



PIONEER
Pioneer Energy Services

**DUAL IND / DUAL COMP
POROSITY LOG**

Company **EXTRACTION OIL & GAS, INC.**
Well **TROTT NO. 8E-10-7C**
Field **WATTENBERG**
County **WELD**
State **COLORADO**

Company **EXTRACTION OIL & GAS, INC.**
Well **TROTT NO. 8E-10-7C**
Field **WATTENBERG**
County **WELD** State **COLORADO**

Location: API #: 05-123-45731-00

1551' FSL & 1146' FEL

NONE

SEC 7 TWP 4N RGE 68W

Permanent Datum **GROUND LEVEL** Elevation **5035'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Elevation
K.B. 5060'
D.F. N/A
G.L. 5035'

Date	1/4/2018		
Run Number	ONE		
Depth Driller	10728'		
Depth Logger	5210'		
Bottom Logged Interval	5208'		
Top Log Interval	1550'		
Casing Driller	9.625" @ 1550'		
Casing Logger	1550'		
Bit Size	8.5"		
Type Fluid in Hole	OIL BASED MUD		
Salinity, ppm CL	N/A		
Density / Viscosity	9.8 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	2 HOURS		
Max Rec. Temp. F	N/A		
Equipment Number	108		
Location	HAYS		
Recorded By	J. HENRICKSON		
Witnessed By	TODD STEPHENS		

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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# 13A6

NO FOCUS TOOL DUE TO OIL BASED MUD

Log Measured From: KELLY BUSHING

25 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: TODD STEPHENS





Secondary Witness:

Secondary Witness:

Secondary Witness:

Top - Bottom

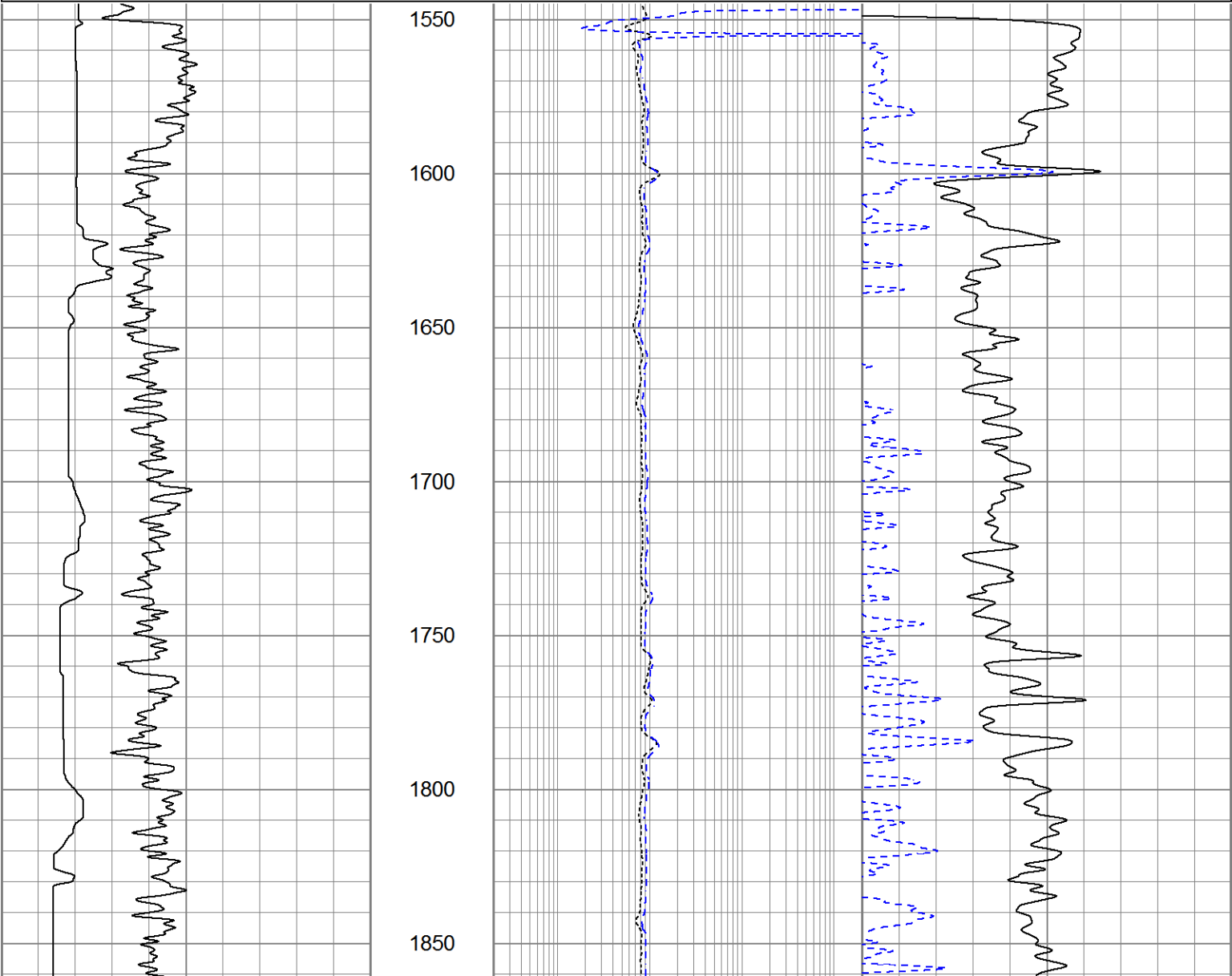
A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 8.5	degF 0	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 0	mV 0	degF 42	Off	ft 5210

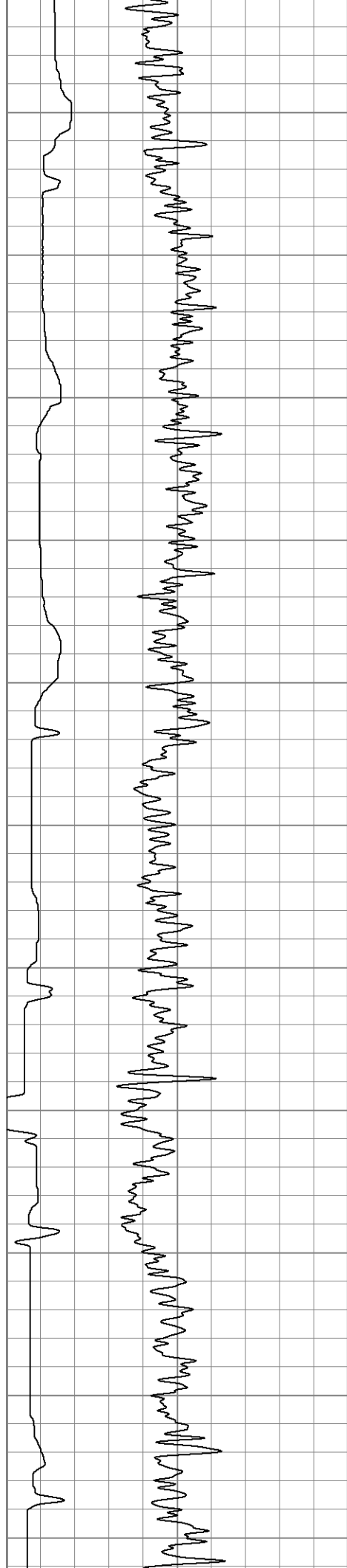
Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90			CNT-M&W (tk10-MW)	5.50	3.50	100.00
	29.15						
LSD DCAL SSD	20.85 20.83 20.35			CDL-M&W (168-986)	8.50	4.00	250.00
RLL3 RLL3F	15.80			DIL-M&W (PSI 978)	18.50	3.50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

CILM	4.70								
SP	0.20								
Dataset: extraction_trott_8e_10_7c.db: field/well/stack/pass2.1 Total length: 35.50 ft Total weight: 620.00 lb O.D.: 4.00 in									

Database File	extraction_trott_8e_10_7c.db
Dataset Pathname	stack/pass2
Presentation Format	split
Dataset Creation	Thu Jan 04 19:11:56 2018
Charted by	Depth in Feet scaled 1:600

0	GAMMA RAY (GAPI)	200		MEDIUM INDUCTION	30	DENSITY POROSITY (pu)	0
6	DCAL (in)	16	0.2	(Ohm-m)	2000	30	CNLS (pu)
6	DCAL (in)	16		DEEP INDUCTION			
			0.2	(Ohm-m)	2000		





1900

1950

2000

2050

2100

2150

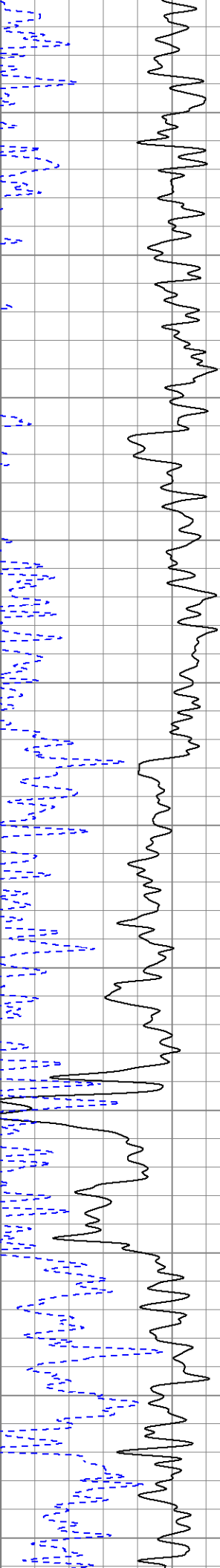
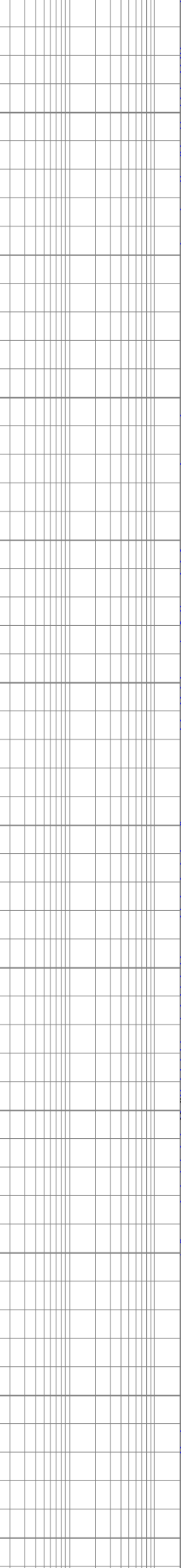
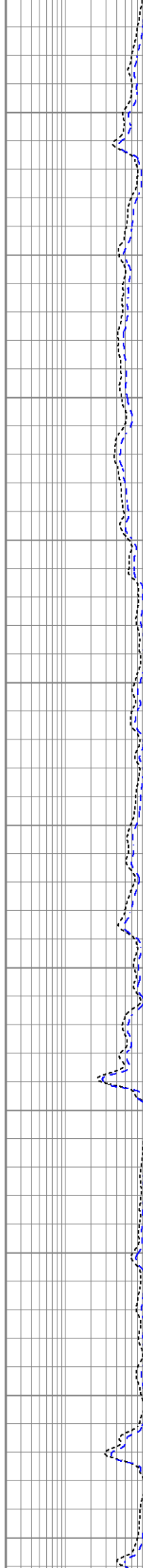
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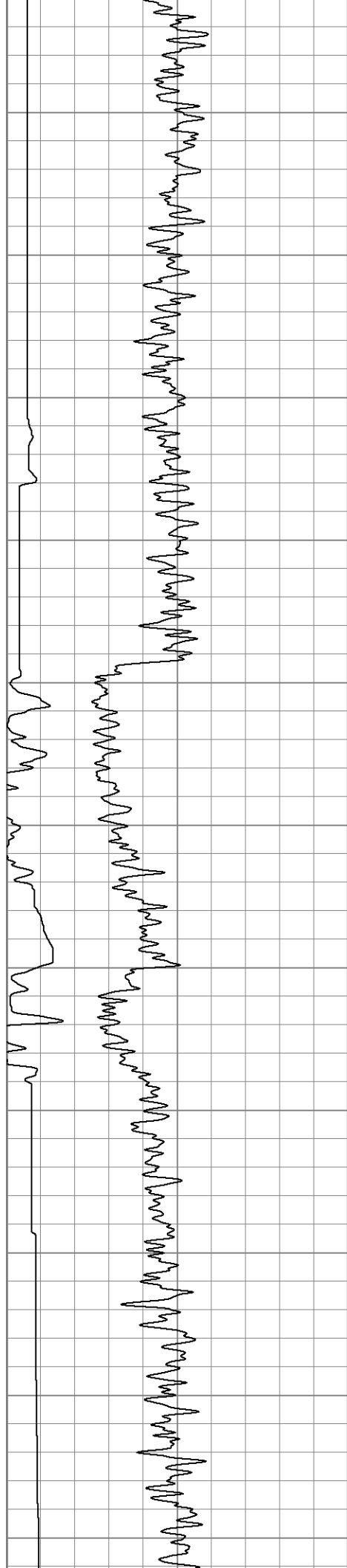
2250

2300

2350

2400





2450

2500

2550

2600

2650

2700

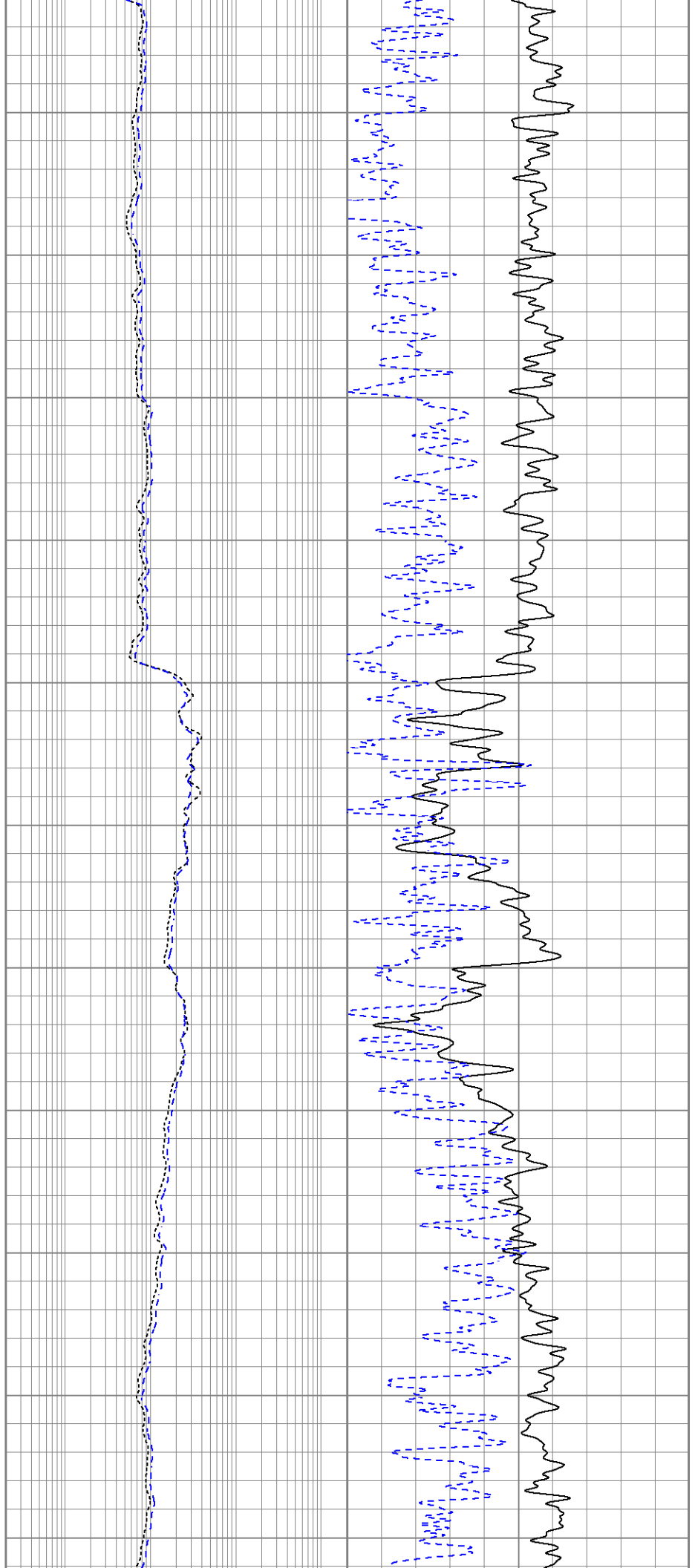
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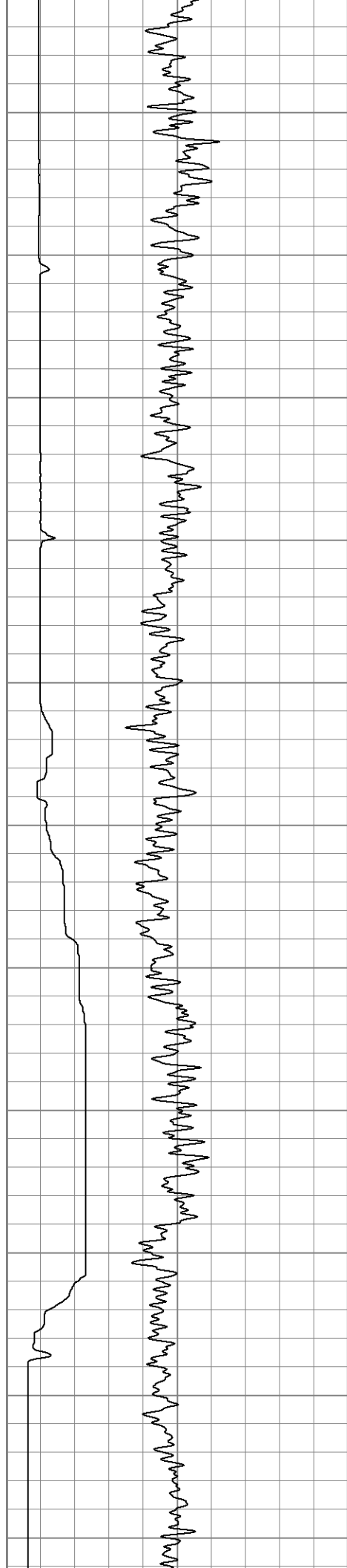
2800

2850

2900

2950





3000

3050

3100

3150

3200

3250

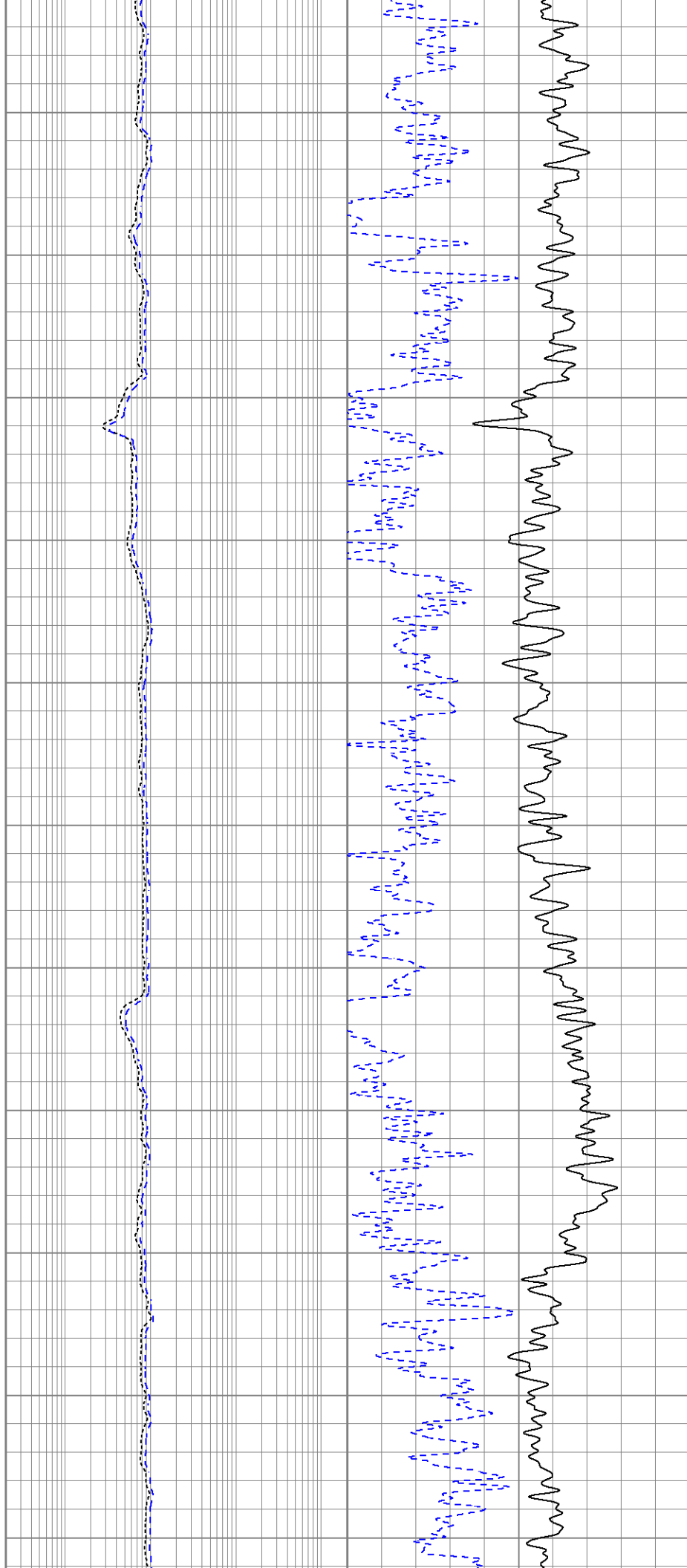
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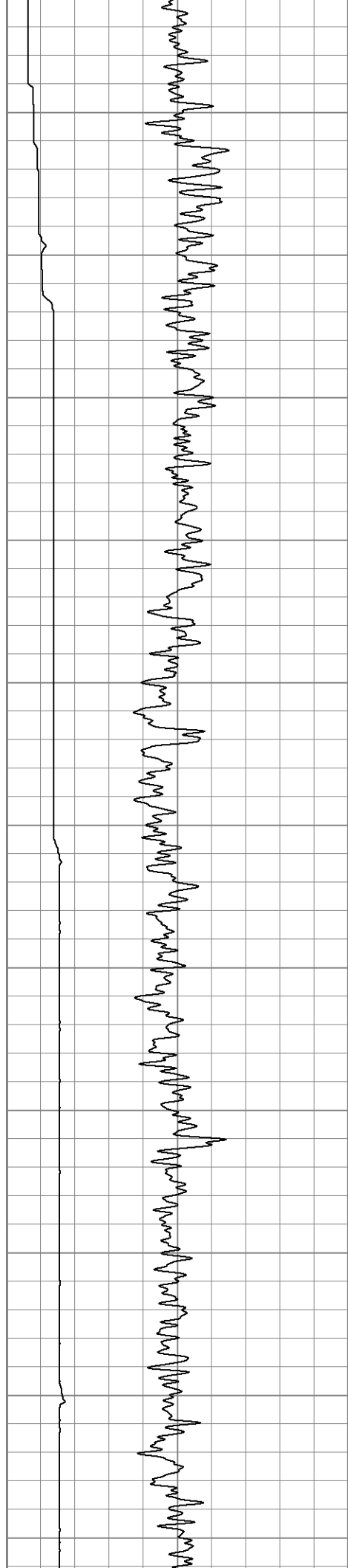
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3450

3500





3550

3600

3650

3700

3750

3800

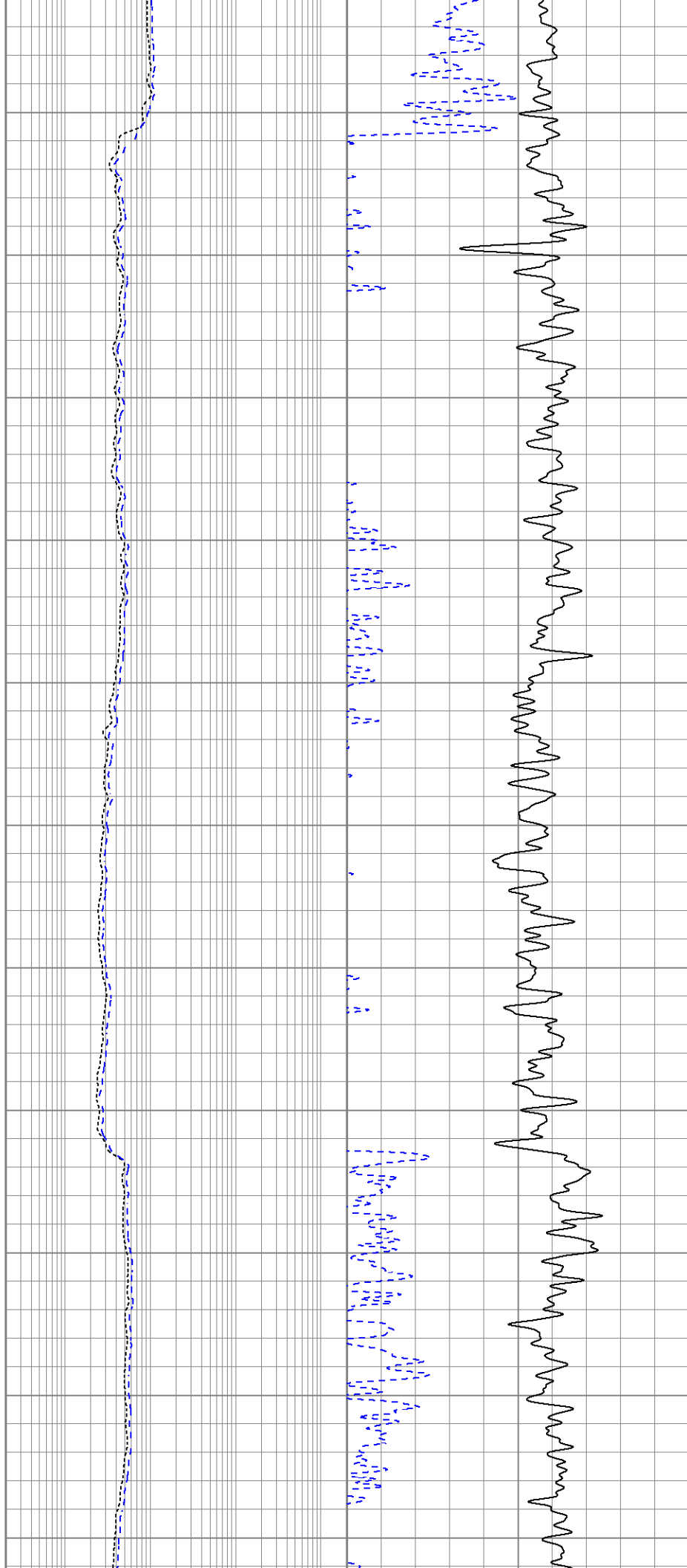
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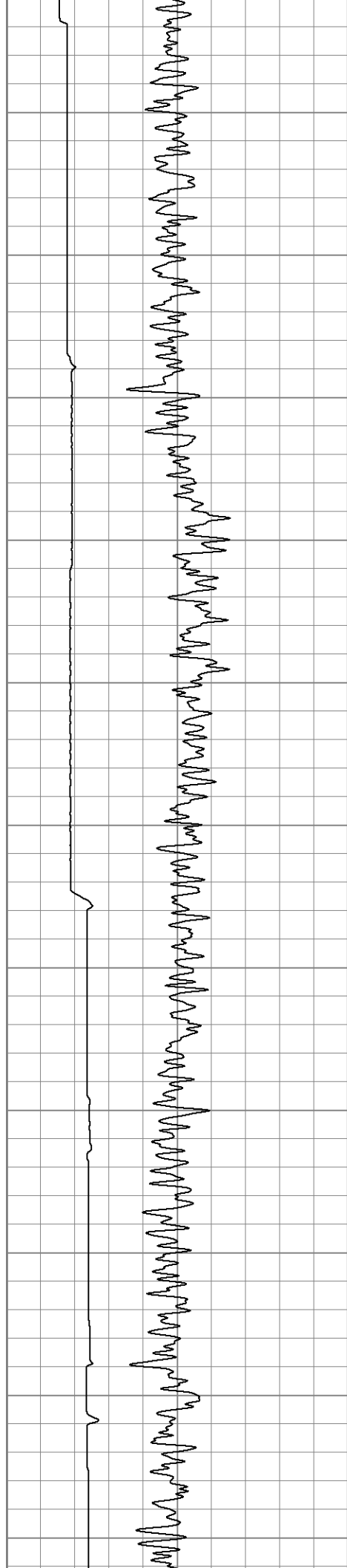
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3950

4000

4050





4100

4150

4200

4250

4300

4350

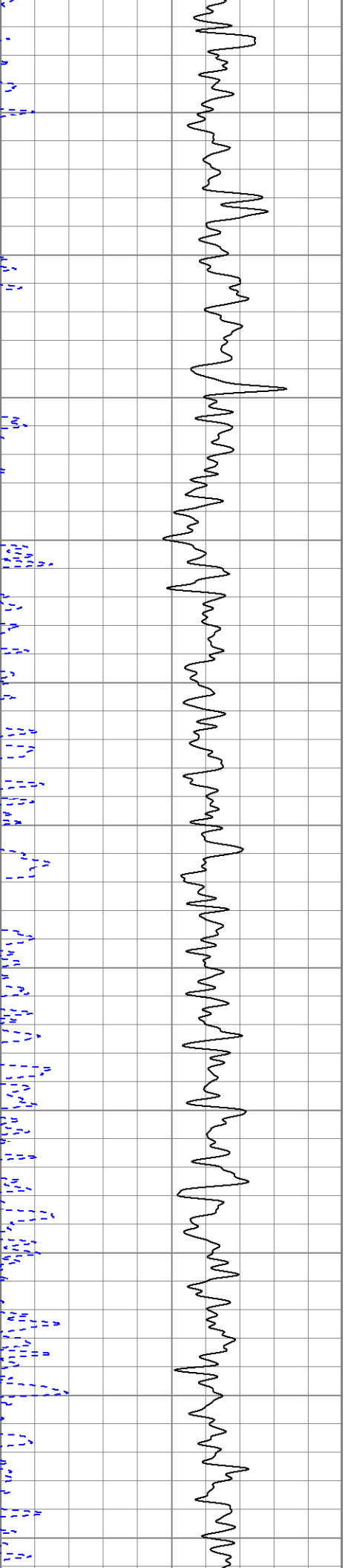
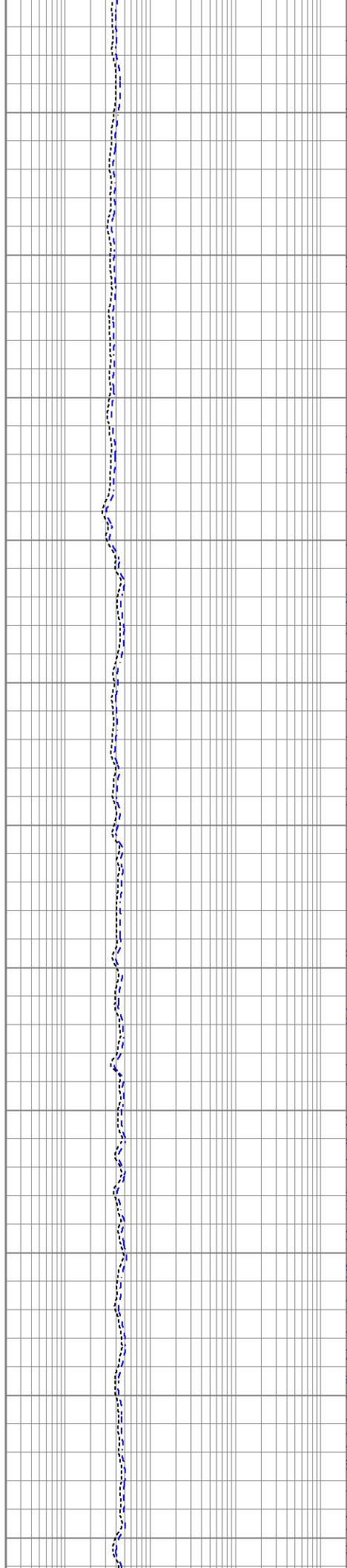
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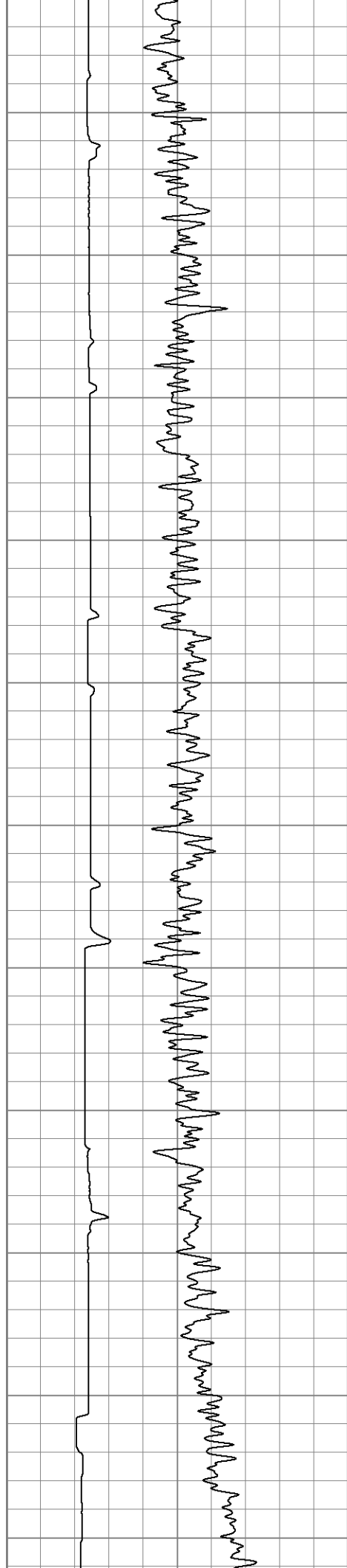
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4500

4550

4600





4650

4700

4750

4800

4850

4900

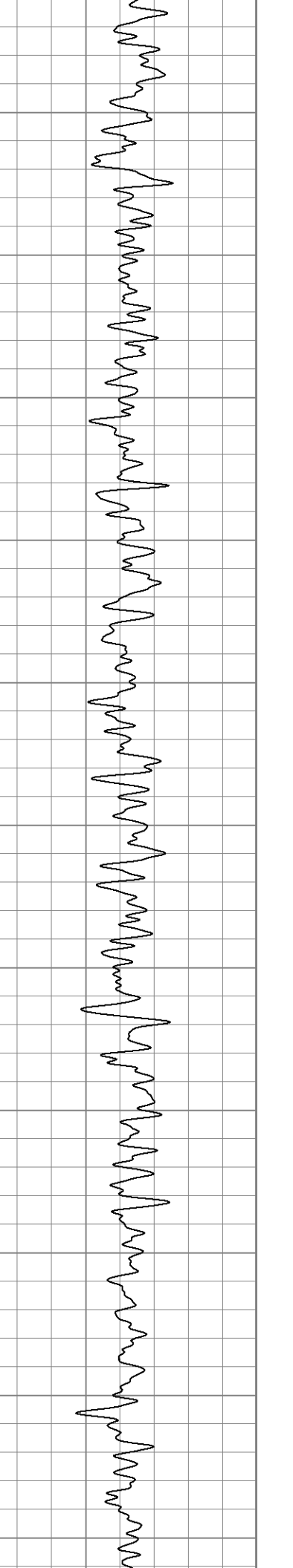
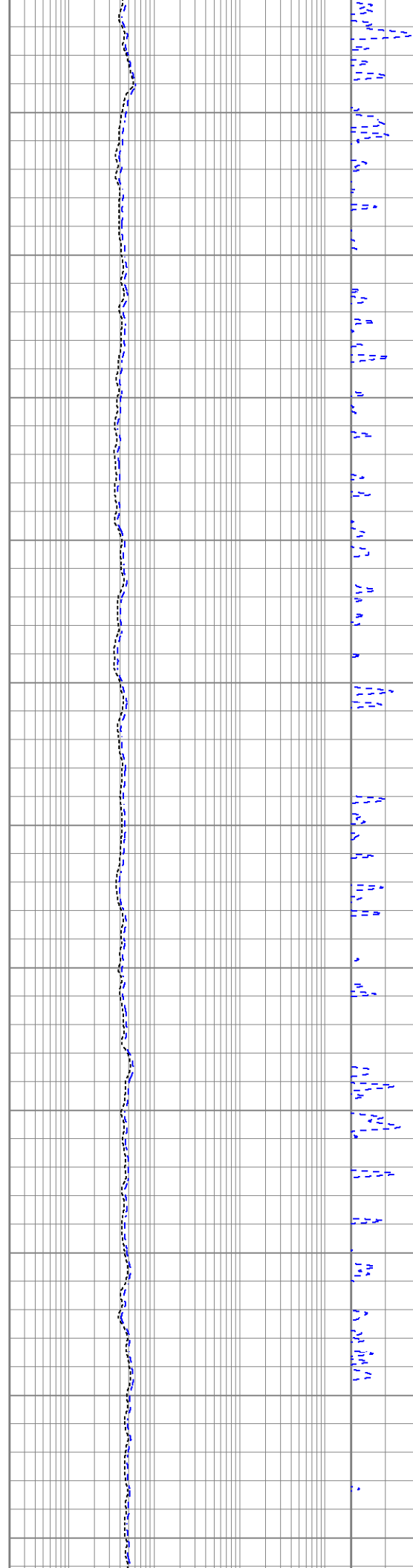
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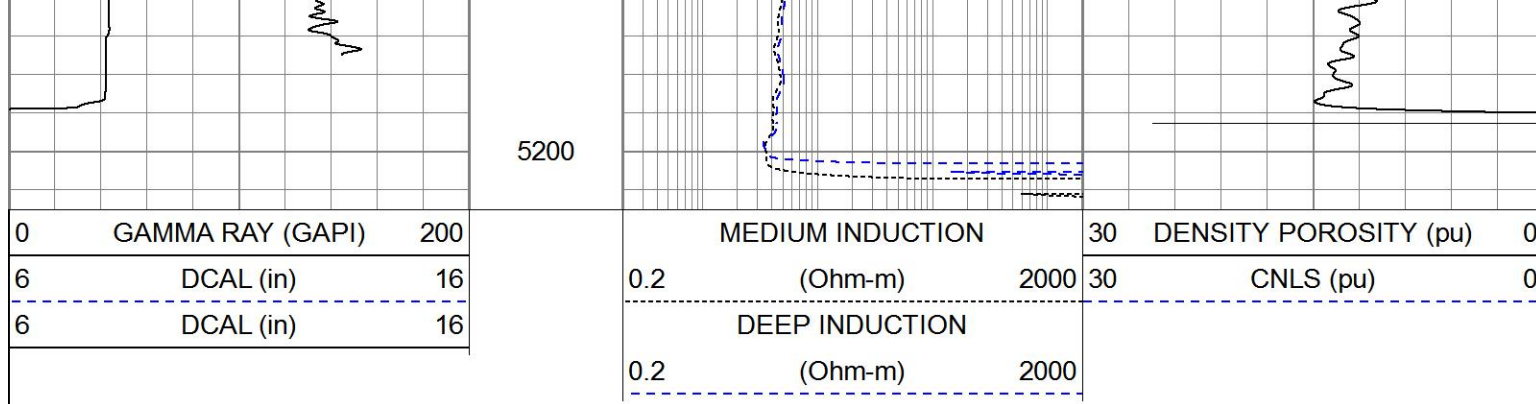
5000

5050

5100

5150



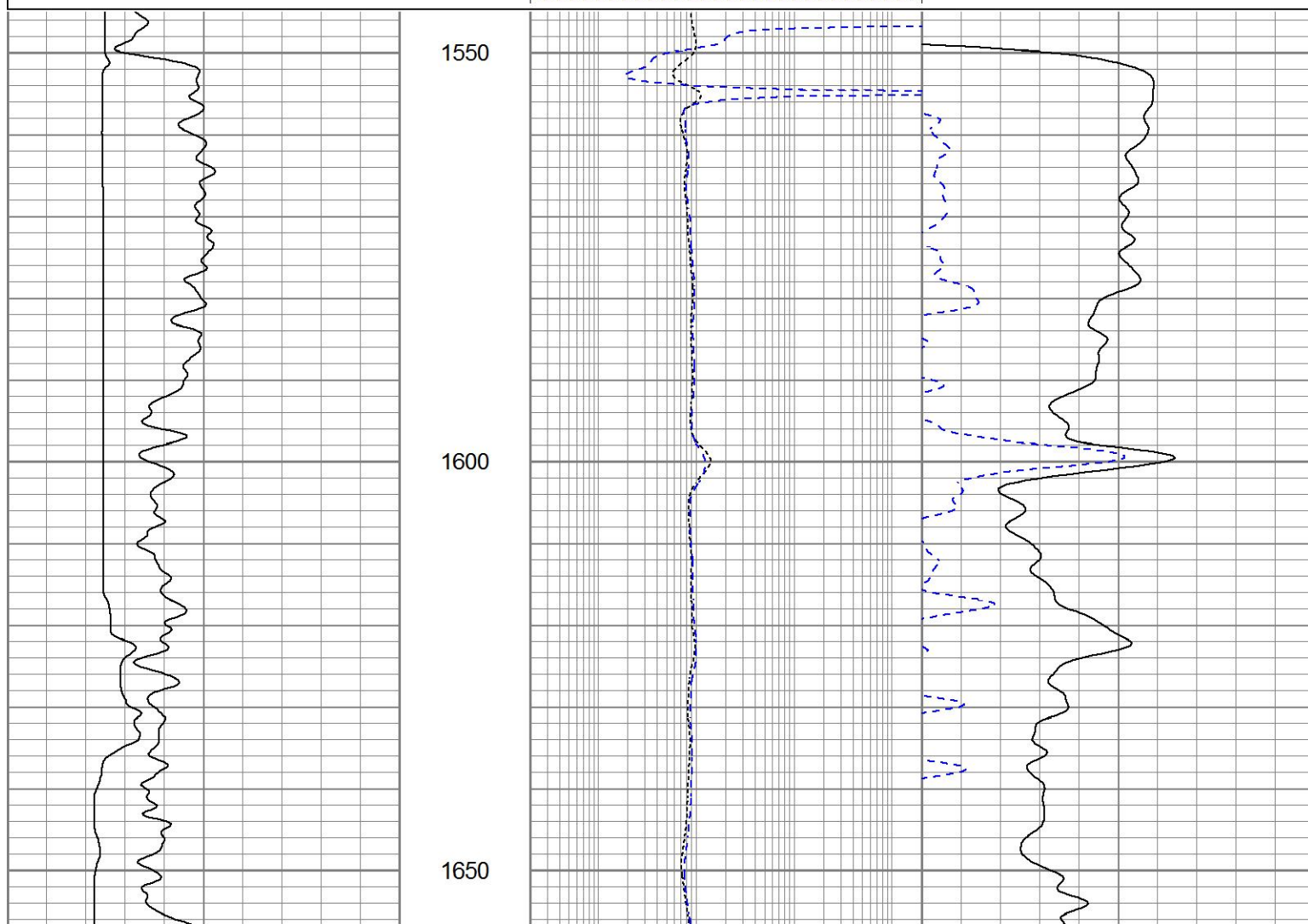
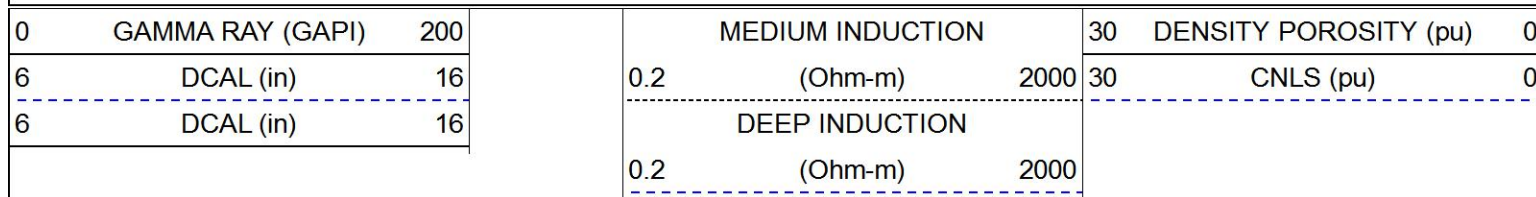


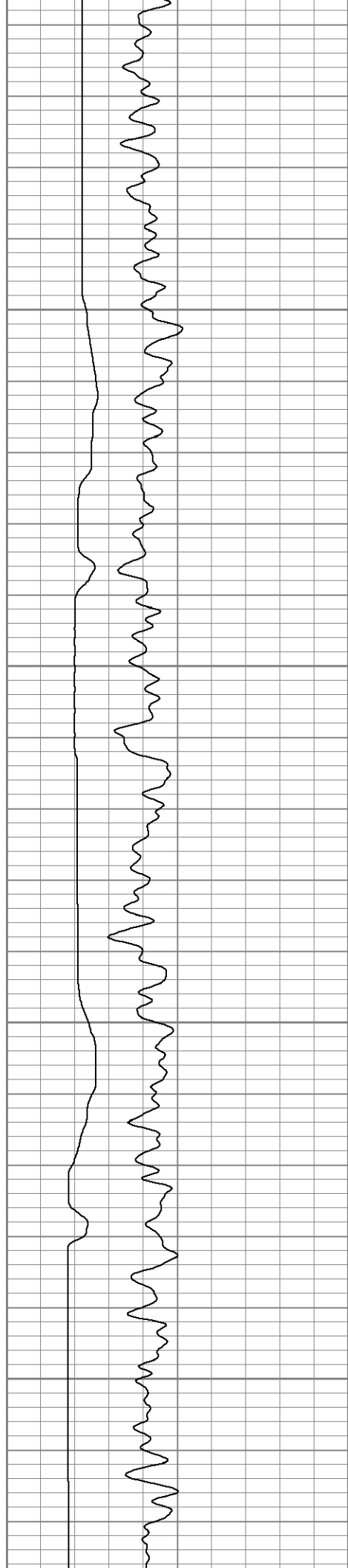


PIONEER
Pioneer Energy Services

MAIN PASS

Database File	extraction_trott_8e_10_7c.db
Dataset Pathname	stack/pass2.1
Presentation Format	split
Dataset Creation	Thu Jan 04 20:07:26 2018
Charted by	Depth in Feet scaled 1:240



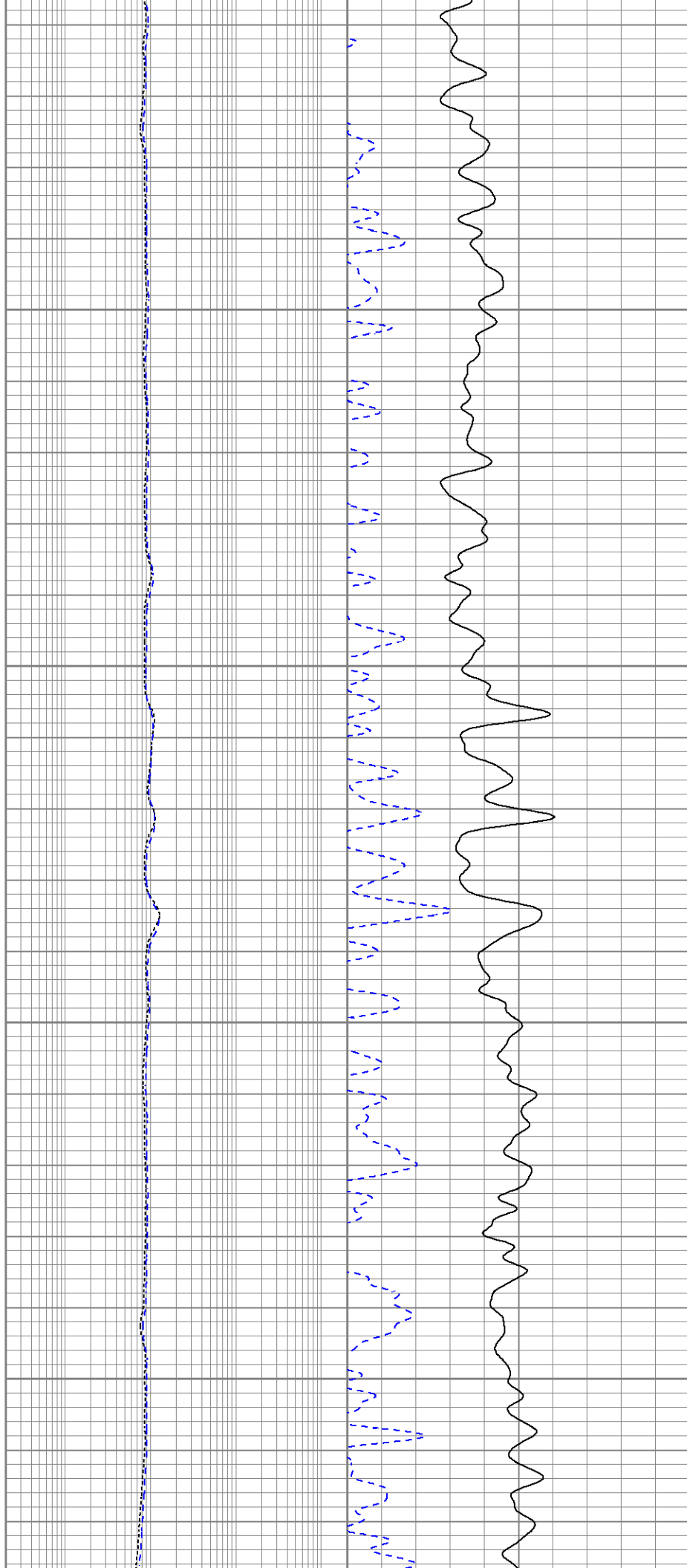


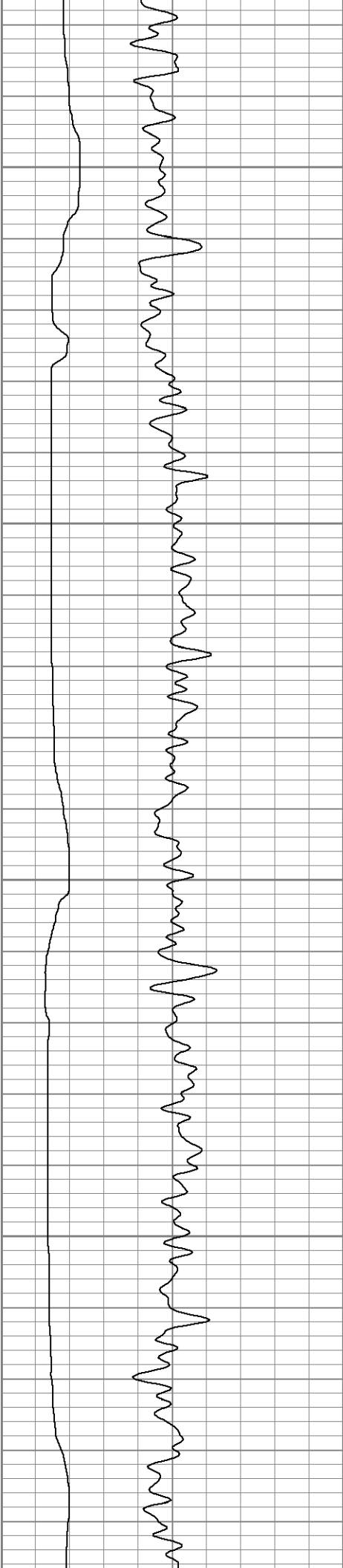
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1750

1800

1850



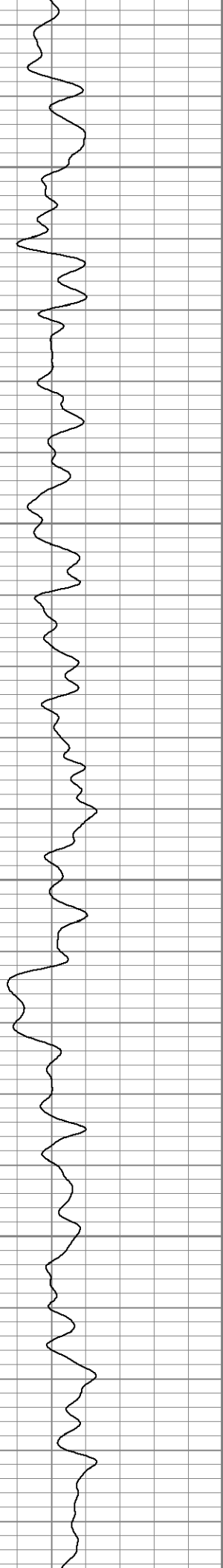
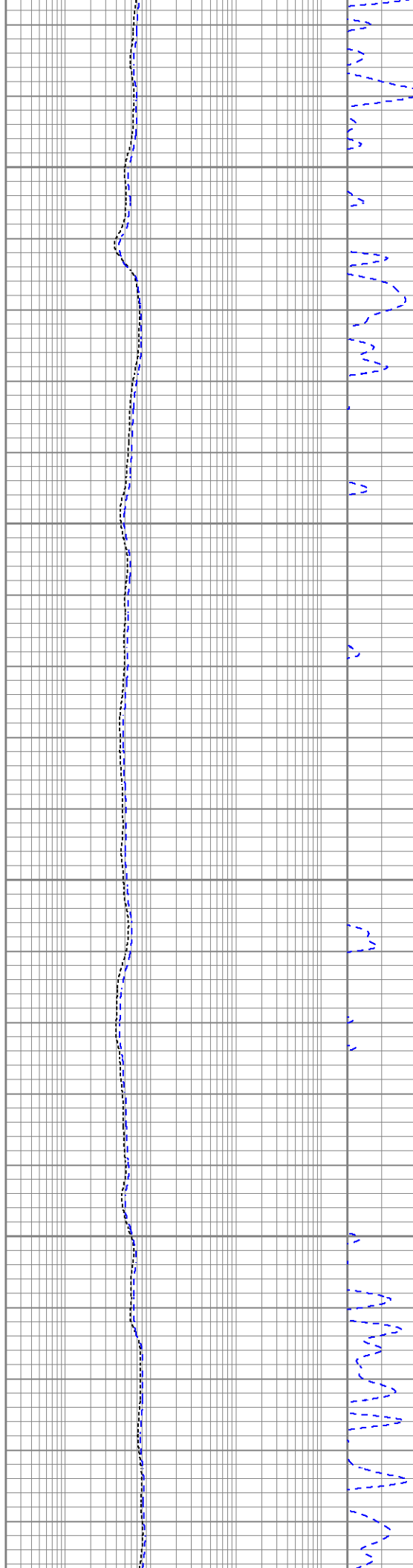


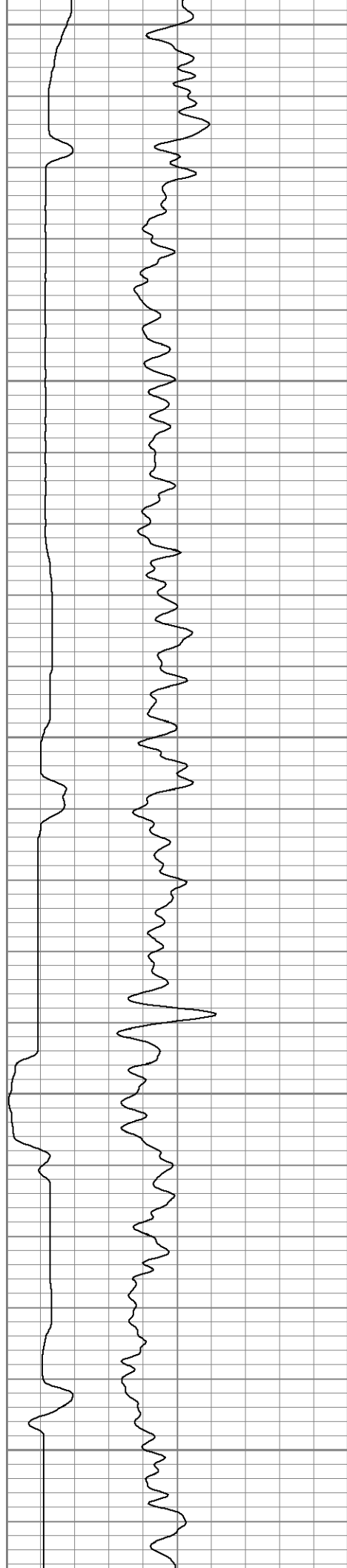
1900

1950

2000

2050





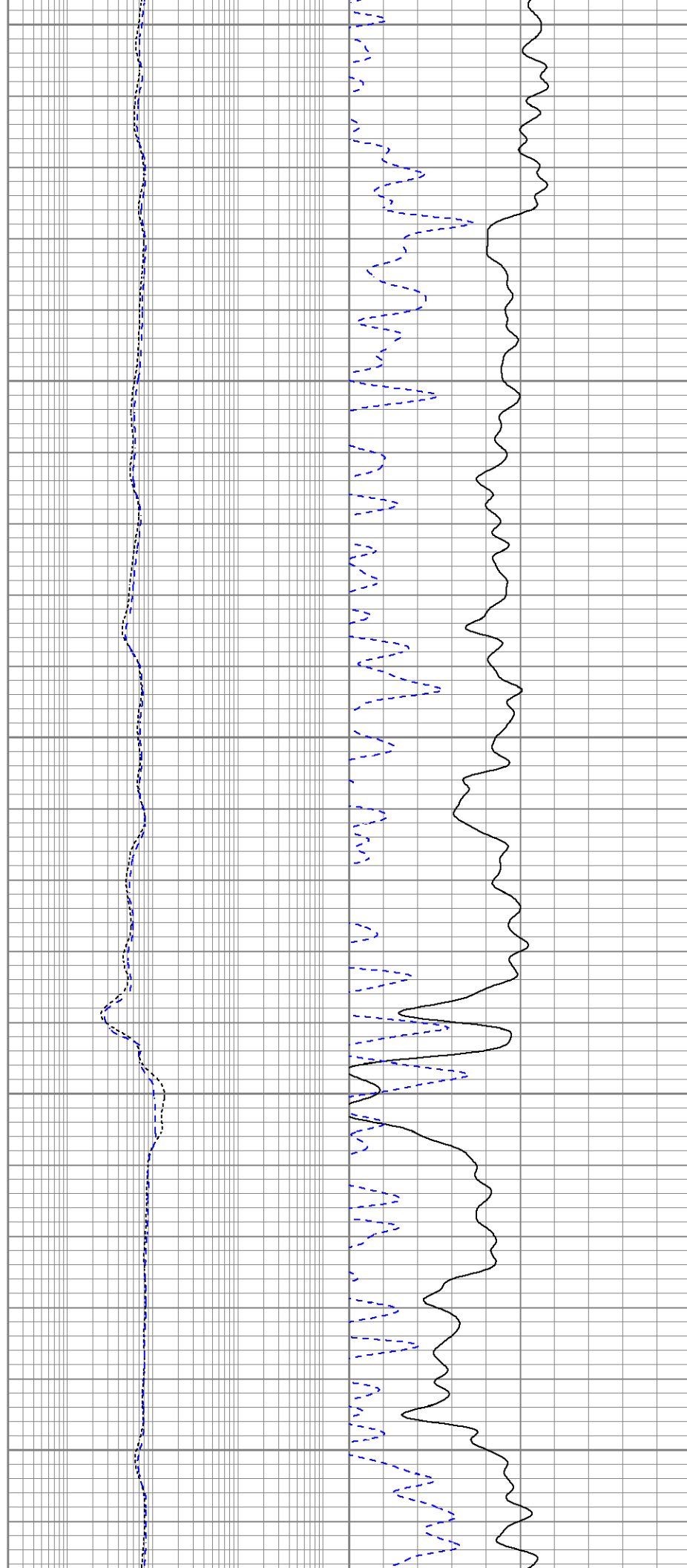
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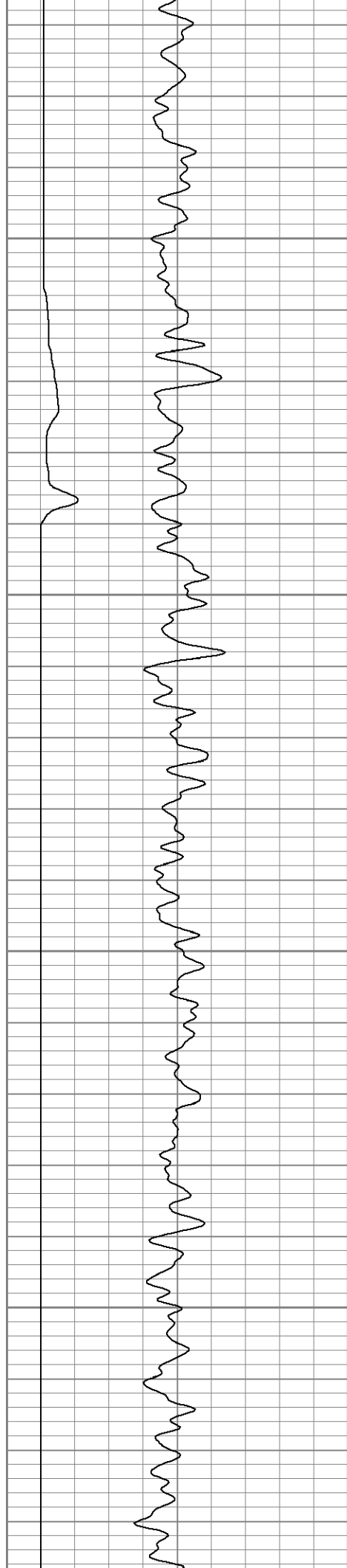
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2200

2250

2300



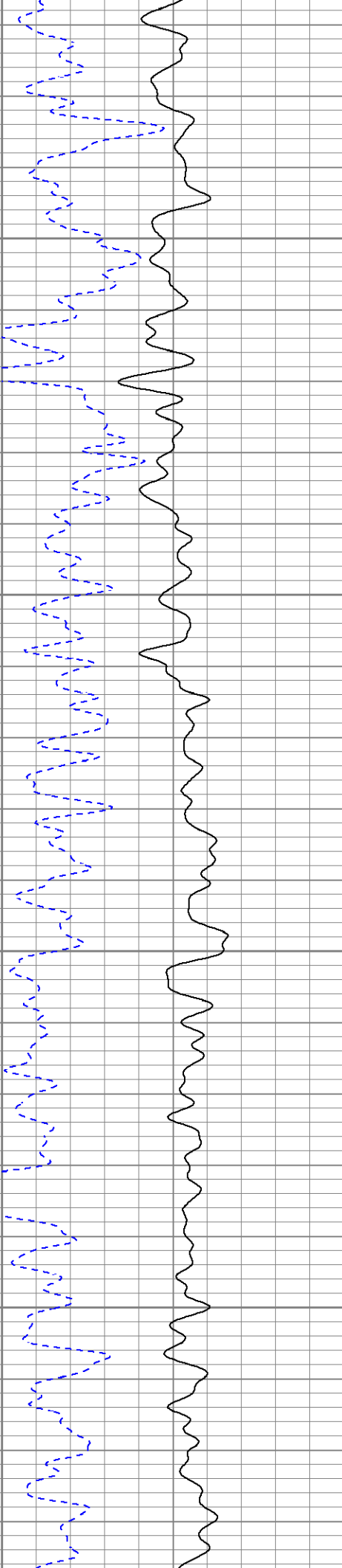
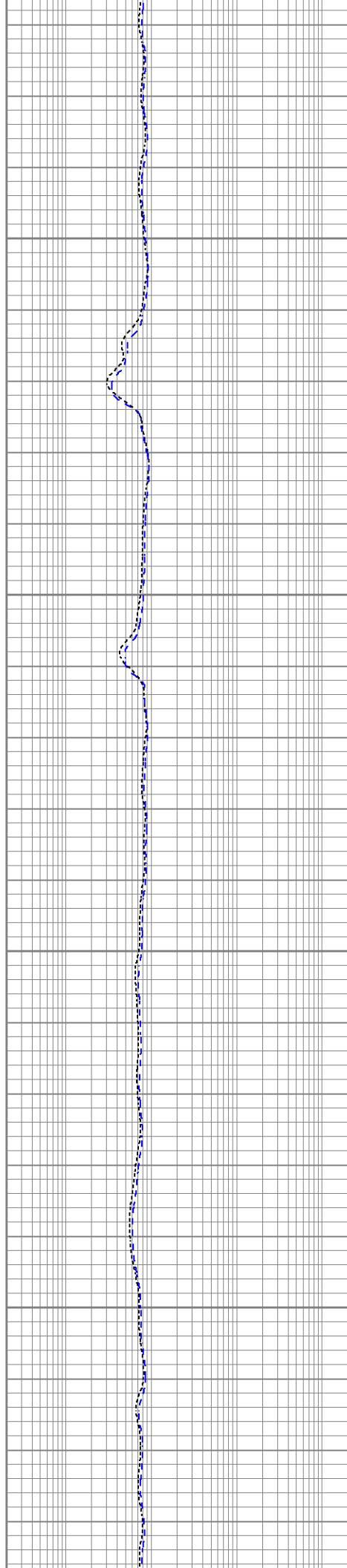


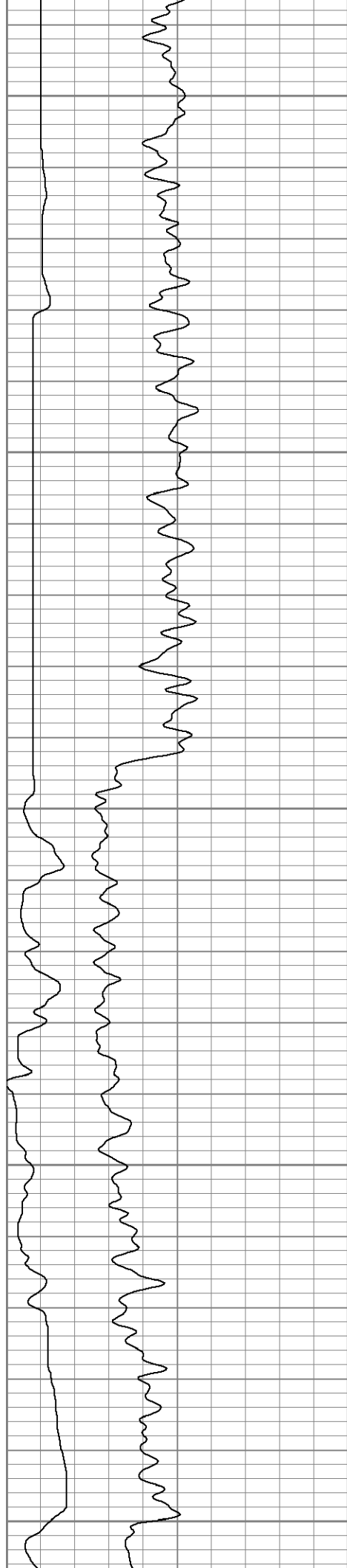
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2400

2450

2500





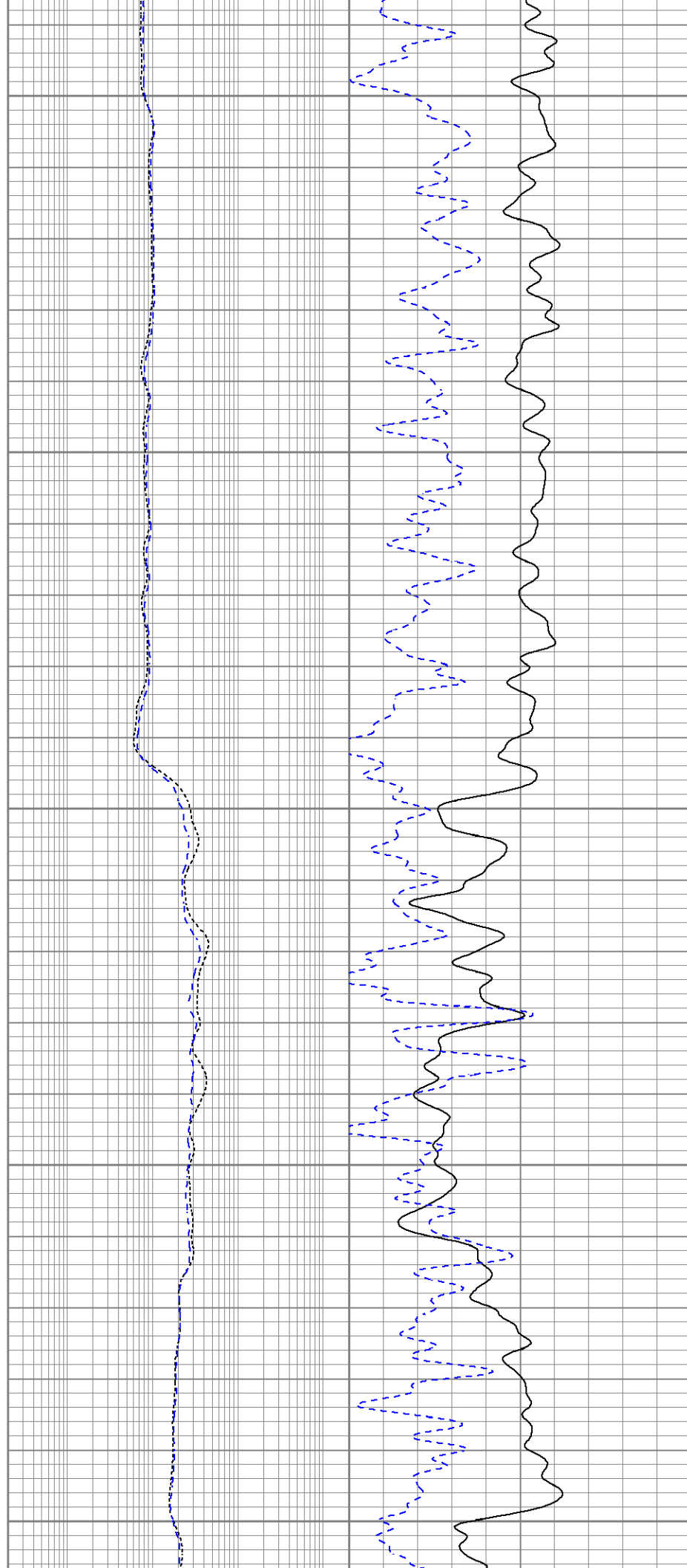
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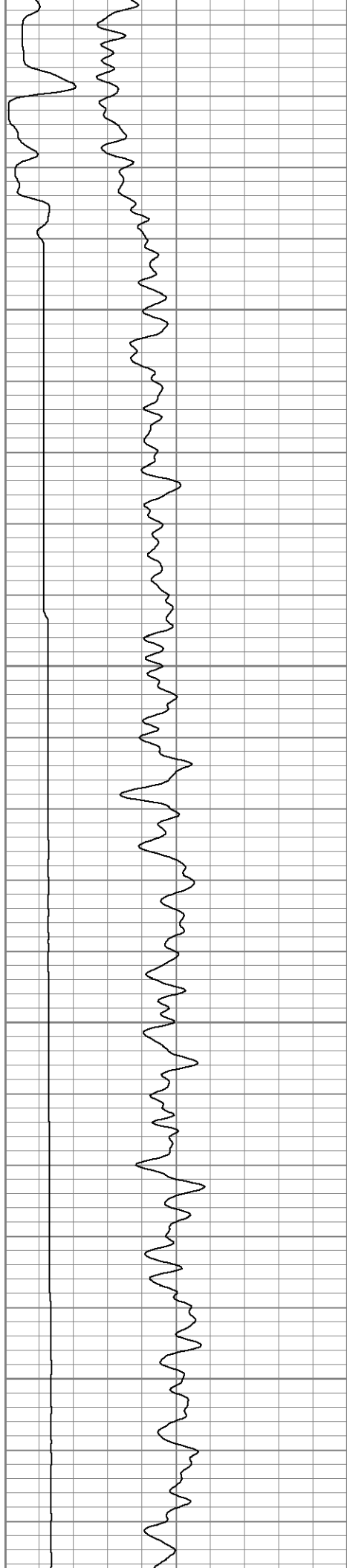
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2650

2700

2750



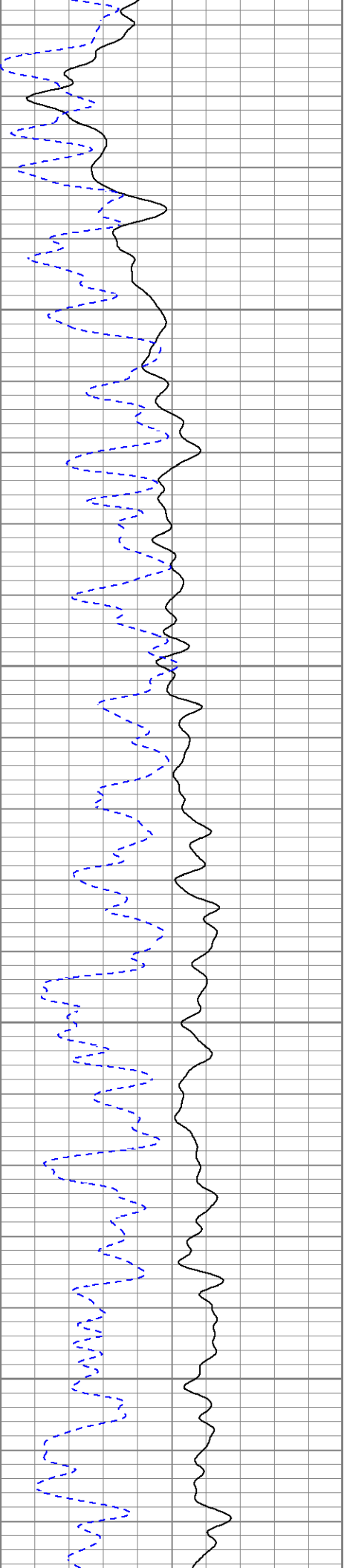
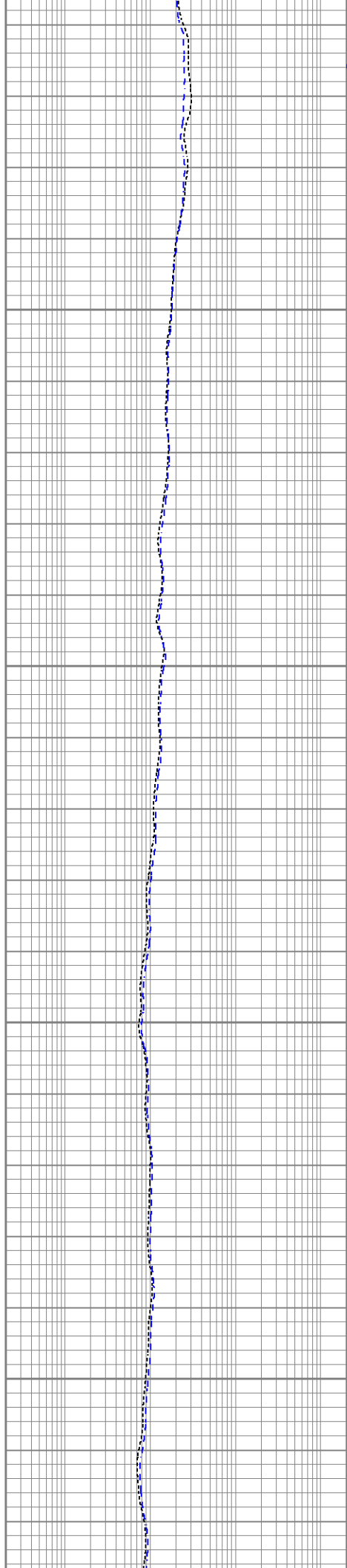


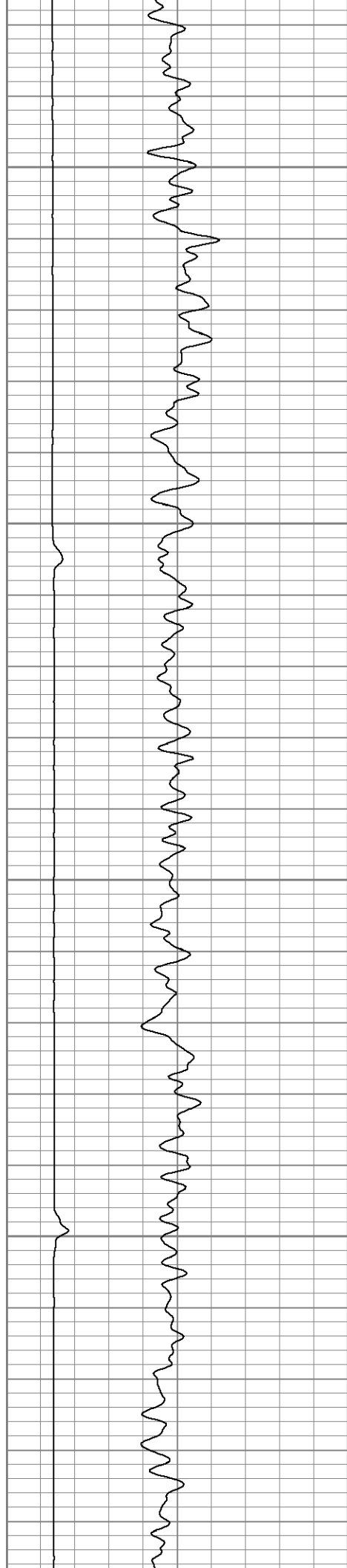
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2850

2900

2950



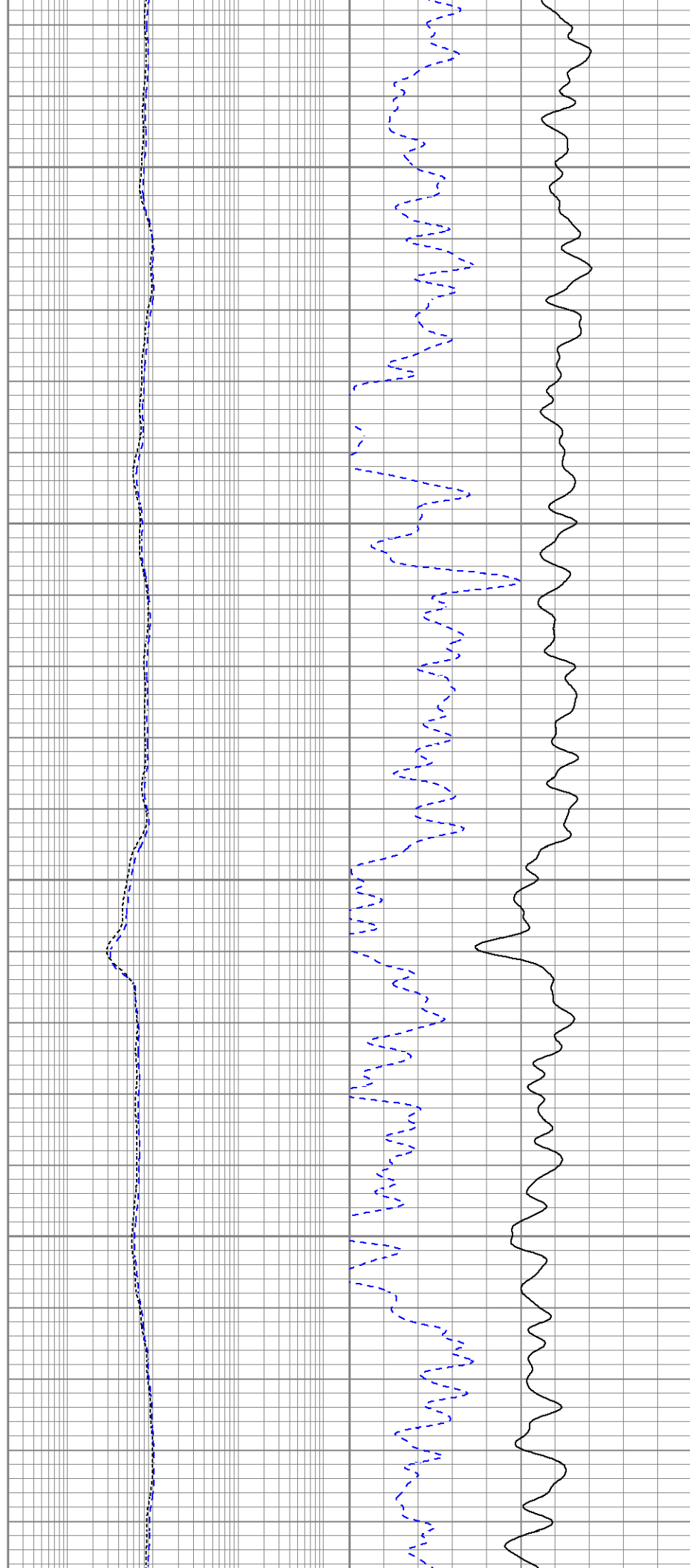


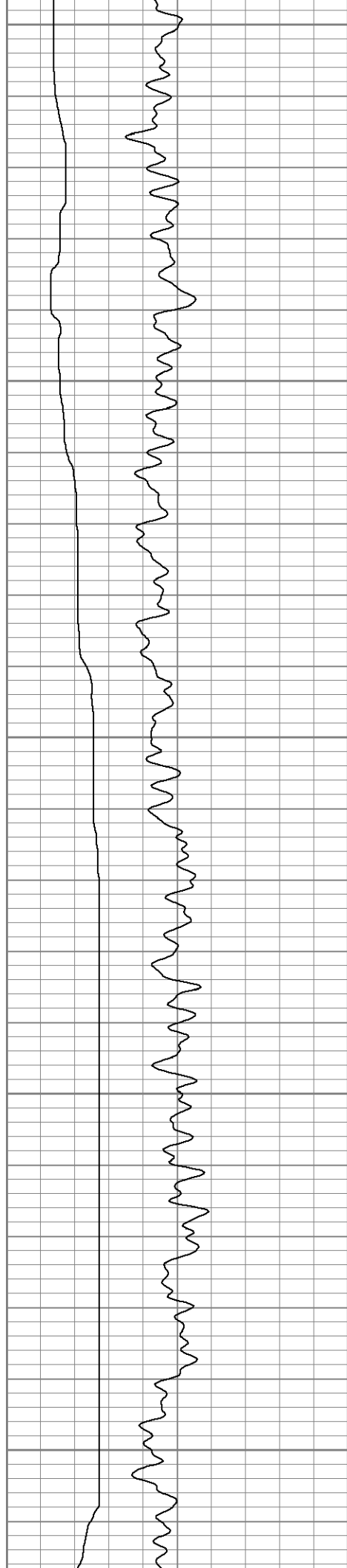
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3050

3100

3150





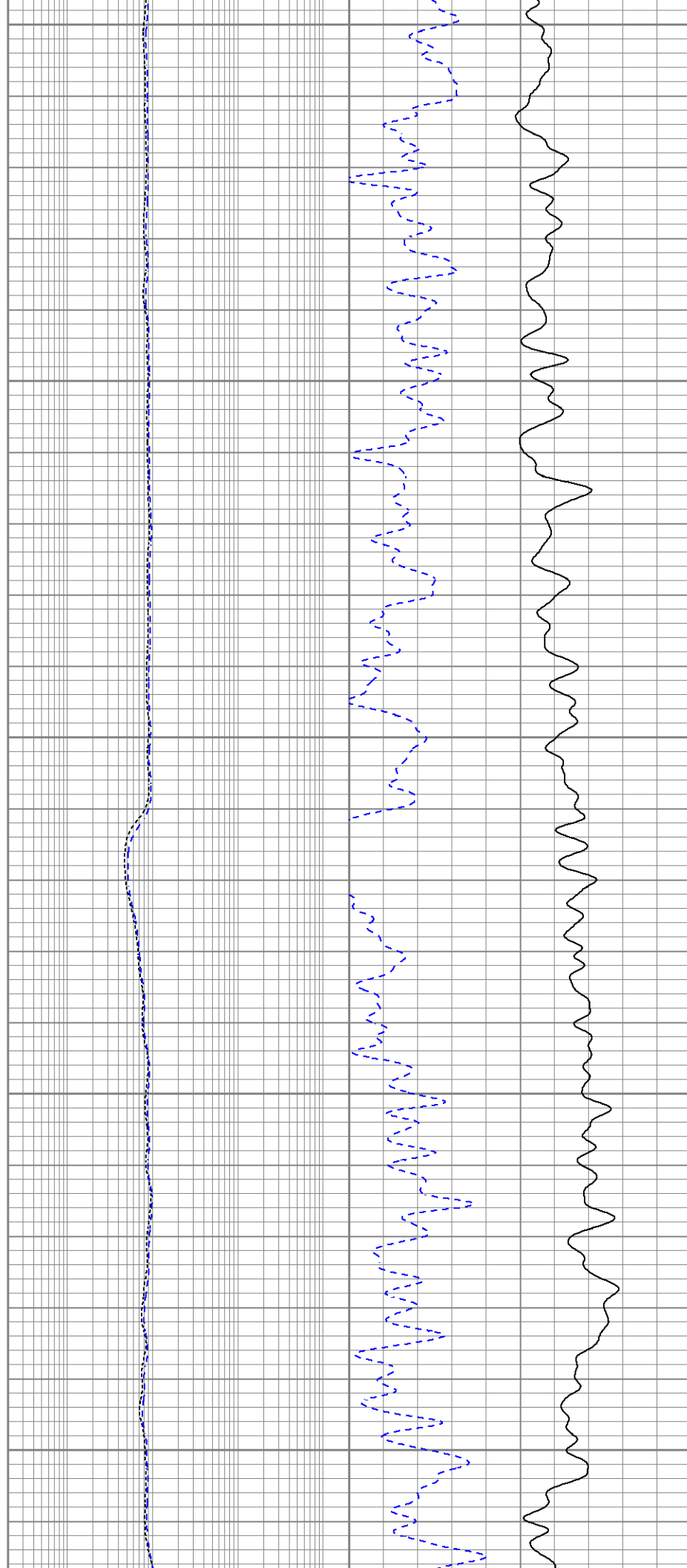
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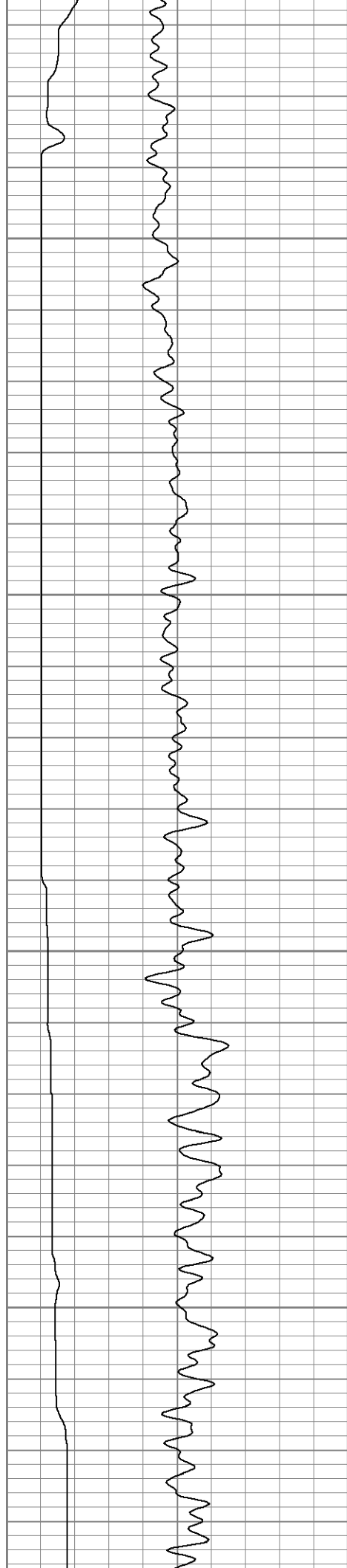
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3350

3400



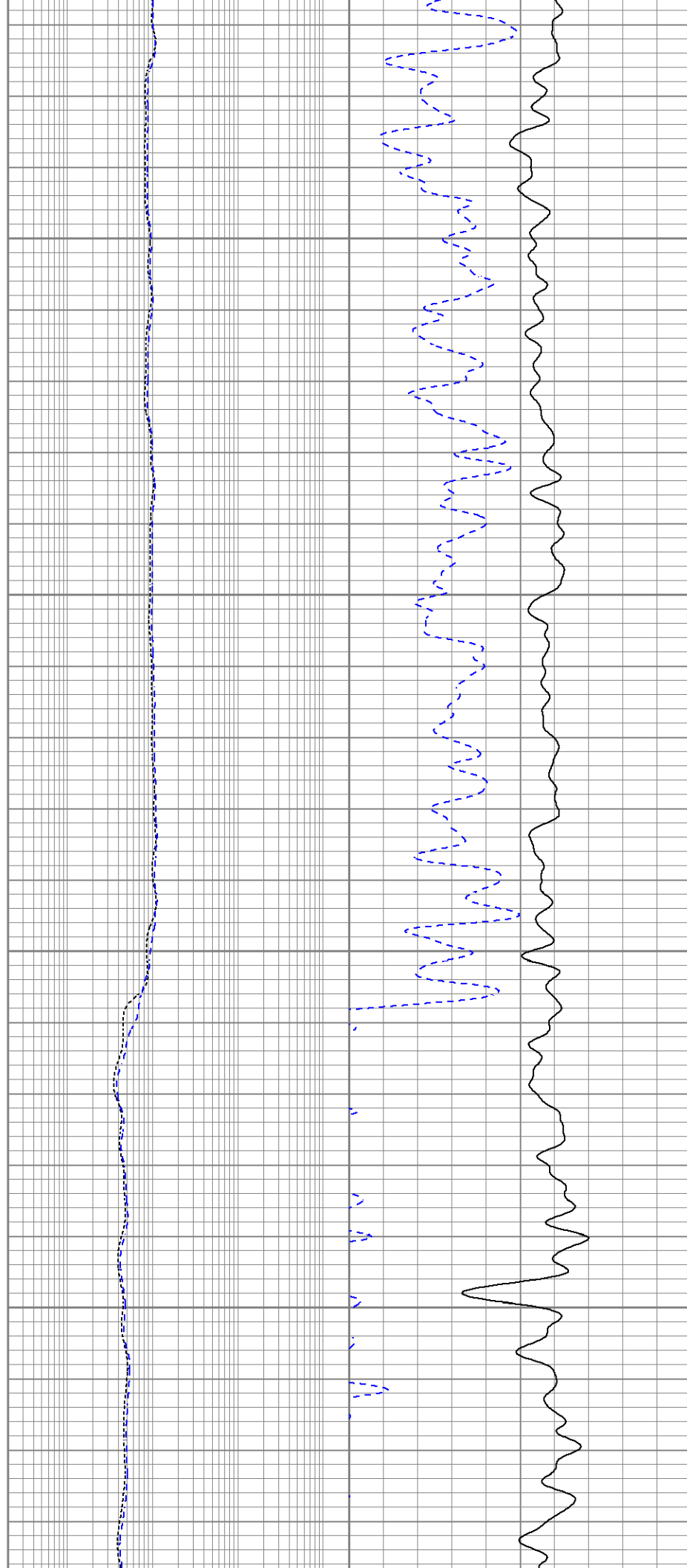


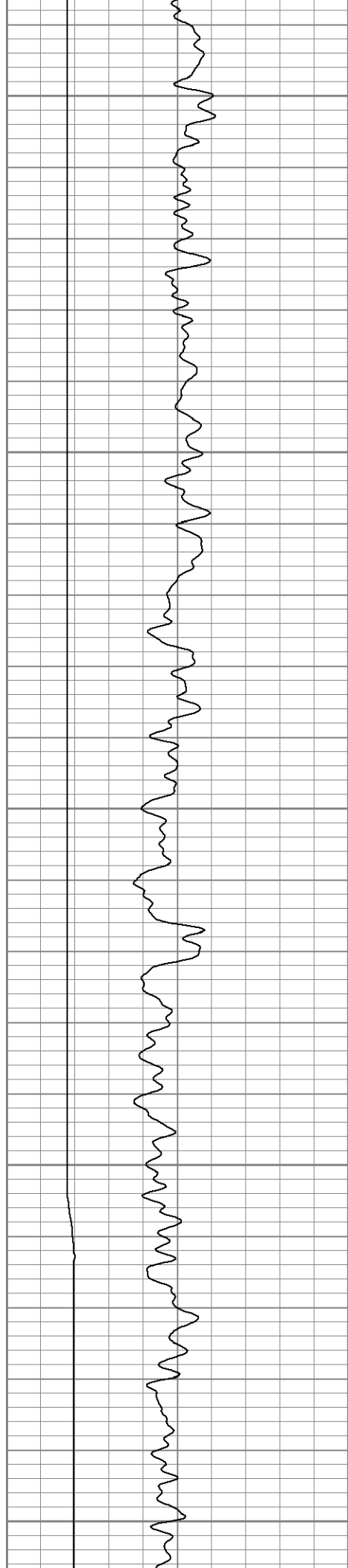
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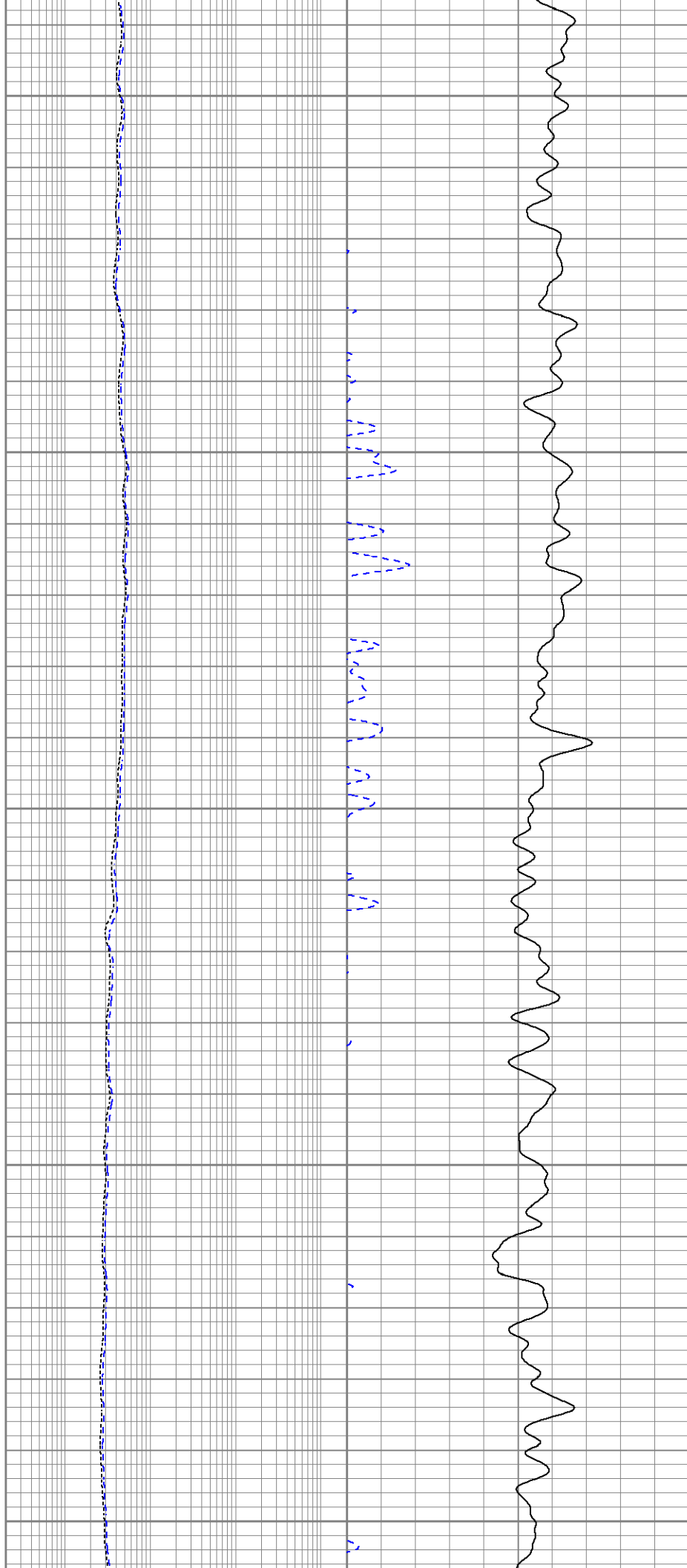
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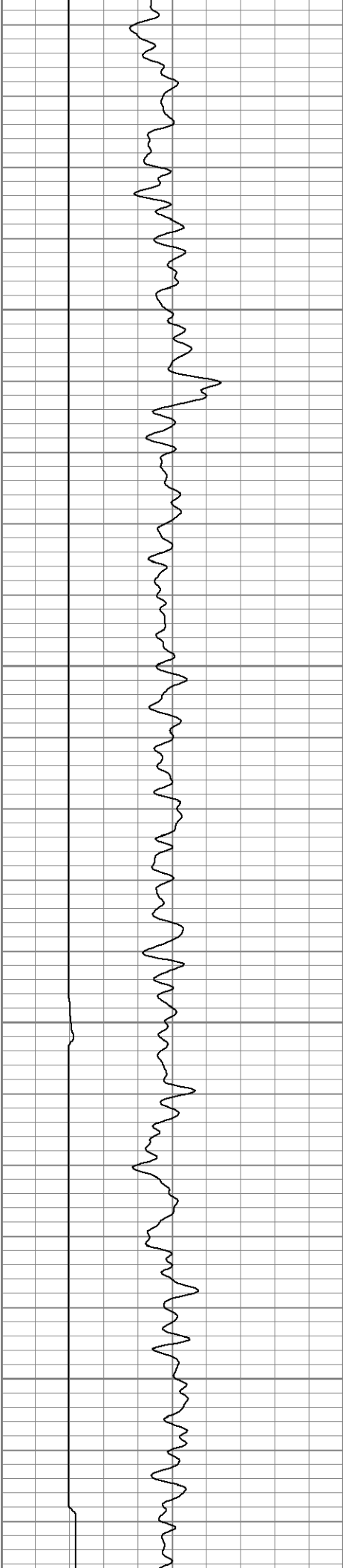
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3750

3800

3850



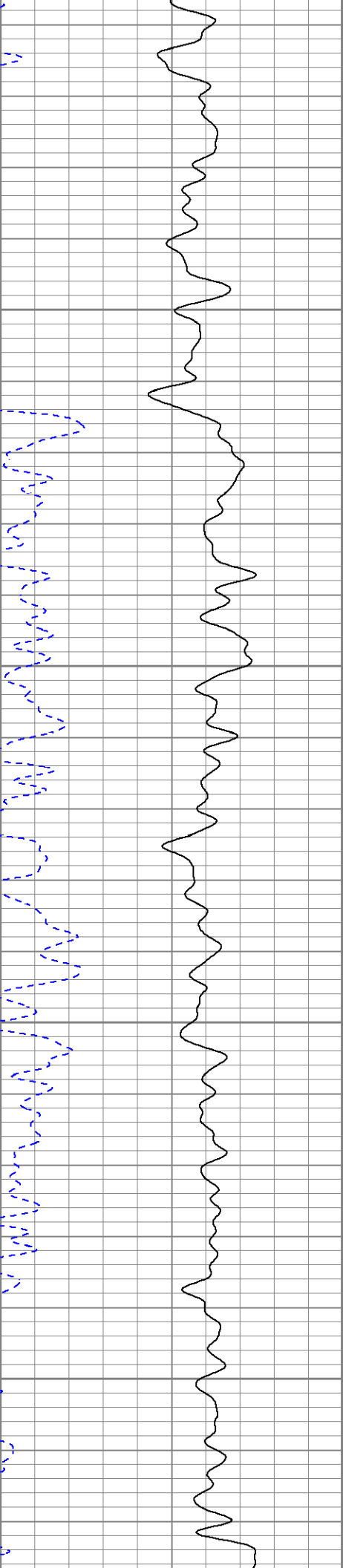
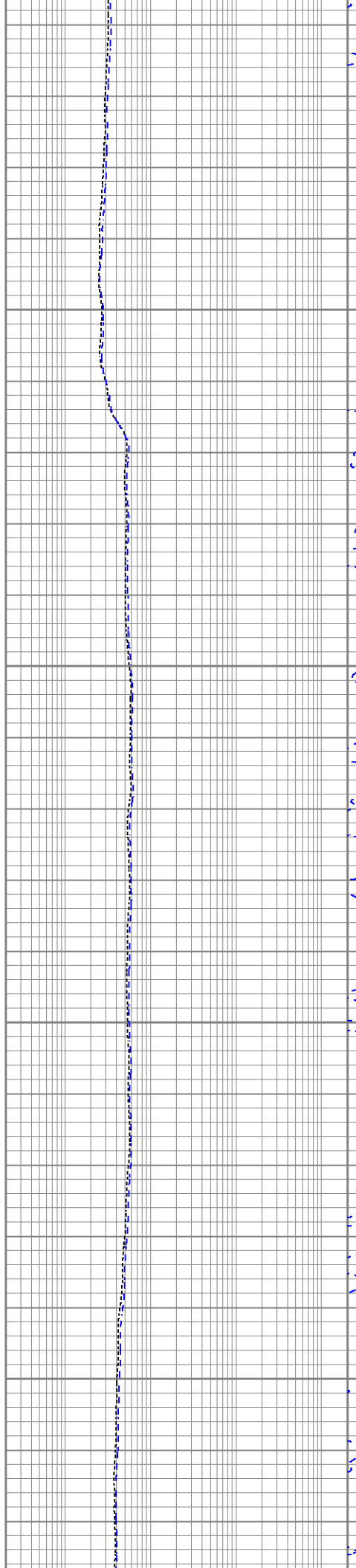


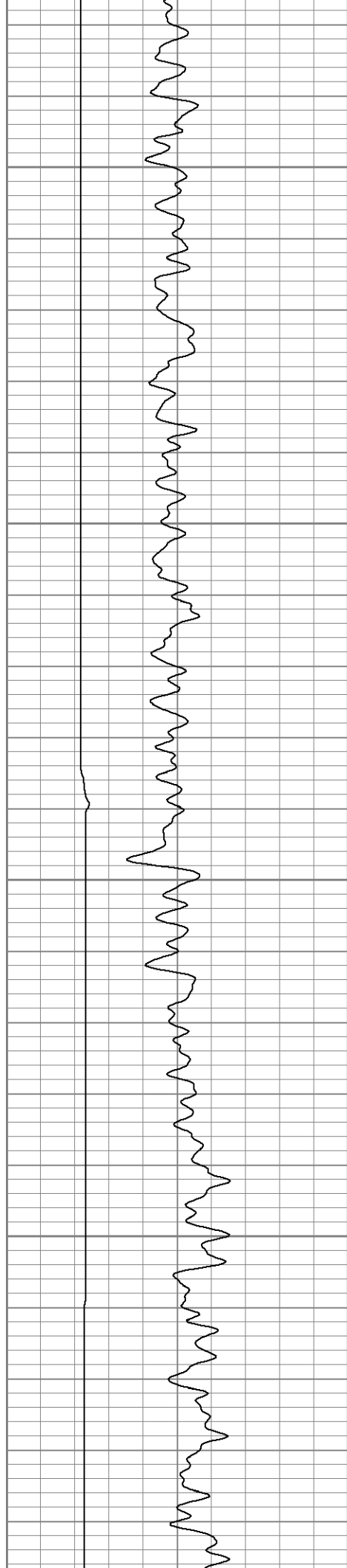
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4050



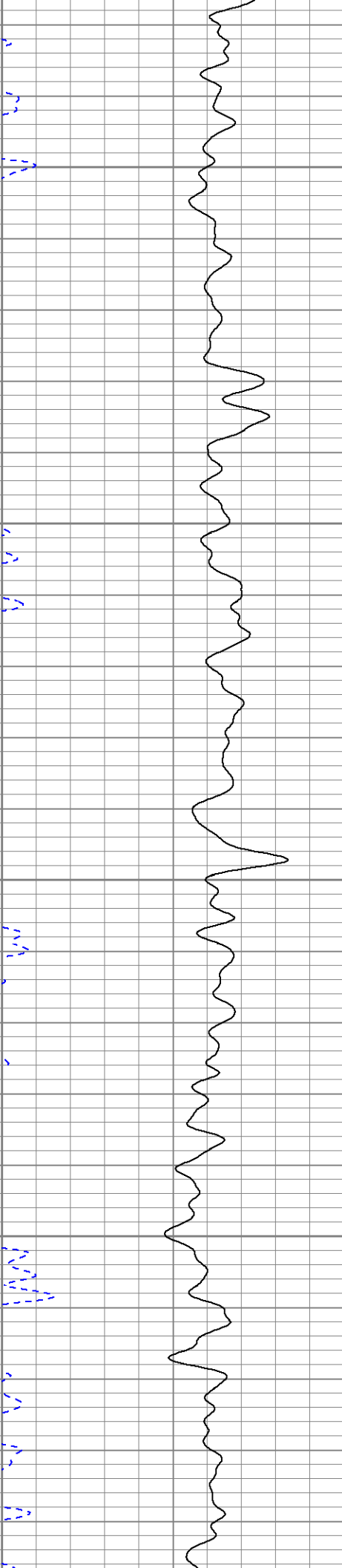
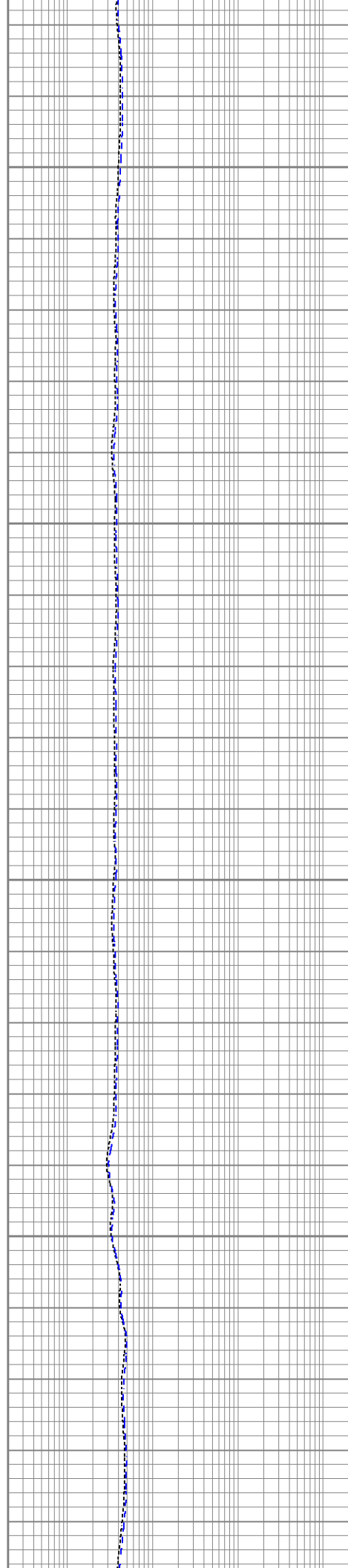


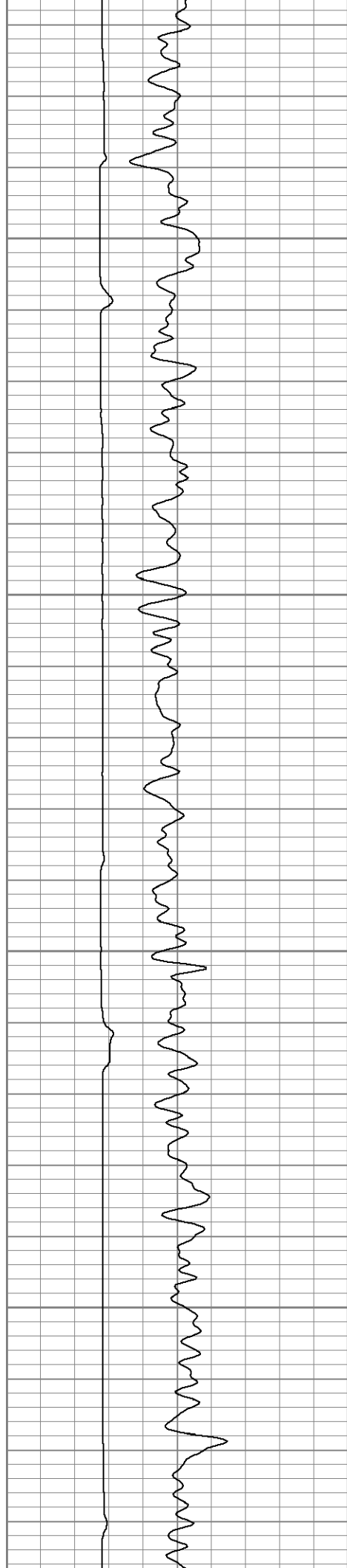
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4150

4200

4250



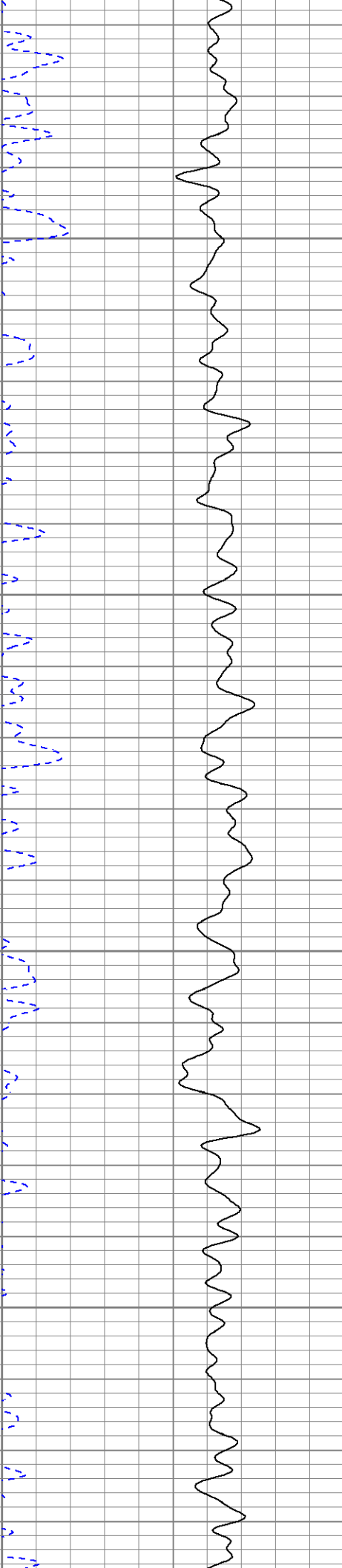
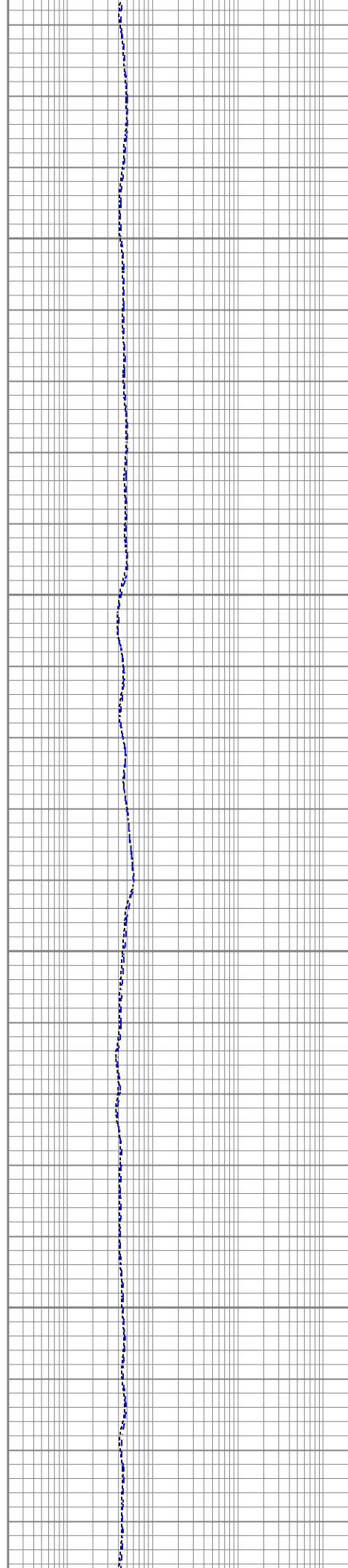


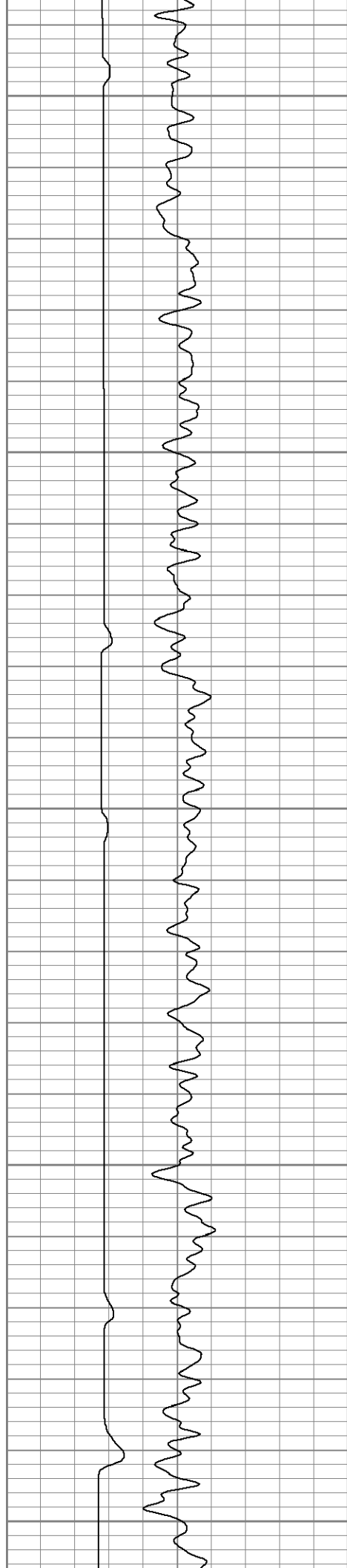
4550

4600

4650

4700





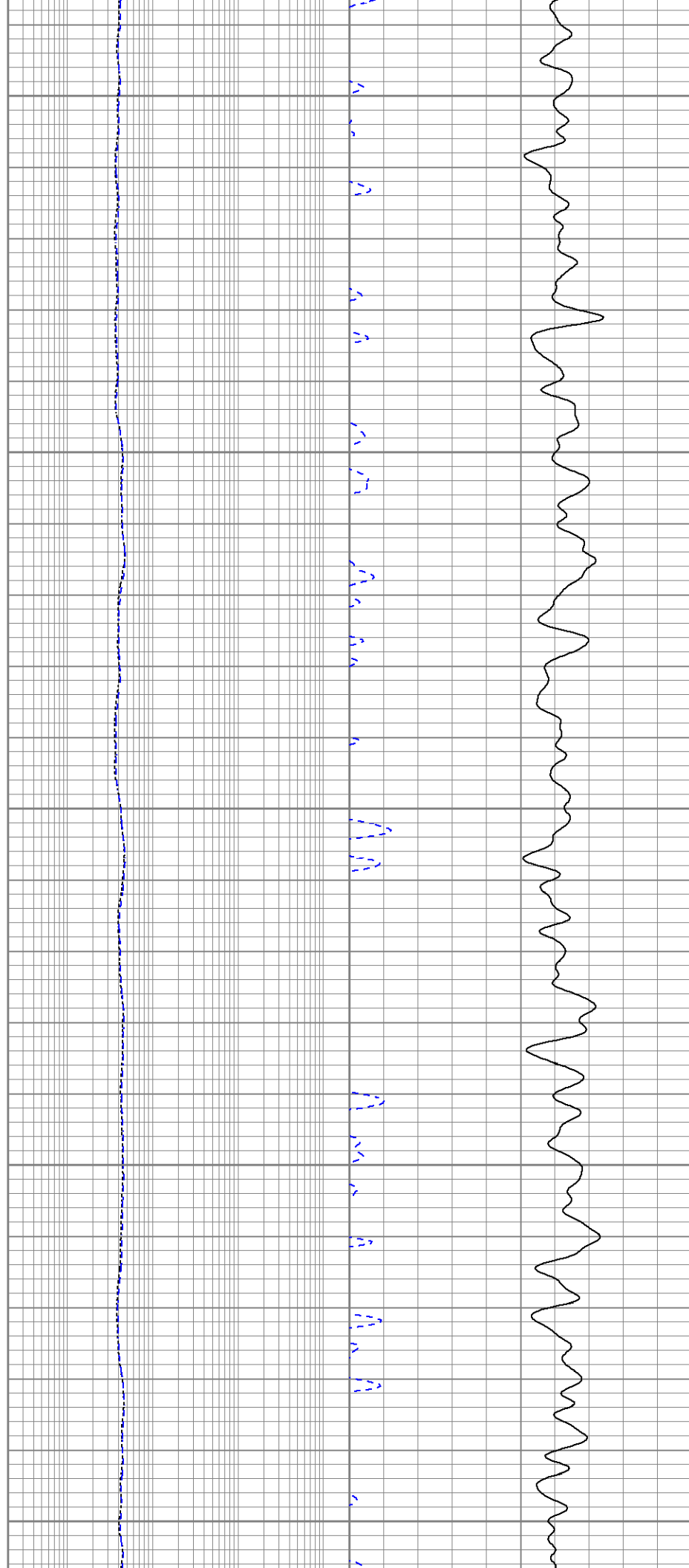
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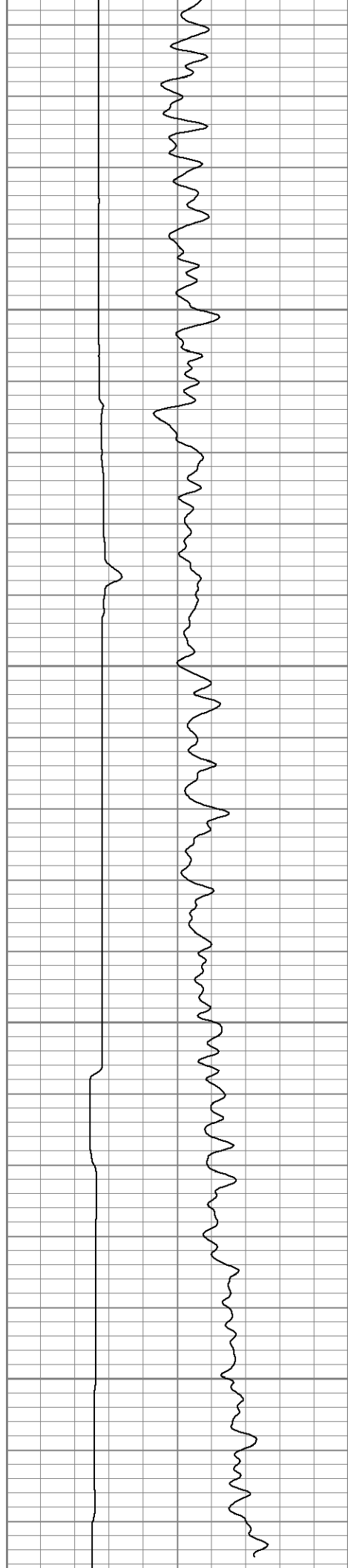
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4900

4950



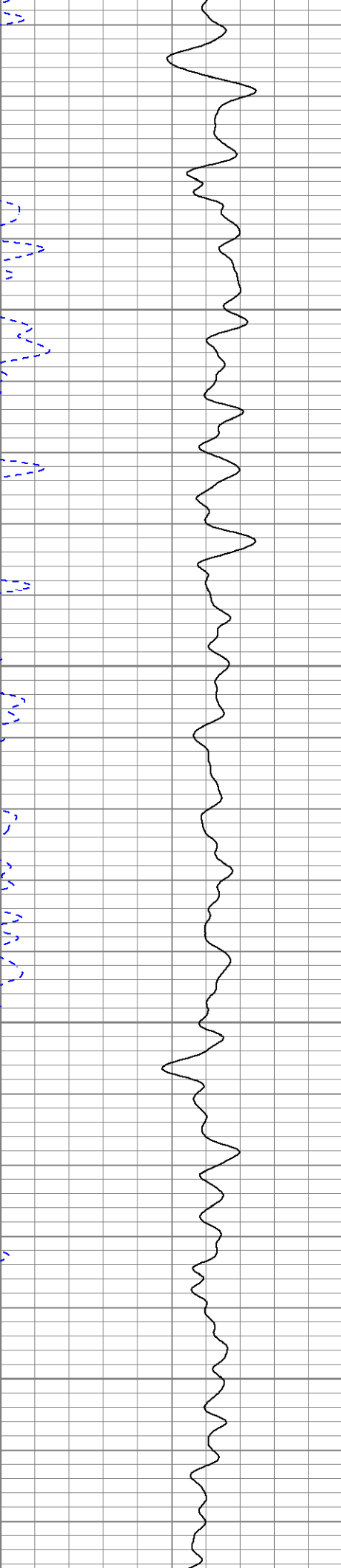
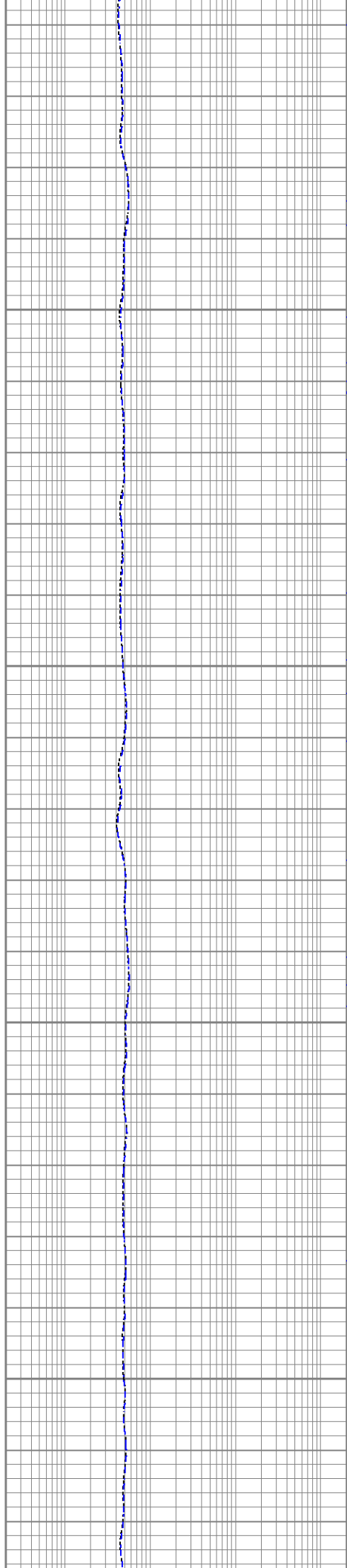


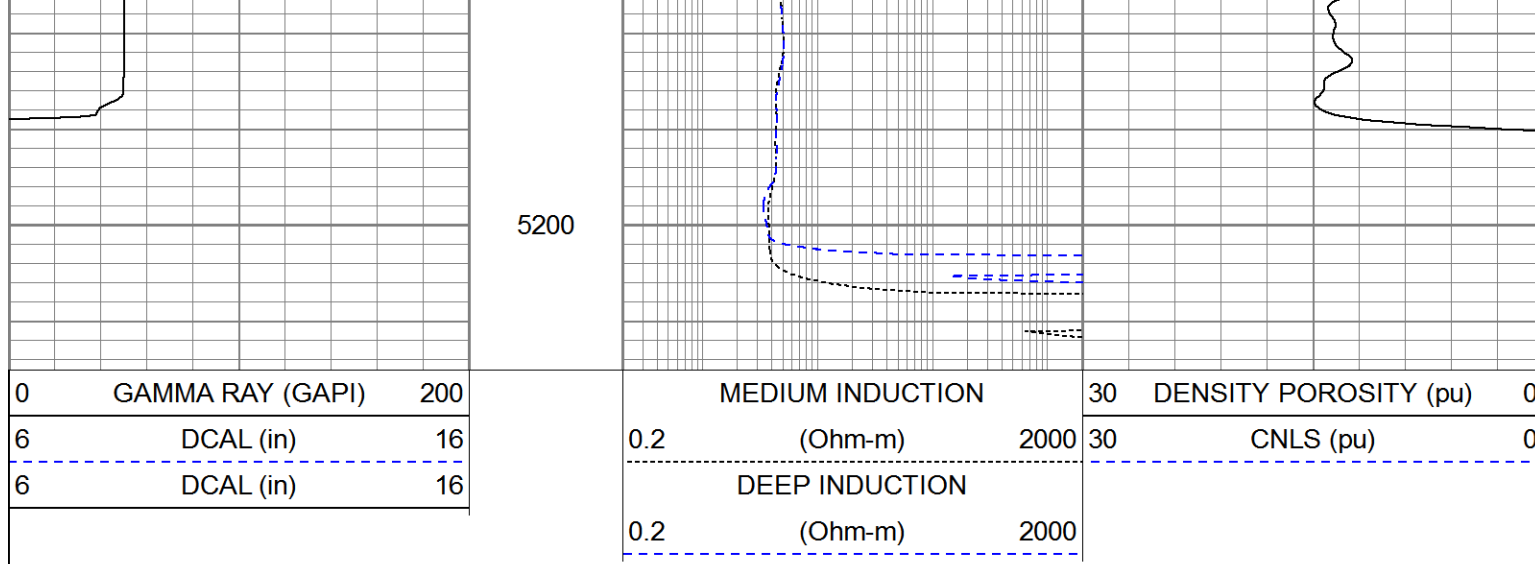
5000

5050

5100

5150





Calibration Report	
Database File	extraction_trott_8e_10_7c.db
Dataset Pathname	stack/pass2.1
Dataset Creation	Thu Jan 04 20:07:26 2018

Dual Induction Calibration Report

Serial-Model:	PSI 978-M&W
Calibration Performed:	Wed Dec 13 12:45:09 2017

Readings			References			Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.570	-36.500
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.400	-35.000

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	1.03		
Large Ring	14.00	in	1.23		

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	

 <p>PIONEER Pioneer Energy Services</p>	Company	EXTRACTION OIL & GAS, INC.
	Well	TROTT NO. 8E-10-7C
	Field	WATTENBERG
	County	WELD
	State	COLORADO