



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH081686 Company WPX ENERGY

Well BOSELY SG 11-27

API No: GRAND VALLEY

County GARFIELD State CO

05045221270000

## Location

SHL: 592' FNL & 1960' FWL

BHL: 128' FNL & 145' FWL

SEC 27 TWP 75 RGE 96W

## Other Services

RPM

Permanent Datum 6L Elevation 5258 ft

Log Measured From KB 25 ft Above P. D.

Drill Measured From KB Elevations KB 5253 ft DF GL 5258 ft

Date 02/FEB/14

Run ONE

Service Order US625276

Depth Driller 5810 ft

Depth Logger 5786 ft

Bottom Logged Interval 5776 ft

Top Logged Interval 25 ft

Time Started 13:00

Time Finished 15:30

Operator Rig Time 2.5 HOURS

Type of Fluid in Hole WATER

Fluid Density NA

Salinity NA

Fluid Level SS ft

Logged Cement Top NA

Wellhead Pressure 0 psi

Maximum Hole Deviation NA

Nominal Logging Speed 65 fpm

Maximum Recorded Temperature 184 degF

Reference Log NA

Equipment No. 4271 Location GRAND JCT.

Recorded By NEWELL

Witnessed By DUSTIN WELSH

- 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	1289 ft
8.75 in	1289 ft	5837 ft

## Casing Record

Size	Weight	Grade	From	To
9.625 in			0 ft	1289 ft
4.5 in	11.6 lbm/ft	1-80	0 ft	5837 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 9 feet.

Logged with zero PSI at wellhead.

BHT = 184 °F

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	37.610	5788.250
RAL	Amp Gate Start Near	195.000	usec	37.610	5788.250
RAL	Amp Gate Start Radial	195.000	usec	37.610	5788.250
RAL	Amp Gate Width Far	25.000	usec	37.610	5788.250
RAL	Amp Gate Width Near	25.000	usec	37.610	5788.250
RAL	Amp Gate Width Radial	25.000	usec	37.610	5788.250
RAL	casing od	4.500	inches	37.610	5788.250
RAL	casing wt	11.600	lbm/ft	37.610	5788.250
RAL	FB Start Far	291.900	usec	37.610	5788.250
RAL	FB Start Near	175.391	usec	37.610	5788.250
RAL	FB Start Radial	175.391	usec	37.610	5788.250
RAL	FB Thresh Far	10.000	mv	37.610	5788.250
RAL	FB Thresh Near	4.000	mv	37.610	5788.250
RAL	FB Thresh Radial	4.000	mv	37.610	5788.250
RAL	Fluid Travel Time	200.000	usec/ft	37.610	5787.860

**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

1426XA -15.750  
2459XA -11.340  
2459XA -9.490  
2459XA -4.090

FPR3	FPR5	TT3	TTR1	TTR2	TTR3
TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
AFAR	SIG	TT5			
CCL					
GR					
NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

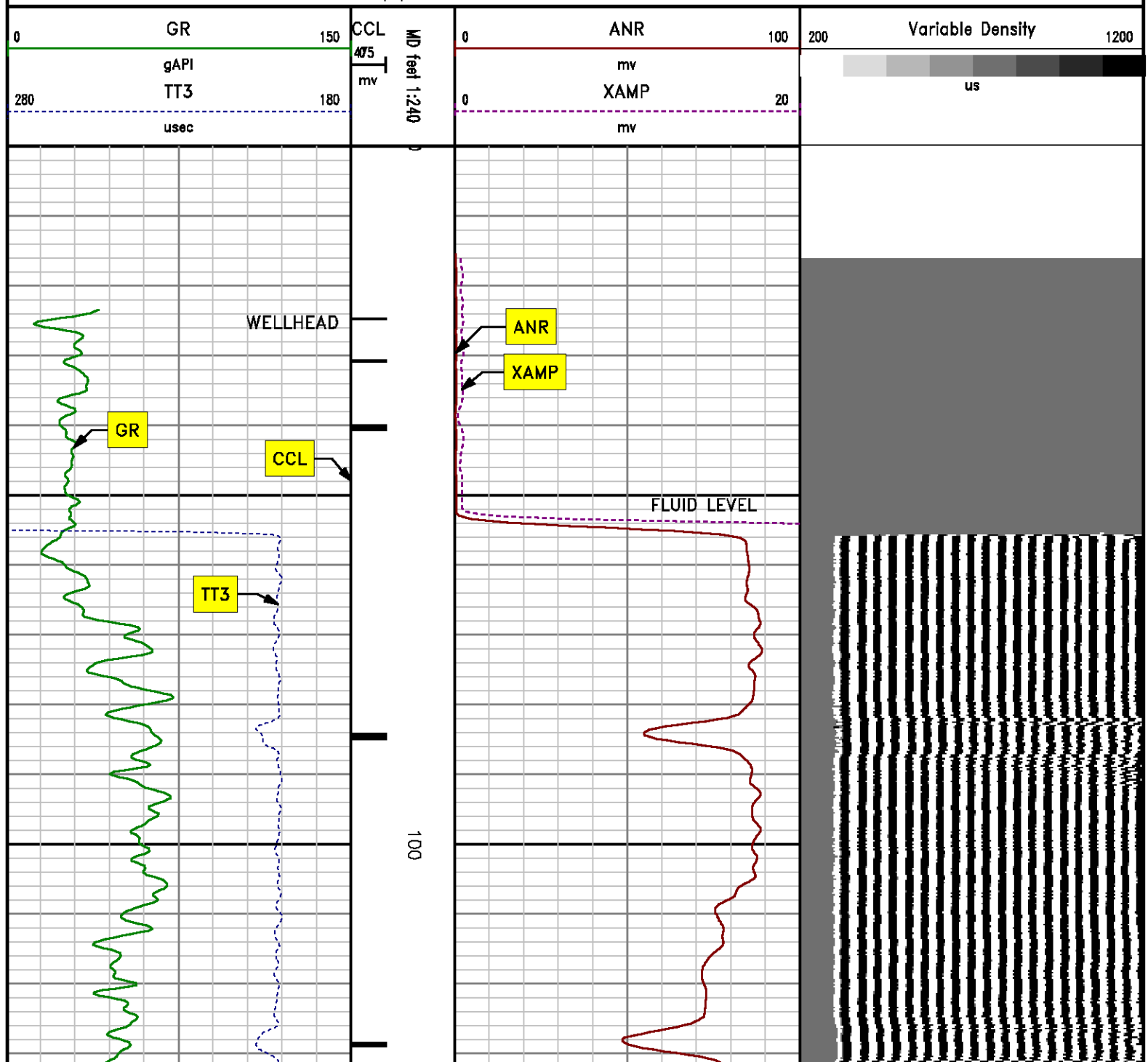
Well : BOSELY SG 11-27

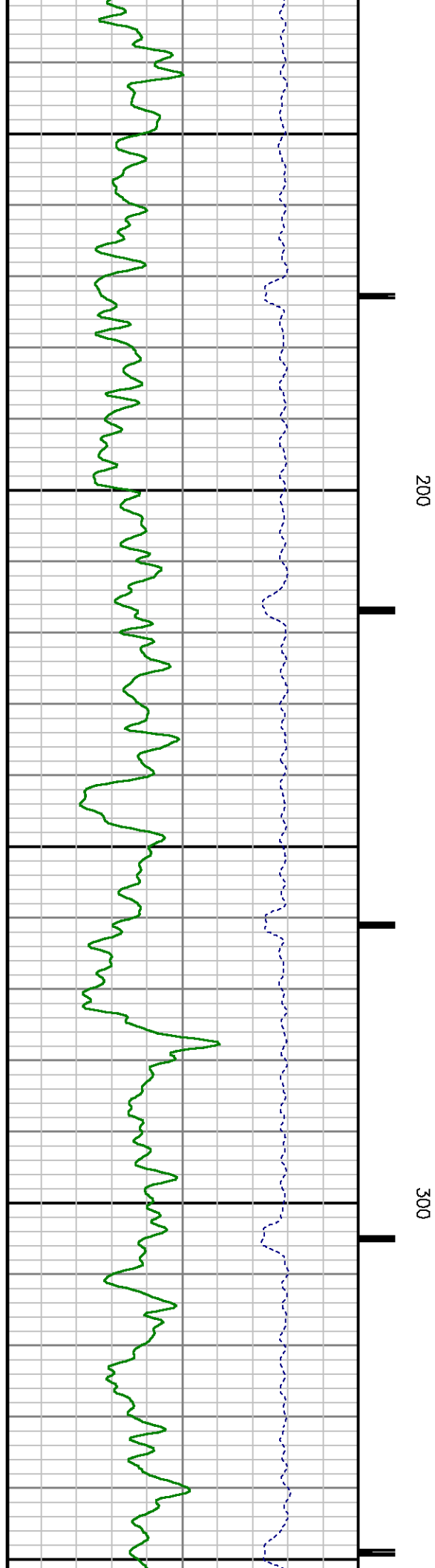
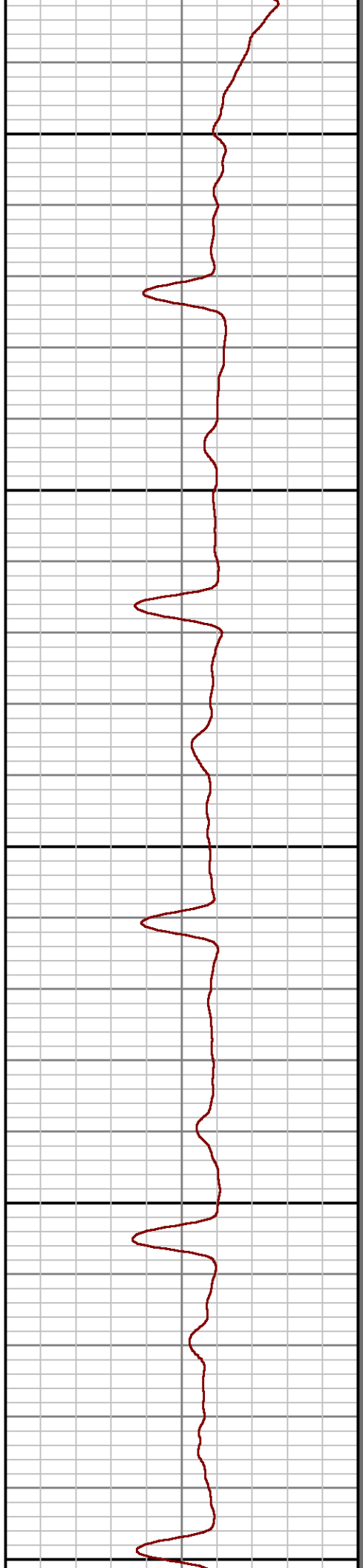
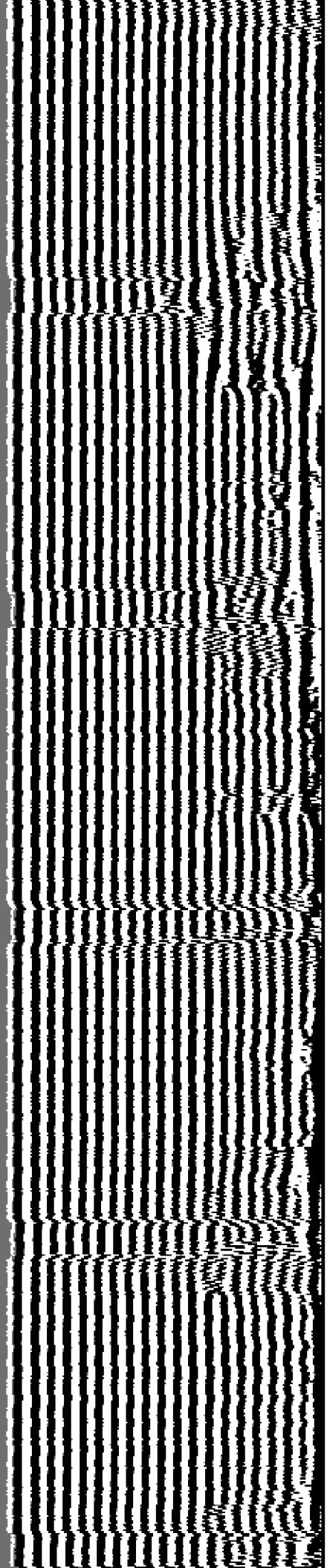
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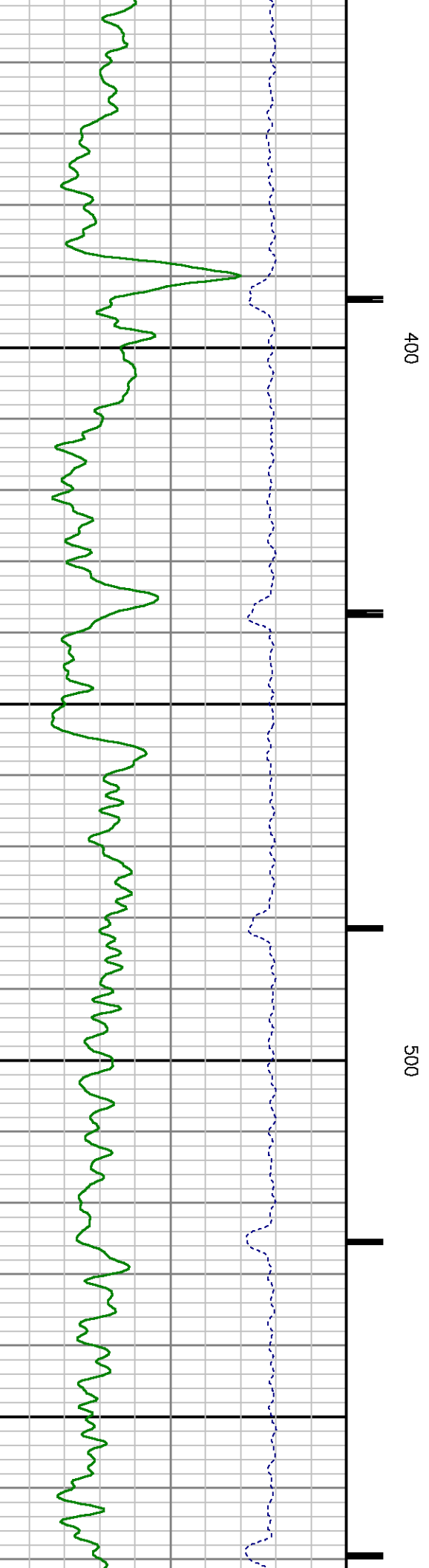
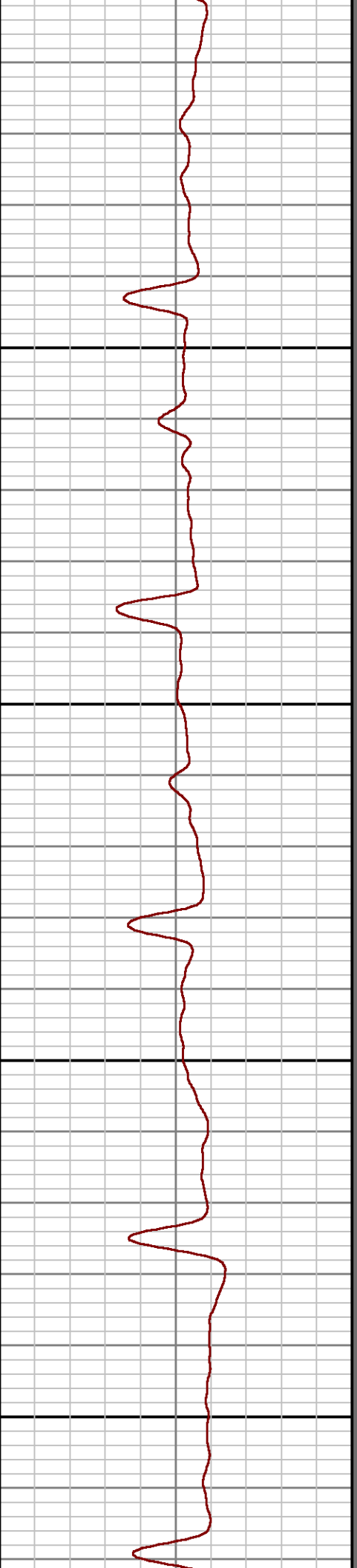
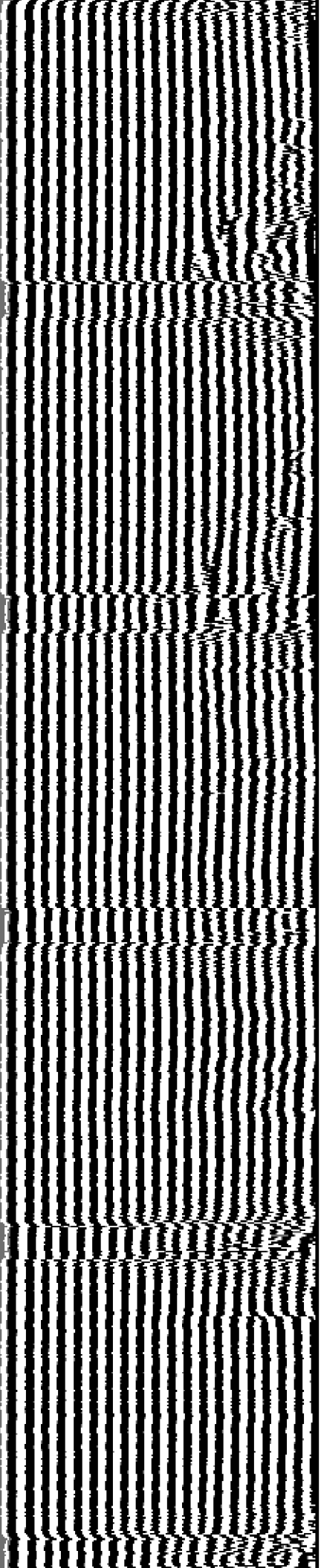
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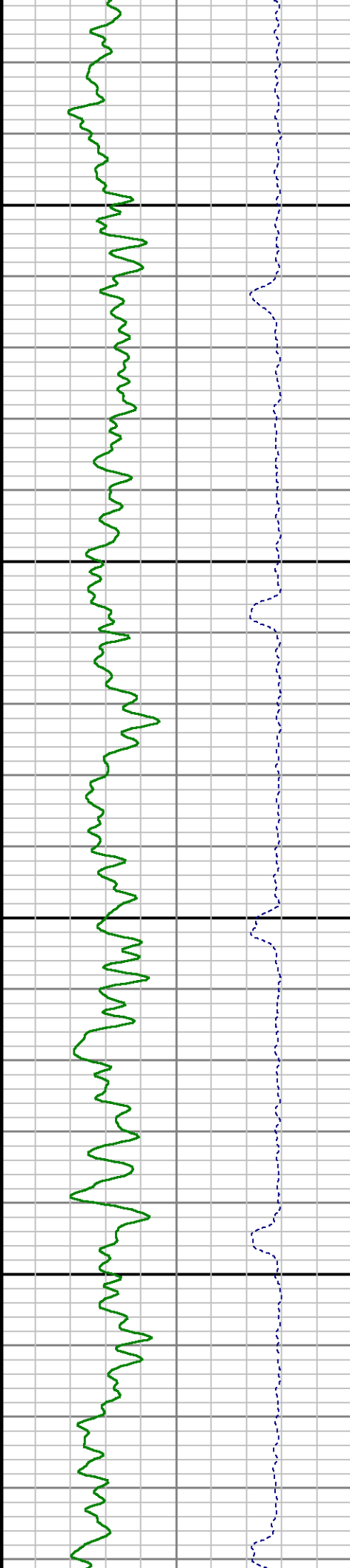
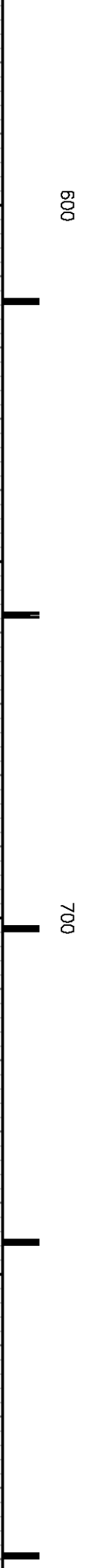
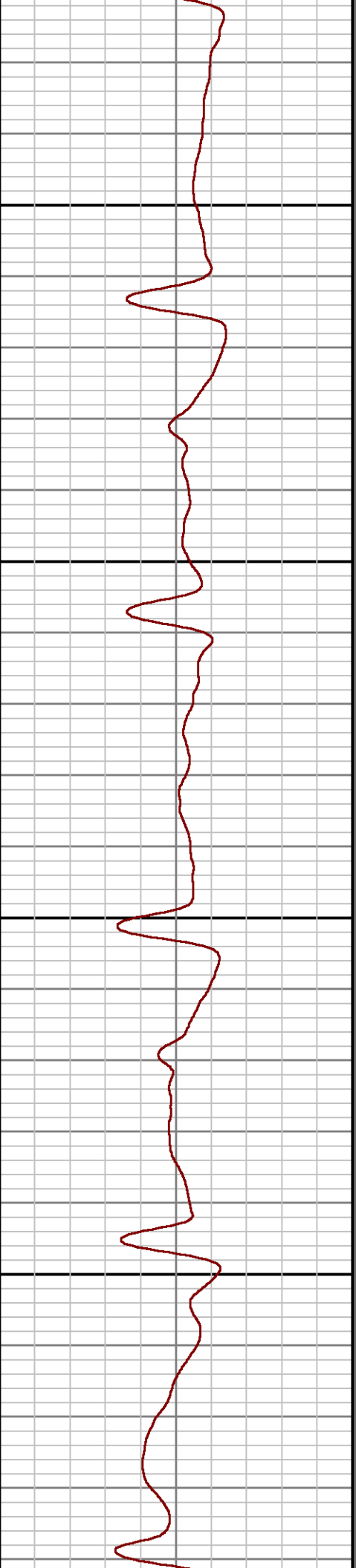
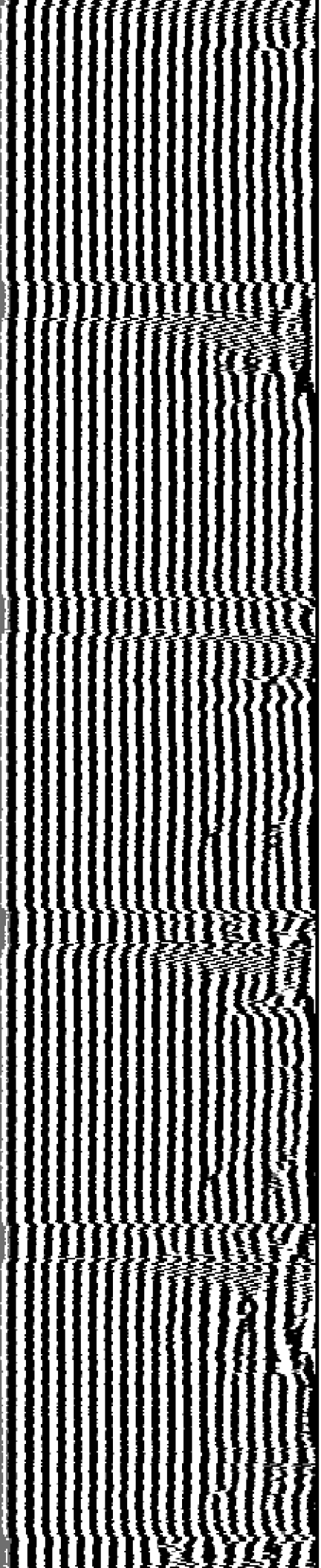
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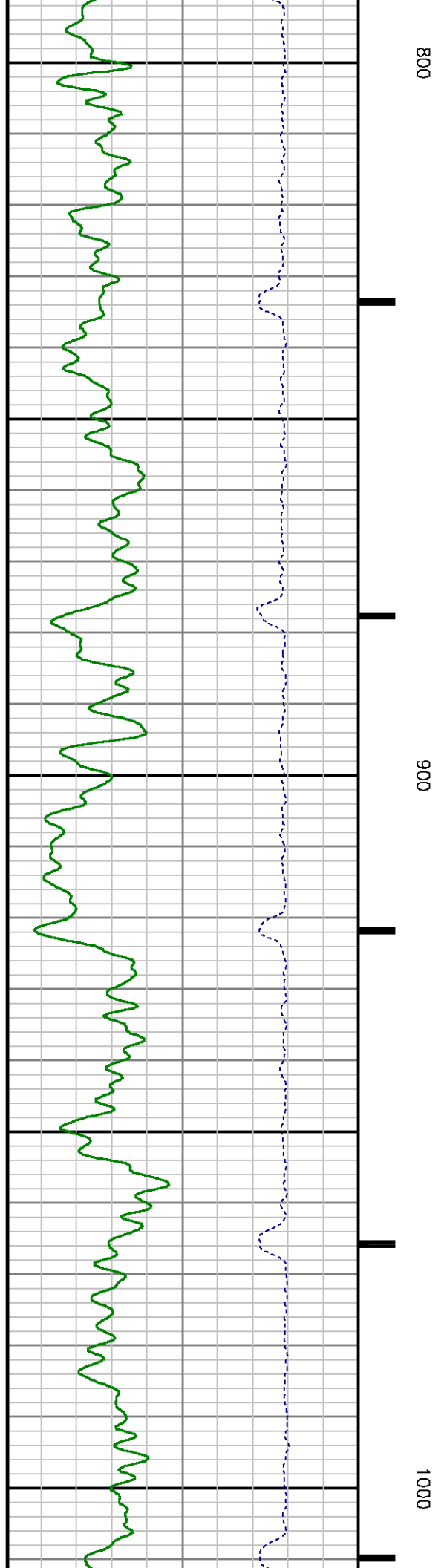
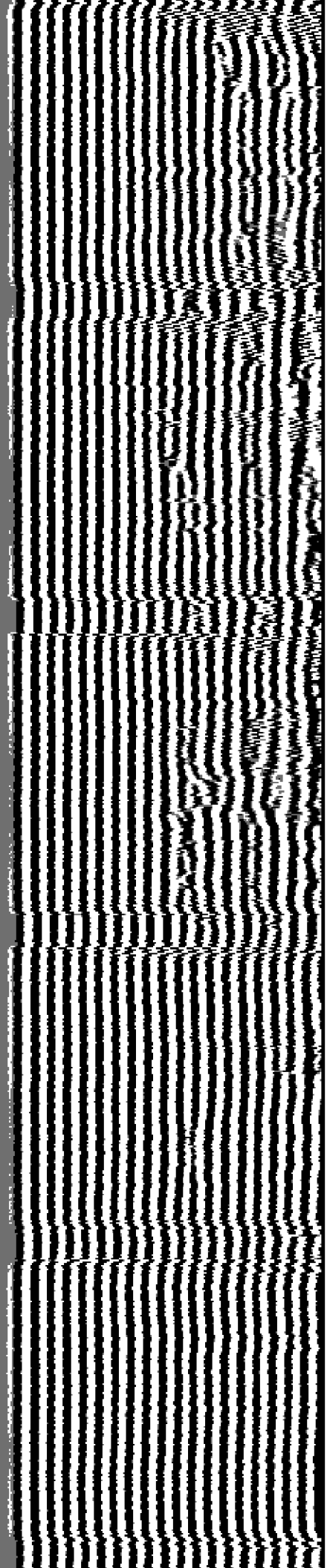
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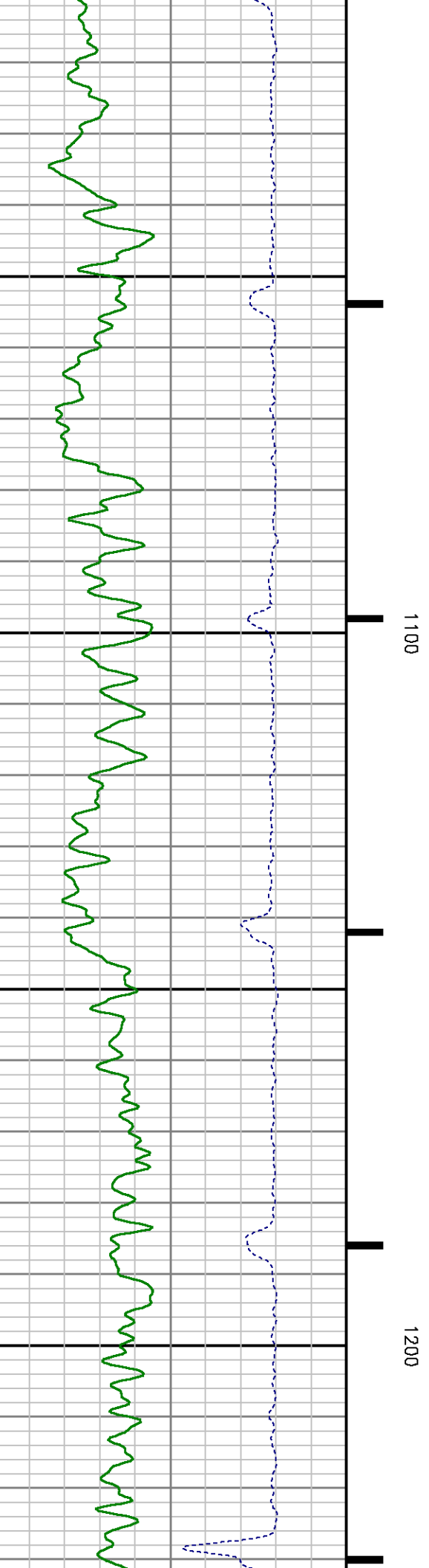
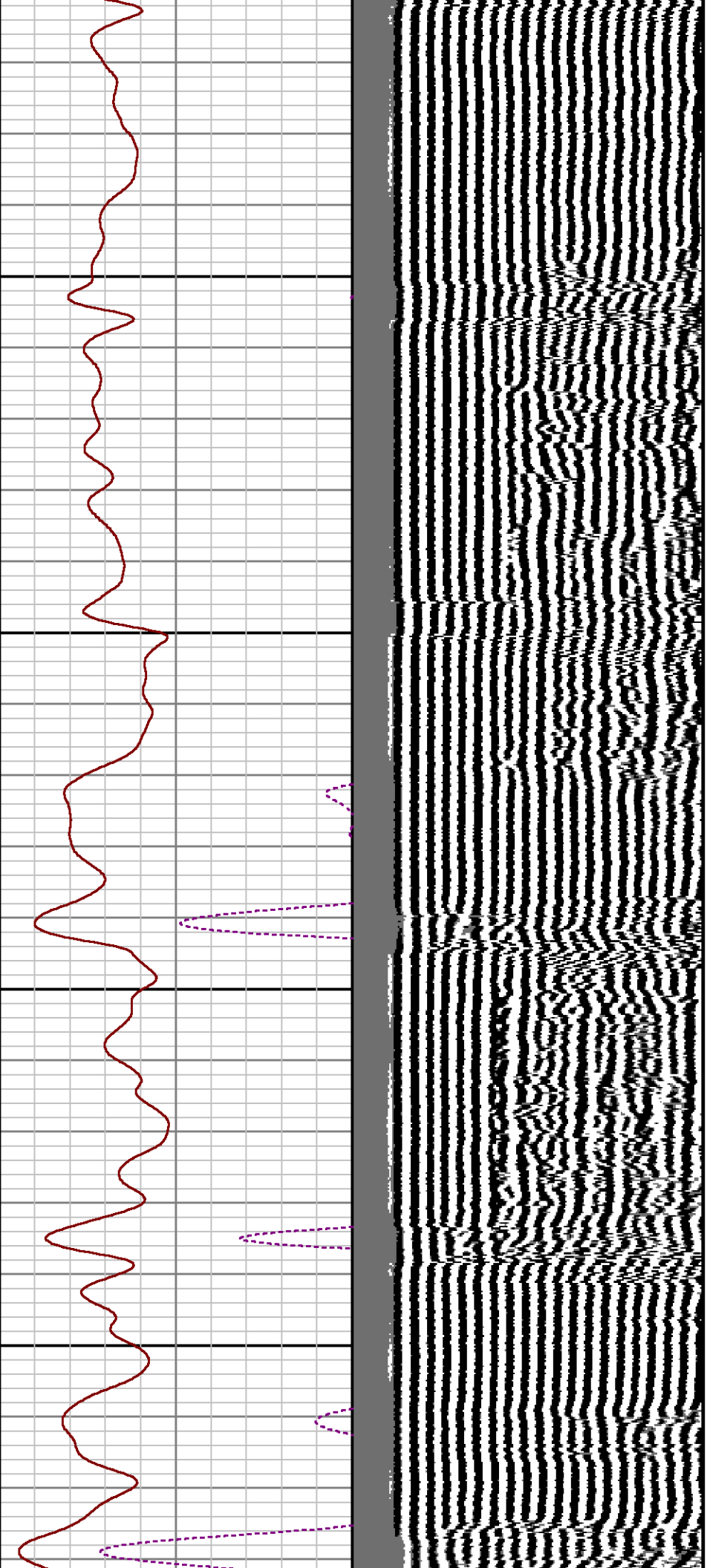




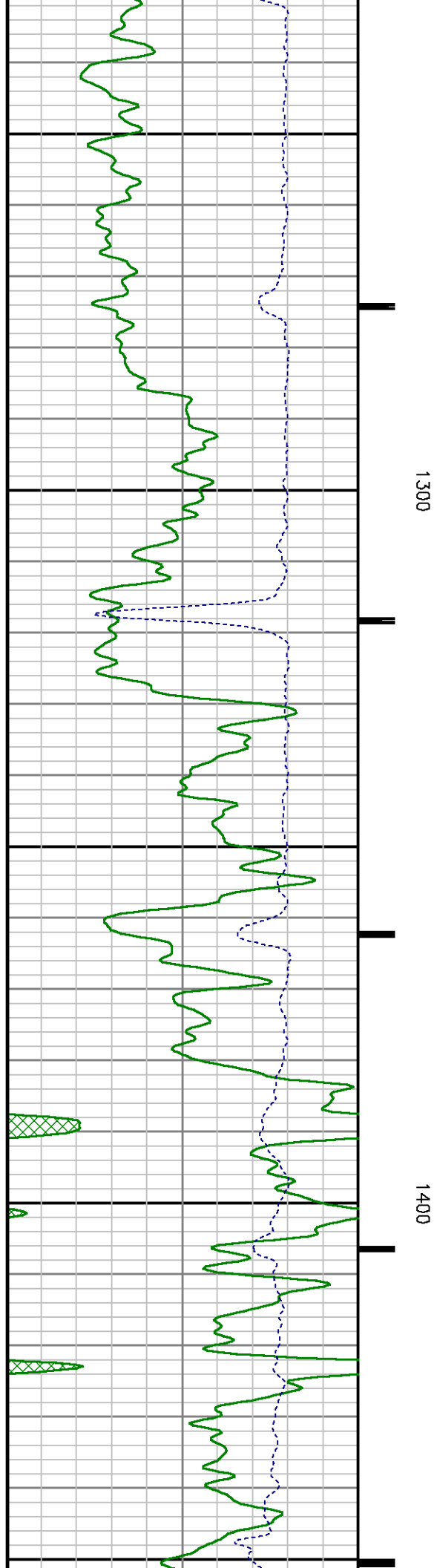
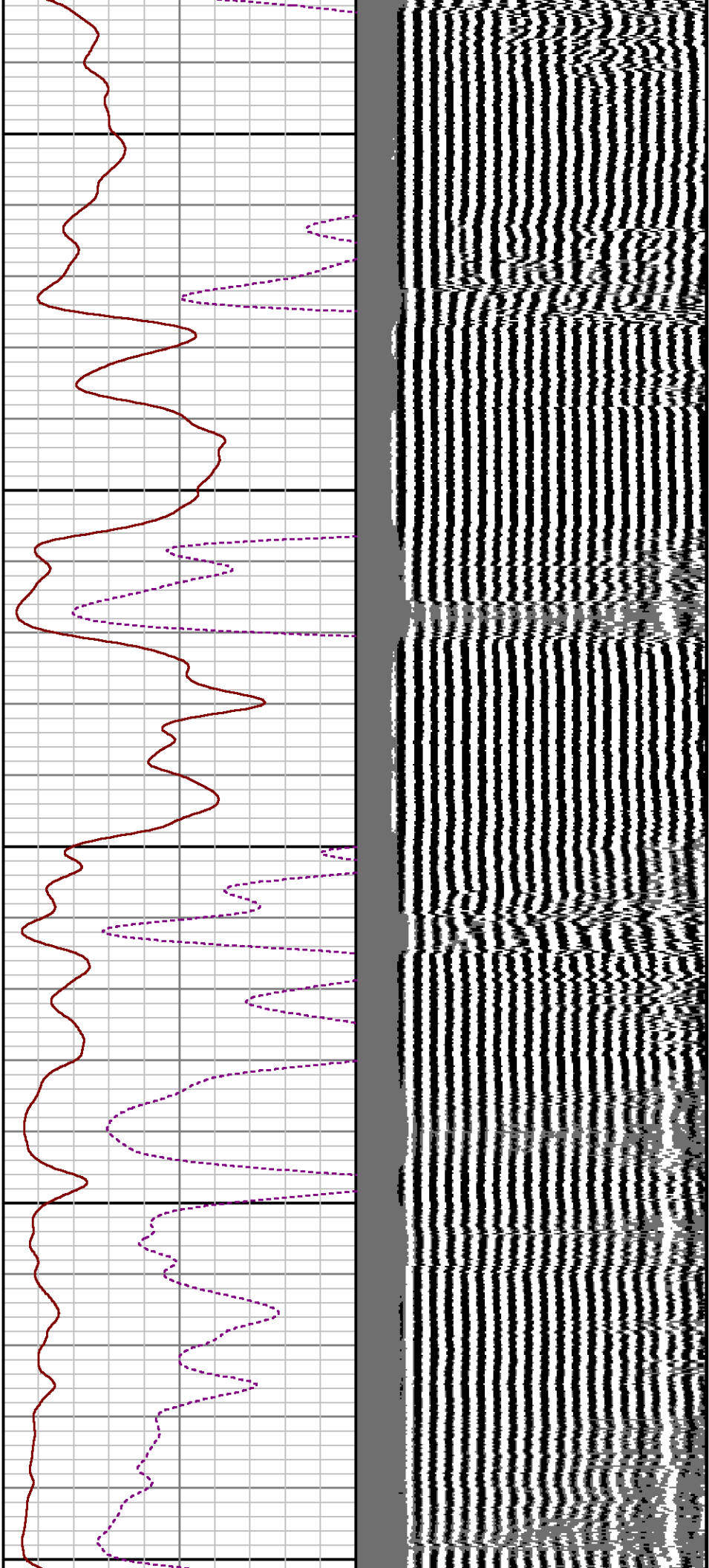


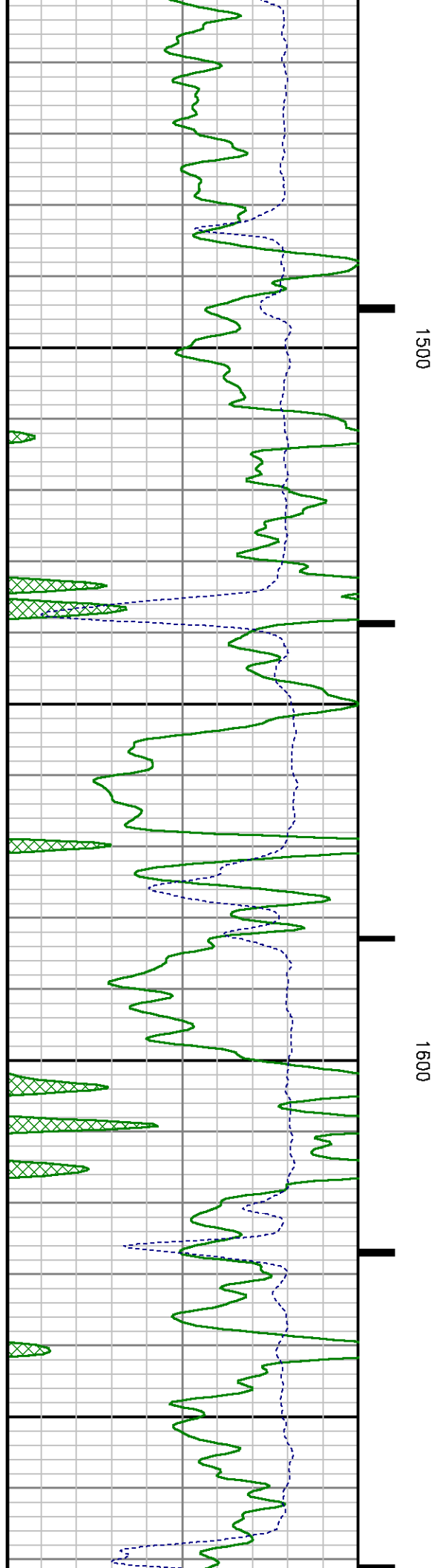
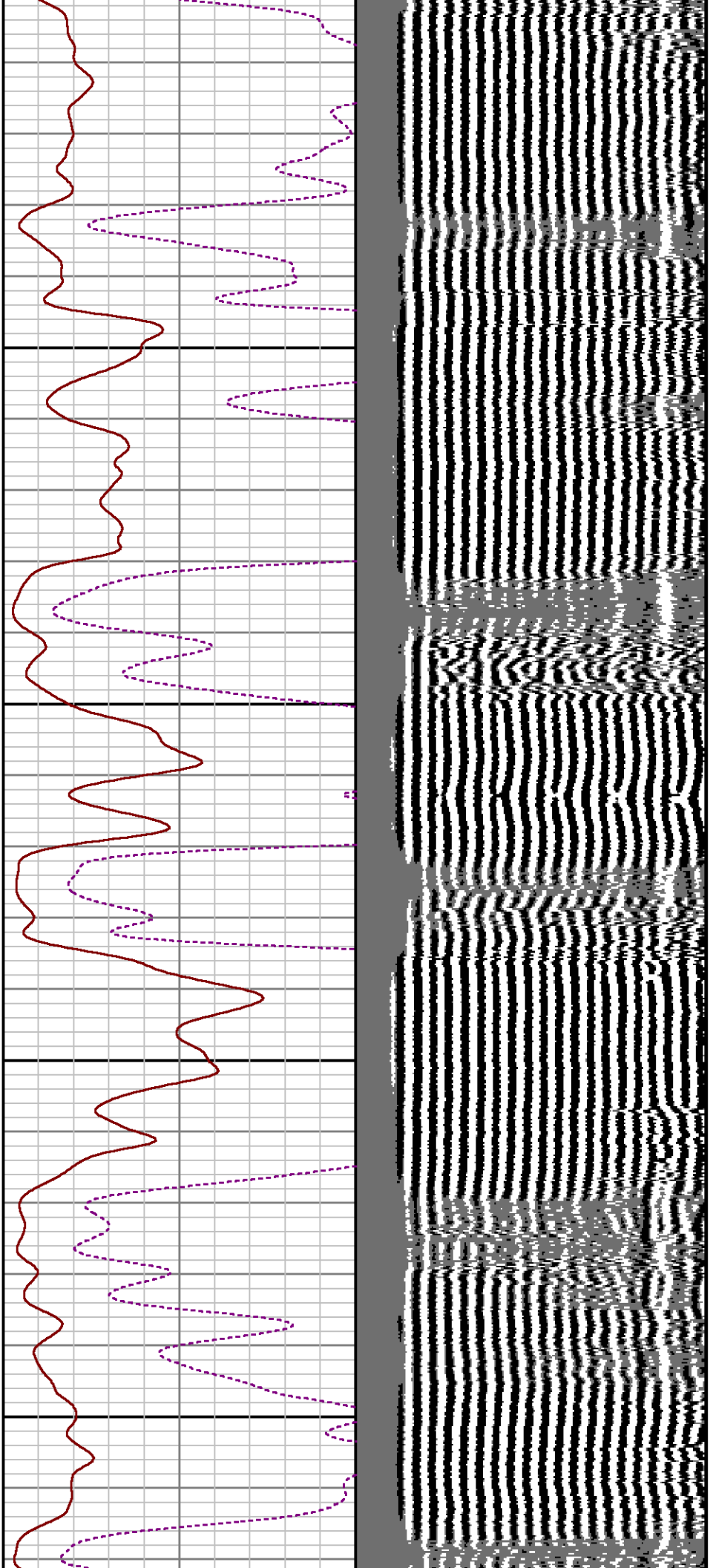


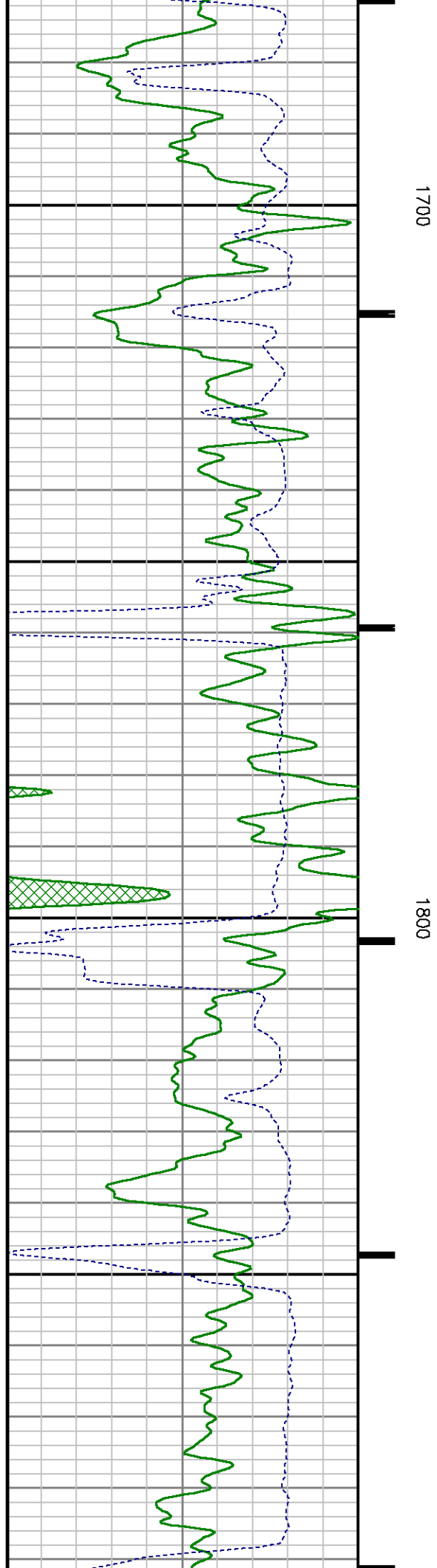
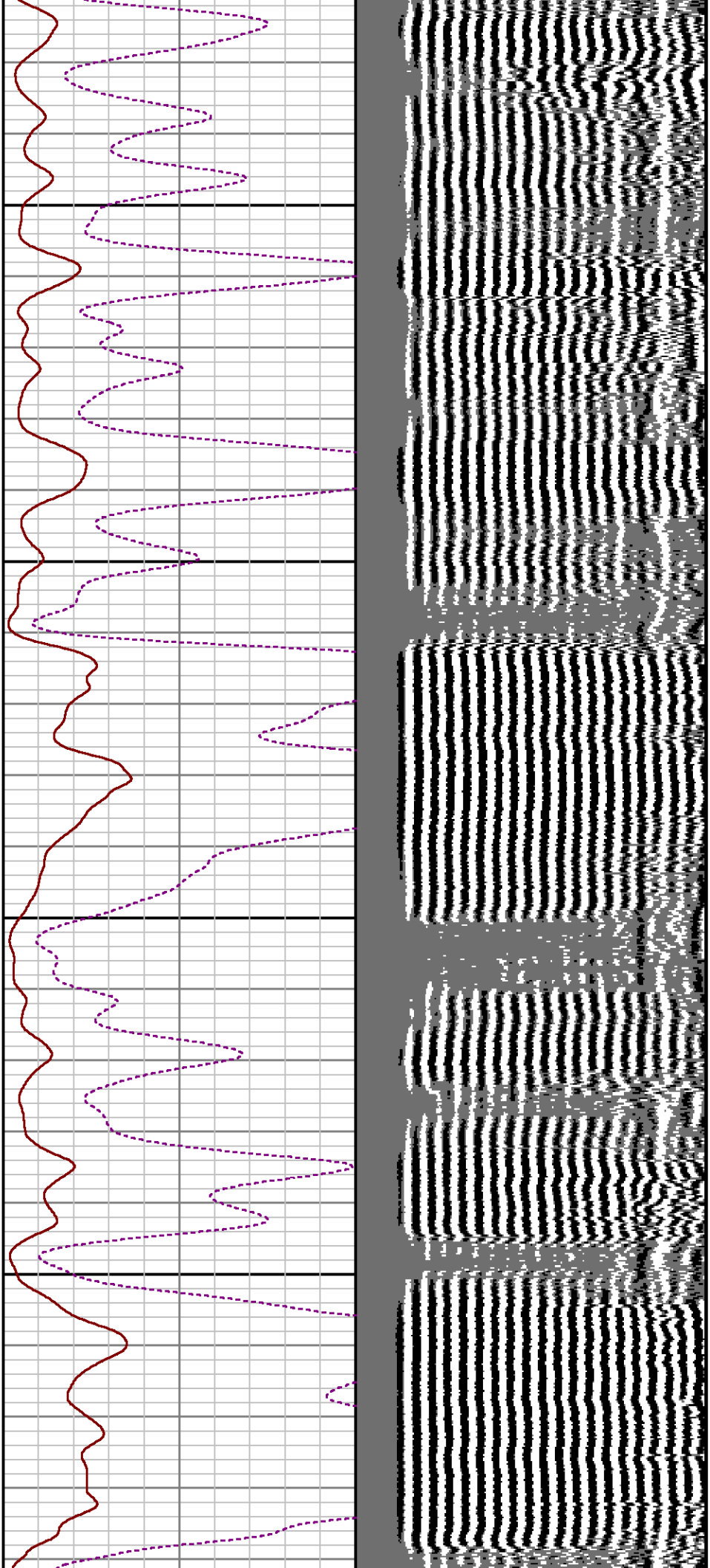


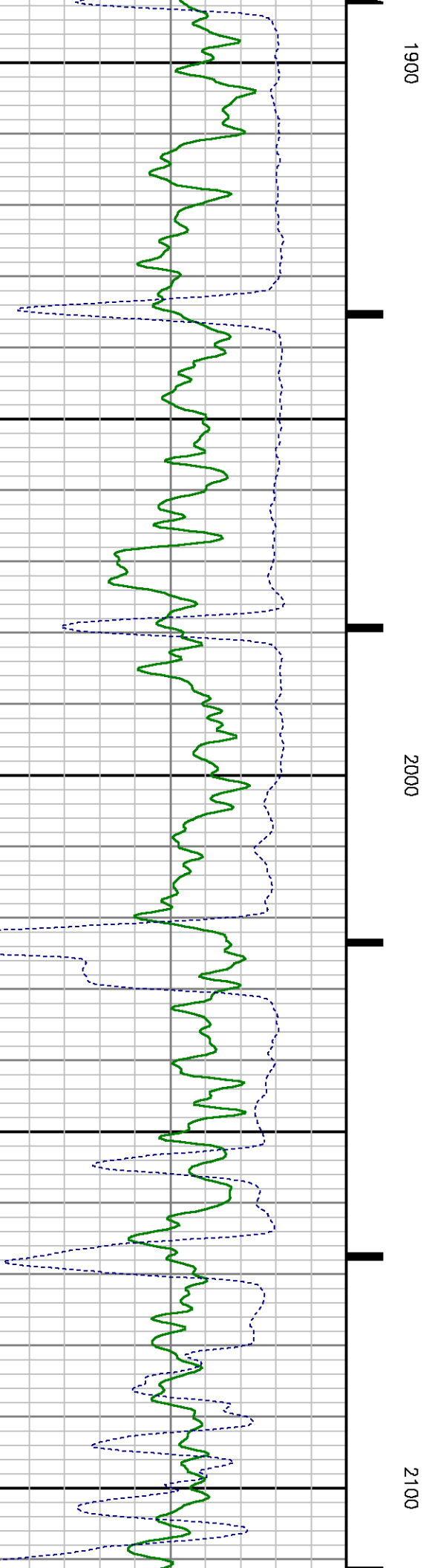
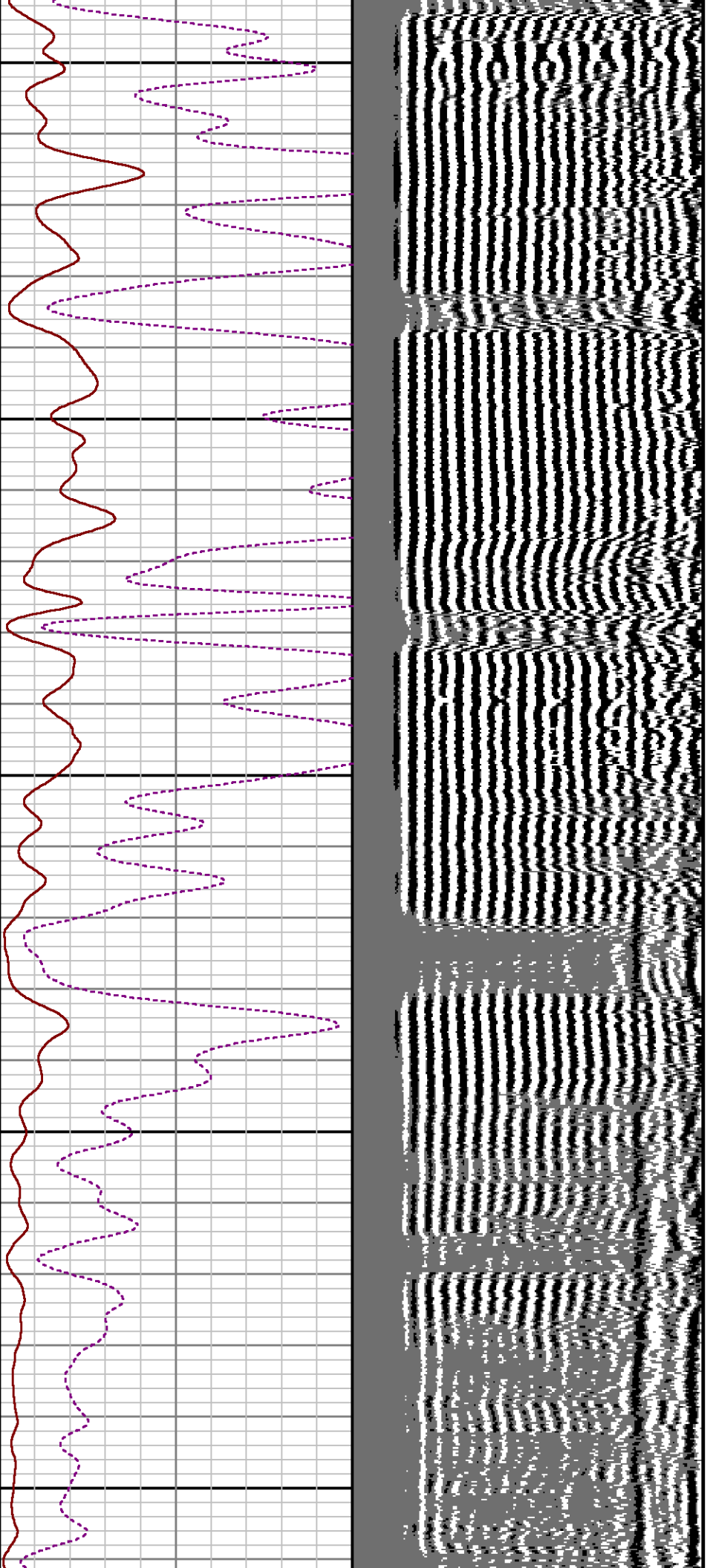




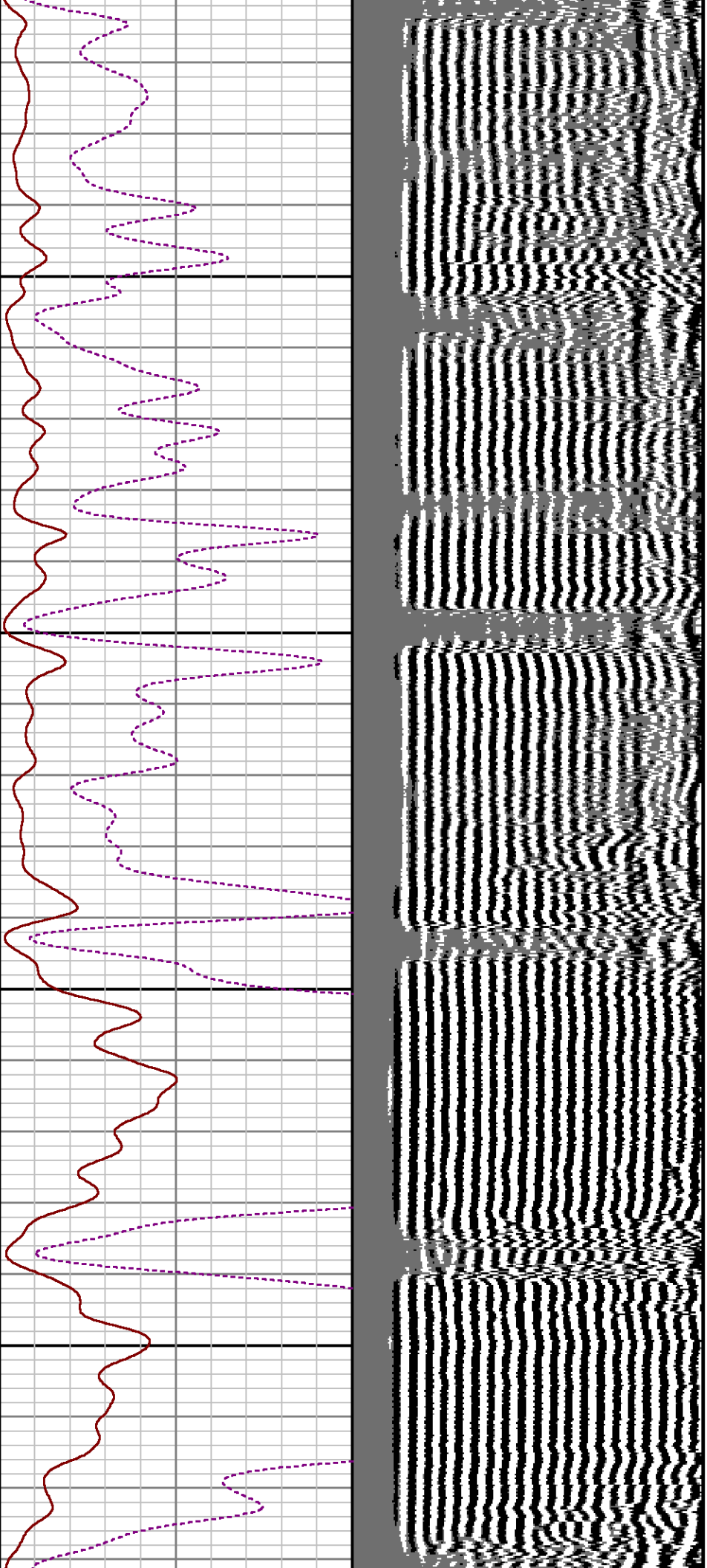






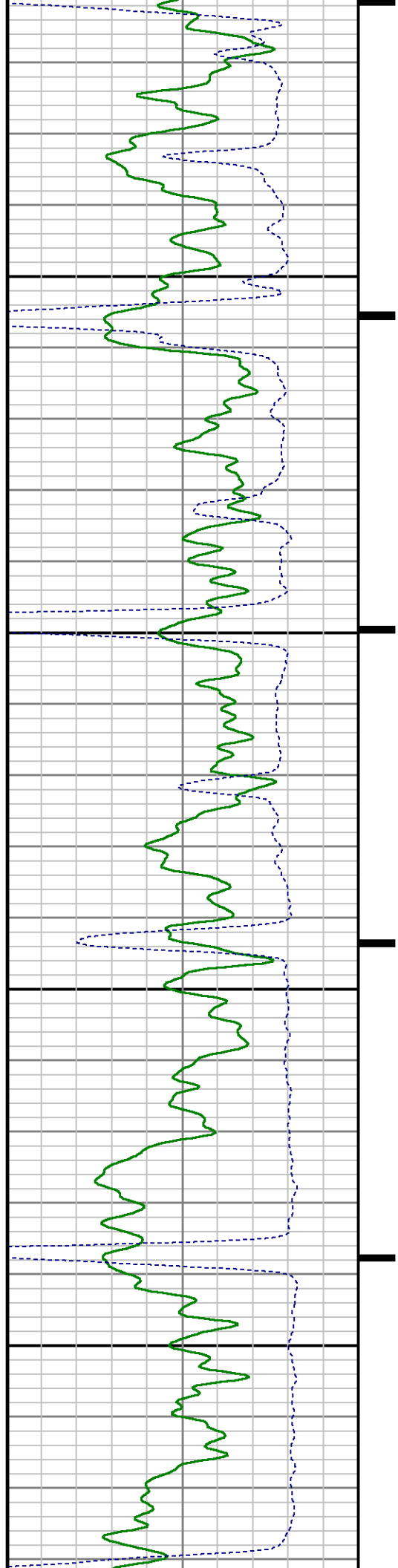


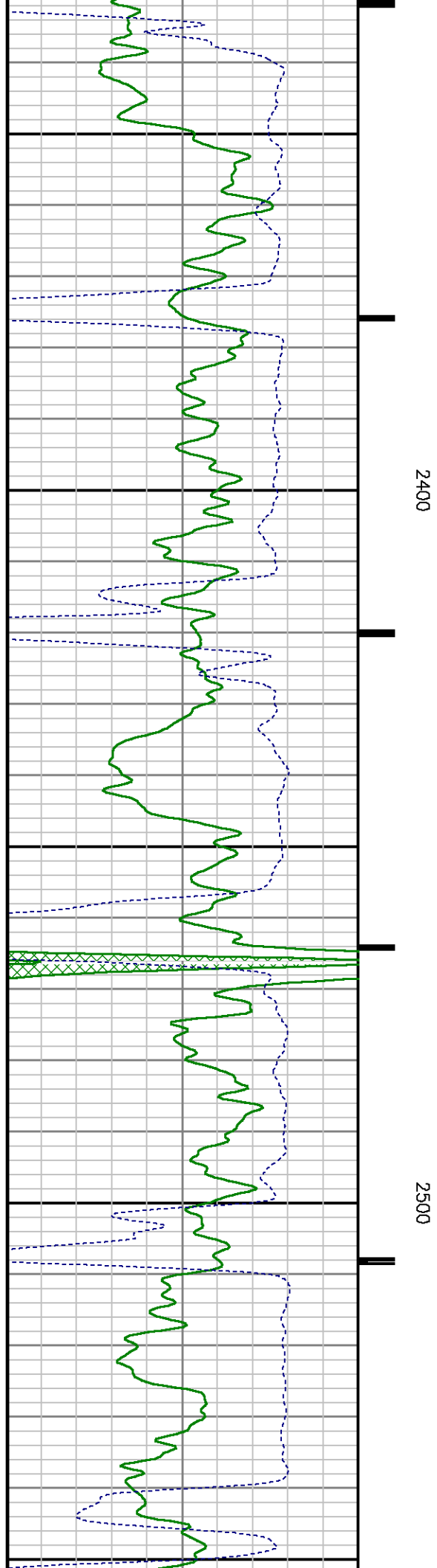
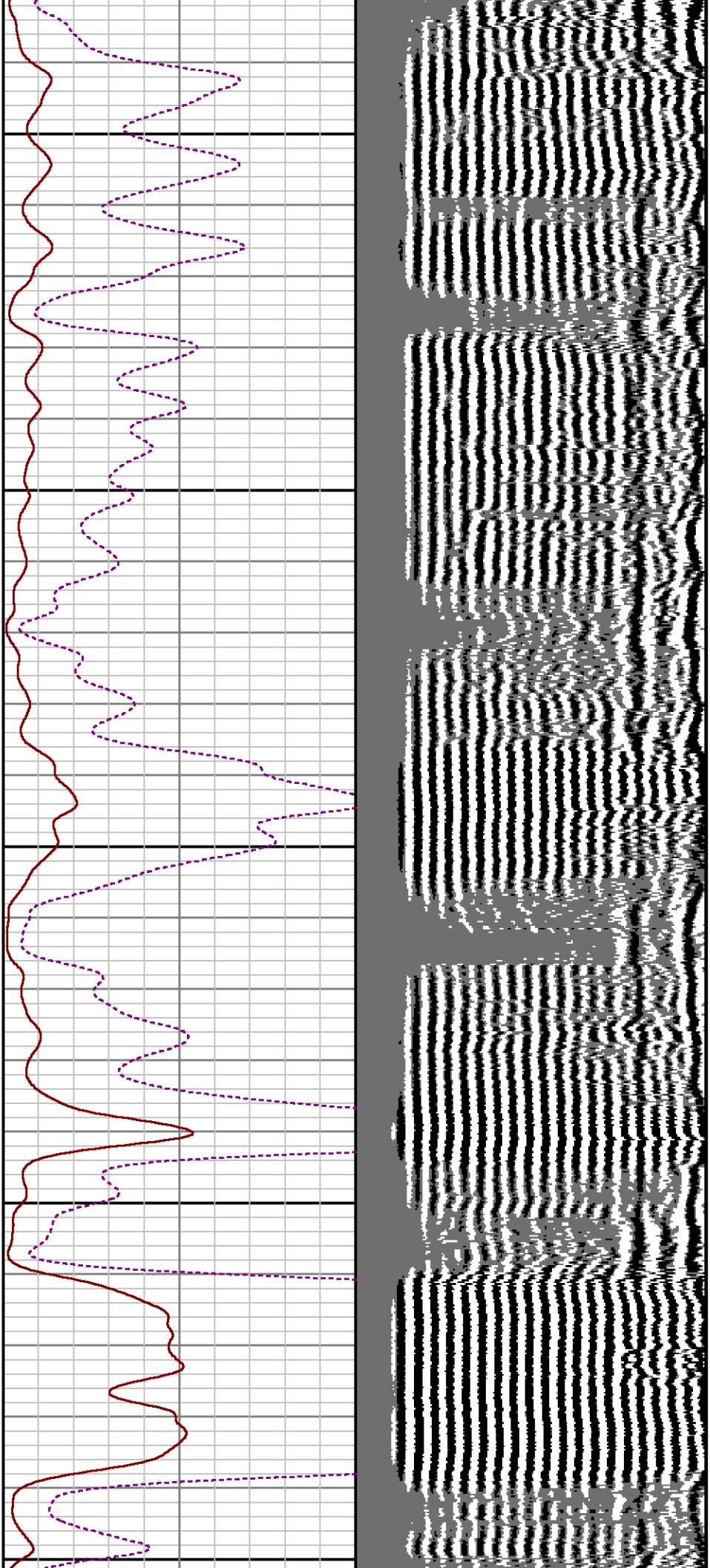


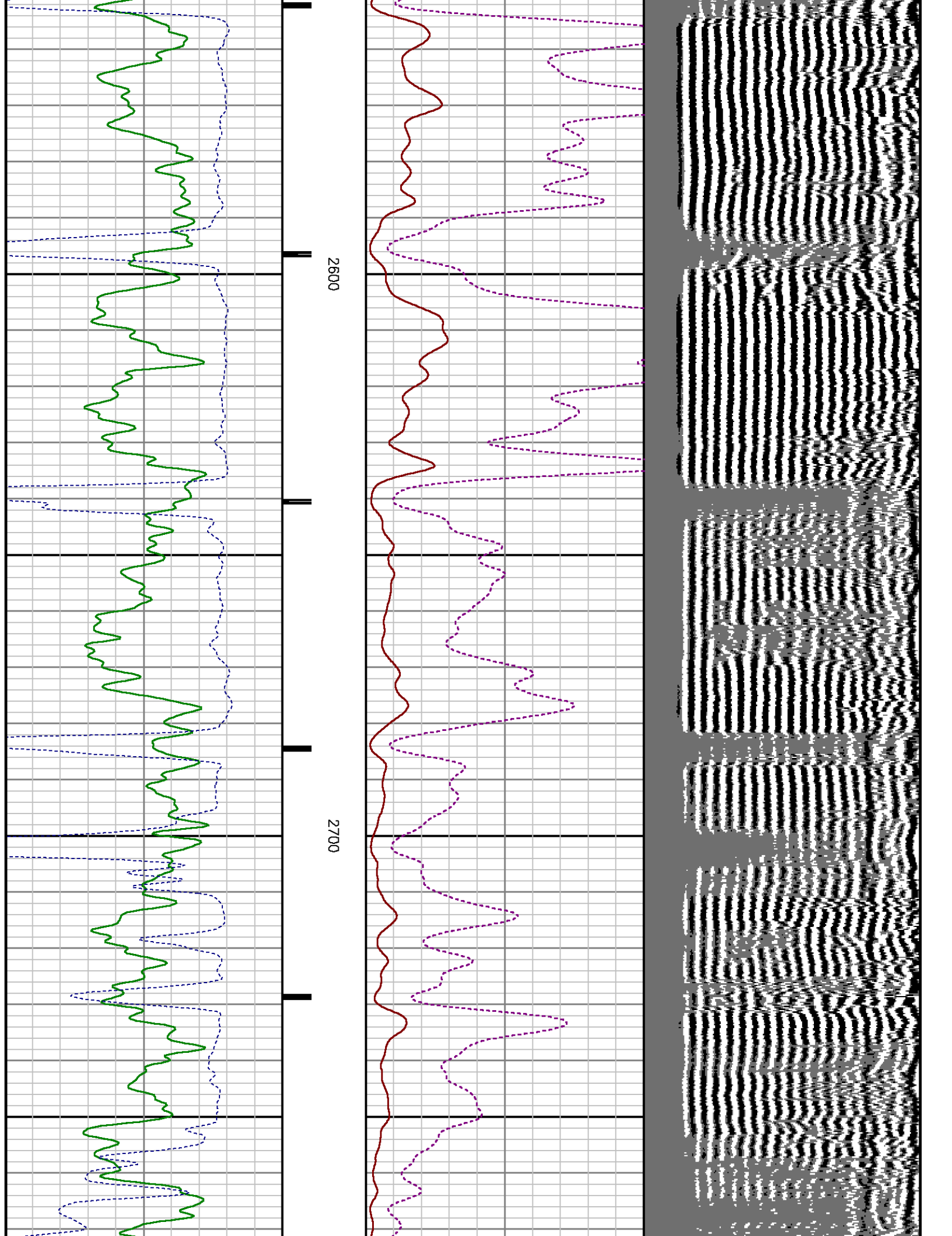


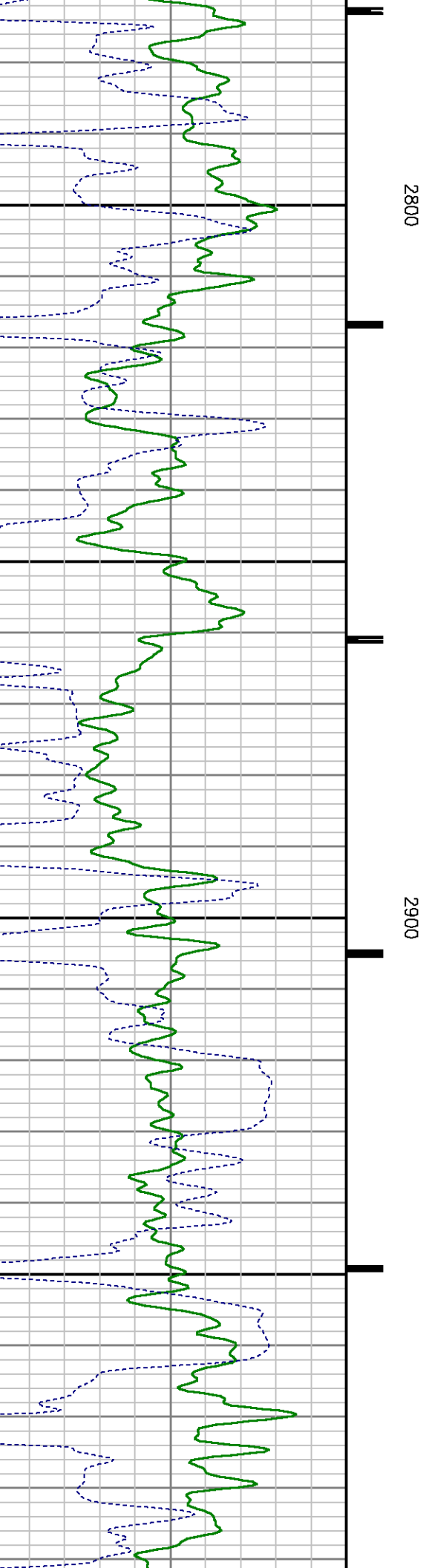
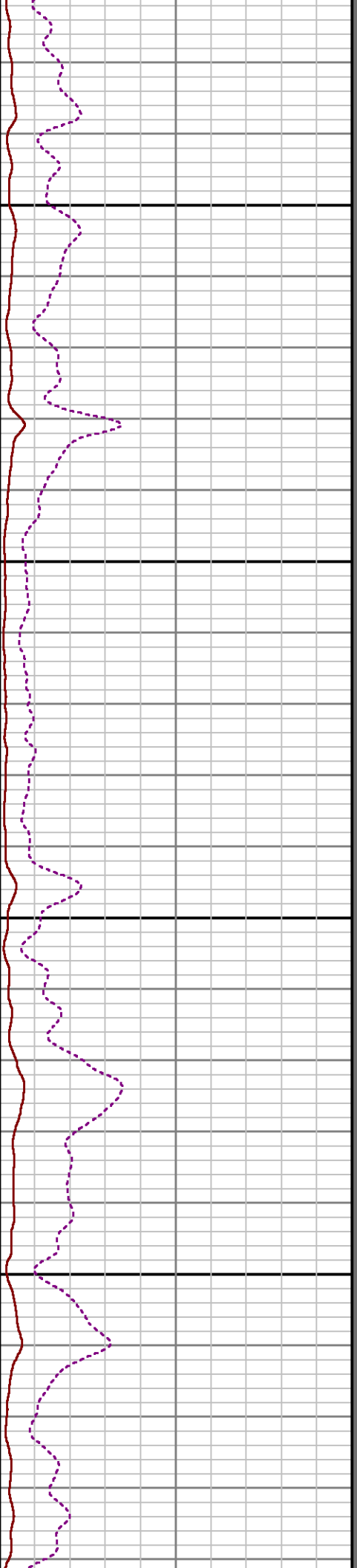
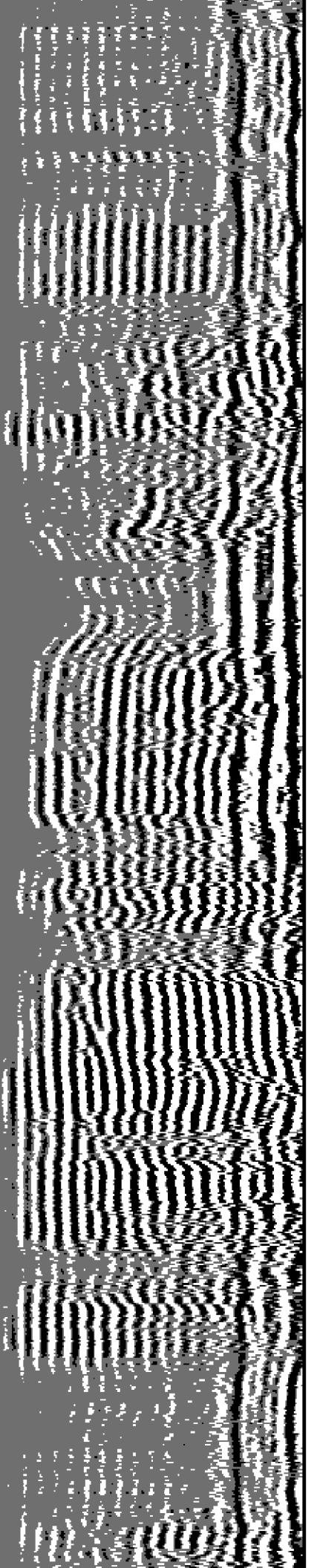
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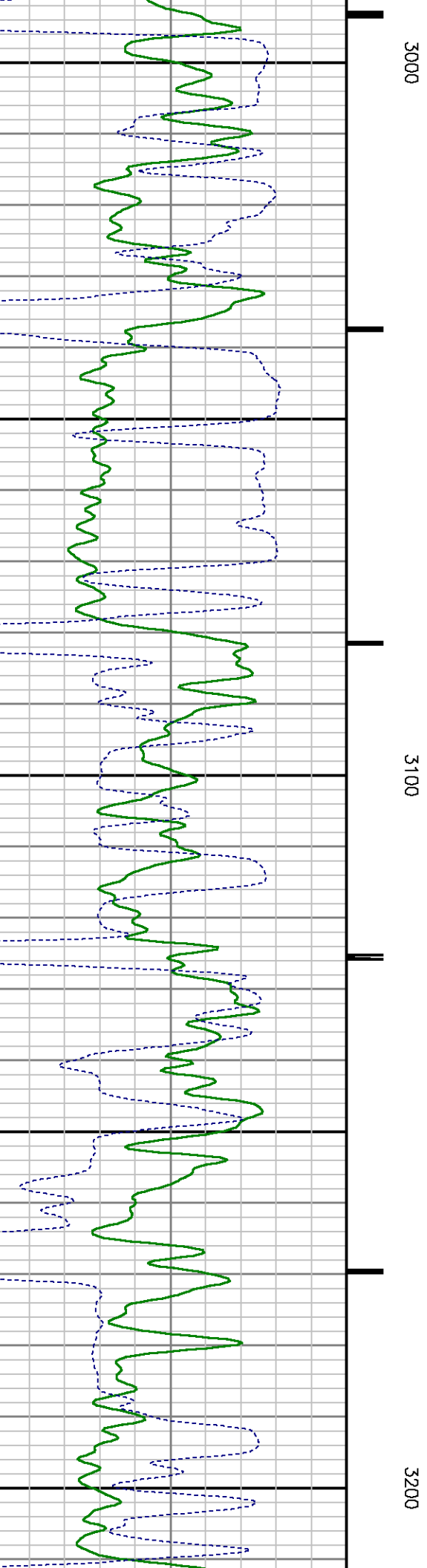
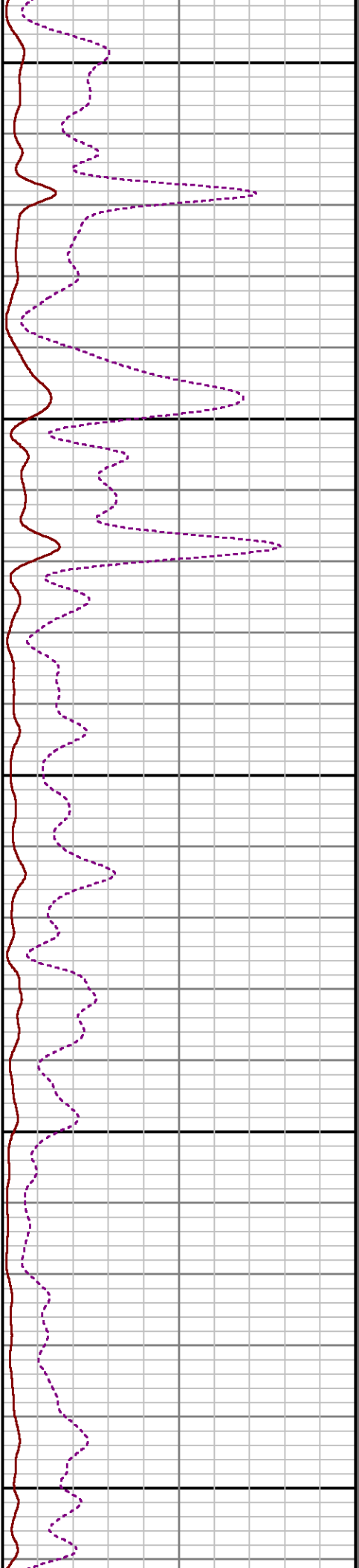
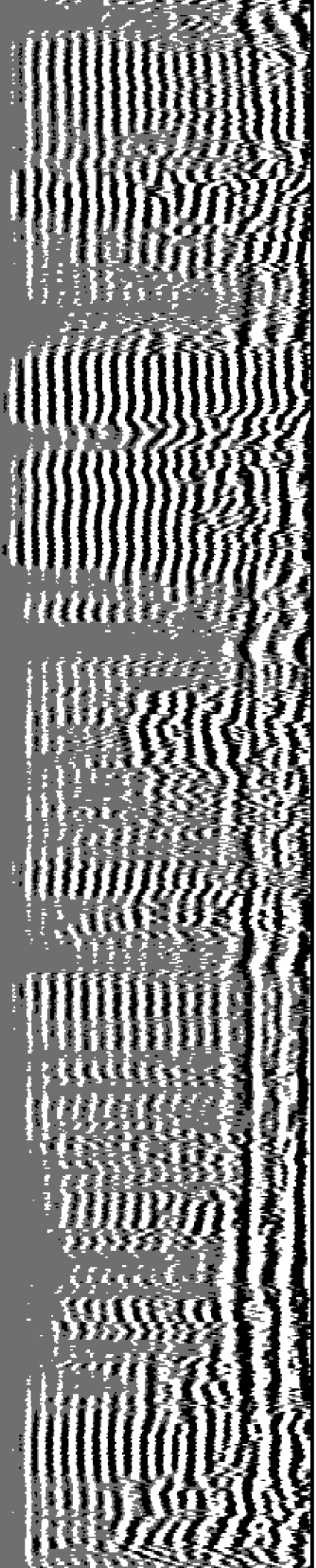


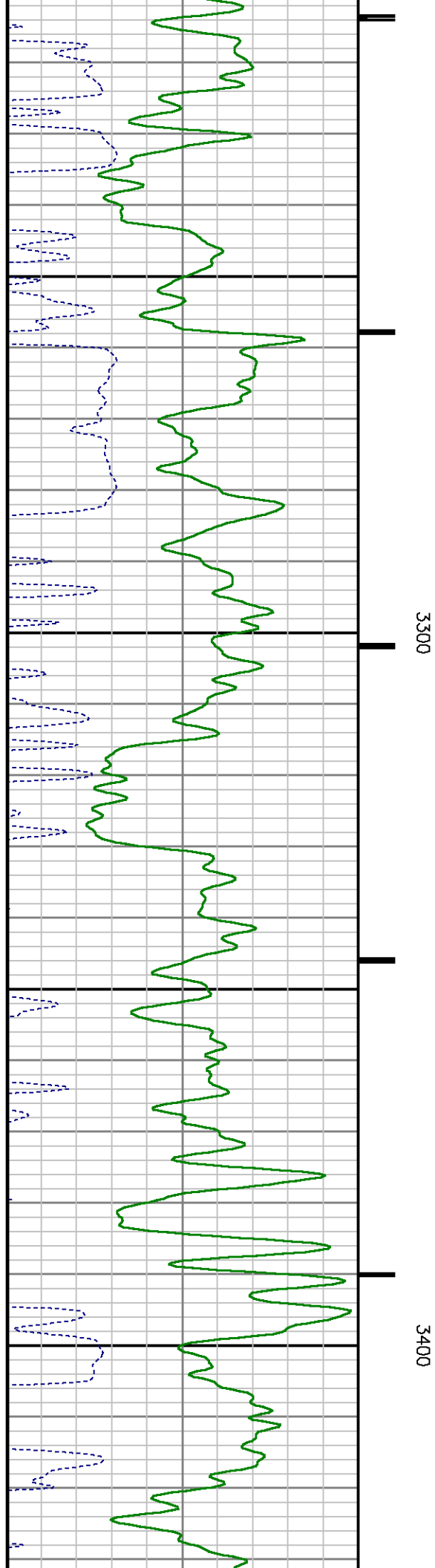
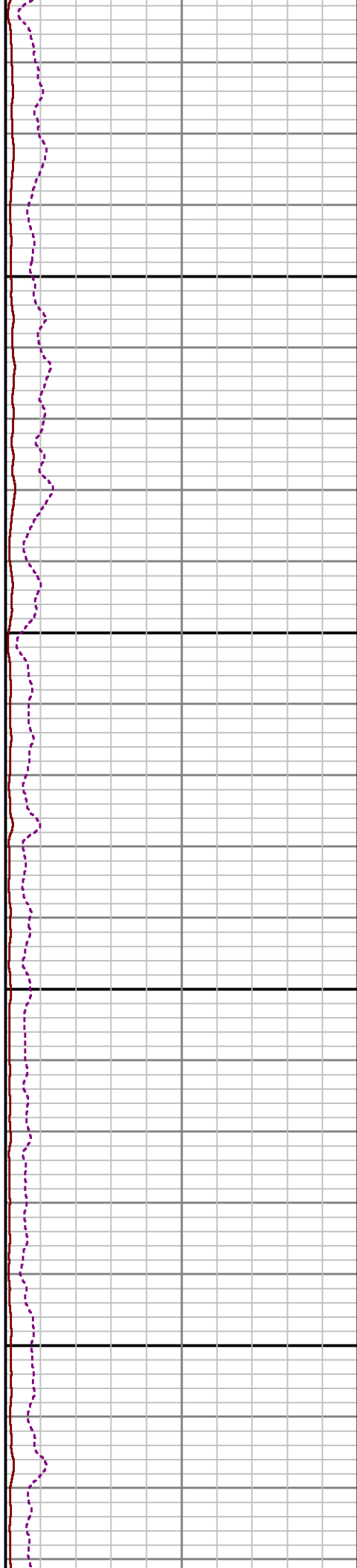
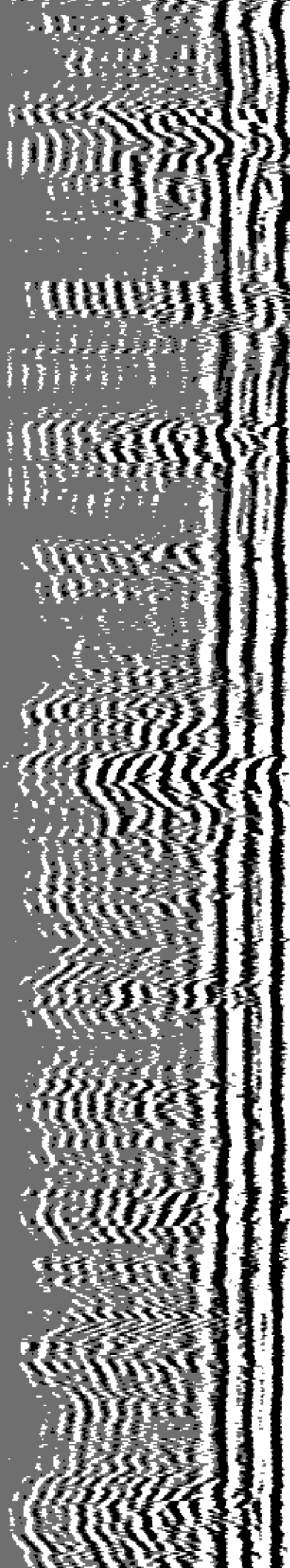


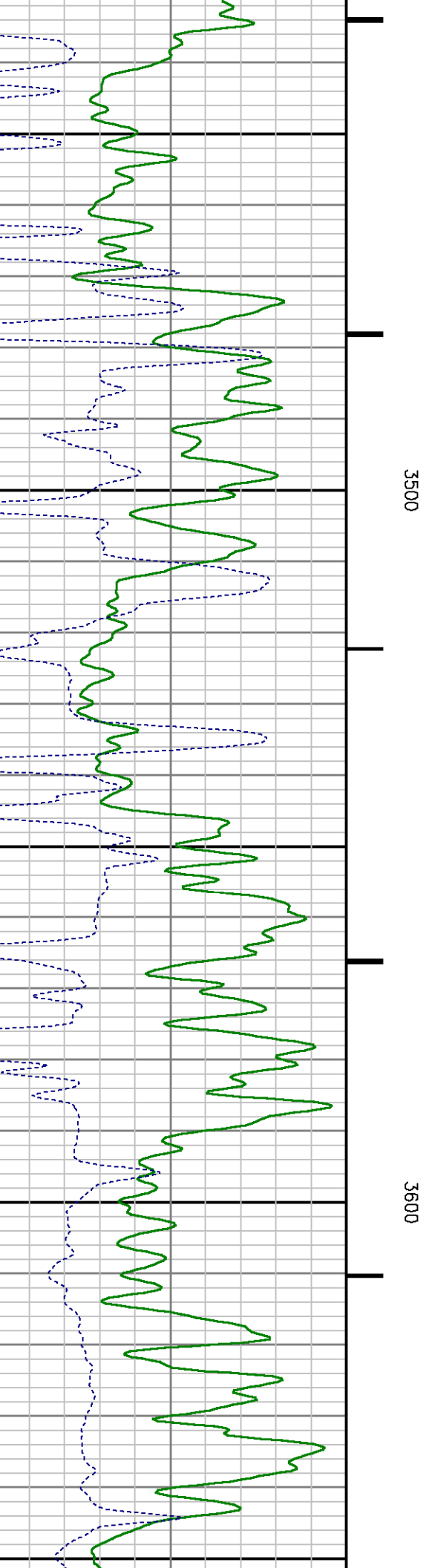
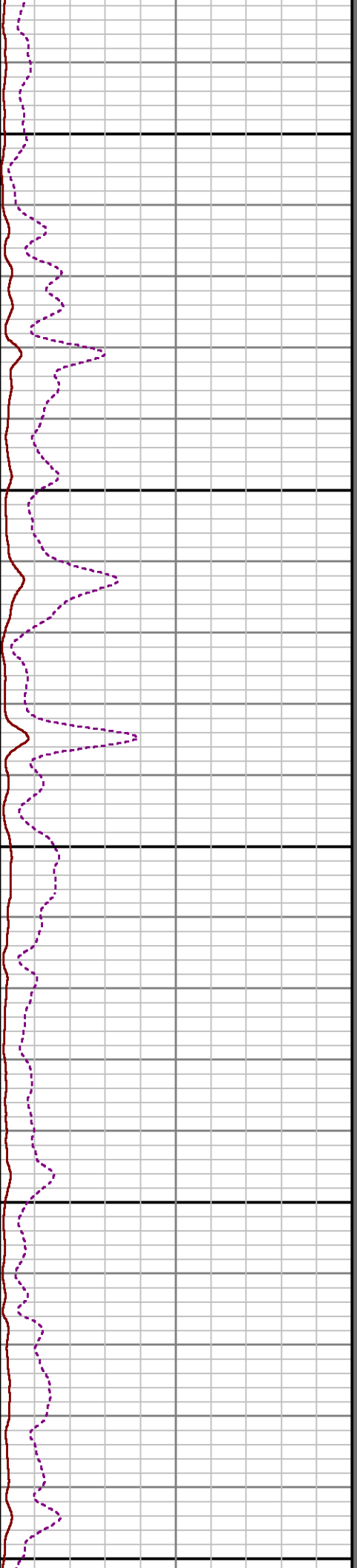
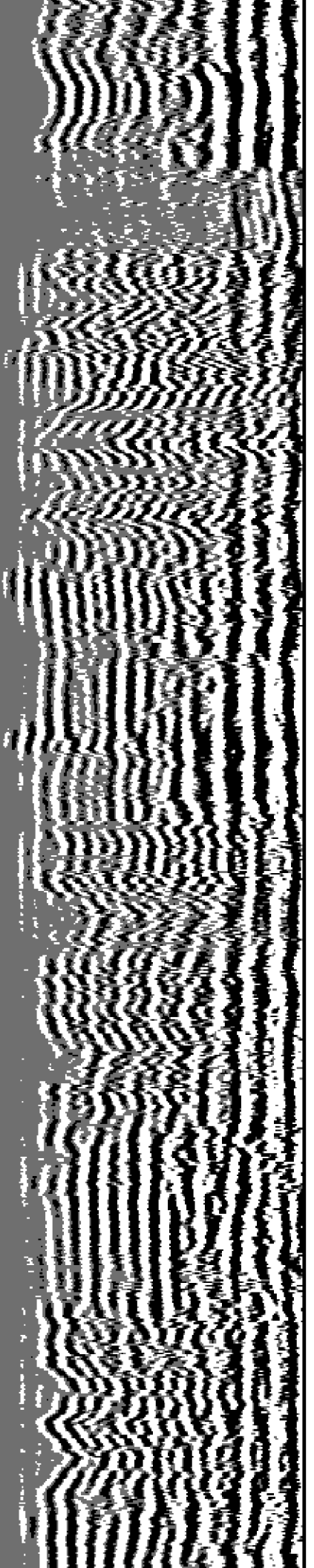


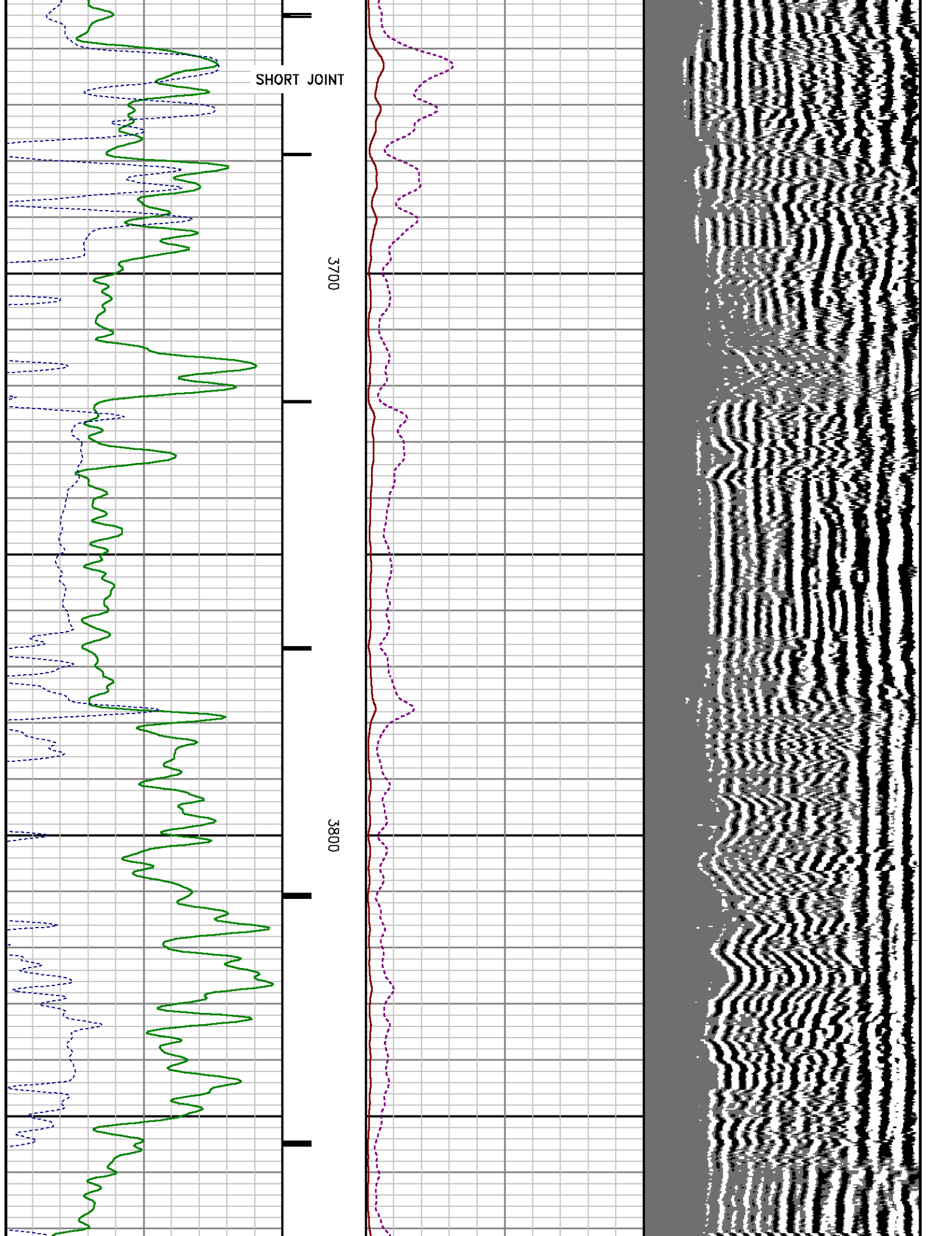


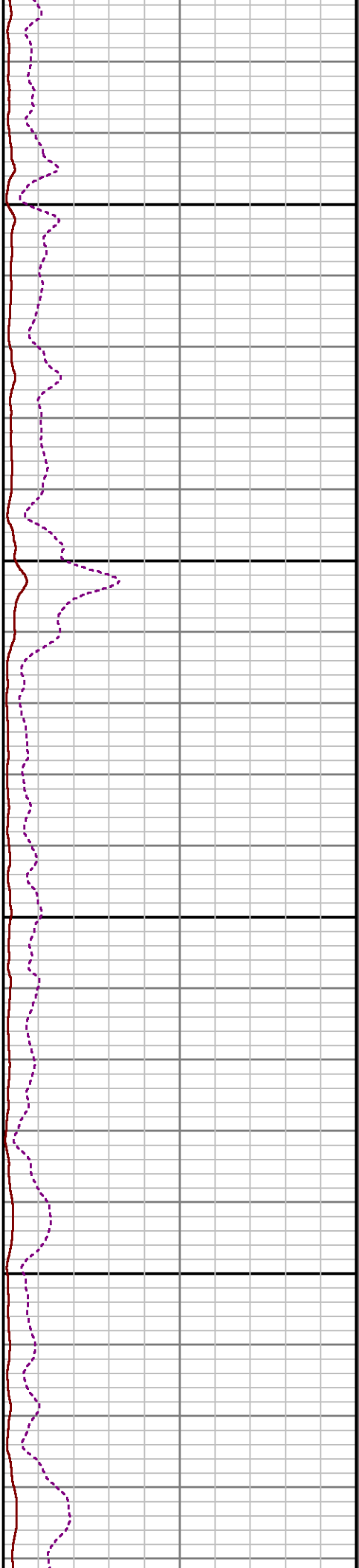
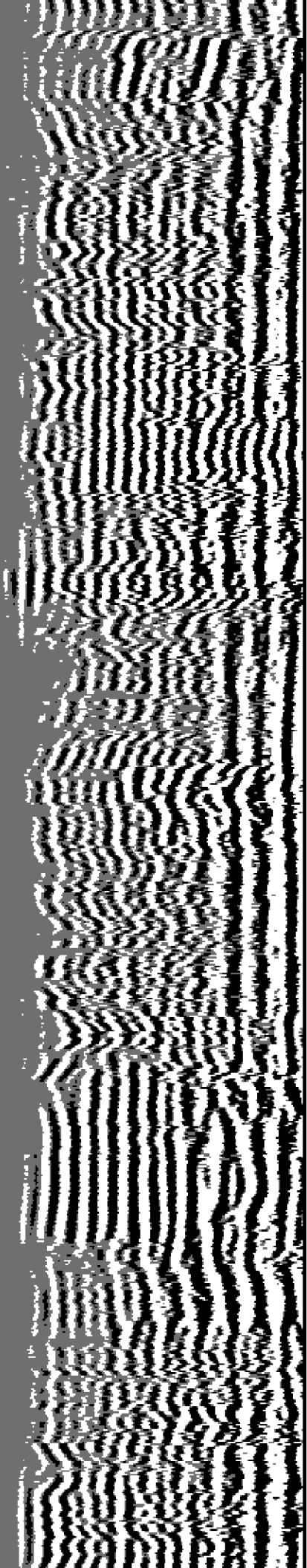






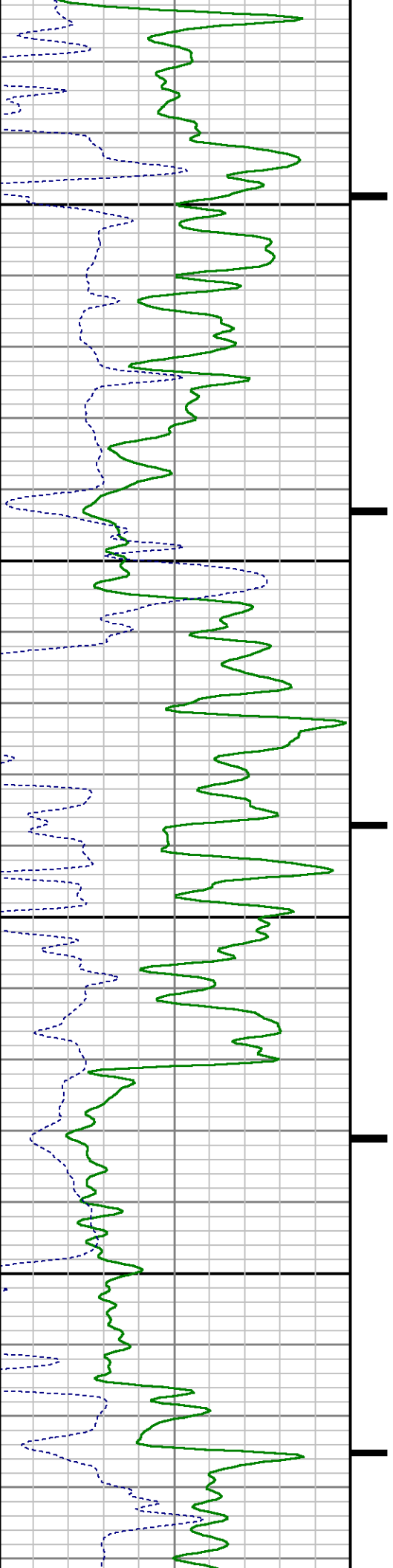




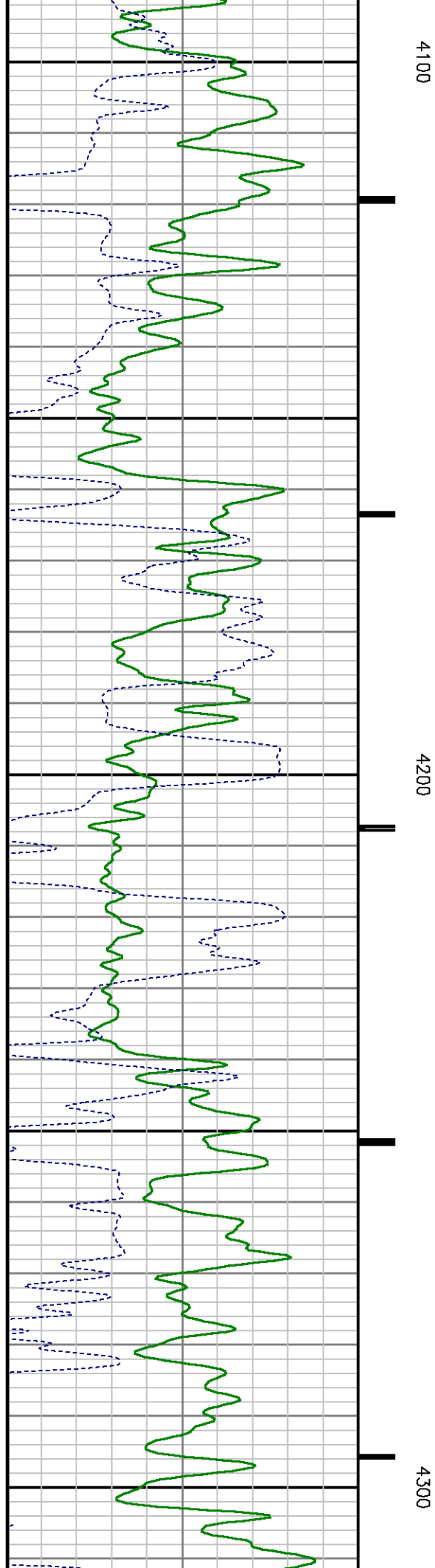
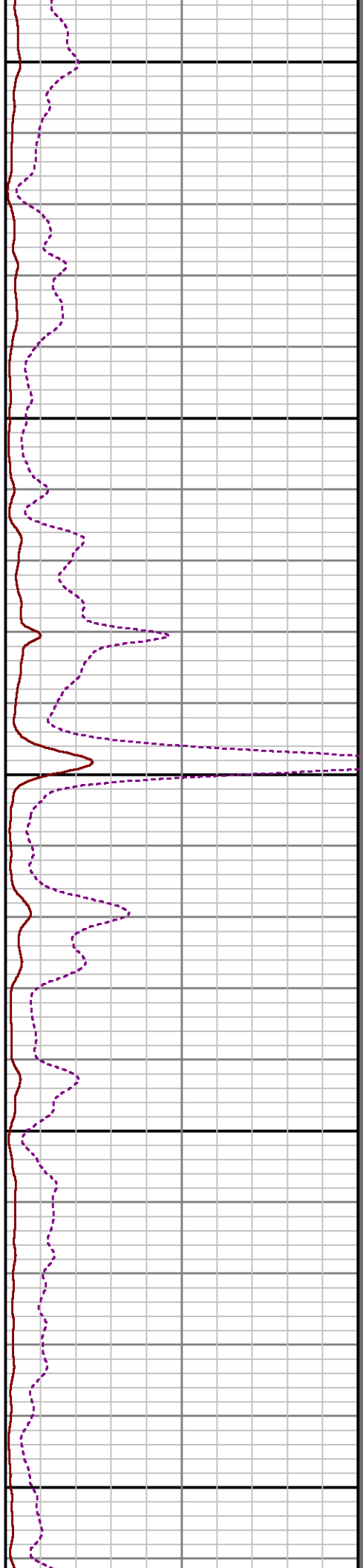
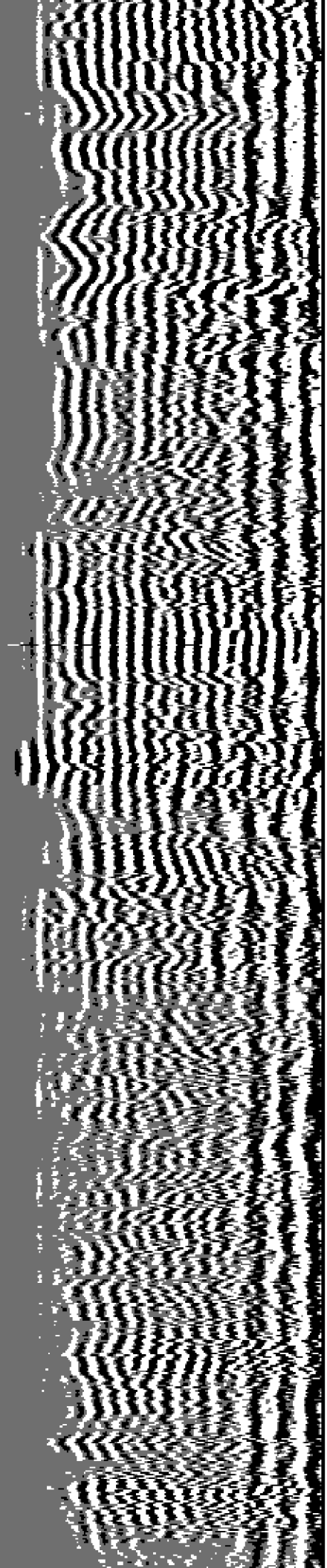


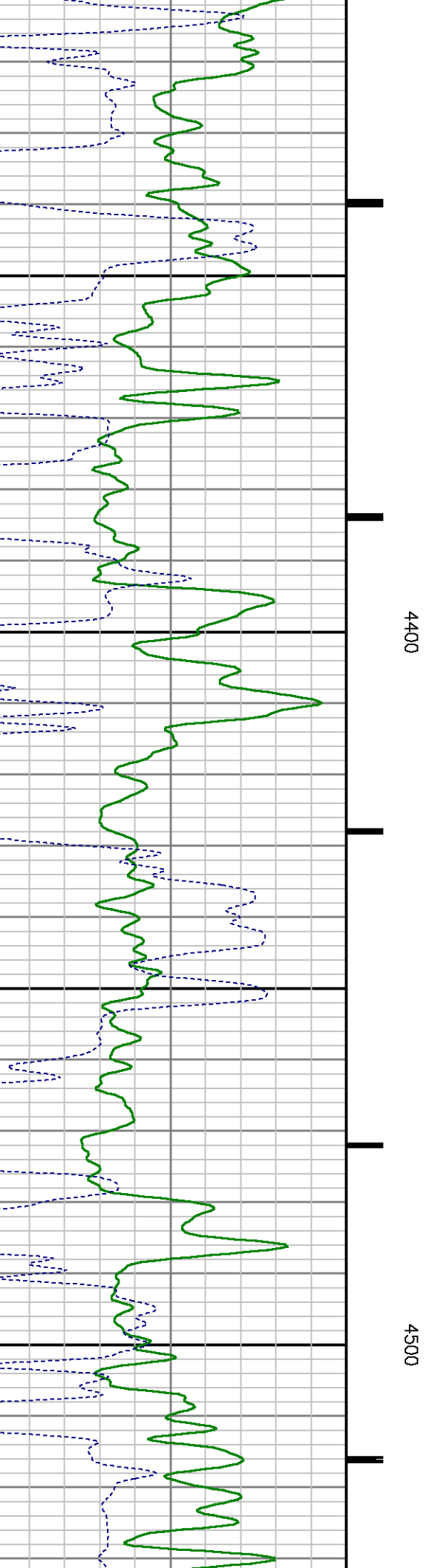
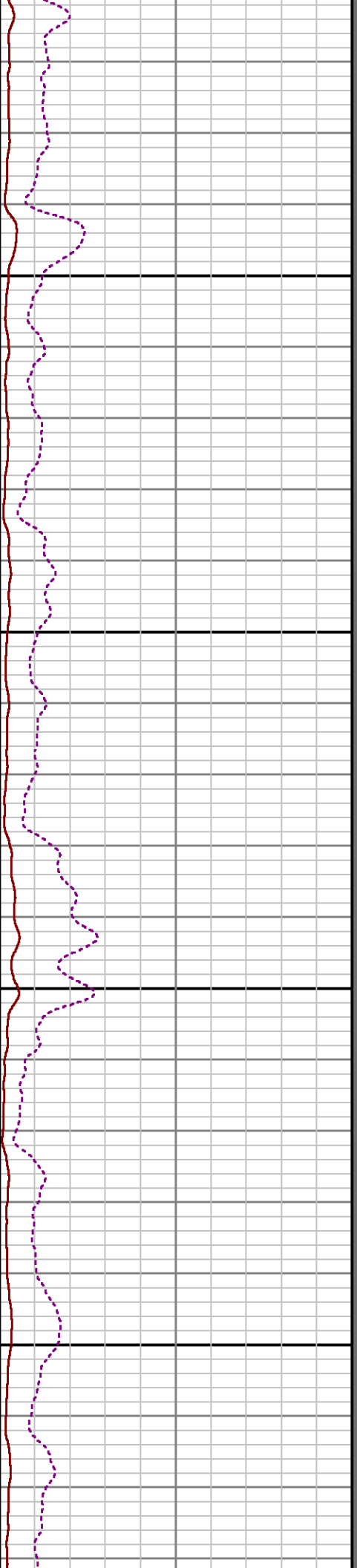
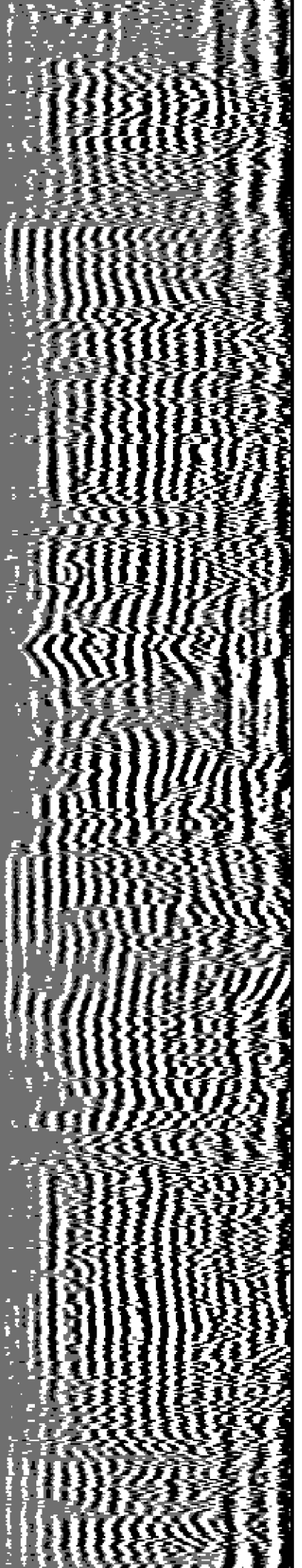
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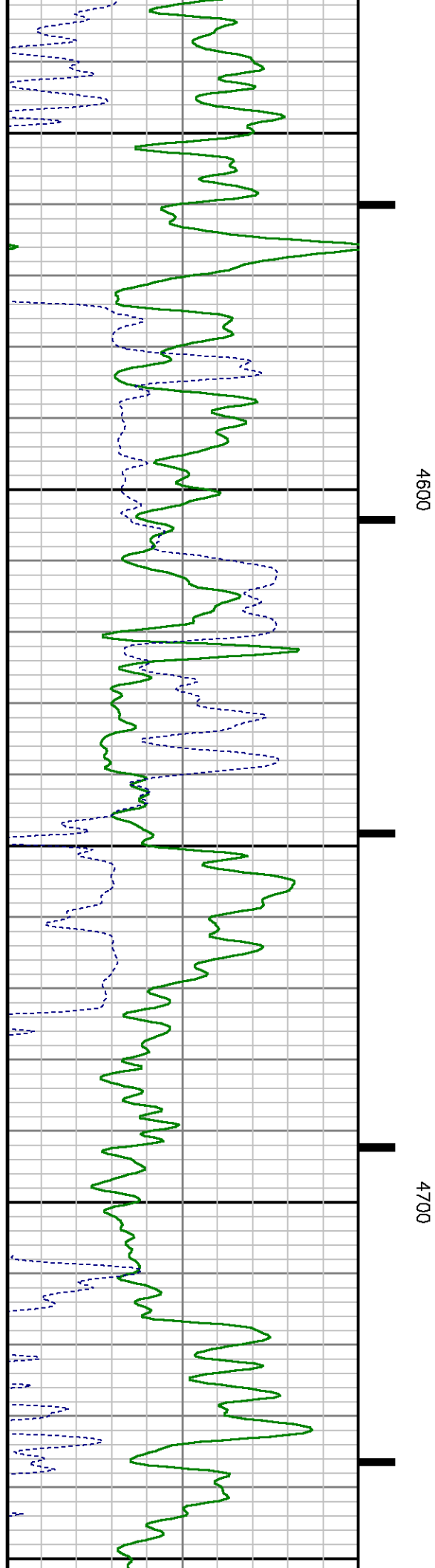
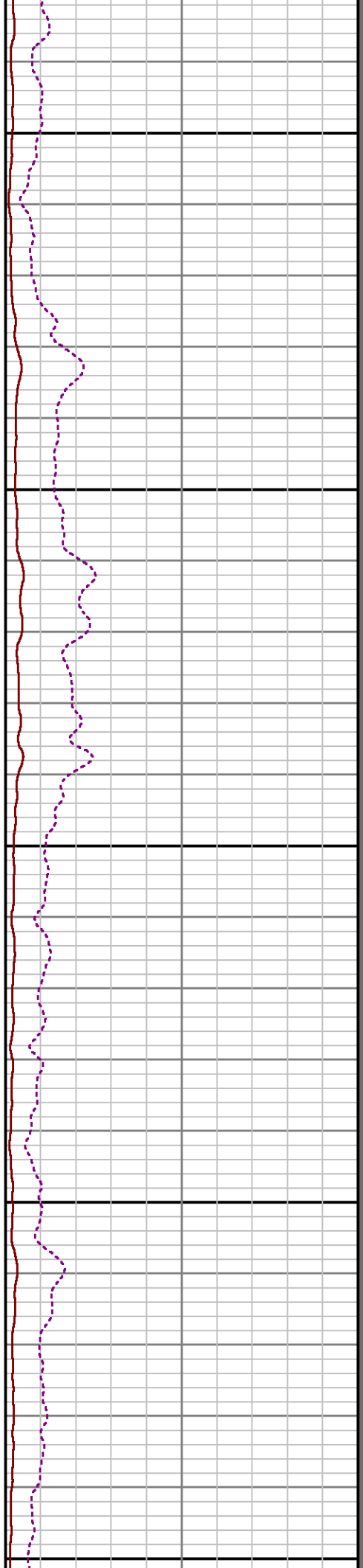
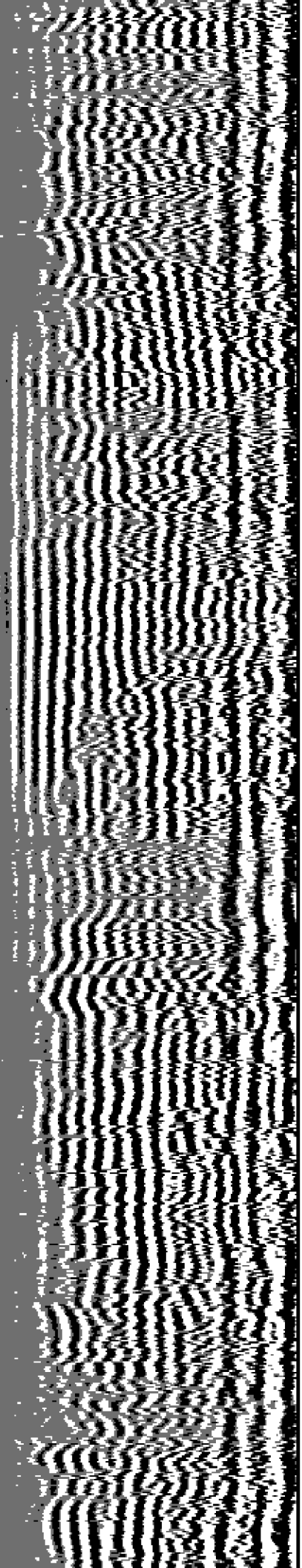
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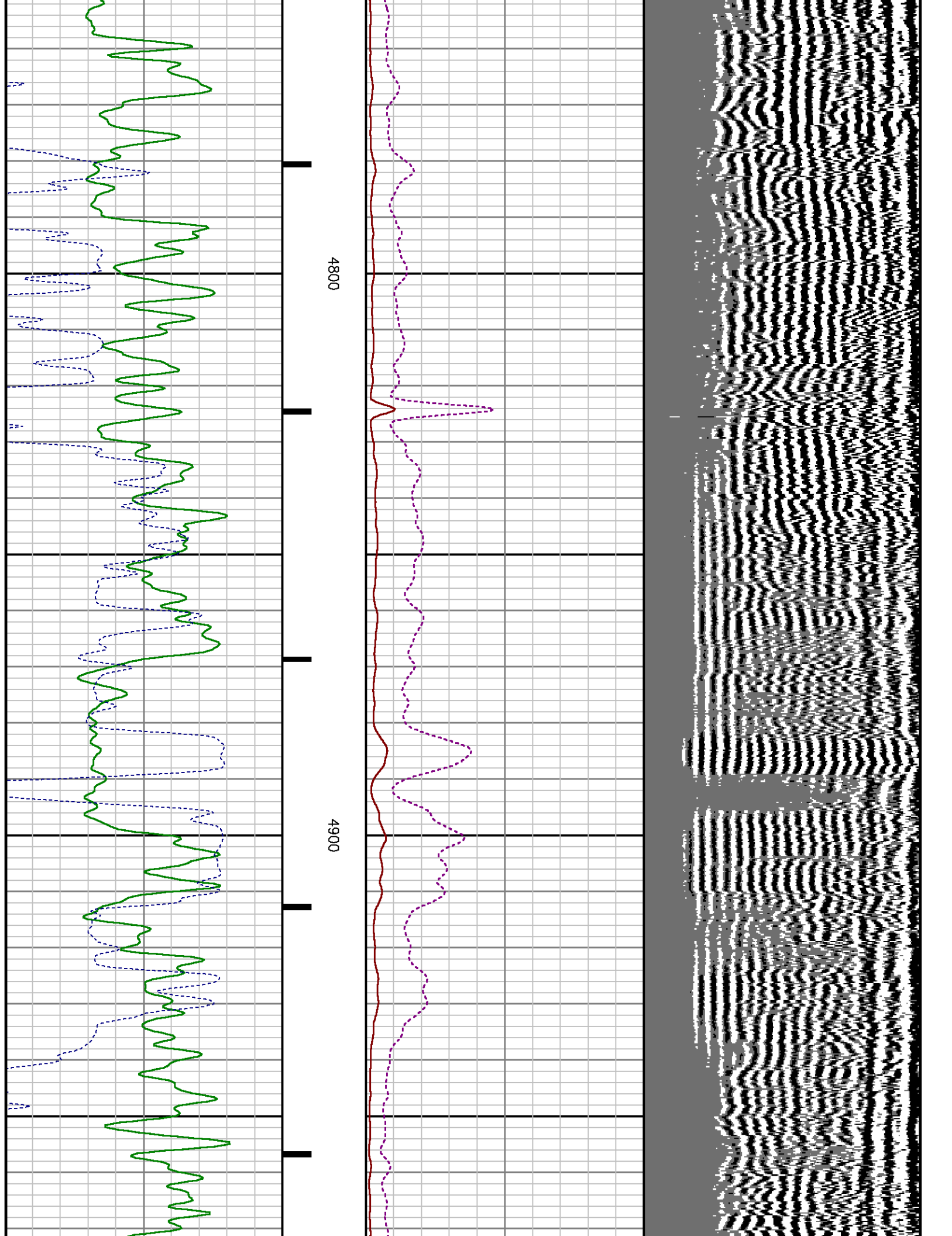


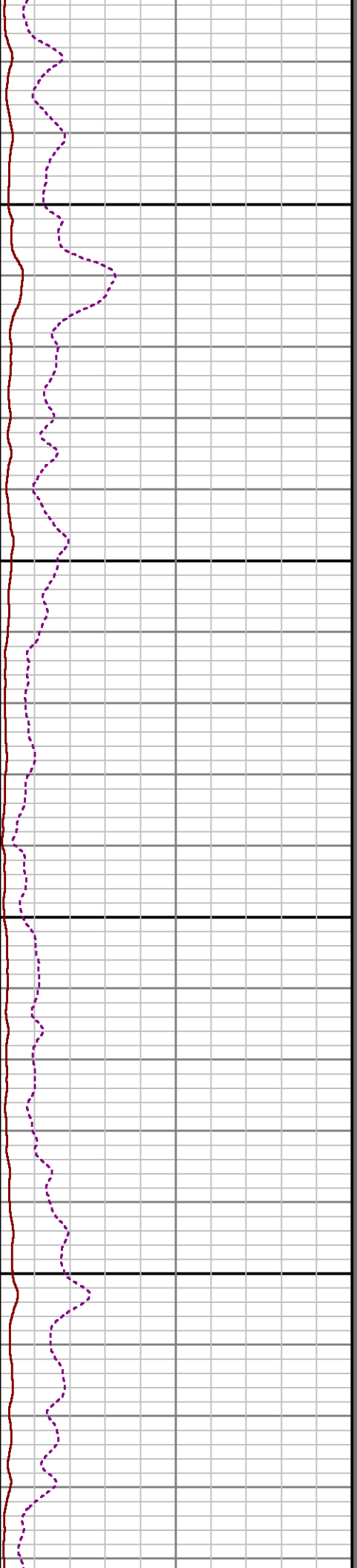
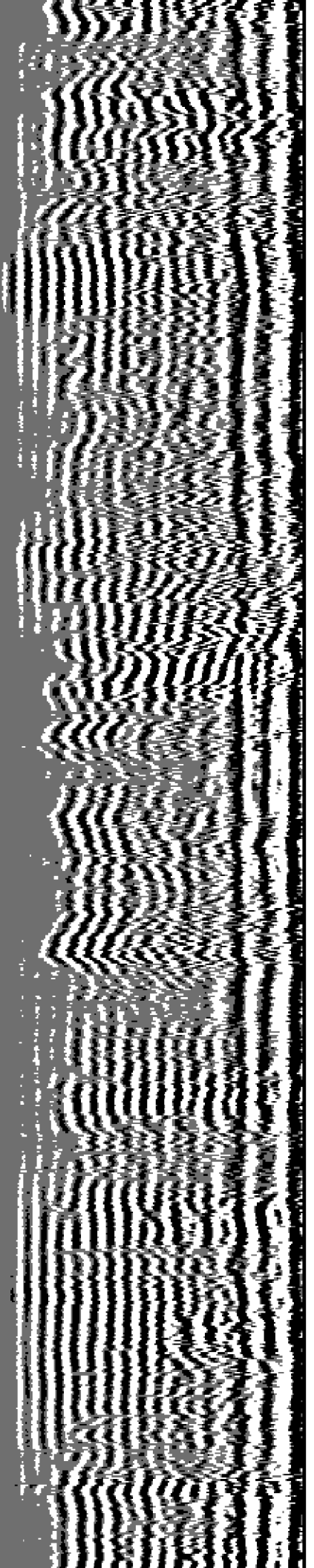






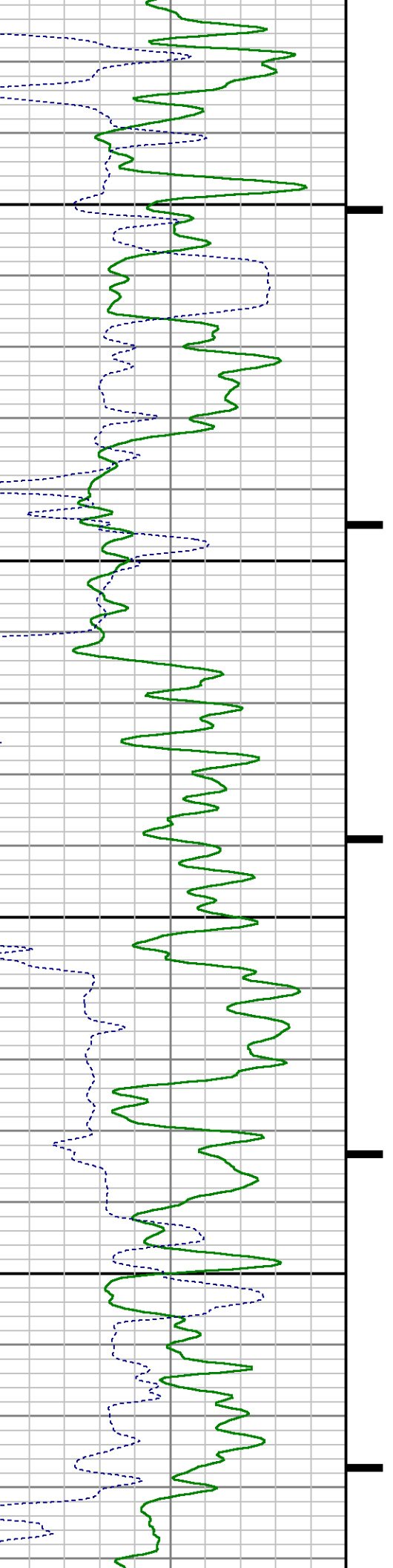


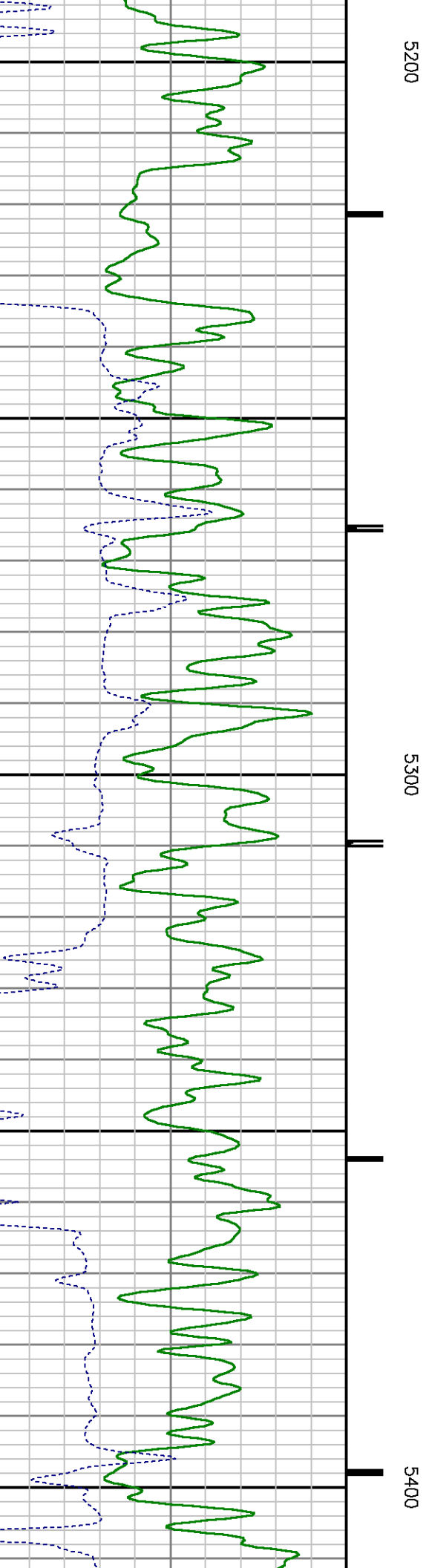
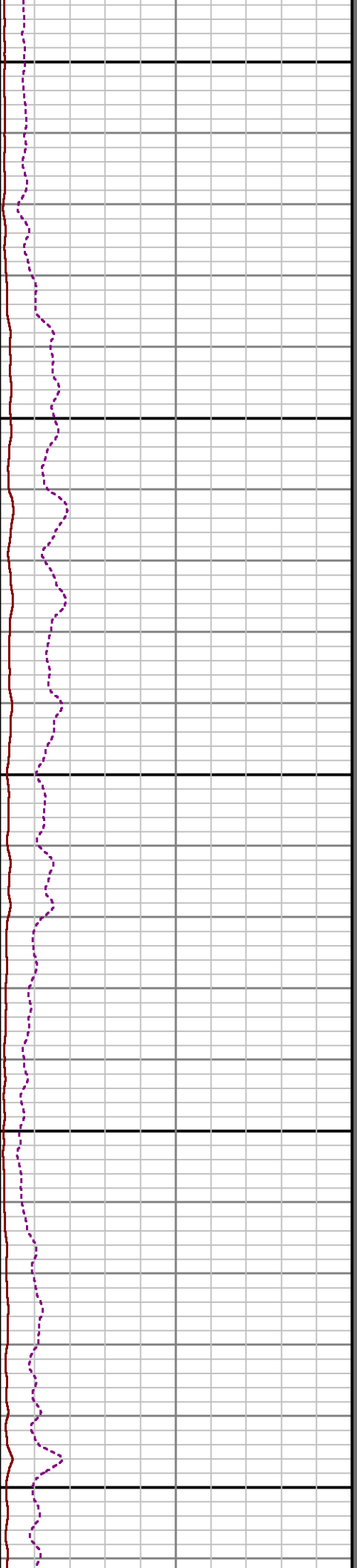
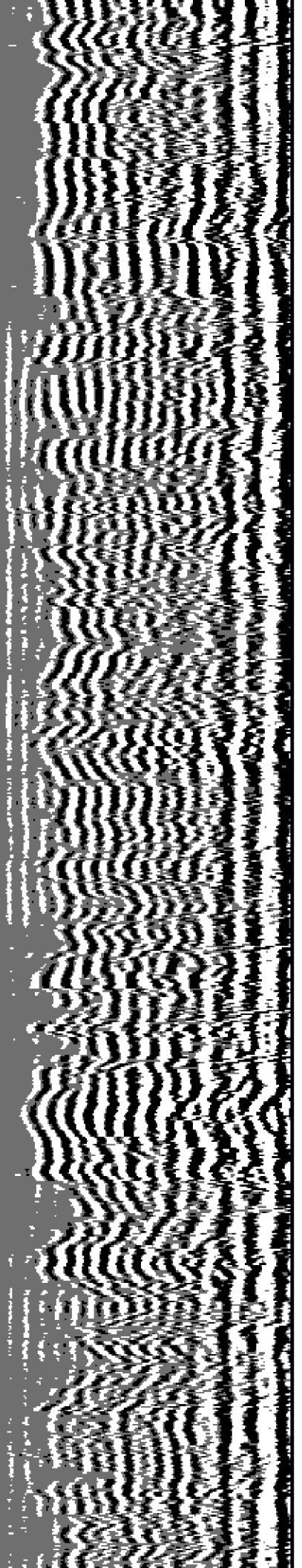


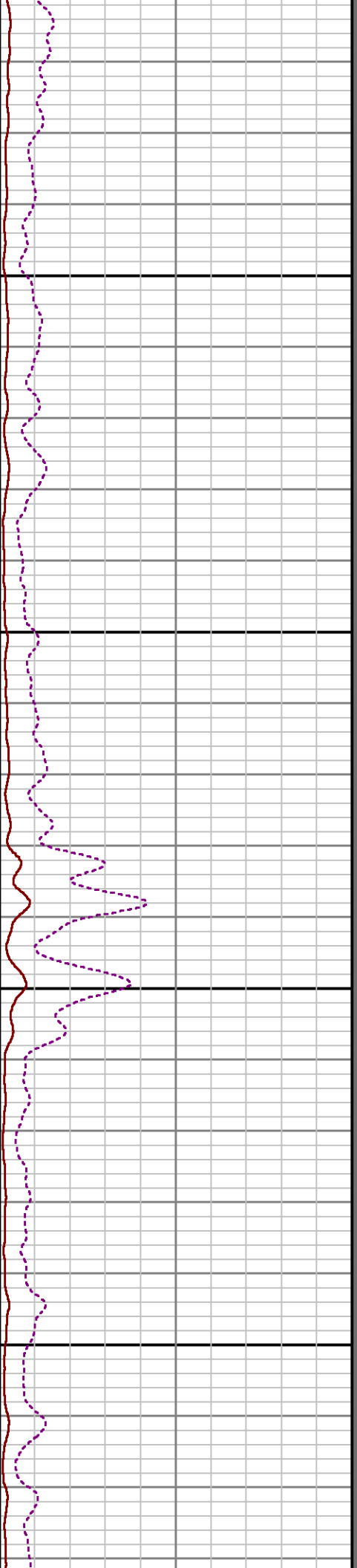
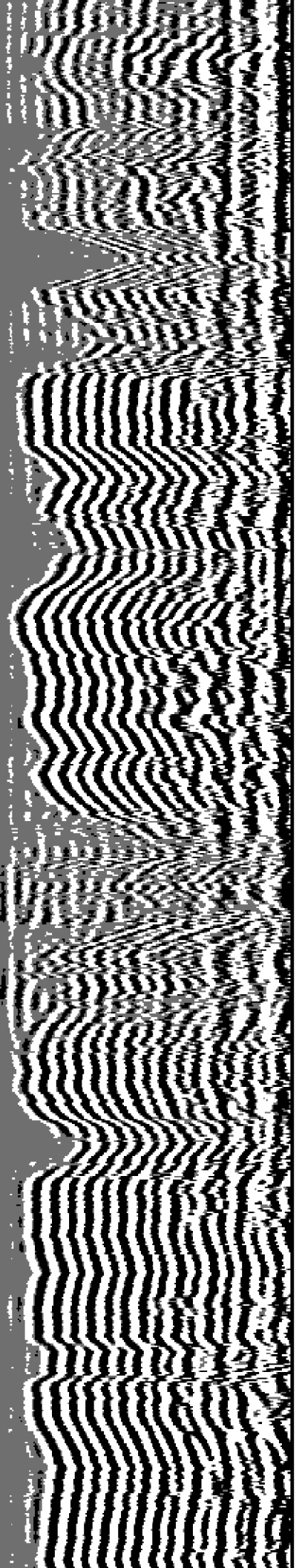


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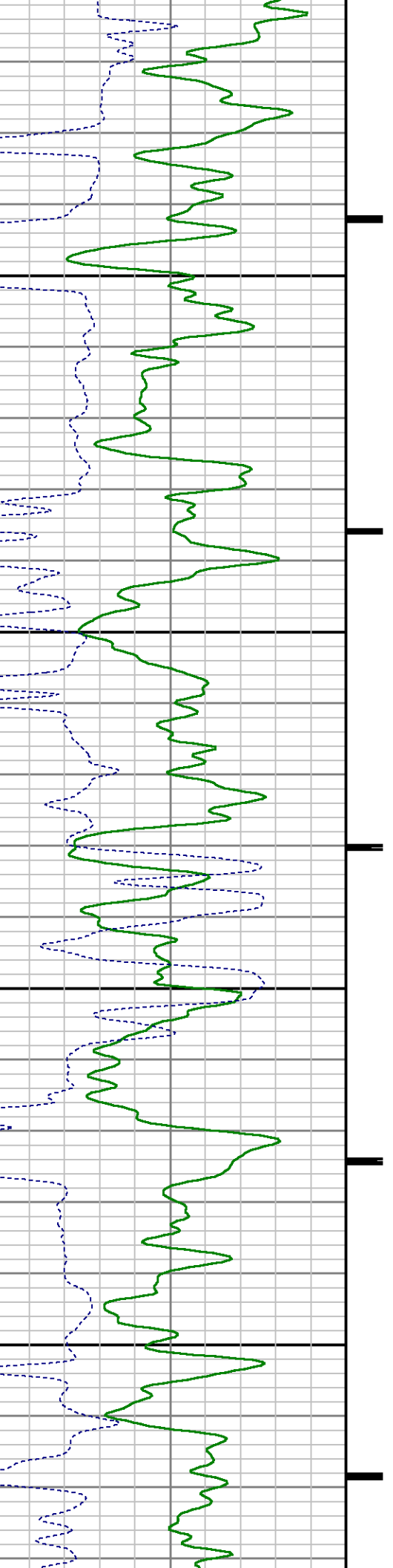


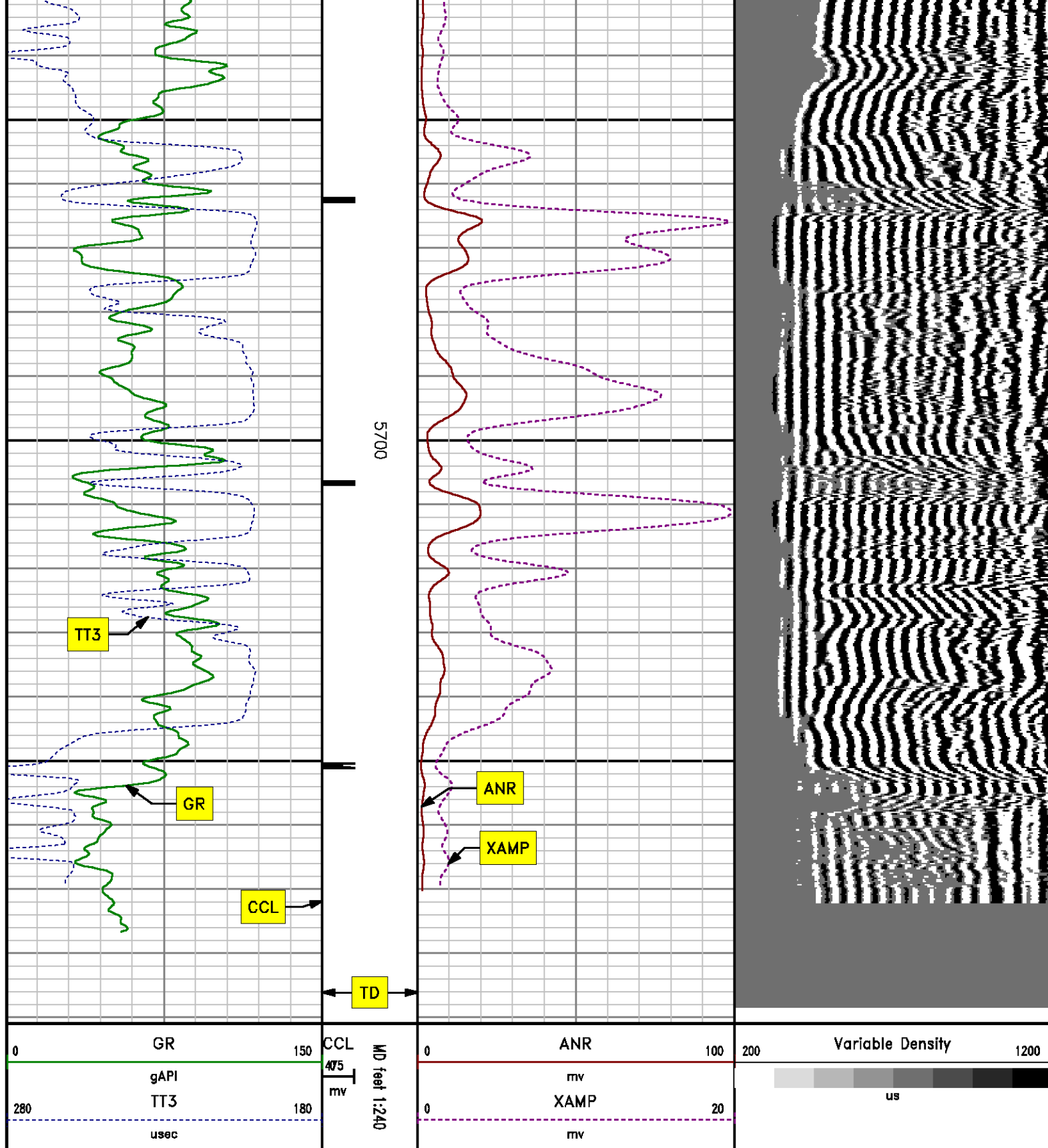




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5600





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

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	37.610	5788.250
RAL	Amp Gate Start Near	195.000	usec	37.610	5788.250
RAL	Amp Gate Start Radial	195.000	usec	37.610	5788.250
RAL	Amp Gate Width Far	25.000	usec	37.610	5788.250
RAL	Amp Gate Width Near	25.000	usec	37.610	5788.250
RAL	Amp Gate Width Radial	25.000	usec	37.610	5788.250
RAL	casing od	4.500	inches	37.610	5788.250
RAL	casing wt	11.600	lbm/ft	37.610	5788.250
RAL	FB Start Far	291.900	usec	37.610	5788.250
RAL	FB Start Near	175.391	usec	37.610	5788.250
RAL	FB Start Radial	175.391	usec	37.610	5788.250
RAL	FB Thresh Far	10.000	mv	37.610	5788.250
RAL	FB Thresh Near	4.000	mv	37.610	5788.250
RAL	FB Thresh Radial	4.000	mv	37.610	5788.250
RAL	Fluid Travel Time	200.000	usec/ft	37.610	5787.860

## 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 : BOSELY SG 11-27

File Name : d:\welldata\wpx\bosely sg 11-27\cbl11\main.xtf

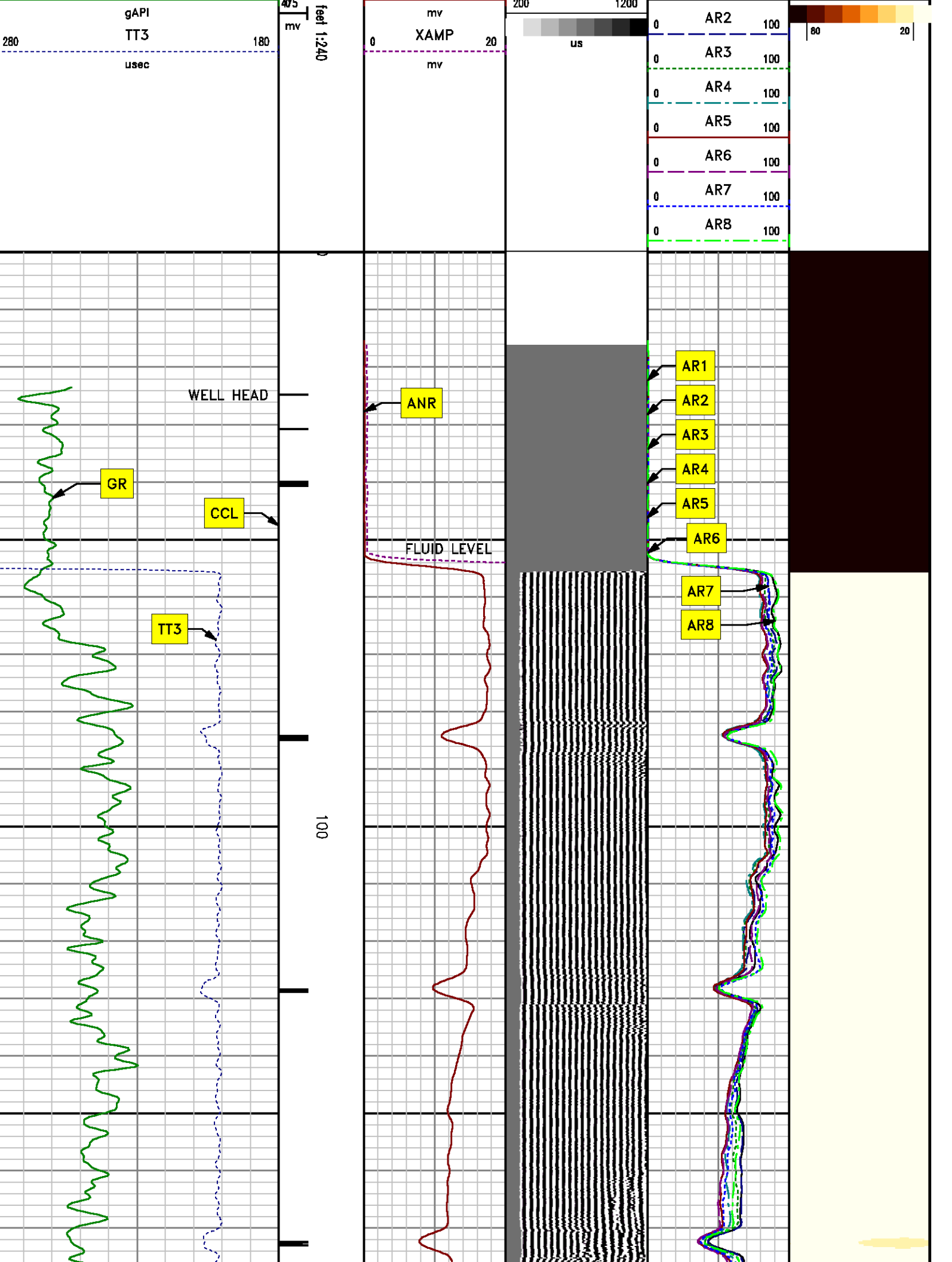
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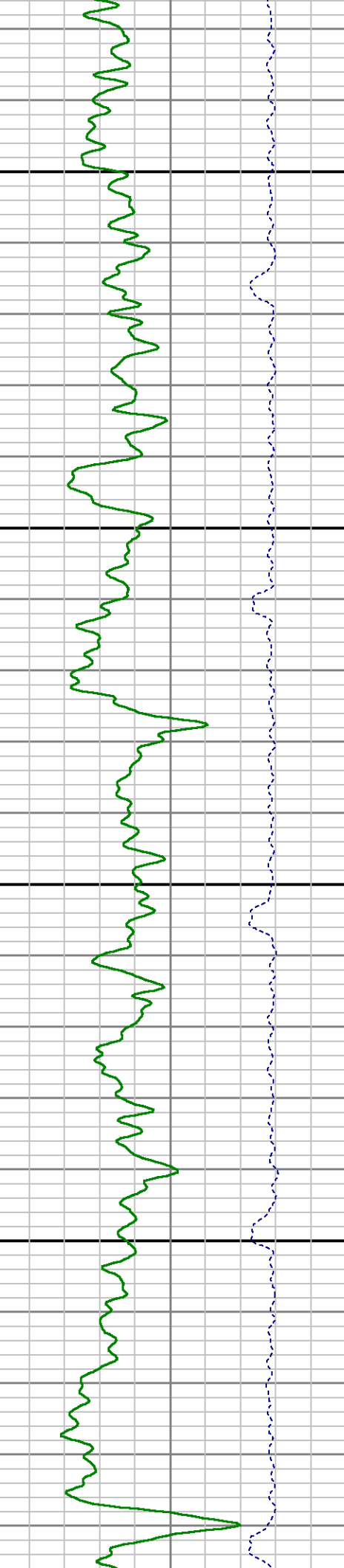
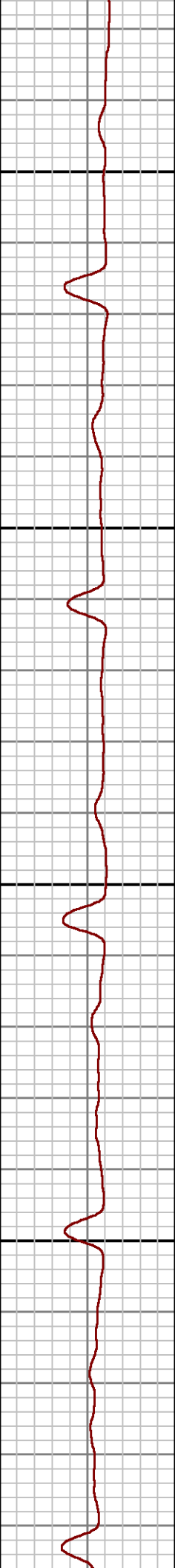
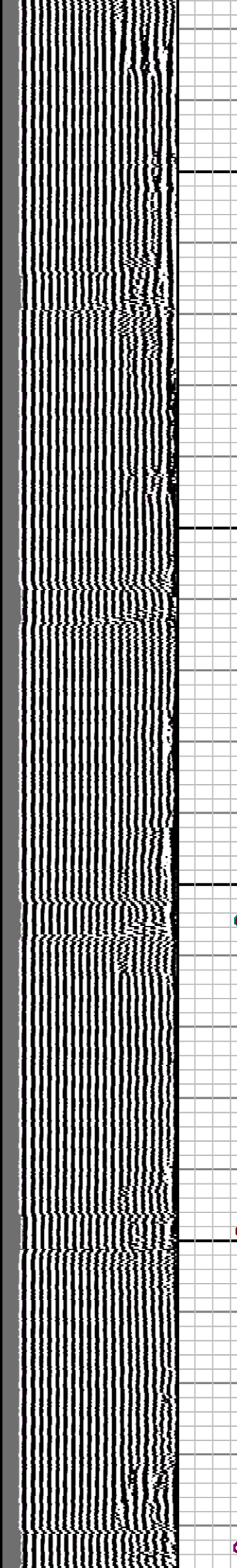
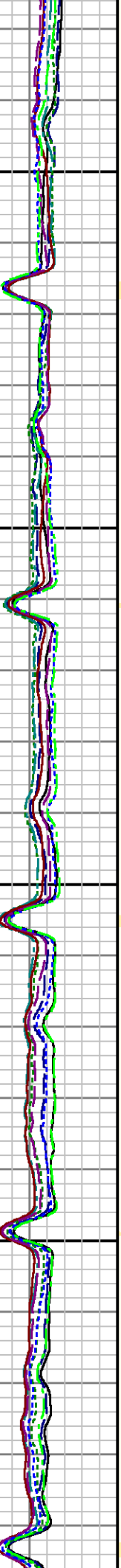
Interval : 0.00 - 5791.00 feet UP

Created : 2/2/2014 1:53:35 PM

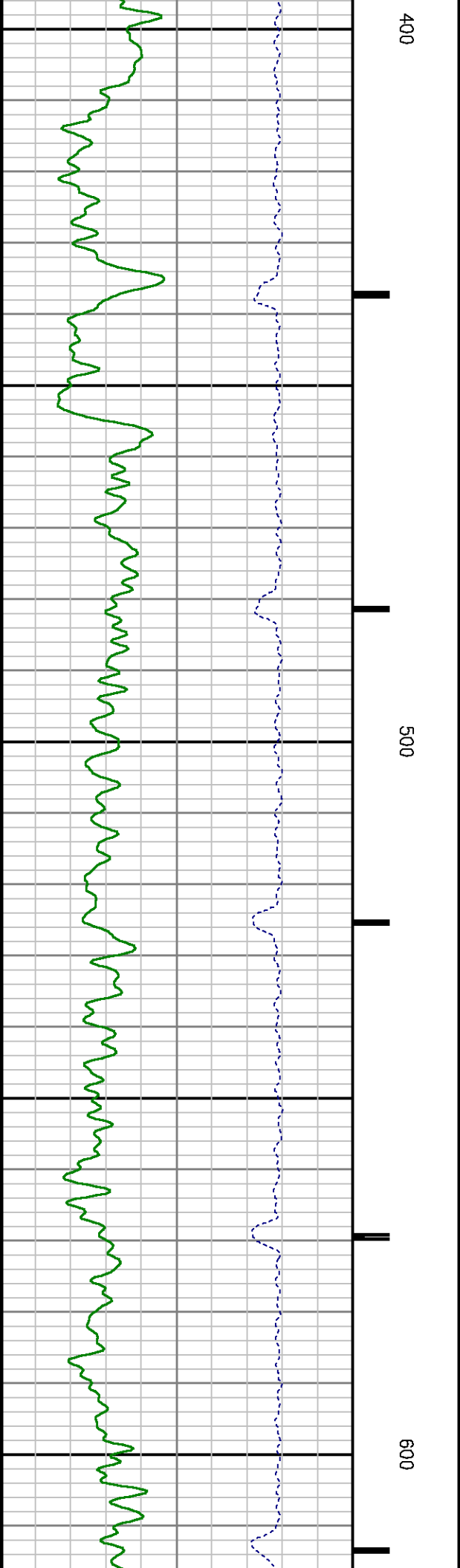
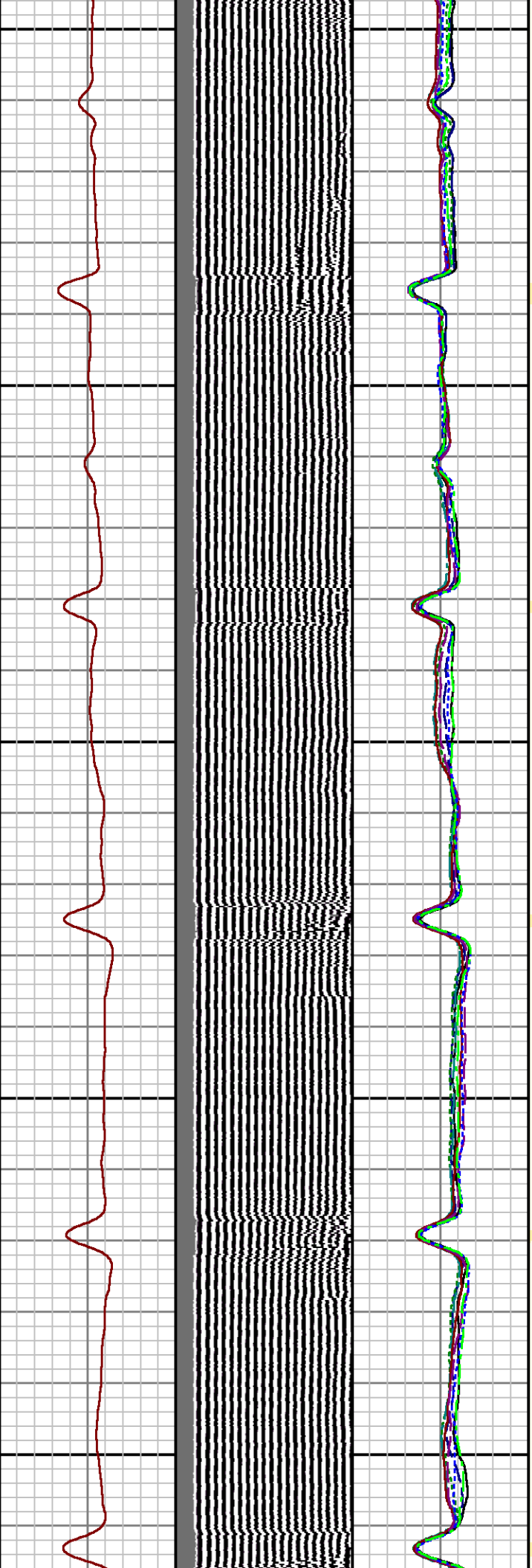
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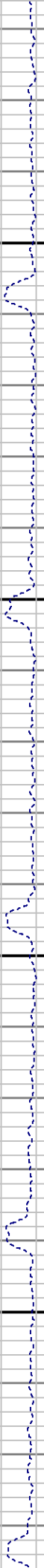
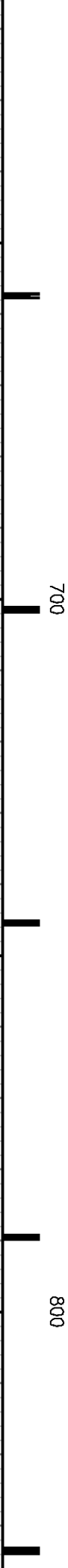
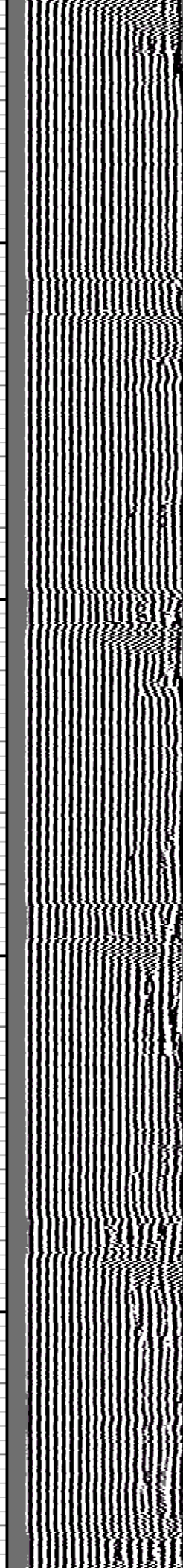
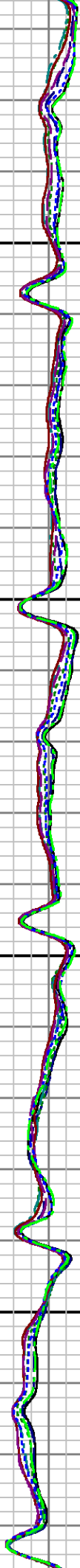
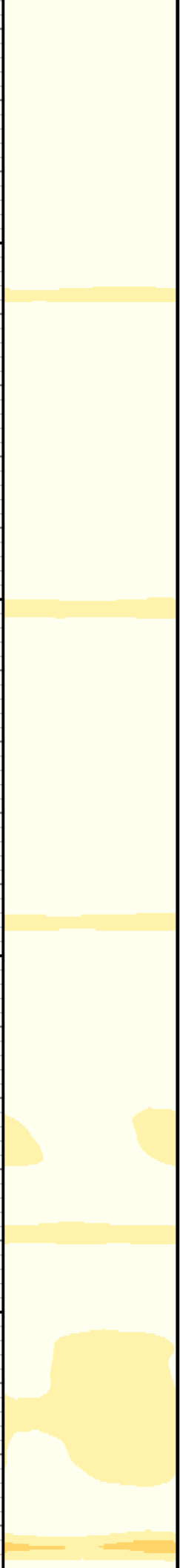


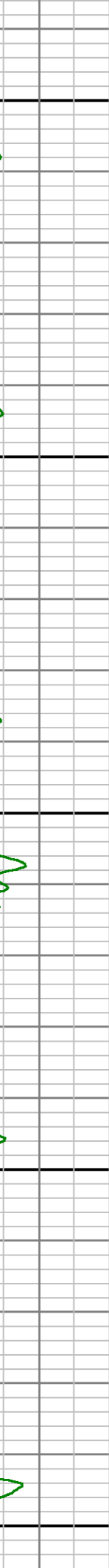
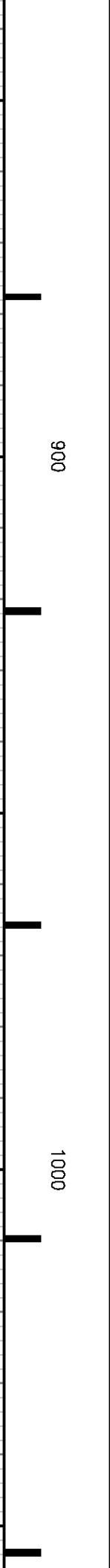
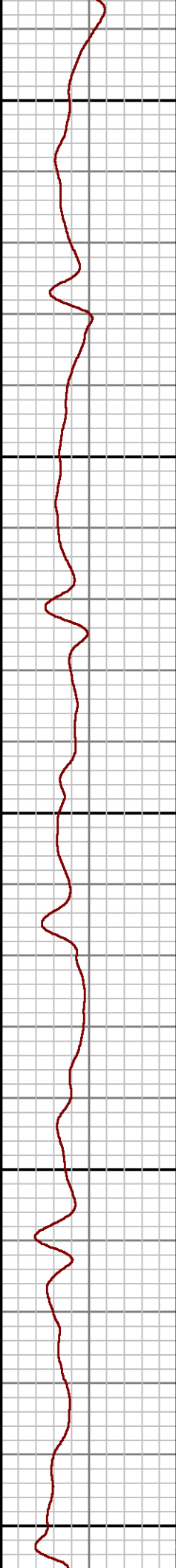
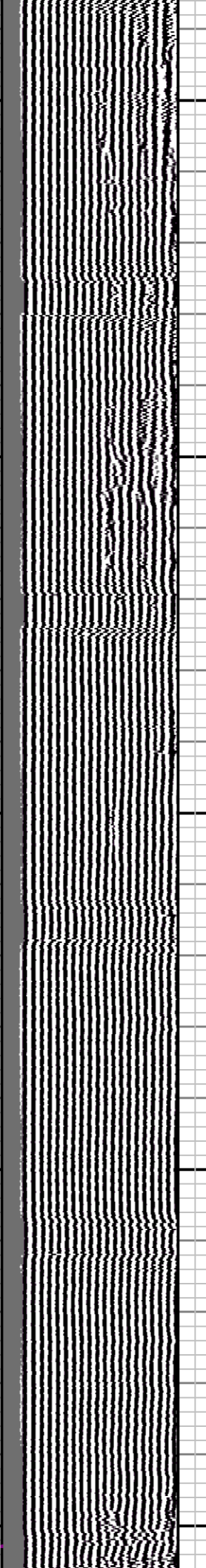
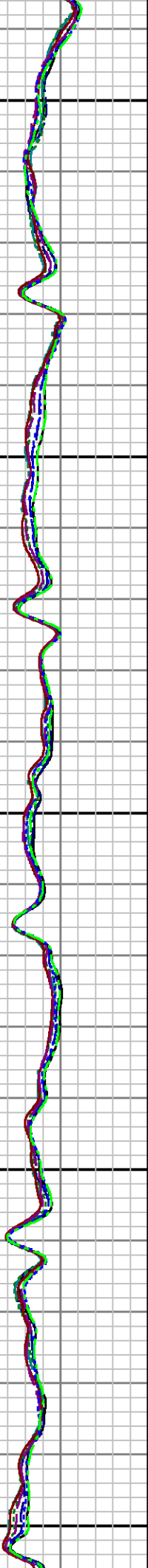
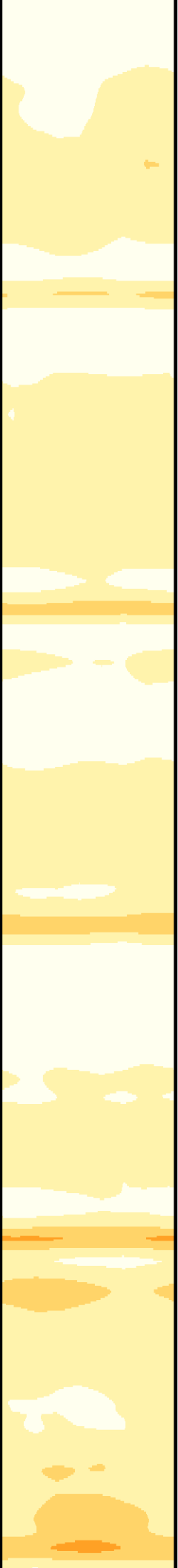


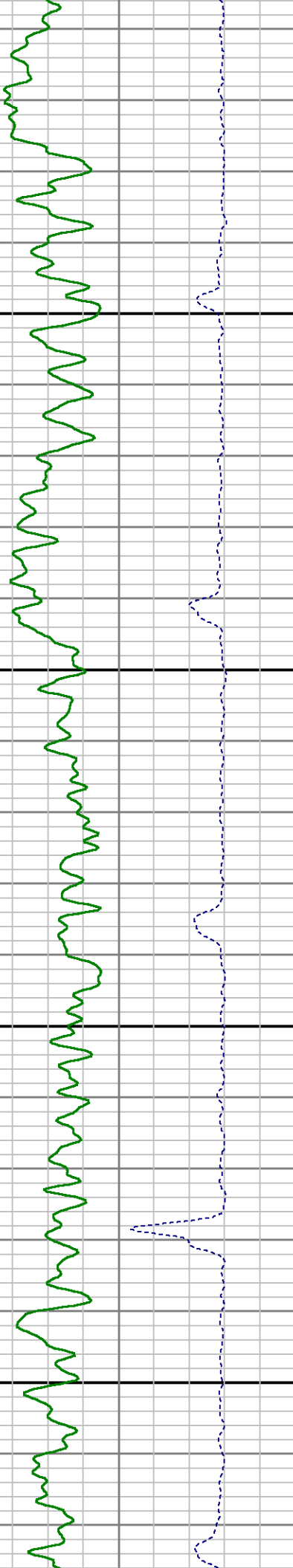
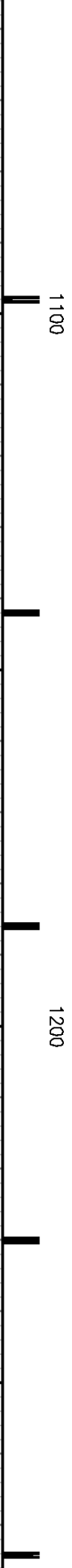
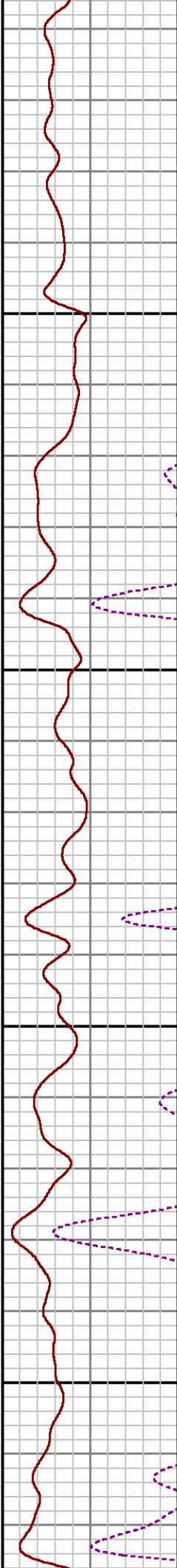
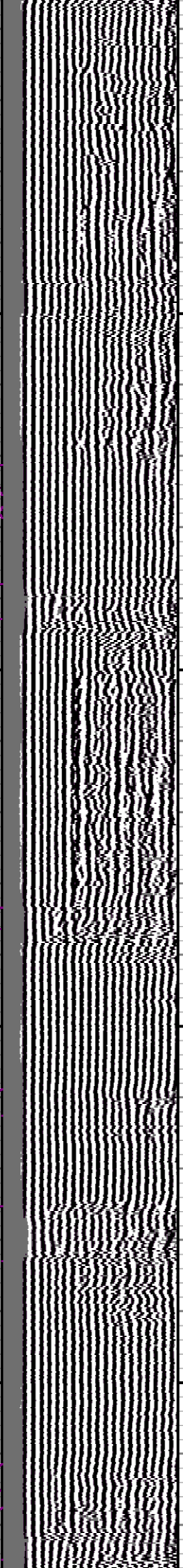
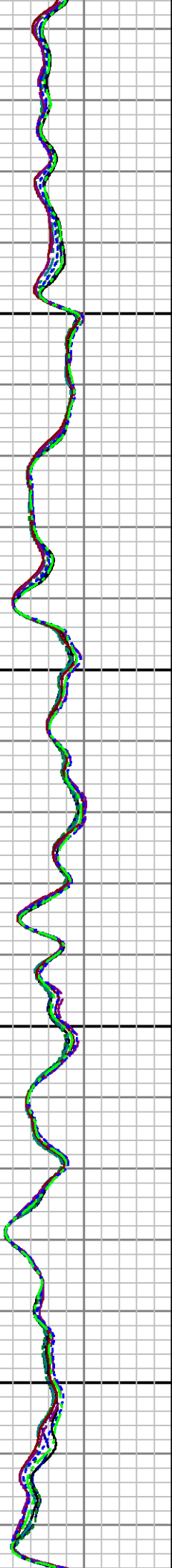
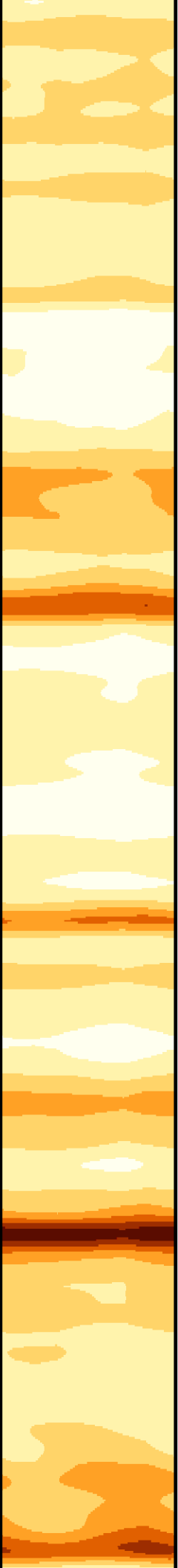


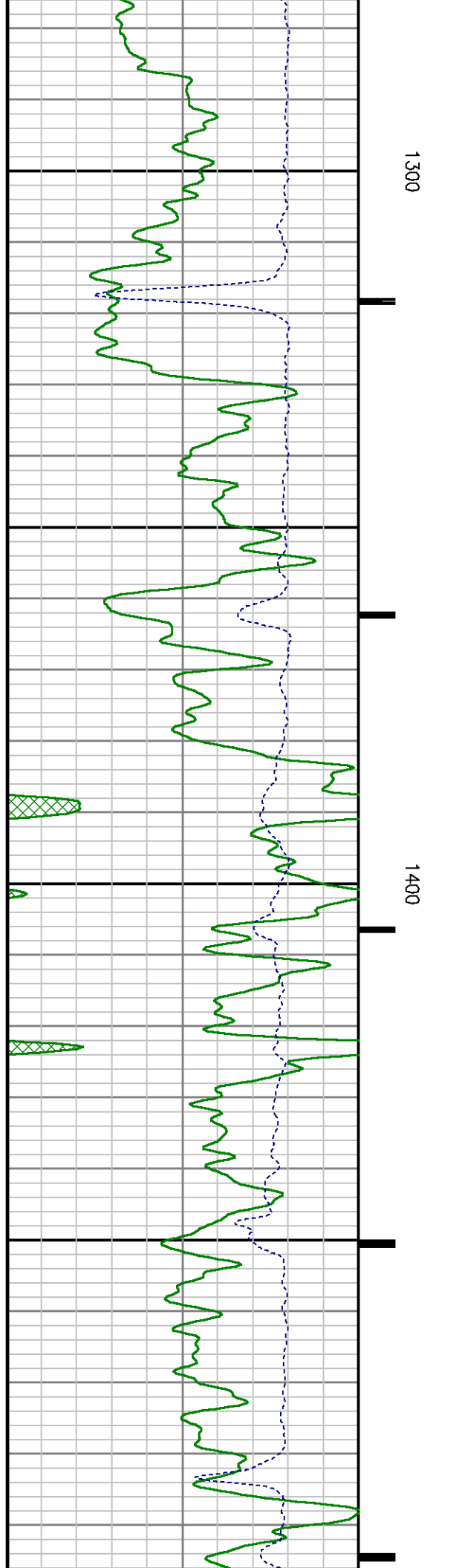
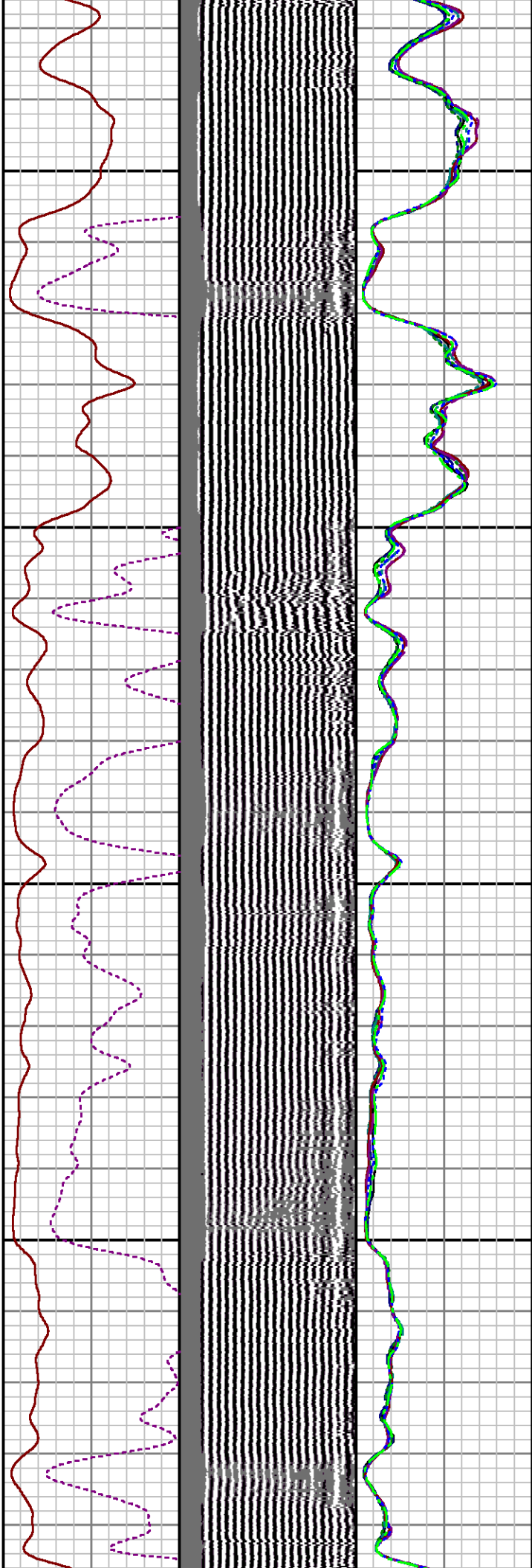




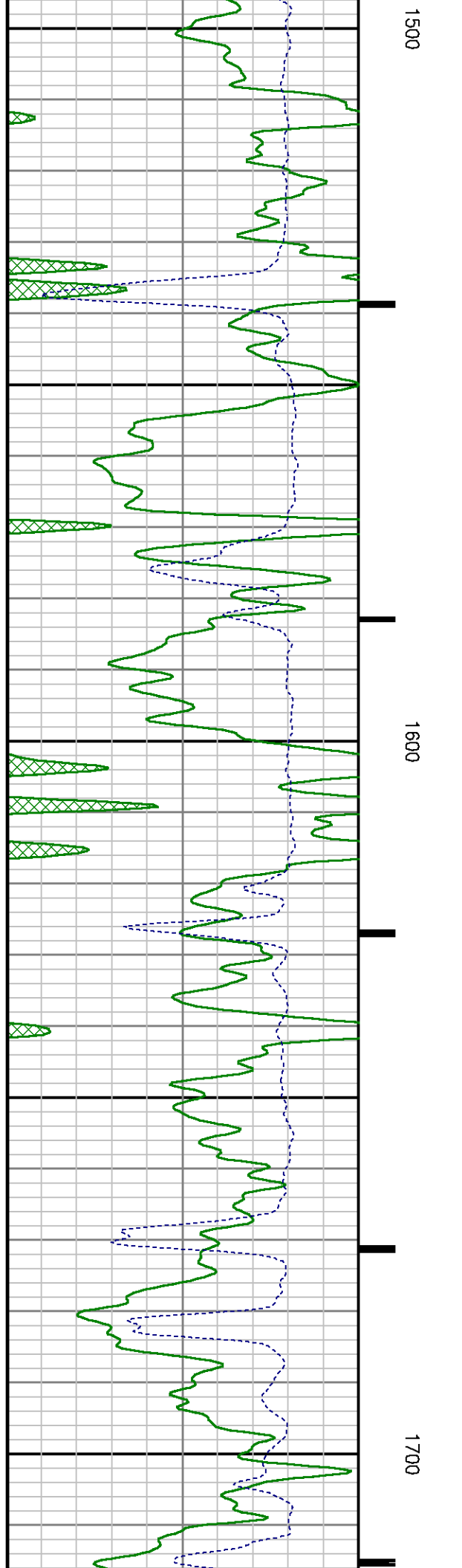
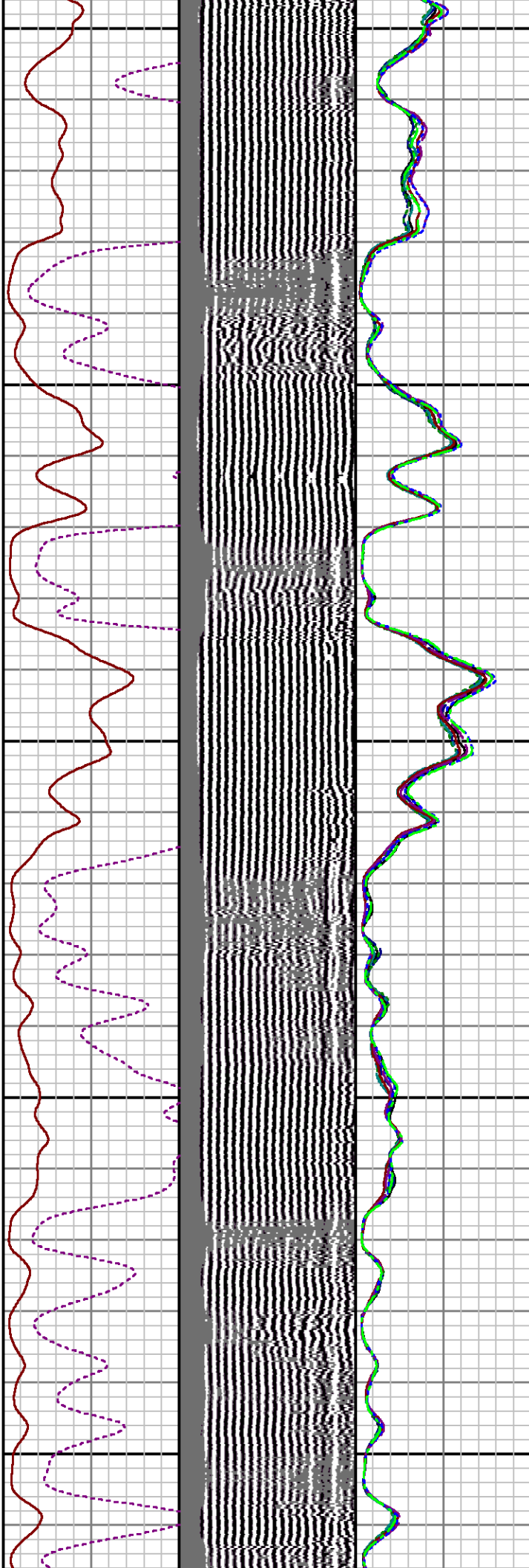
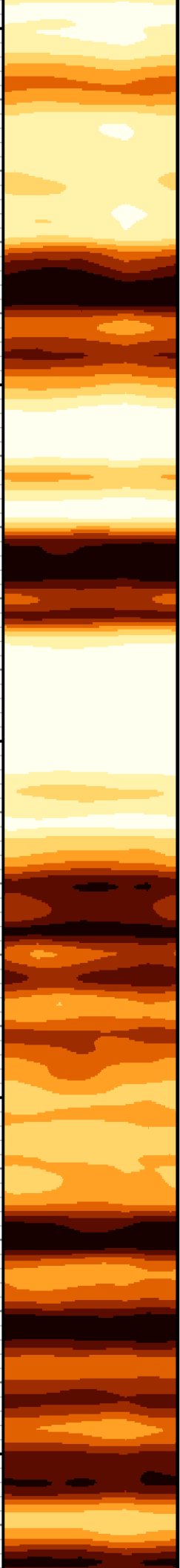


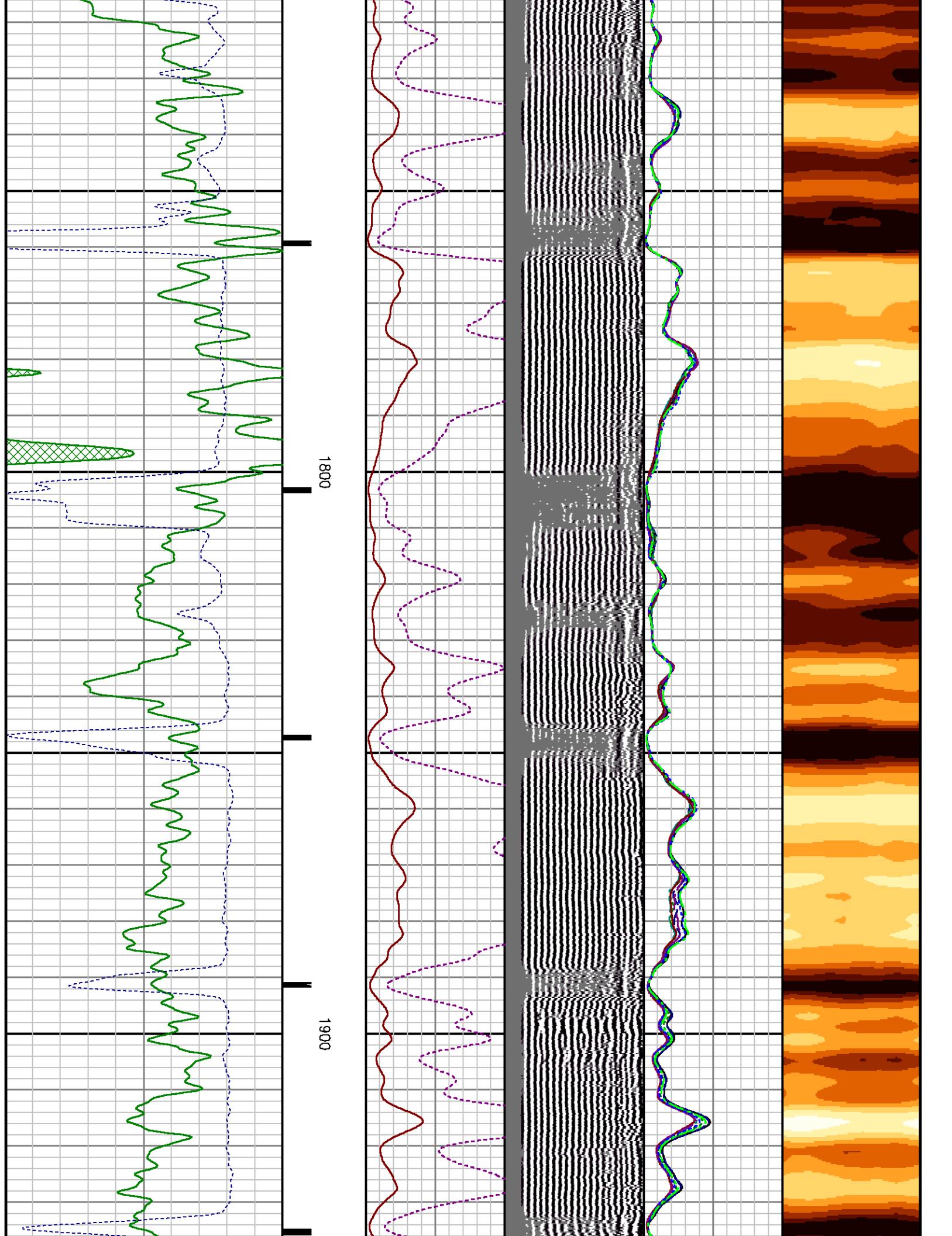


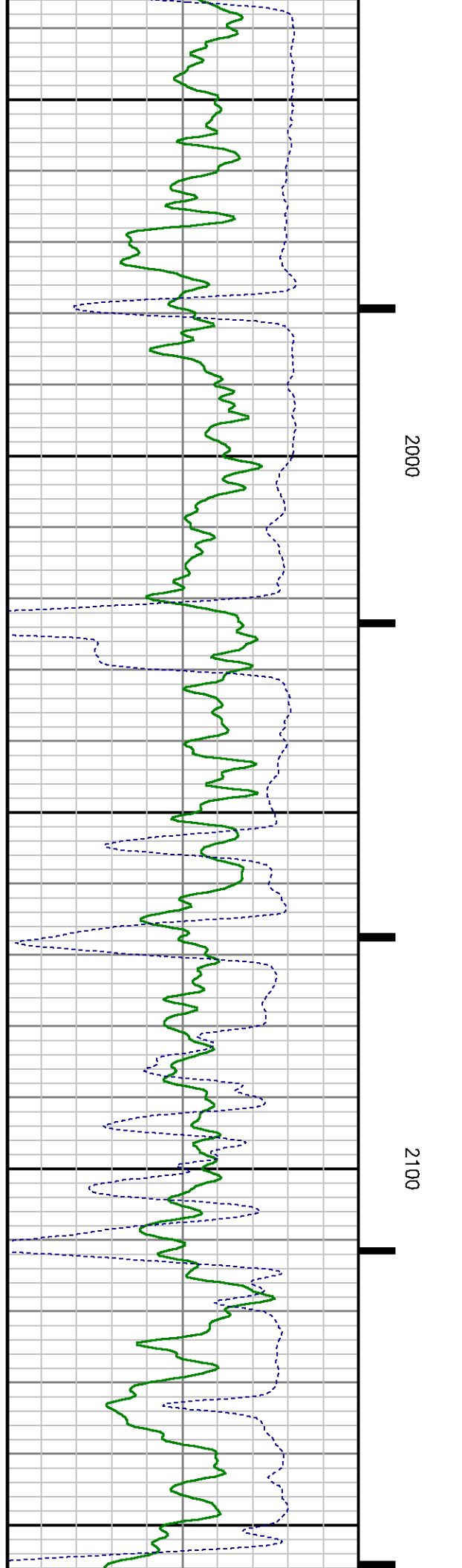
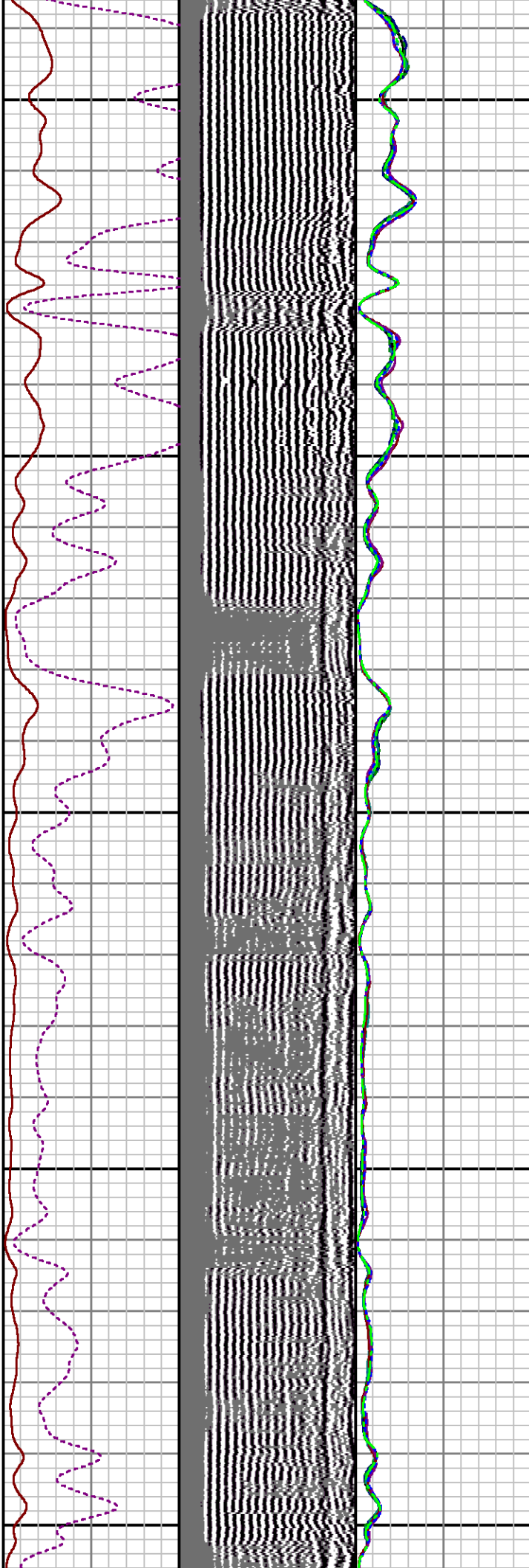




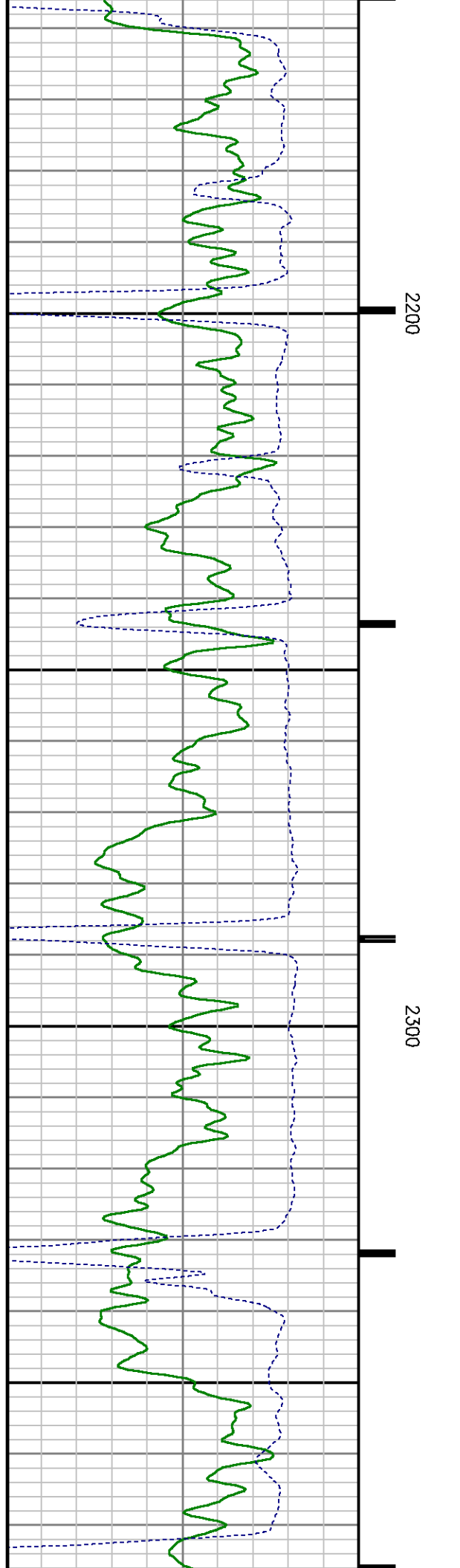
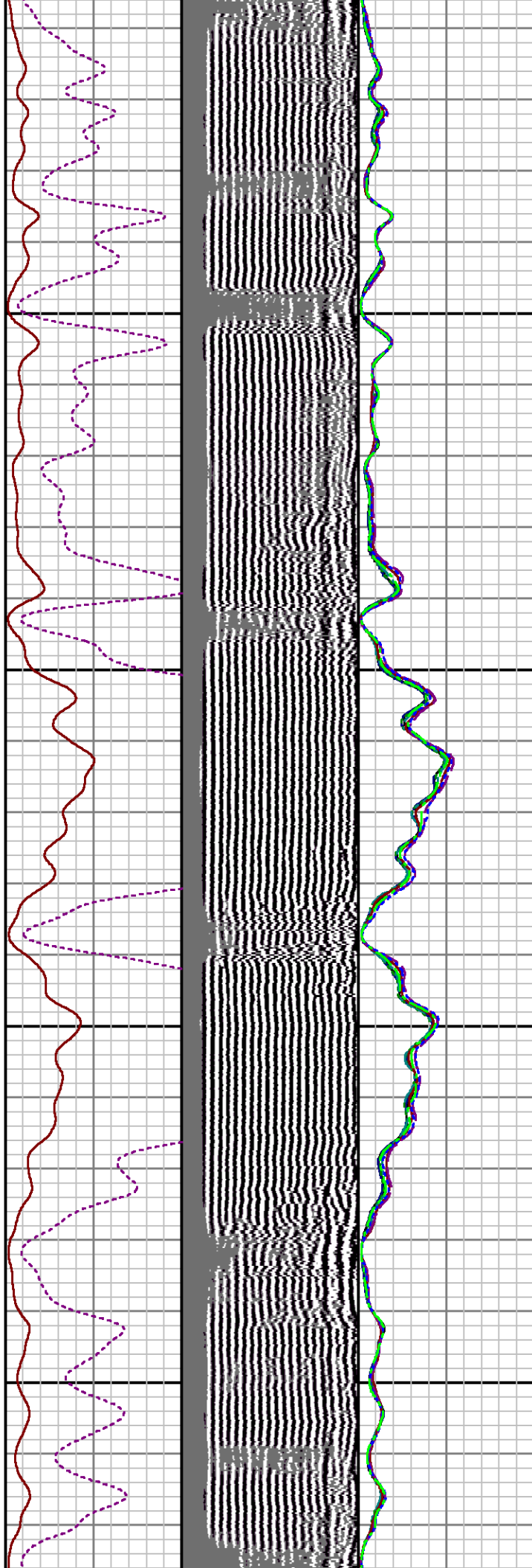
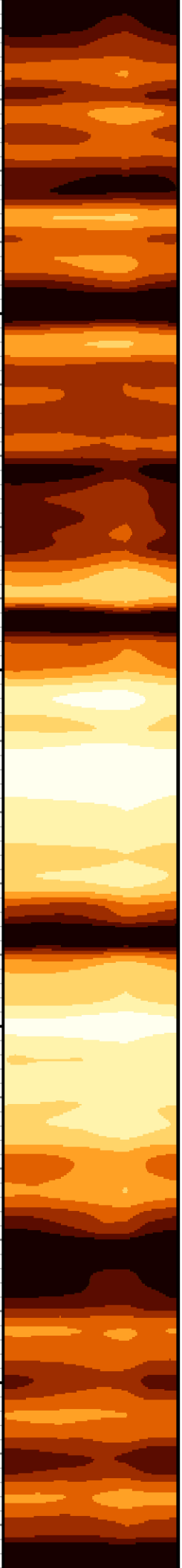


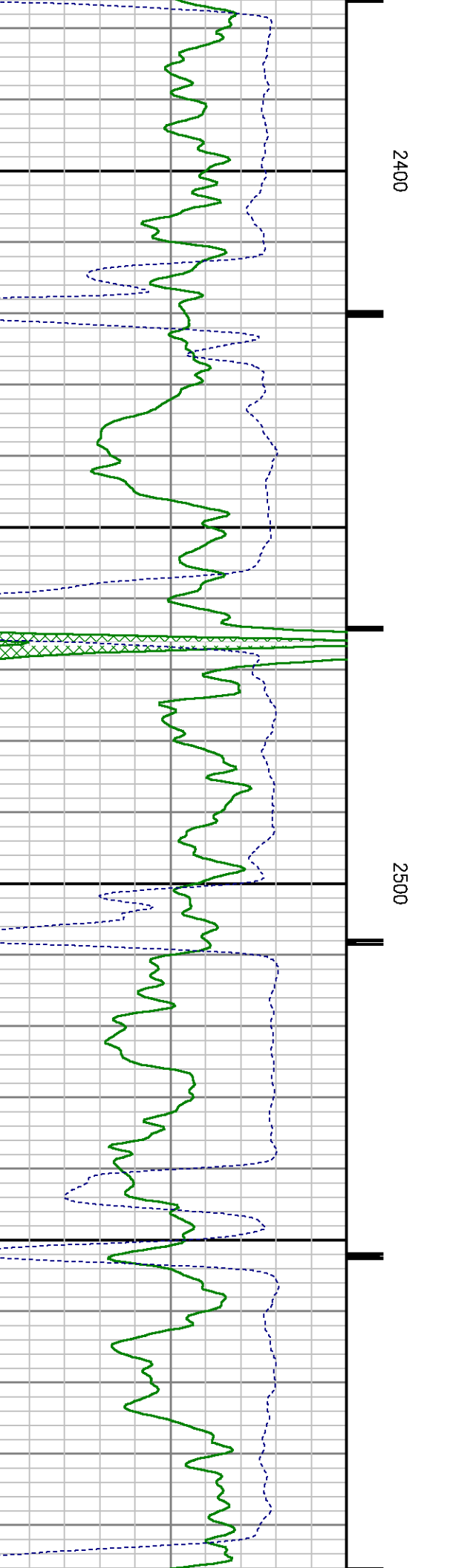
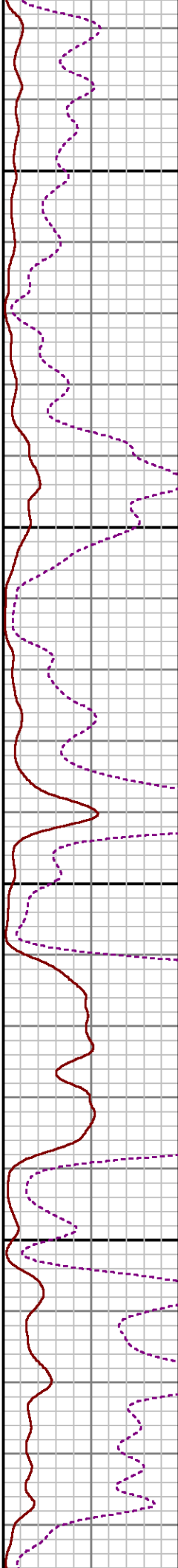
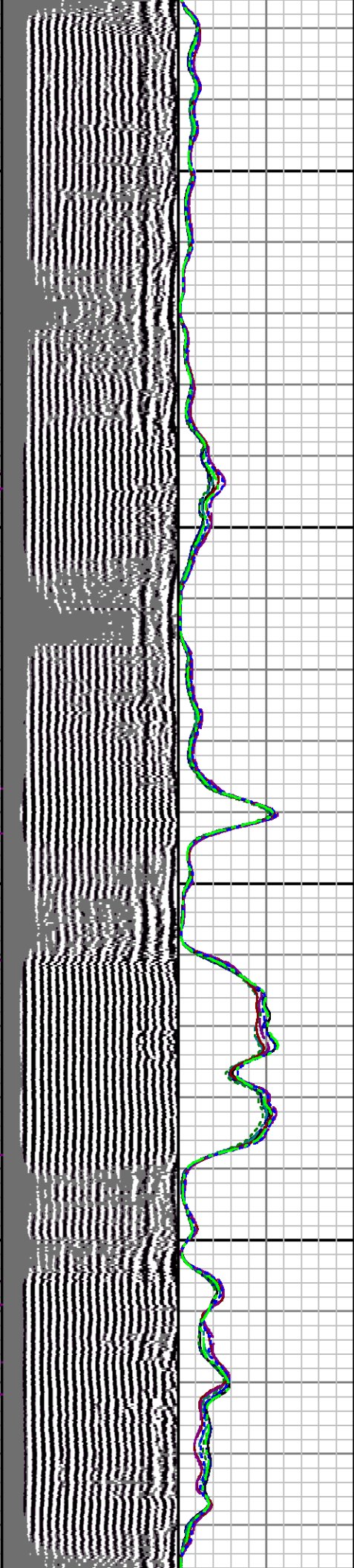


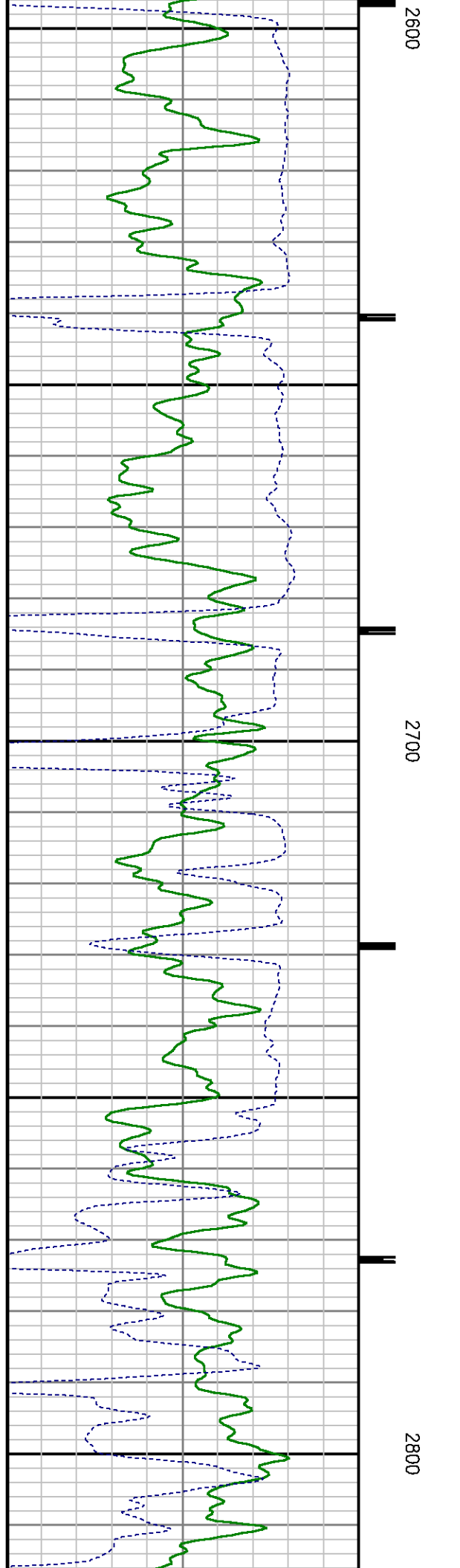
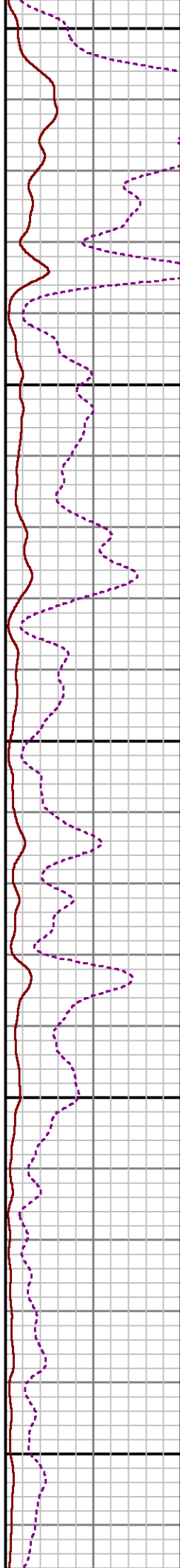
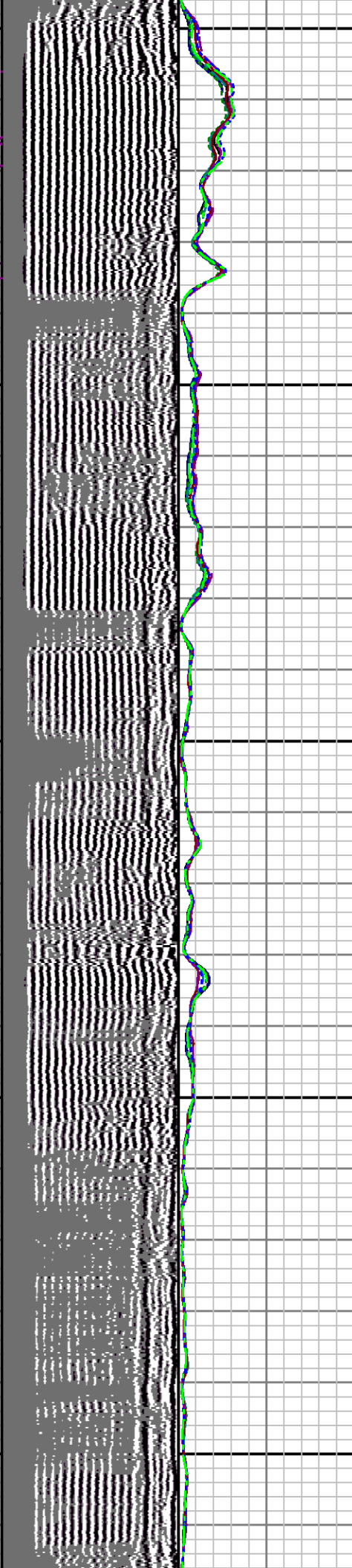
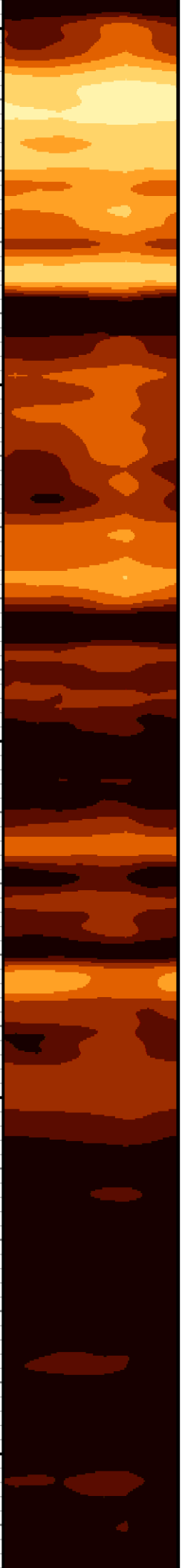


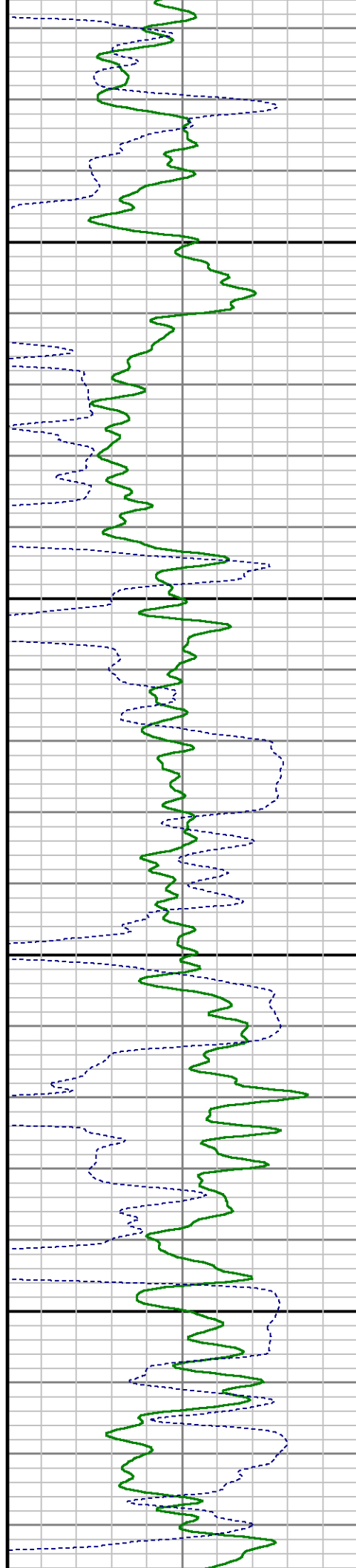
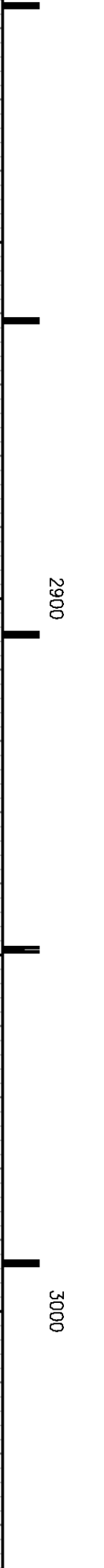
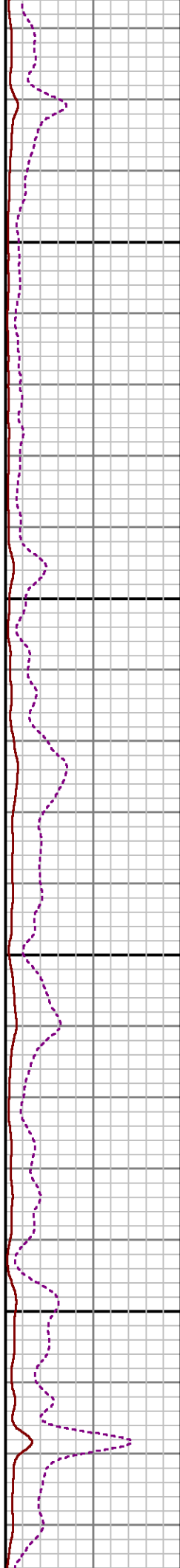
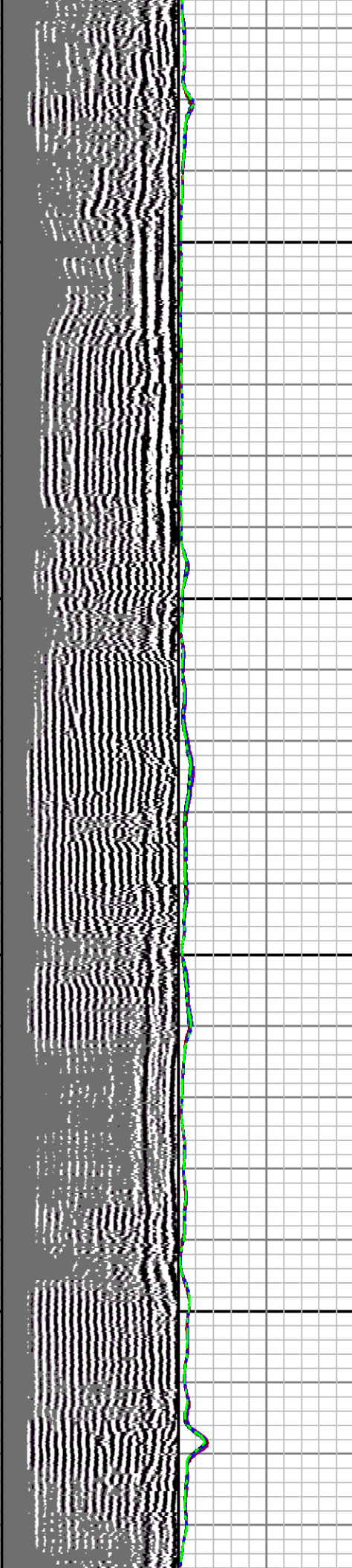




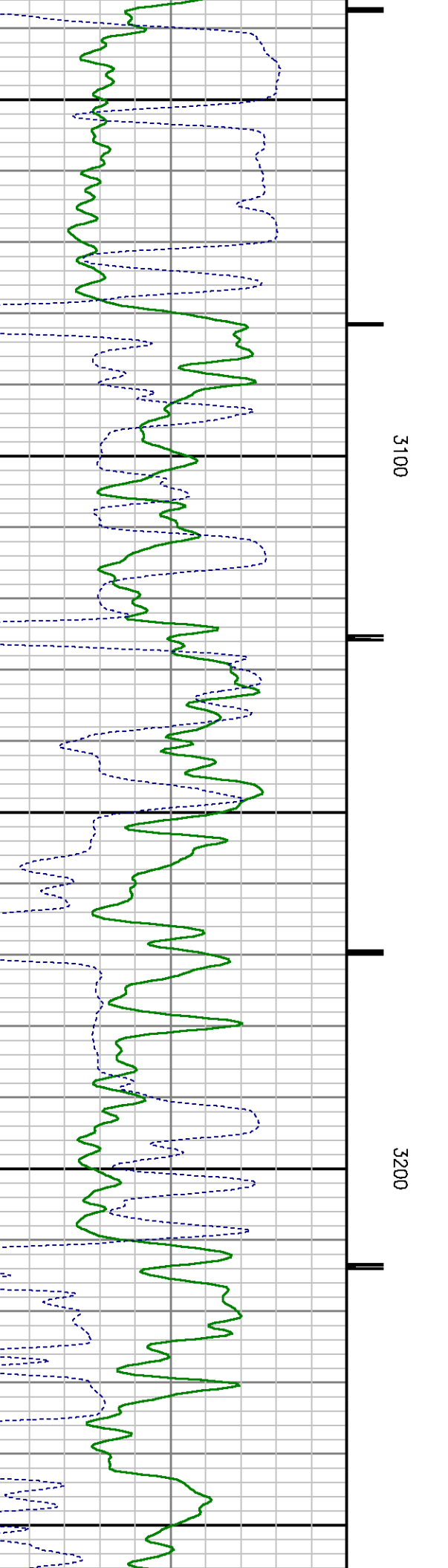
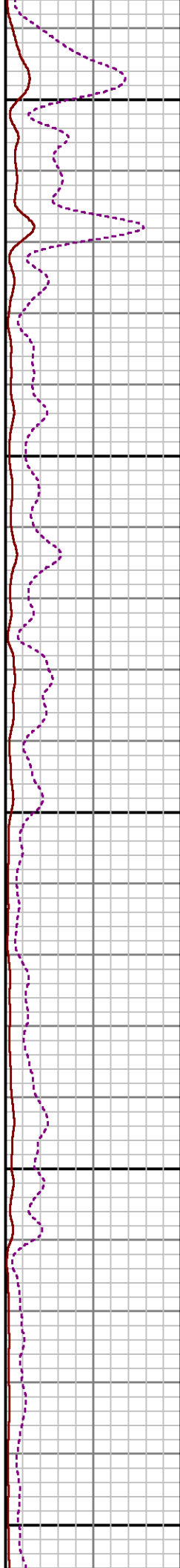
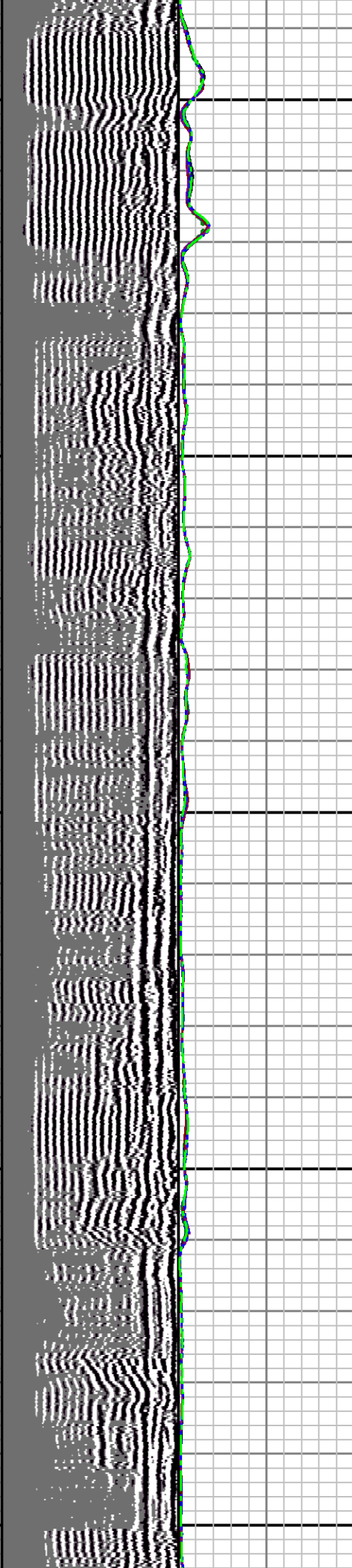


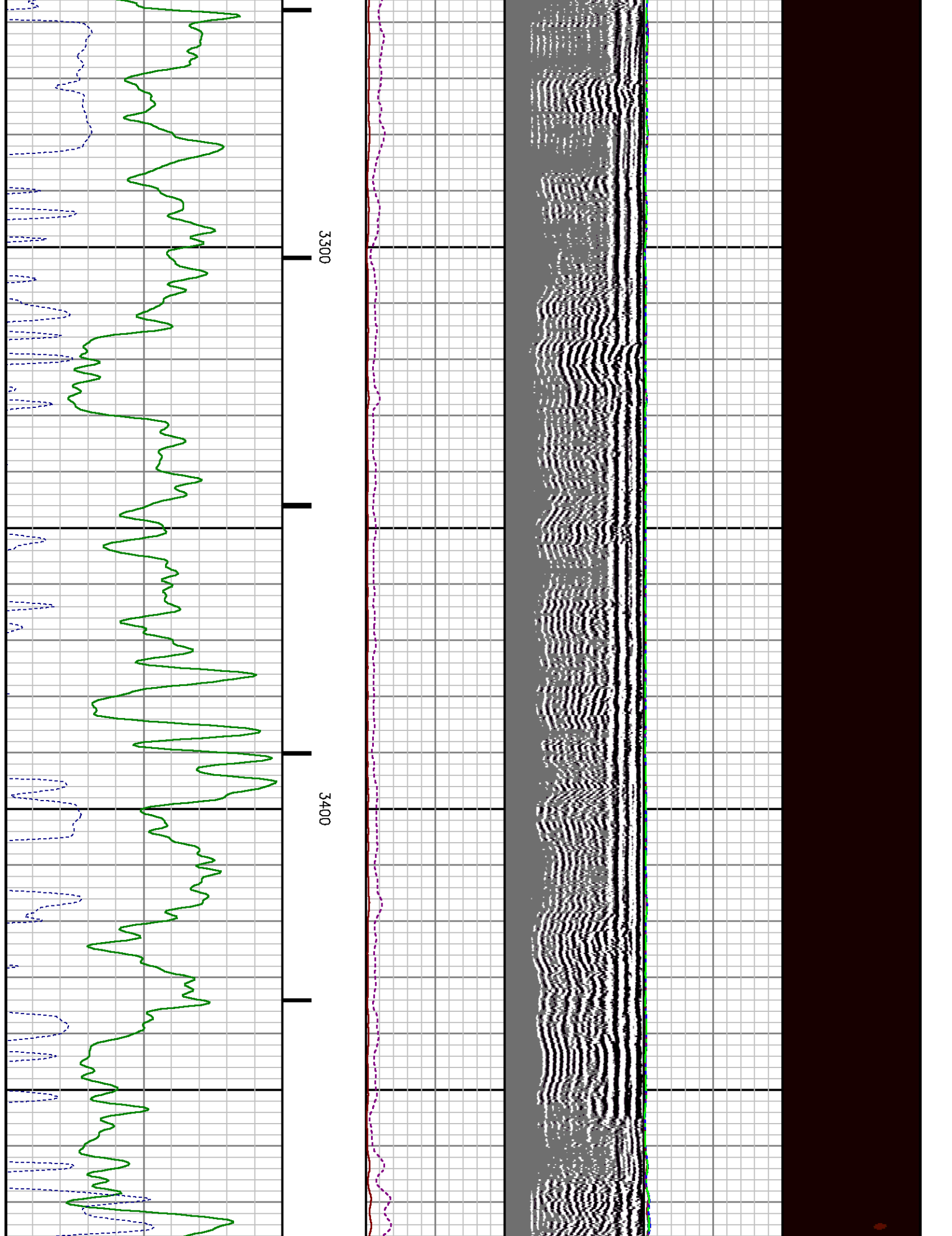




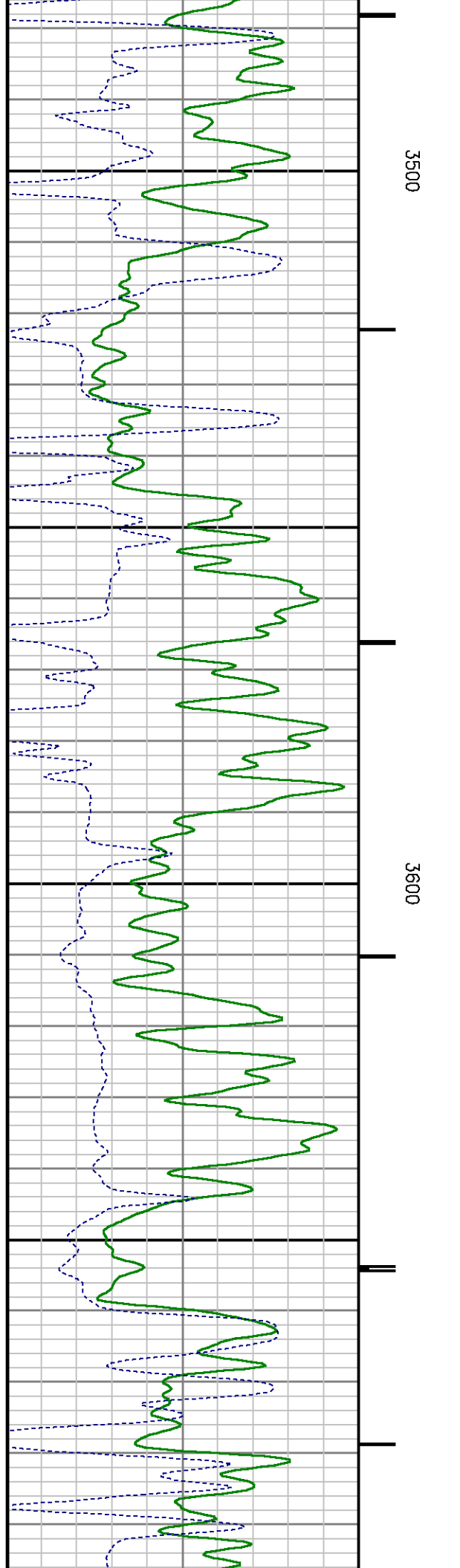
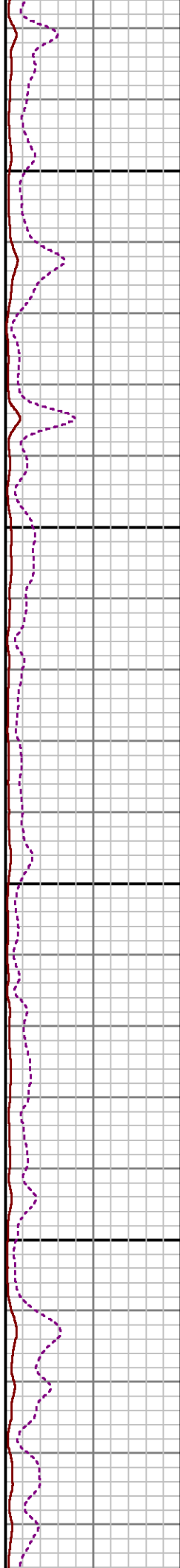
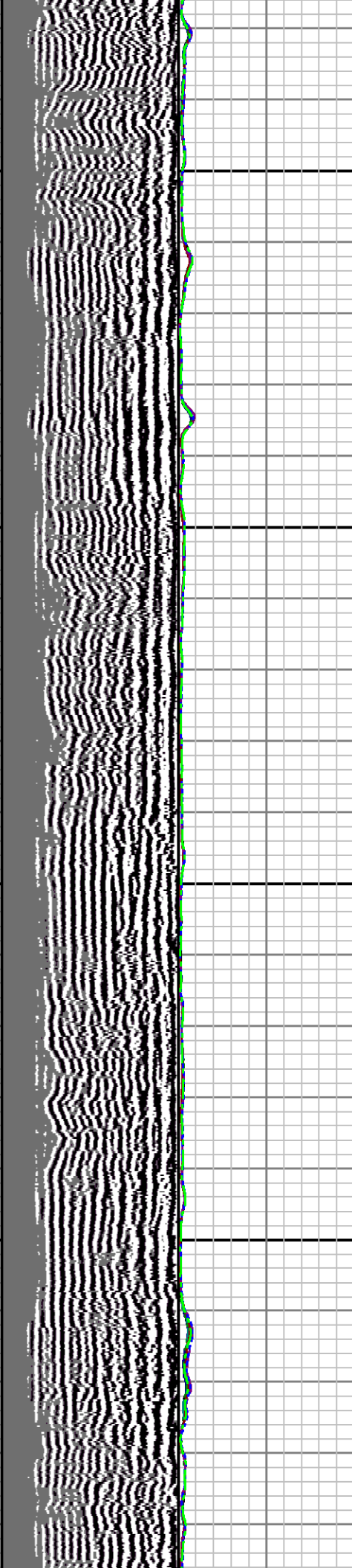


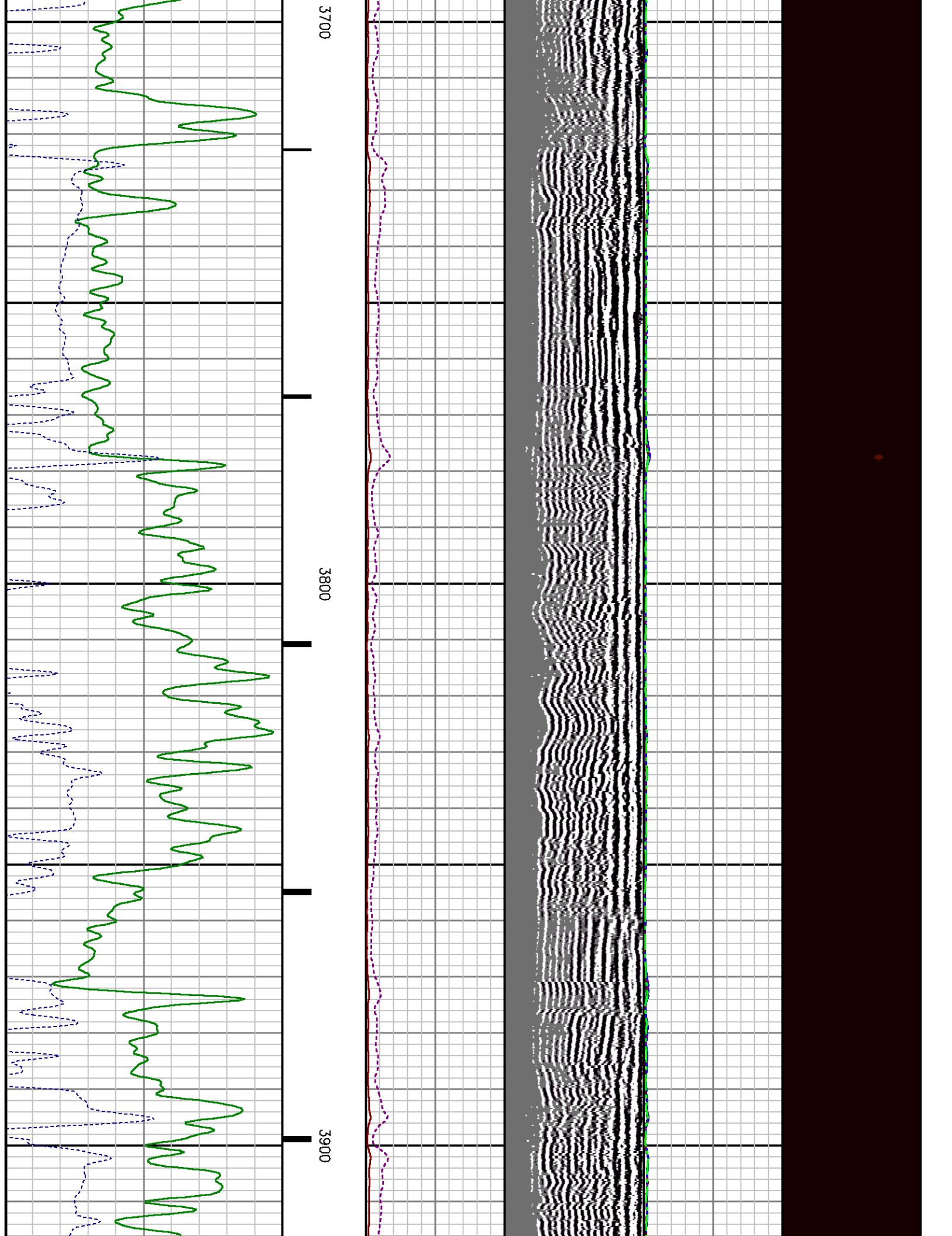


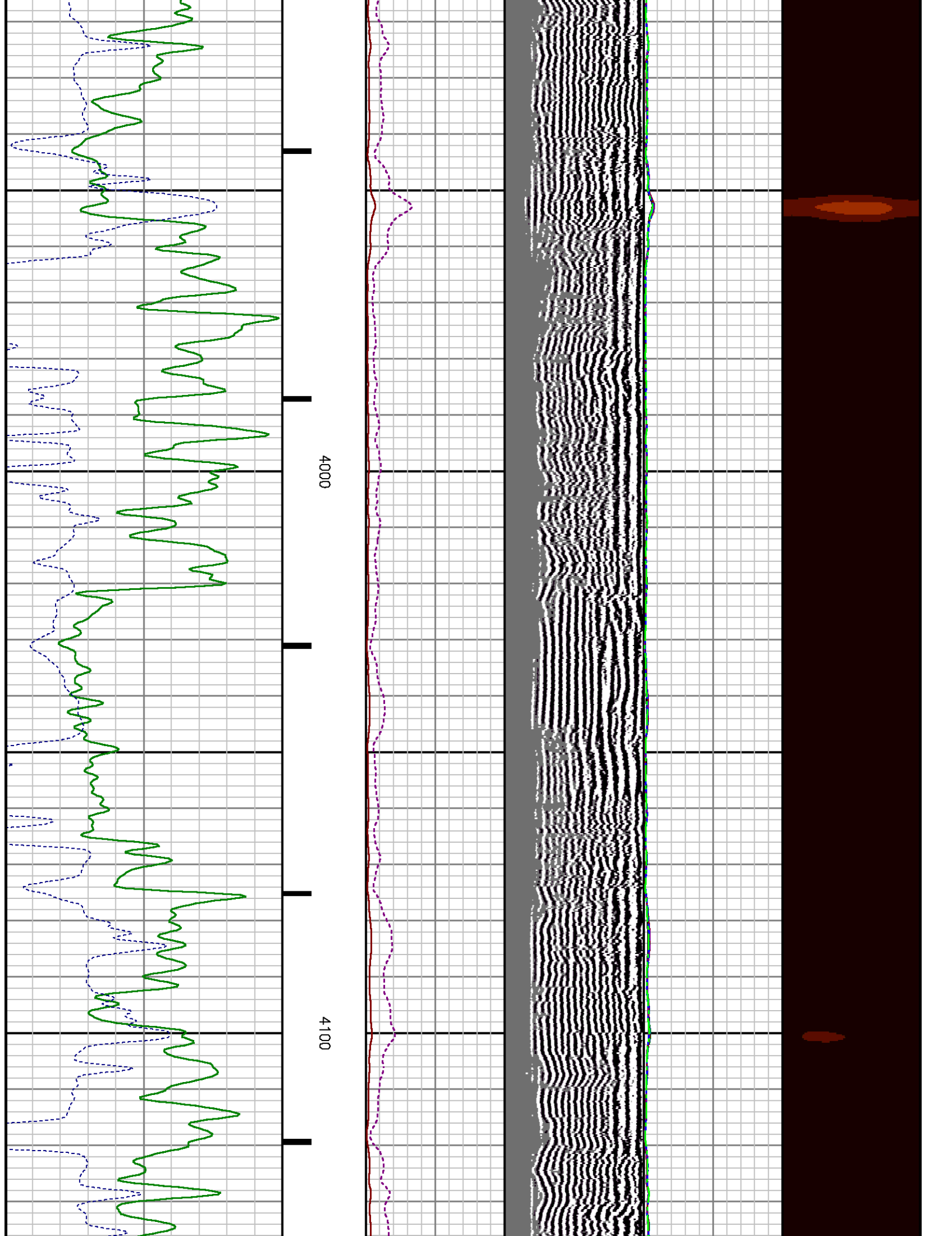


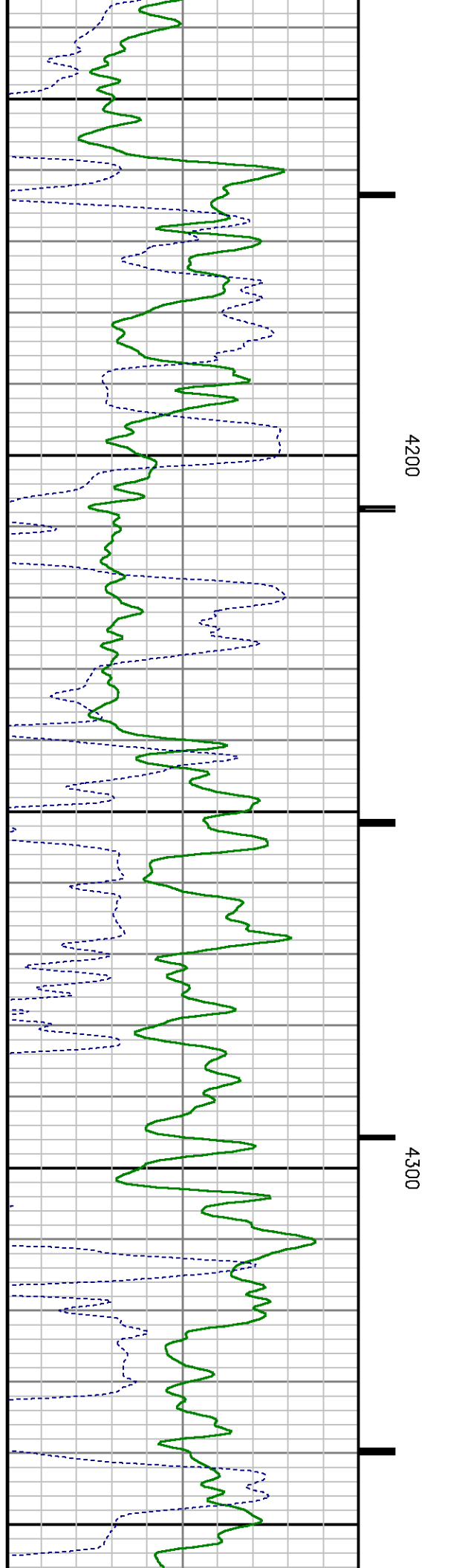
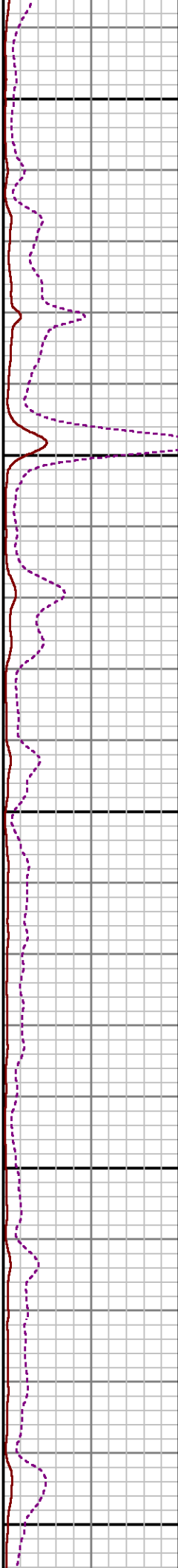
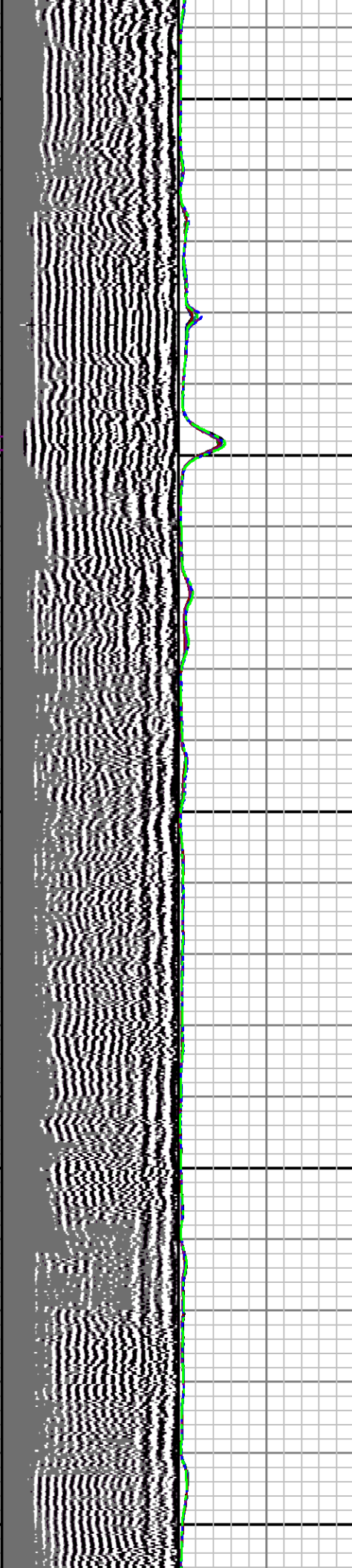


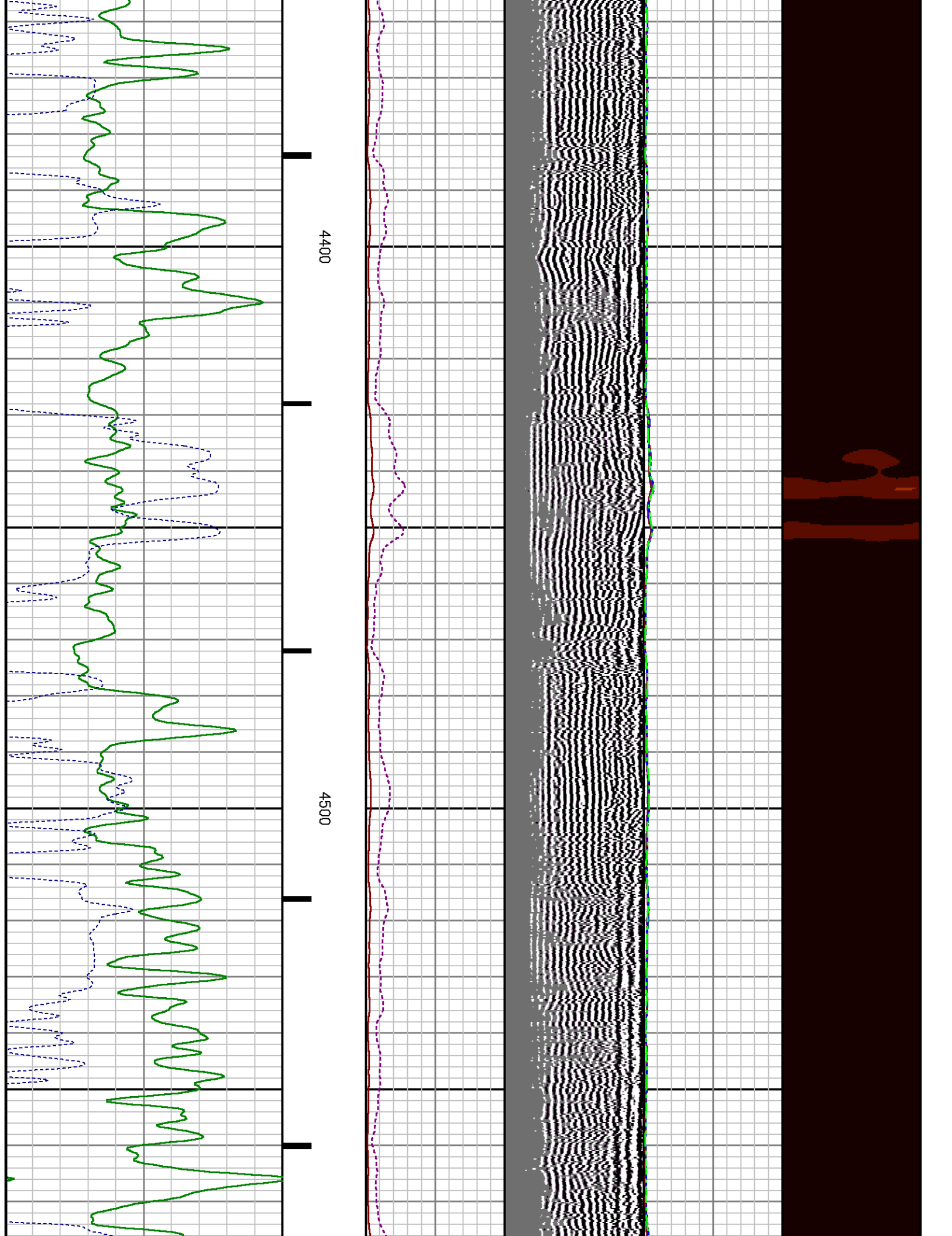




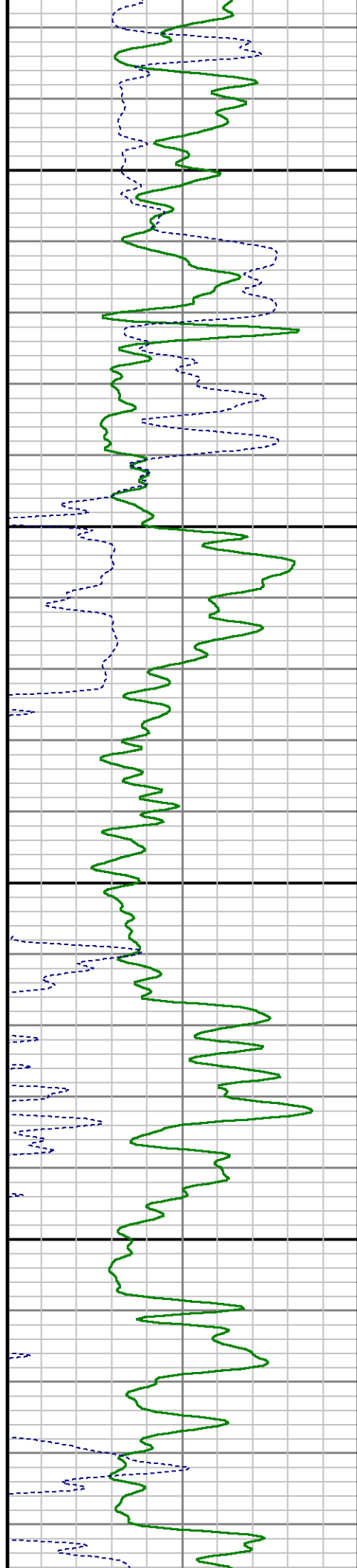
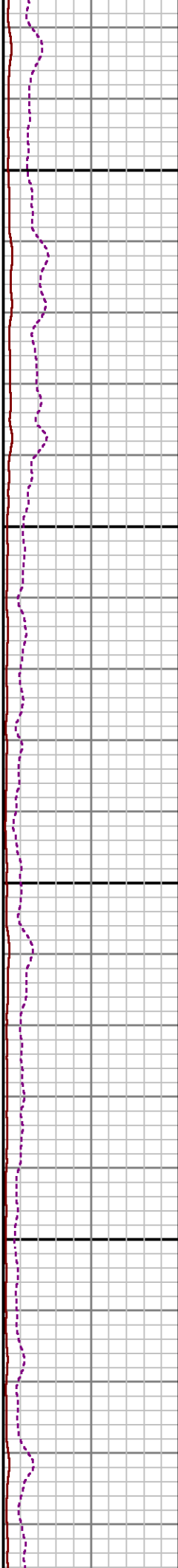
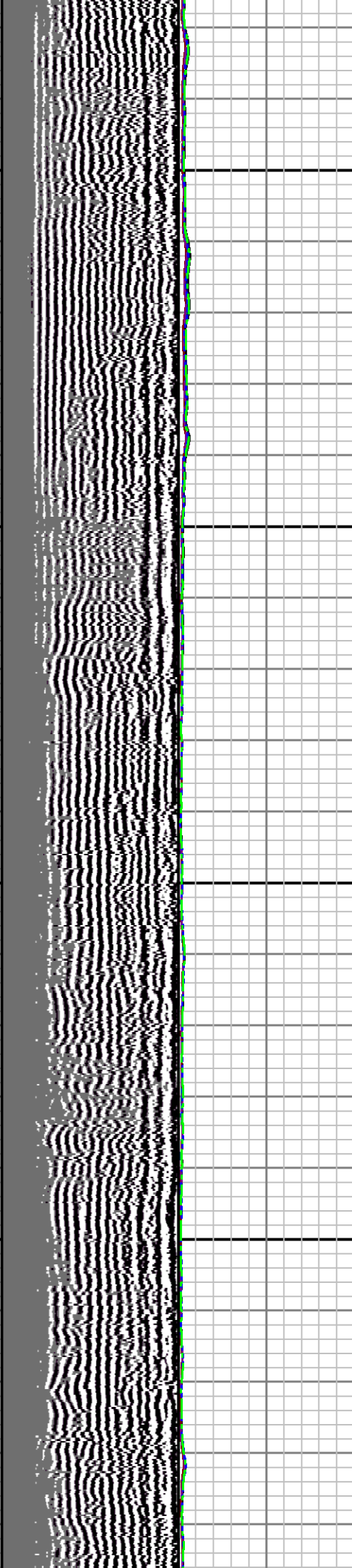


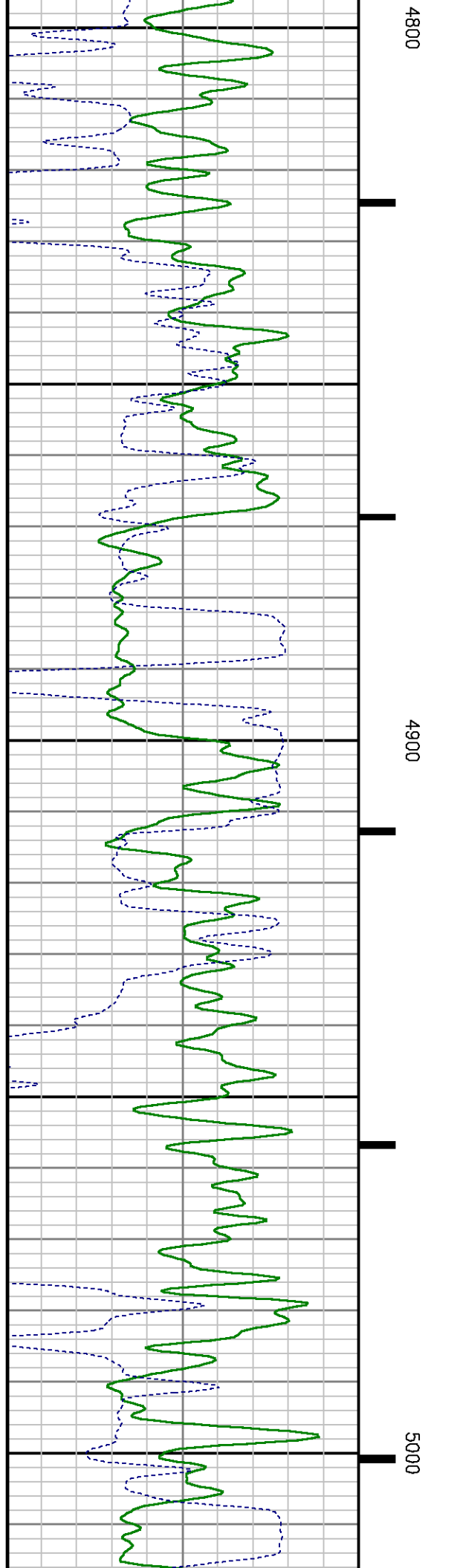
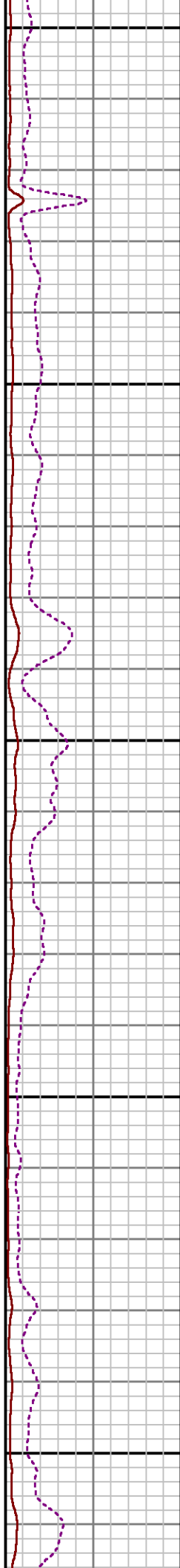
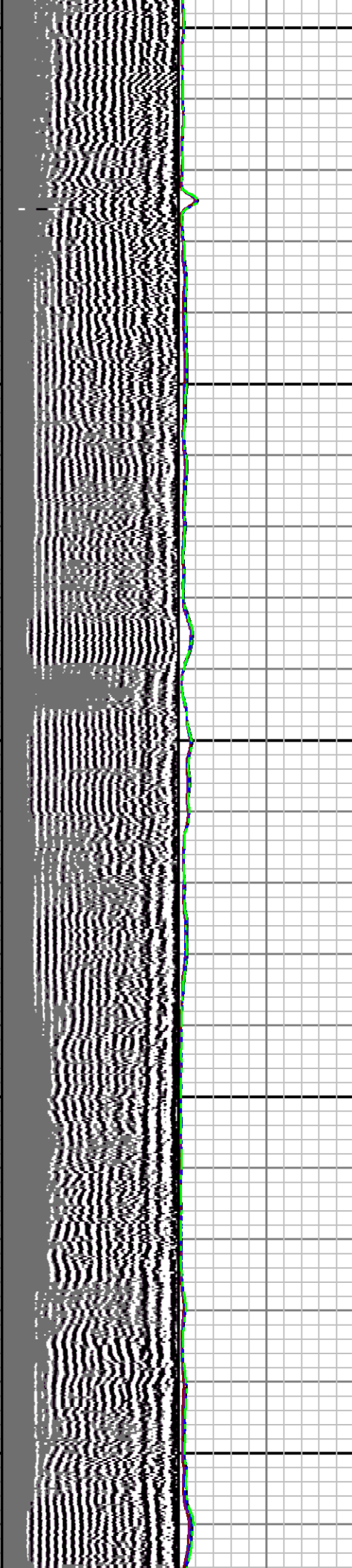


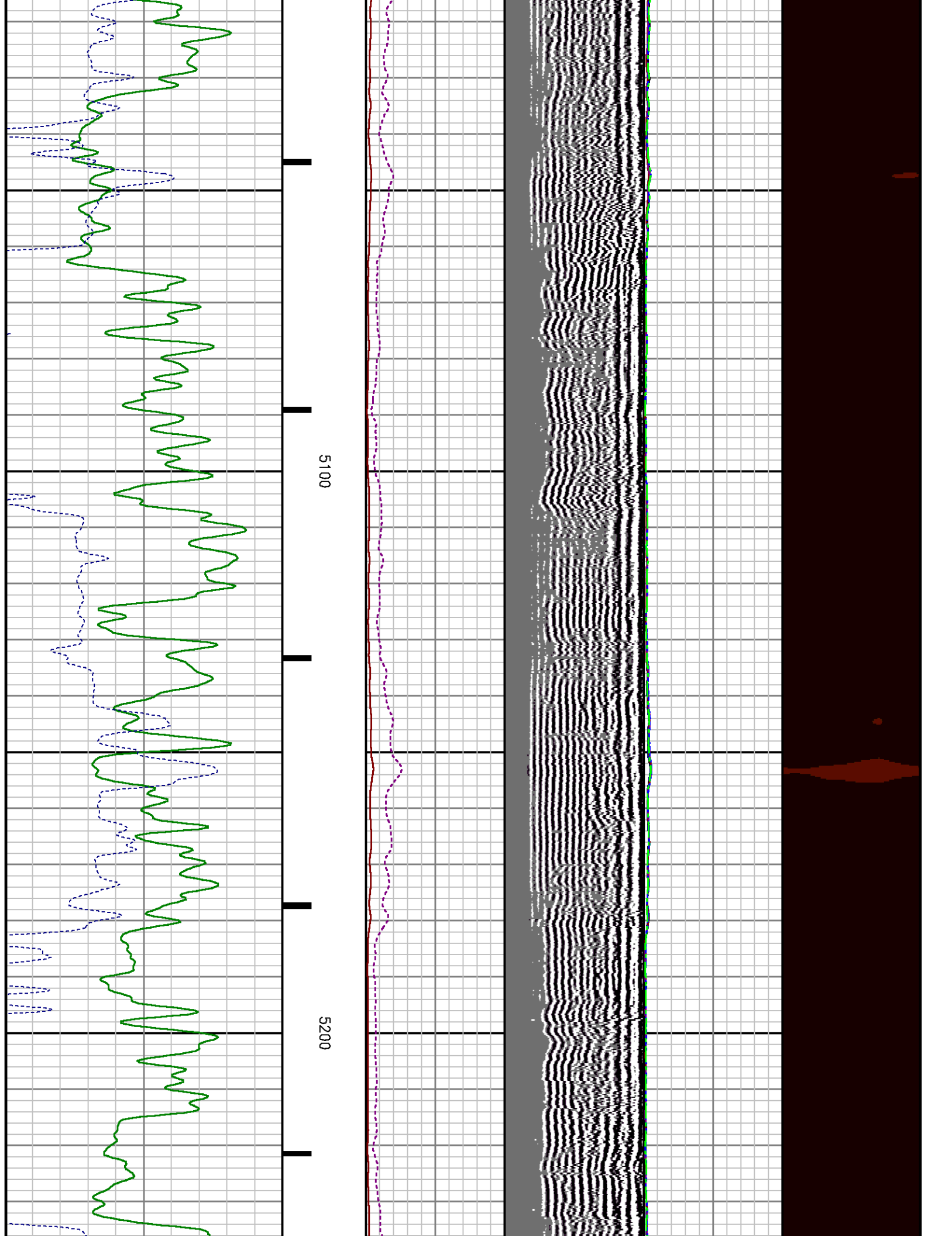


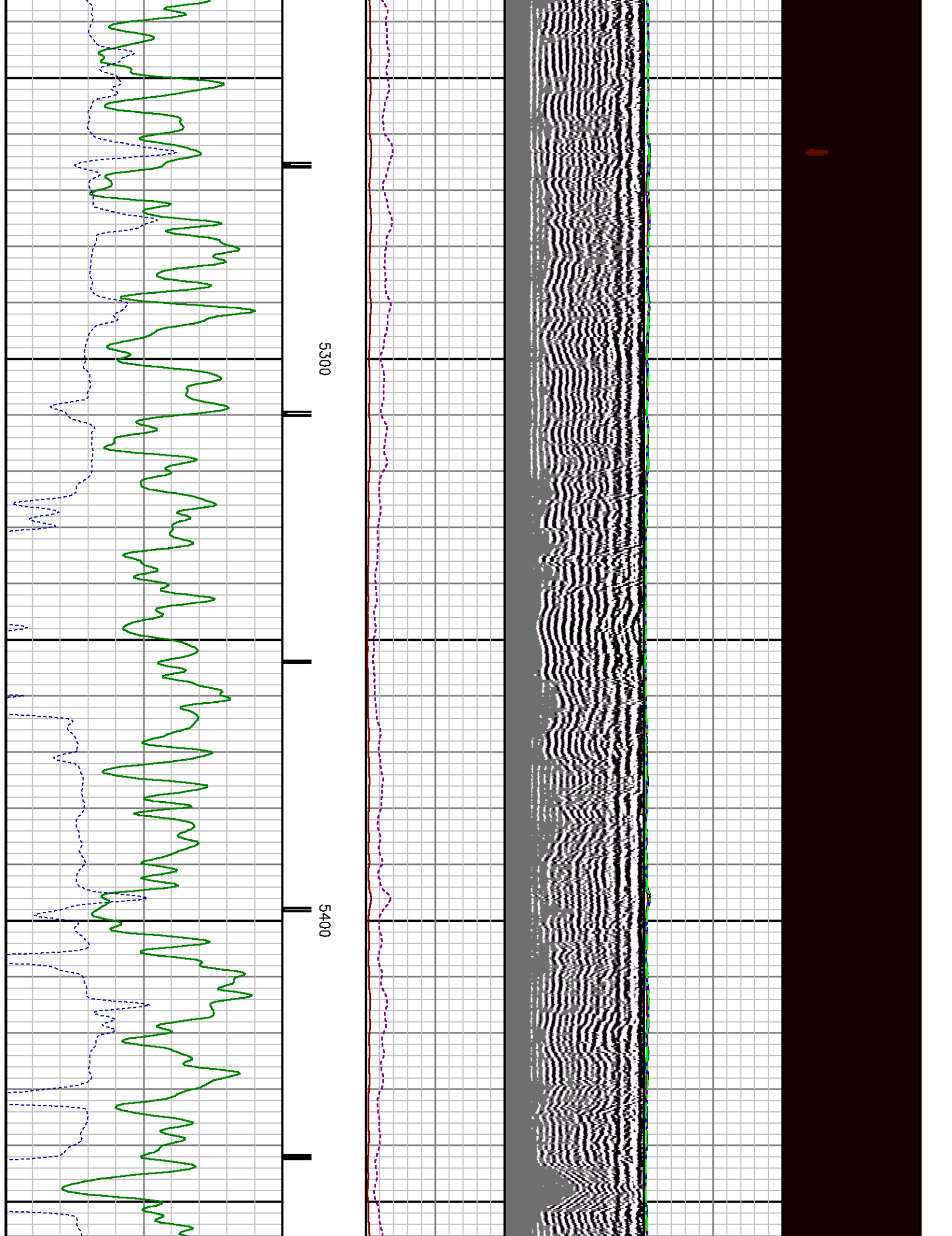


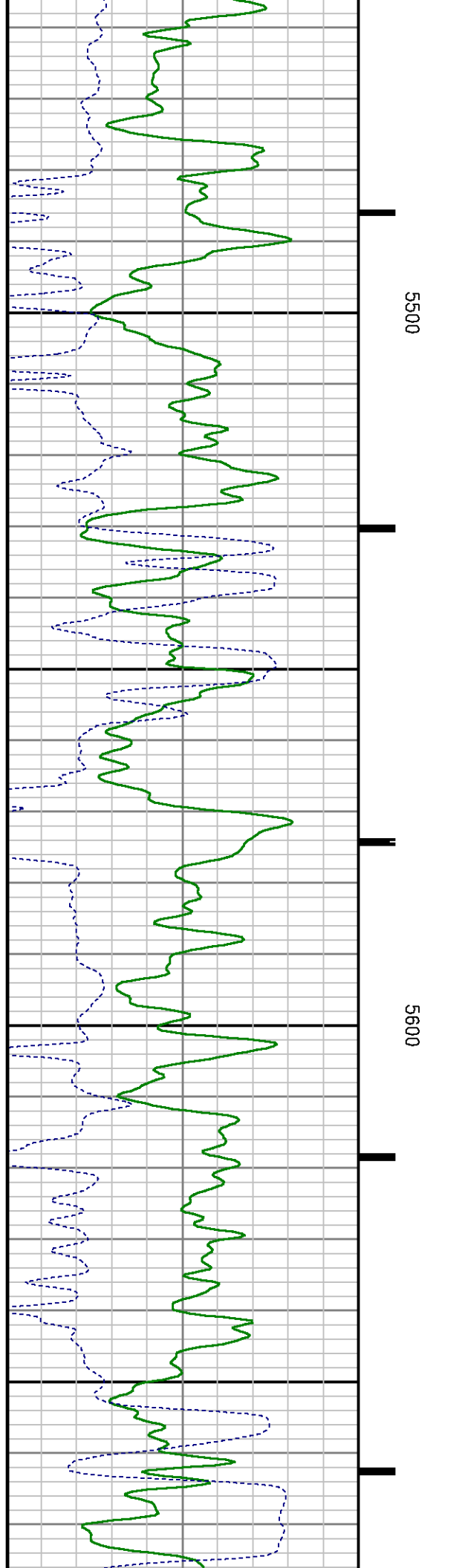
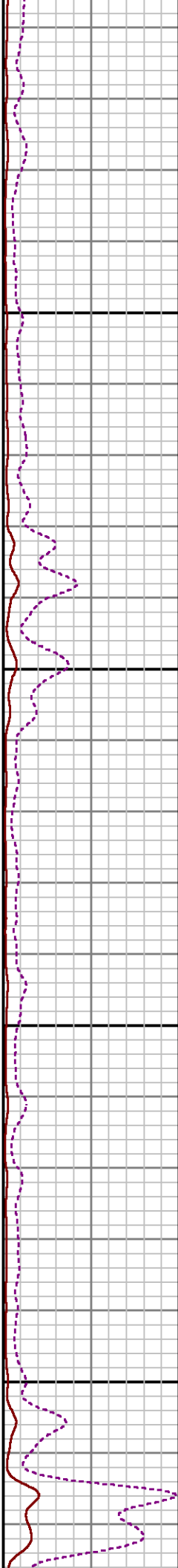
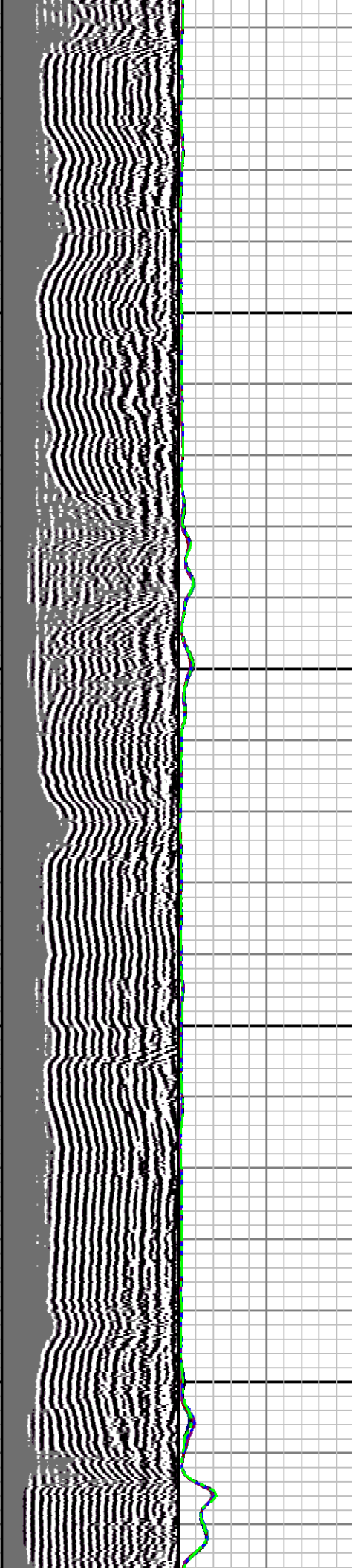




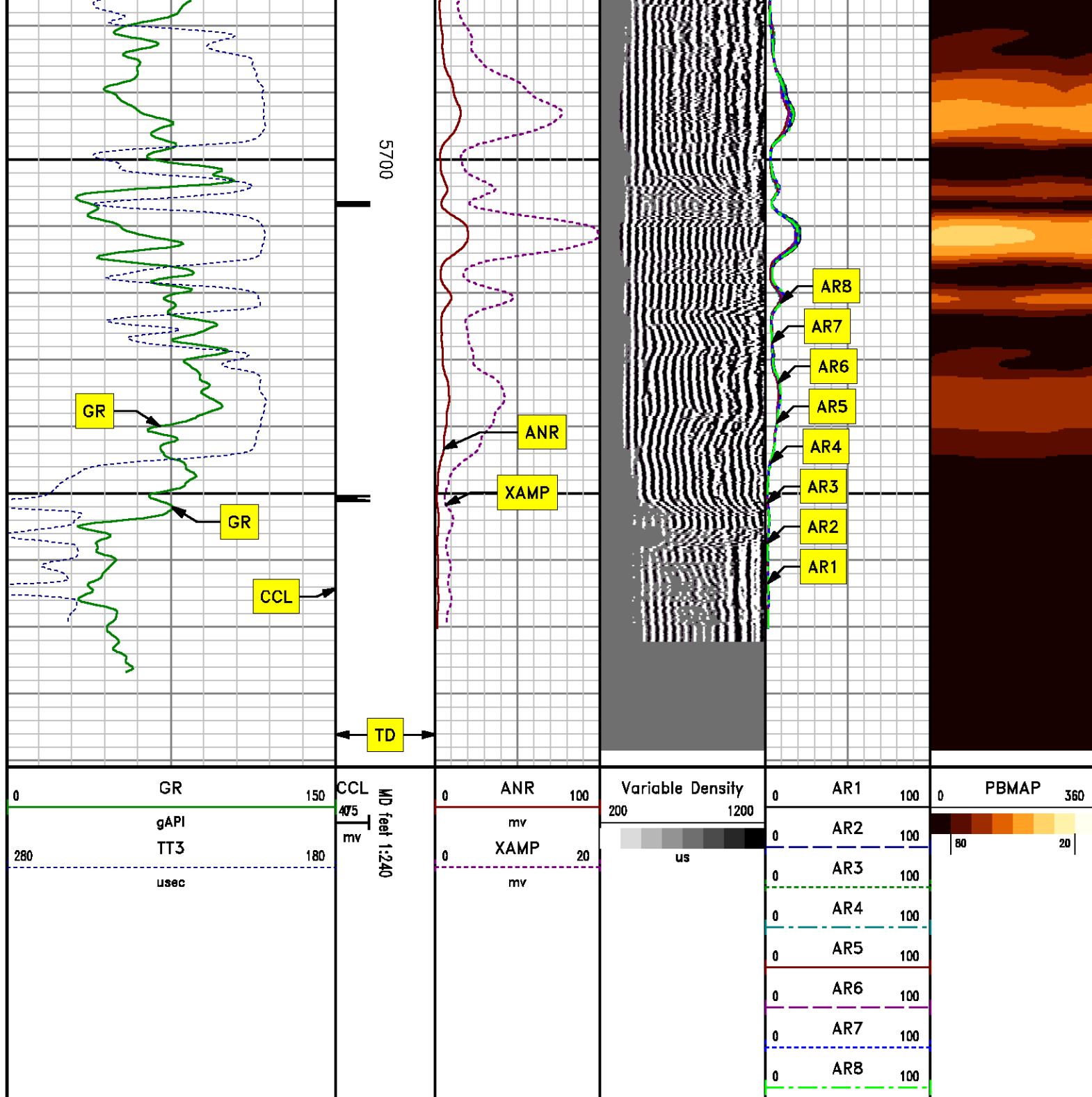












**REPEAT SECTION**  
**0 PSI**

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	5464.450	5787.700
RAL	Amp Gate Start Near	195.000	usec	5464.450	5787.700
RAL	Amp Gate Start Radial	195.000	usec	5464.450	5787.700
RAL	Amp Gate Width Far	25.000	usec	5464.450	5787.700
RAL	Amp Gate Width Near	25.000	usec	5464.450	5787.700
RAL	Amp Gate Width Radial	25.000	usec	5464.450	5787.700
RAL	casing od	4.500	inches	5464.450	5787.700
RAL	casing wt	11.600	lbm/ft	5464.450	5787.700
RAL	FB Start Far	291.900	usec	5464.450	5787.700
RAL	FB Start Near	175.391	usec	5464.450	5787.700
RAL	FB Start Radial	175.391	usec	5464.450	5787.700
RAL	FB Thresh Far	10.000	mv	5464.450	5787.700
RAL	FB Thresh Near	4.000	mv	5464.450	5787.700
RAL	FB Thresh Radial	4.000	mv	5464.450	5787.700
RAL	Fluid Travel Time	200.000	usec/ft	5464.450	5787.400

## 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

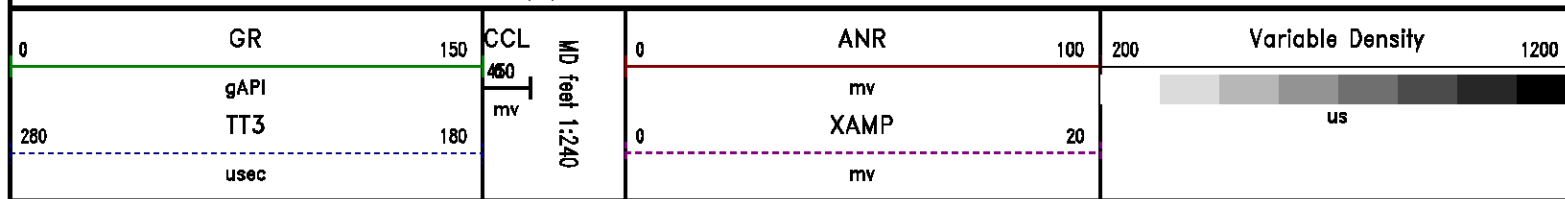
Well : BOSELY SG 11-27

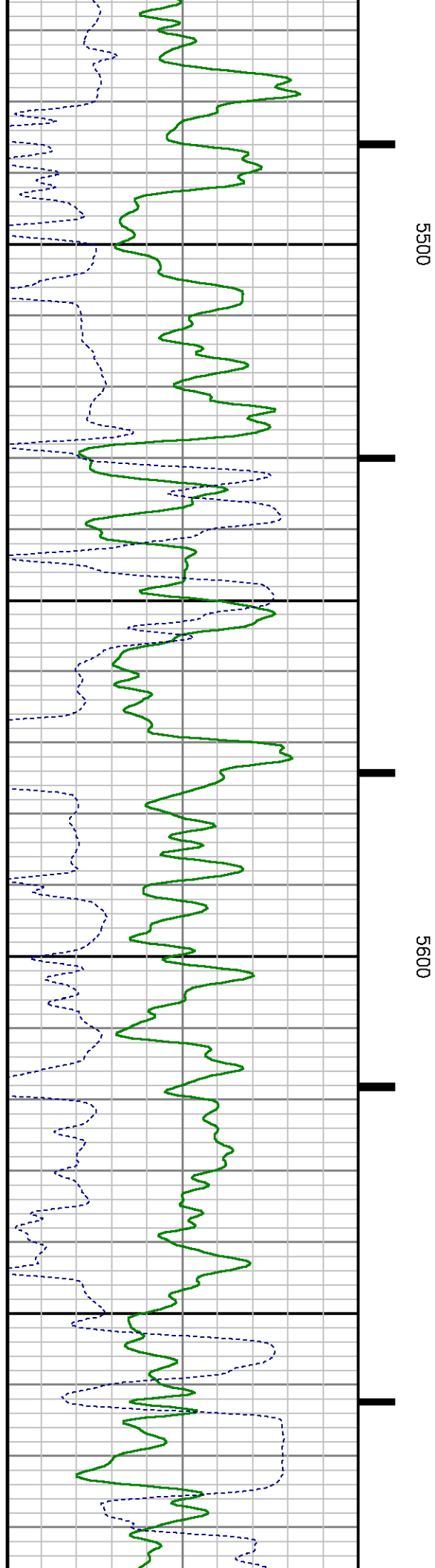
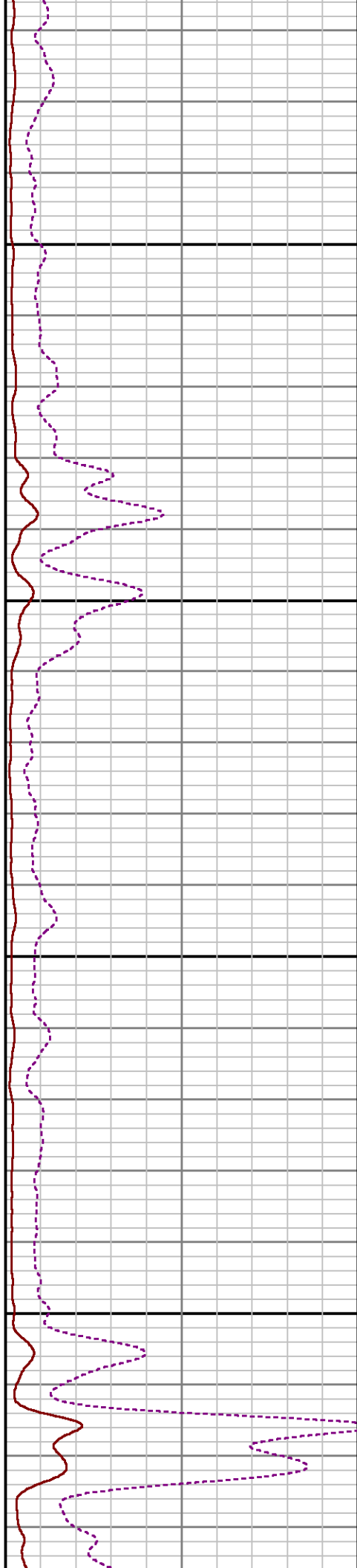
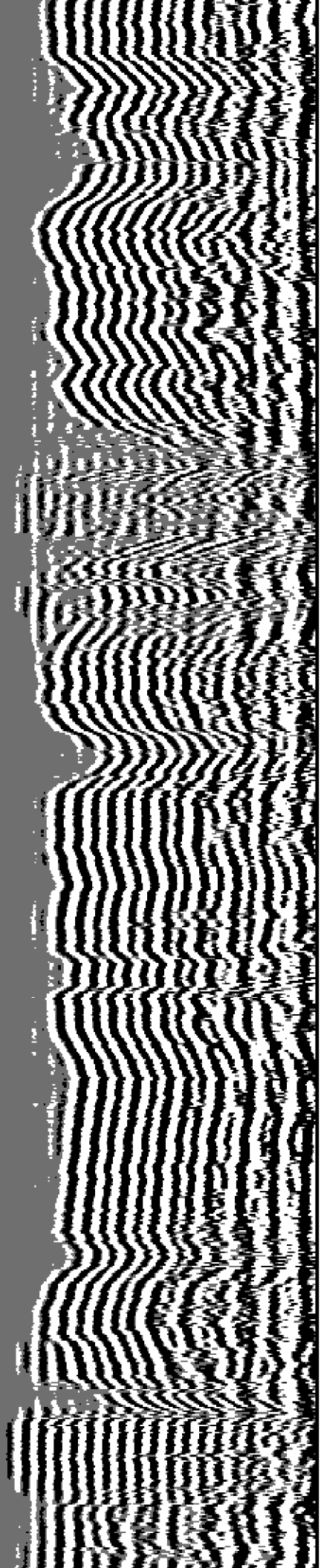
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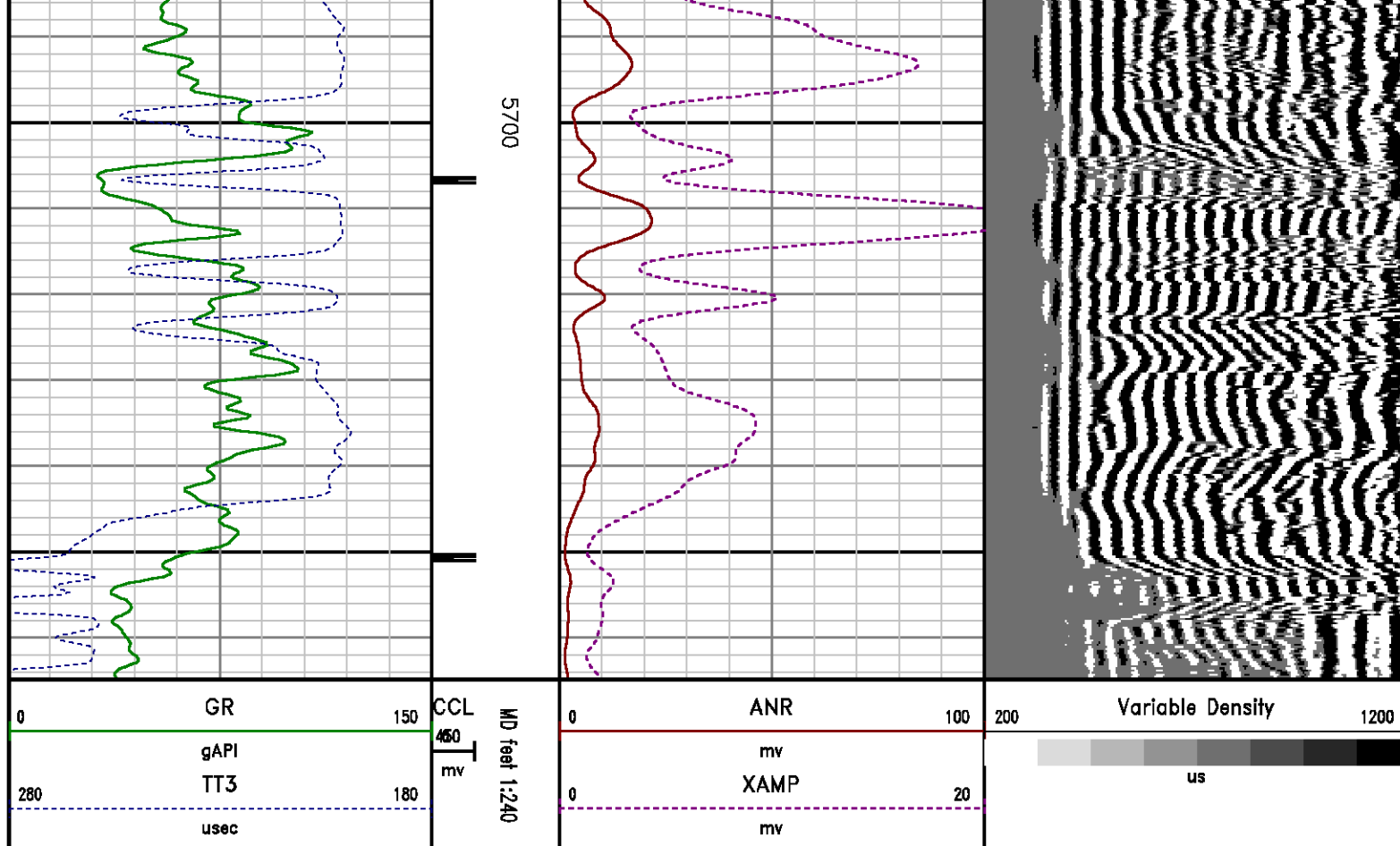
Mode : PlotMgr 5.4.504

Interval : 5465.00 - 5765.00 feet UP

Created : 2/2/2014 1:46:35 PM







## CALIBRATION SUMMARY

**RALSHP**

Shop Calibration: C:\case\calver\RALSHP\496F1\_shp.cal

### SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Feb 01 17:53:28 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: F1

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	-0.248	100.00	0.17
3 Ft. Receiver	218	216	30	166	25	2.268	100.00	0.17
5 Ft. Receiver	327	324	30	232	25	0.315	150.00	0.22
Radial #1	217	216	30	149	25	-0.067	100.00	0.17
Radial #2	217	216	30	149	25	-0.370	100.00	0.17
Radial #3	218	216	30	149	25	-0.327	100.00	0.17
Radial #4	218	216	30	149	25	-0.309	100.00	0.17

Radial #4	216	216	30	149	25	-0.309	100.00	0.17
Radial #5	217	216	30	149	25	-0.120	100.00	0.17
Radial #6	217	216	30	149	25	-0.185	100.00	0.17
Radial #7	215	216	30	149	25	-0.346	100.00	0.17
Radial #8	217	216	30	149	25	-0.269	100.00	0.16

## RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496F1 fld.cal

### WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Feb 01 17:55:36 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: F1

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	0.020	0.000	1.00	100.000
3 Ft. Receiver	195	25	1.940			
5 Ft. Receiver	305	25	2.654			
Radial #1	195	25	1.354			
Radial #2	195	25	1.448			
Radial #3	195	25	1.469			
Radial #4	195	25	1.546			
Radial #5	195	25	1.761			
Radial #6	195	25	1.848			
Radial #7	195	25	1.489			
Radial #8	195	25	1.507			

## 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]
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# TOOL DIAGRAM

## OTA SHORT CABLE HEAD

### PROBE 2 3/4 DUAL RECEIVER RADII

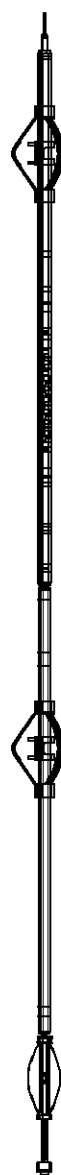
Series	1426XA
Mnemonic	PROB
Diameter	2.75"
Length	11.17'
Measure Point	0.75' FAR RCVR
Measure Point	2.67' NEAR RCVR
Measure Point	5.75' XMIT
Temp Rating	350.00 °F
Press Rating	18000.00 PSI

### 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



24.23'

XMIT—18.05'

NEAR RCVR—14.97'

FAR RCVR—13.05'

CCL—11.34'

GR—9.49'

NEU—4.09'

0.00'

Total Length: 24.23'

Total Weight: Not Available

Max Diameter: 0' 3.12"

<div>Baker Atlas</div> <div>CASE</div>	Field		GRAND VALLEY		API No:	
	County		GARFIELD		State	
			CO		05045221270000	
	Location				Elevations	
	SHL: 592' FNL & 1960' FWL				KB 5283 ft	
	BHL: 128' FNL & 145' FWL				DF	
					GL 5258 ft	
	SEC 27	TWP 7S	RGE 96W	27 7S 96W		
					SG 21-27 PAD	
					AZTEC 100	