



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH087290

Company WPX ENERGY

API No: 05045217650000

Well Field

FEDERAL NER 513-32

County

RULISON

State

GARFIELD

CO

Location

SHL: 145' FNL & 2582' FWL (5 75 93W)

BHL: 1450' FSL & 648' FWL (32 65 93W)

SEC 32 TWP 6S RGE 93W

Other Services

RPM

32 65 93W
RU 23-5 PAD
NABORS 576

Permanent Datum

GL

Elevation

7603

Log Measured From

KB

26

Above P. D.

Drill Measured From

KB

Elevations

KB

7629

DF

GL

7603

Date 12/JUL/14

Run ONE

Service Order USC087290

Depth Driller 10480

Depth Logger 10428

Bottom Logged Interval 10418

Top Logged Interval 26

Time Started 13:00

Time Finished 17:30

Operator Rig Time 4.5 HOURS

Type of Fluid in Hole WATER

Fluid Density NA

Salinity NA

Fluid Level 86

Logged Cement Top NA

Wellhead Pressure 0

Maximum Hole Deviation NA

Nominal Logging Speed 65

Maximum Recorded Temperature 241

Reference Log NA

Equipment No. 4271

Location

Recorded By NEMELL

Witnessed By JEFF DUCY

Grand Junction

- 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	0	1147
8.75	1147	10524

Casing Record

Size	Weight	Grade	From	To
9.625			0	1147
4.5	11.6	P-110	0	10524

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 4 feet.

Logged with zero PSI at wellhead.

BHT = 241 °F

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	CBL	1426XA	10218496	CENTRALIZED
1	1	GR/CCL	2459XA	10417456	CENTRALIZED

PRIMARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	28.593	10438.500
RAL	Amp Gate Start Near	195.000	usec	28.593	10438.500
RAL	Amp Gate Start Radial	195.000	usec	28.593	10438.500
RAL	Amp Gate Width Far	25.000	usec	28.593	10438.500
RAL	Amp Gate Width Near	25.000	usec	28.593	10438.500
RAL	Amp Gate Width Radial	25.000	usec	28.593	10438.500
RAL	casing od	4.500	inches	28.593	10438.500
RAL	casing wt	11.600	lbm/ft	28.593	10438.500
RAL	FB Start Far	291.900	usec	28.593	10438.500
RAL	FB Start Near	175.391	usec	28.593	10438.500
RAL	FB Start Radial	175.391	usec	28.593	10438.500
RAL	FB Thresh Far	10.000	mv	28.593	10438.500
RAL	FB Thresh Near	4.000	mv	28.593	10438.500
RAL	FB Thresh Radial	4.000	mv	28.593	10438.500
RAL	Fluid Travel Time	200.000	usec/ft	28.593	10439.030

DEPTH OFFSETS

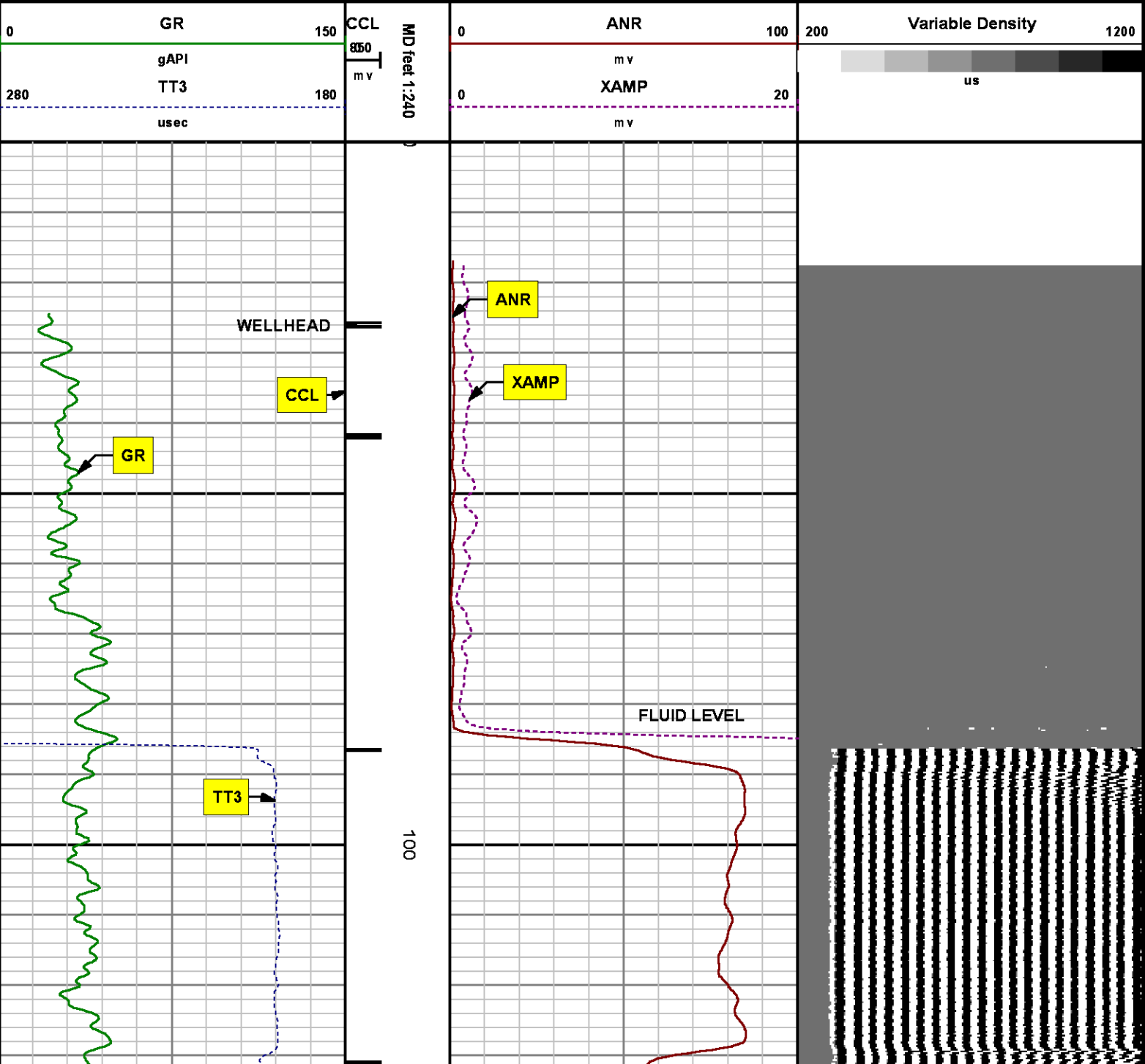
(for Acquired Curves)

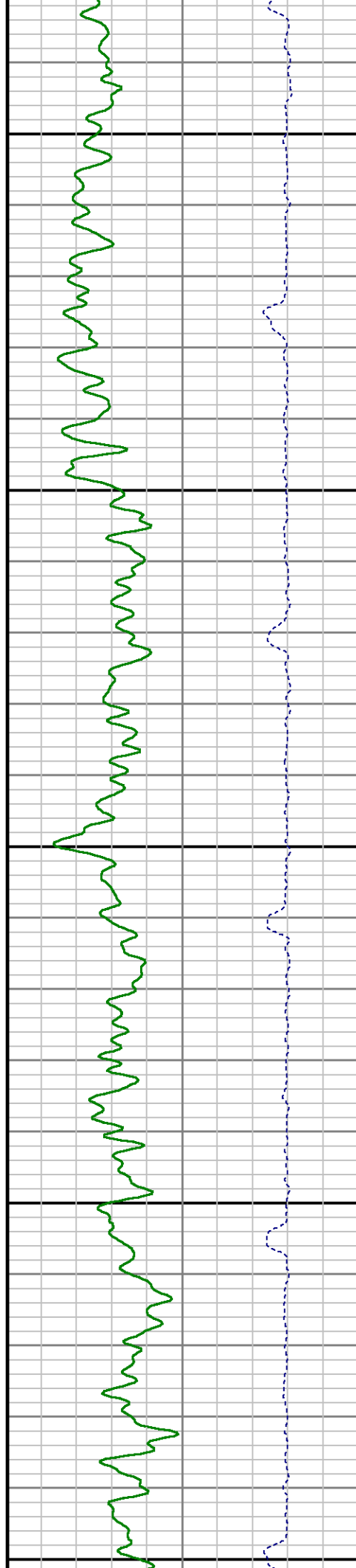
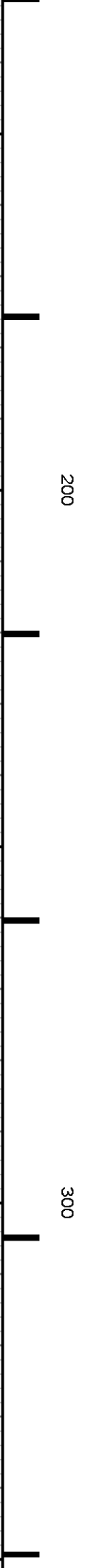
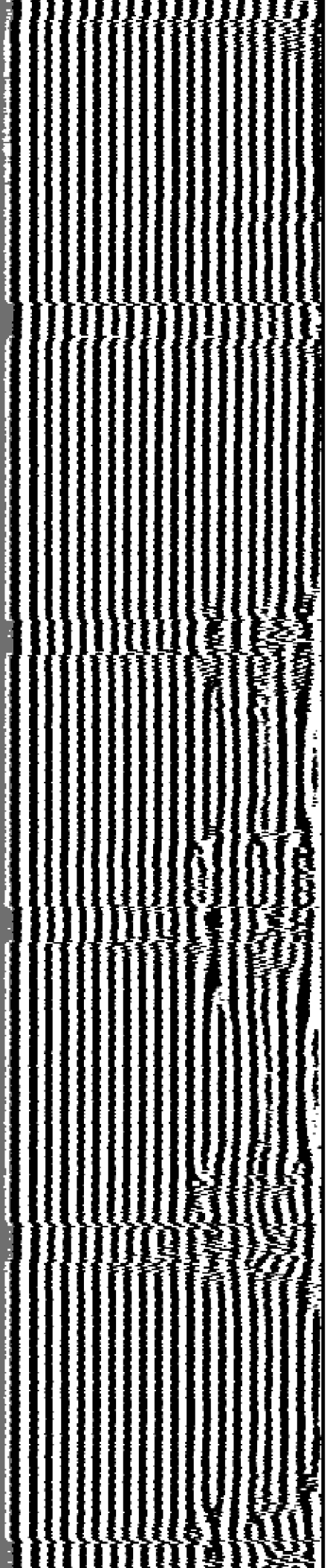
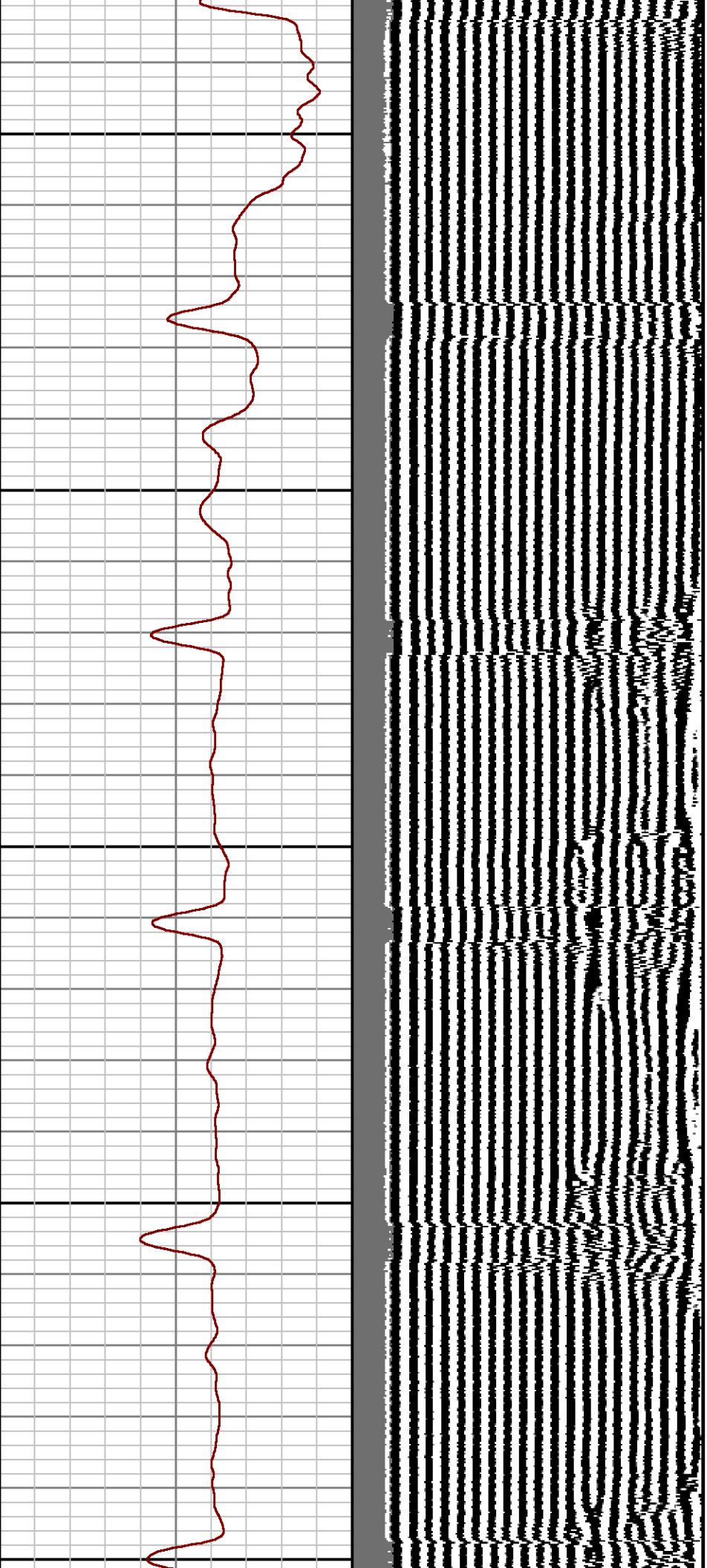
SERIES	DEPTH OFFSET	ACQUIRED CURVES							
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		AR5	AR6	AR7	AR8	CHV	FPR2		

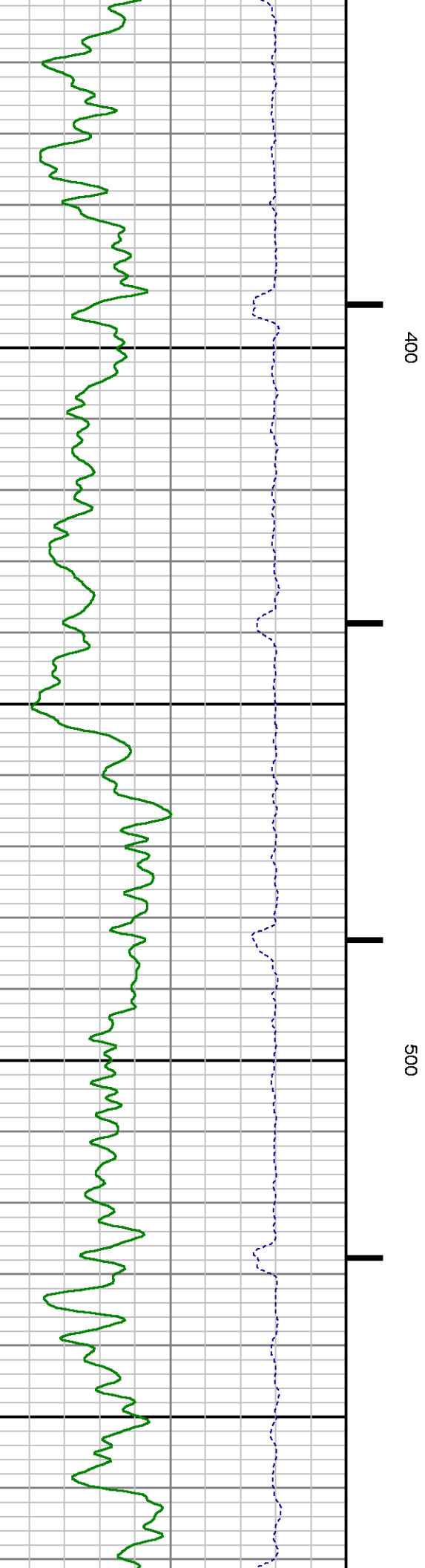
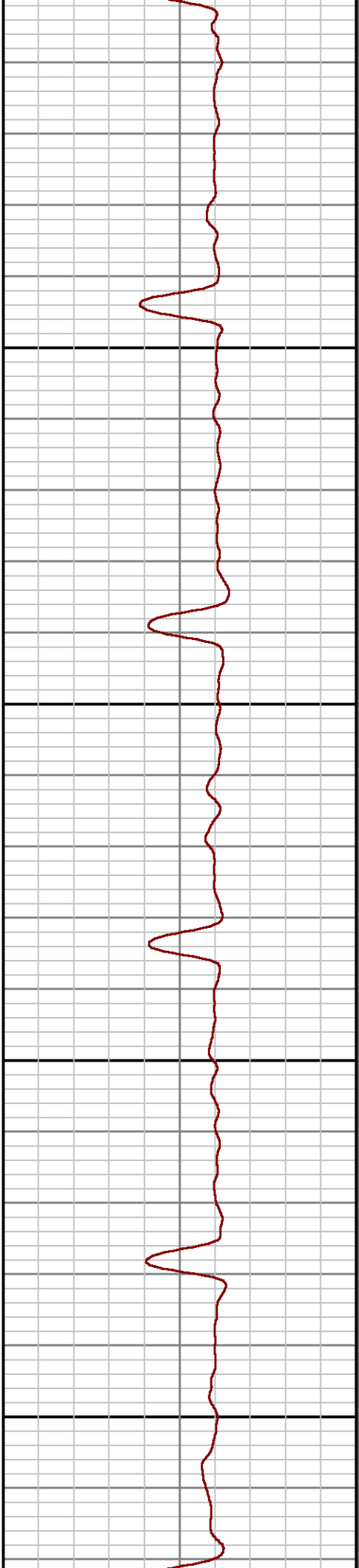
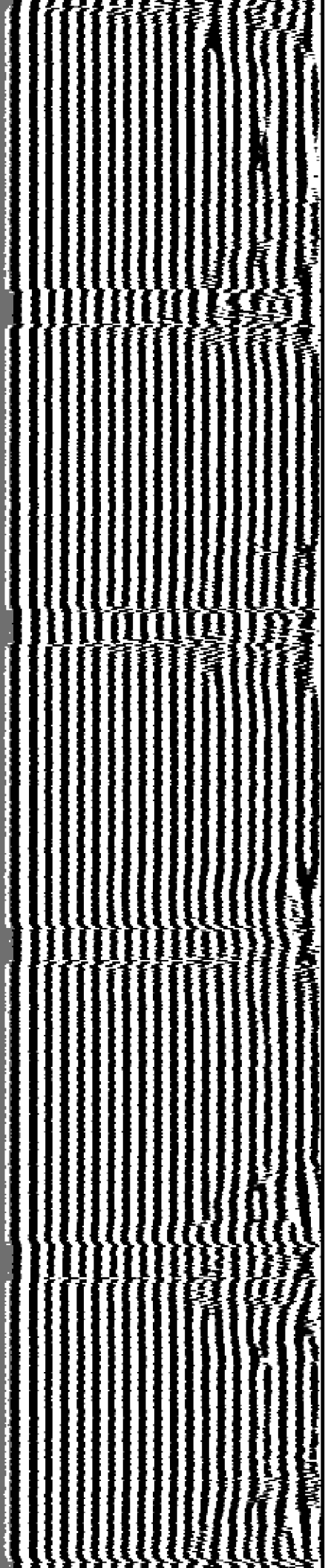
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

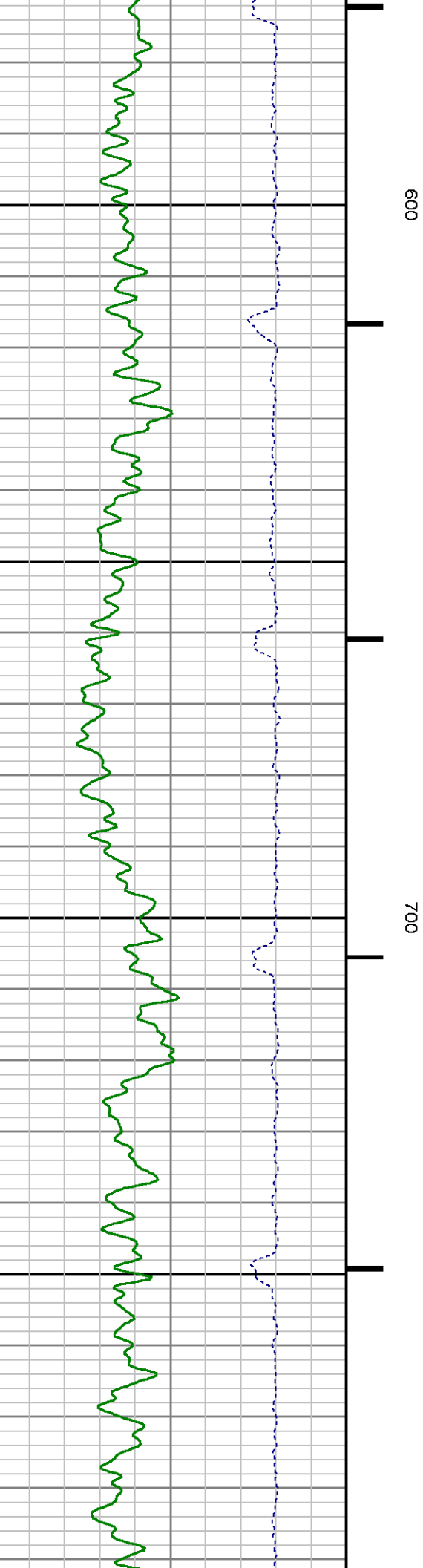
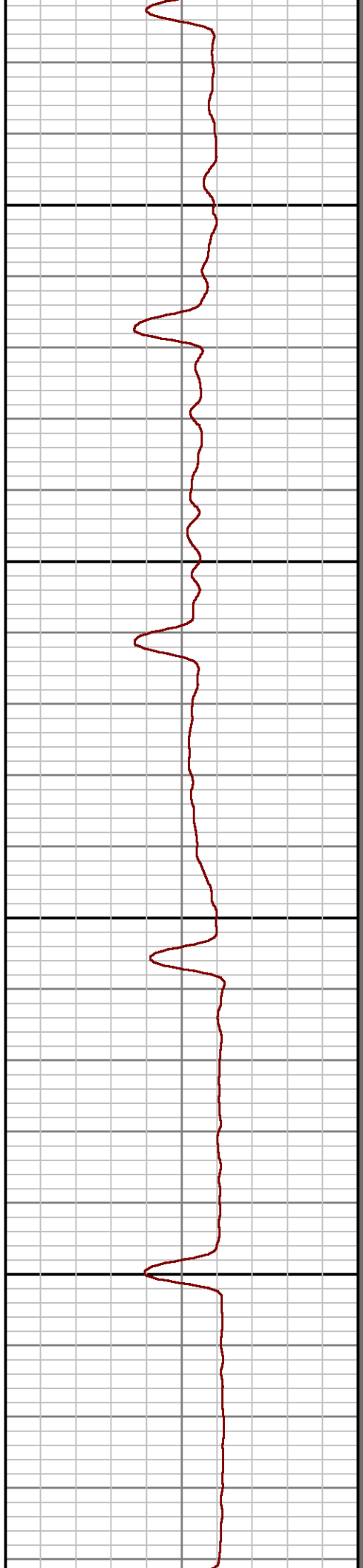
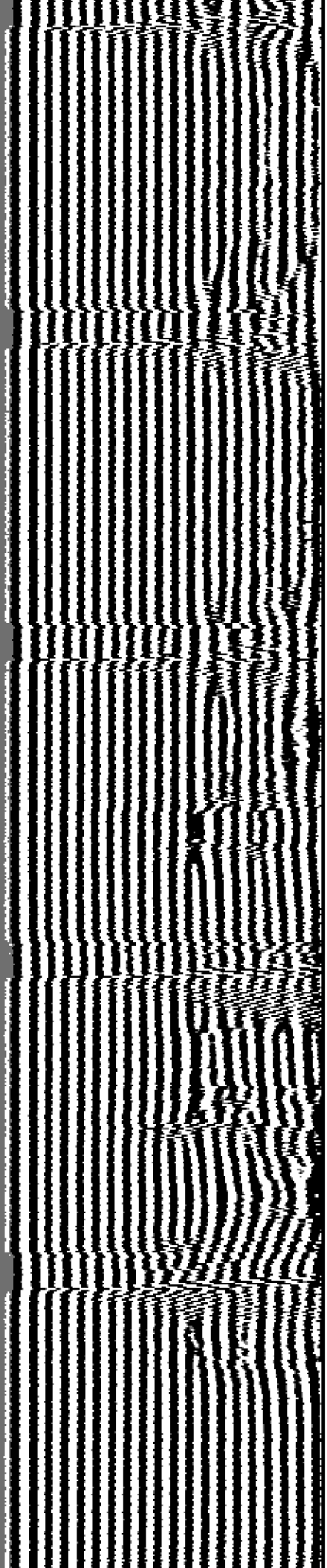
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 Plotted by : PlotMgr, v5.4.504

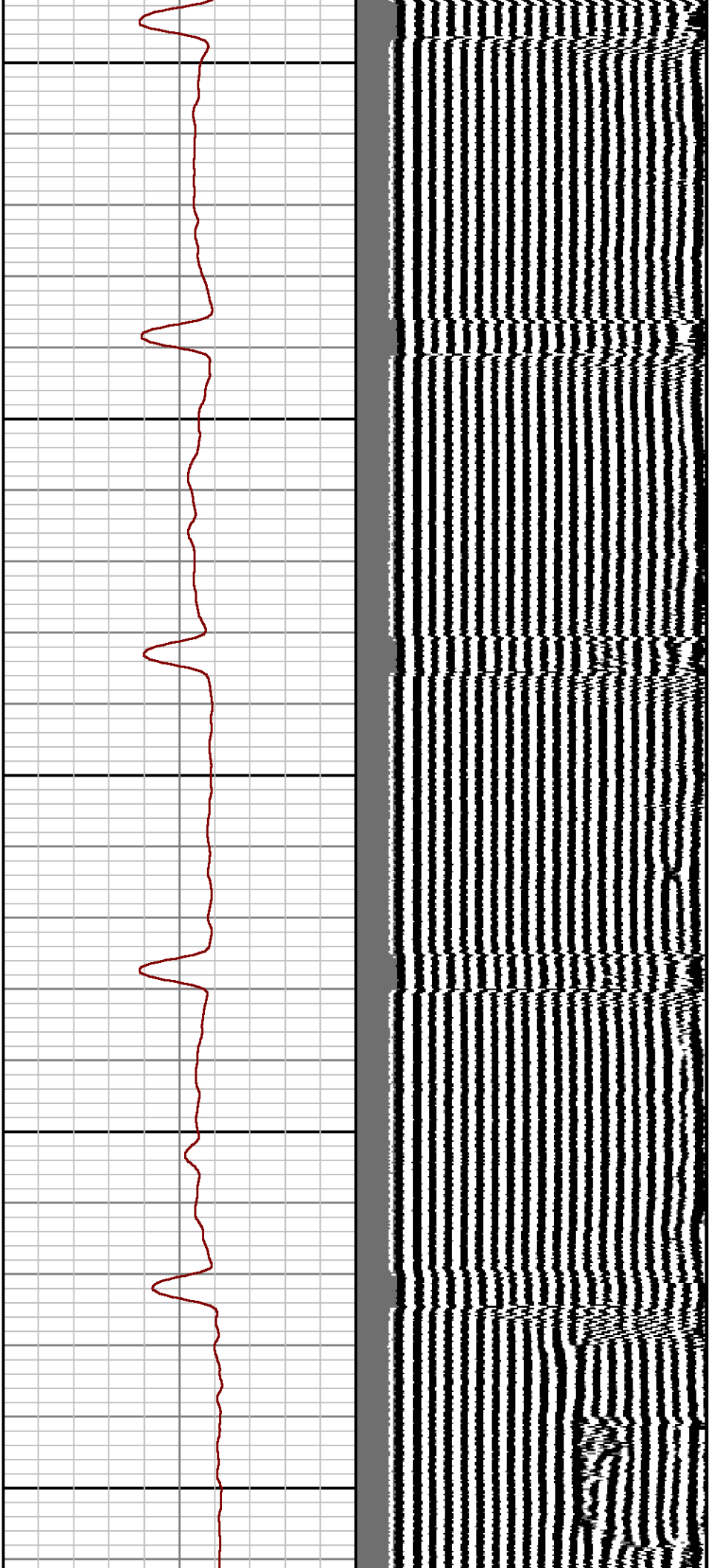
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 Well : FEDERAL NER 513-32
 File Name : d:\welldata\wpx\federal ner 513-32\513cb\main.xtf
 Mode : PlotMgr 5.4.504
 Interval : 0.00 - 10433.00 feet UP
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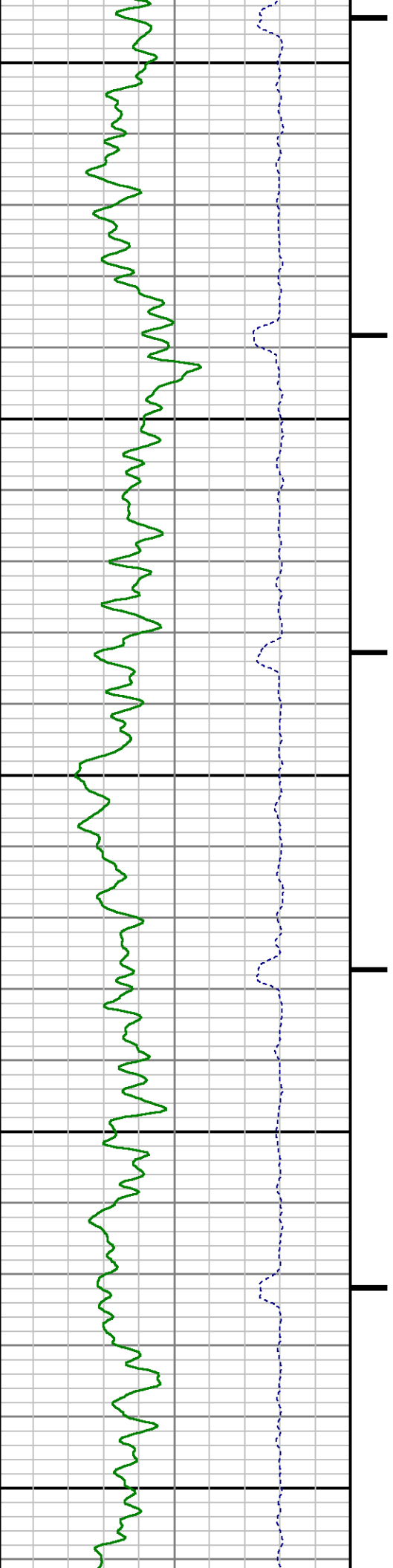


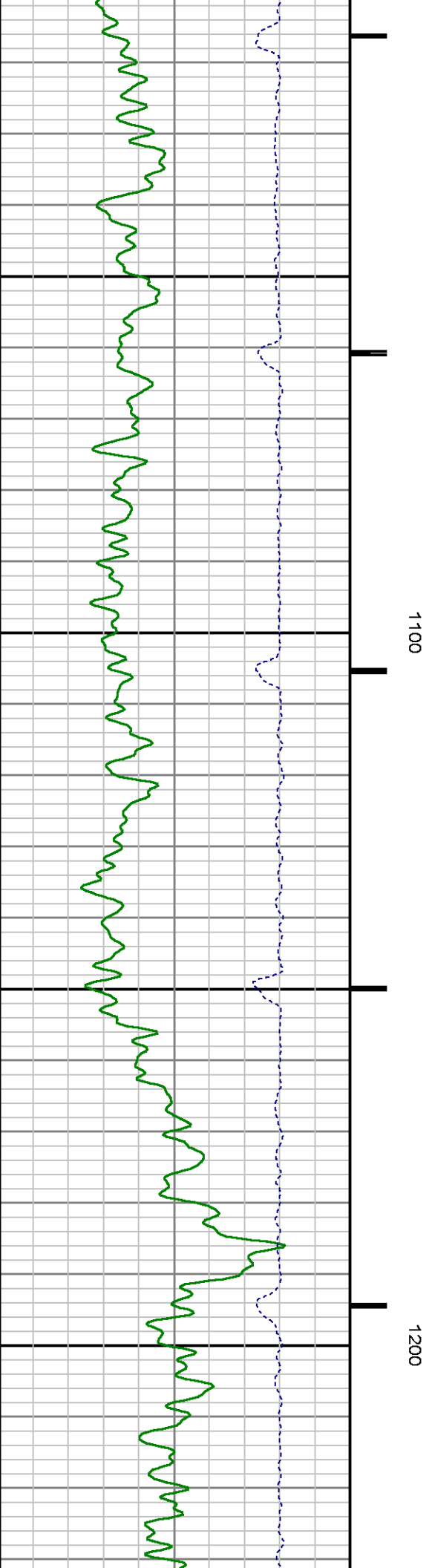
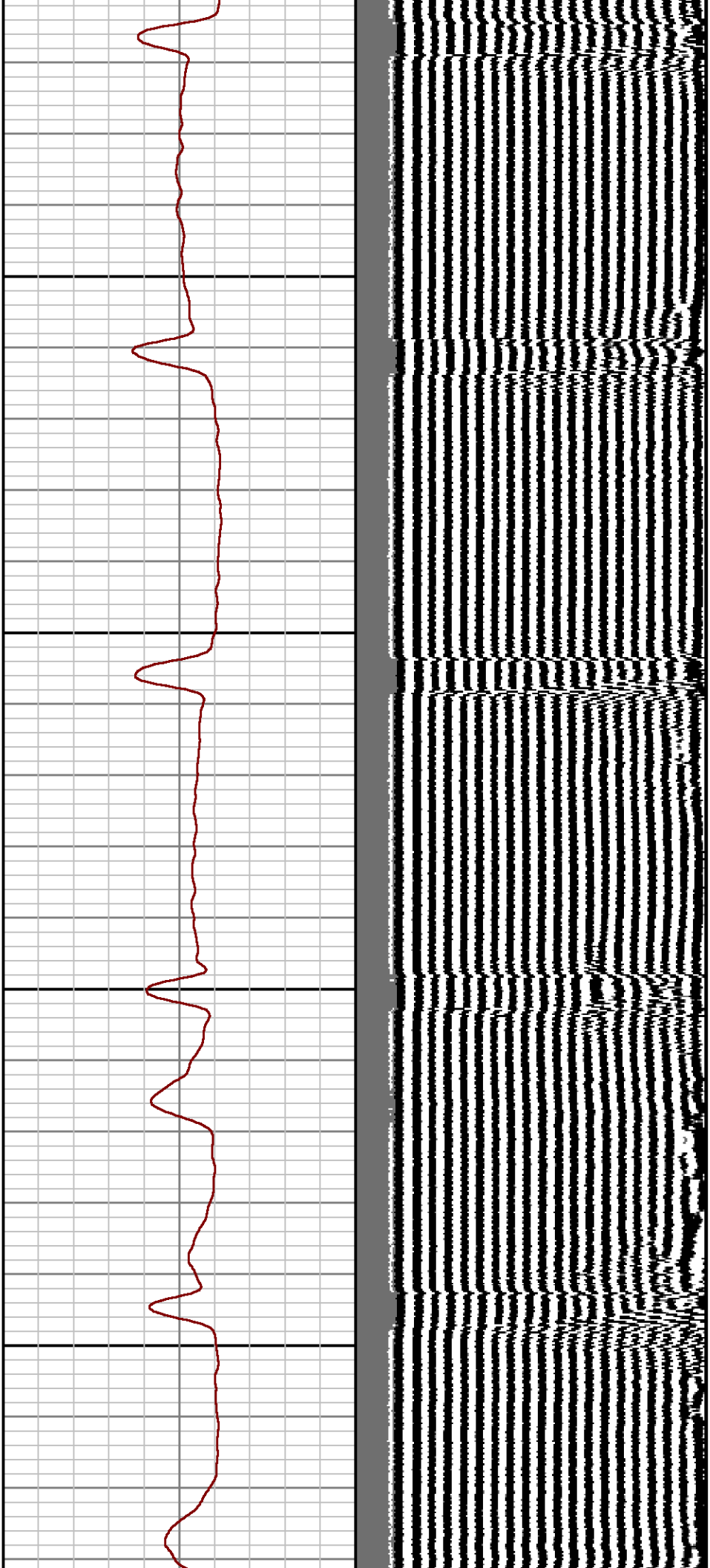


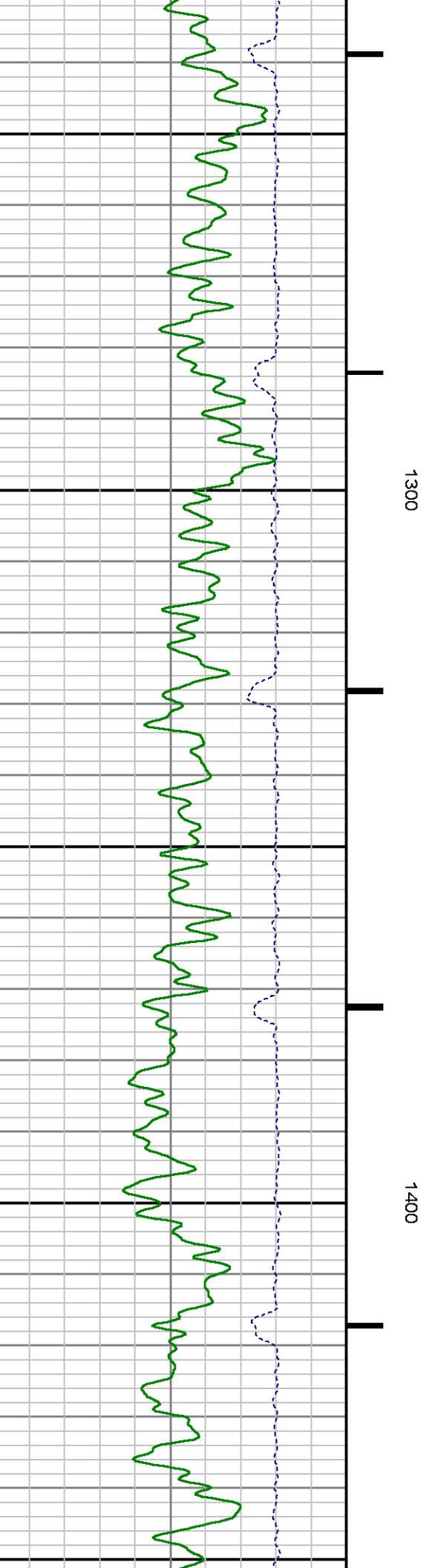
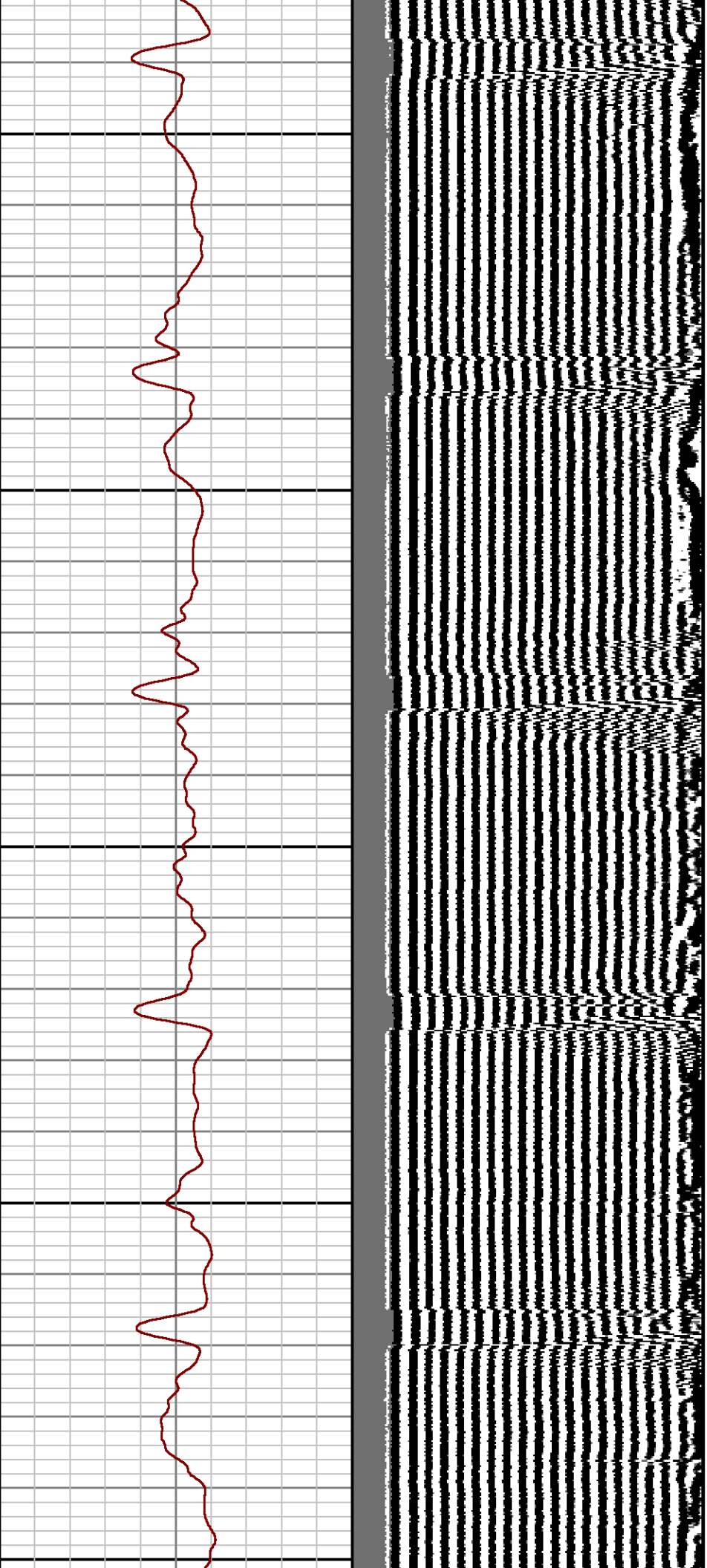
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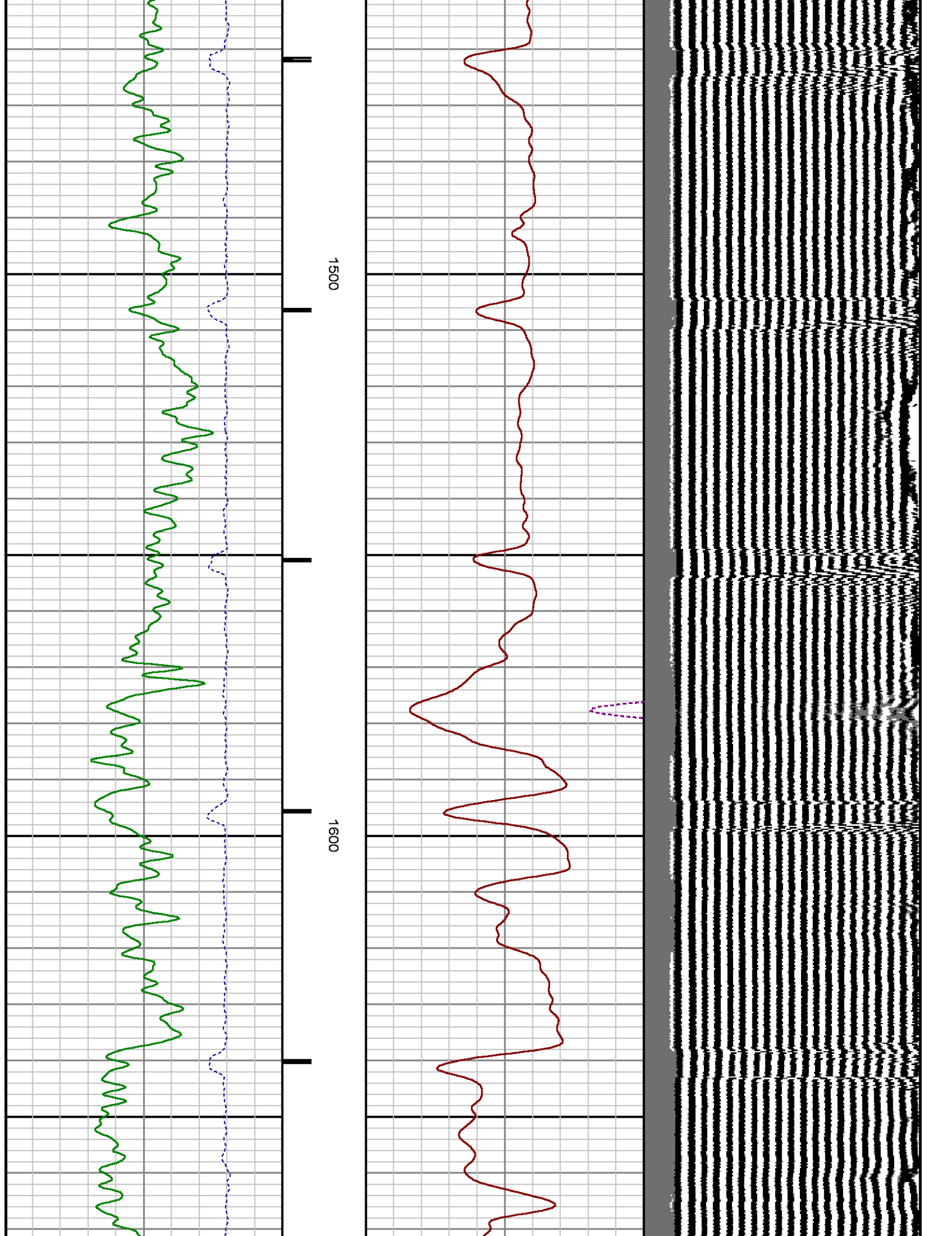
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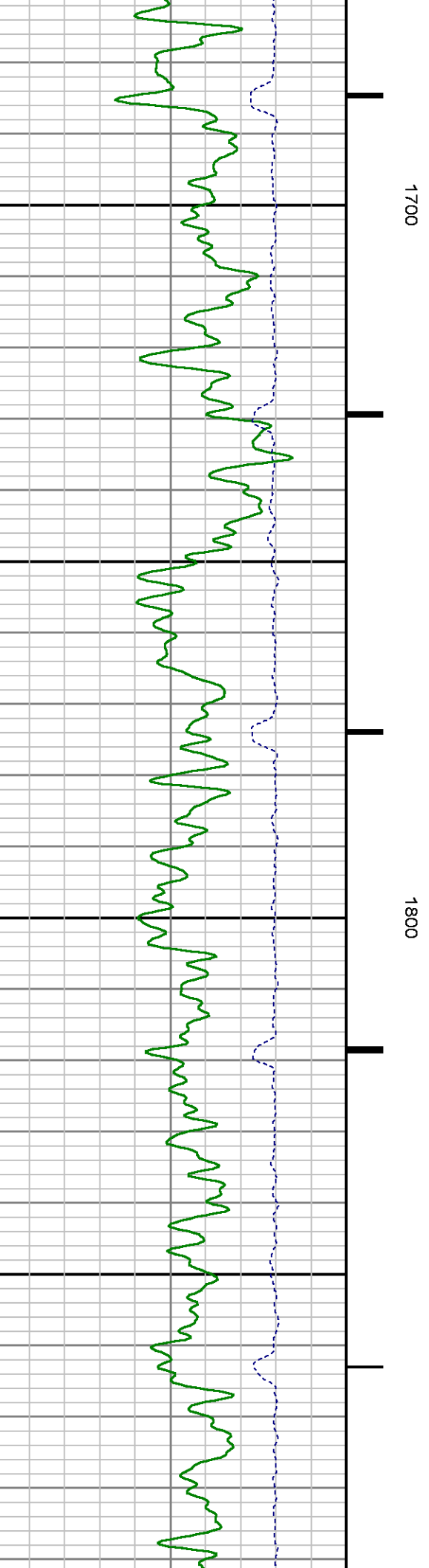
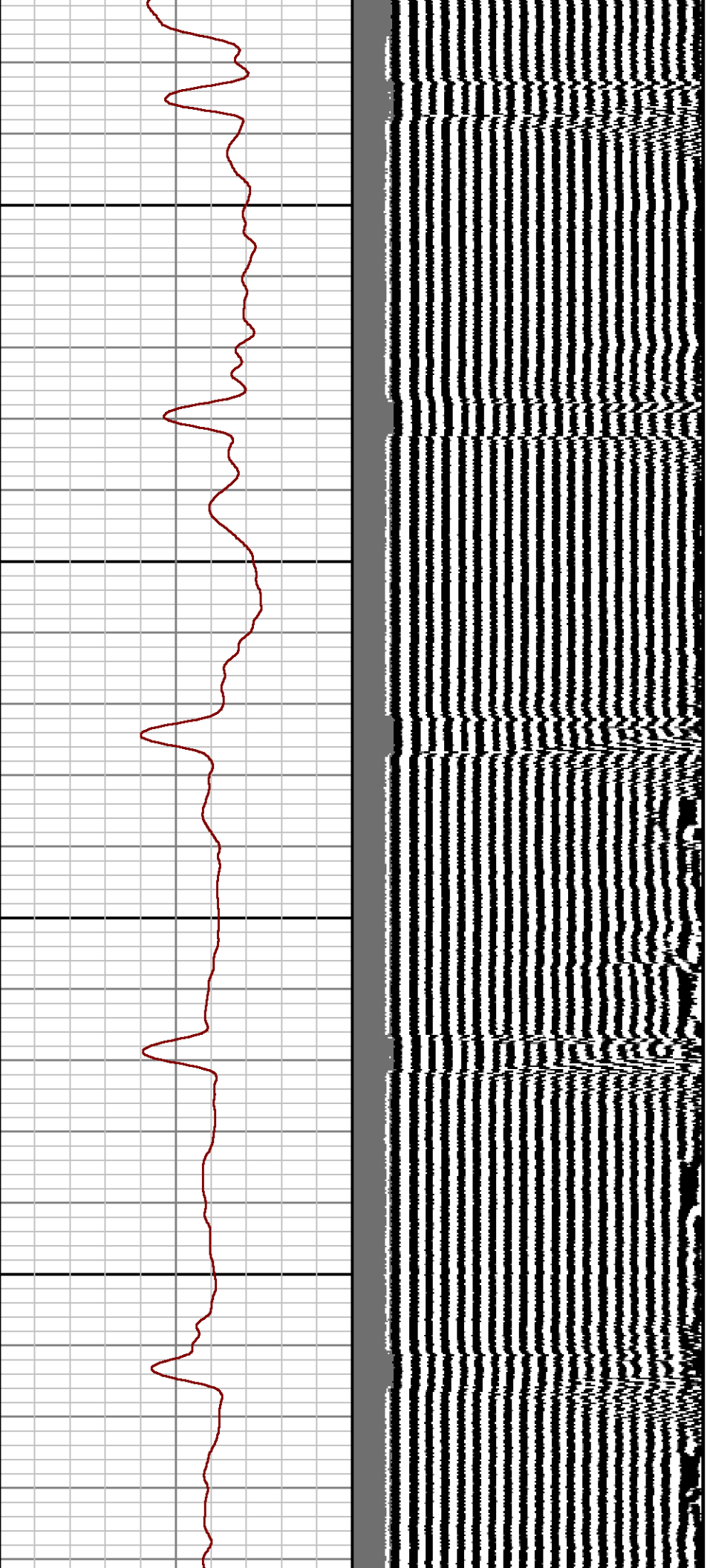
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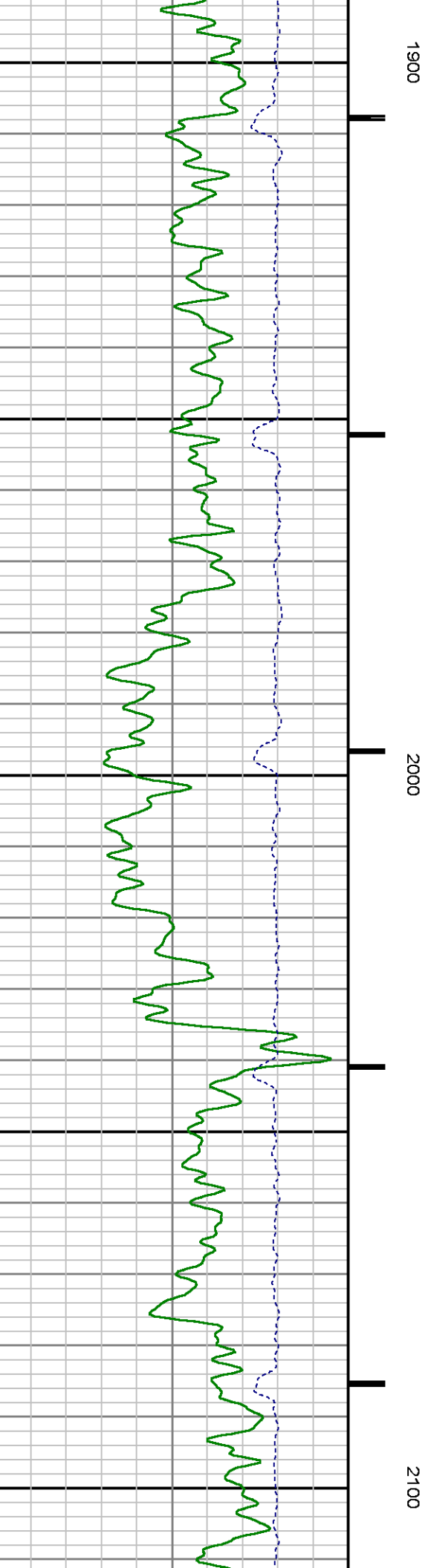
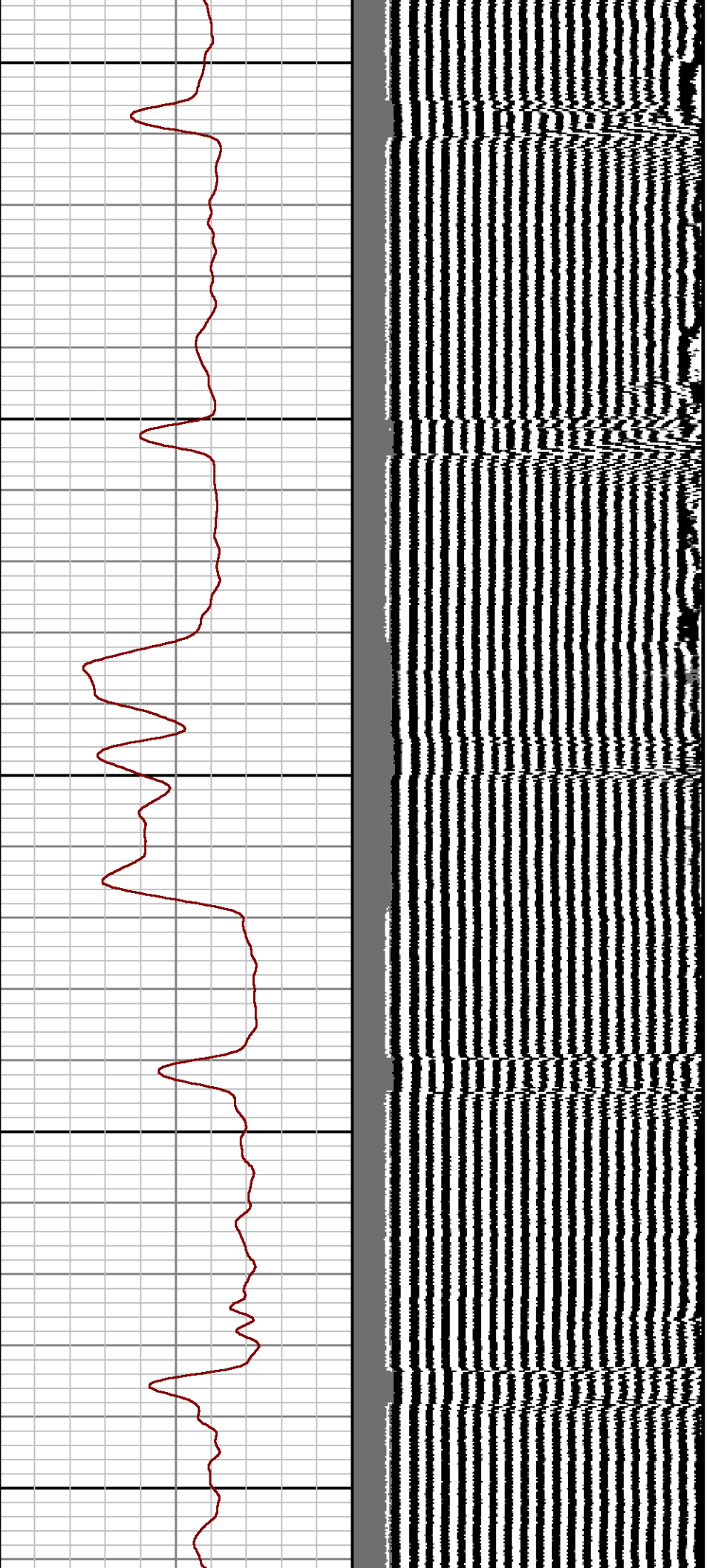


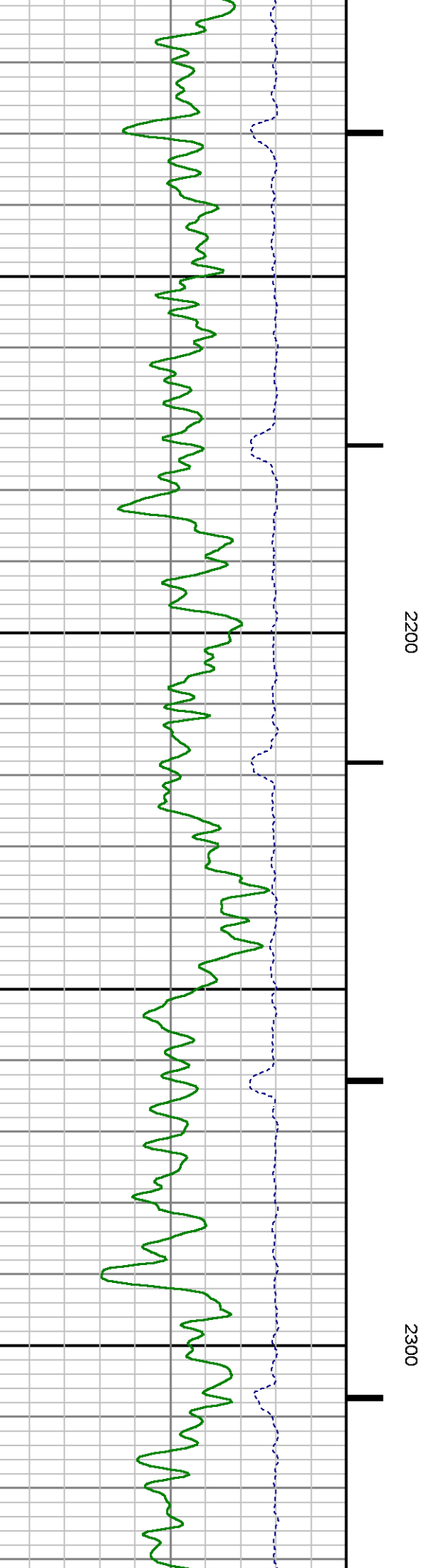
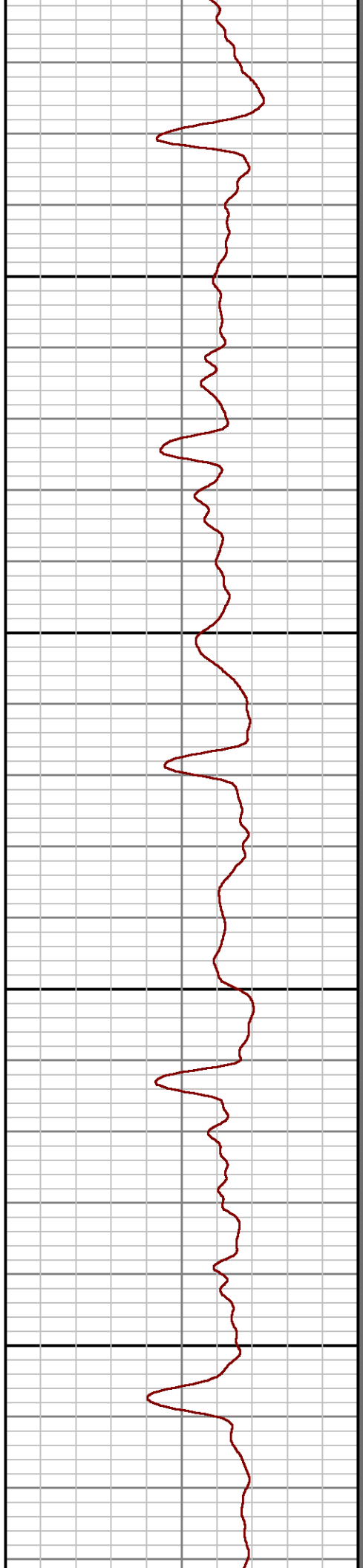
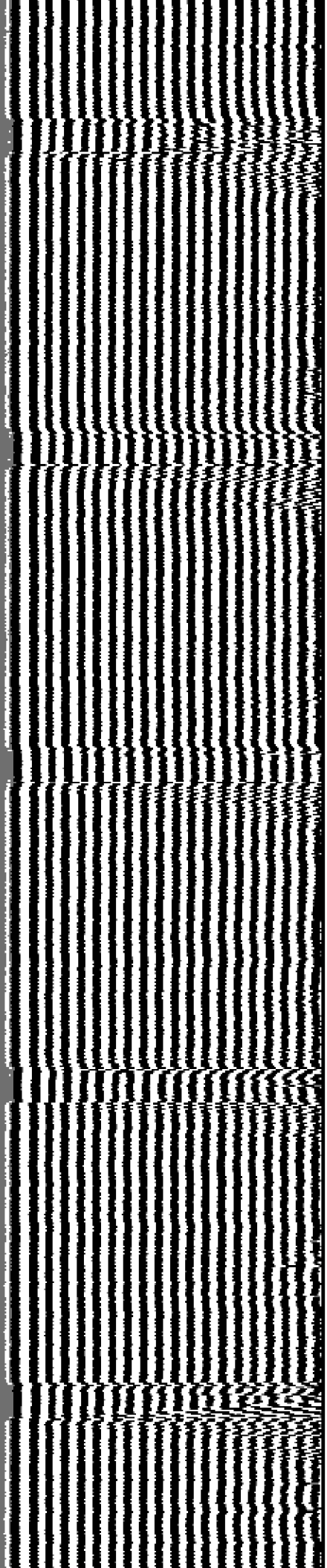


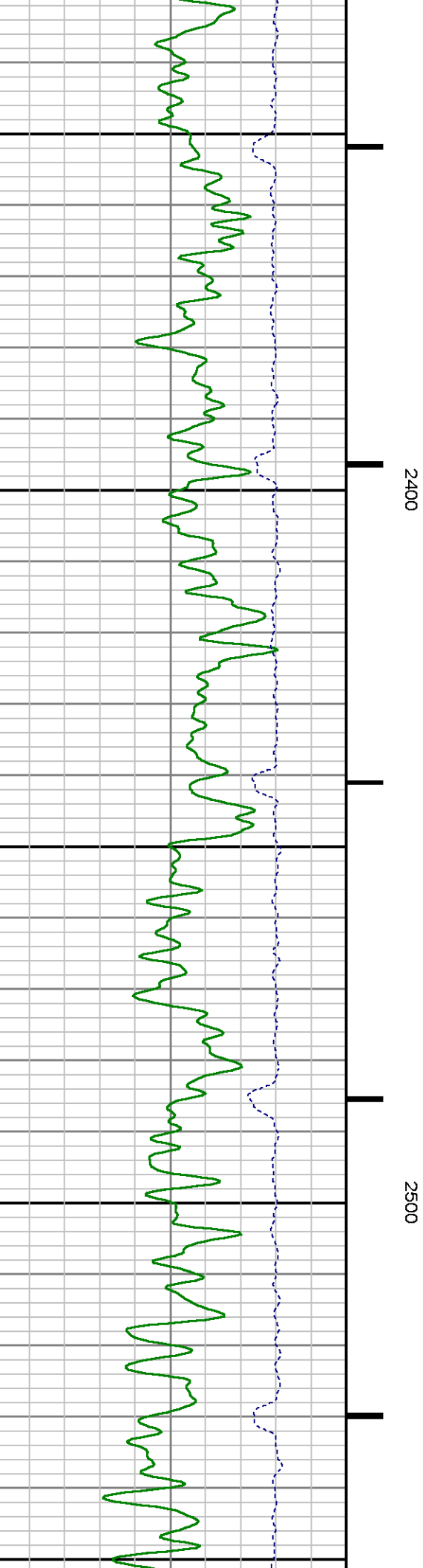
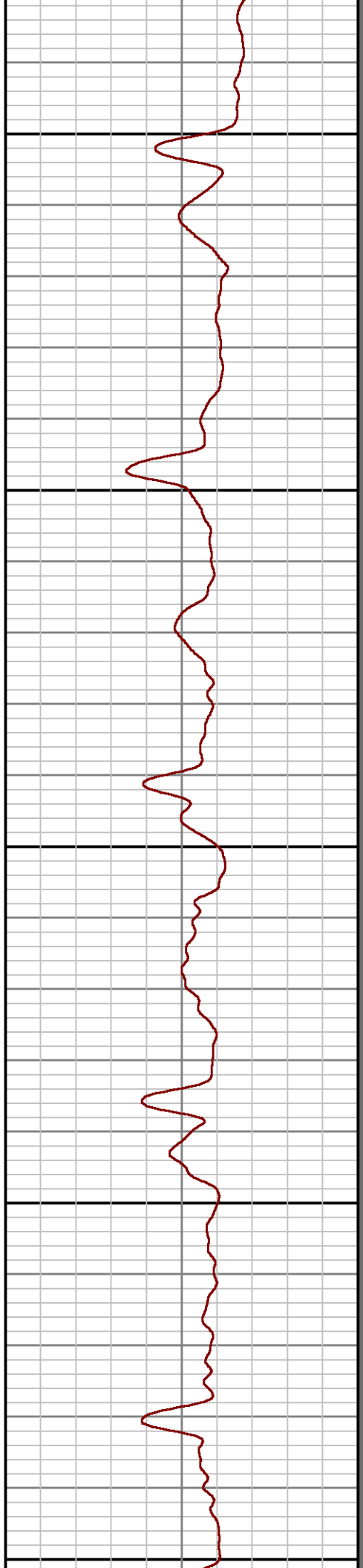
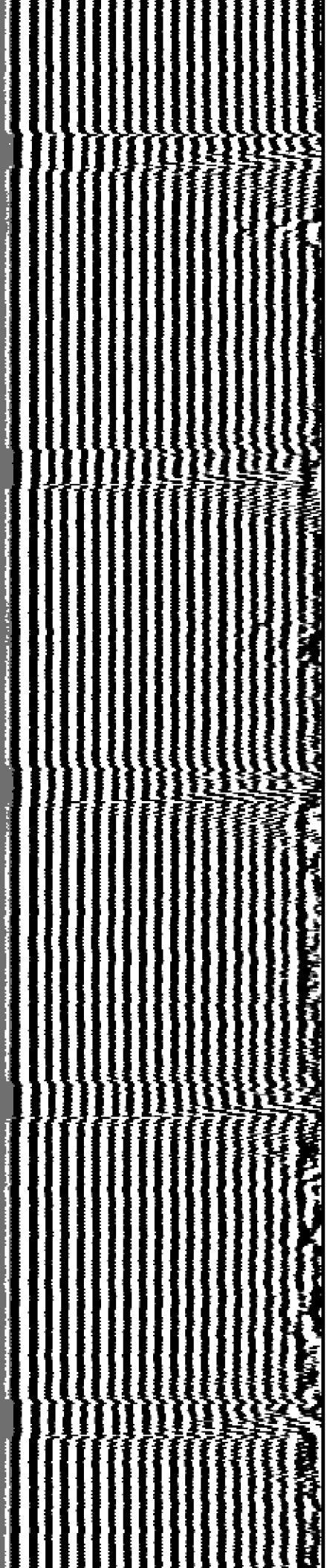


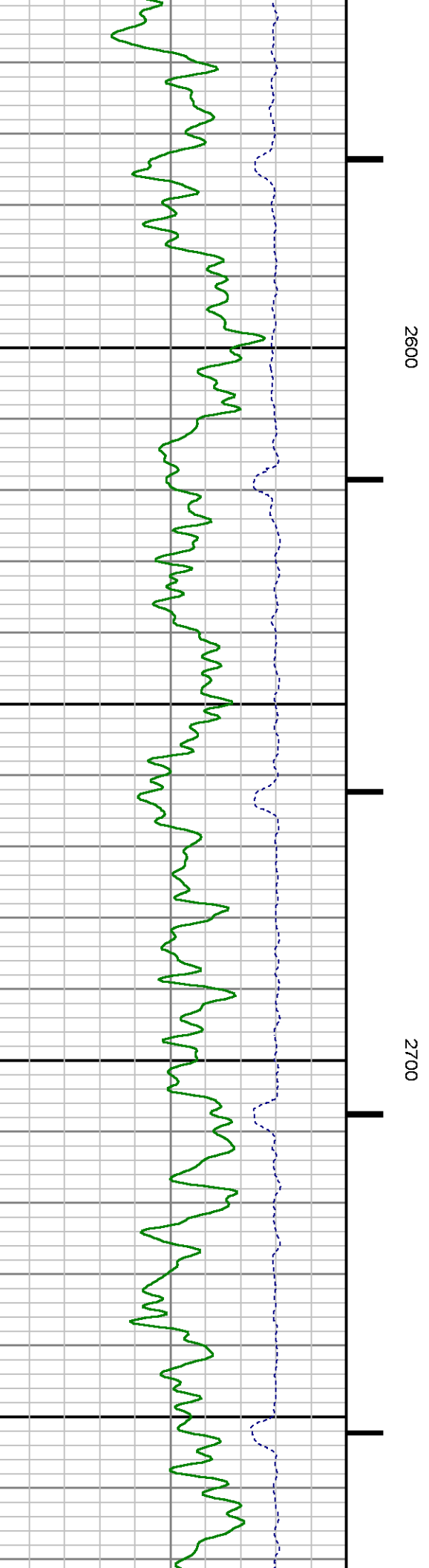
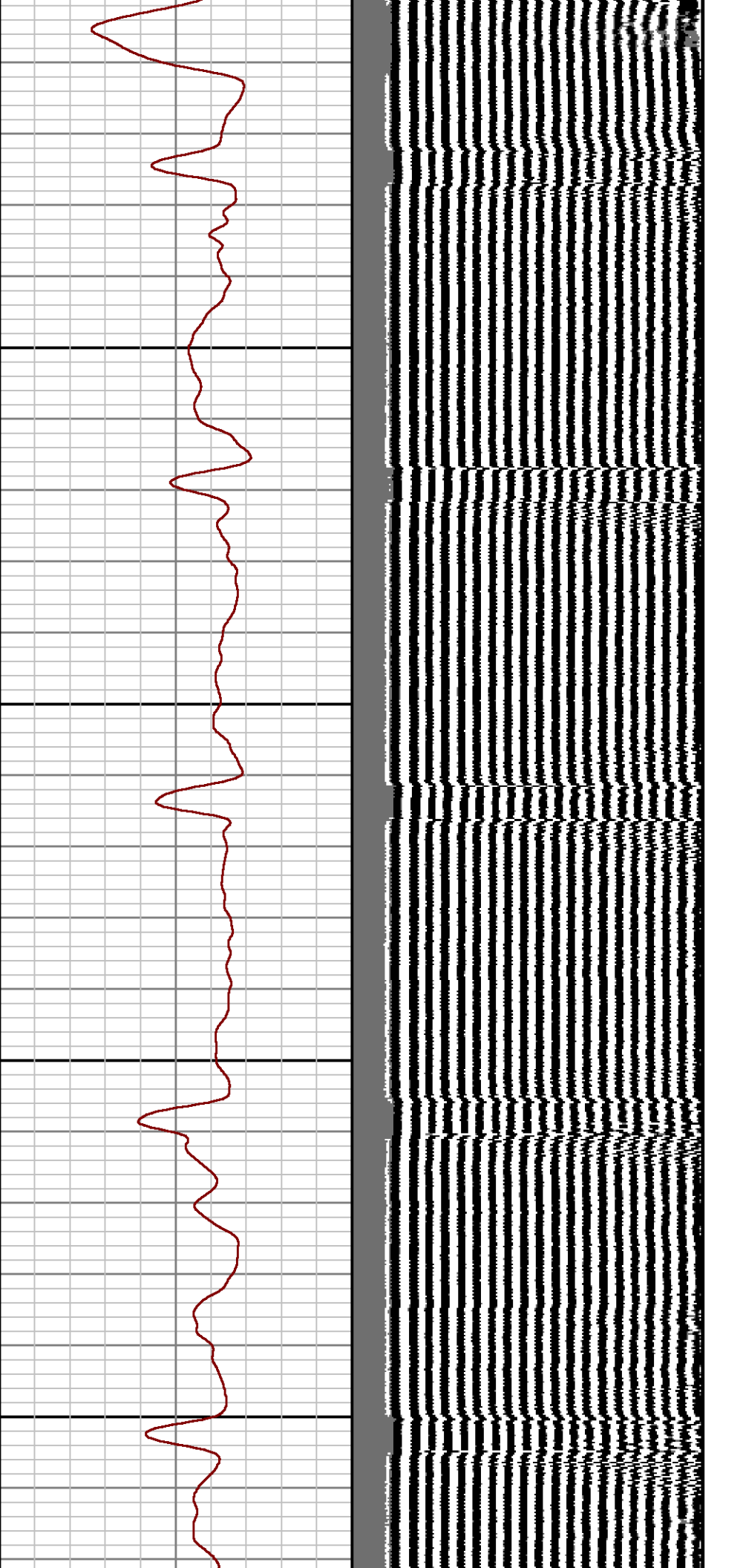


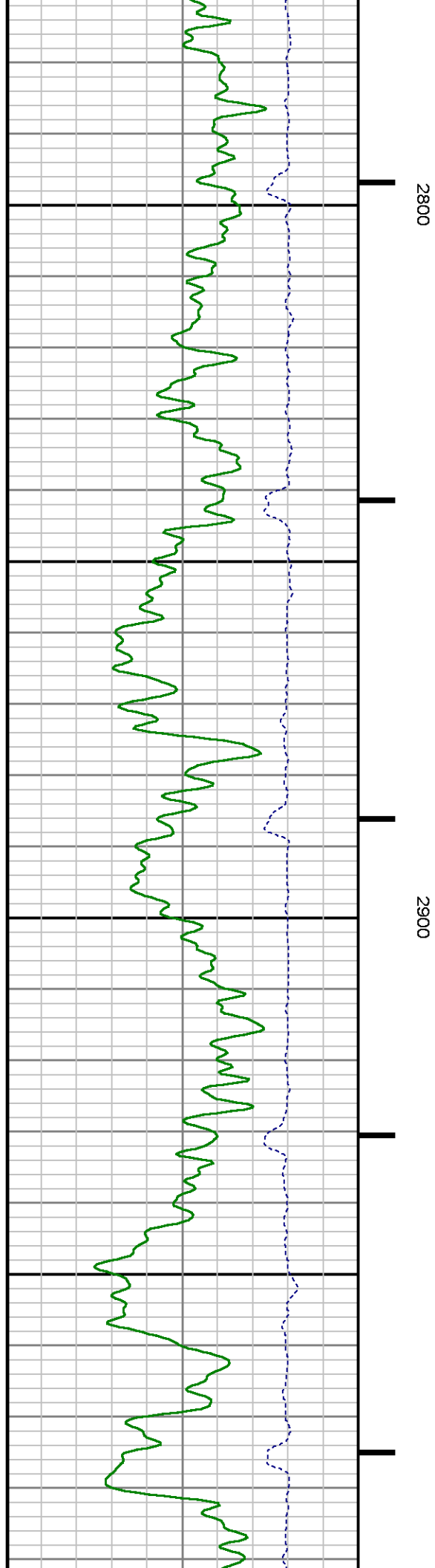
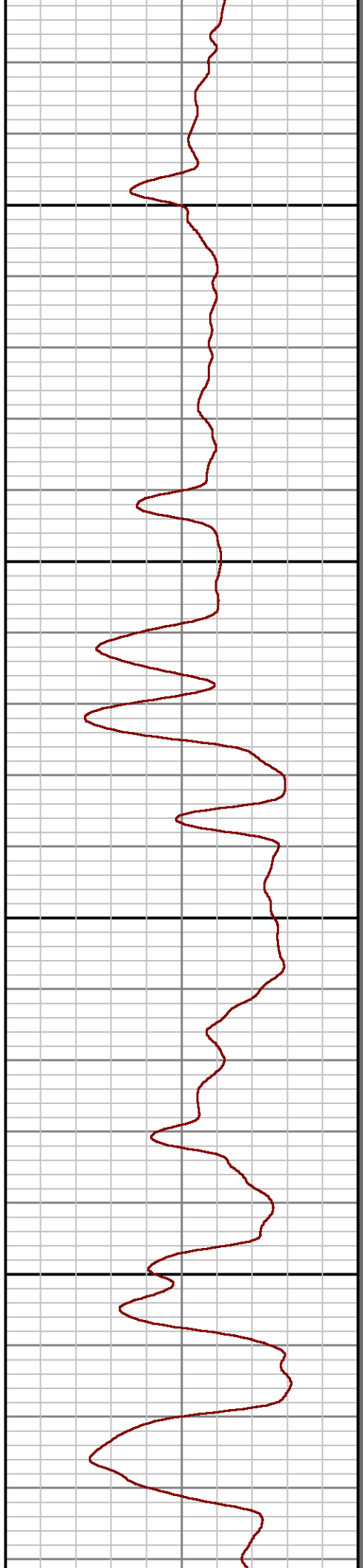
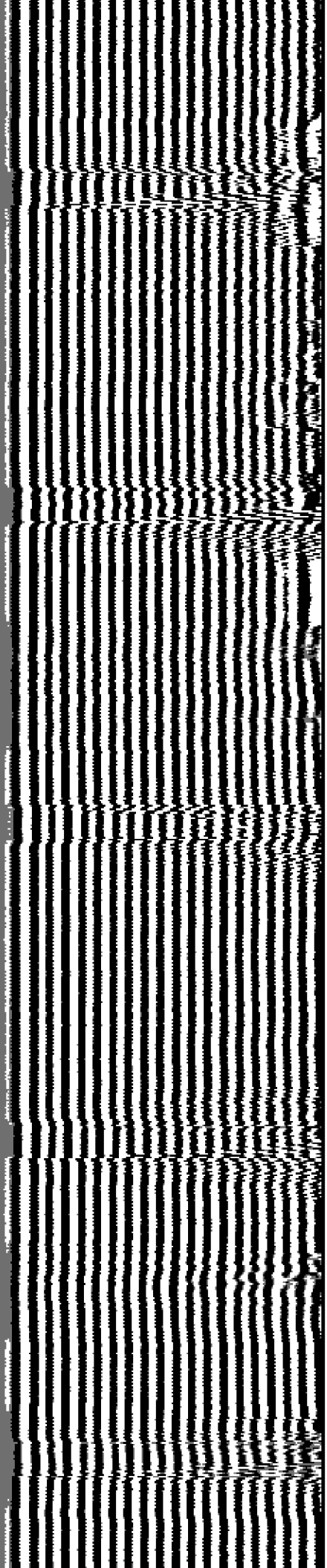


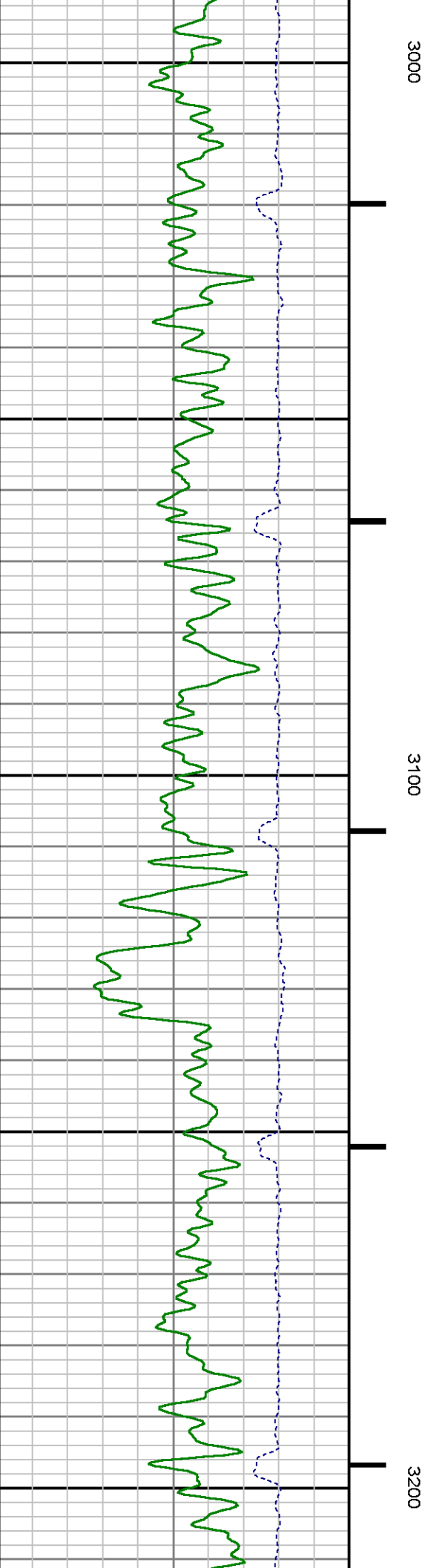
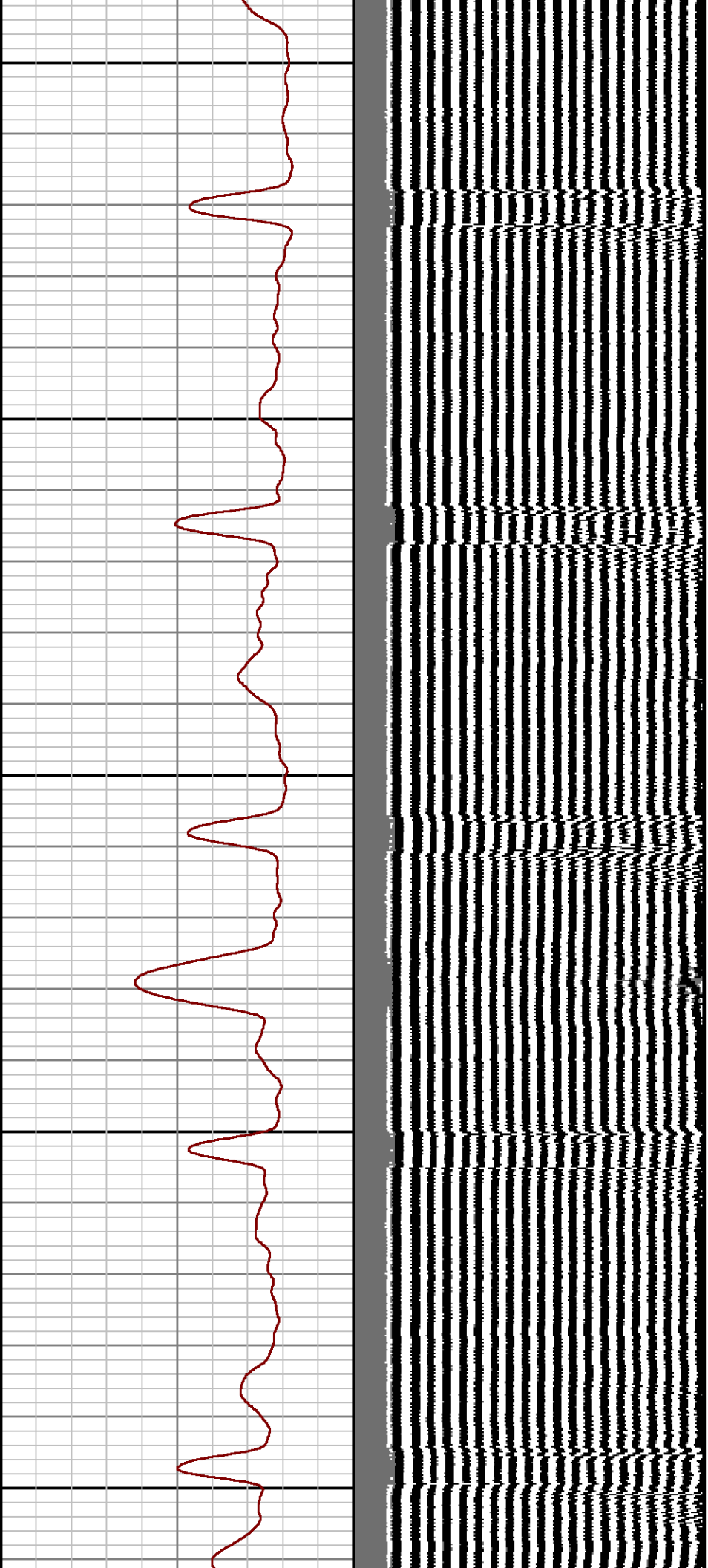


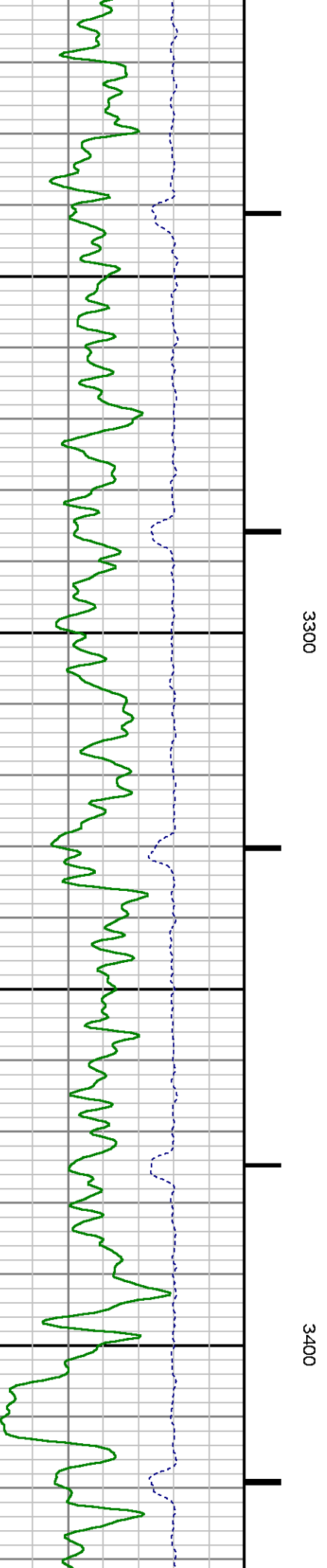
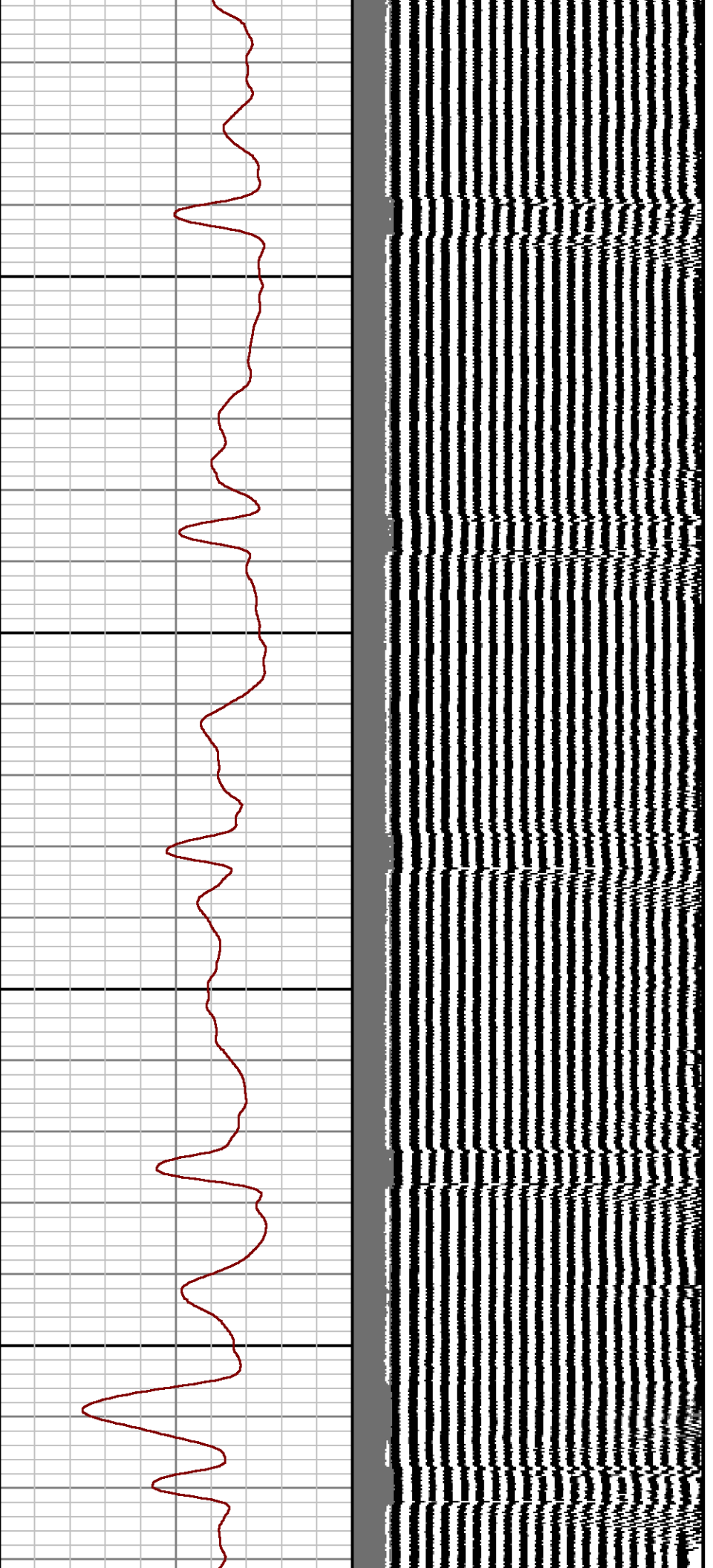


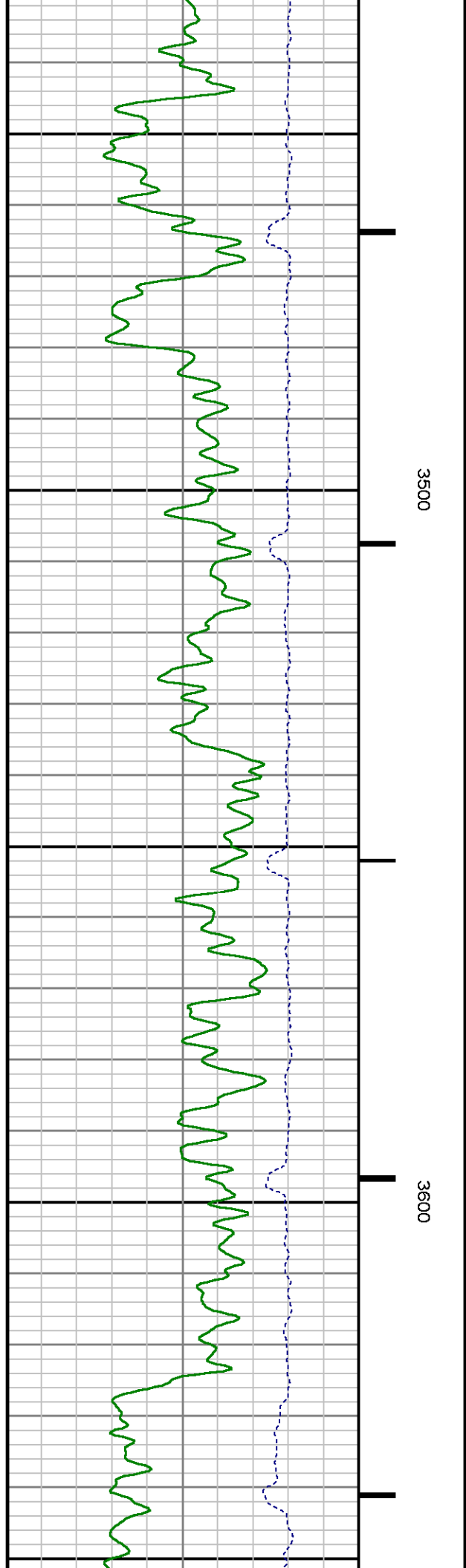
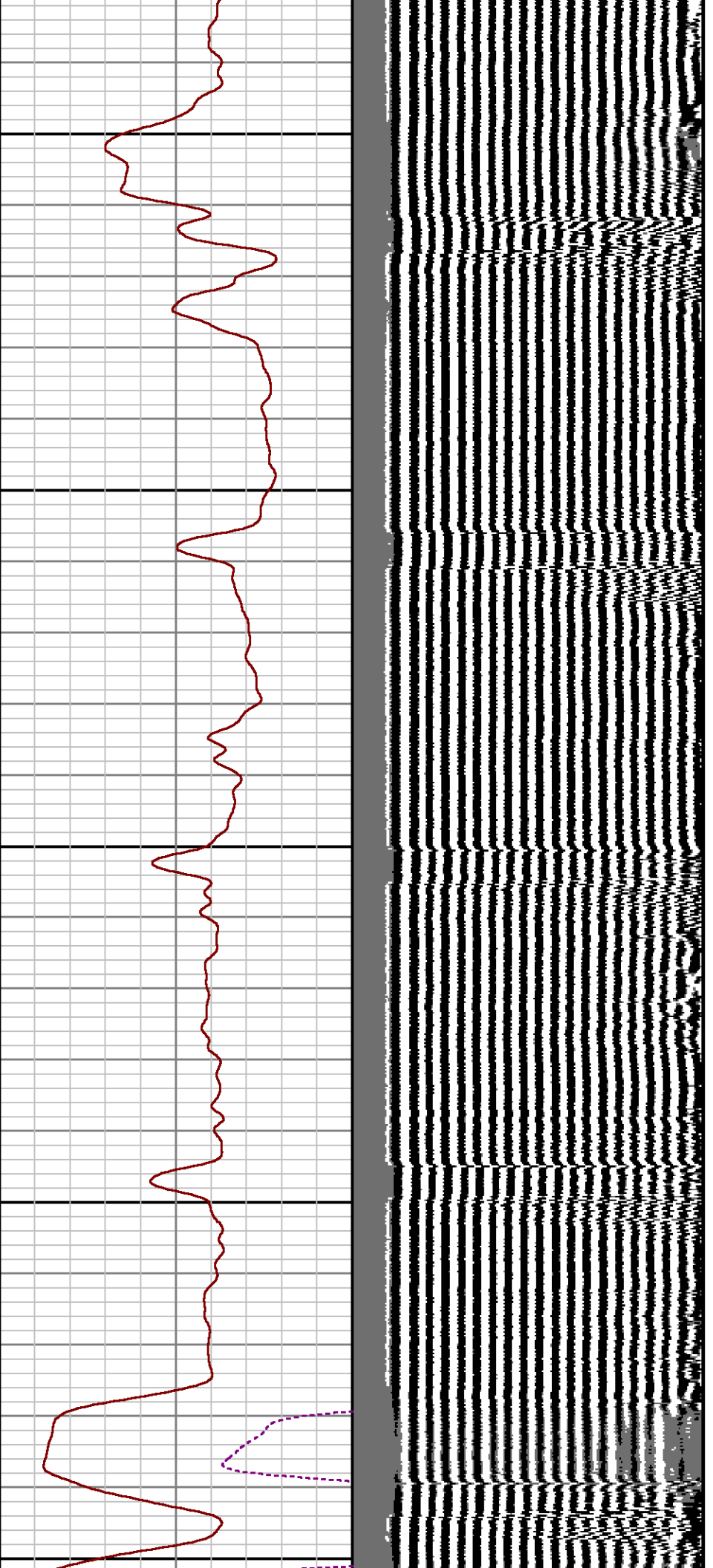


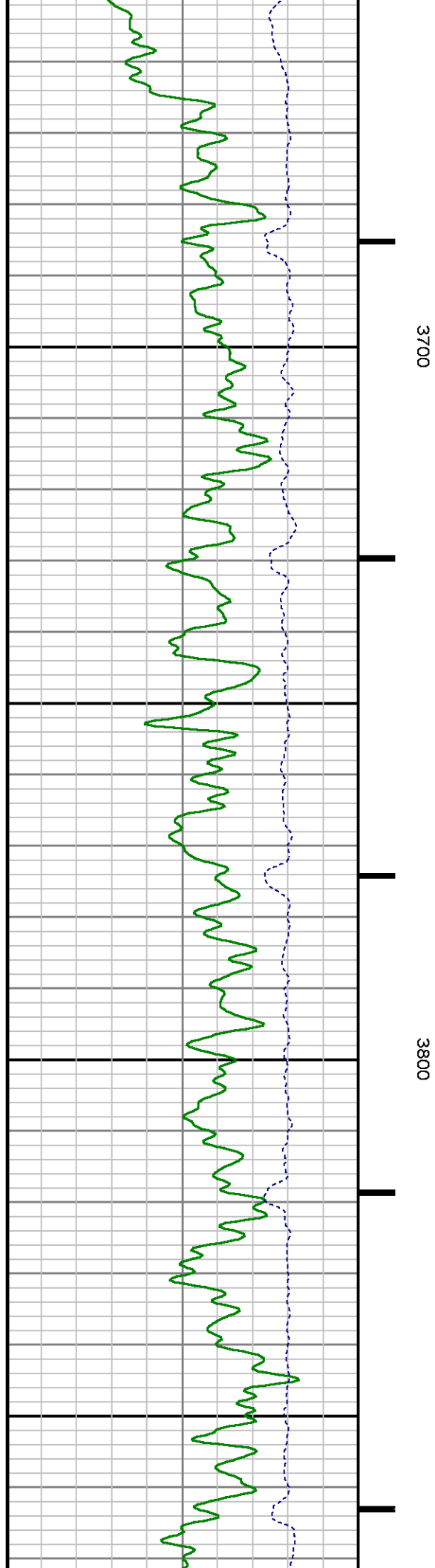
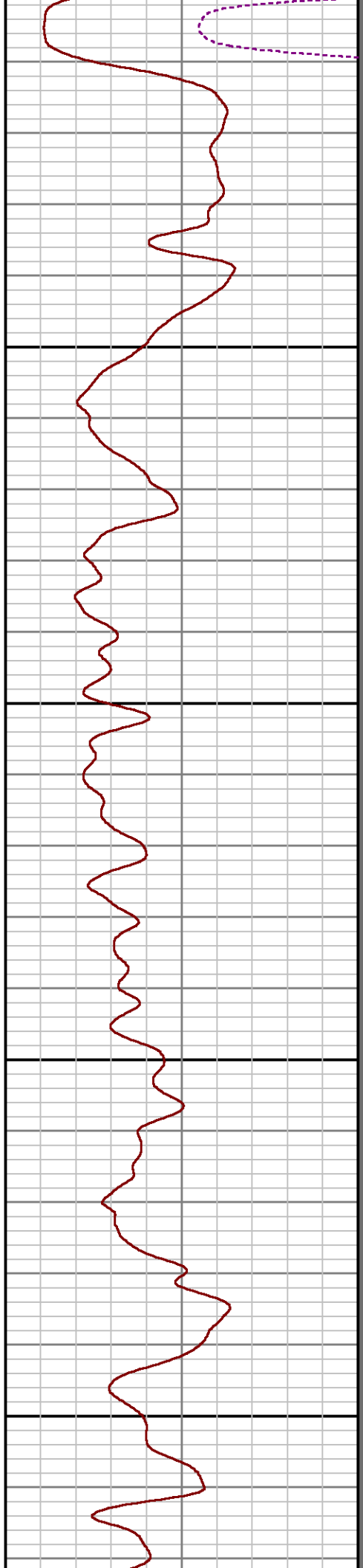
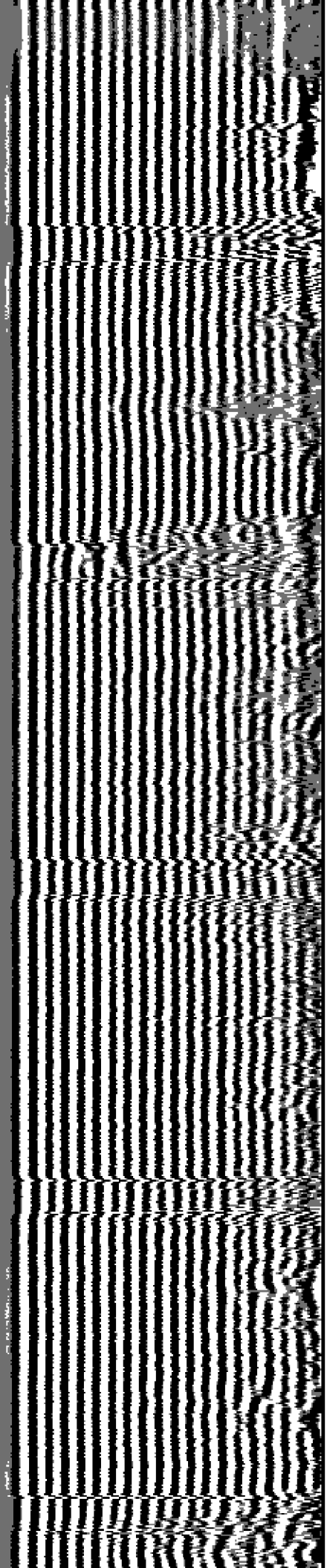


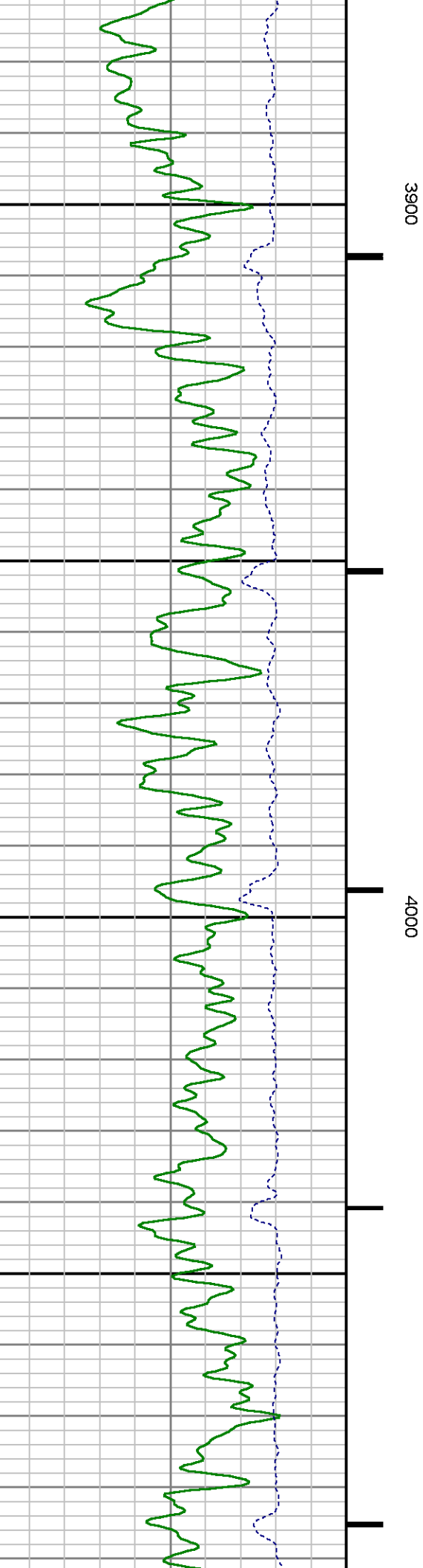
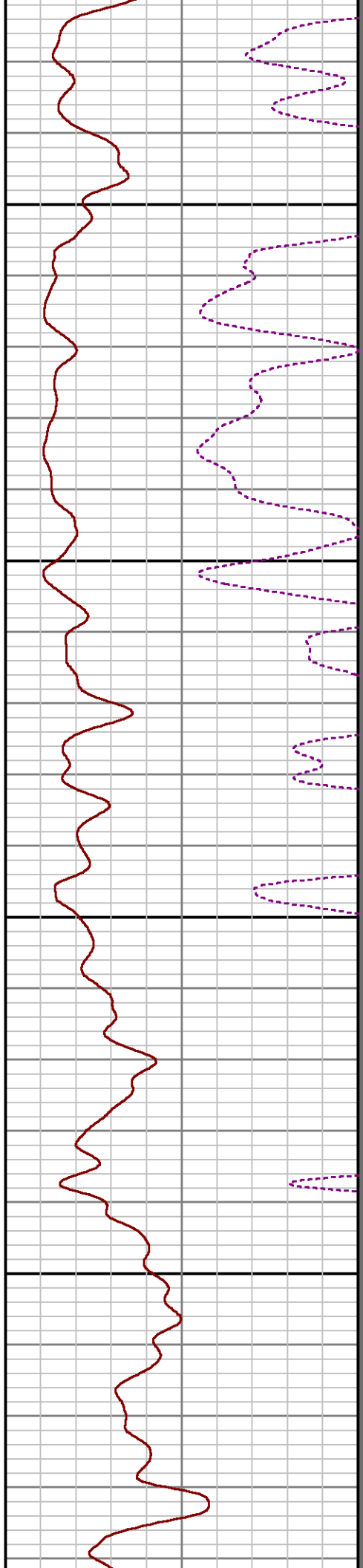
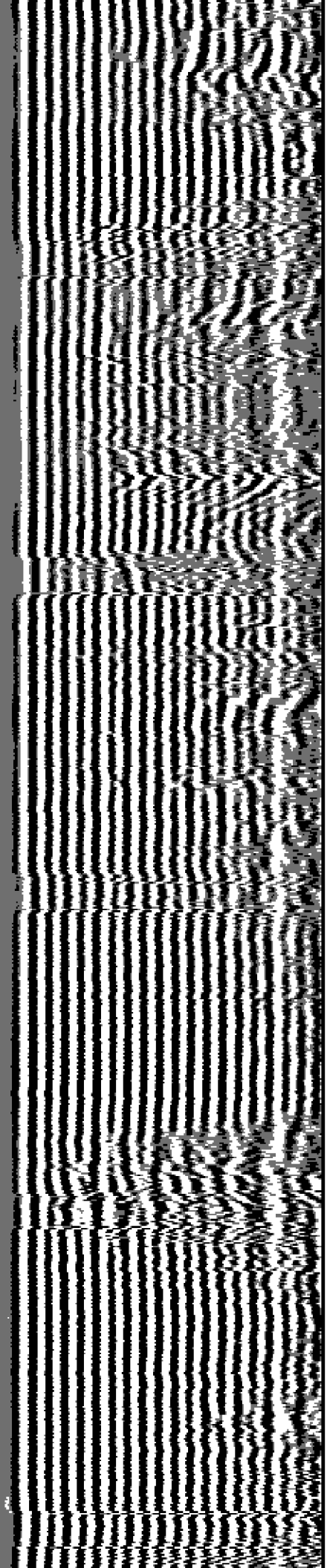


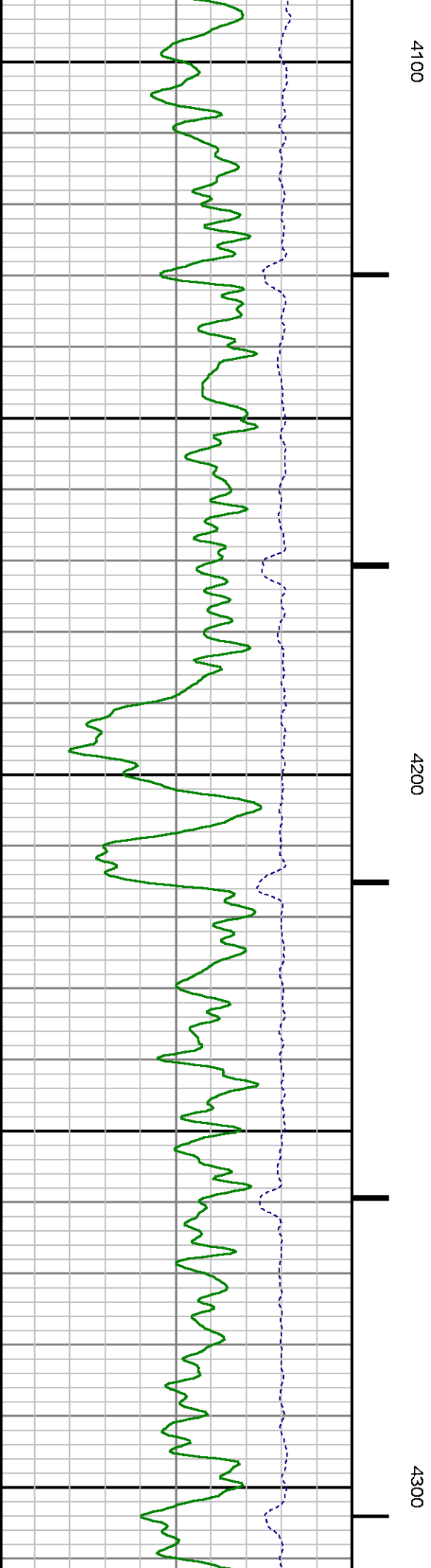
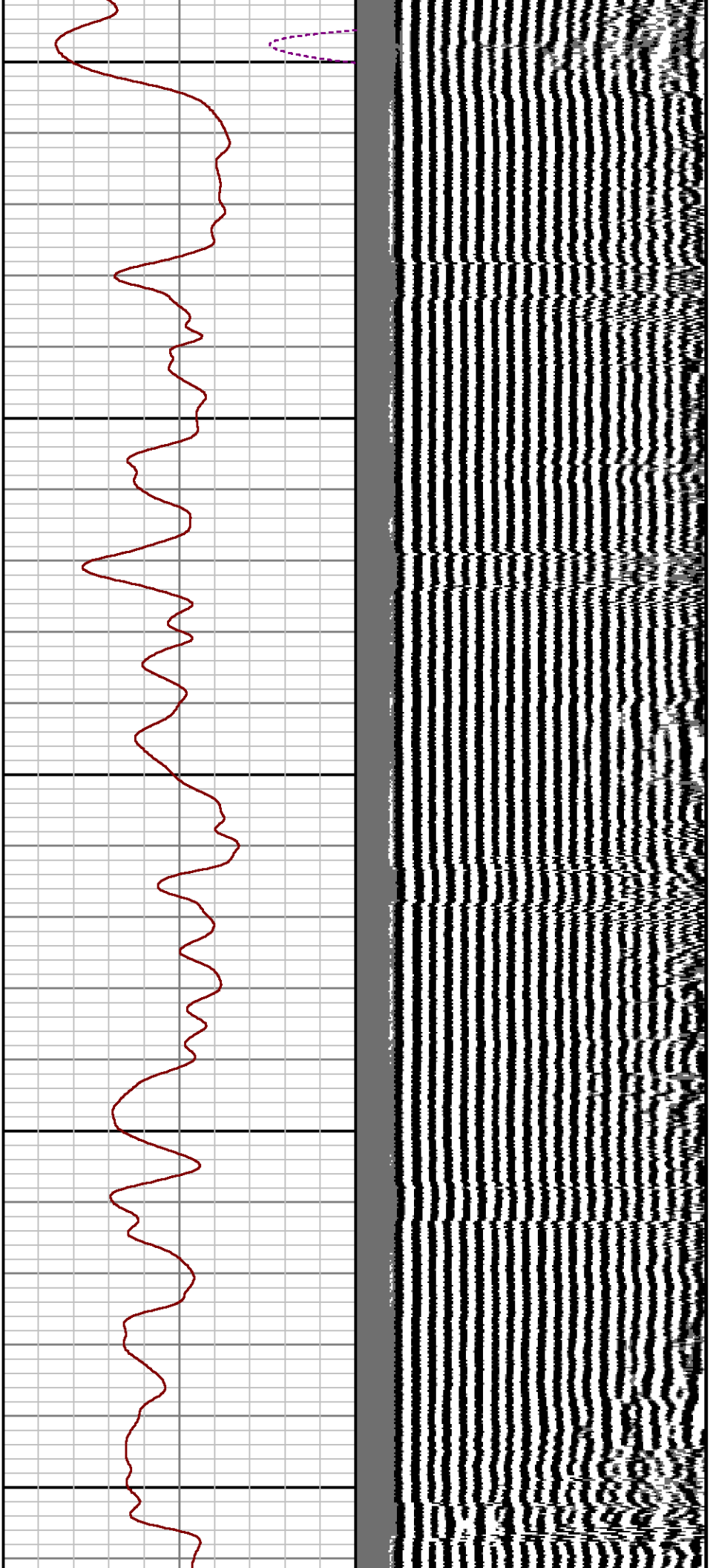


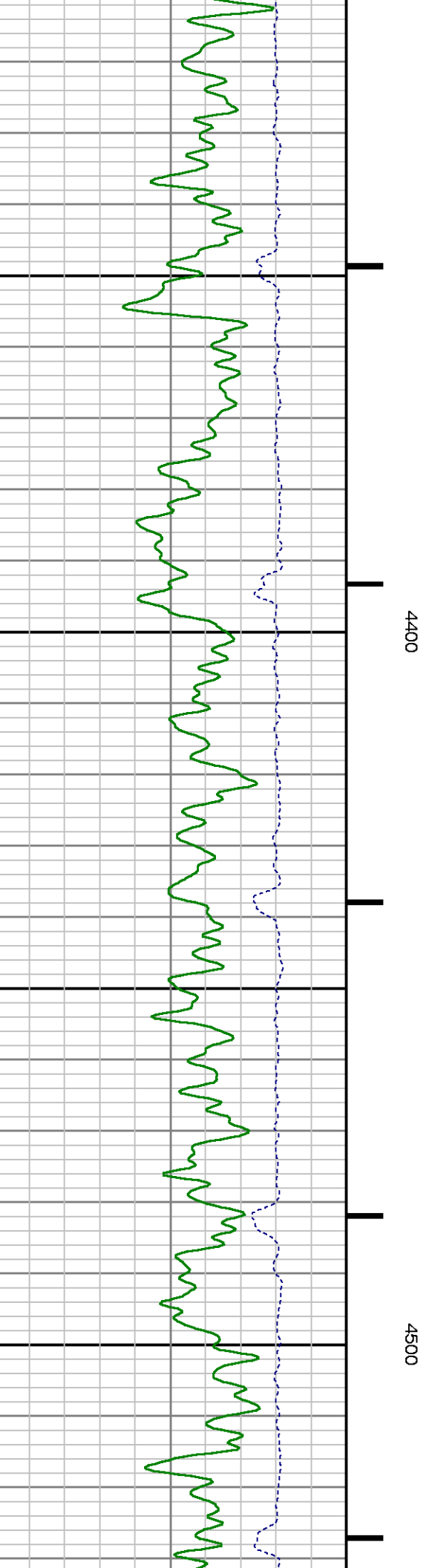
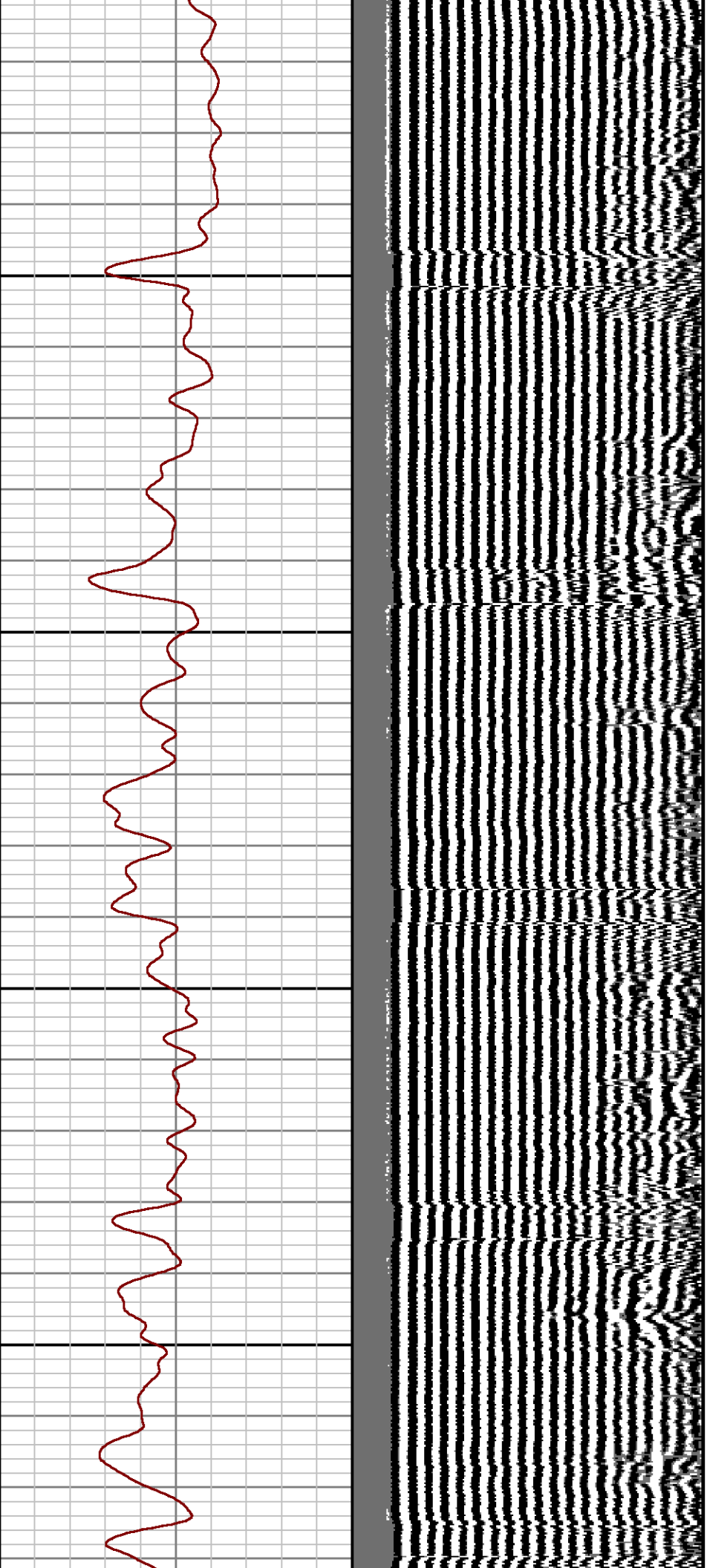


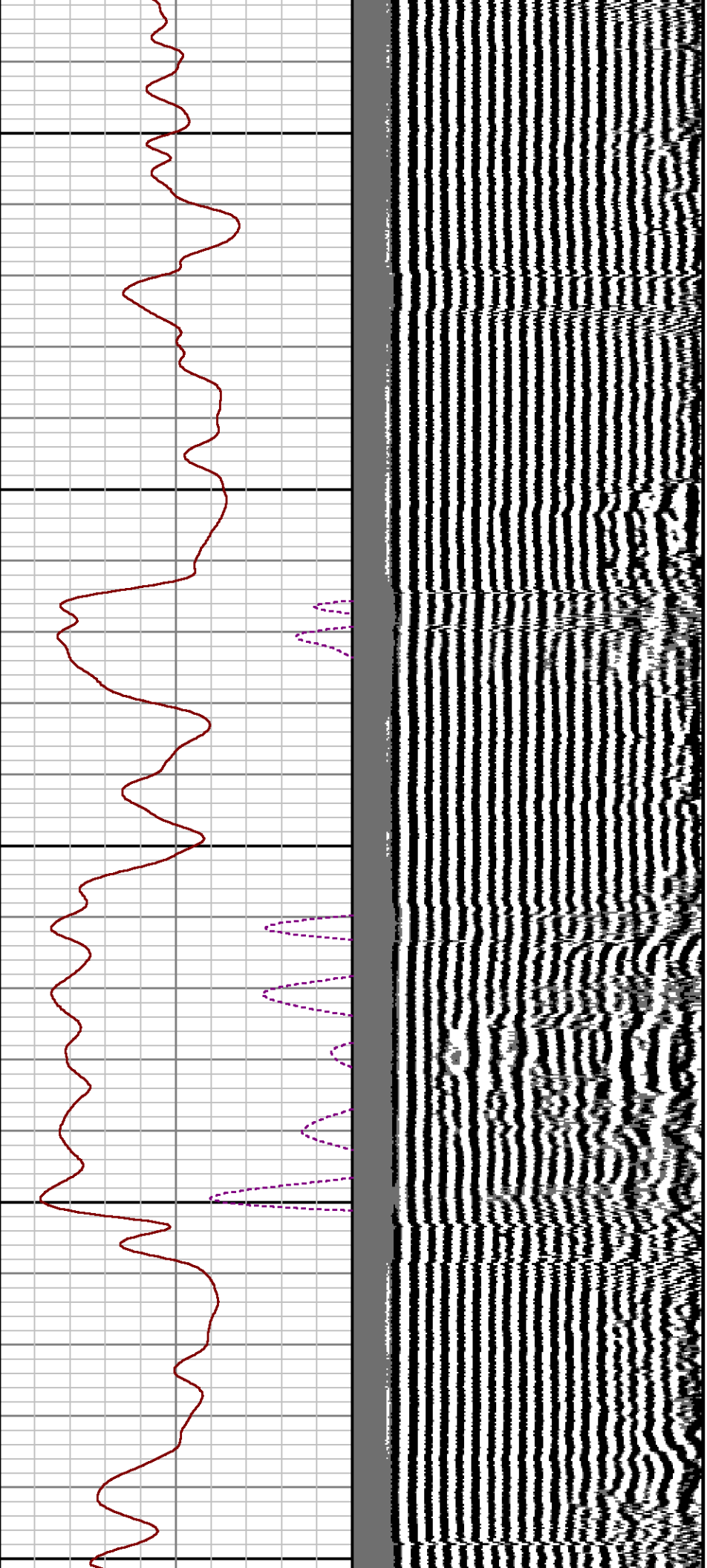






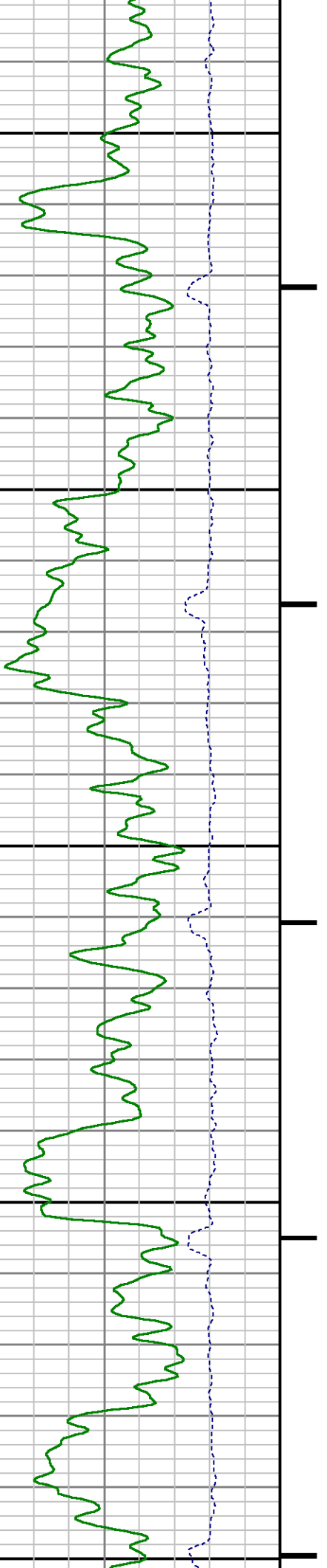


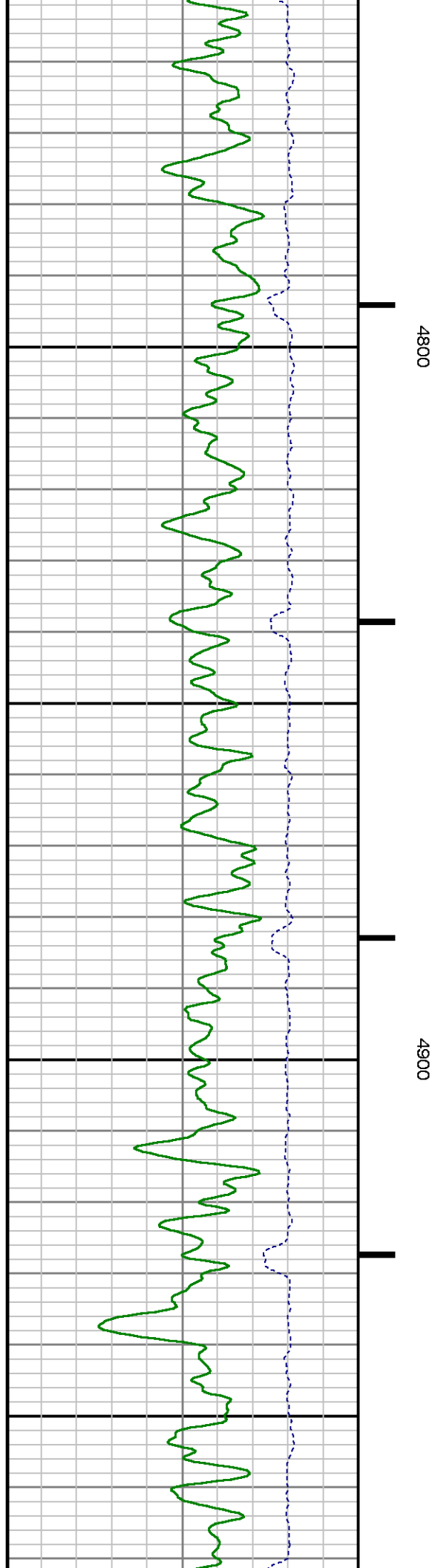
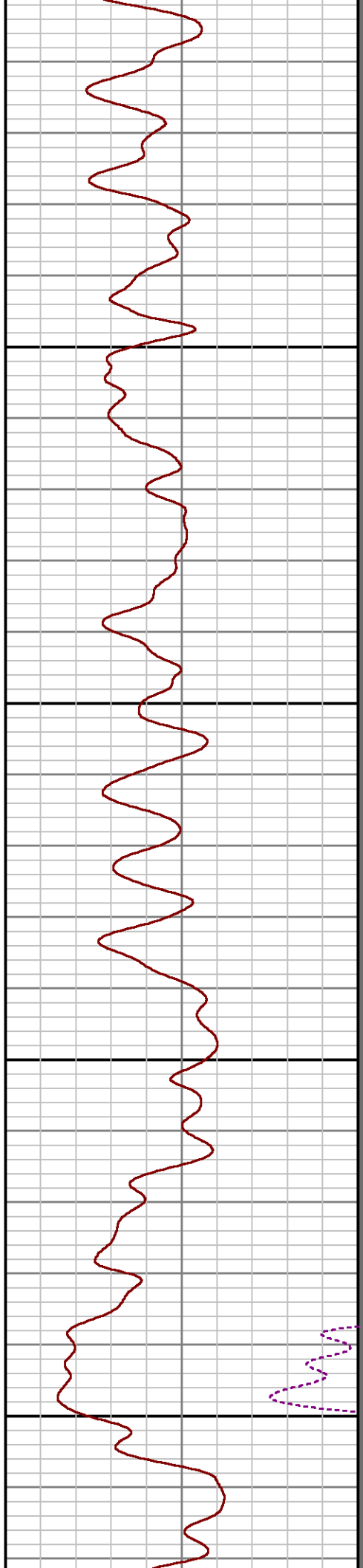
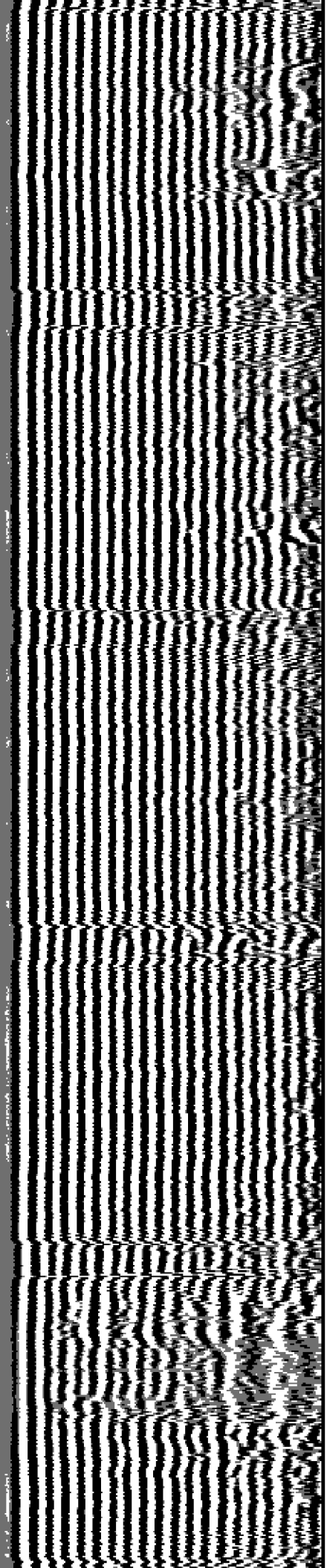


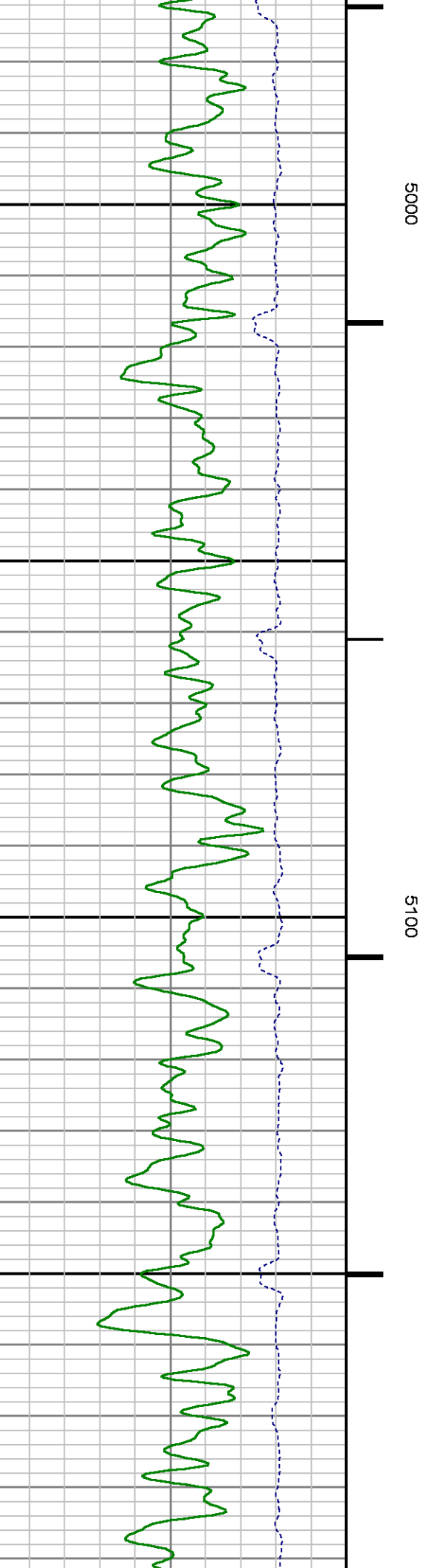
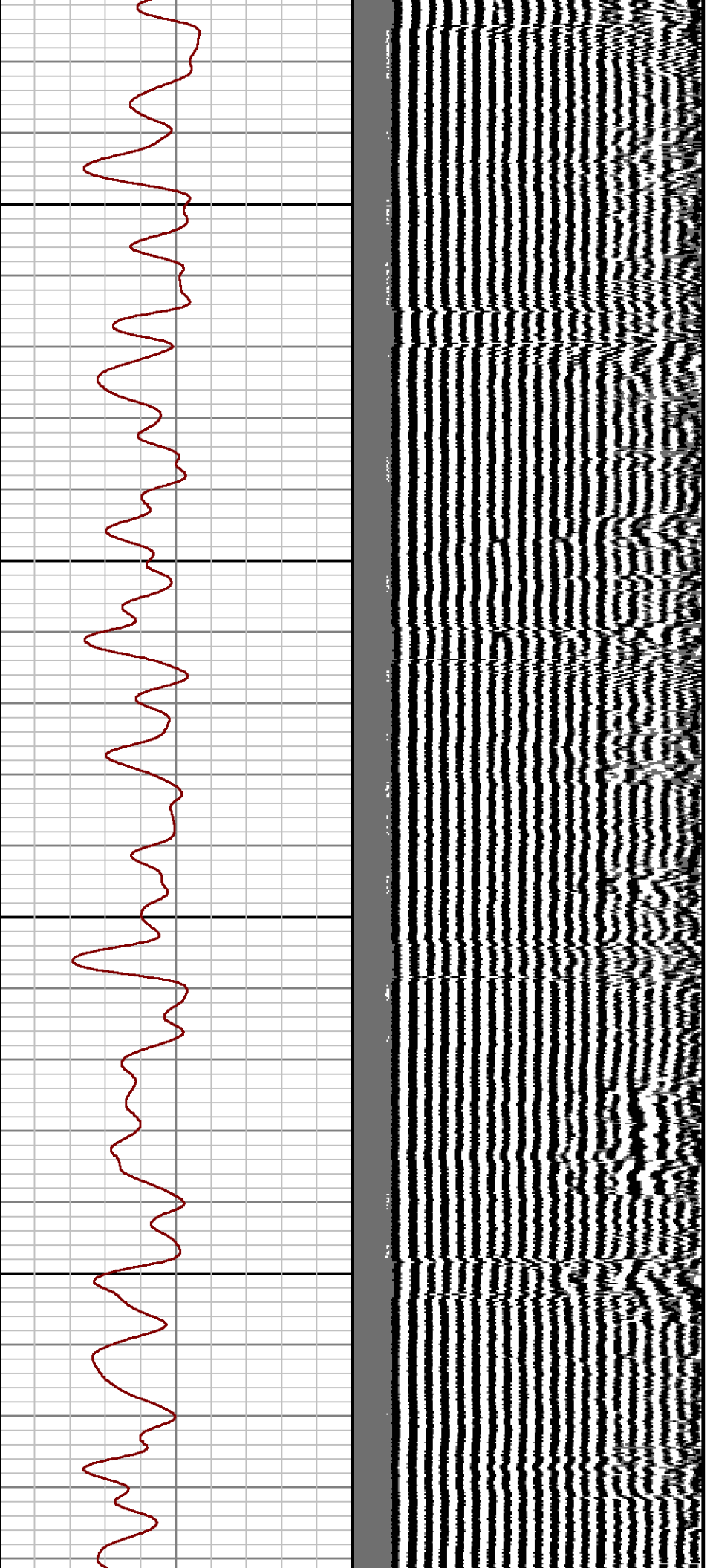


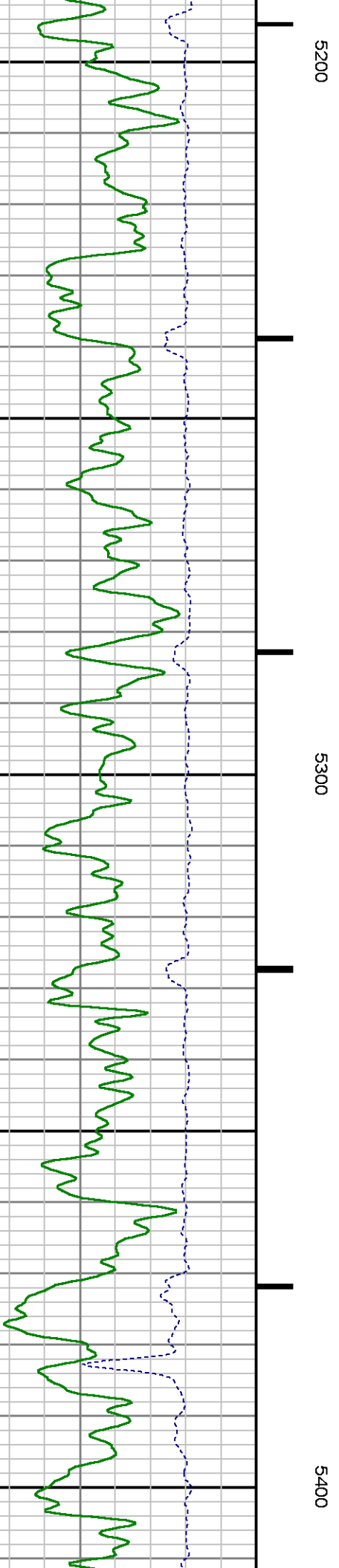
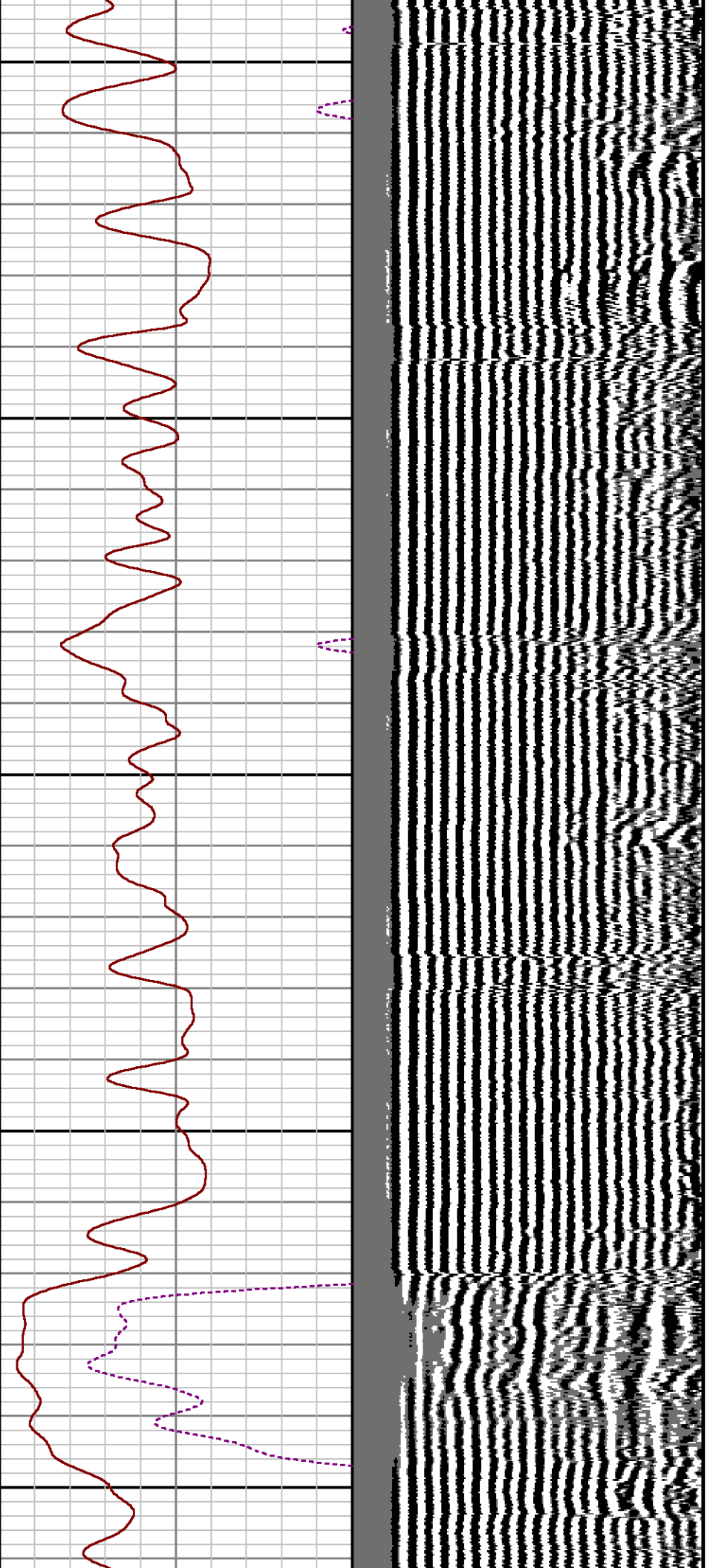
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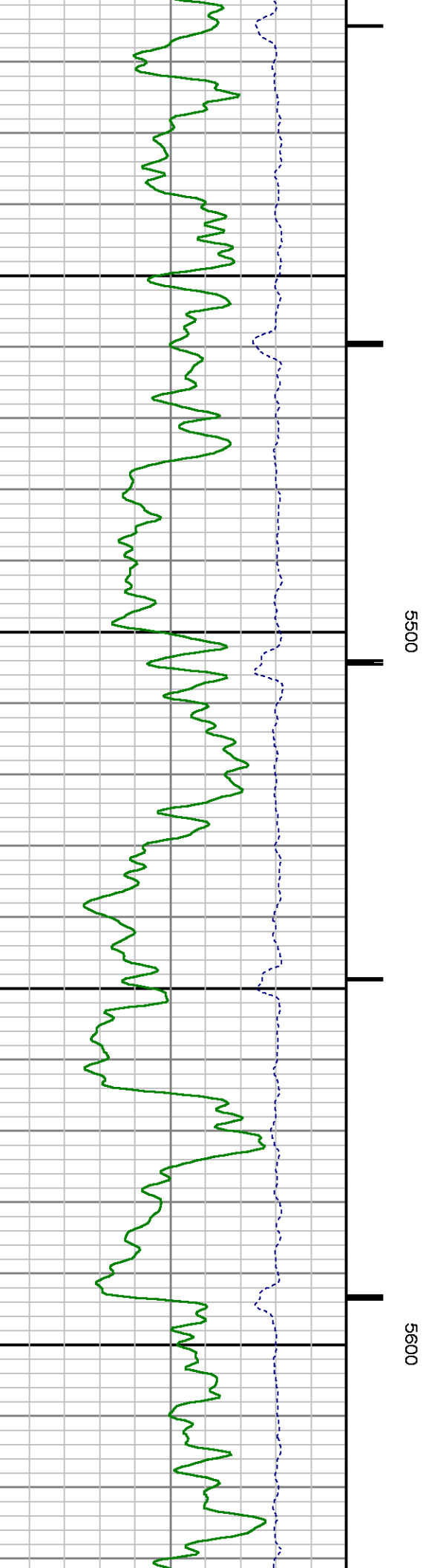
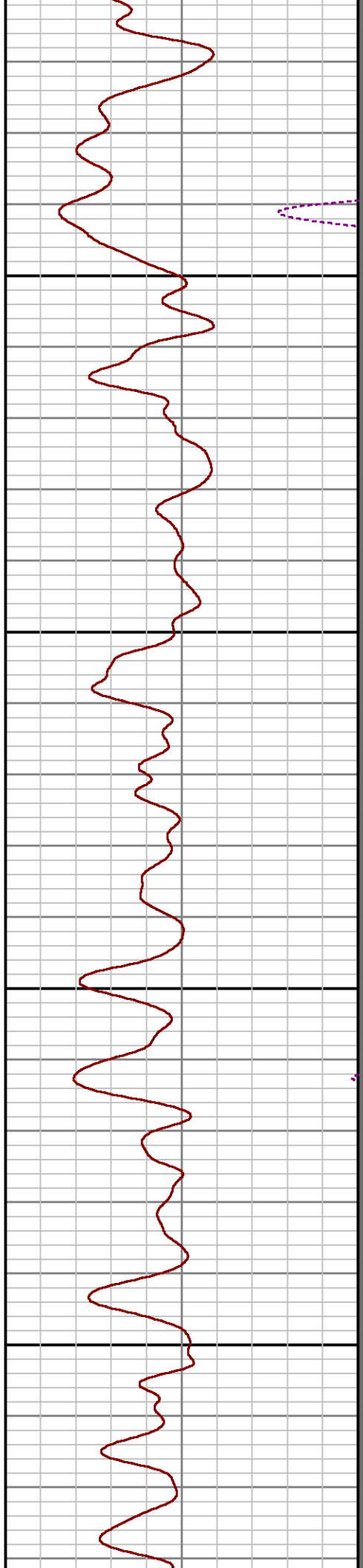
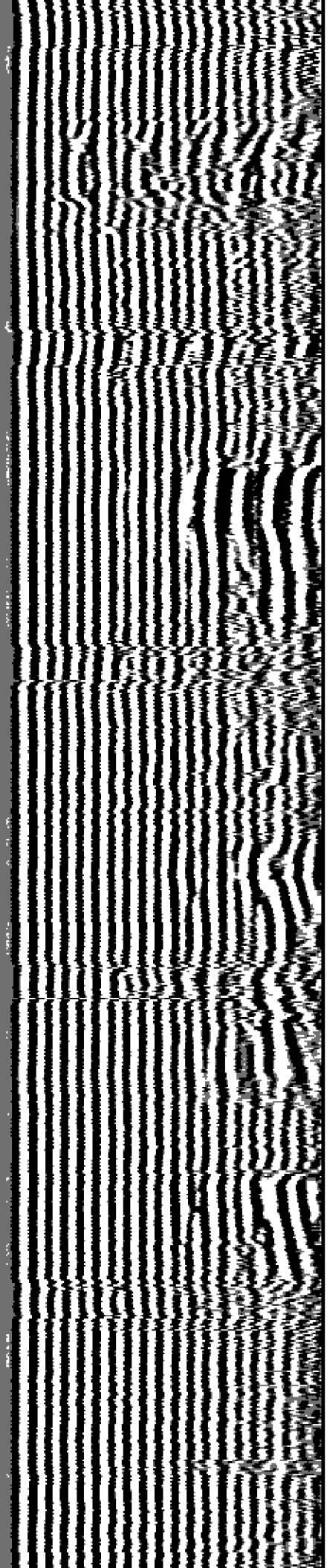
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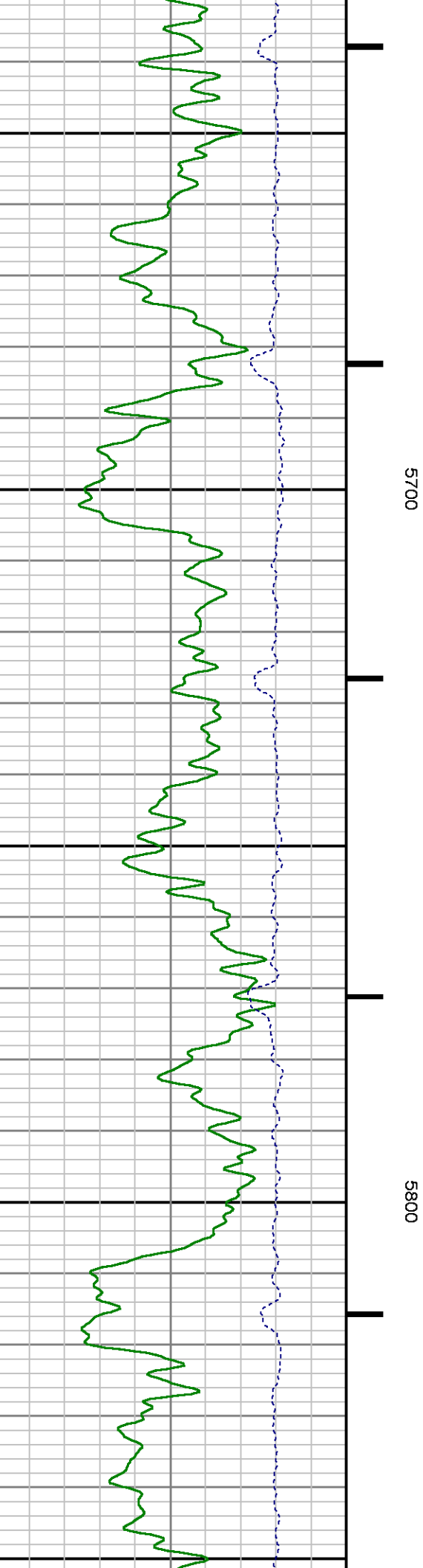
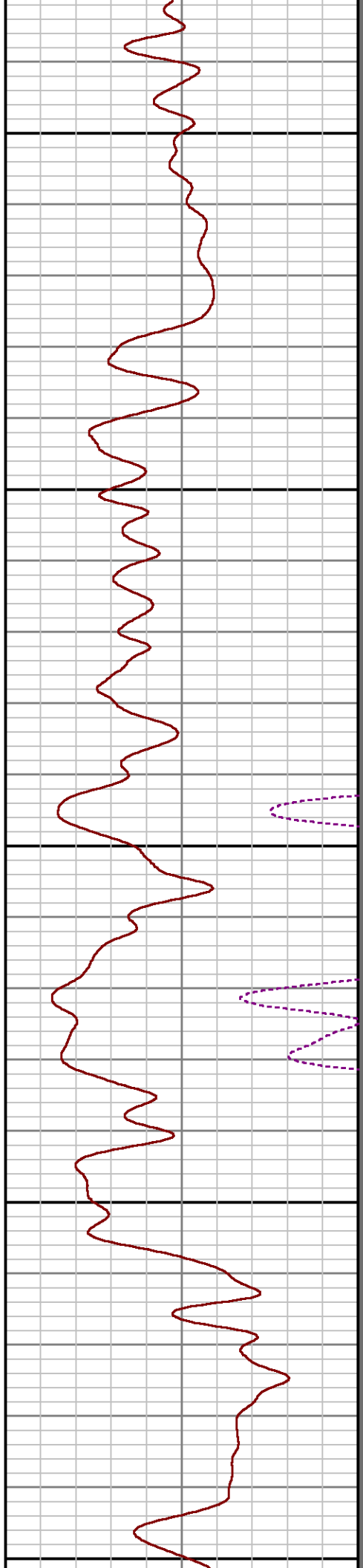
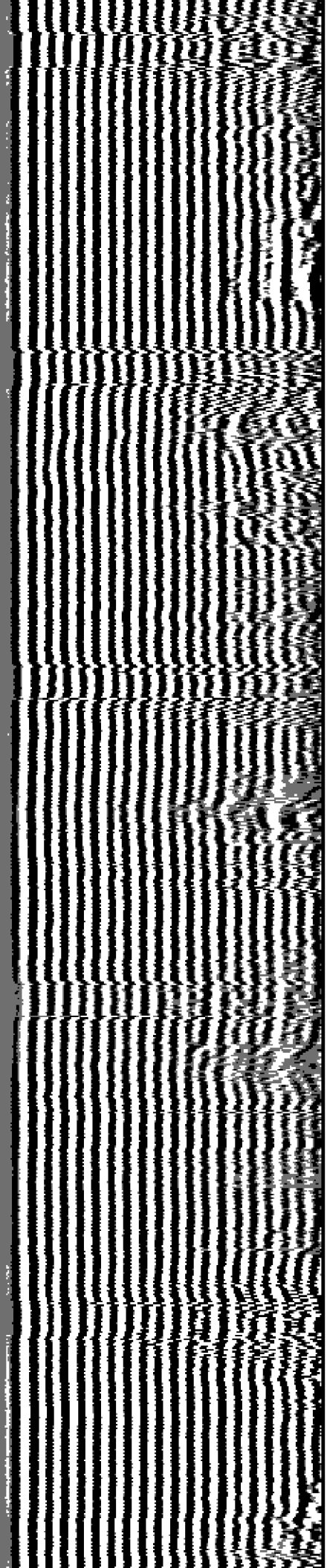


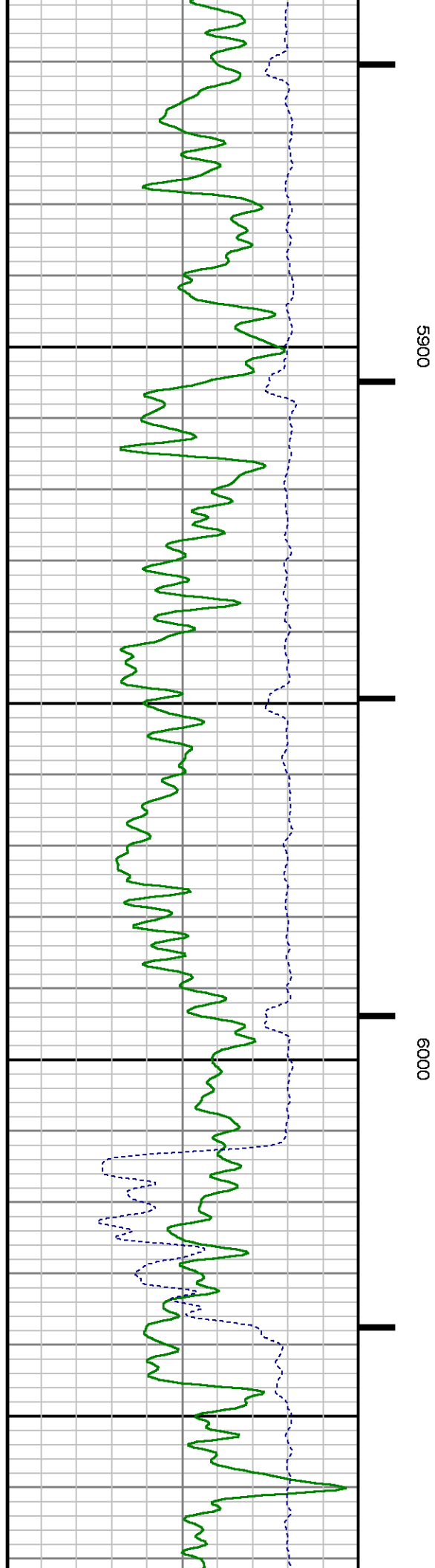
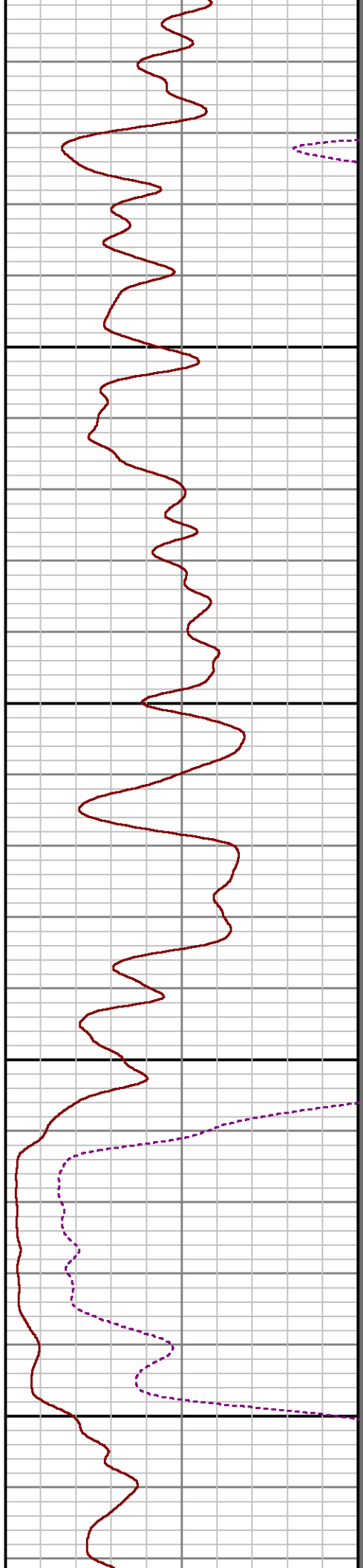
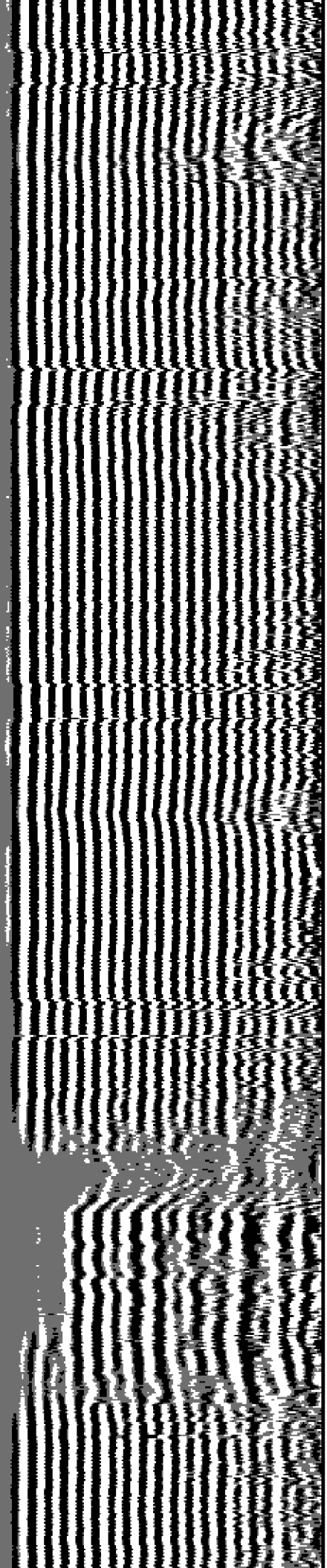


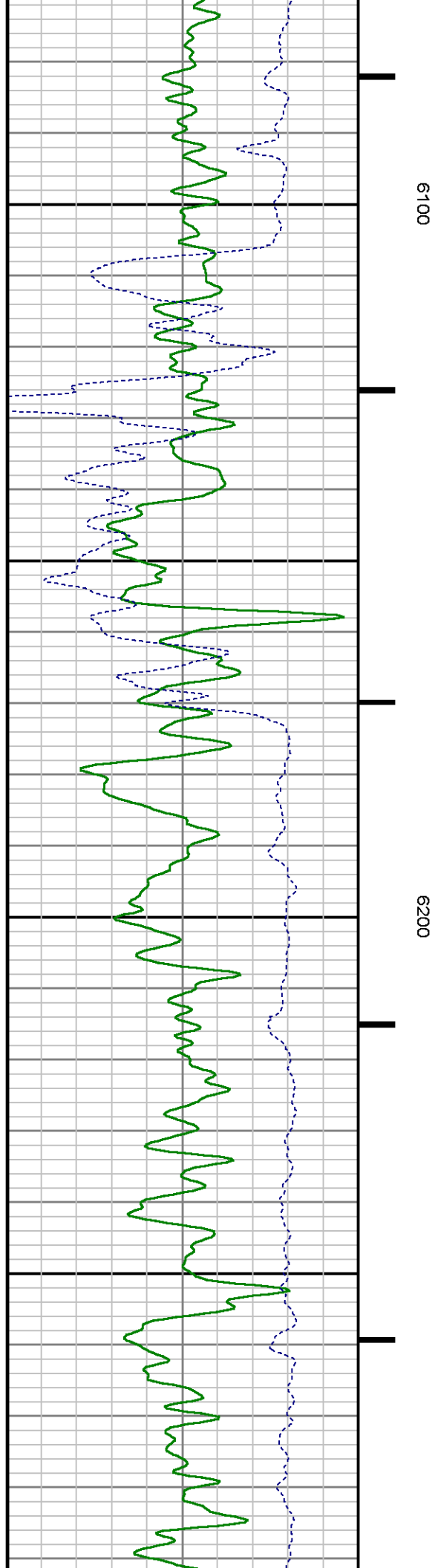
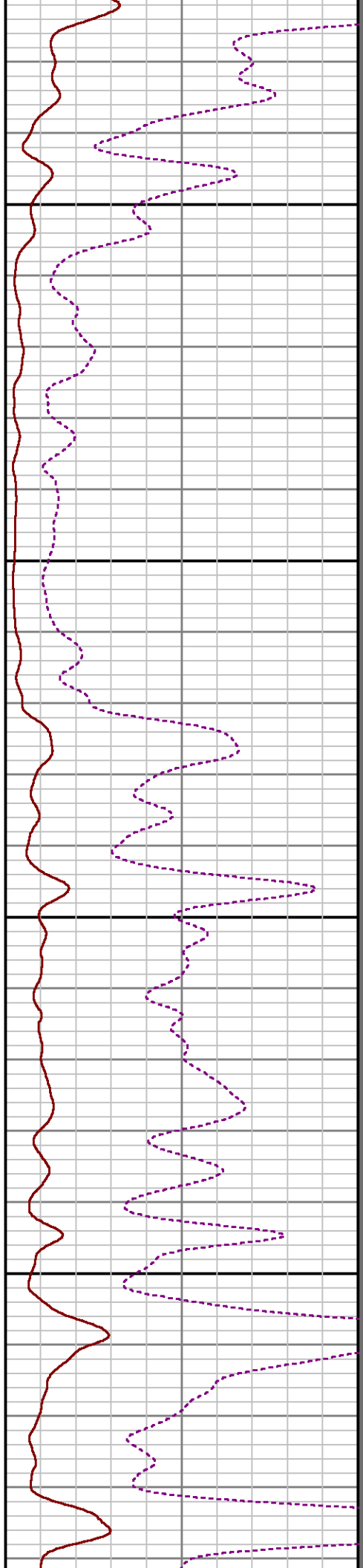
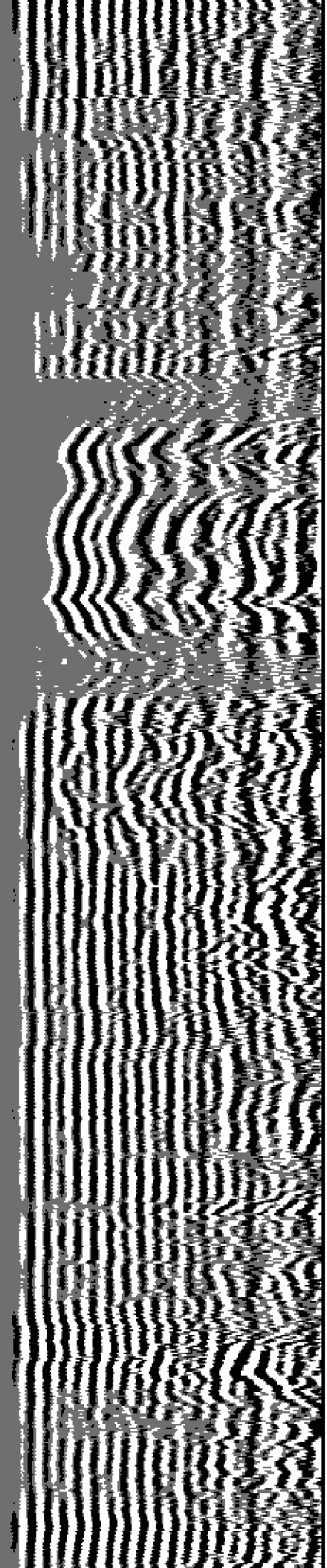


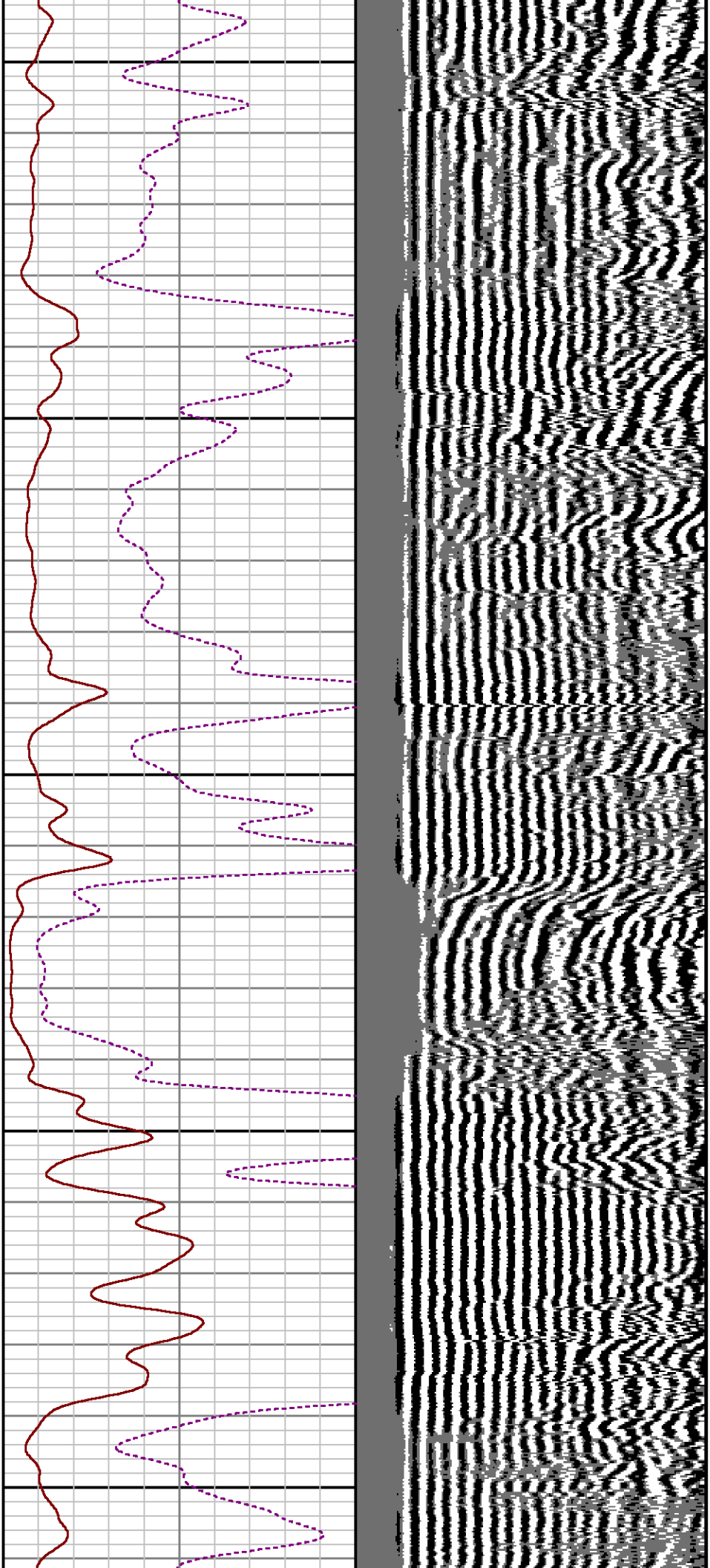








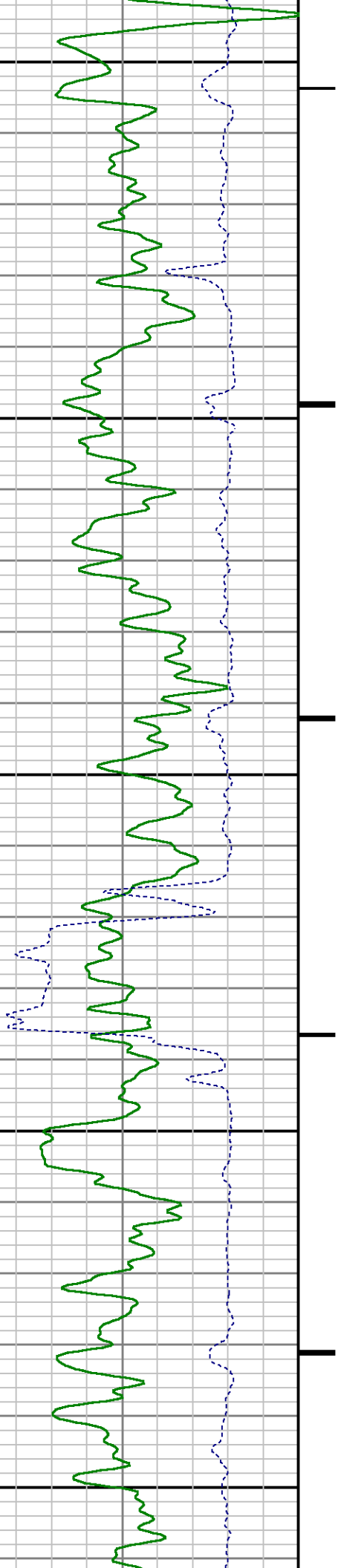


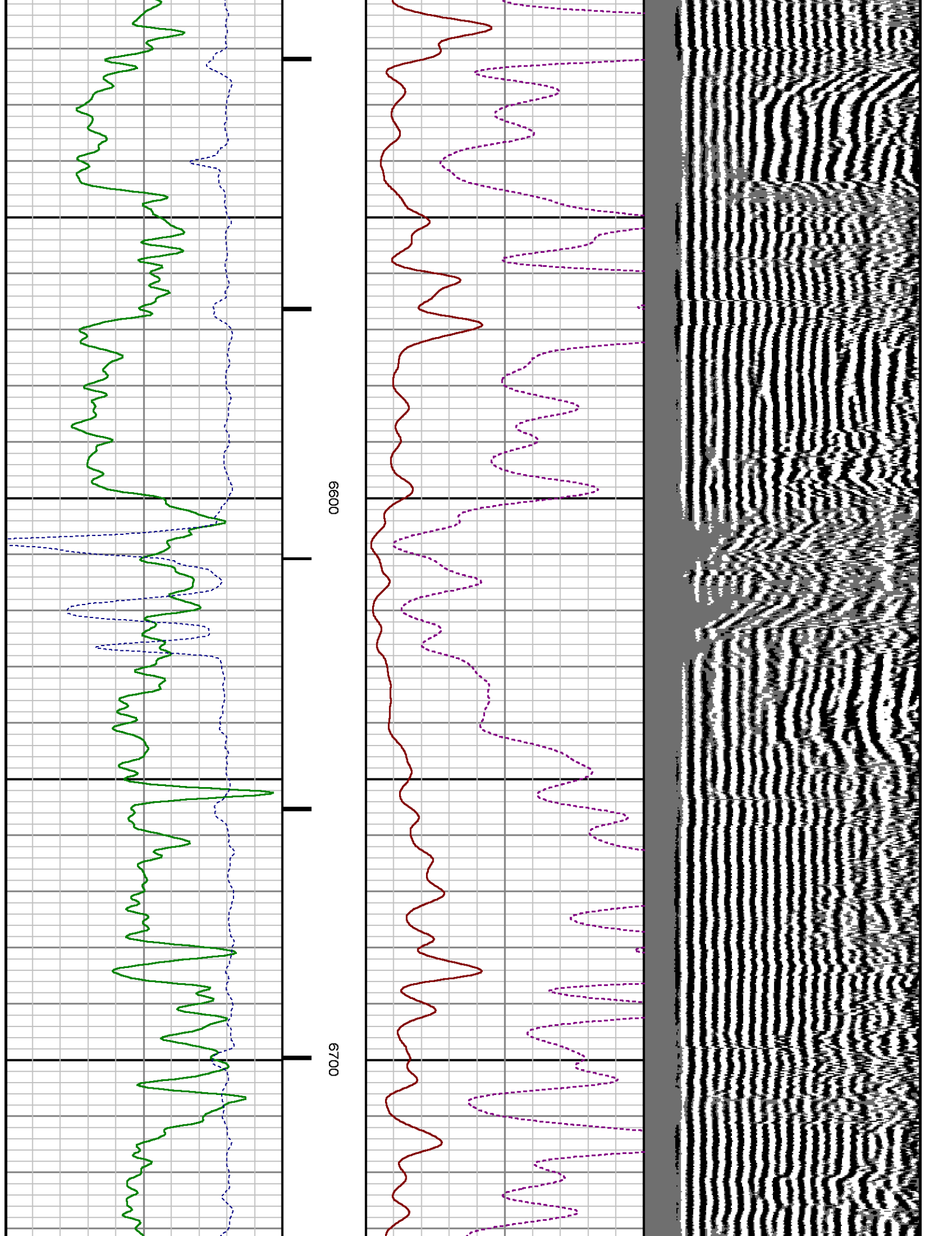


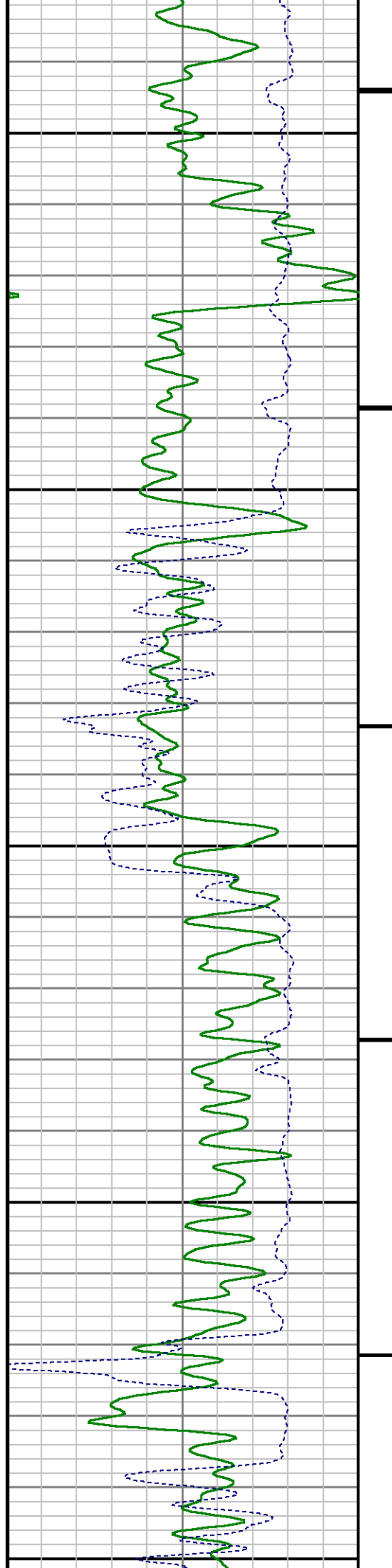
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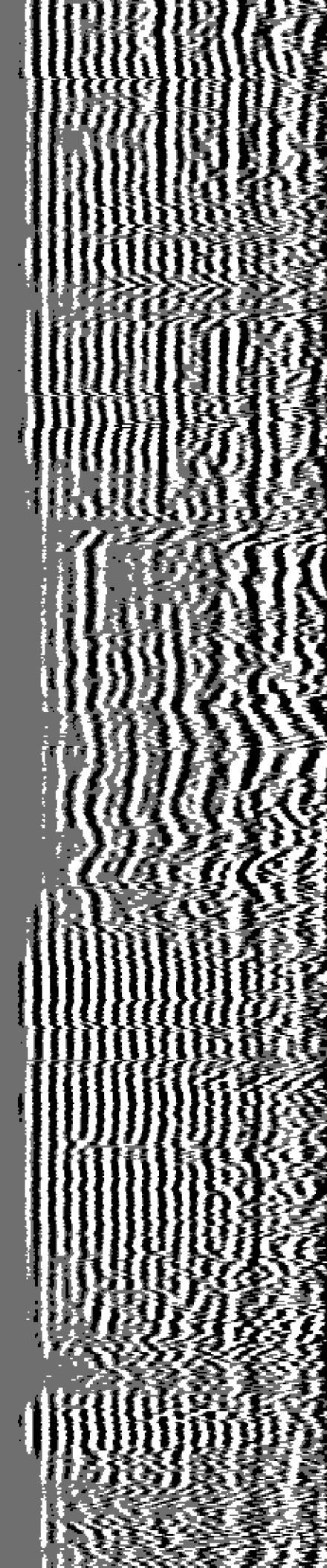
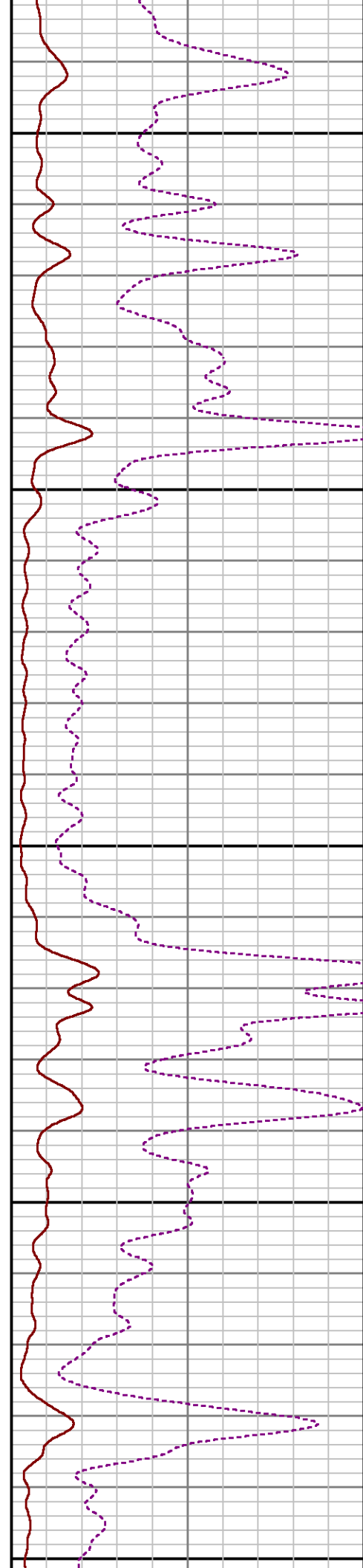


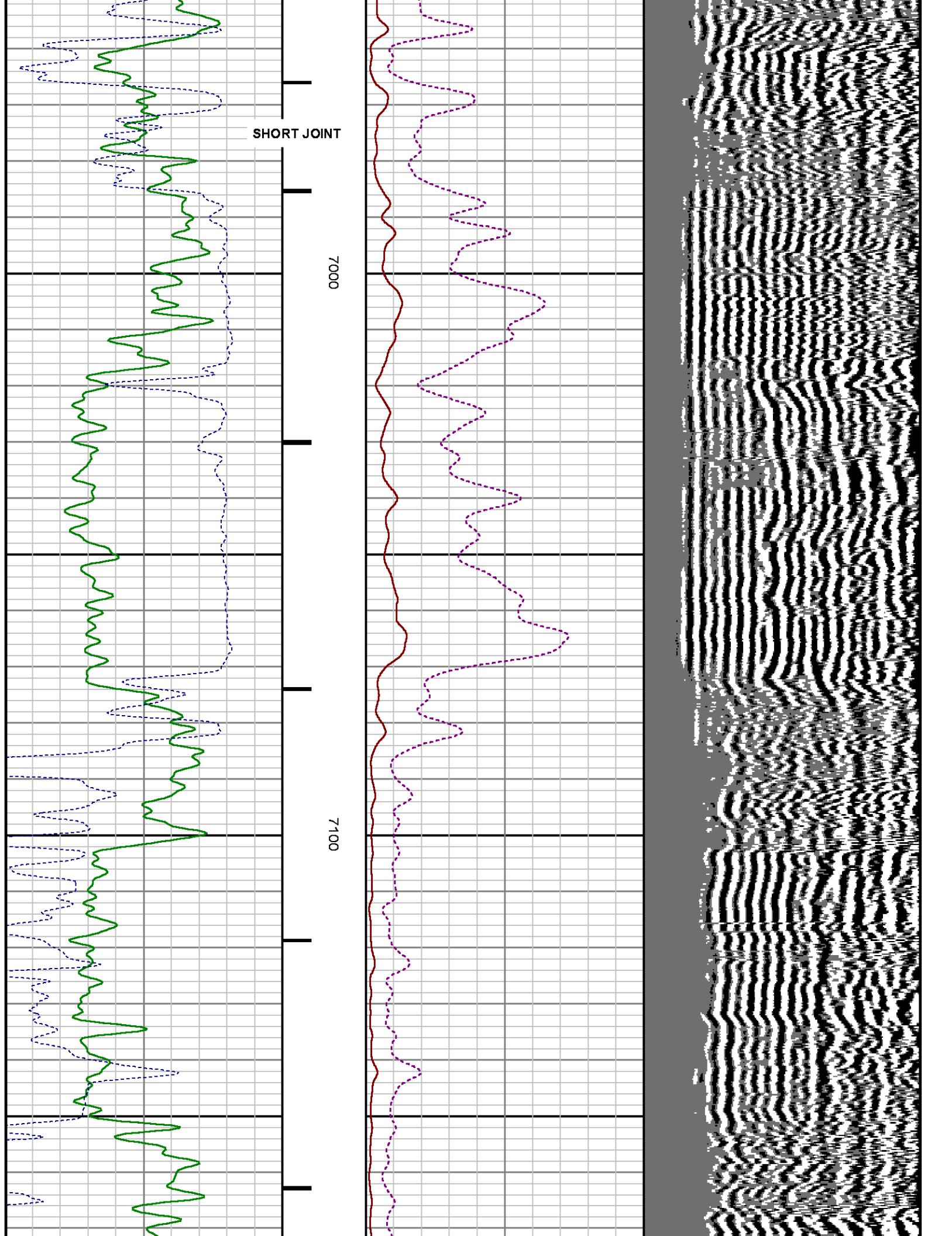


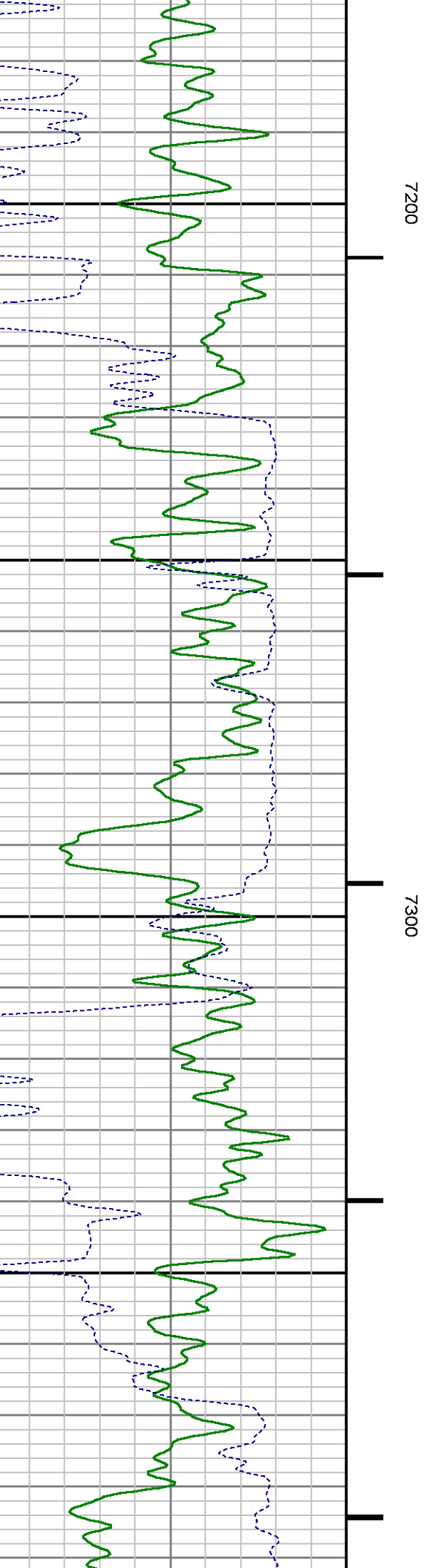
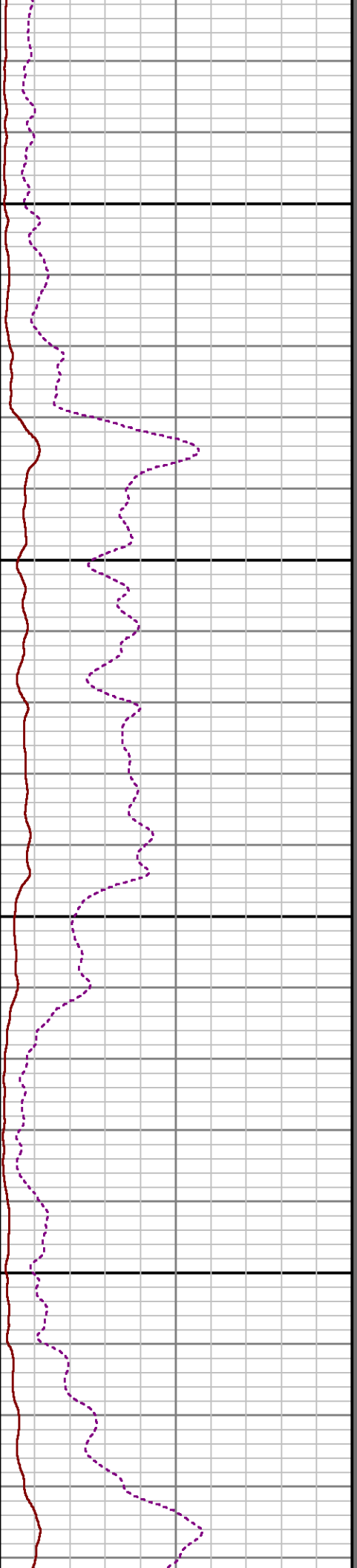
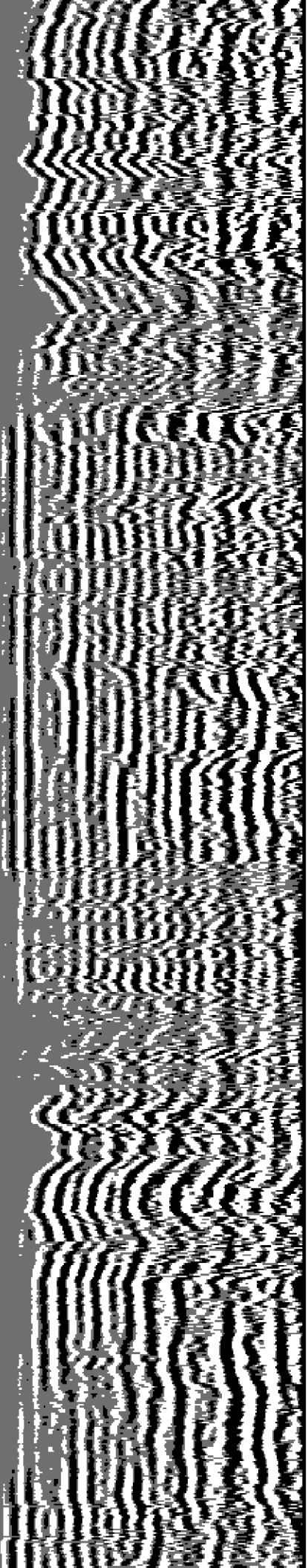


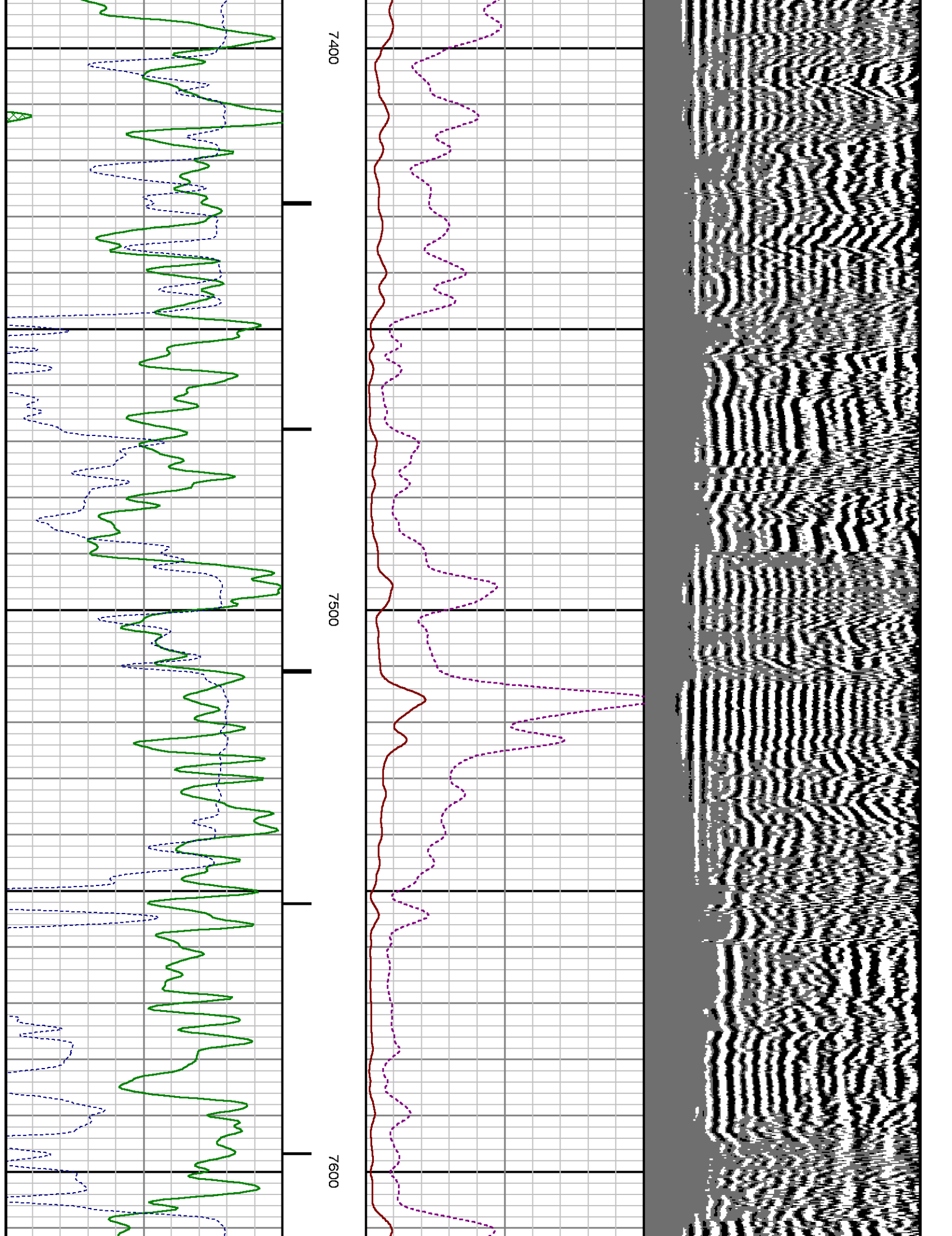
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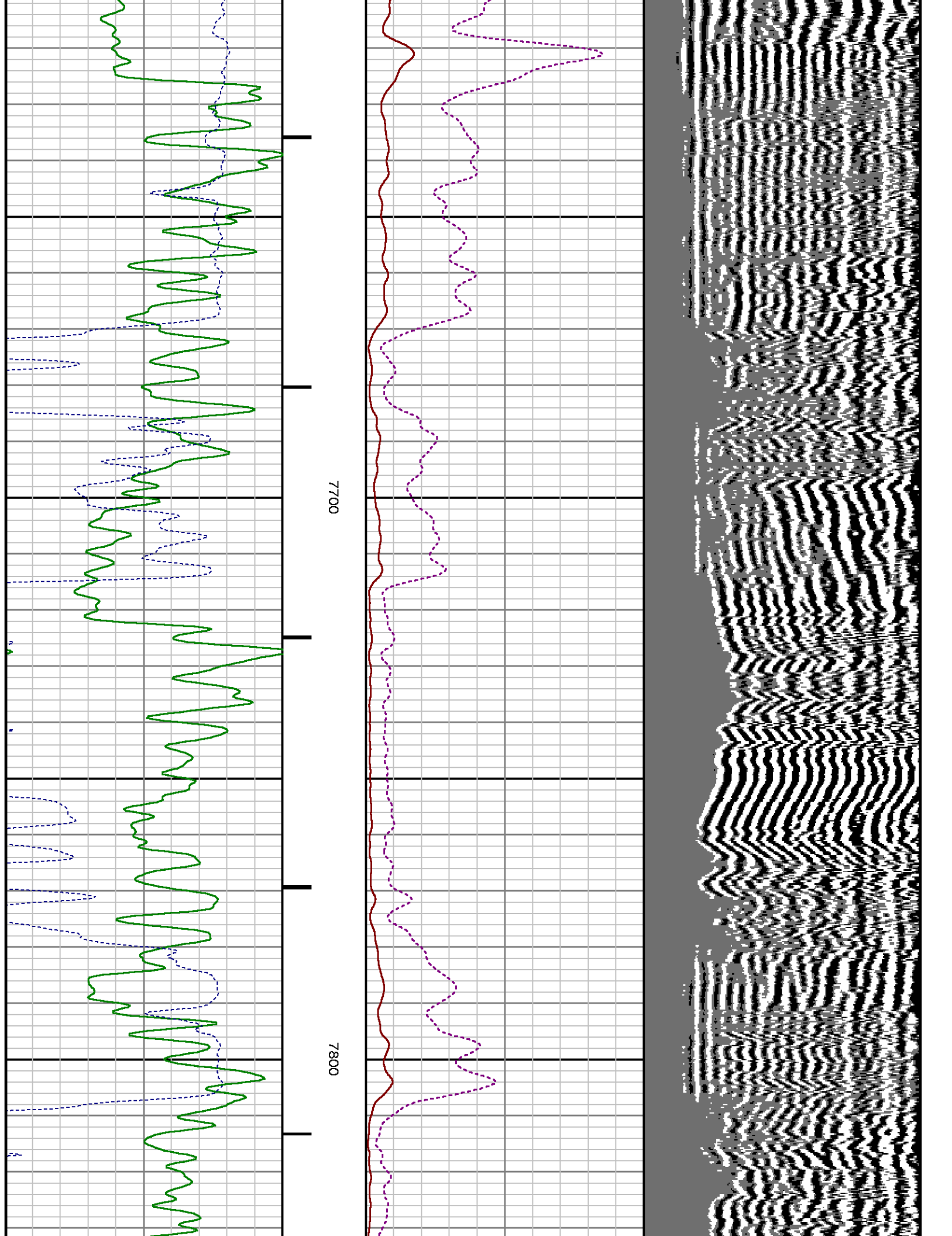
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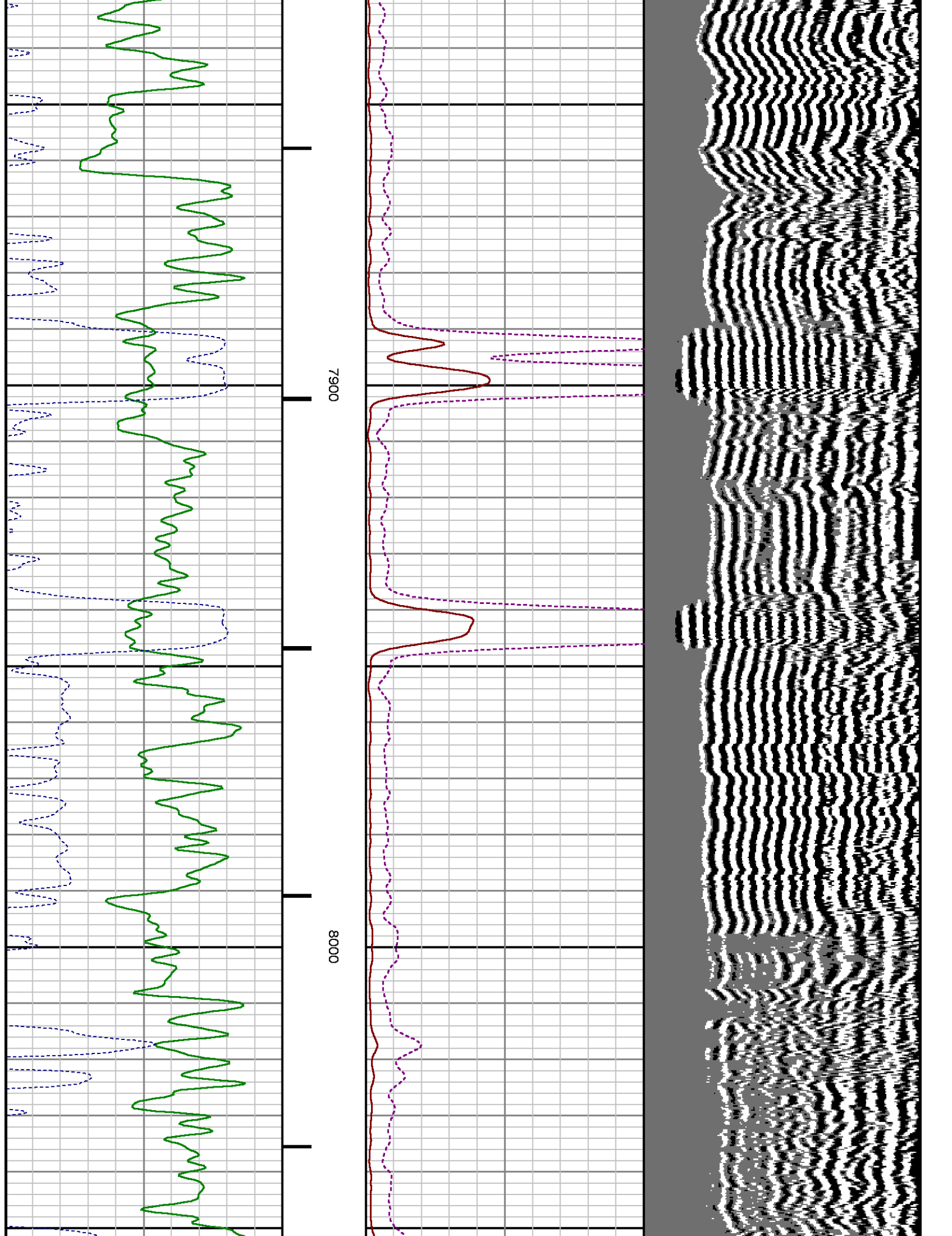


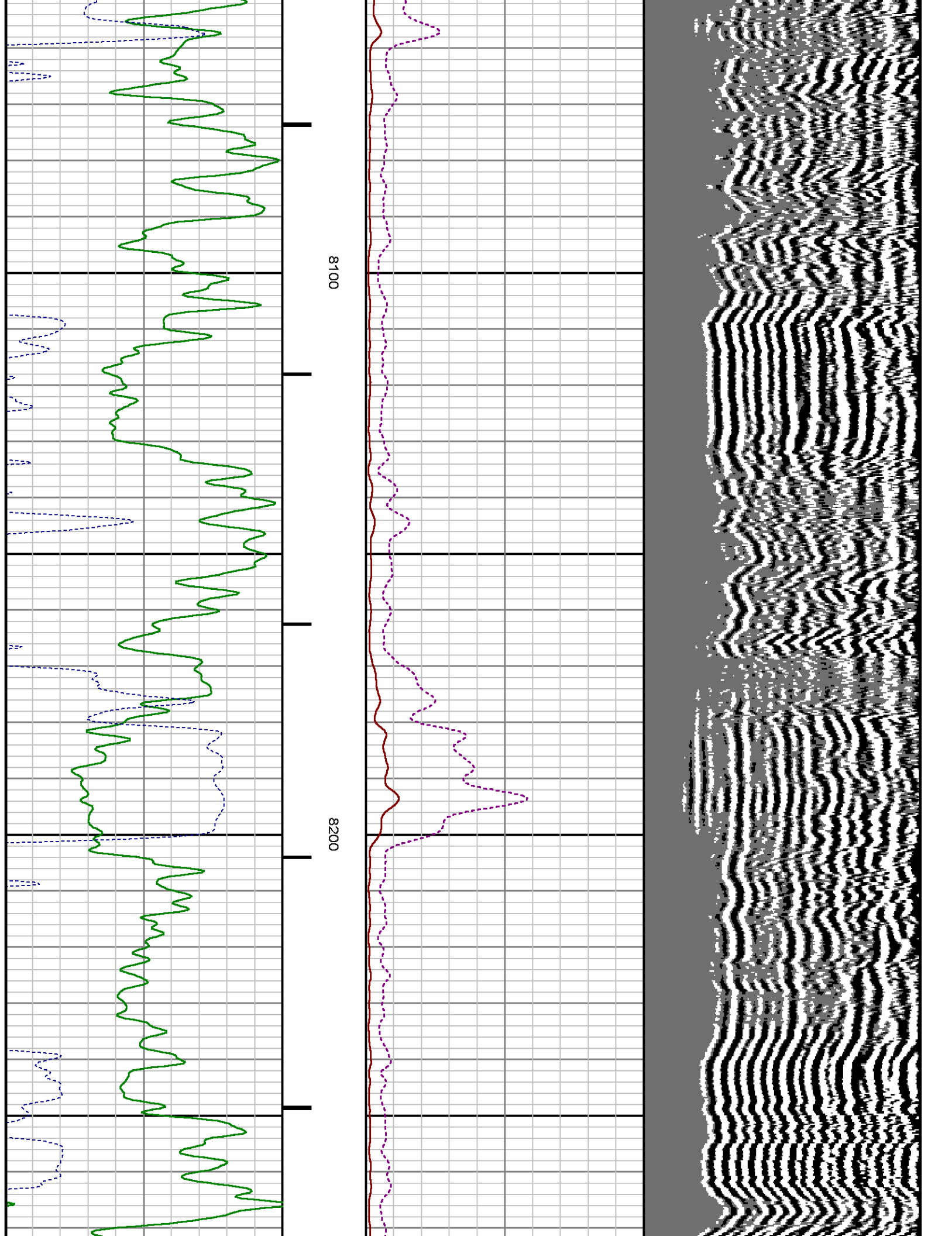


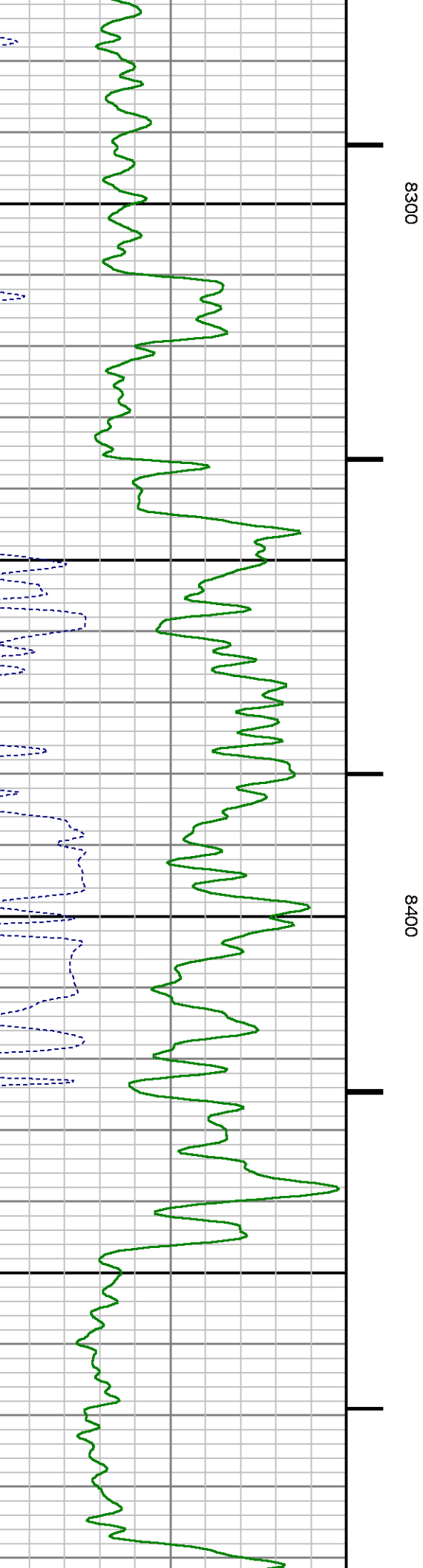
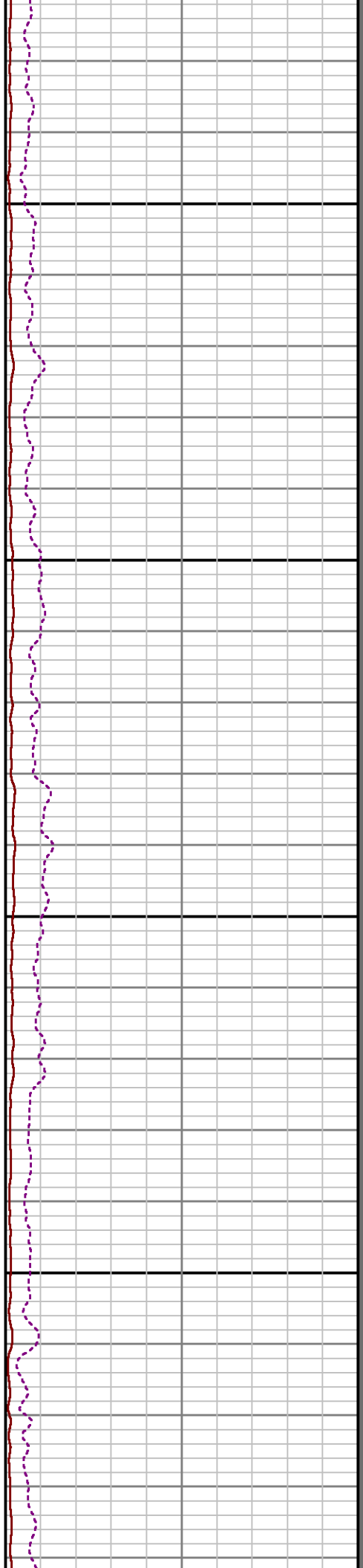
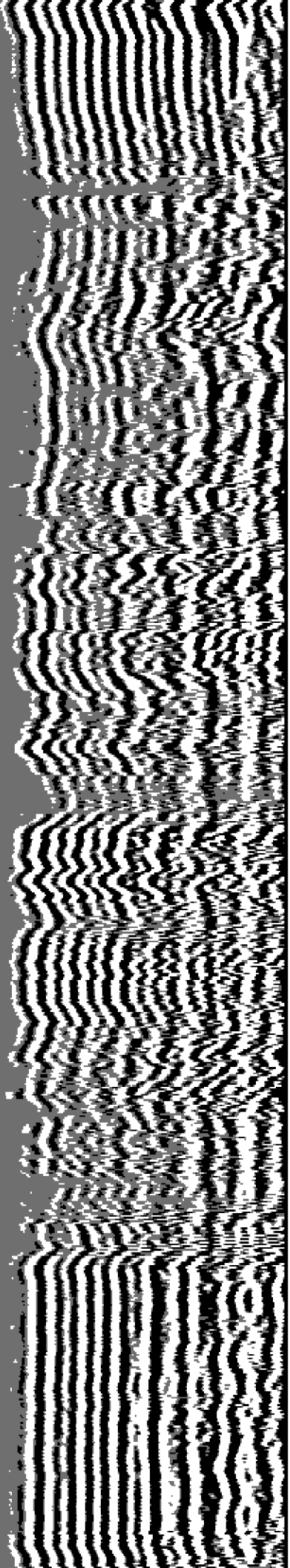


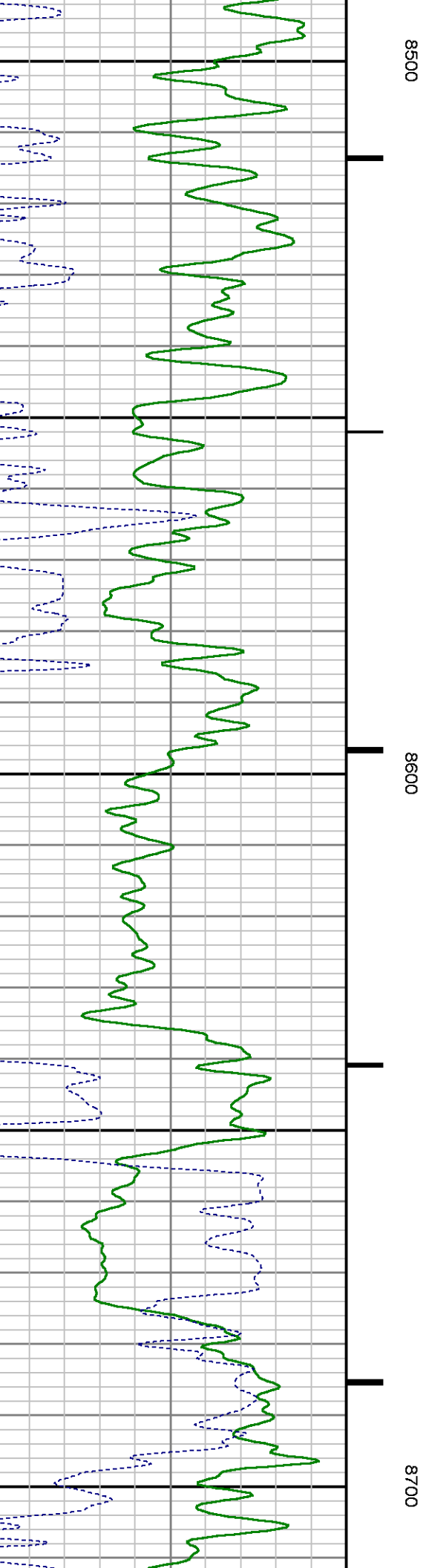
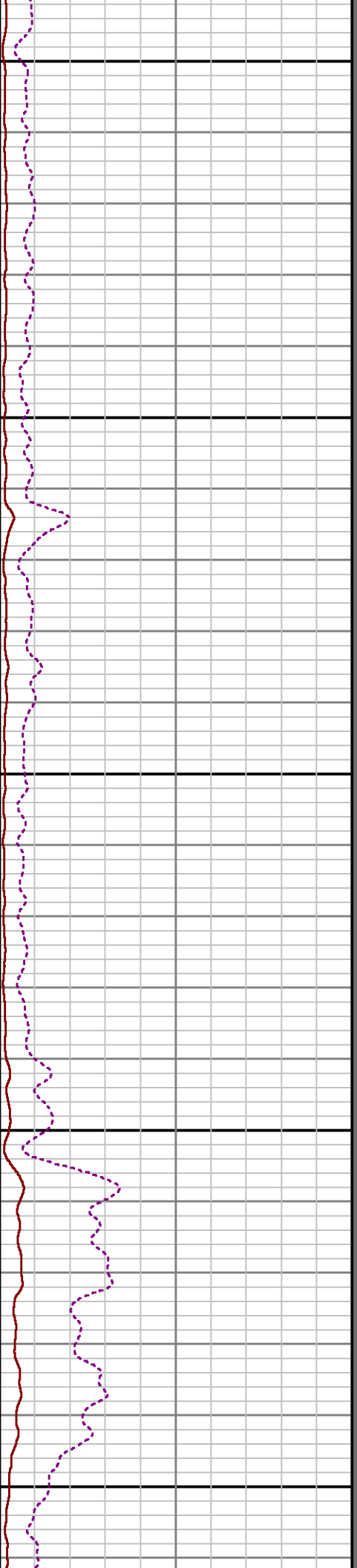
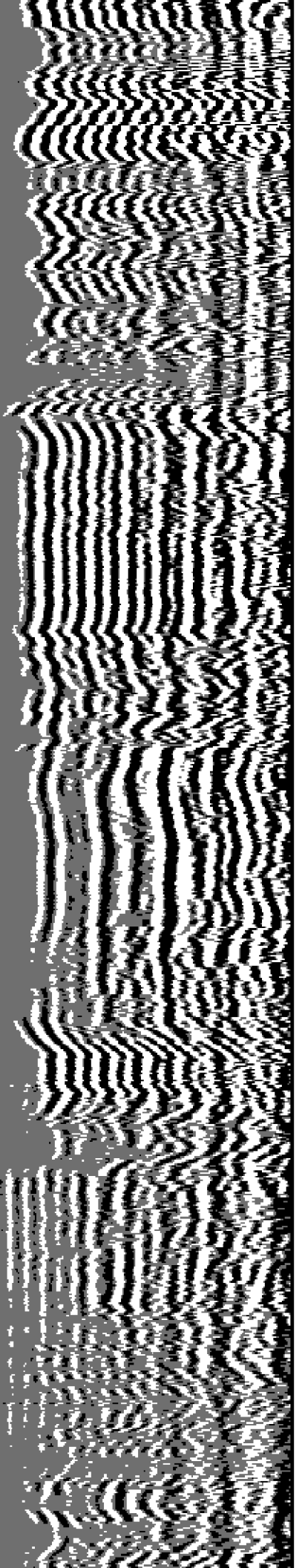


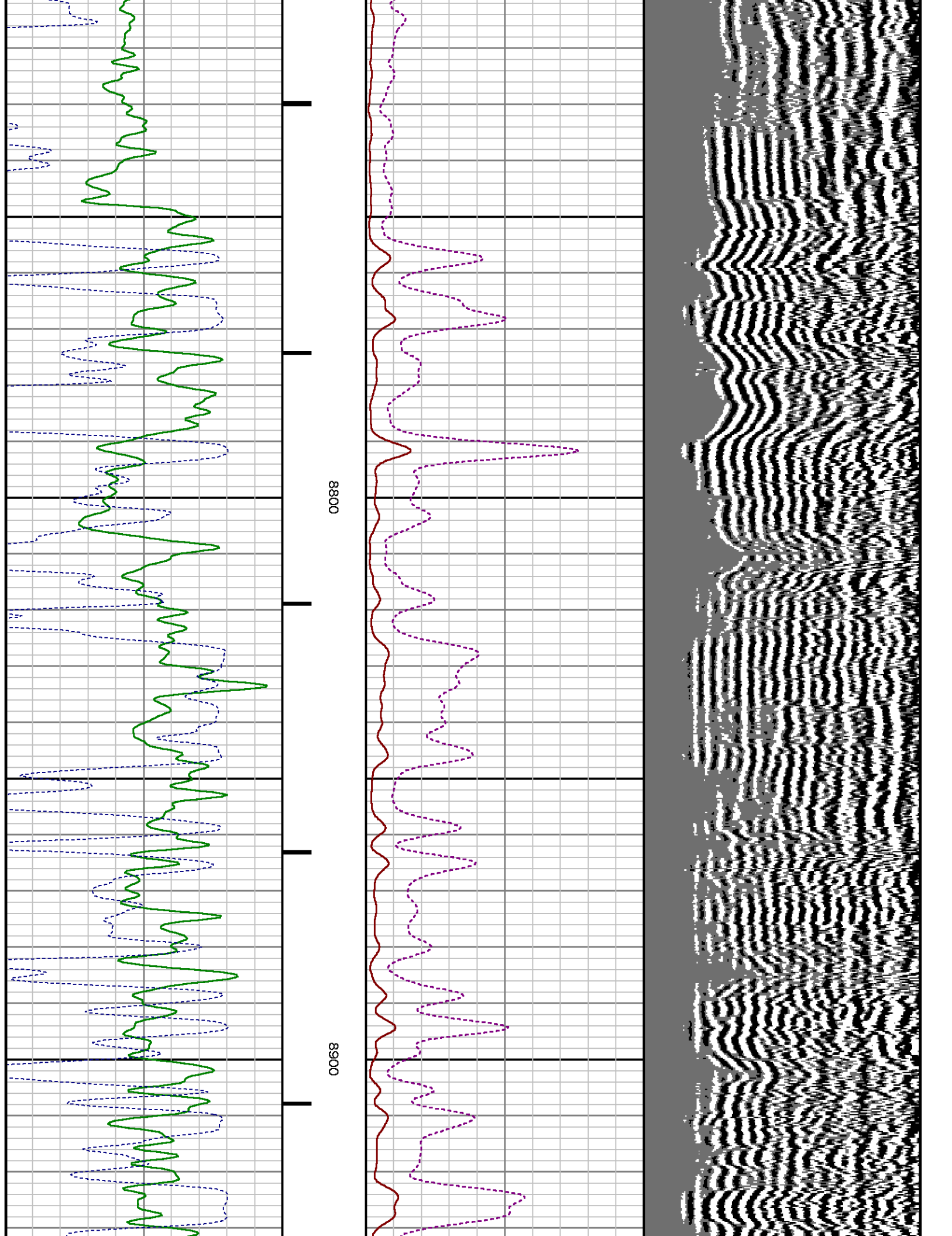


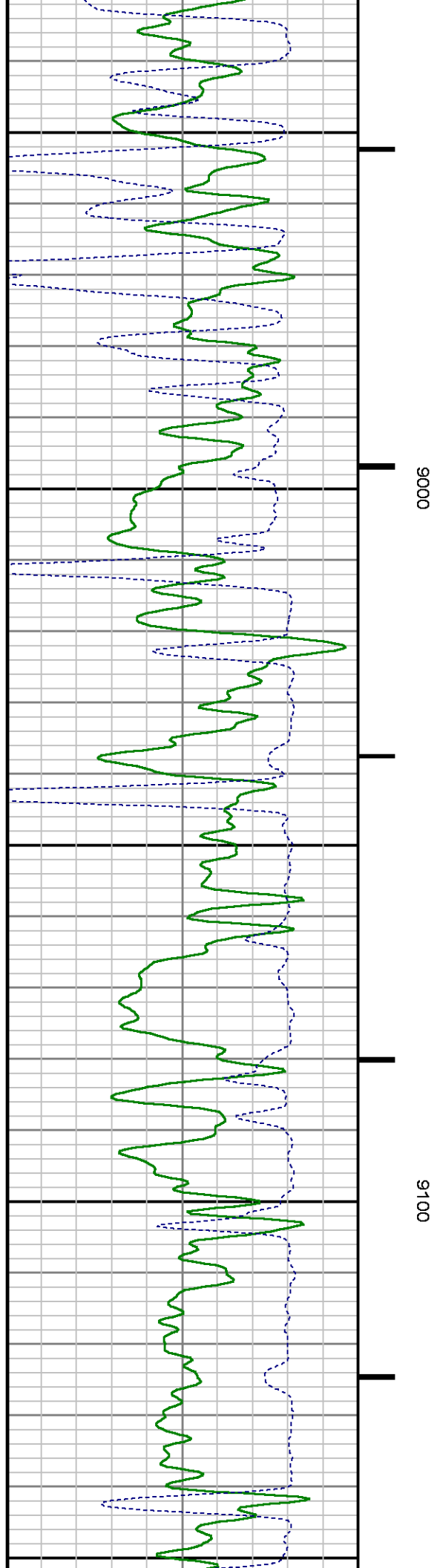
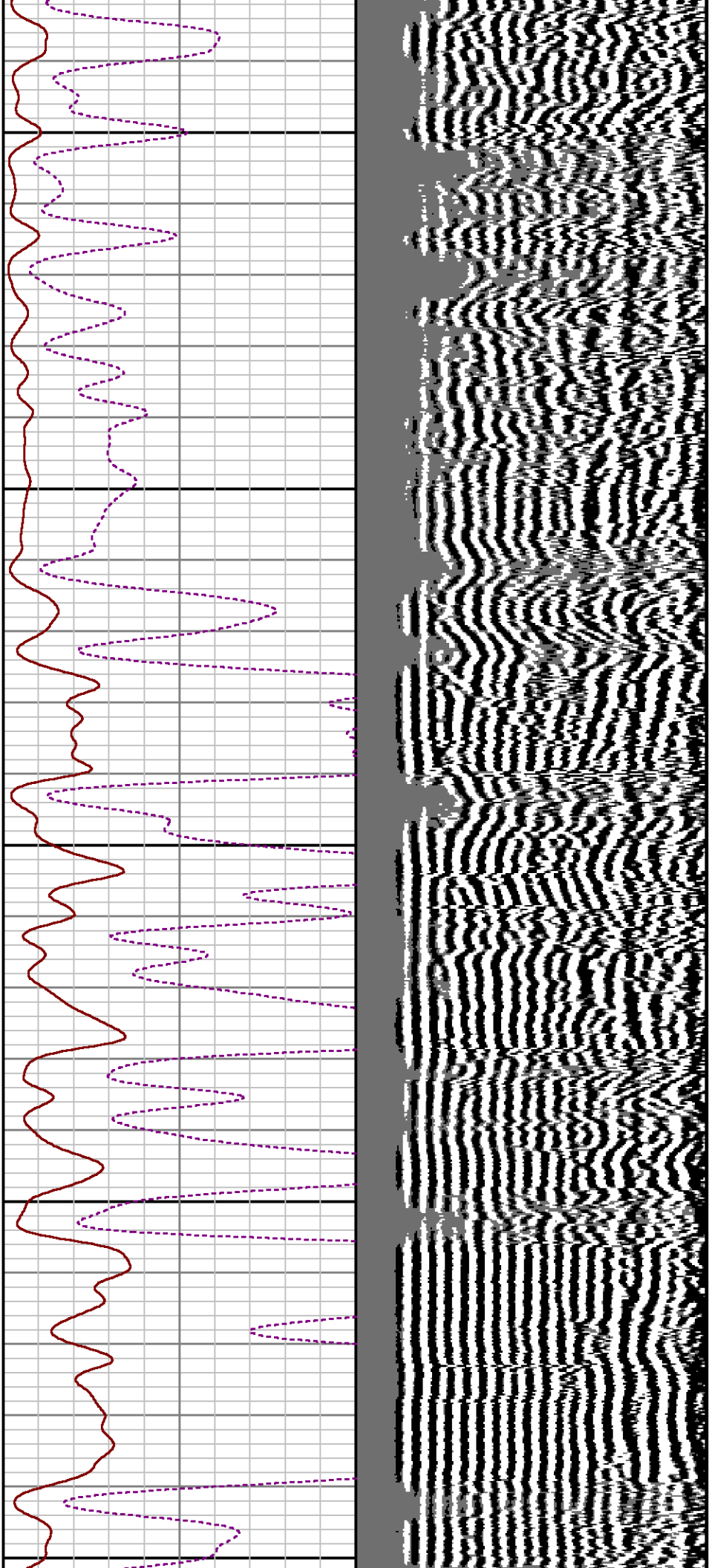


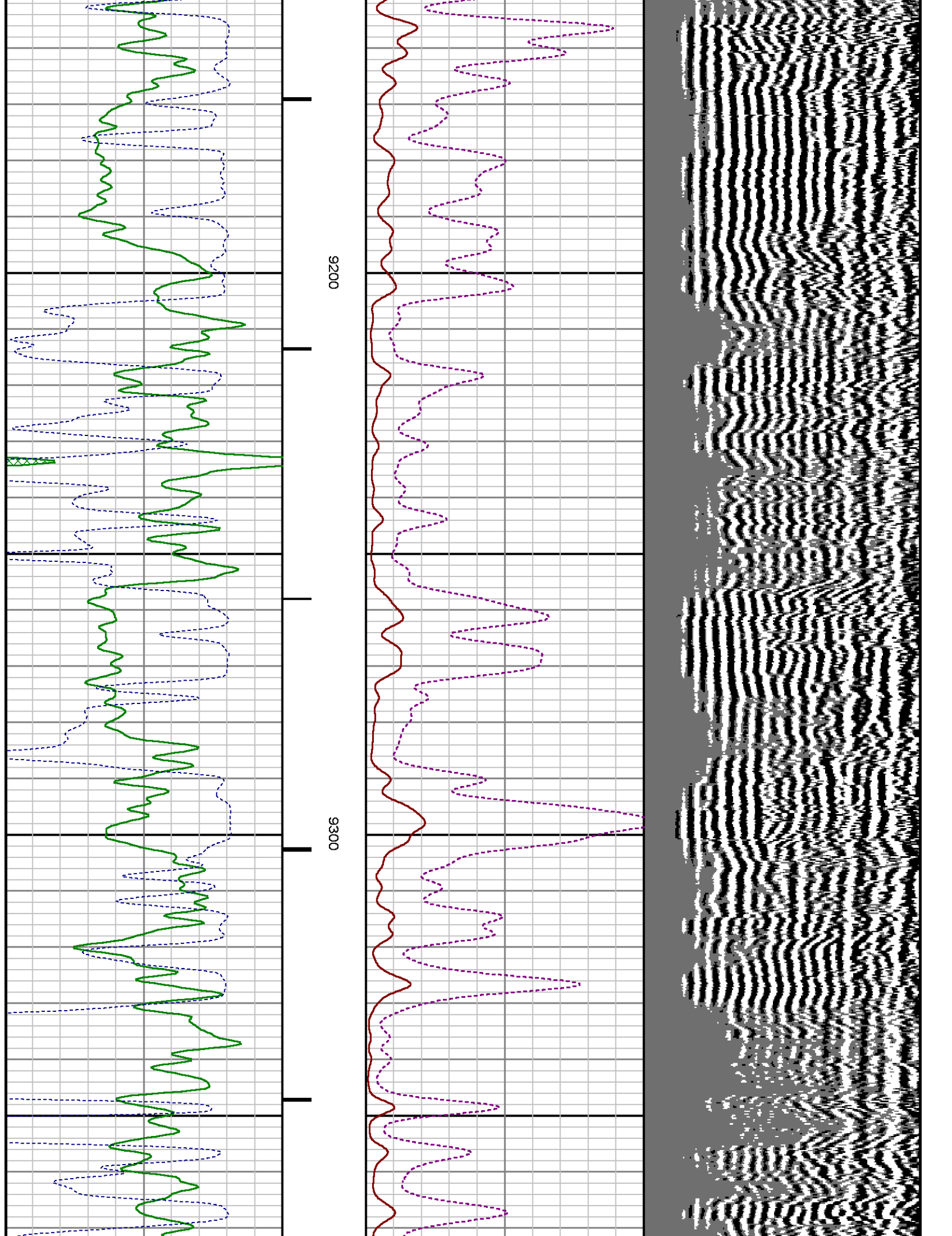


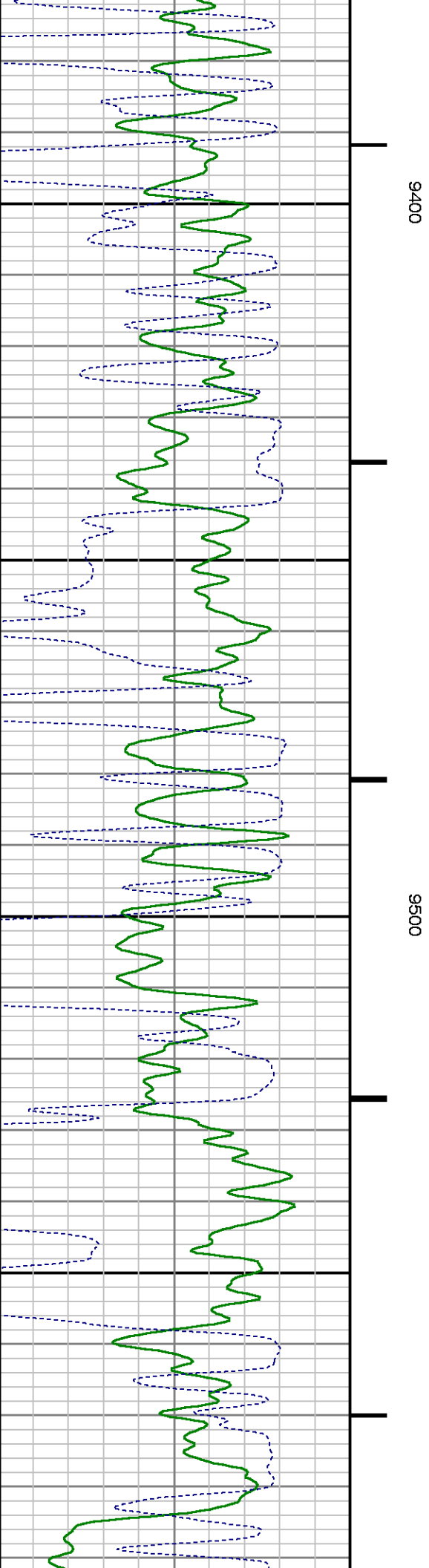
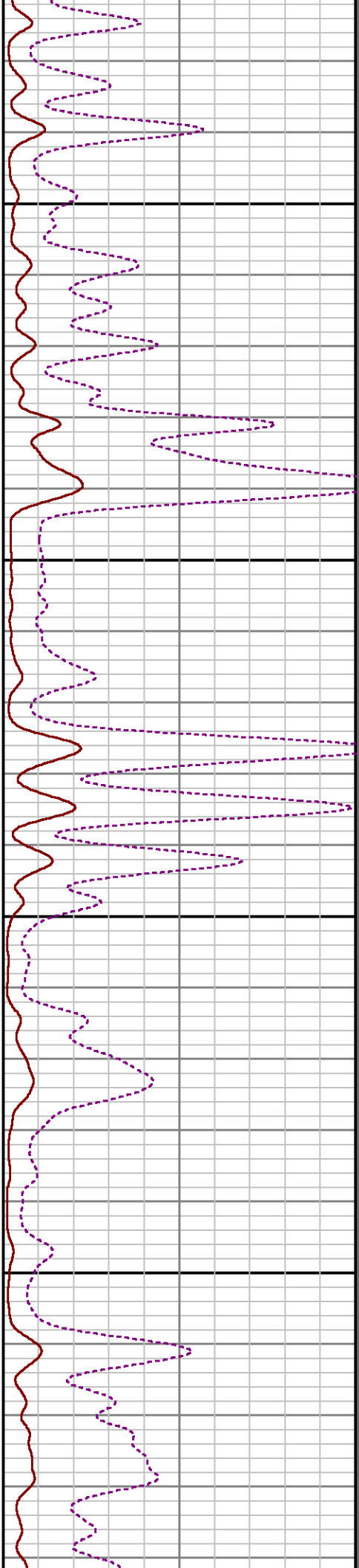
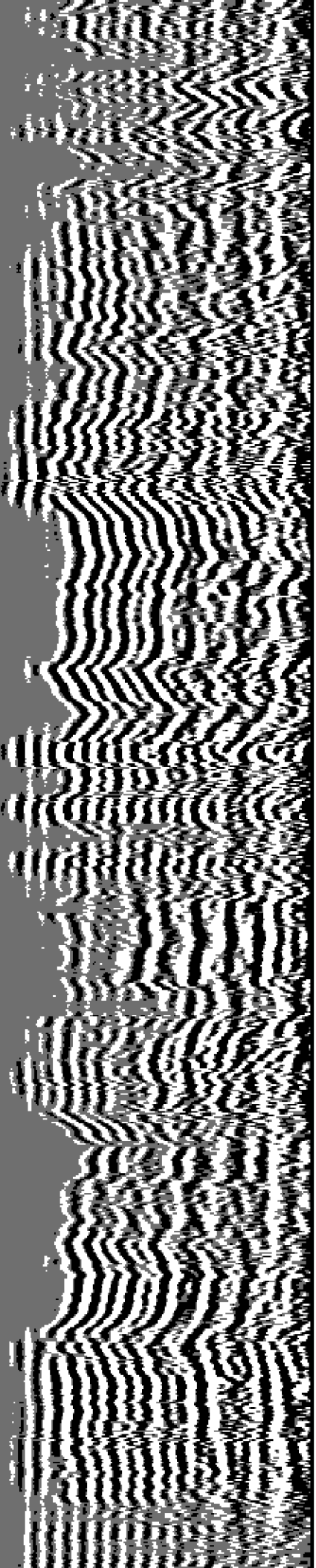


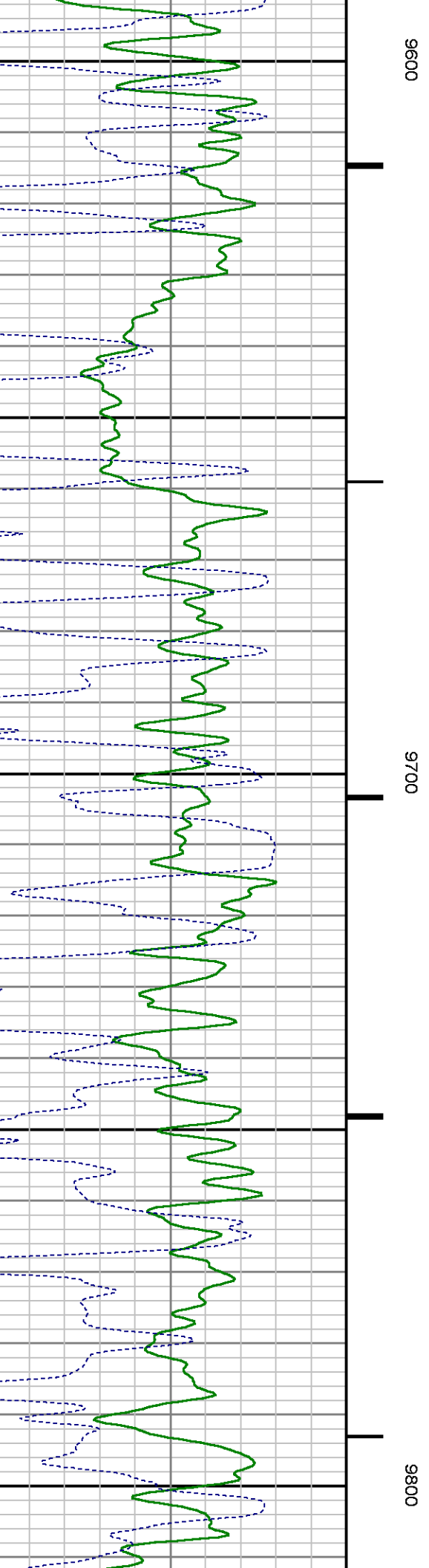
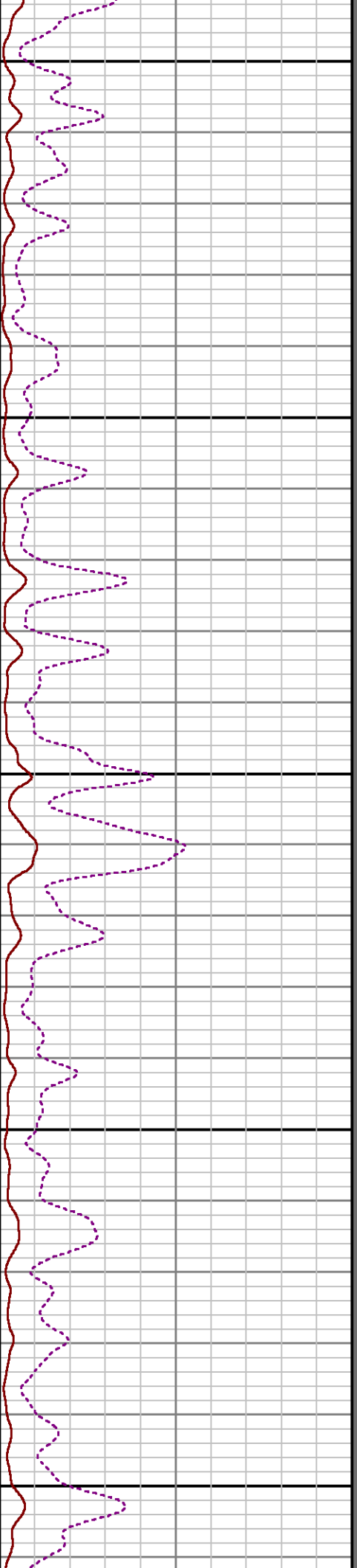
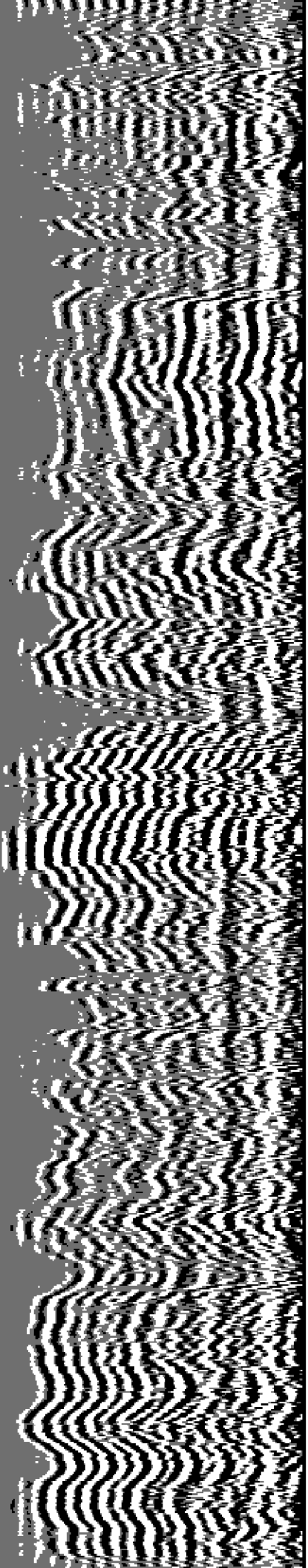


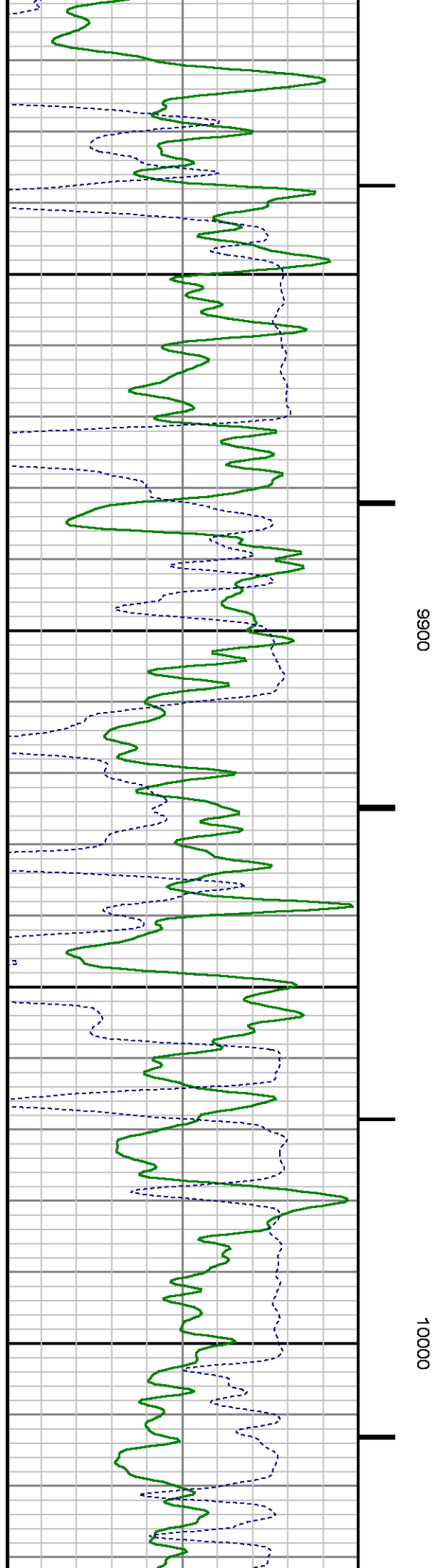
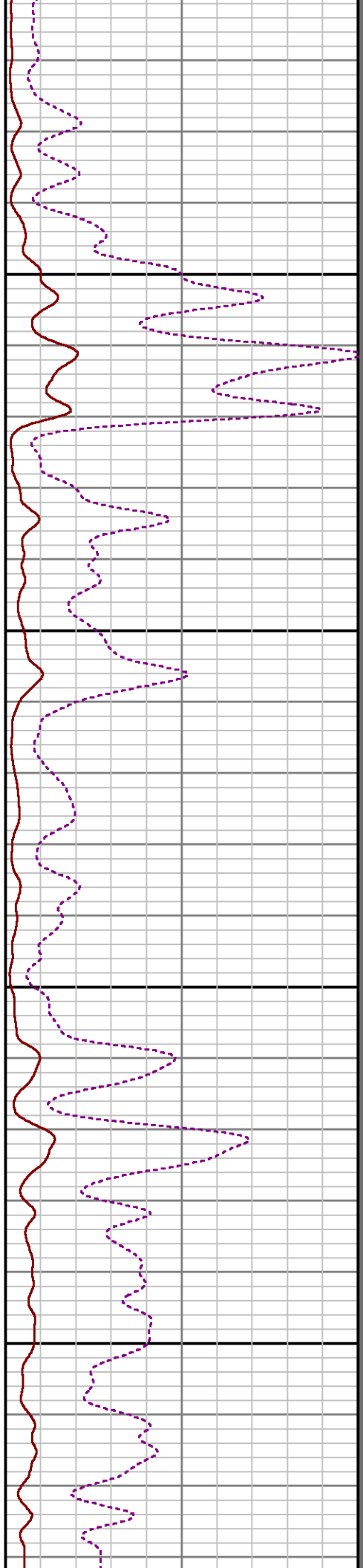
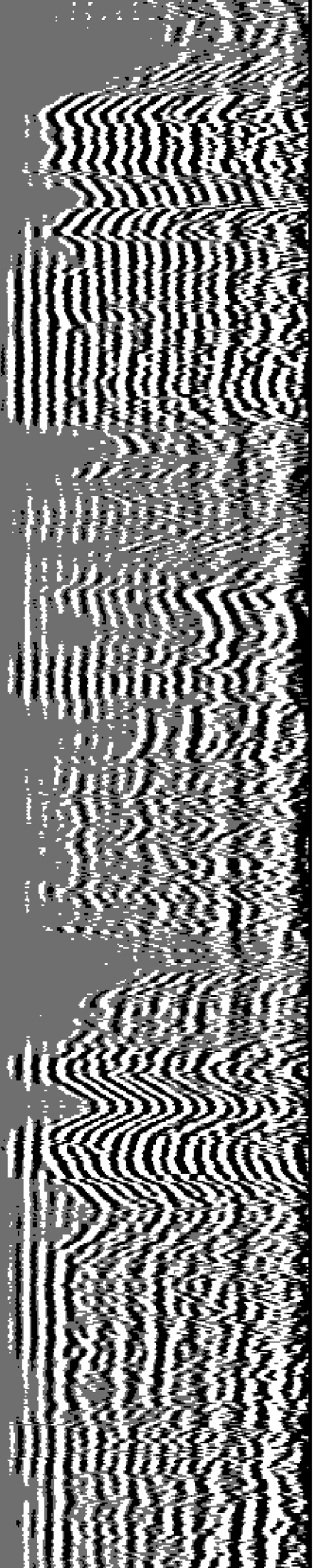


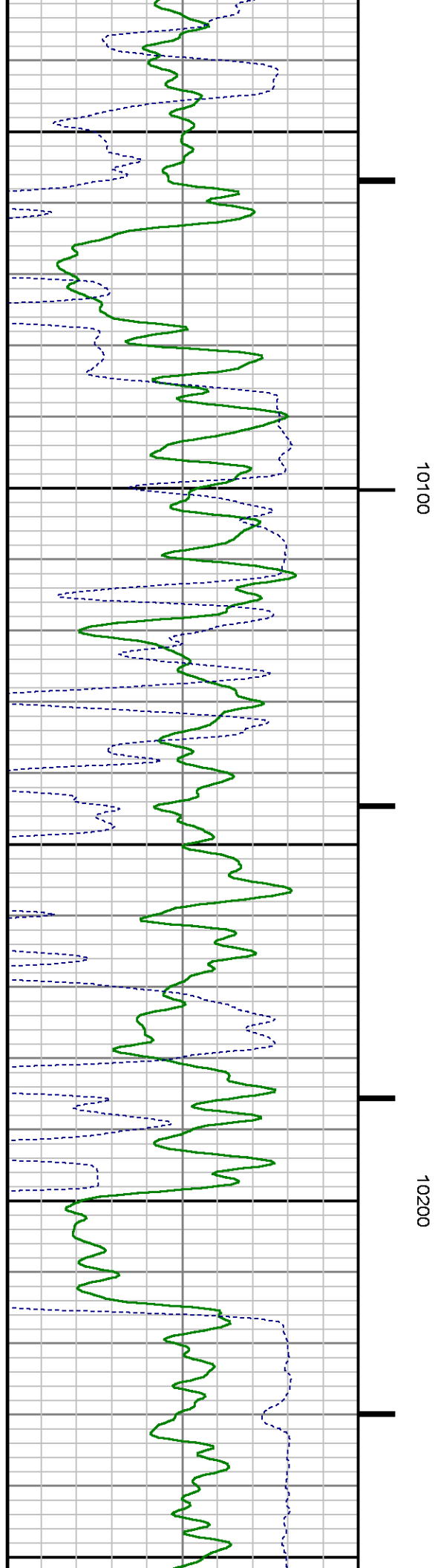
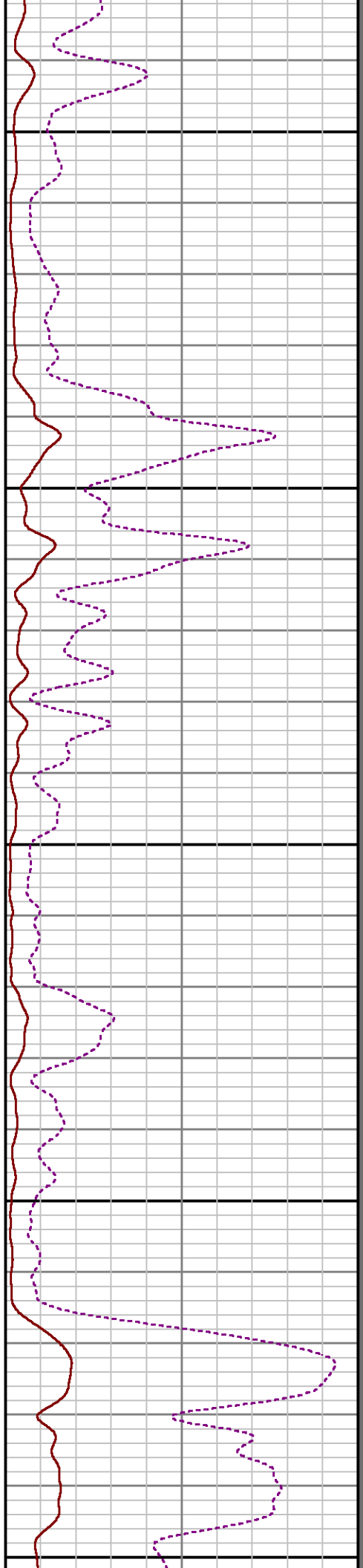
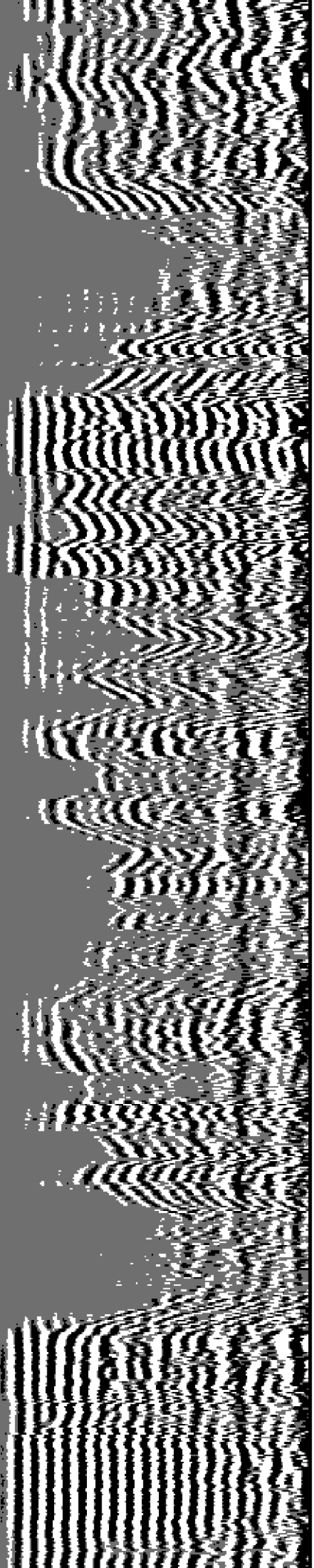


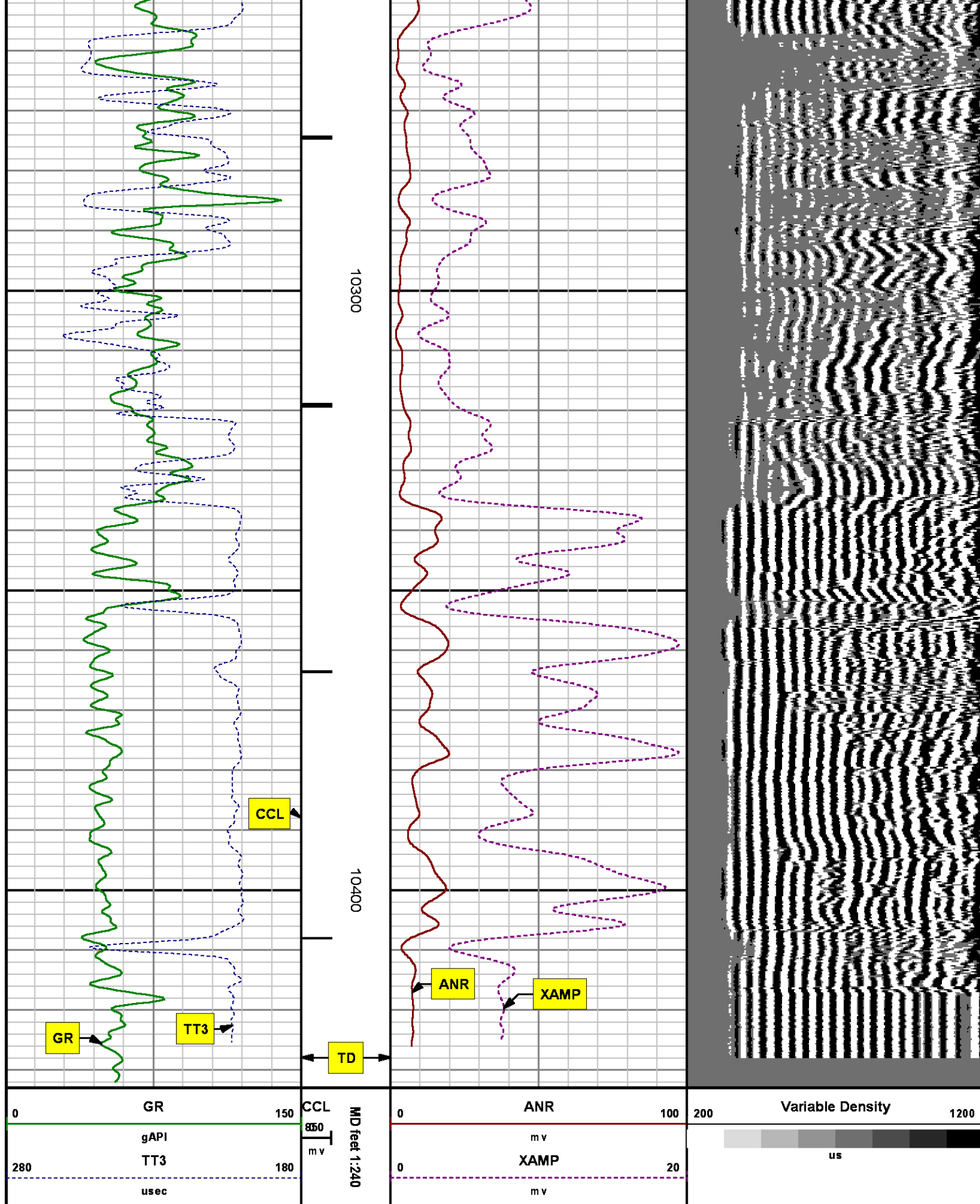












SECONDARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	28.593	10438.500
RAL	Amp Gate Start Near	195.000	usec	28.593	10438.500
RAL	Amp Gate Start Radial	195.000	usec	28.593	10438.500
RAL	Amp Gate Width Far	25.000	usec	28.593	10438.500
RAL	Amp Gate Width Near	25.000	usec	28.593	10438.500
RAL	Amp Gate Width Radial	25.000	usec	28.593	10438.500
RAL	casing od	4.500	inches	28.593	10438.500
RAL	casing wt	11.600	lbm/ft	28.593	10438.500
RAL	FB Start Far	291.900	usec	28.593	10438.500
RAL	FB Start Near	175.391	usec	28.593	10438.500
RAL	FB Start Radial	175.391	usec	28.593	10438.500
RAL	FB Thresh Far	10.000	mv	28.593	10438.500
RAL	FB Thresh Near	4.000	mv	28.593	10438.500
RAL	FB Thresh Radial	4.000	mv	28.593	10438.500
RAL	Fluid Travel Time	200.000	usec/ft	28.593	10439.030

DEPTH OFFSETS

(for Acquired Curves)

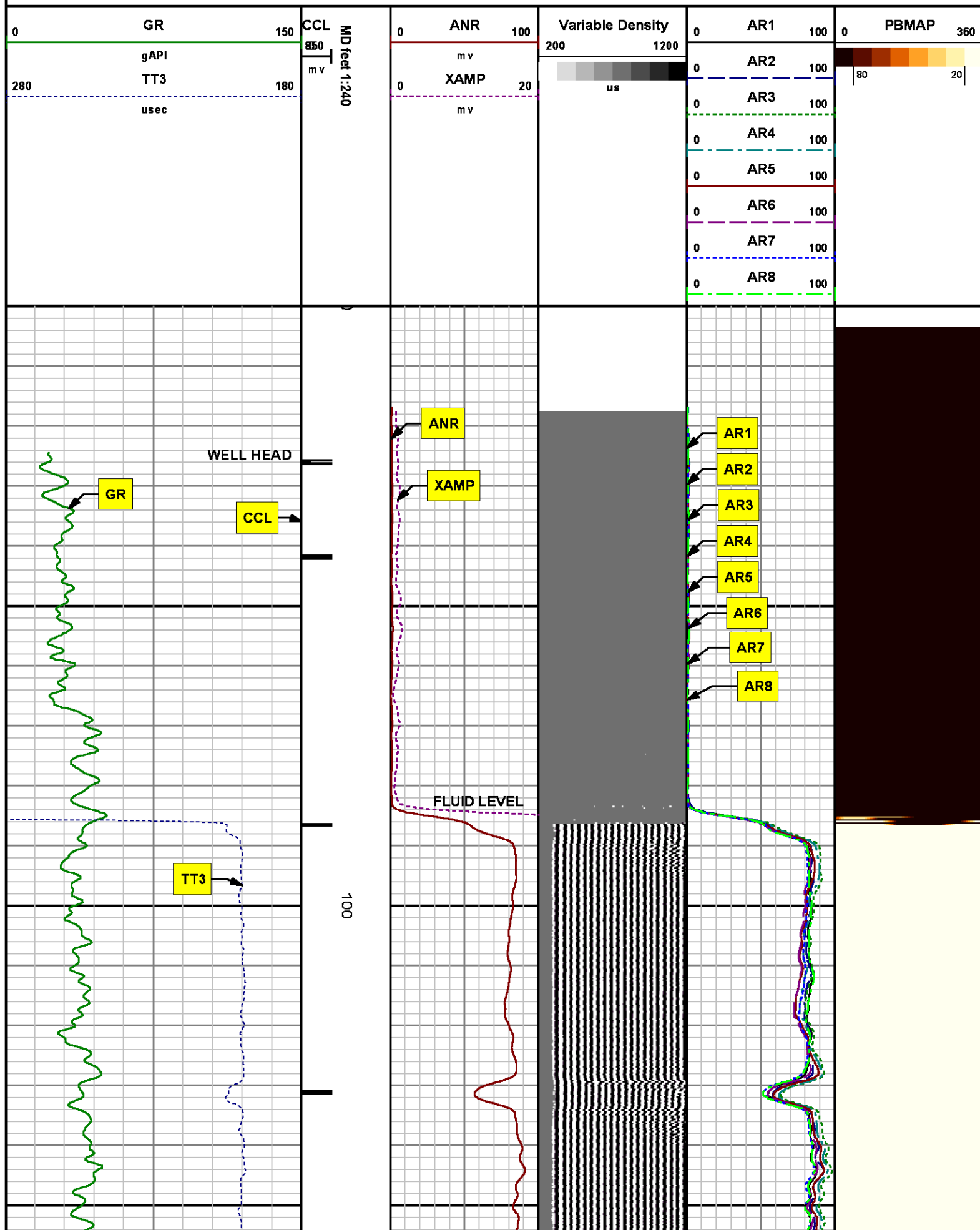
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

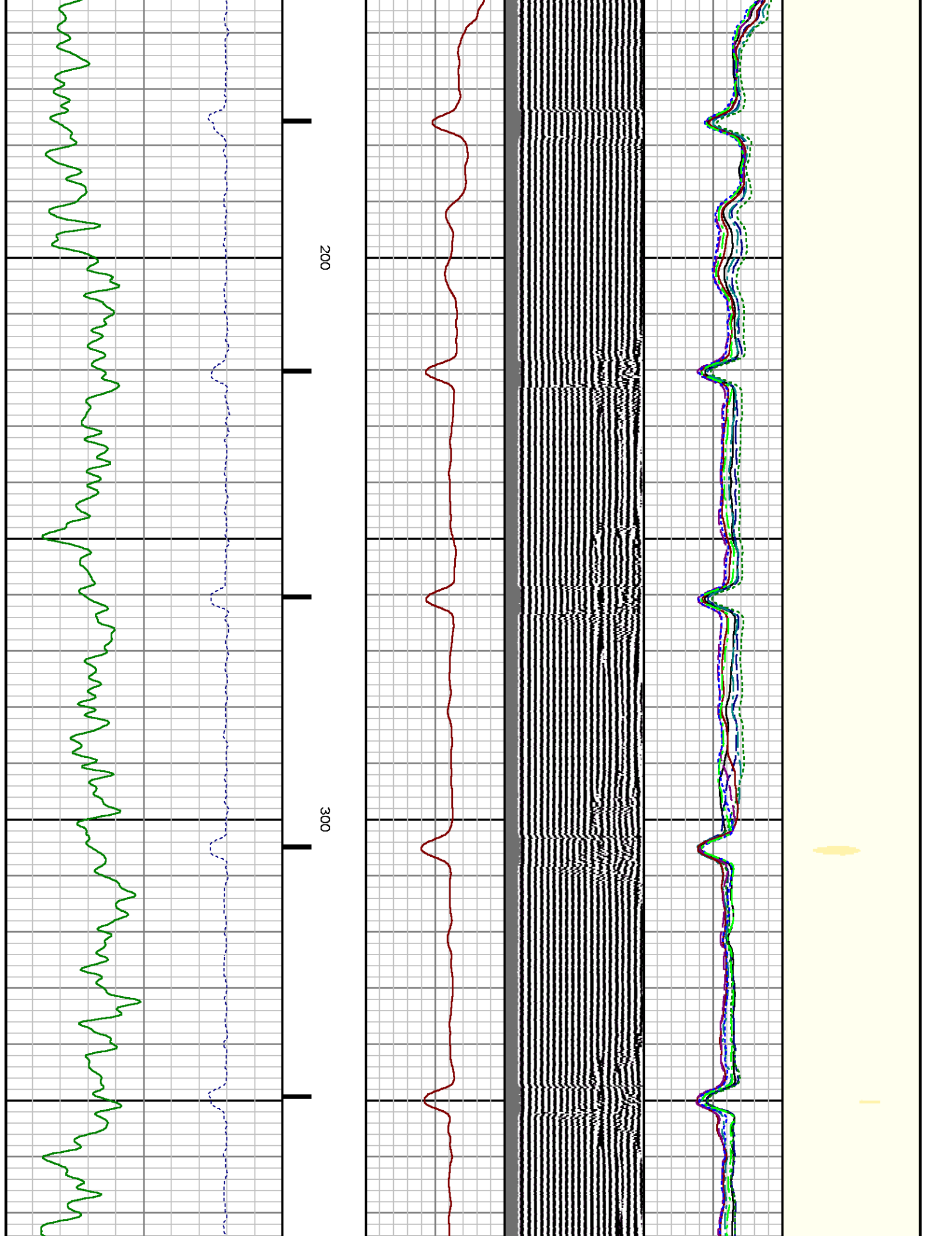
Created by : RAL, v4.8.008

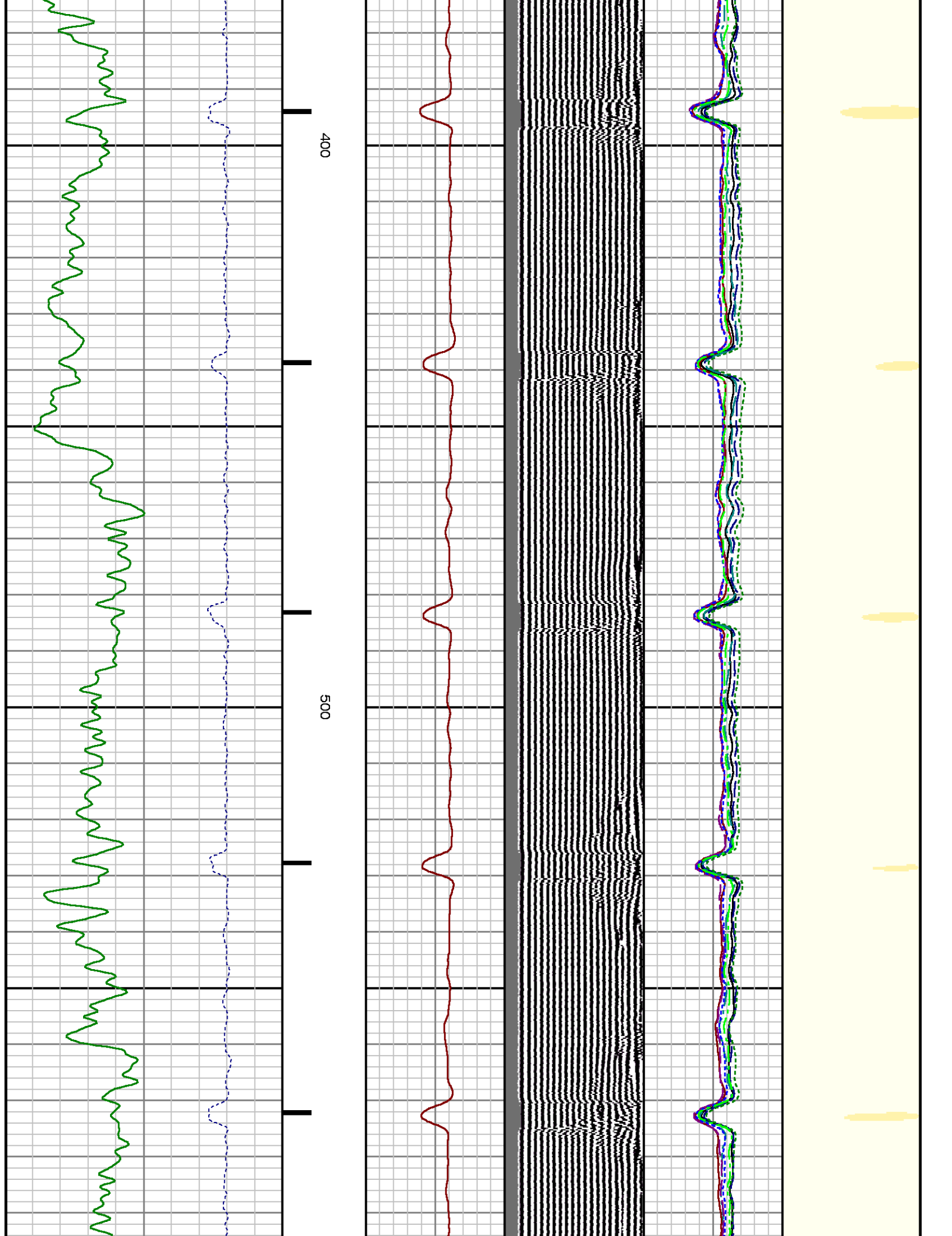
Plotted by : PlotMgr, v5.4.504

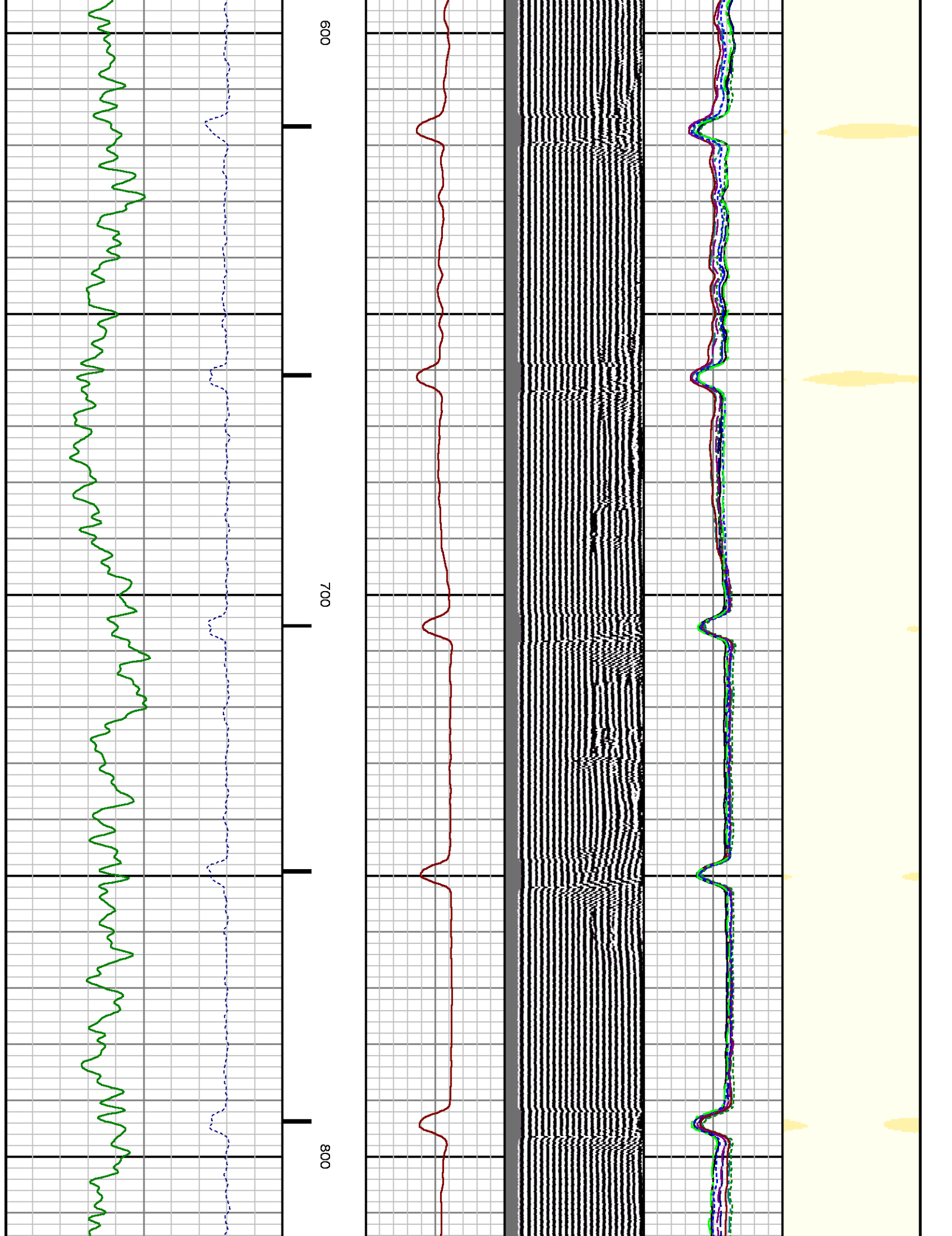
Company : WPX ENERGY

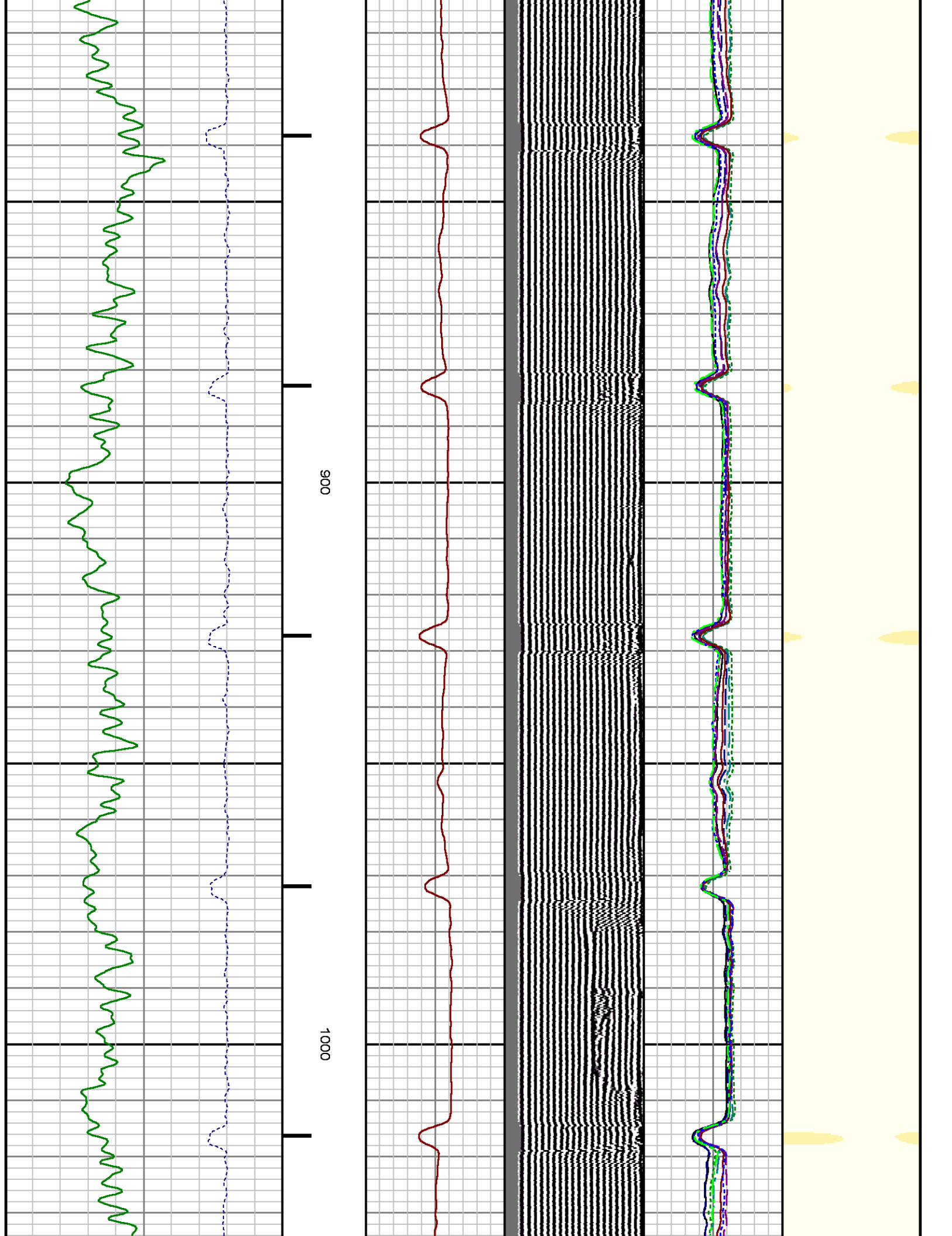
Well : FEDERAL NER 513-32

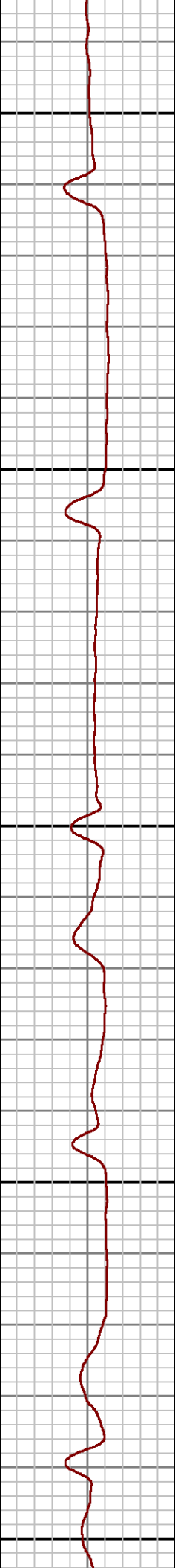
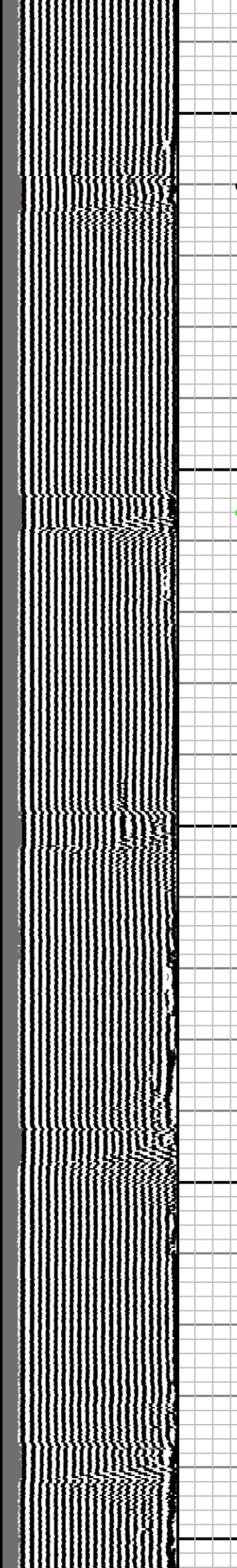
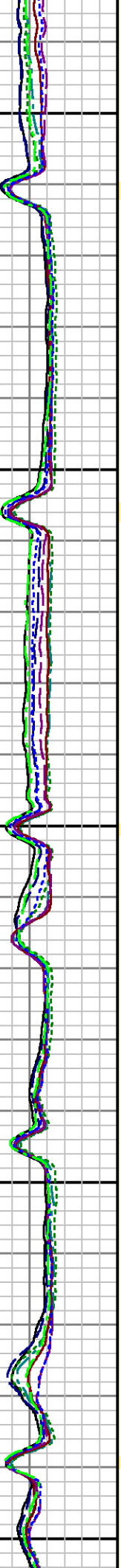
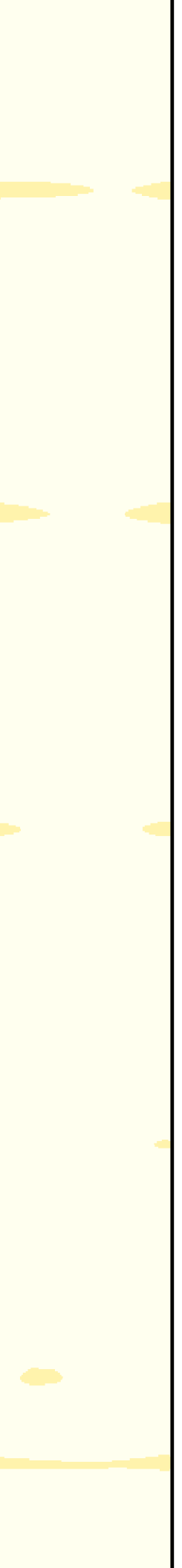






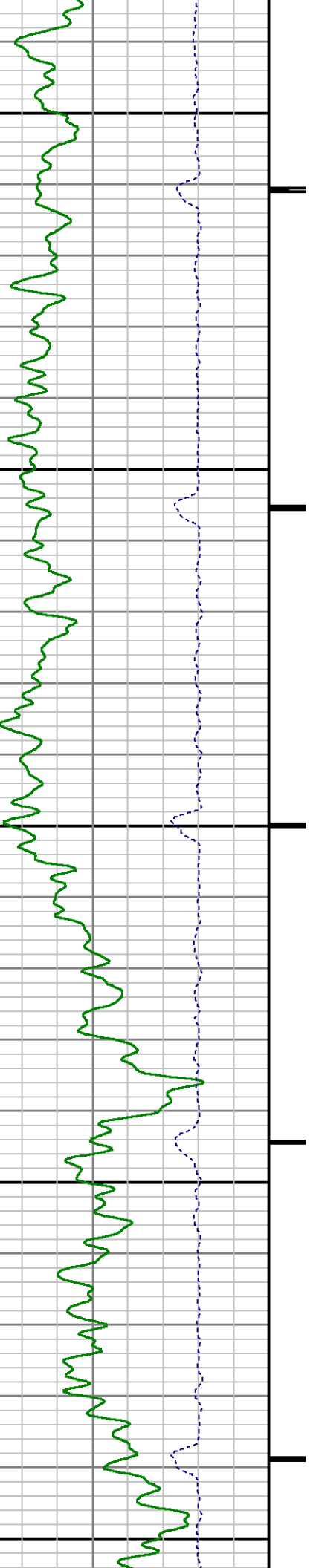


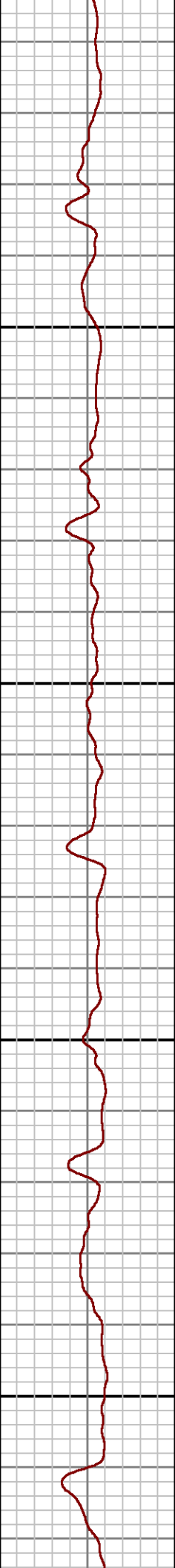
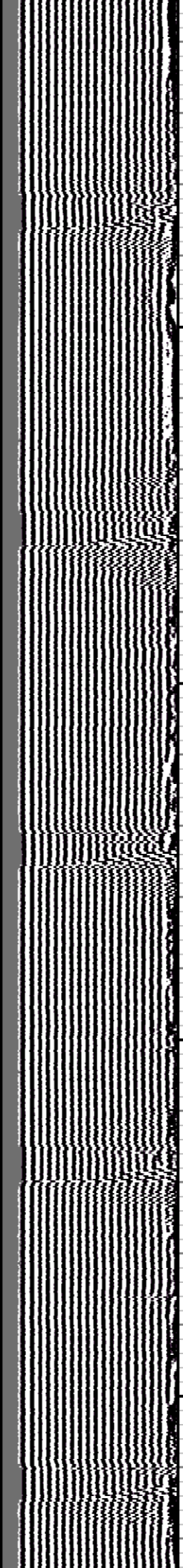
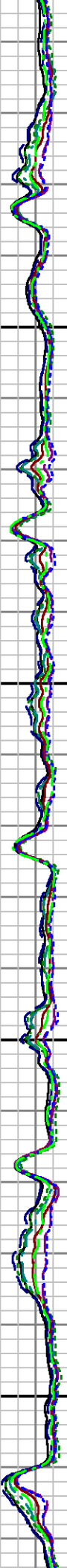




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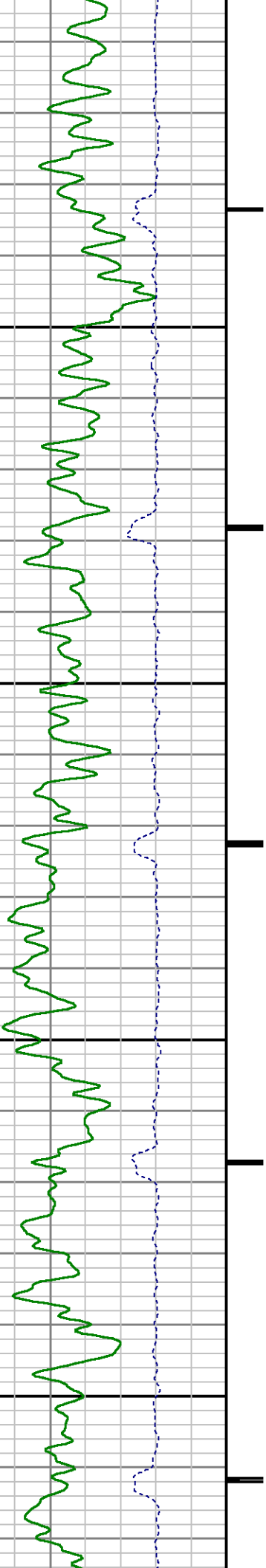
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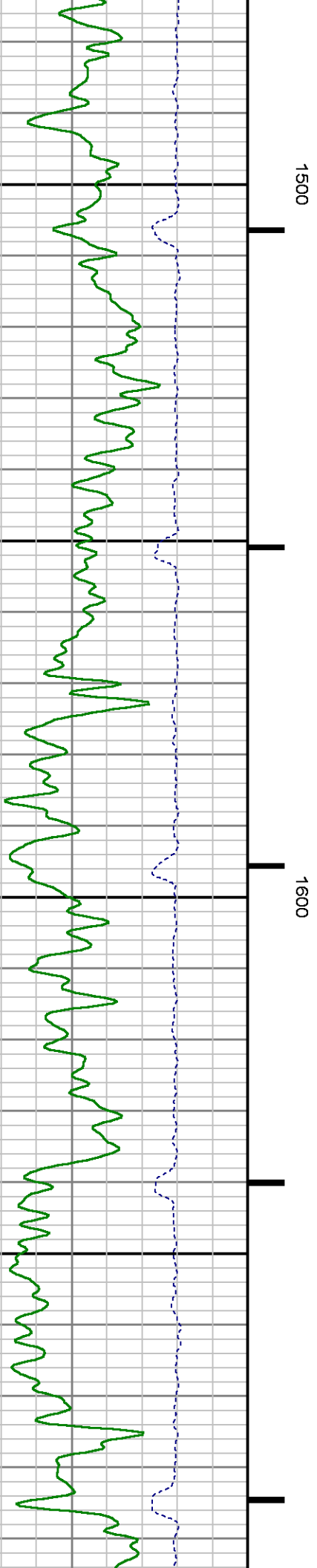
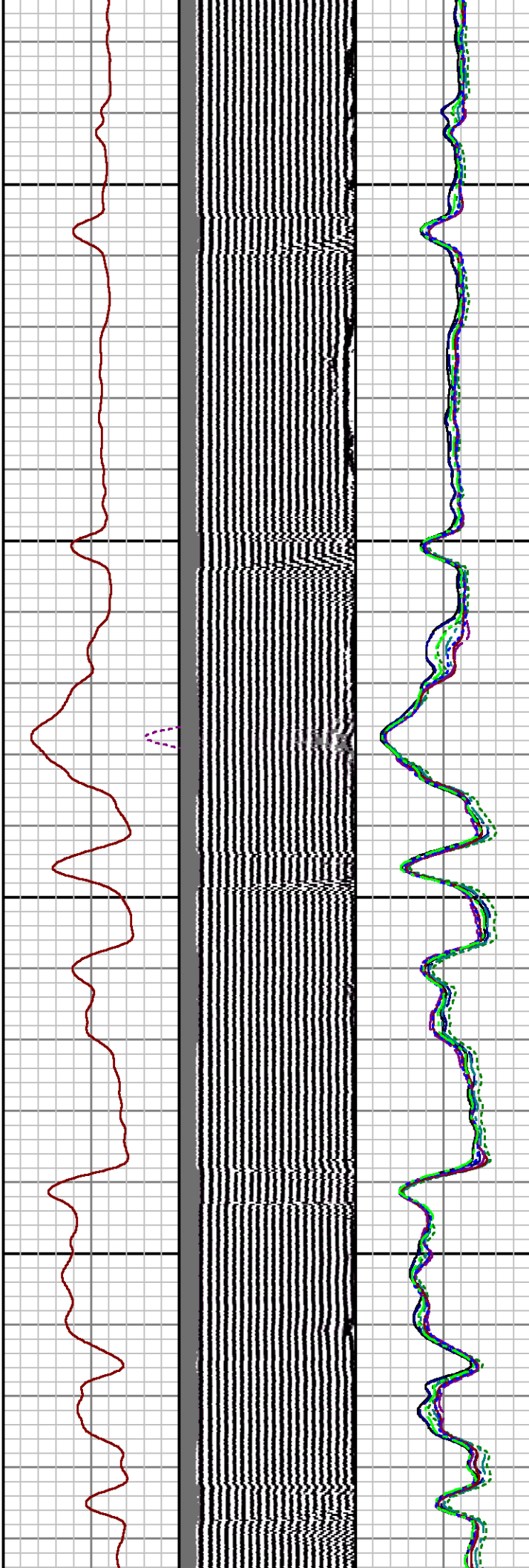
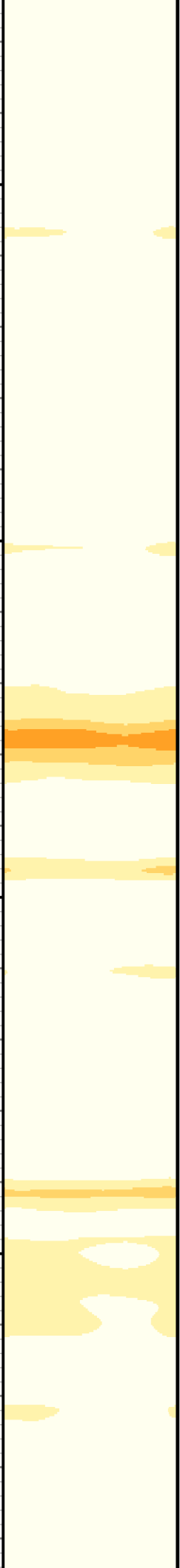


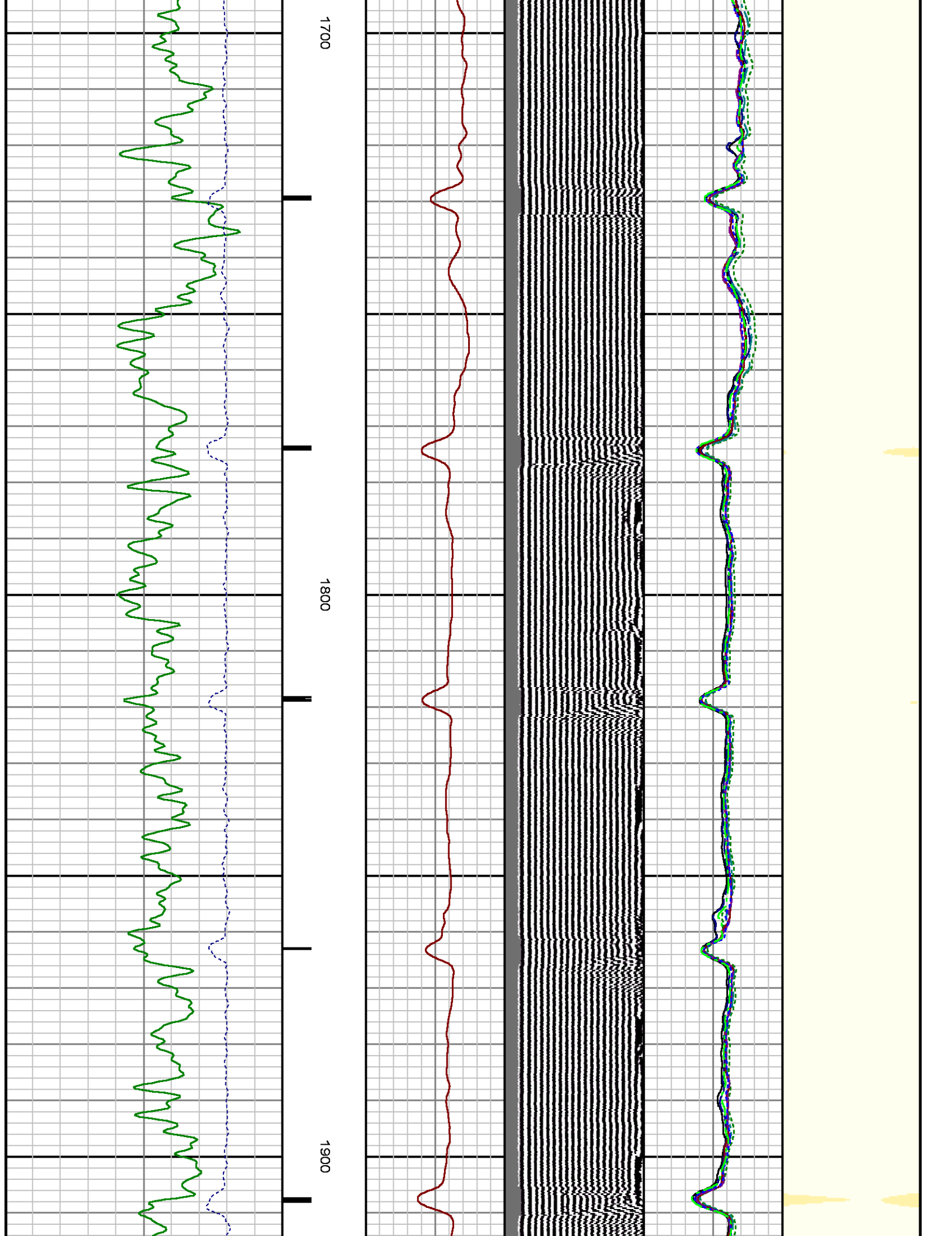


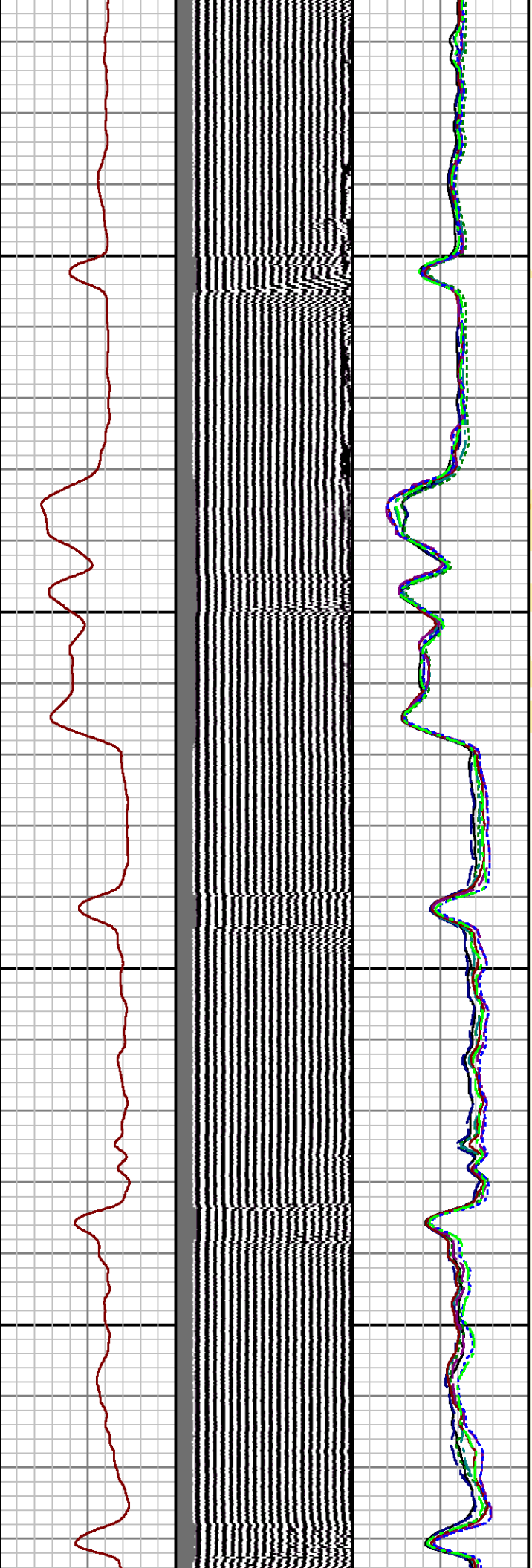
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1400



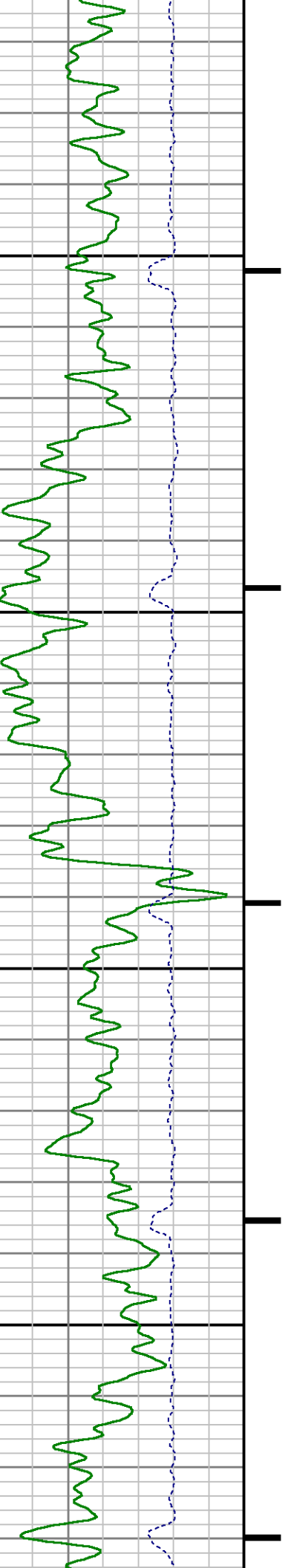


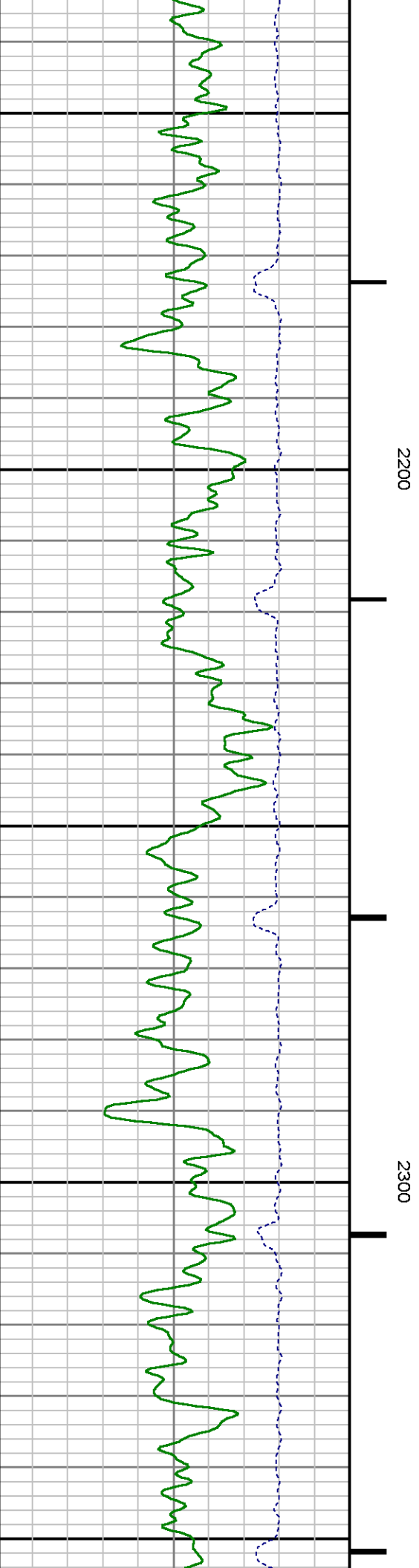
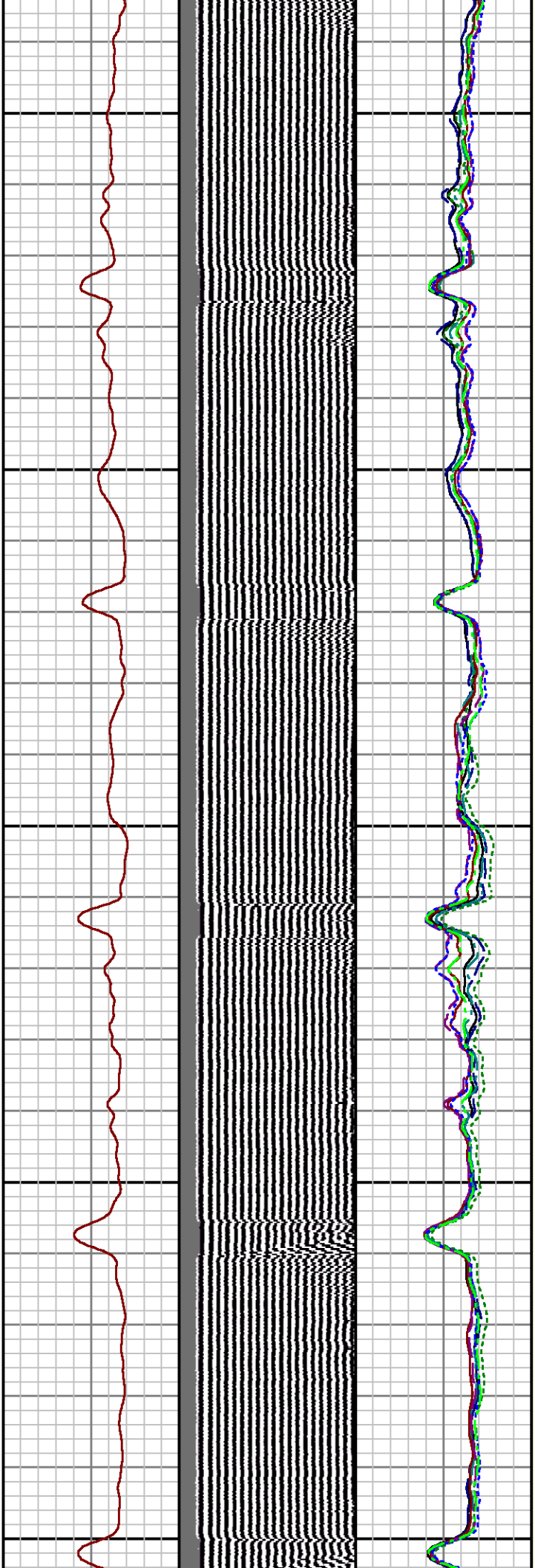


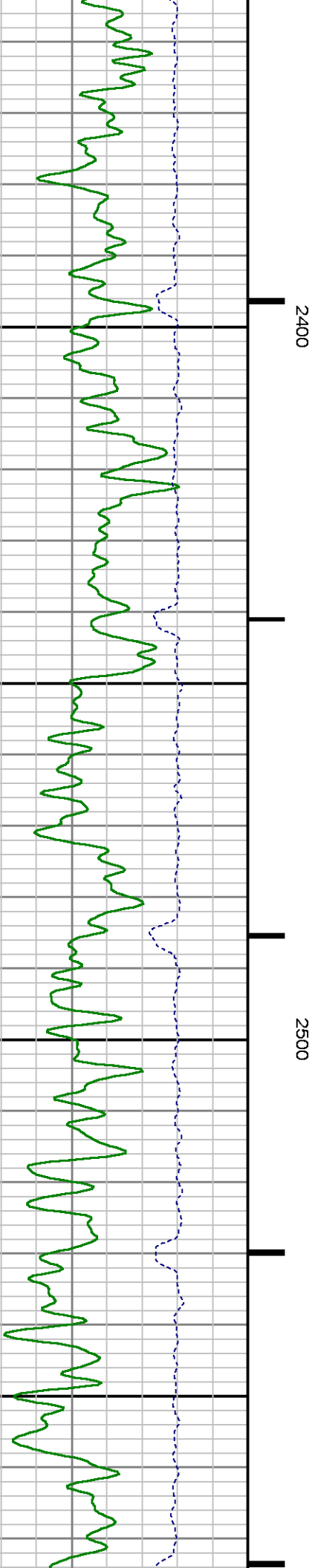
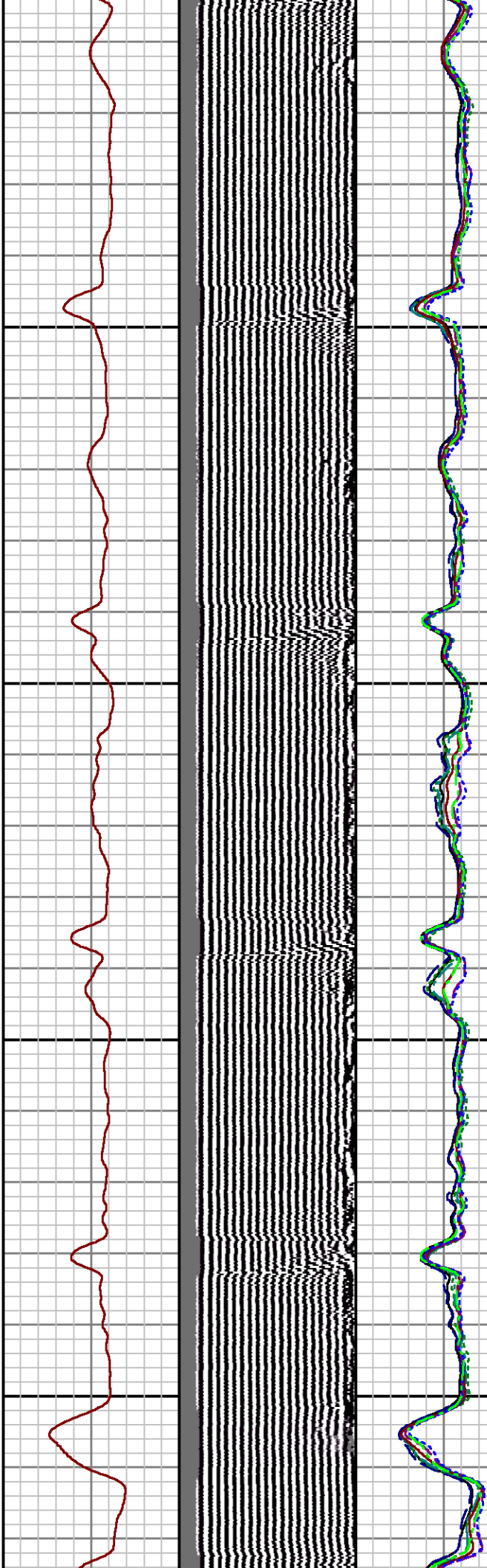
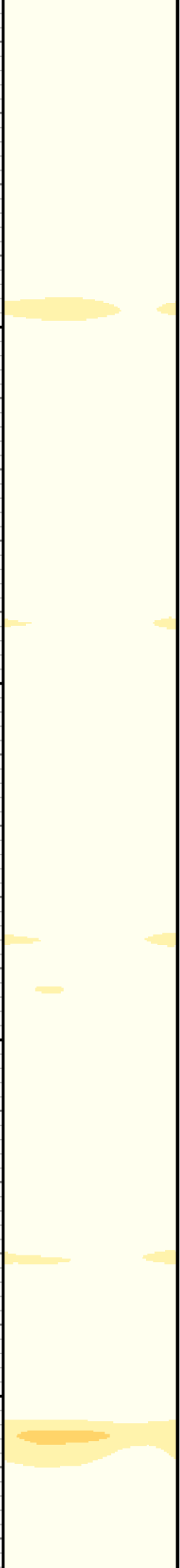


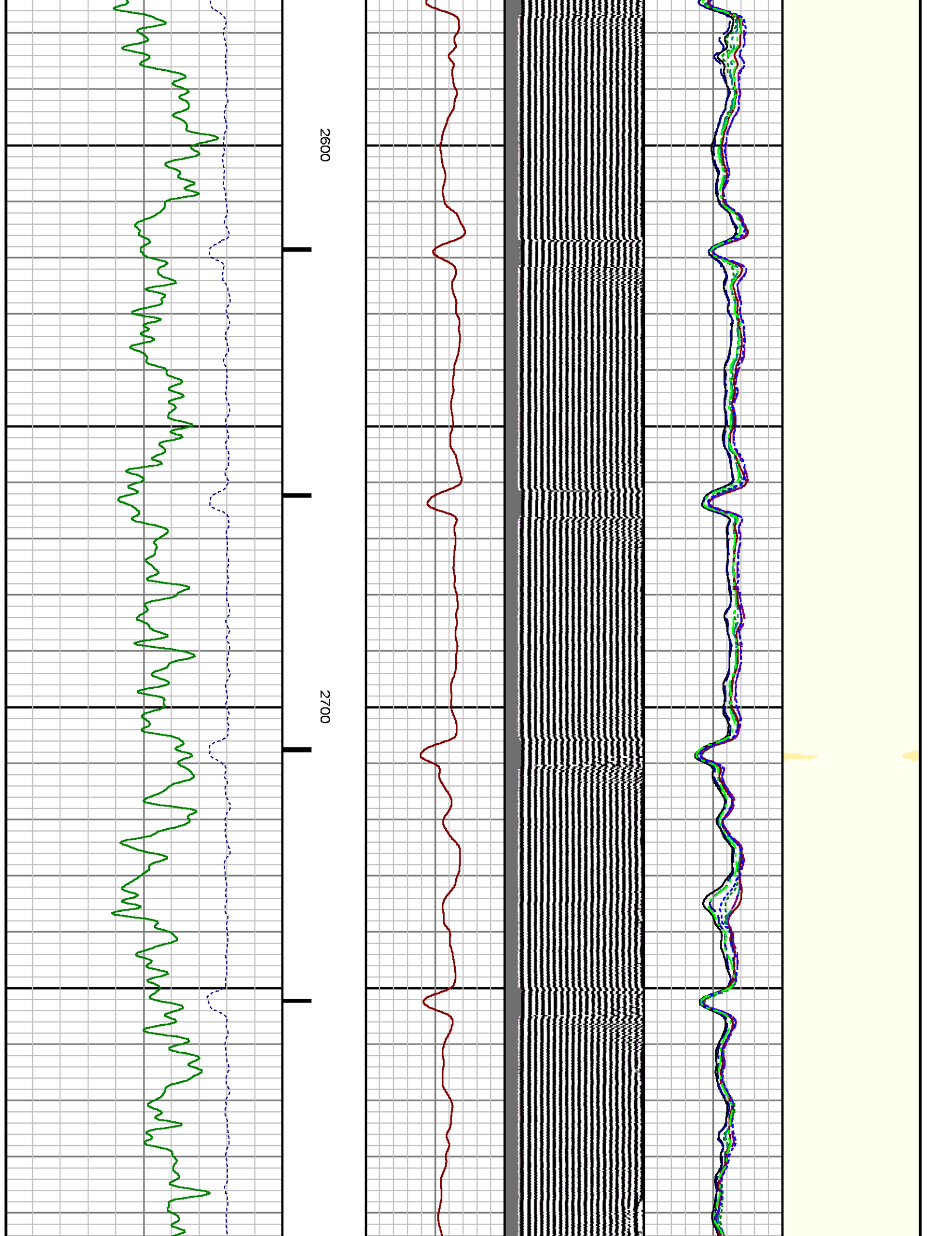
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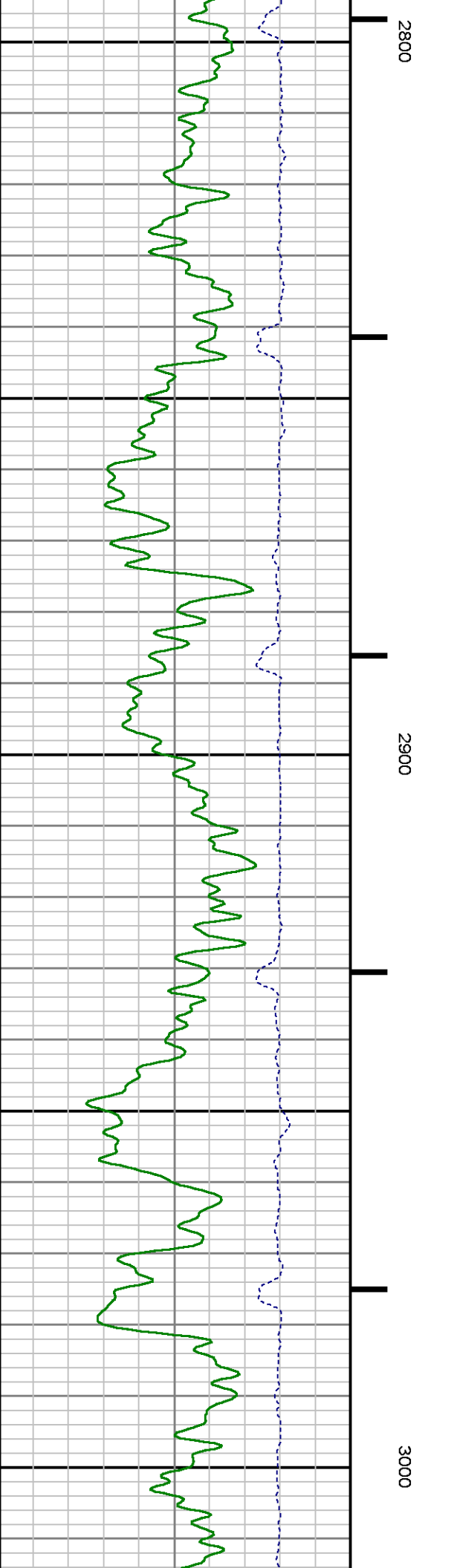
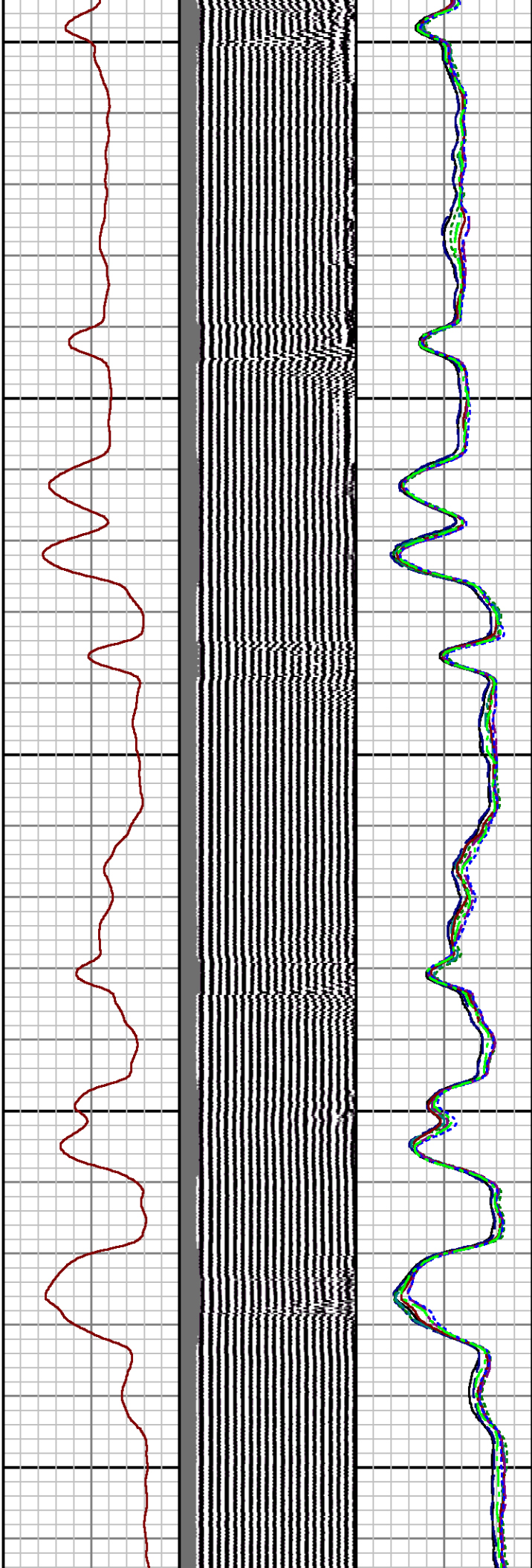
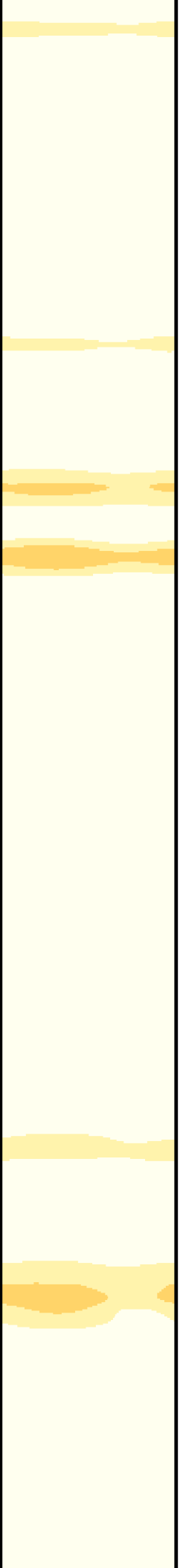
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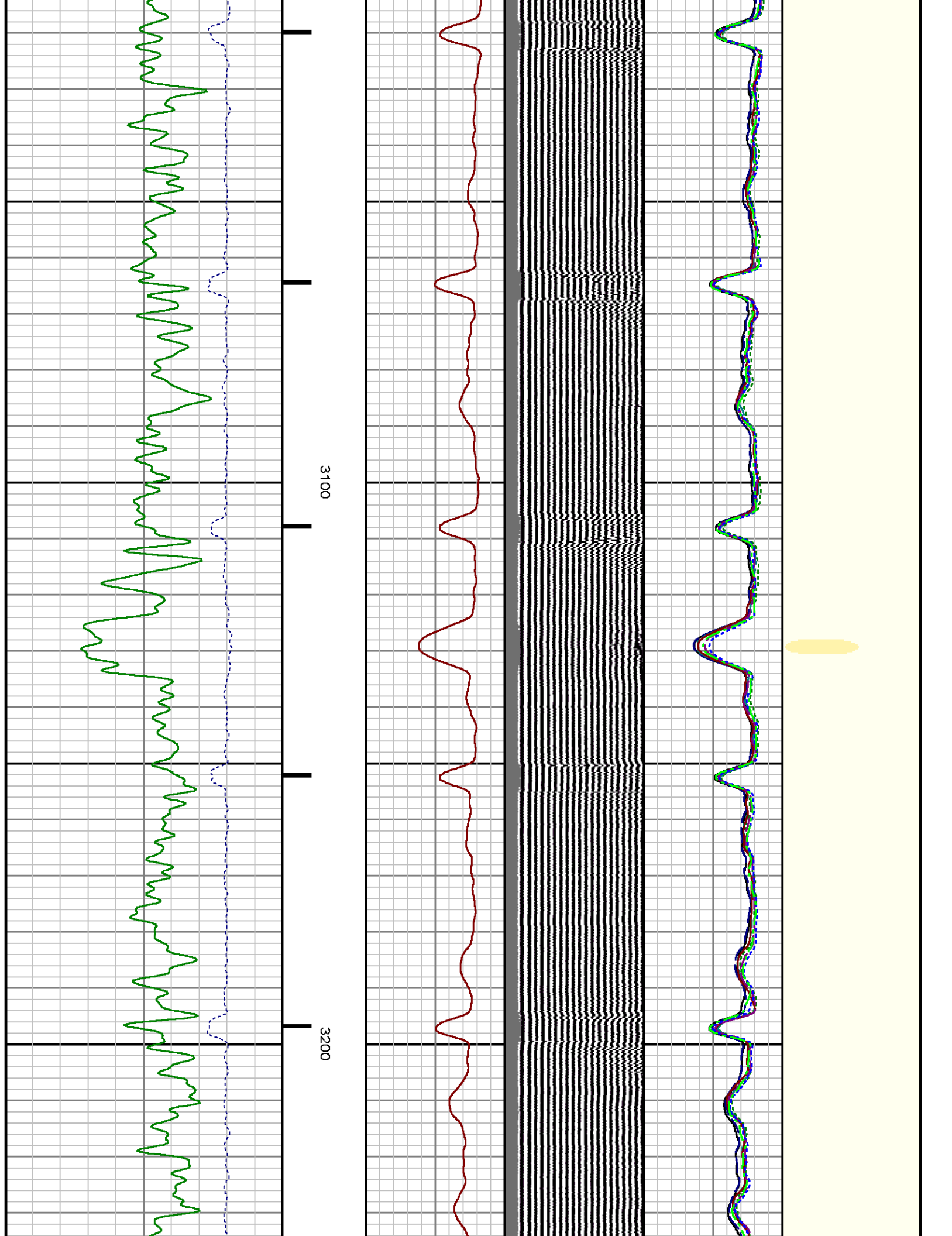


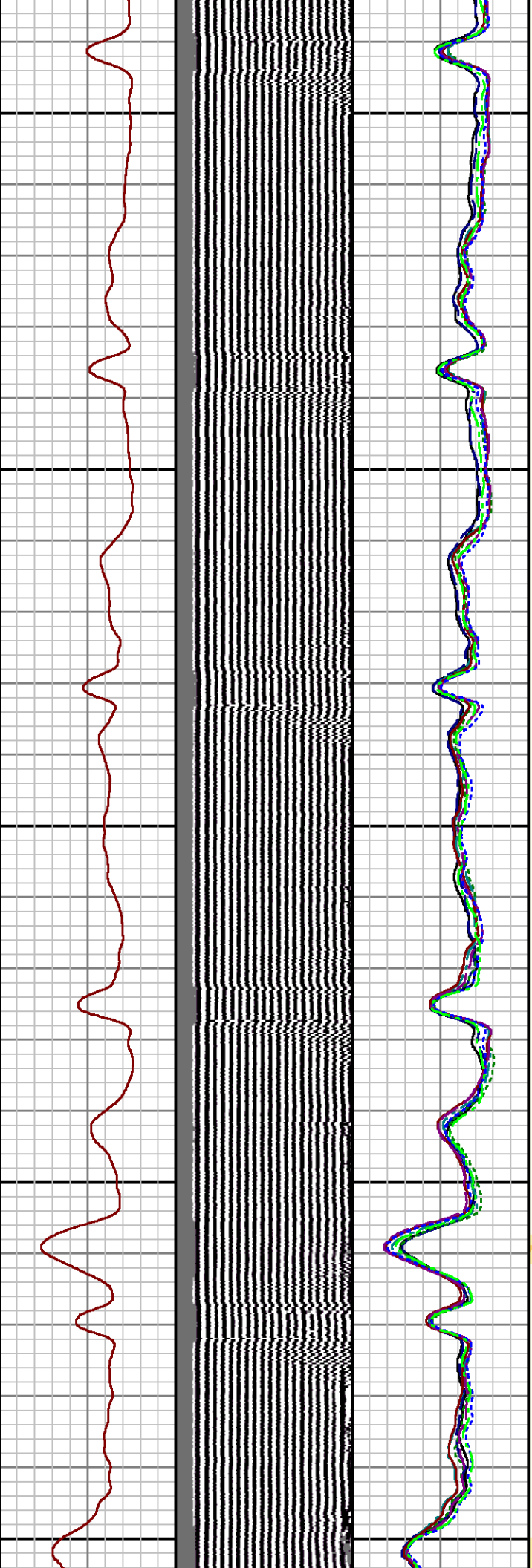
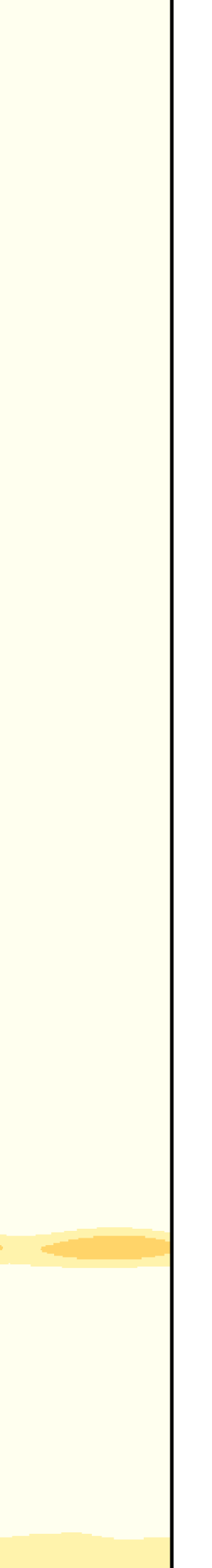






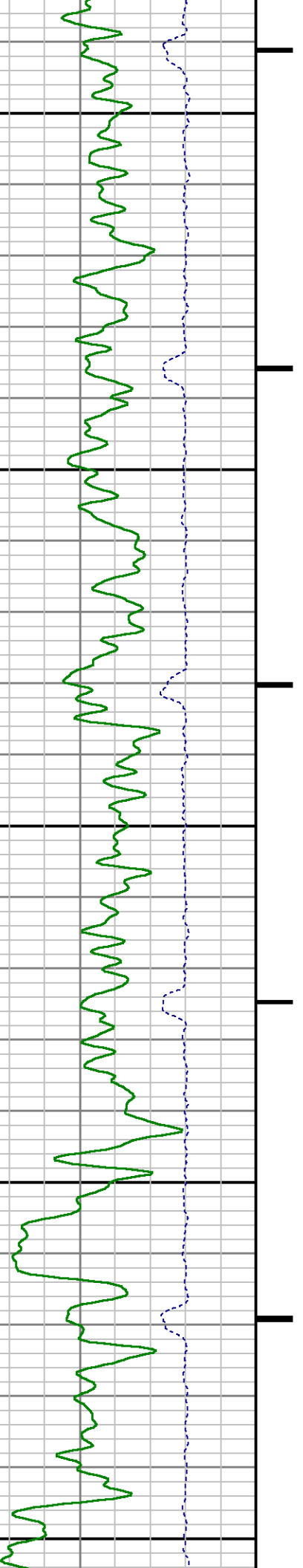


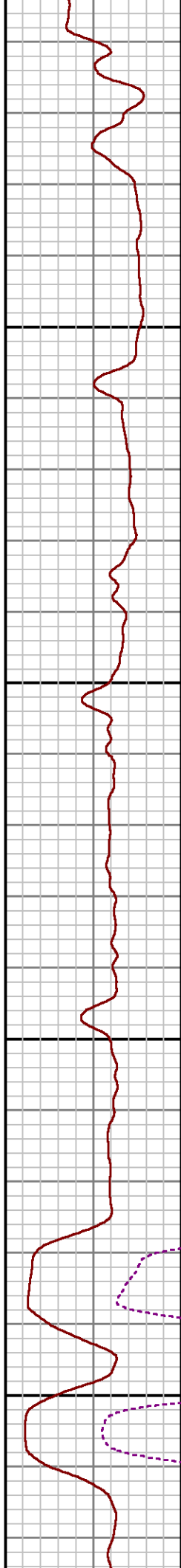
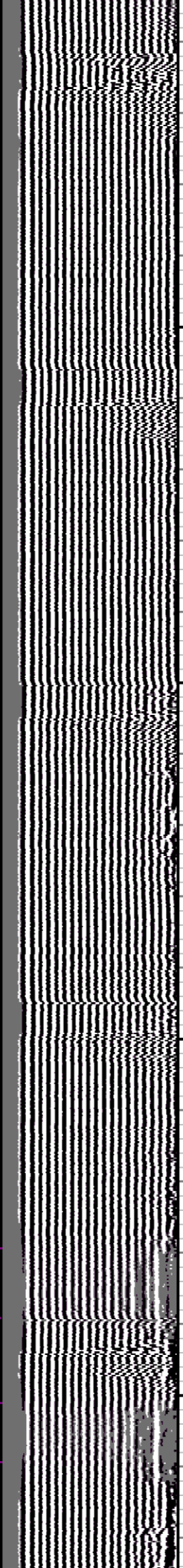
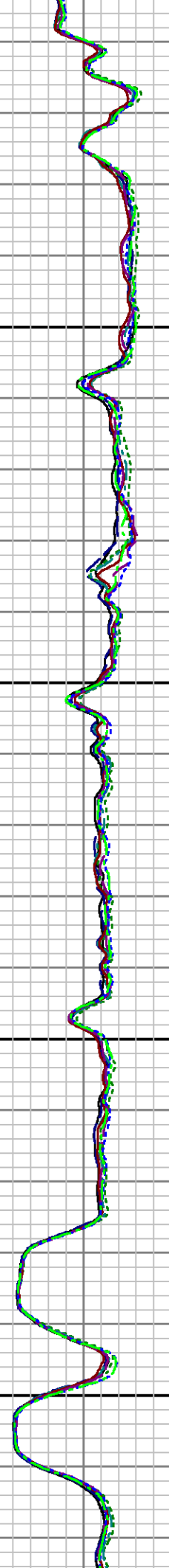
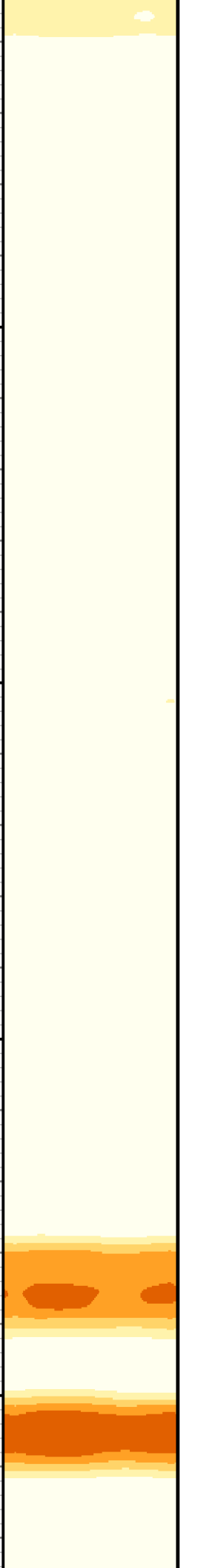


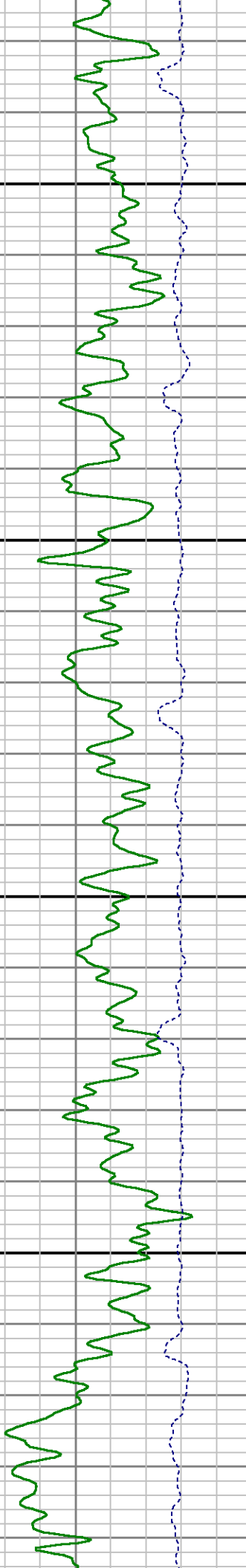
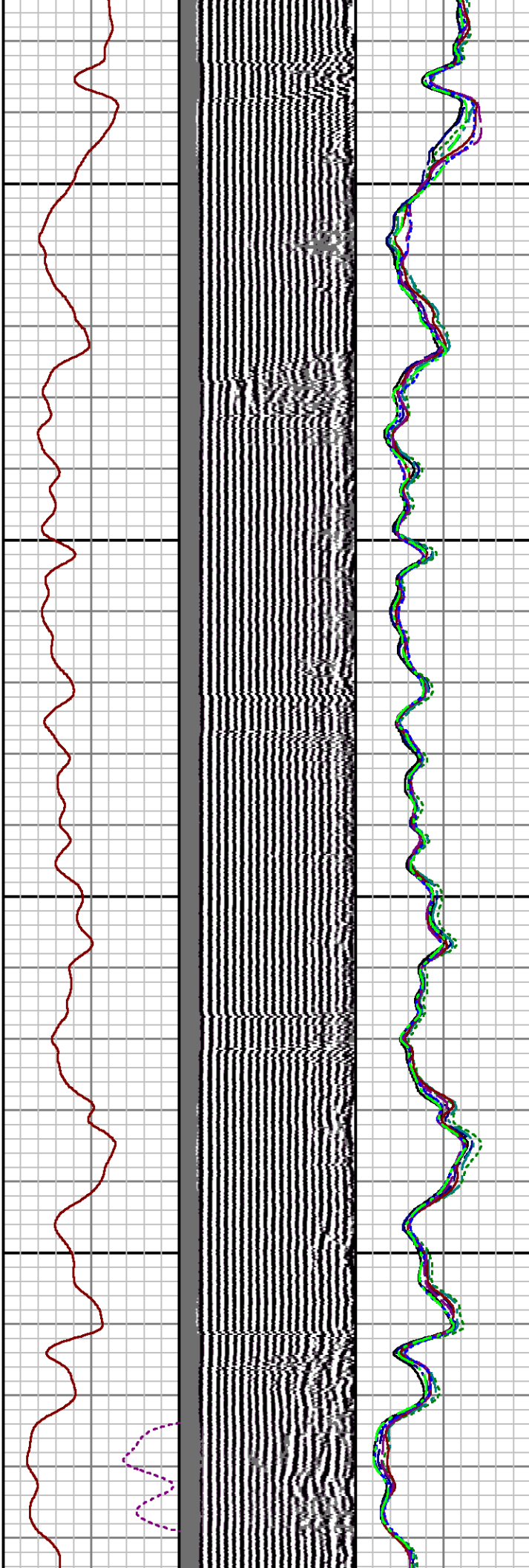
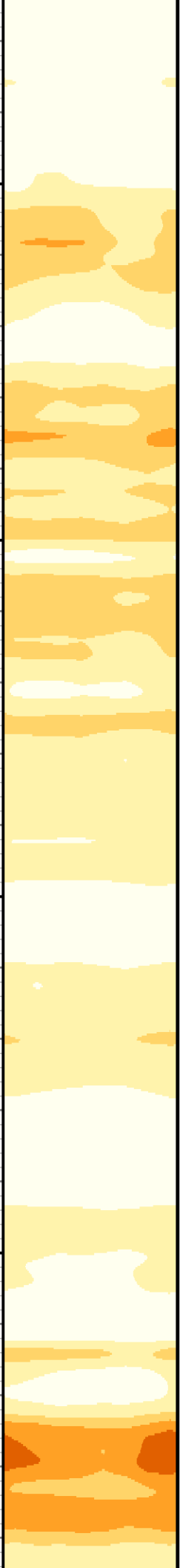


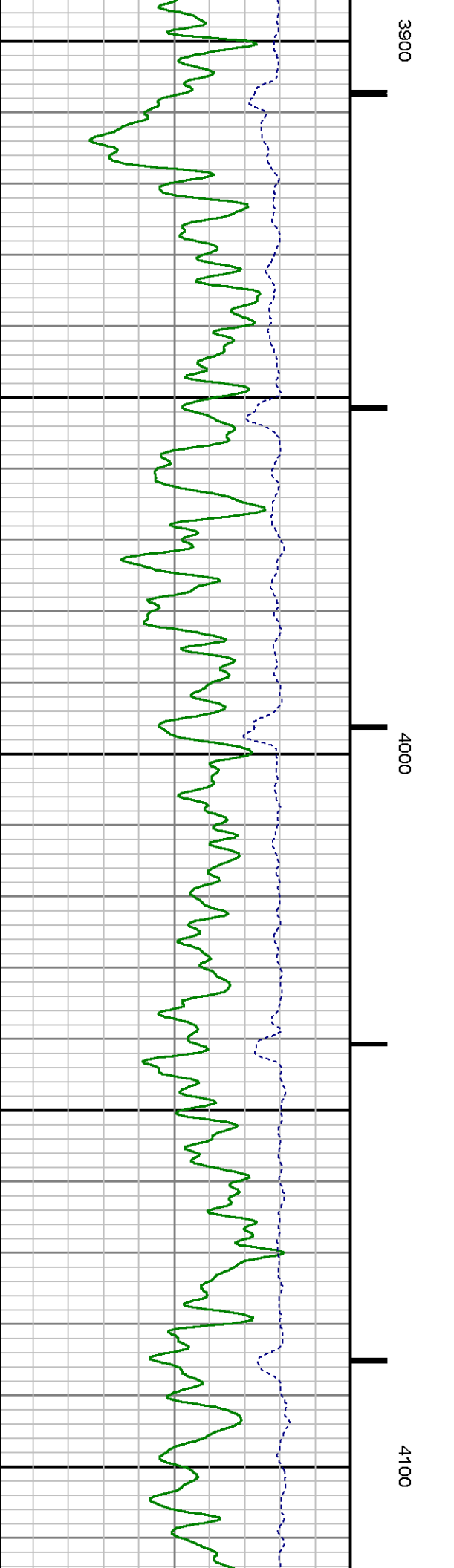
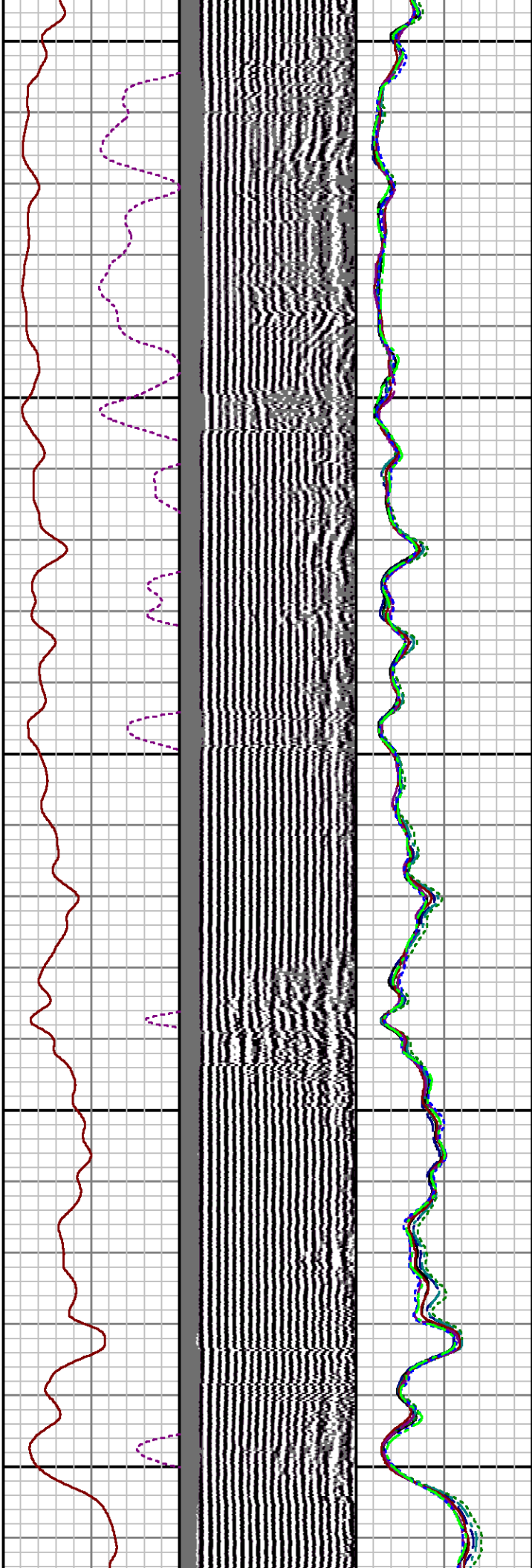
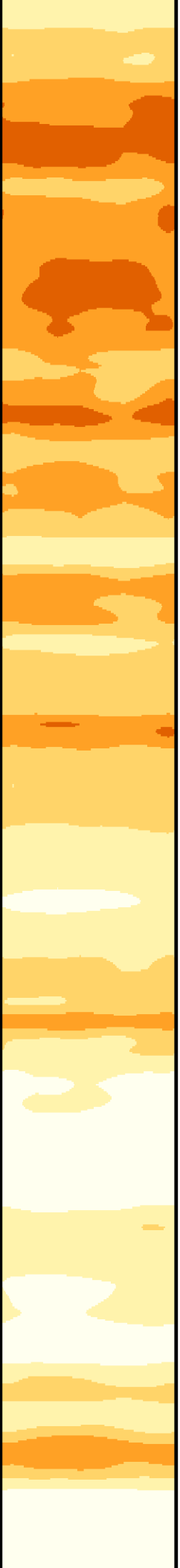
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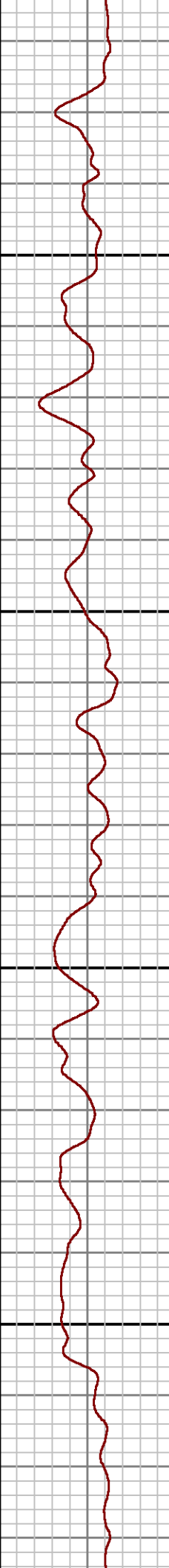
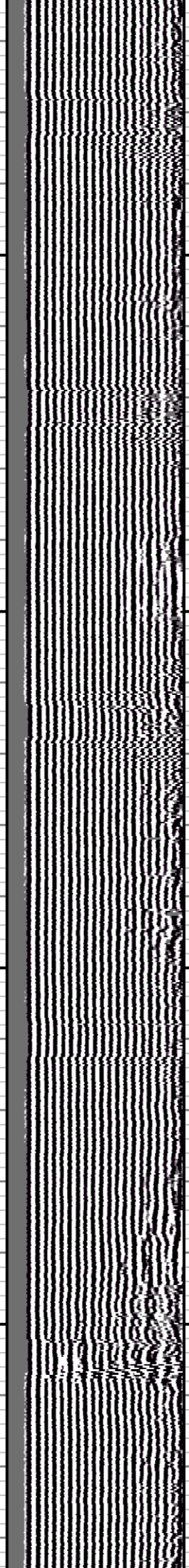
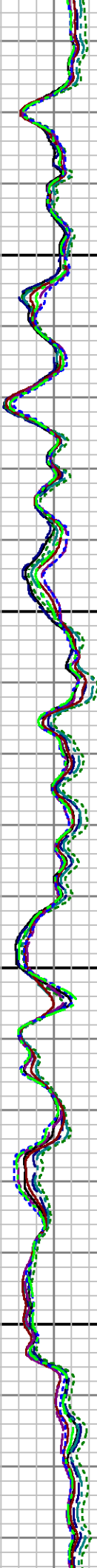
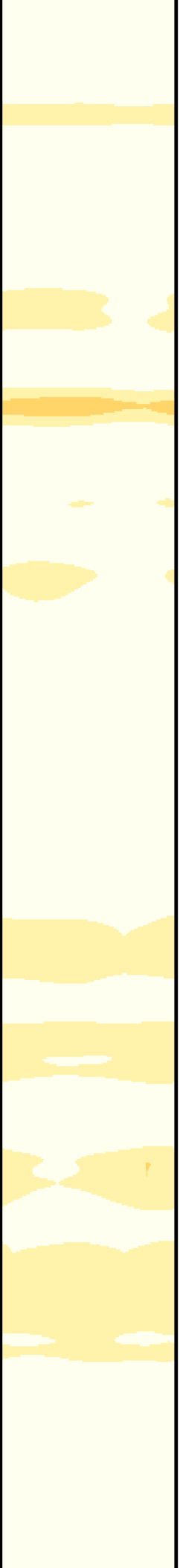
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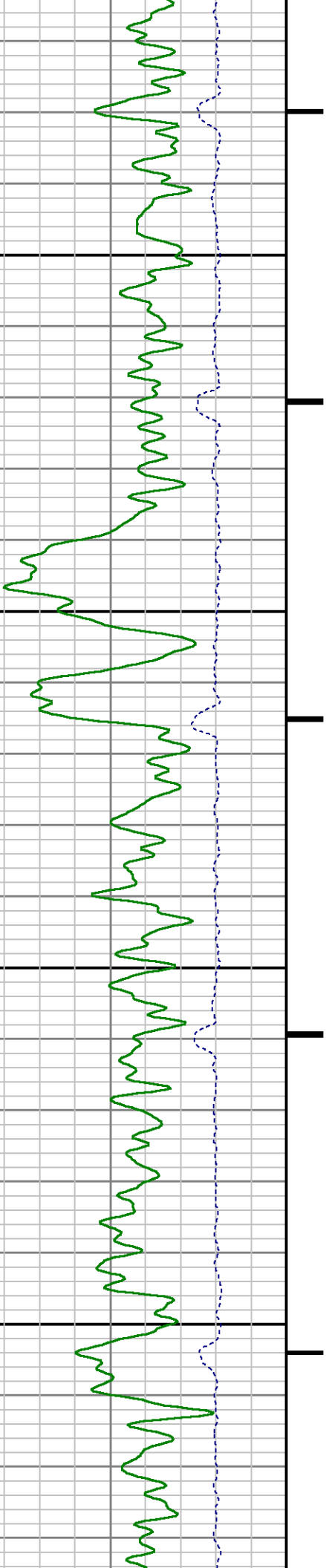


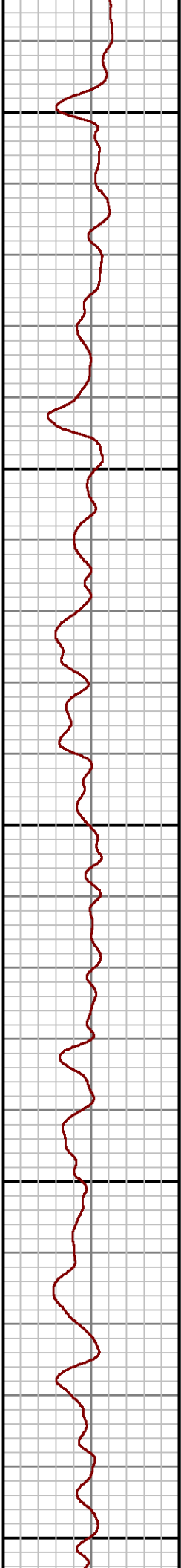
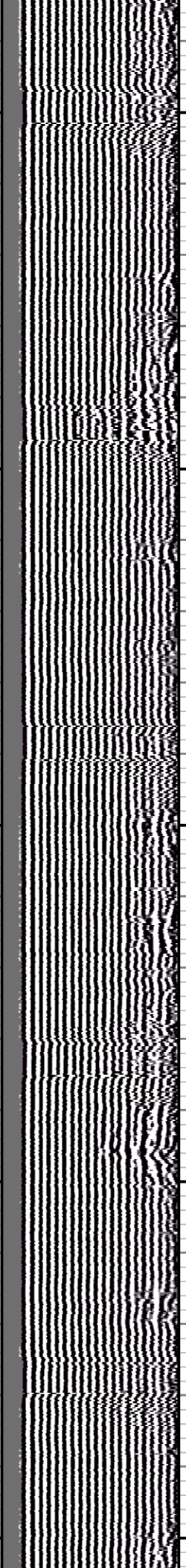
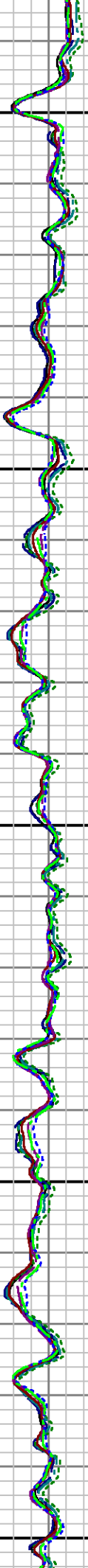
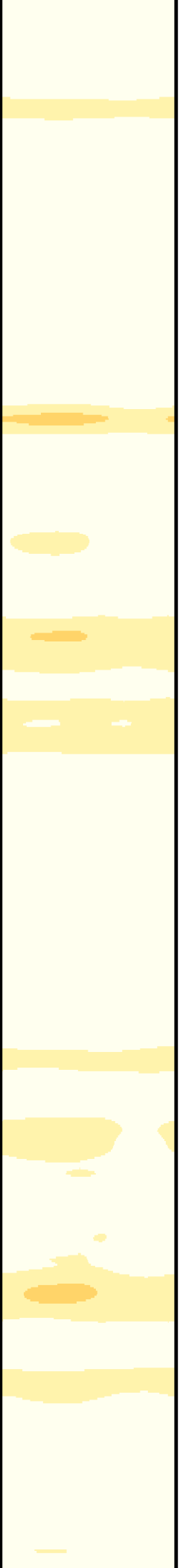




4200

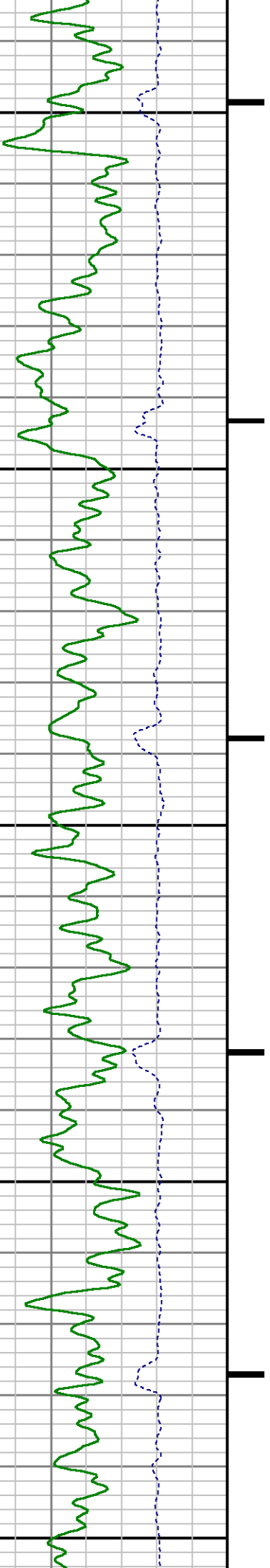
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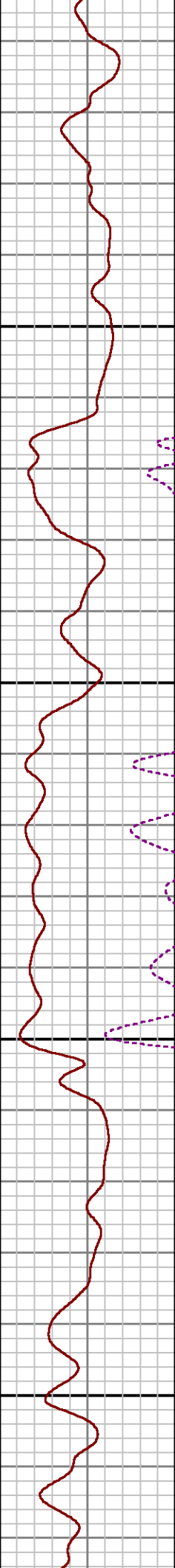
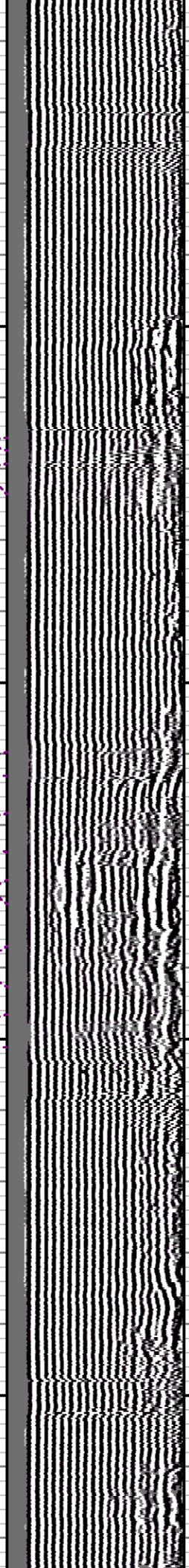
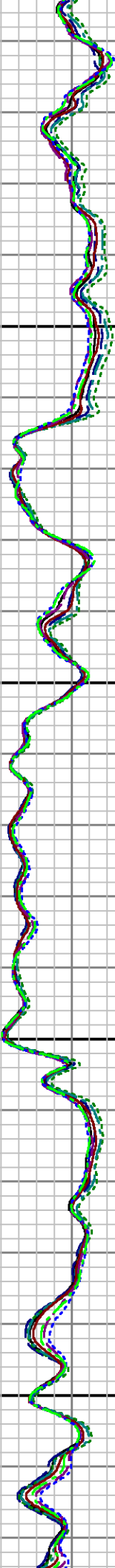




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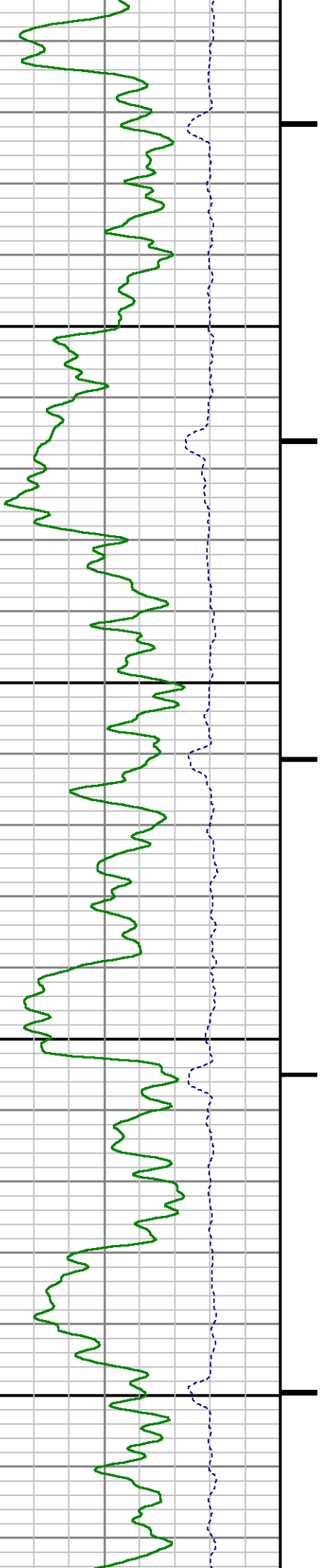
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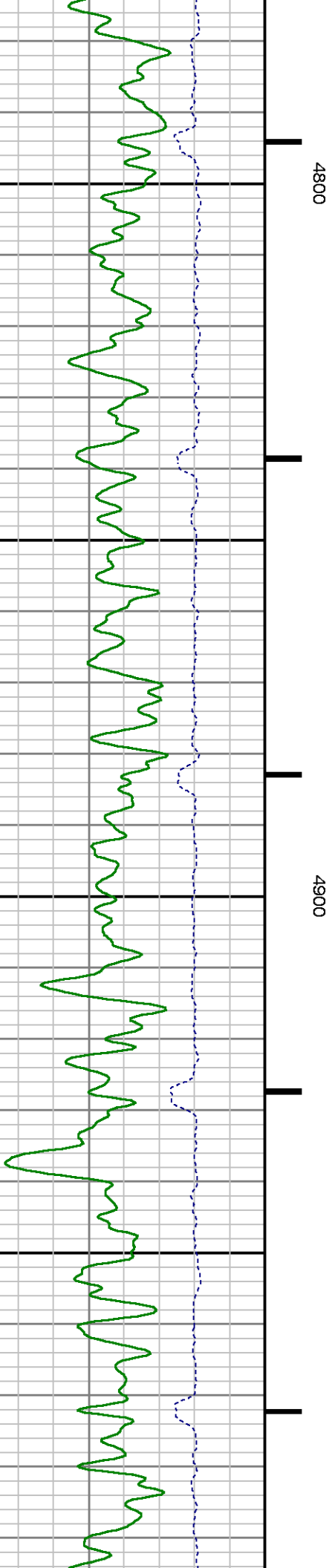
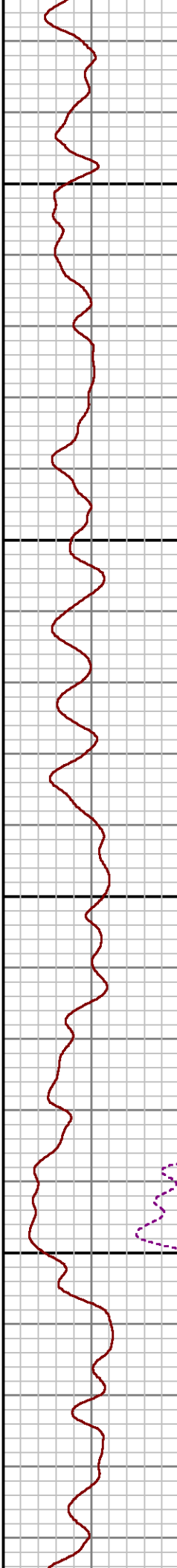
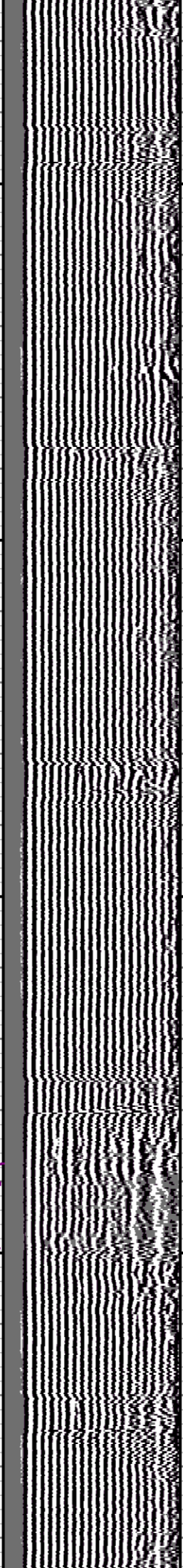
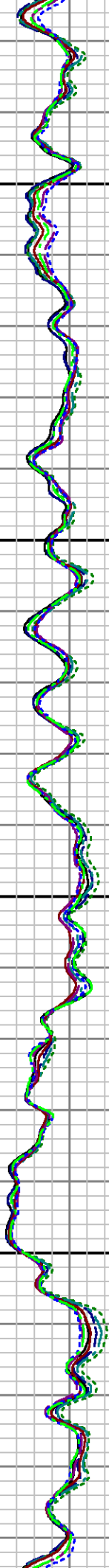
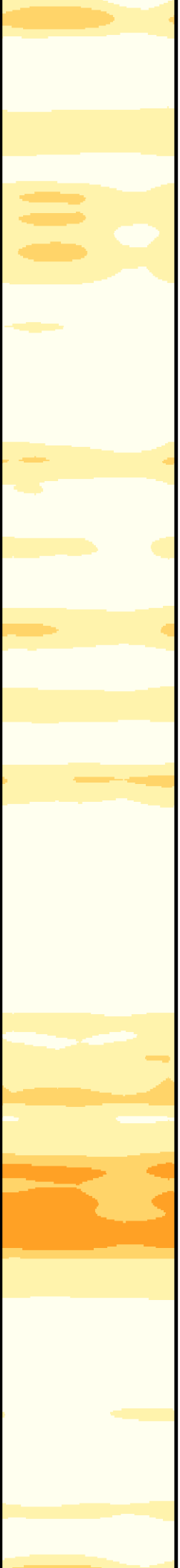


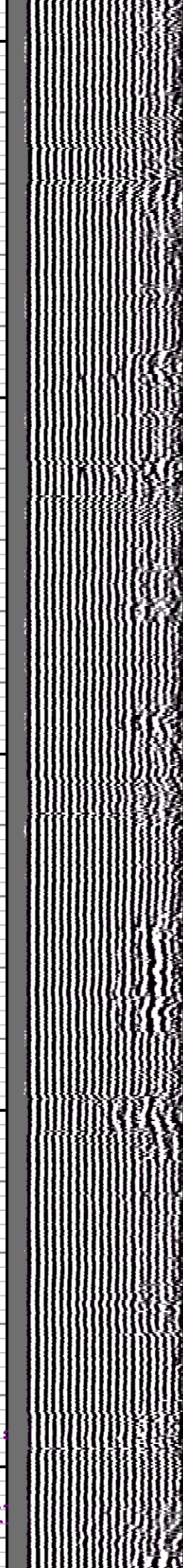
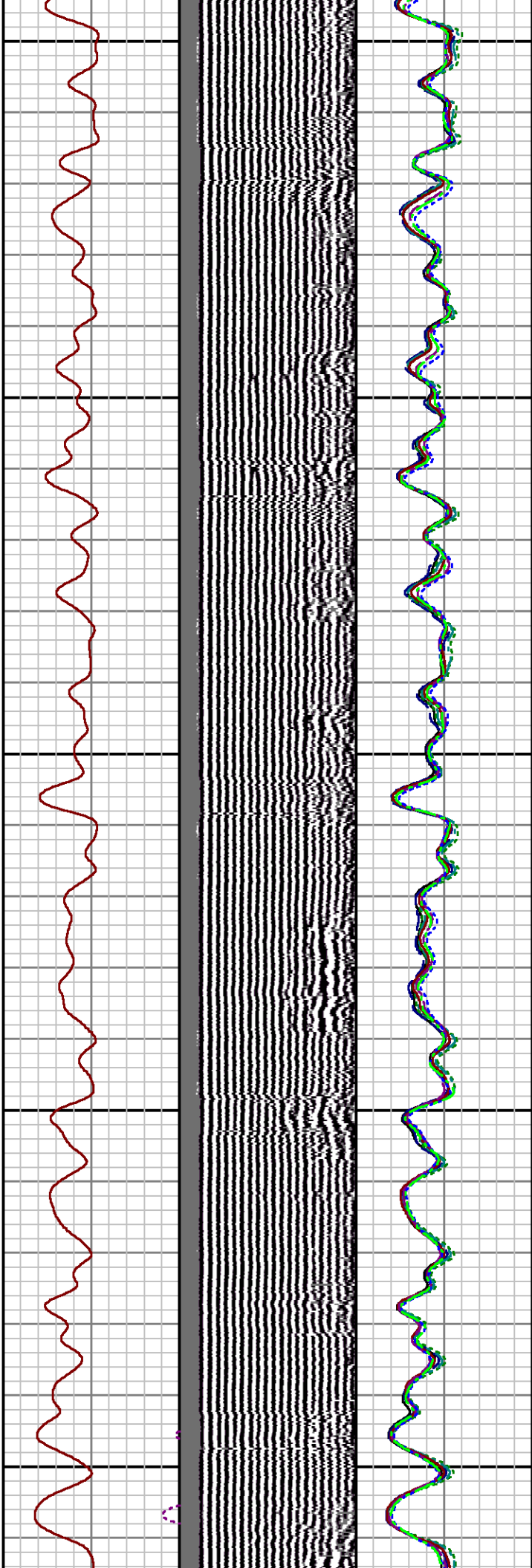
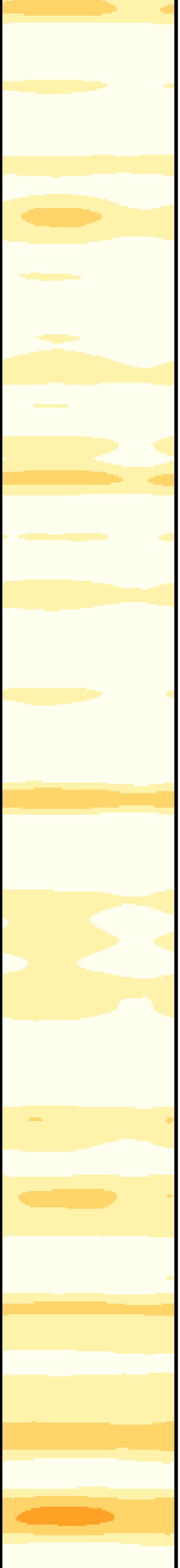


4600

4700



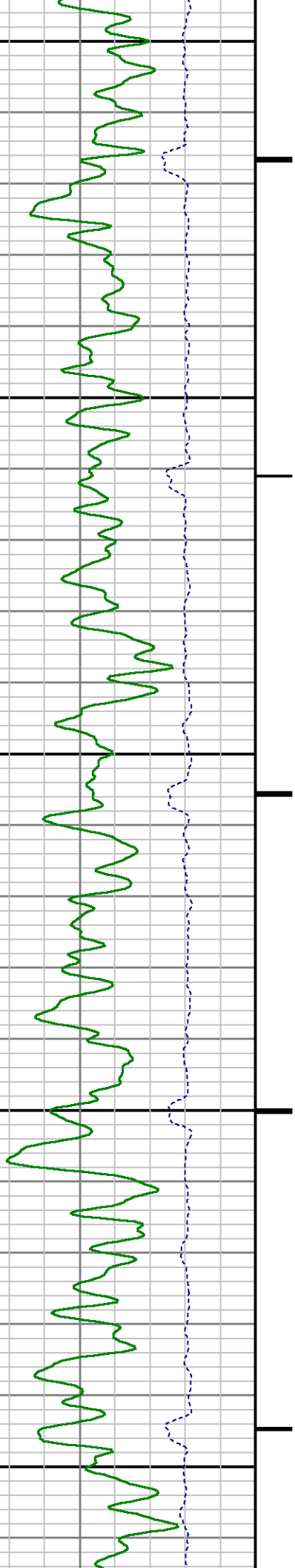


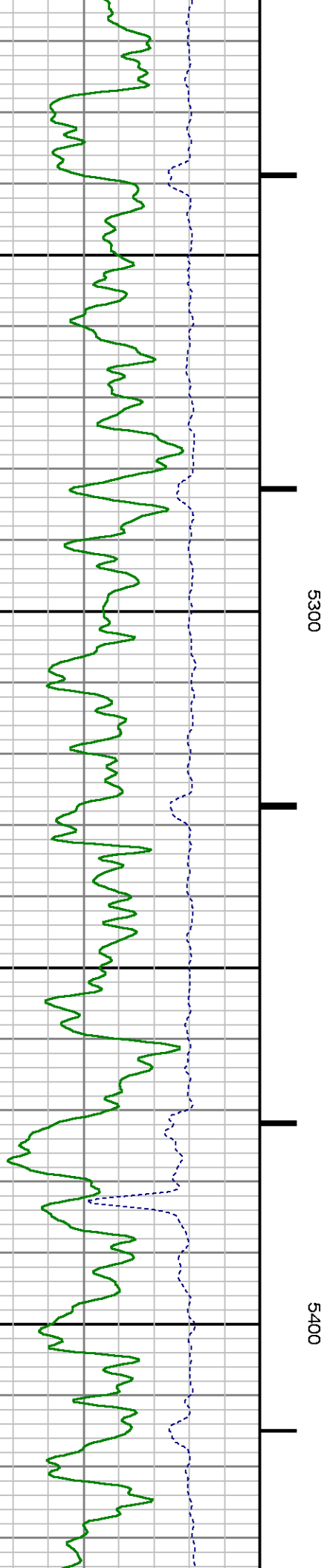
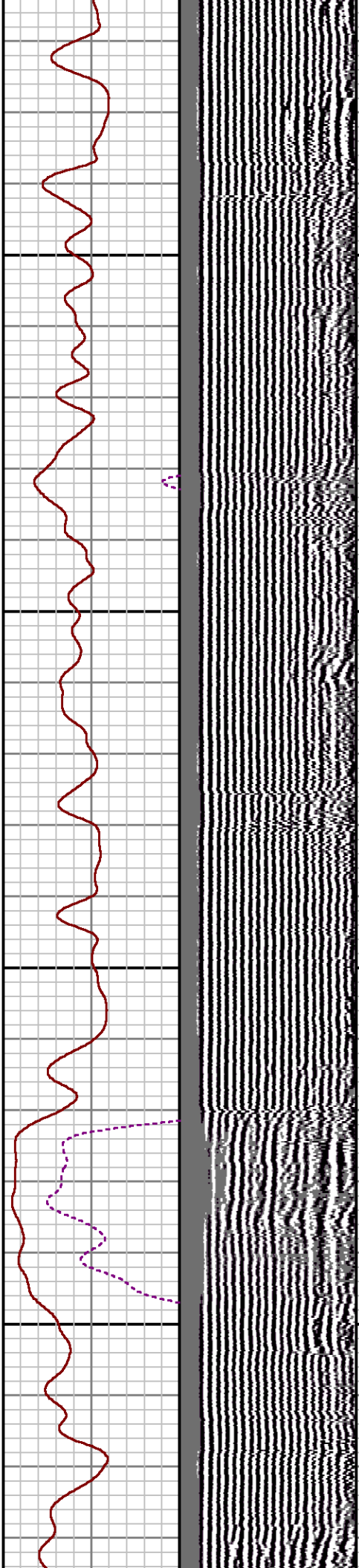
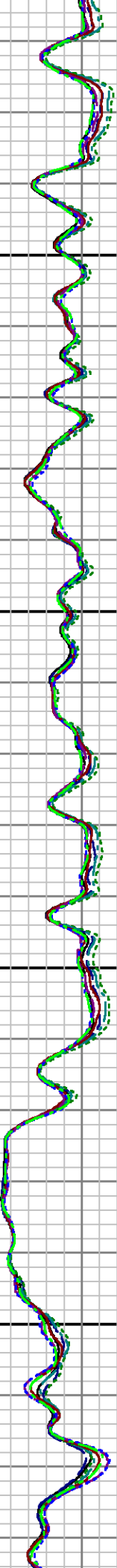
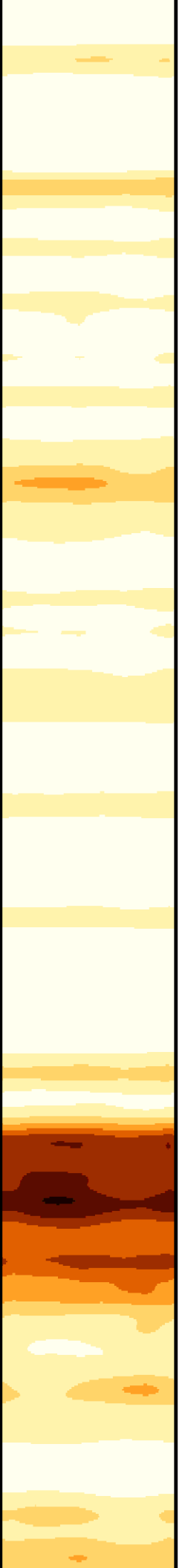


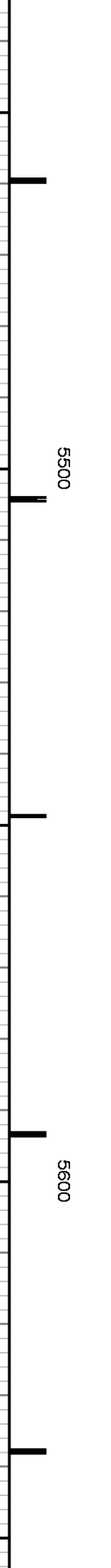
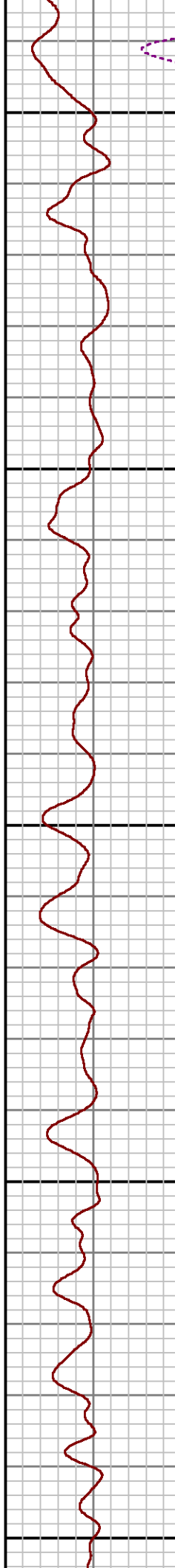
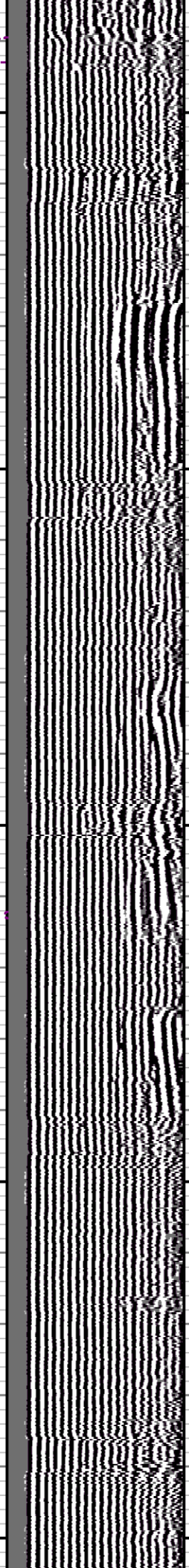
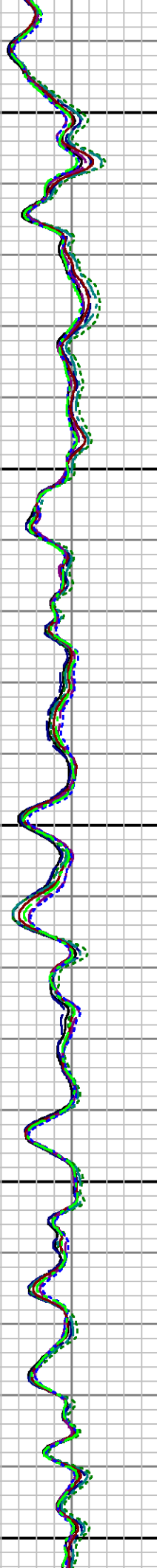
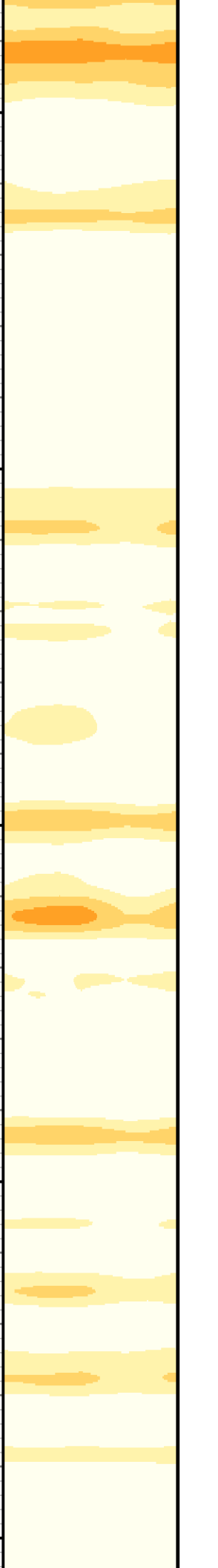
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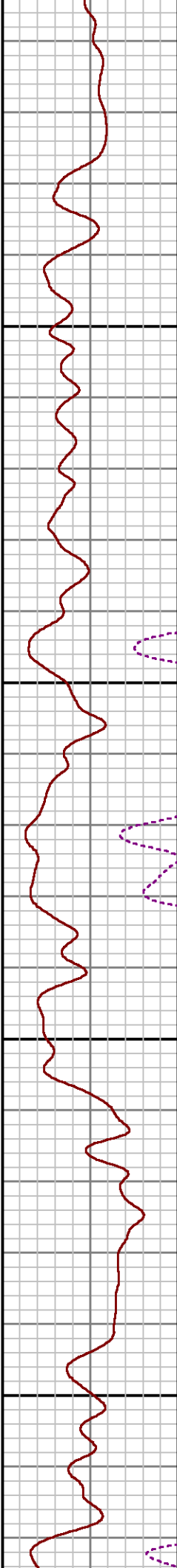
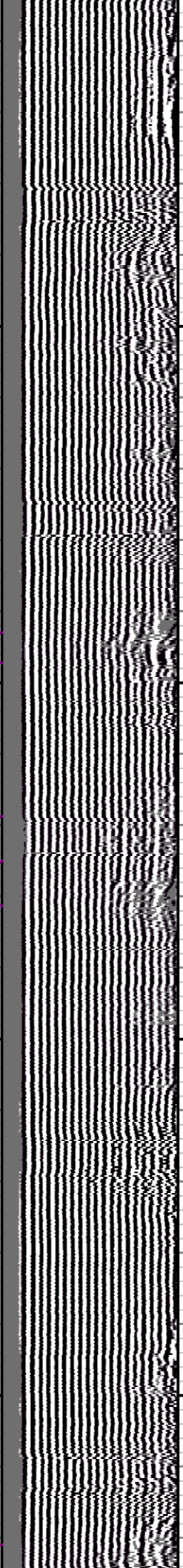
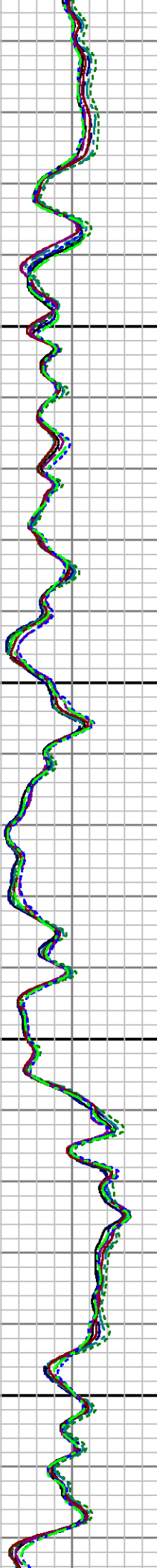
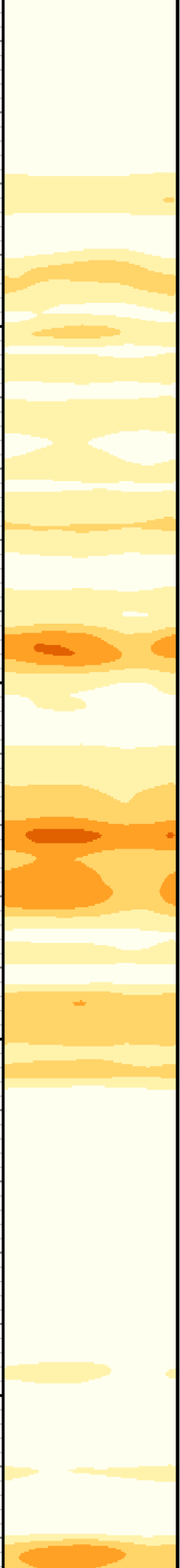
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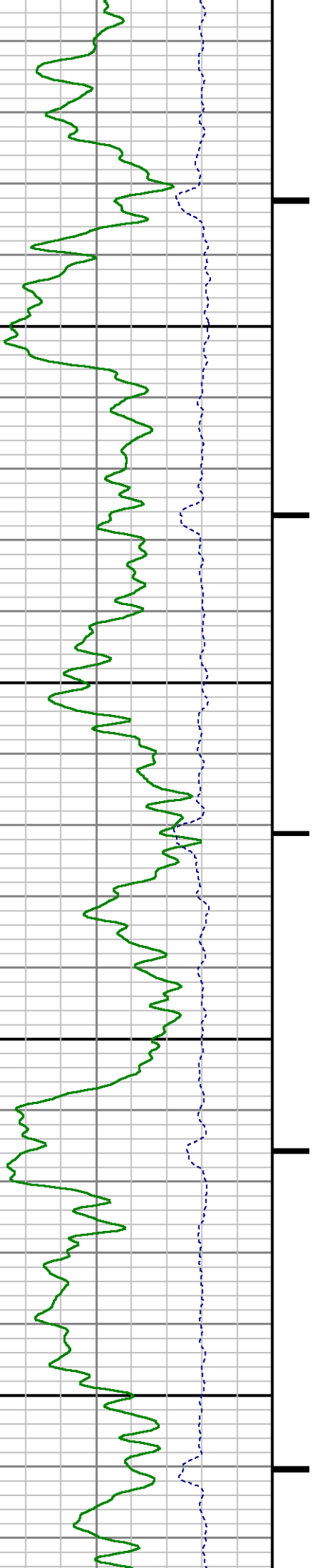


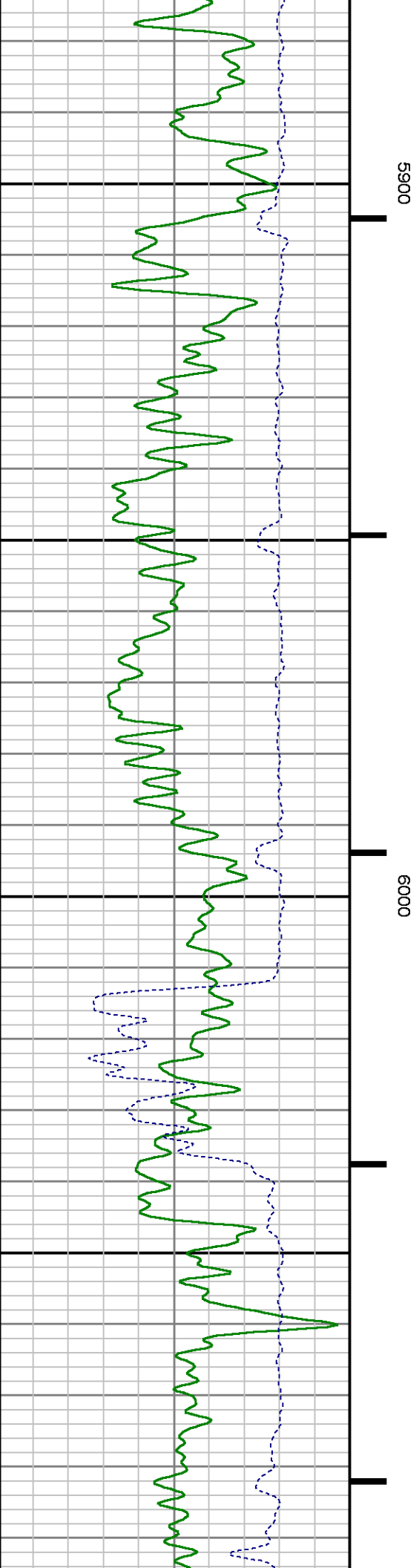
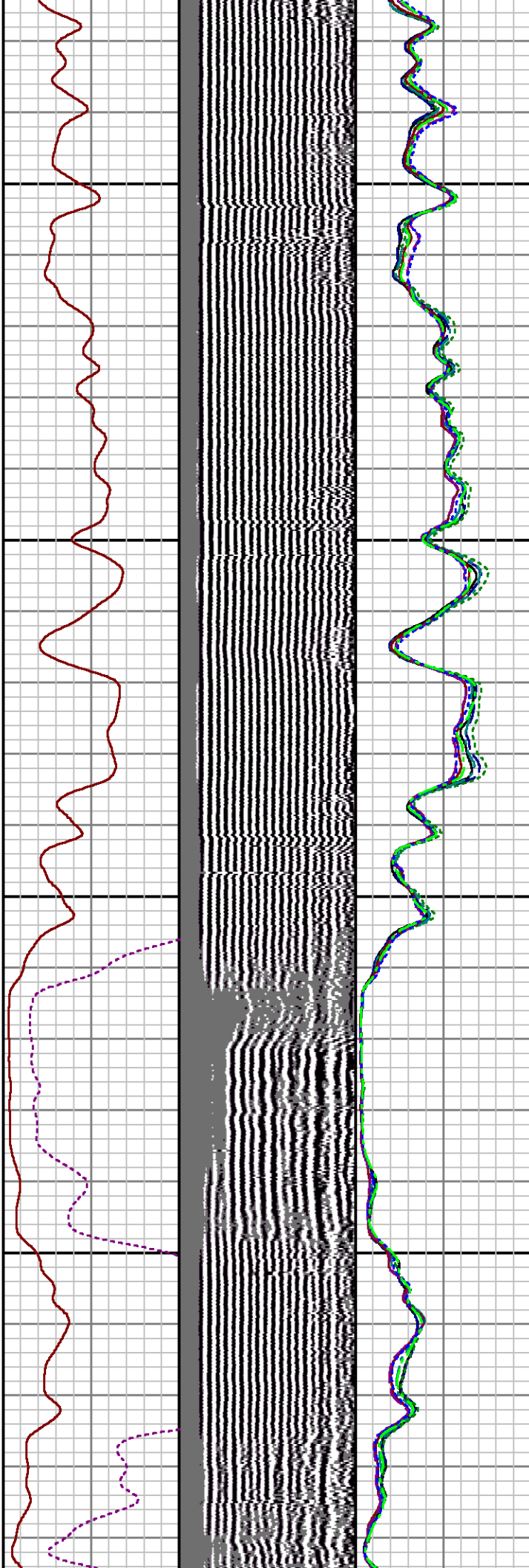
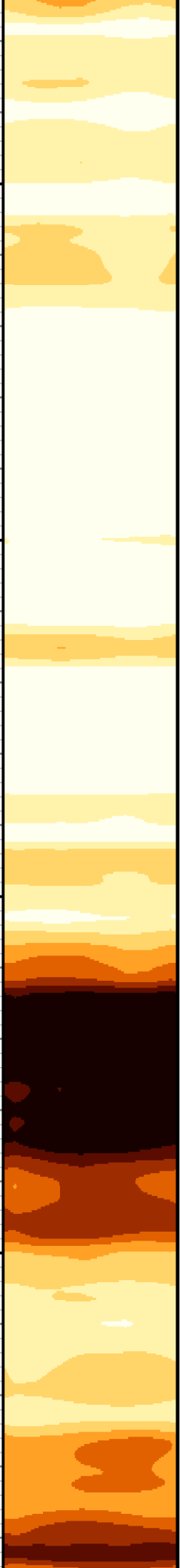


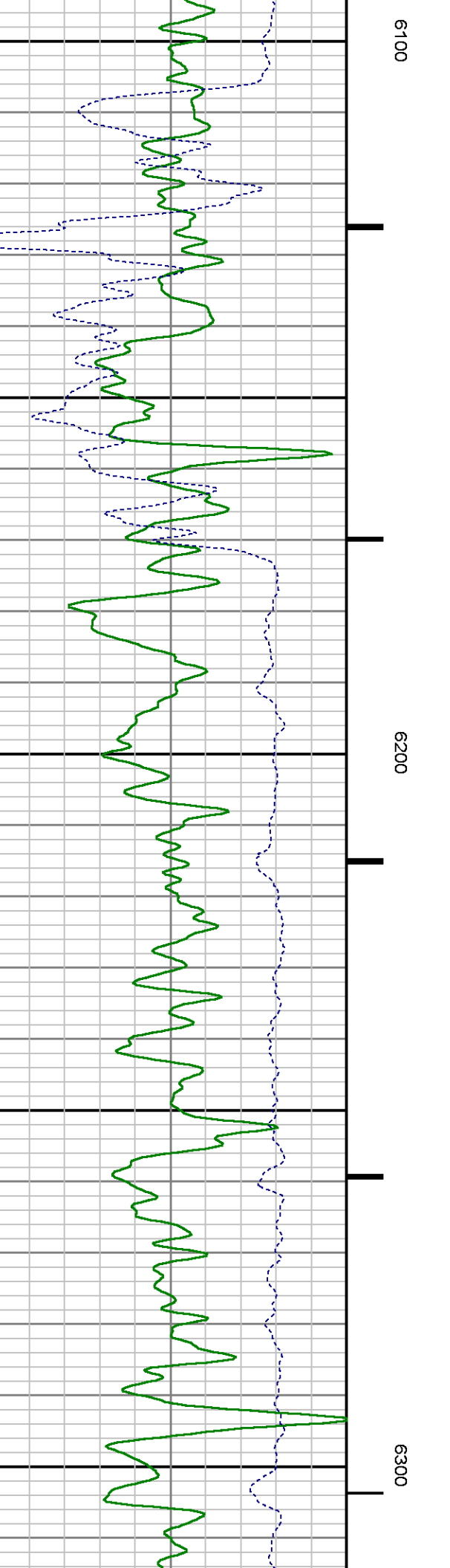
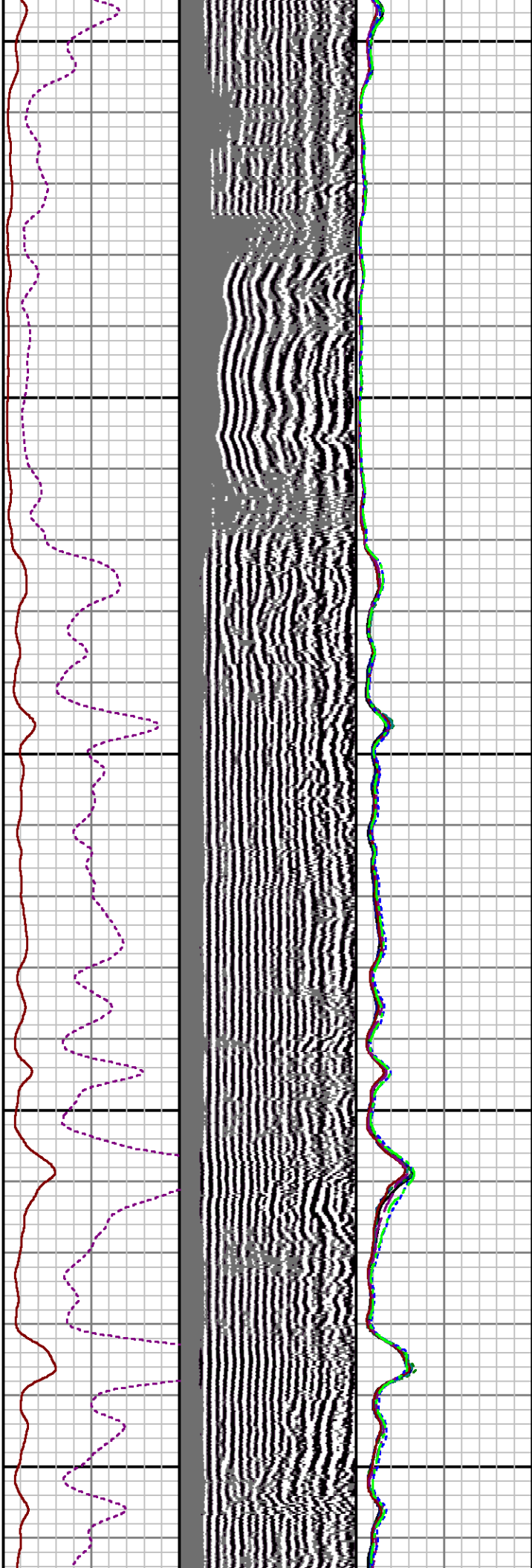
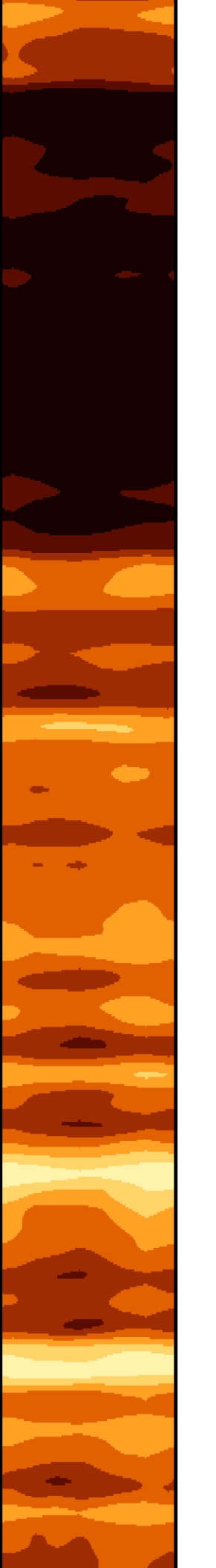


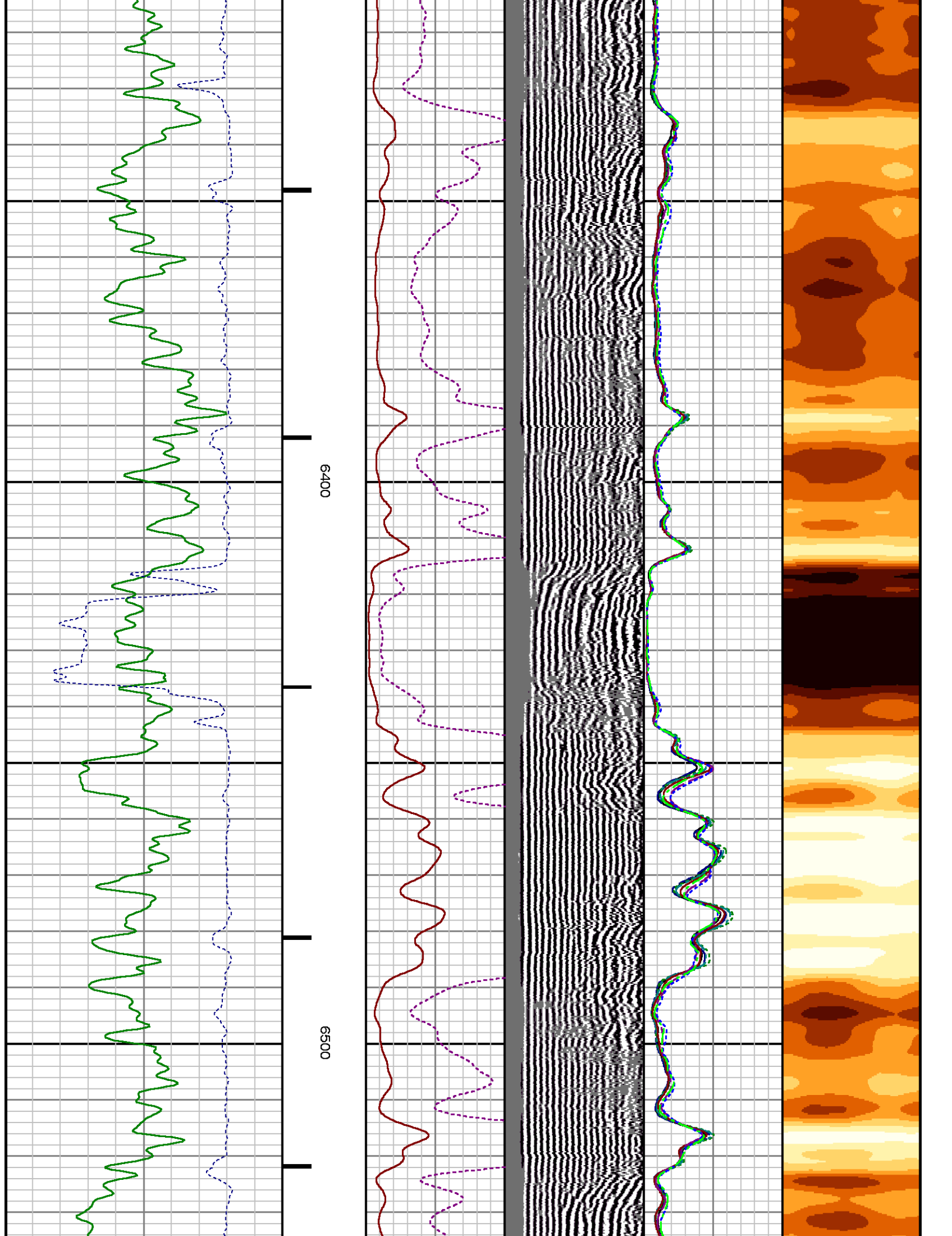
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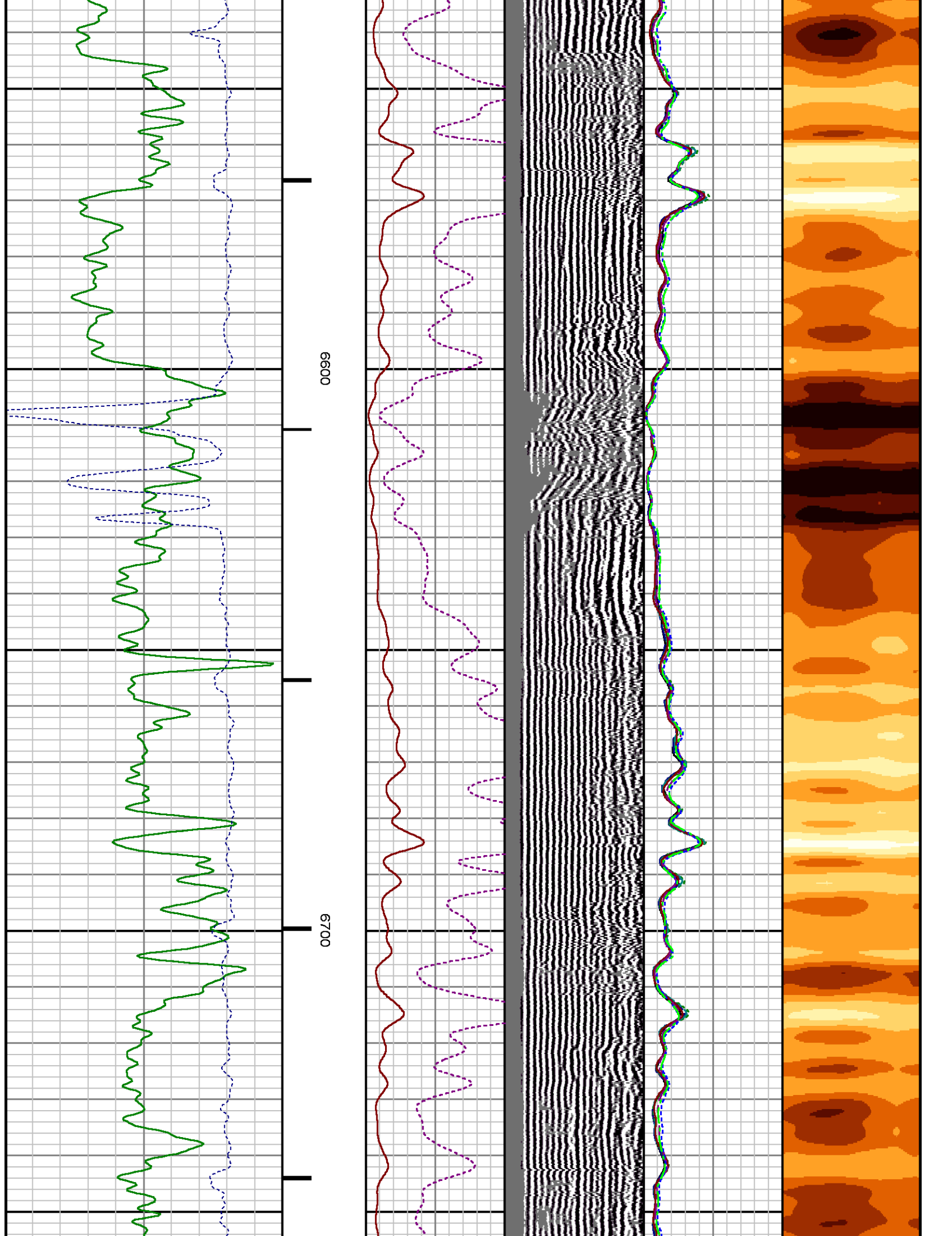
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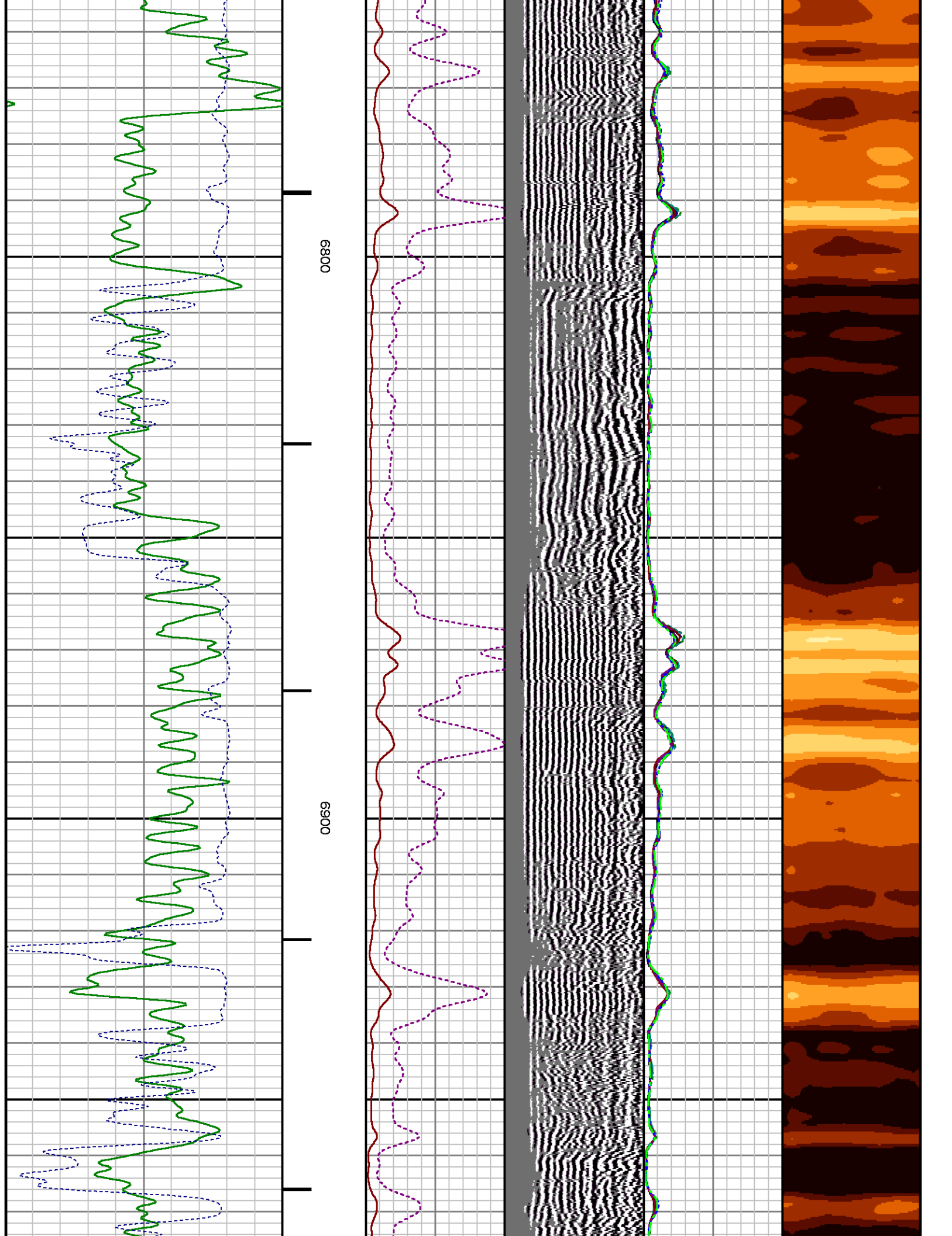


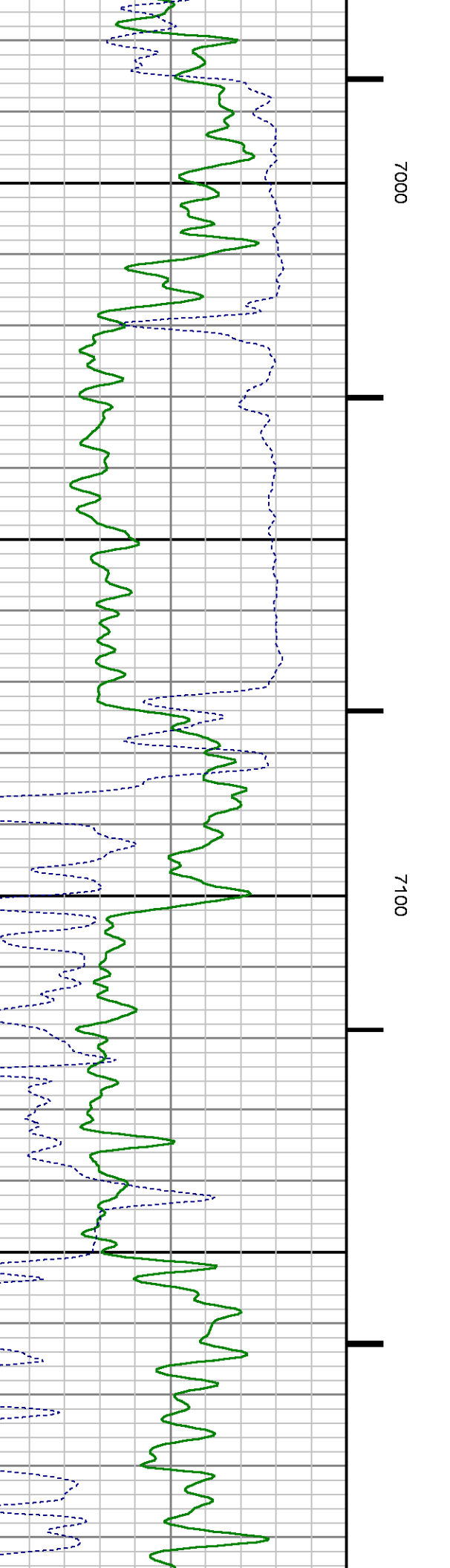
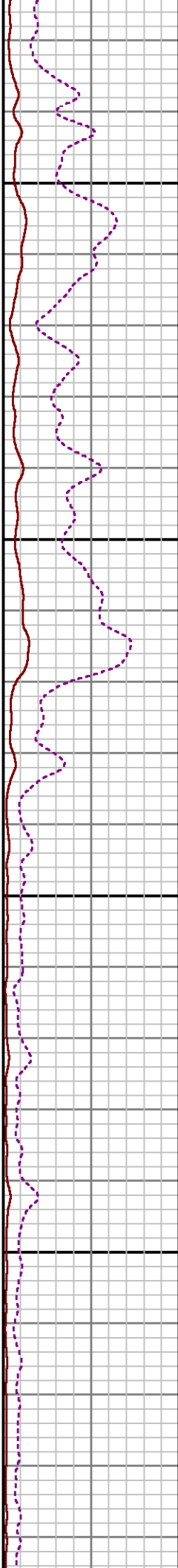
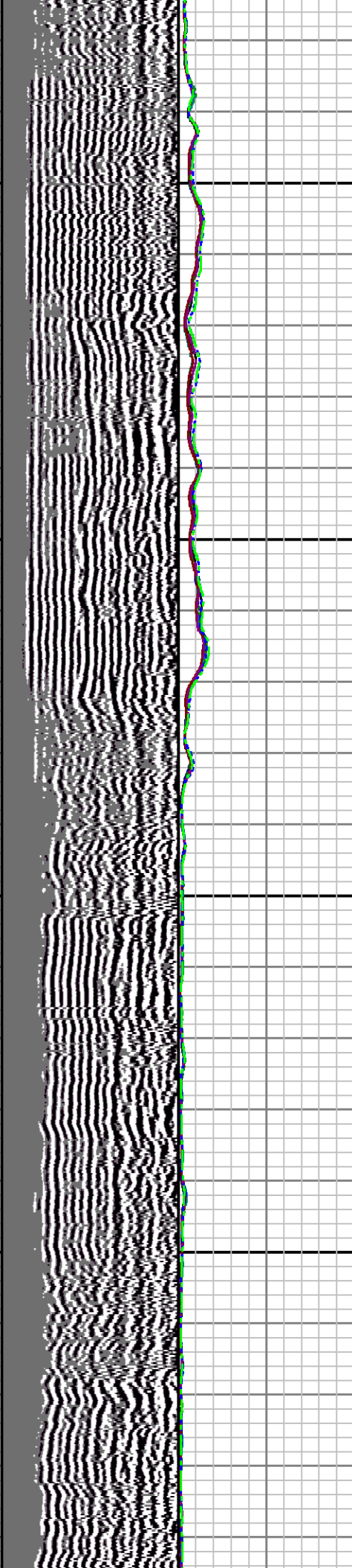


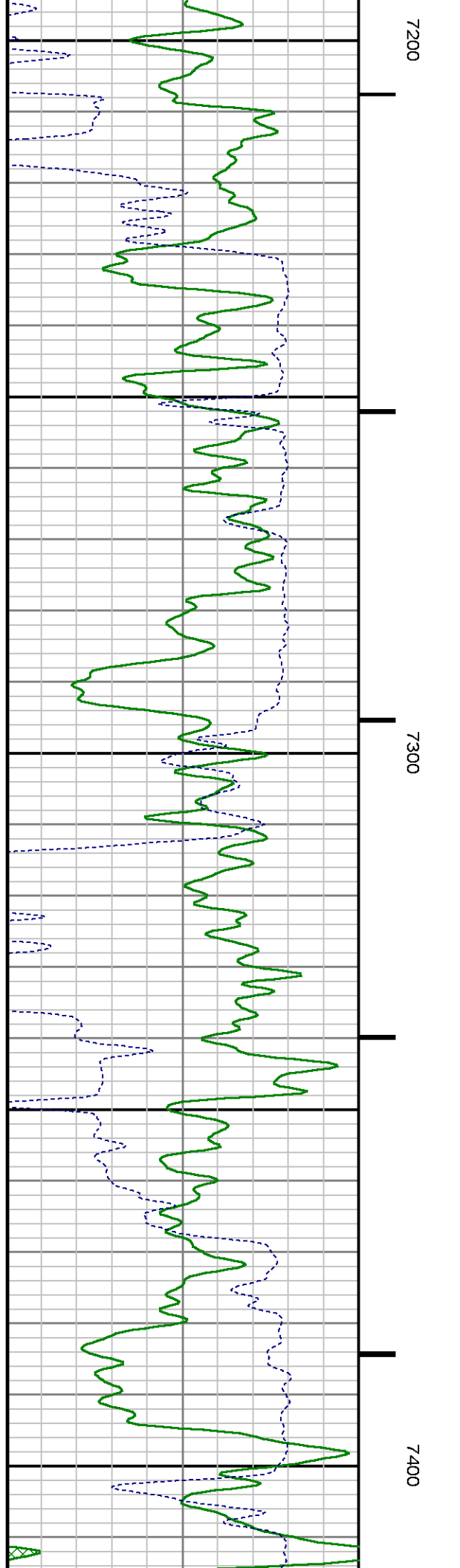
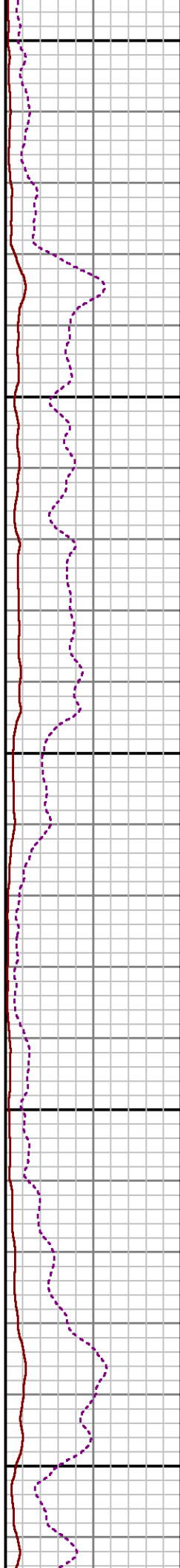
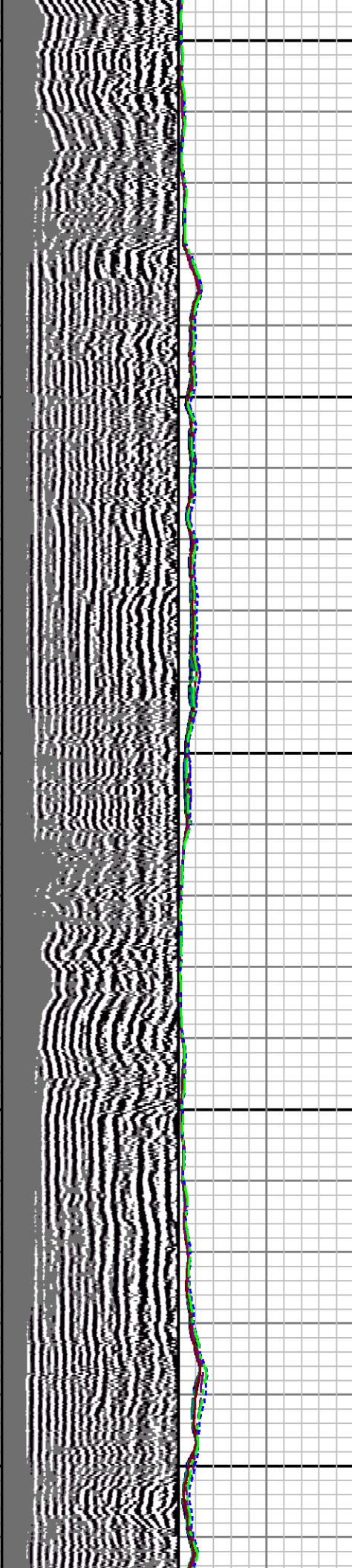


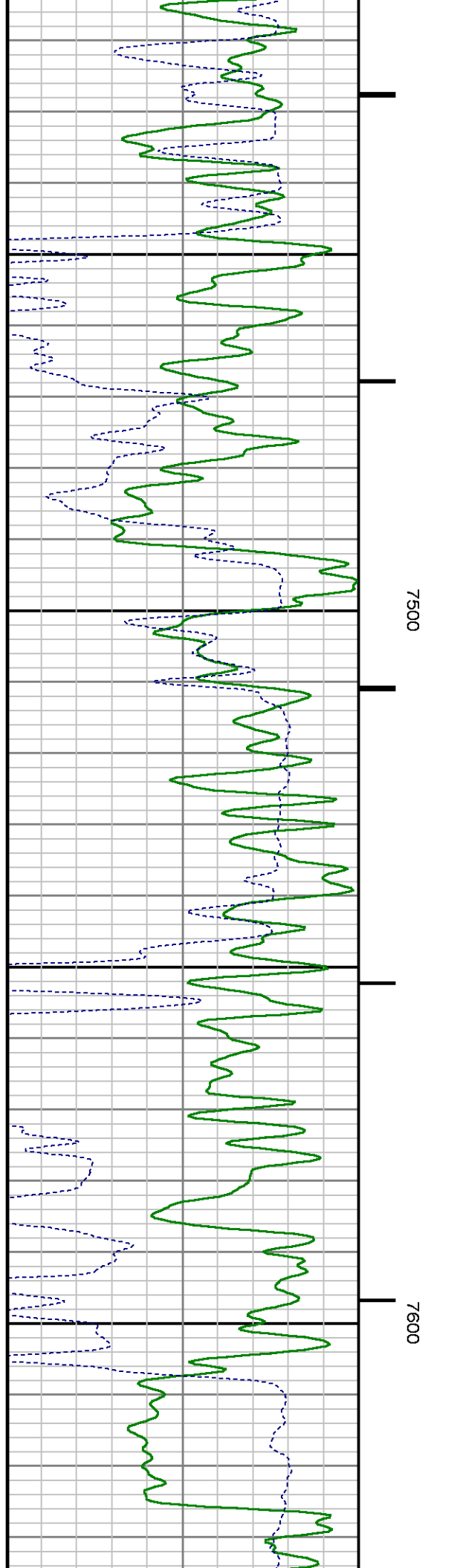
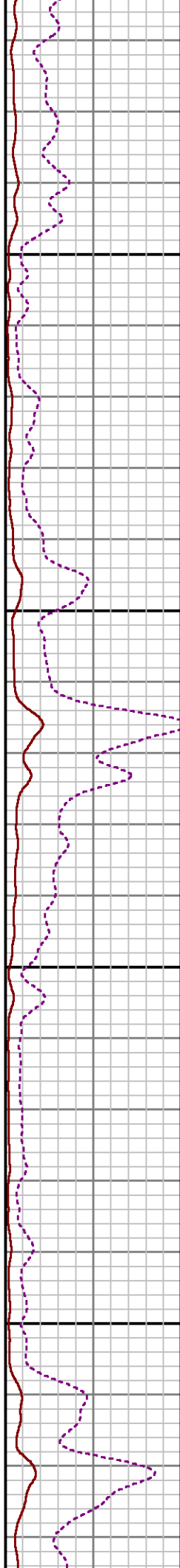
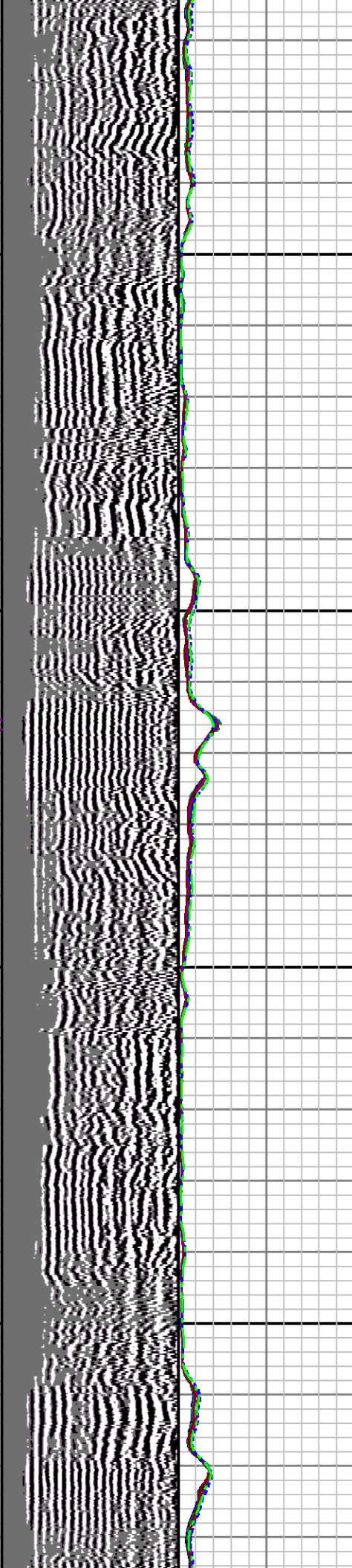


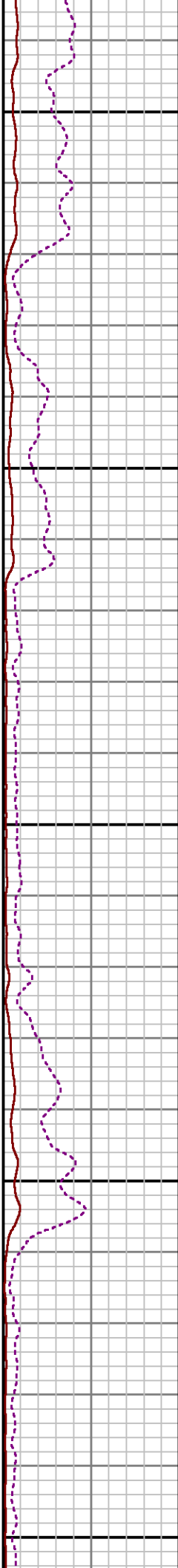
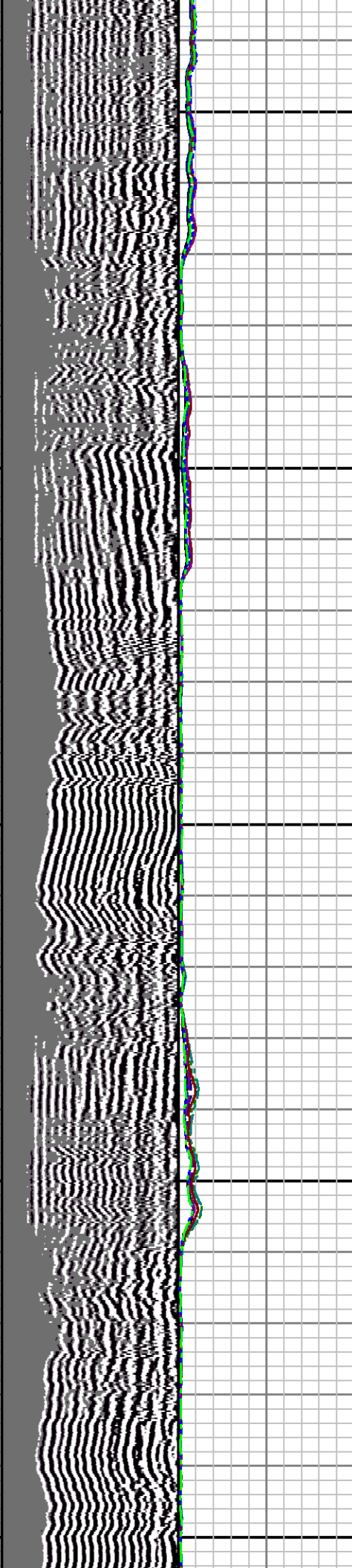






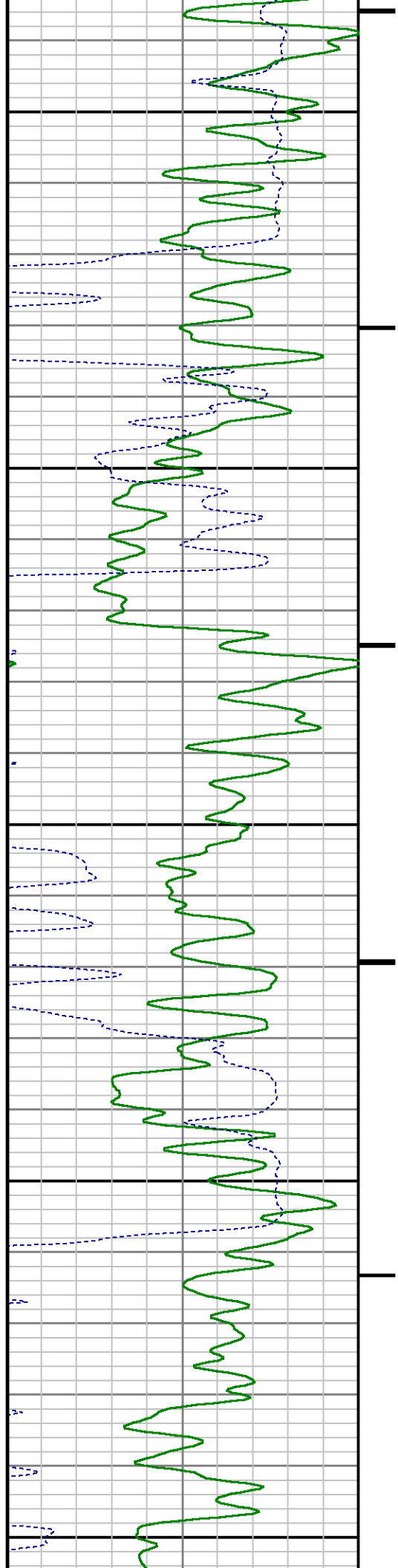


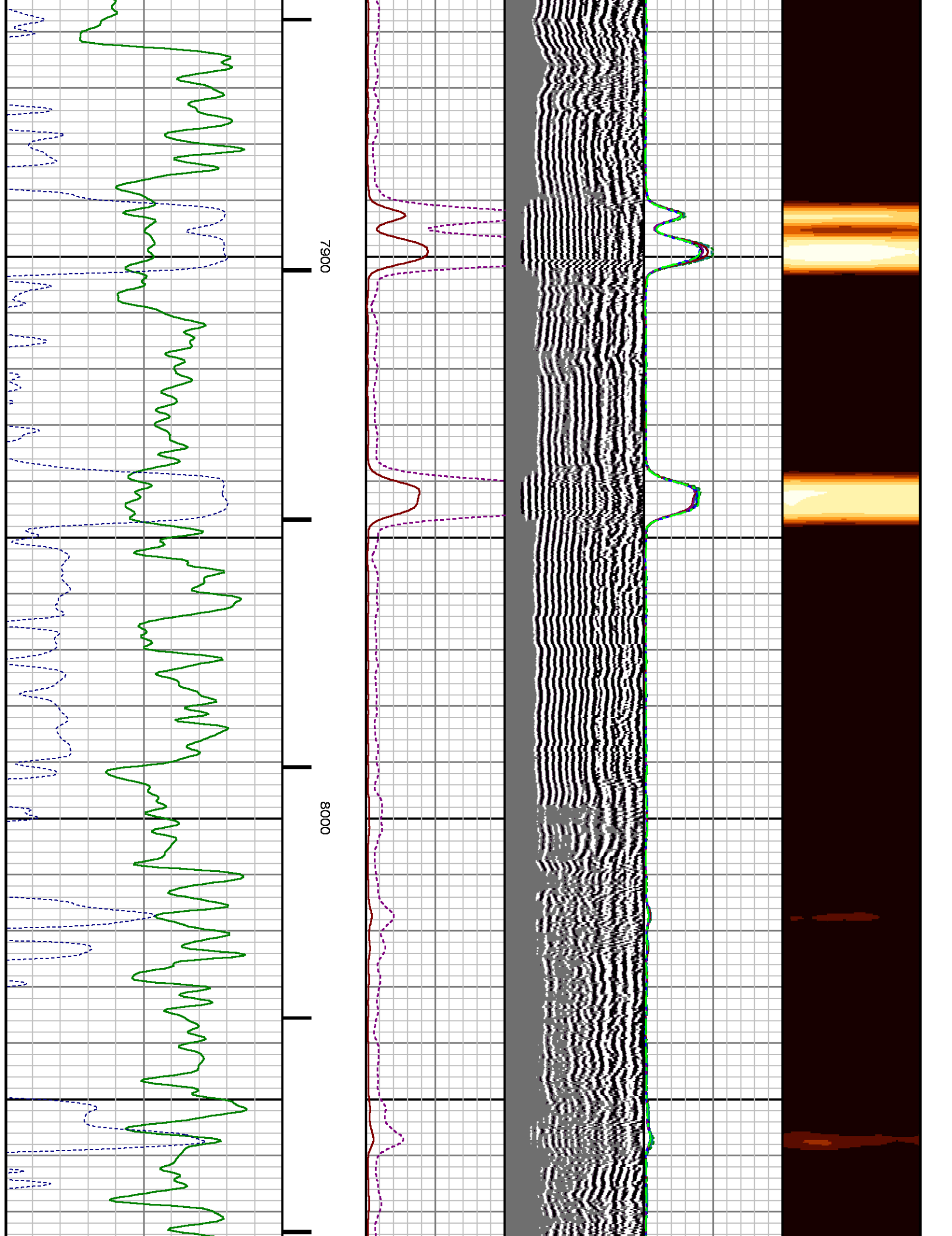


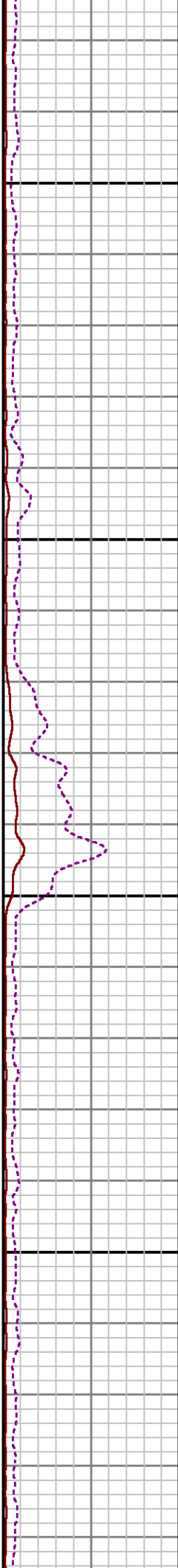
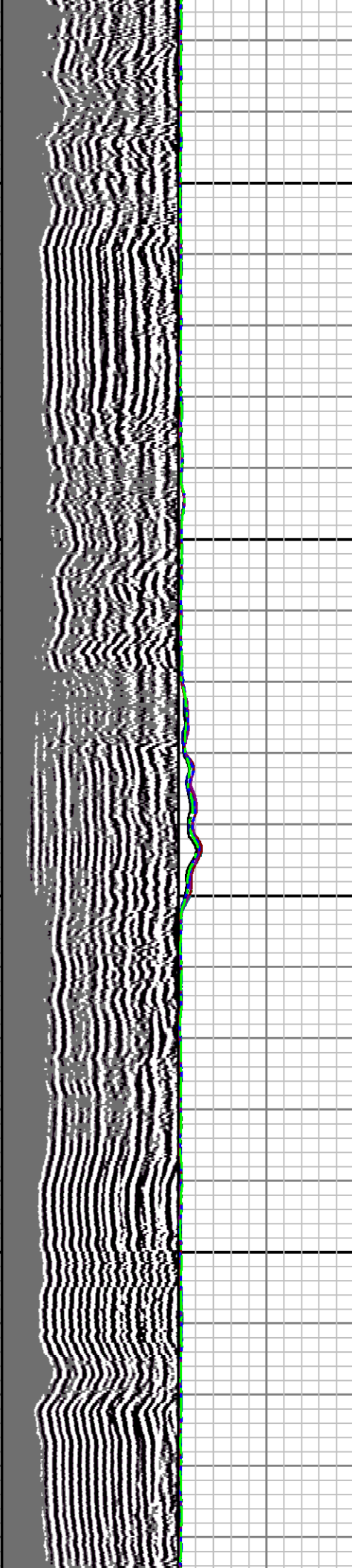


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7800

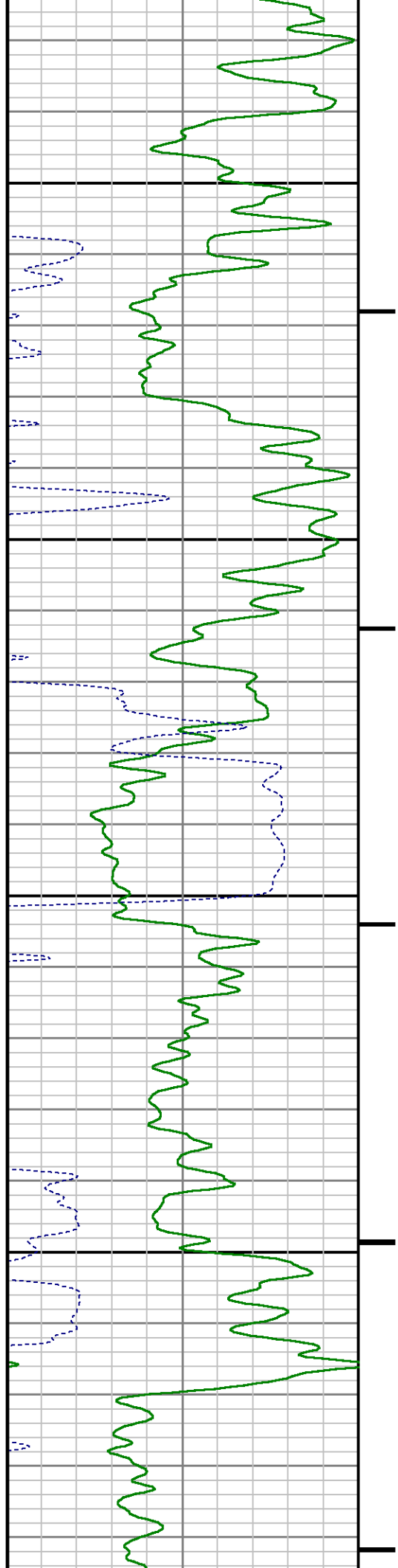


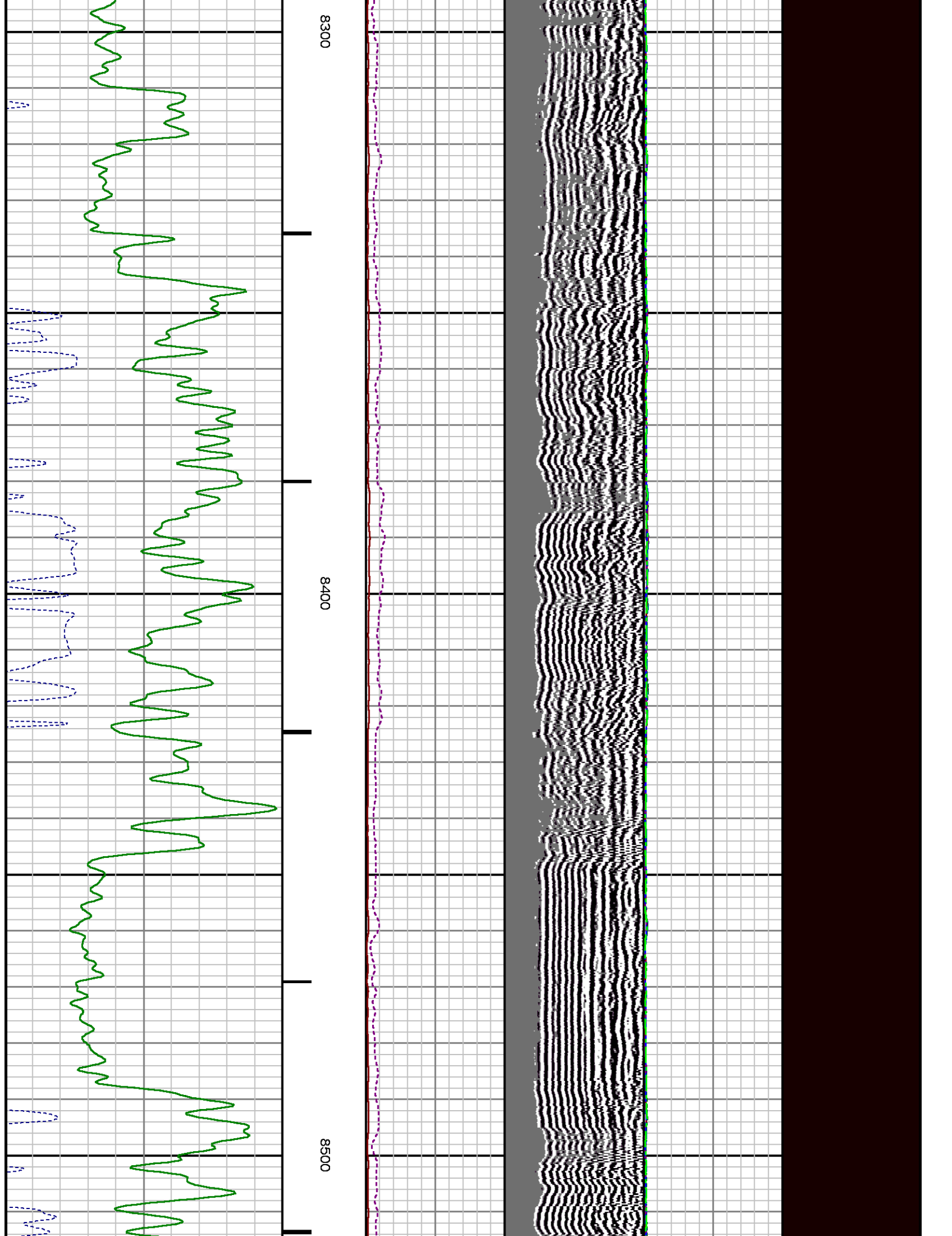


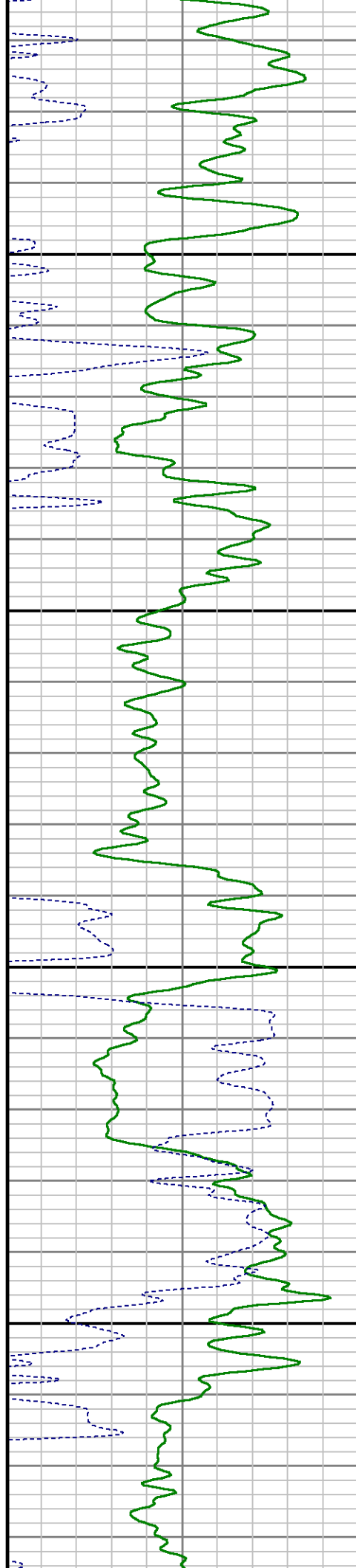
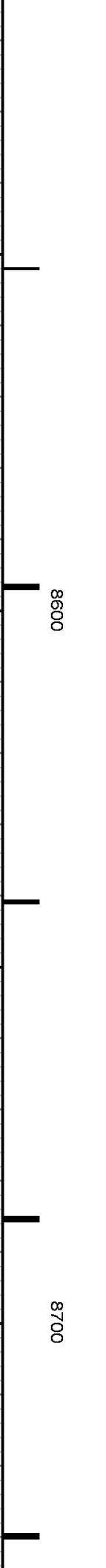
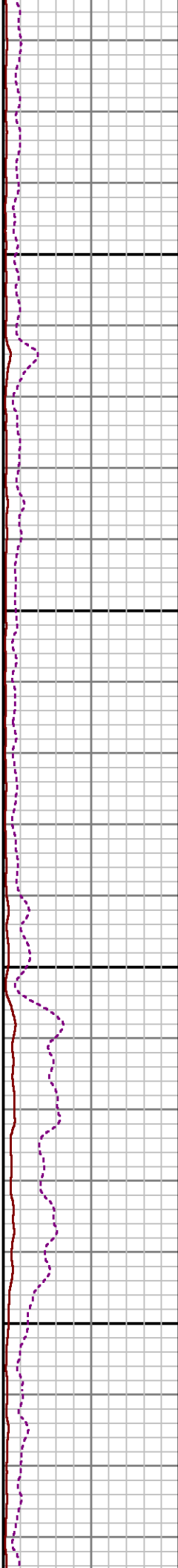
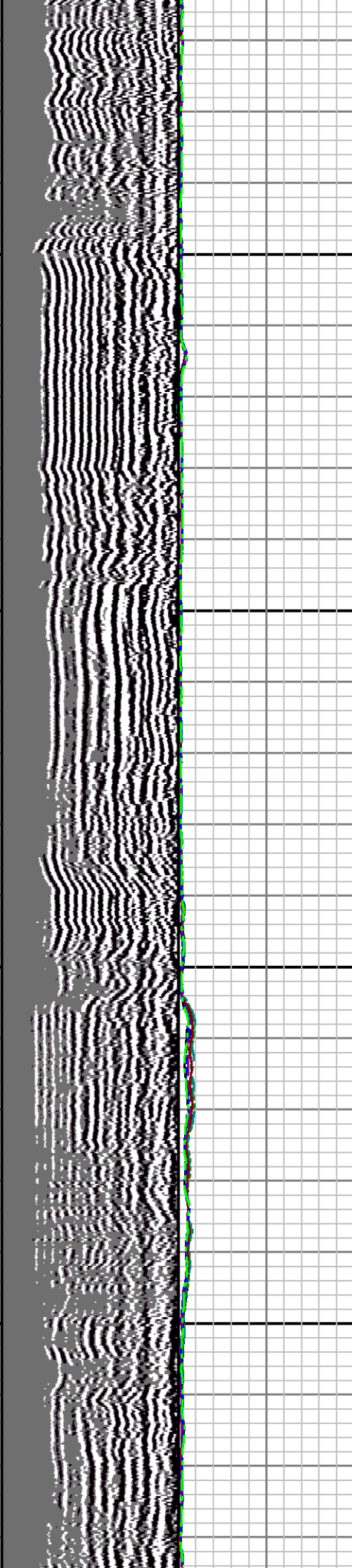


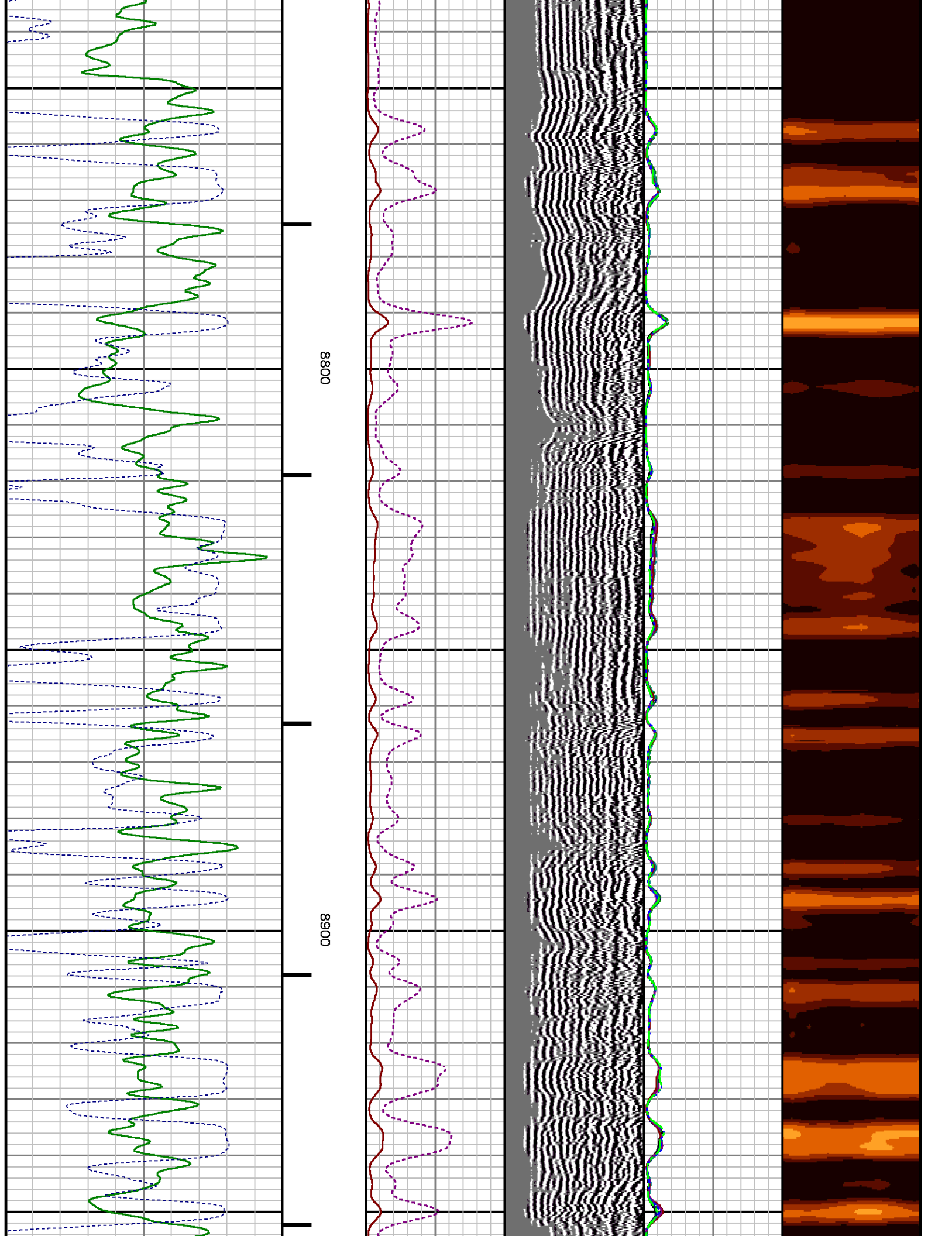
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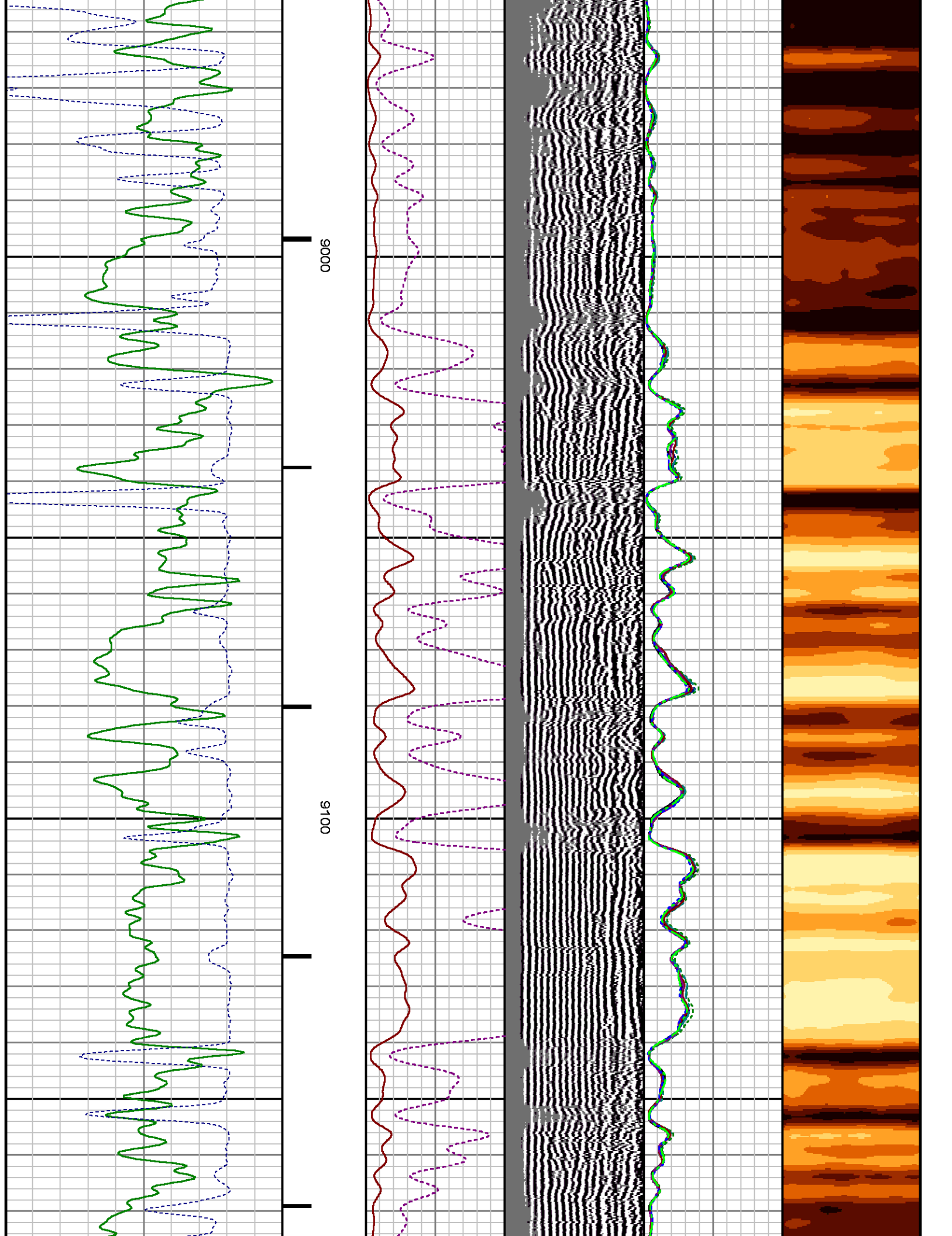
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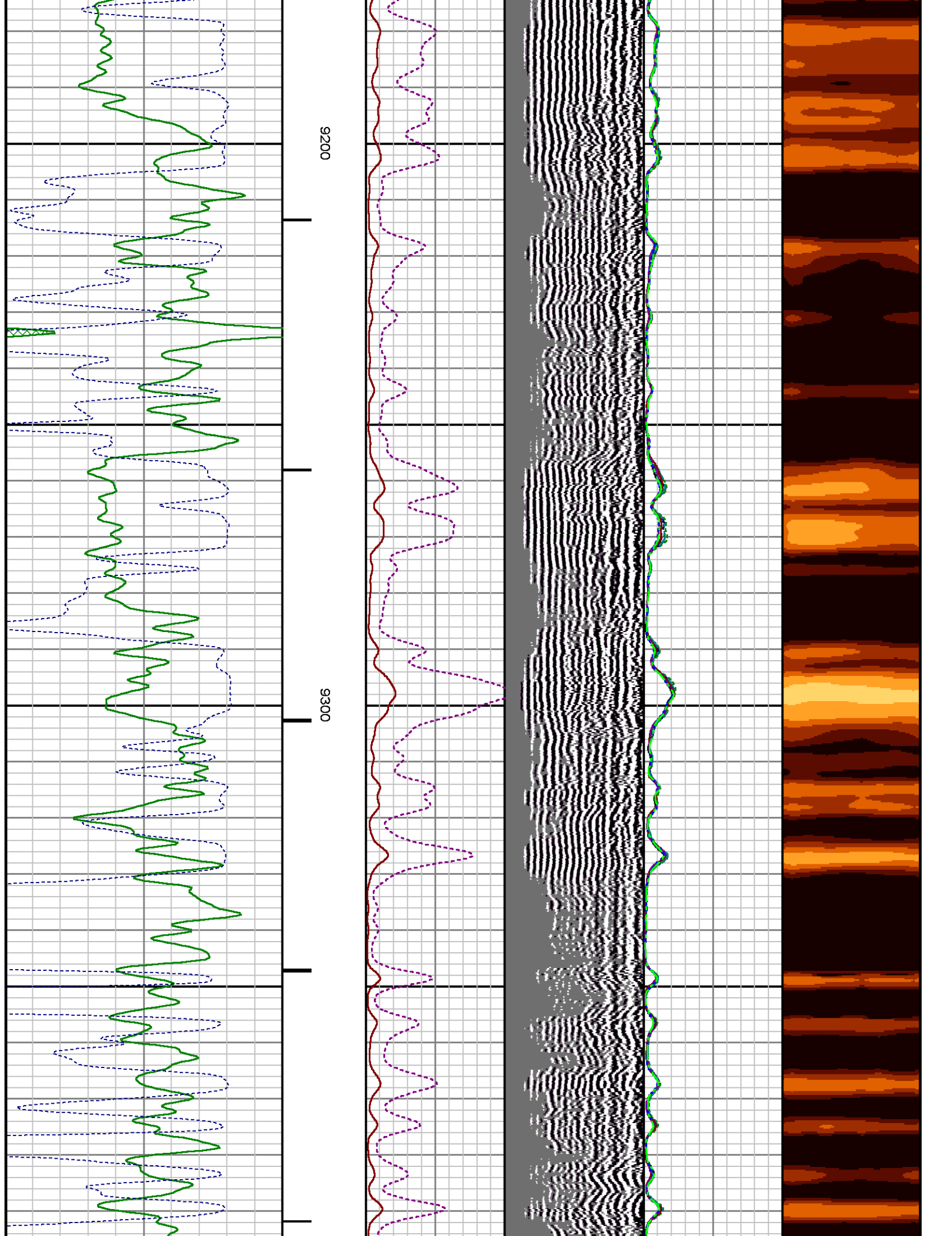


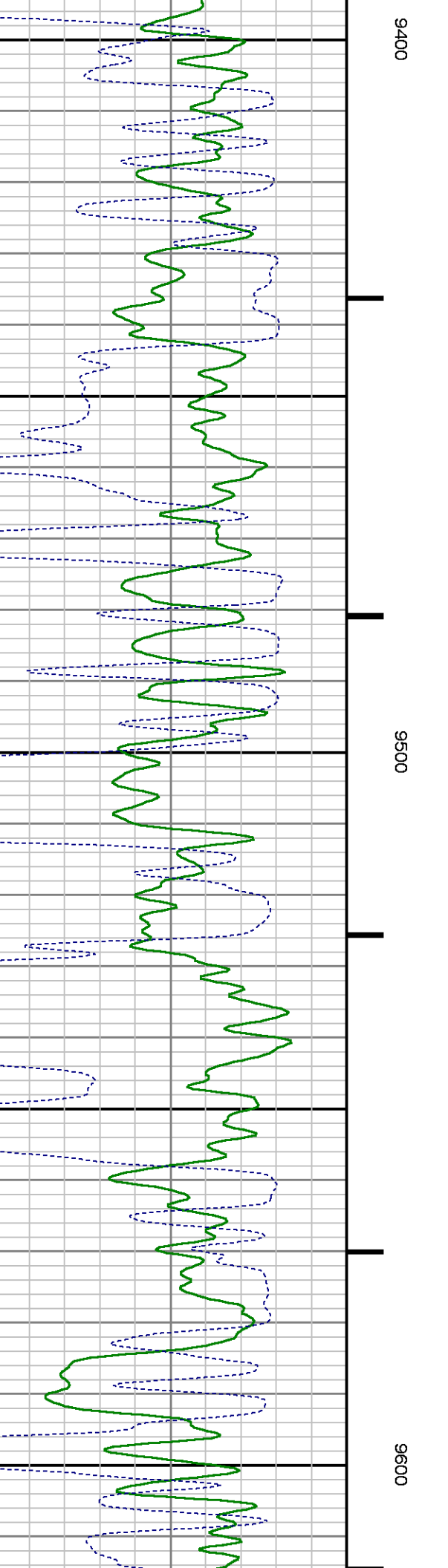
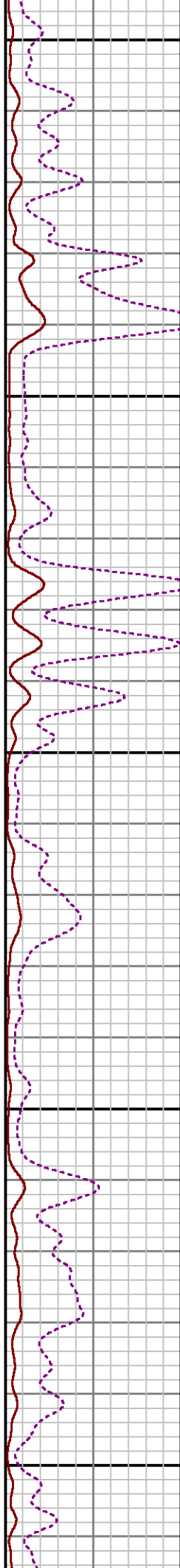
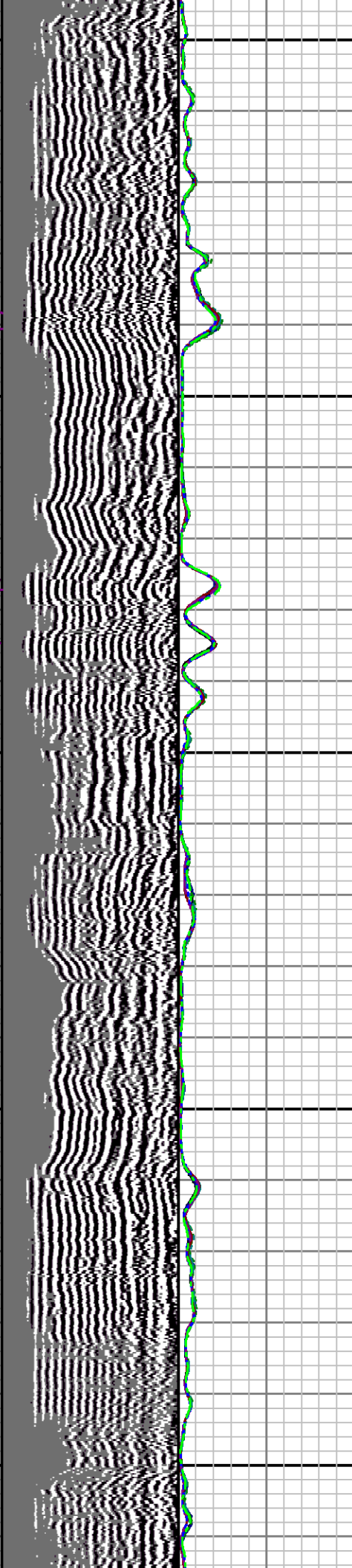


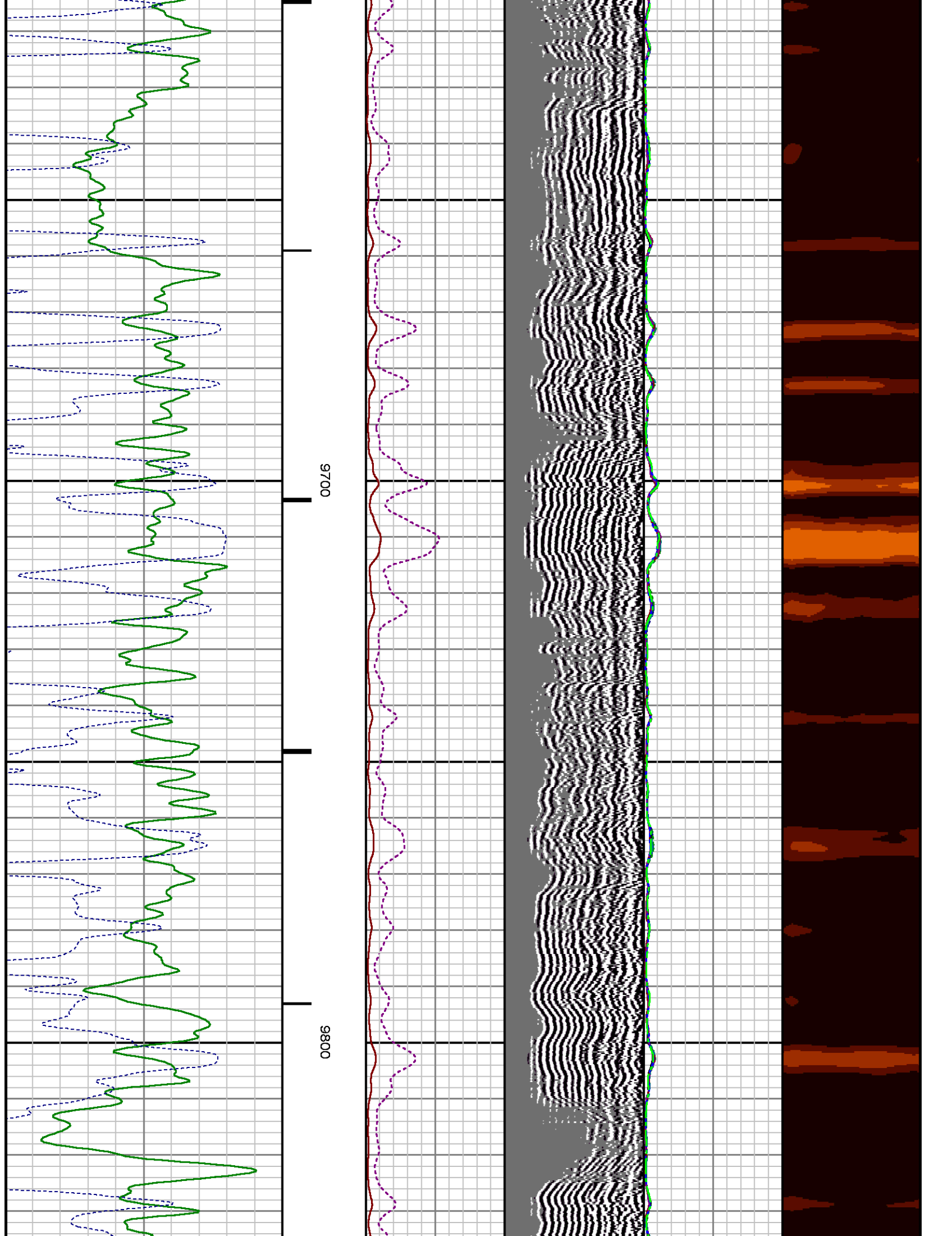


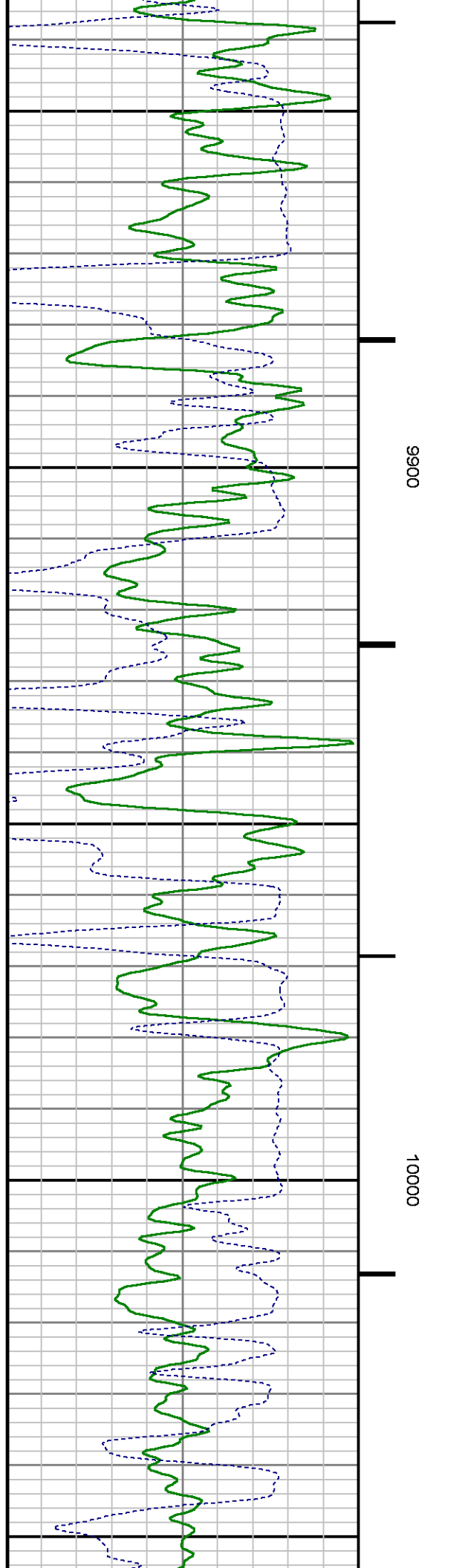
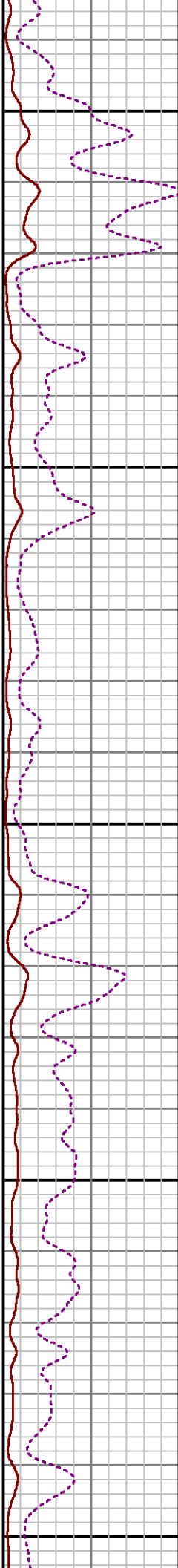
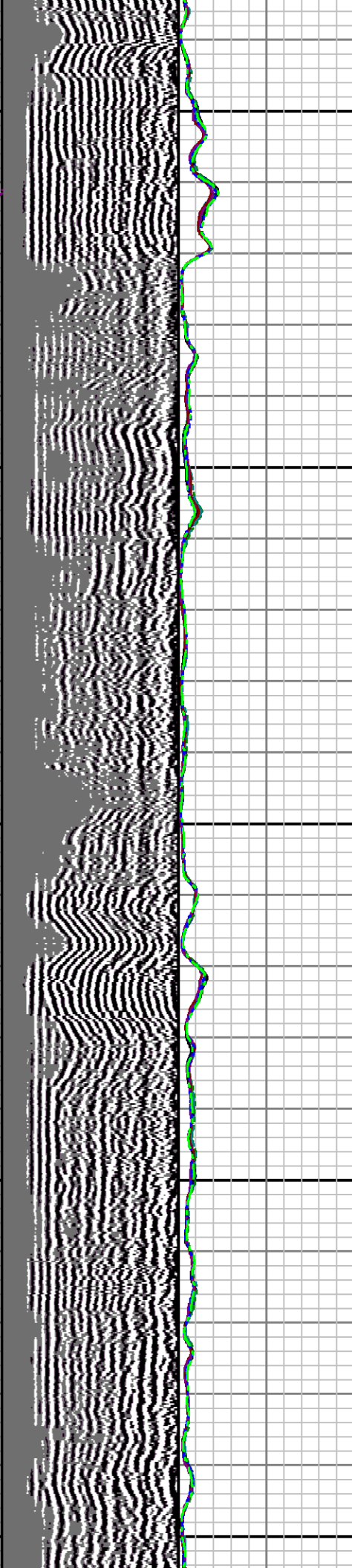


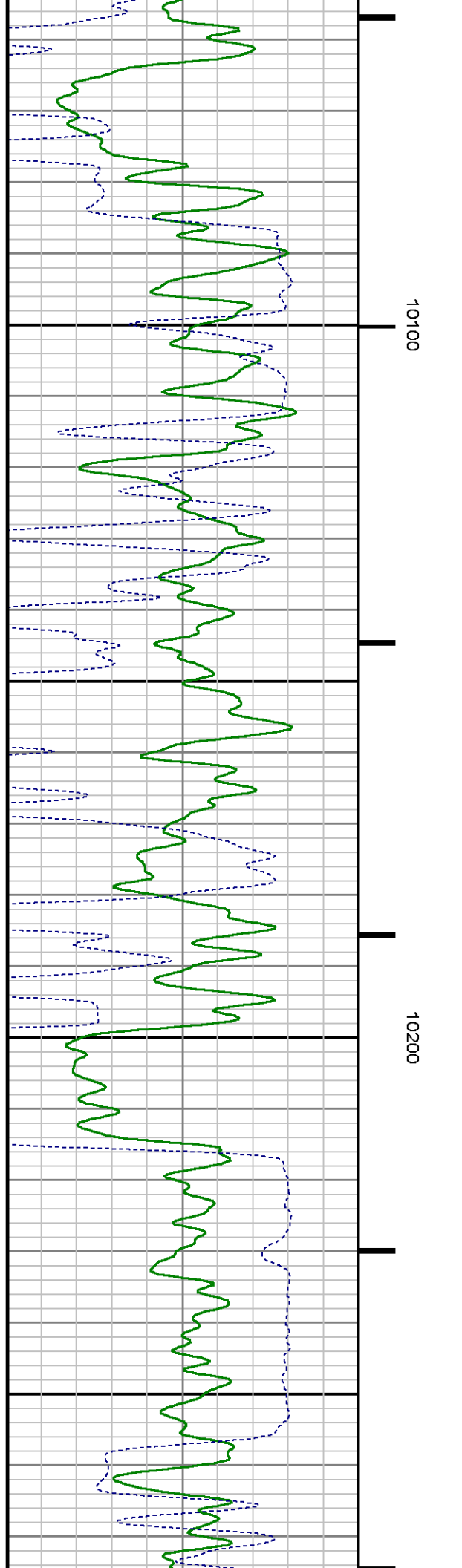
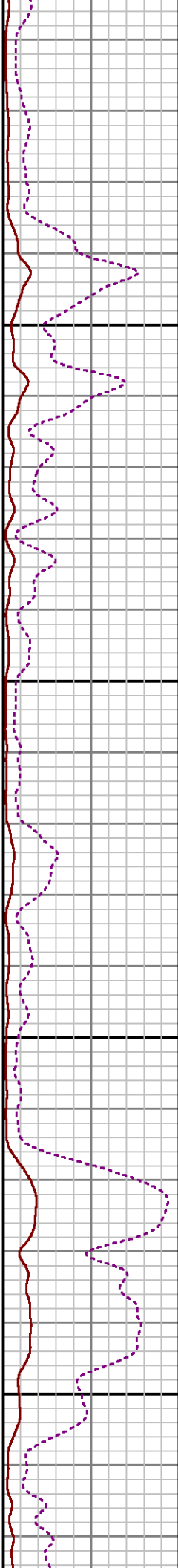
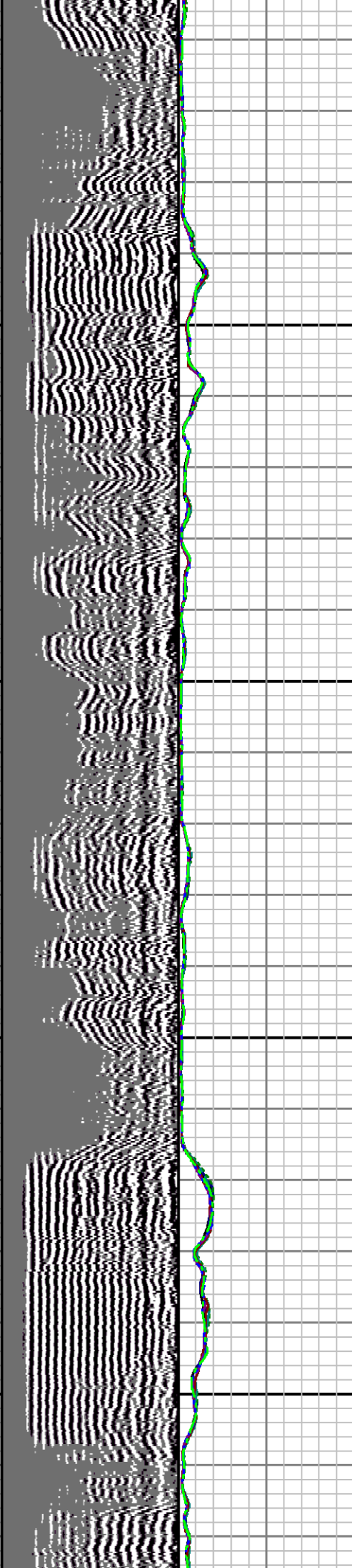


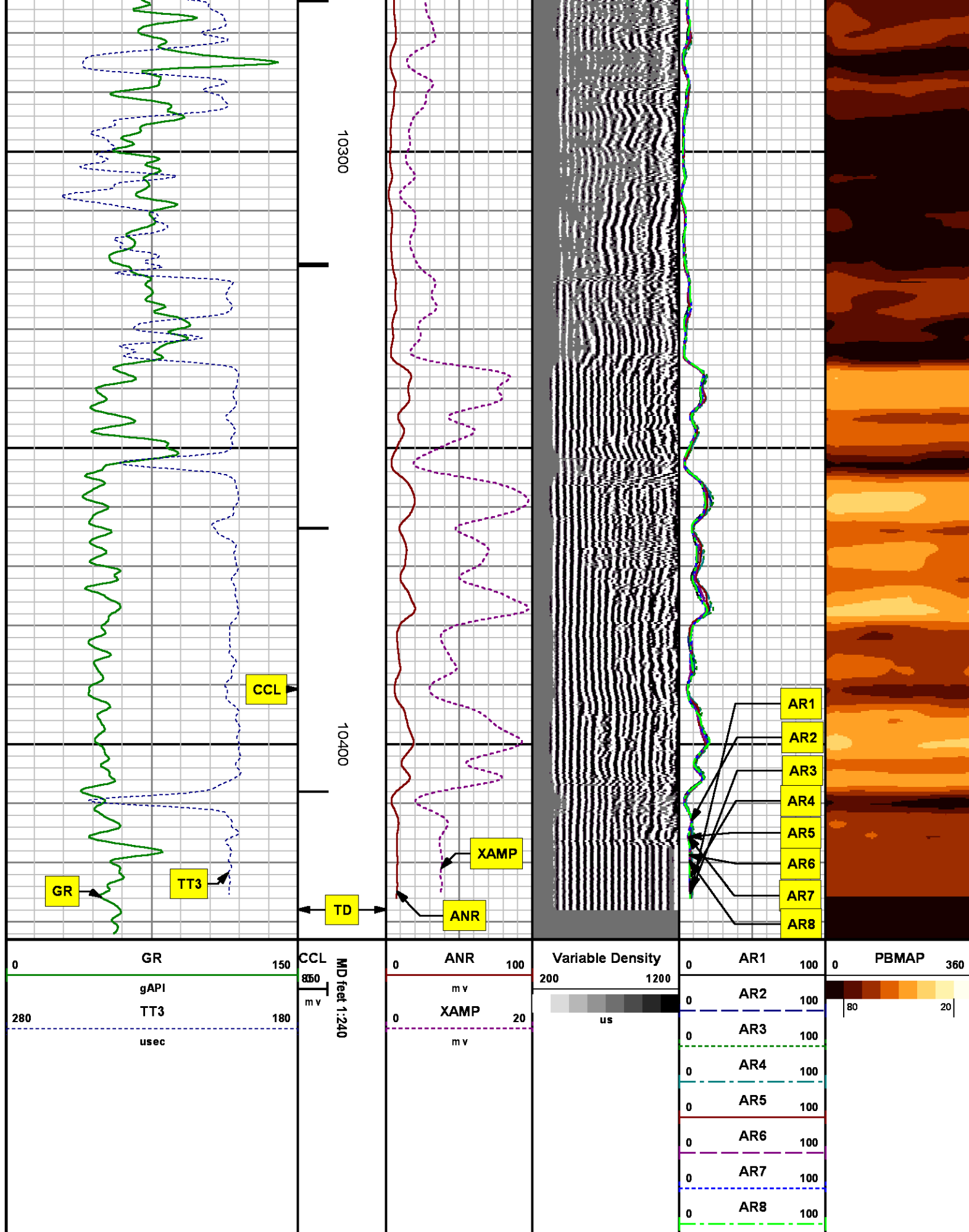












REPEAT SECTION

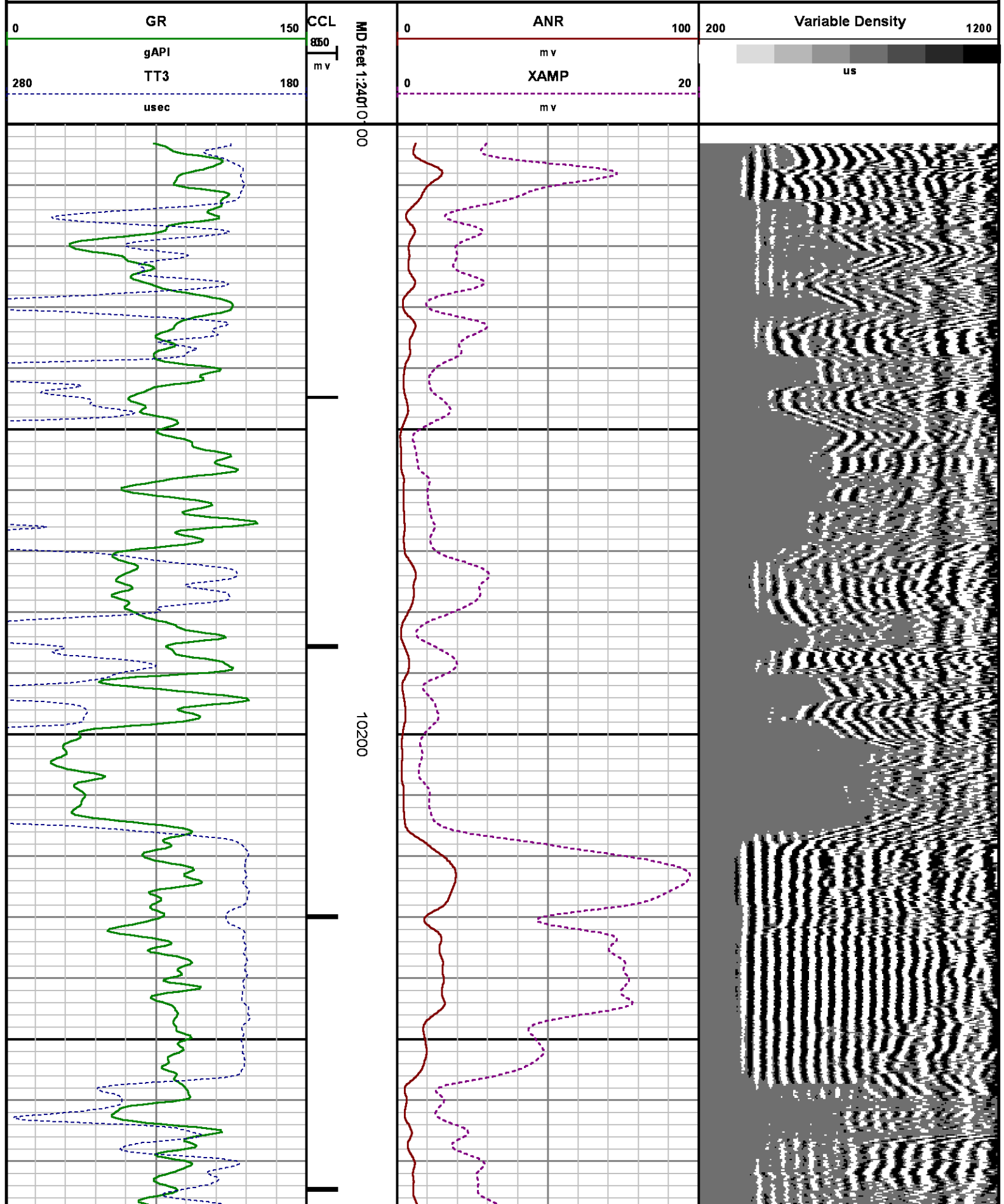
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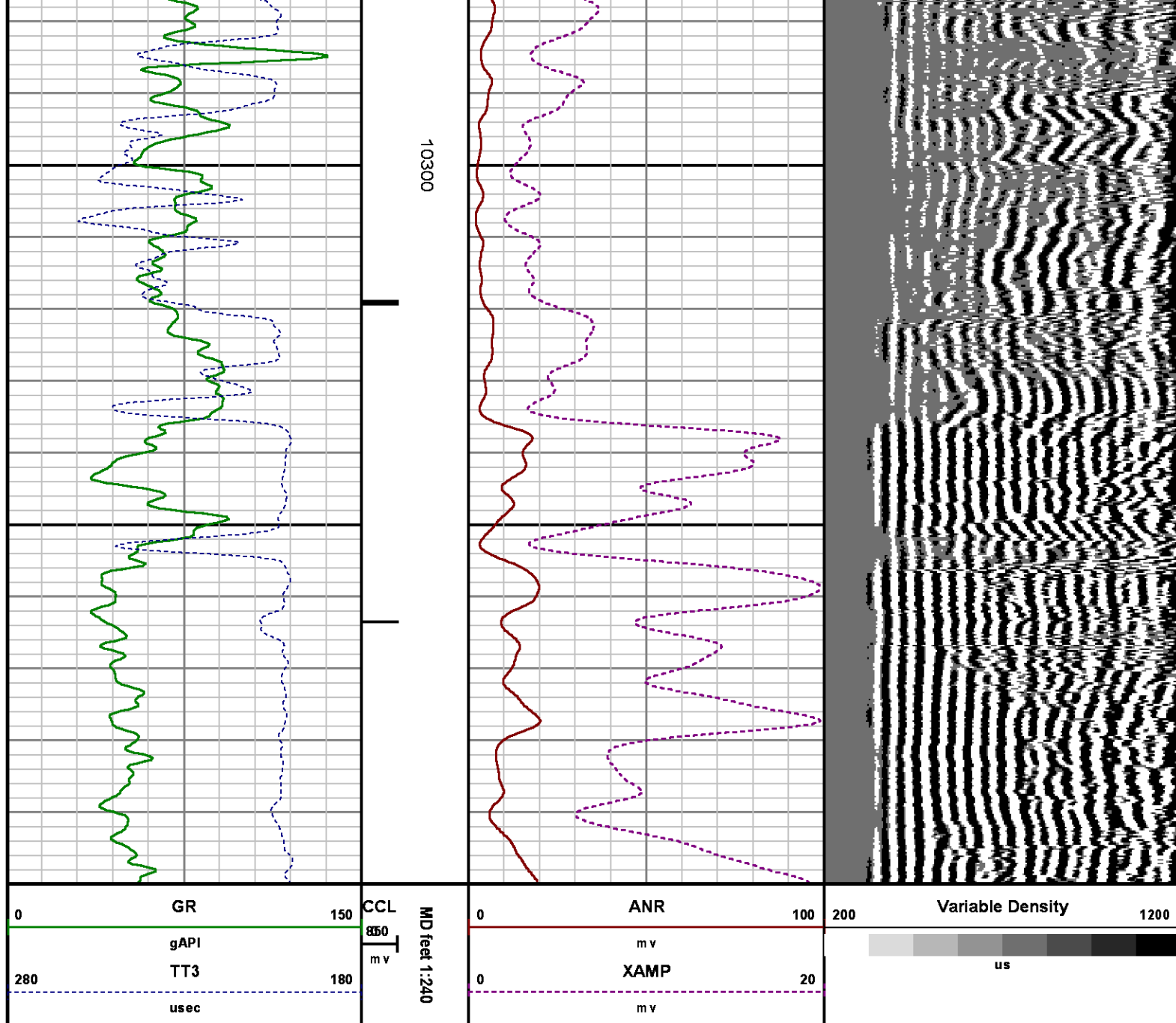
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	10103.490	10433.490
RAL	Amp Gate Start Near	195.000	usec	10103.490	10433.490
RAL	Amp Gate Start Radial	195.000	usec	10103.490	10433.490
RAL	Amp Gate Width Far	25.000	usec	10103.490	10433.490
RAL	Amp Gate Width Near	25.000	usec	10103.490	10433.490
RAL	Amp Gate Width Radial	25.000	usec	10103.490	10433.490
RAL	casing od	4.500	inches	10103.490	10433.490
RAL	casing wt	11.600	lbm/ft	10103.490	10433.490
RAL	FB Start Far	291.900	usec	10103.490	10433.490
RAL	FB Start Near	175.391	usec	10103.490	10433.490
RAL	FB Start Radial	175.391	usec	10103.490	10433.490
RAL	FB Thresh Far	10.000	mv	10103.490	10433.490
RAL	FB Thresh Near	4.000	mv	10103.490	10433.490
RAL	FB Thresh Radial	4.000	mv	10103.490	10433.490
RAL	Fluid Travel Time	200.000	usec/ft	10103.490	10433.583

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHPV496TN_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jul 12 13:37:29 2014

TOOL SERIES: 1426XA

ASSET:

496

SEQ:

TN

Tool Delay [usec]	-53.00	Tank OD in	5.50	Tank Wt lbm/ft	15.50	Tank ID in	4.95
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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	-0.158	100.00	0.32
3 Ft. Receiver	218	216	30	166	12	0.231	100.00	0.32
5 Ft. Receiver	326	325	30	254	25	0.241	150.00	0.36
Radial #1	218	216	30	166	10	0.798	100.00	0.32
Radial #2	218	216	30	166	10	0.467	100.00	0.31
Radial #3	217	216	30	166	10	0.352	100.00	0.32
Radial #4	217	216	30	166	10	0.090	100.00	0.32
Radial #5	218	216	30	166	10	0.265	100.00	0.32
Radial #6	218	216	30	166	10	0.206	100.00	0.32
Radial #7	218	216	30	166	10	0.296	100.00	0.32
Radial #8	220	216	30	166	10	0.171	100.00	0.33

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496012 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jul 12 13:38:29 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: 012

Tool Delay [usec]	-53.00	Casing OD in	4.50	Casing Wt lbm/ft	11.60	Casing ID in	4.00
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RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	166	25	0.001	0.000	1.00	100.000
3 Ft. Receiver	200	30	2.394			
5 Ft. Receiver	317	30	2.570			
Radial #1	200	30	1.707			
Radial #2	200	30	1.748			
Radial #3	200	30	2.063			
Radial #4	200	30	2.083			
Radial #5	200	30	2.288			
Radial #6	200	30	2.223			
Radial #7	200	30	1.785			
Radial #8	200	30	1.662			

GAMMA RAY

Calibration File: C:\case\calver\GR\45612.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jul 12 17:17:20 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: 12

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 NER 513-32

Field

RULISON

County

GARFIELD

State

CO

File No:

CH087290

API No:

05045217650000

Location

SHL: 149' FNL & 2582' FWL (5 7S 93W)

BHL: 1450' FSL & 648' FWL (32 6S 93W)

Elevations

KB 7629

DF

GL 7603

32 6S 93W

RU 23-5 PAD

NABORS 576

SEC 32 TWP 6S RGE 93W