



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

Company Bonanza Creek
Well Pronghorn K-5-8XRLNB
Field Wattenberg
County Weld
State Colorado

Location: API # : 05-123-40087

SHL: 200' FNL & 2291' FEL

Other Services
NONE

SEC 5 TWP 5N RGE 61W

Elevation

Permanent Datum Ground Level Elevation 4658'
Log Measured From Kelly Bushing 17' APD
Drilling Measured From Kelly Bushing

K.B. 4675'
D.F. 4674'
G.L. 4658'

Date October 5, 2014

Run Number One

Depth Driller -

Depth Logger 6347'

Bottom Logged Interval 6334'

Top Log Interval Surface

Open Hole Size 8.75"

Type Fluid Fresh Water

Density / Viscosity 8.33

Max. Recorded Temp. -

Estimated Cement Top 2065'

Time Well Ready 8:22

Time Logger on Bottom 8:46

Equipment Number 2633

Location Brighton

Recorded By C. Rall

Witnessed By K. Dodge

Run Number

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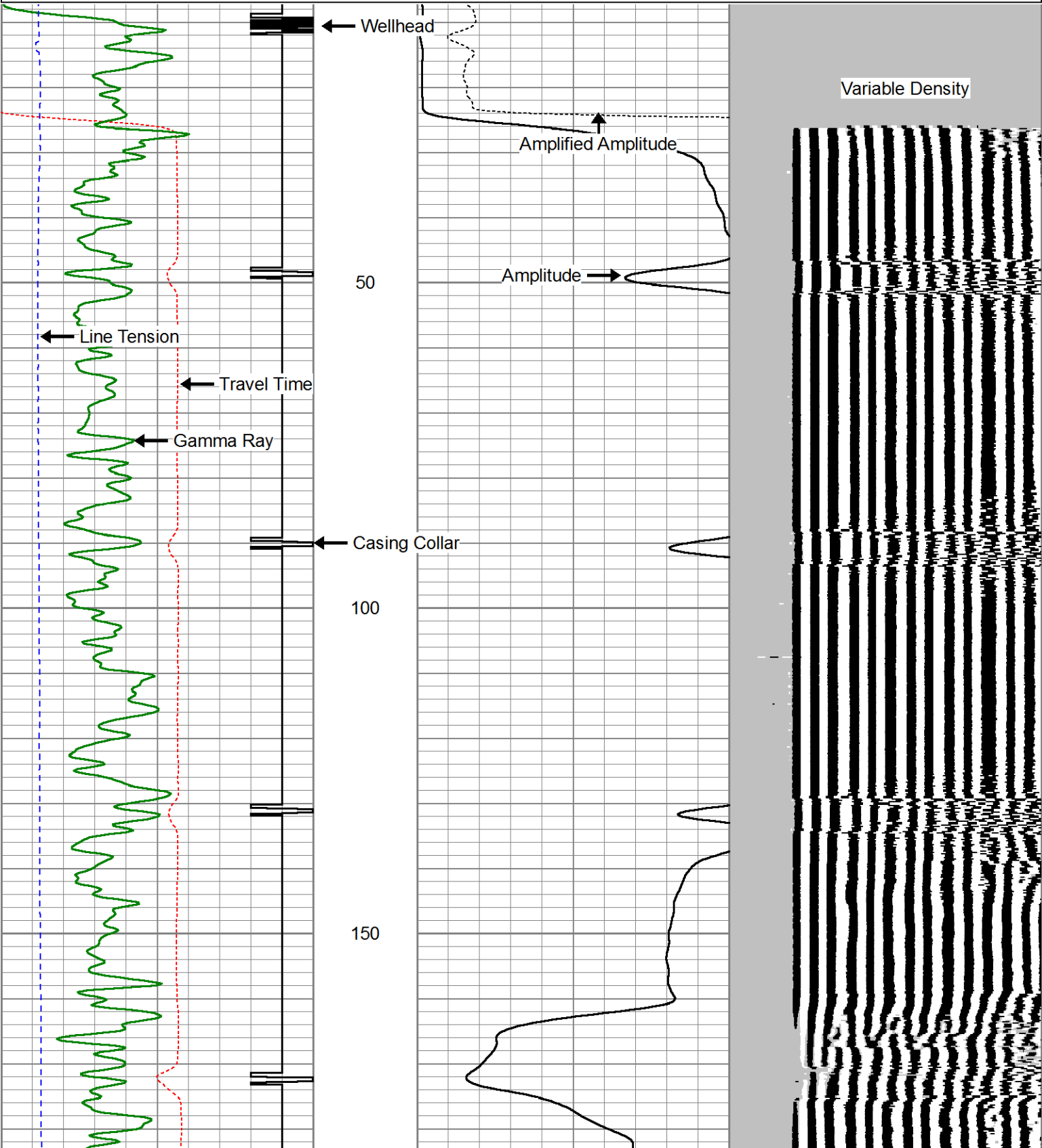
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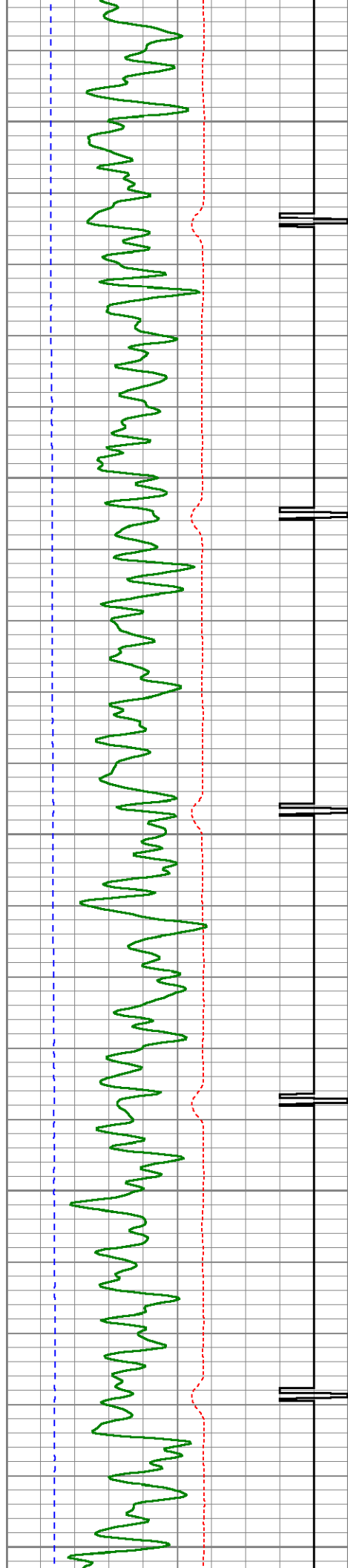
From

To

Size

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						





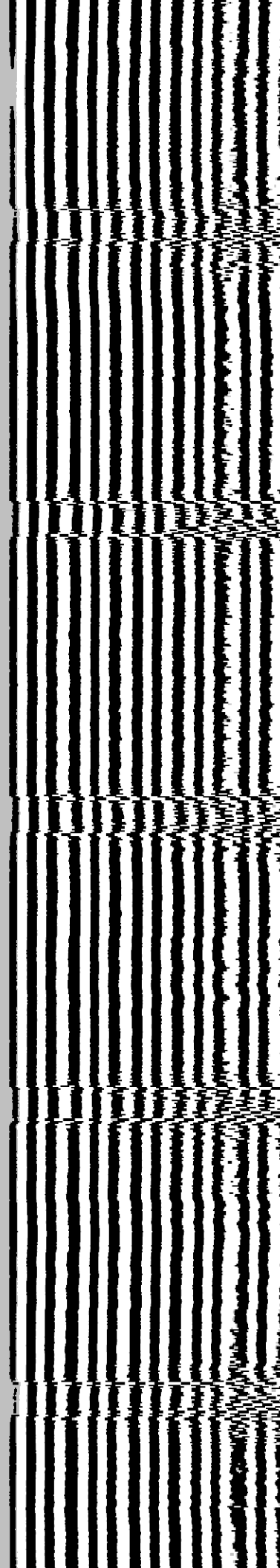
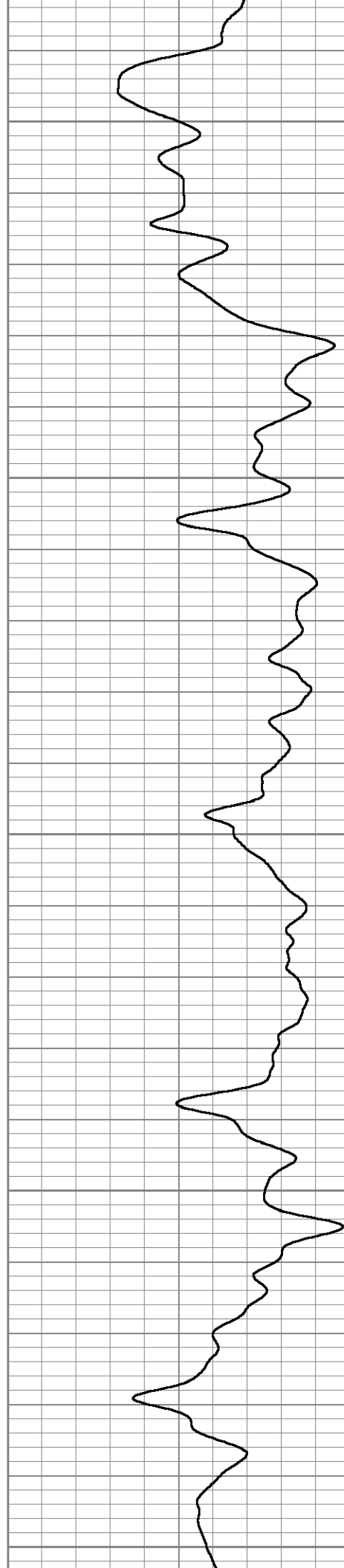
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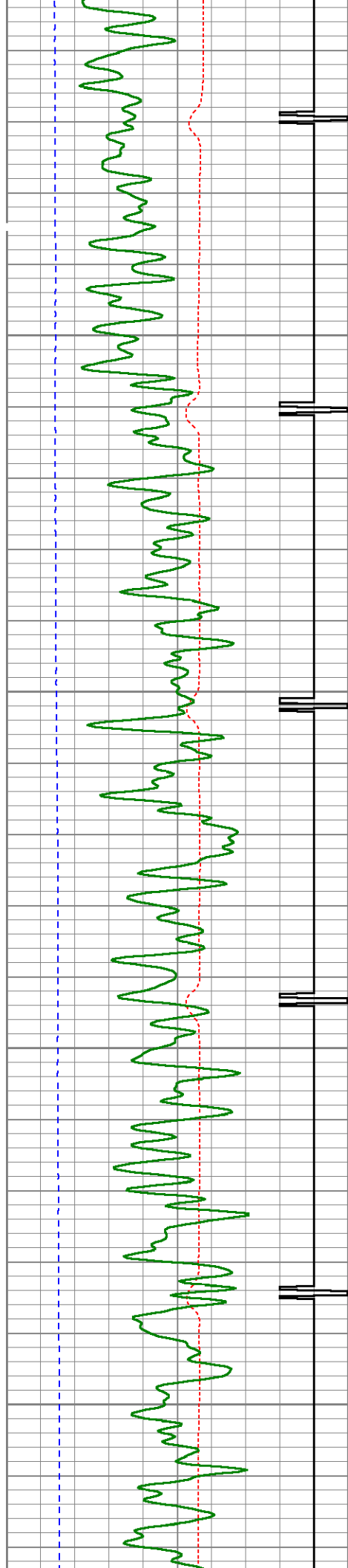
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300

350

400



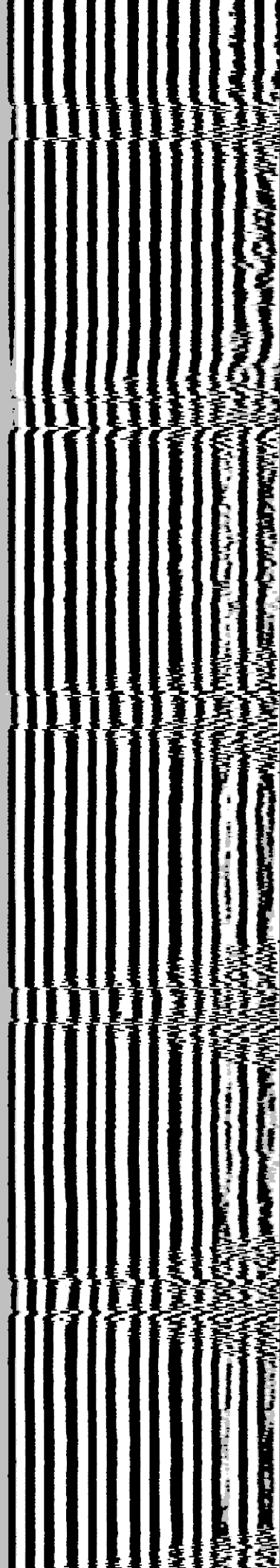
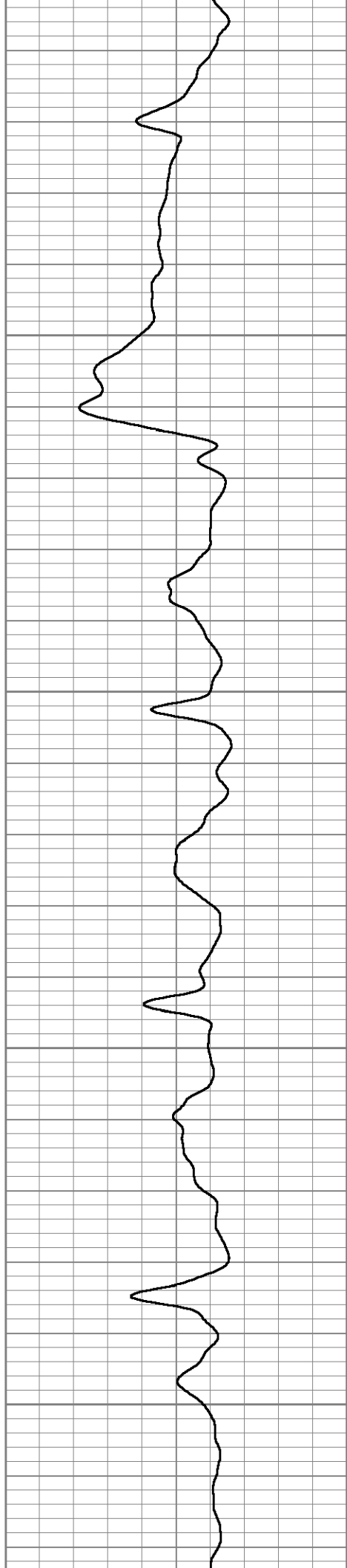


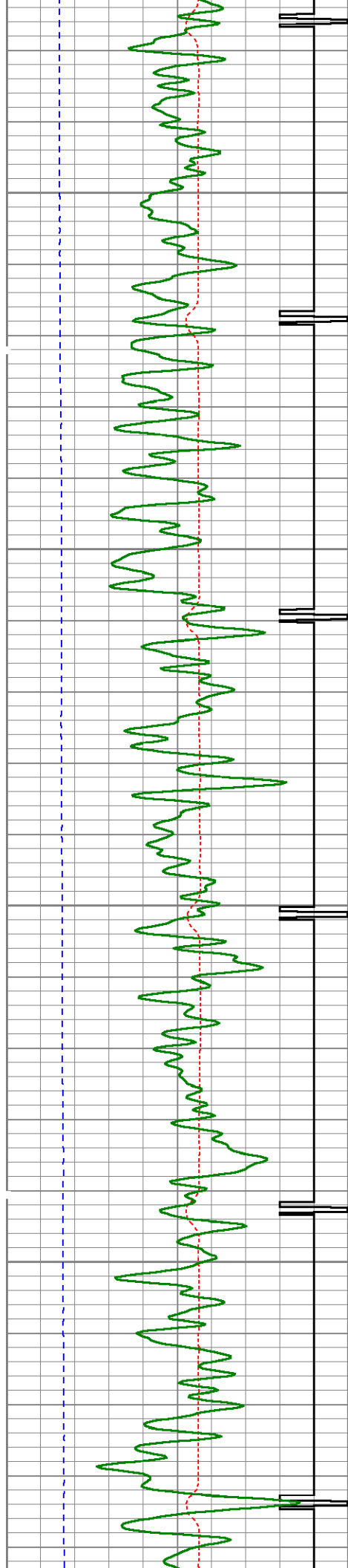
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500

550

600



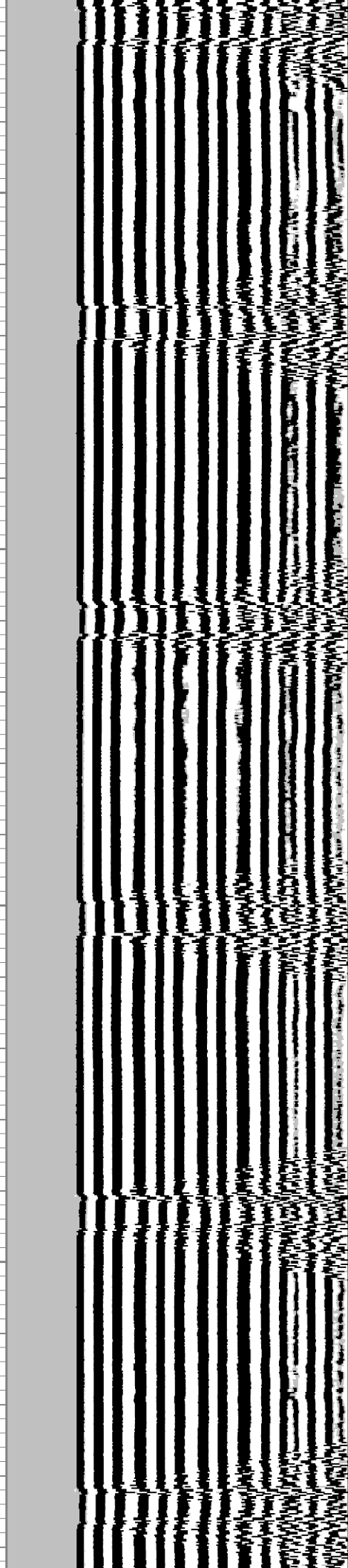
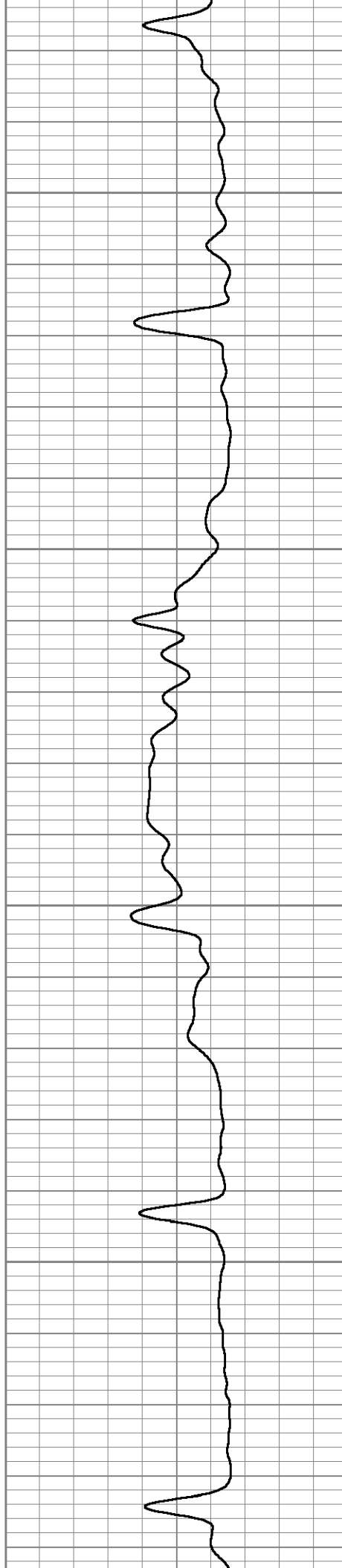


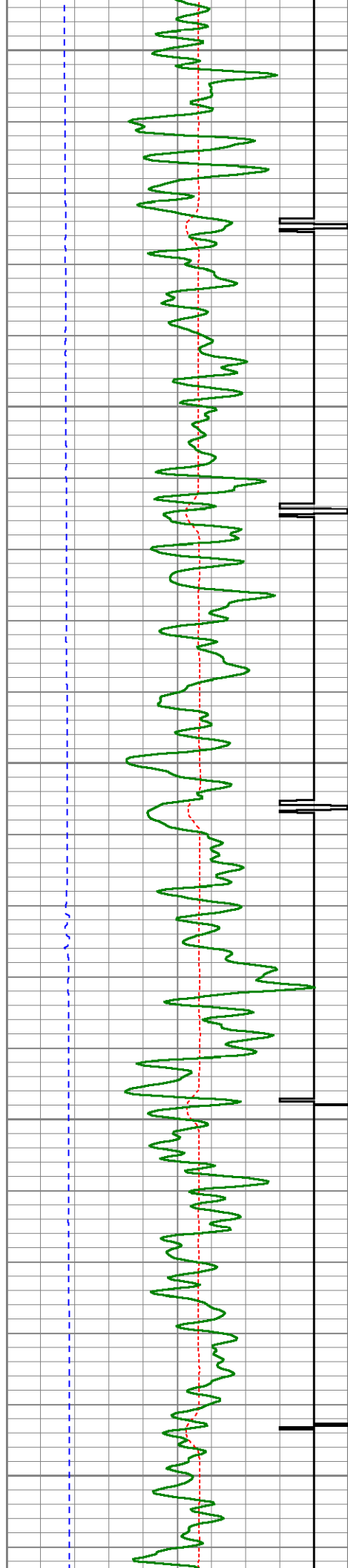
650

700

750

800





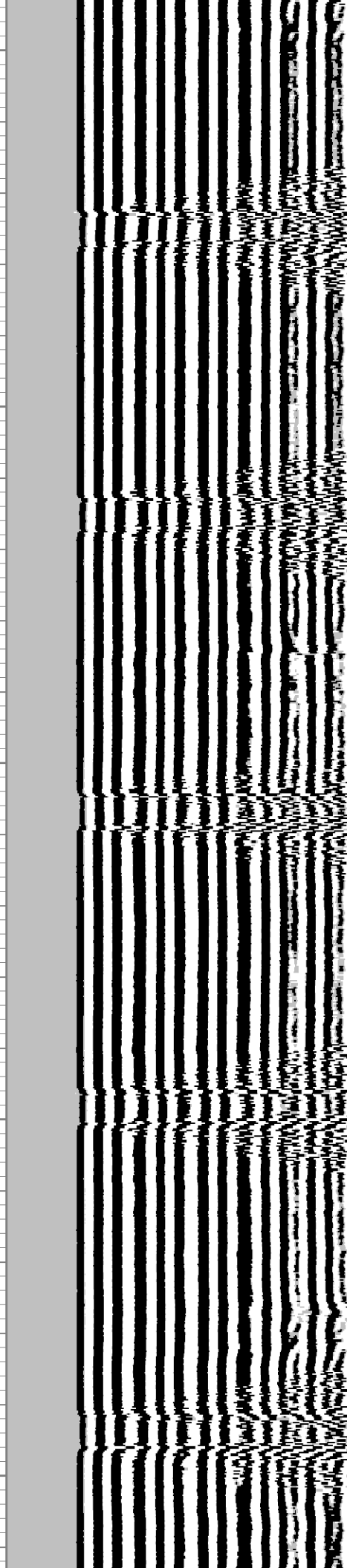
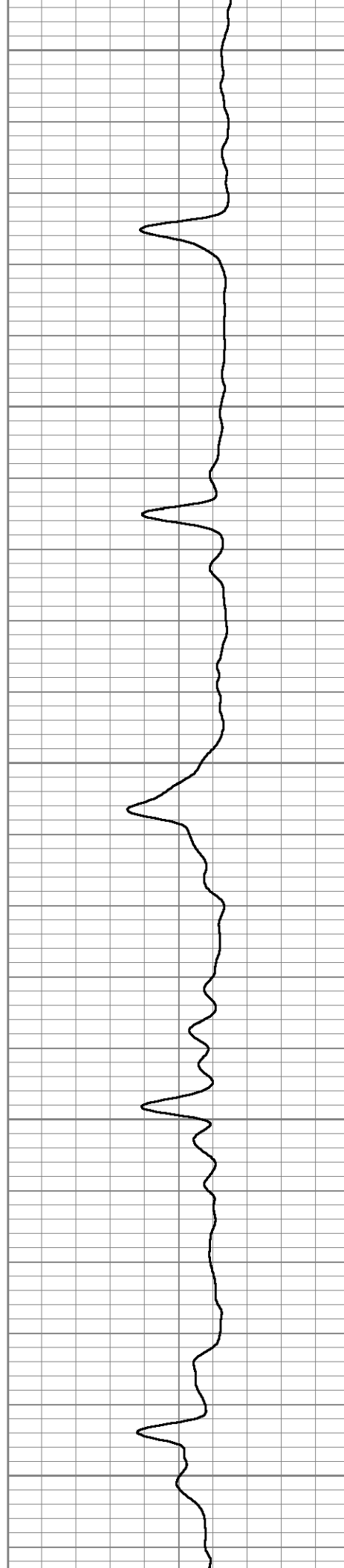
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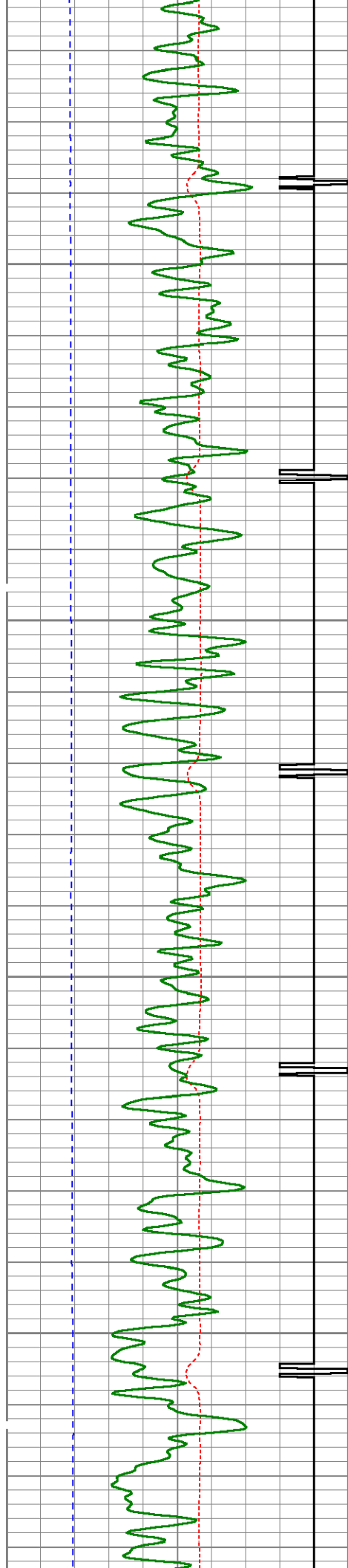
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950

1000

1050



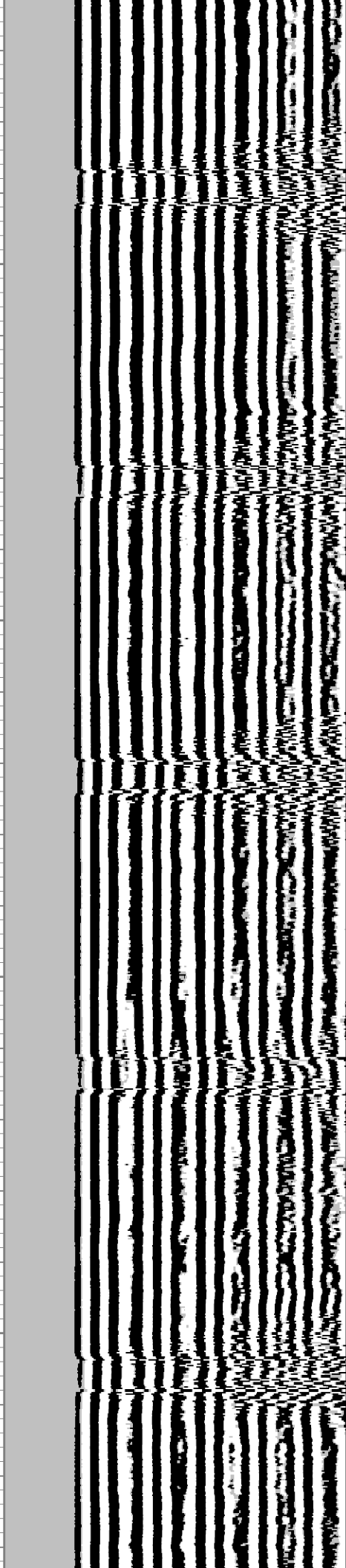
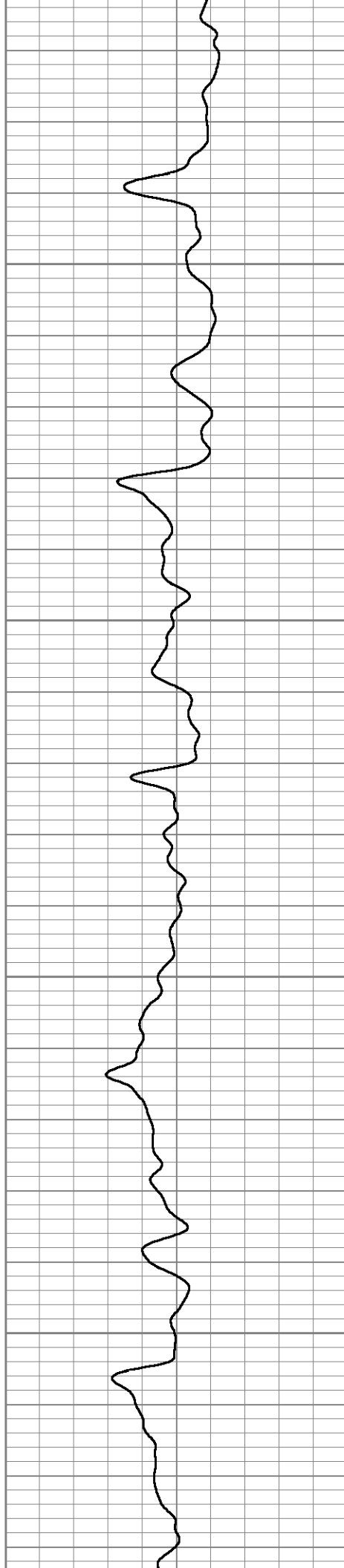


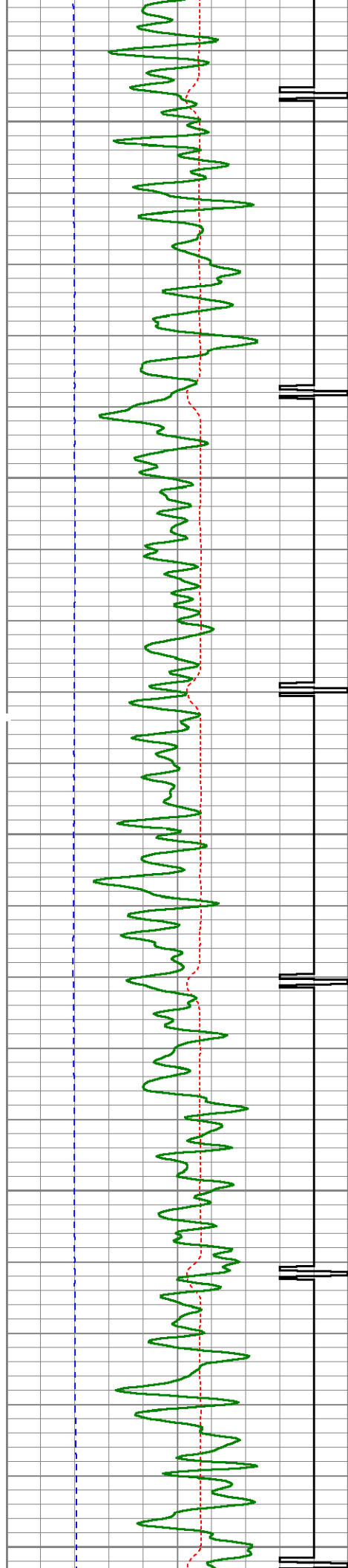
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1150

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1250





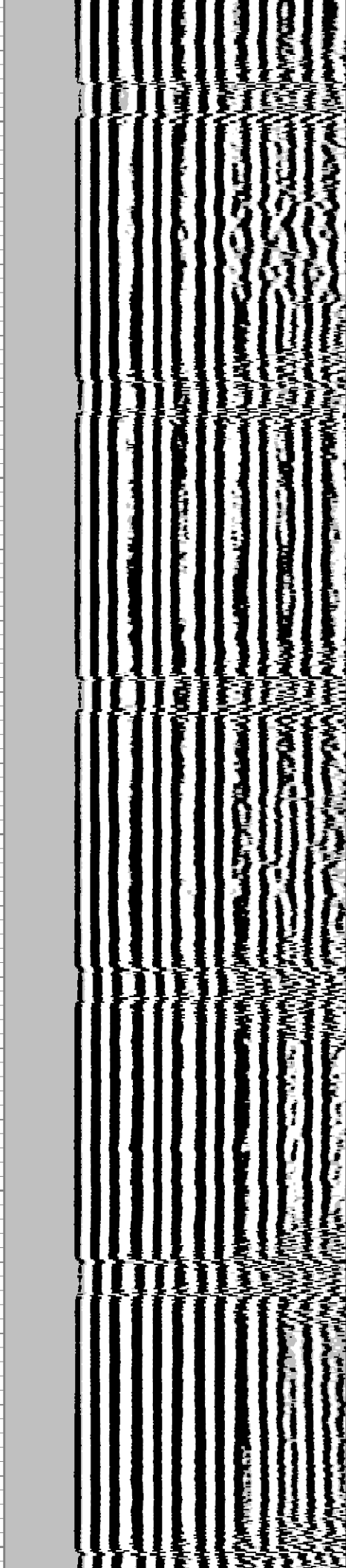
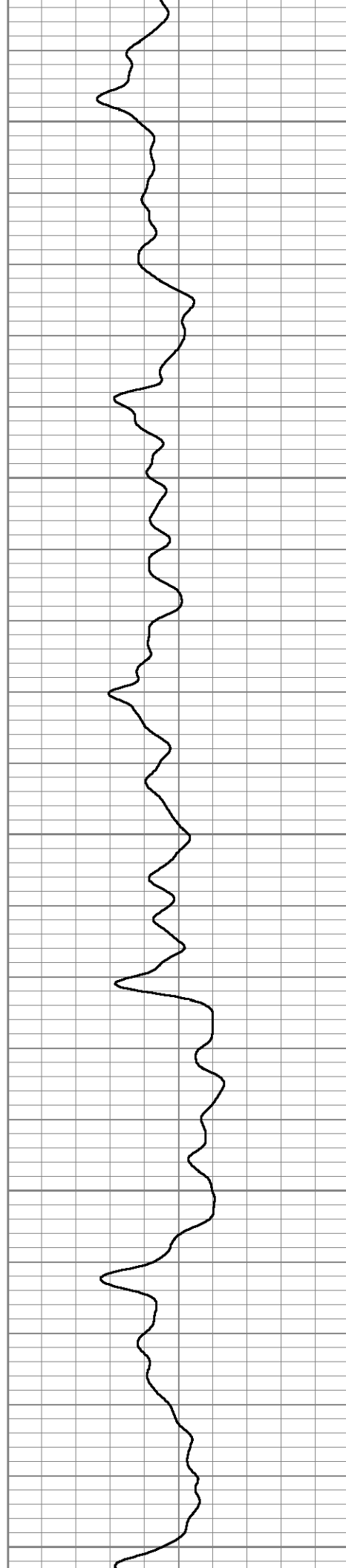
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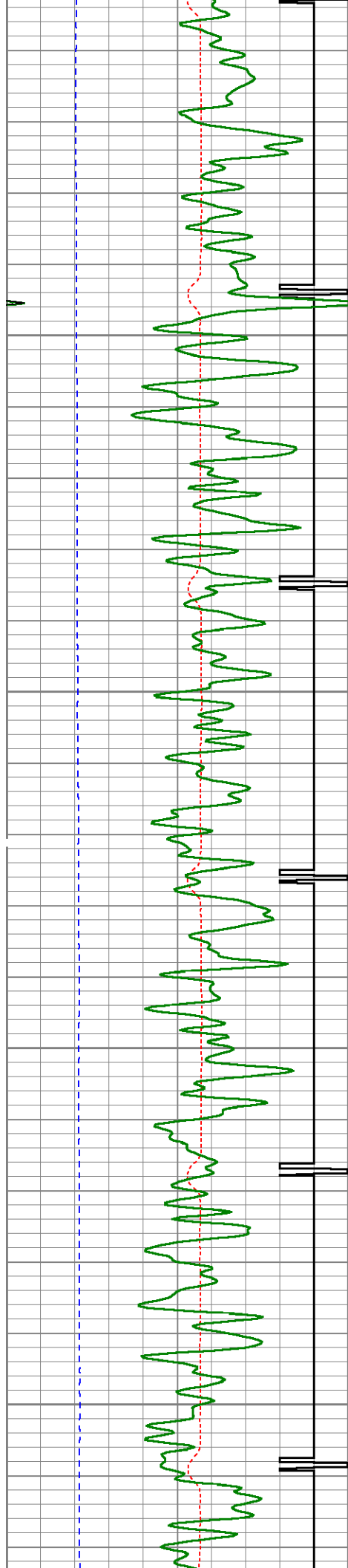
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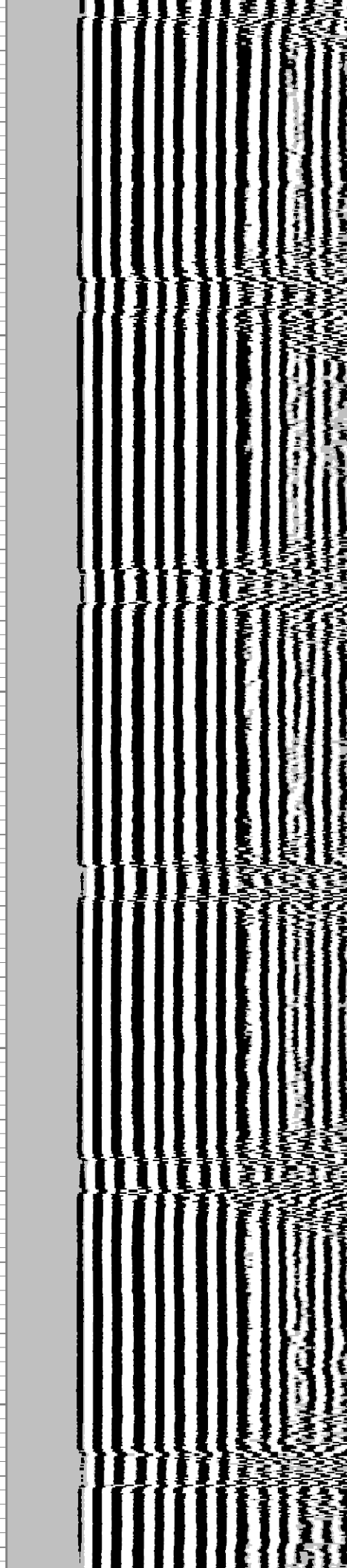
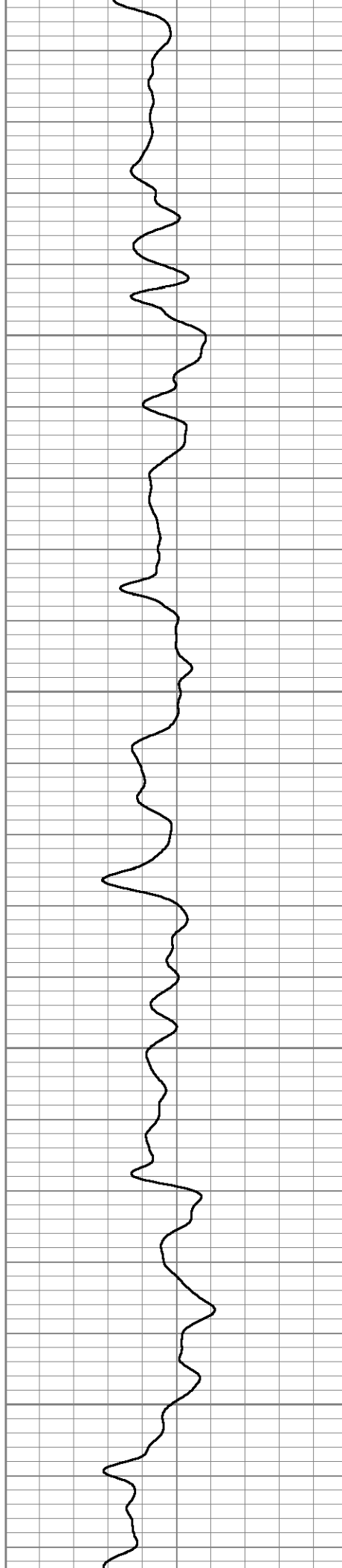


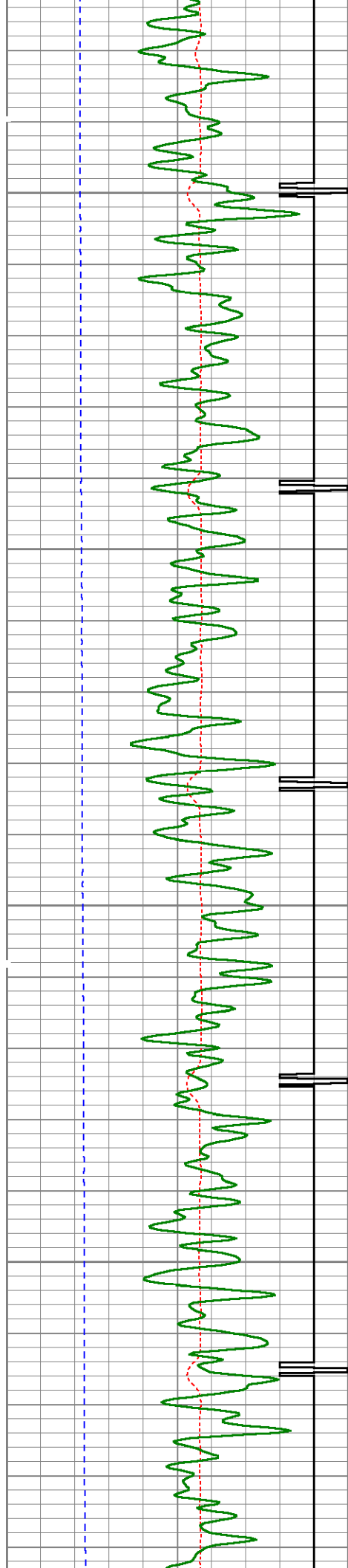
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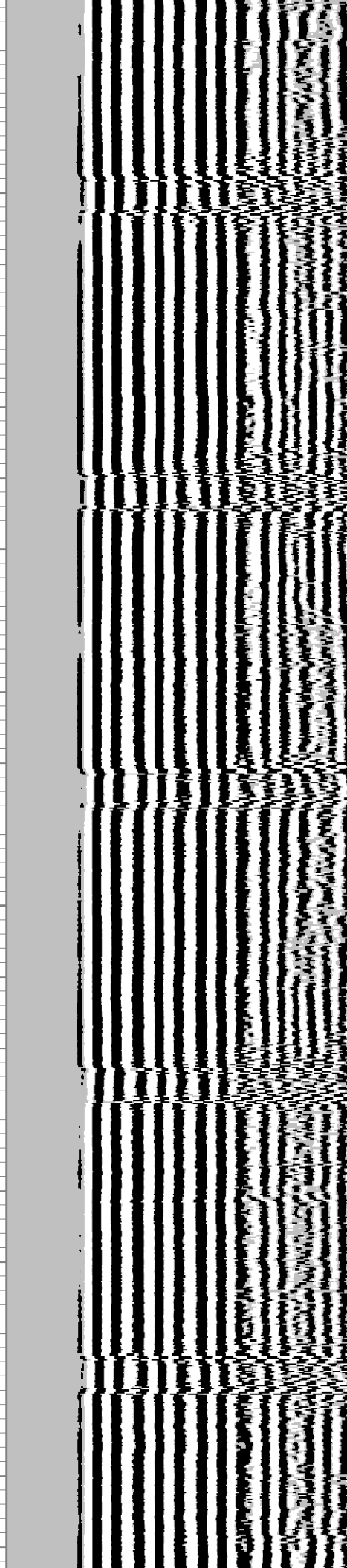
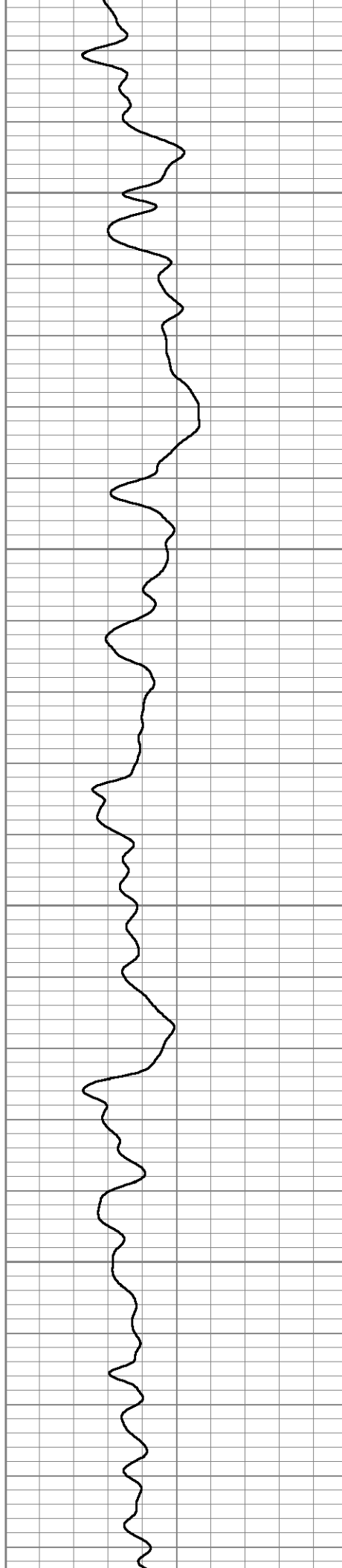


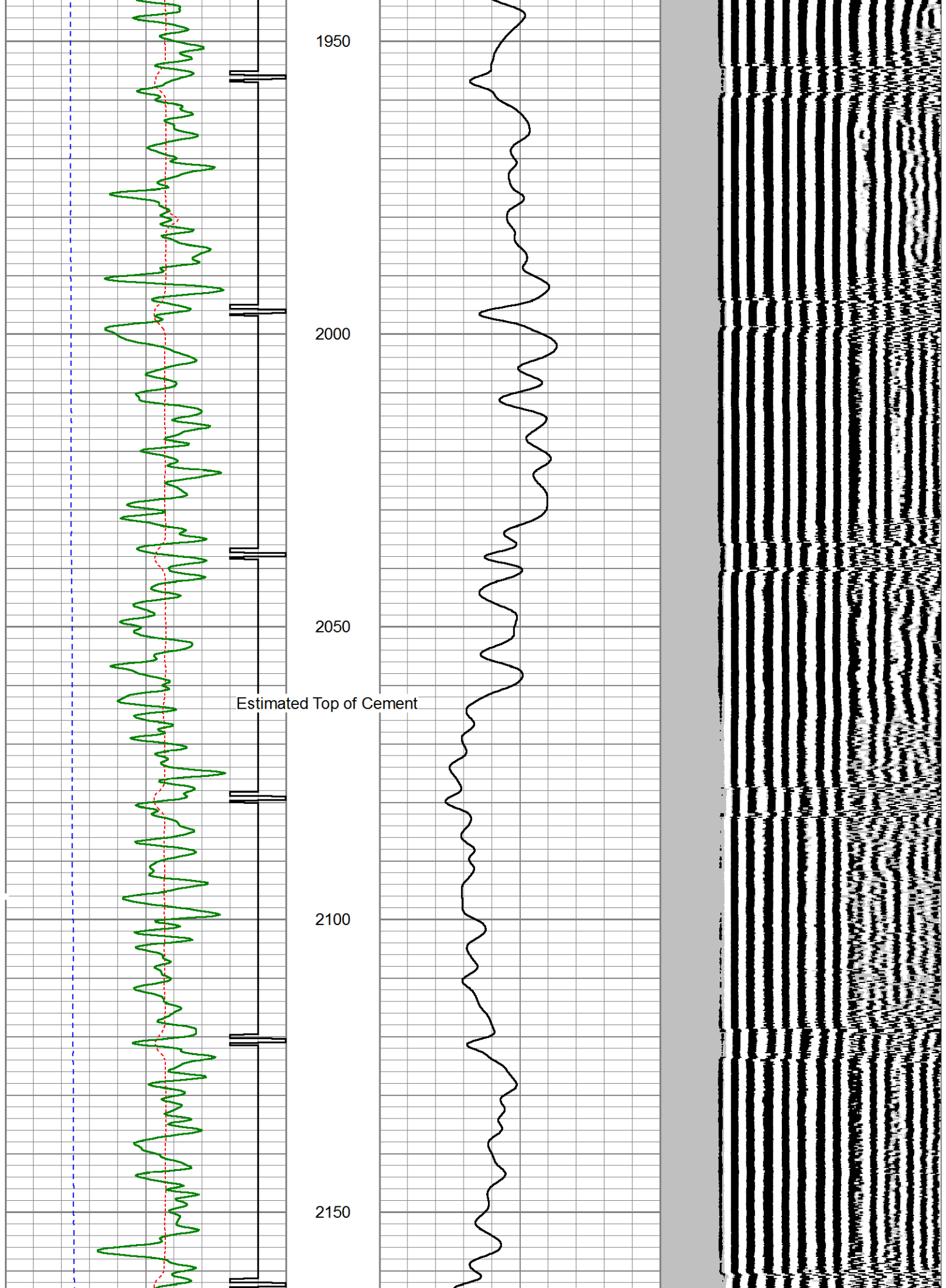
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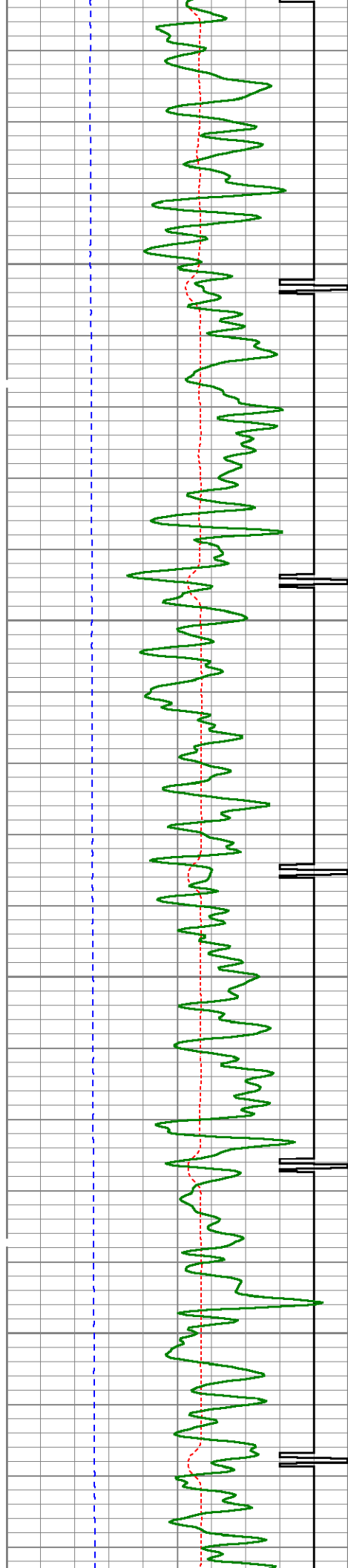
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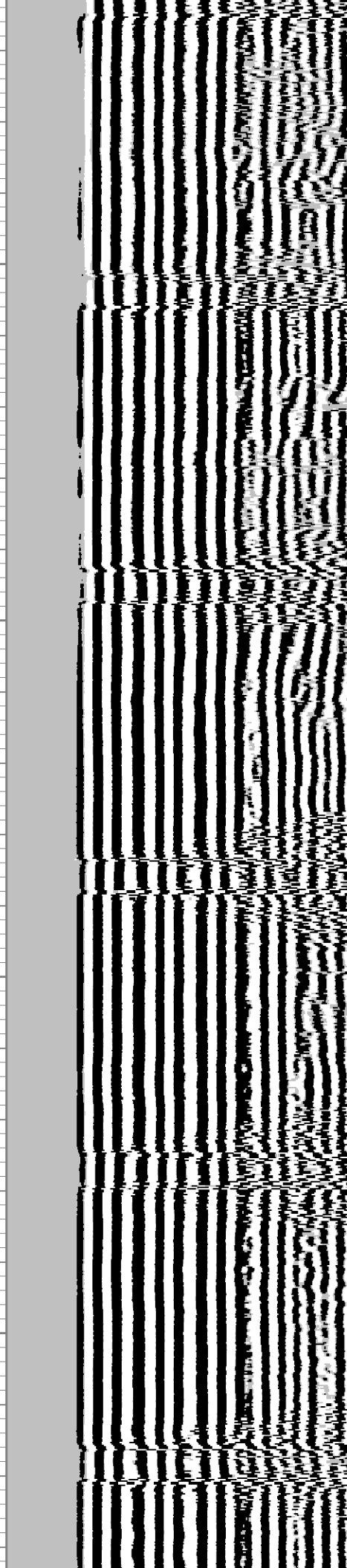
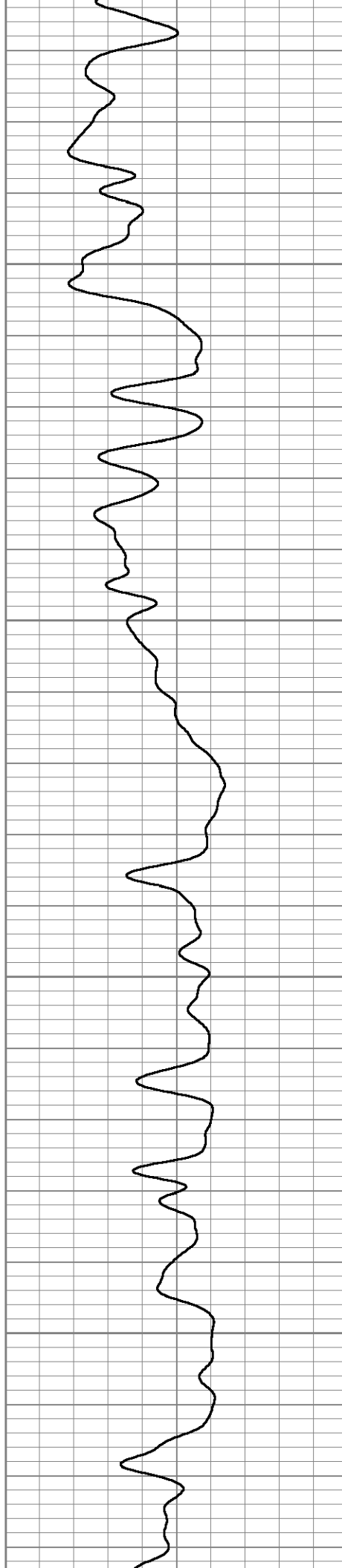


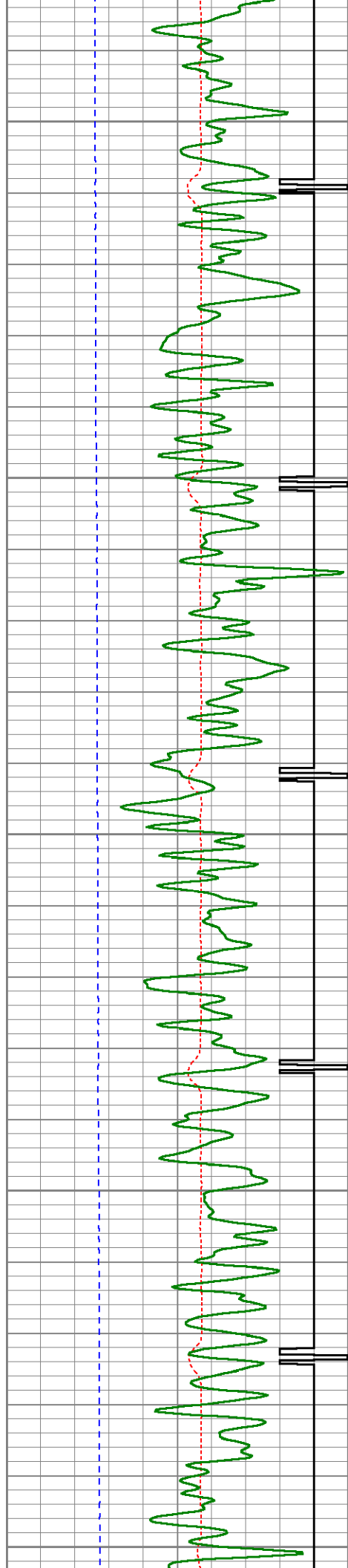
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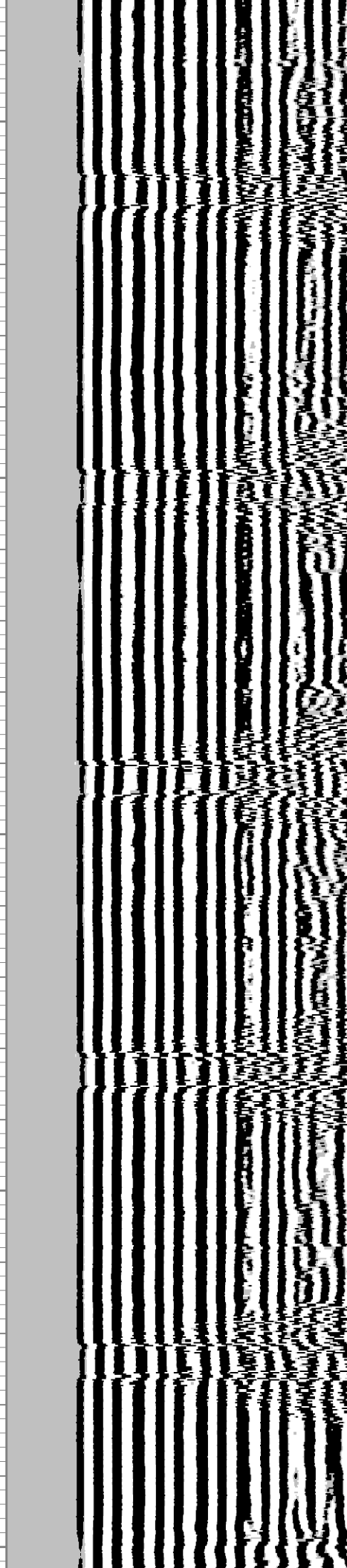
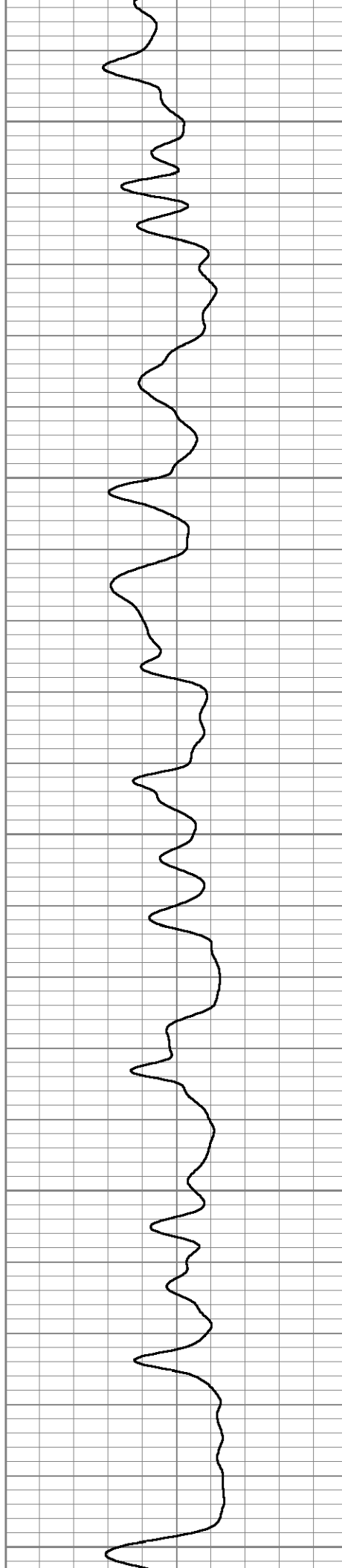
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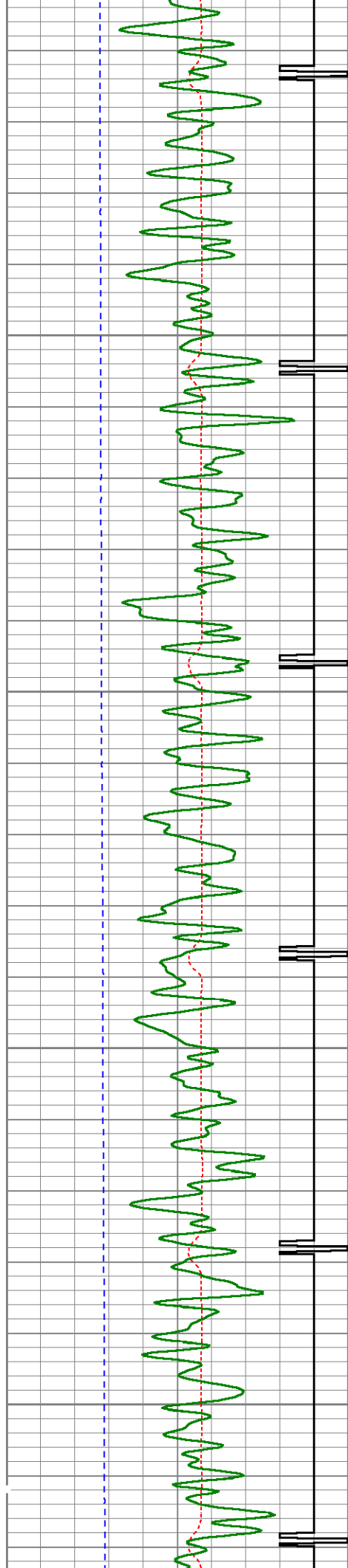
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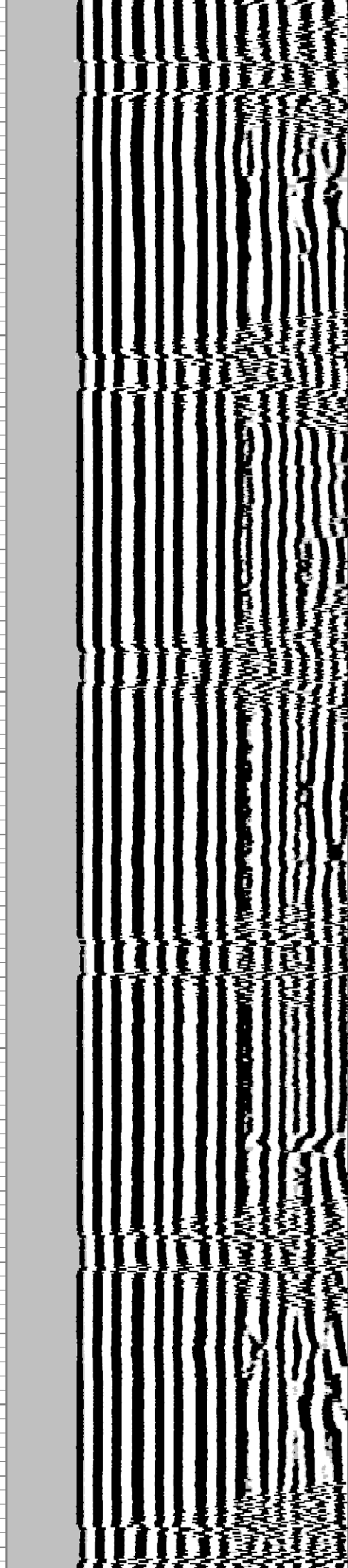
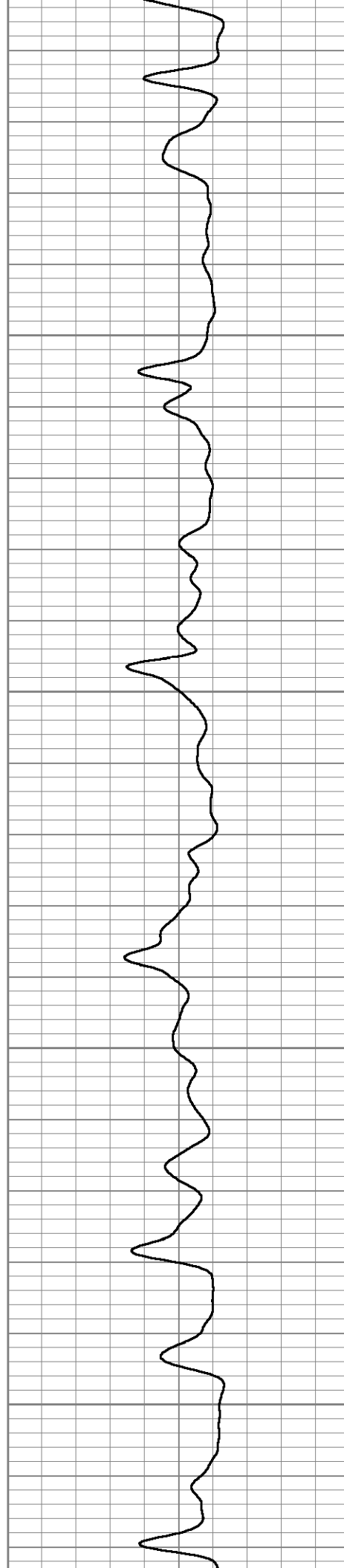


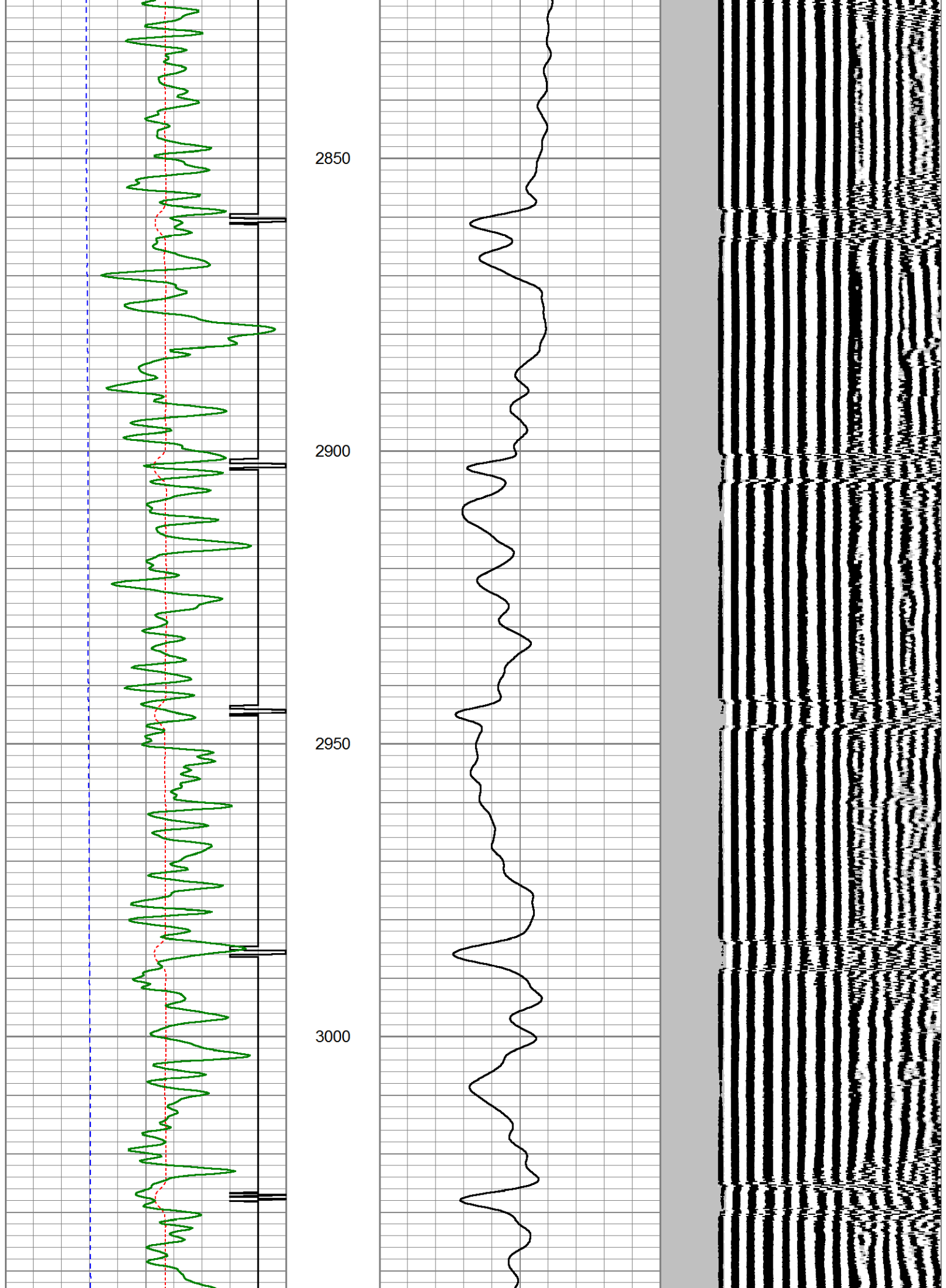
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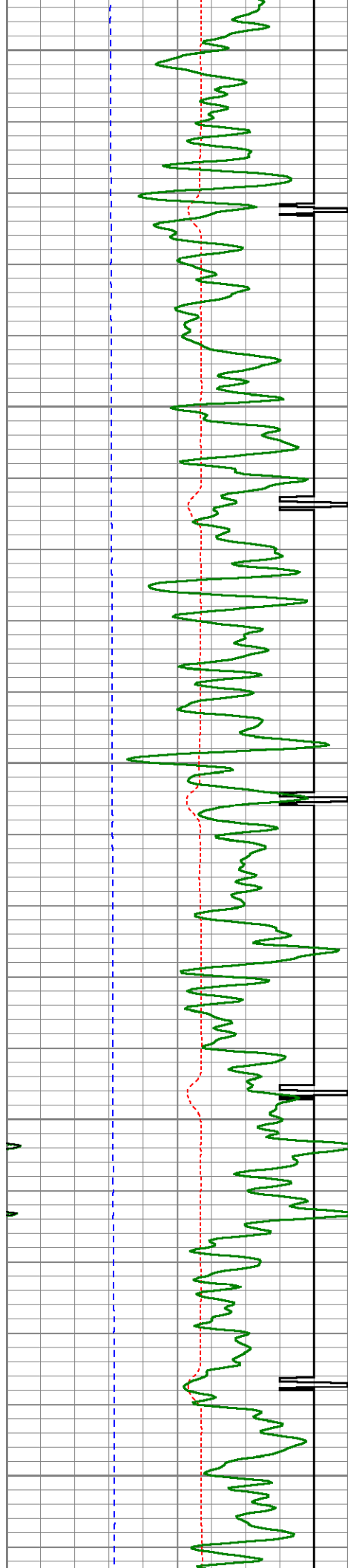
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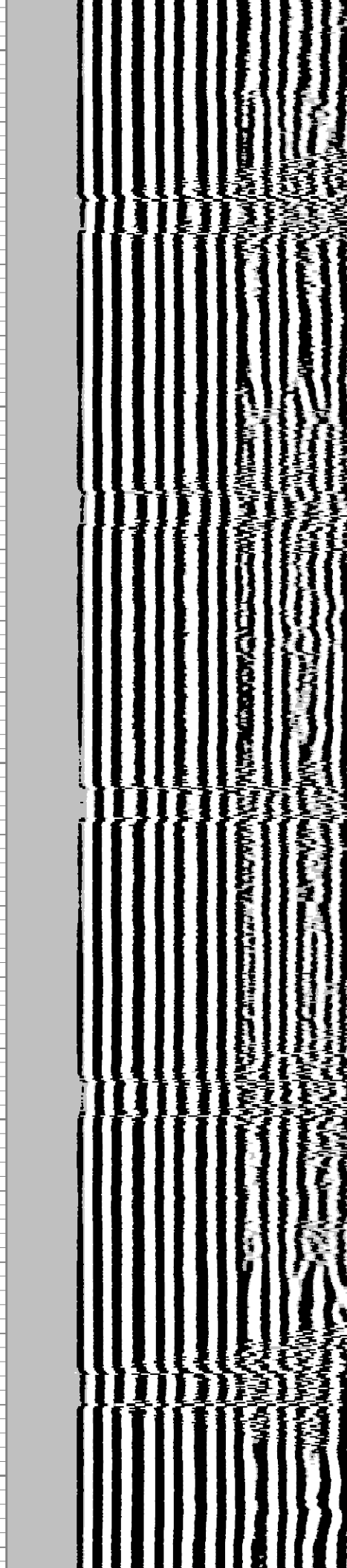
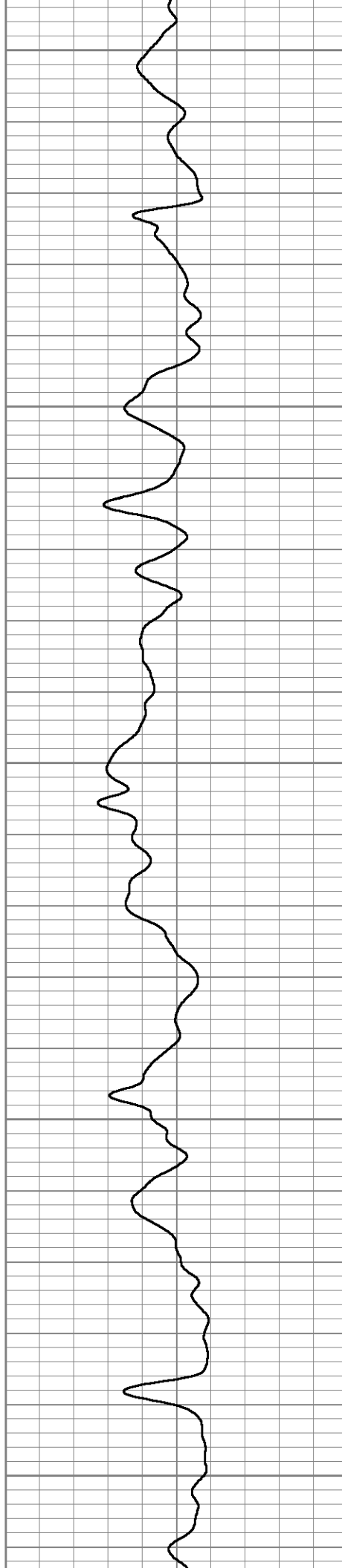
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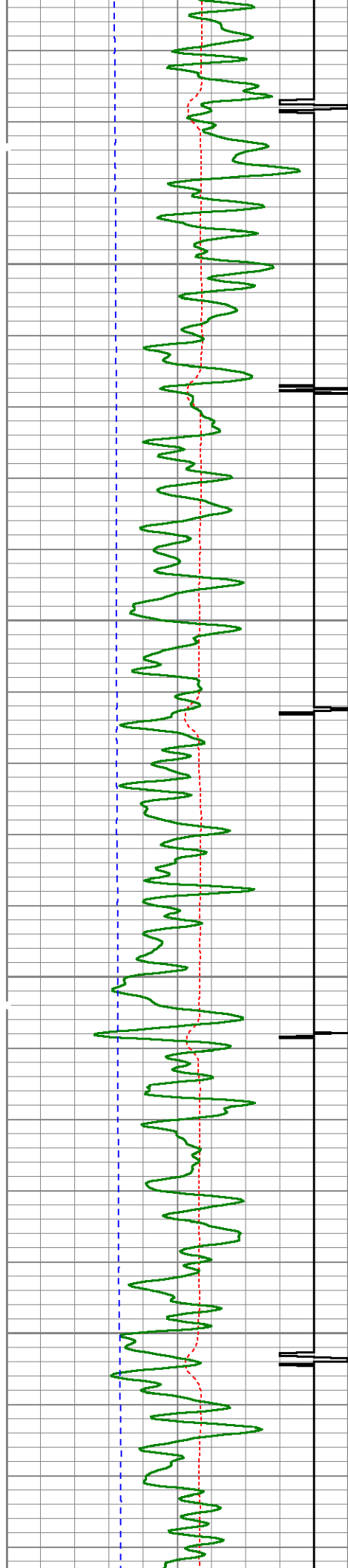
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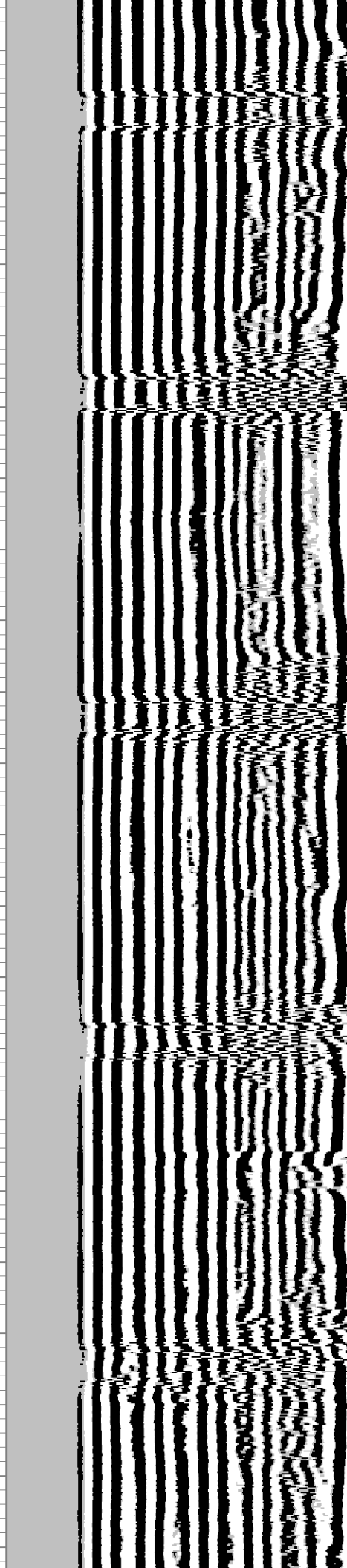
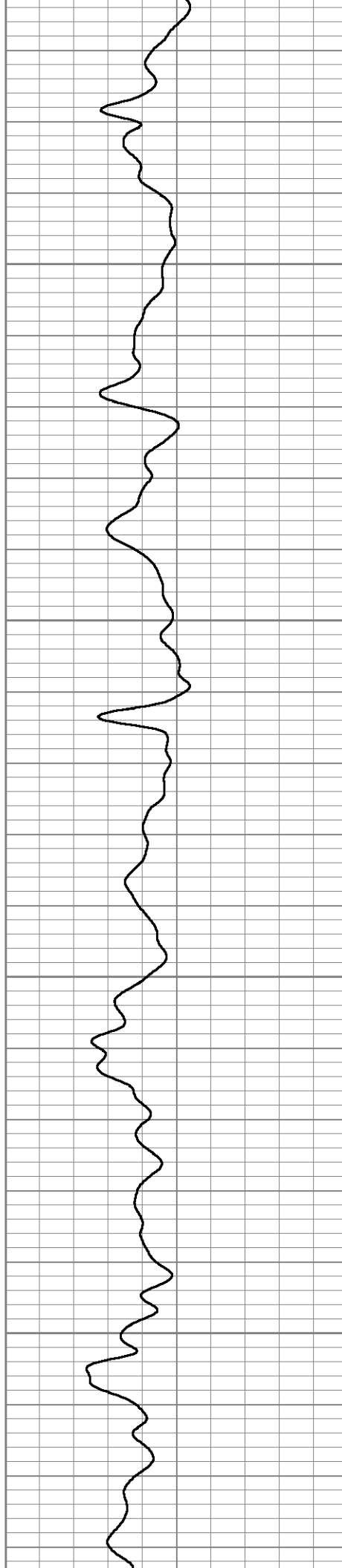


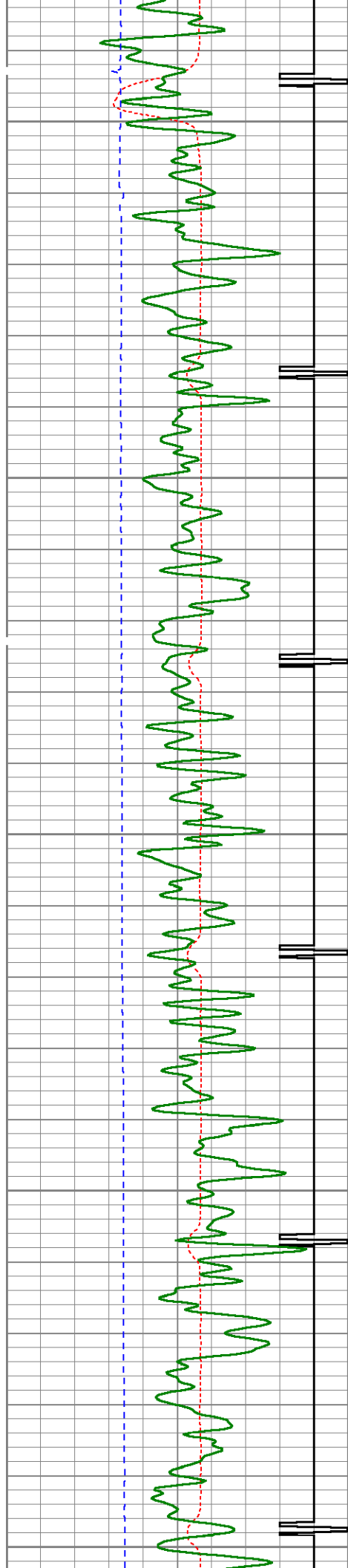
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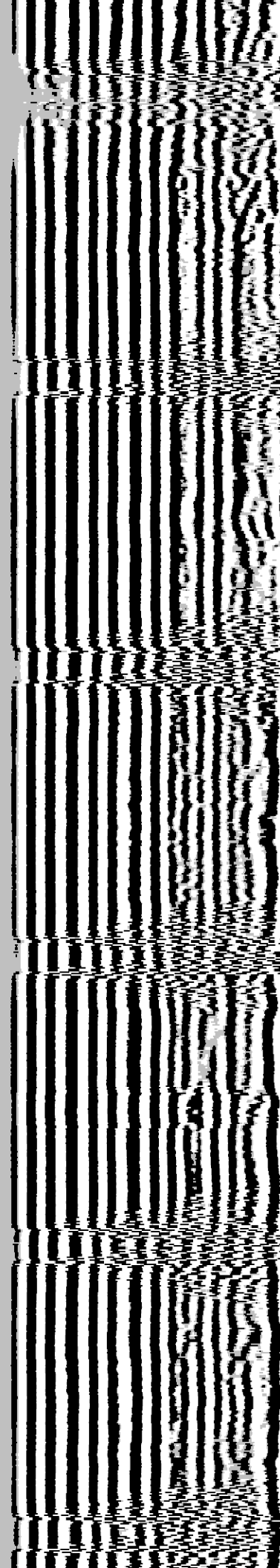
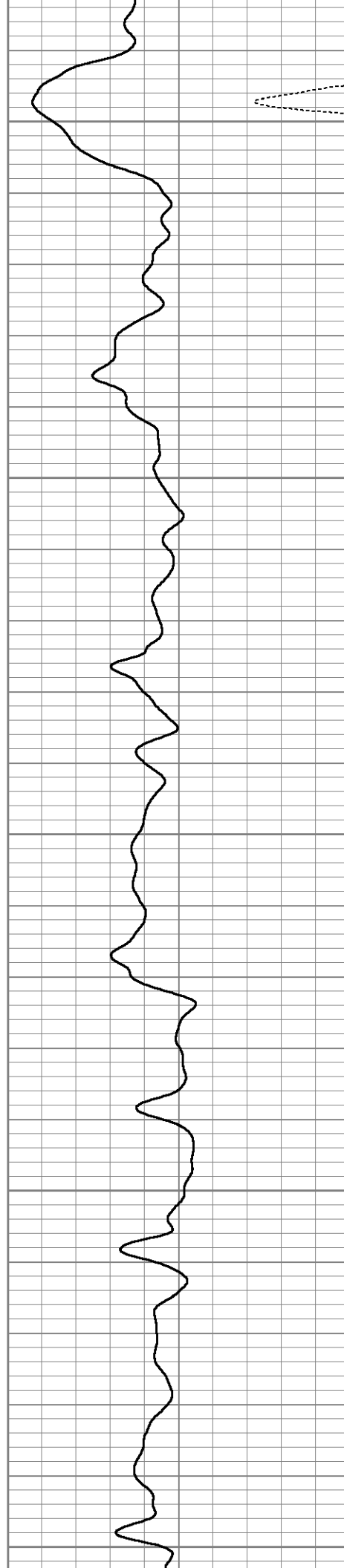
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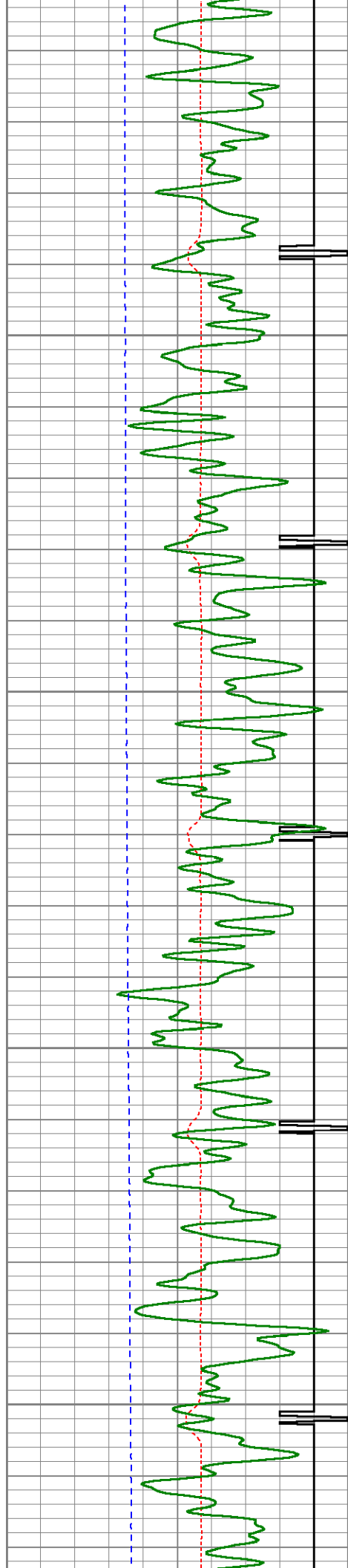
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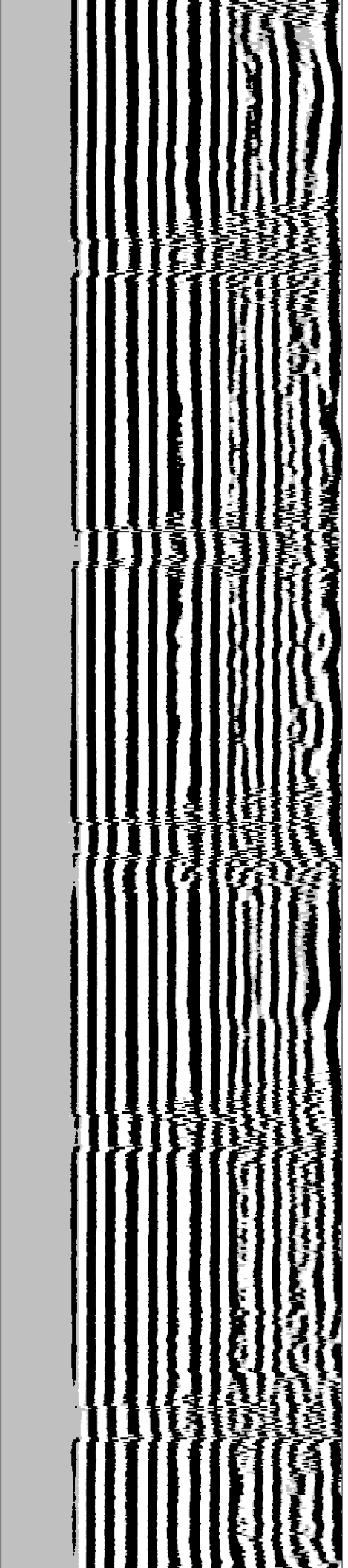
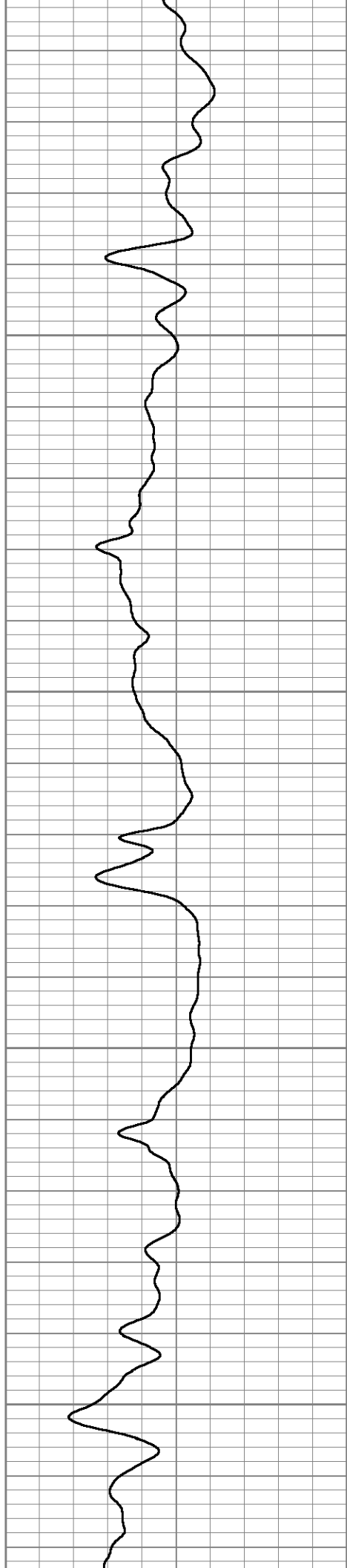


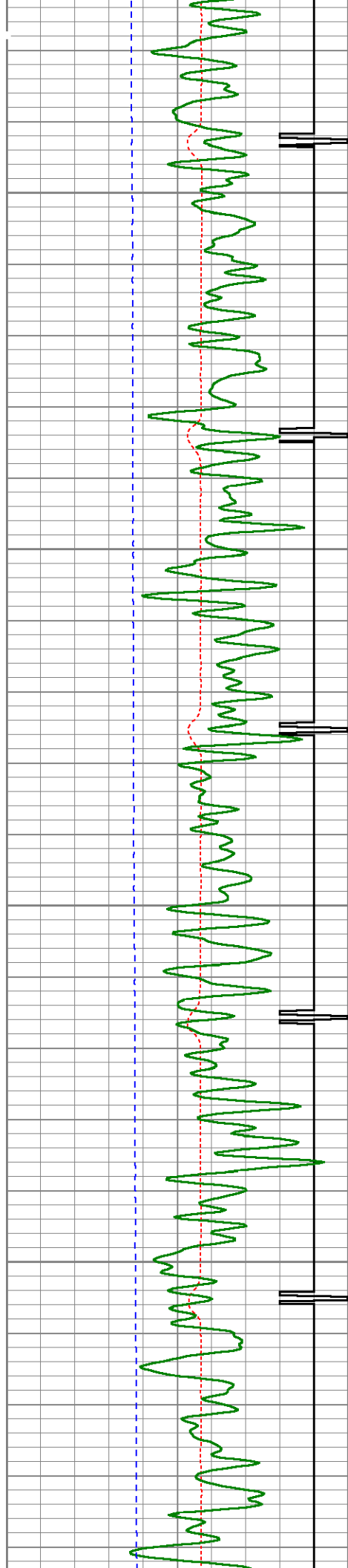
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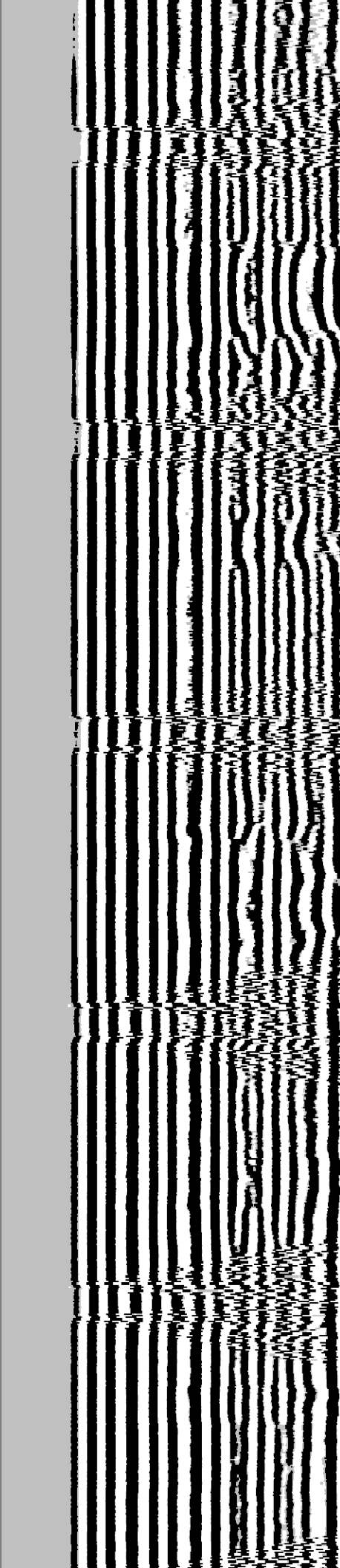
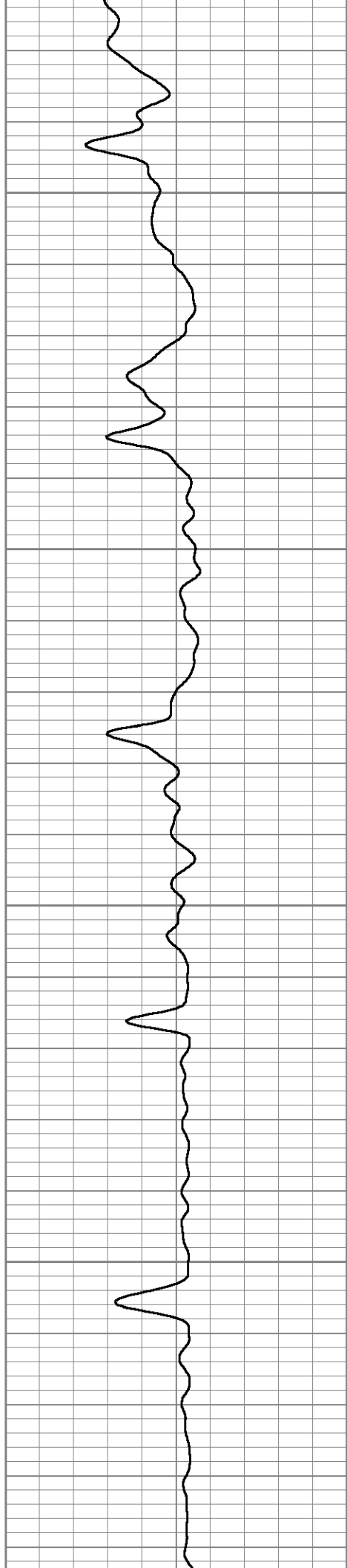


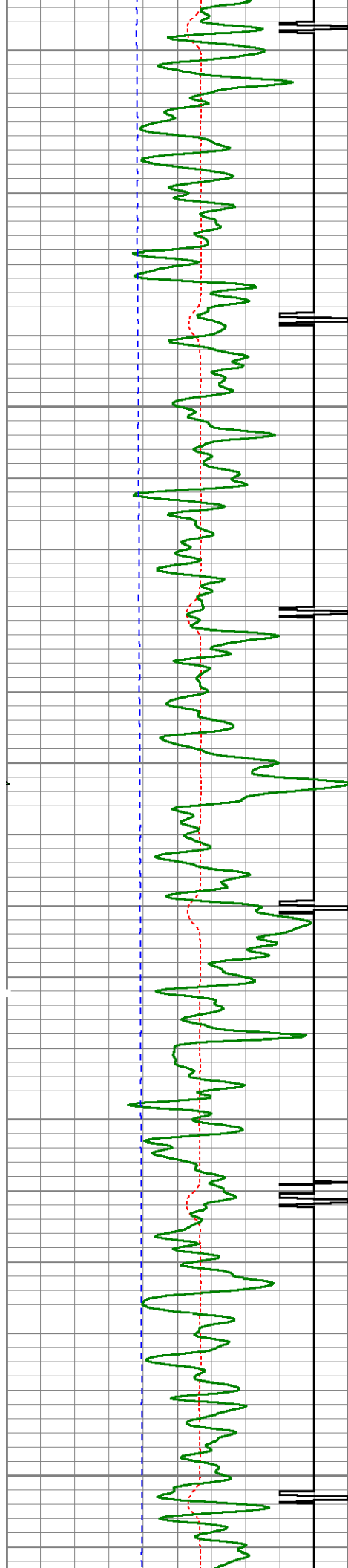
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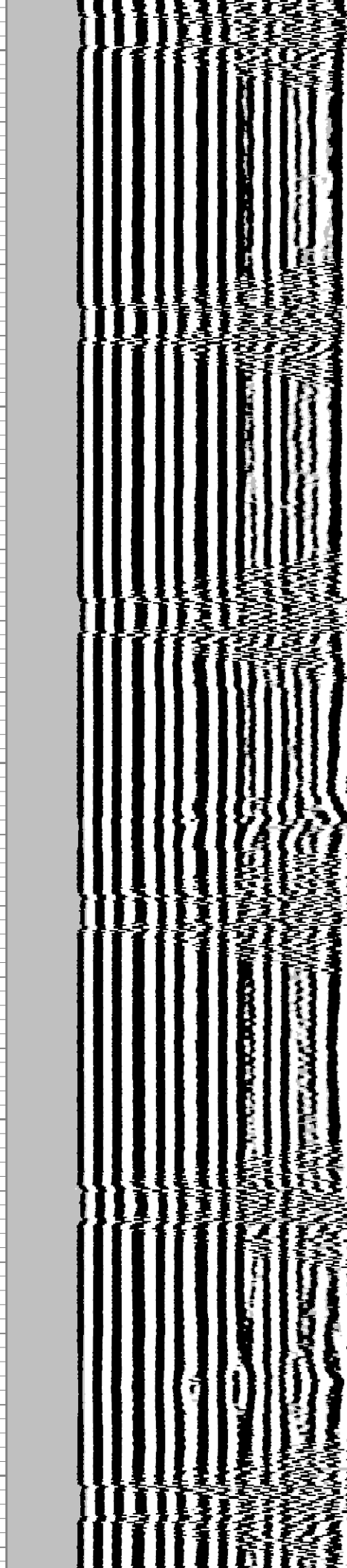
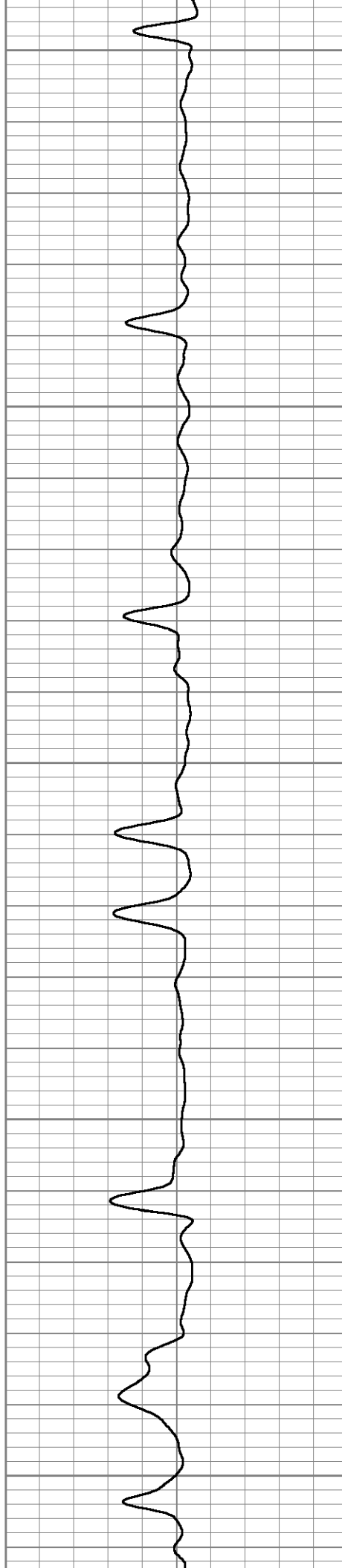
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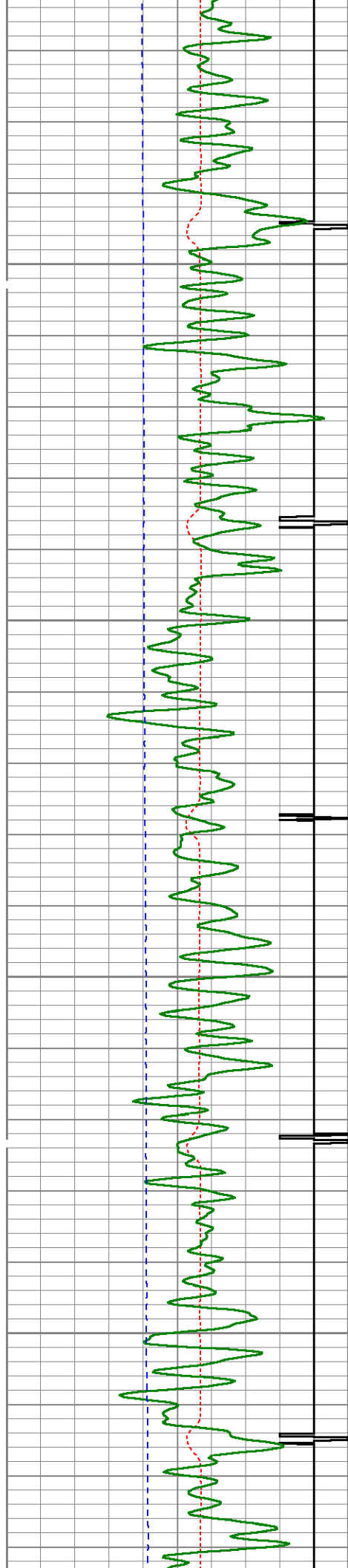
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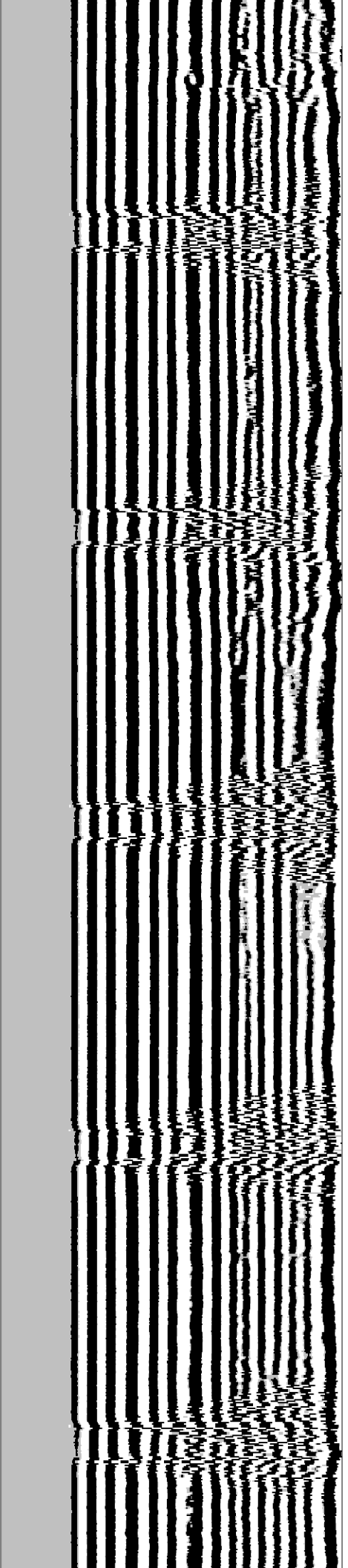
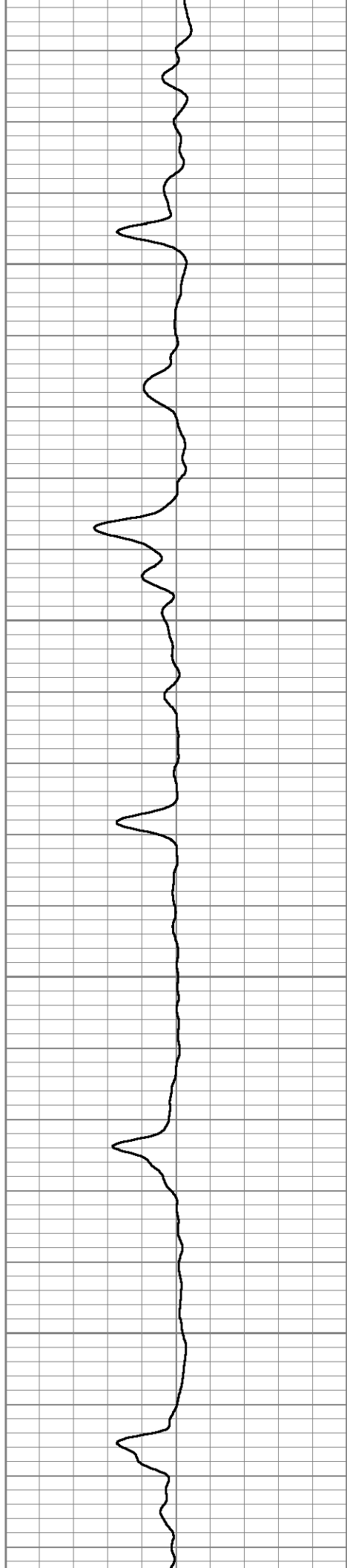


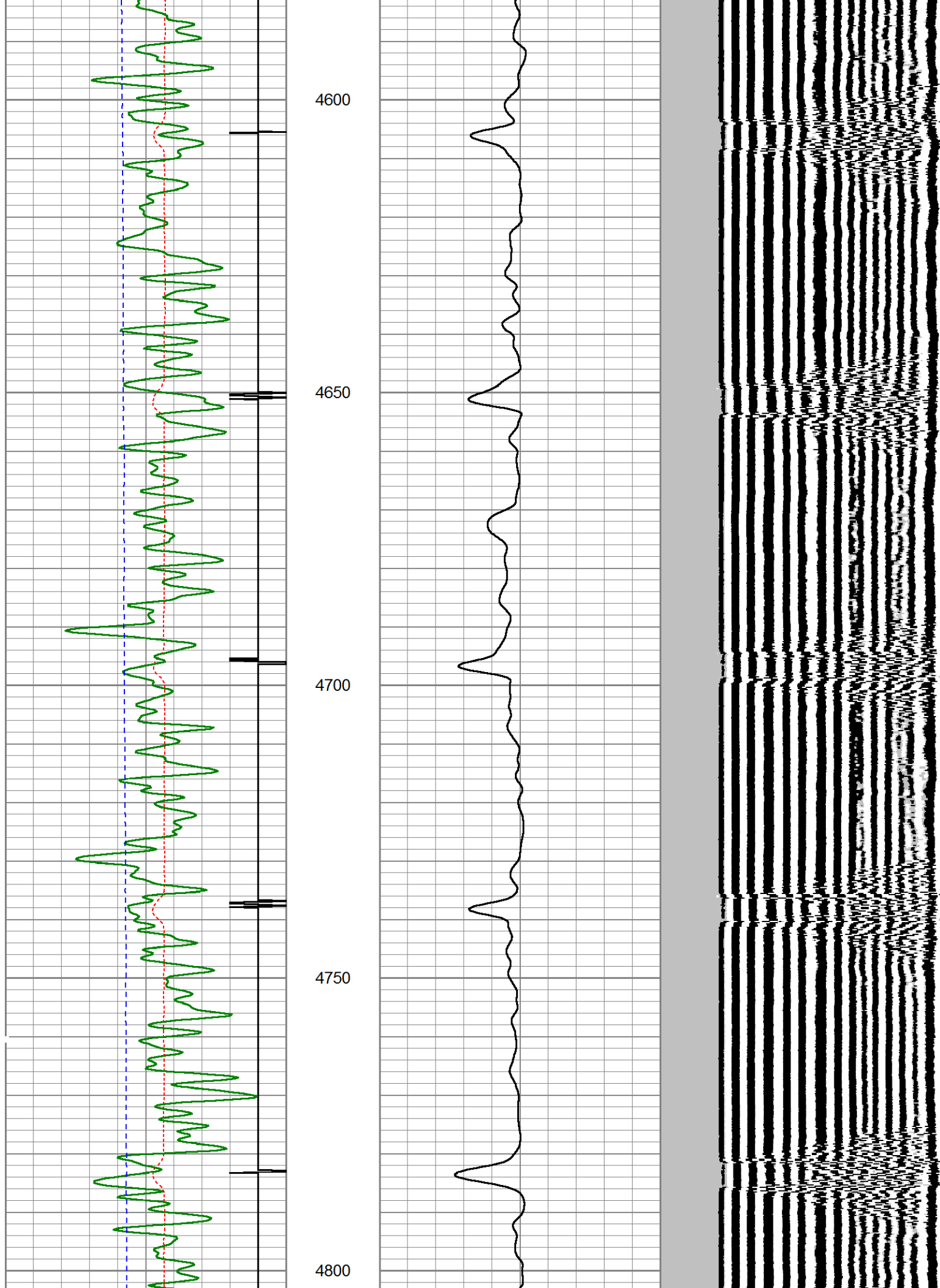
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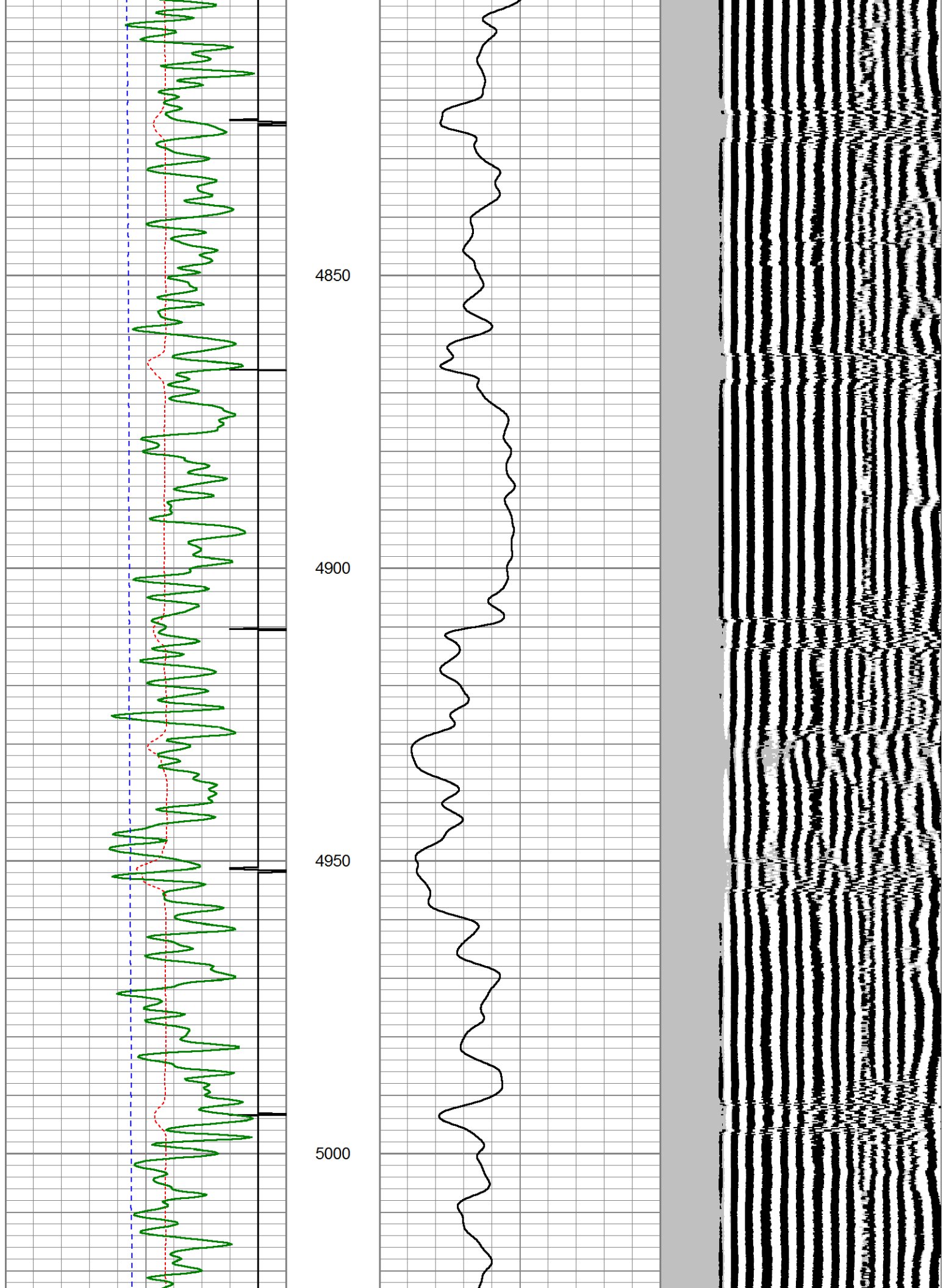
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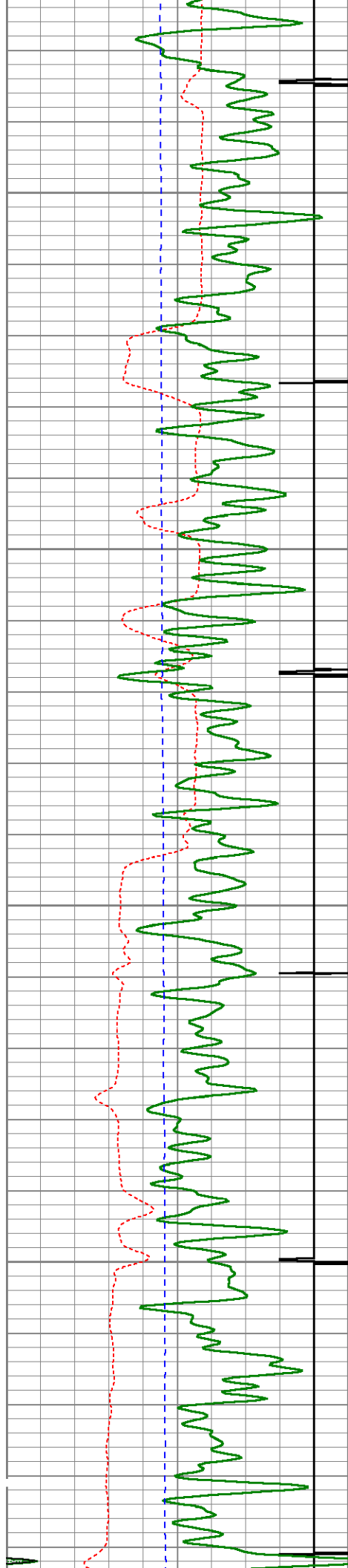
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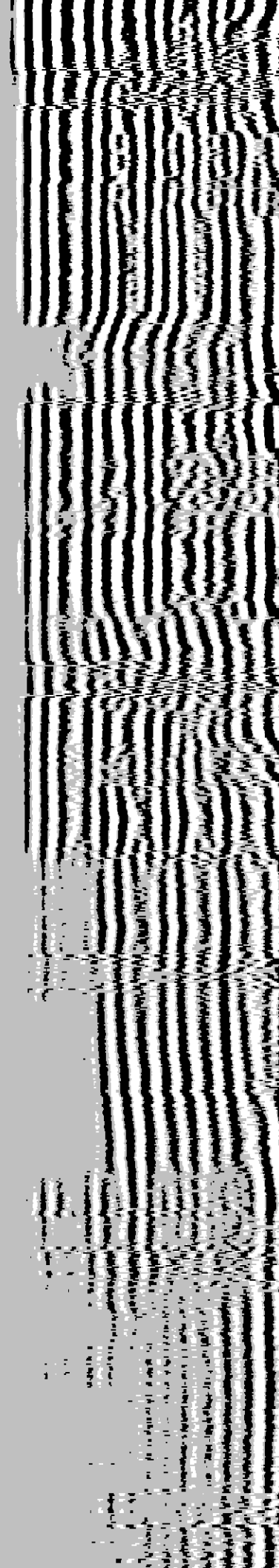
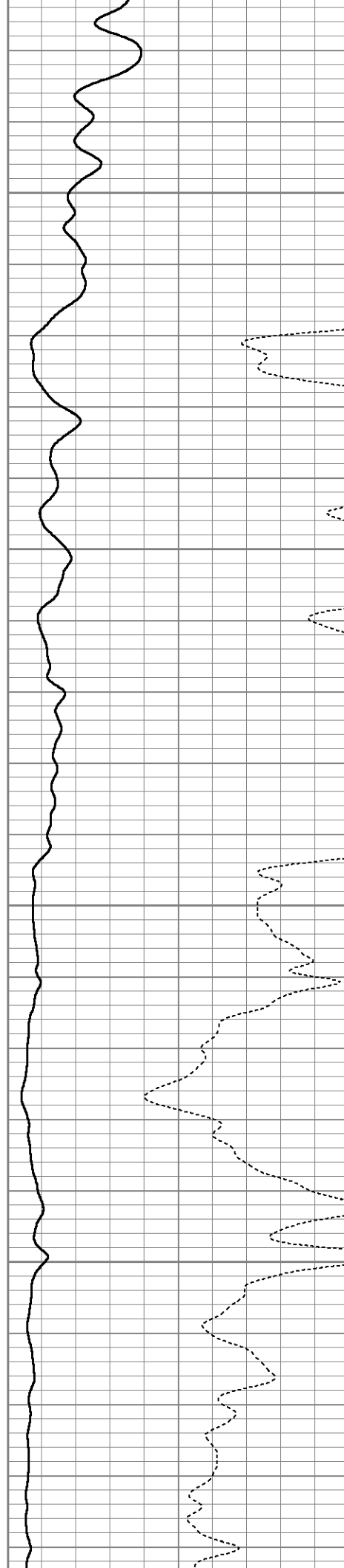


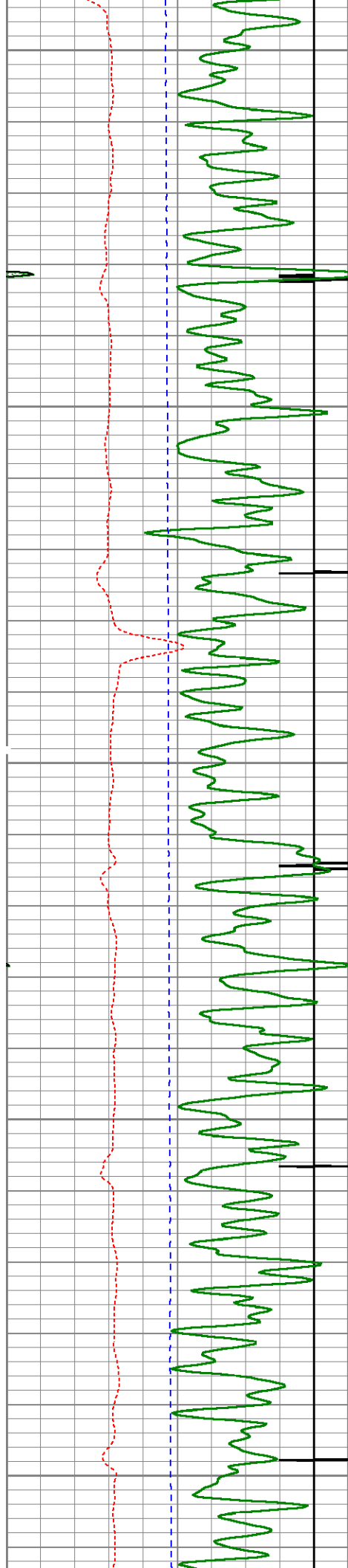
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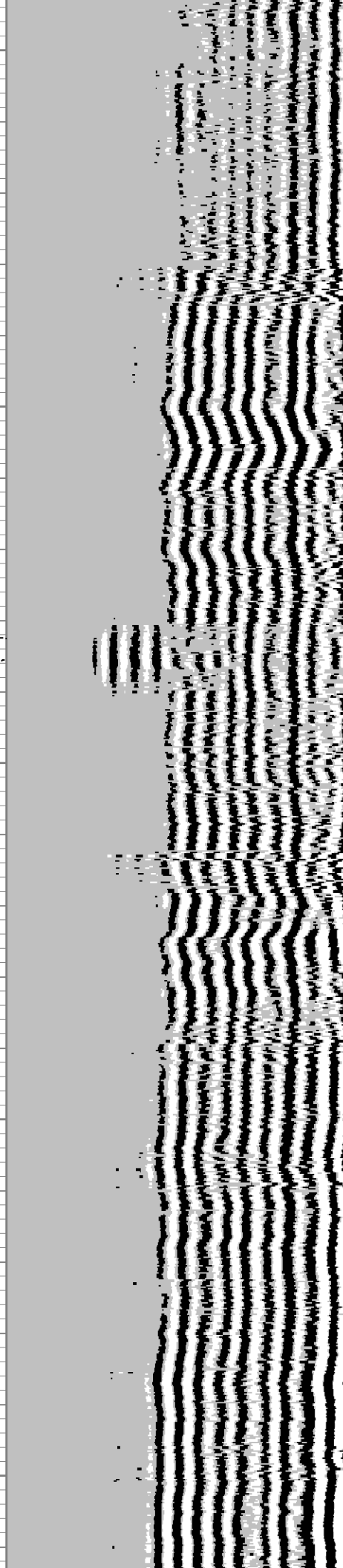
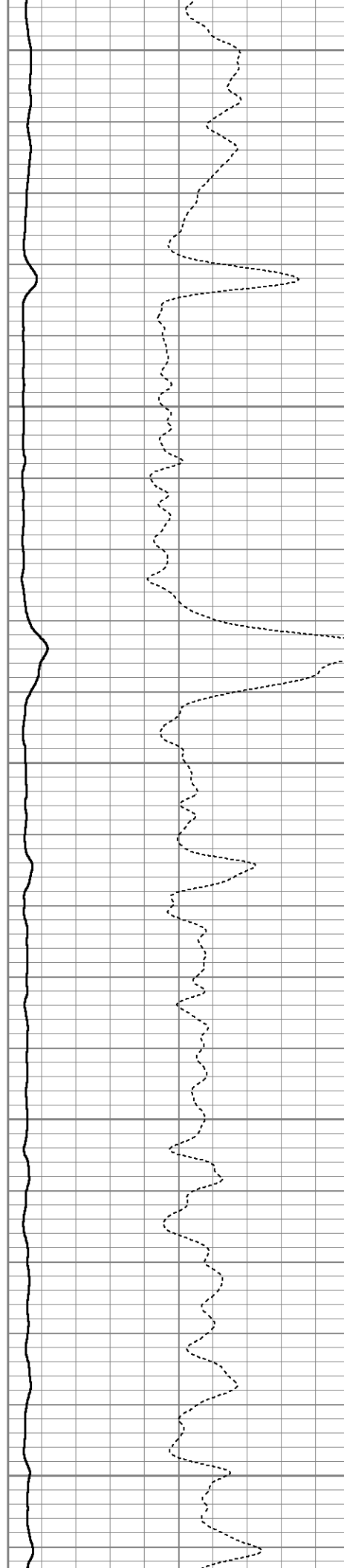
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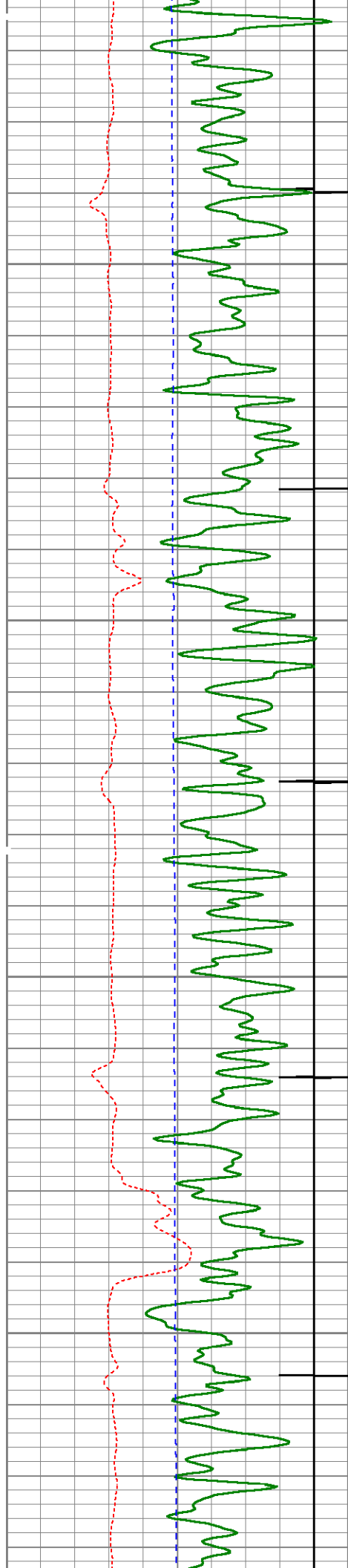
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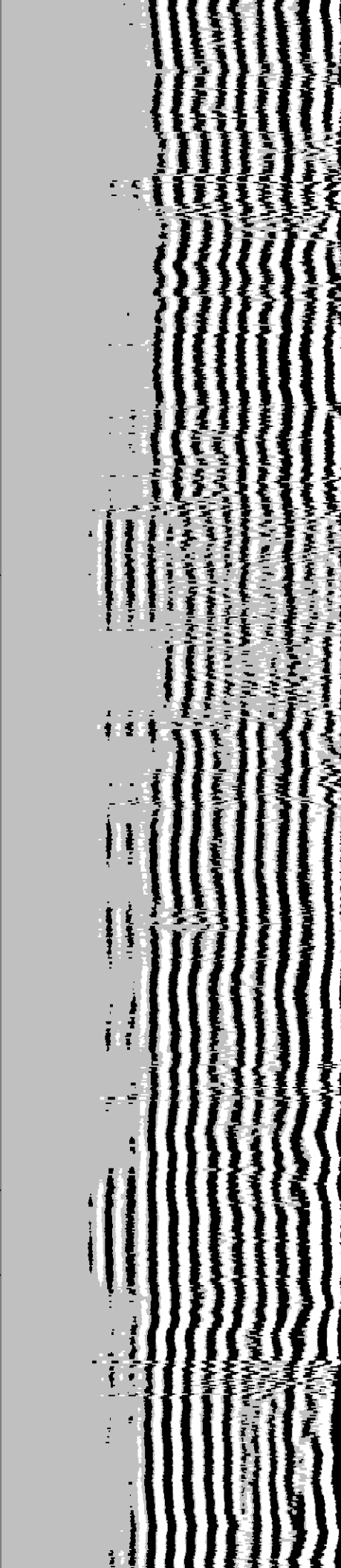
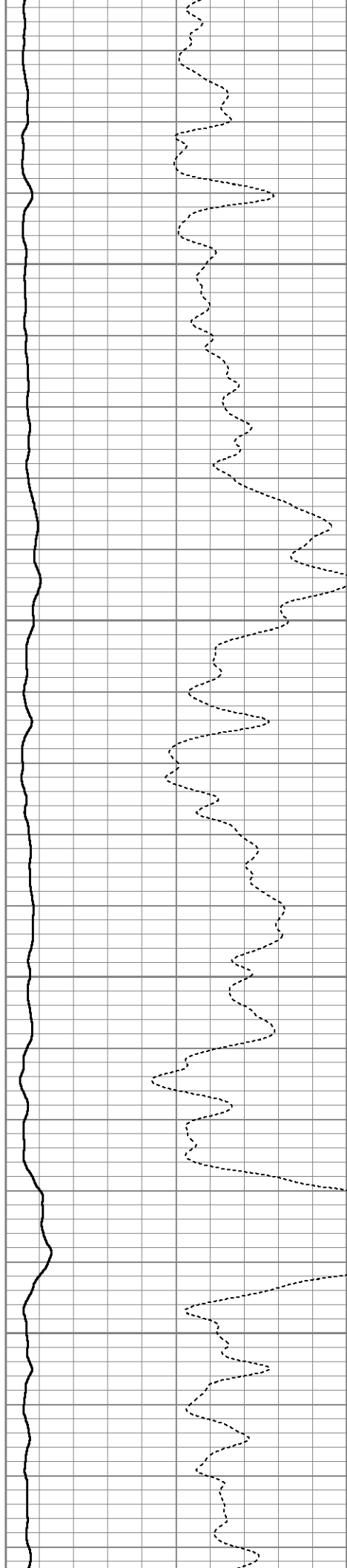


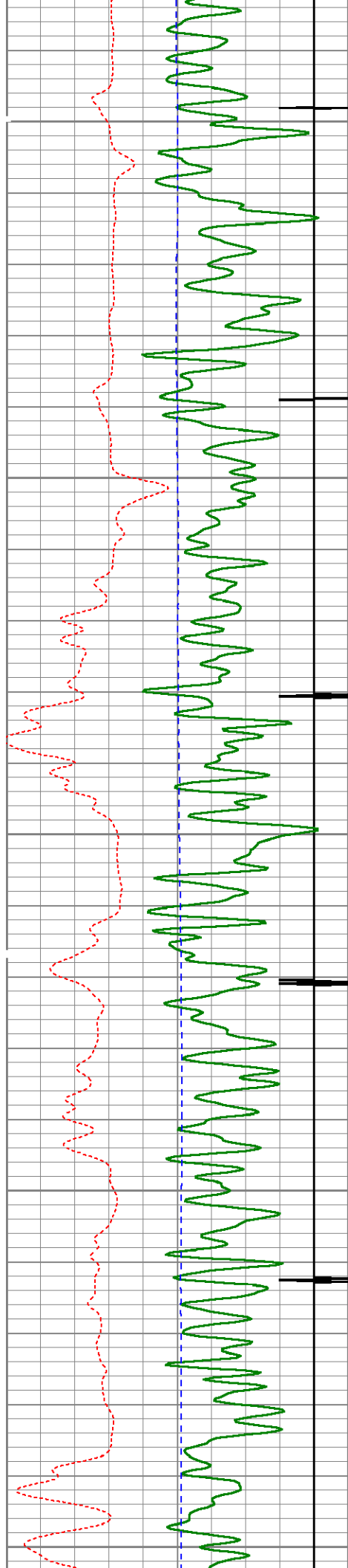
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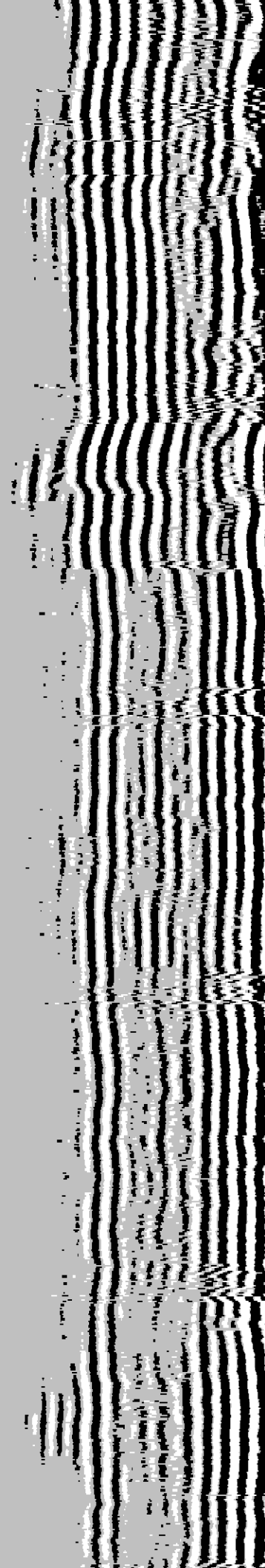
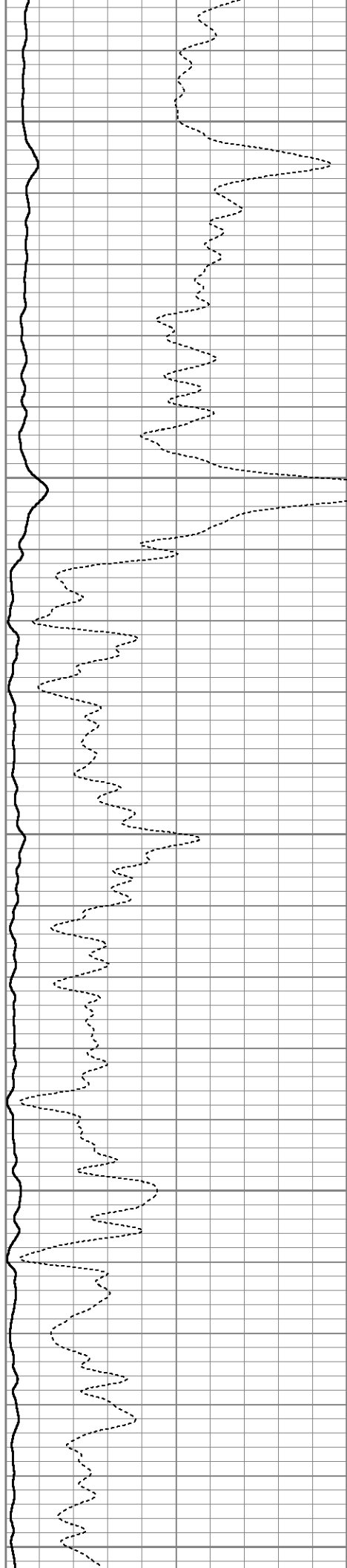
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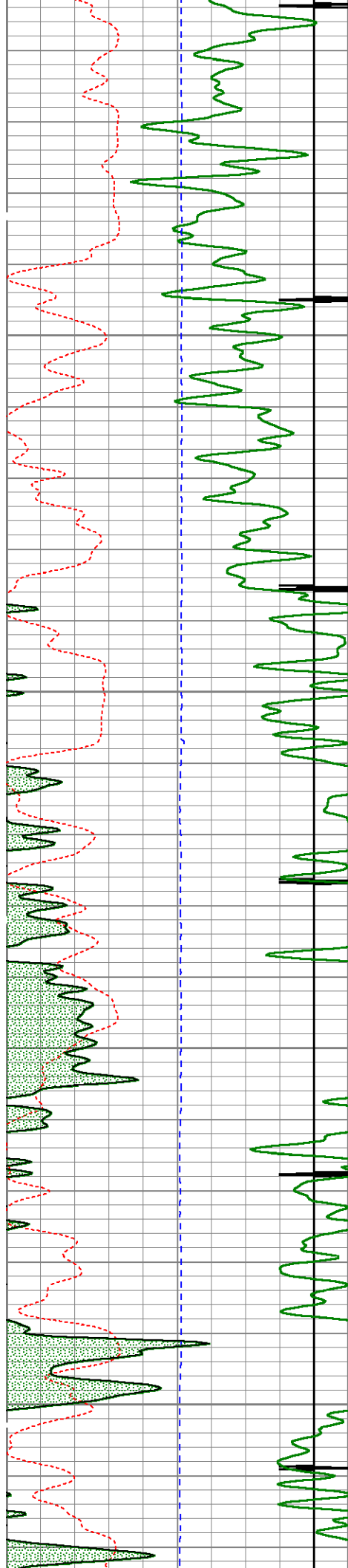
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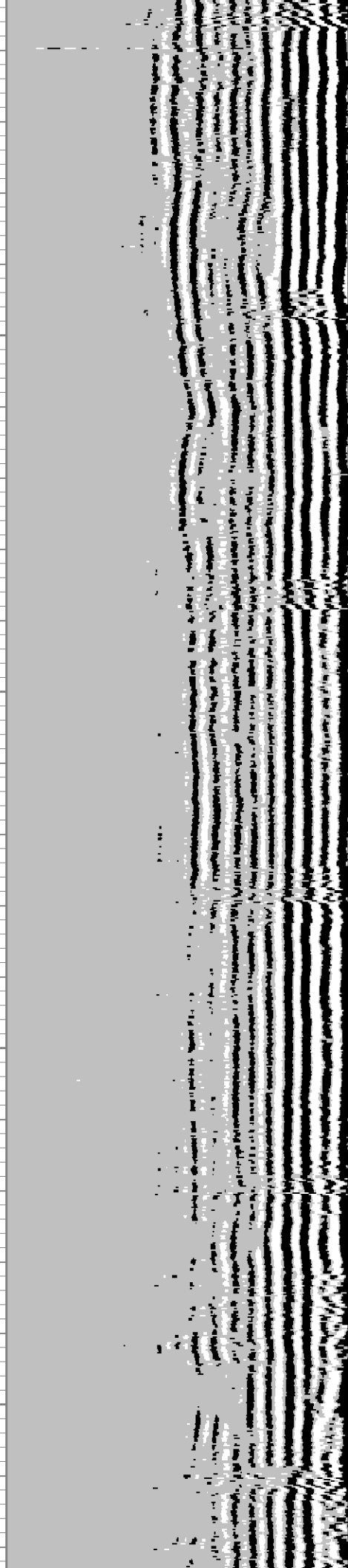
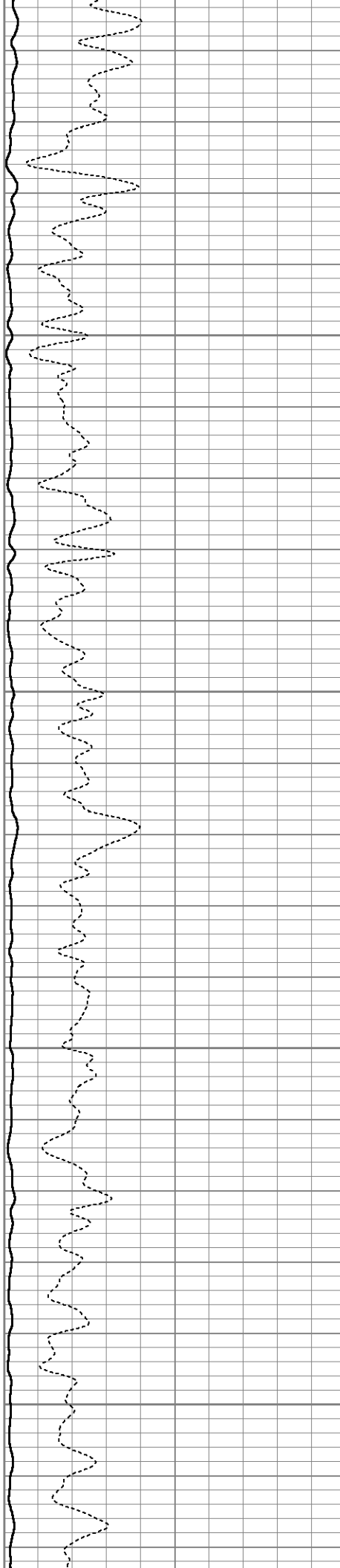


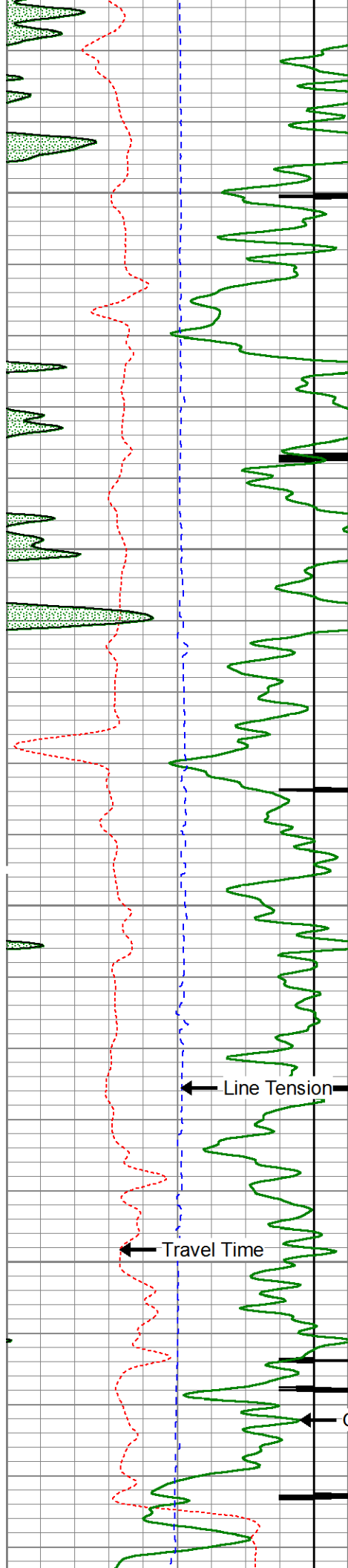
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6000

6050

6100





6150

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6300

← Line Tension

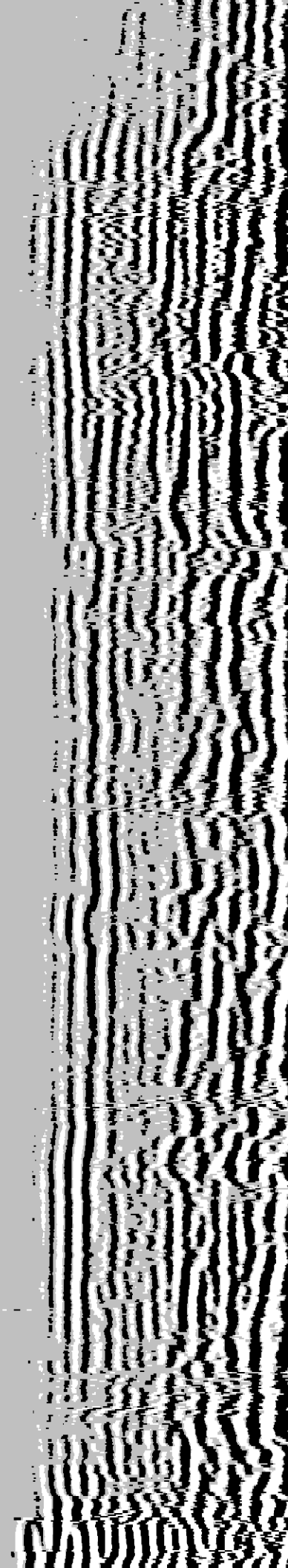
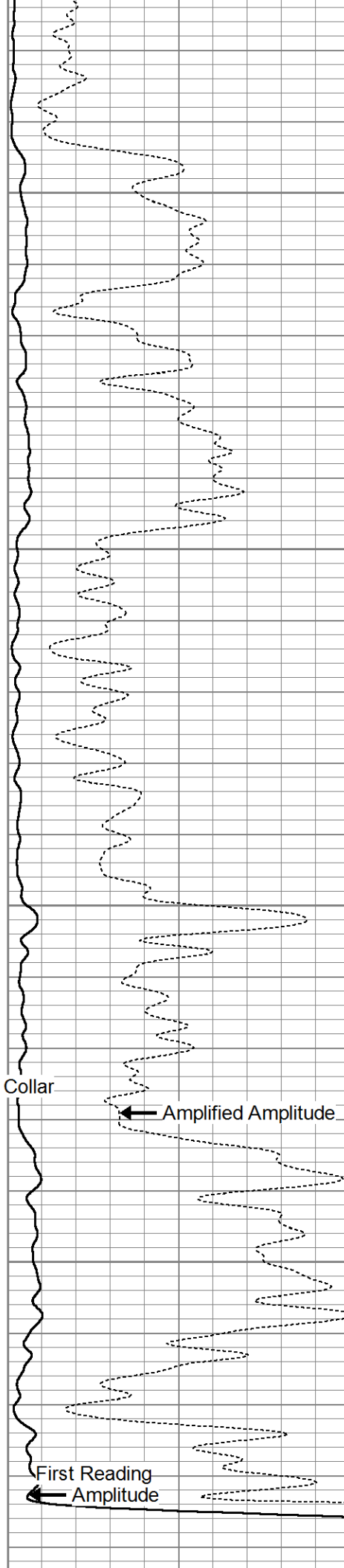
← Casing Collar

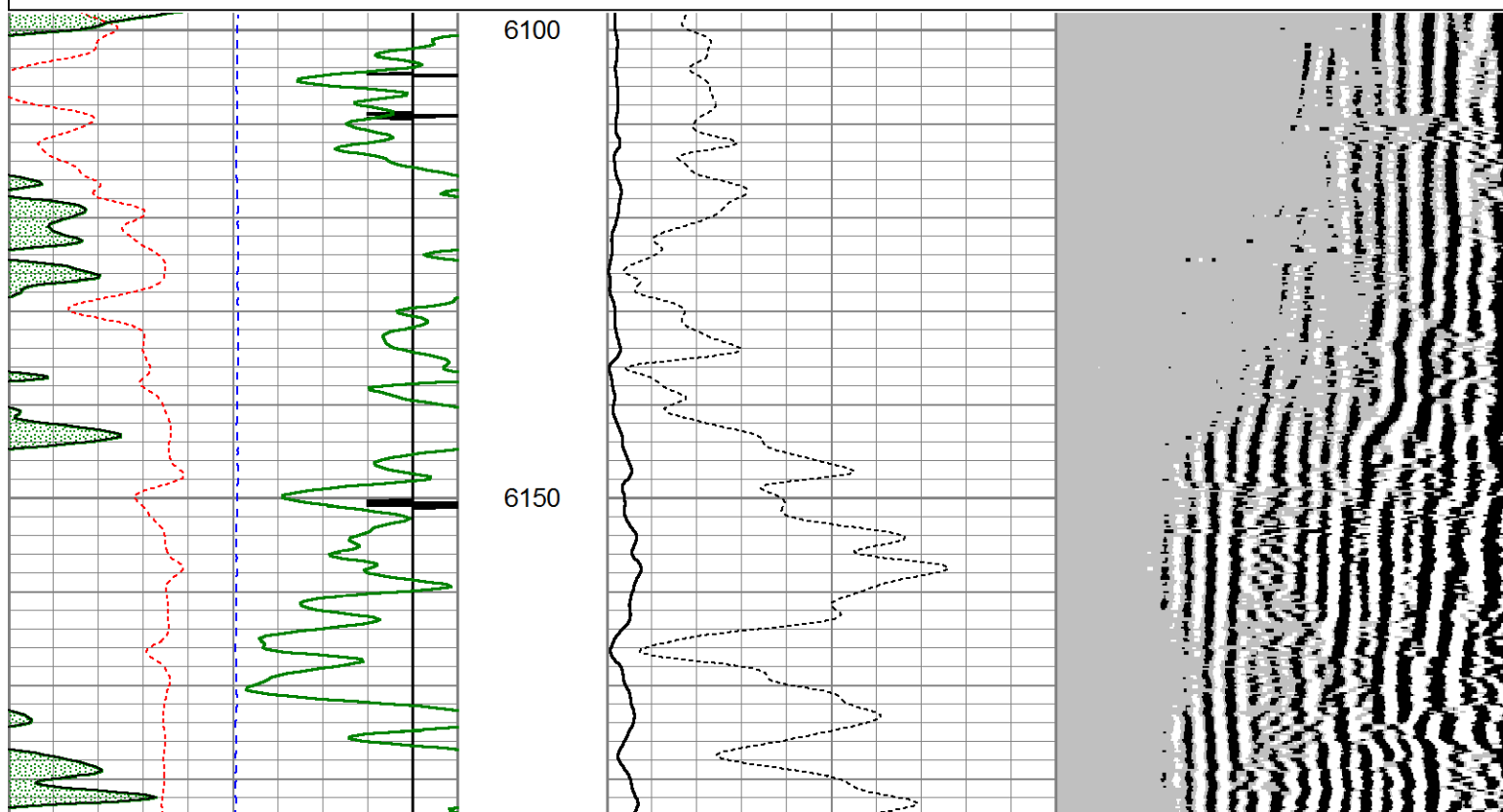
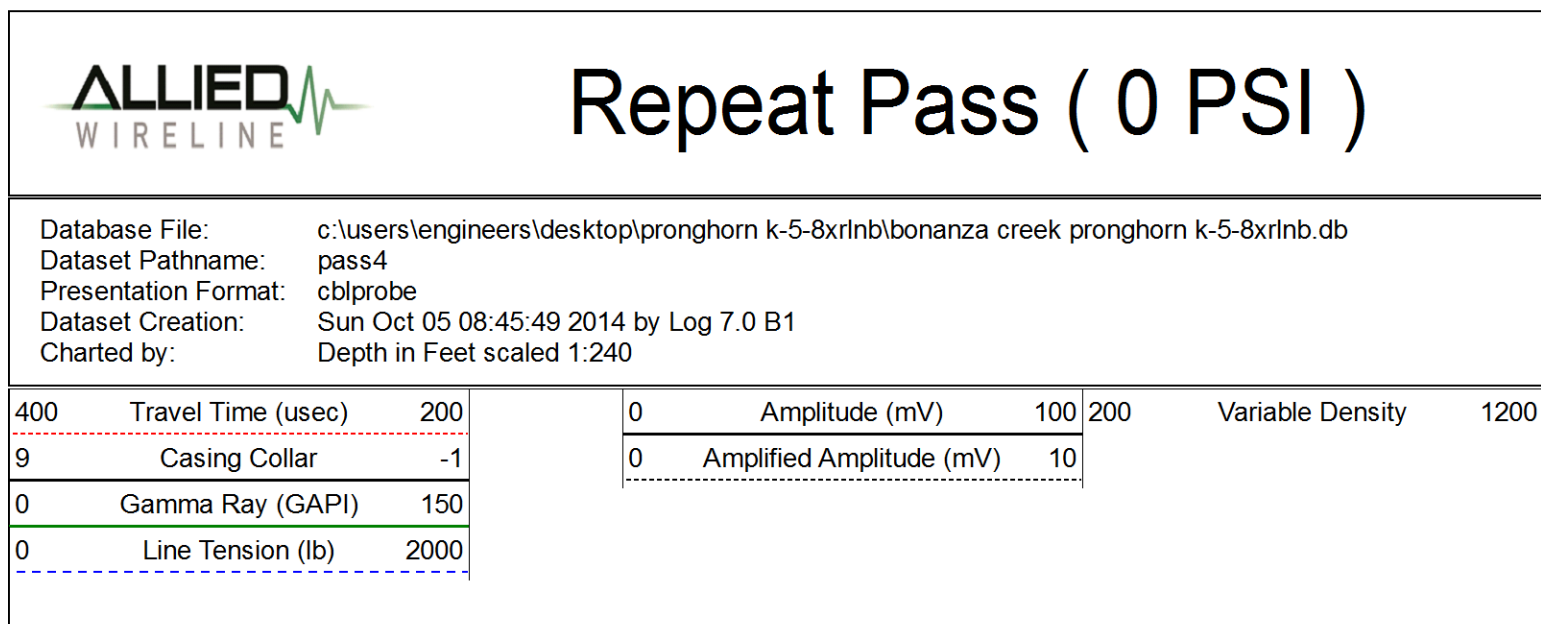
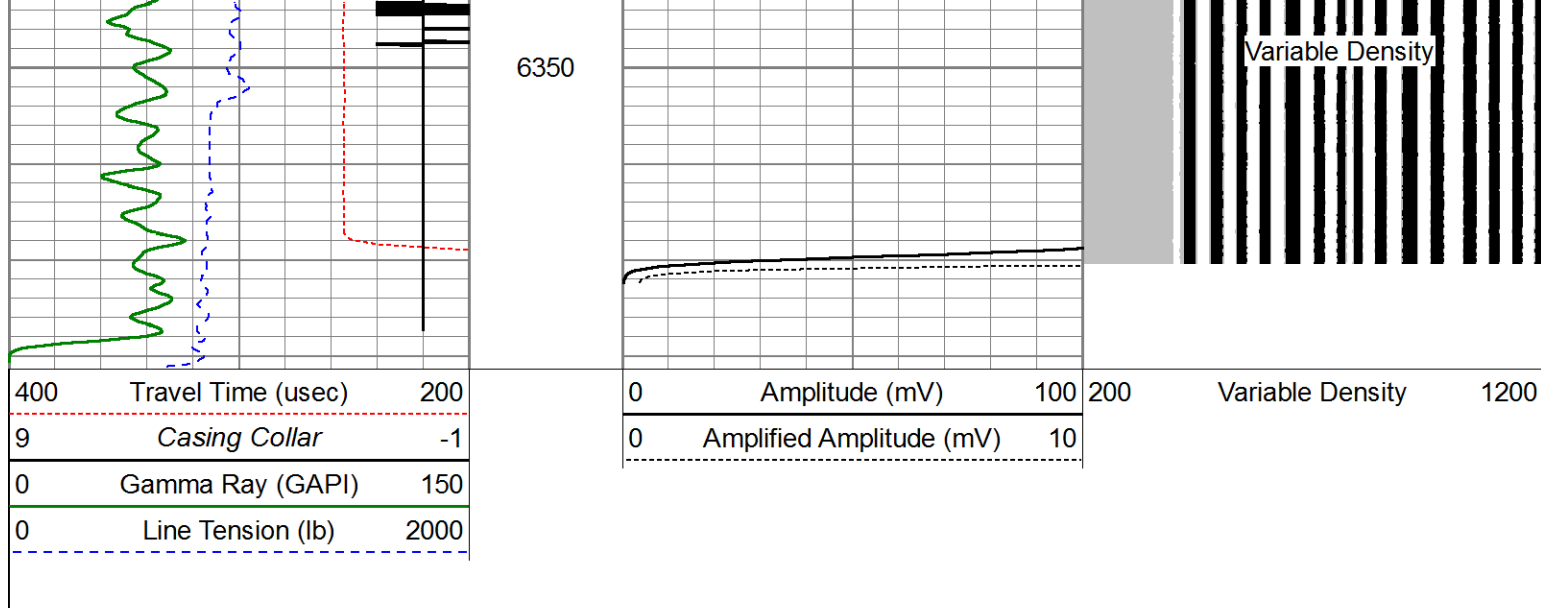
← Travel Time

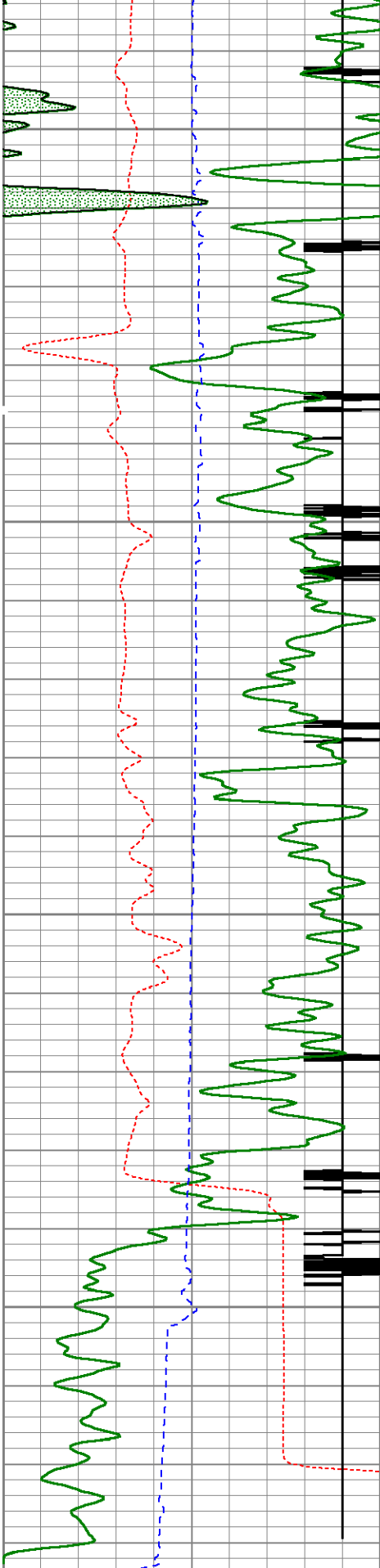
← Gamma Ray

First Reading
← Amplitude

← Amplified Amplitude







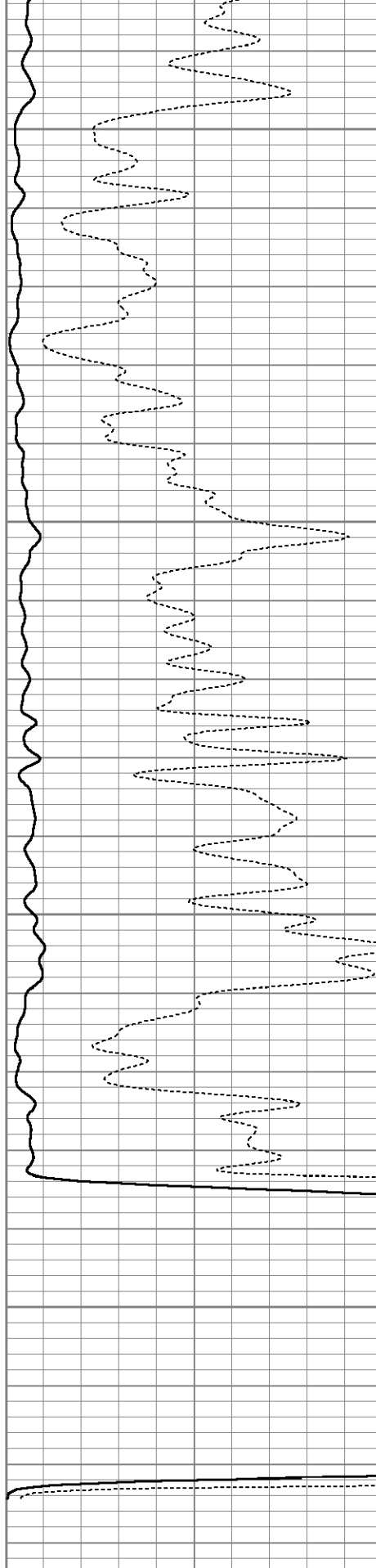
400	Travel Time (uSec)	200
9	Casing Collar	-1
0	Gamma Ray (GAPI)	150
0	Line Tension (lb)	2000

6200

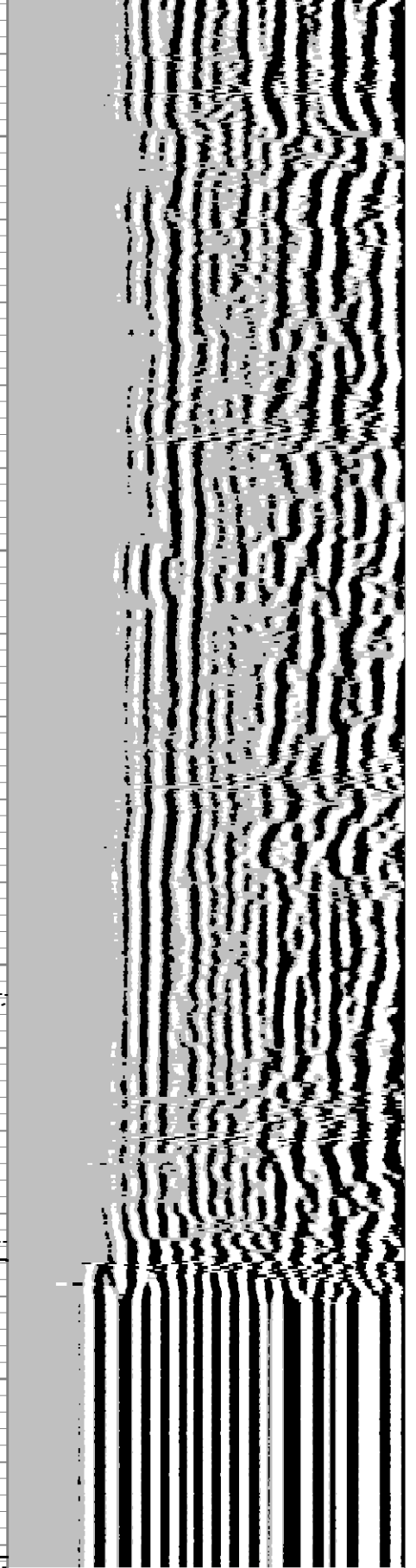
6250

6300

6350



0	Amplitude (mV)	100
0	Amplified Amplitude (mV)	10



200	Variable Density	1200
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Calibration Report

Database File: C:\Users\Engineers\Desktop\Pronghorn K-5-8XRLNB\bonanza creek pronghorn k-5-8xrlnb.db
 Dataset Pathname: pass6
 Dataset Creation: Sun Oct 05 08:51:55 2014 by Log 7.0 B1

Gamma Ray Calibration Report

Serial Number: 110109-Dig
 Tool Model: Probe275
 Performed: Fri Oct 03 14:09:32 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.8500 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 111107
 Tool Model: Probe

Calibration Casing Diameter: 7.000 in
 Calibration Depth: 695.433 ft

Master Calibration, performed Sun Oct 05 08:21:36 2014:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.006	0.624	1.000	62.165	99.007	0.382
CAL	0.005	1.076				
5'	0.012	0.573	1.000	62.165	108.986	-0.284
SUM						
S1	-0.066	0.665	0.000	100.000	136.823	9.041
S2	0.019	0.726	0.000	100.000	141.446	-2.721
S3	0.008	0.683	0.000	100.000	148.333	-1.257
S4	0.009	0.629	0.000	100.000	161.108	-1.373
S5	0.008	0.575	0.000	100.000	176.278	-1.416
S6	0.009	0.534	0.000	100.000	190.489	-1.672
S7	0.009	0.522	0.000	100.000	194.955	-1.811
S8	0.009	0.588	0.000	100.000	172.907	-1.610

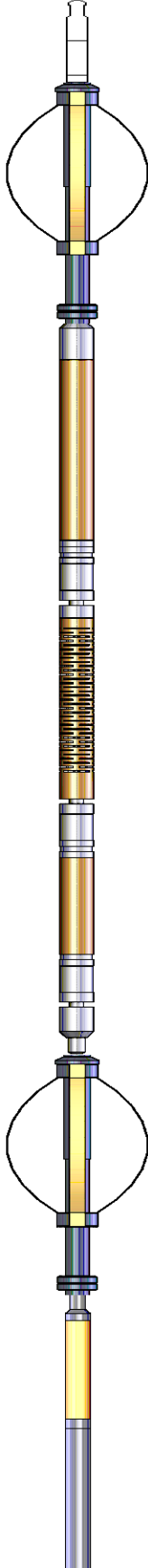
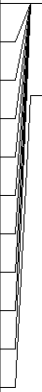
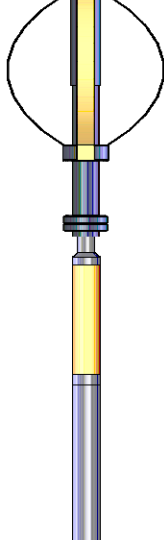

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.005	1.076	1.000	0.000

Air Zero Calibration, performed Wed Dec 31 17:00:00 1969:

	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
WVF3FT	11.84		RBT-Probe (111107) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFCAL	11.84					
WVFS1	11.84					
WVFS2	11.84					
WVFS3	11.84					
WVFS4	11.84					
WVFS5	11.84					
WVFS6	11.84					
WVFS7	11.84					
WVFS8	11.84					
WVF5FT	10.84					
			Probe275 2.75" Centralizer	2.88	2.75	20.00
CCL	3.88					
GR	2.54		GR-Probe275 (110109-Dig) Probe 2 3/4" Logging Gamma Ray	4.78	2.75	57.00



Dataset:	bonanza creek pronghorn k-5-8xrlnb.db: field/well/run1/pass6
Total Length:	20.28 ft
Total Weight:	197.00 lb
O.D.	2.75 in