



# RADIAL ANALYSIS BOND LOG

Baker Atlas

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

CH087682 **Well** **FEDERAL RGU 523-24-198**

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

05103120790000 **County** **RIO BLANCO** **State** **COLORADO**

24 1 S 98W **Location** **SHL: 2144' FSL & 1703' FEL**

RGU 33-24-198 PAD **BHL: 1438' FSL & 1905' FWL (NESW)**

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	07/JUL/14	
Run	ONE	
Service Order	US087682J	
Depth Driller	12927 ft	
Depth Logger	12842 ft	
Bottom Logged Interval	12832 ft	
Top Logged Interval	21 ft	
Time Started	1430	
Time Finished	1900	
Operator Rig Time	4.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	88 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	66 fpm	
Maximum Recorded Temperature	280 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	3928 ft
8.75/7.875	3928 ft	12927 ft

Casing Record				
Size	Weight	Grade	From	To
18 in			21 ft	80 ft
9.625 in			21 ft	3928 ft
4.5 in	11.6 lbm/ft	P-110	21 ft	12927 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 12 feet.
Logged with zero PSI at wellhead.
BHT = 280°F

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1428XA	10218496	CENT
1	1	GRICCL	2459XA	10417456	CENT

PRIMARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	26.655	12846.000
RAL	Amp Gate Start Near	195.000	usec	26.655	12846.000
RAL	Amp Gate Start Radial	195.000	usec	26.655	12846.000
RAL	Amp Gate Width Far	25.000	usec	26.655	12846.000
RAL	Amp Gate Width Near	25.000	usec	26.655	12846.000
RAL	Amp Gate Width Radial	25.000	usec	26.655	12846.000
RAL	casing od	4.500	inches	26.655	12846.000
RAL	casing wt	11.600	lbm/ft	26.655	12846.000
RAL	FB Start Far	291.900	usec	26.655	12846.000
RAL	FB Start Near	180.000	usec	26.655	12846.000
RAL	FB Start Radial	180.000	usec	26.655	12846.000
RAL	FB Thresh Far	10.000	mv	26.655	12846.000
RAL	FB Thresh Near	4.000	mv	26.655	12846.000
RAL	FB Thresh Radial	4.000	mv	26.655	12846.000
RAL	Fluid Travel Time	200.000	usec/ft	26.655	12846.000

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	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	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

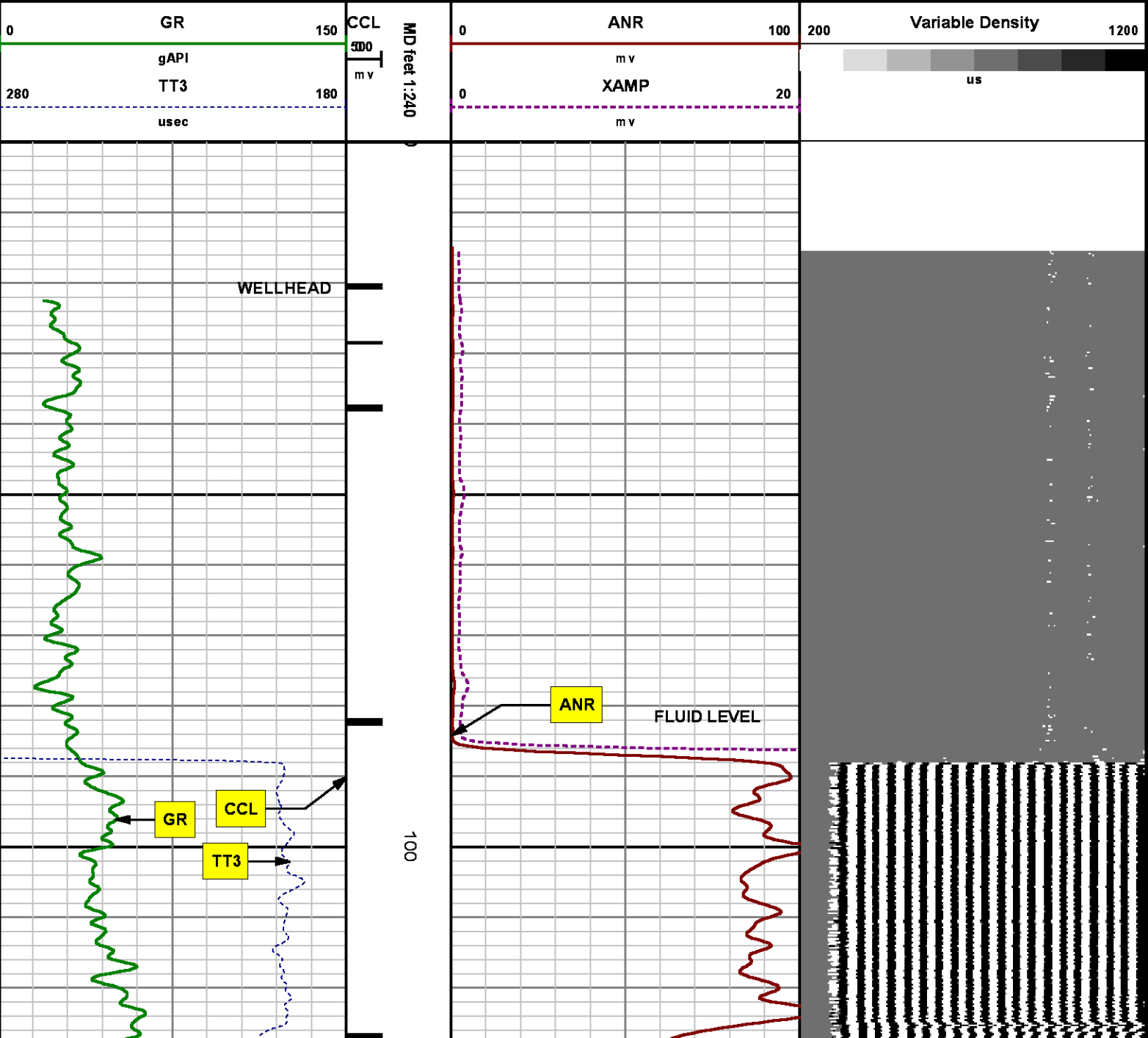
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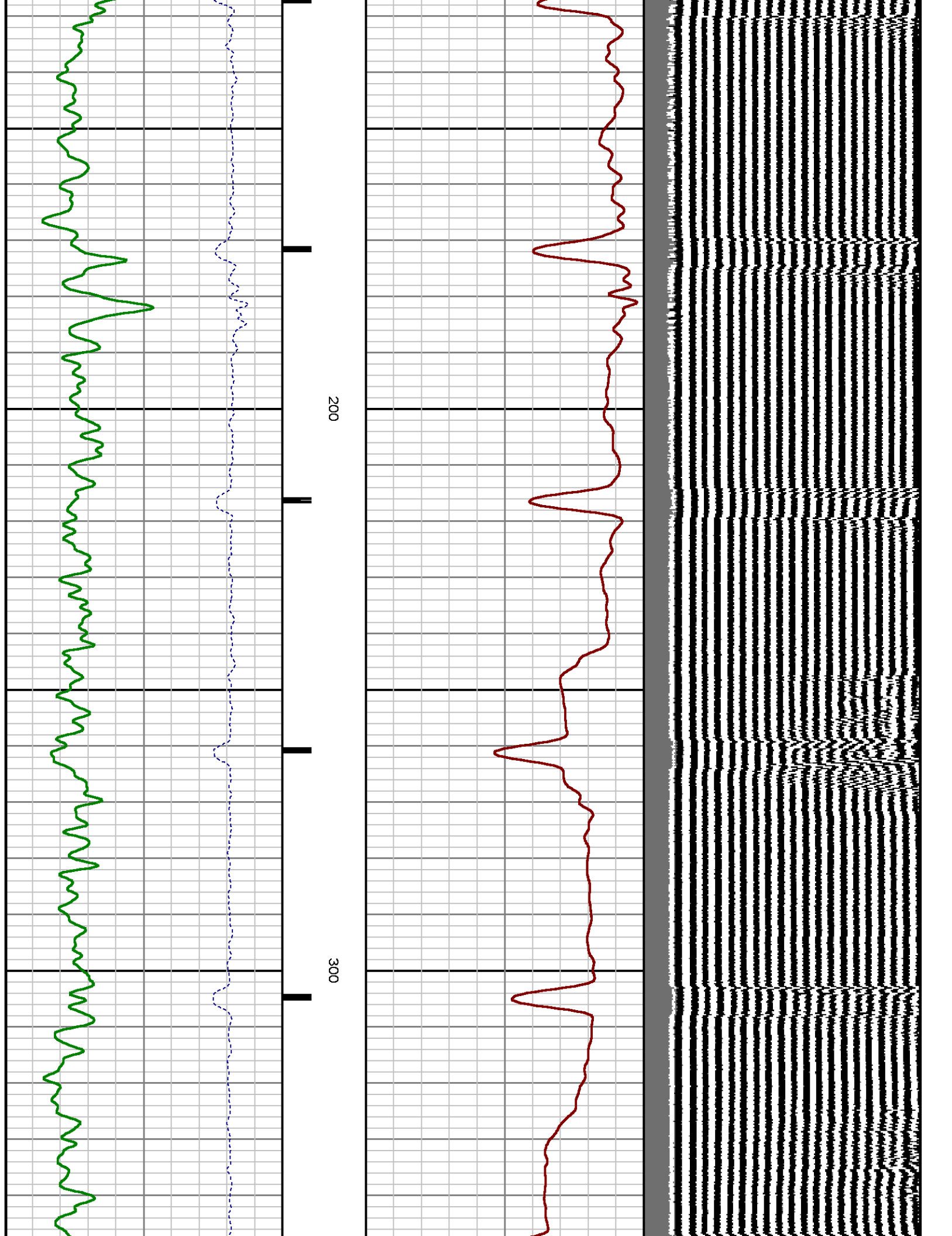
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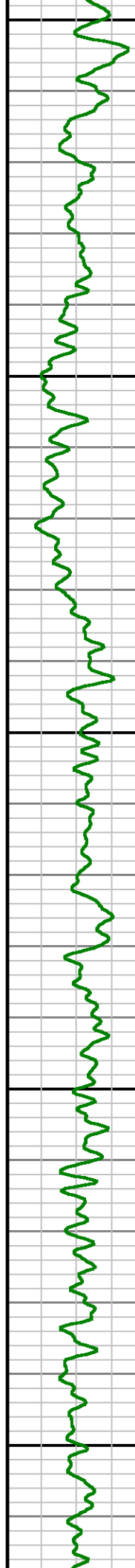
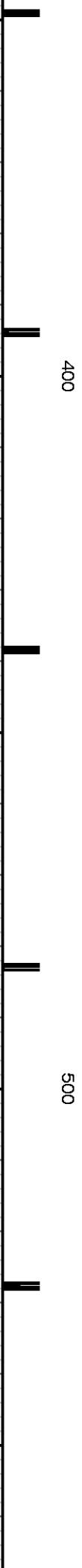
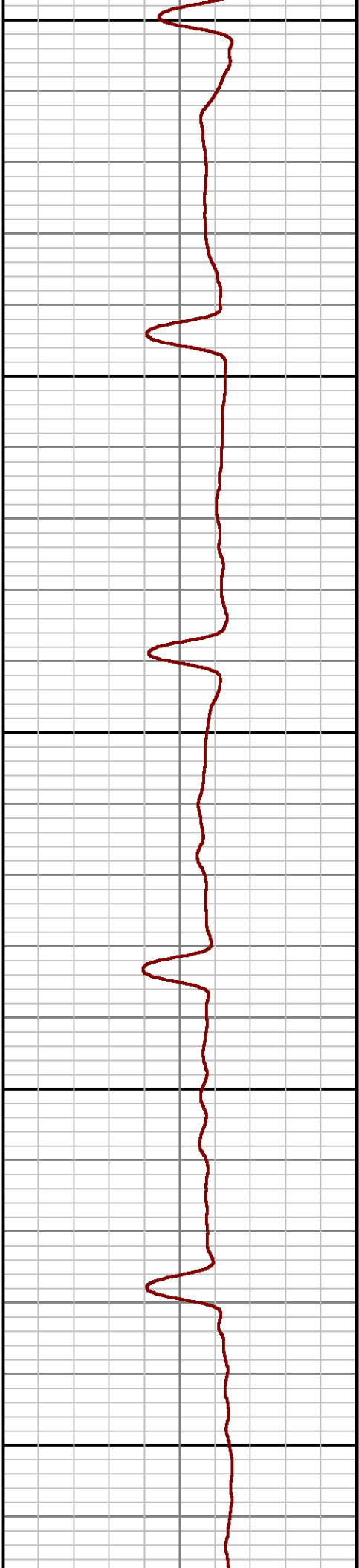
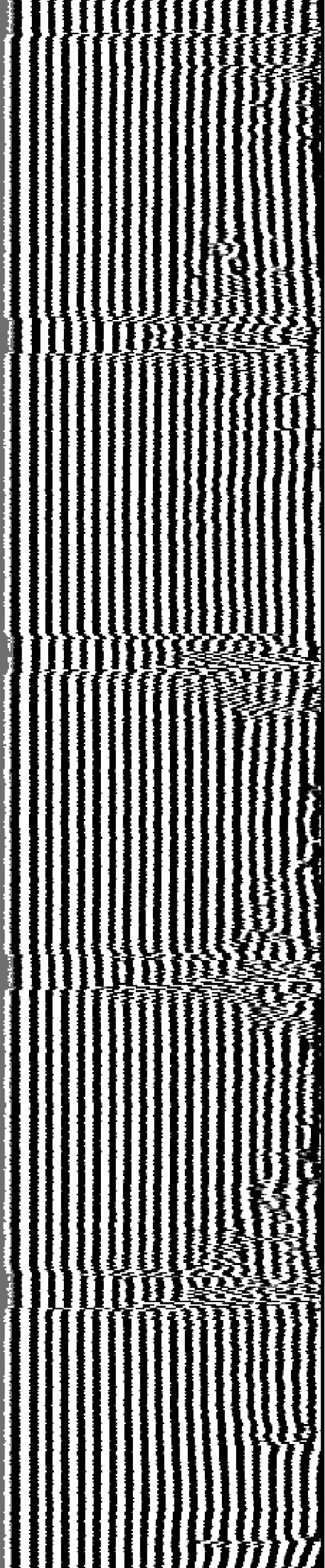
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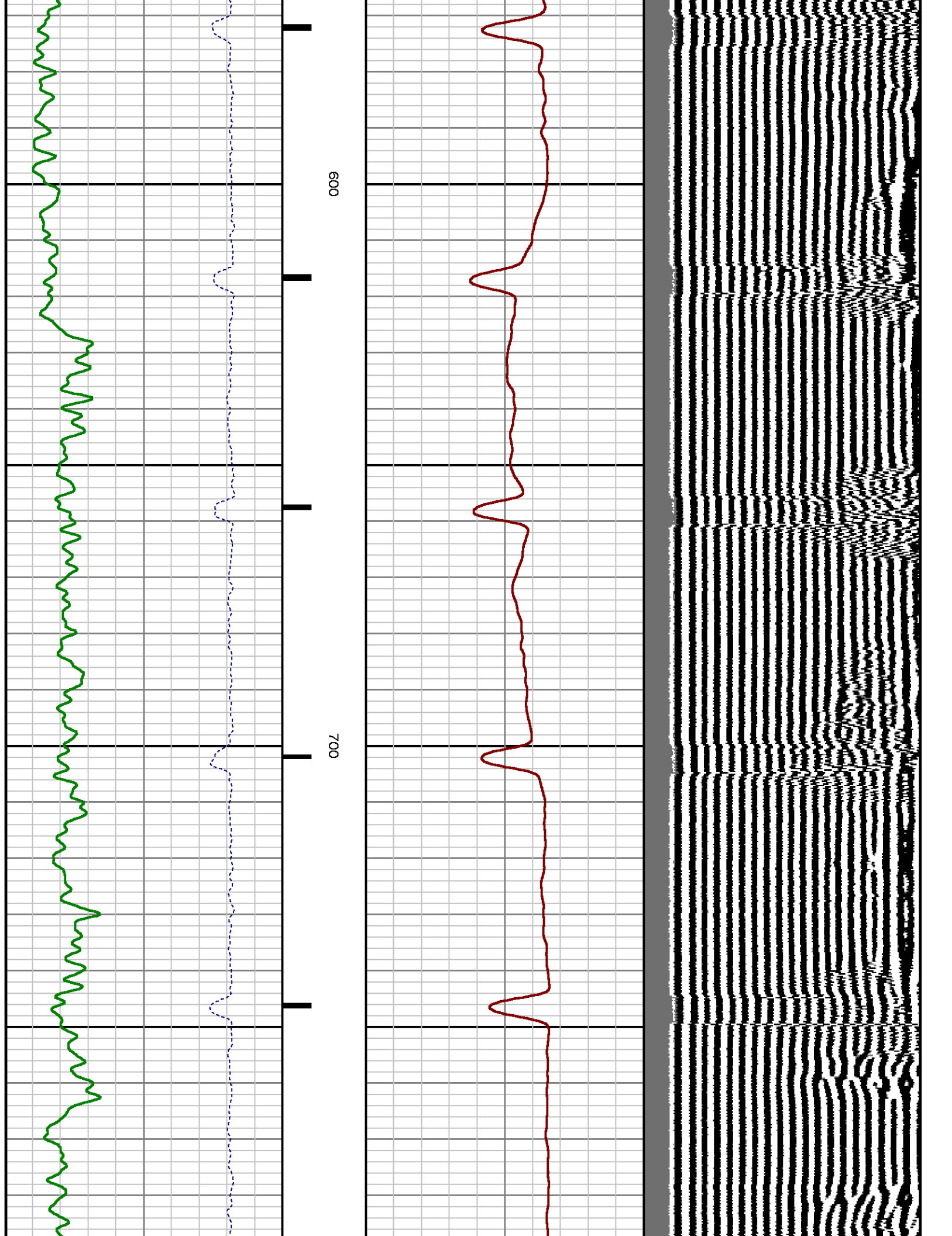
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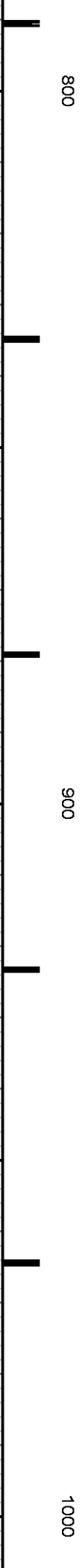
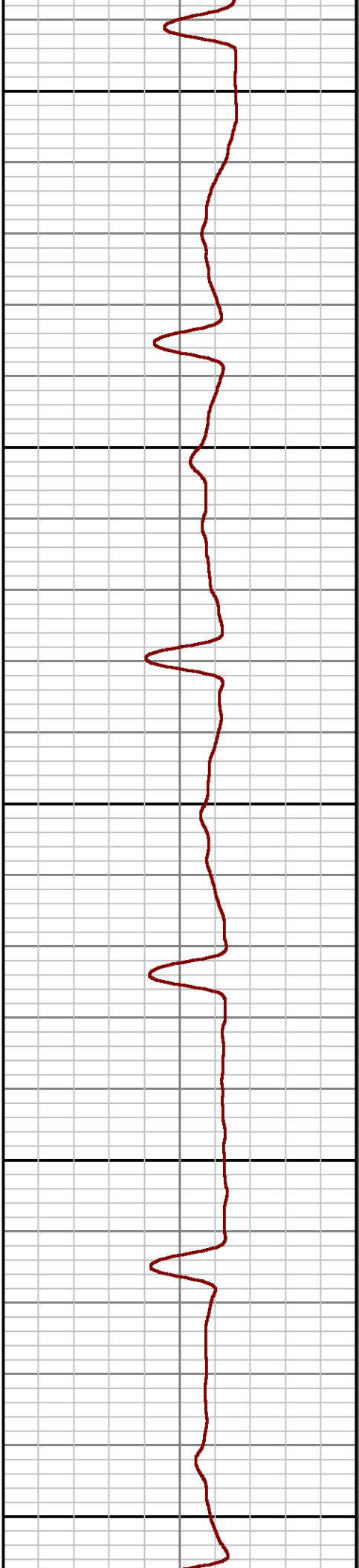
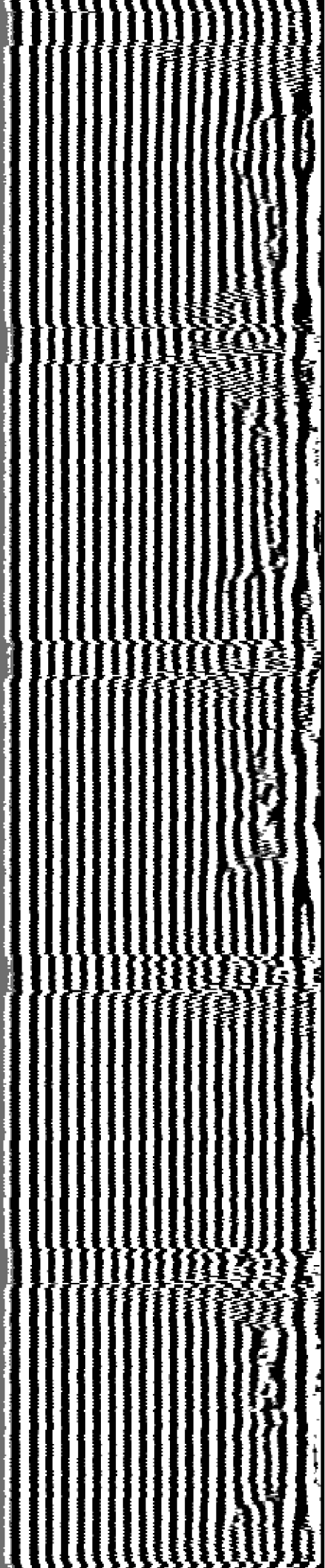


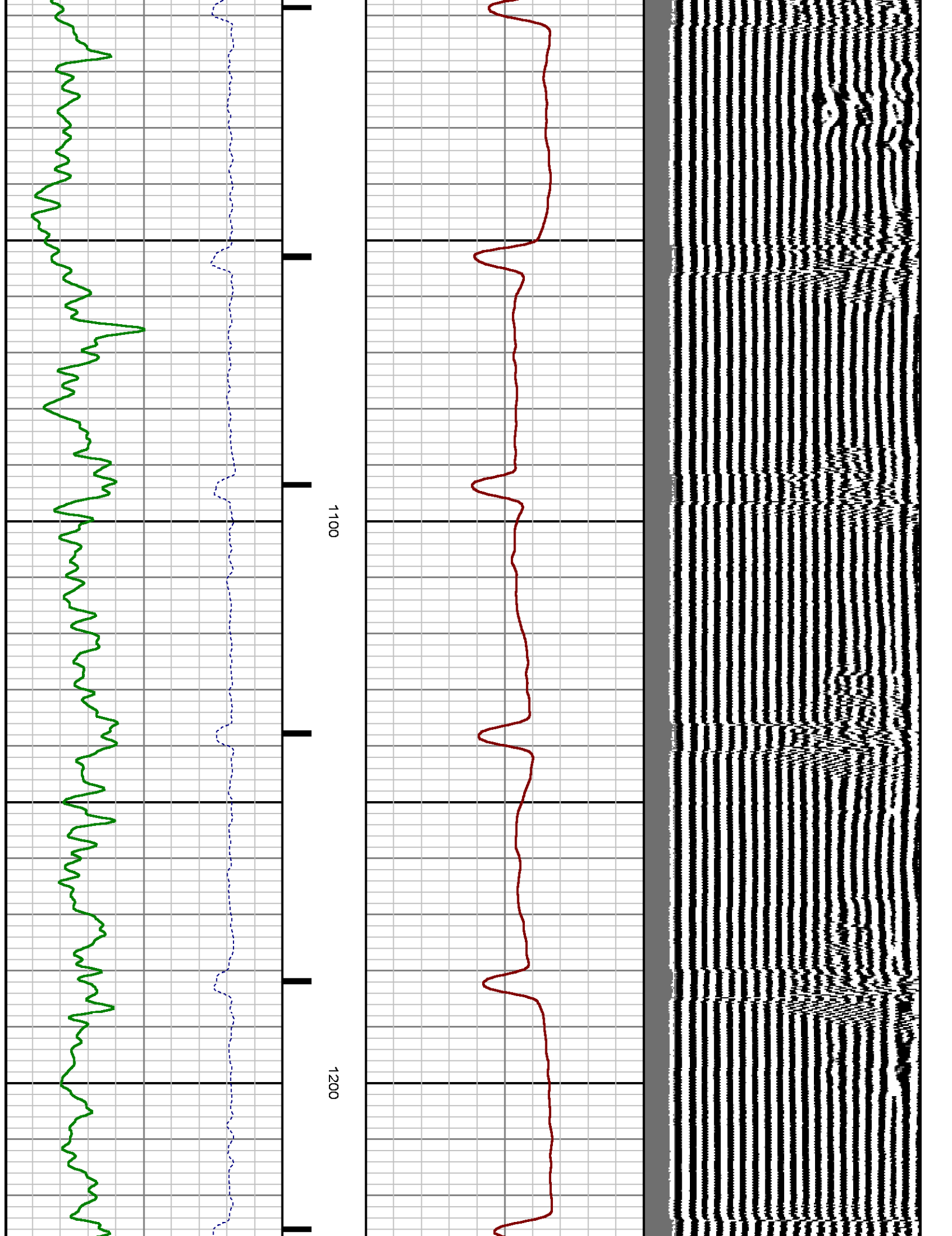


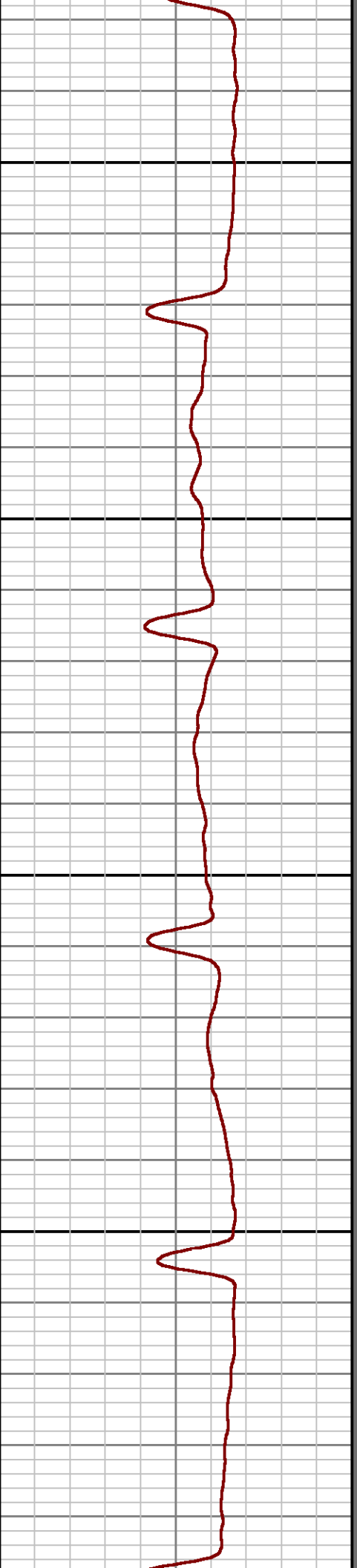
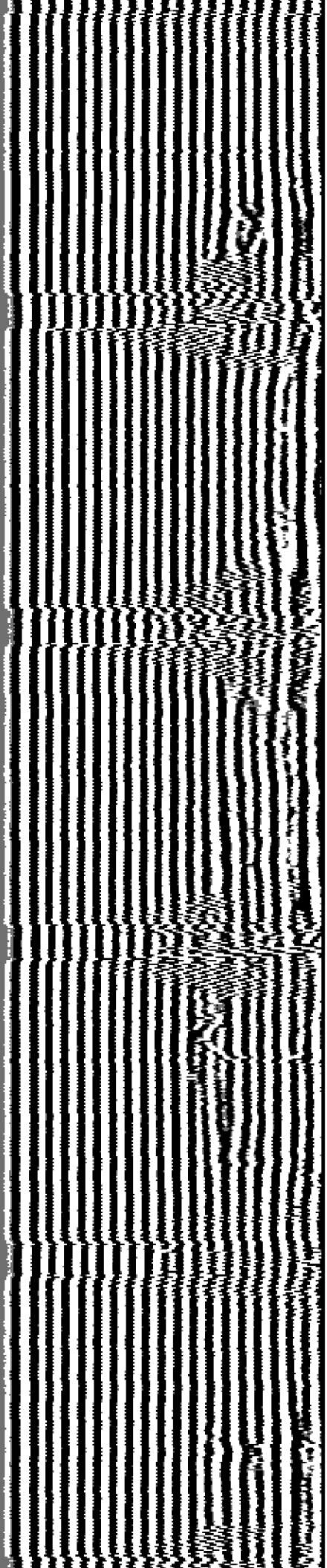






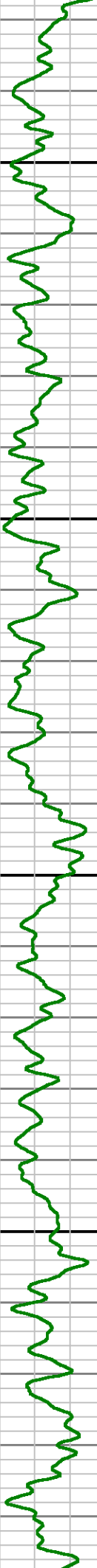
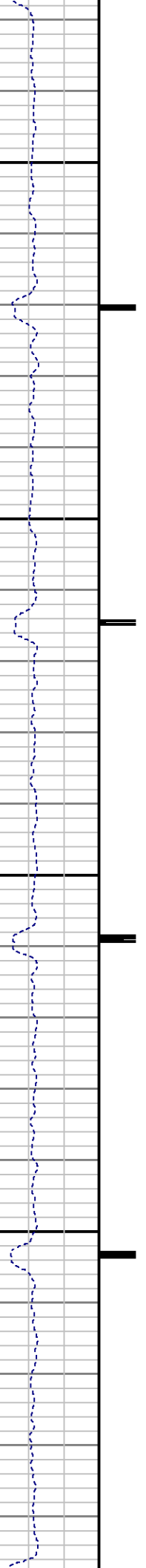


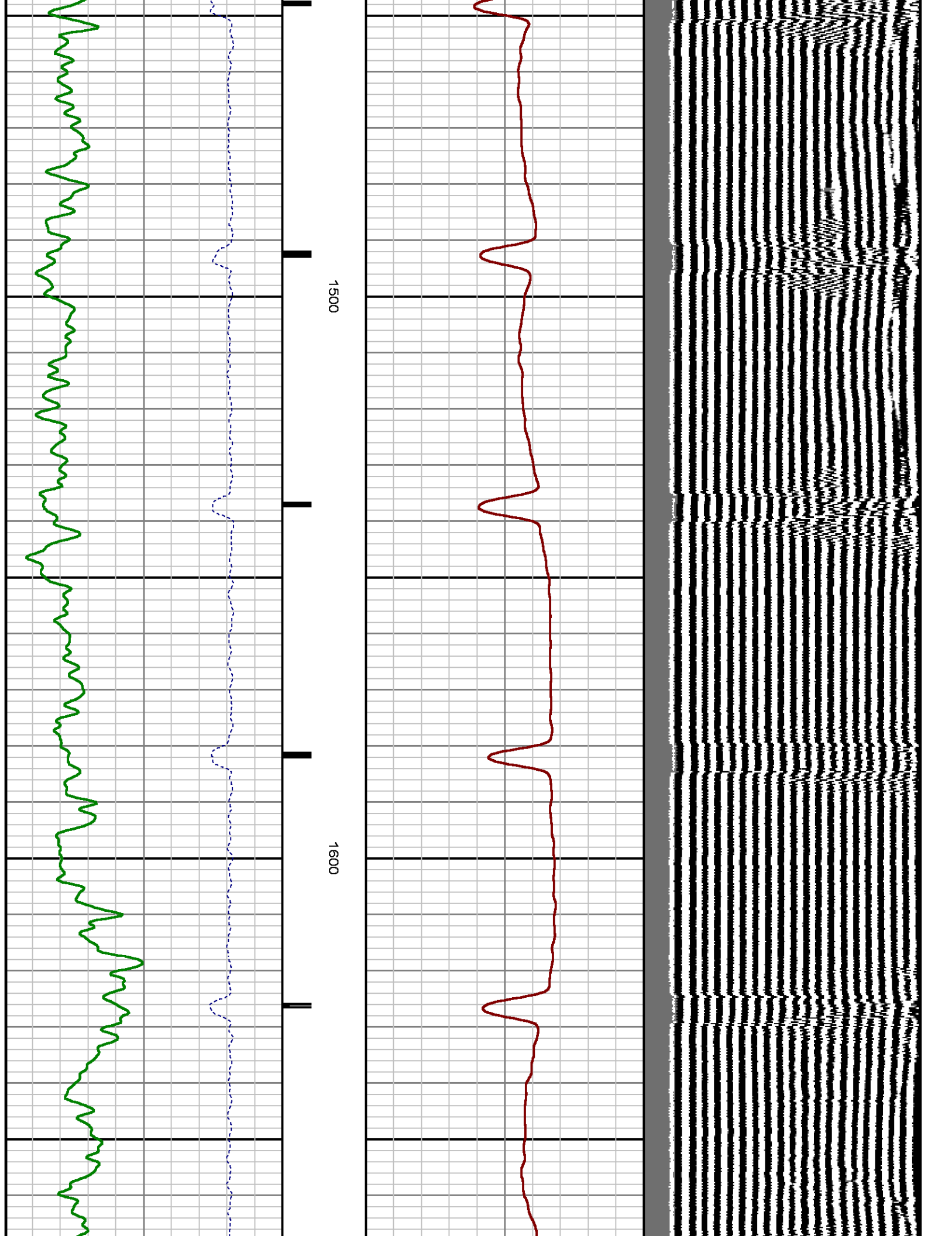




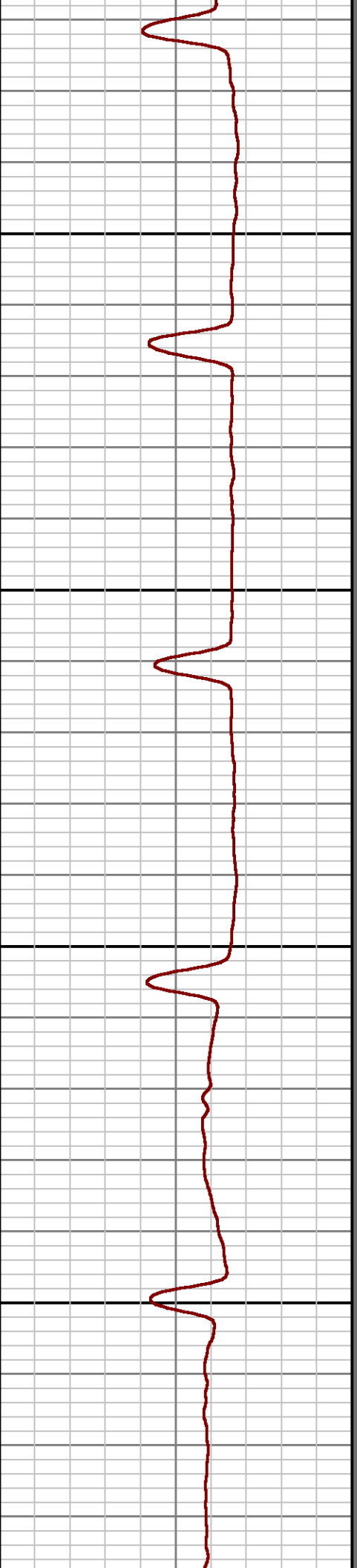
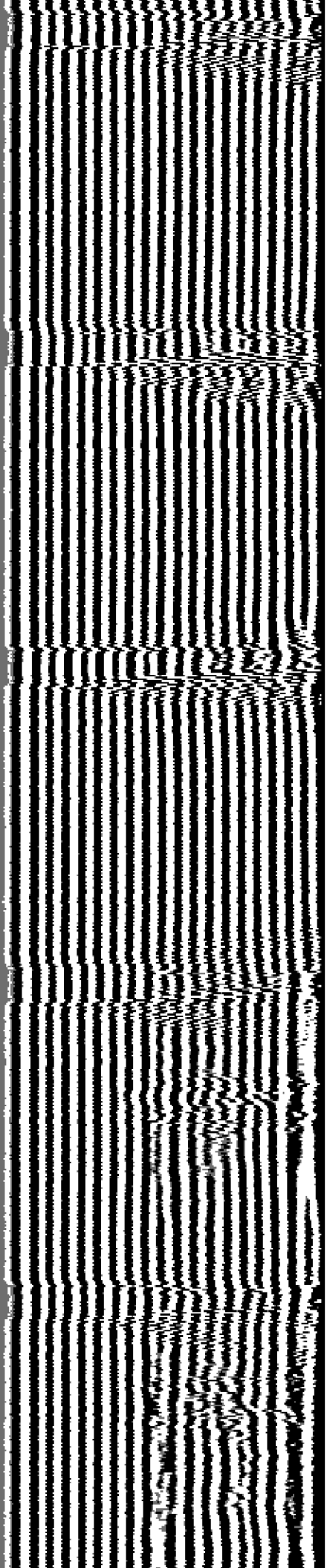
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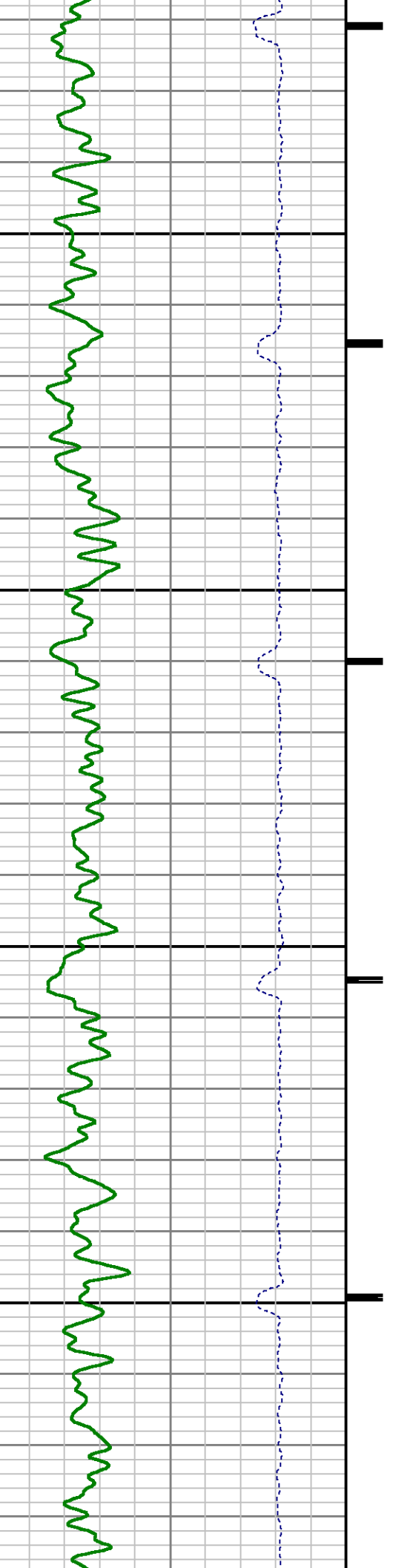


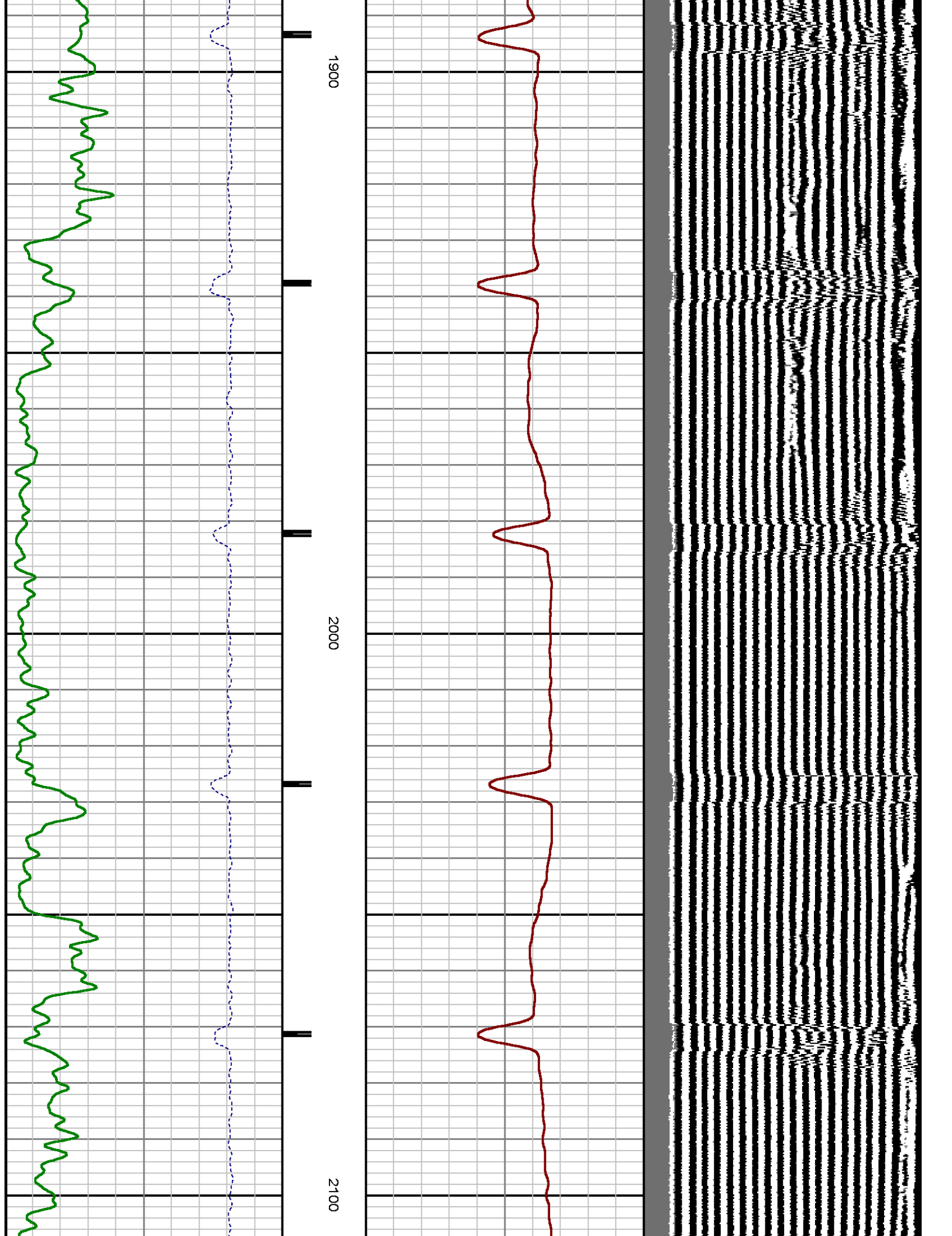




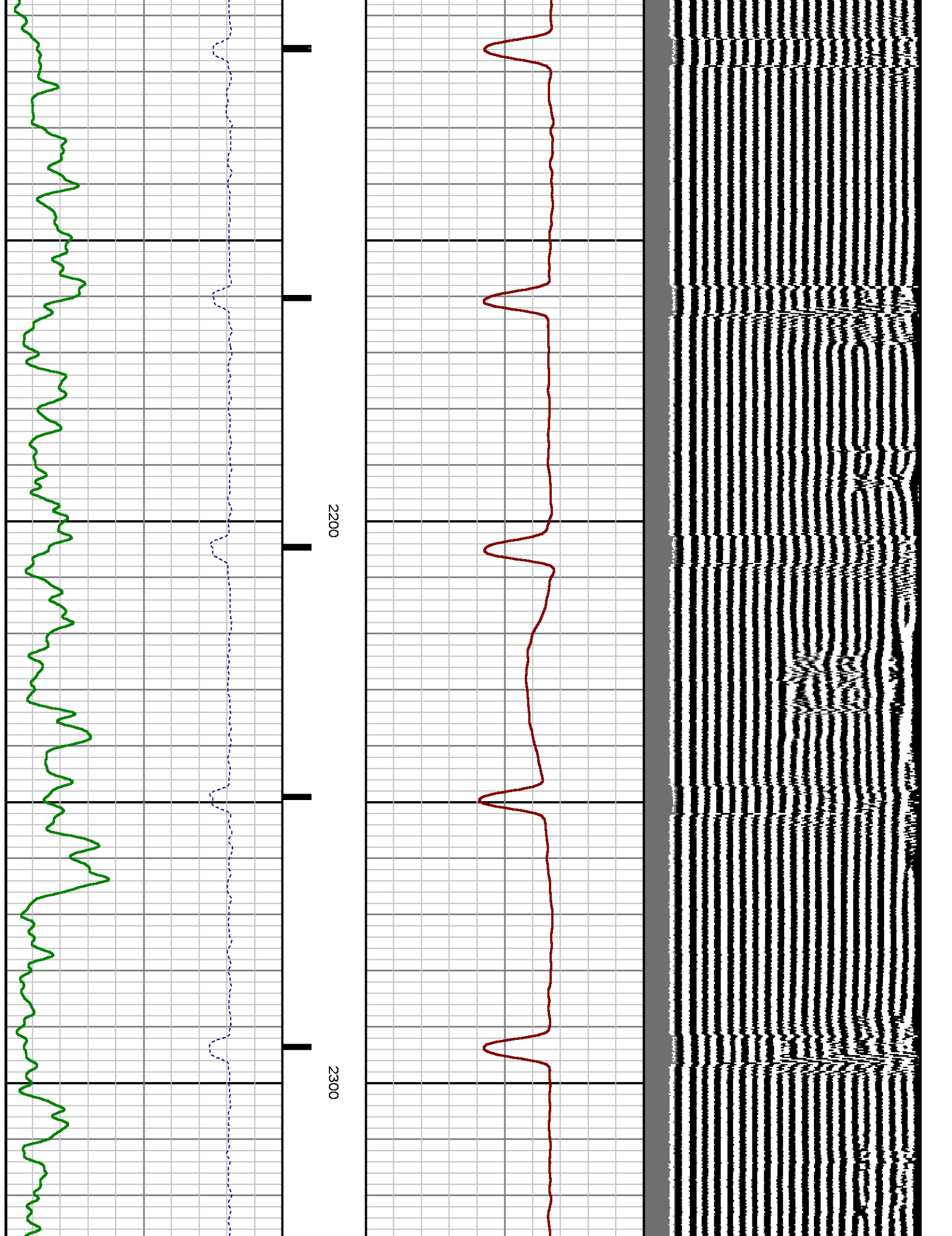
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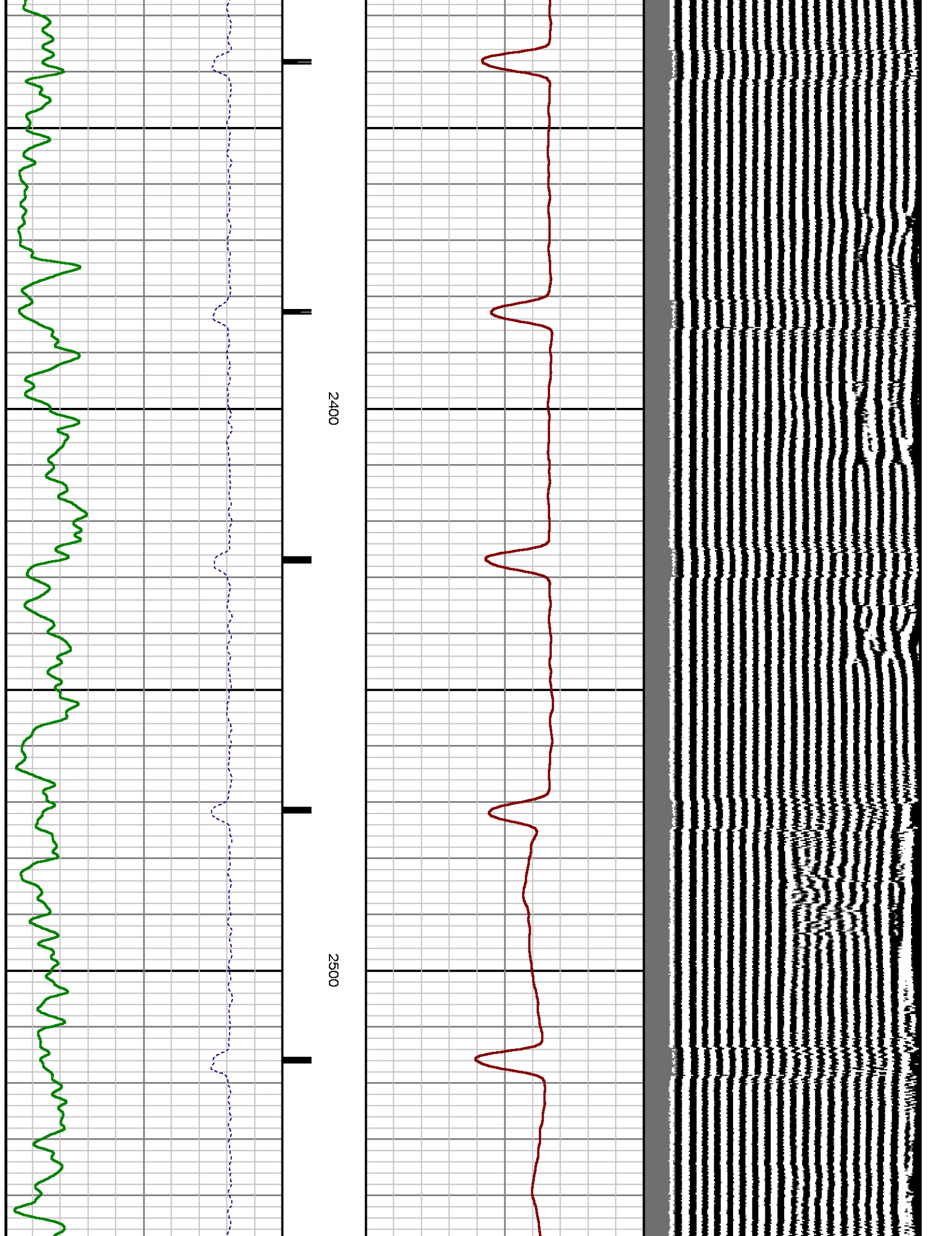
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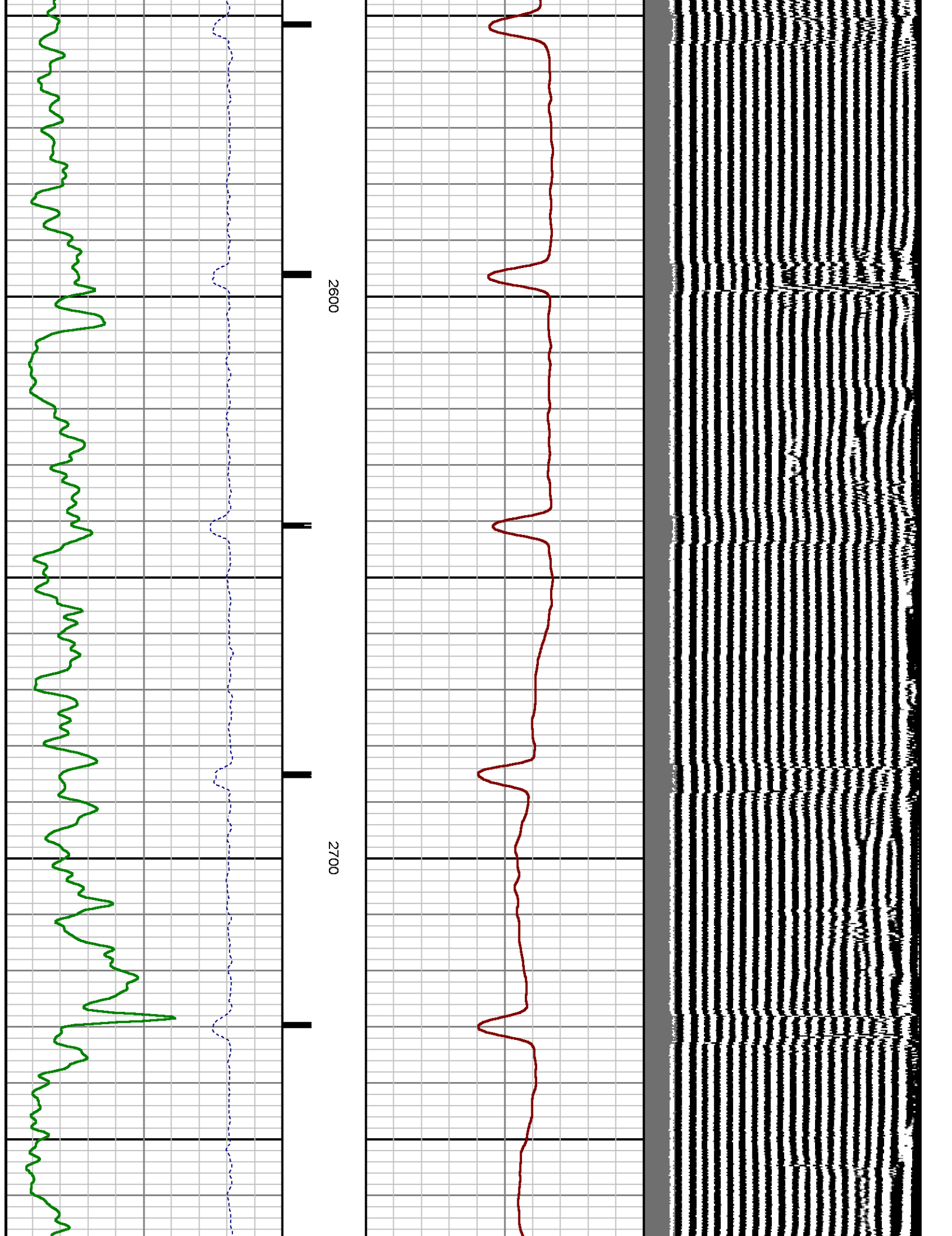


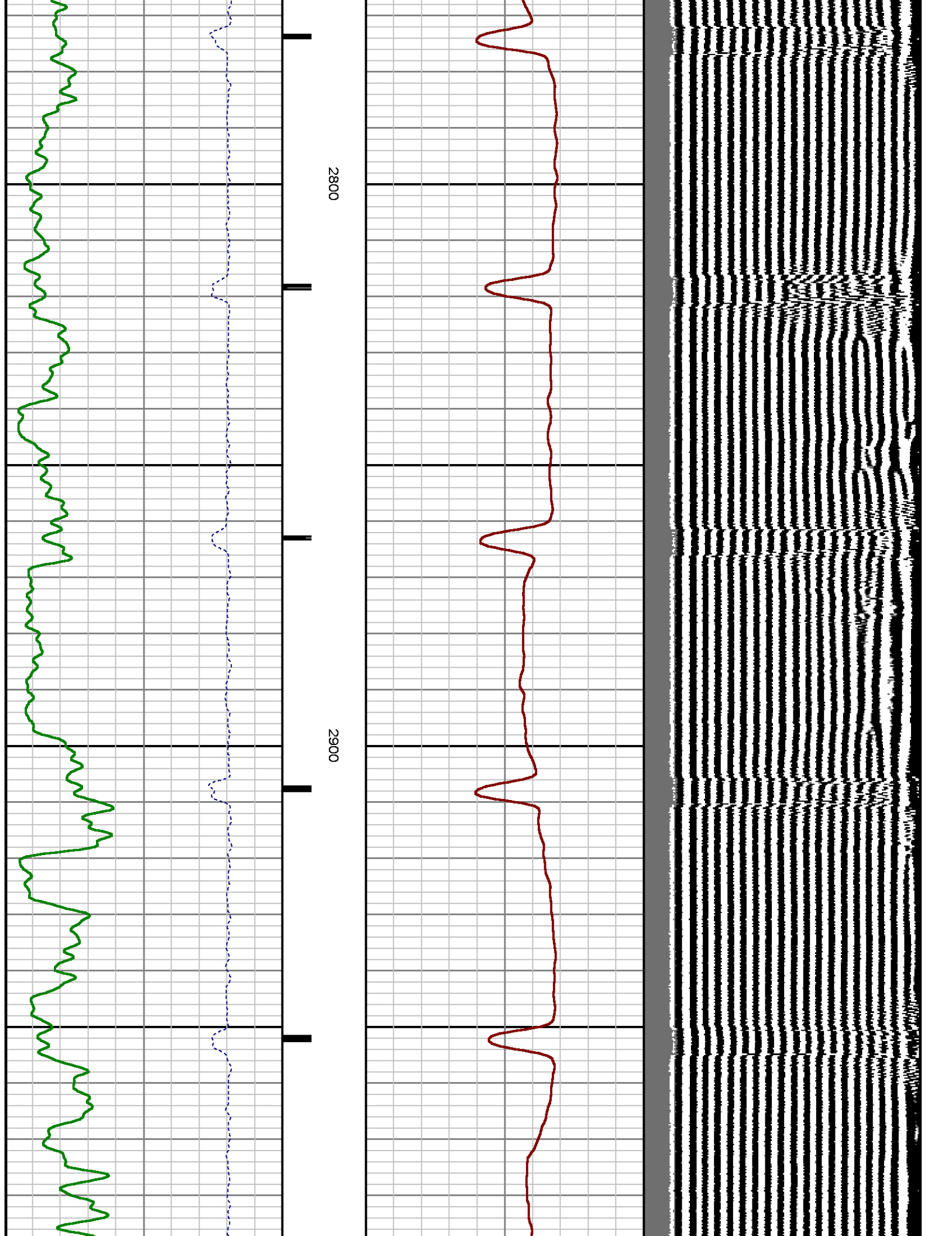


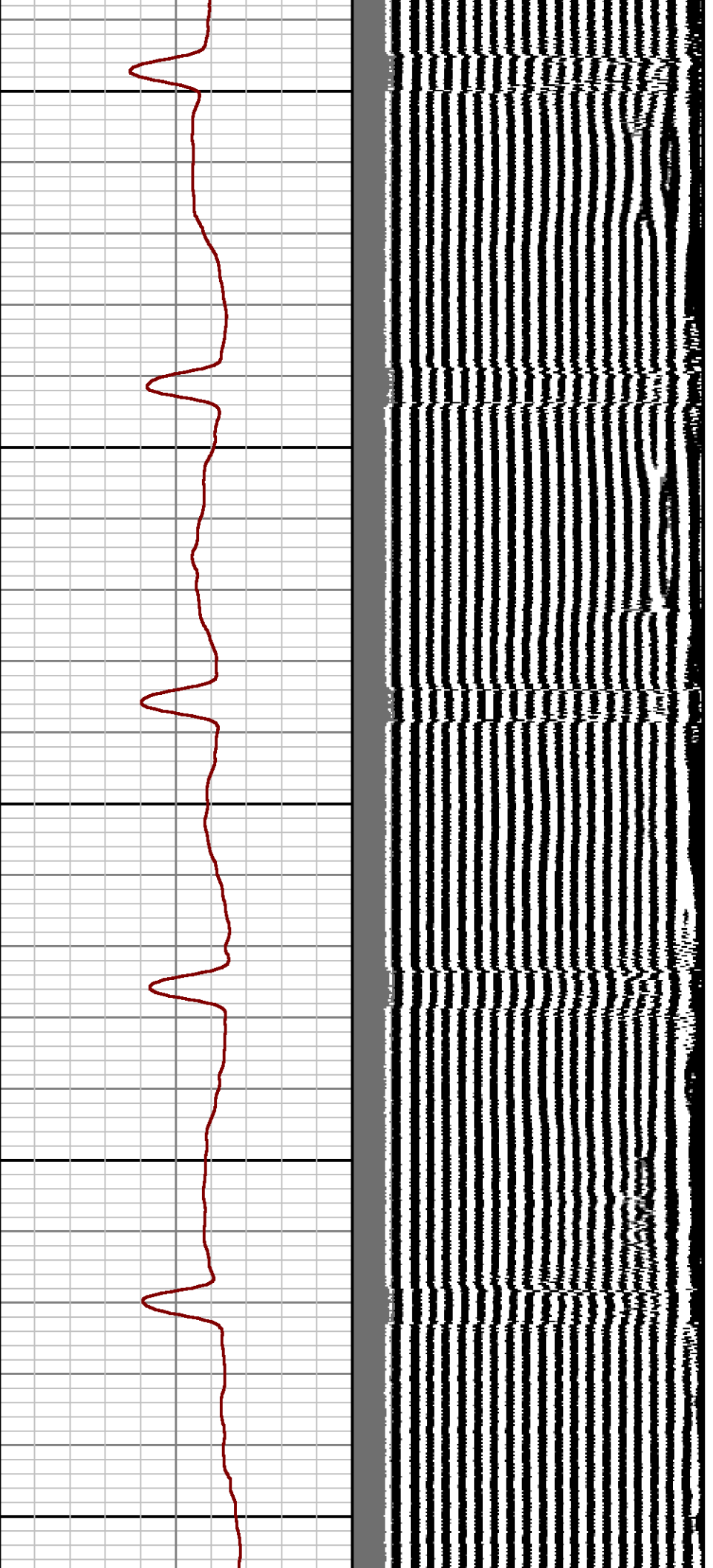








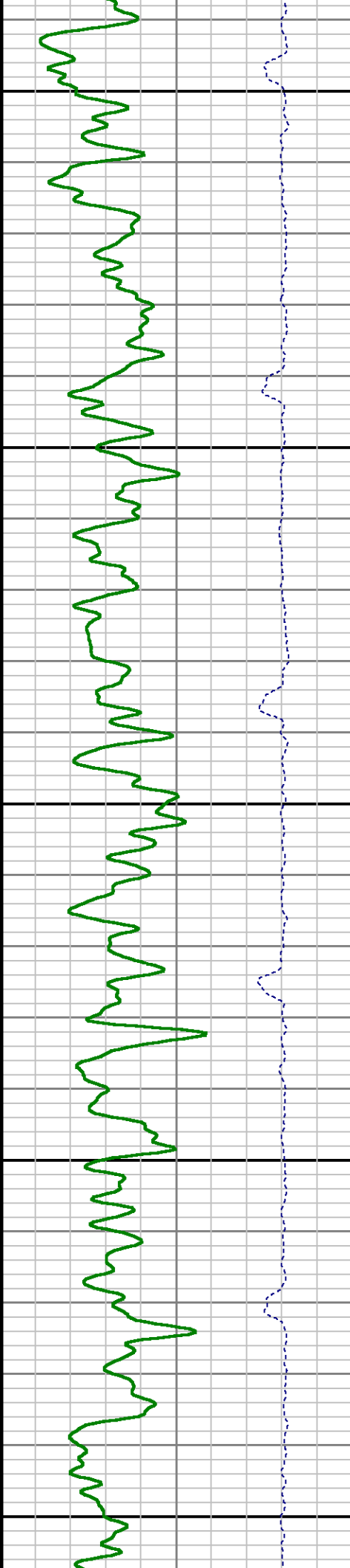
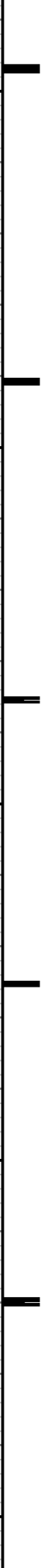


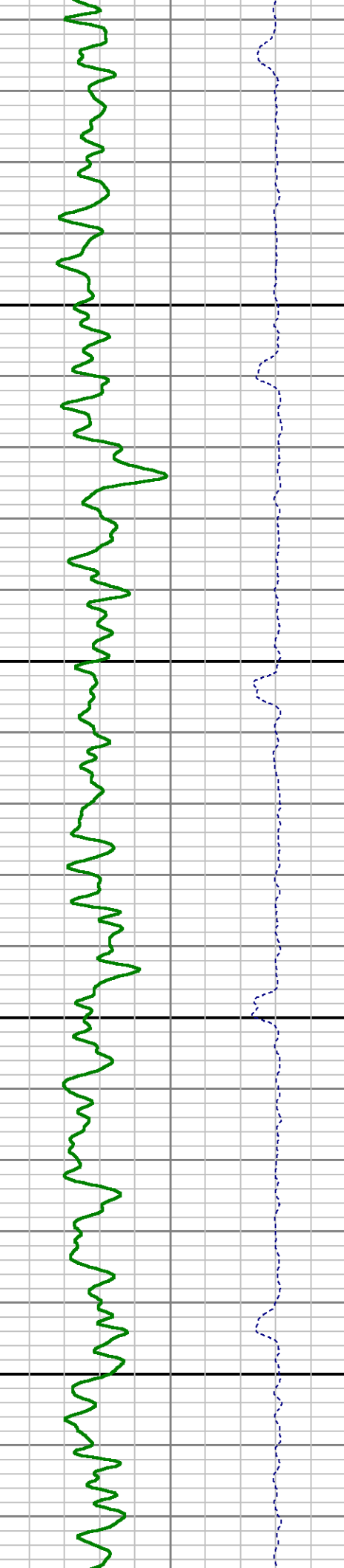
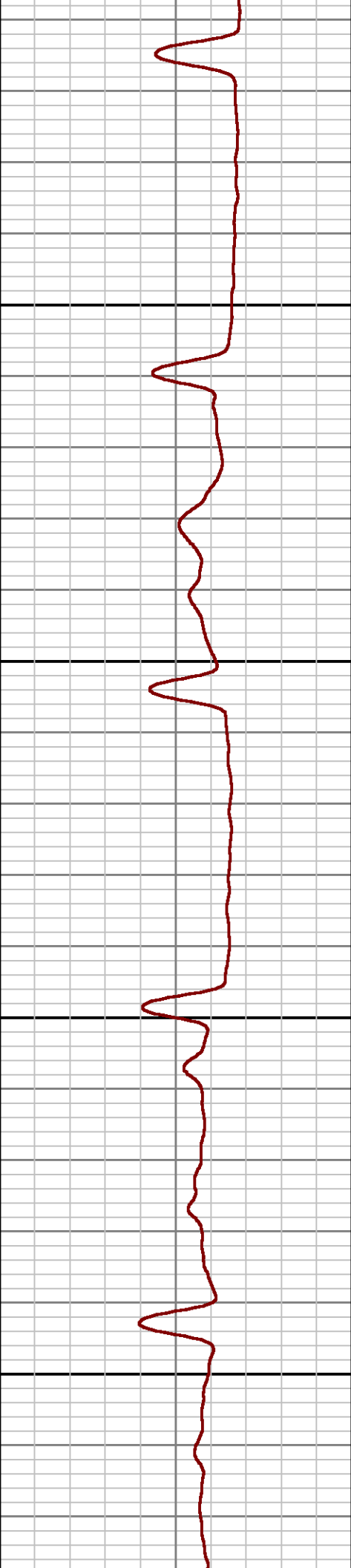
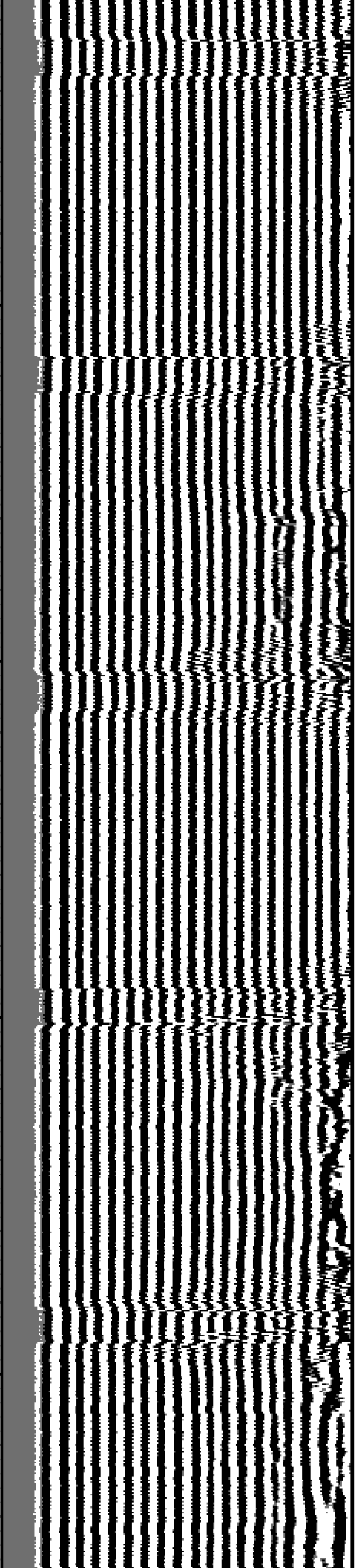


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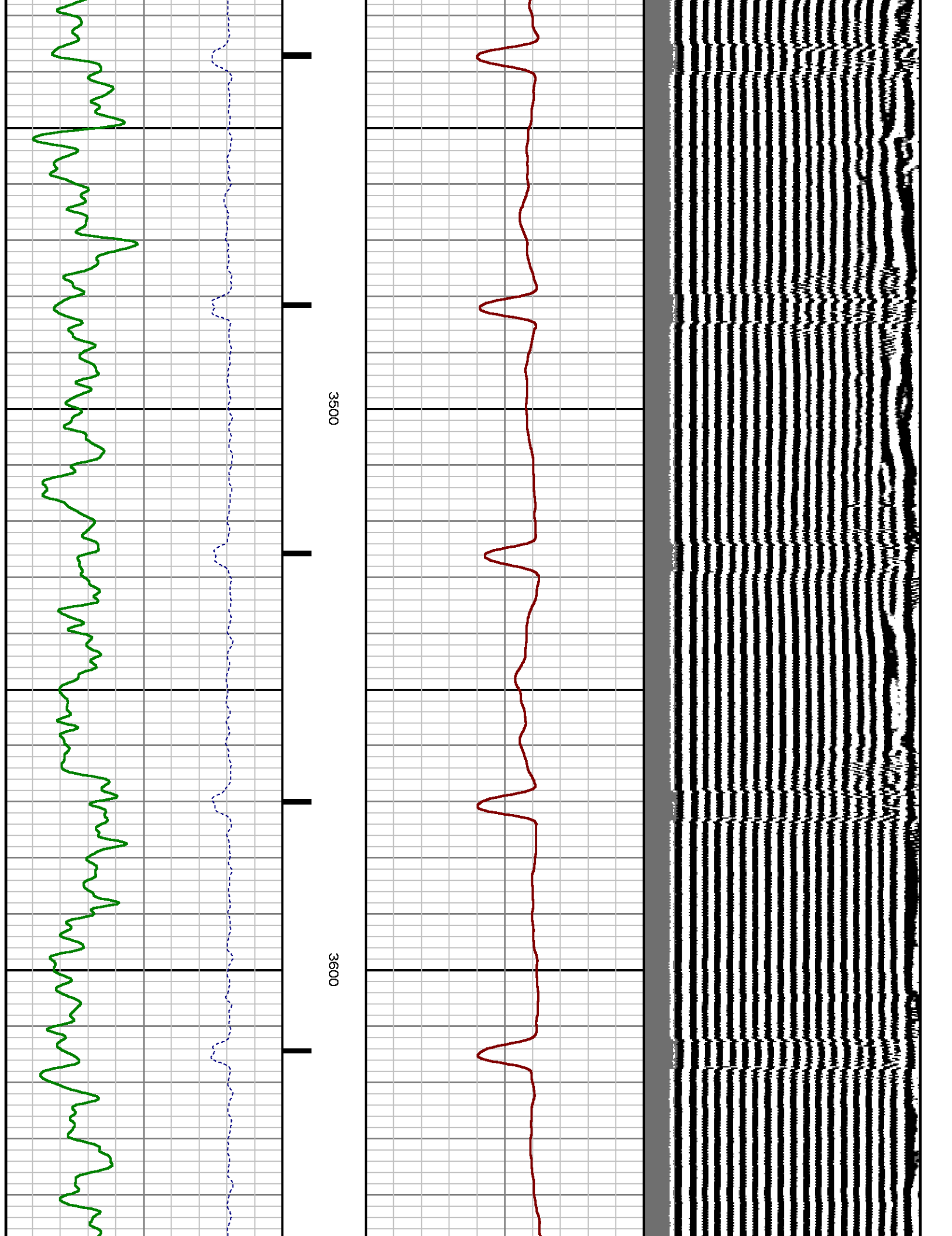
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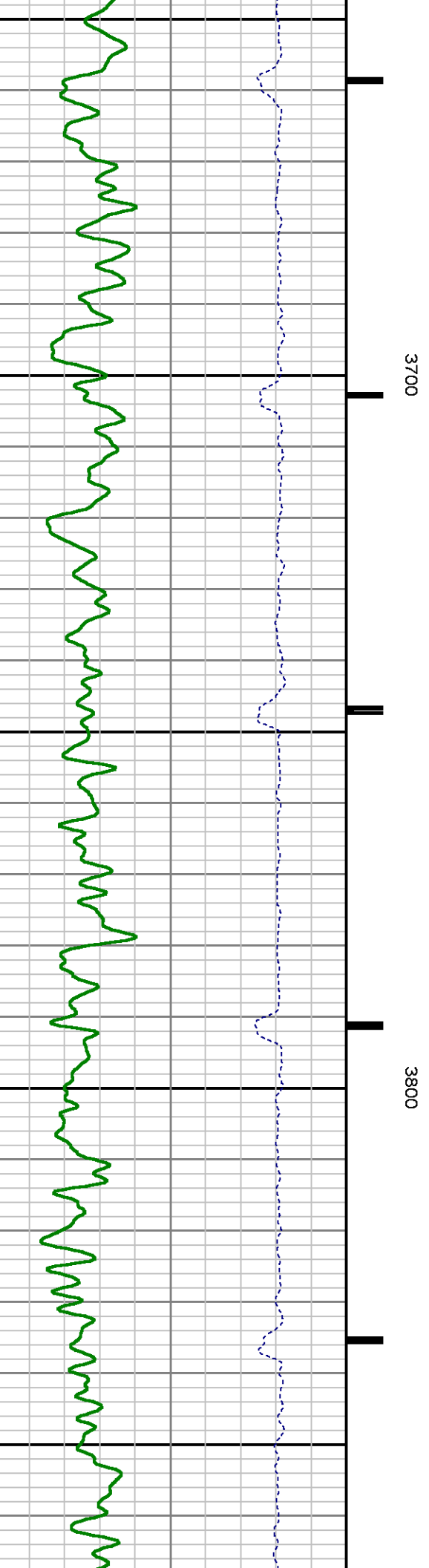
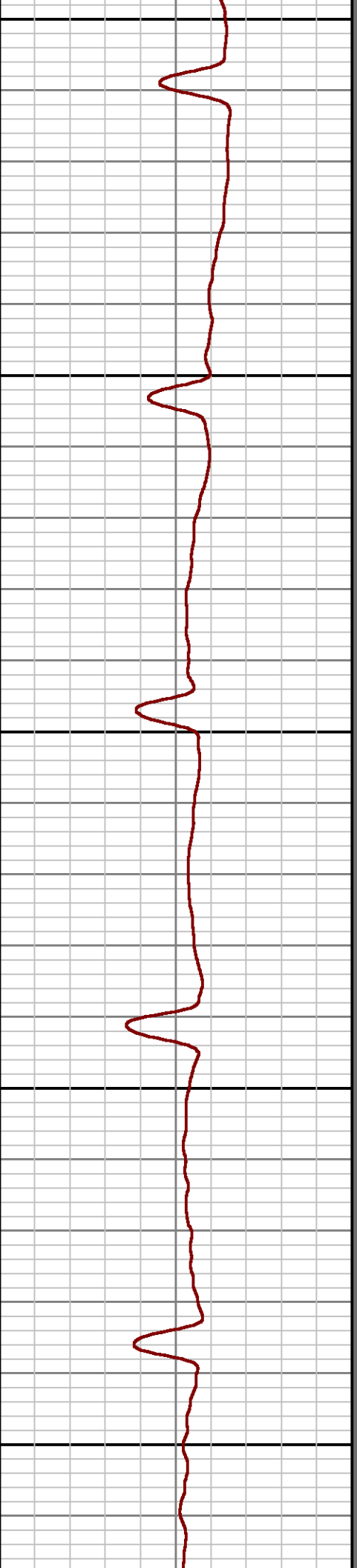
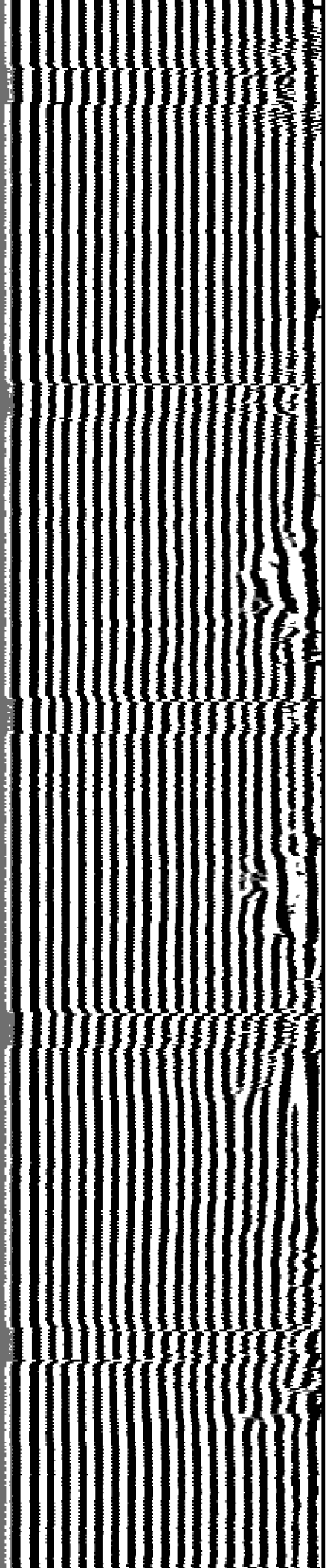
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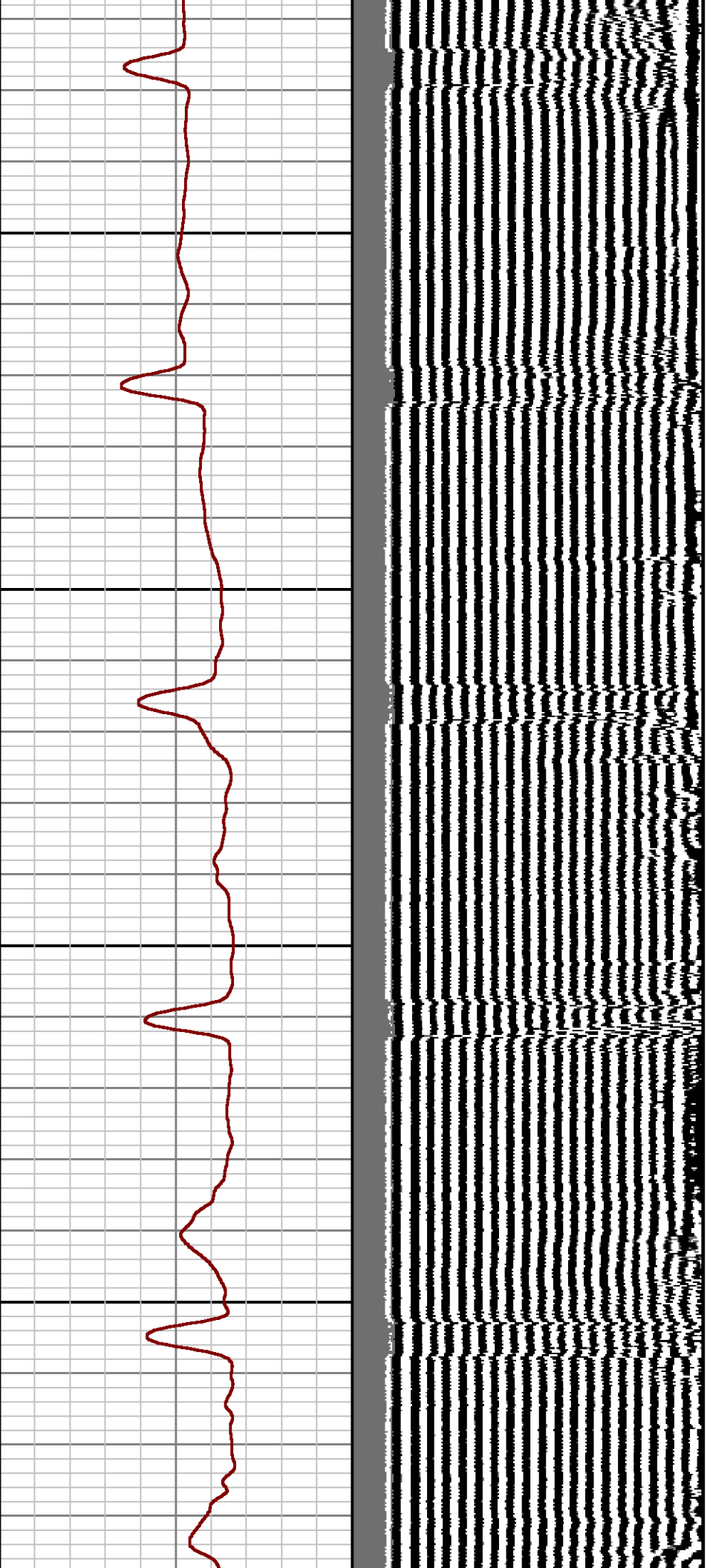






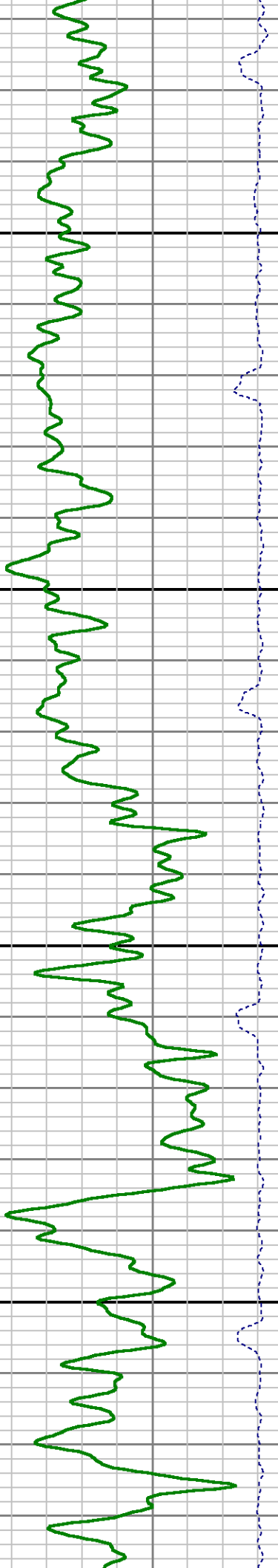


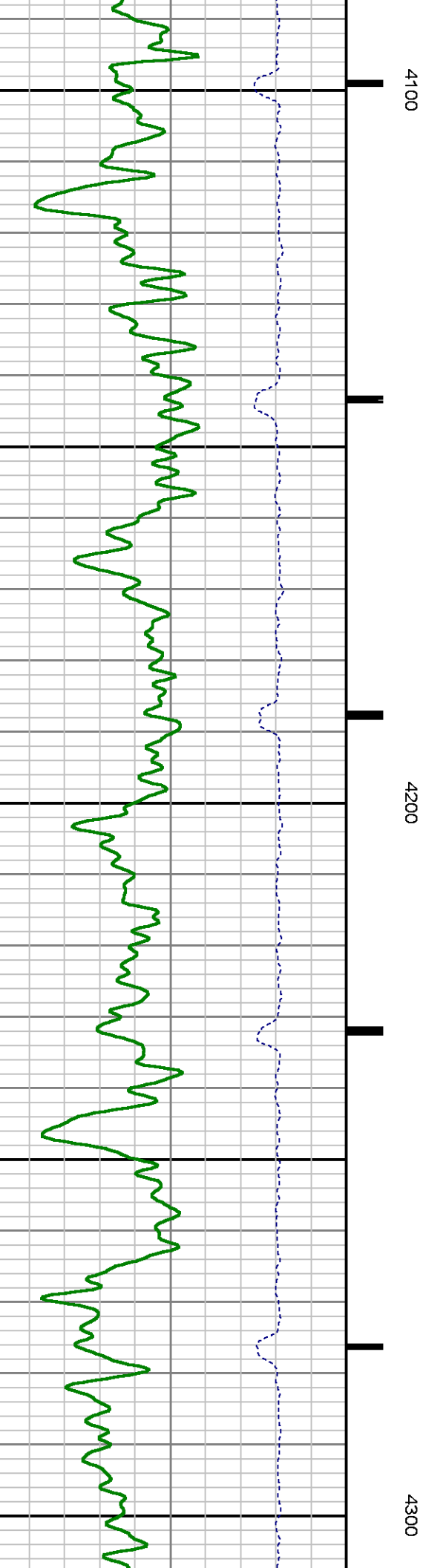
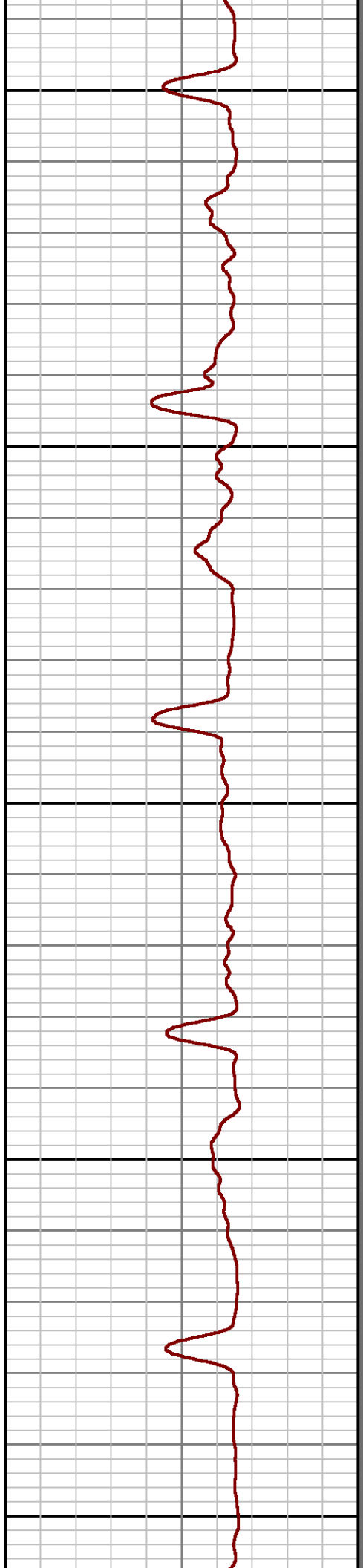
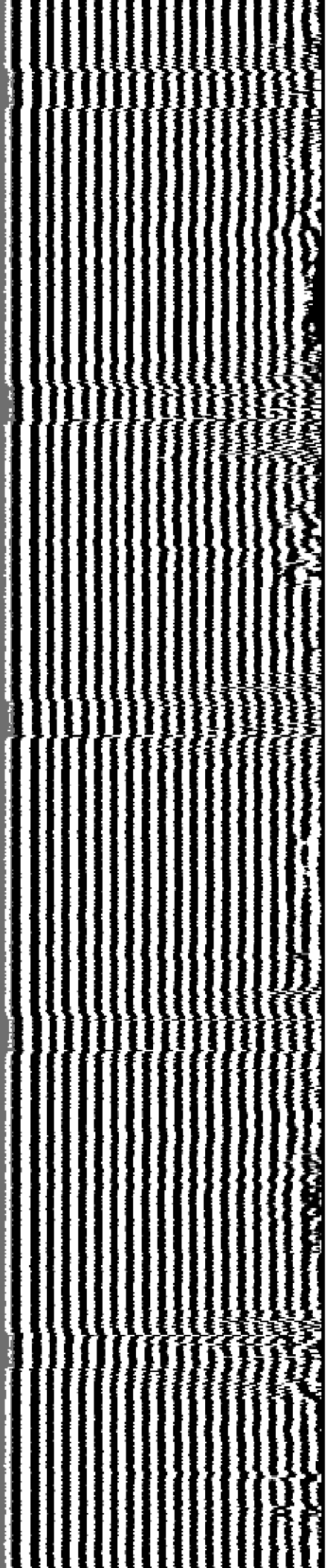


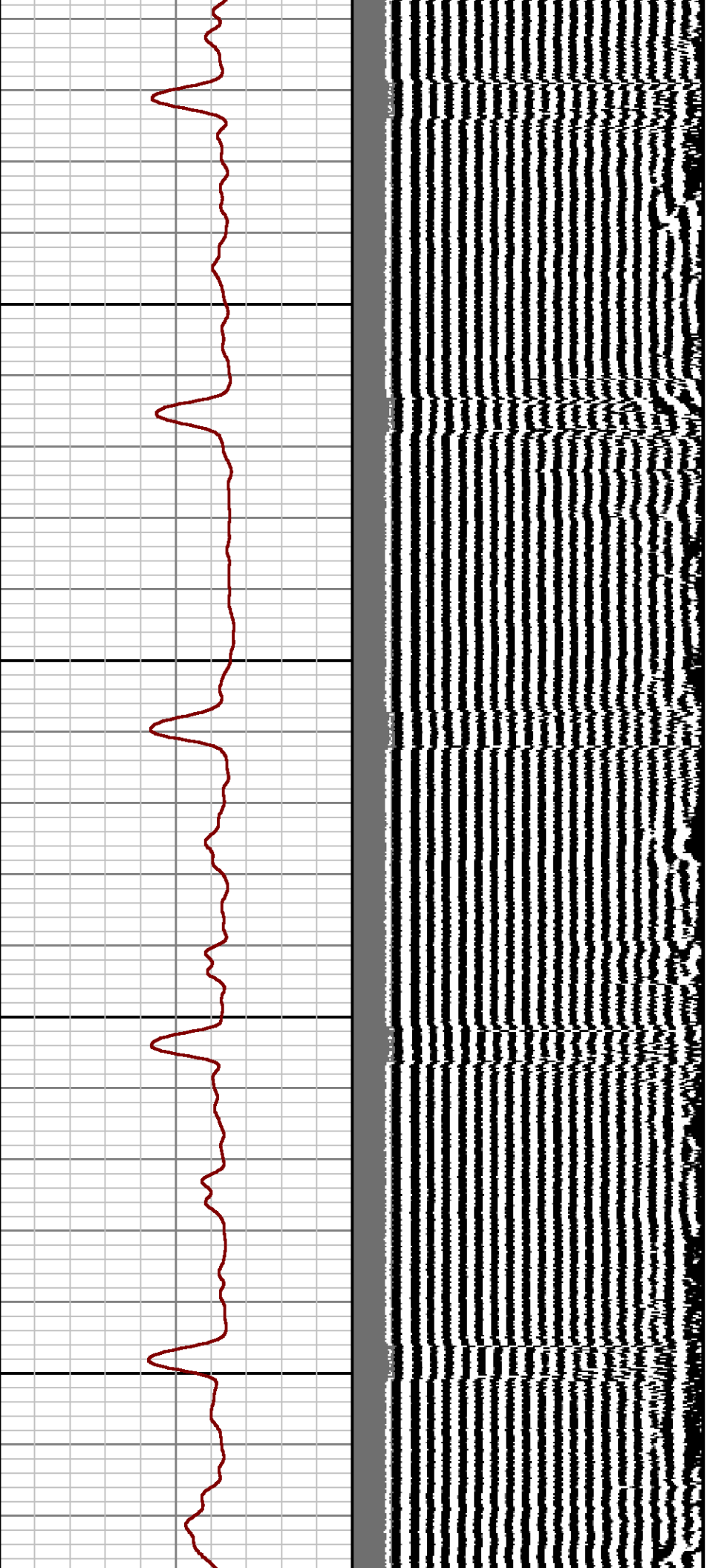


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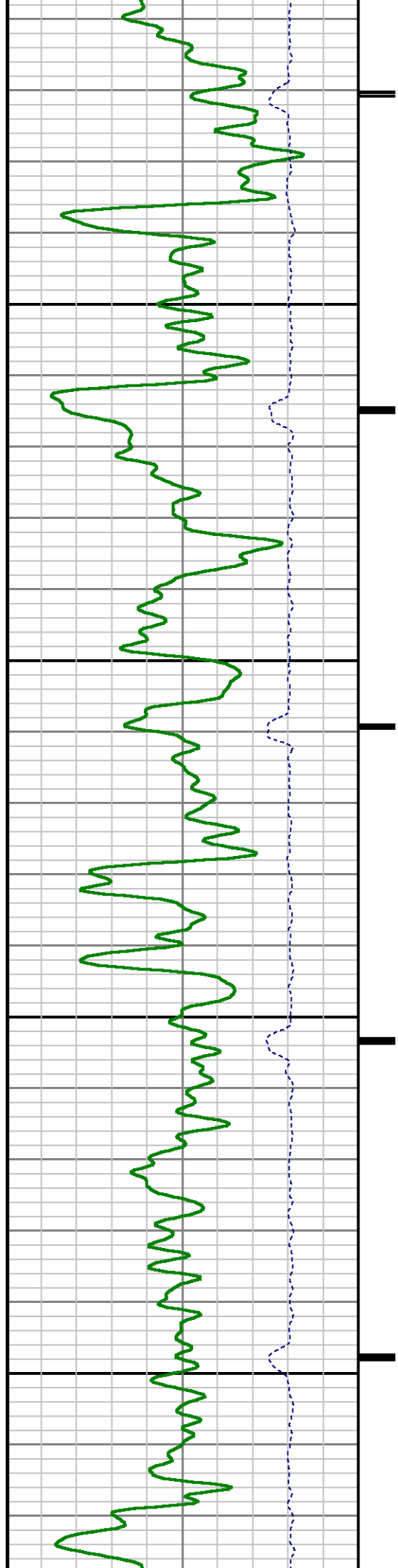


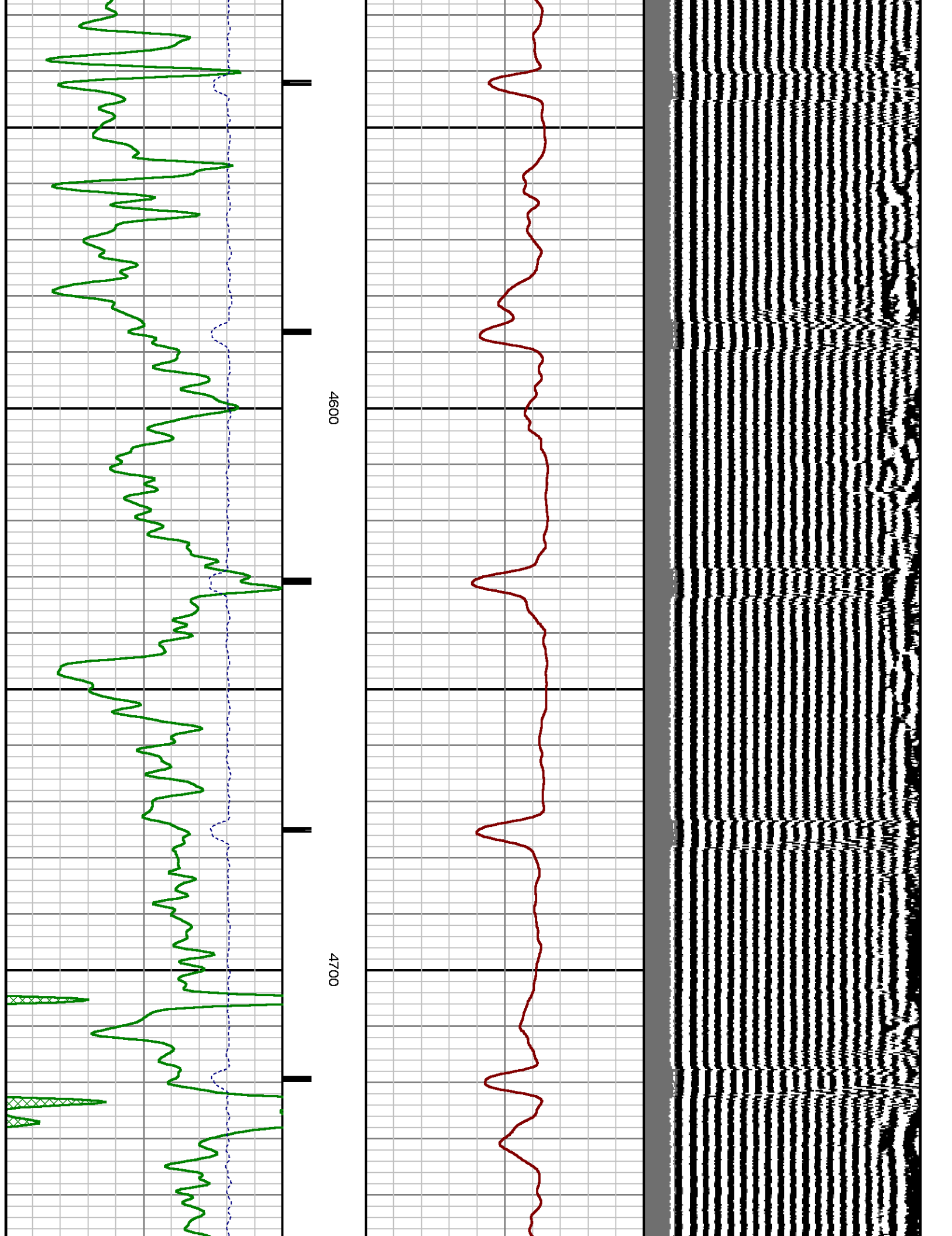


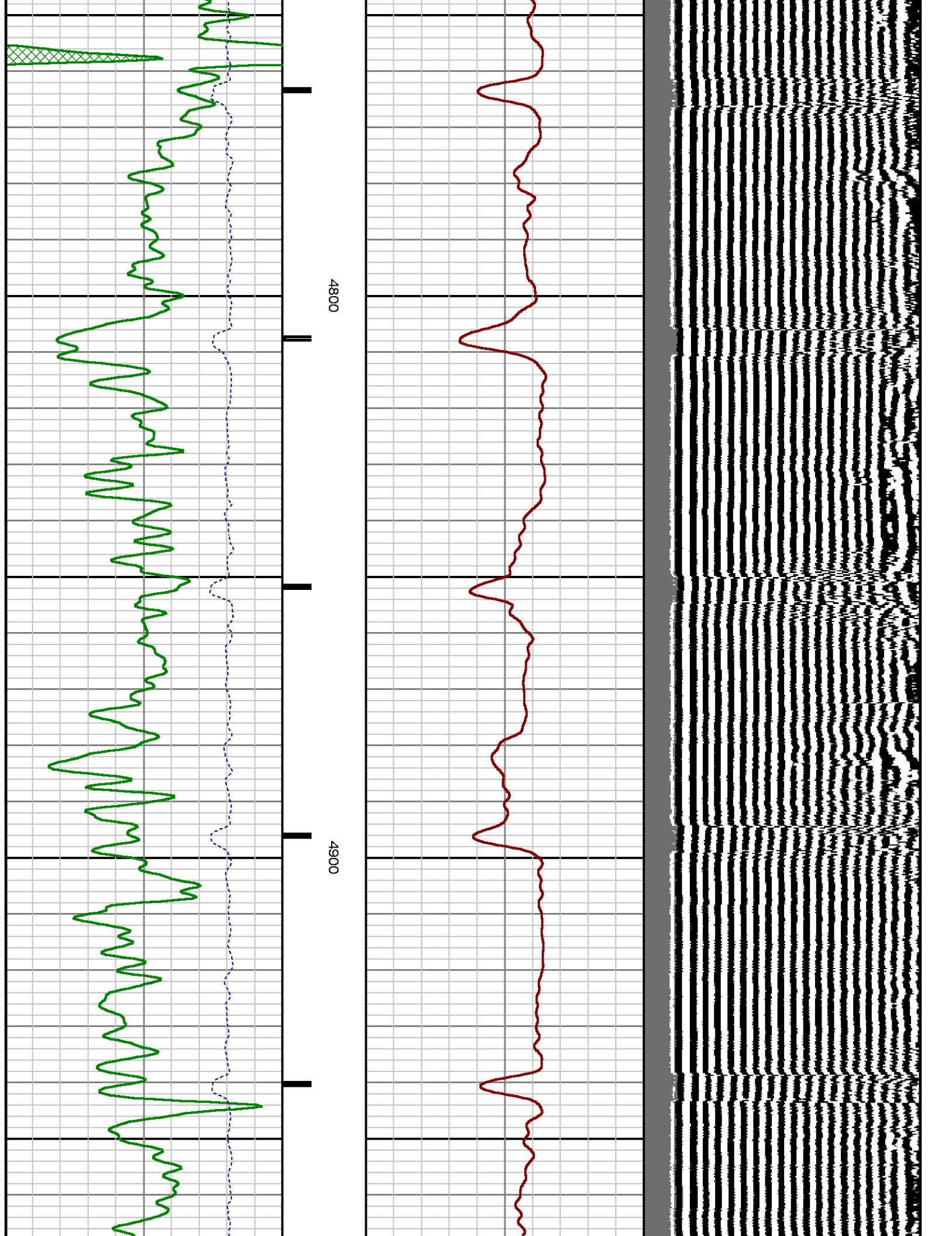


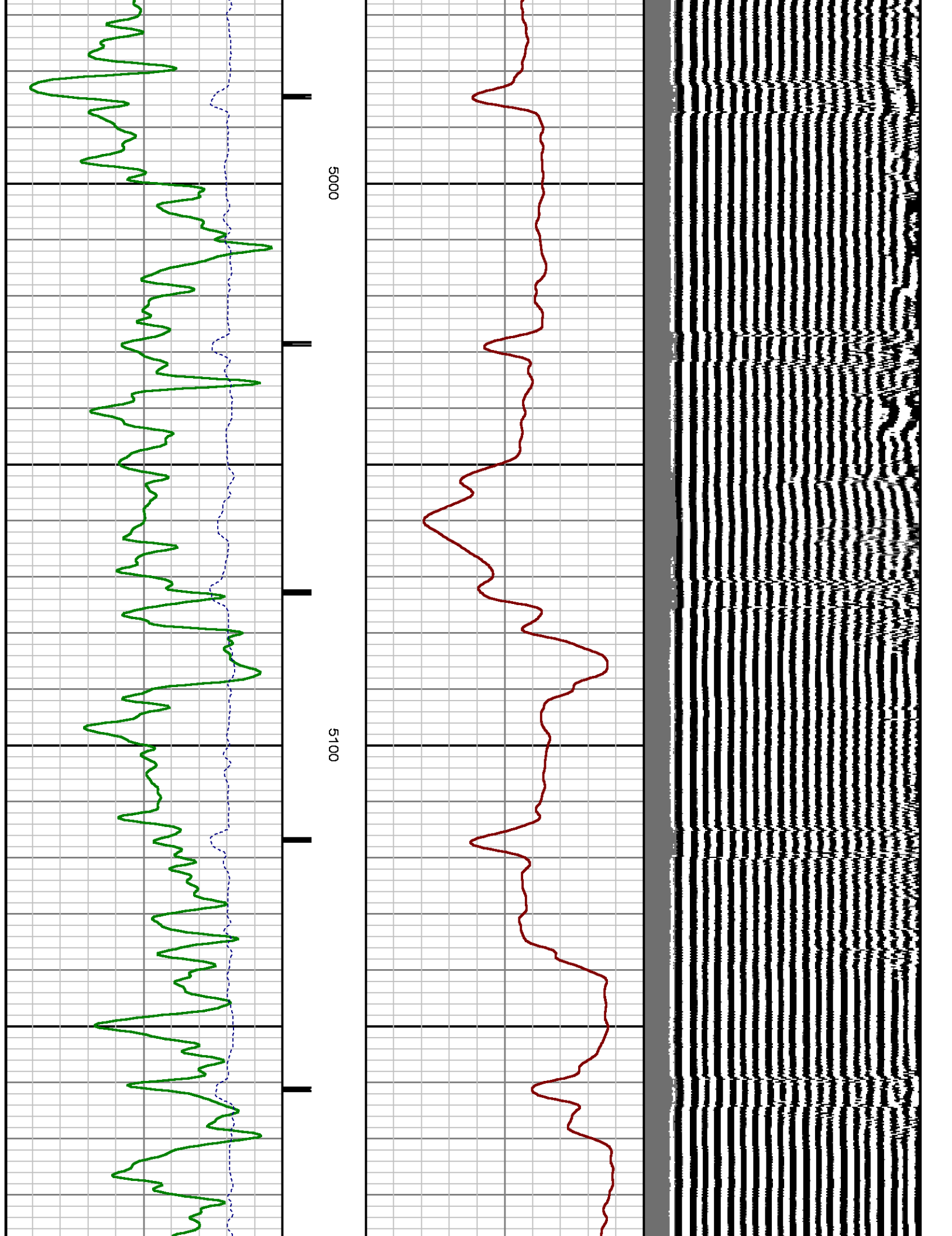
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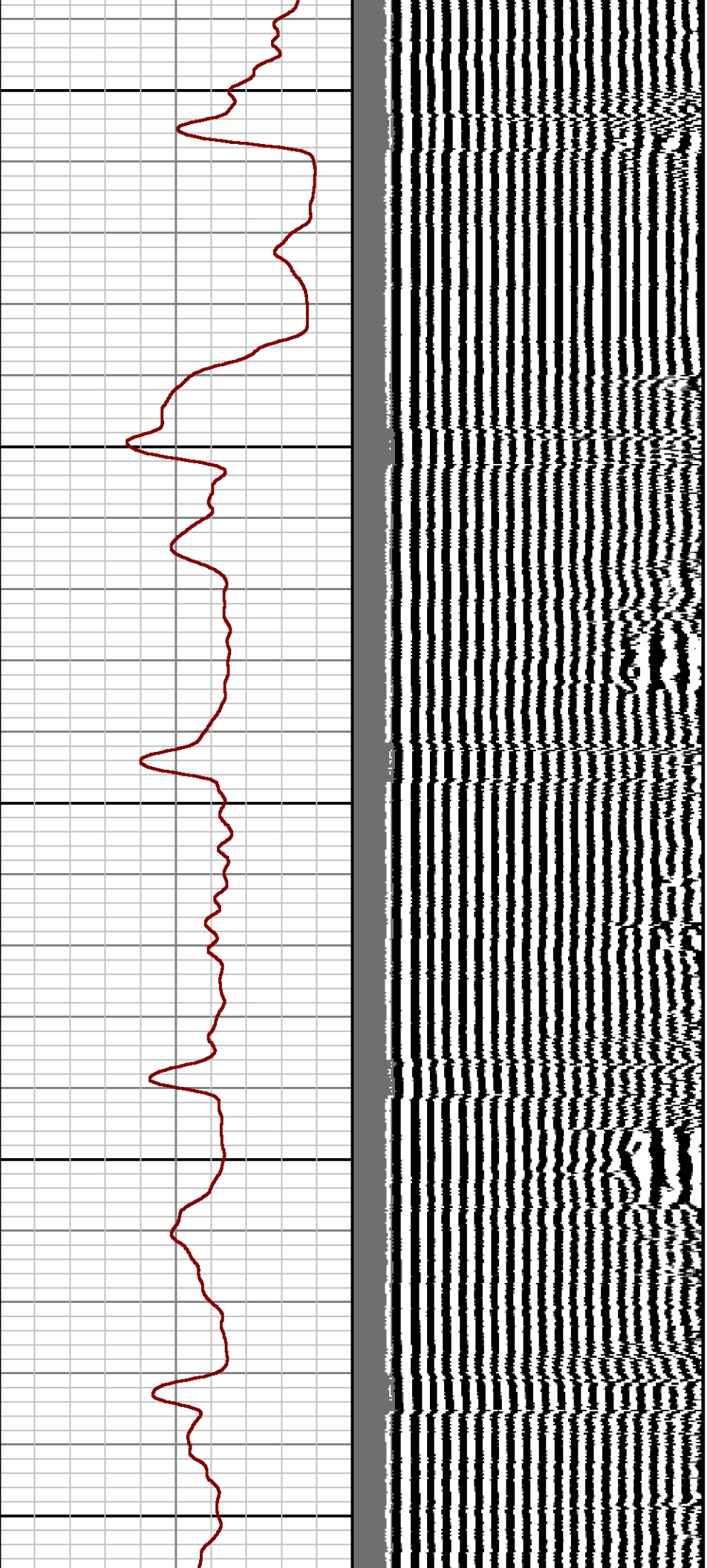








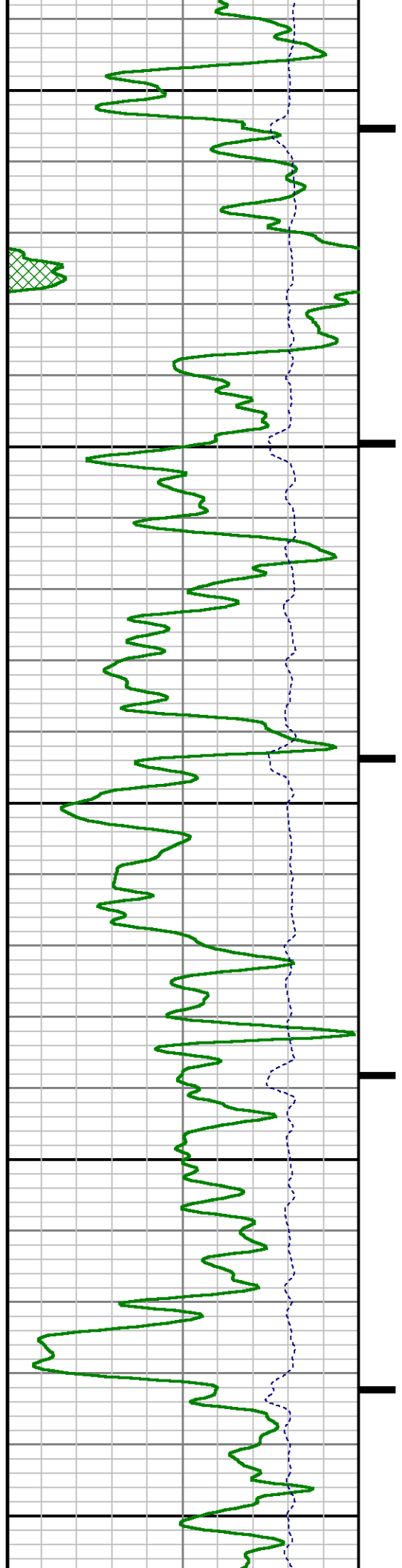


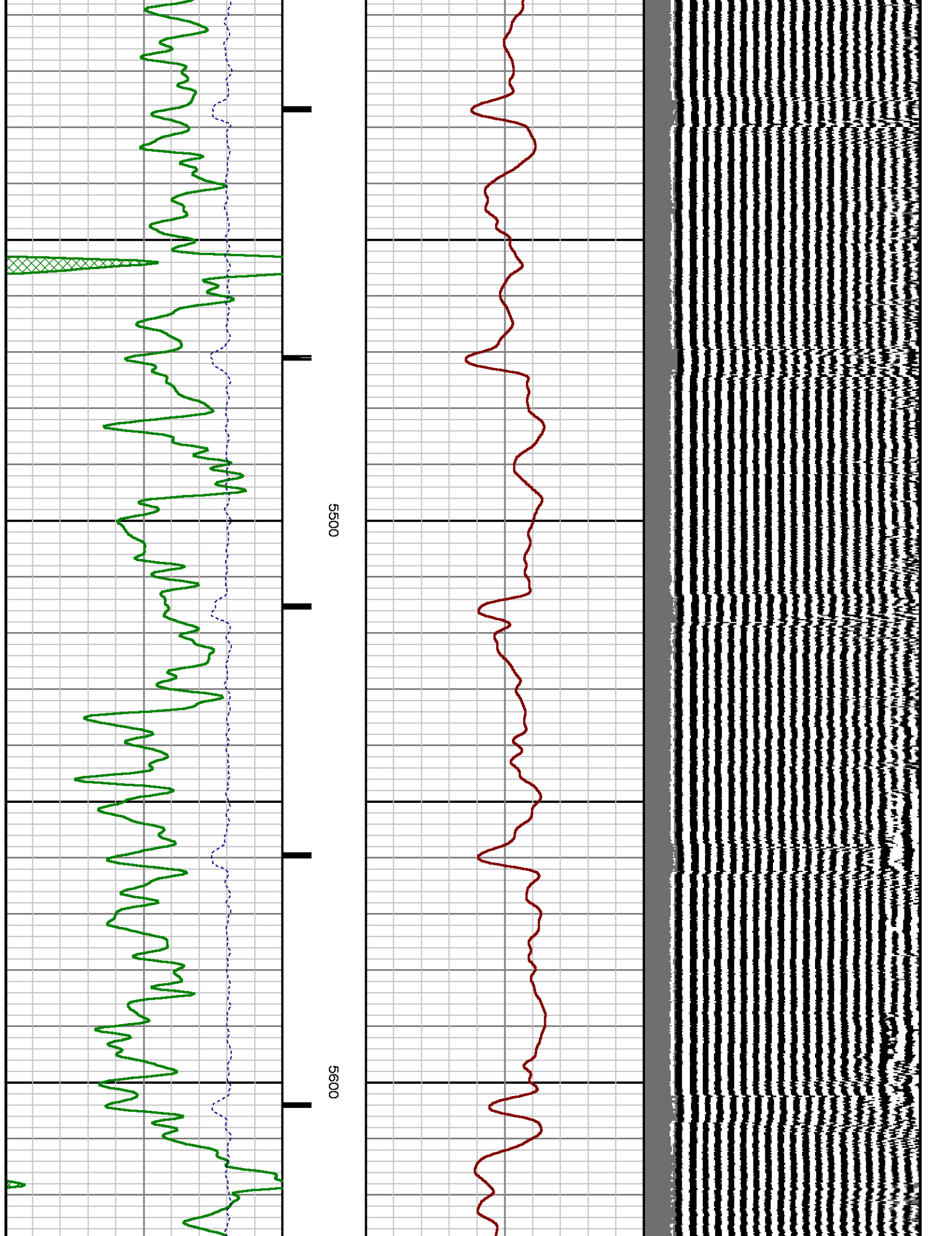


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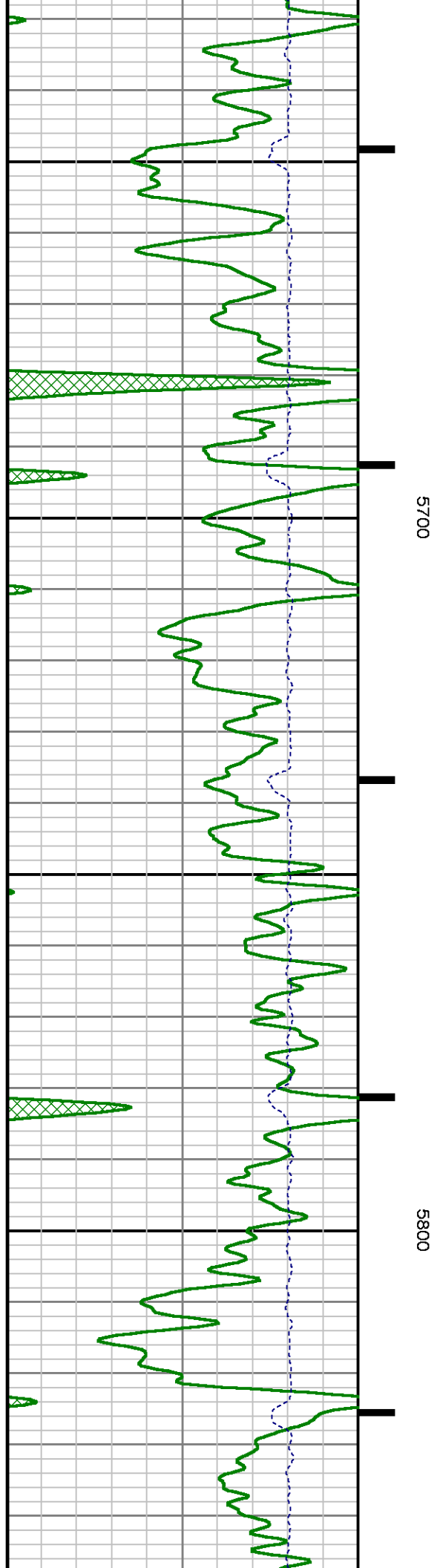
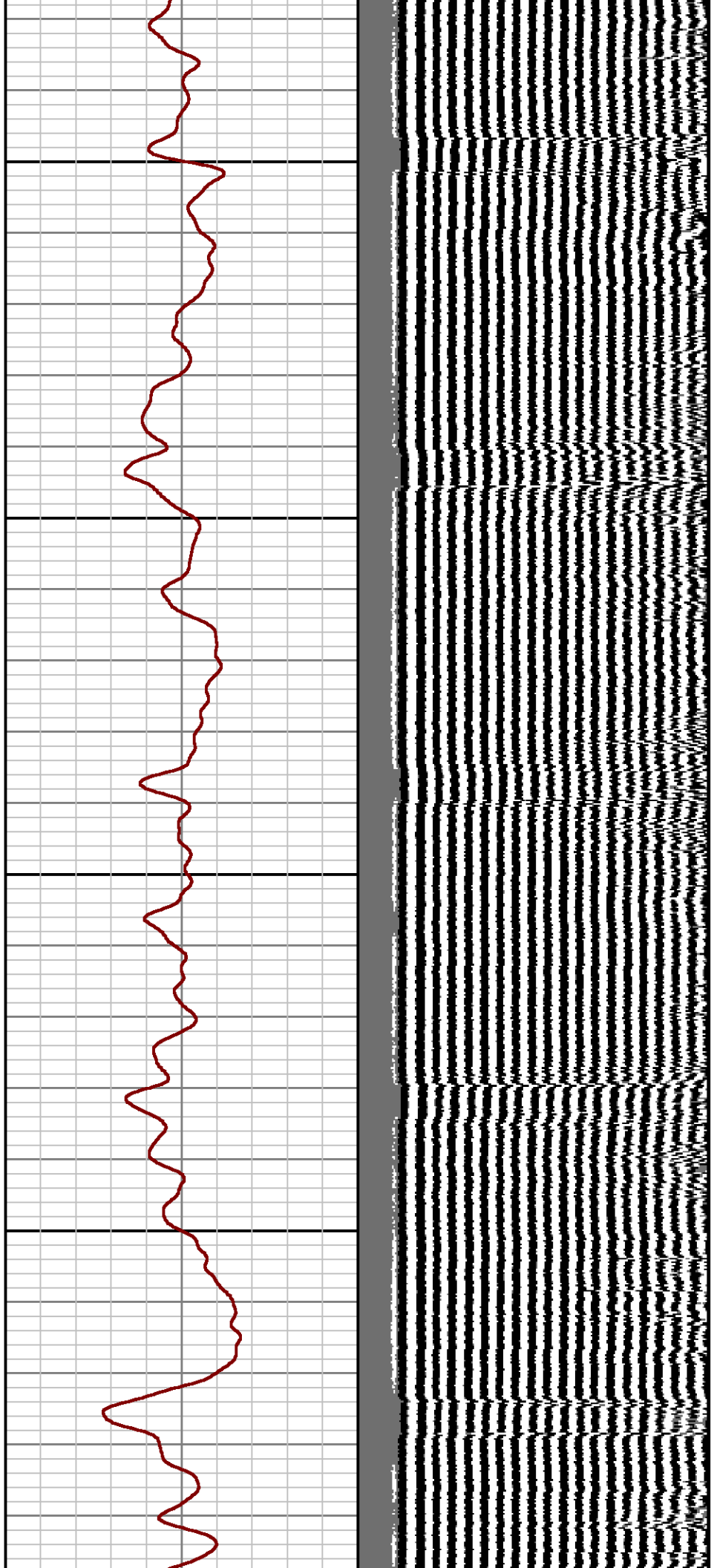
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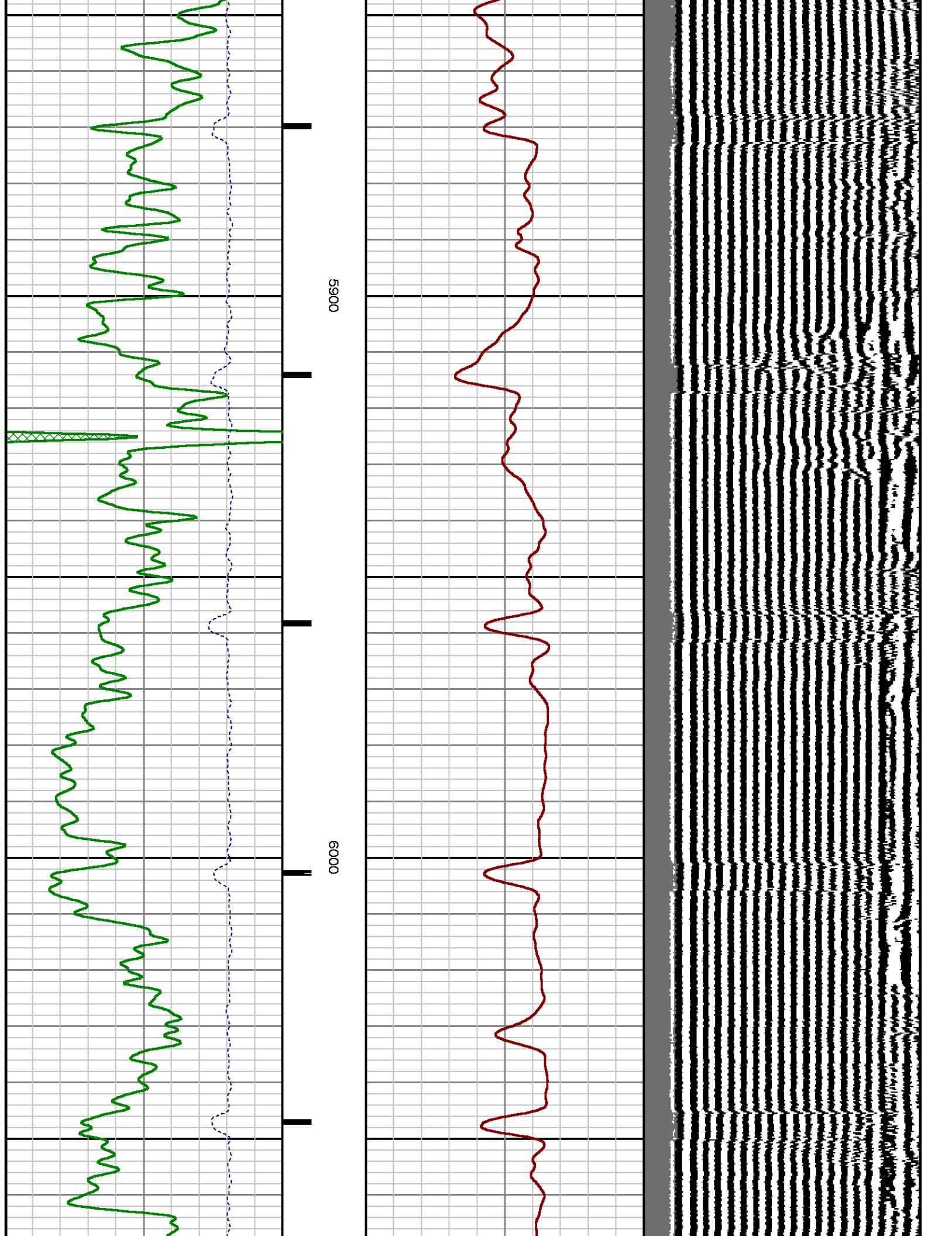
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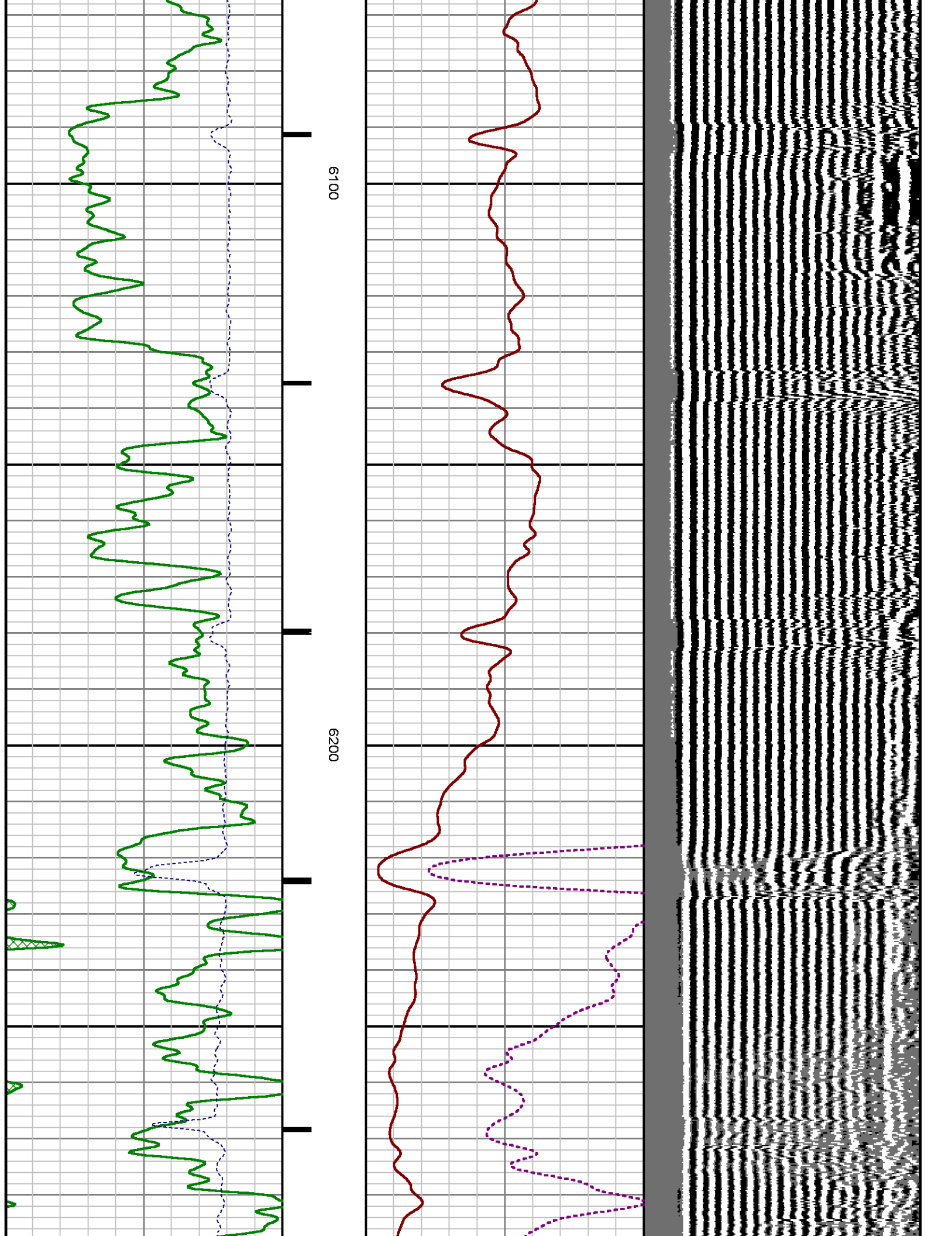


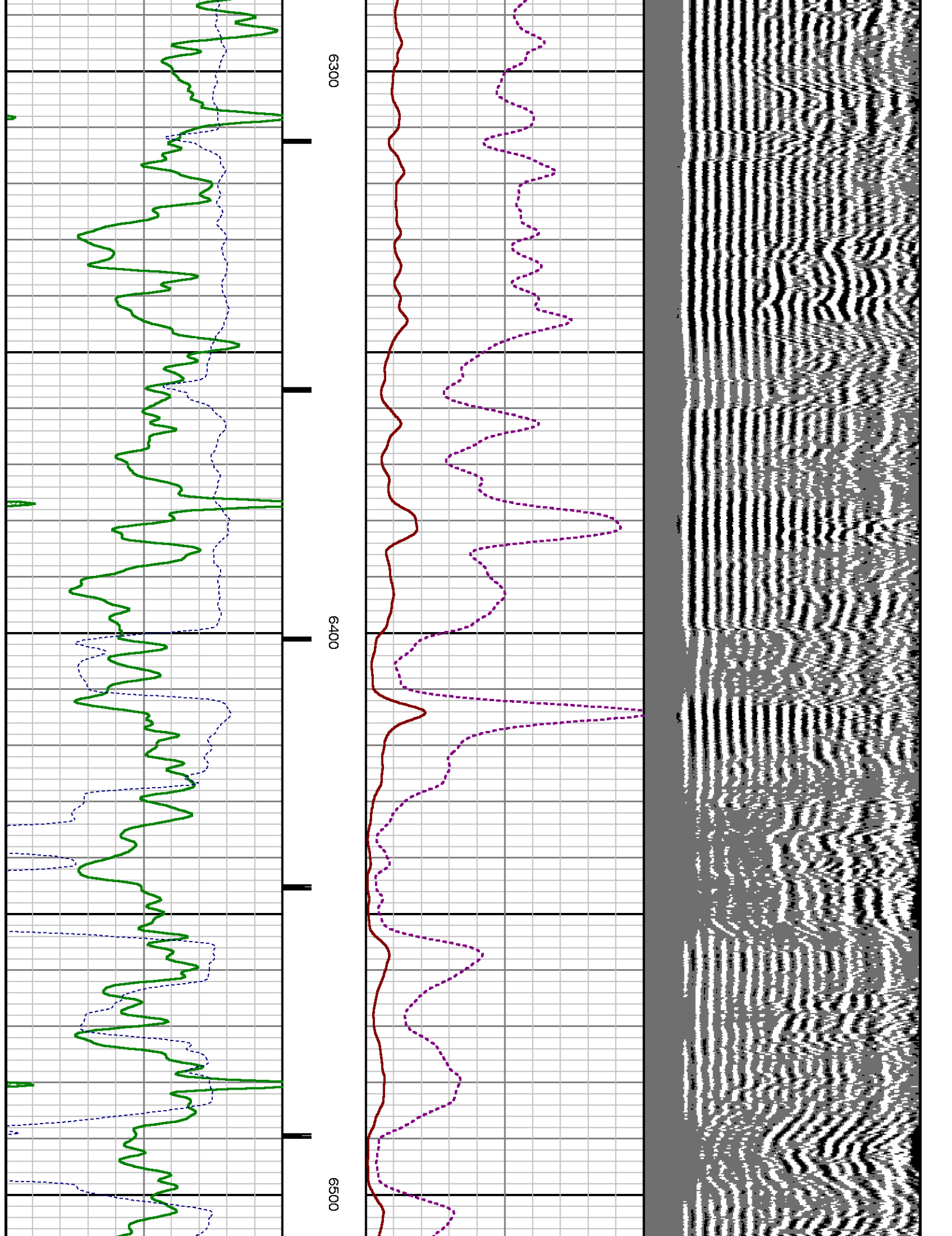


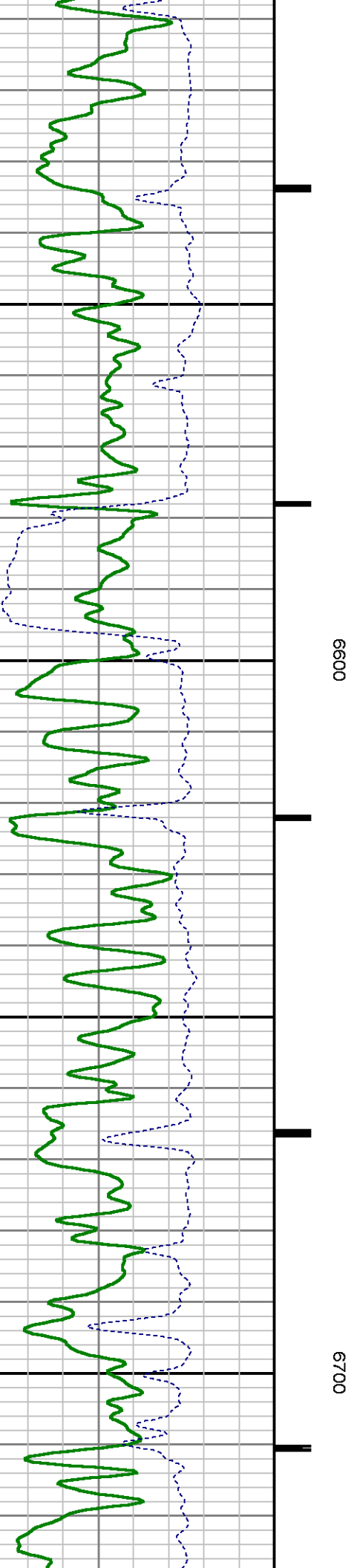
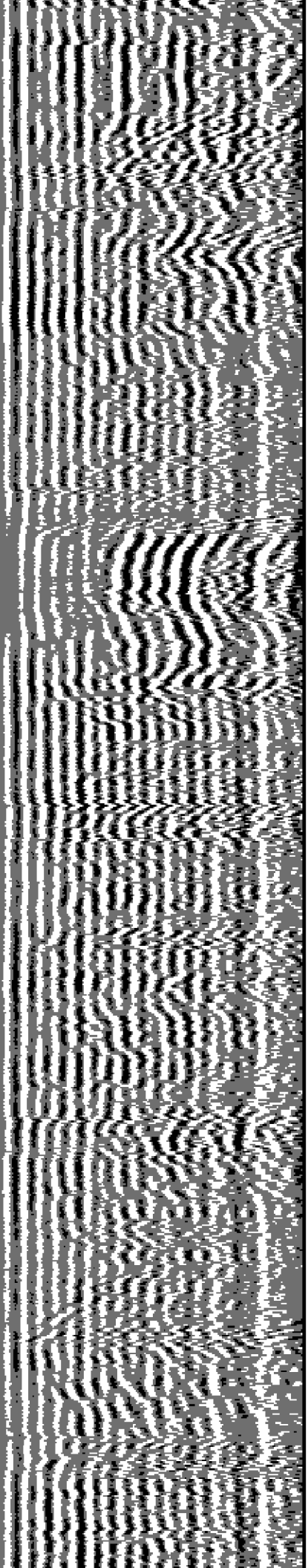




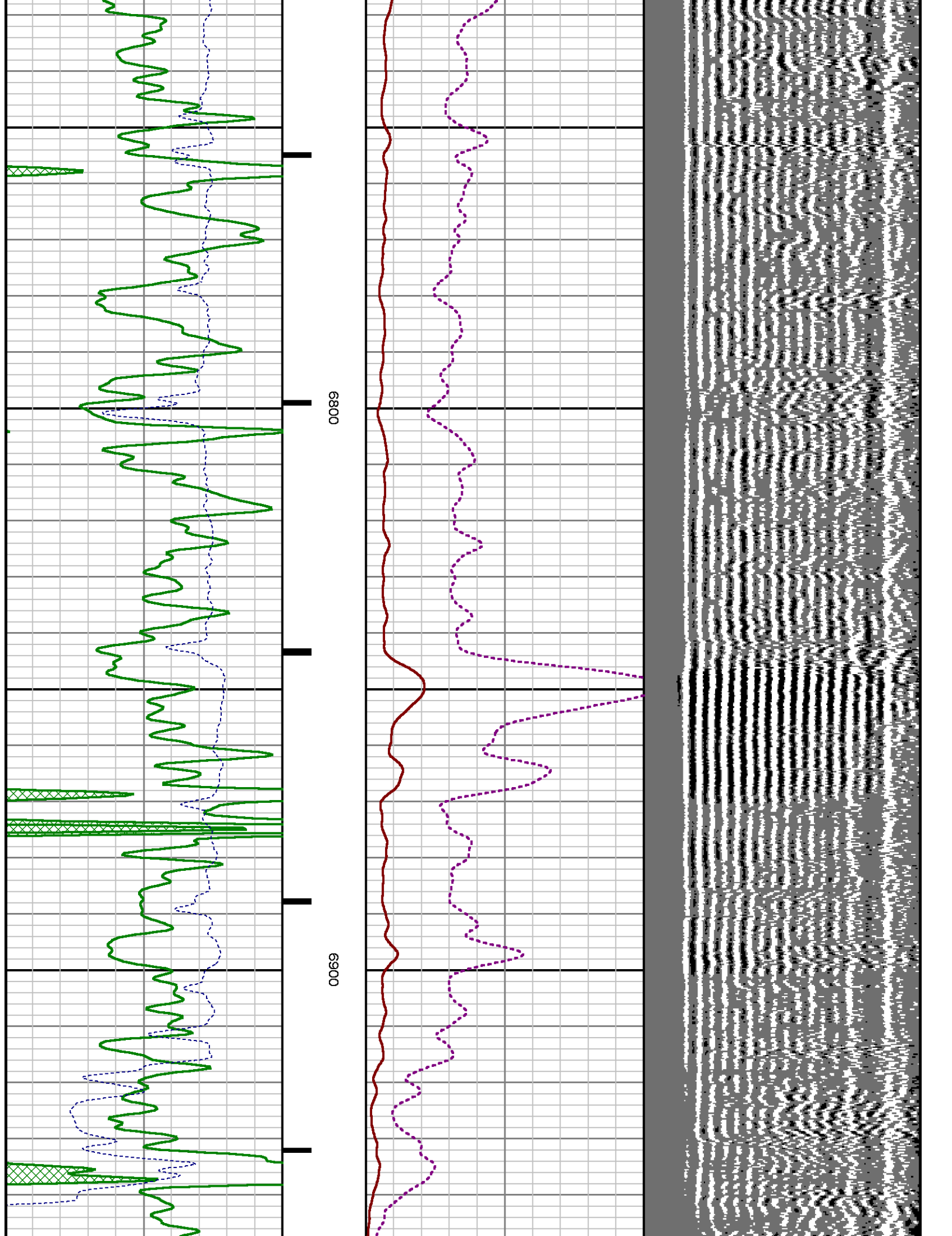


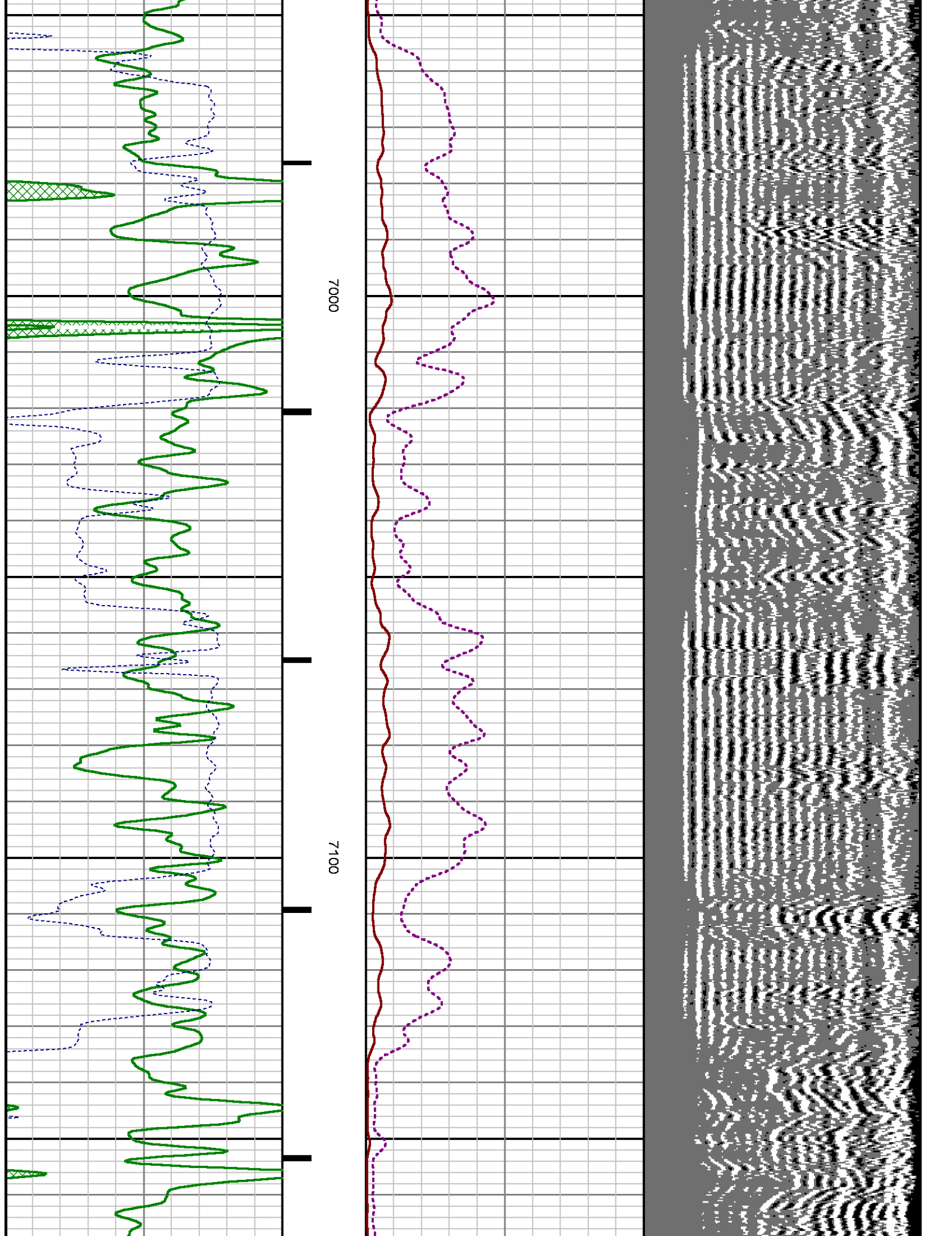


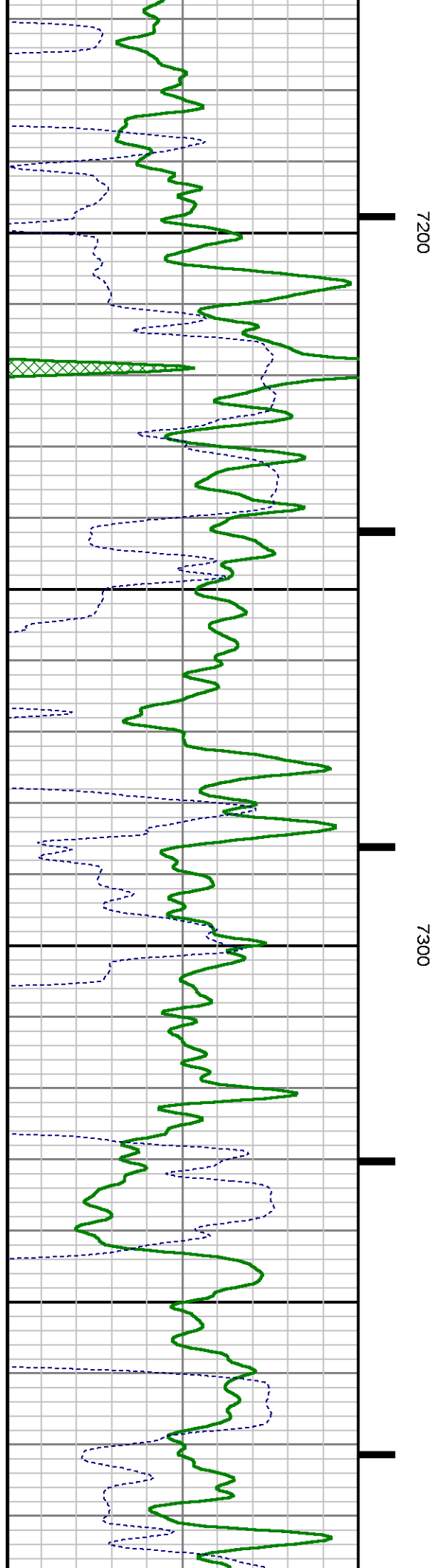
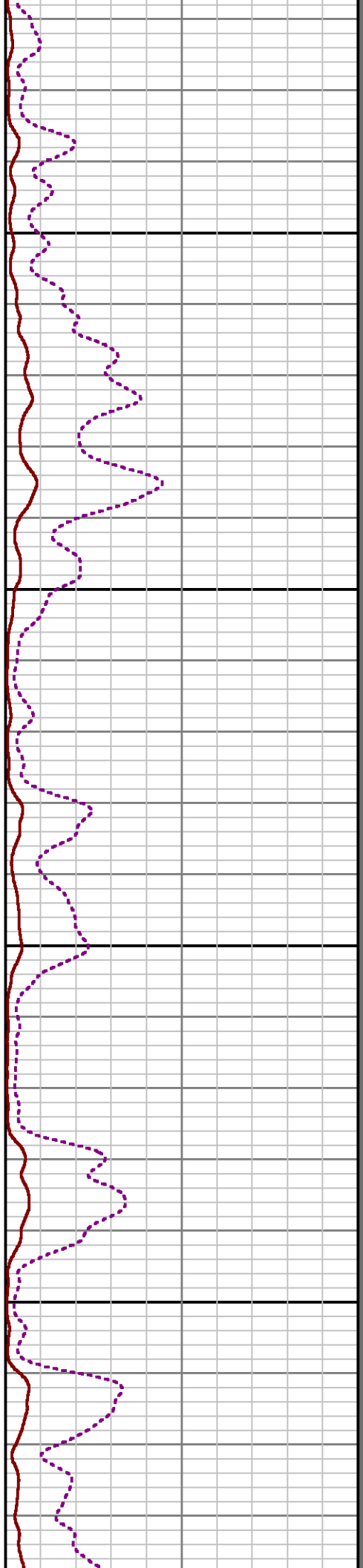
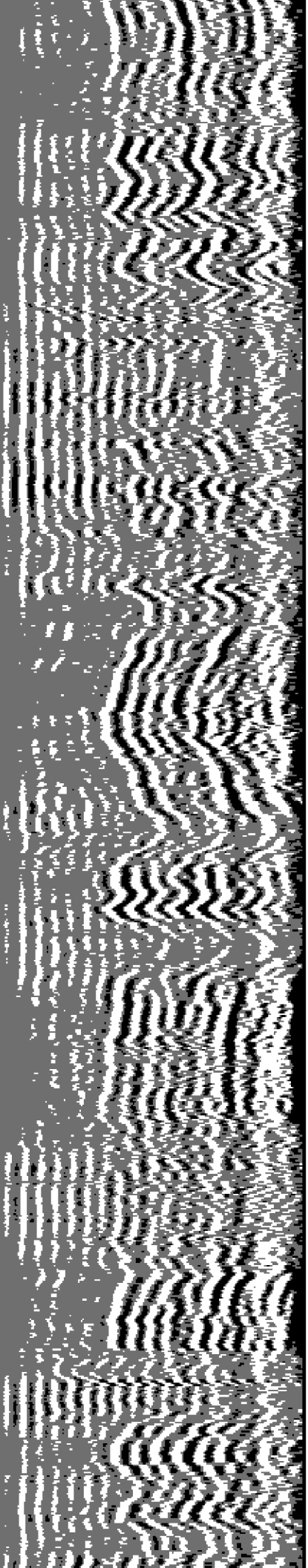




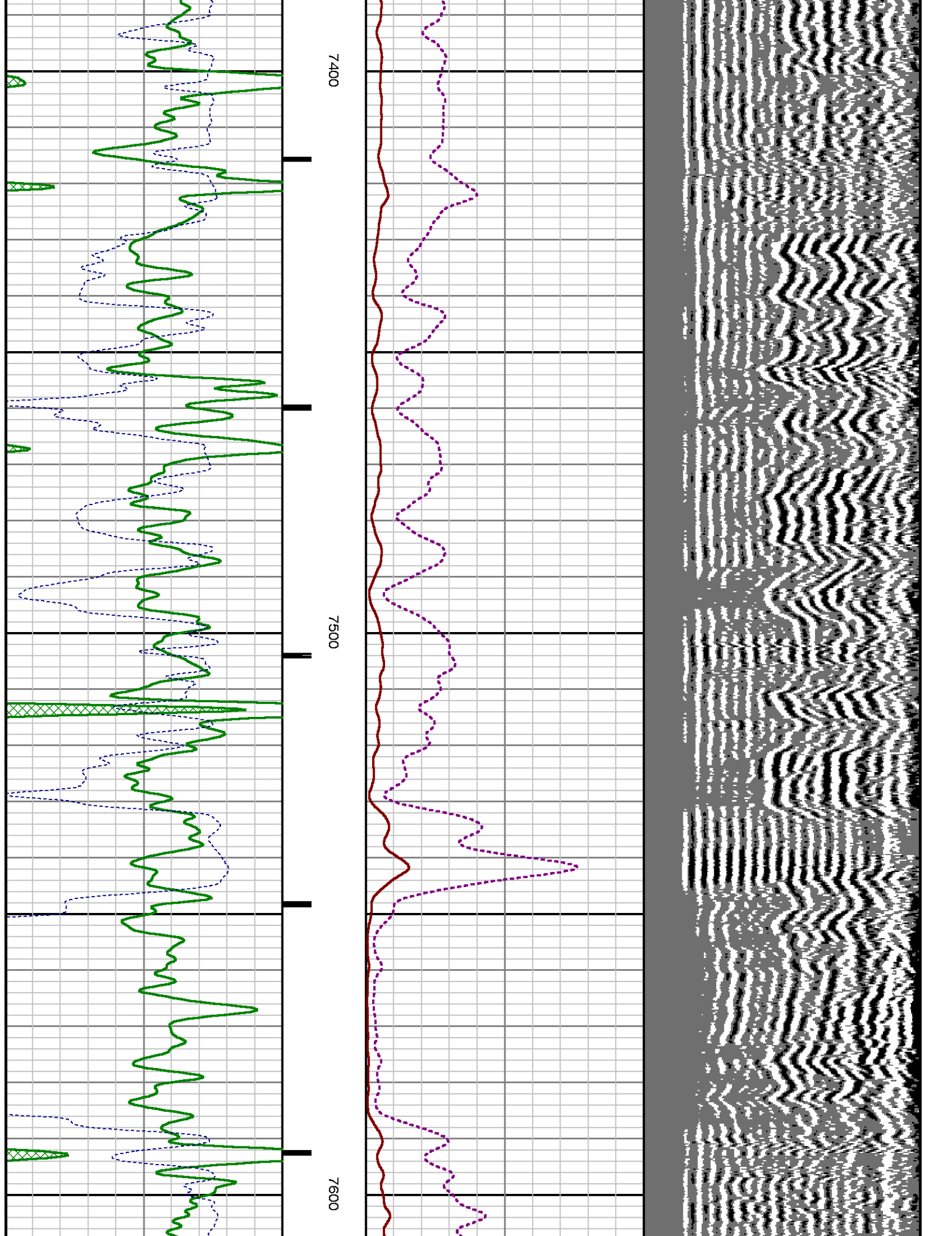


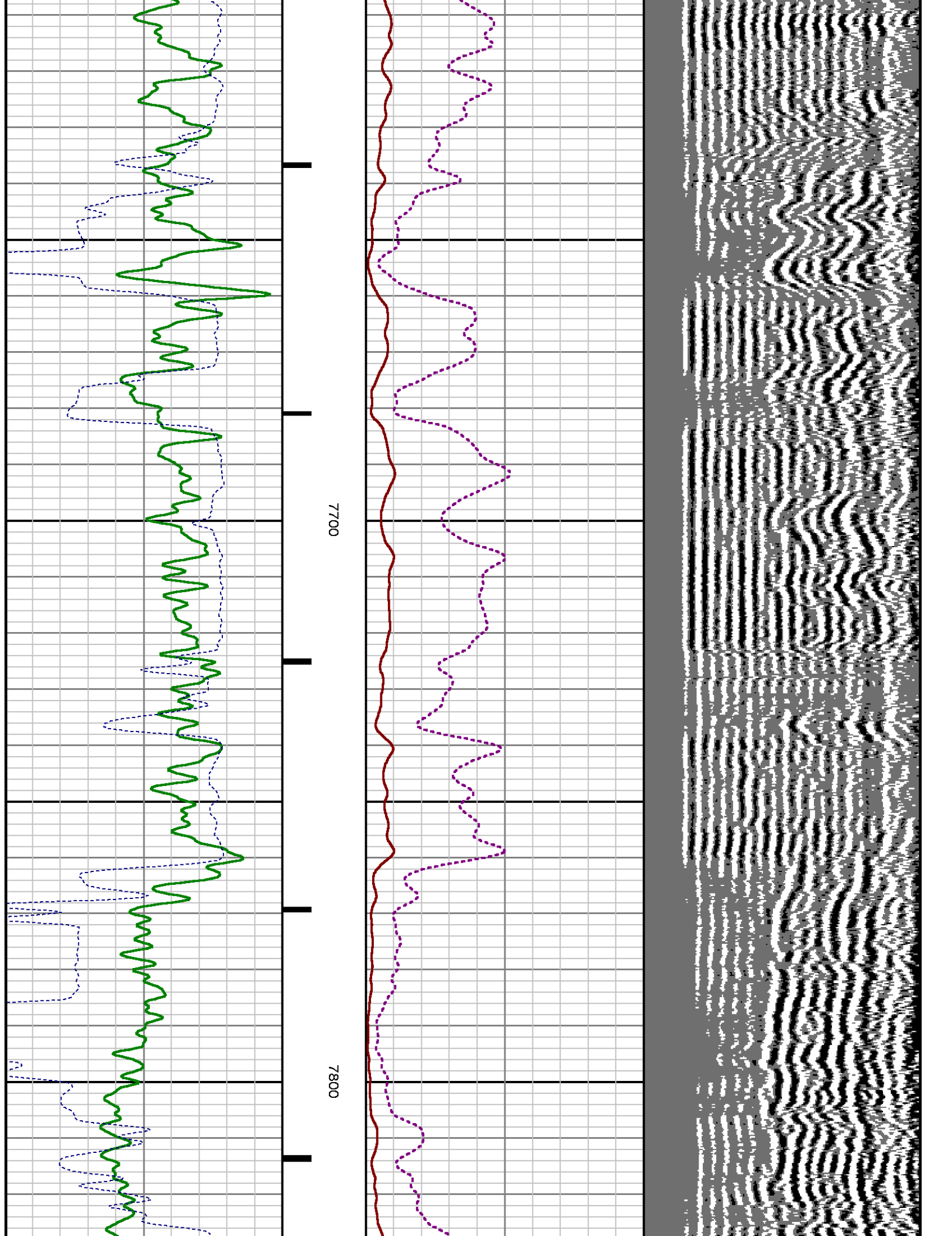


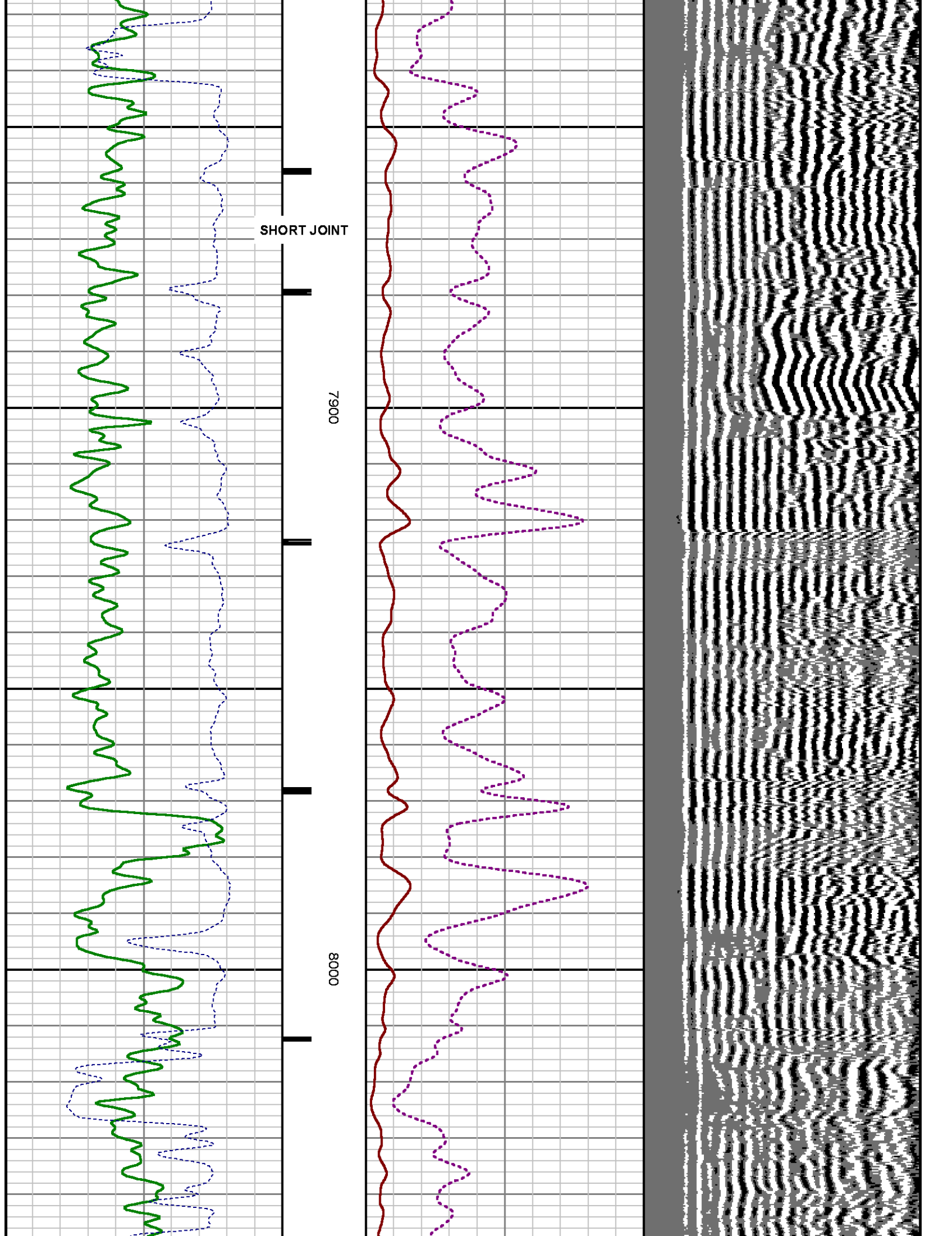


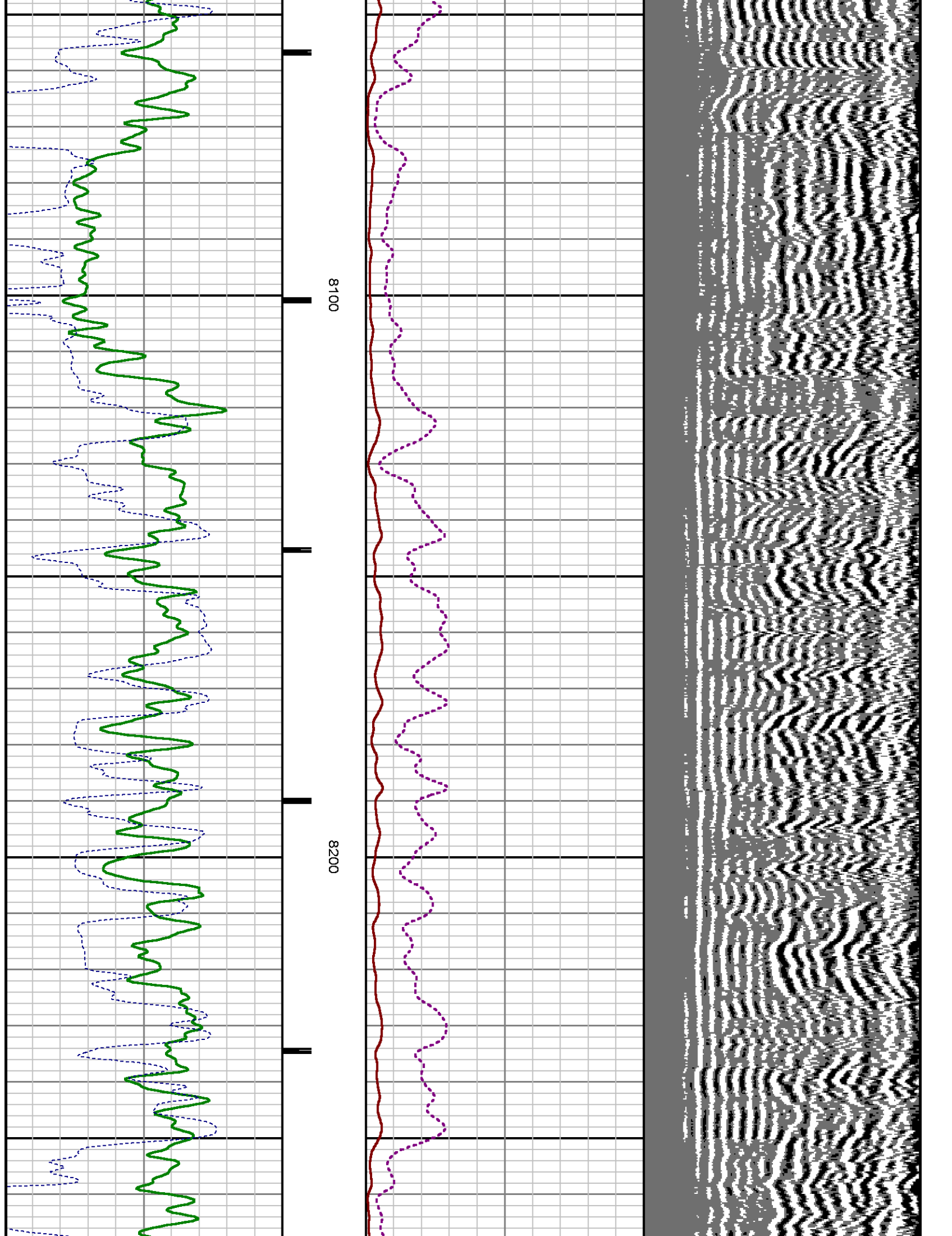


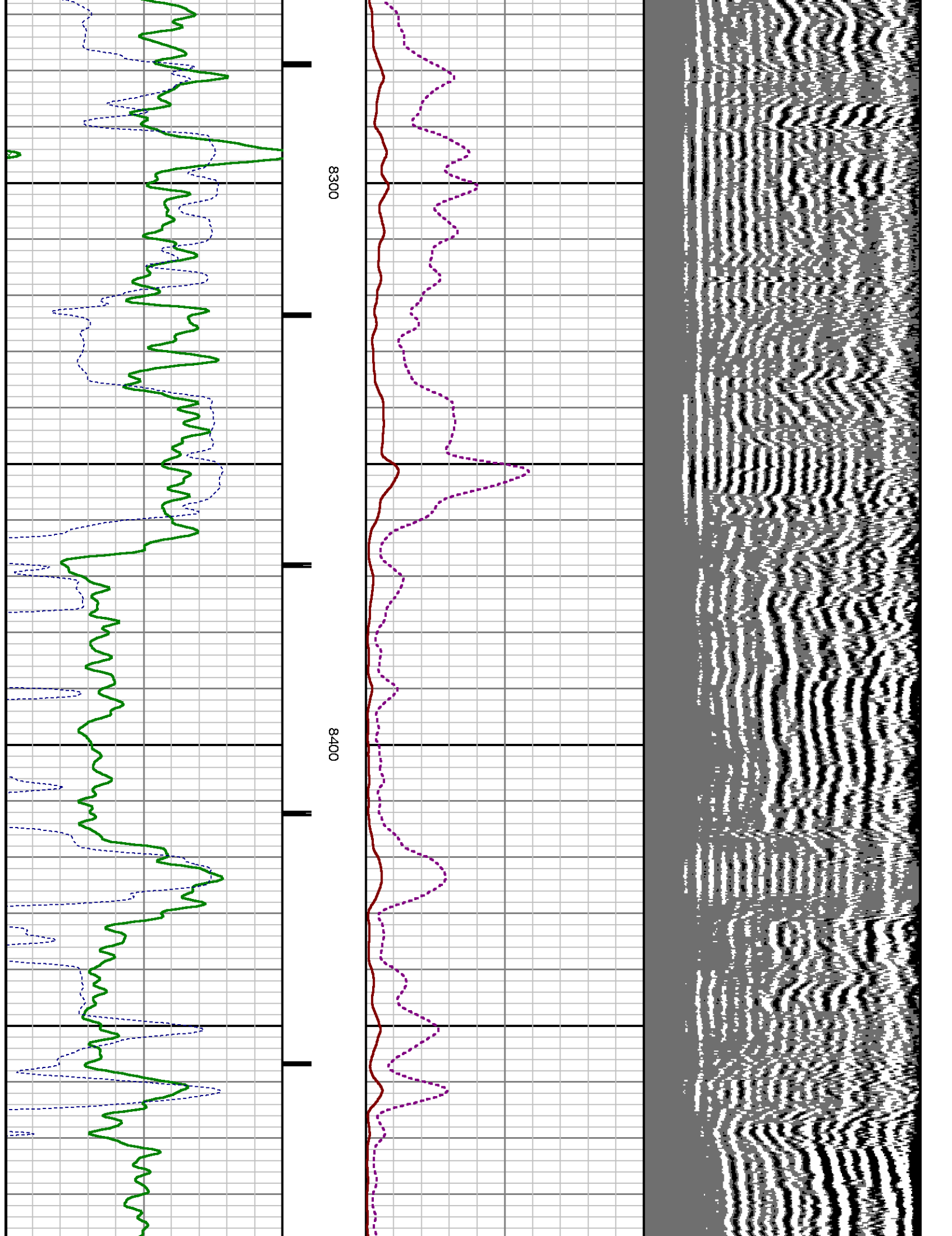




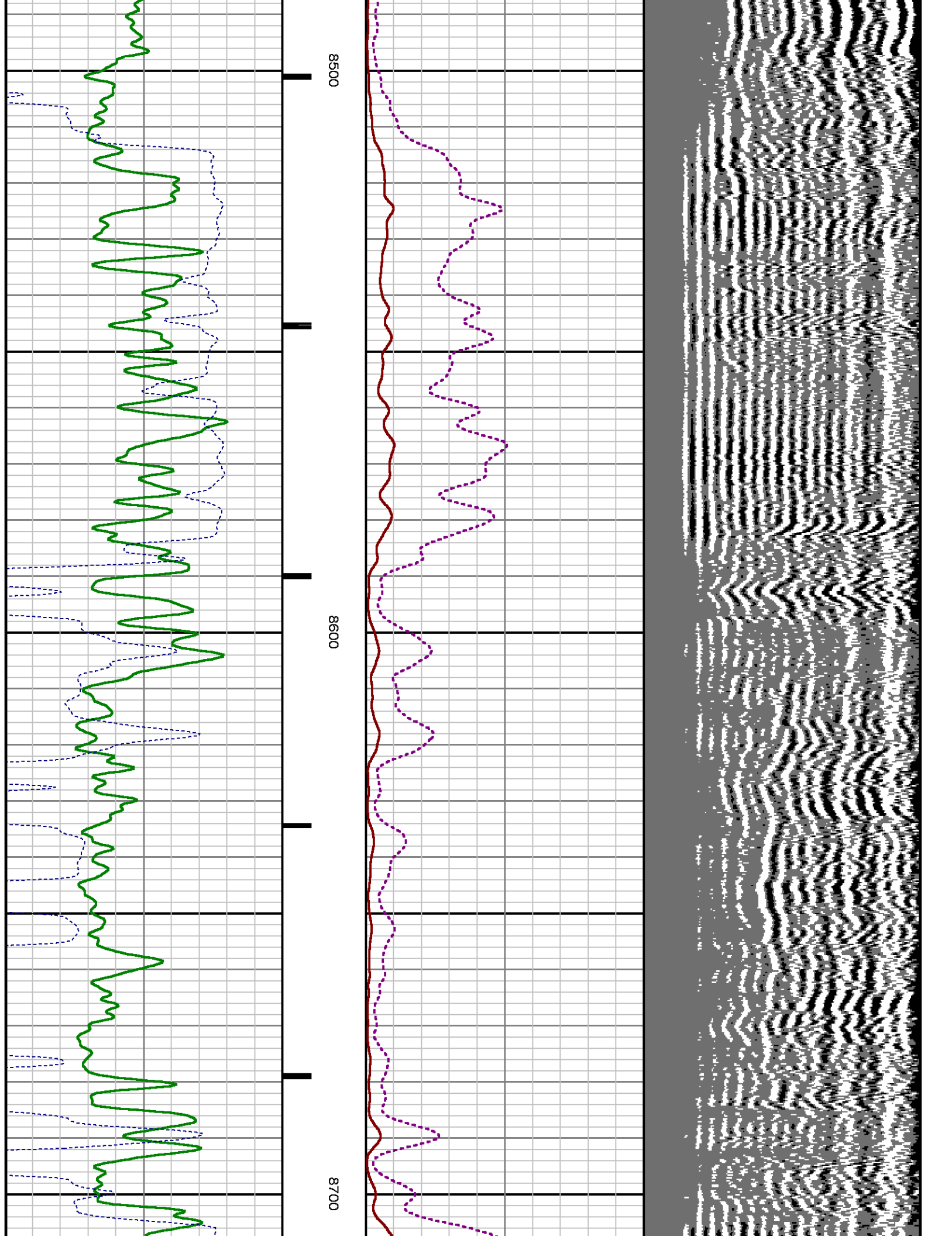




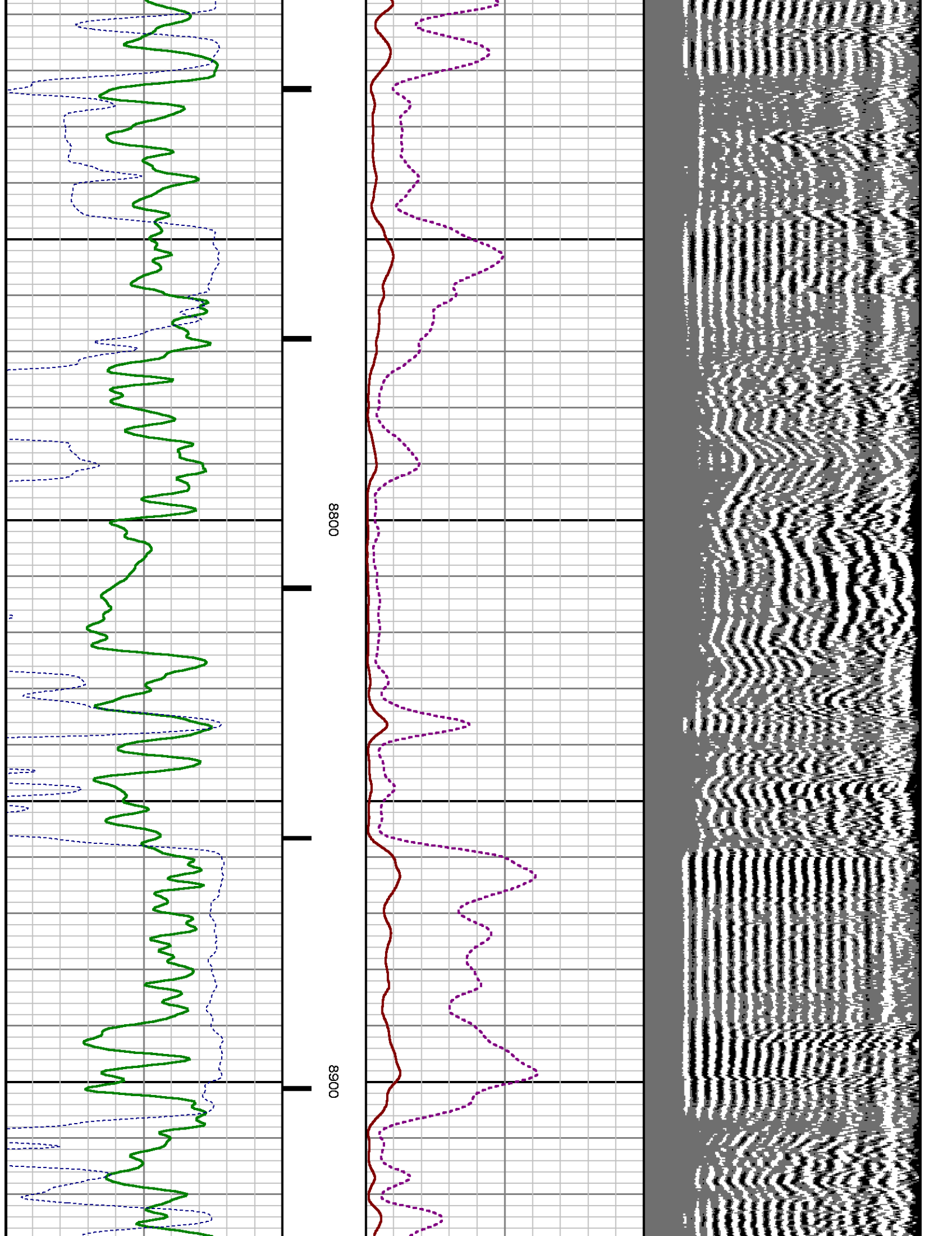


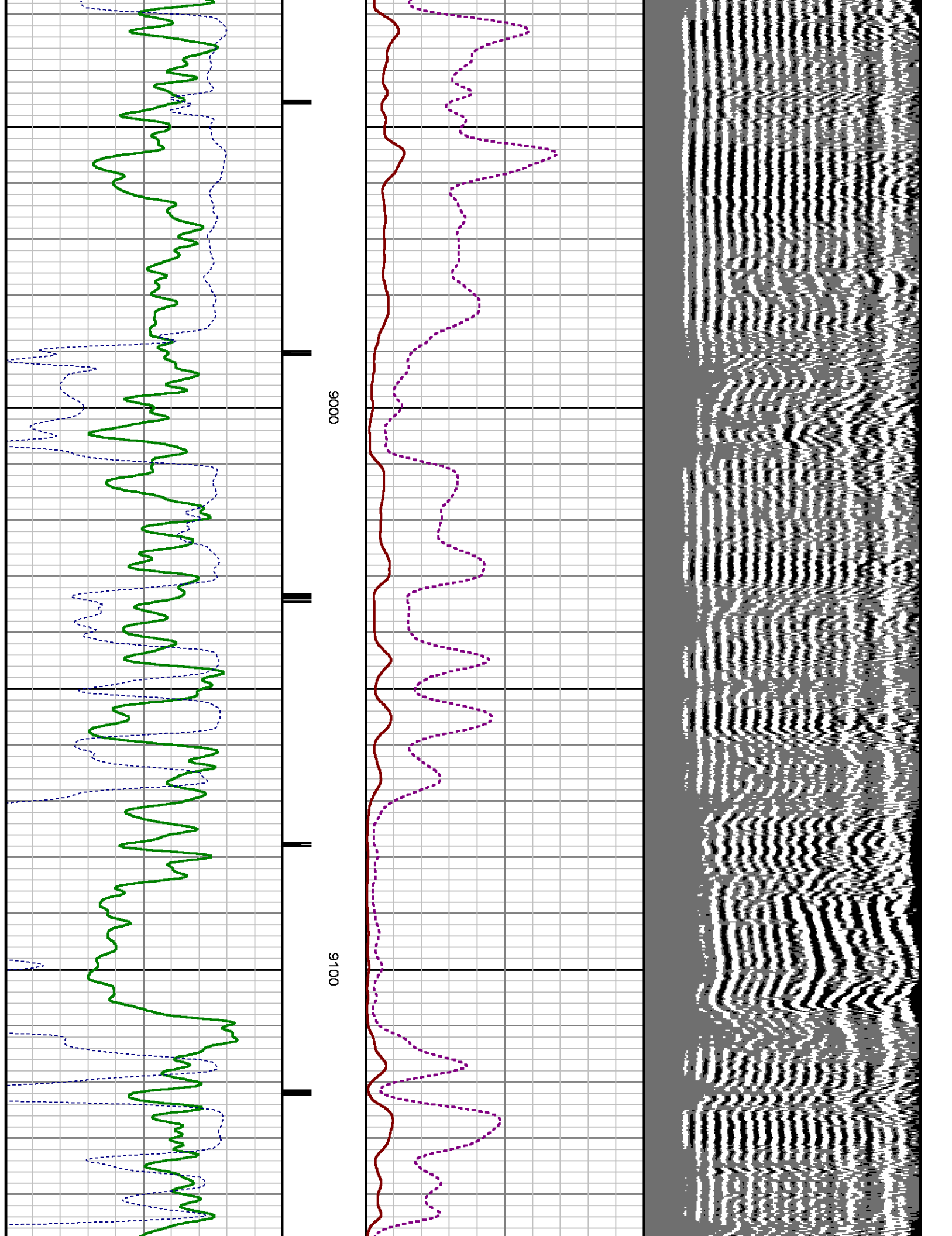


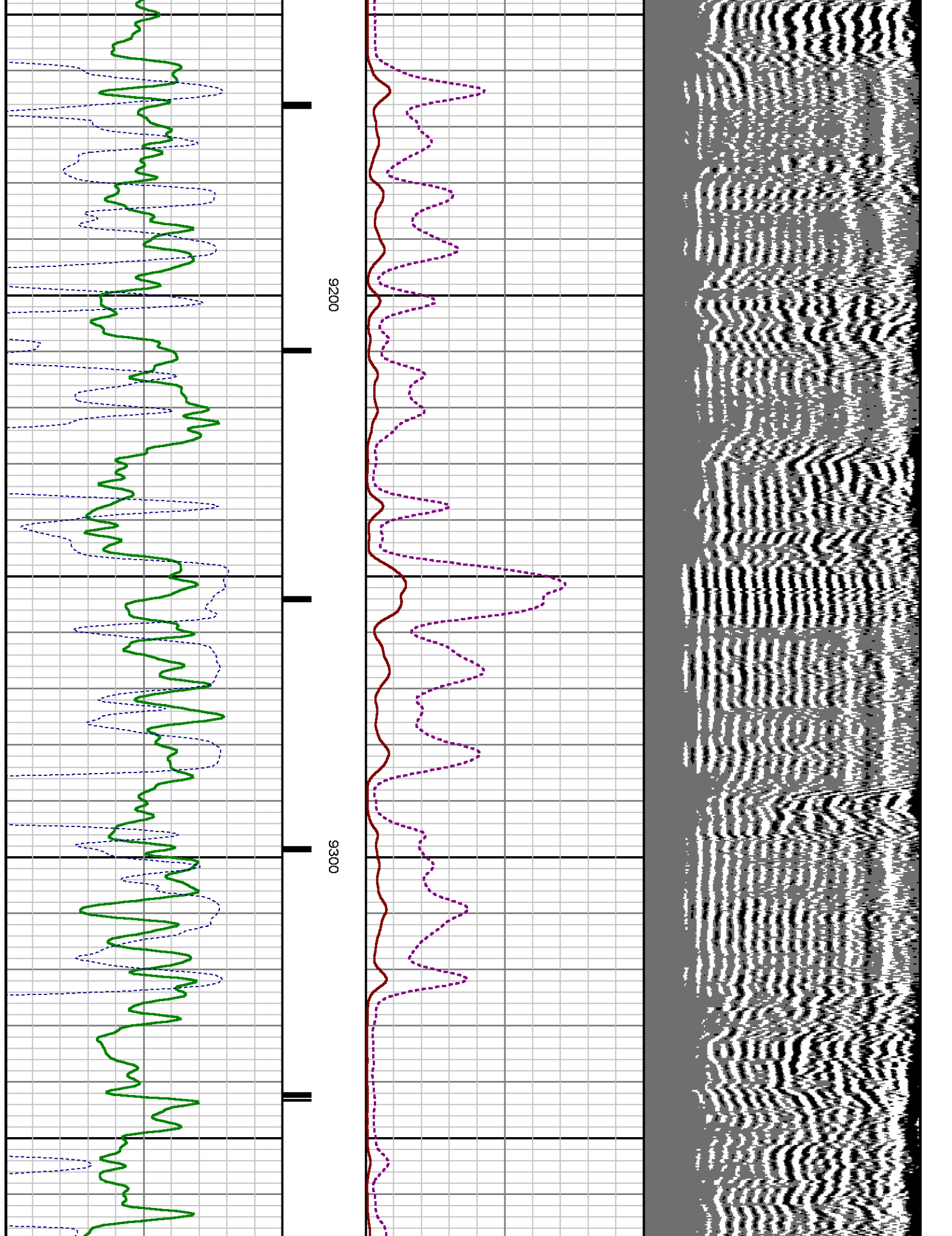


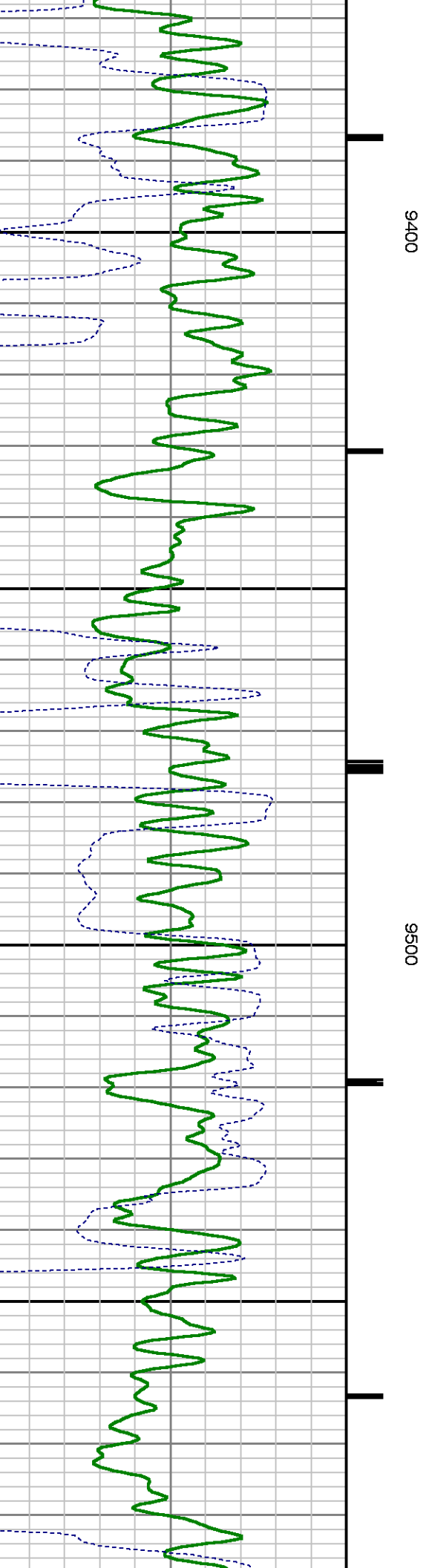
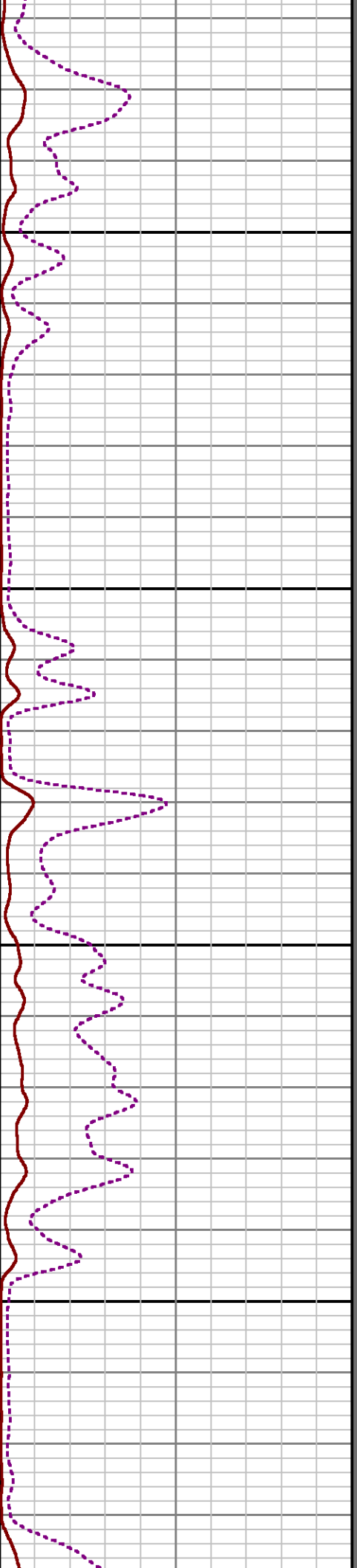
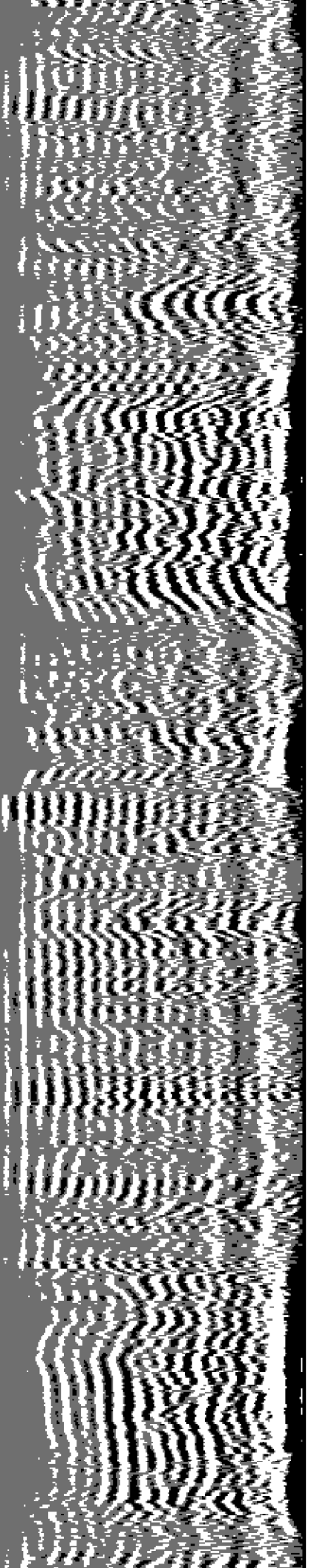


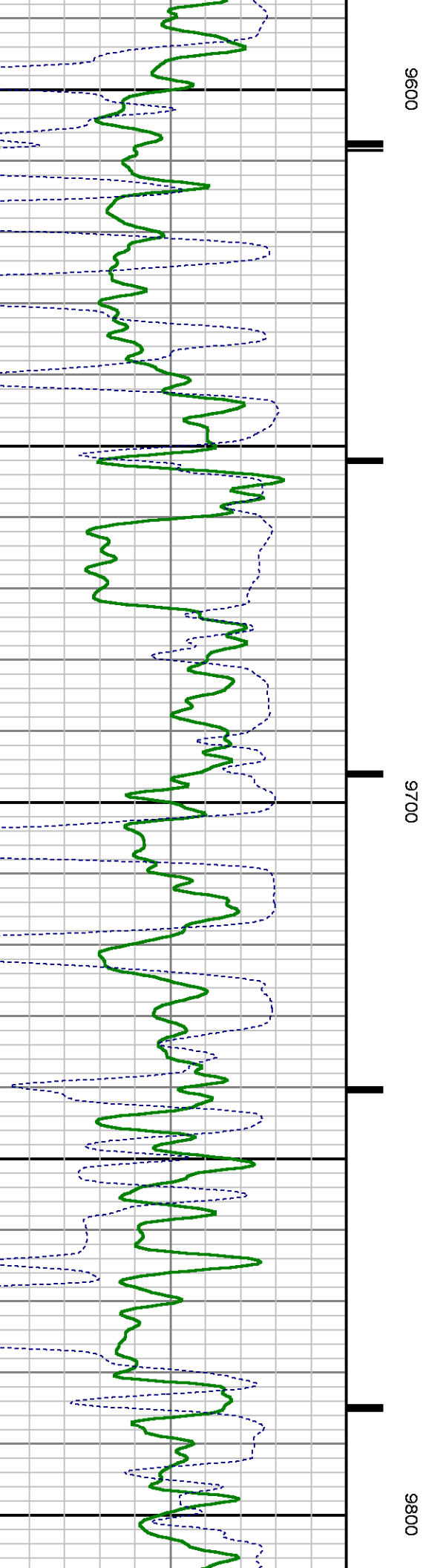
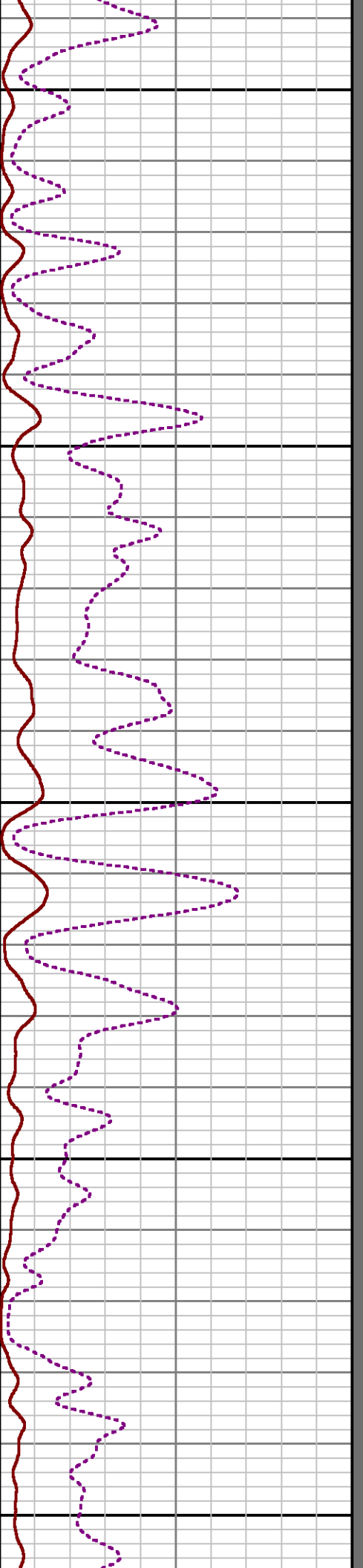
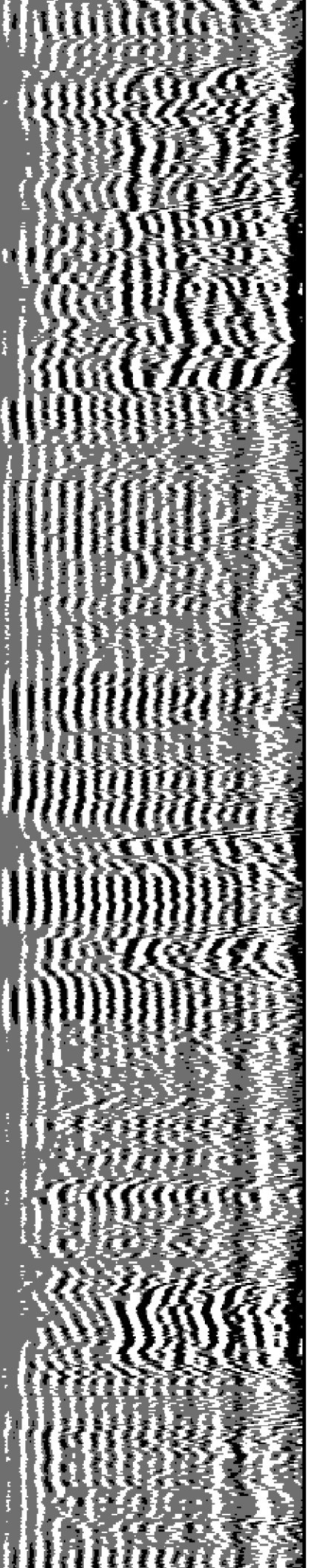




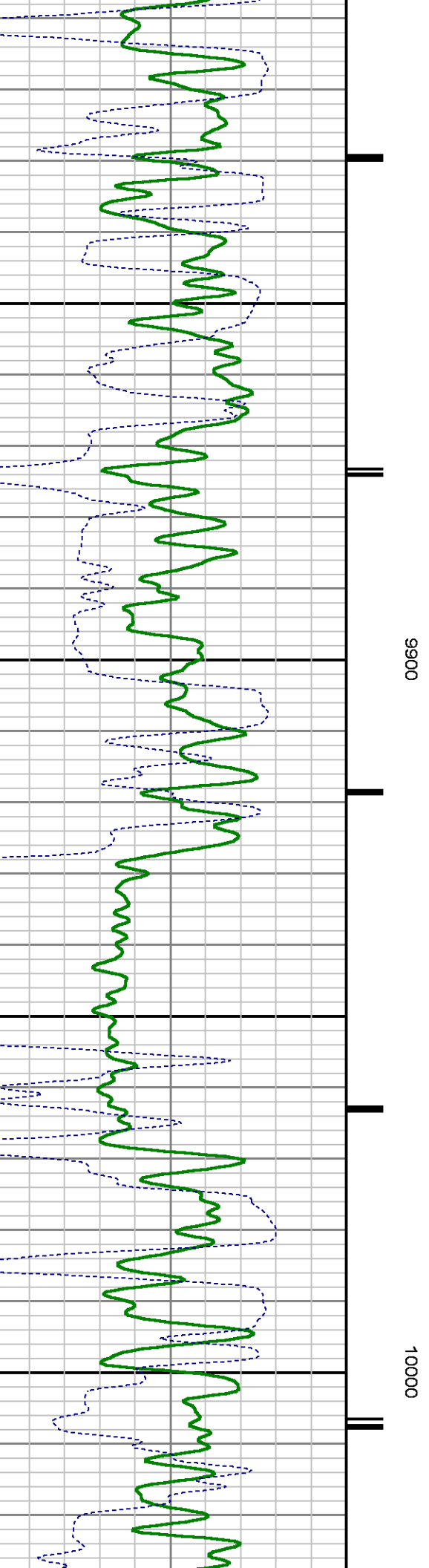
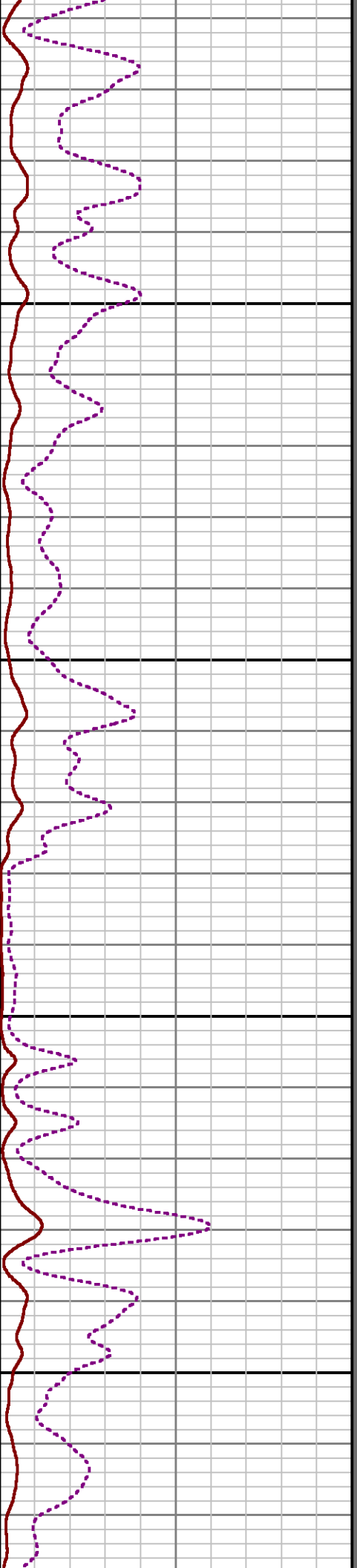
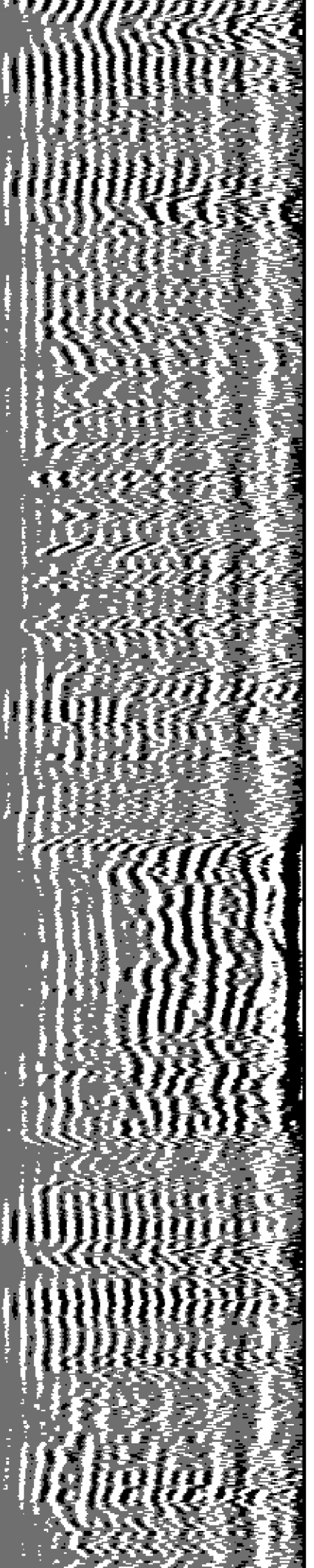




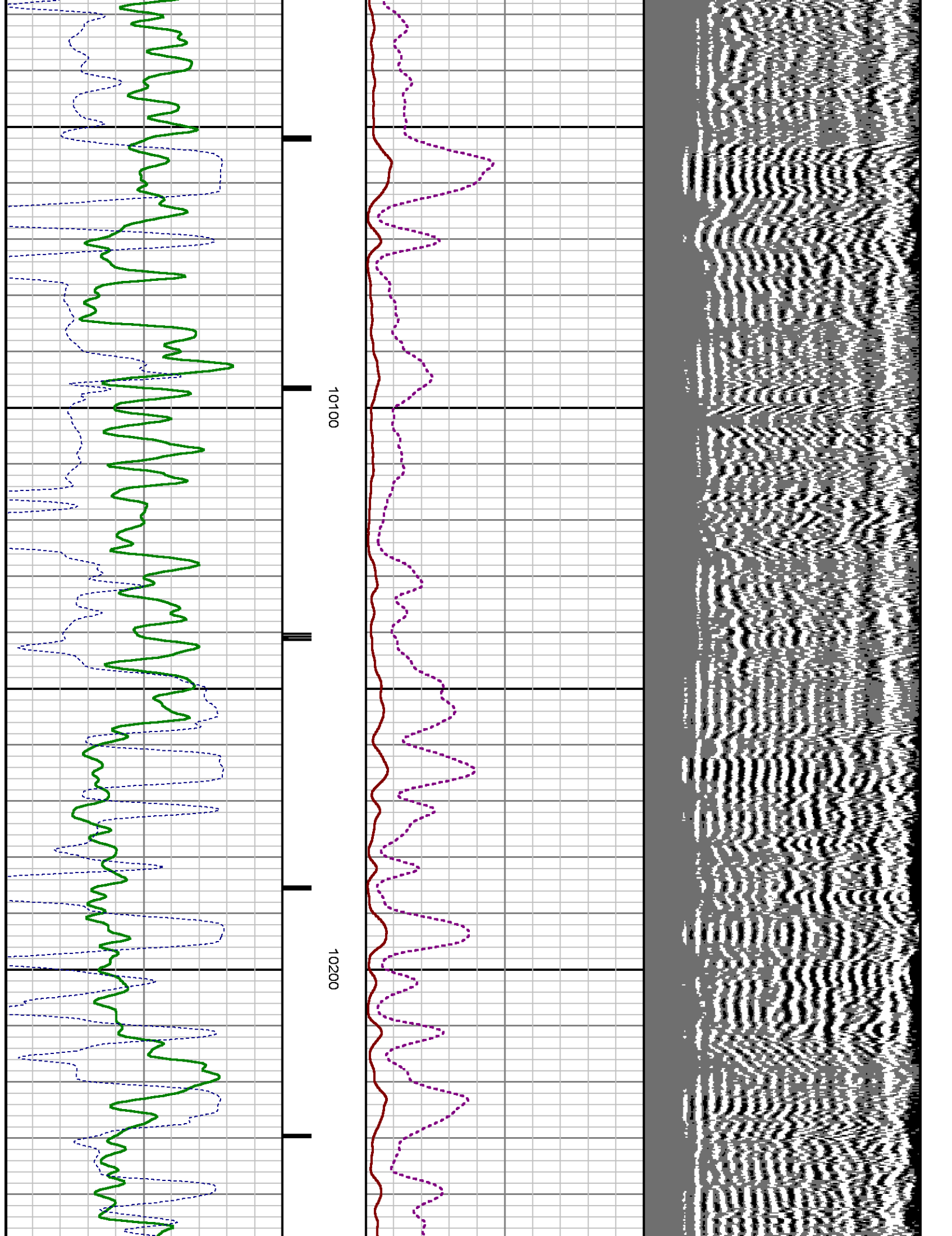


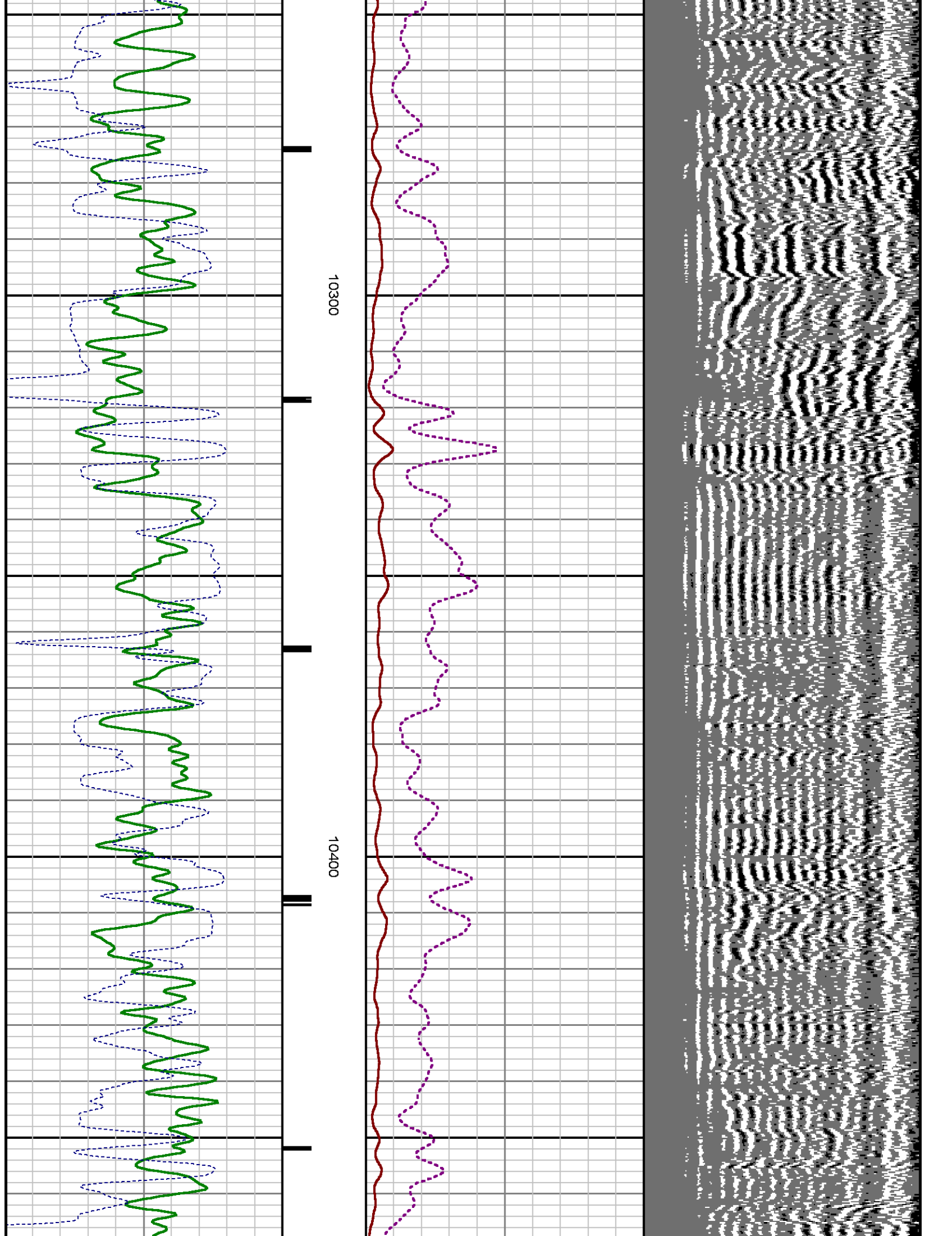


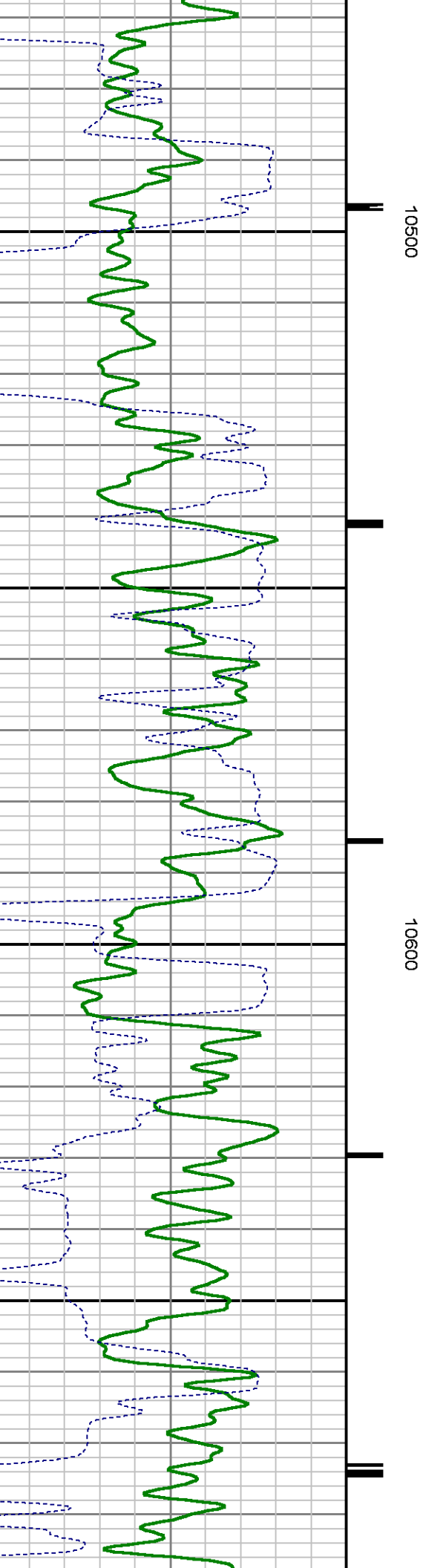
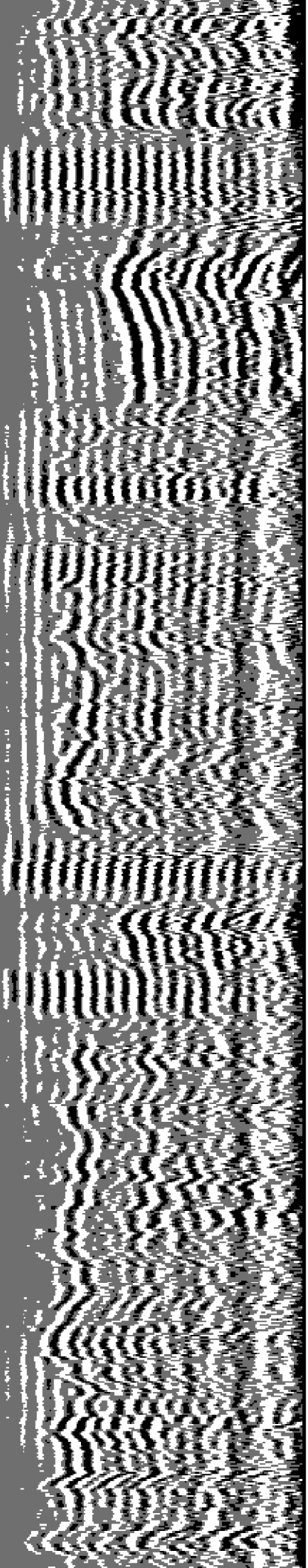


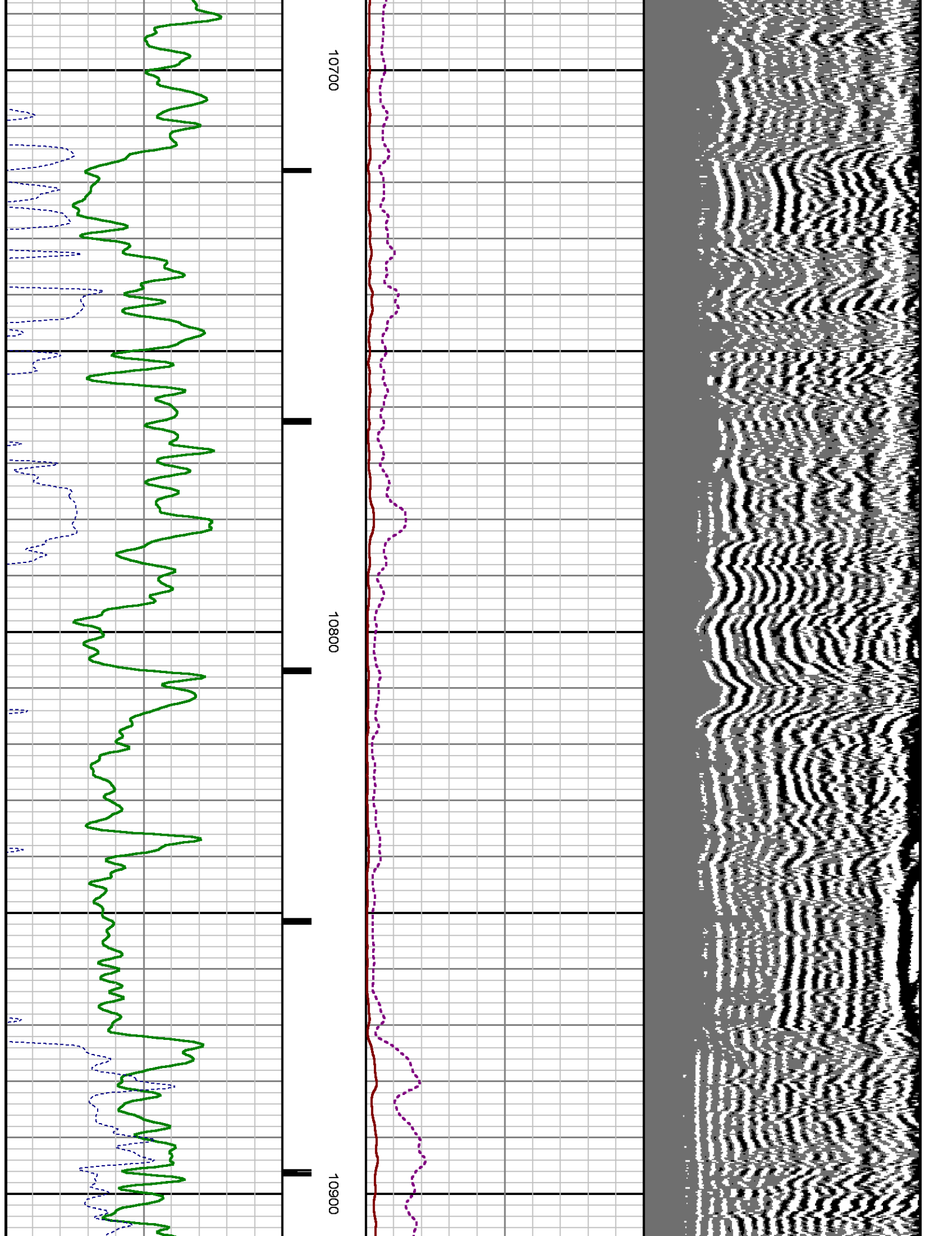


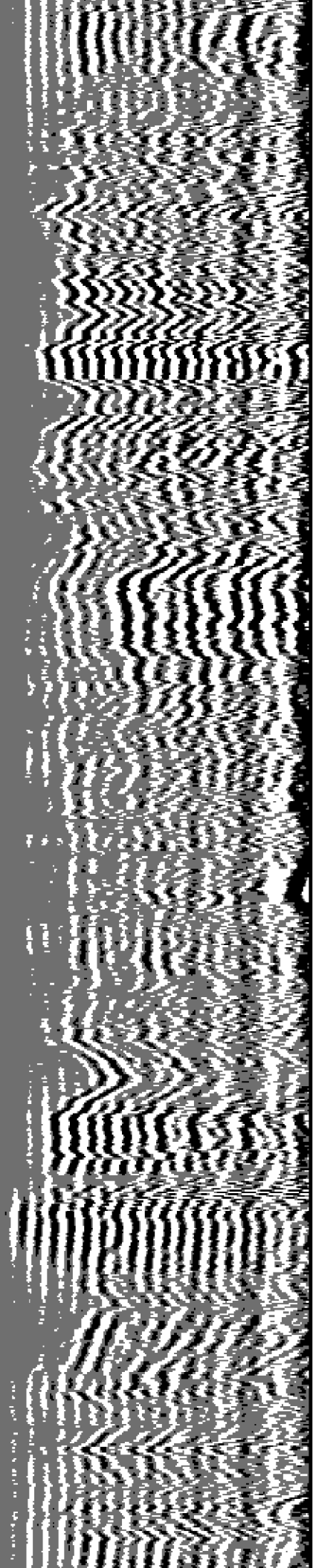






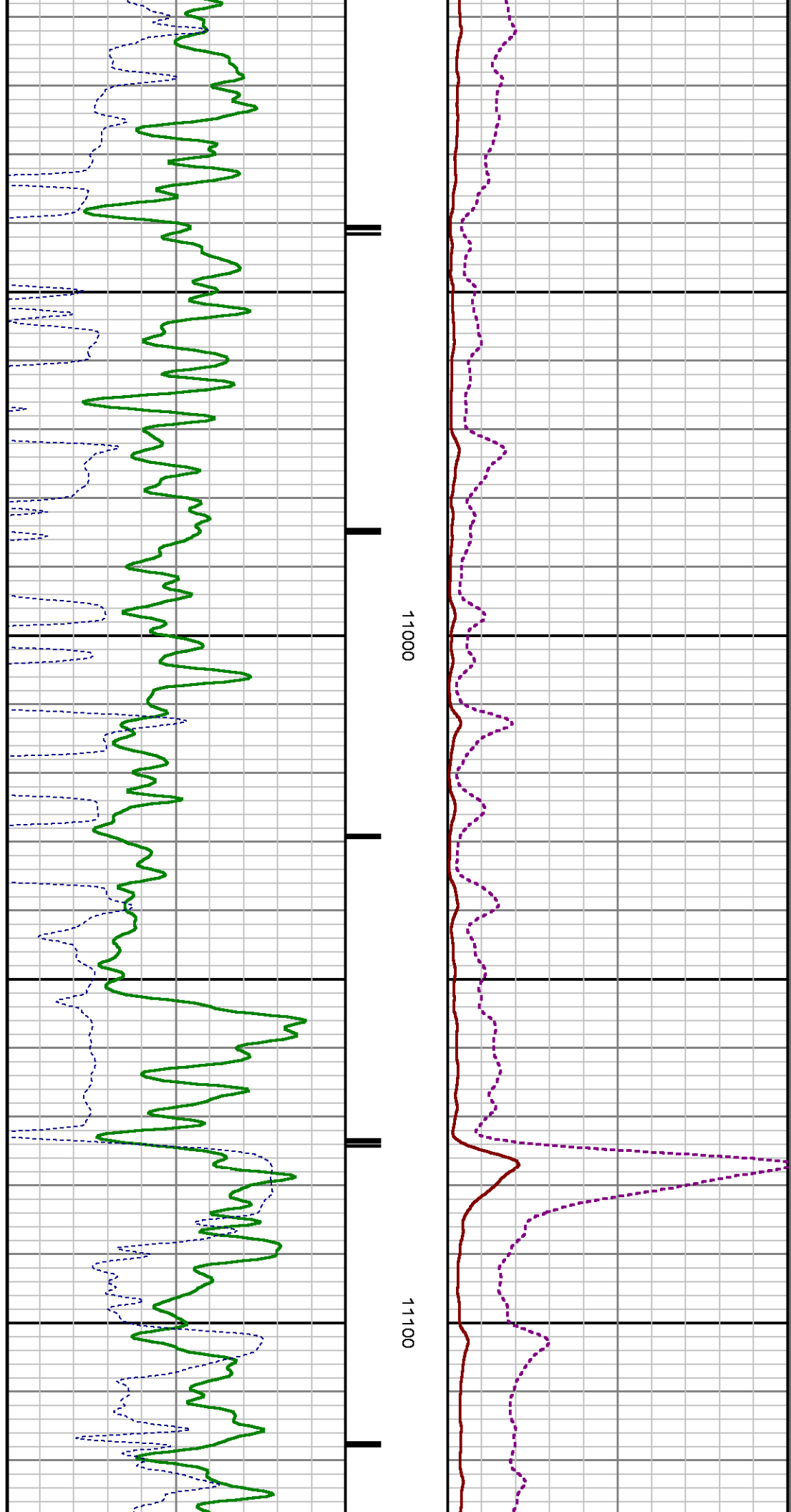




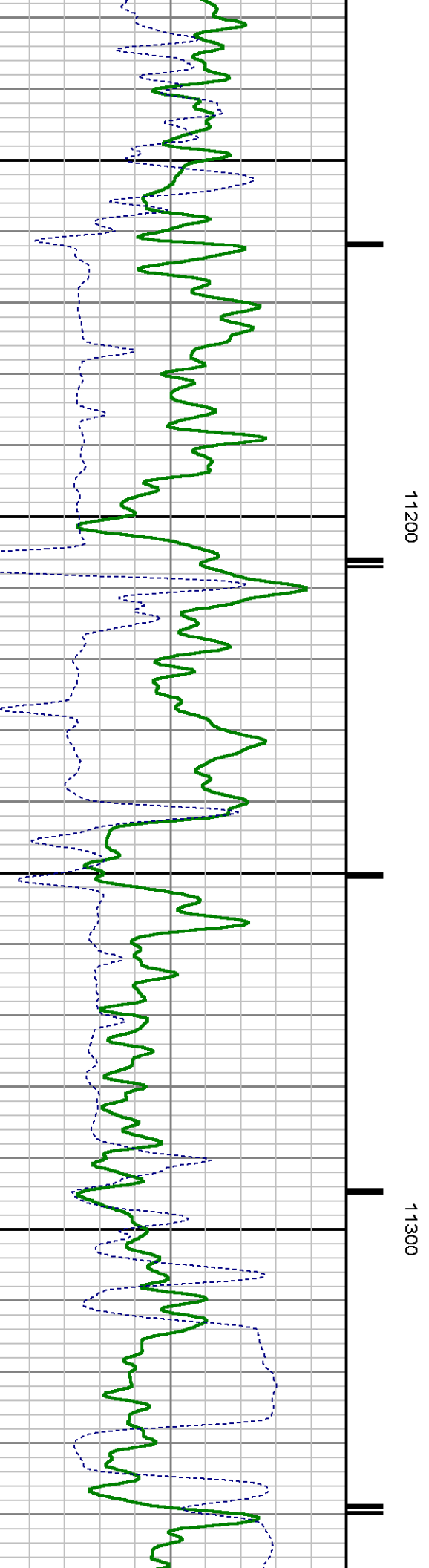
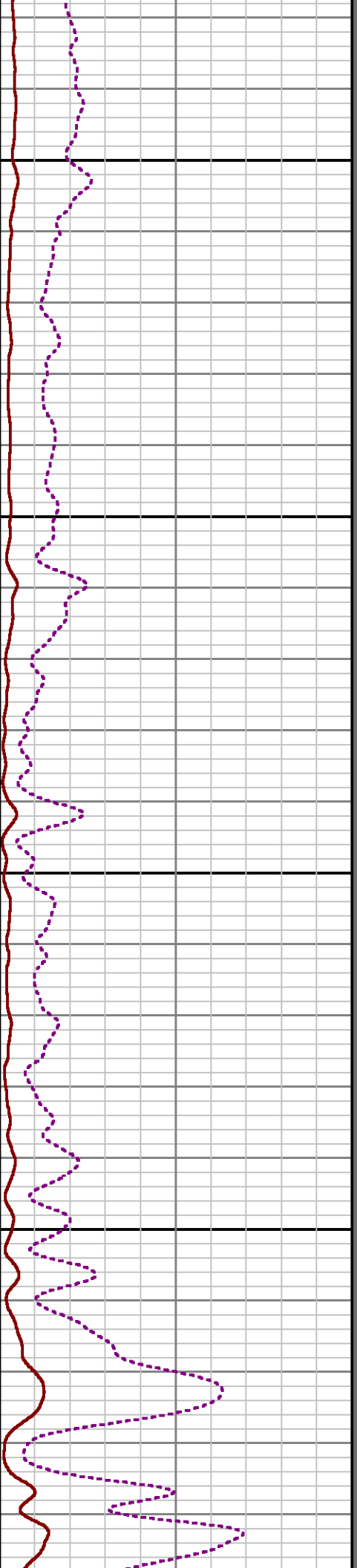
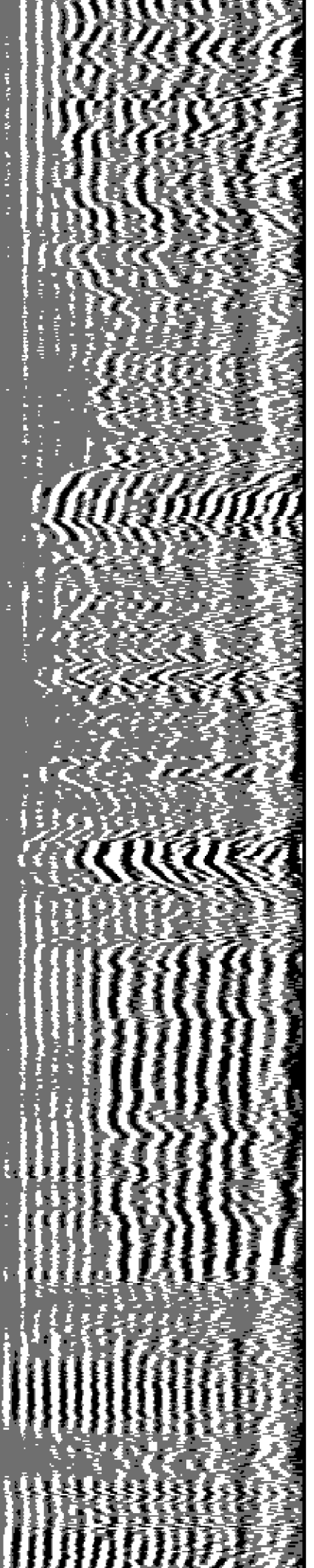


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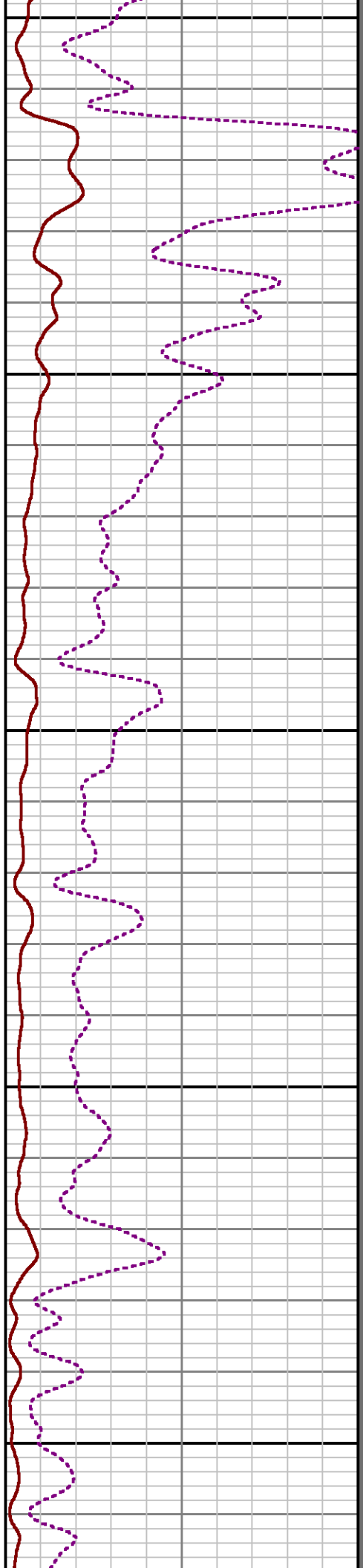
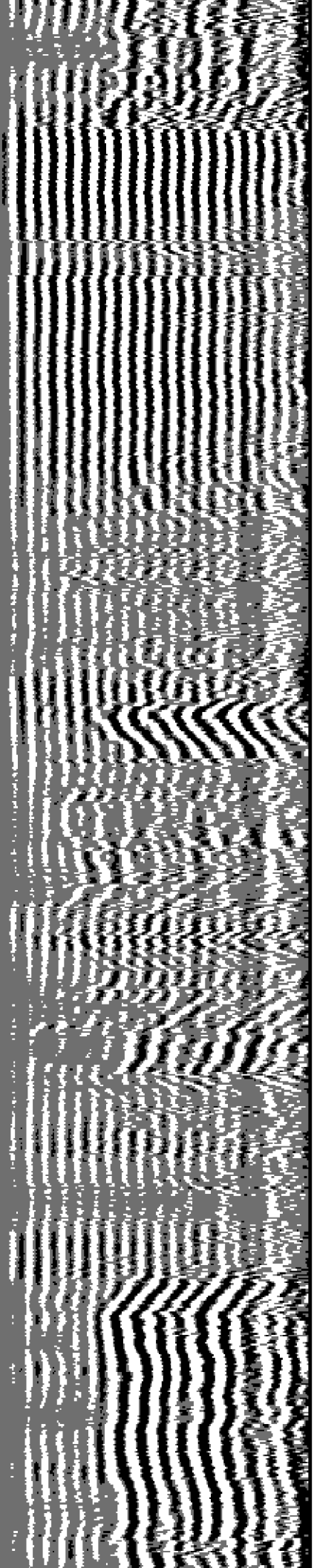
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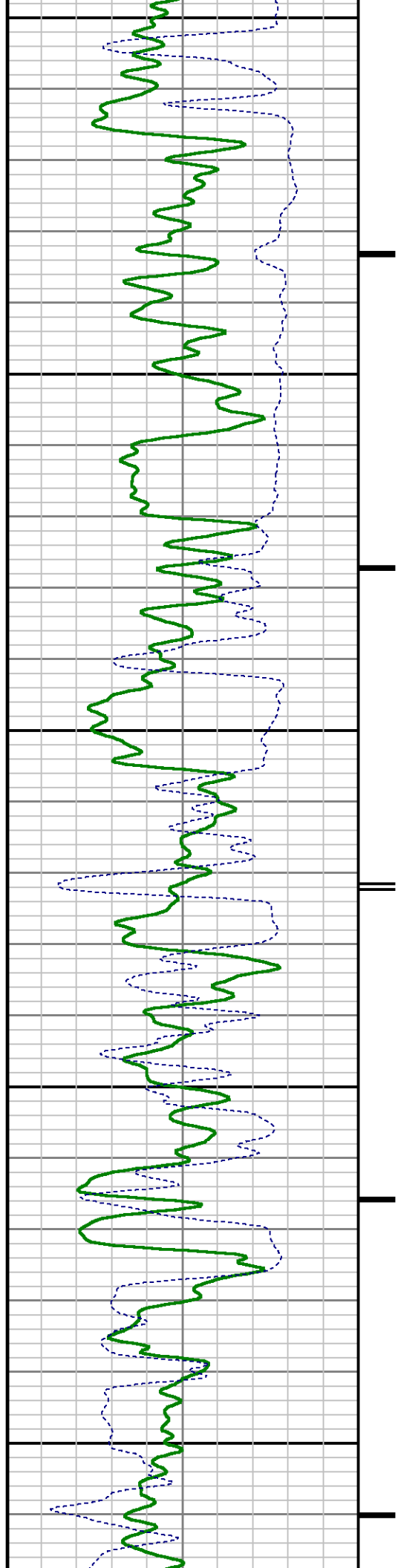


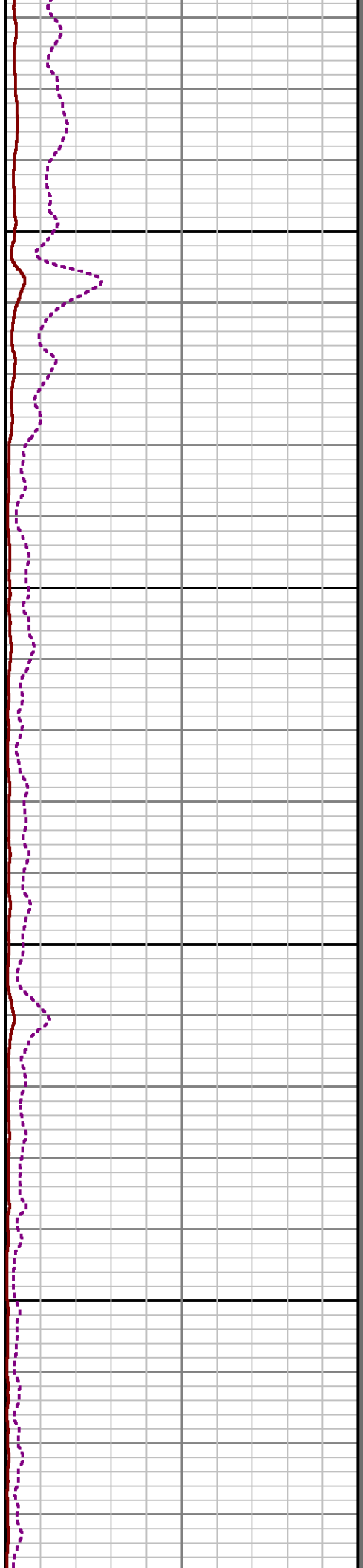
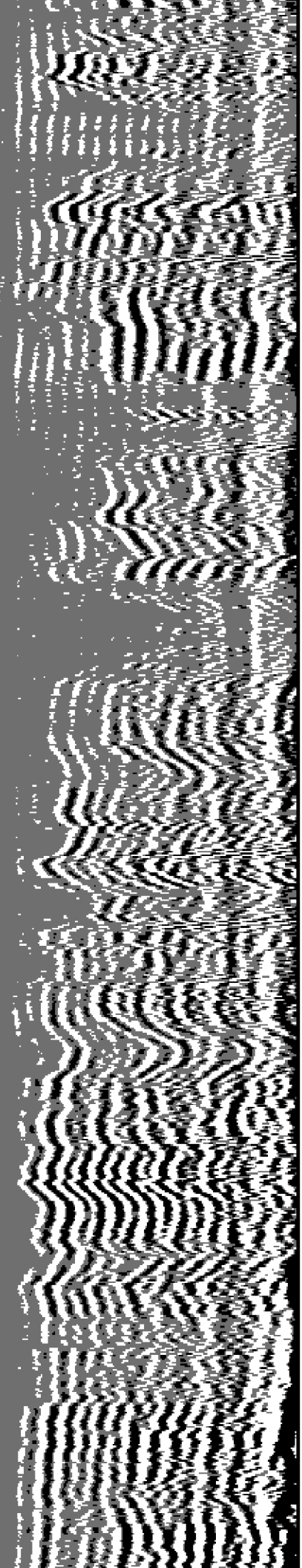




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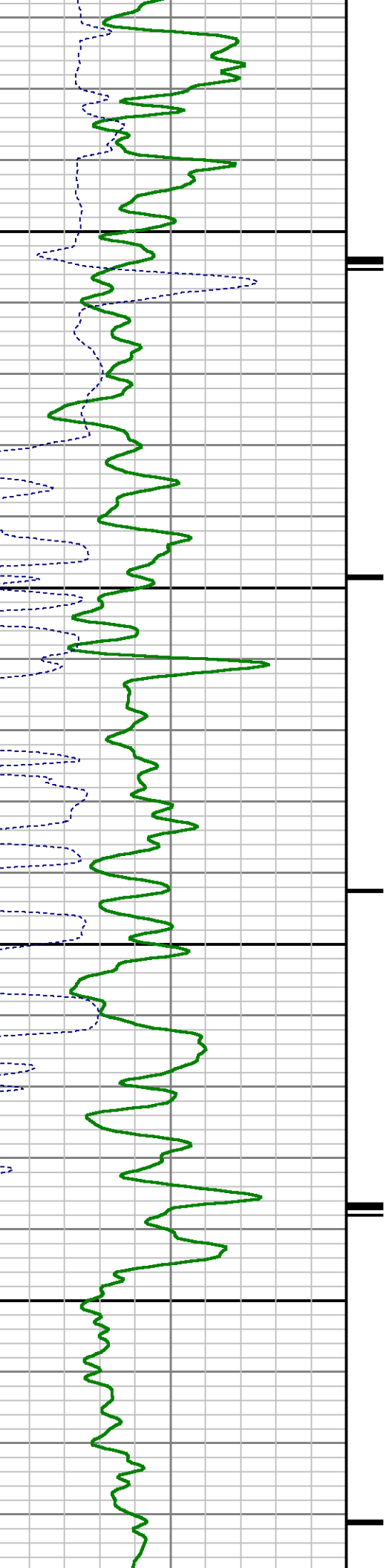
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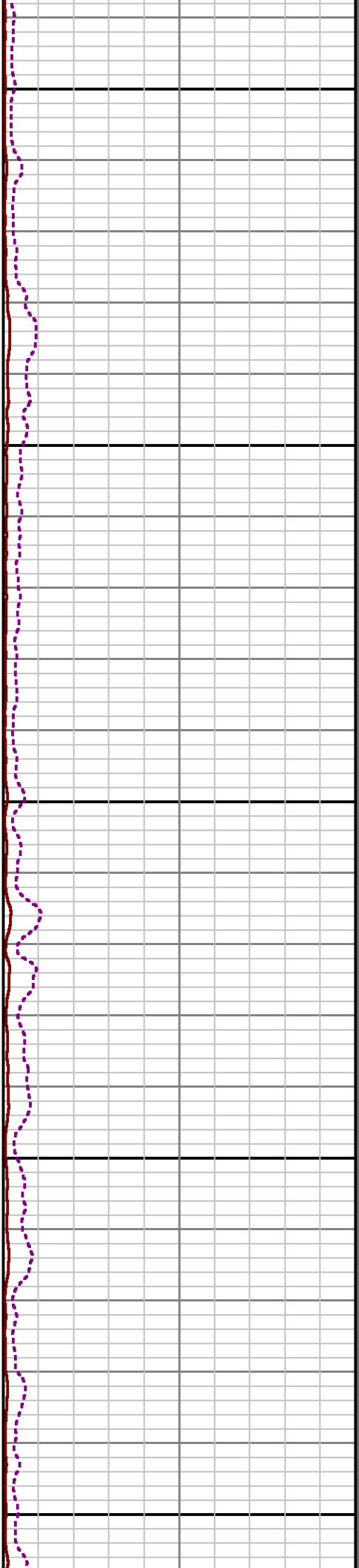
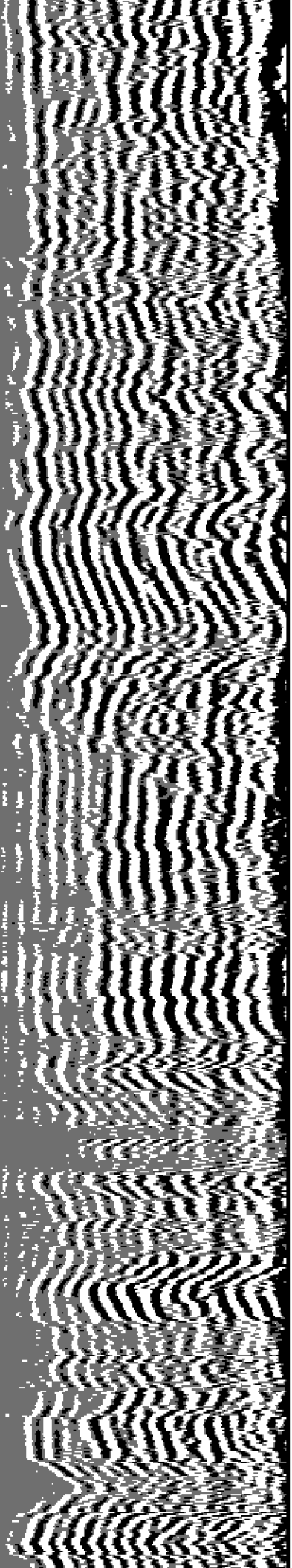




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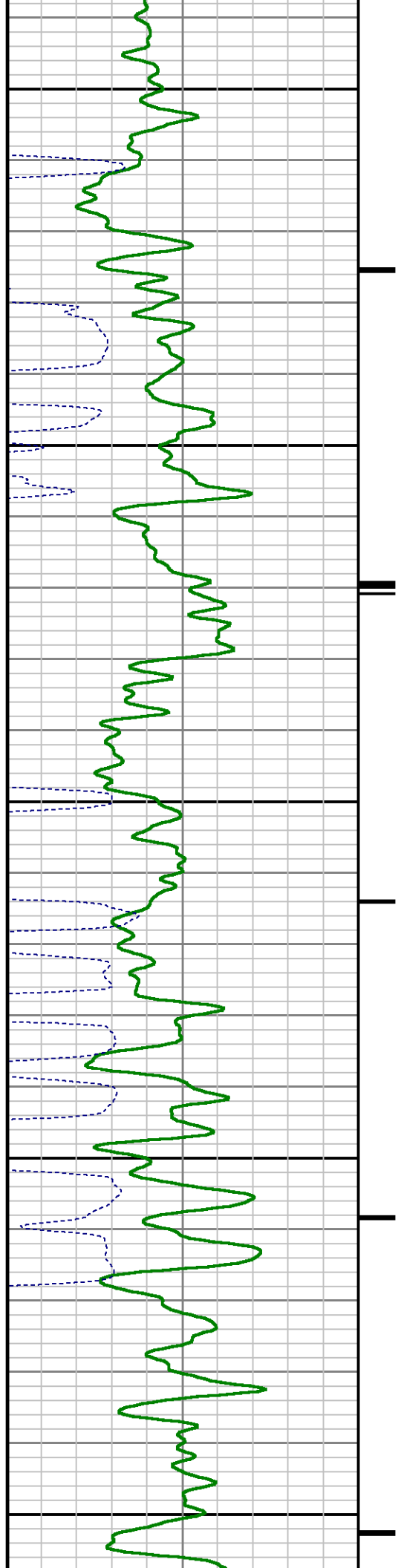


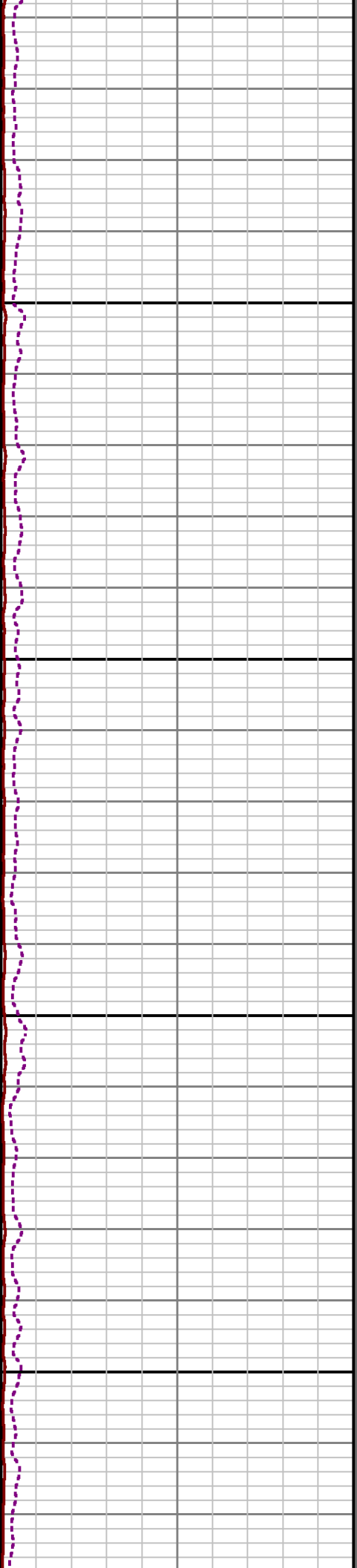
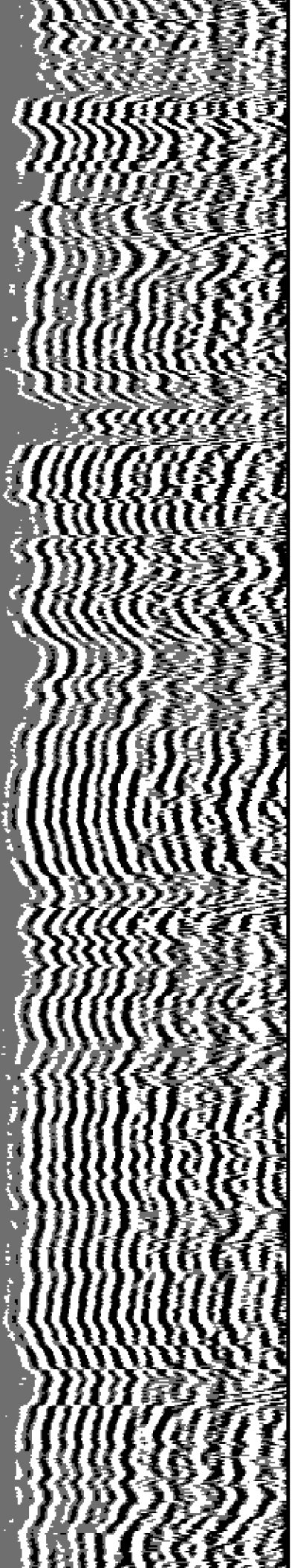


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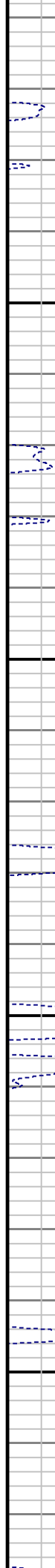
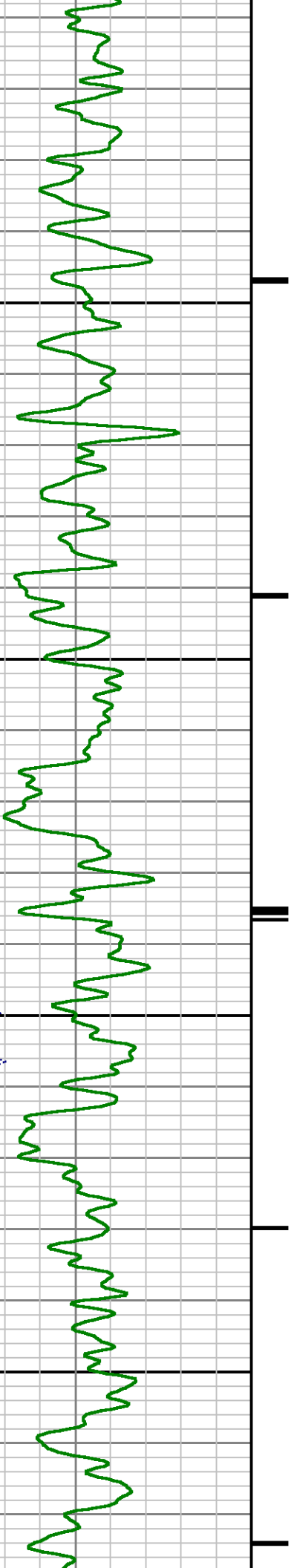
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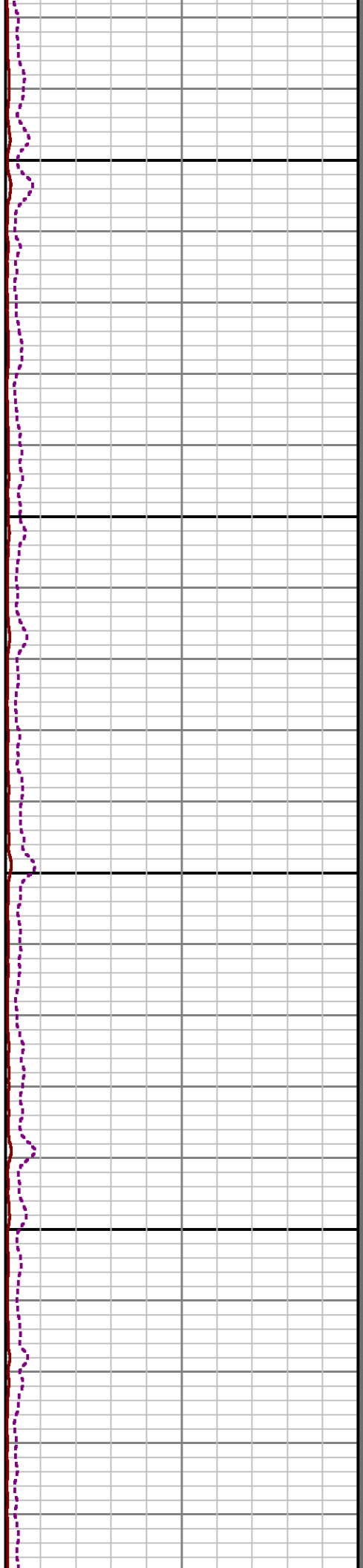
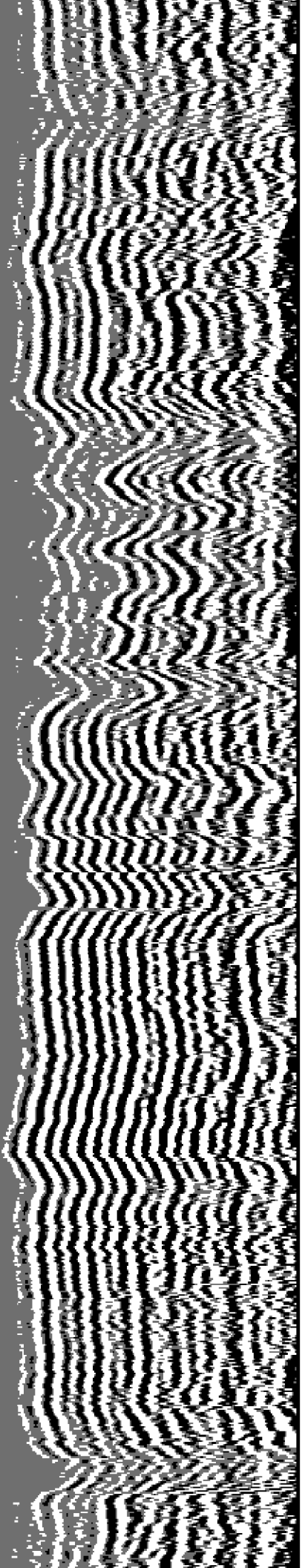




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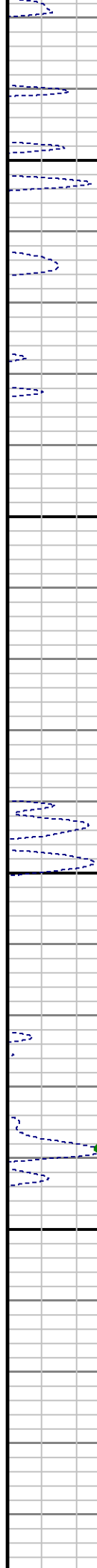
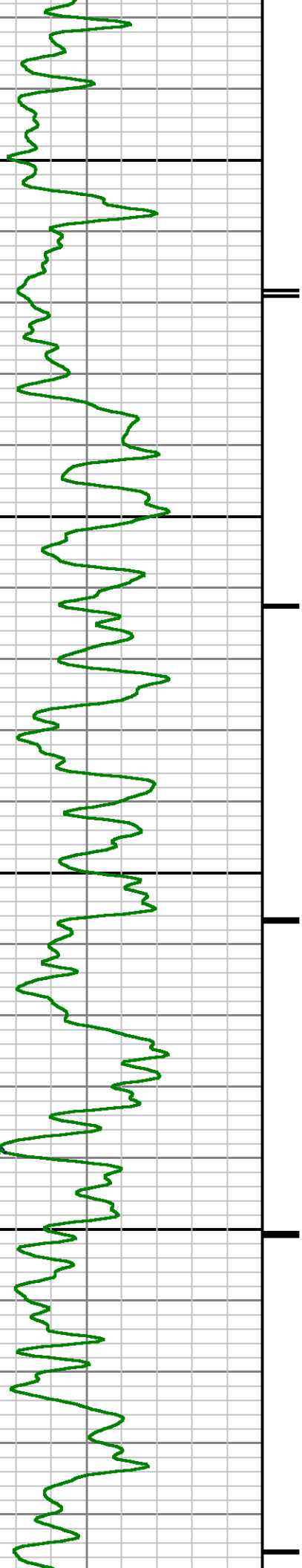
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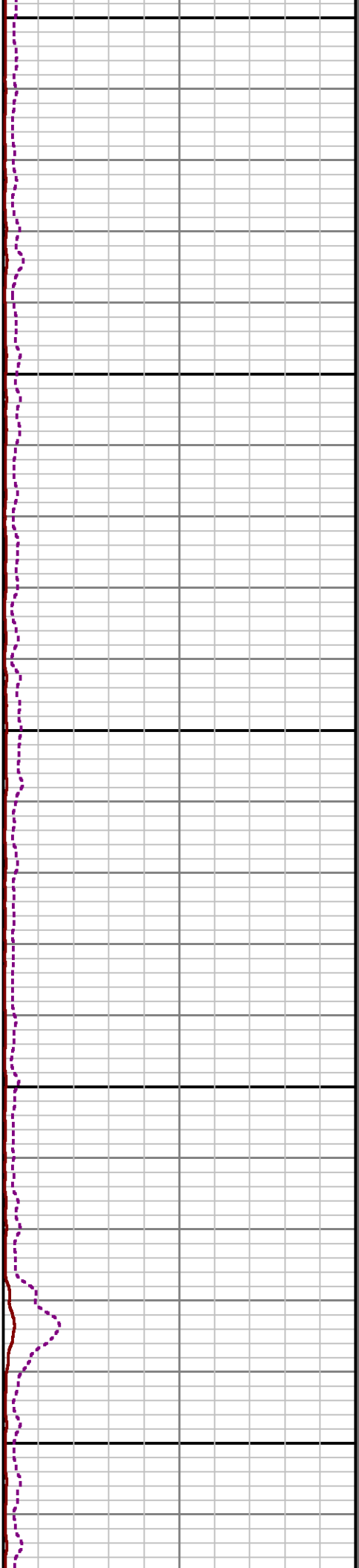
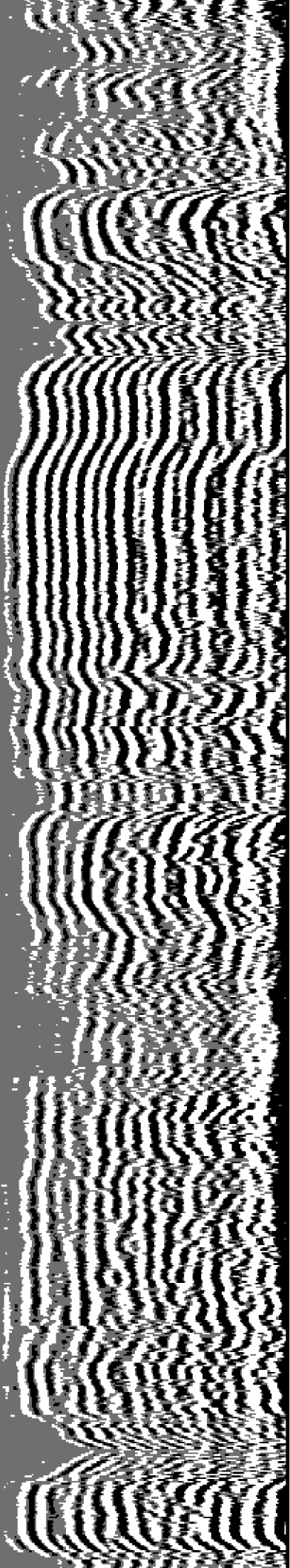


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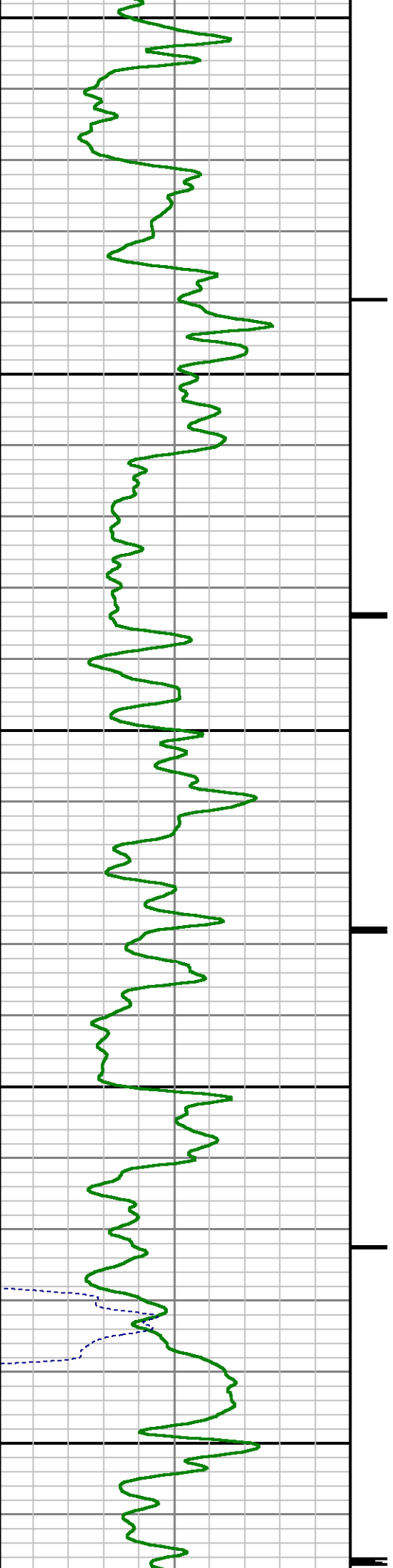




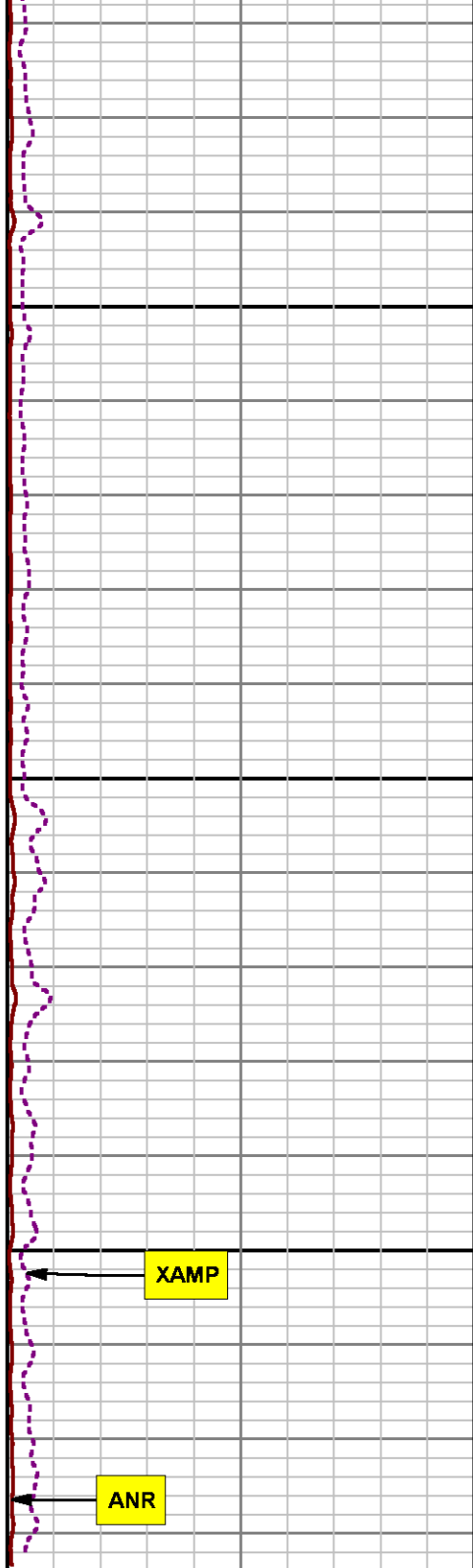
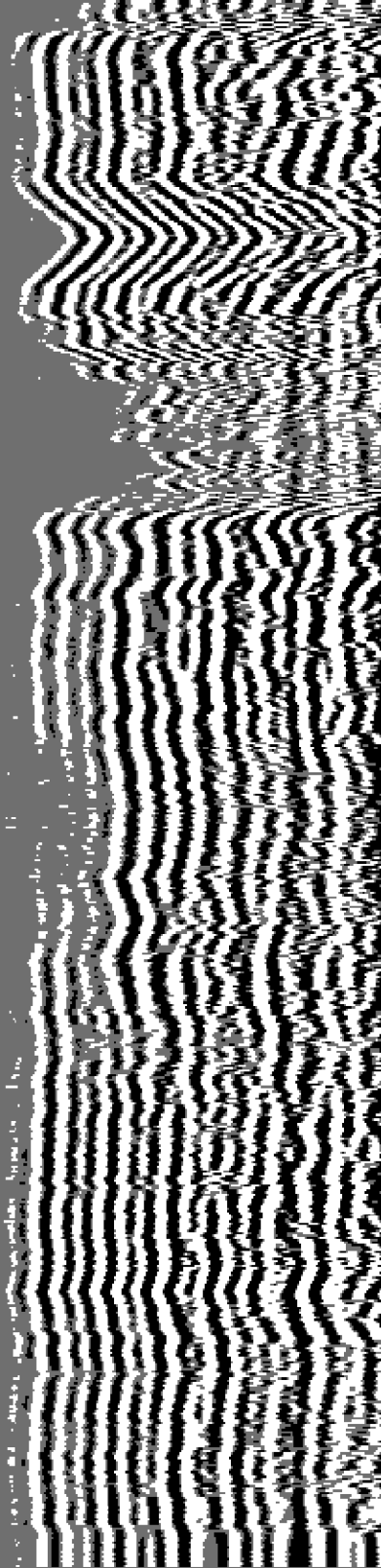


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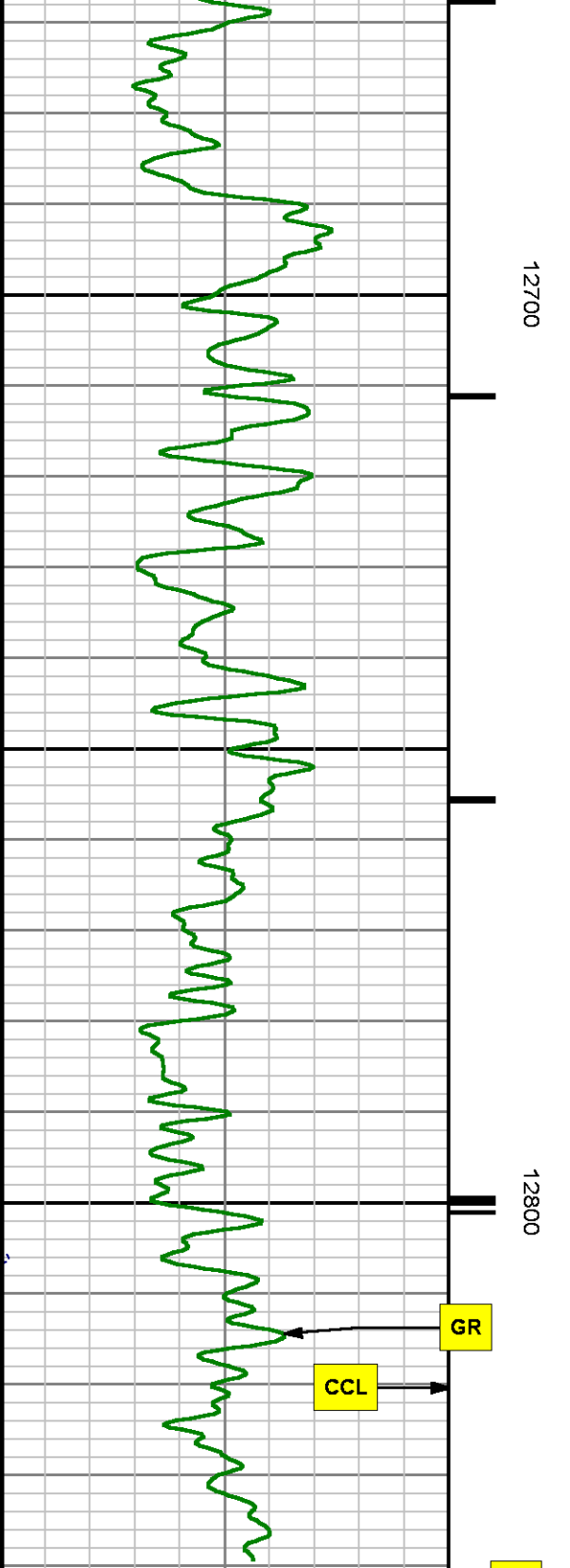
12600







0	ANR	100	200
m v			
0	XAMP	20	
m v			



0	GR	150	180
gAPI			
280	TT3	180	
u sec			

# SECONDARY PRESENTATION

## O PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	26.655	12846.000
RAL	Amp Gate Start Near	195.000	usec	26.655	12846.000
RAL	Amp Gate Start Radial	195.000	usec	26.655	12846.000
RAL	Amp Gate Width Far	25.000	usec	26.655	12846.000
RAL	Amp Gate Width Near	25.000	usec	26.655	12846.000
RAL	Amp Gate Width Radial	25.000	usec	26.655	12846.000
RAL	casing od	4.500	inches	26.655	12846.000
RAL	casing wt	11.600	lbm/ft	26.655	12846.000
RAL	FB Start Far	291.900	usec	26.655	12846.000
RAL	FB Start Near	180.000	usec	26.655	12846.000
RAL	FB Start Radial	180.000	usec	26.655	12846.000
RAL	FB Thresh Far	10.000	mv	26.655	12846.000
RAL	FB Thresh Near	4.000	mv	26.655	12846.000
RAL	FB Thresh Radial	4.000	mv	26.655	12846.000
RAL	Fluid Travel Time	200.000	usec/ft	26.655	12846.000

### DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	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	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

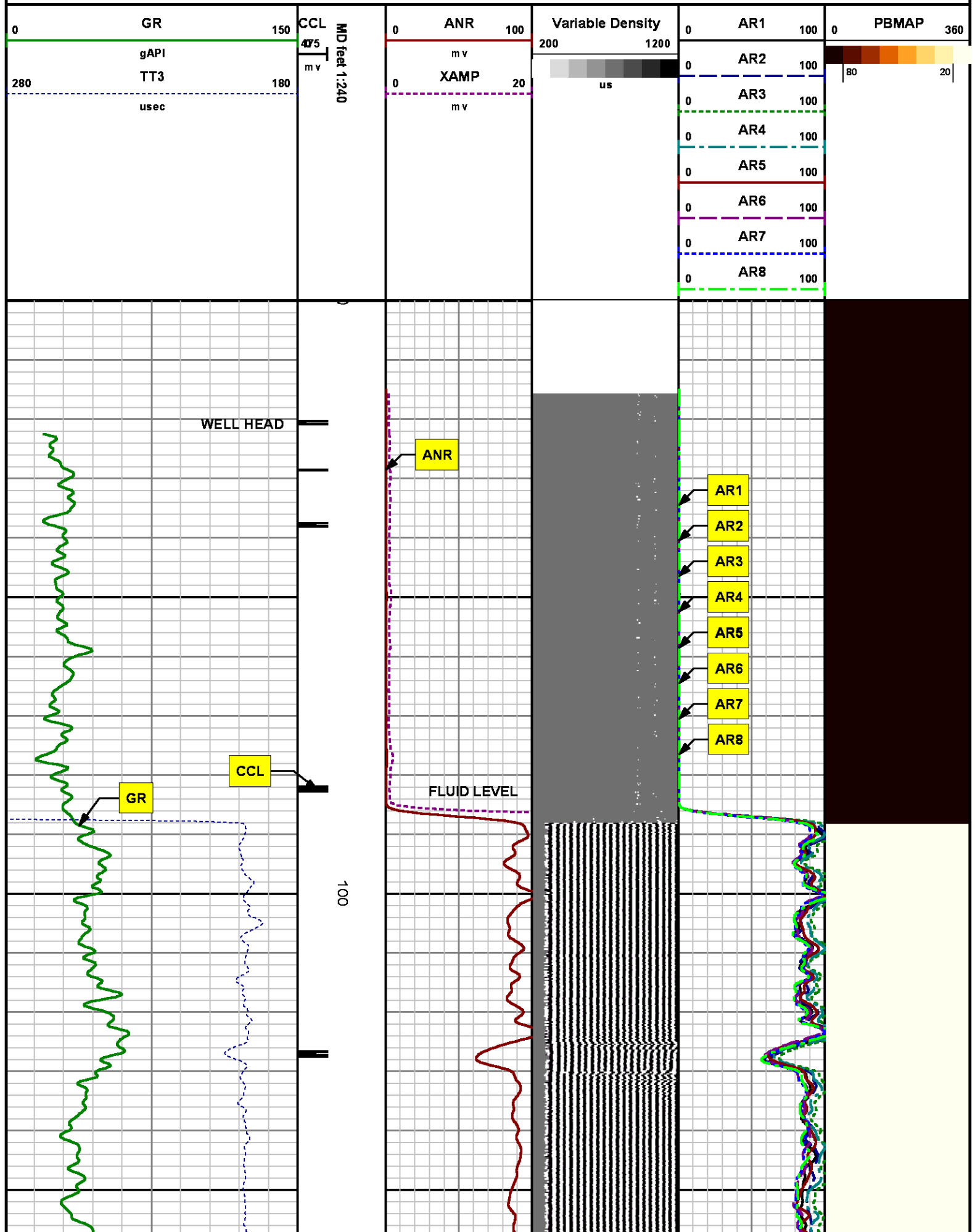
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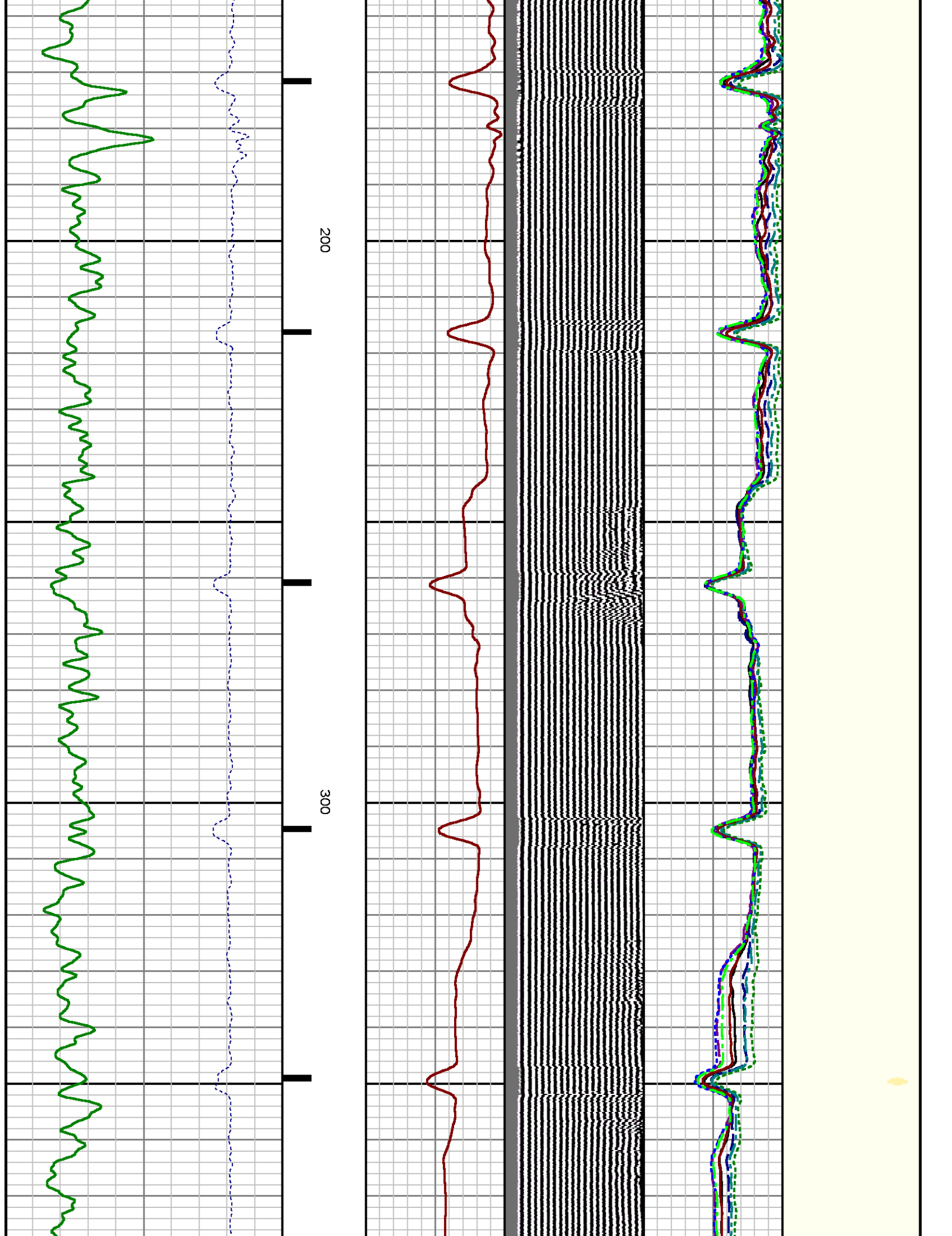
Plotted by : PlotMgr, v5.4.504

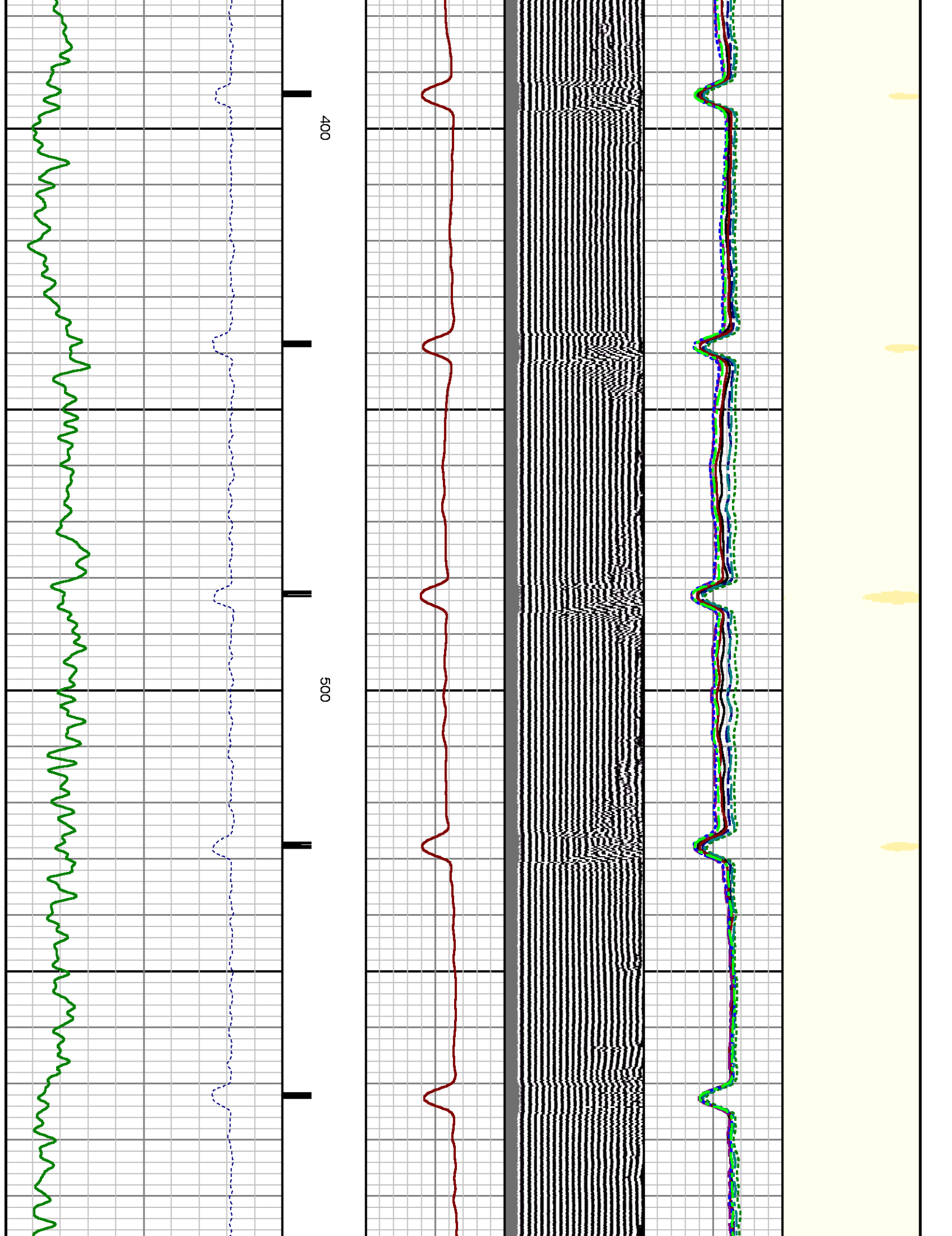
Company : WPX ENERGY

Well : FEDERAL RGU 523-24-198

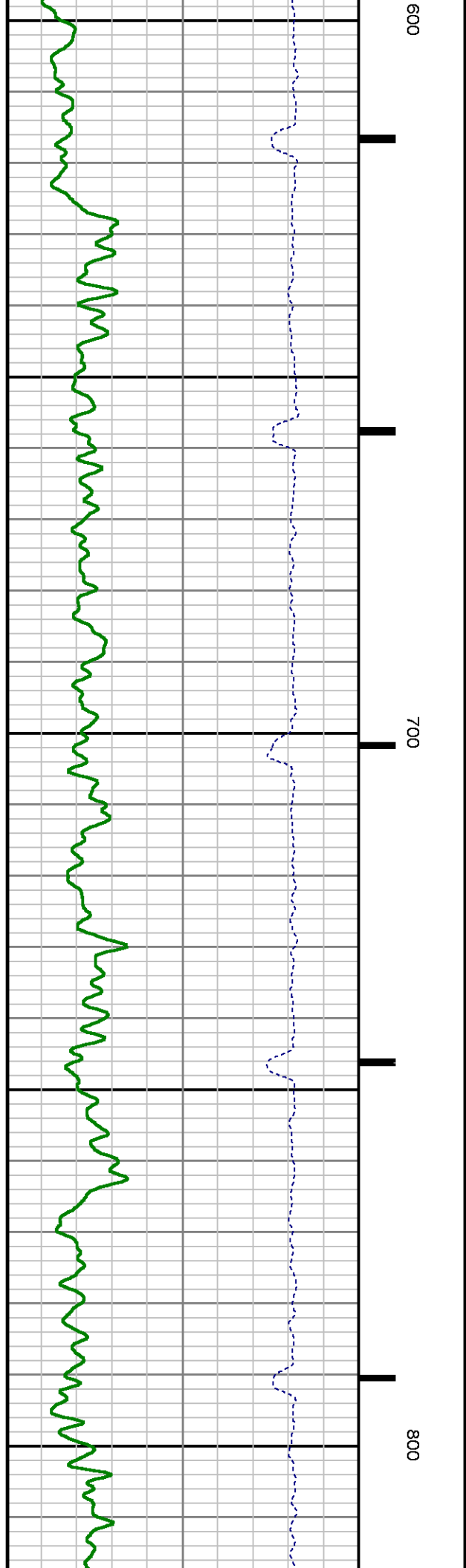
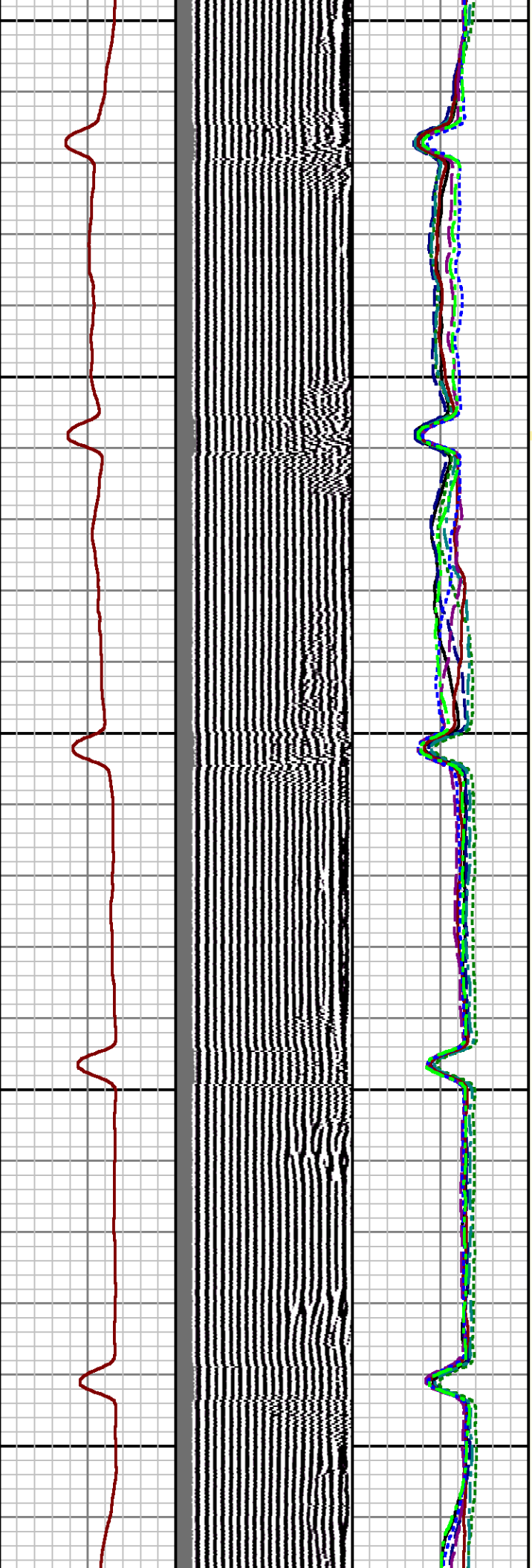
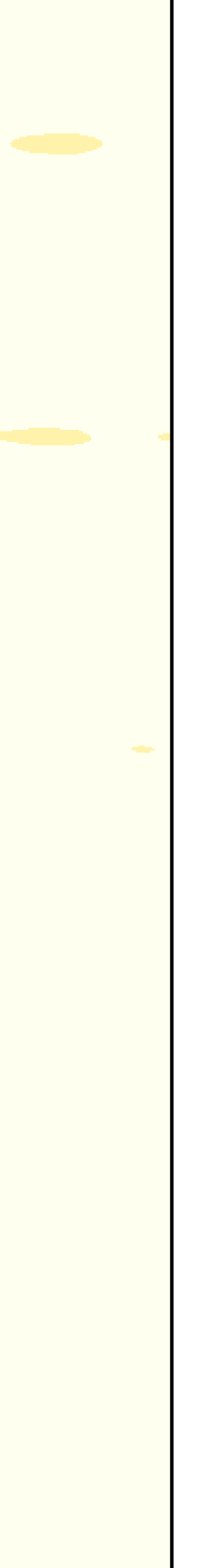
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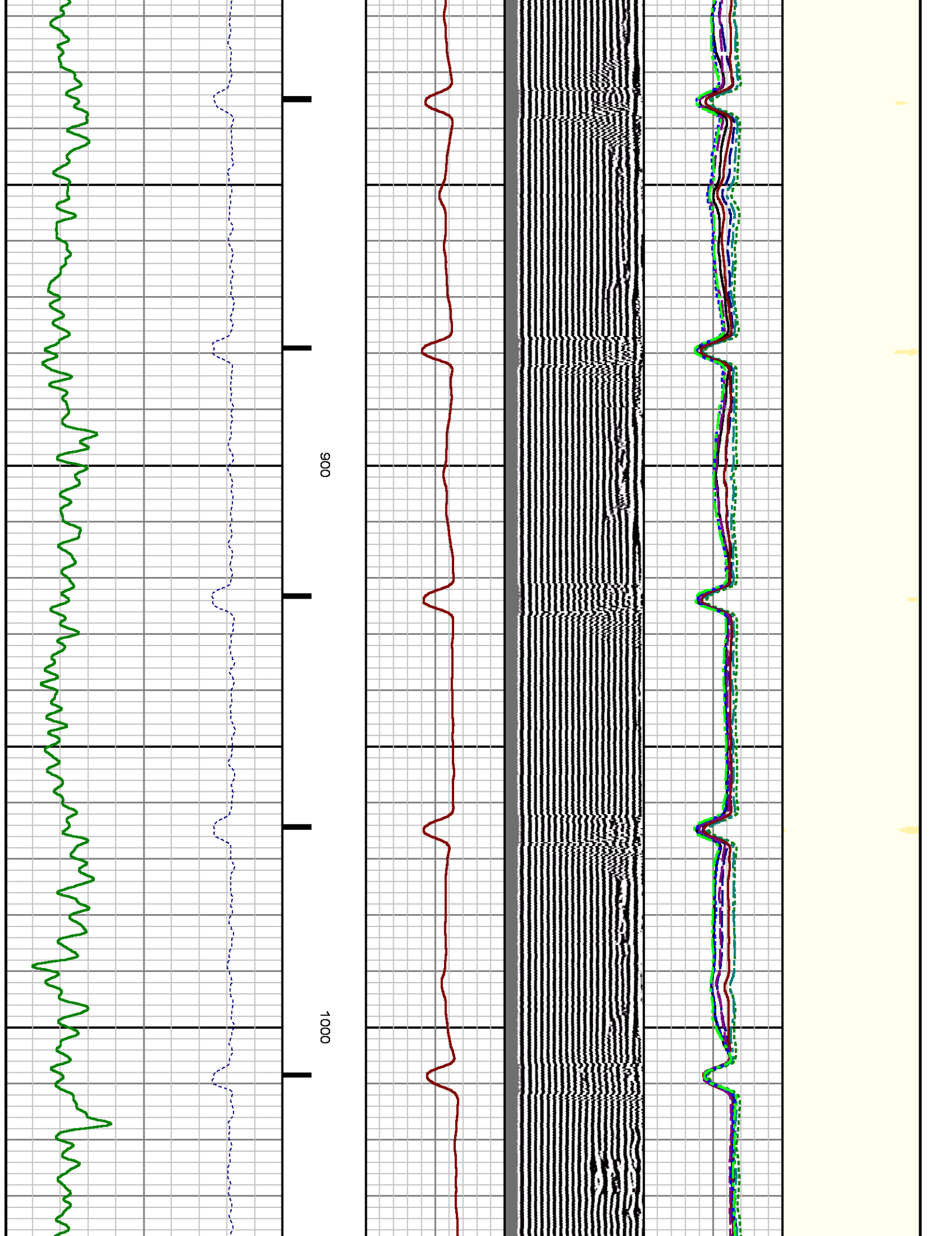


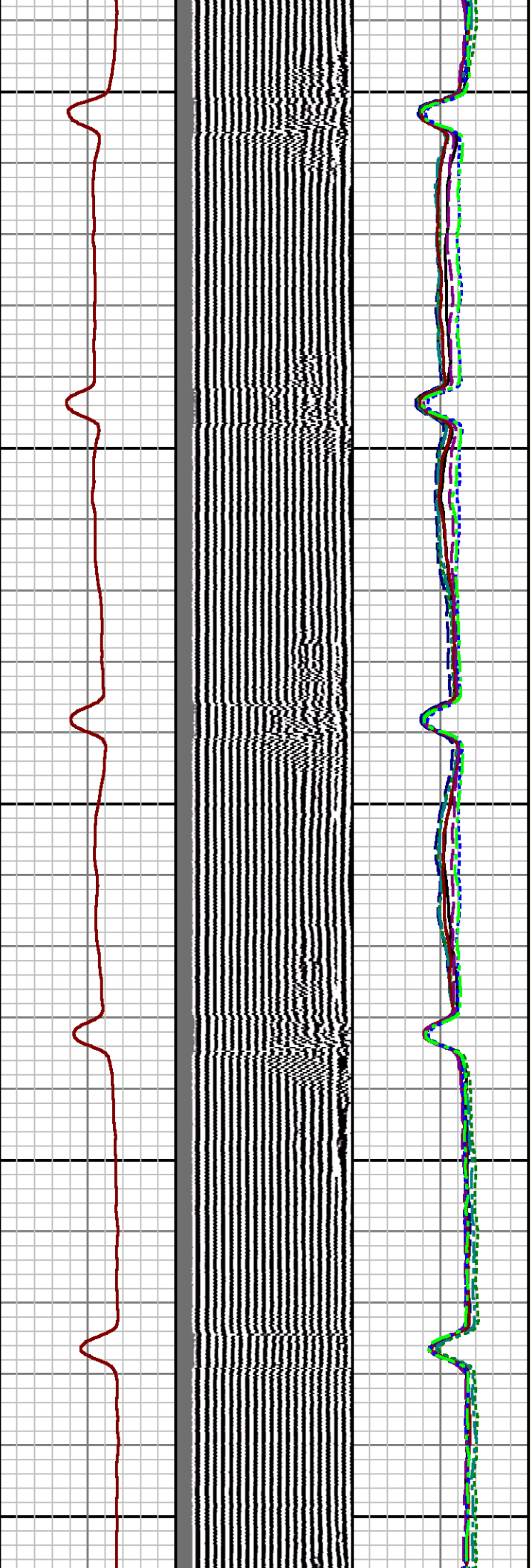
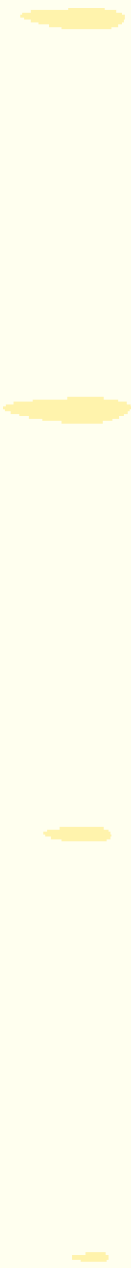






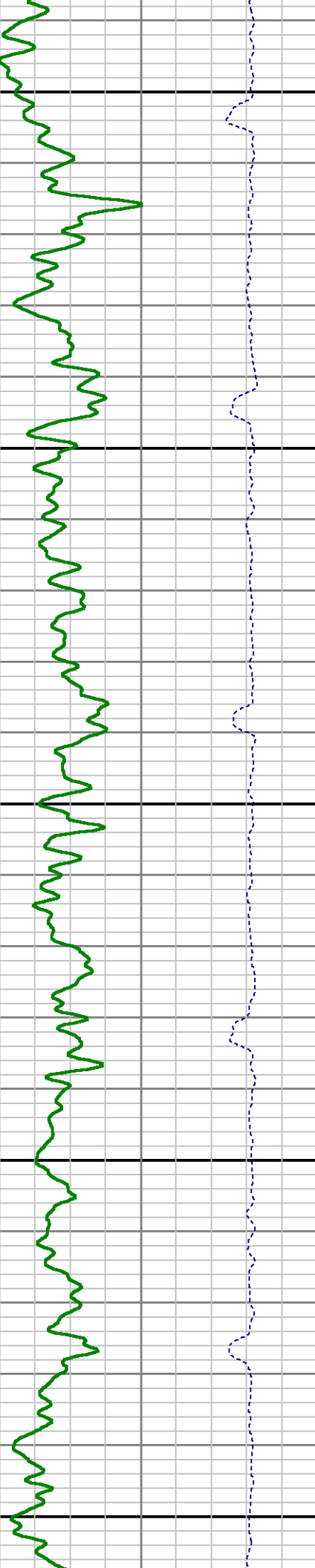


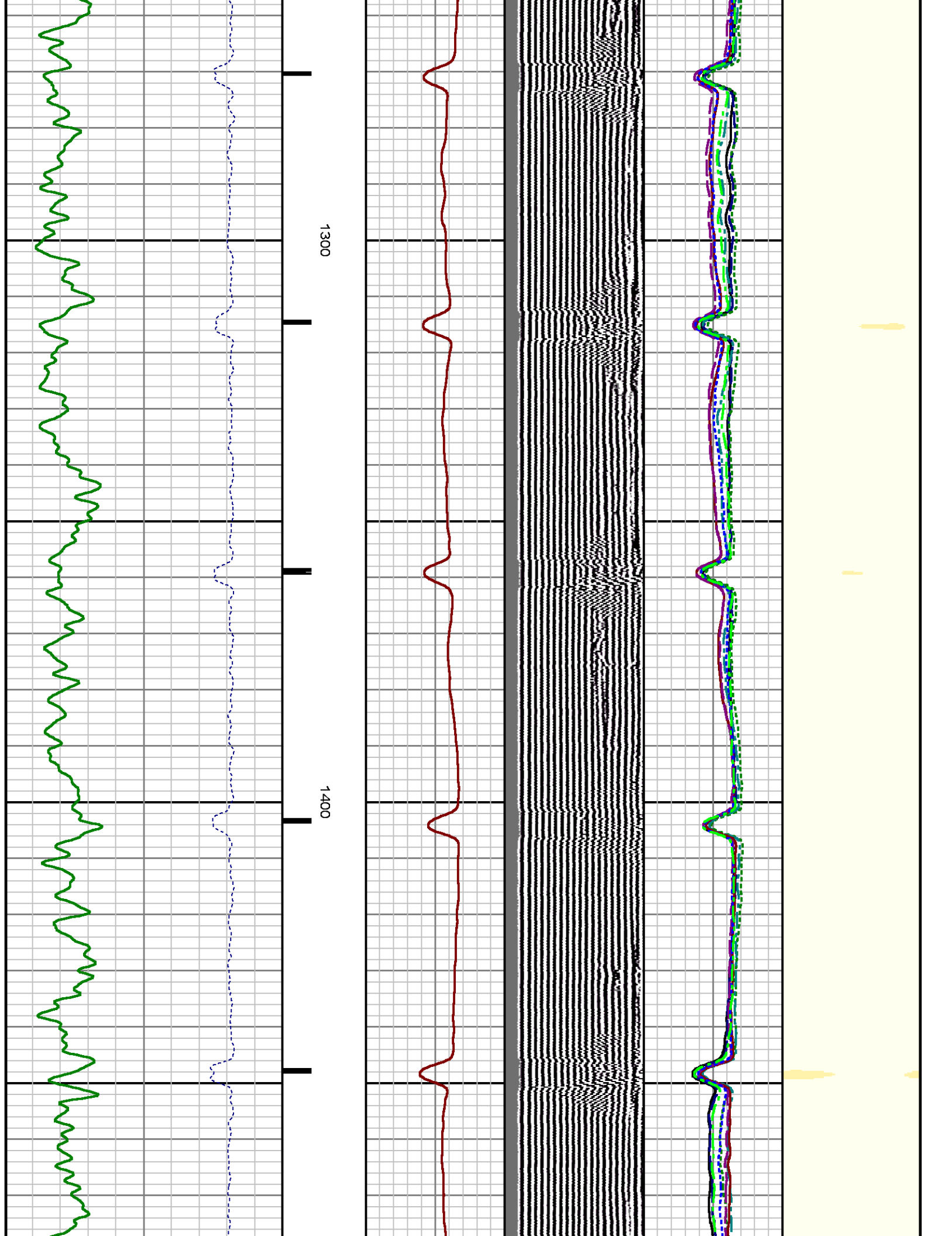


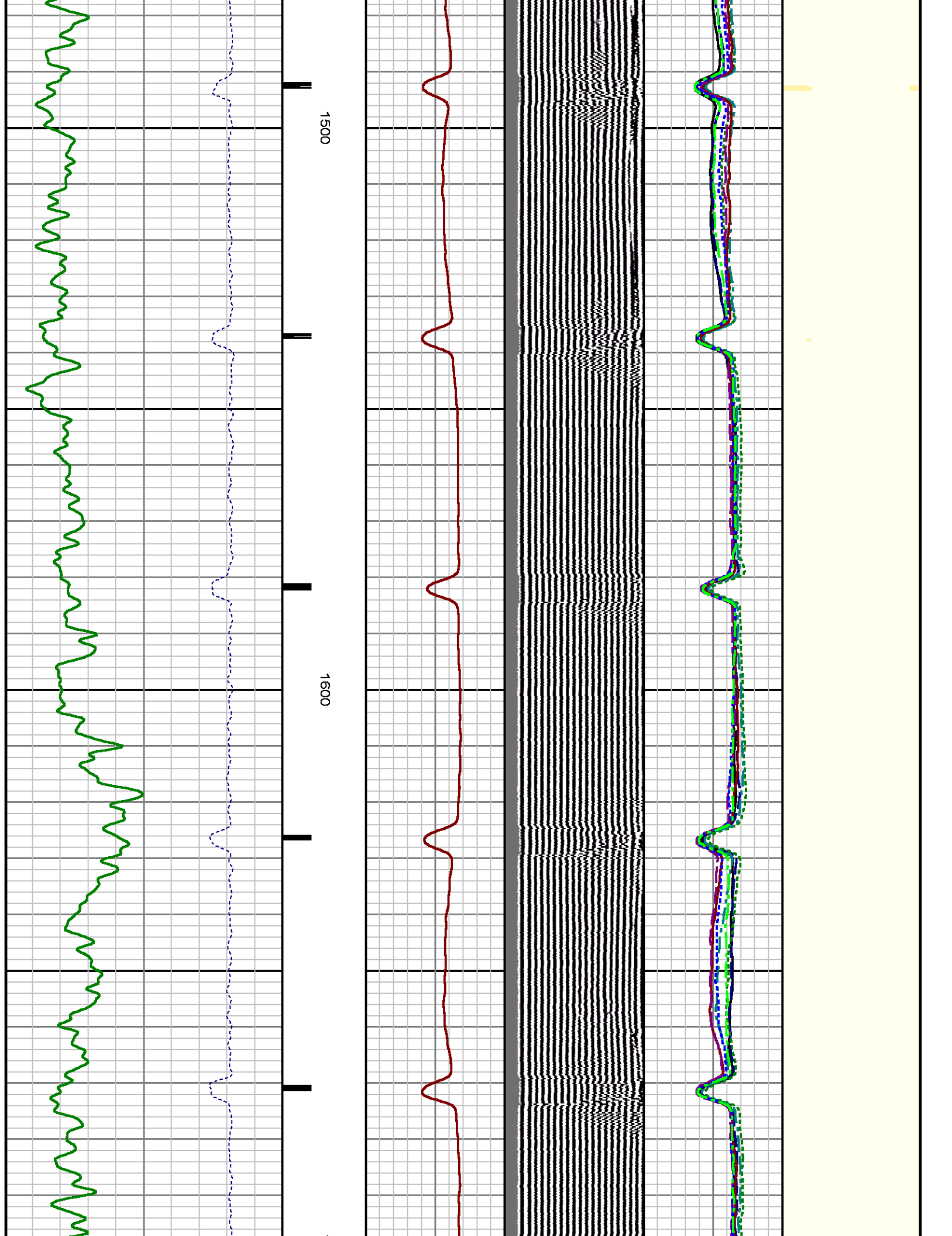


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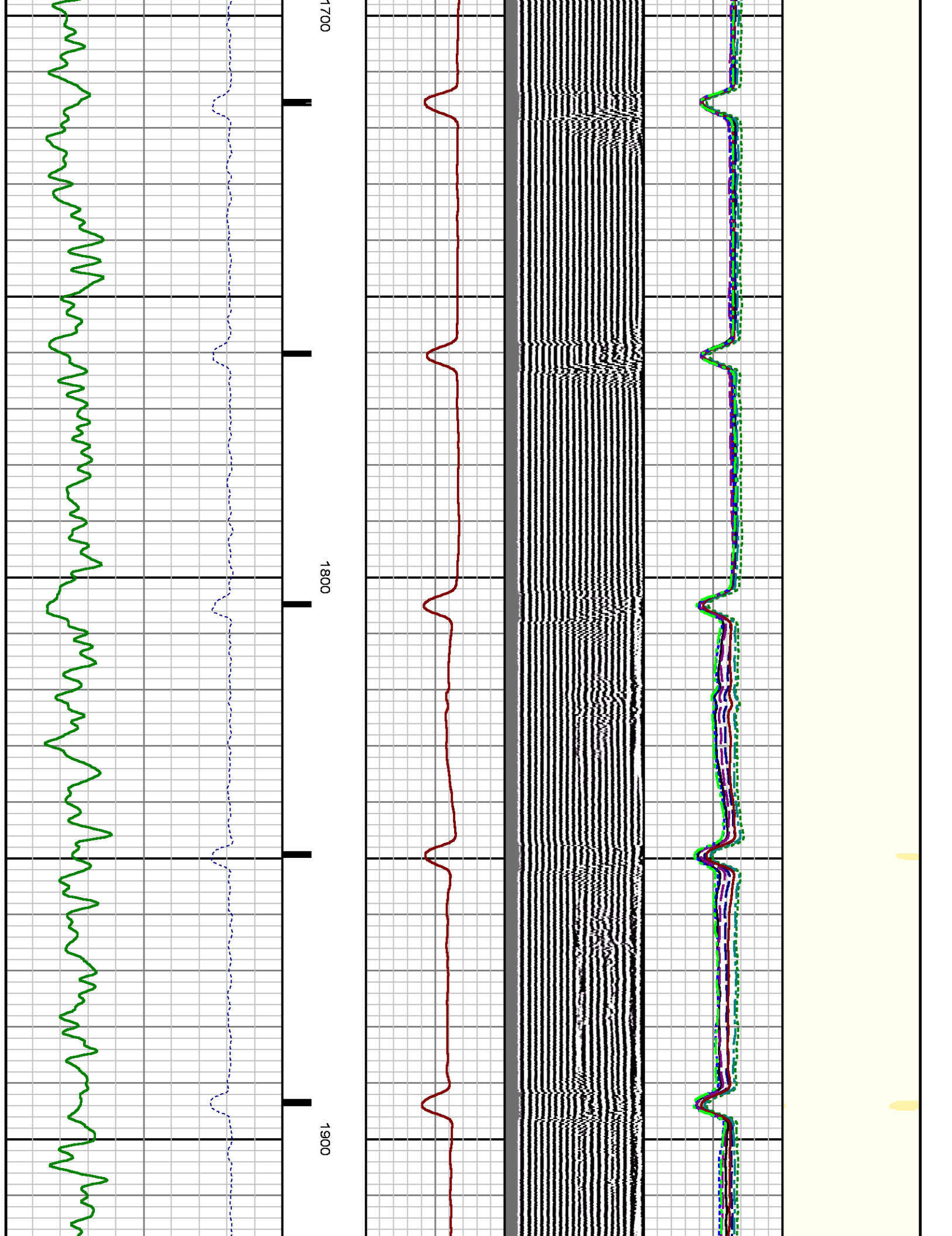
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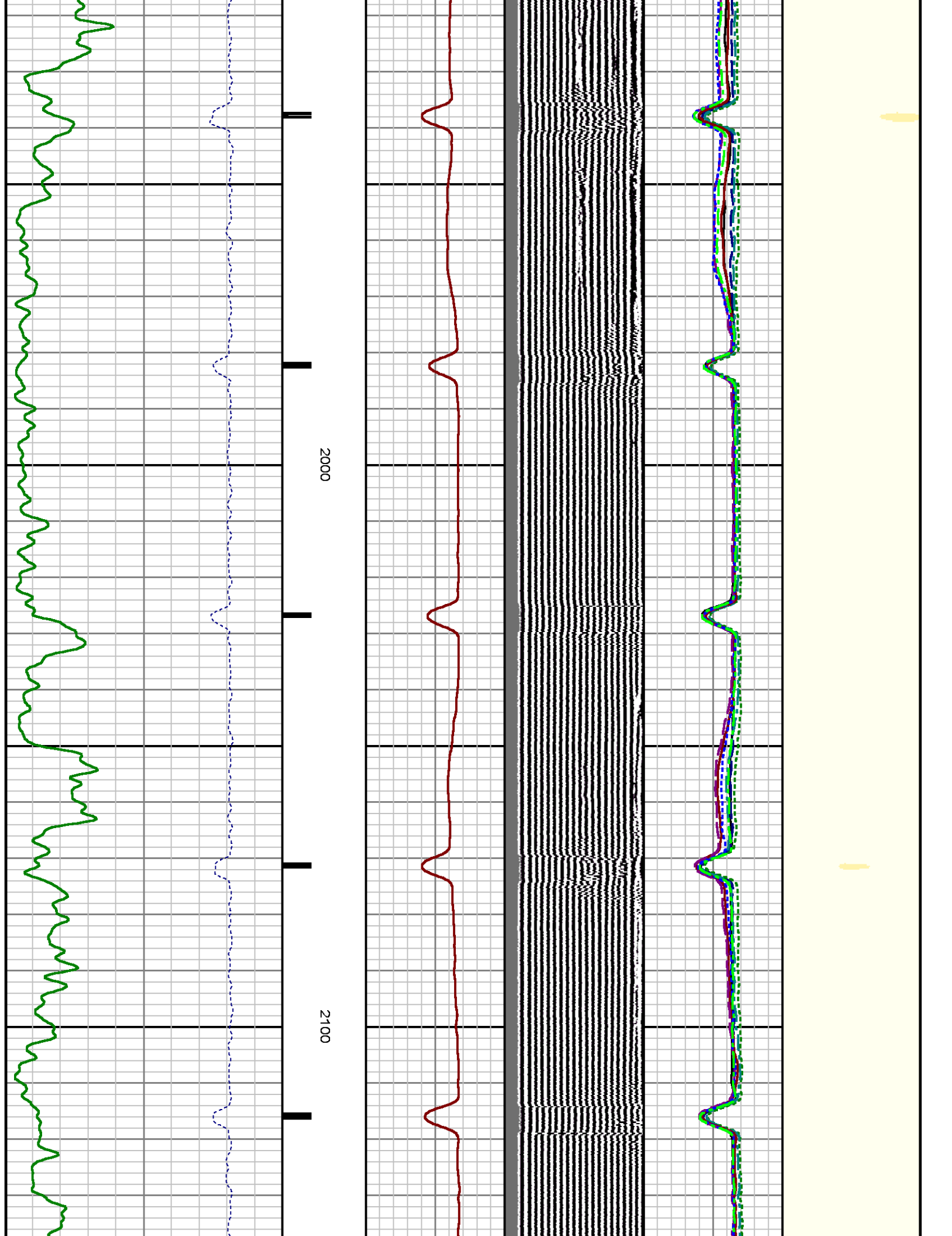


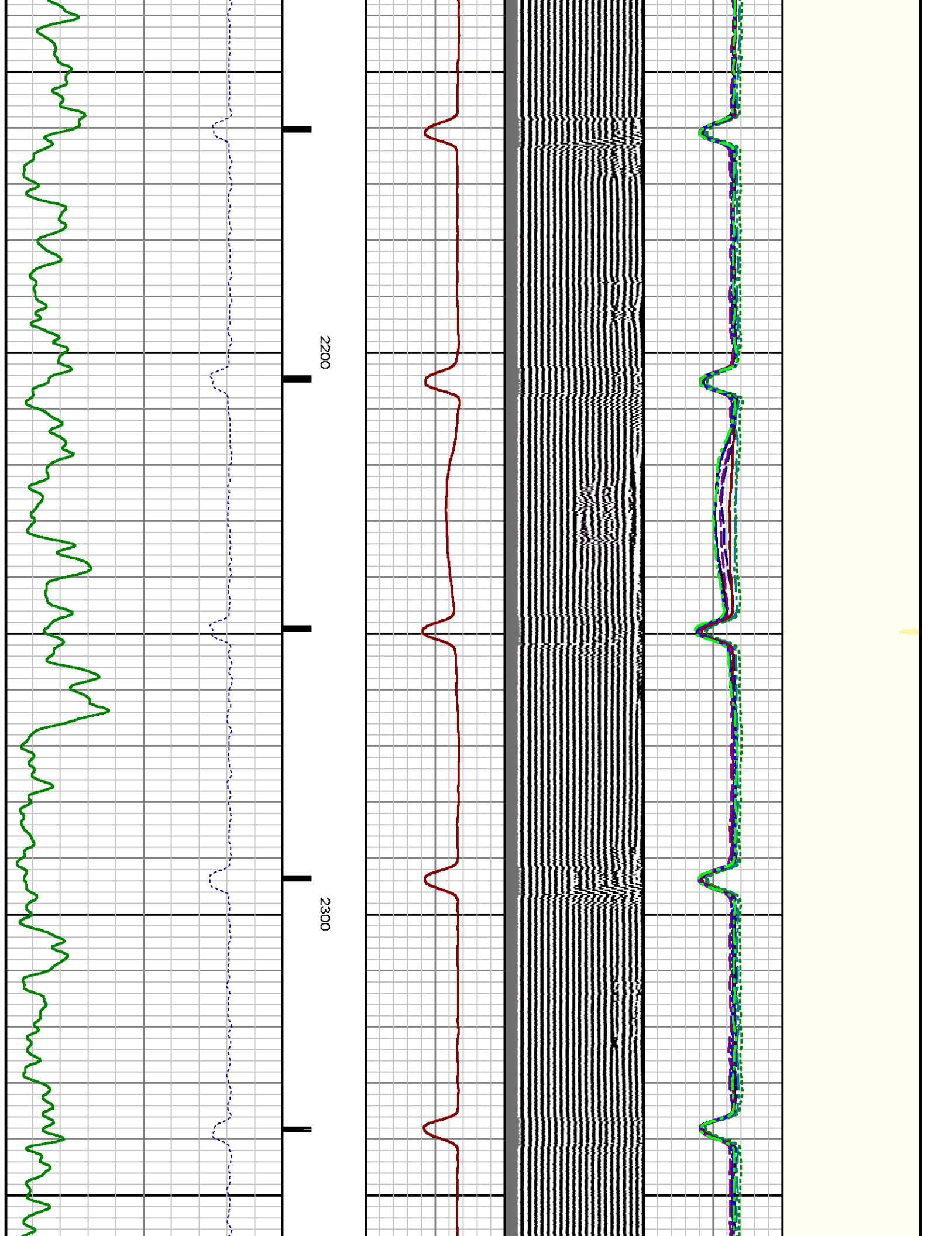


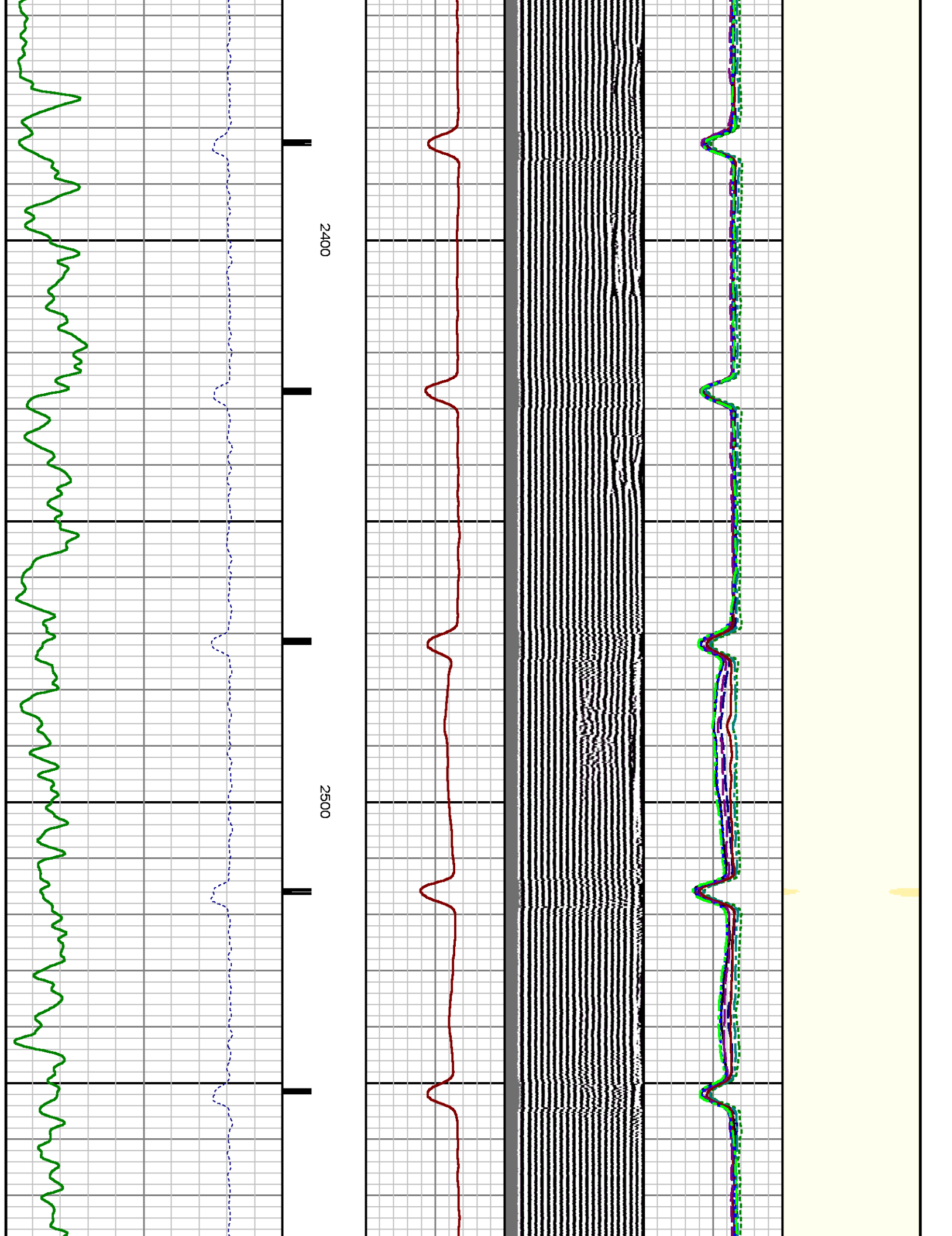


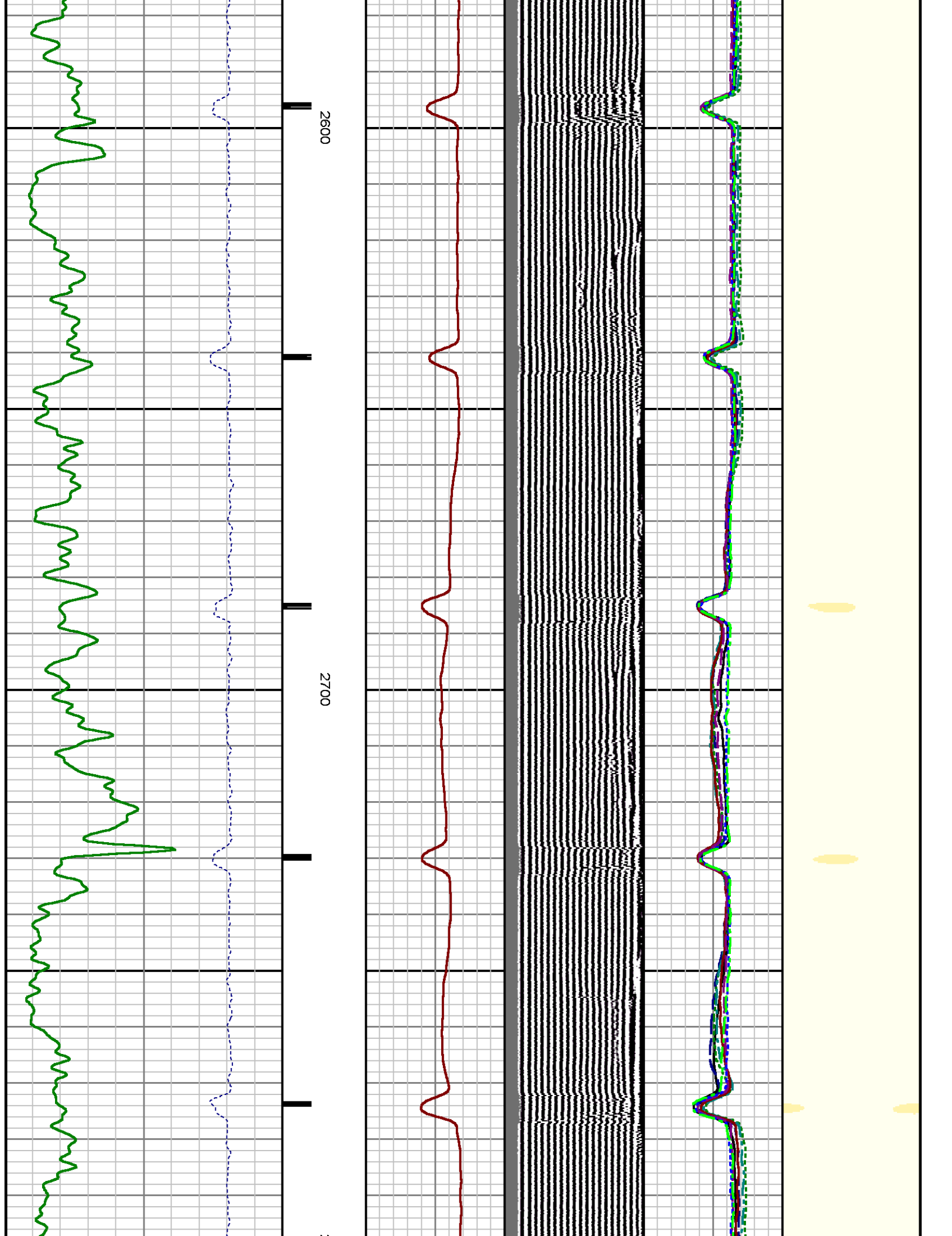




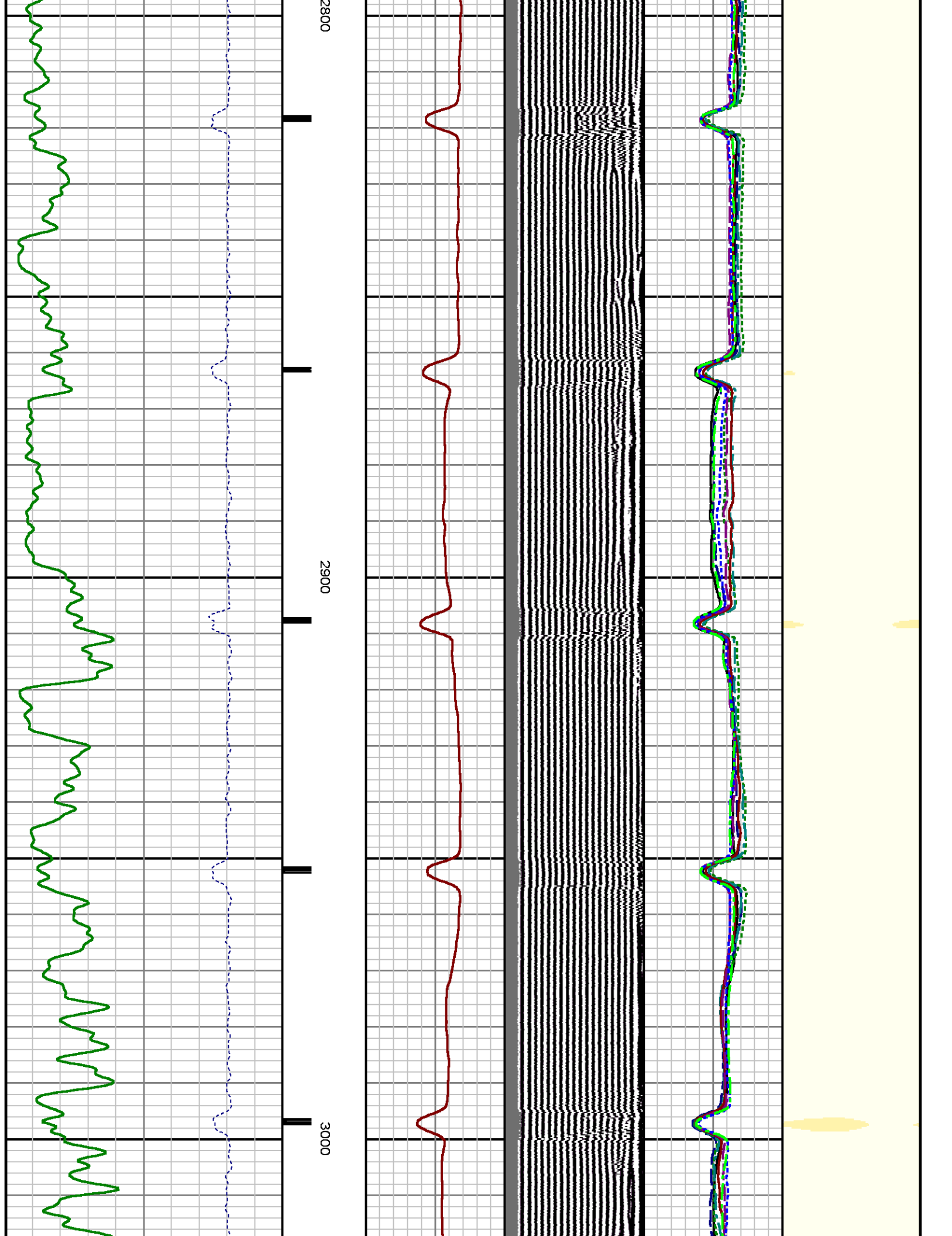


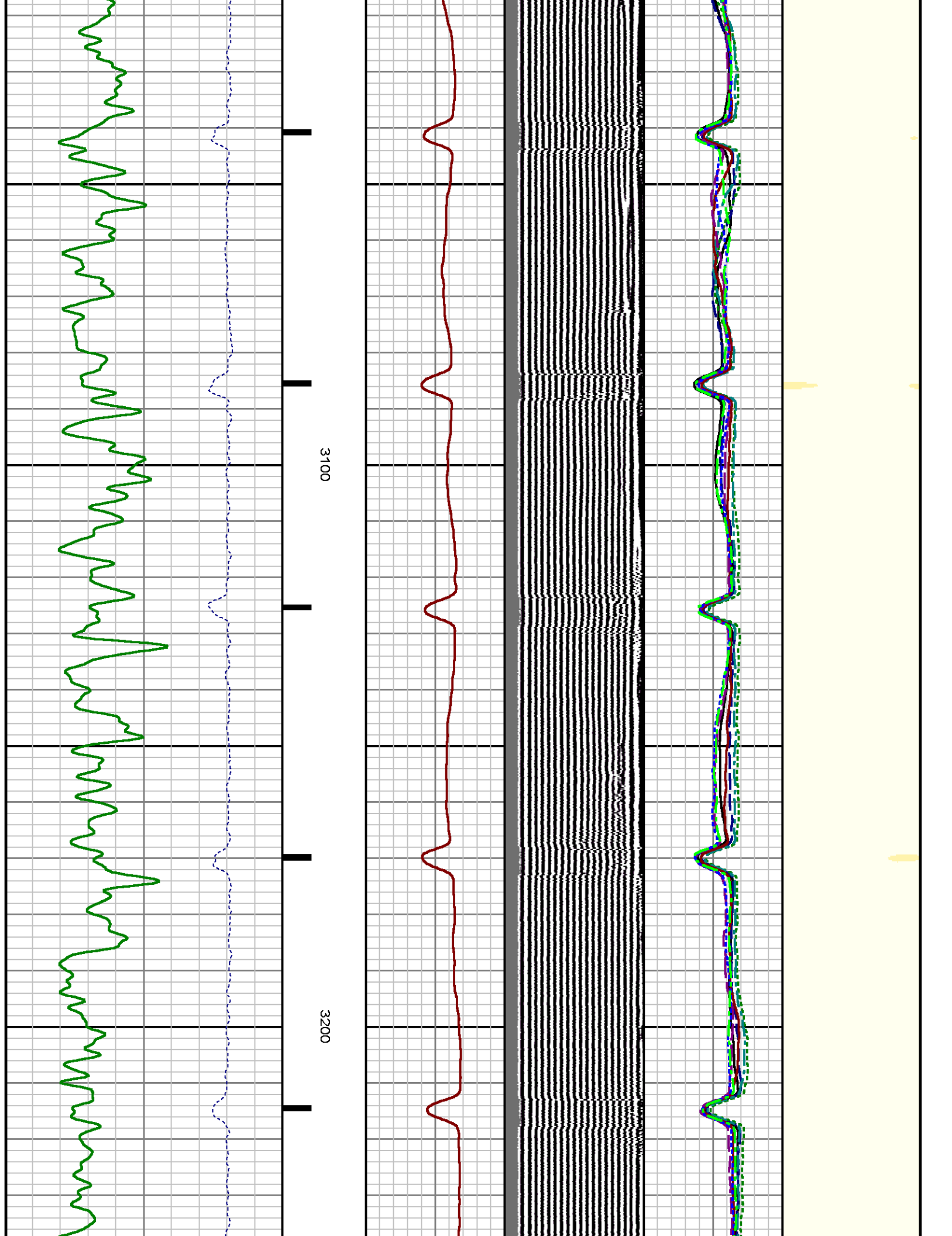


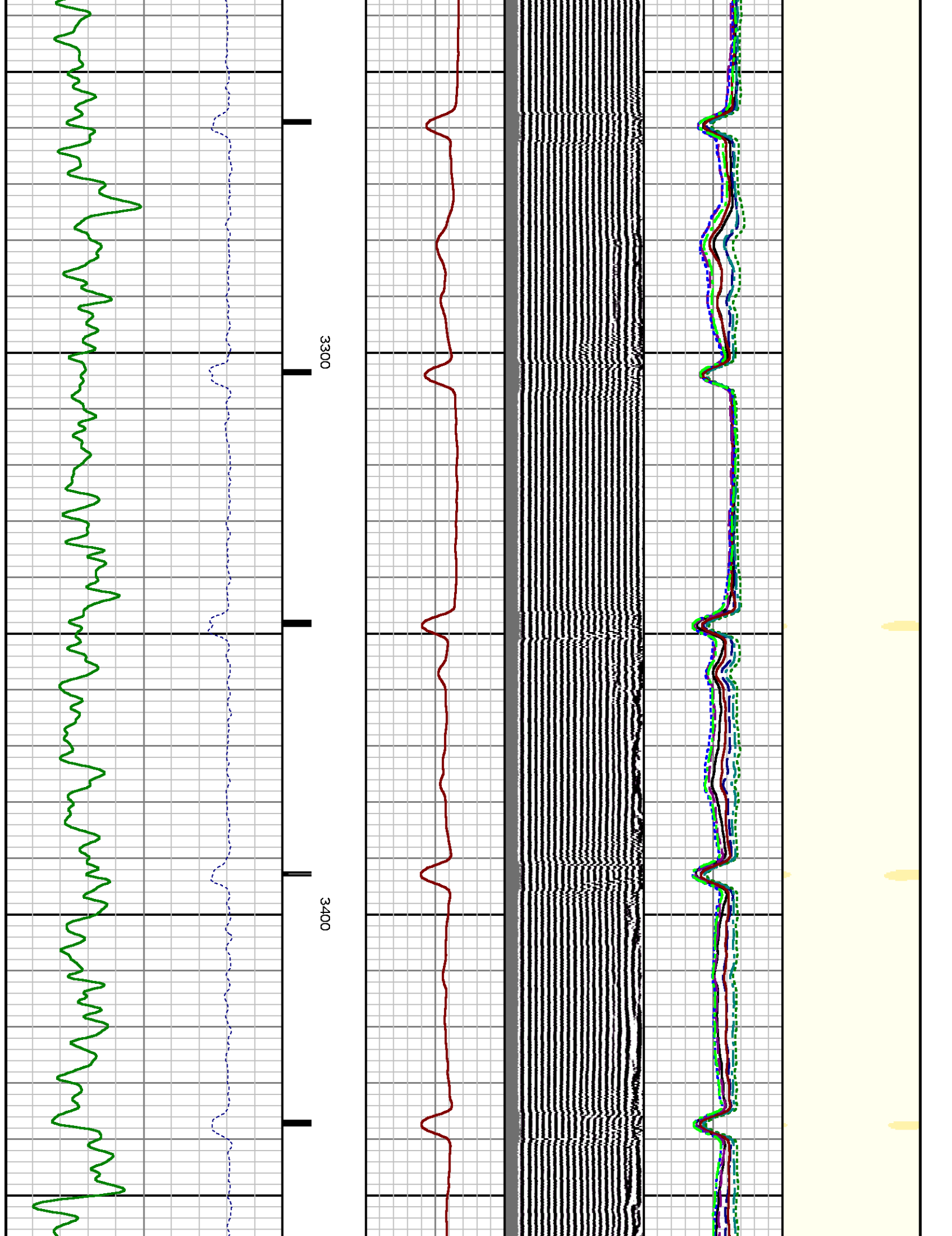


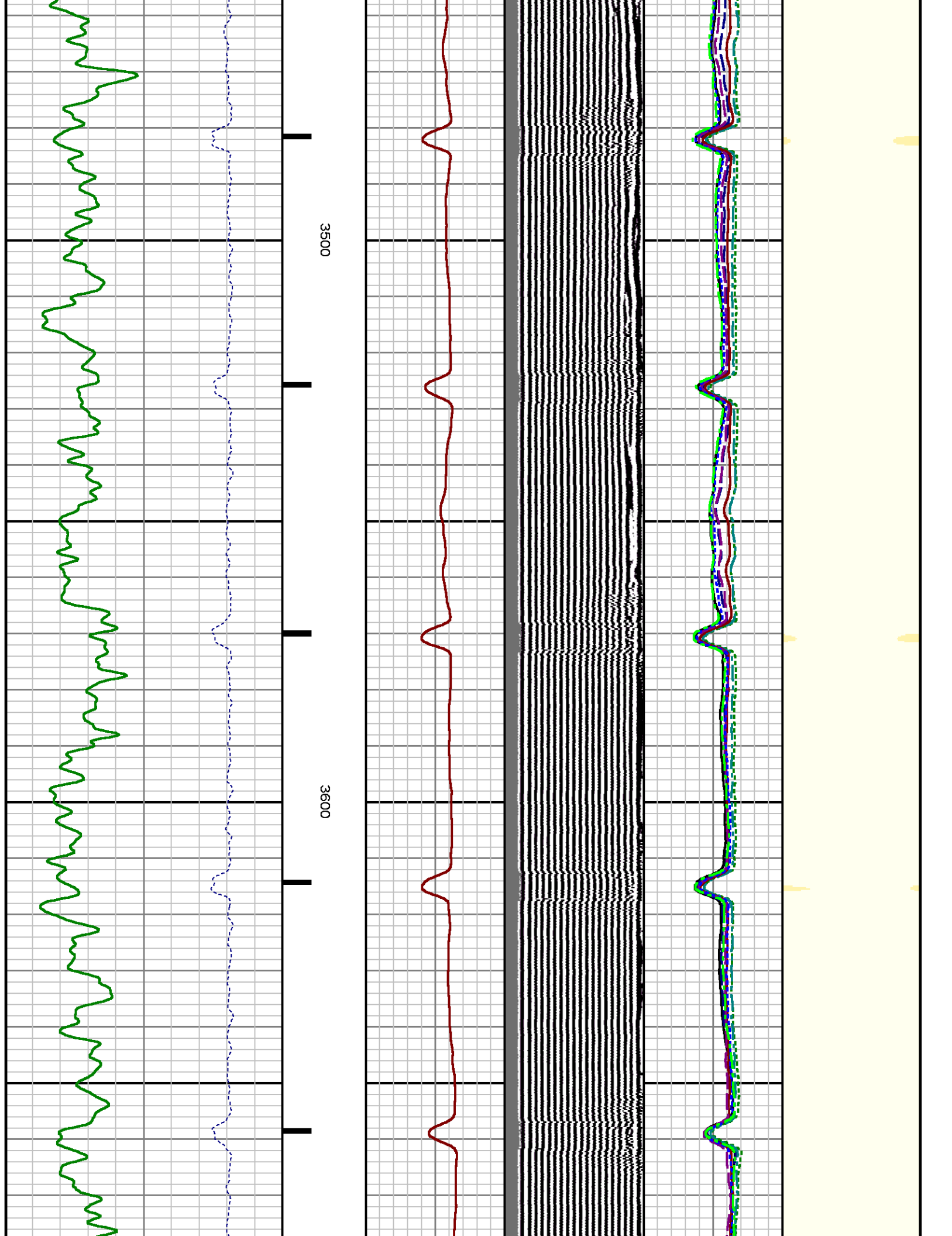


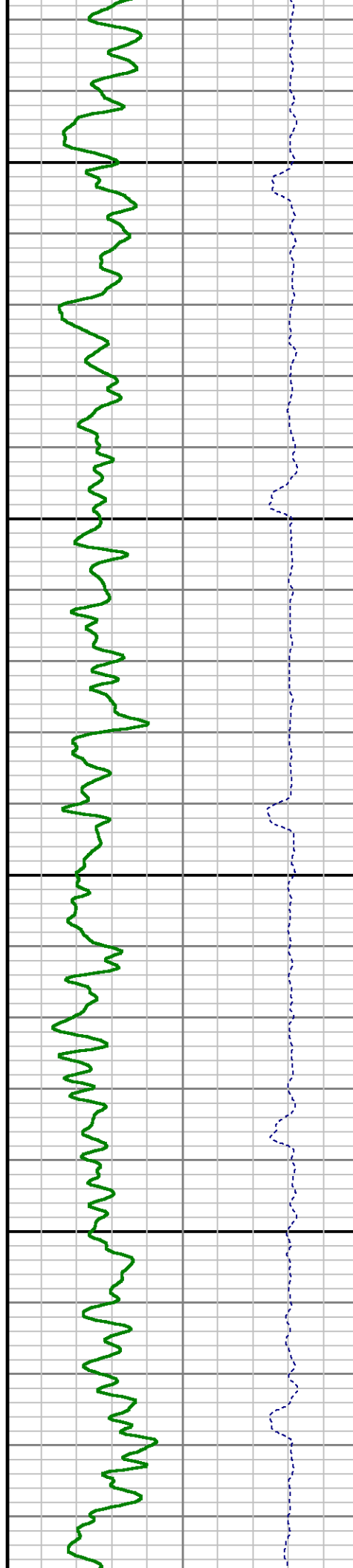
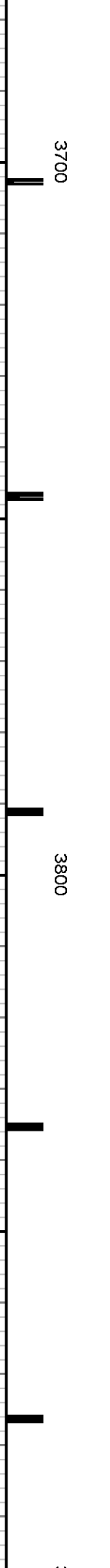
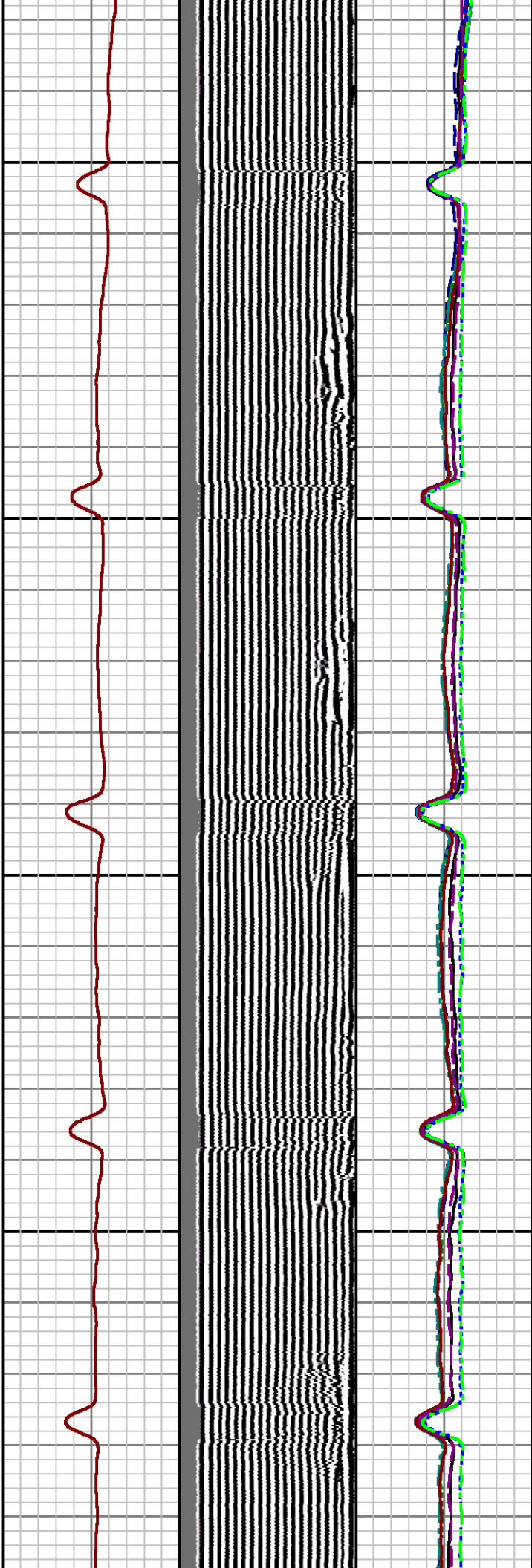
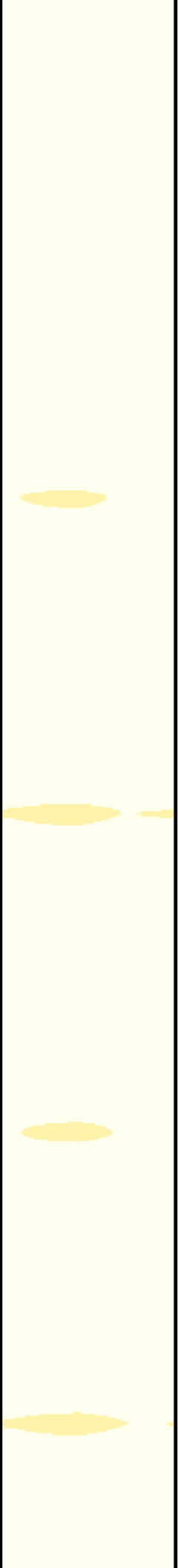








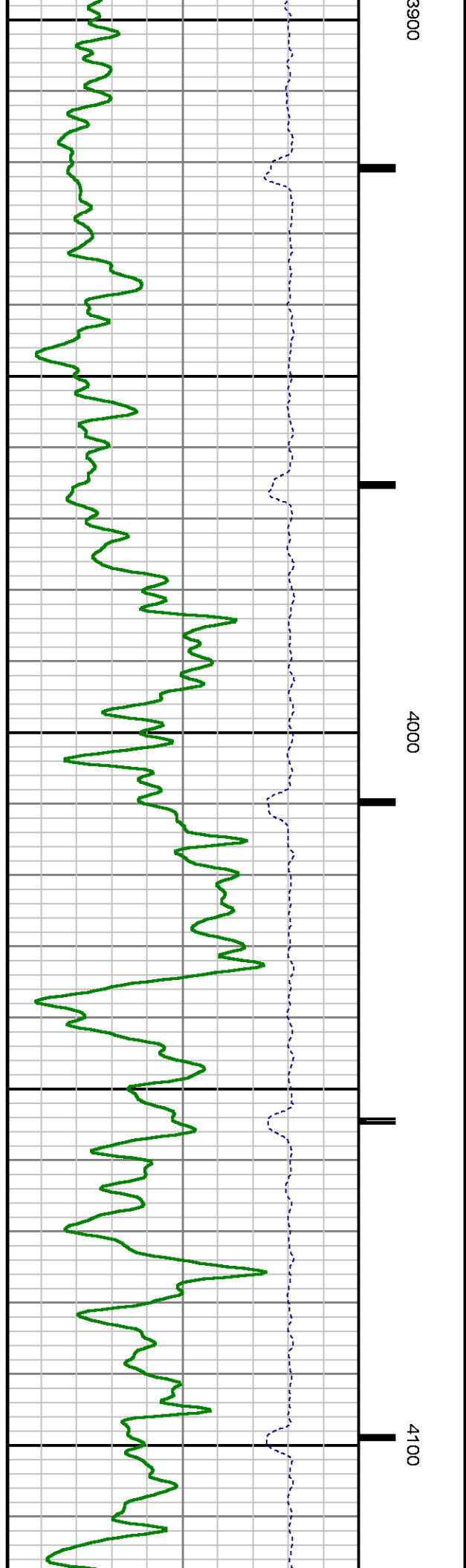
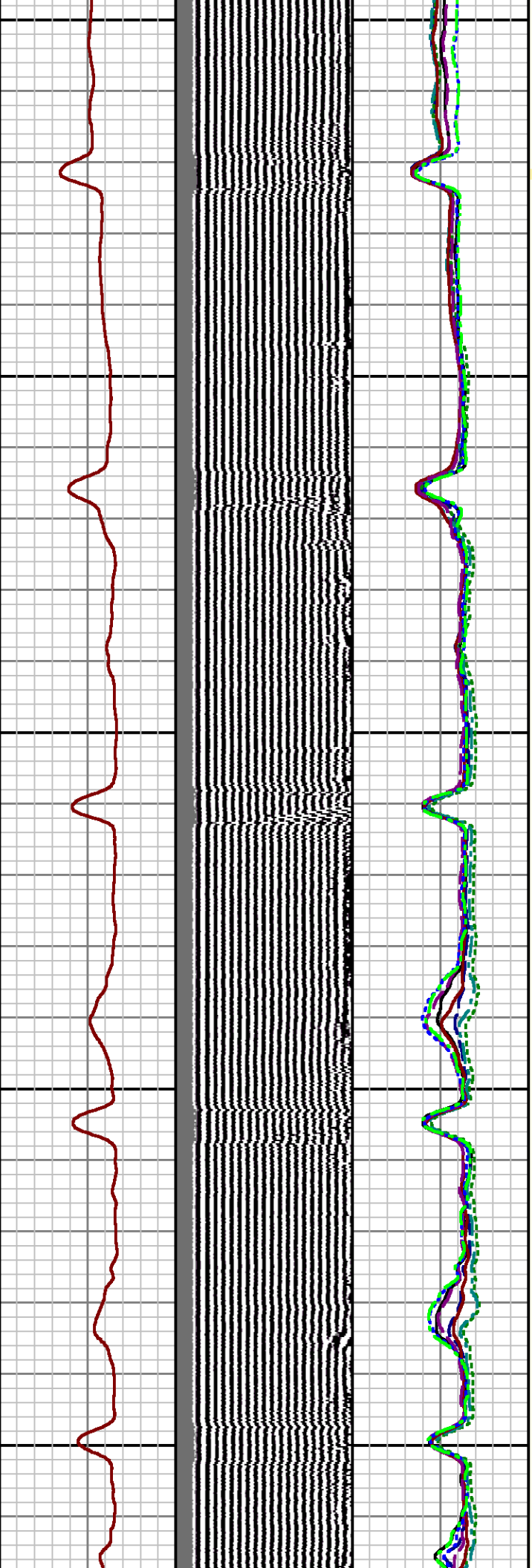
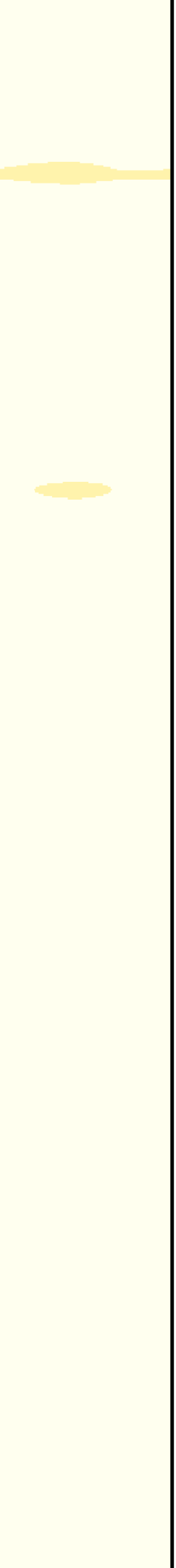


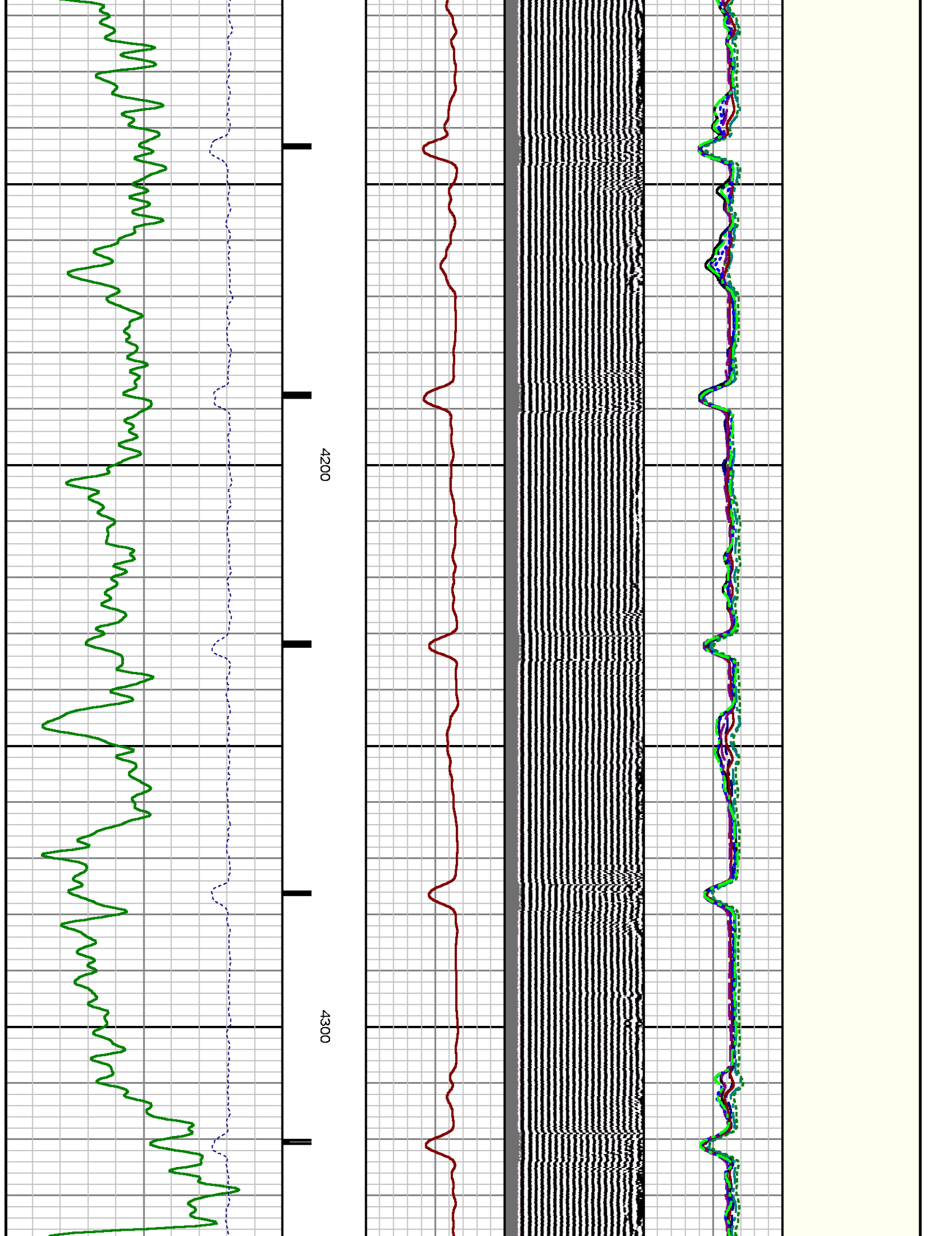


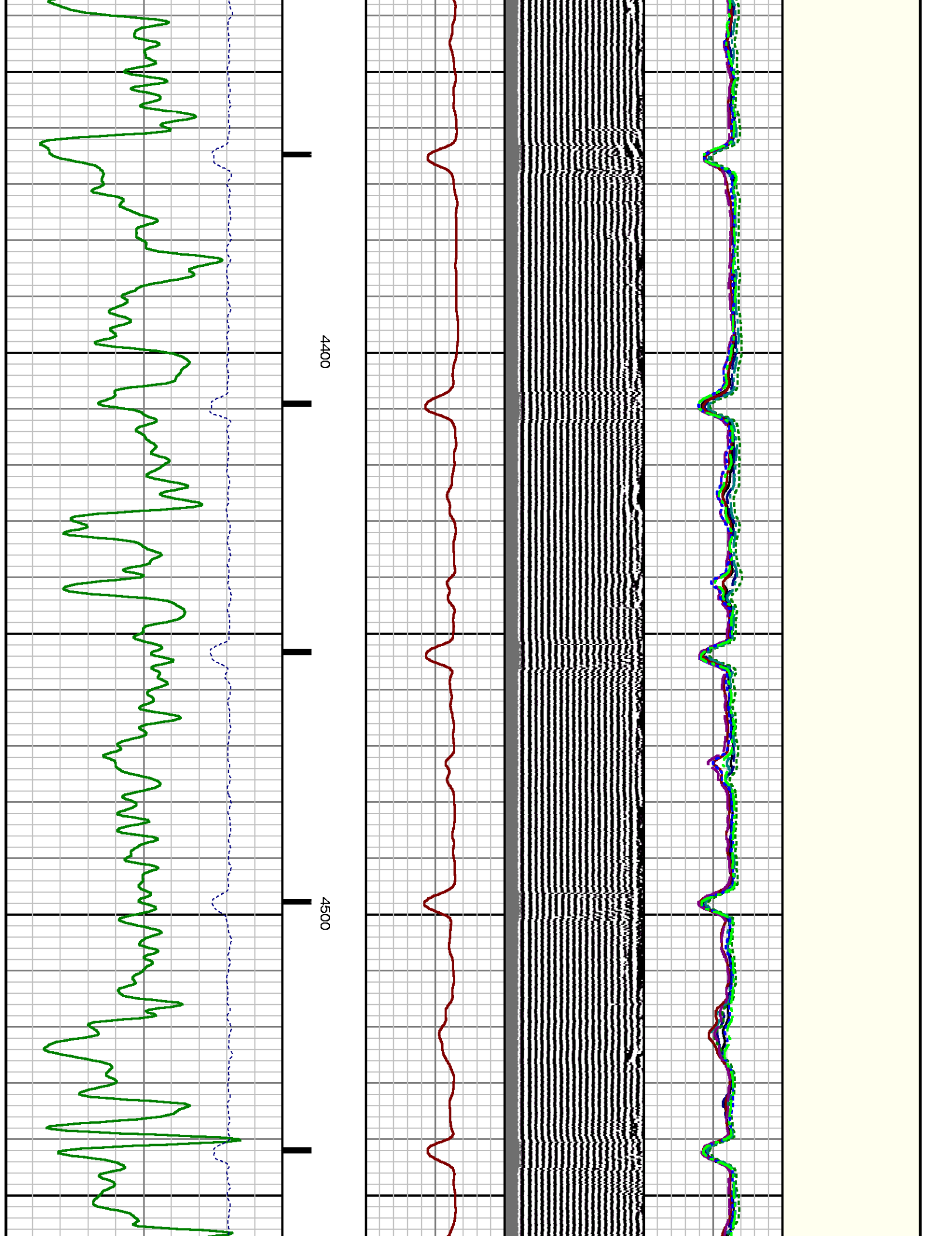
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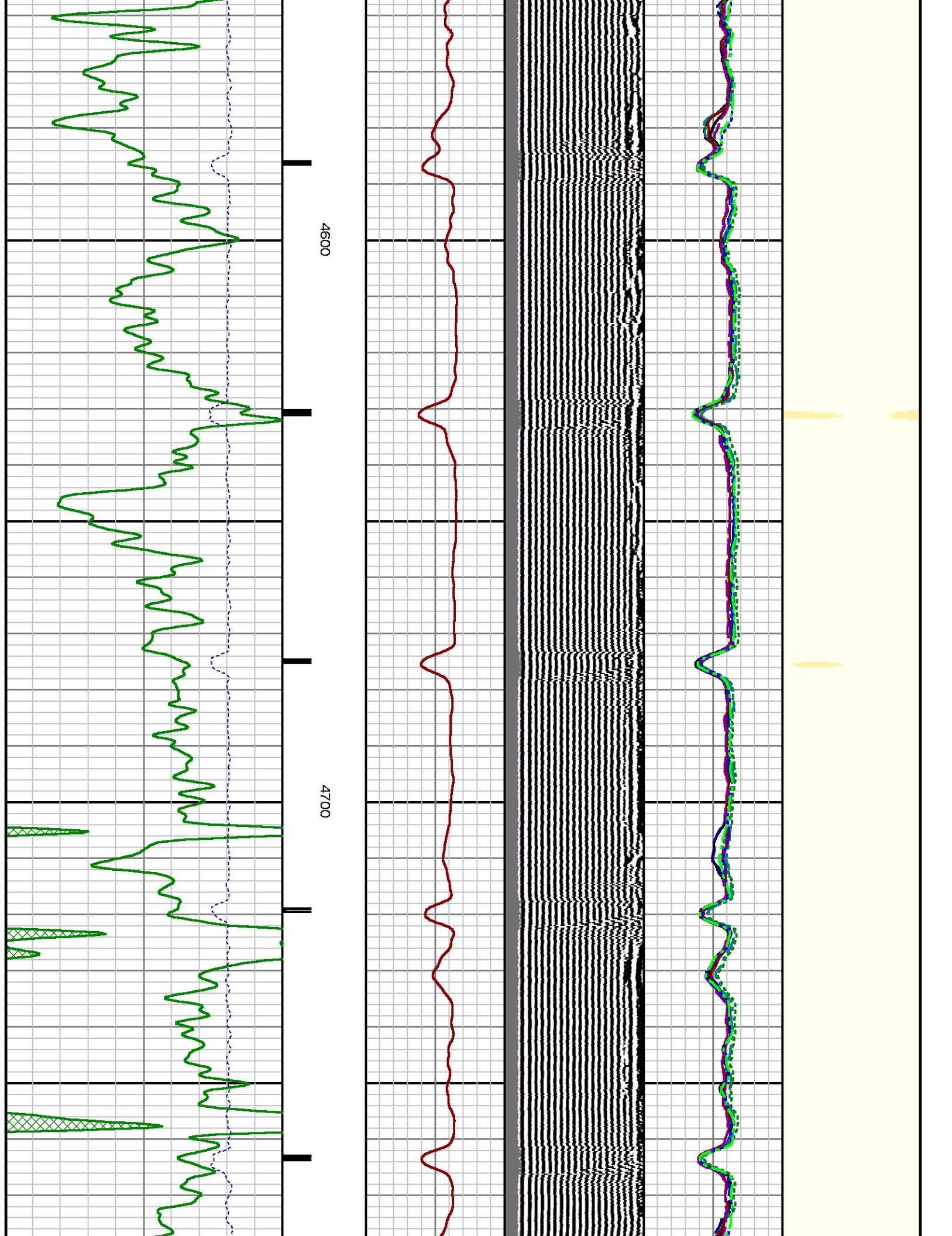
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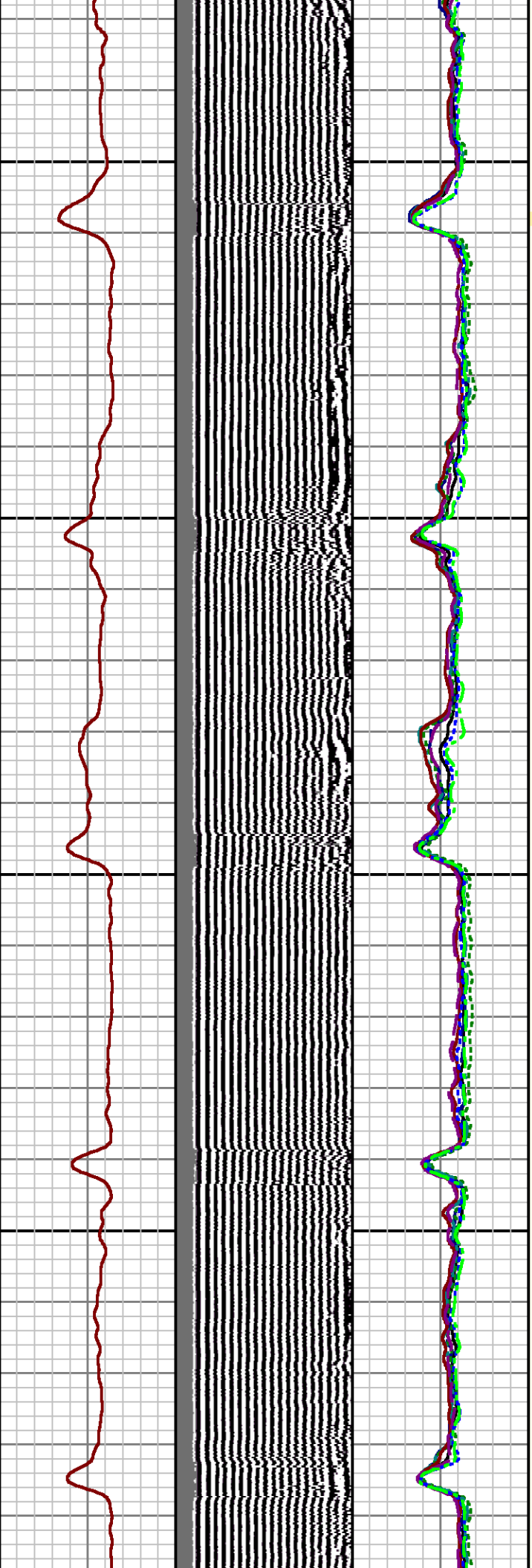
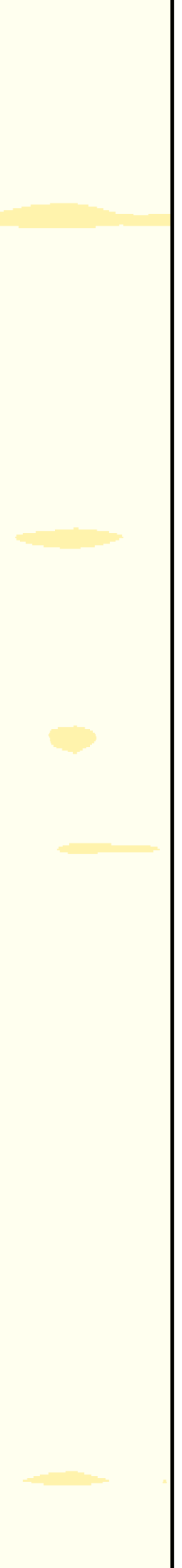






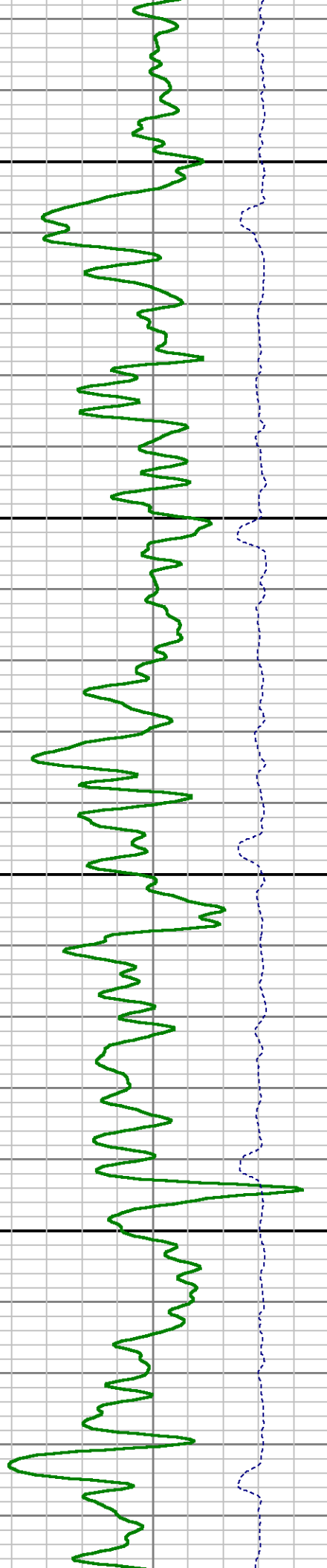




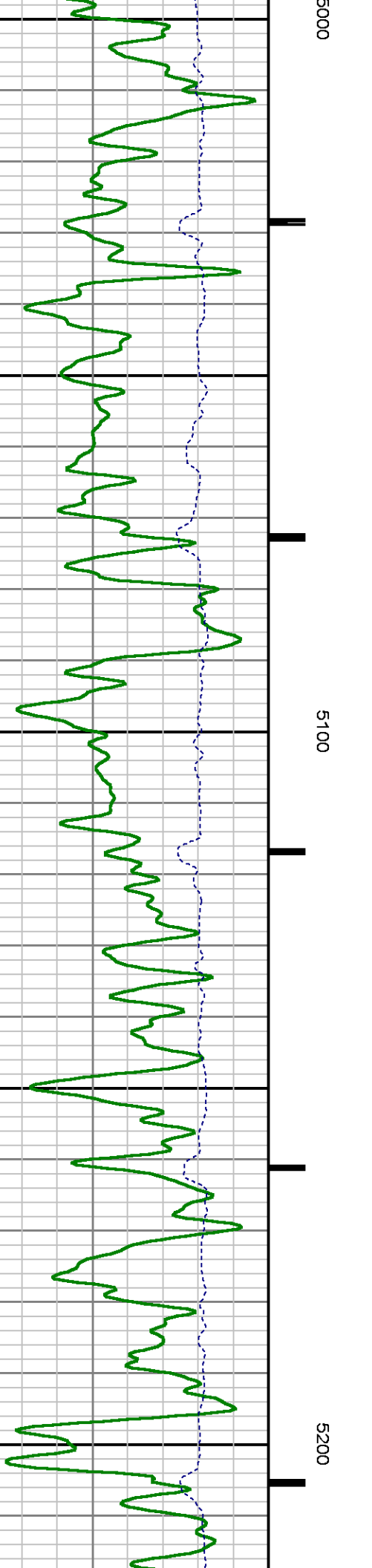
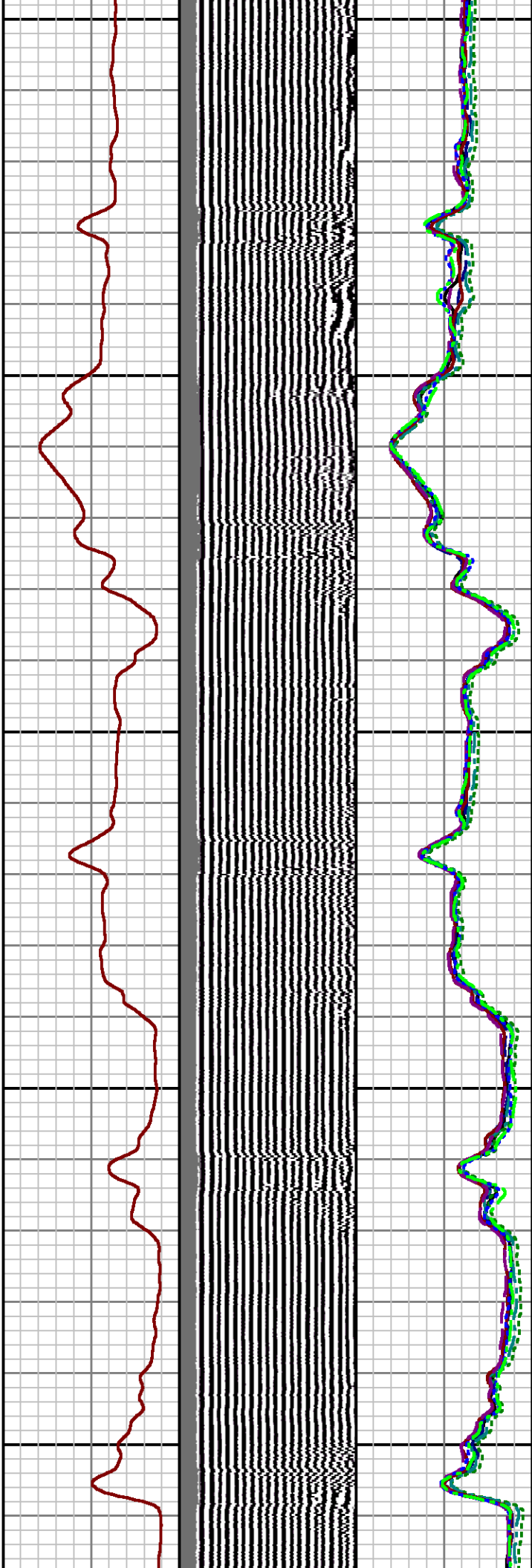
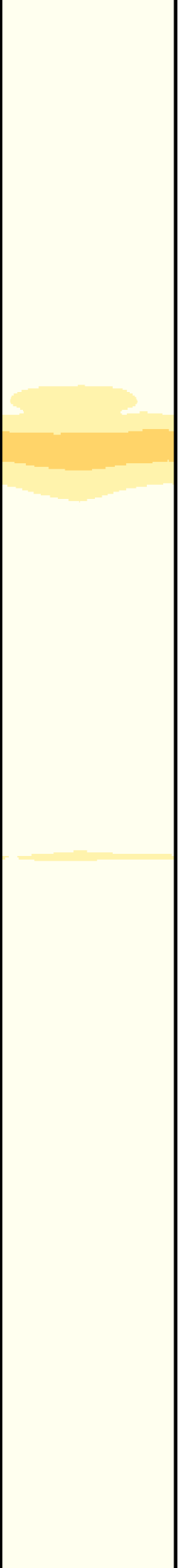


4800

4900





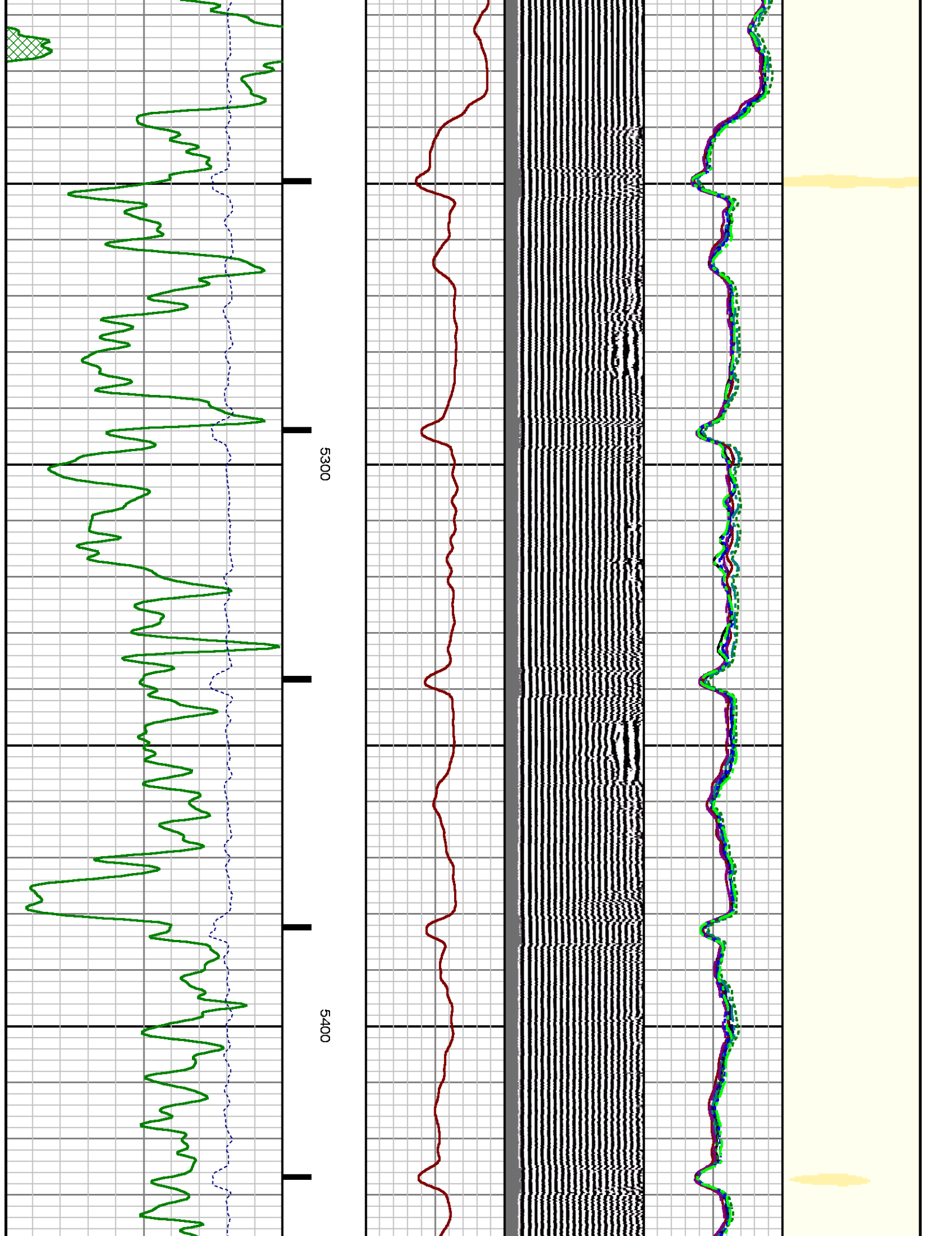


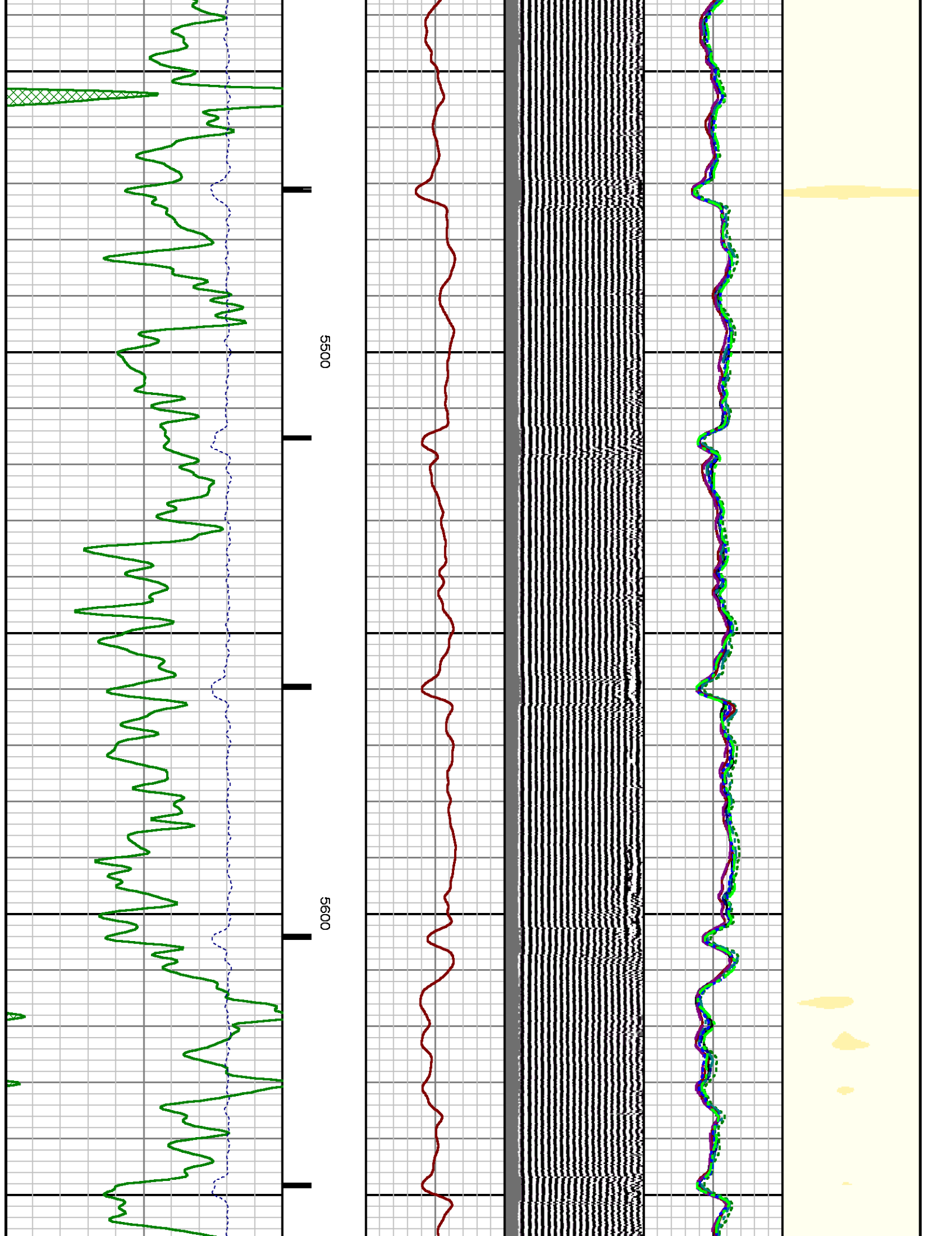
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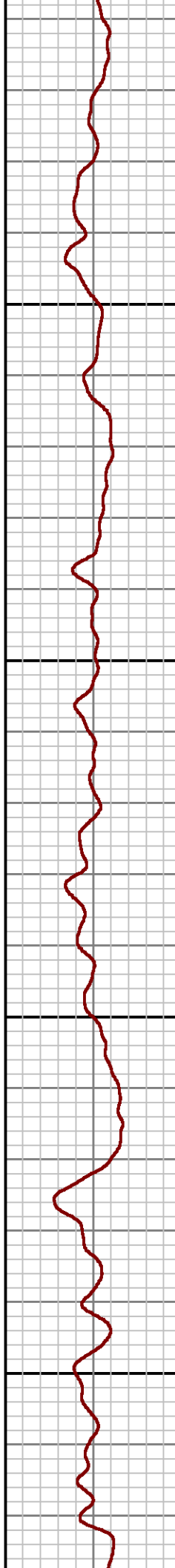
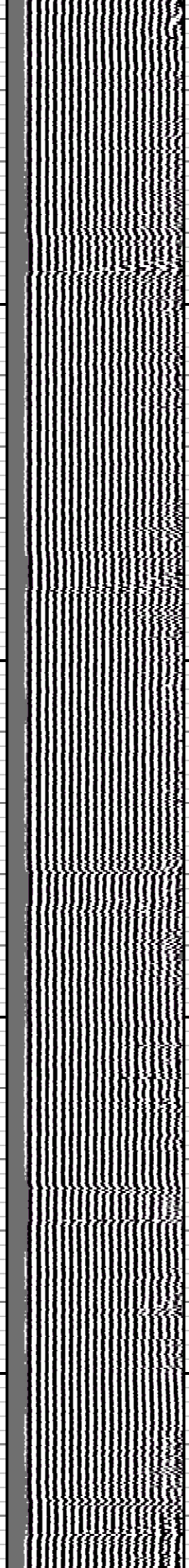
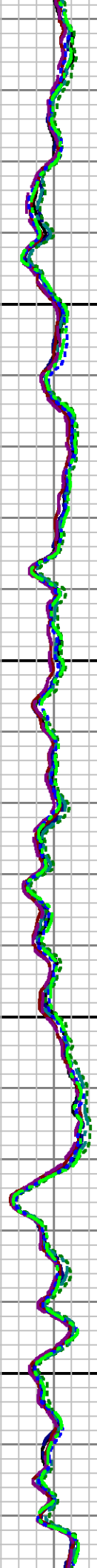
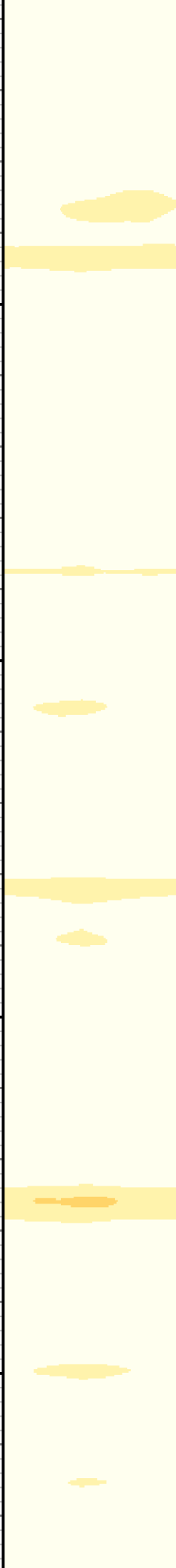
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5200



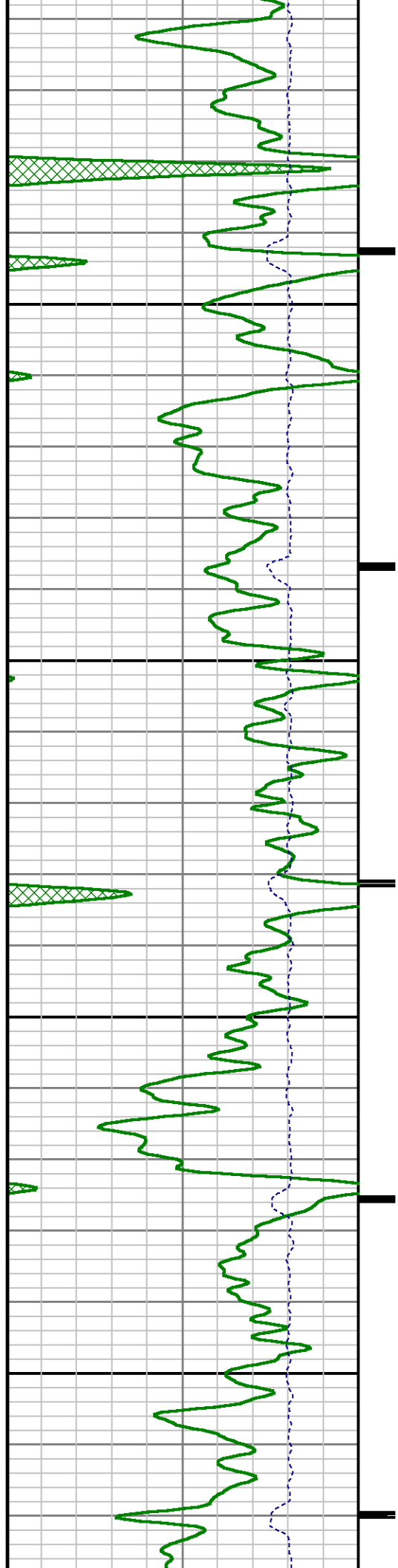


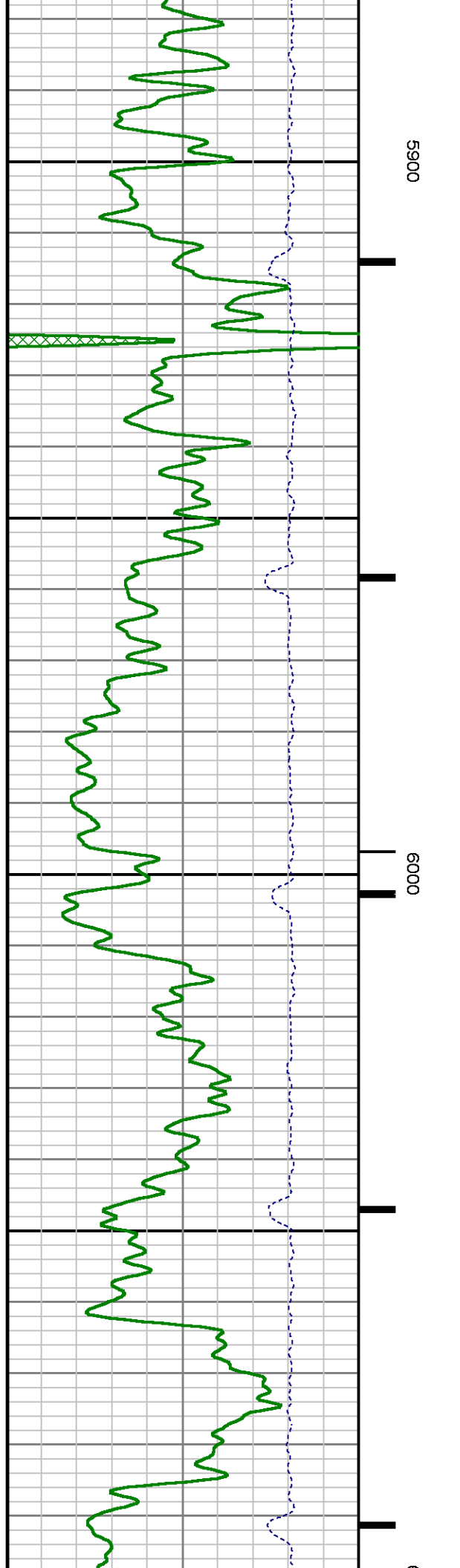
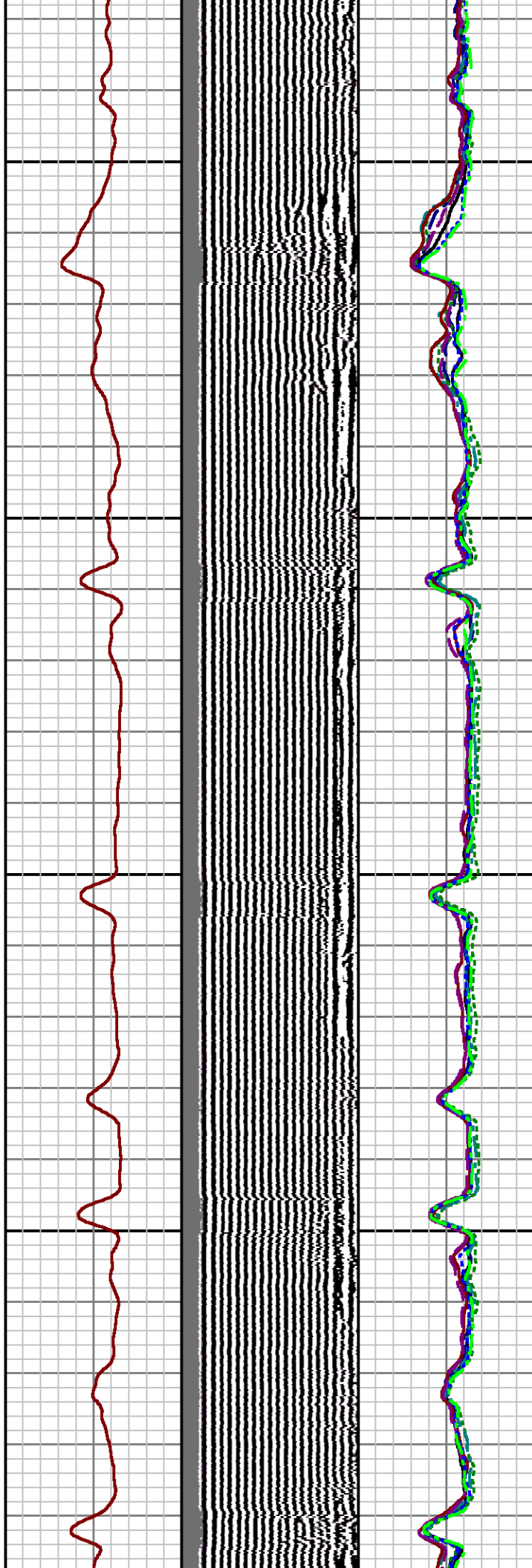
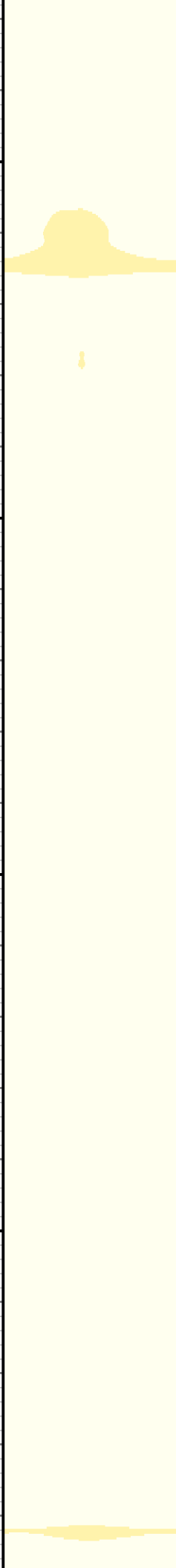


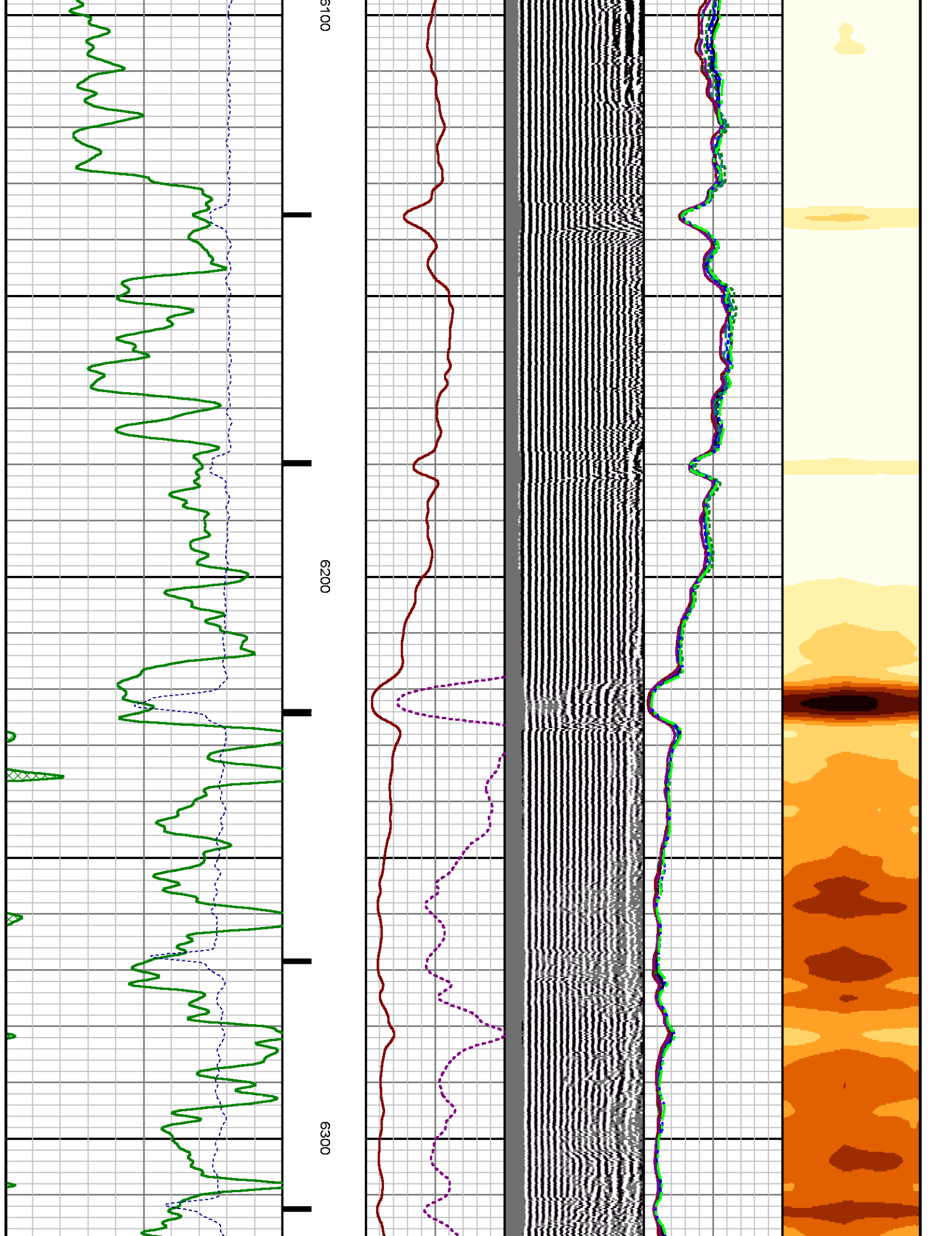


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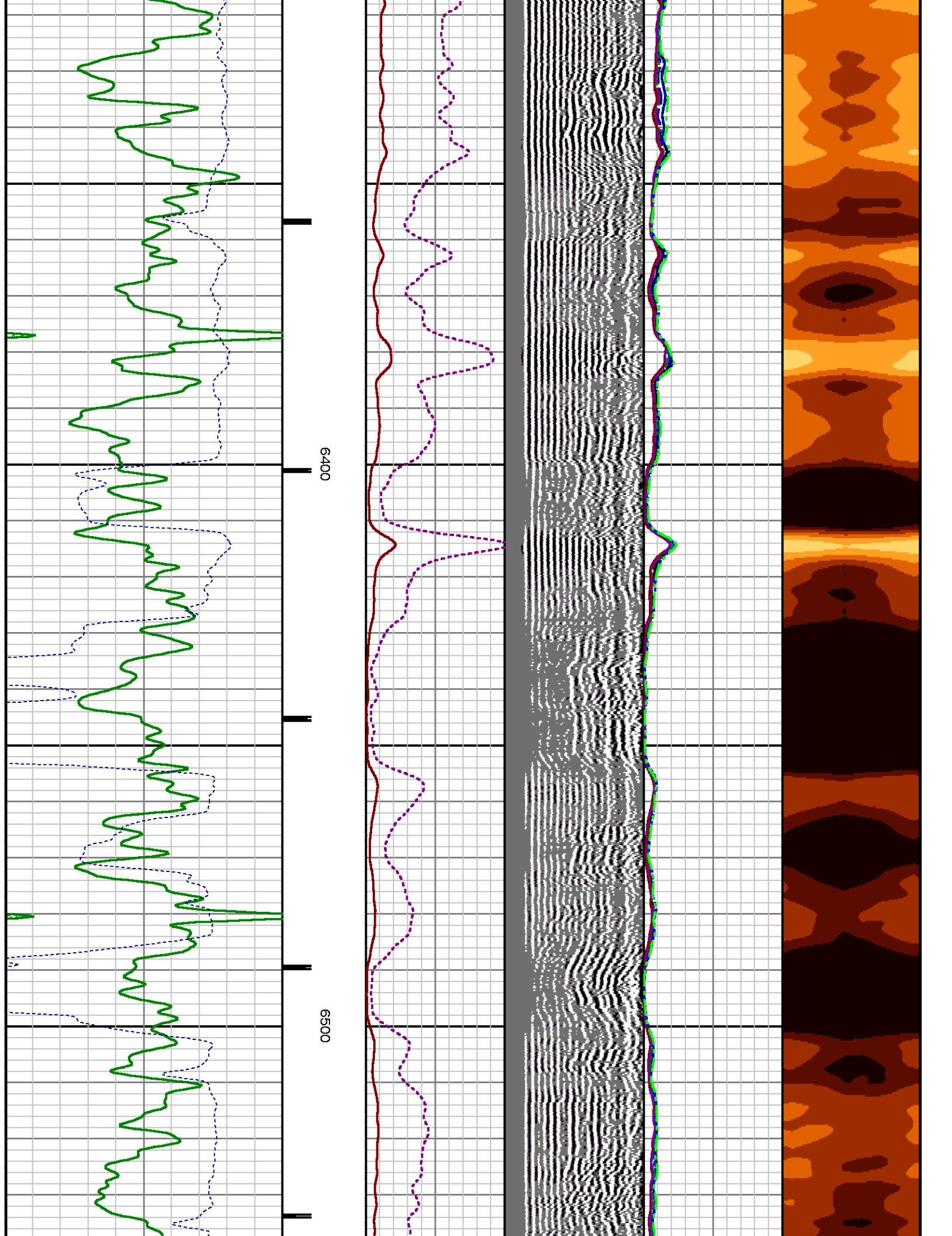
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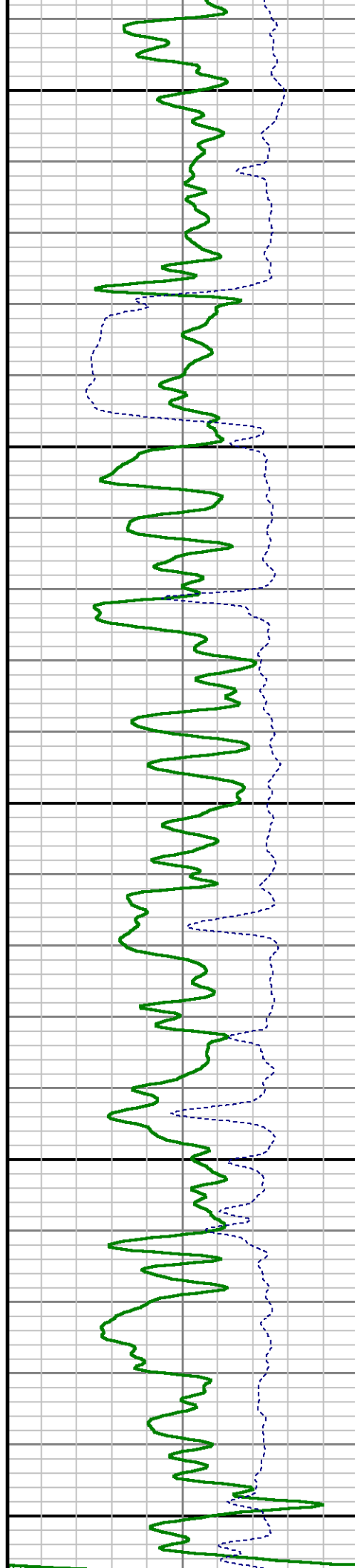
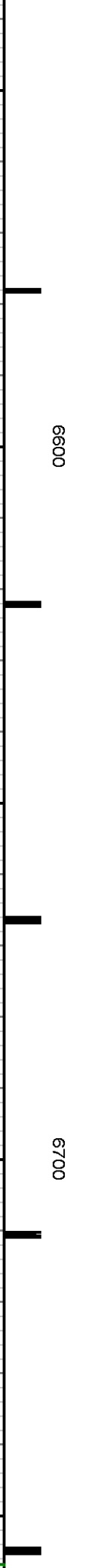
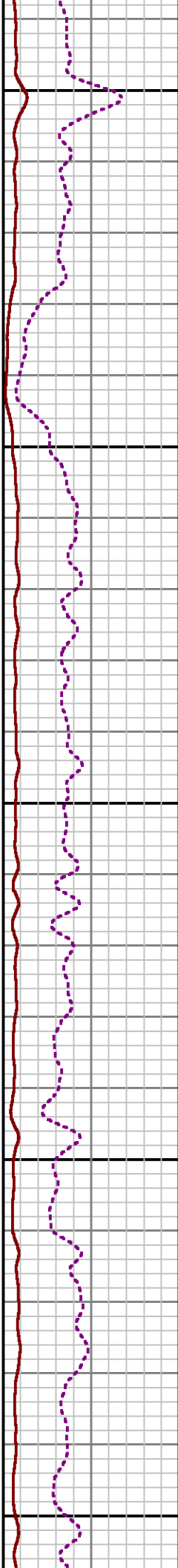
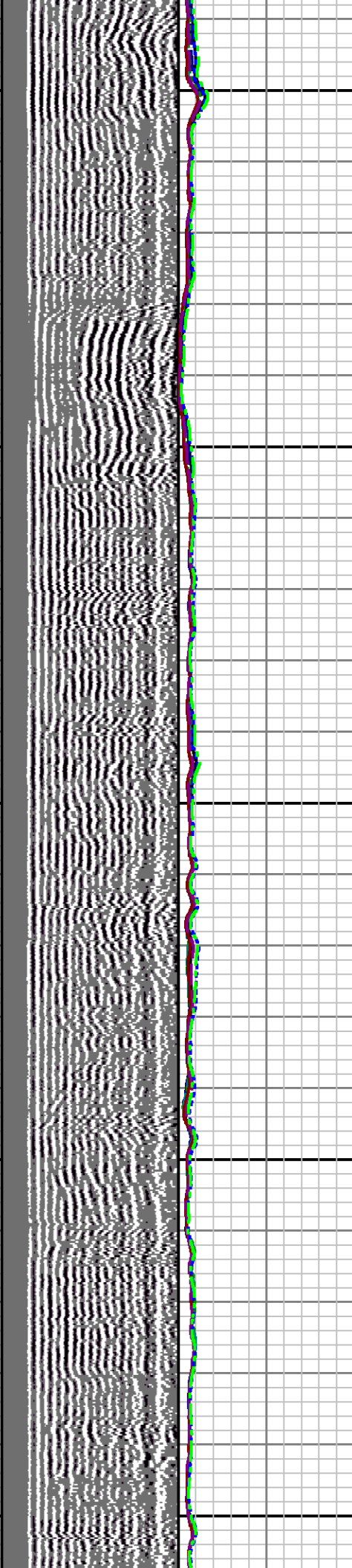


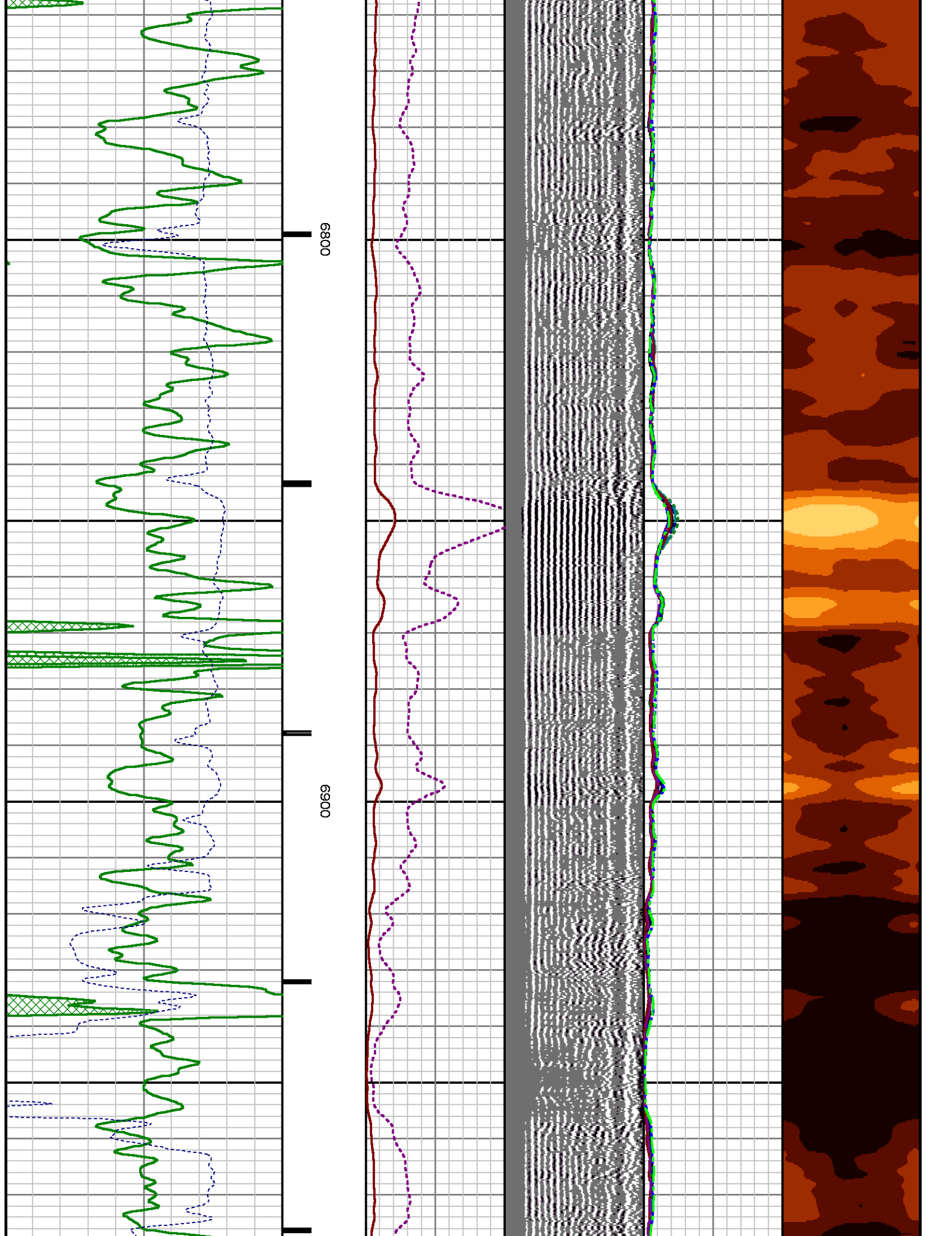


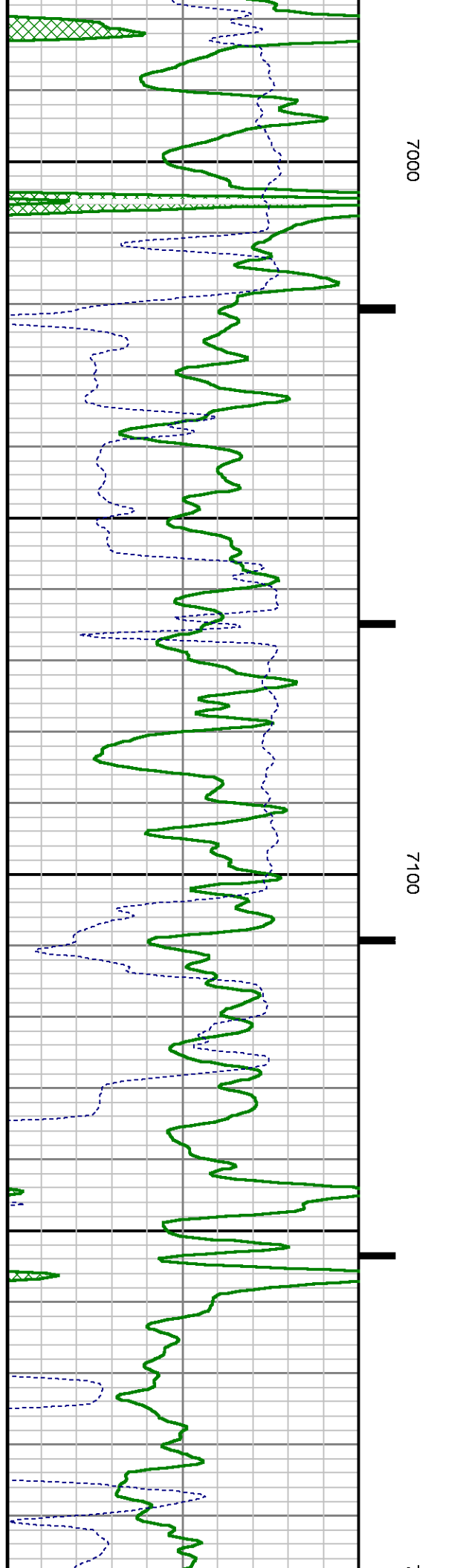
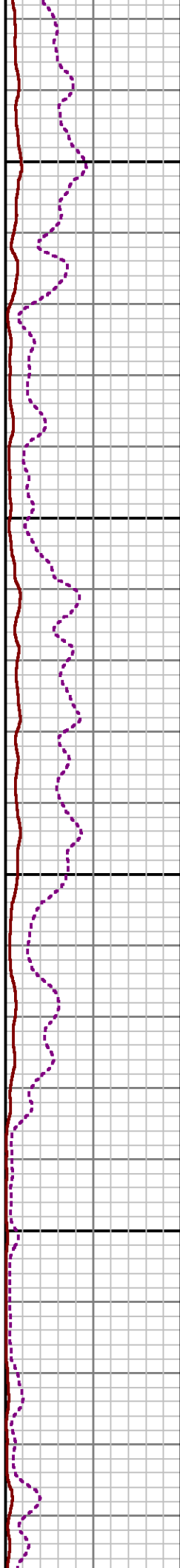
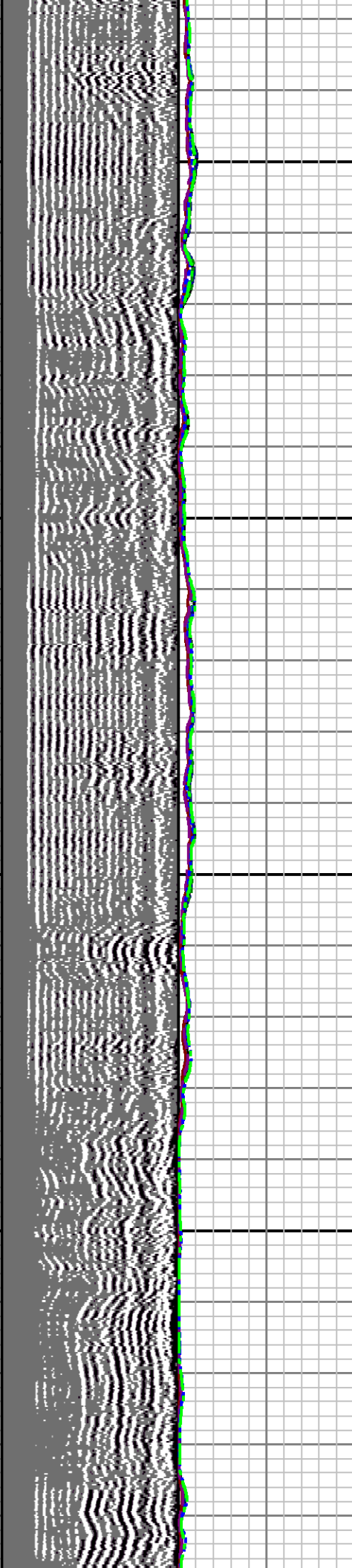
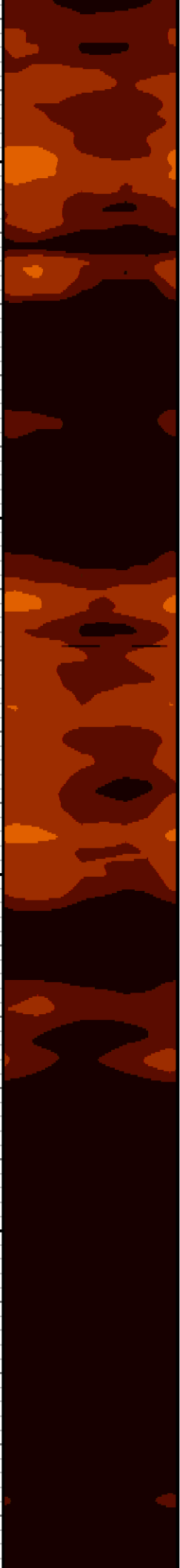




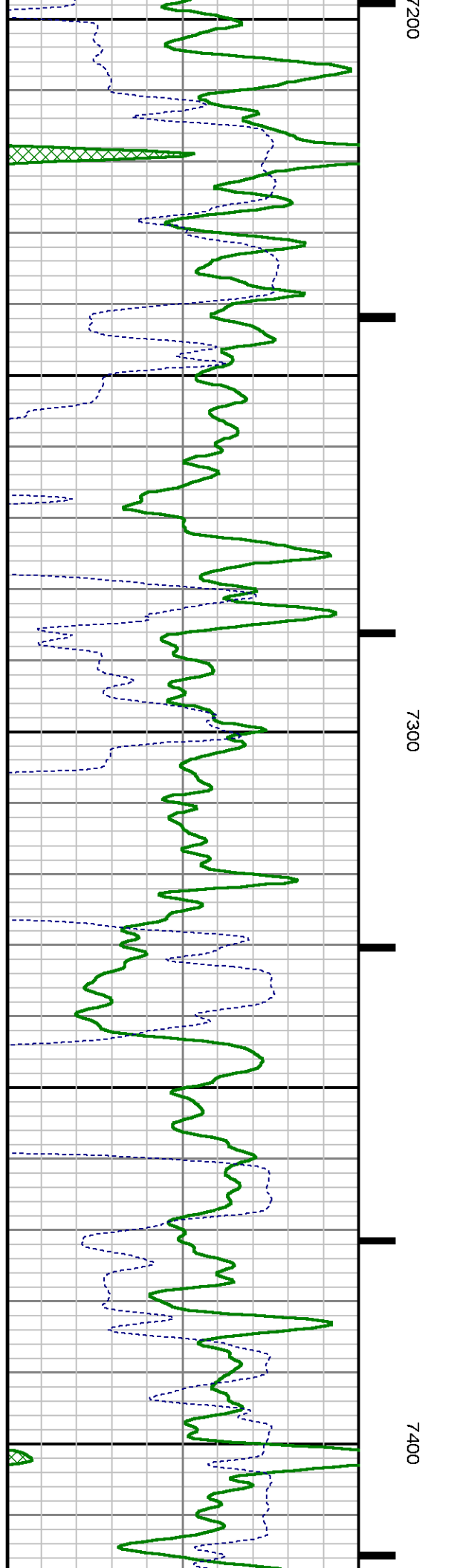
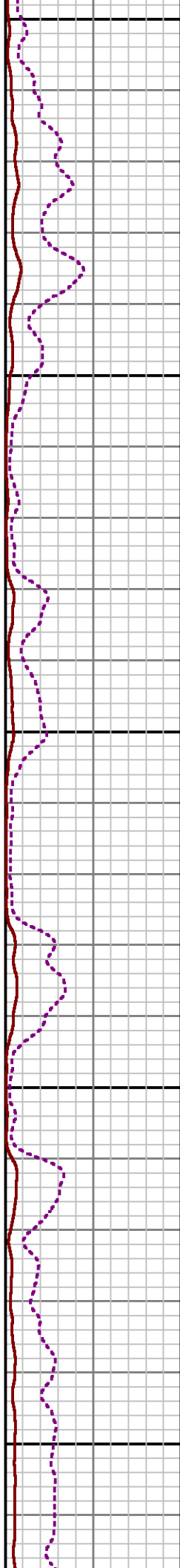
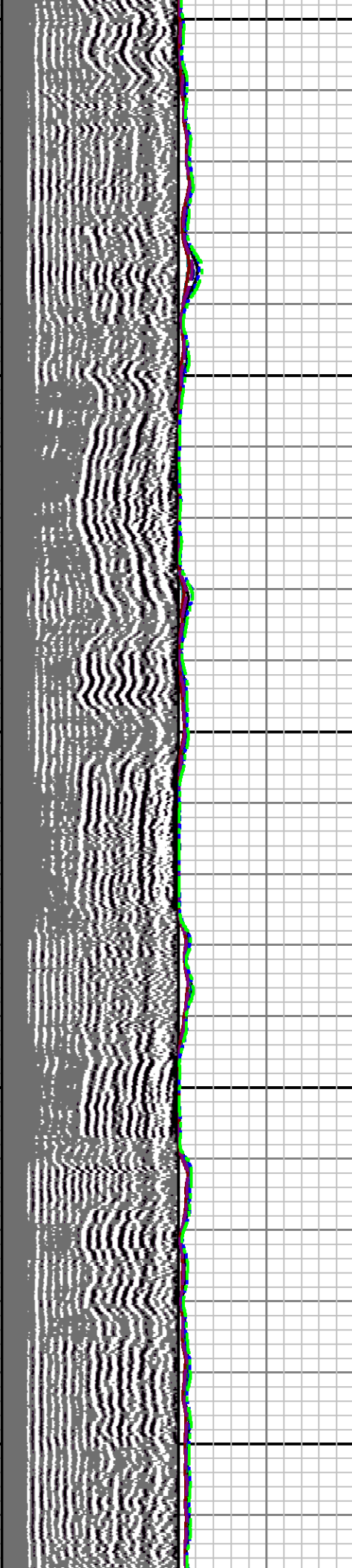




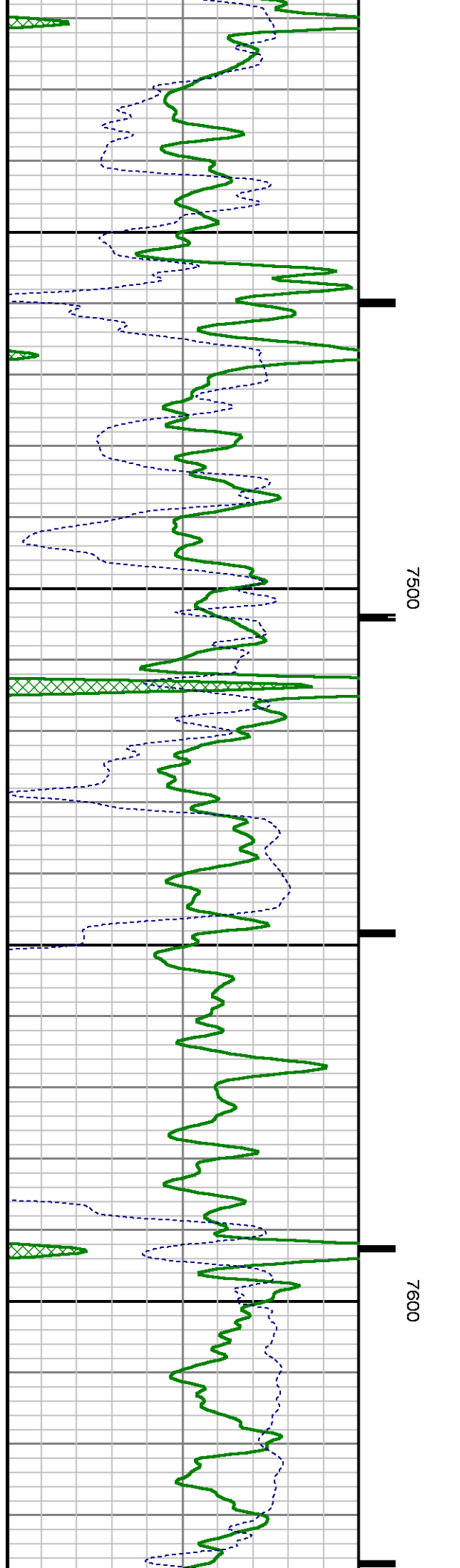
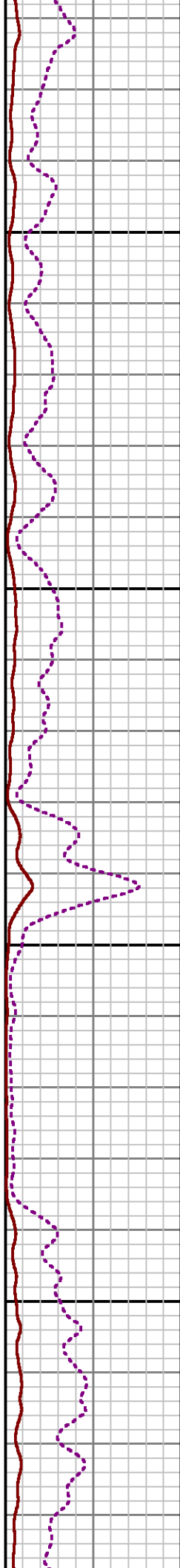
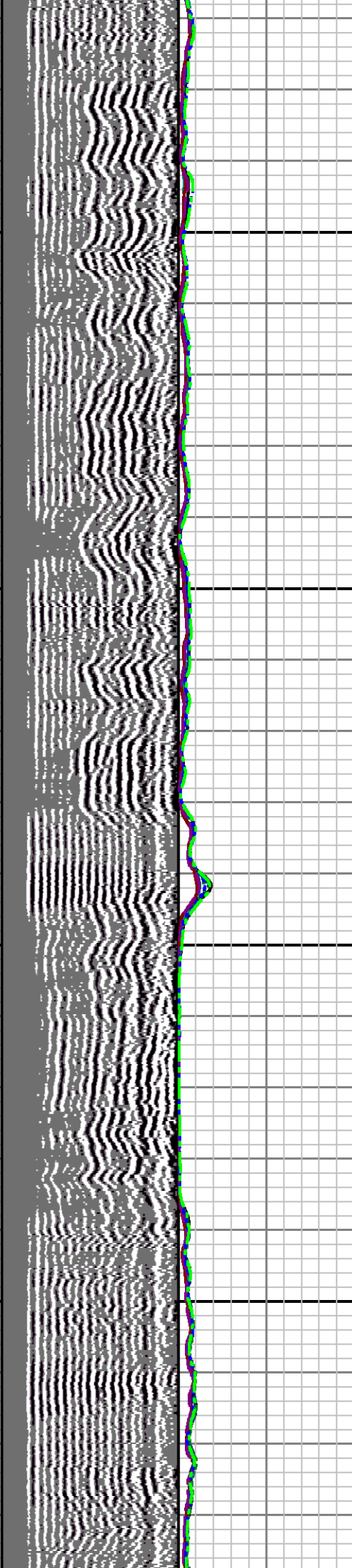


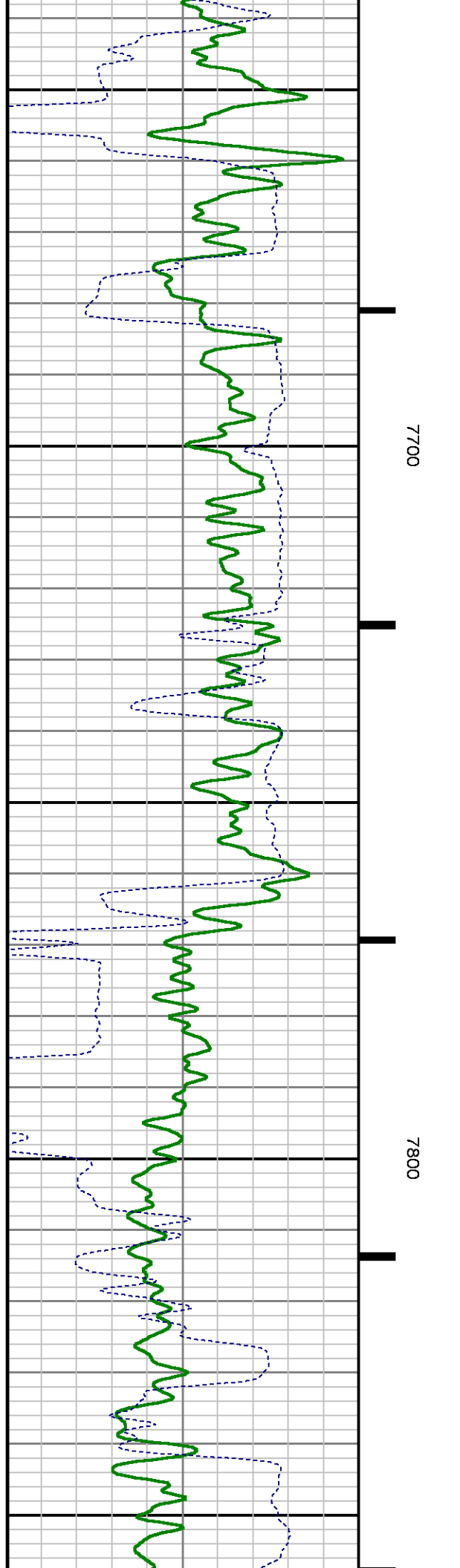
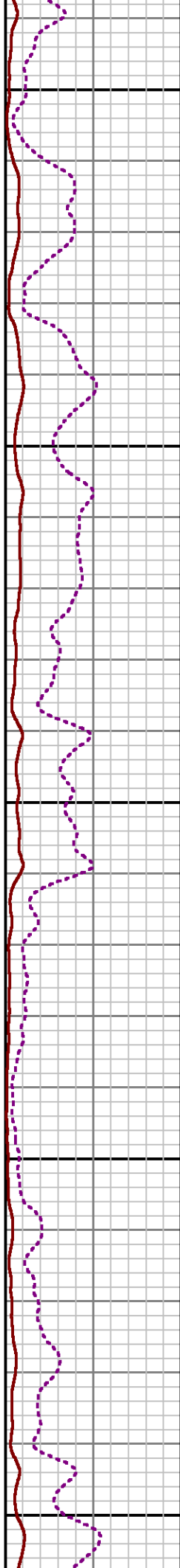
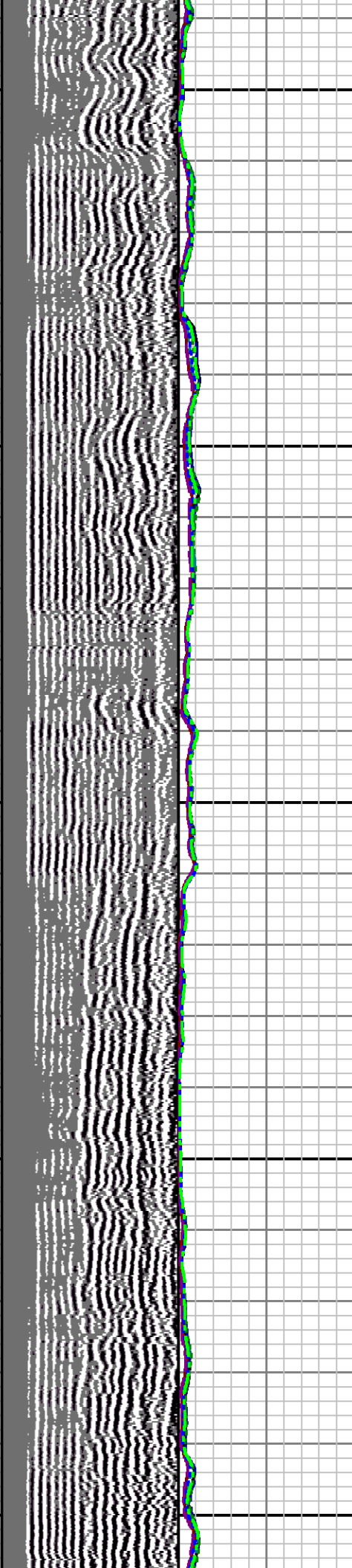
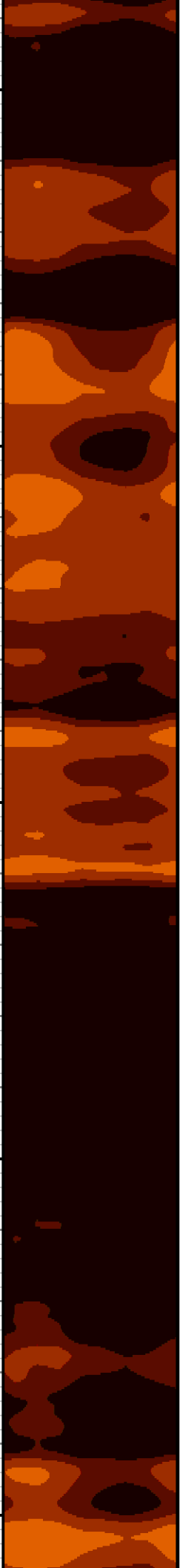


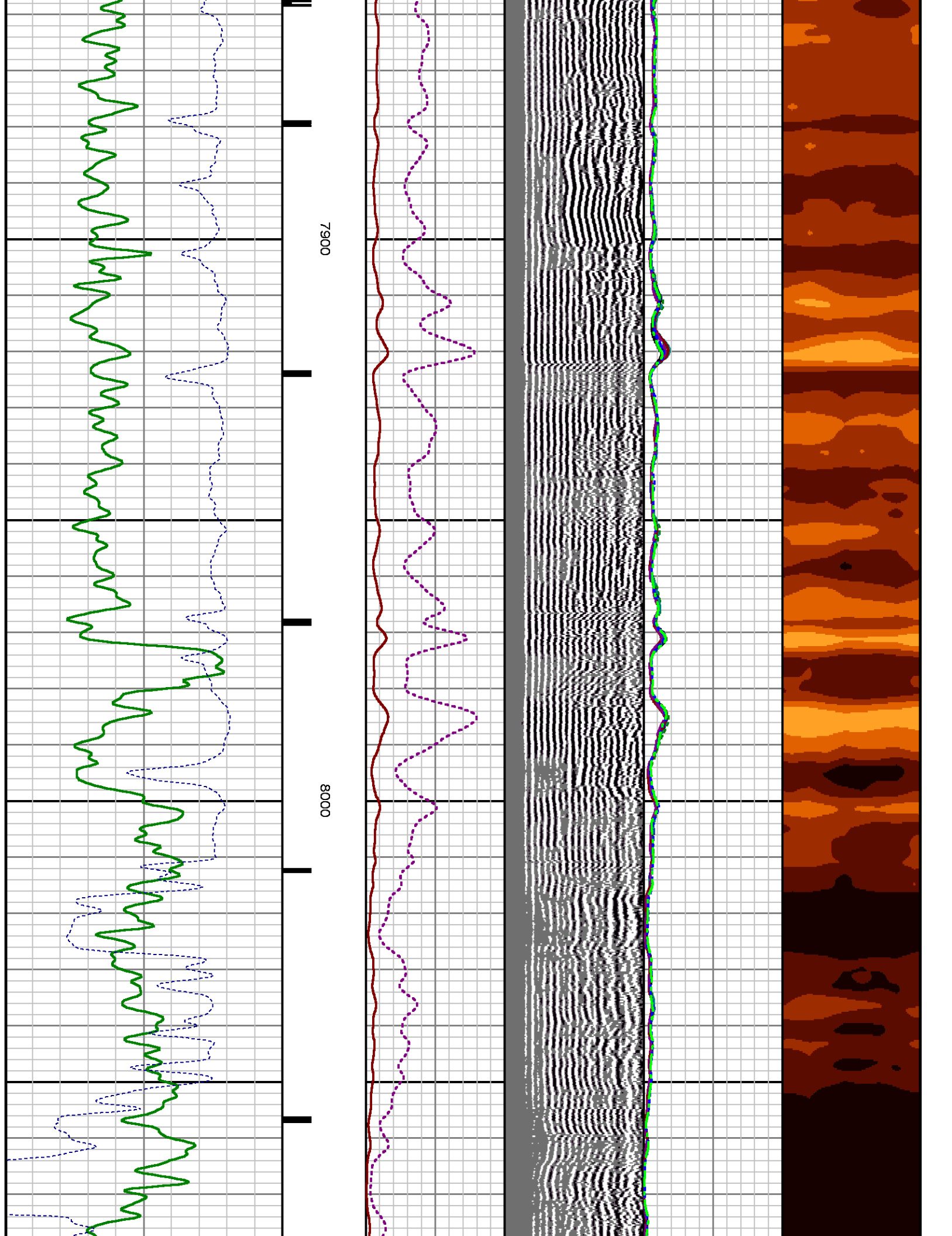


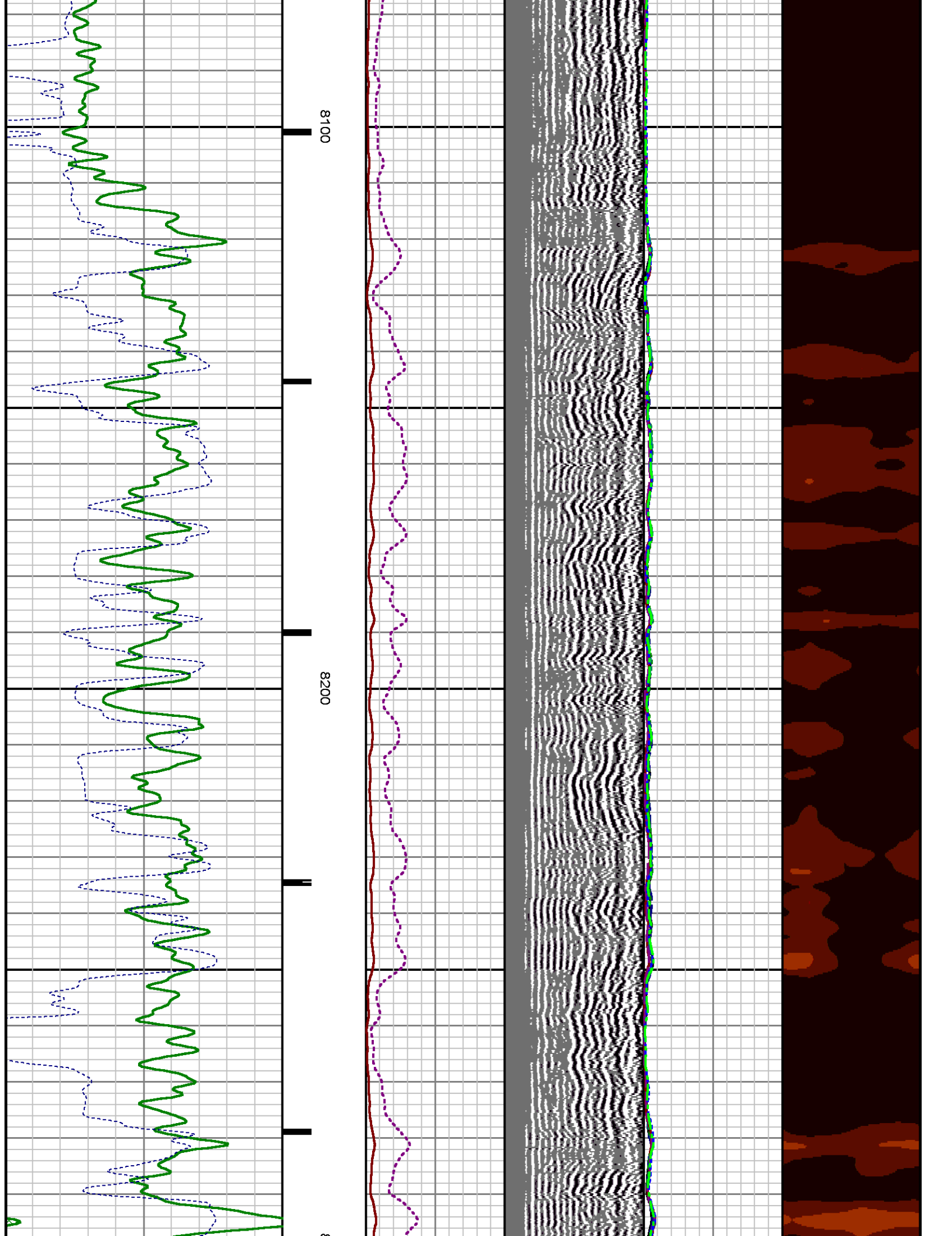




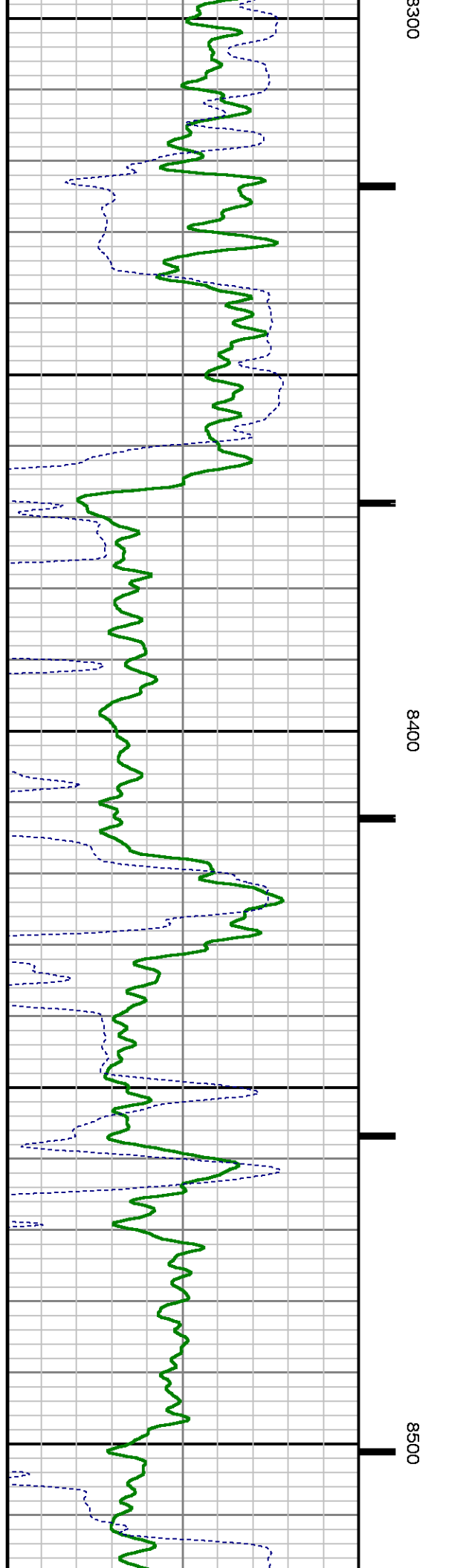
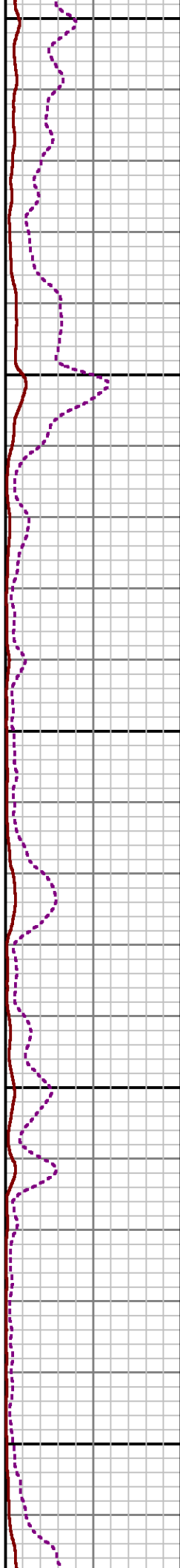
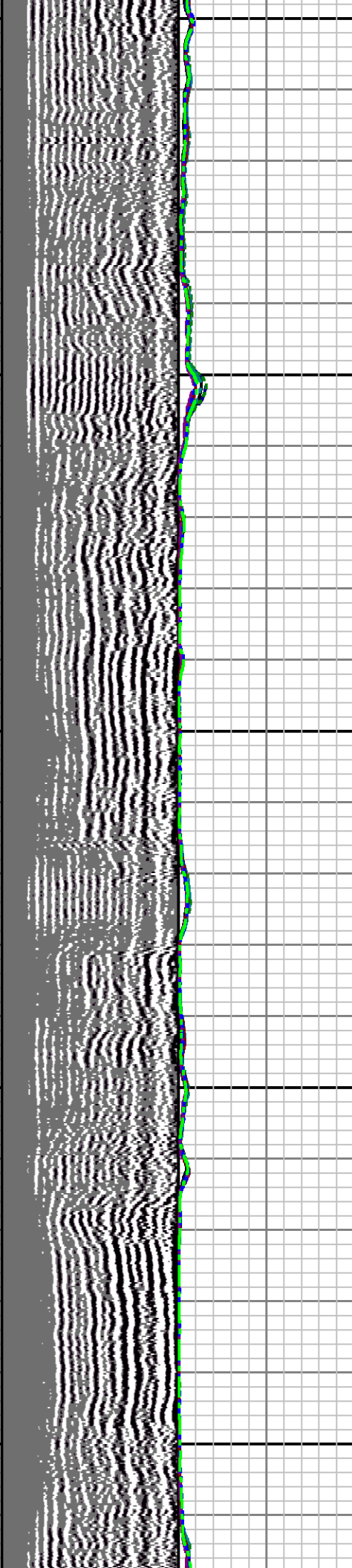




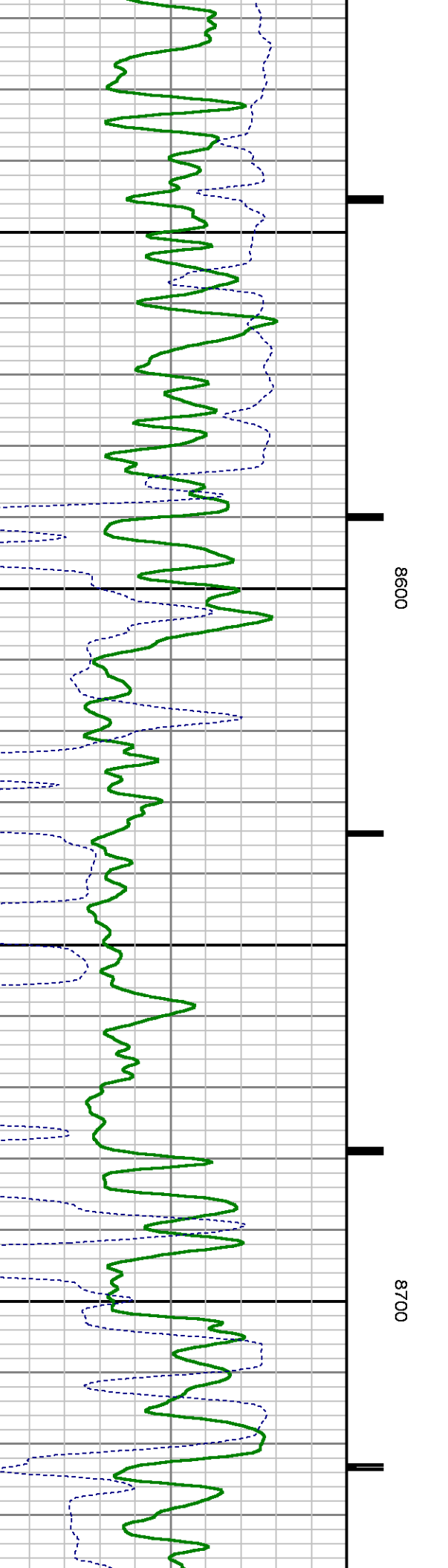
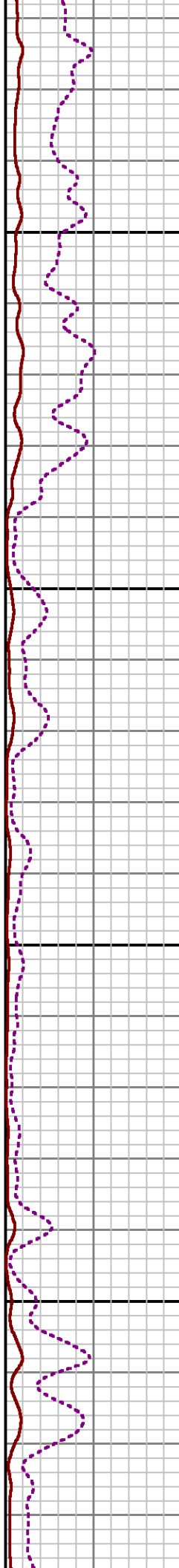
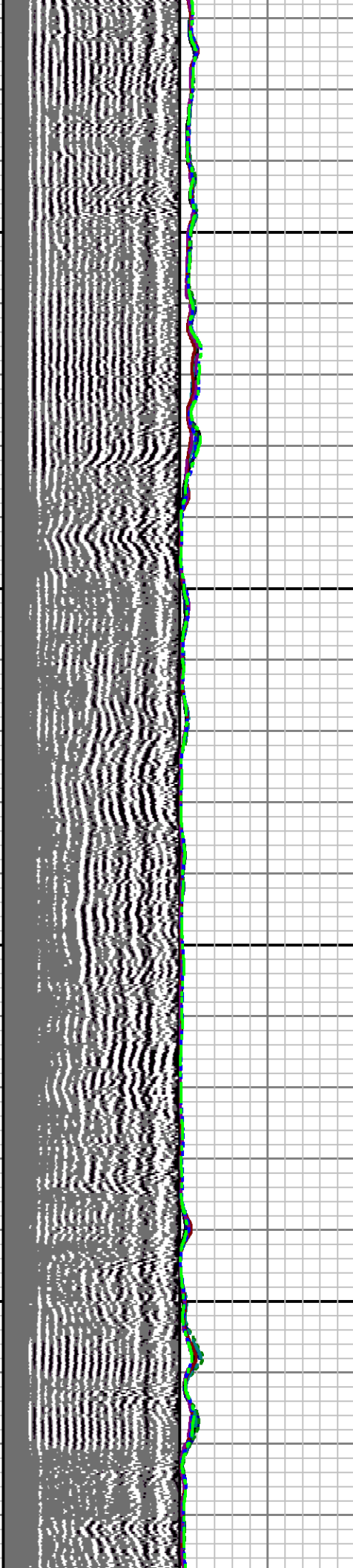


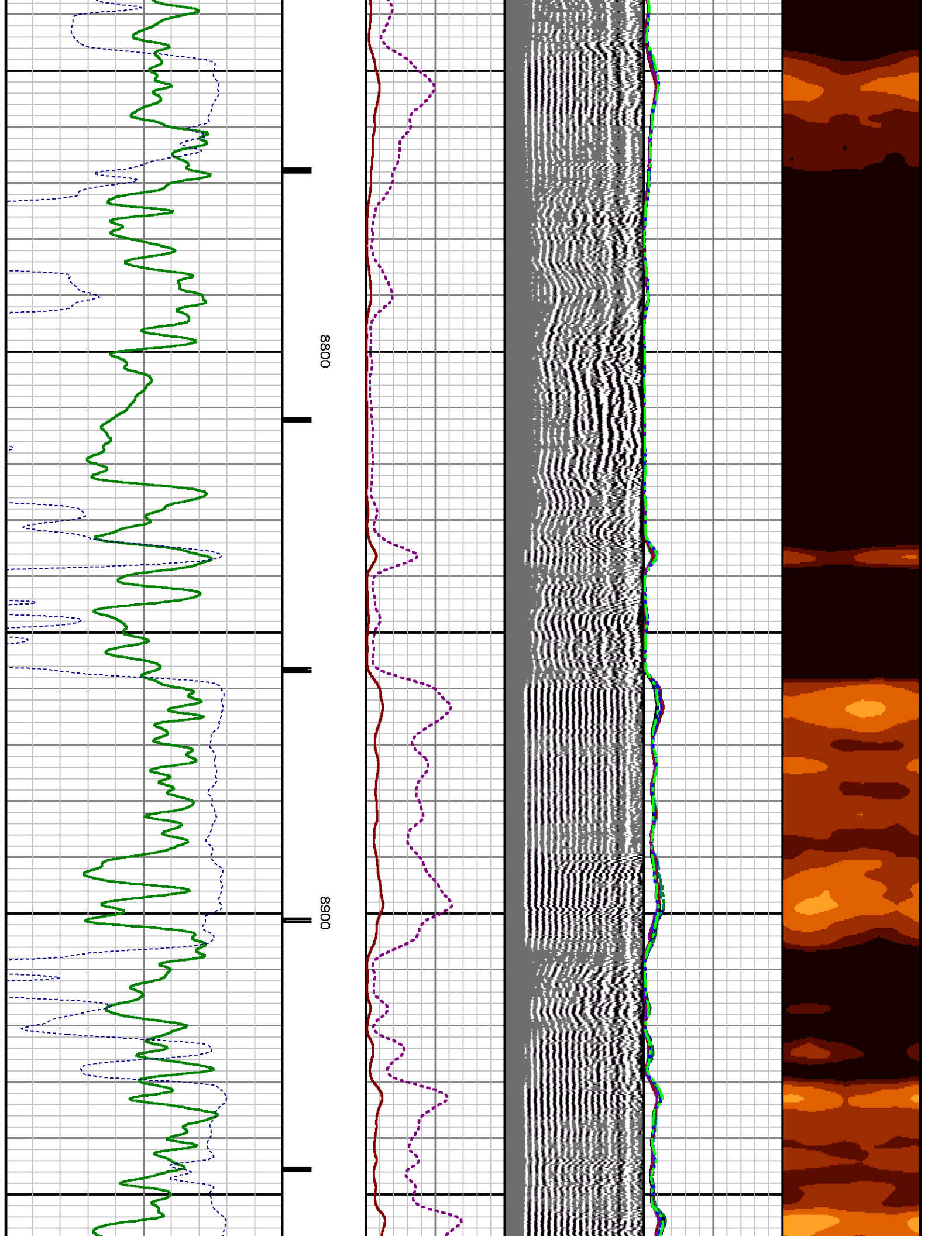


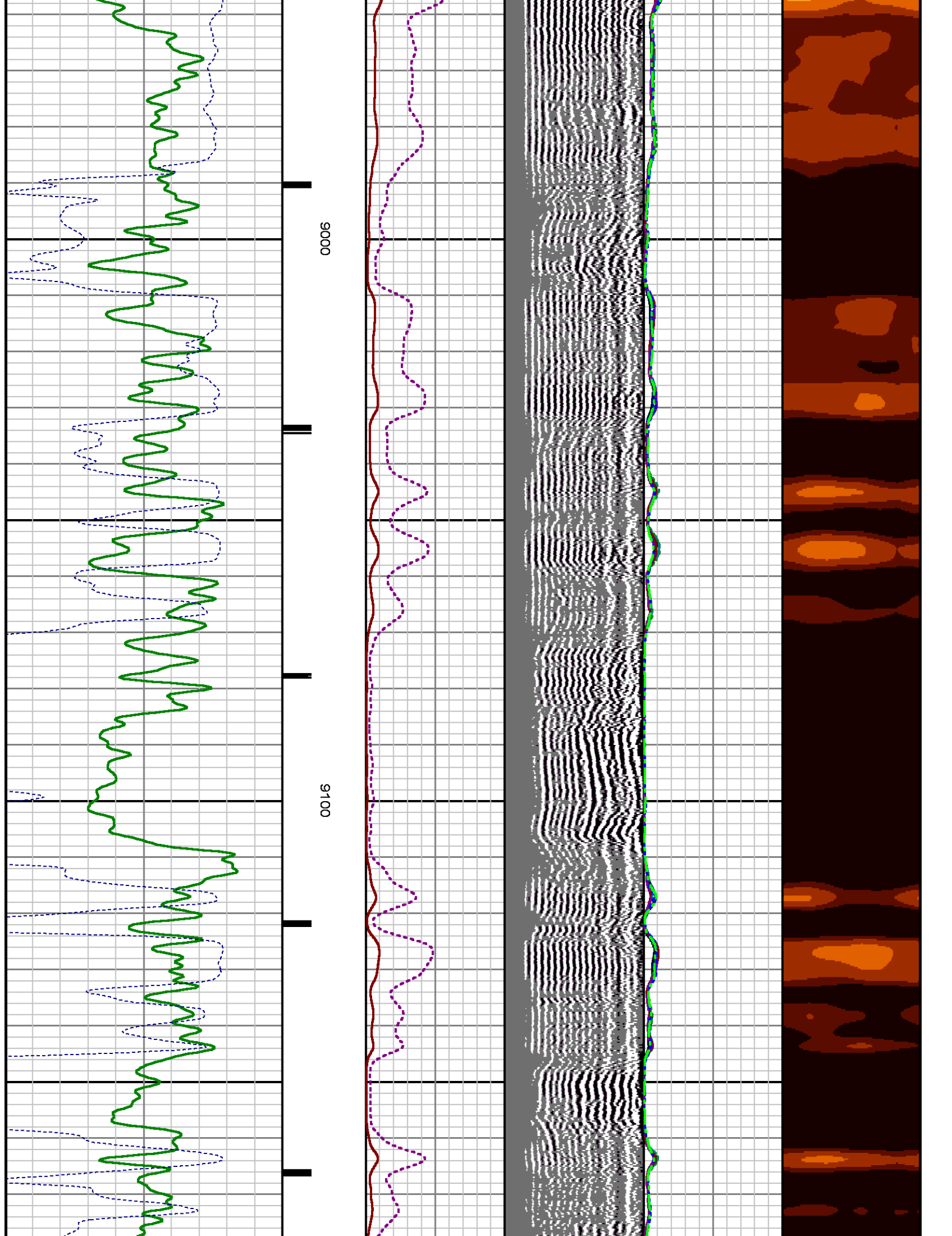


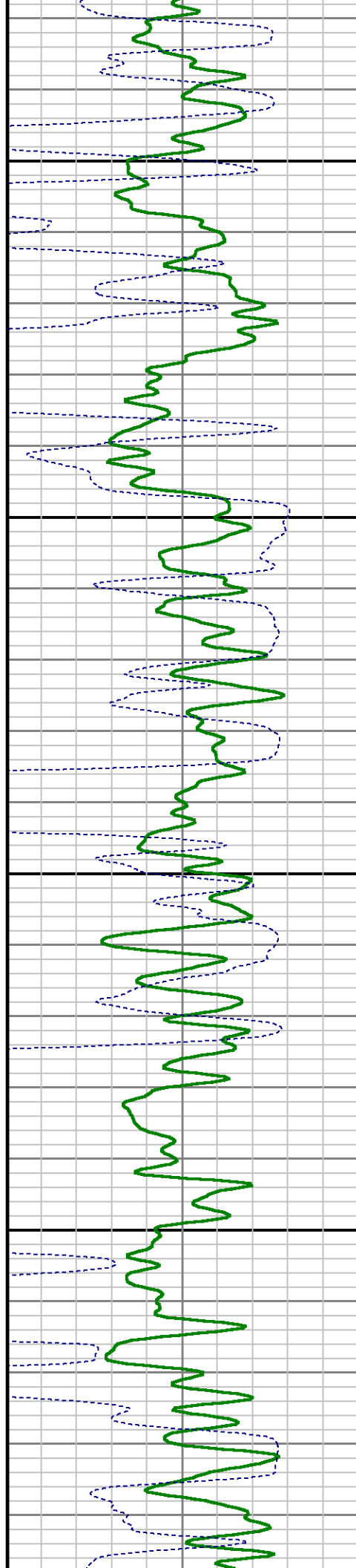
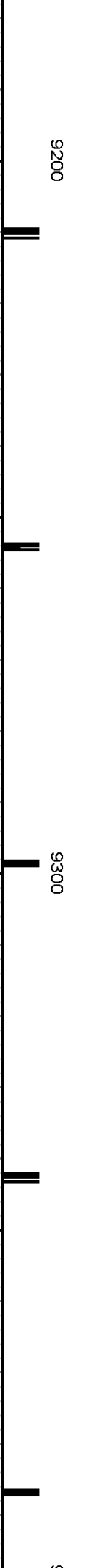
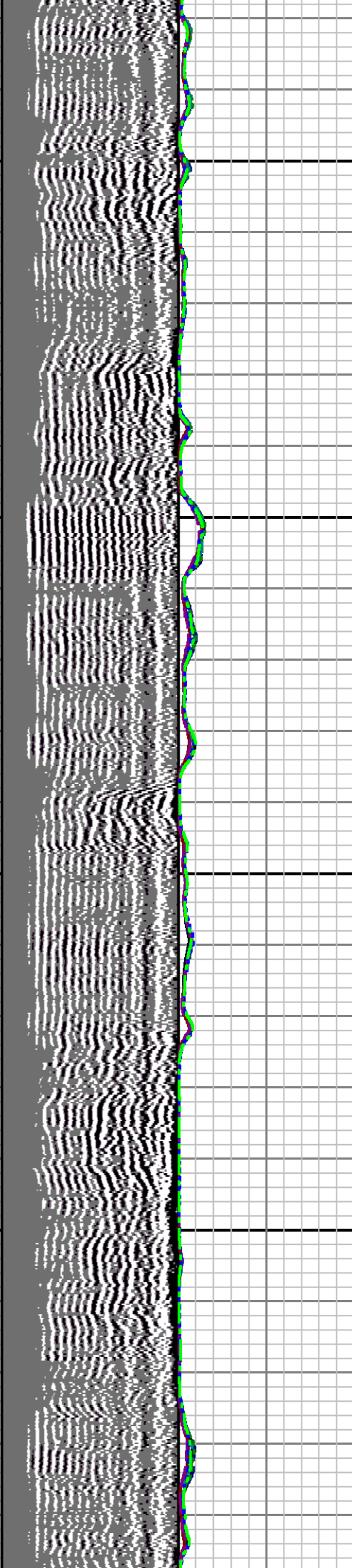
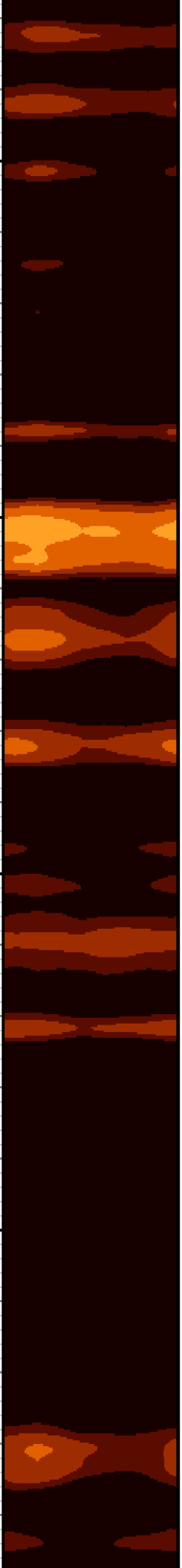




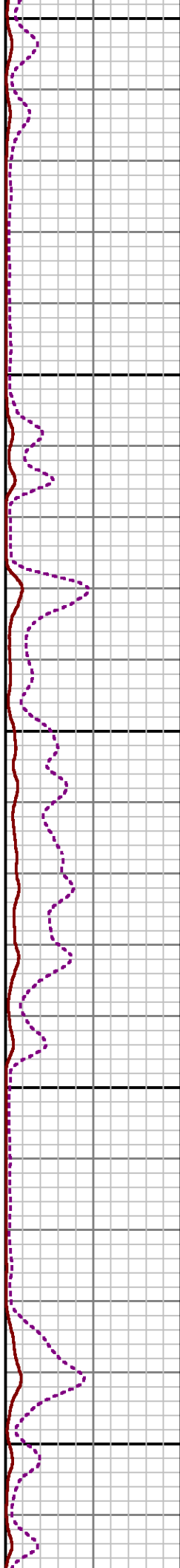
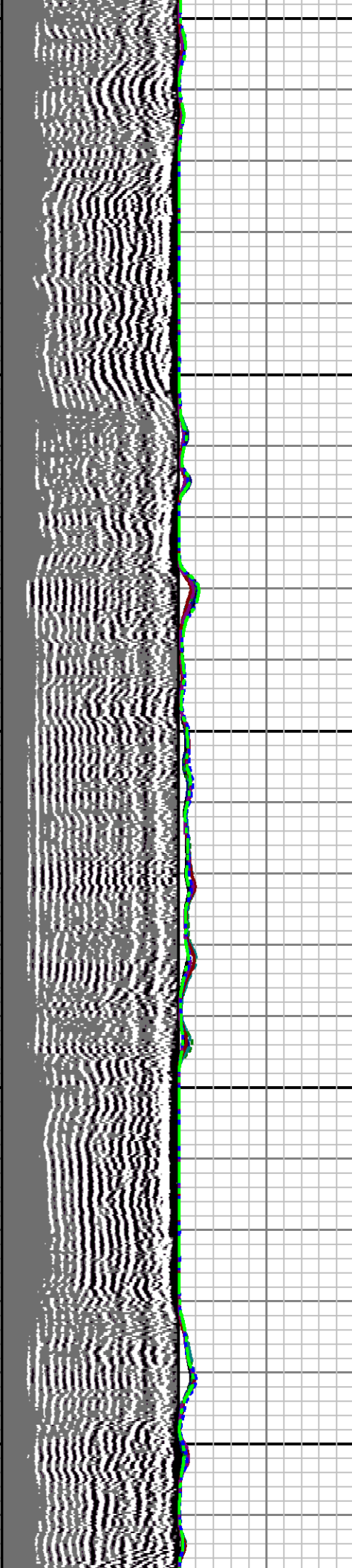
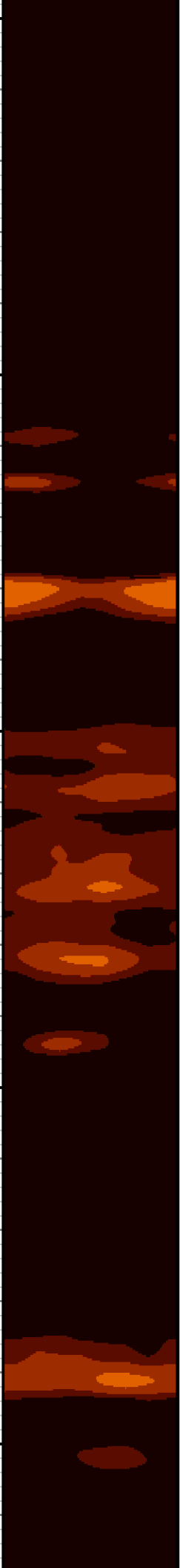








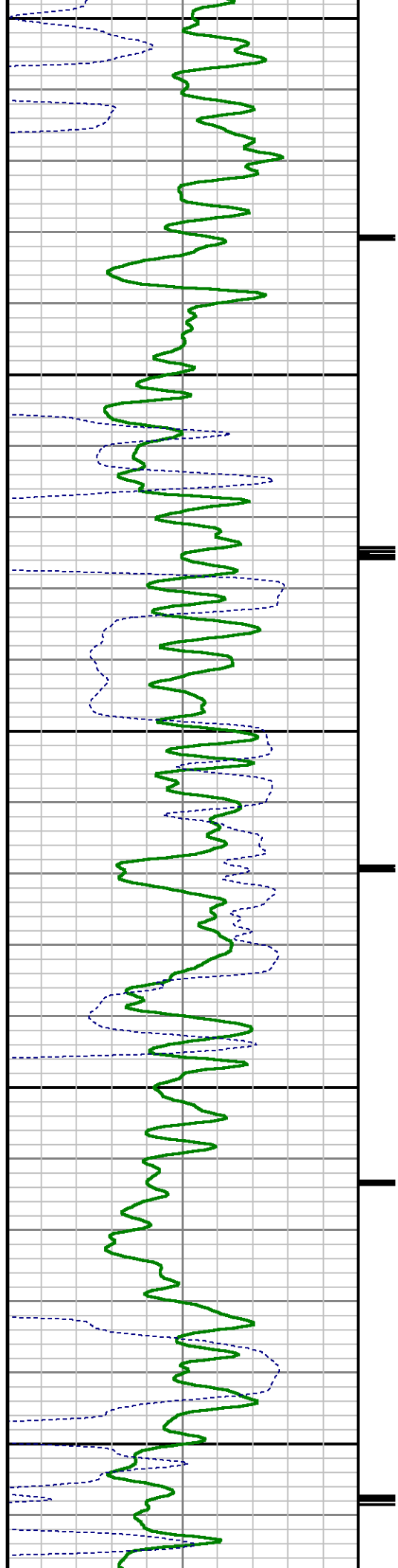




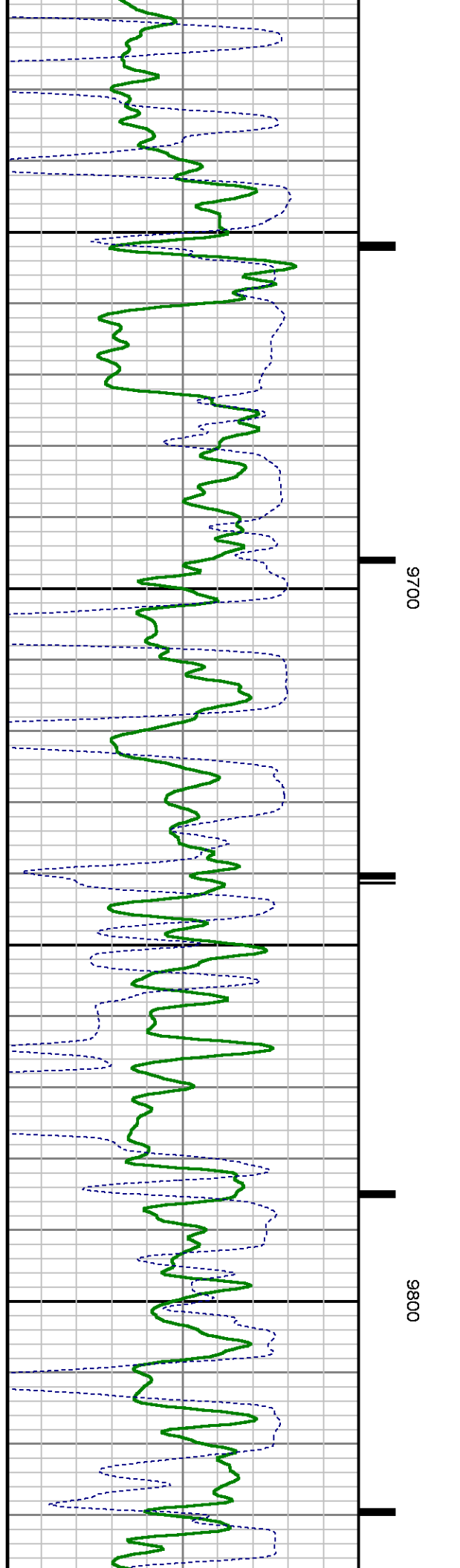
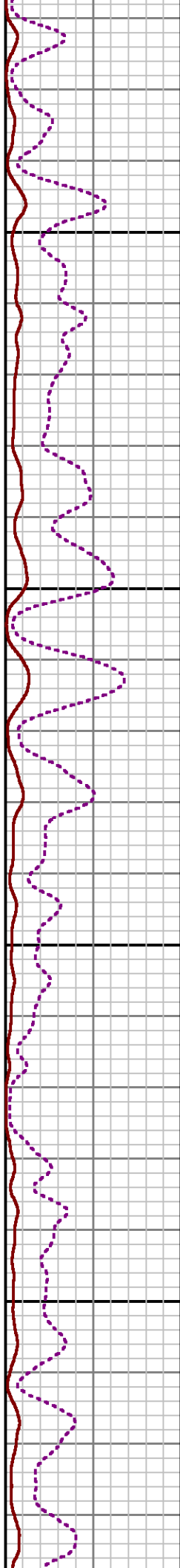
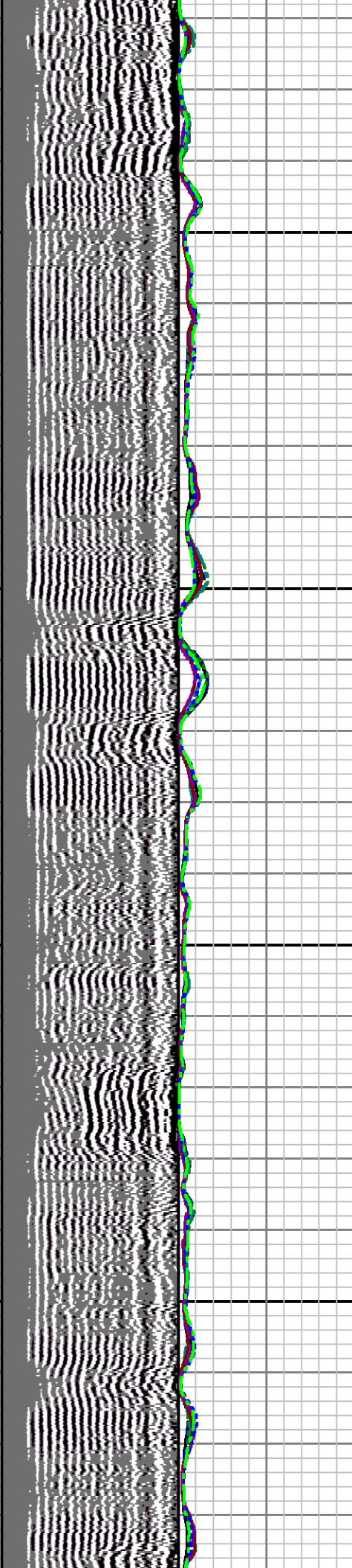
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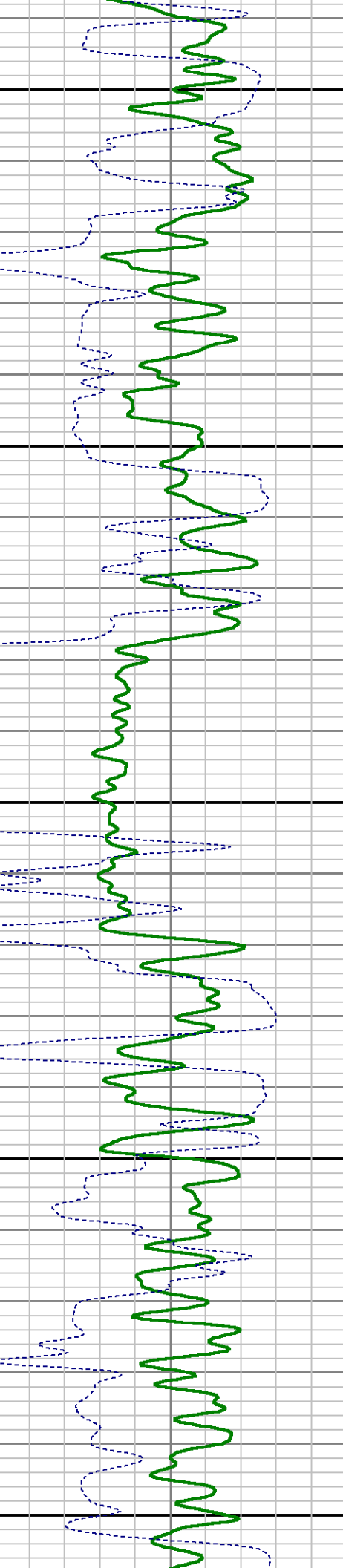
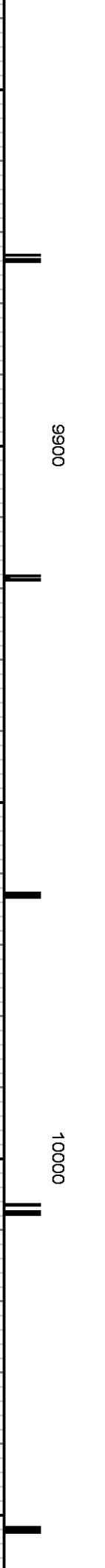
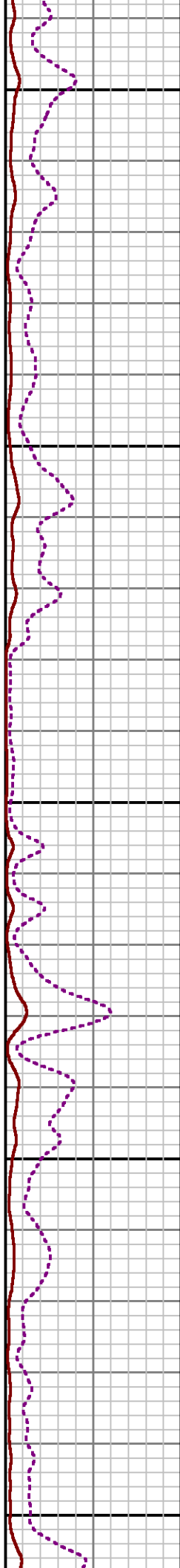
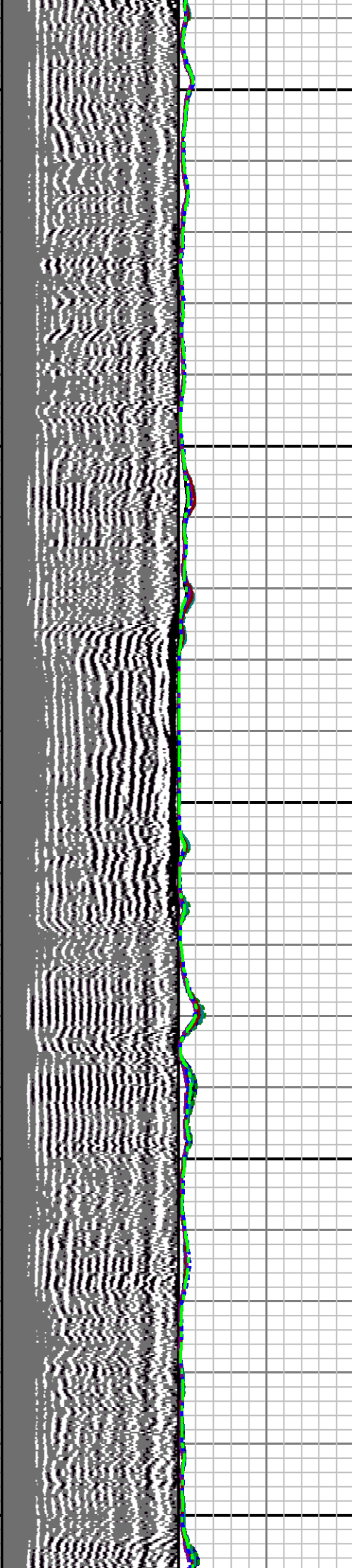
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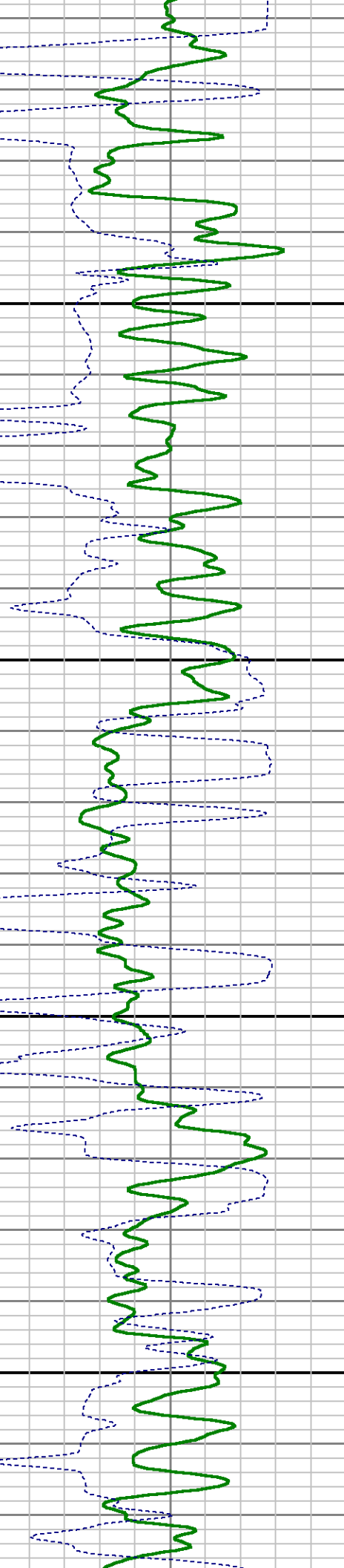
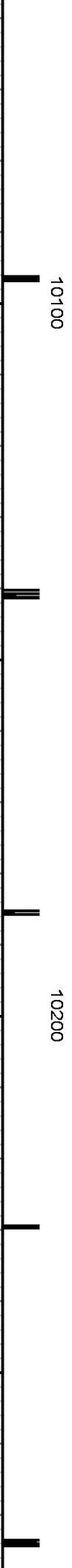
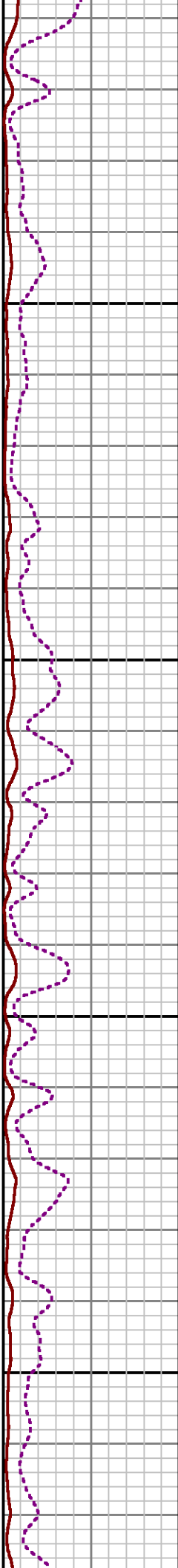
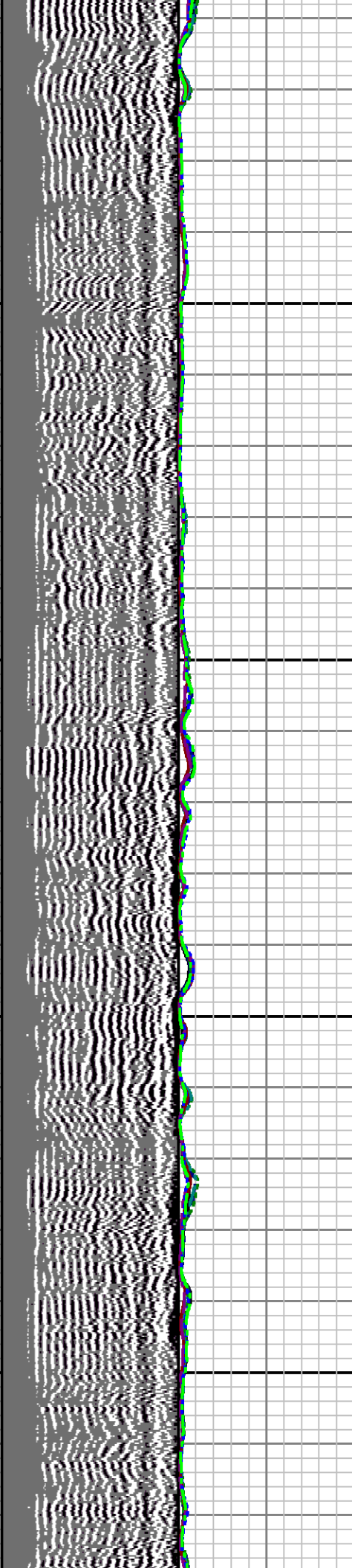
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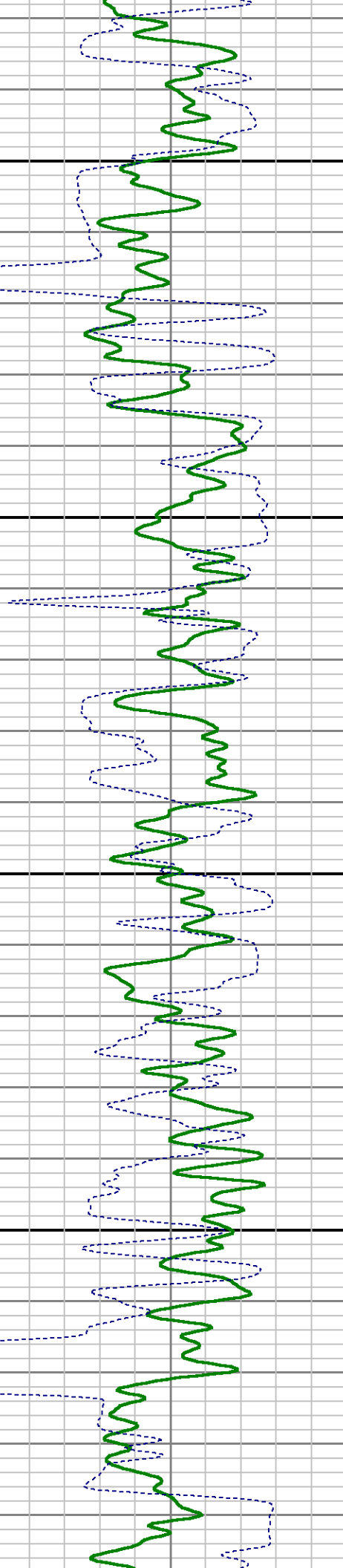
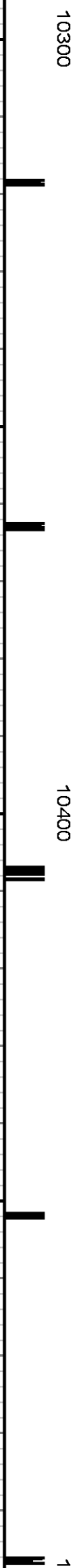
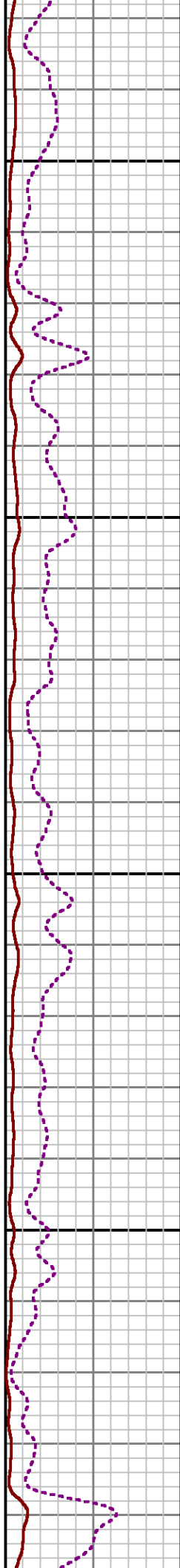
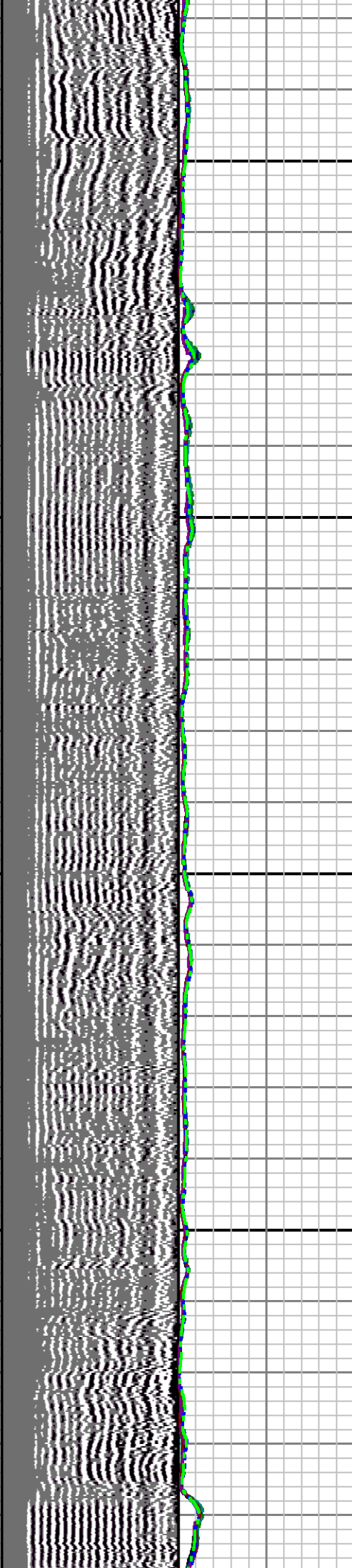




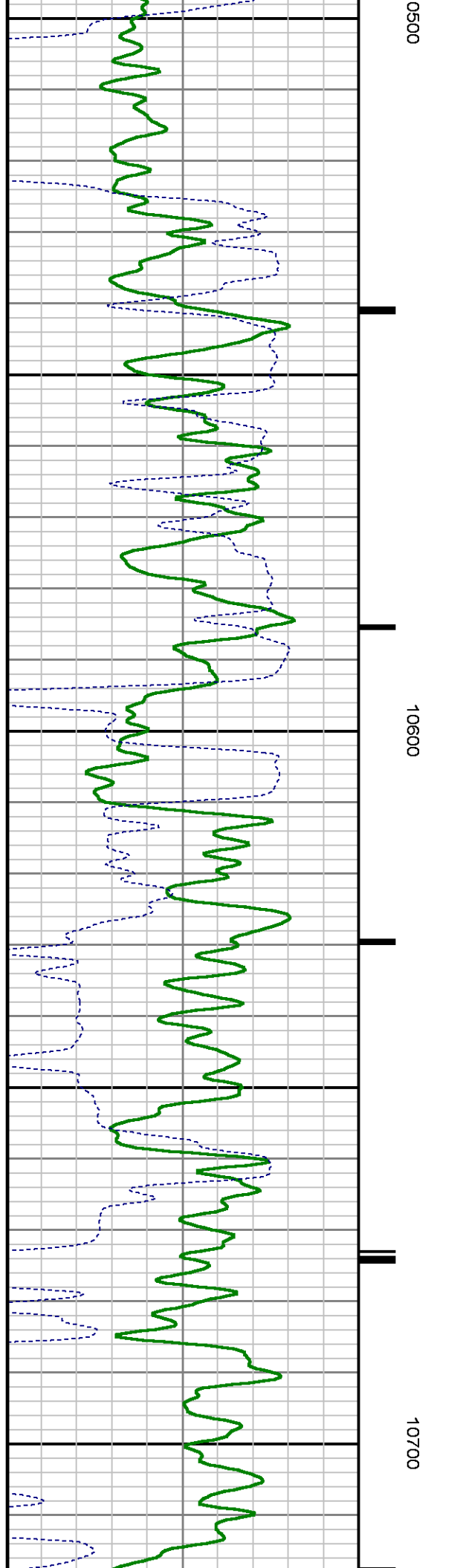
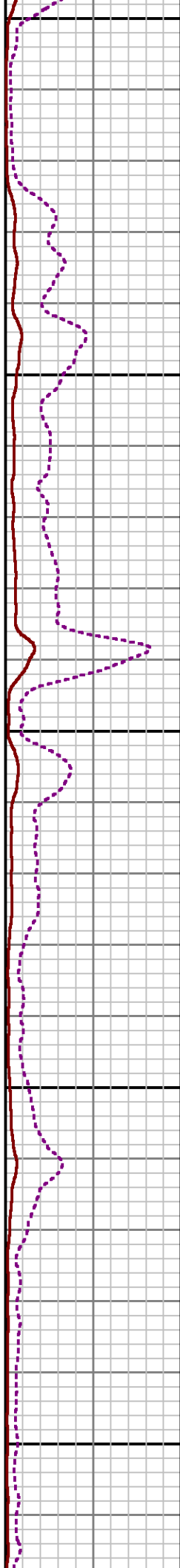
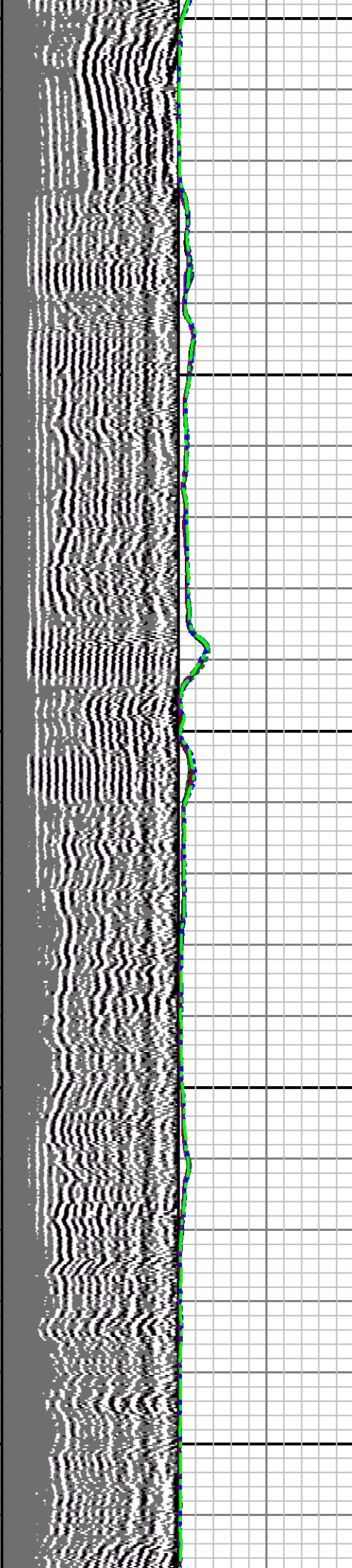
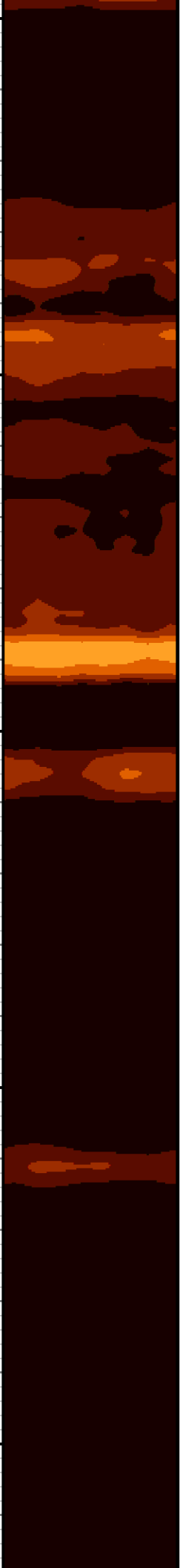




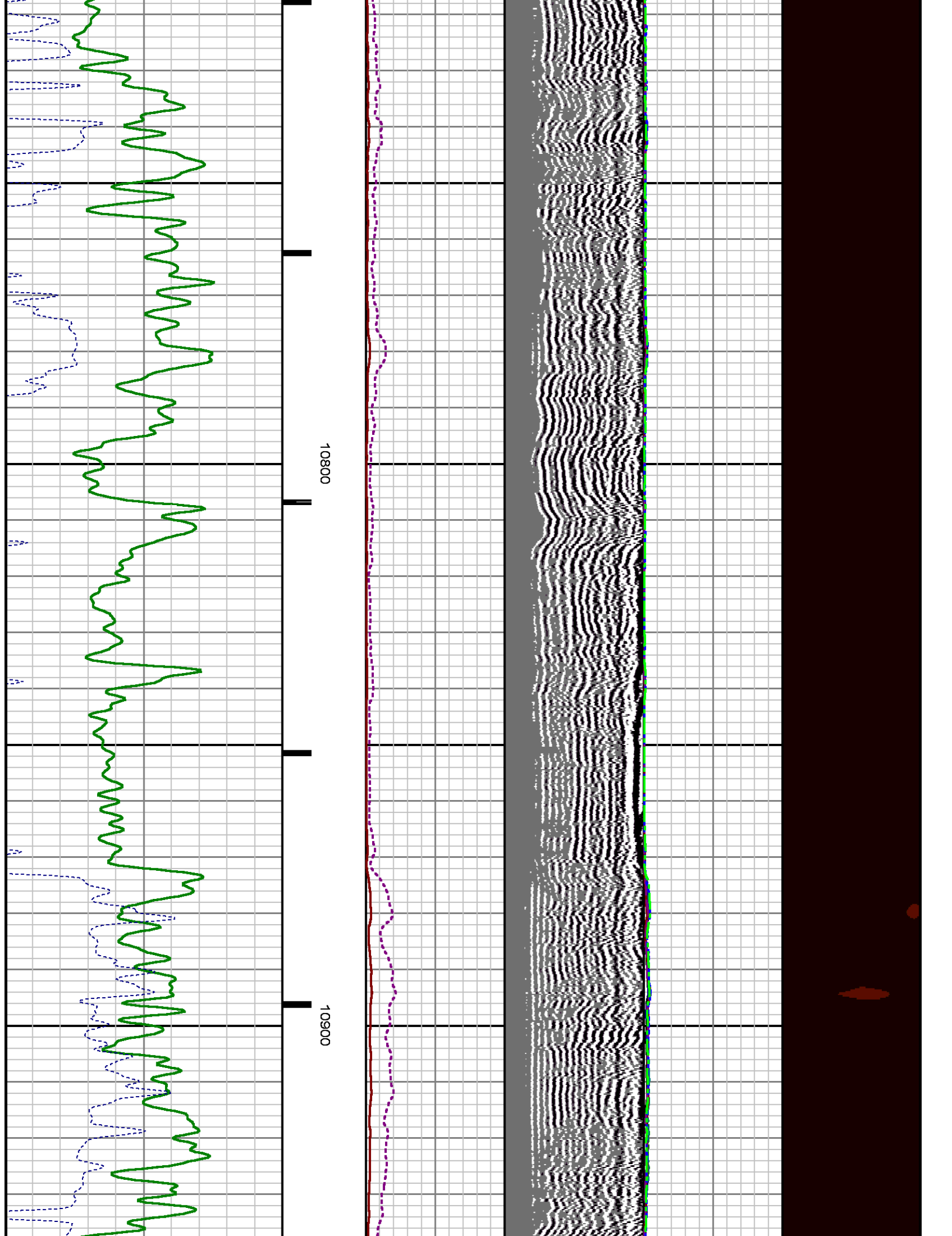


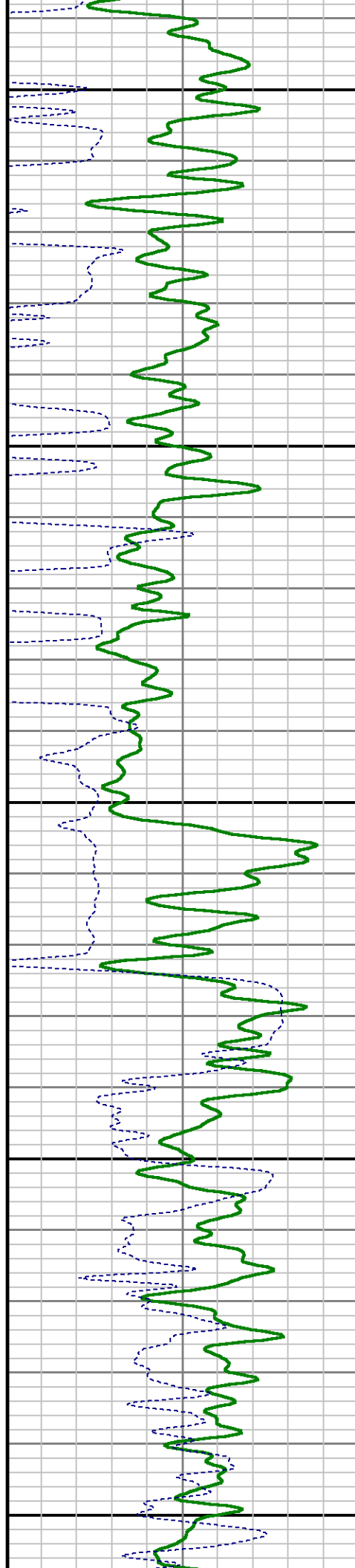
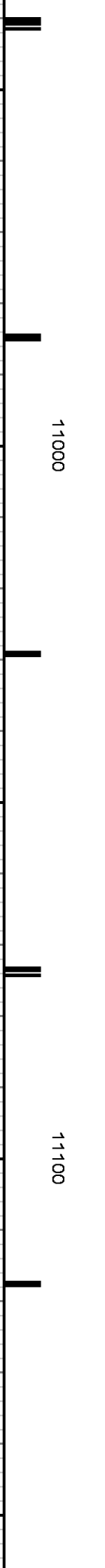
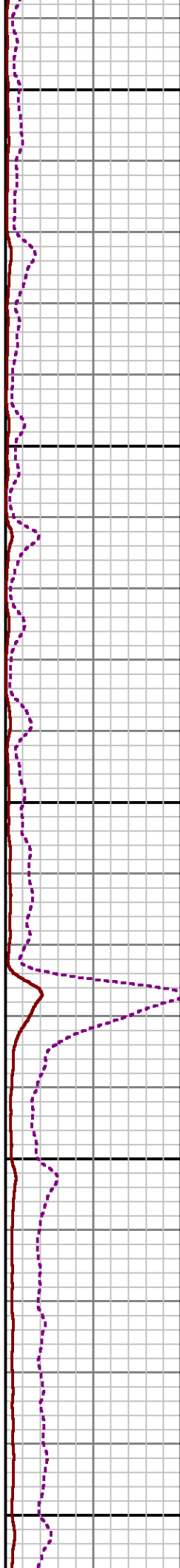
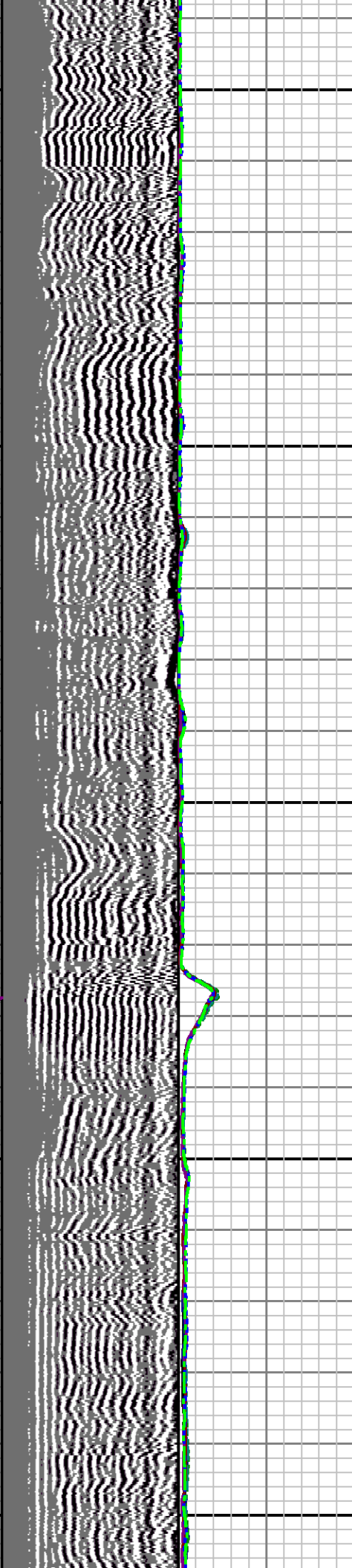


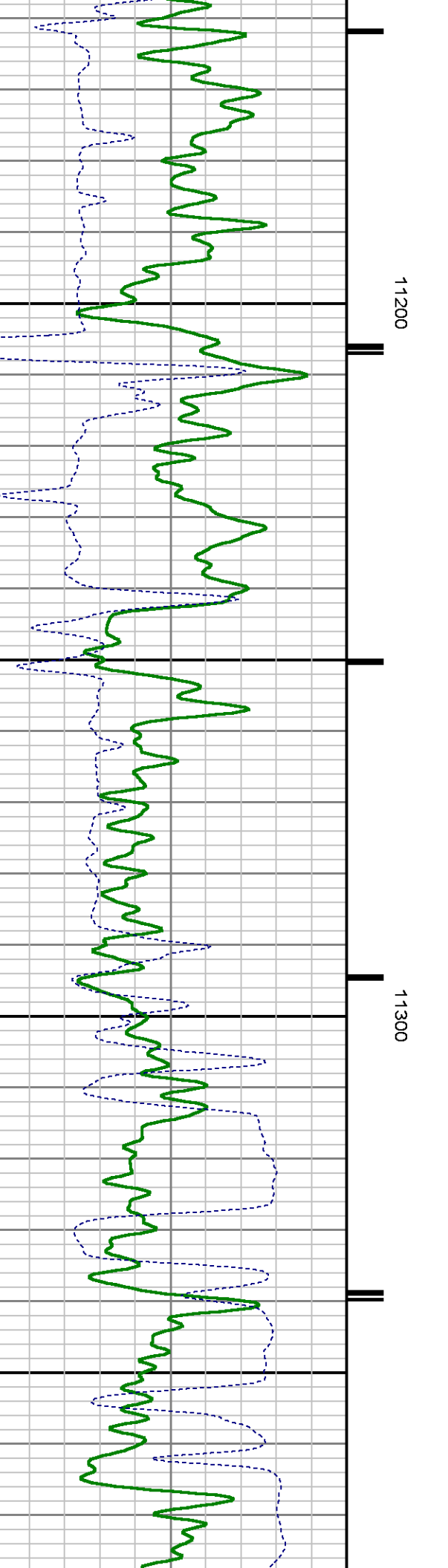
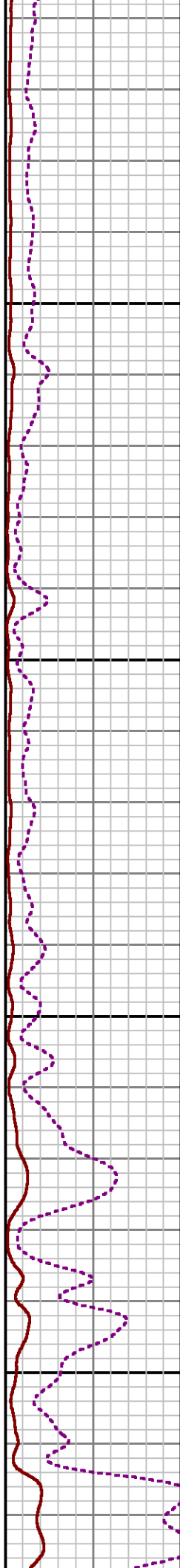
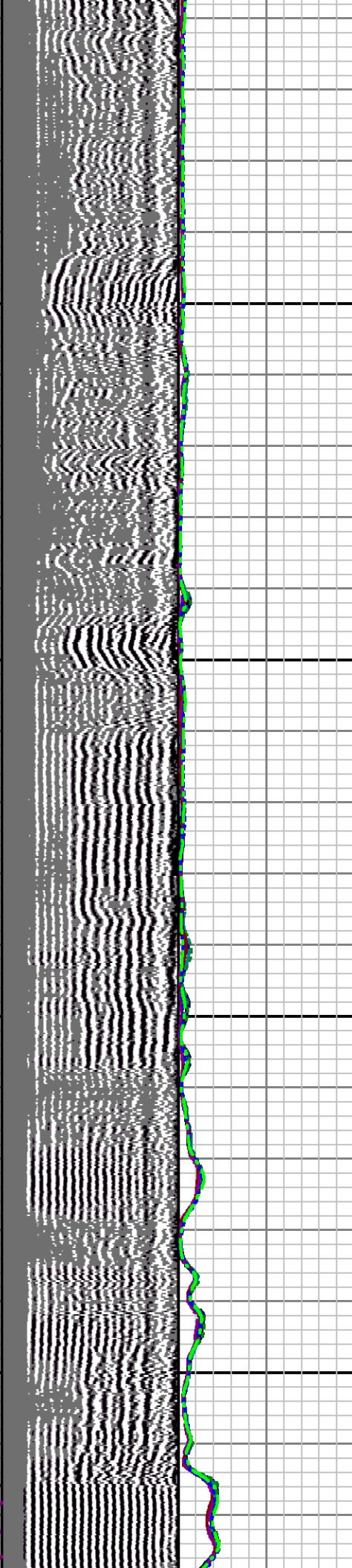


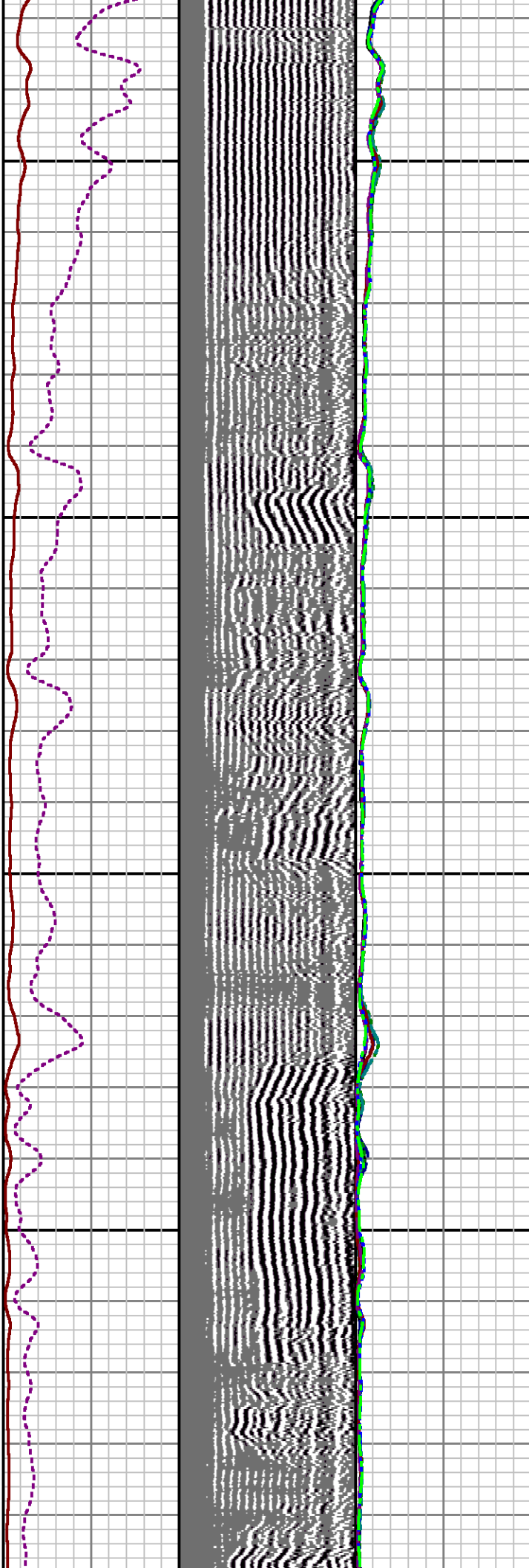








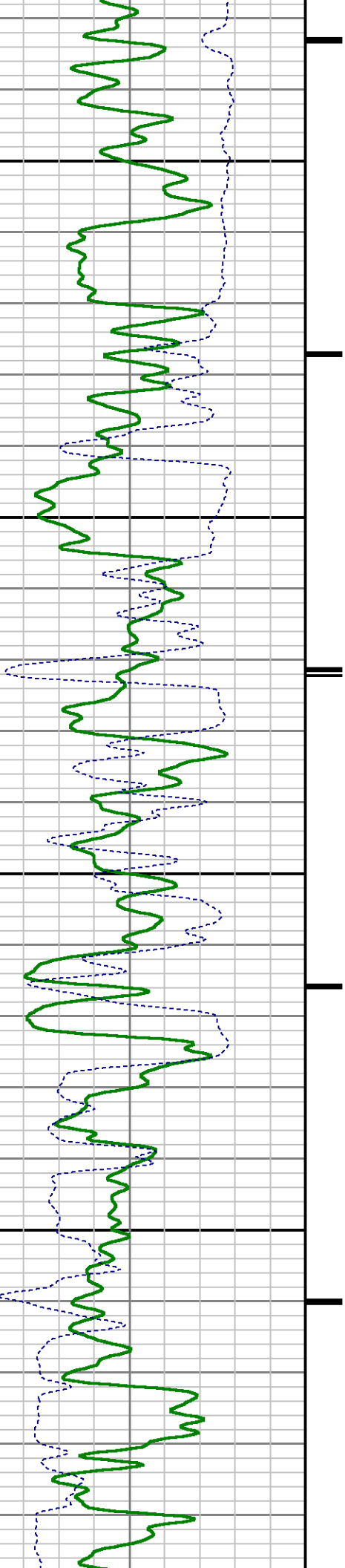


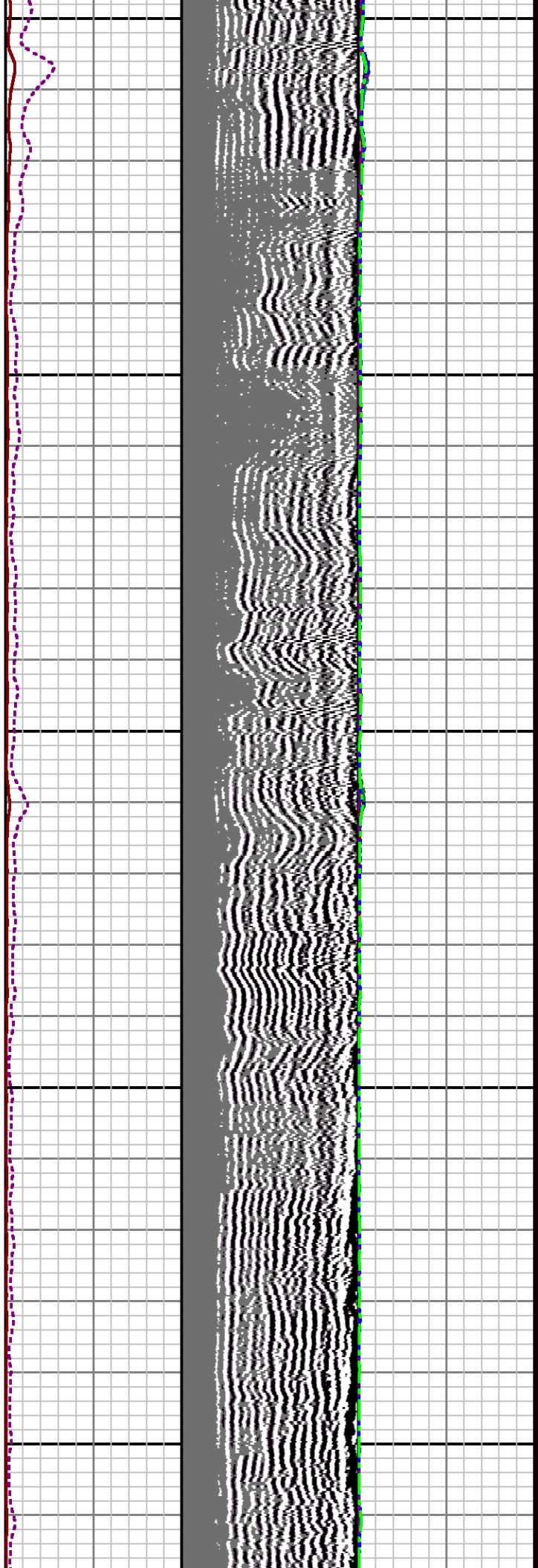


11400

11500

1

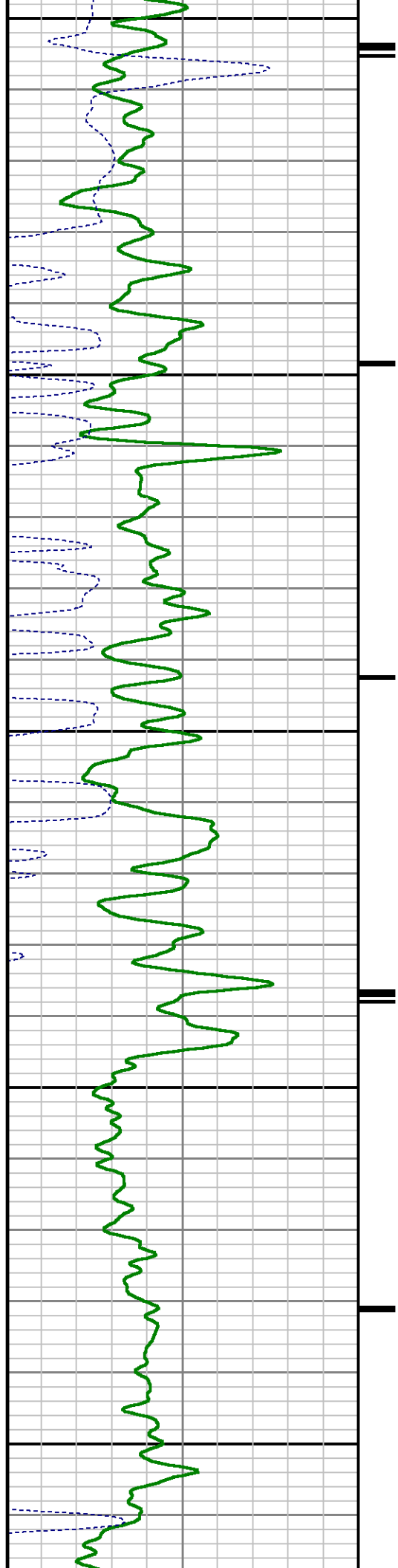




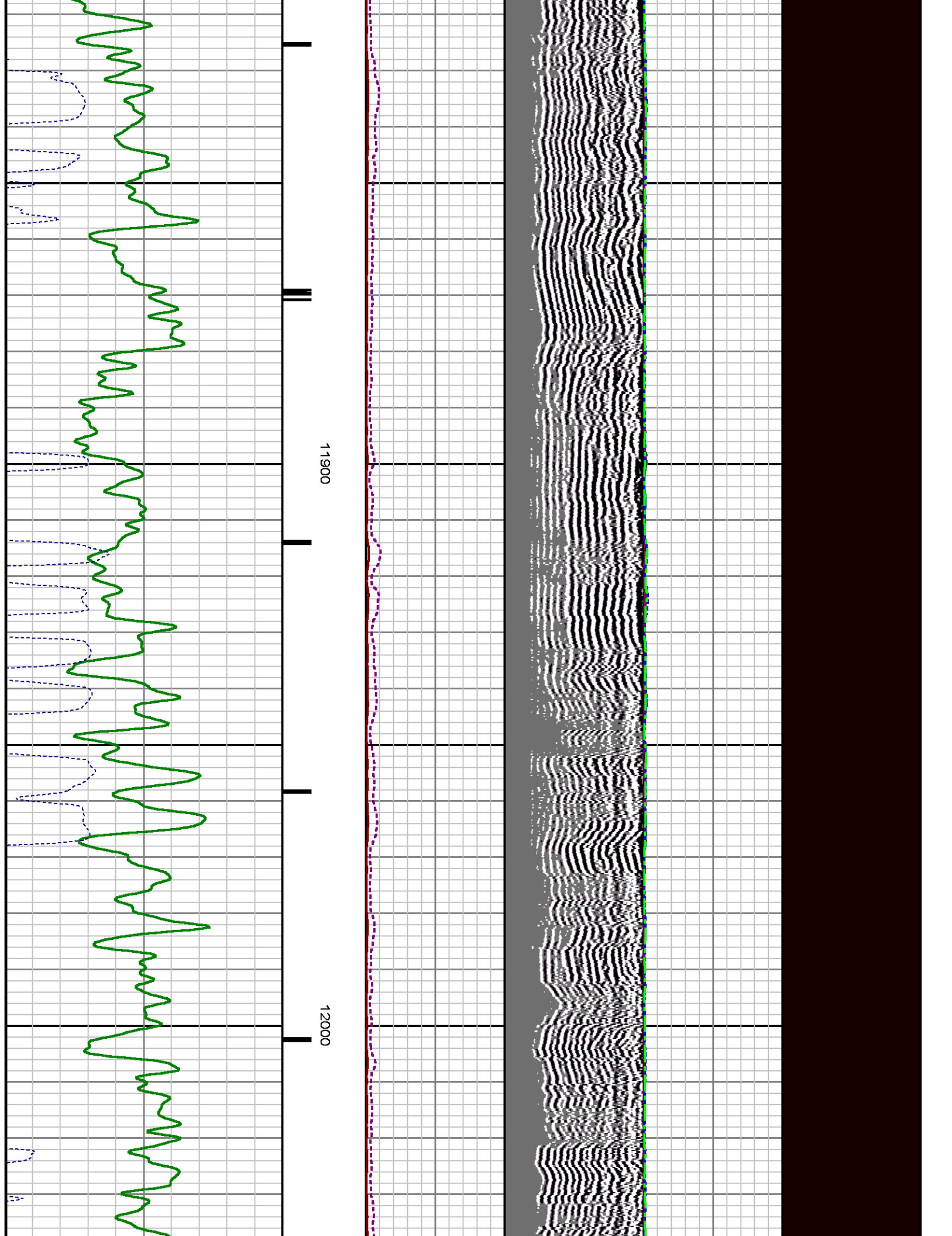
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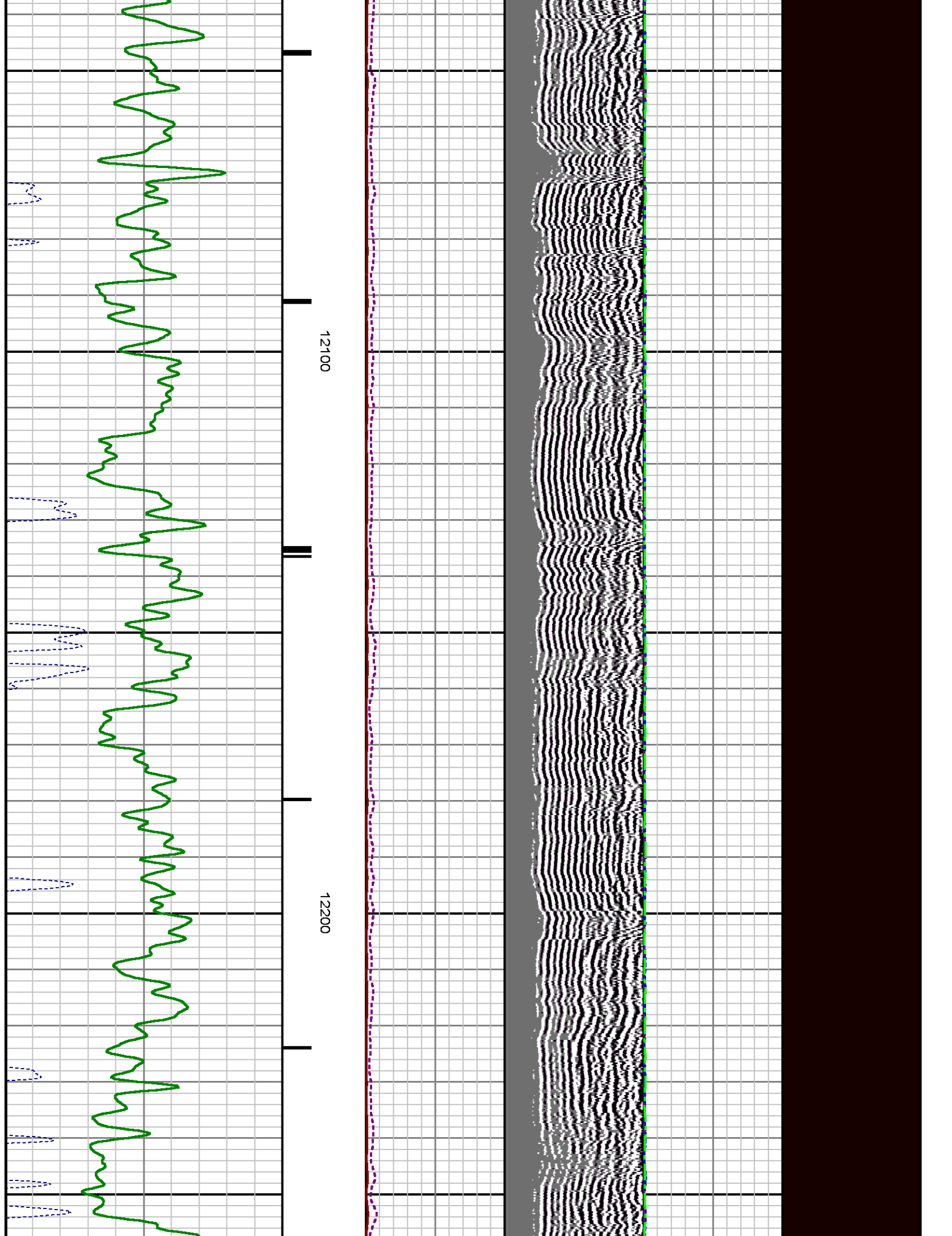
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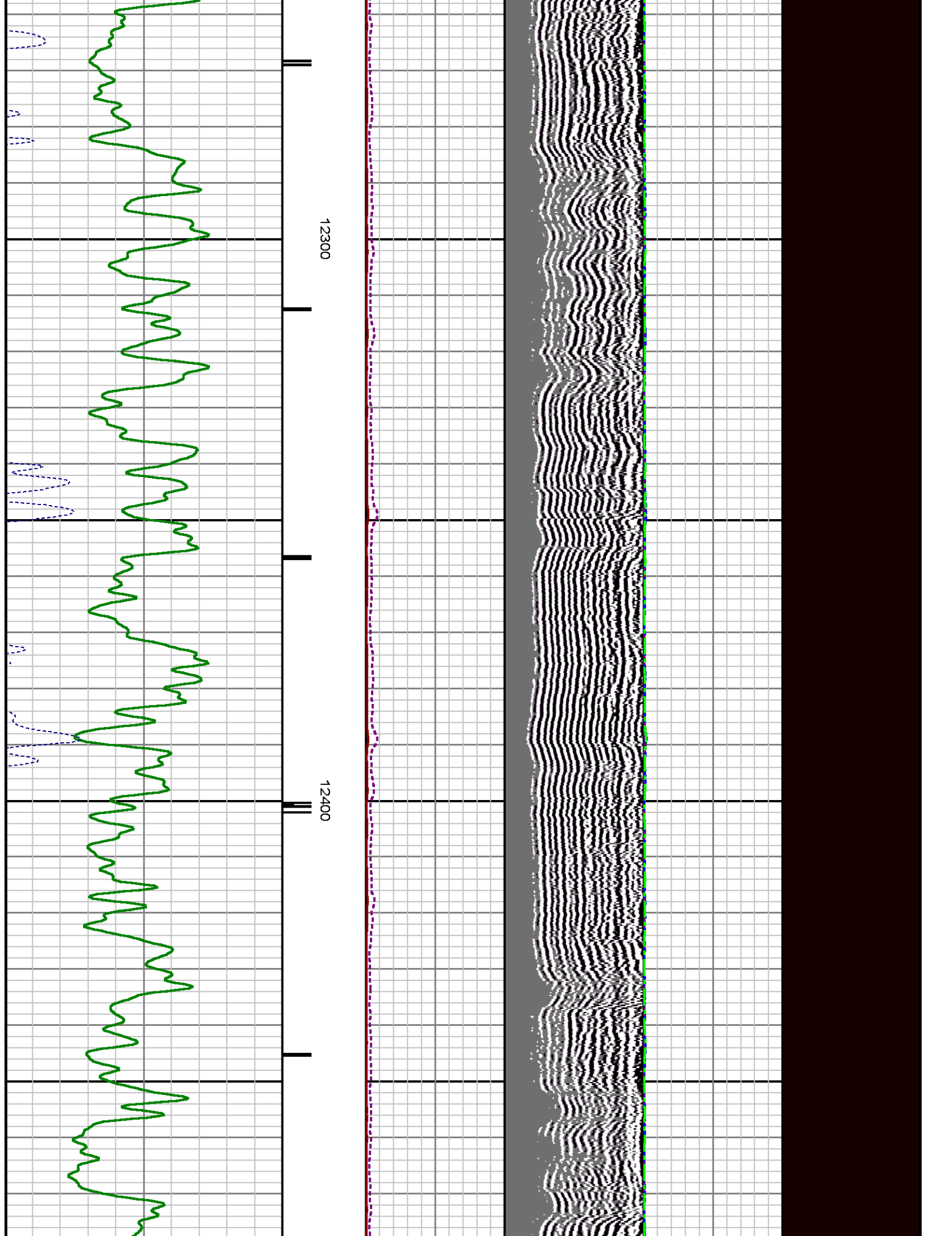
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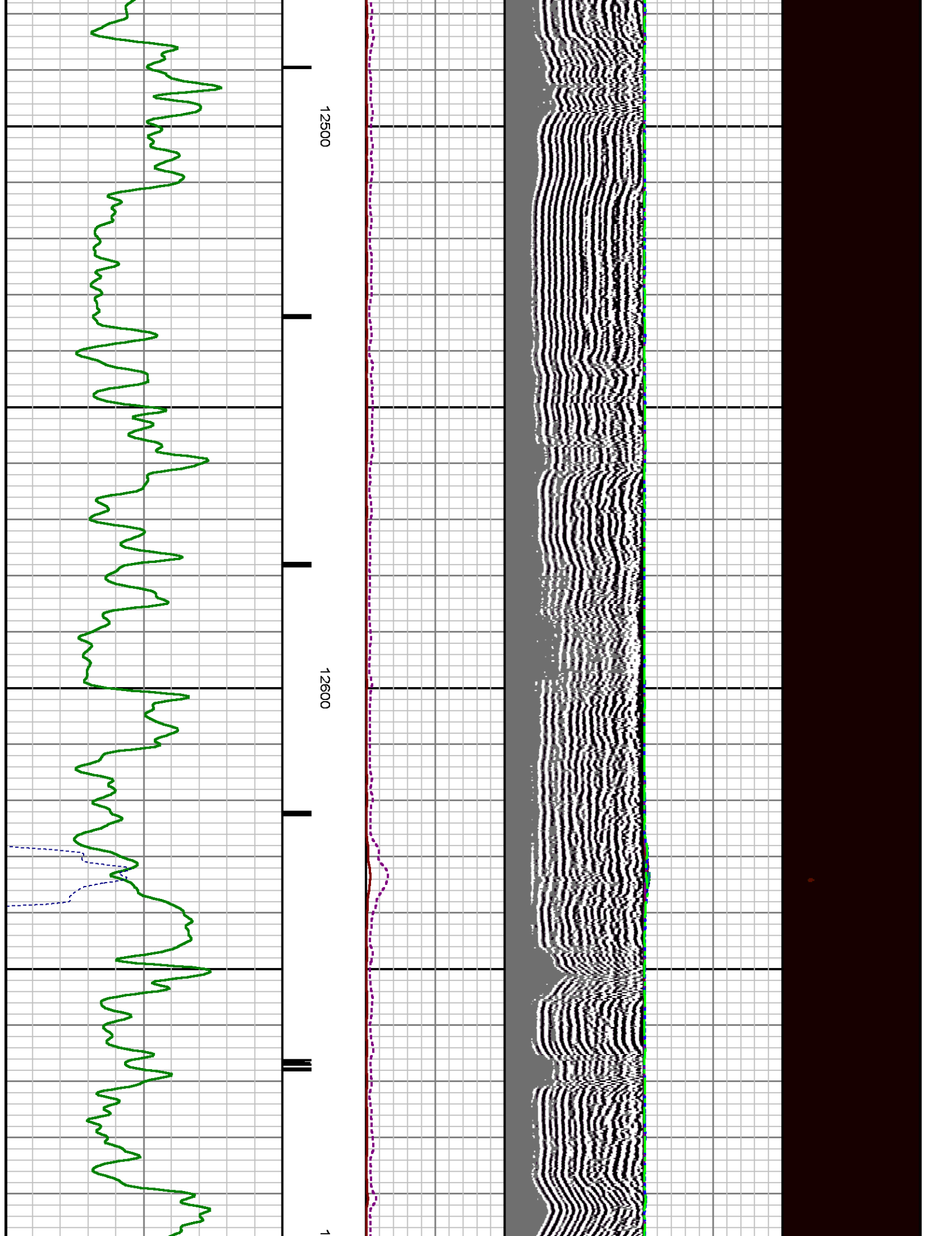


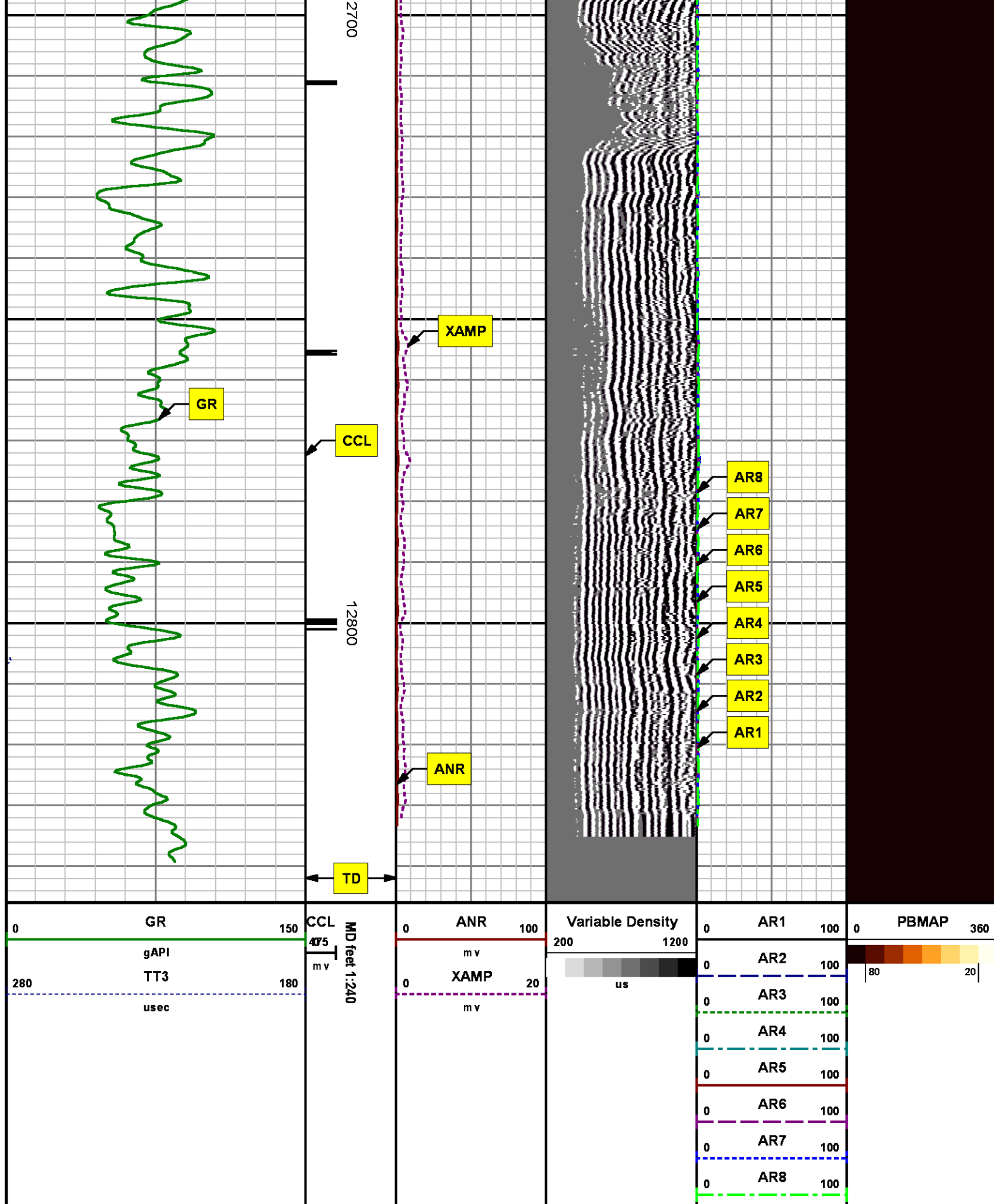












REPEAT SECTION



# REPEAT SECTION

## 0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	12519.740	12840.740
RAL	Amp Gate Start Near	195.000	usec	12519.740	12840.740
RAL	Amp Gate Start Radial	195.000	usec	12519.740	12840.740
RAL	Amp Gate Width Far	25.000	usec	12519.740	12840.740
RAL	Amp Gate Width Near	25.000	usec	12519.740	12840.740
RAL	Amp Gate Width Radial	25.000	usec	12519.740	12840.740
RAL	casing od	4.500	inches	12519.740	12840.740
RAL	casing wt	11.600	lbm/ft	12519.740	12840.740
RAL	FB Start Far	291.900	usec	12519.740	12840.740
RAL	FB Start Near	180.000	usec	12519.740	12840.740
RAL	FB Start Radial	180.000	usec	12519.740	12840.740
RAL	FB Thresh Far	10.000	mv	12519.740	12840.740
RAL	FB Thresh Near	4.000	mv	12519.740	12840.740
RAL	FB Thresh Radial	4.000	mv	12519.740	12840.740
RAL	Fluid Travel Time	200.000	usec/ft	12519.740	12841.583

### DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	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	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

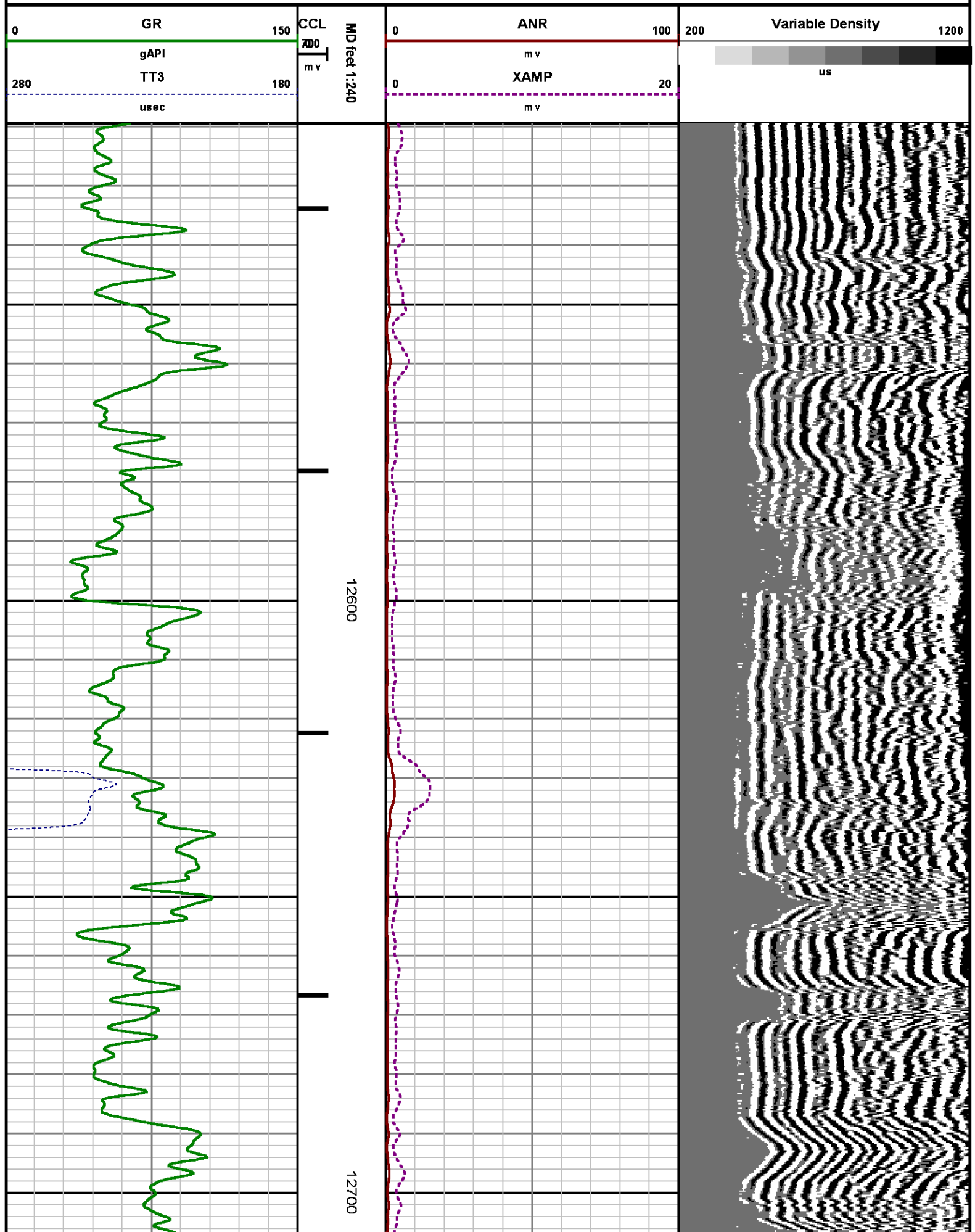
Created by : RAL, v4.8.008

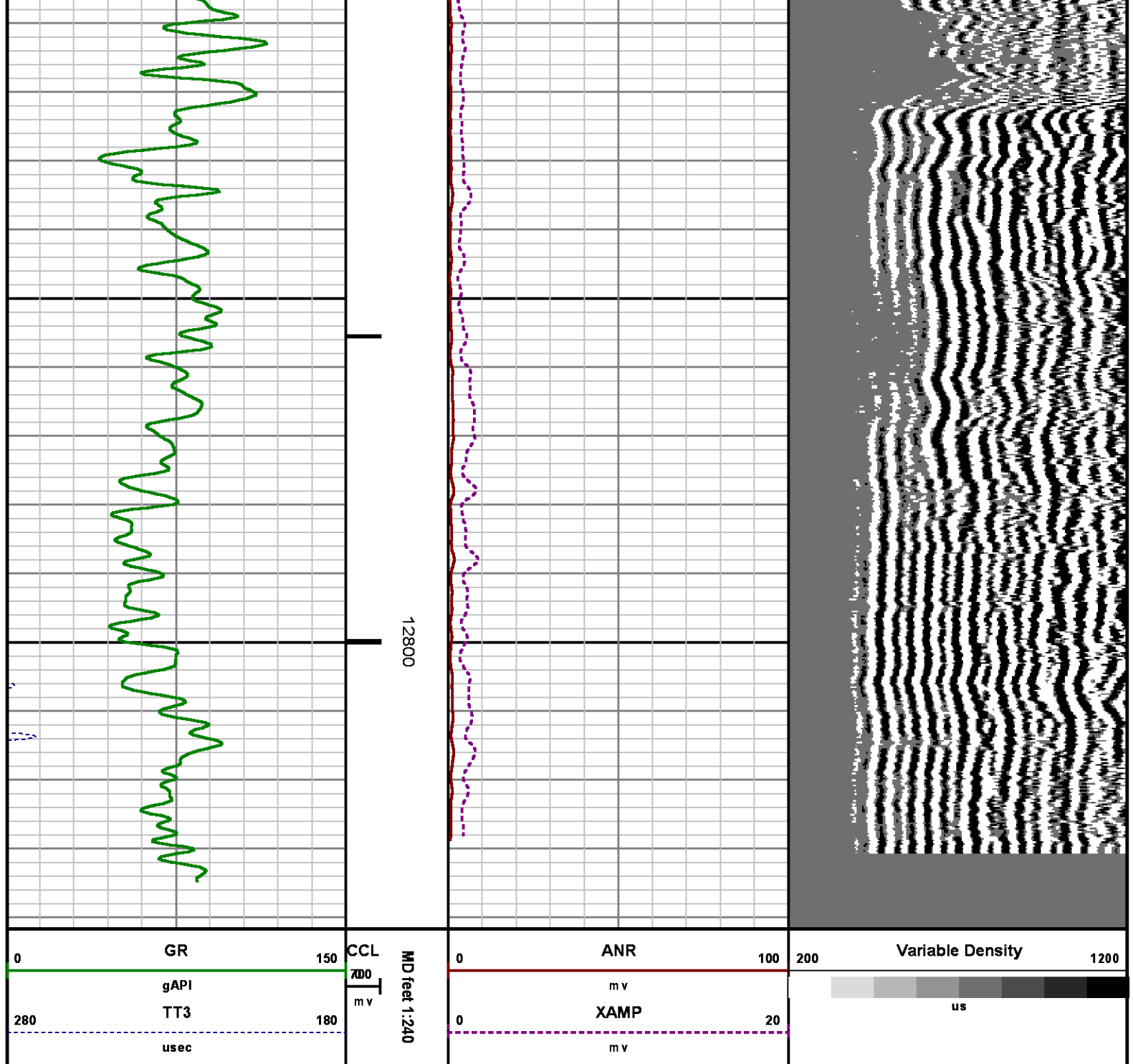
Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

Well : FEDERAL RGU 523-24-198

File Name : d:\welldata\wpx\rgu 523-24-198\523ralrepeat.txtf





## CALIBRATION SUMMARY

RALSHP

DATE/TIME PERFORMED: Sun Jul 06 08:20:57 2014

TOOL SERIES: 1426XA

ASSET:

496

SEQ: JY06

Tool Delay  
[usec]

-54.00

Tank OD

in

5.50

Tank Wt

lbm/ft

15.50

Tank ID

in

4.95

RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	217	216	30	166	25	0.221	100.00	0.32
3 Ft. Receiver	217	216	30	166	25	2.540	100.00	0.31
5 Ft. Receiver	325	325	30	230	25	0.076	150.00	0.35
Radial #1	218	216	30	166	25	1.999	100.00	0.32
Radial #2	217	216	30	166	25	1.732	100.00	0.31
Radial #3	216	216	30	166	25	2.413	100.00	0.31
Radial #4	216	216	30	166	25	2.758	100.00	0.31
Radial #5	217	216	30	166	25	2.451	100.00	0.31
Radial #6	218	216	30	166	25	2.625	100.00	0.32
Radial #7	218	216	30	166	25	2.049	100.00	0.32
Radial #8	220	216	30	166	25	1.815	100.00	0.32

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496JY06 fld.cal

## WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Jul 06 08:24:20 2014

TOOL SERIES: 1426XA

ASSET:

496

SEQ: JY06

Tool Delay  
[usec]

-54.00

Casing OD

in

4.50

Casing Wt

lbm/ft

11.60

Casing ID

in

4.00

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	166	25	0.127	0.000	1.00	100.000
3 Ft. Receiver	195	25	3.522			
5 Ft. Receiver	305	25	5.192			
Radial #1	195	25	3.305			
Radial #2	195	25	3.335			
Radial #3	195	25	3.784			
Radial #4	195	25	3.912			
Radial #5	195	25	4.089			
Radial #6	195	25	4.089			
Radial #7	195	25	2.824			
Radial #8	195	25	2.921			

GAMMA RAY

Calibration File: C:\case\calver\GR\456J1.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jun 10 11:37:19 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: J1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	93.20	369.51	0.670	62.40	247.40	185.00

Verification File: C:\case\calver\GR456J1.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Tue Jun 10 11:38:30 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: J1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	101.16	371.24	0.670	67.73	248.56	180.83

# TOOL DIAGRAM

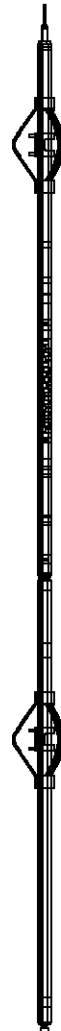
## OTA SHORT CABLE HEAD

## 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



	21.81'
XMIT	15.62'
NEAR RCVR	12.54'
FAR RCVR	10.62'
CCL	8.92'
GR	7.06'
NEU	1.67'



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



**Baker Atlas**

*CASE*

**Company****WPX ENERGY****Well****FEDERAL RGU 523-24-198****Field****SULPHUR CREEK****County****RIO BLANCO****State****COLORADO****File No:****CH087682****API No:****05103120790000****Location****SHL: 2144' FSL & 1703' FEL****BHL: 1438' FSL & 1905' FWL (NESW)****Elevations****KB 6617 ft****DF****GL 6596 ft****24 1S 98W****RGU 33-24-198 PAD****CYCLONE 29****SEC 24 TWP 1S RGE 98W**