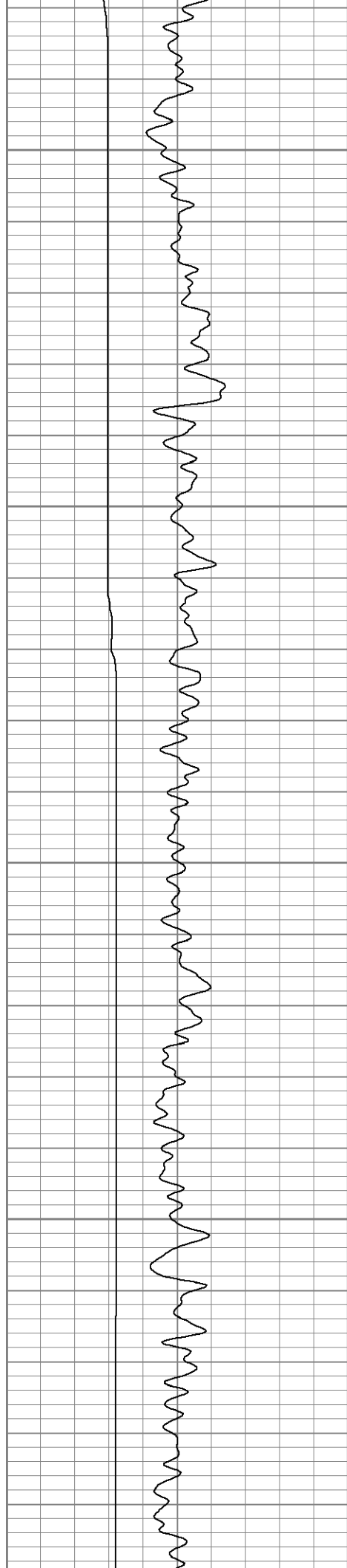
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6950

7000

7050



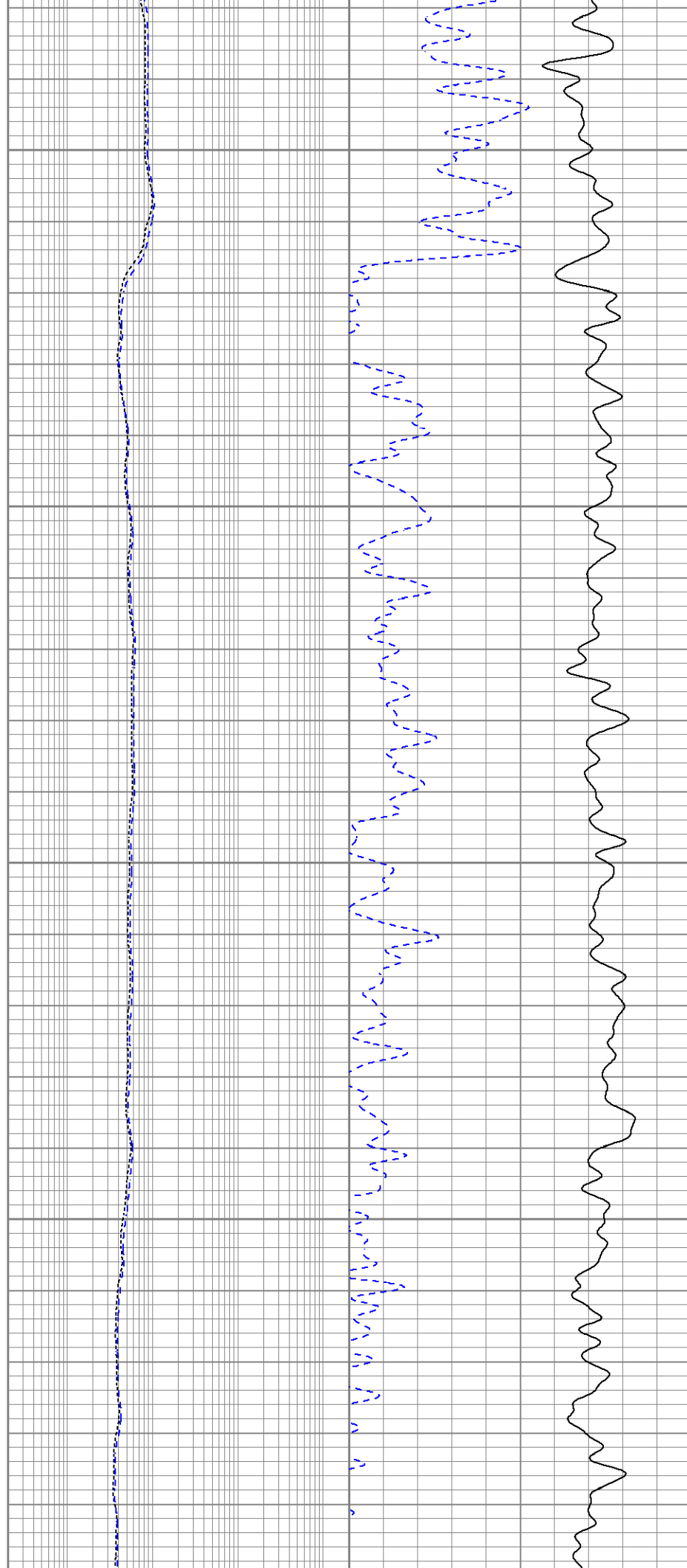


7100

7150

7200

7250



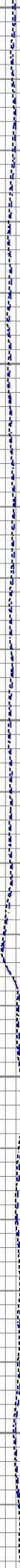
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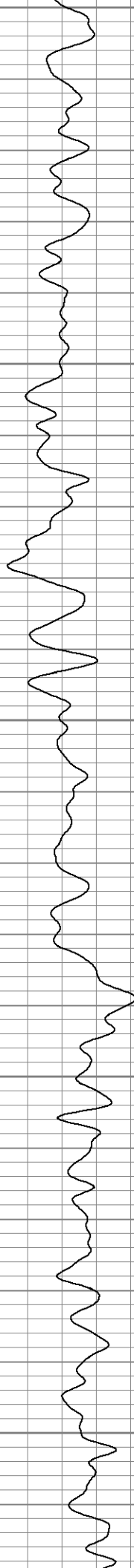
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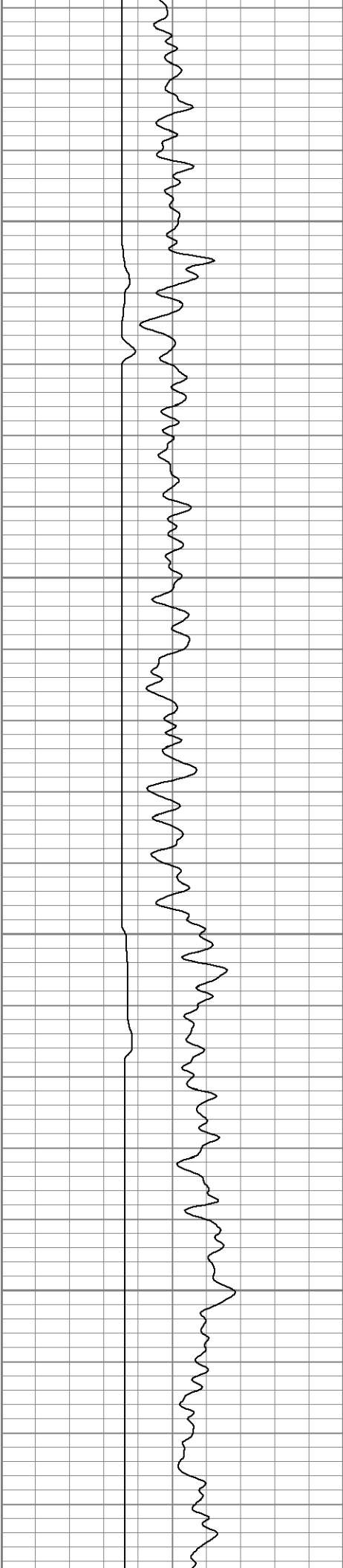
7450

7500



Handwritten blue text: "Handwritten notes or labels, possibly 'Handwritten' or 'Handwritten' repeated multiple times, written vertically along the right side of the graph area."/>Handwritten blue text, appearing to be the word "Handwritten" repeated multiple times in a vertical column on the right side of the graph.



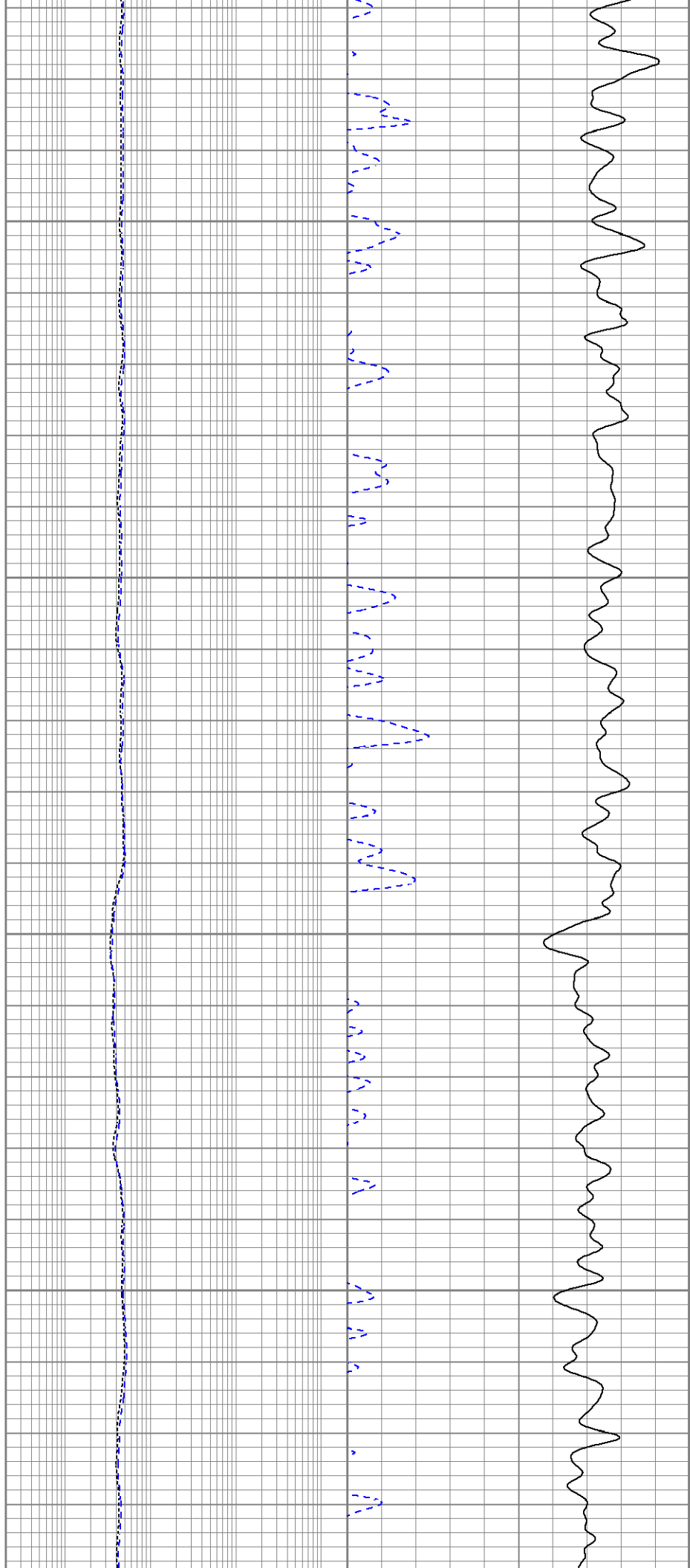


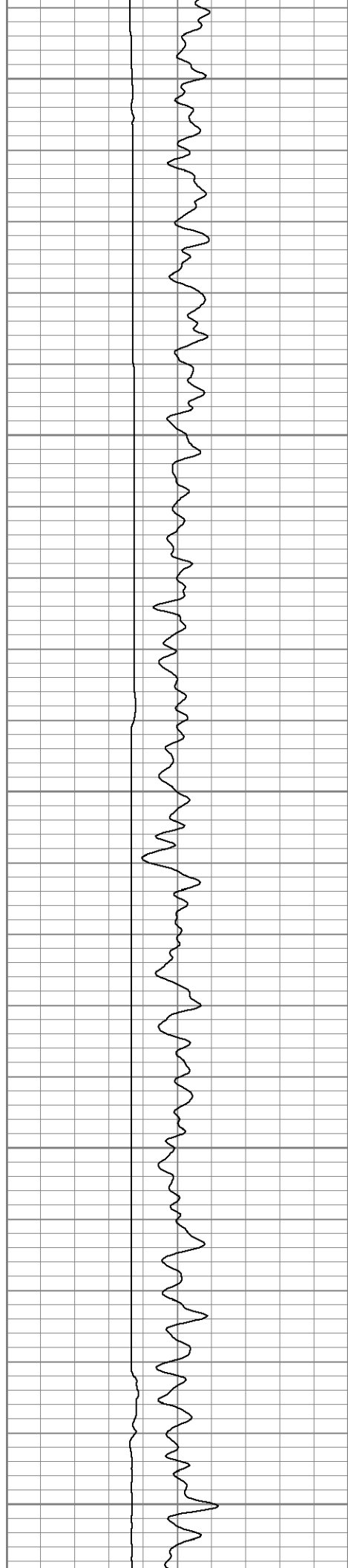
7550

7600

7650

7700





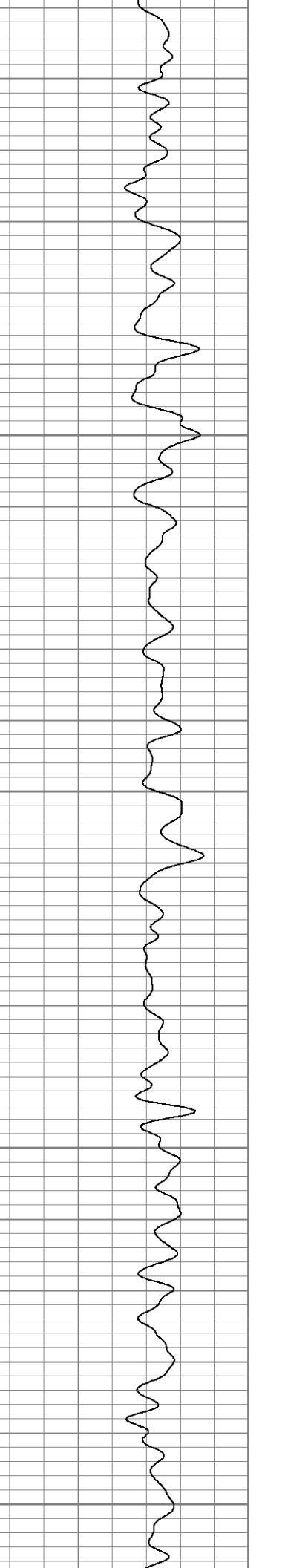
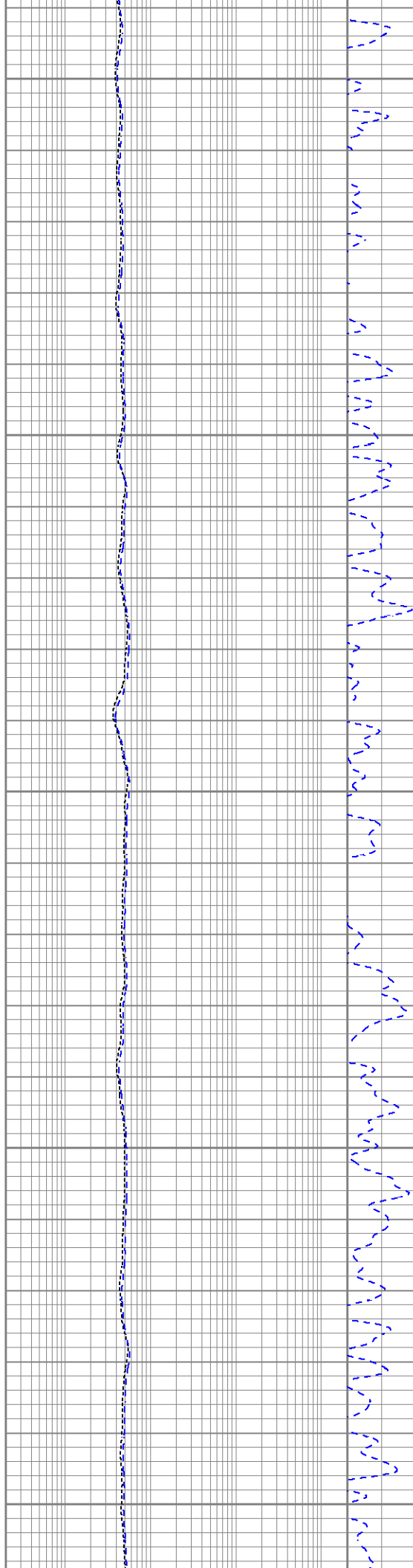
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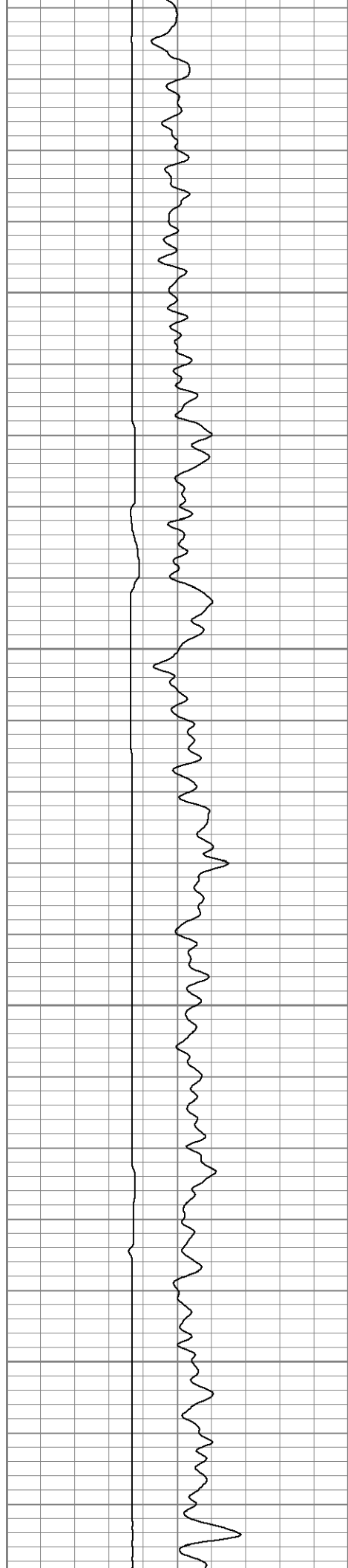
7800

7850

7900

7950



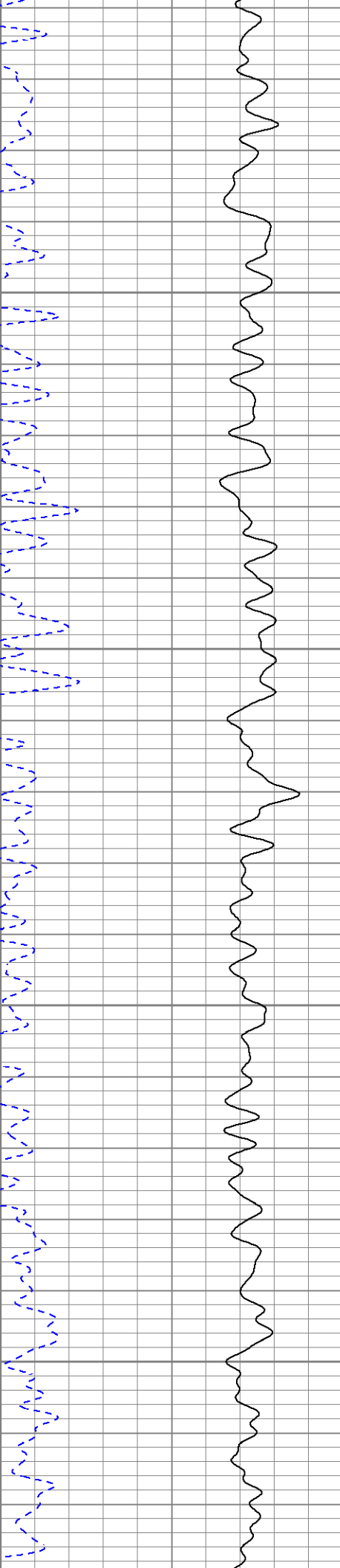
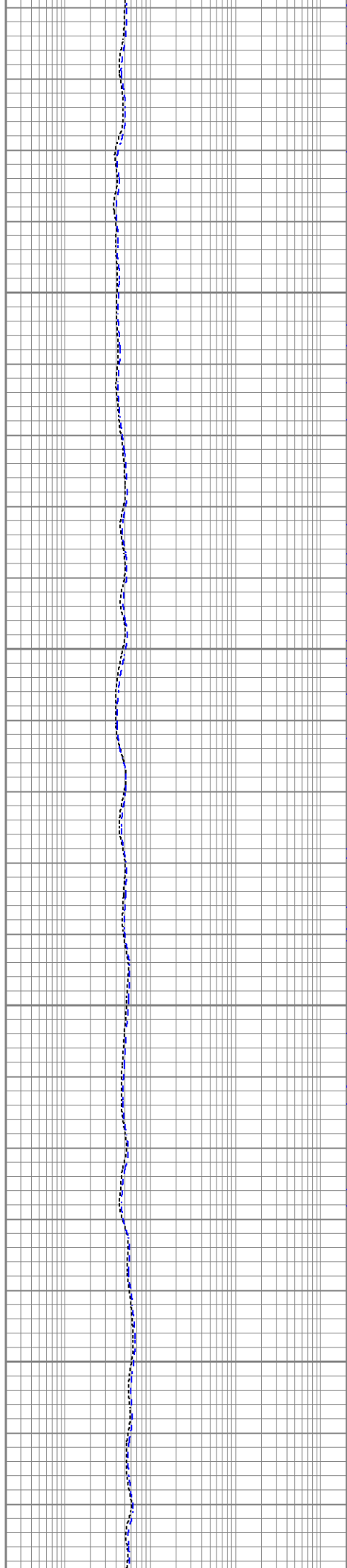


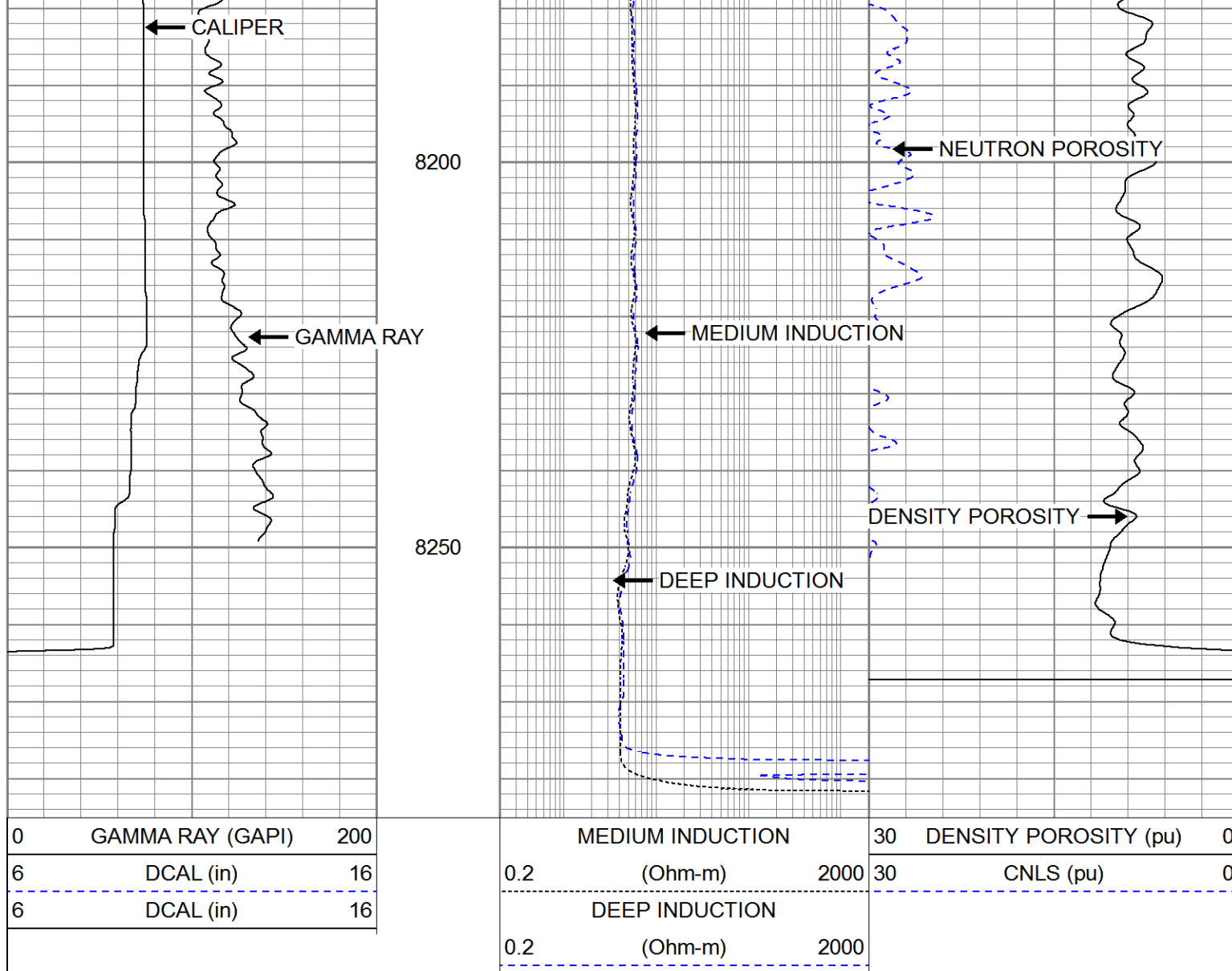
8000

8050

8100

8150





Calibration Report							
Database File	extraction_coyote_trails.db						
Dataset Pathname	stack/pass2.1						
Dataset Creation	Sun Feb 18 05:16:23 2018						
Dual Induction Calibration Report							
Serial-Model:				PSI 978-M&W			
Calibration Performed:				Sun Feb 04 11:50:02 2018			
Readings			References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.570	-40.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.400	-37.000
Compensated Density Calibration Report							
Serial-Model:				168-986-M&W			
Source / Verifier:				/			
Master Calibration Performed:				Tue Apr 11 17:07:47 2017			

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.675	g/cc	859.57	3020.22	cps
Spine Angle = 74.61			Density/Spine Ratio = 0.523		
	Size		Reading		
Small Ring	4.00	in	1.00		
Large Ring	14.00	in	1.20		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
 Tool Model: M&W
 Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings		Target	Normalization
Short Space	6240.00	cps	1000.00 cps	1.6025
Long Space	460.00	cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
 Tool Model: M&W
 Calibration Performed: Tue Apr 11 17:08:01 2017

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps



Company EXTRACTION OIL & GAS
 Well COYOTE TRAILS NO. 34S-20-11C
 Field WATTENBERG
 County WELD
 State COLORADO