



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH082312

Company Well Field County State CO

API No: 05045220280000

Location

21 6S 9SW

PA 22-21 PAD

NAEORS 573

SHL: 2610' FNL & 1456' FWL

BHL: 2802' FNL & 258' FEL

SEC 21 TWP 6S RGE 9SW

Other Services

Permanent Datum

Log Measured From

Drill Measured From

GL Elevation 6030 ft

KB 26 ft Above P. D.

KB Elevations

DF 6030 ft

GL 6030 ft

ONE

US625283

9737 ft

9716 ft

9706 ft

26 ft

8:00

12:00

4 HOURS

WATER

NA

NA

76 ft

NA

0 psi

NA

65 fpm

246 degF

NA

NA

4271

GRAND JCT.

NEWELL

GRAN JACOBS

- FOLD HERE

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
13.5 in	0 ft	1101 ft
8.75 in	1101 ft	9751 ft

## Casing Record

Size	Weight	Grade	From	To
9.625 in			0 ft	1101 ft
4.5 in	11.6 lbm/ft	1-80	0 ft	9751 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.

THERE IS AN INVALID VDL SPIKE FROM 7405'- 7408'

BHT = 246 °F  
SJ = 6084'–6108'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	CBL	1426XA	10218496	CENTRALIZED
1	1	GR/CCL	2459XA	10124121	CENTRALIZED

*PRIMARY PRESENTATION*  
*0 PSI*

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	36.155	9718.000
RAL	Amp Gate Start Near	195.000	usec	36.155	9718.000
RAL	Amp Gate Start Radial	195.000	usec	36.155	9718.000
RAL	Amp Gate Width Far	25.000	usec	36.155	9718.000
RAL	Amp Gate Width Near	25.000	usec	36.155	9718.000
RAL	Amp Gate Width Radial	25.000	usec	36.155	9718.000
RAL	casing od	4.500	inches	36.155	9718.000
RAL	casing wt	11.600	lbm/ft	36.155	9718.000
RAL	FB Start Far	291.900	usec	36.155	9718.000
RAL	FB Start Near	175.391	usec	36.155	9718.000
RAL	FB Start Radial	175.391	usec	36.155	9718.000
RAL	FB Thresh Far	10.000	mv	36.155	9718.000
RAL	FB Thresh Near	4.000	mv	36.155	9718.000
RAL	FB Thresh Radial	4.000	mv	36.155	9718.000
RAL	Fluid Travel Time	200.000	usec/ft	36.155	9717.905

DEPTH OFFSETS  
(for Acquired Curves)

SERIES                      DEPTH OFFSET                      ACQUIRED CURVES

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

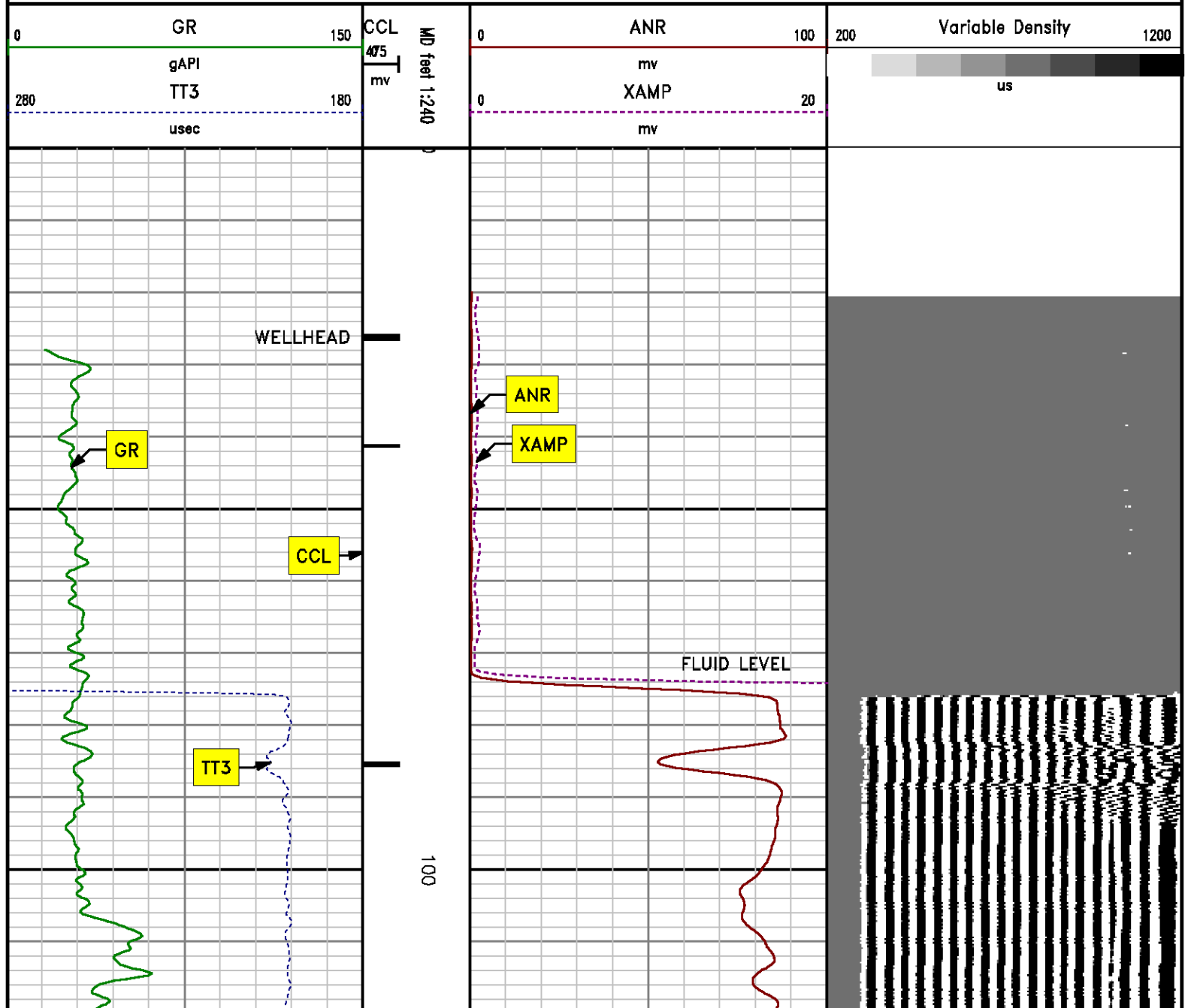
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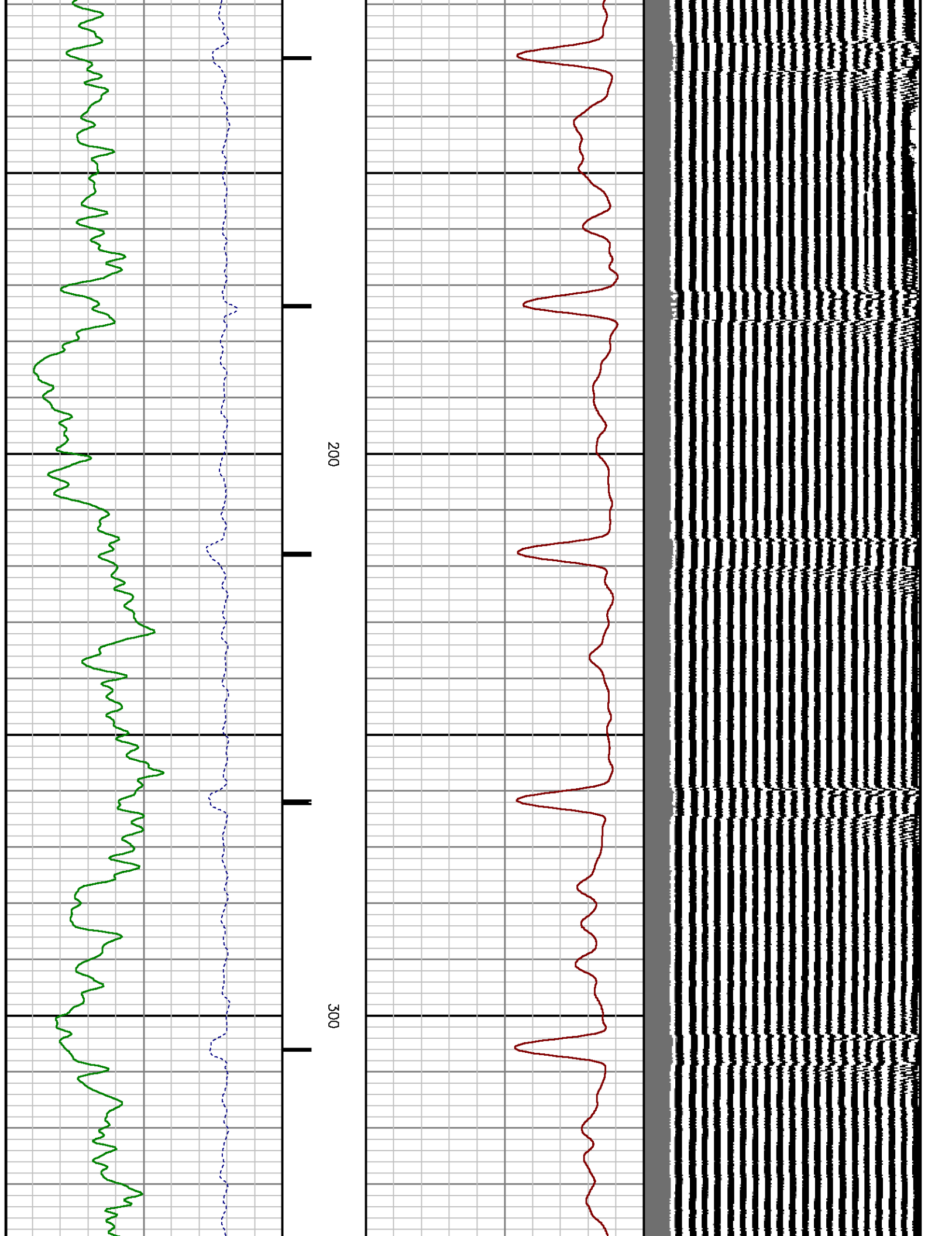
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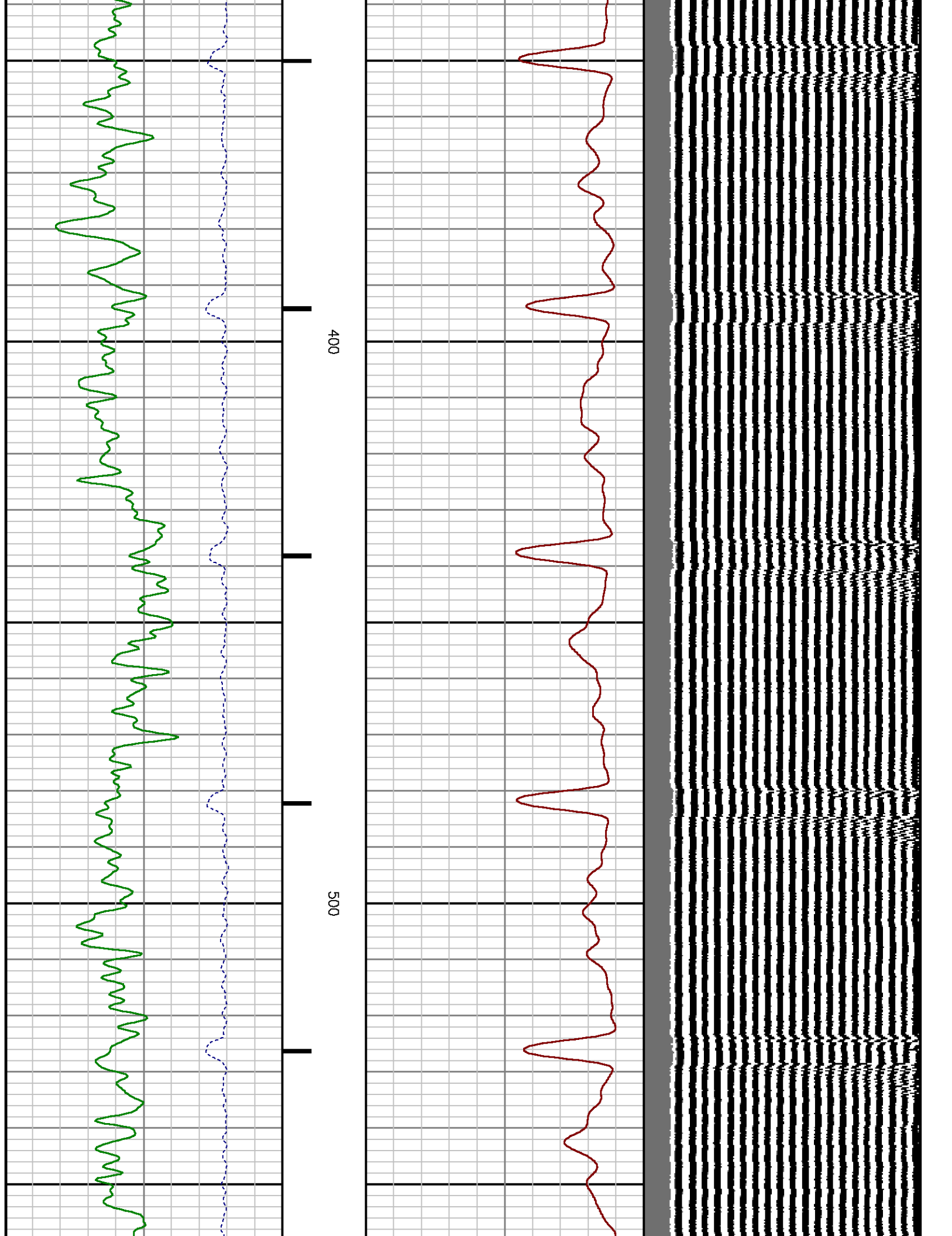
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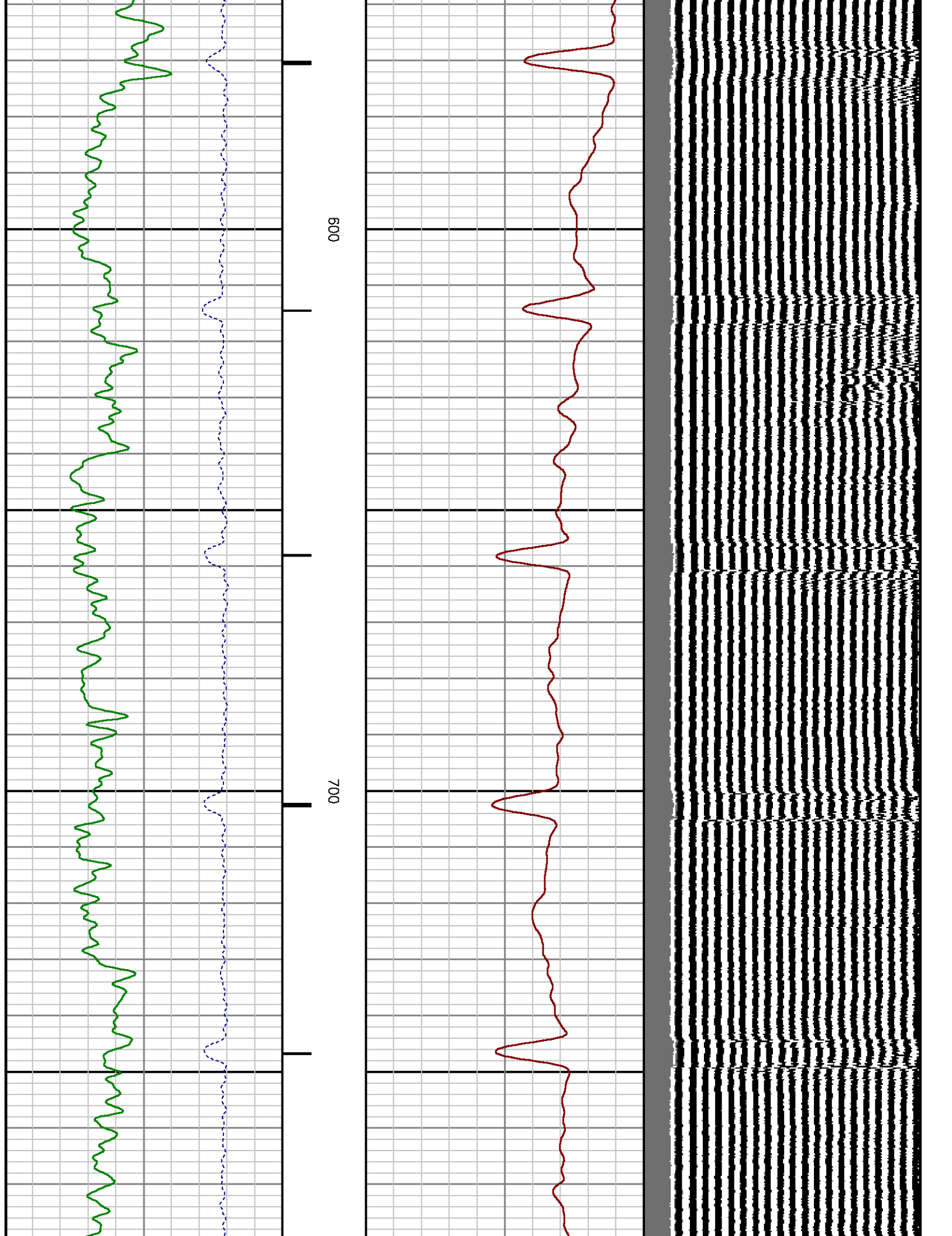
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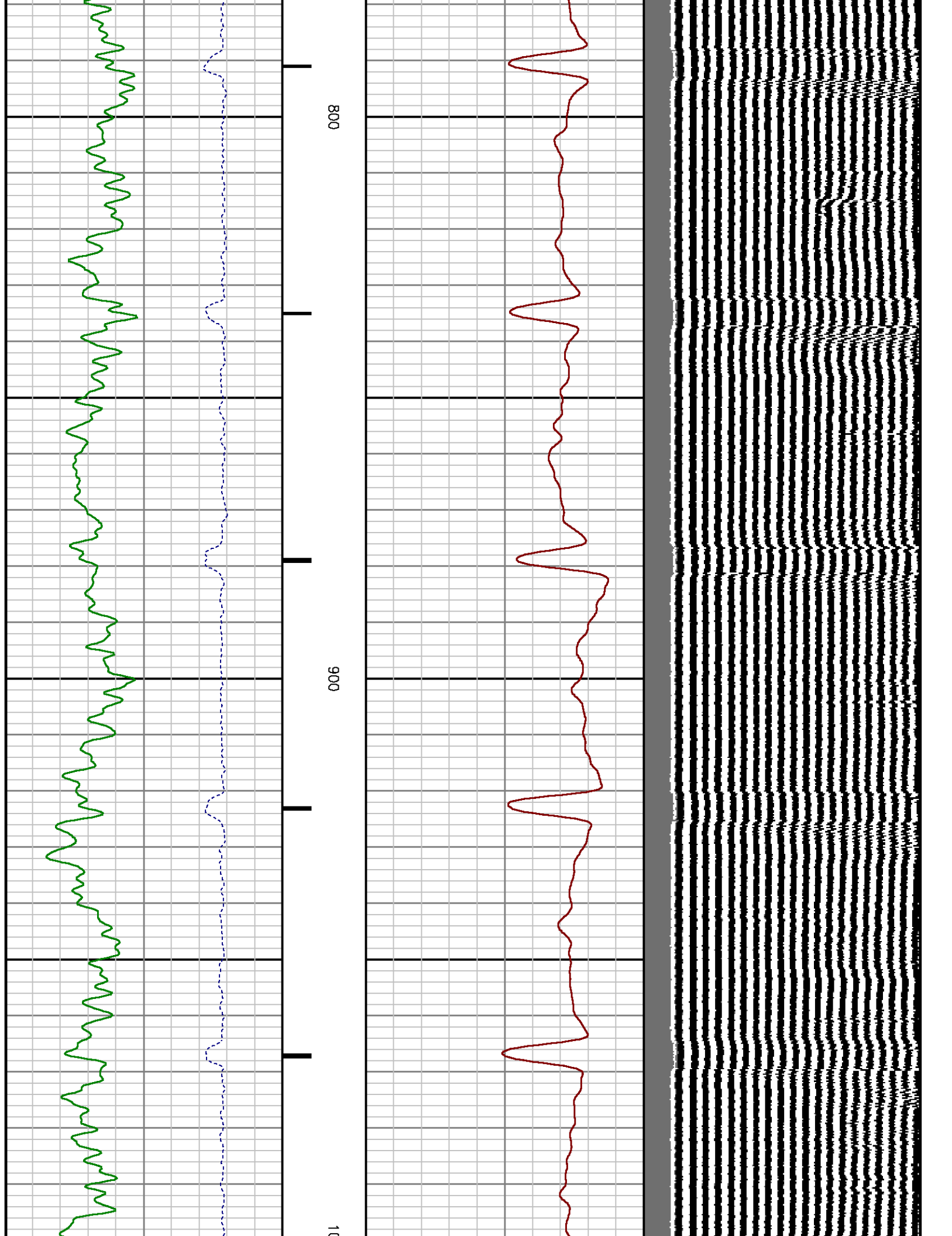


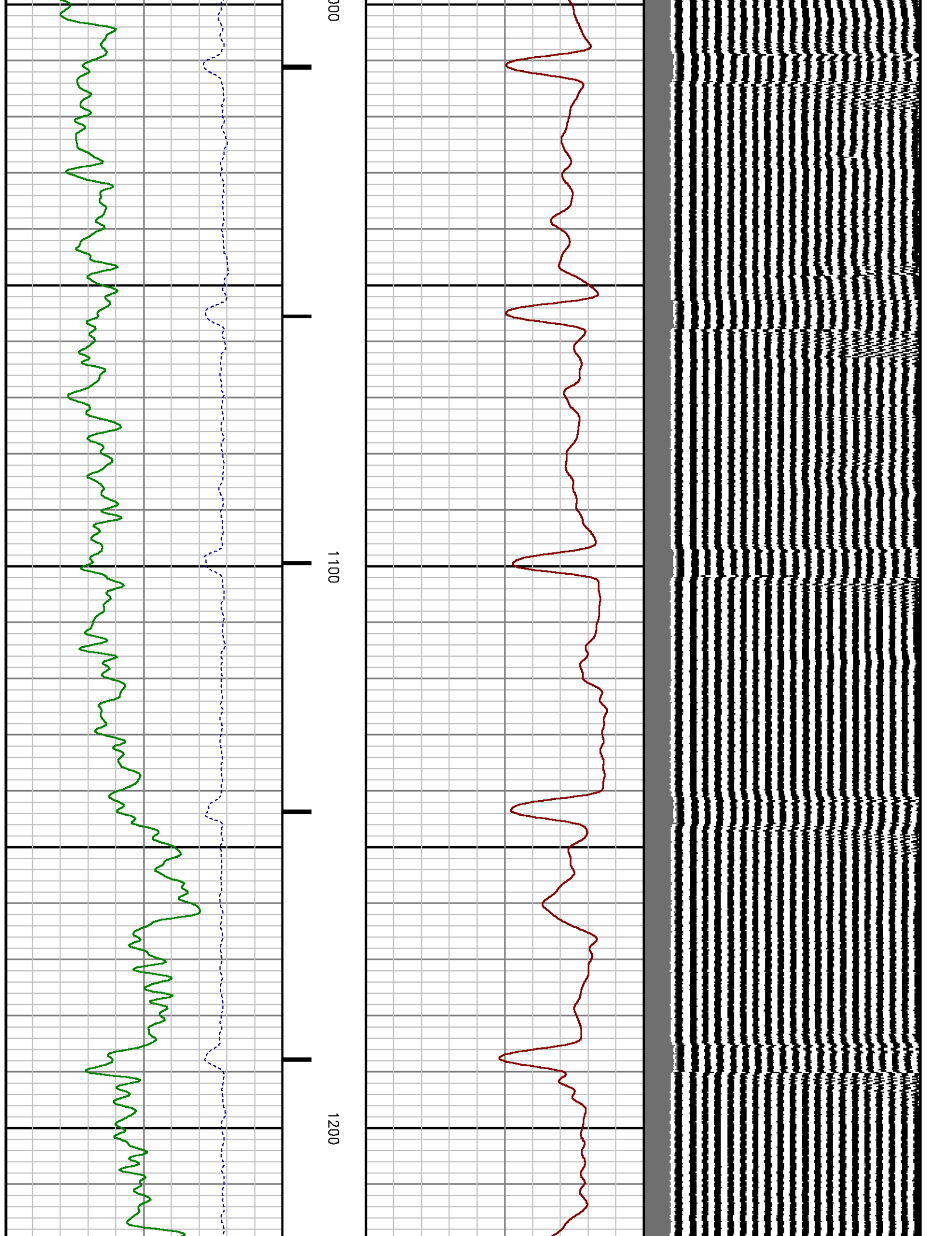


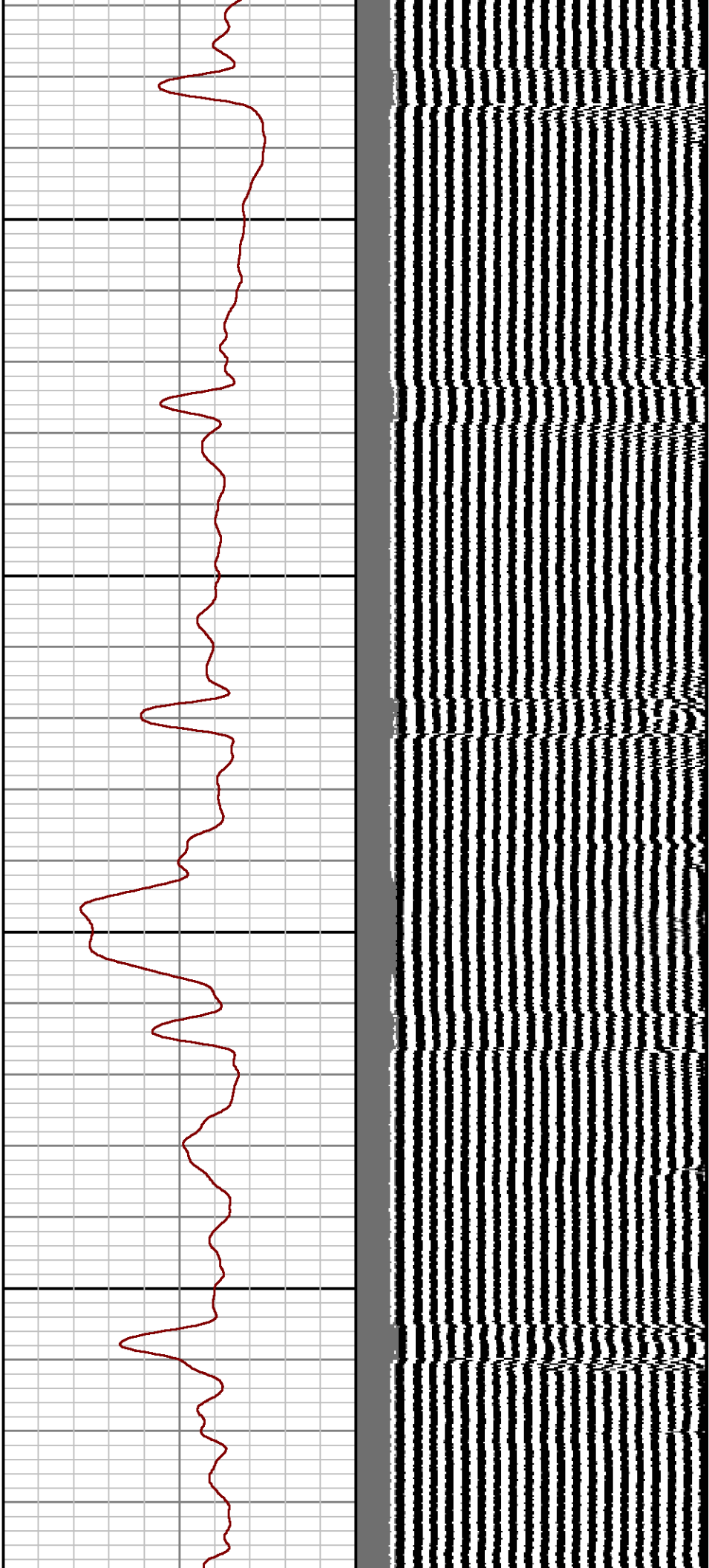






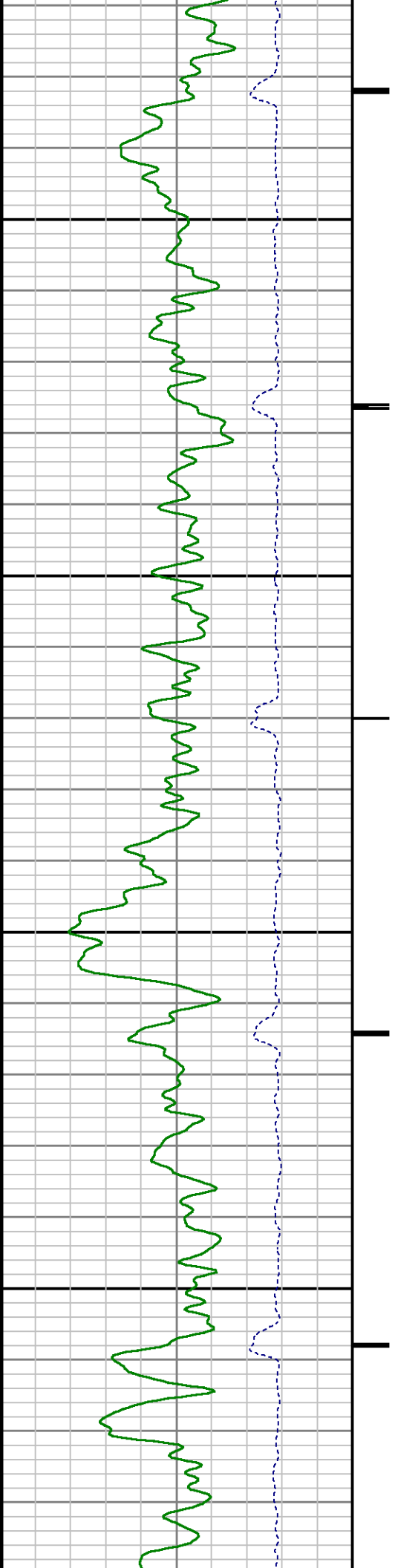


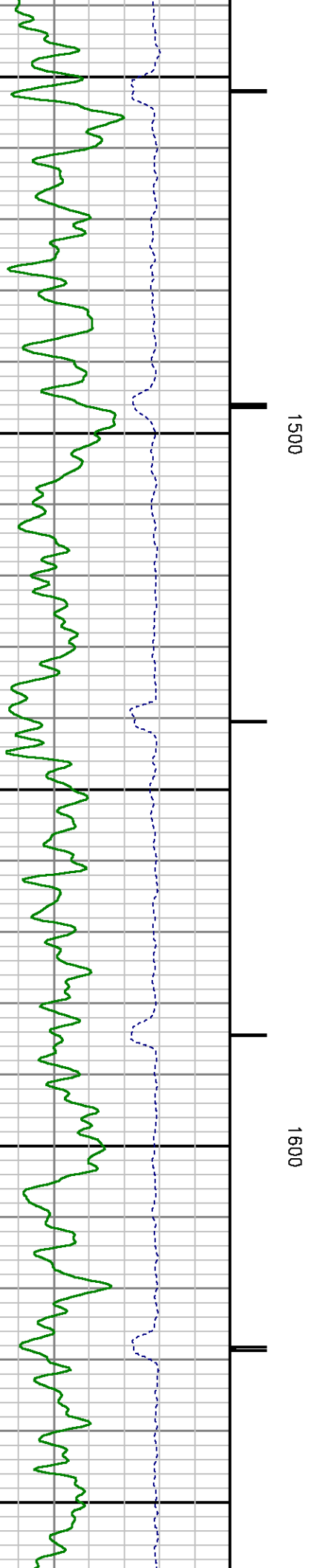
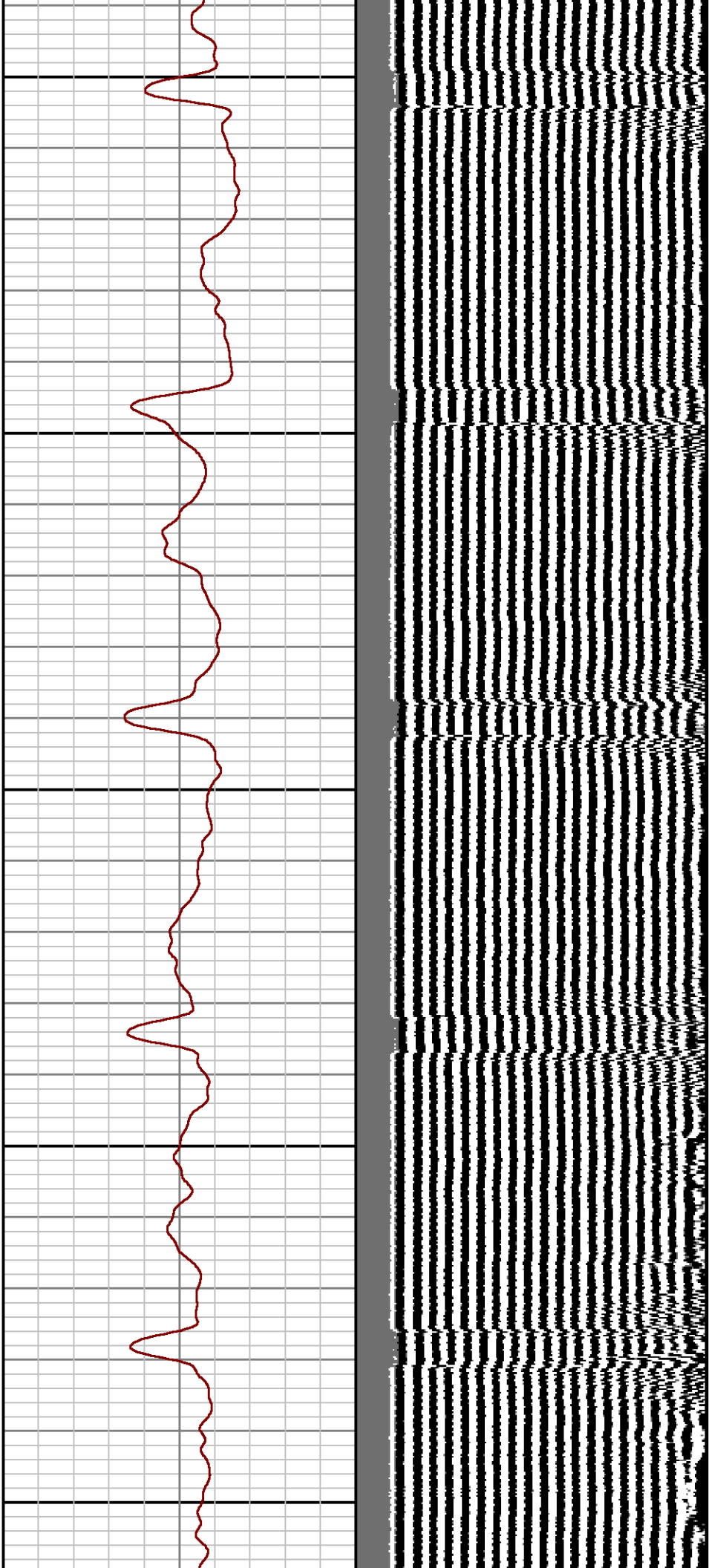




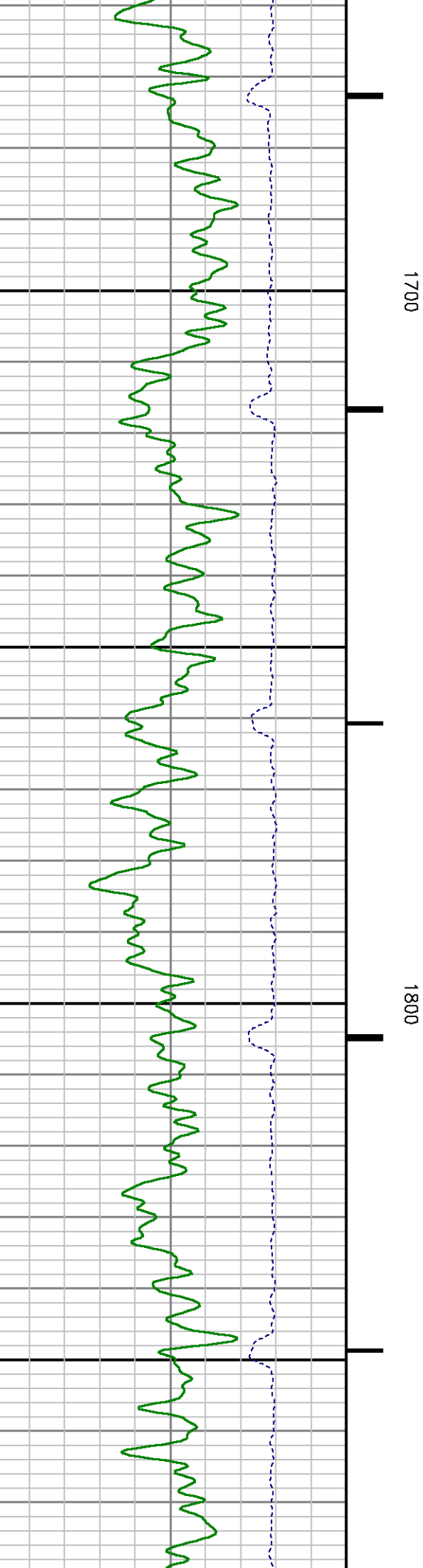
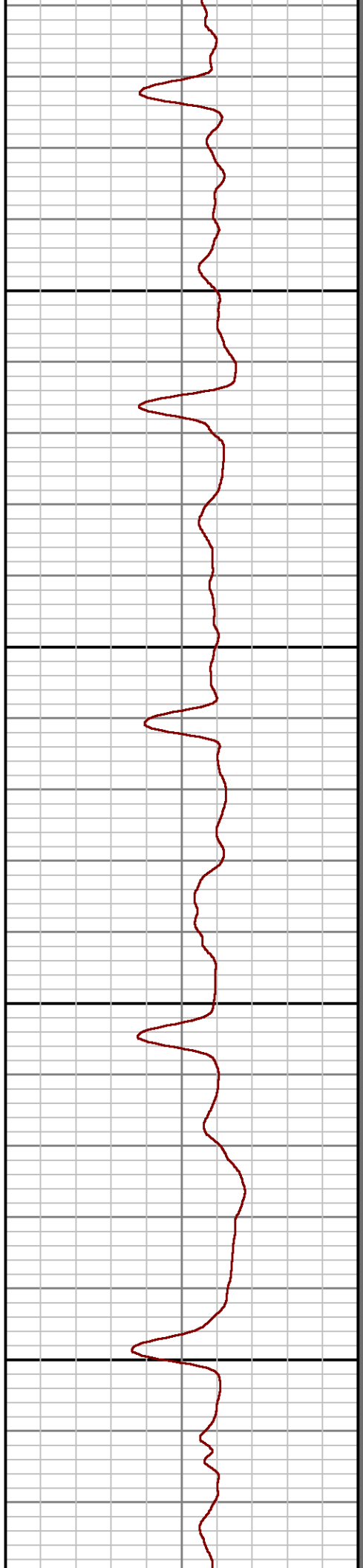
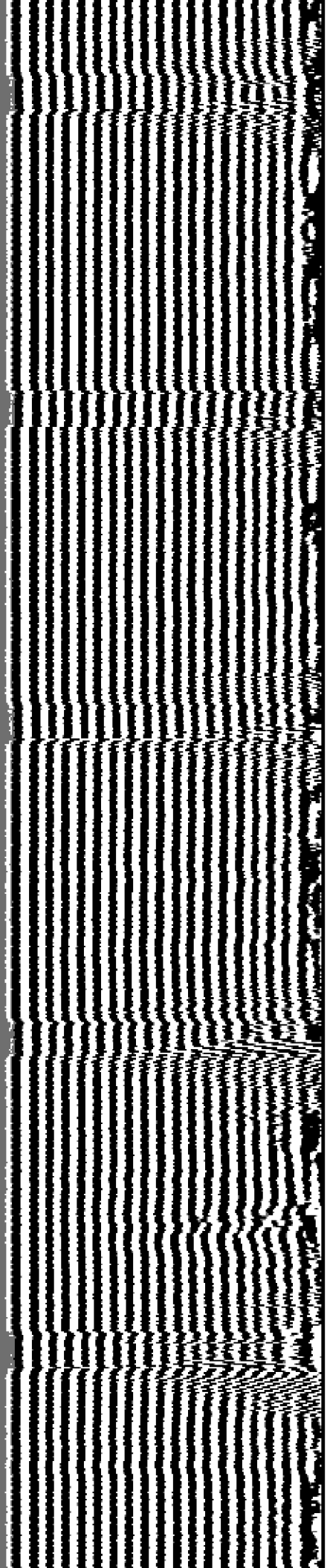
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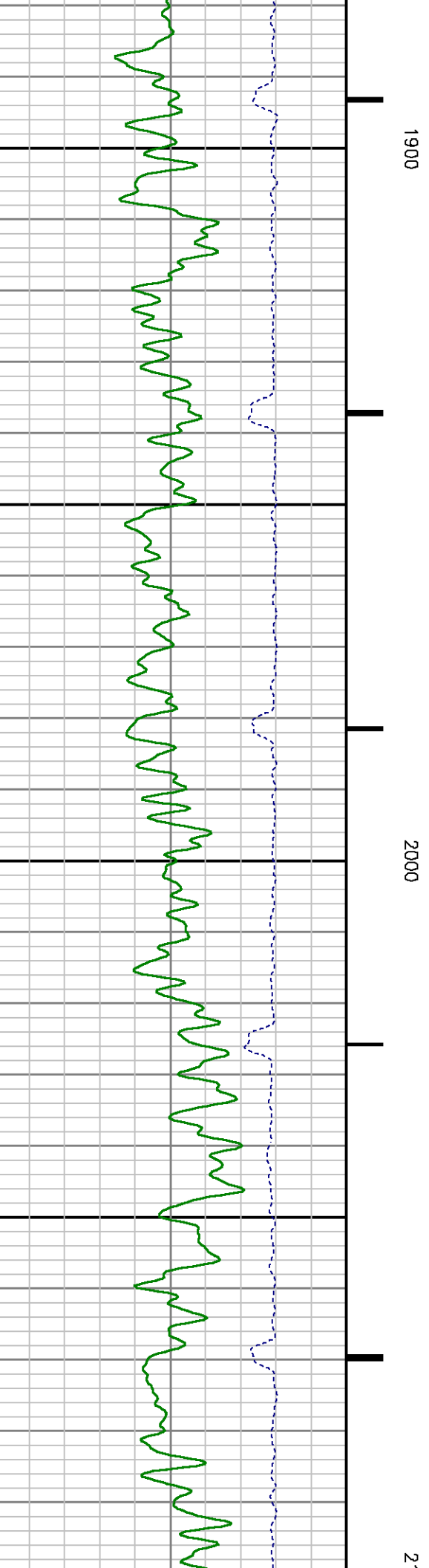
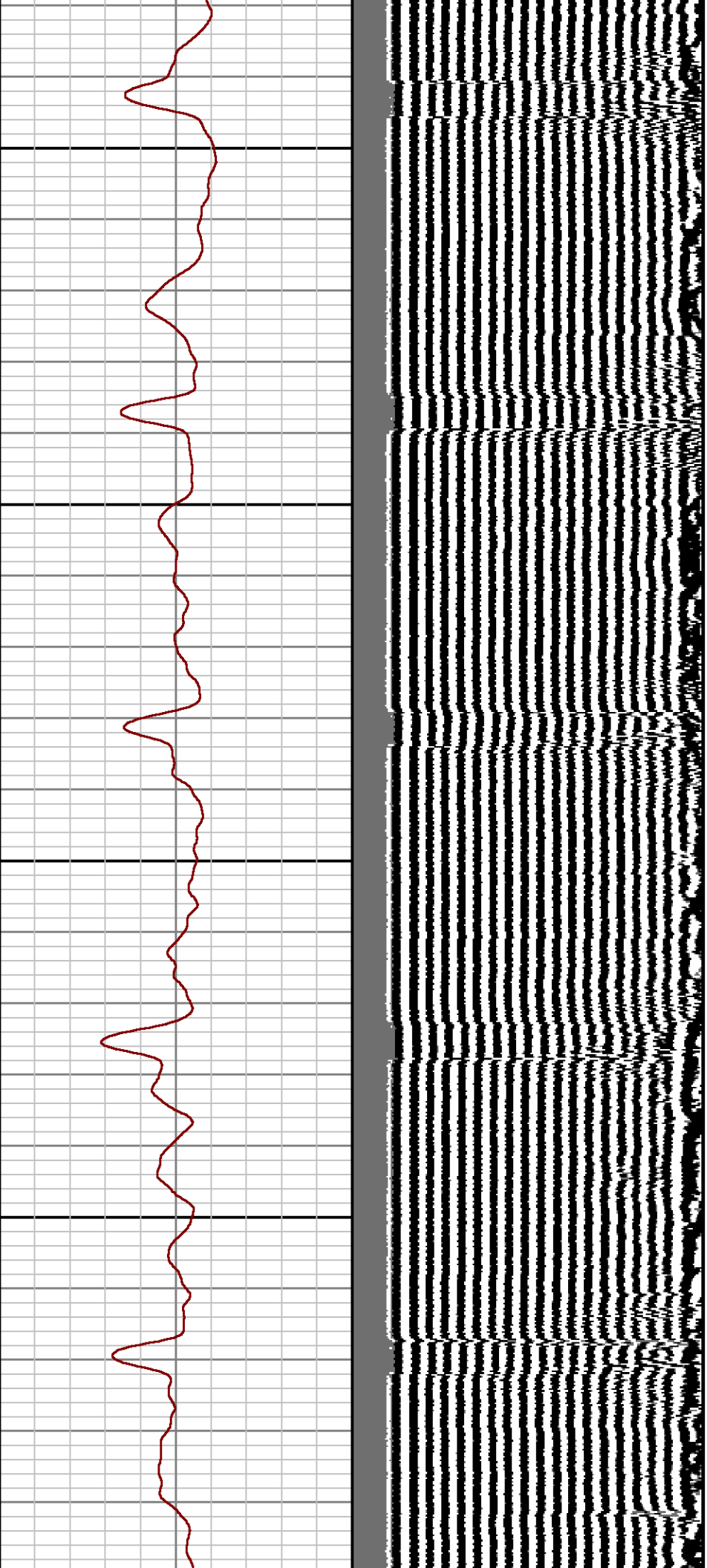
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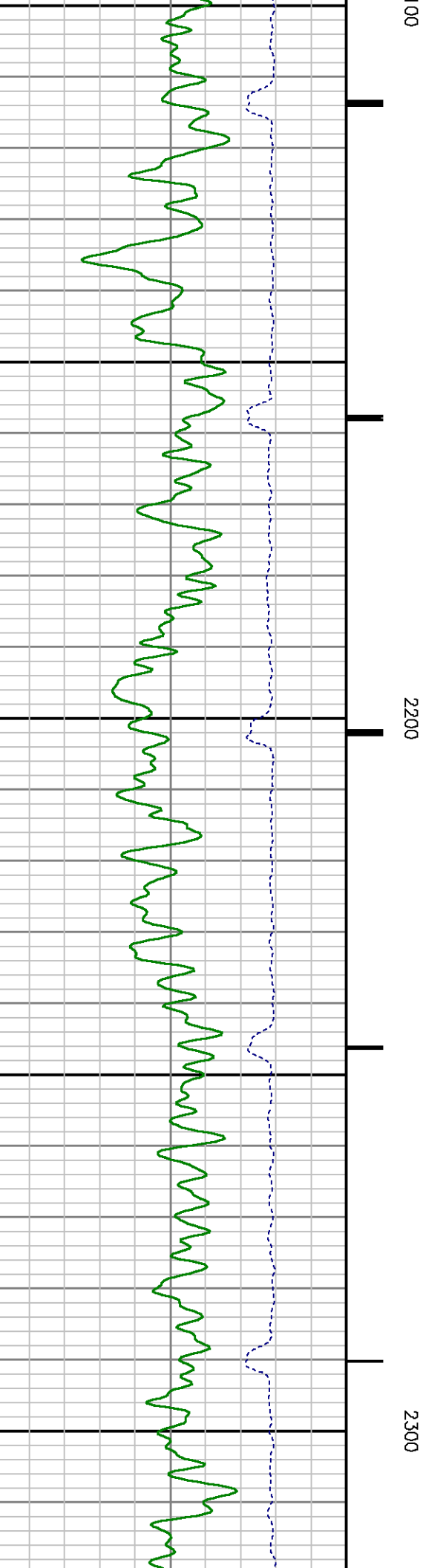
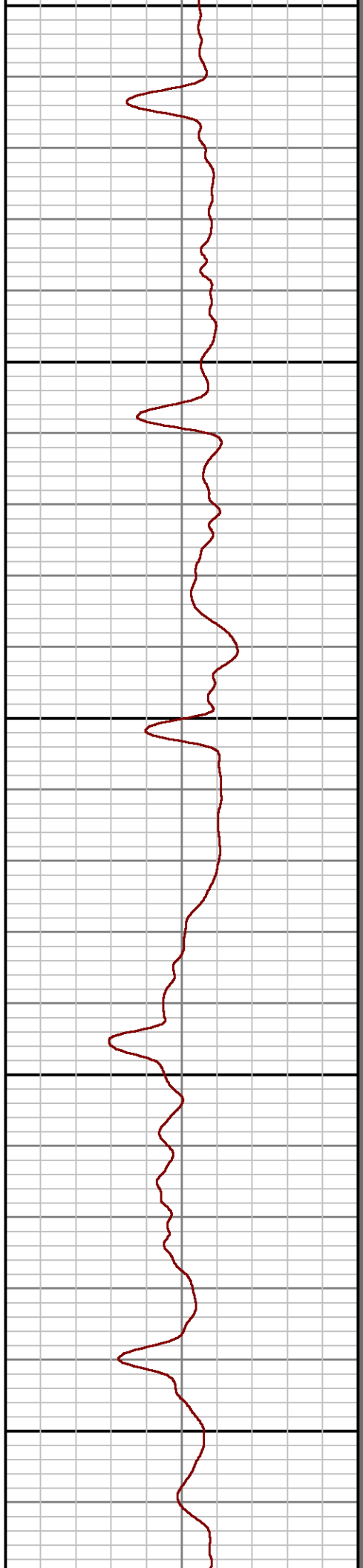
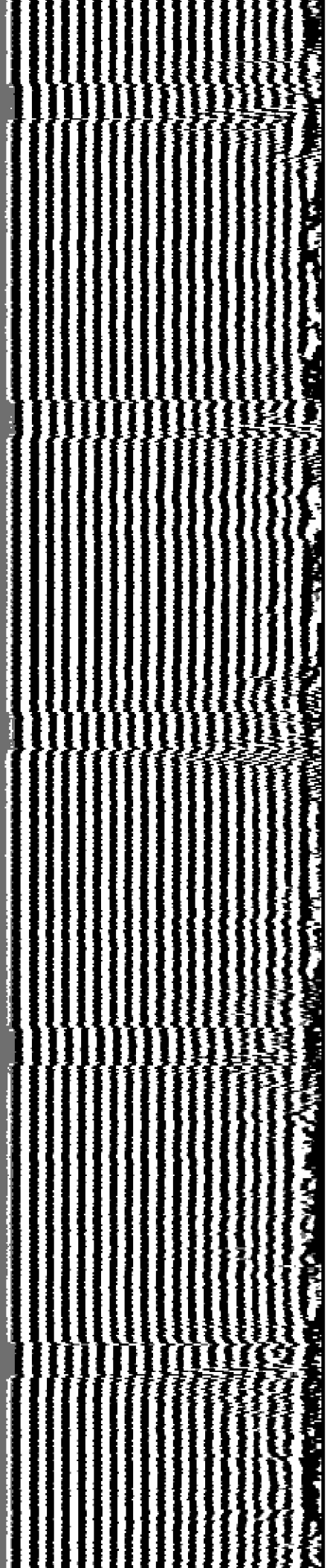


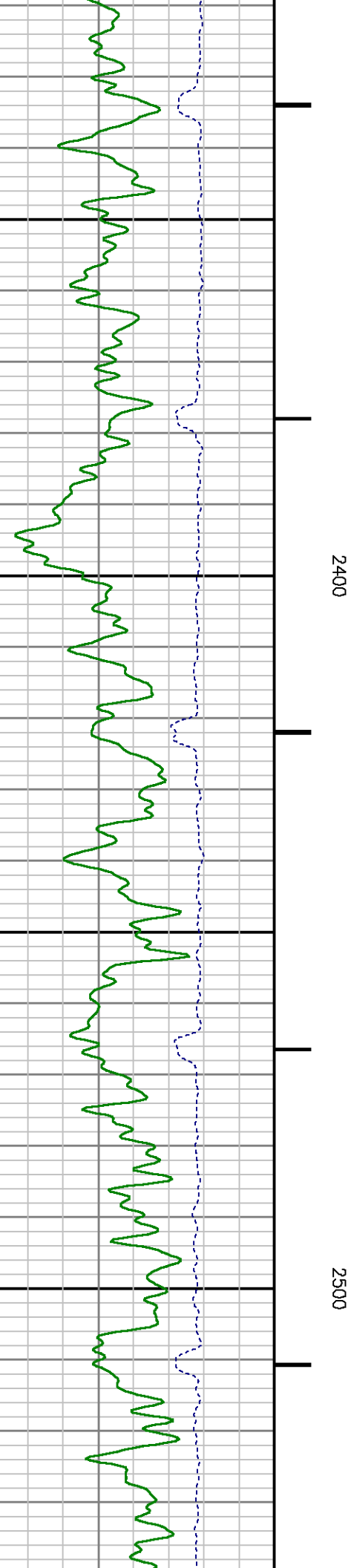
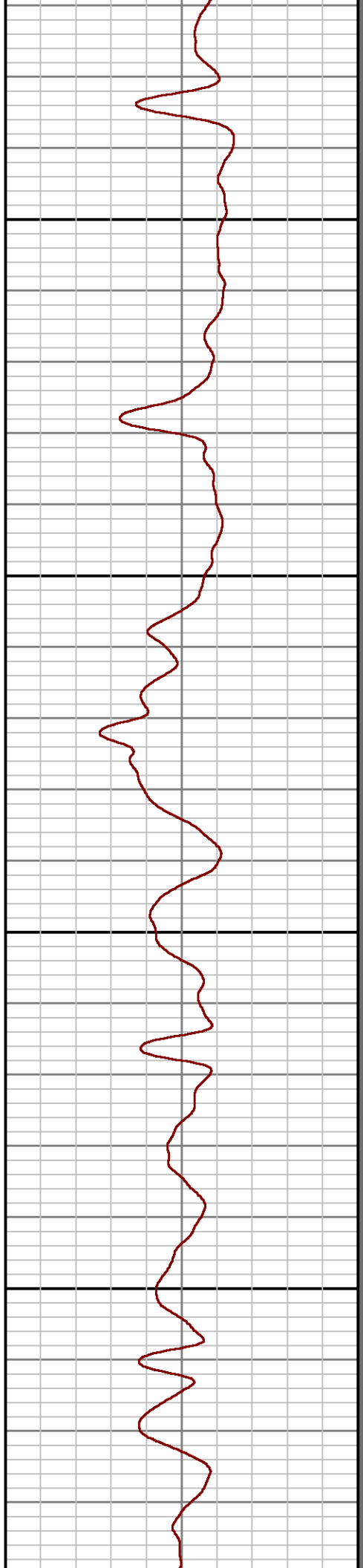
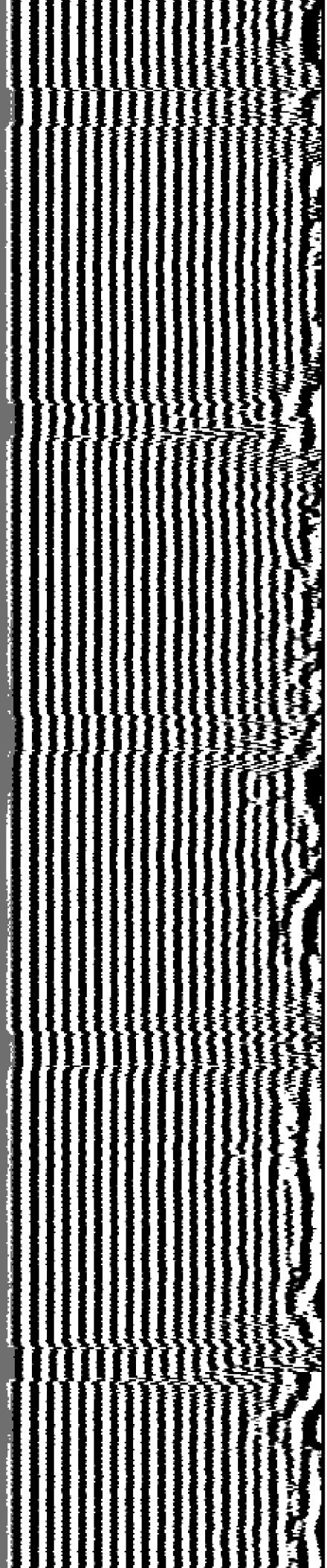


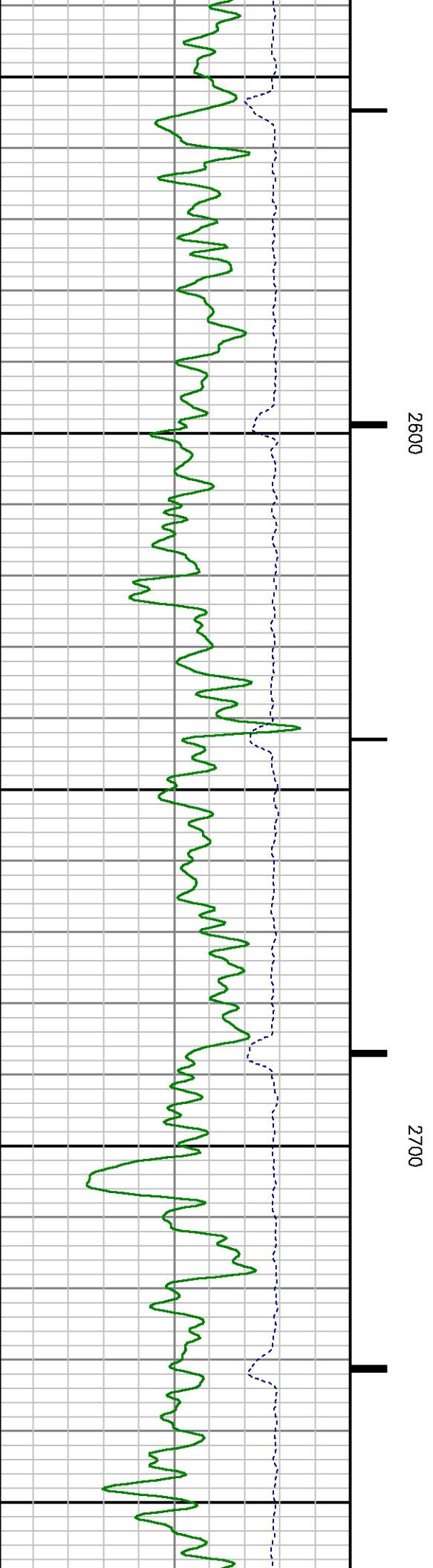
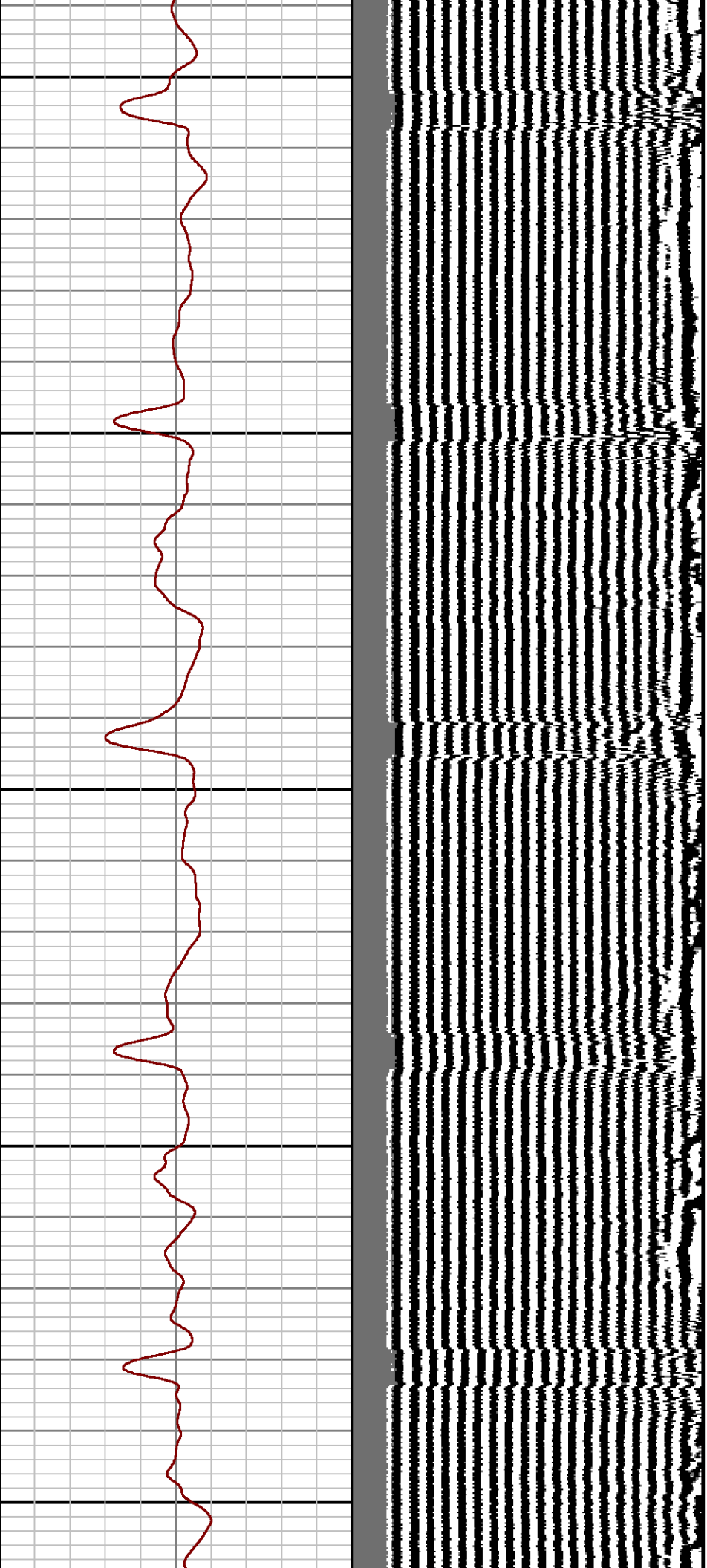


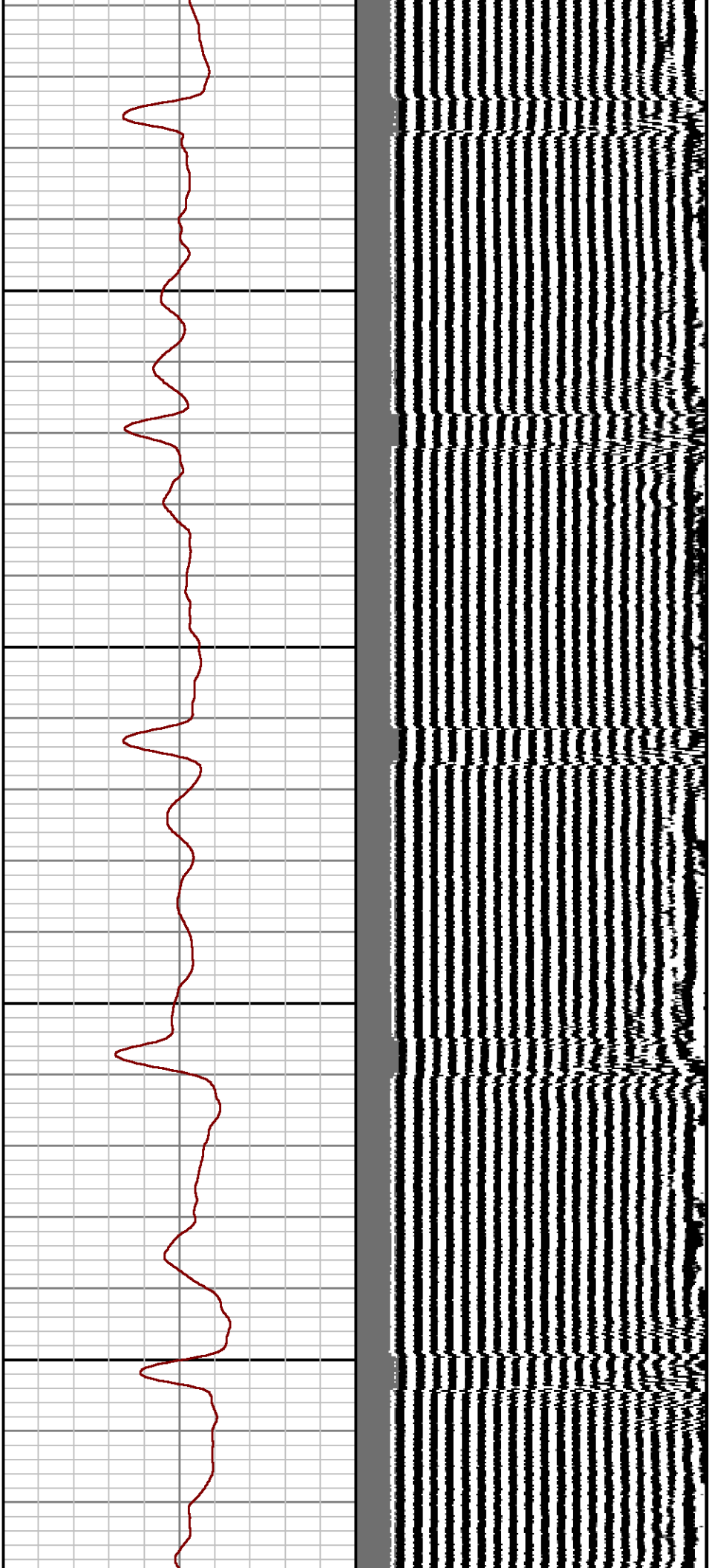






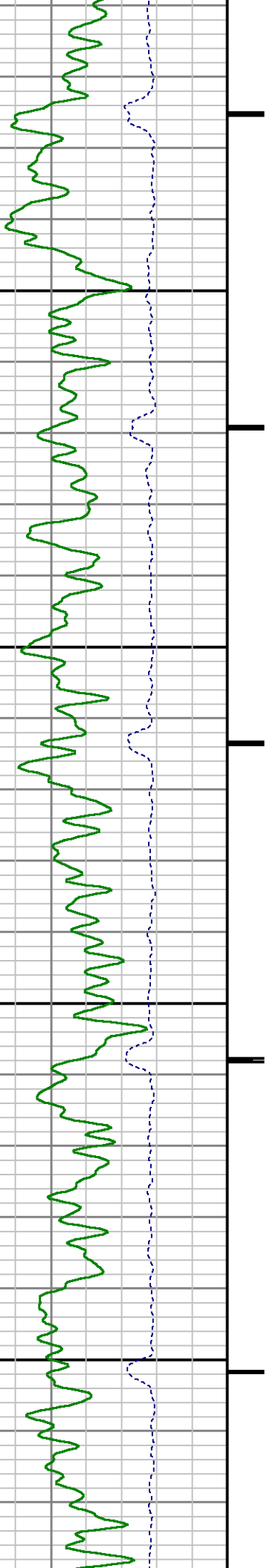


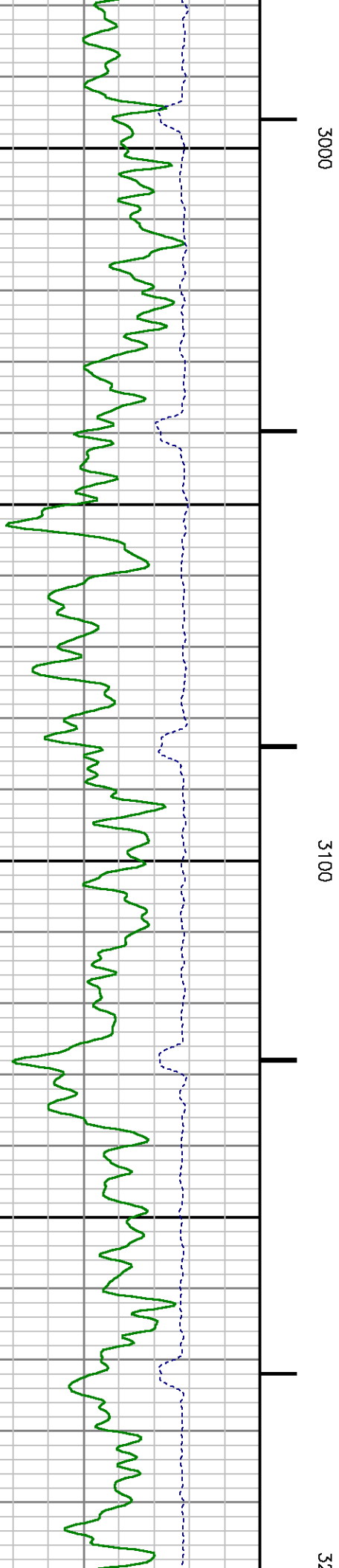
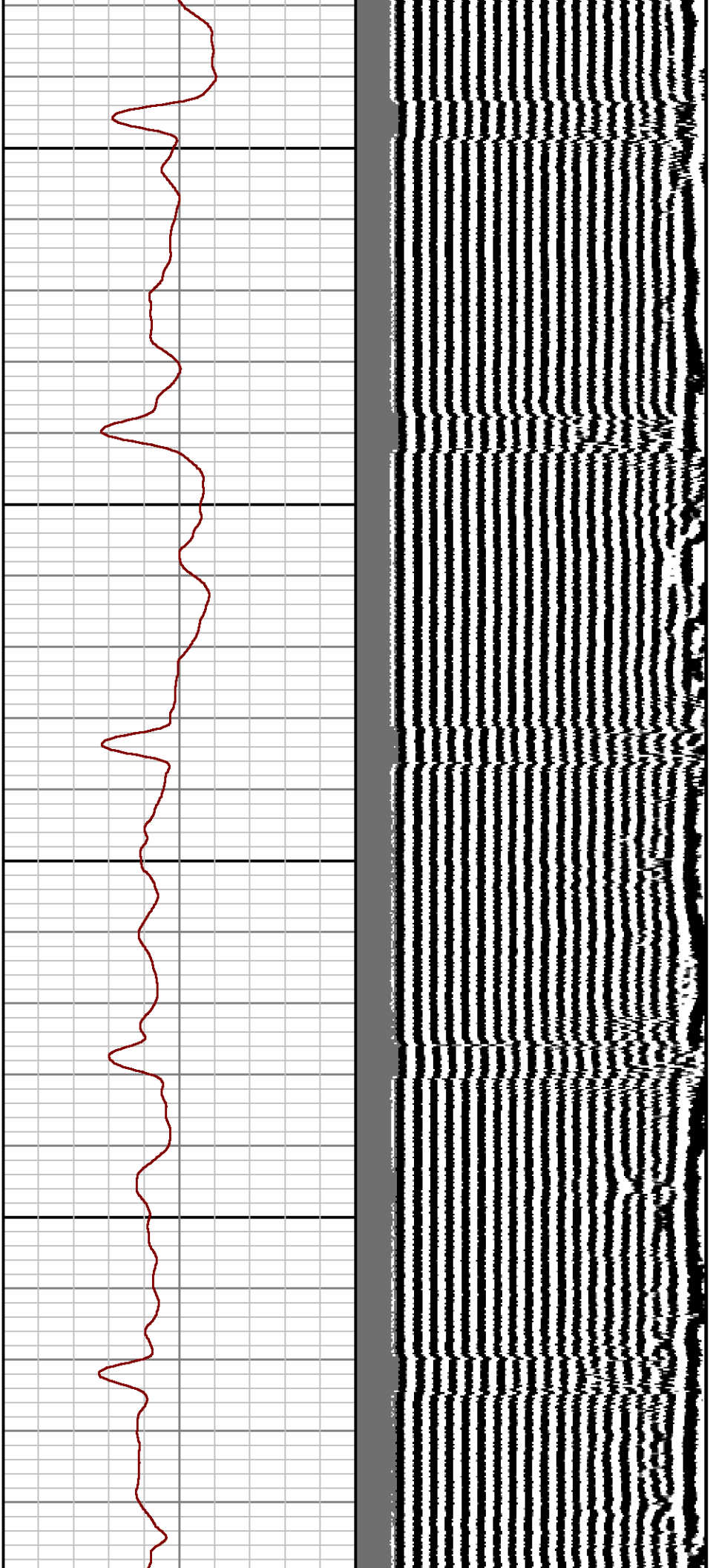




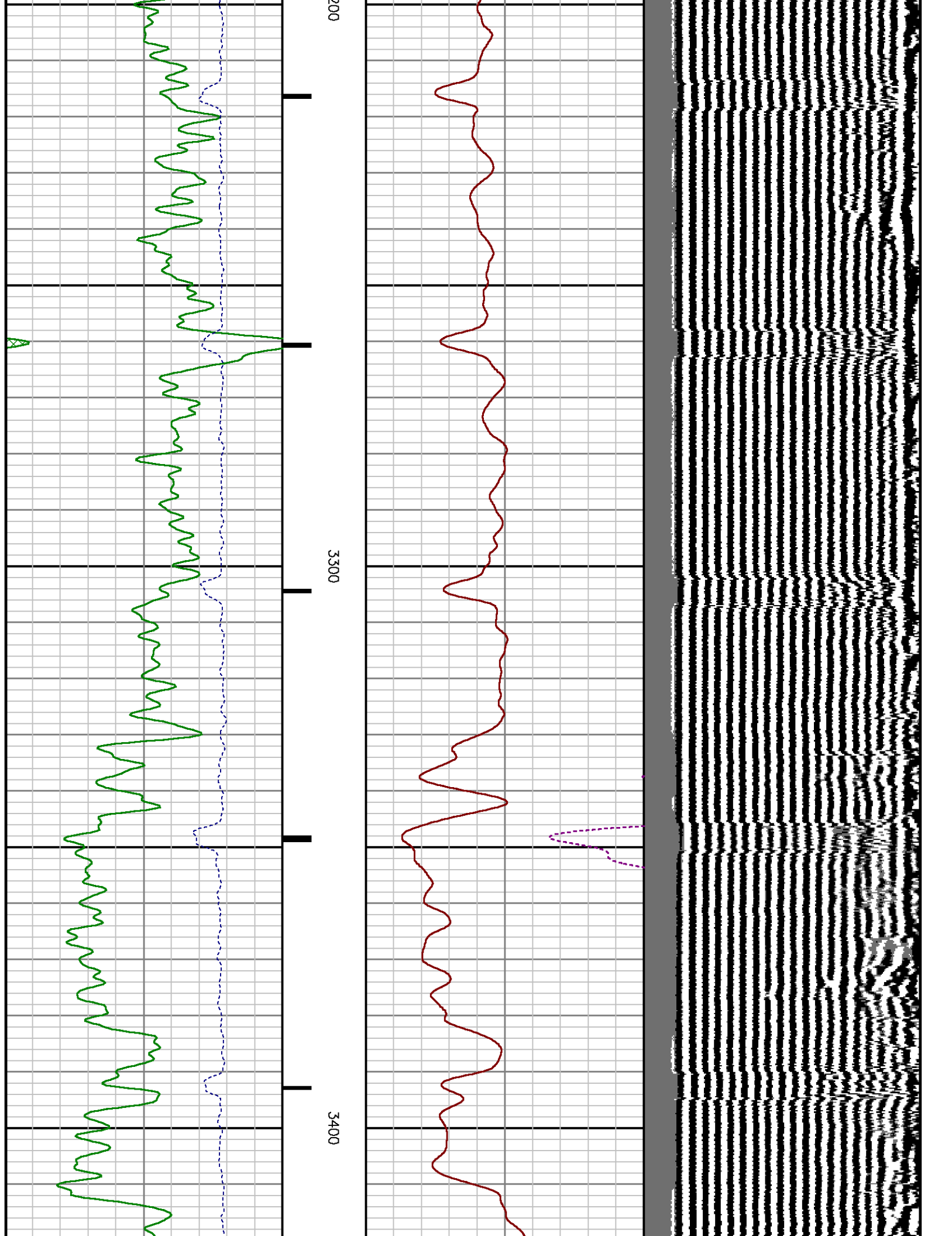
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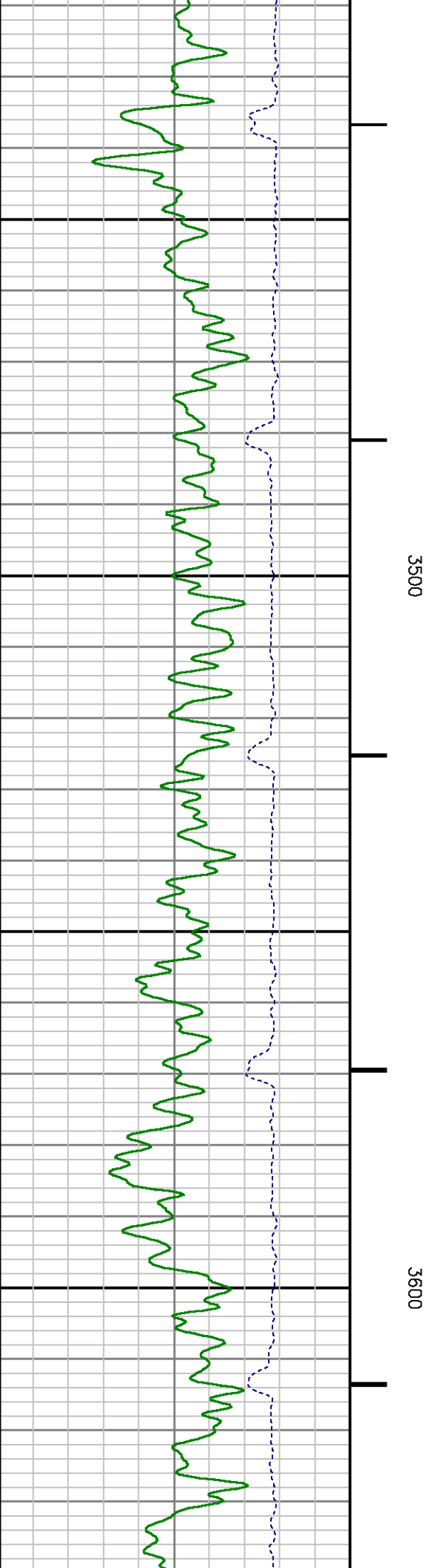
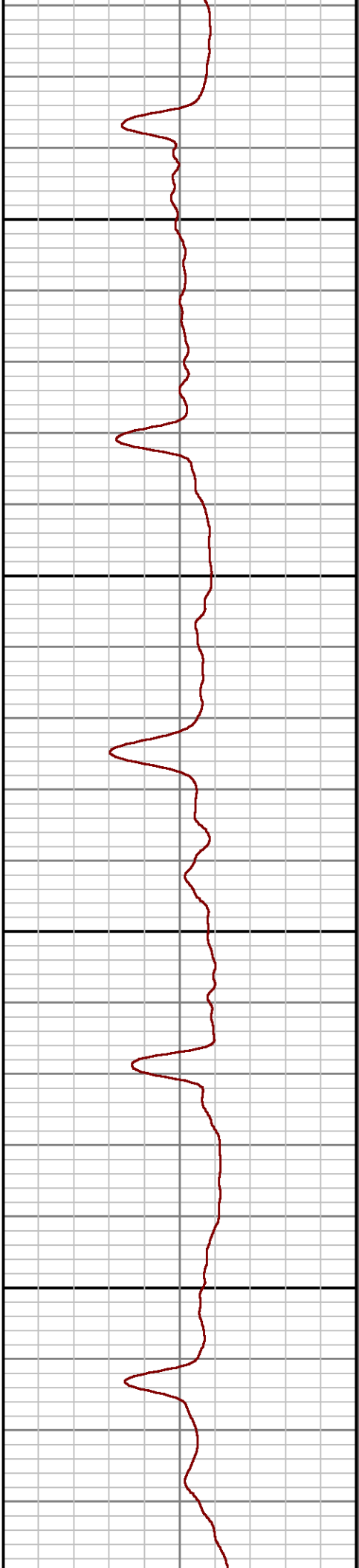
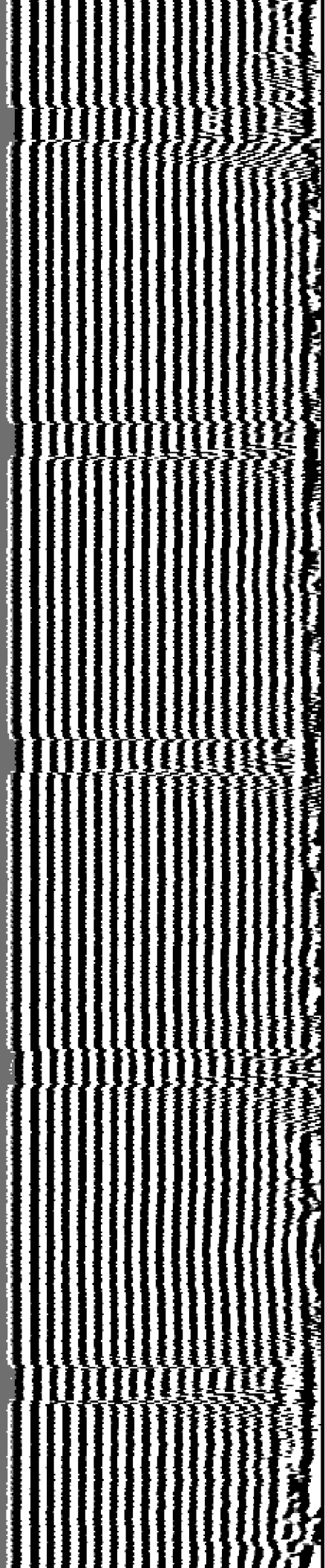
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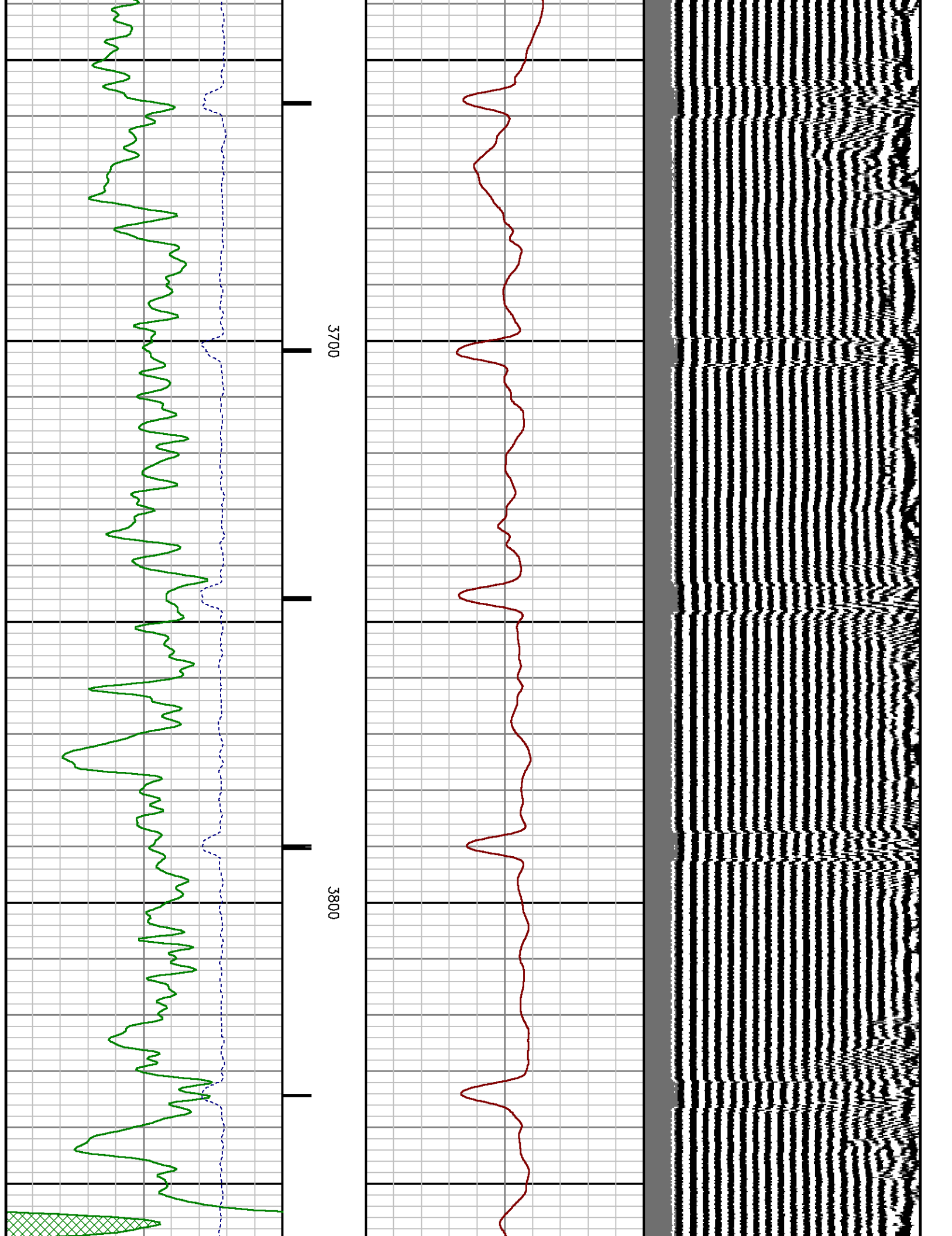




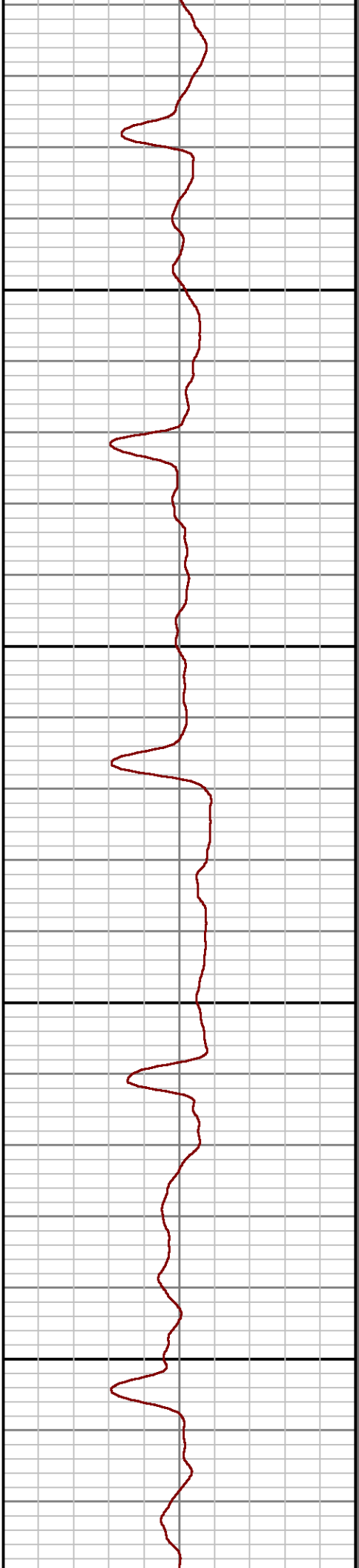
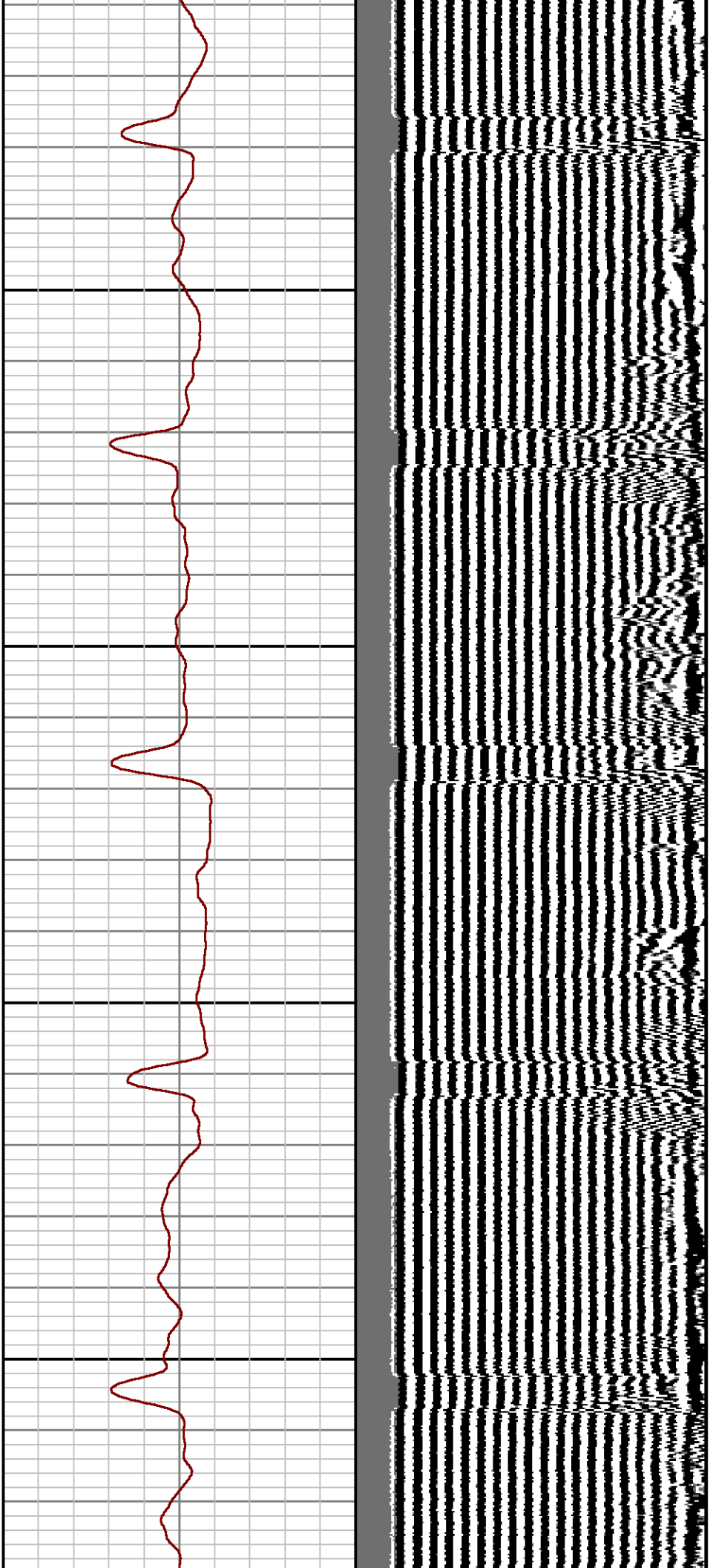






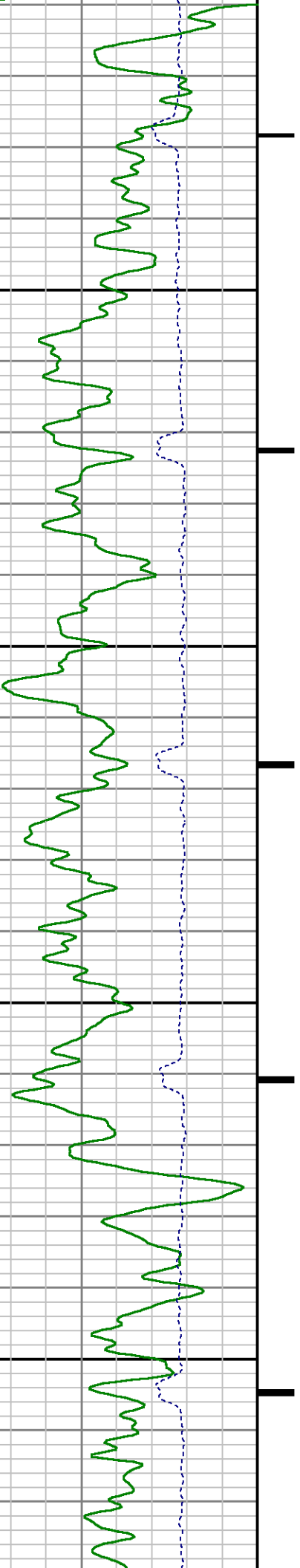


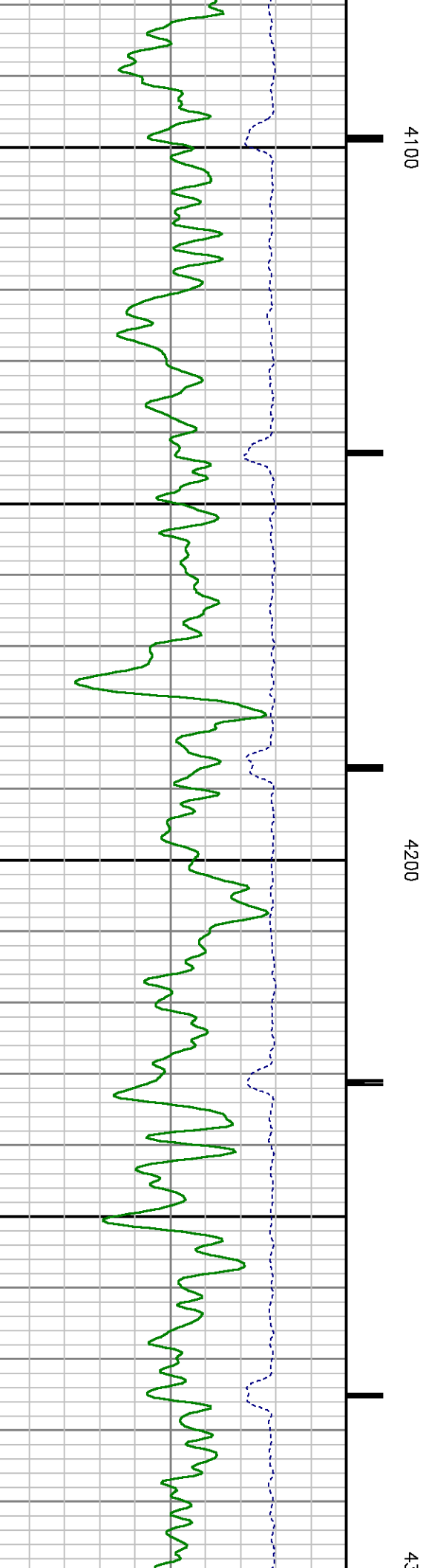
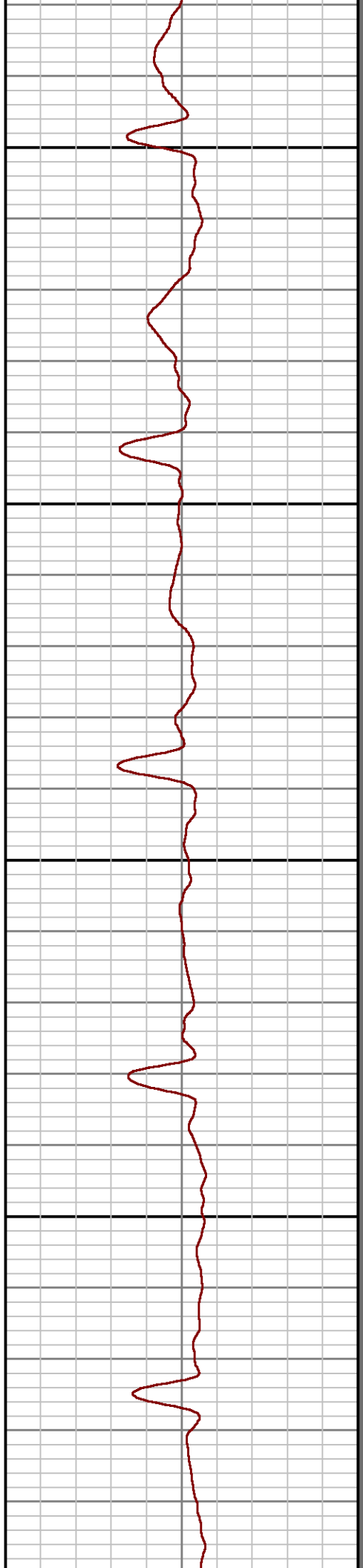
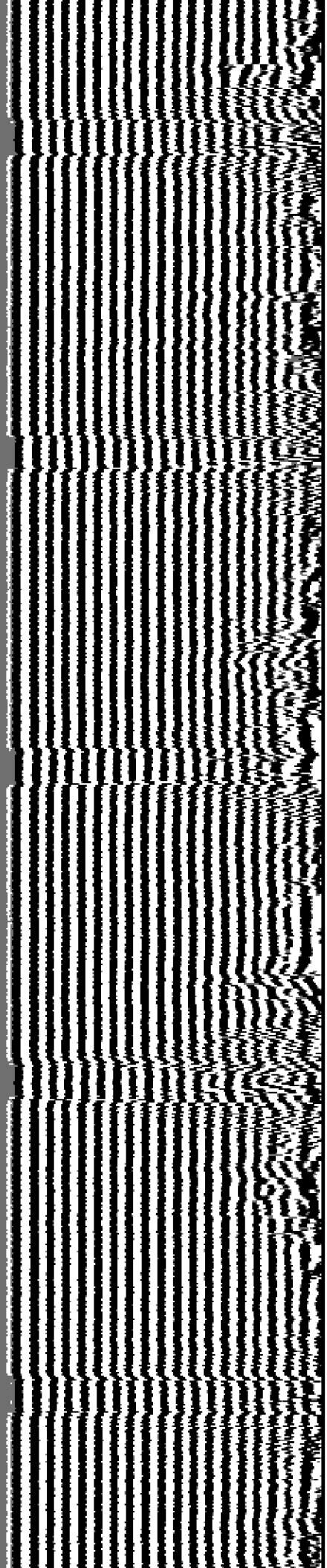


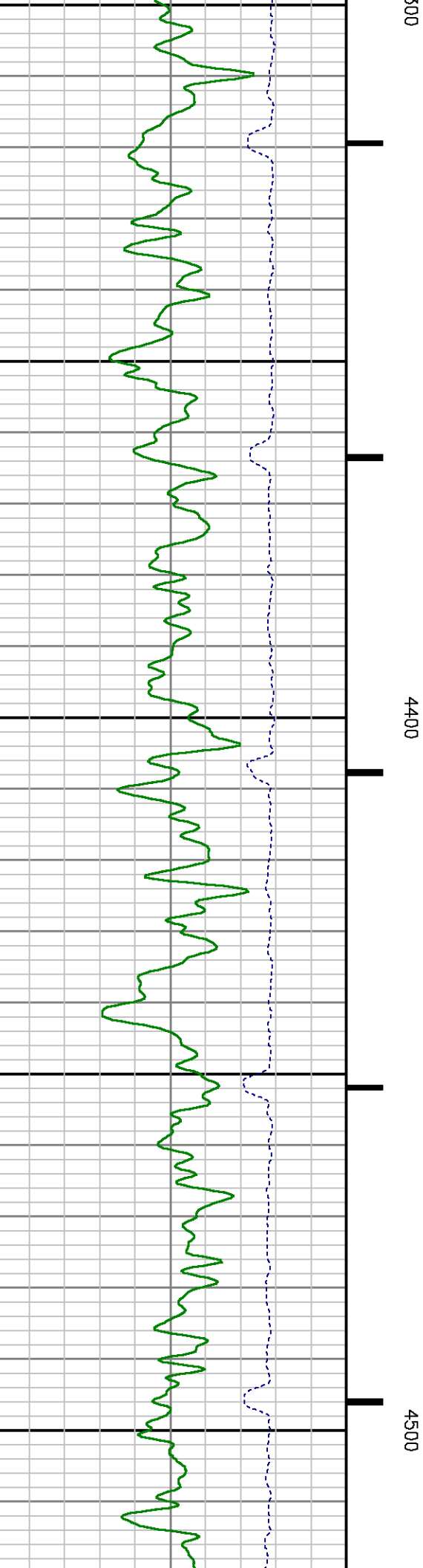
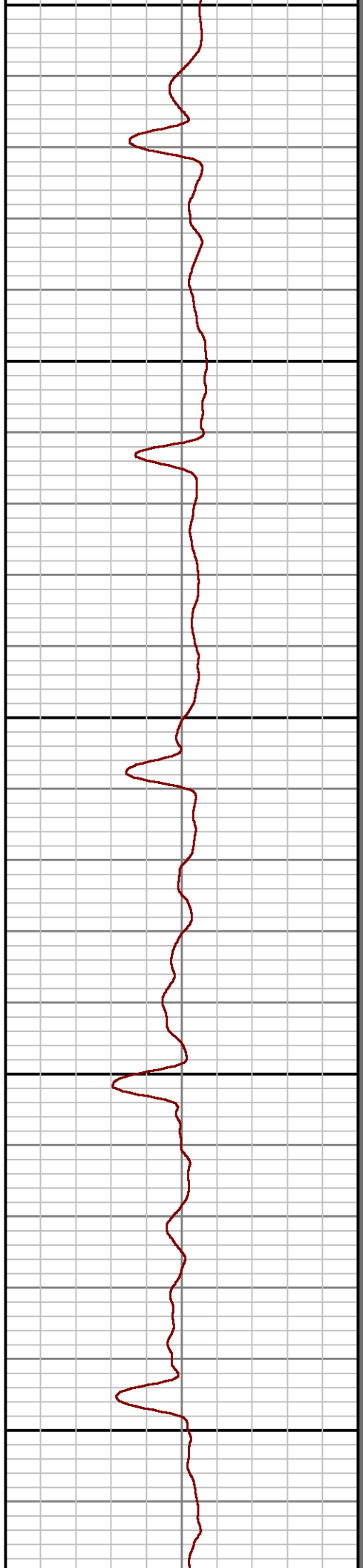
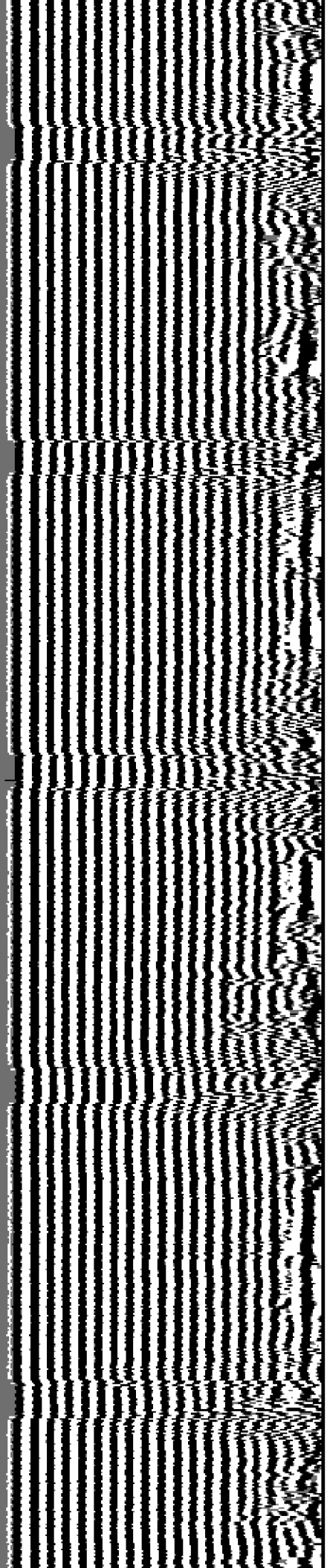


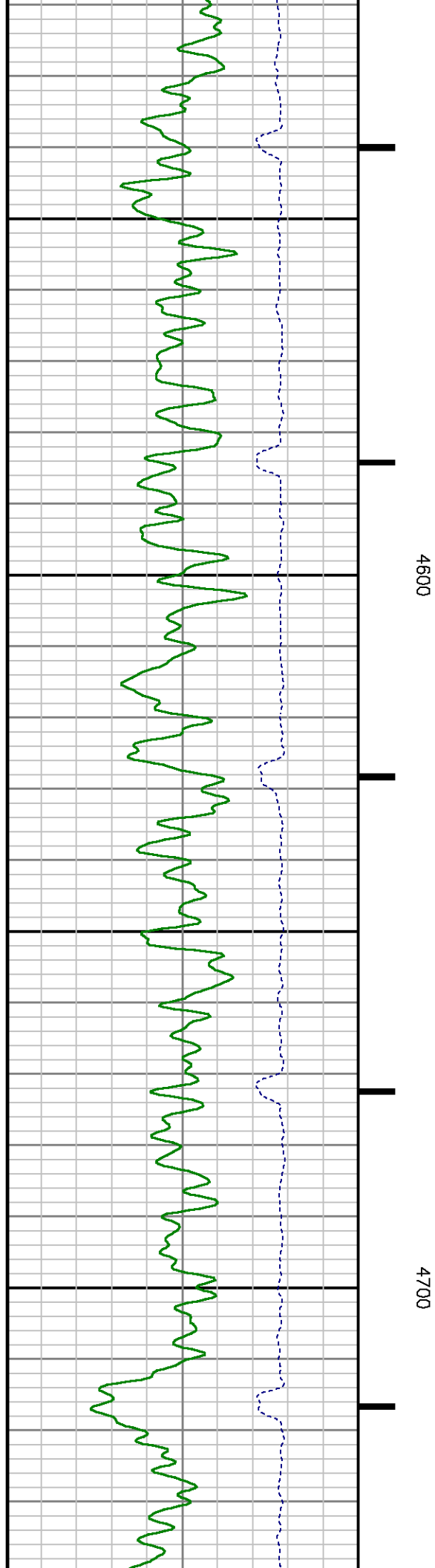
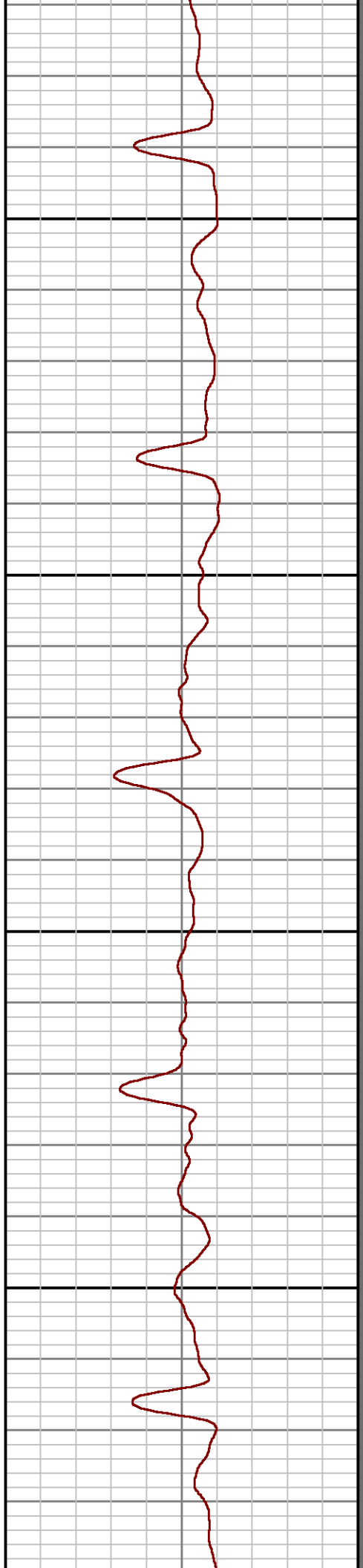
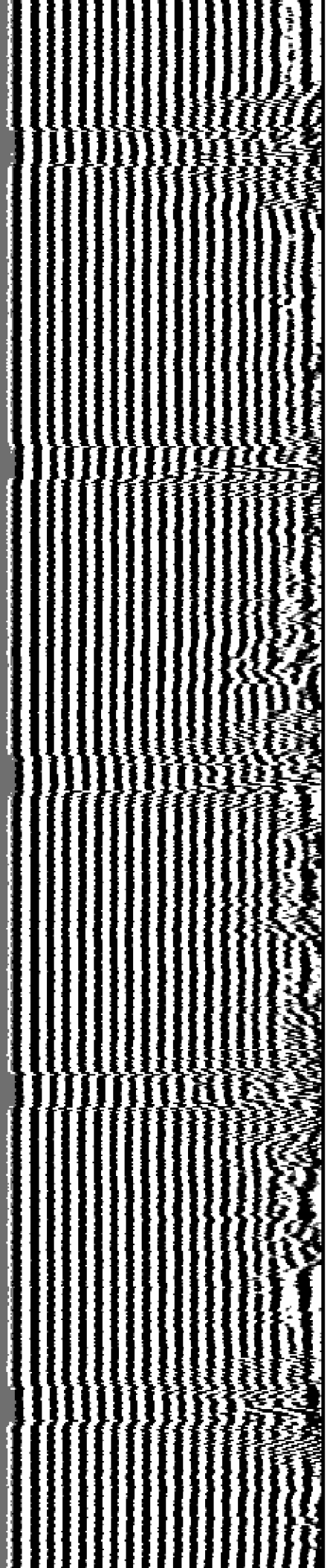
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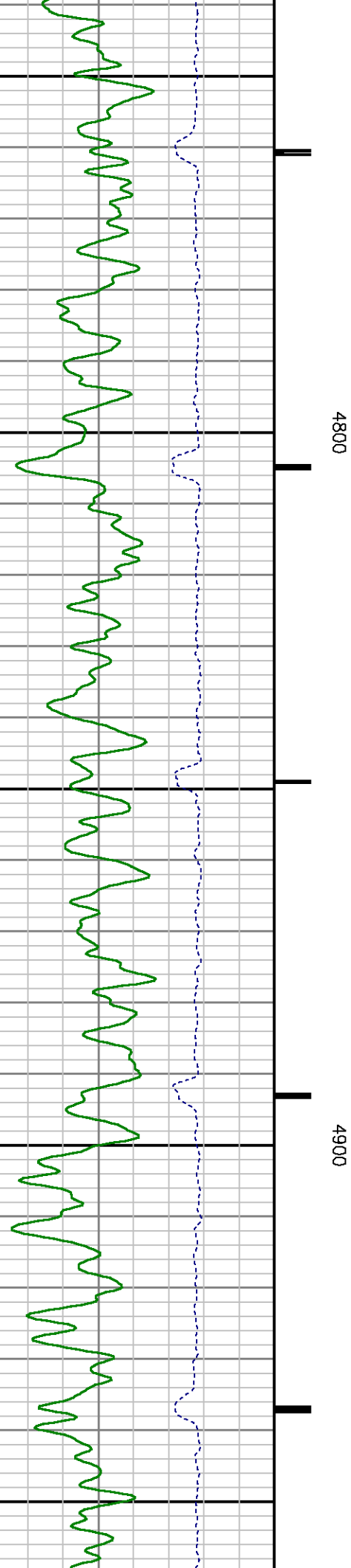
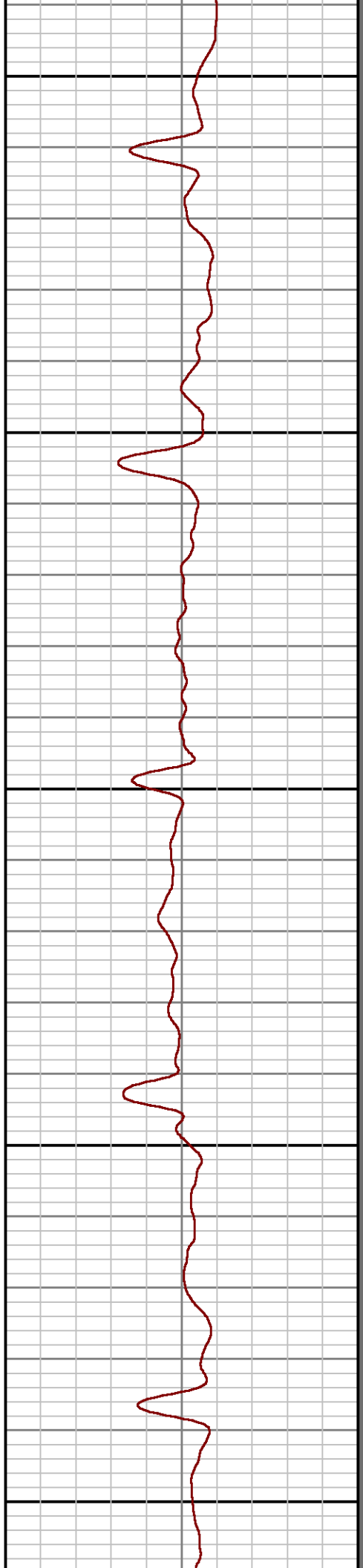
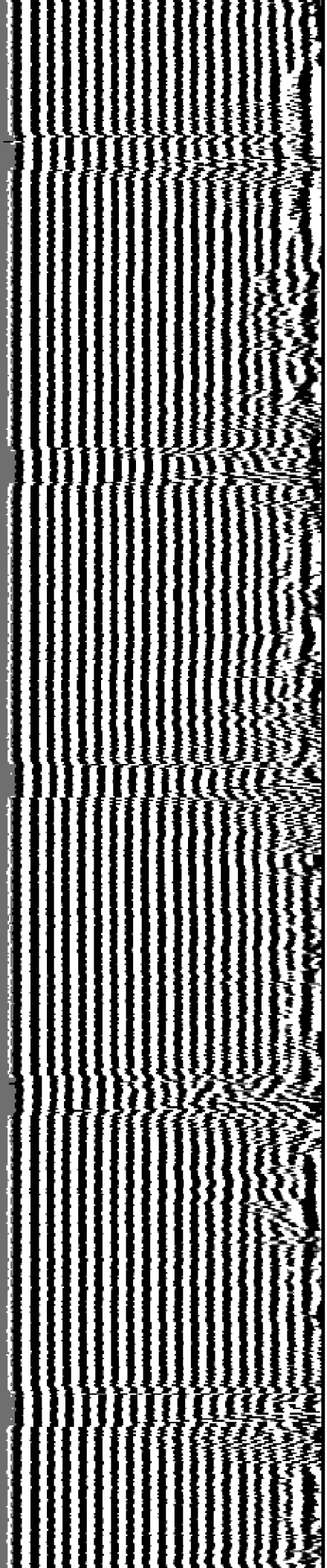
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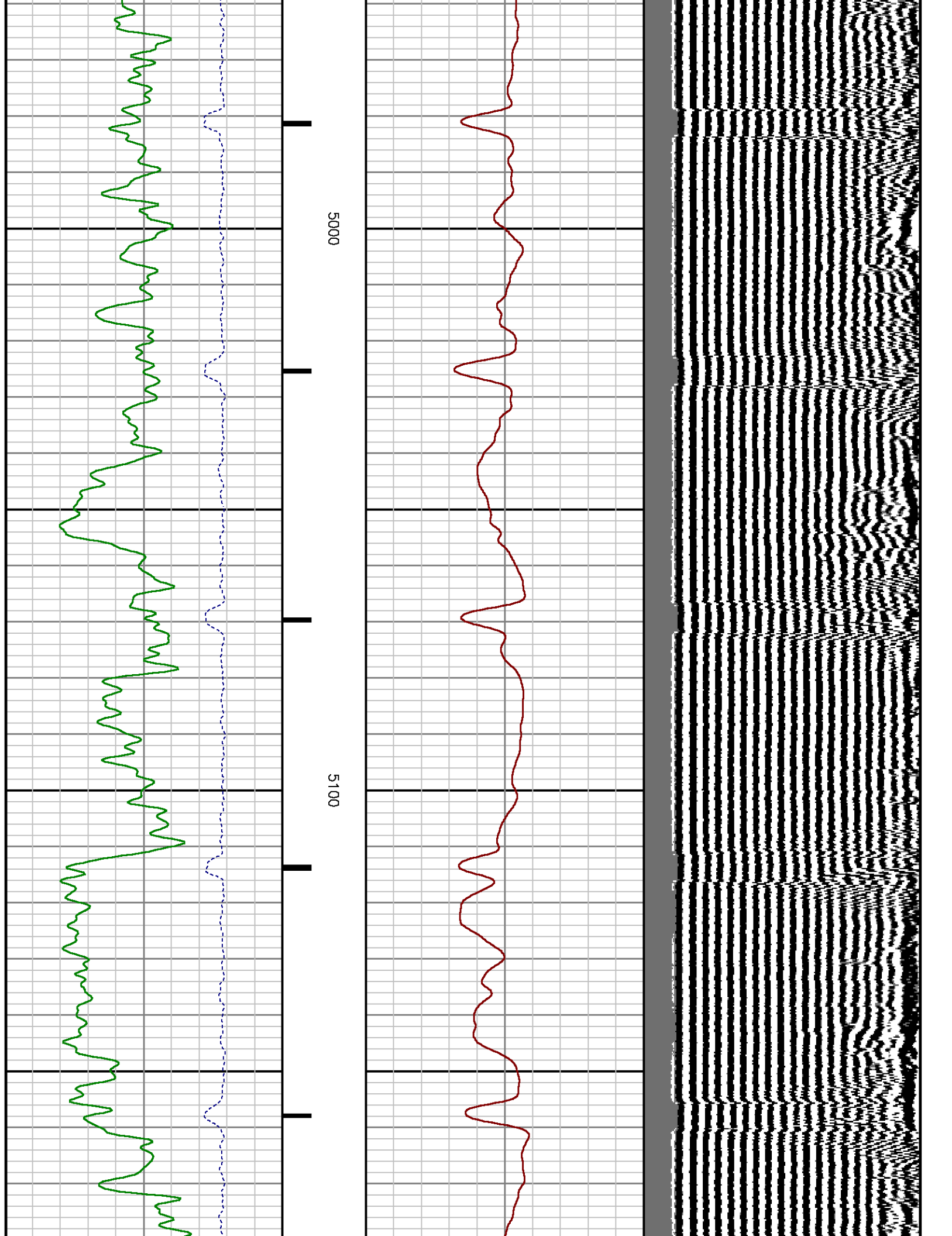




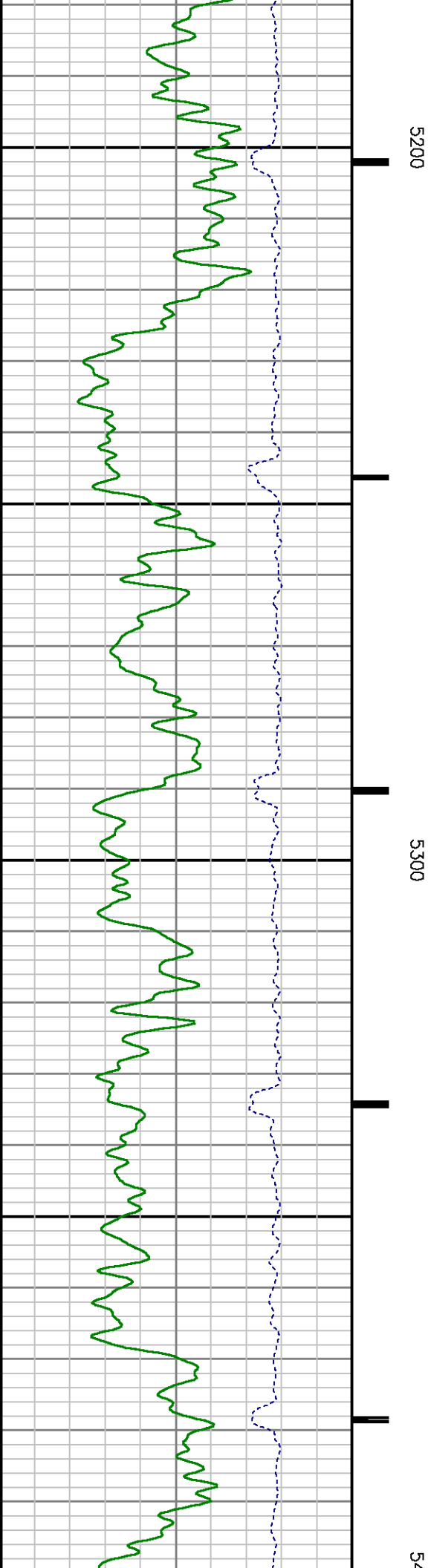
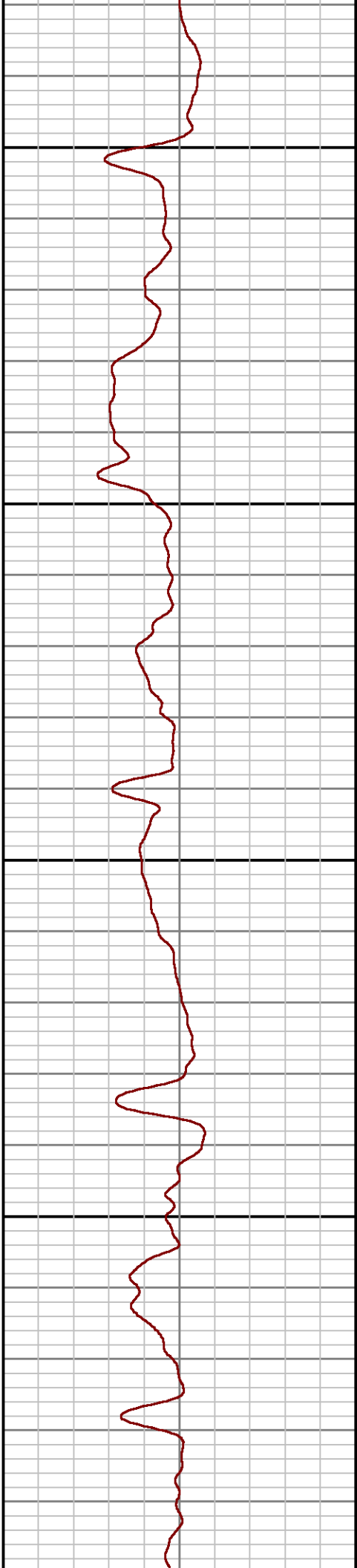
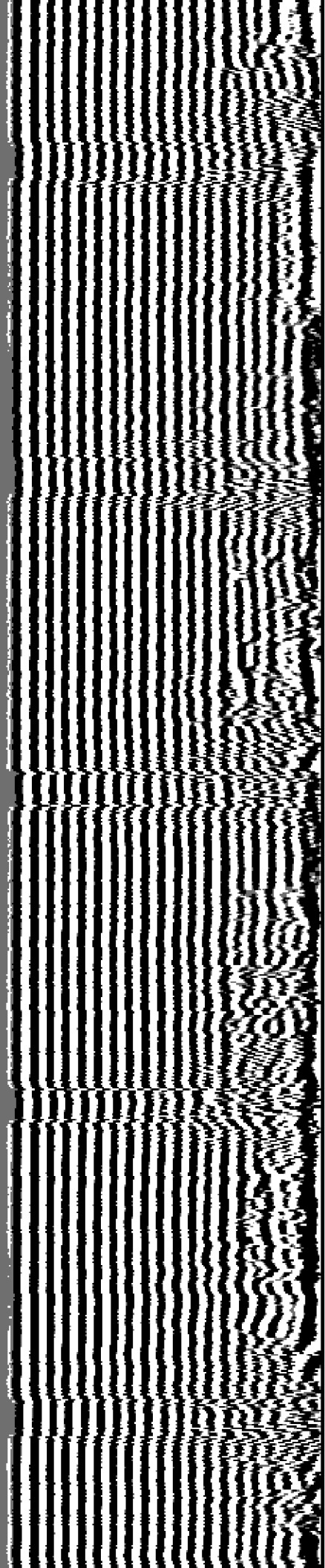


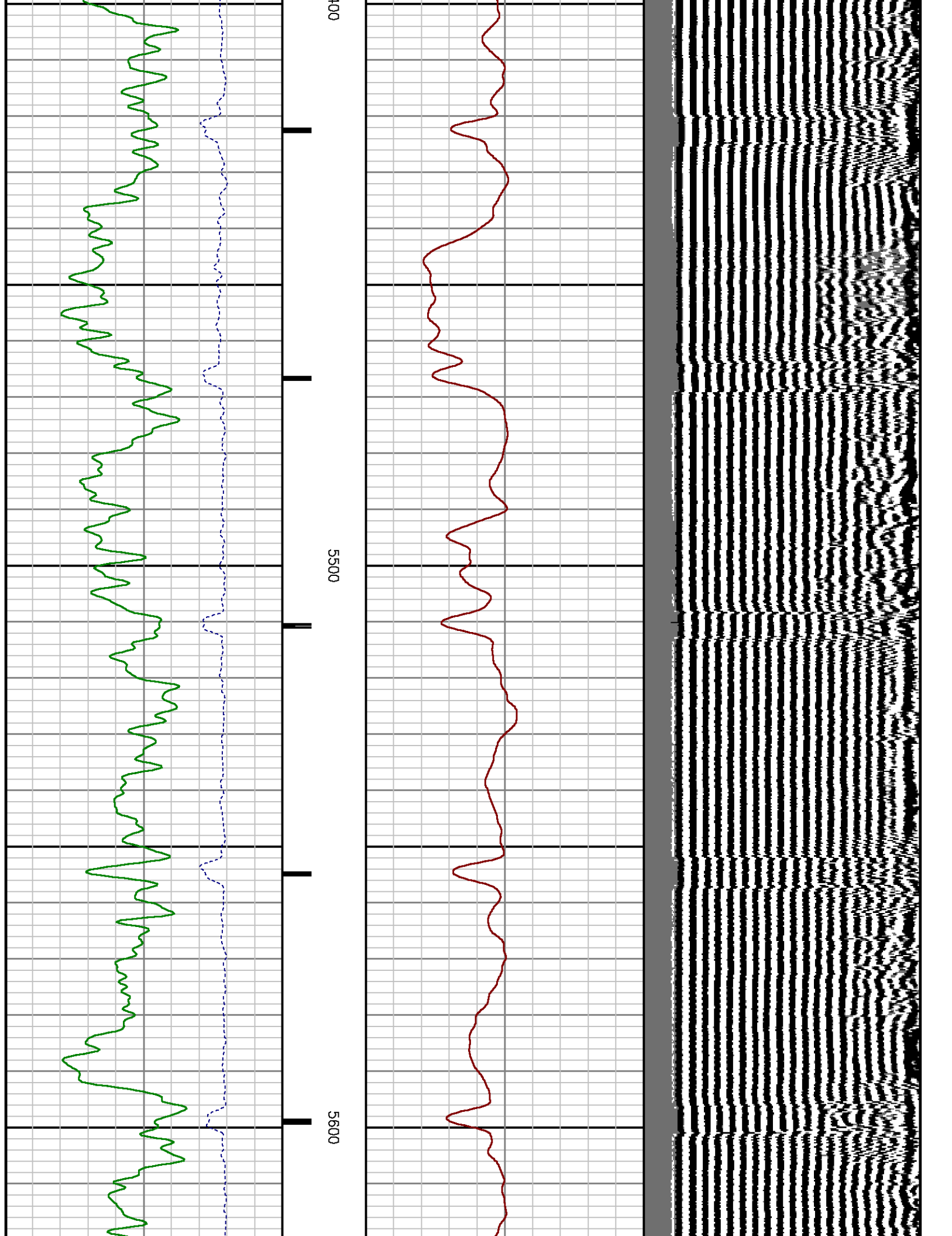




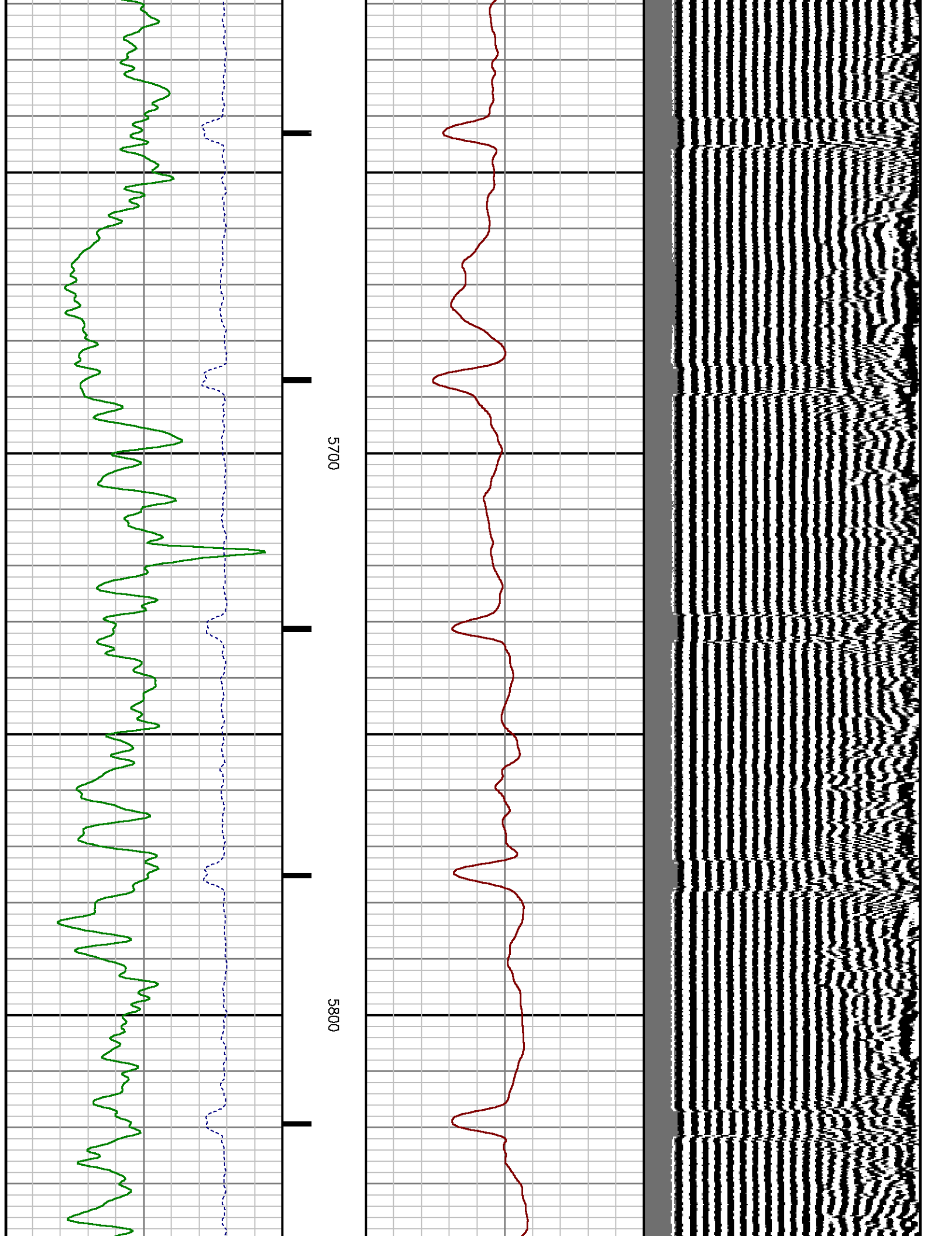


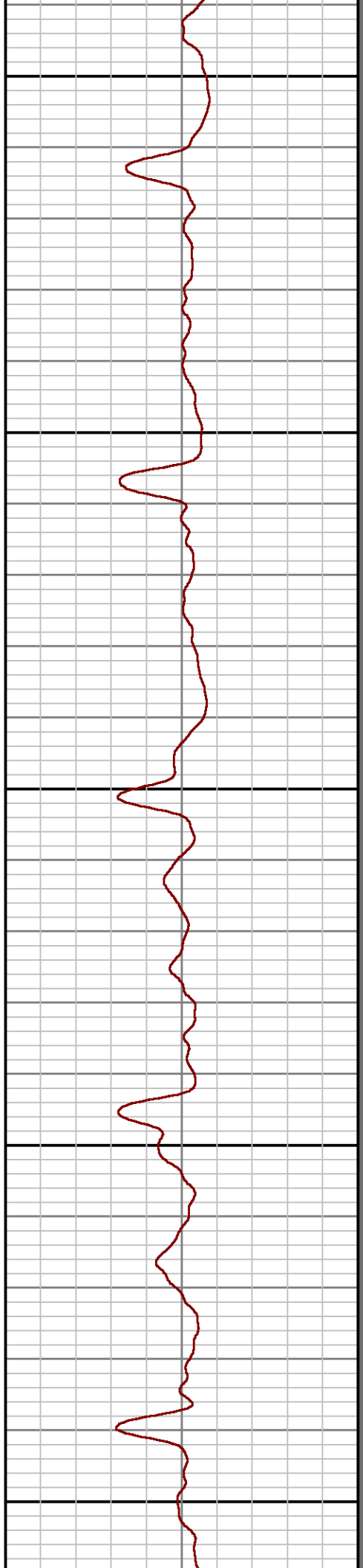
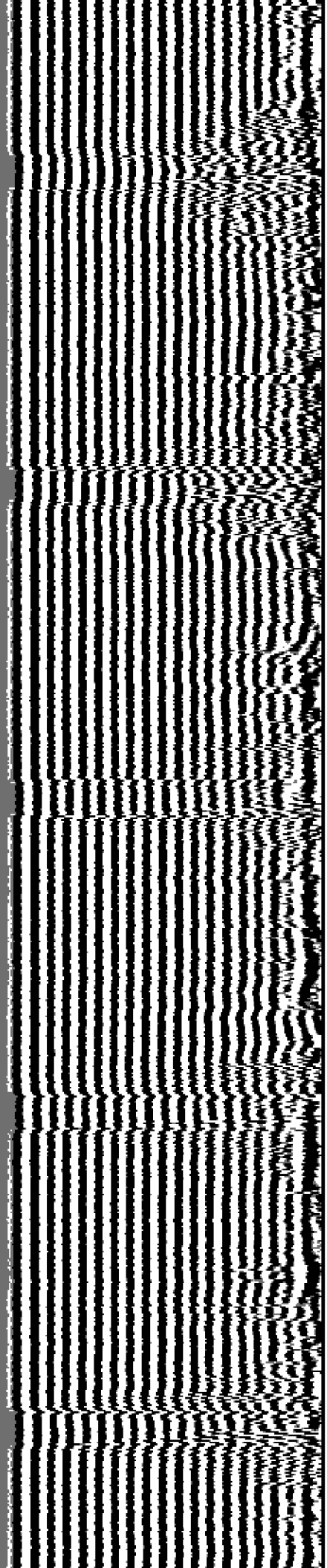






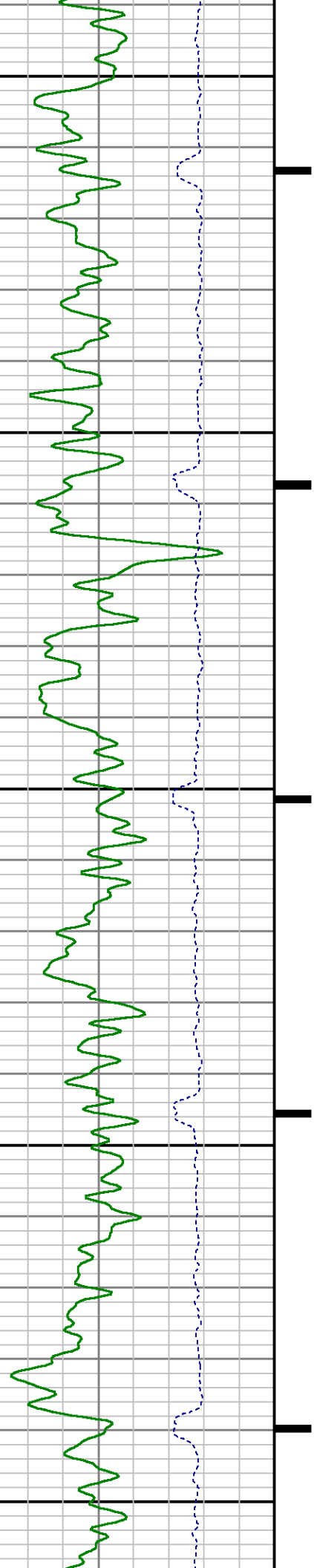


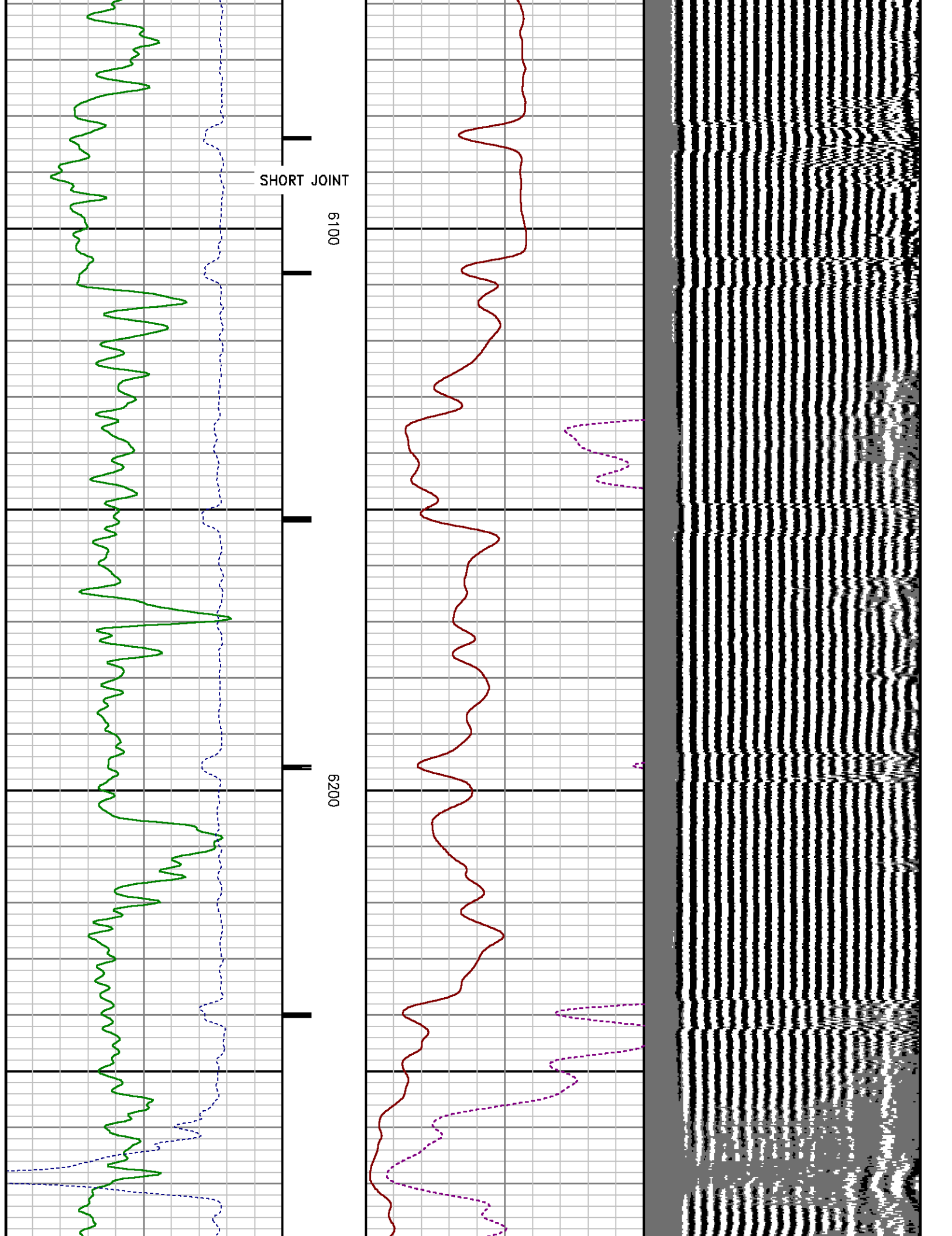


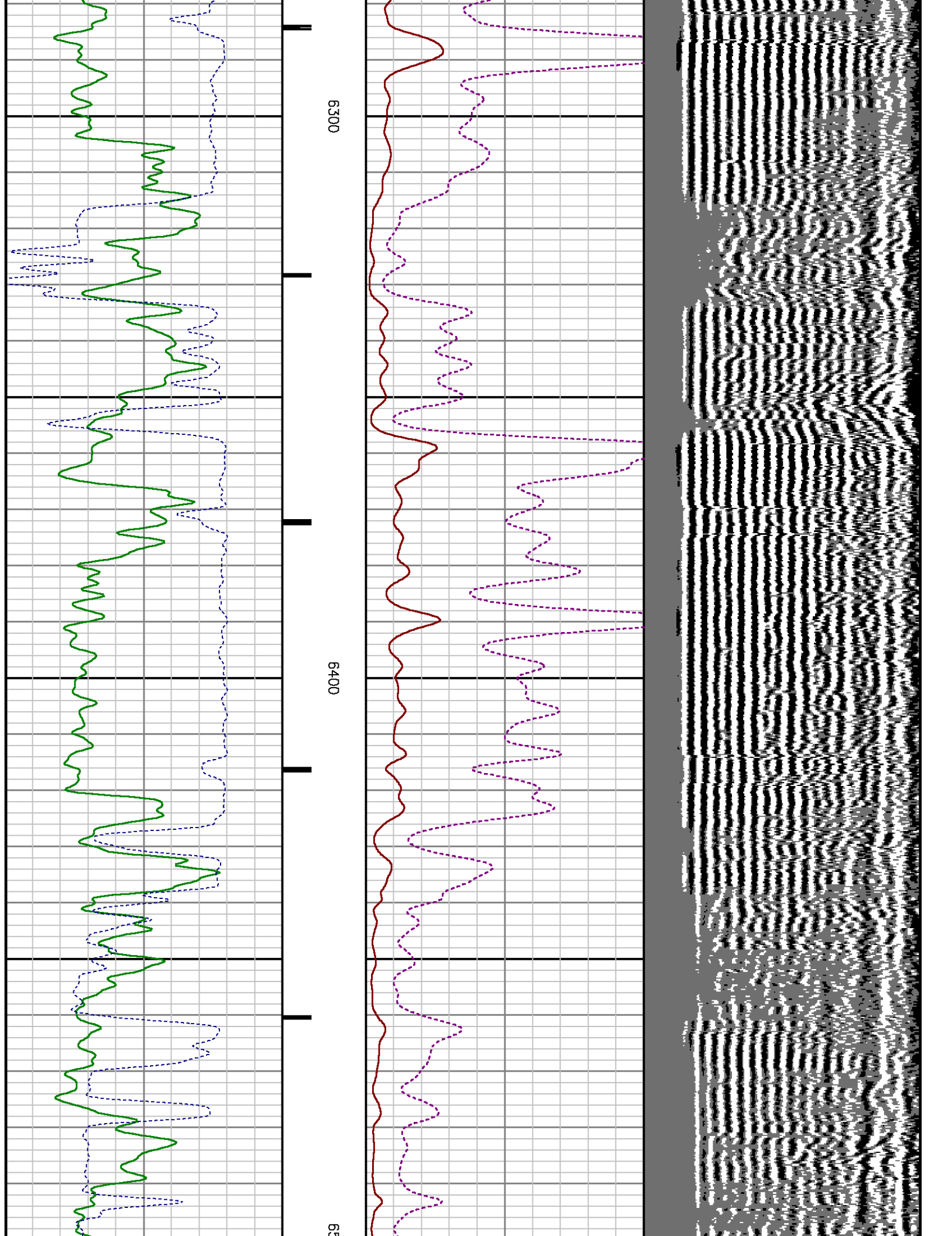


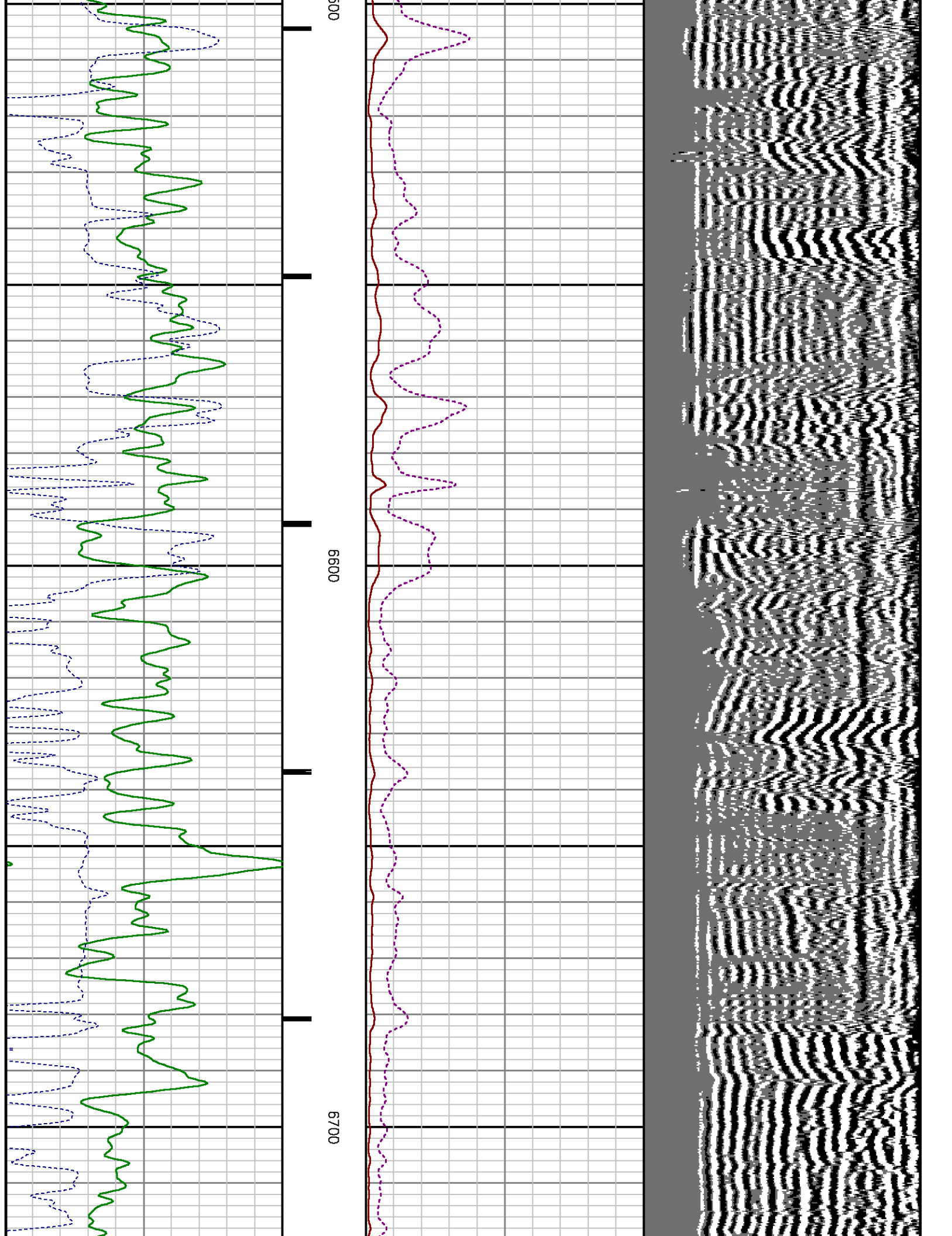
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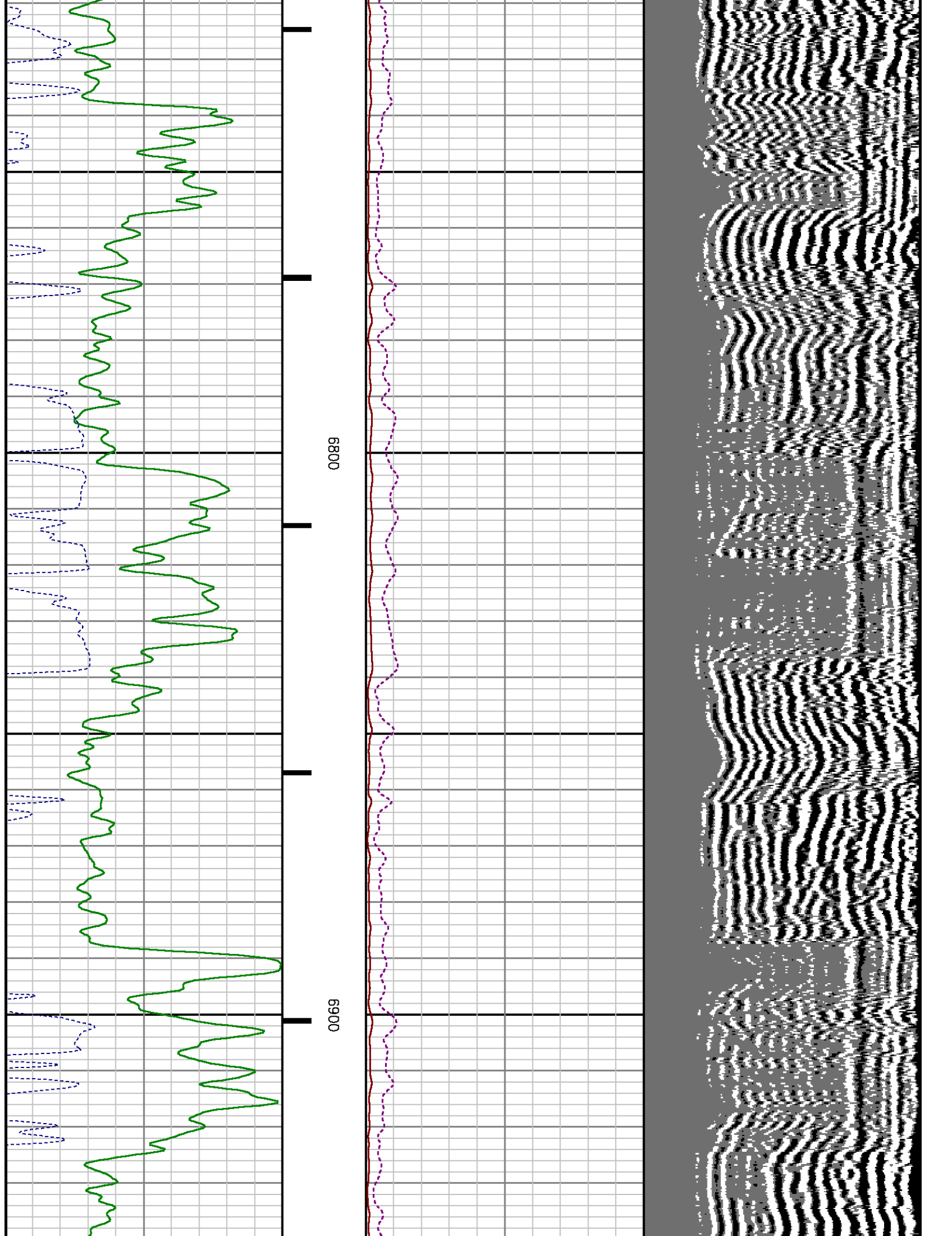


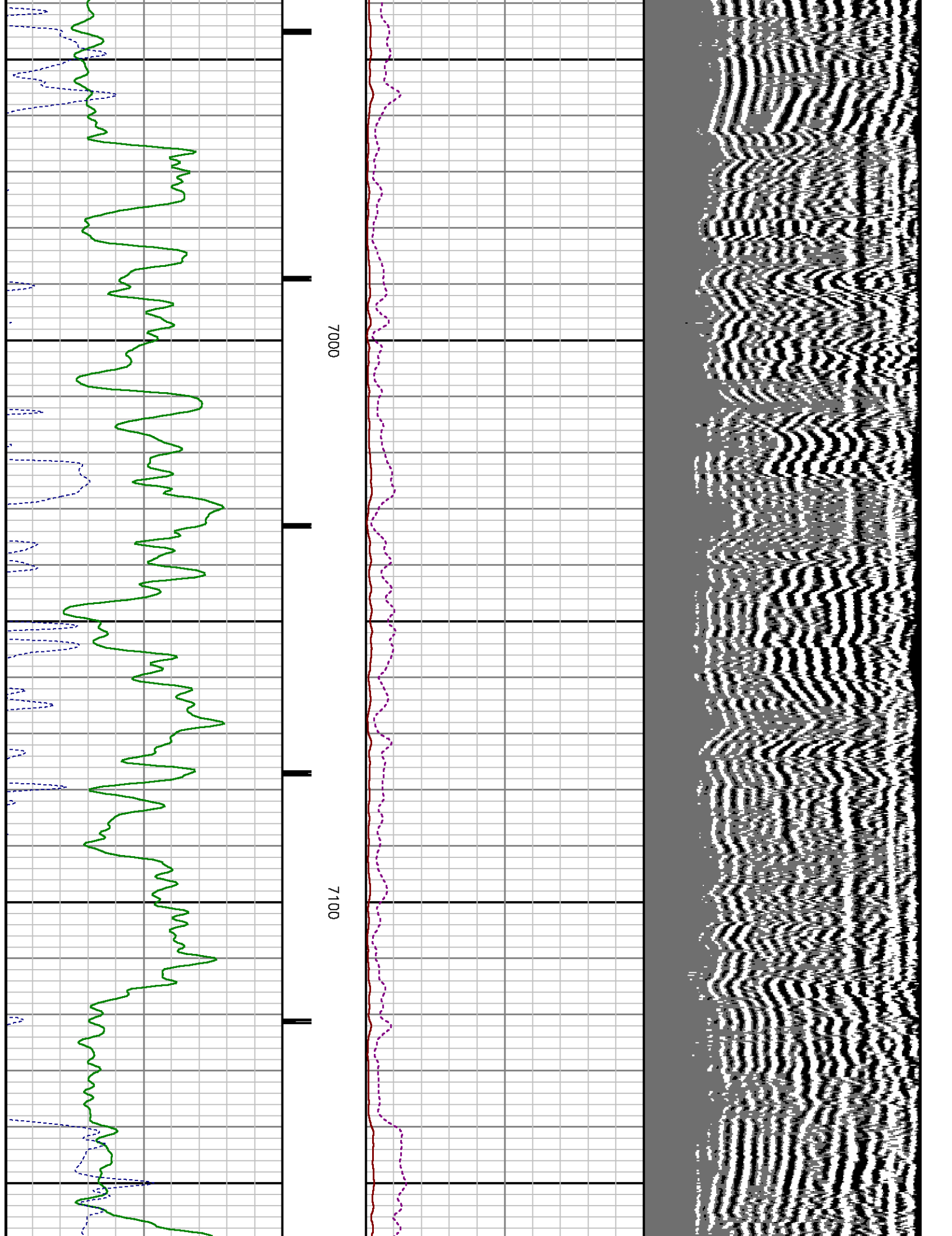


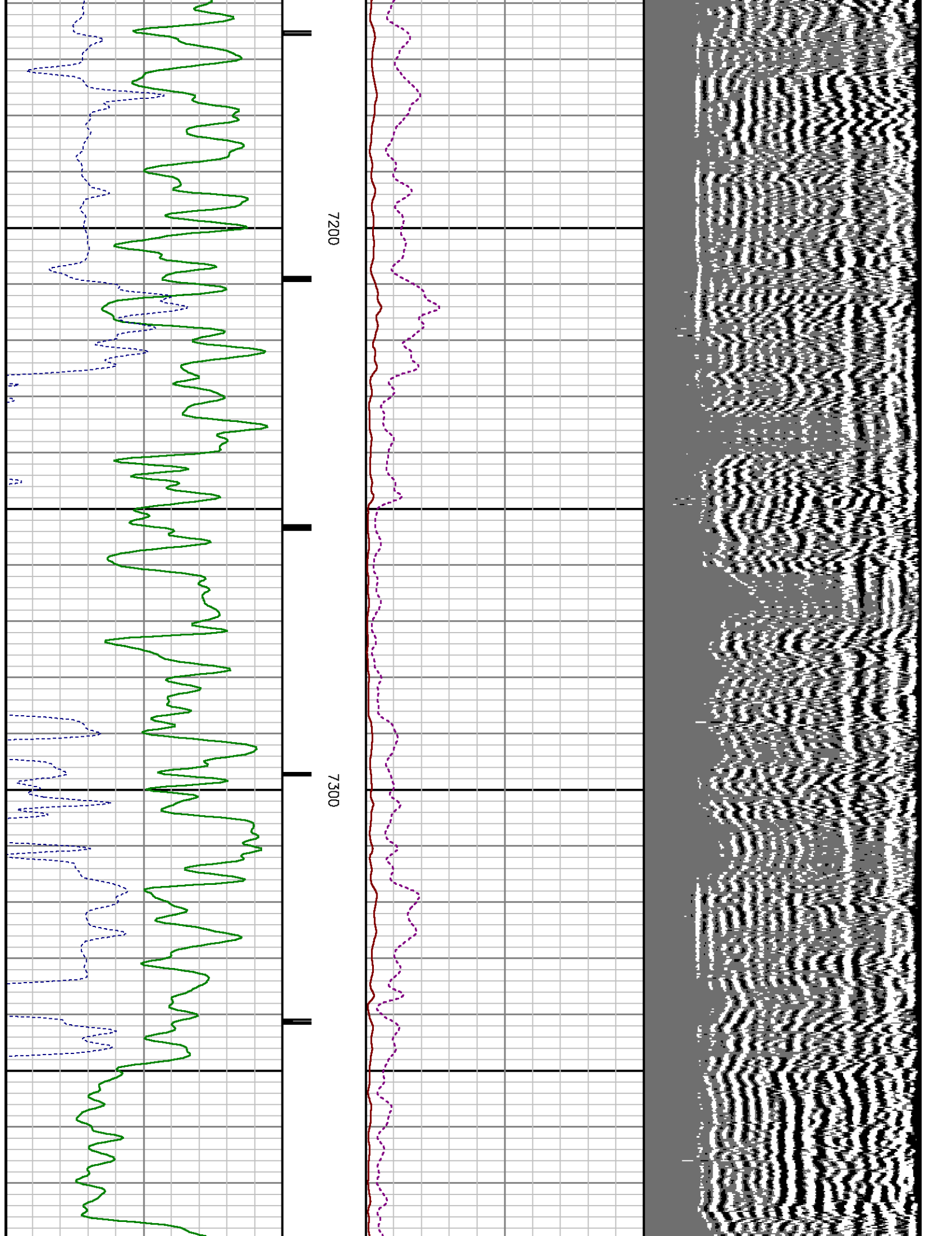




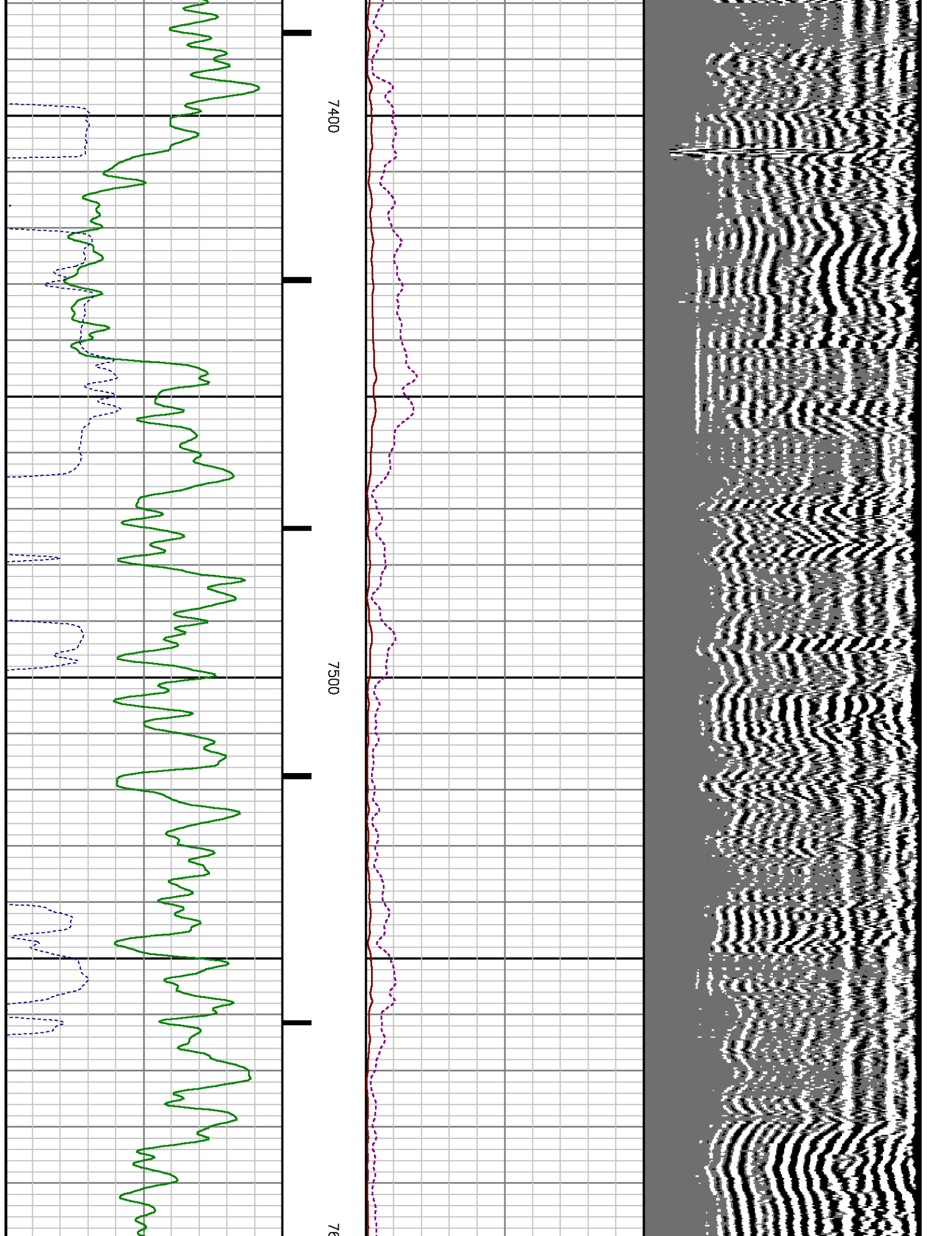


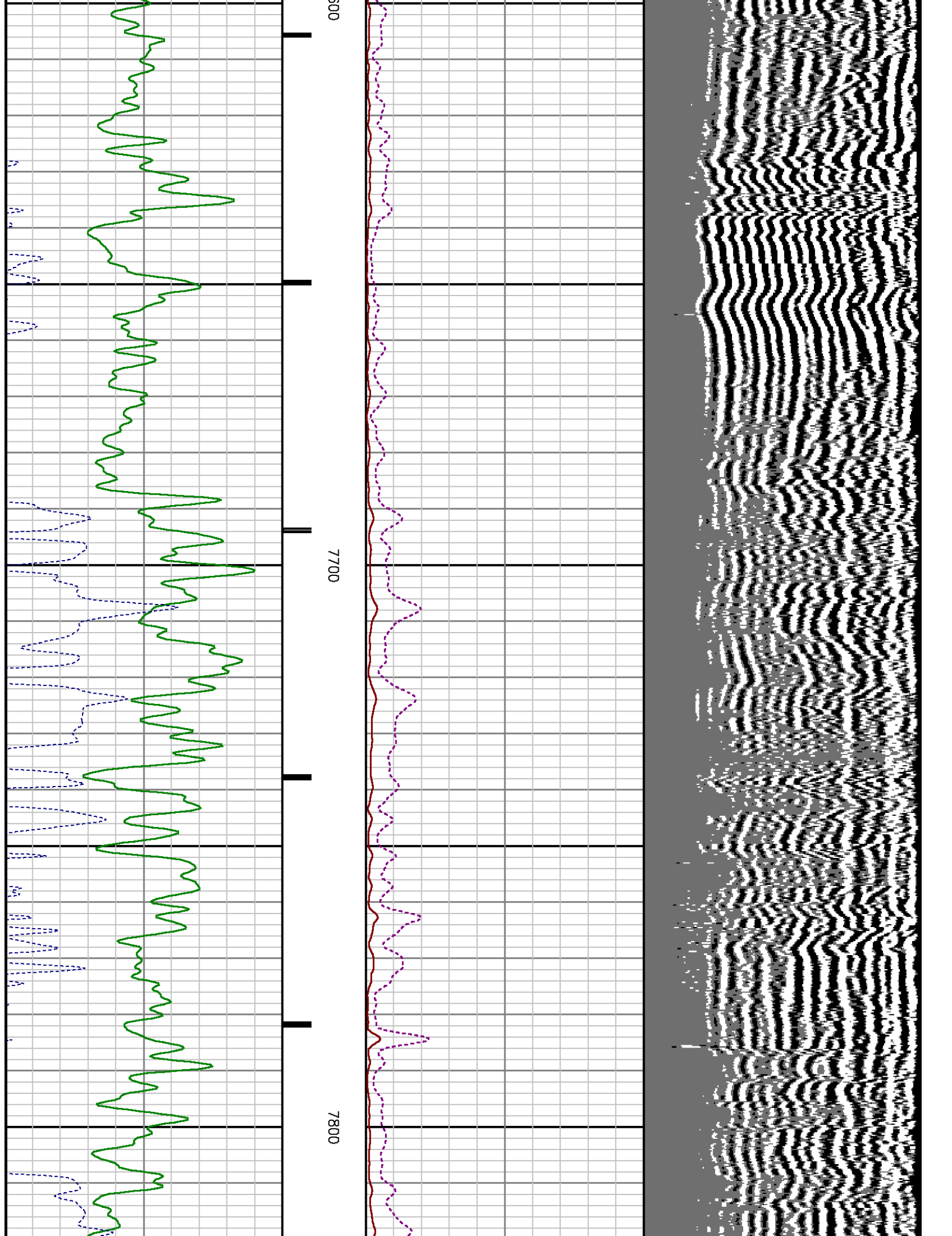


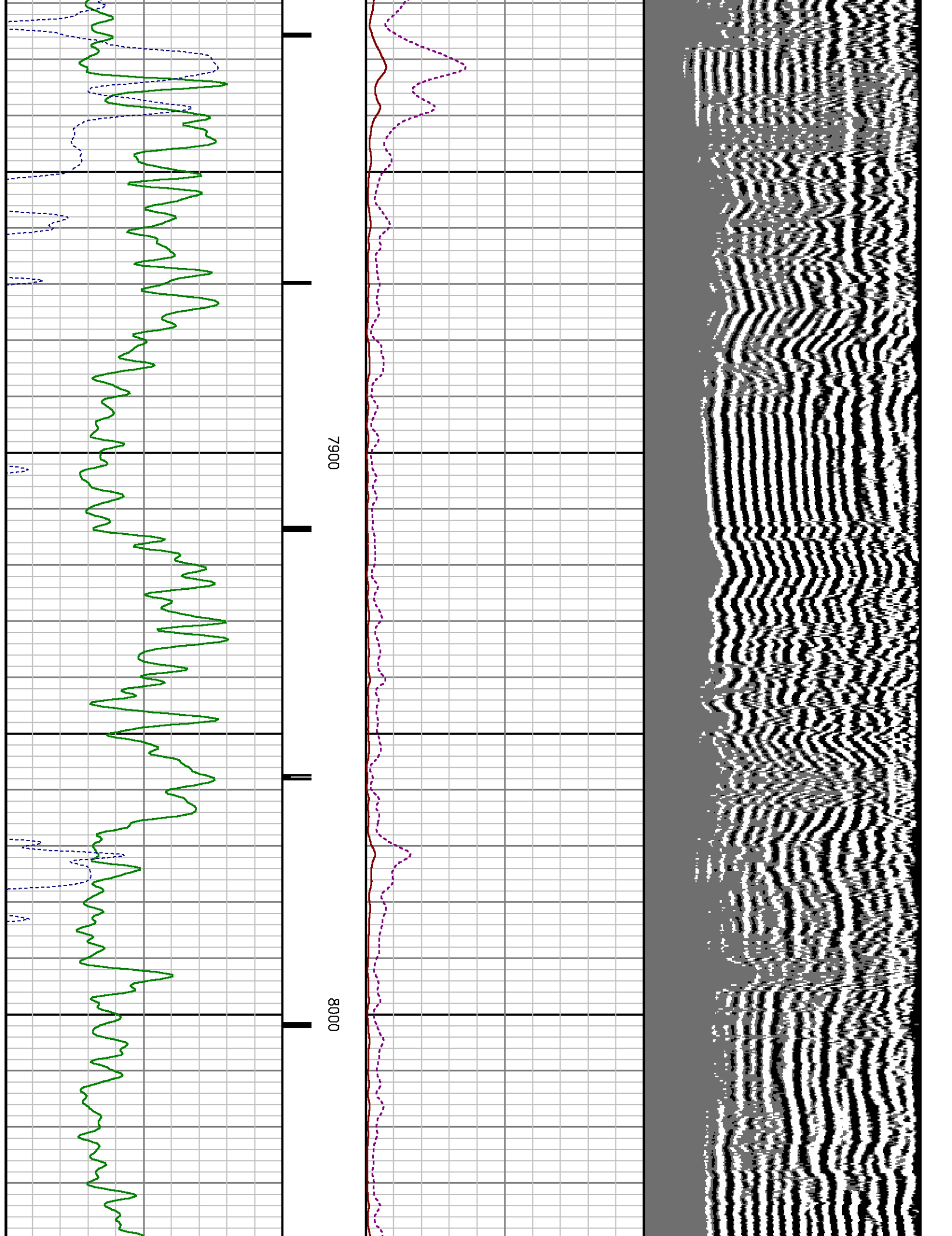


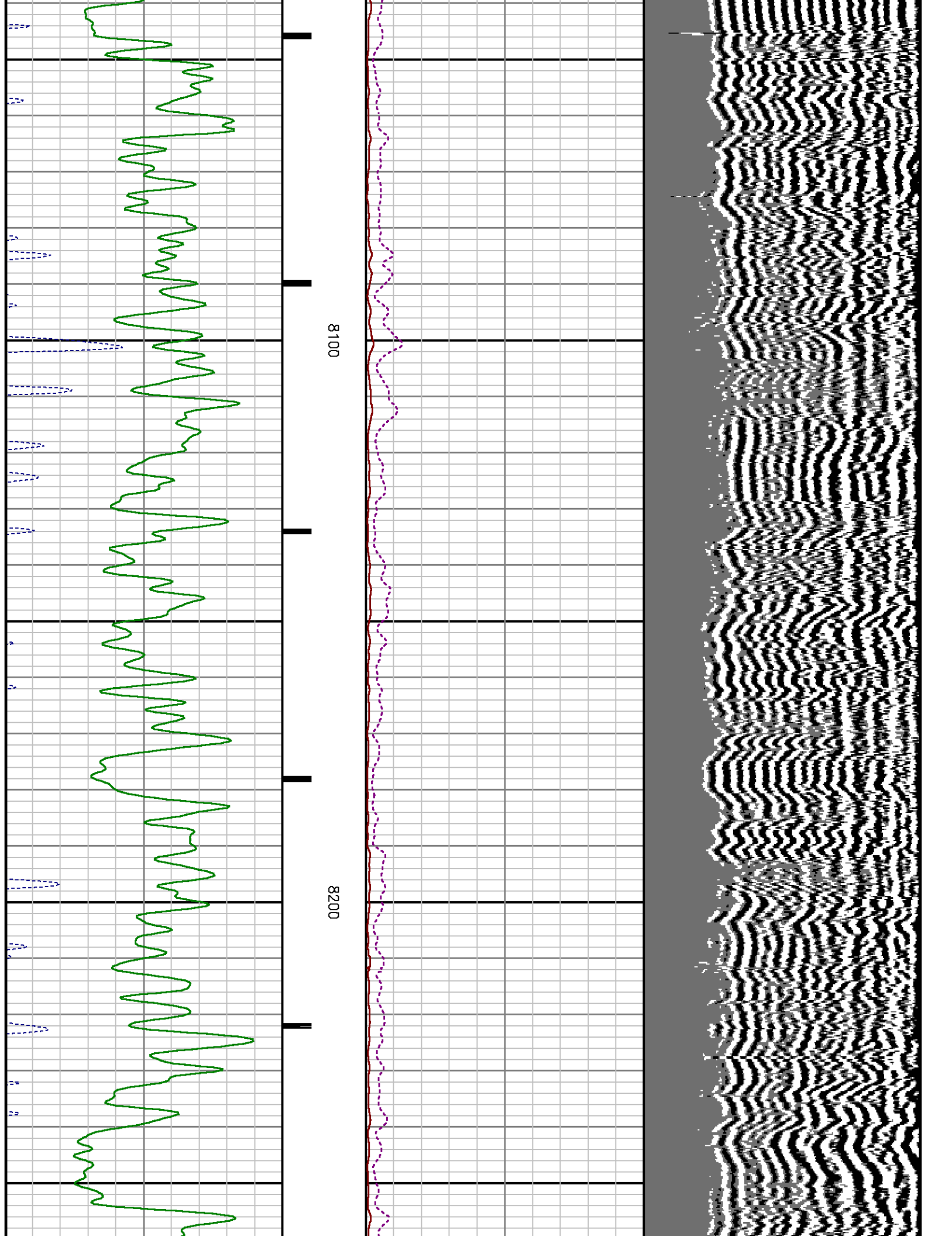


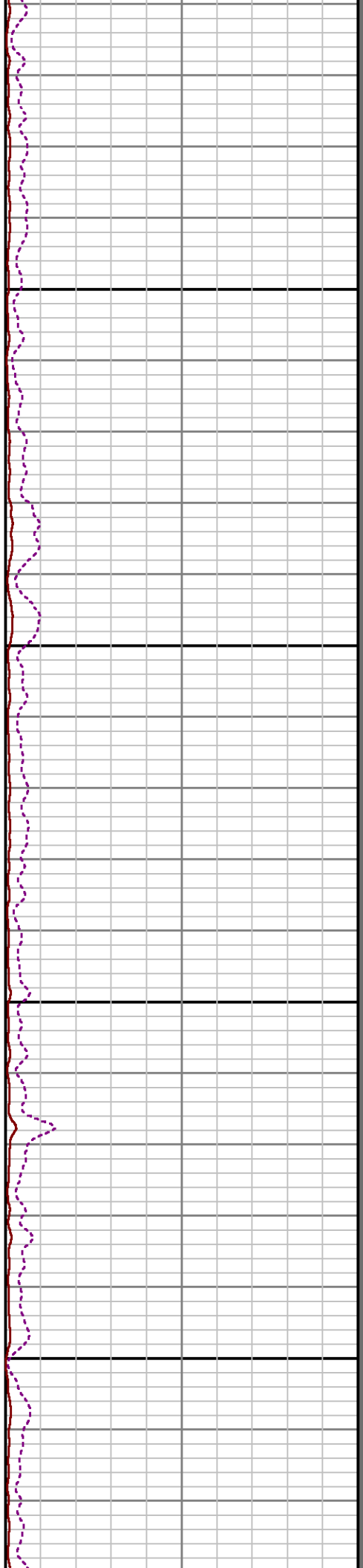
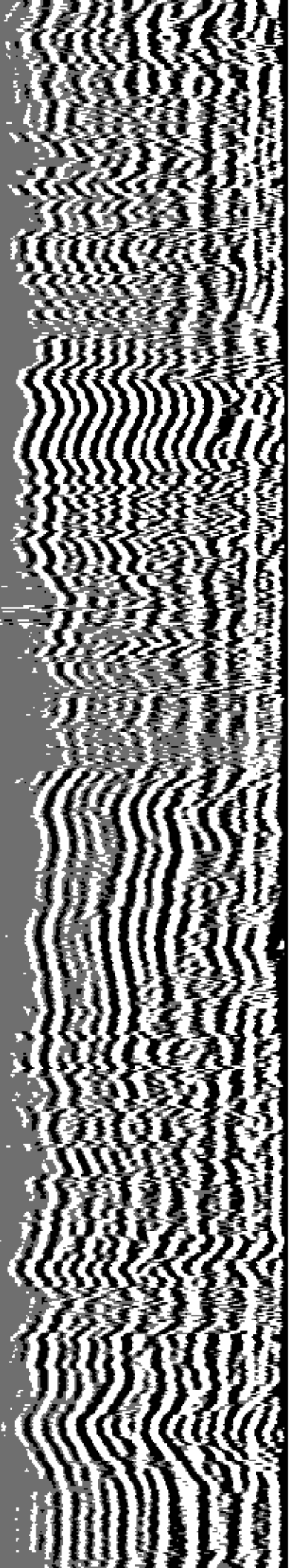






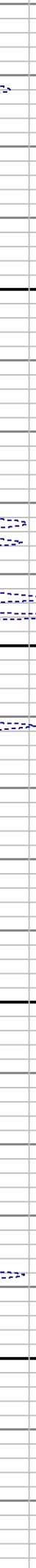
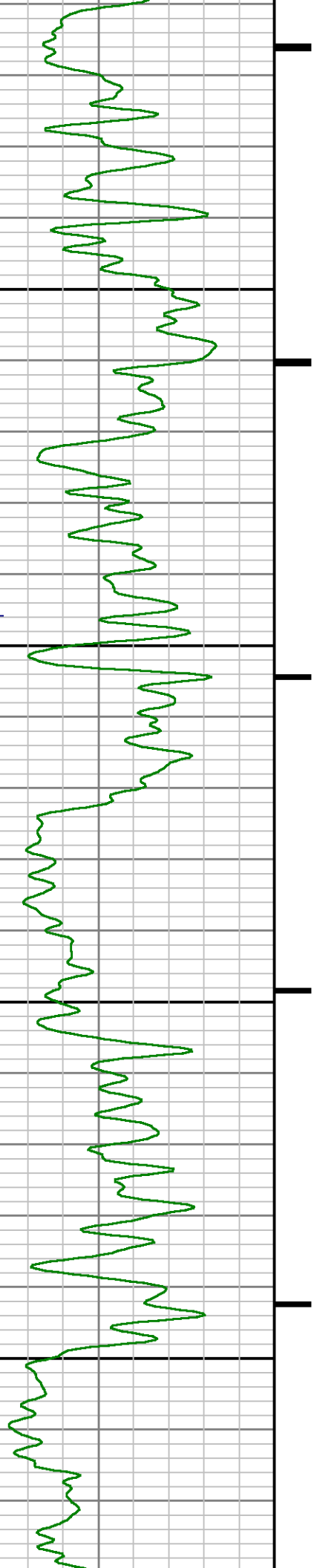




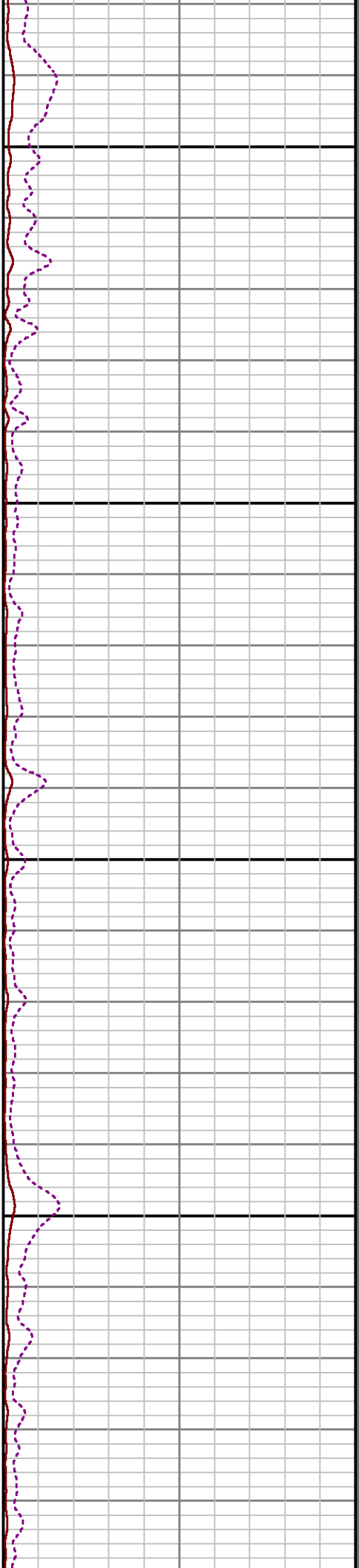
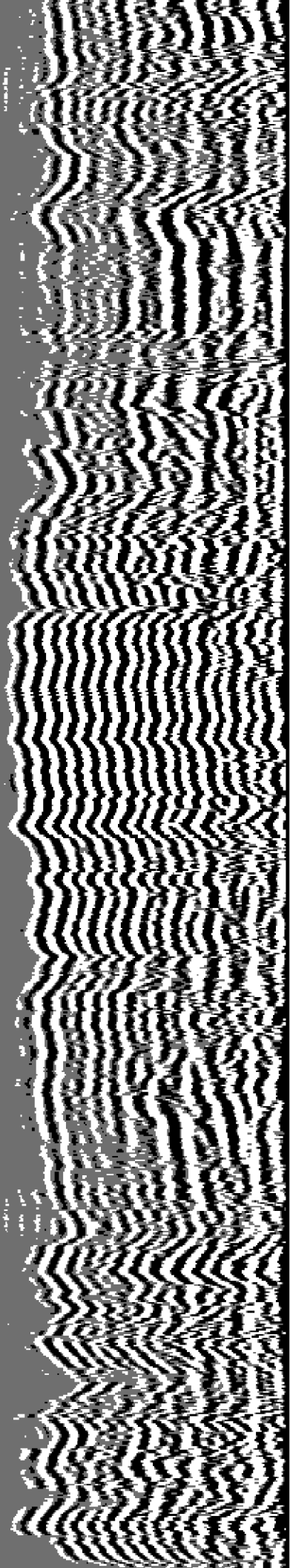


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8400



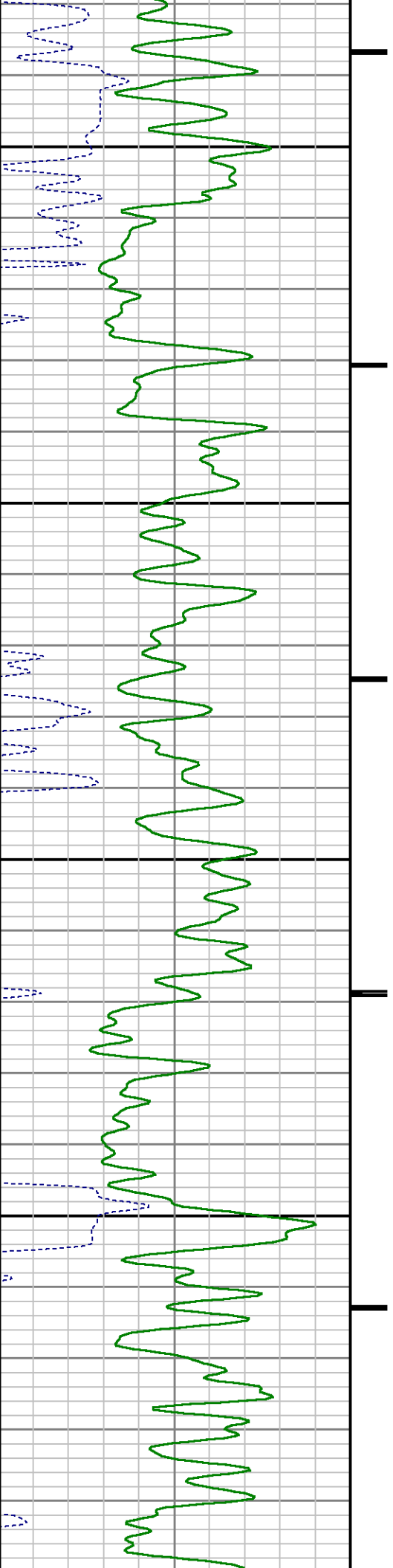




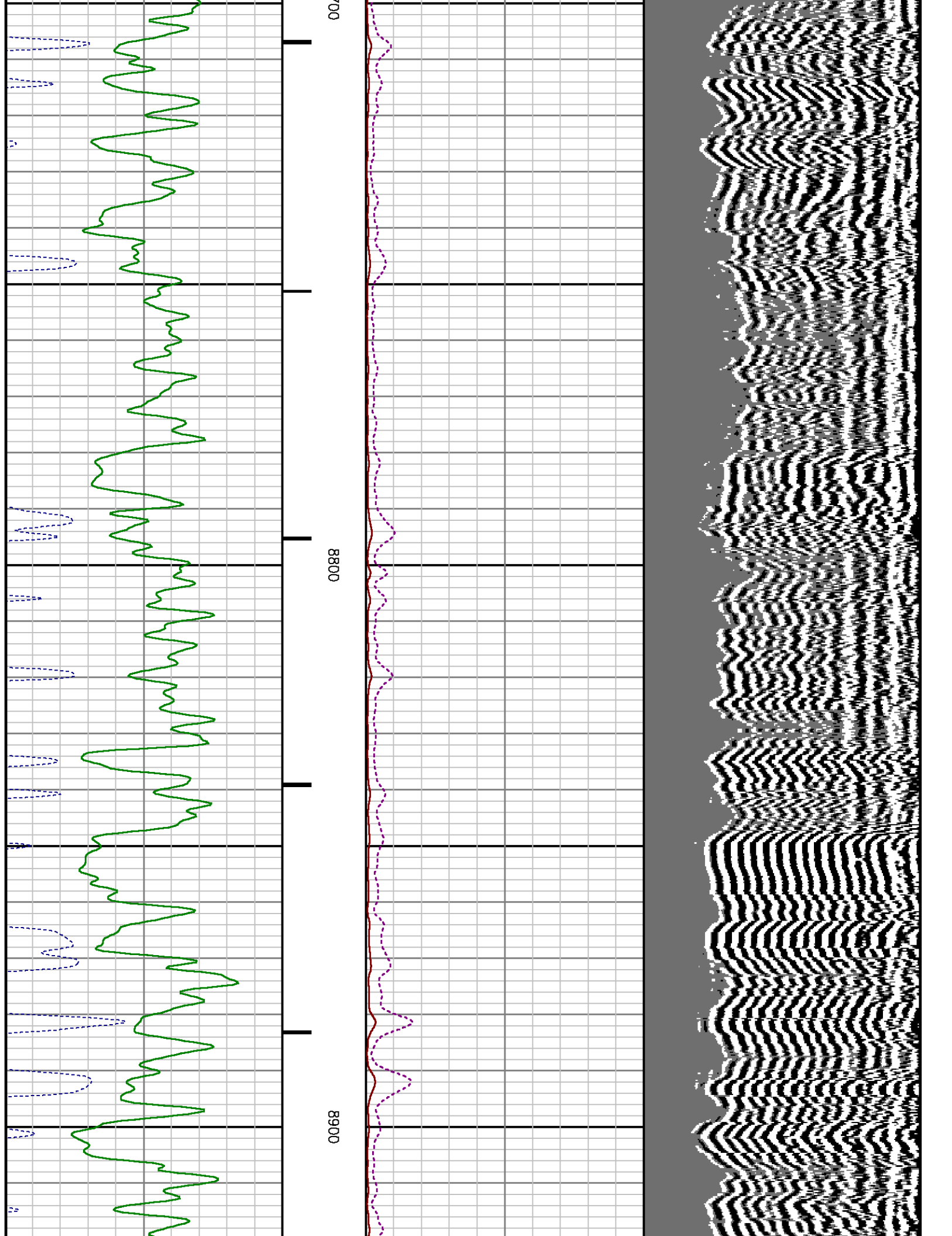
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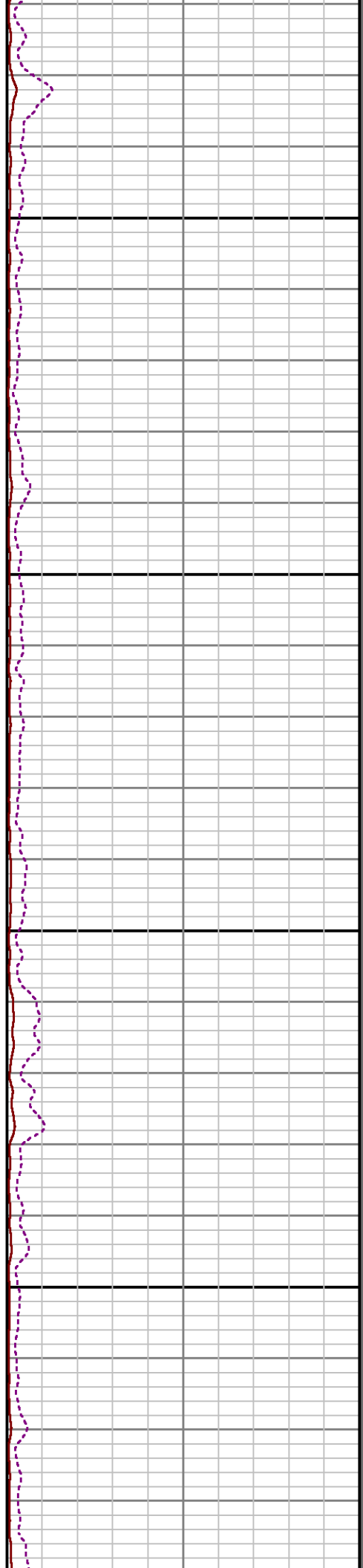
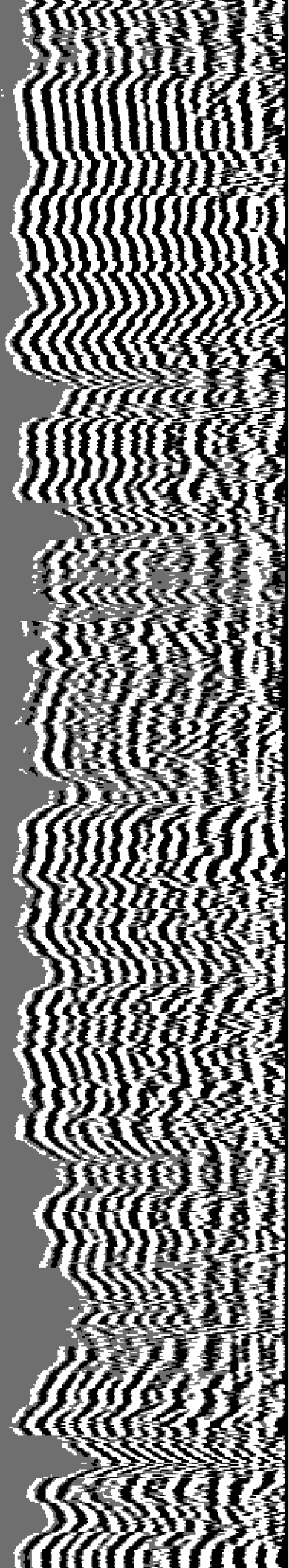
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8700



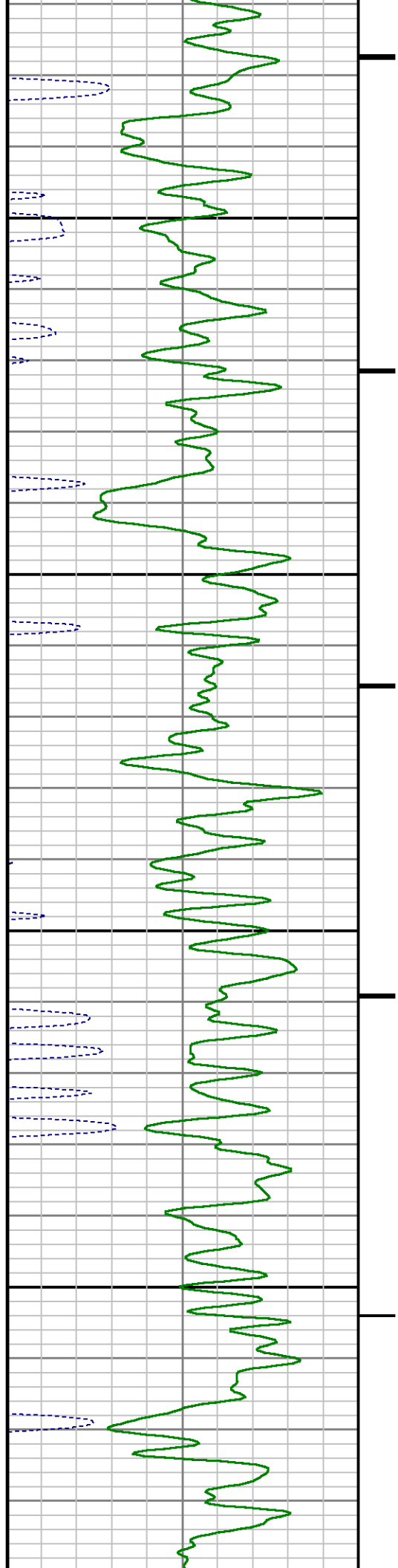


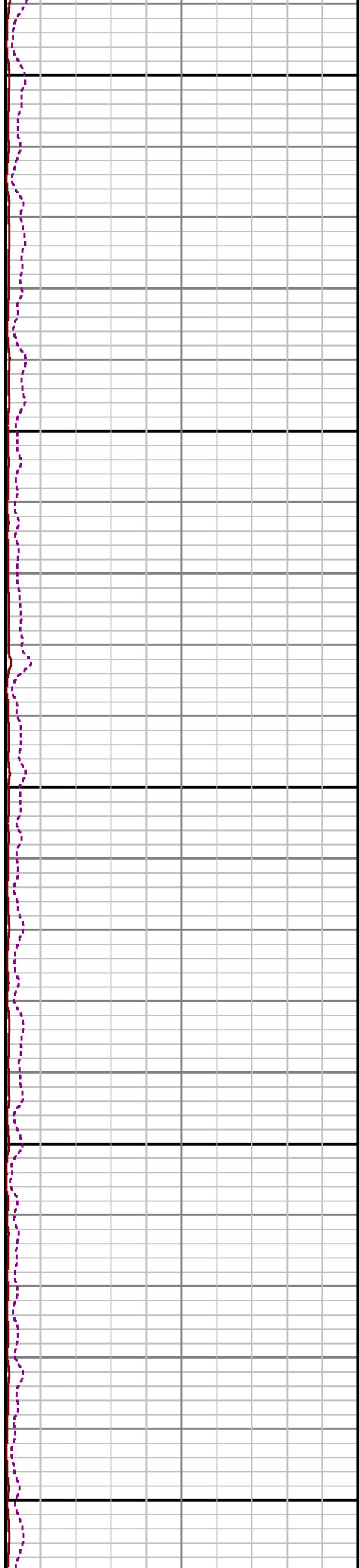
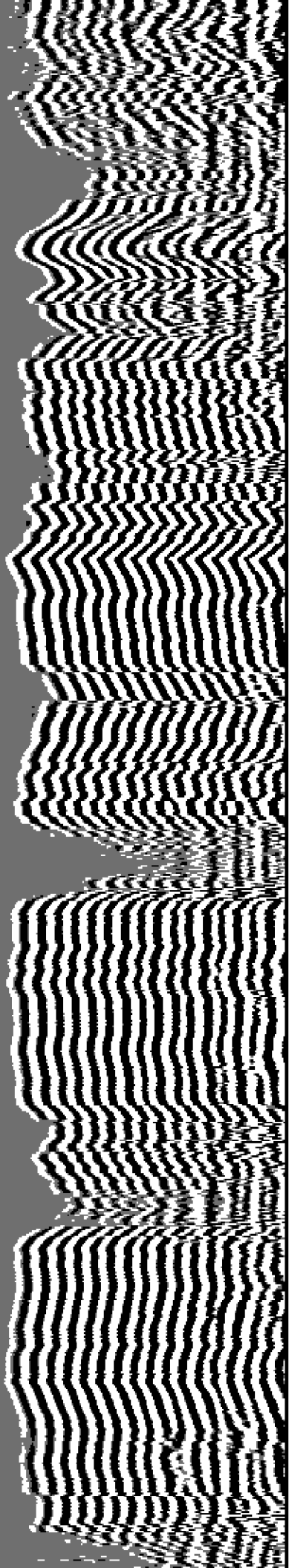




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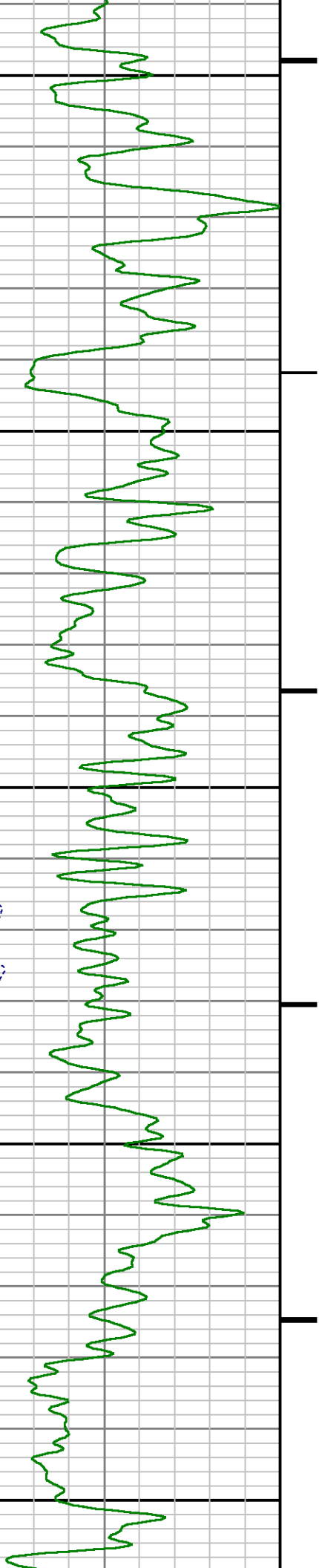
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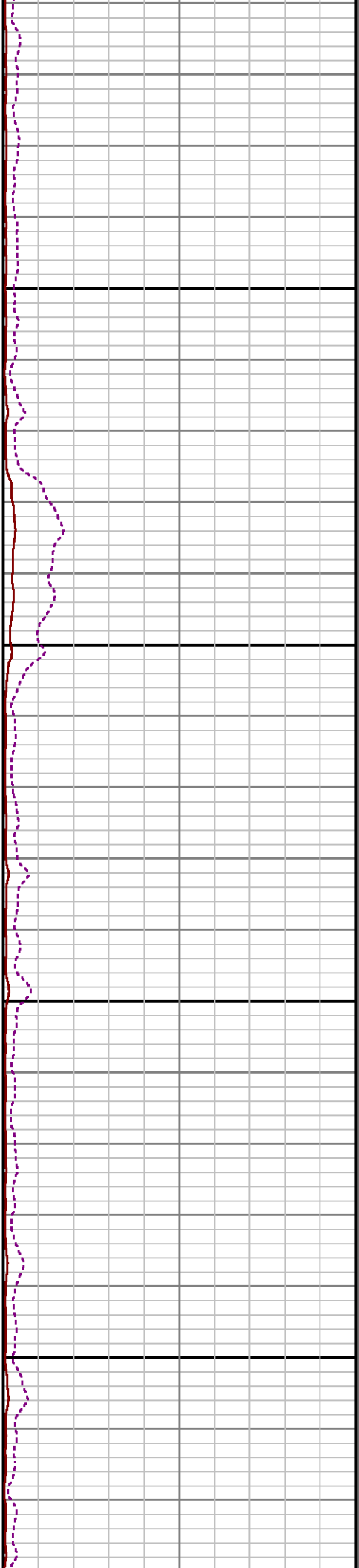
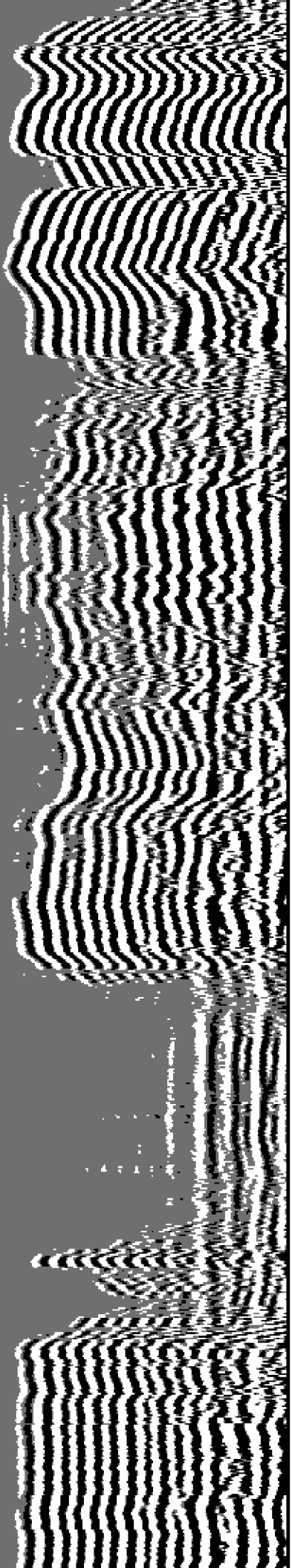




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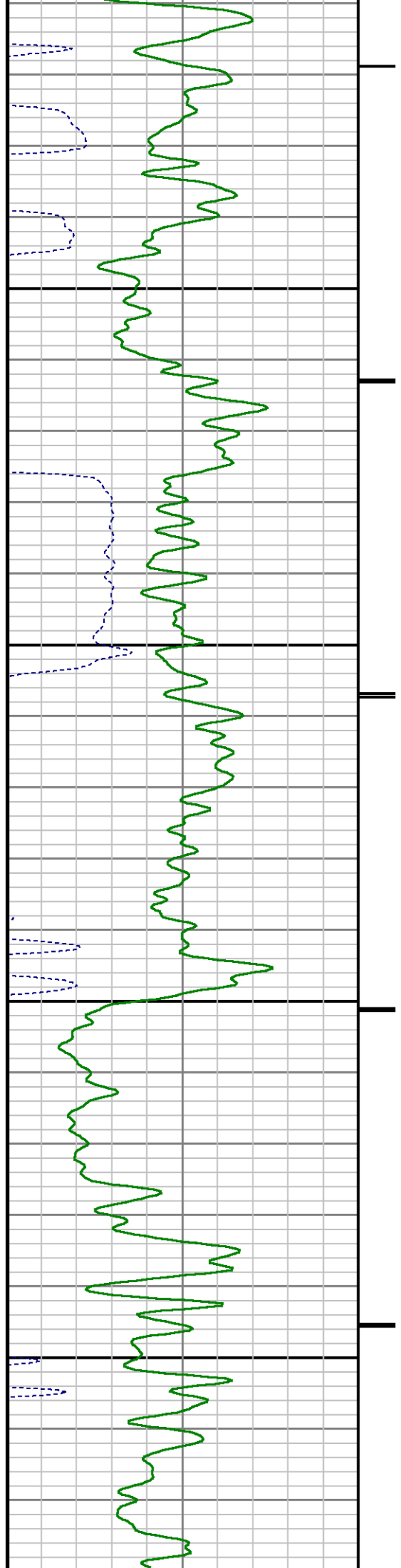
9300

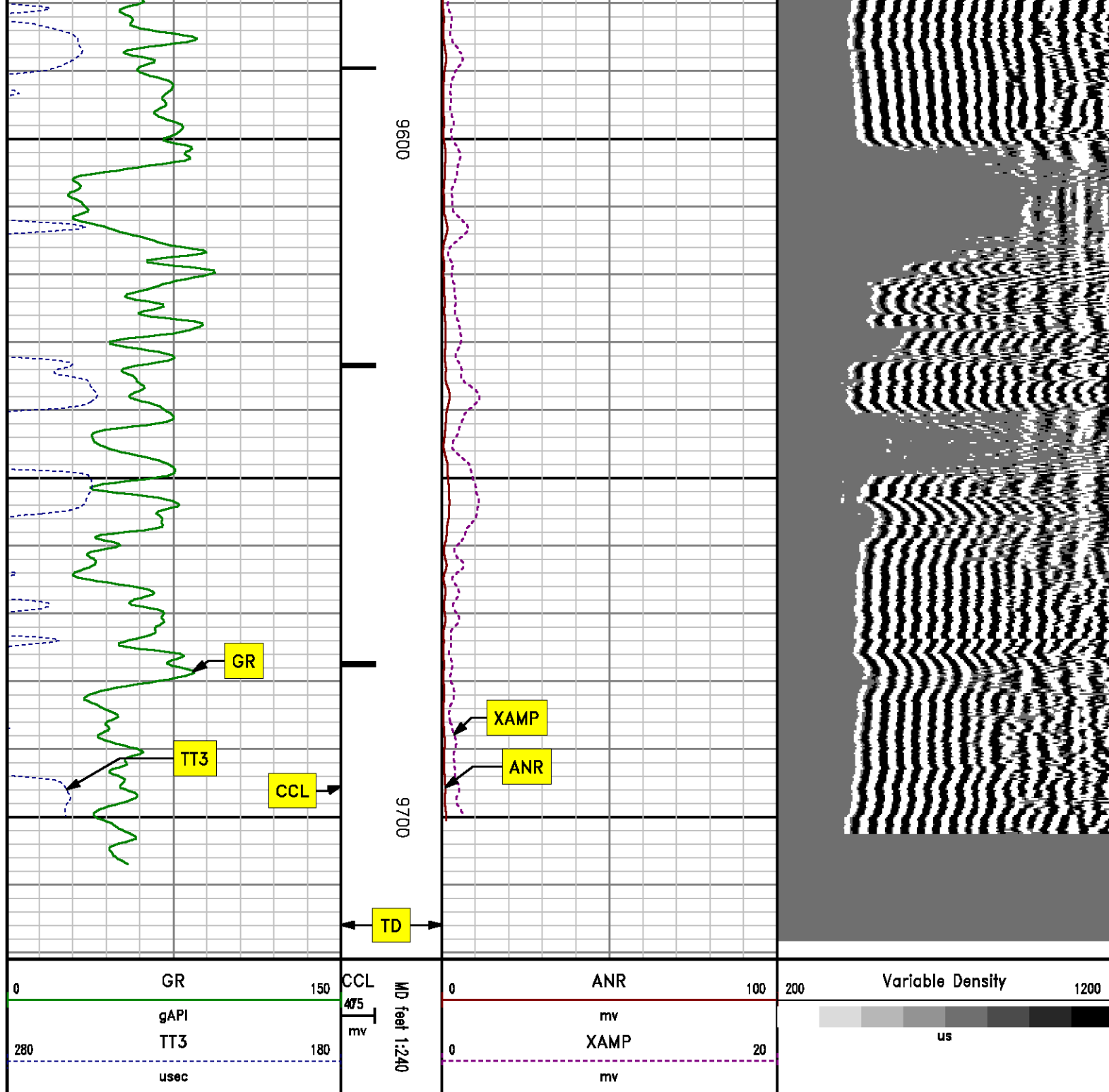




9400

9500





***SECONDARY PRESENTATION***  
***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	36.155	9718.000
RAL	Amp Gate Start Near	195.000	usec	36.155	9718.000
RAL	Amp Gate Start Radial	195.000	usec	36.155	9718.000
RAL	Amp Gate Width Far	25.000	usec	36.155	9718.000
RAL	Amp Gate Width Near	25.000	usec	36.155	9718.000
RAL	Amp Gate Width Radial	25.000	usec	36.155	9718.000
RAL	casing od	4.500	inches	36.155	9718.000
RAL	casing wt	11.600	lbm/ft	36.155	9718.000
RAL	FB Start Far	291.900	usec	36.155	9718.000
RAL	FB Start Near	175.391	usec	36.155	9718.000
RAL	FB Start Radial	175.391	usec	36.155	9718.000
RAL	FB Thresh Far	10.000	mv	36.155	9718.000
RAL	FB Thresh Near	4.000	mv	36.155	9718.000
RAL	FB Thresh Radial	4.000	mv	36.155	9718.000
RAL	Fluid Travel Time	200.000	usec/ft	36.155	9717.905

## 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

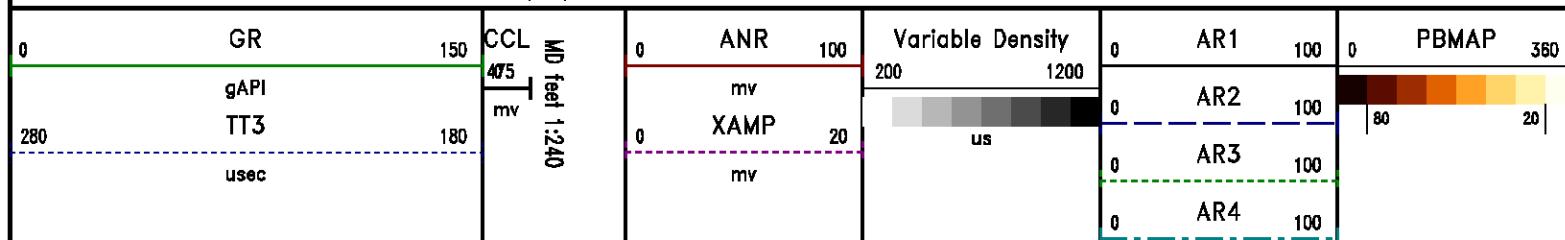
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Mode : PlotMgr 5.4.504

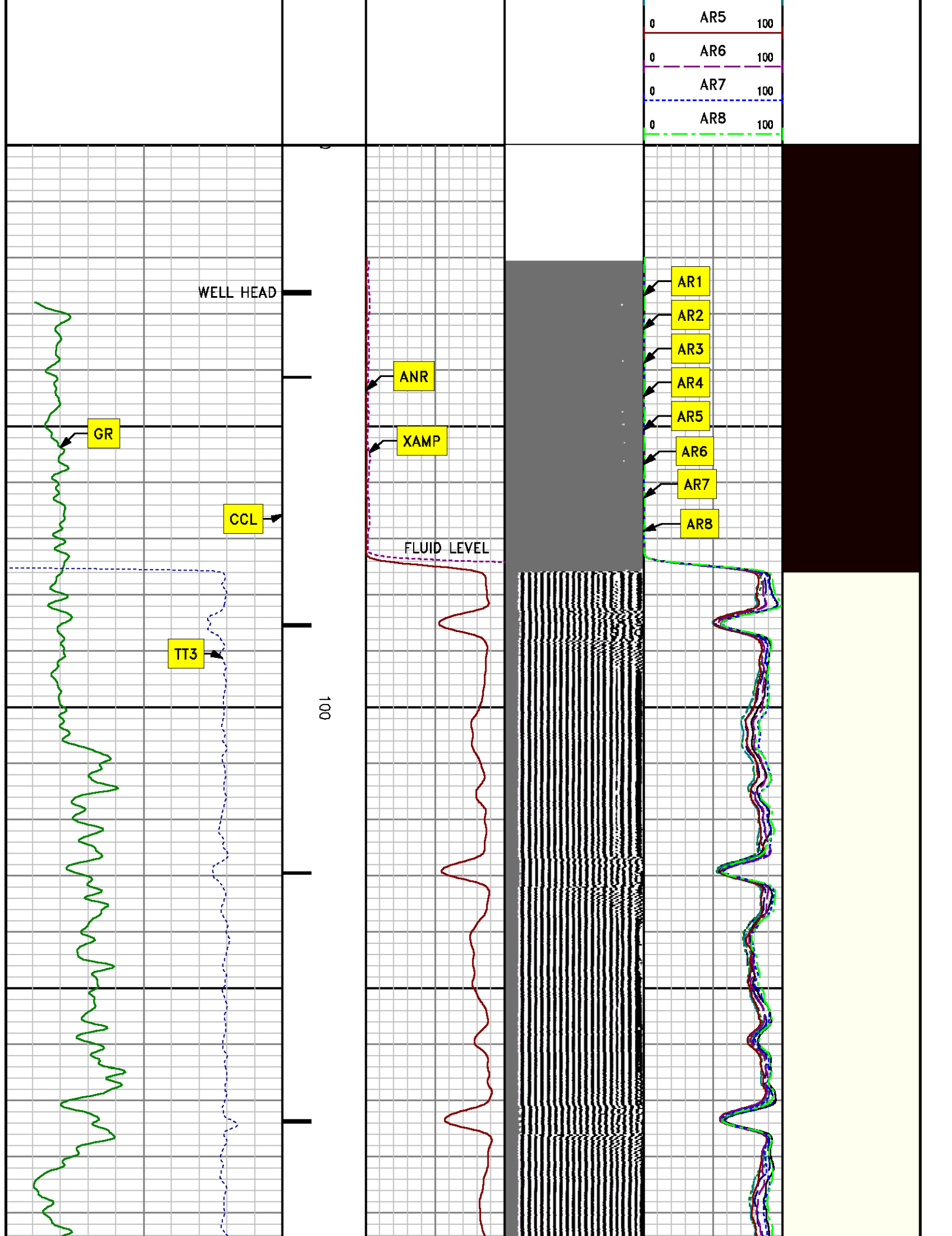
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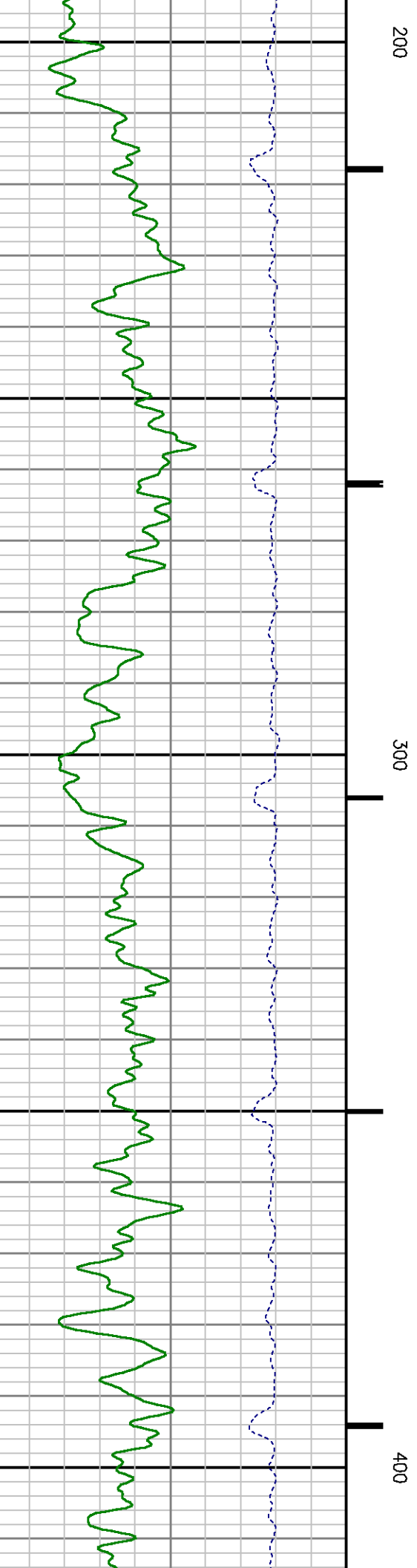
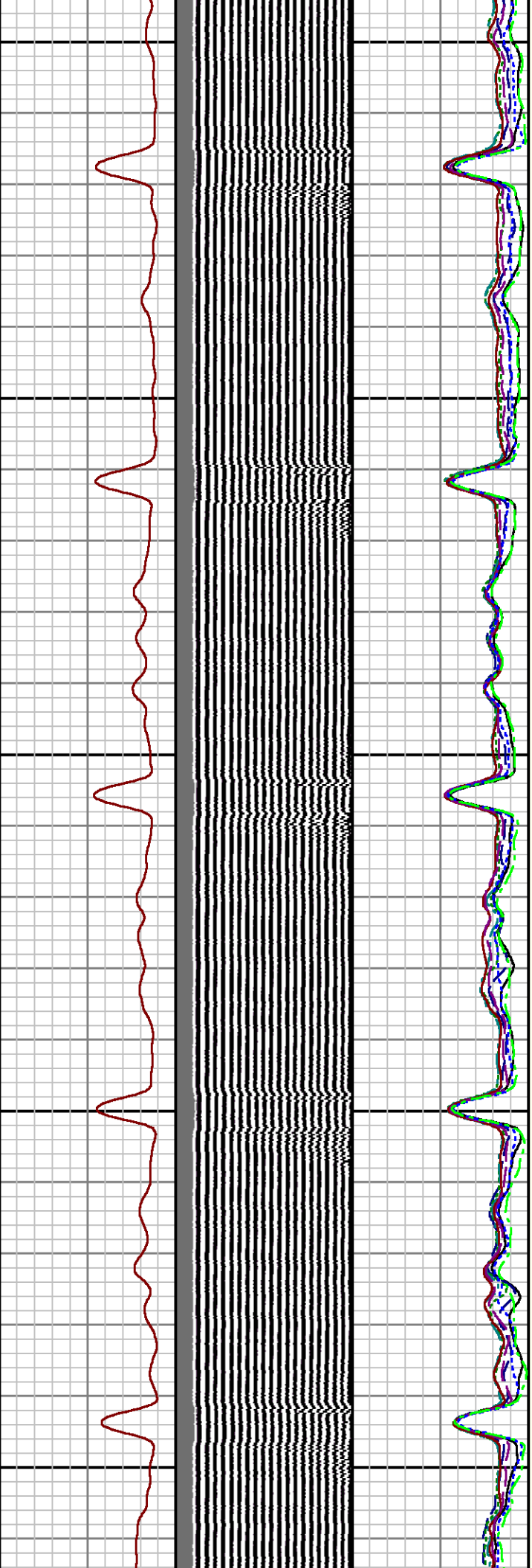
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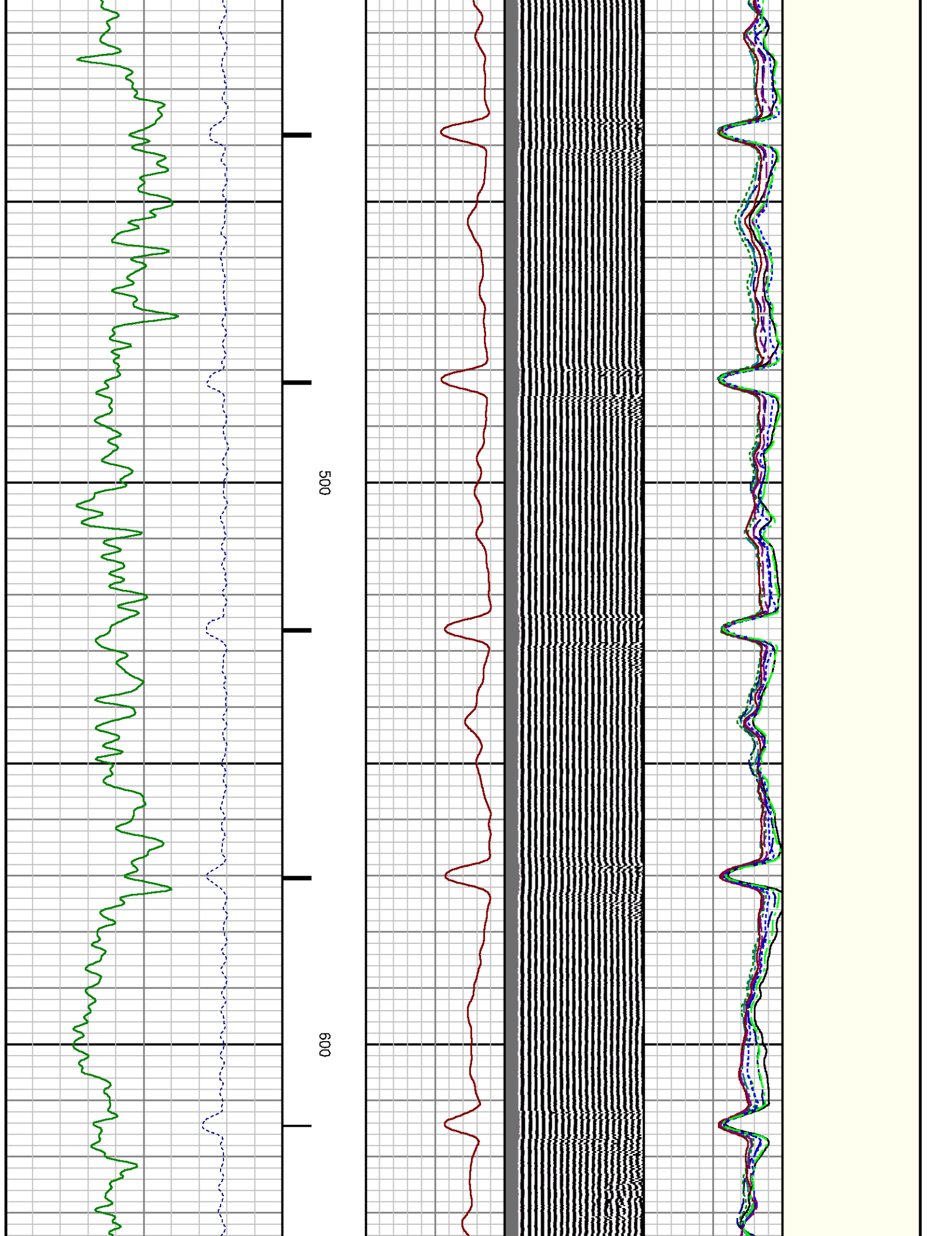


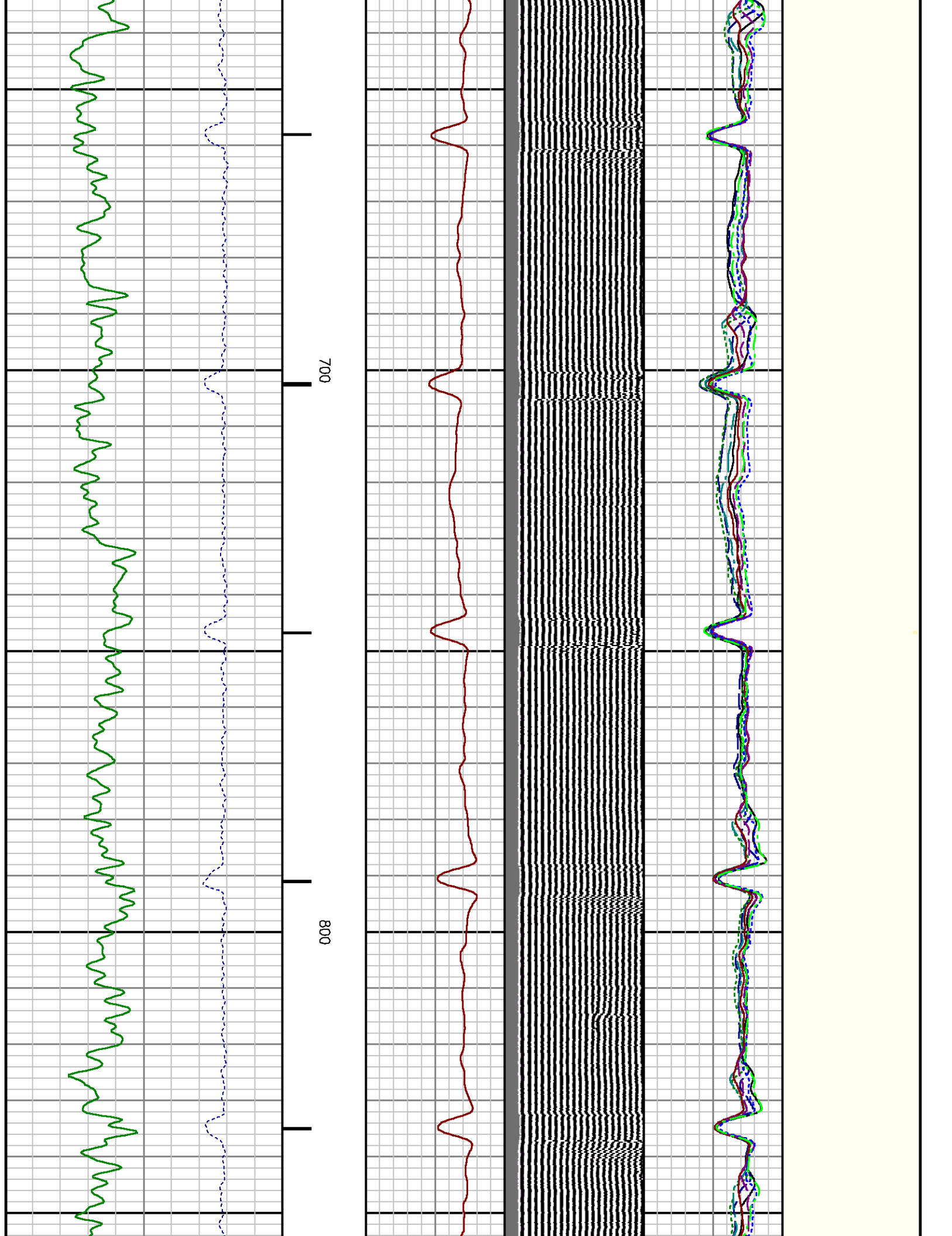


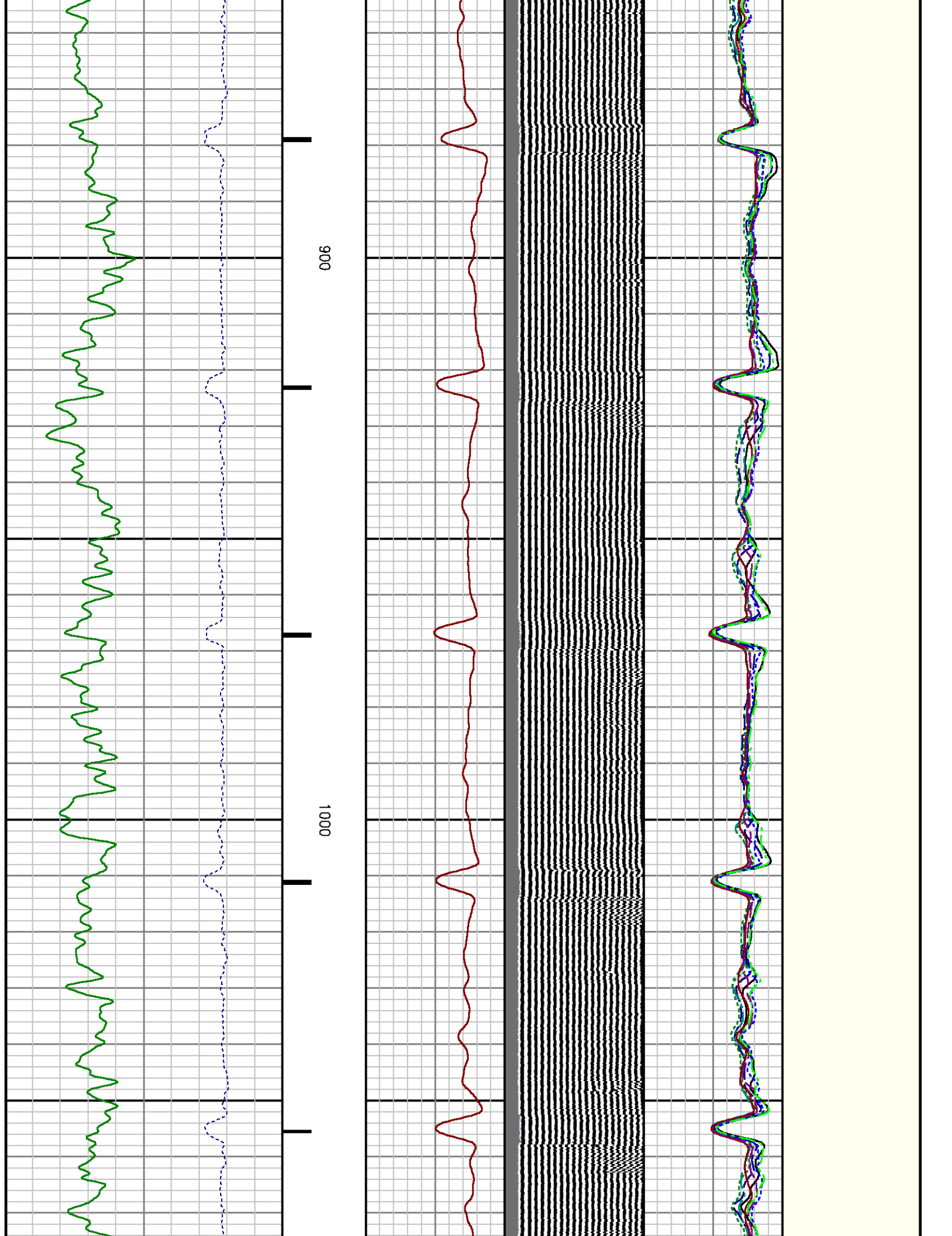
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0	AR6	100
0	AR7	100
0	AR8	100

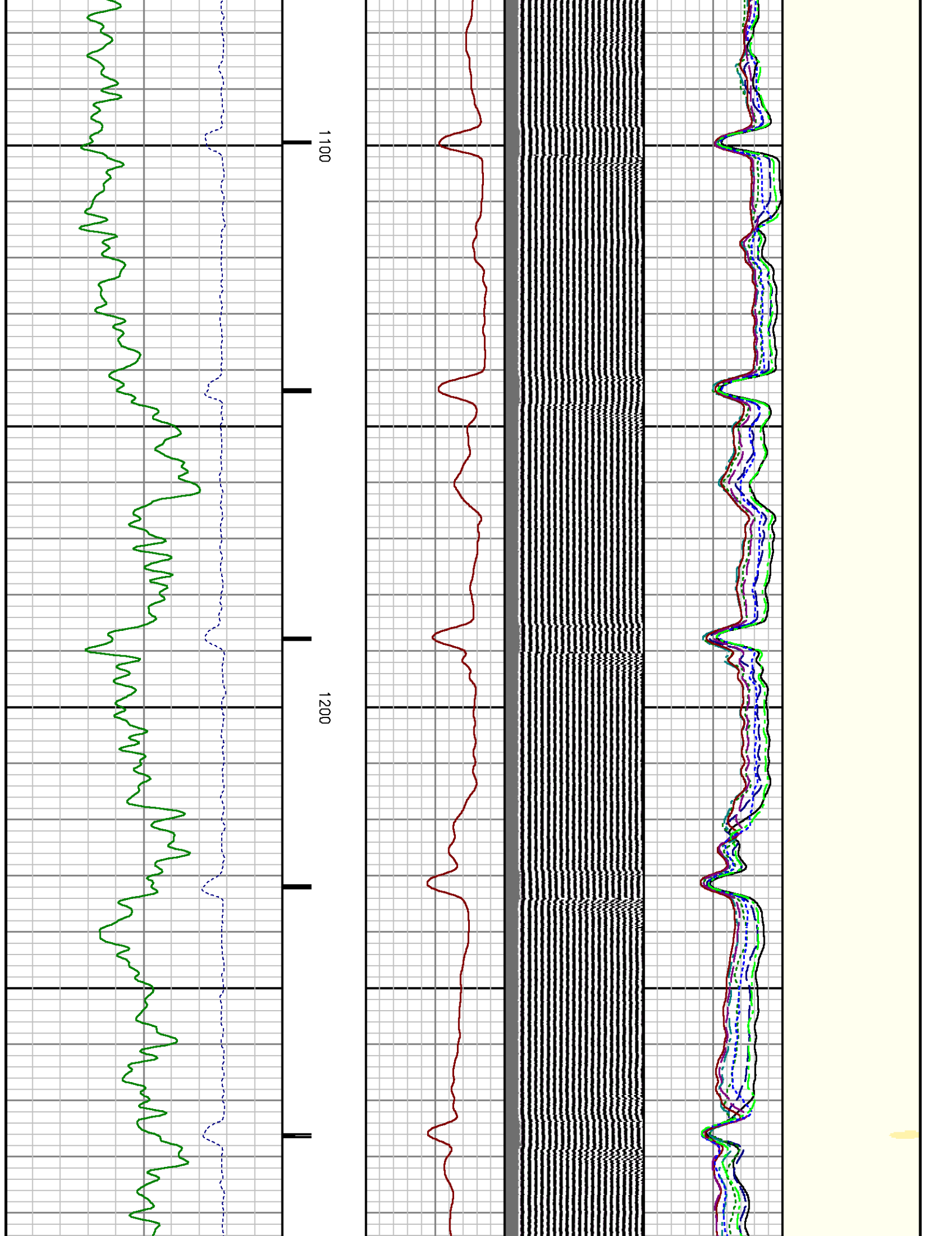




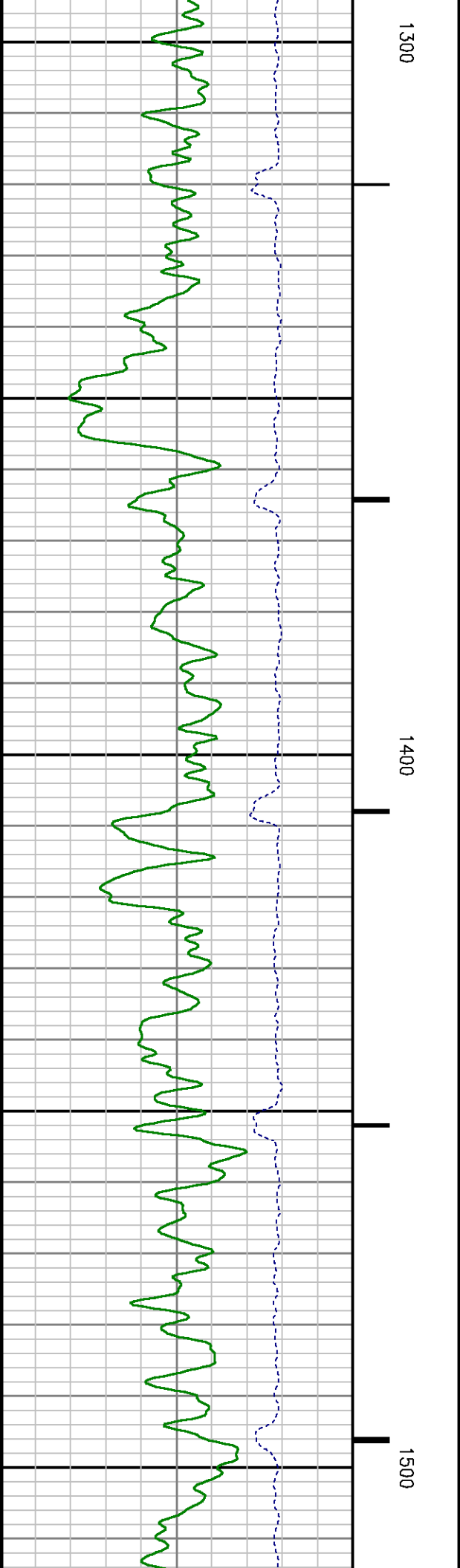
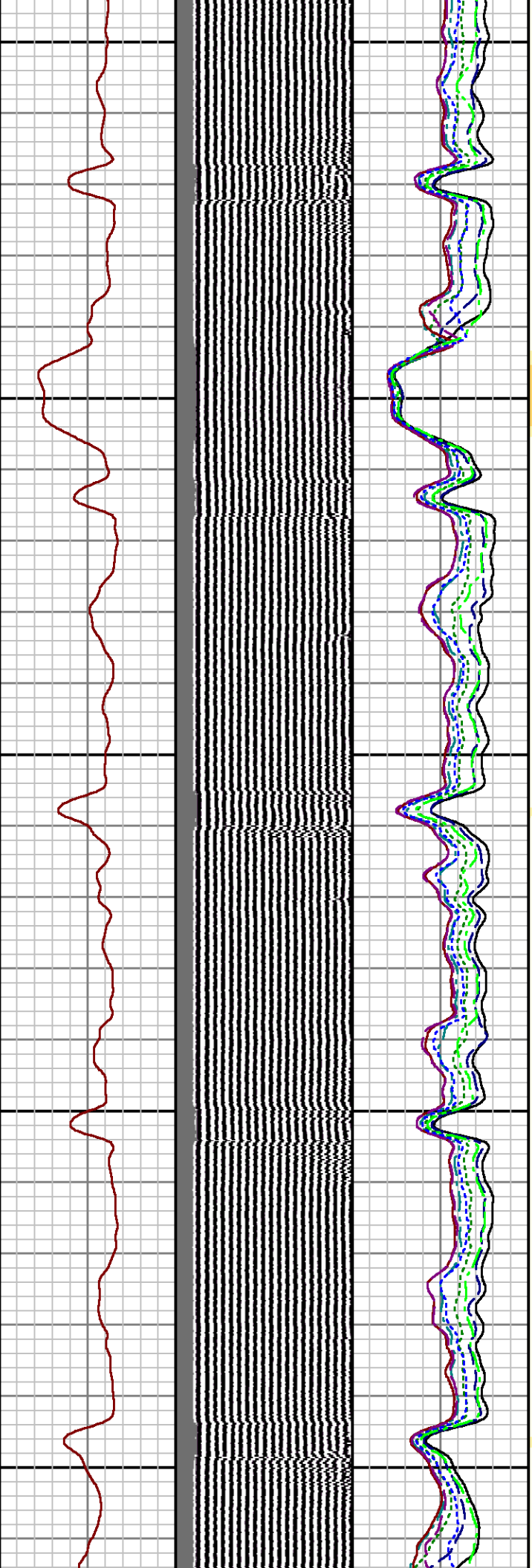


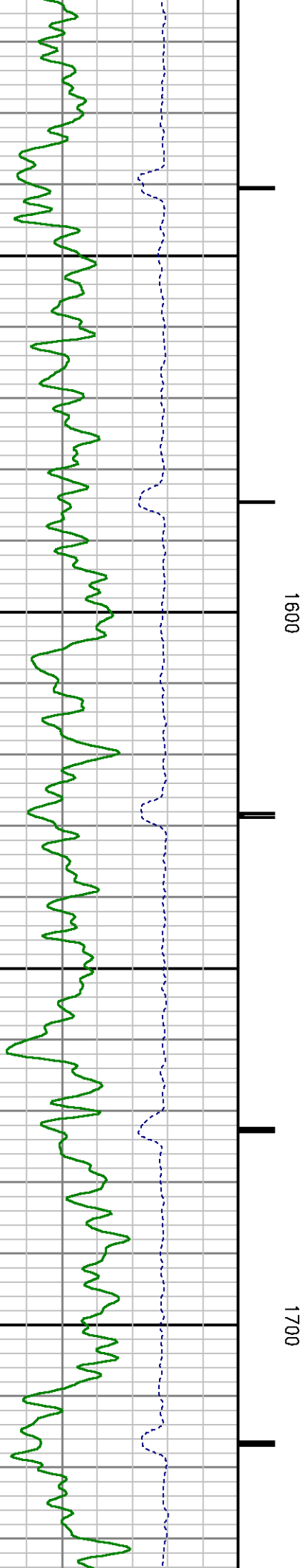
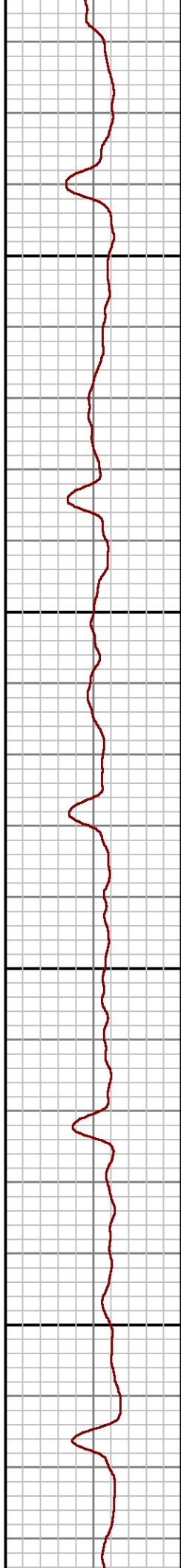
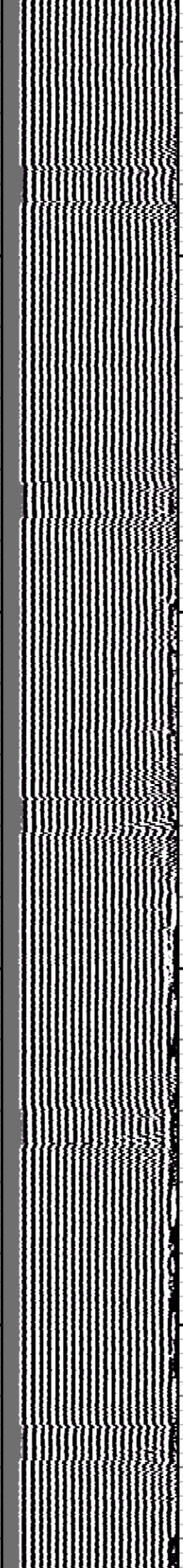
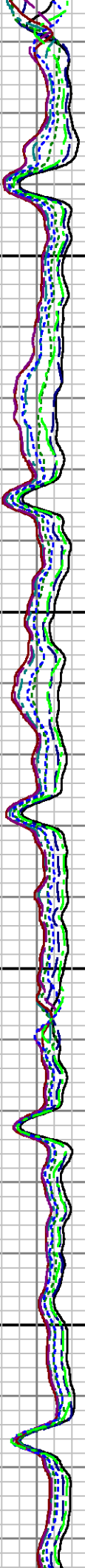
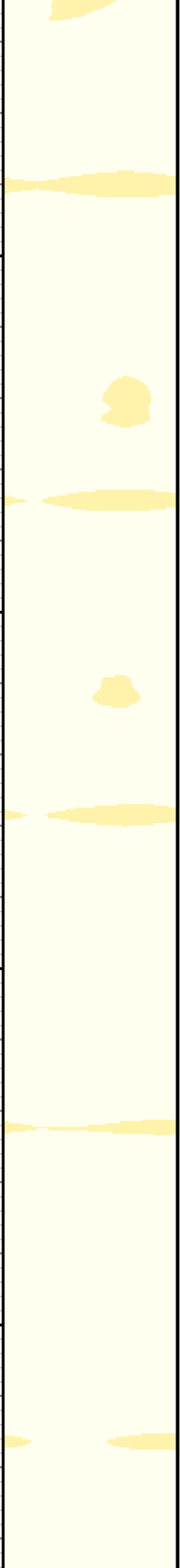


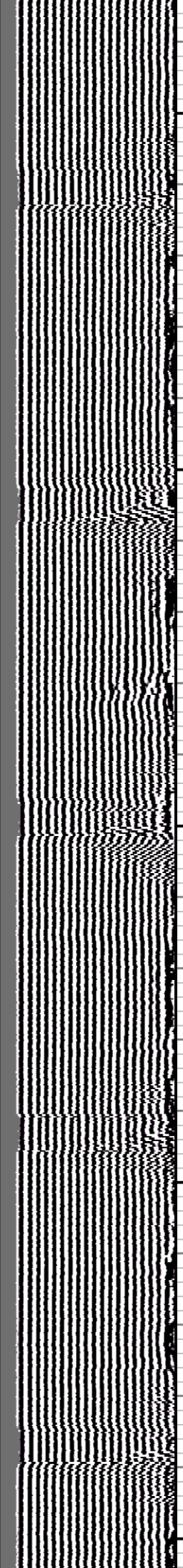
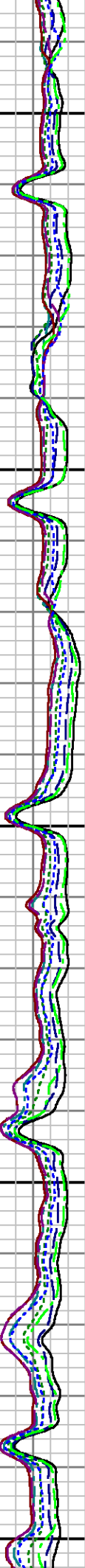
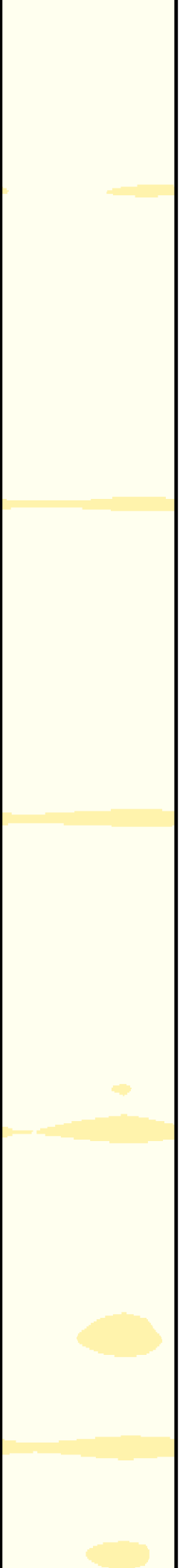








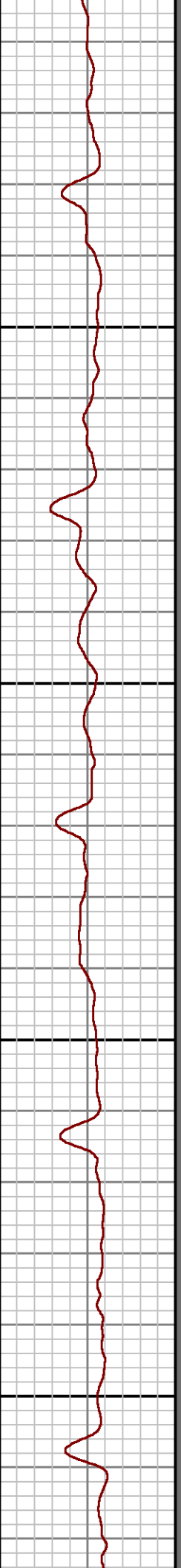
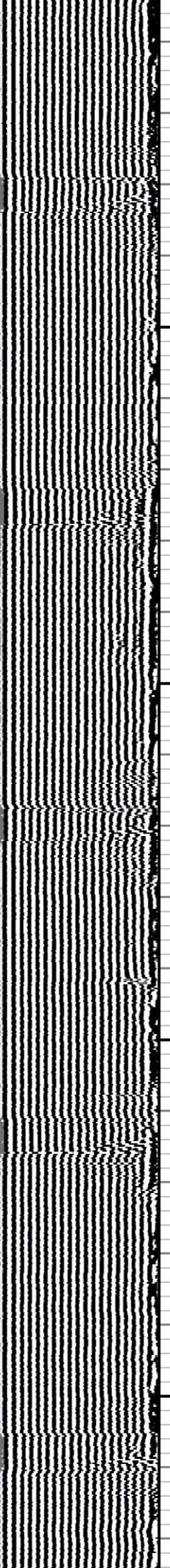
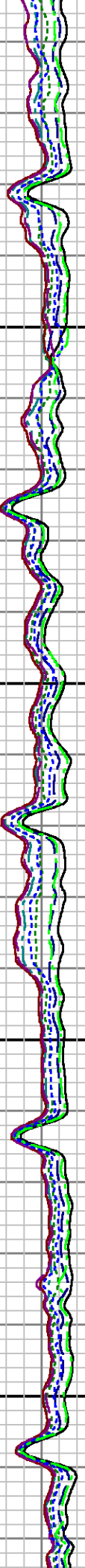




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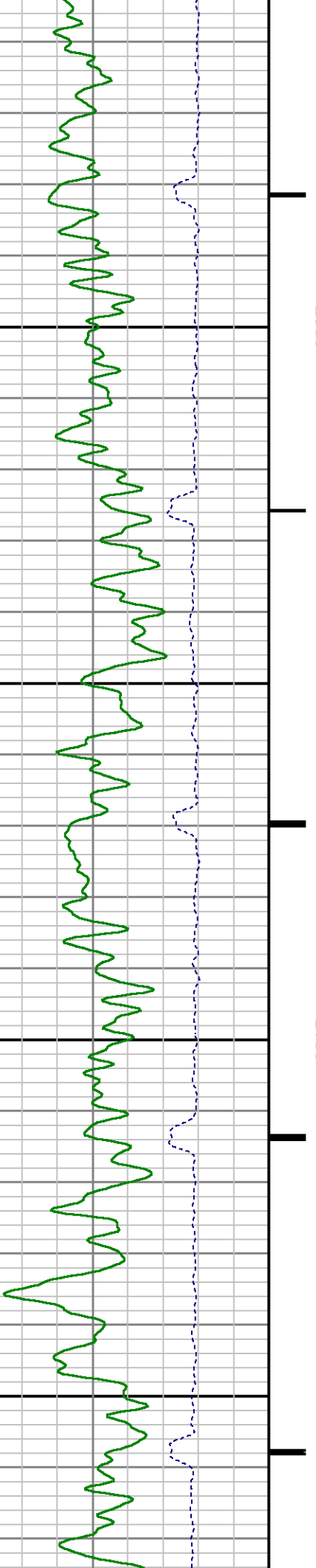
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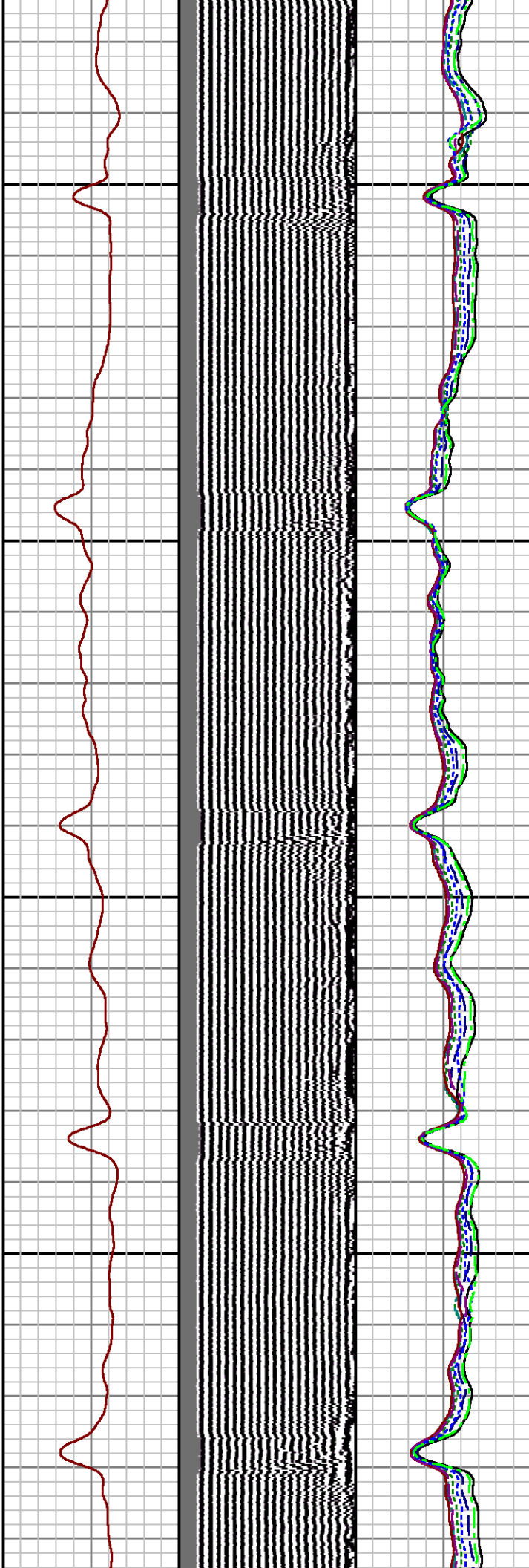
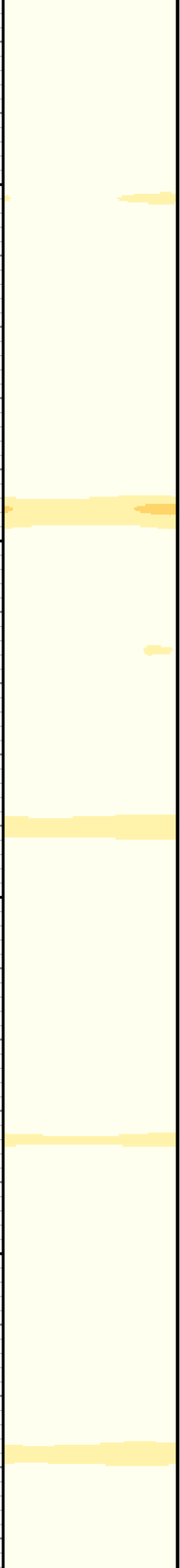




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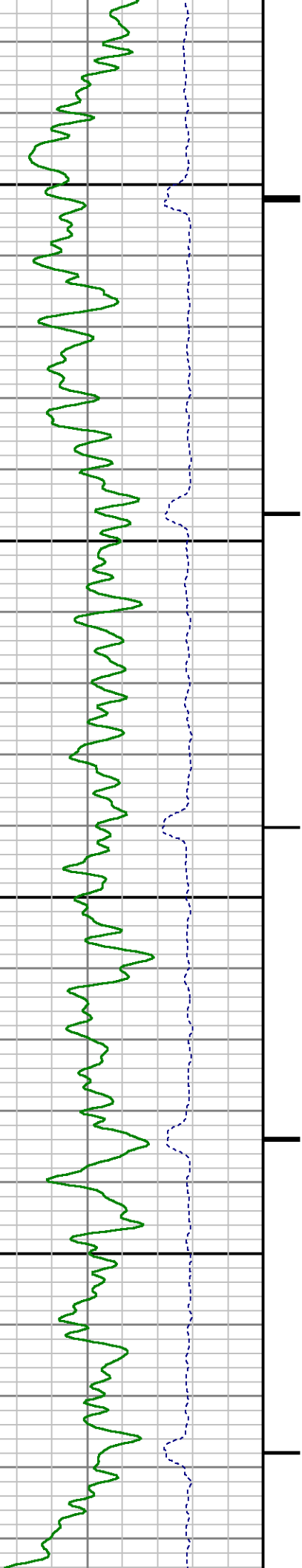
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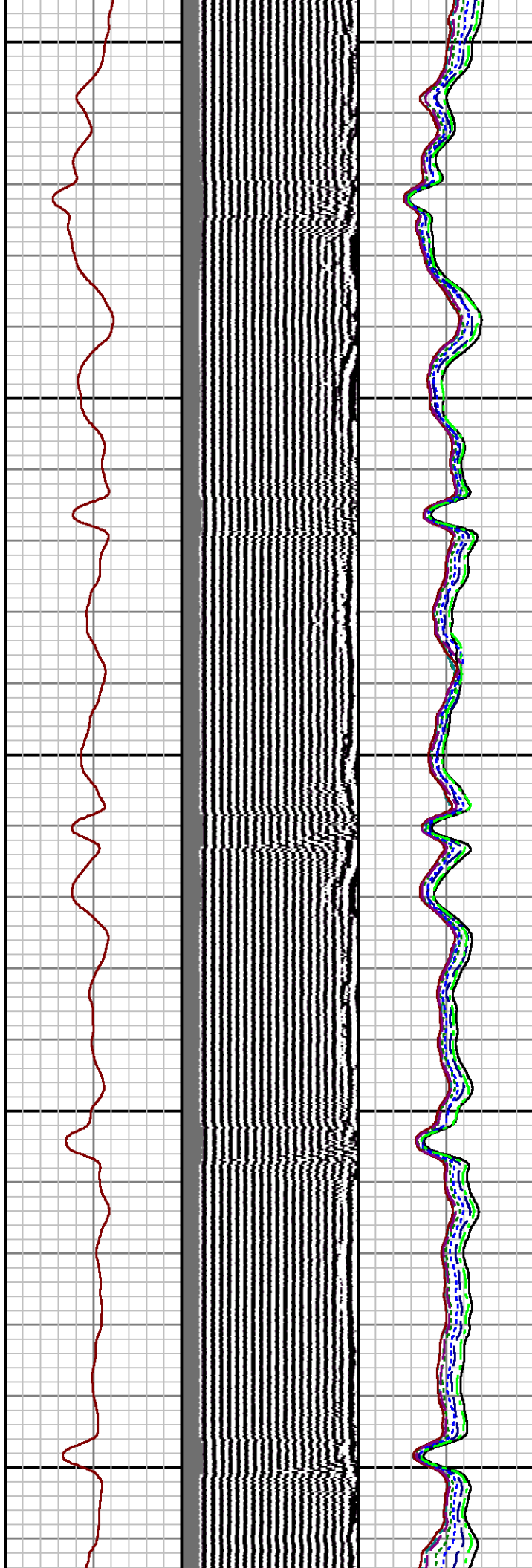
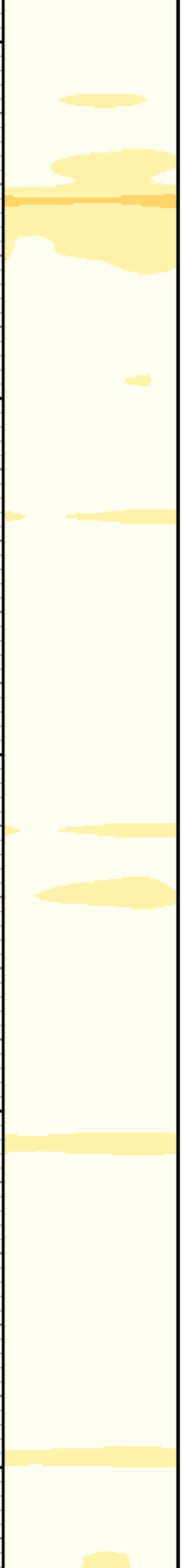


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2300



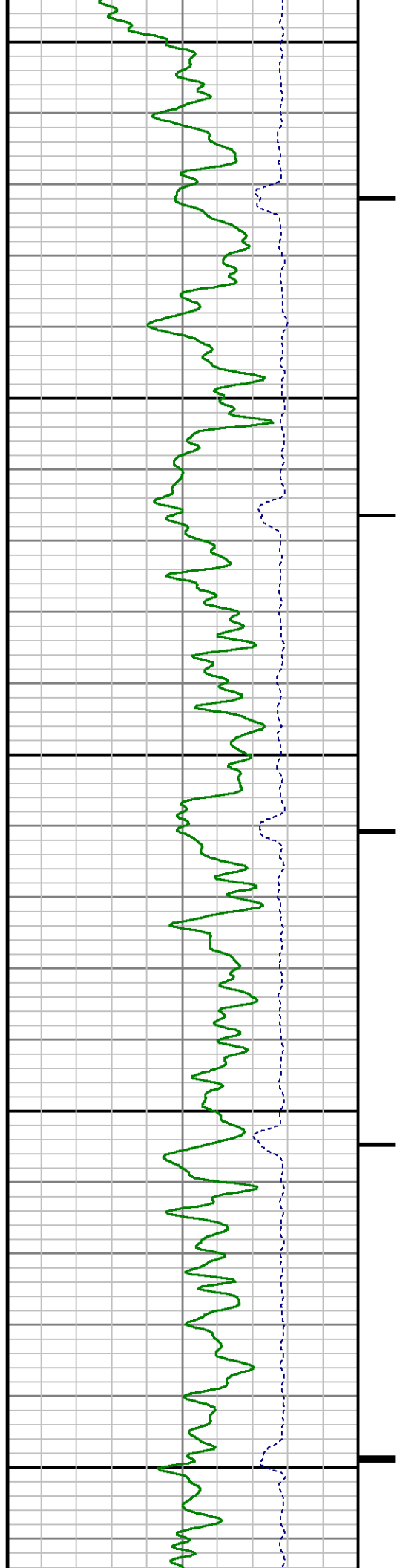




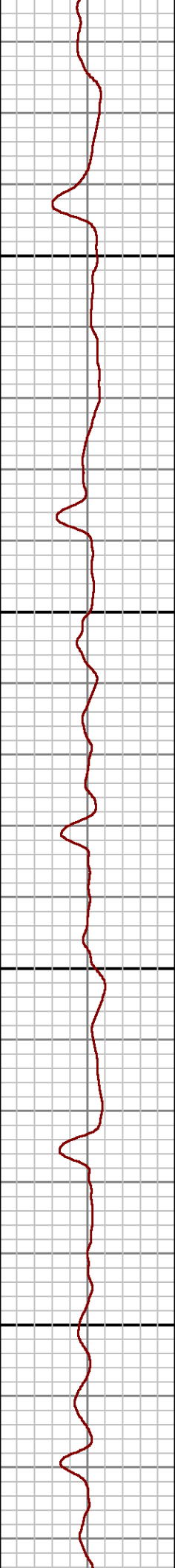
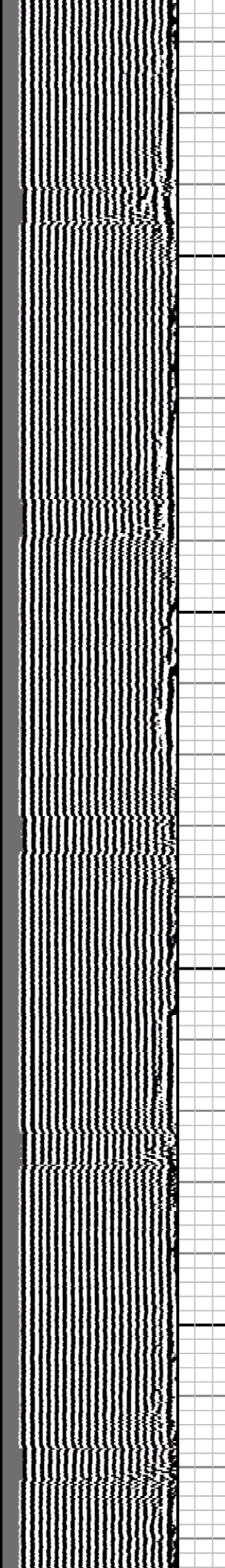
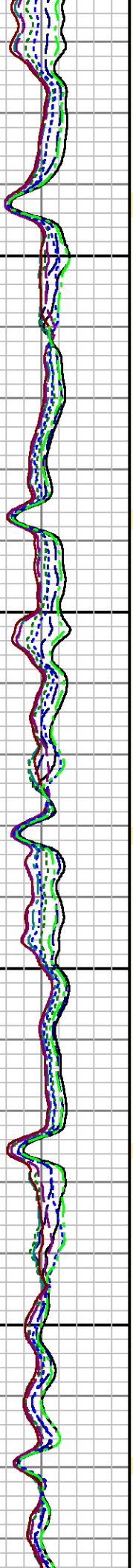
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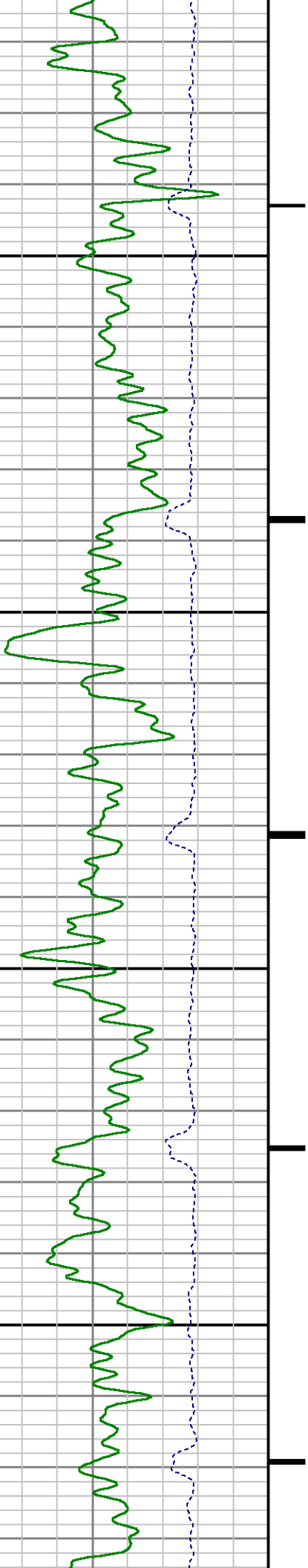


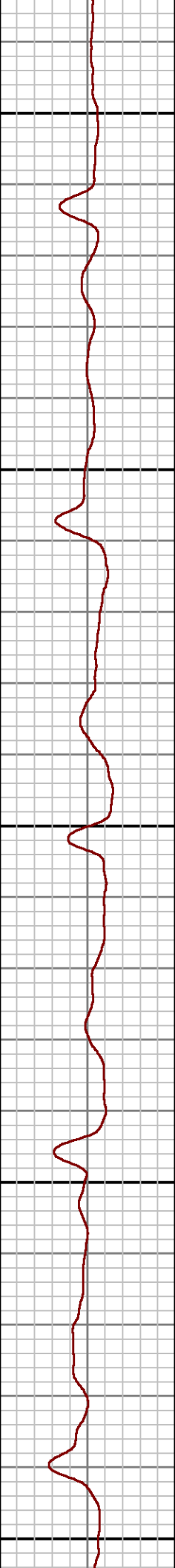
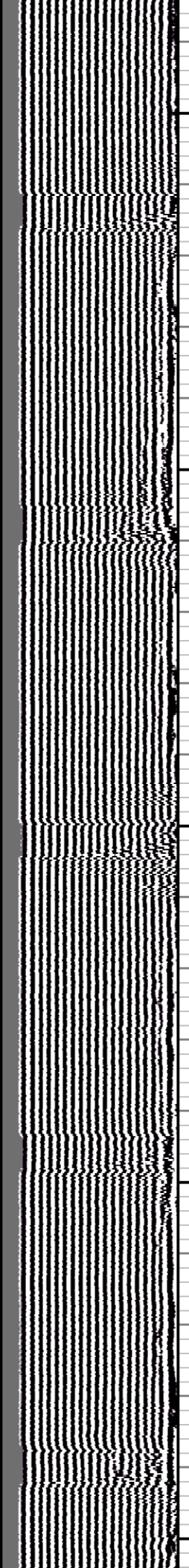
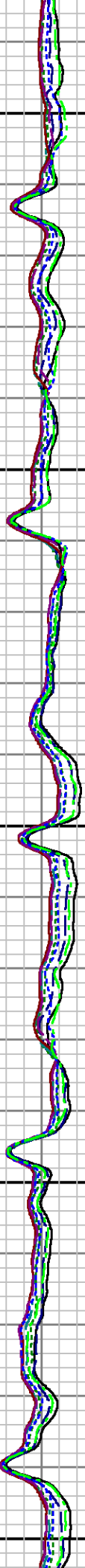




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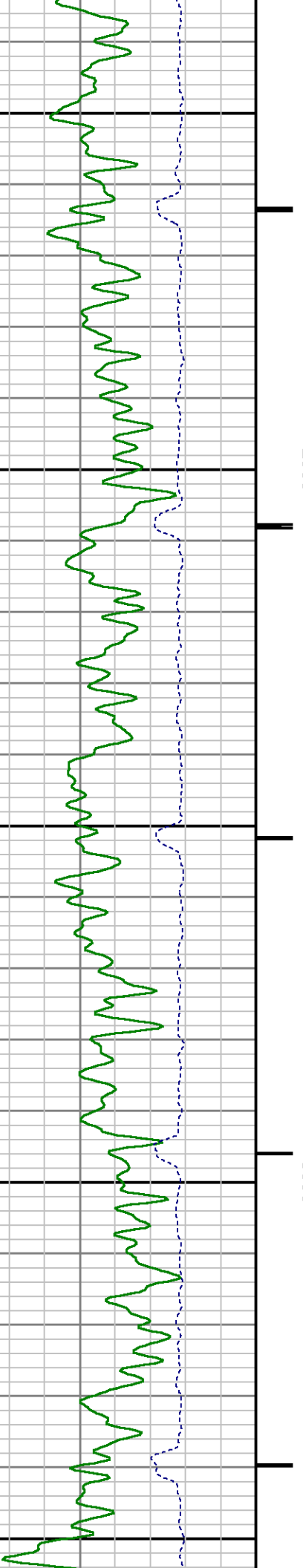
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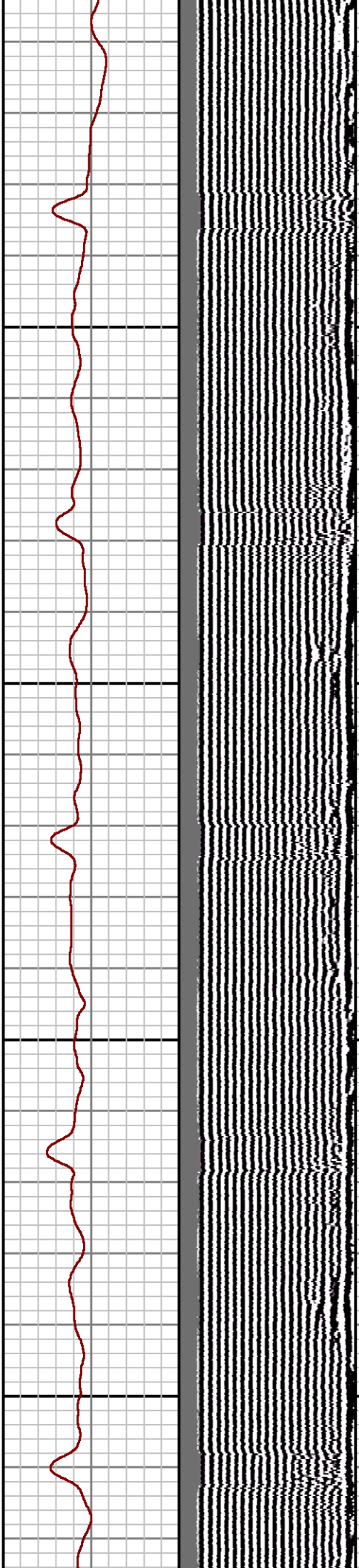
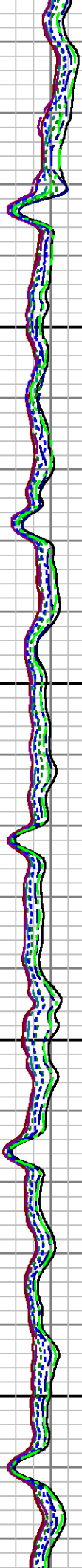
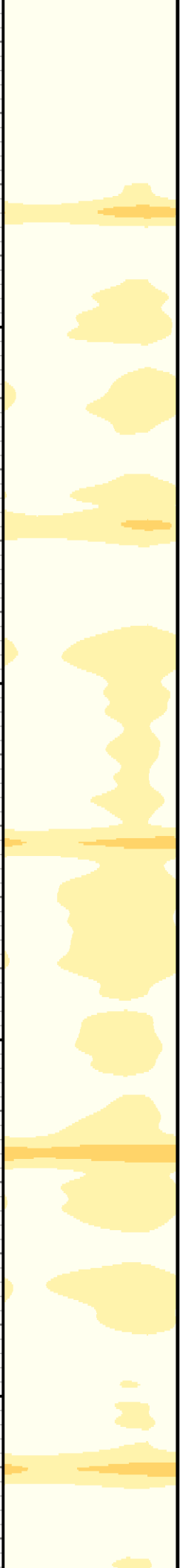




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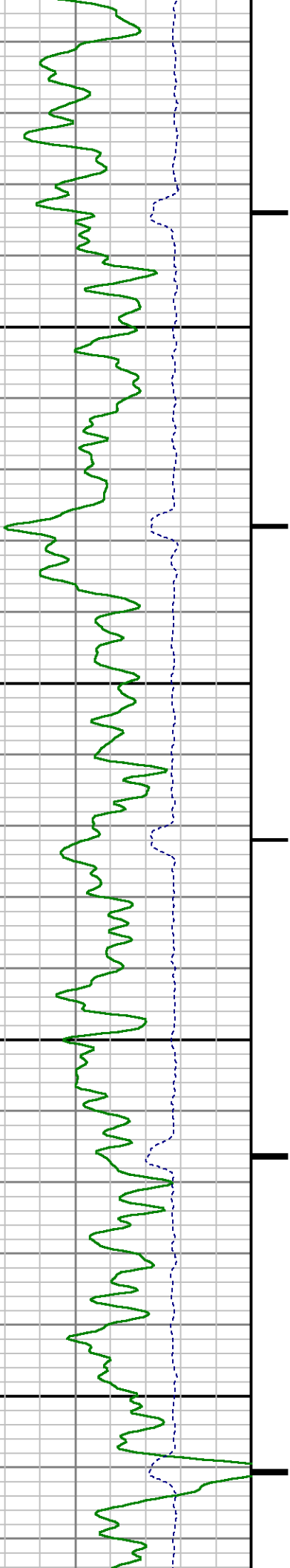
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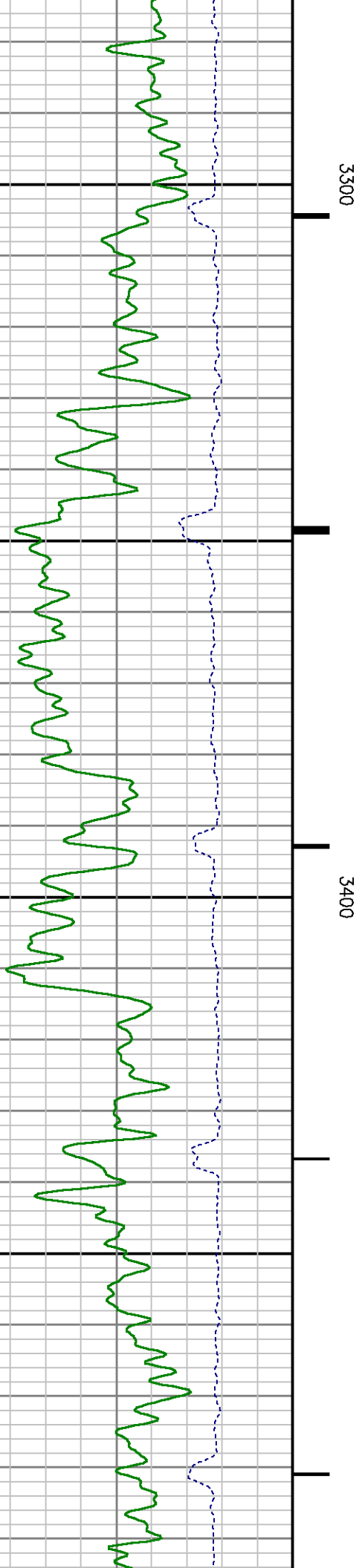
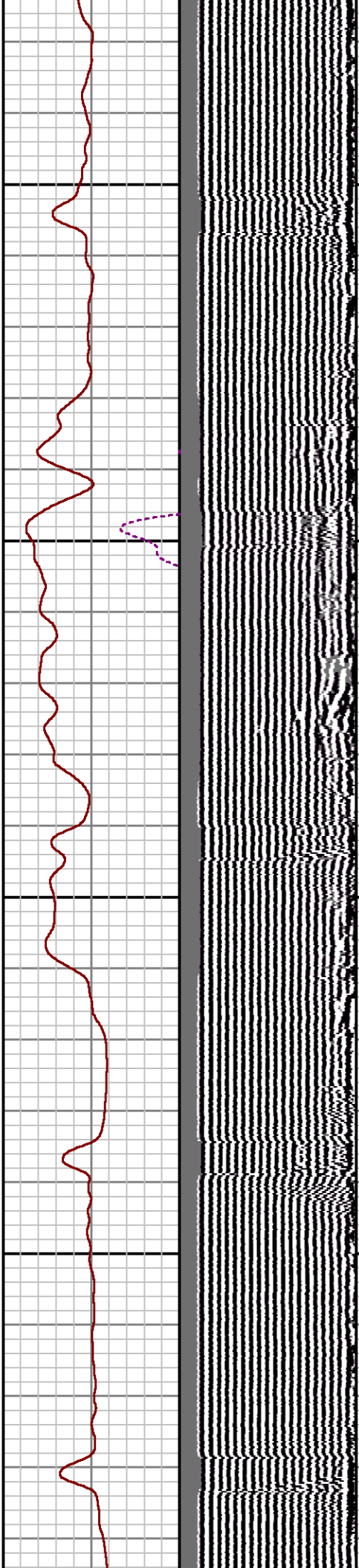
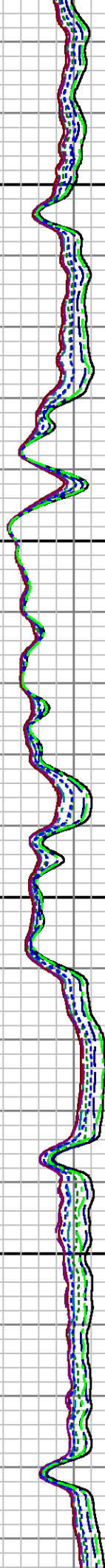
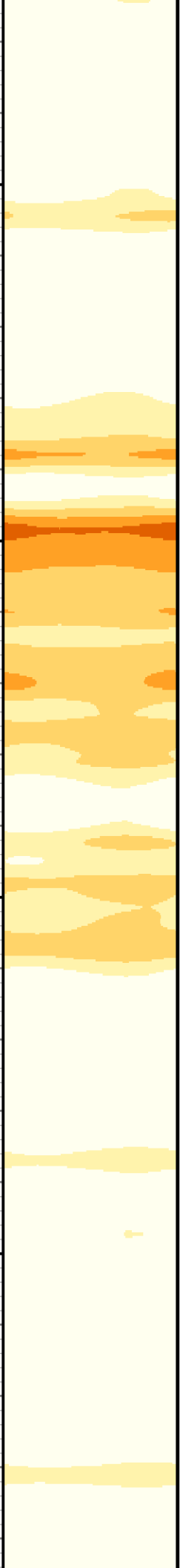


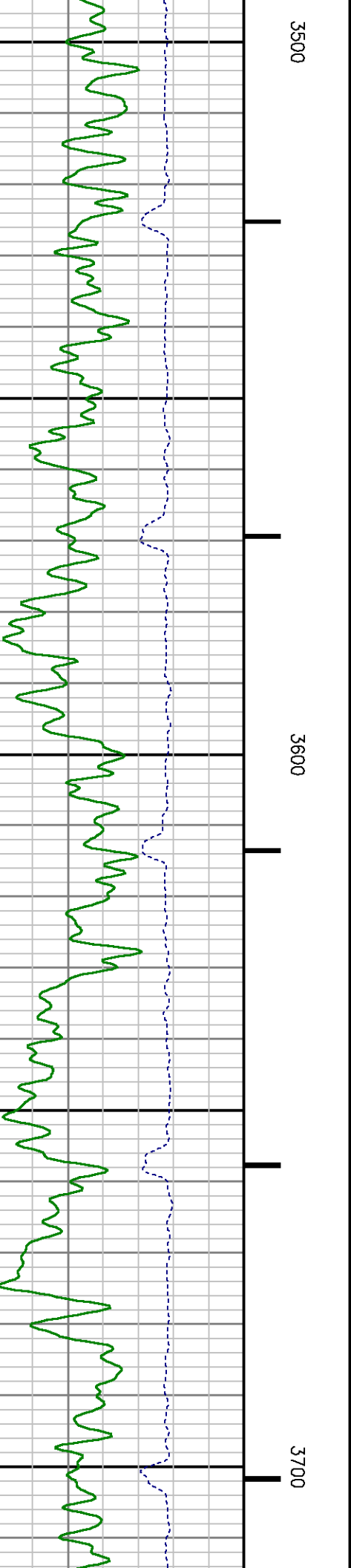
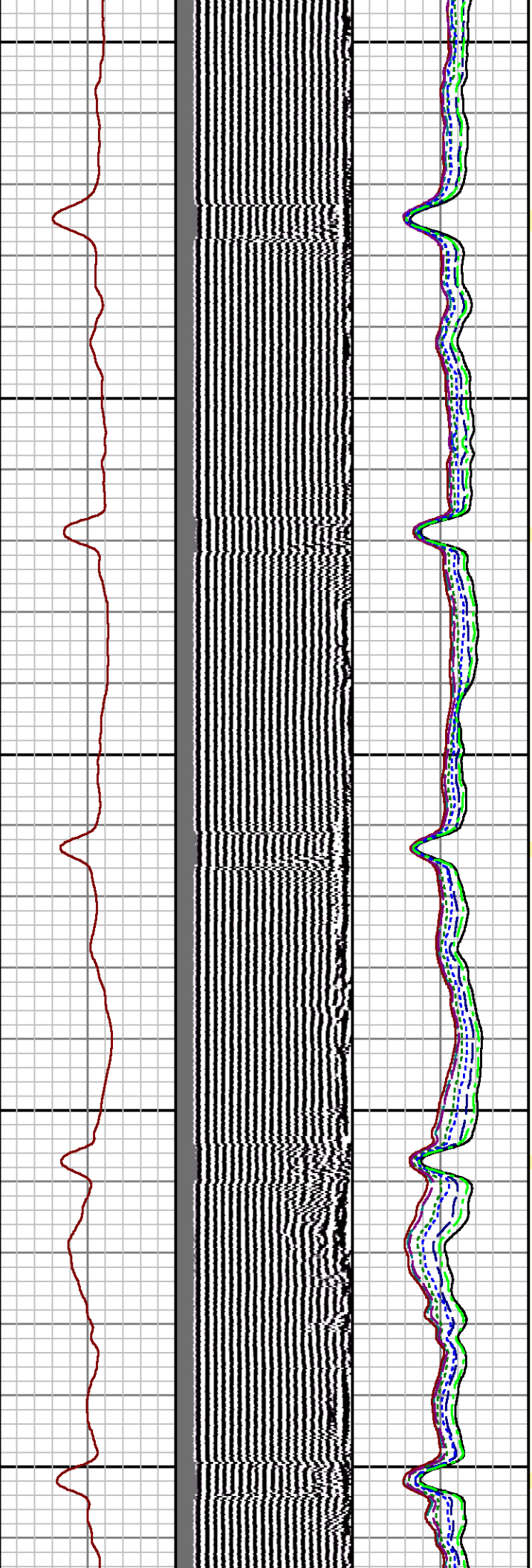


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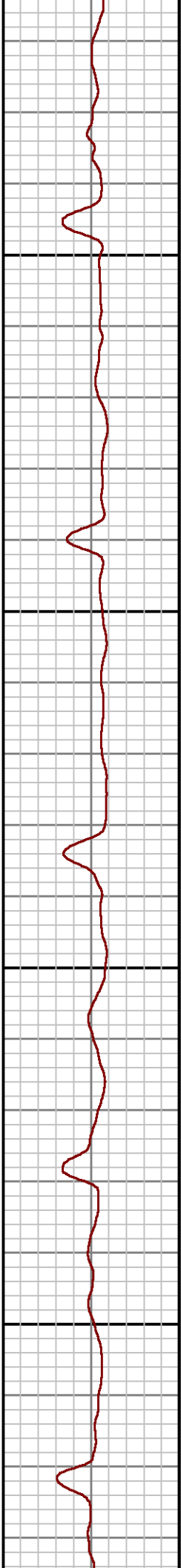
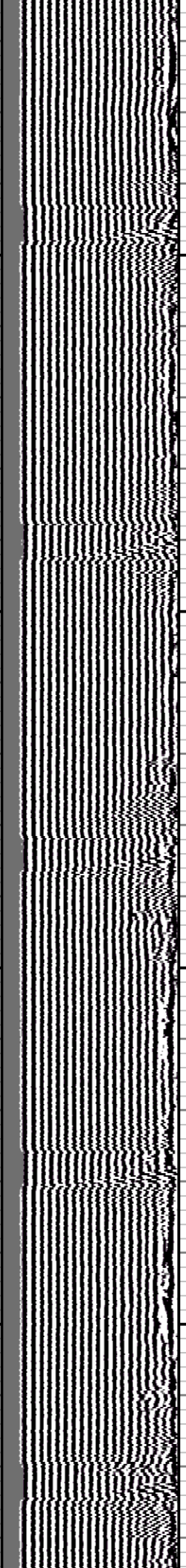
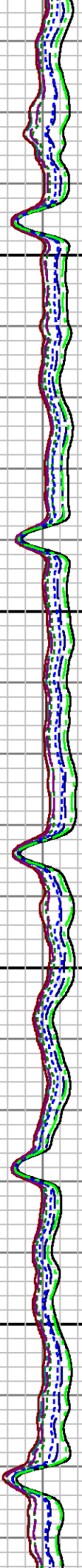
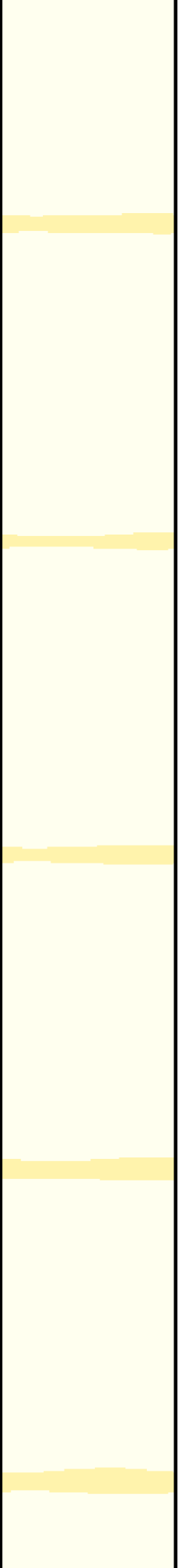
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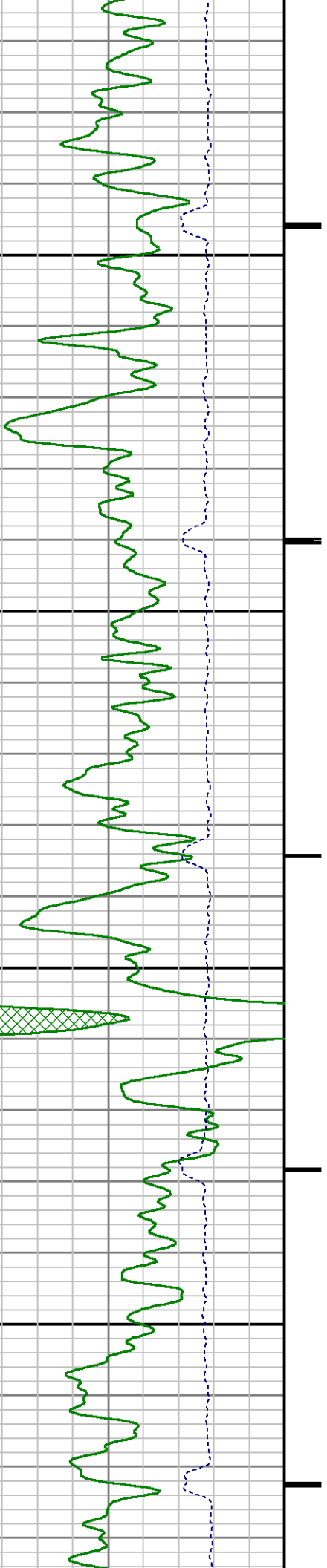




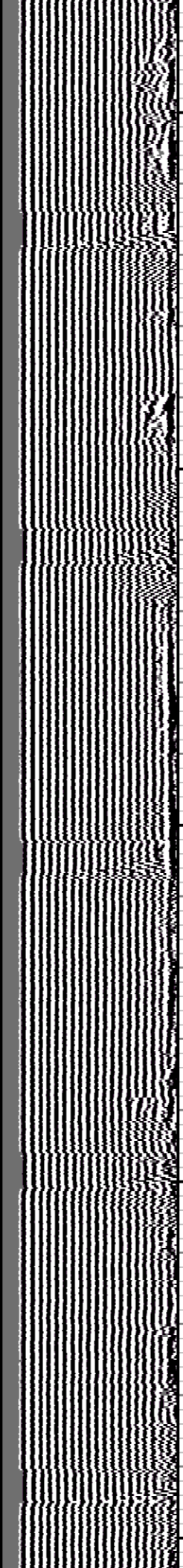
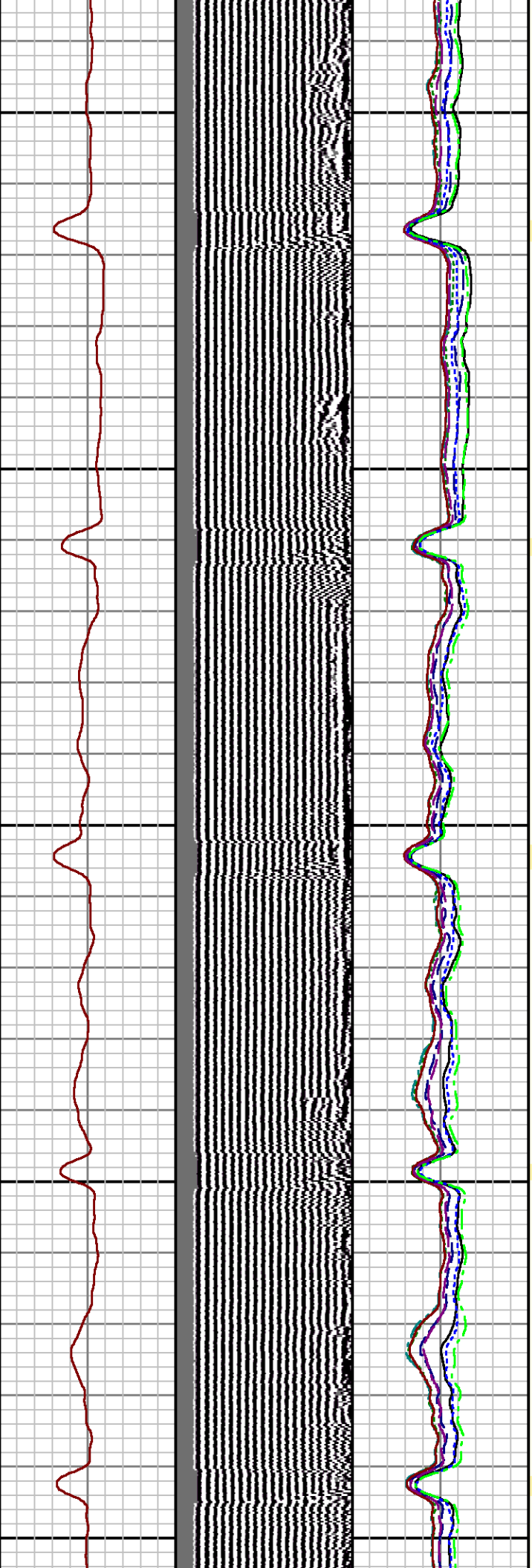


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3900

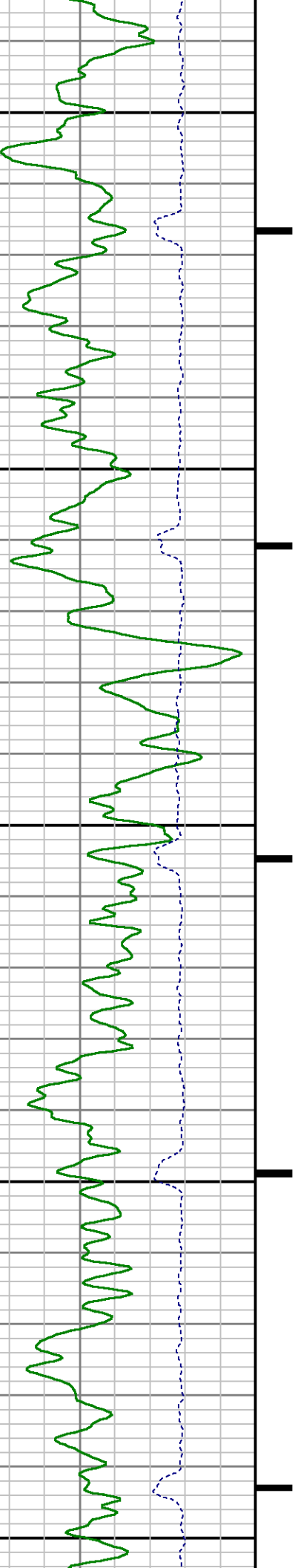


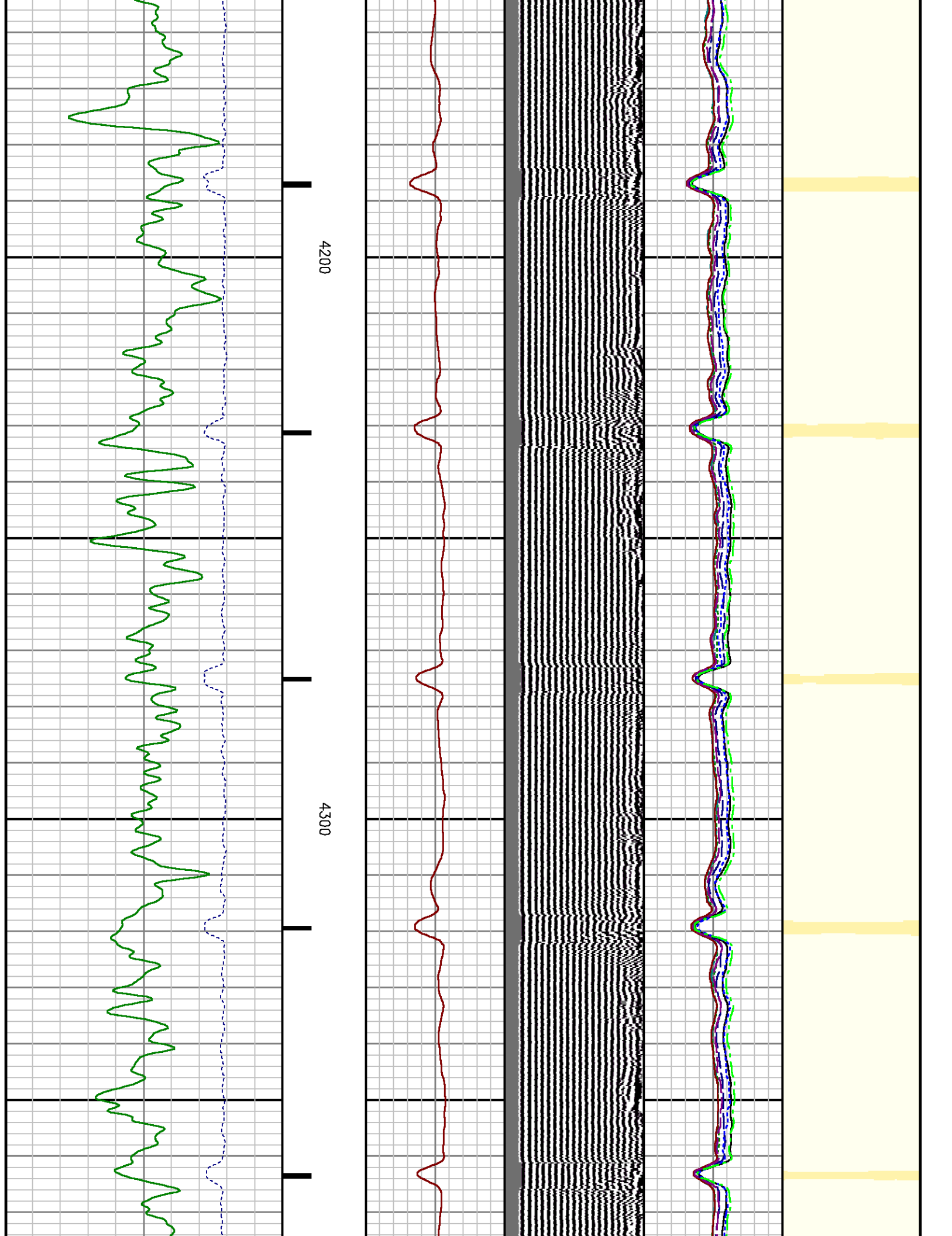


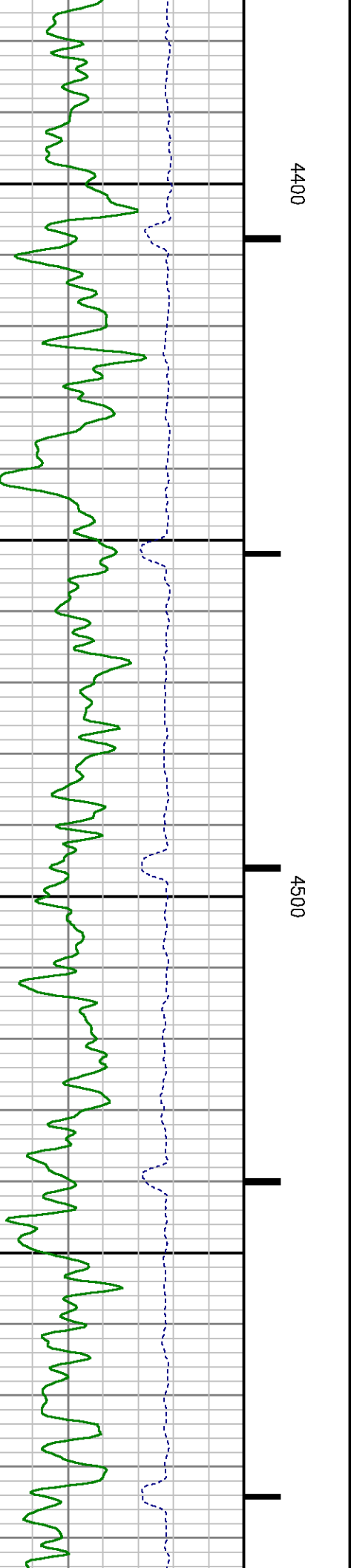
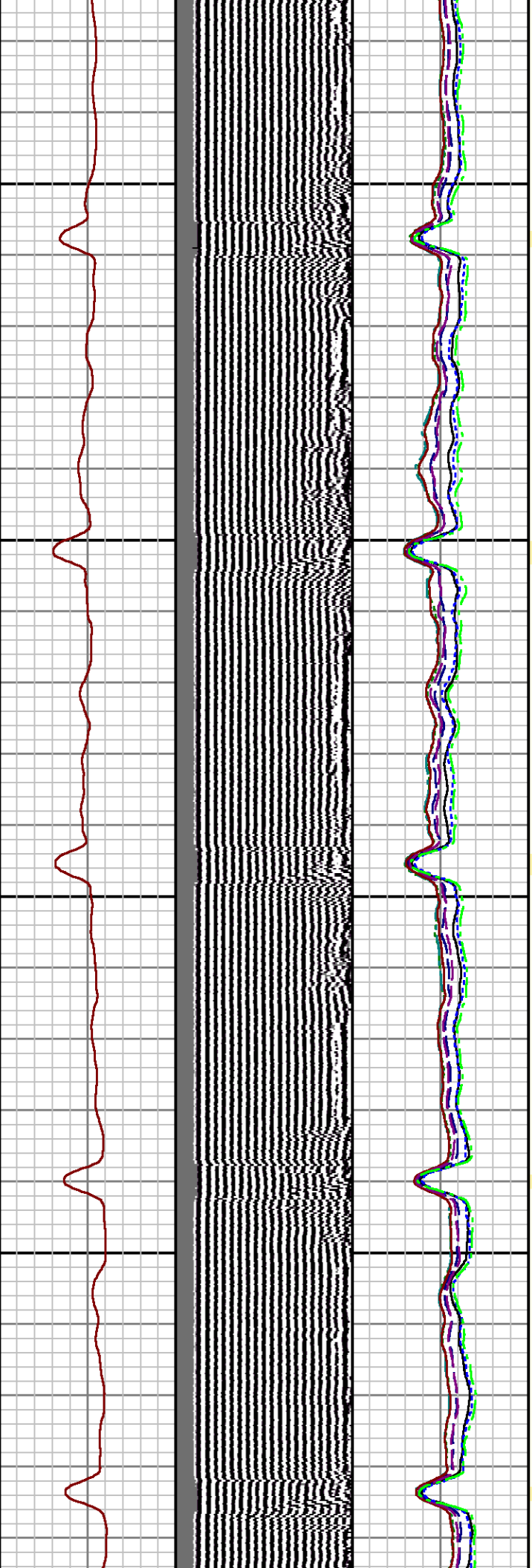


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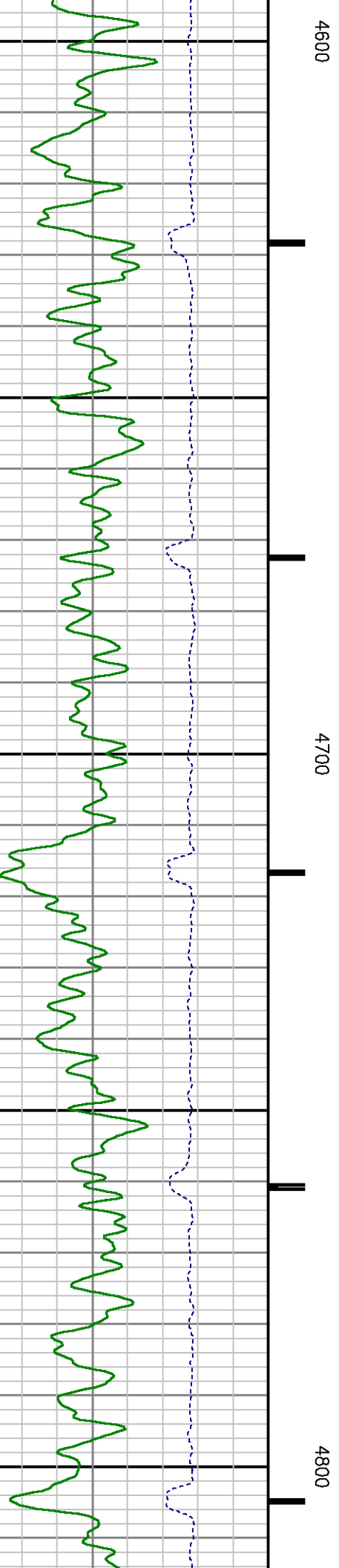
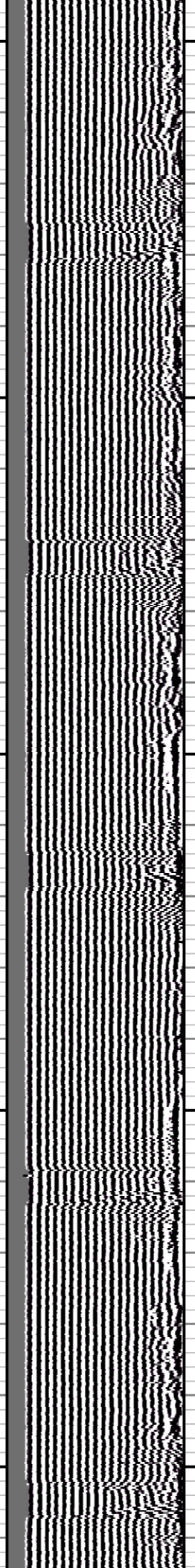
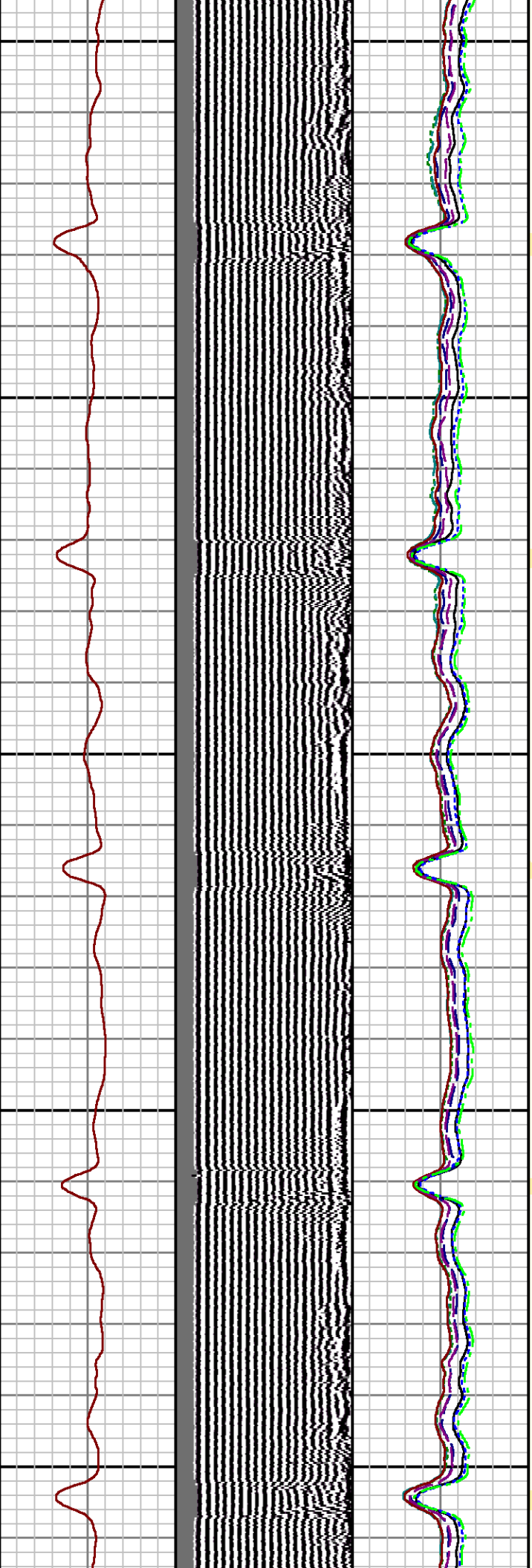


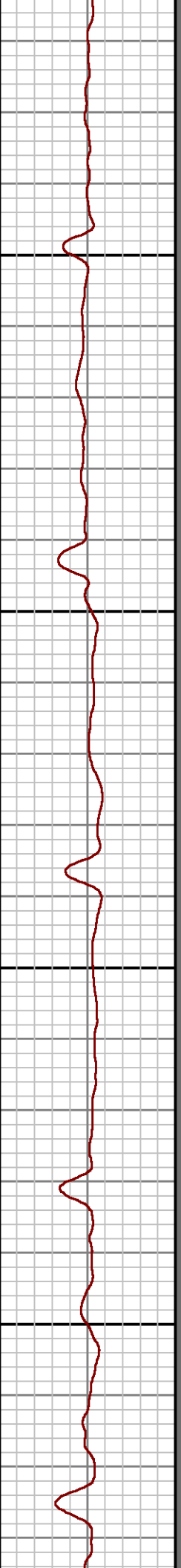
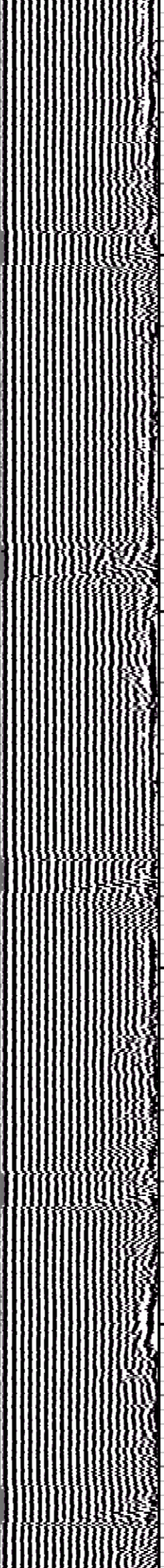
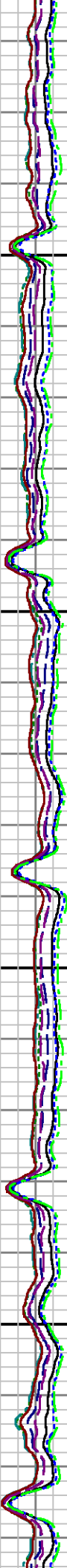




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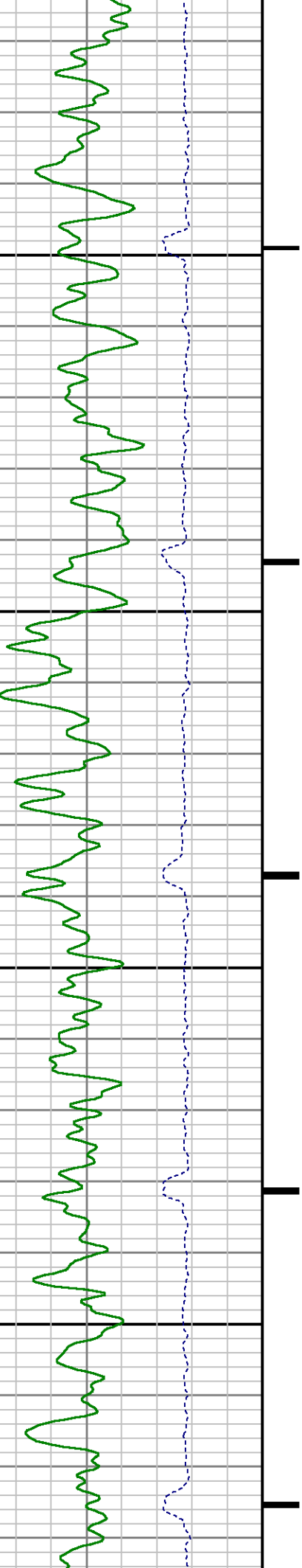
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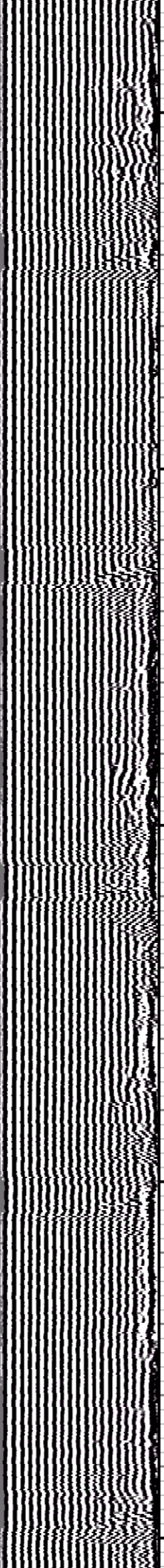
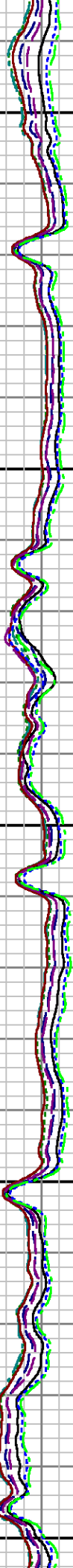
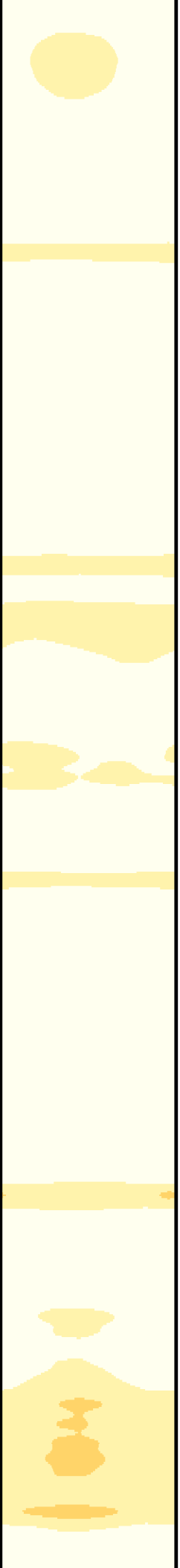


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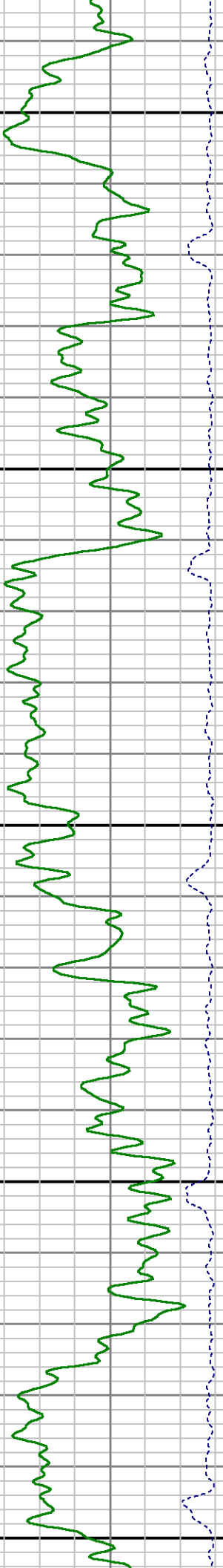




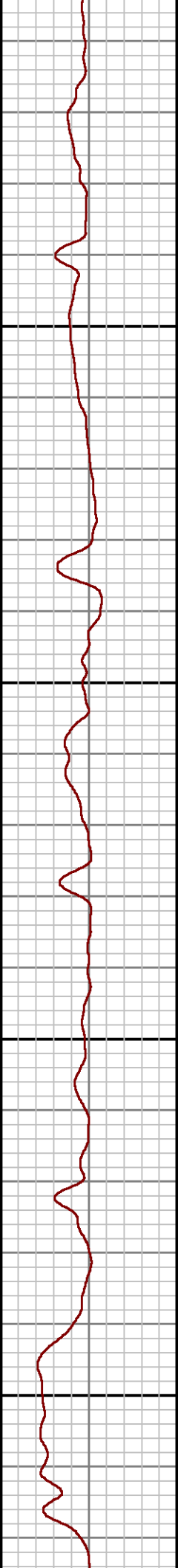
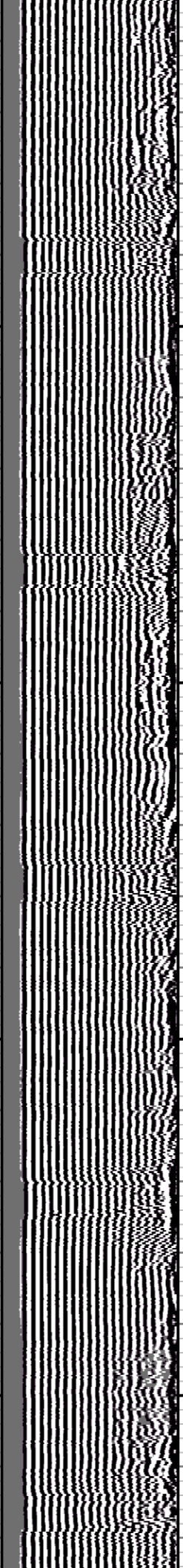
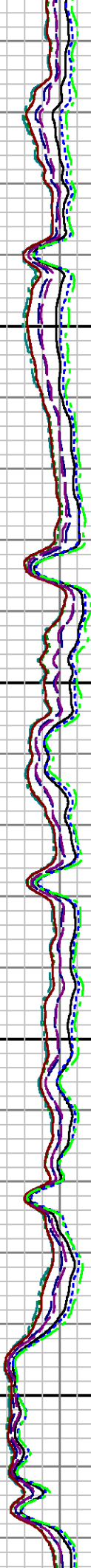
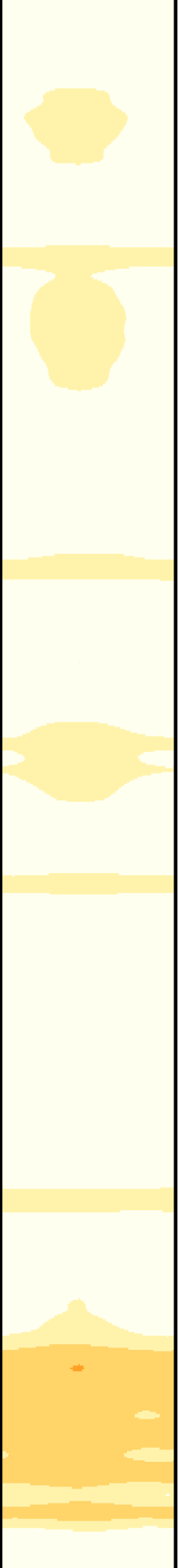


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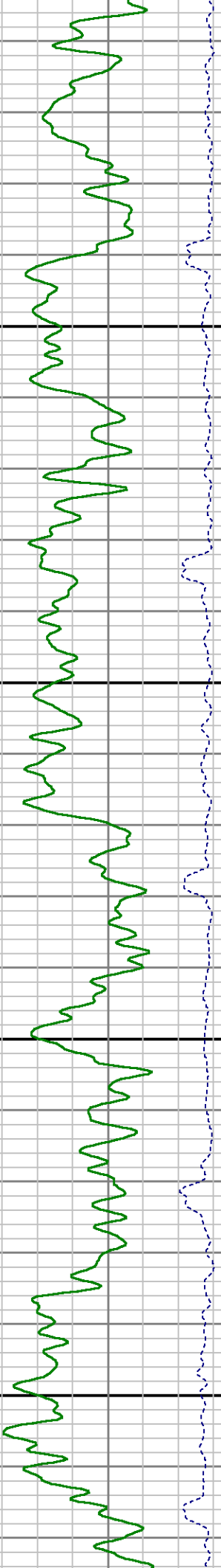


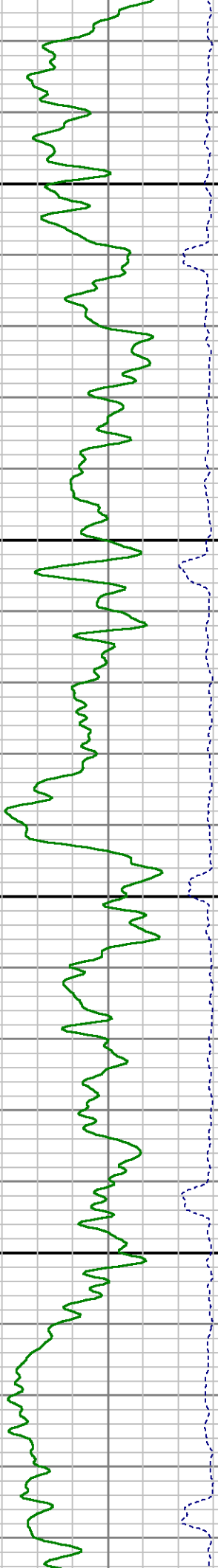
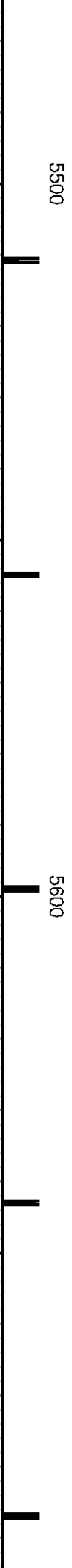
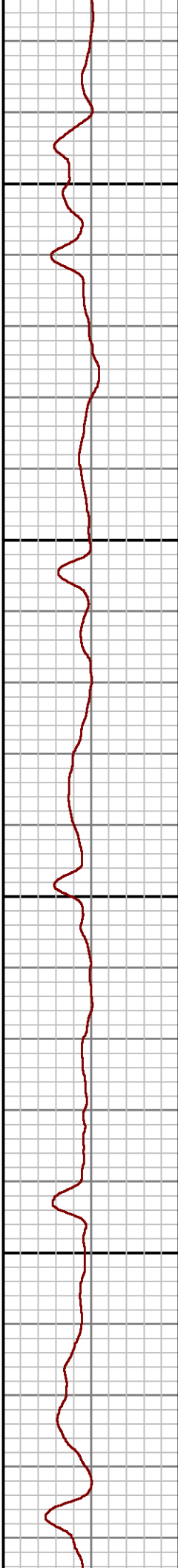
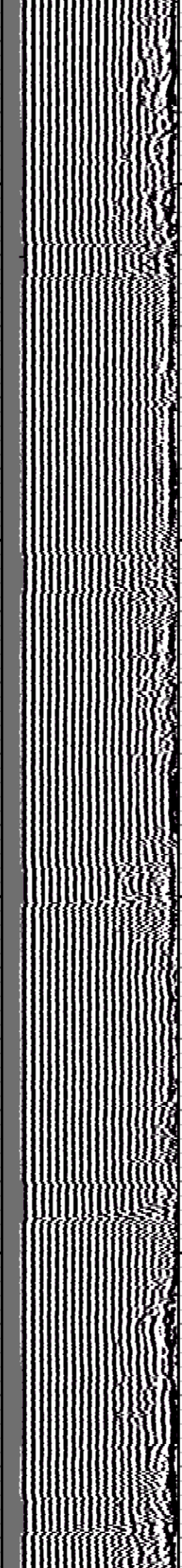
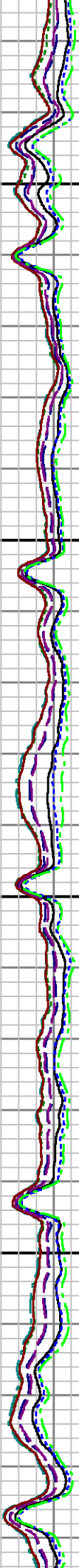
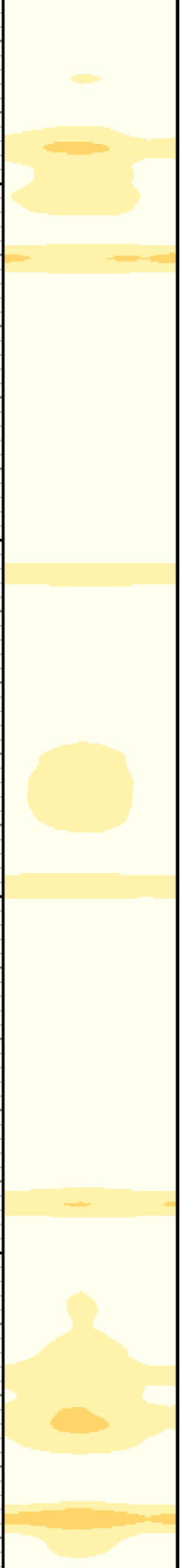


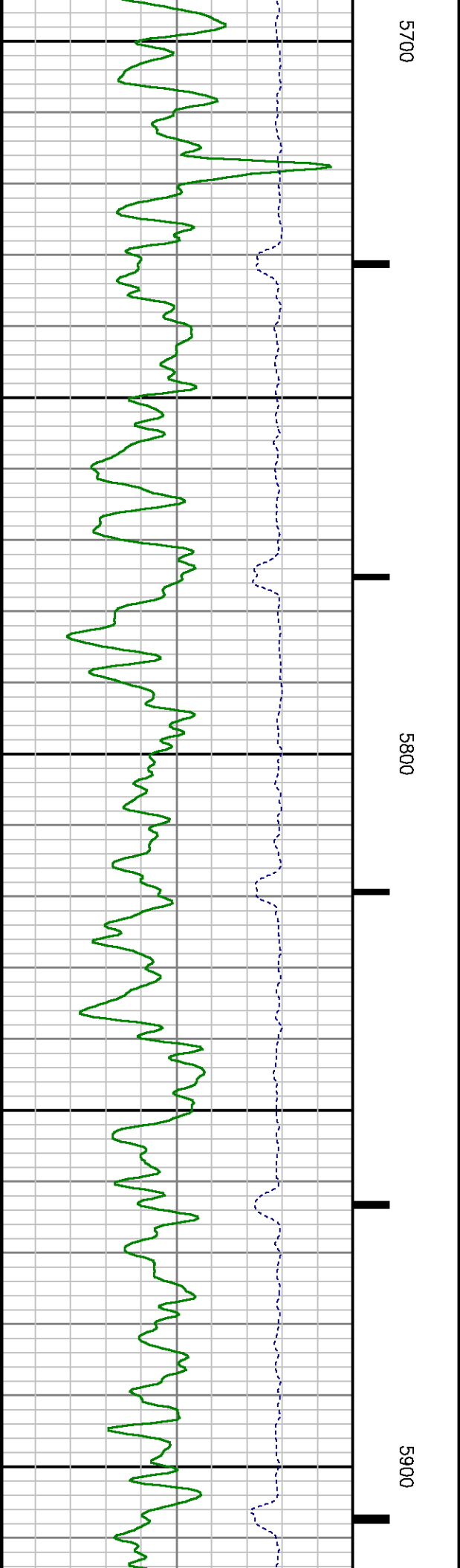
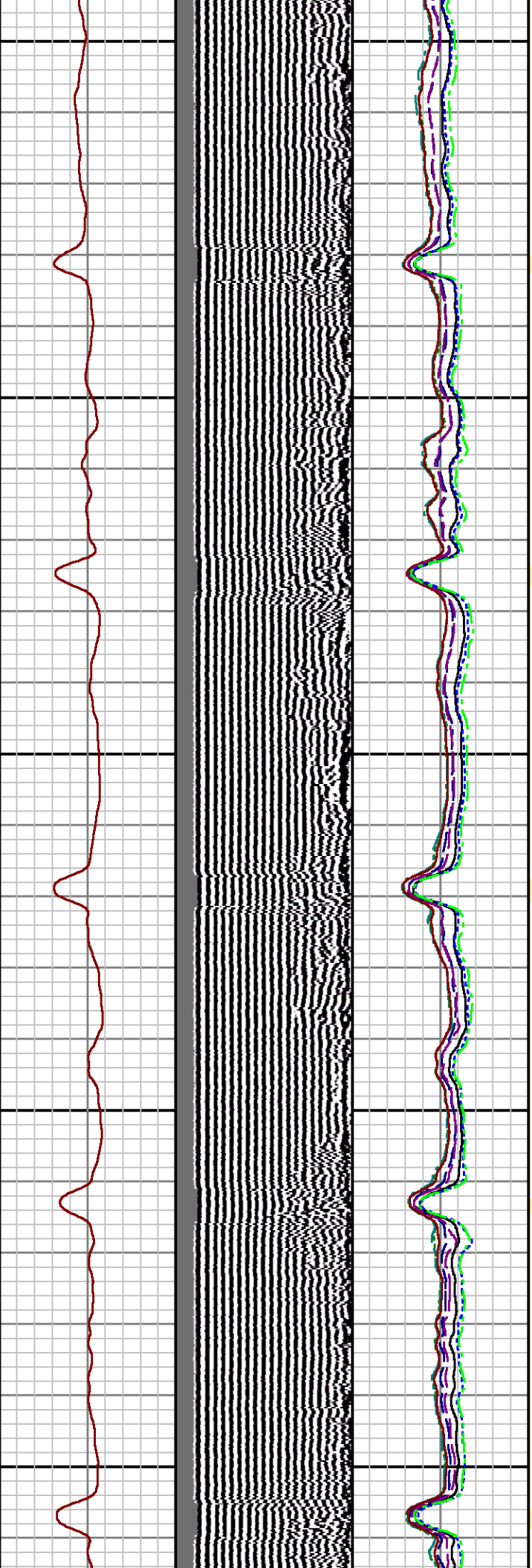


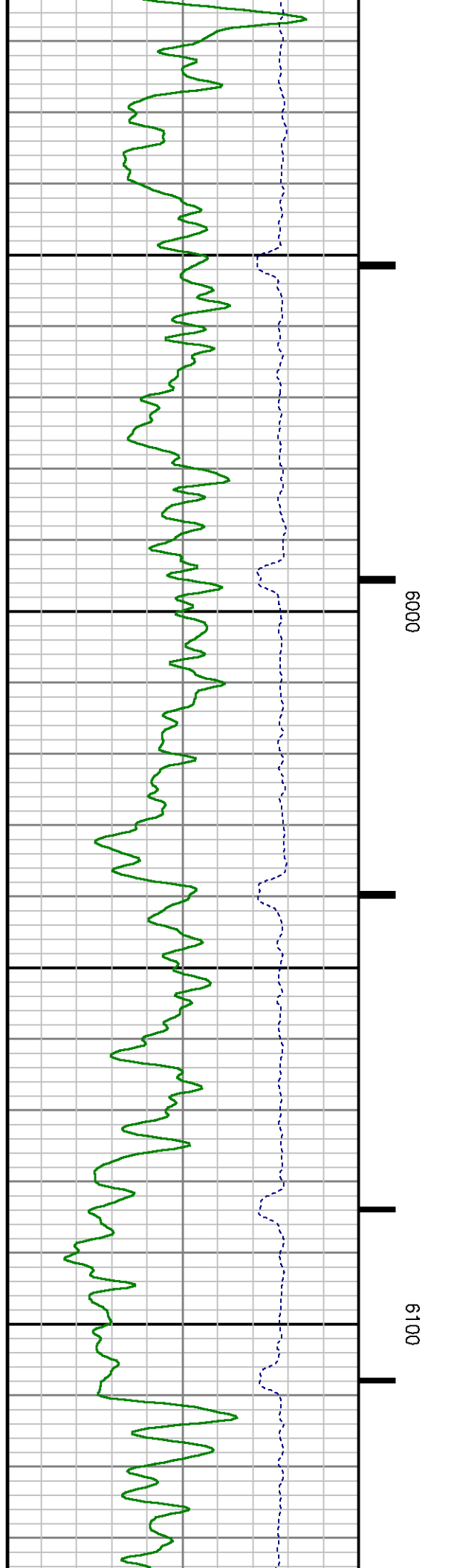
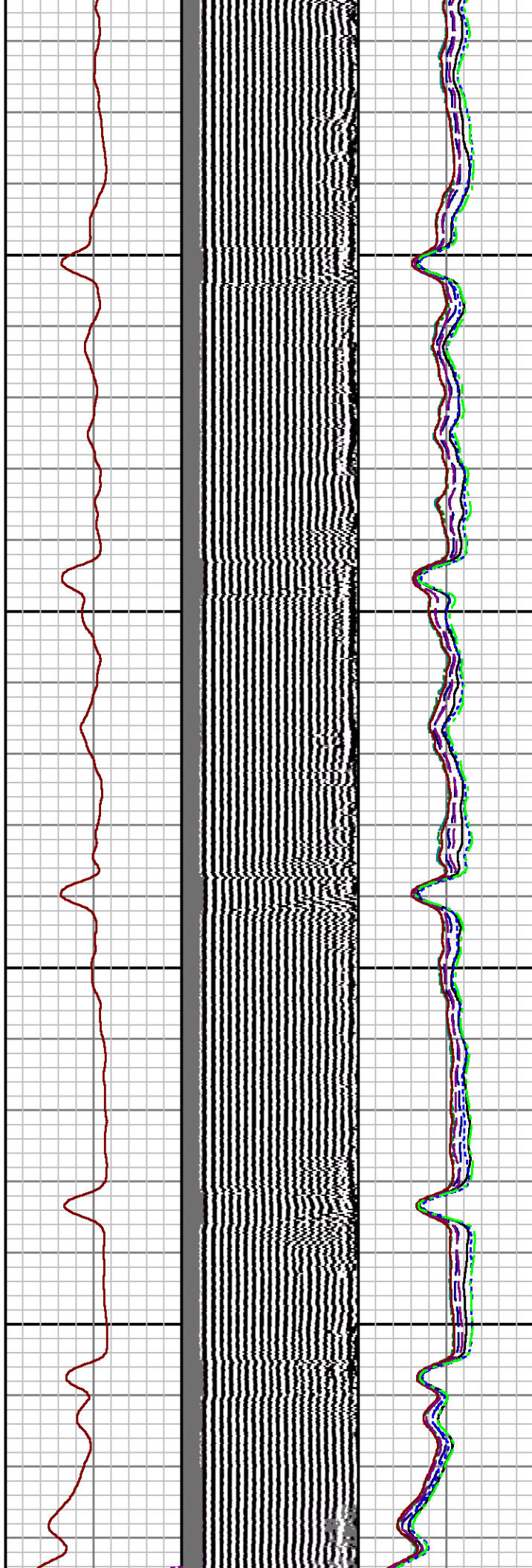
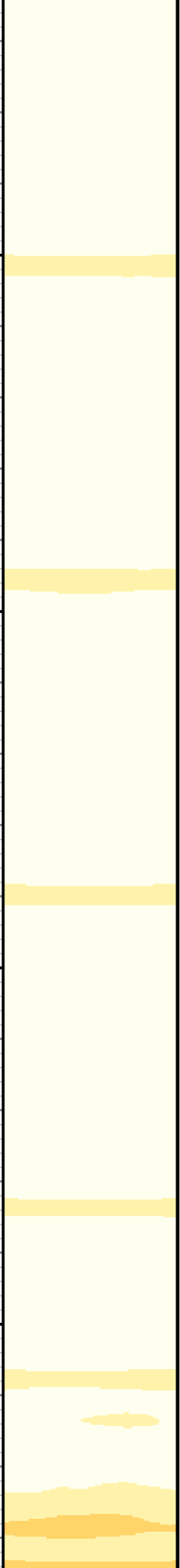
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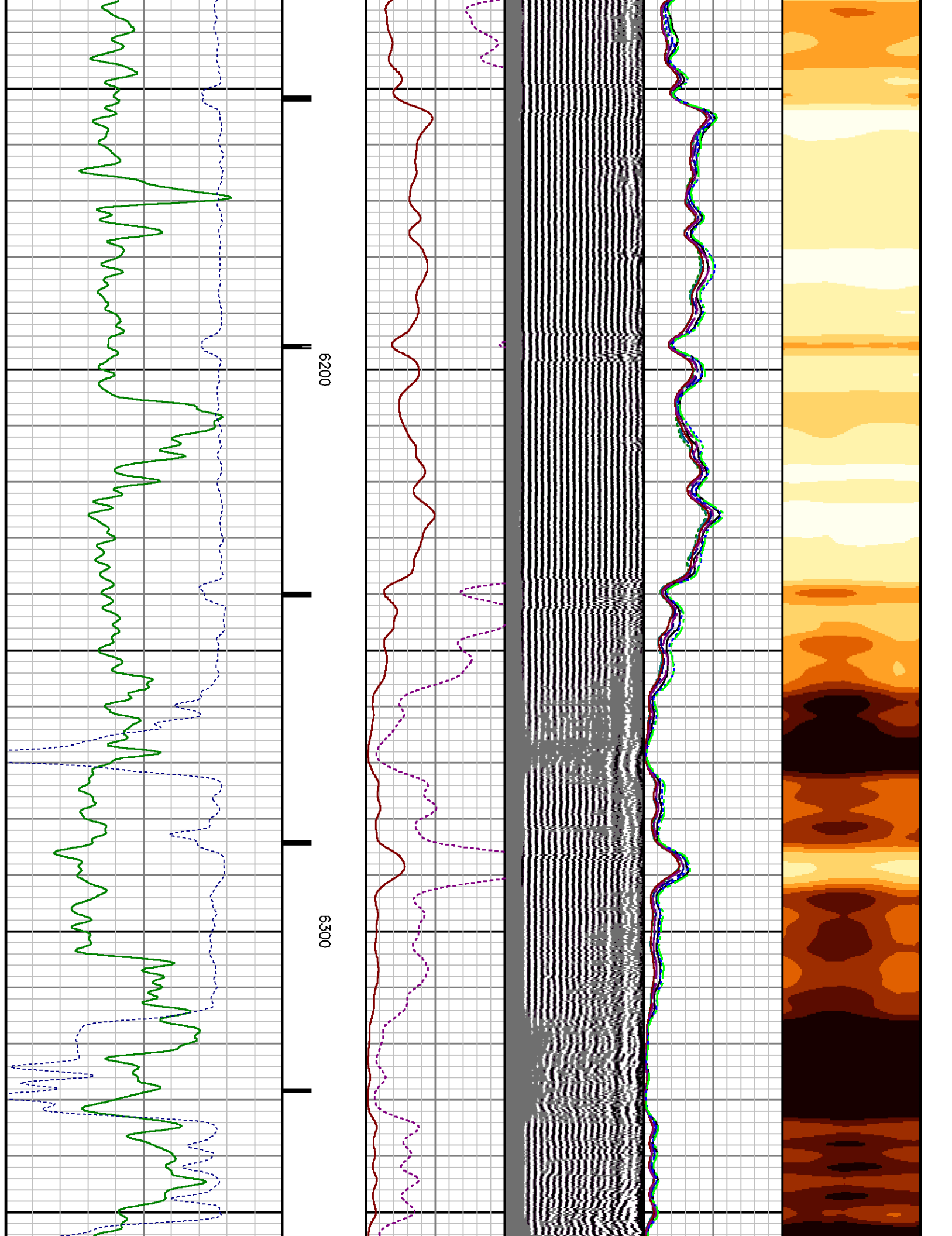
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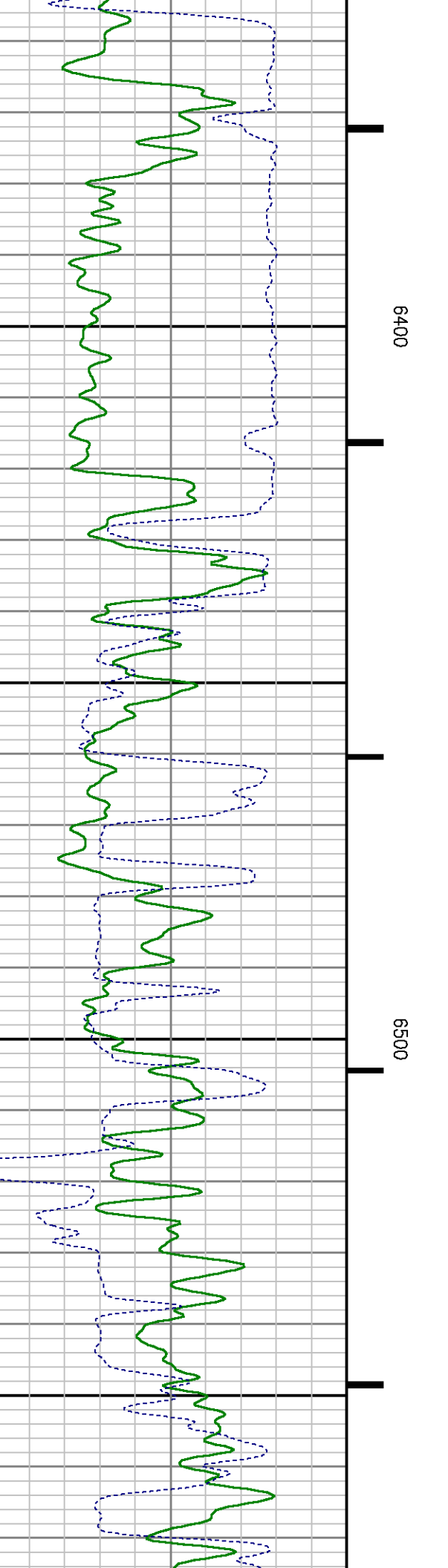
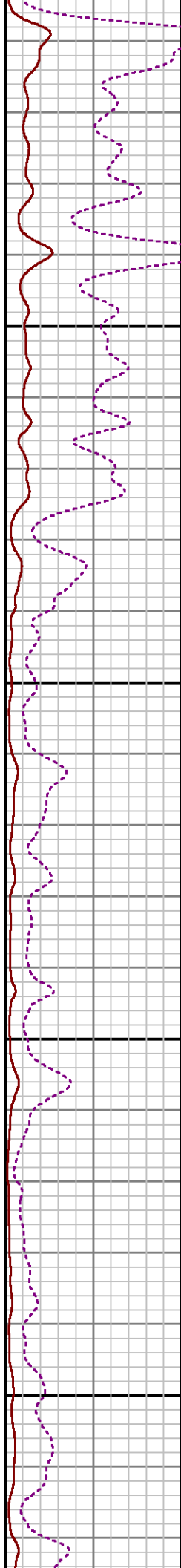
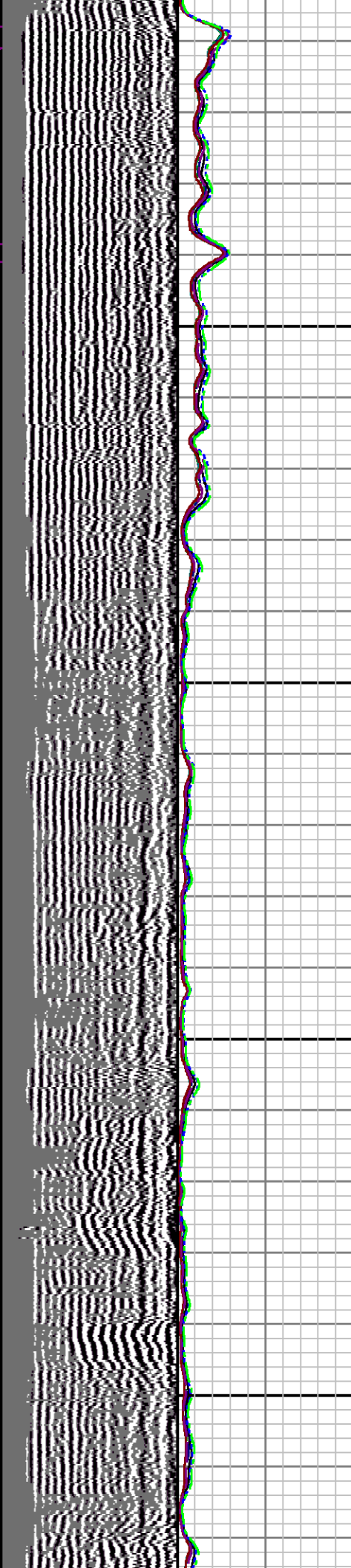




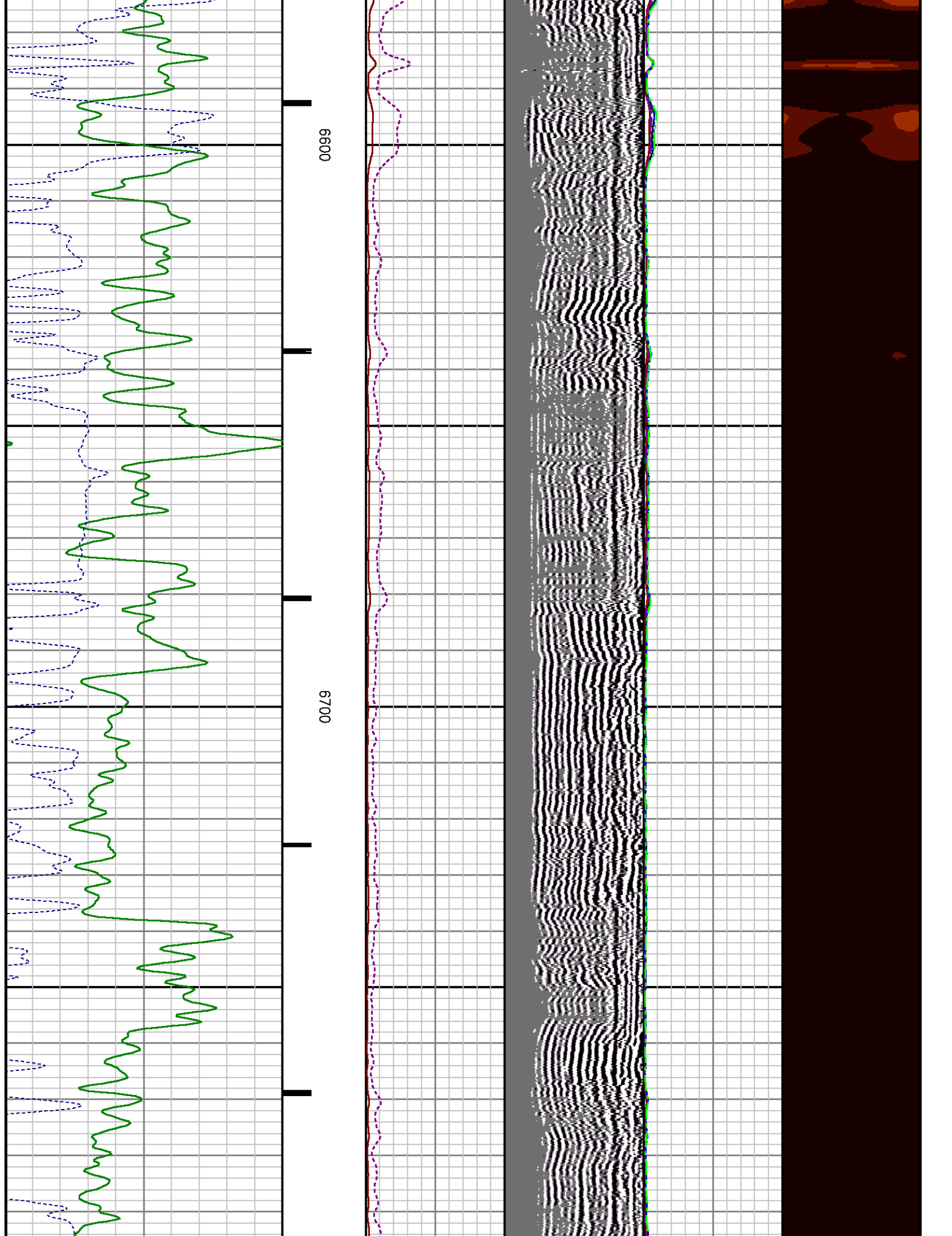


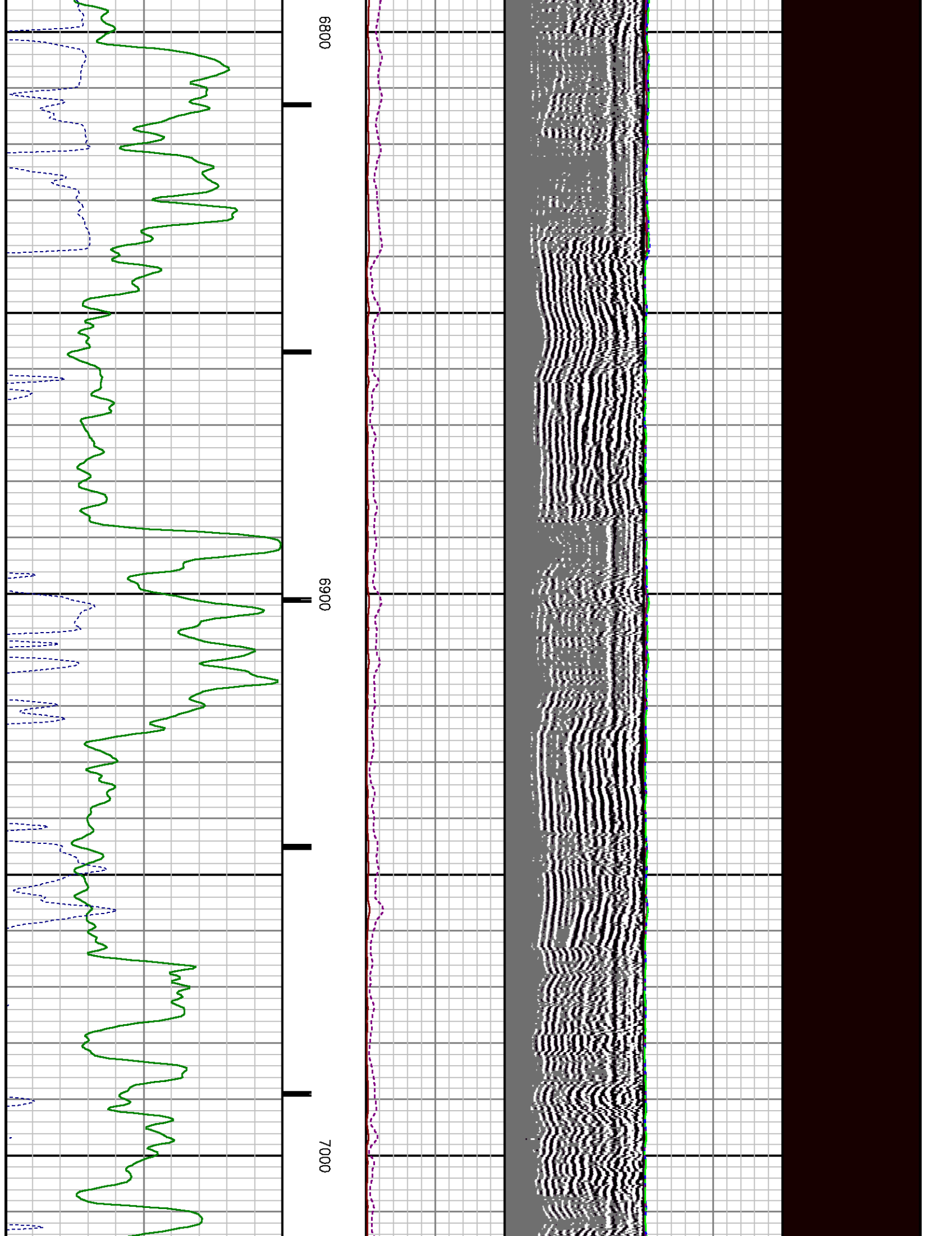


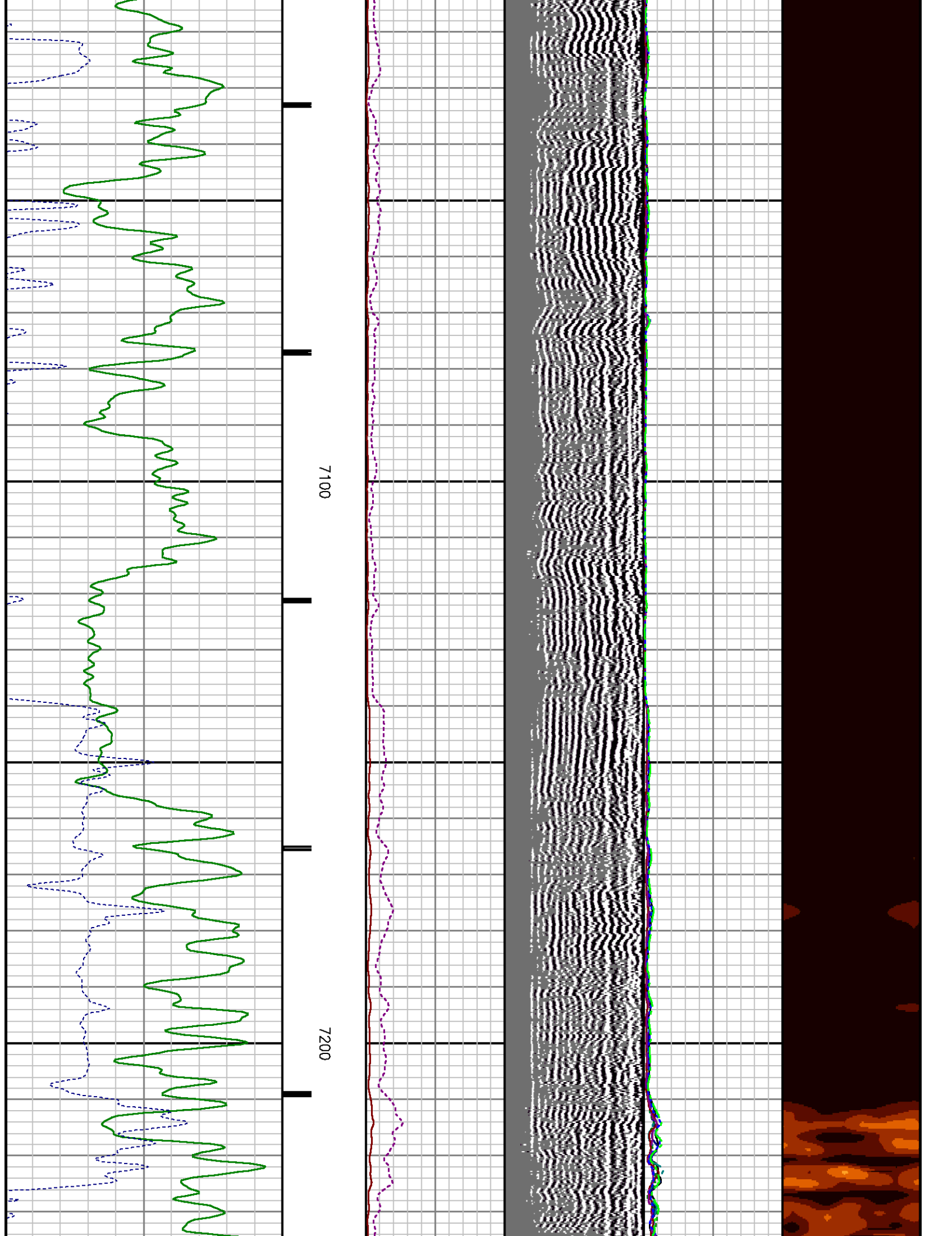


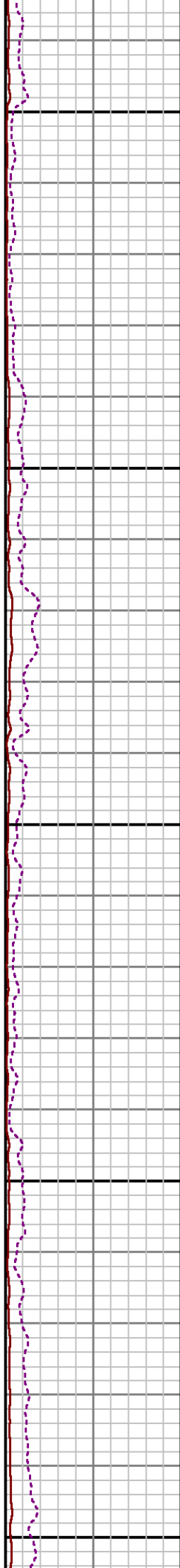
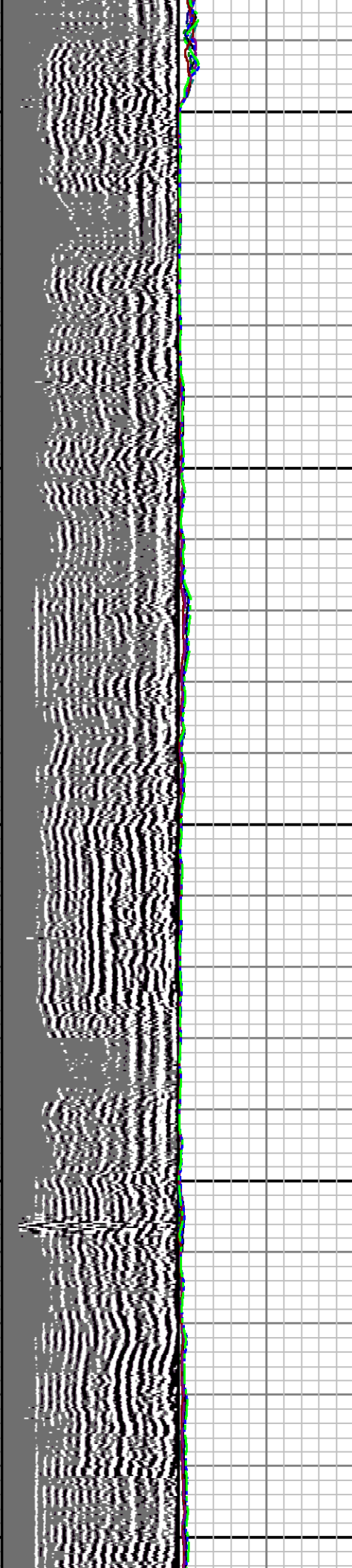






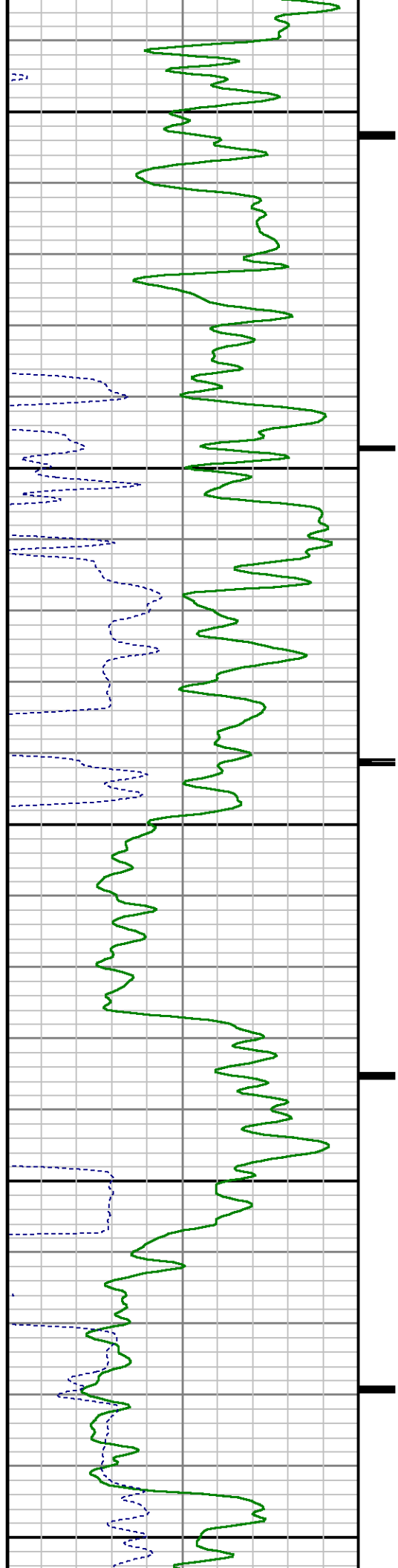


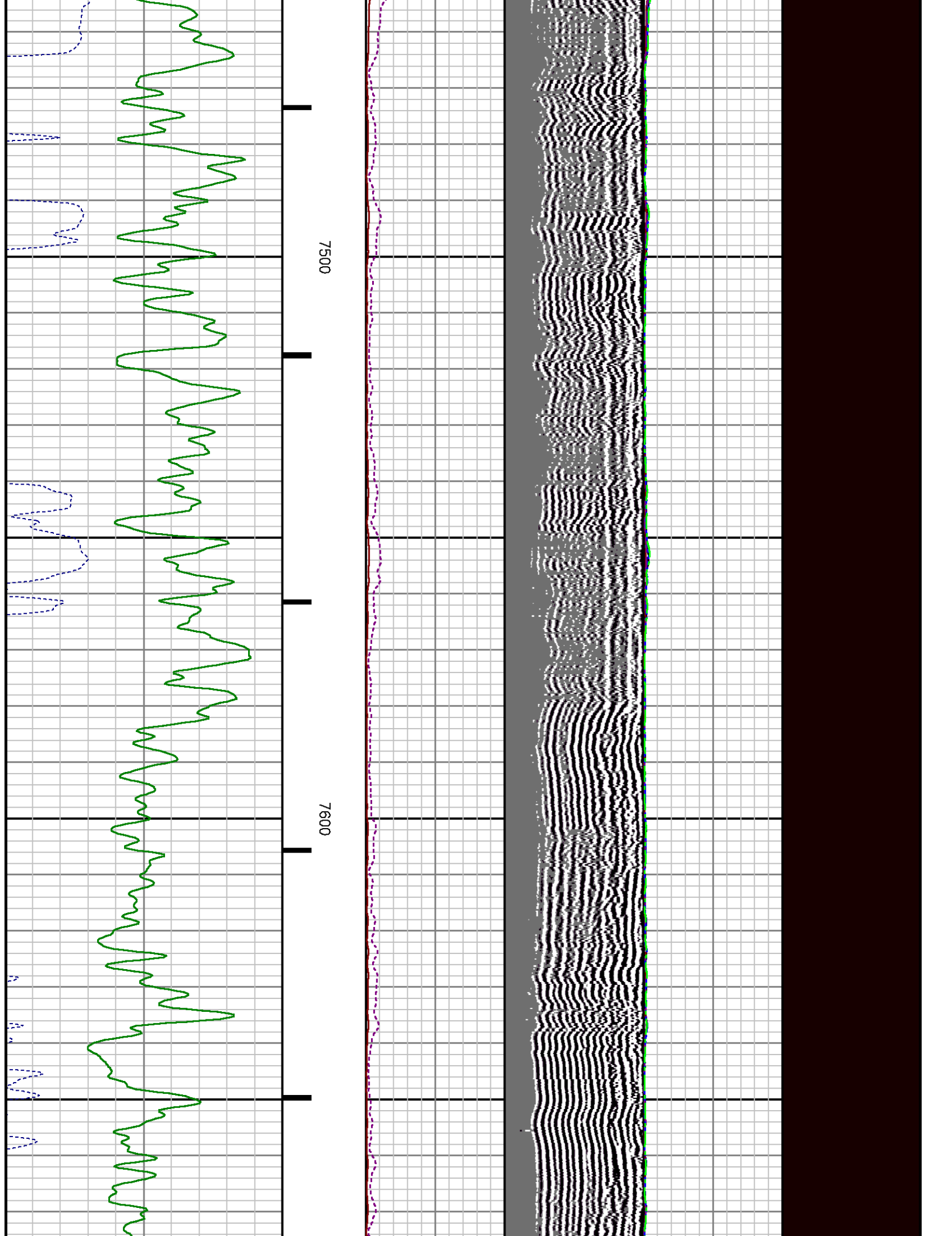




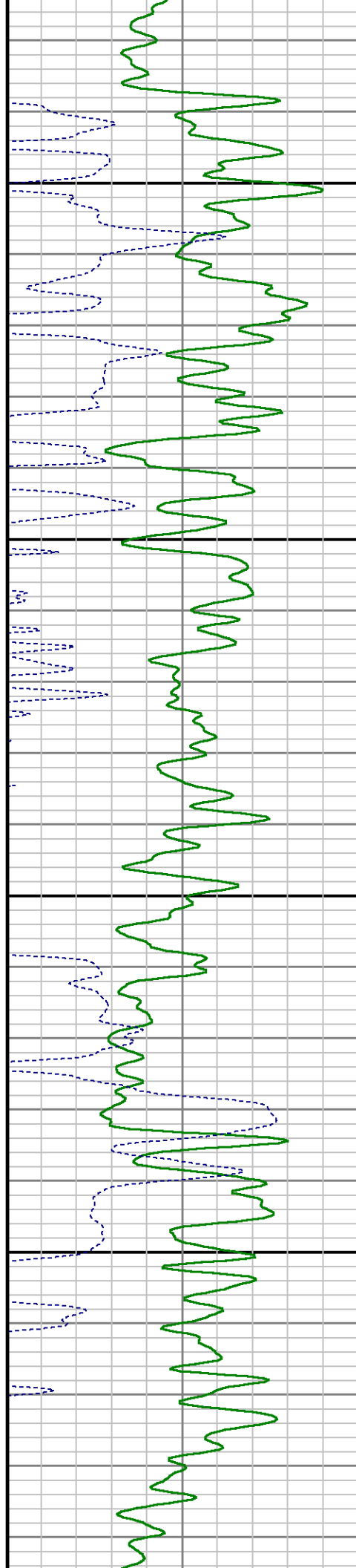
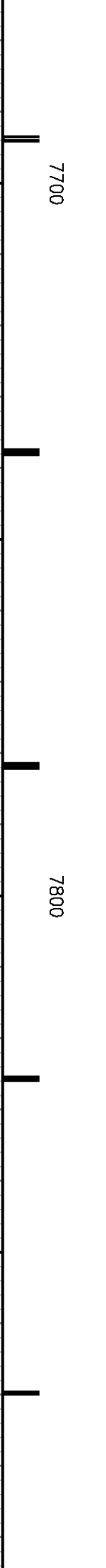
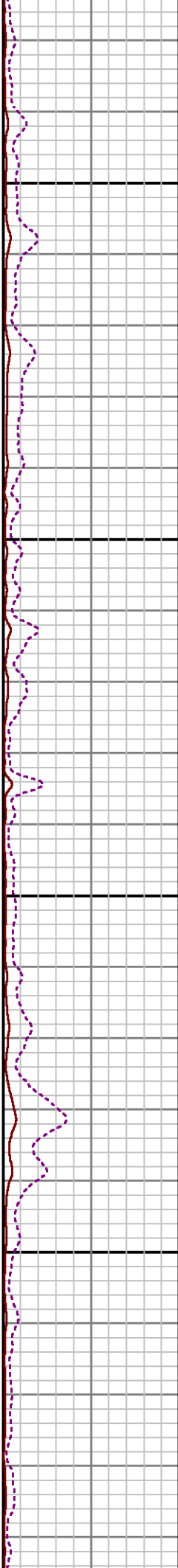
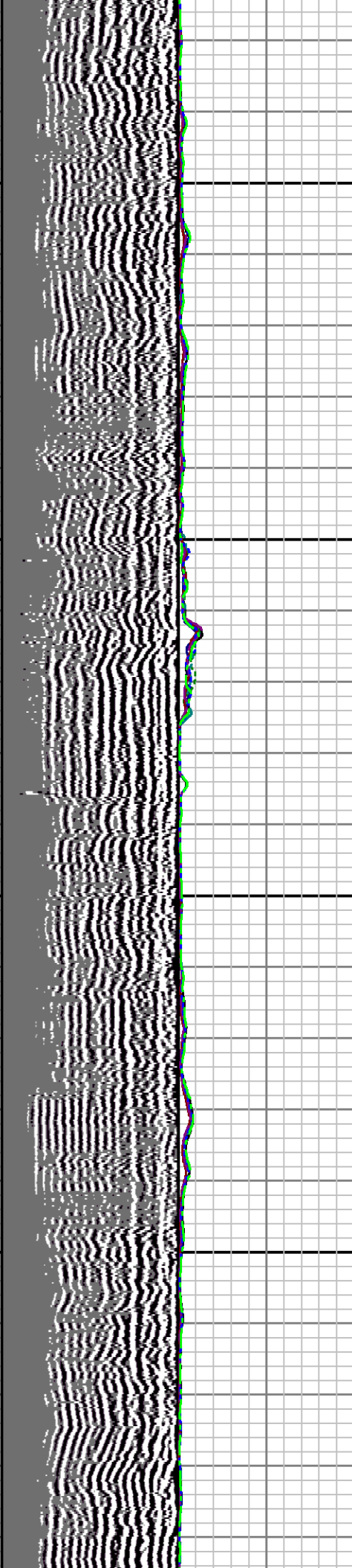
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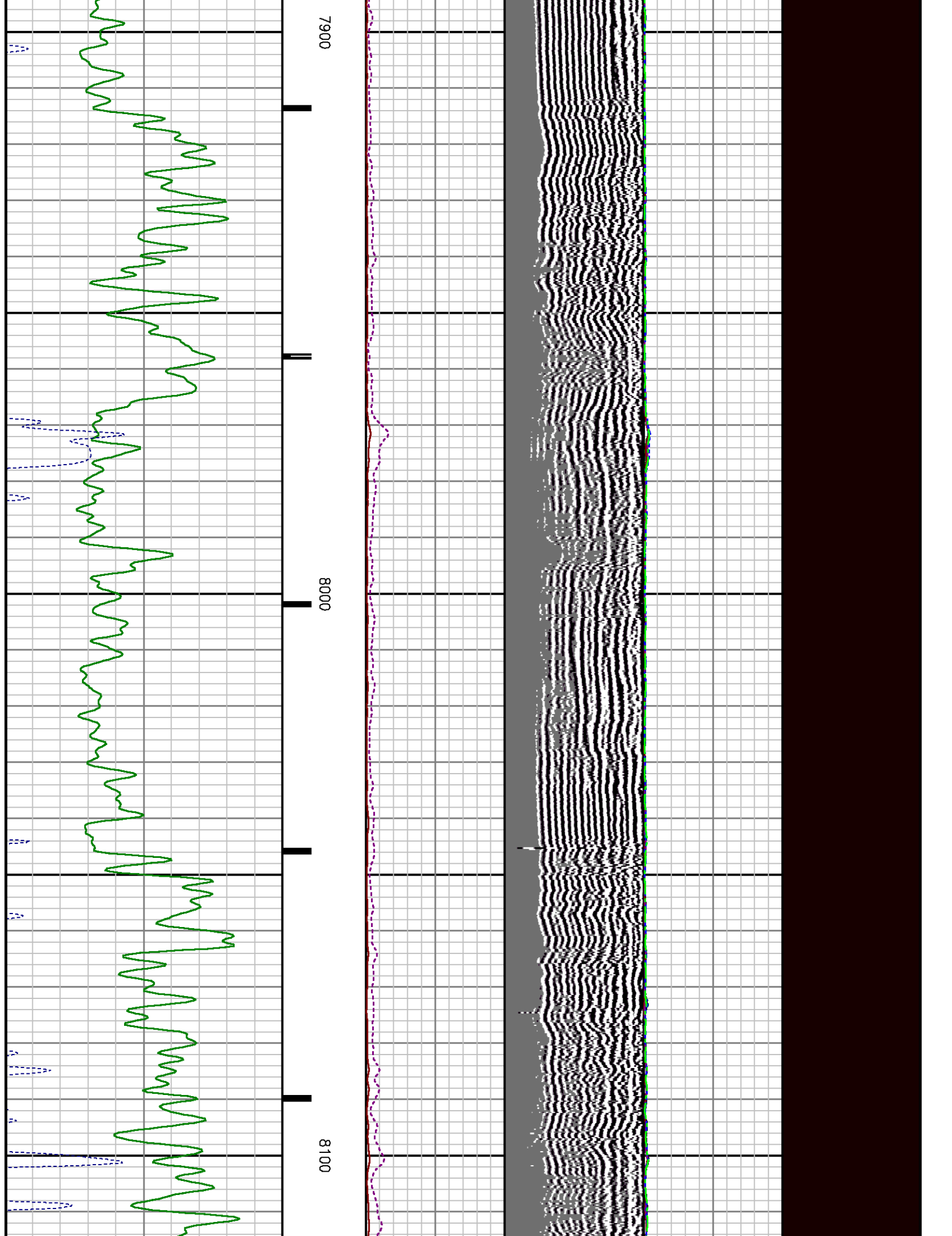


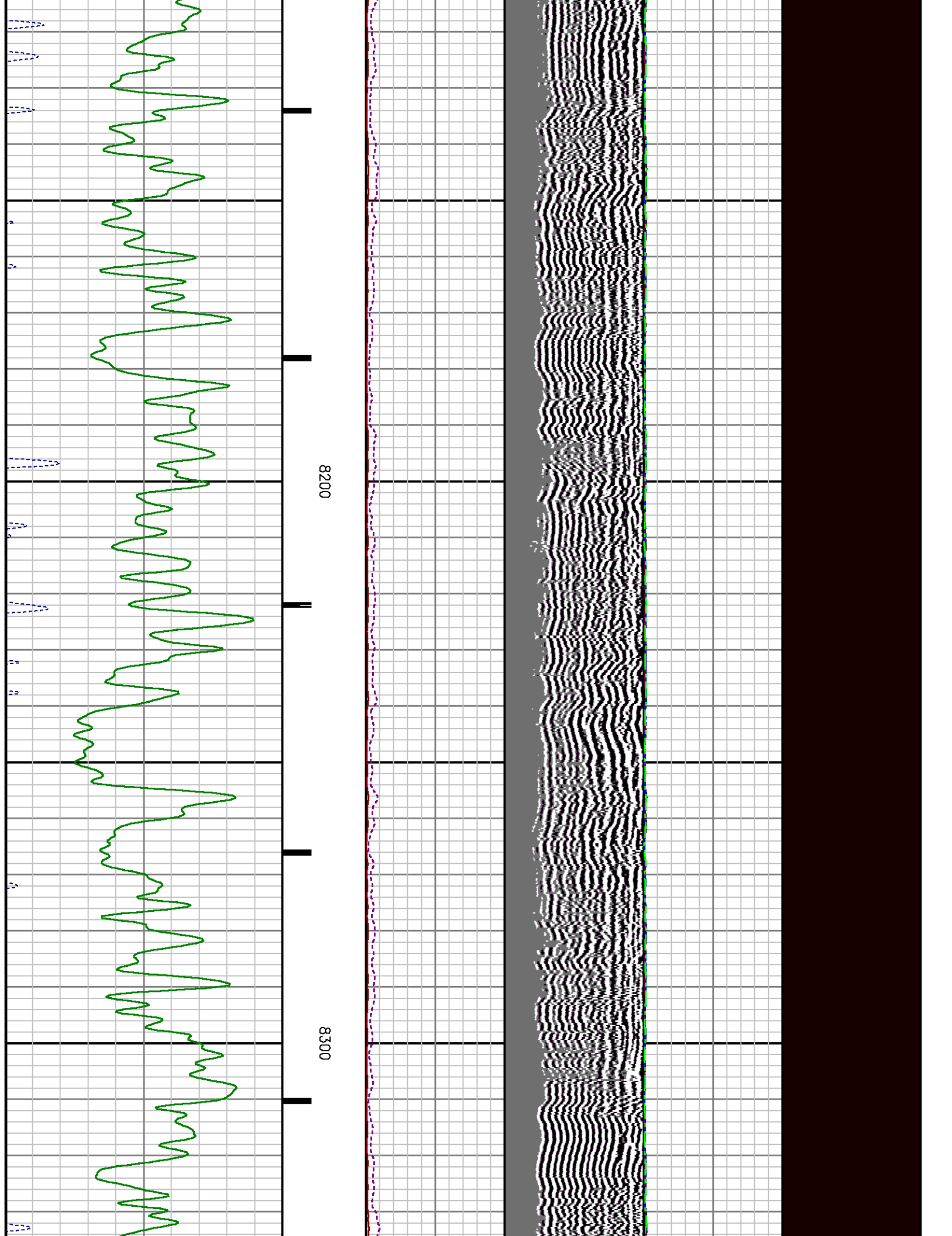


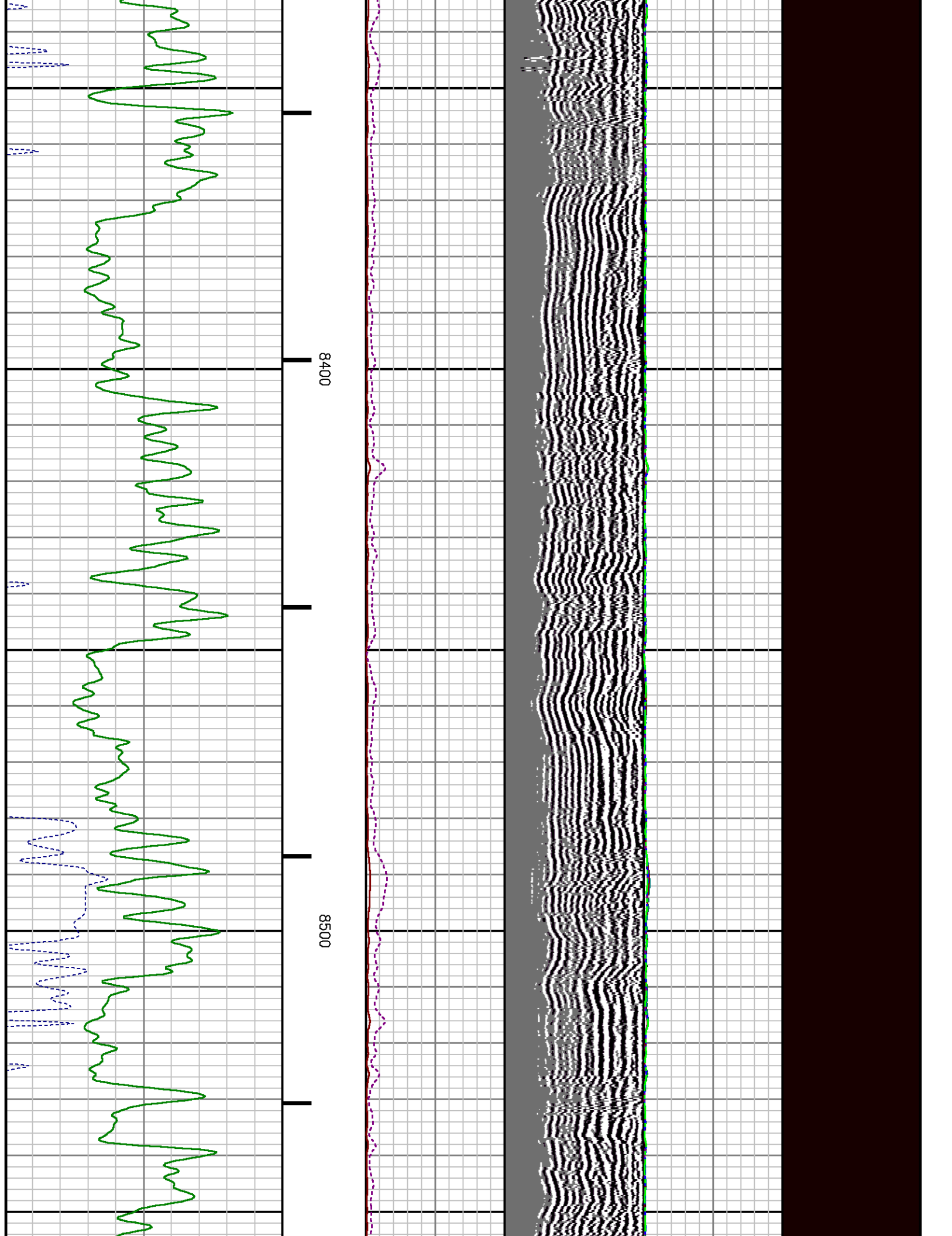


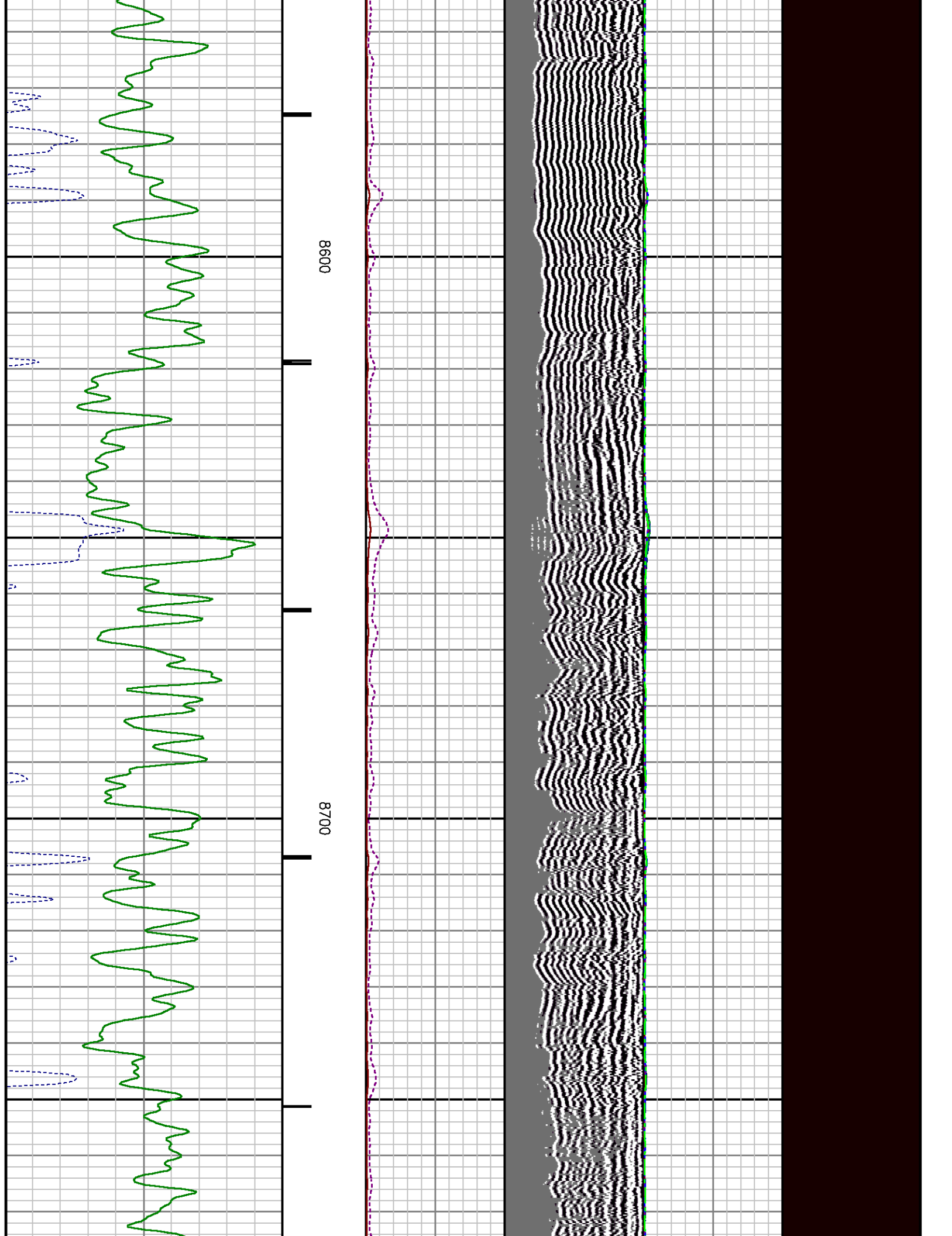


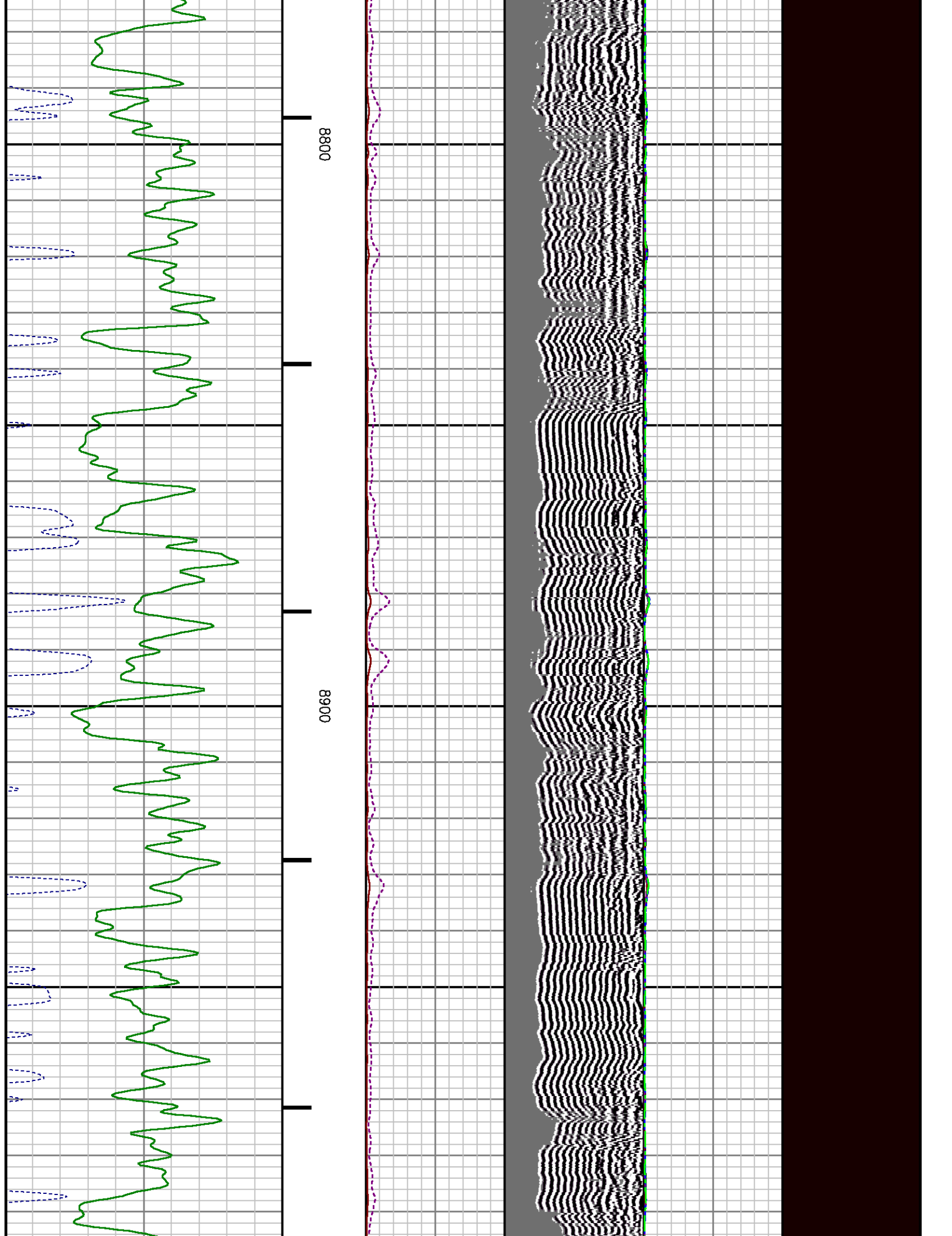




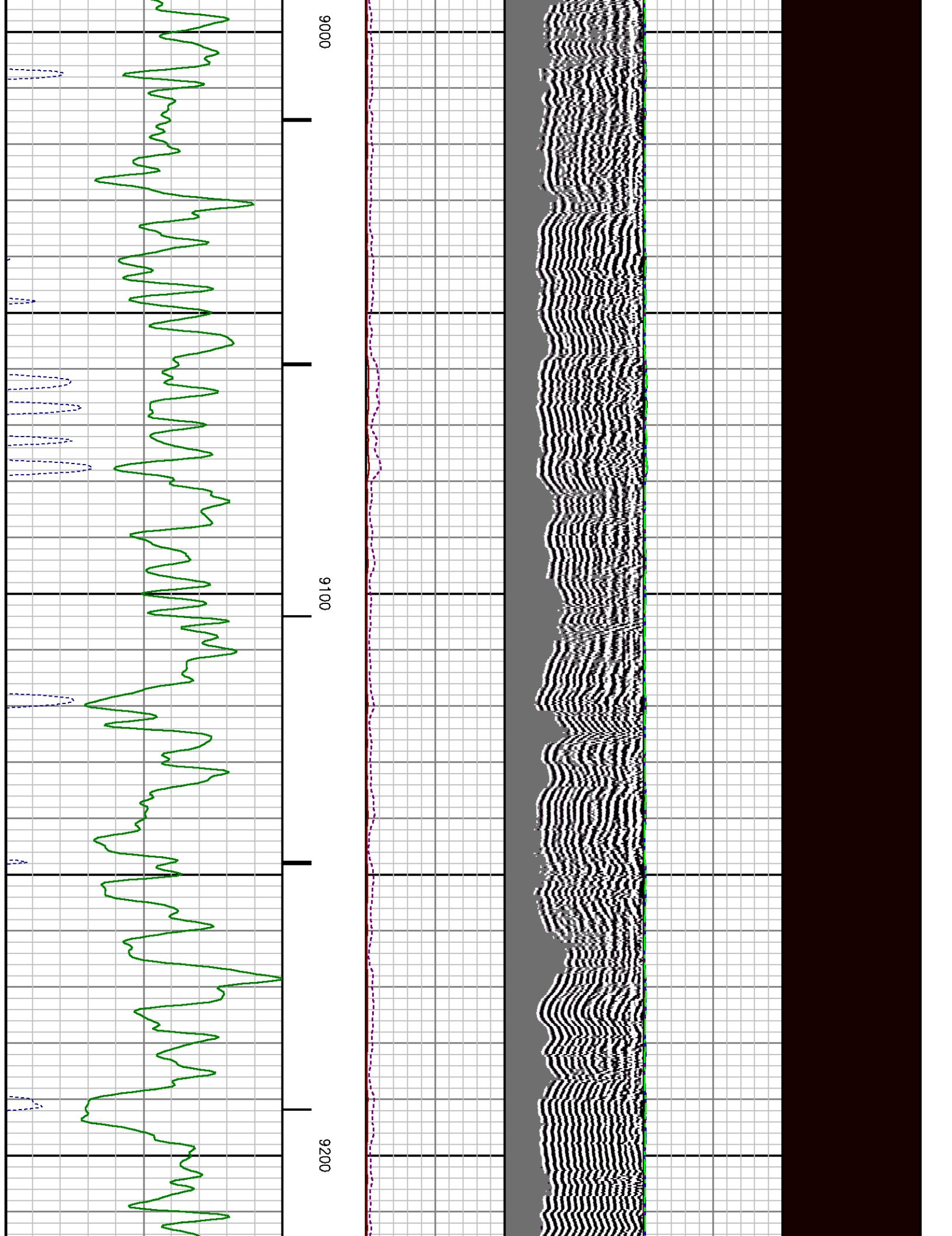


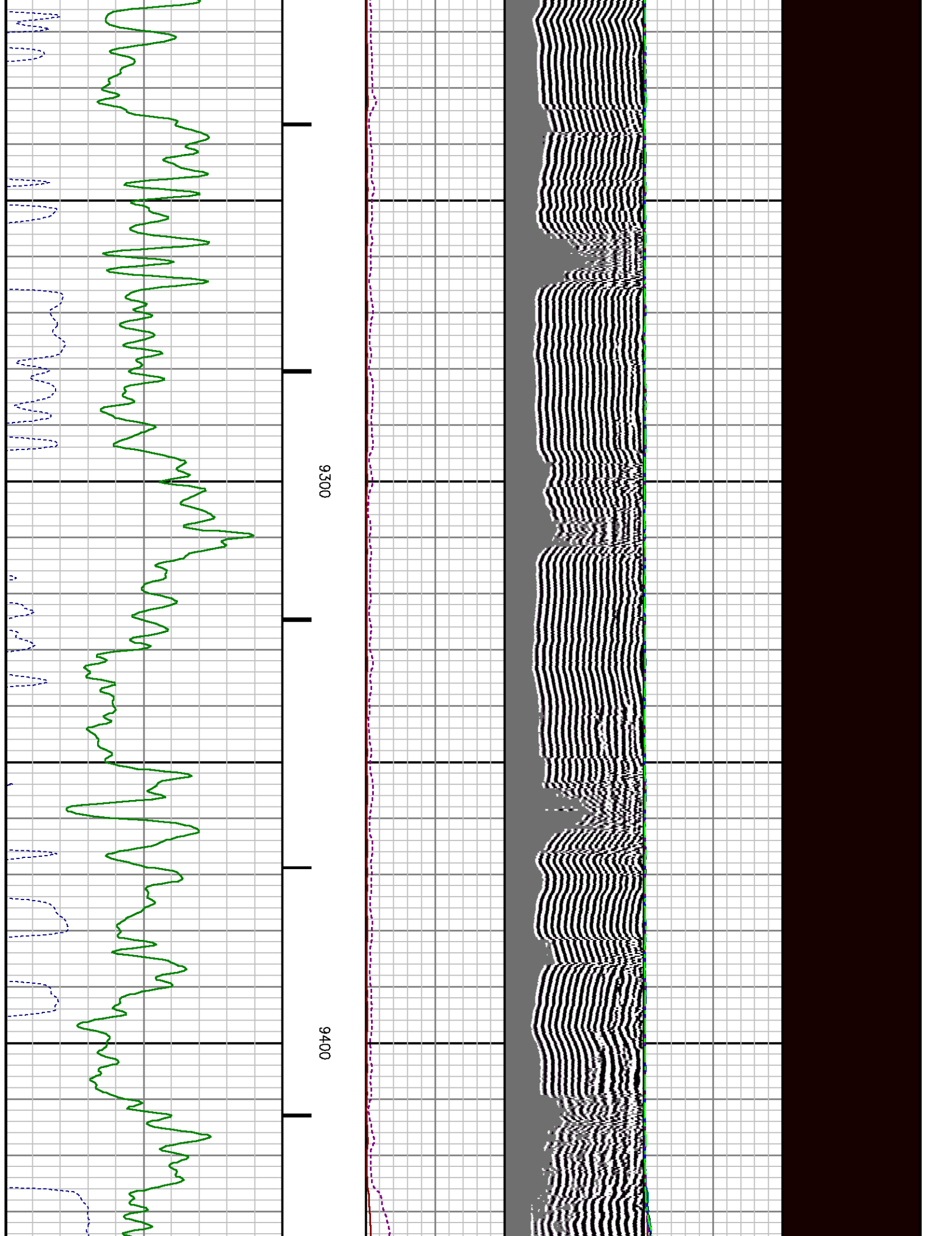


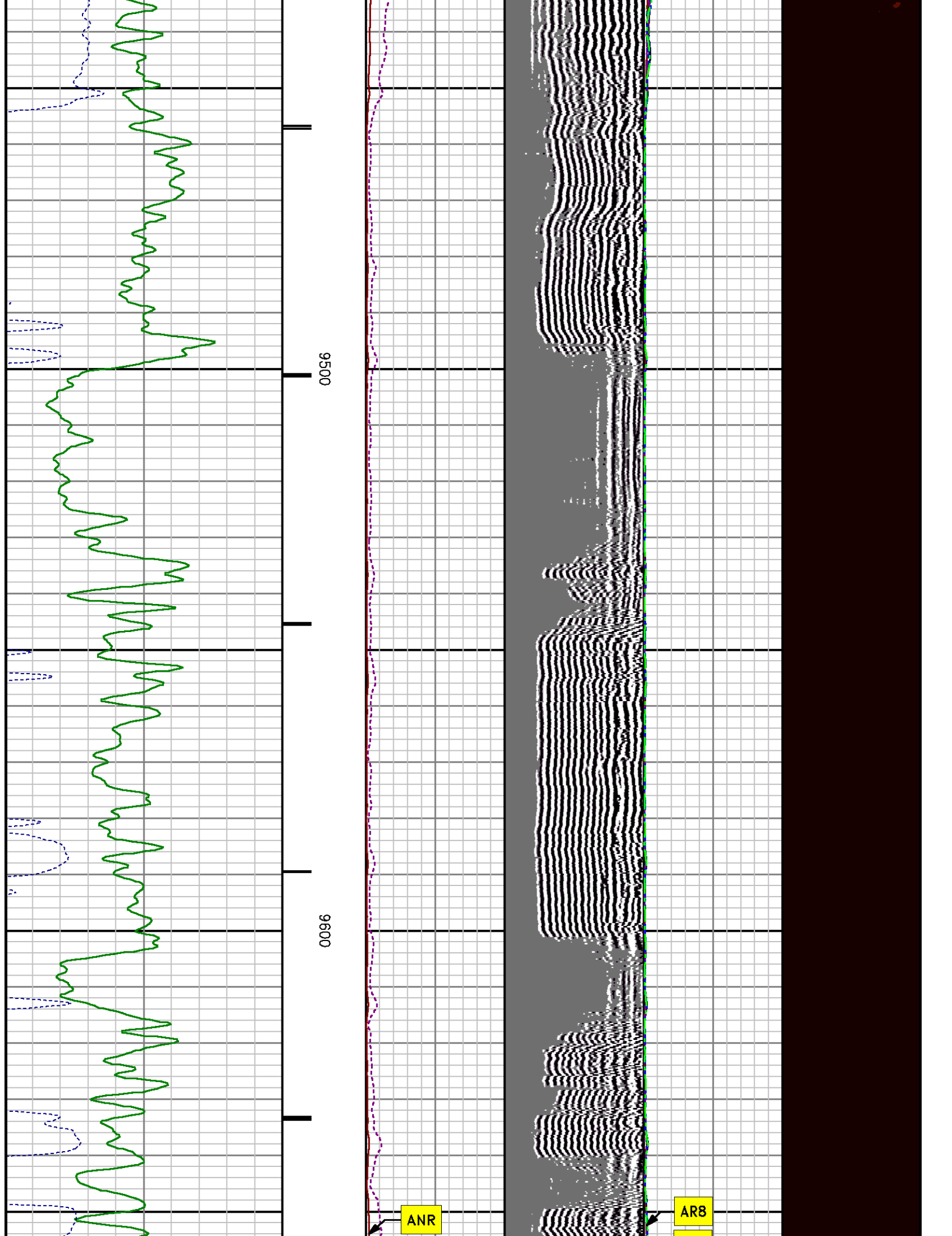


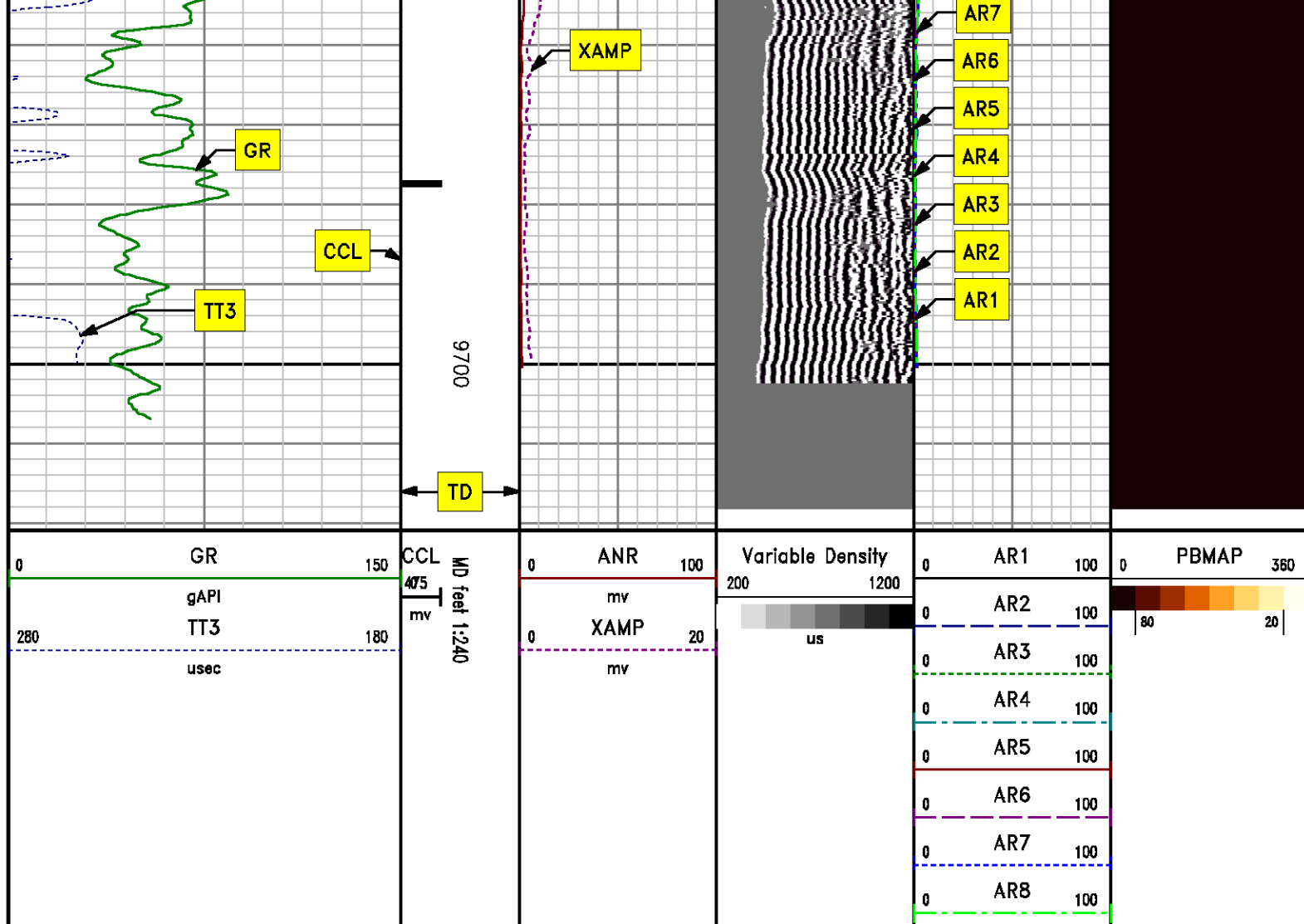












***REPEAT SECTION***  
***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	9396.255	9721.350
RAL	Amp Gate Start Near	195.000	usec	9396.255	9721.350
RAL	Amp Gate Start Radial	195.000	usec	9396.255	9721.350
RAL	Amp Gate Width Far	25.000	usec	9396.255	9721.350
RAL	Amp Gate Width Near	25.000	usec	9396.255	9721.350
RAL	Amp Gate Width Radial	25.000	usec	9396.255	9721.350
RAL	casing od	4.500	inches	9396.255	9721.350

RAL	casing wt	11.600	lbm/ft	9396.255	9721.350
RAL	FB Start Far	291.900	usec	9396.255	9721.350
RAL	FB Start Near	175.391	usec	9396.255	9721.350
RAL	FB Start Radial	175.391	usec	9396.255	9721.350
RAL	FB Thresh Far	10.000	mv	9396.255	9721.350
RAL	FB Thresh Near	4.000	mv	9396.255	9721.350
RAL	FB Thresh Radial	4.000	mv	9396.255	9721.350
RAL	Fluid Travel Time	200.000	usec/ft	9396.255	9721.286

## 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

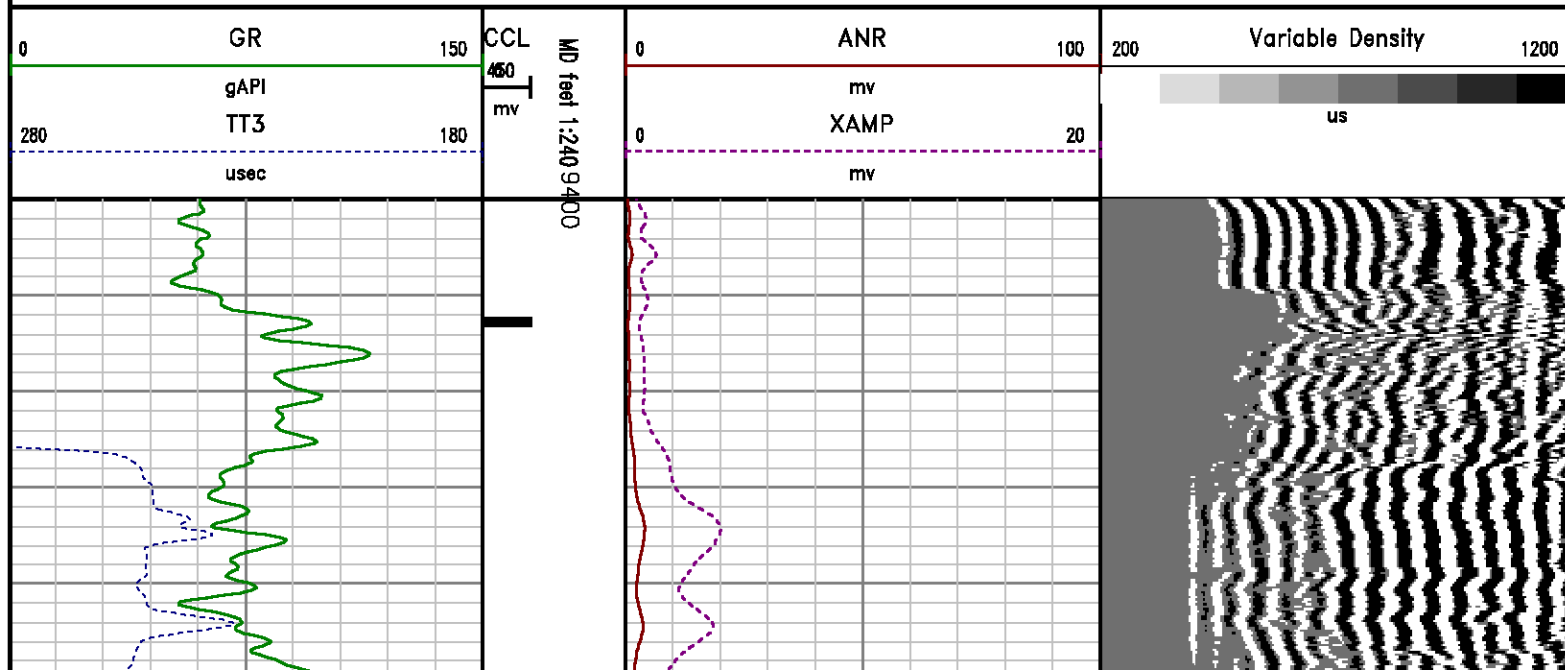
Well : FEDERAL PA 542-21

File Name : d:\welldata\wpx\federal pa 542-21\542cbl\repeat.xtf

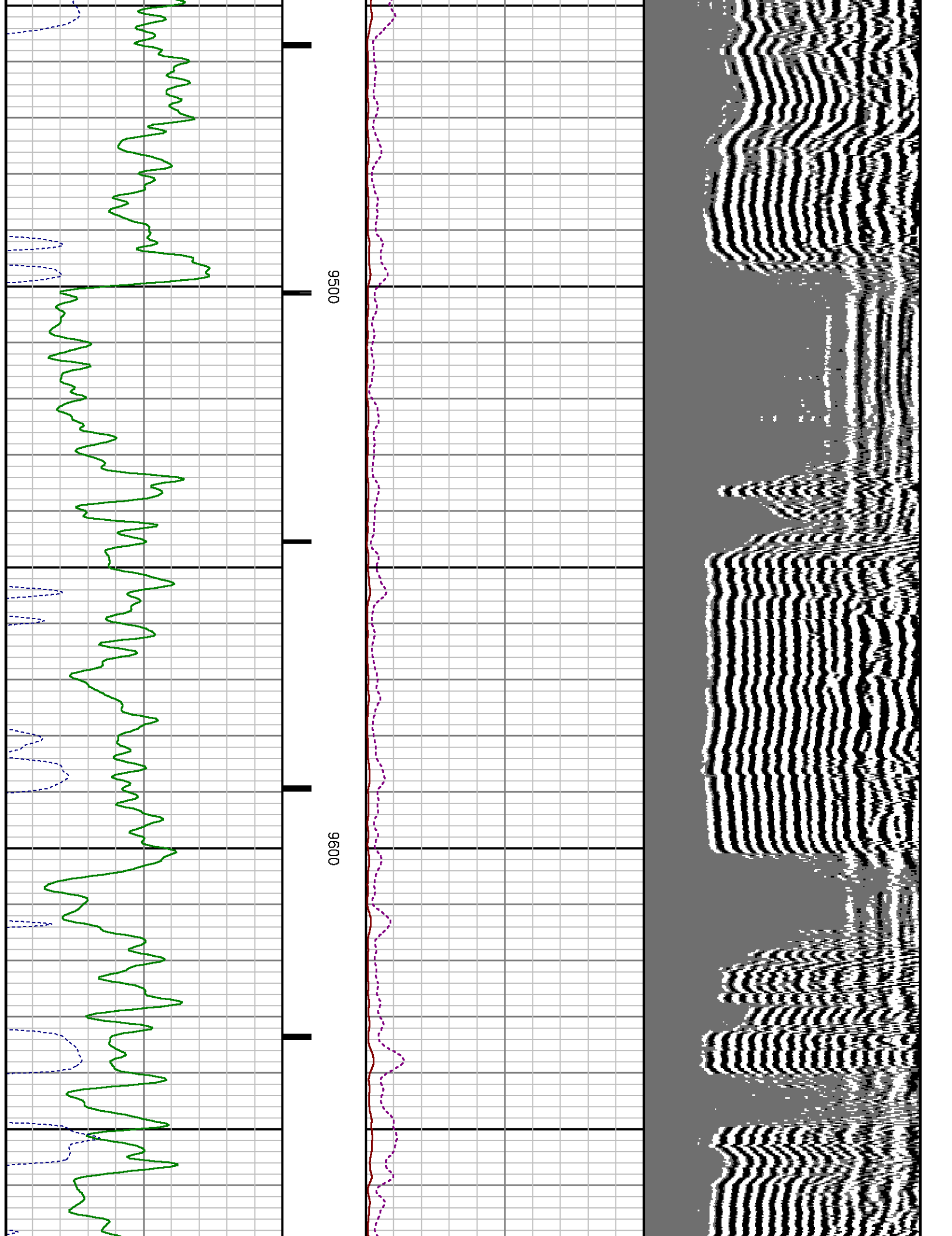
Mode : PlotMgr 5.4.504

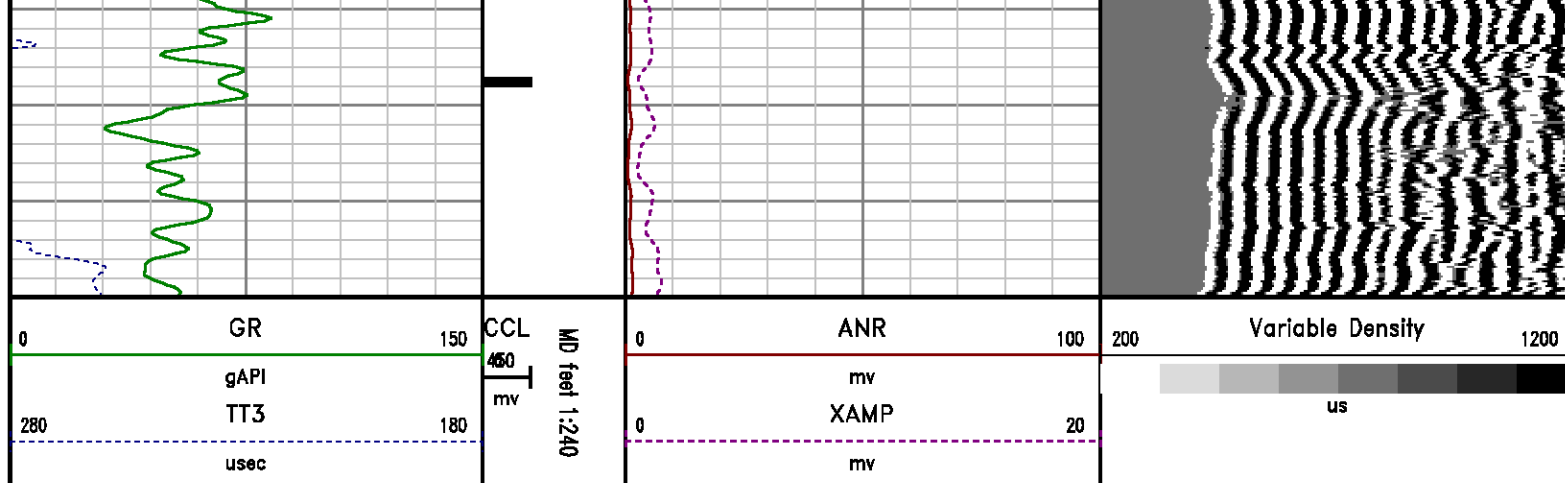
Interval : 9400.00 - 9700.00 feet UP

Created : 2/12/2014 9:10:24 AM









## CALIBRATION SUMMARY

**RALSHP**

Shop Calibration: C:\case\calver\RALSHP\496F11\_shp.cal

### SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Feb 11 13:30:26 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: F11

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	218	216	30	166	25	0.017	100.00	0.16
3 Ft. Receiver	218	216	30	149	25	-0.233	100.00	0.16
5 Ft. Receiver	327	325	30	237	25	0.260	150.00	0.18
Radial #1	218	216	30	150	25	-0.144	100.00	0.16
Radial #2	218	216	30	150	25	-0.418	100.00	0.16
Radial #3	218	216	30	150	25	-0.477	100.00	0.16
Radial #4	218	216	30	150	25	-0.269	100.00	0.16
Radial #5	218	216	30	150	25	-0.203	100.00	0.16
Radial #6	218	216	30	150	25	-0.120	100.00	0.16
Radial #7	216	216	30	150	25	-0.180	100.00	0.16
Radial #8	218	216	30	150	25	-0.205	100.00	0.16

**RALFLD**

## WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Feb 11 13:35:03 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: F11

Tool Delay [usec]  Casing OD  Casing Wt  Casing ID   
In lbm/ft In

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	166	25	-0.010	0.000	1.00	100.000
3 Ft. Receiver	195	25	1.905			
5 Ft. Receiver	305	25	2.558			
Radial #1	195	25	1.327			
Radial #2	195	25	1.354			
Radial #3	195	25	1.478			
Radial #4	195	25	1.517			
Radial #5	195	25	1.726			
Radial #6	195	25	1.847			
Radial #7	195	25	1.511			
Radial #8	195	25	1.501			

**GAMMA RAY**

Calibration File: C:\case\calver\GR\121J2.cal

## CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jan 21 14:45:39 2014 TOOL SERIES: 2459XA ASSET: 121 SEQ: J2

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
SK2 WA612	71.78	314.67	0.762	54.67	239.67	185.00

Verification File: C:\case\calver\GR\121J2.VP

## PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Tue Jan 21 14:46:51 2014 TOOL SERIES: 2459XA ASSET: 121 SEQ: J2

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
SK2 WA612	74.22	316.93	0.762	56.53	241.40	184.86

**TOOL DIAGRAM**

**OTA SHORT CABLE HEAD****PROBE 2 3/4 DUAL RECEIVER RADII**

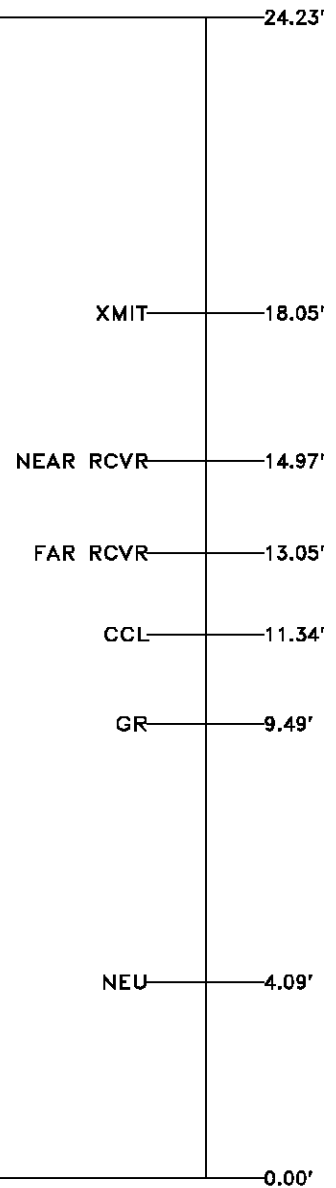
Series 1426XA  
Mnemonic PROB  
Diameter 2.75"  
Length 11.17'  
Measure Point 0.75' FAR RCVR  
Measure Point 2.67' NEAR RCVR  
Measure Point 5.75' XMIT  
Temp Rating 350.00 °F  
Press Rating 18000.00 PSI

**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

**CENTRALIZER**

Series RALCENT  
Mnemonic CENT  
Diameter 3.12"  
Weight 20.00 lb



Total Length: 24.23'  
Total Weight: Not Available  
Max Diameter: 0' 3.12"

**Baker Atlas****CASE****Company**

WPX ENERGY

**Well**

FEDERAL PA 542-21

**Field**

PARACHUTE

**County**

GARFIELD

**State**

CO

**Location**

SHL: 2610' FNL &amp; 1456' FWL

BHL: 2802' FNL &amp; 258' FEL

**Elevations**

KB 6056 ft

DF

GL 6030 ft

**File No:**

CH082312

**API No:**

05045220280000

21 6S 95W

PA 22-21 PAD

NABORS 573

SEC 21 TWP 6S RGE 95W