



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: **Company** **WPX ENERGY**

CH086323 **Well** **FEDERAL RGU 533-24-198**

API No: **Field** **SULPHUR CREEK**

05103120810000 **County** **RIO BLANCO** **State** **COLORADO**

24 1'S 98W **Location** **SHL: 2173' FSL & 1715' FEL**

RGU 33-24-198 PAD **BHL: 2526' FSL & 1796' FEL**

CYCLONE 29 **SEC** **24** **TWP** **1S** **RGE** **98W**

**Other Services**  
RPM

Permanent Datum **GL** **Elevation** **6596 ft**

Log Measured From **KB** **21 ft** **Above P. D.**

Drill Measured From **KELLY BUSHING**

**Elevations**

**KB** **6617 ft**

**DF**

**GL** **6596 ft**

Date	18/MAY/14	
Run	ONE	
Service Order	US086323J	
Depth Driller	12747 ft	
Depth Logger	129698 ft	
Bottom Logged Interval	12688 ft	
Top Logged Interval	21 ft	
Time Started	0800	
Time Finished	1300	
Operator Rig Time	5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	86 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	66 fpm	
Maximum Recorded Temperature	283 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRAND JCT
Recorded By	FLOYD RENEAU	
Witnessed By	WAYNE MARGOTTE	

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In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Borehole Record		
Bit Size	From	To
30 in	21 ft	80 ft
14.73/13.5	80 ft	3901 ft
8.75/7.875	3901 ft	12747 ft

Casing Record				
Size	Weight	Grade	From	To
18 in			21 ft	80 ft
9.625 in			21 ft	3901 ft
4.5 in	11.6 lbm/ft	P-110	21 ft	12747 ft

Remarks
All data on this log is shifted using the CCL curve to put the wellhead (top CCL mark) on depth with ground level elevation at the client's request.
The amount of linear shift is 8 feet.
Logged with zero PSI at wellhead.
BHT = 283°F

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENT
1	1	GRICCL	2459XA	10417465	CENT

PRIMARY PRESENTATION  
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	31.312	12702.500
RAL	Amp Gate Start Near	195.000	usec	31.312	12702.500
RAL	Amp Gate Start Radial	195.000	usec	31.312	12702.500
RAL	Amp Gate Width Far	25.000	usec	31.312	12702.500
RAL	Amp Gate Width Near	25.000	usec	31.312	12702.500
RAL	Amp Gate Width Radial	25.000	usec	31.312	12702.500
RAL	casing od	4.500	inches	31.312	12702.500
RAL	casing wt	11.600	lbm/ft	31.312	12702.500
RAL	FB Start Far	291.900	usec	31.312	12702.500
RAL	FB Start Near	180.000	usec	31.312	12702.500
RAL	FB Start Radial	180.000	usec	31.312	12702.500
RAL	FB Thresh Far	10.000	mv	31.312	12702.500
RAL	FB Thresh Near	4.000	mv	31.312	12702.500
RAL	FB Thresh Radial	4.000	mv	31.312	12702.500
RAL	Fluid Travel Time	200.000	usec/ft	31.312	12703.250

DEPTH OFFSETS  
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4

		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

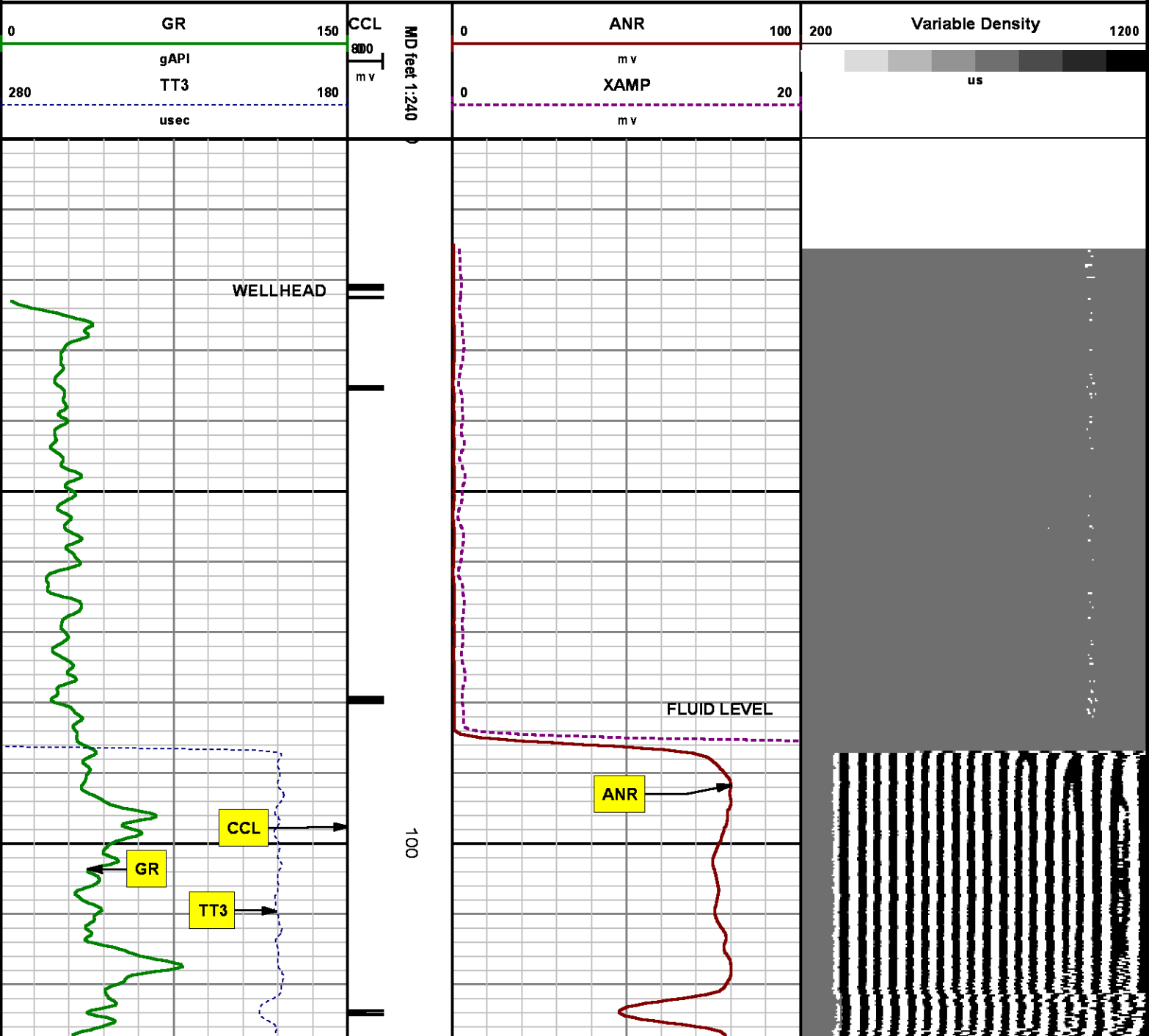
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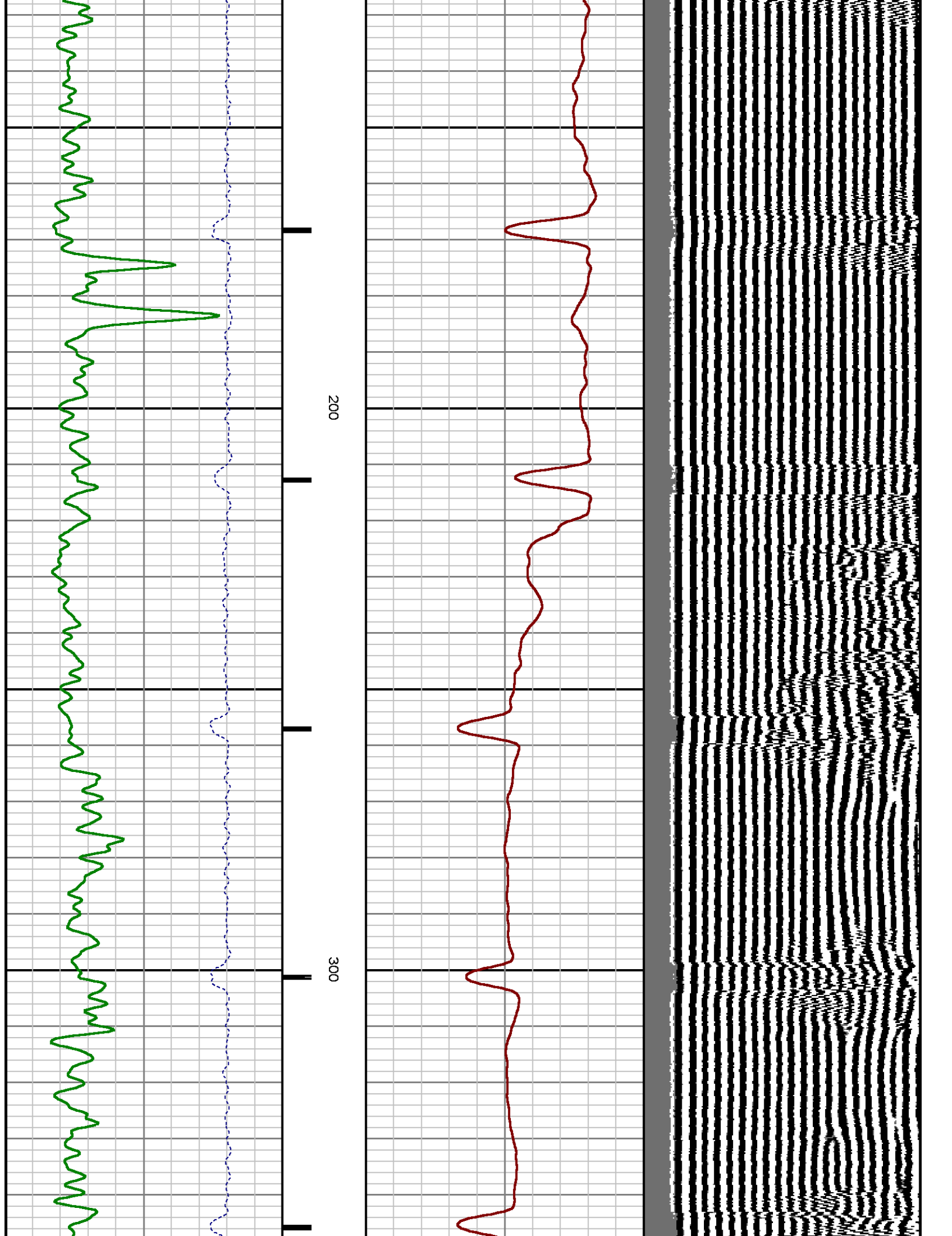
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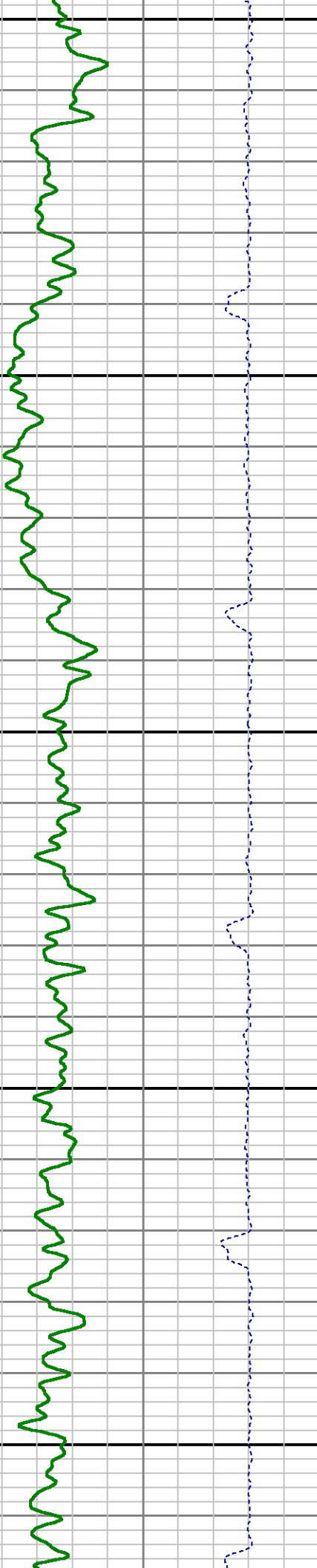
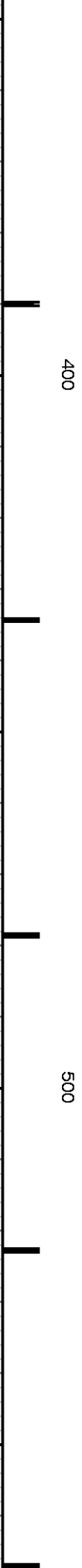
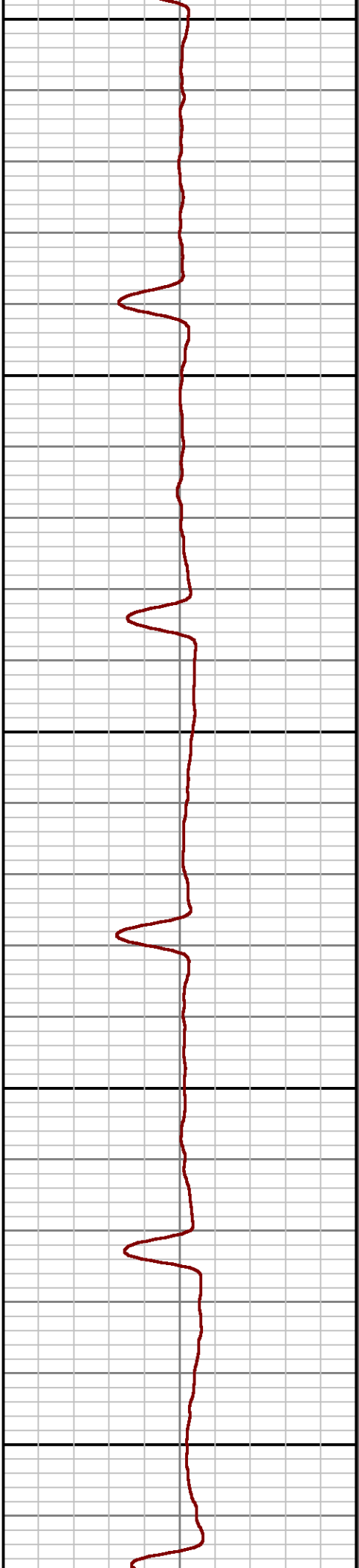
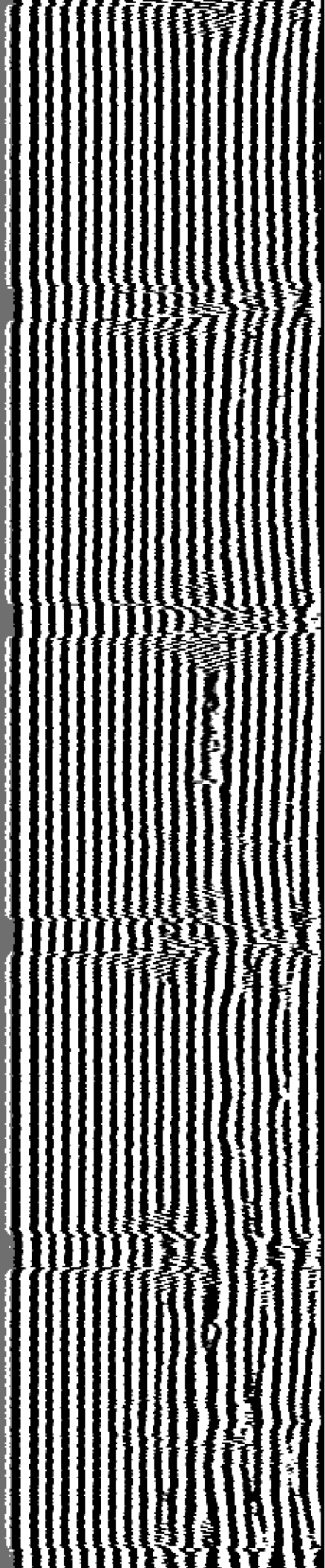
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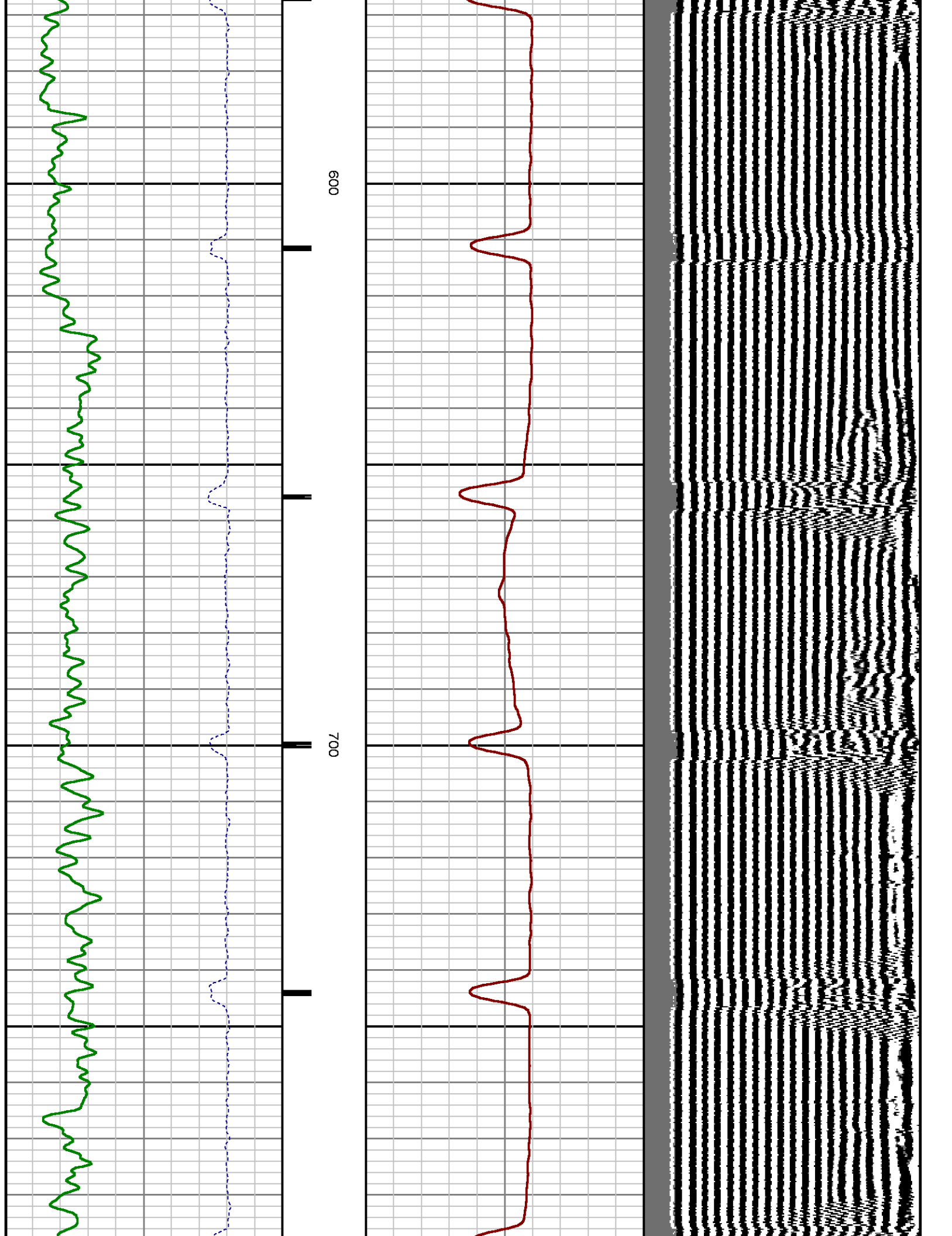
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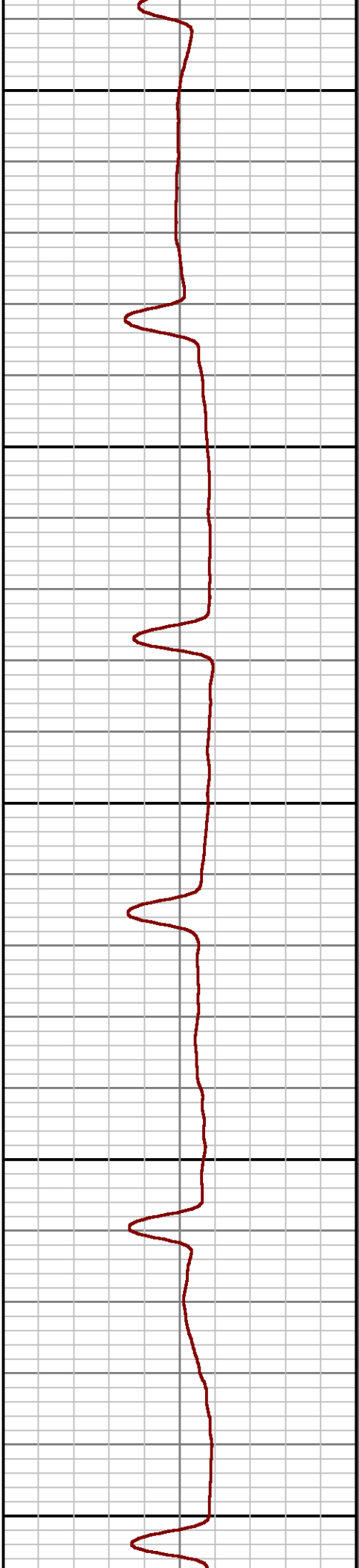
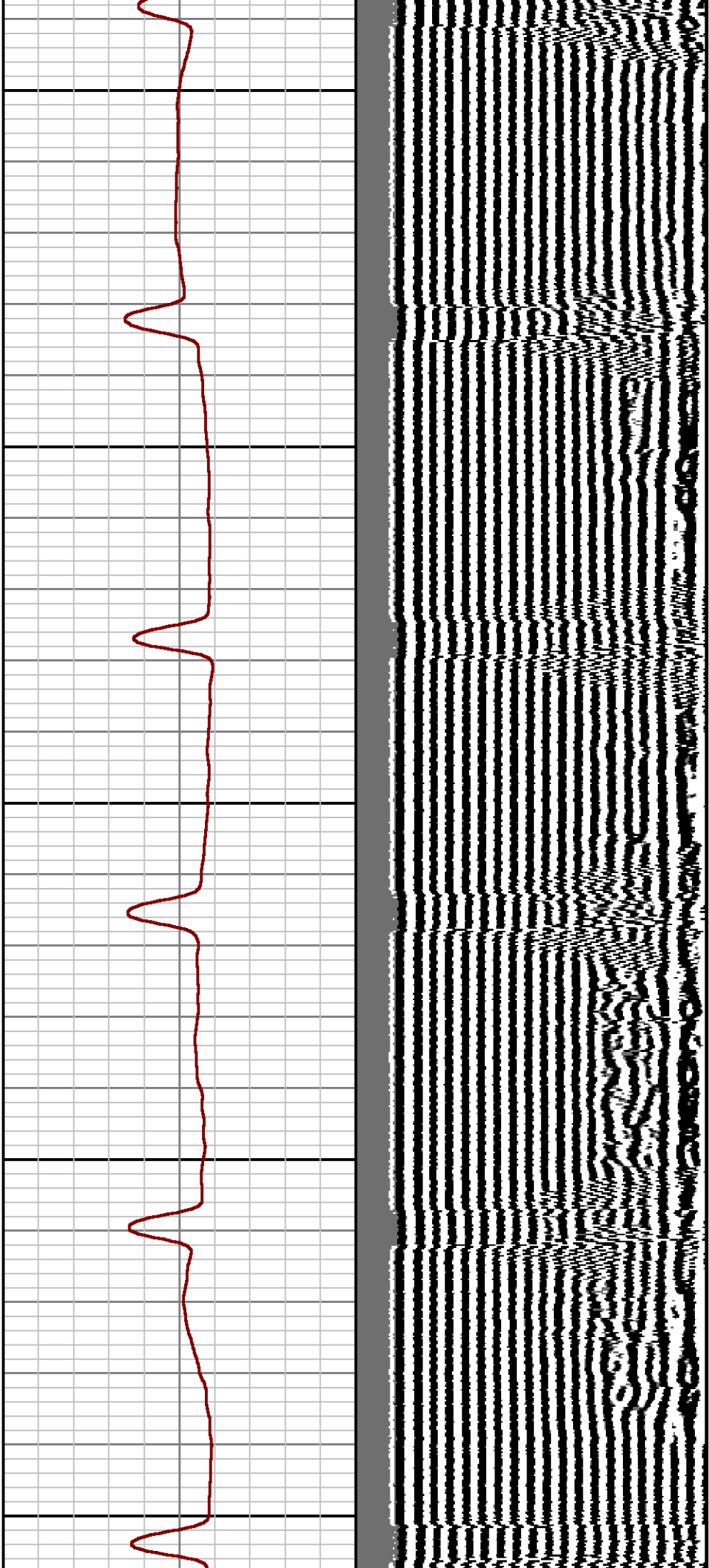








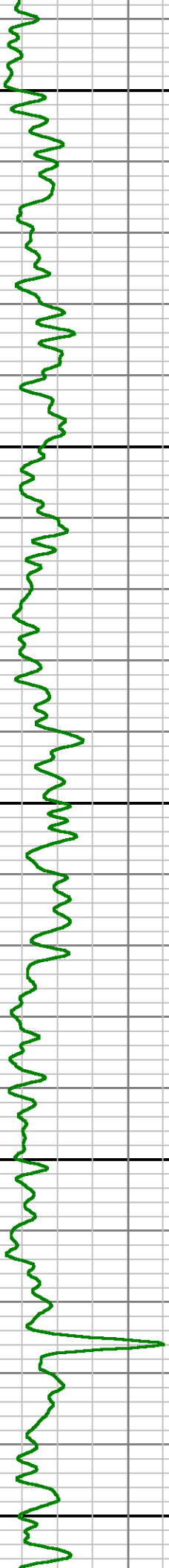
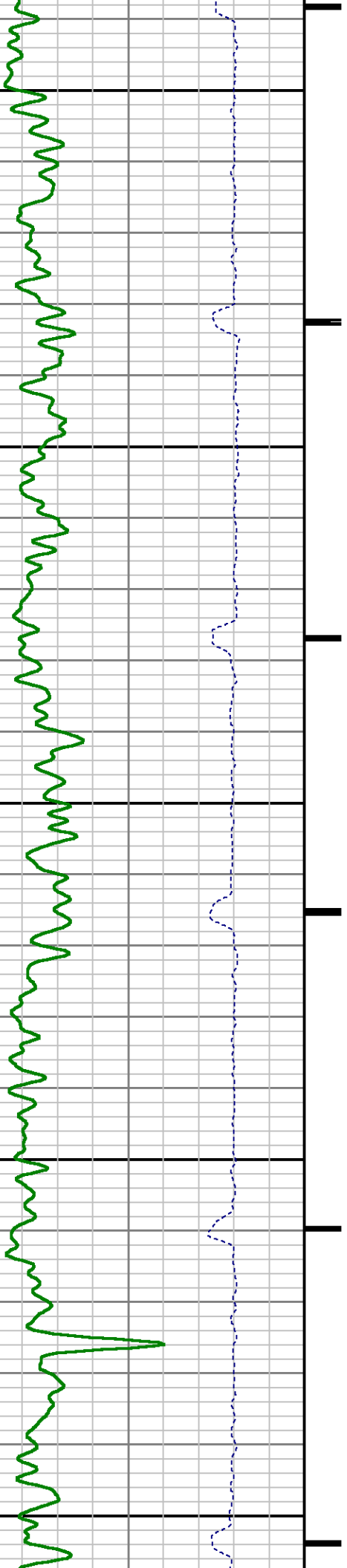


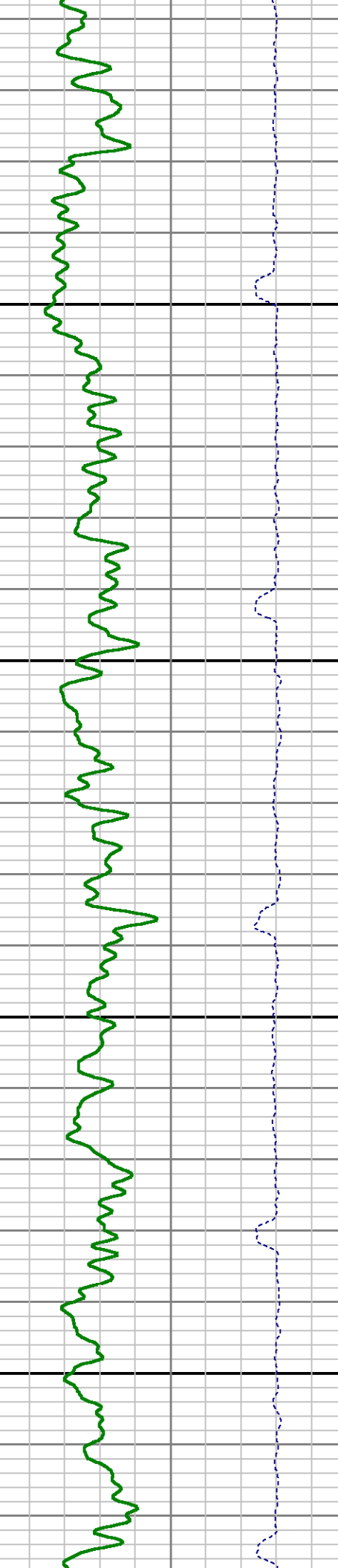
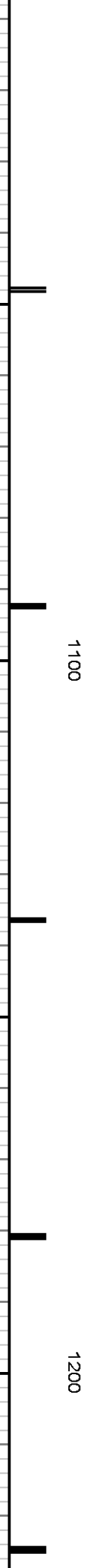
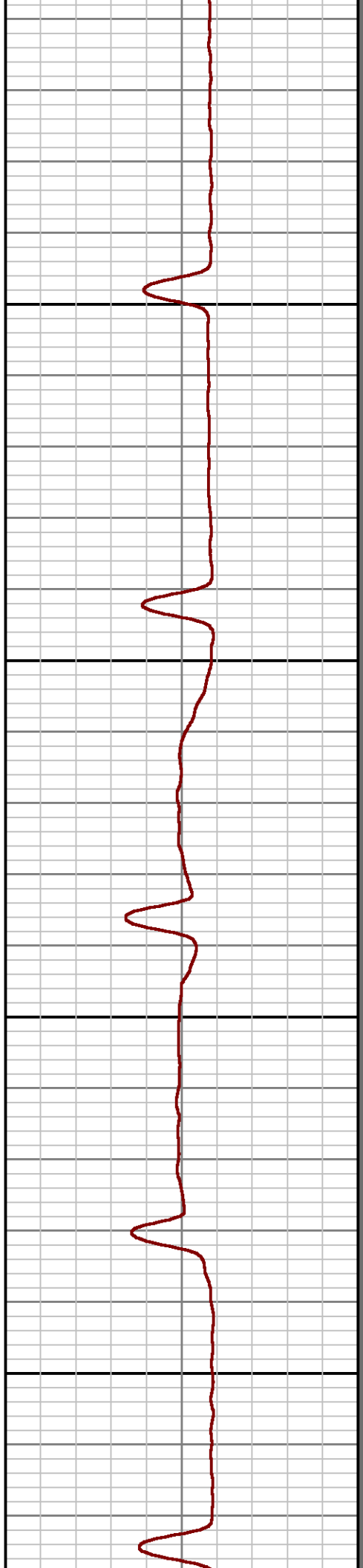
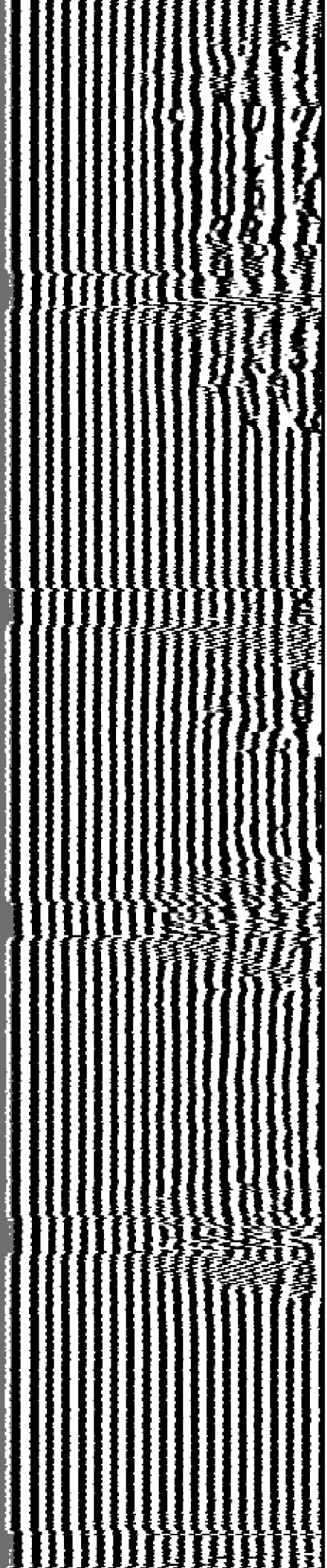


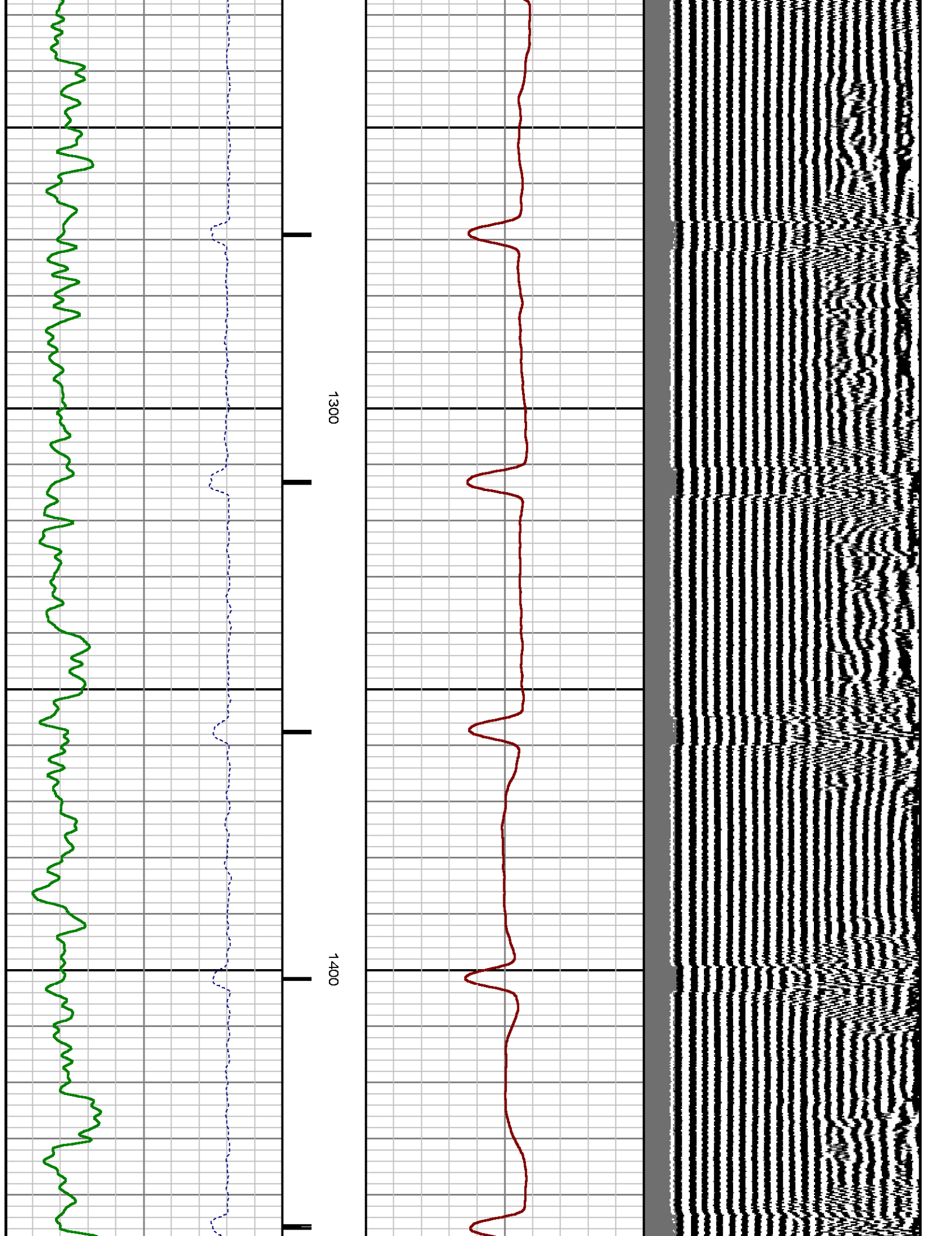
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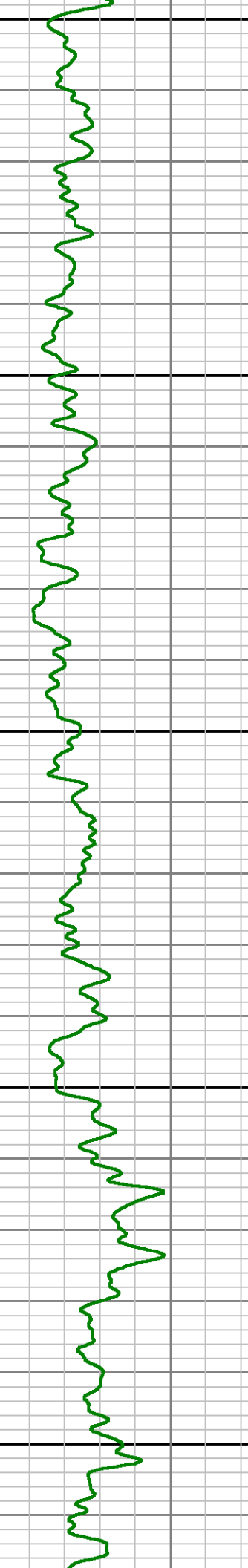
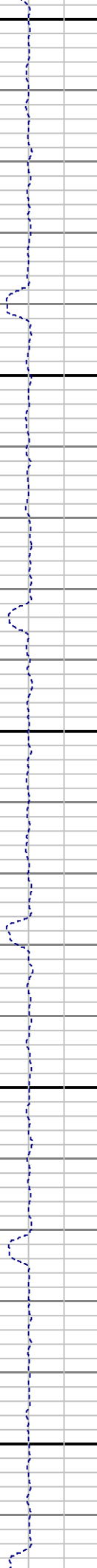
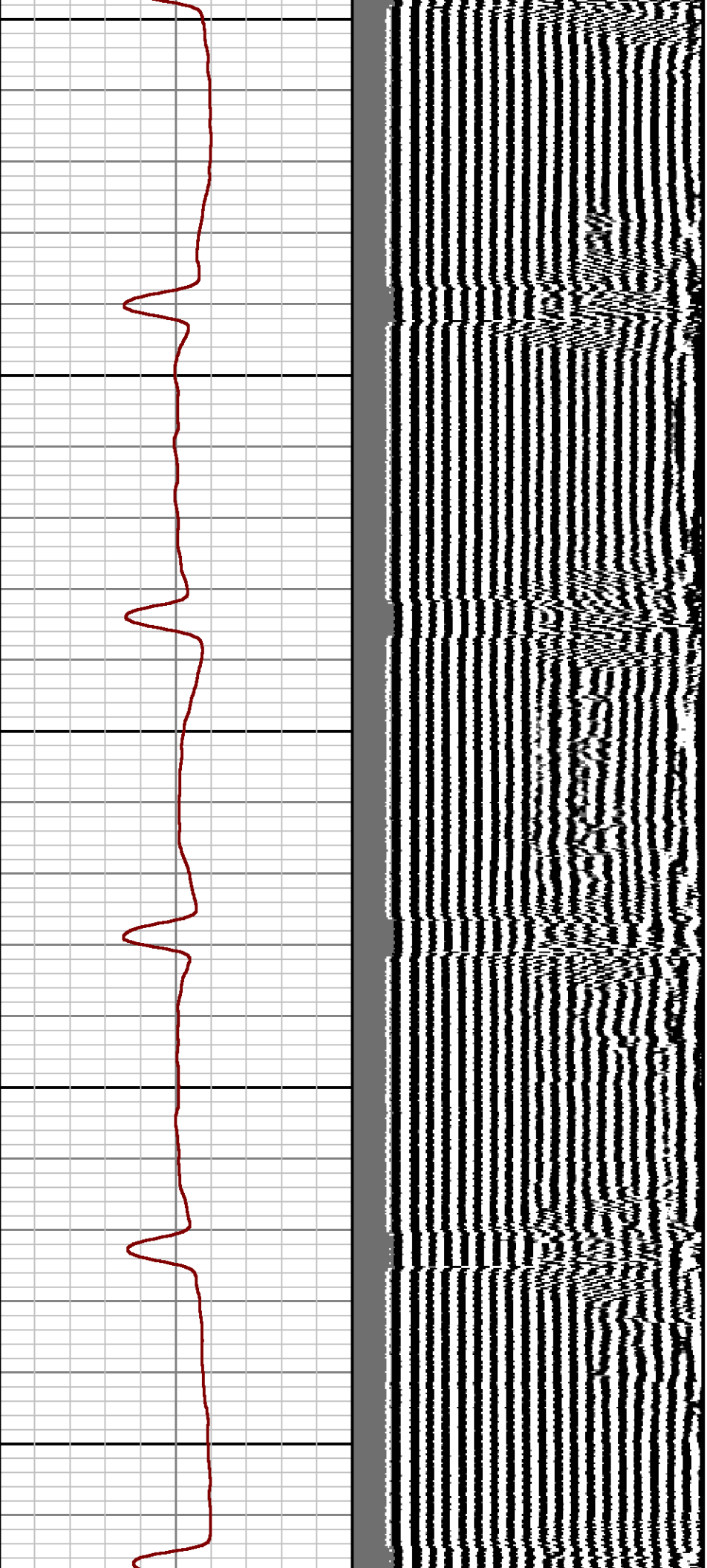
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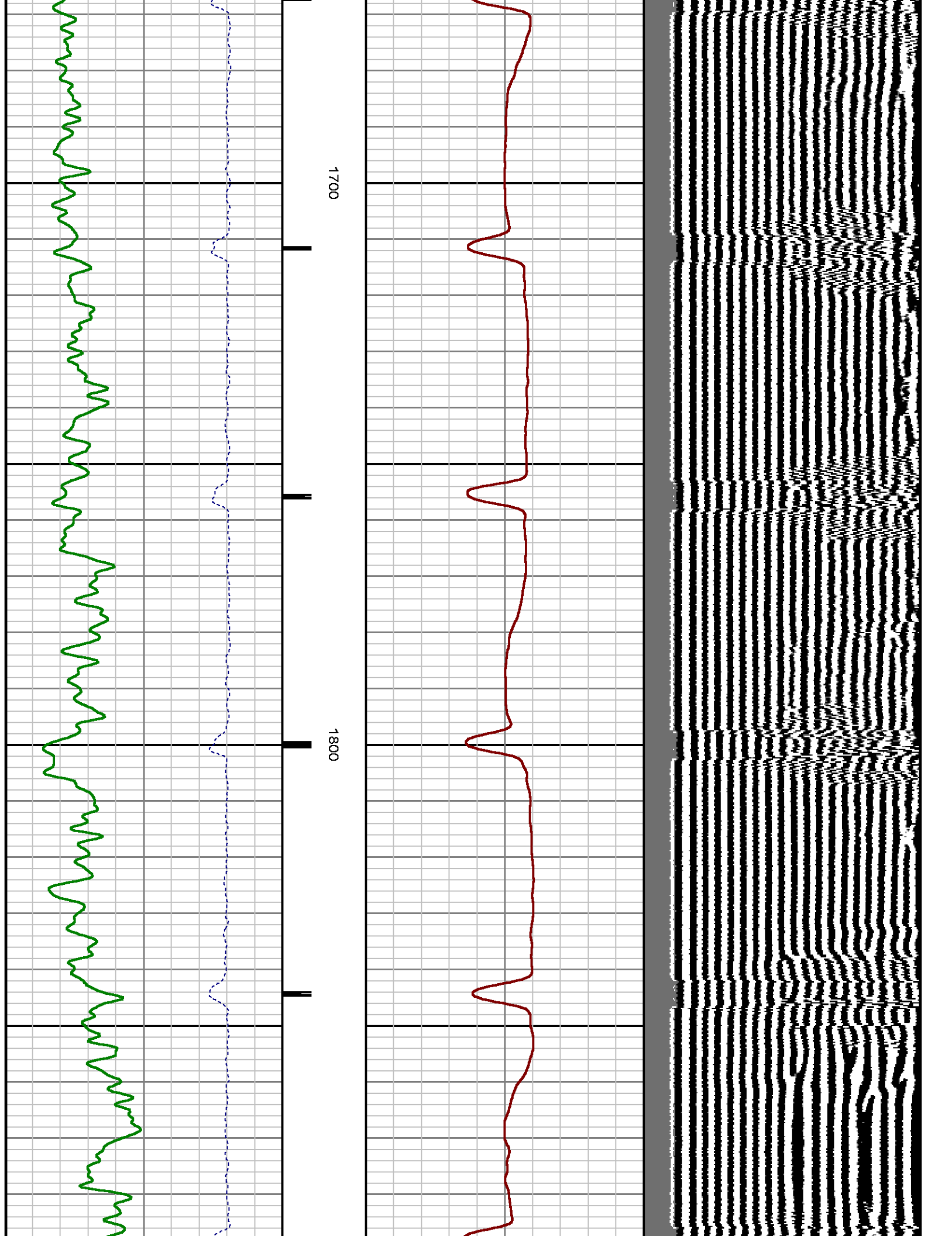


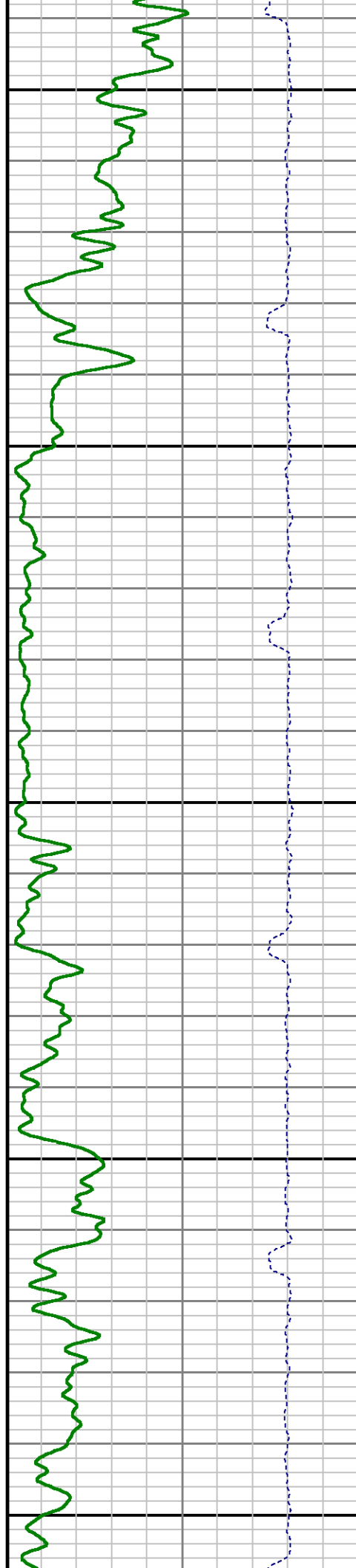
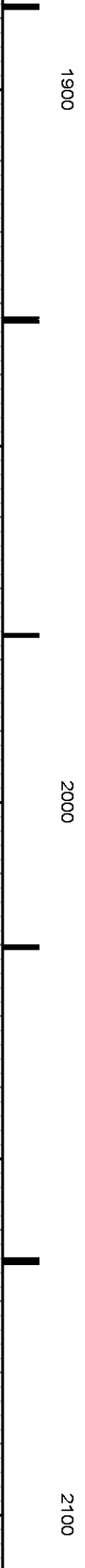
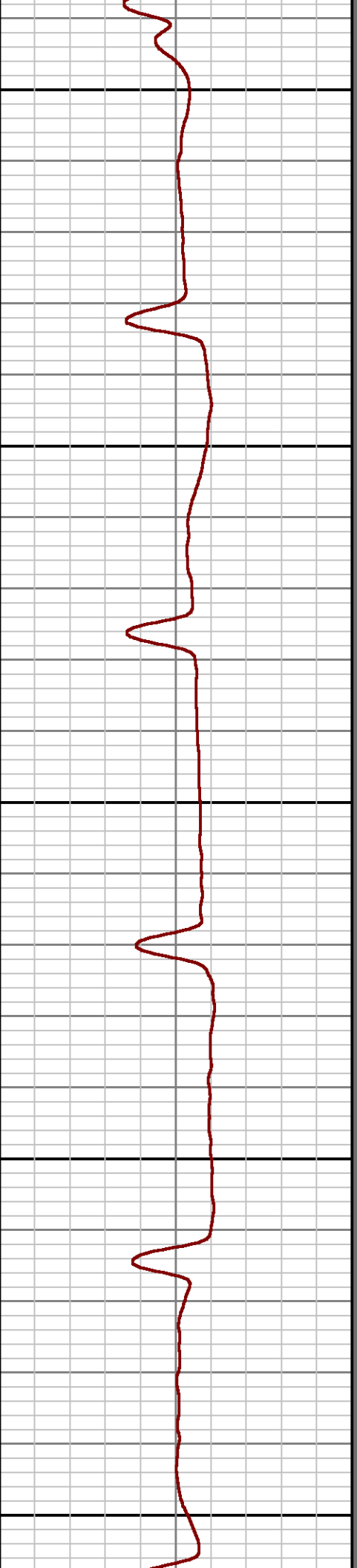
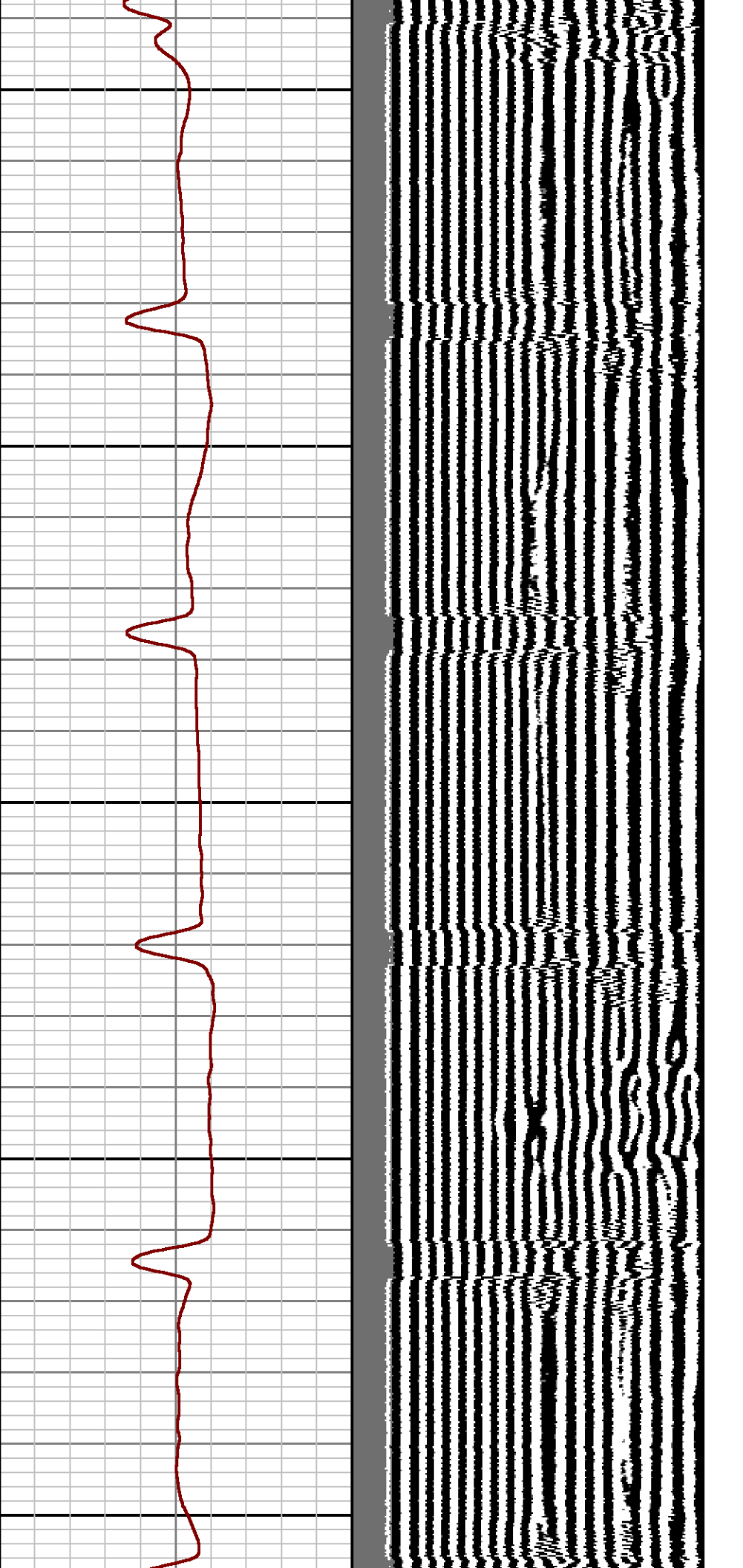




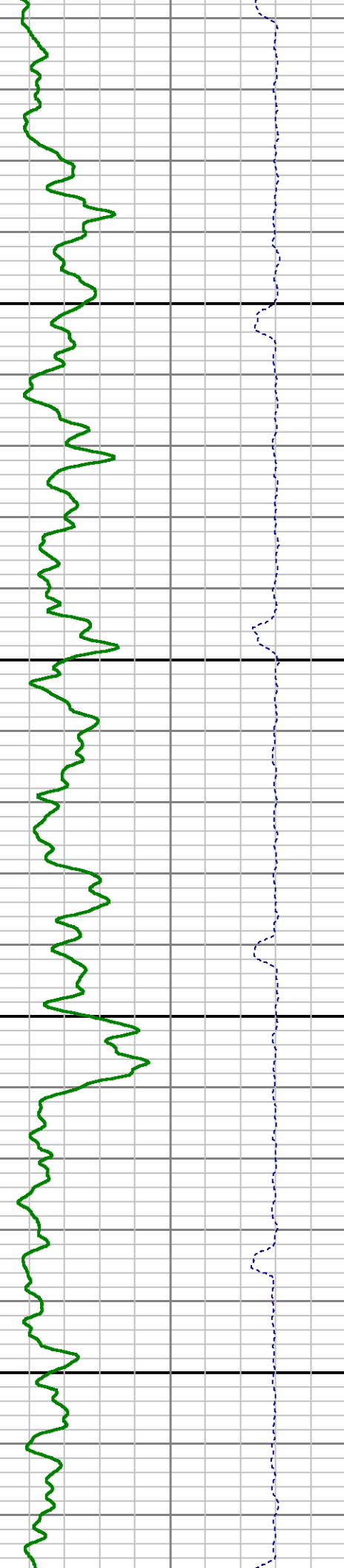
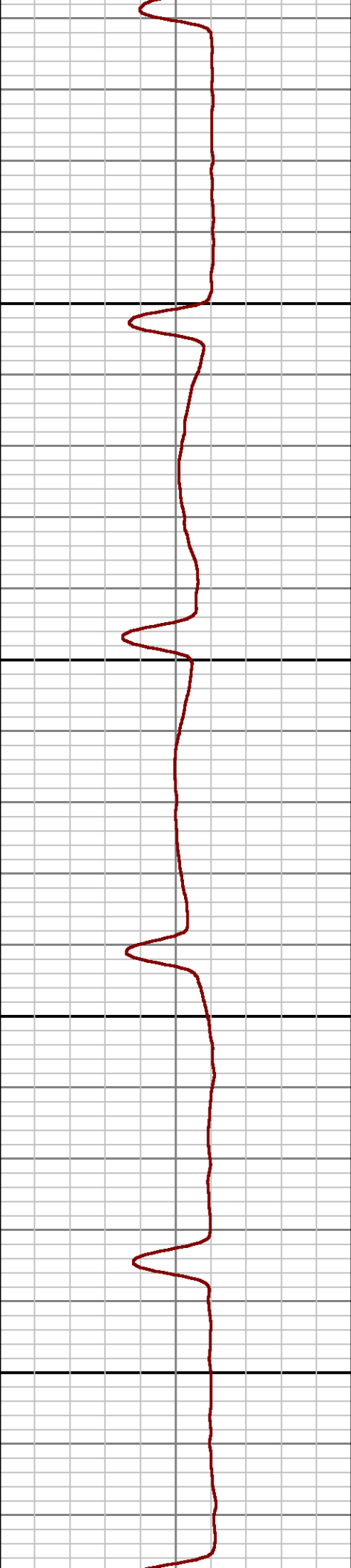
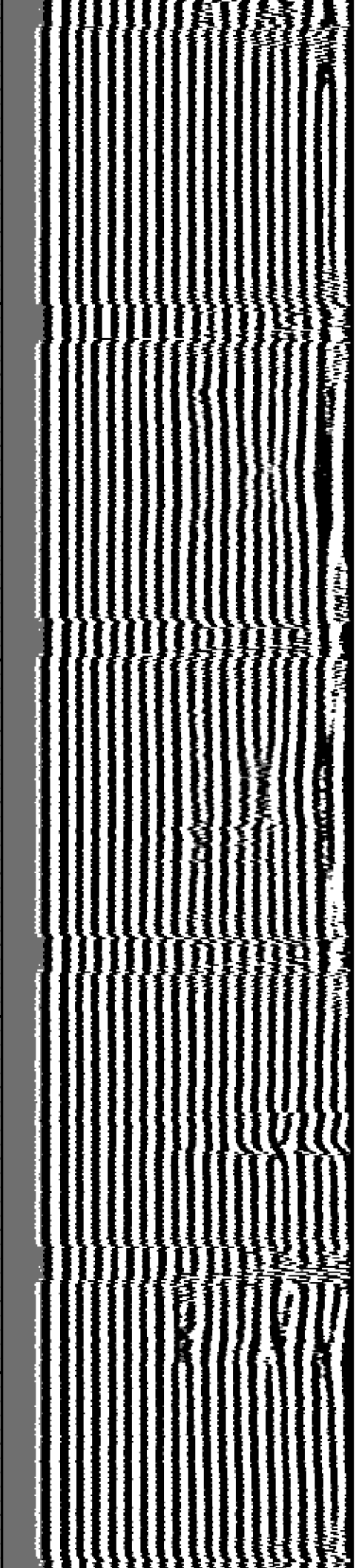


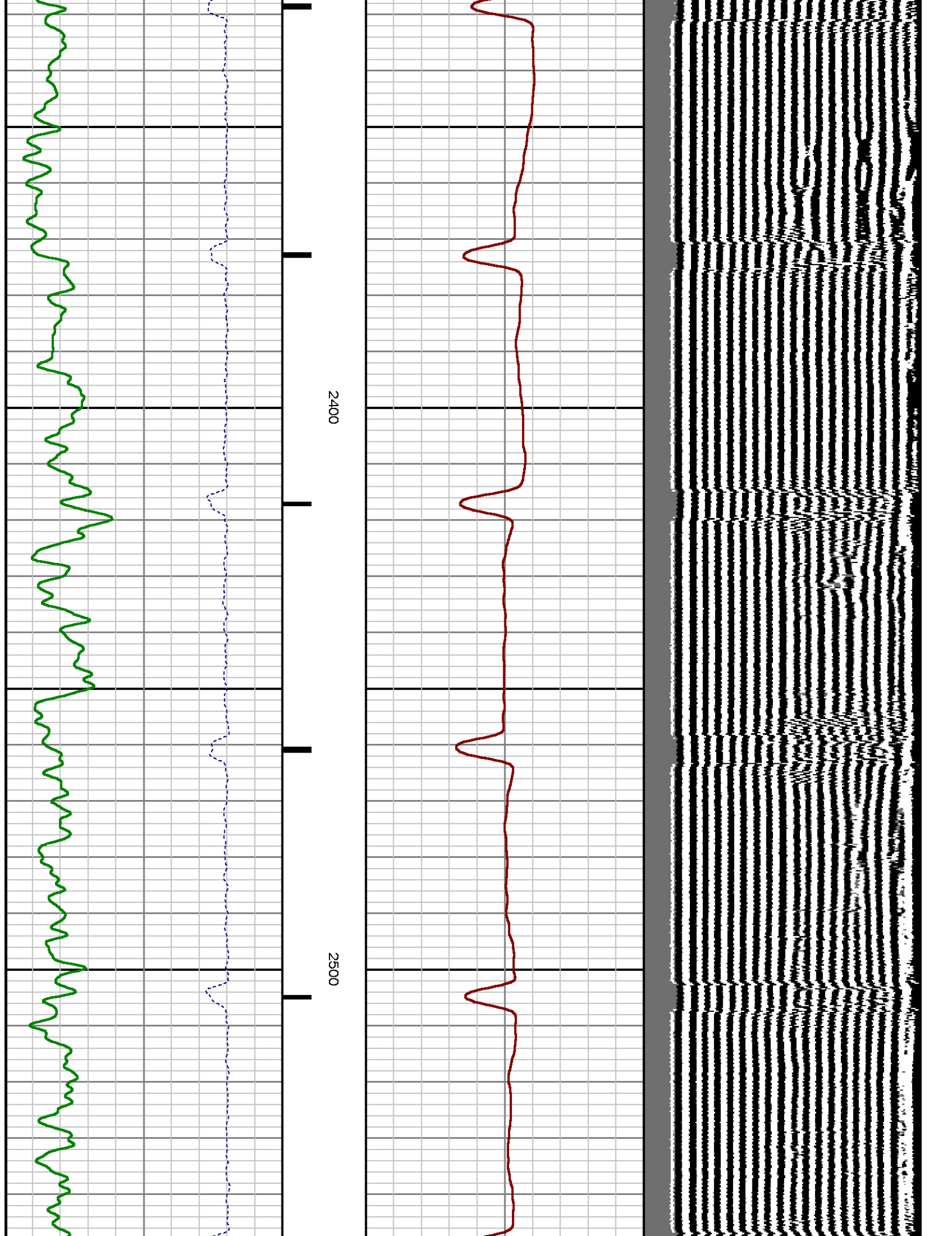


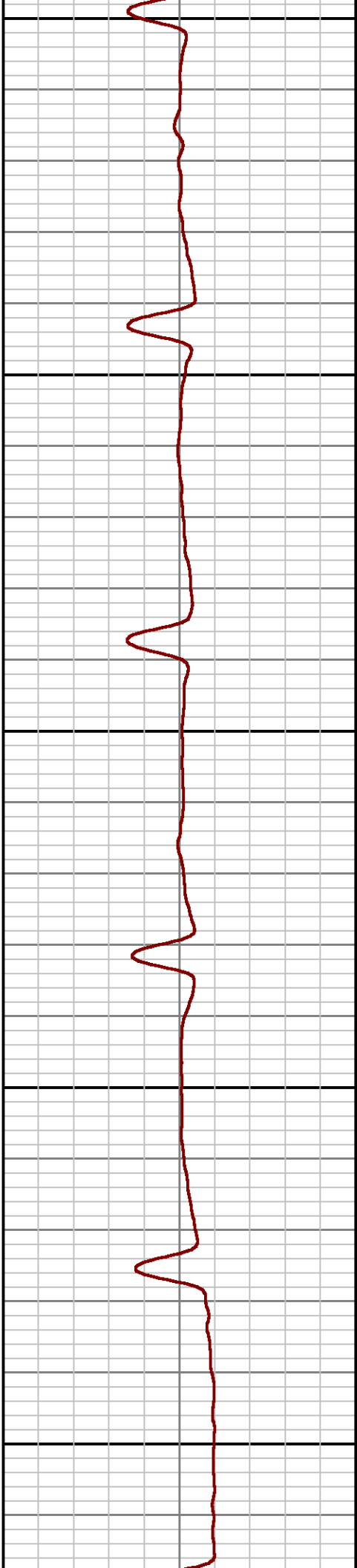
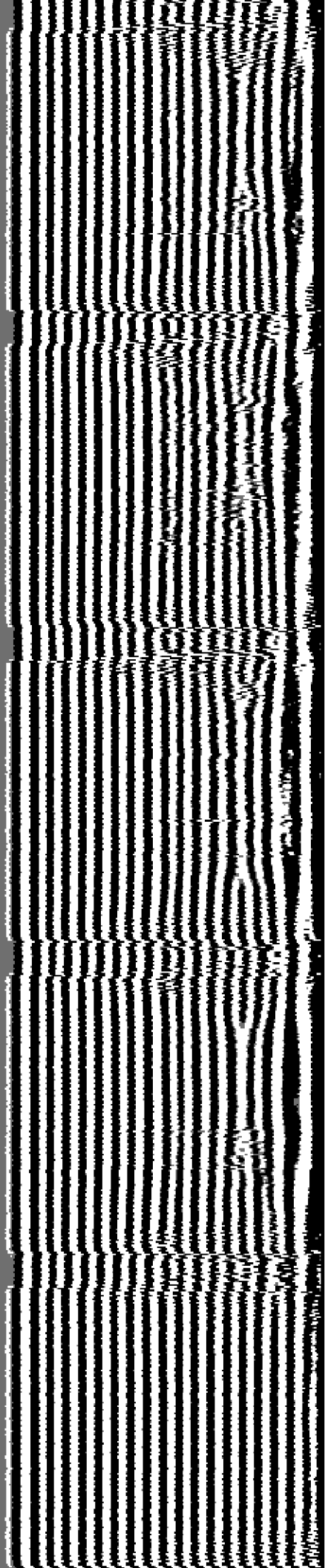






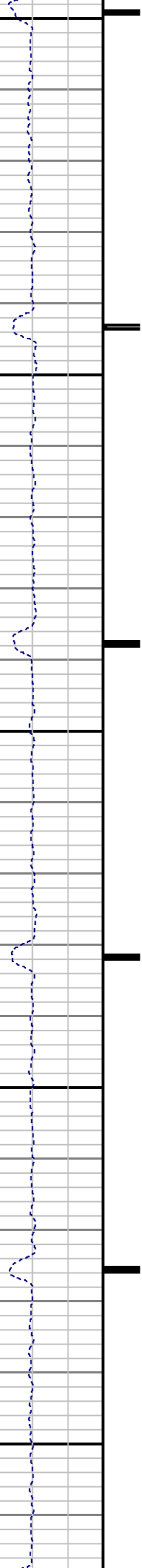


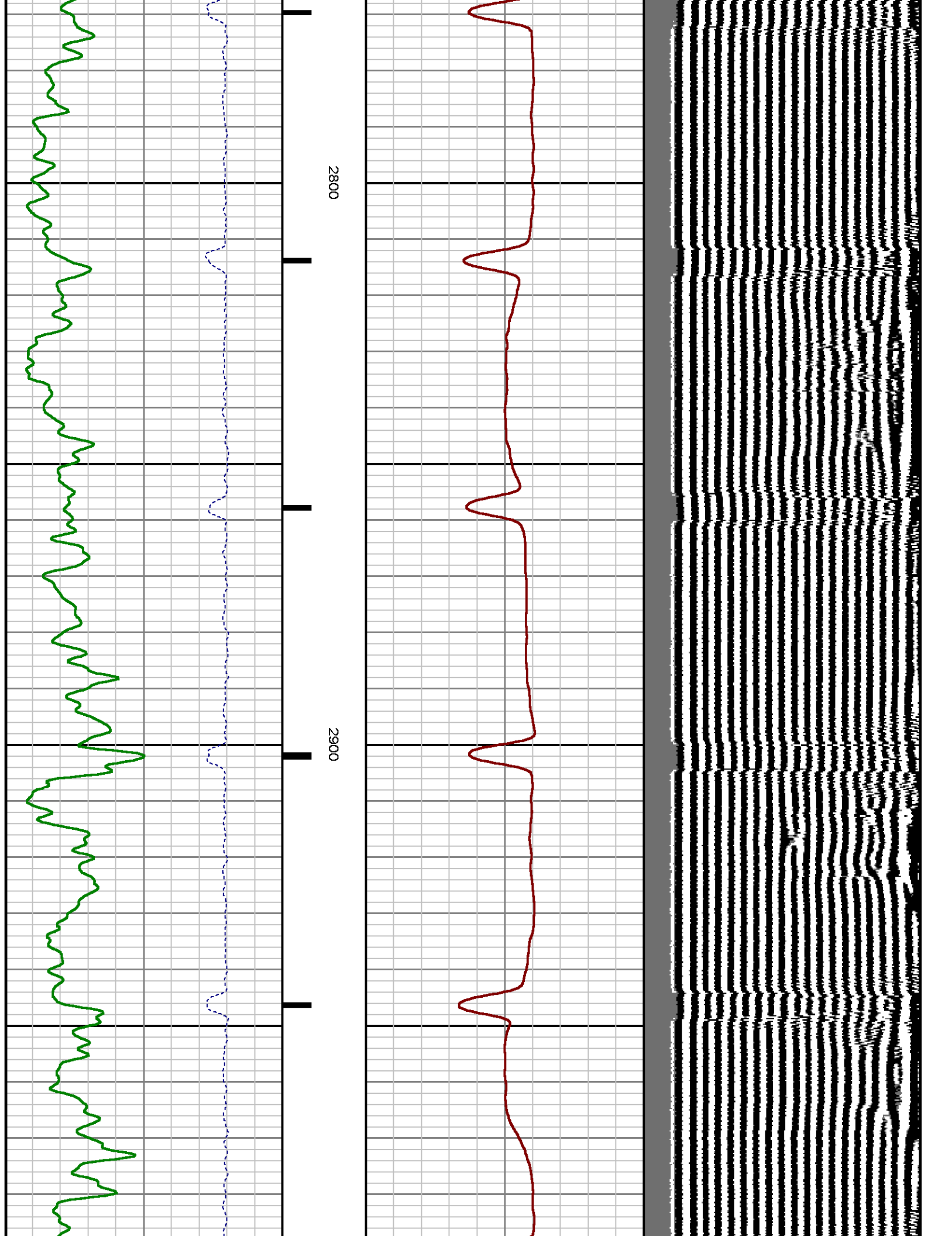


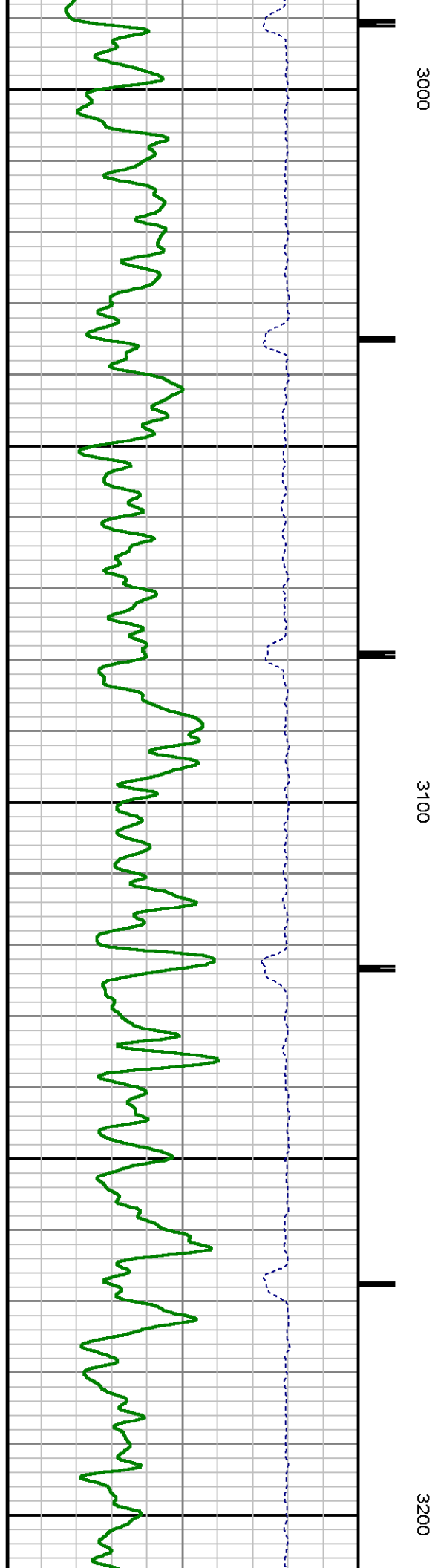
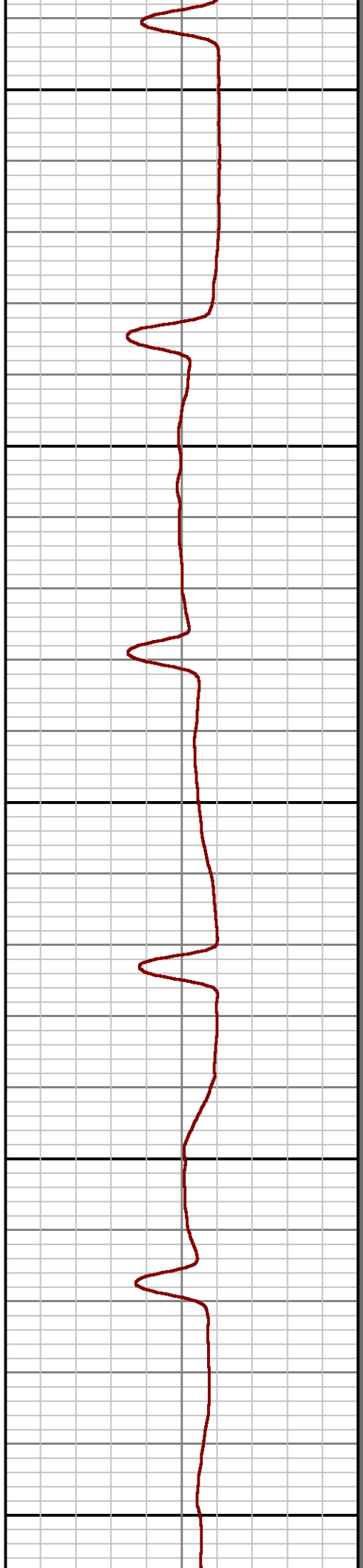
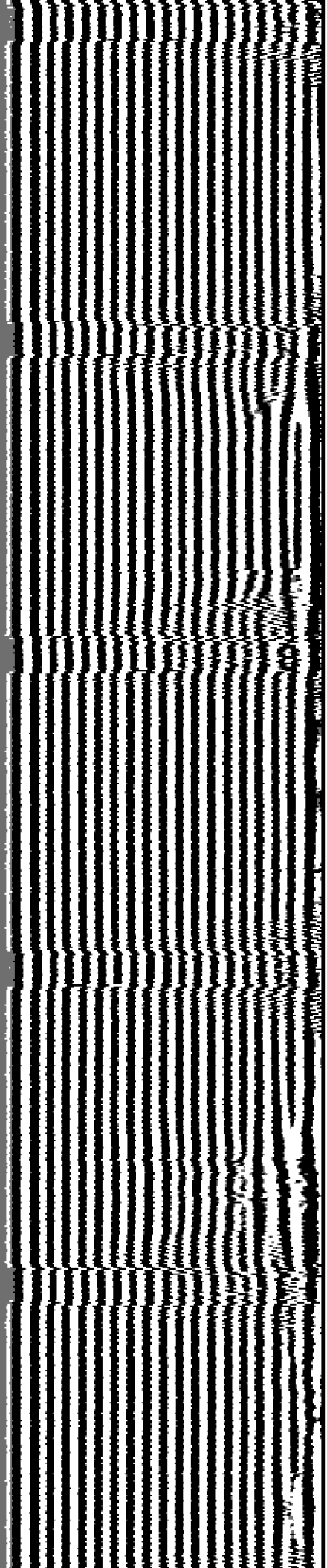


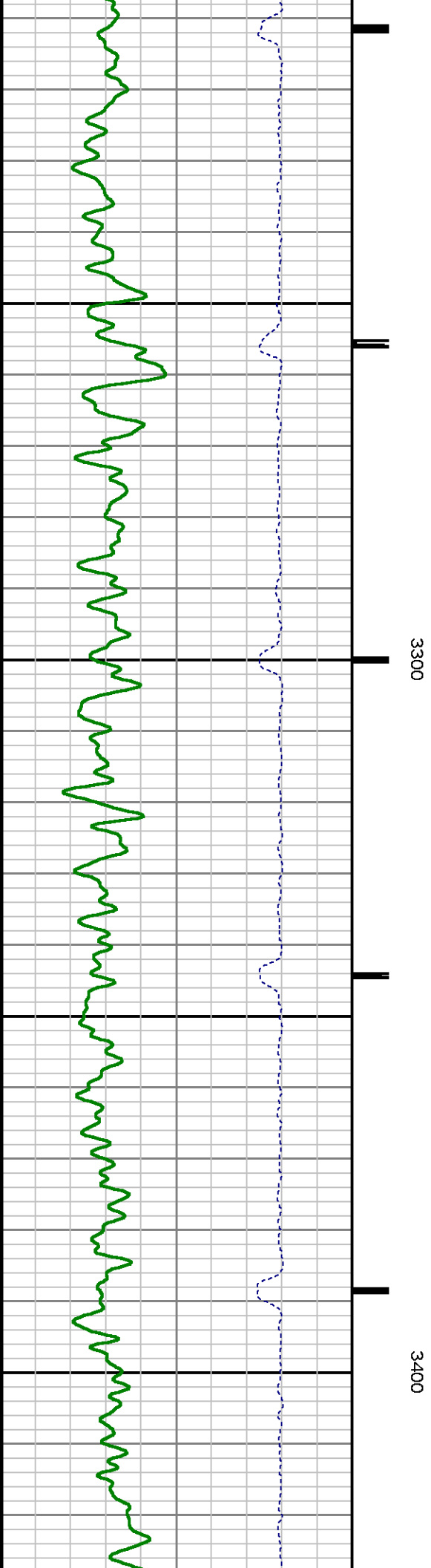
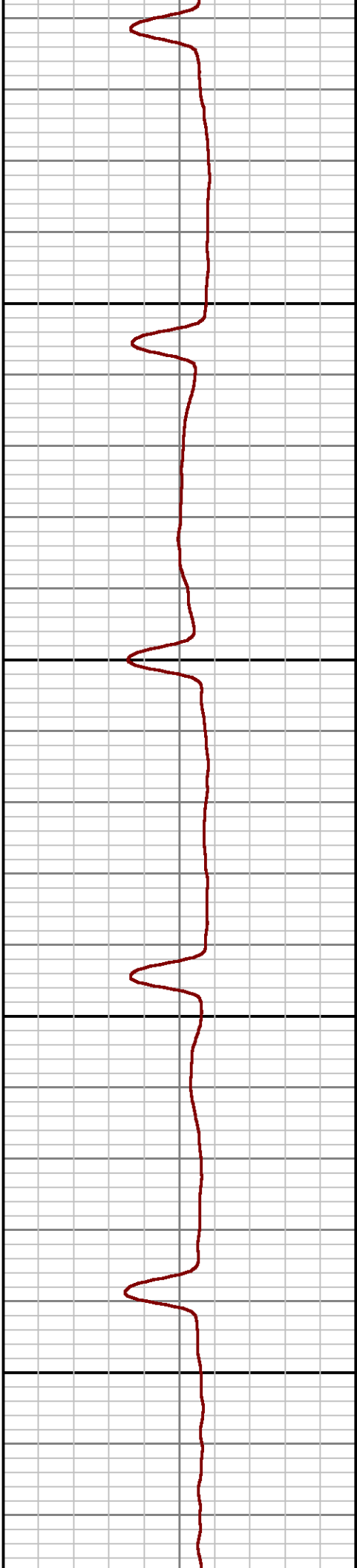
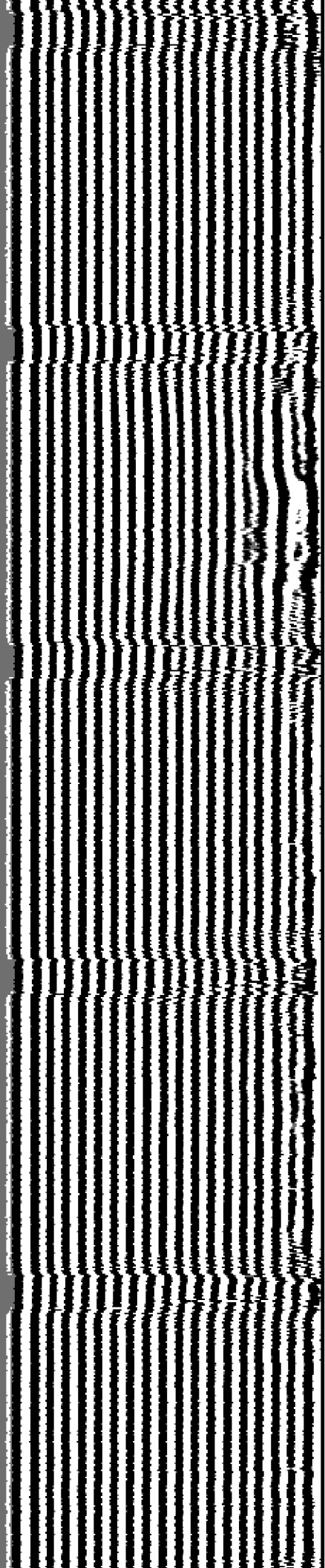
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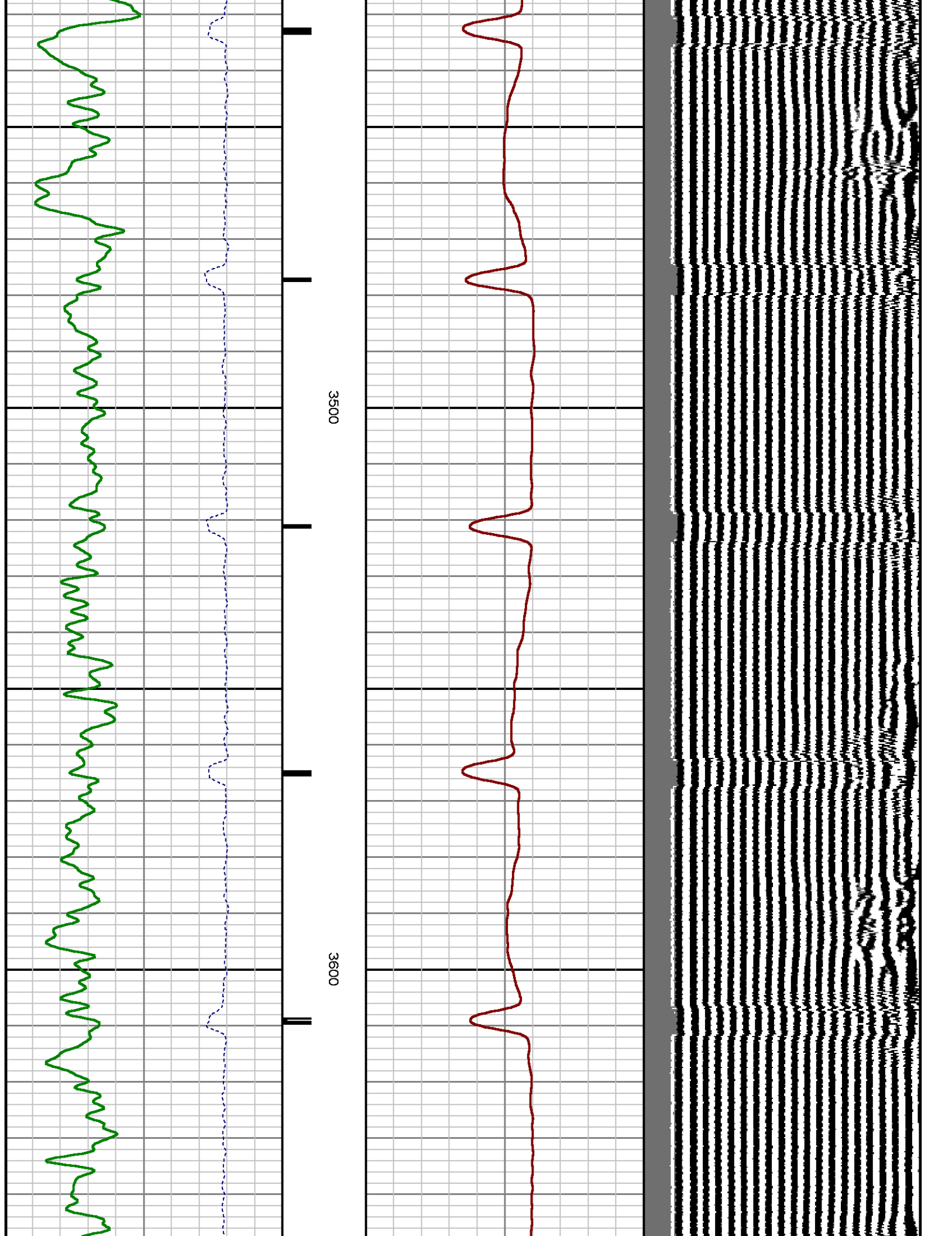


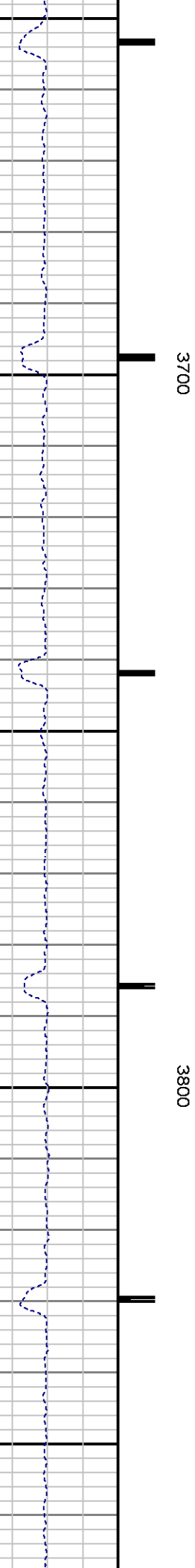
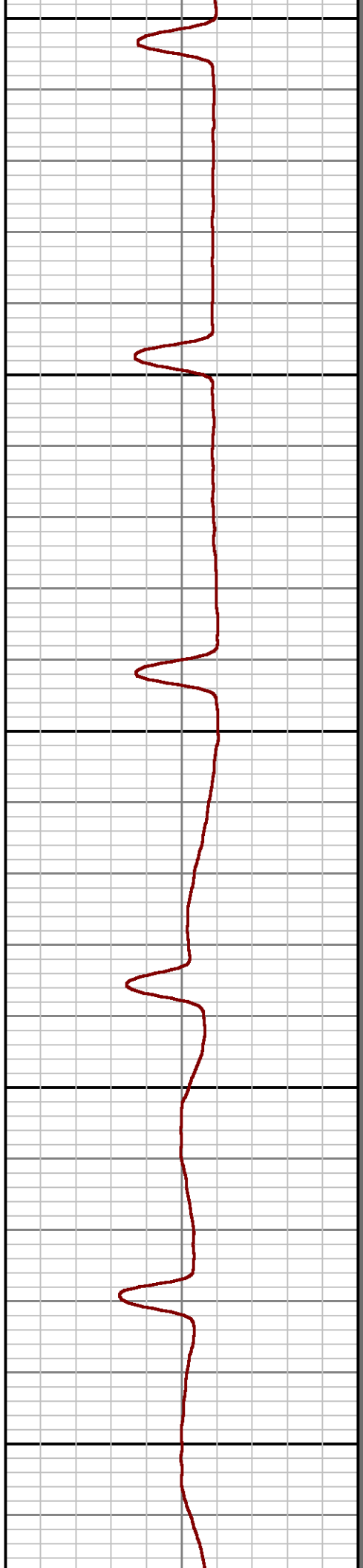
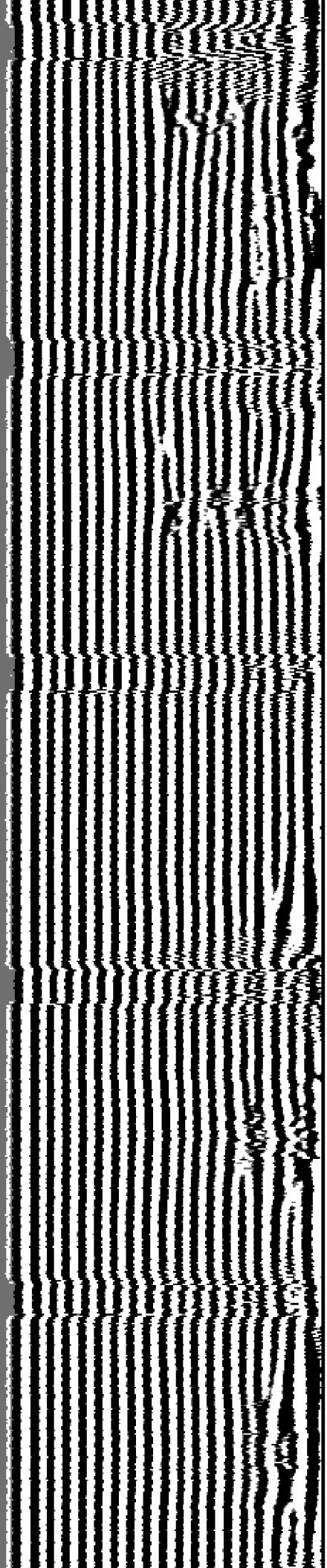




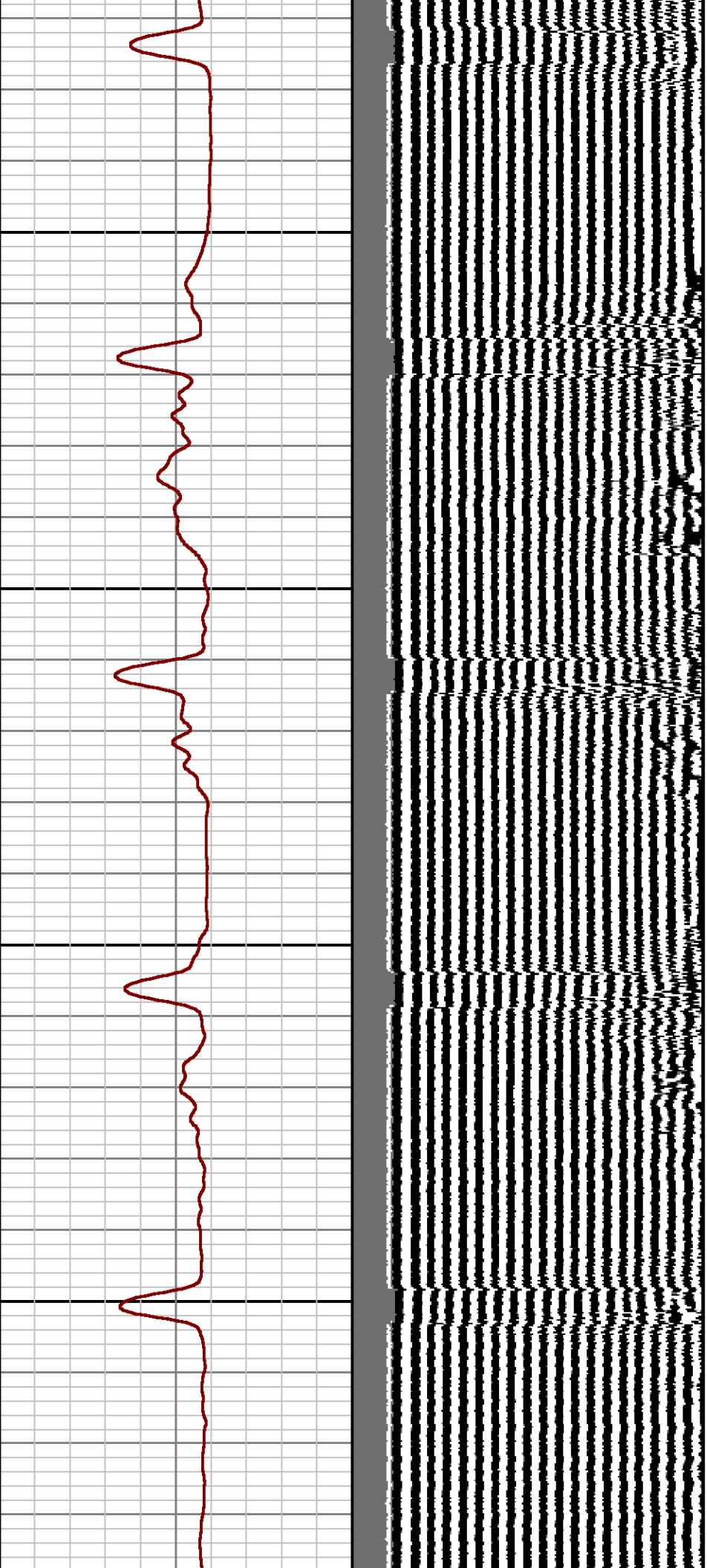






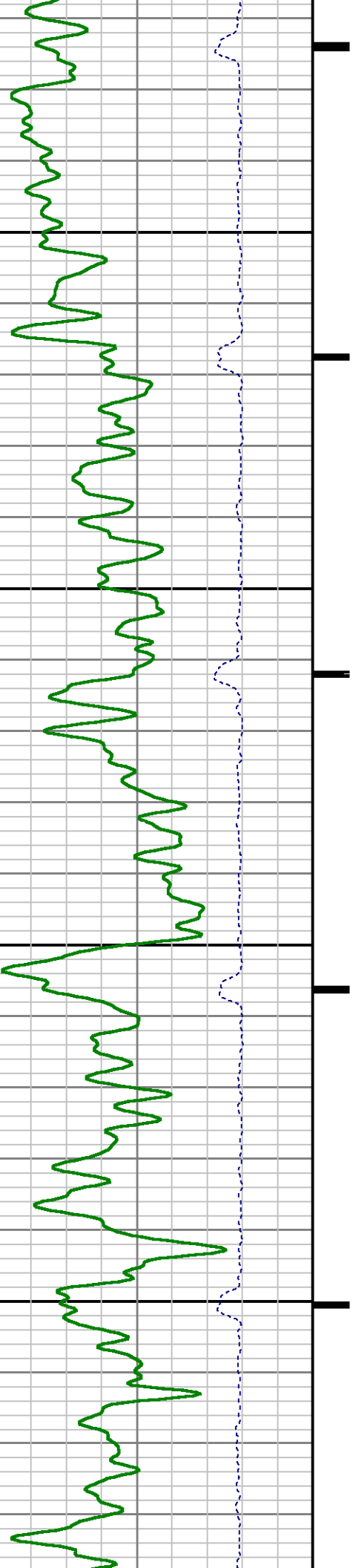


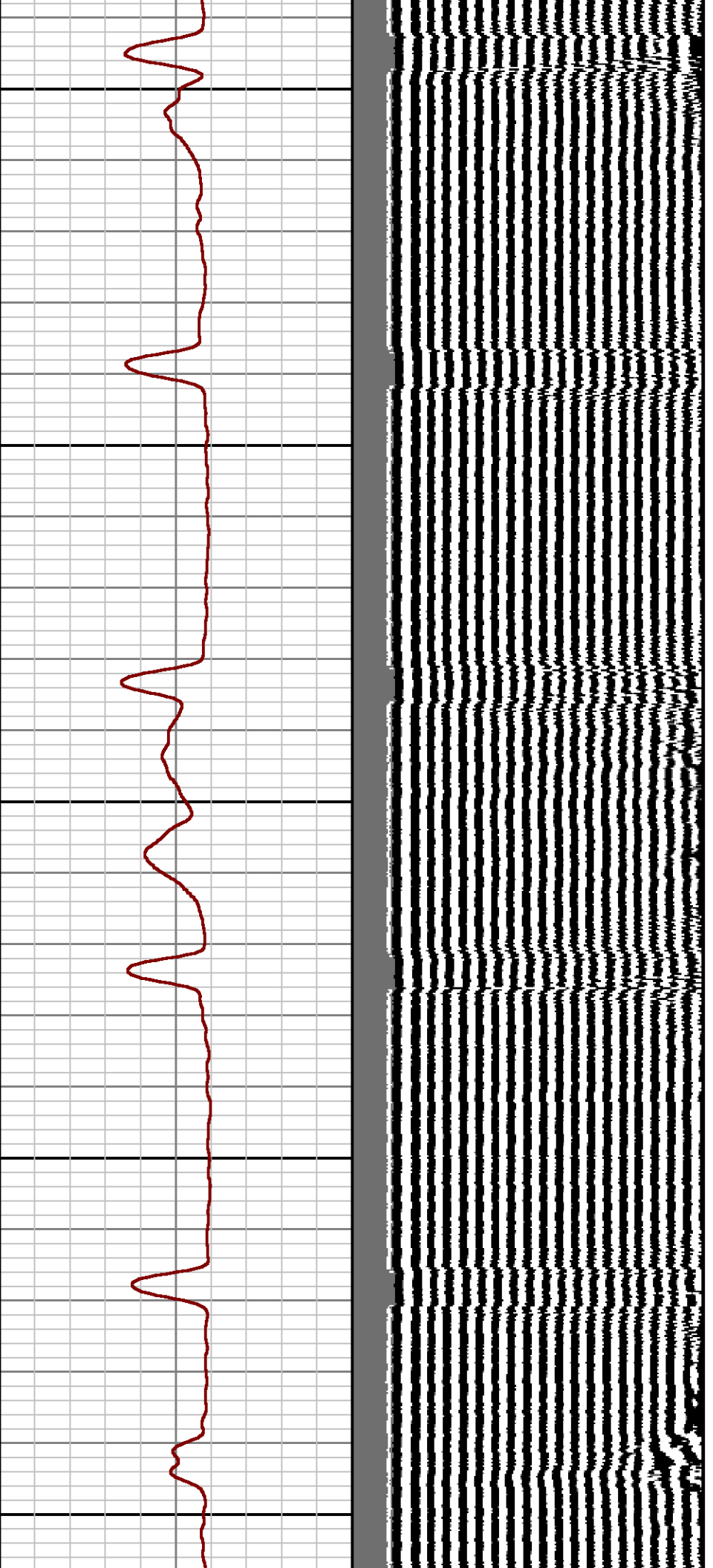




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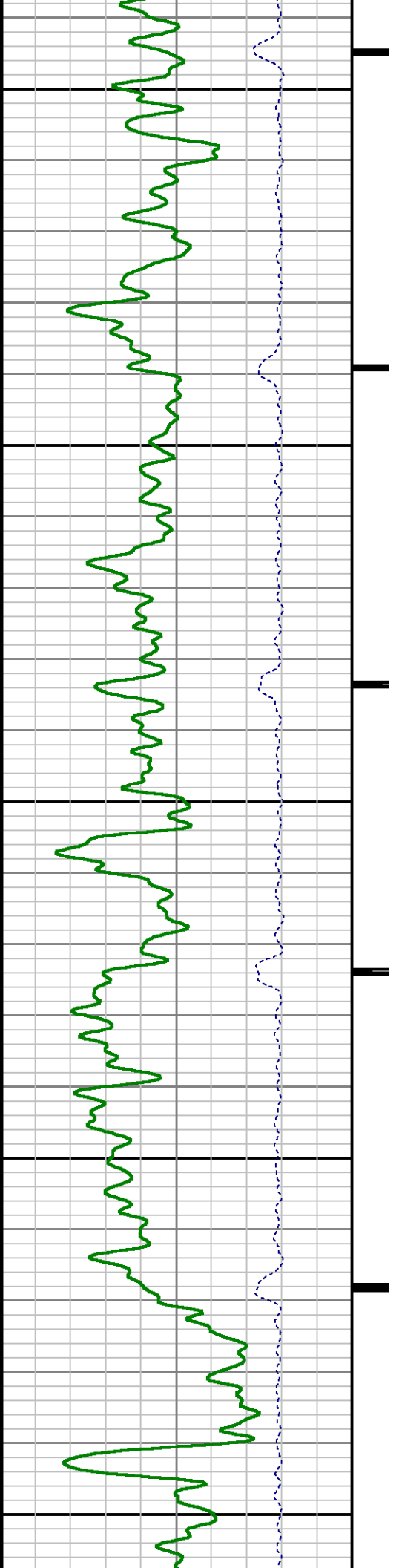


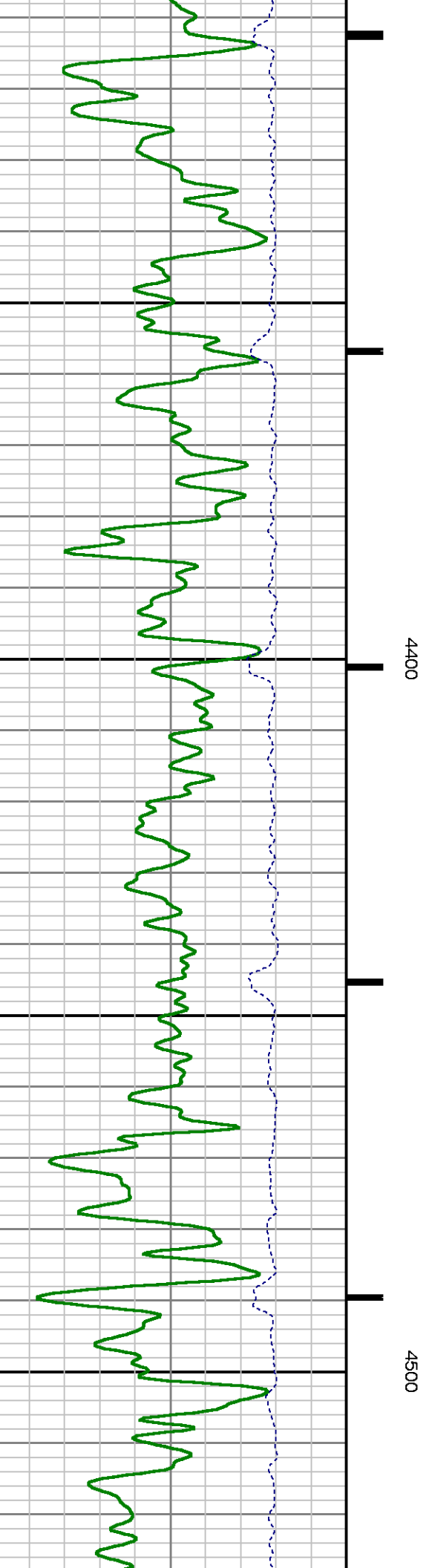
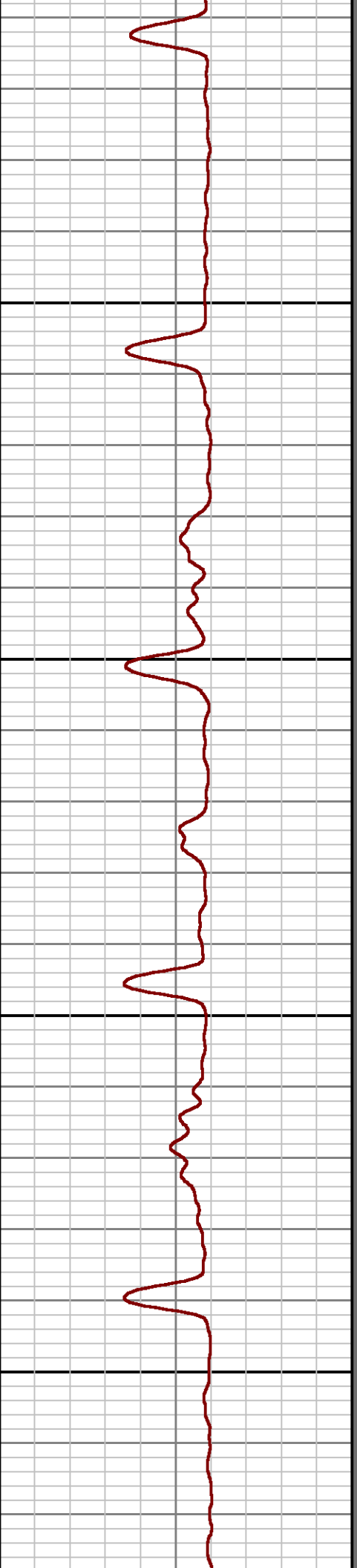
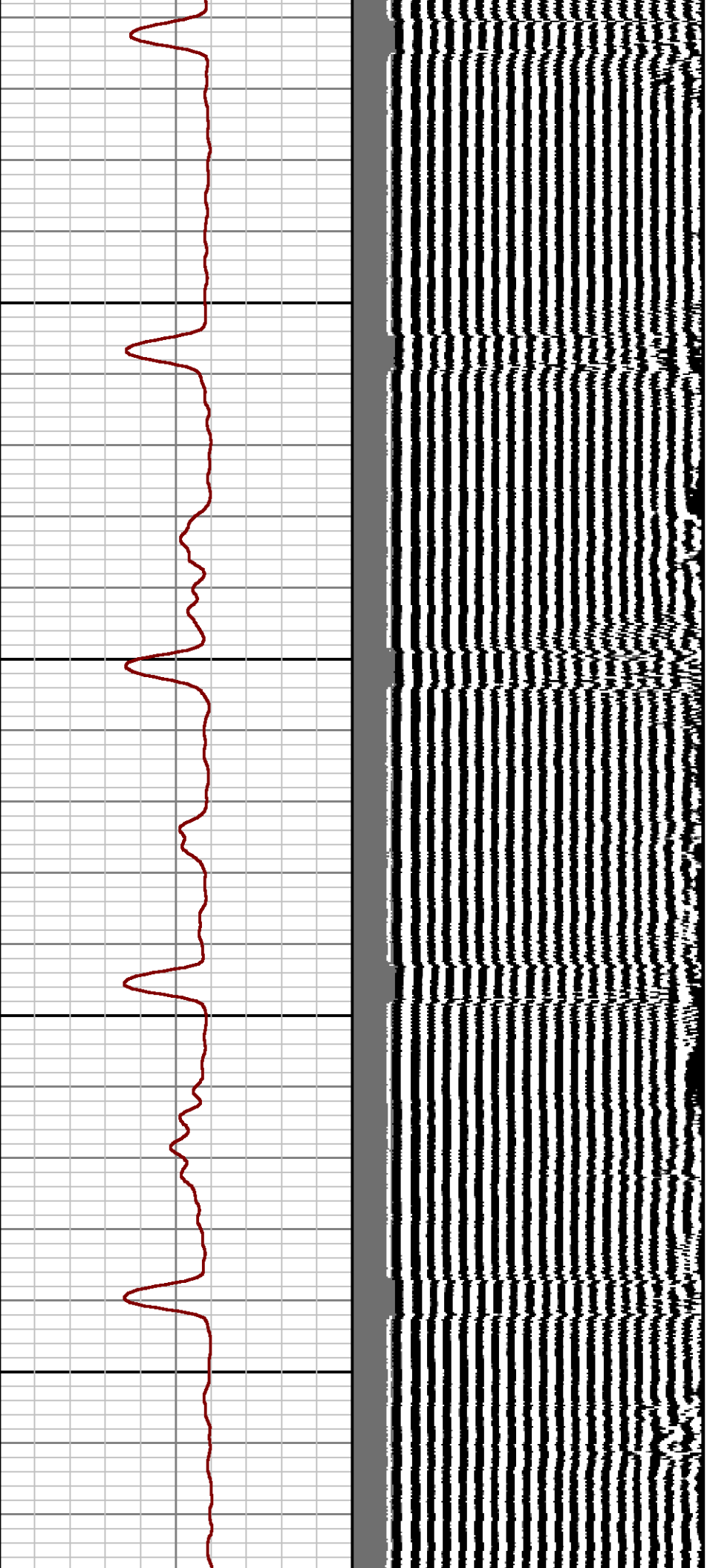


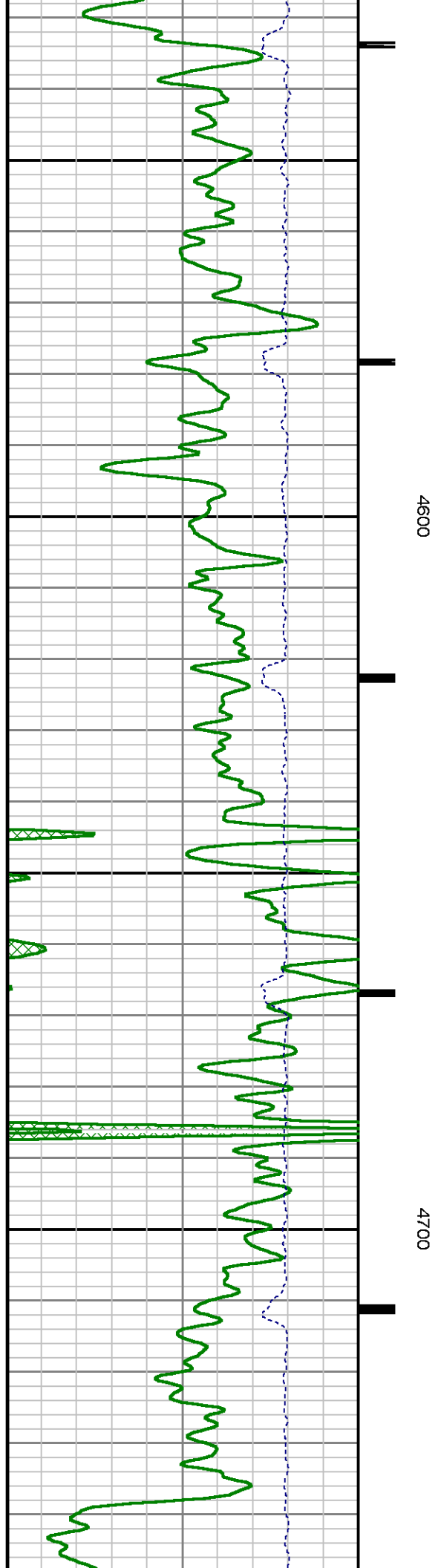
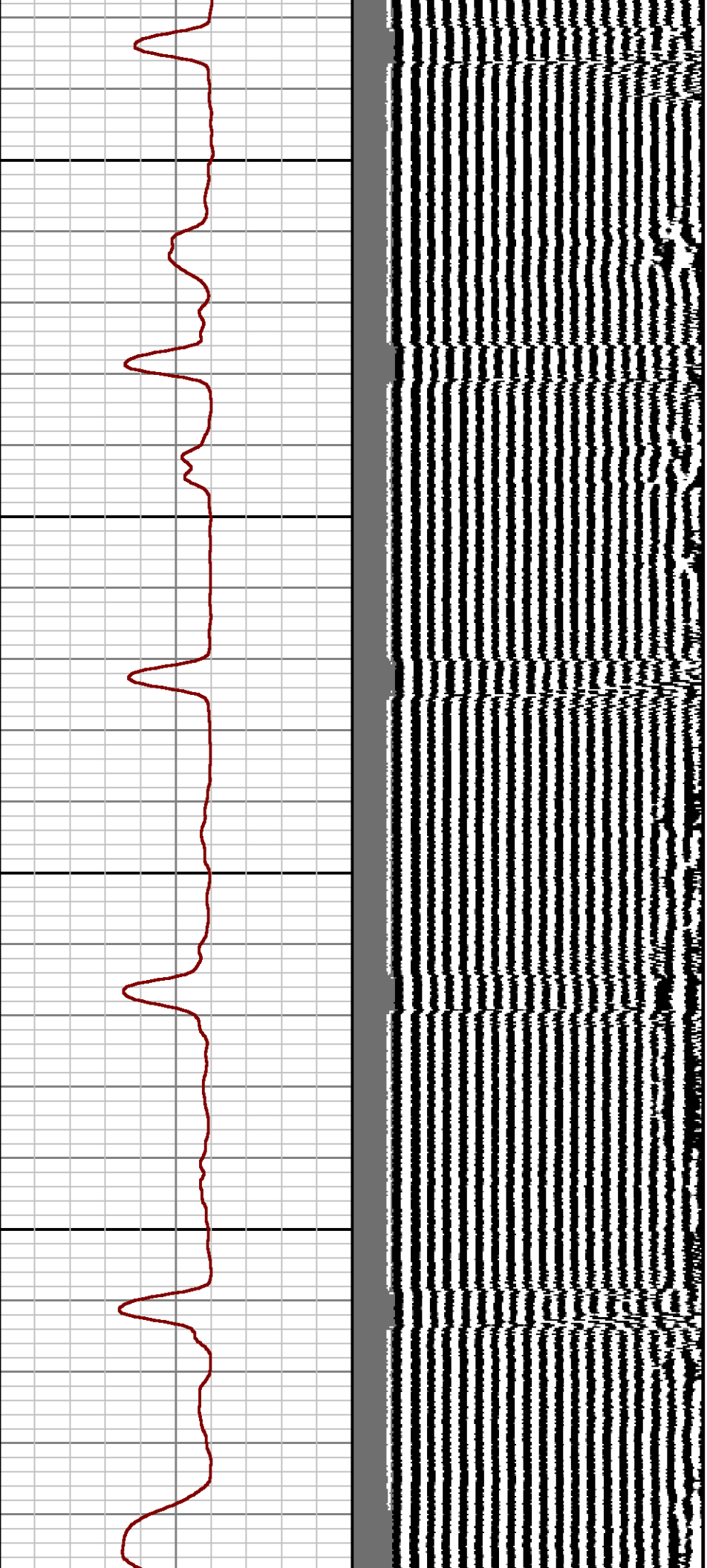
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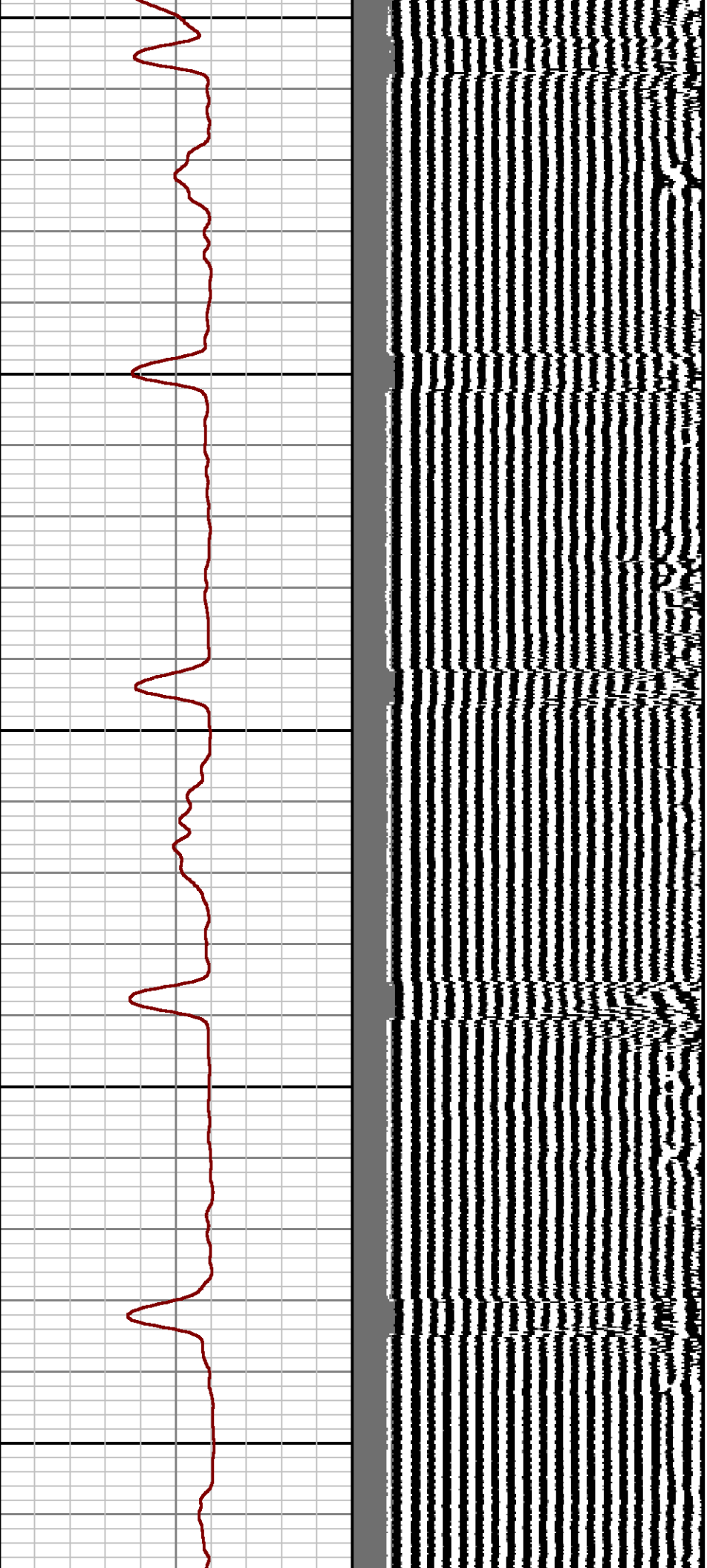
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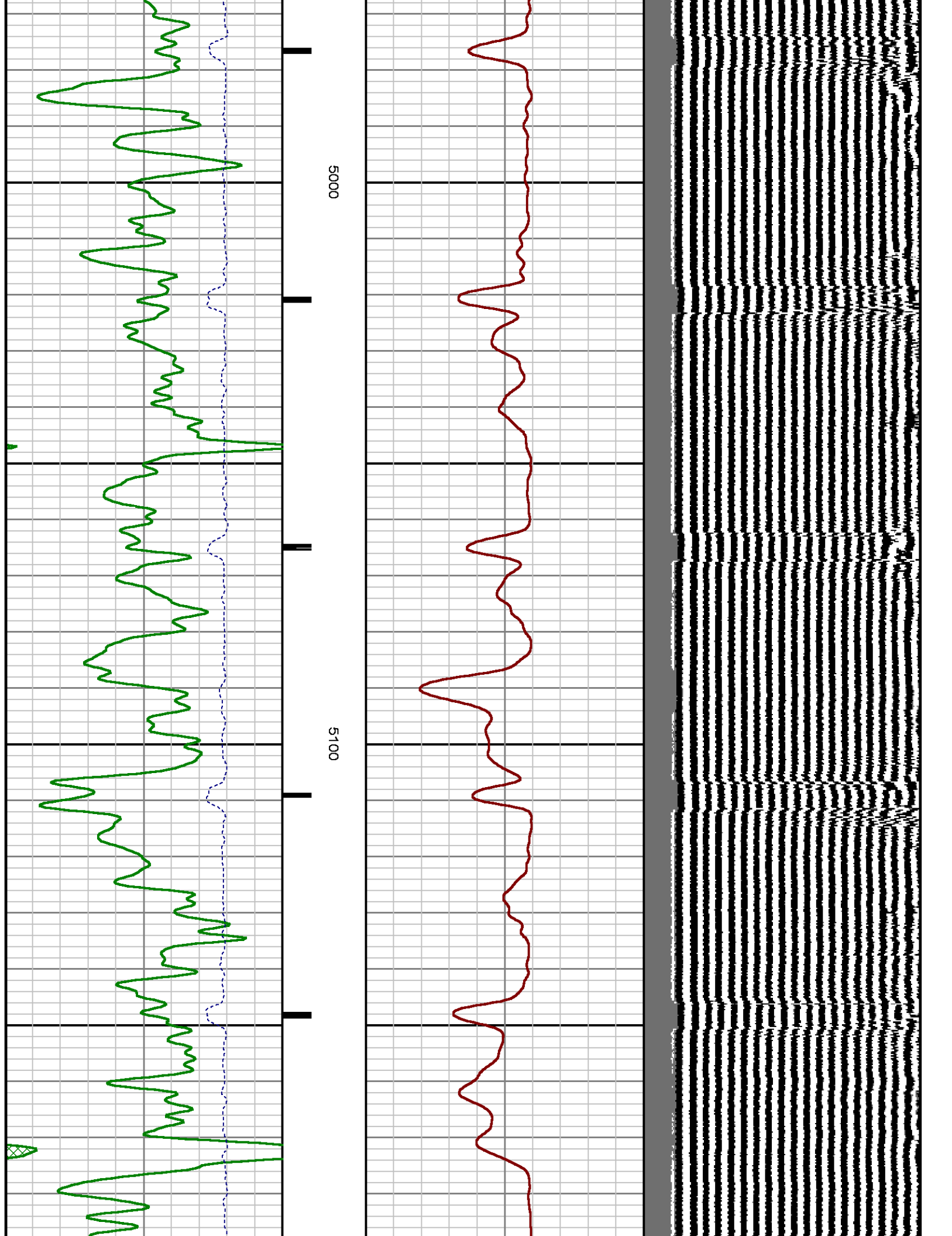




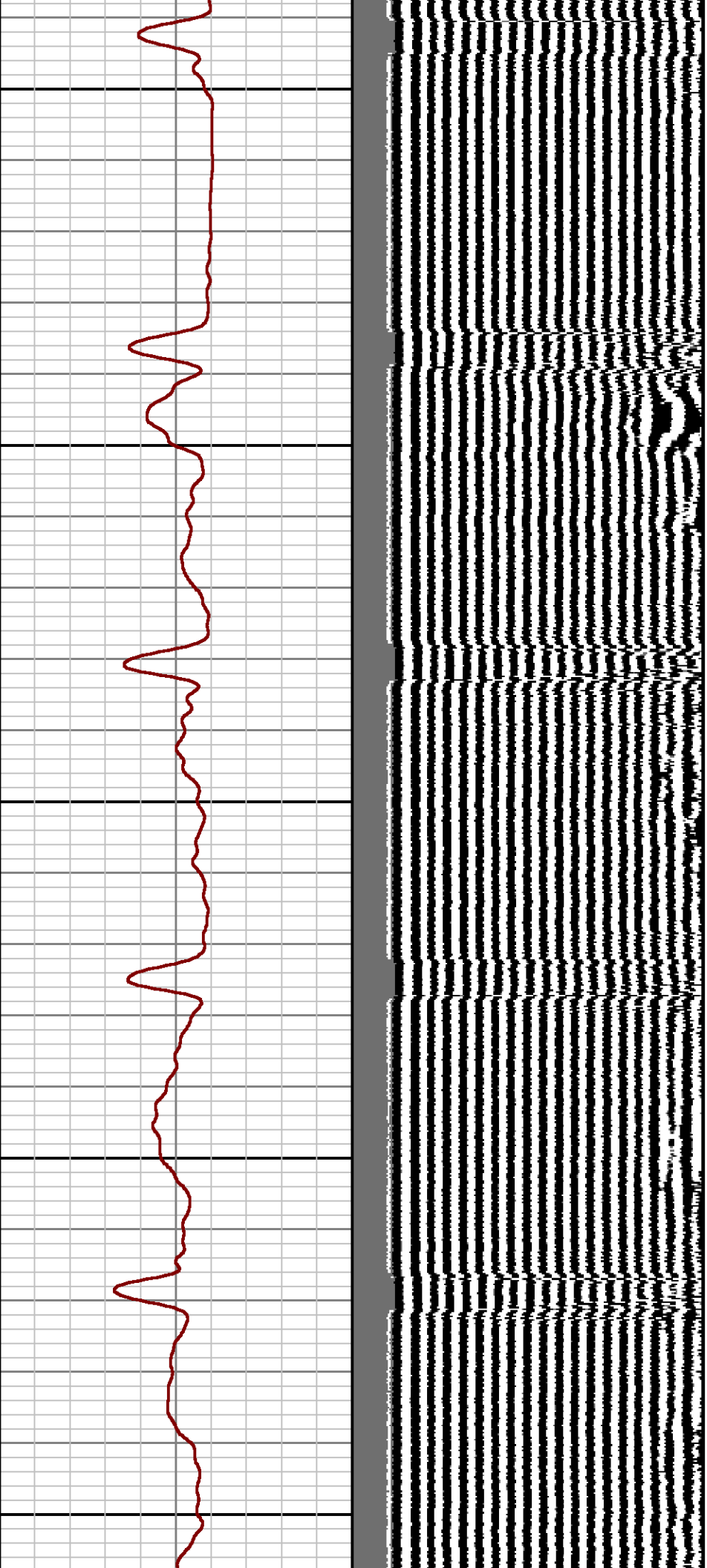


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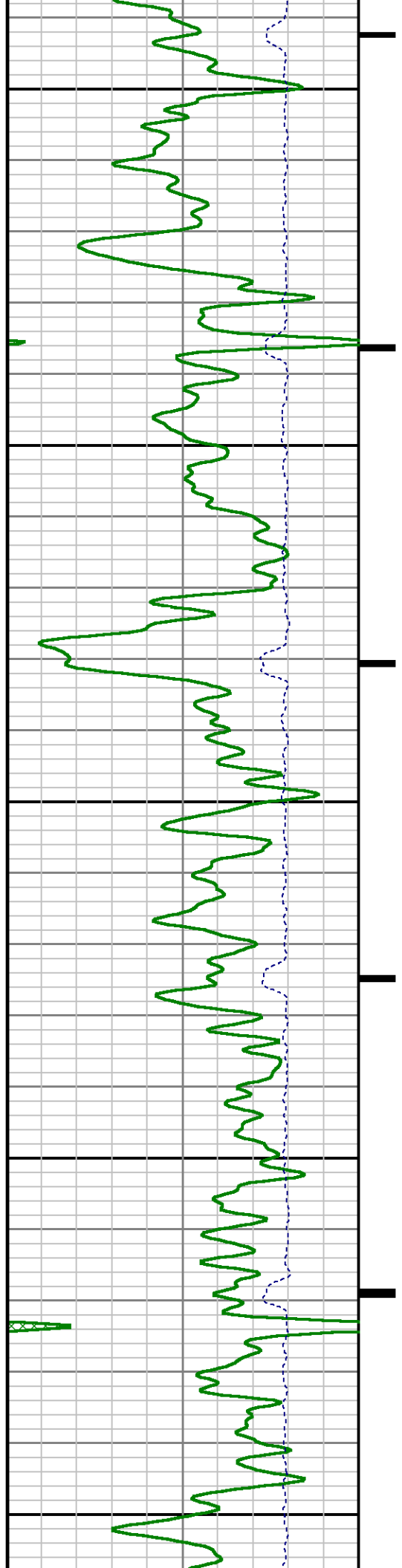


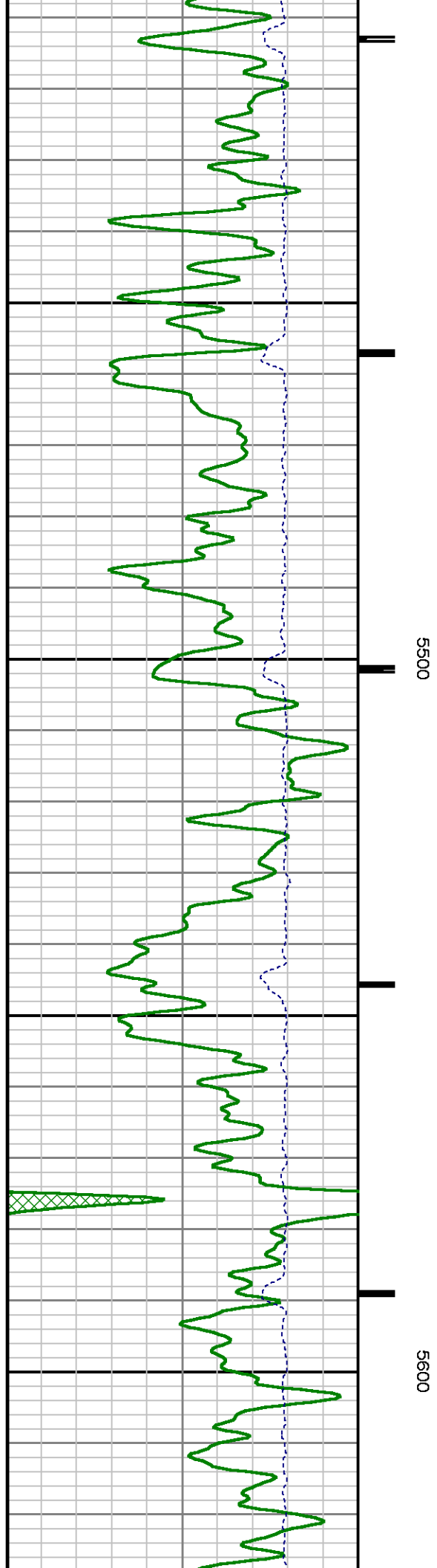
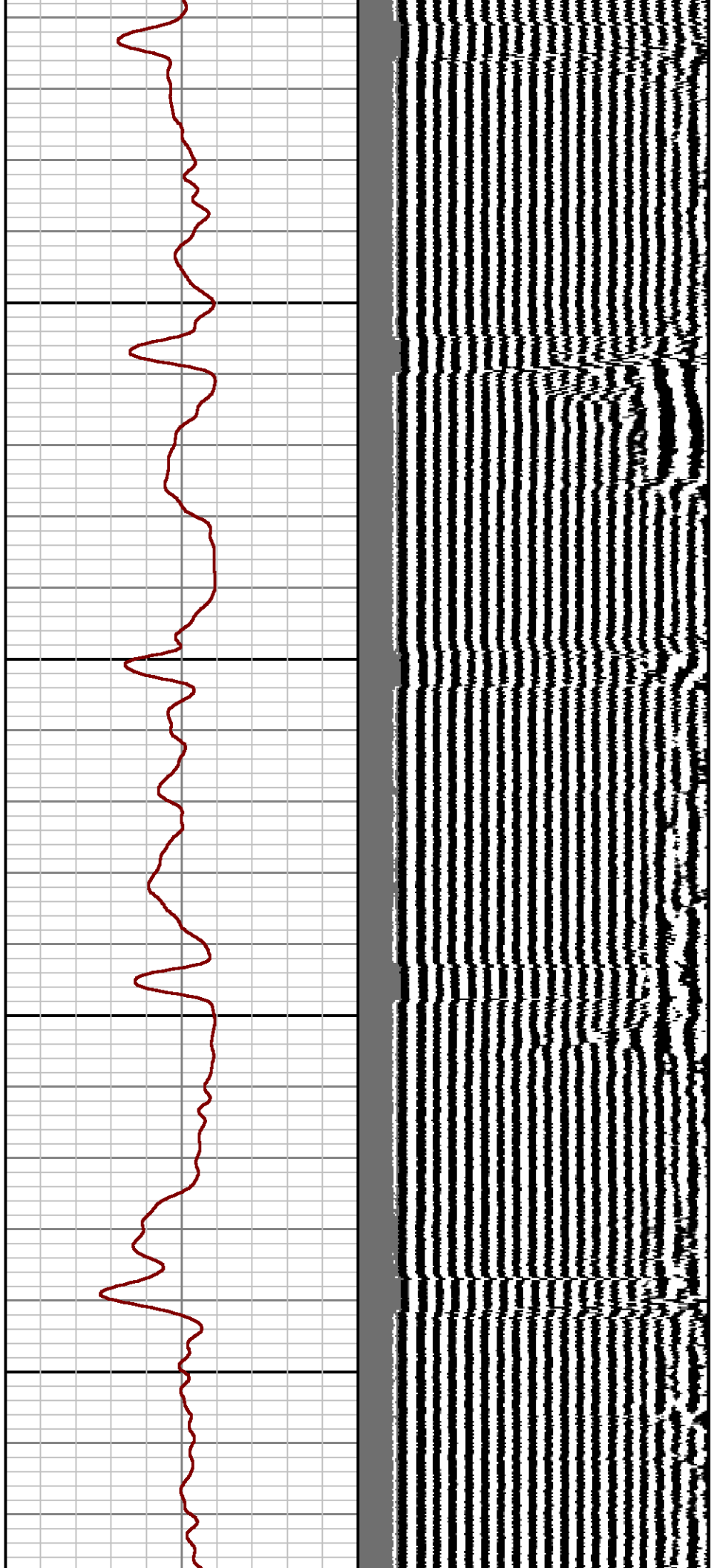


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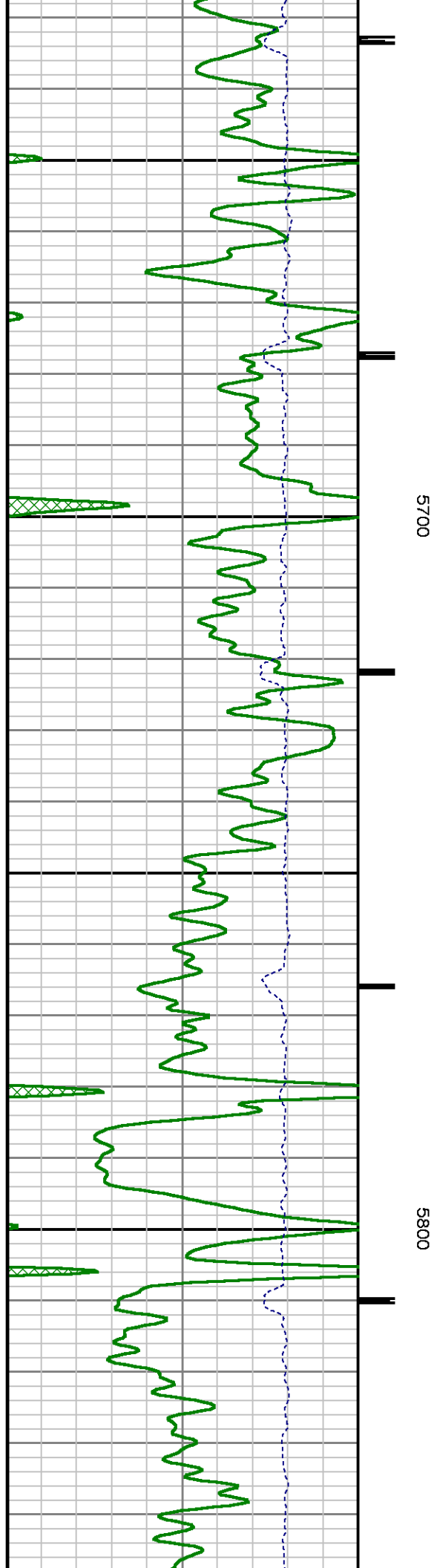
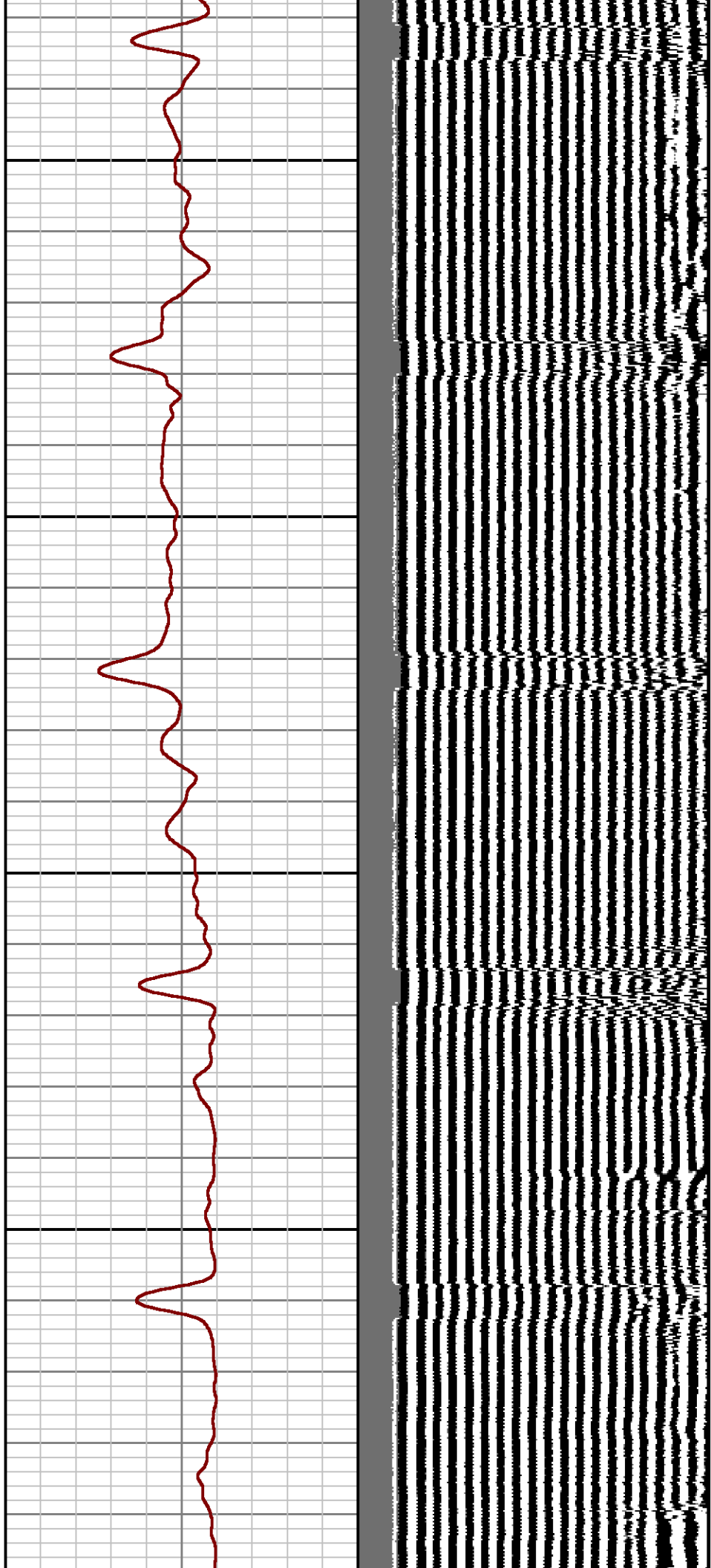
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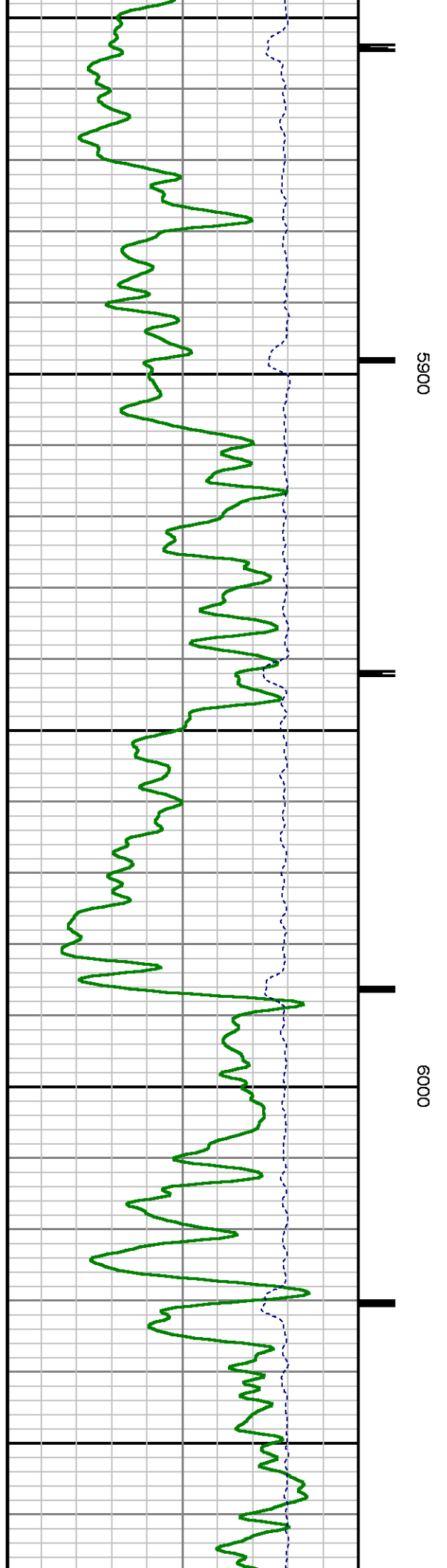
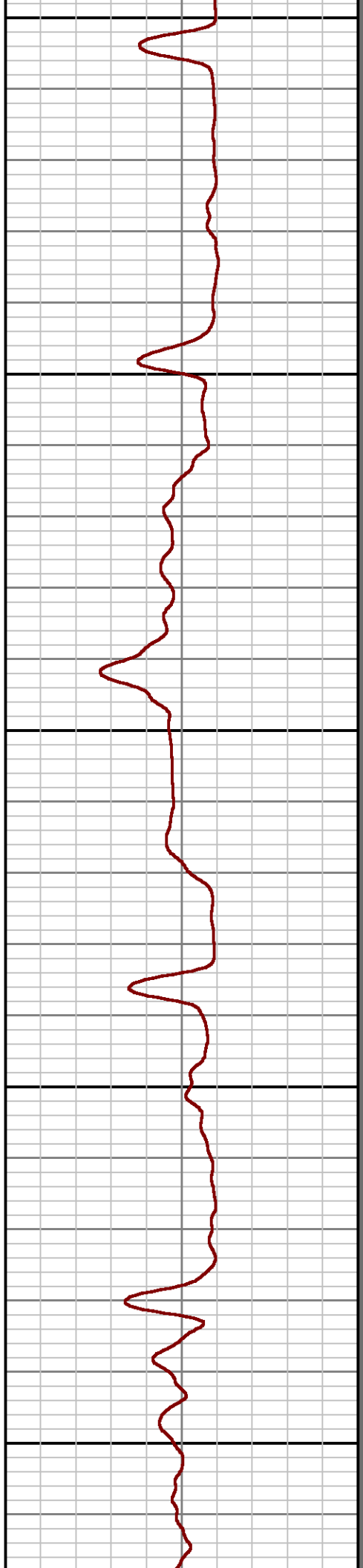
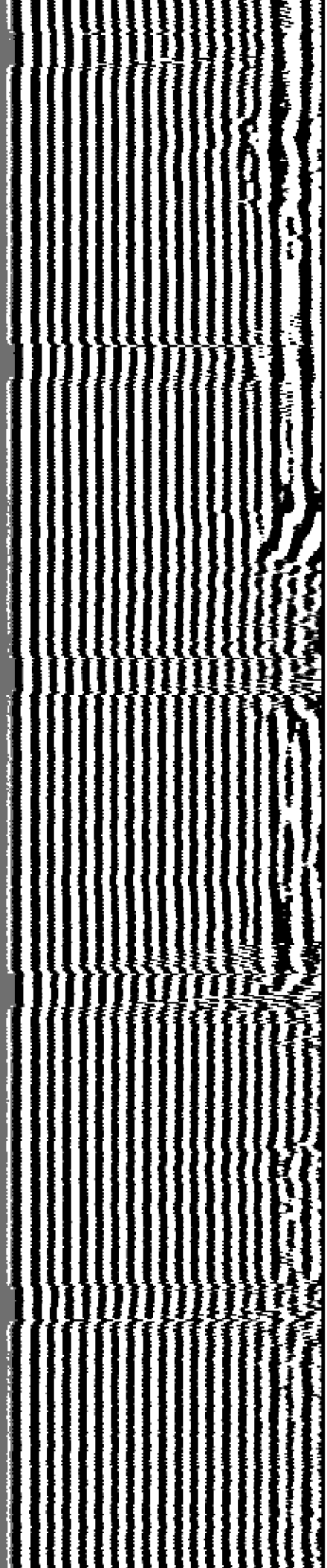
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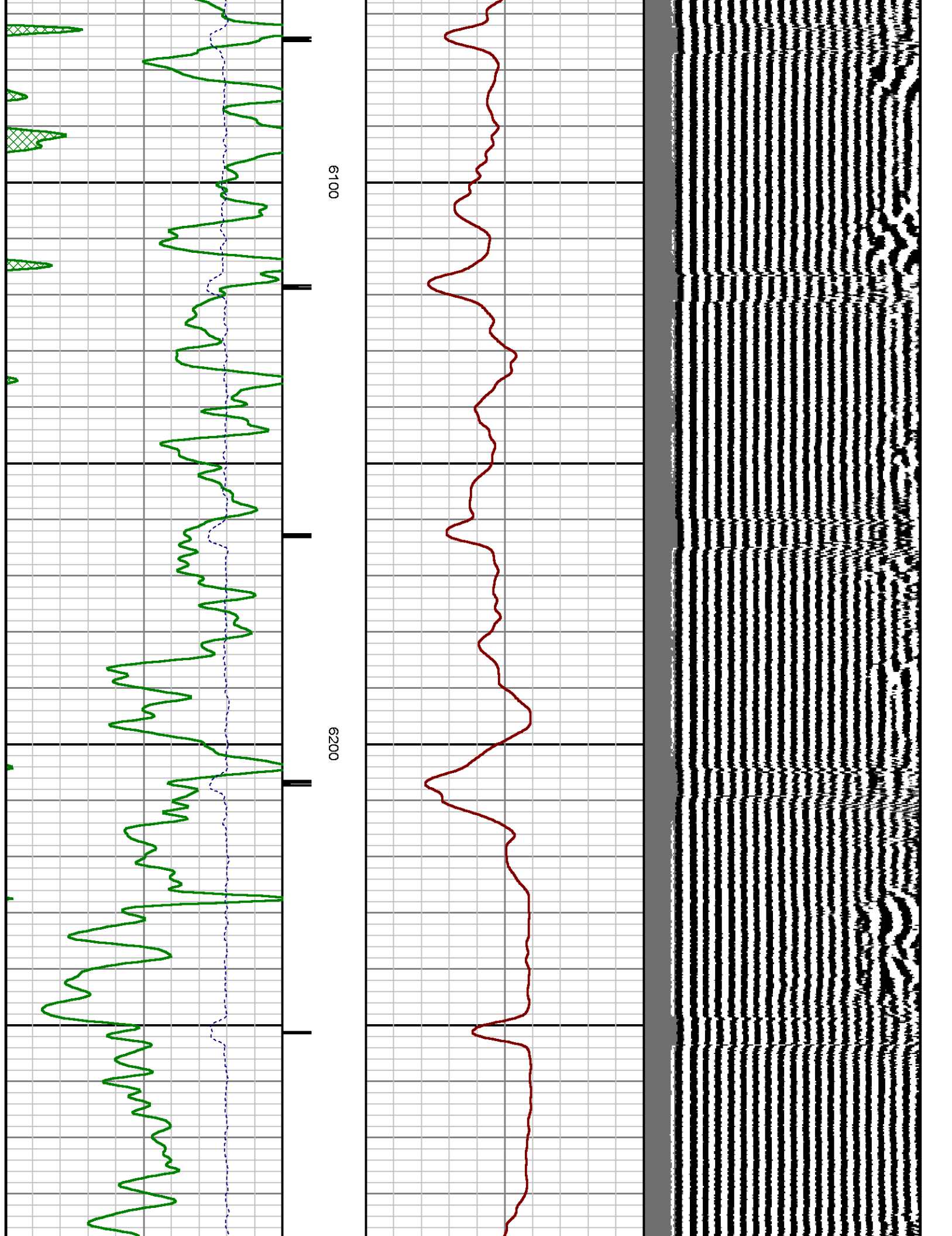


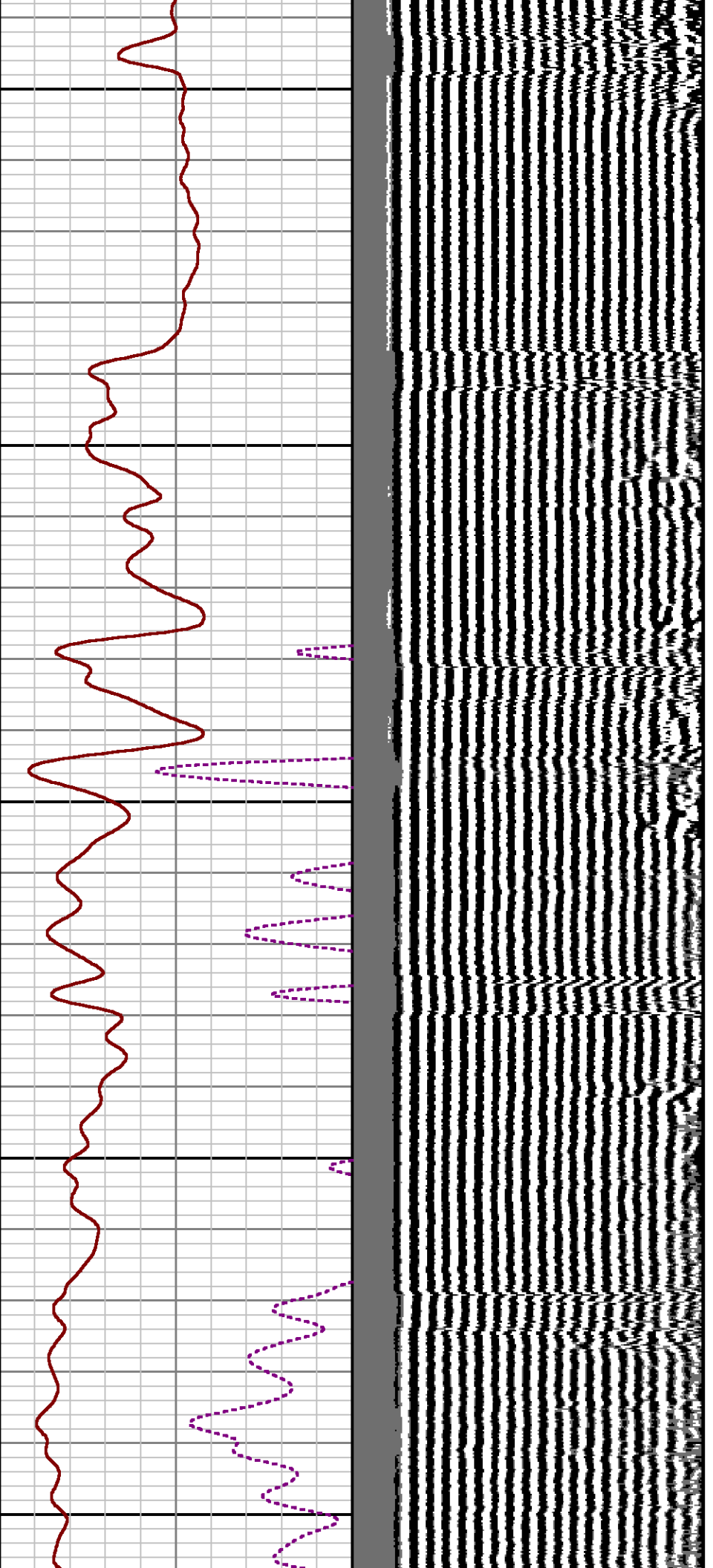








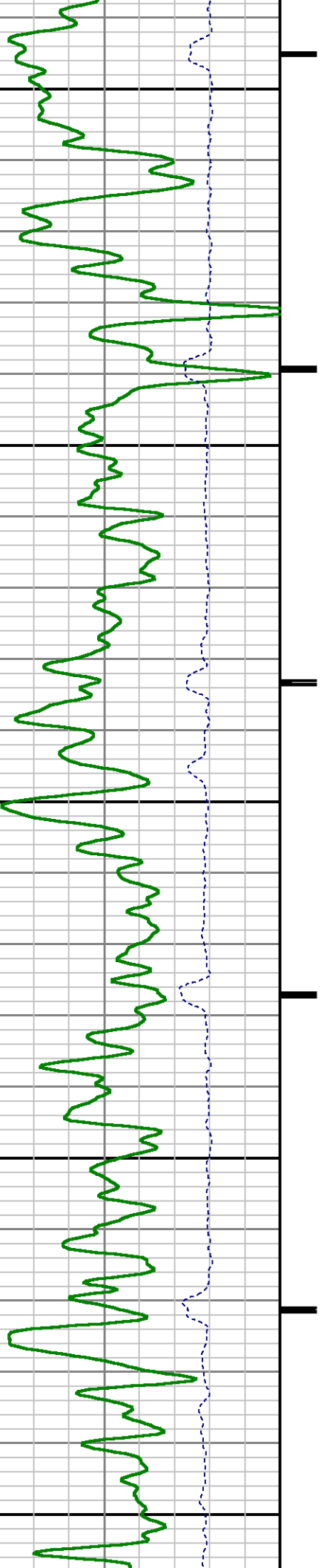


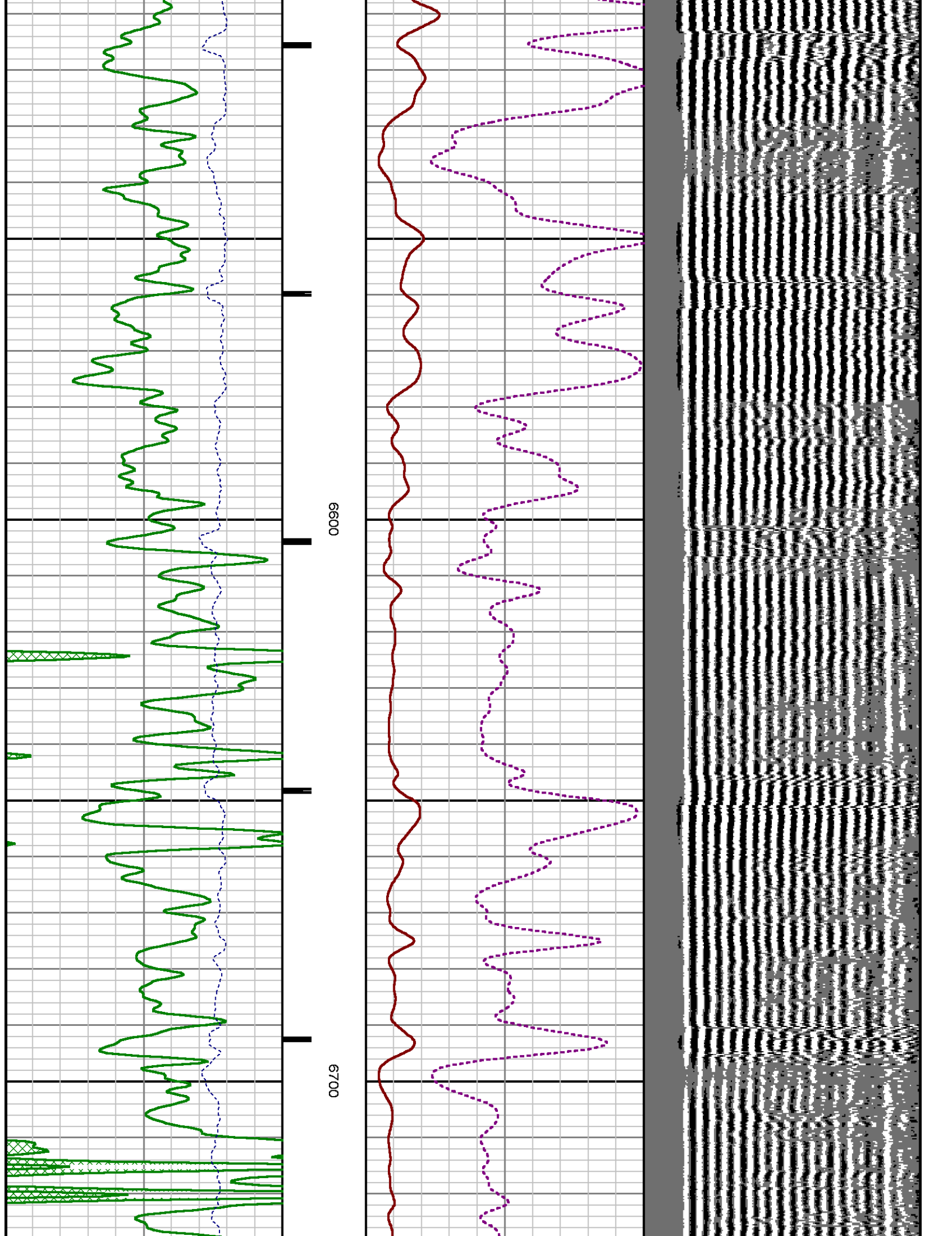


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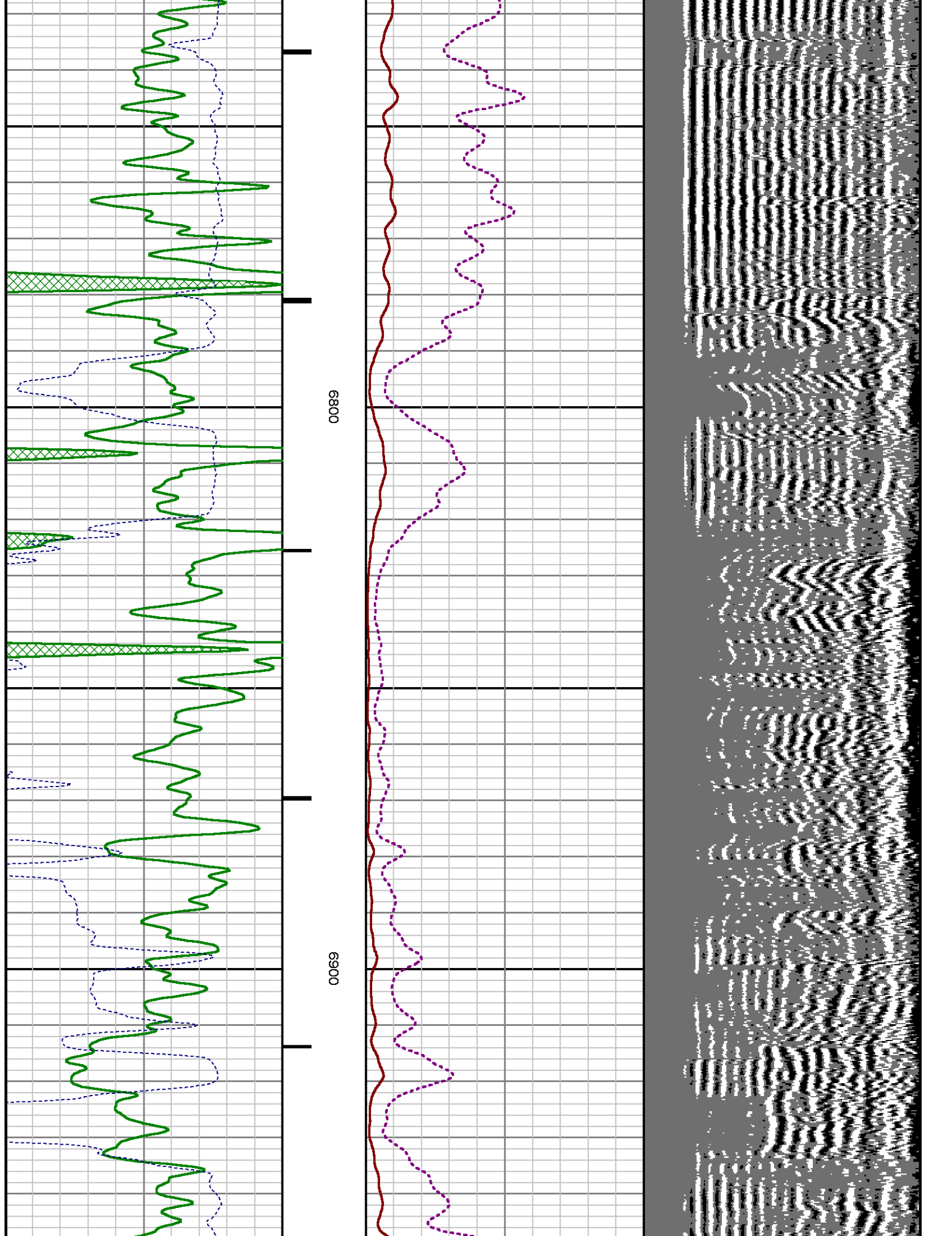
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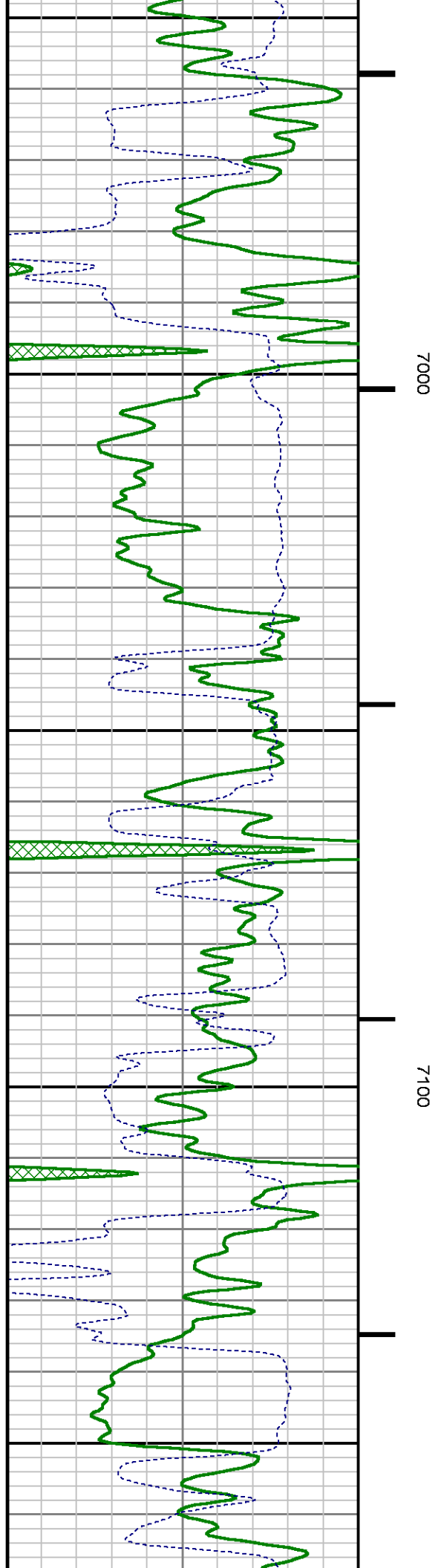
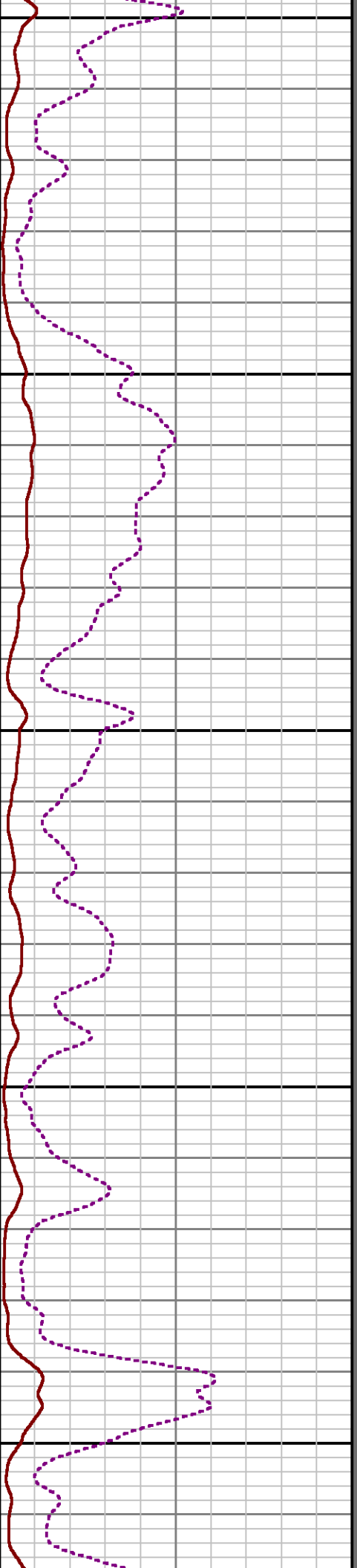
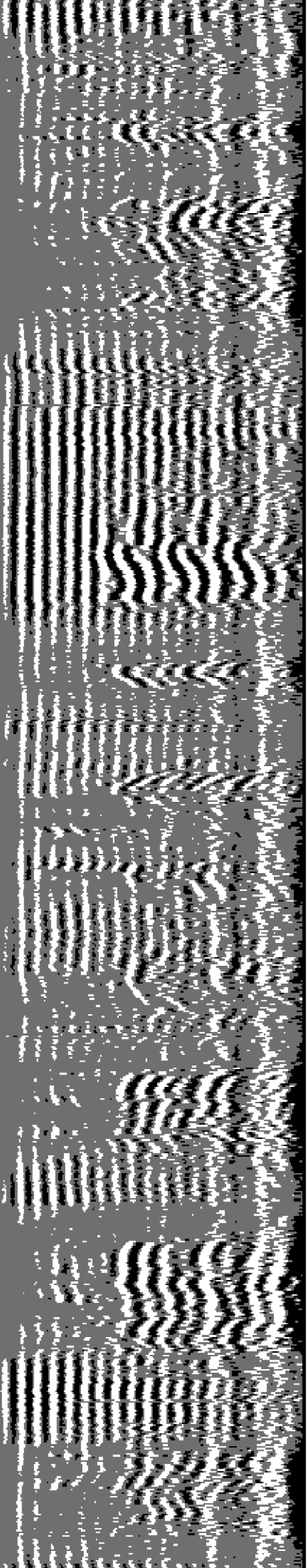
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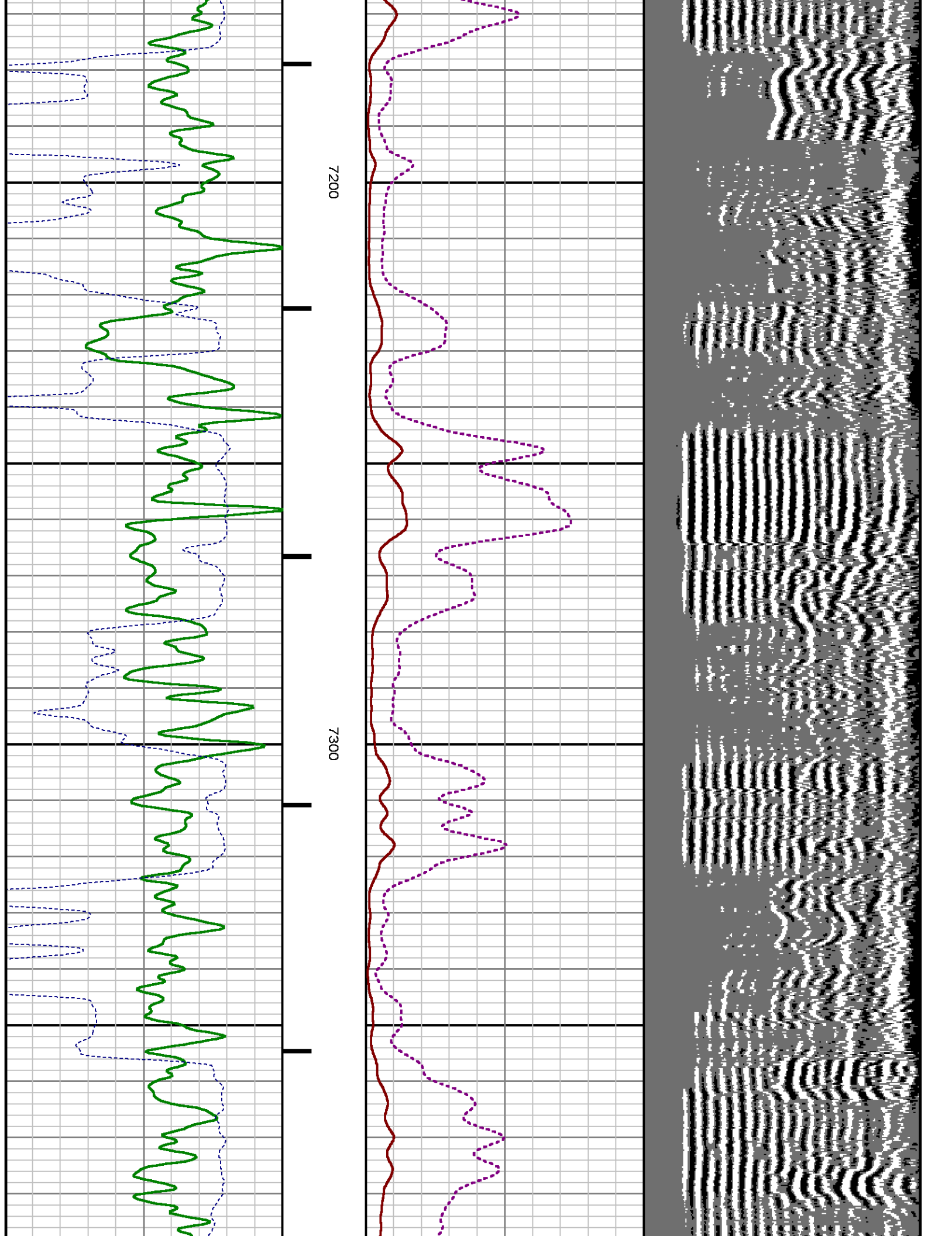


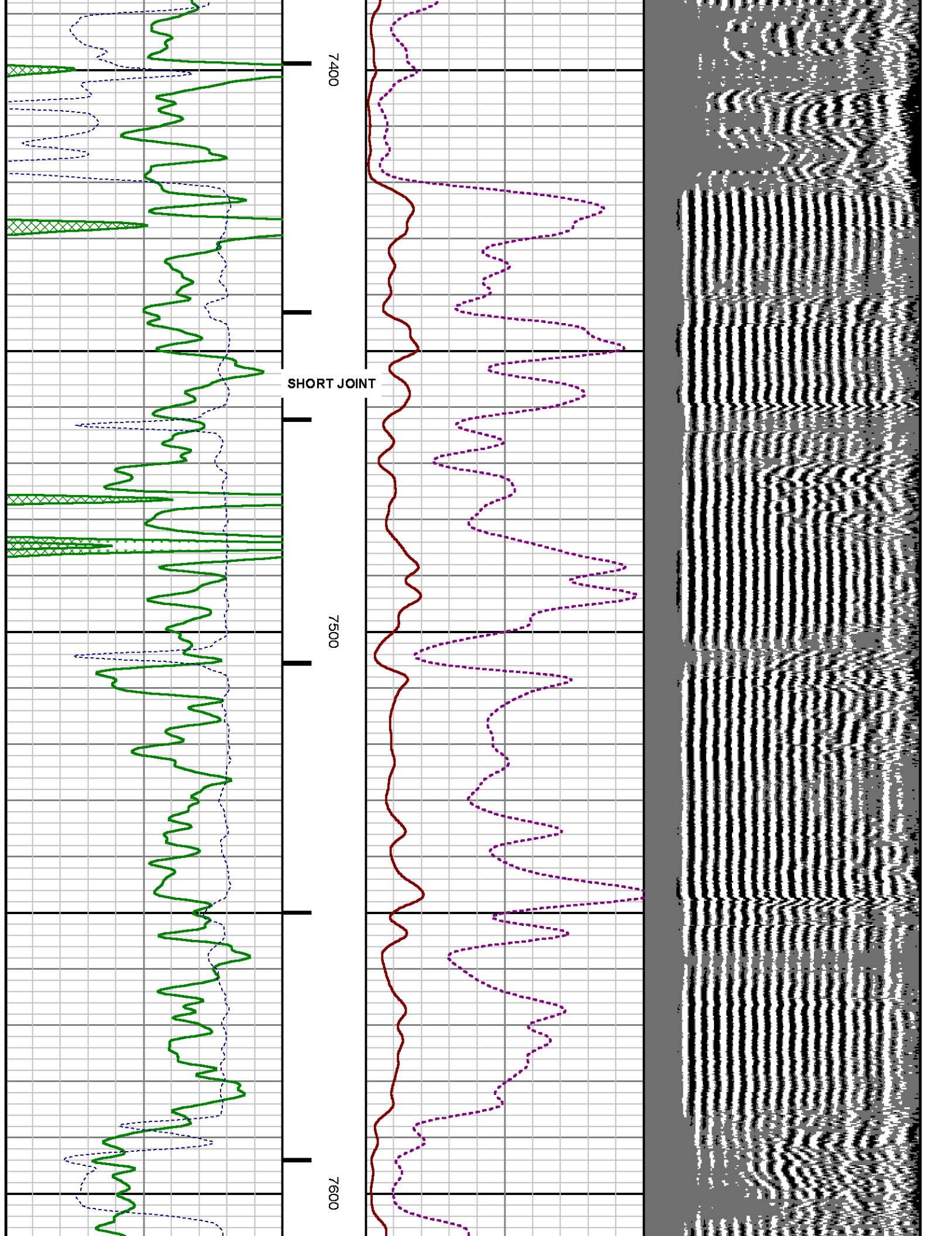


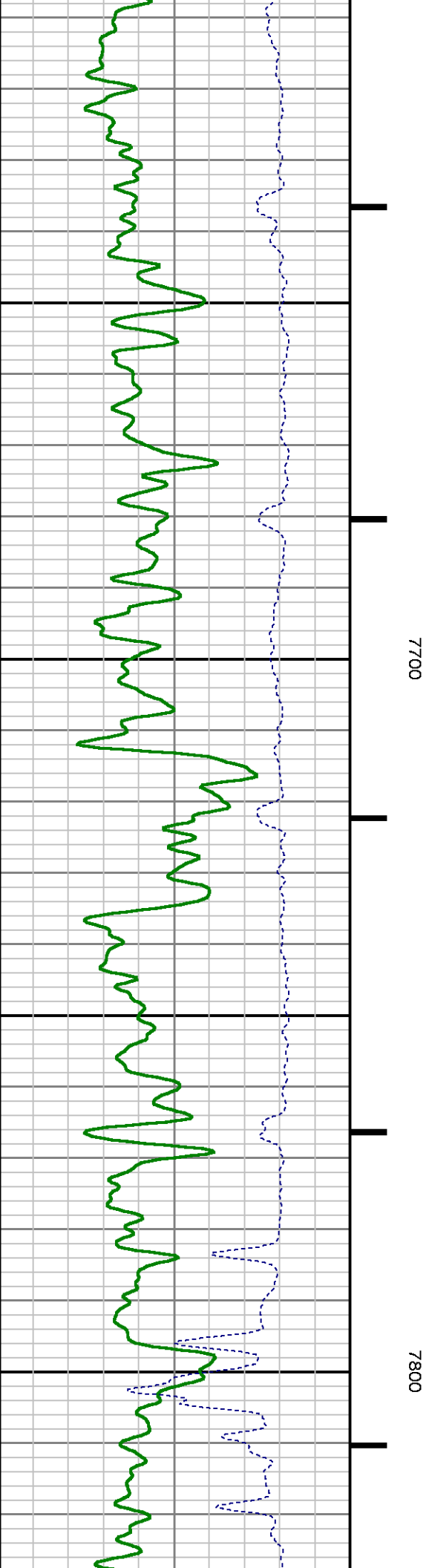
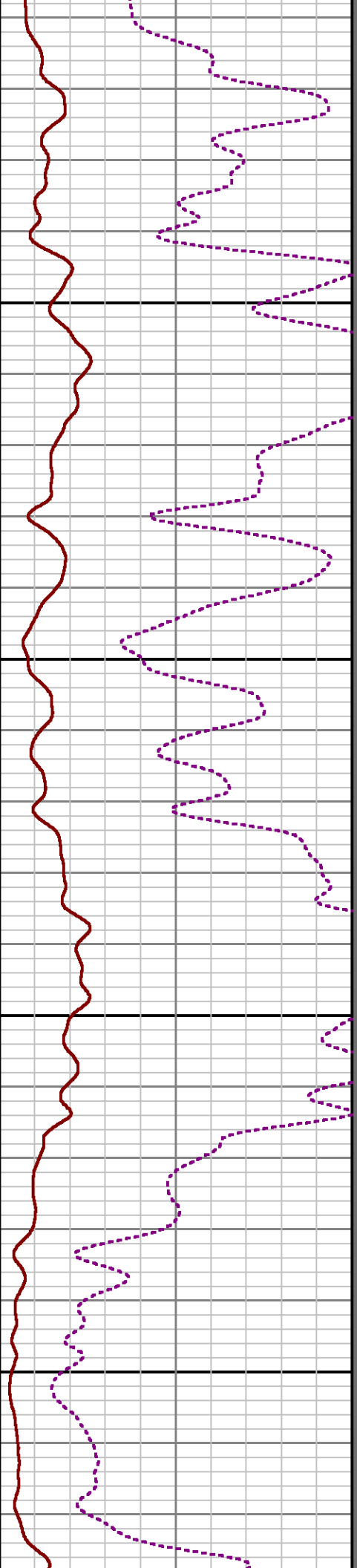
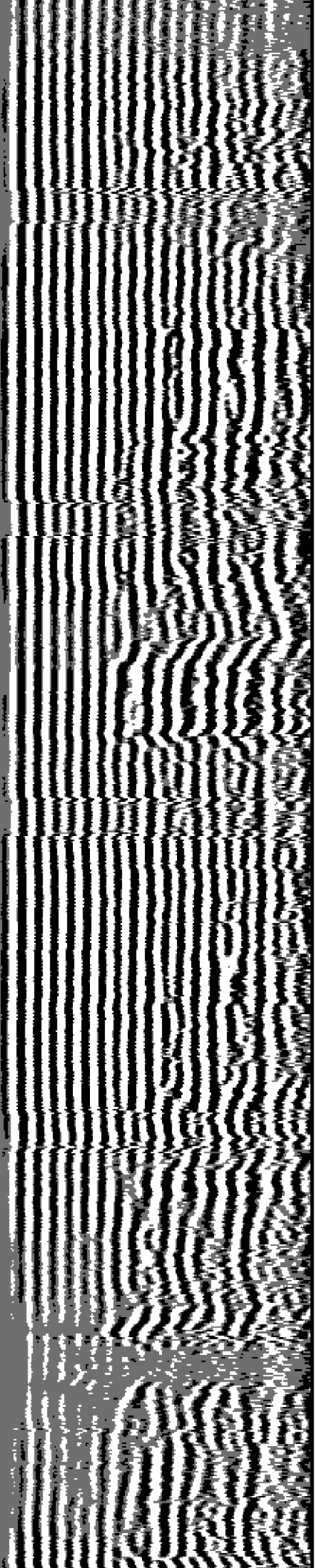


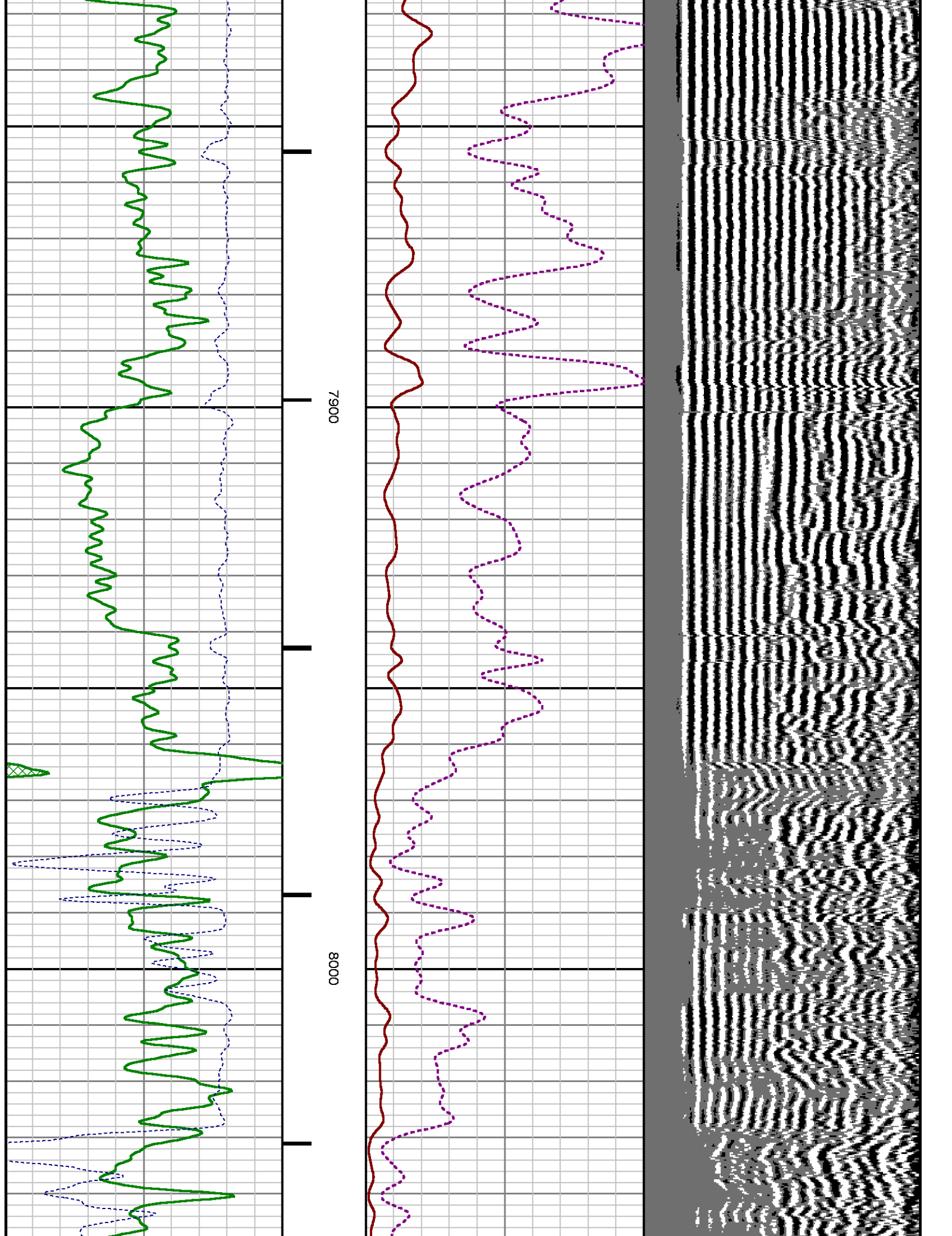


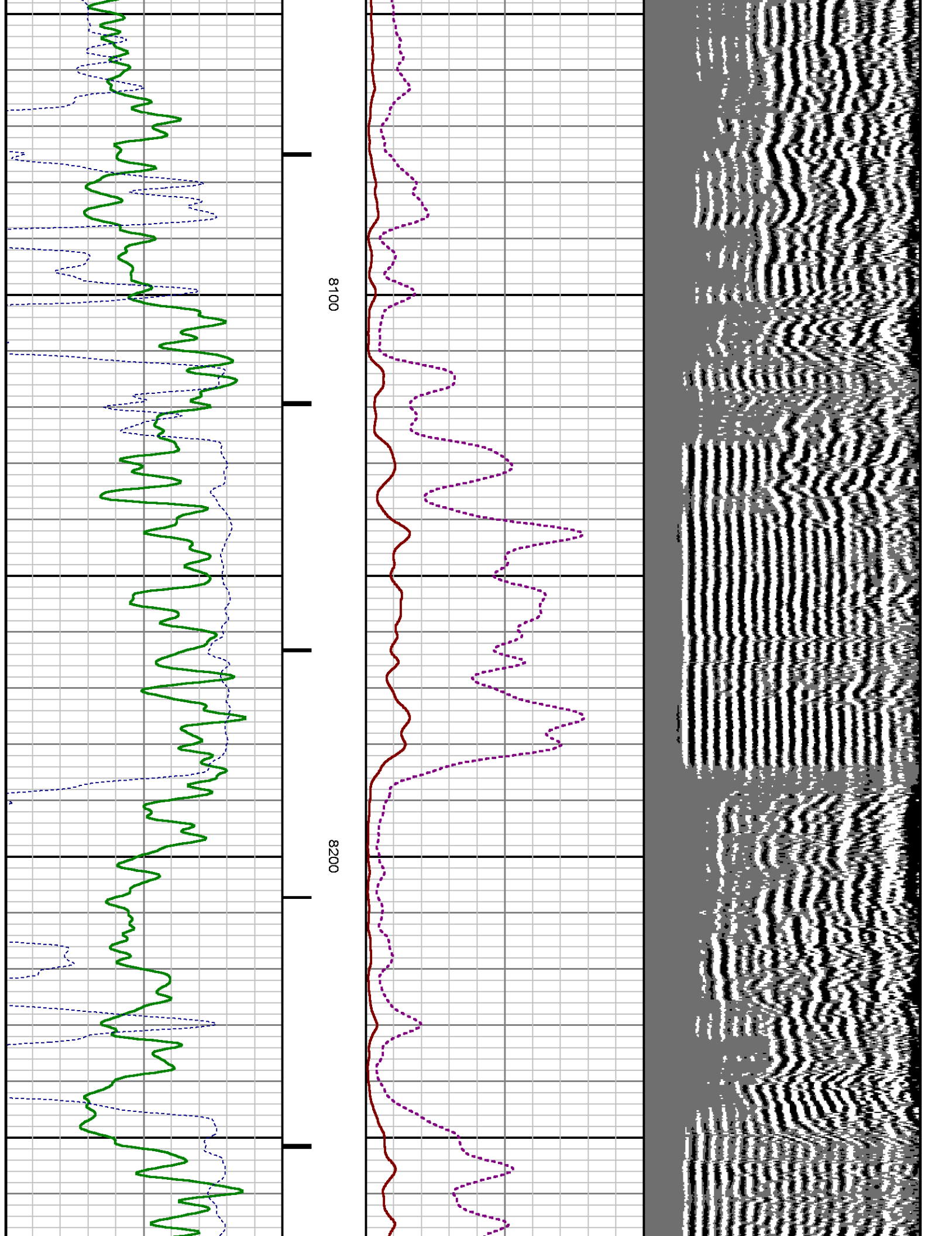




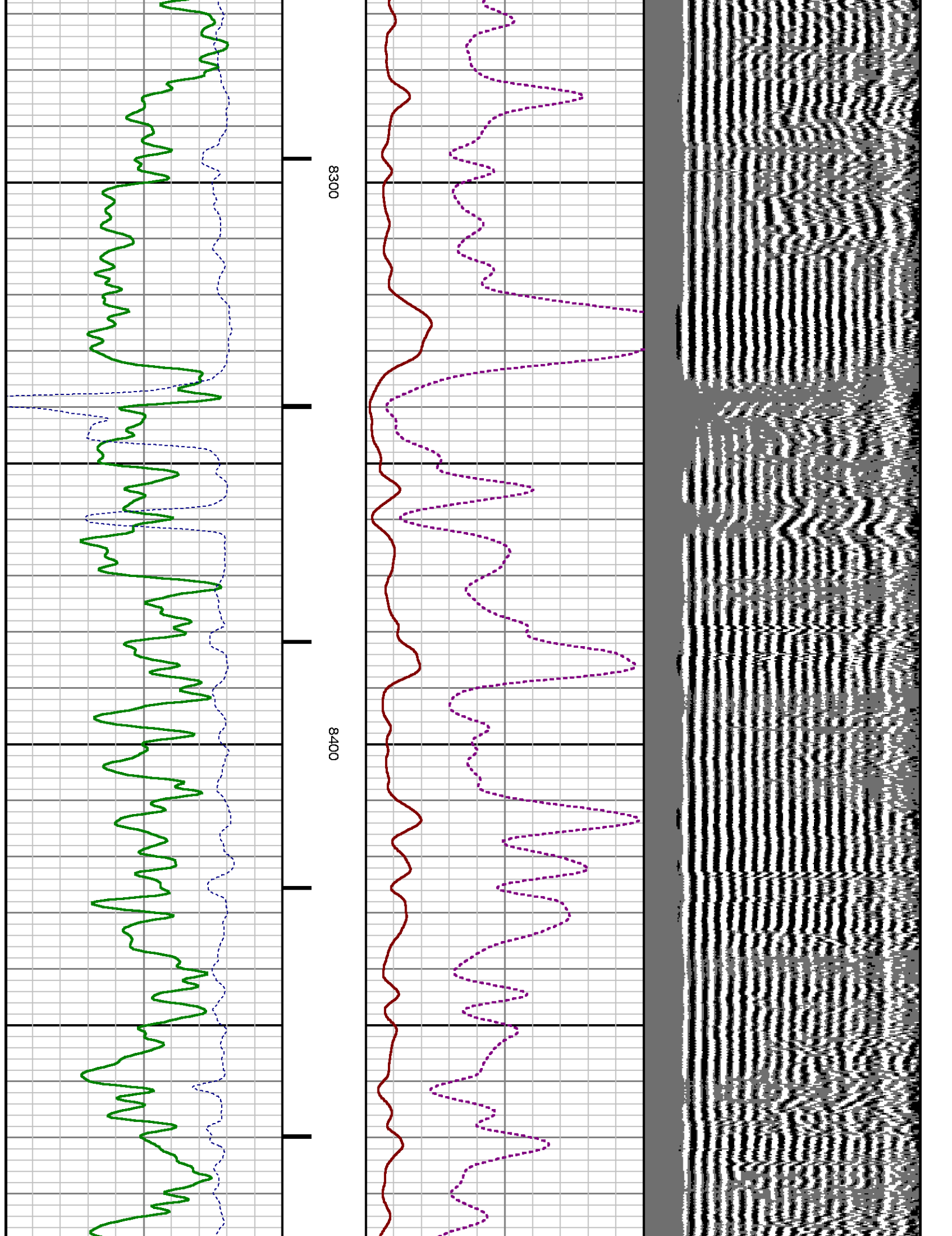




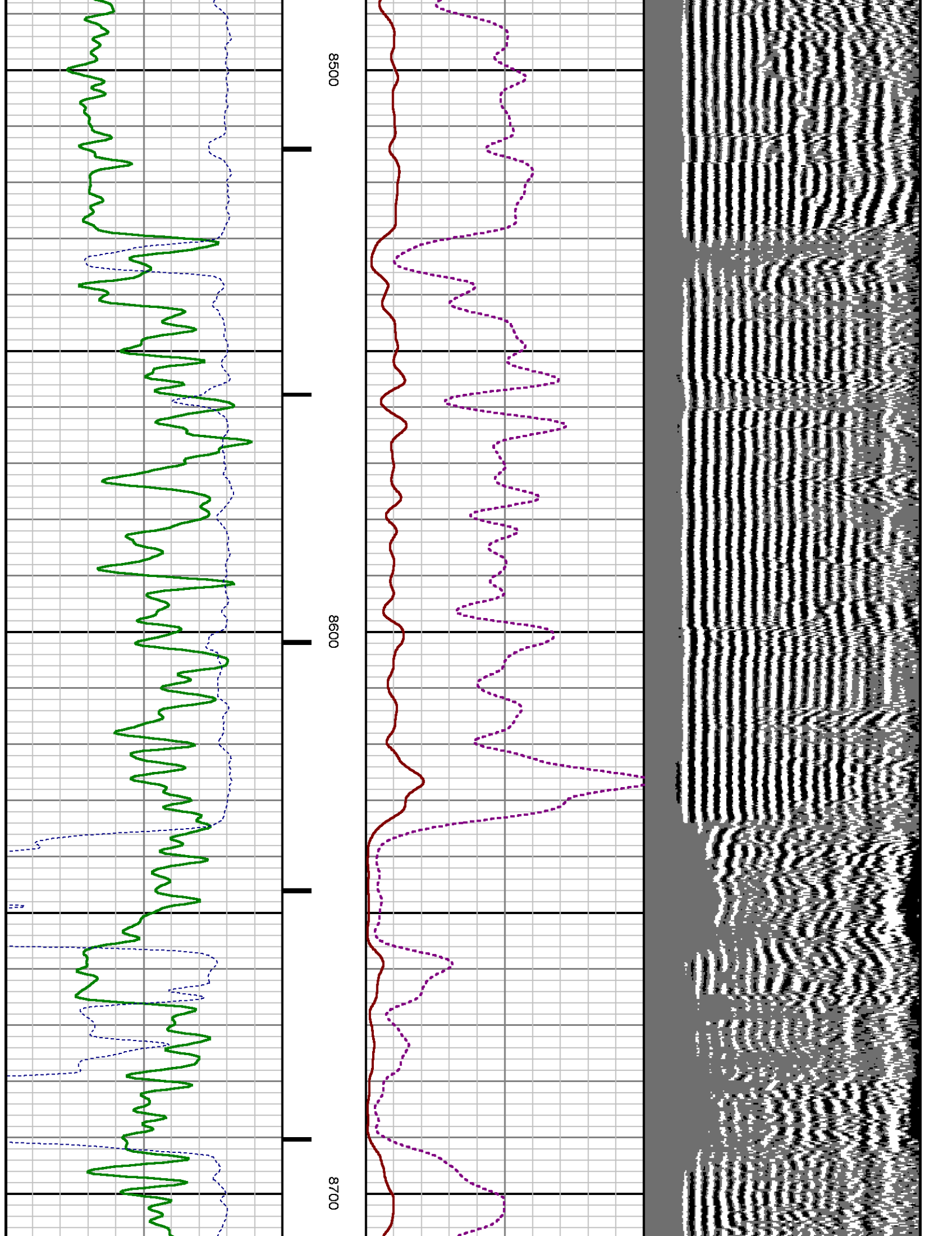


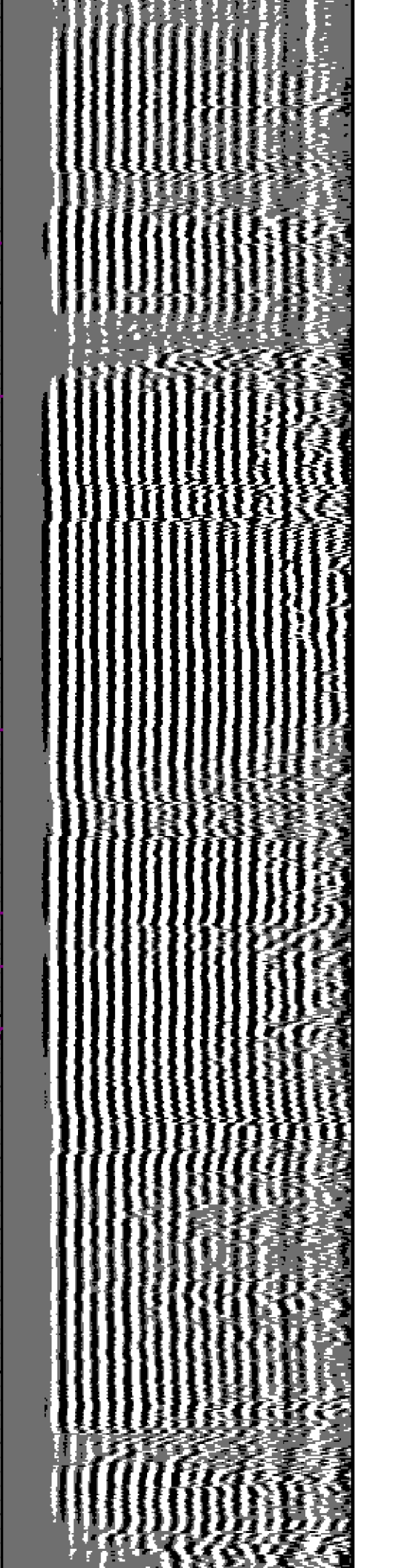
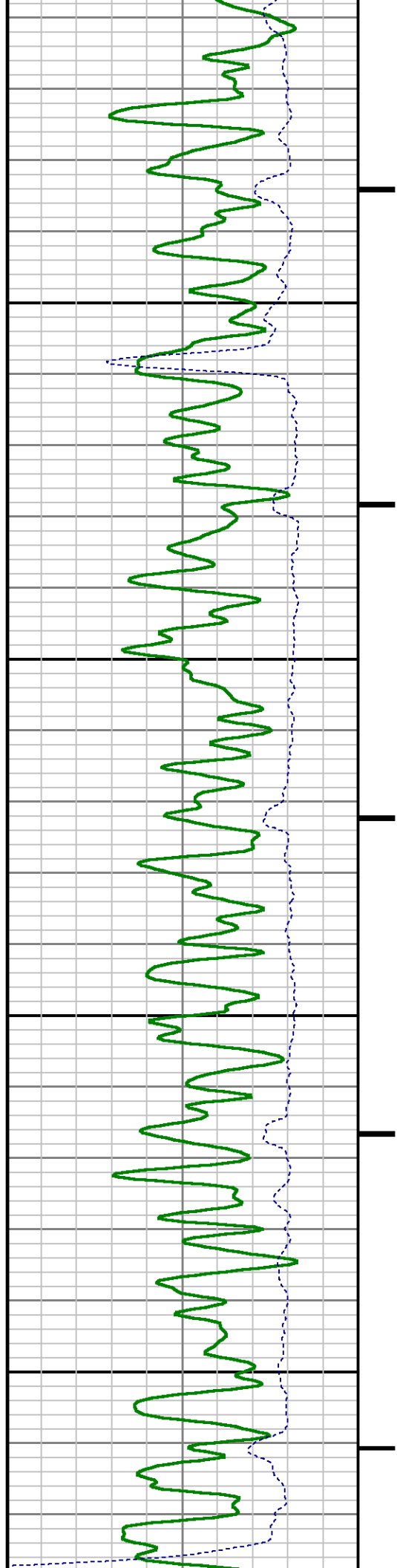


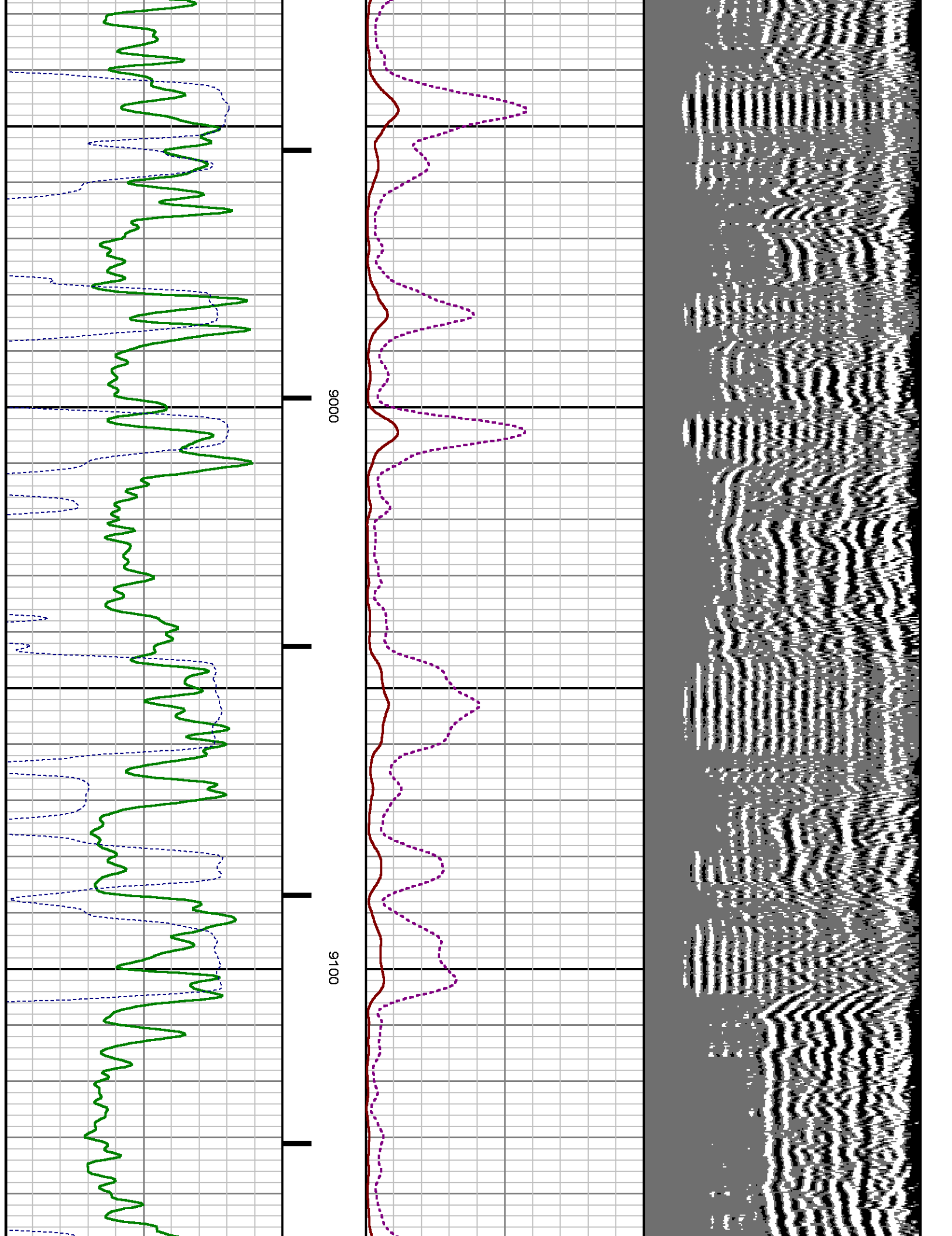


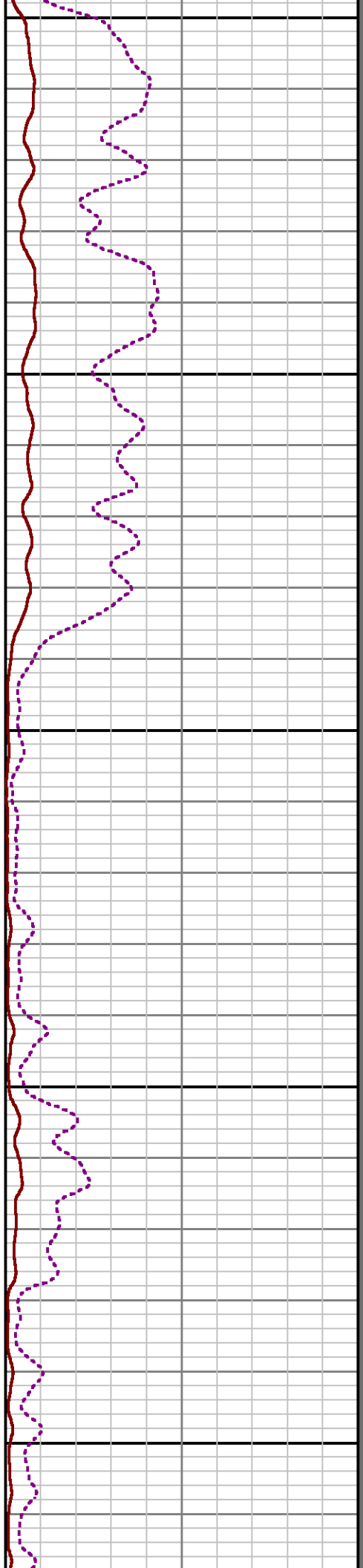
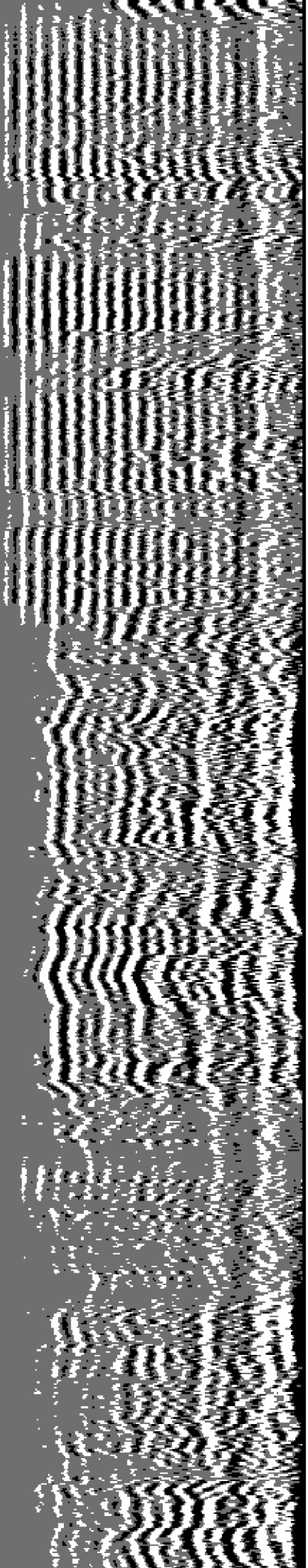






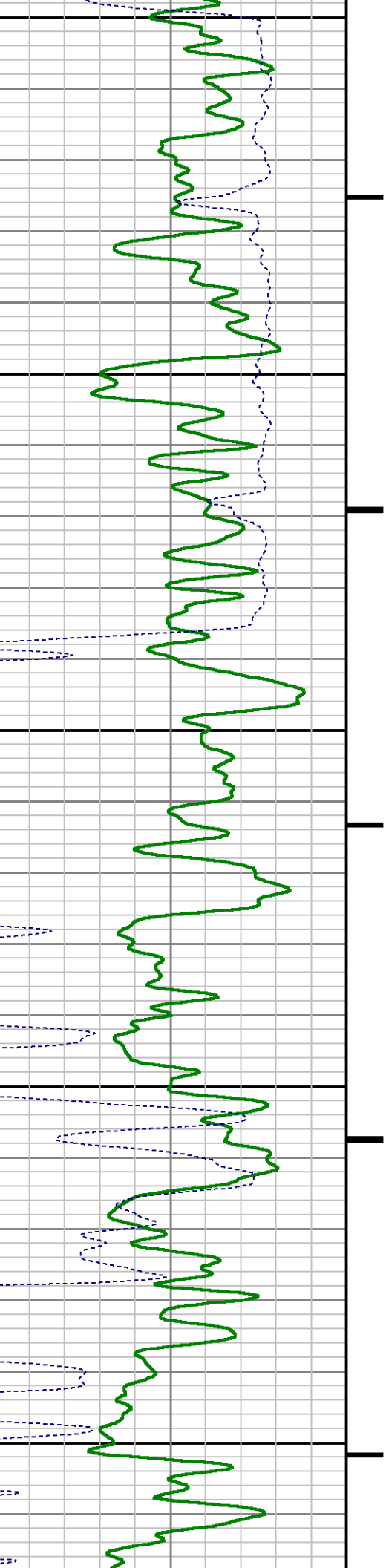


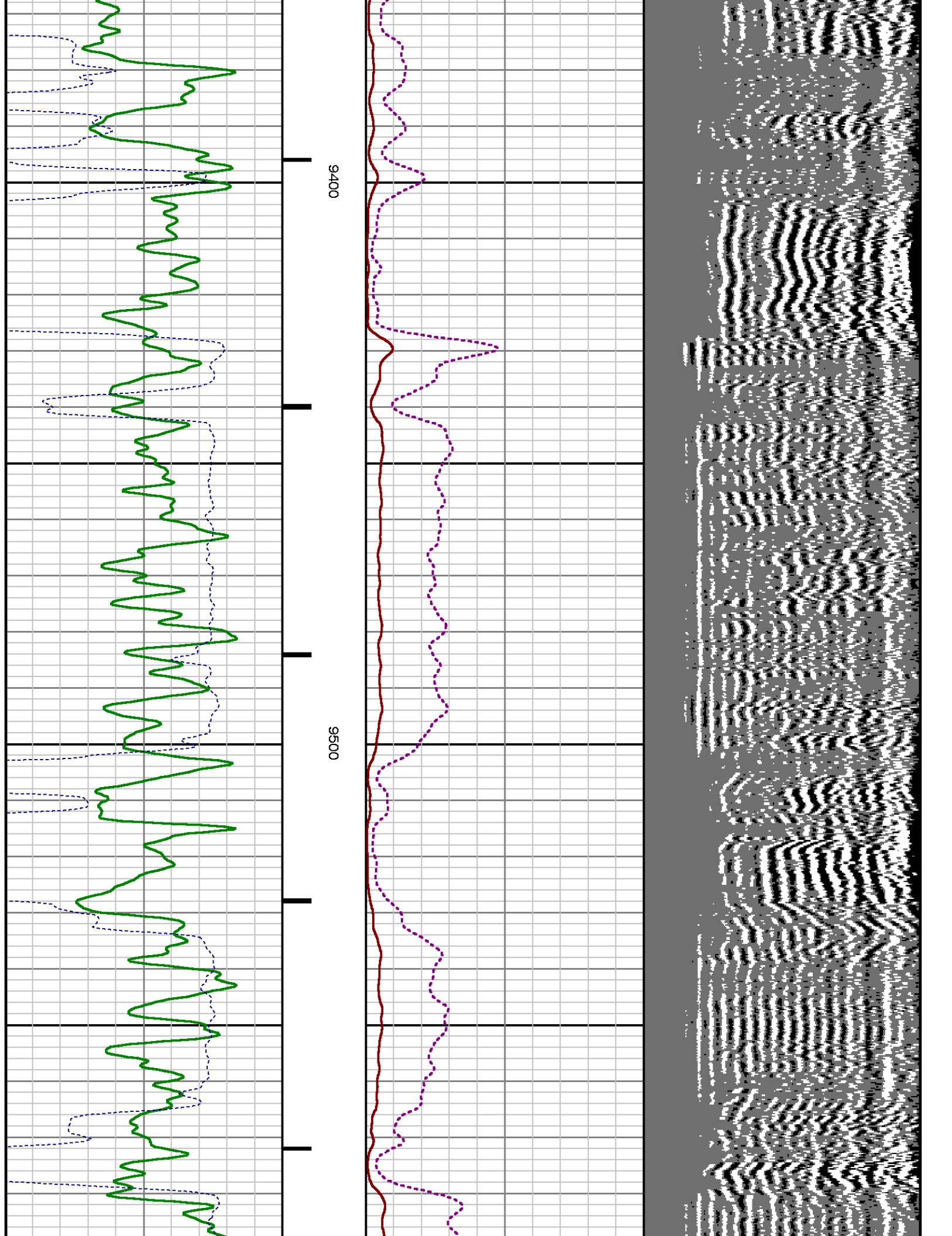




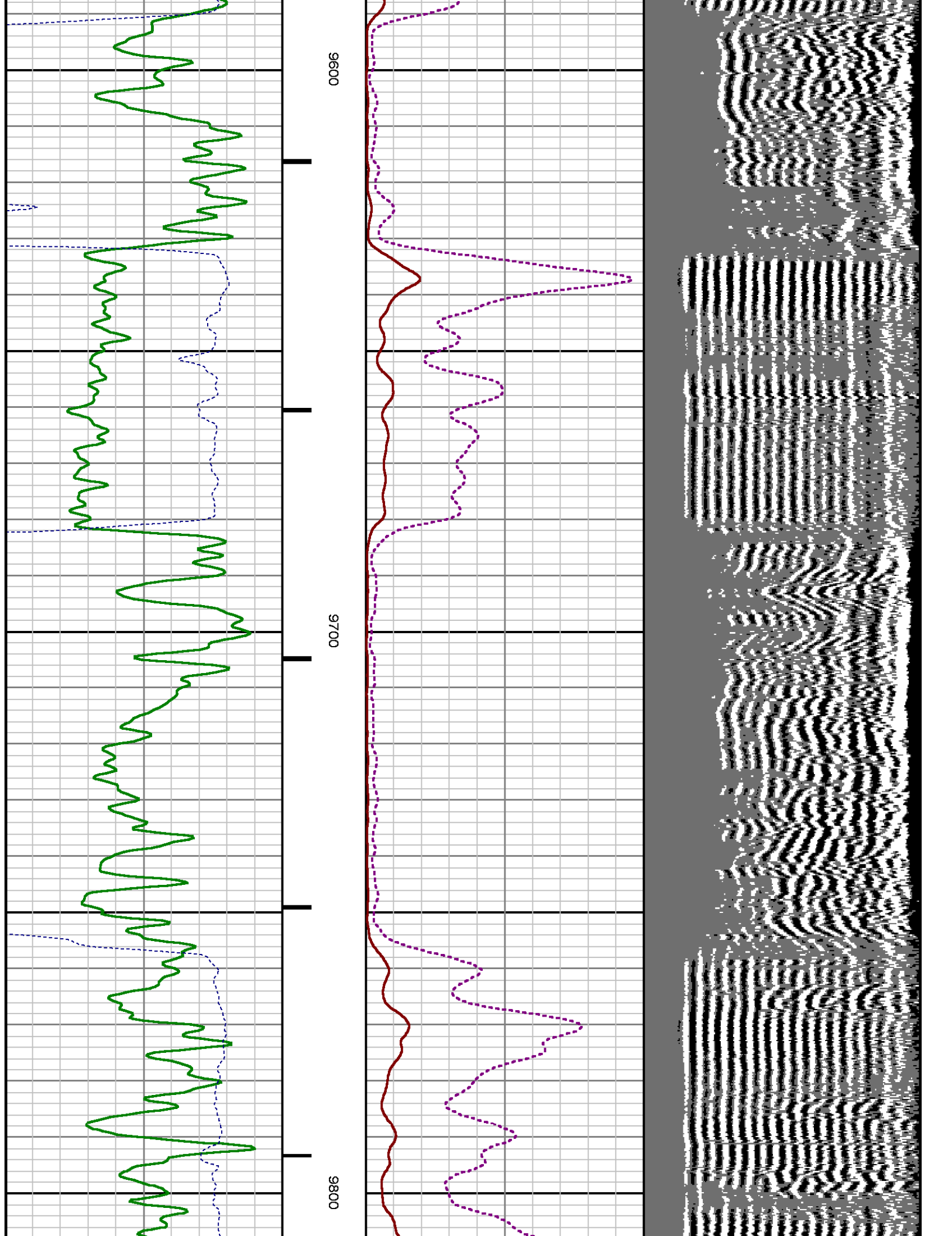
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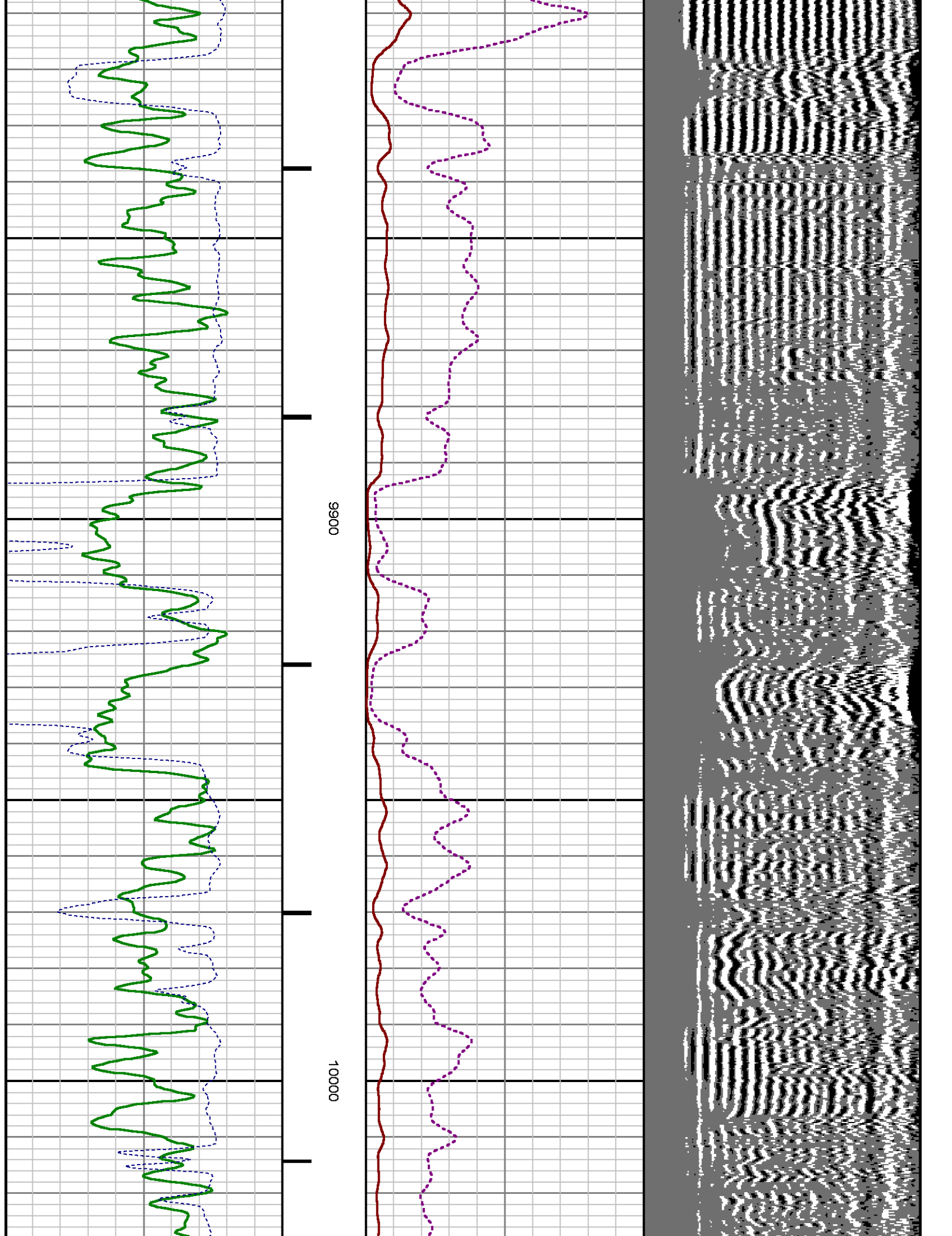


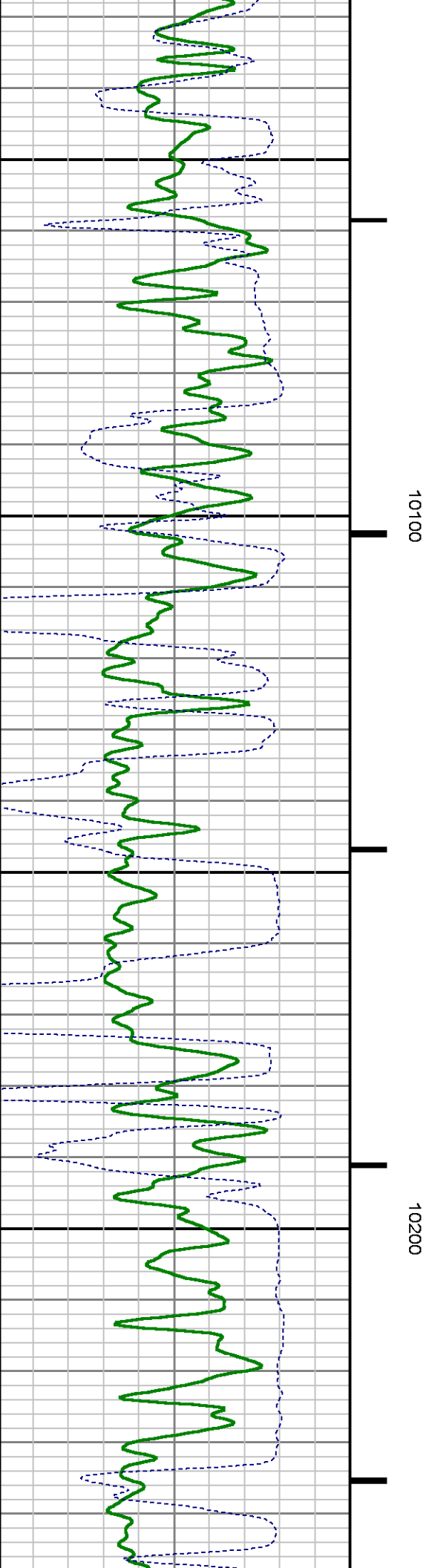
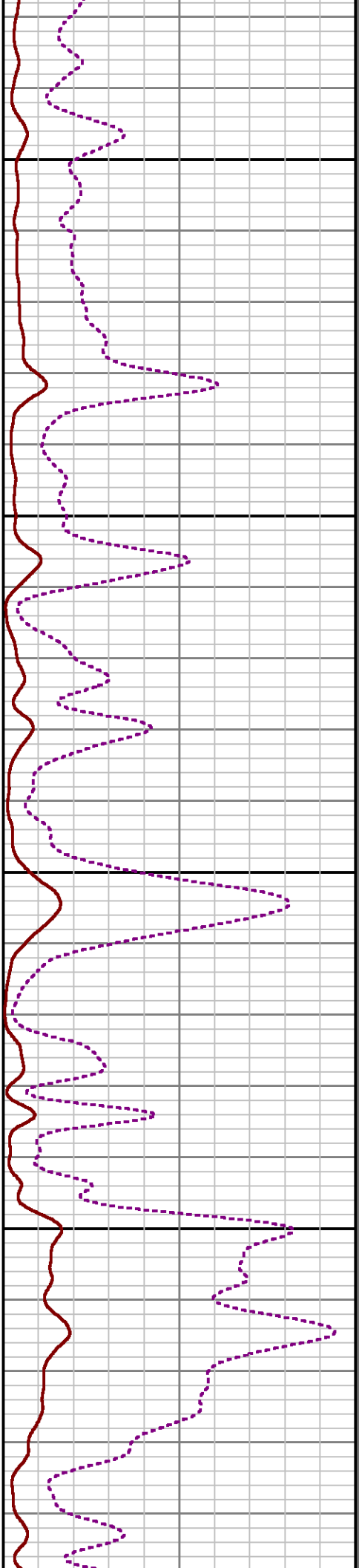
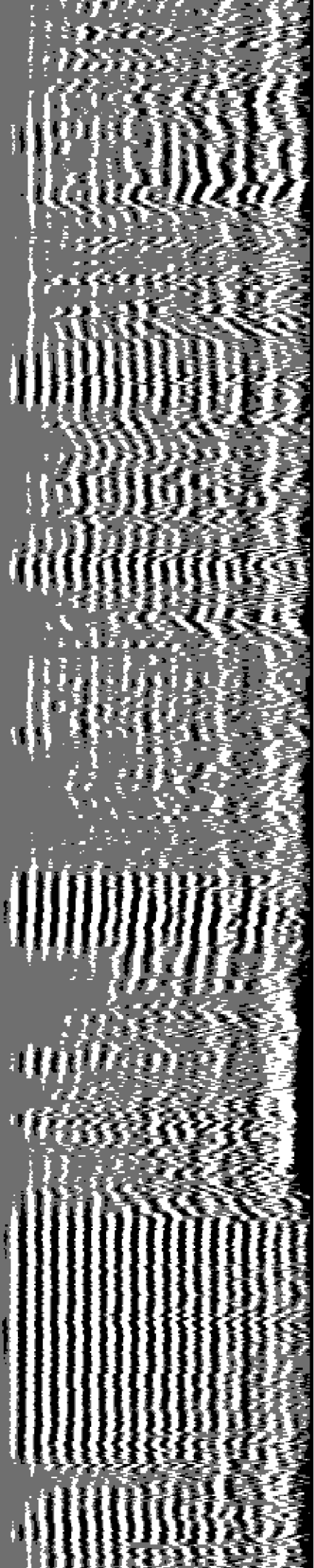


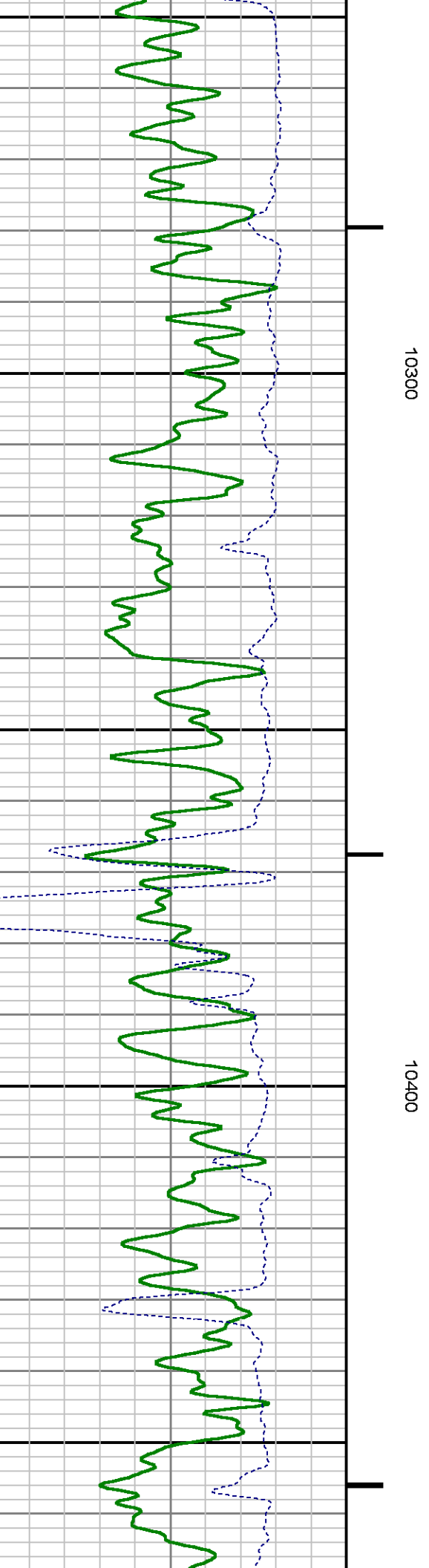
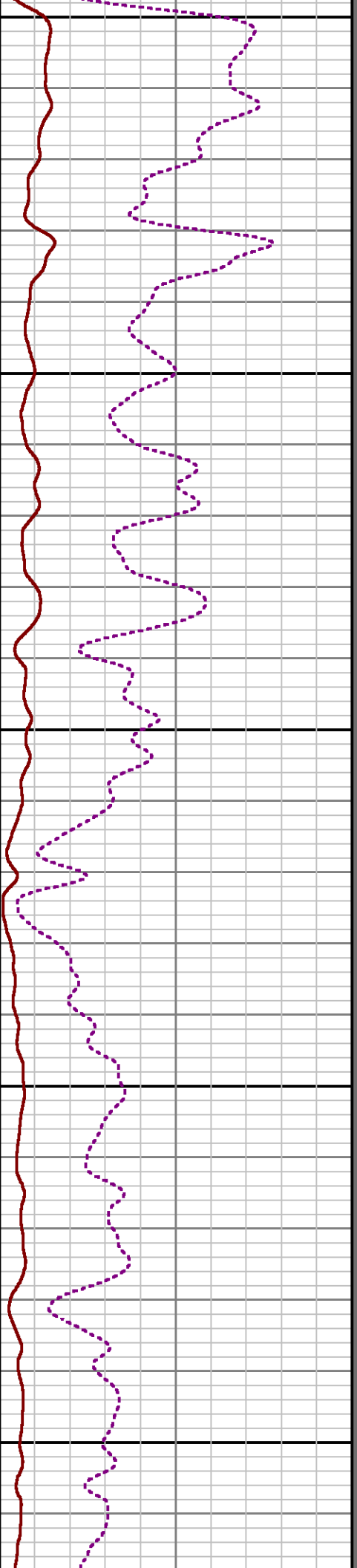
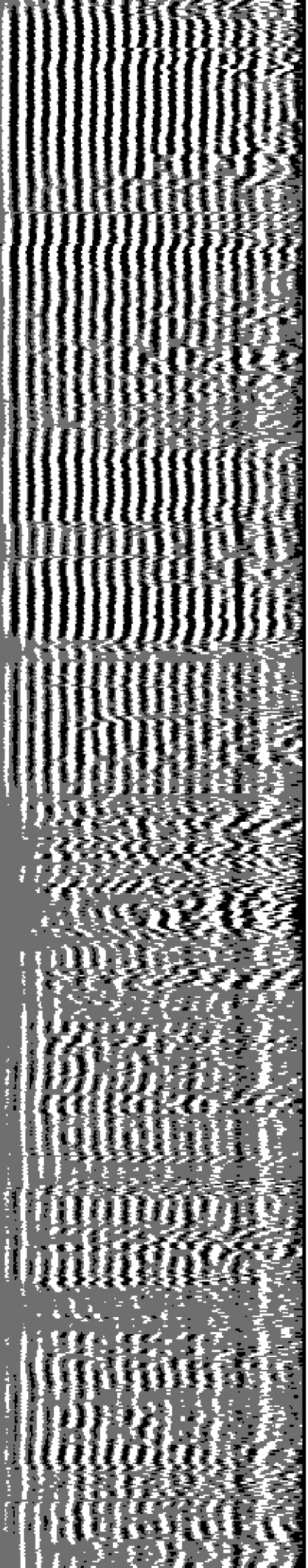


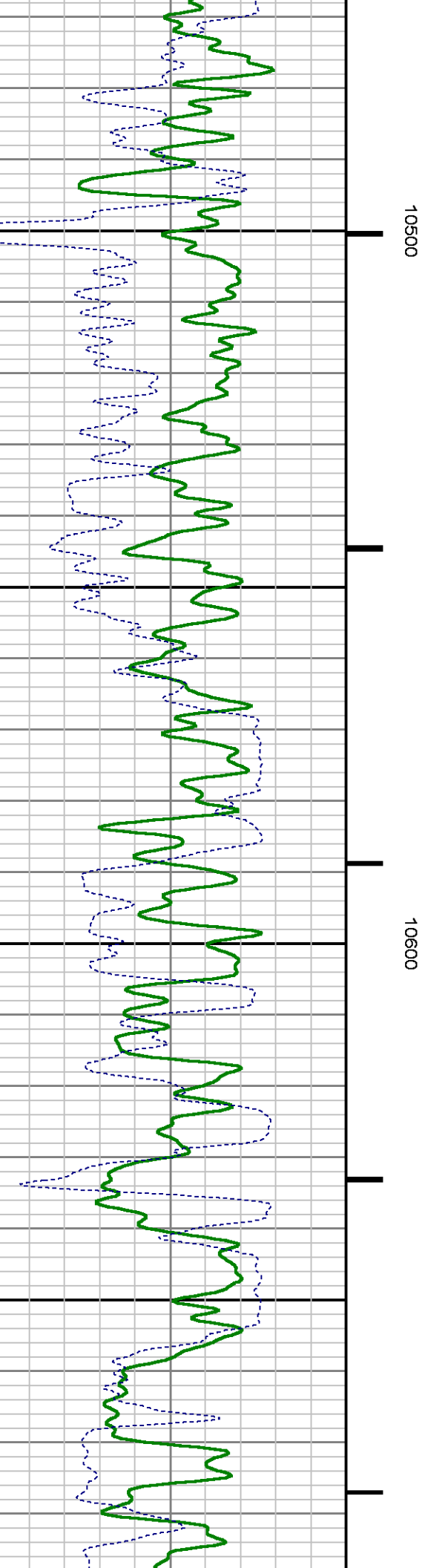
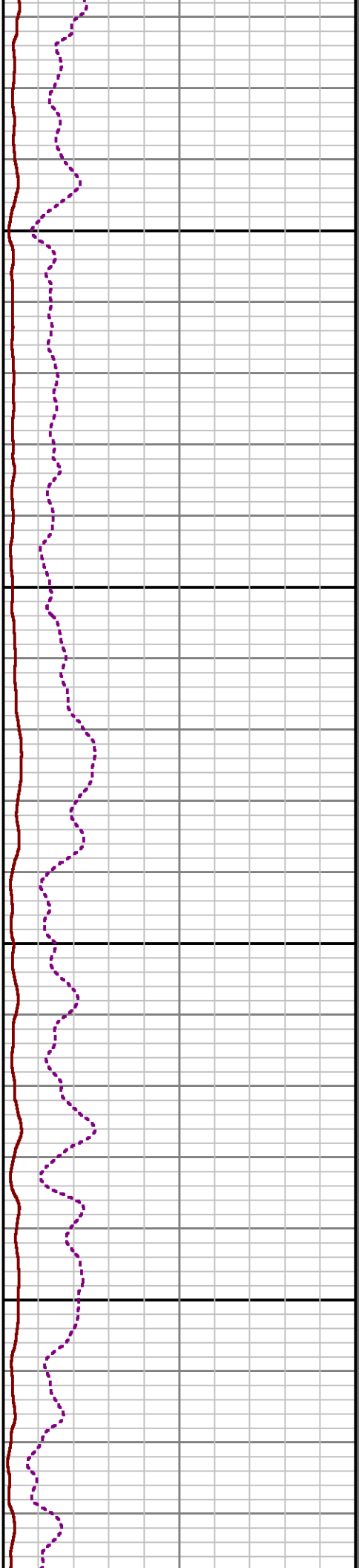
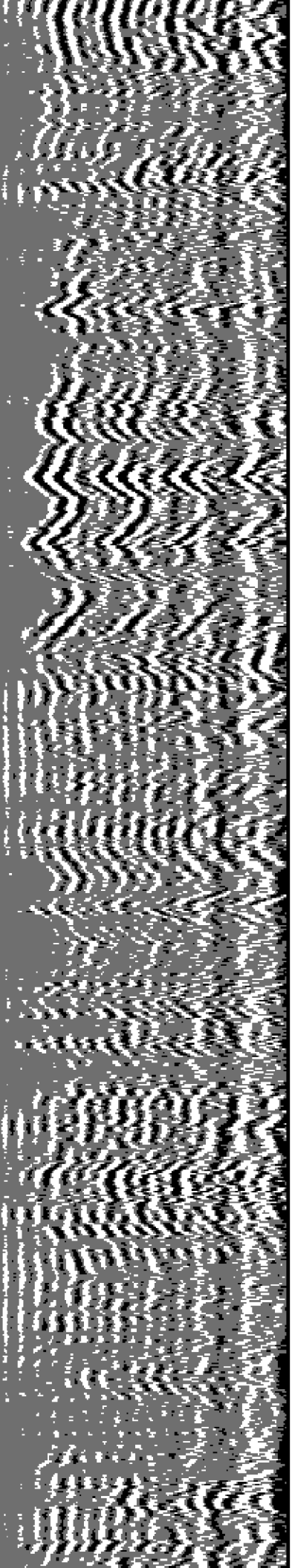


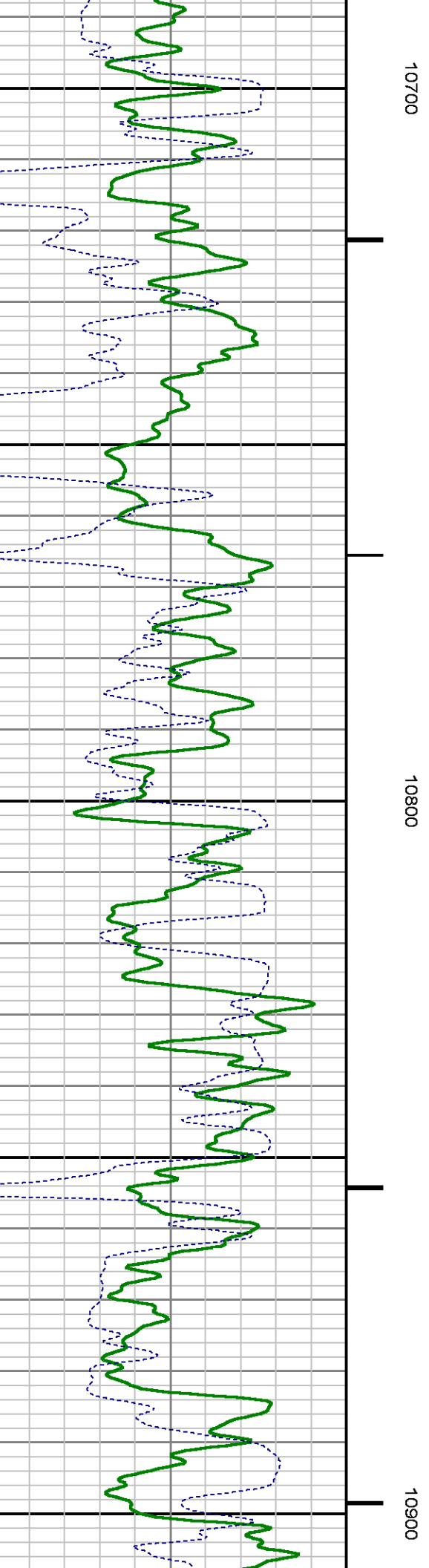
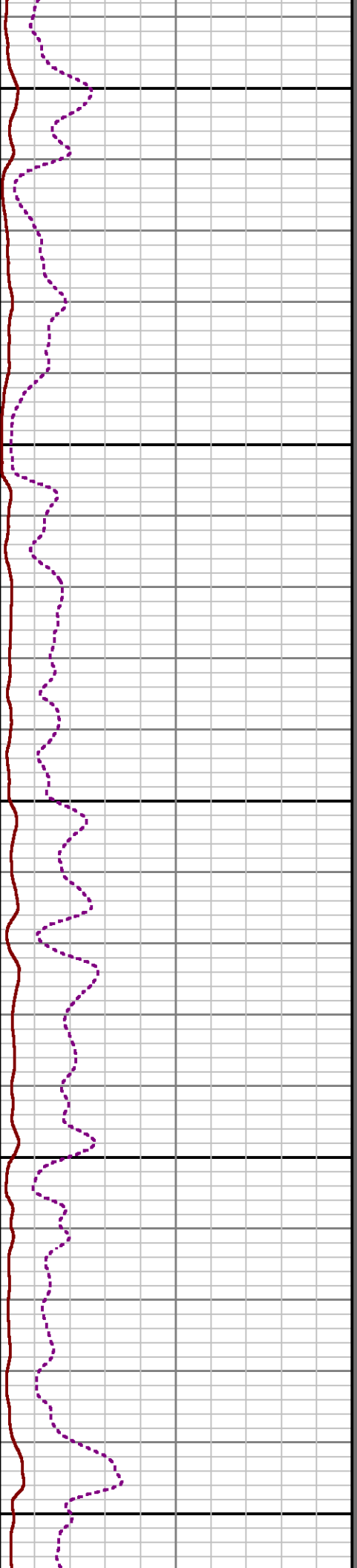
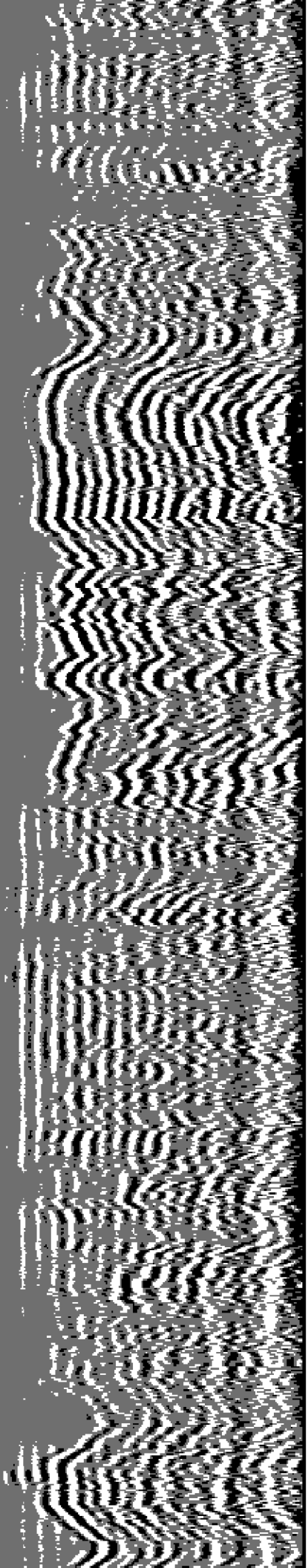




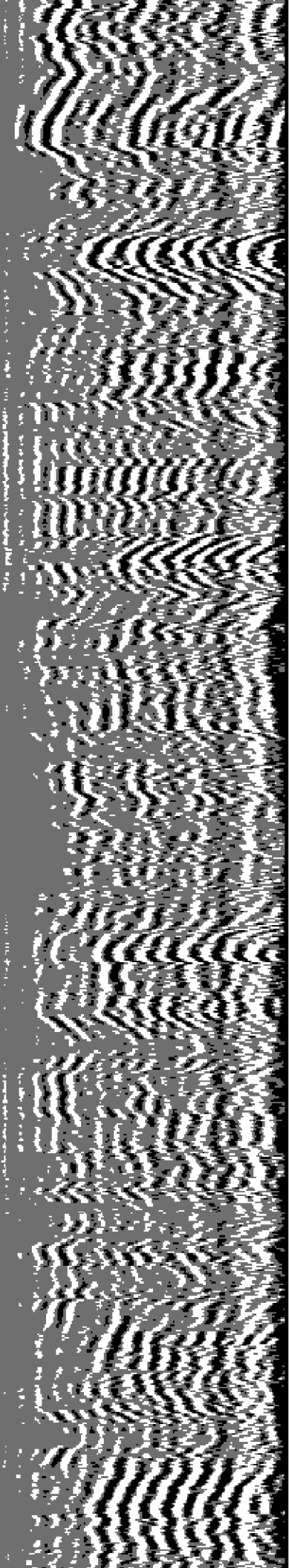






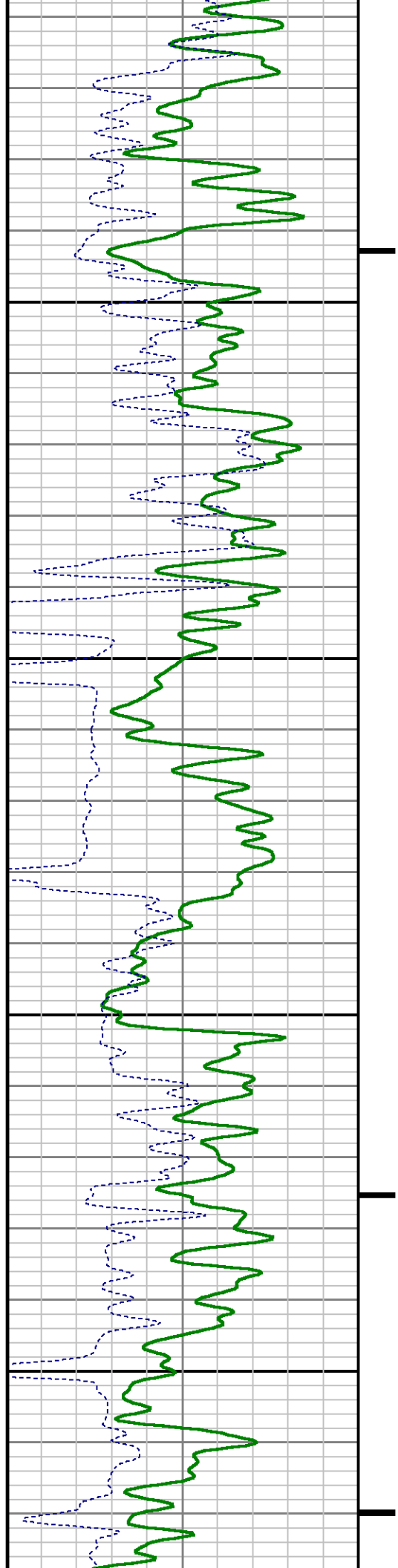




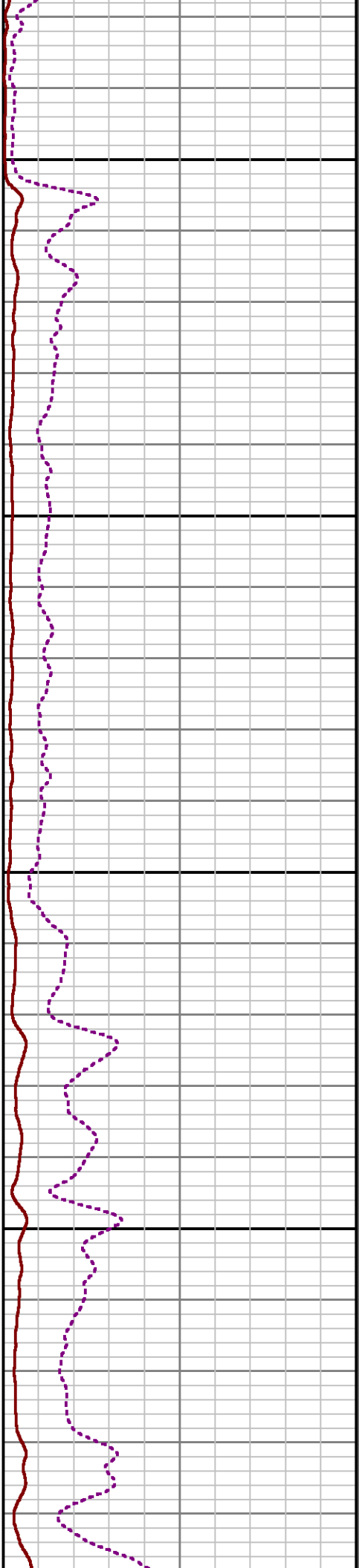
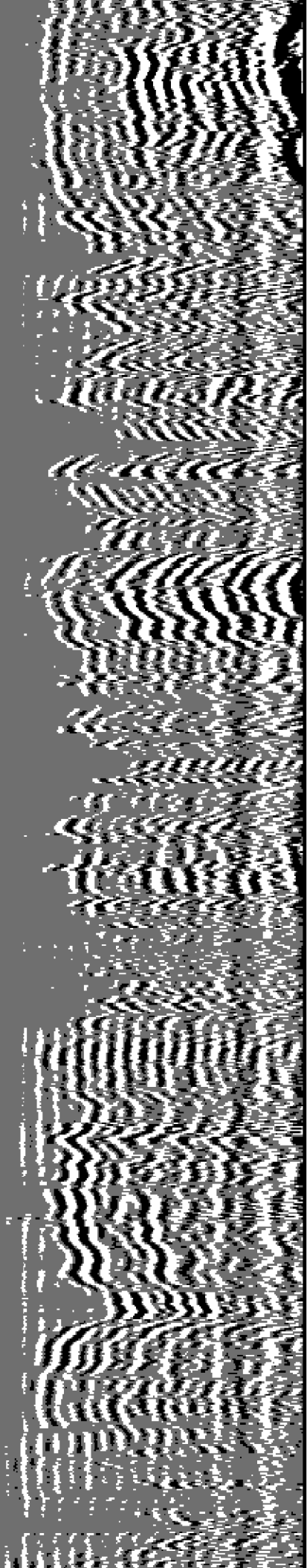


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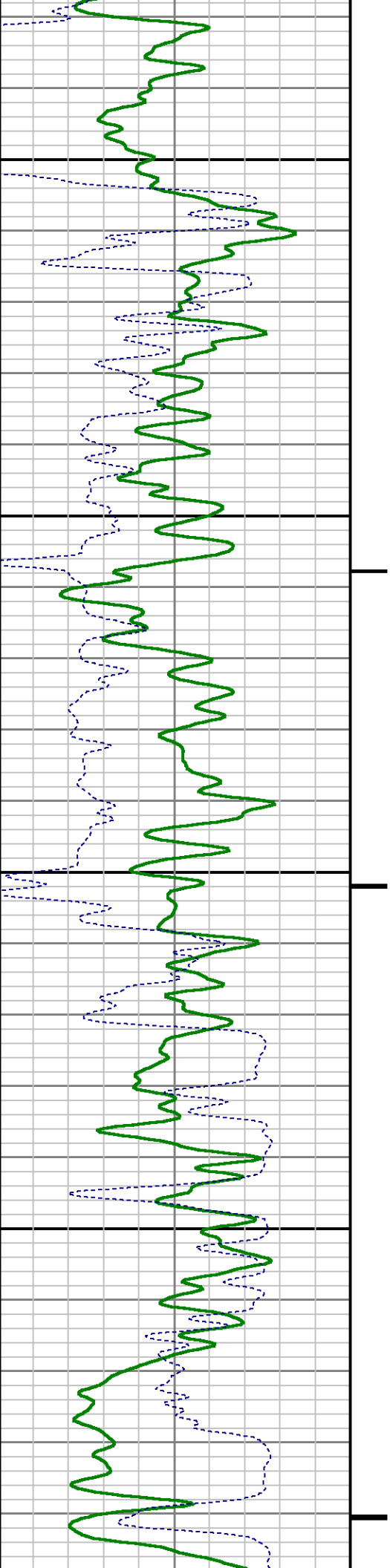


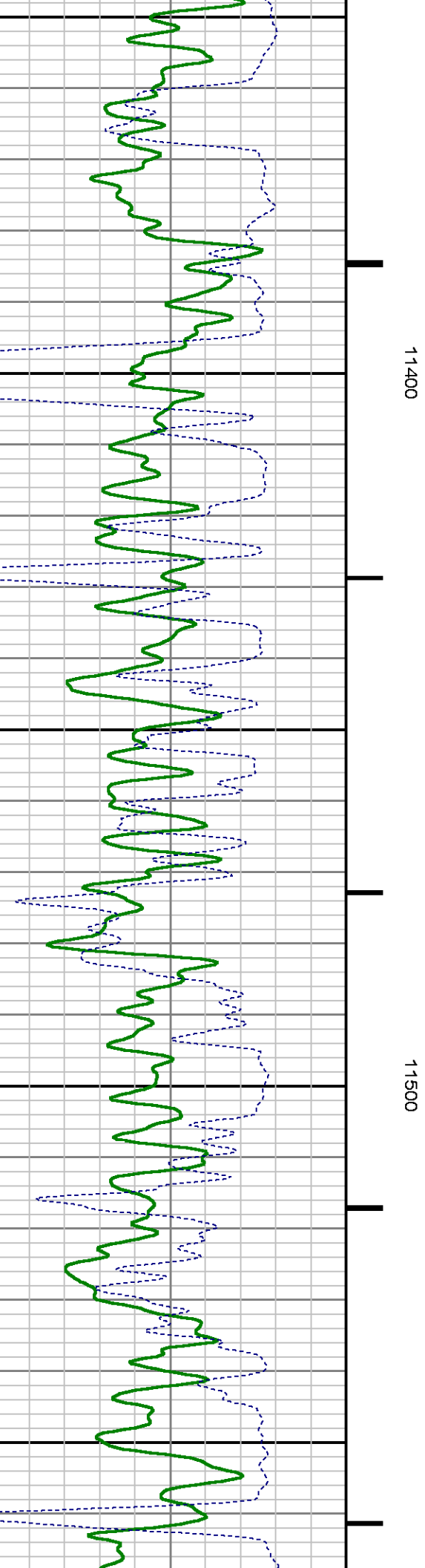
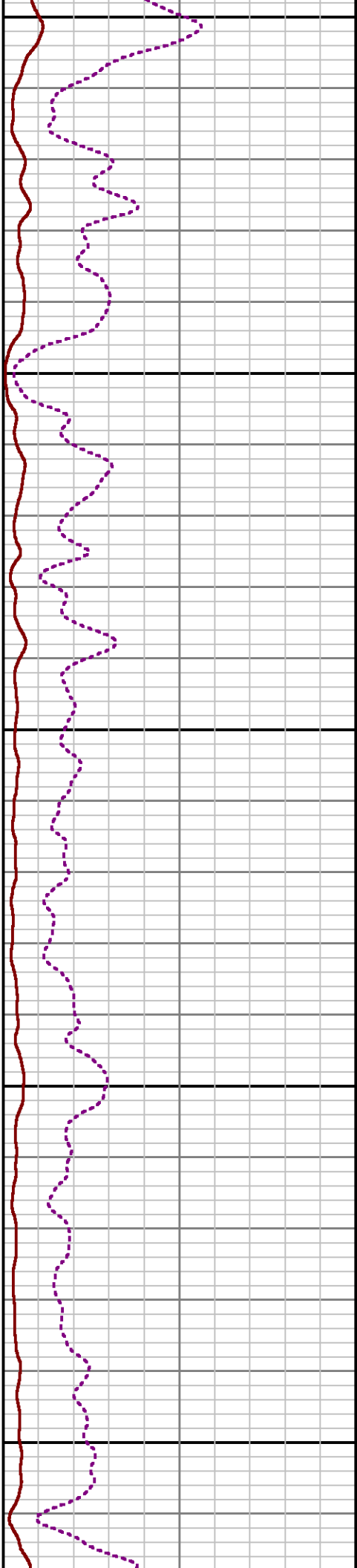
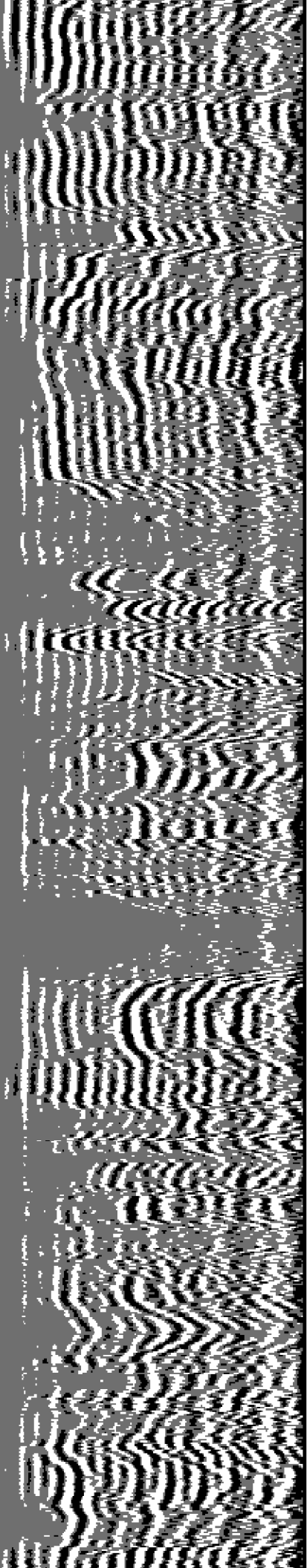


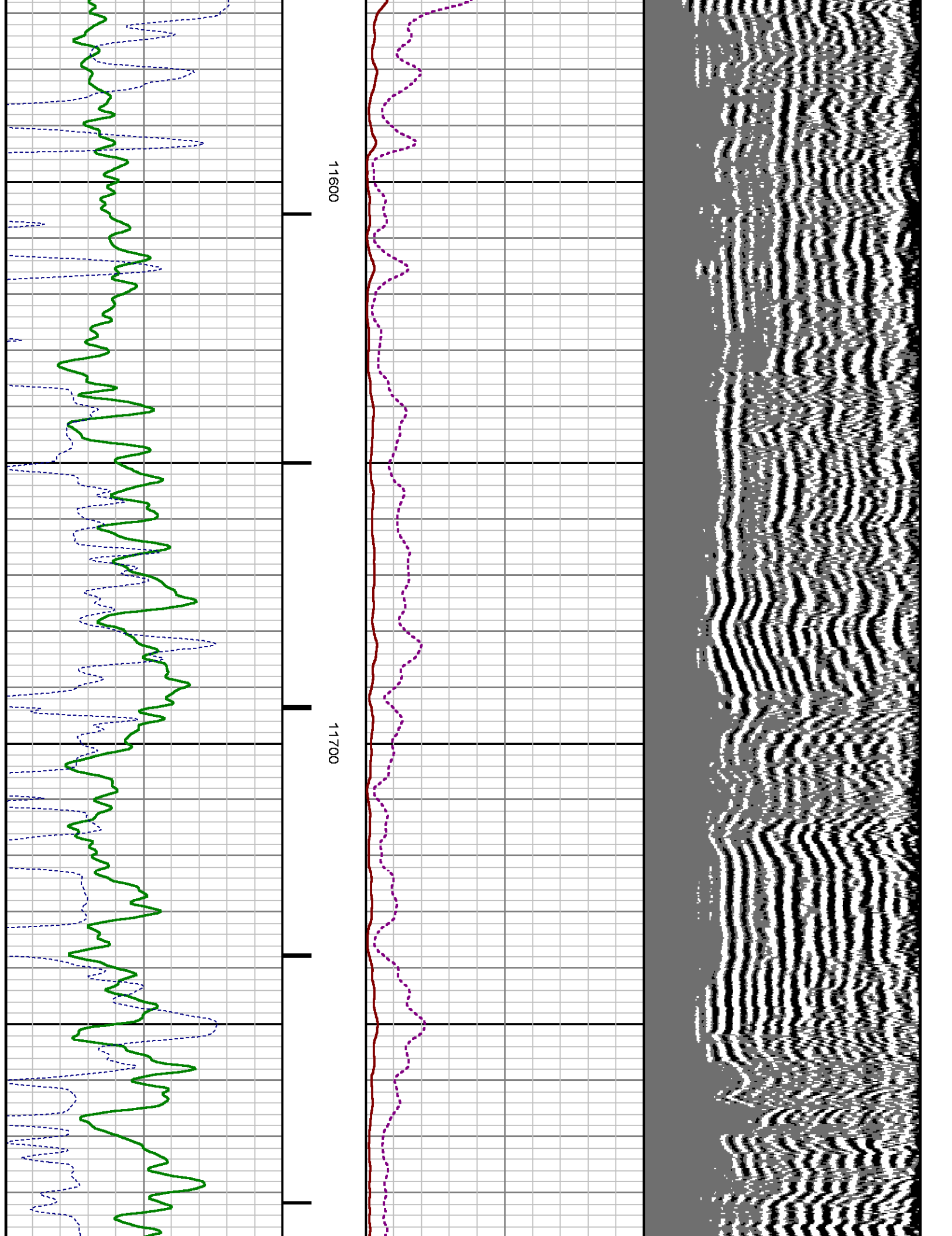


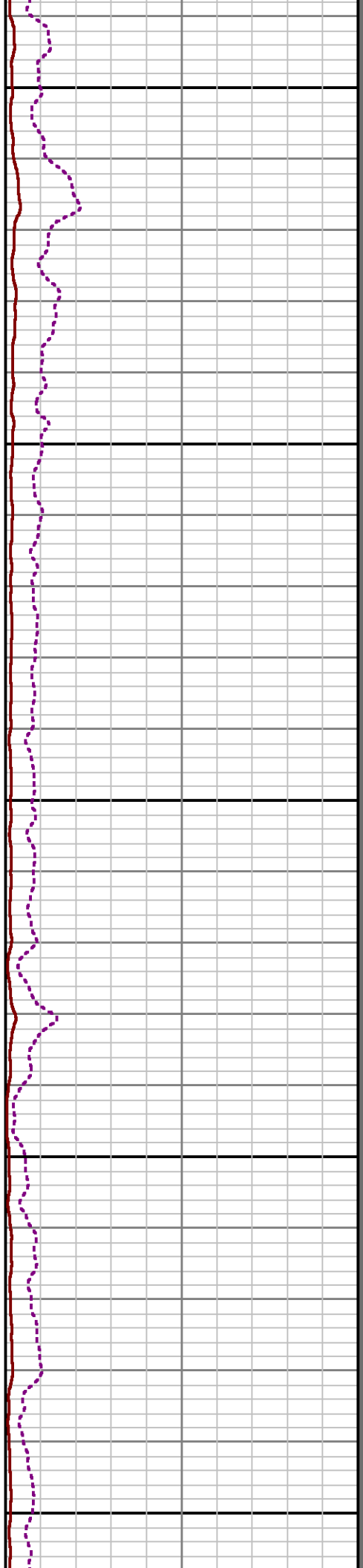
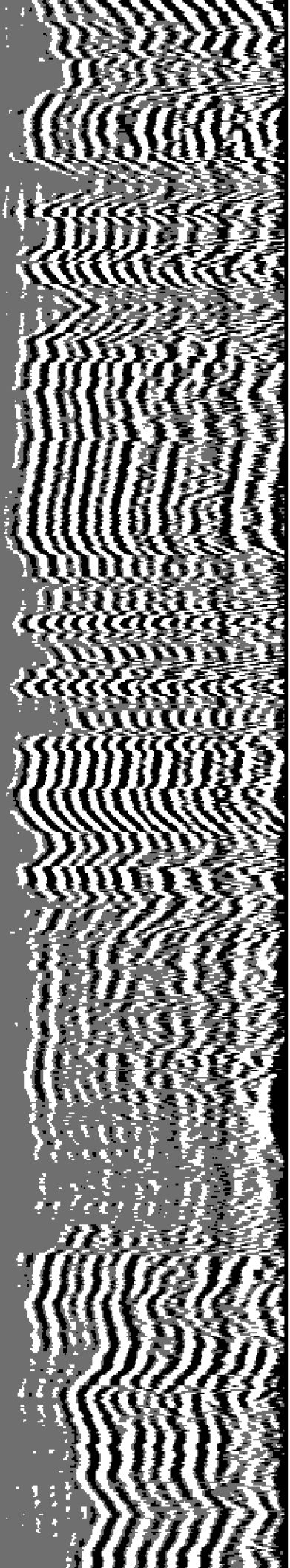
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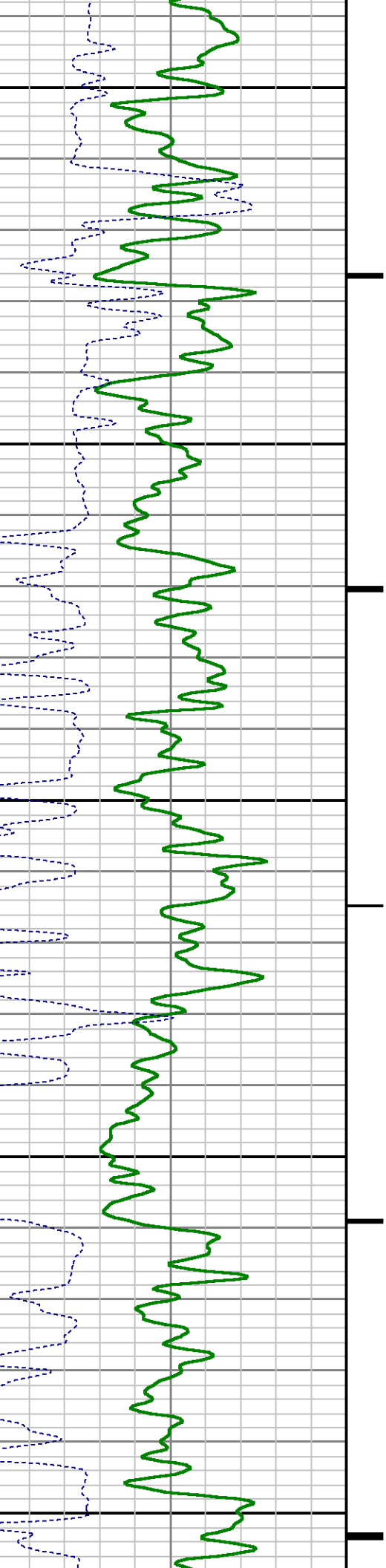


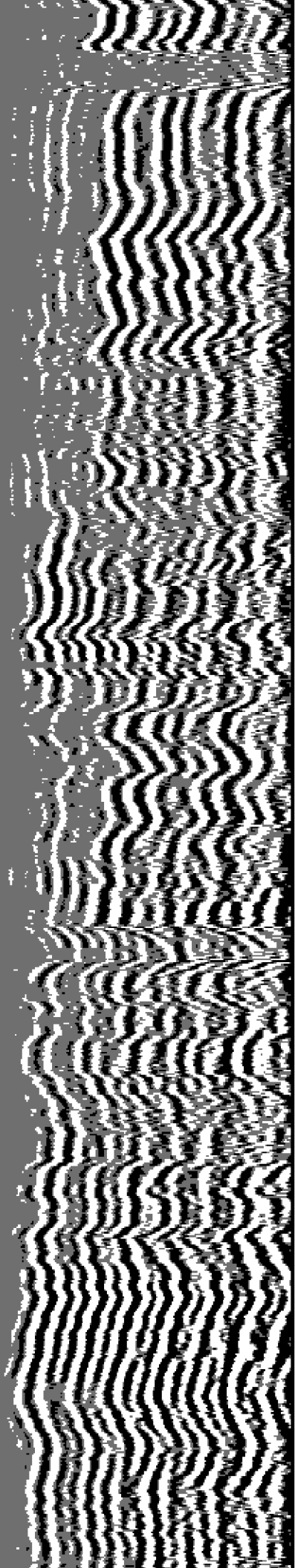


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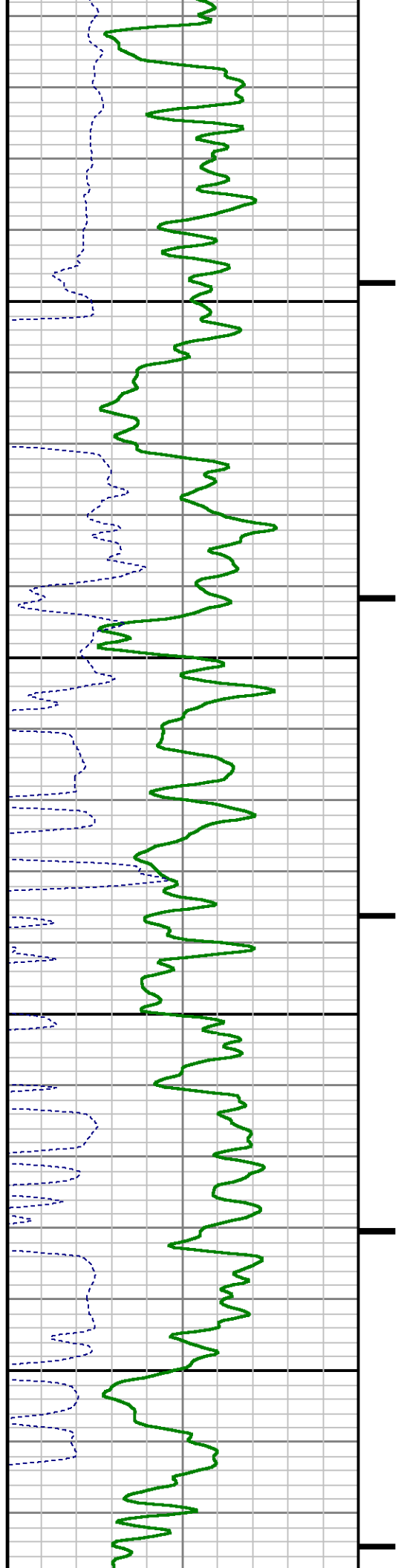
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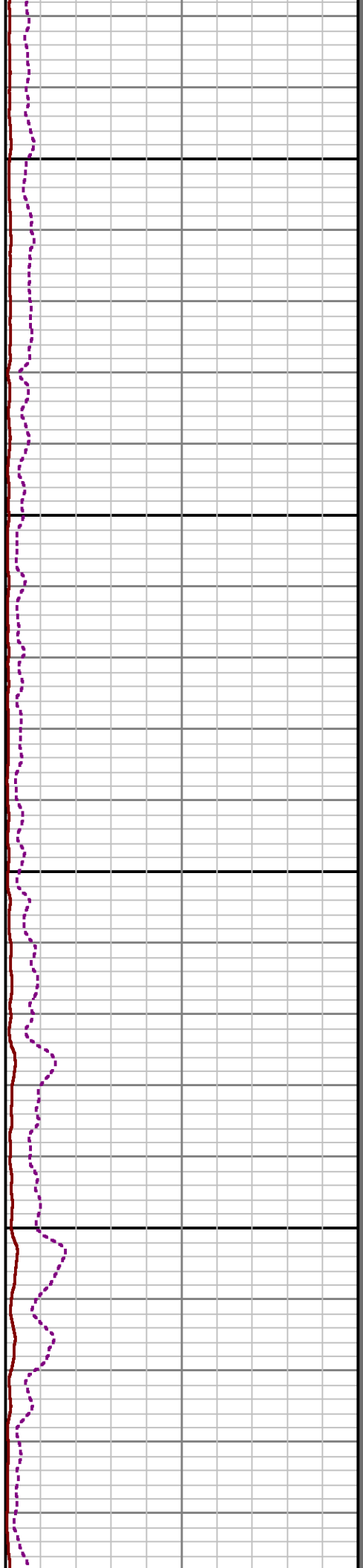
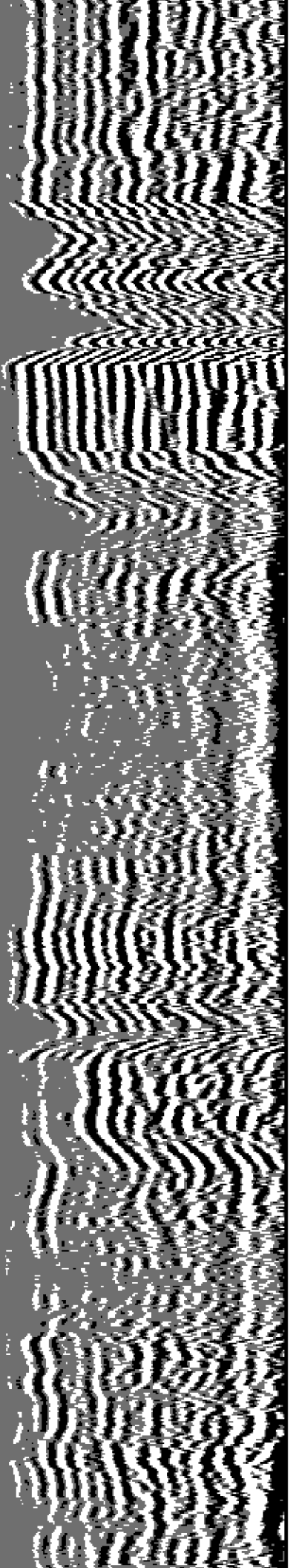


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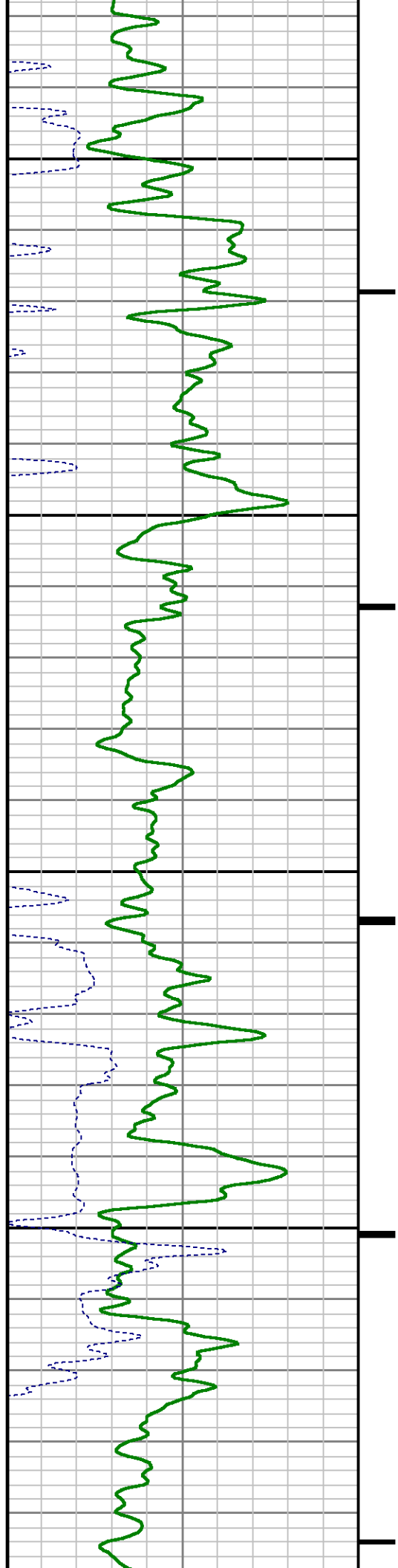




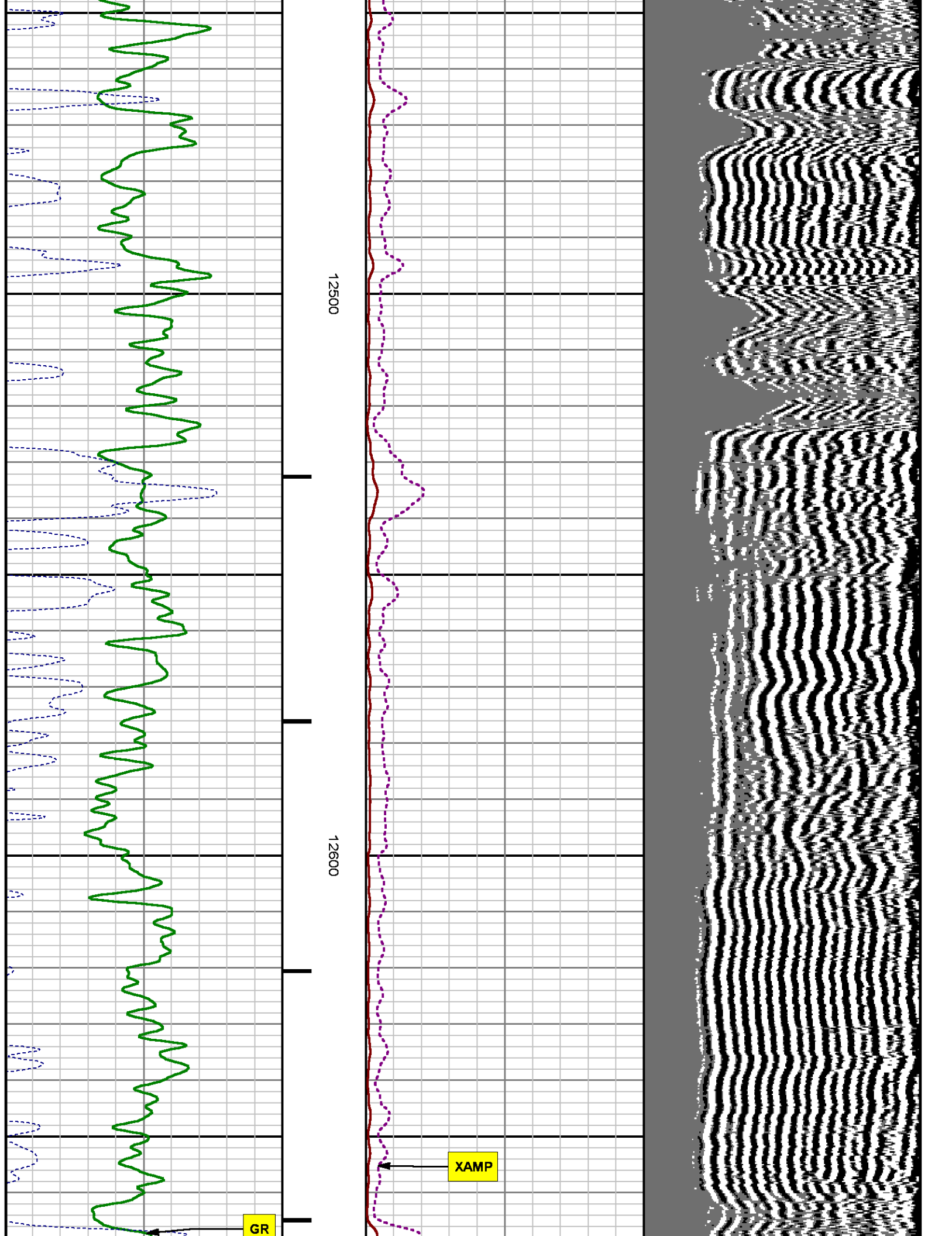


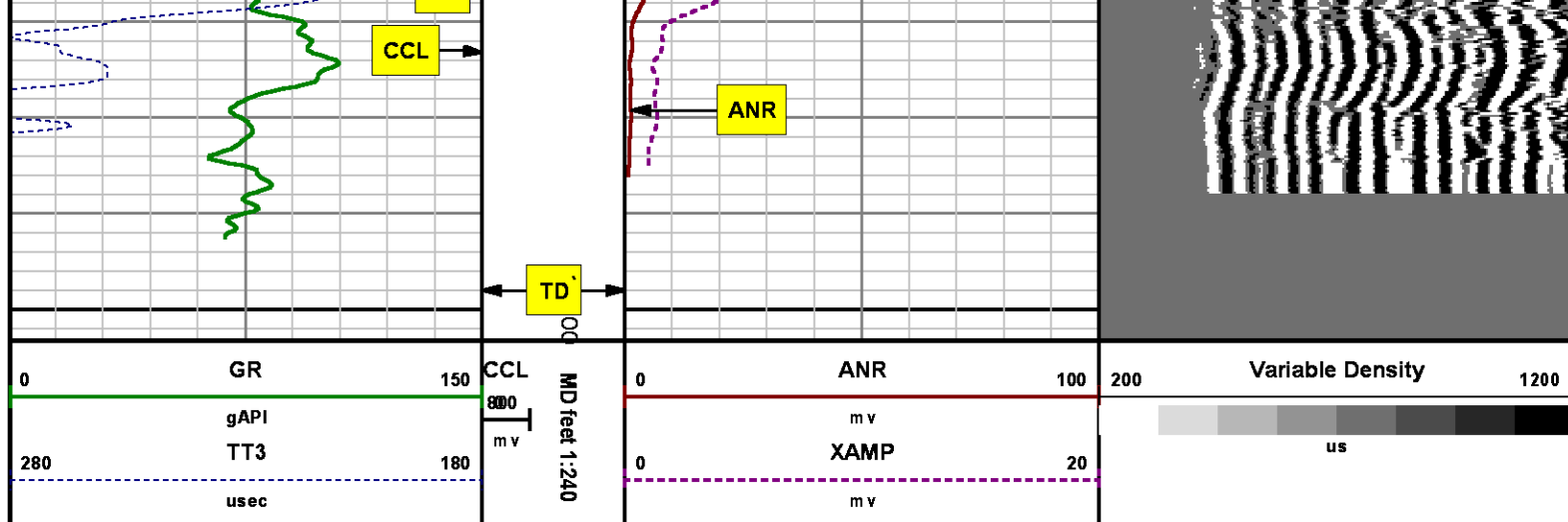
12300

12400









## SECONDARY PRESENTATION

### 0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	u sec	31.312	12702.500
RAL	Amp Gate Start Near	195.000	u sec	31.312	12702.500
RAL	Amp Gate Start Radial	195.000	u sec	31.312	12702.500
RAL	Amp Gate Width Far	25.000	u sec	31.312	12702.500
RAL	Amp Gate Width Near	25.000	u sec	31.312	12702.500
RAL	Amp Gate Width Radial	25.000	u sec	31.312	12702.500
RAL	casing od	4.500	inches	31.312	12702.500
RAL	casing wt	11.600	lbm/ft	31.312	12702.500
RAL	FB Start Far	291.900	u sec	31.312	12702.500
RAL	FB Start Near	180.000	u sec	31.312	12702.500
RAL	FB Start Radial	180.000	u sec	31.312	12702.500
RAL	FB Thresh Far	10.000	m v	31.312	12702.500
RAL	FB Thresh Near	4.000	m v	31.312	12702.500
RAL	FB Thresh Radial	4.000	m v	31.312	12702.500
RAL	Fluid Travel Time	200.000	u sec/ft	31.312	12703.250

## DEPTH OFFSETS

(for Acquired Curves)

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4		
		AR5	AR6	AR7	AR8	CHV	FPR2		
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3		
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP		
1426XA	-15.750	AFAR	SIG	TT5					
2459XA	-11.340	CCL							
2459XA	-9.490	GR							
2459XA	-4.090	NEU							

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

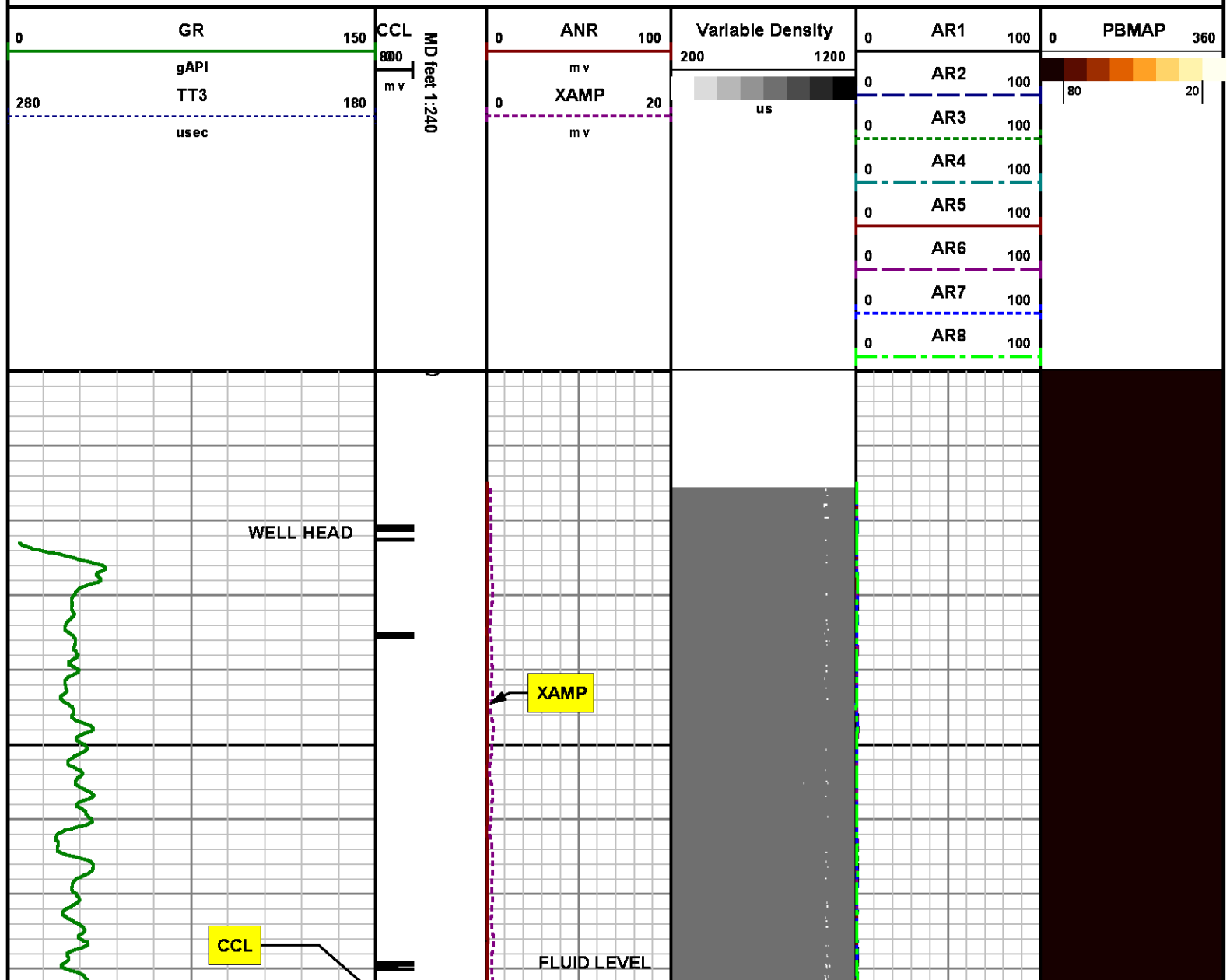
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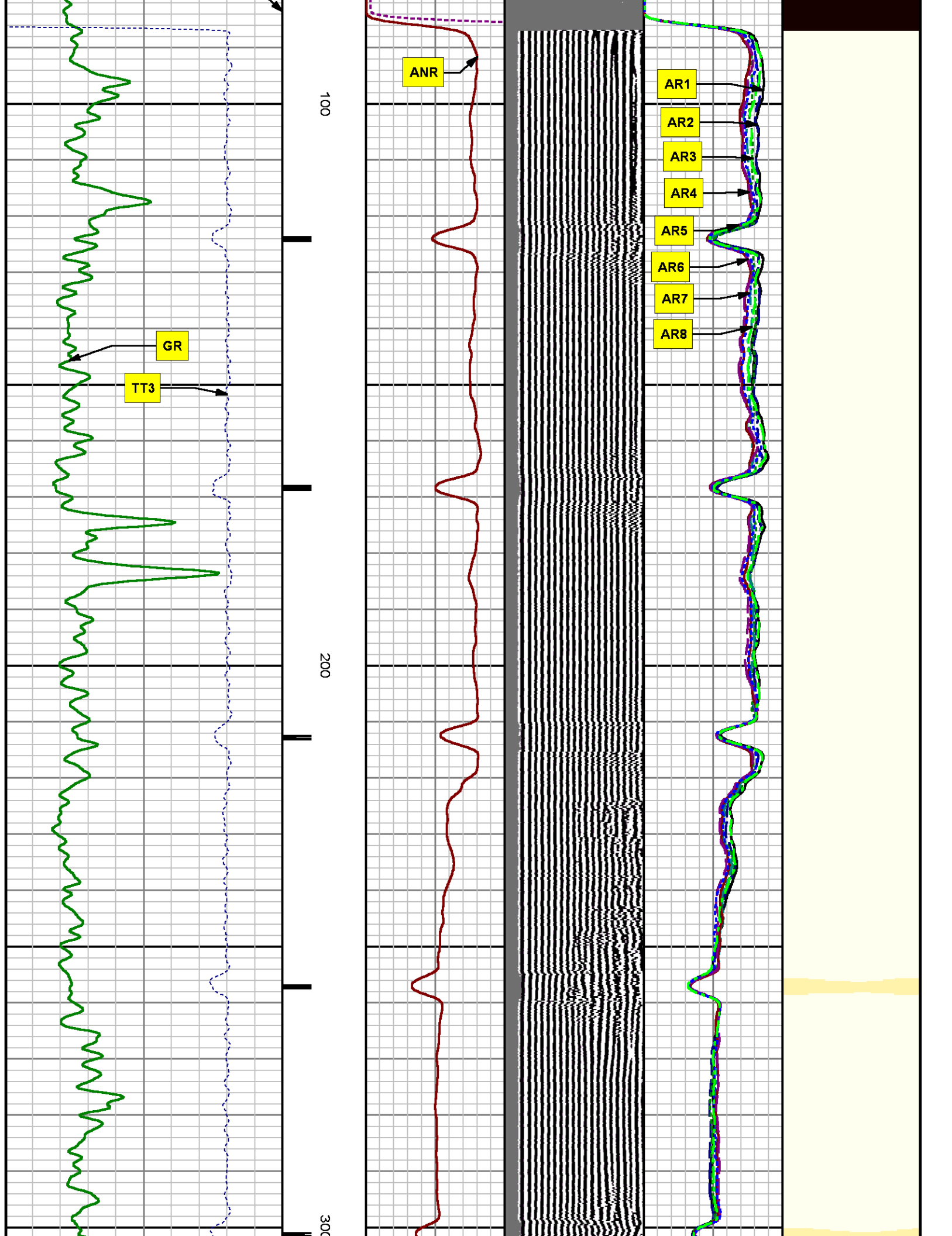
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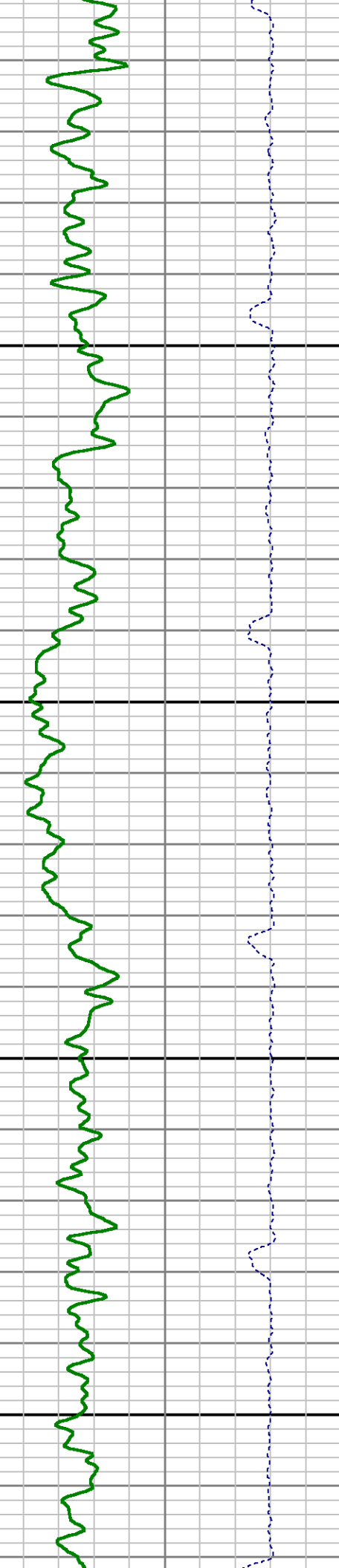
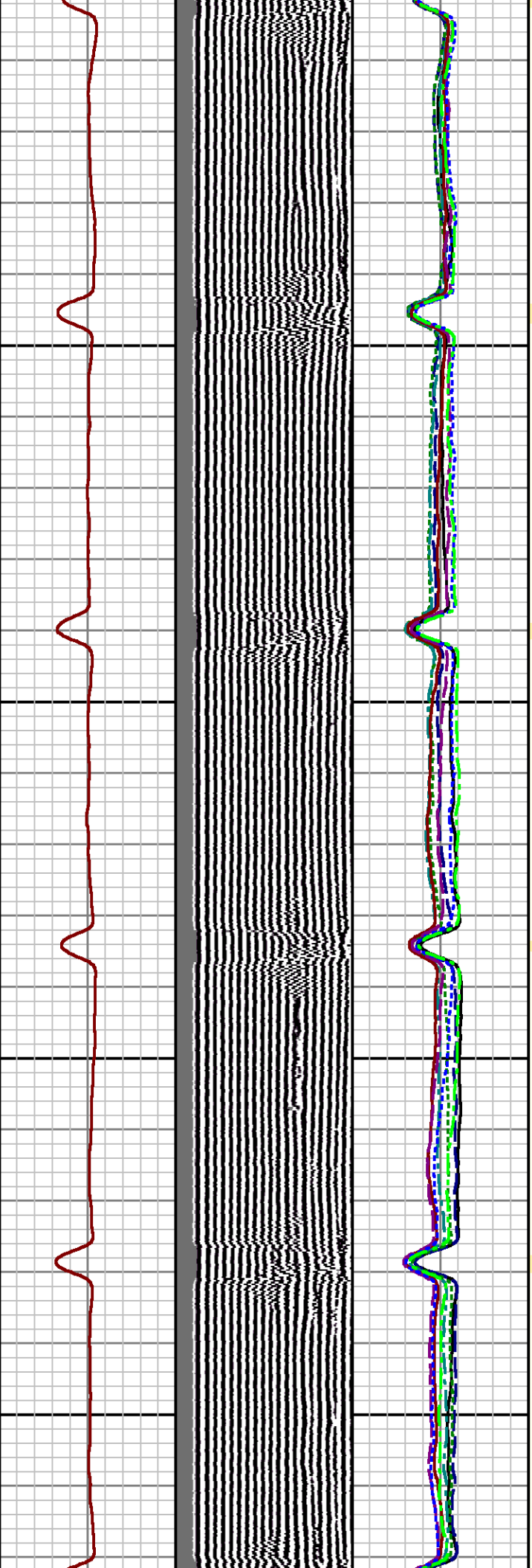
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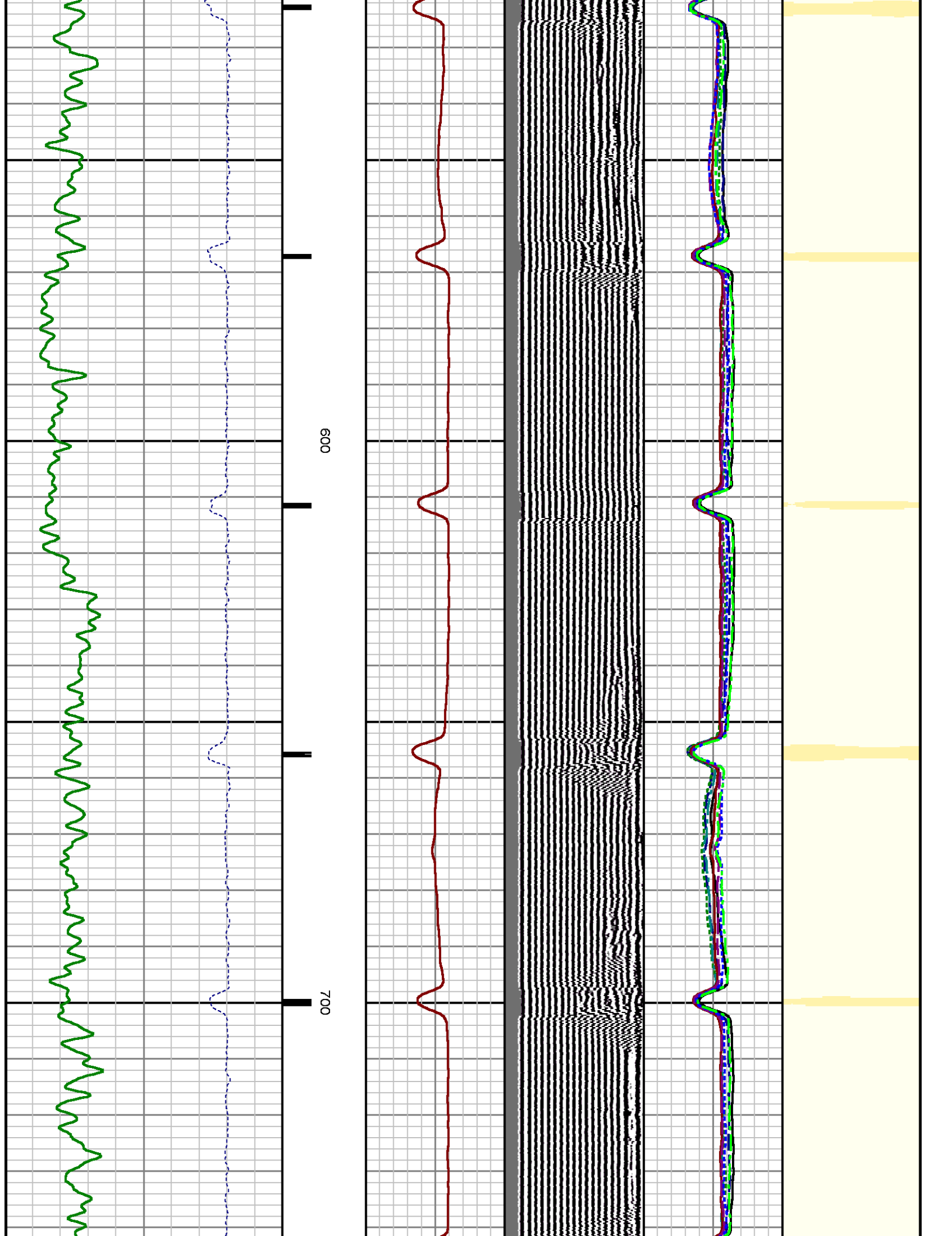
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Created : 5/18/2014 12:37:09 PM

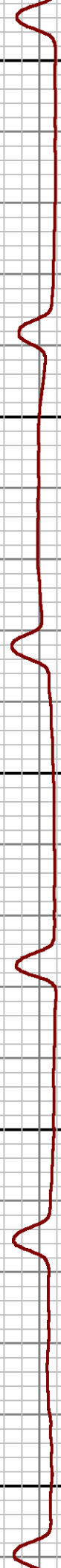
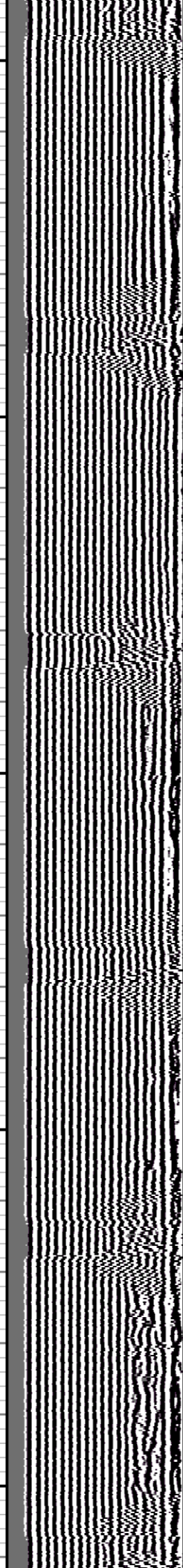
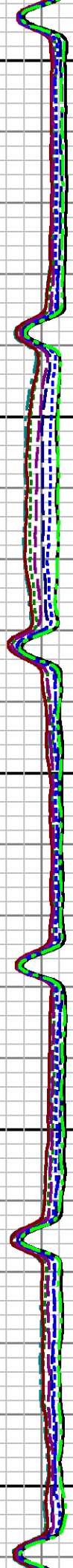
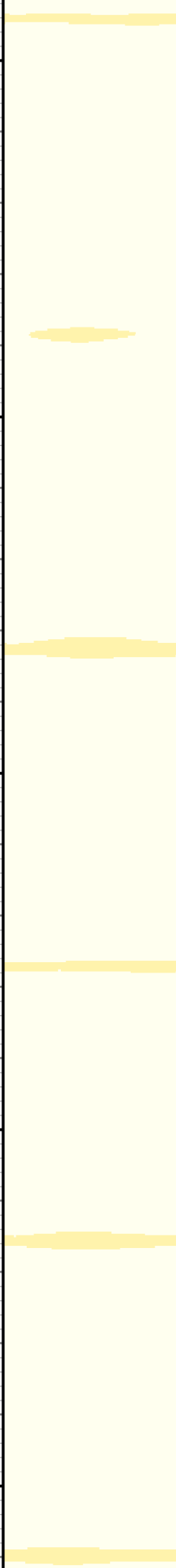








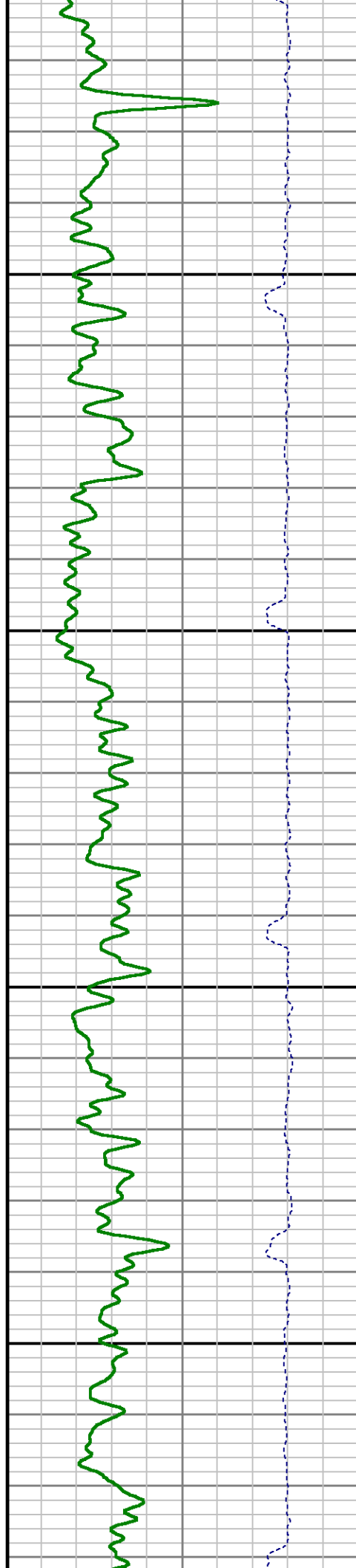
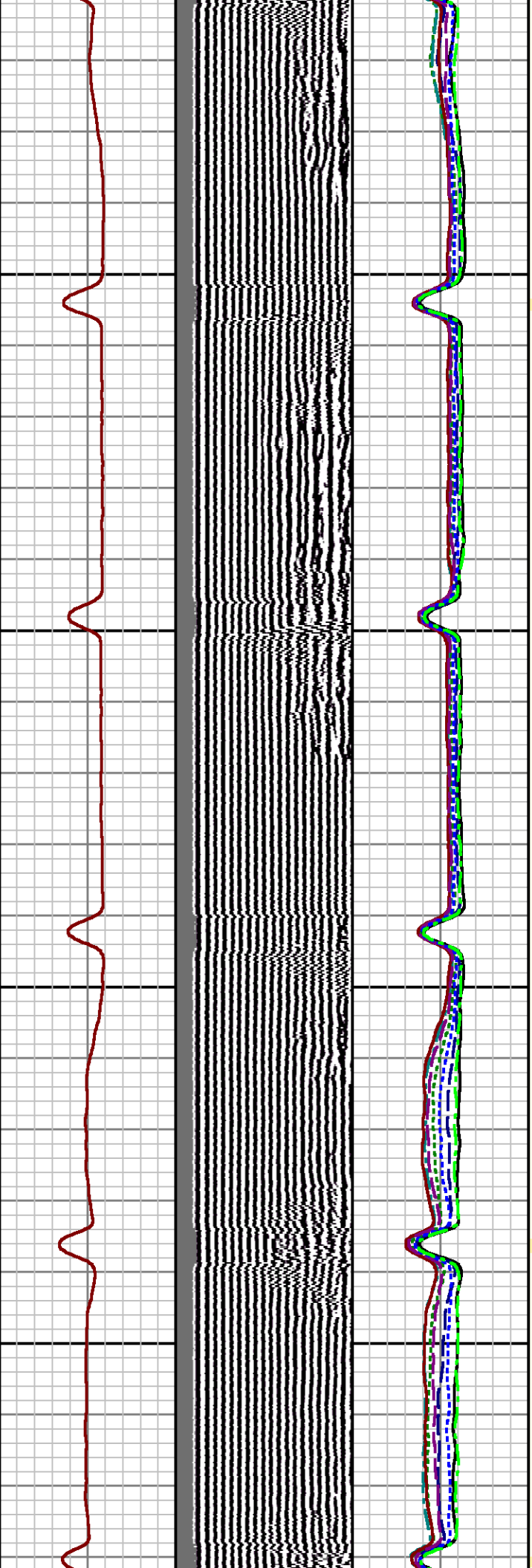
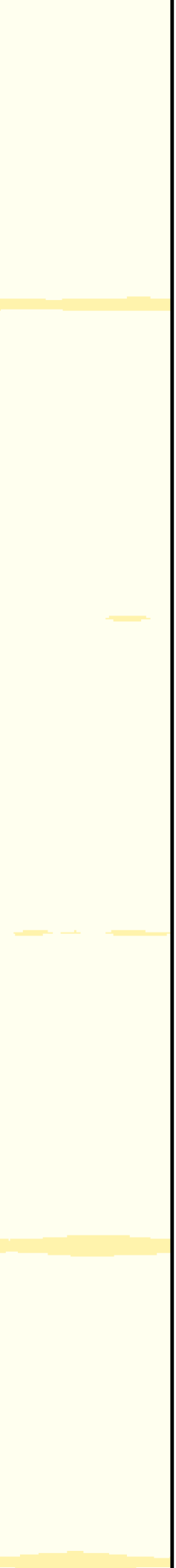


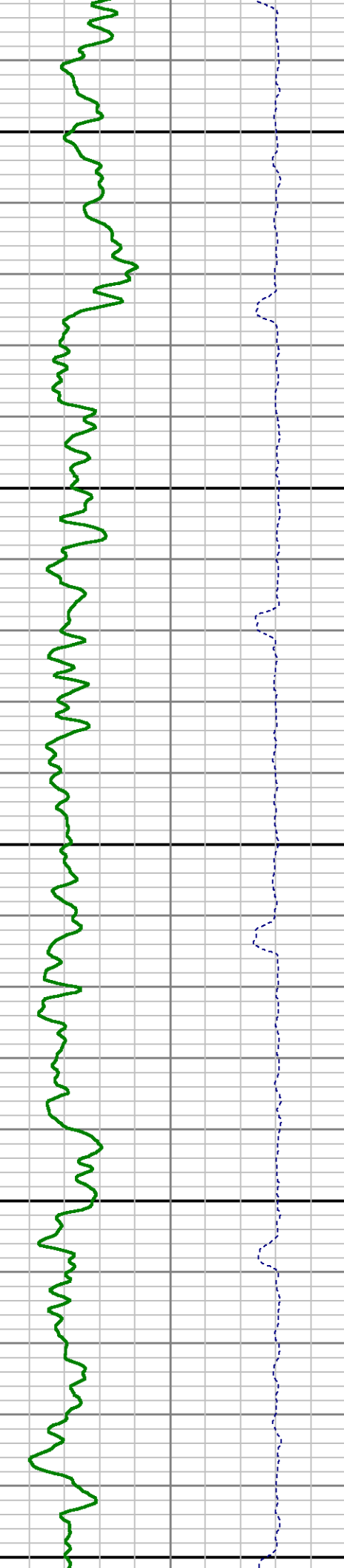
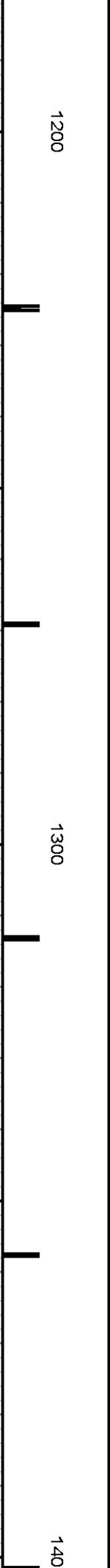
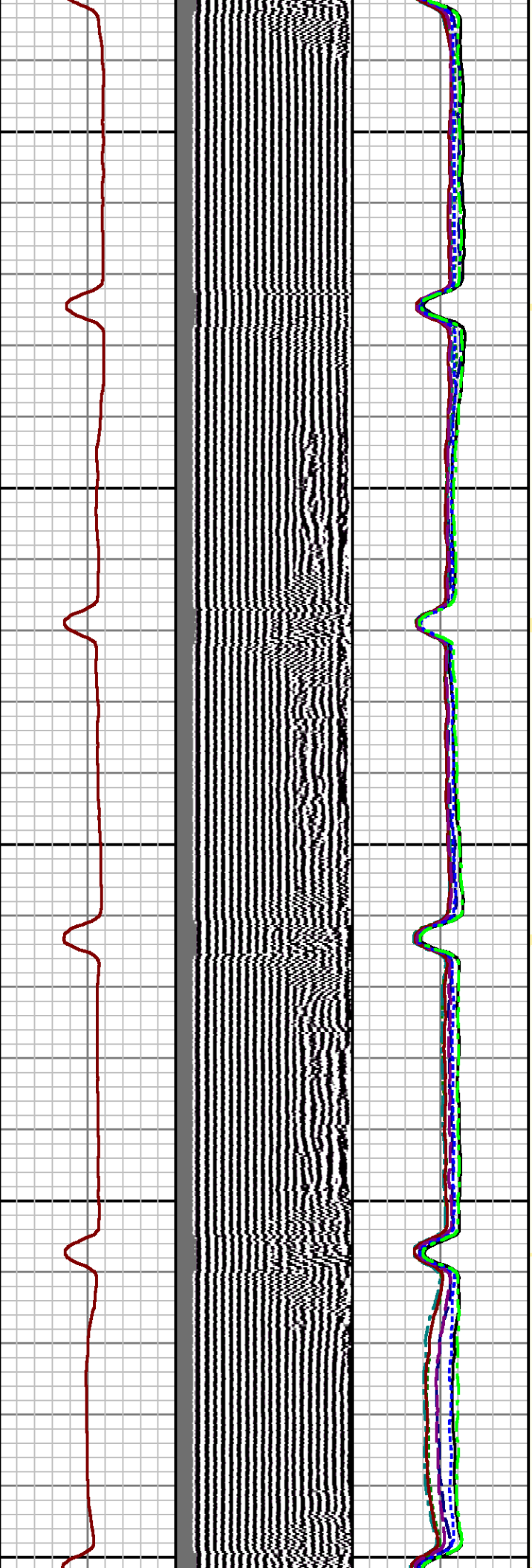
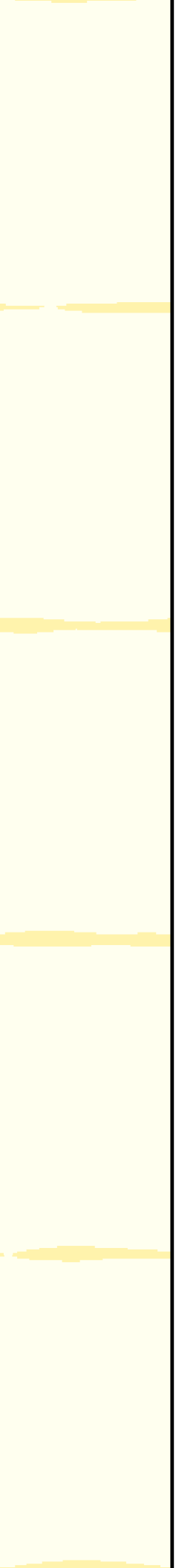


008

006



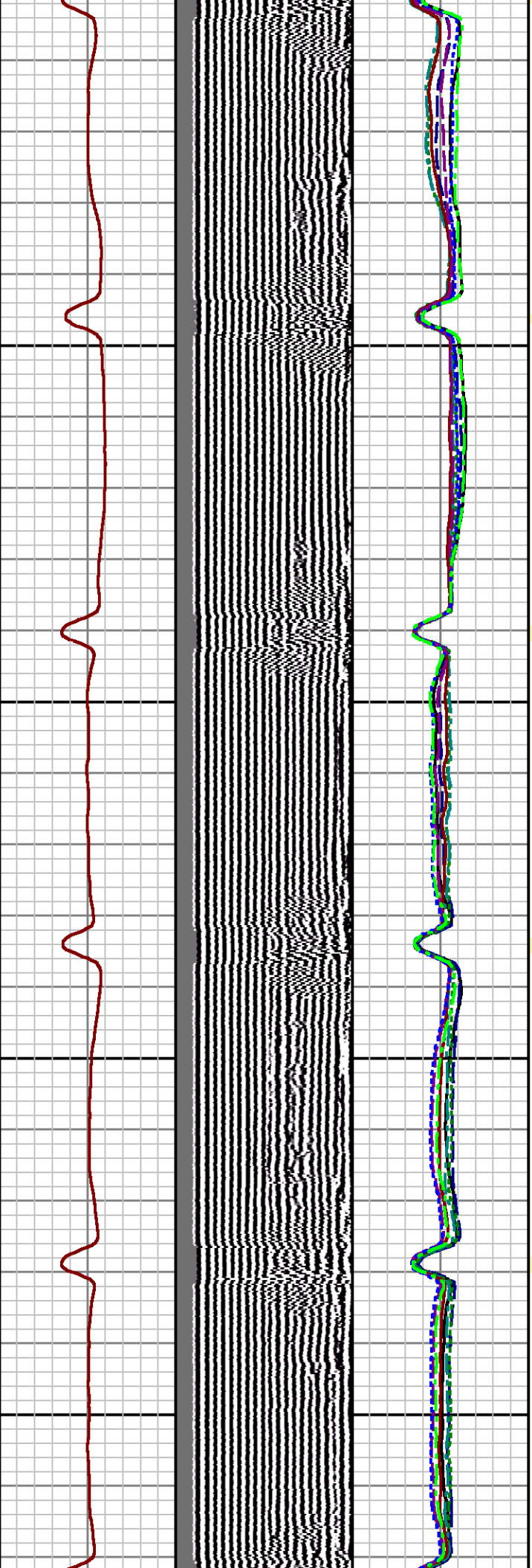




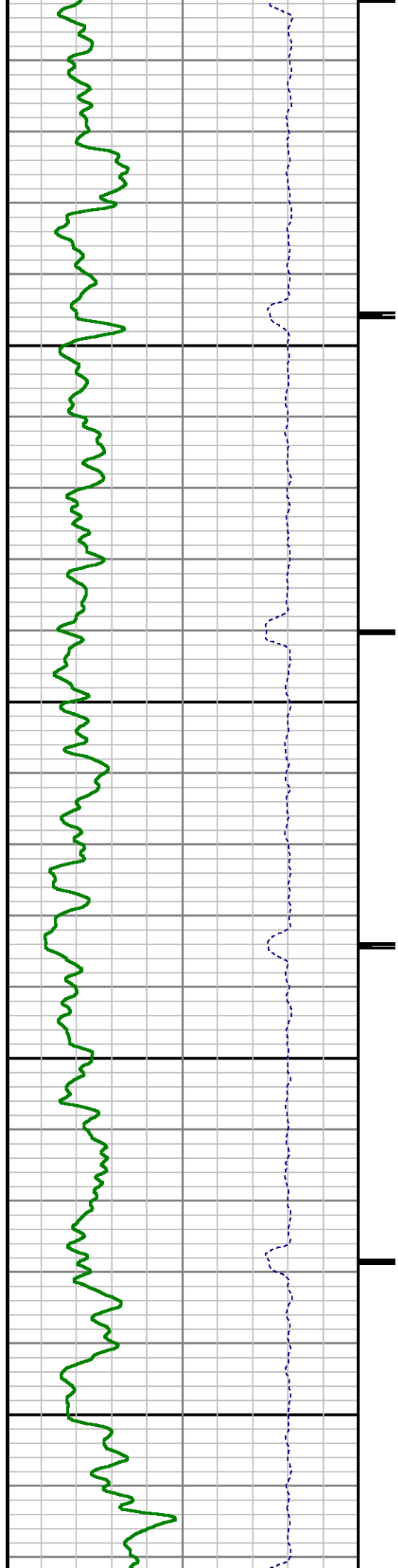
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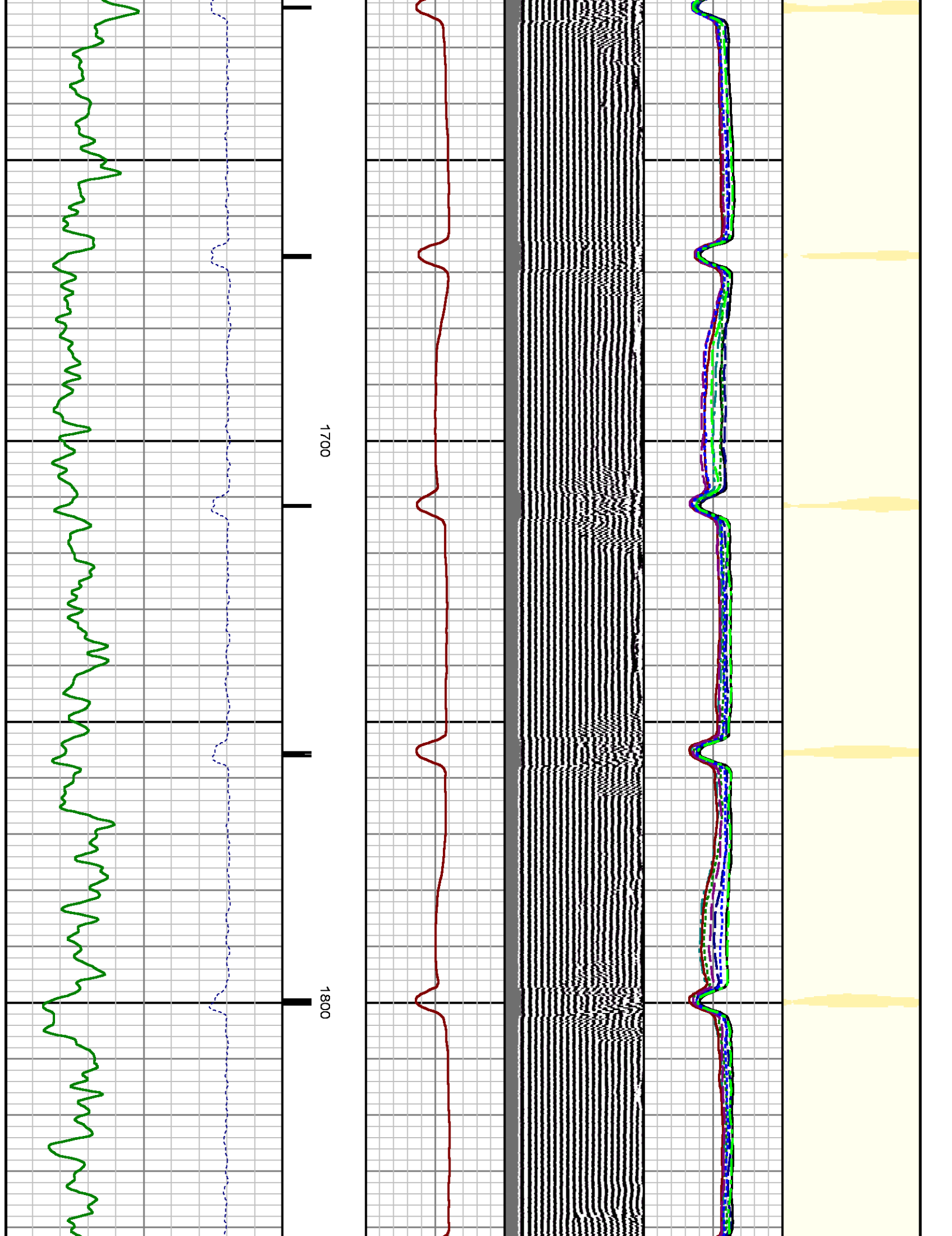
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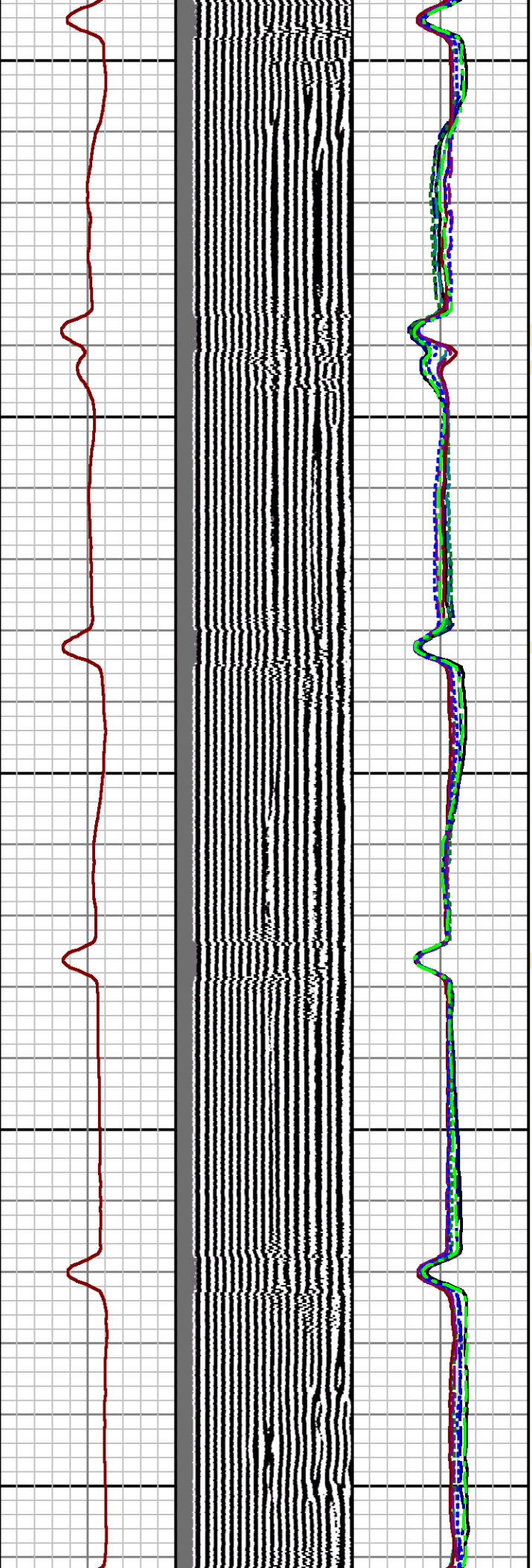


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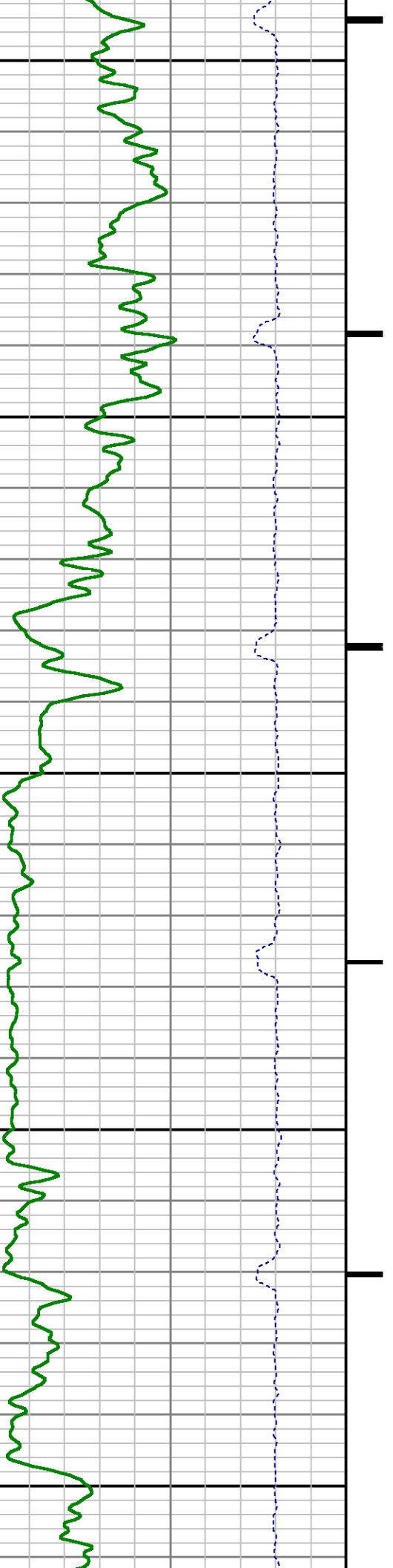




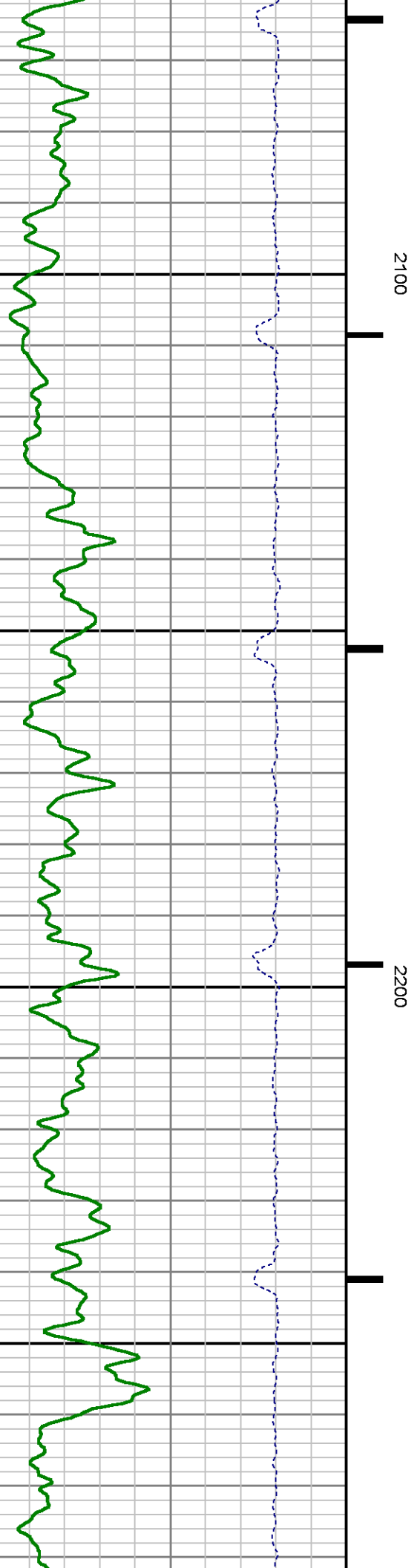
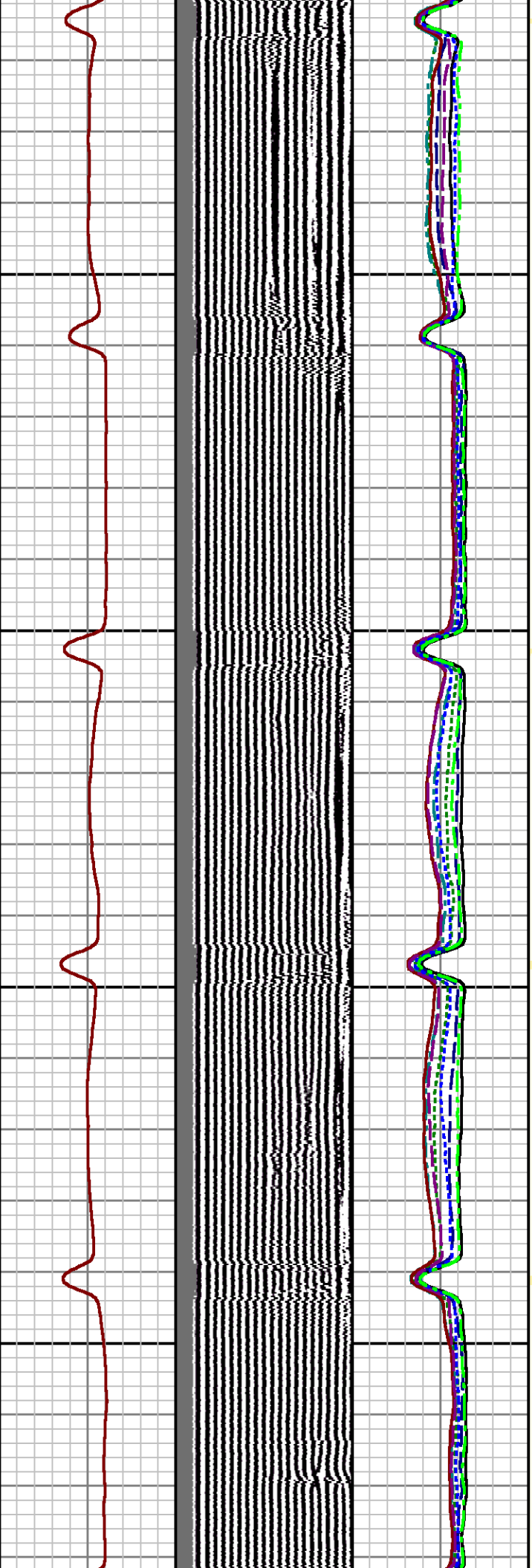
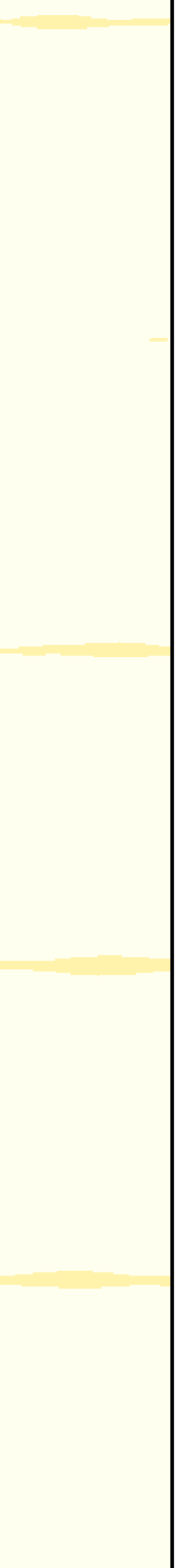


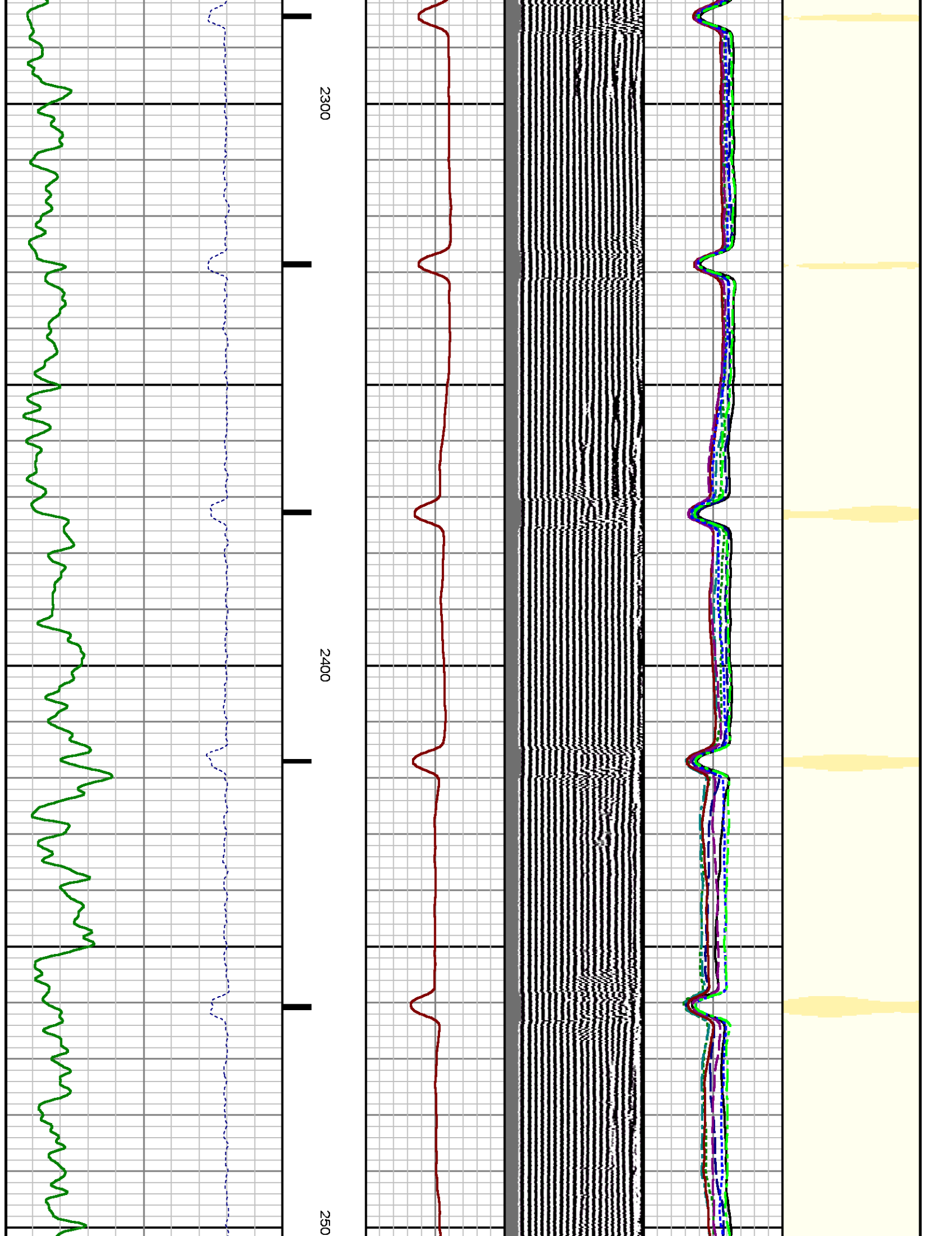
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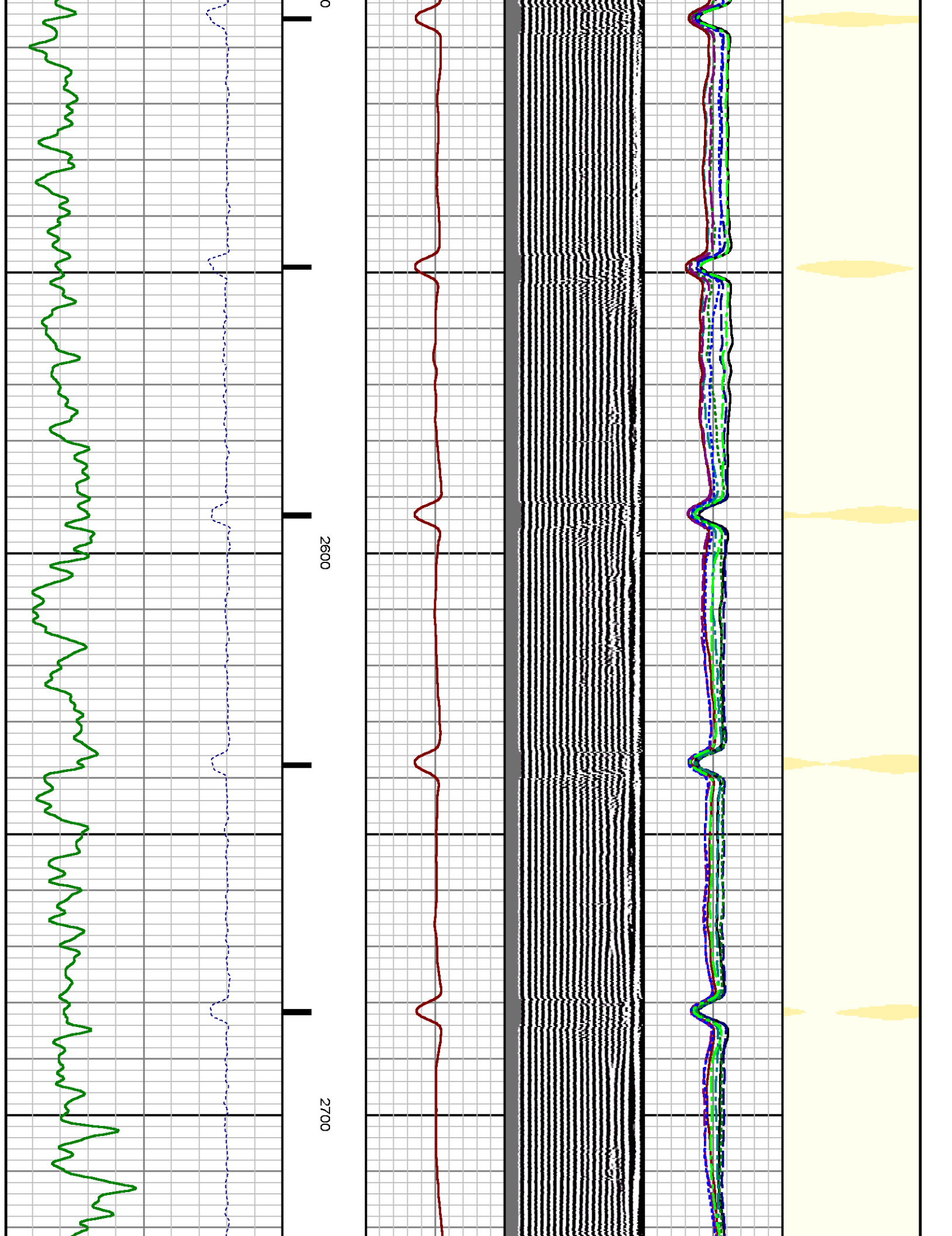
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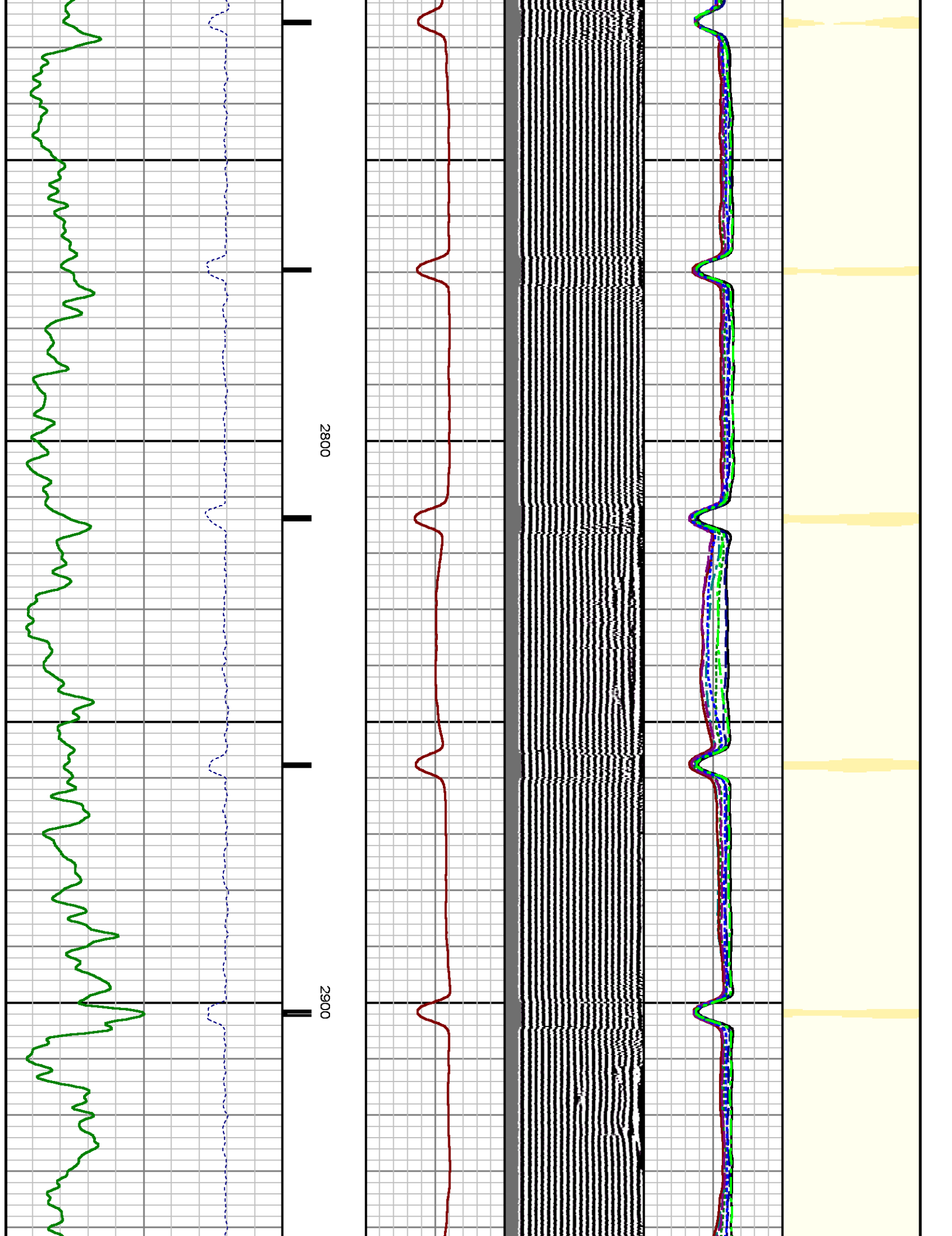


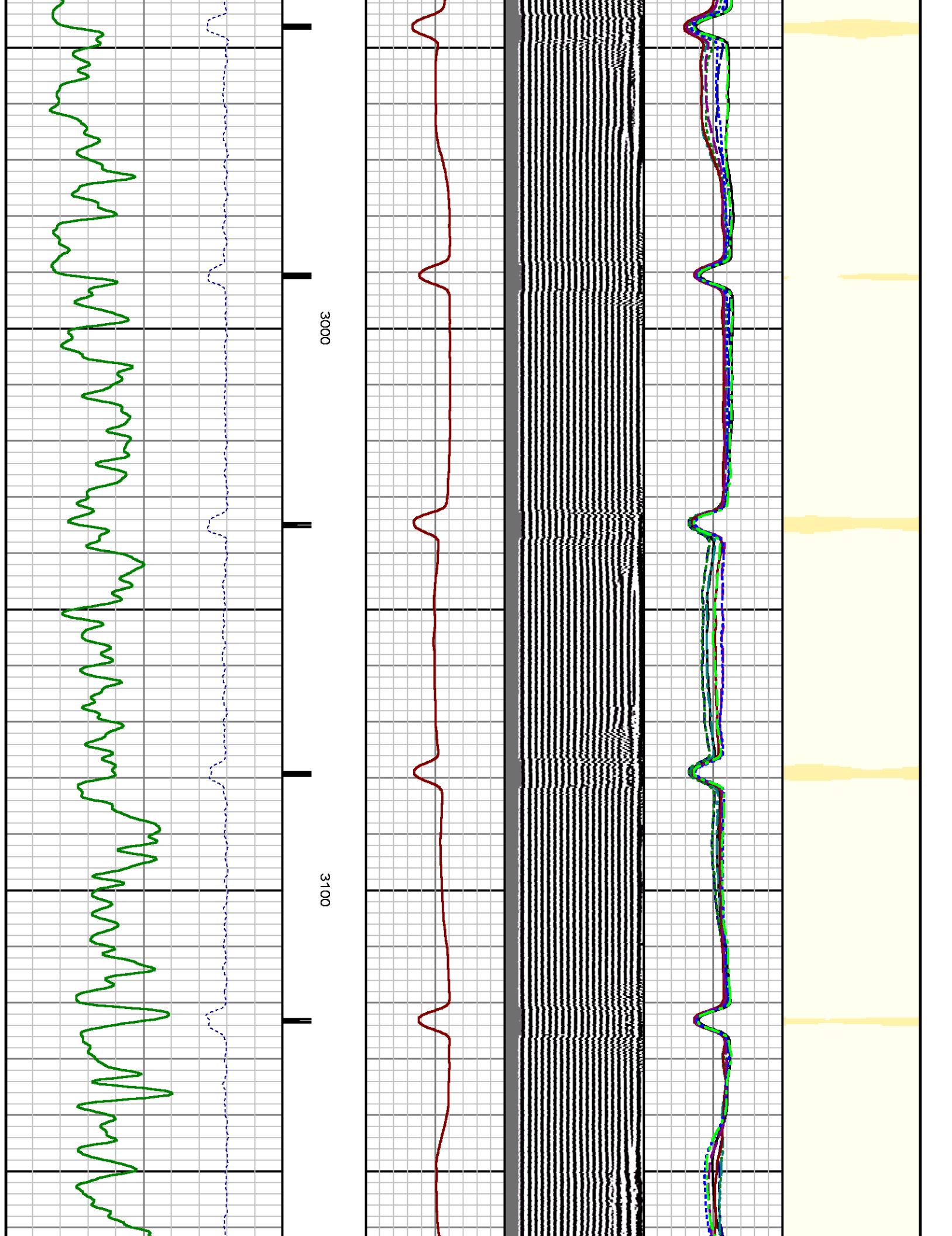




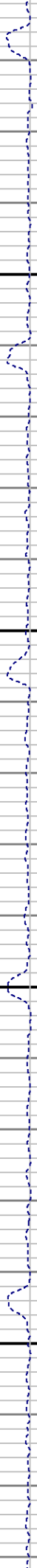
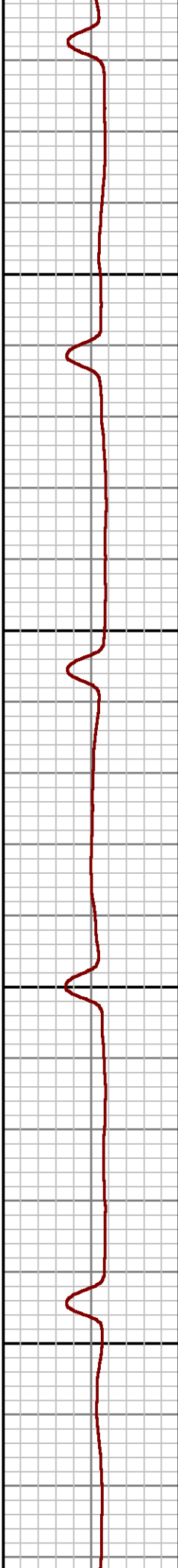
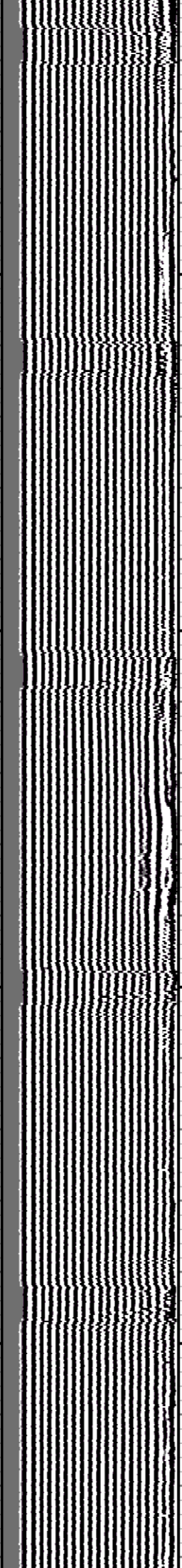
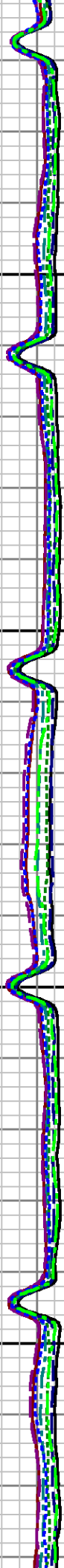
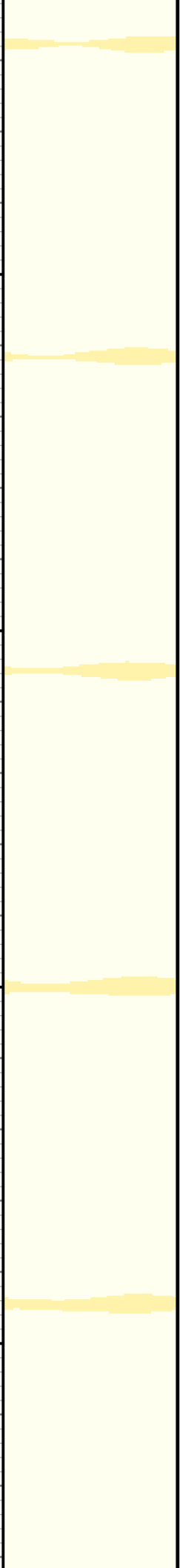




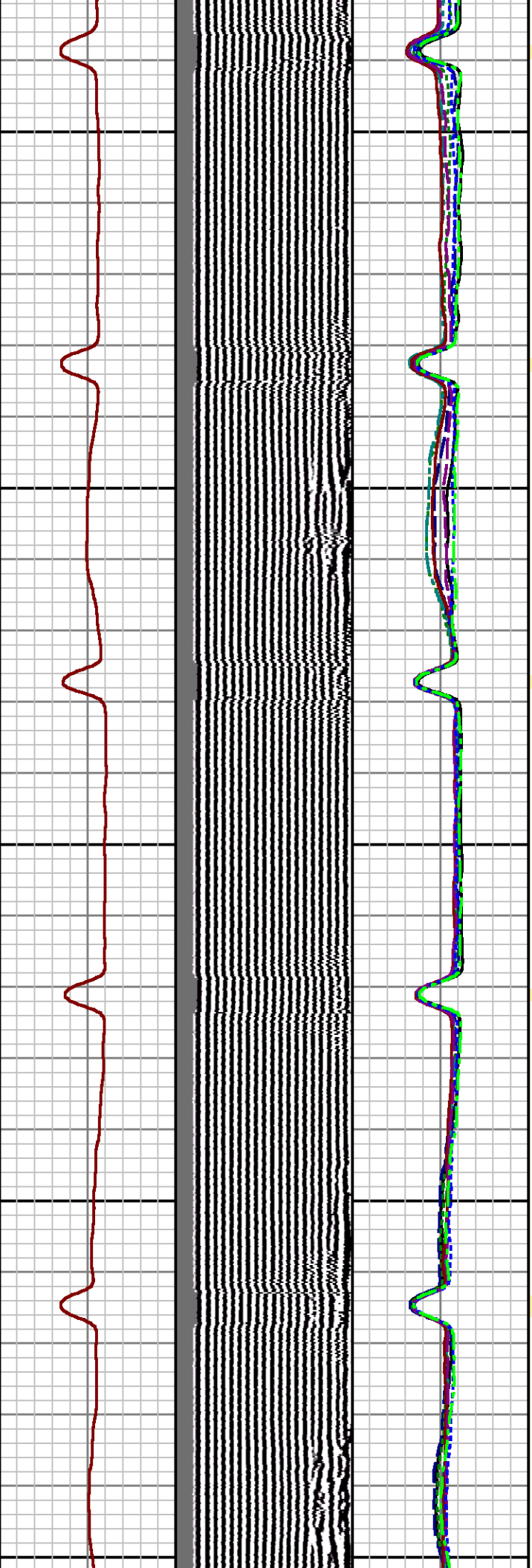








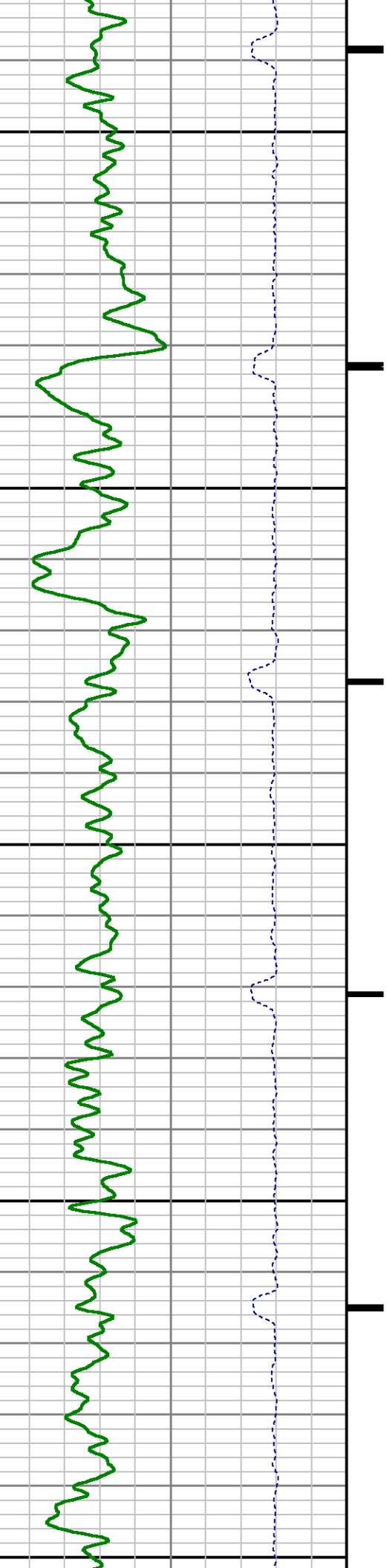


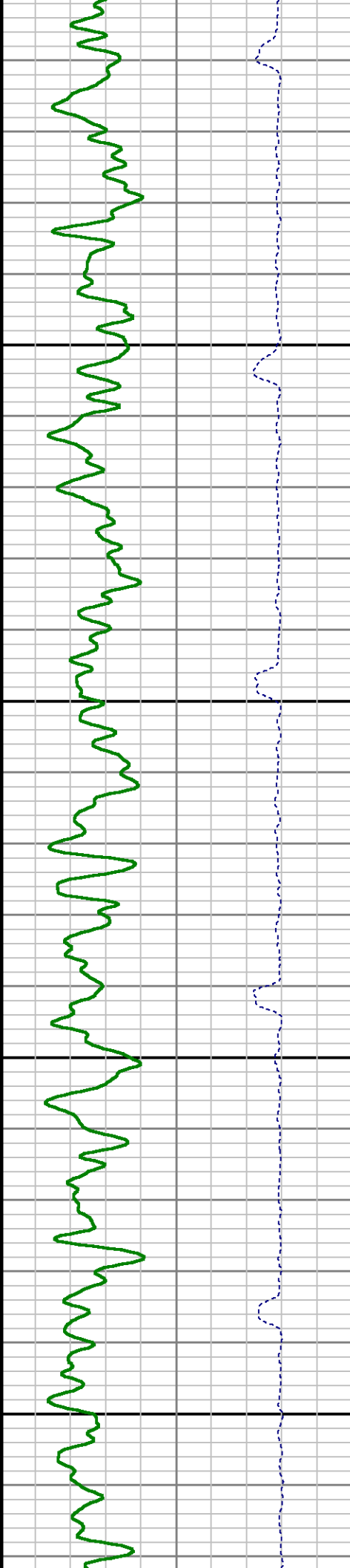
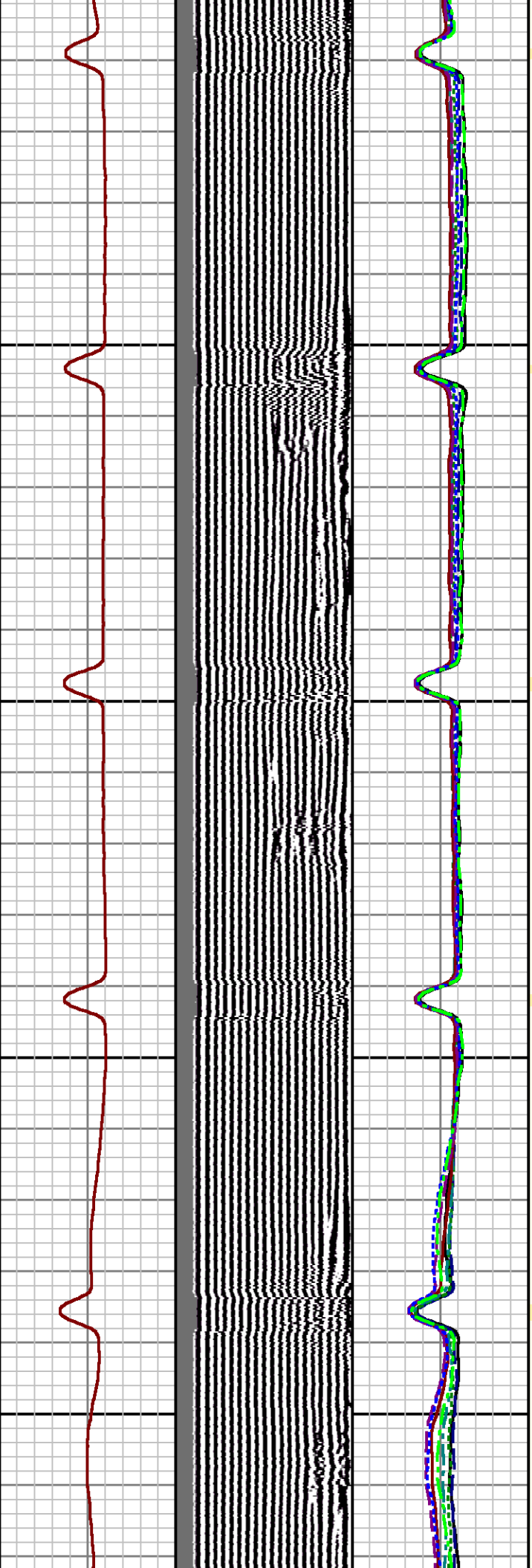


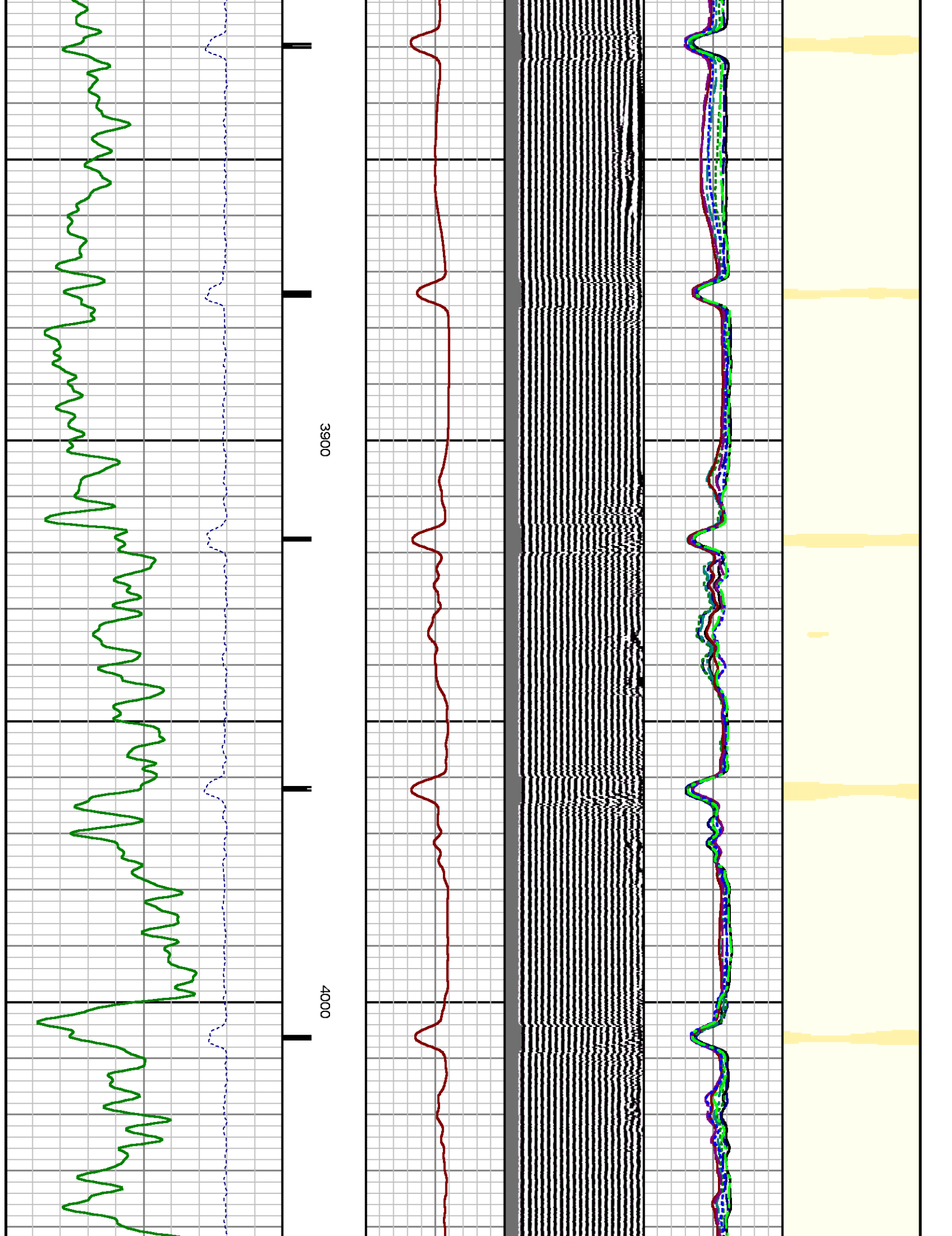
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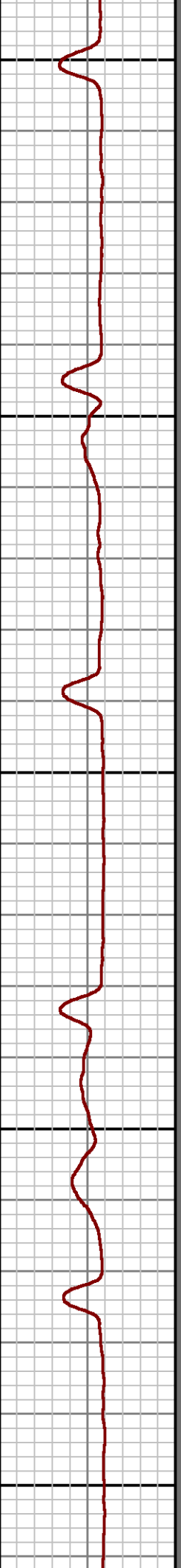
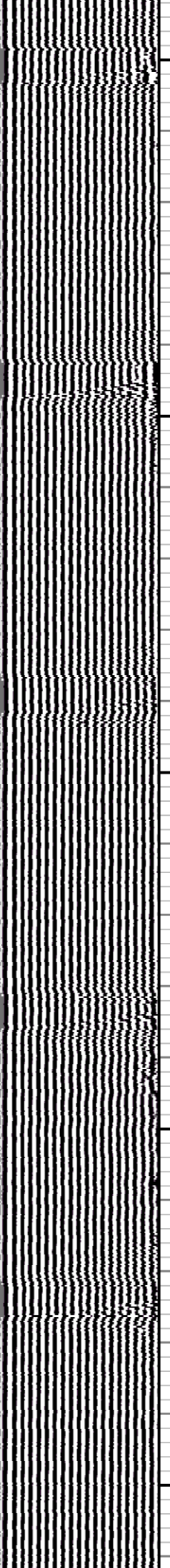
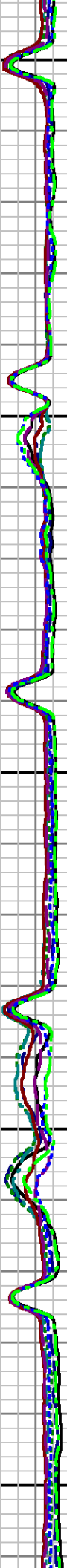
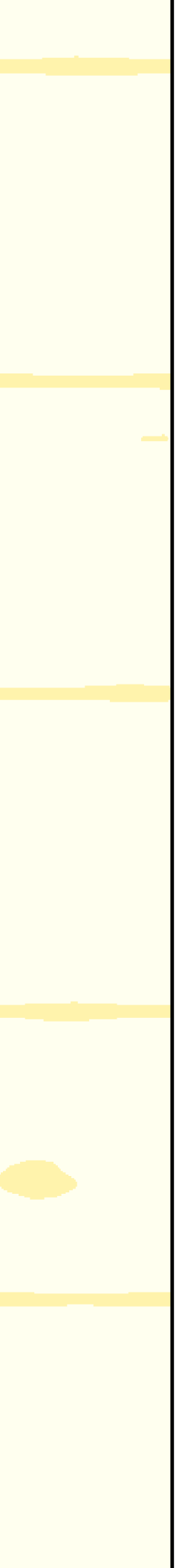
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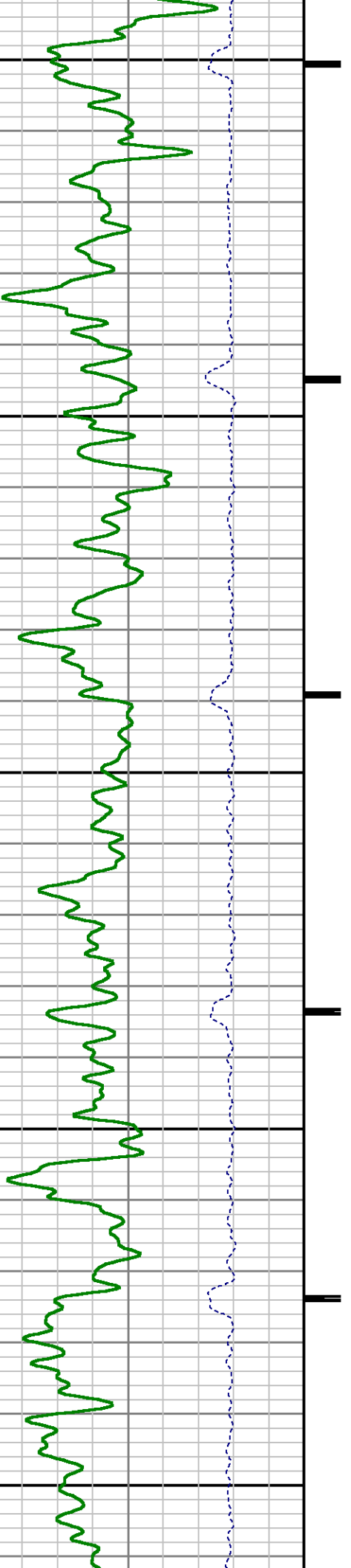


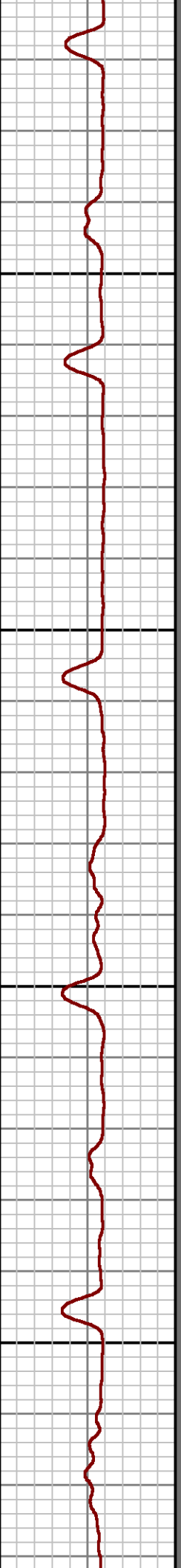
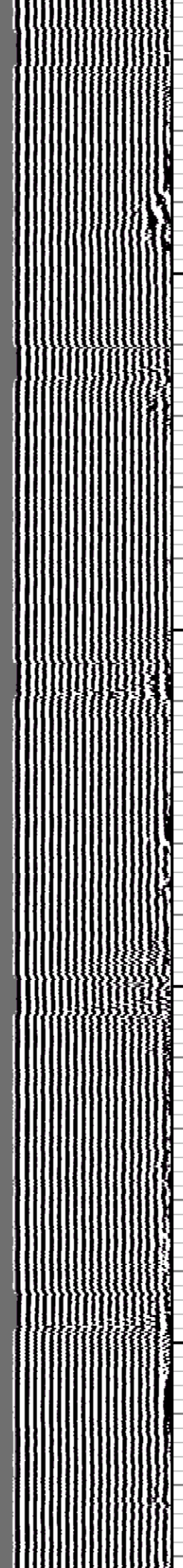
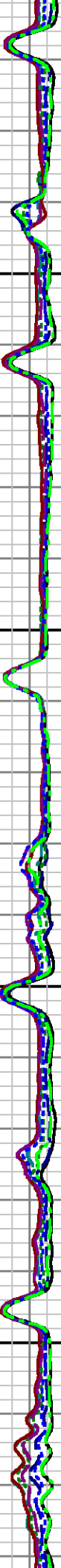
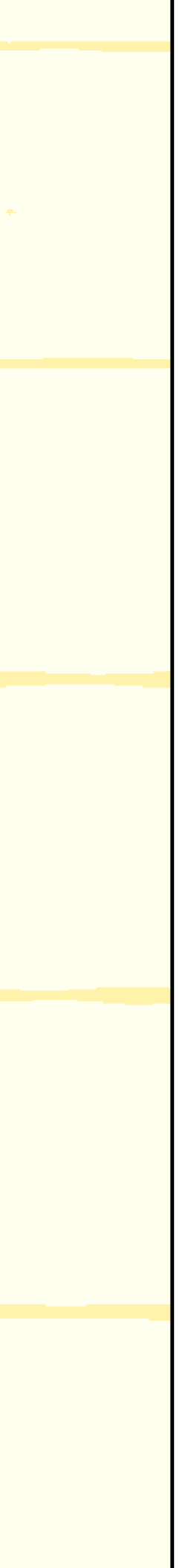




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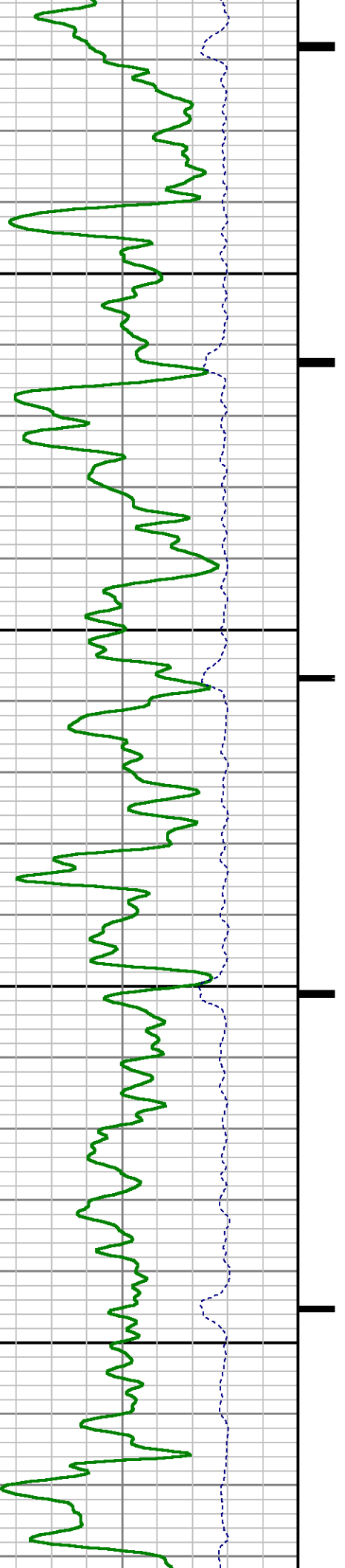
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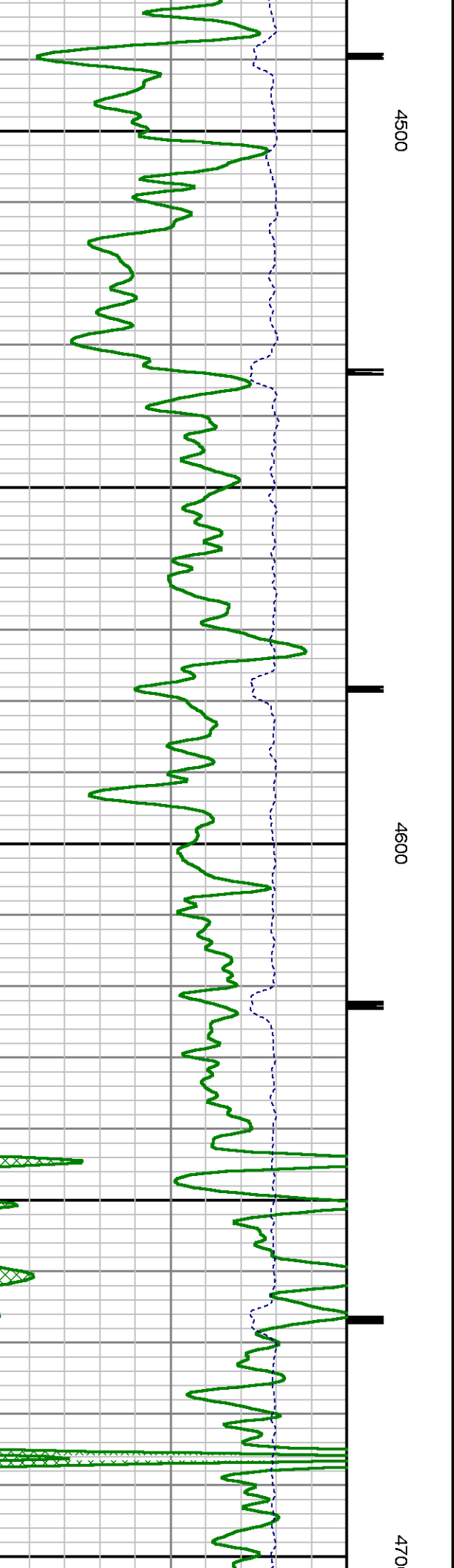
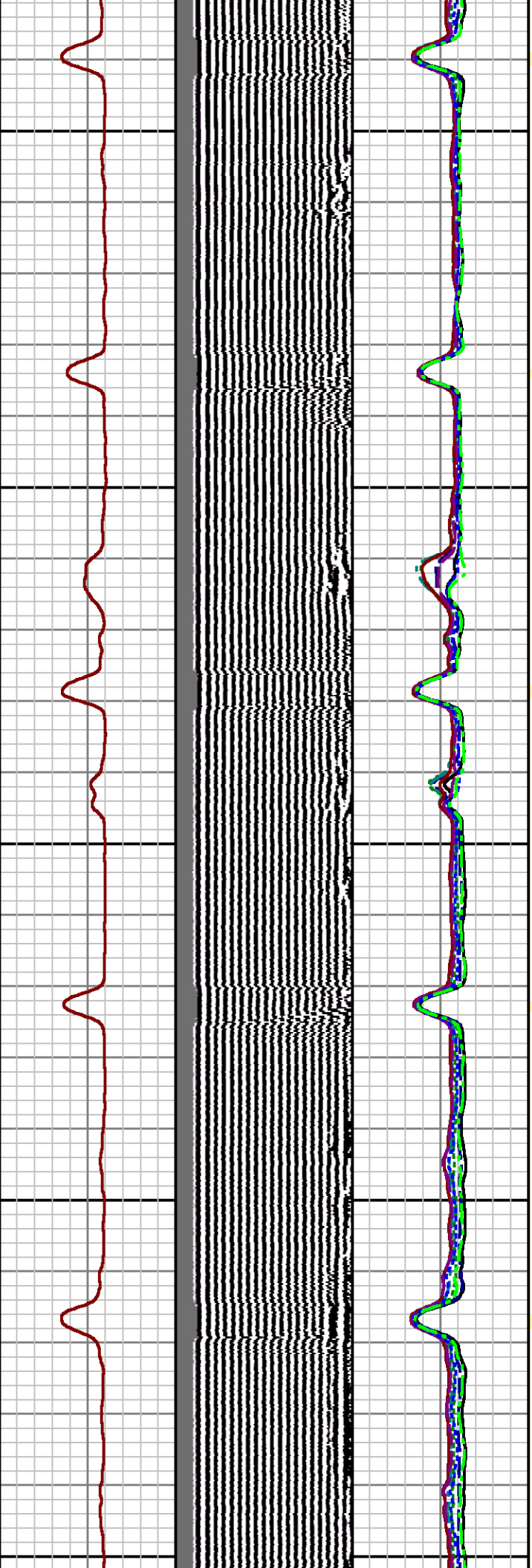
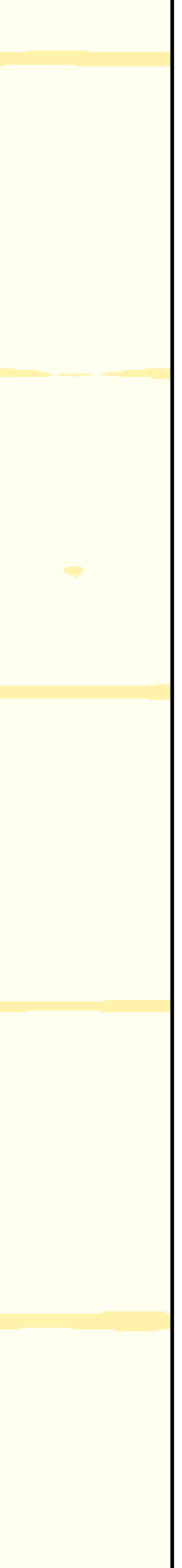




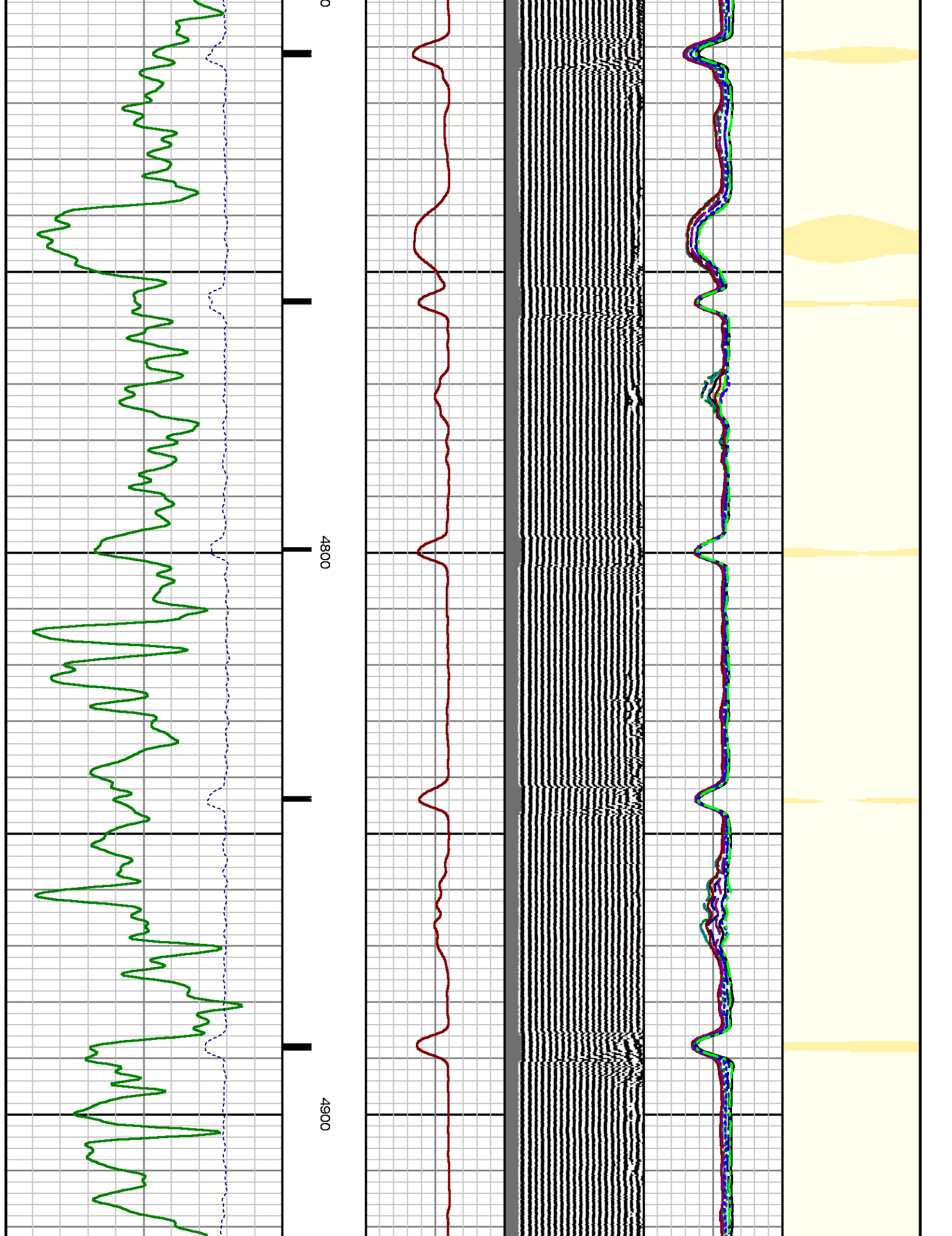
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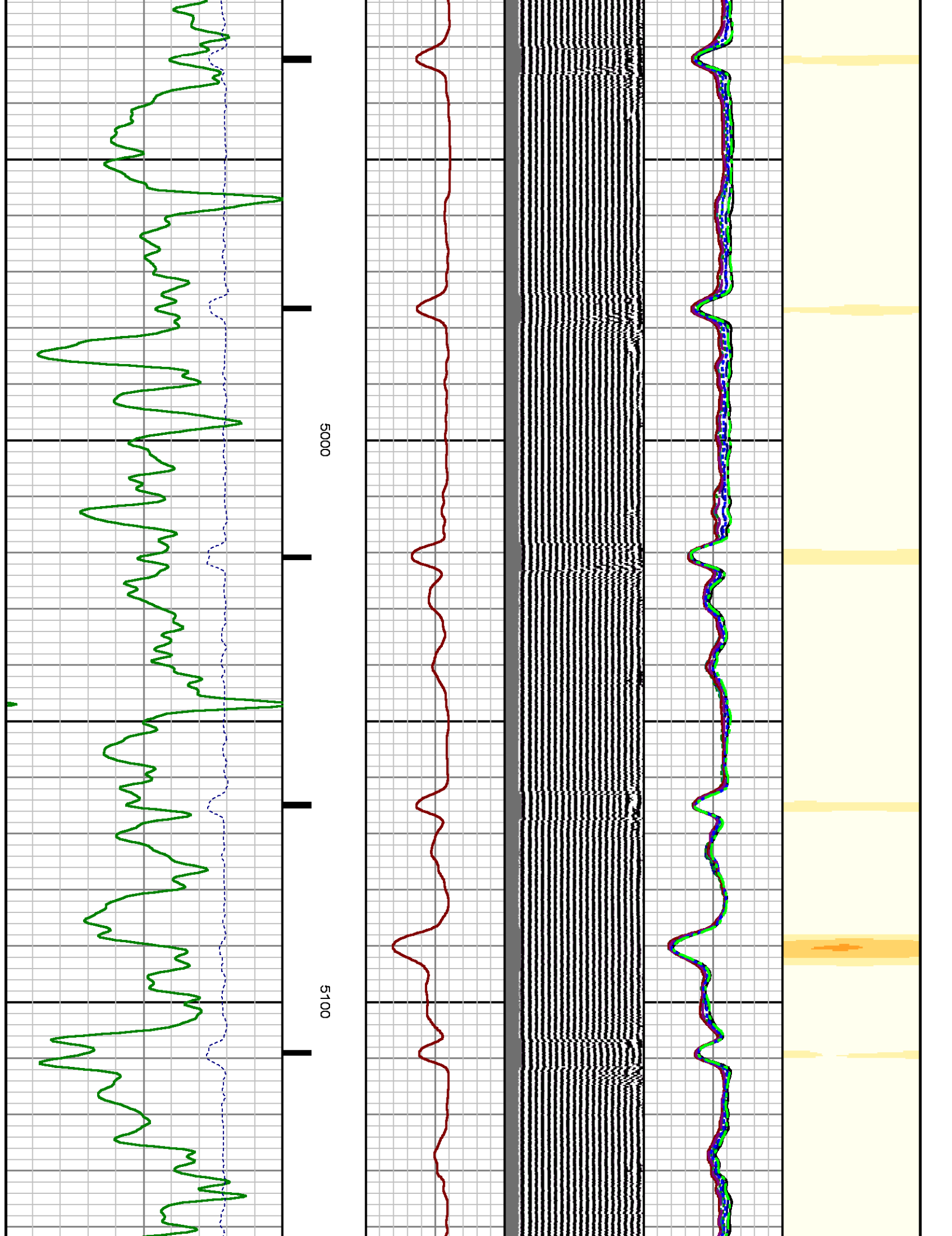
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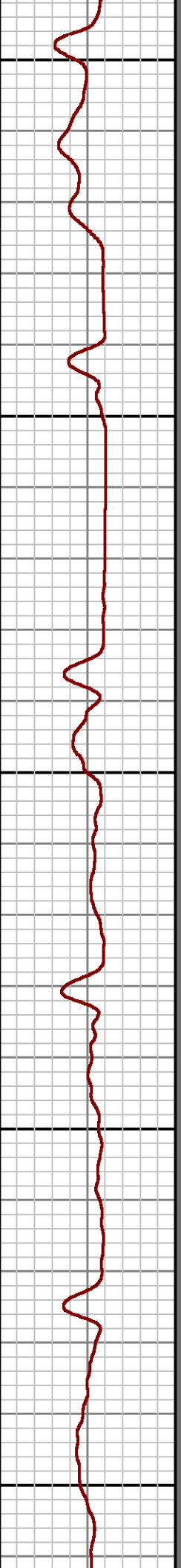
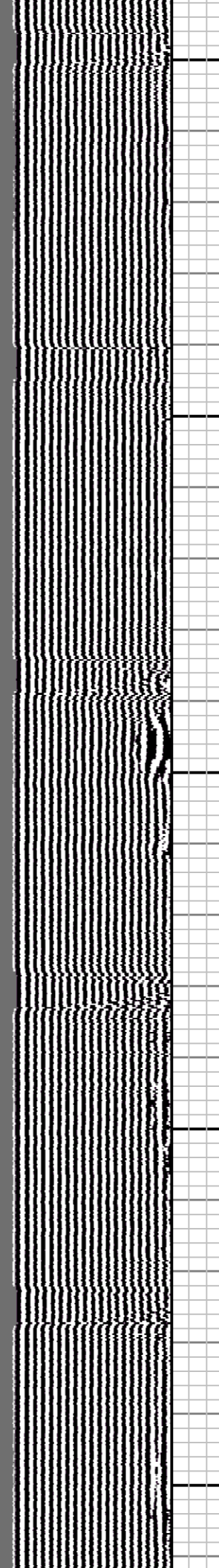
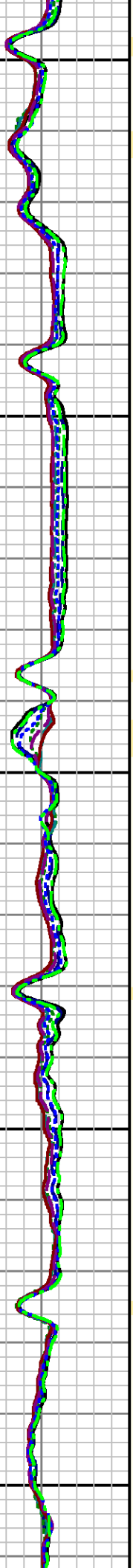
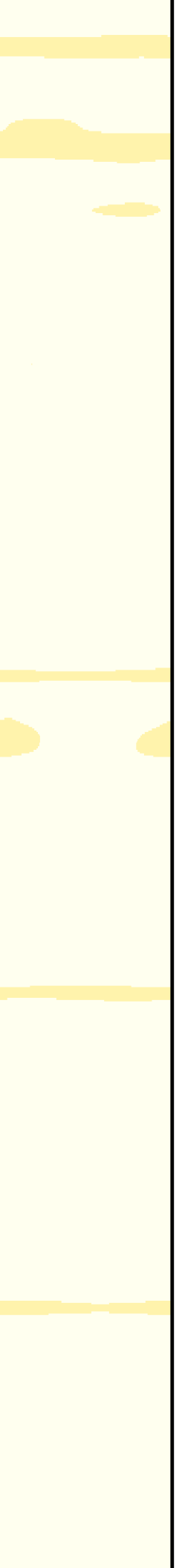






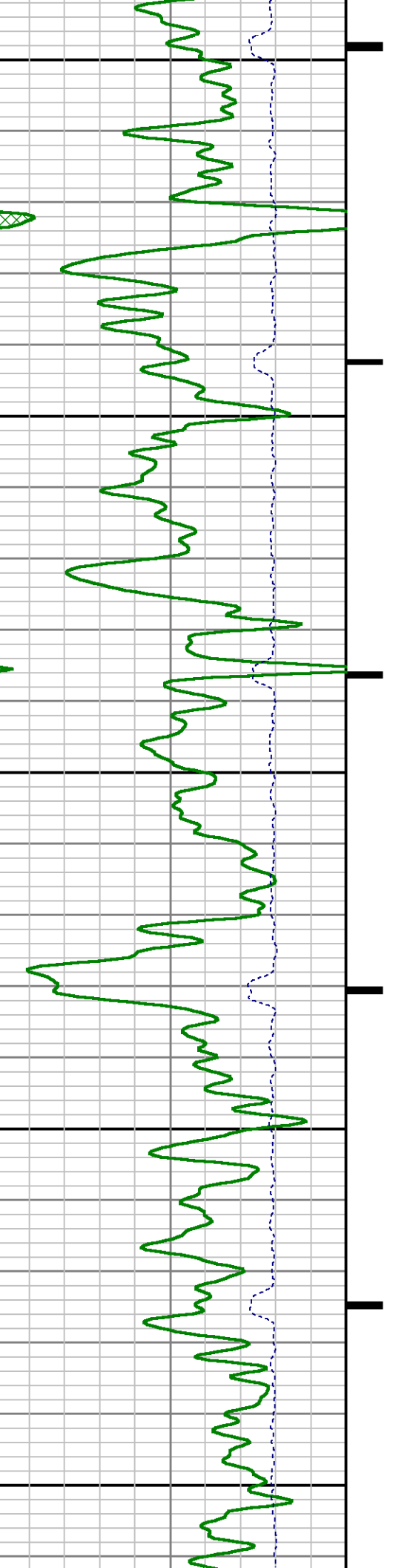


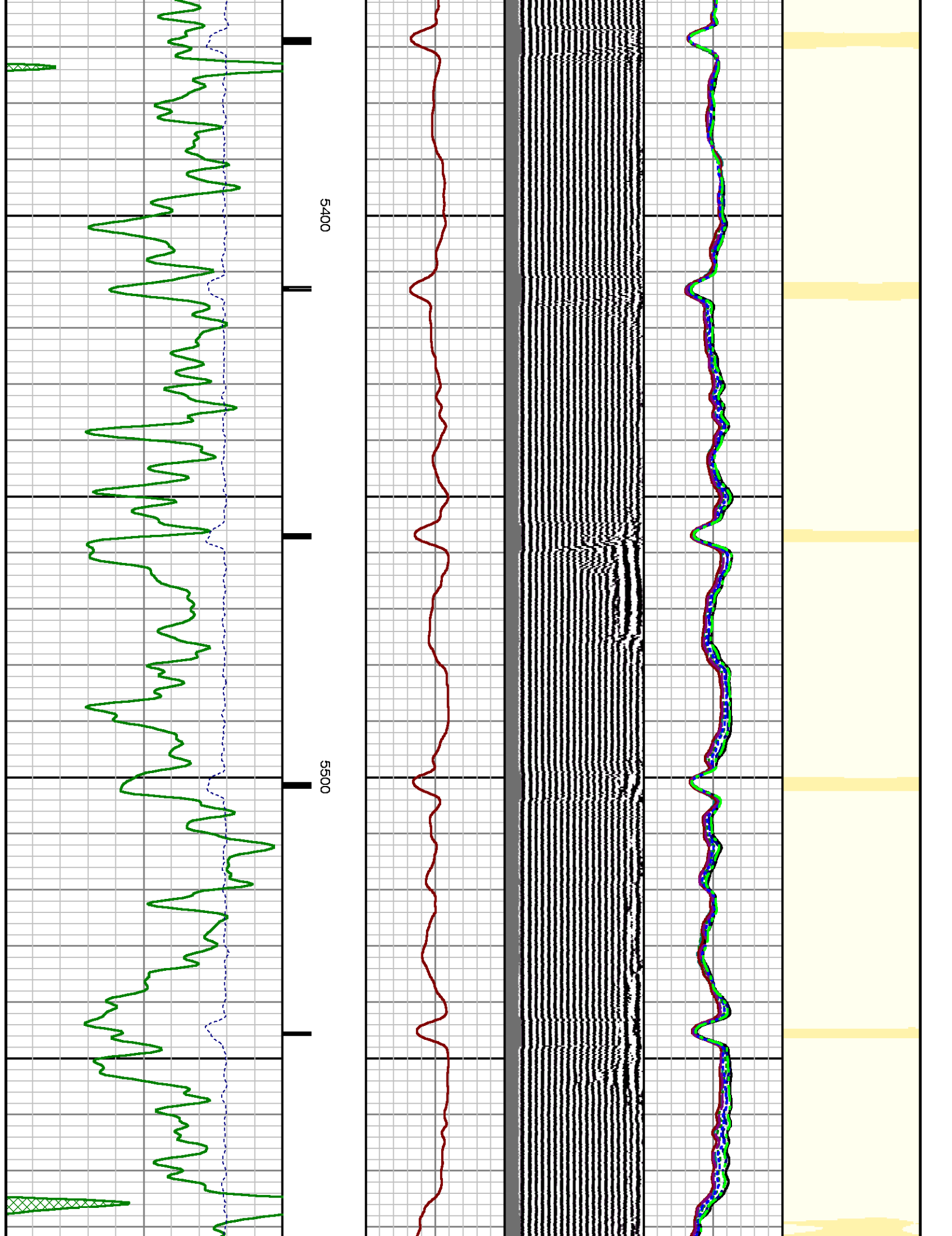


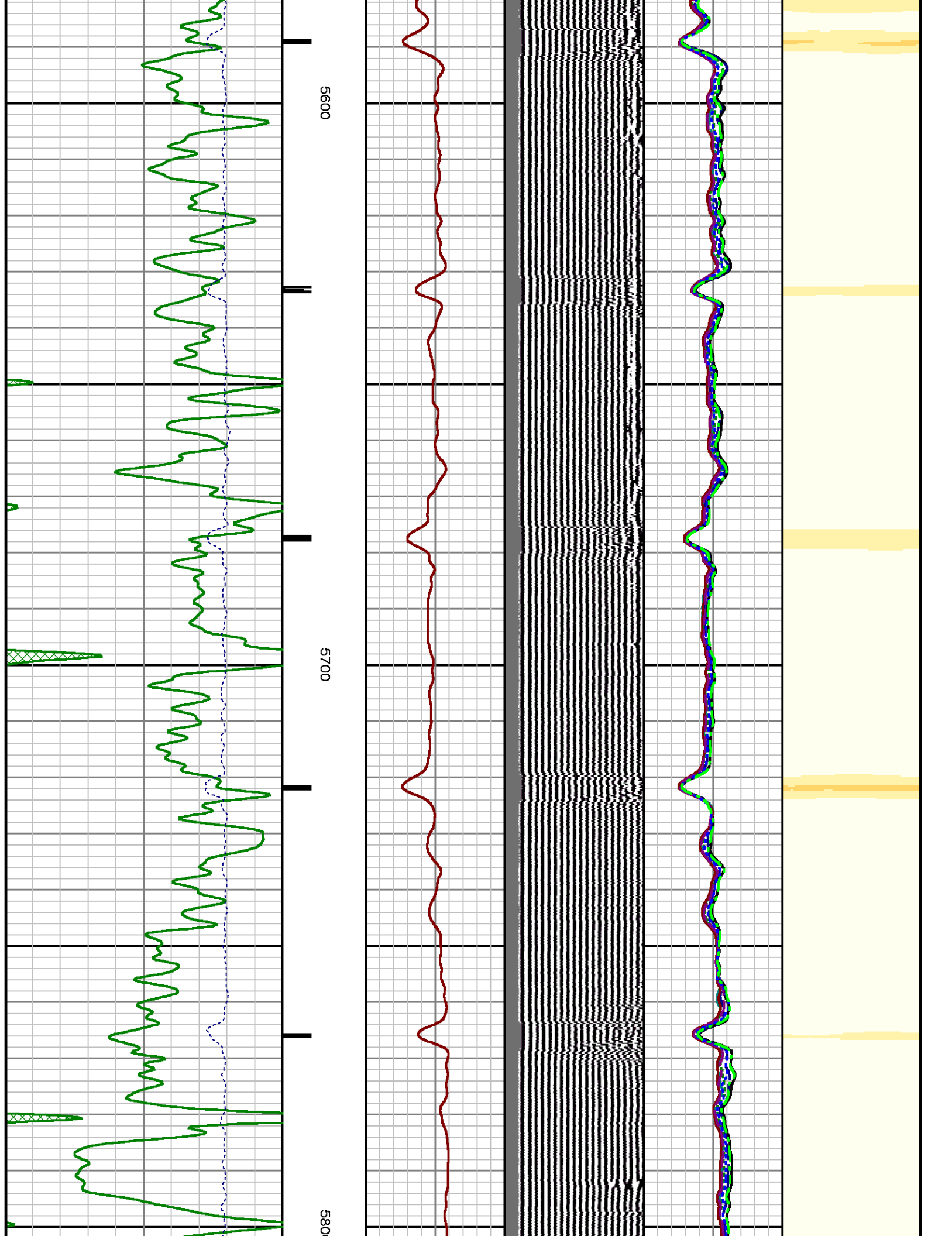


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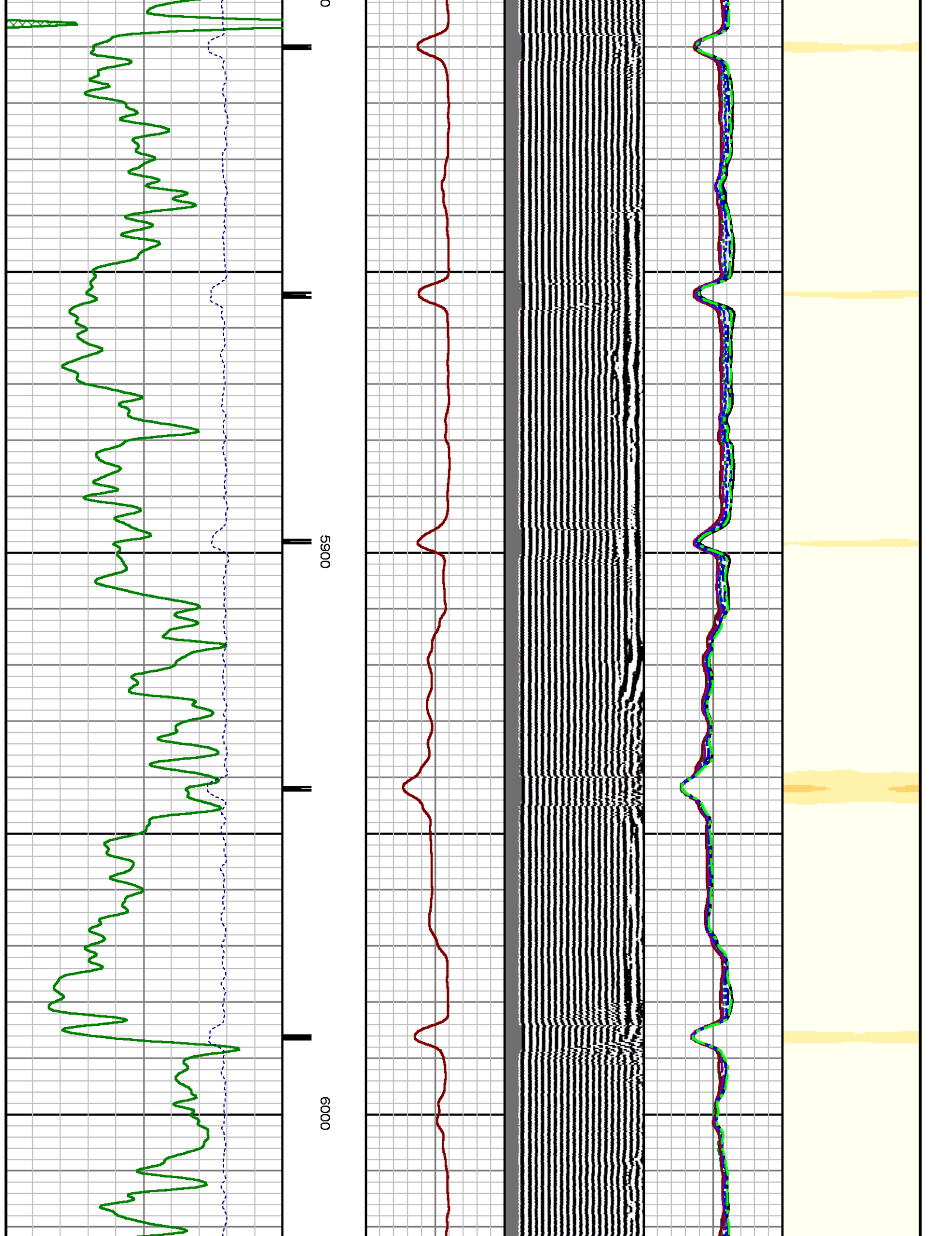
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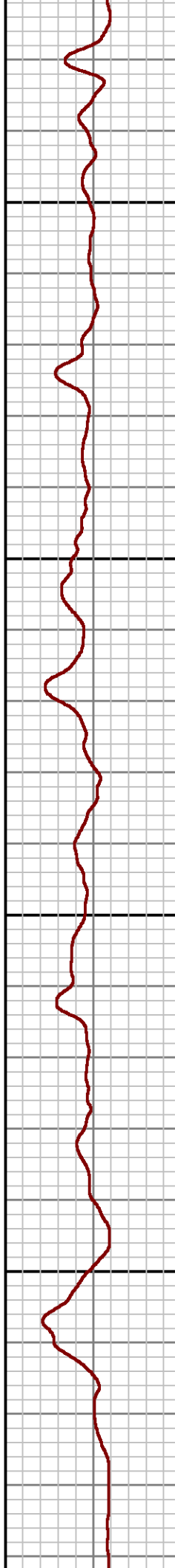
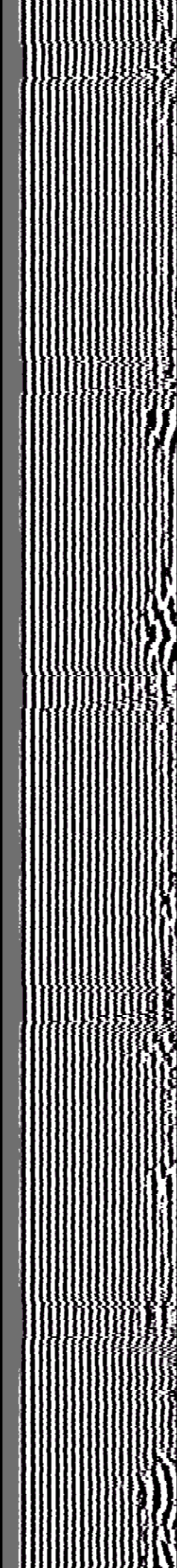
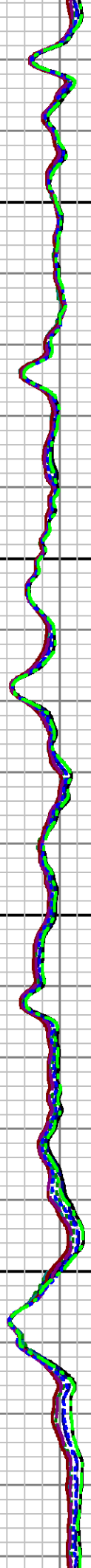
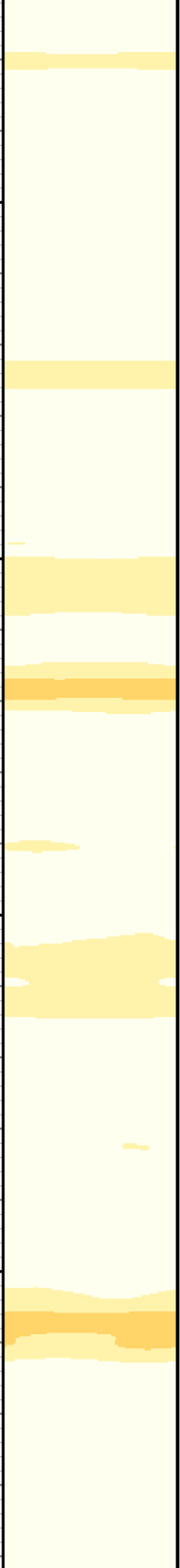






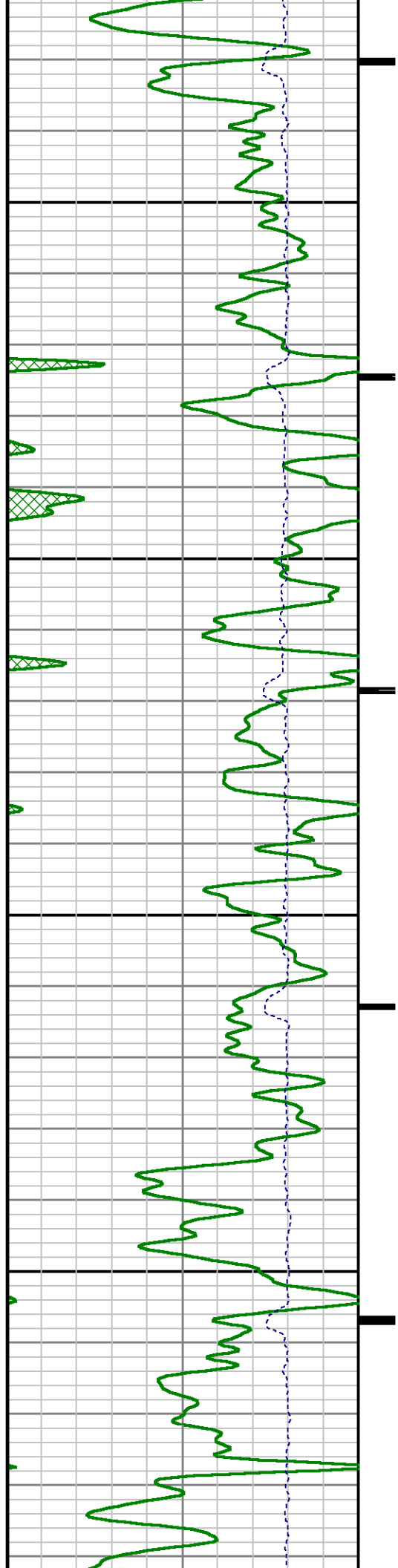


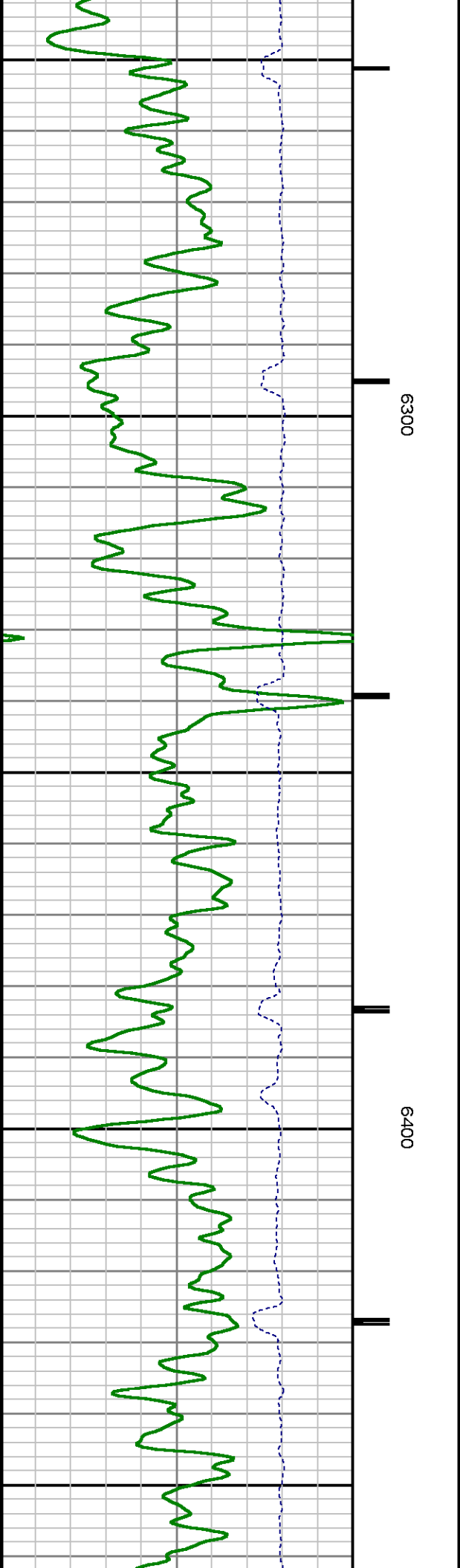
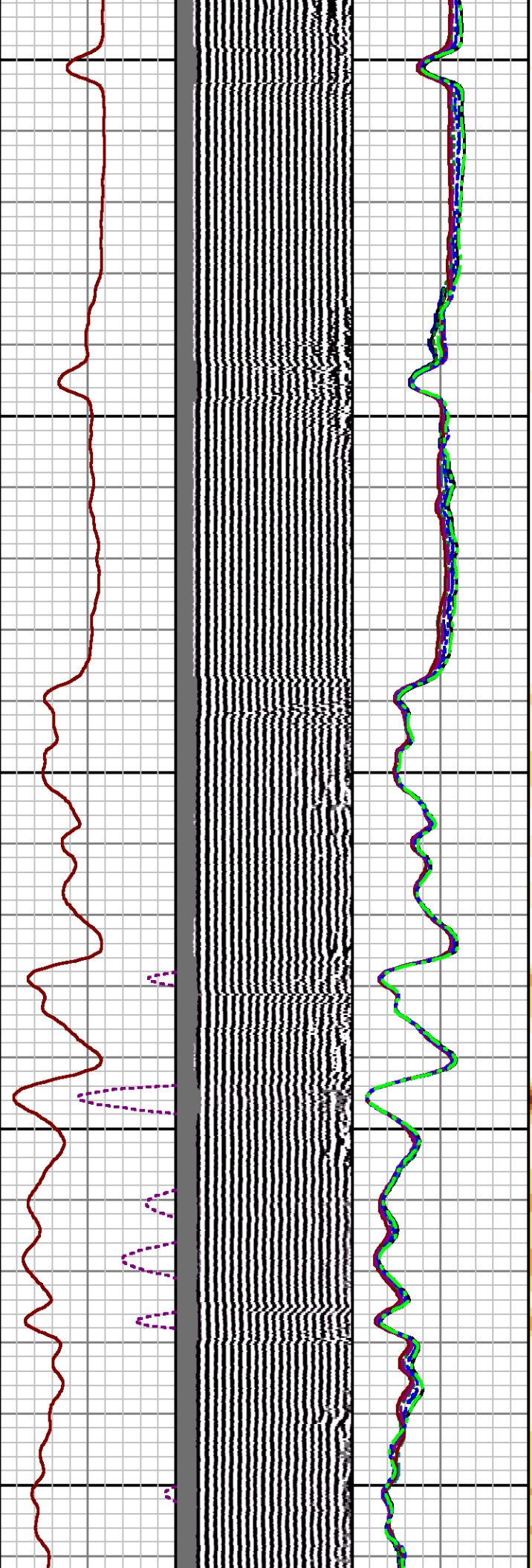


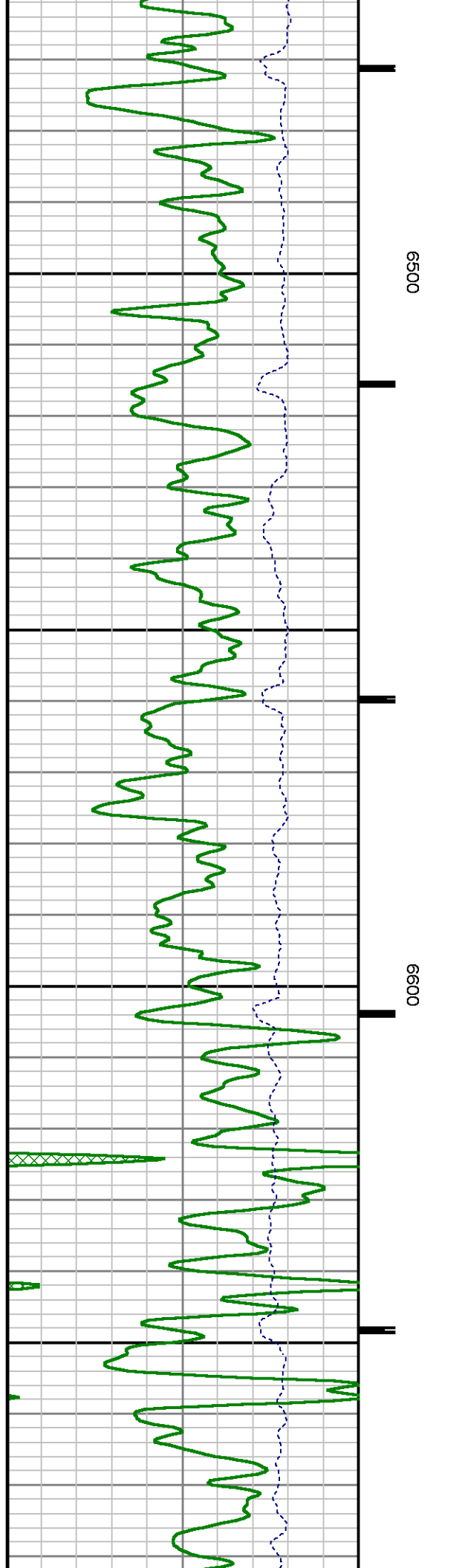
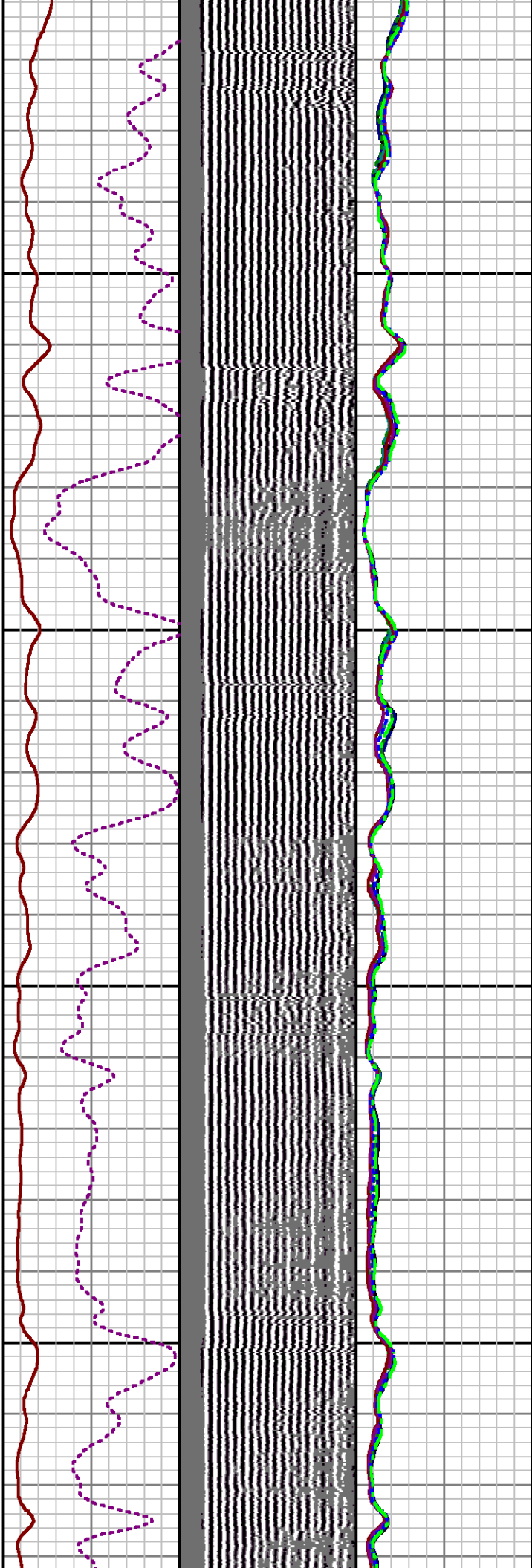
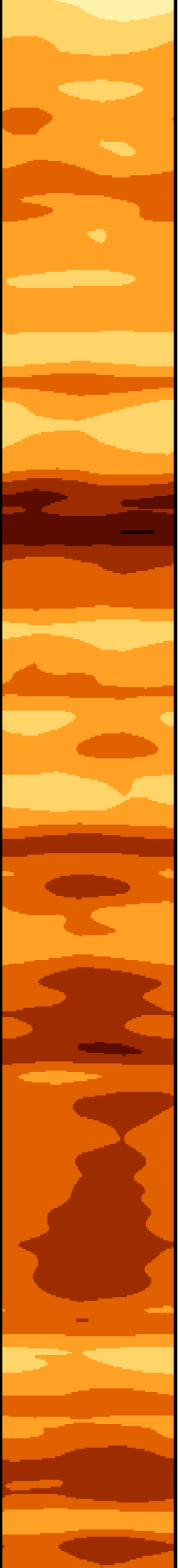


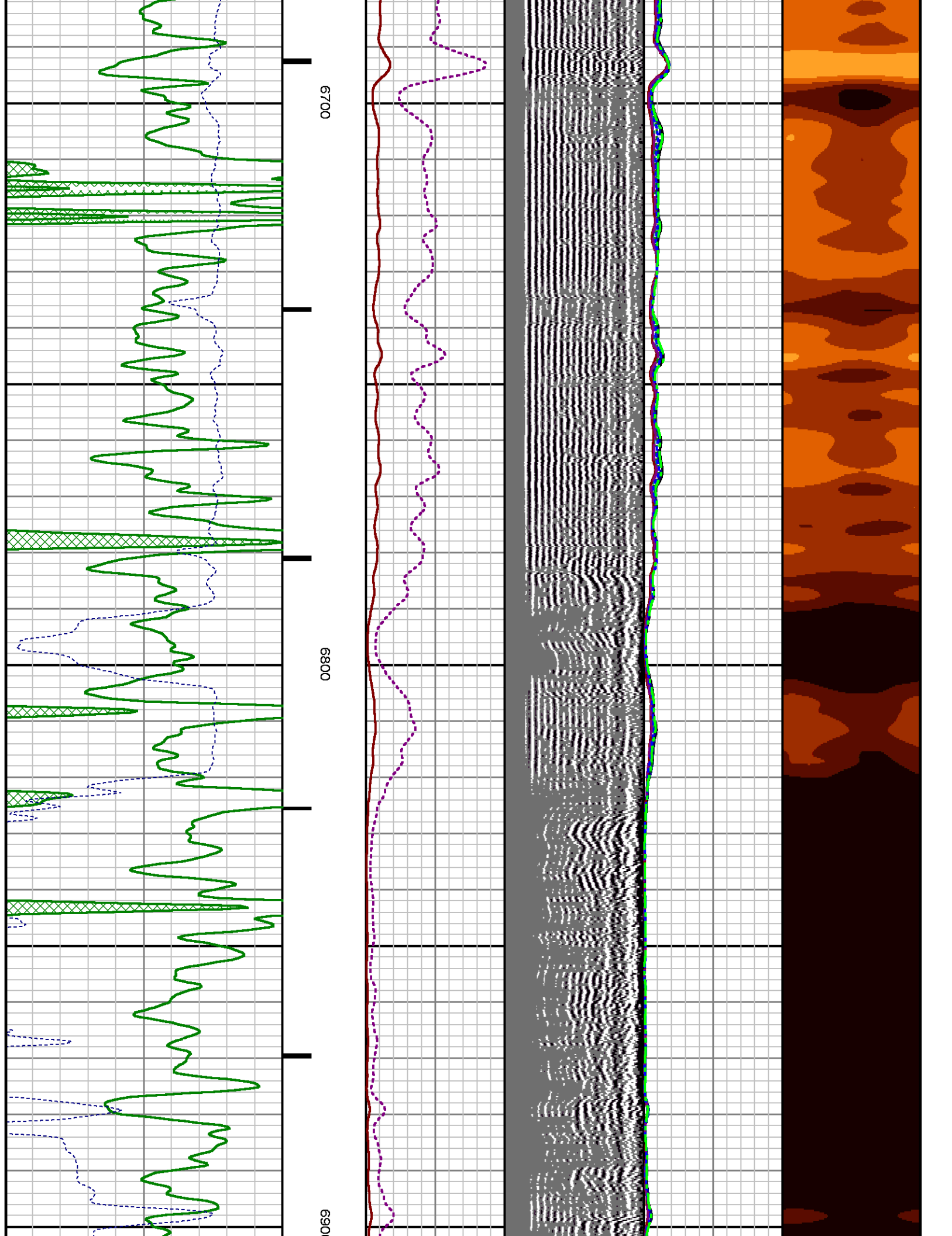
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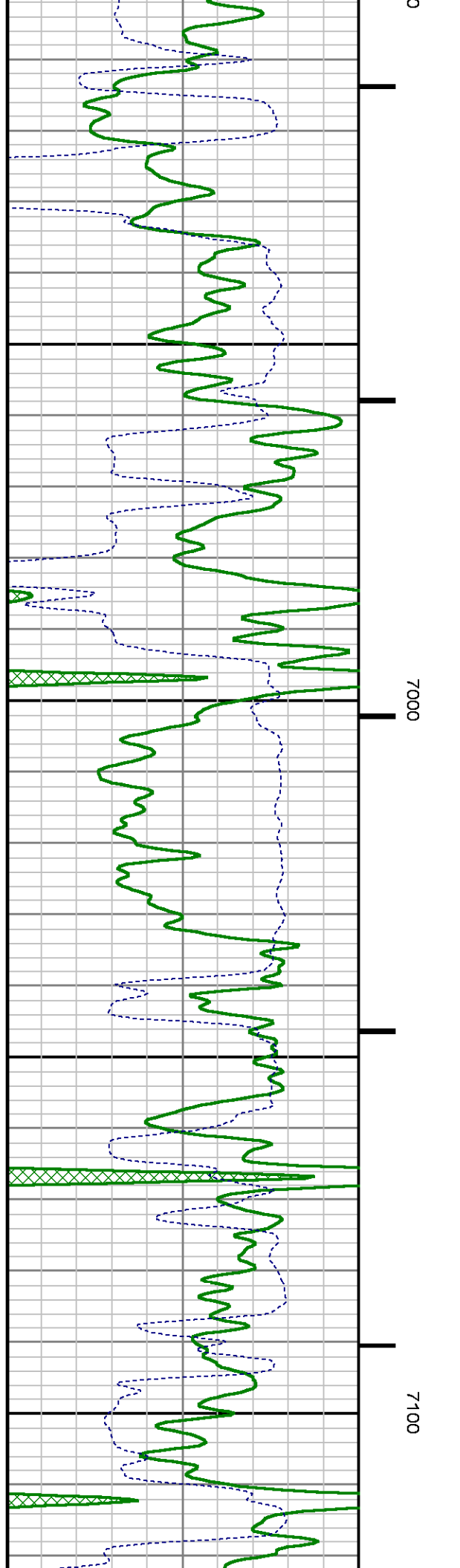
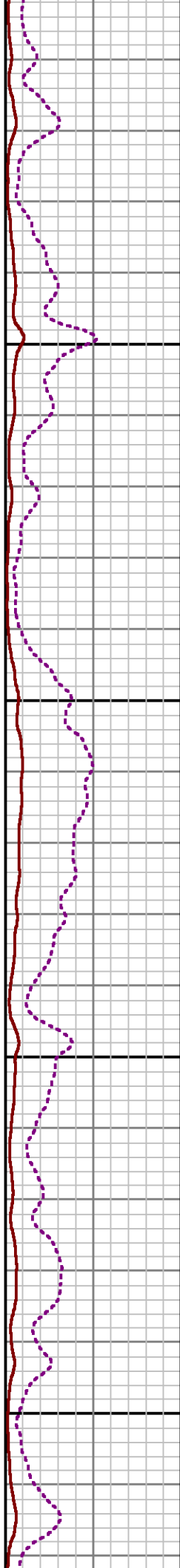
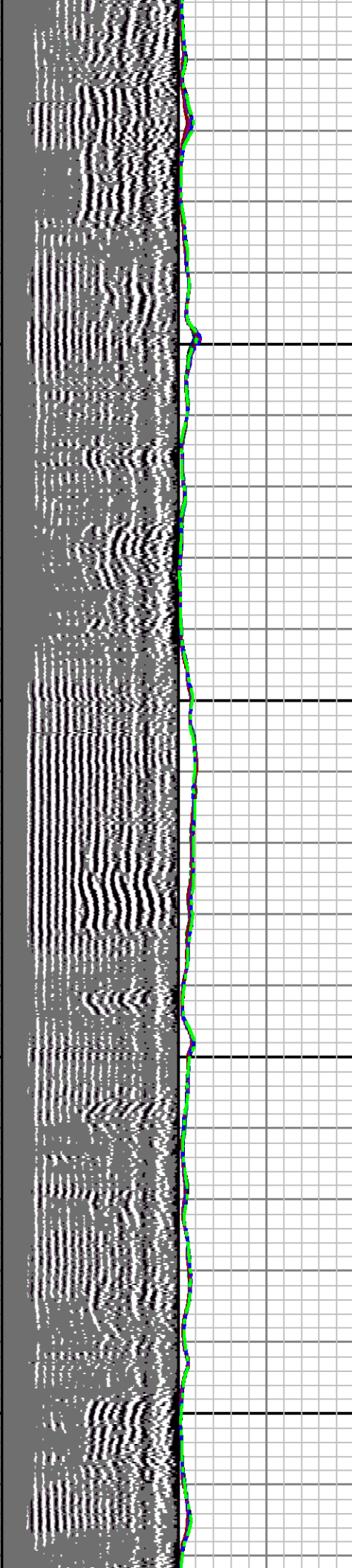
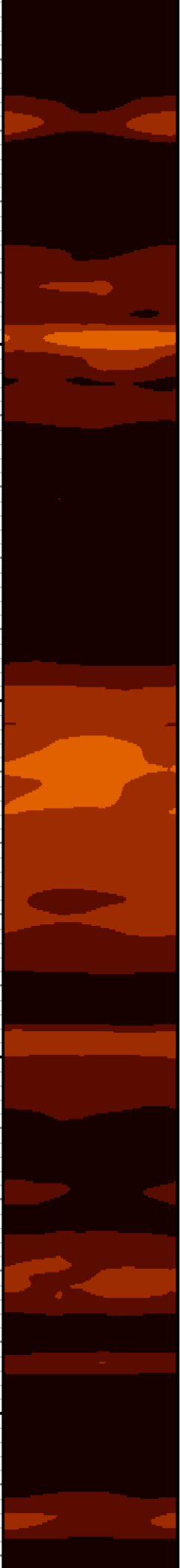
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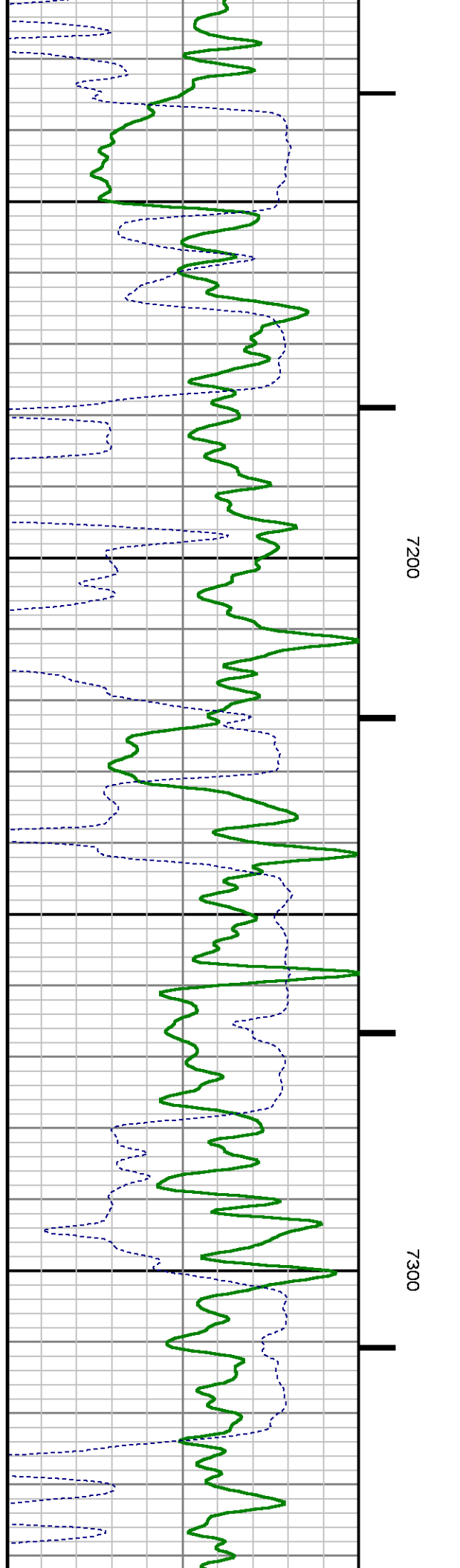
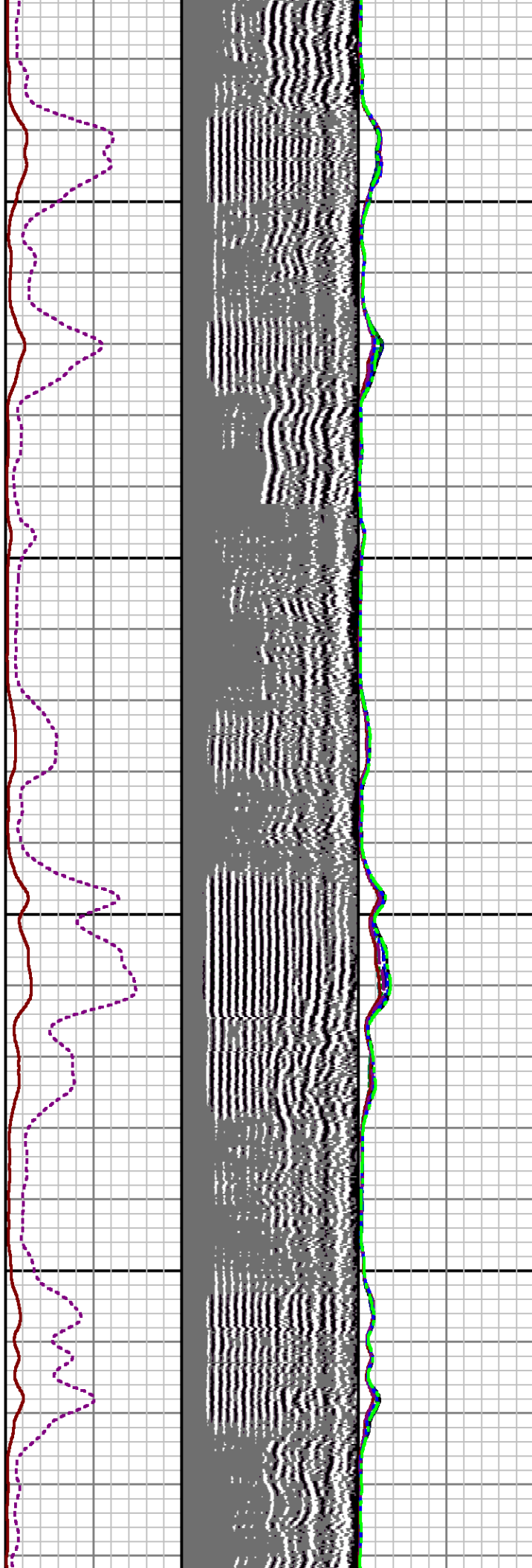




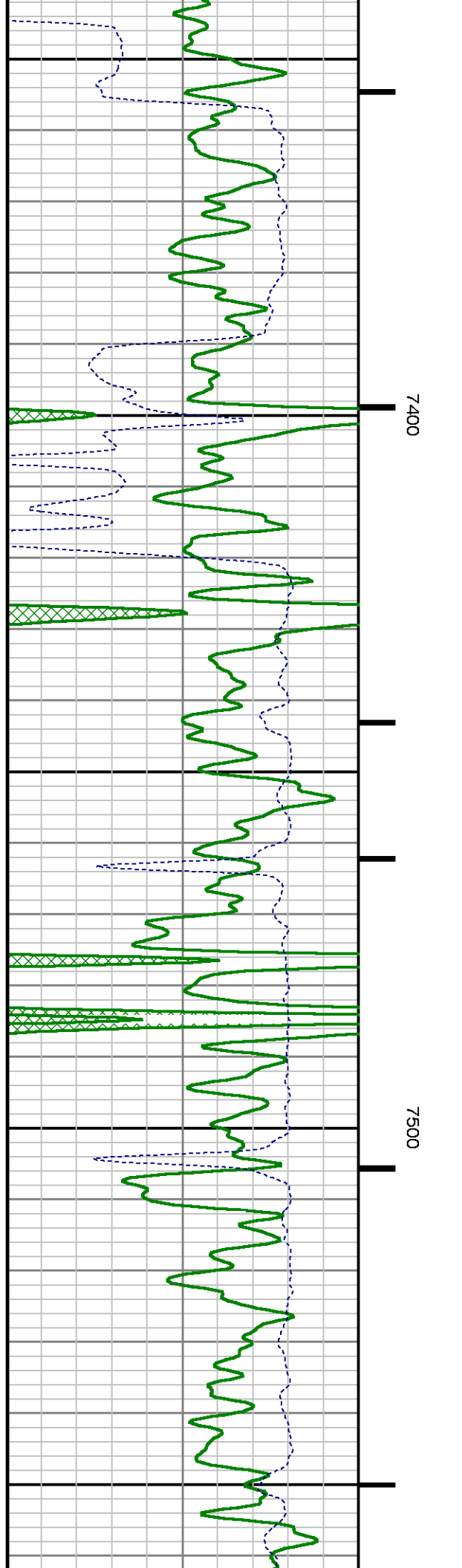
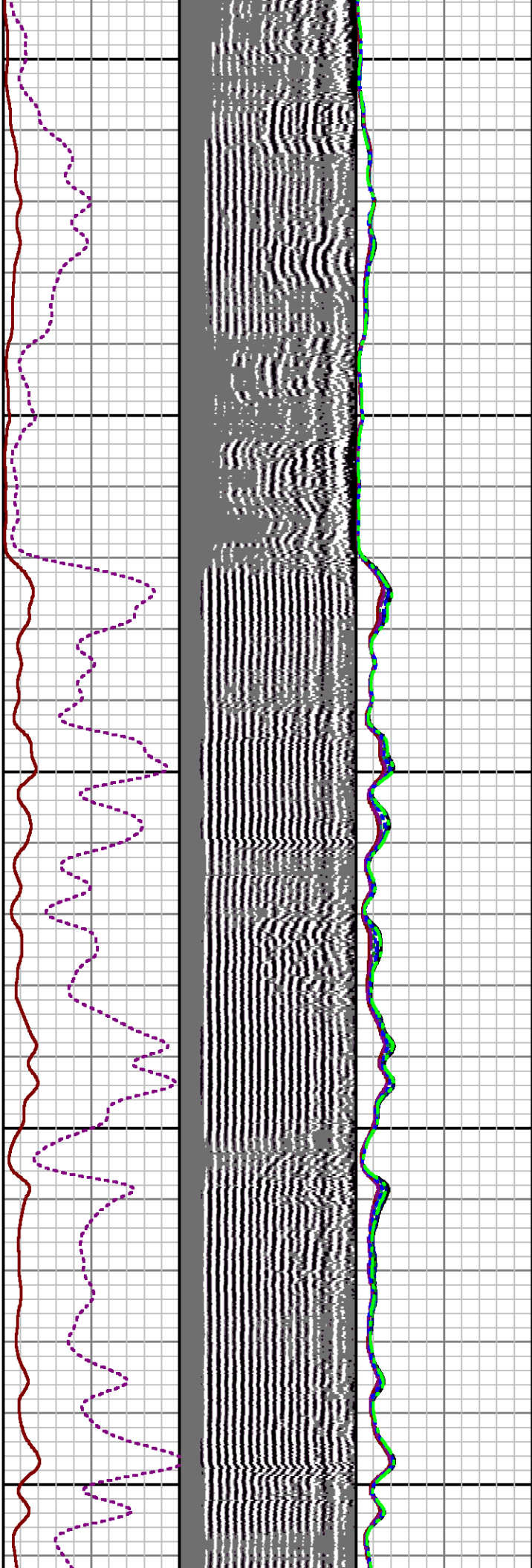


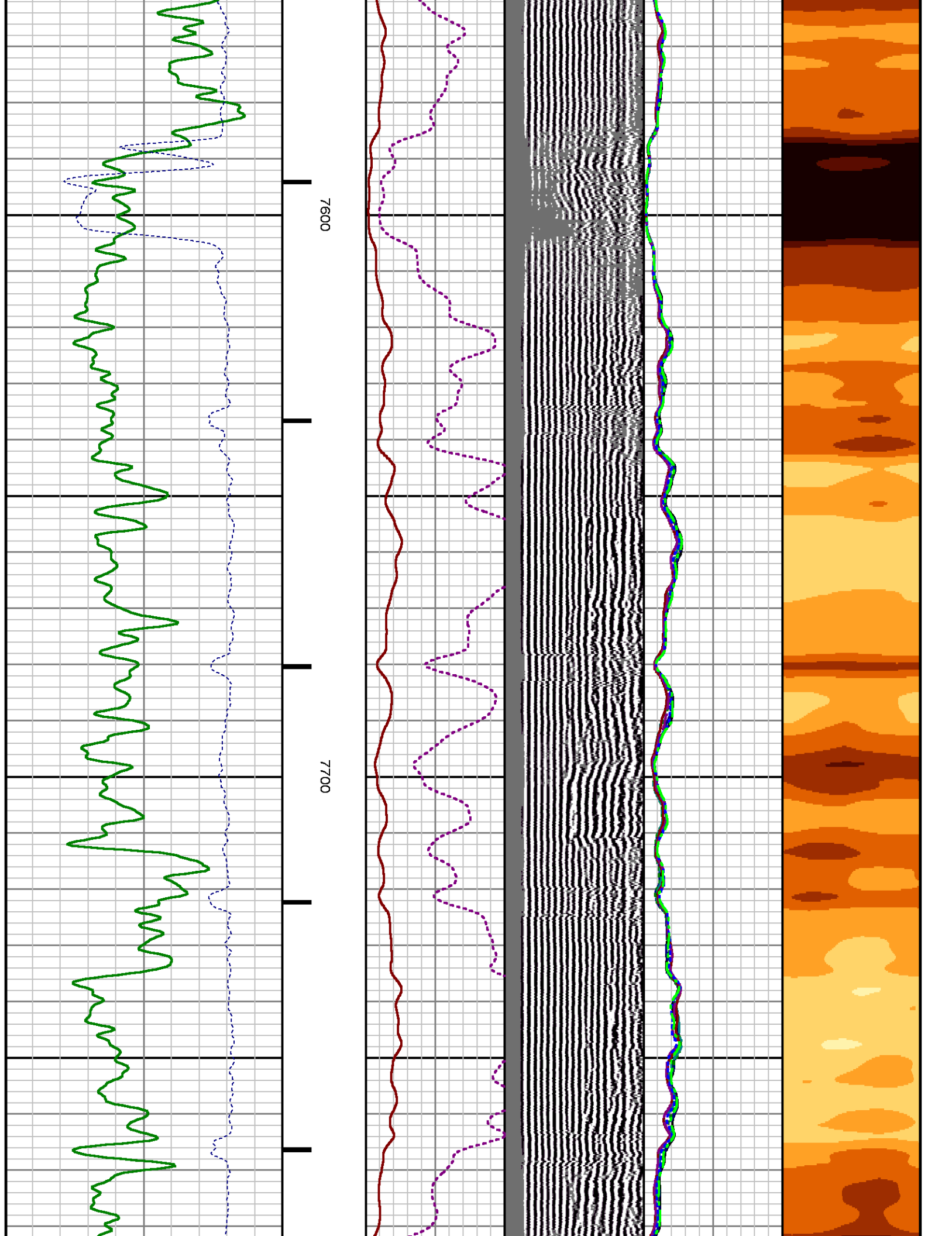


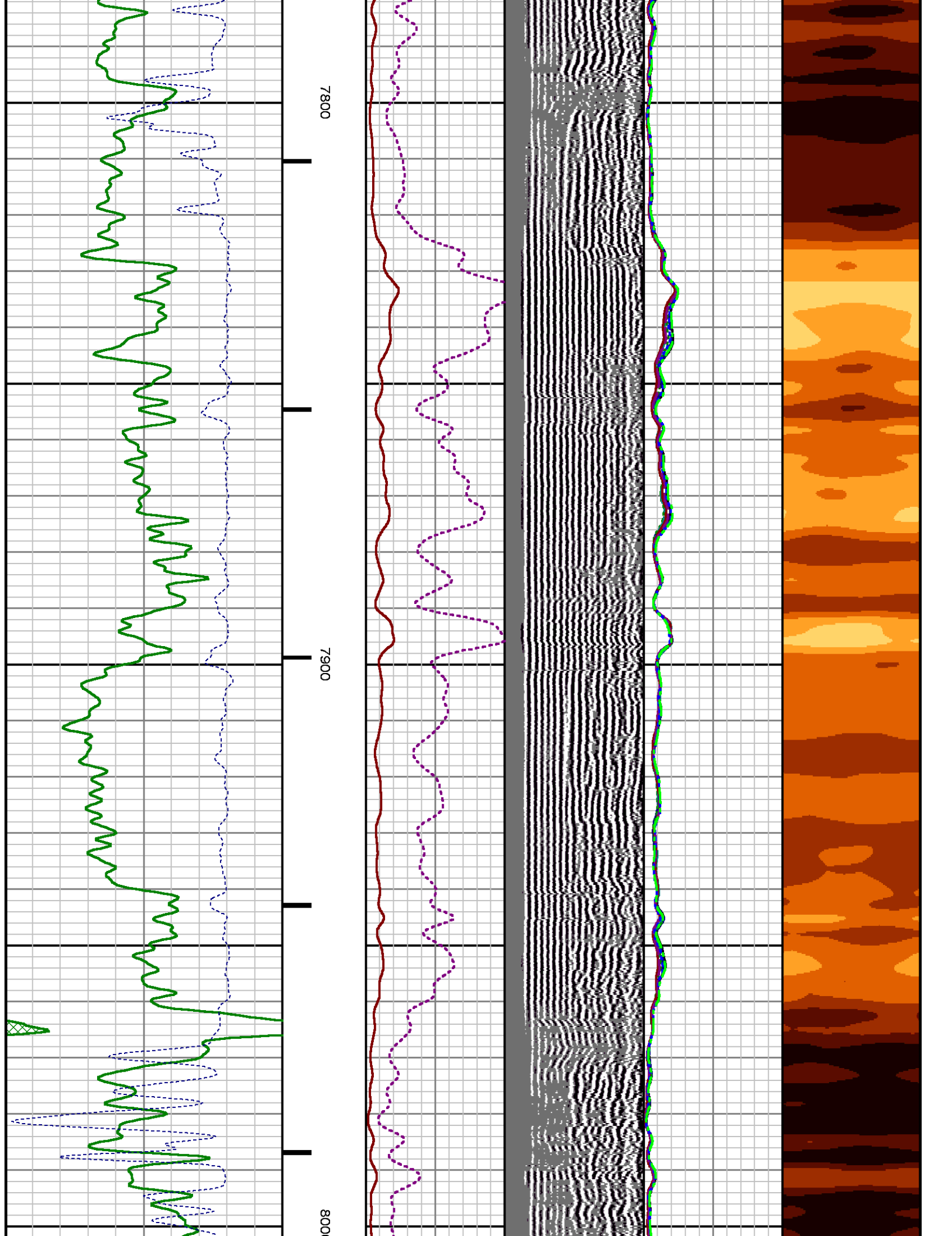


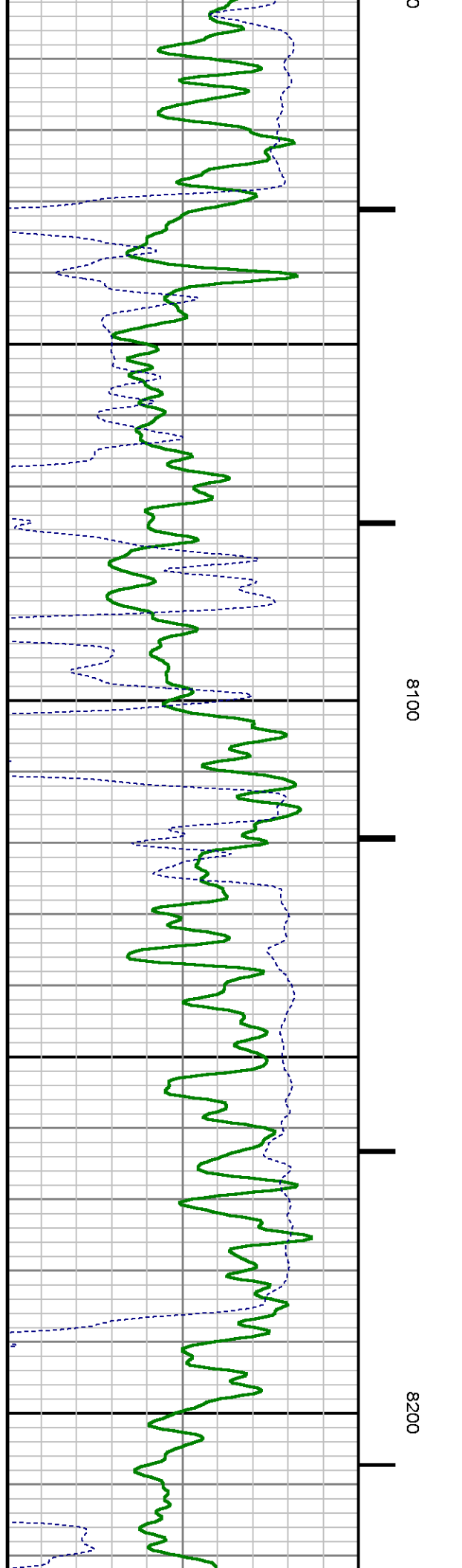
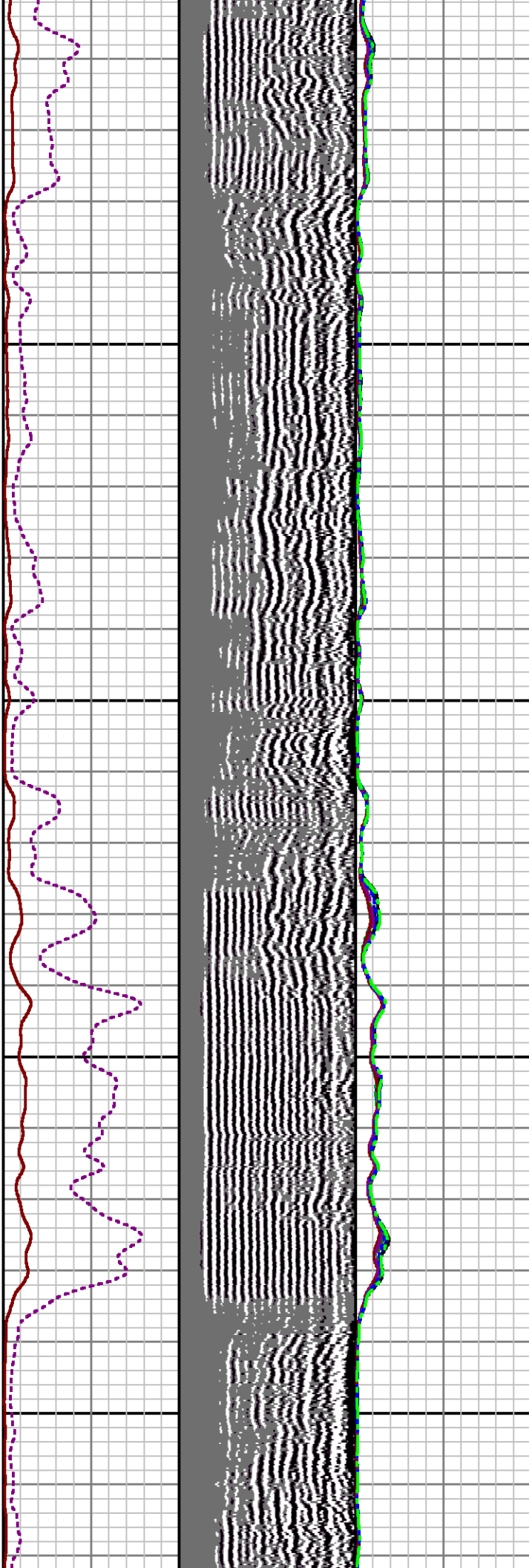
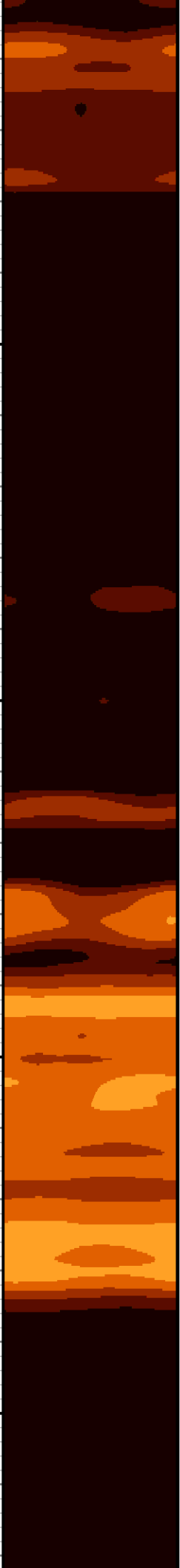




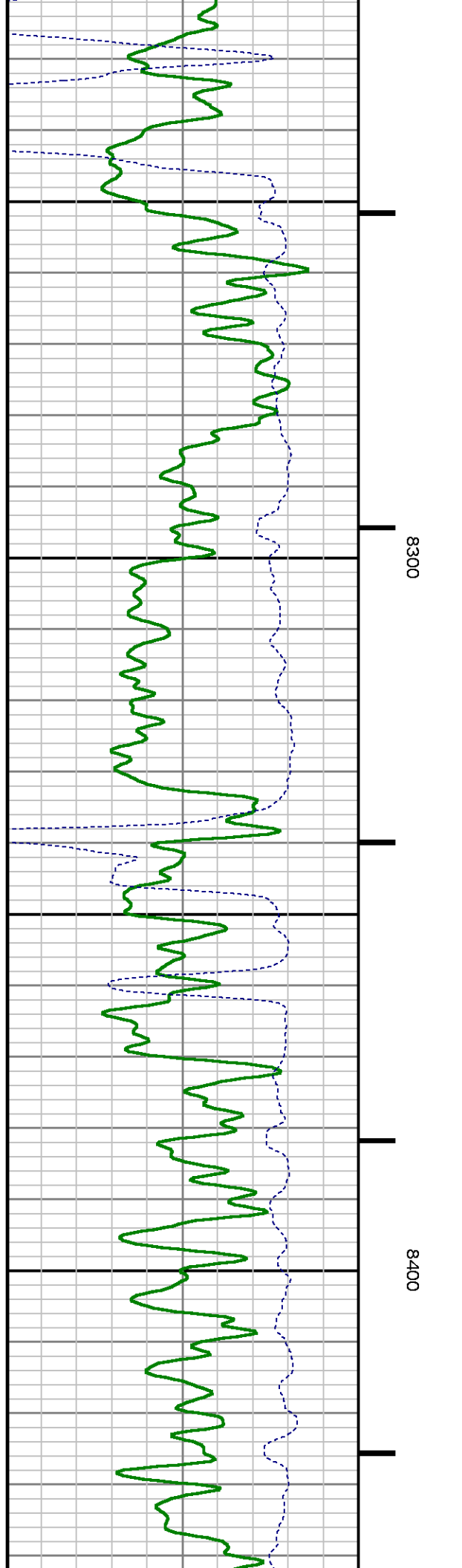
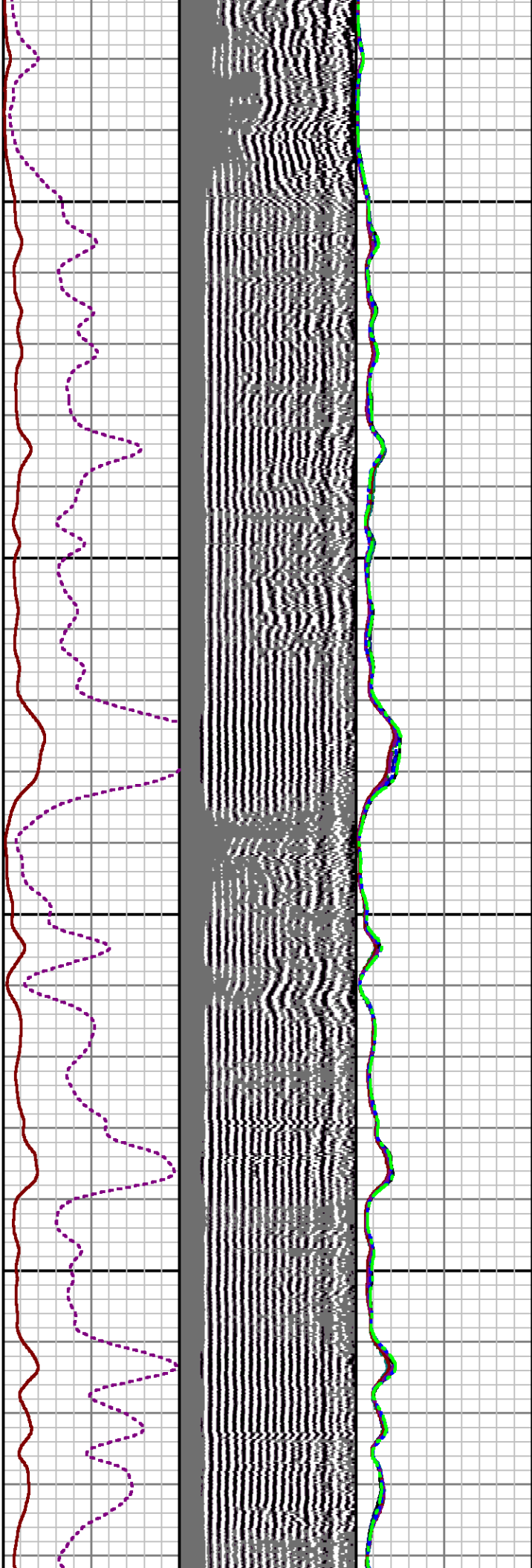


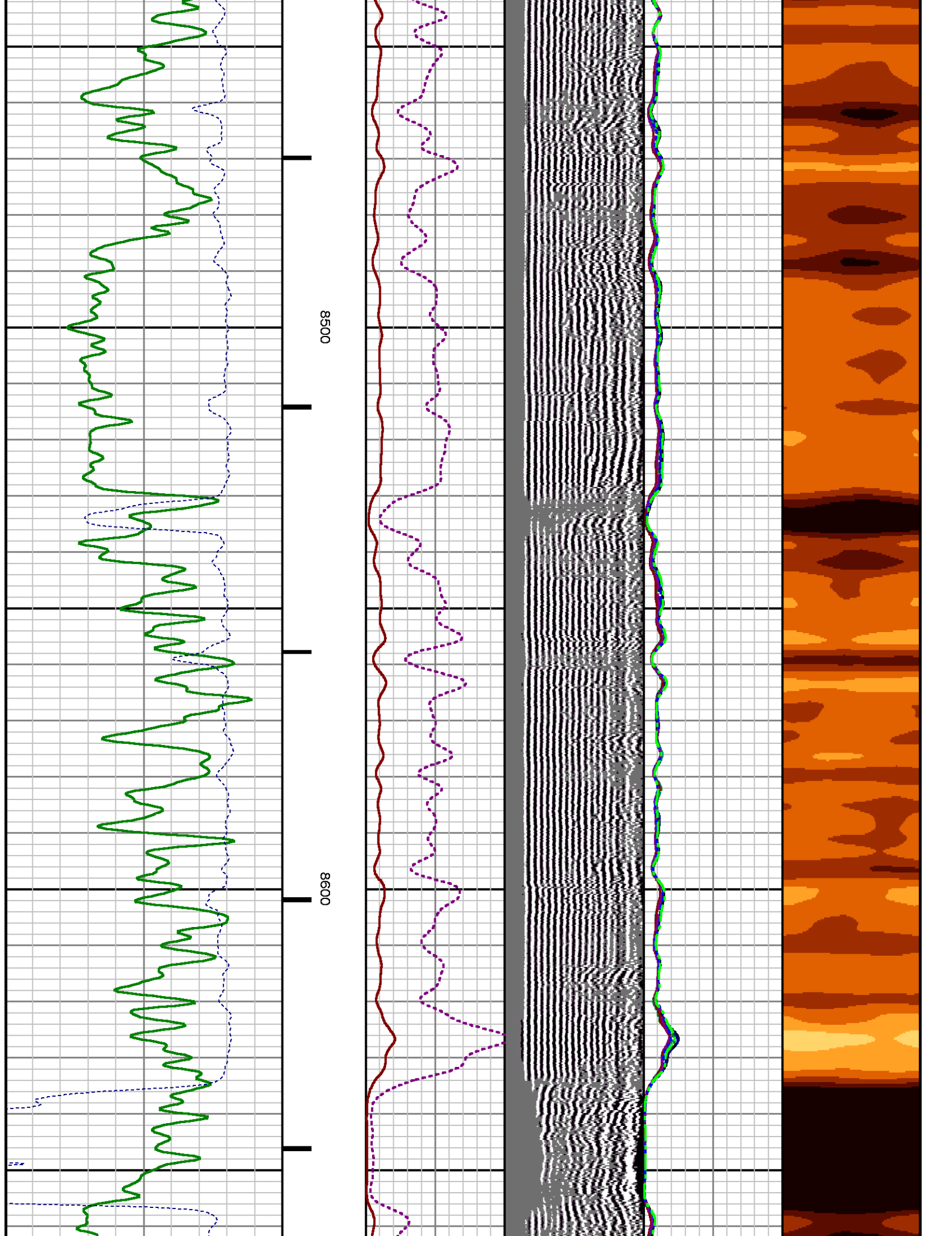




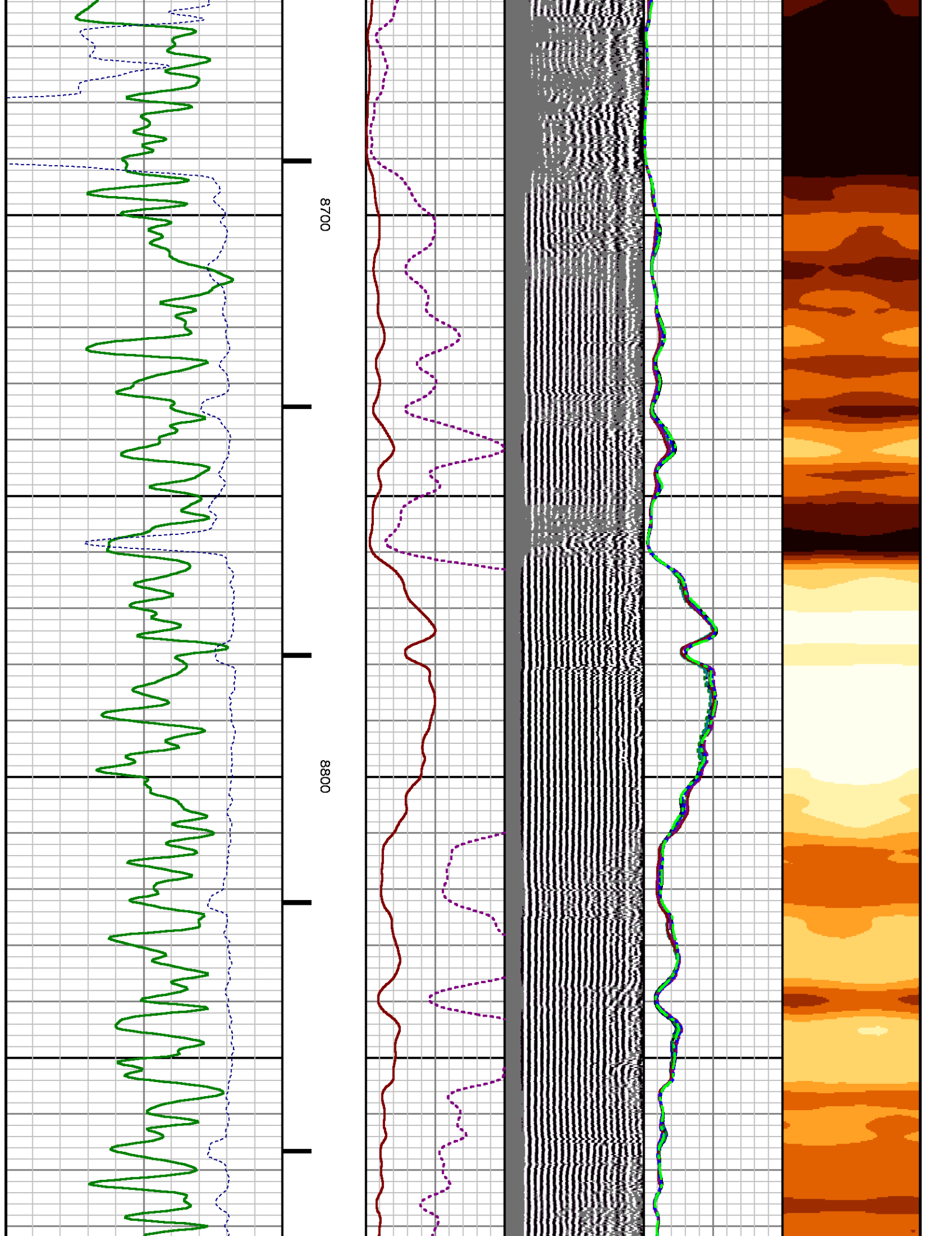


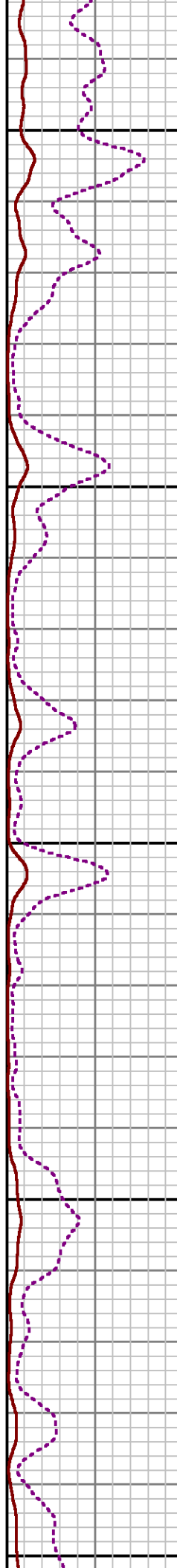
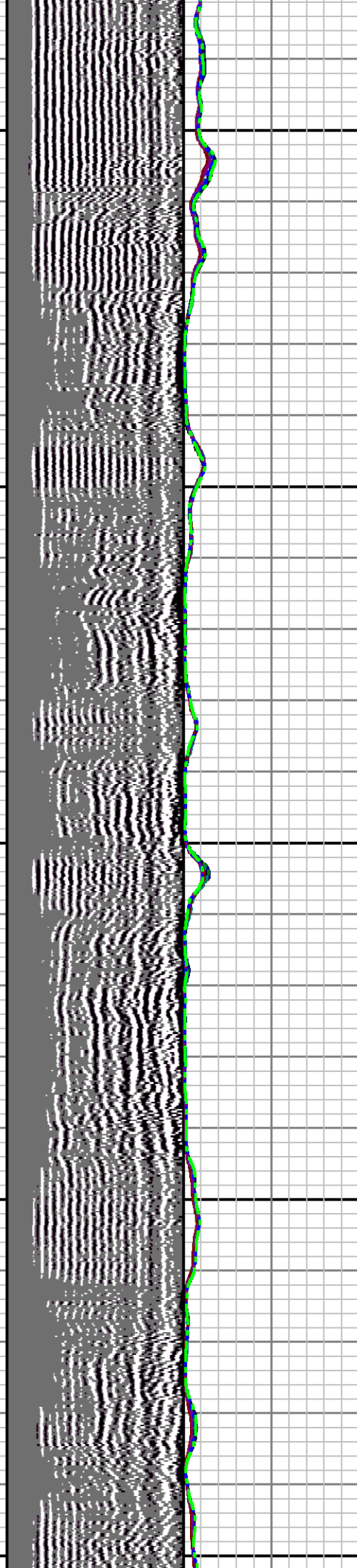




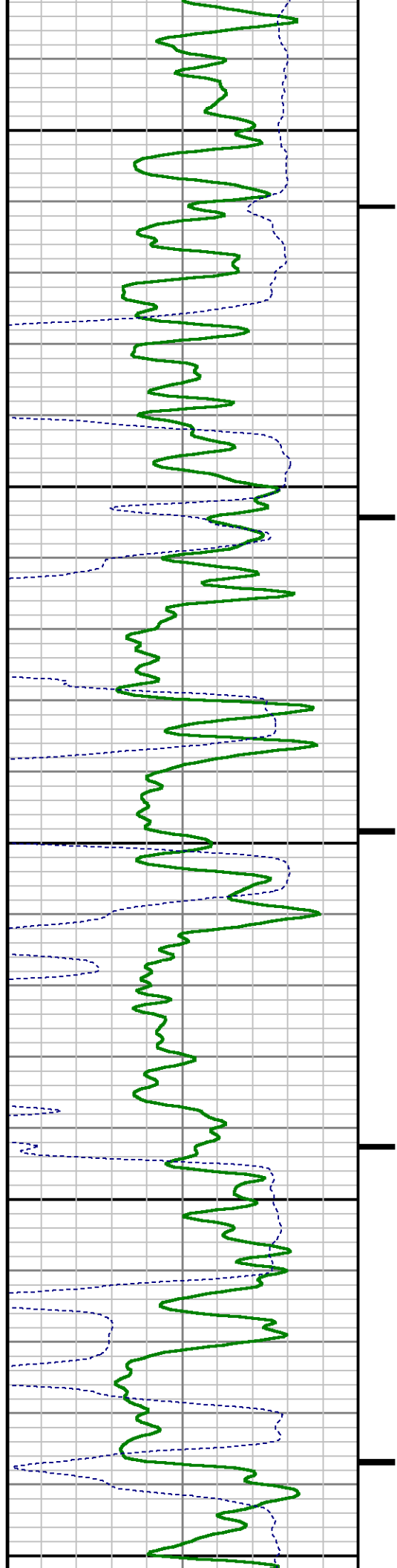


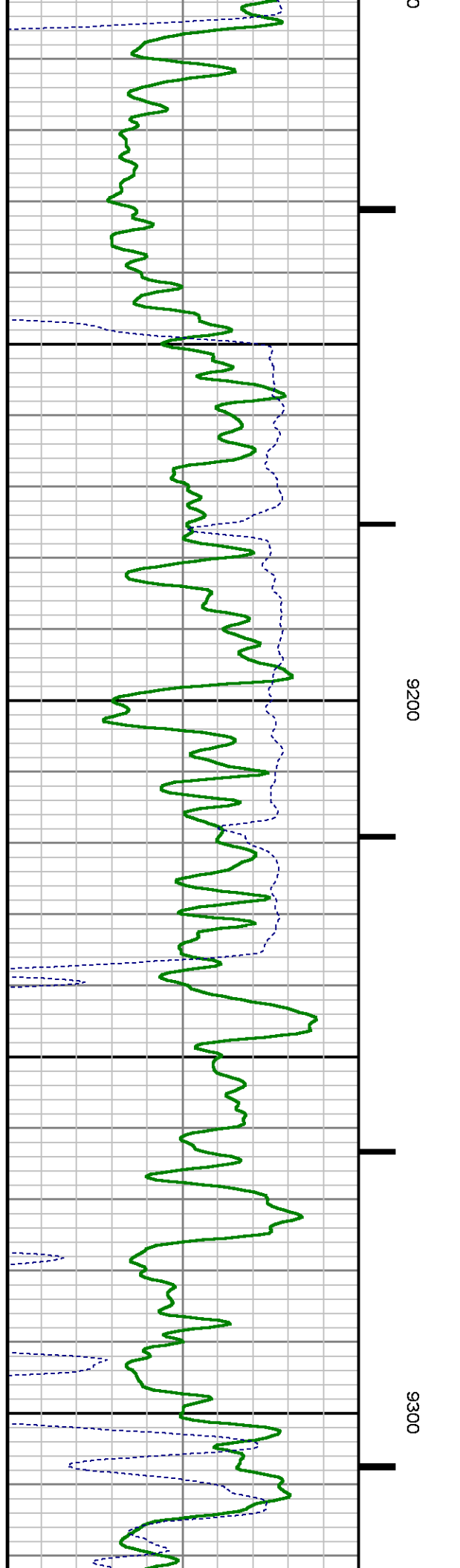
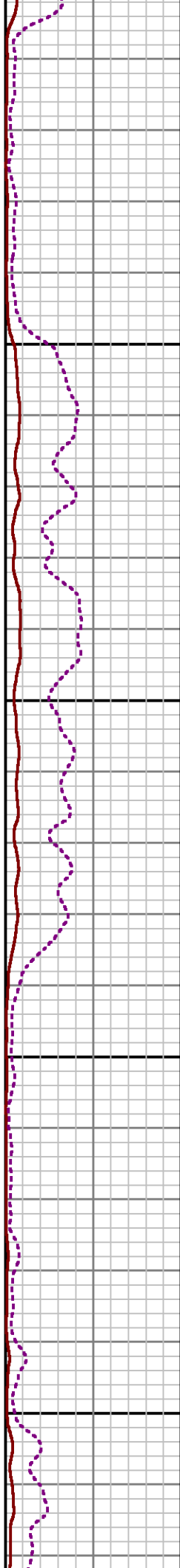
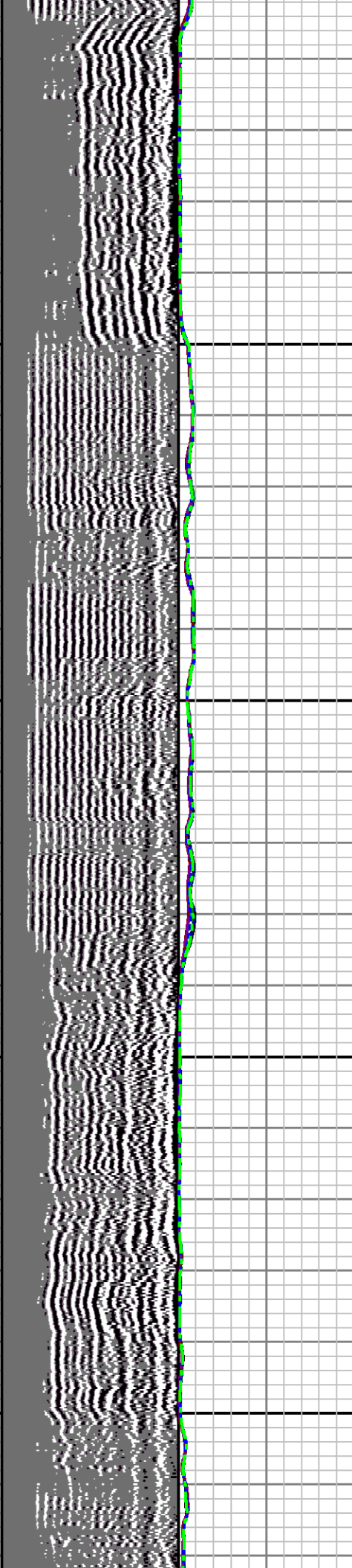


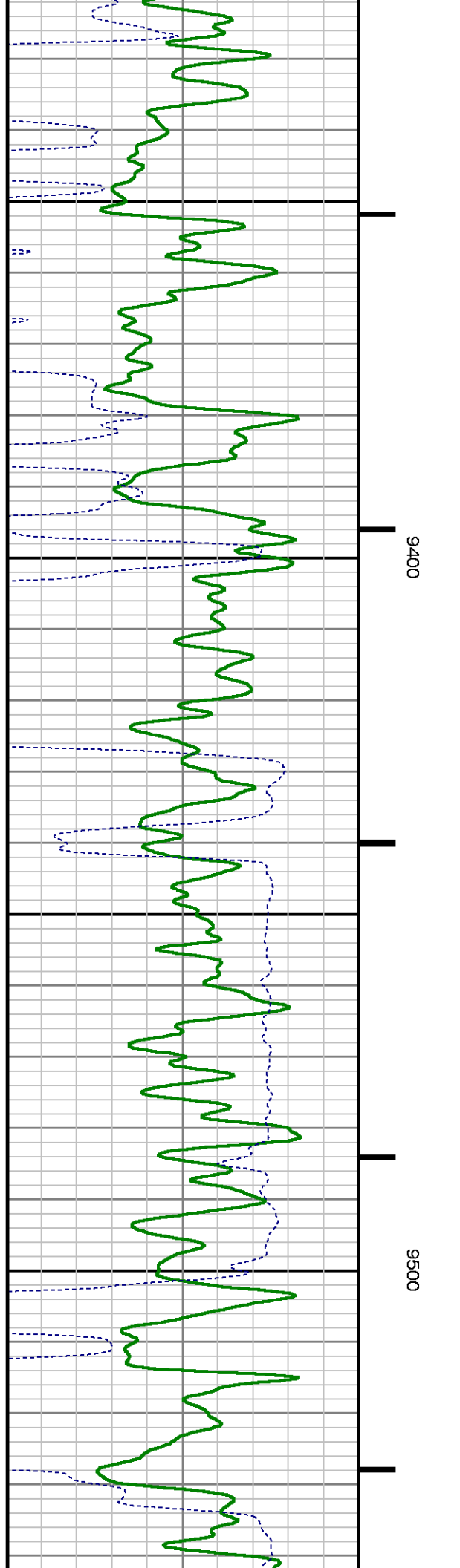
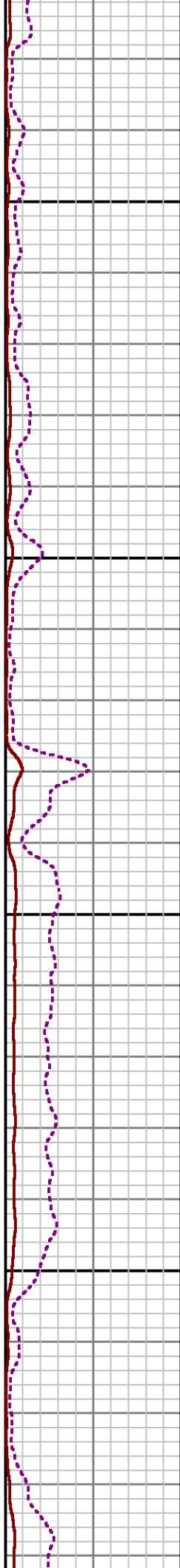
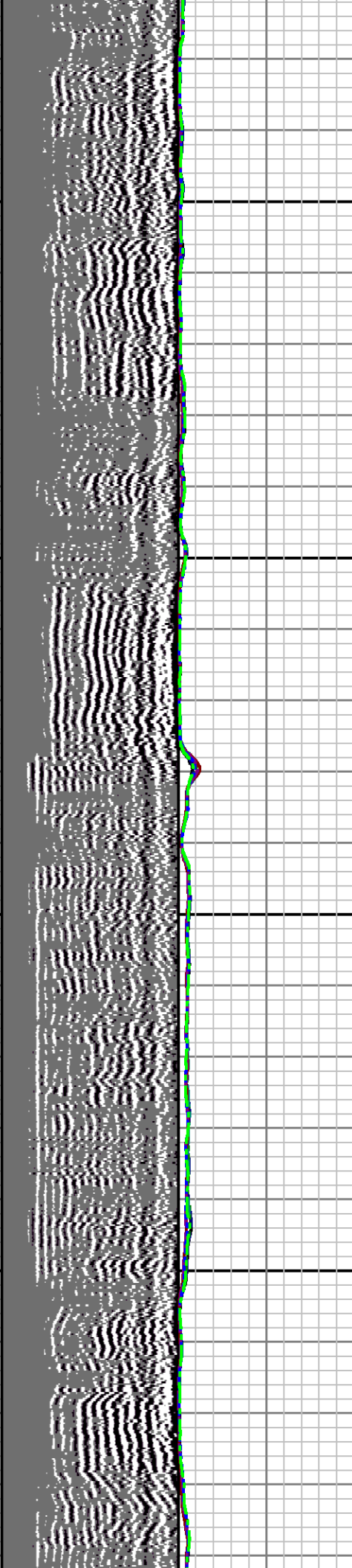
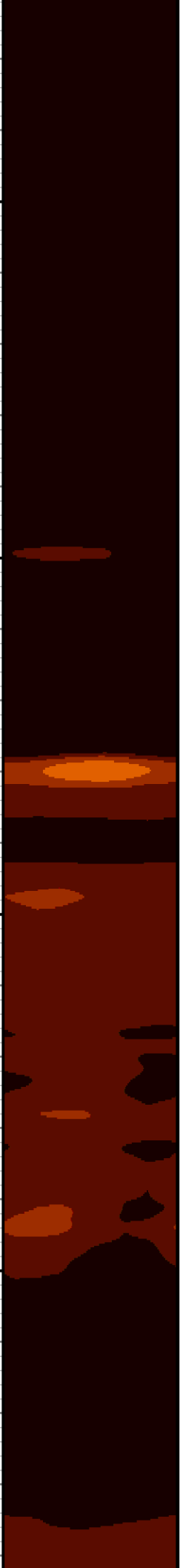


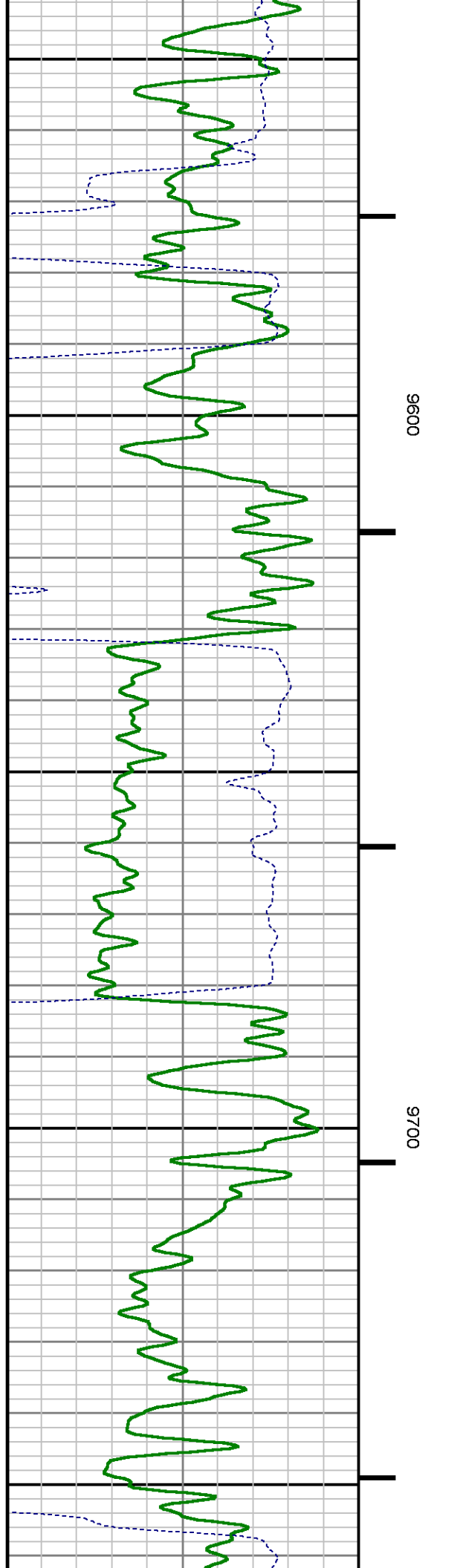
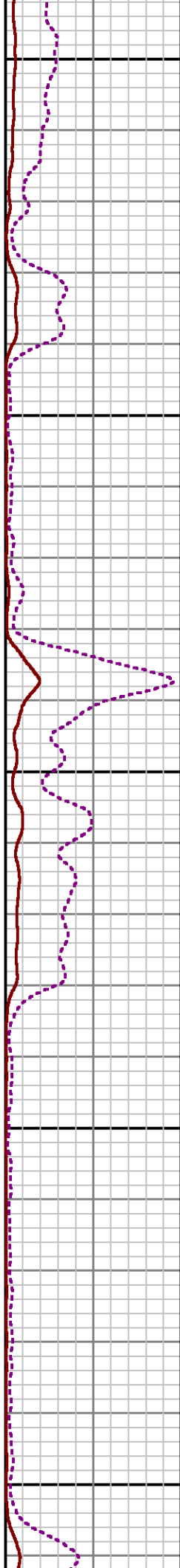
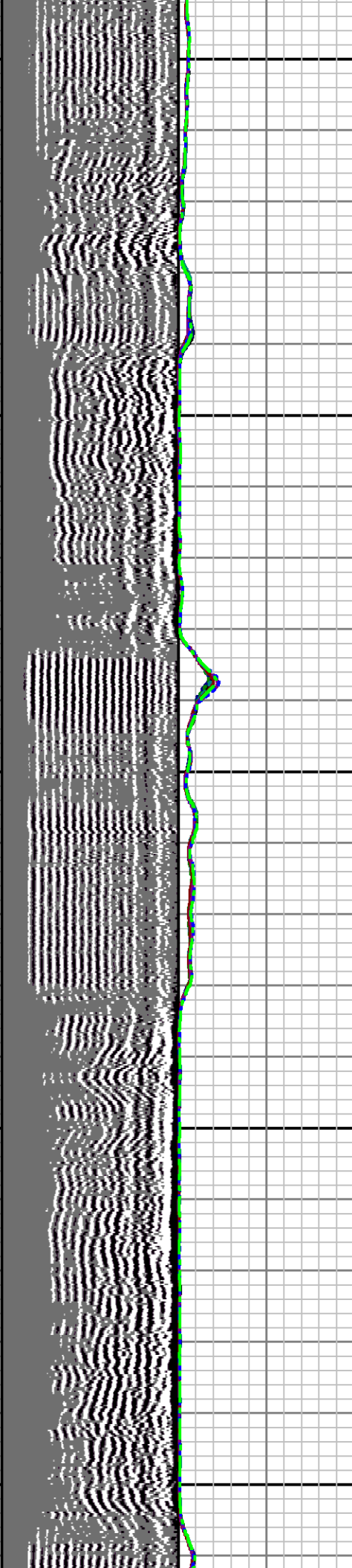


8900 9000 9100

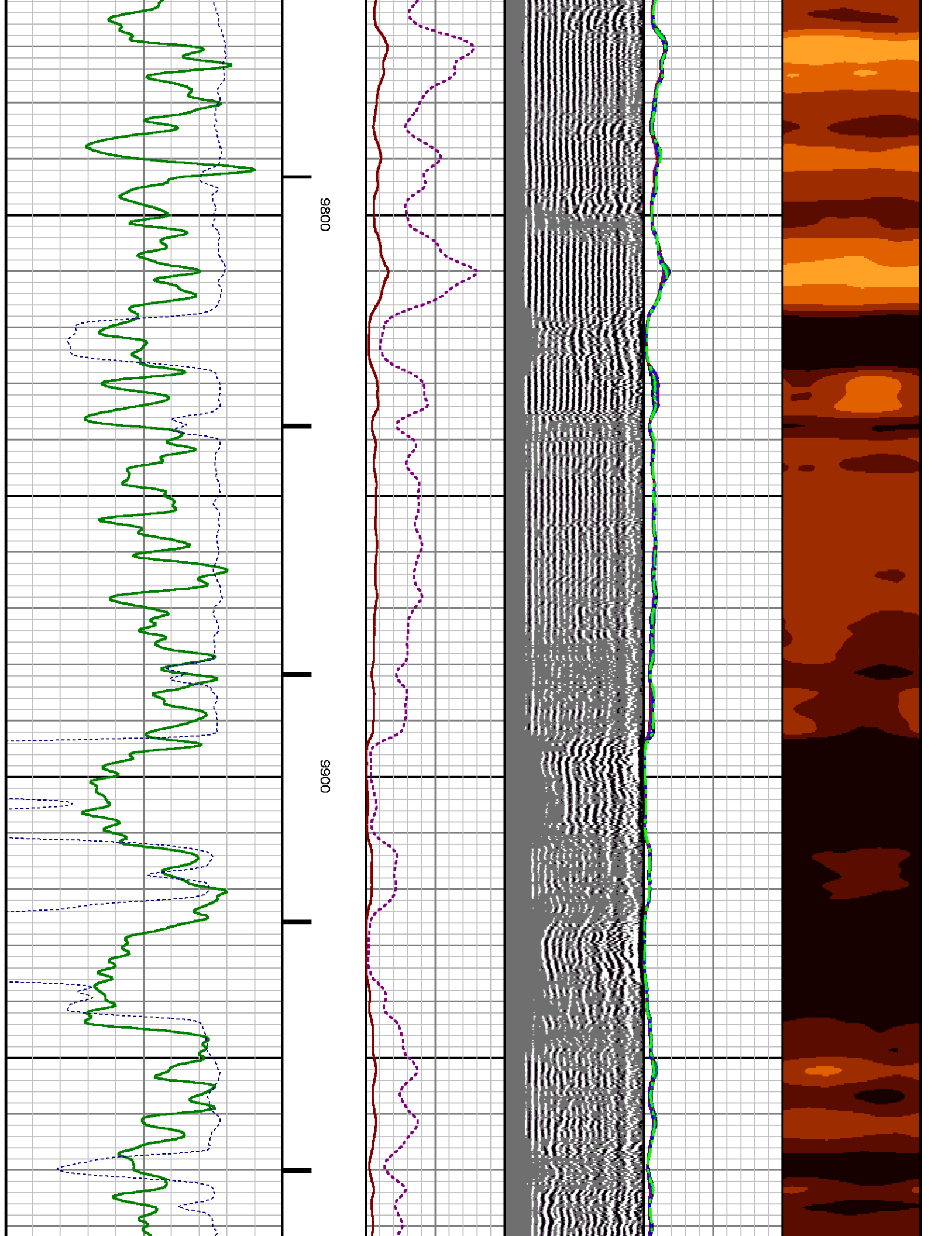


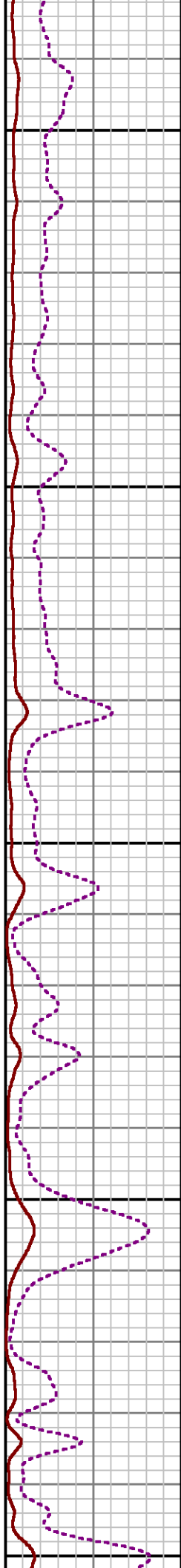
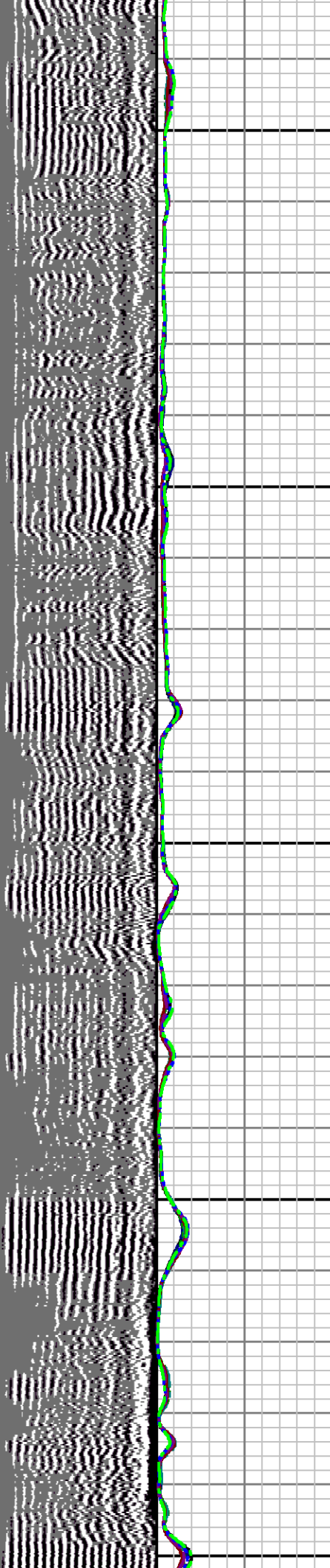
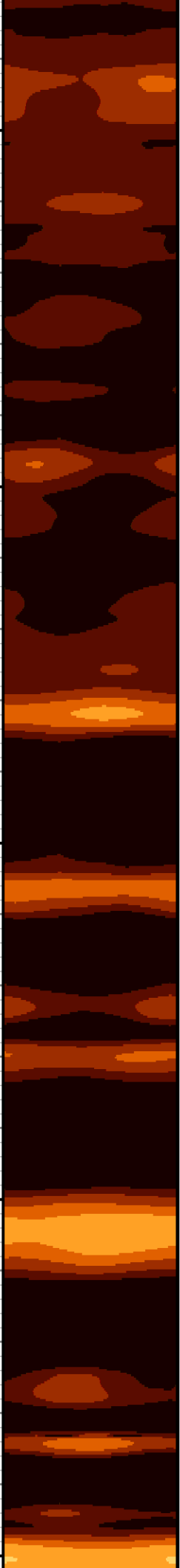








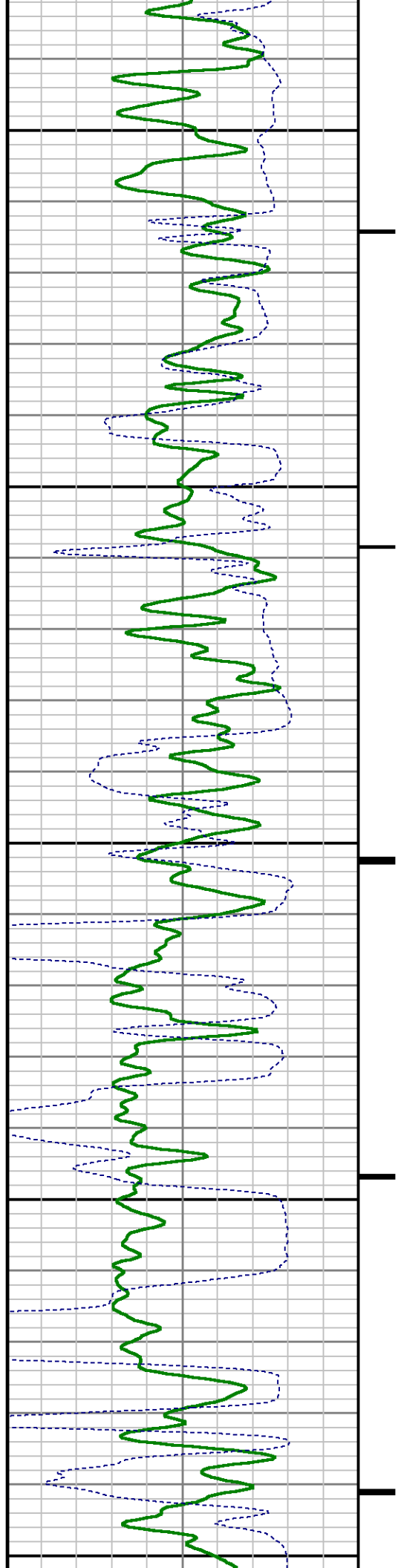


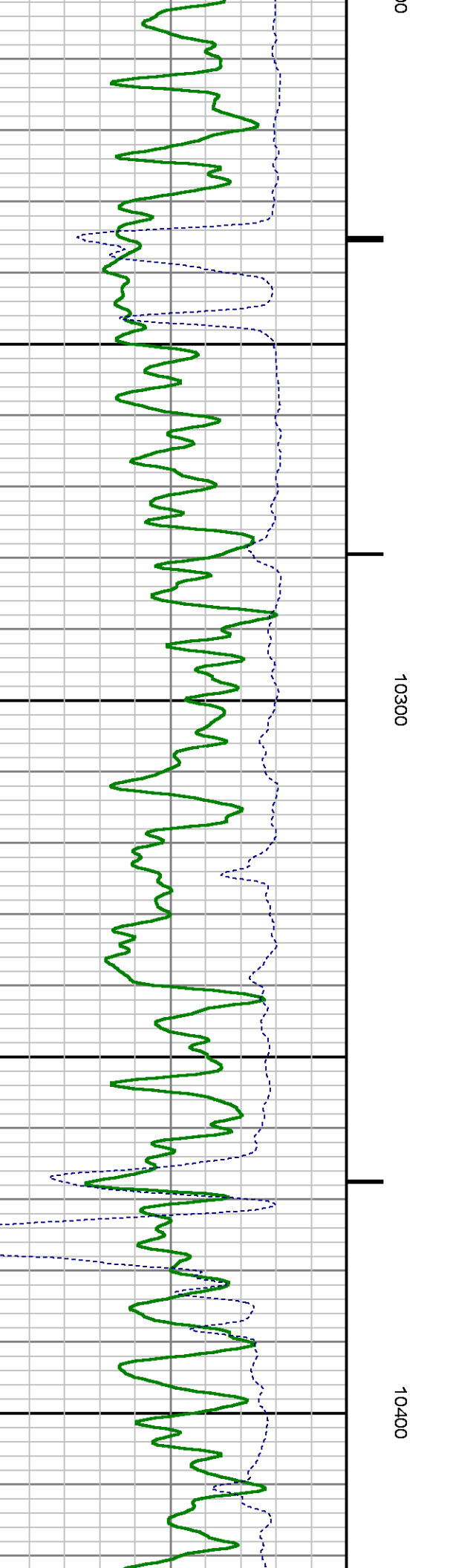
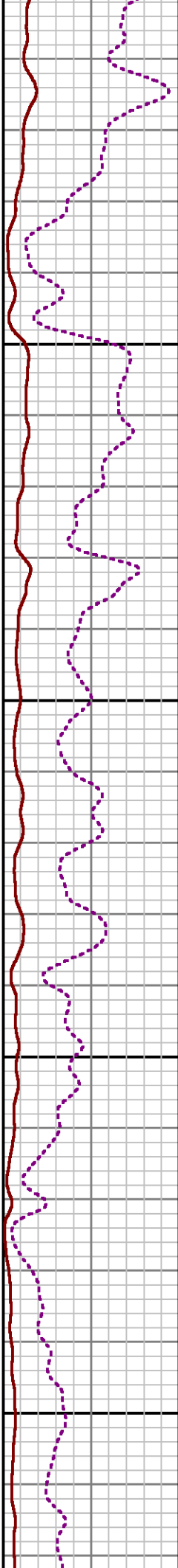
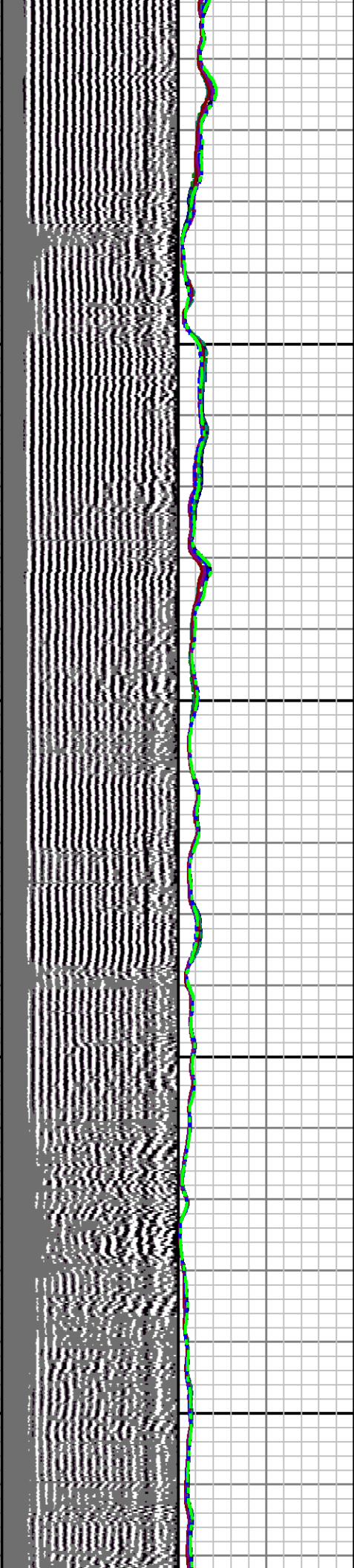


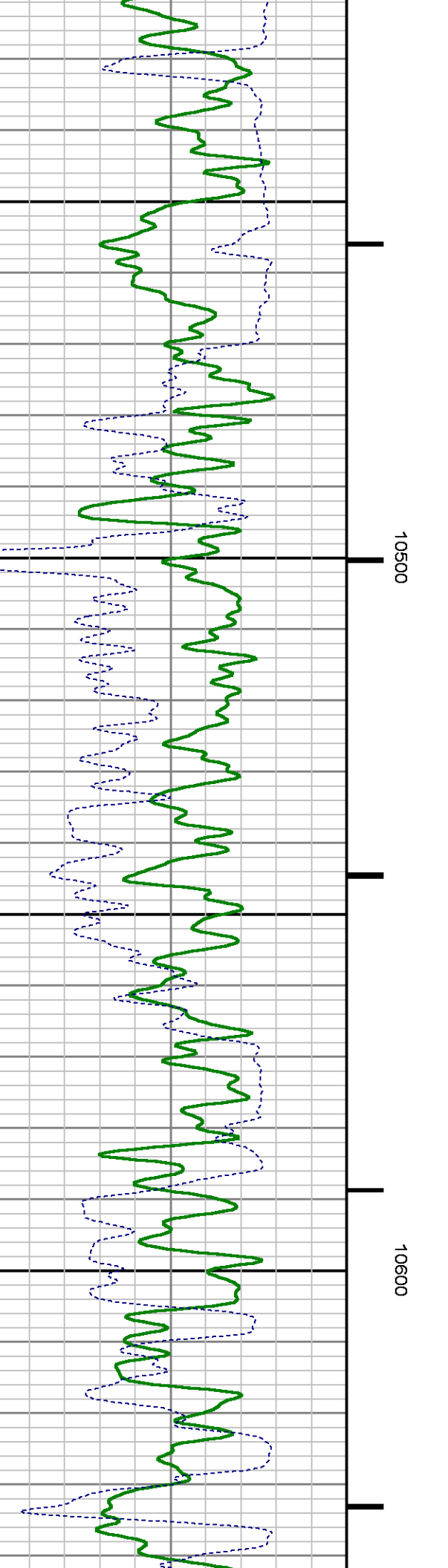
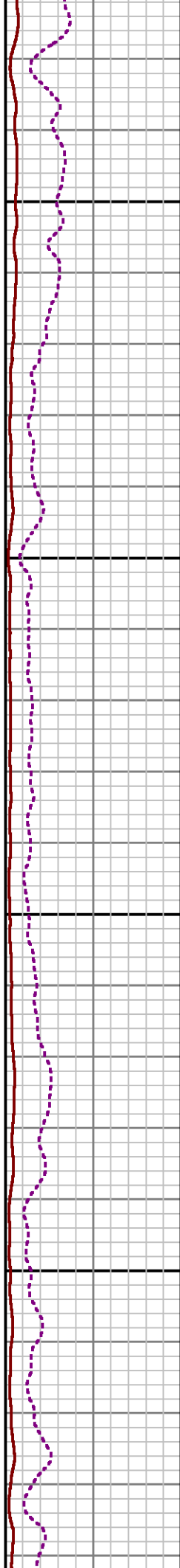
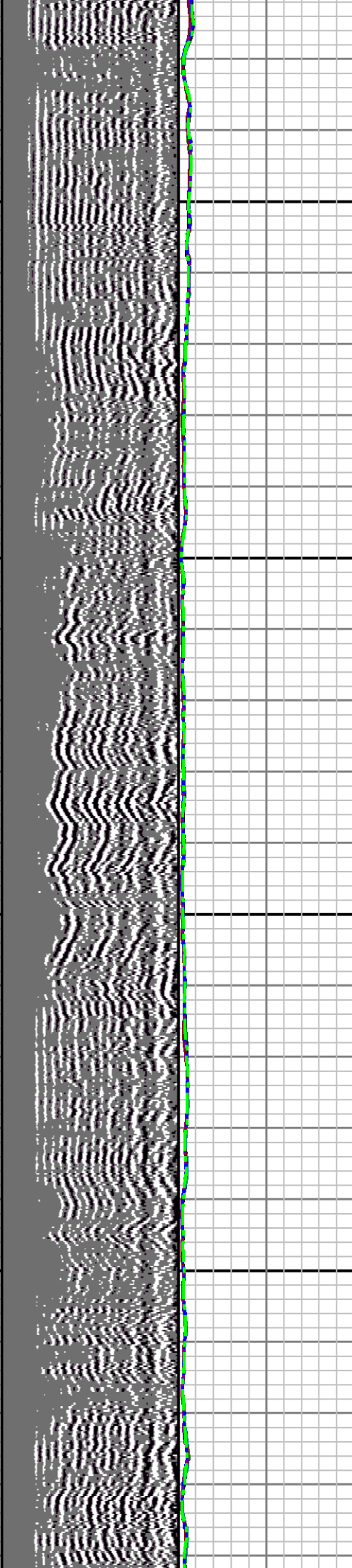
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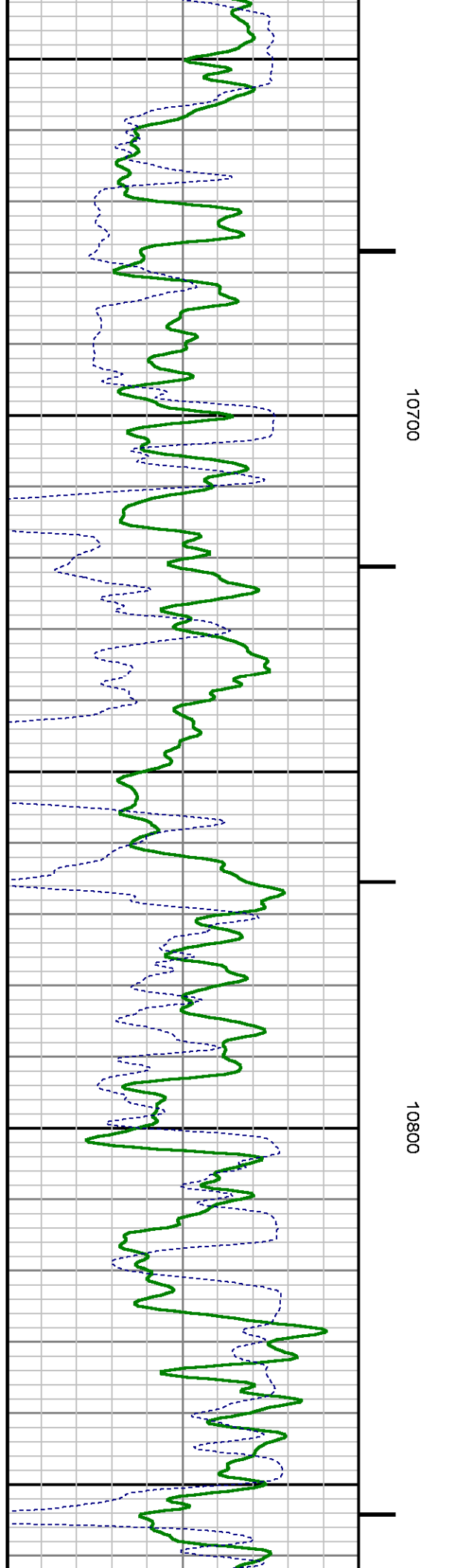
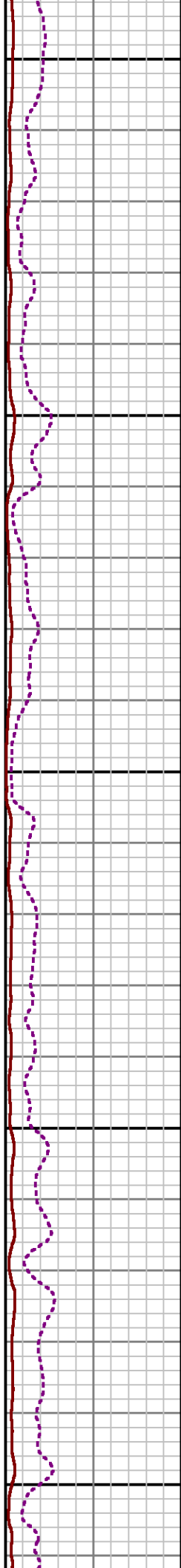
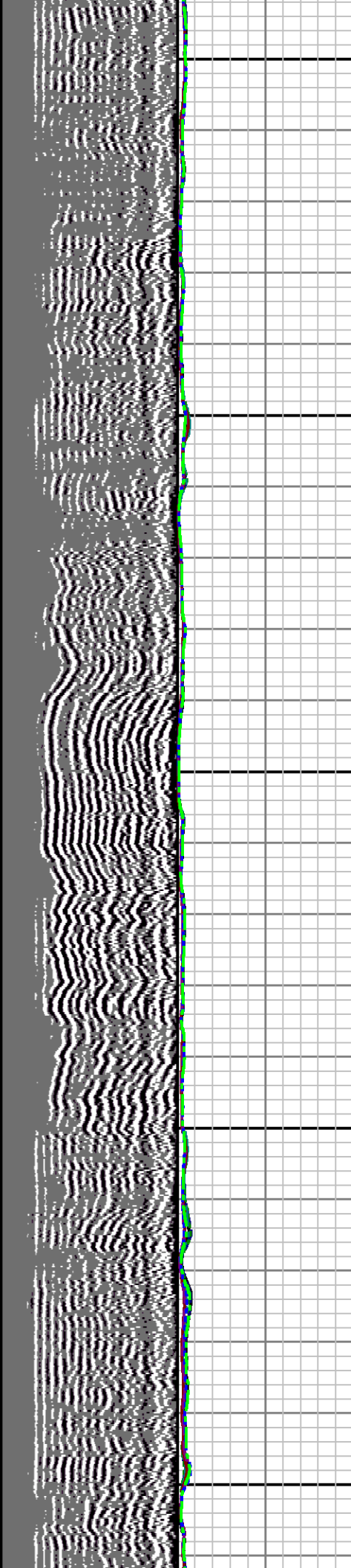
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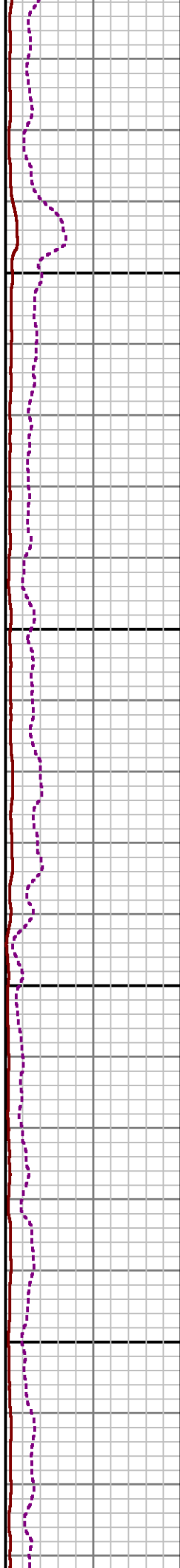
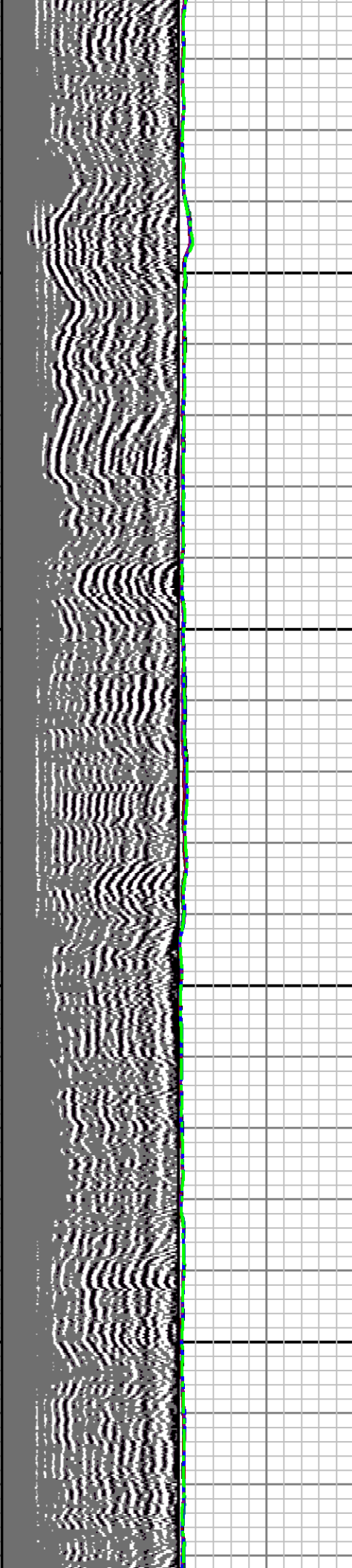






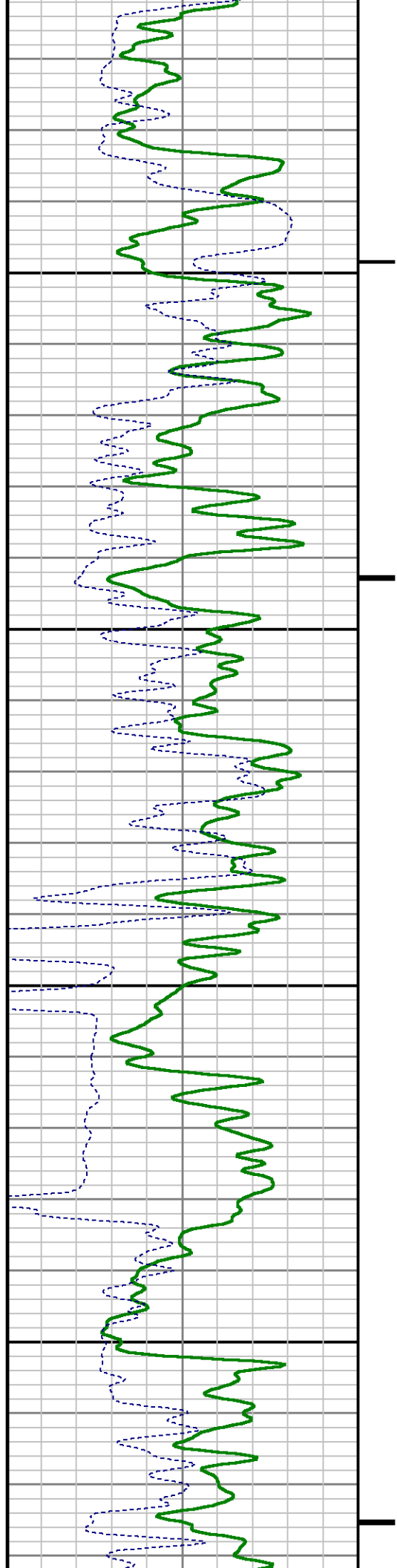


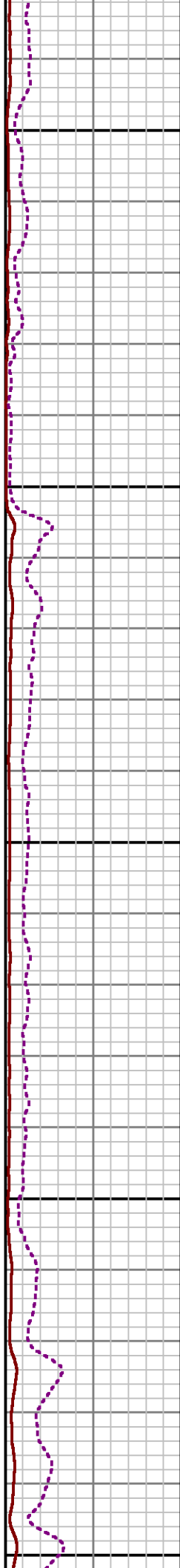
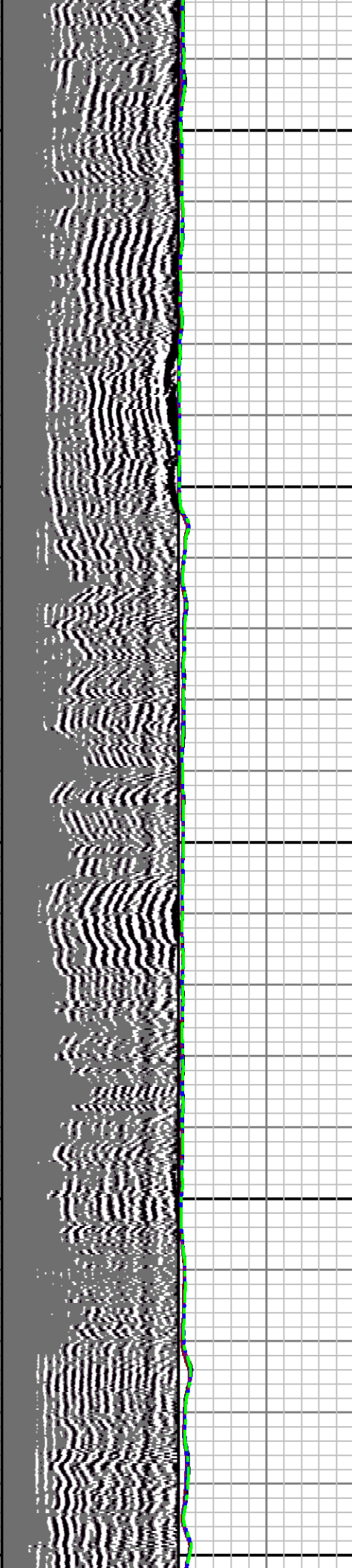




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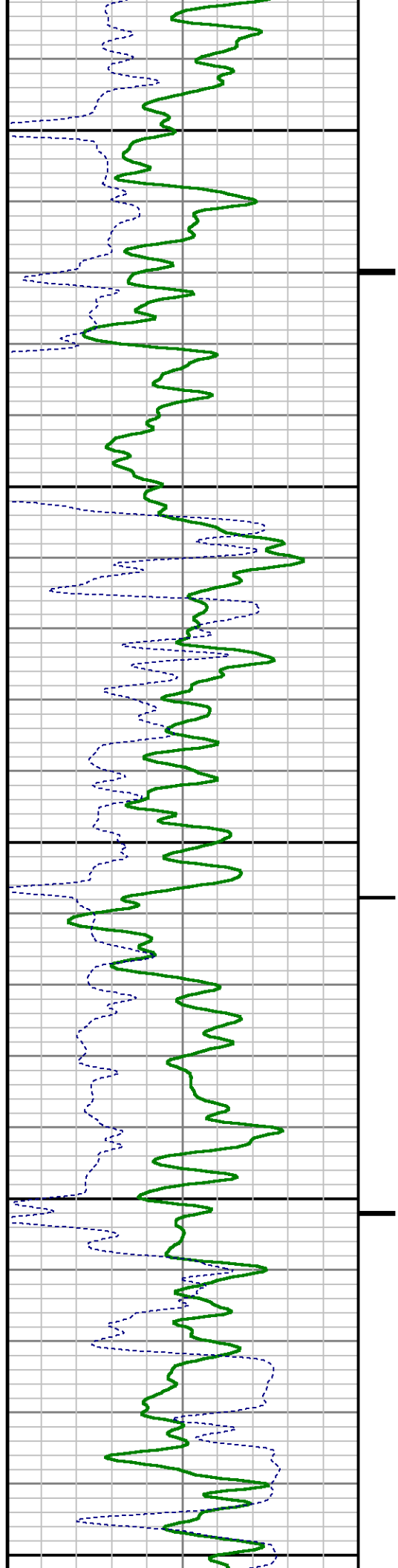


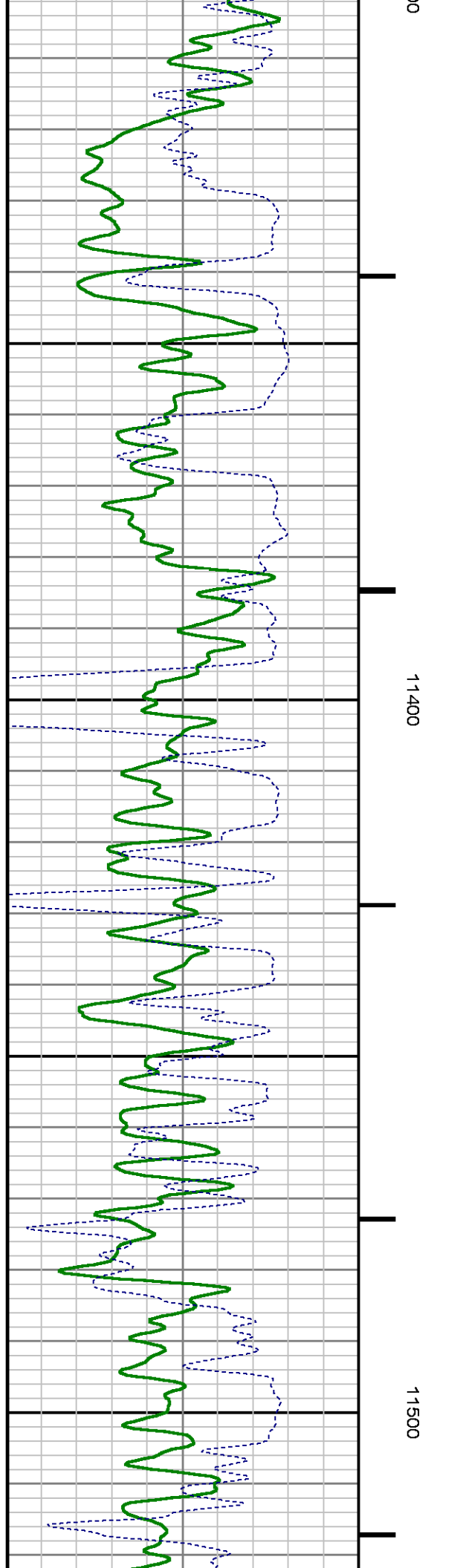
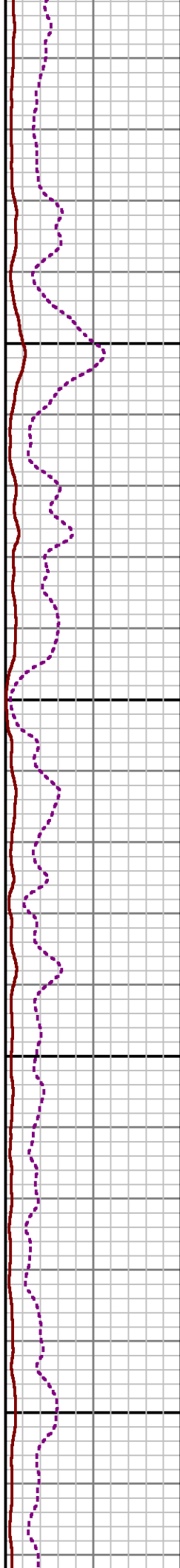
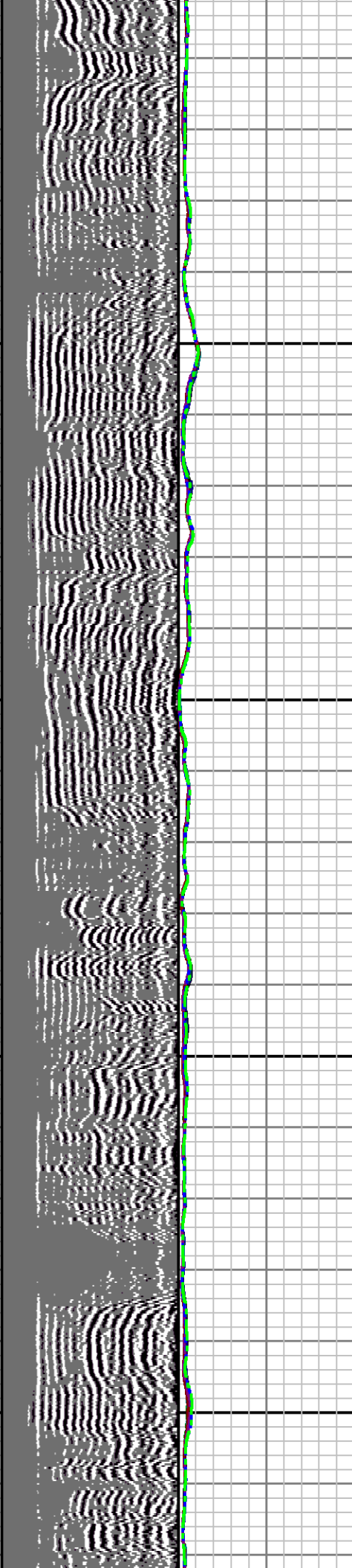


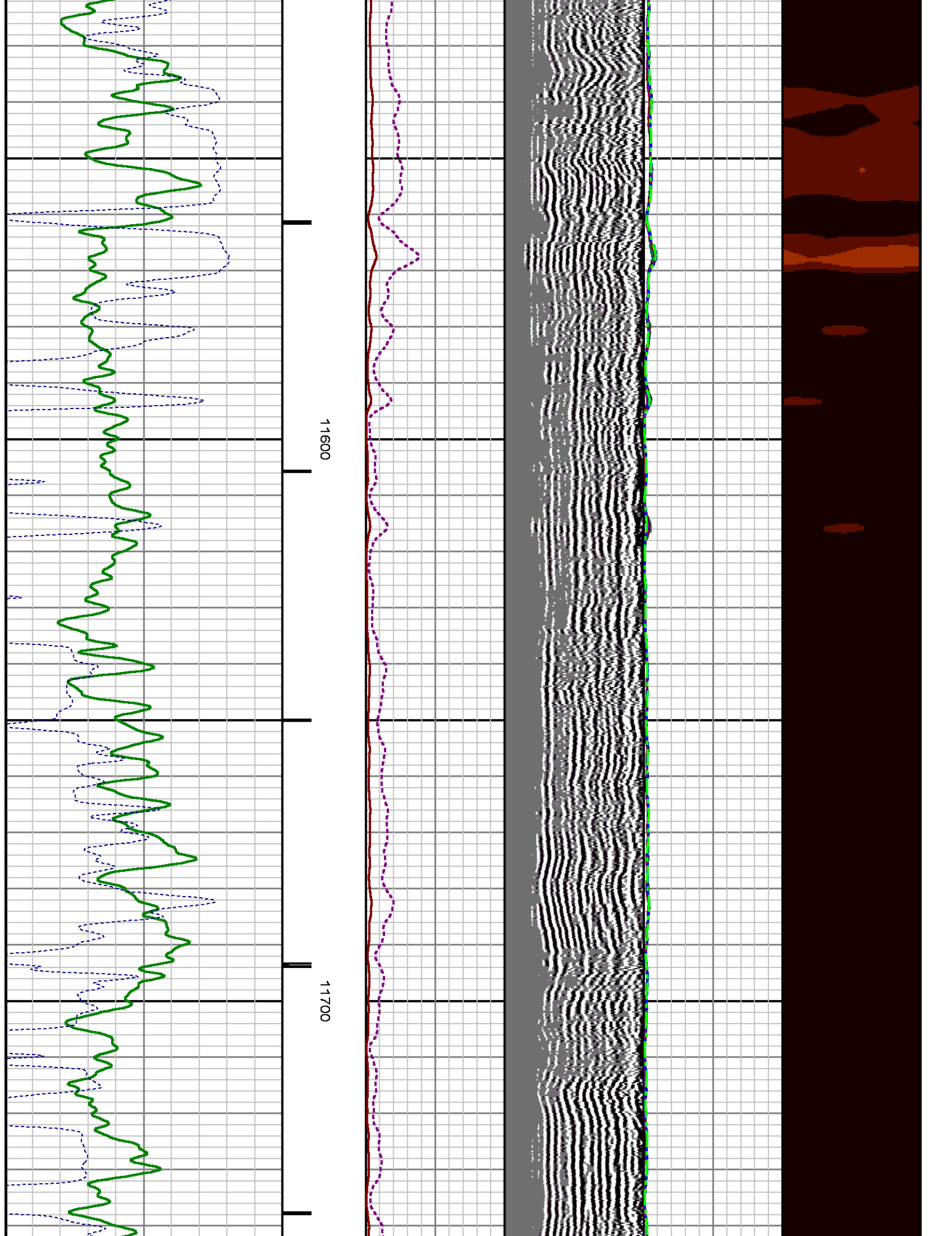
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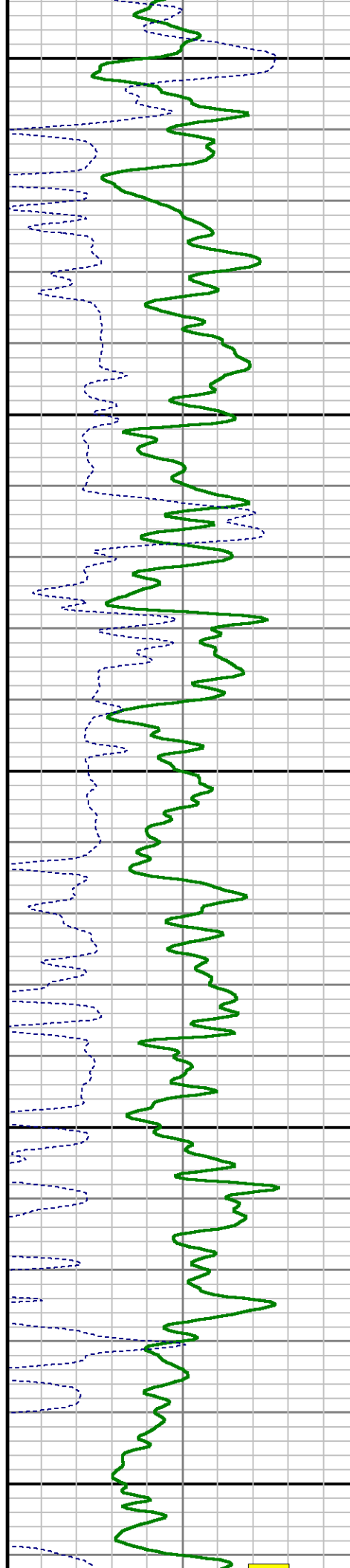
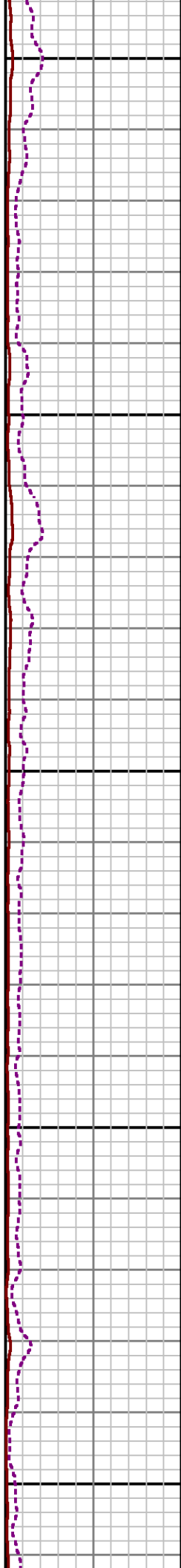
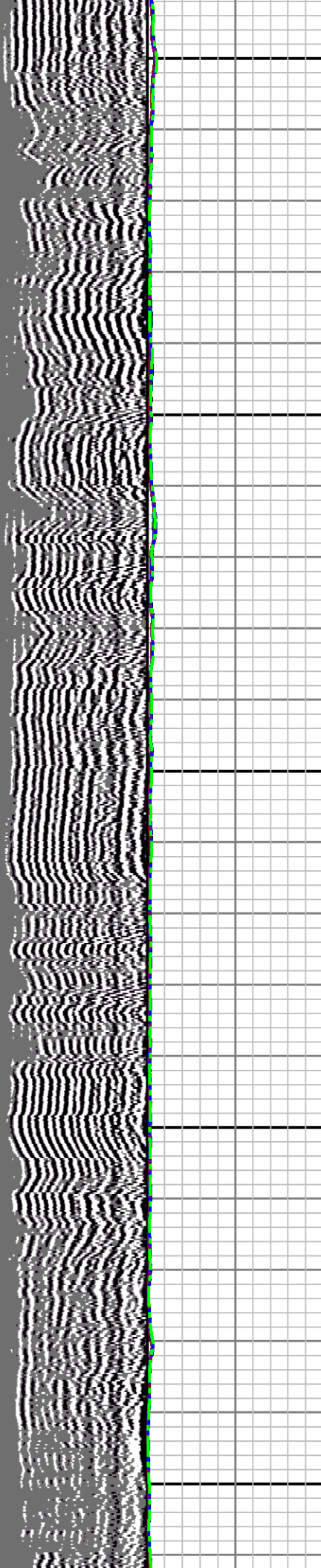
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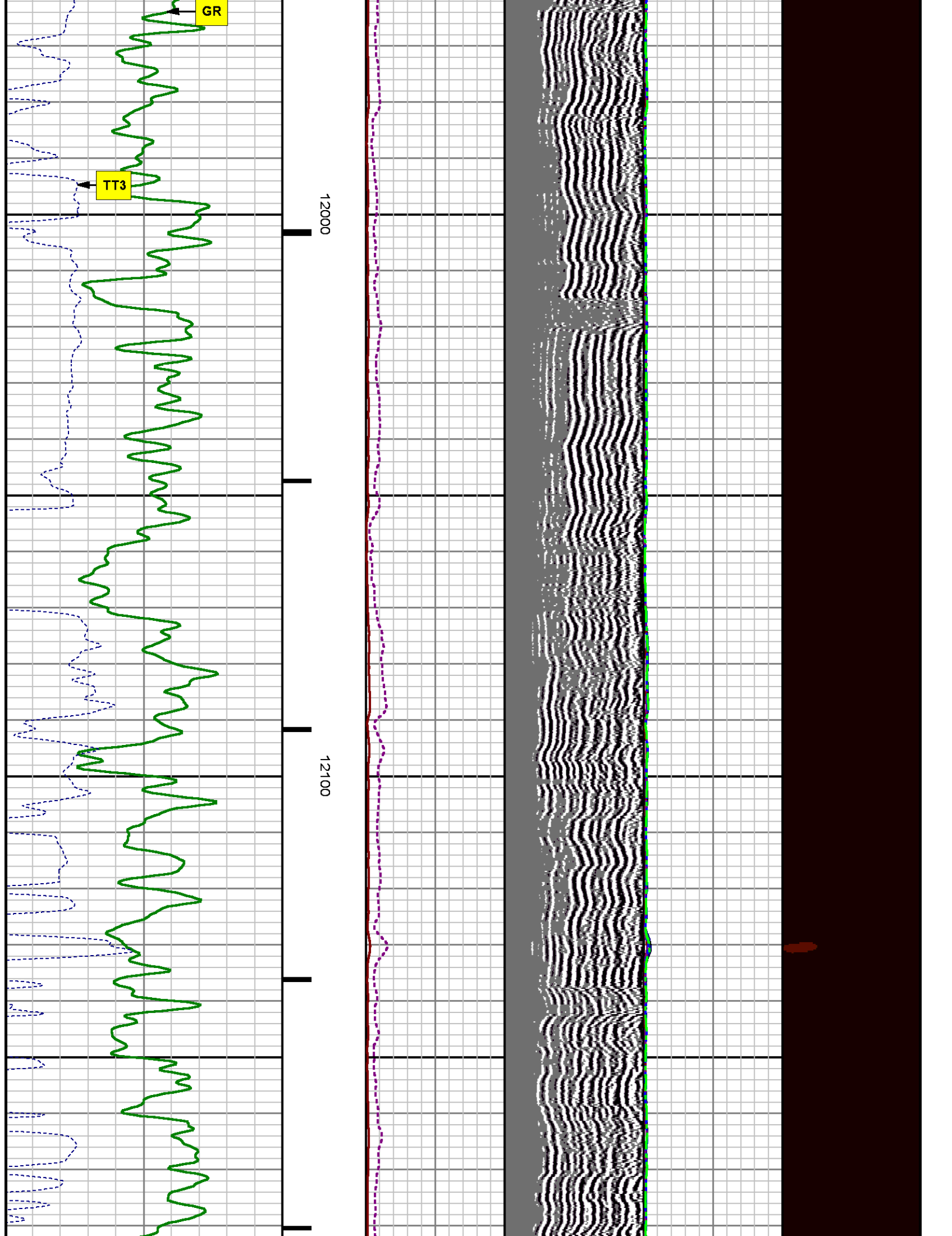


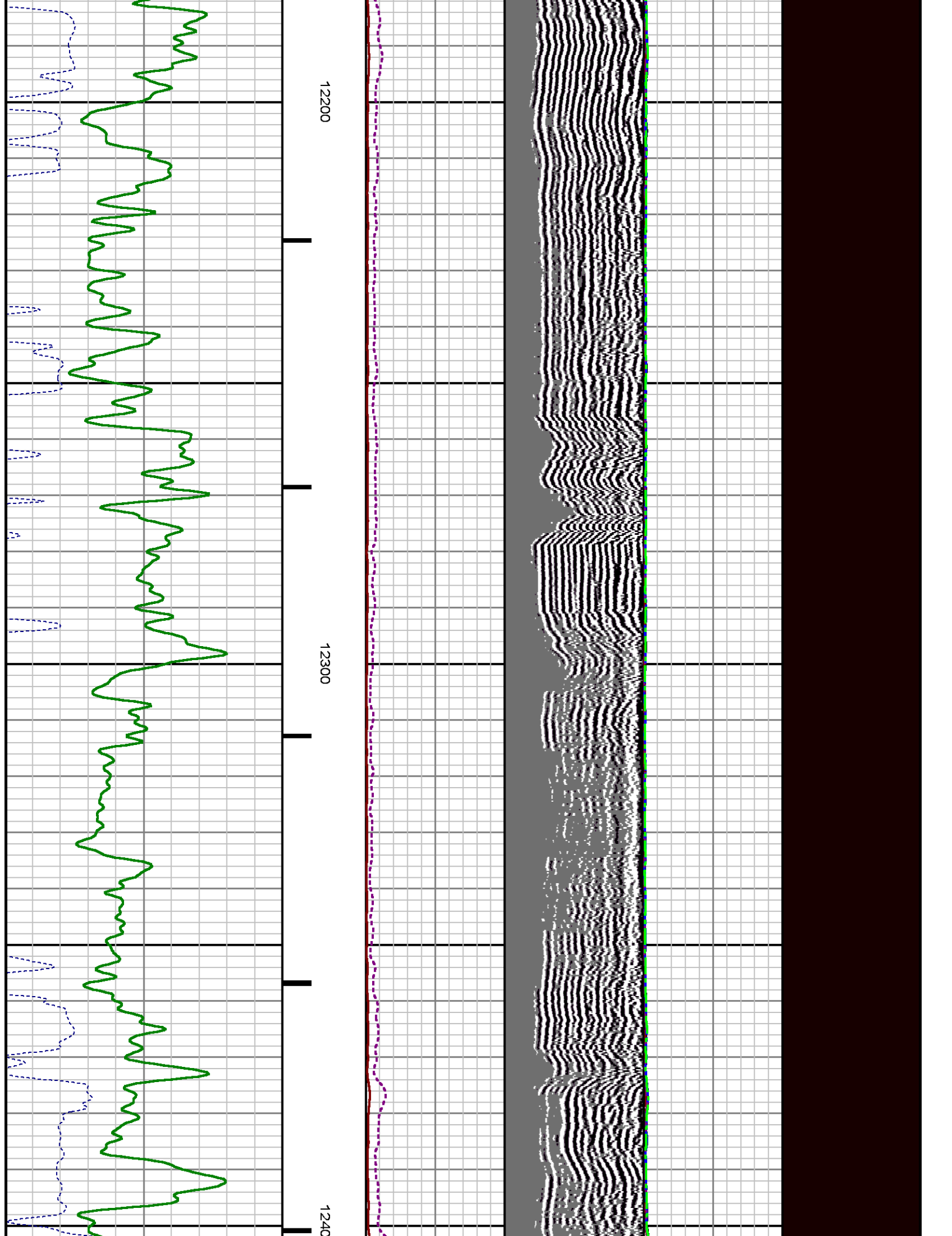


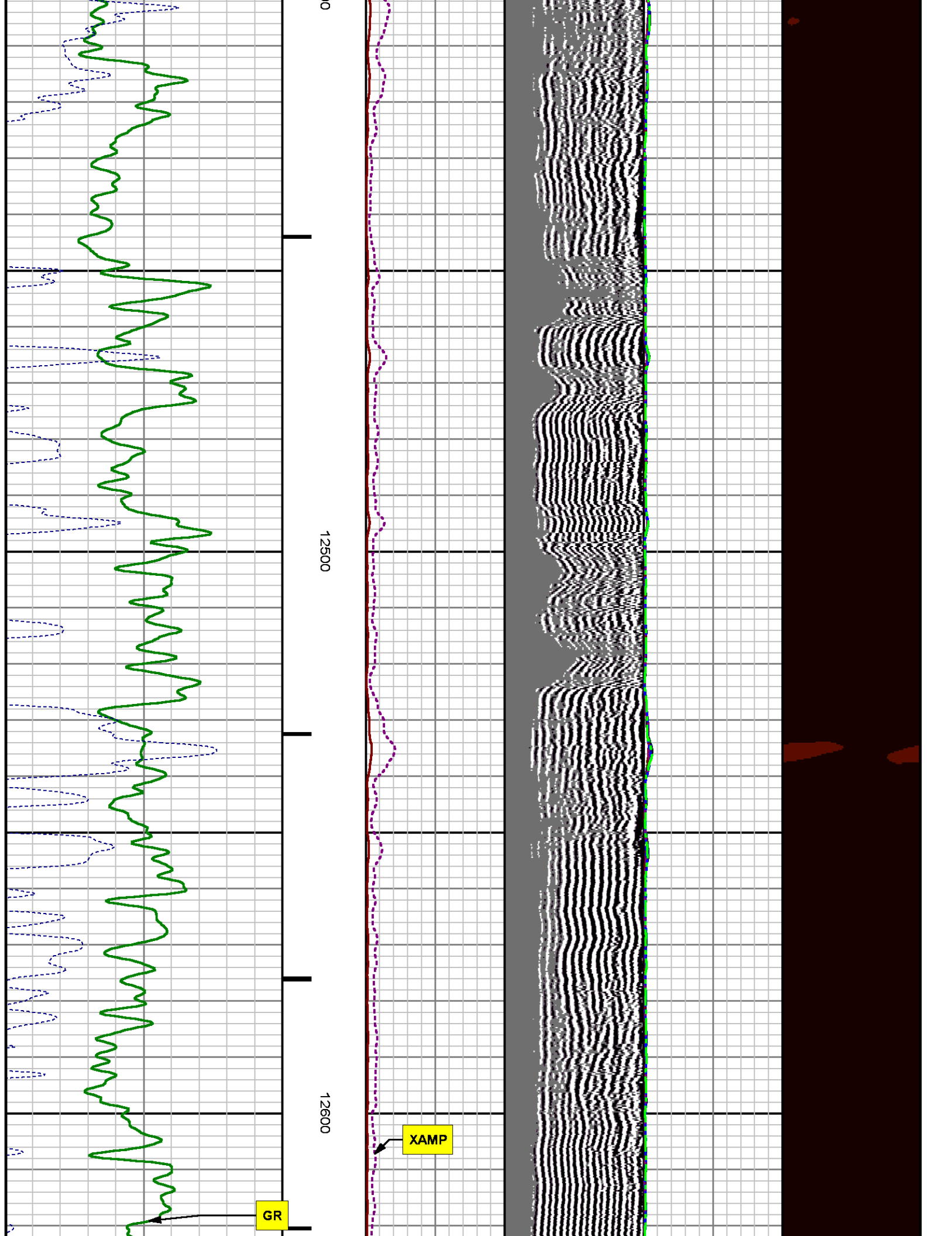


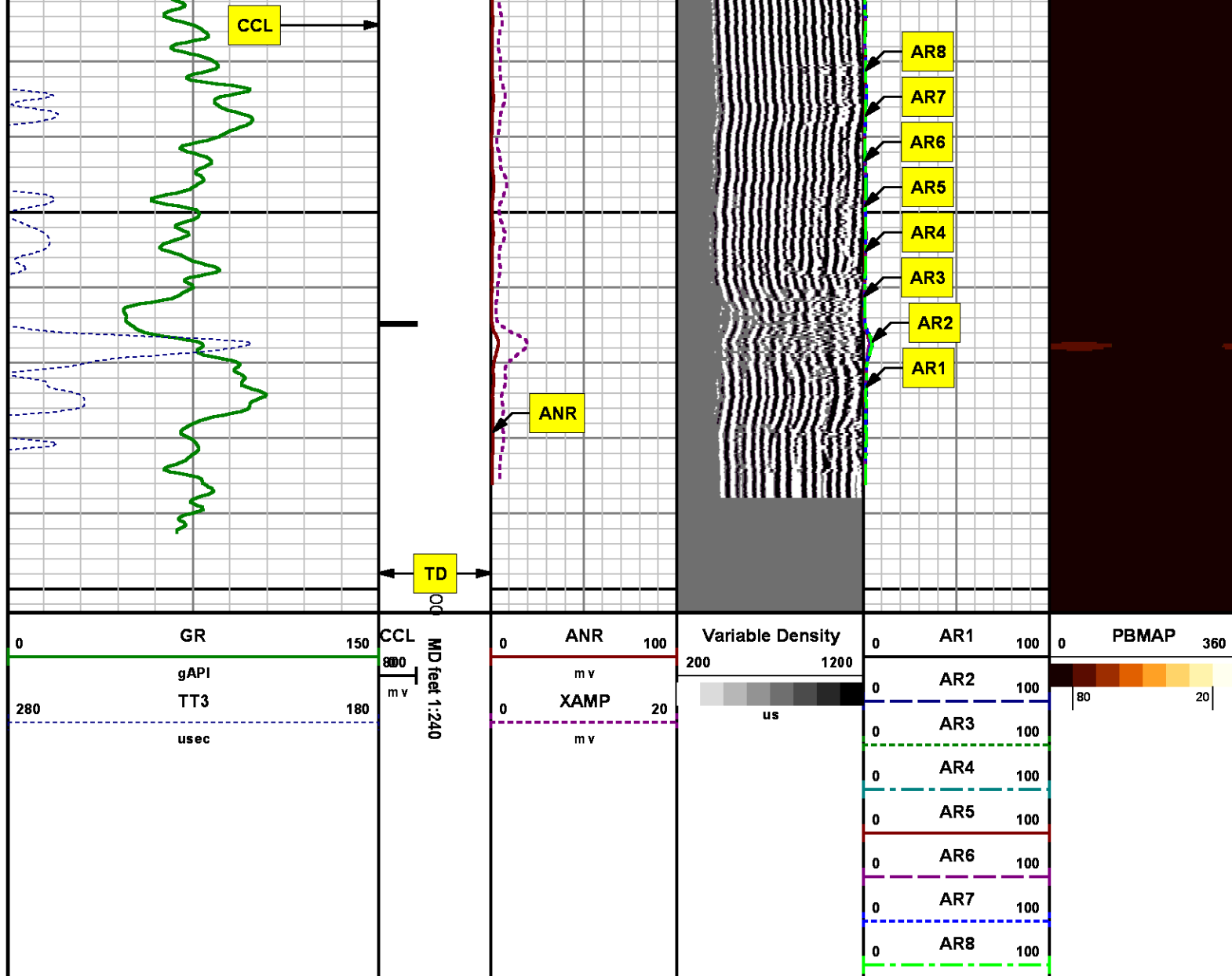












*REPEAT SECTION  
0 PSI*

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	12383.530	12702.530
RAL	Amp Gate Start Near	195.000	usec	12383.530	12702.530
RAL	Amp Gate Start Radial	195.000	usec	12383.530	12702.530

RAL	Amp Gate Width Far	25.000	usec	12383.530	12702.530
RAL	Amp Gate Width Near	25.000	usec	12383.530	12702.530
RAL	Amp Gate Width Radial	25.000	usec	12383.530	12702.530
RAL	casing od	4.500	inches	12383.530	12702.530
RAL	casing wt	11.600	lbm/ft	12383.530	12702.530
RAL	FB Start Far	291.900	usec	12383.530	12702.530
RAL	FB Start Near	180.000	usec	12383.530	12702.530
RAL	FB Start Radial	180.000	usec	12383.530	12702.530
RAL	FB Thresh Far	10.000	mv	12383.530	12702.530
RAL	FB Thresh Near	4.000	mv	12383.530	12702.530
RAL	FB Thresh Radial	4.000	mv	12383.530	12702.530
RAL	Fluid Travel Time	200.000	usec/ft	12383.530	12703.029

## DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

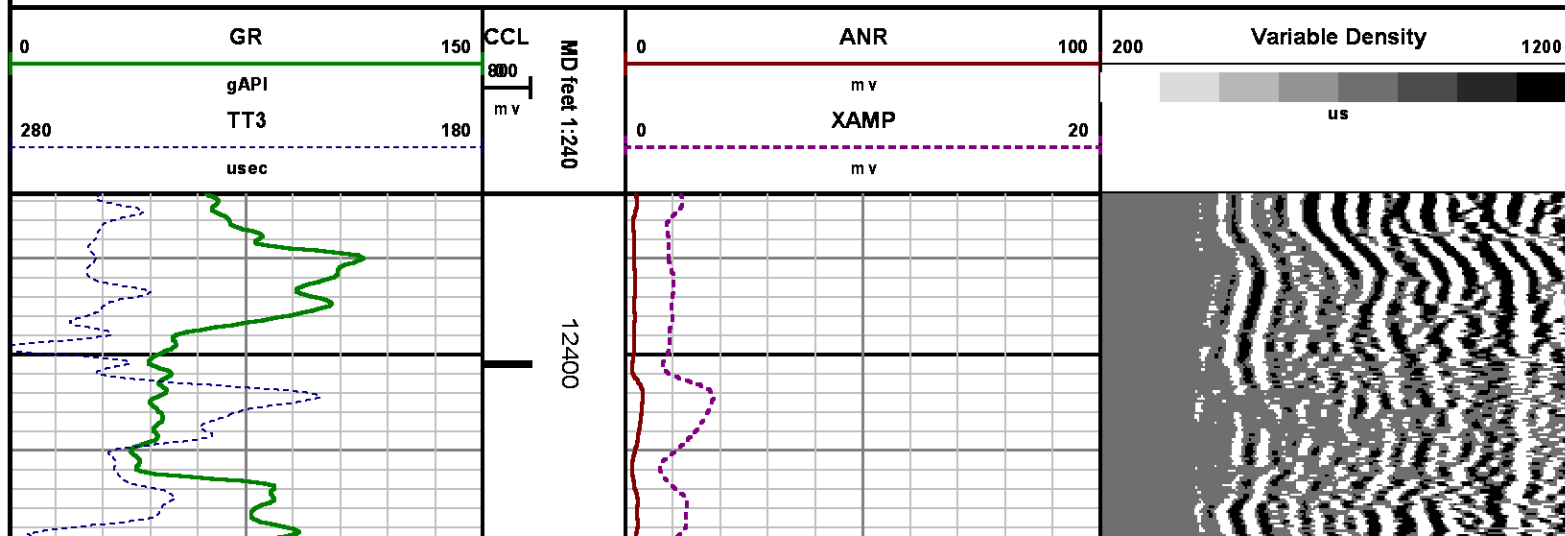
Well : FEDERAL RGU 533-24-198

File Name : d:\welldata\wpx\rgu 533-24-198\533ralrepeat.xtf

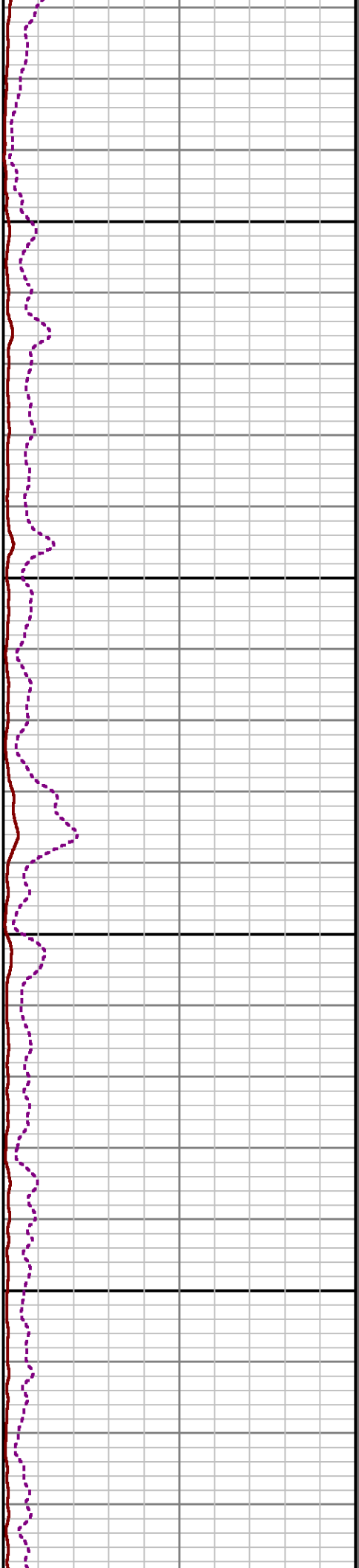
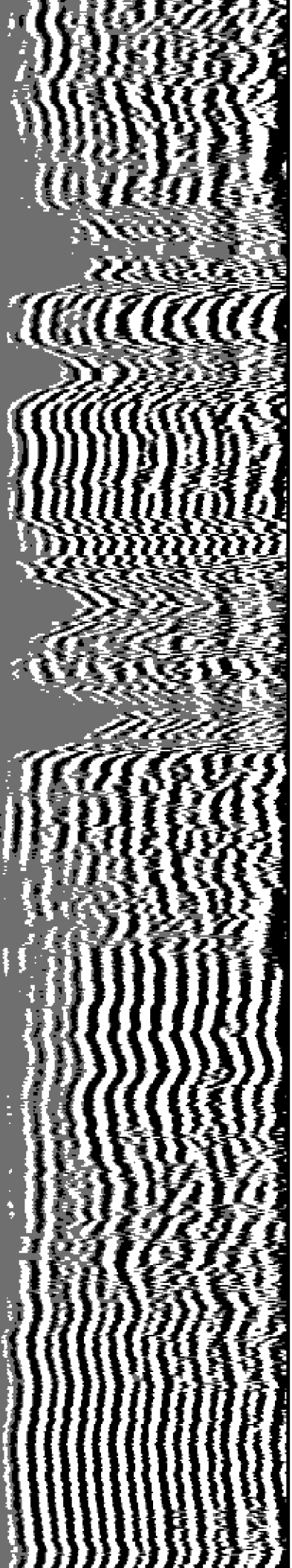
Mode : PlotMgr 5.4.504

Interval : 12383.28 - 12703.03 feet UP

Created : 5/18/2014 12:45:29 PM

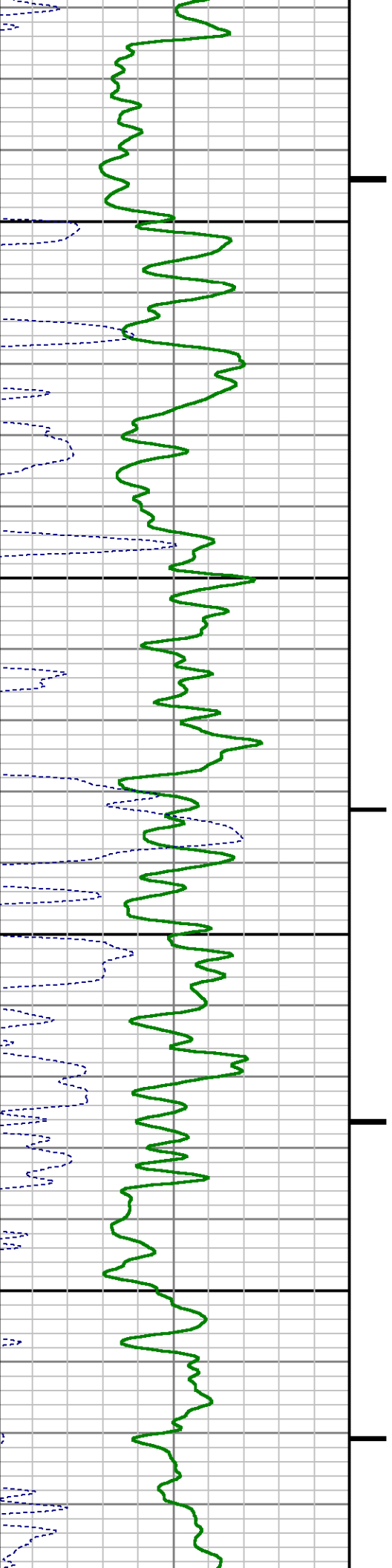


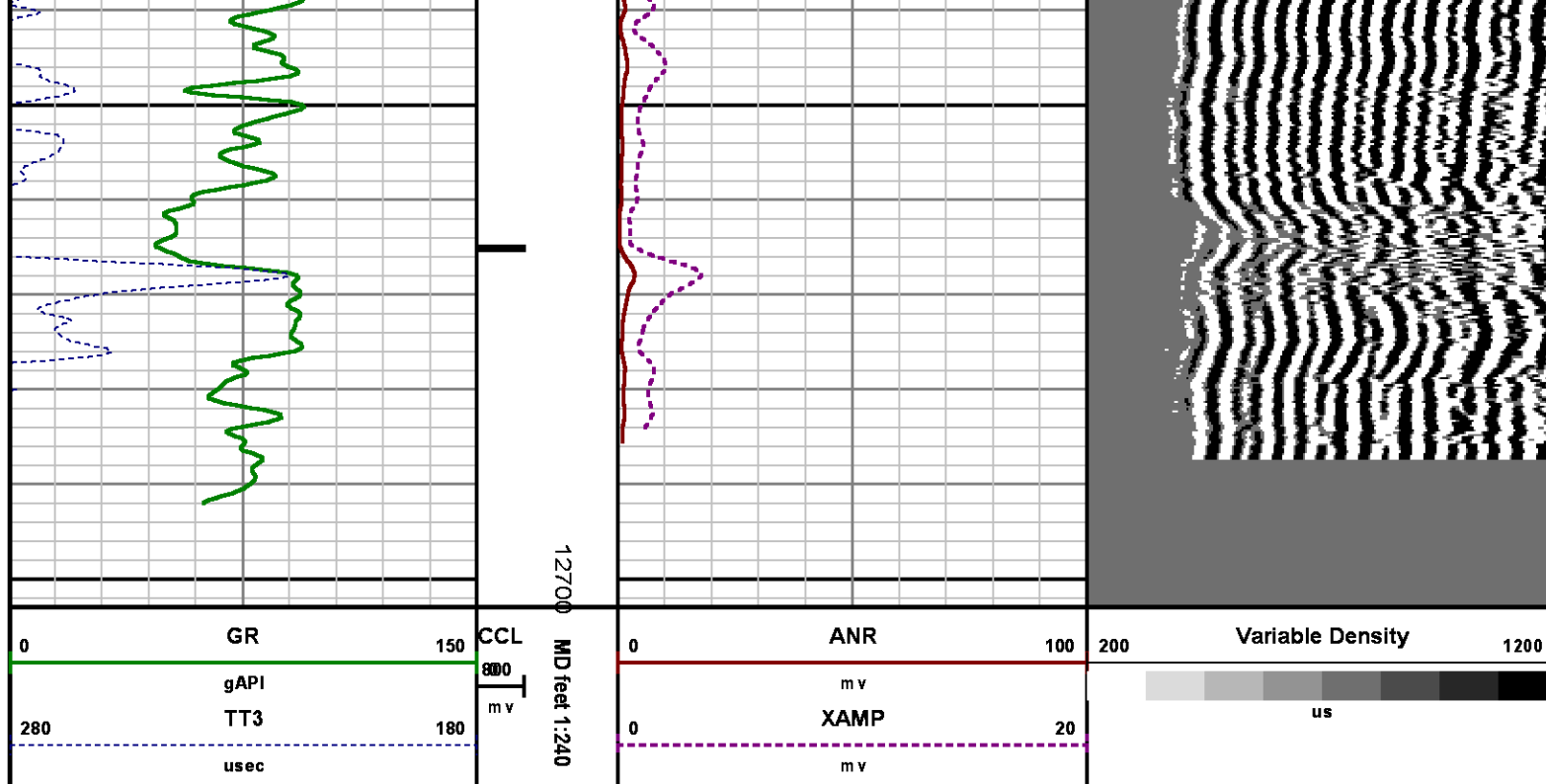




12500

12600





## CALIBRATION SUMMARY

*RALSHP*

Shop Calibration: C:\case\calver\RALSHP496M18\_shp.cal

### SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun May 18 12:34:10 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: M18

Tool Delay [u sec] -53.00 Tank OD in 5.50 Tank Wt lbm/ft 15.50 Tank ID in 4.95

RECEIVER	Travel Time [u sec]	Amp. Gate Start [u sec]	Amp. Gate Width [u sec]	Zero Gate Start [u sec]	Zero Gate Width [u sec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	217	216	30	166	25	-0.041	100.00	0.32
3 Ft. Receiver	217	216	30	166	25	1.527	100.00	0.32
5 Ft. Receiver	326	332	30	282	25	2.594	150.00	0.36
Radial #1	217	216	30	166	25	1.138	100.00	0.32
Radial #2	217	216	30	166	25	0.788	100.00	0.32
Radial #3	217	216	30	166	25	0.742	100.00	0.32
Radial #4	217	216	30	166	25	1.292	100.00	0.32
Radial #5	217	216	30	166	25	1.467	100.00	0.32
Radial #6	217	216	30	166	25	1.278	100.00	0.32
Radial #7	216	216	30	166	25	0.391	100.00	0.32

Radial #8	217	216	30	166	25	0.998	100.00	0.32
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# RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496M18\_fid.cal

## WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun May 18 12:36:37 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: M18

Tool Delay [usec]	-53.00	Casing OD in	4.50	Casing Wt lbm/ft	11.60	Casing ID in	4.00
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RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	166	25	0.014	0.000	1.00	100.000
3 Ft. Receiver	195	25	2.335			
5 Ft. Receiver	305	25	3.099			
Radial #1	195	25	1.514			
Radial #2	195	25	1.558			
Radial #3	195	25	1.742			
Radial #4	195	25	1.786			
Radial #5	195	25	2.125			
Radial #6	195	25	2.185			
Radial #7	195	25	1.774			
Radial #8	195	25	1.675			

# GAMMA RAY

Calibration File: C:\case\calver\GR\45608.cal

## CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu May 08 09:48:12 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: 08

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	97.82	367.47	0.686	67.11	252.11	185.00

Verification File: C:\case\calver\GR\45608.VP

## PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Thu May 08 09:49:43 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: 08

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	98.76	372.44	0.686	67.76	255.53	187.77

# TOOL DIAGRAM

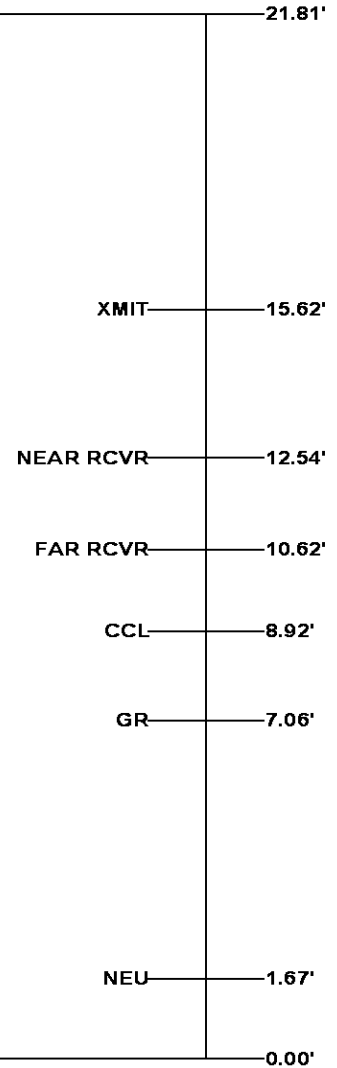
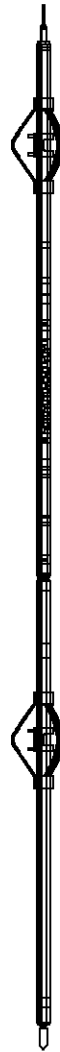
## OTA SHORT CABLE HEAD

## PROBE 2 3/4 DUAL RECEIVER RADII

**Series** 1426XA  
**Mnemonic** PROB  
**Diameter** 2.75"  
**Length** 11.17'  
     **Measure Point** 0.75' FAR RCVR  
     **Measure Point** 2.67' NEAR RCVR  
     **Measure Point** 5.75' XMIT  
**Temp Rating** 350.00 °F  
**Press Rating** 18000.00 PSI

## Probe GR/CCL/NEU

**Series** 2459XA  
**Mnemonic** PROB  
**Diameter** 2.75"  
**Length** 9.42'  
     **Measure Point** 1.21' NEU  
     **Measure Point** 6.60' GR  
     **Measure Point** 8.46' CCL



**Total Length: 21.81'**  
**Total Weight: Not Available**  
**Max Diameter: 0' 2.75"**



Baker Atlas

CASE

## Company

WPX ENERGY

## Well

FEDERAL RGU 533-24-198

## Field

SULPHUR CREEK

## County

RIO BLANCO

## State

COLORADO

## Location

SHL: 2173' FSL & 1715' FEL

BHL: 2526' FSL & 1796' FEL

## Elevations

KB 6617 ft

DF

GL 6596 ft

## File No:

CH086323

## API No:

05103120810000

24 1S 98W

RGU 33-24-198 PAD

CYCLONE 29

SEC 24 TWP 1S RGE 98W

