



**Cement Bond  
Variable Density Log  
W/ Gamma Ray/CCL**

Company		Bonanza Creek Energy					
Well		Pronhorn 11-41-28HNB					
Field		Riverside					
County		Weld					
State		Colorado					
Location:		API # : 05 123 38633 00					
SEC 28 TWP 5N RGE 61W		Other Services NONE					
Permanent Datum		Ground Level		Elevation		4619'	
Log Measured From		Kelly Bushing		17' APD			
Drilling Measured From		Kelly Bushing					
Date		Feb. 4, 2014					
Run Number		1					
Depth Driller		10806'					
Depth Logger		6011'					
Bottom Logged Interval		5999'					
Top Log Interval		Surface					
Open Hole Size		8.75					
Type Fluid		Fresh Water					
Density / Viscosity		8.33					
Max. Recorded Temp.		N/A					
Estimated Cement Top		N/A					
Time Well Ready		10:15 a.m.					
Time Logger on Bottom		11:00 a.m.					
Equipment Number		13033					
Location		Brighton					
Recorded By		J. Olson					
Witnessed By		S. James					
Borehole Record				Tubing Record			
Run Number		Bit		From		To	
Casing Record		Size		Wgt/Ft		Top	
Surface String						Bottom	
Prot. String							
Production String		7"		26#		0	
Liner						6011'	

<<< 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.

Comments

Main Pass Logged @ 0 PSI  
Repeat Pass logged @ 0 PSI

Logged from 17' Kelly Bushing

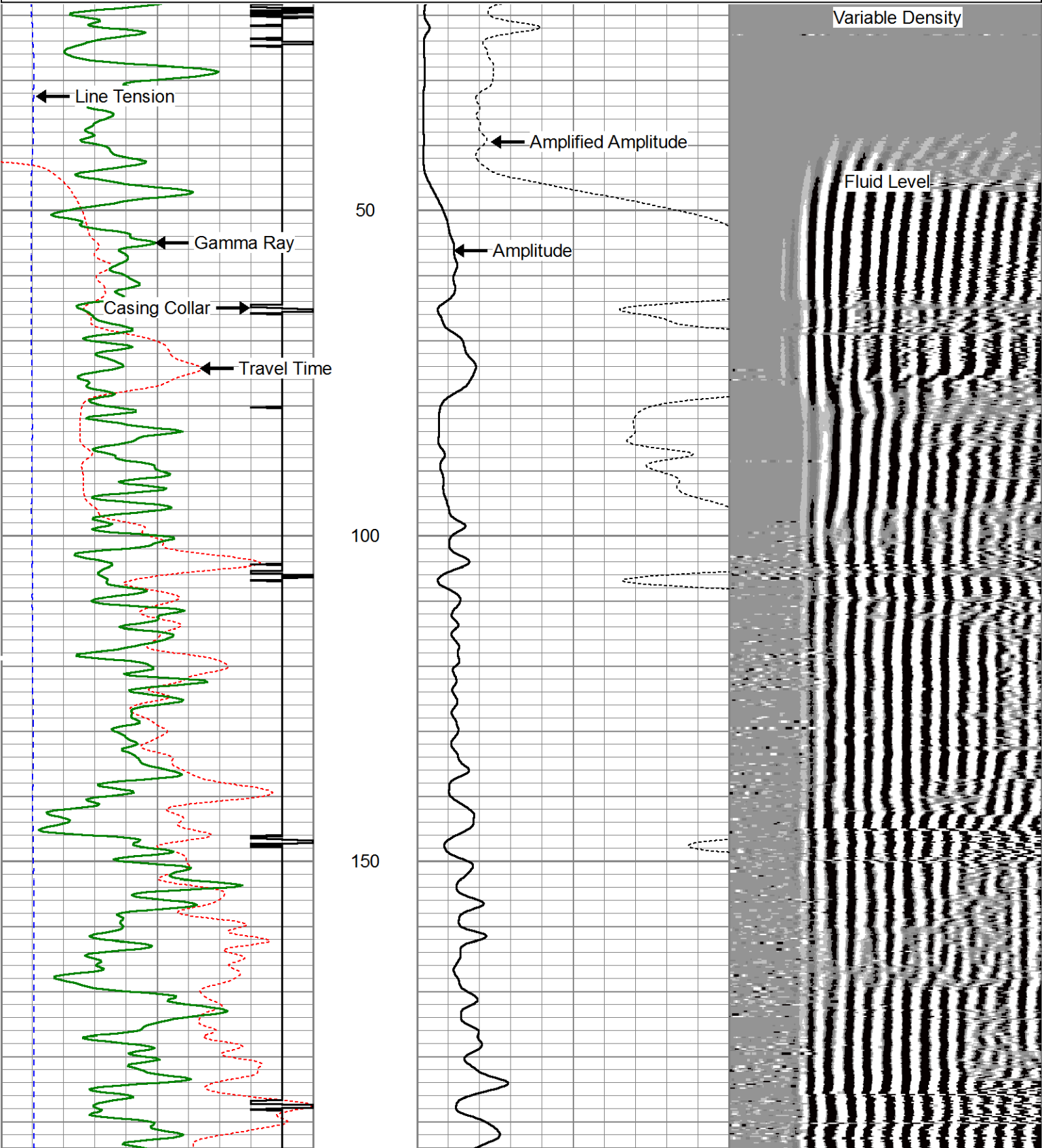
Log Ran at 120 Ft. Per Minute at Customer Request

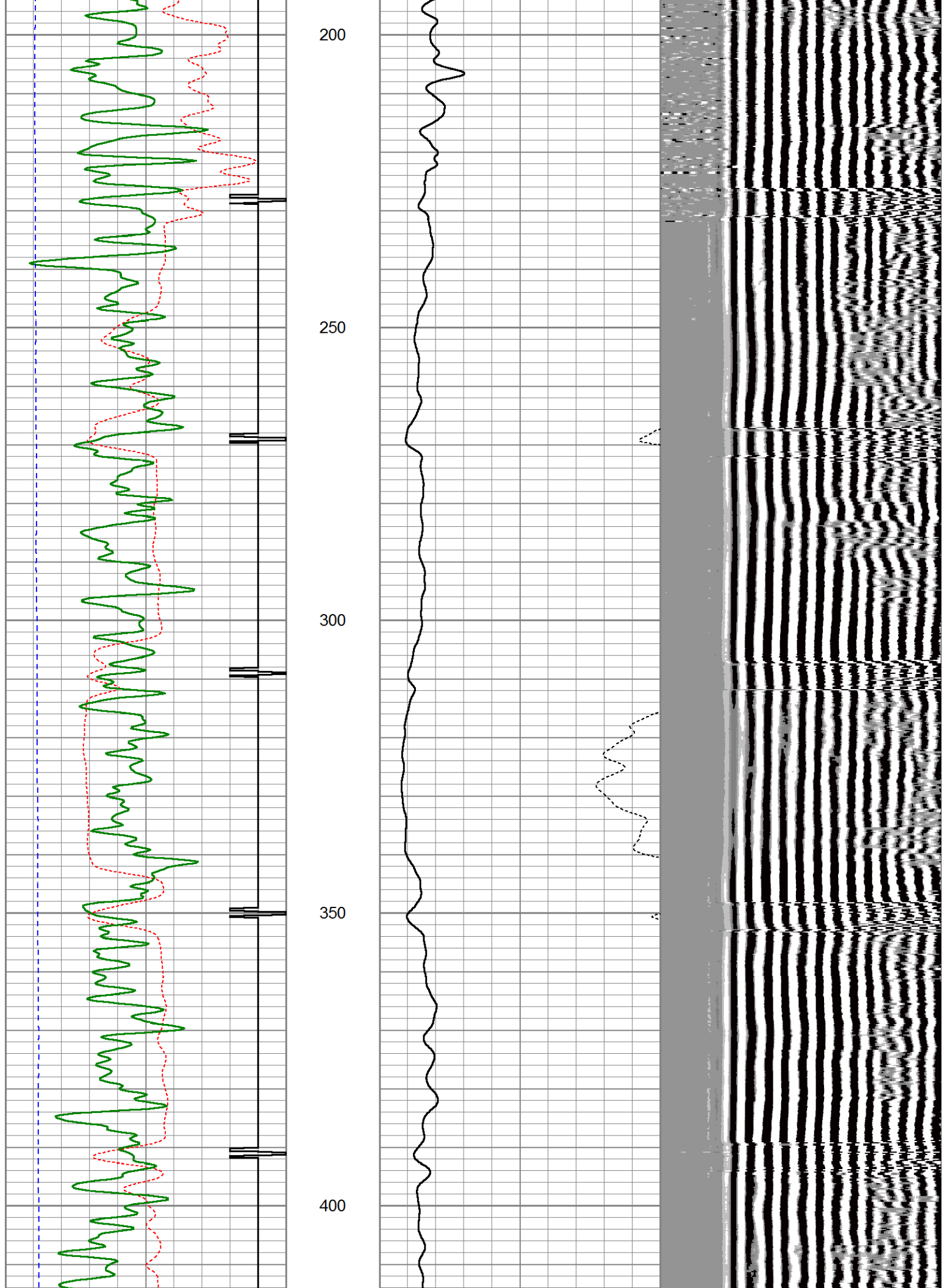
Thank You For using Allied Wireline Services  
(303) 659-4609

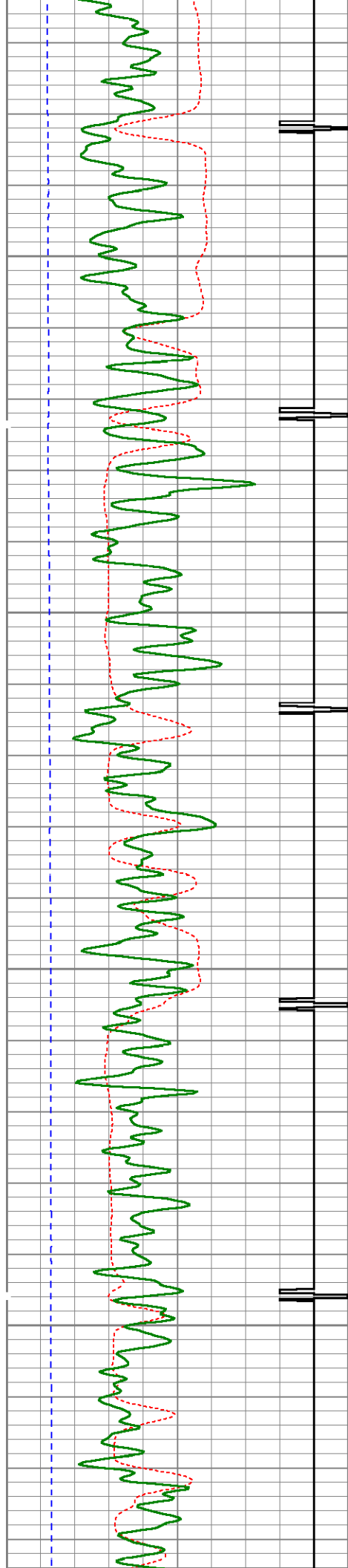


**Main Pass ( 0 PSI )**

400	Travel Time (usec)	200	0	Amplitude (mV)	100	200	Variable Density	1200
9	Casing Collar	-1	0	Amplified Amplitude (mV)	10			
0	Gamma Ray (GAPI)	150						
0	Line Tension (lb)	2000						





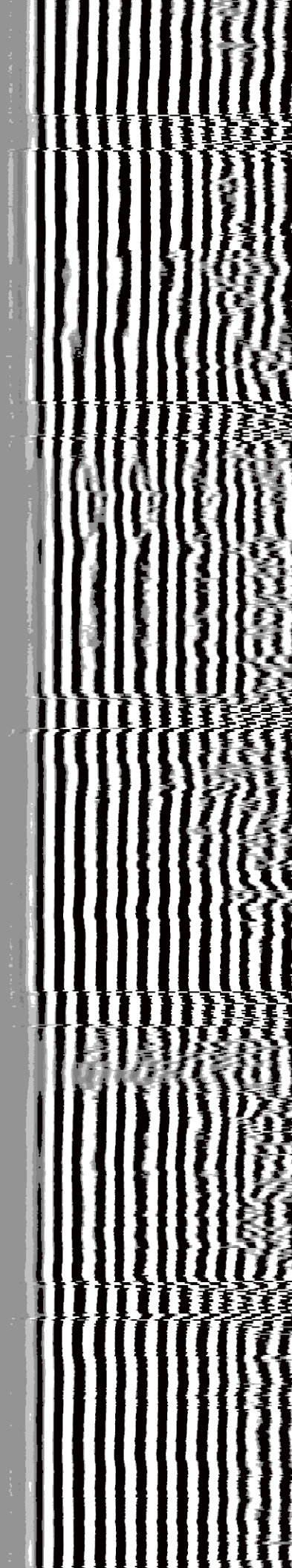
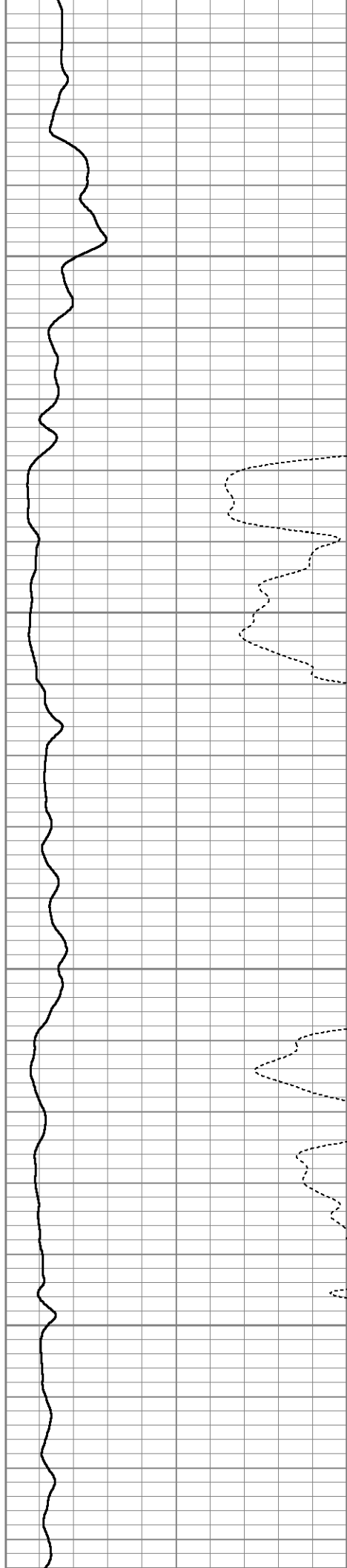


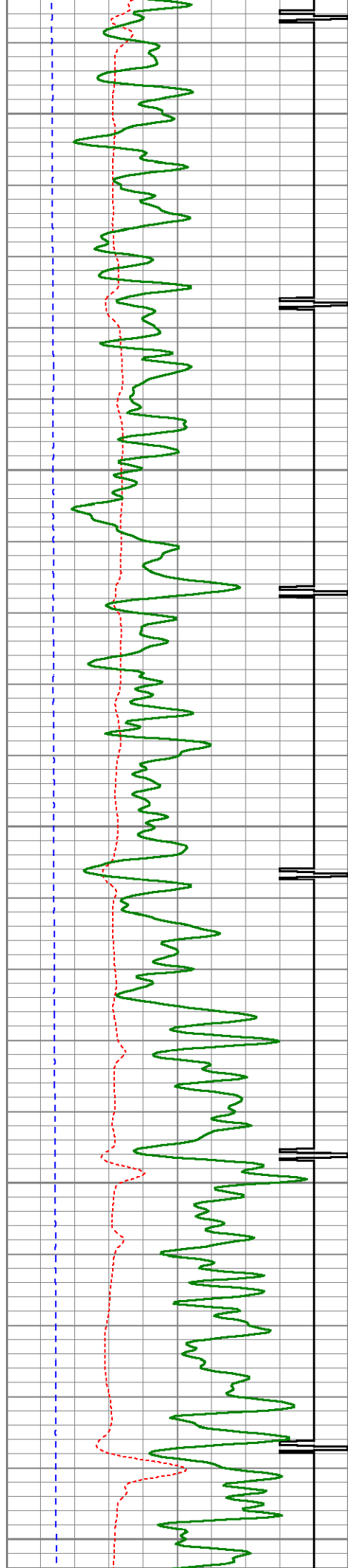
450

500

550

600





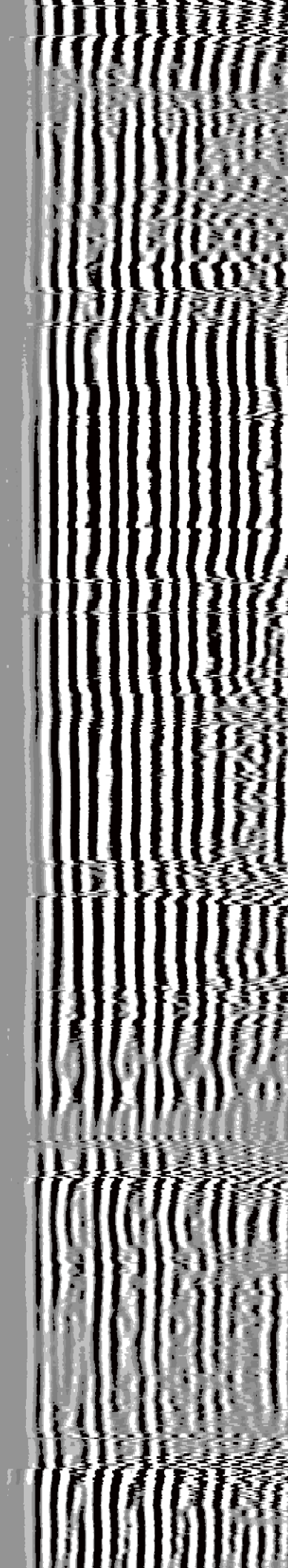
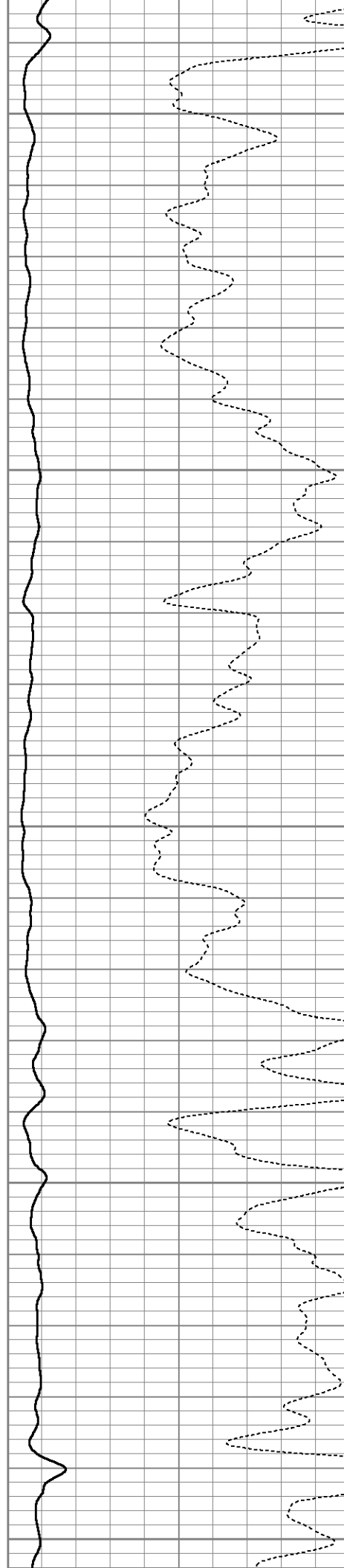
650

700

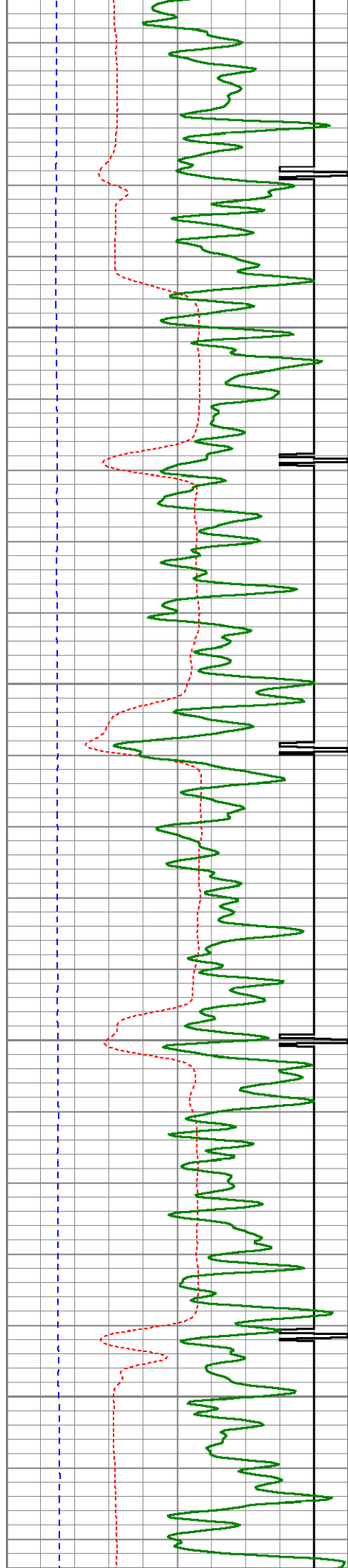
750

800

850





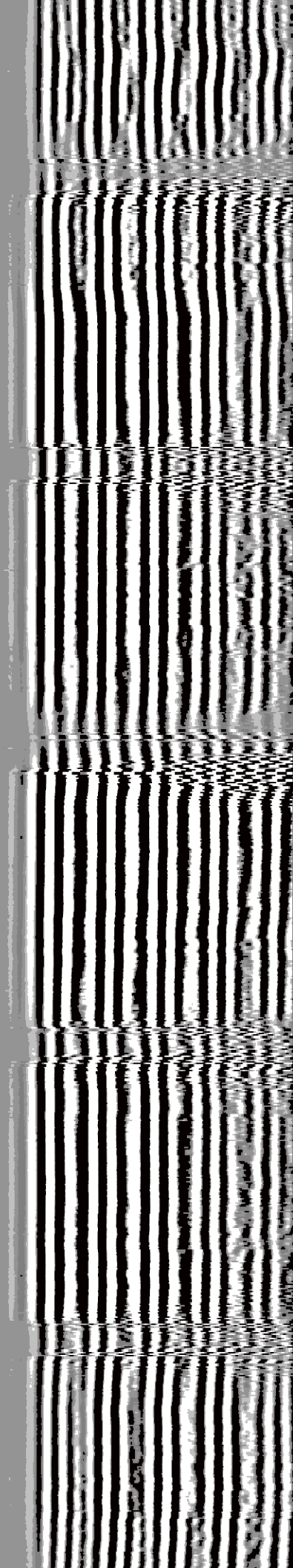
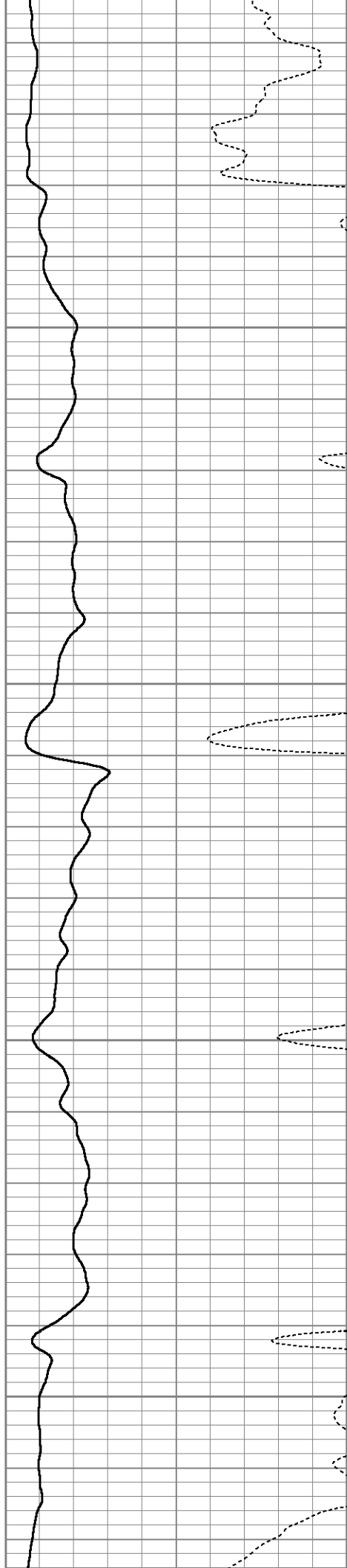


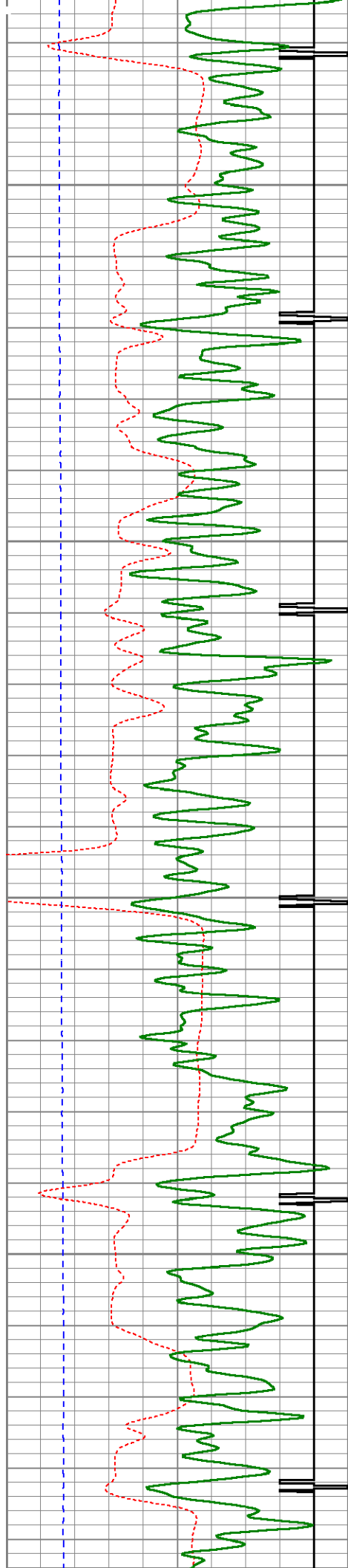
900

950

1000

1050



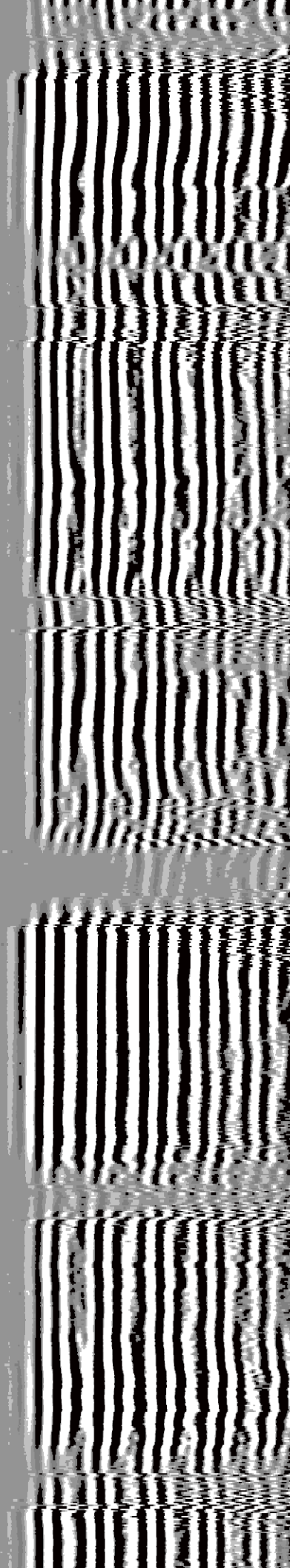
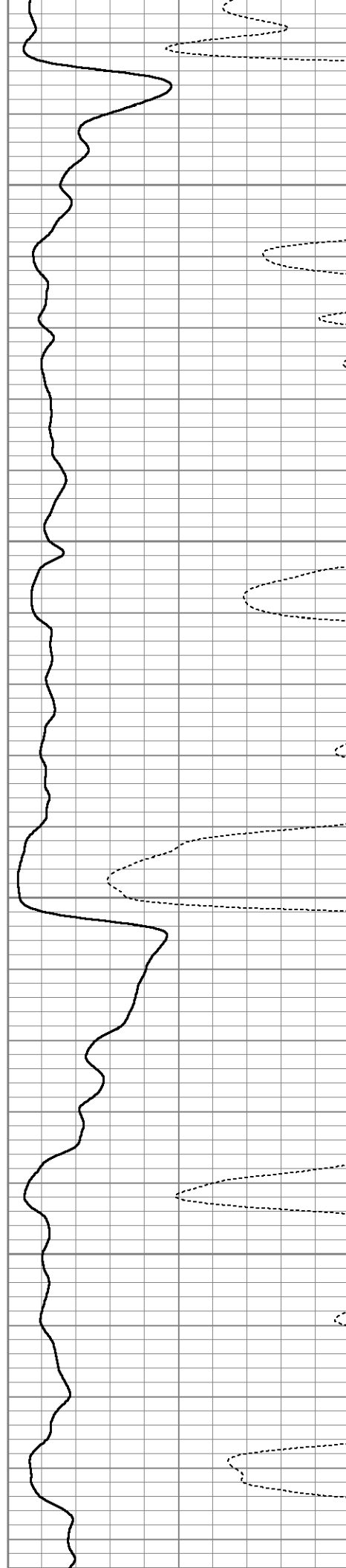


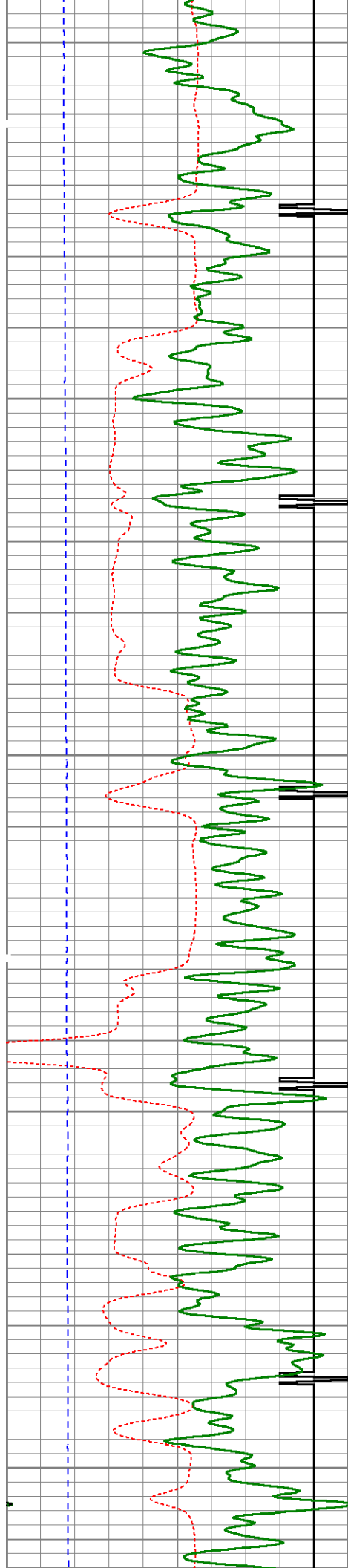
1100

1150

1200

1250





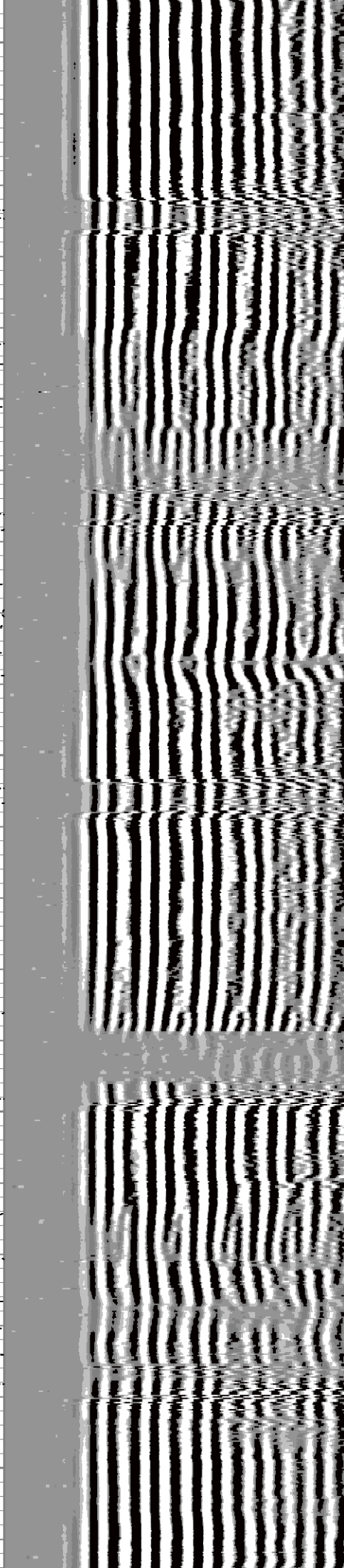
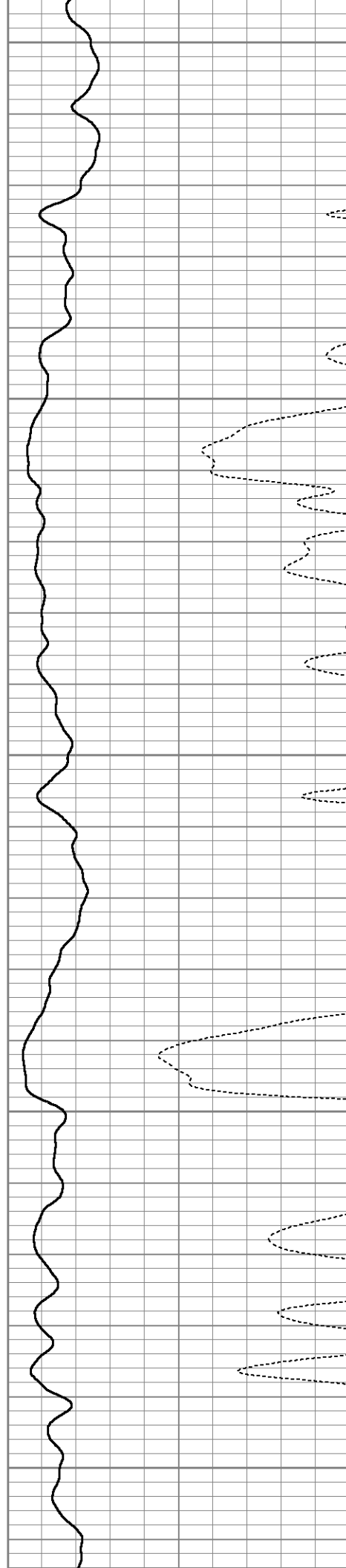
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1350

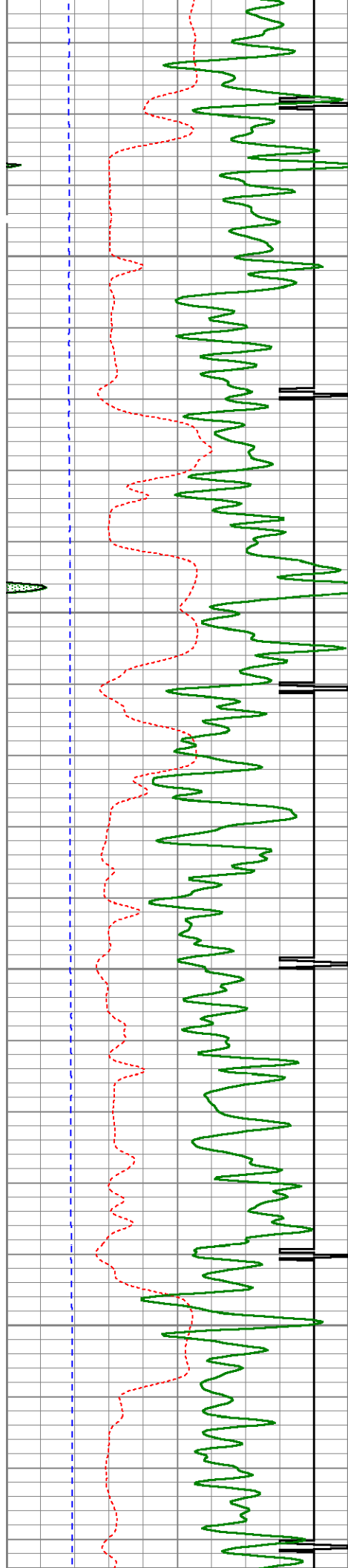
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1450

1500





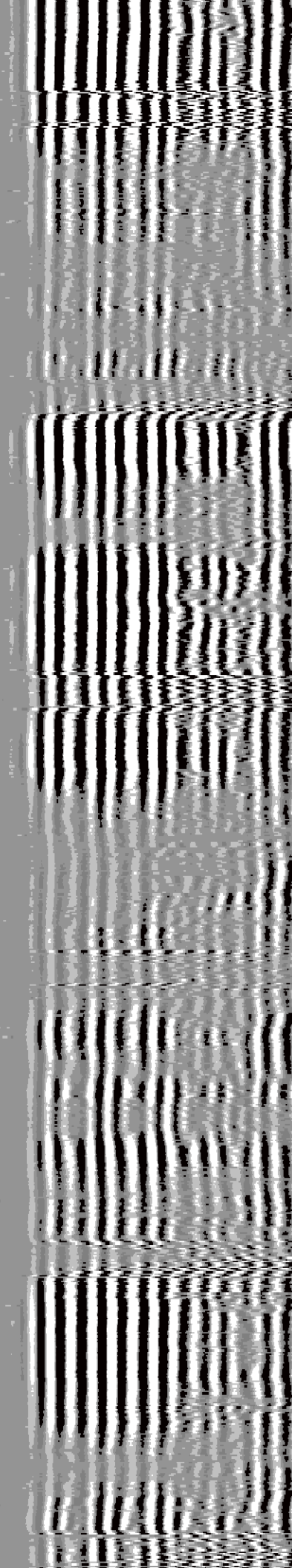
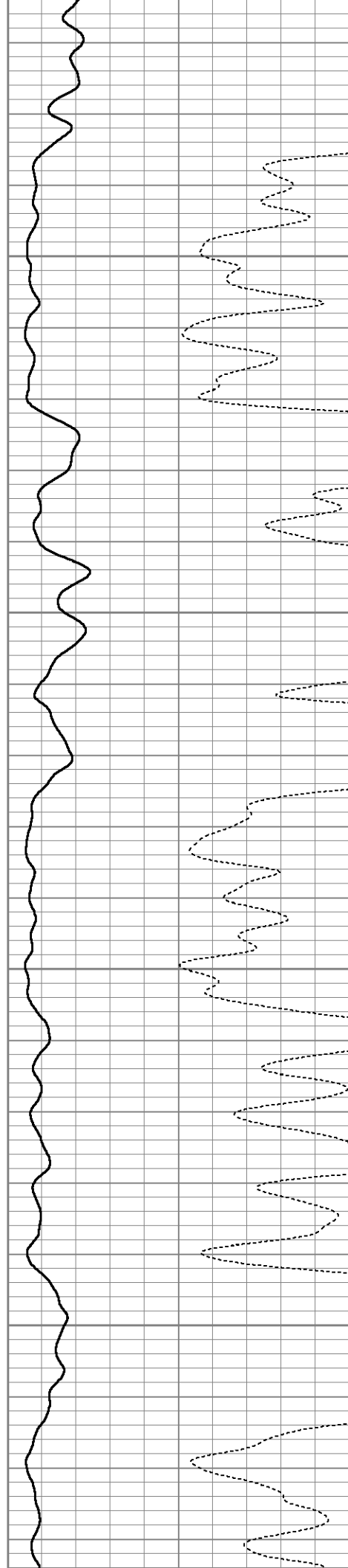


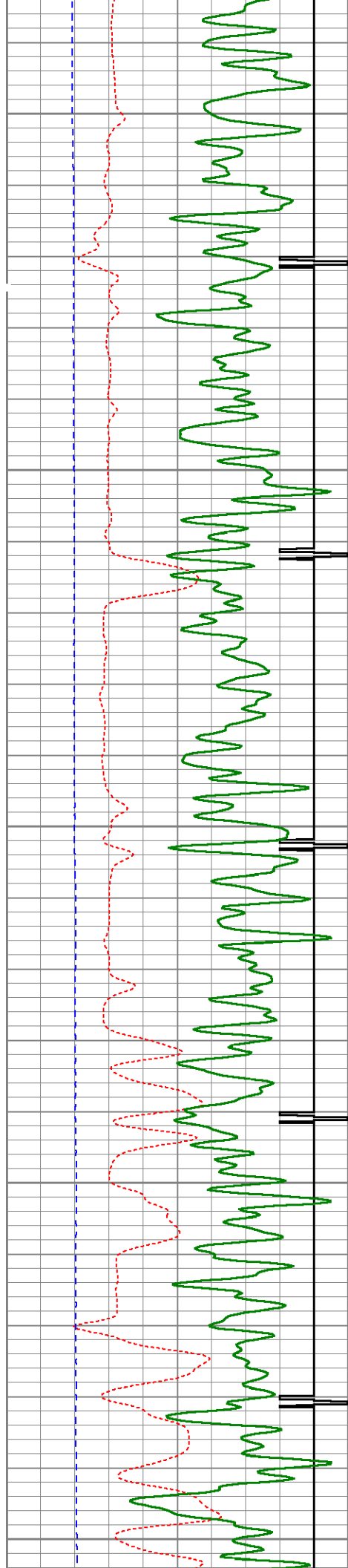
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1600

1650

1700





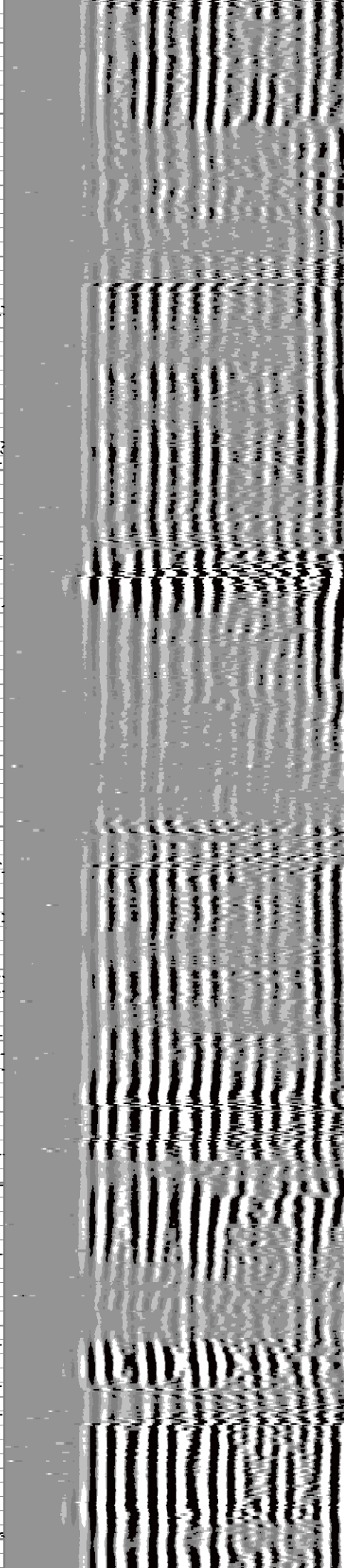
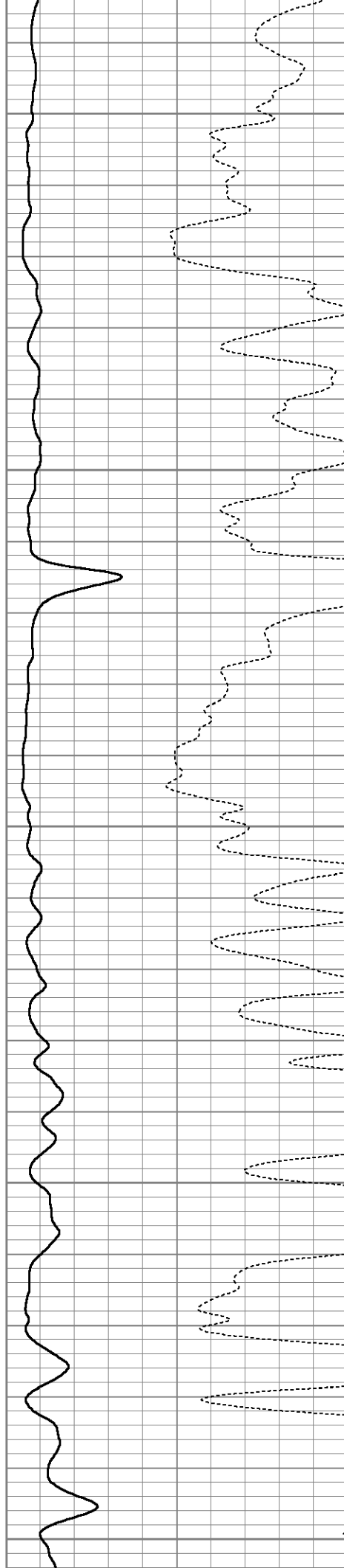
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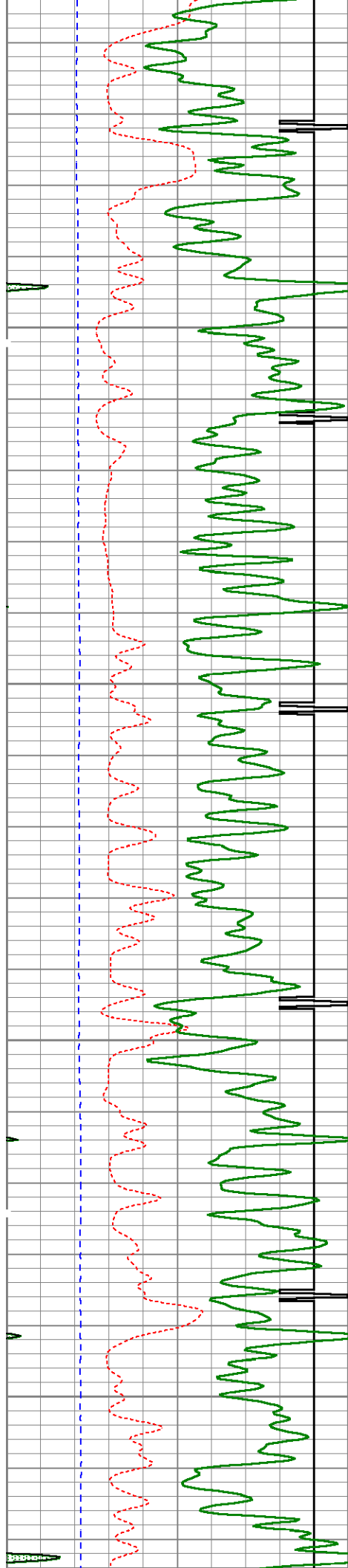
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1850

1900

1950



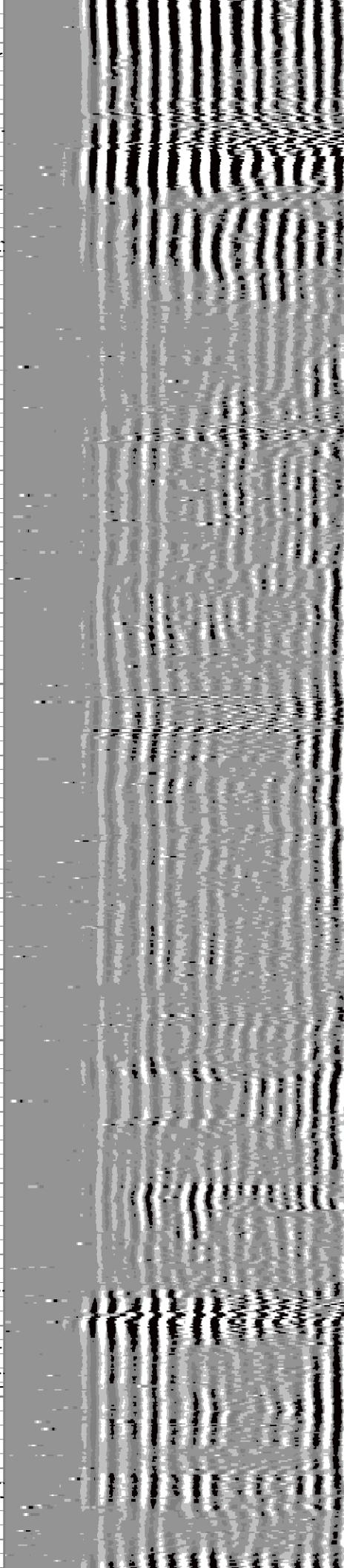
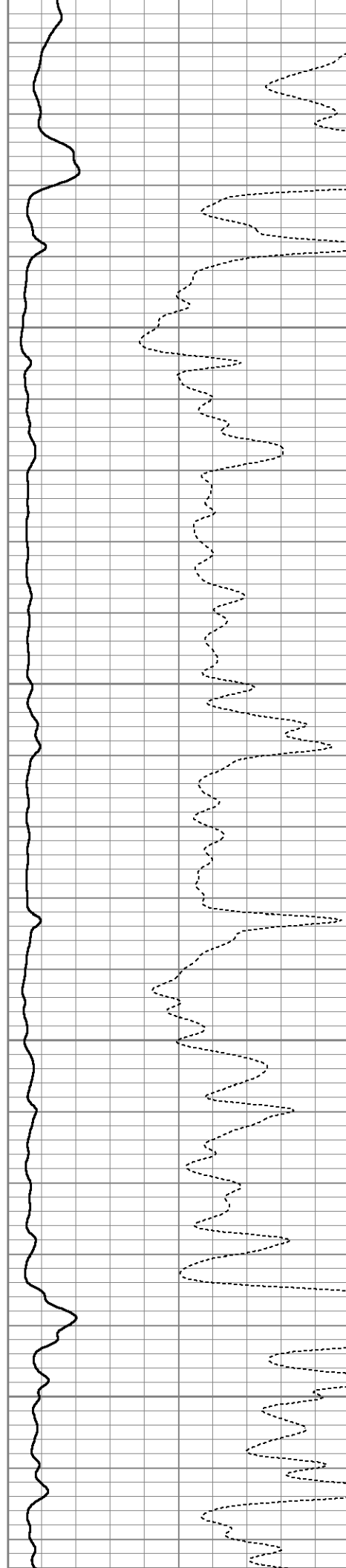


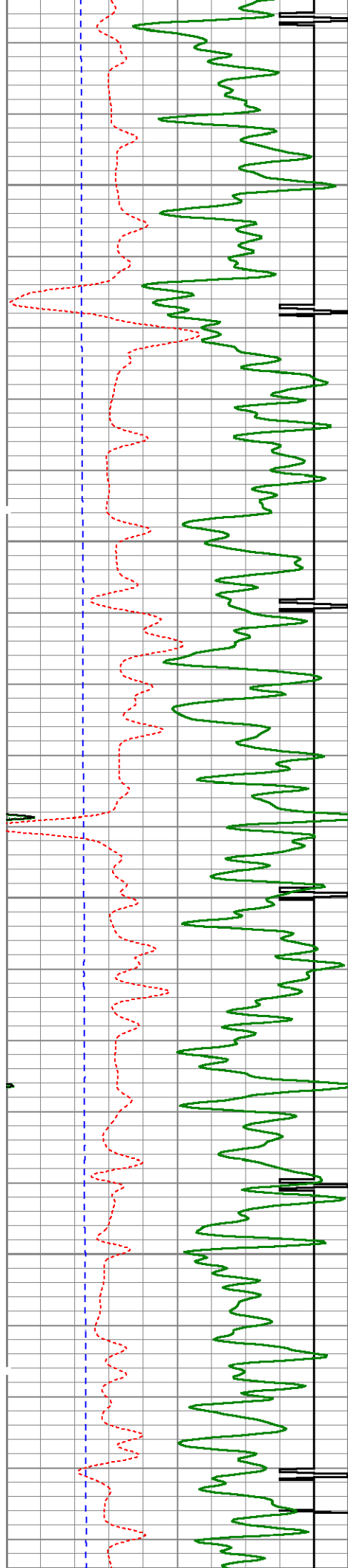
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2050

2100

2150



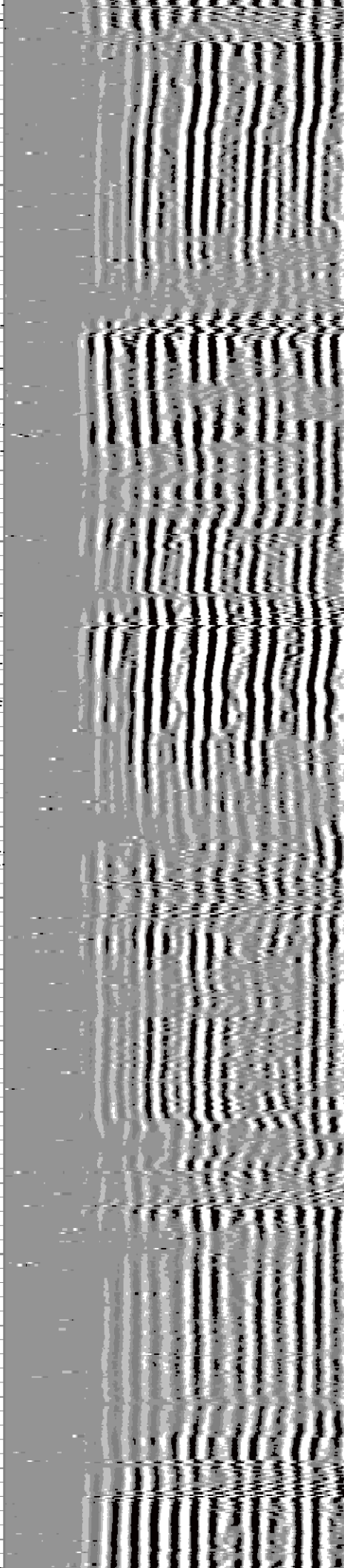
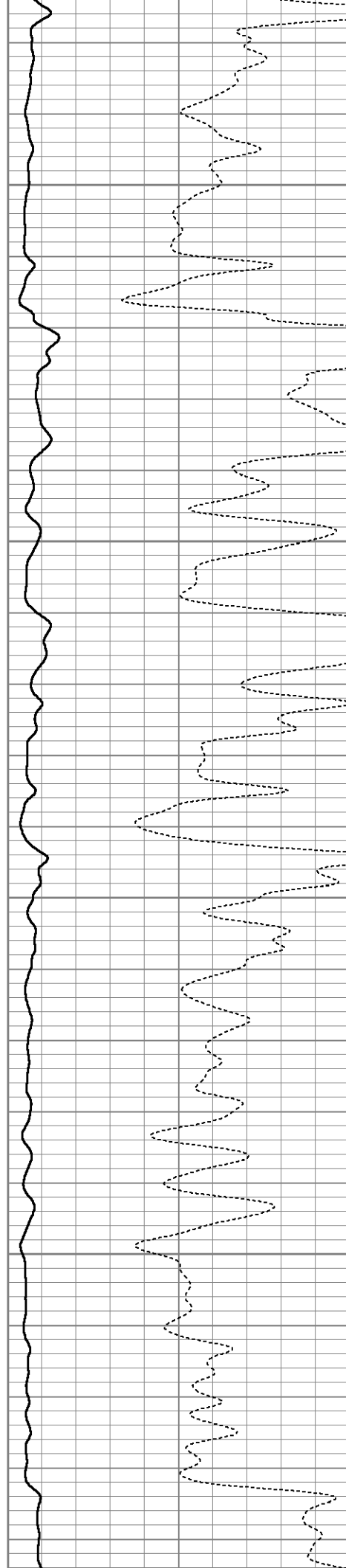


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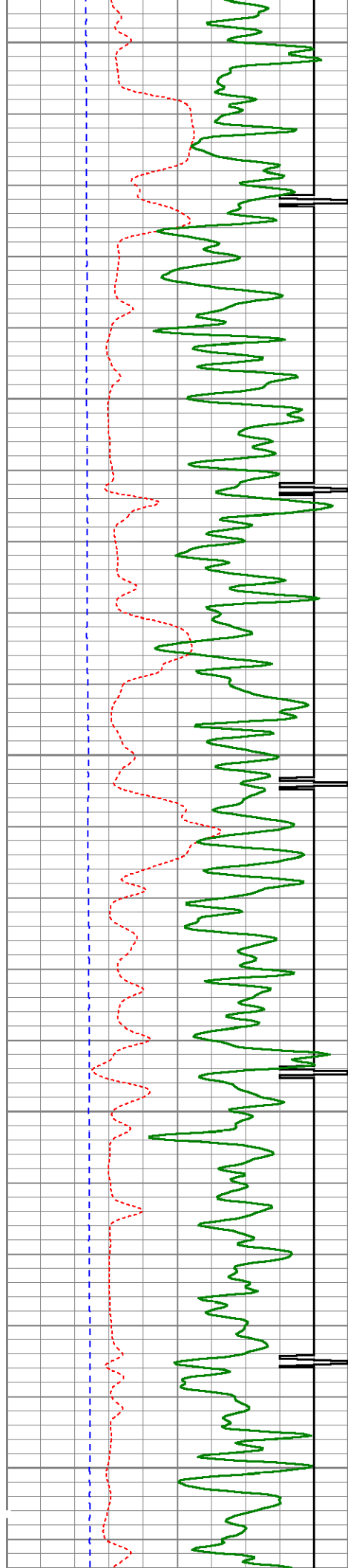
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2300

2350







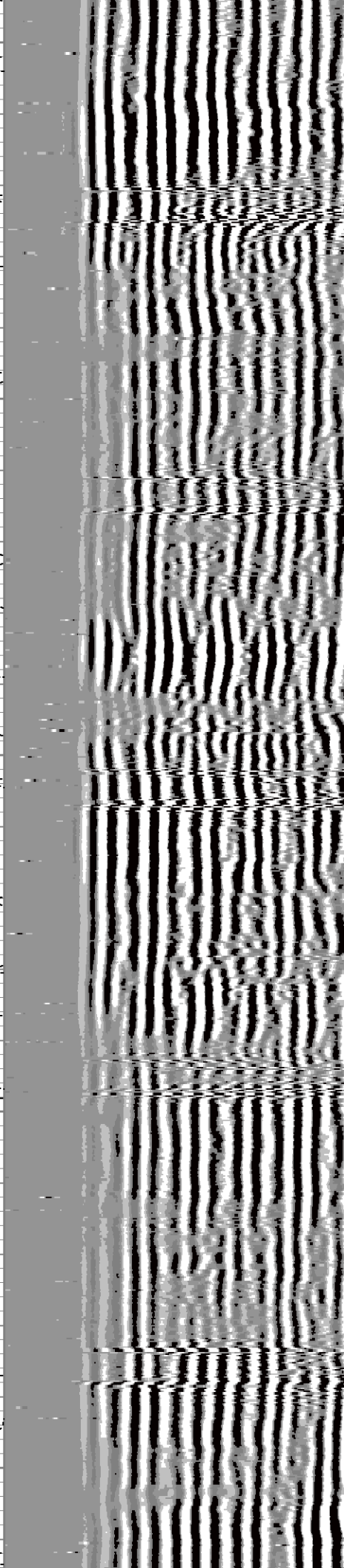
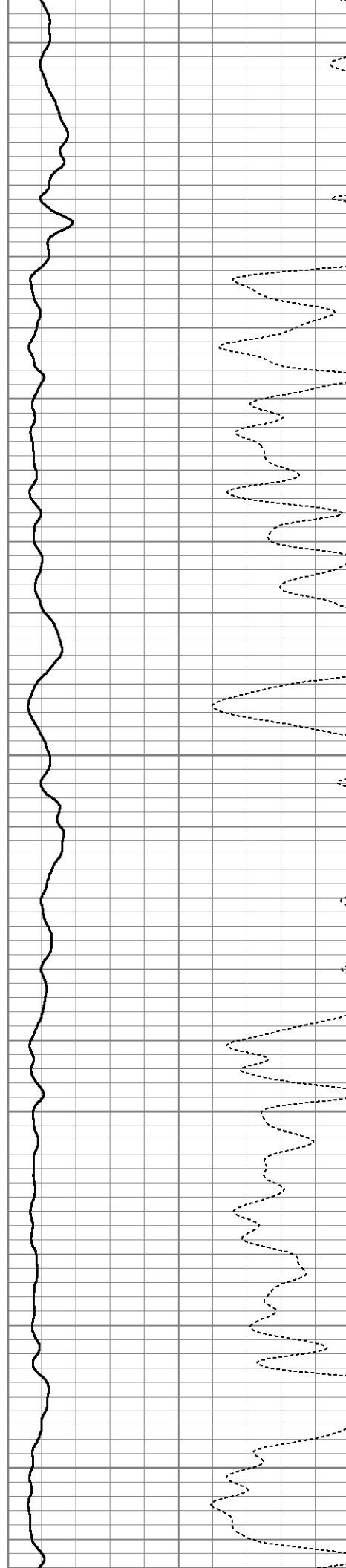
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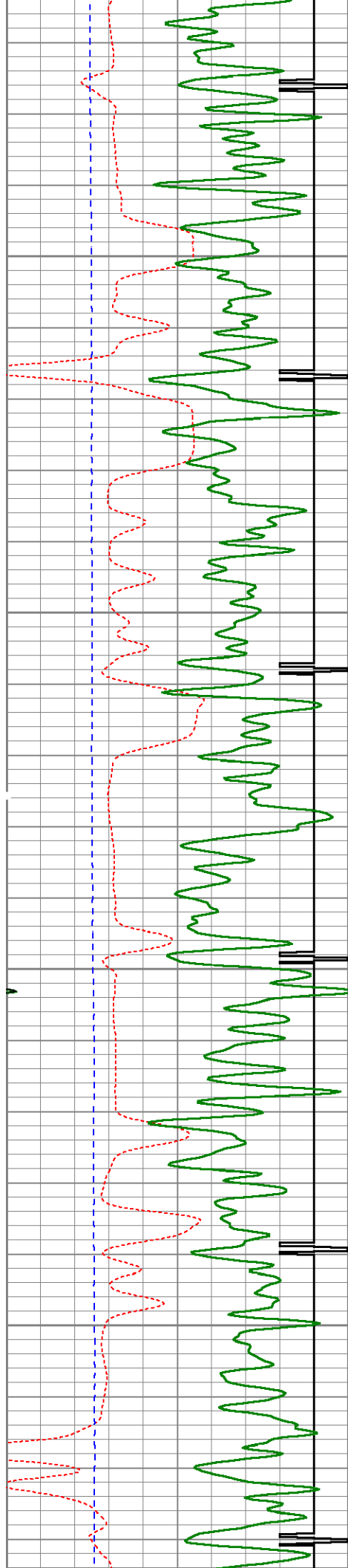
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2600





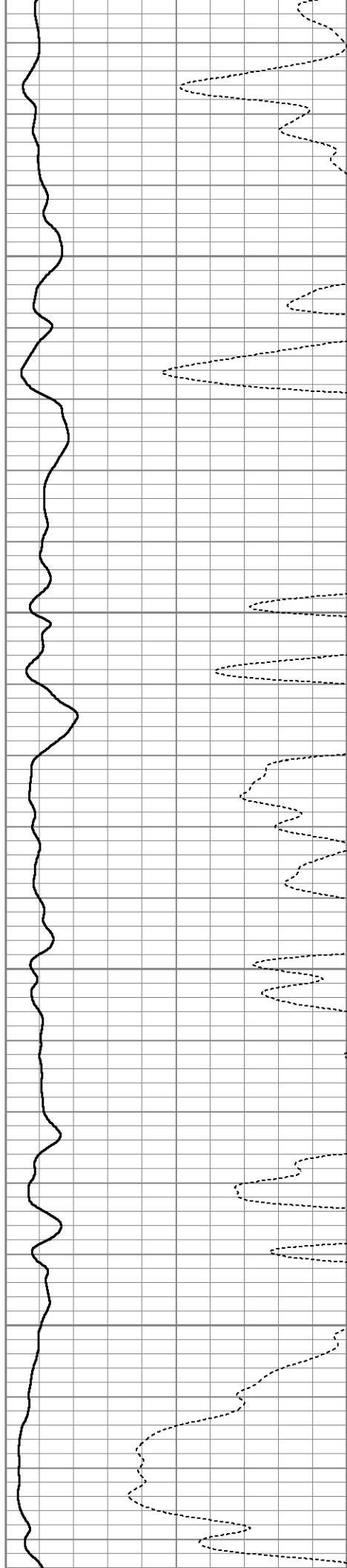


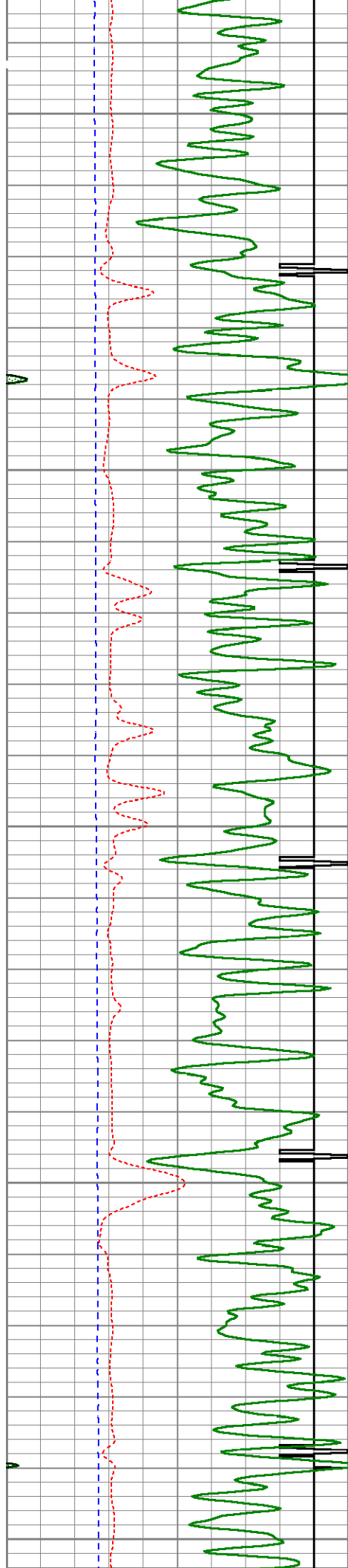
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2700

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2800





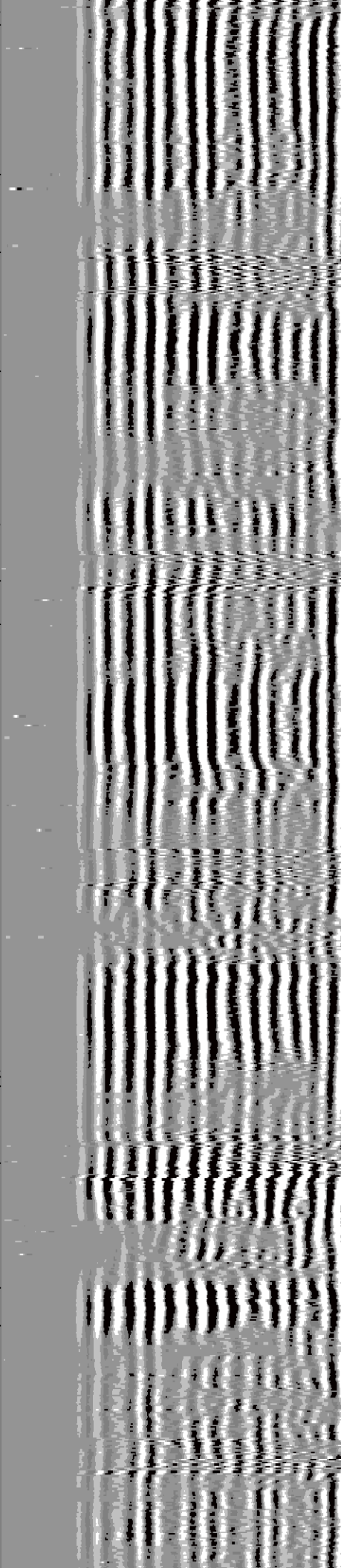
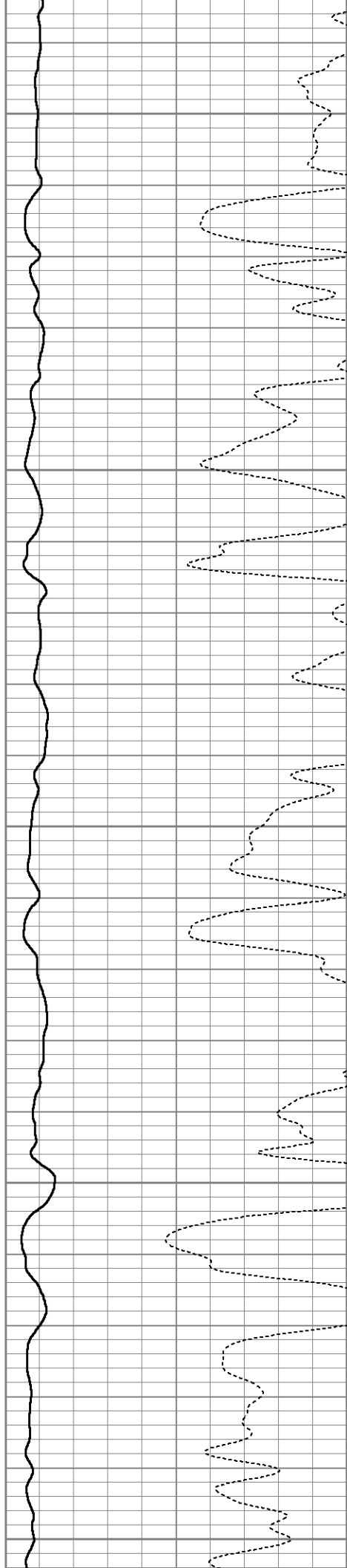
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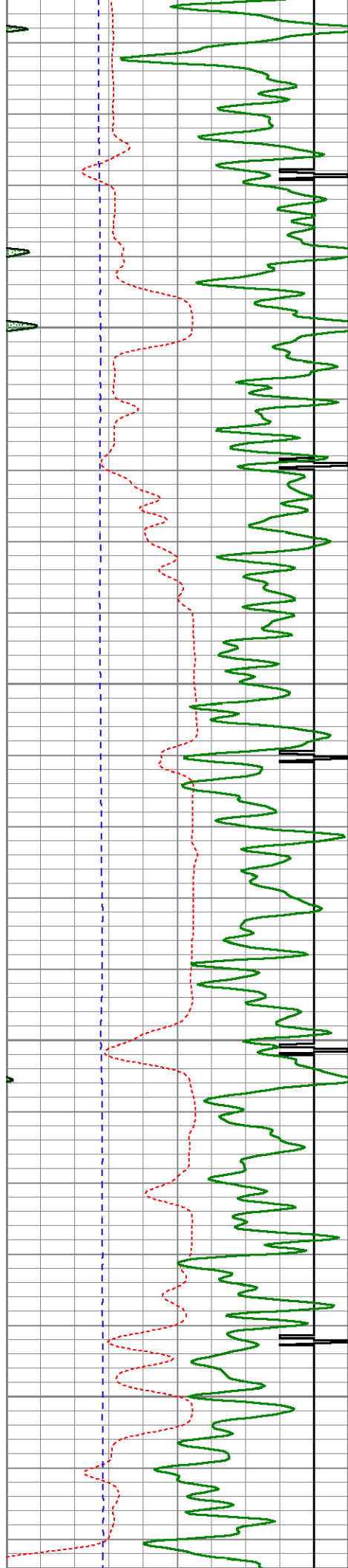
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3050



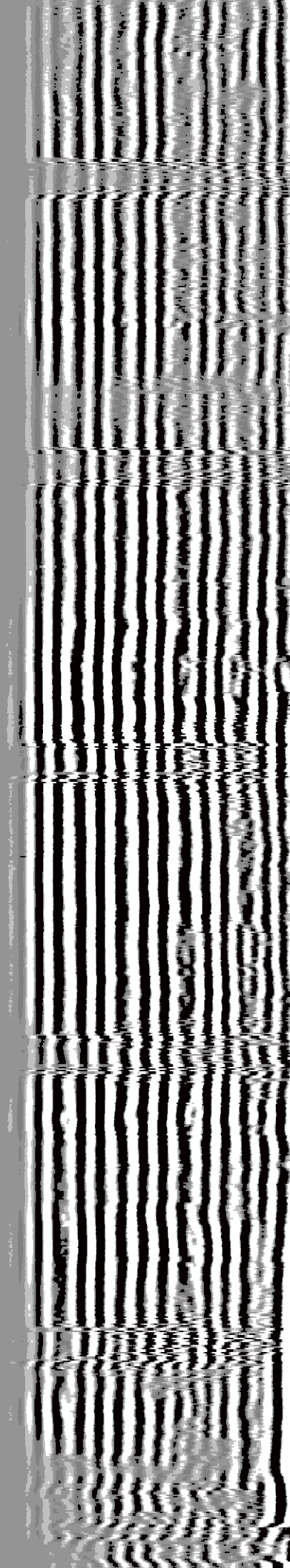
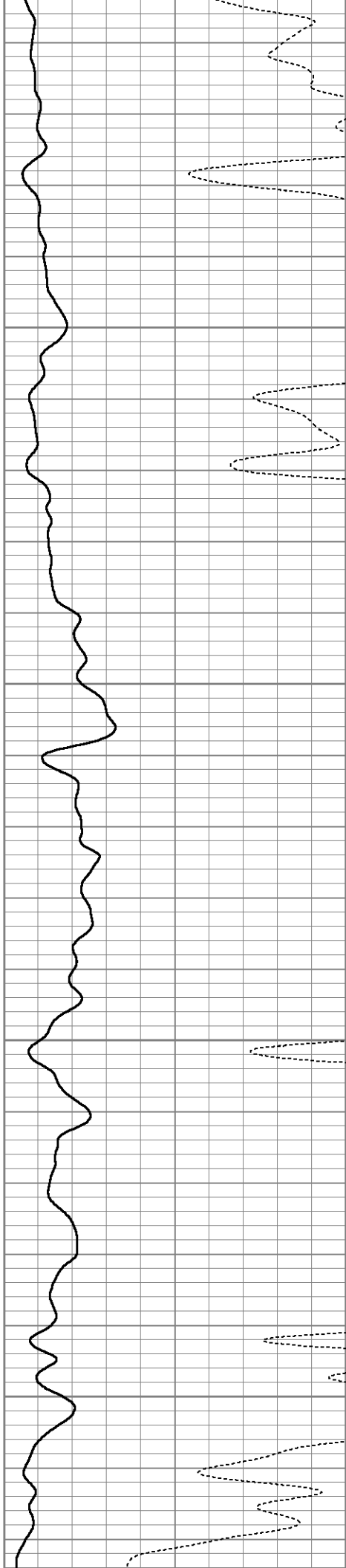


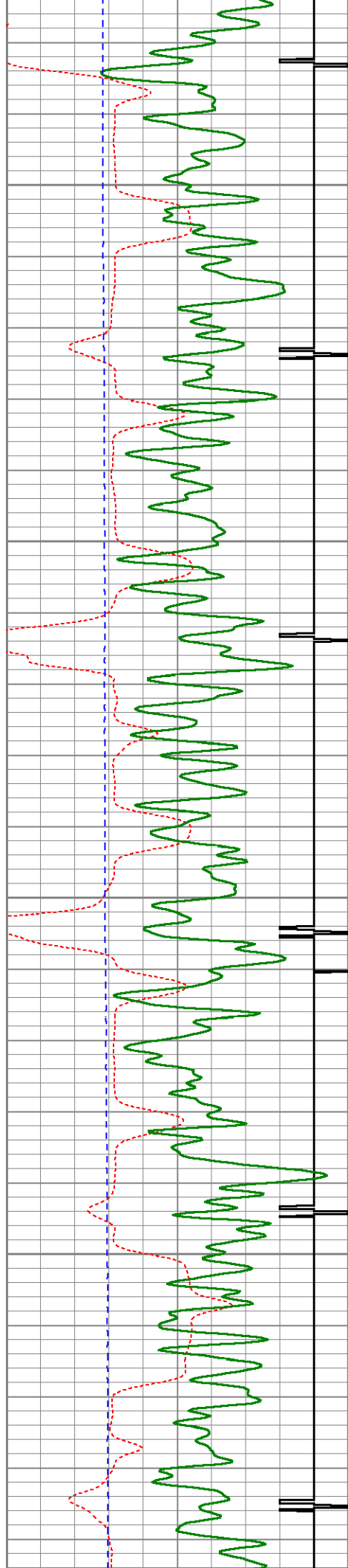
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3150

3200

3250



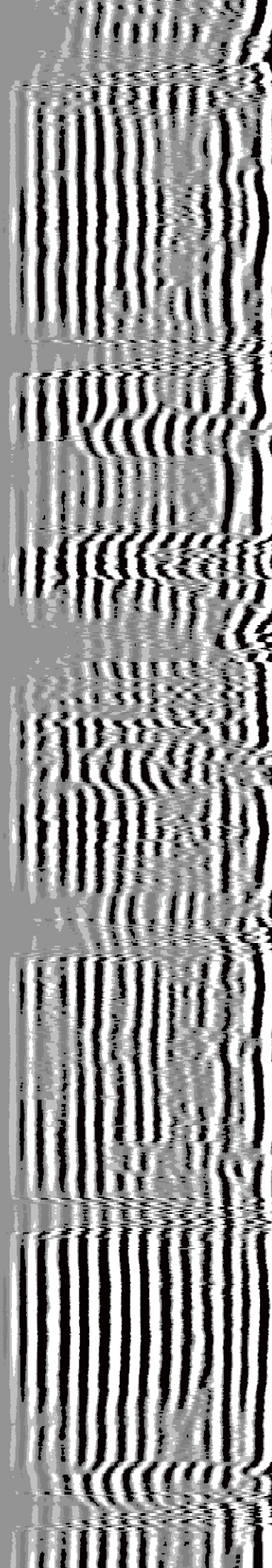
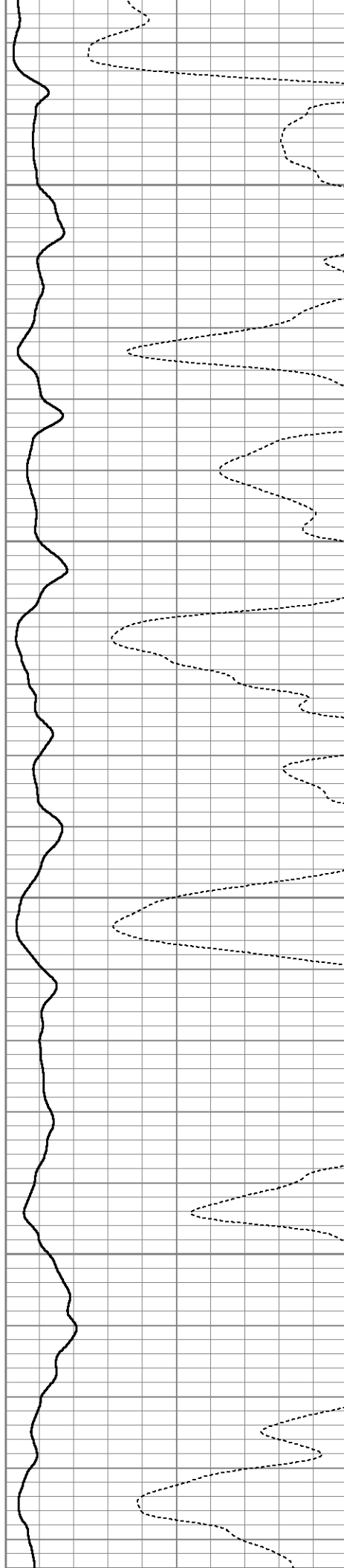


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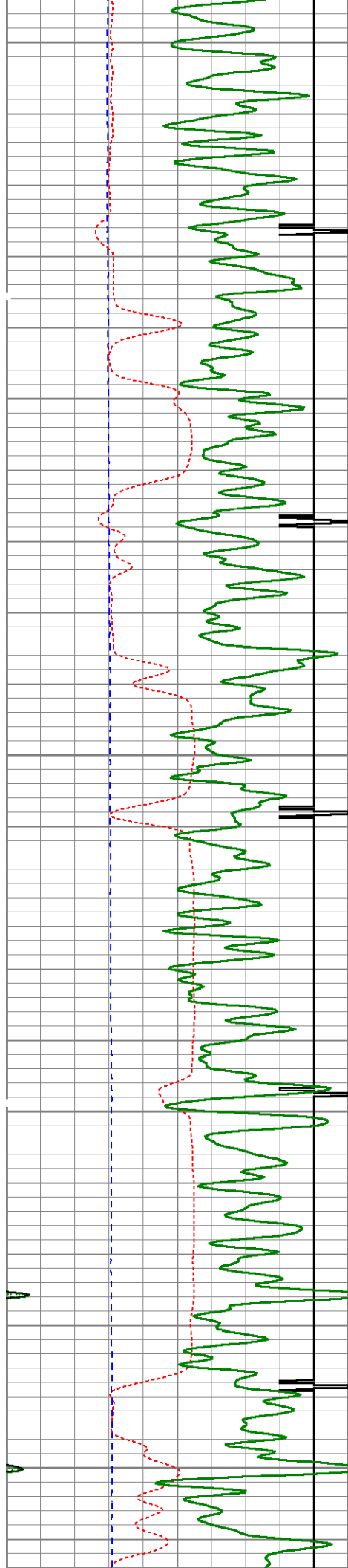
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3450







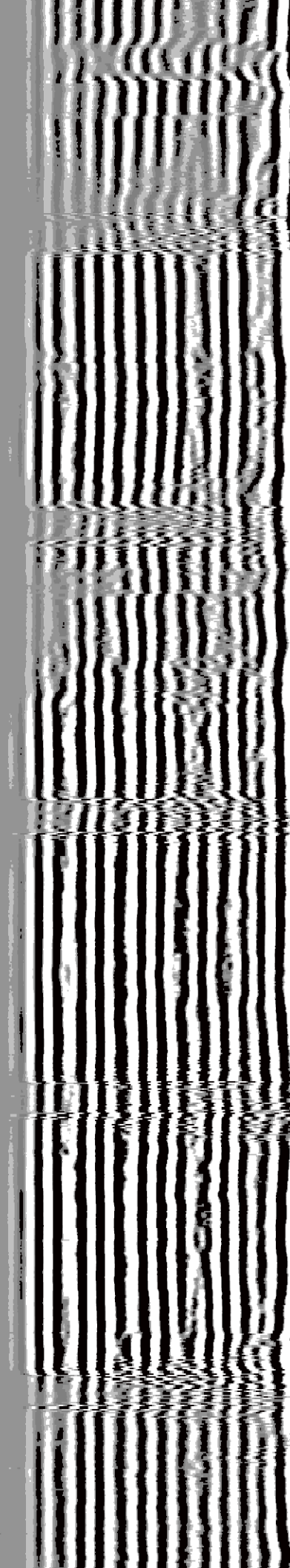
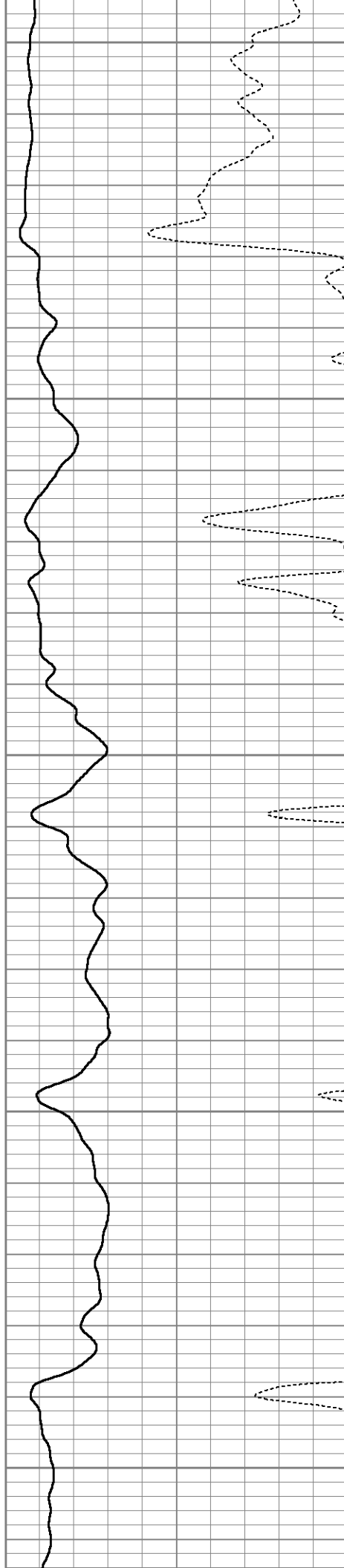
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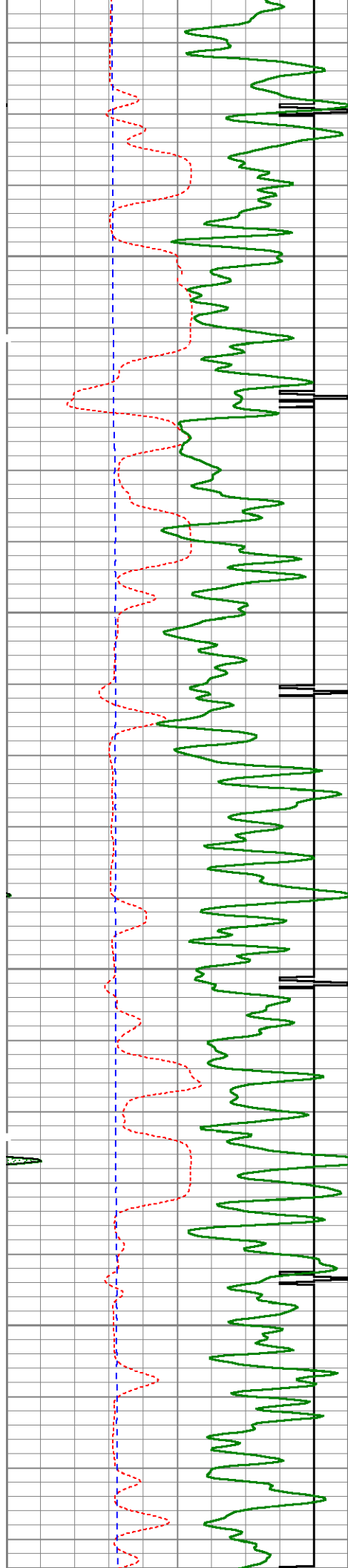
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3700





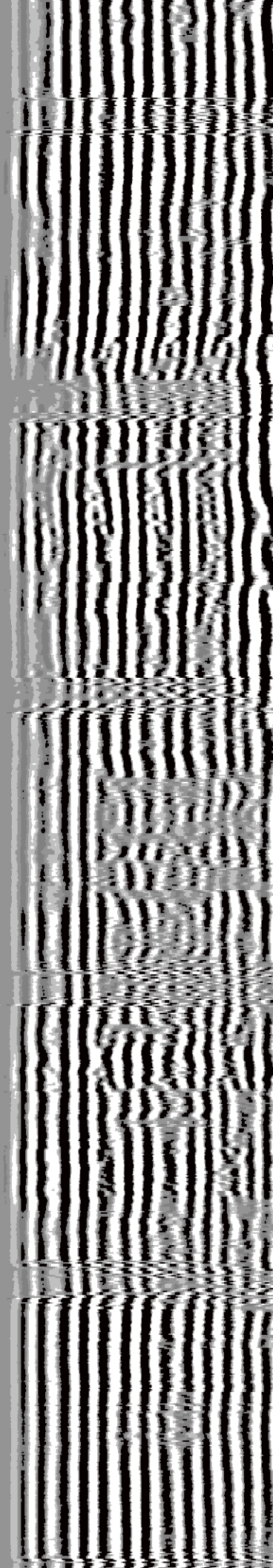
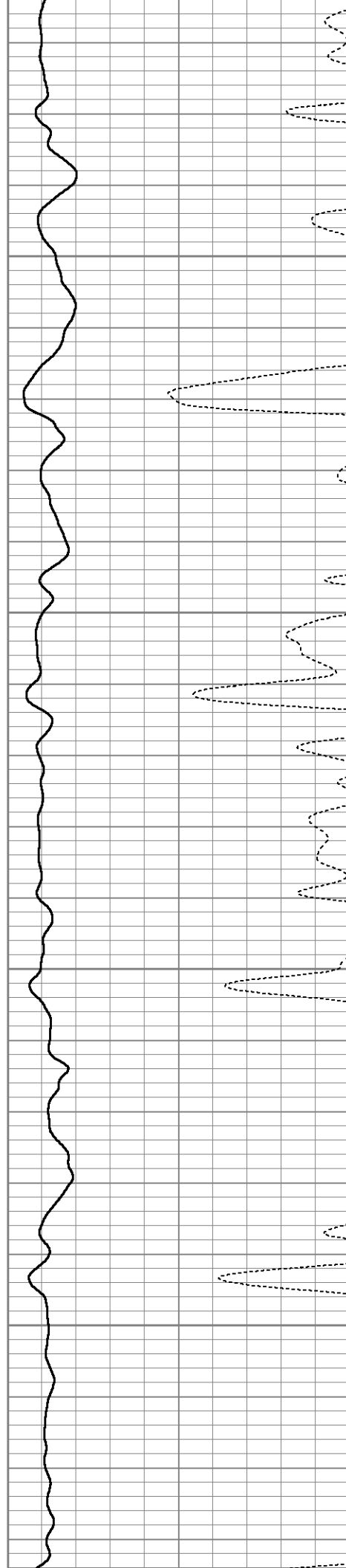


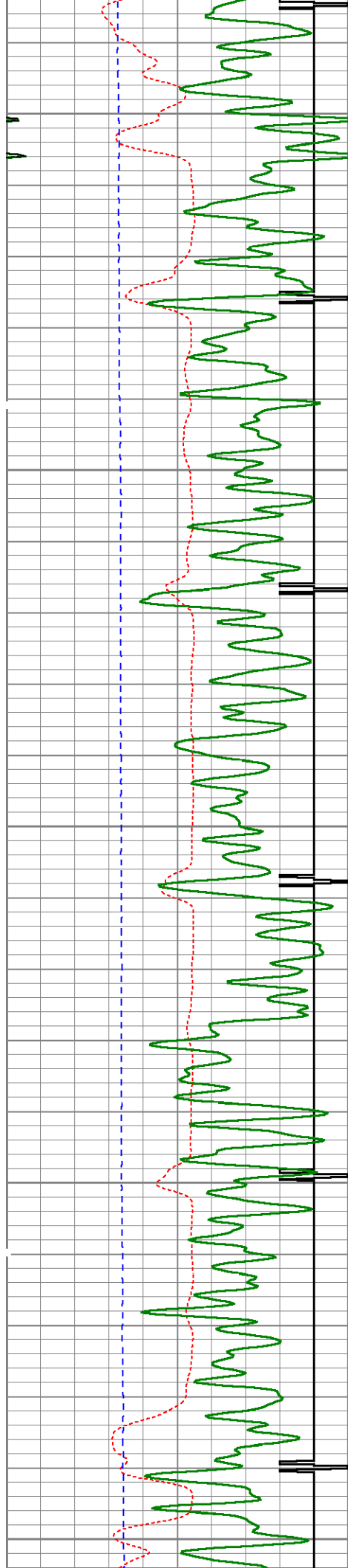
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3900





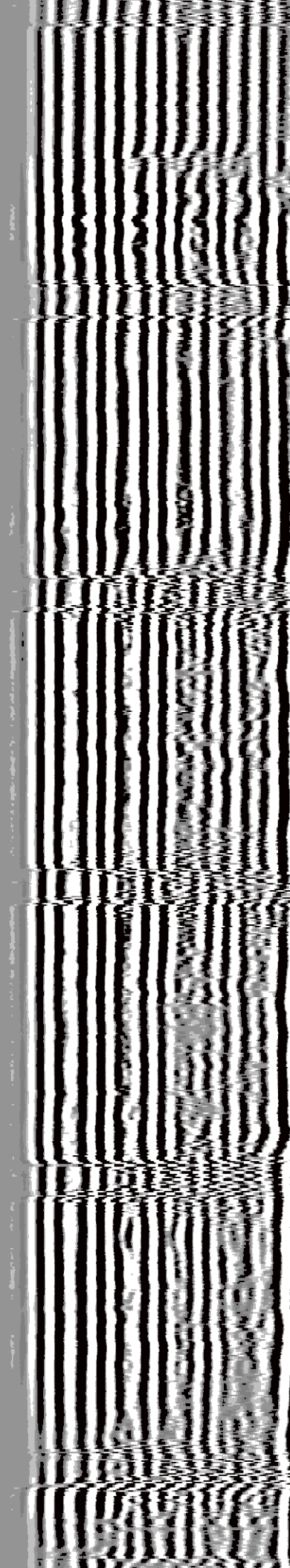
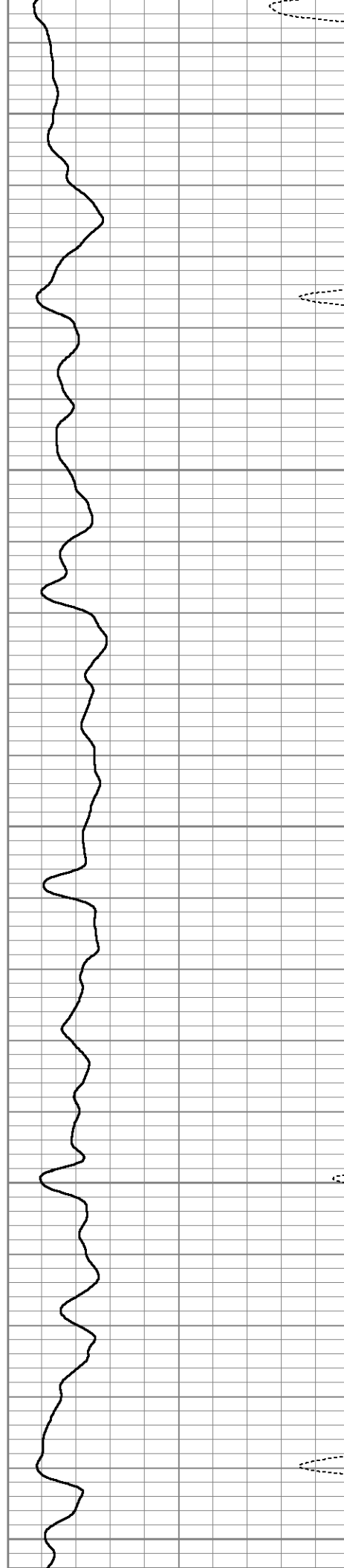
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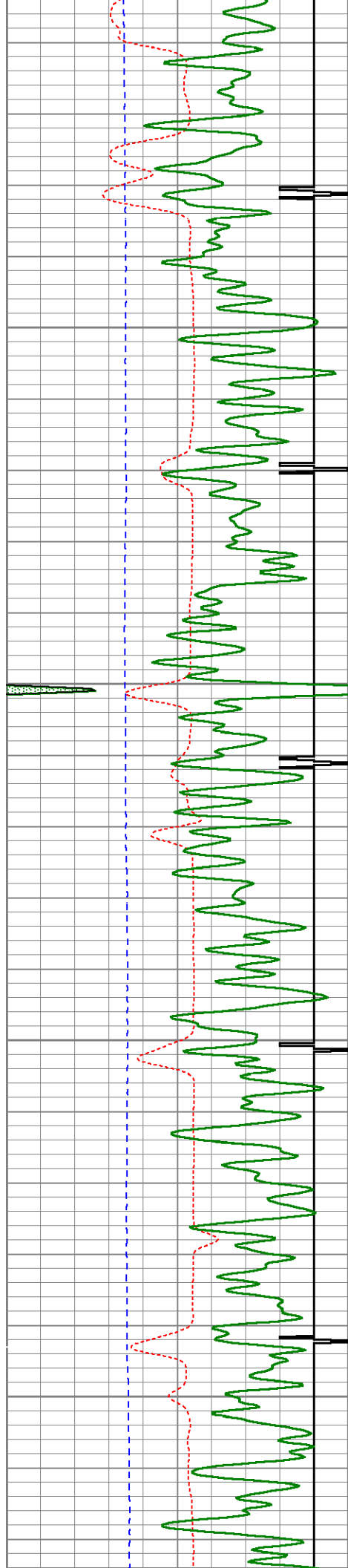
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4050

4100

4150



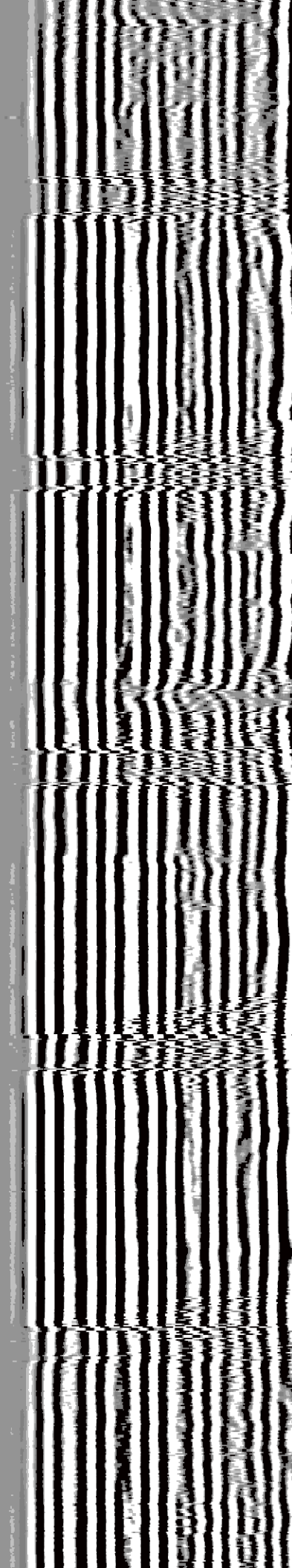
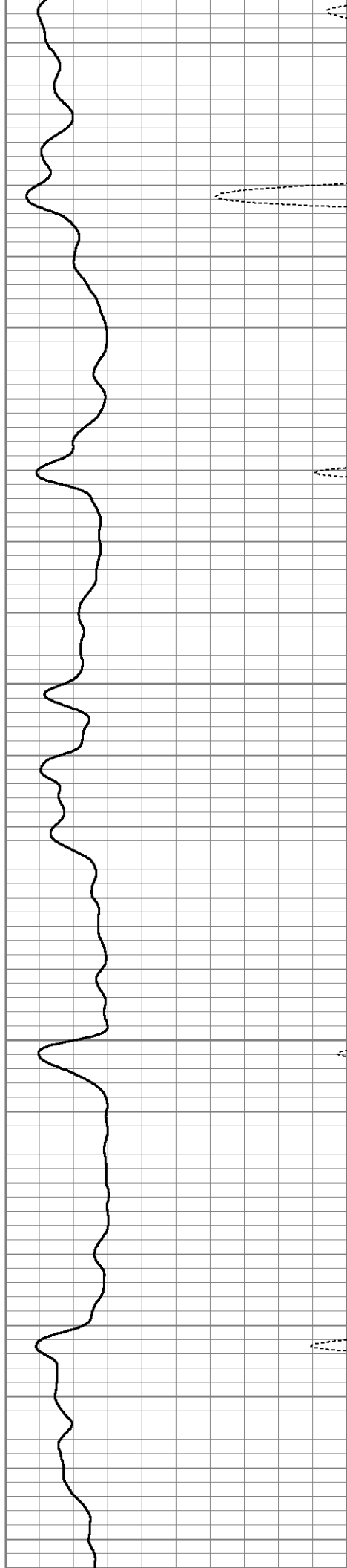


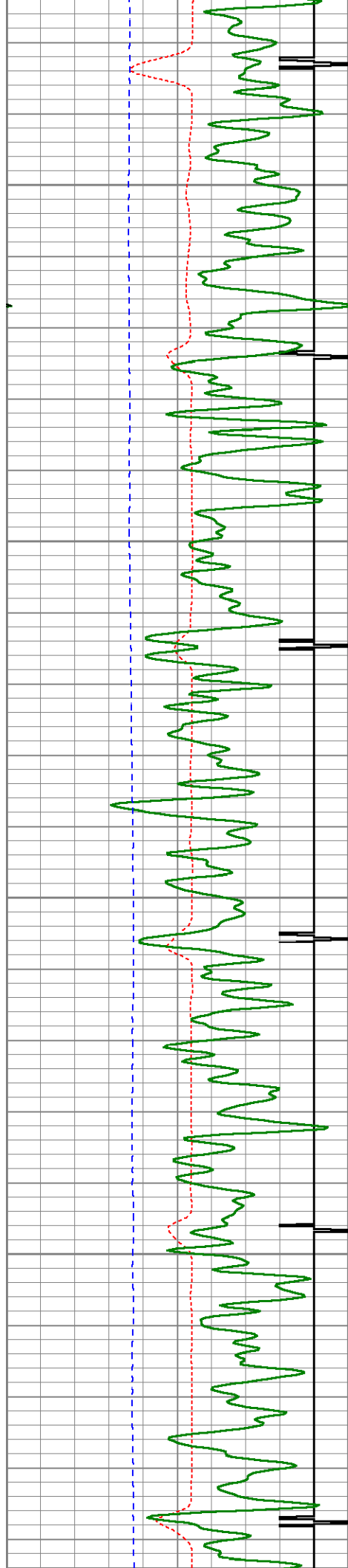
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4350



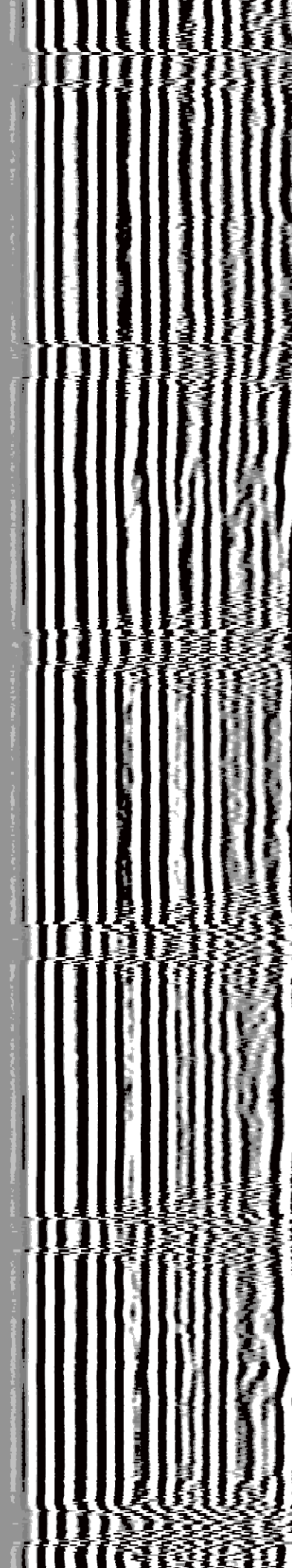
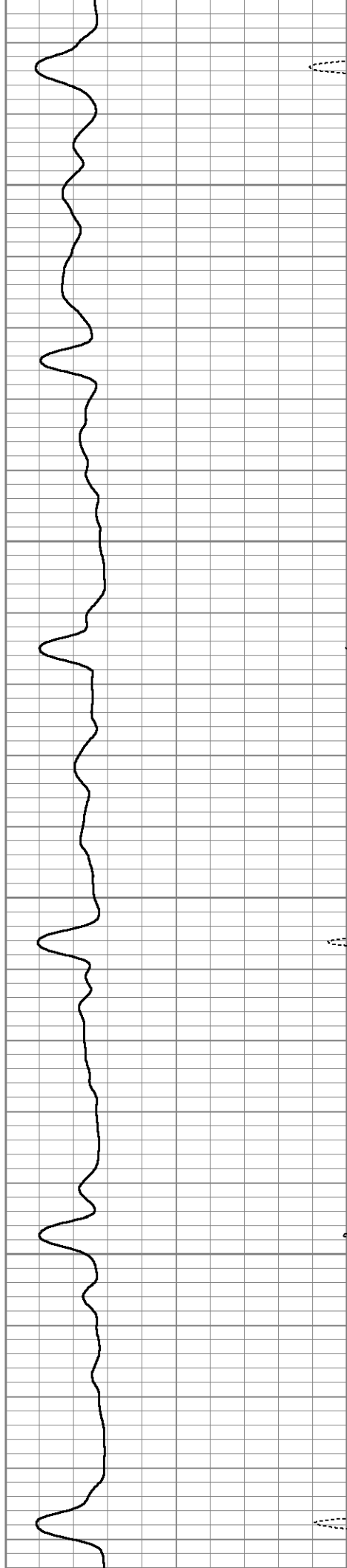


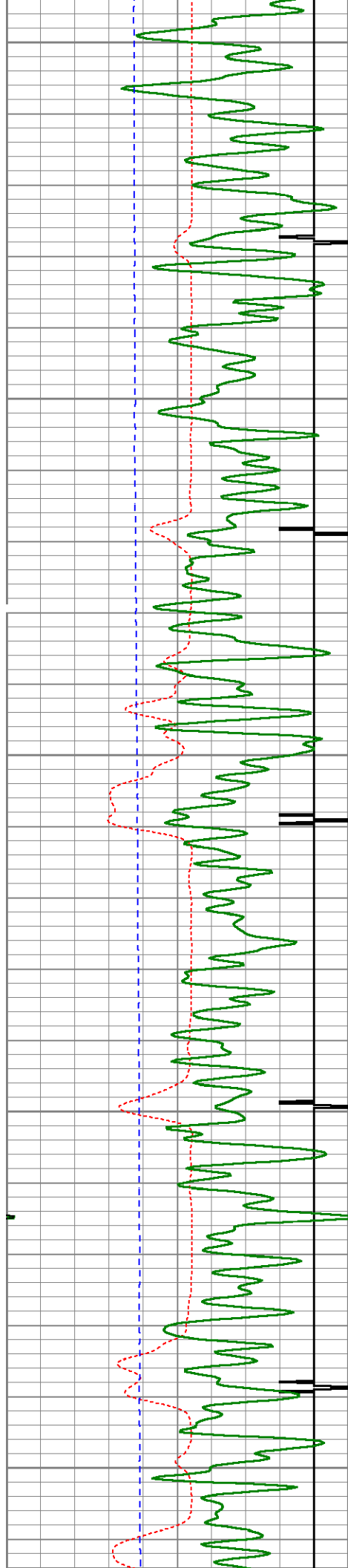
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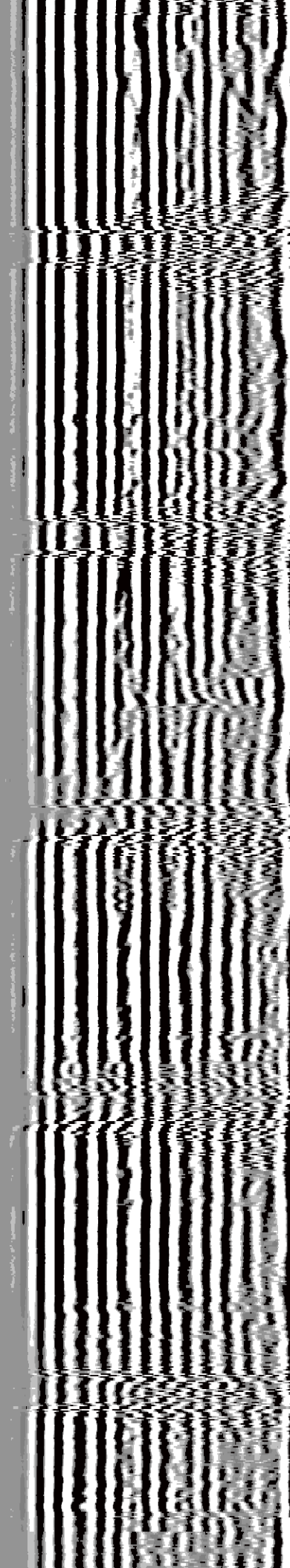
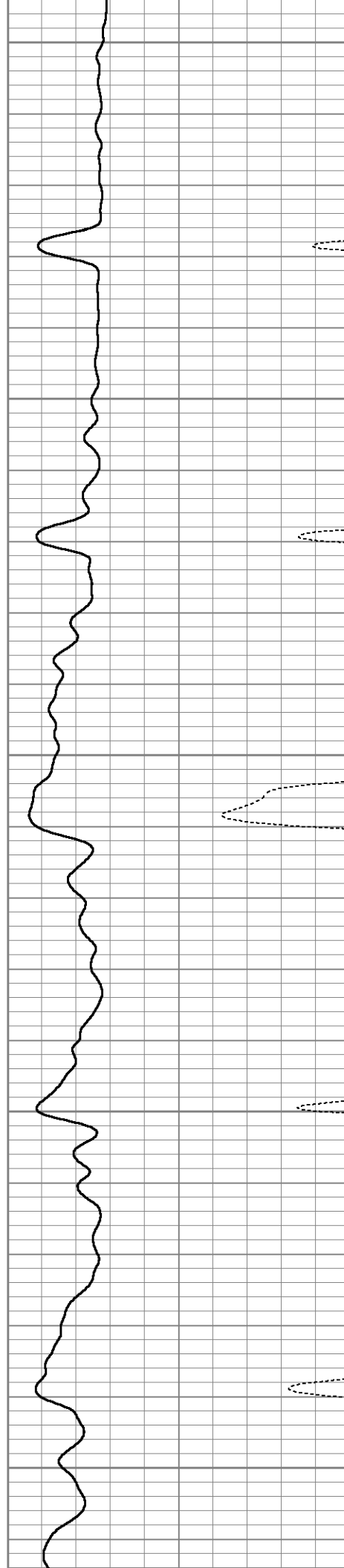
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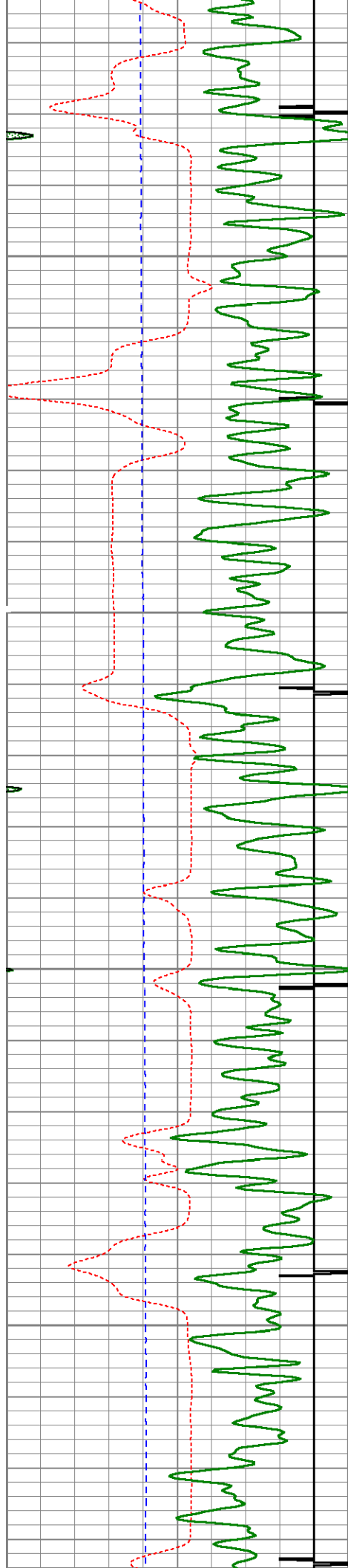
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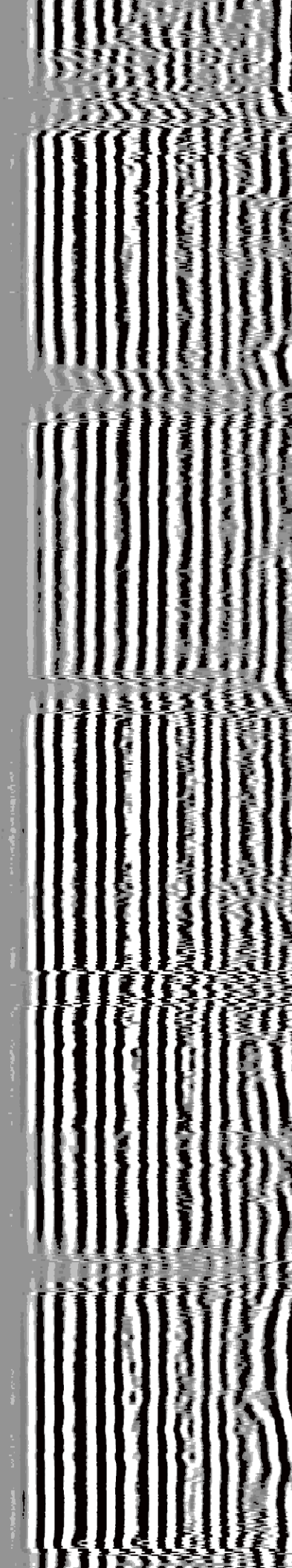
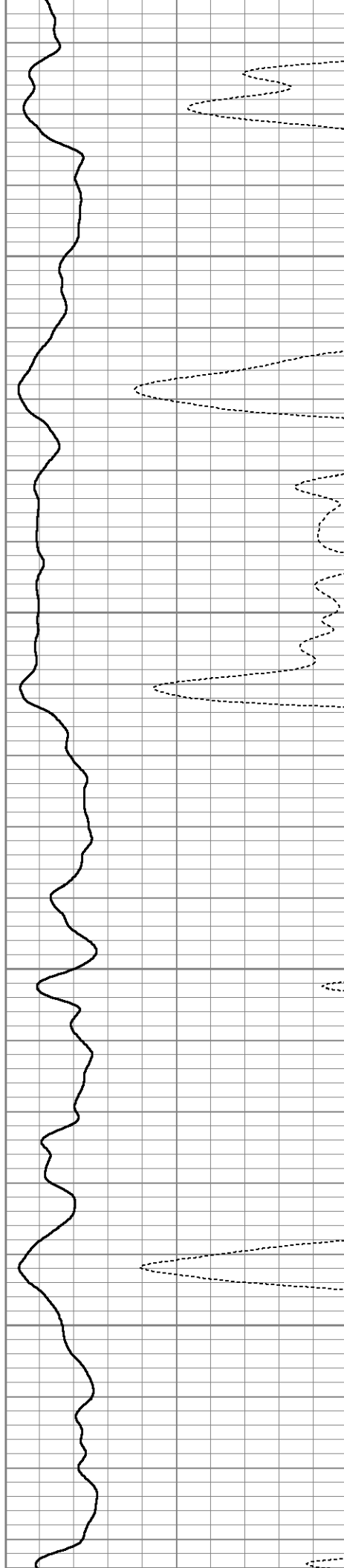


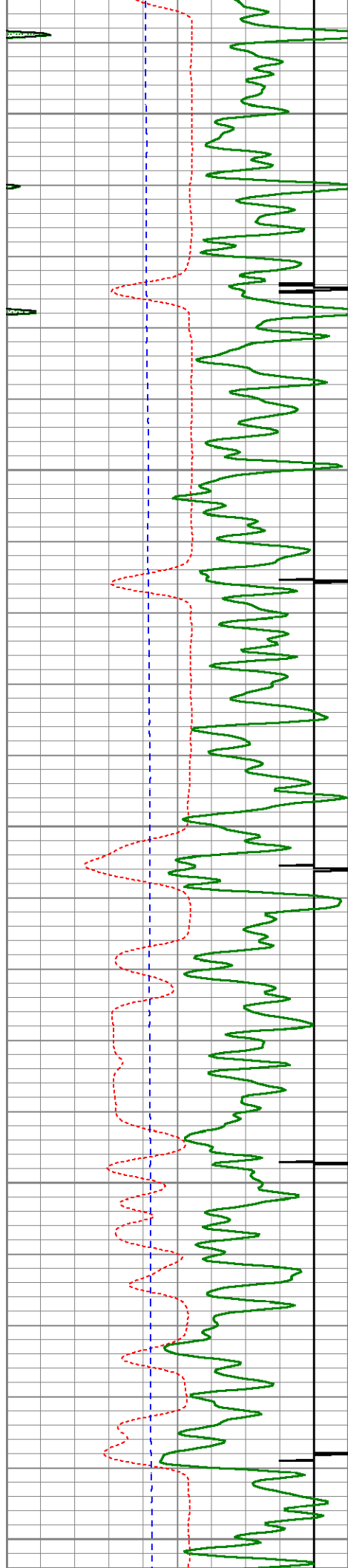
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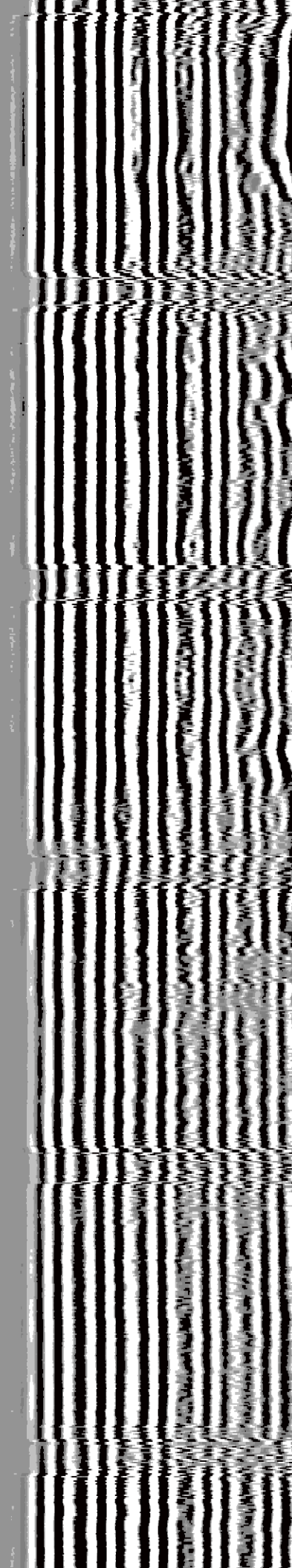
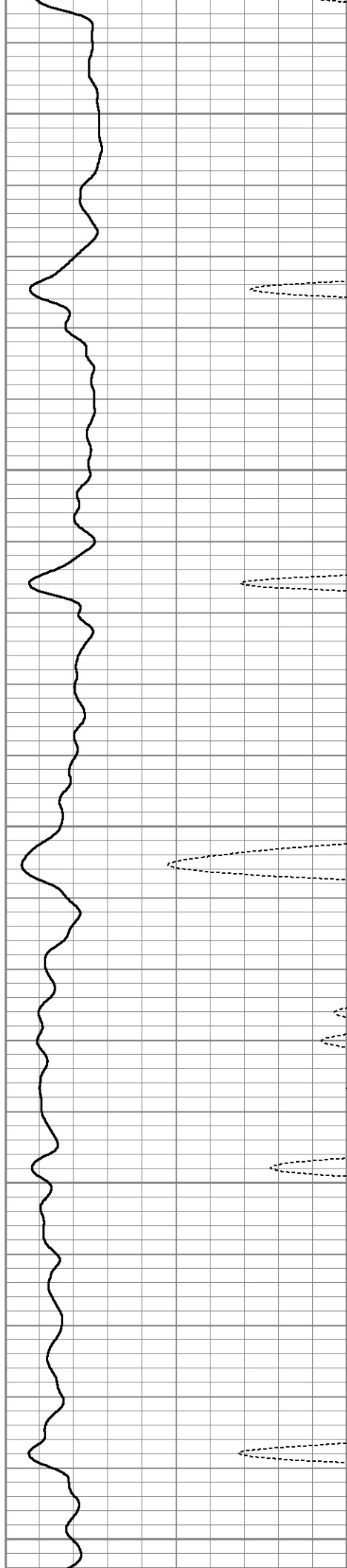
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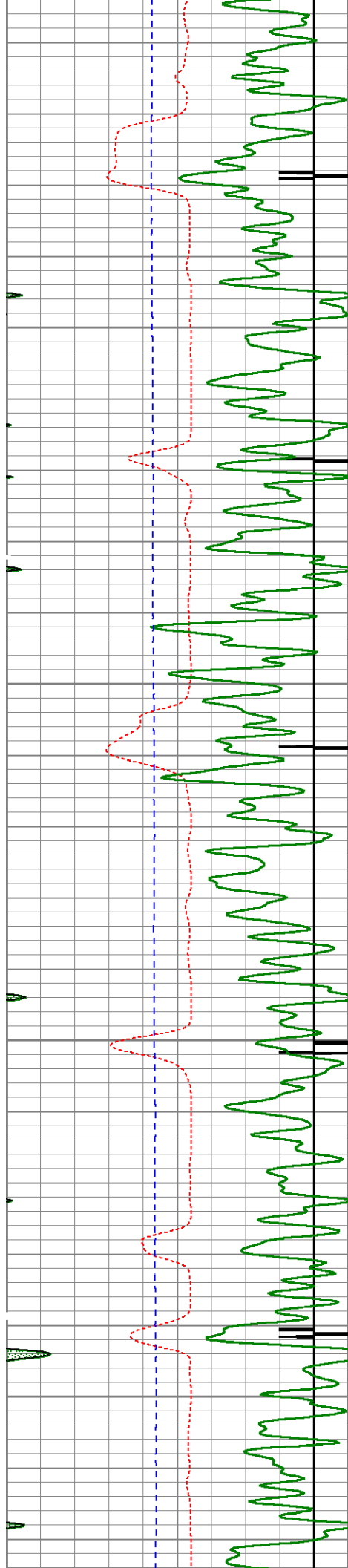
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5150

5200

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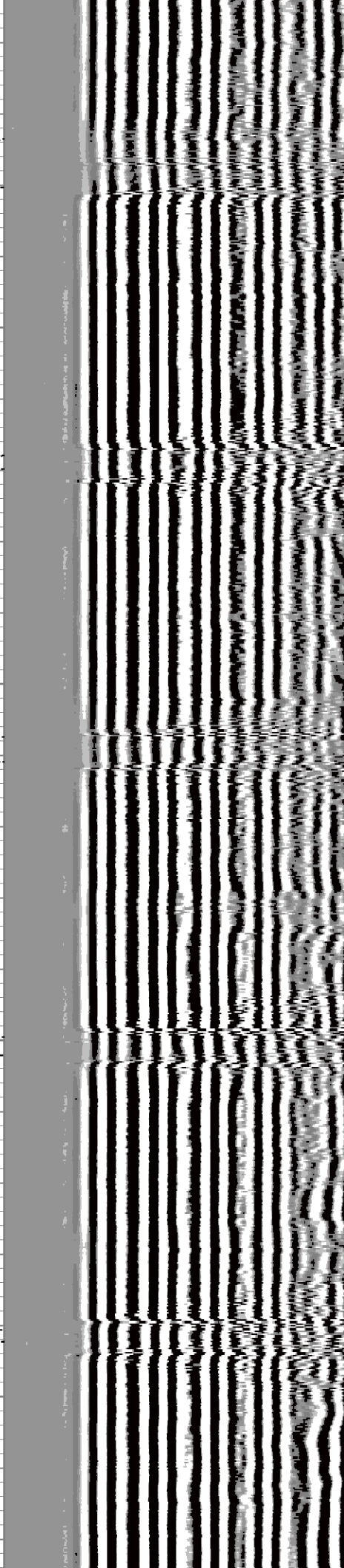
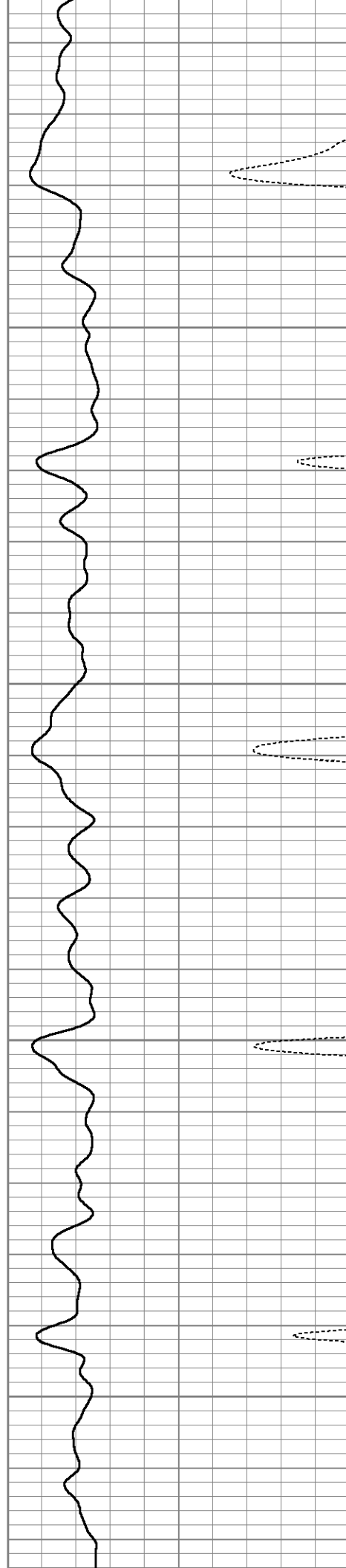


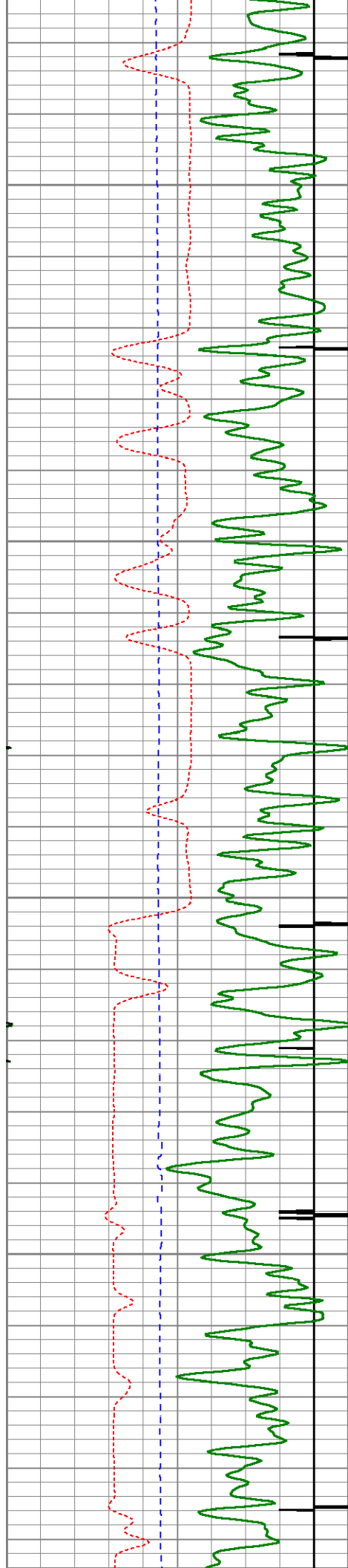
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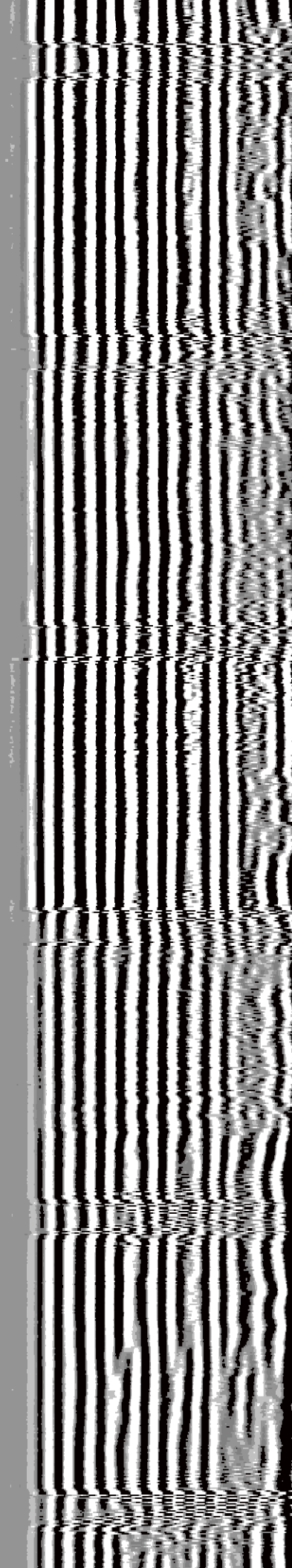
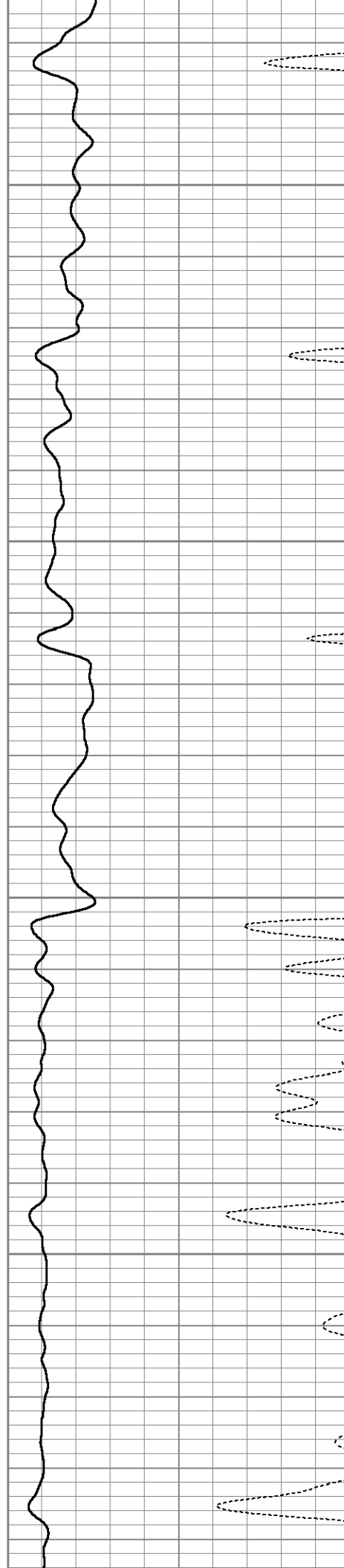


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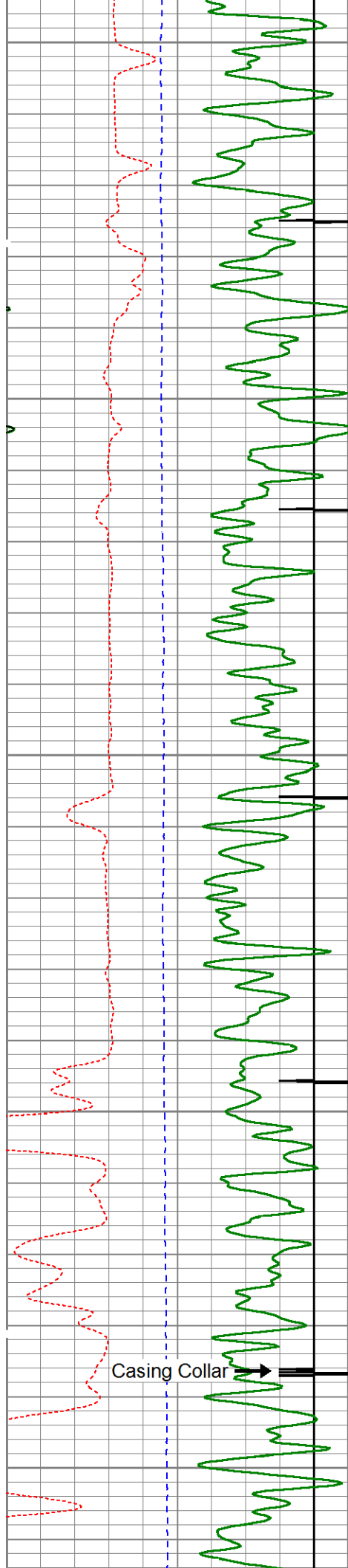
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5650







5700

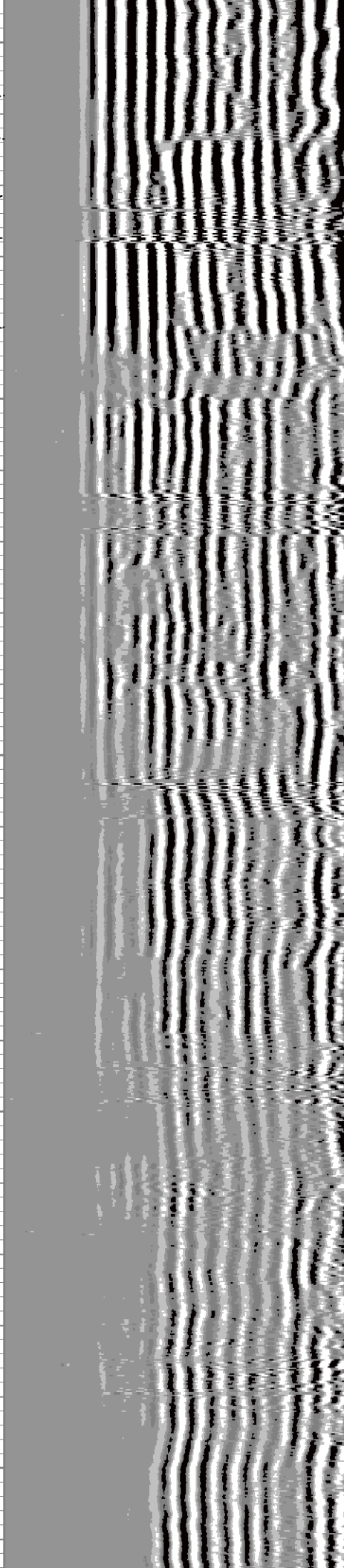
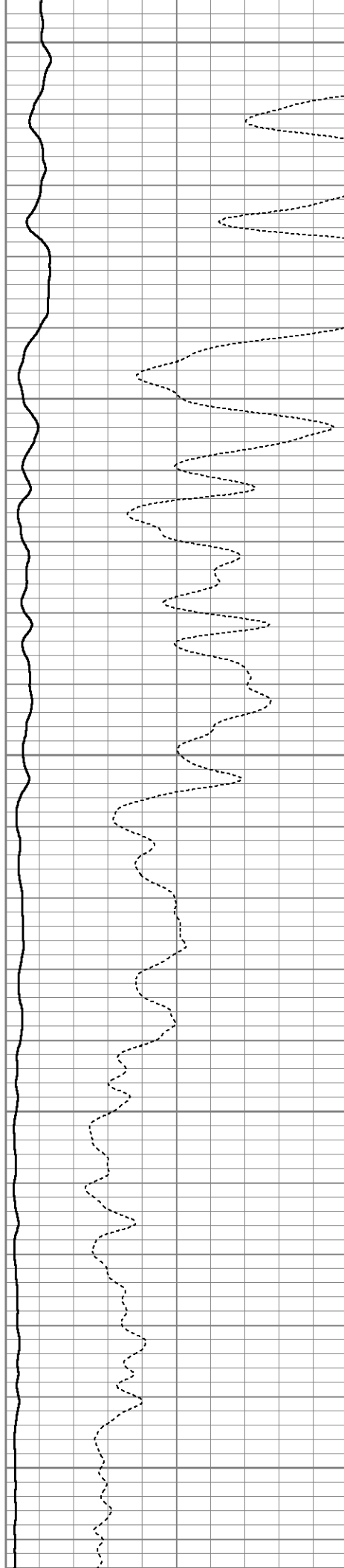
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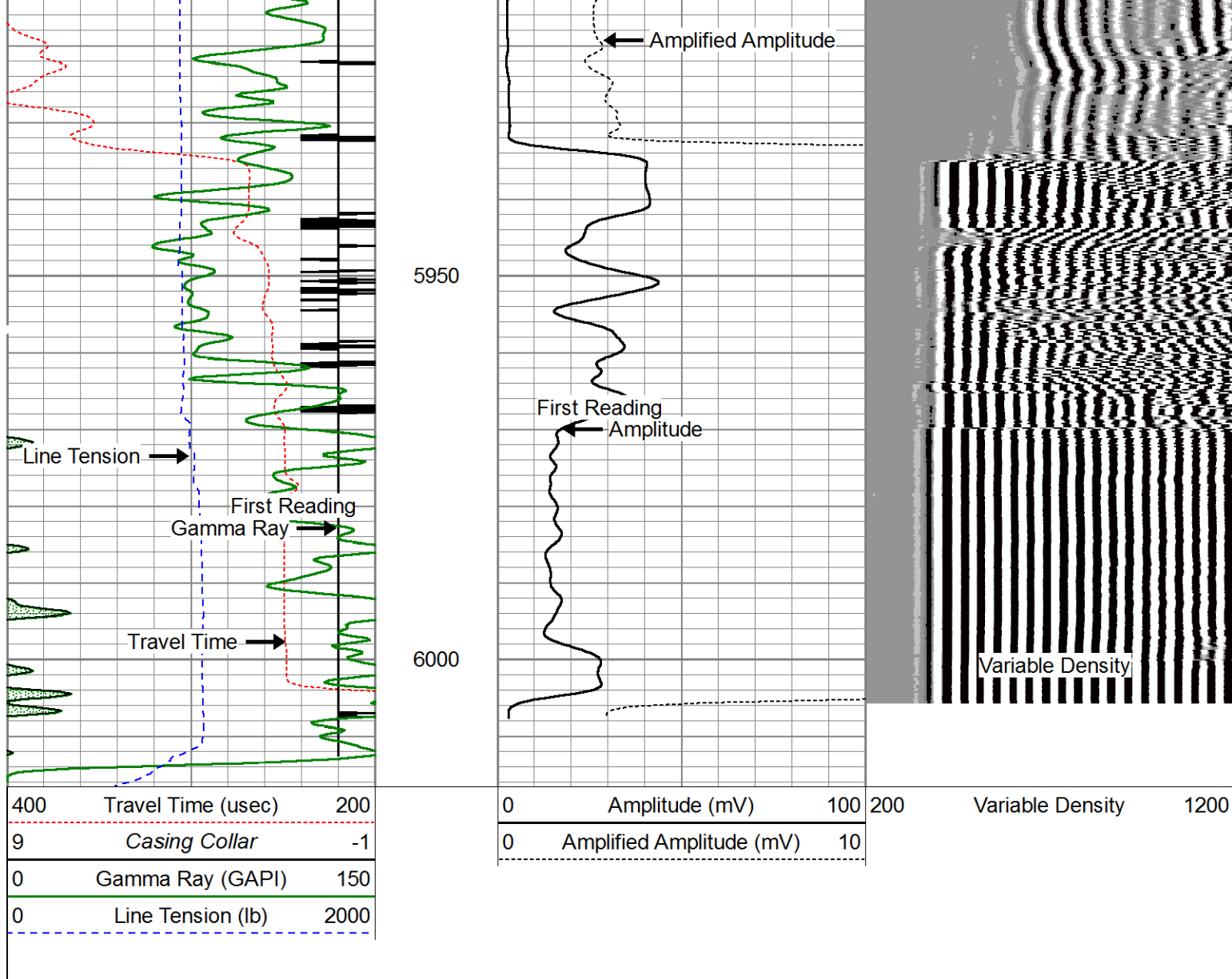
5850

5900

Casing Collar →

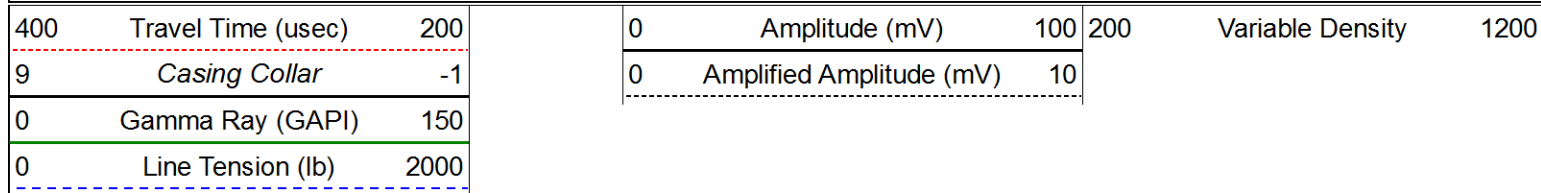


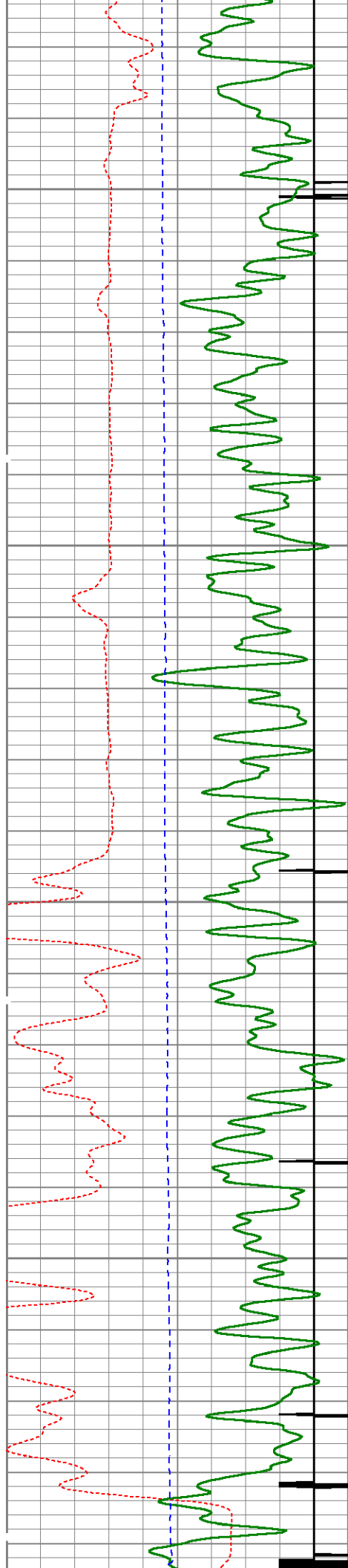




## Repeat Pass ( 0 PSI )

Database File: bonanza\_creek\_14402.db  
 Dataset Pathname: pass2  
 Presentation Format: cblprobe  
 Dataset Creation: Tue Feb 04 10:59:13 2014 by Log 0  
 Charted by: Depth in Feet scaled 1:240



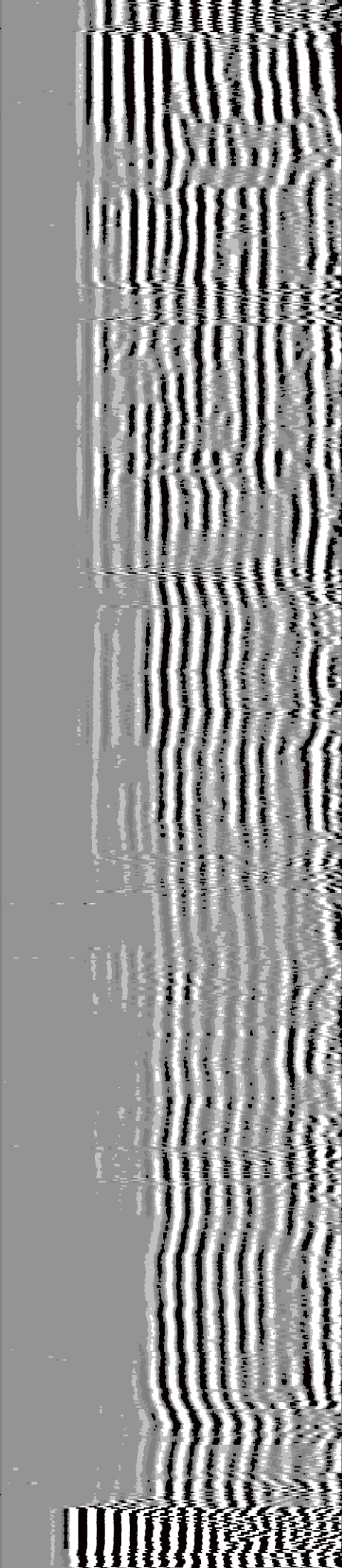
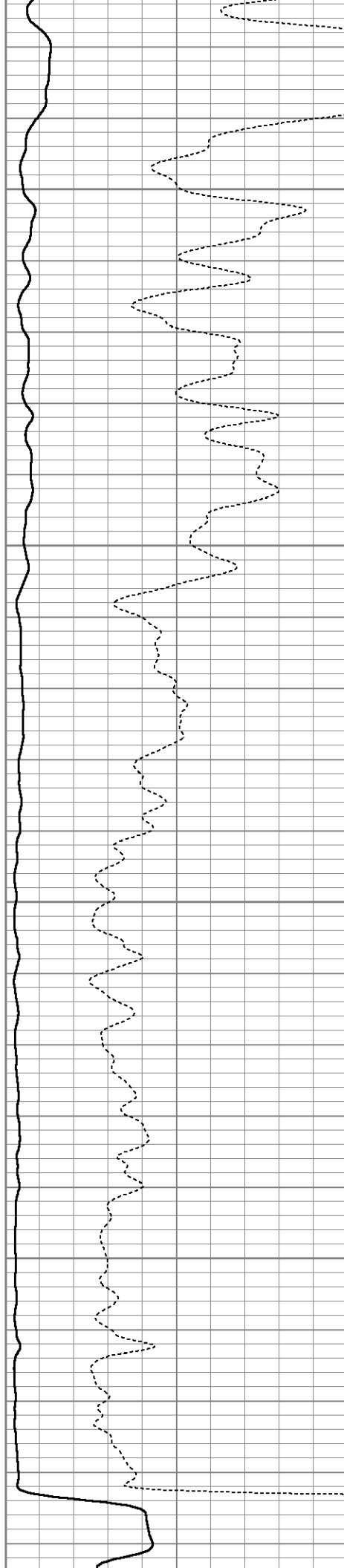


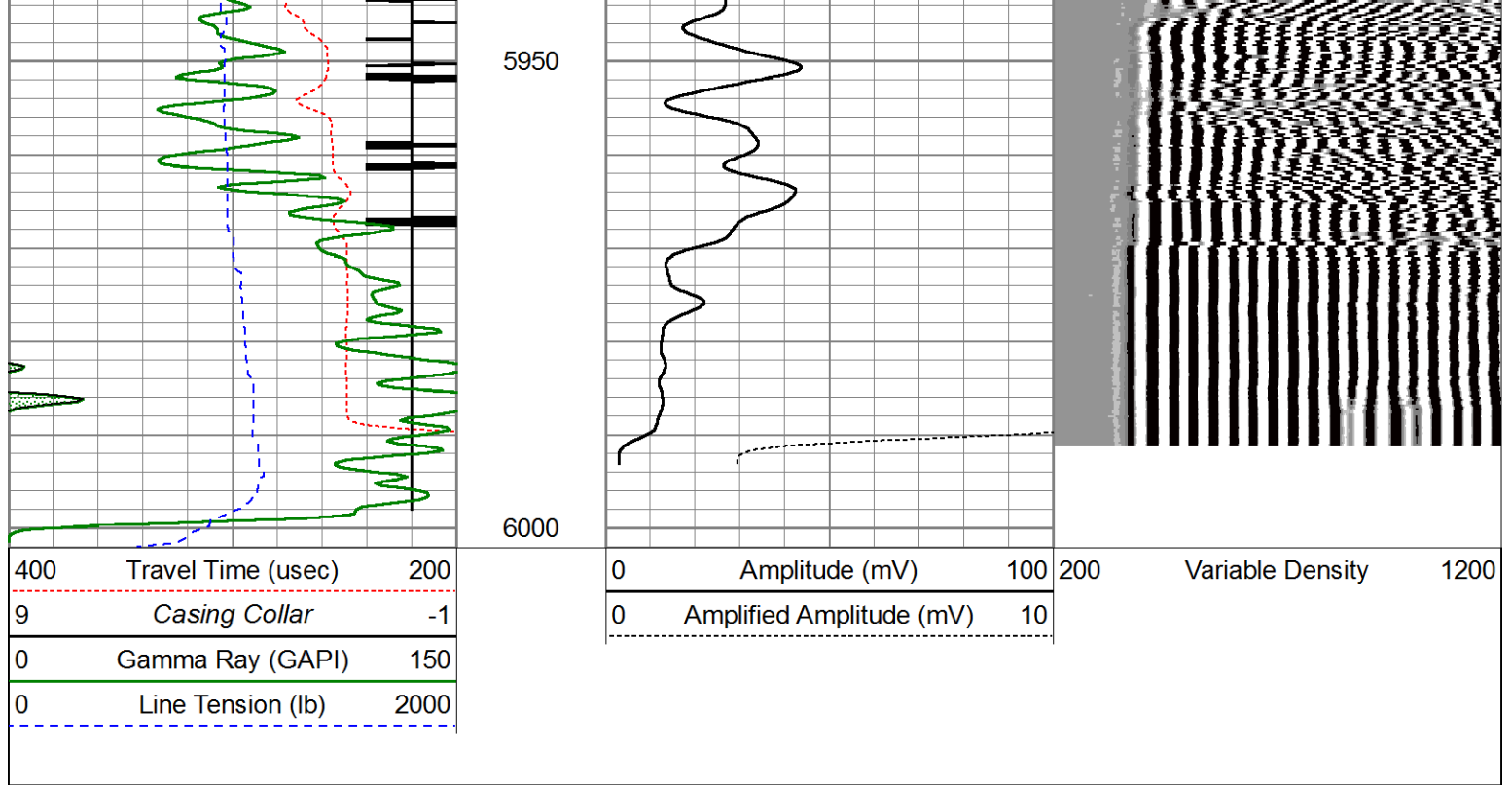
5750

5800

5850

5900





### Calibration Report

Database File: bonanza\_creek\_14402.db  
 Dataset Pathname: pass4  
 Dataset Creation: Tue Feb 04 11:05:37 2014 by Log 0

#### Gamma Ray Calibration Report

Serial Number: 111111  
 Tool Model: Probe275  
 Performed: Sun Jun 13 13:33:21 1993

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
 Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

#### Temperature Calibration Report

Serial Number: 111111  
 Tool Model: Probe275  
 Performed: Sun Jun 13 13:33:21 1993

	Reference	Reading
Low Reference:	0.00 degF	0.00 cps
High Reference:	1.00 degF	1.00 cps

Gain: 1.00  
 Offset: 0.00  
 Delta Spacing: 2

#### Segmented Cement Bond Log Calibration Report

Serial Number: 101224  
 Tool Model: Probe

Calibration Casing Diameter: 5.500 in  
 Calibration Depth: 215.980 ft

Master Calibration, performed Tue Feb 04 07:58:15 2014:

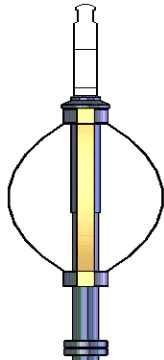
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.020	0.714	1.000	71.921	96.557	2.952
CAL	-0.019	0.837				
5'	-0.014	0.650	1.000	71.921	106.671	2.542
SUM						
S1	0.047	0.770	0.000	100.000	138.339	-6.527
S2	-0.025	0.705	0.000	100.000	136.997	3.408
S3	-0.020	0.720	0.000	100.000	135.155	2.724
S4	-0.021	0.726	0.000	100.000	133.817	2.855
S5	-0.021	0.719	0.000	100.000	135.224	2.814
S6	-0.021	0.709	0.000	100.000	136.919	2.861
S7	-0.021	0.707	0.000	100.000	137.323	2.860
S8	-0.020	0.714	0.000	100.000	136.175	2.753

Internal Reference Calibration, performed Mon Oct 10 09:42:03 2005:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.019	0.837	1.000	0.000

Air Zero Calibration, performed Sun Oct 27 20:29:00 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.000		0.000		0.000	
5'	0.000		0.000		0.000	
SUM						
S1	0.000		0.000		0.000	
S2	0.000		0.000		0.000	
S3	0.000		0.000		0.000	
S4	0.000		0.000		0.000	
S5	0.000		0.000		0.000	
S6	0.000		0.000		0.000	
S7	0.000		0.000		0.000	
S8	0.000		0.000		0.000	

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			Titan Cable_head	1.00	1.44	10.00
			Probe275 2.75" Centralizer	2.88	2.75	20.00

Tool Name	Start Depth (ft)	End Depth (ft)	Tool Length (ft)	Tool Weight (lb)	Tool O.D. (in)
WVF3FT	11.84	11.84			
WVFCAL	11.84	11.84			
WVFS1	11.84	11.84			
WVFS2	11.84	11.84			
WVFS3	11.84	11.84			
WVFS4	11.84	11.84			
WVFS5	11.84	11.84			
WVFS6	11.84	11.84			
WVFS7	11.84	11.84			
WVFS8	11.84	11.84			
WVF5FT	10.84	11.84	1.00		
CCL	3.88	3.88			
TEMP	3.00	3.00			
GR	2.54	2.54			
RBT-Probe (101224)	8.75	11.50	2.75	90.00	
Probe275	2.88	5.63	2.75	20.00	
GR-Probe275 (111111)	4.78	7.53	2.75	57.00	
Dataset: bonanza_creek_14402.db: field/well/run1/pass4 Total Length: 20.28 ft Total Weight: 197.00 lb O.D.: 2.75 in					