



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH089581 WPX ENERGY

Well SAVAGE RWF 44-25

API No: RULISON

County GARFIELD State COLORADO

05045220030000

## Location

SHL: 1155' FSL & 1381' FEL

RWF 43-25 PAD BHL: 1257' FSL & 566' FEL (SESE)

SEC 25 TWP 6S RGE 94S

## Other Services

RPM

25 6S 94W

NABORS 677

Permanent Datum GL Elevation 6234 ft

Log Measured From KB 26 ft Above P. D.

Drill Measured From KELLY BUSHING

Elevations

KB 6260 ft

DF

GL 6234 ft

Date	30/AUG/14	
Run	ONE	
Service Order	US089581J	
Depth Driller	8858 ft	
Depth Logger	8776 ft	
Bottom Logged Interval	8766 ft	
Top Logged Interval	26 ft	
Time Started	0800	
Time Finished	1200	
Operator Rig Time	4 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	74 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	65 fpm	
Maximum Recorded Temperature	245 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRAND LUTION
Recorded By	FLOYD RENEAU	
Witnessed By	BOB CADY	

- 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	26 ft	1108 ft
8.75 in	1108 ft	8858 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			26 ft	1108 ft
4.5 in	11.6 lbm/ft	I-80	26 ft	8858 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 2.5 feet.
Logged with zero PSI at wellhead.
BHT = 245°F
SJ = 5538'-5558'

THERE ARE MANY 30' JOINTS IN THIS WELL.

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

PRIMARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	31.600	8777.000
RAL	Amp Gate Start Near	195.000	usec	31.600	8777.000
RAL	Amp Gate Start Radial	195.000	usec	31.600	8777.000
RAL	Amp Gate Width Far	25.000	usec	31.600	8777.000
RAL	Amp Gate Width Near	25.000	usec	31.600	8777.000
RAL	Amp Gate Width Radial	25.000	usec	31.600	8777.000
RAL	casing od	4.500	inches	31.600	8777.000
RAL	casing wt	11.600	lbm/ft	31.600	8777.000
RAL	FB Start Far	291.900	usec	31.600	8777.000
RAL	FB Start Near	180.000	usec	31.600	8777.000
RAL	FB Start Radial	180.000	usec	31.600	8777.000
RAL	FB Thresh Far	10.000	mV	31.600	8777.000
RAL	FB Thresh Near	4.000	mV	31.600	8777.000
RAL	FB Thresh Radial	4.000	mV	31.600	8777.000
RAL	Fluid Travel Time	200.000	usec/ft	31.600	8776.943

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES
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1426XA -12.360  
1426XA -11.360  
2459XA -7.250  
2459XA -5.390  
2459XA 0.000

ACAL	ANR	AR1	AR2	AR3	AR4
AR5	AR6	AR7	AR8	CHV	FPR2
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

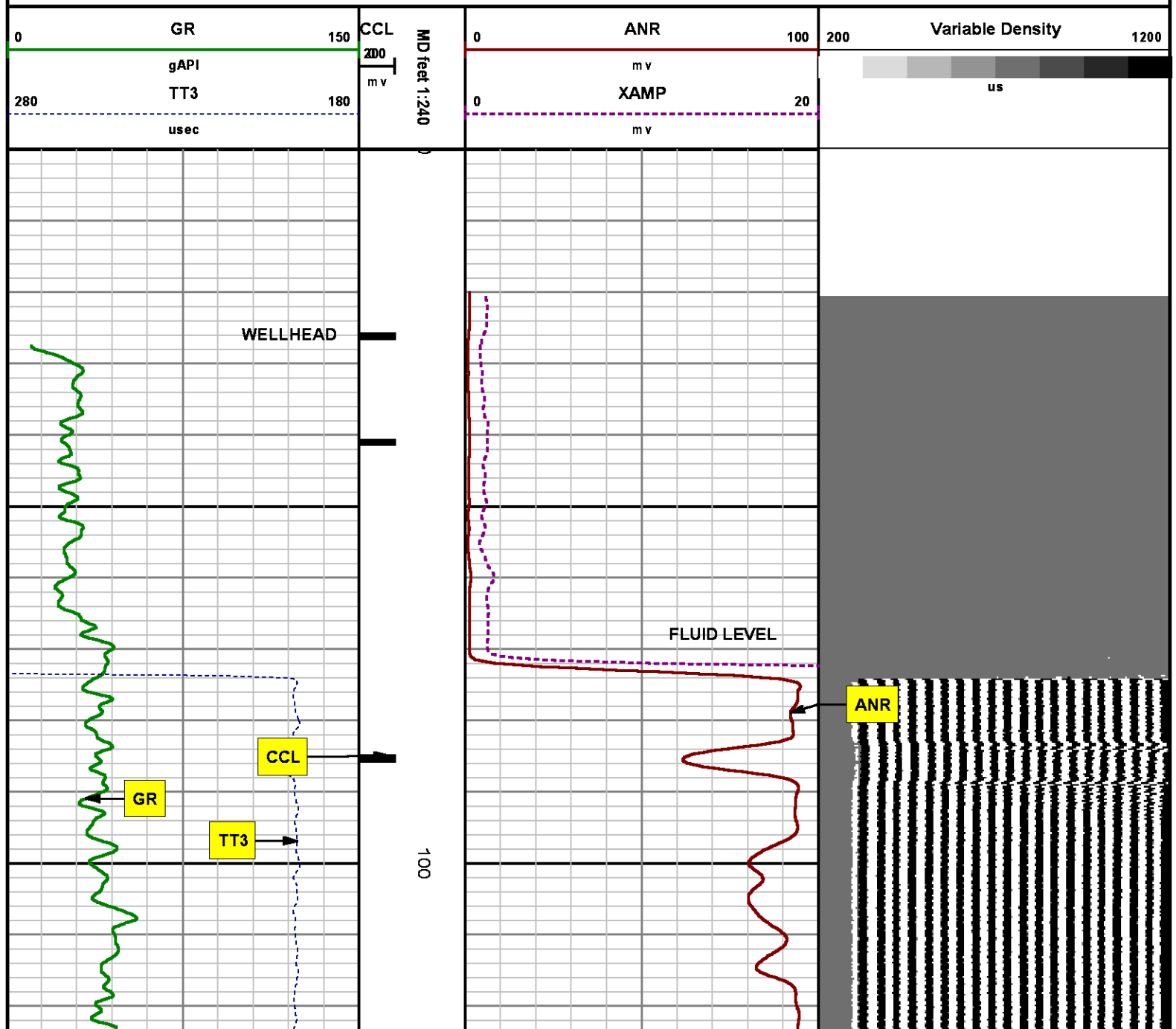
Well : SAVAGE RWF 44-25

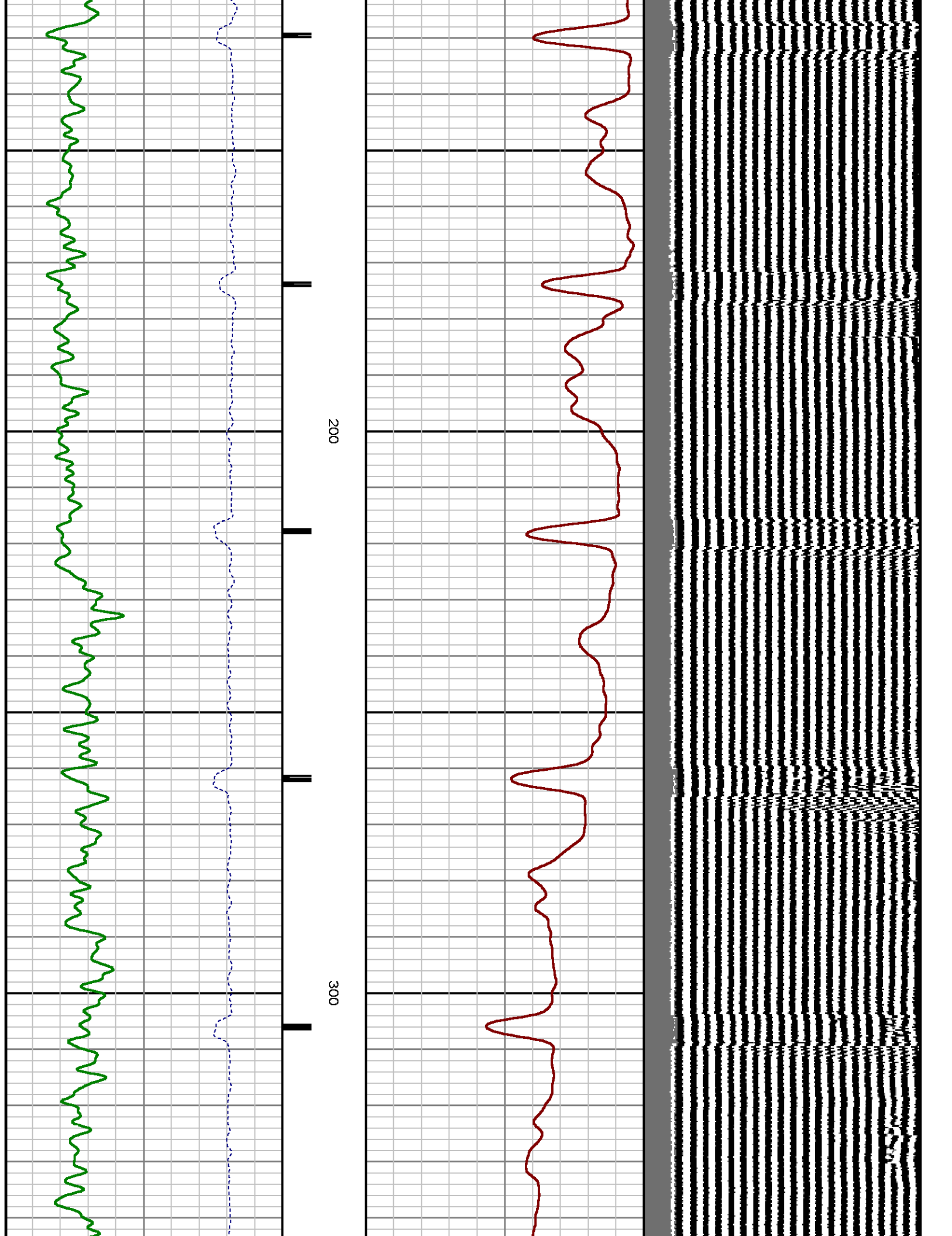
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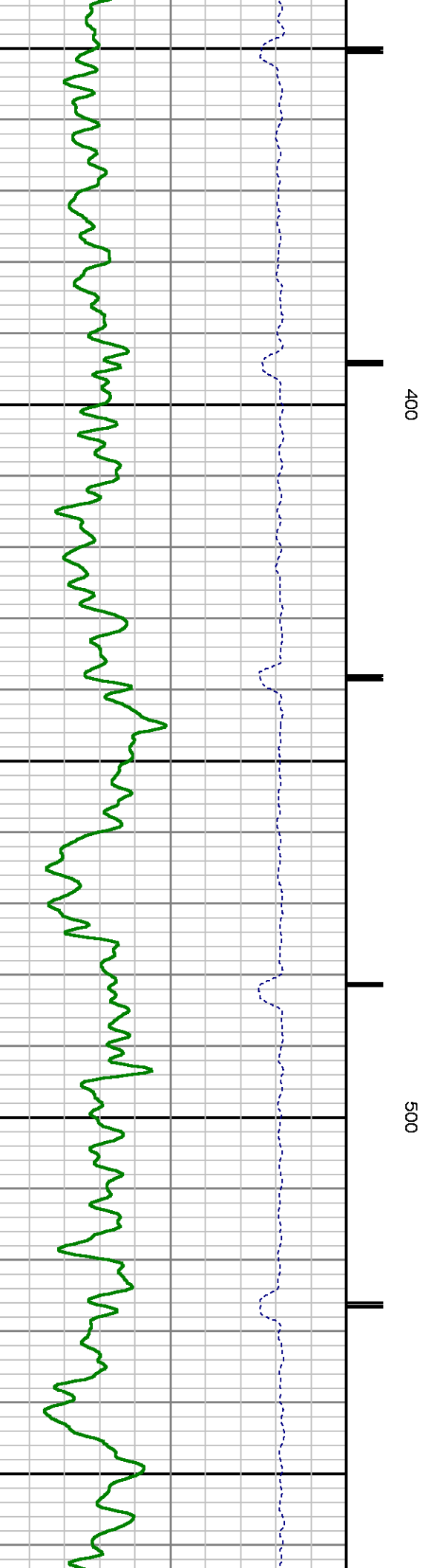
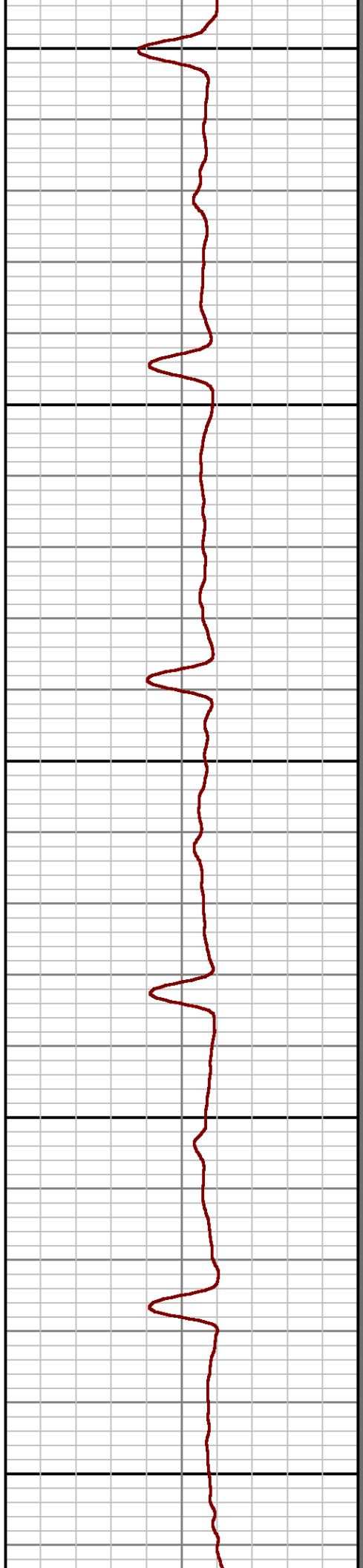
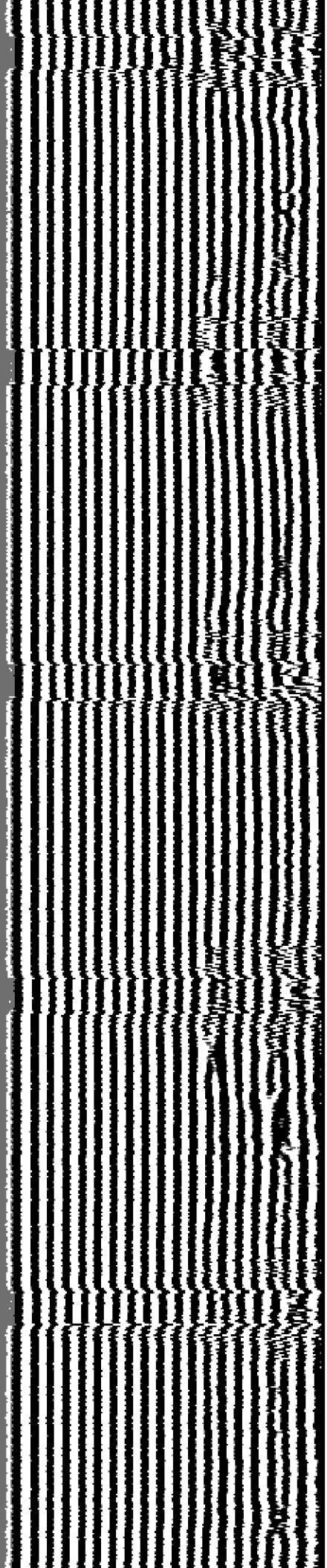
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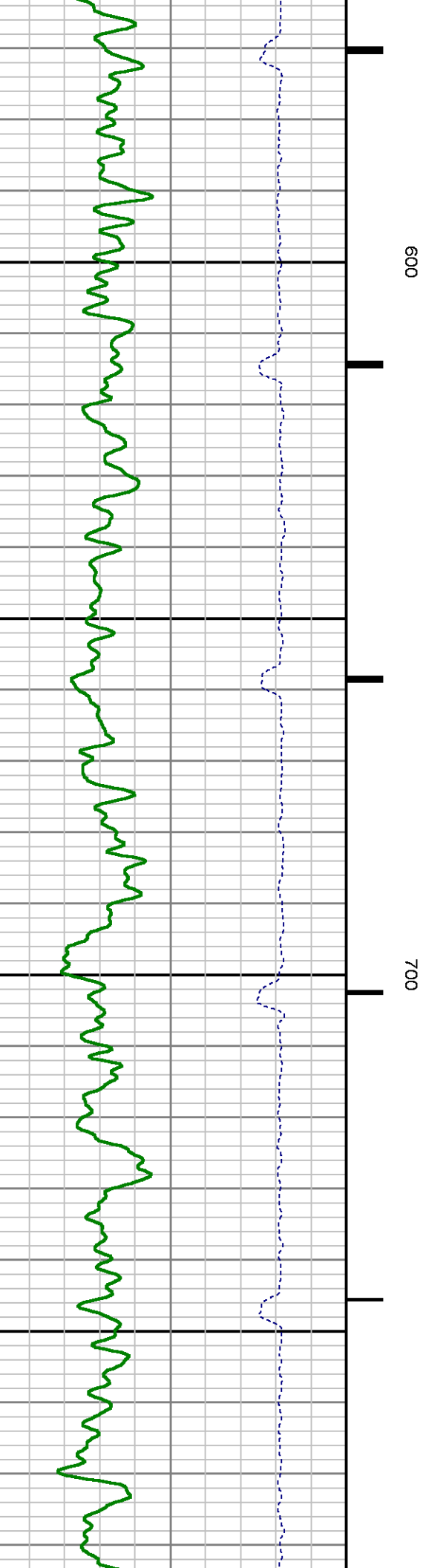
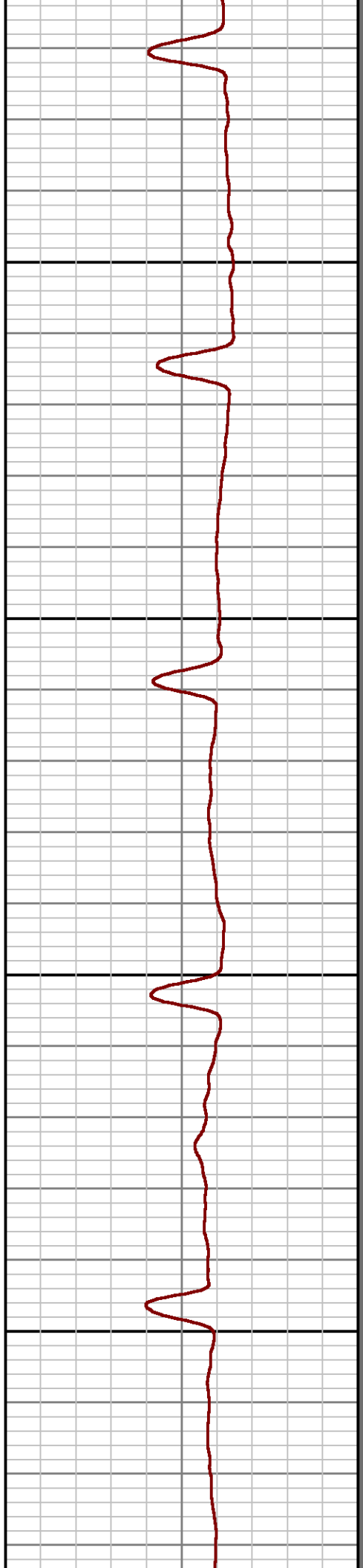
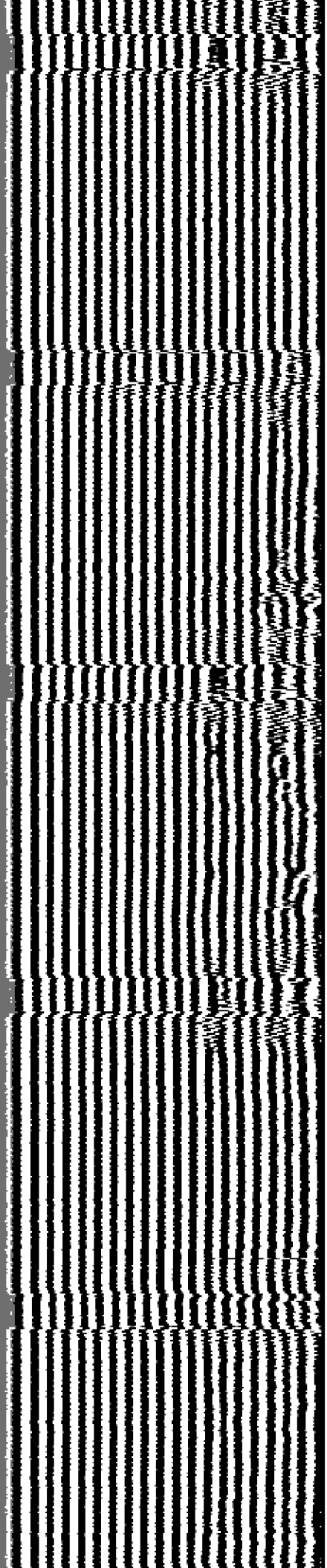
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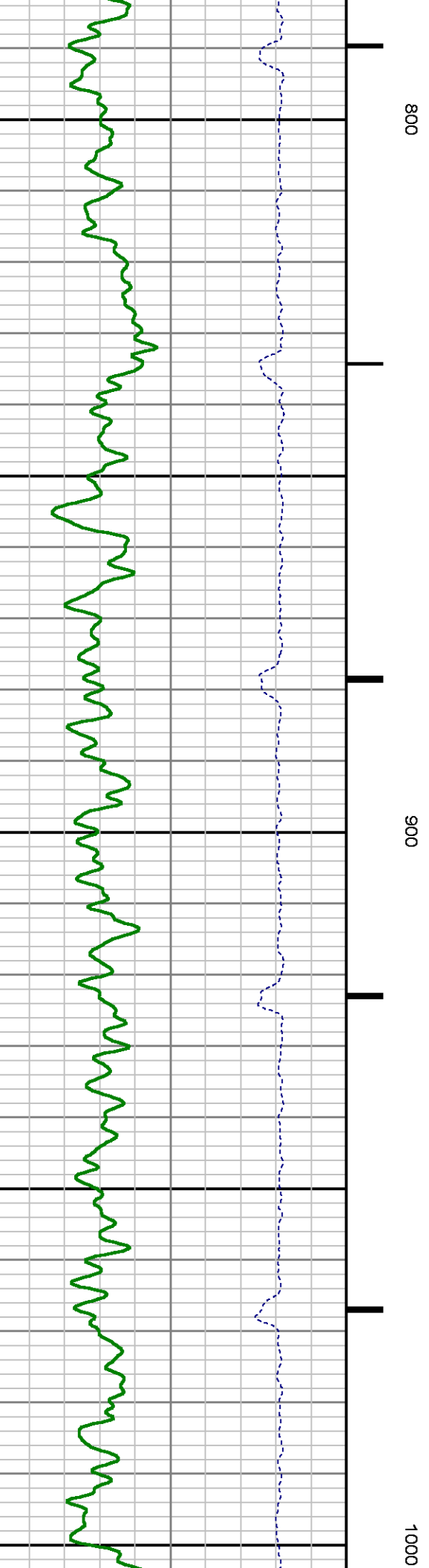
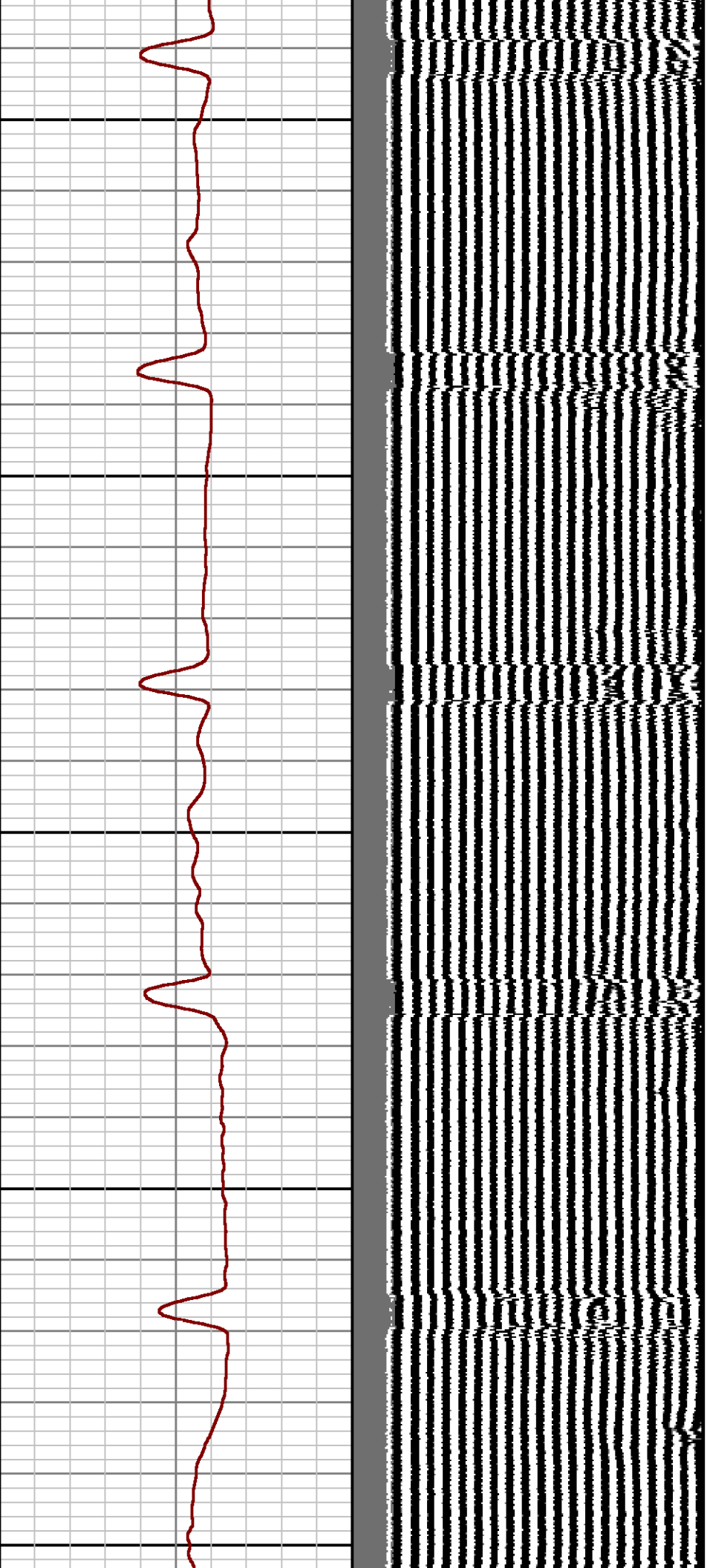
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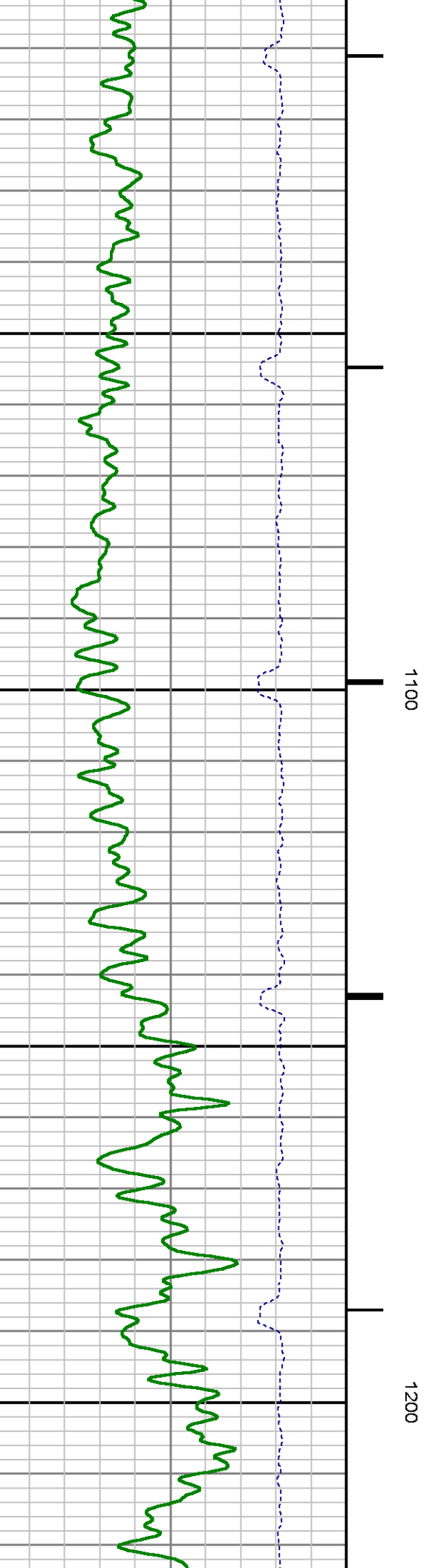
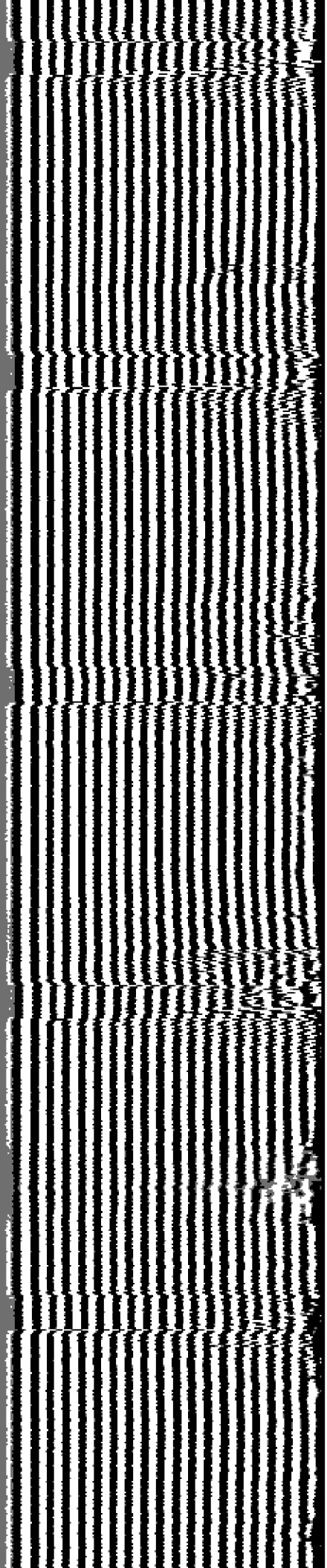
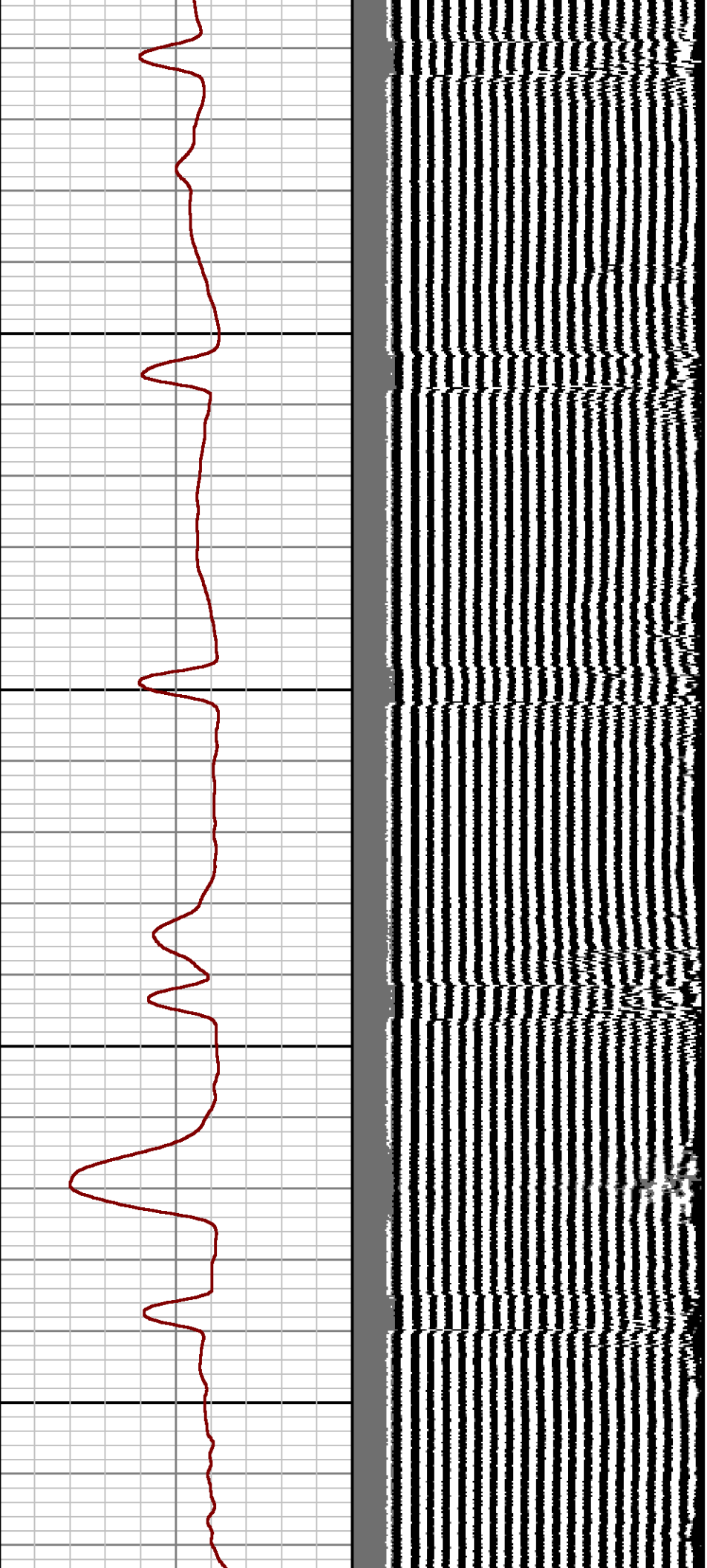




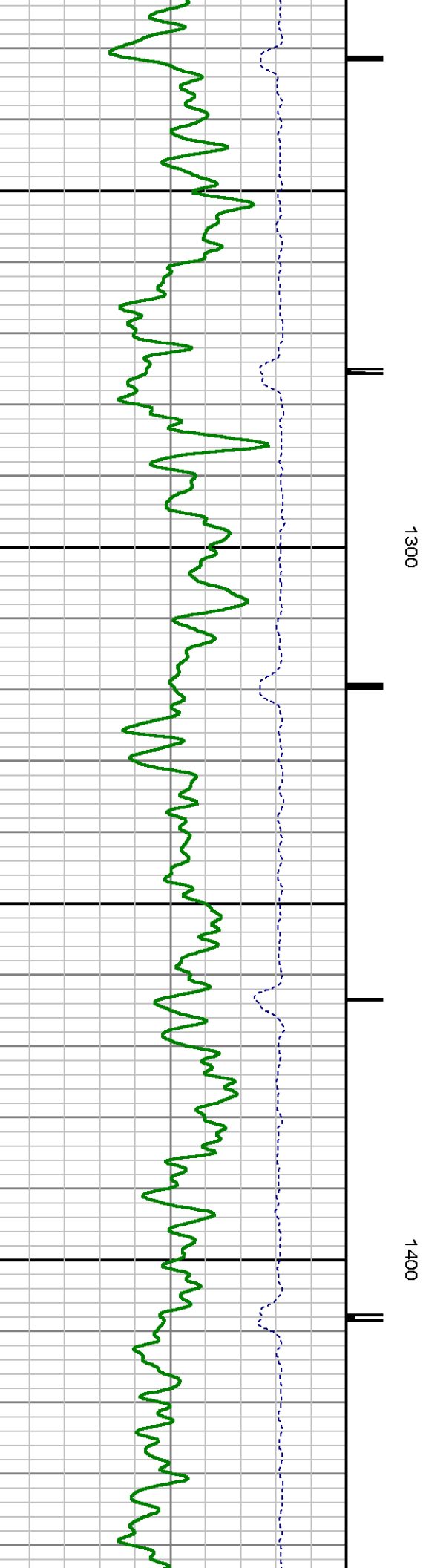
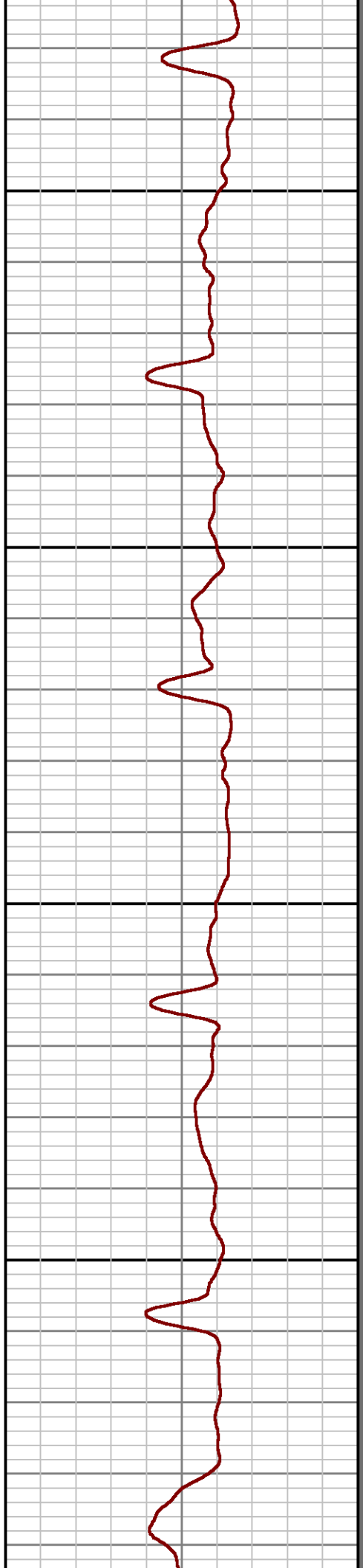
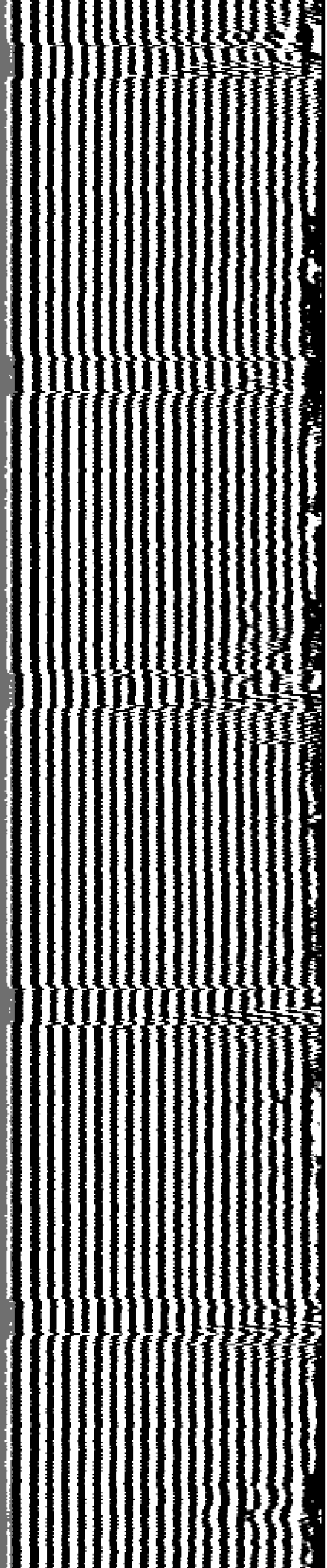


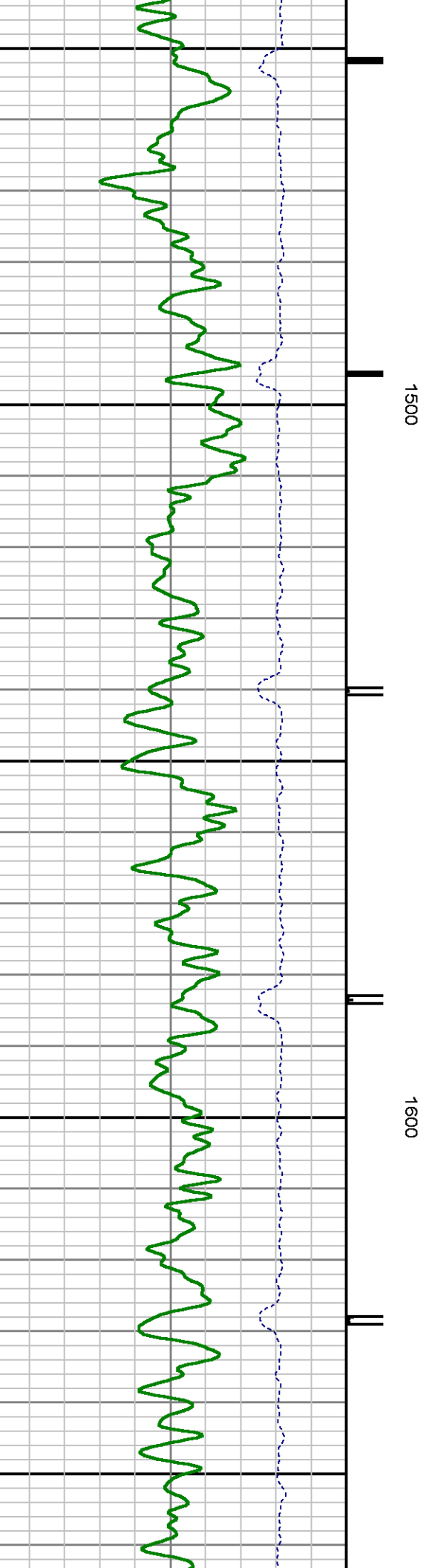
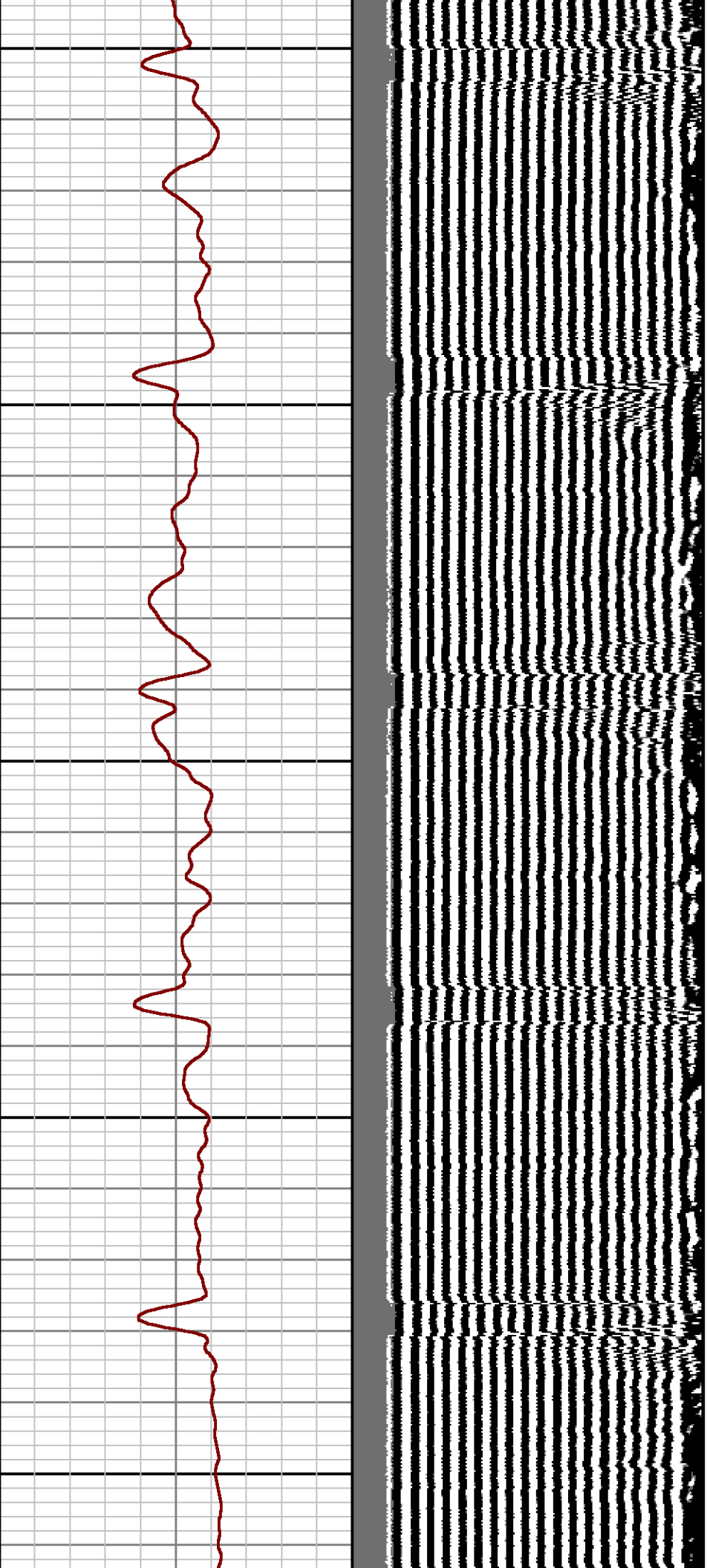


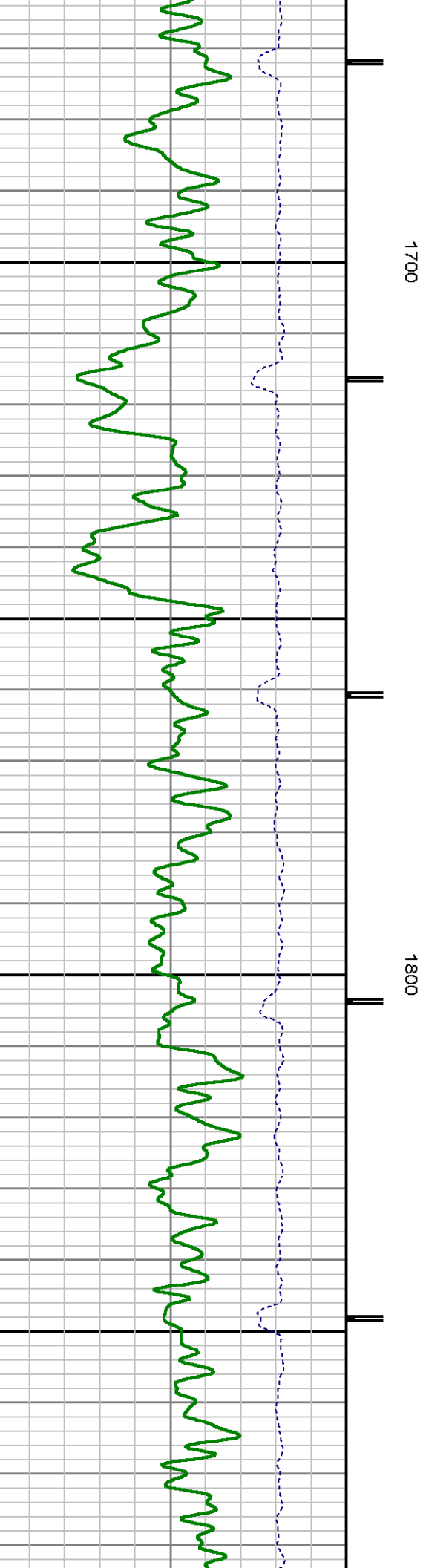
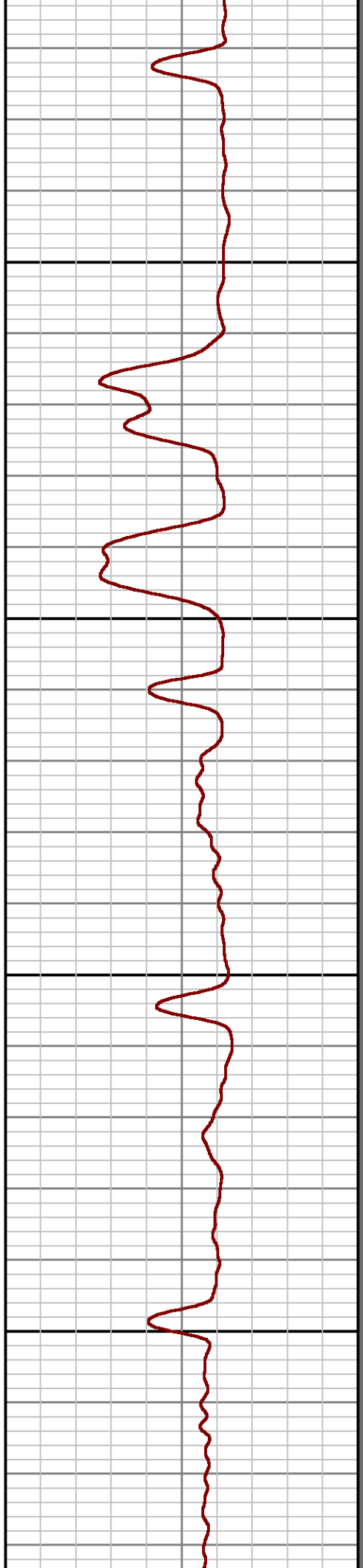
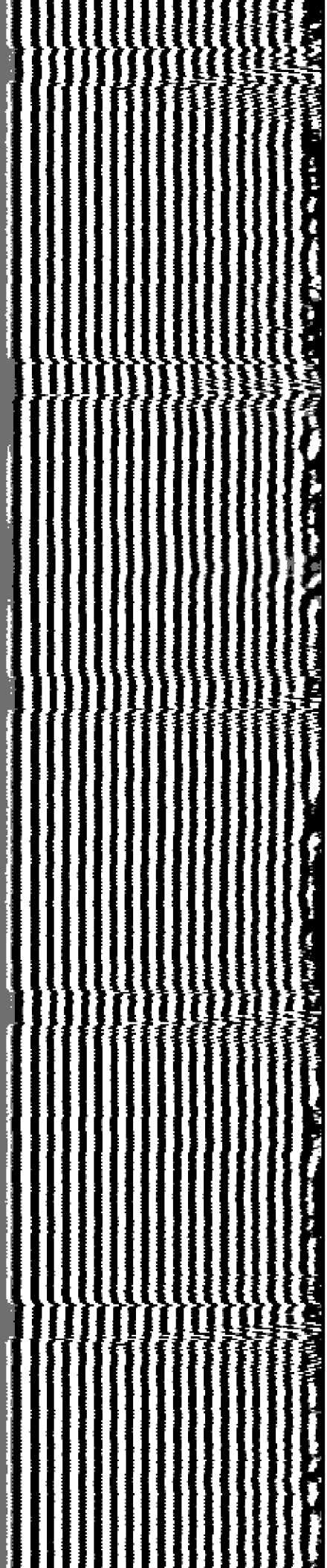


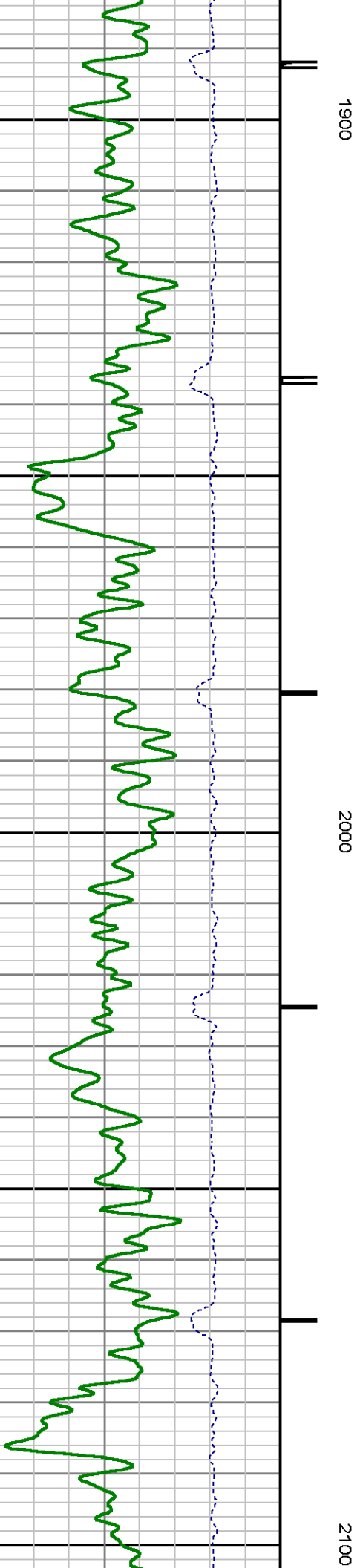
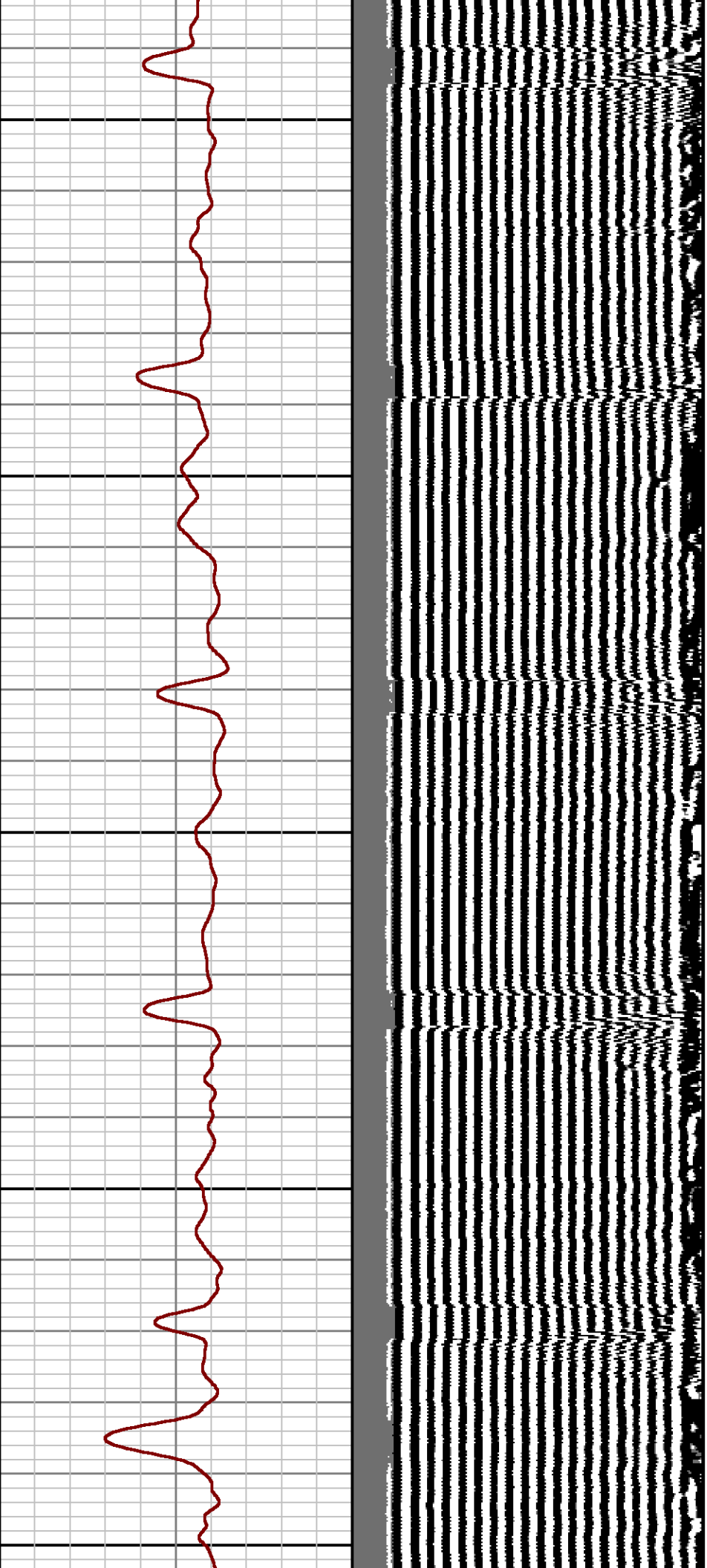


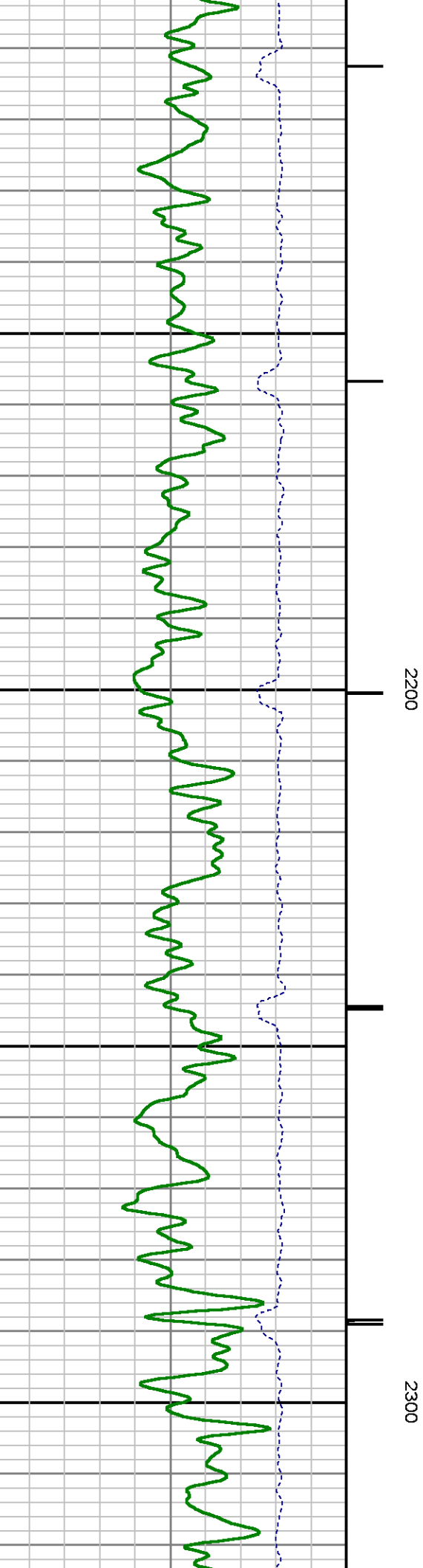
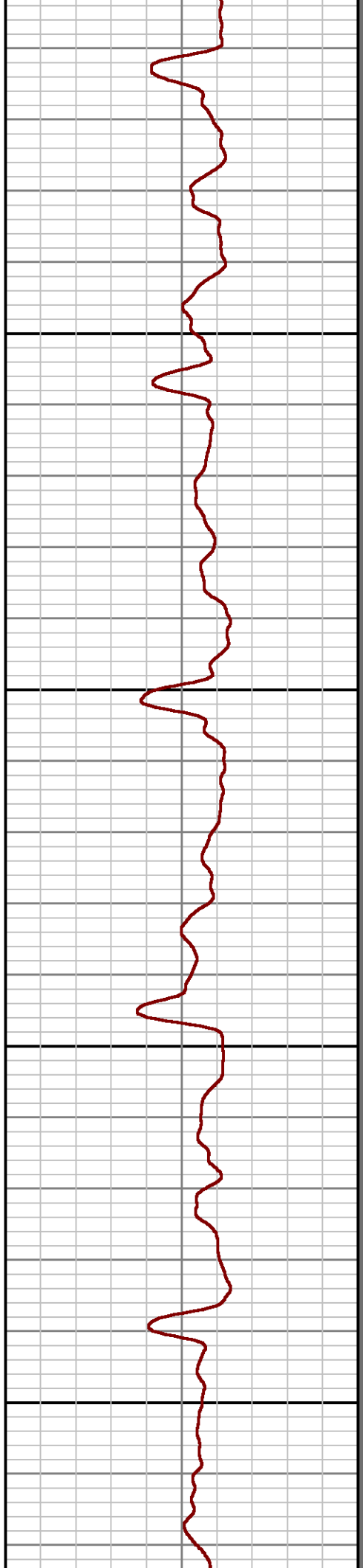
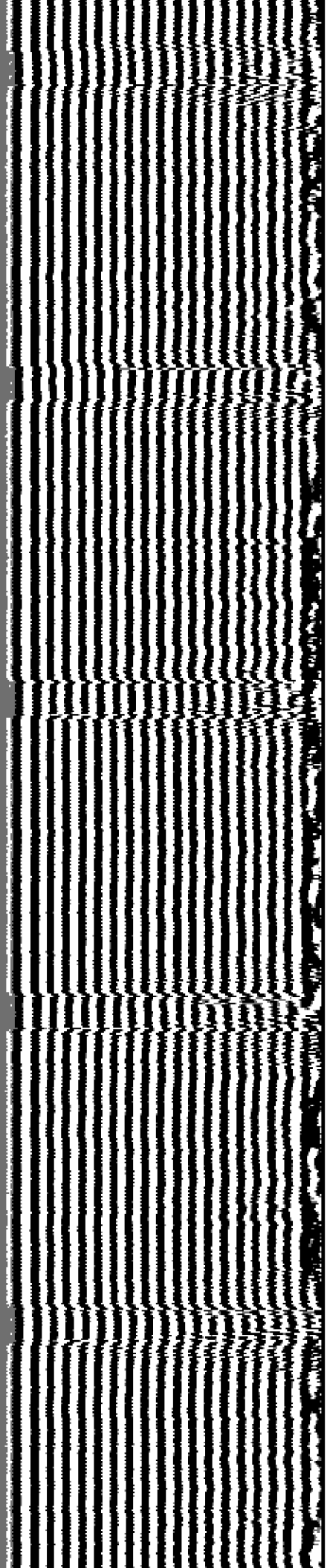




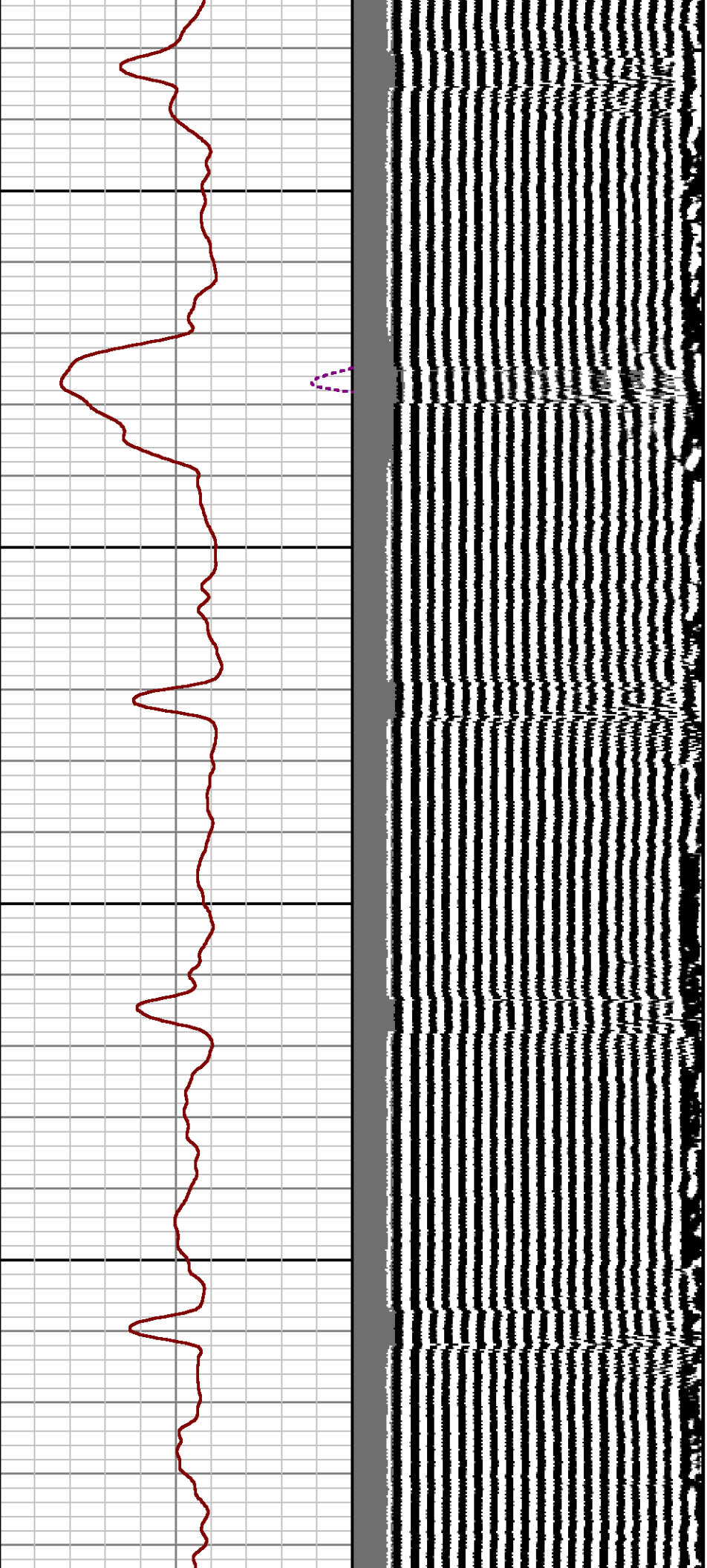






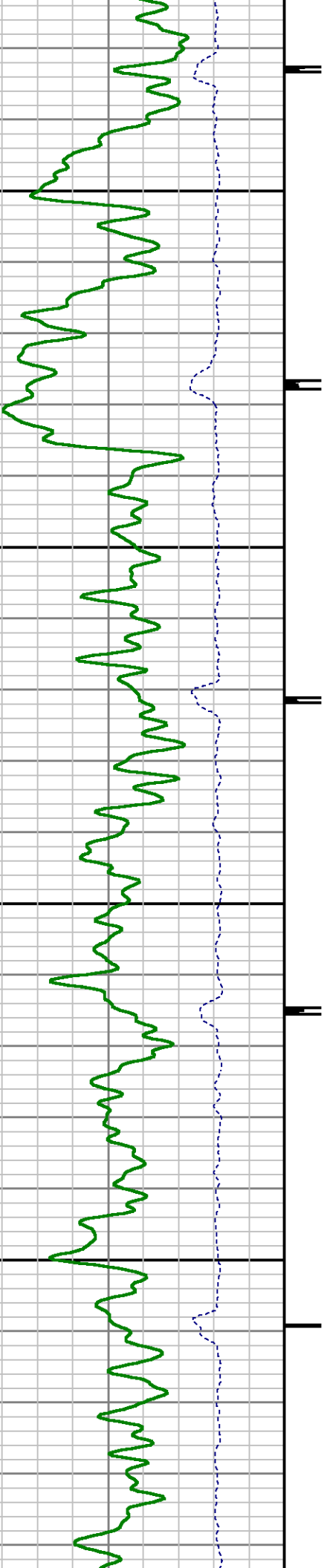


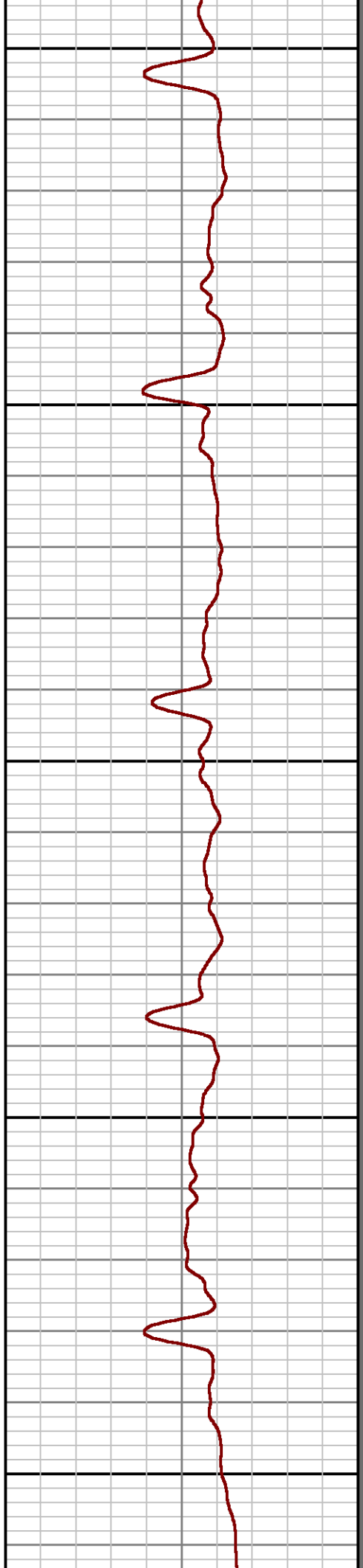
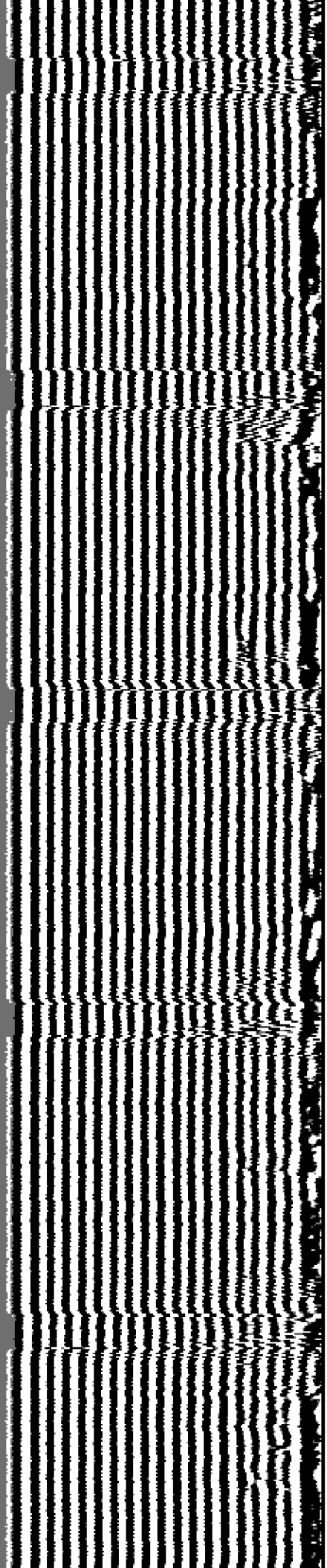




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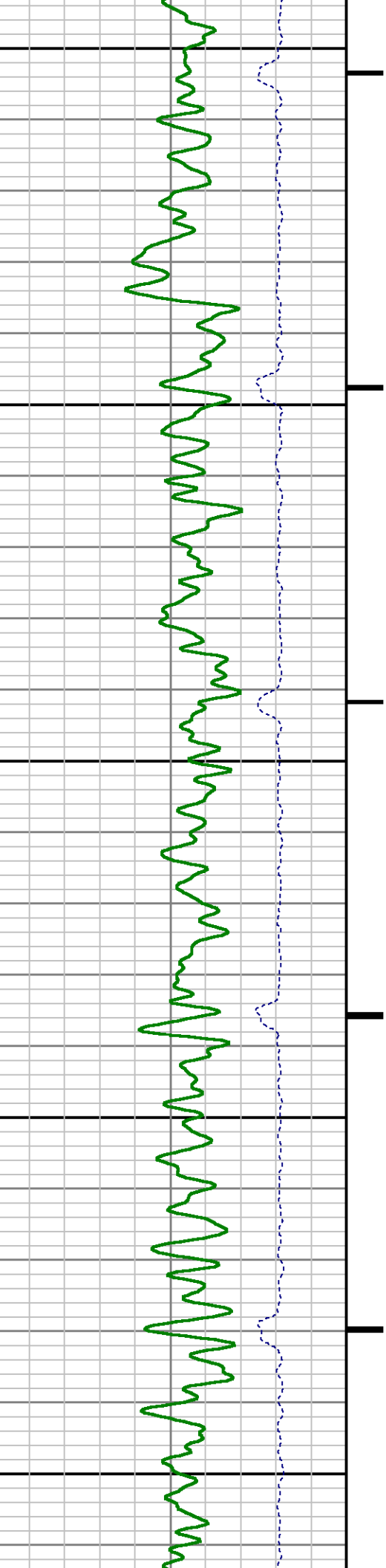
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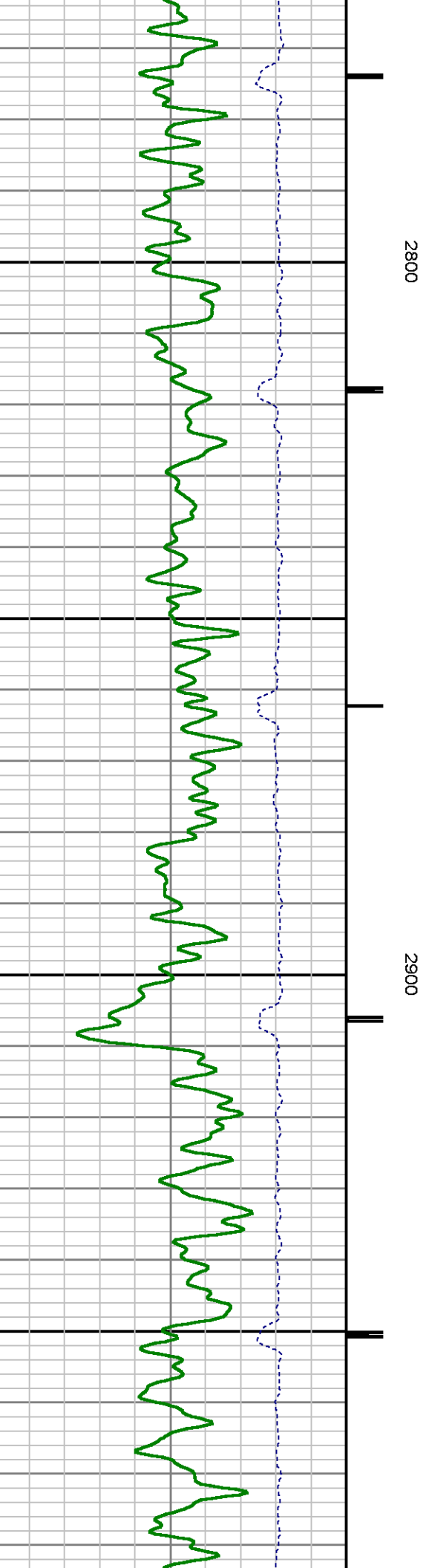
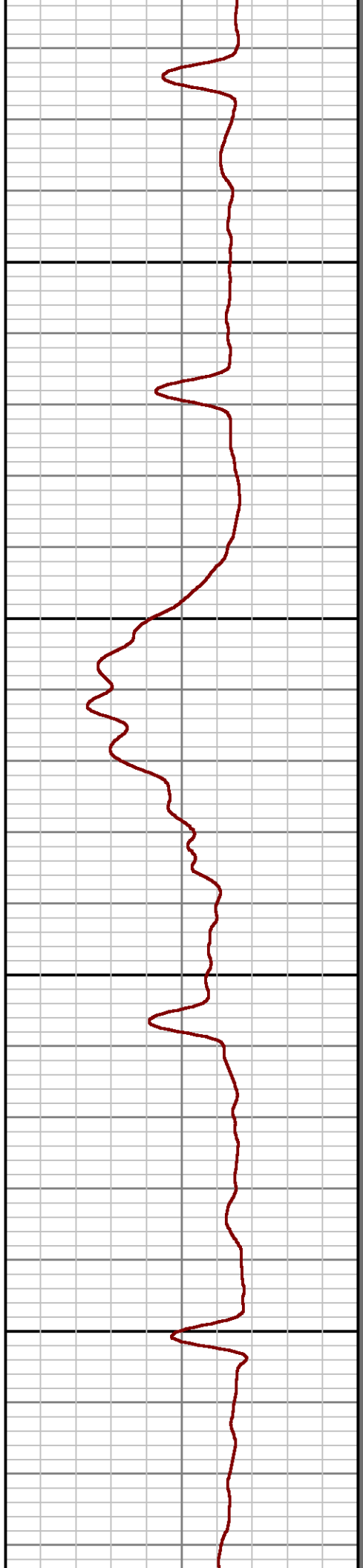
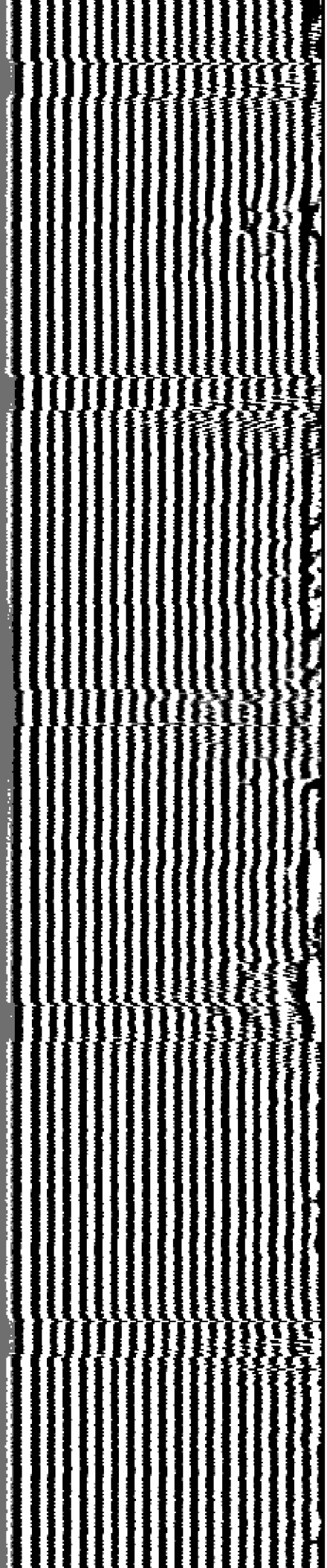


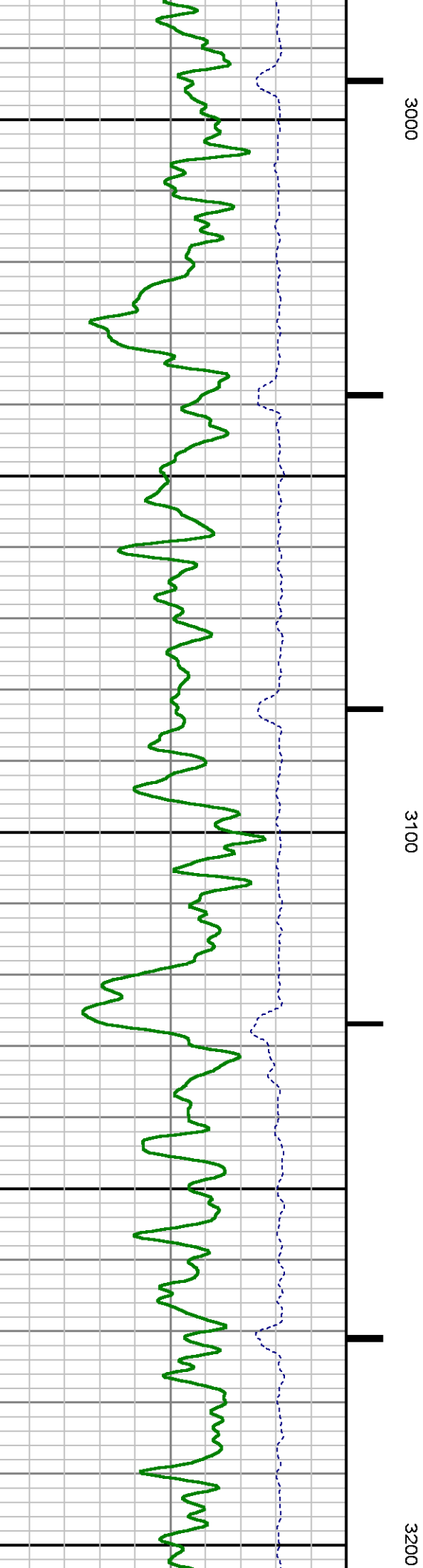
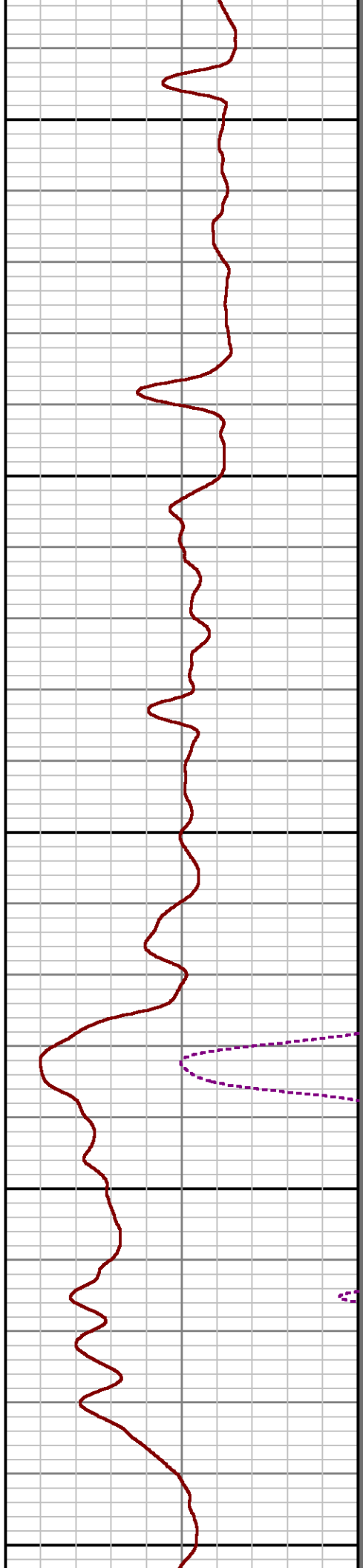
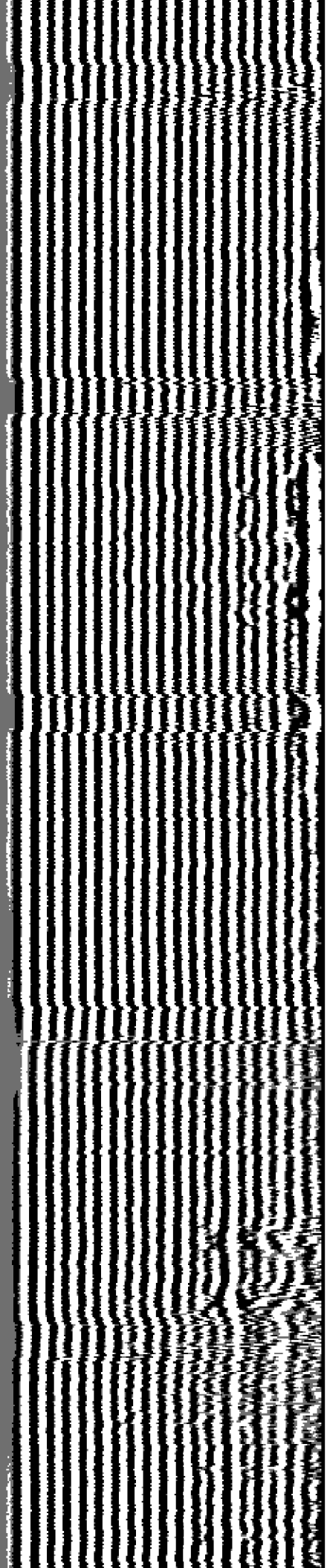
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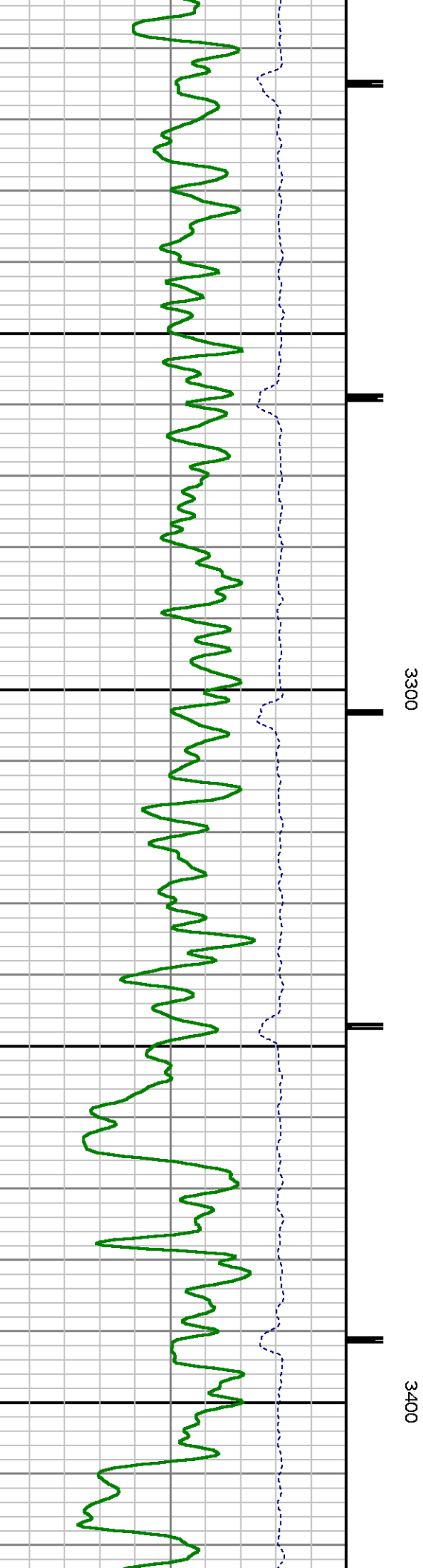
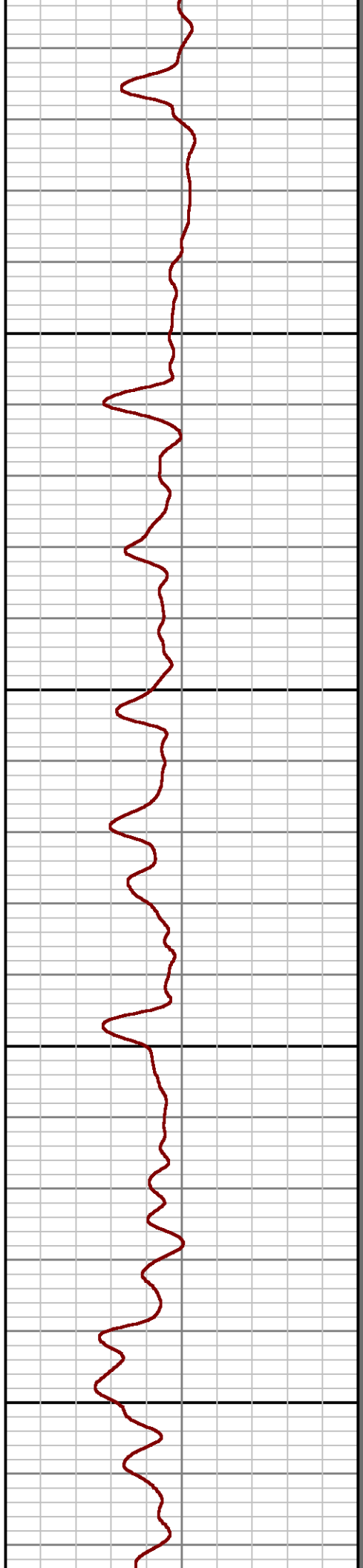
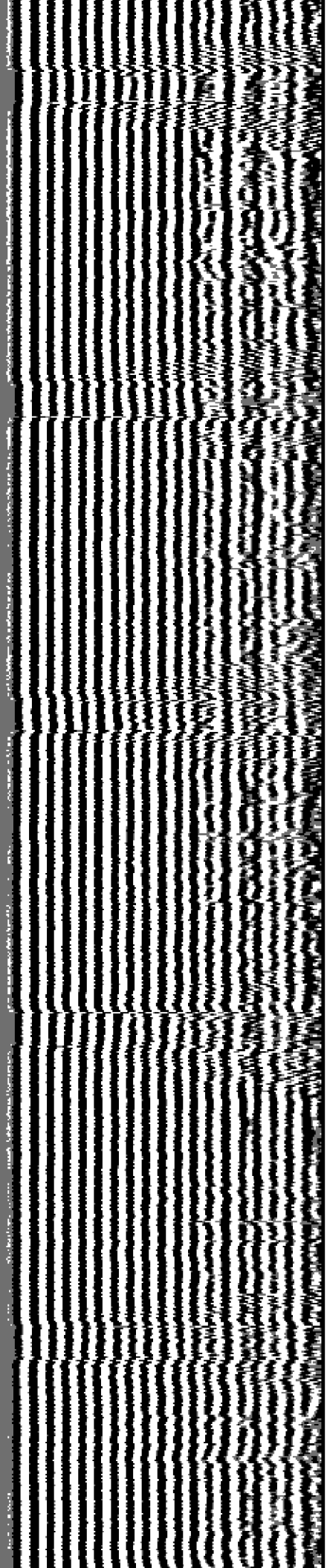
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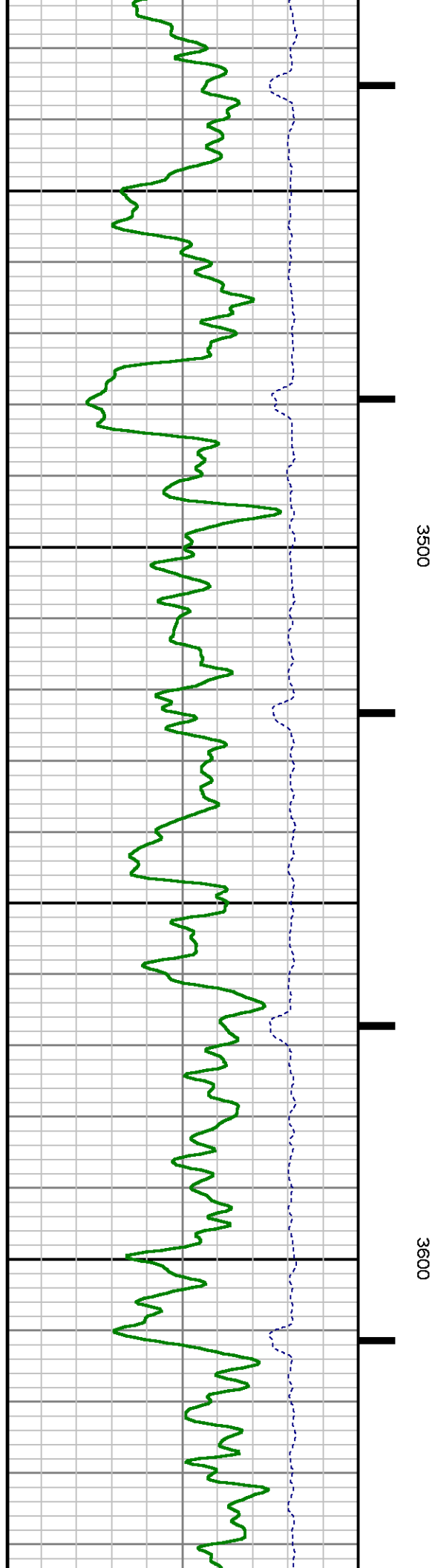
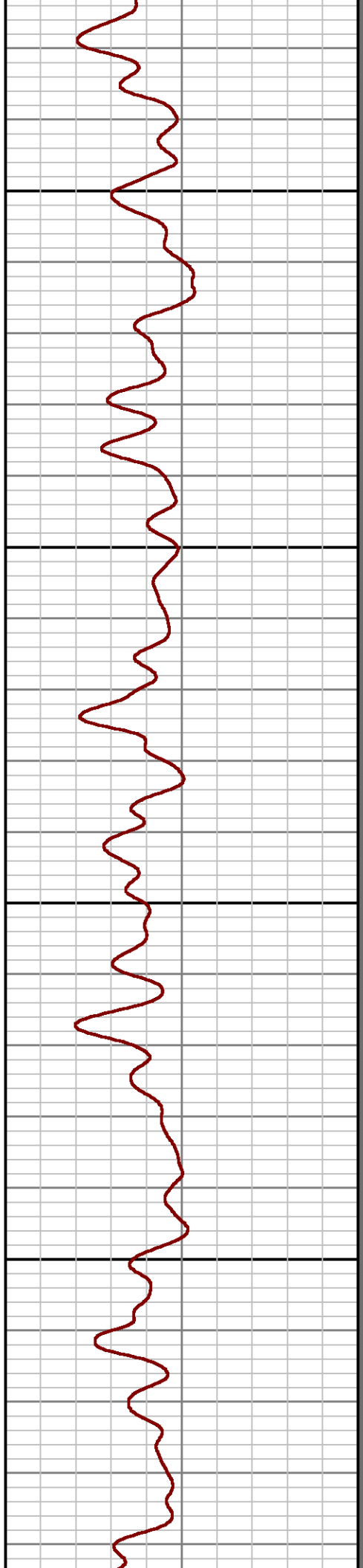
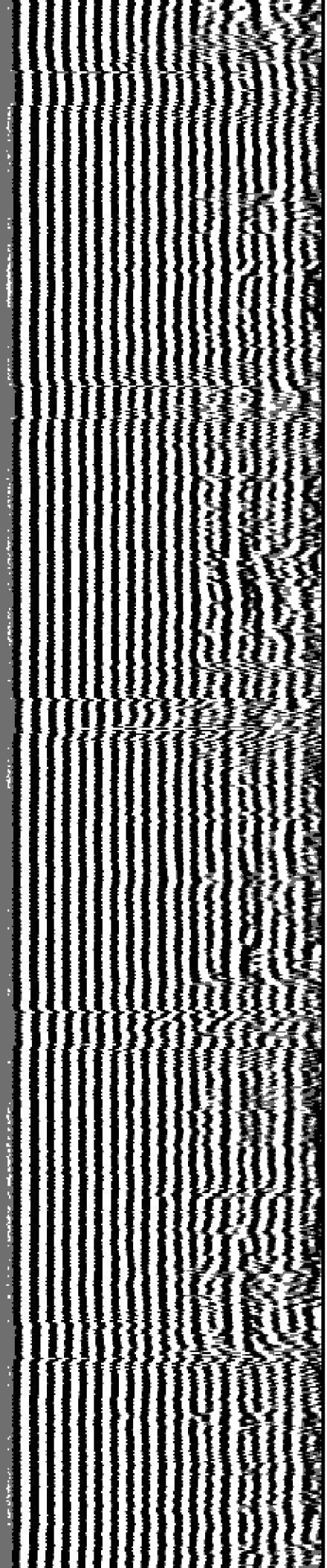


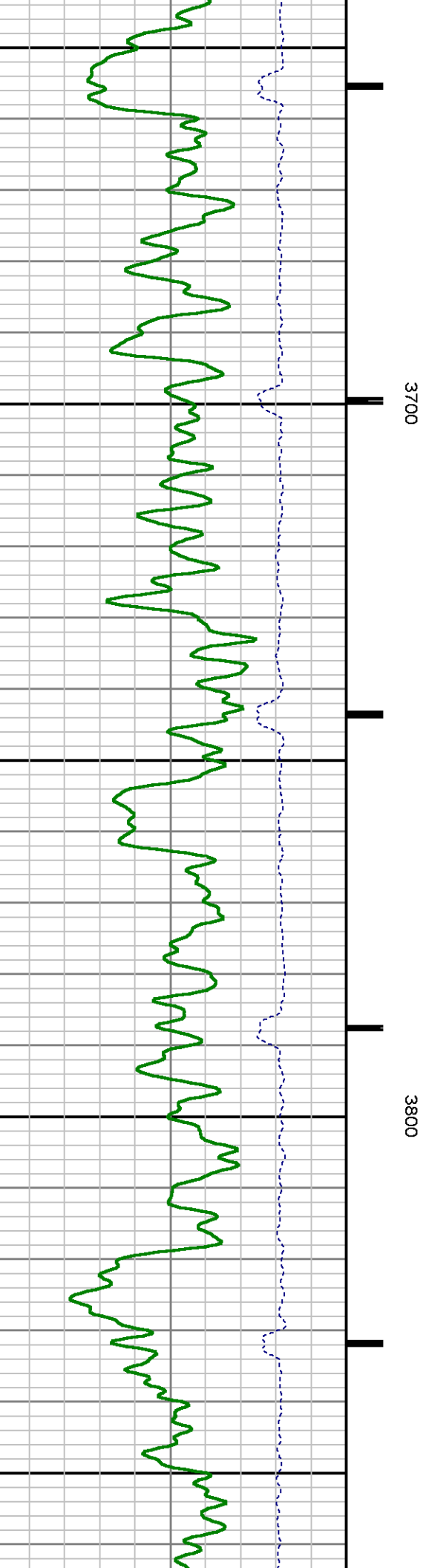
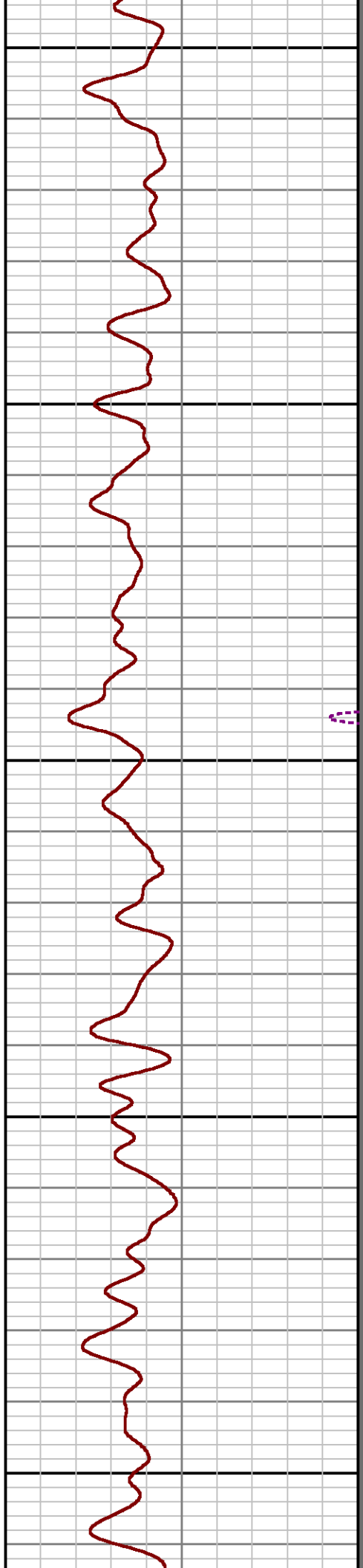
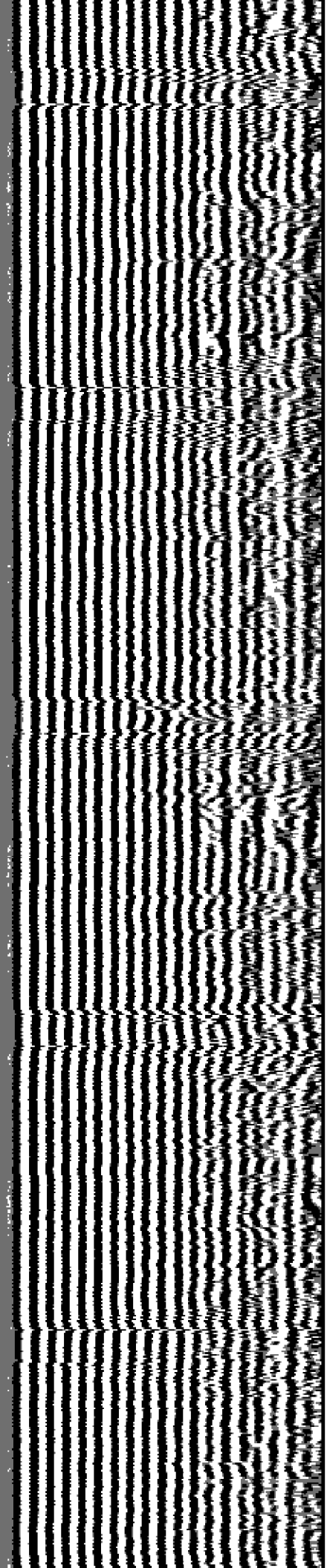




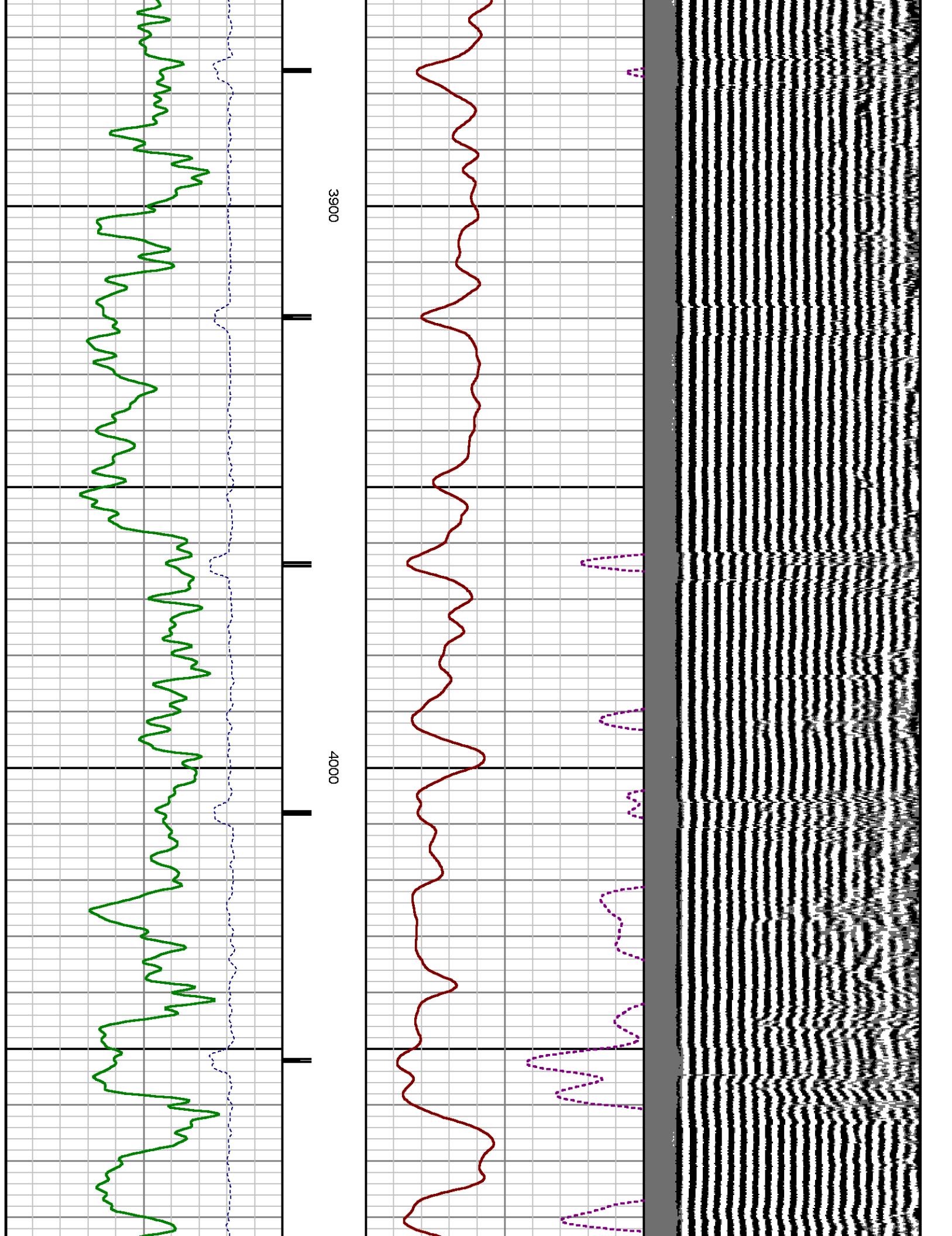


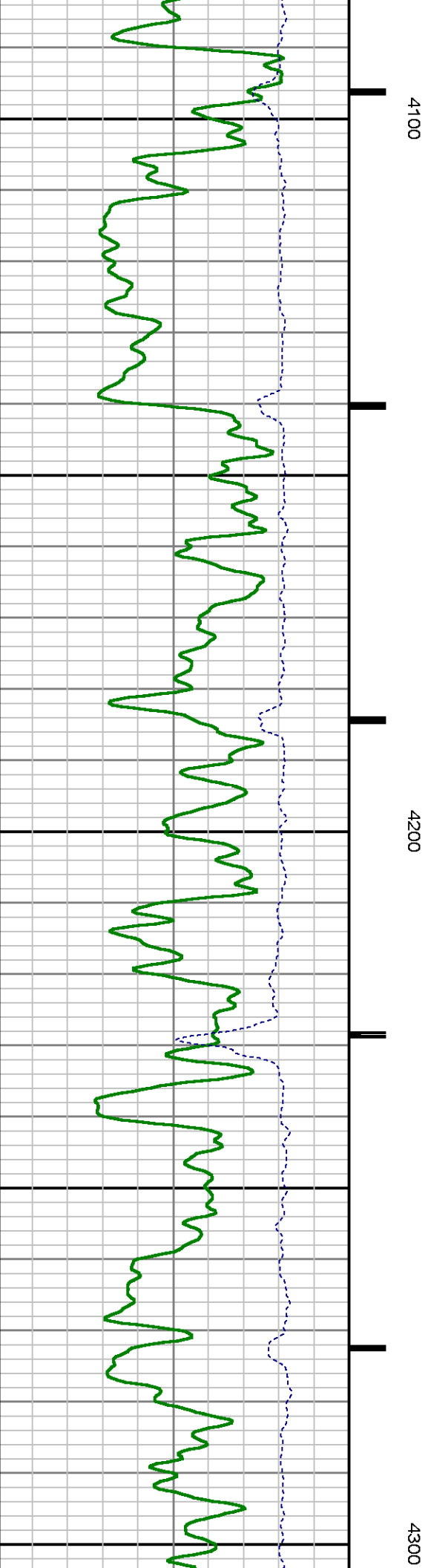
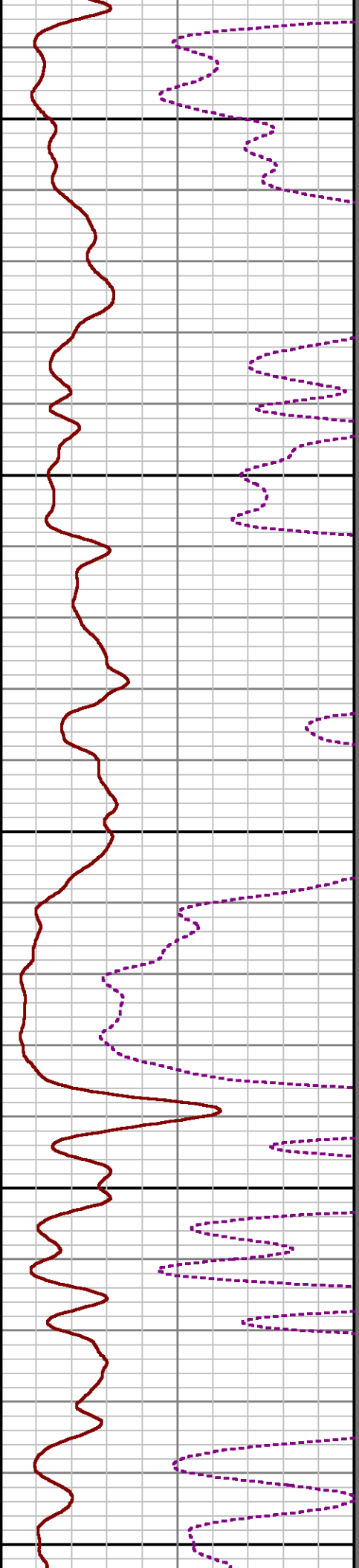
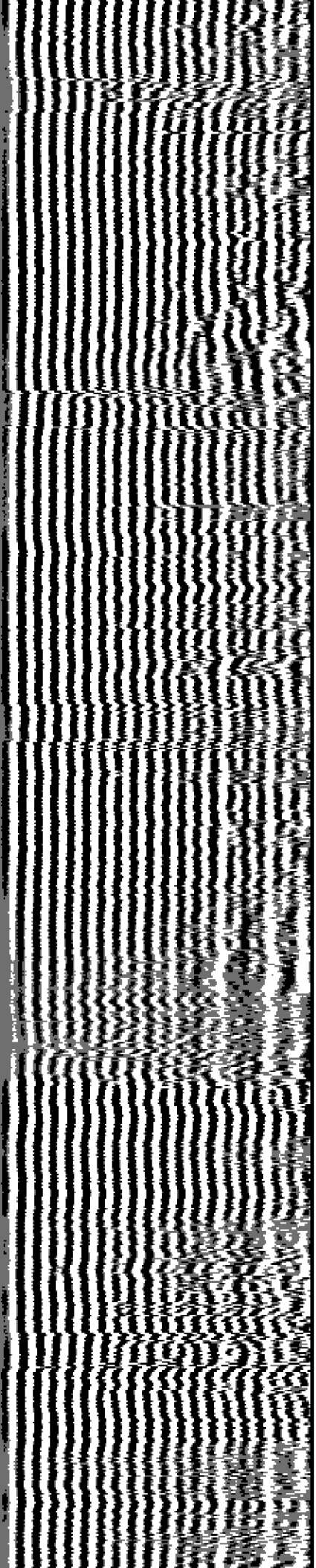




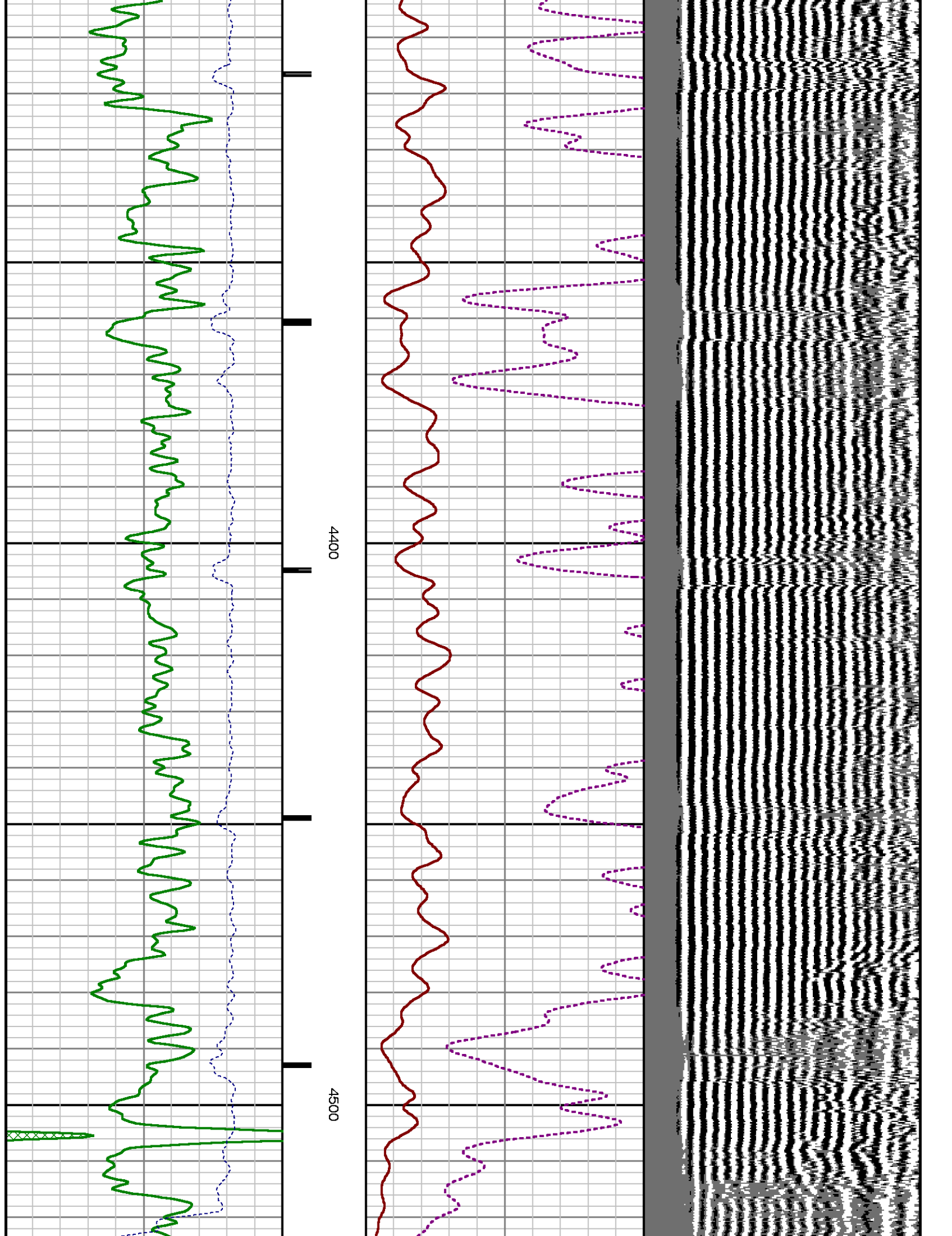


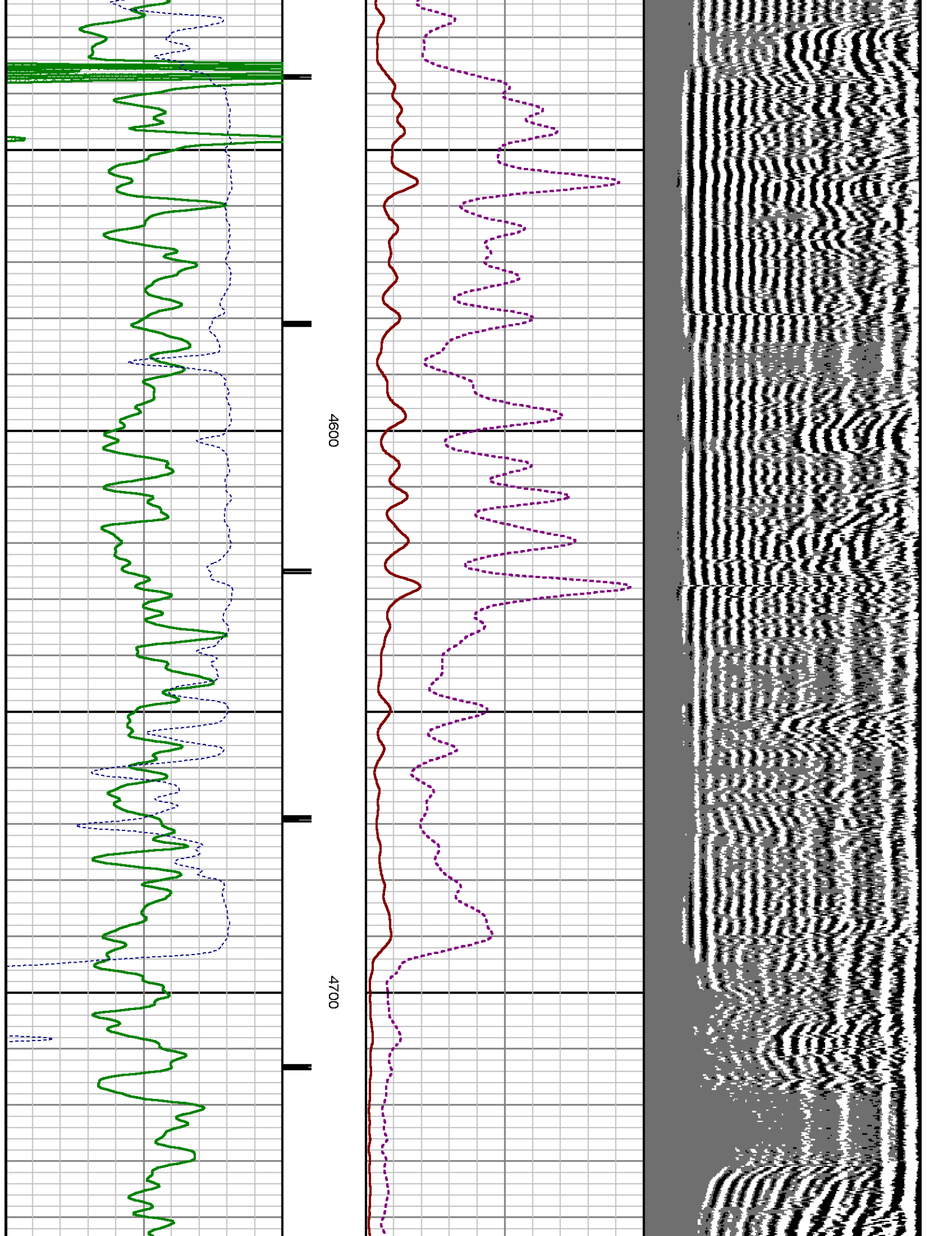


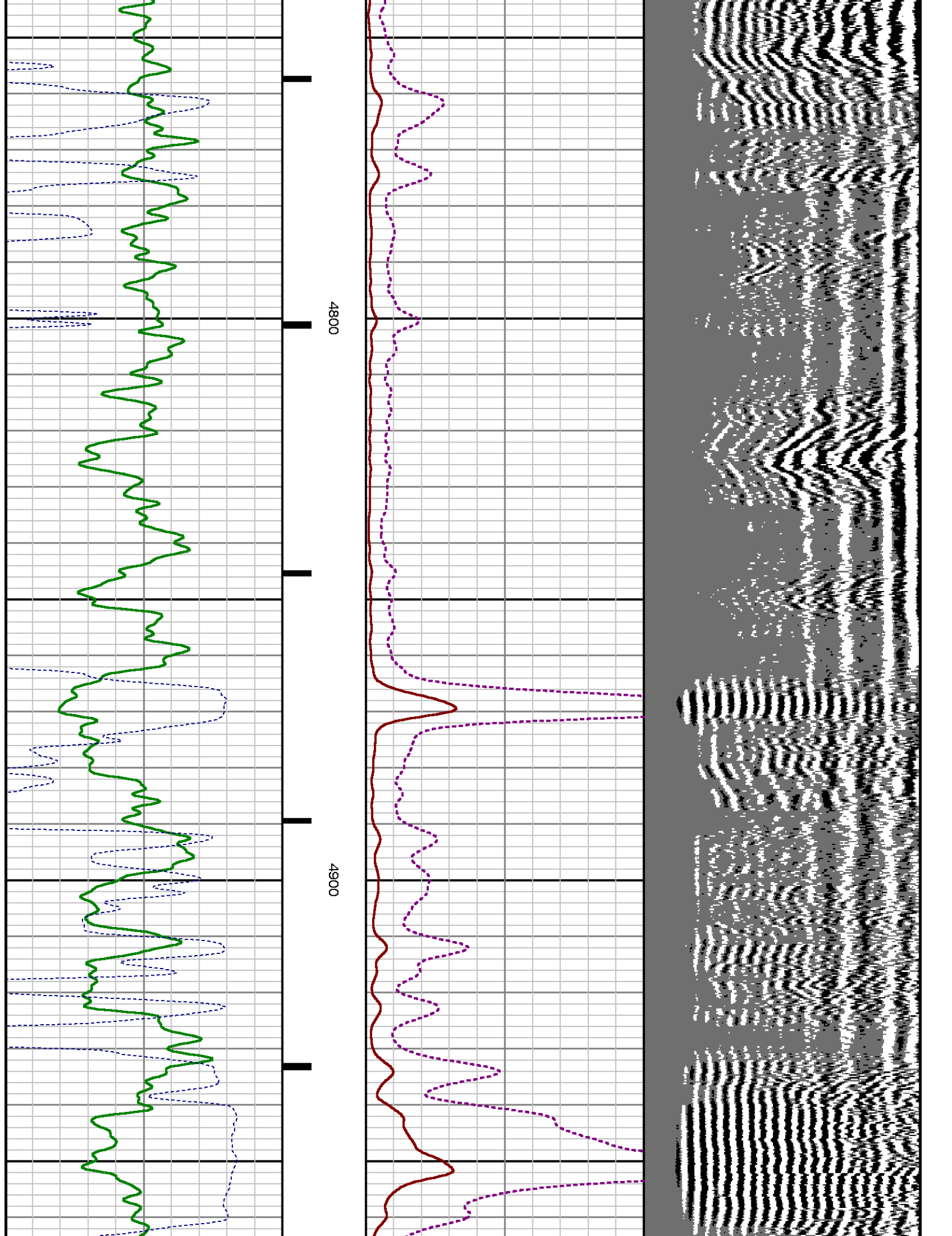


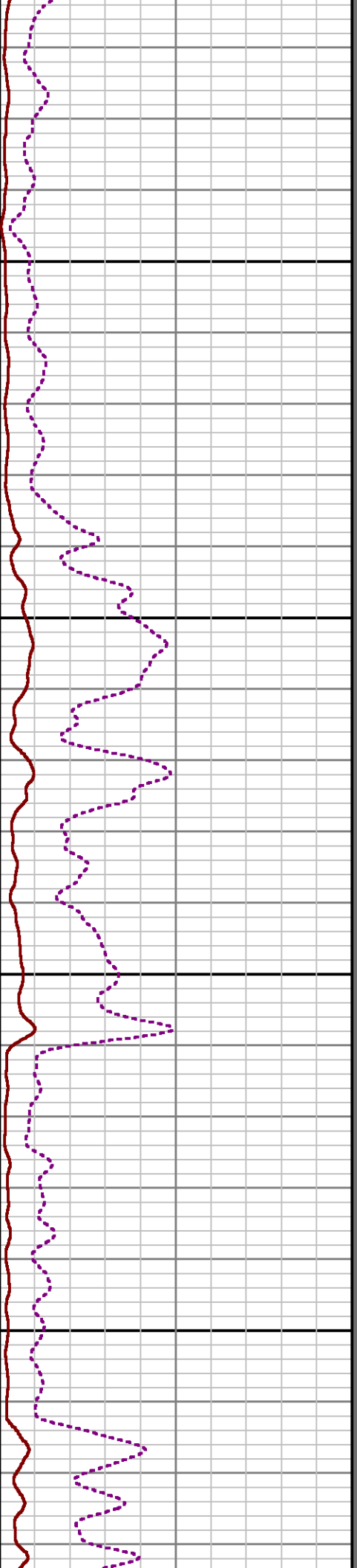
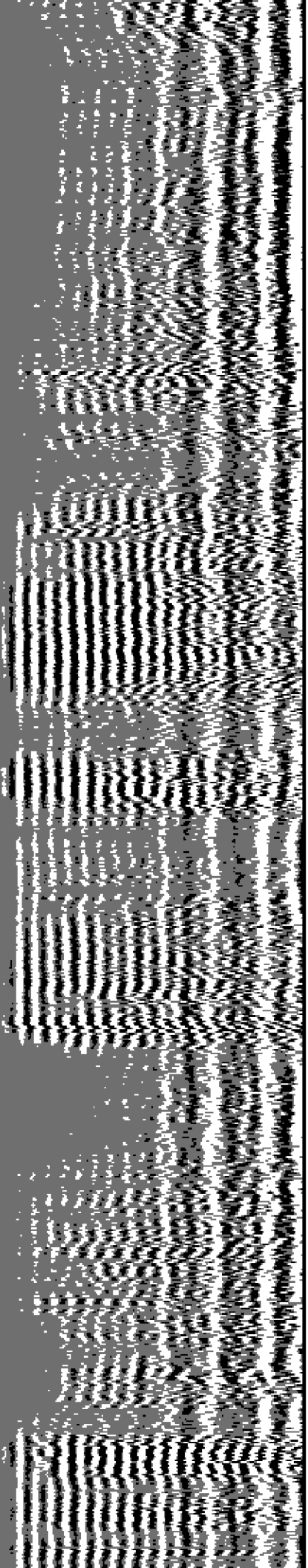






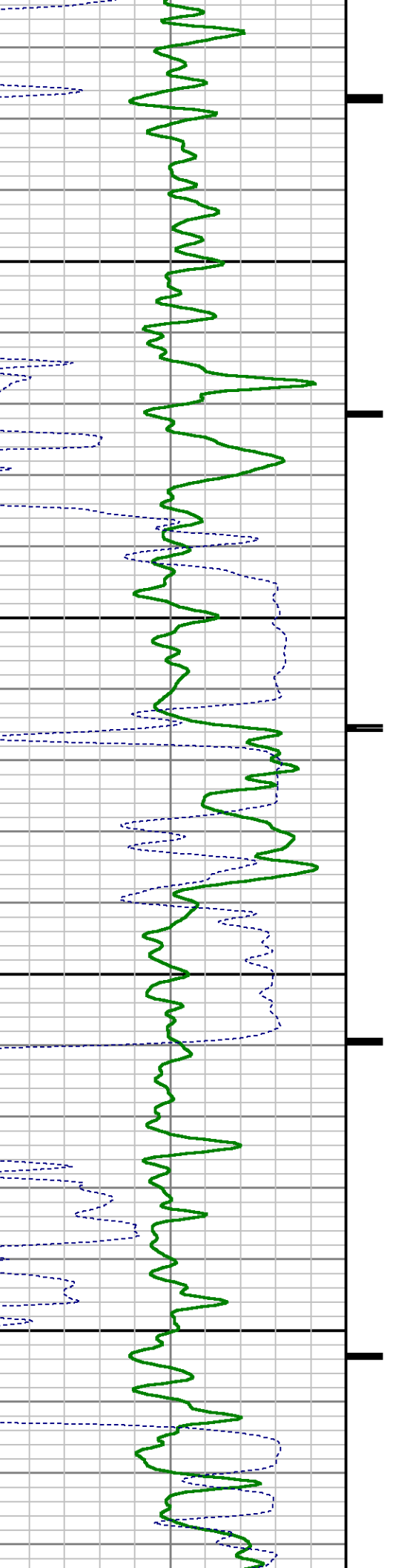


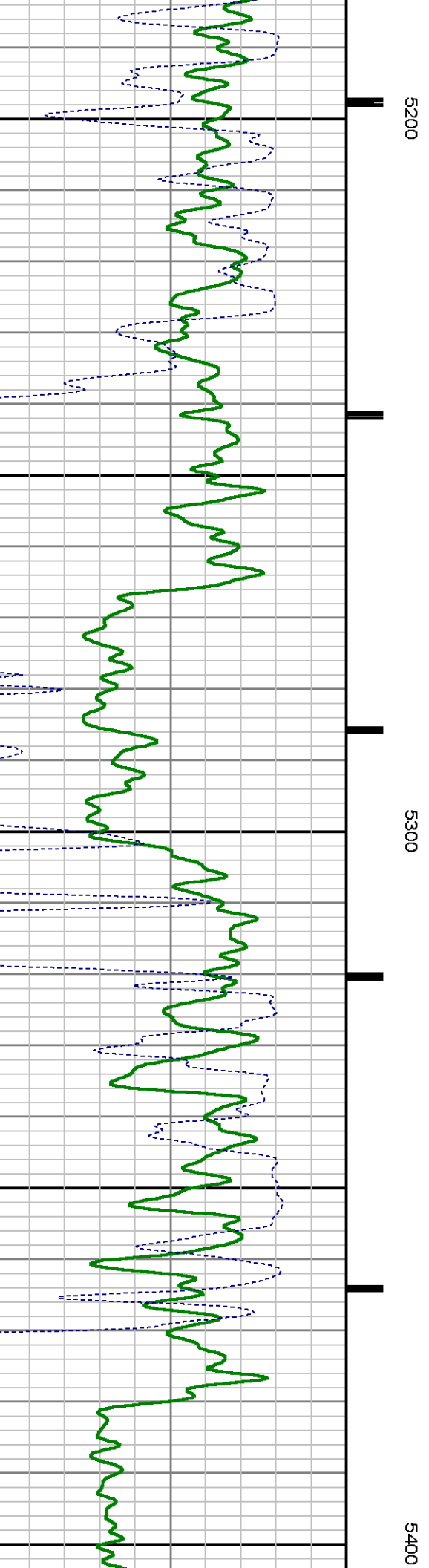
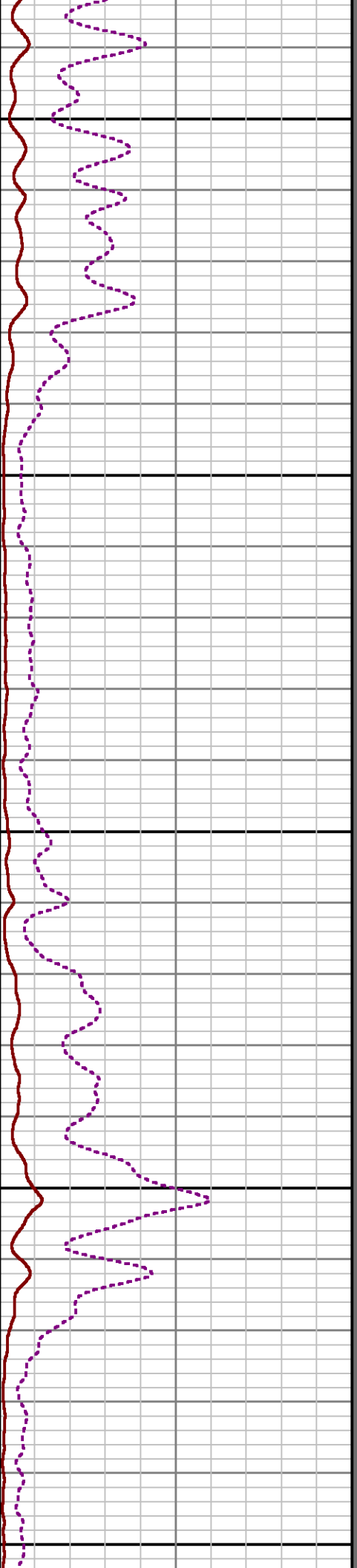
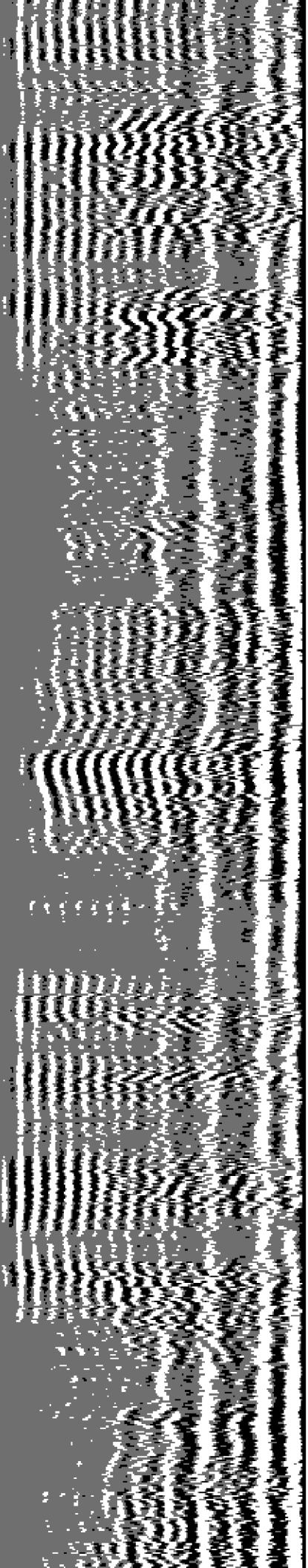




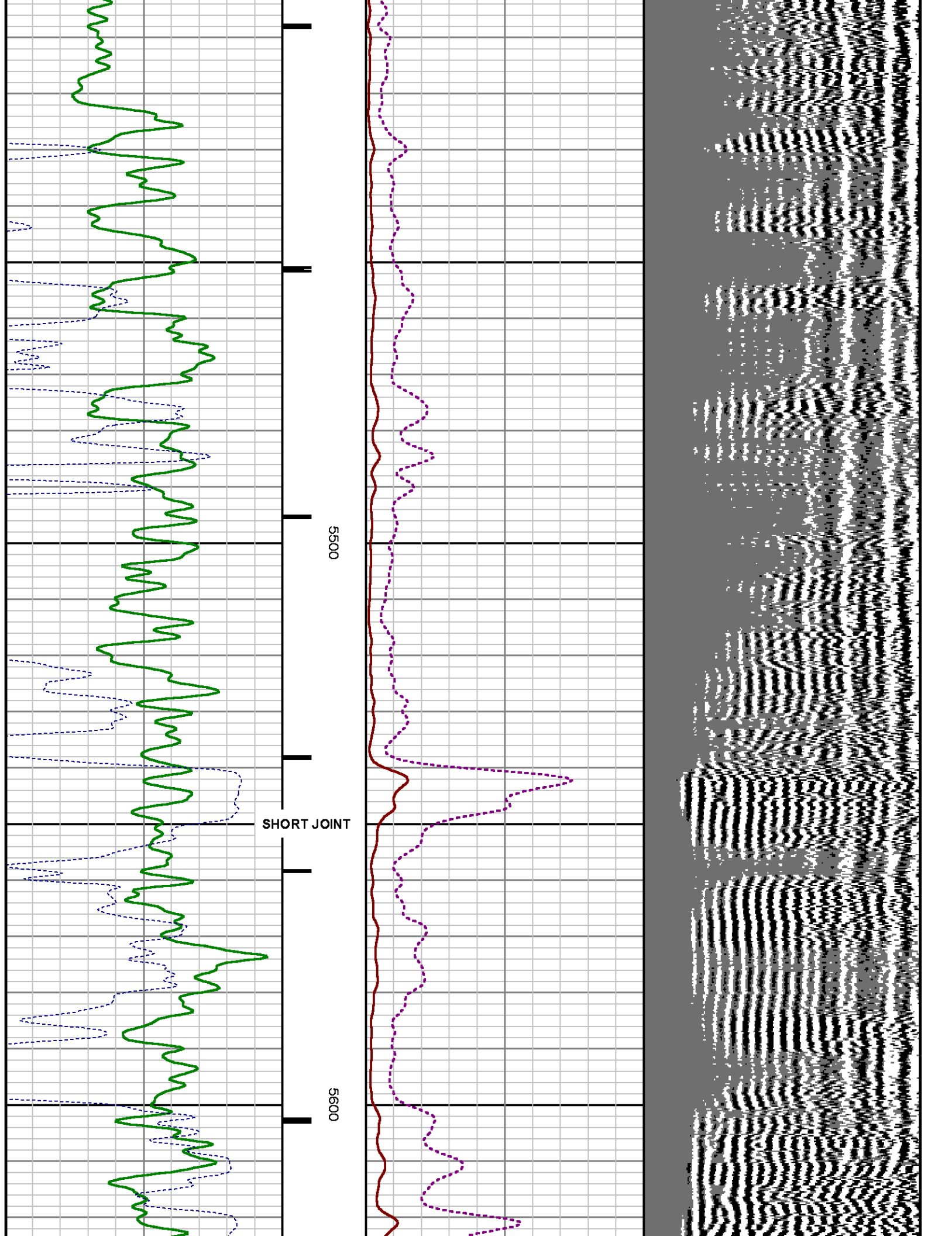
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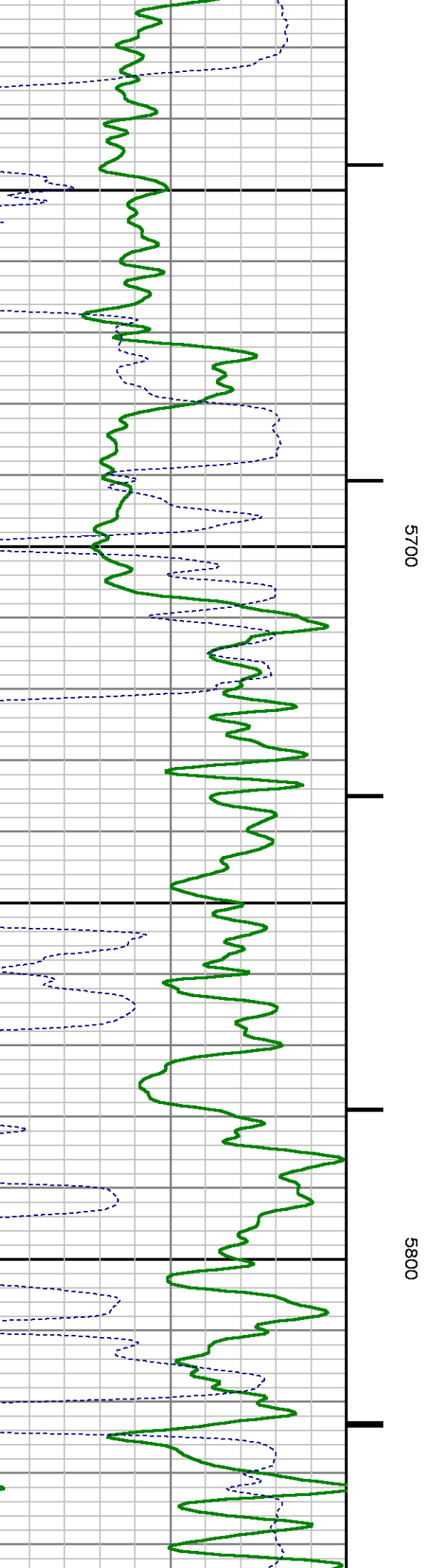
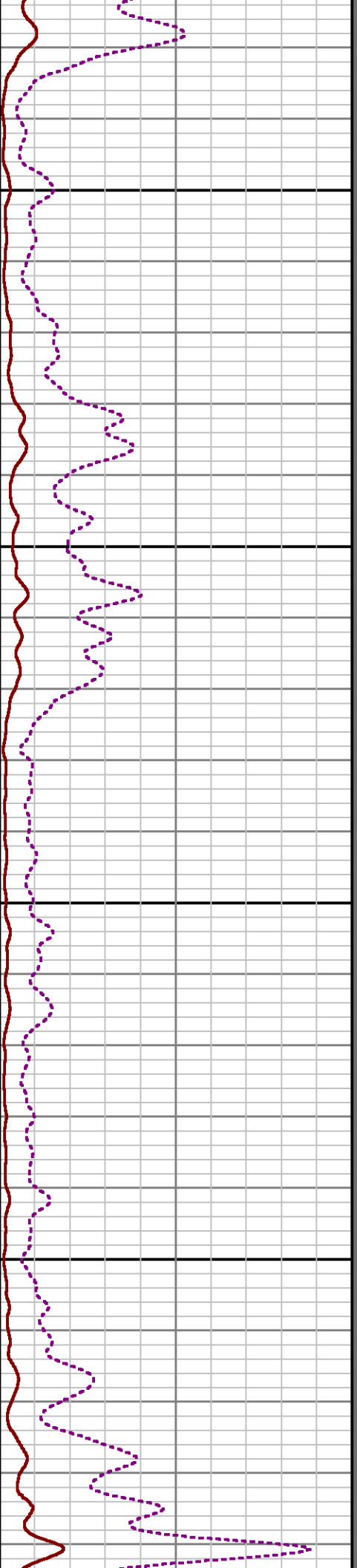
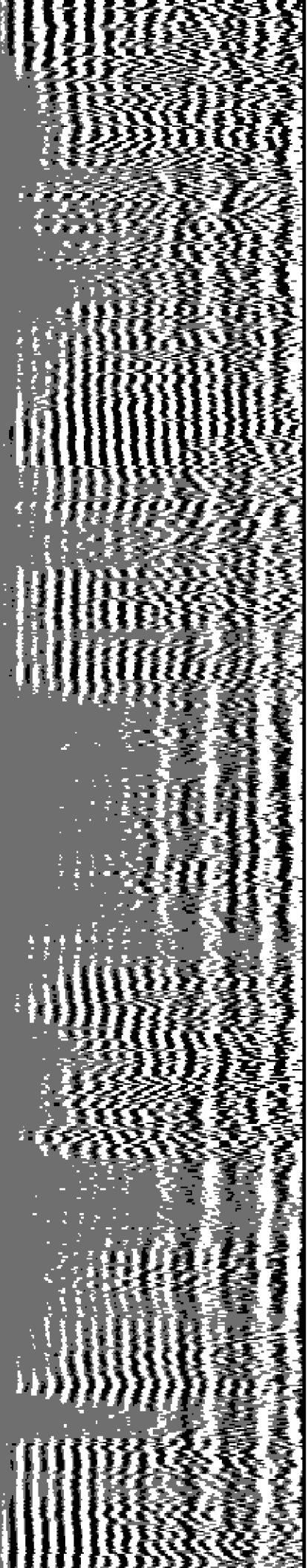
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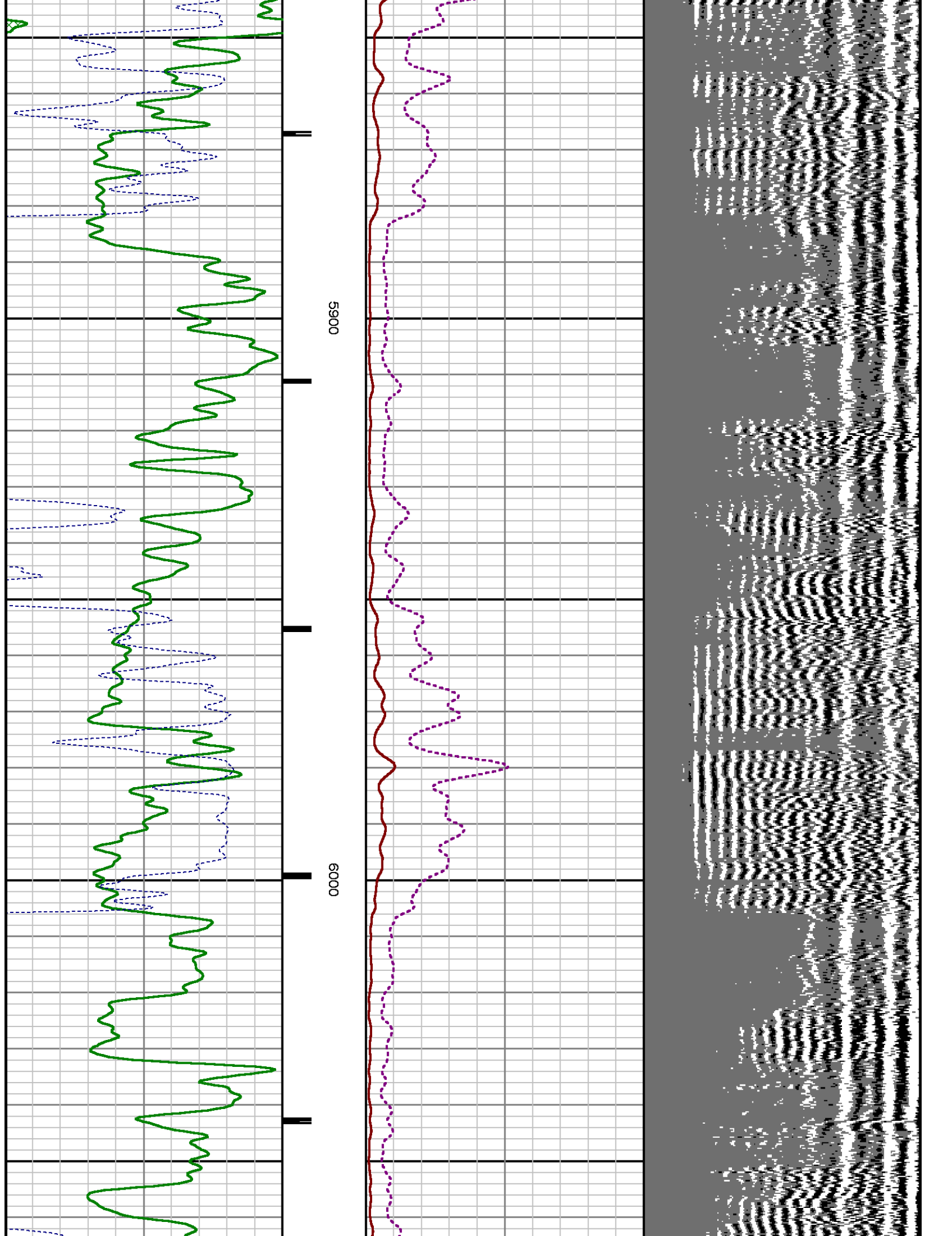


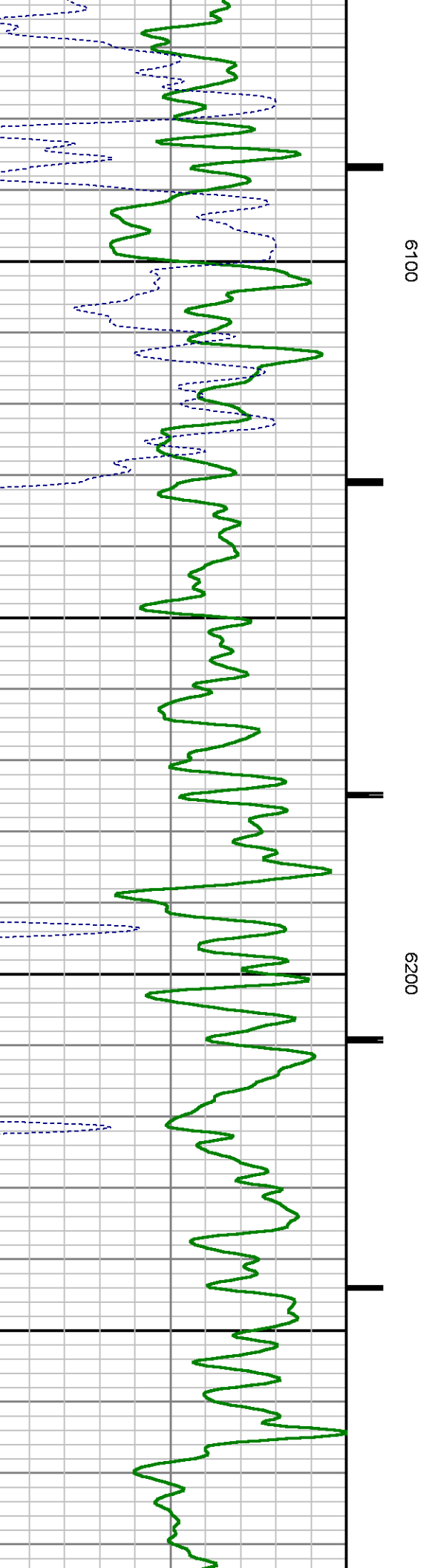
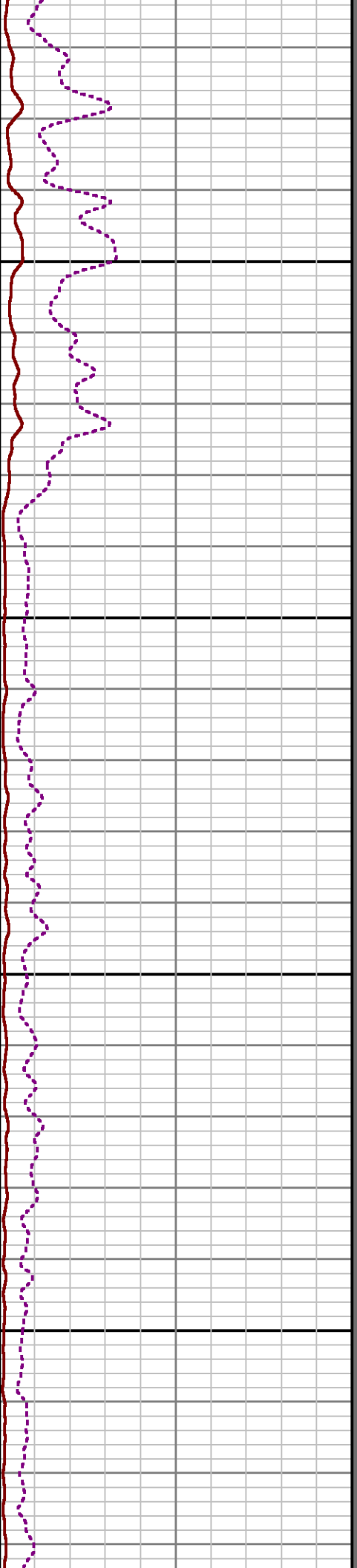
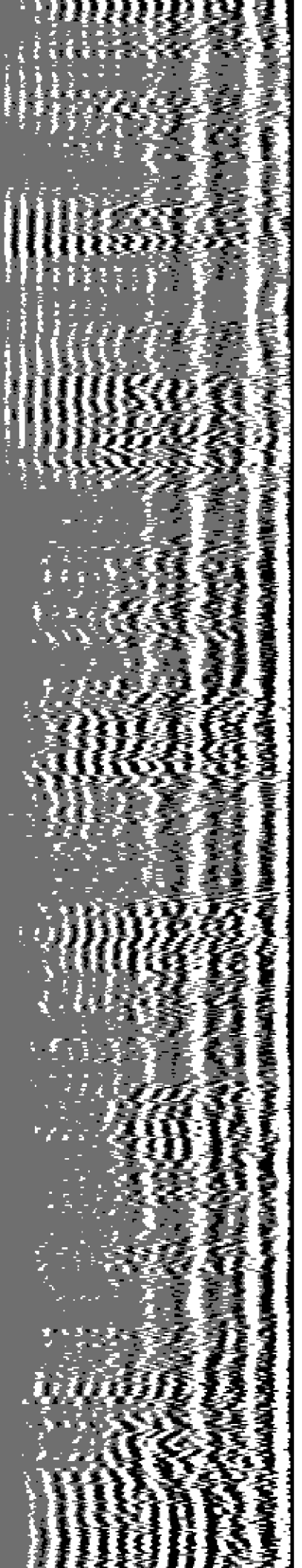


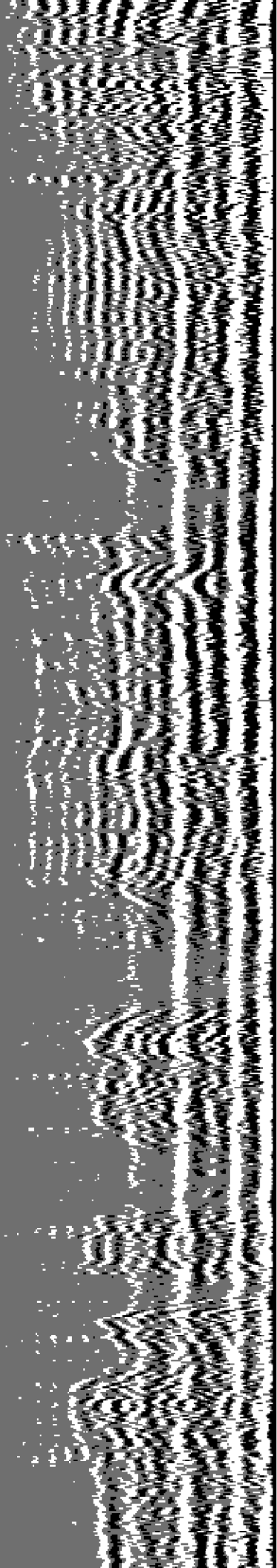








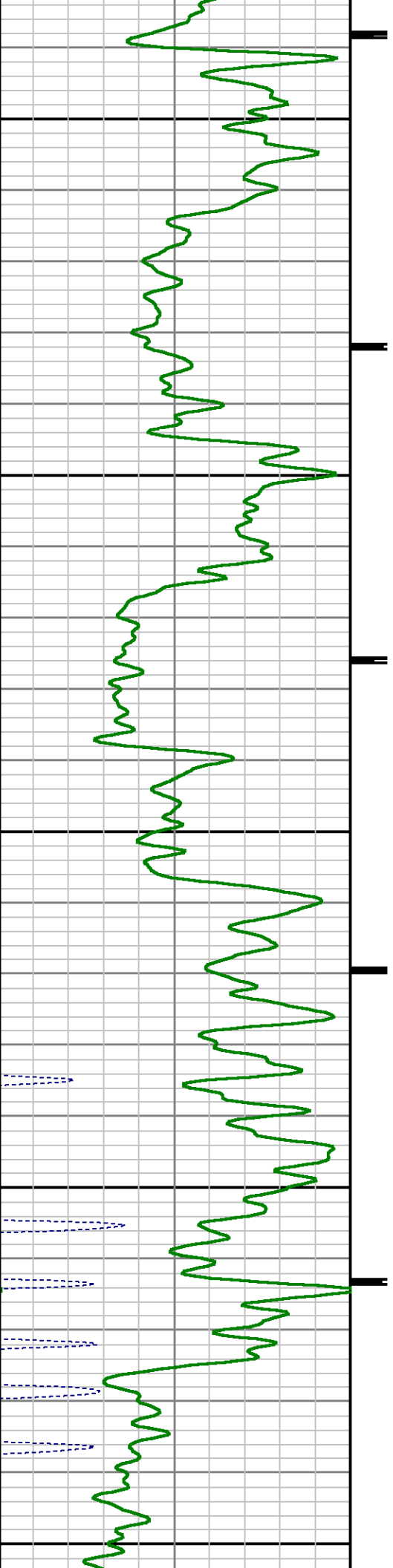


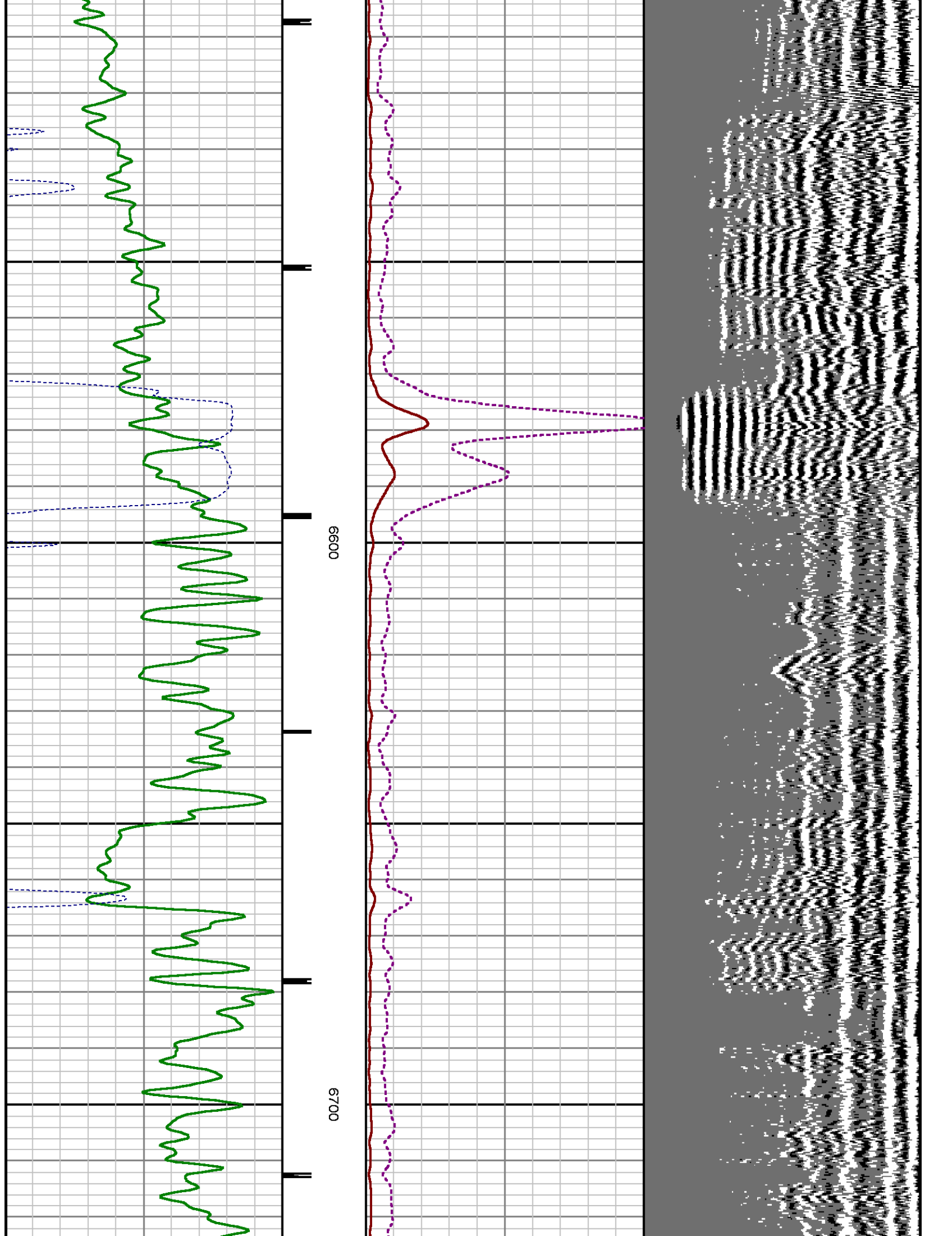


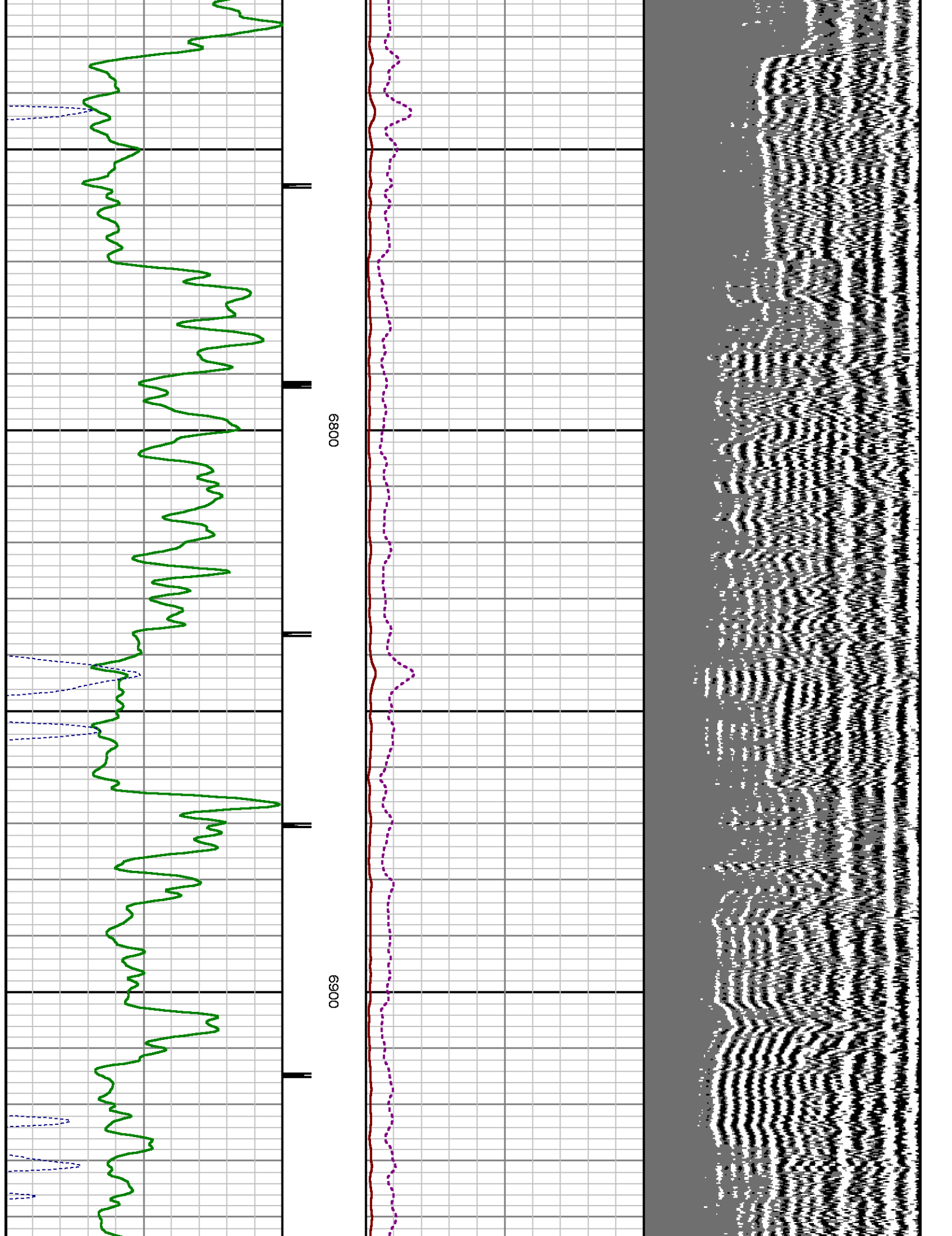
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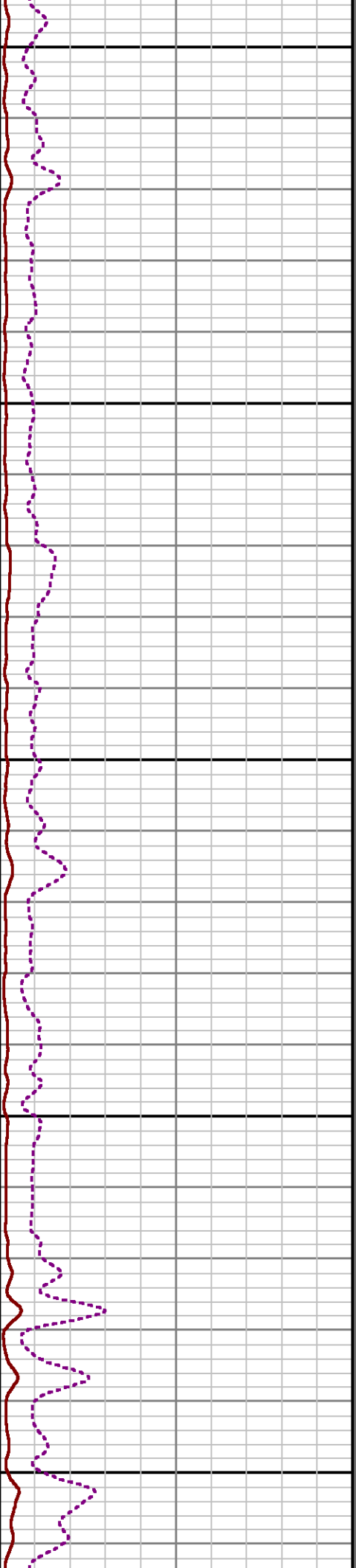
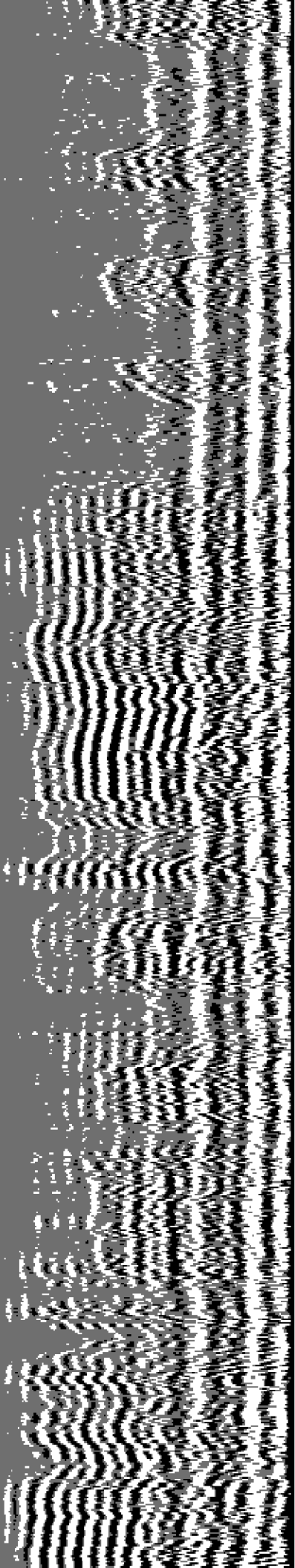
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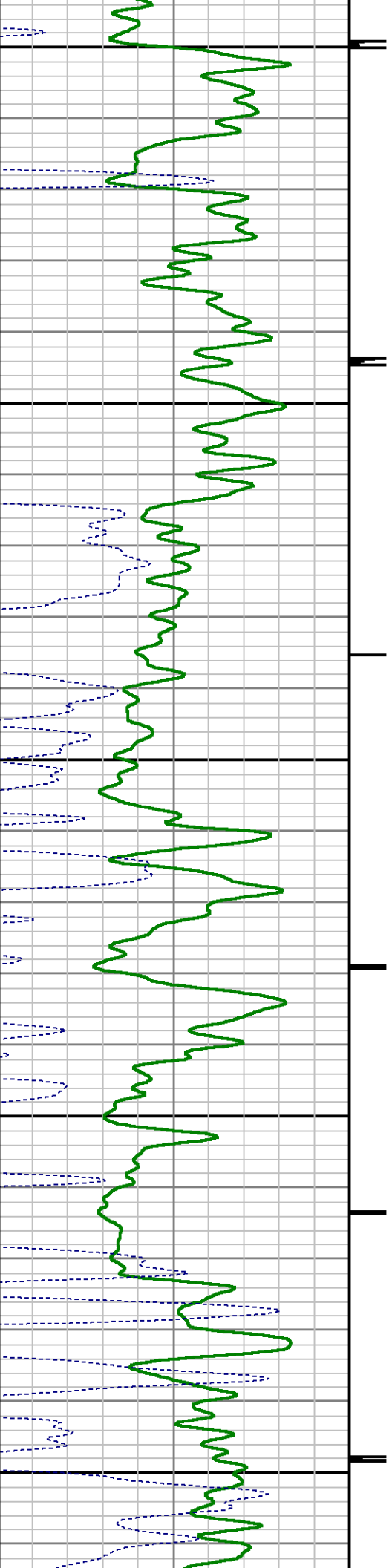




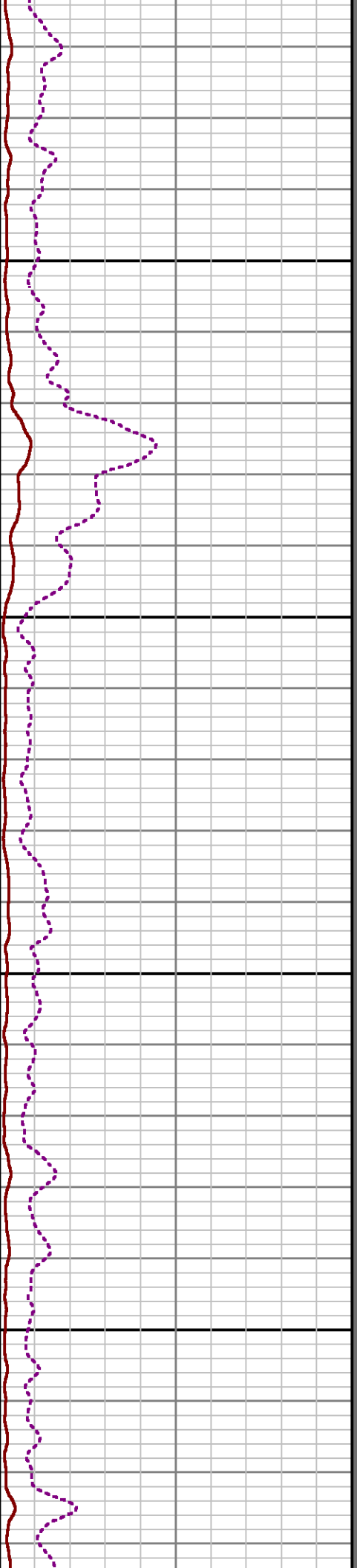
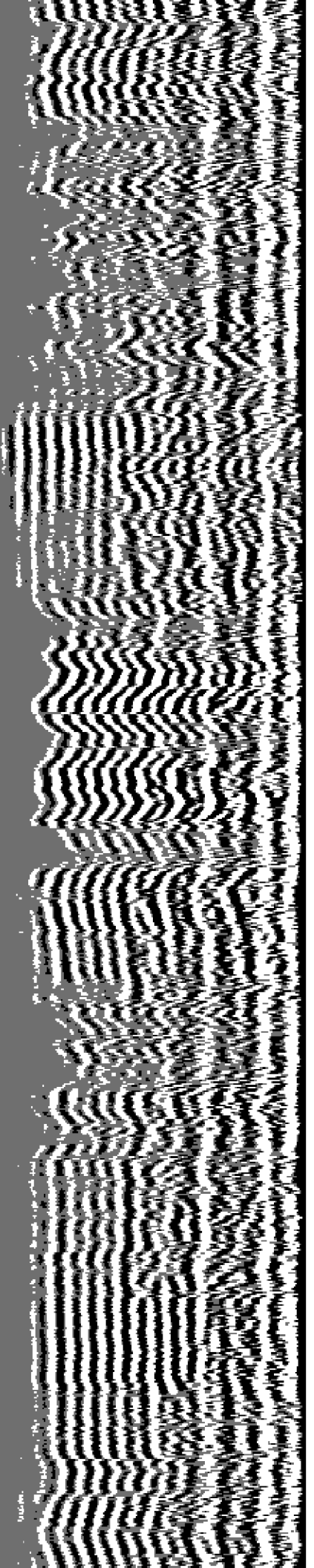


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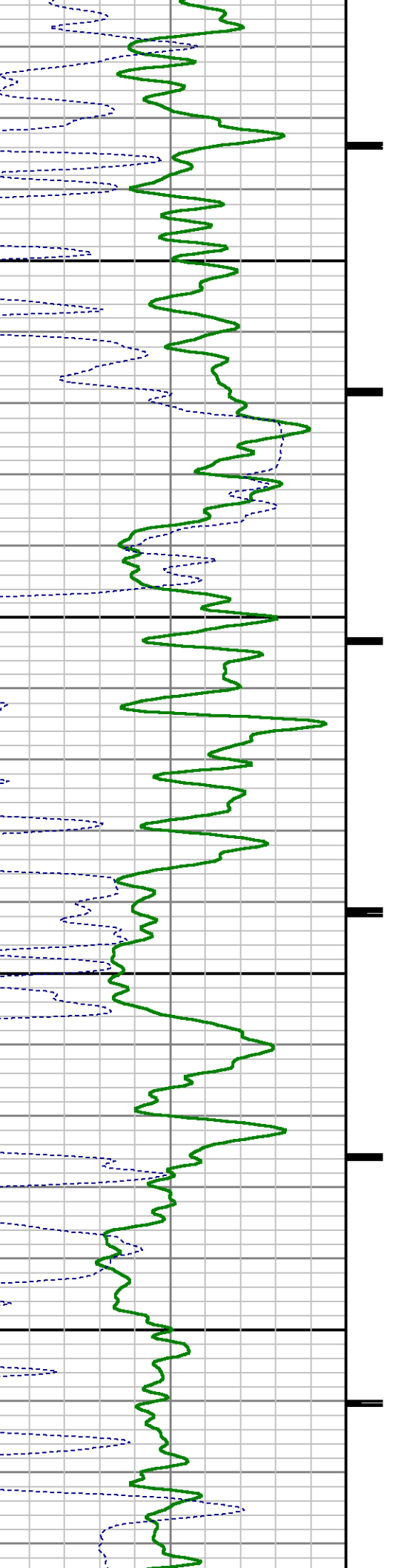




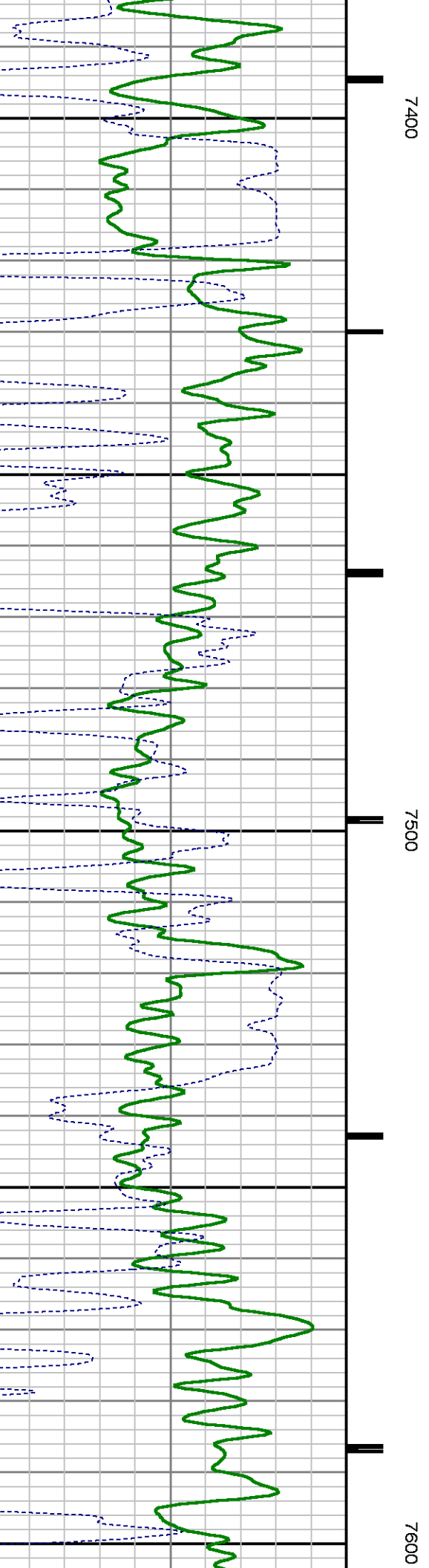
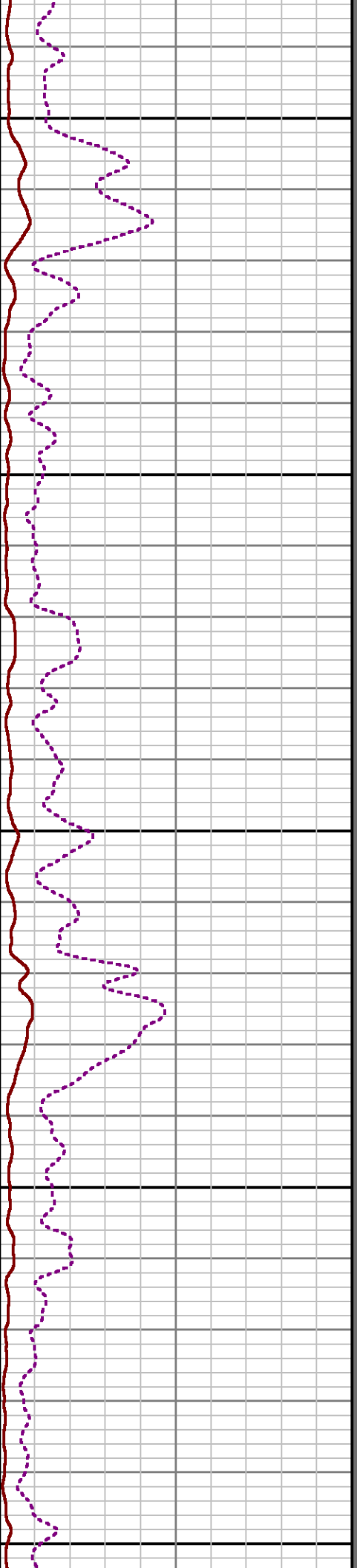
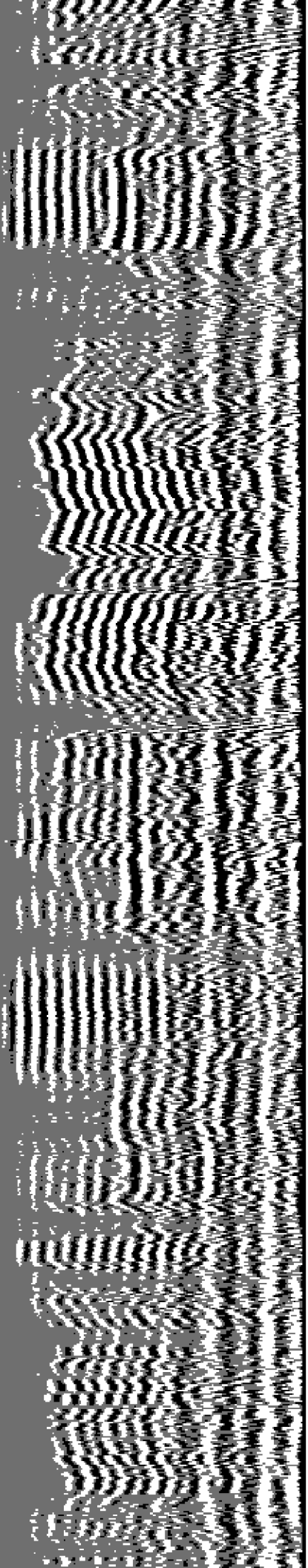


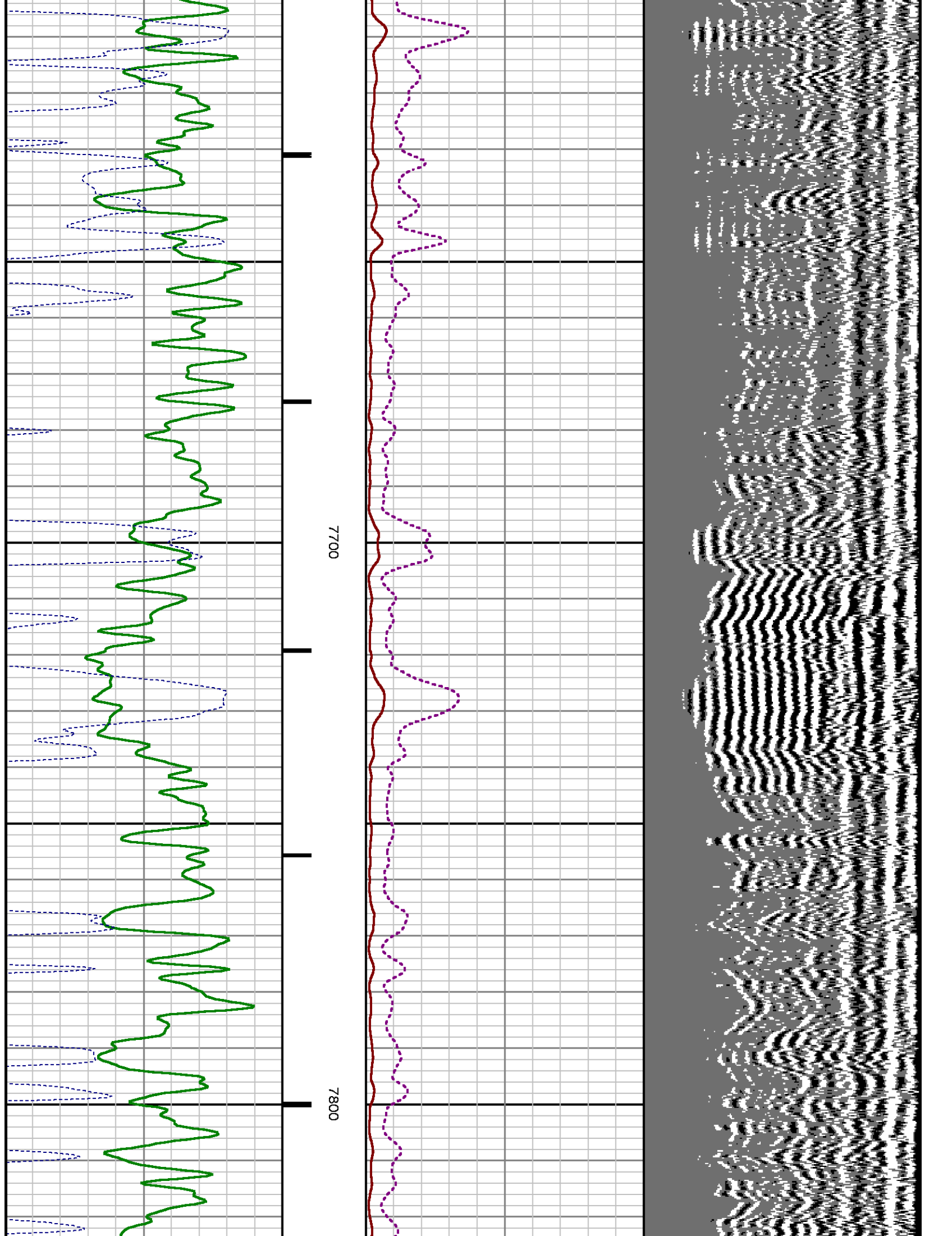
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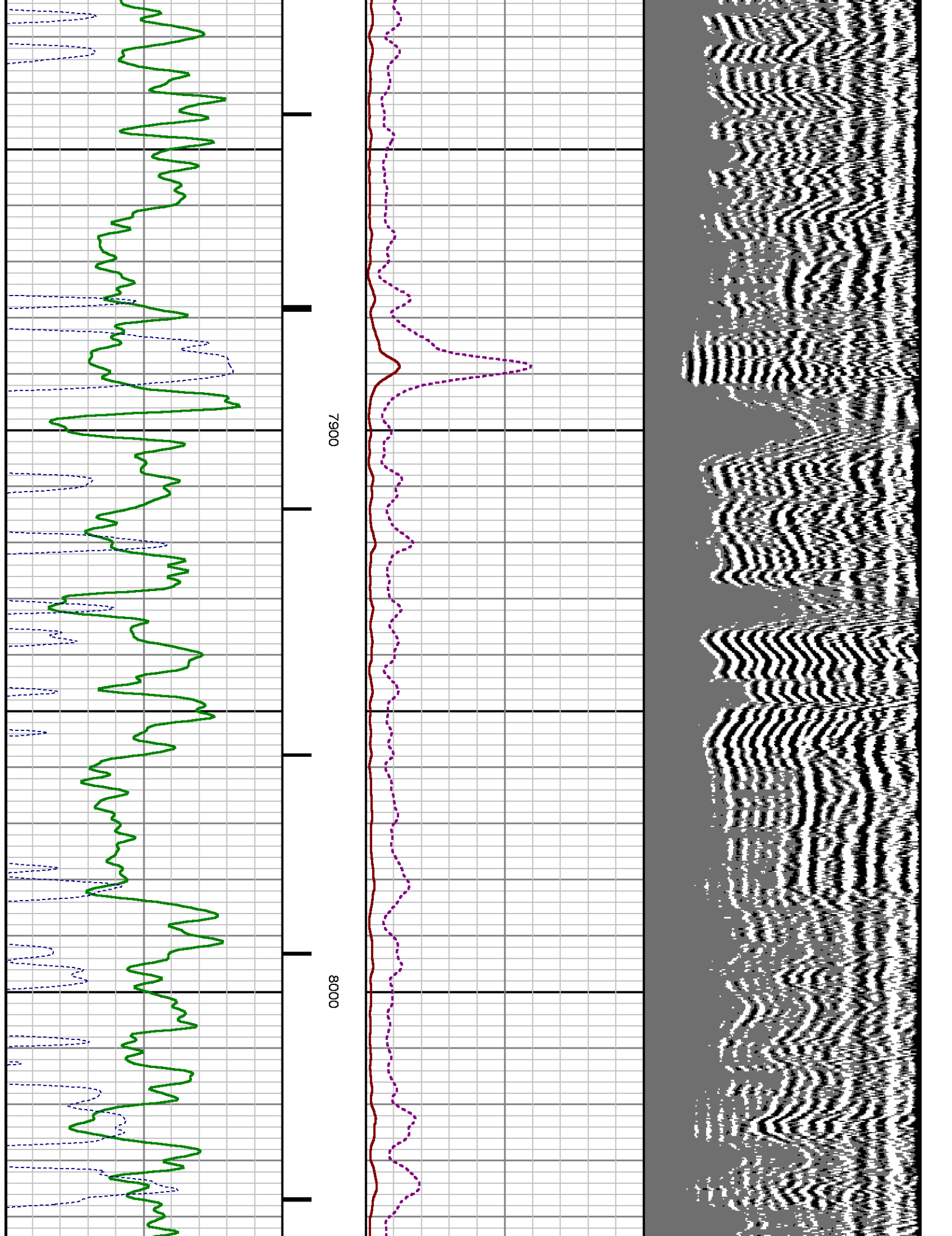
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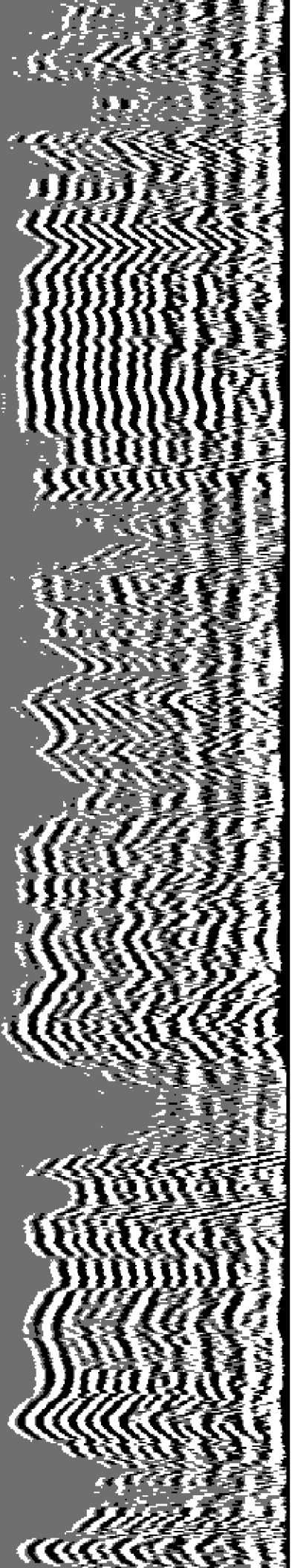






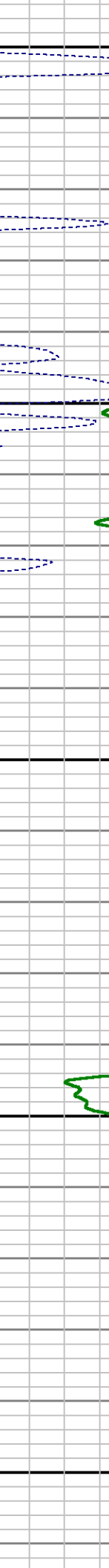
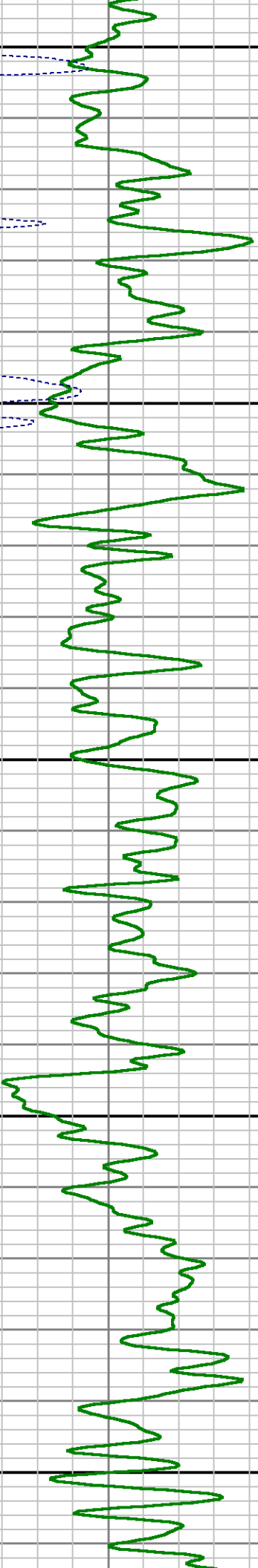


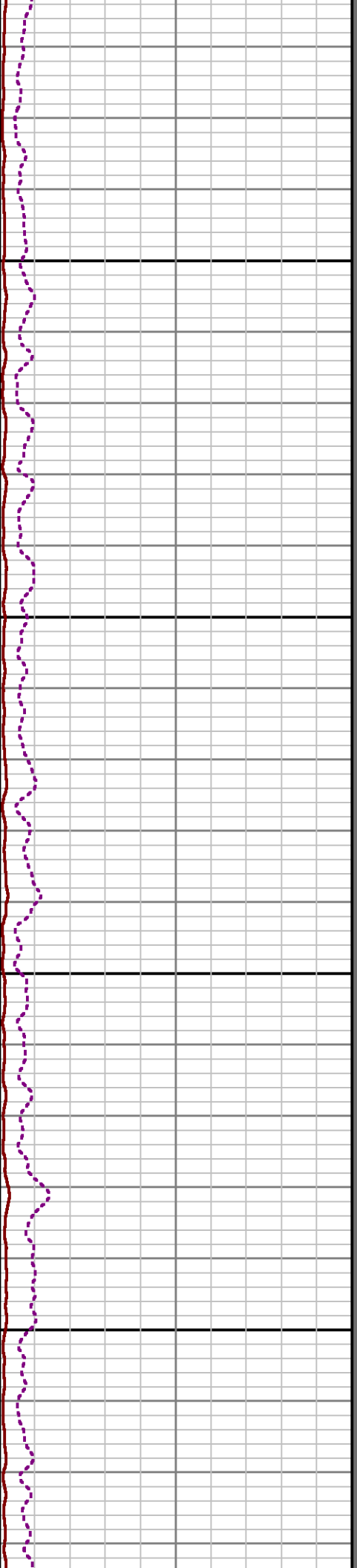
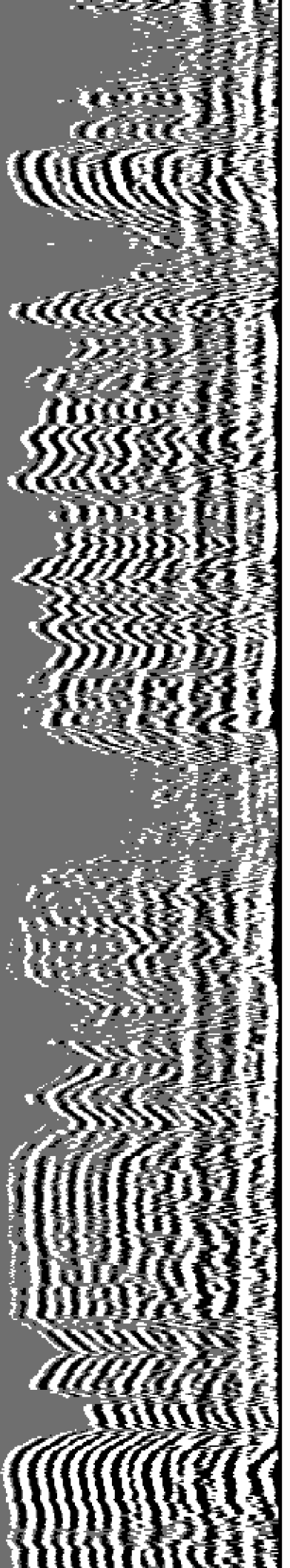




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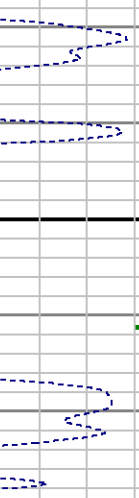
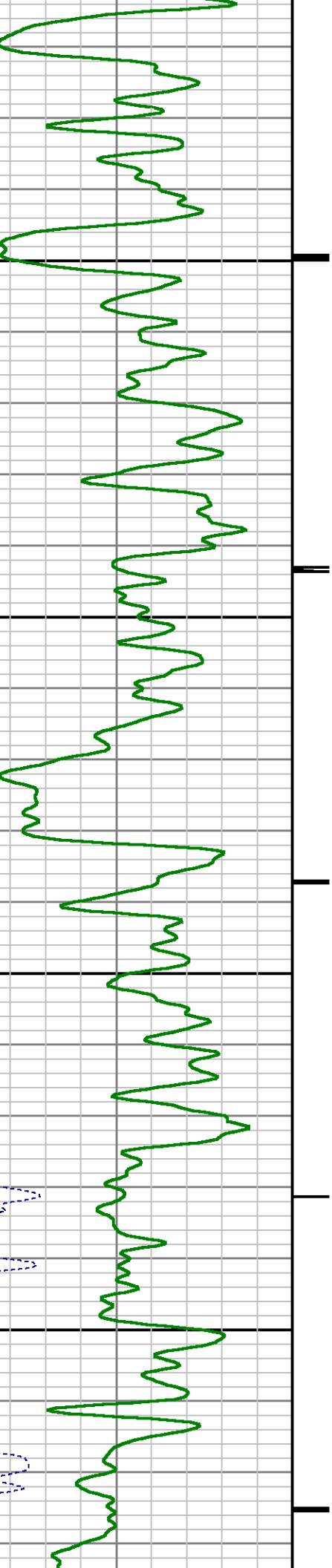
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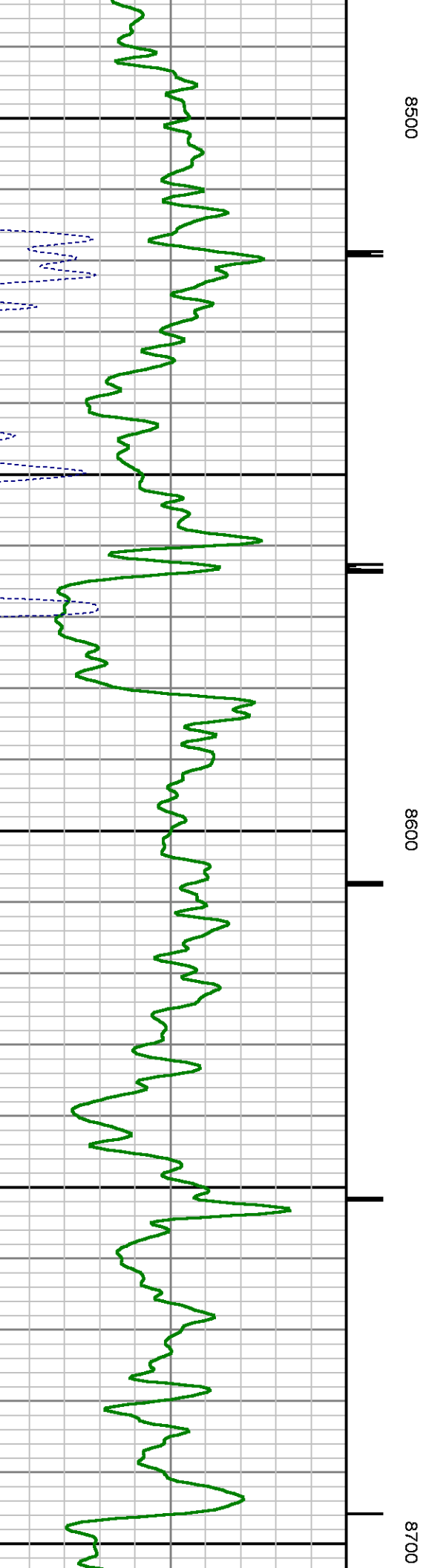
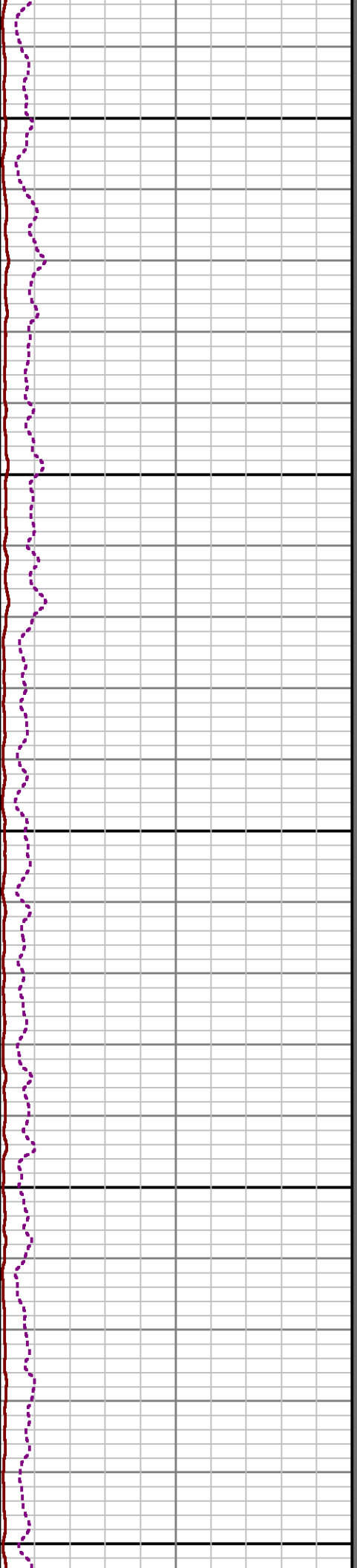
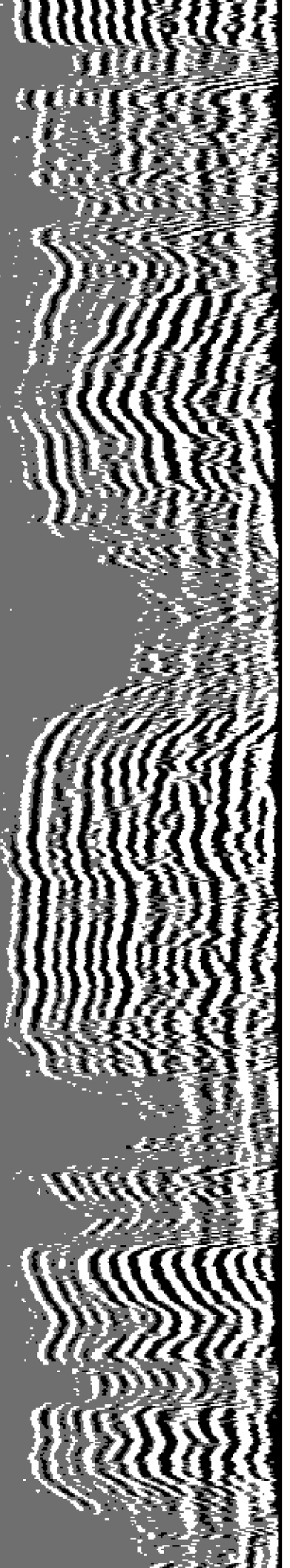


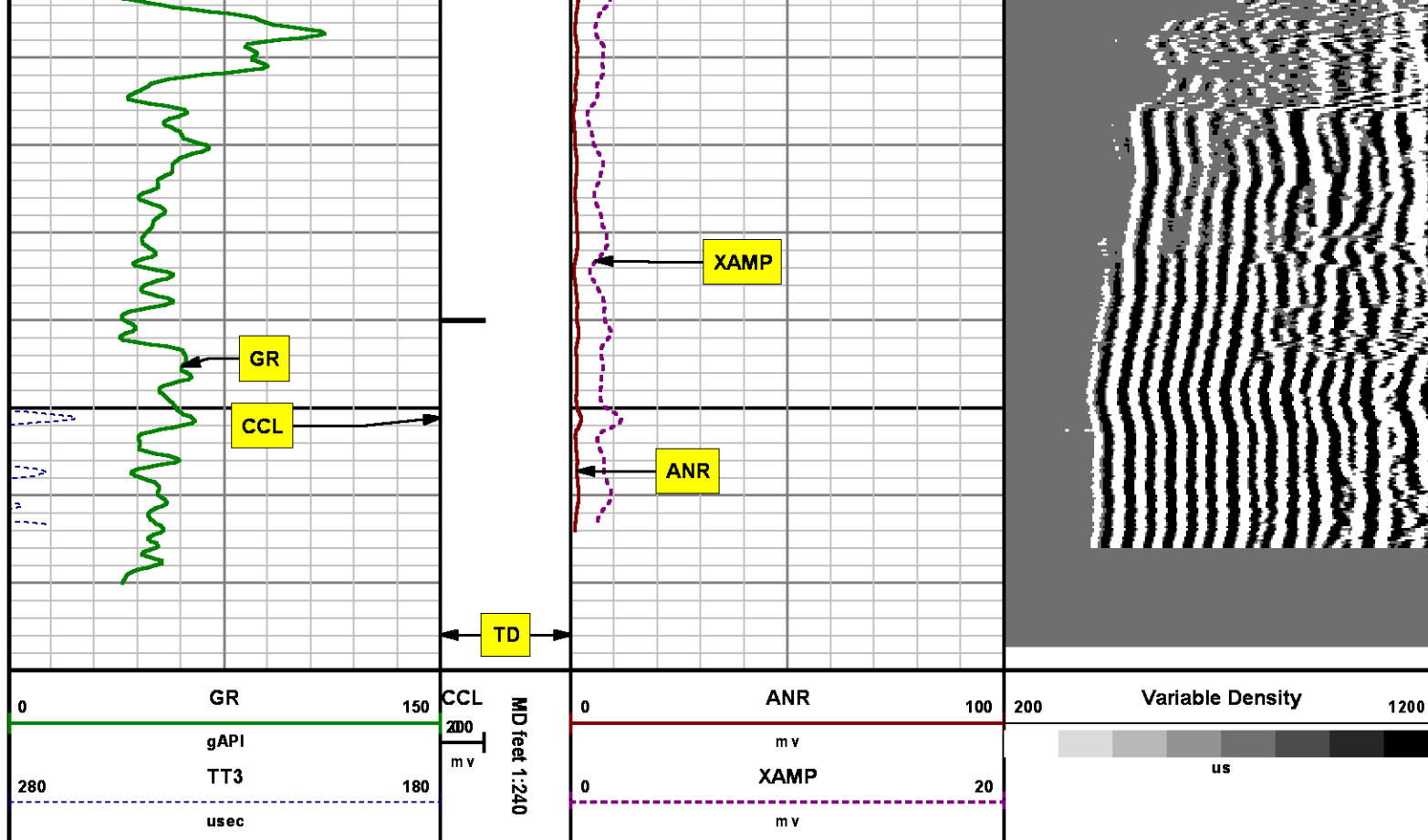
8300

8400









## SECONDARY PRESENTATION

### 0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	u sec	31.600	8777.000
RAL	Amp Gate Start Near	195.000	u sec	31.600	8777.000
RAL	Amp Gate Start Radial	195.000	u sec	31.600	8777.000
RAL	Amp Gate Width Far	25.000	u sec	31.600	8777.000
RAL	Amp Gate Width Near	25.000	u sec	31.600	8777.000
RAL	Amp Gate Width Radial	25.000	u sec	31.600	8777.000
RAL	casing od	4.500	inches	31.600	8777.000
RAL	casing wt	11.600	lbm/ft	31.600	8777.000
RAL	FB Start Far	291.900	u sec	31.600	8777.000
RAL	FB Start Near	180.000	u sec	31.600	8777.000
RAL	FB Start Radial	180.000	u sec	31.600	8777.000
RAL	FB Thresh Far	10.000	mv	31.600	8777.000

RAL	FB Thresh Near	4.000	mv	31.600	8777.000
RAL	FB Thresh Radial	4.000	mv	31.600	8777.000
RAL	Fluid Travel Time	200.000	usec/ft	31.600	8776.943

## DEPTH OFFSETS

(for Acquired Curves)

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

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

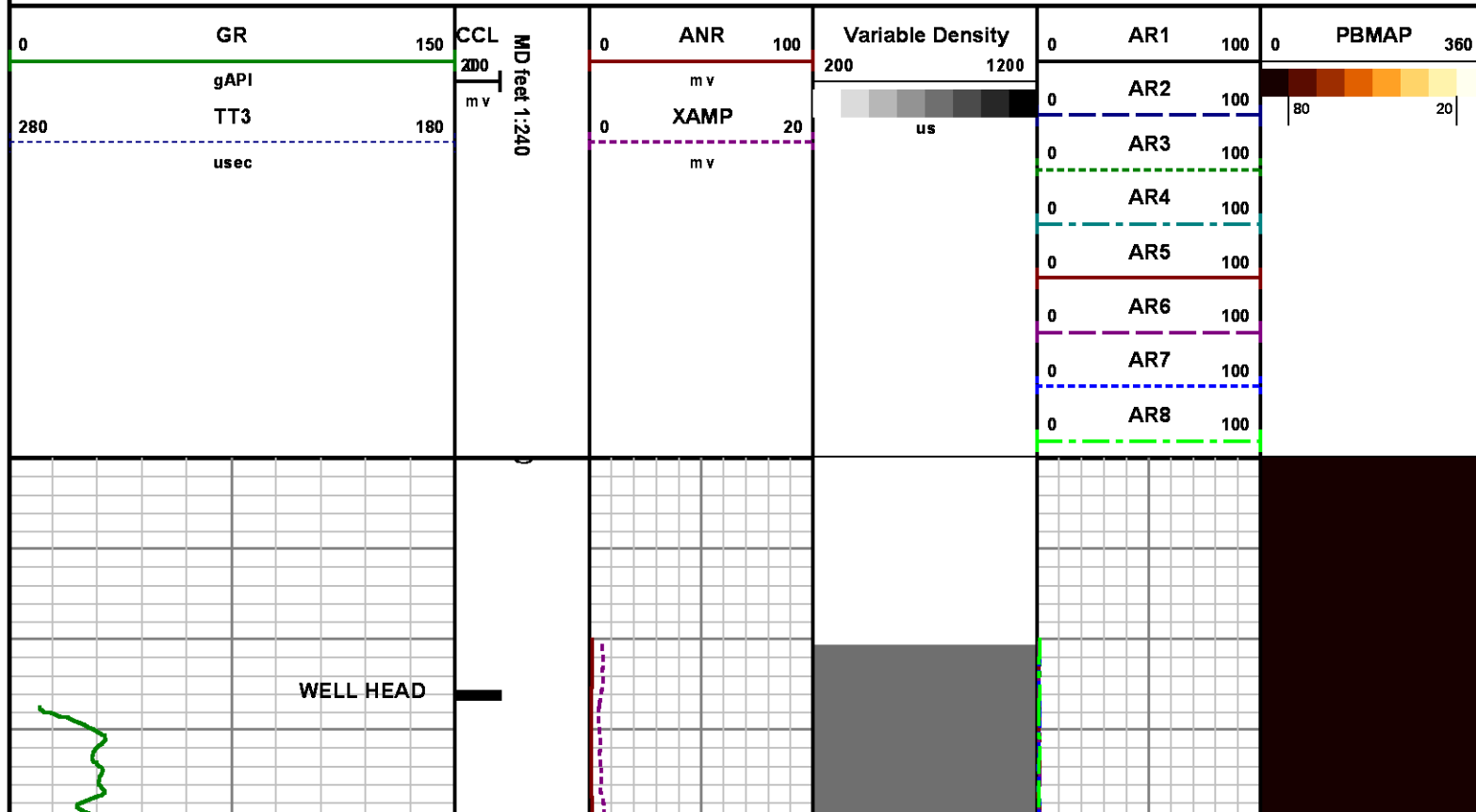
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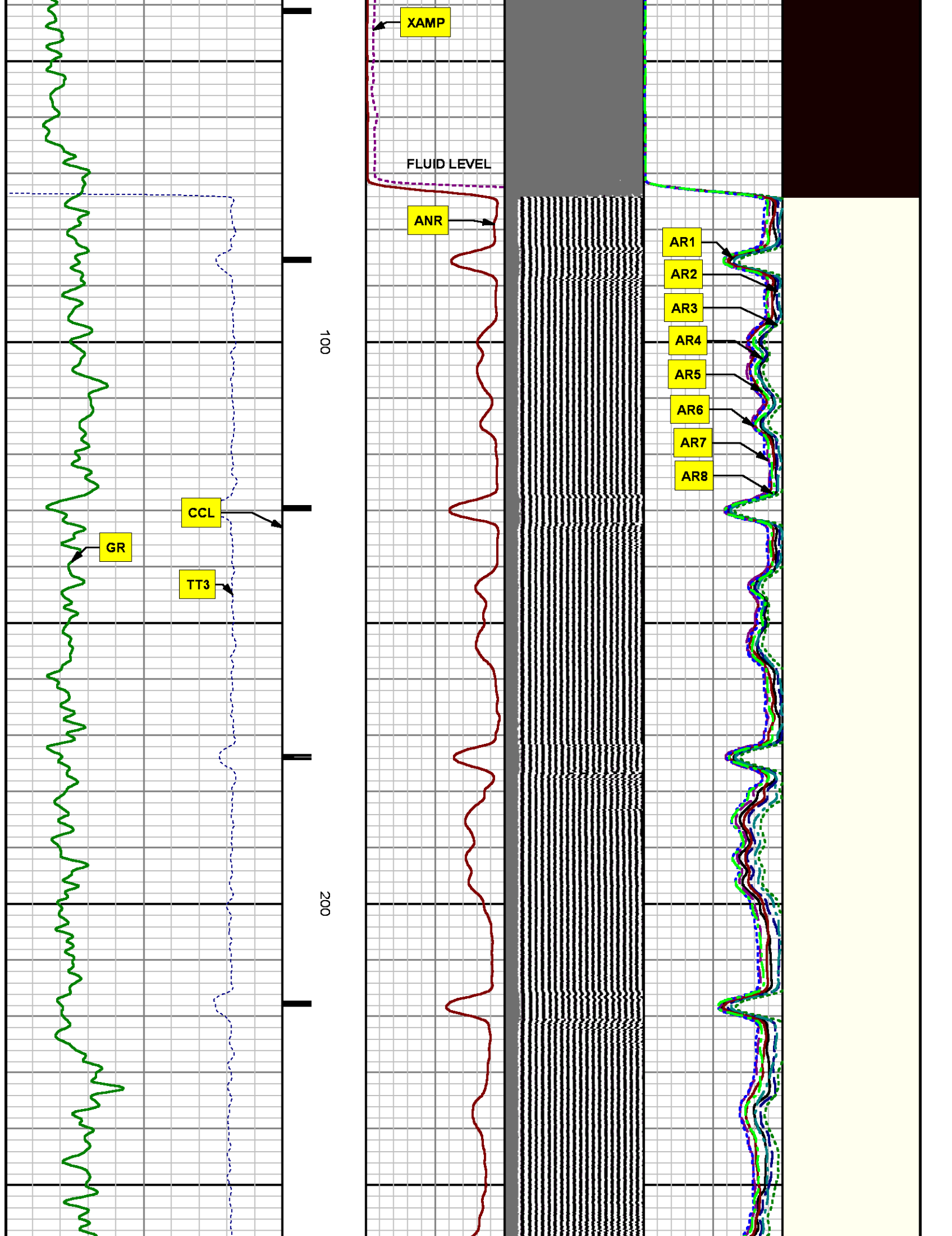
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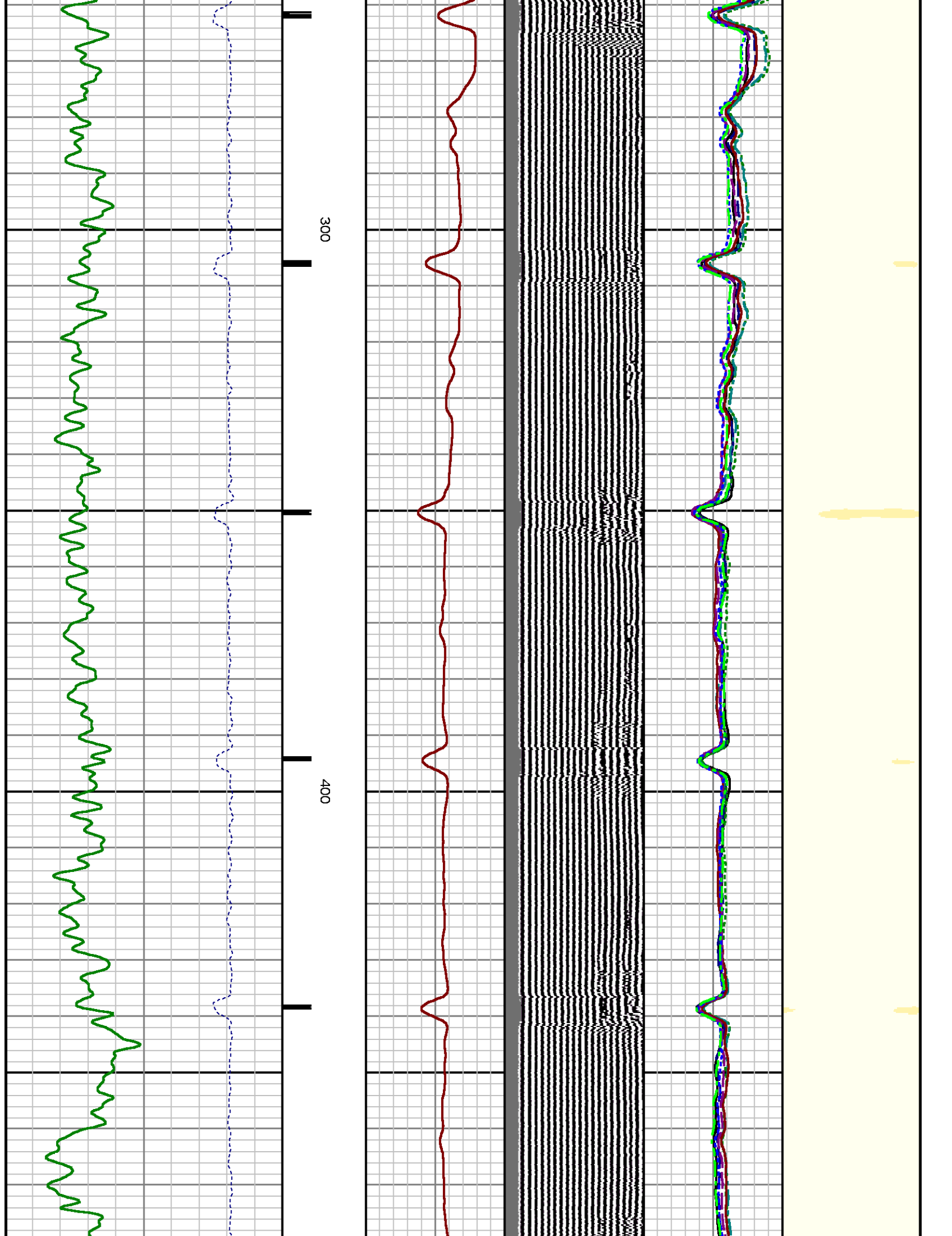
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Interval : 0.00 - 8780.00 feet UP

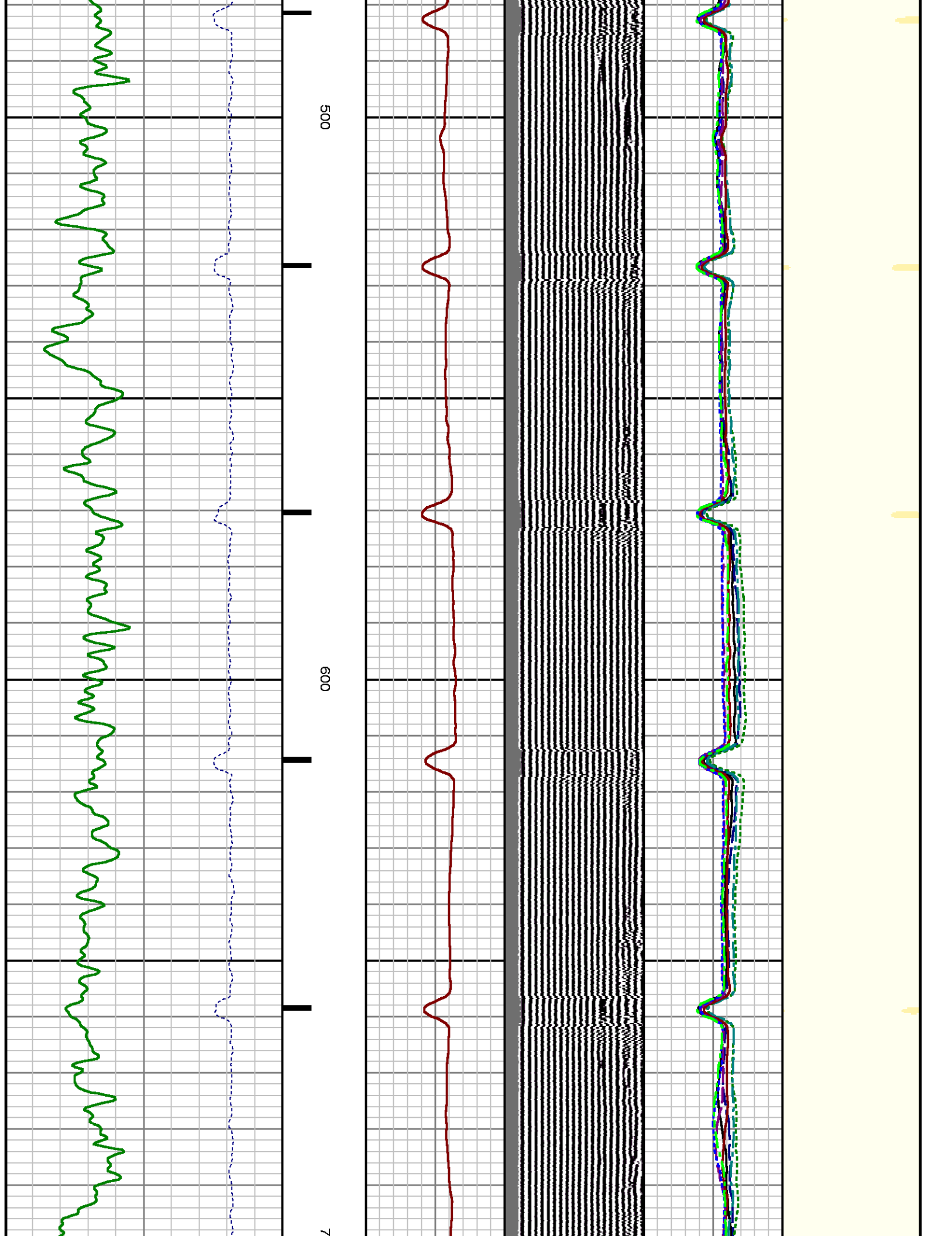
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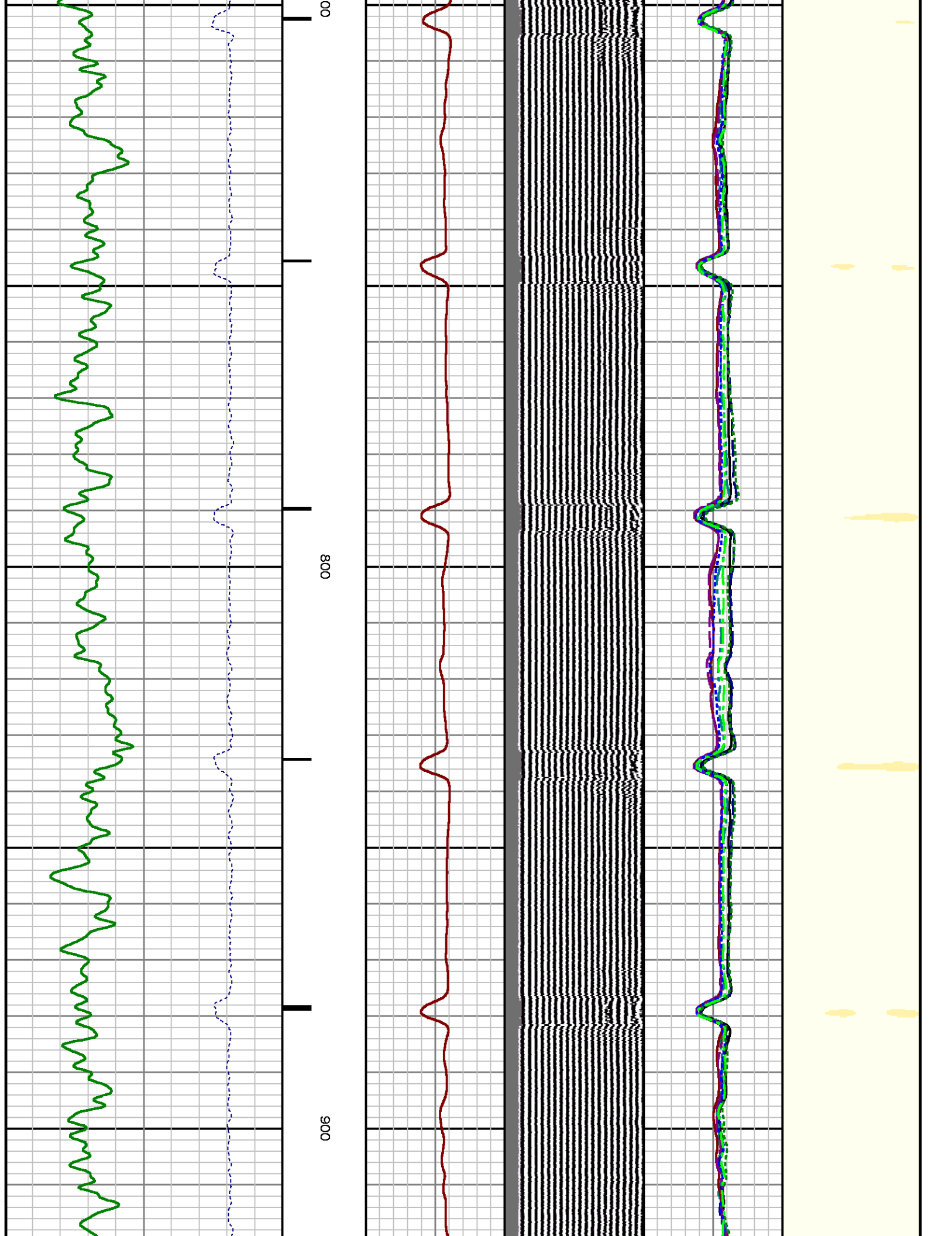


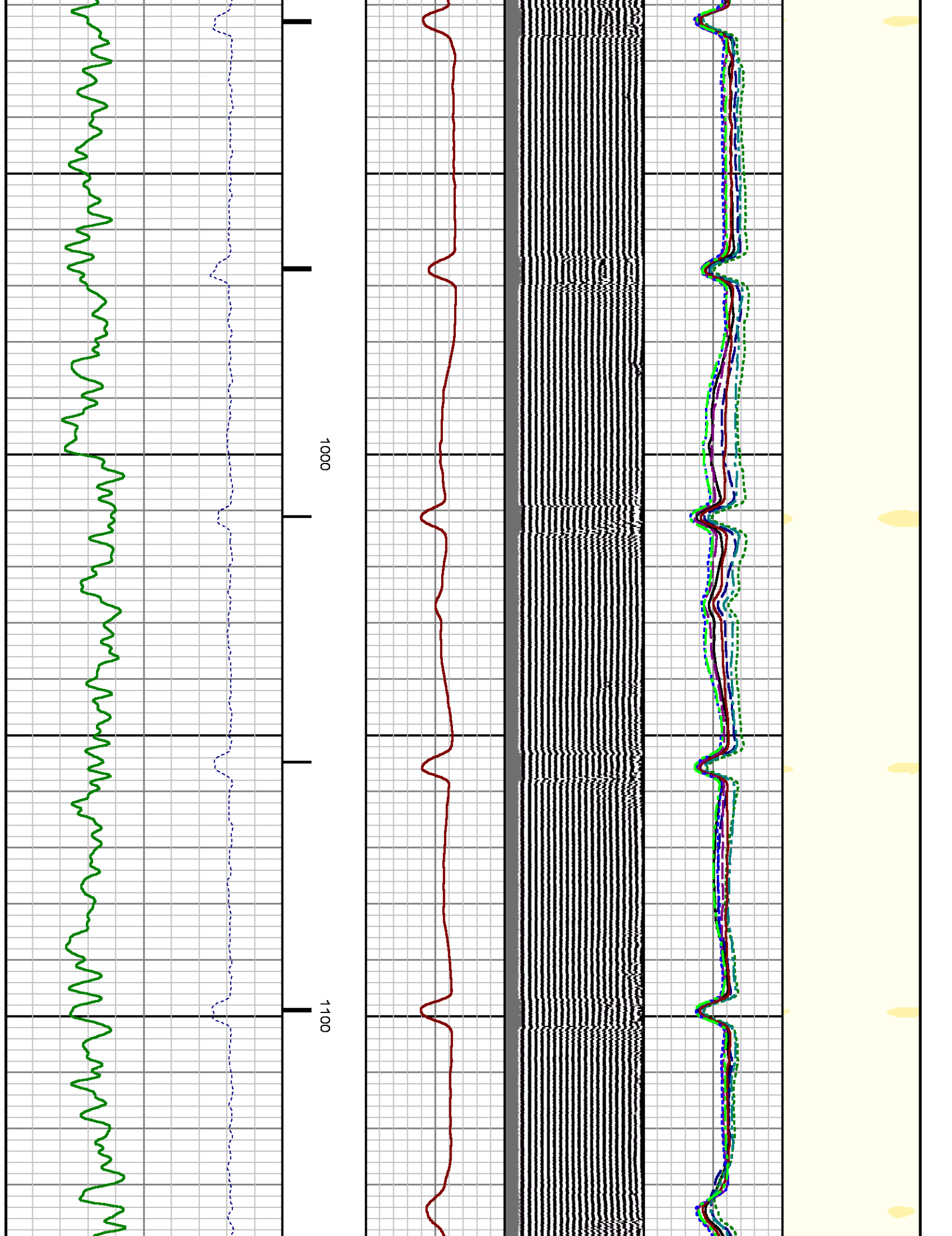


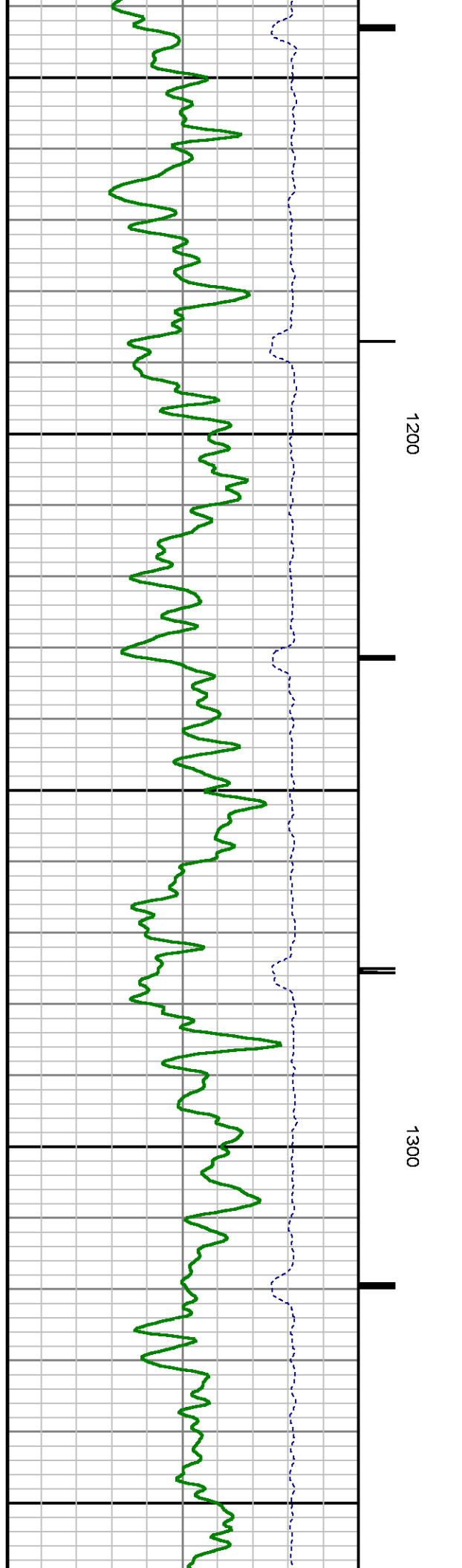
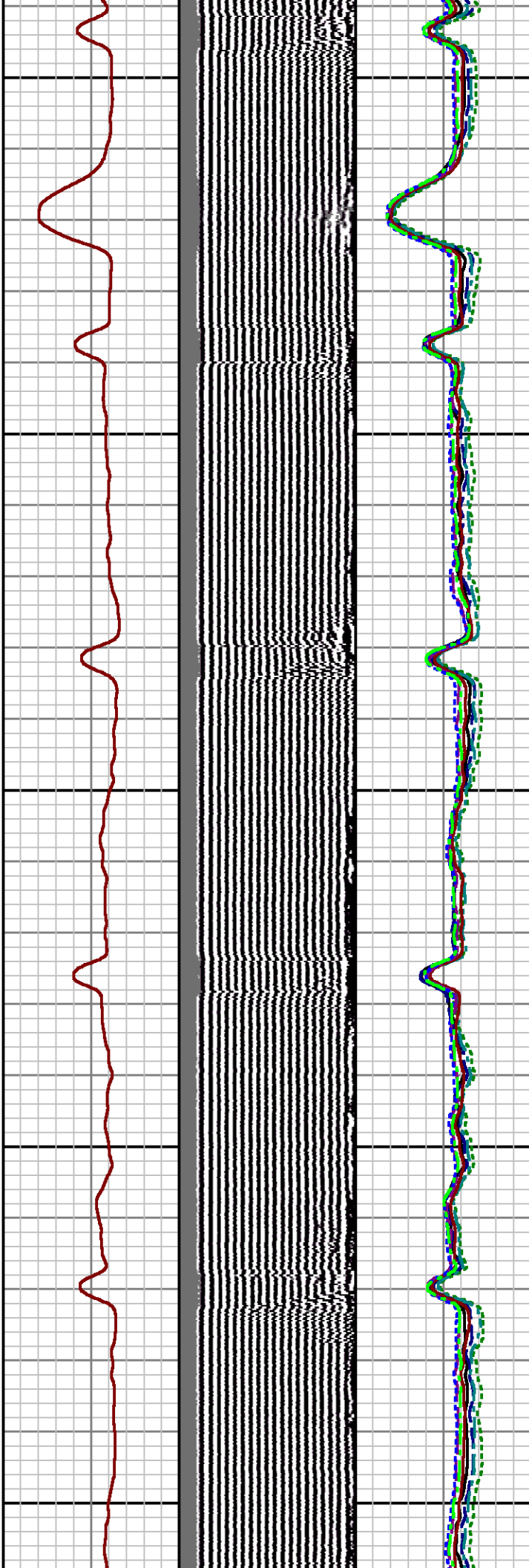
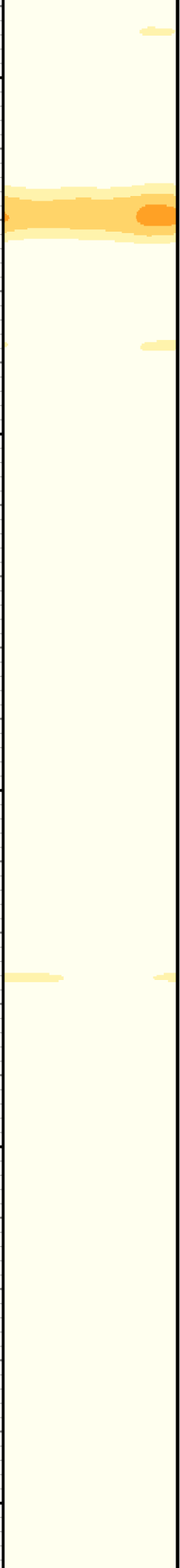


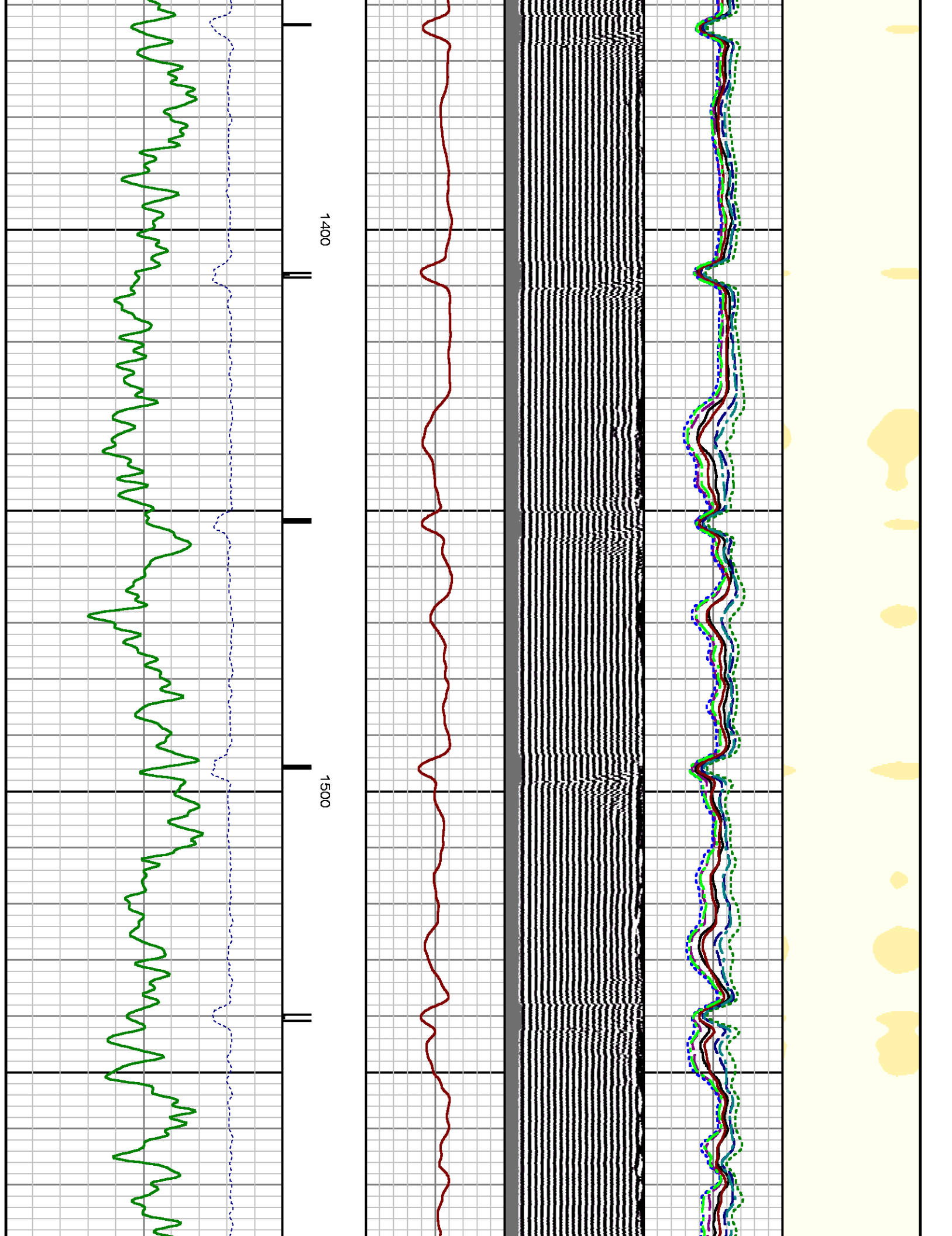




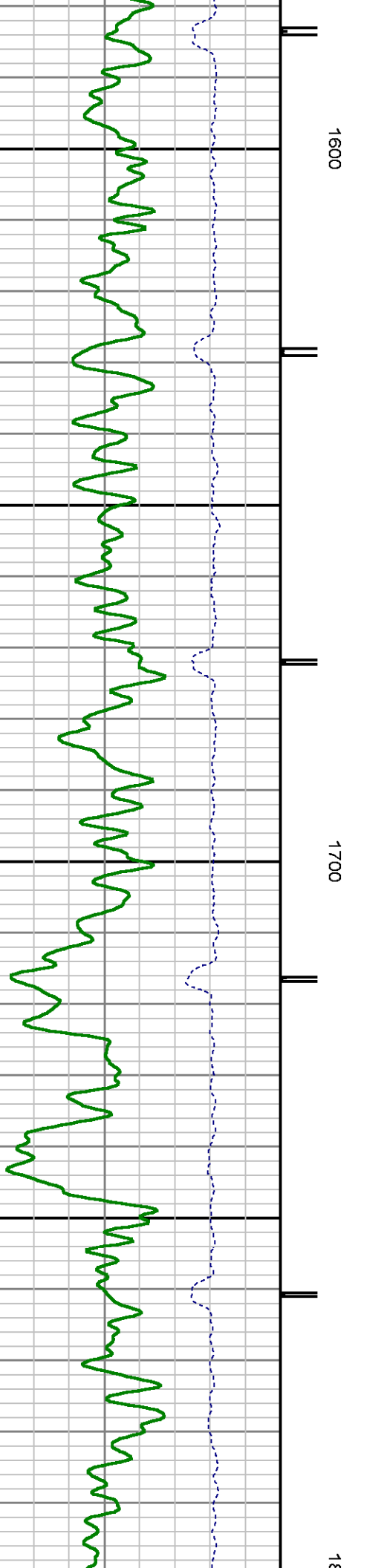
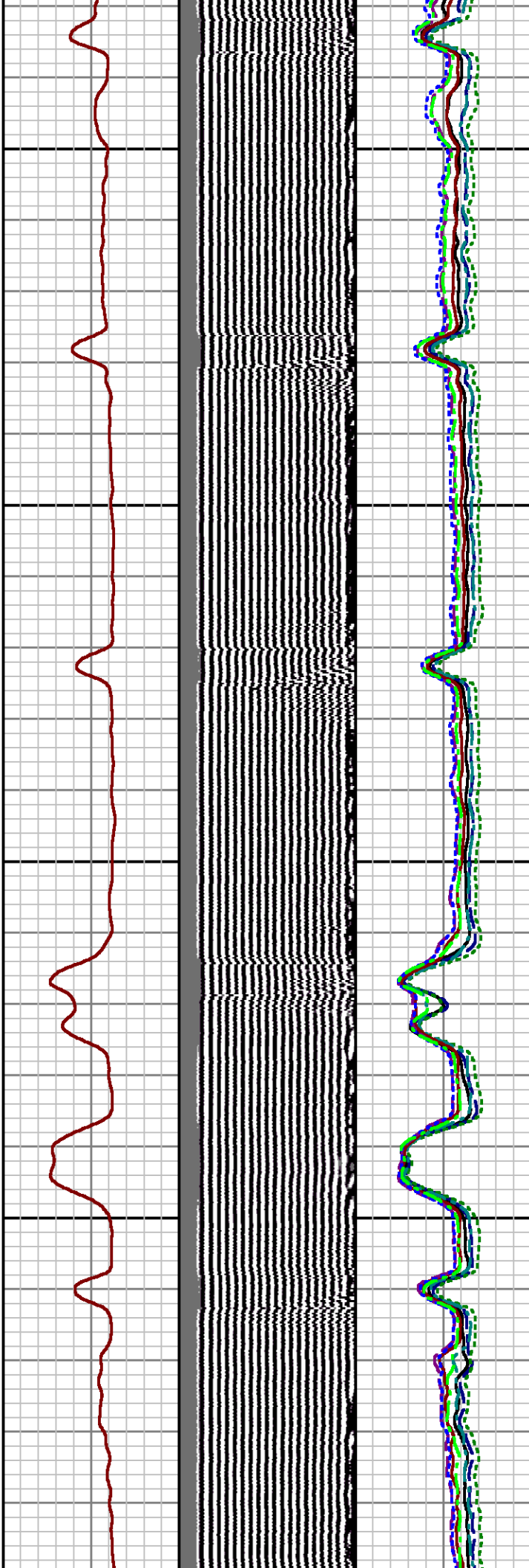
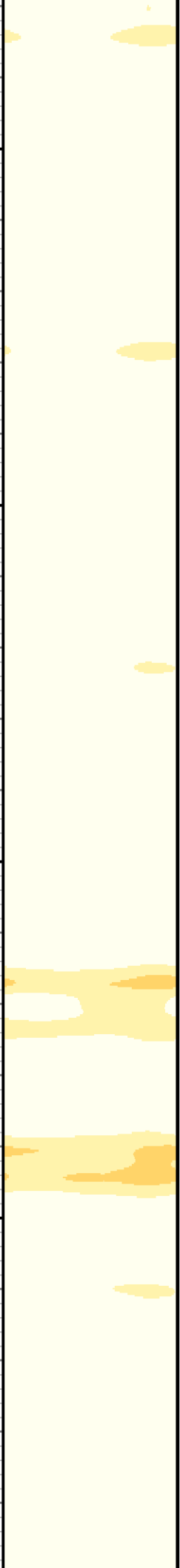


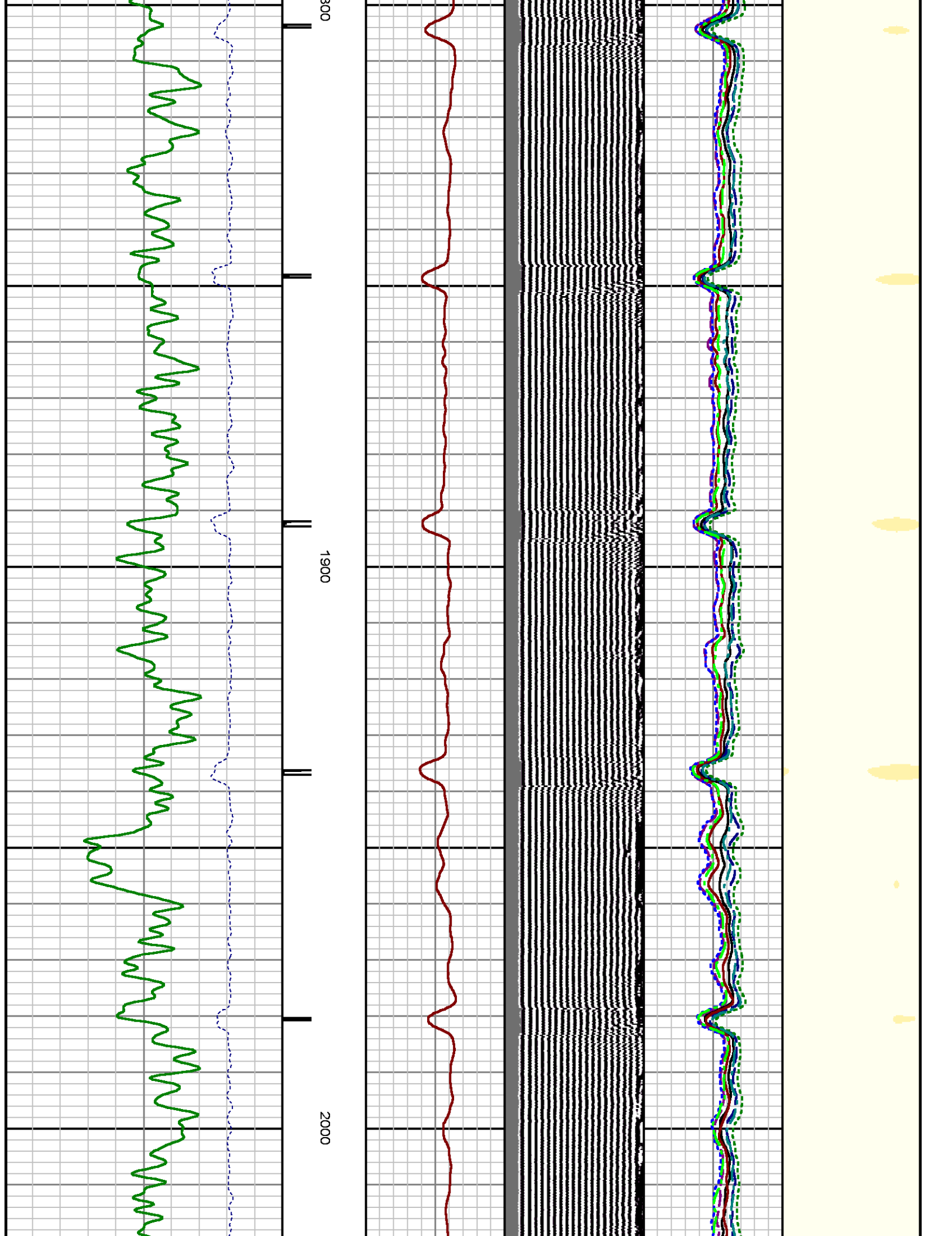


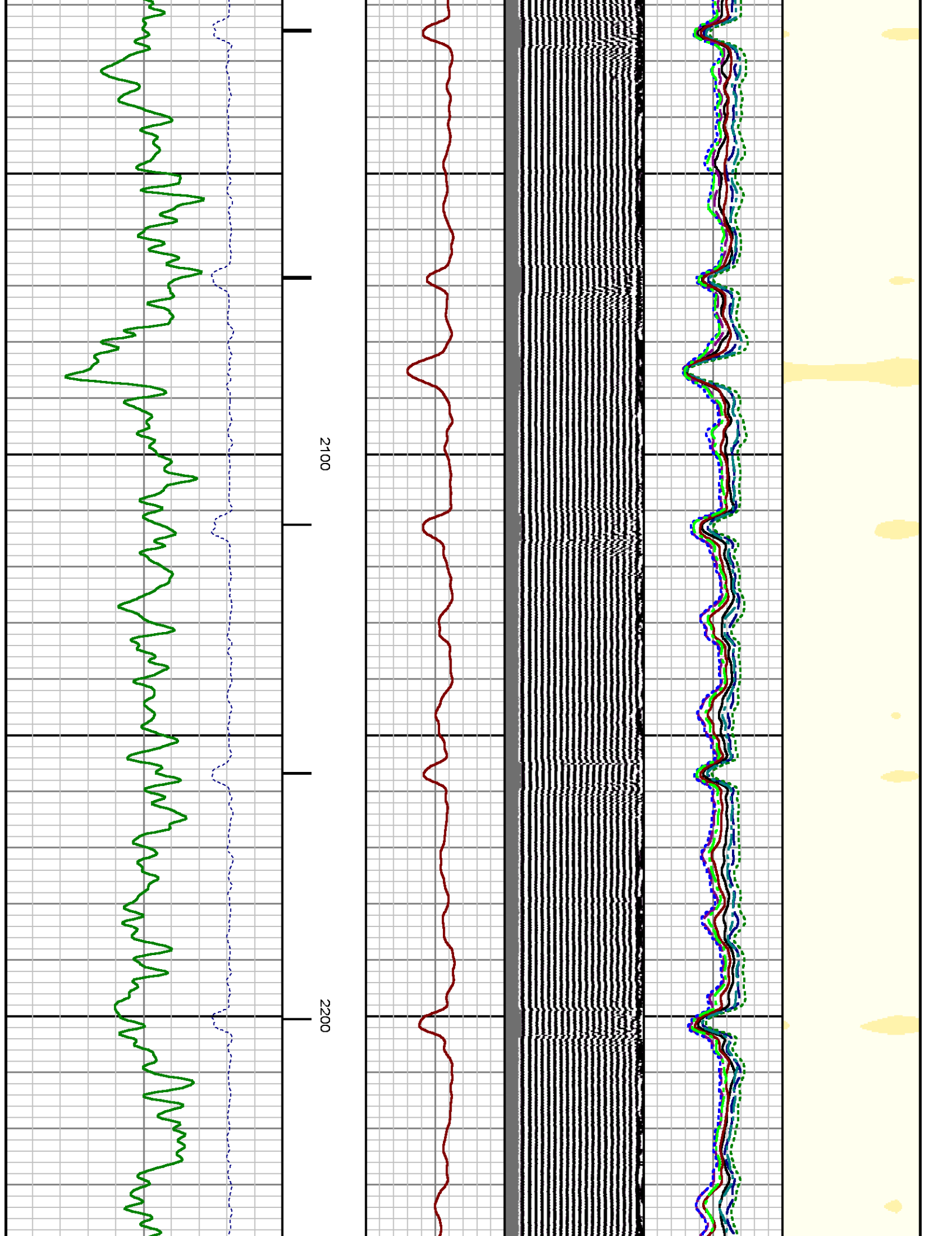


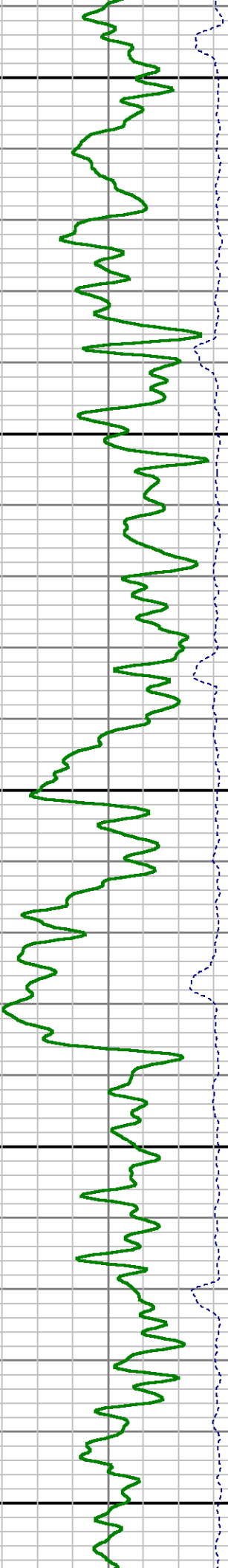
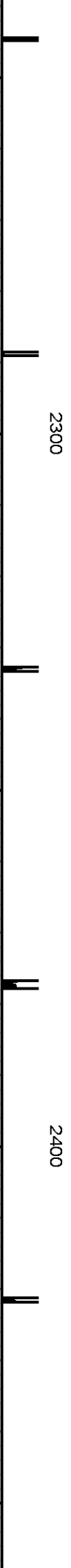
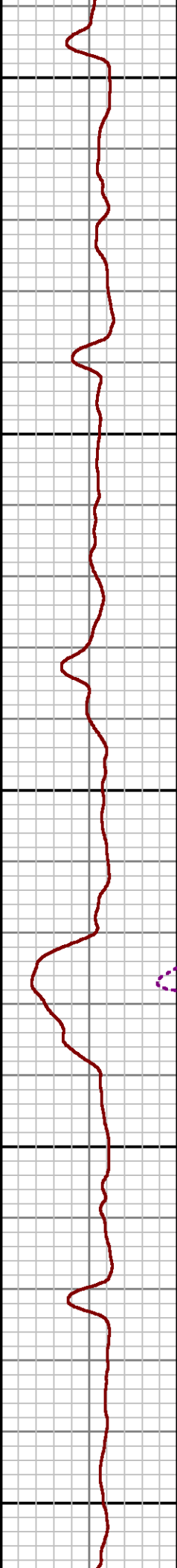
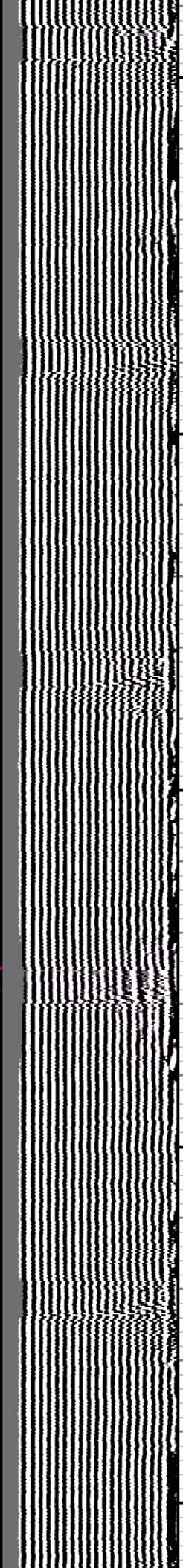
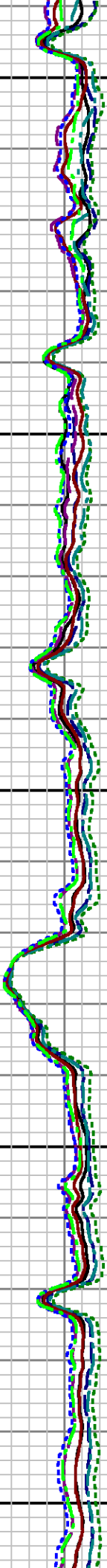
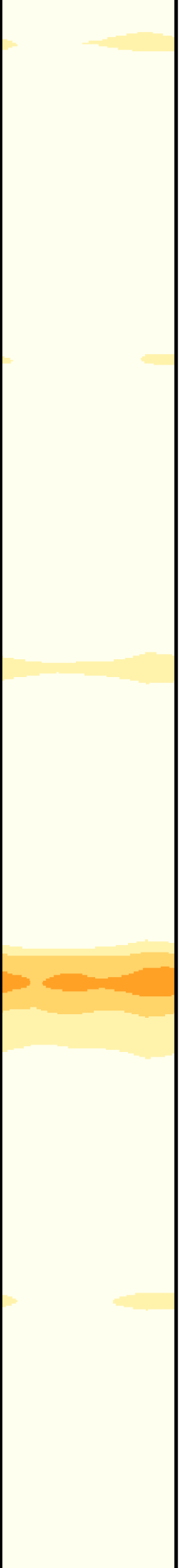


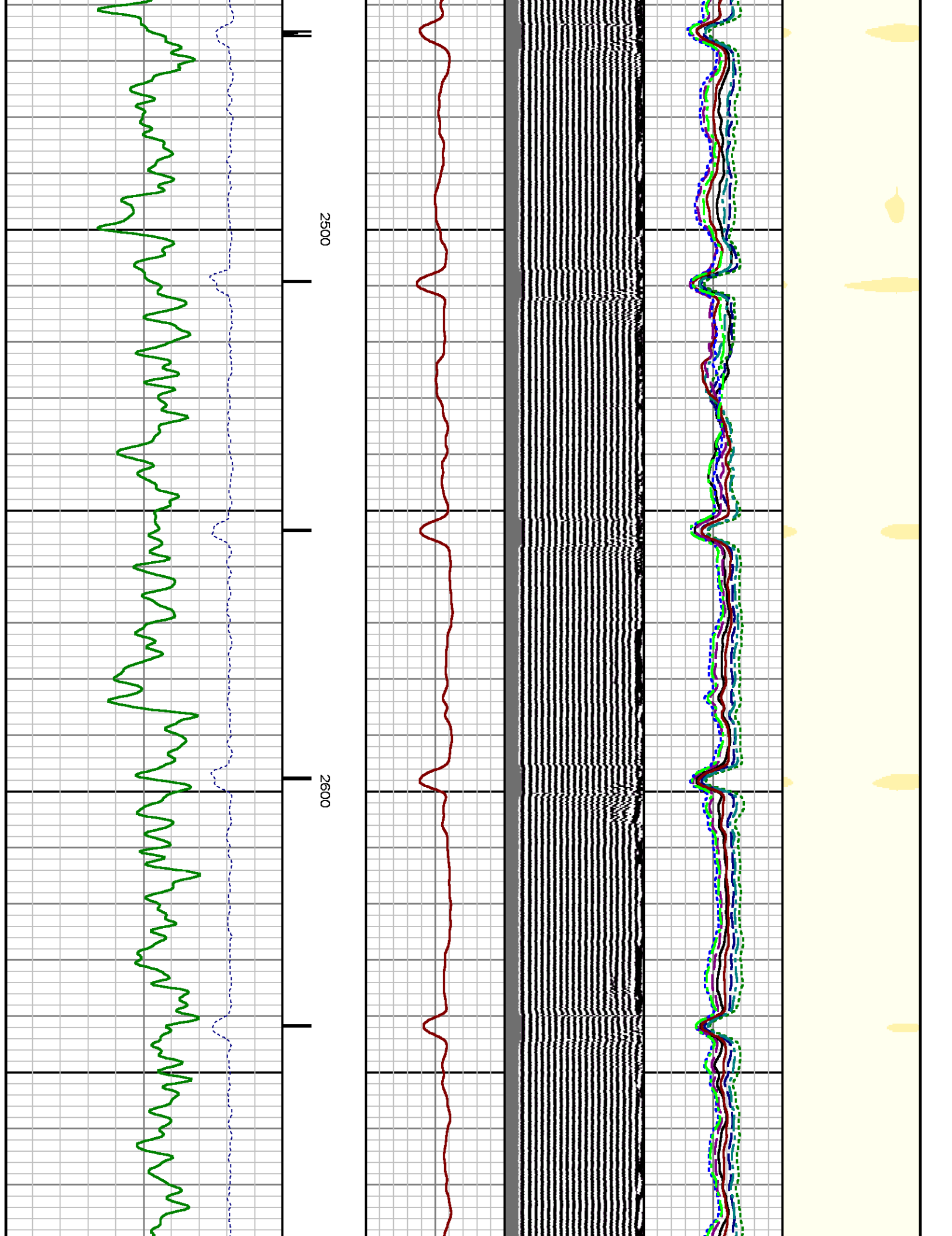




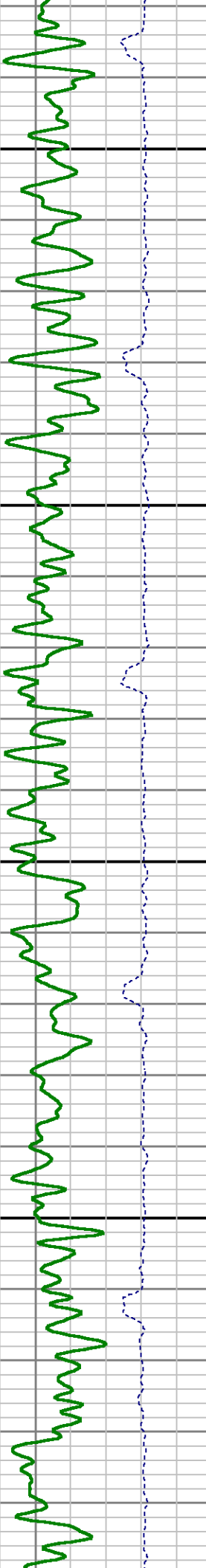
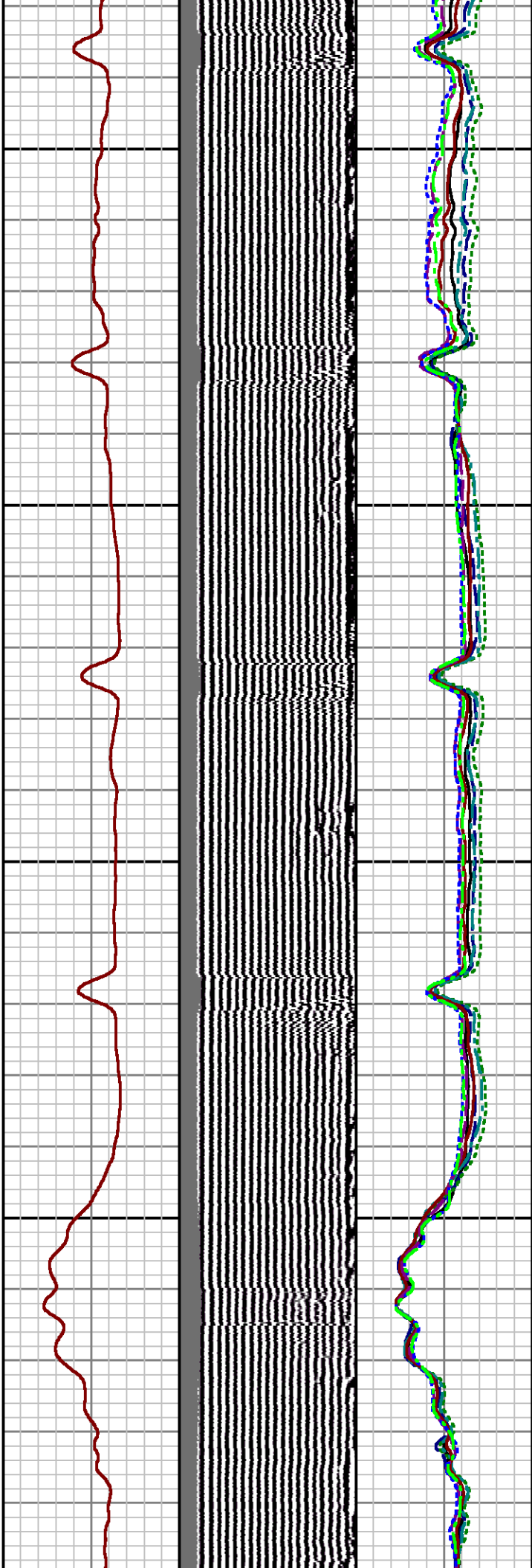
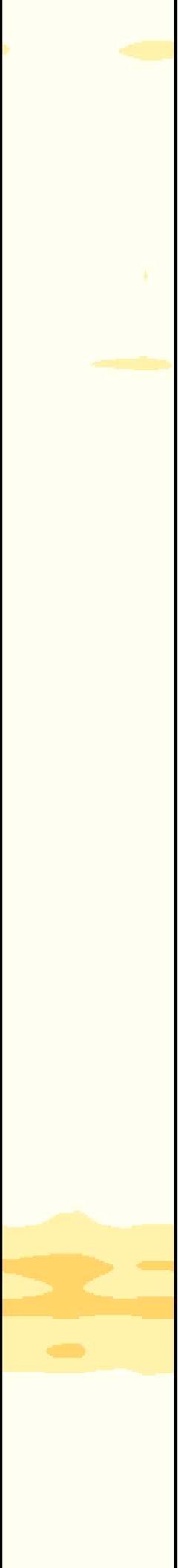


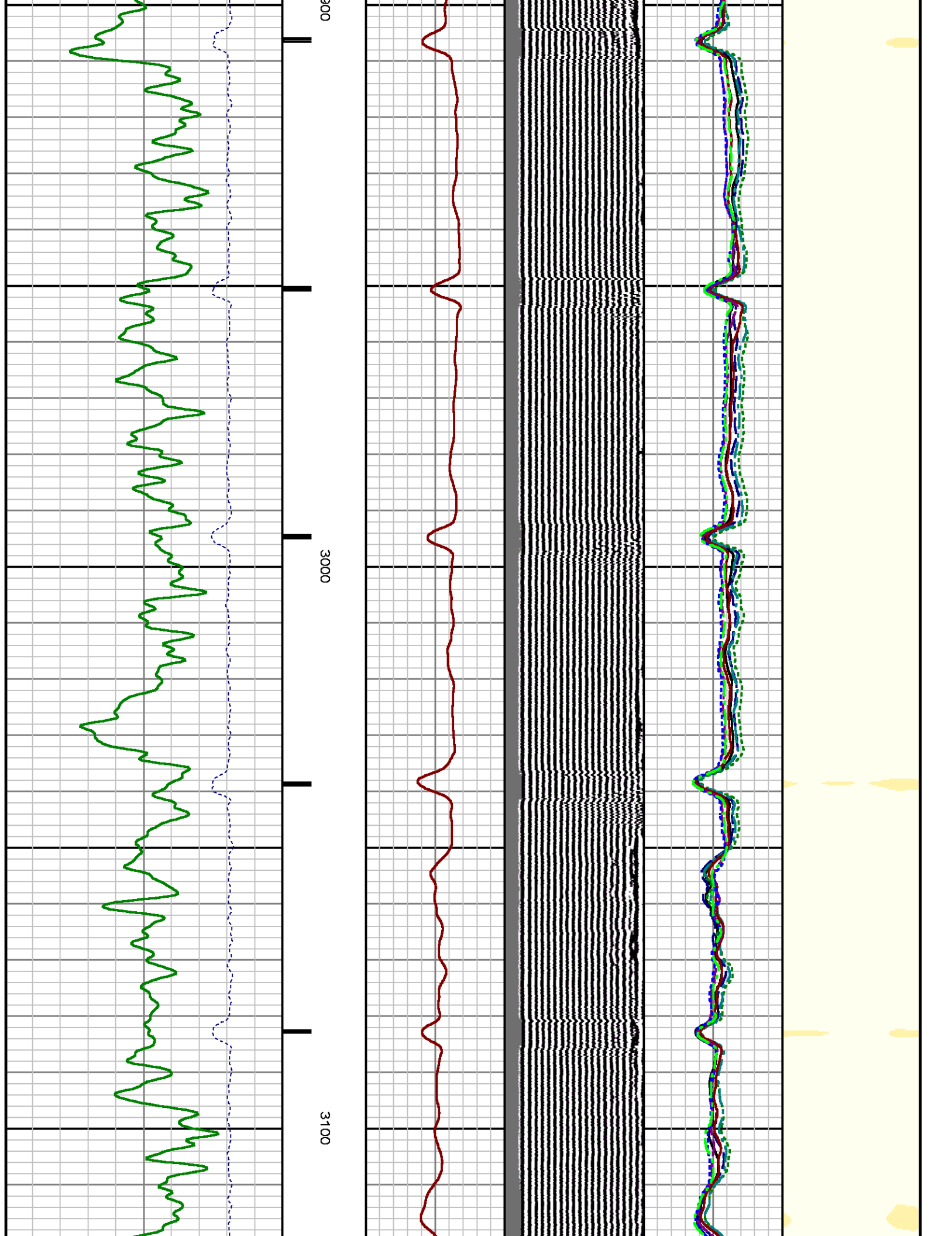


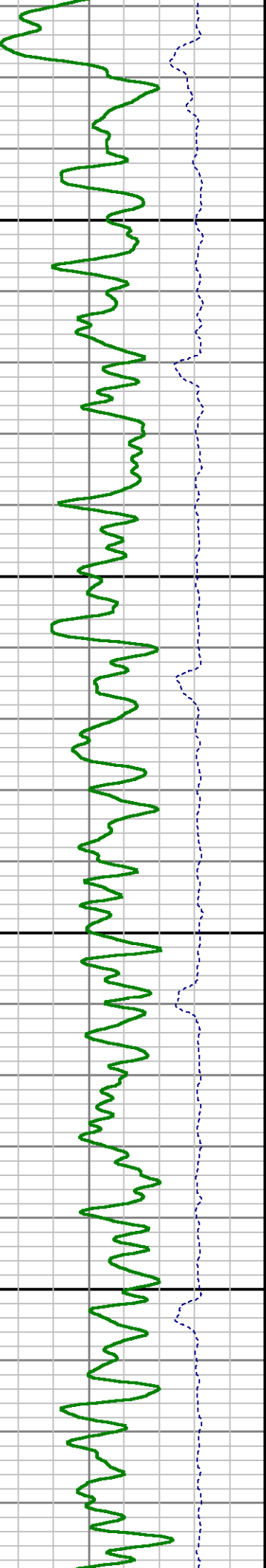
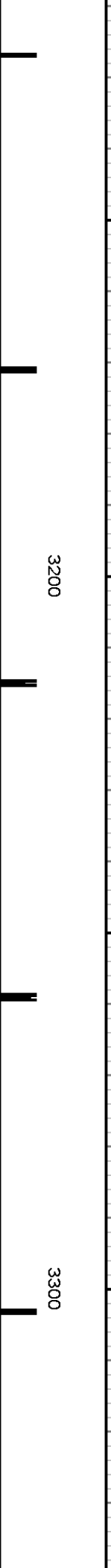
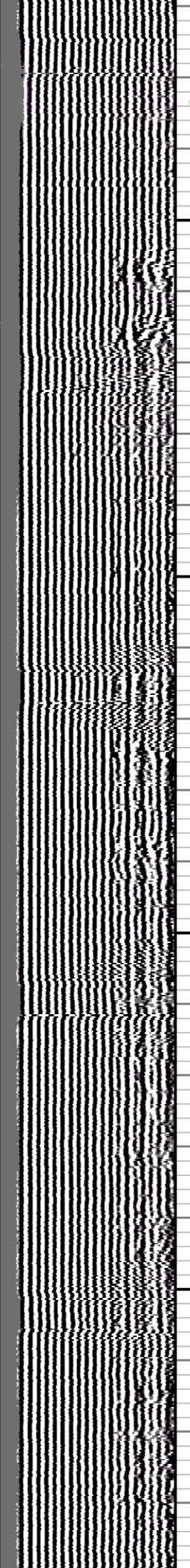
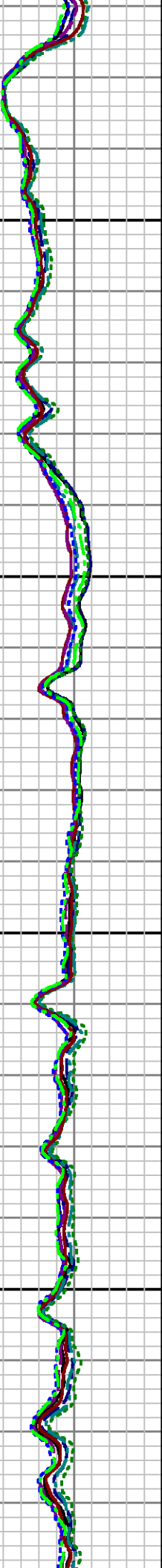
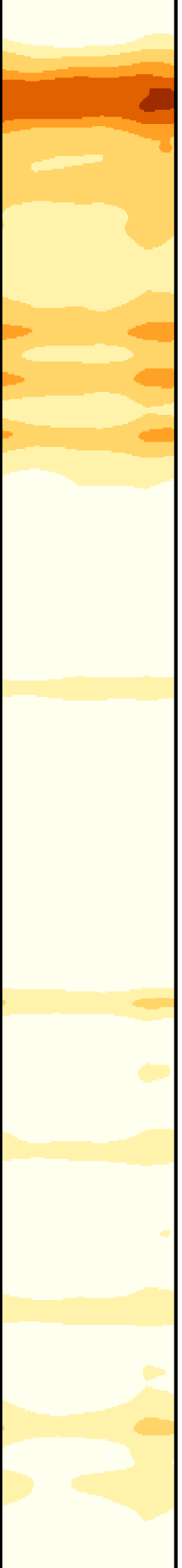


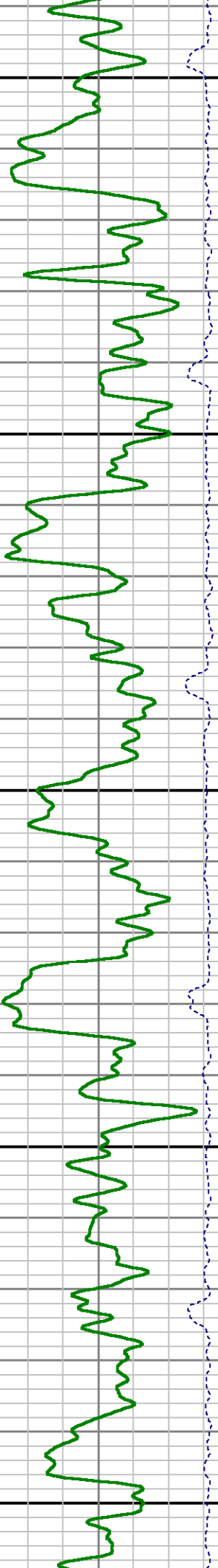
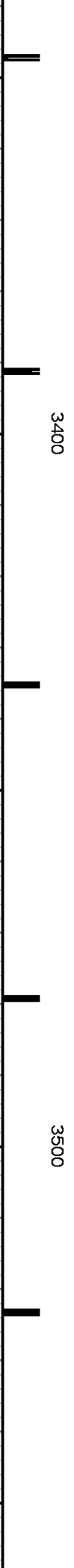
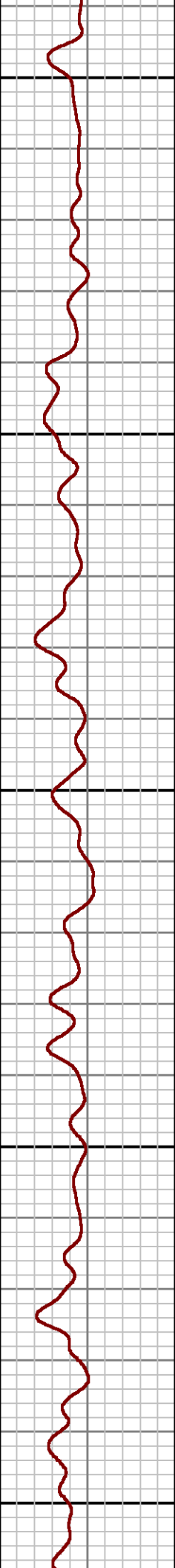
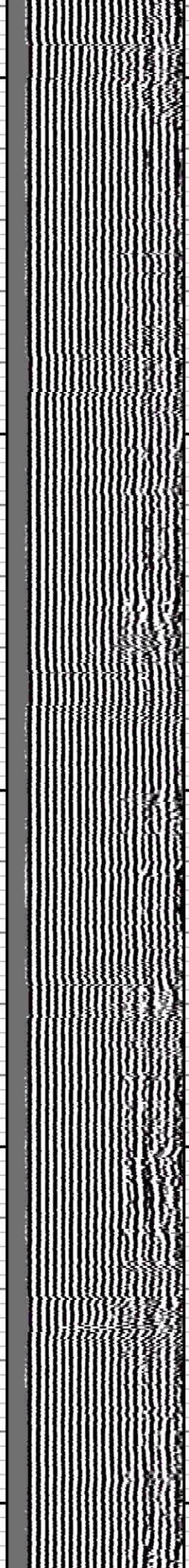
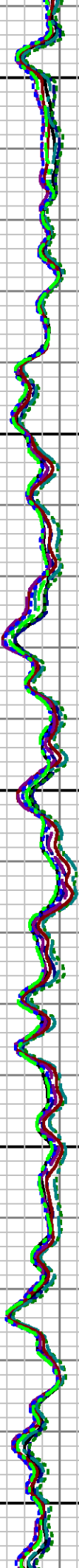
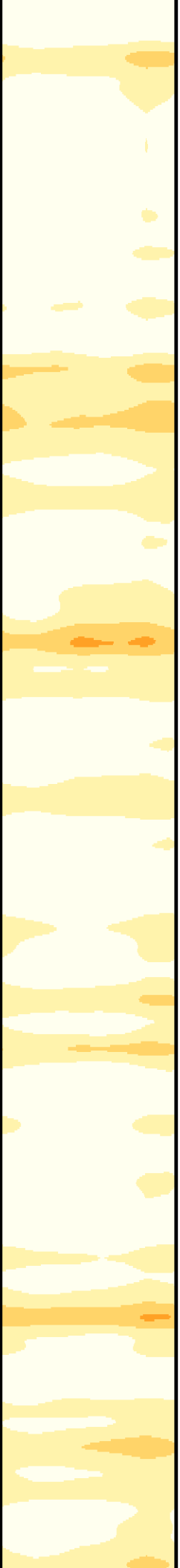




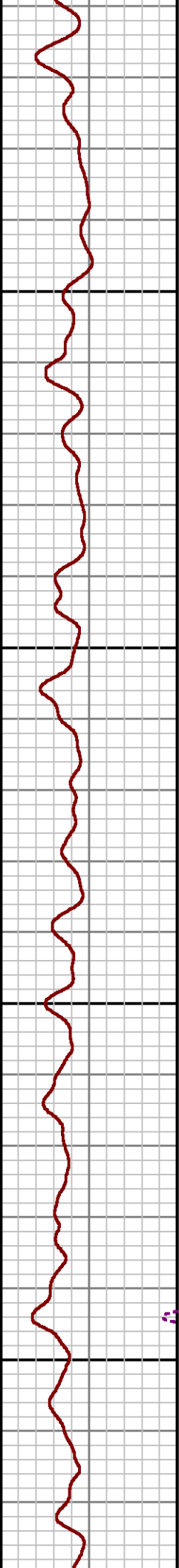
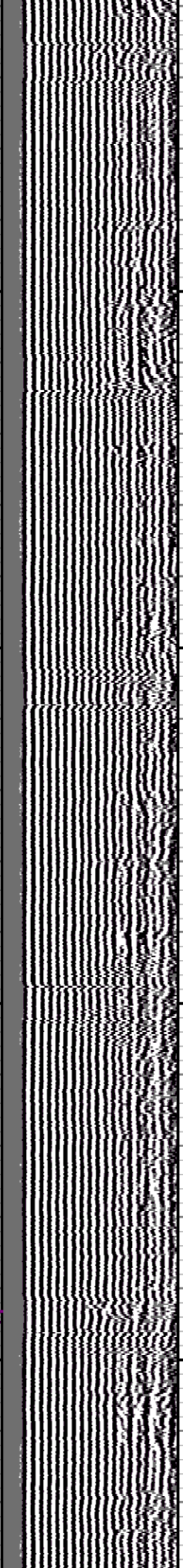
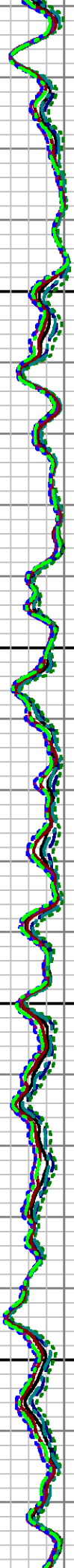
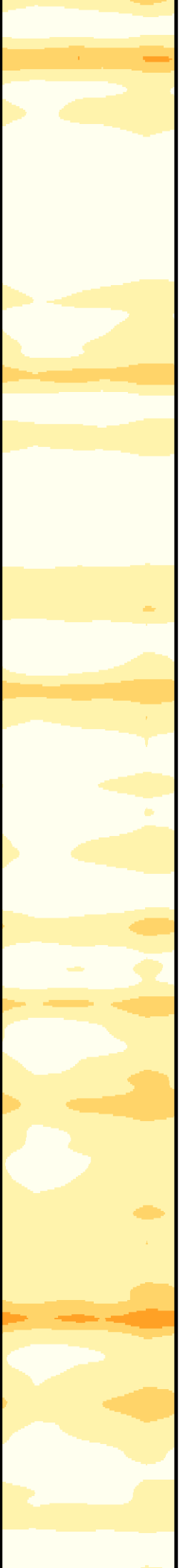






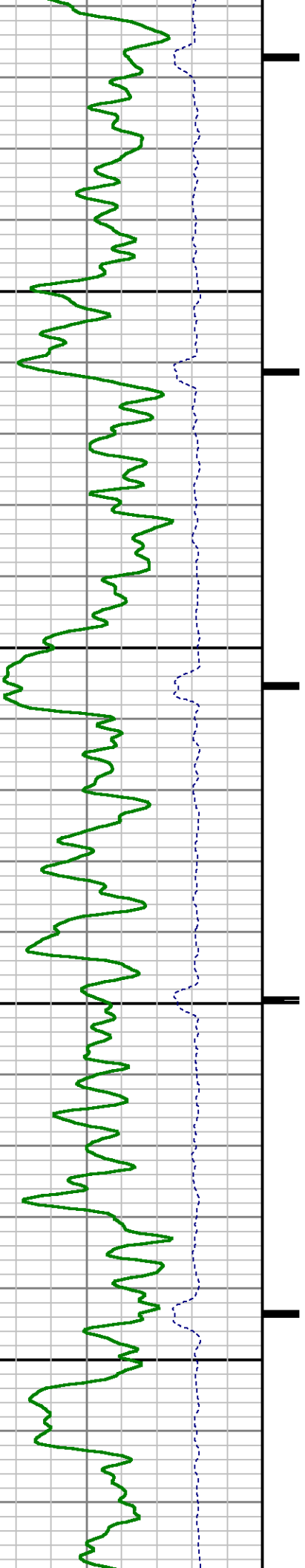


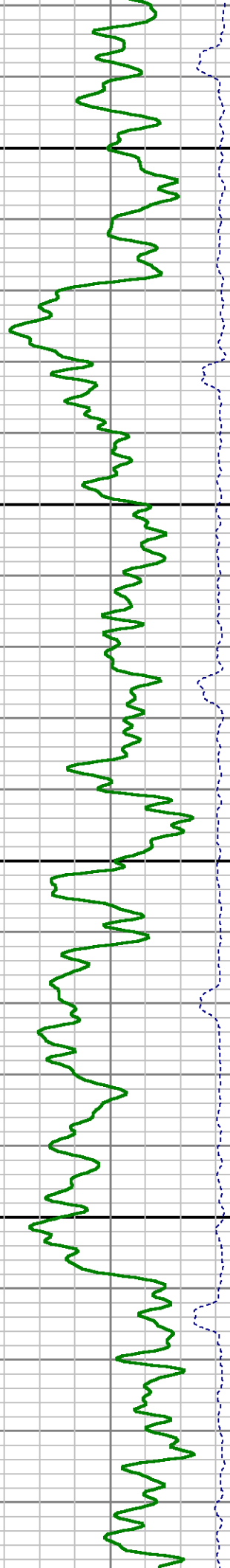
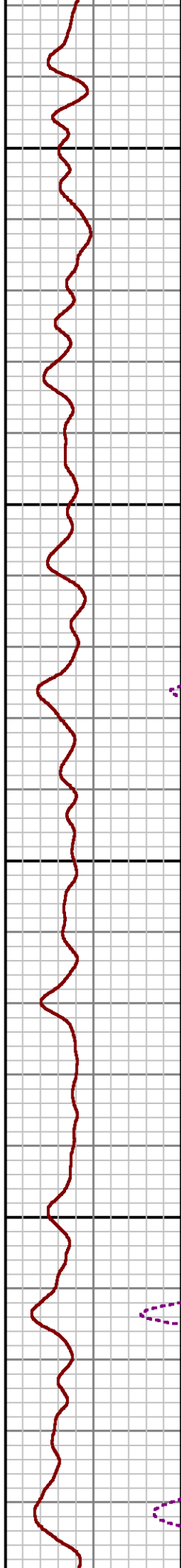
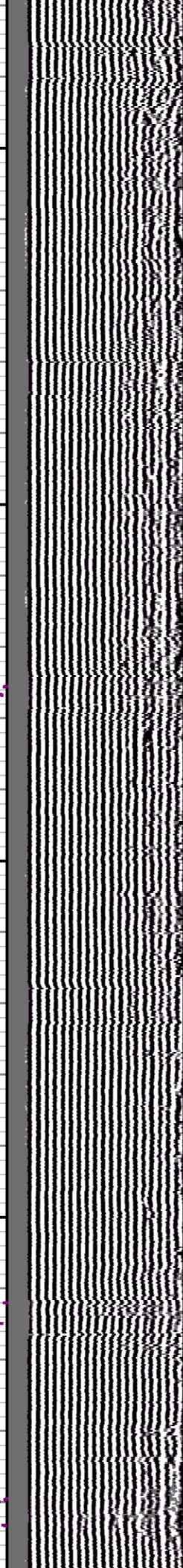
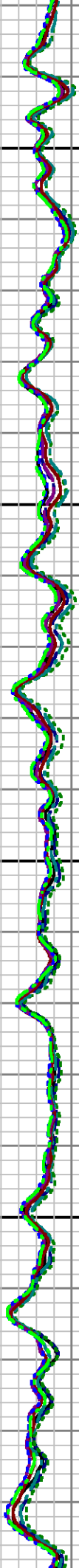
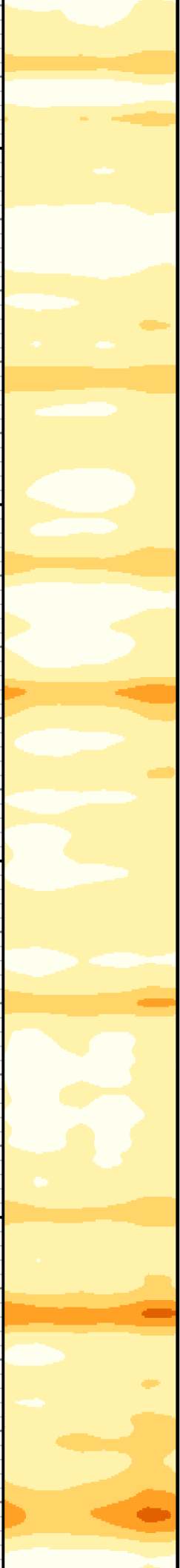




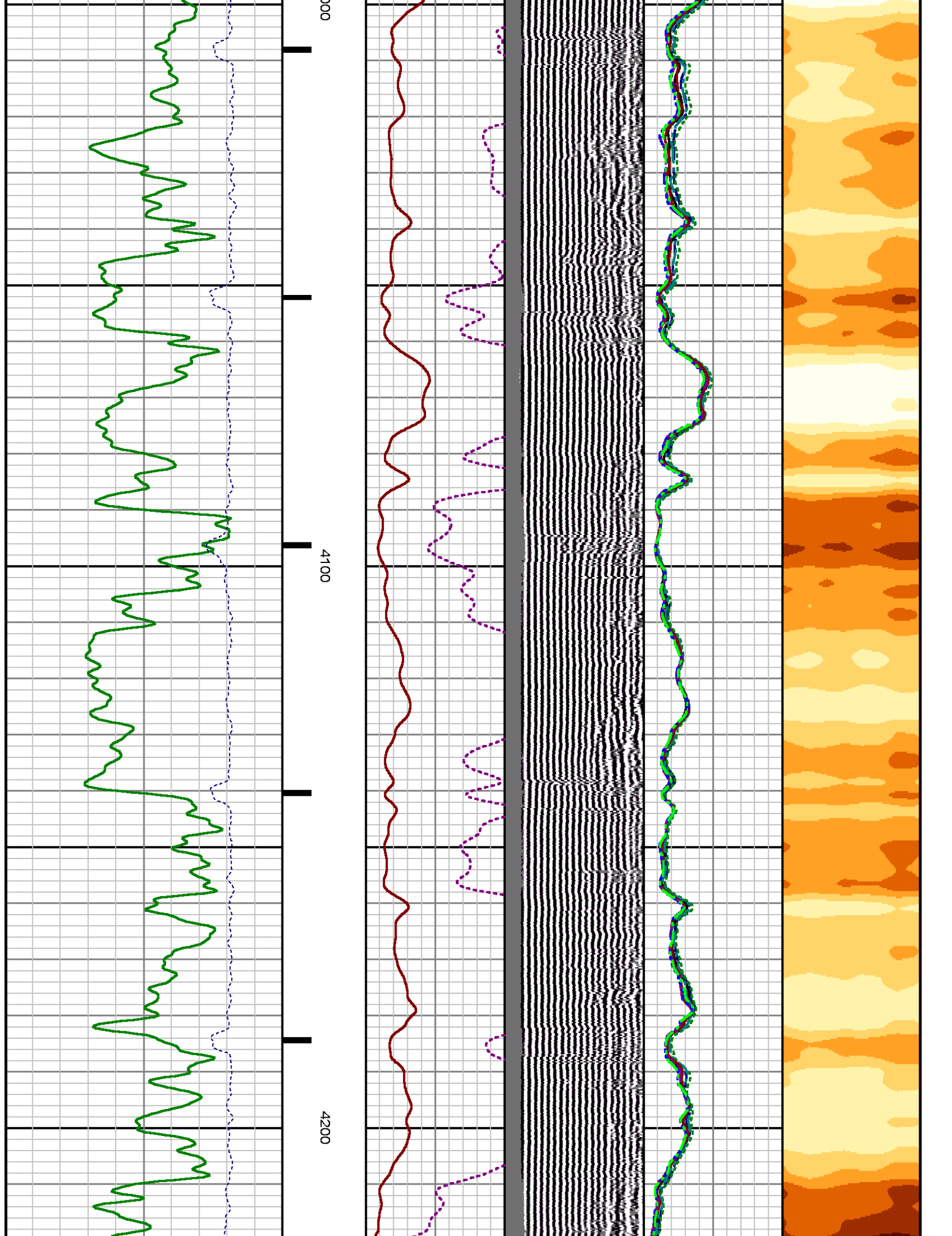
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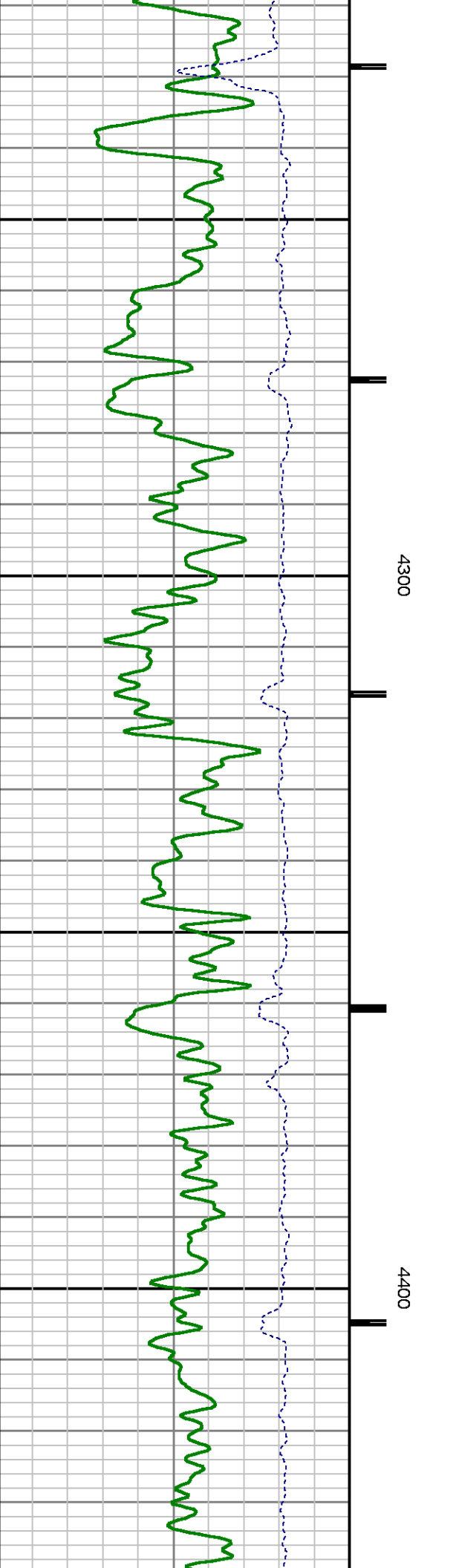
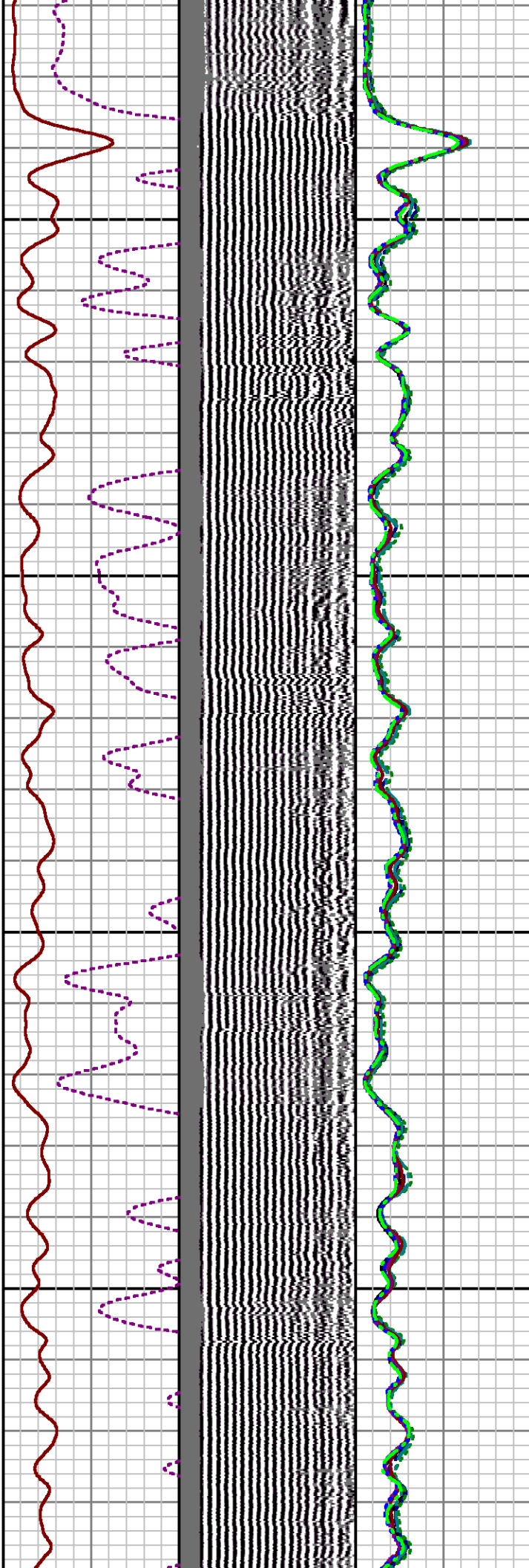
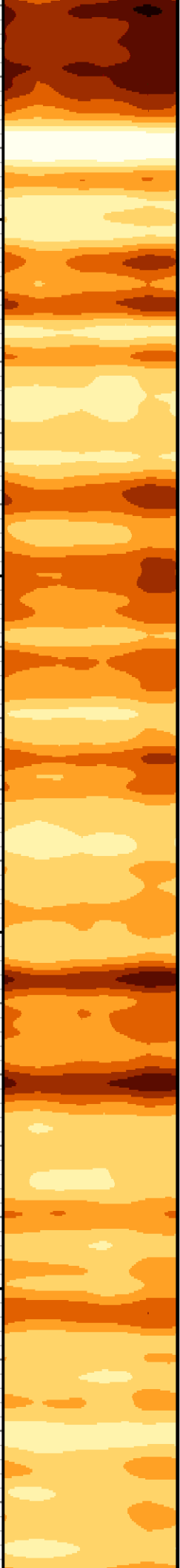
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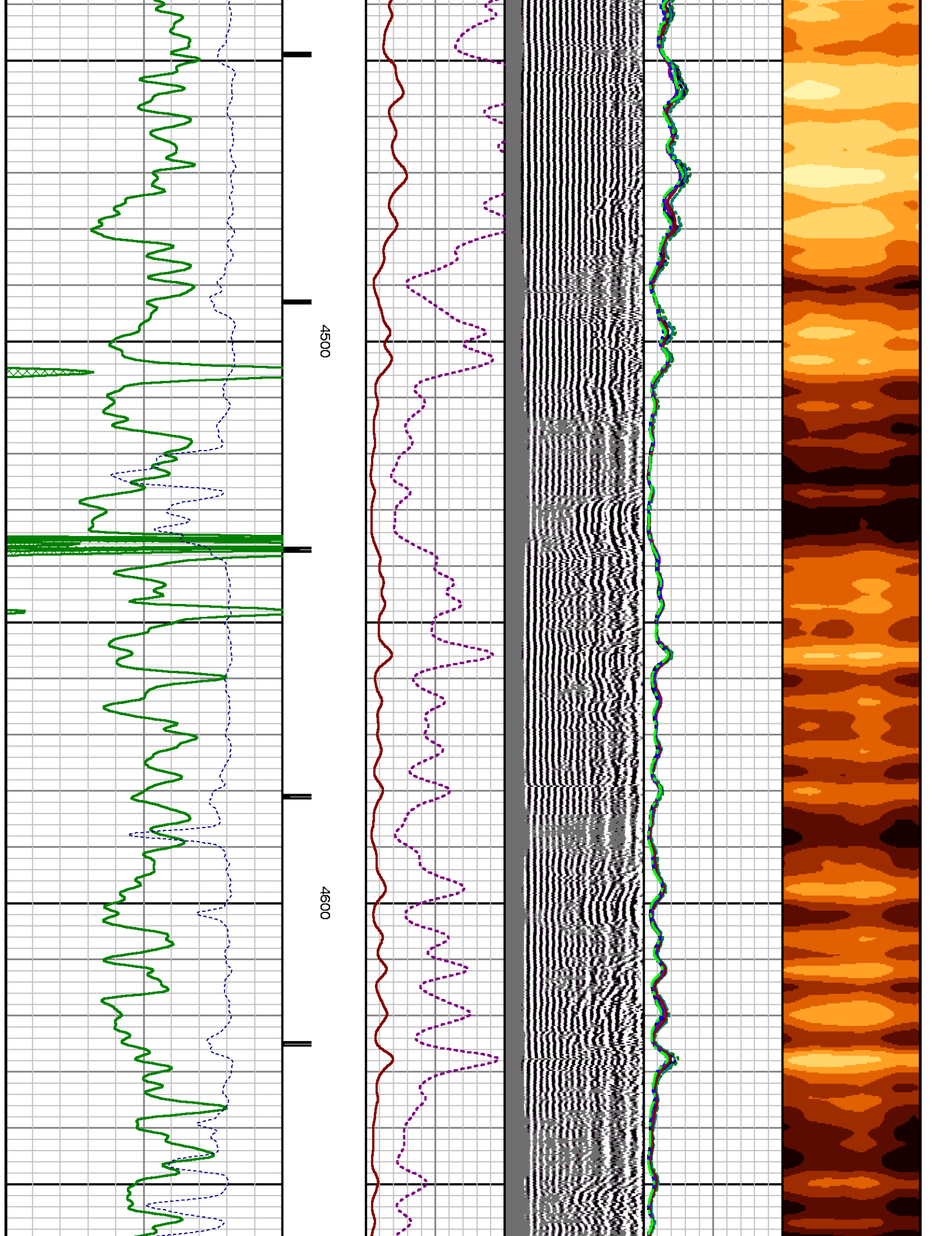


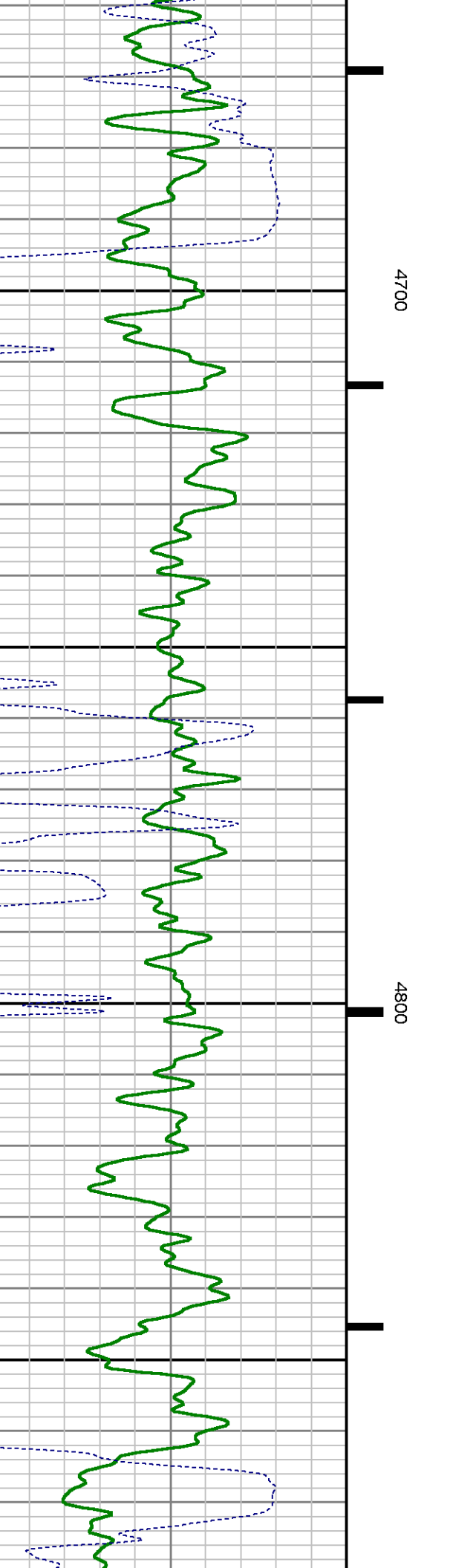
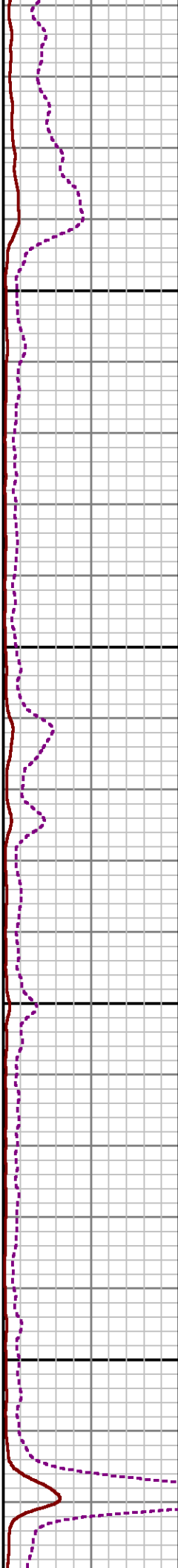
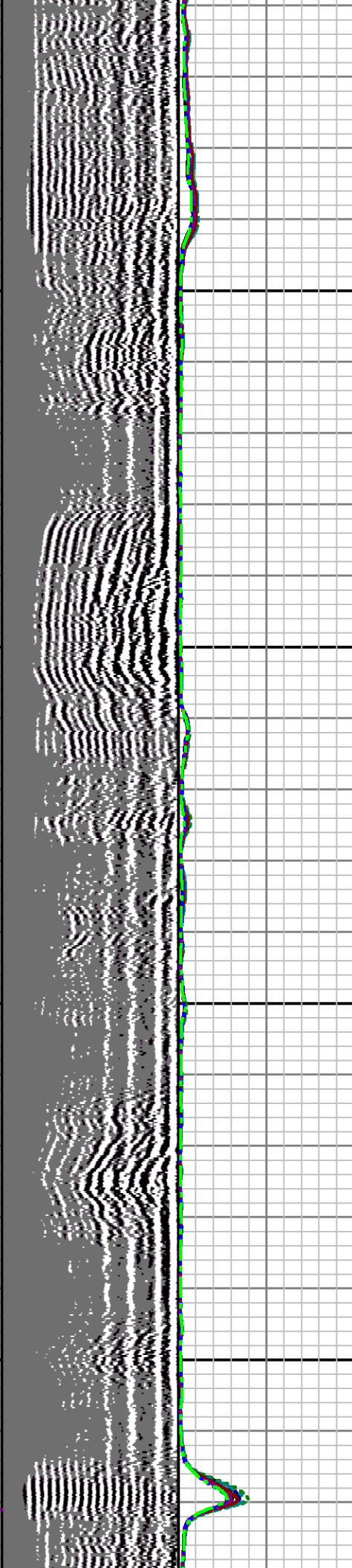




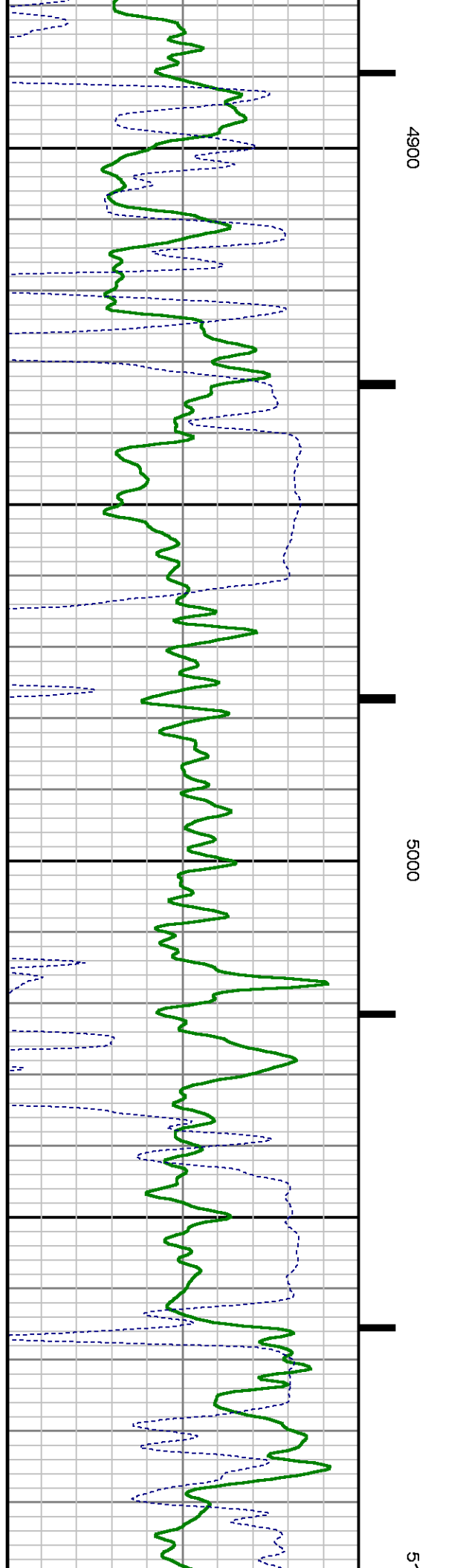
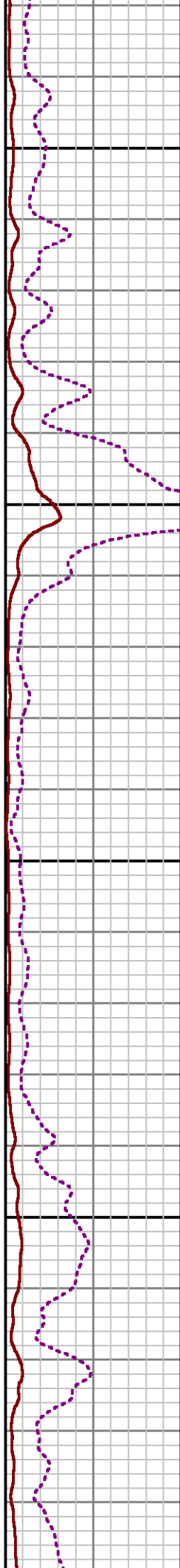
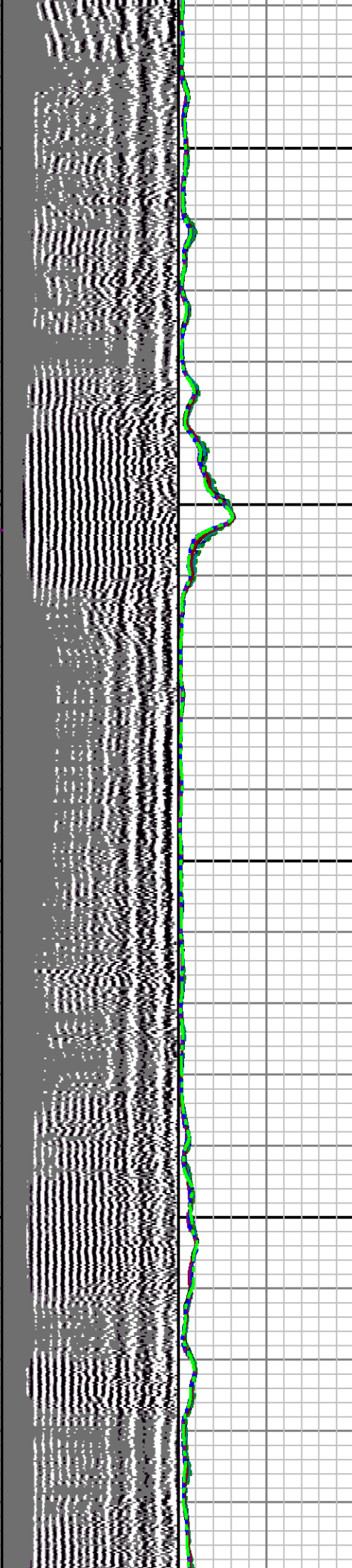


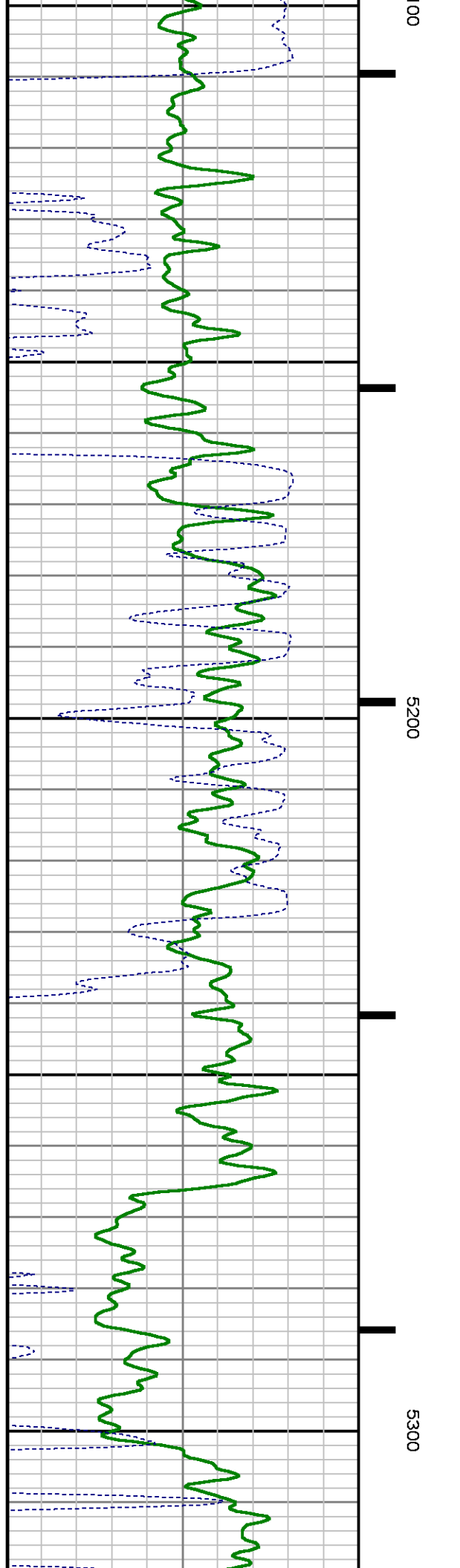
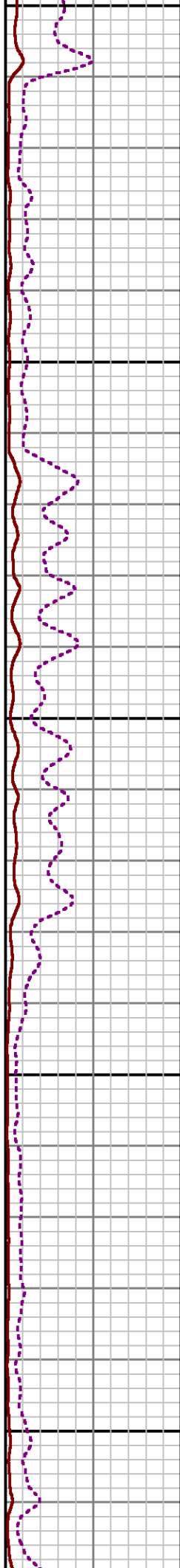
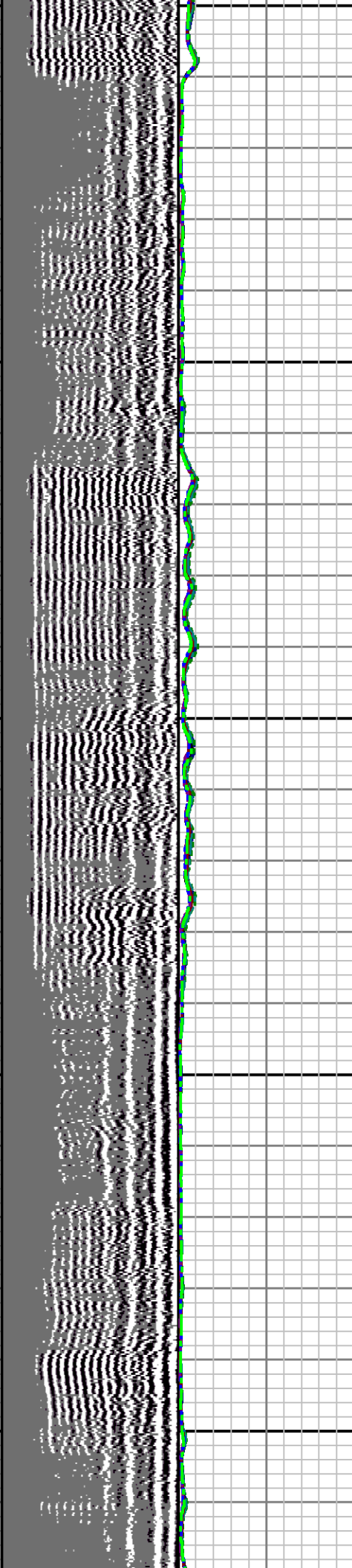
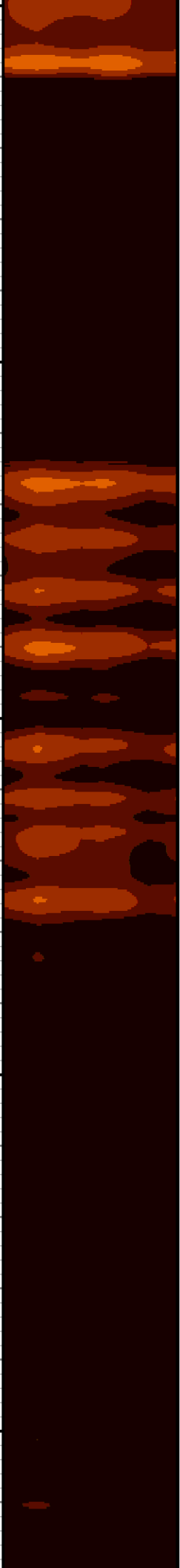




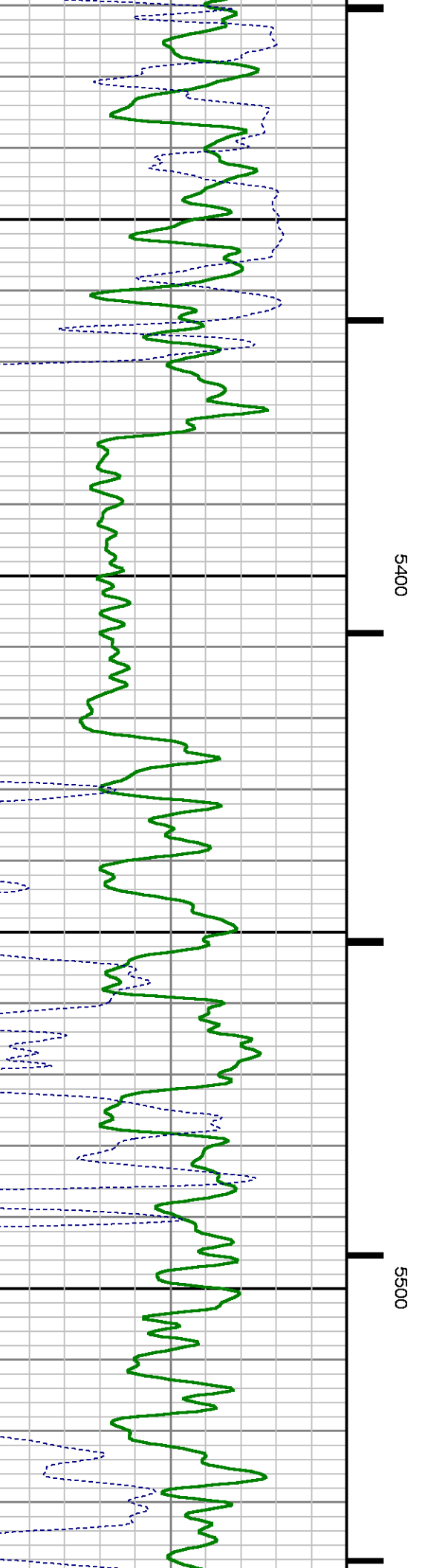
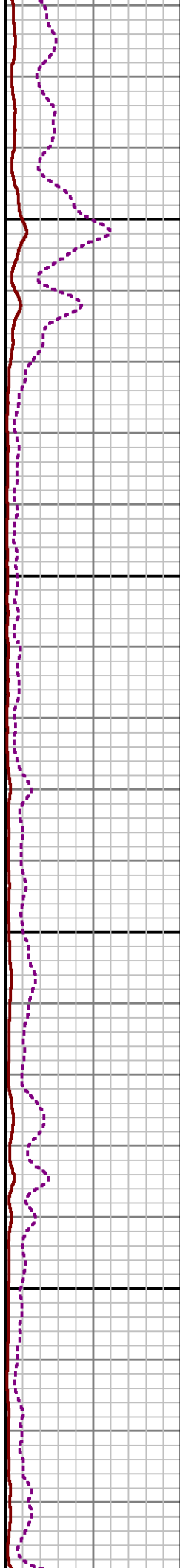
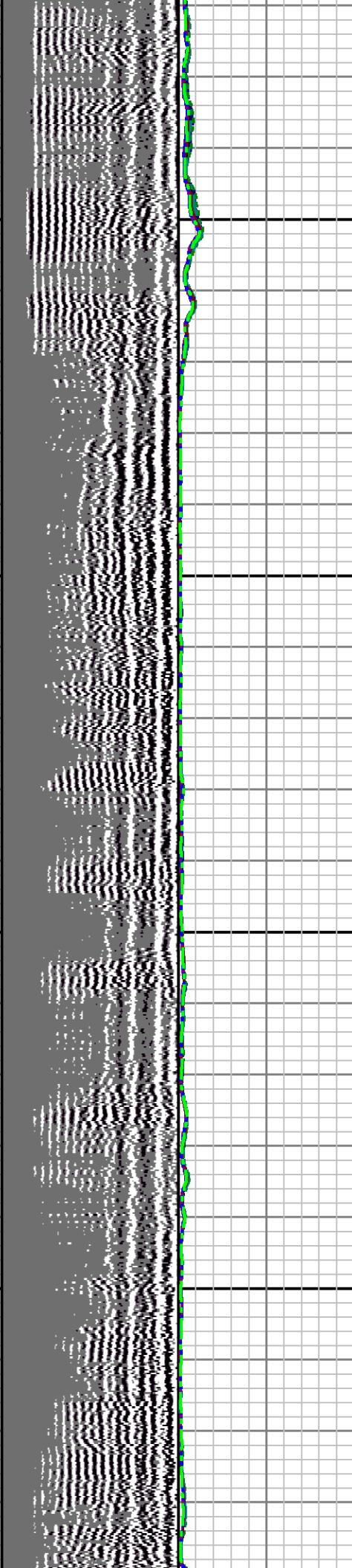


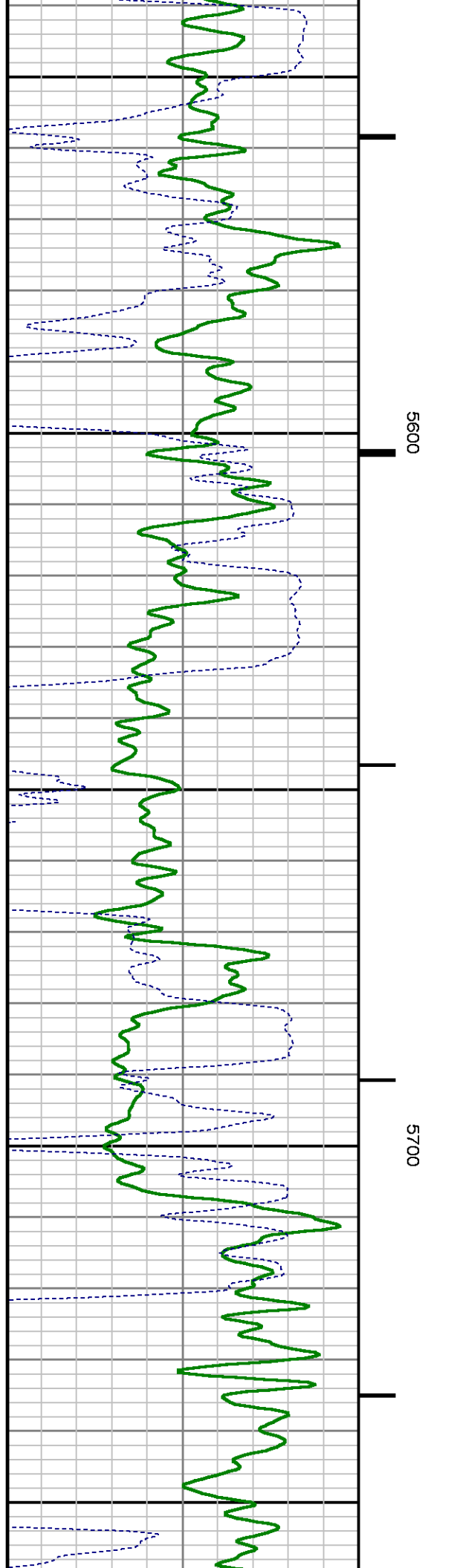
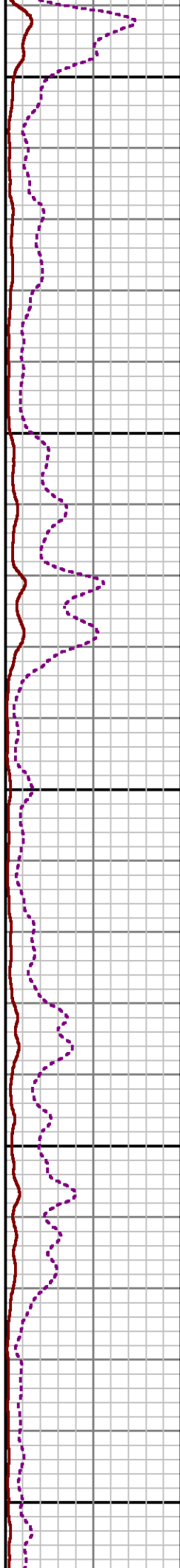
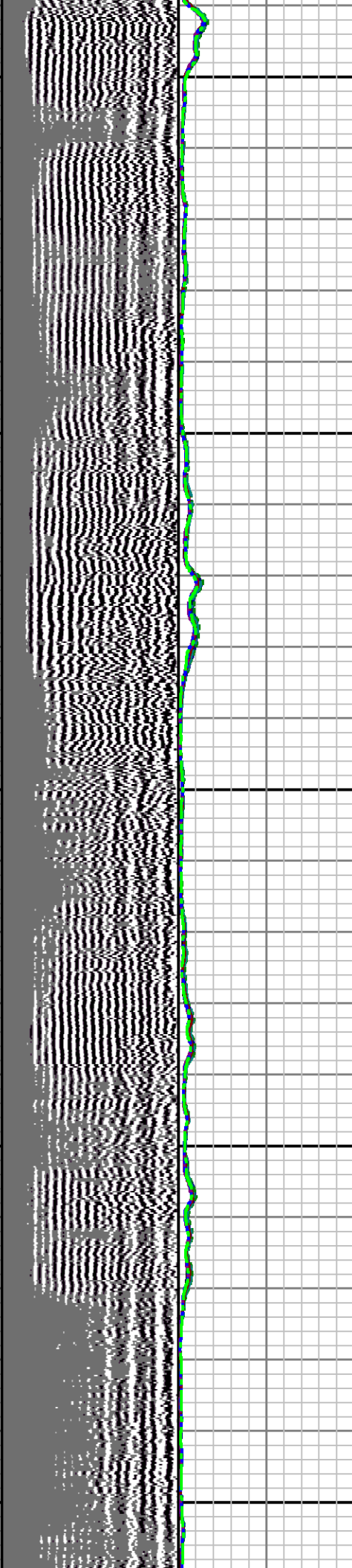


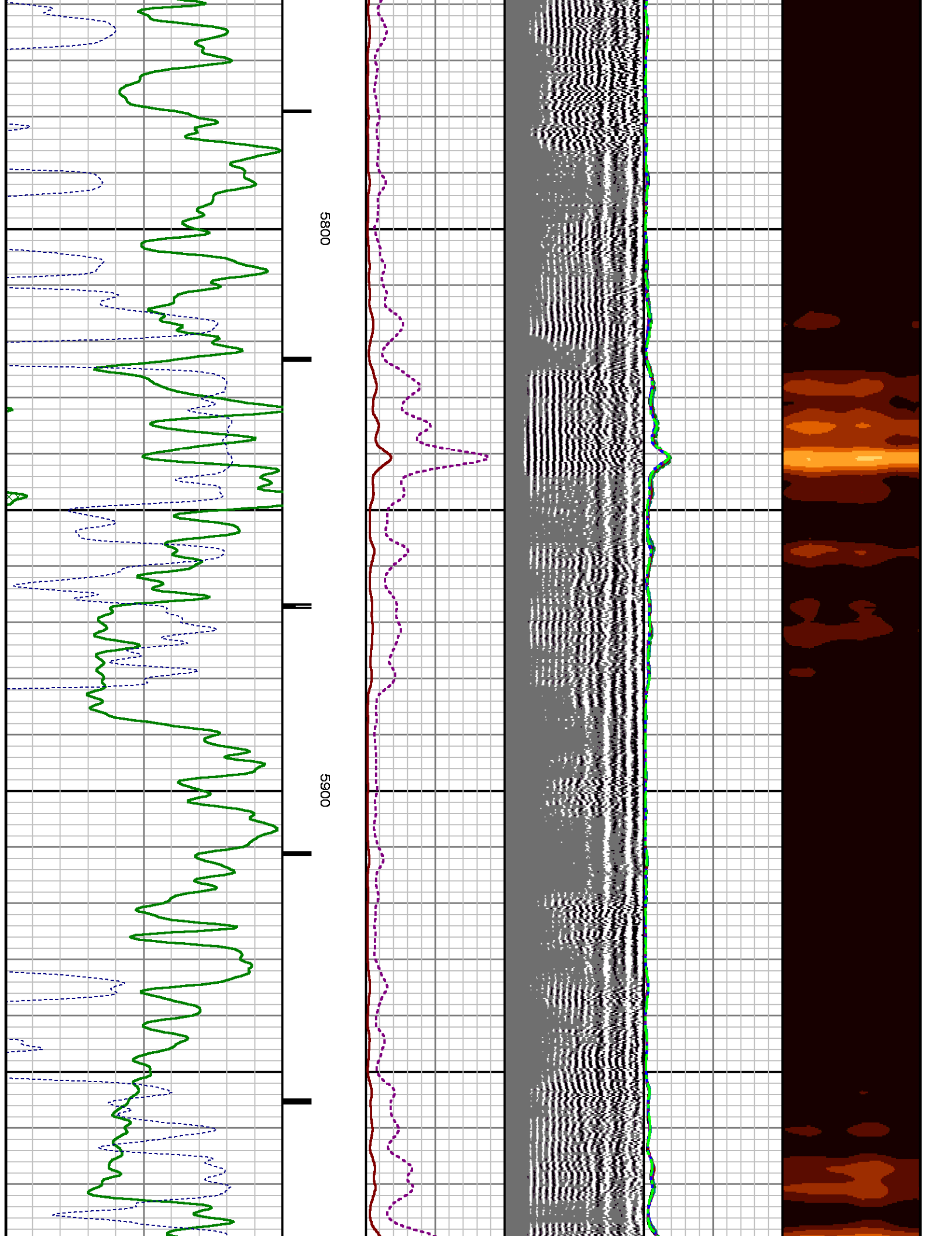


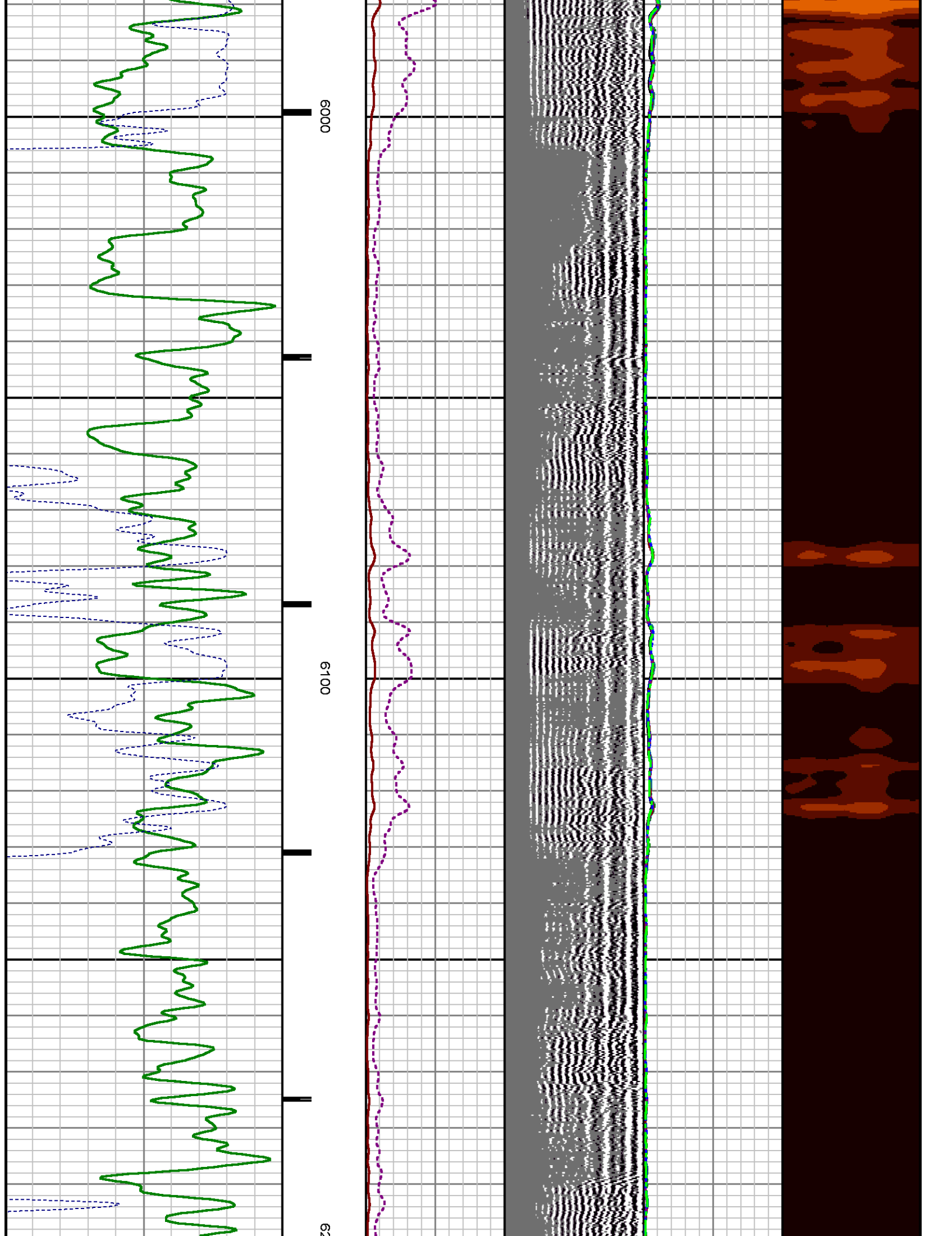


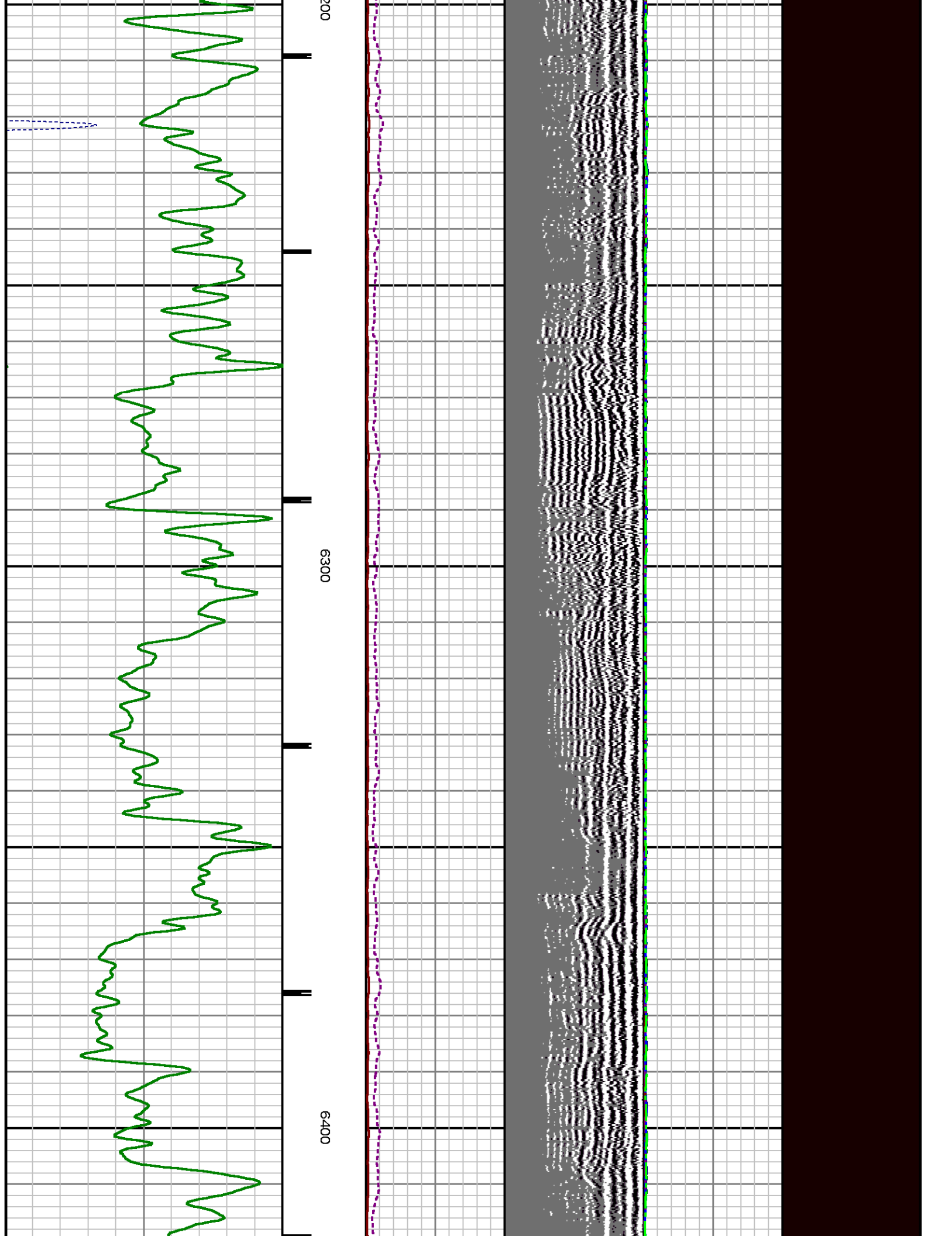




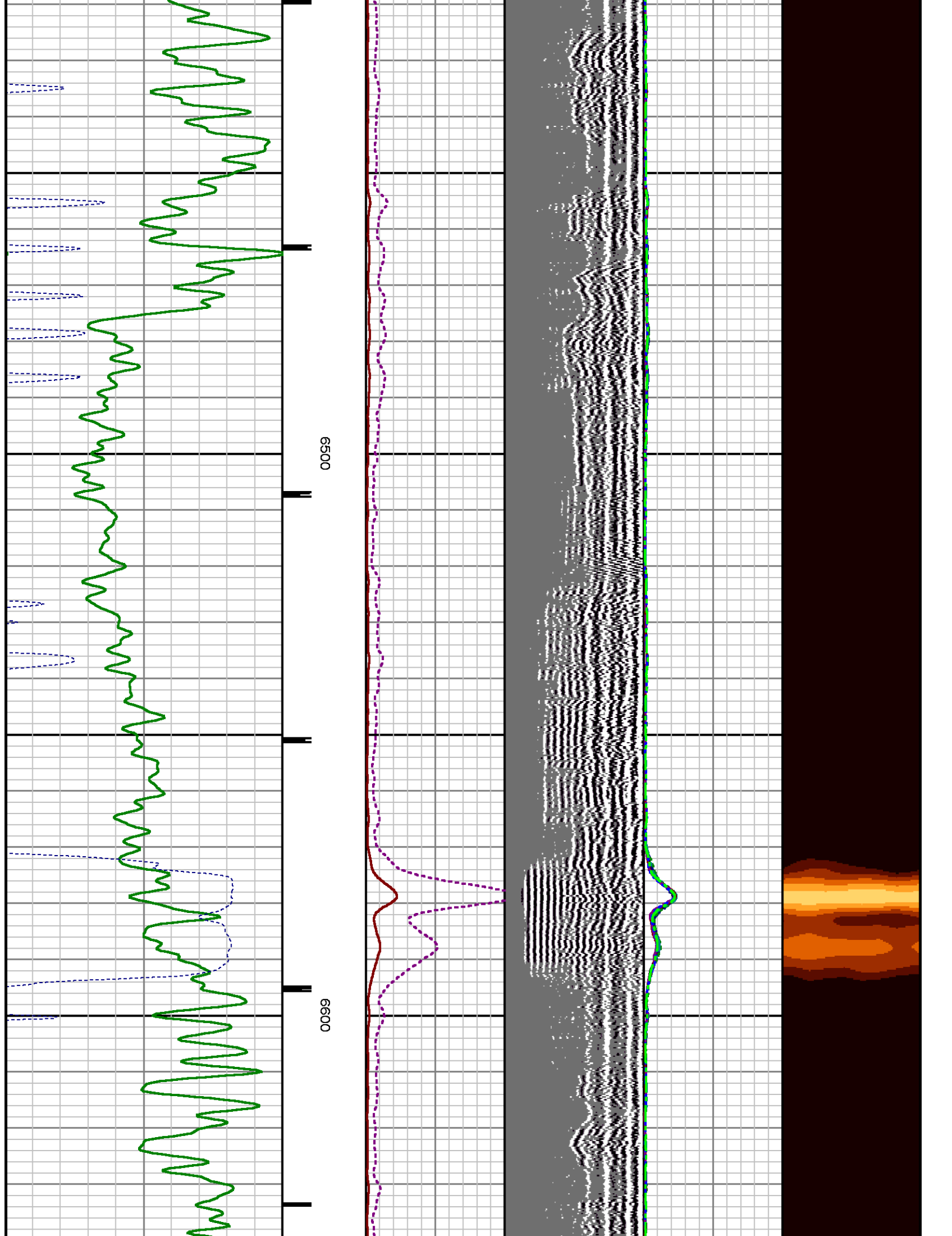


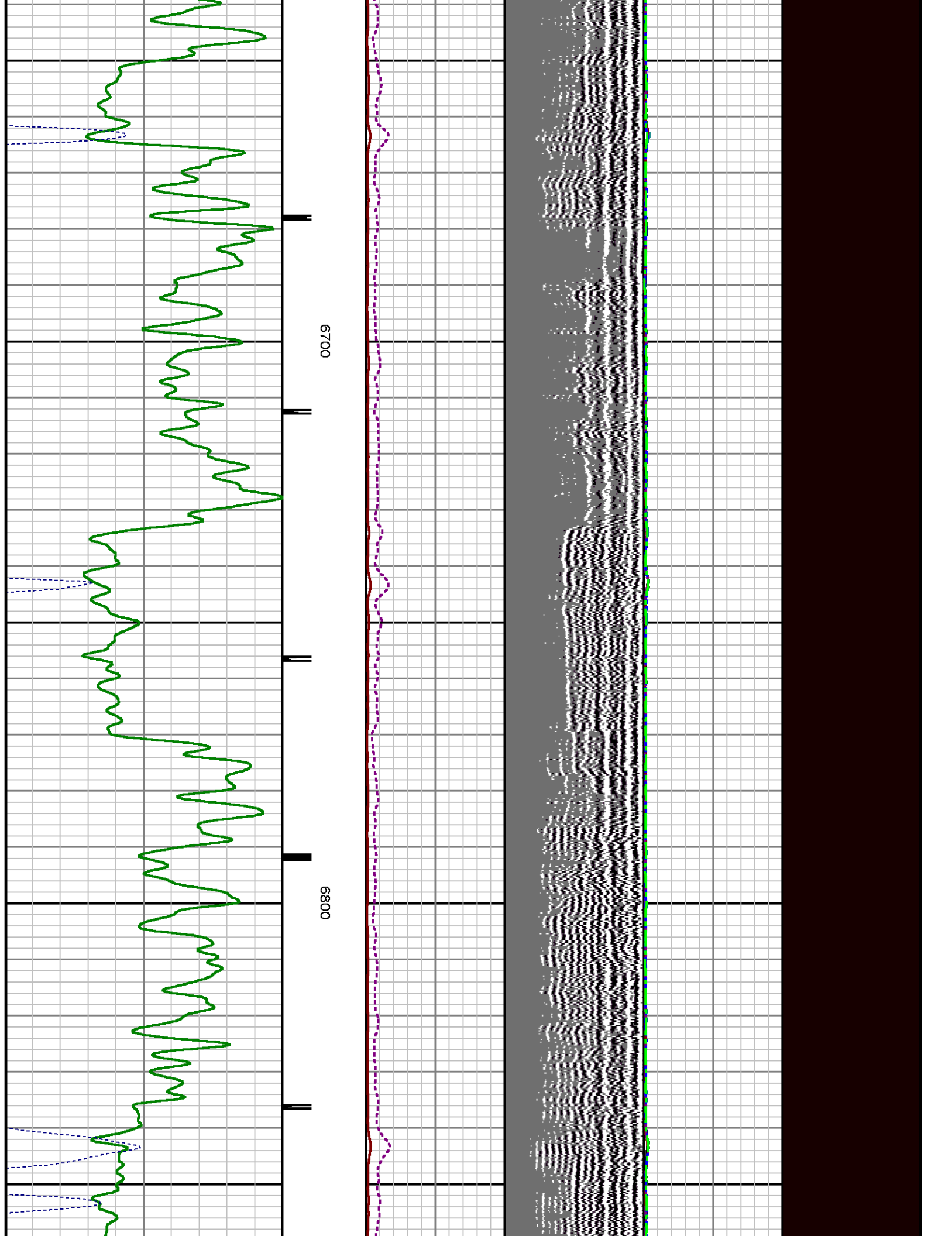


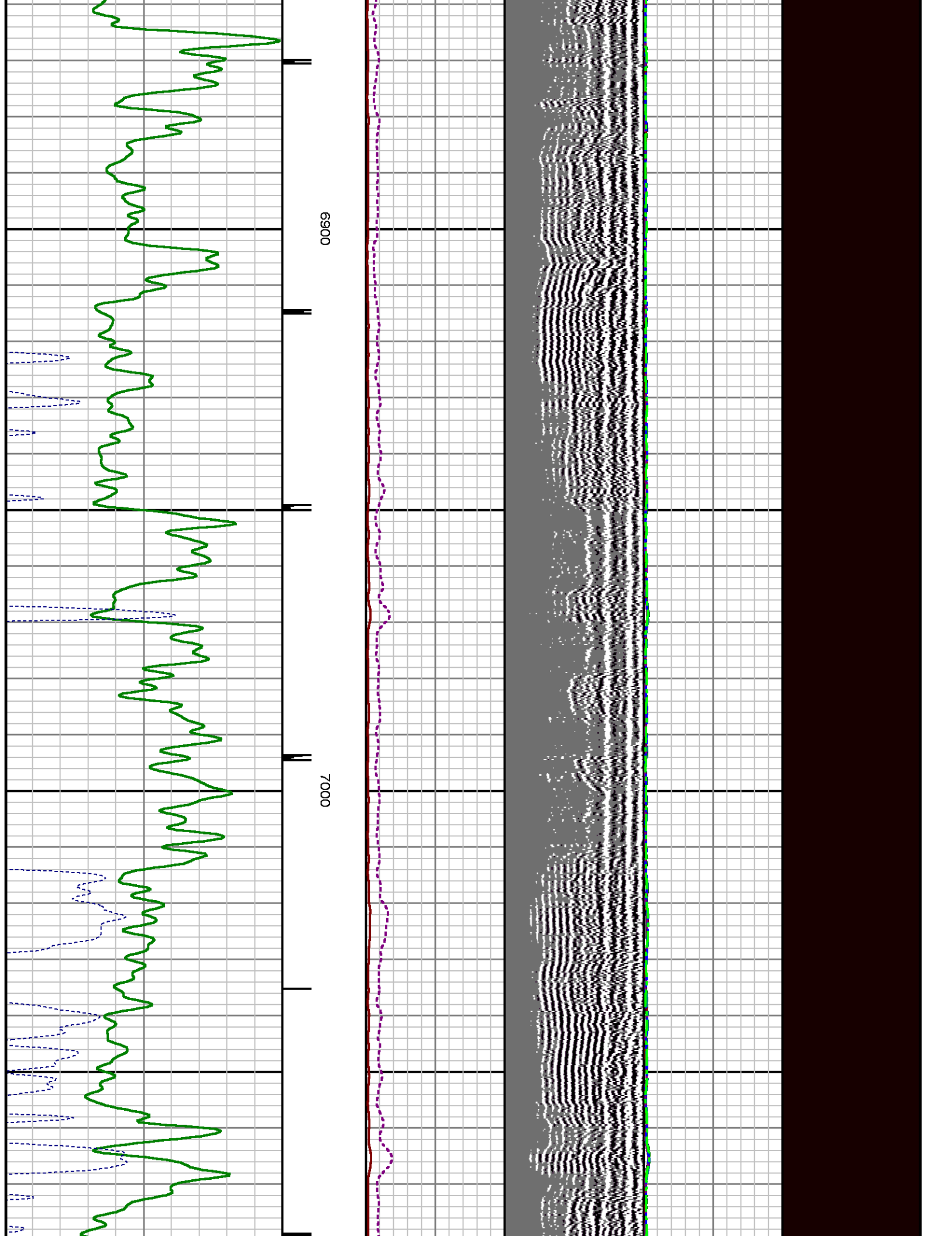


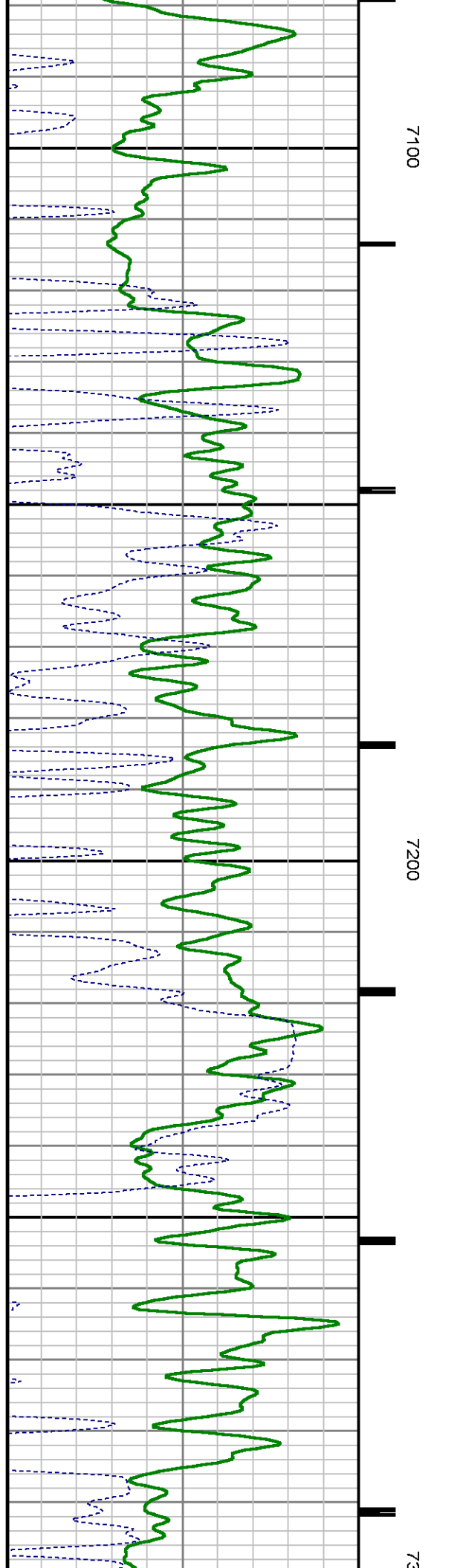
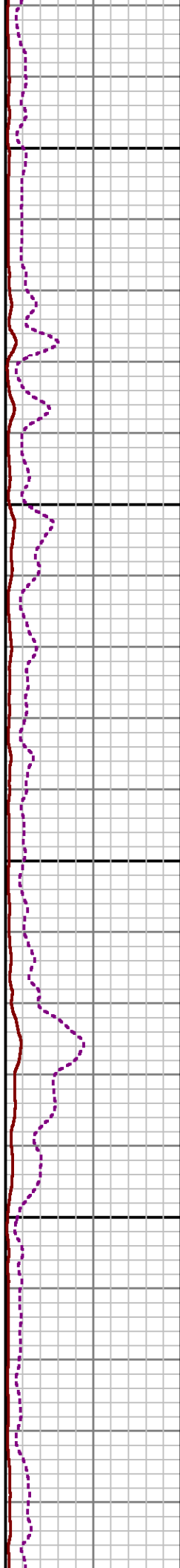
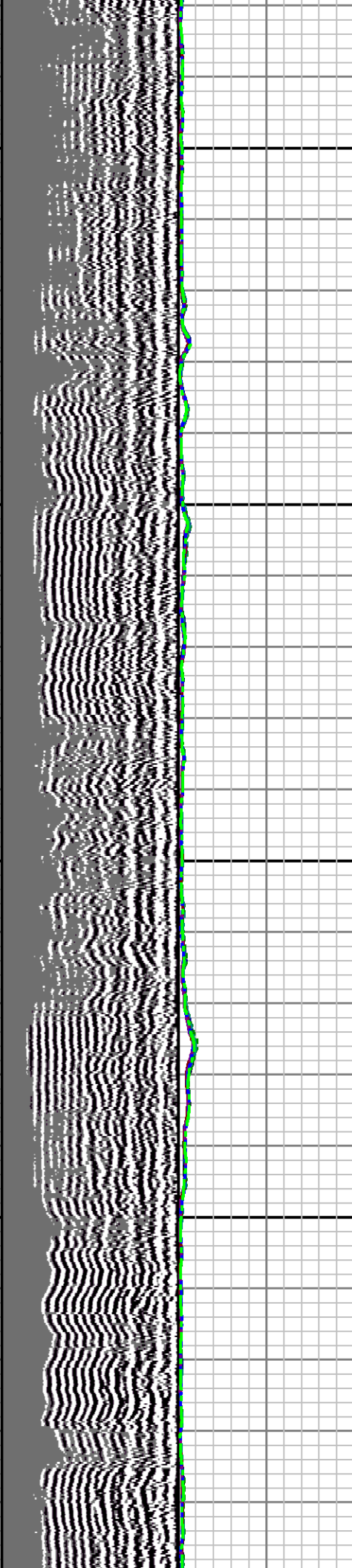


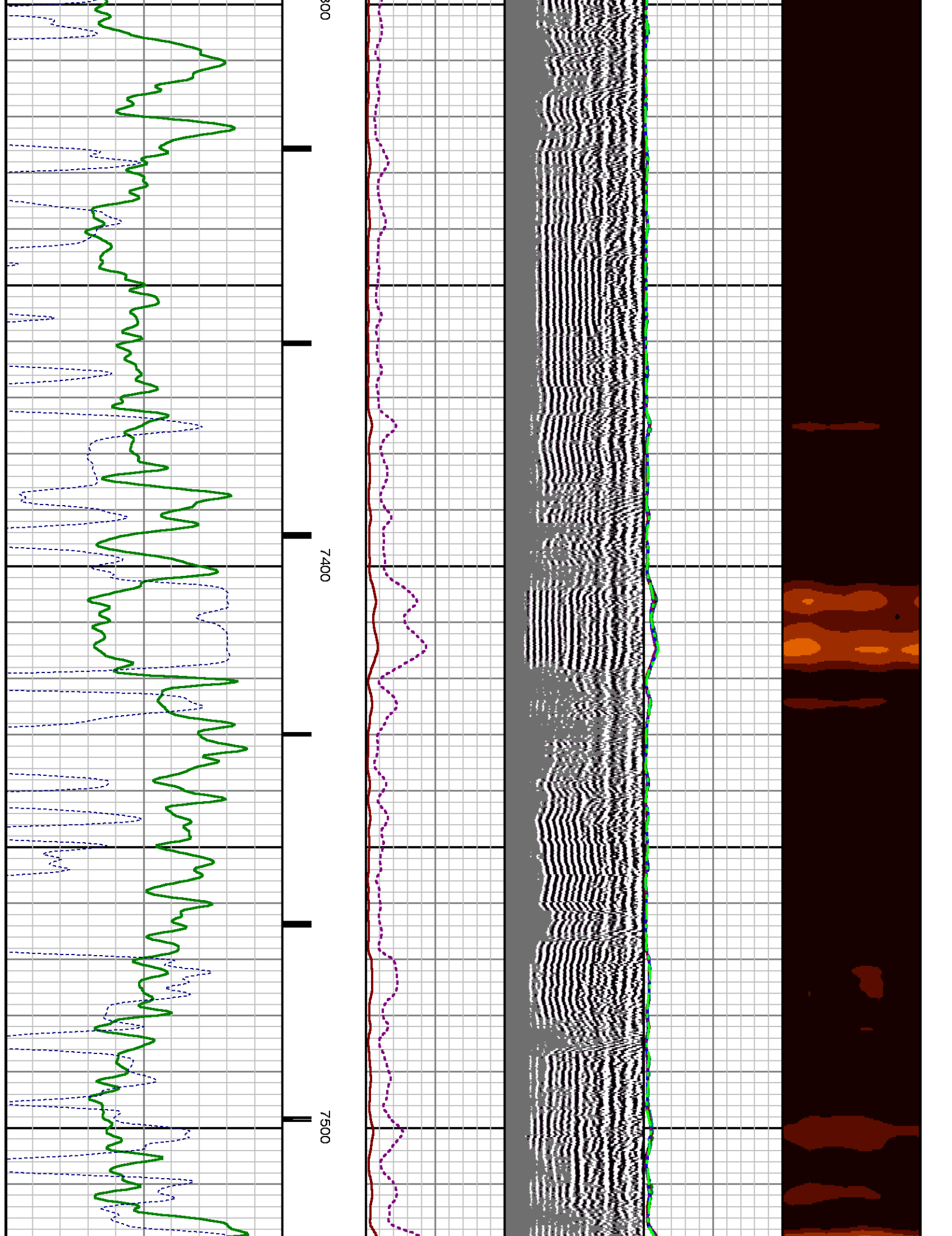




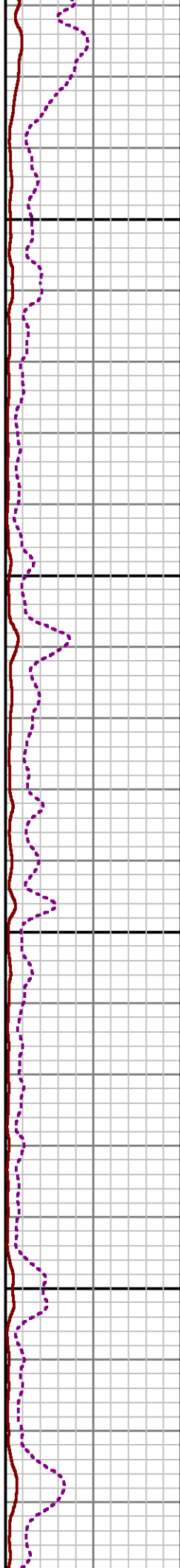
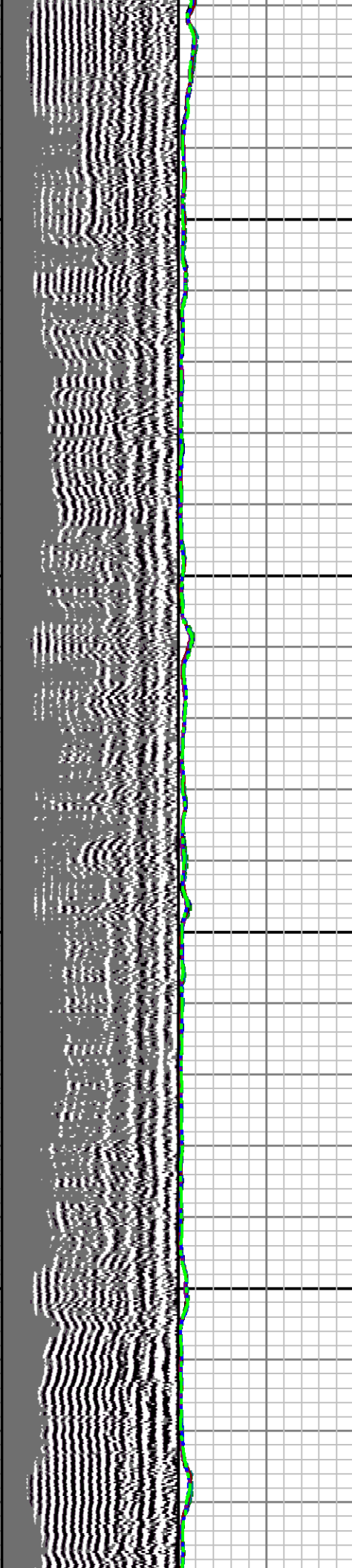






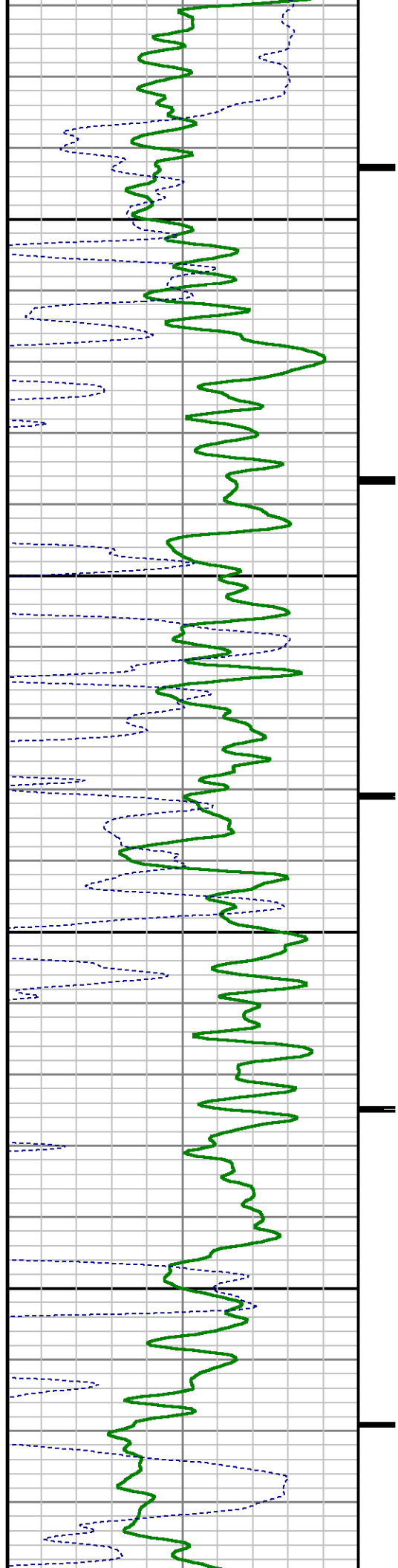


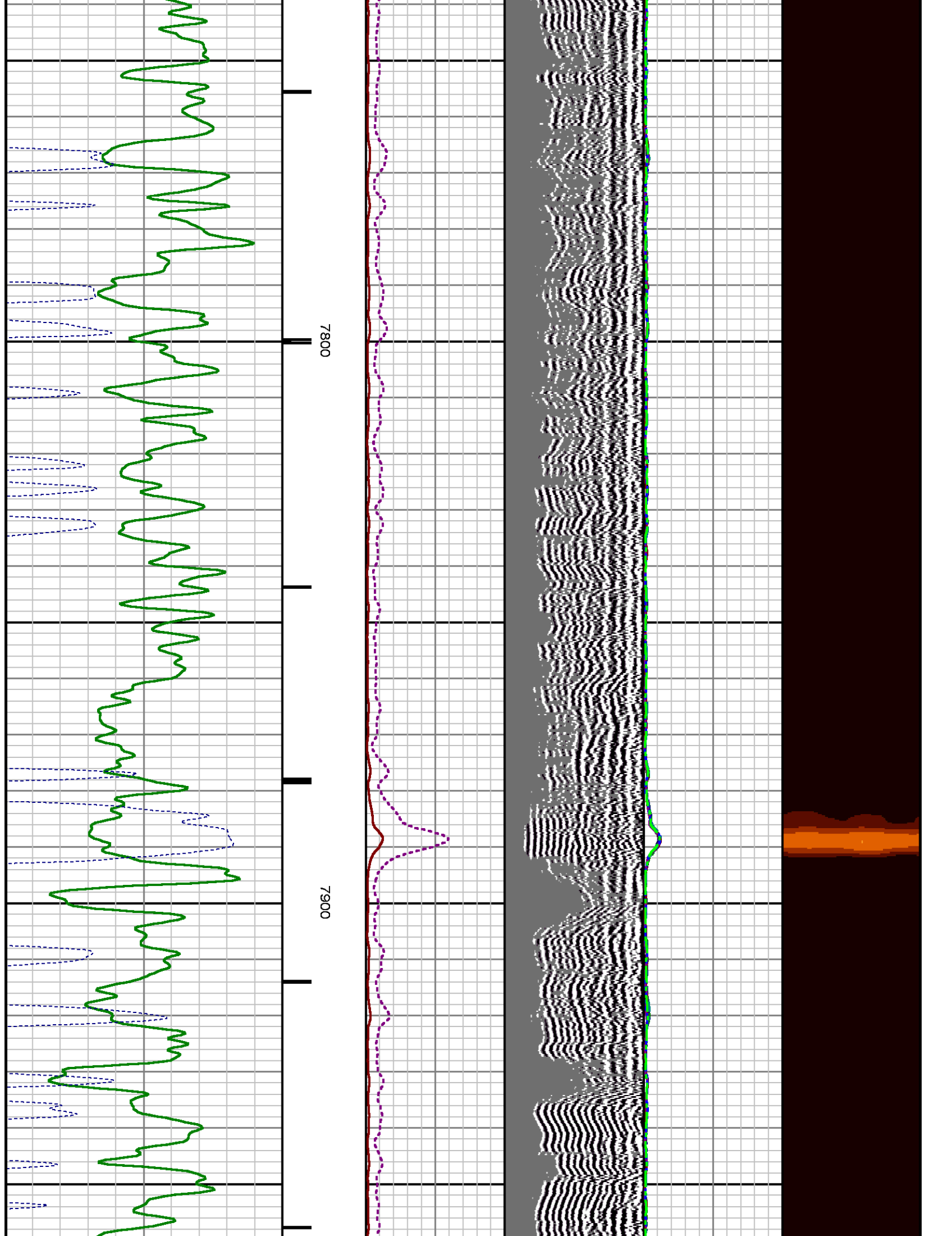


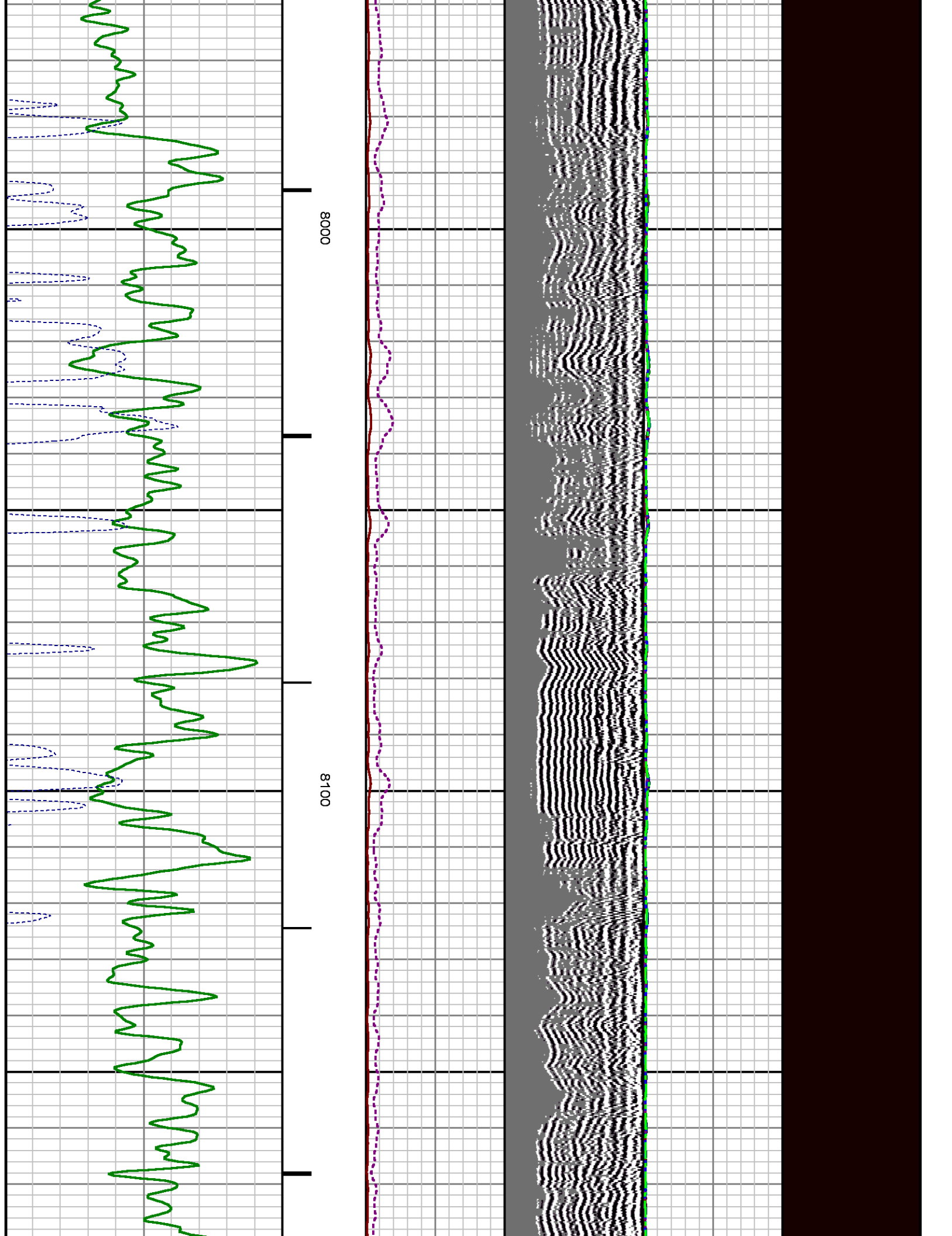


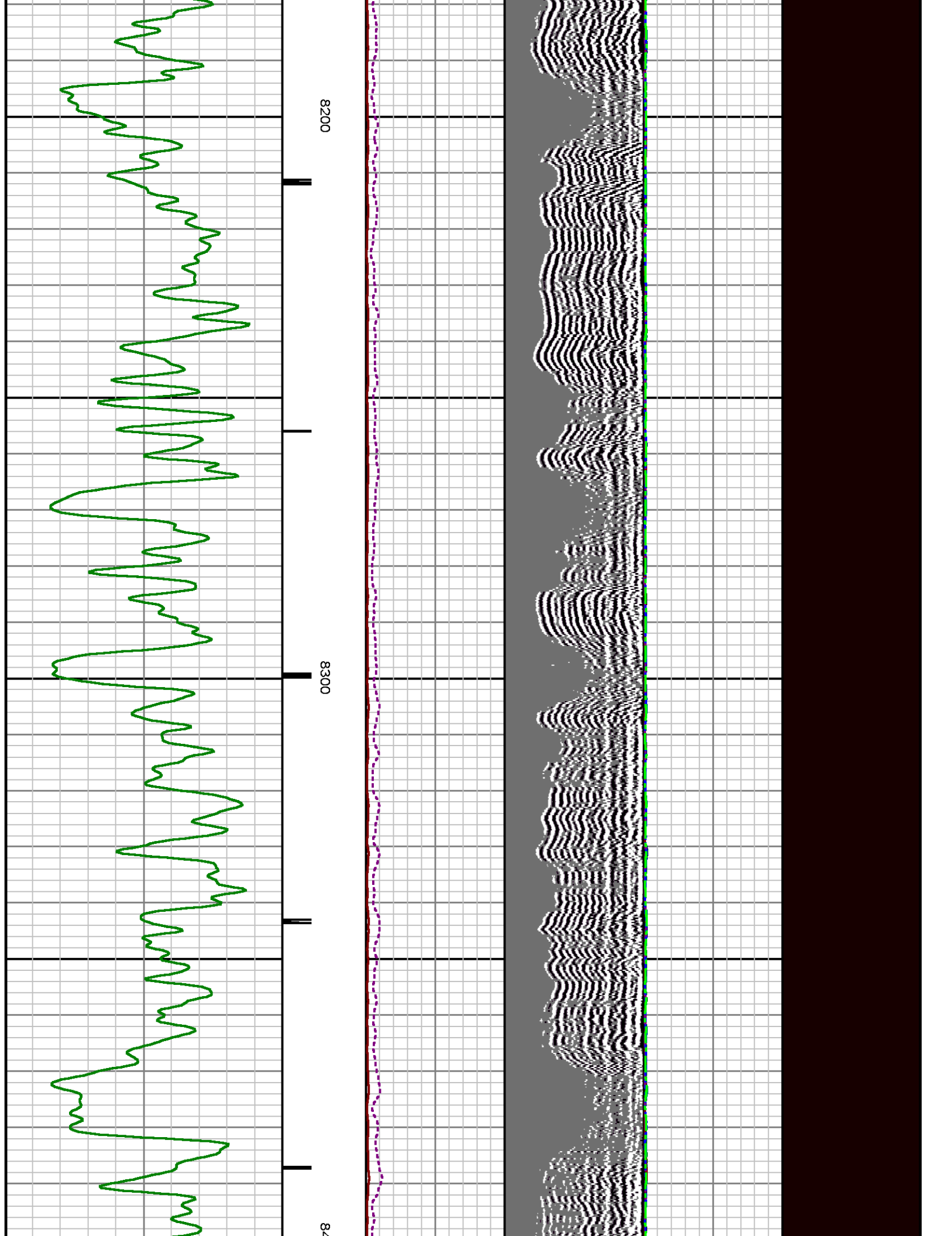
7600

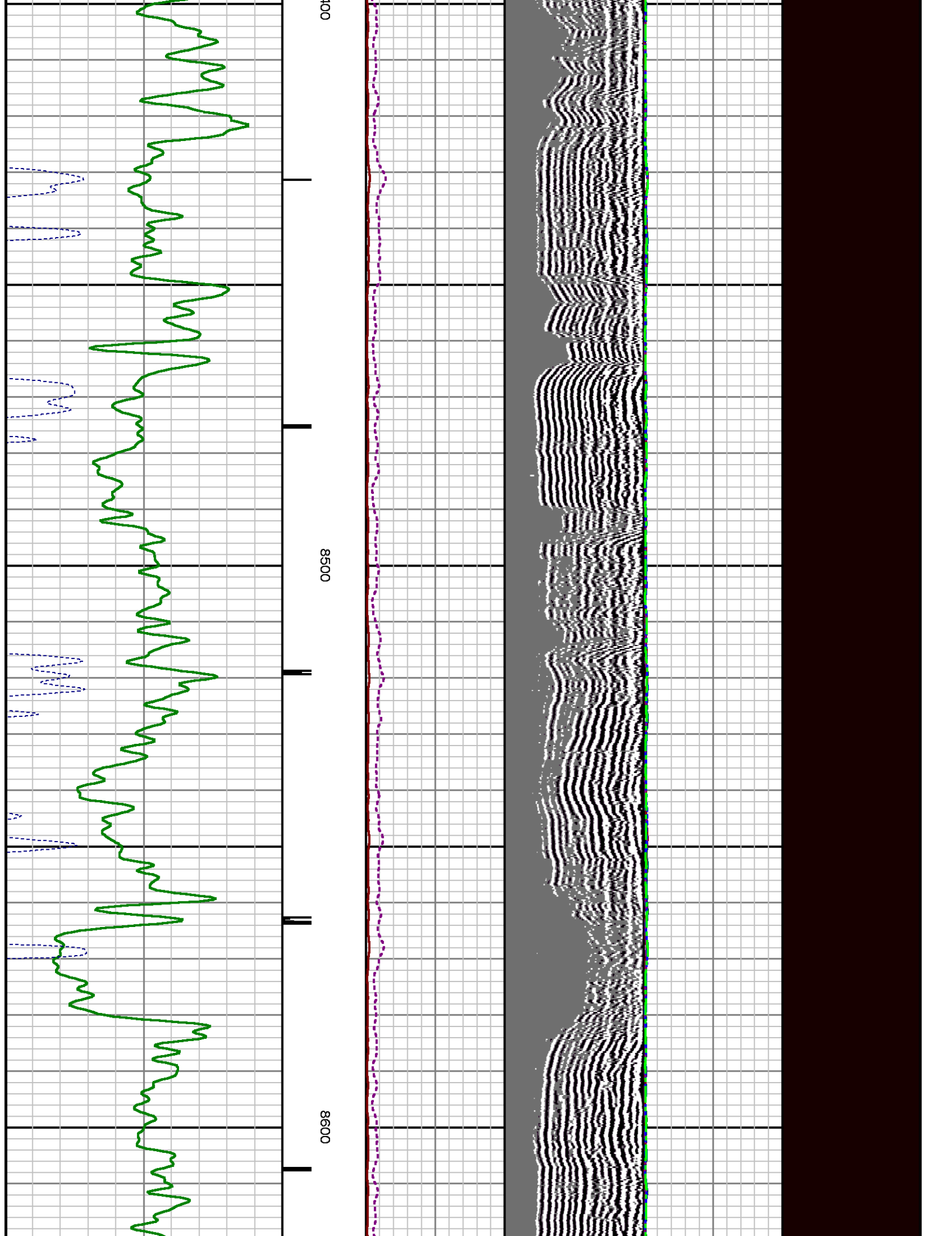
7700















# REPEAT SECTION

## 0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	8452.590	8775.840
RAL	Amp Gate Start Near	195.000	usec	8452.590	8775.840
RAL	Amp Gate Start Radial	195.000	usec	8452.590	8775.840
RAL	Amp Gate Width Far	25.000	usec	8452.590	8775.840
RAL	Amp Gate Width Near	25.000	usec	8452.590	8775.840
RAL	Amp Gate Width Radial	25.000	usec	8452.590	8775.840
RAL	casing od	4.500	inches	8452.590	8775.840
RAL	casing wt	11.600	lbm/ft	8452.590	8775.840
RAL	FB Start Far	291.900	usec	8452.590	8775.840
RAL	FB Start Near	180.000	usec	8452.590	8775.840
RAL	FB Start Radial	180.000	usec	8452.590	8775.840
RAL	FB Thresh Far	10.000	mv	8452.590	8775.840
RAL	FB Thresh Near	4.000	mv	8452.590	8775.840
RAL	FB Thresh Radial	4.000	mv	8452.590	8775.840
RAL	Fluid Travel Time	200.000	usec/ft	8452.590	8775.658

### 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					

Company : WPX ENERGY

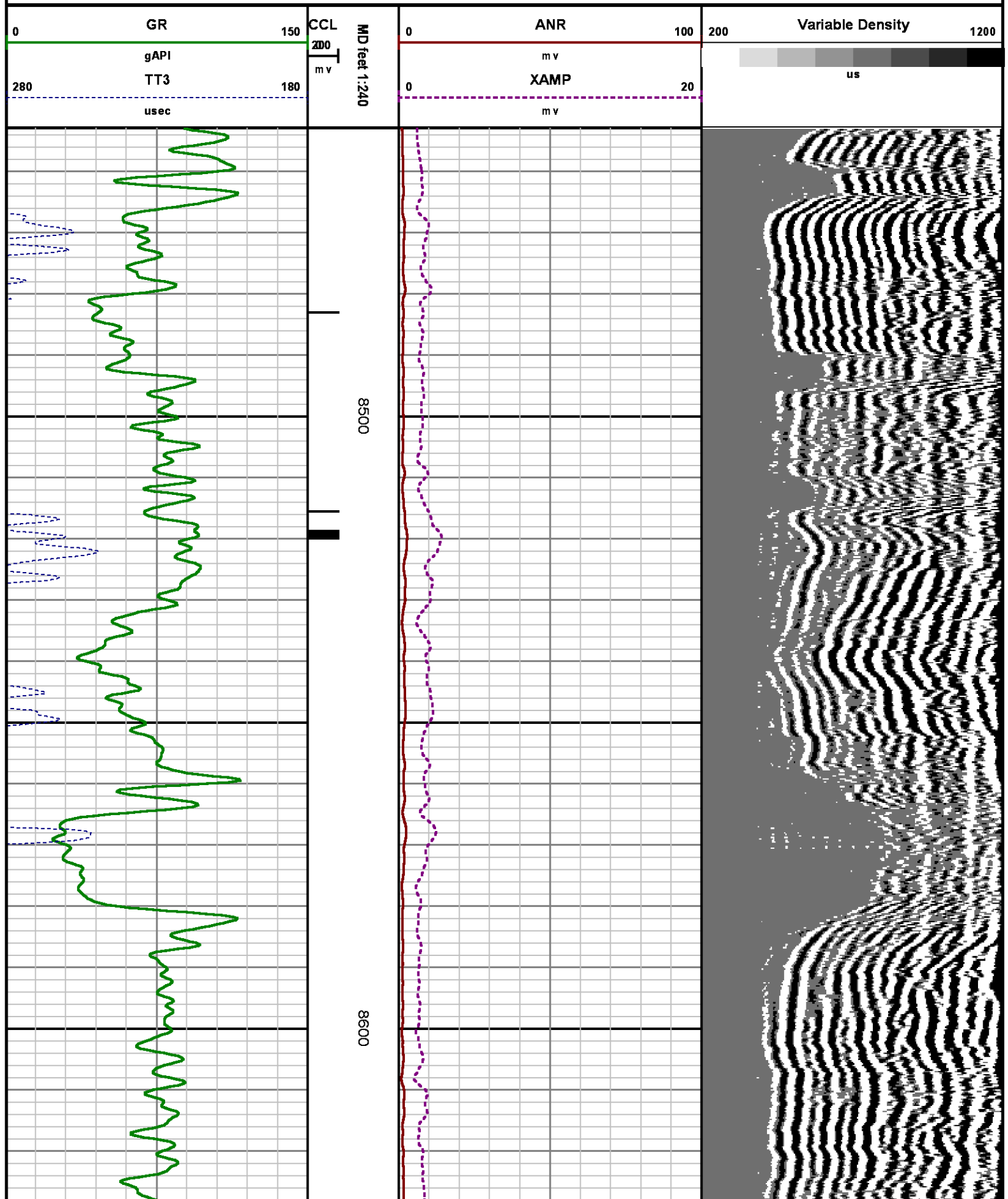
Well : SAVAGE RWF 44-25

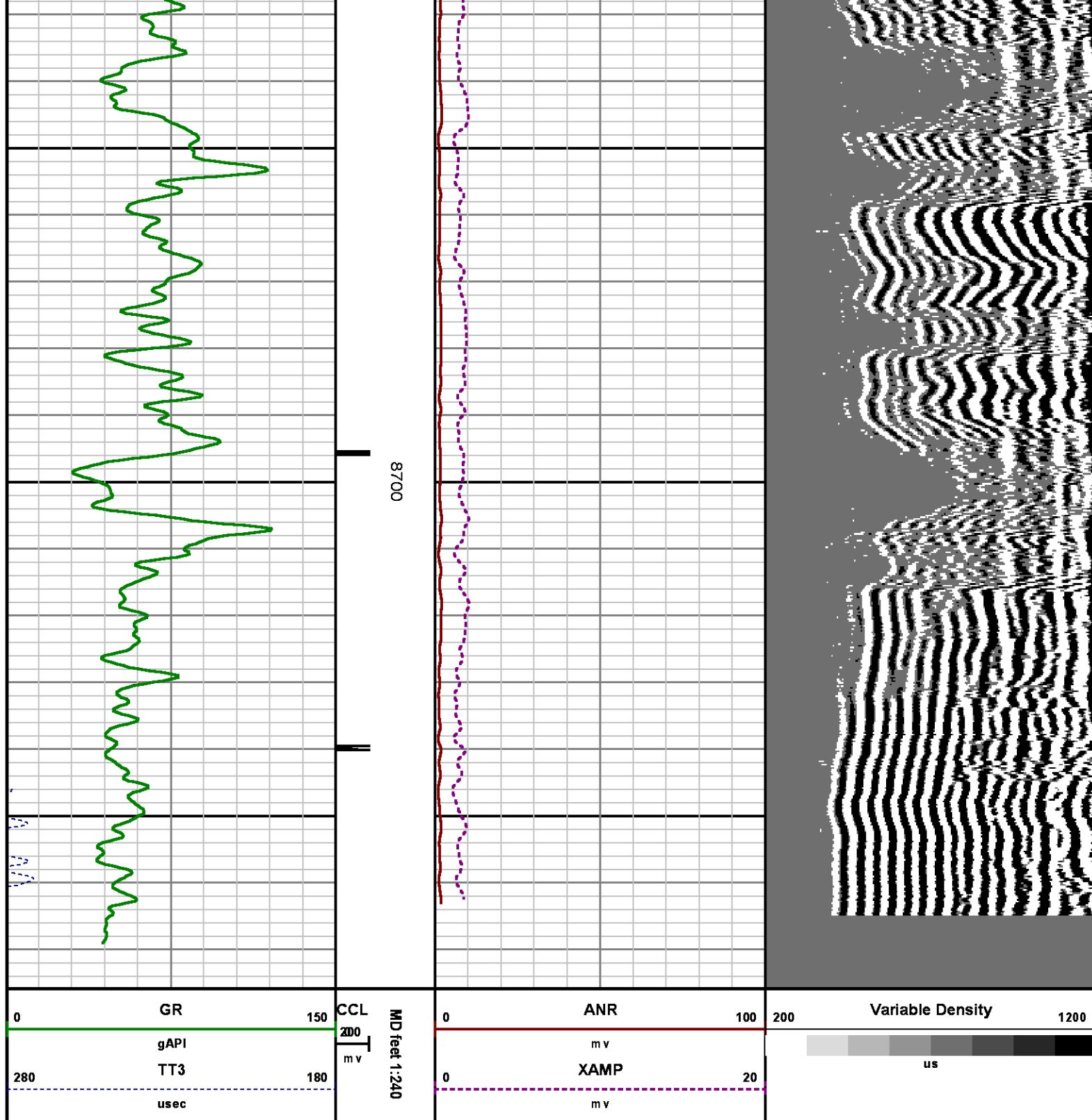
File Name : d:\welldata\wpx\rwf 44-25\rai44\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 8452.84 - 8775.84 feet UP

Created : 8/31/2014 9:59:55 AM





## CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RAL SHP\496AU29\_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Aug 29 13:06:57 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: AU29

Tool Delay [usec] -53.00 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	-0.157	100.00	0.31
3 Ft. Receiver	217	216	30	166	25	2.432	100.00	0.30
5 Ft. Receiver	326	325	30	244	25	0.126	150.00	0.34
Radial #1	217	216	30	166	25	1.708	100.00	0.31
Radial #2	216	216	30	166	25	1.524	100.00	0.30
Radial #3	216	216	30	166	25	2.506	100.00	0.30
Radial #4	216	216	30	166	25	2.286	100.00	0.30
Radial #5	216	216	30	166	25	2.035	100.00	0.30
Radial #6	217	216	30	166	25	2.053	100.00	0.31
Radial #7	217	216	30	166	25	1.714	100.00	0.31
Radial #8	219	216	30	166	25	2.058	100.00	0.31

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496AU29\_fid.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Aug 29 13:08:50 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: AU29

Tool Delay [usec] -53.00 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	0.047	0.000	1.00	100.000
3 Ft. Receiver	195	25	2.335			
5 Ft. Receiver	305	25	3.409			
Radial #1	195	25	1.727			
Radial #2	195	25	1.700			
Radial #3	195	25	2.083			
Radial #4	195	25	2.143			
Radial #5	195	25	2.273			
Radial #6	195	25	2.310			
Radial #7	195	25	1.810			
Radial #8	195	25	1.744			

GAMMA RAY



Calibration File: C:\case\calver\GRV121BB.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Aug 25 10:54:52 2014 TOOL SERIES: 2459XA ASSET: 121 SEQ: BB

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	87.02	347.91	0.709	61.71	246.71	185.00

Verification File: C:\case\calver\GRV121BB.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Mon Aug 25 10:56:02 2014 TOOL SERIES: 2459XA ASSET: 121 SEQ: BB

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	84.98	354.22	0.709	60.26	251.18	190.93

## TOOL DIAGRAM

### OTA SHORT CABLE HEAD

### PROBE 2 3/4 DUAL RECEIVER RADII

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

### Probe GR/CCL/NEU

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



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

NEU 1.67'  
0.00'

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



Baker Atlas

CASE

Company	WPX ENERGY
Well	SAVAGE RWF 44-25
Field	RULISON
County	GARFIELD
State	COLORADO

File No:
CH089581
API No:
05045220030000

Location	Elevations
SHL: 1155' FSL & 1381' FEL	KB 6260 ft
BHL: 1257' FSL & 566' FEL (SESE)	DF
	GL 6234 ft
SEC 25	TWP 6S
RGE 94S	

25 6S 94W
RWF 43-25 PAD
NABORS 577