



RADIAL ANALYSIS BOND LOG

Baker Atlas

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

CH089588 **Well** **FEDERAL RGU 534-24-198**

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

05103120770000 **County** **RIO BLANCO** **State** **COLORADO**

24 1 S 98W **Location** **SHL: 2128' FSL & 1688' FEL**

RGU 33-24-198 PAD **BHL: 1241' FSL & 1897' FEL (SWSE)**

CYCLONE 29 **SEC** **24** **TWP** **1S** **RGE** **98W**

Other Services

RPM

Permanent Datum **GL** **Elevation** **6596 ft**

Log Measured From **KB** **21 ft** **Above P. D.**

Drill Measured From **KELLY BUSHING**

Elevations

KB **6617 ft**

DF

GL **6596 ft**

Date	28/AUG/14	
Run	ONE	
Service Order	US089588J	
Depth Driller	12780 ft	
Depth Logger	12682 ft	
Bottom Logged Interval	12672 ft	
Top Logged Interval	21 ft	
Time Started	1000	
Time Finished	1430	
Operator Rig Time	4.5 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	80 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	66 fpm	
Maximum Recorded Temperature	284 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRANDUCT
Recorded By	FLOYD RENEAU	
Witnessed By	WAYNE MARGOTTE	

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In making interpretations of logs, our employees will give the customer the benefit of their best judgement. But since all interpretations are opinions based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. We shall not be liable or responsible for any loss, cost, damages, or expenses whatsoever incurred or sustained by the customer resulting from any interpretation made by any of our employees.

Borehole Record		
Bit Size	From	To
30 in	21 ft	80 ft
14.73/13.5	80 ft	3914 ft
8.75/7.875	3914 ft	12780 ft

Casing Record				
Size	Weight	Grade	From	To
18 in			21 ft	80 ft
9.625 in			21 ft	3914 ft
4.5 in	11.6 lbm/ft	P-110	21 ft	12780 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.
Top ccl mark is 8' above ground level (height of flange on production tree).
The amount of linear shift is -1.5 feet.
Logged with zero PSI at wellhead.
BHT = 284°F

Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10124106	CENT
1	1	GRICCL	2459XA	10124121	CENT

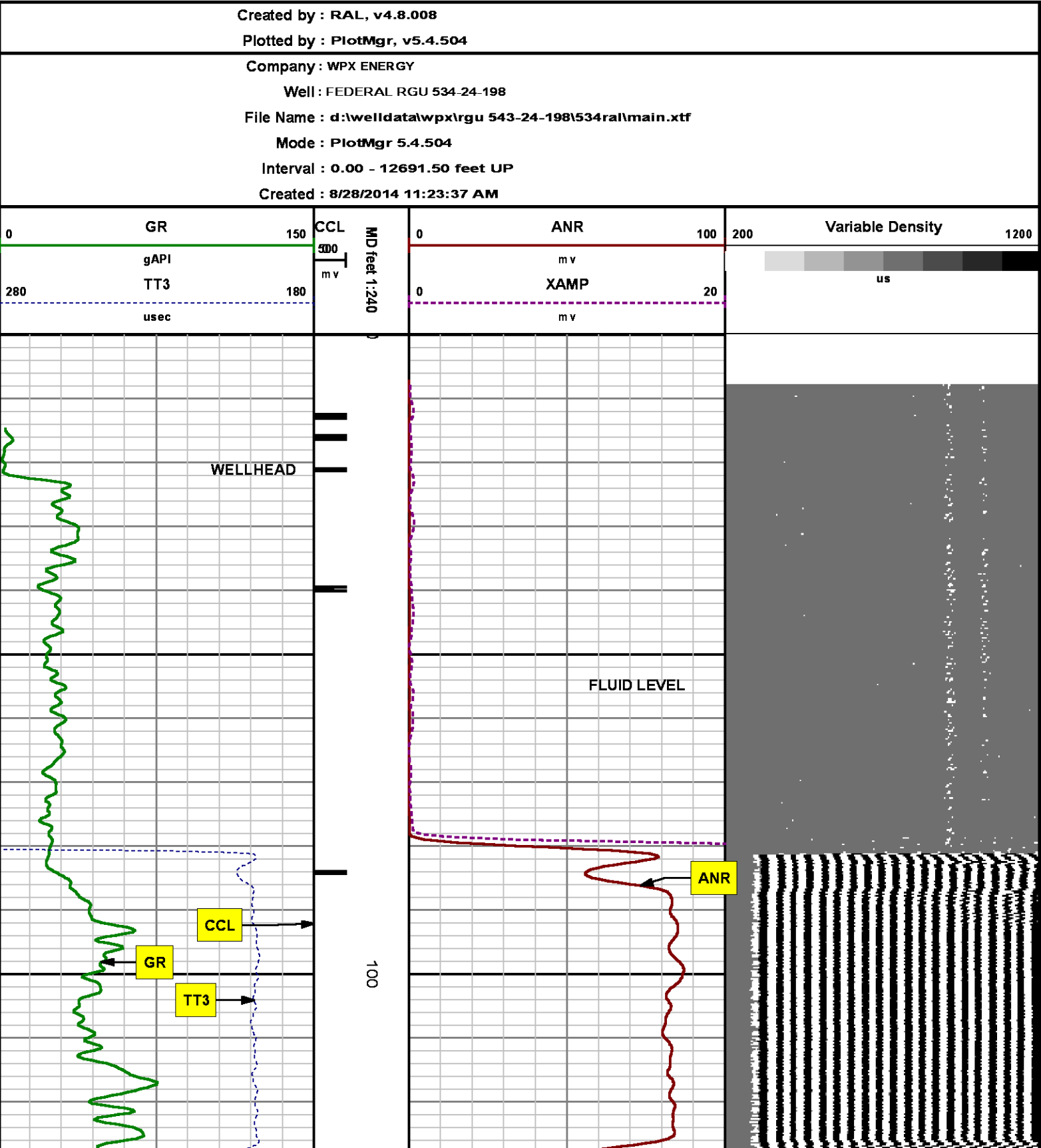
PRIMARY PRESENTATION
0 PSI

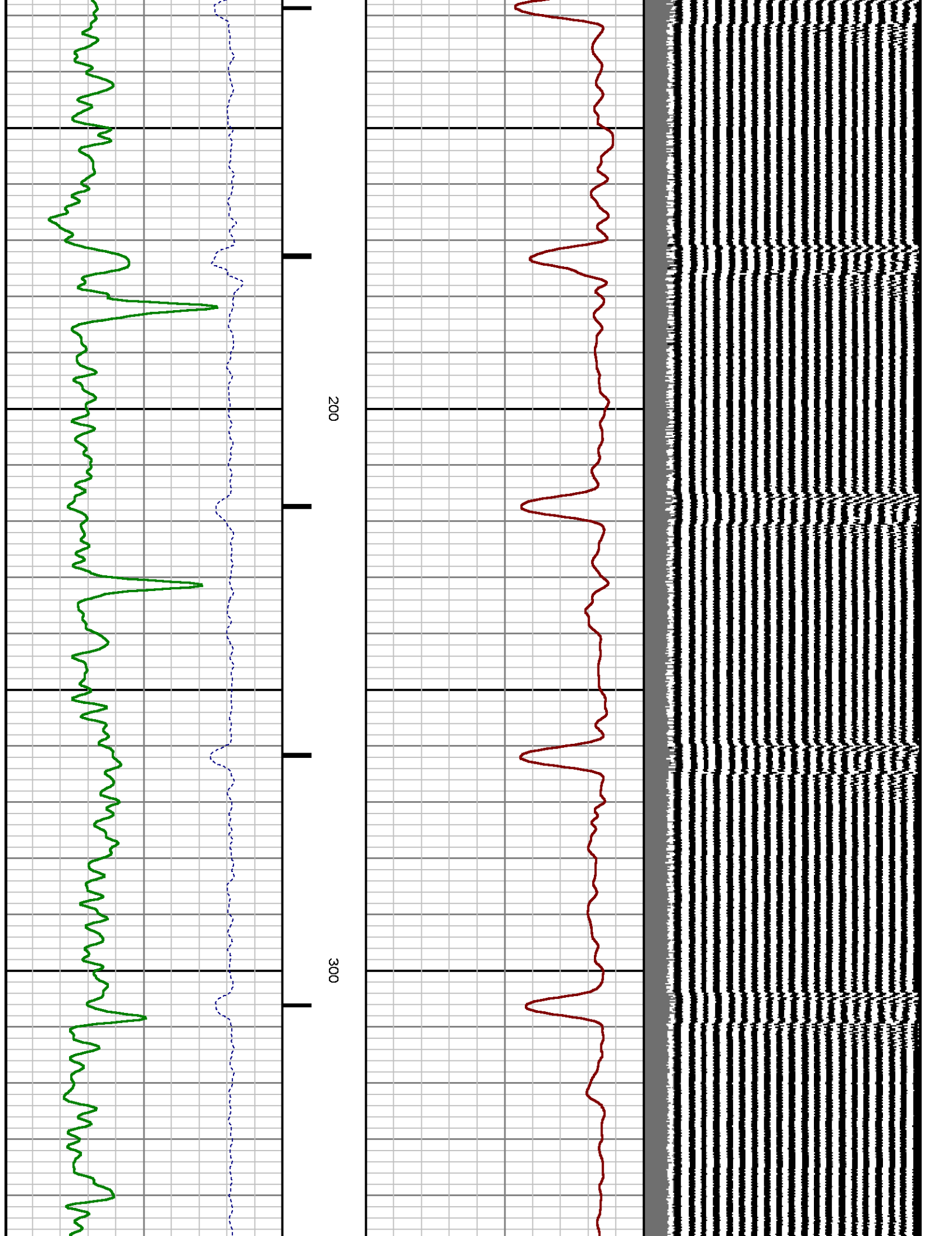
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	18.999	12691.500
RAL	Amp Gate Start Near	195.000	usec	18.999	12691.500
RAL	Amp Gate Start Radial	195.000	usec	18.999	12691.500
RAL	Amp Gate Width Far	25.000	usec	18.999	12691.500
RAL	Amp Gate Width Near	25.000	usec	18.999	12691.500
RAL	Amp Gate Width Radial	25.000	usec	18.999	12691.500
RAL	casing od	4.500	inches	18.999	12691.500
RAL	casing wt	11.600	lbm/ft	18.999	12691.500
RAL	FB Start Far	291.900	usec	18.999	12691.500
RAL	FB Start Near	180.000	usec	18.999	12691.500
RAL	FB Start Radial	180.000	usec	18.999	12691.500
RAL	FB Thresh Far	10.000	mv	18.999	12691.500
RAL	FB Thresh Near	4.000	mv	18.999	12691.500
RAL	FB Thresh Radial	4.000	mv	18.999	12691.500
RAL	Fluid Travel Time	200.000	usec/ft	18.999	12691.280

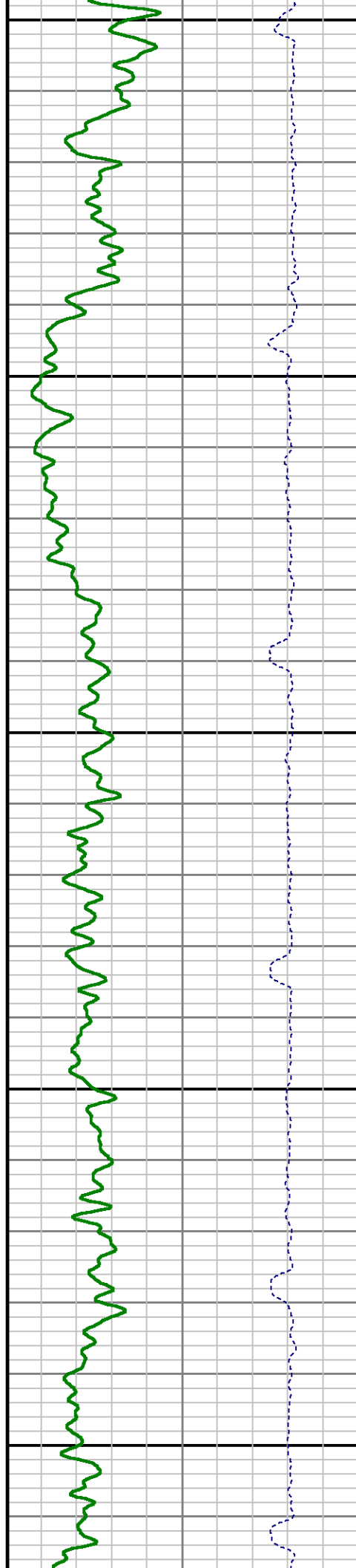
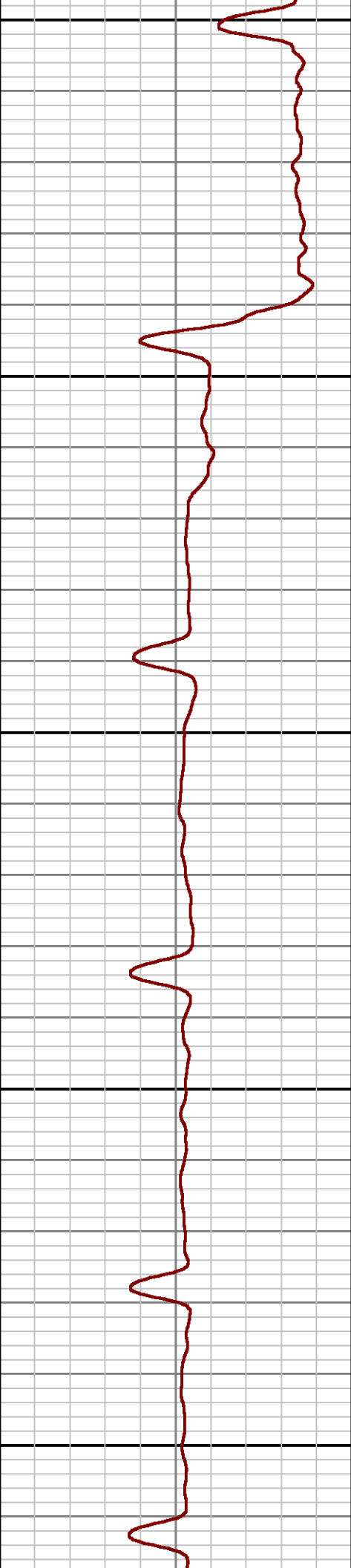
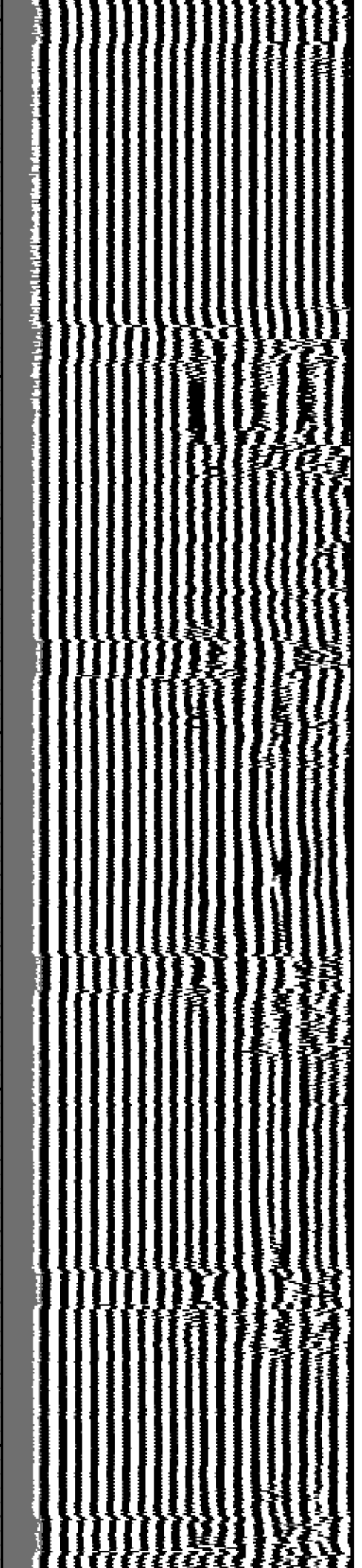
DEPTH OFFSETS
(for Acquired Curves)

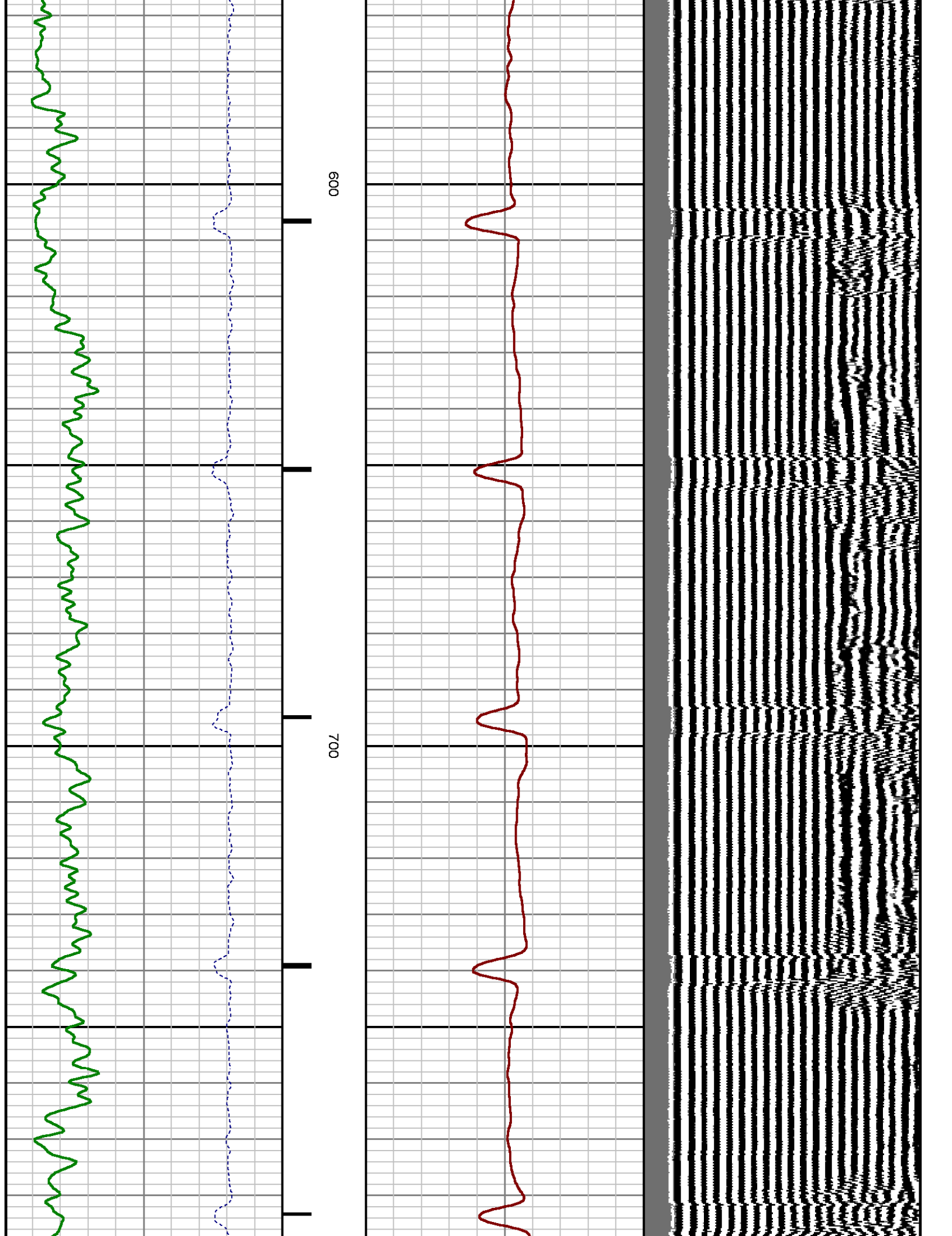
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	ACAL	ANR	AR1	AR2	AR3	AR4

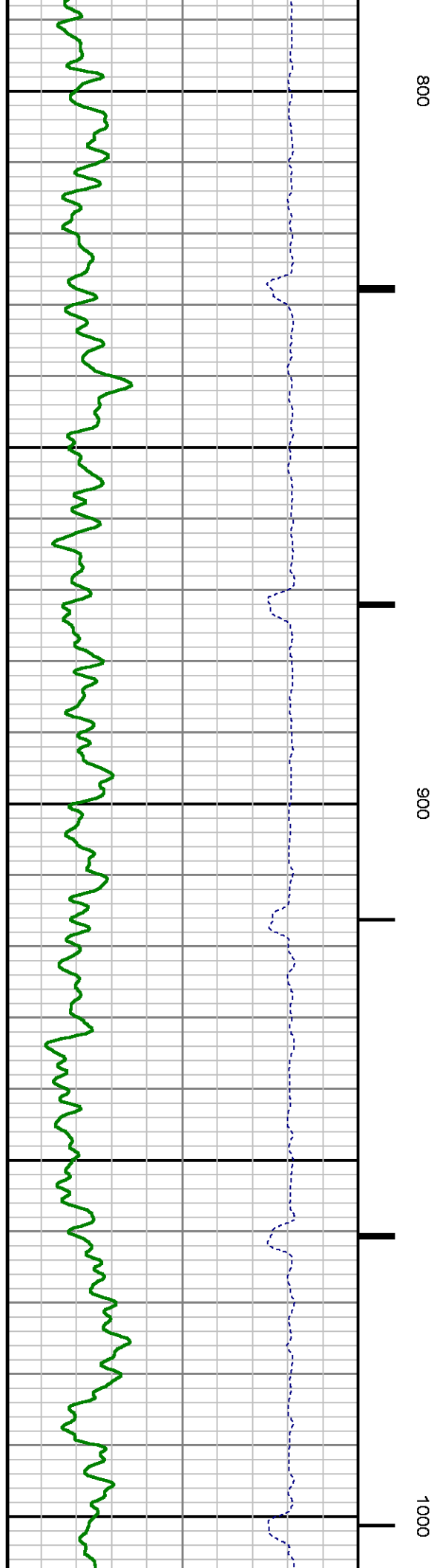
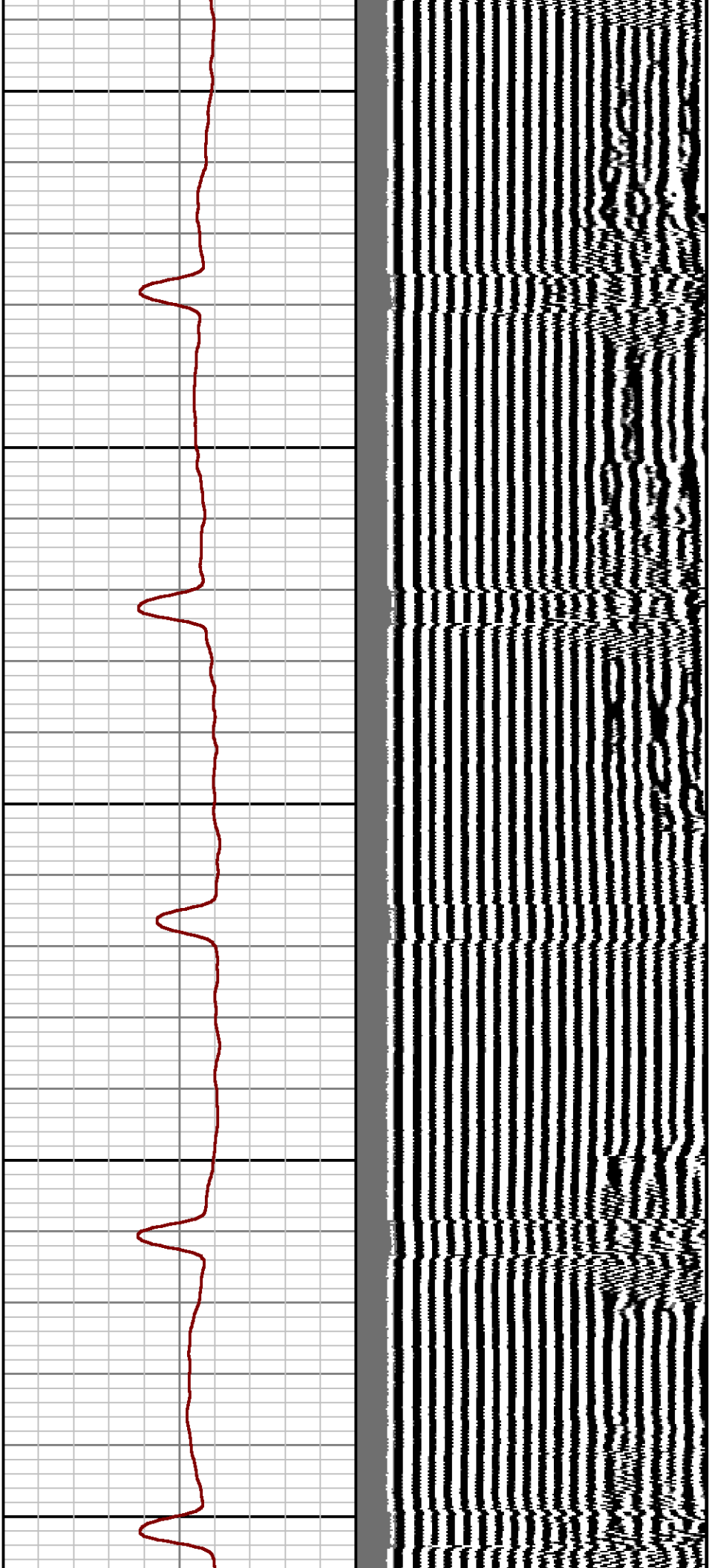
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

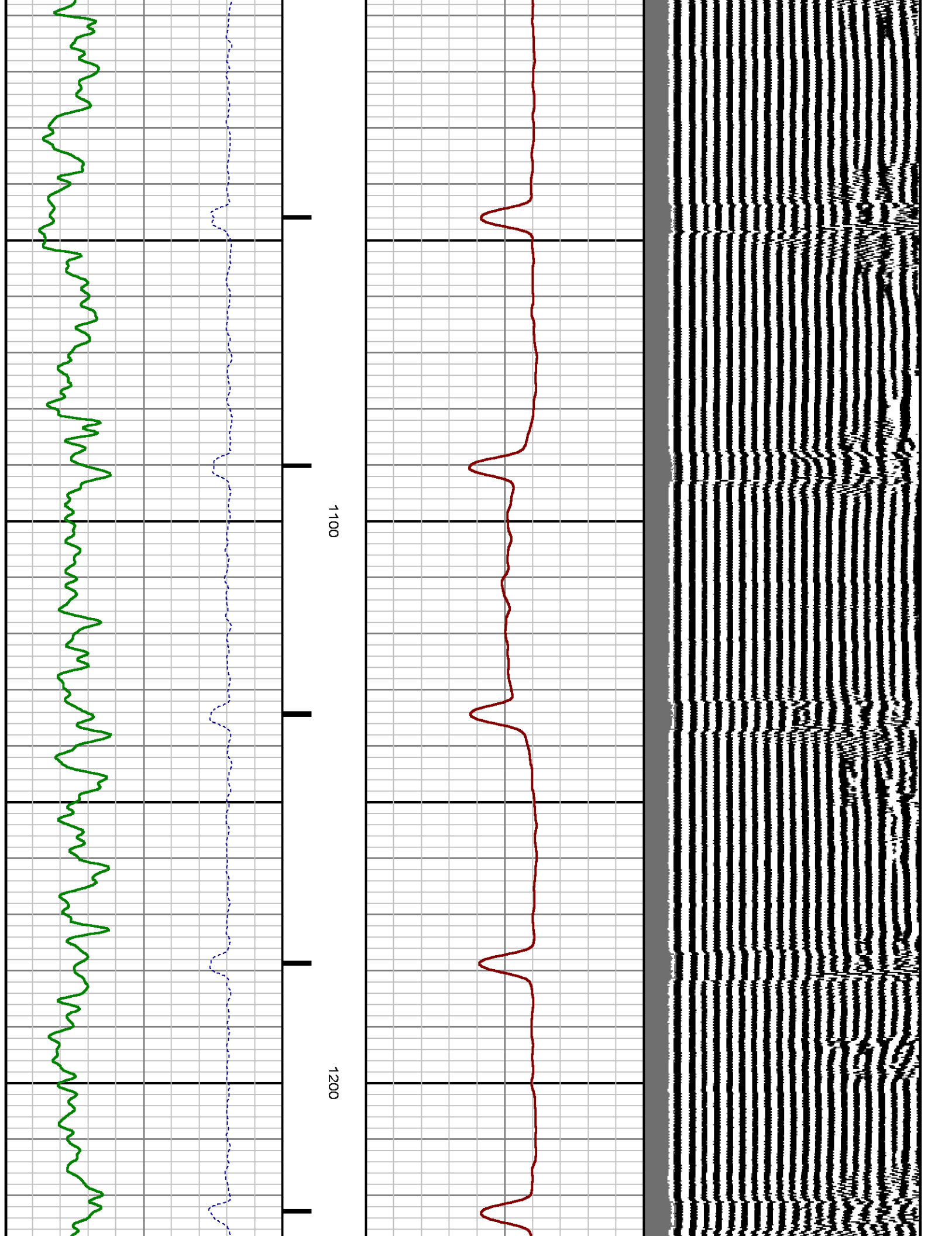


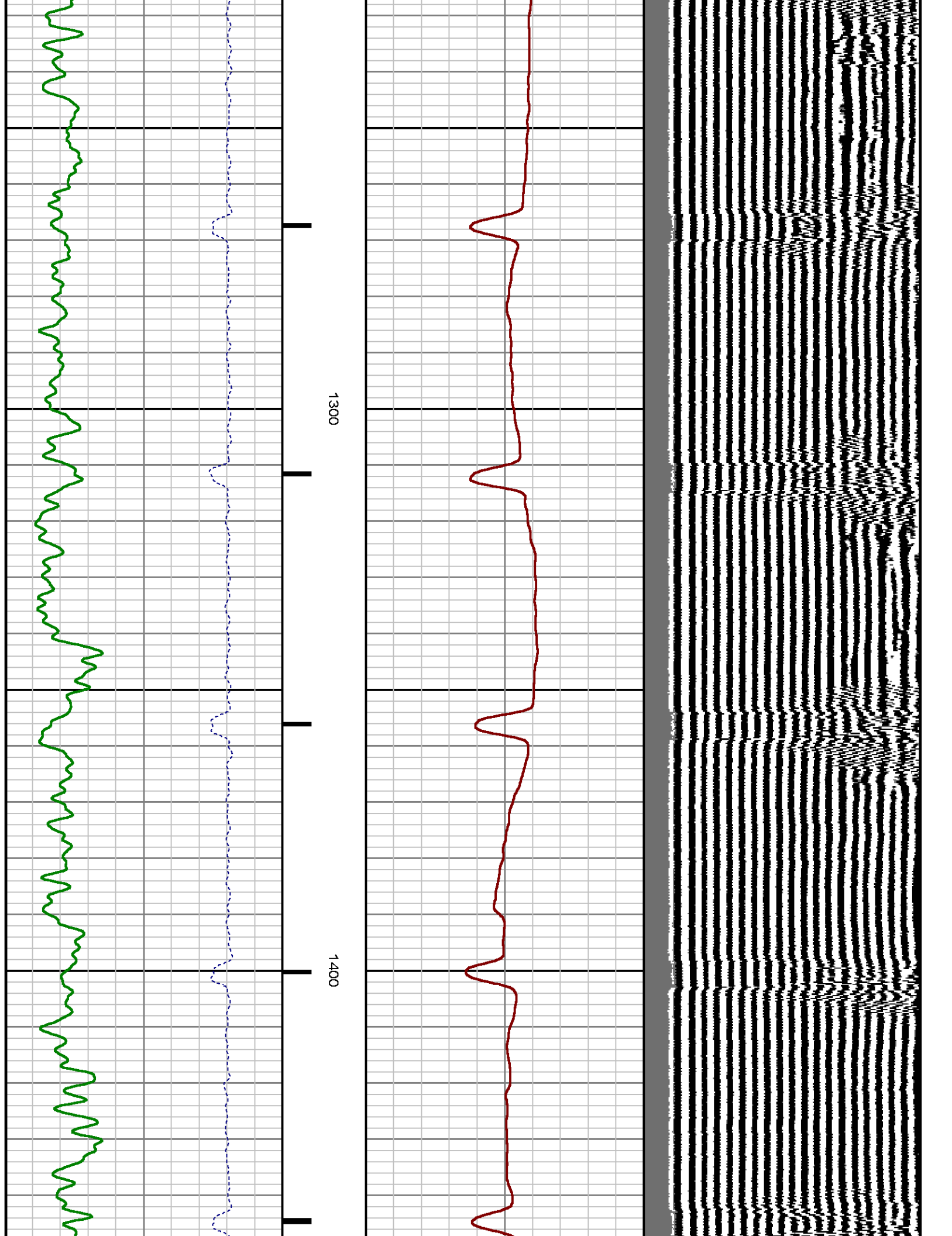


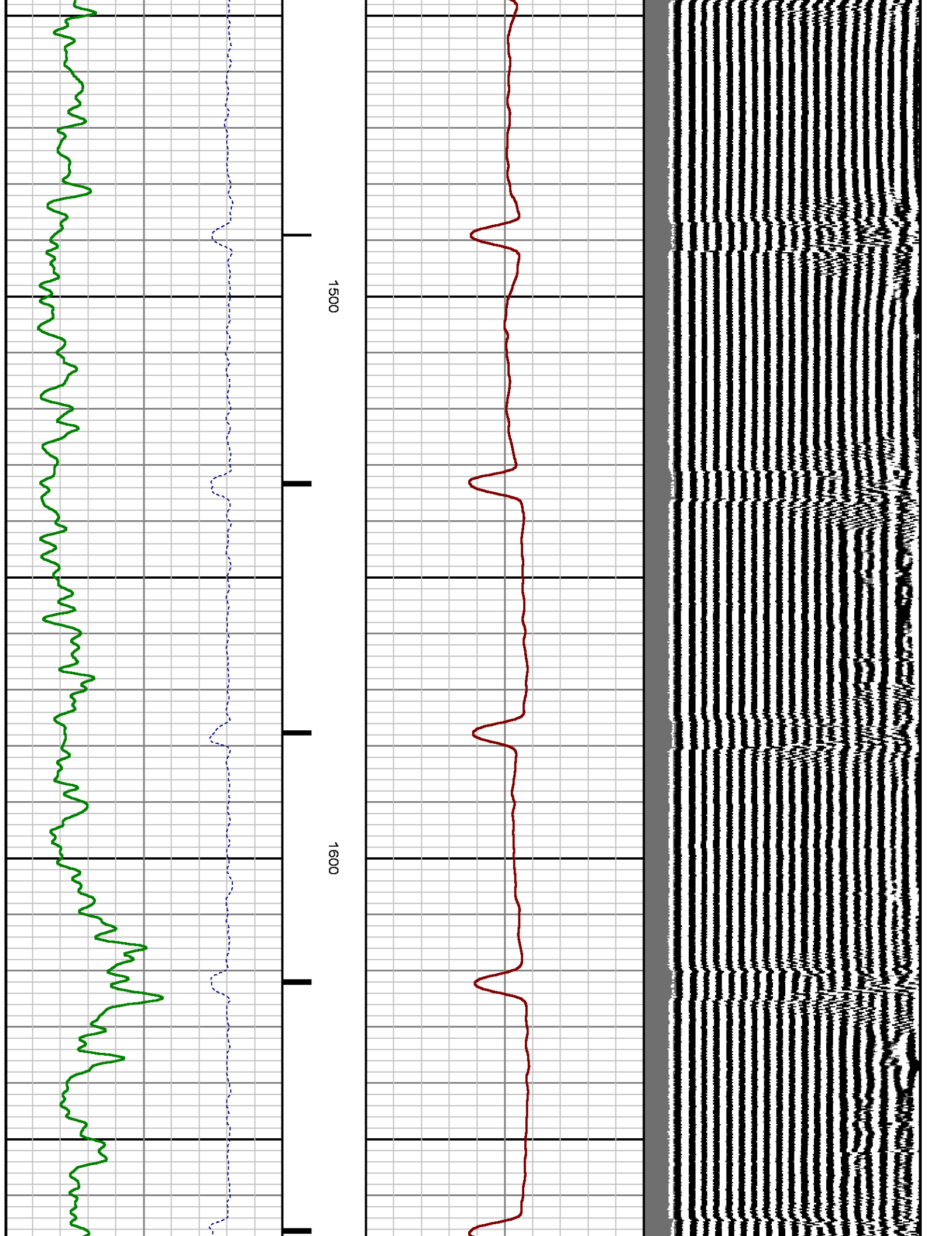


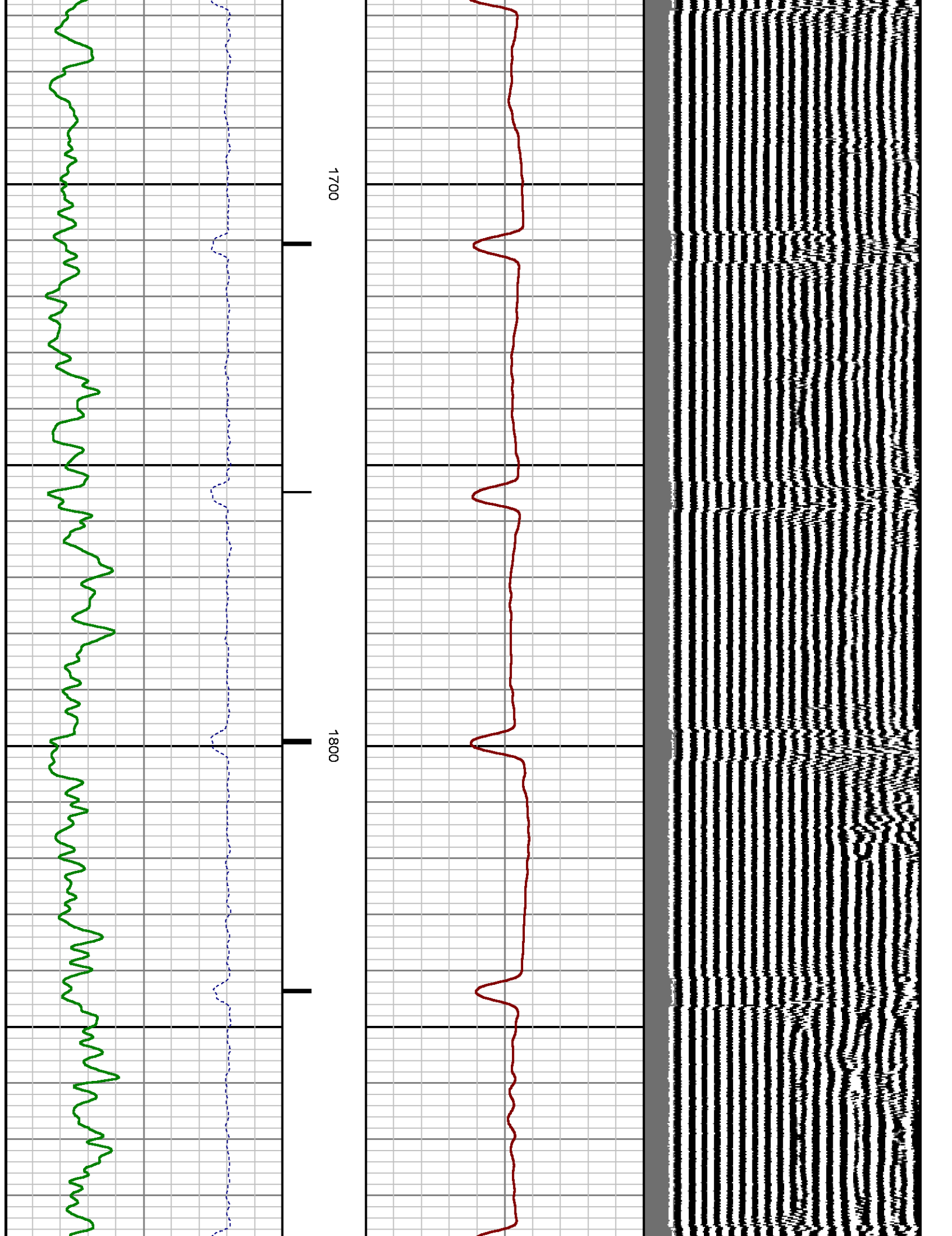


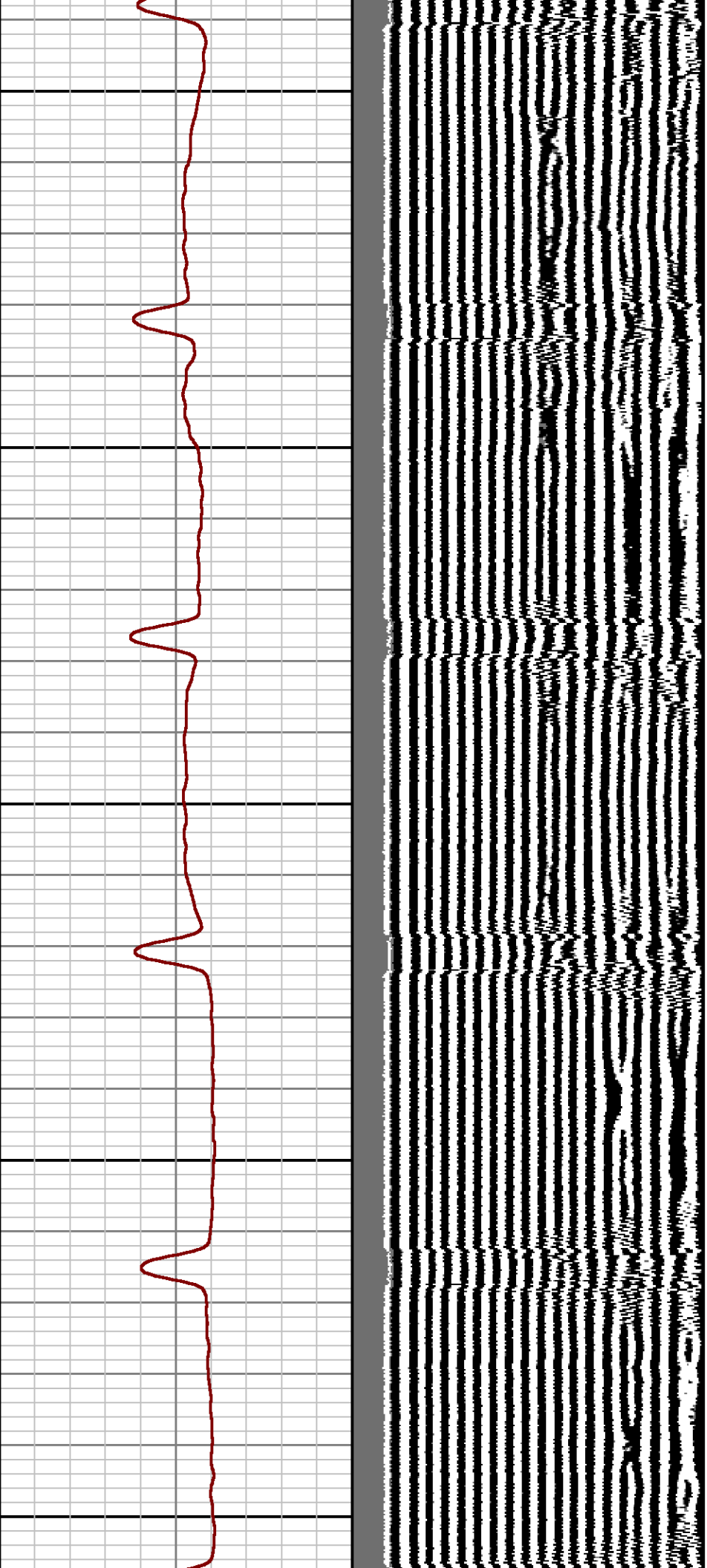








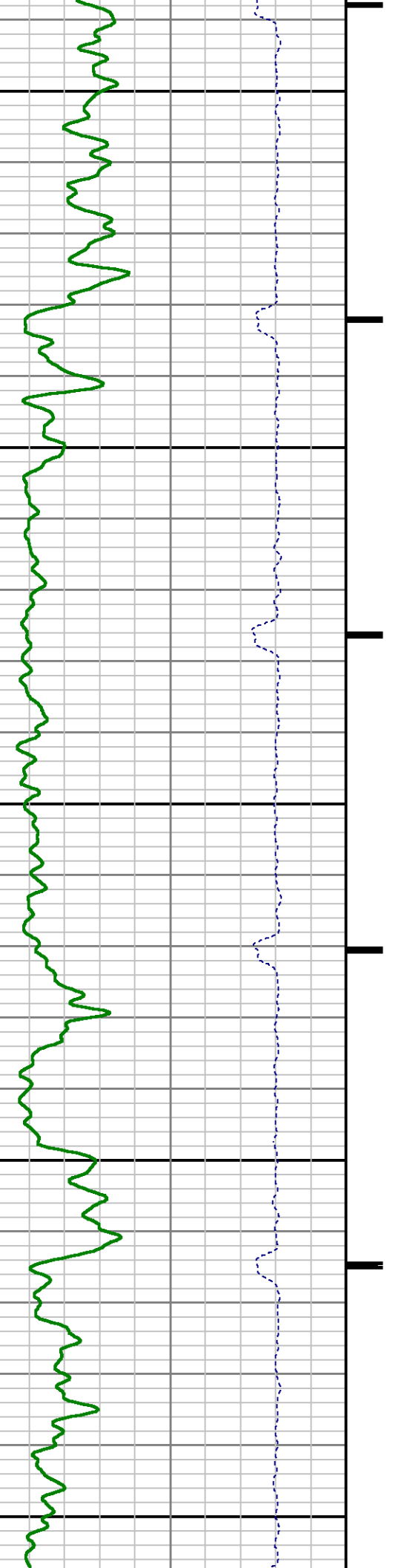


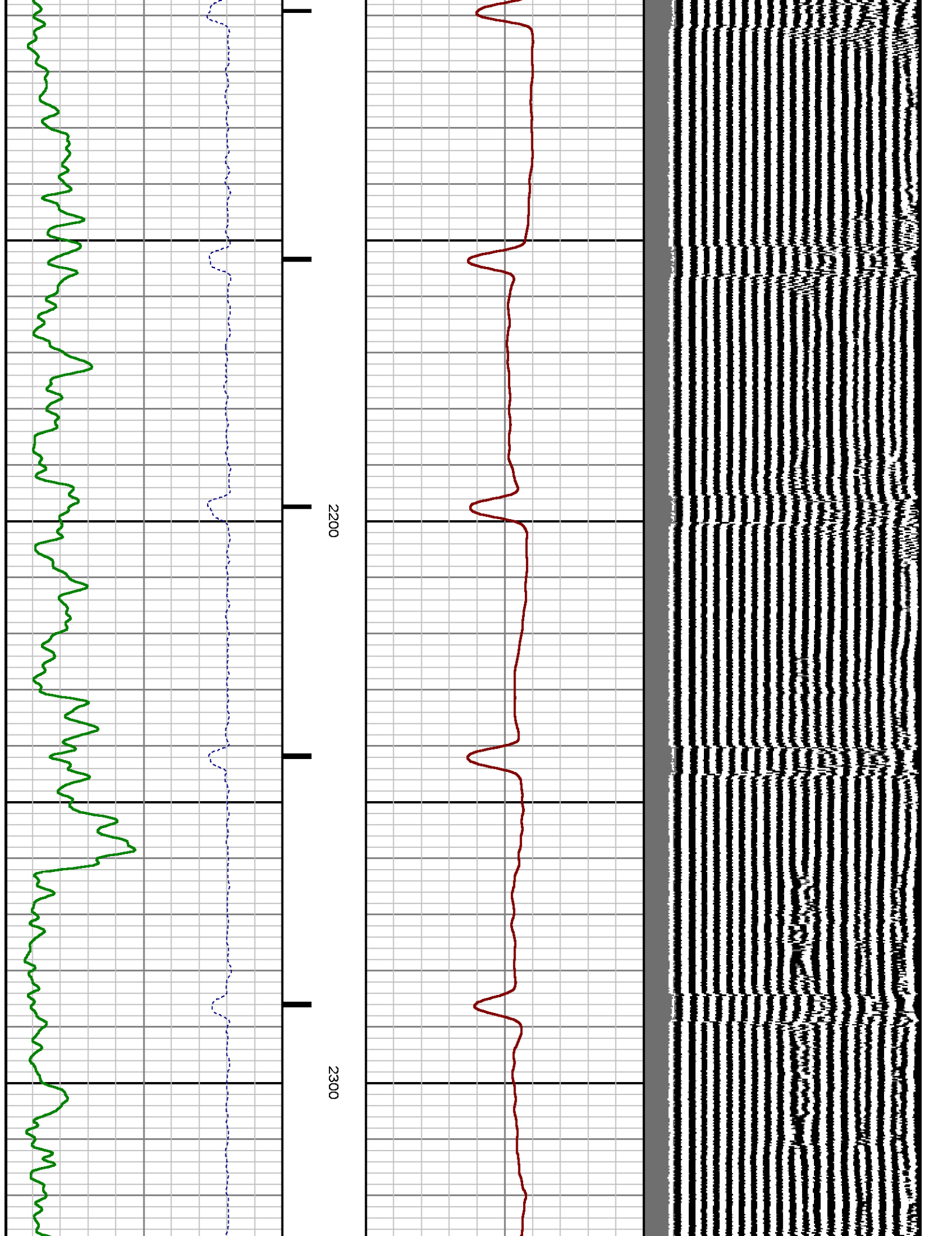


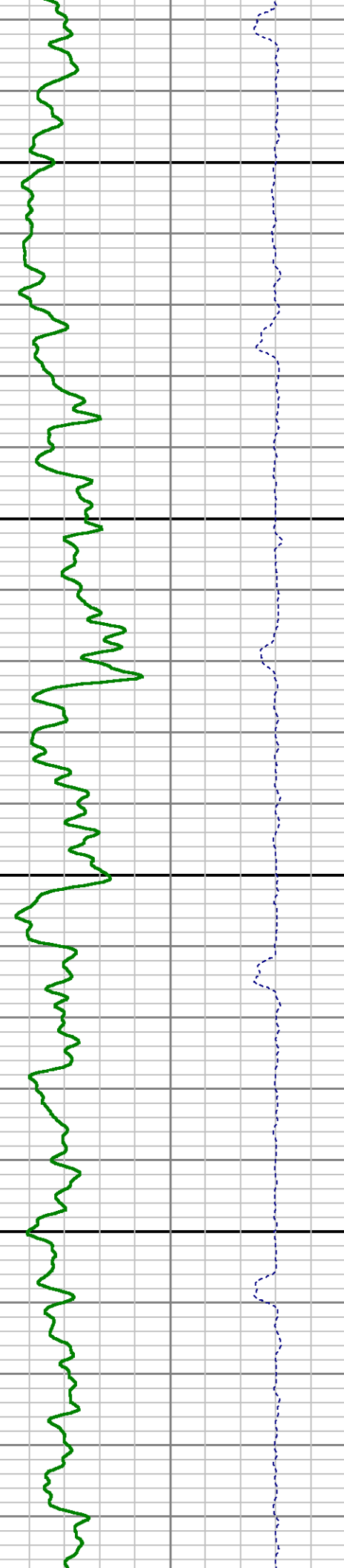
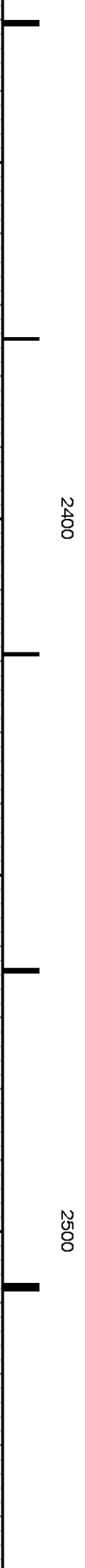
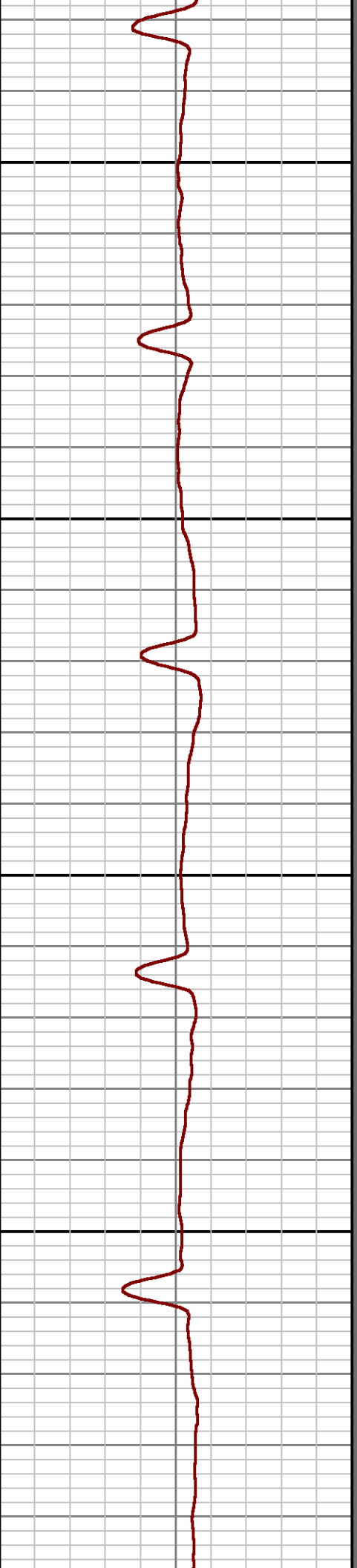
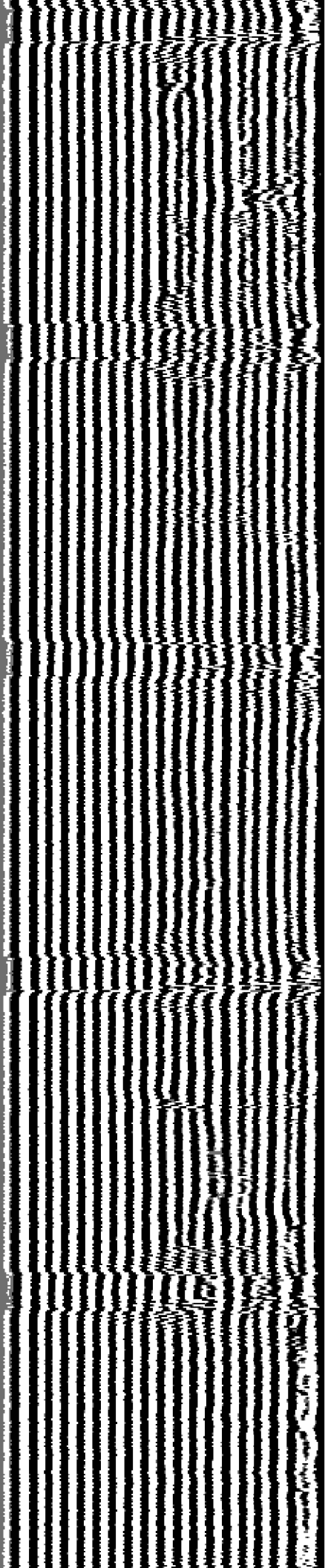
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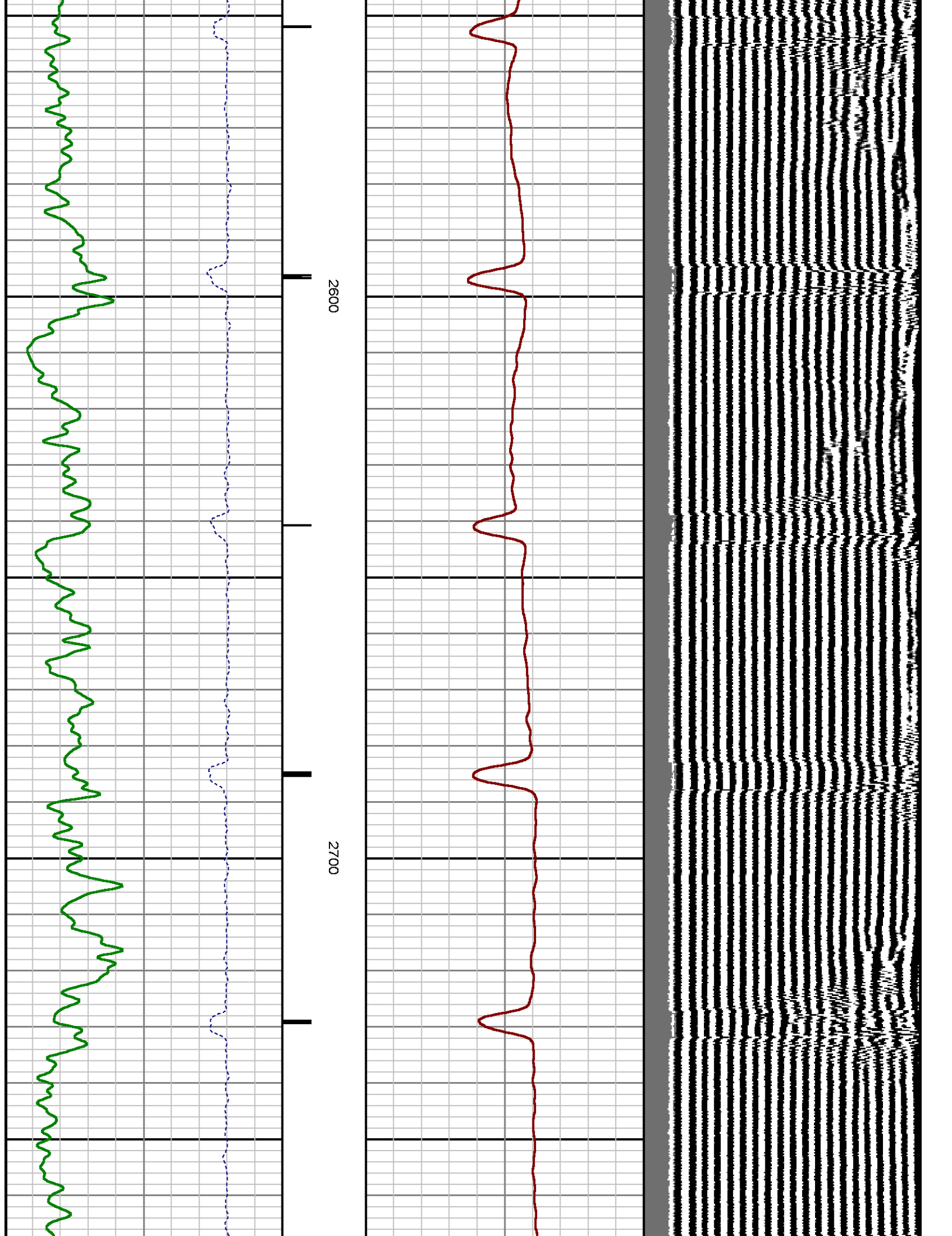
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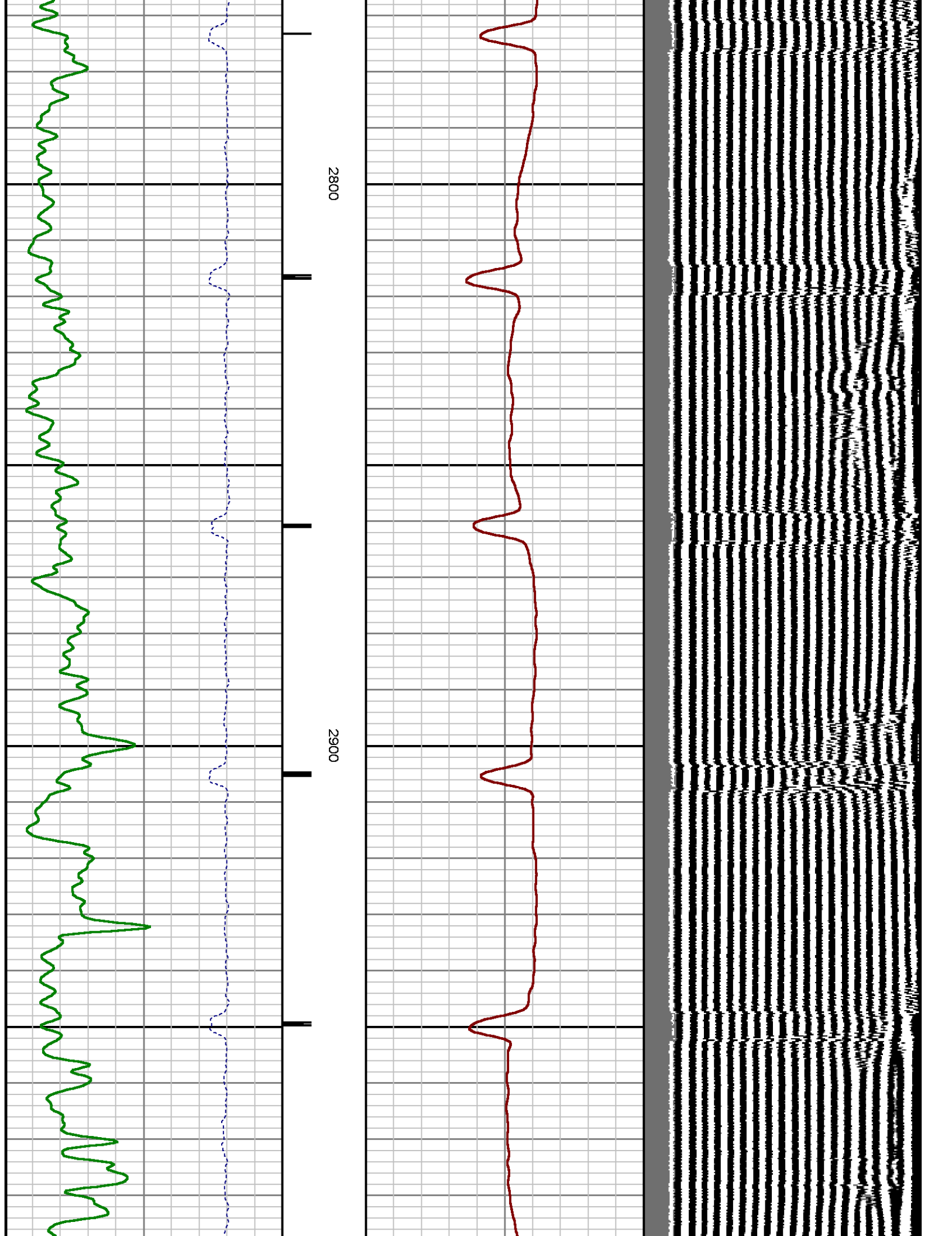
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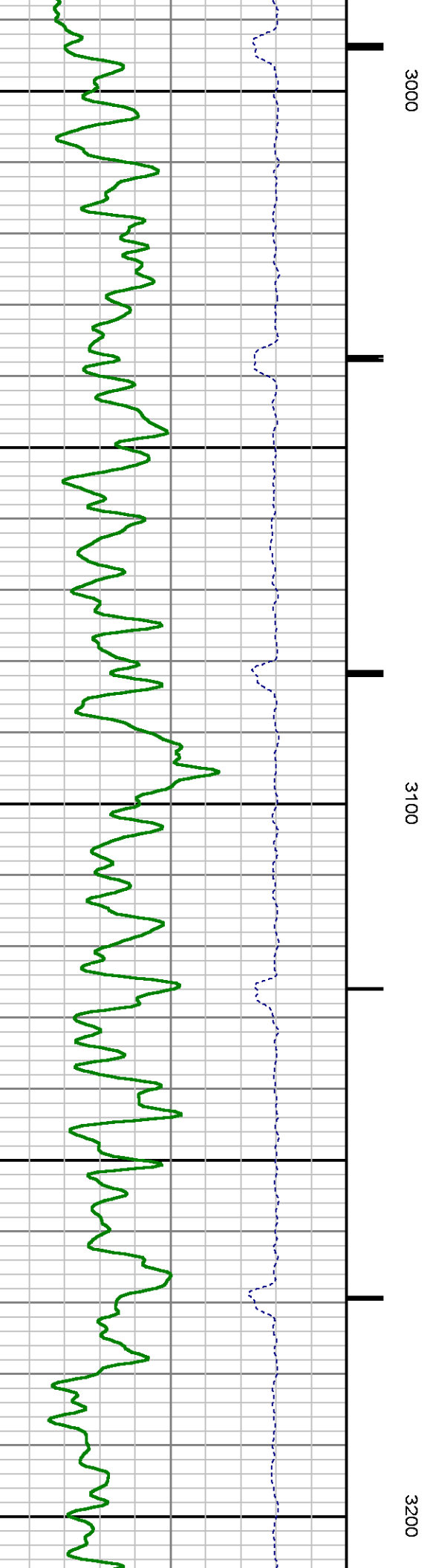
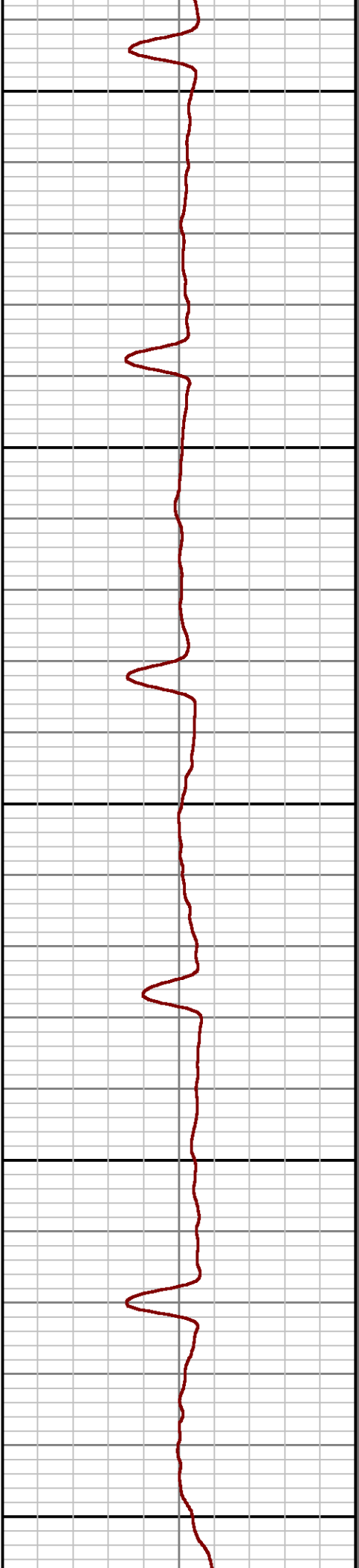
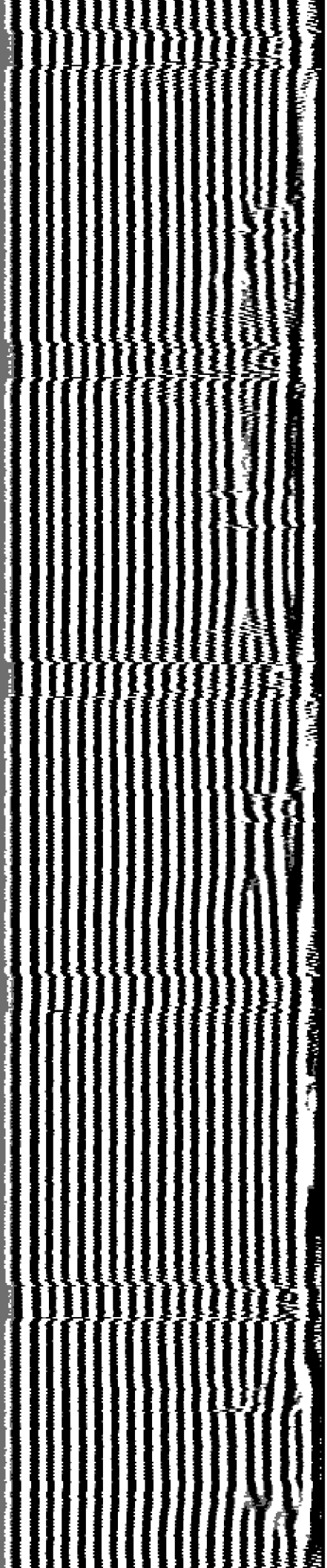


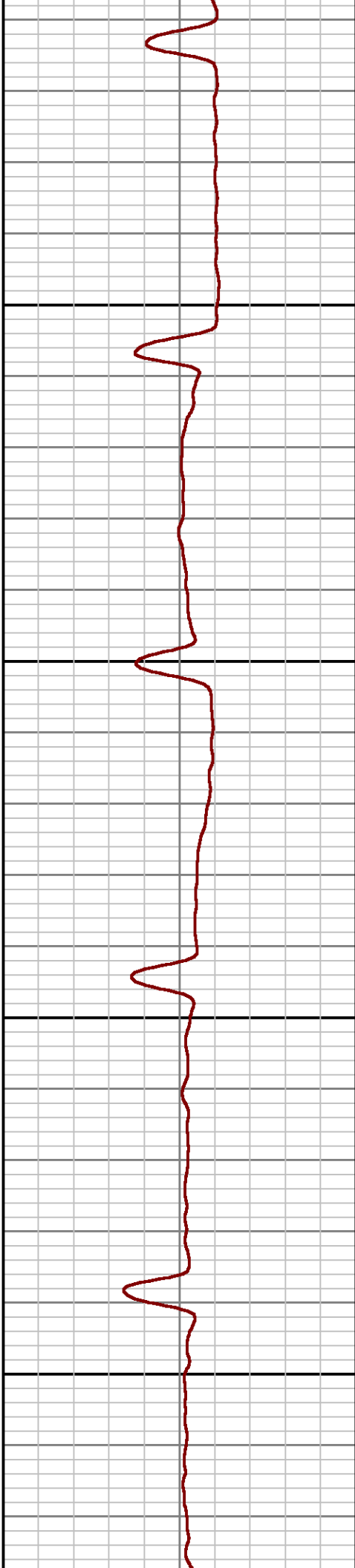
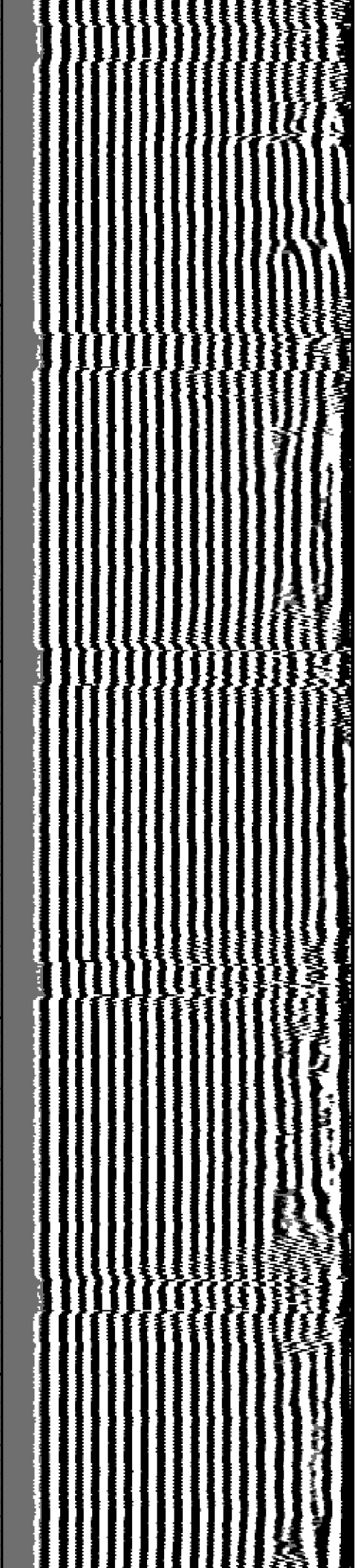






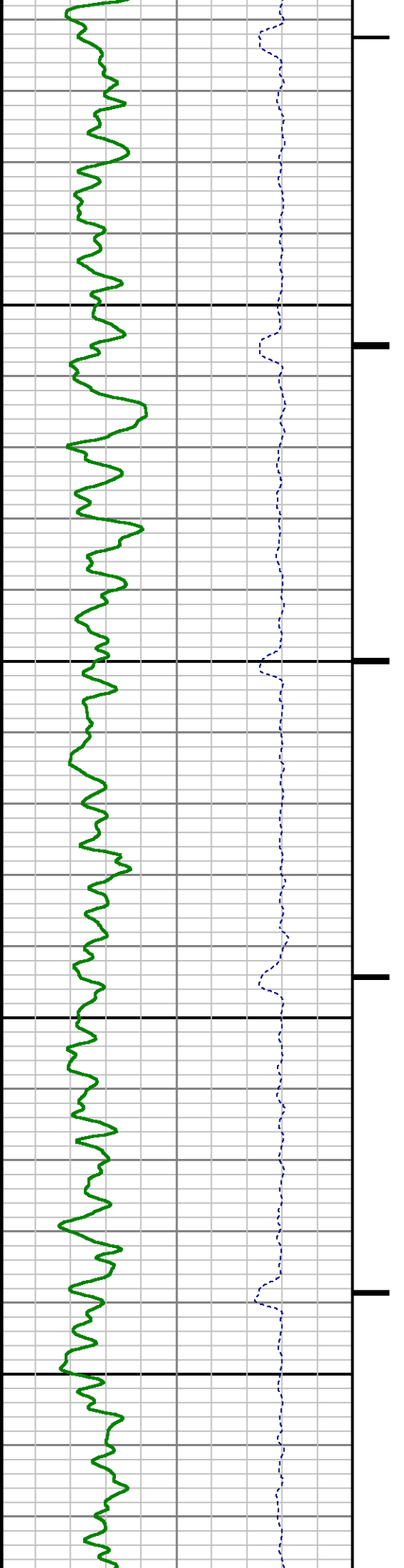


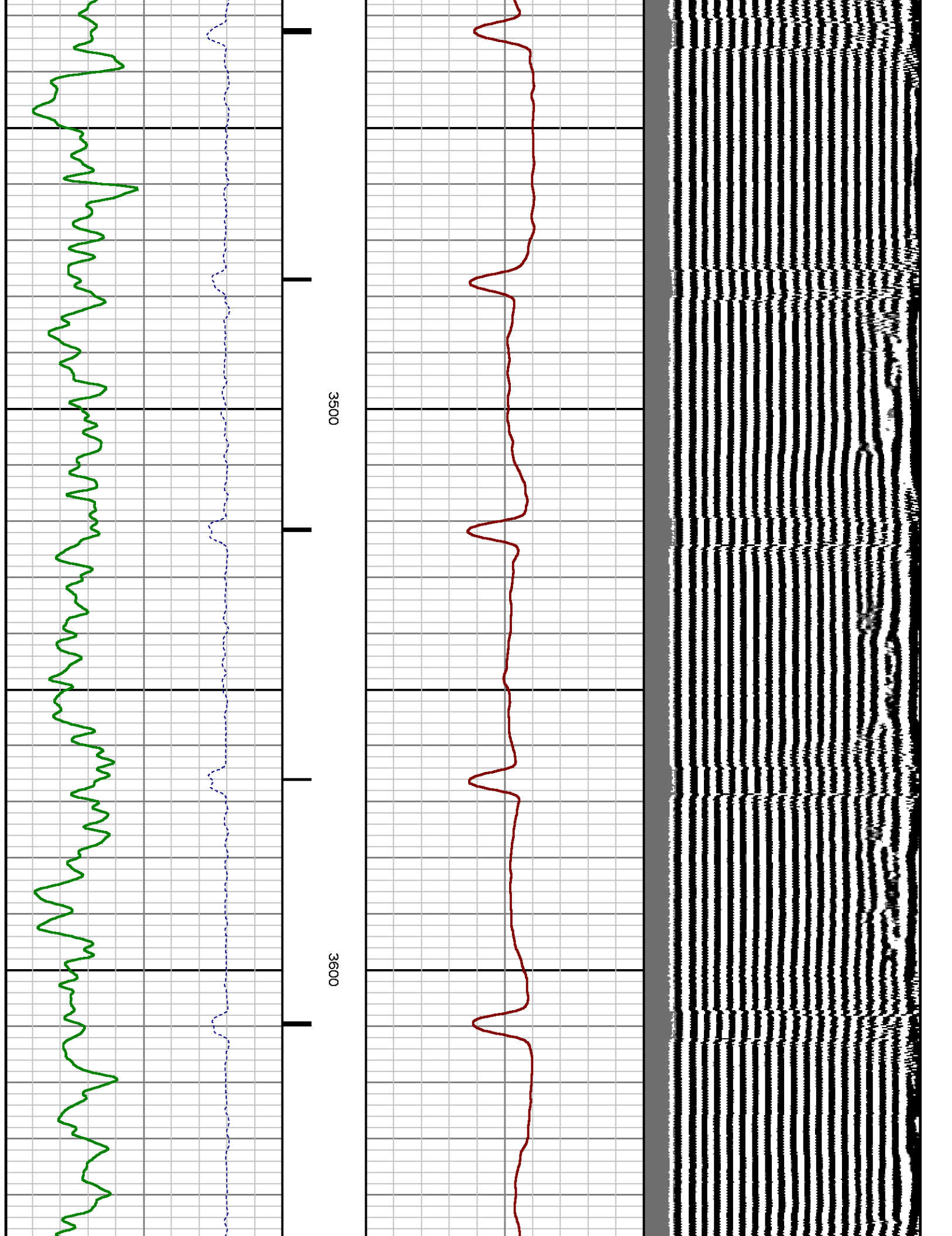


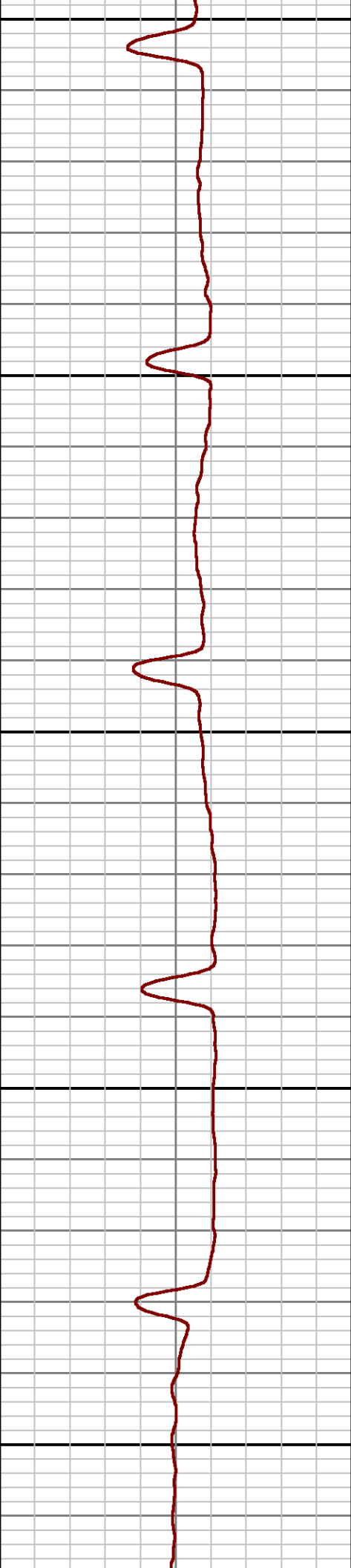
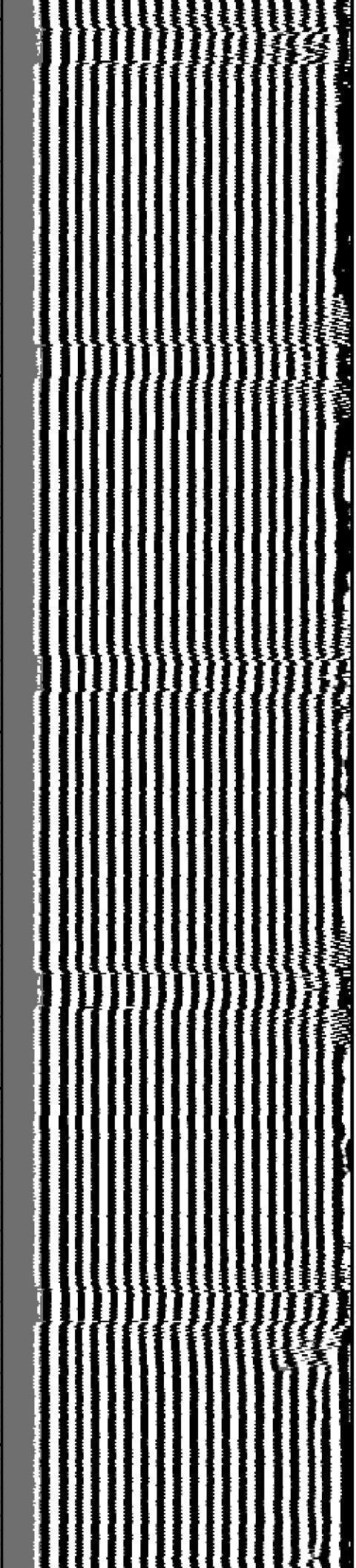


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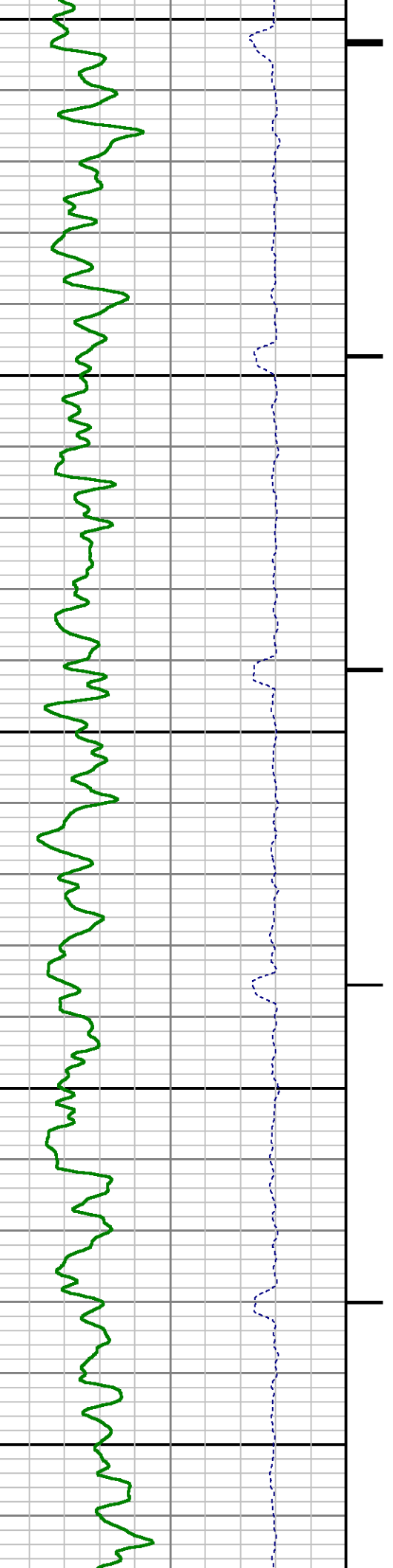


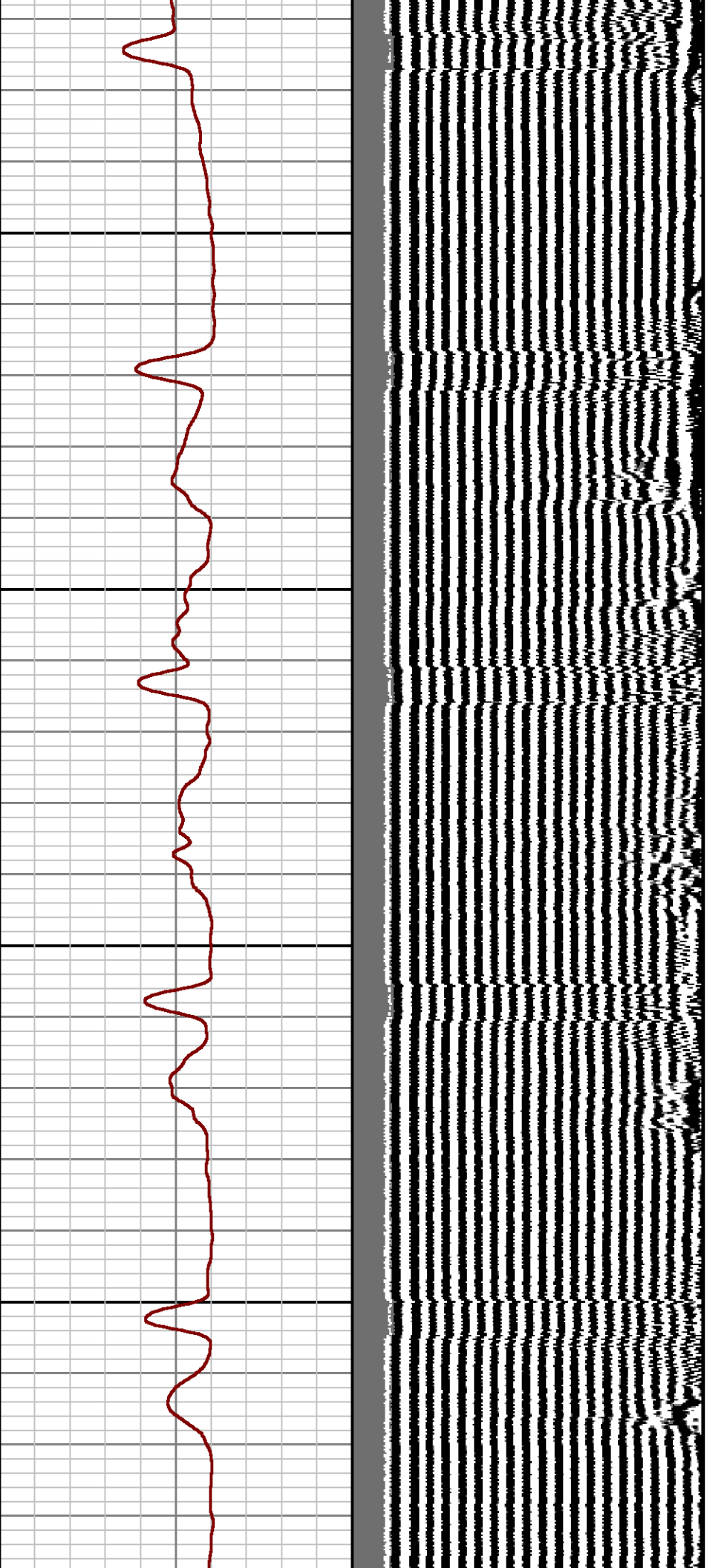




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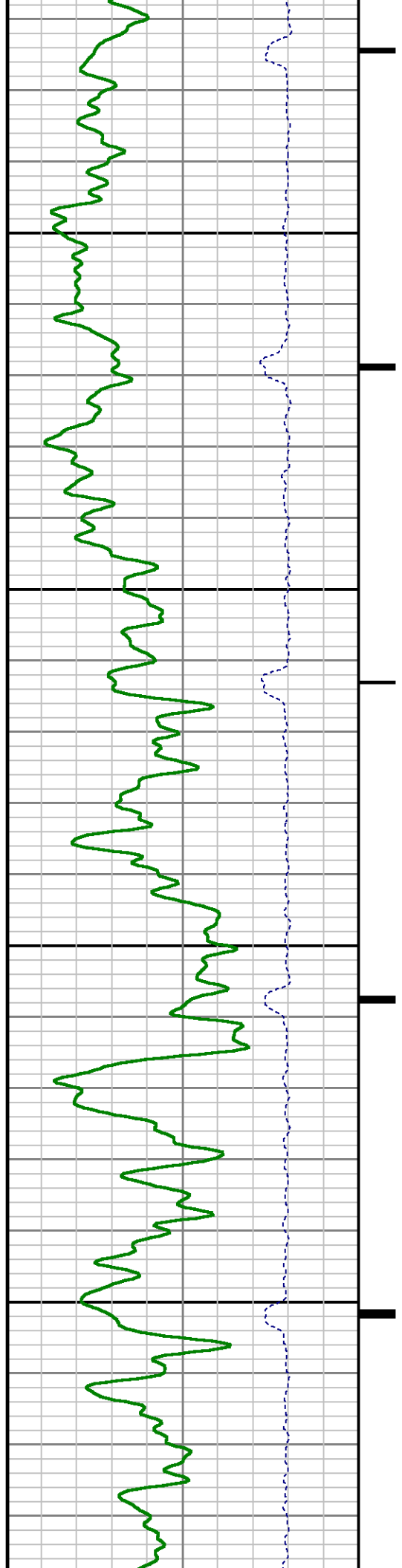
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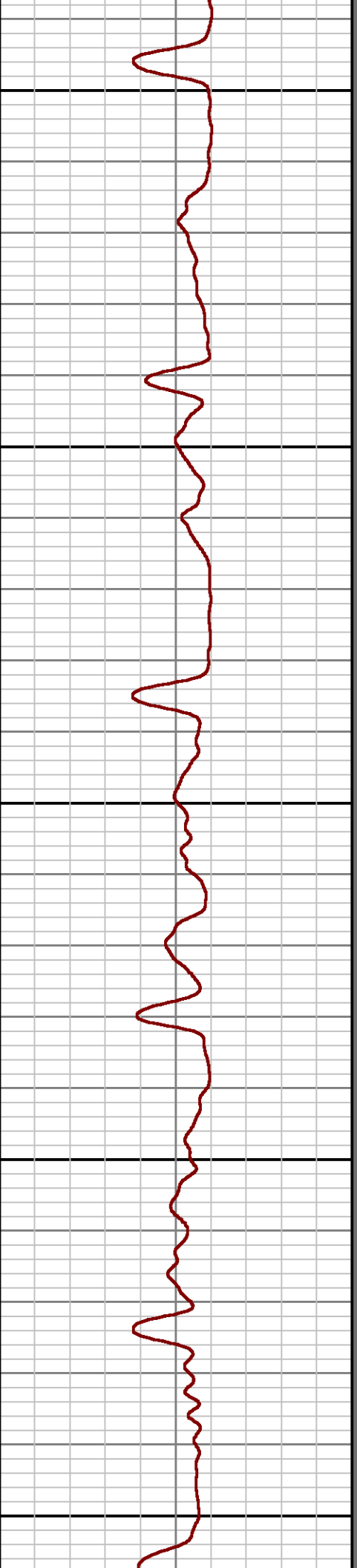
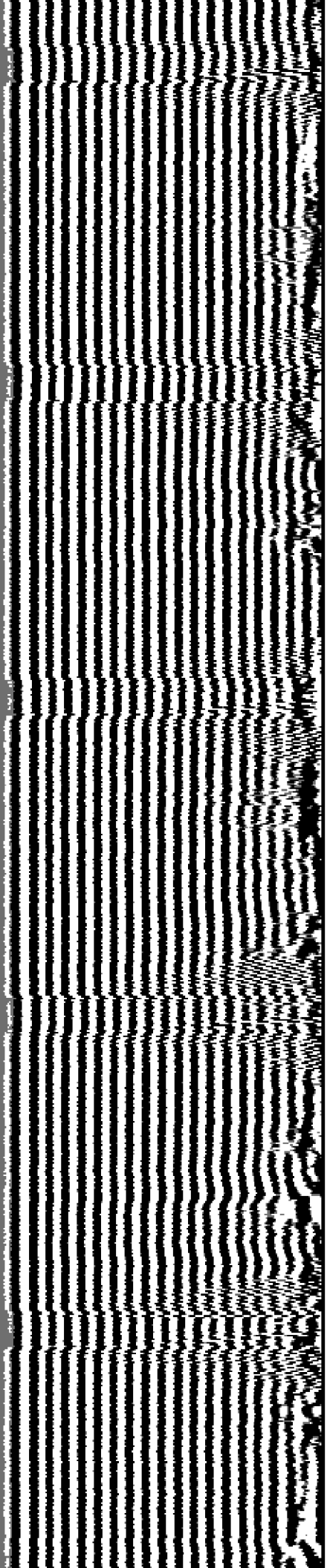




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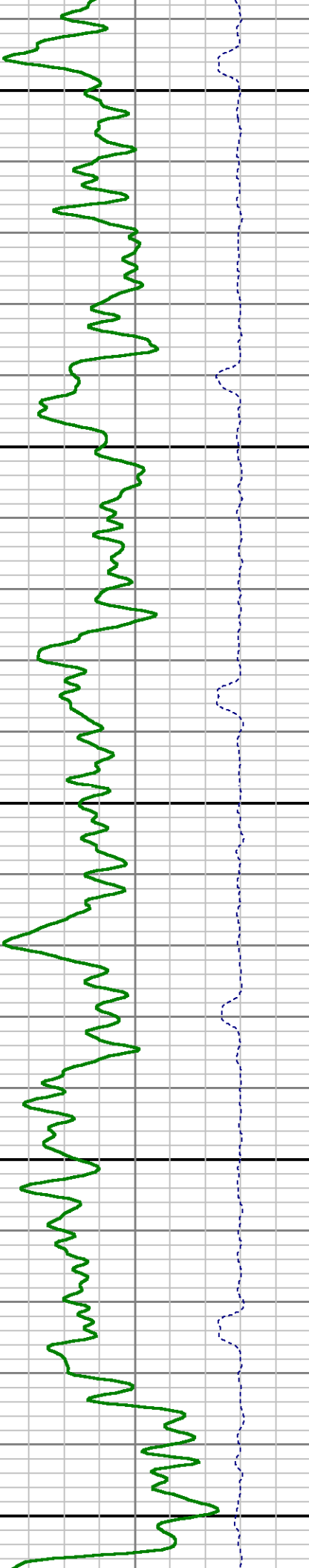
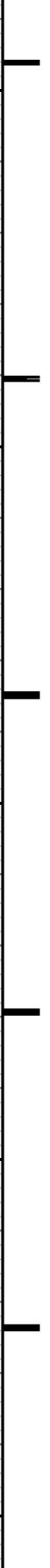


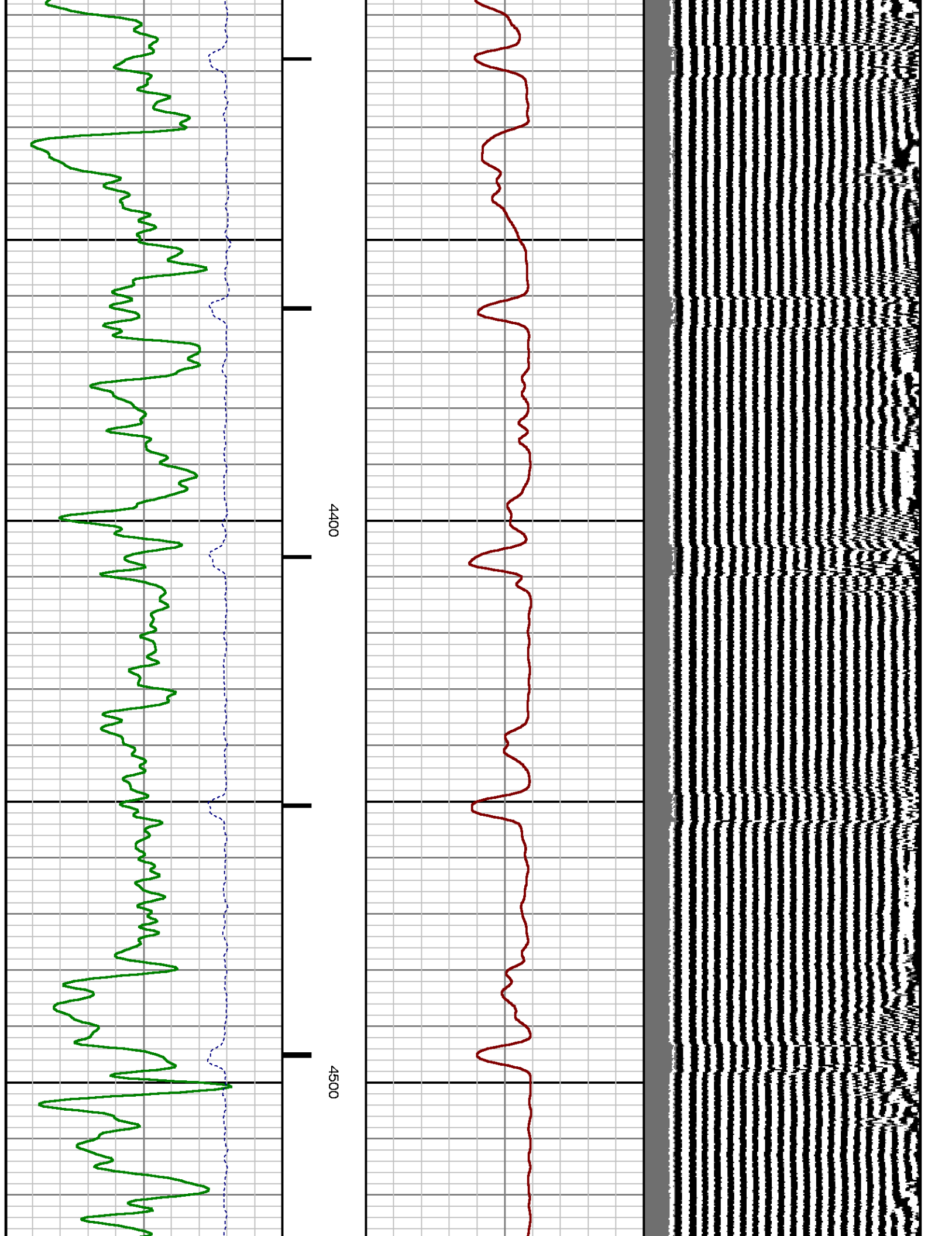


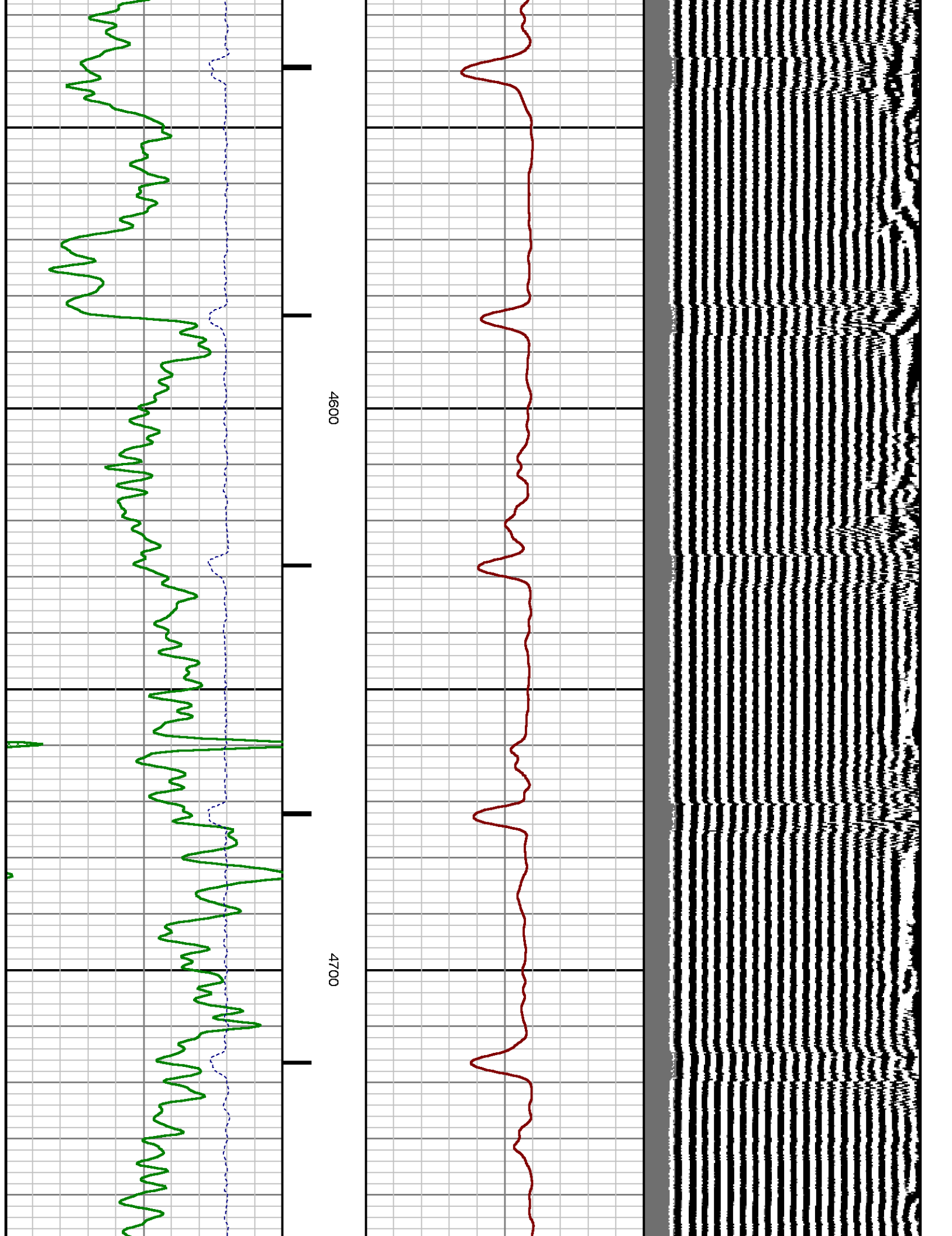
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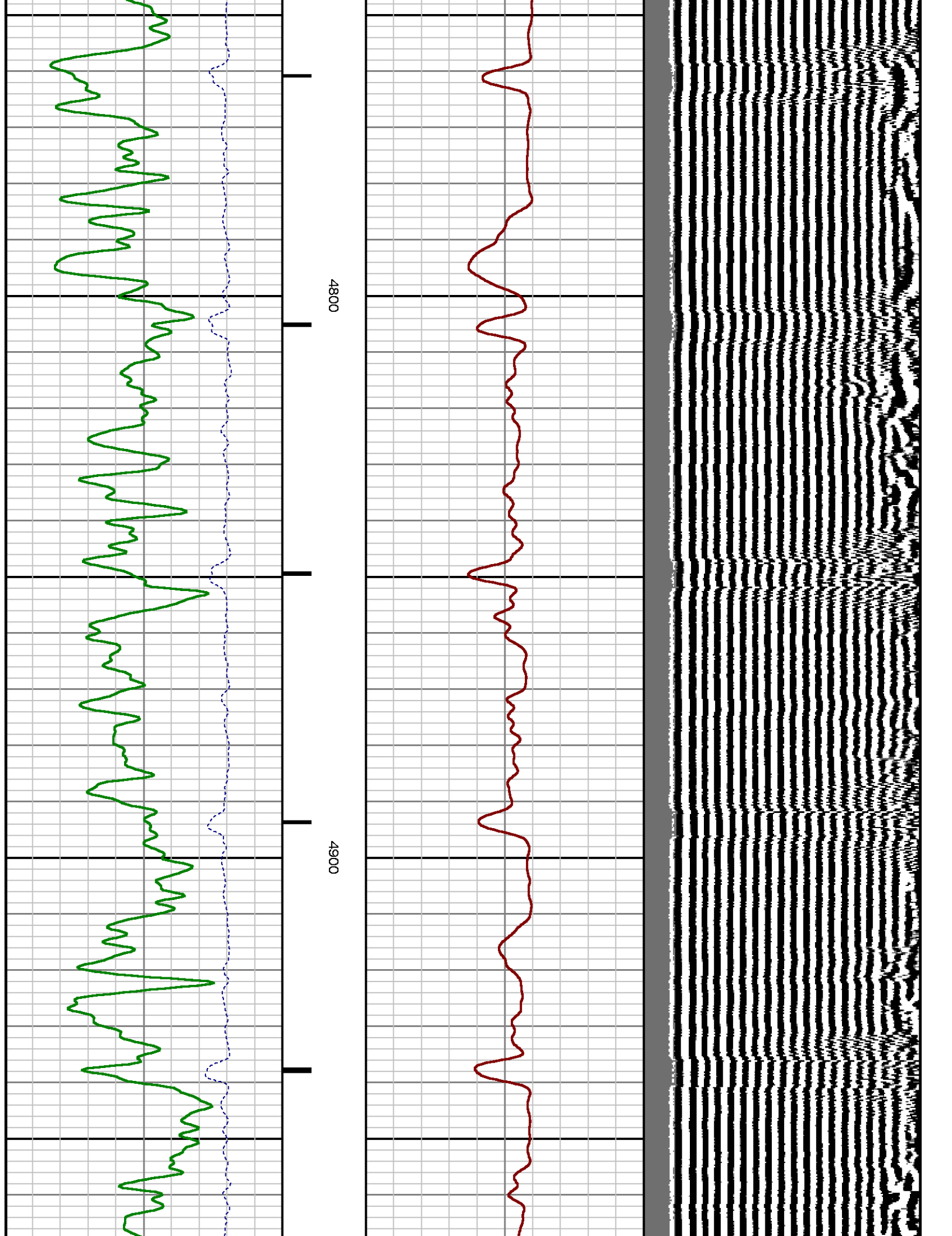
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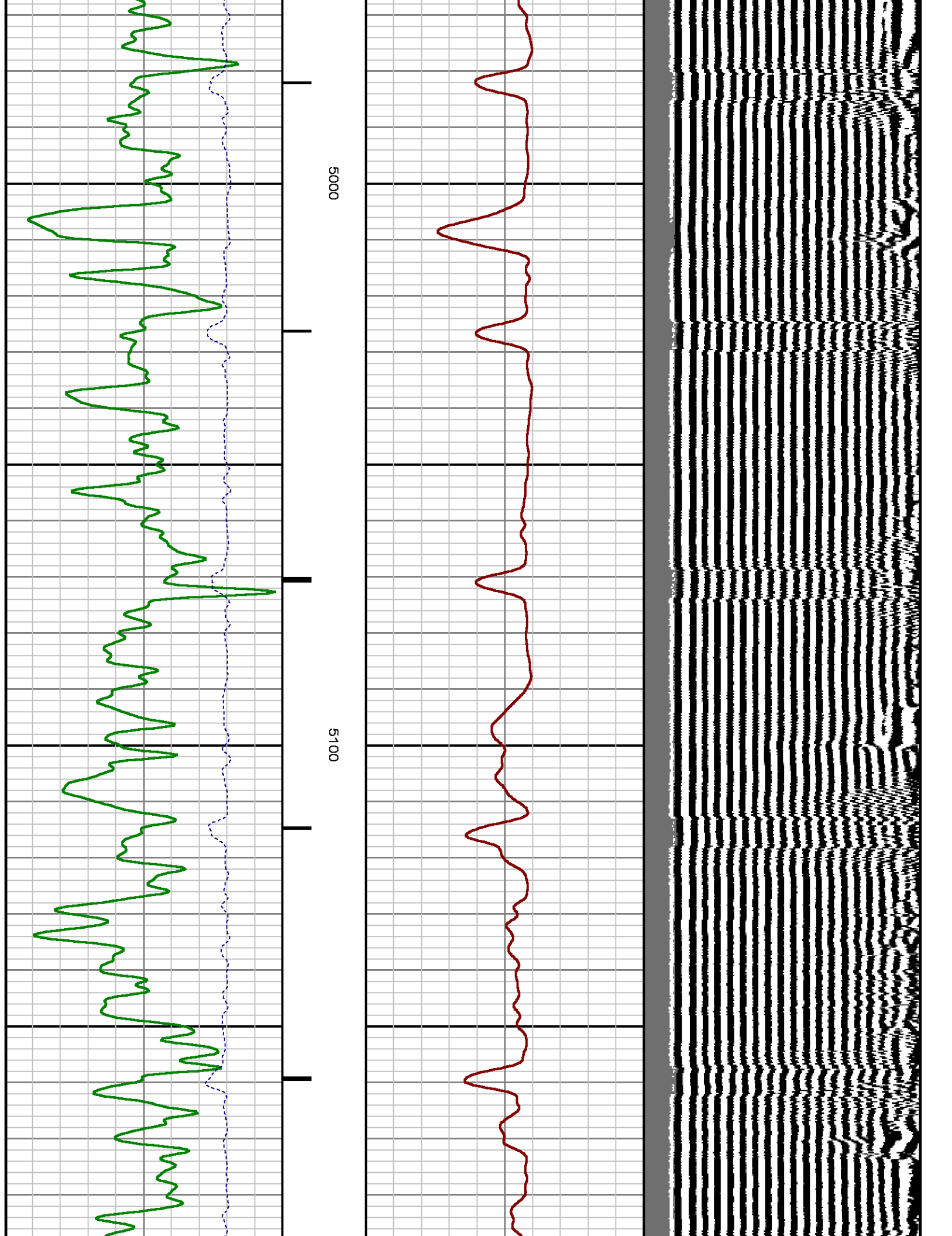
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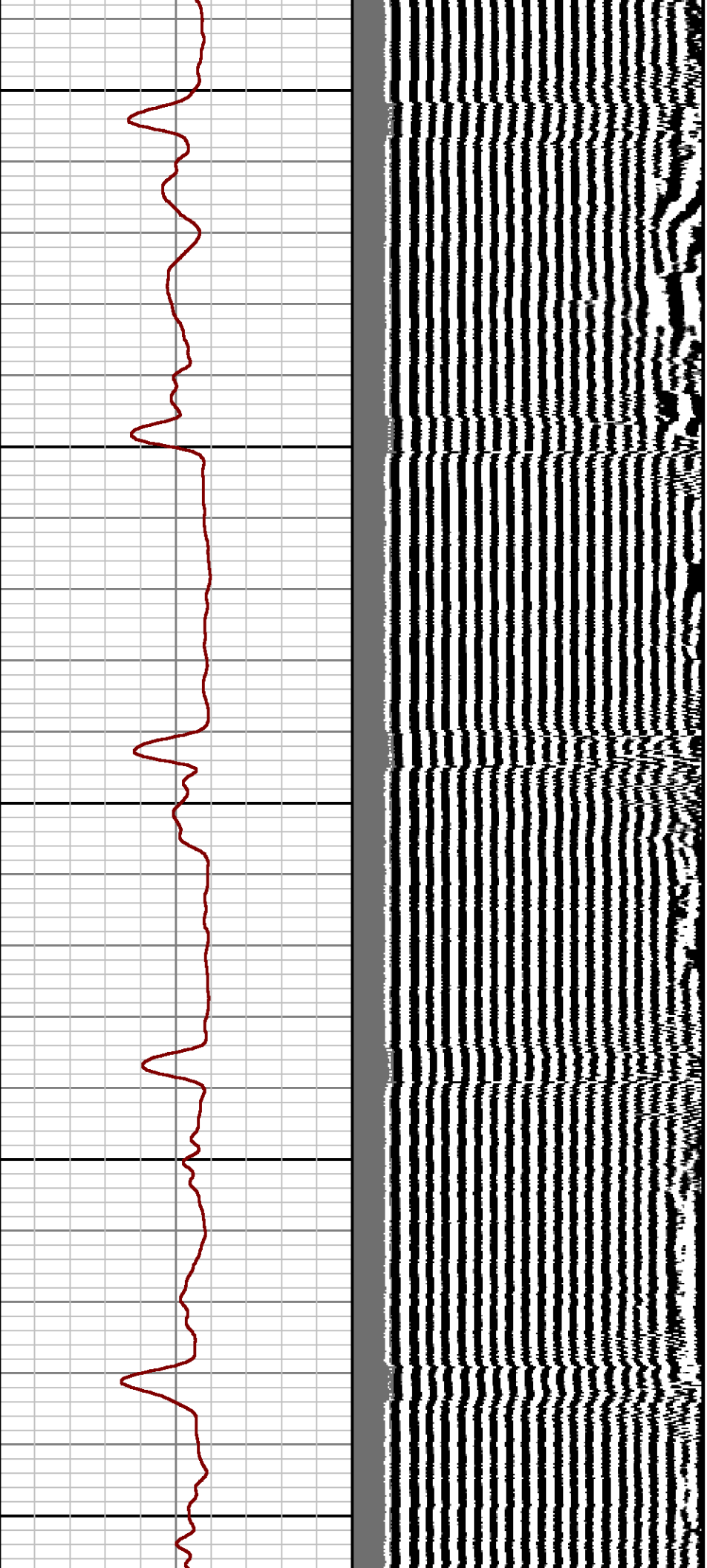








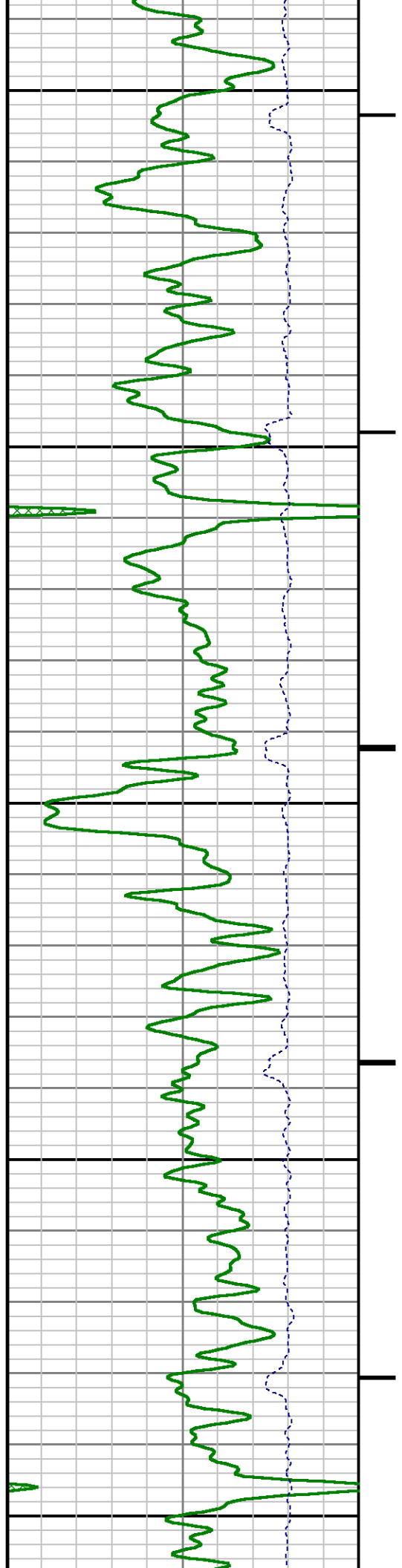


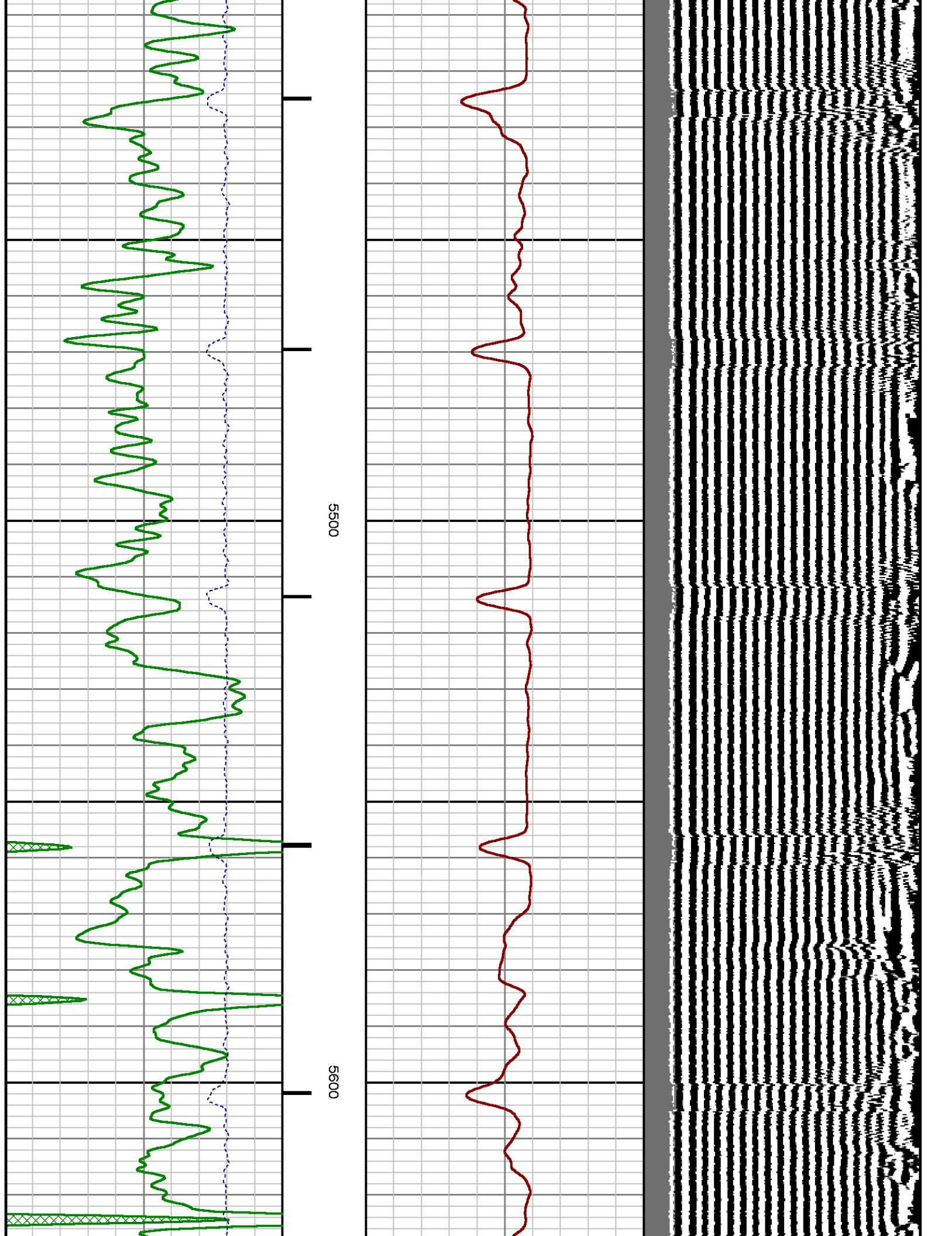


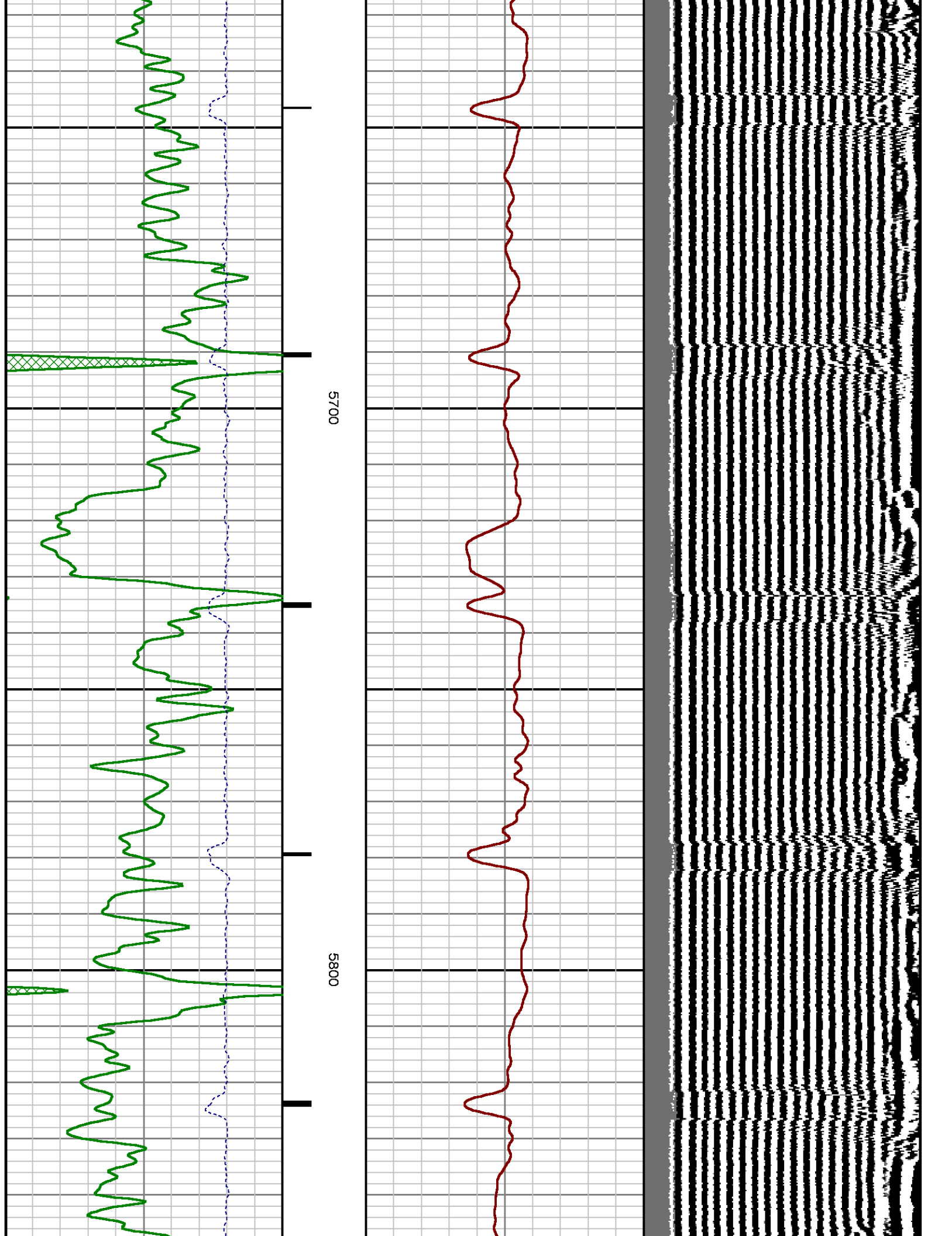
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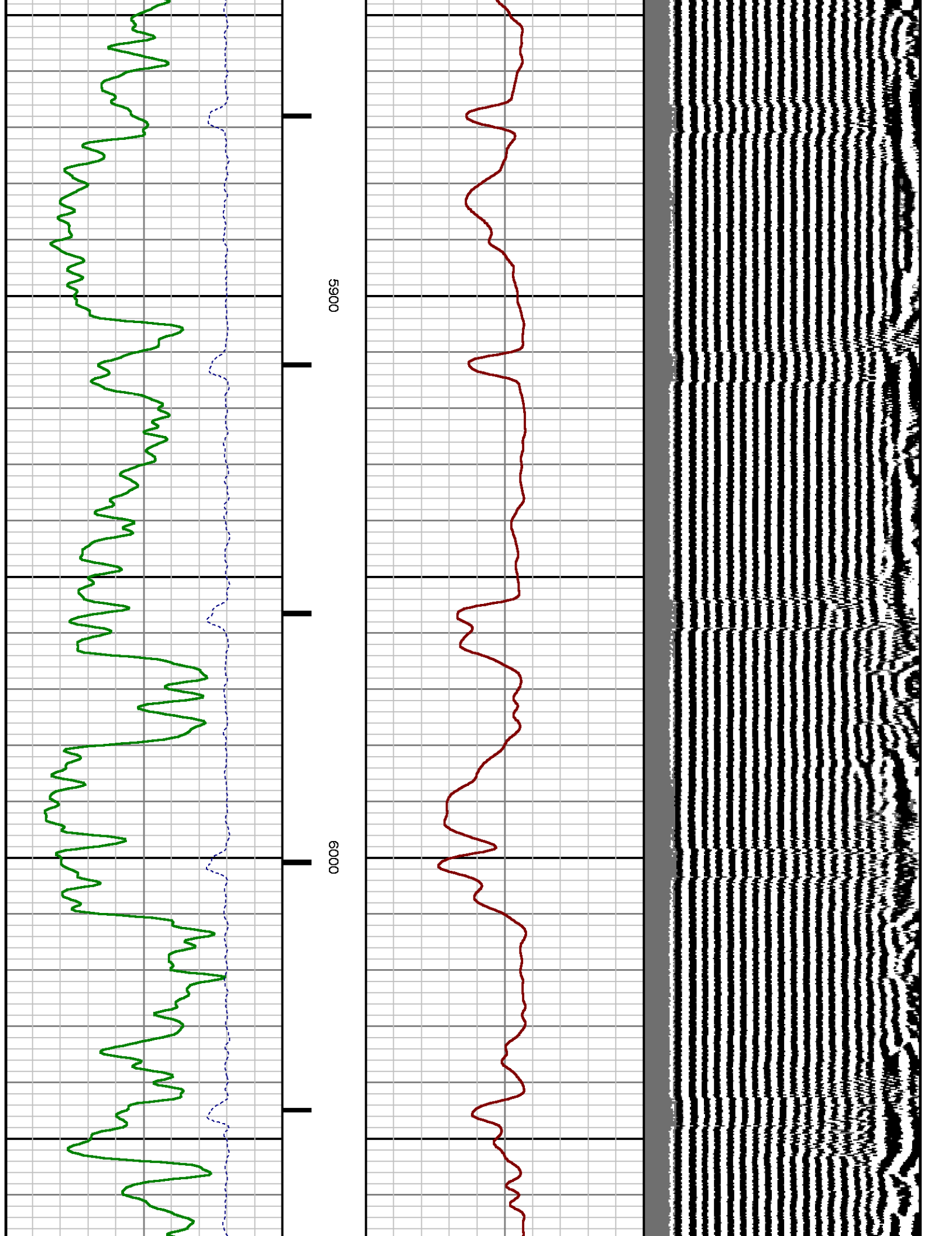
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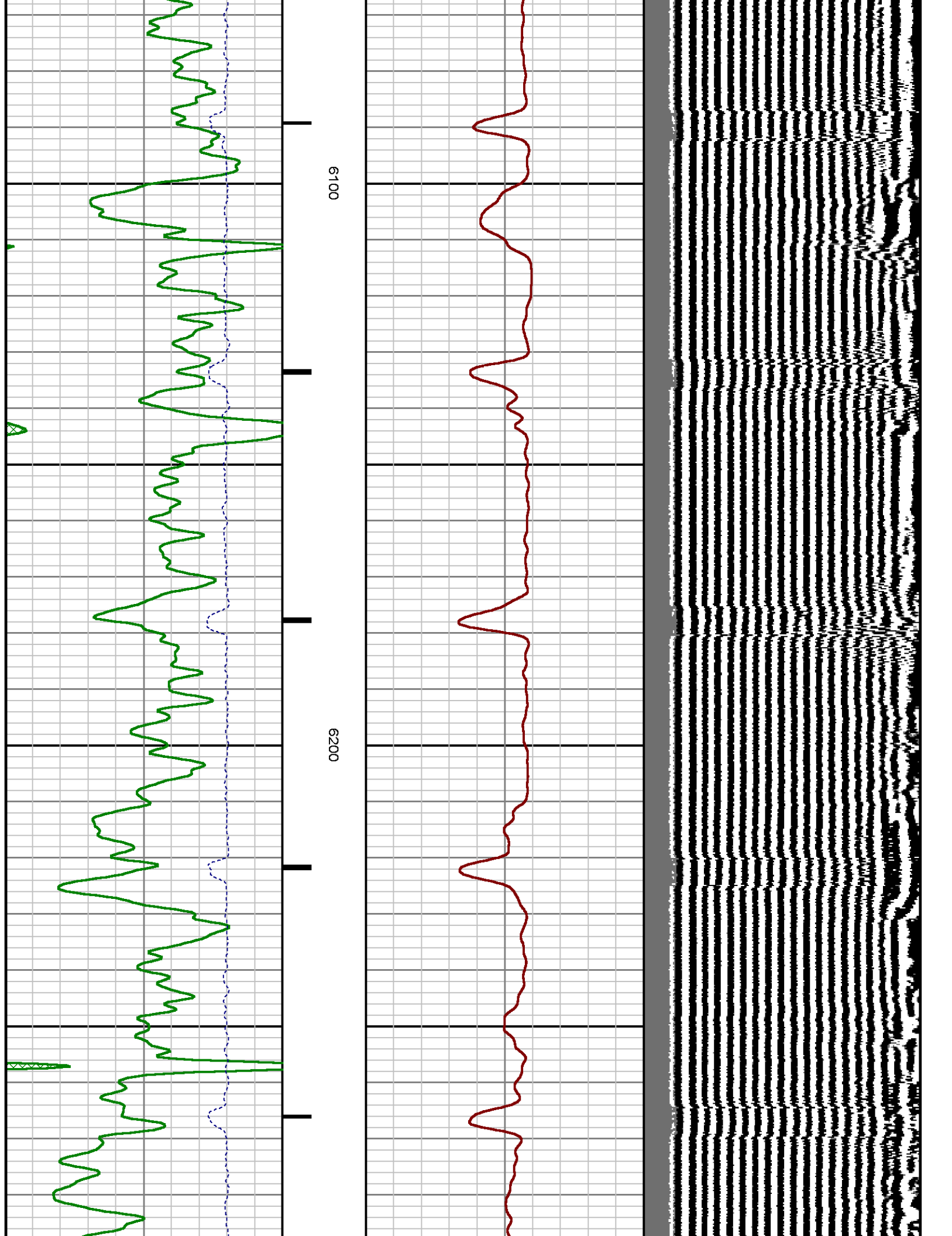
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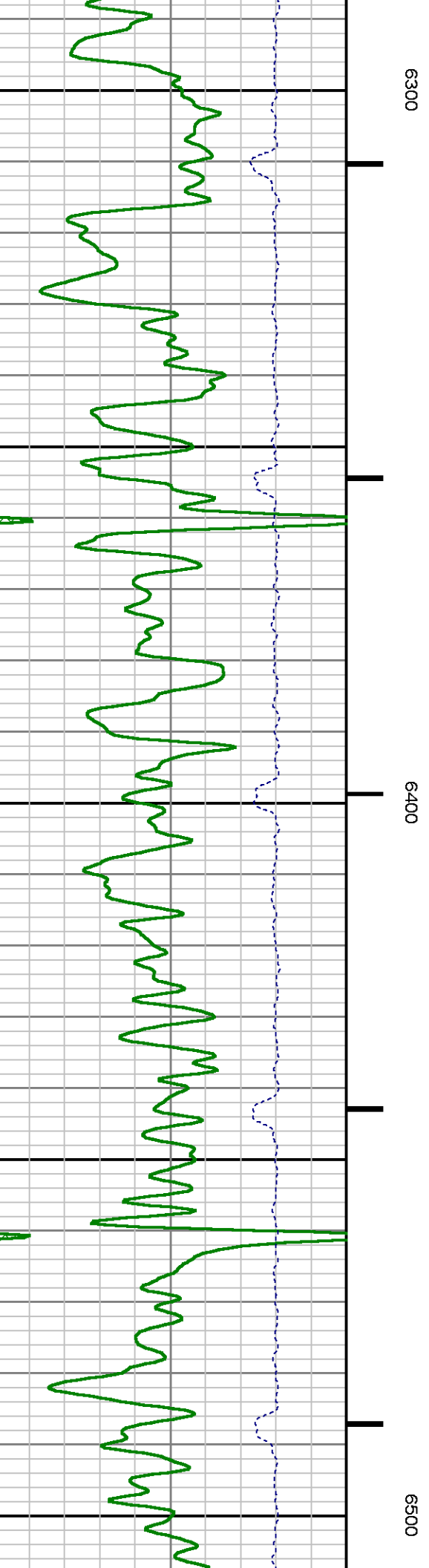
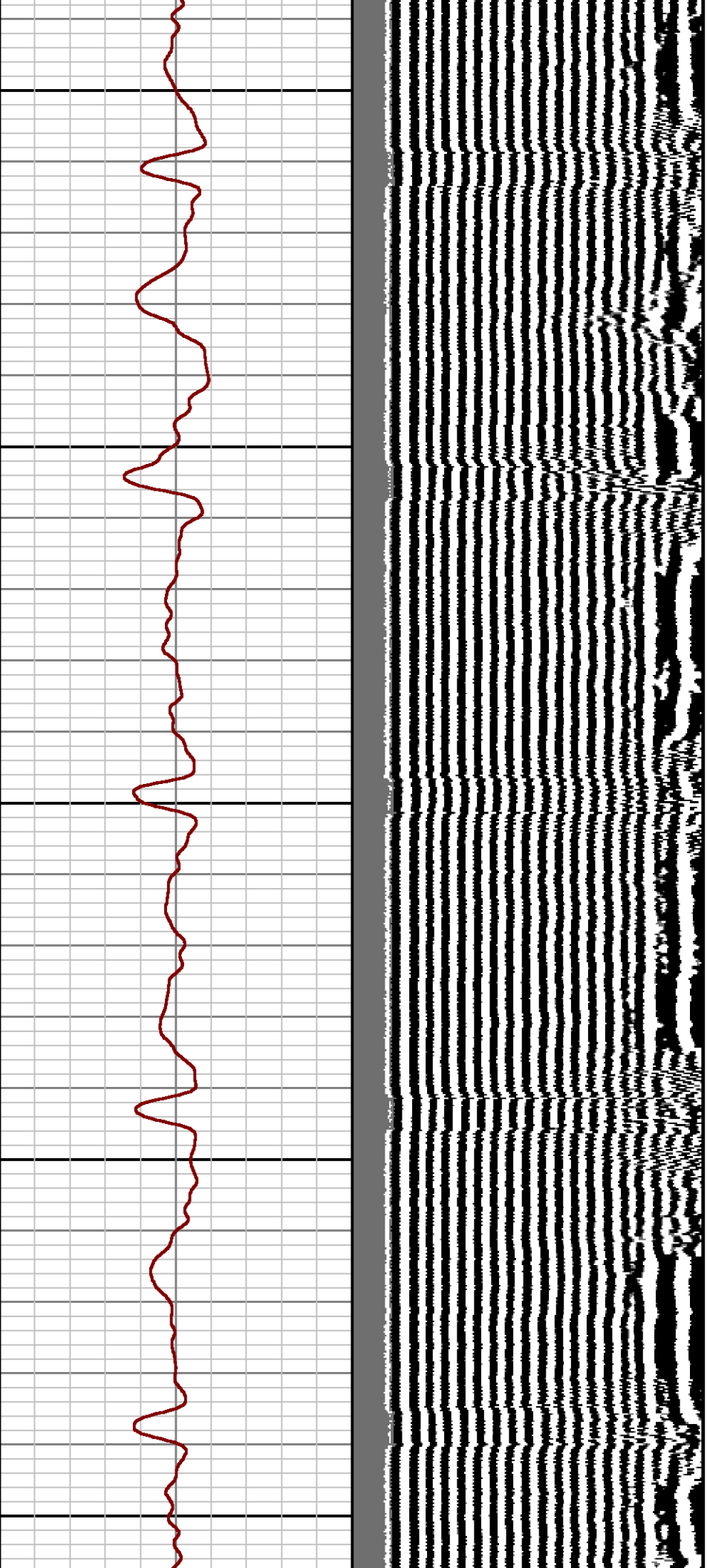


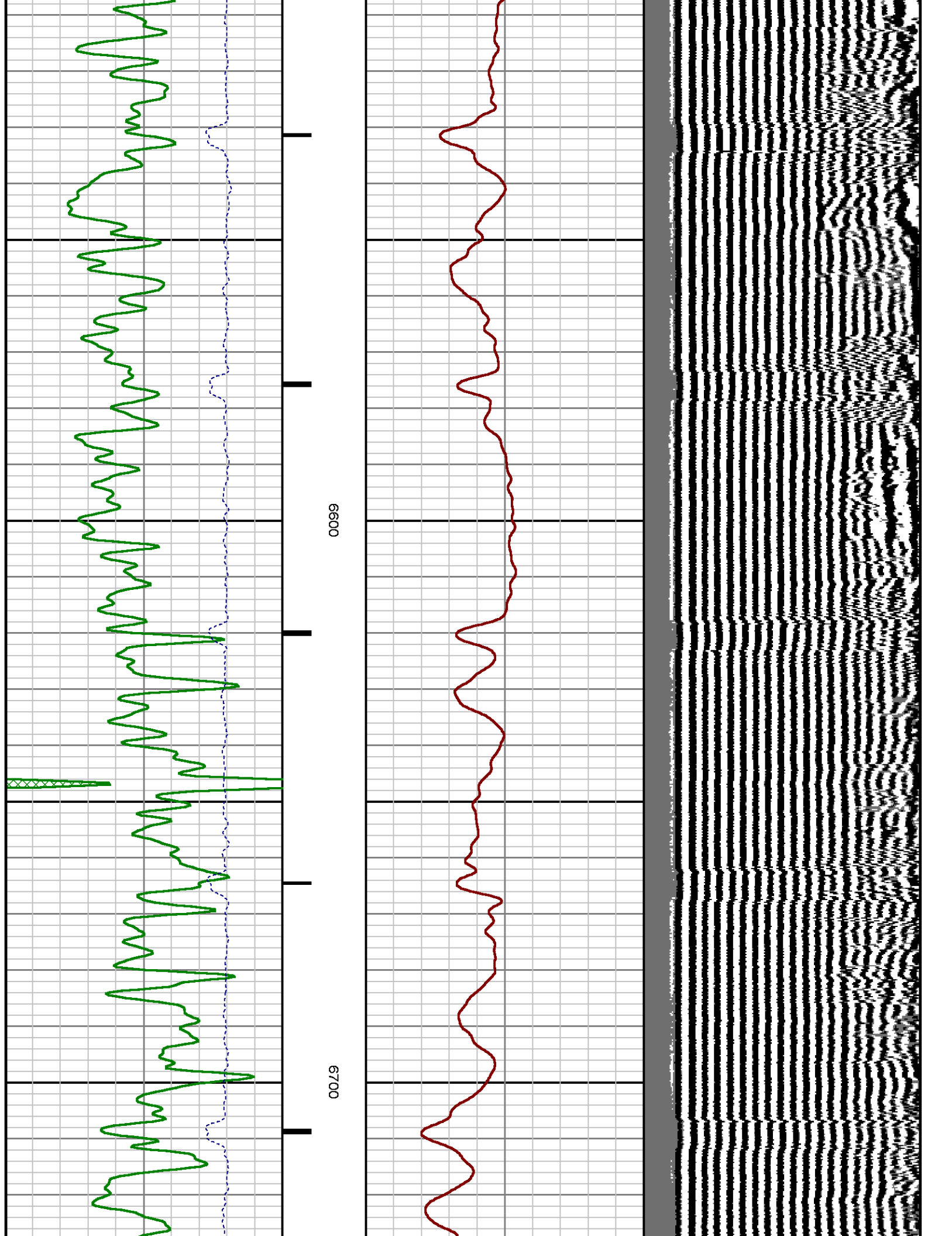


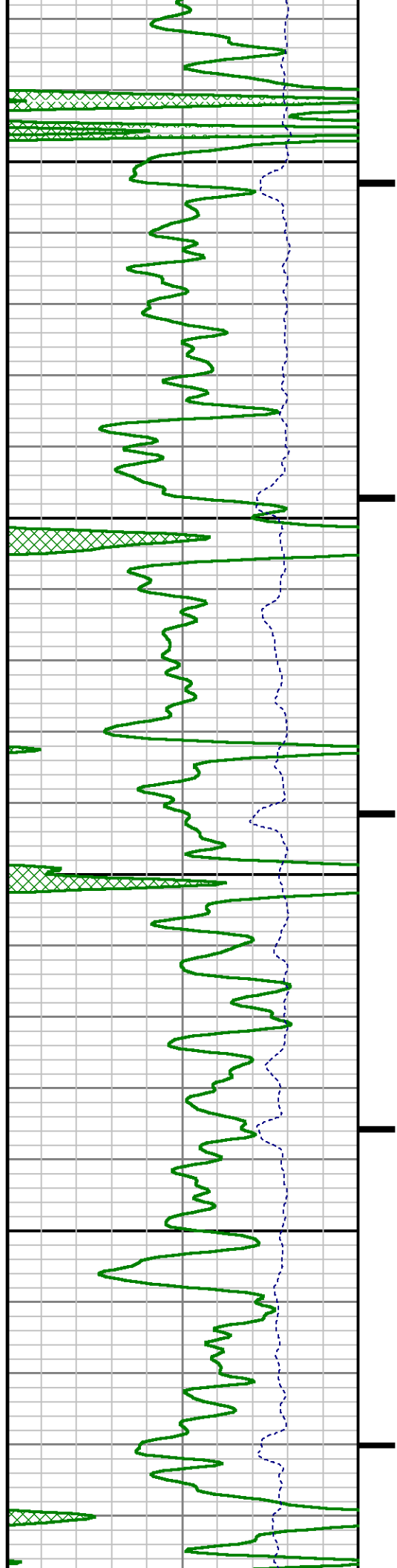






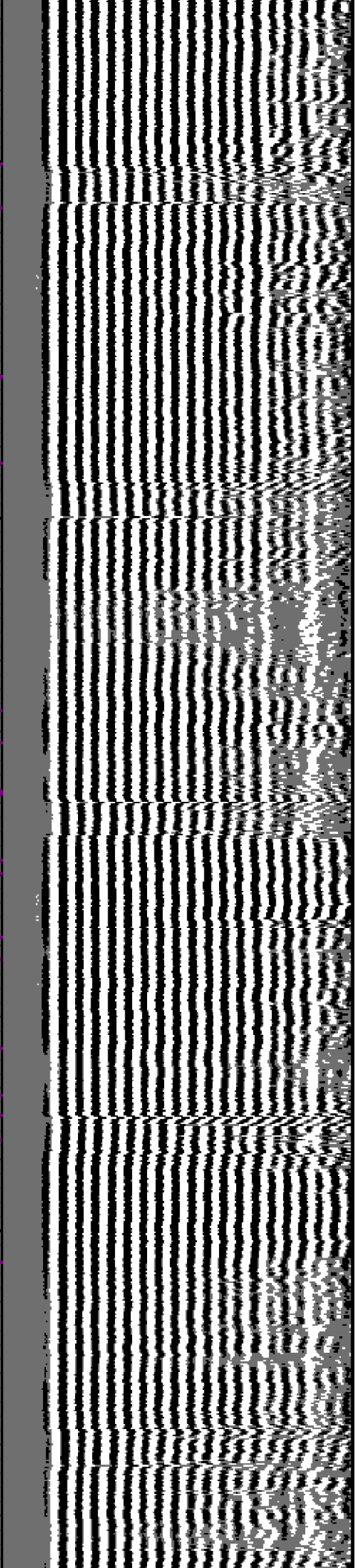
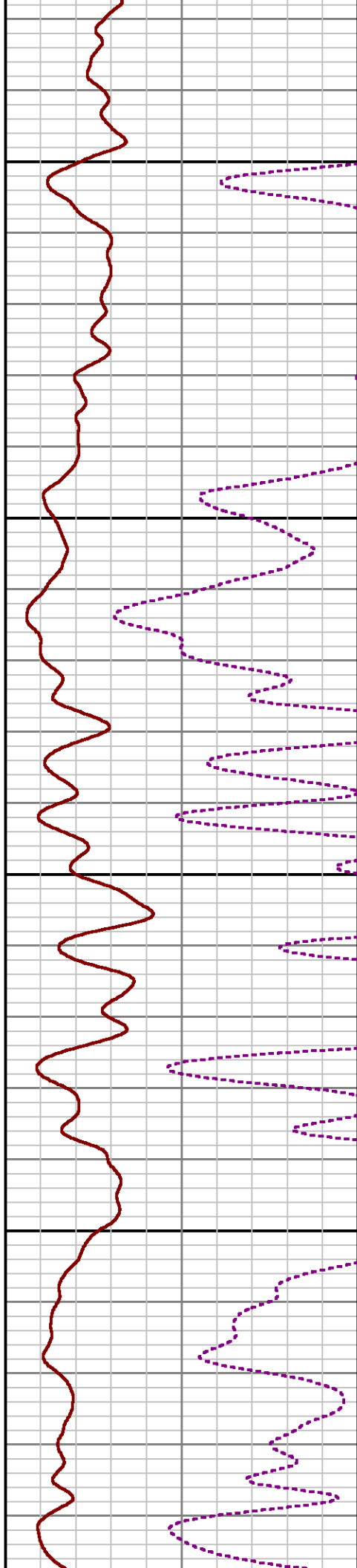


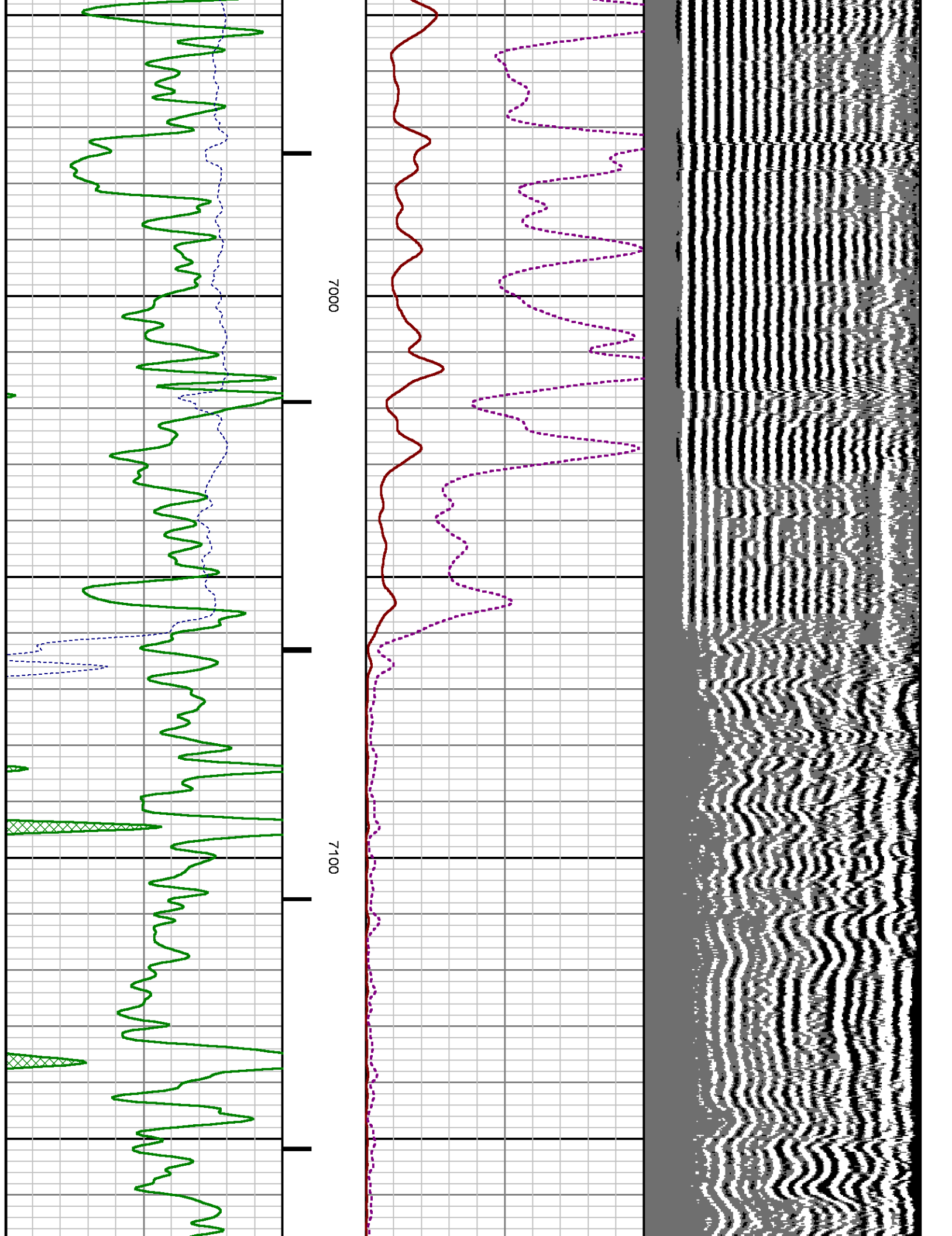


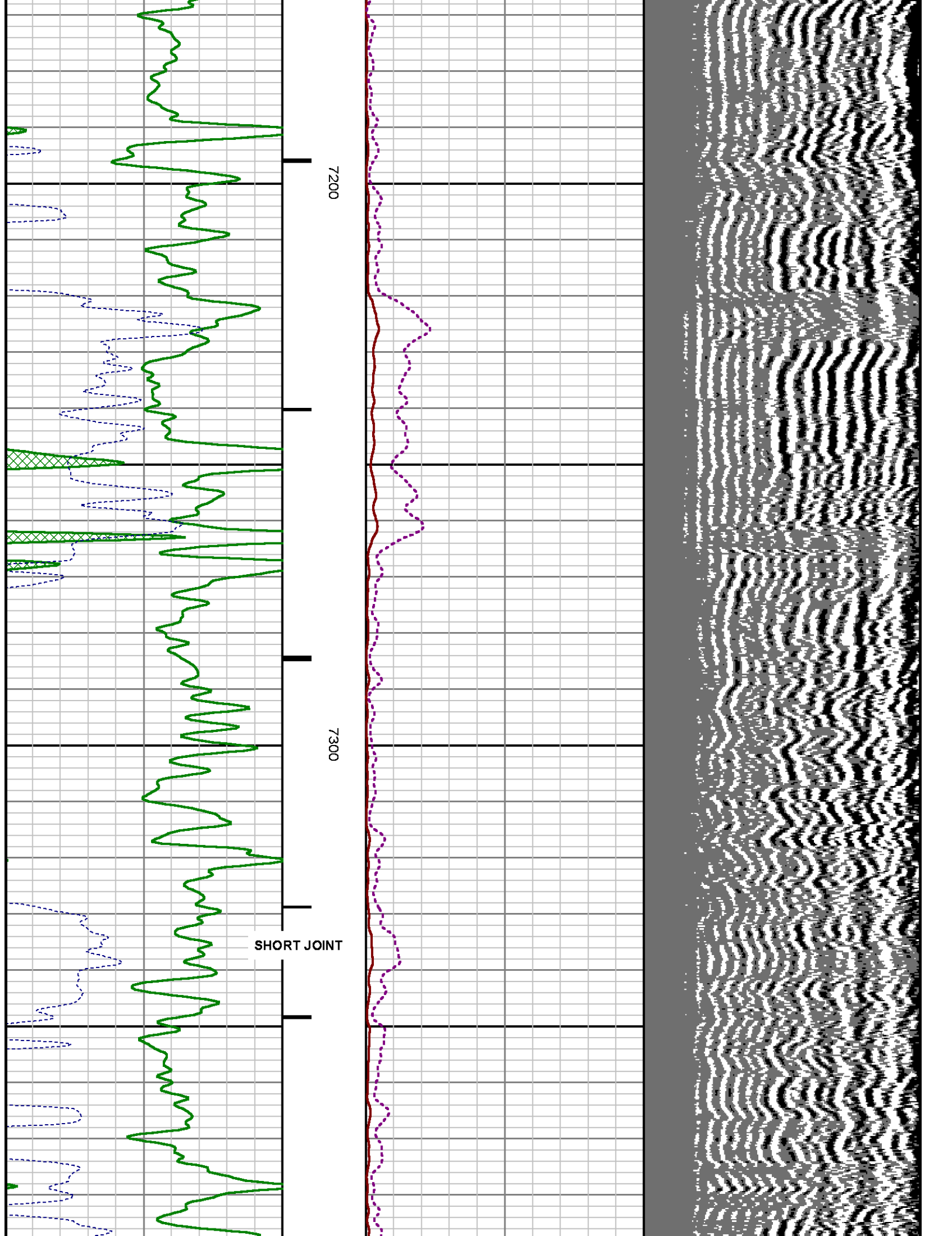


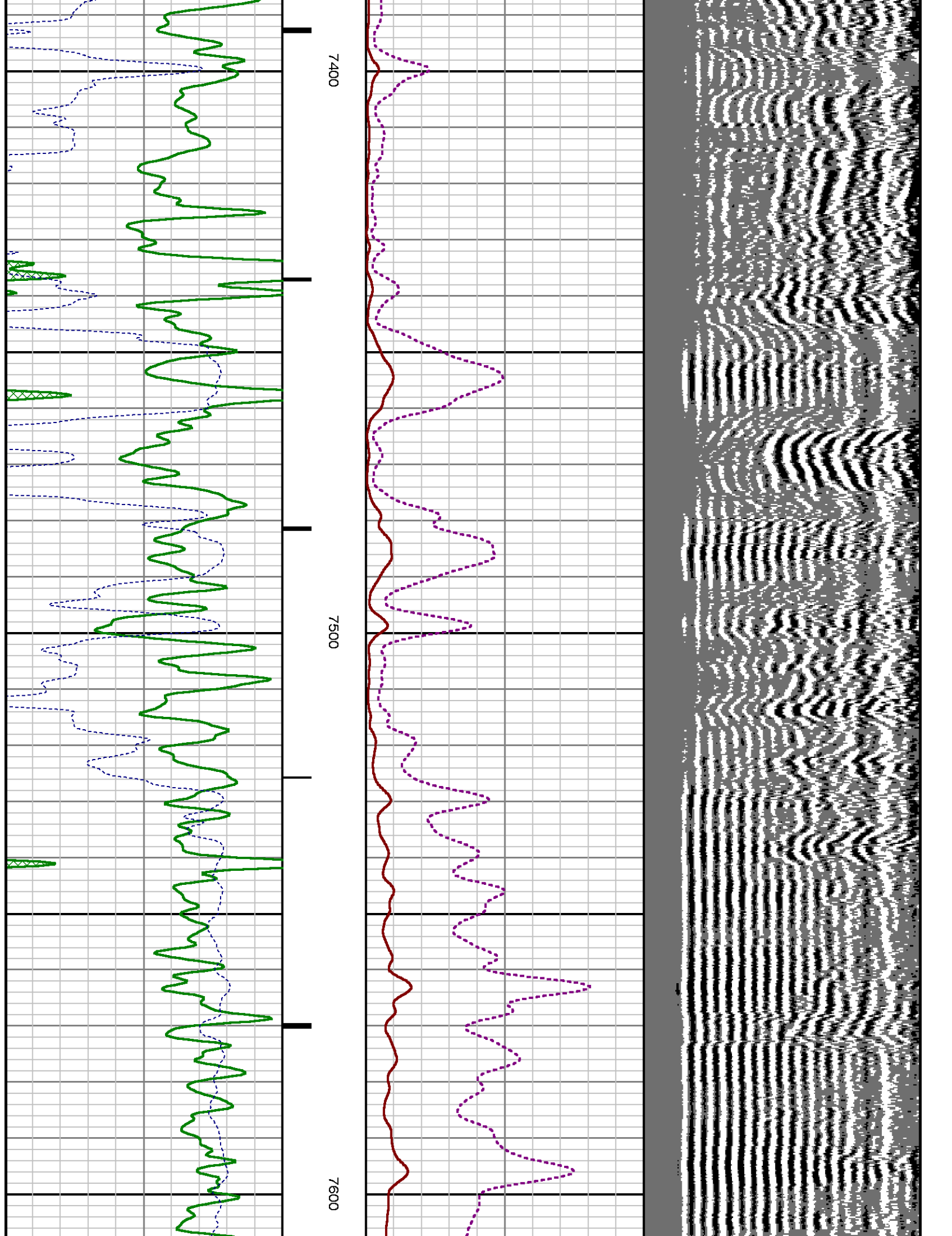
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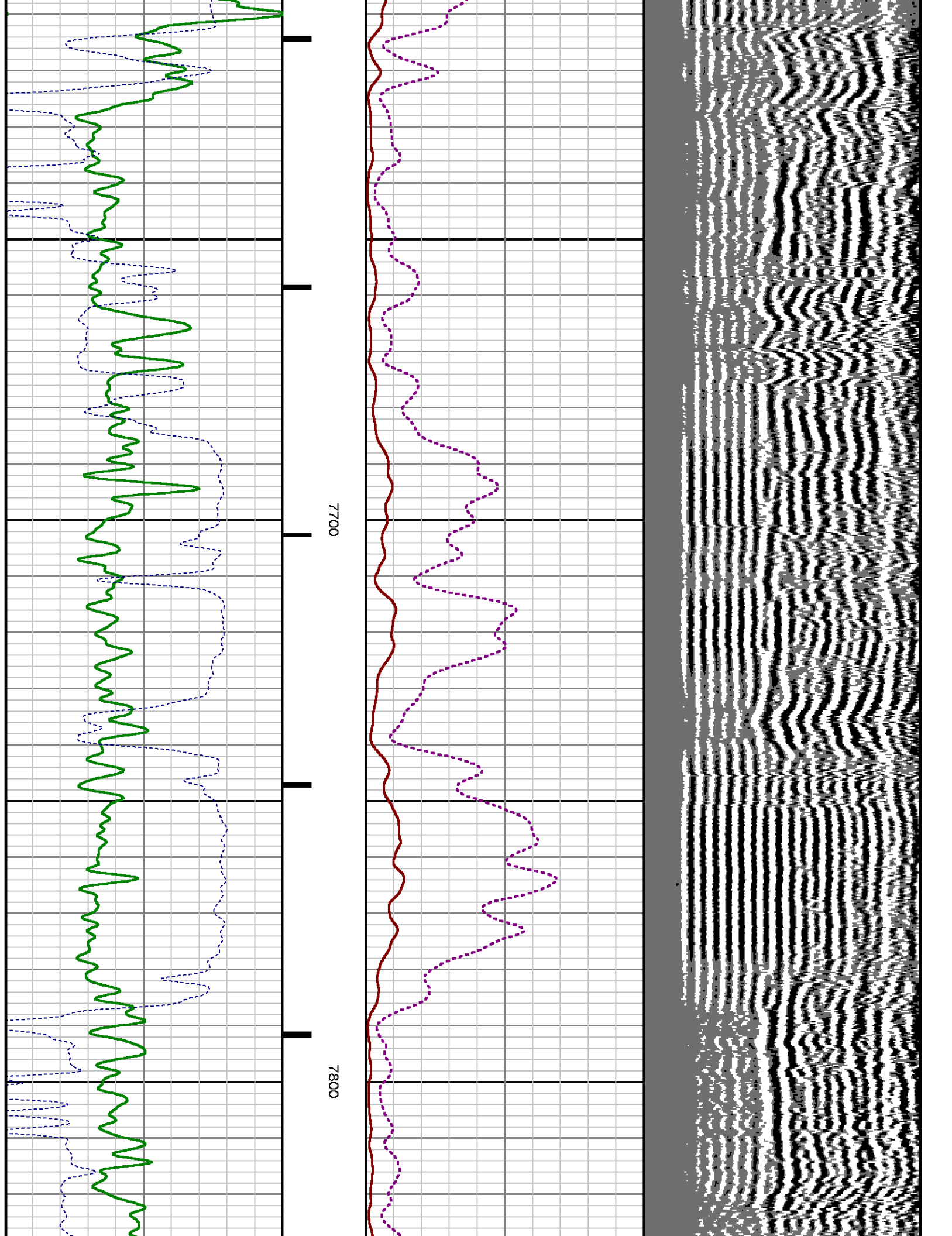
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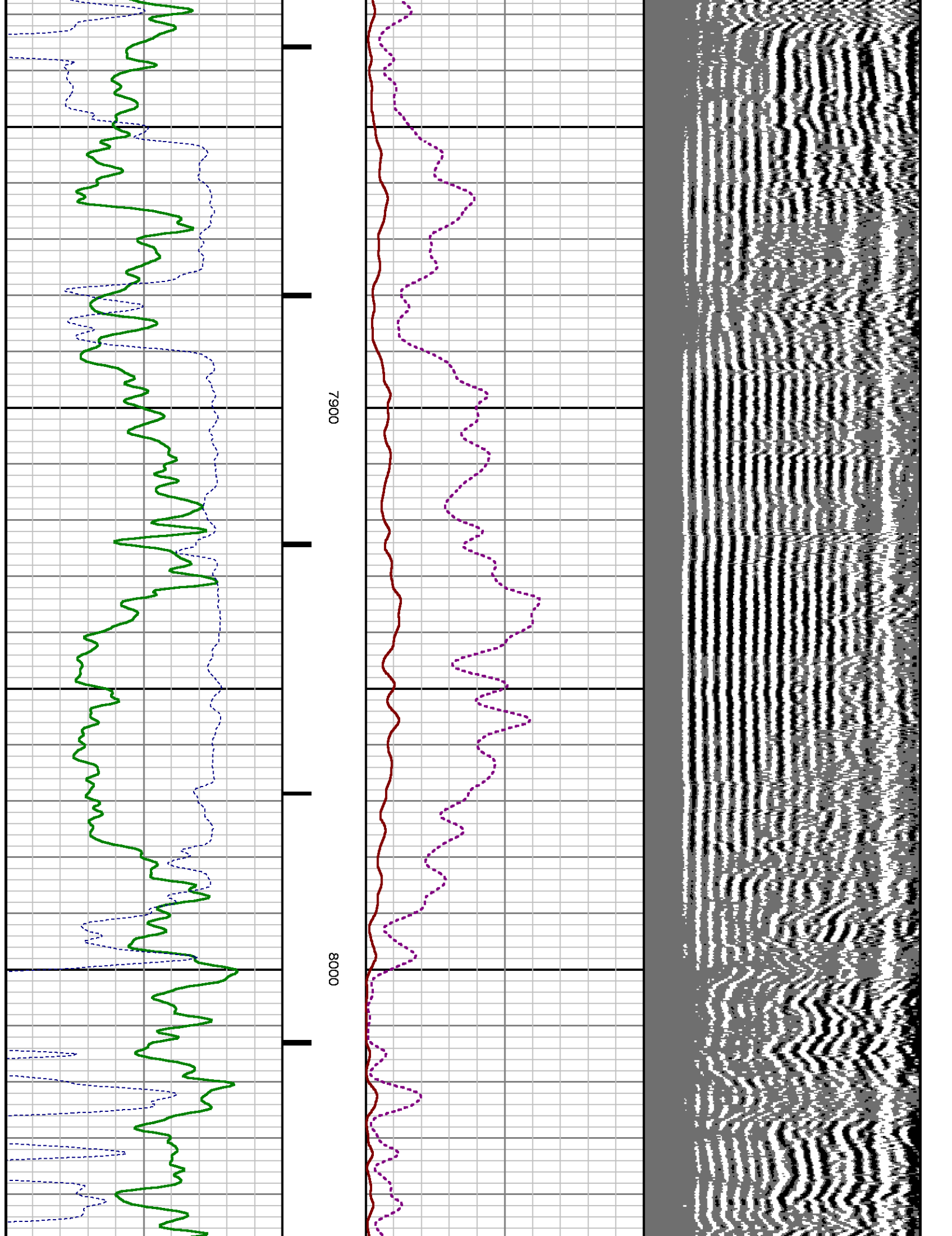


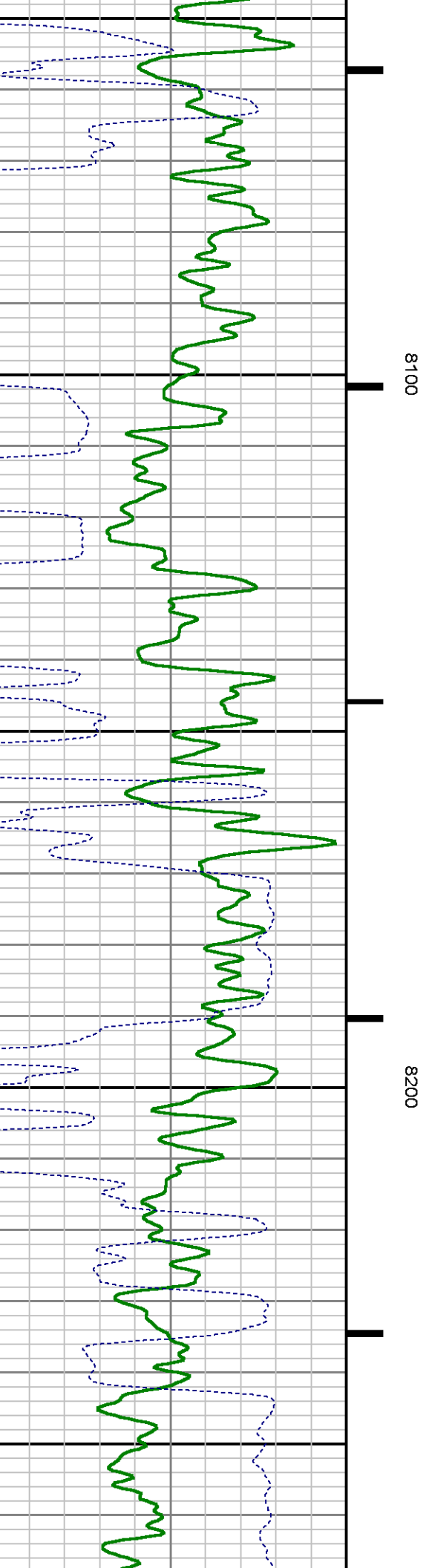
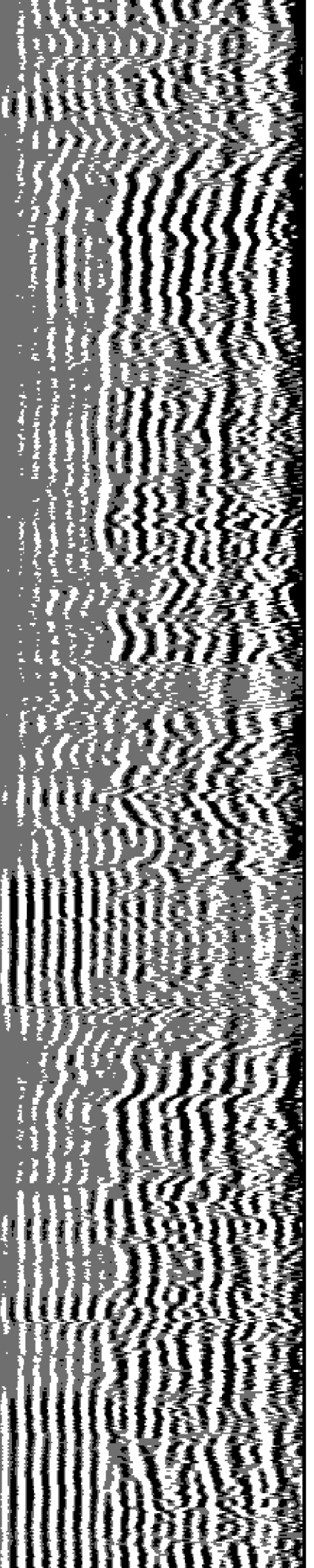


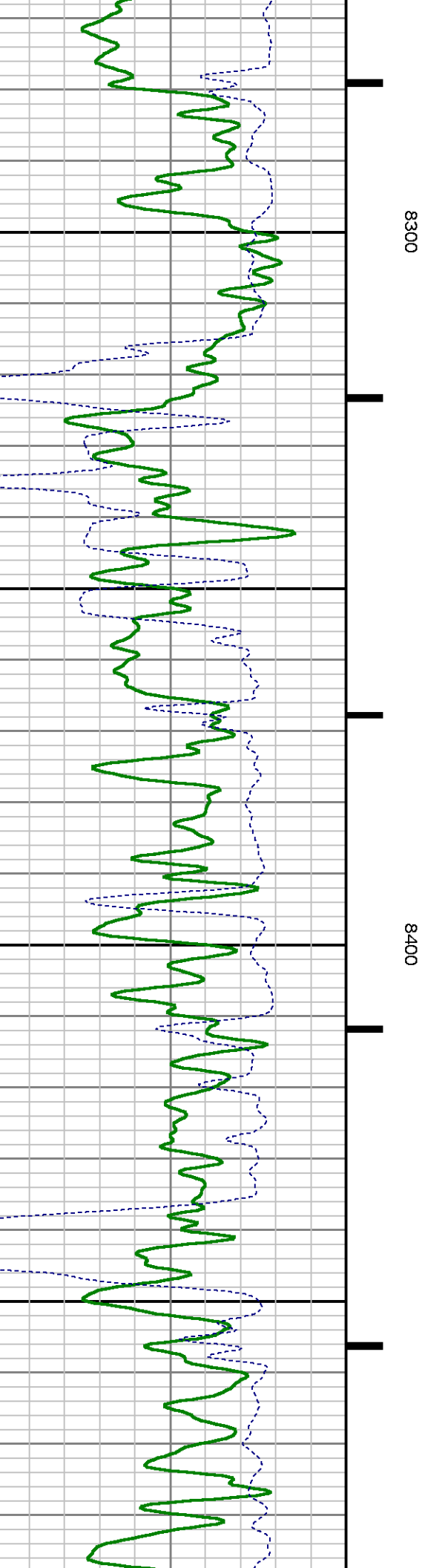
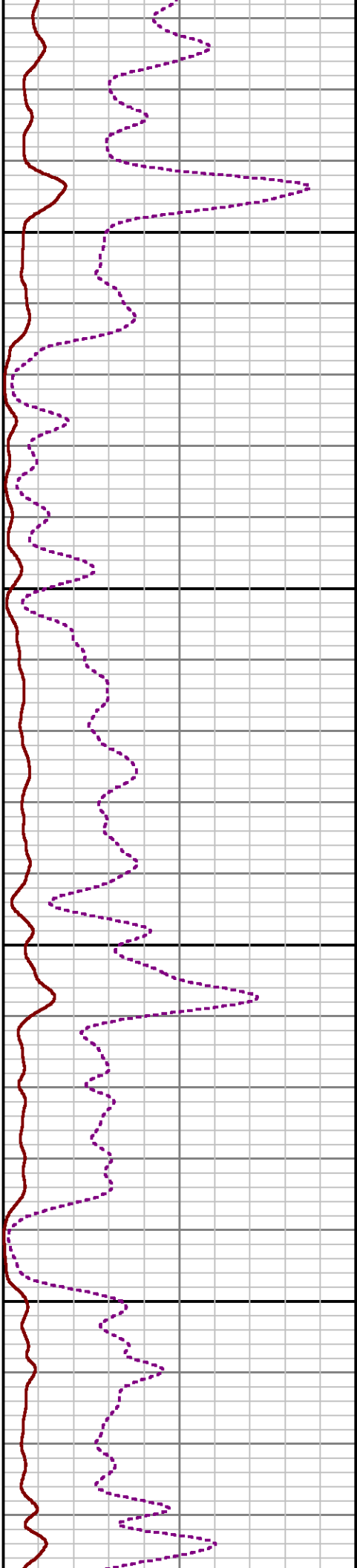
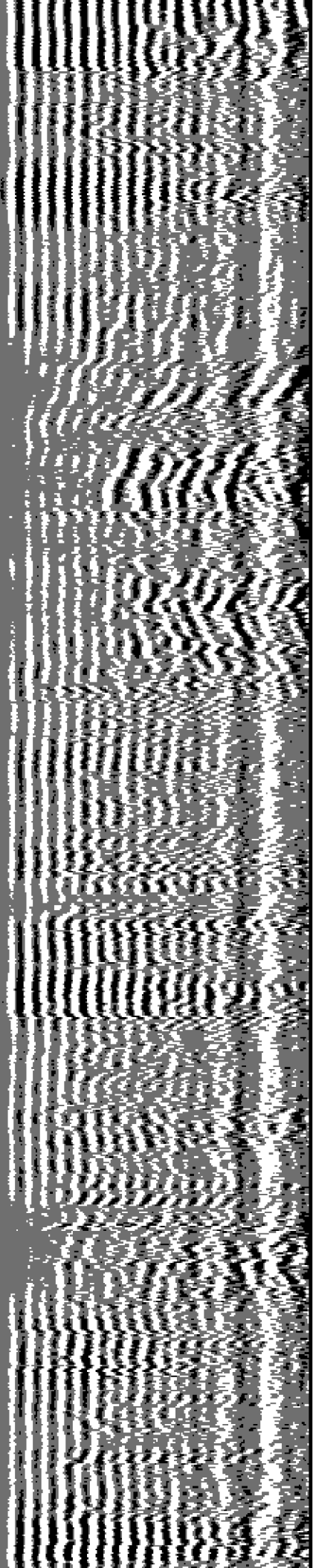


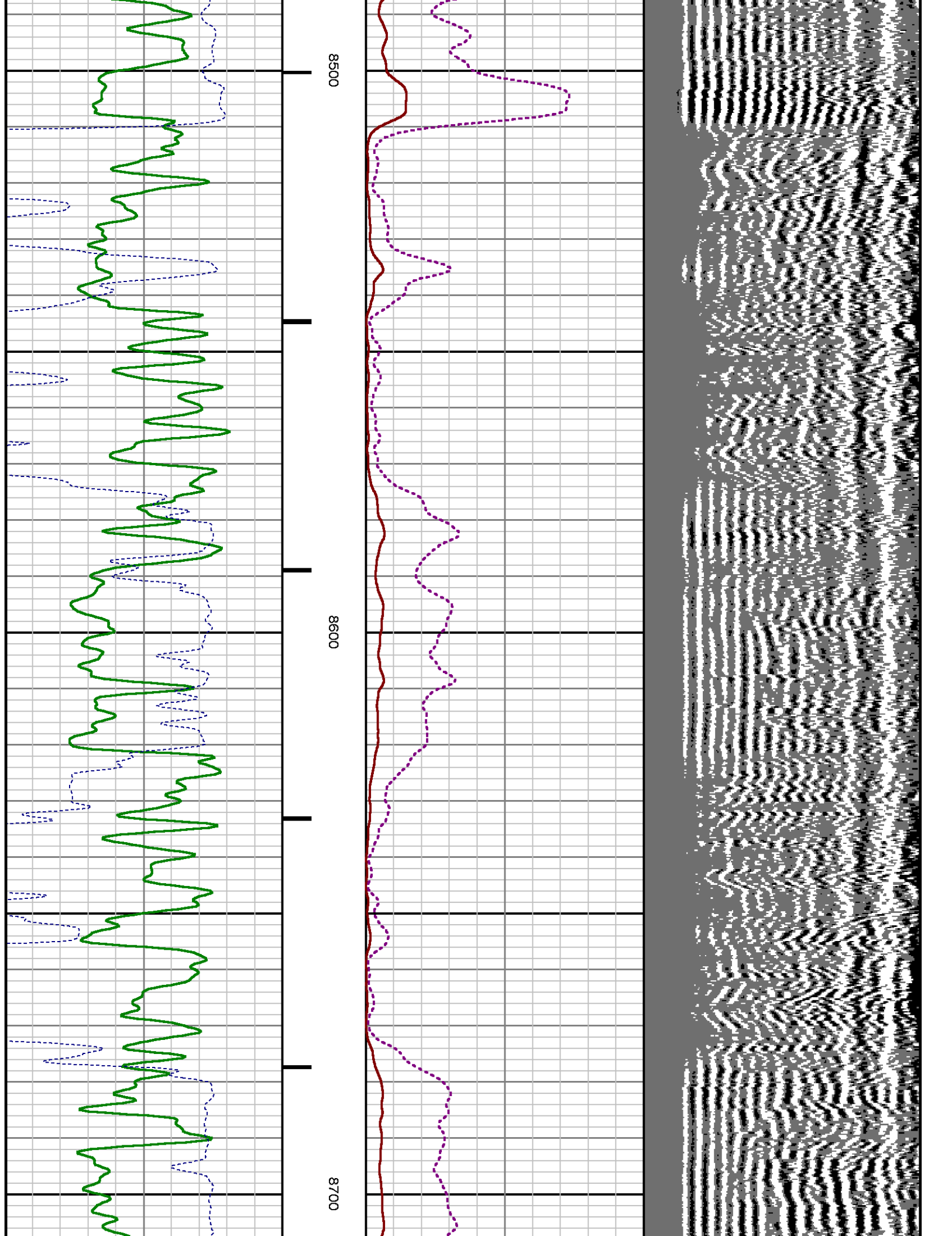


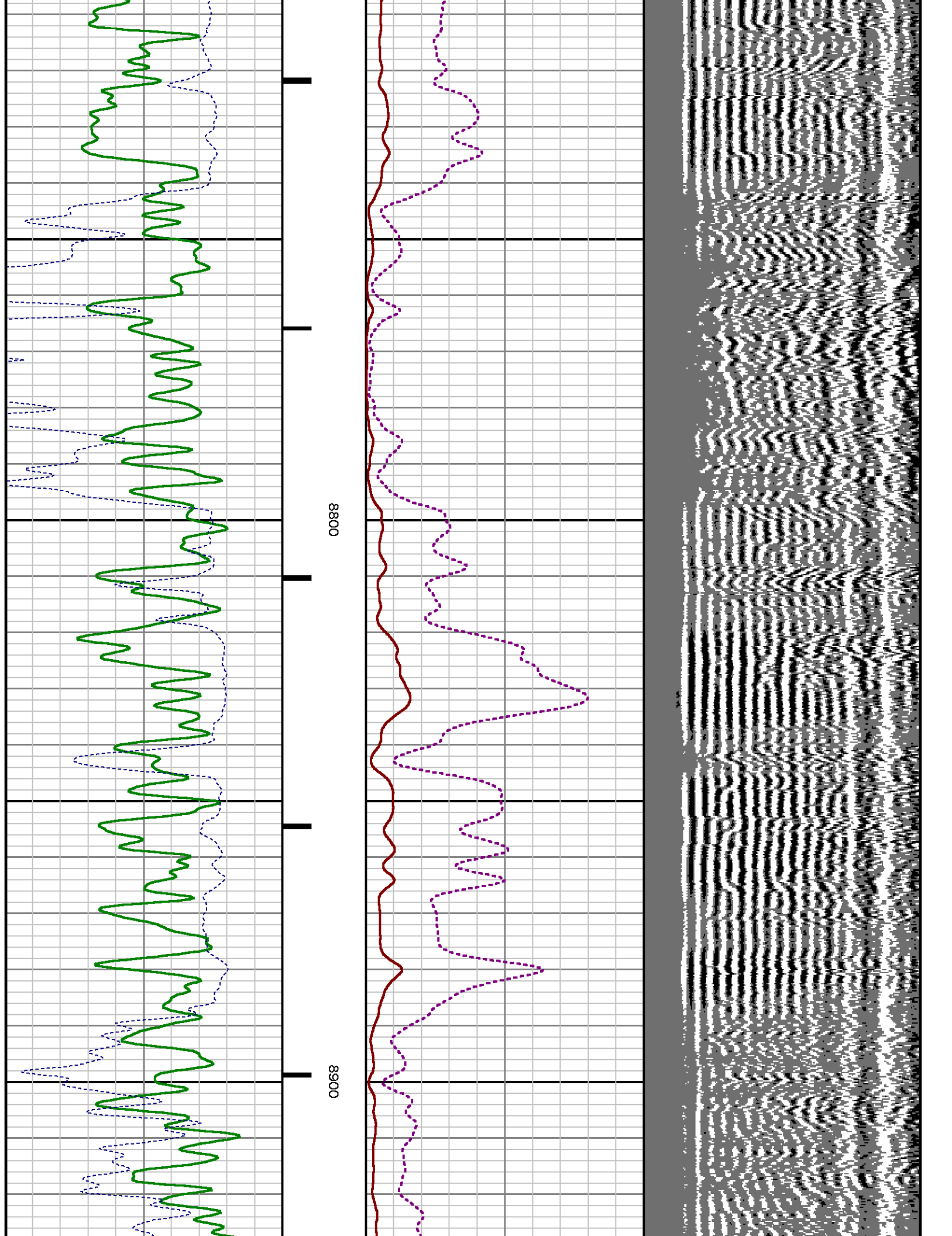


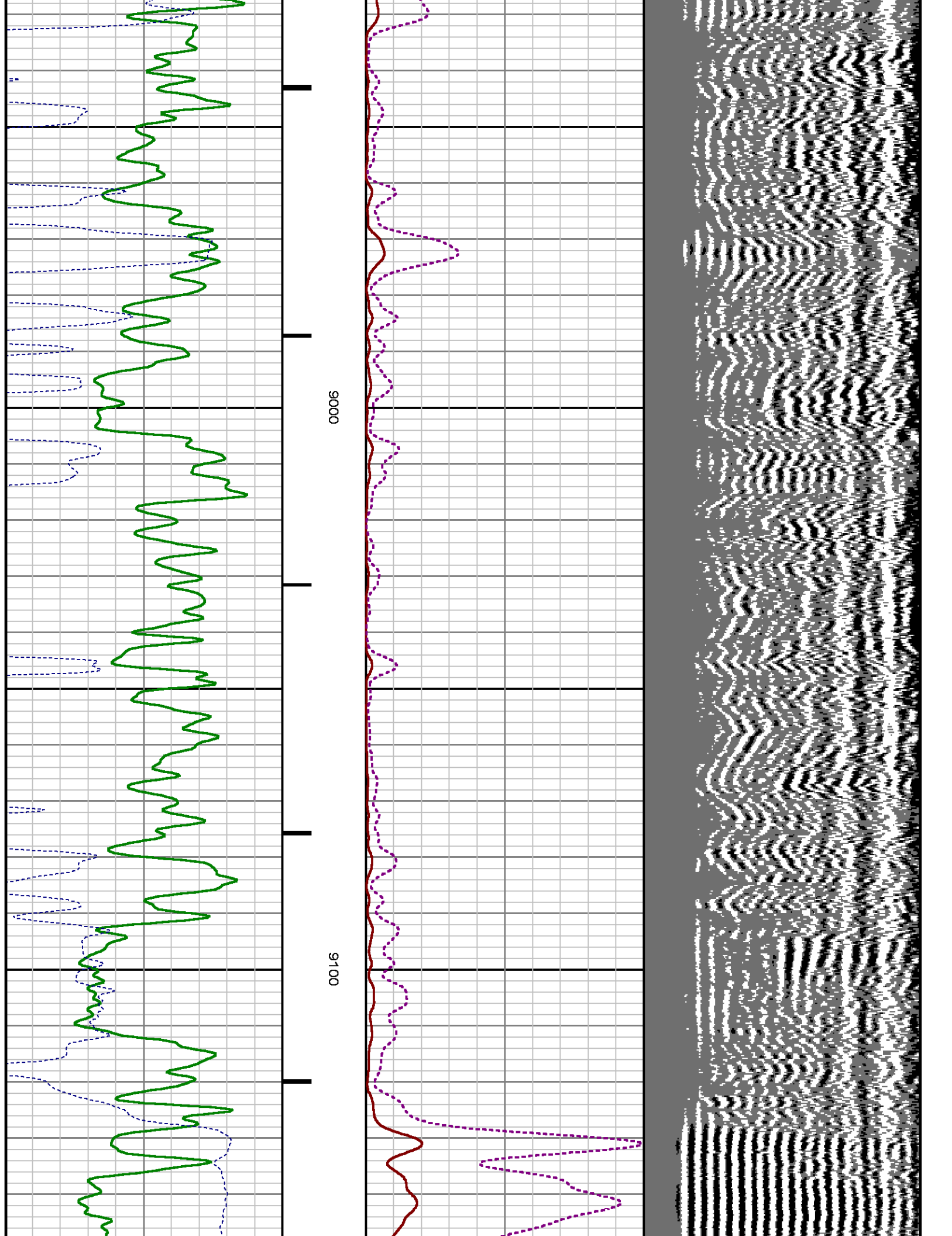


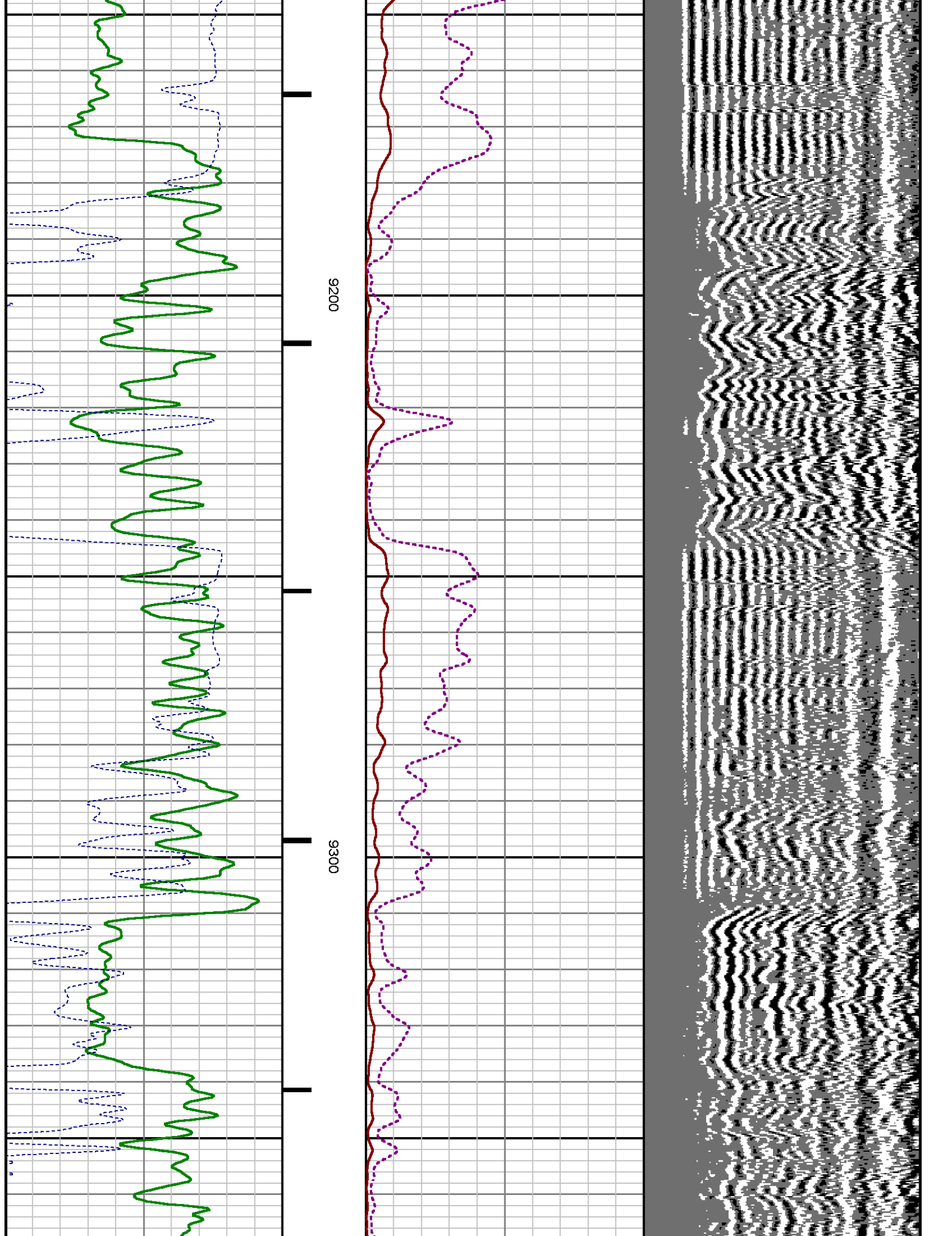


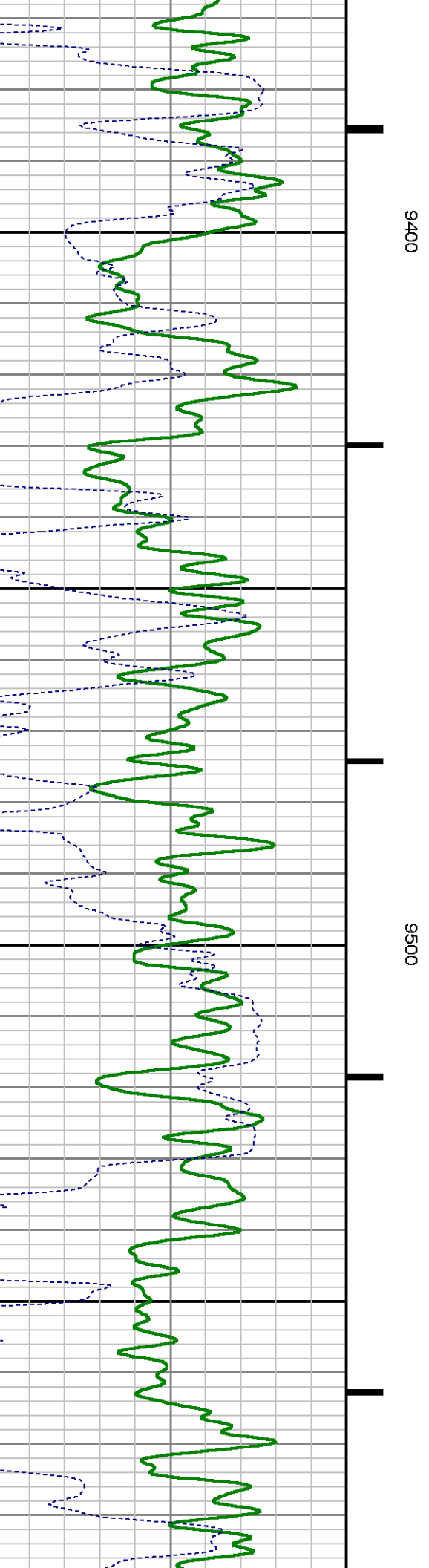
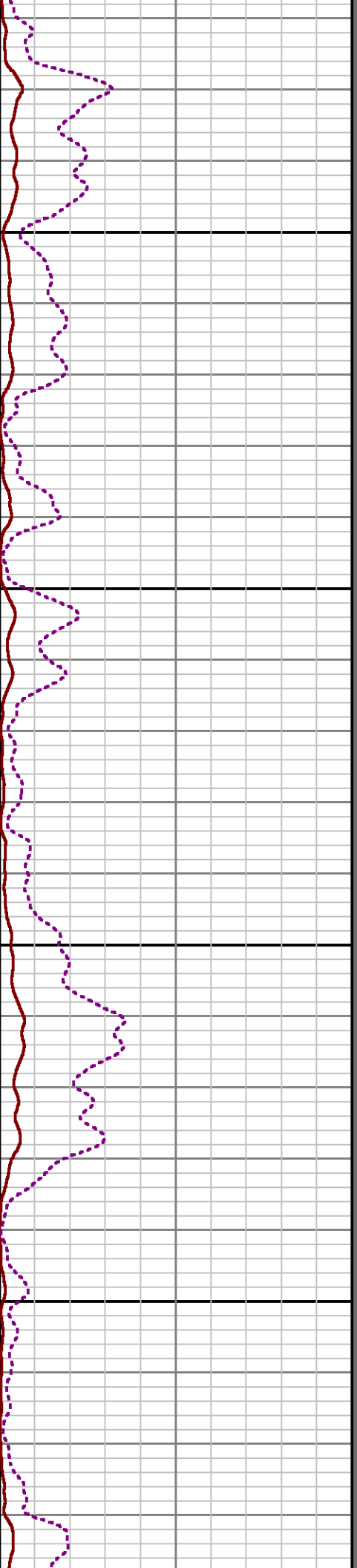
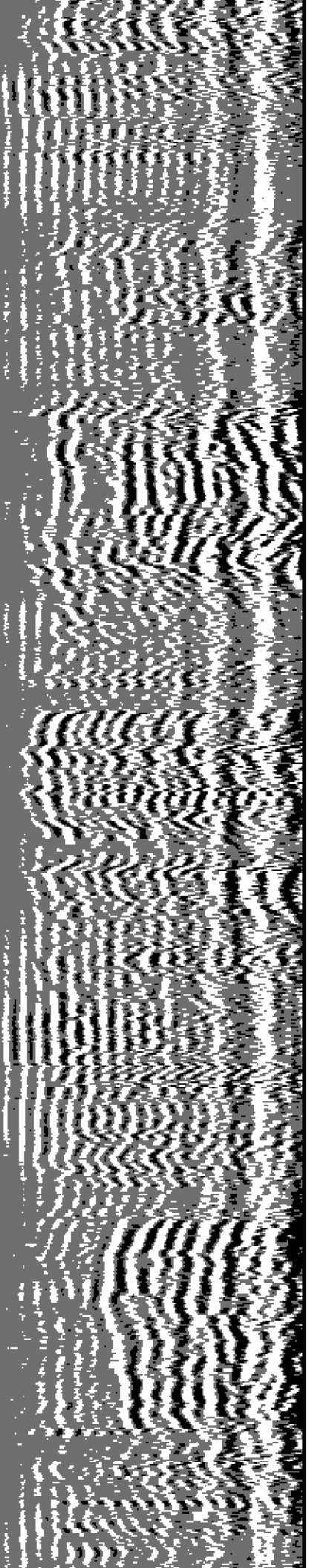


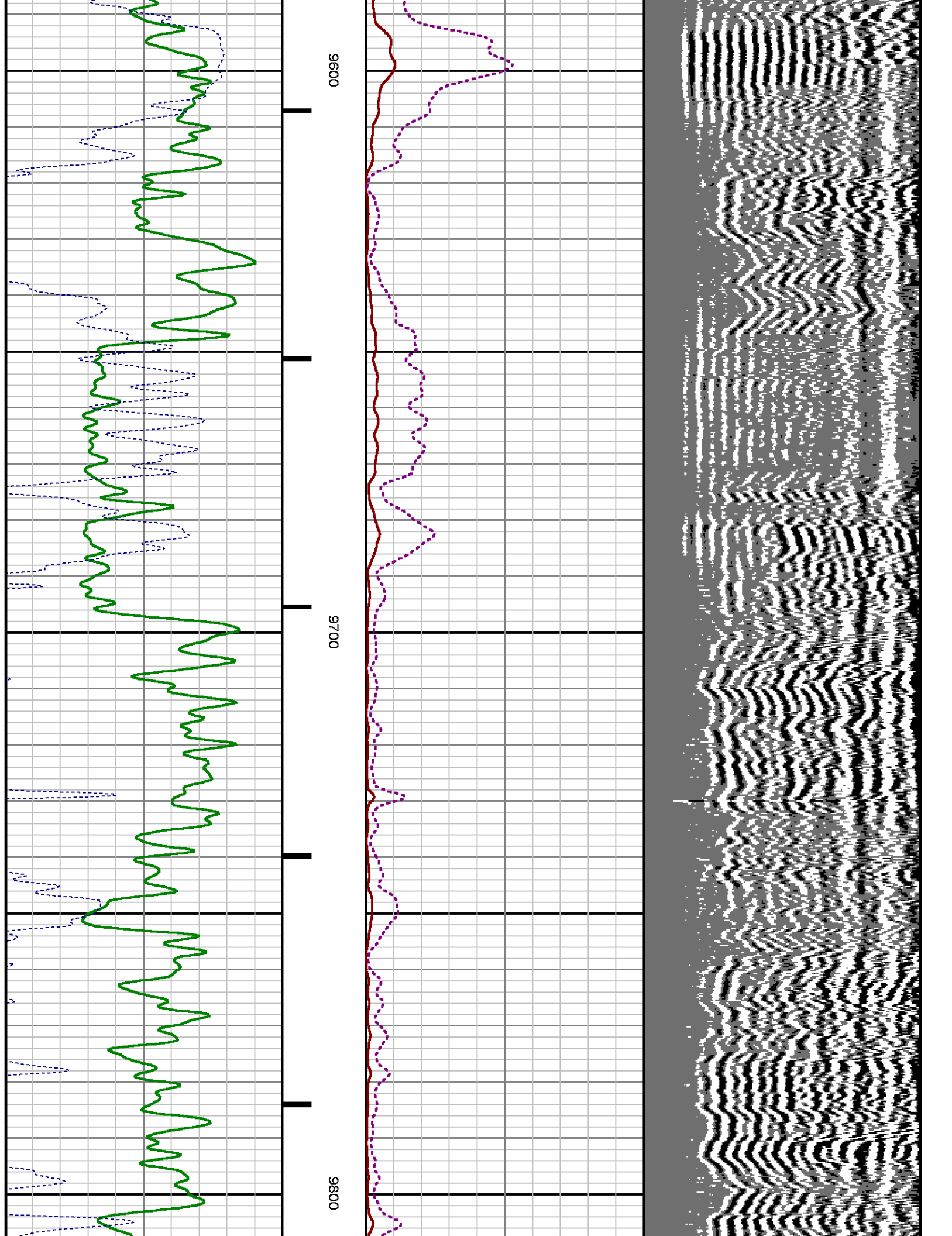


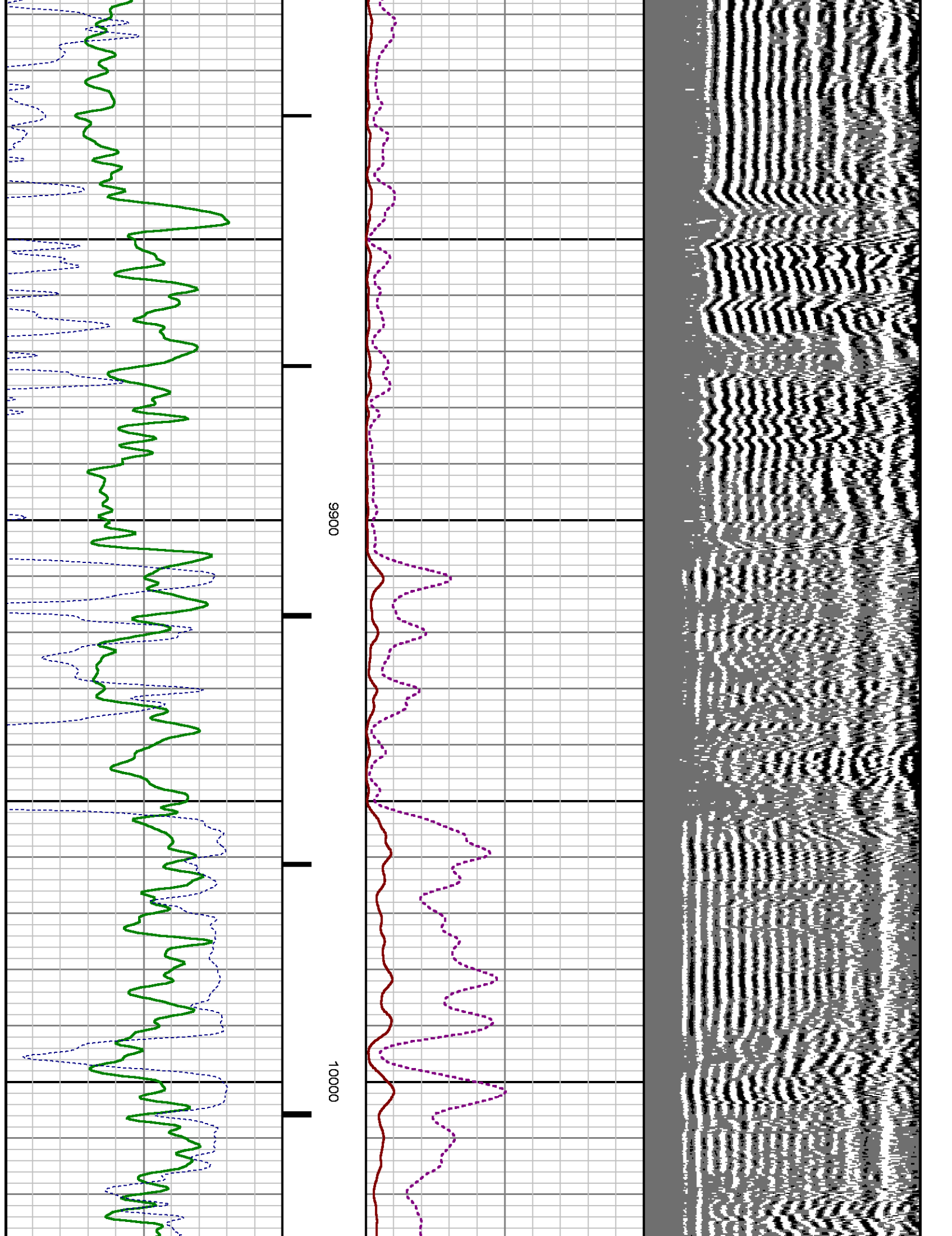


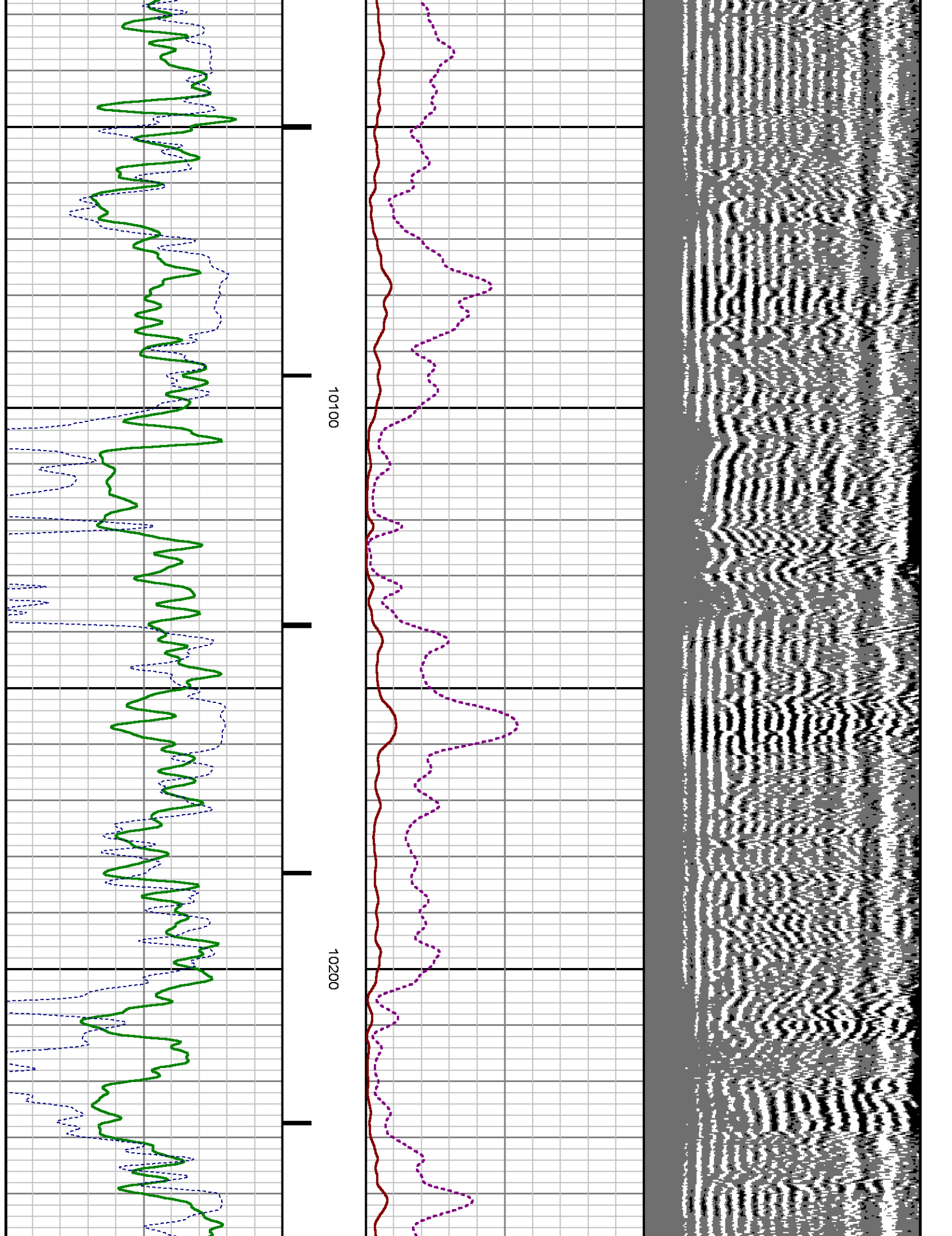


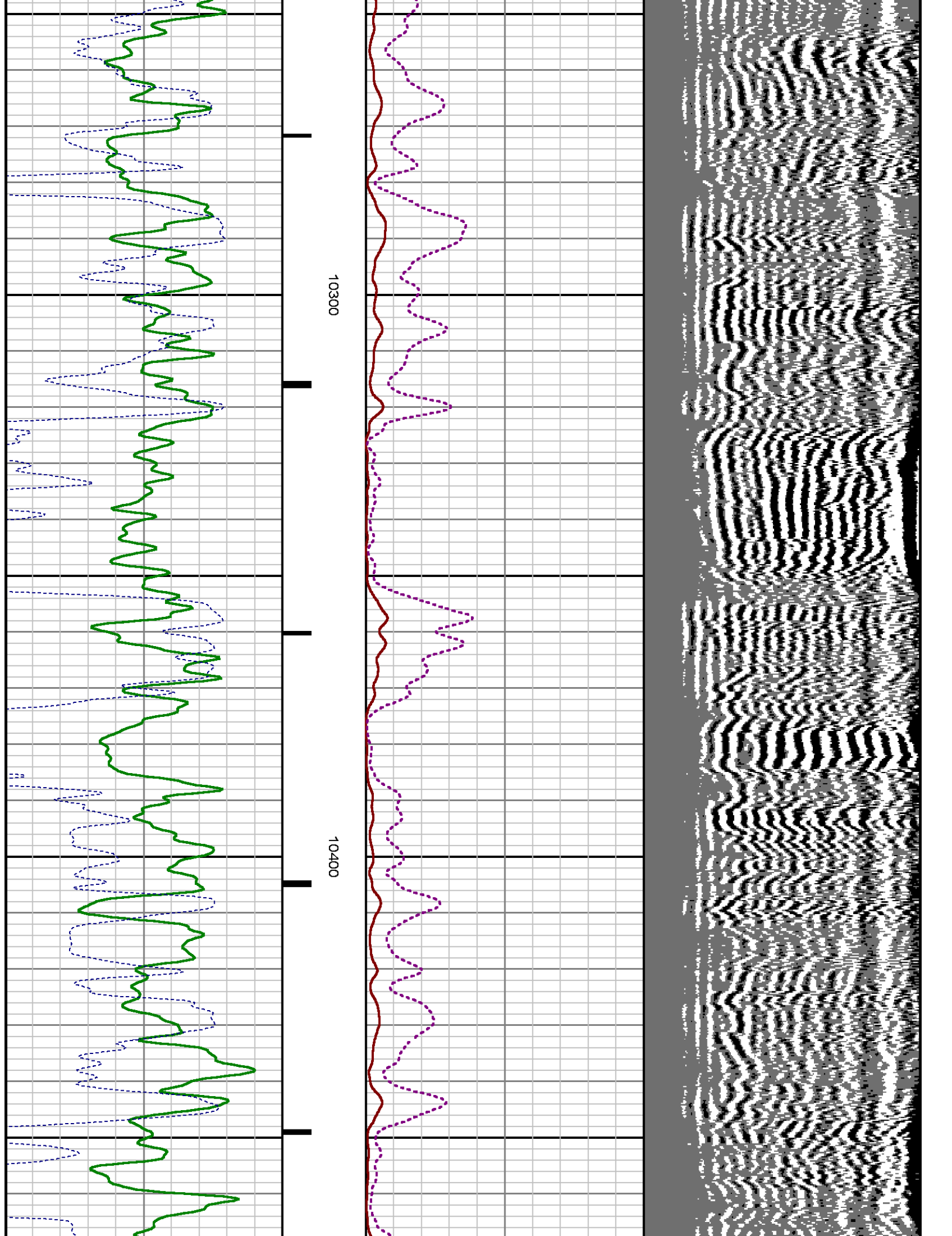


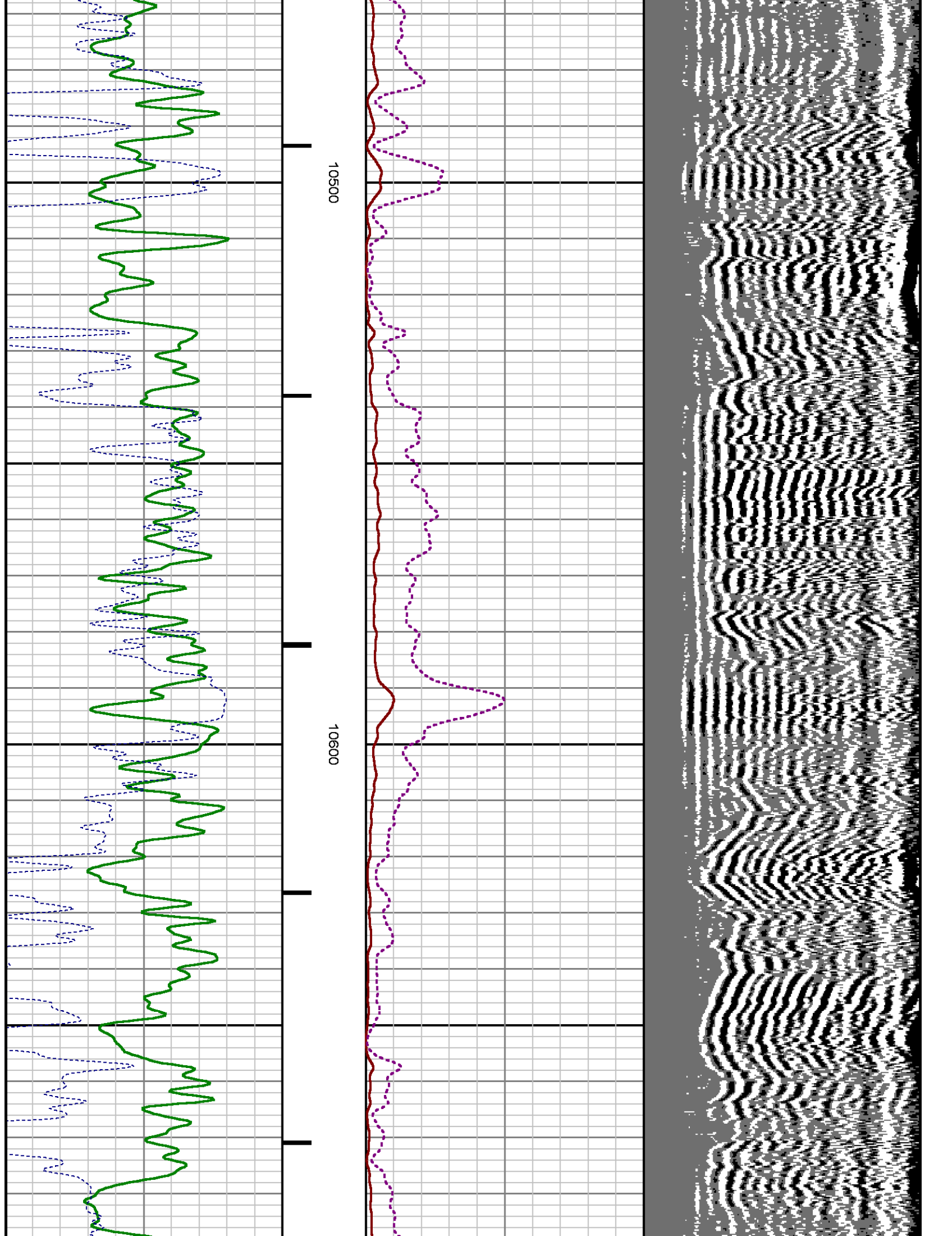


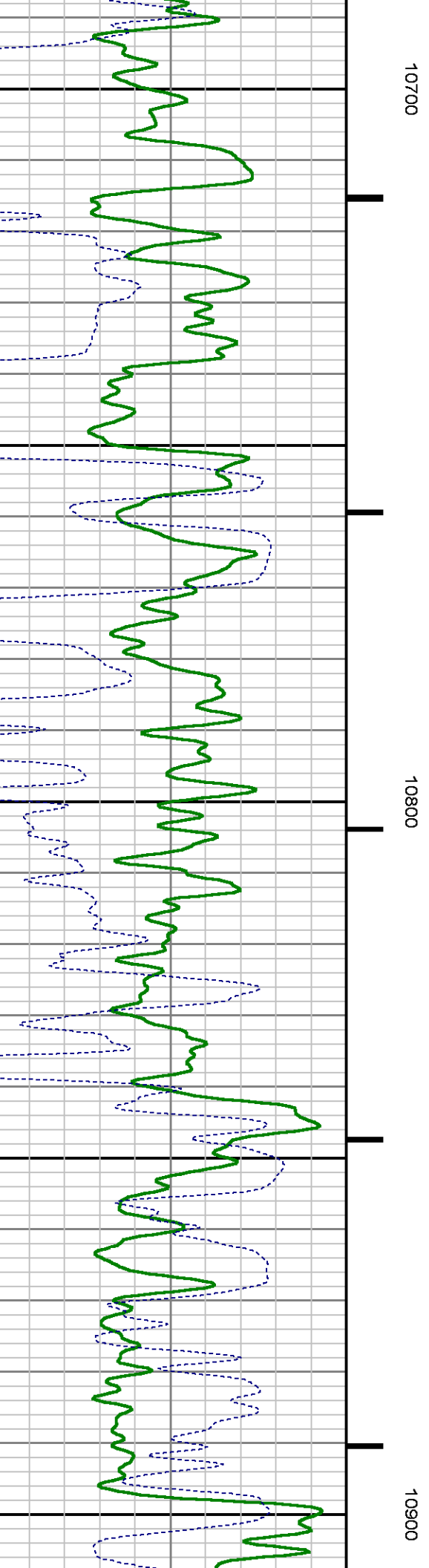
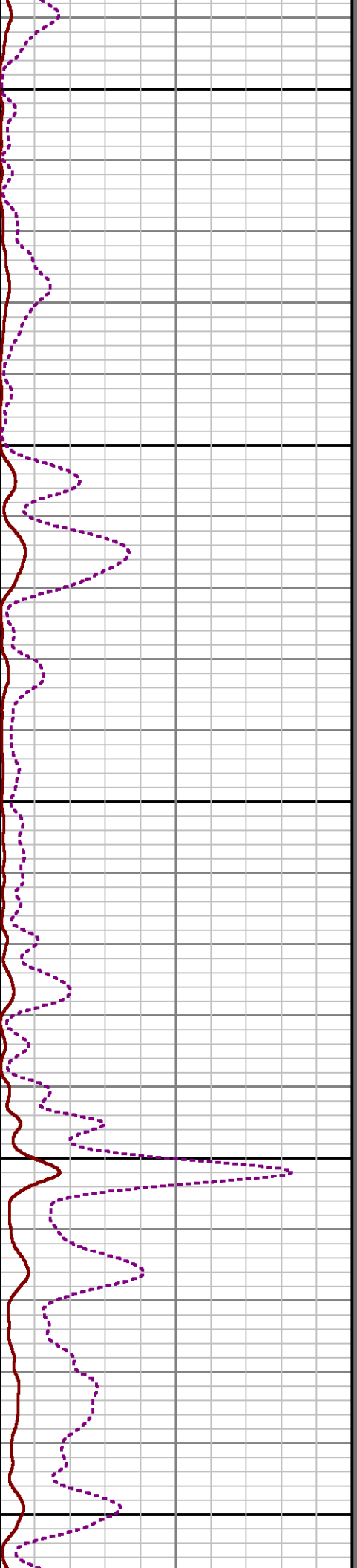
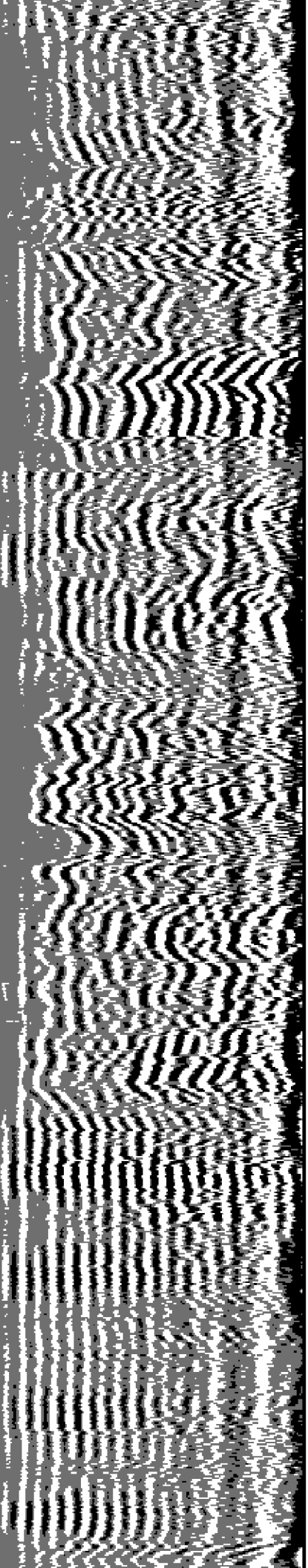


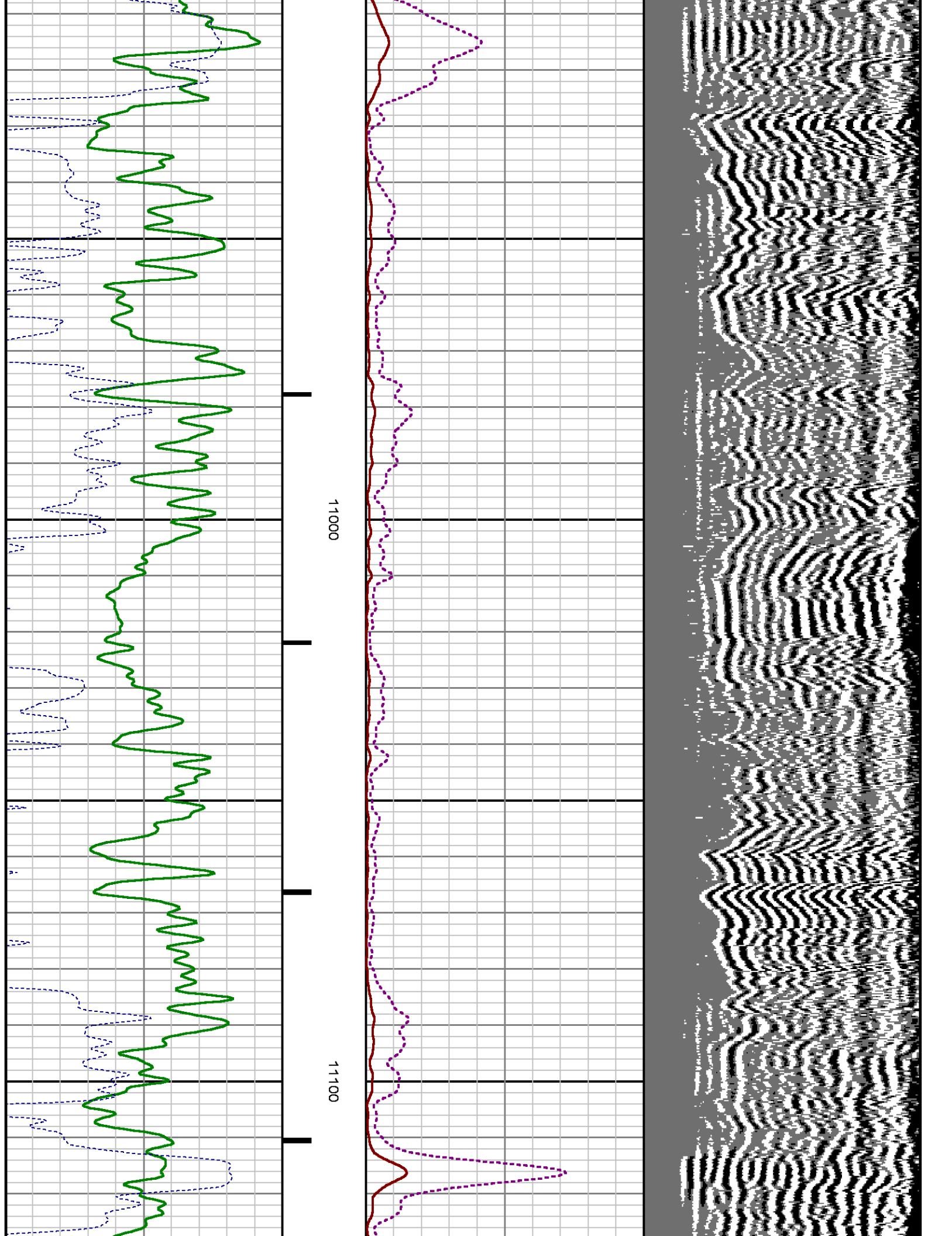


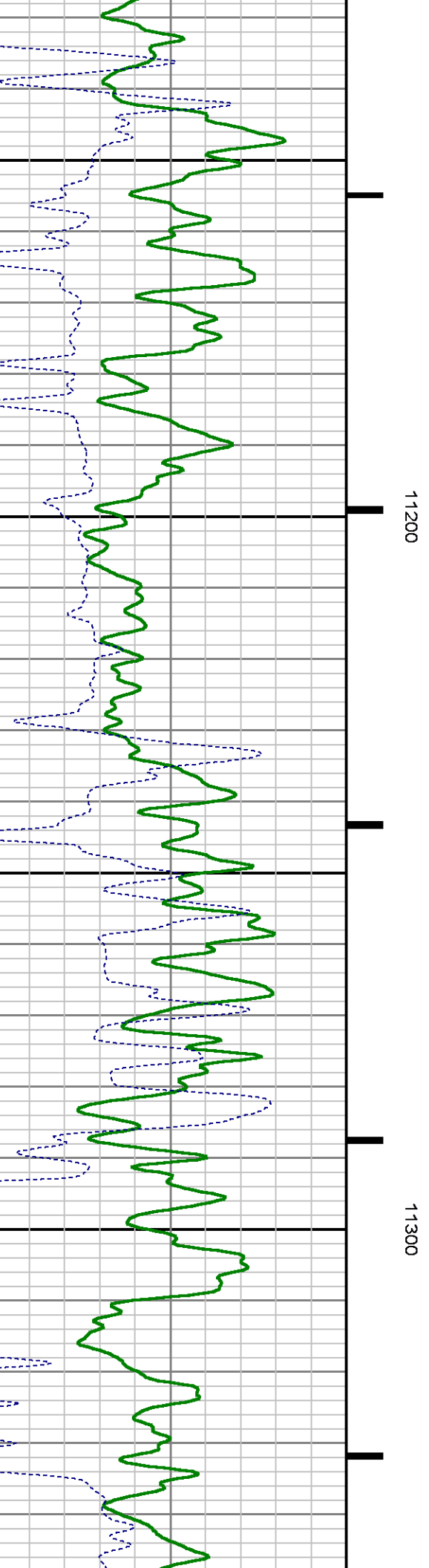
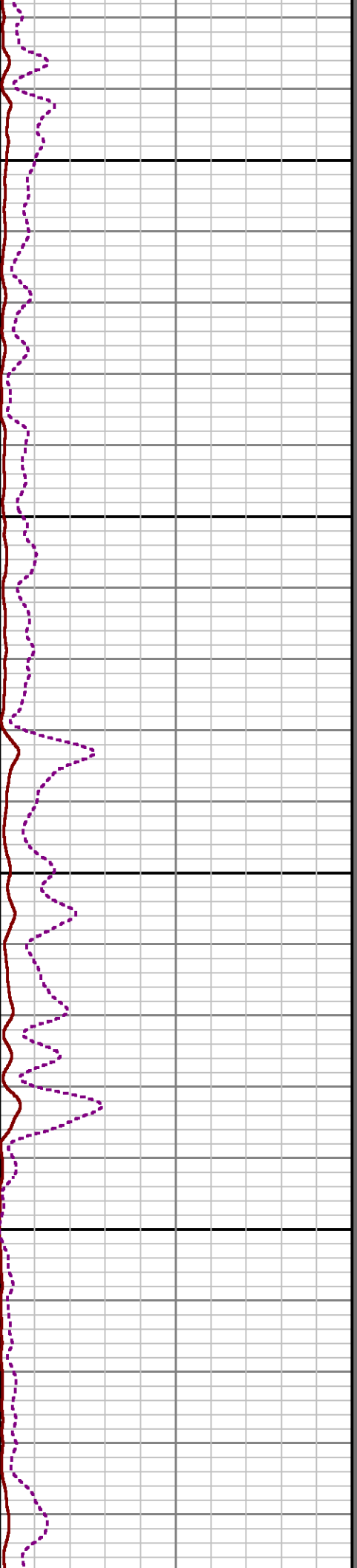
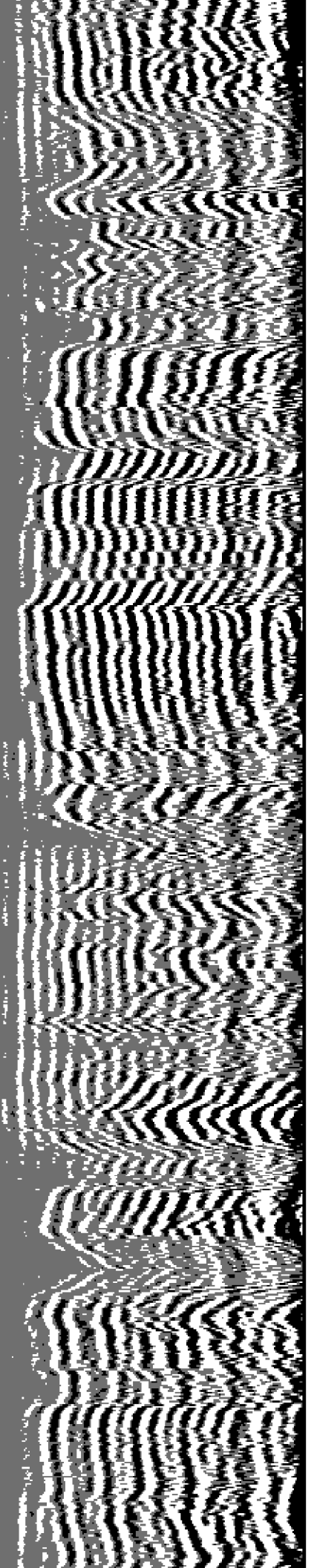


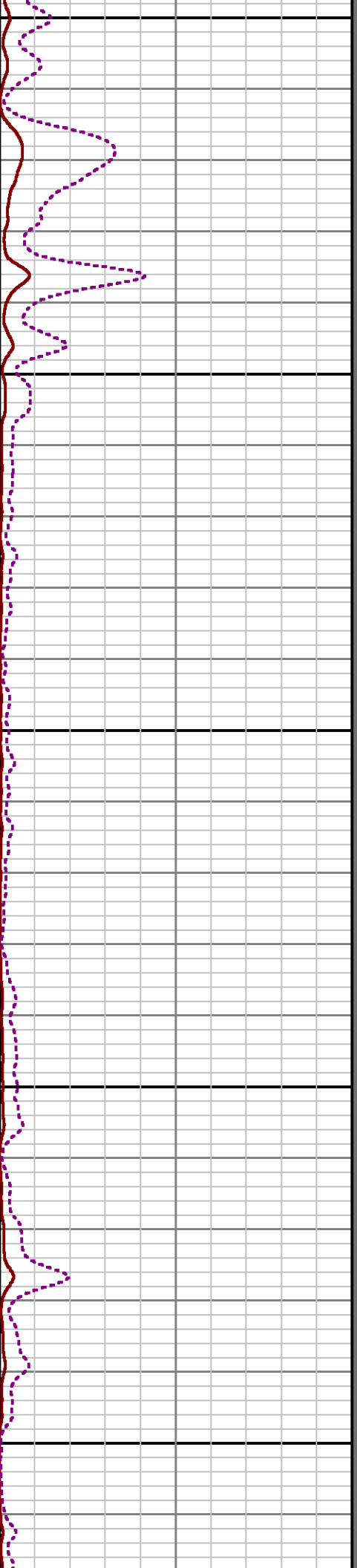
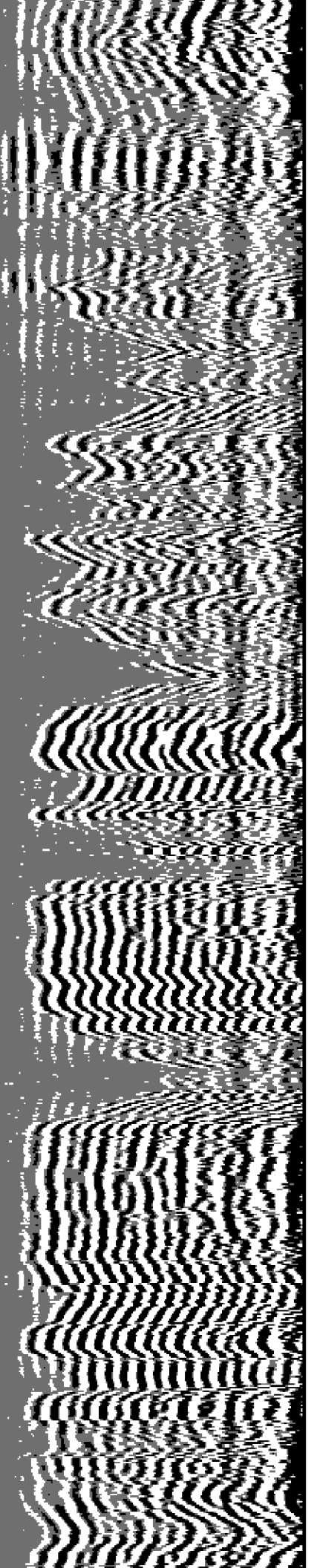






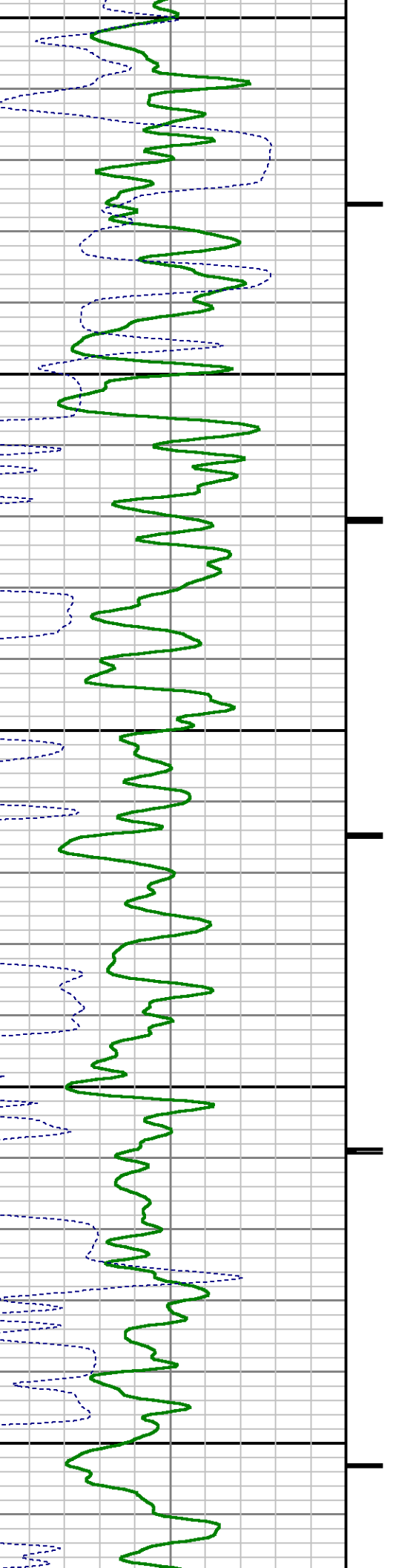


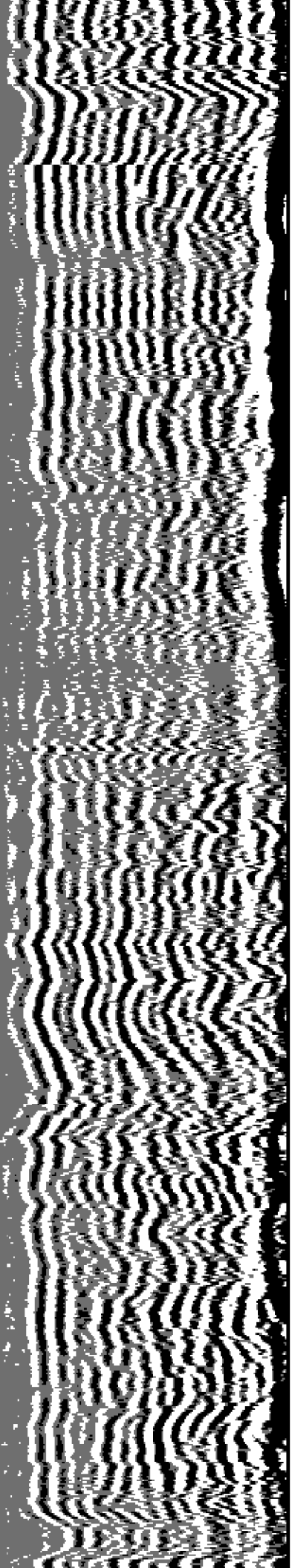




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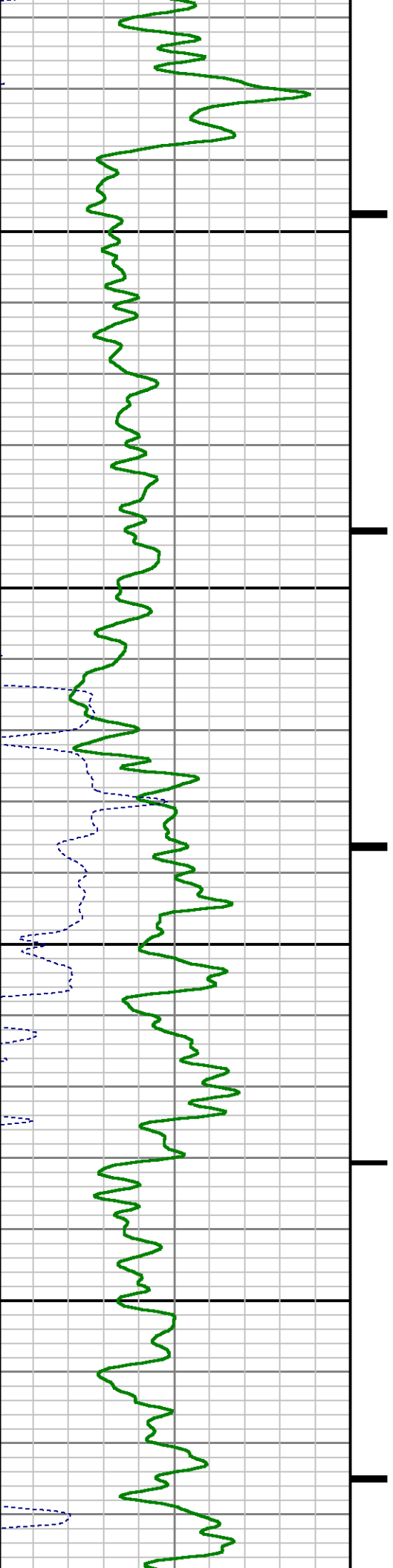
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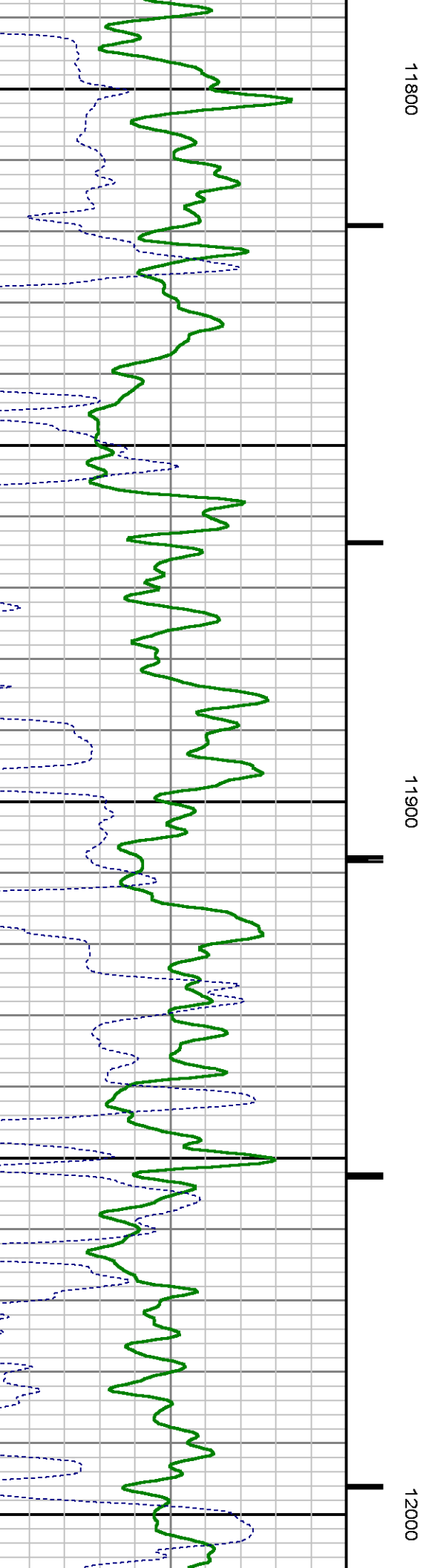
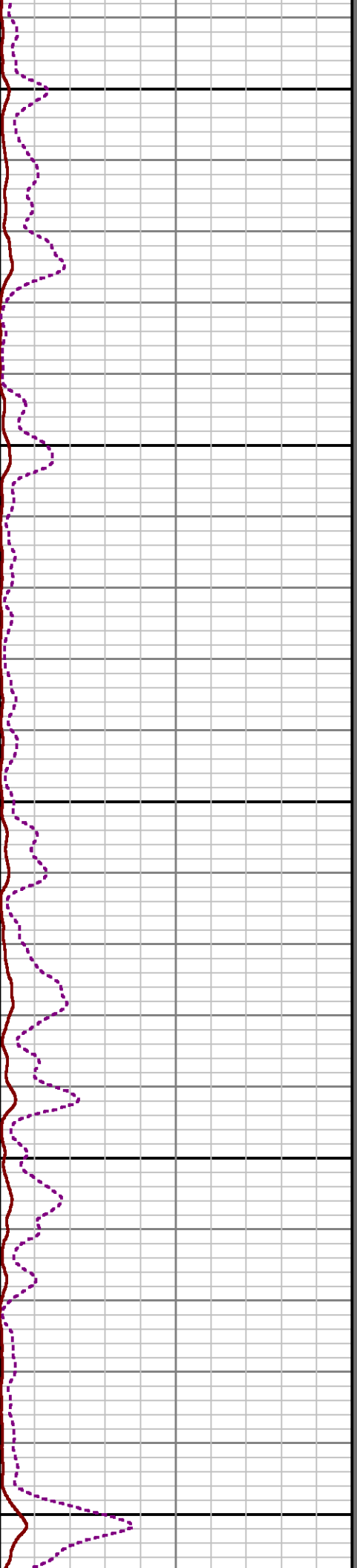
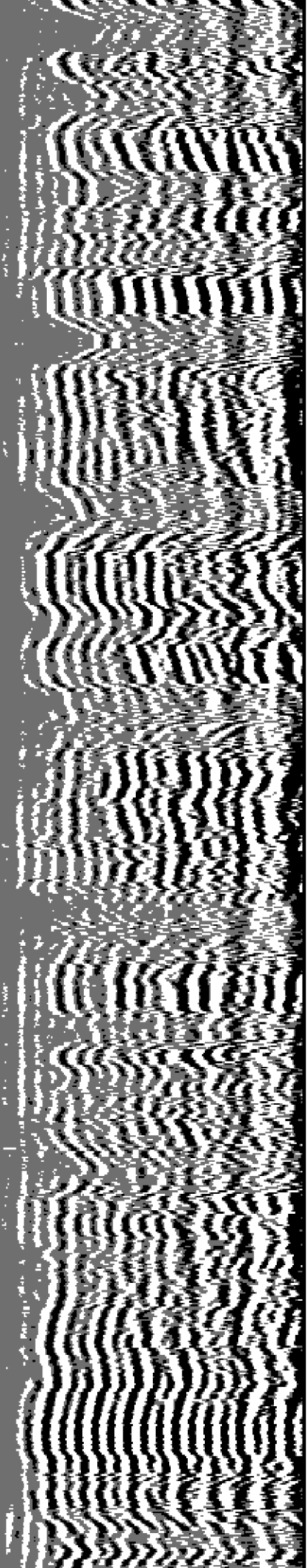


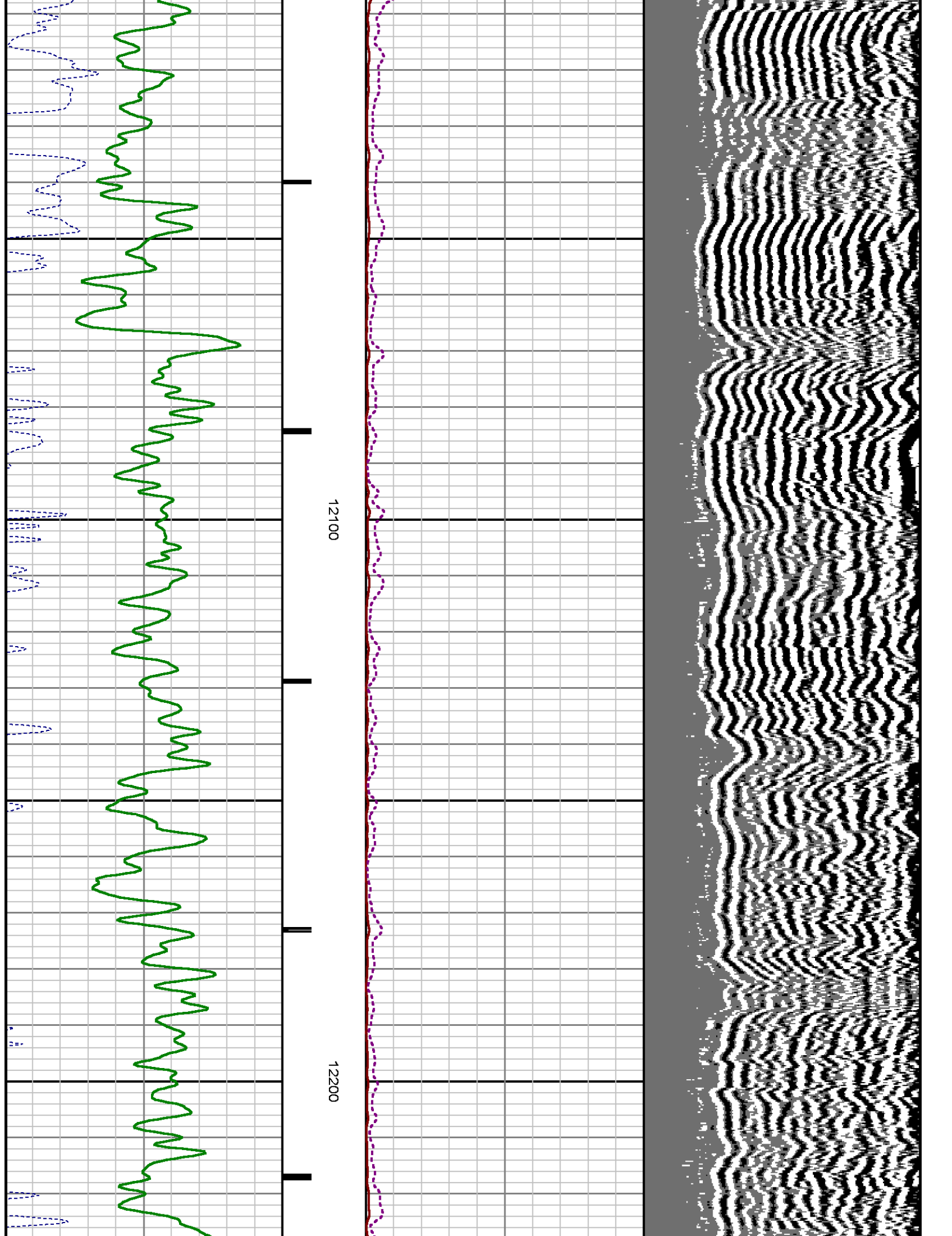


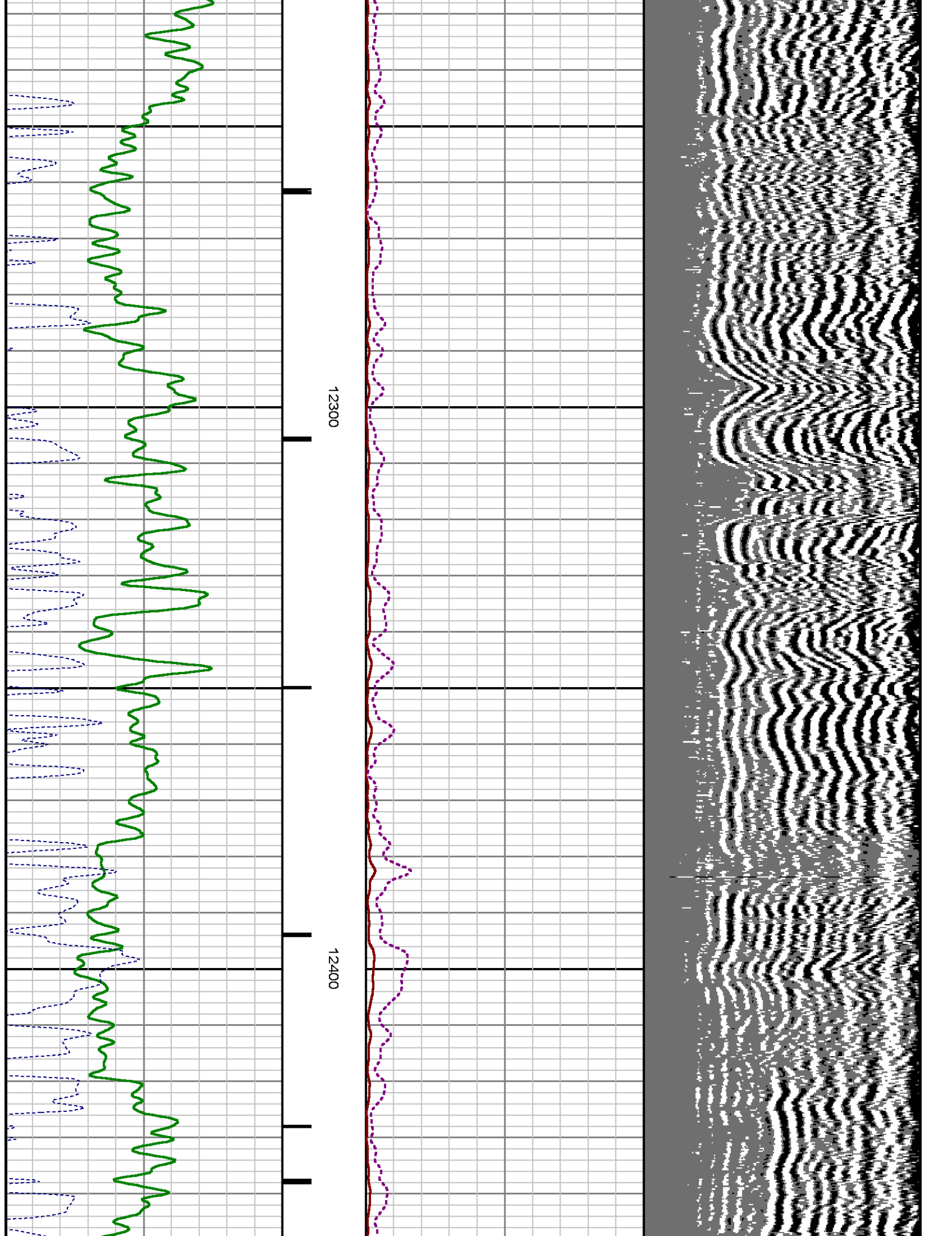
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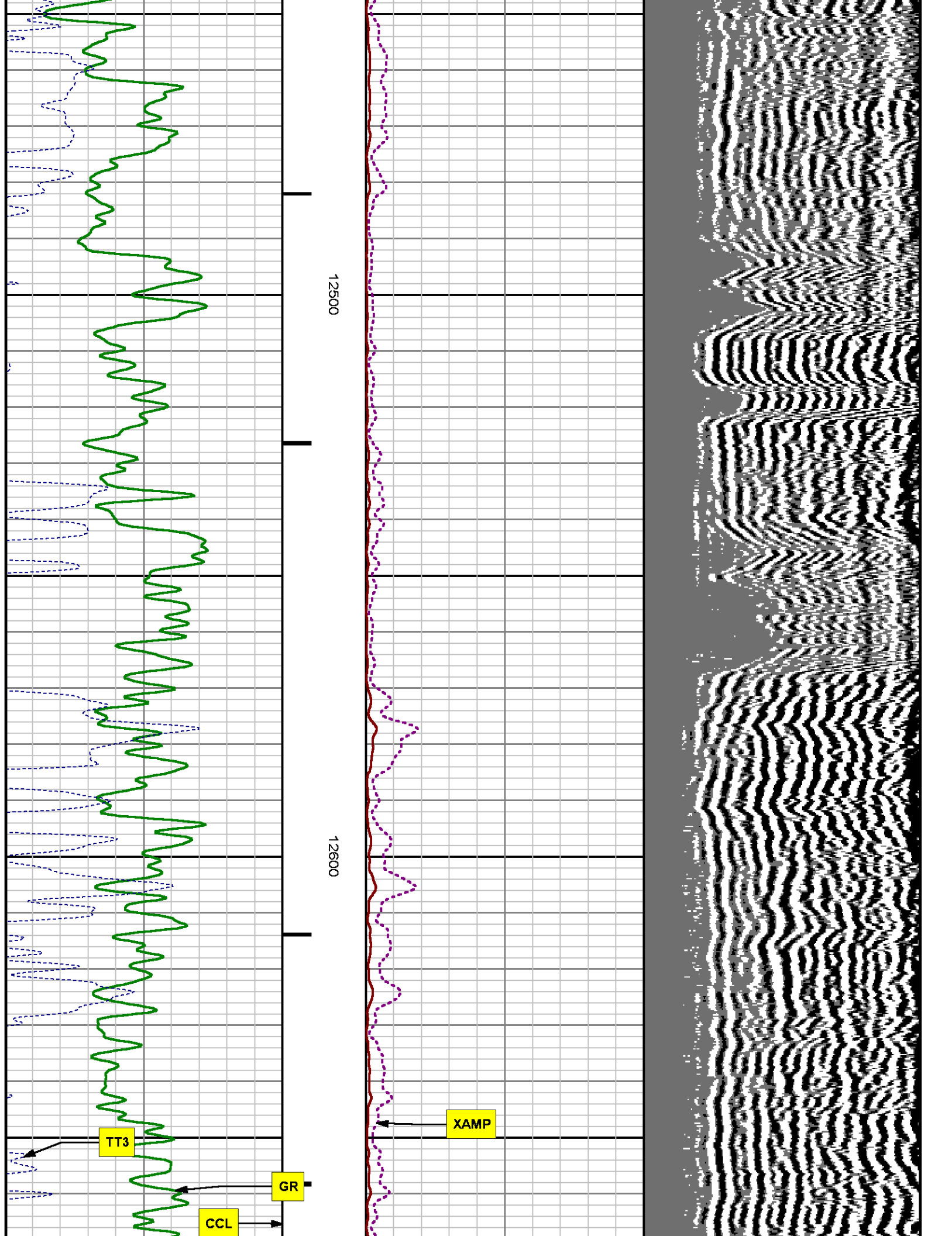
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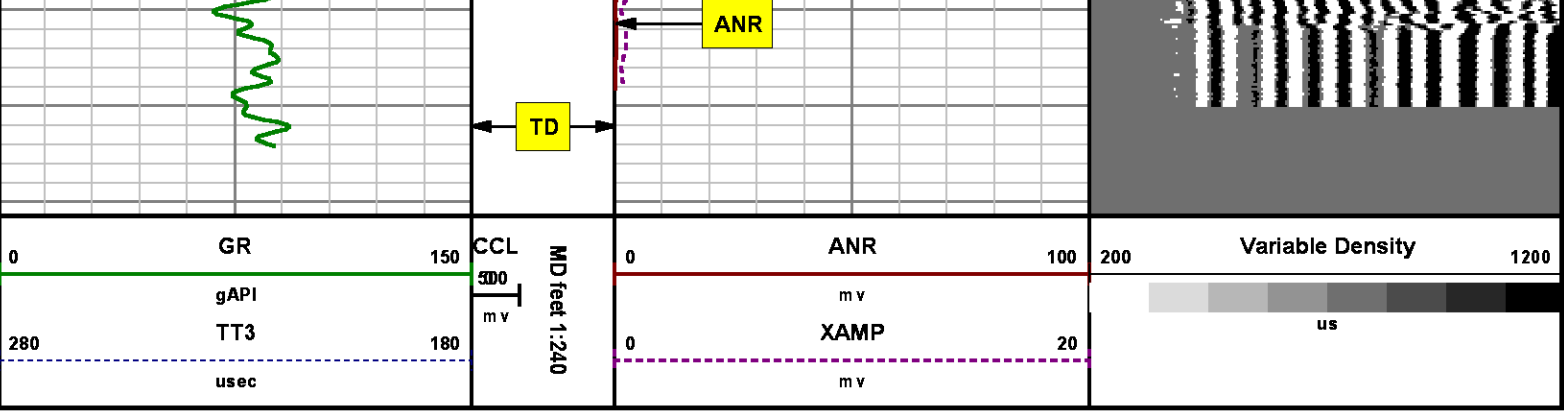












SECONDARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	18.999	12691.500
RAL	Amp Gate Start Near	195.000	usec	18.999	12691.500
RAL	Amp Gate Start Radial	195.000	usec	18.999	12691.500
RAL	Amp Gate Width Far	25.000	usec	18.999	12691.500
RAL	Amp Gate Width Near	25.000	usec	18.999	12691.500
RAL	Amp Gate Width Radial	25.000	usec	18.999	12691.500
RAL	casing od	4.500	inches	18.999	12691.500
RAL	casing wt	11.600	lbm/ft	18.999	12691.500
RAL	FB Start Far	291.900	usec	18.999	12691.500
RAL	FB Start Near	180.000	usec	18.999	12691.500
RAL	FB Start Radial	180.000	usec	18.999	12691.500
RAL	FB Thresh Far	10.000	mv	18.999	12691.500
RAL	FB Thresh Near	4.000	mv	18.999	12691.500
RAL	FB Thresh Radial	4.000	mv	18.999	12691.500
RAL	Fluid Travel Time	200.000	usec/ft	18.999	12691.280

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

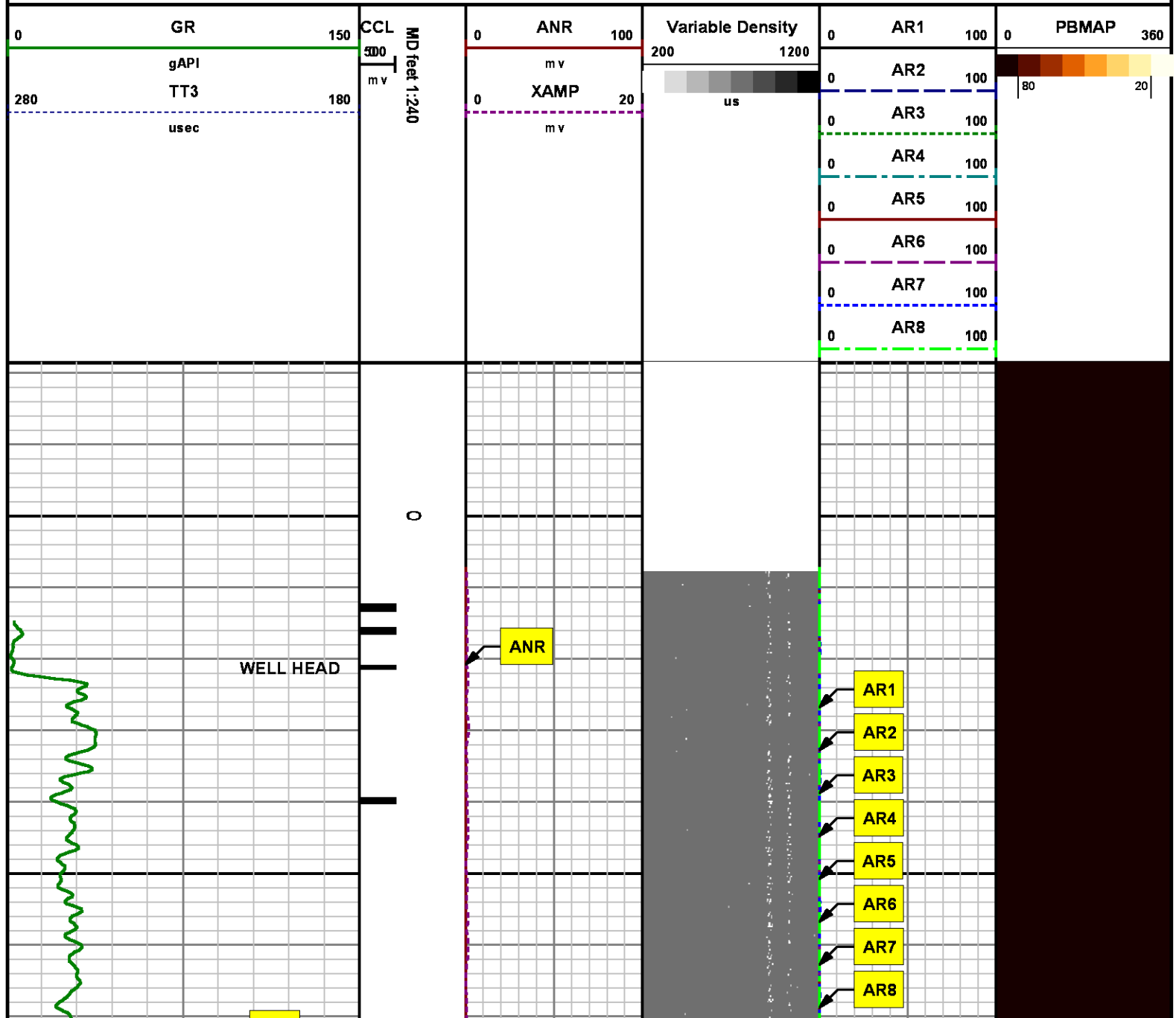
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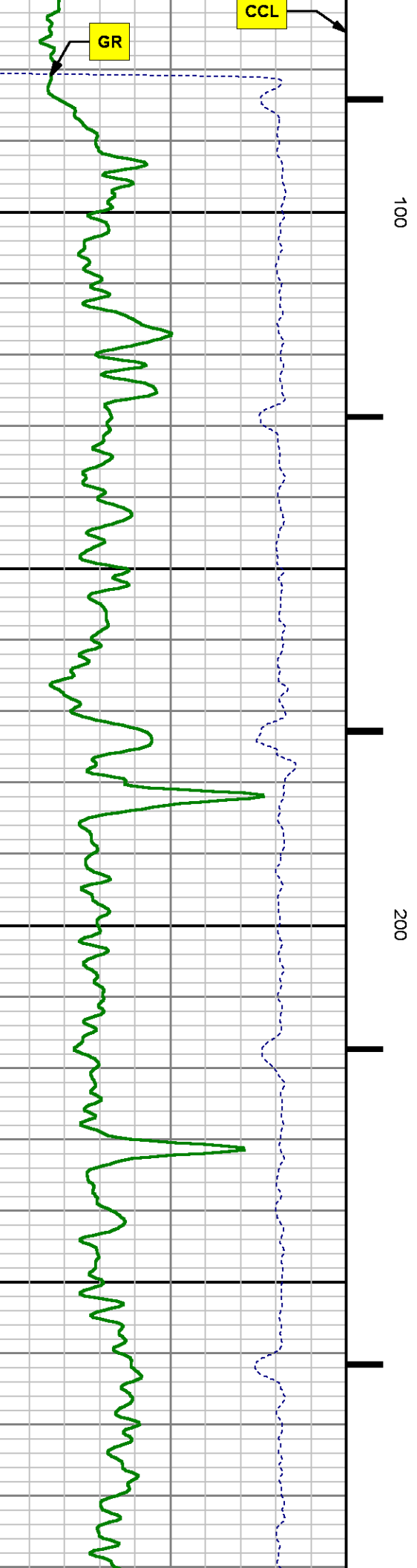
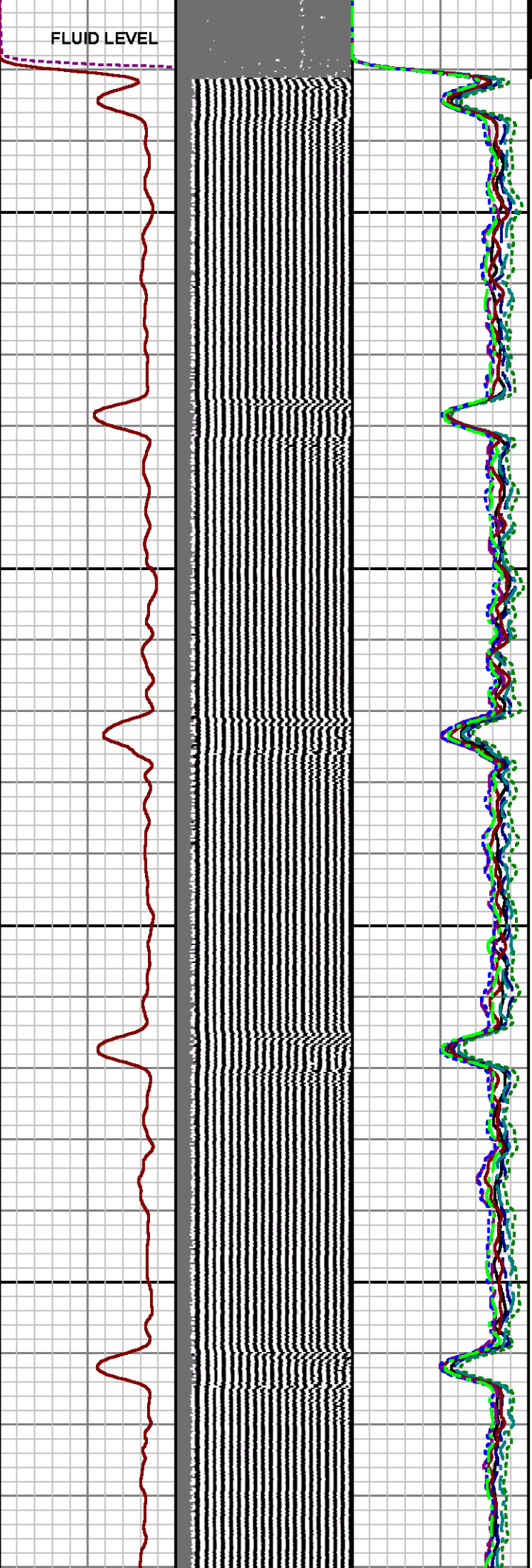
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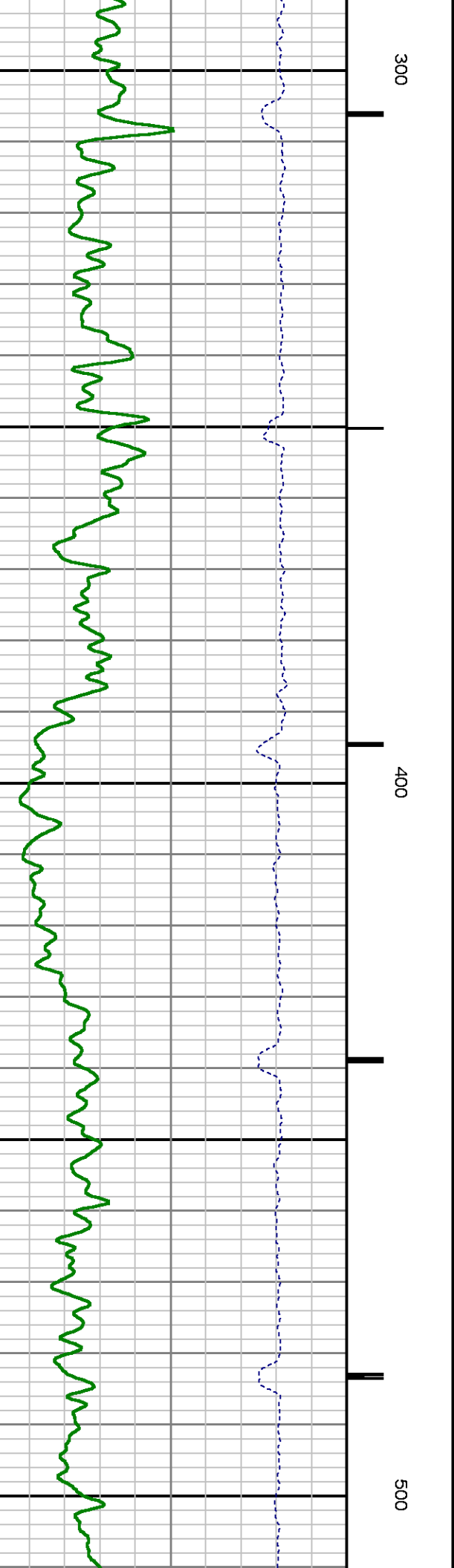
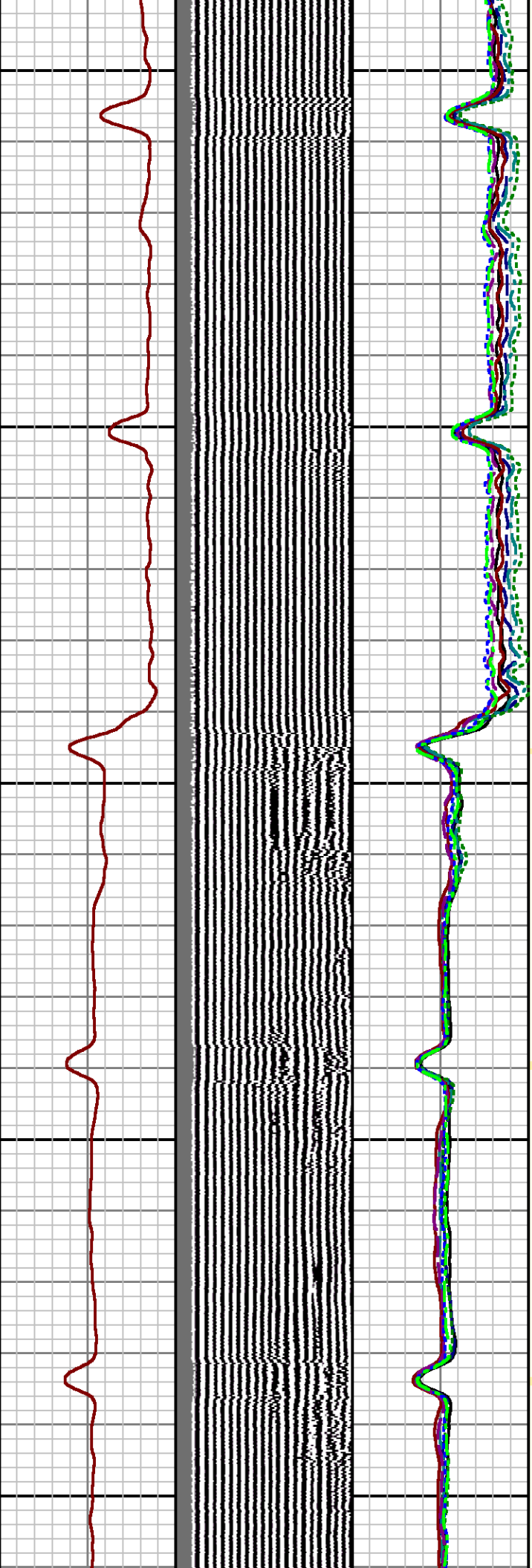
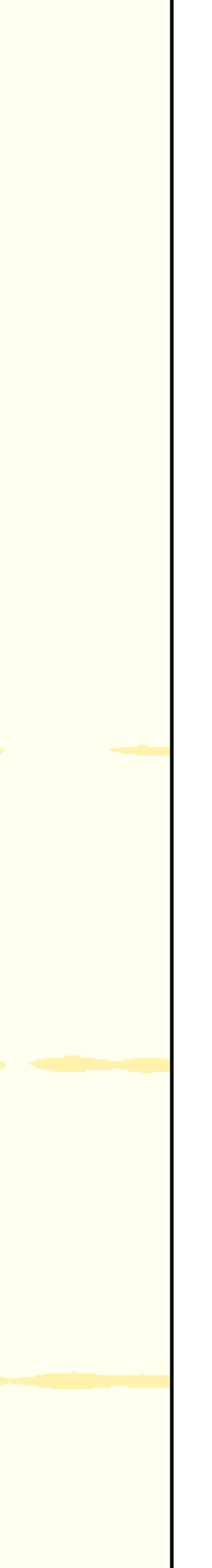
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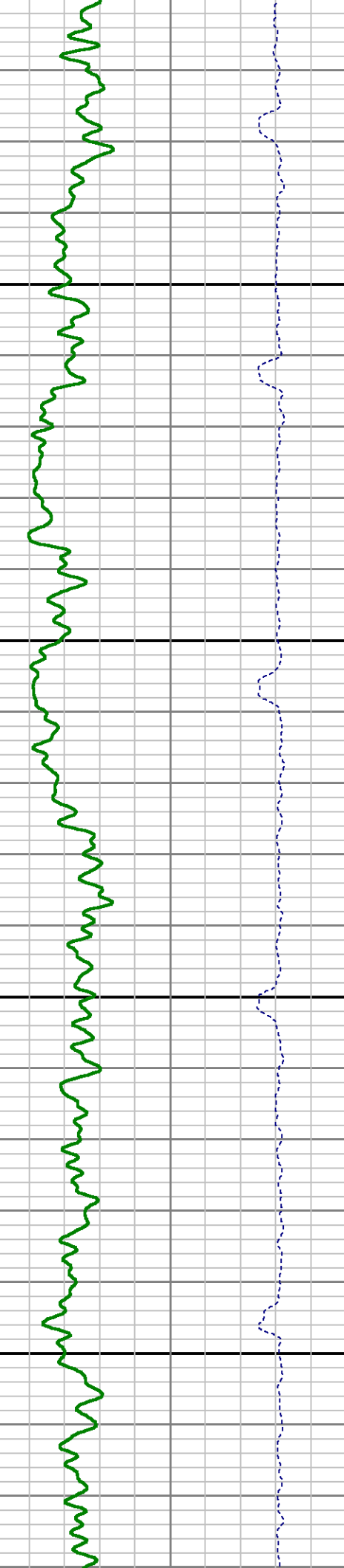
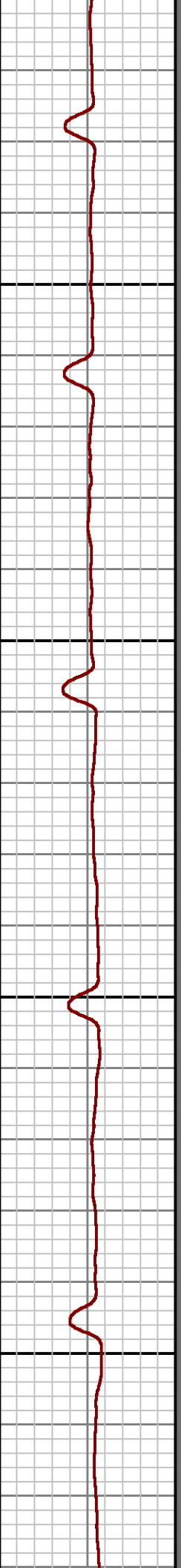
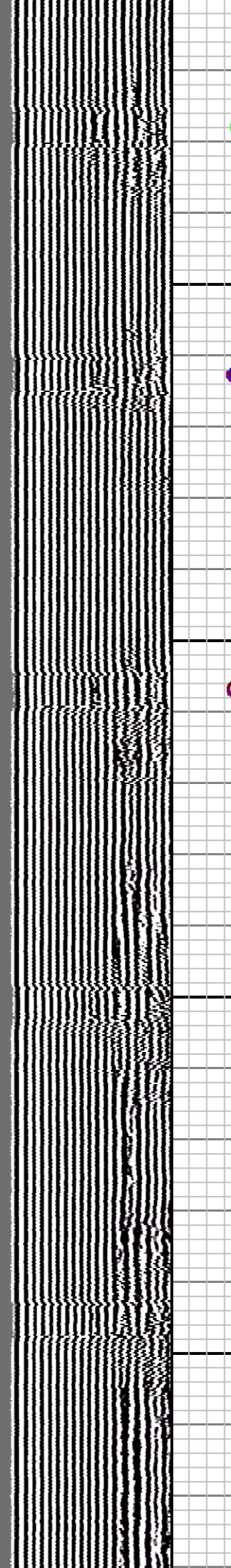
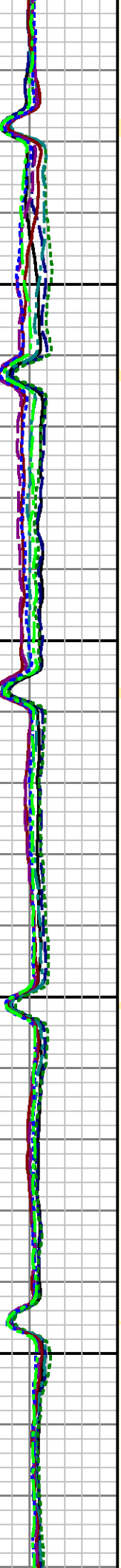
Interval : -21.50 - 12691.50 feet UP

Created : 8/28/2014 11:23:37 AM



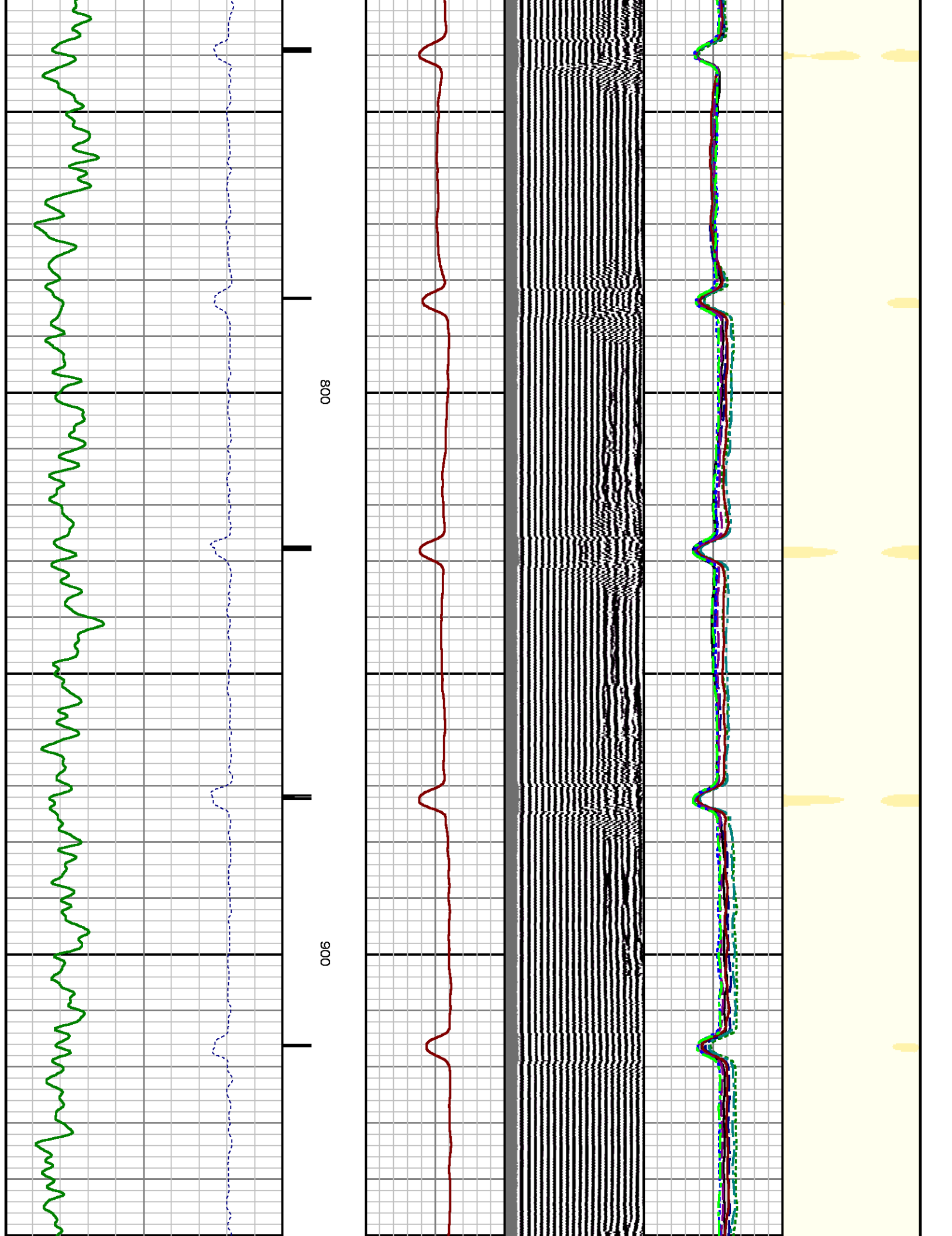


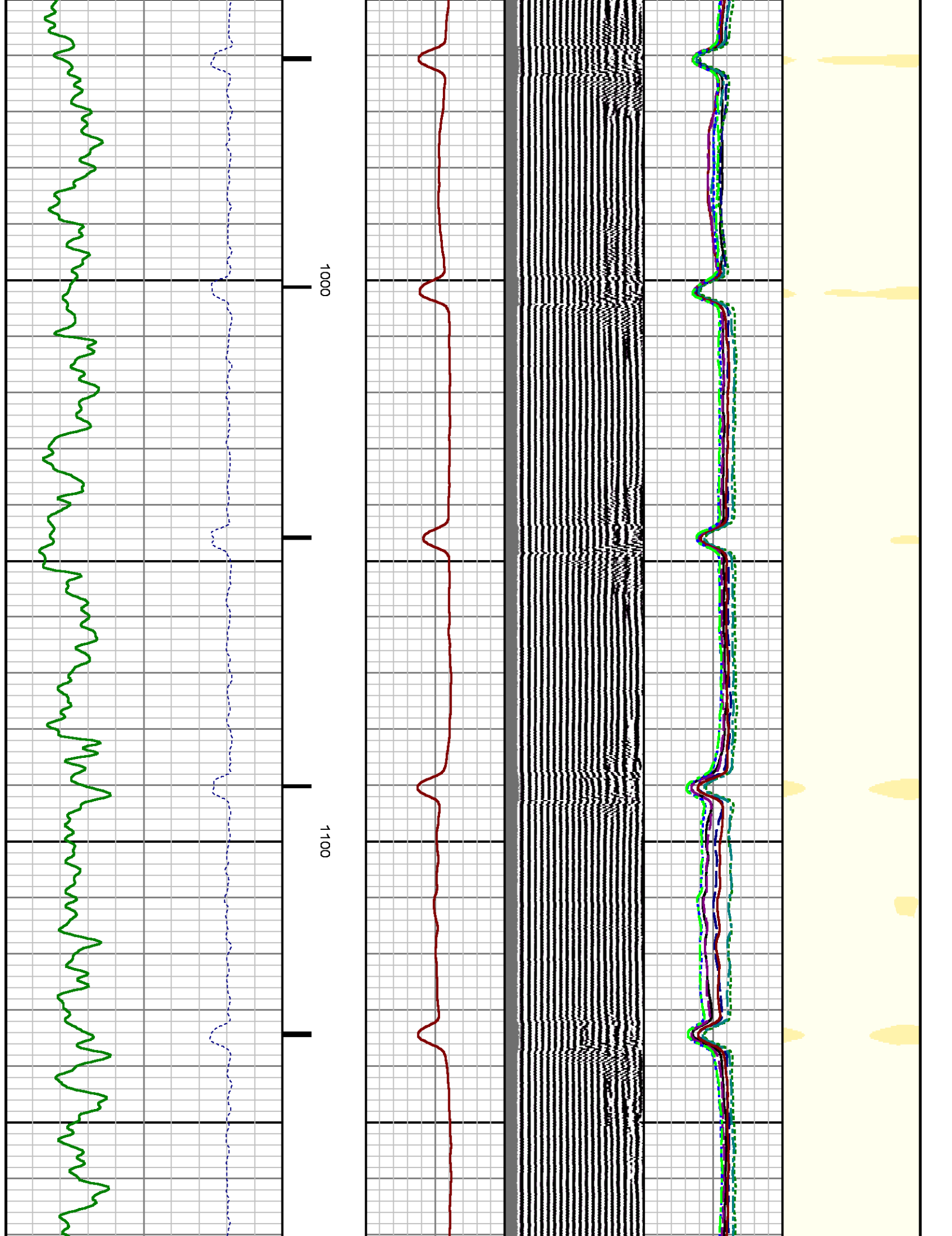


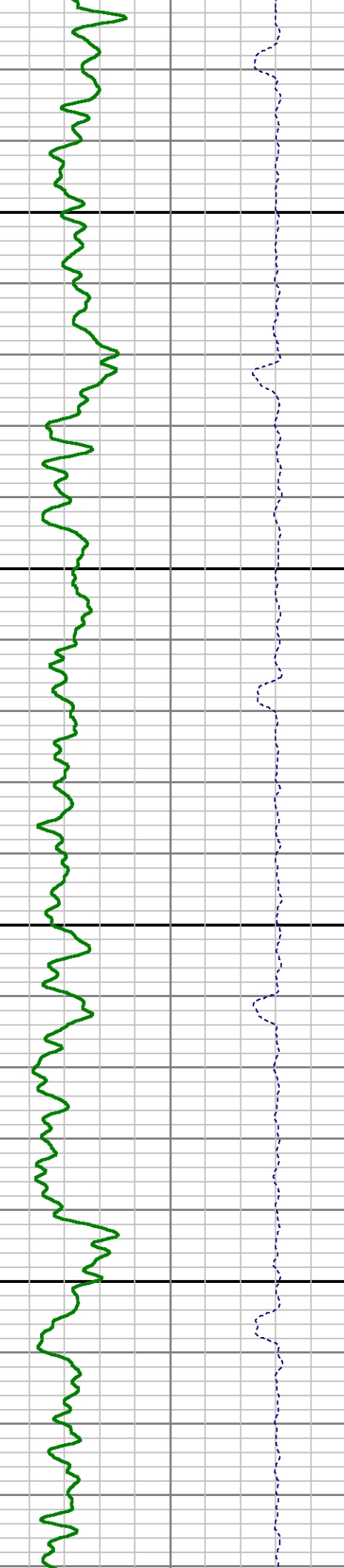
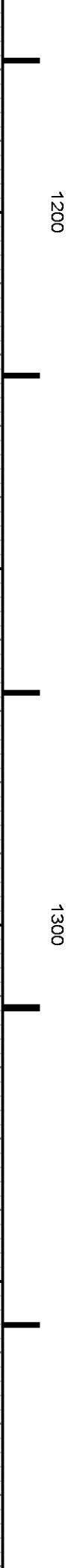
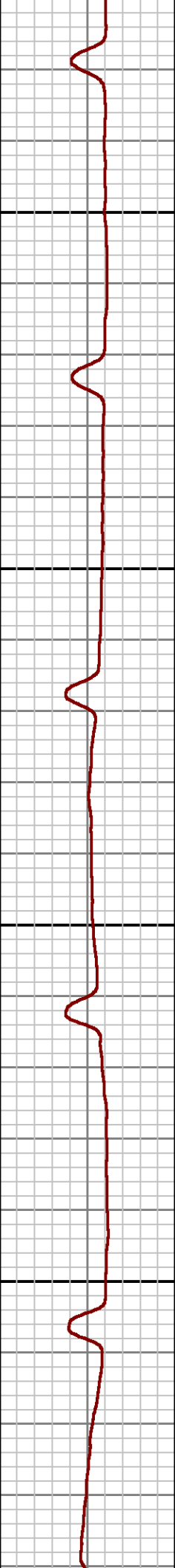
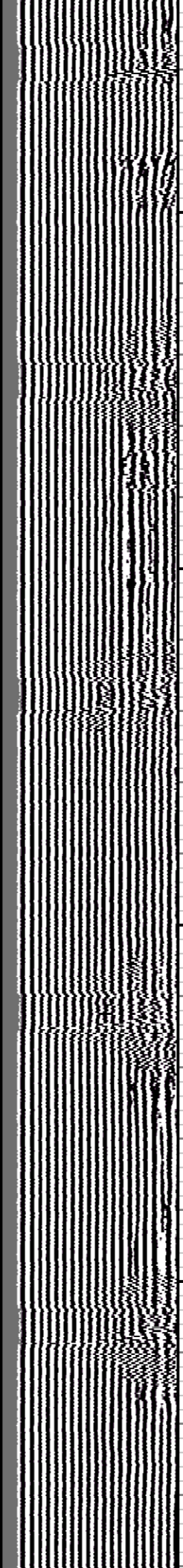
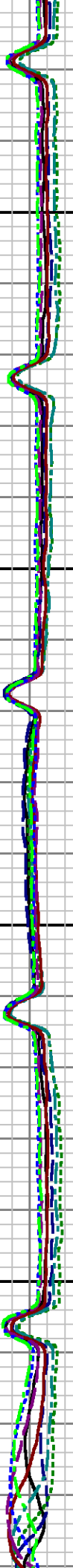


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700

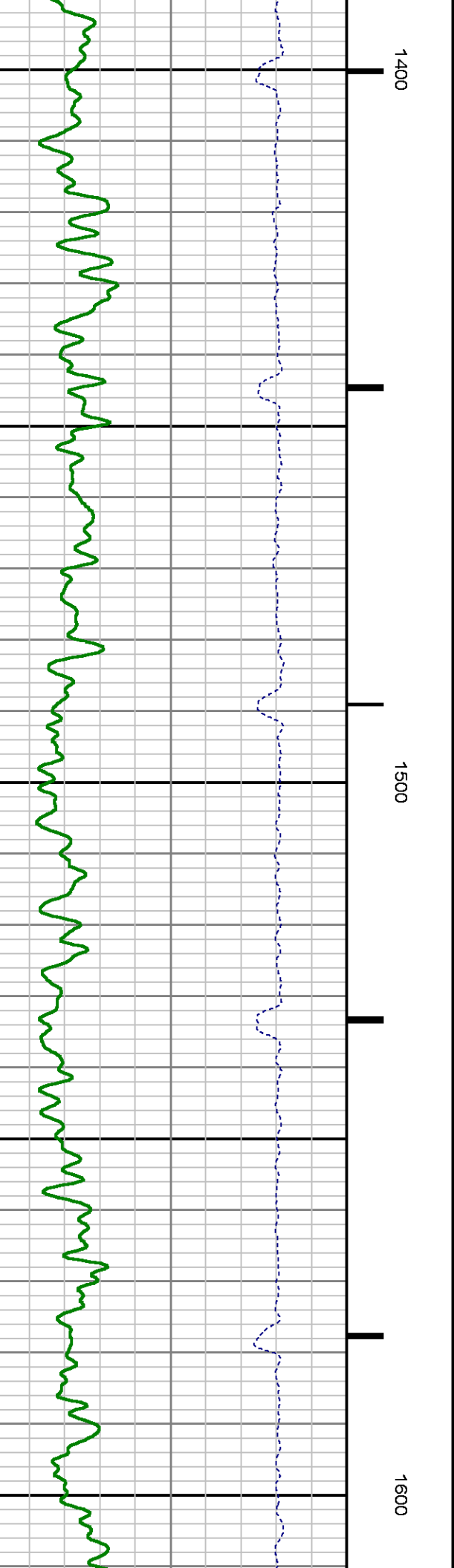
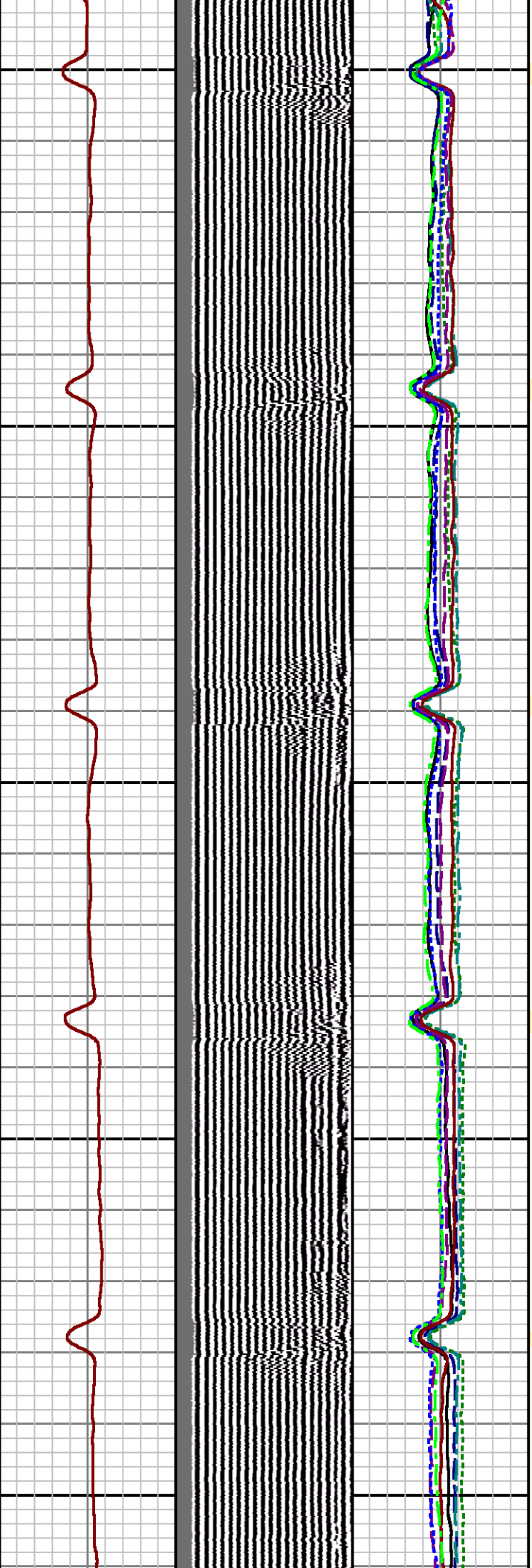
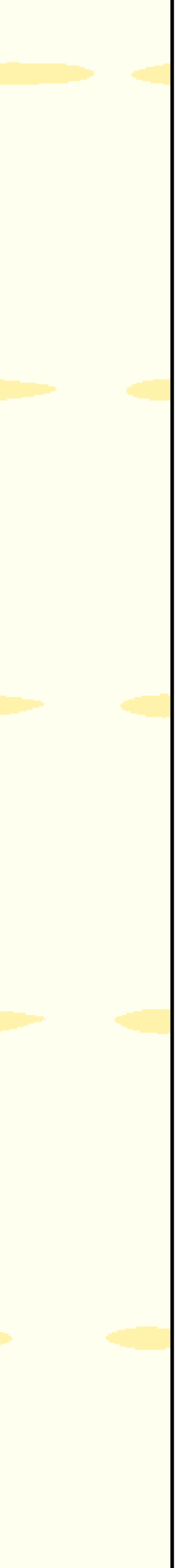


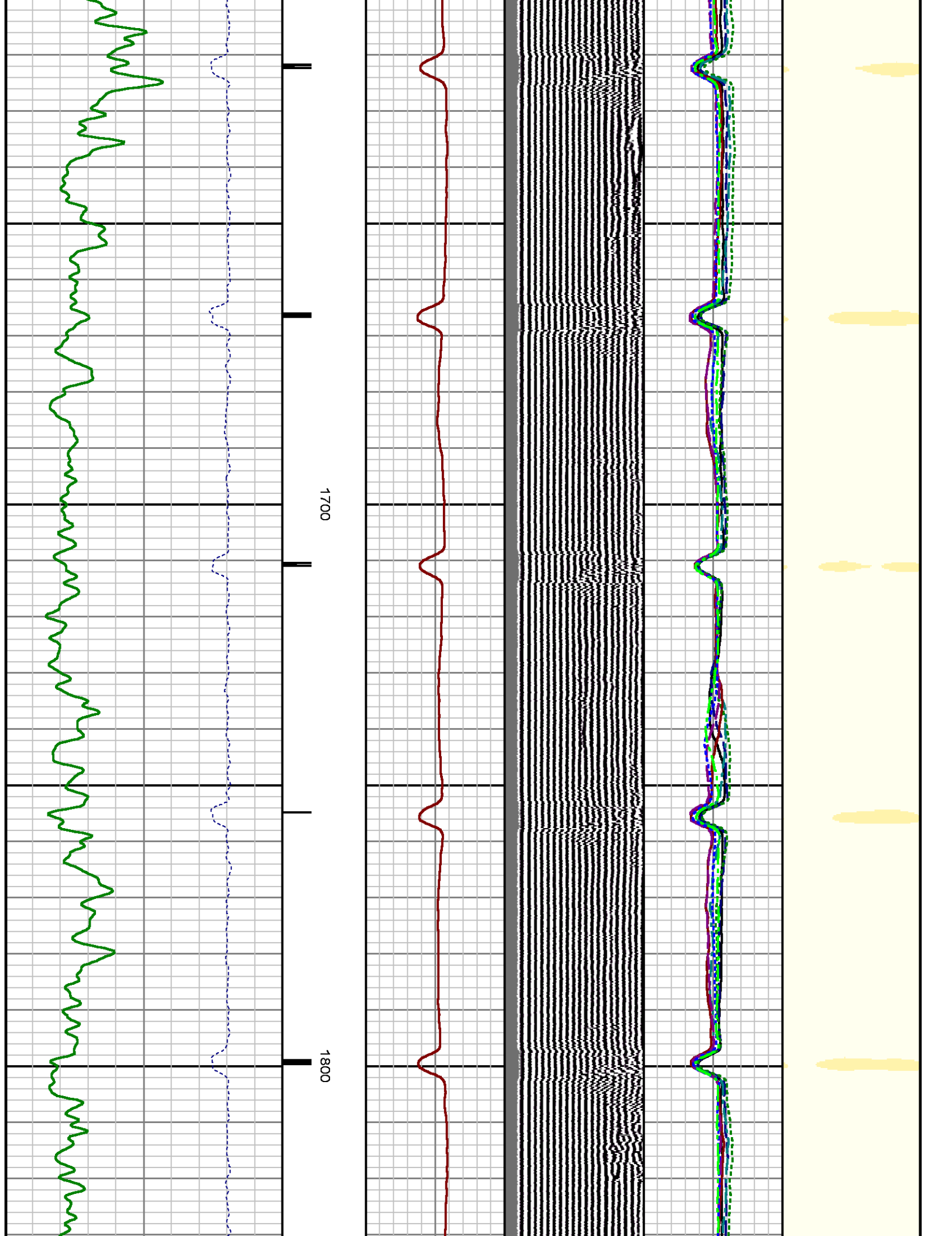


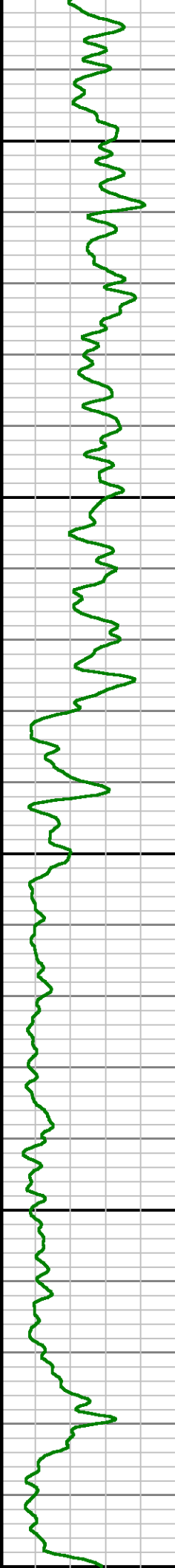
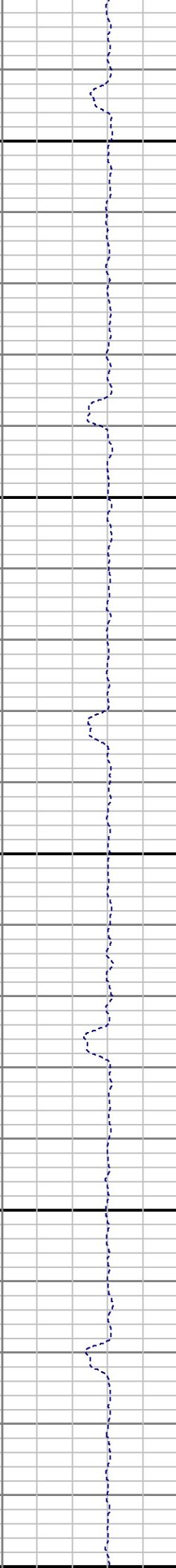
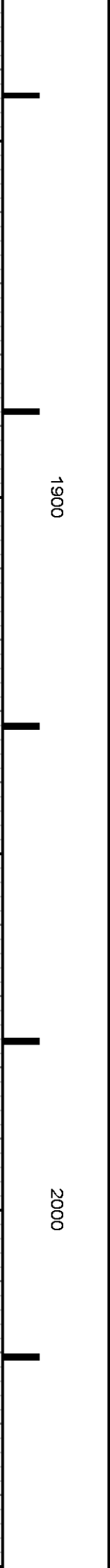
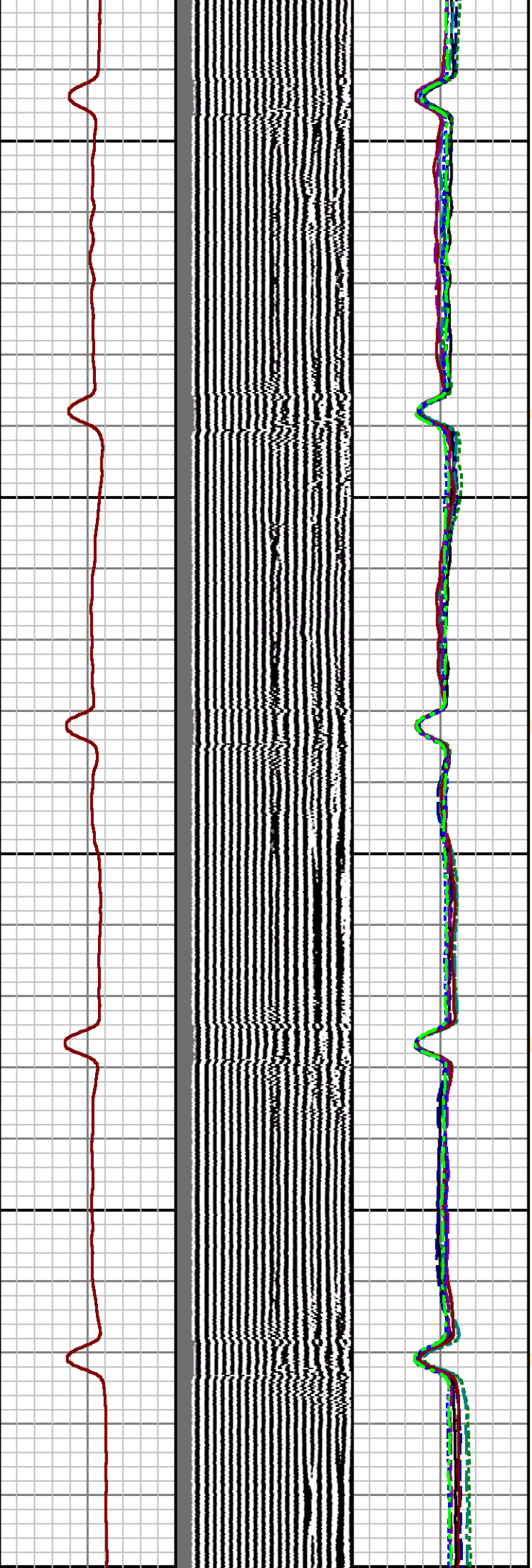


1200

1300

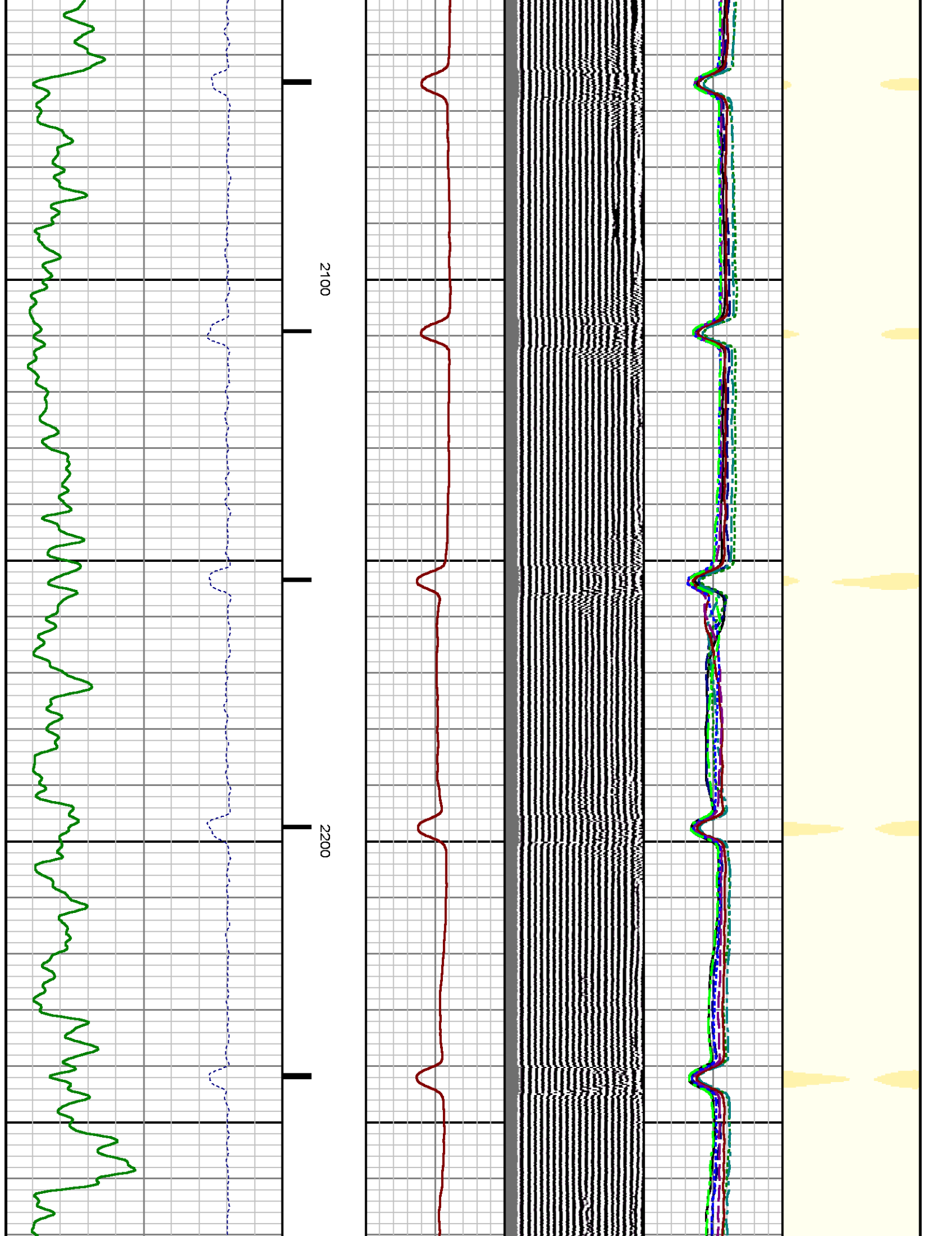


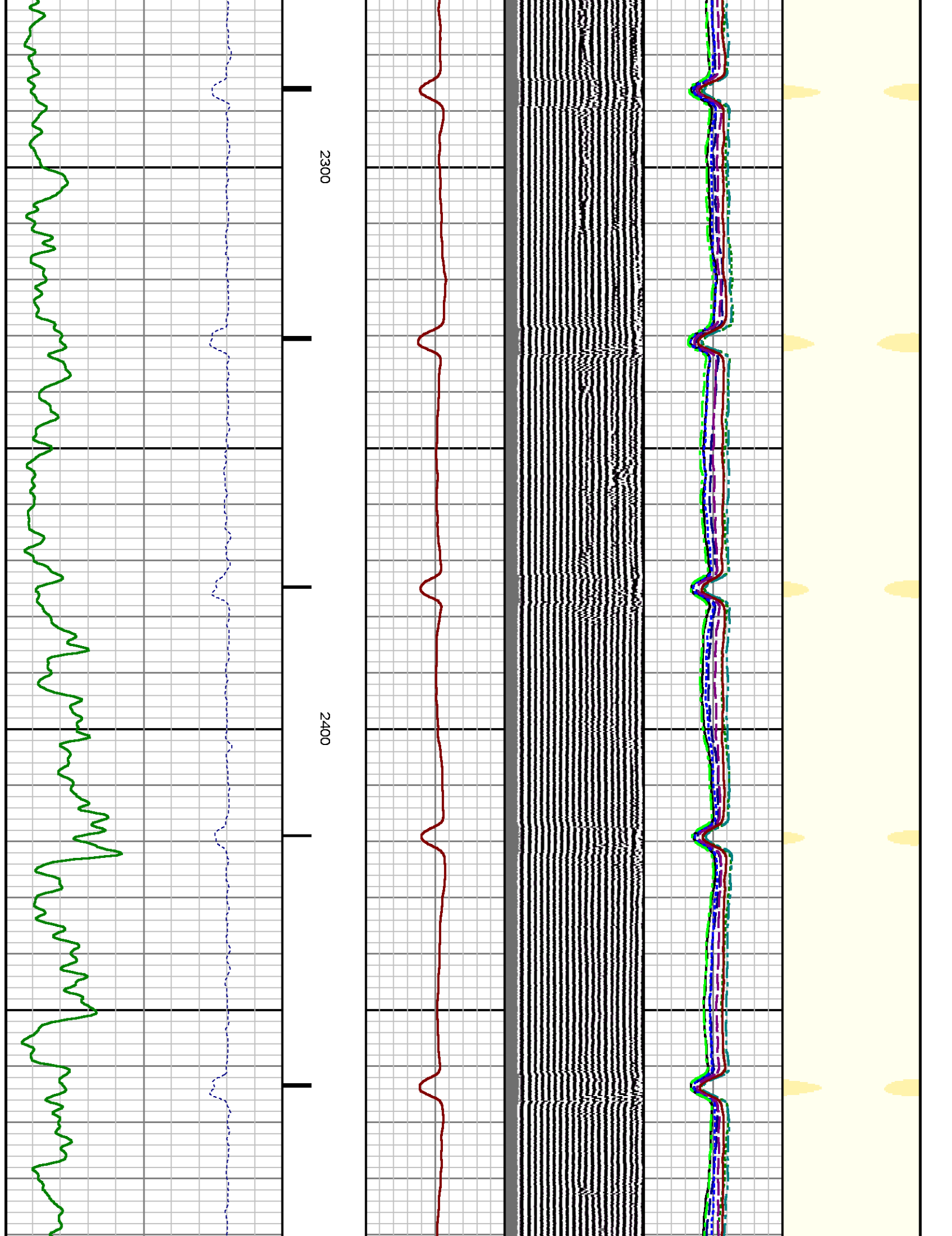


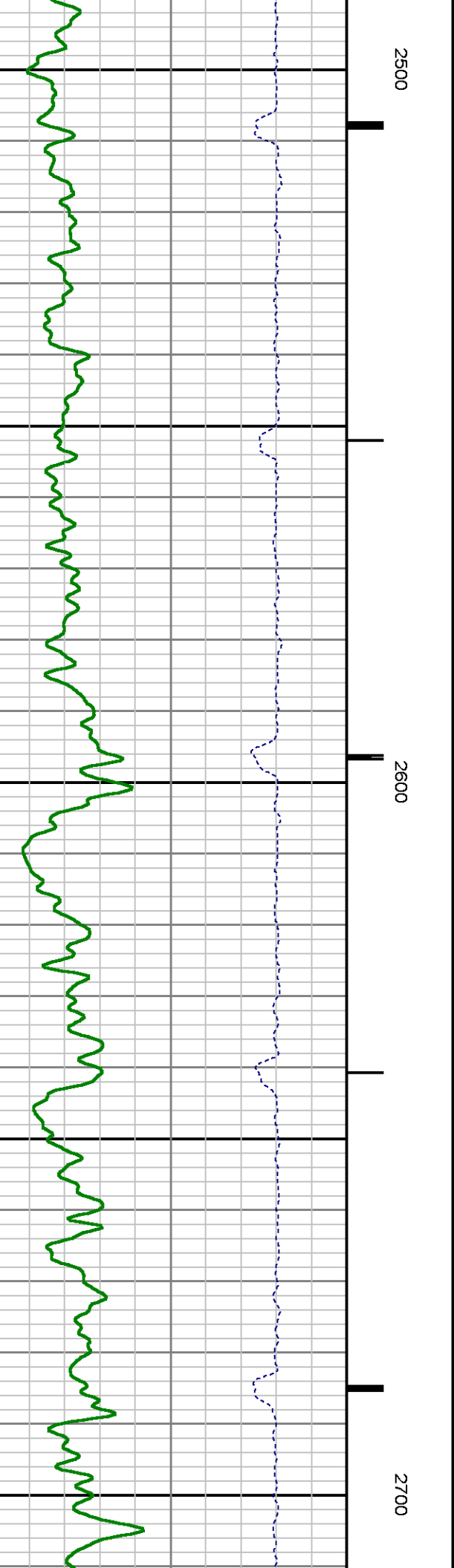
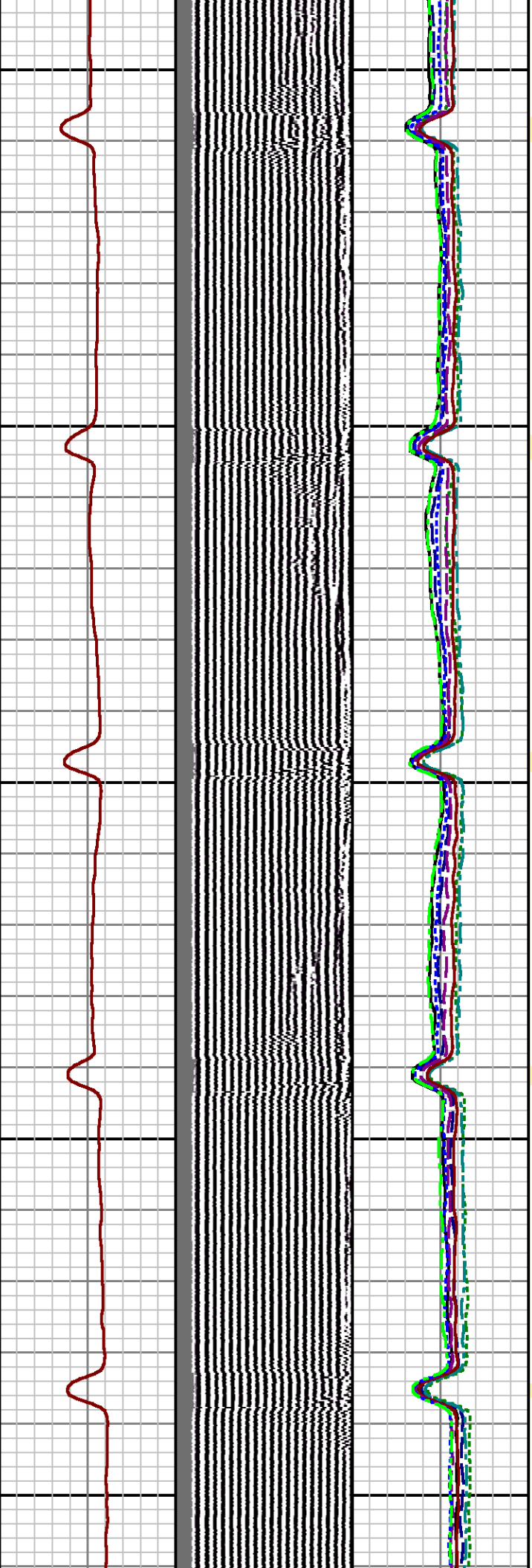
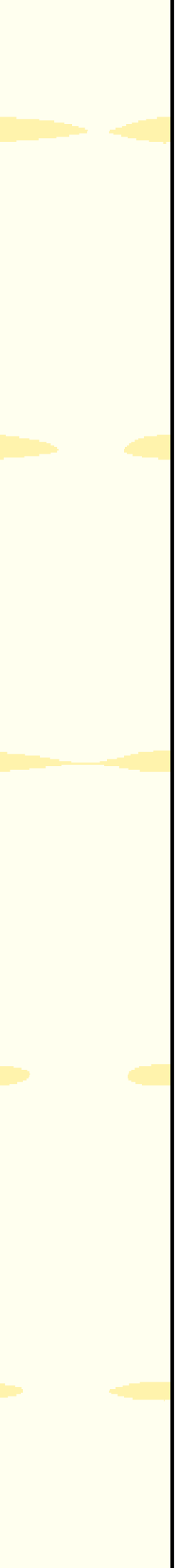


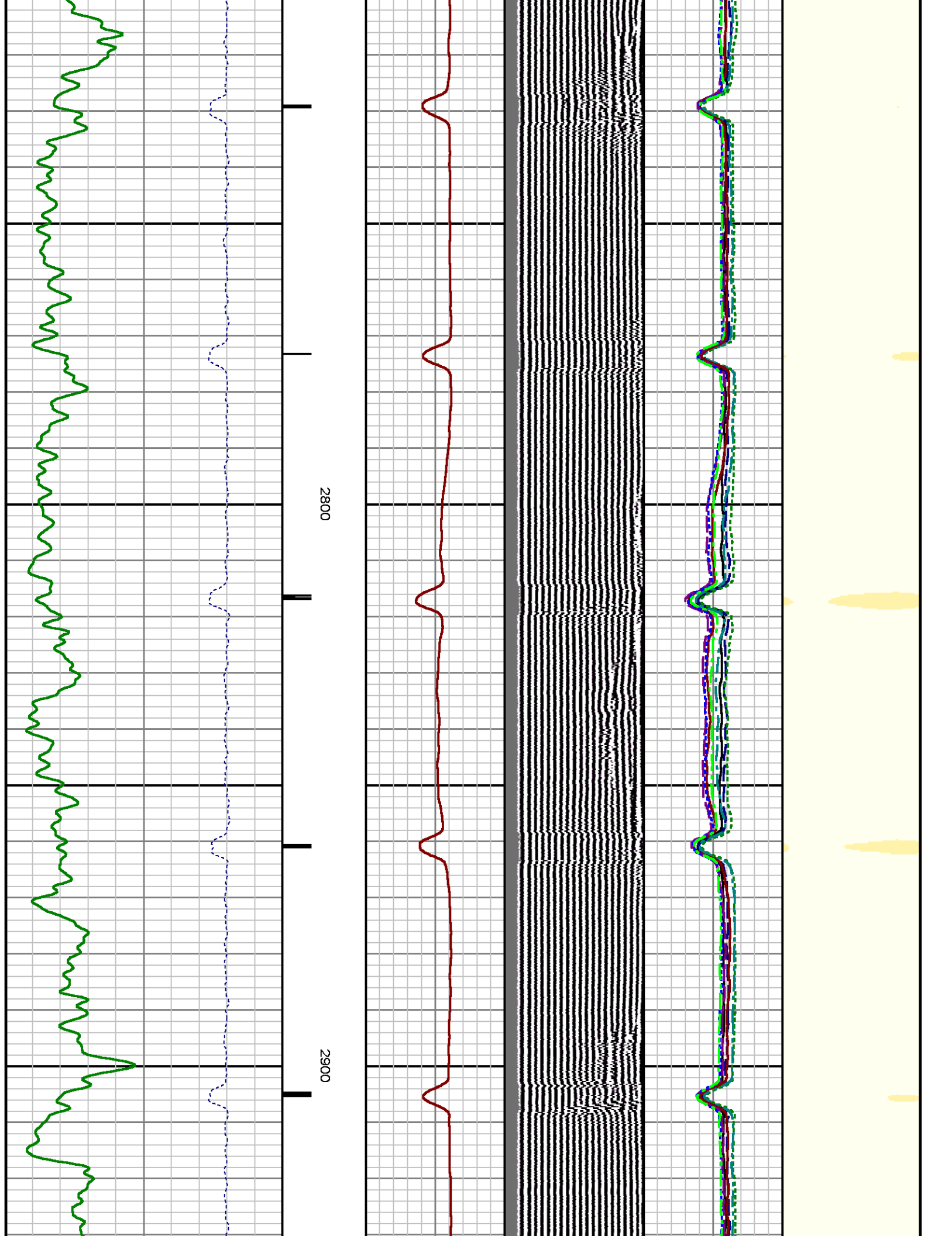
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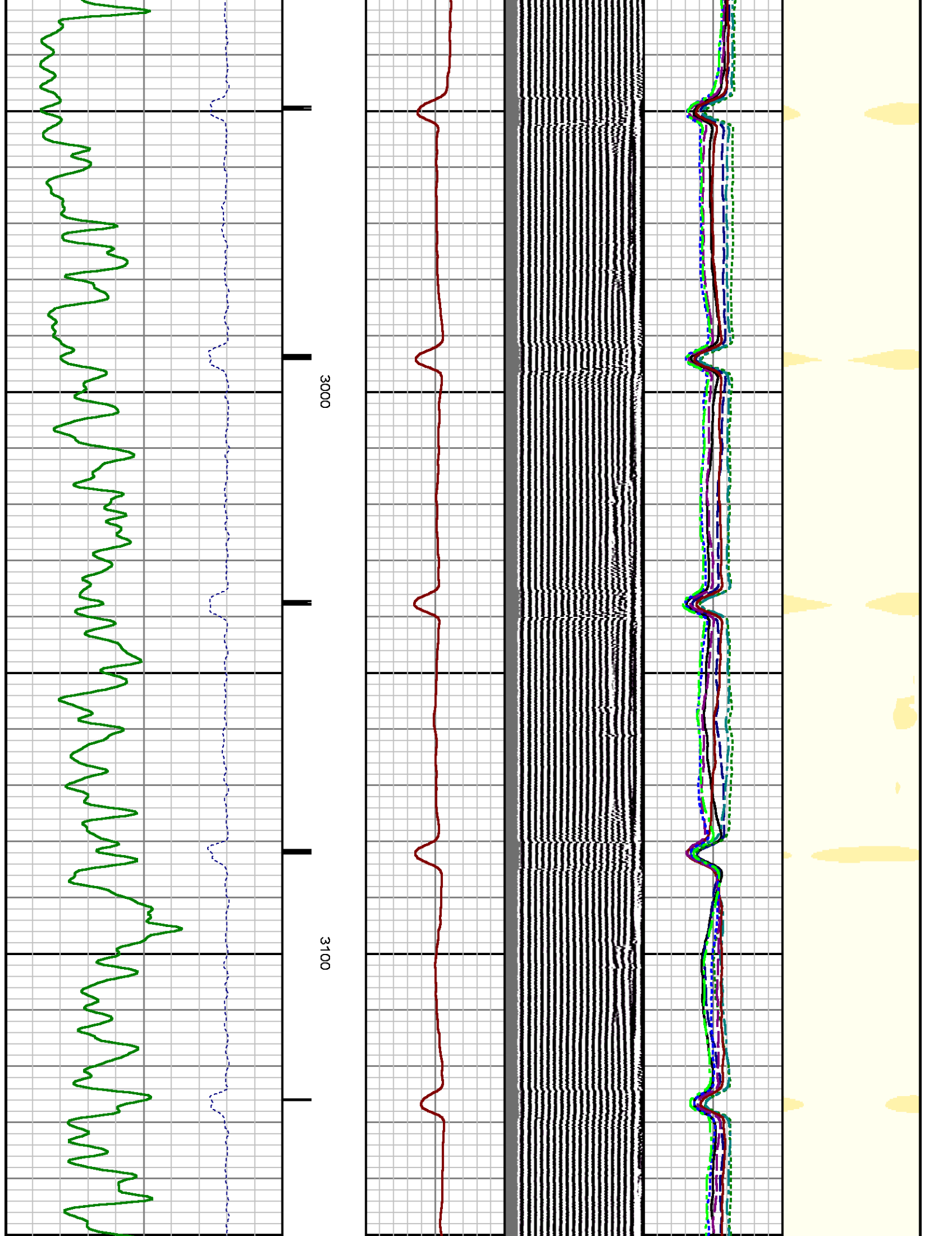
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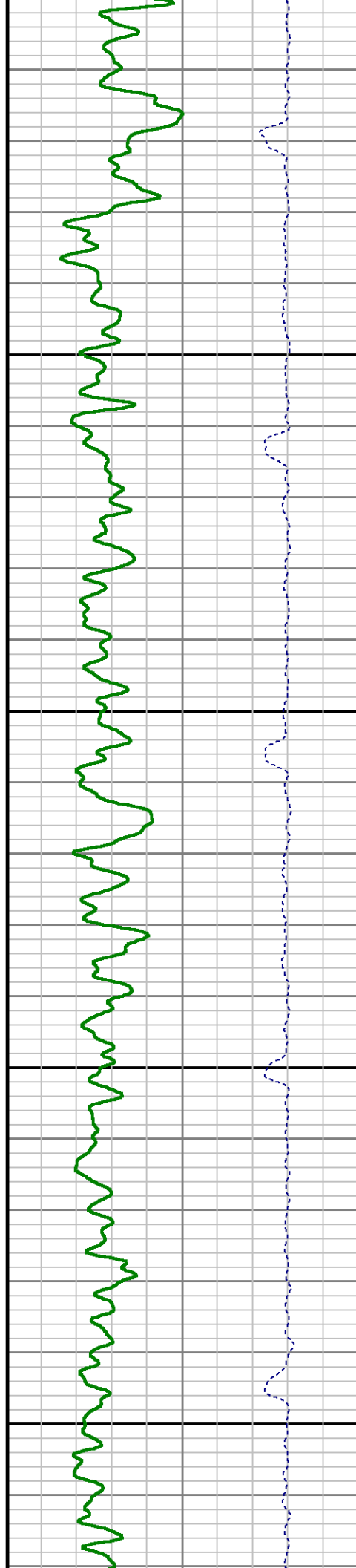
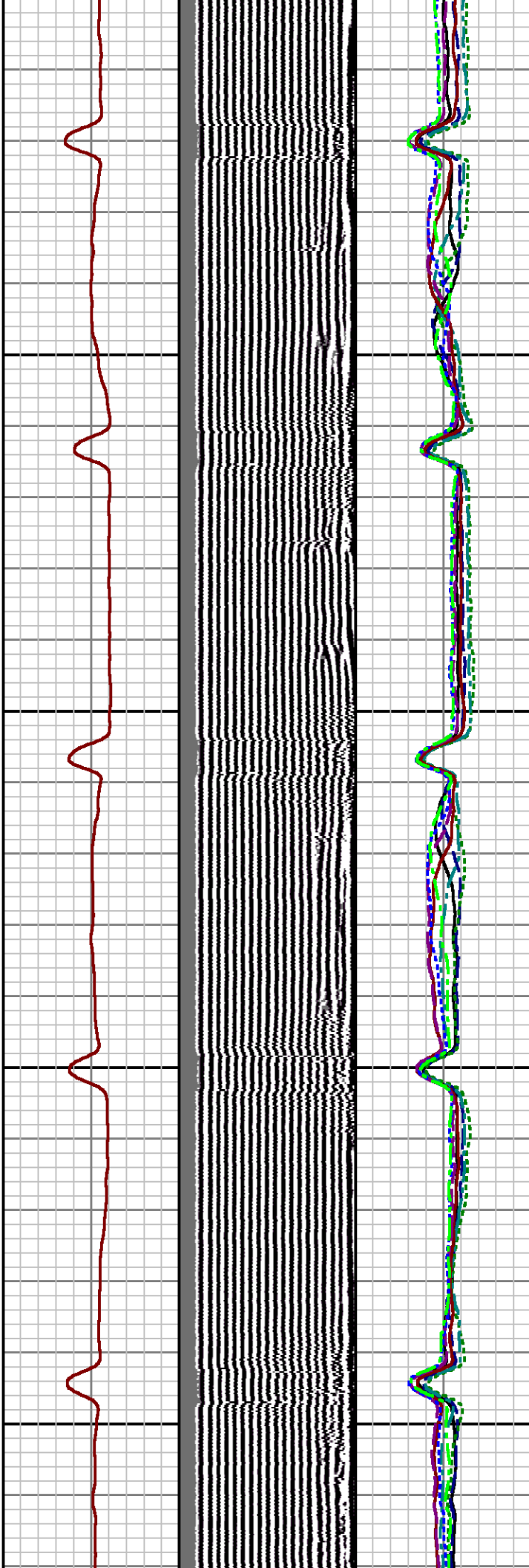
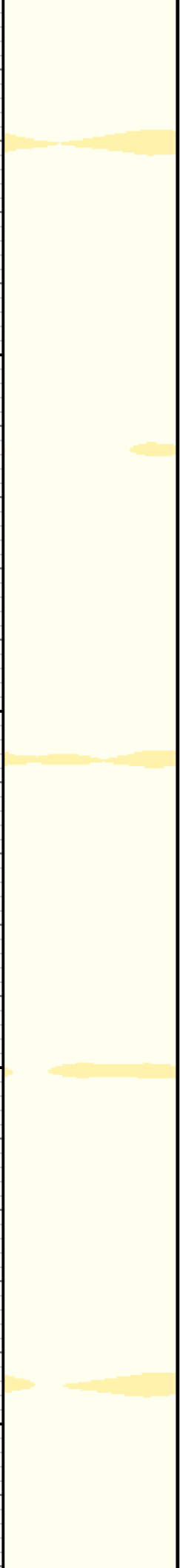


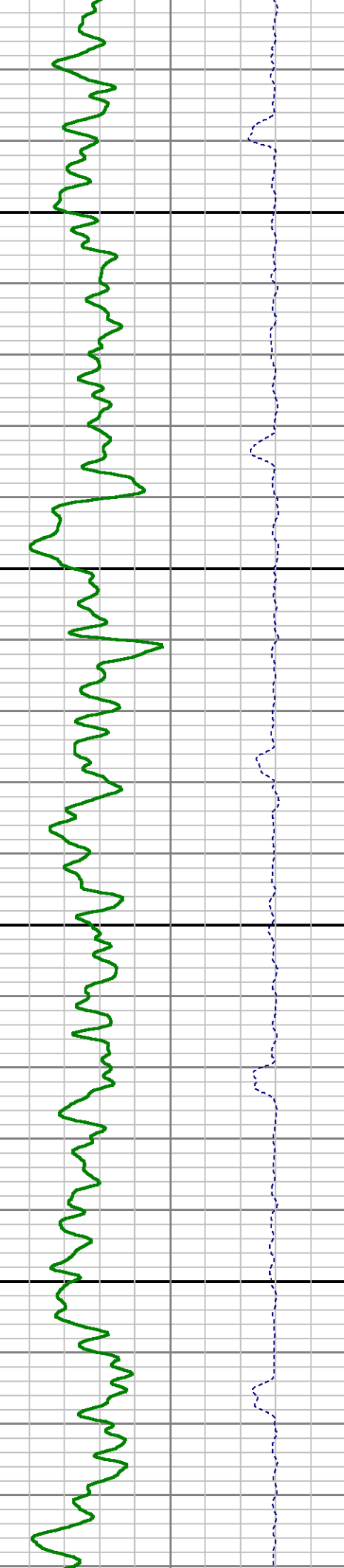
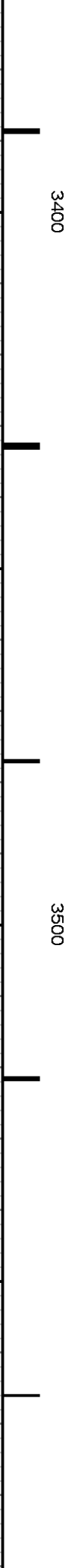
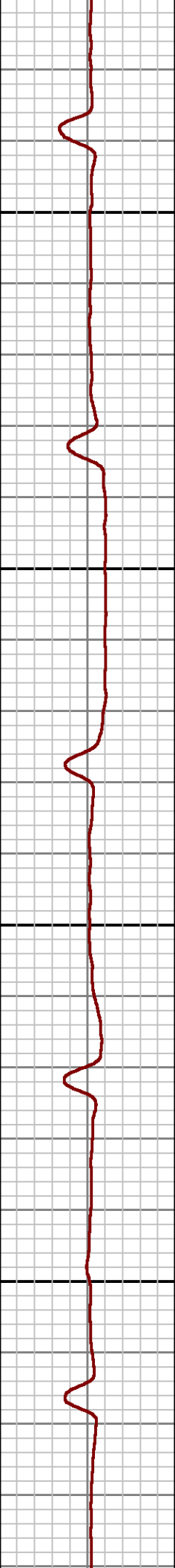
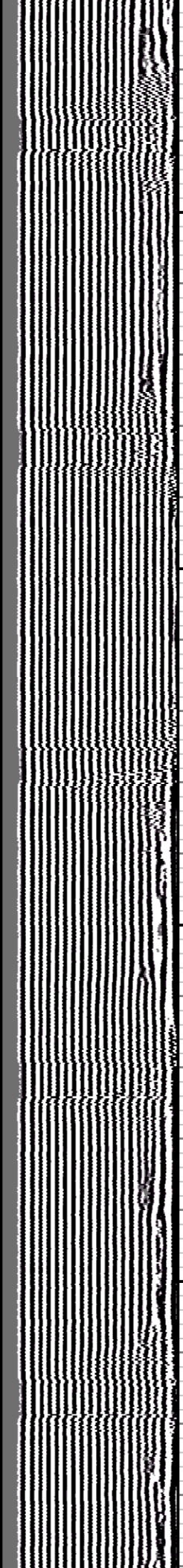
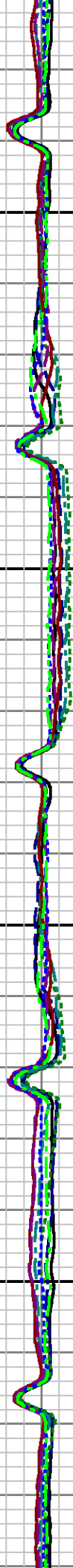
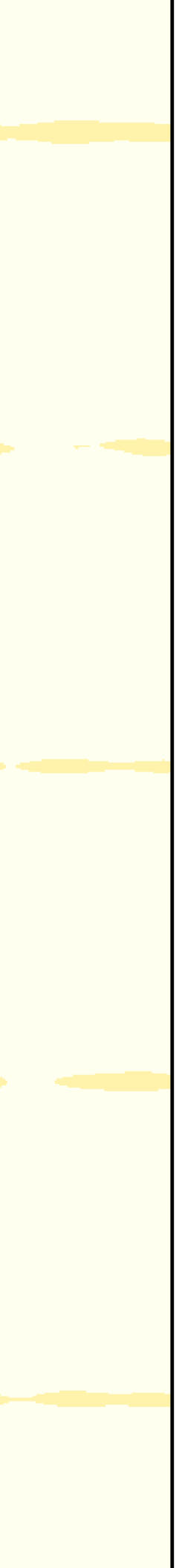


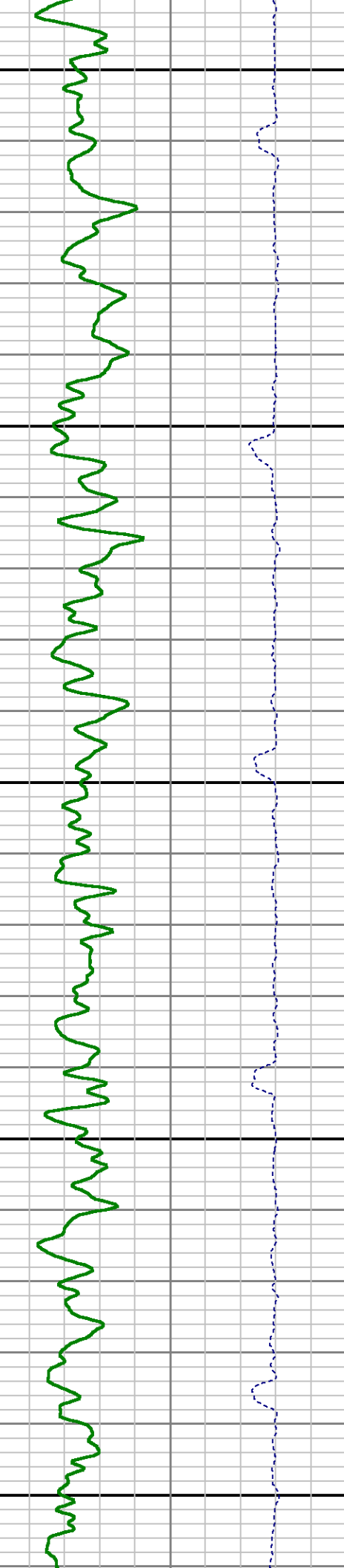
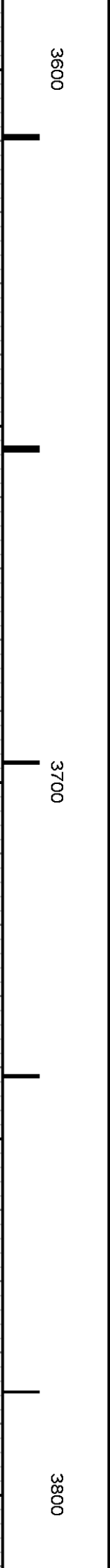
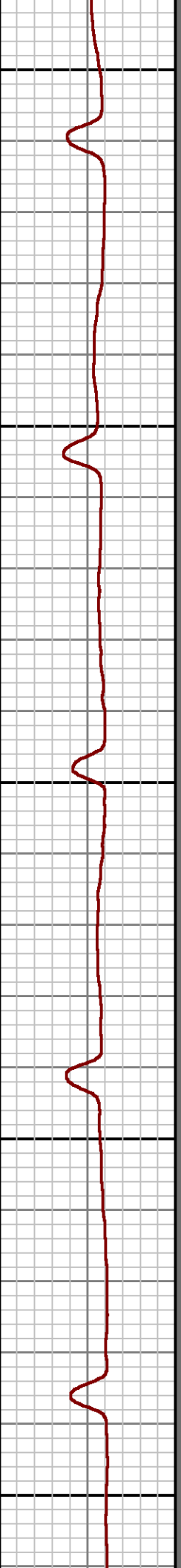
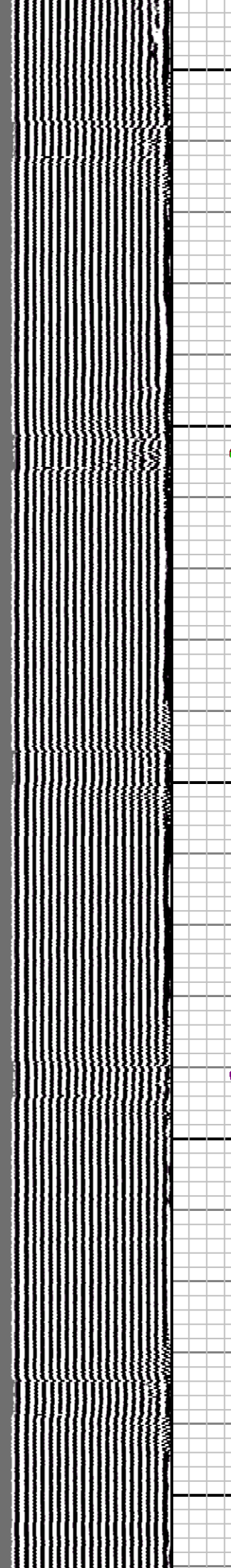
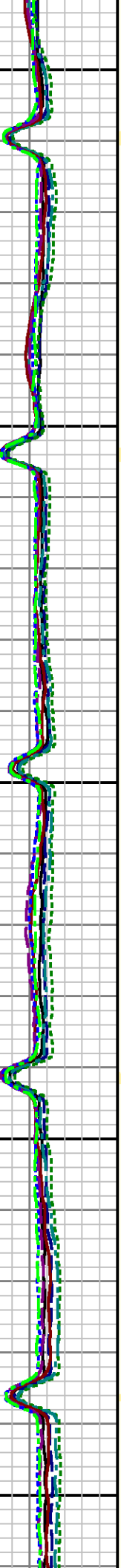
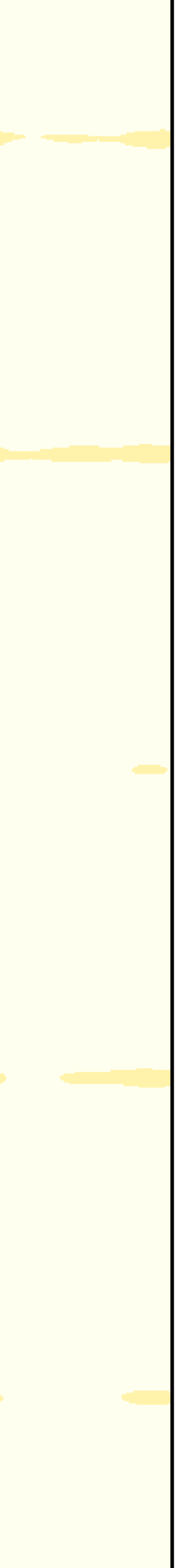








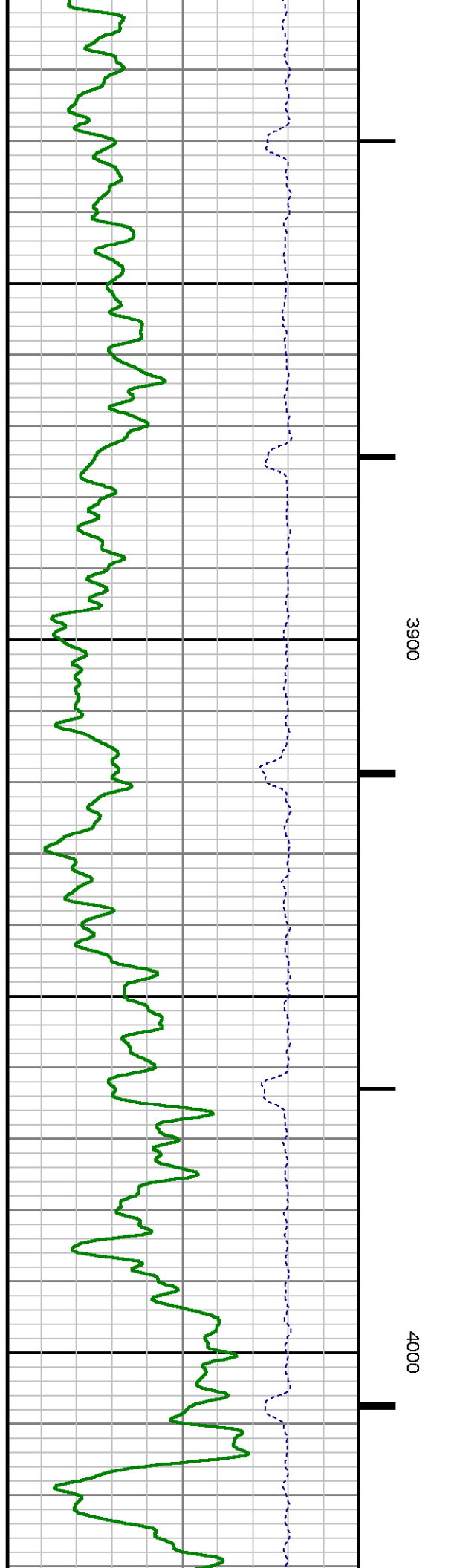
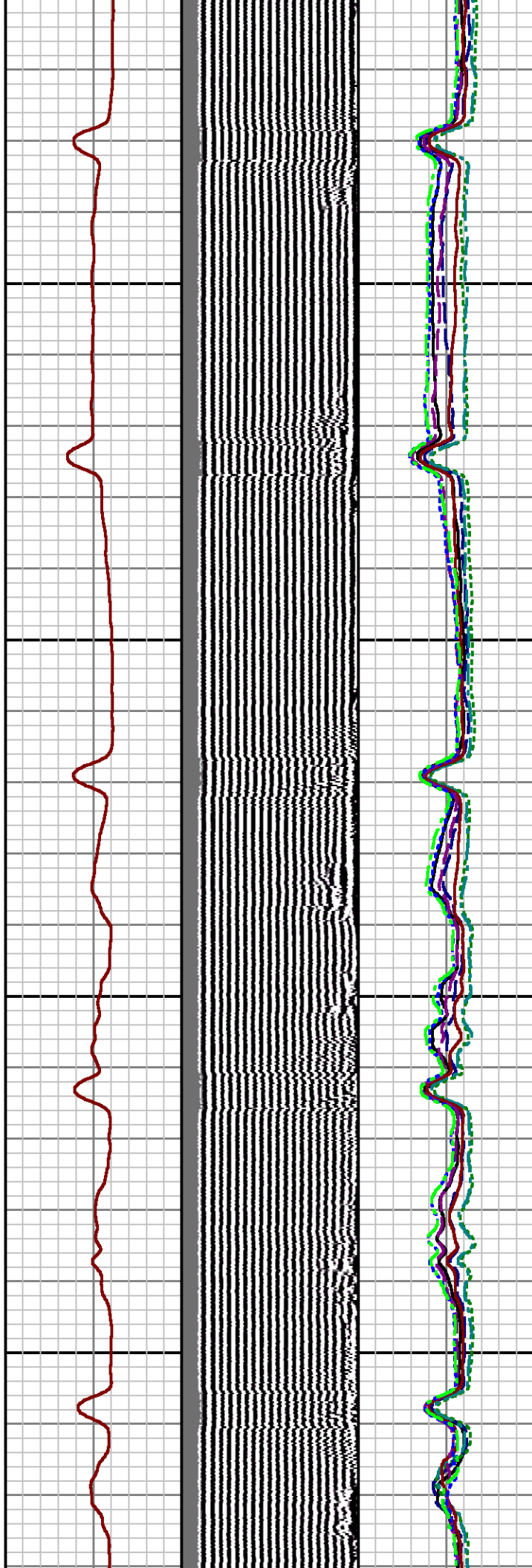
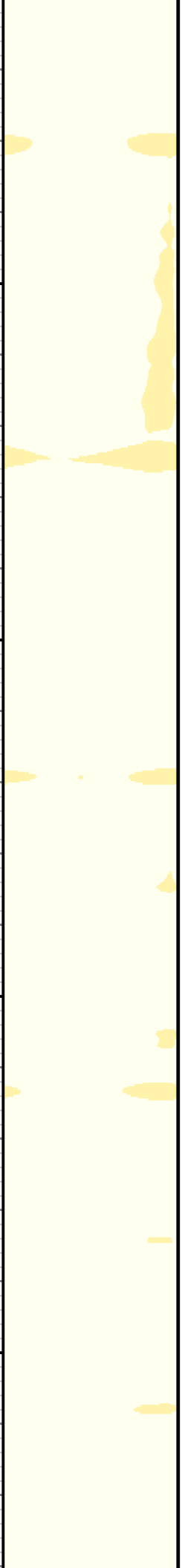


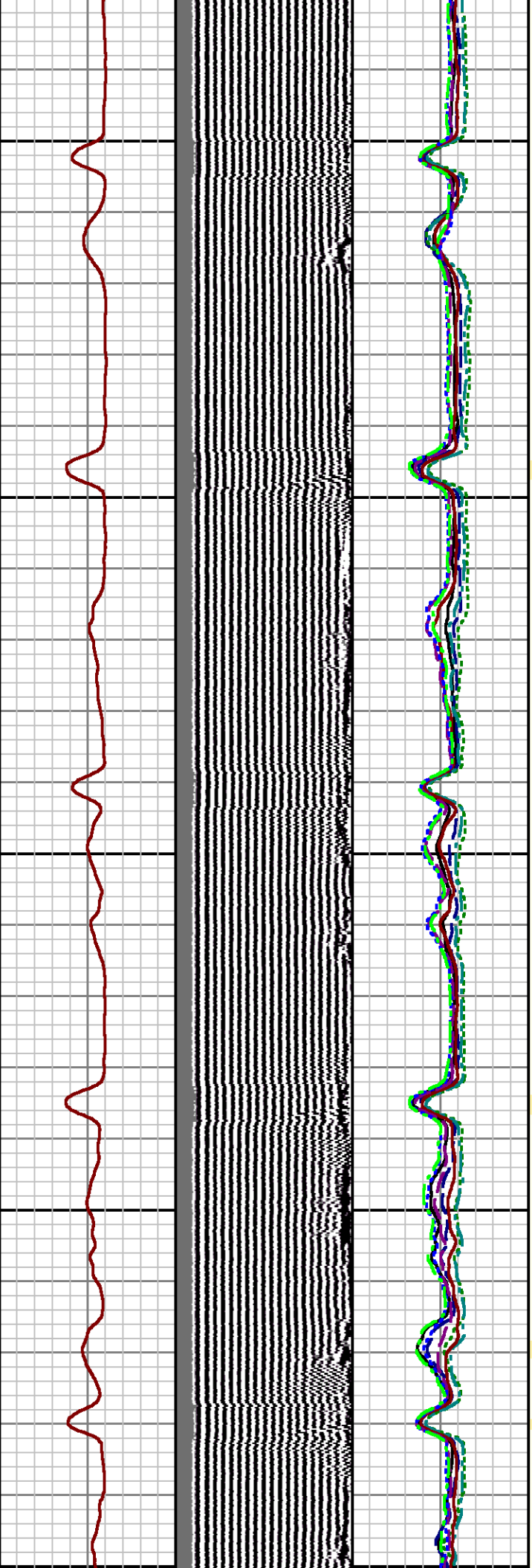


3600

3700

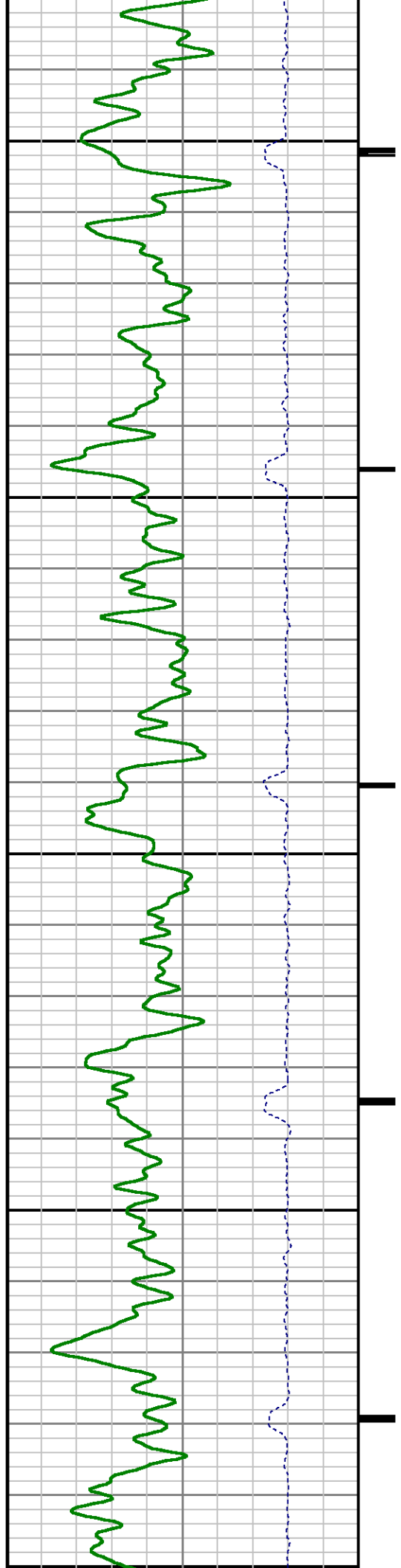
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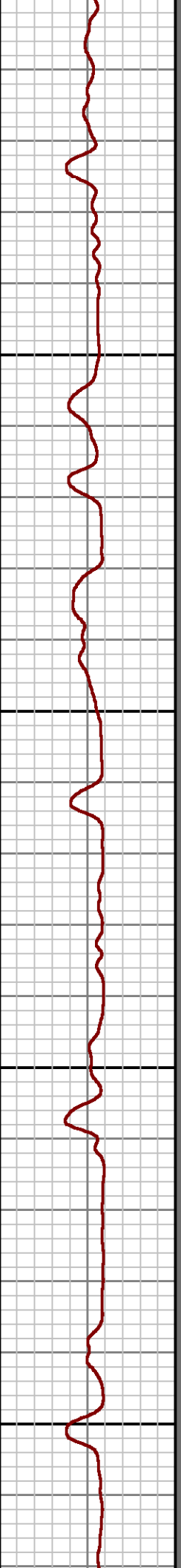
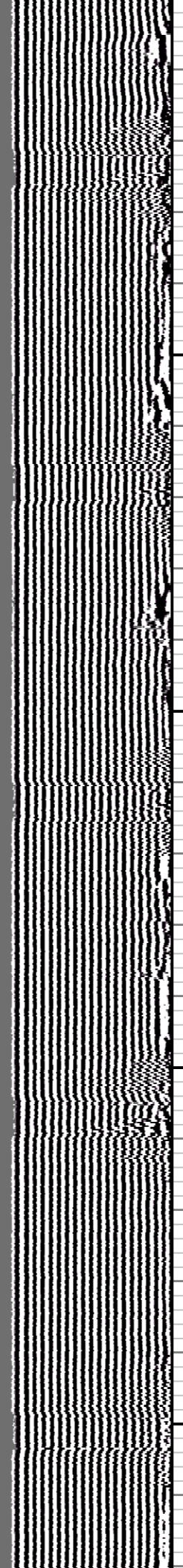
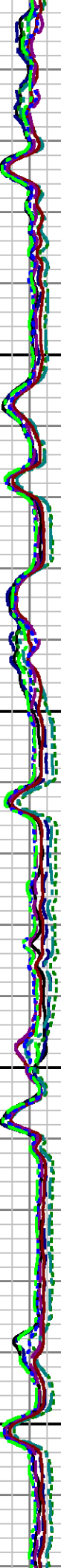
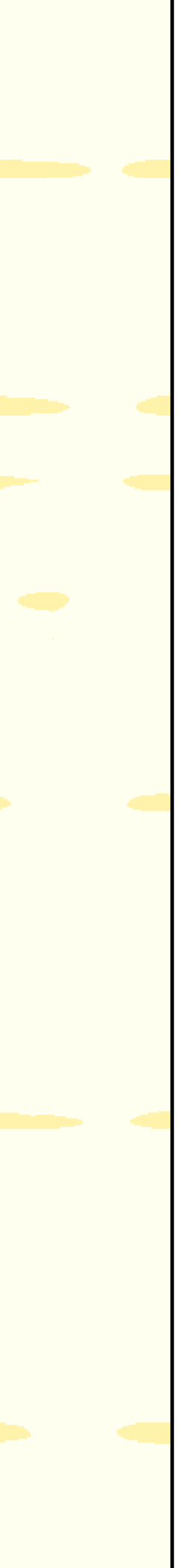




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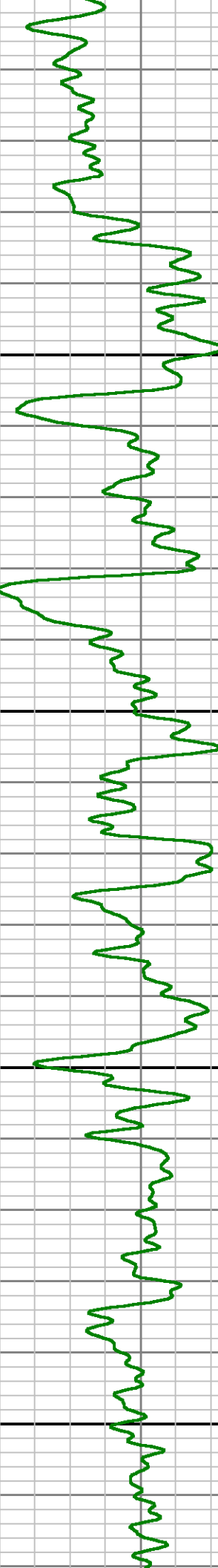
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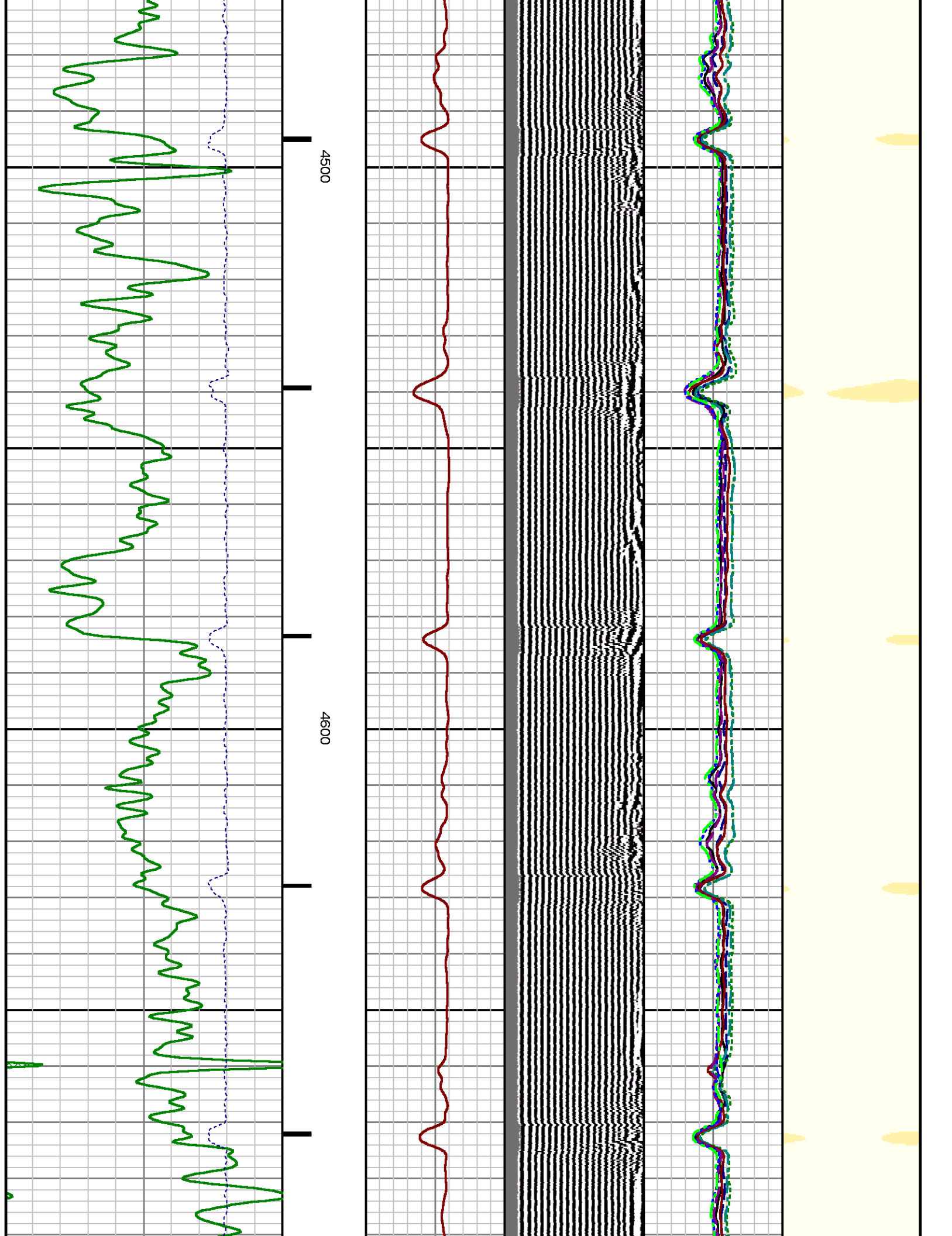


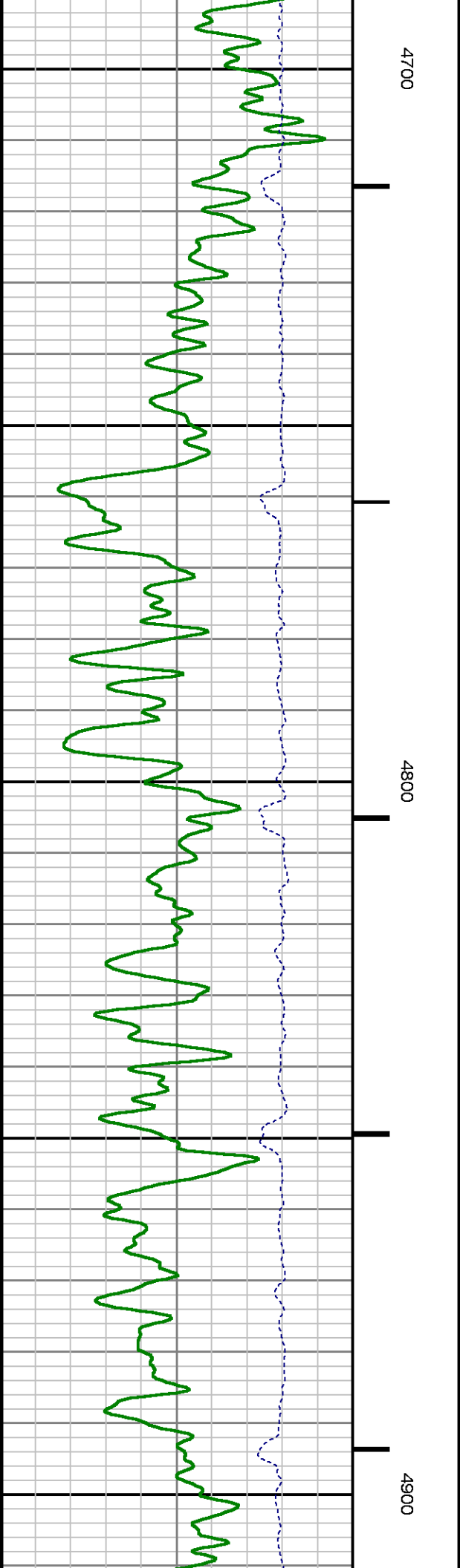
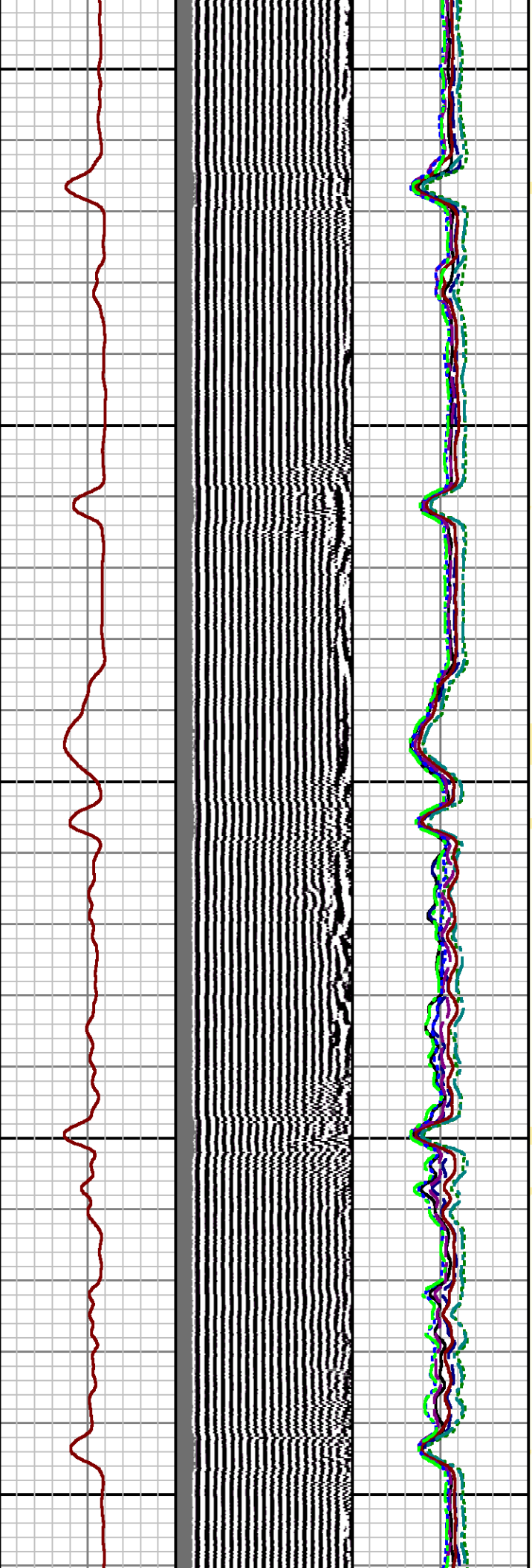
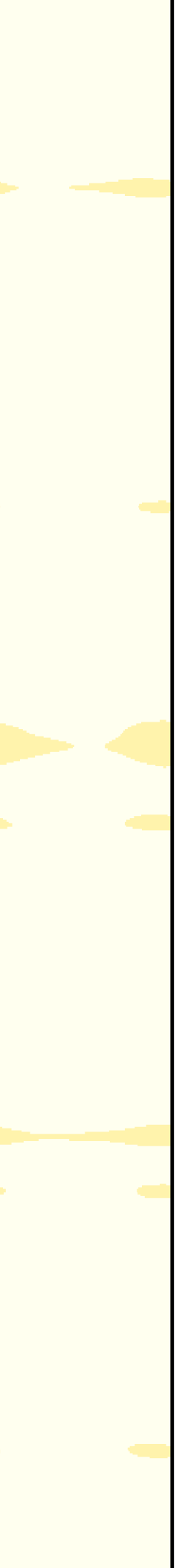


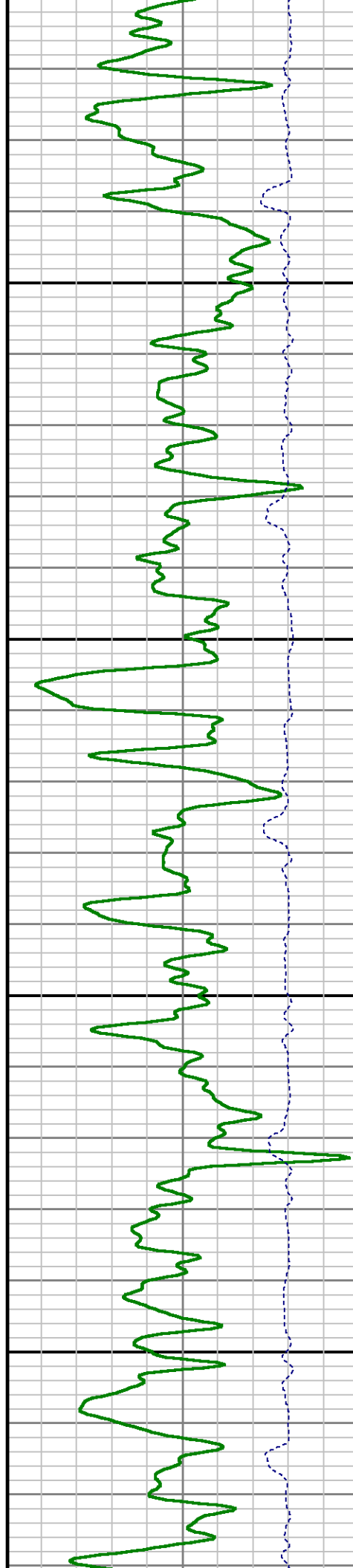
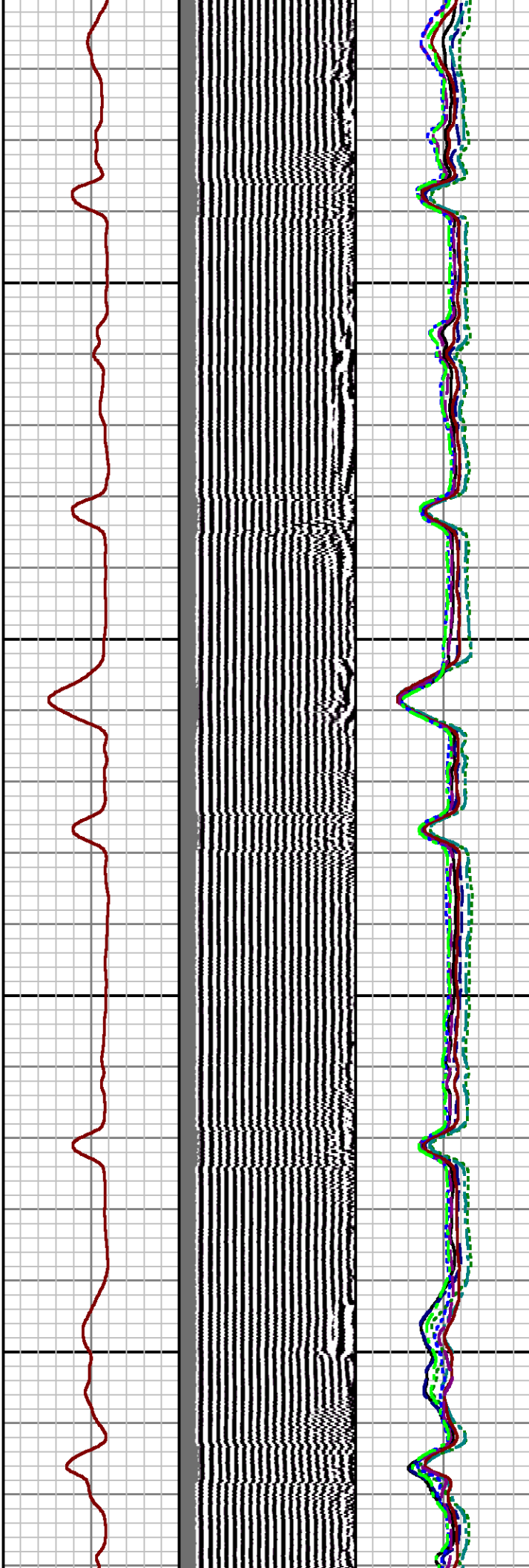
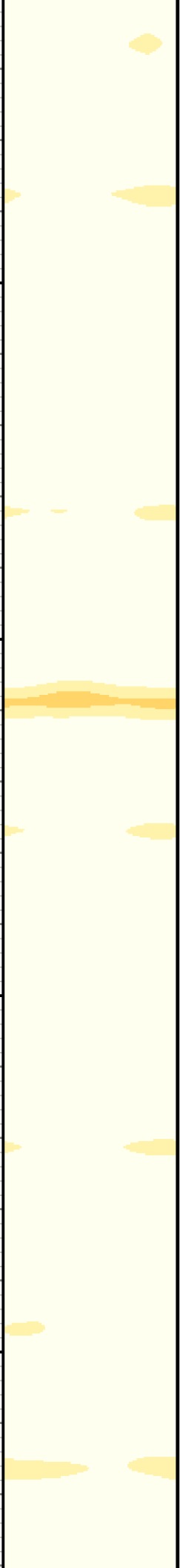
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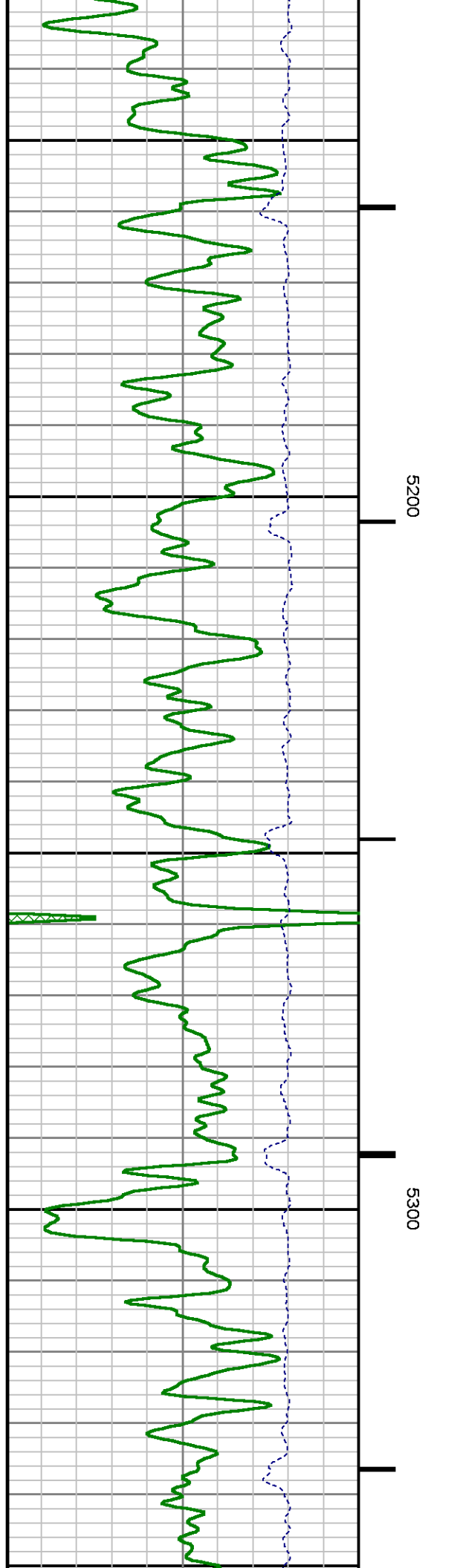
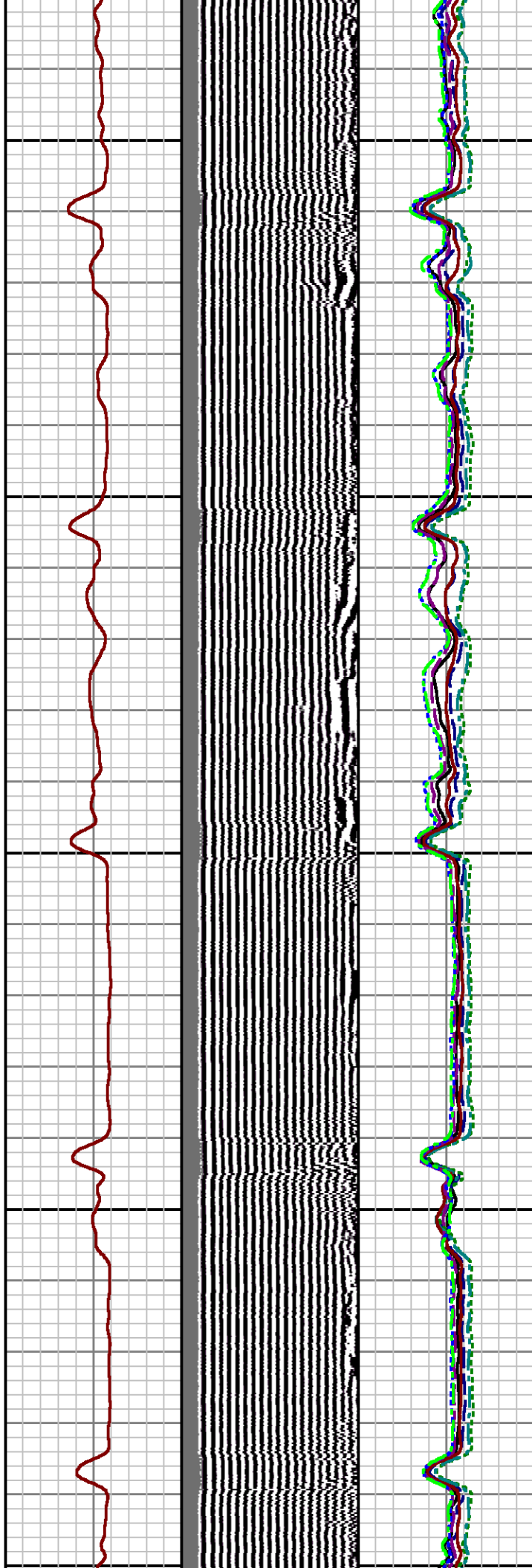
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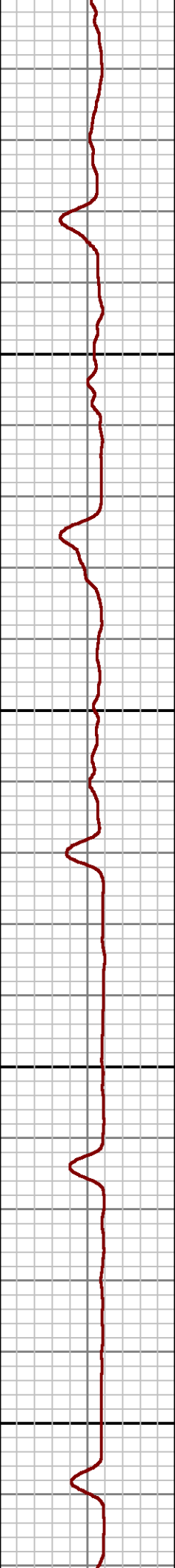
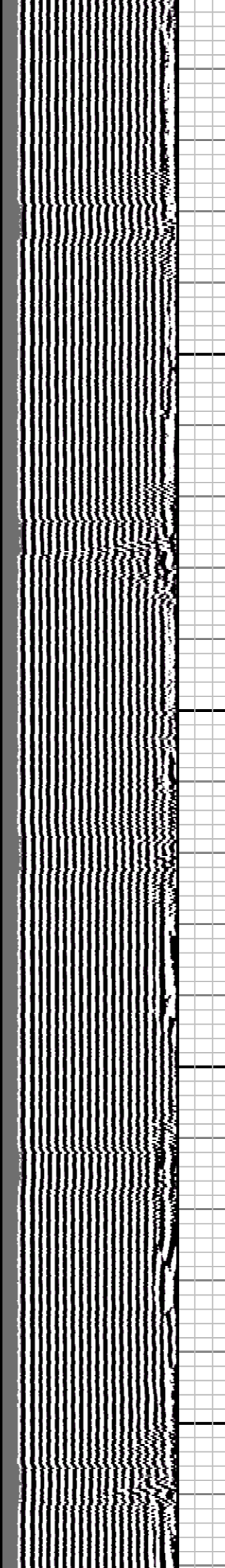
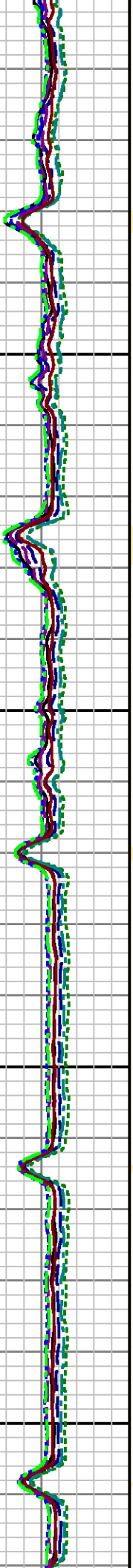






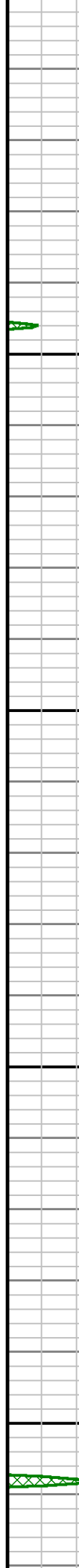
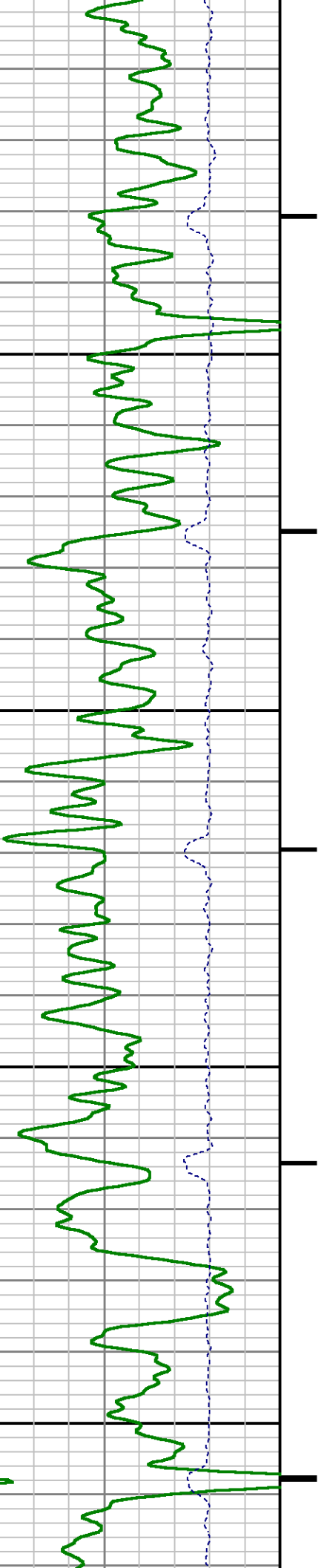


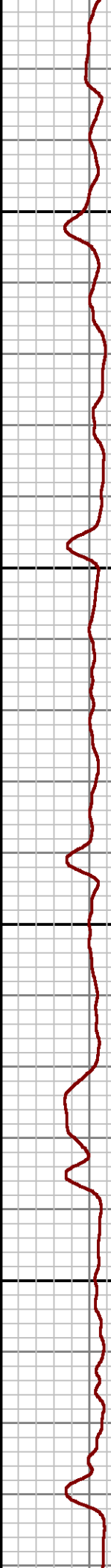
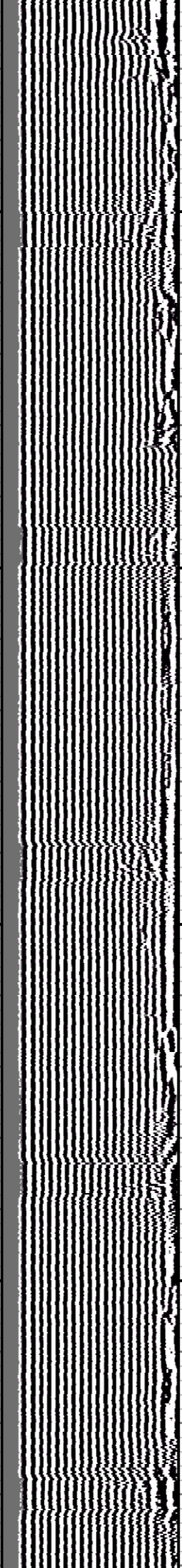
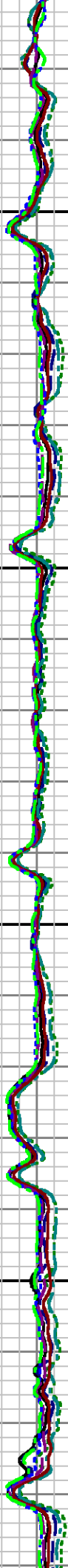
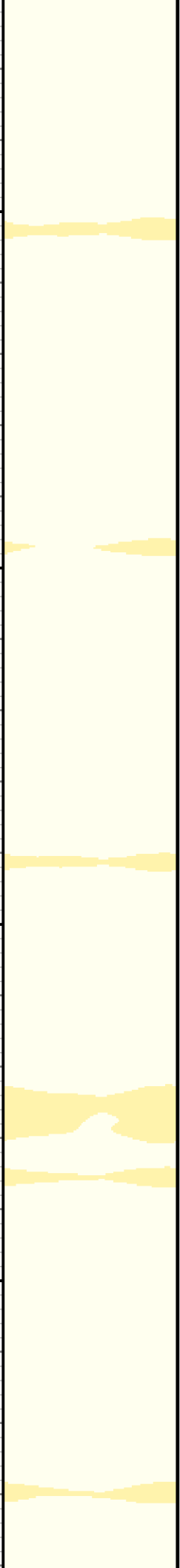




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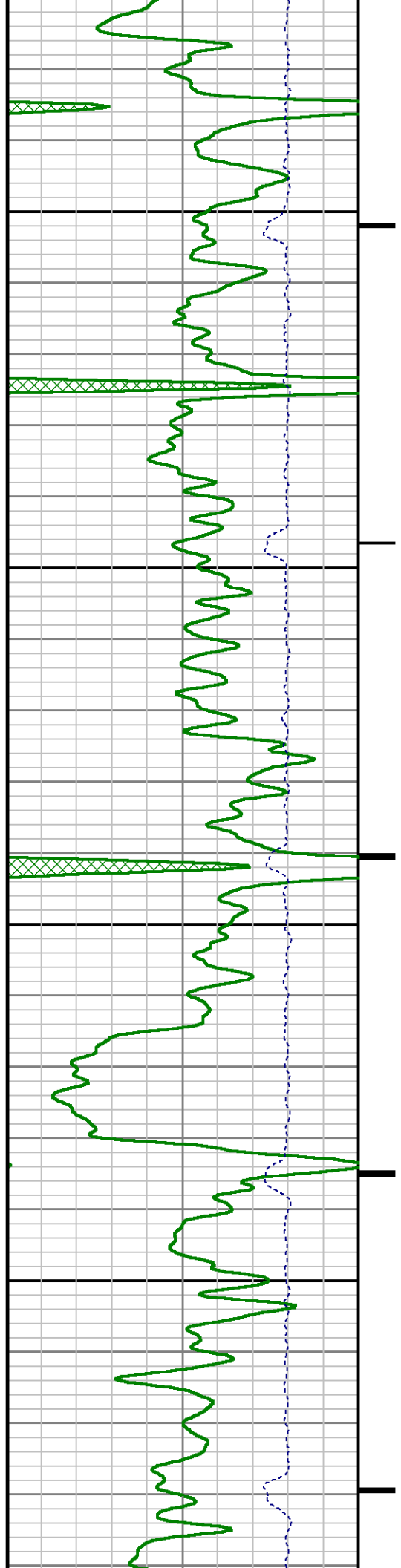
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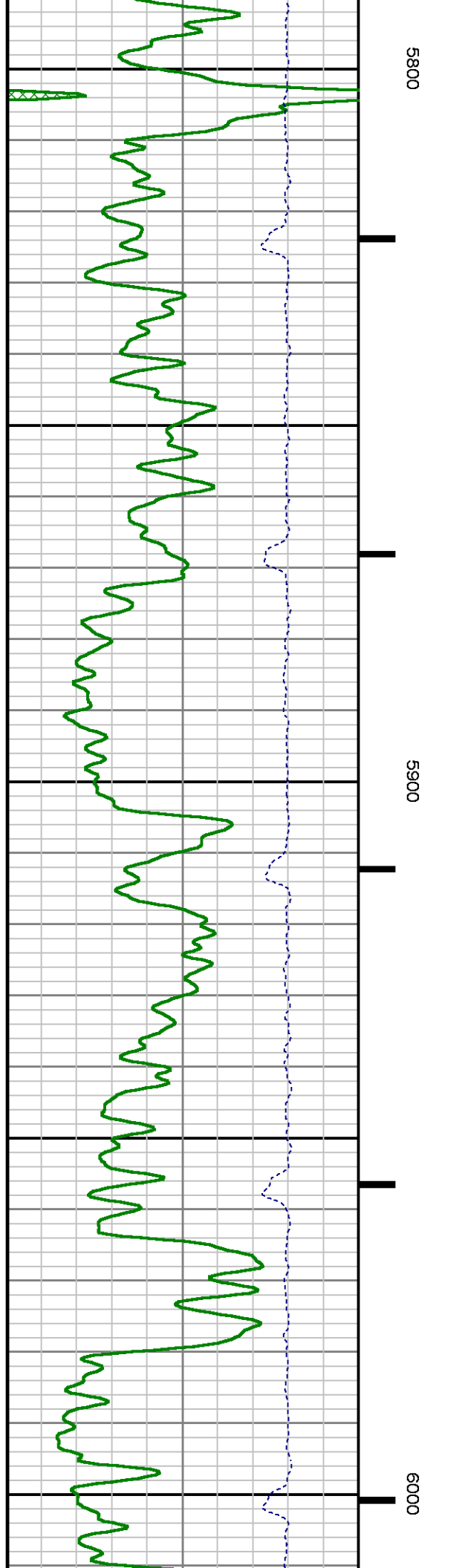
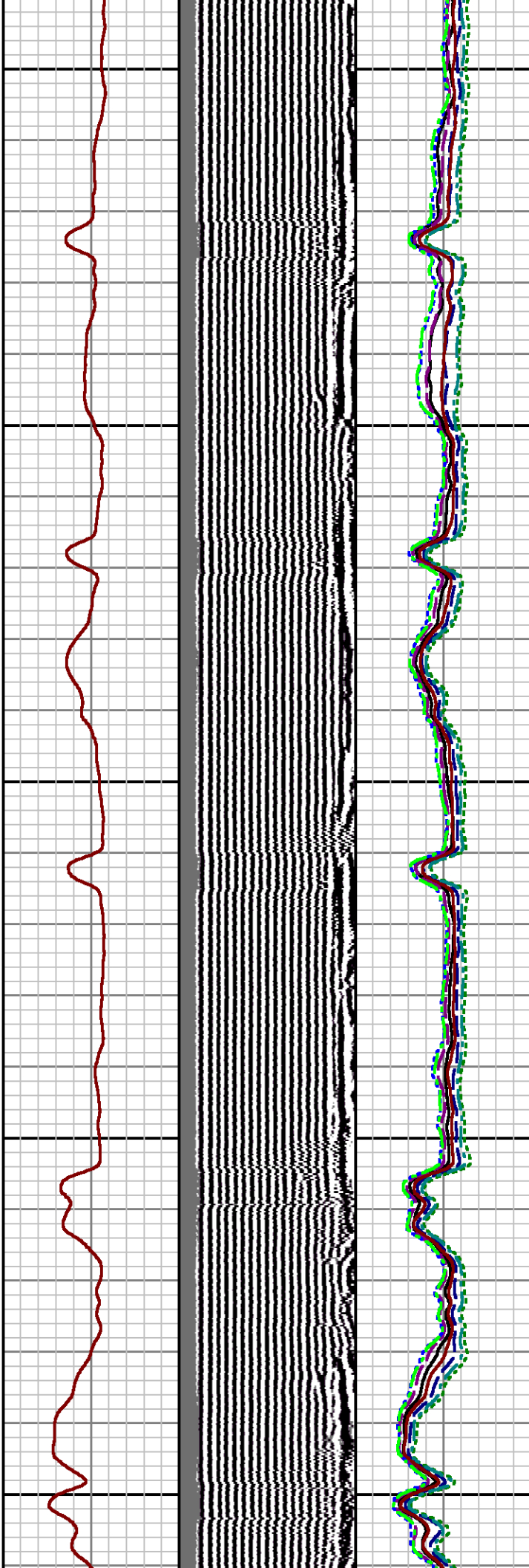
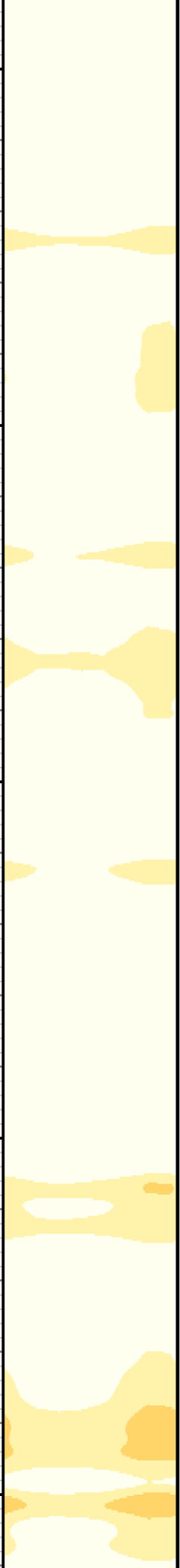


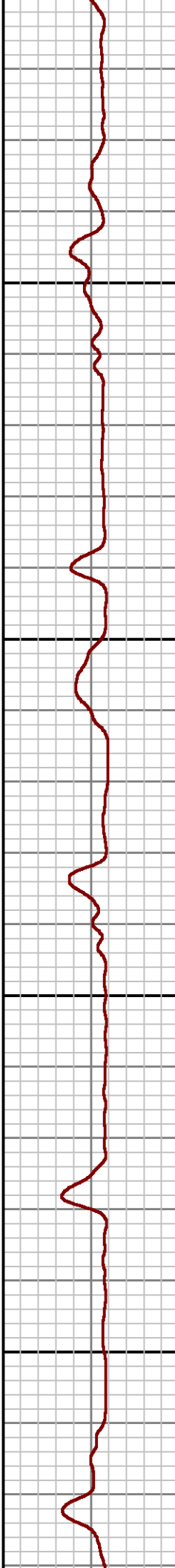
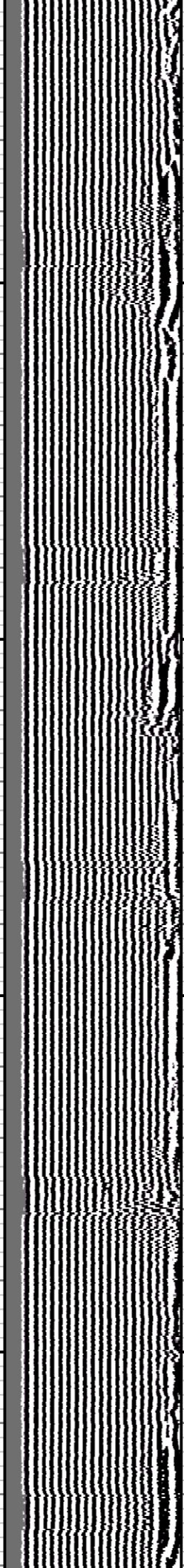
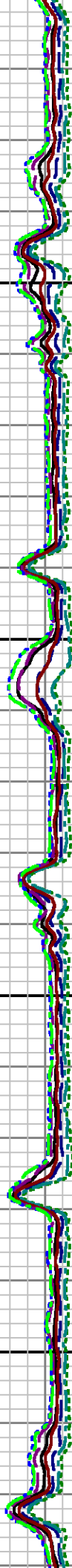
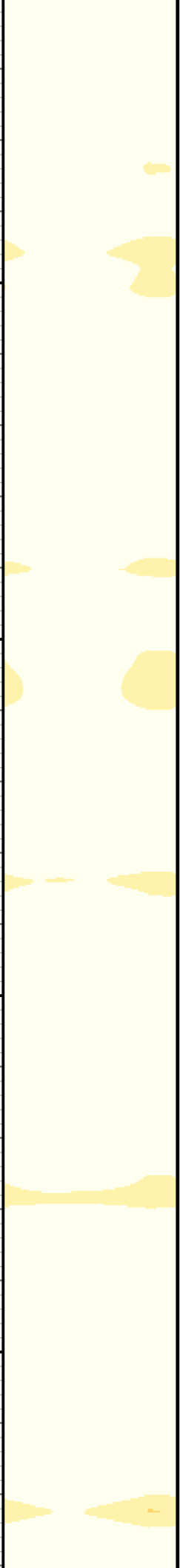


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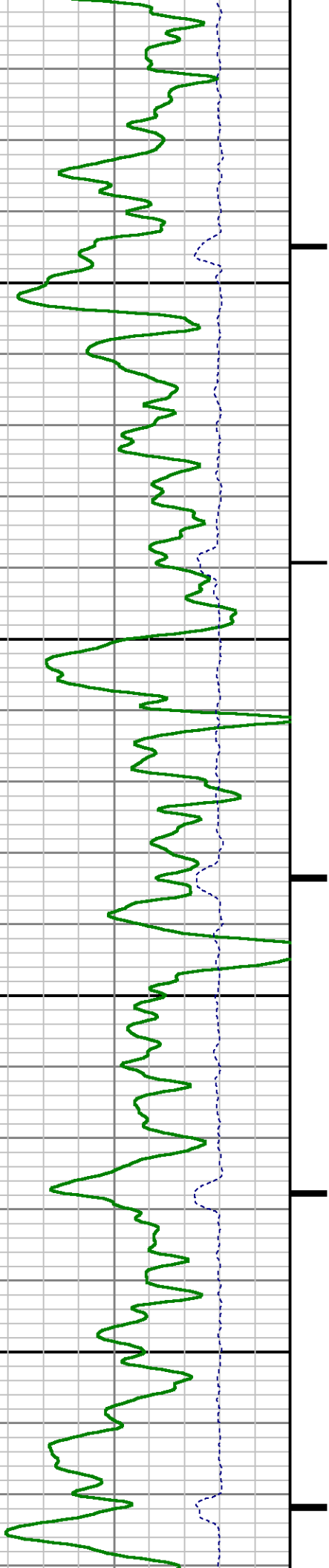


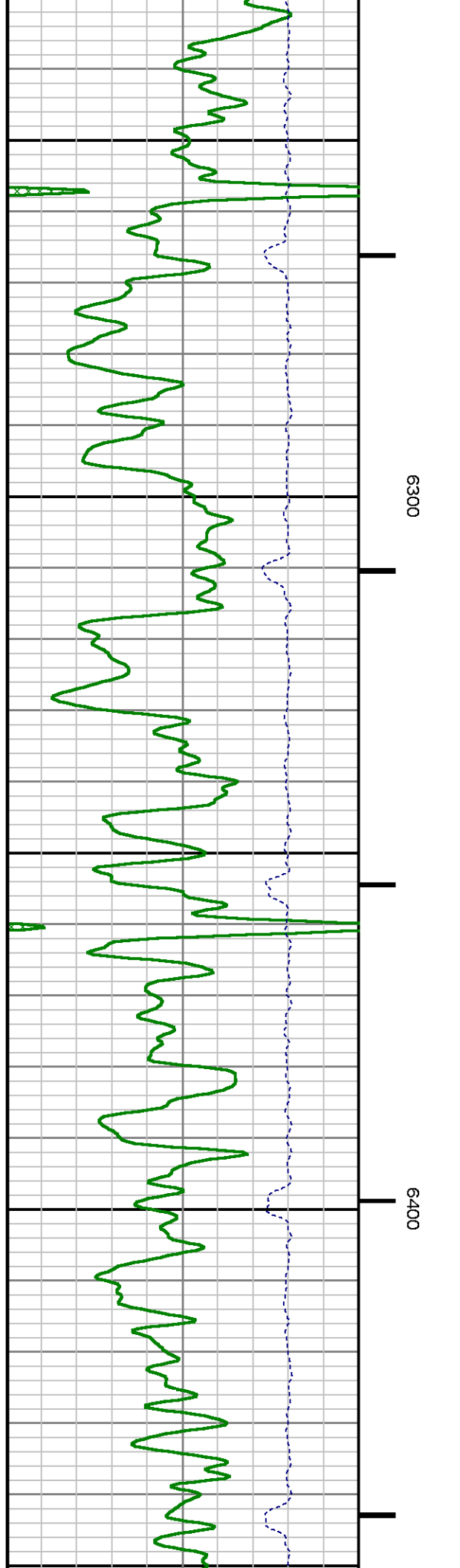
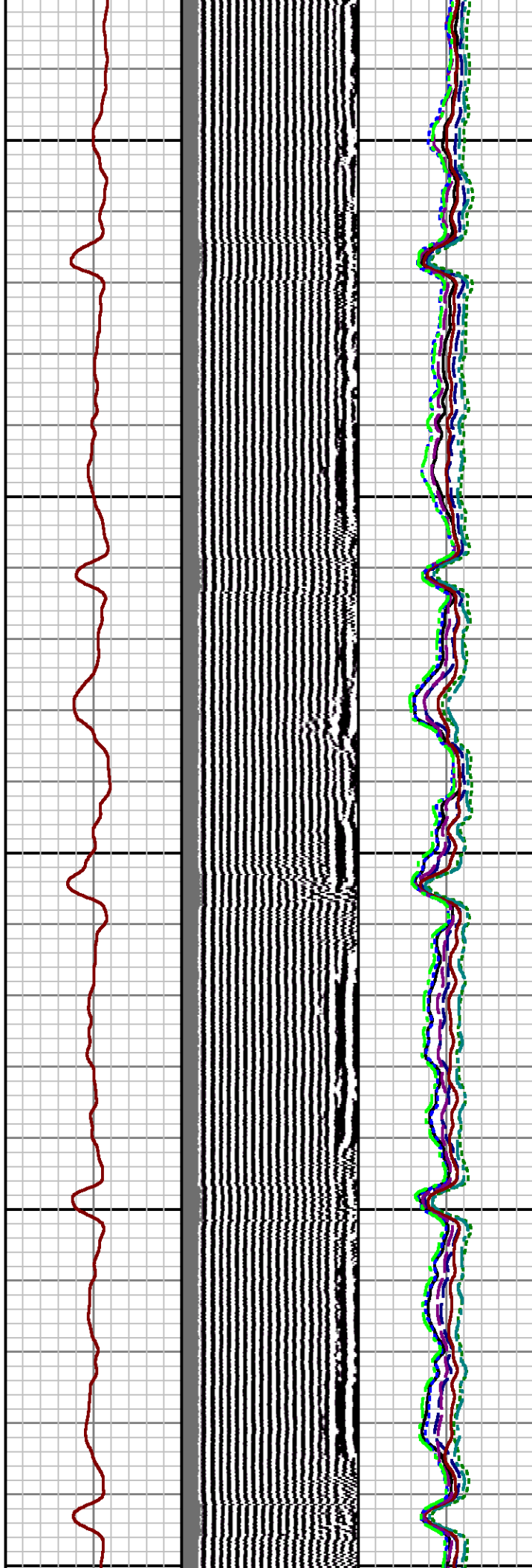
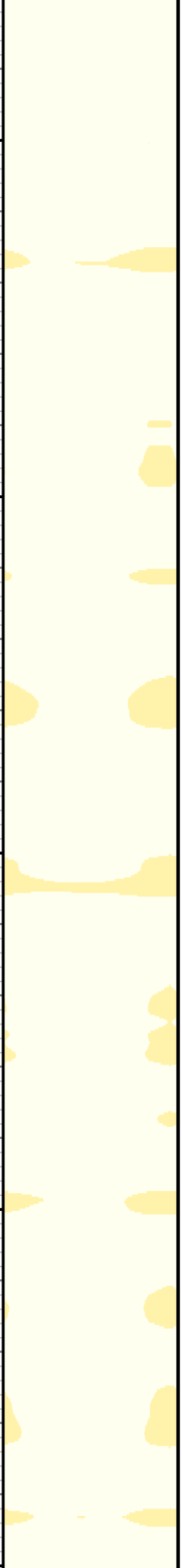


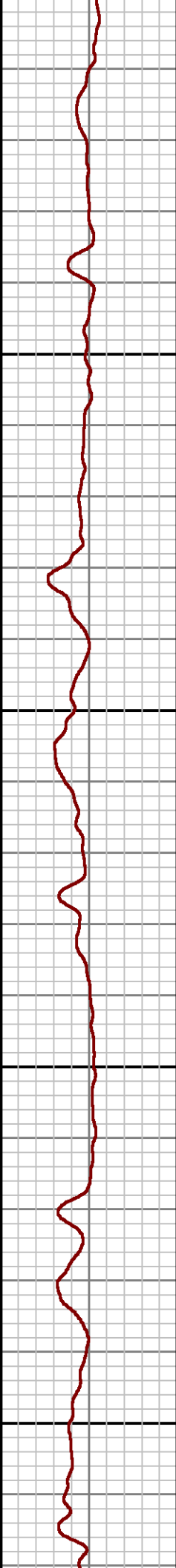
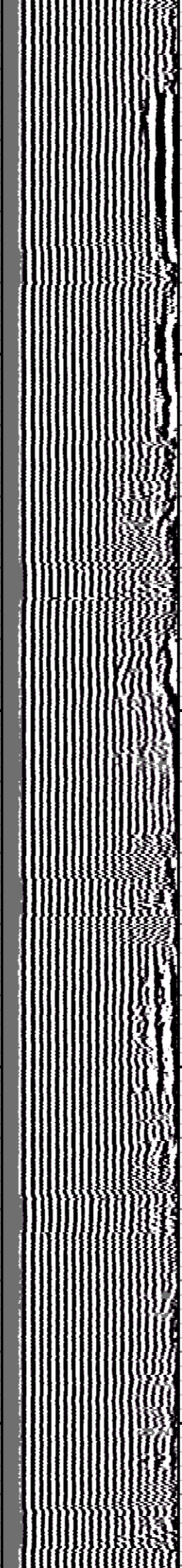
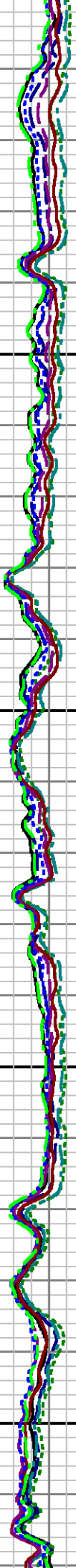
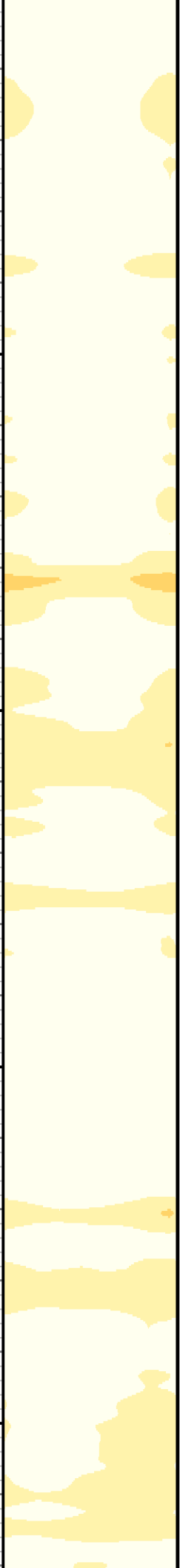


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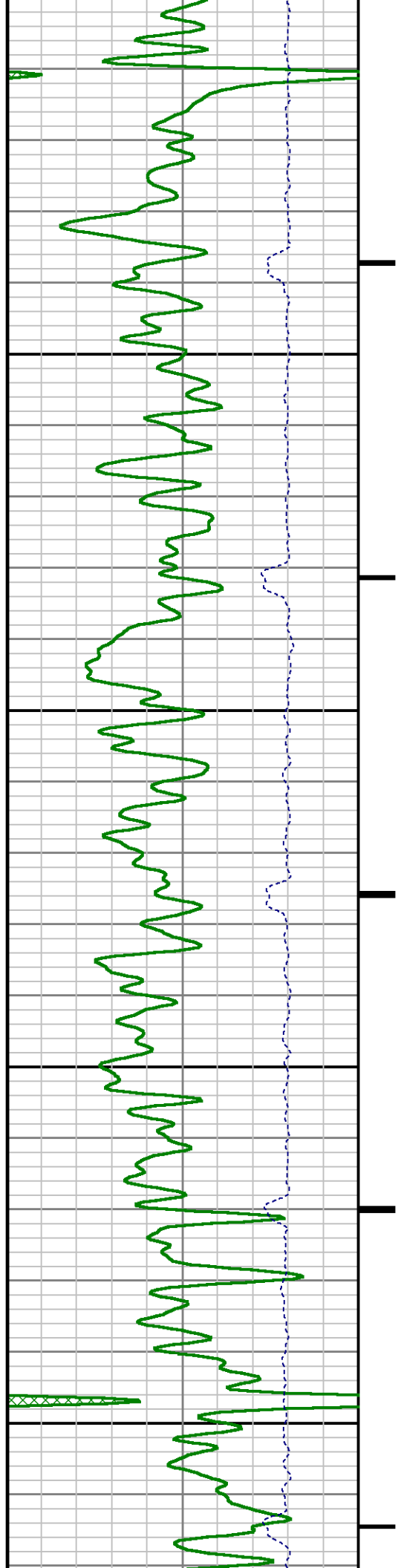


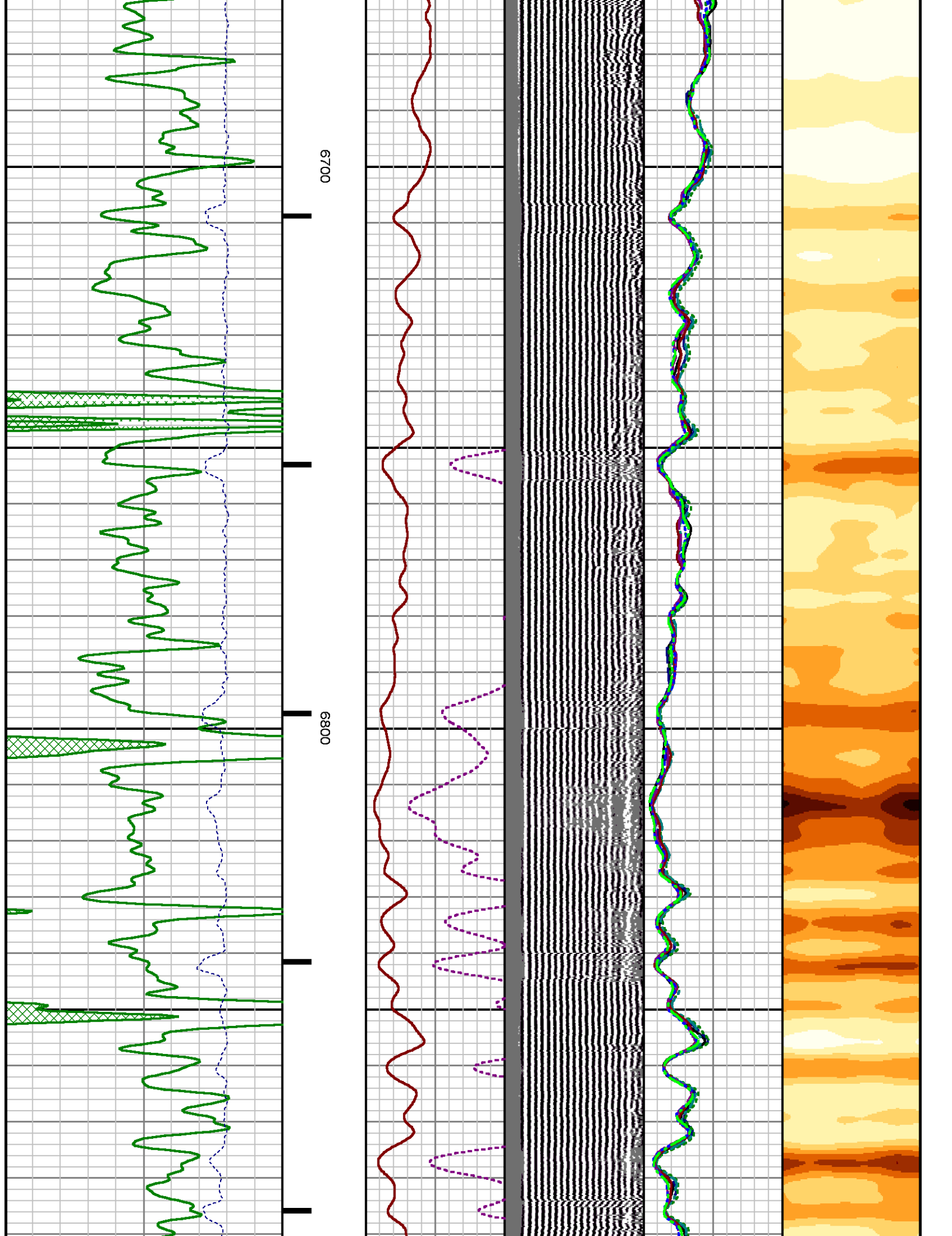


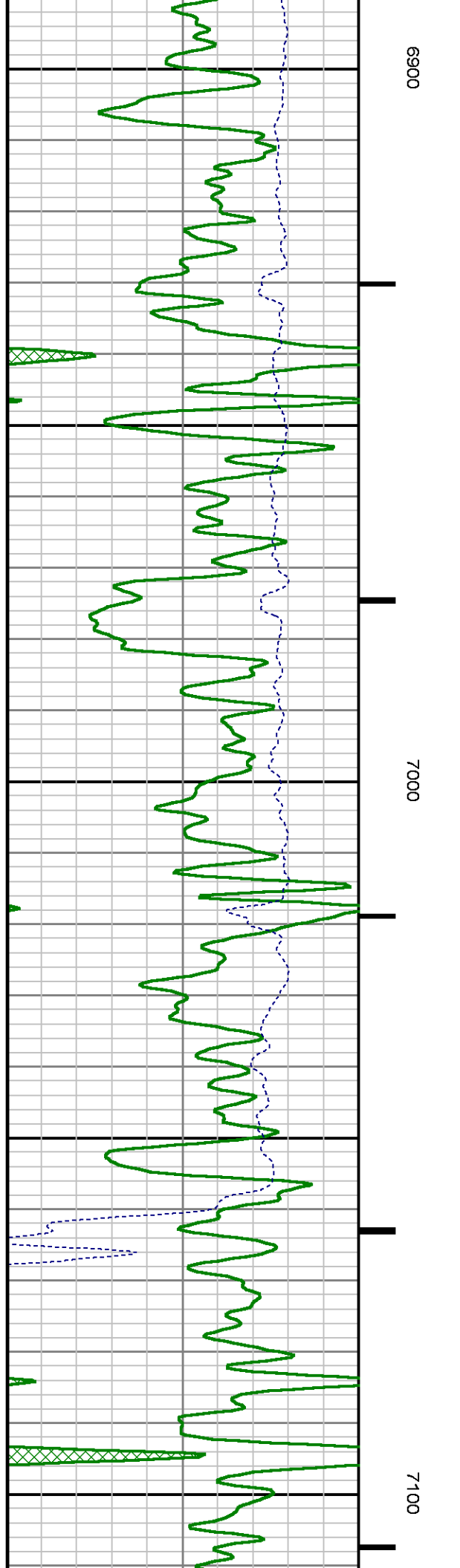
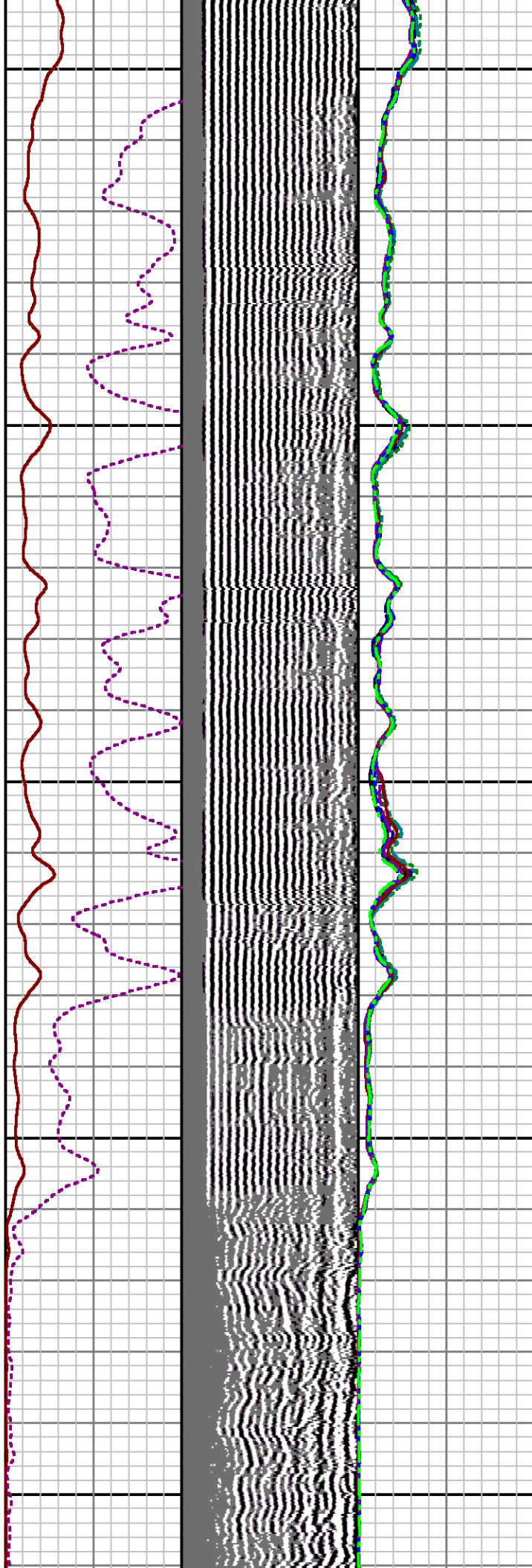
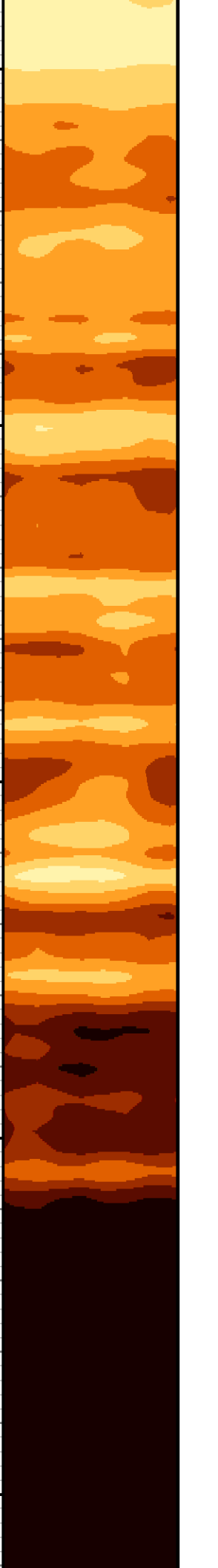


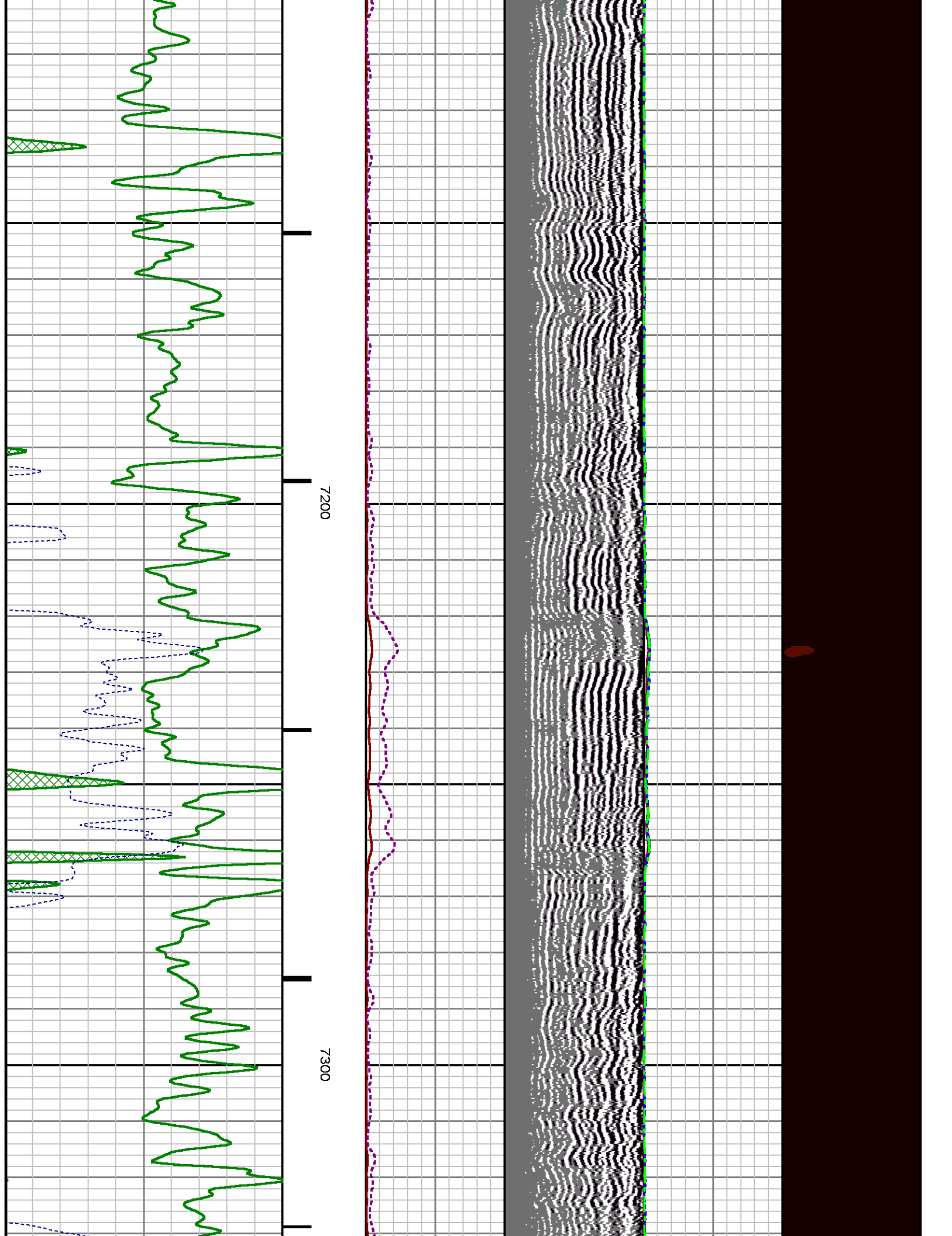
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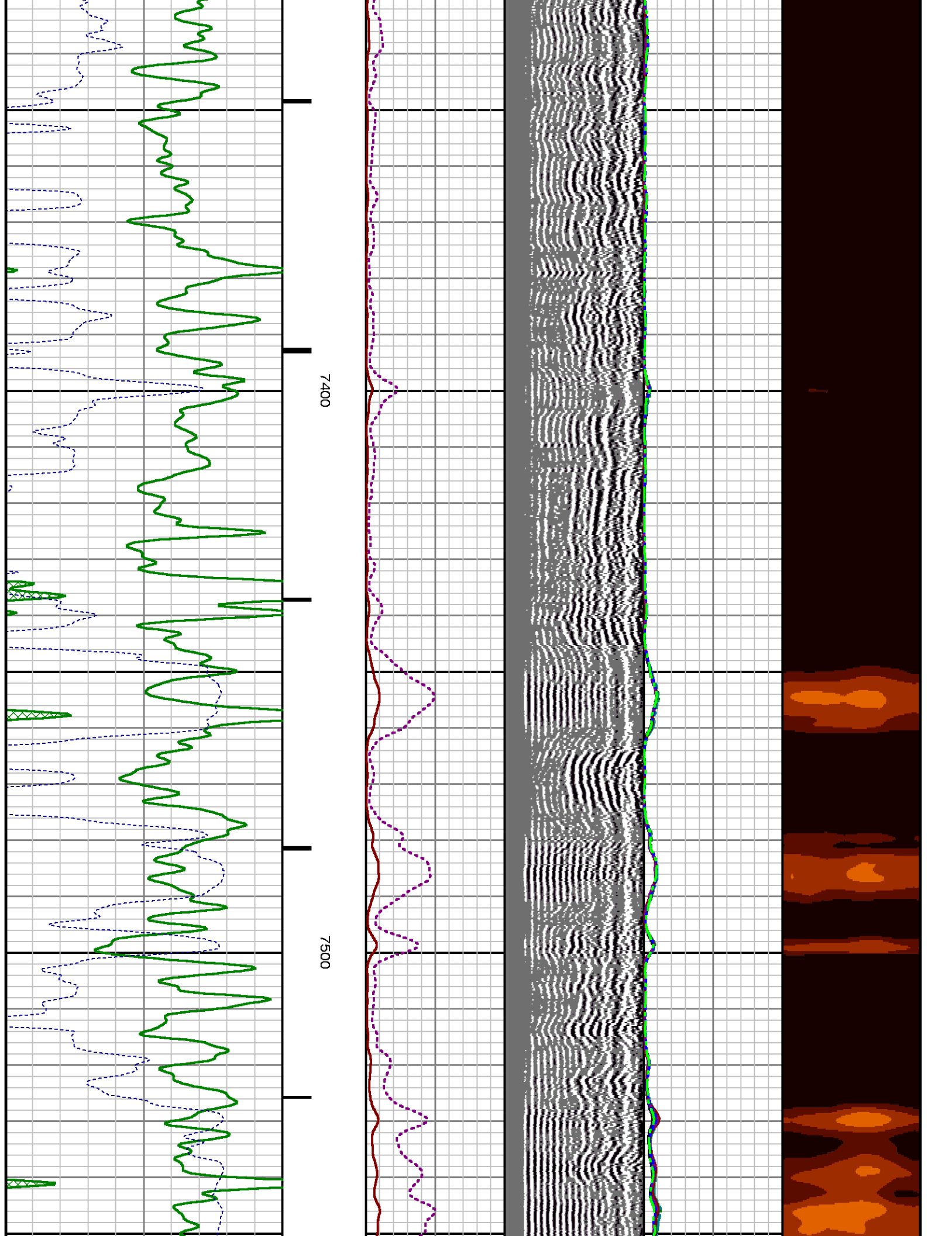
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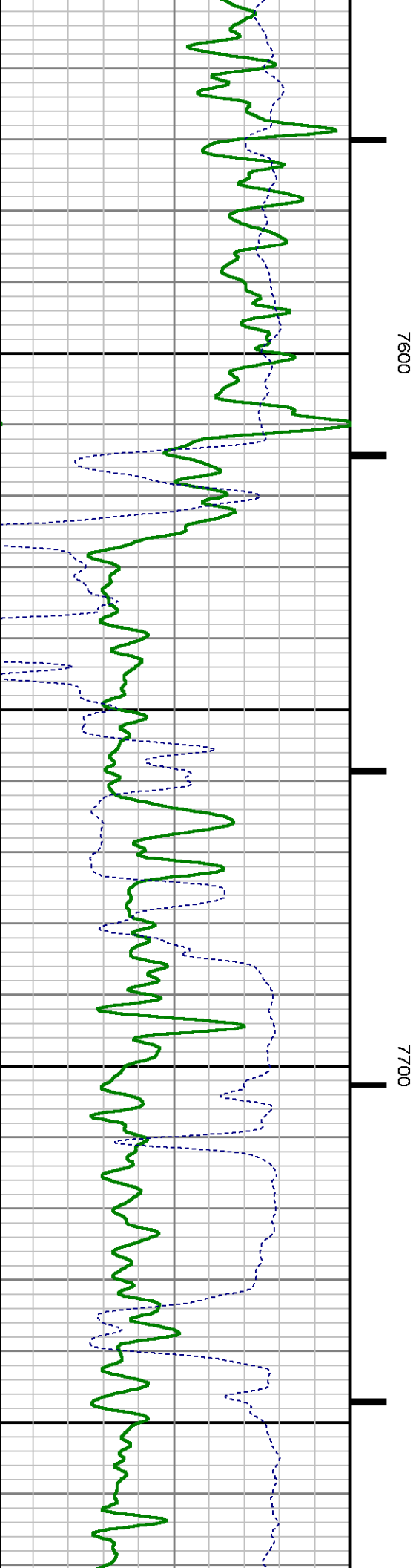
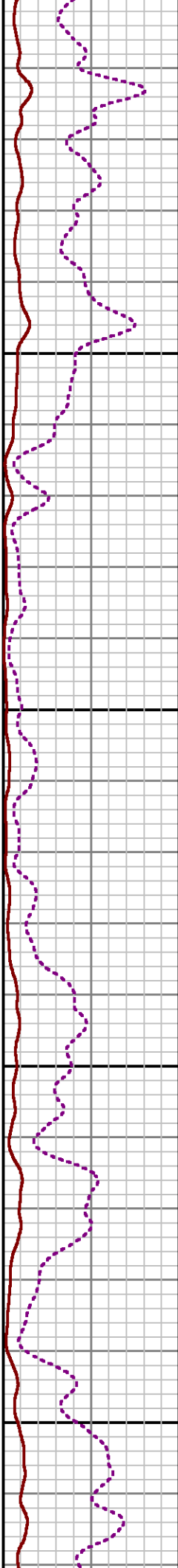
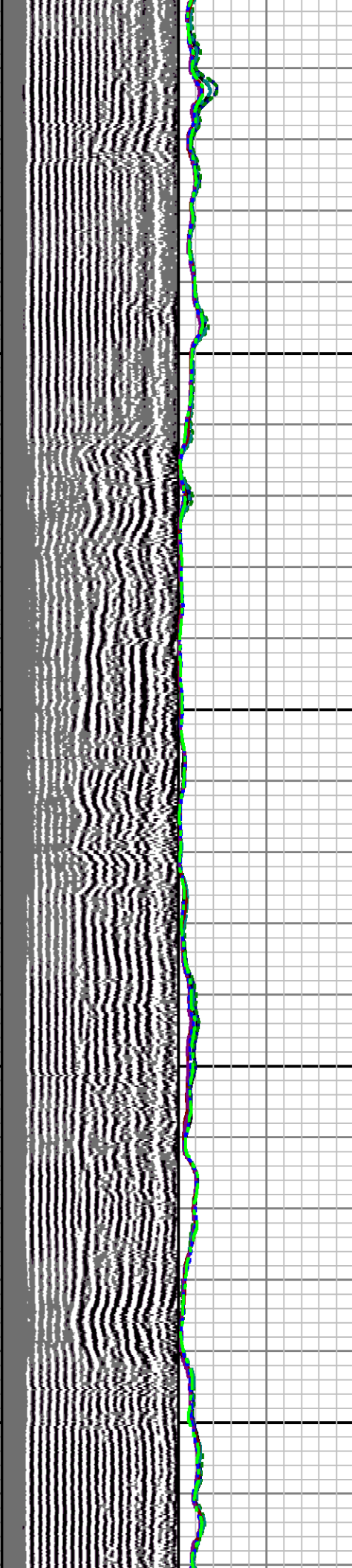


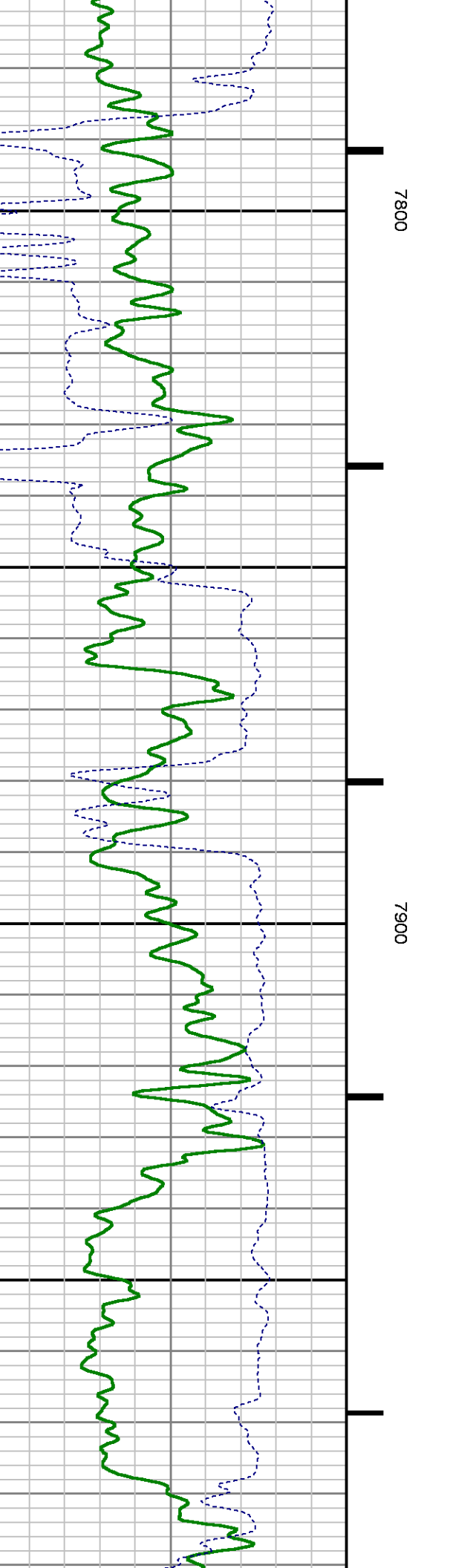
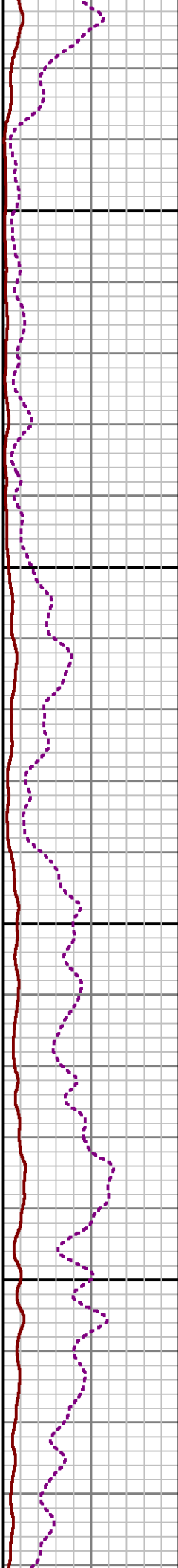
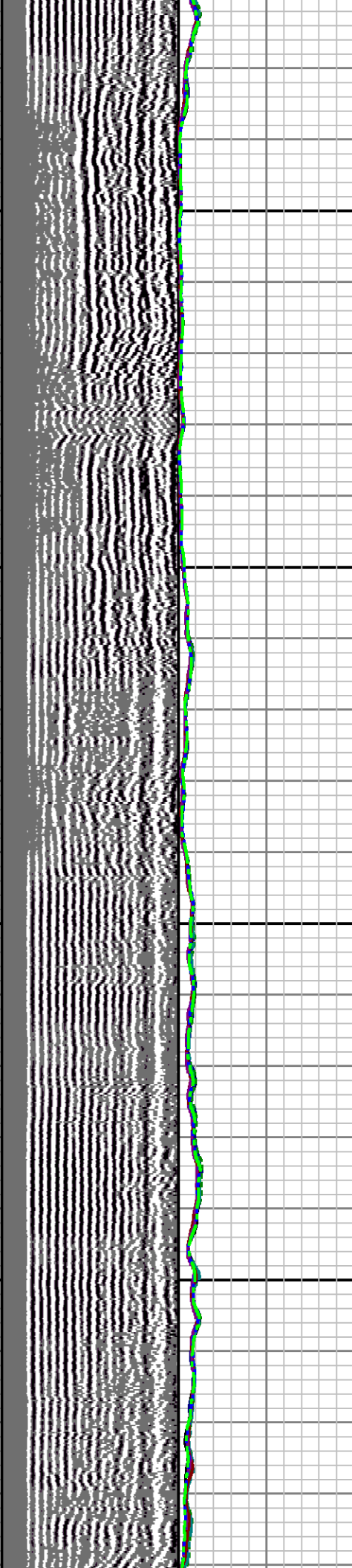


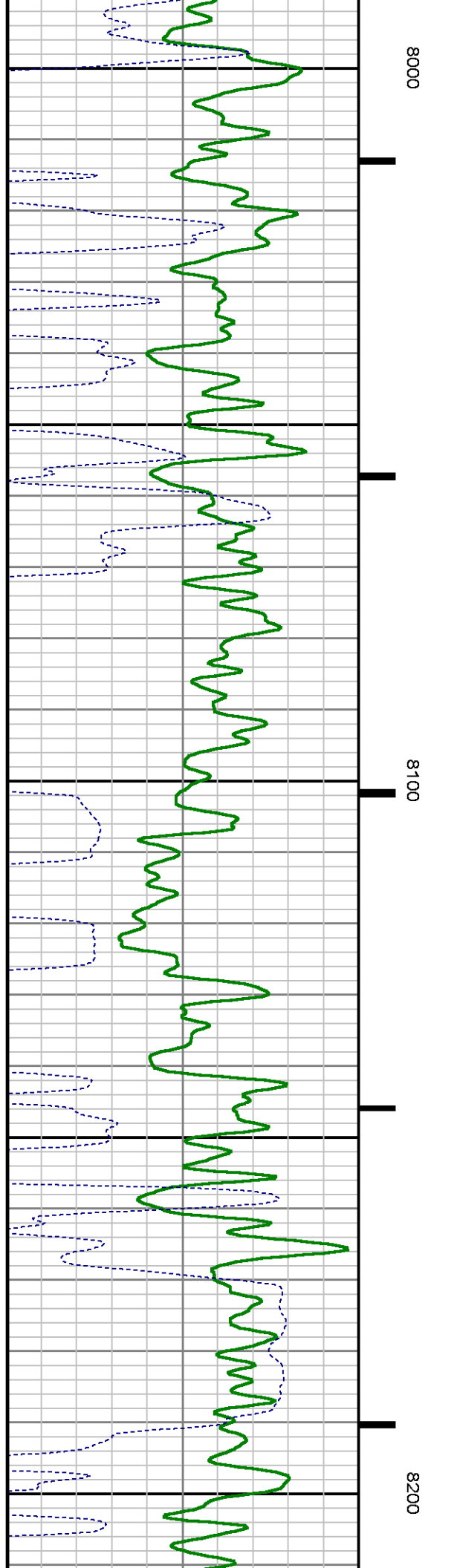
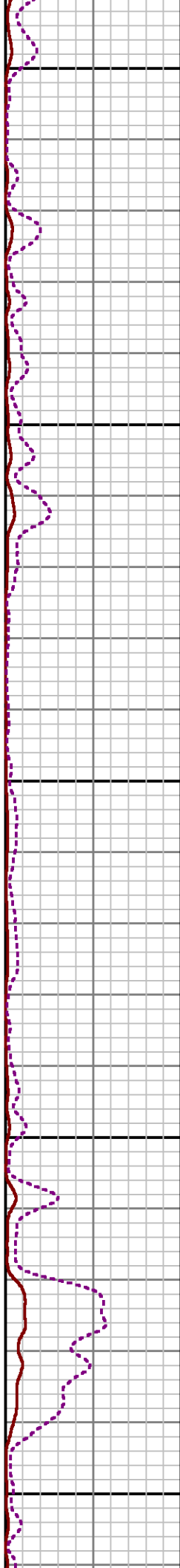
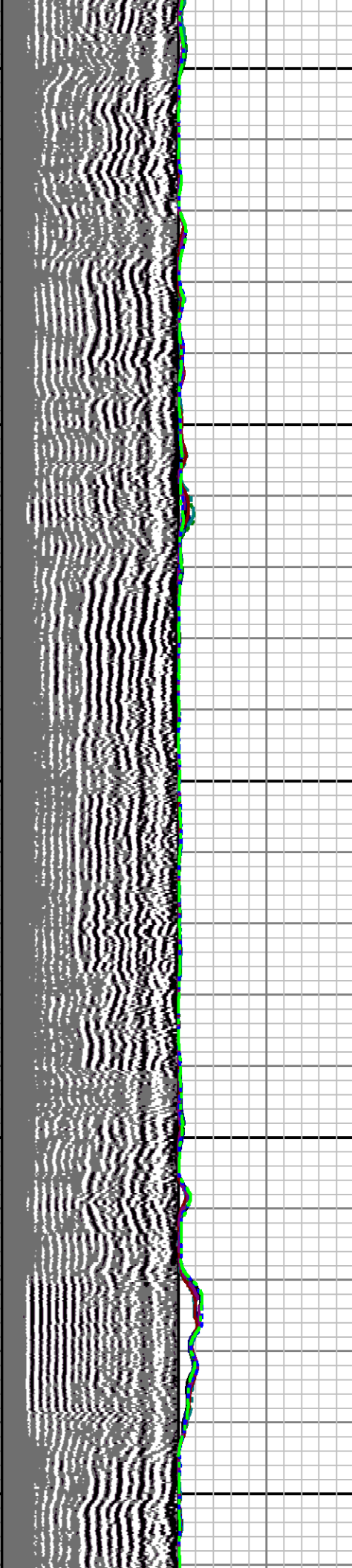


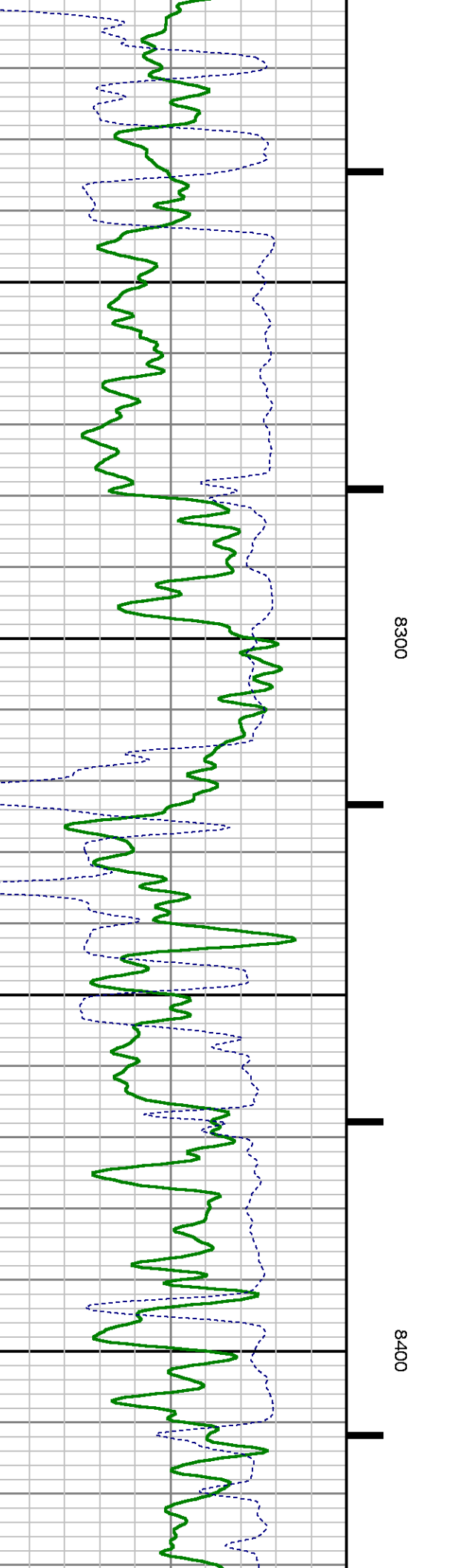
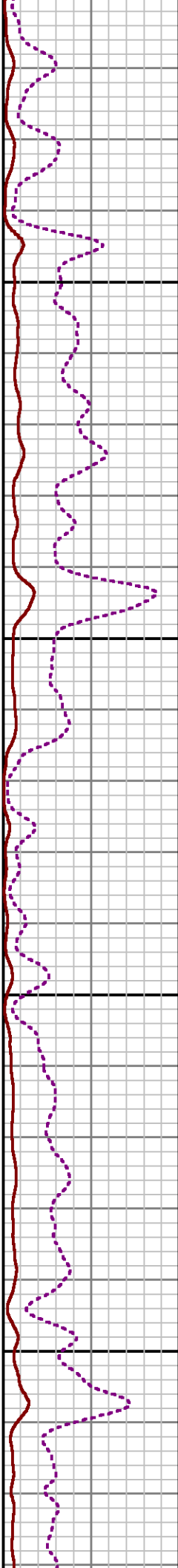
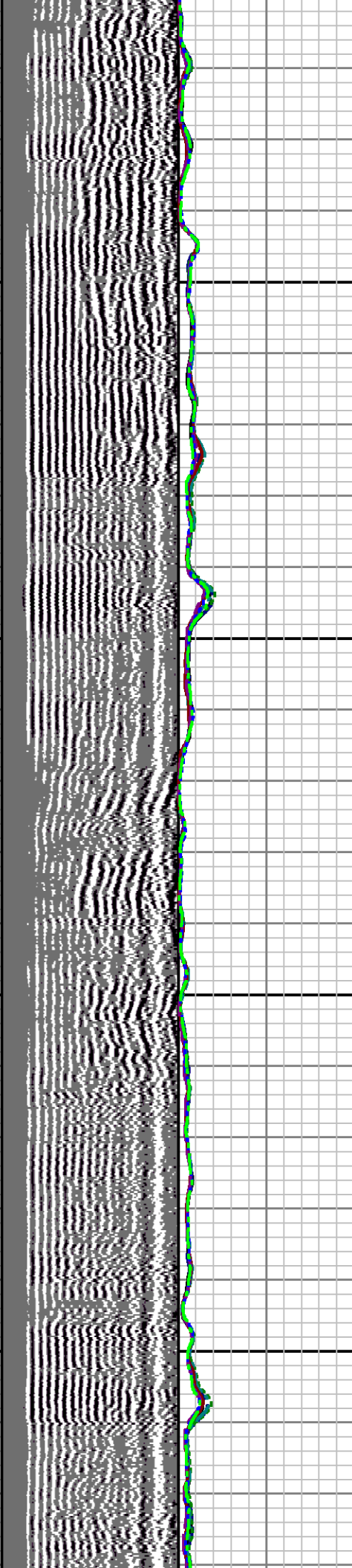


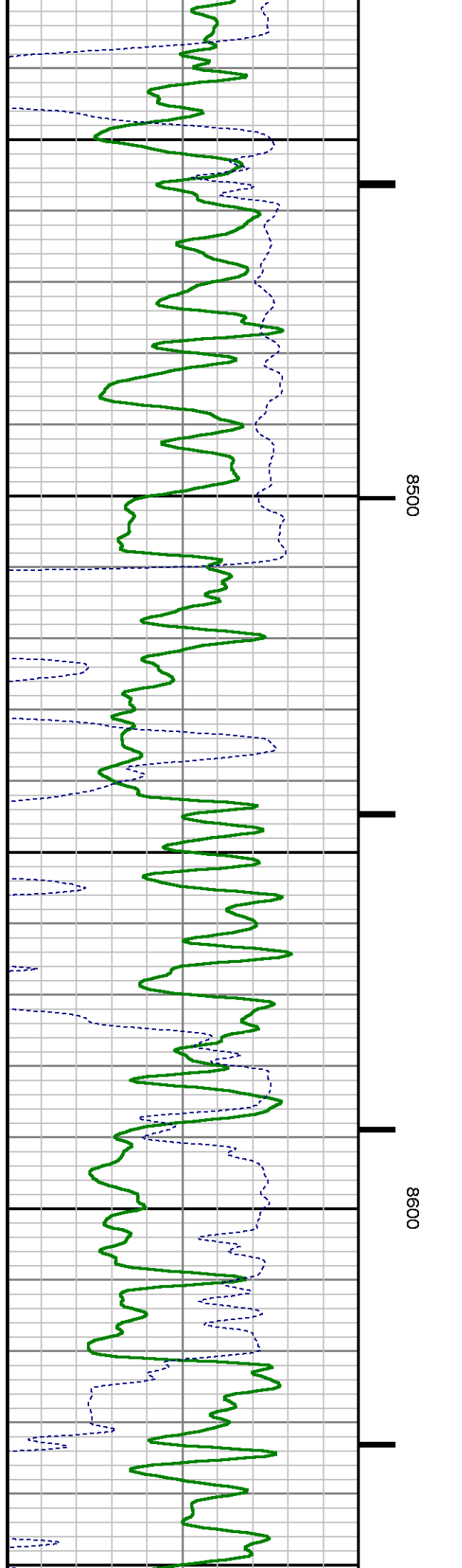
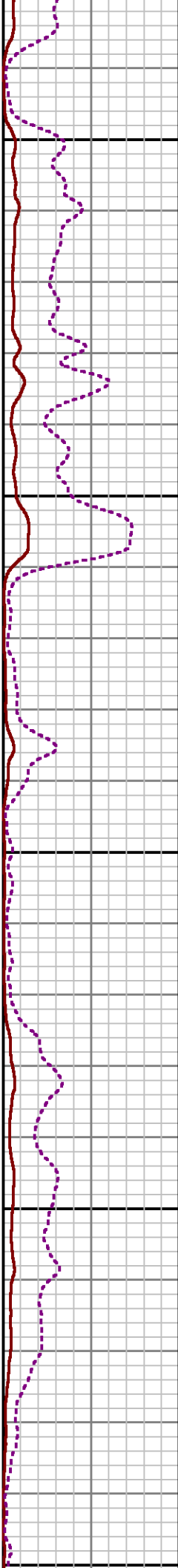
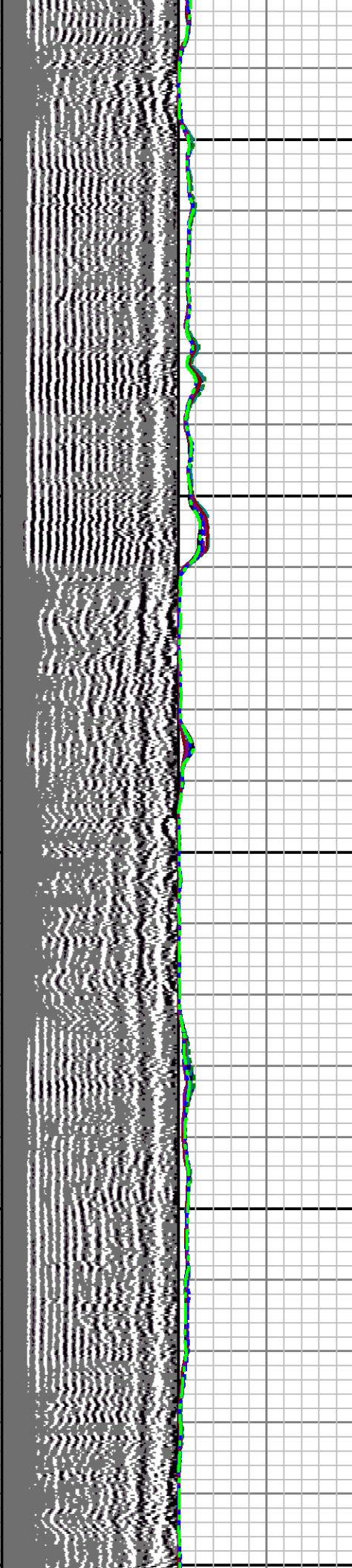


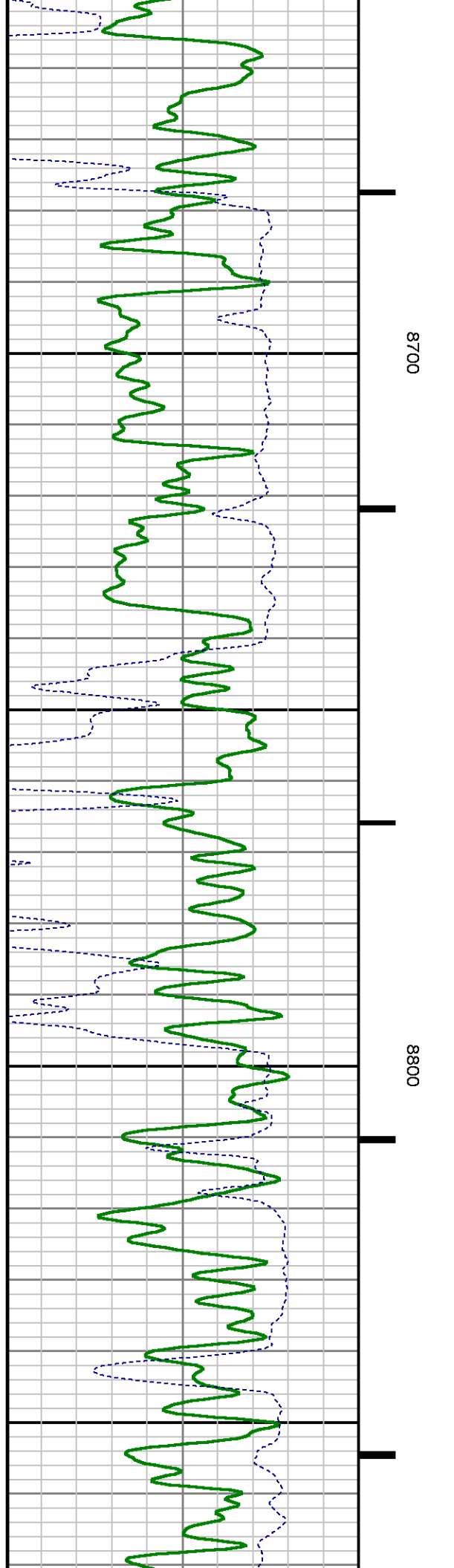
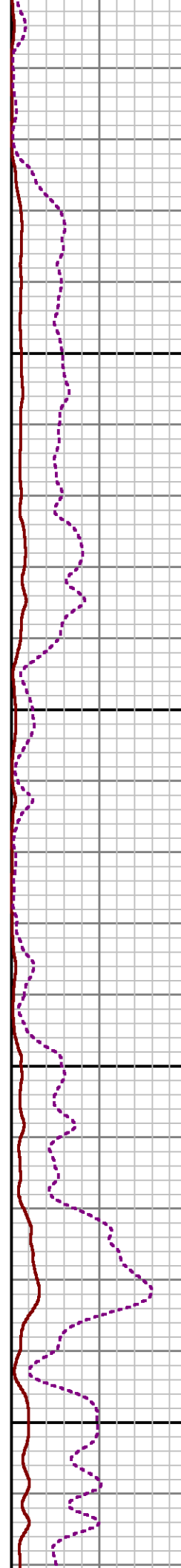
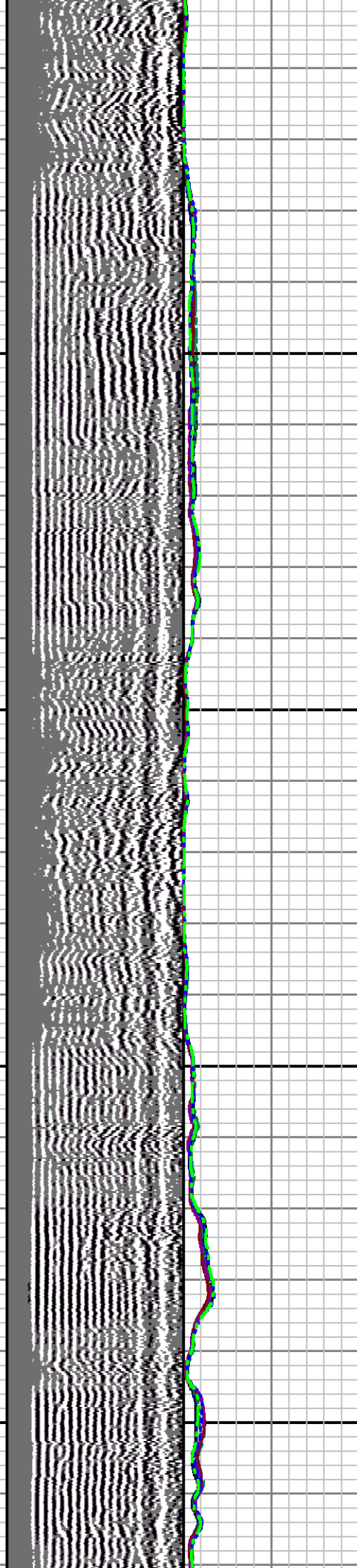


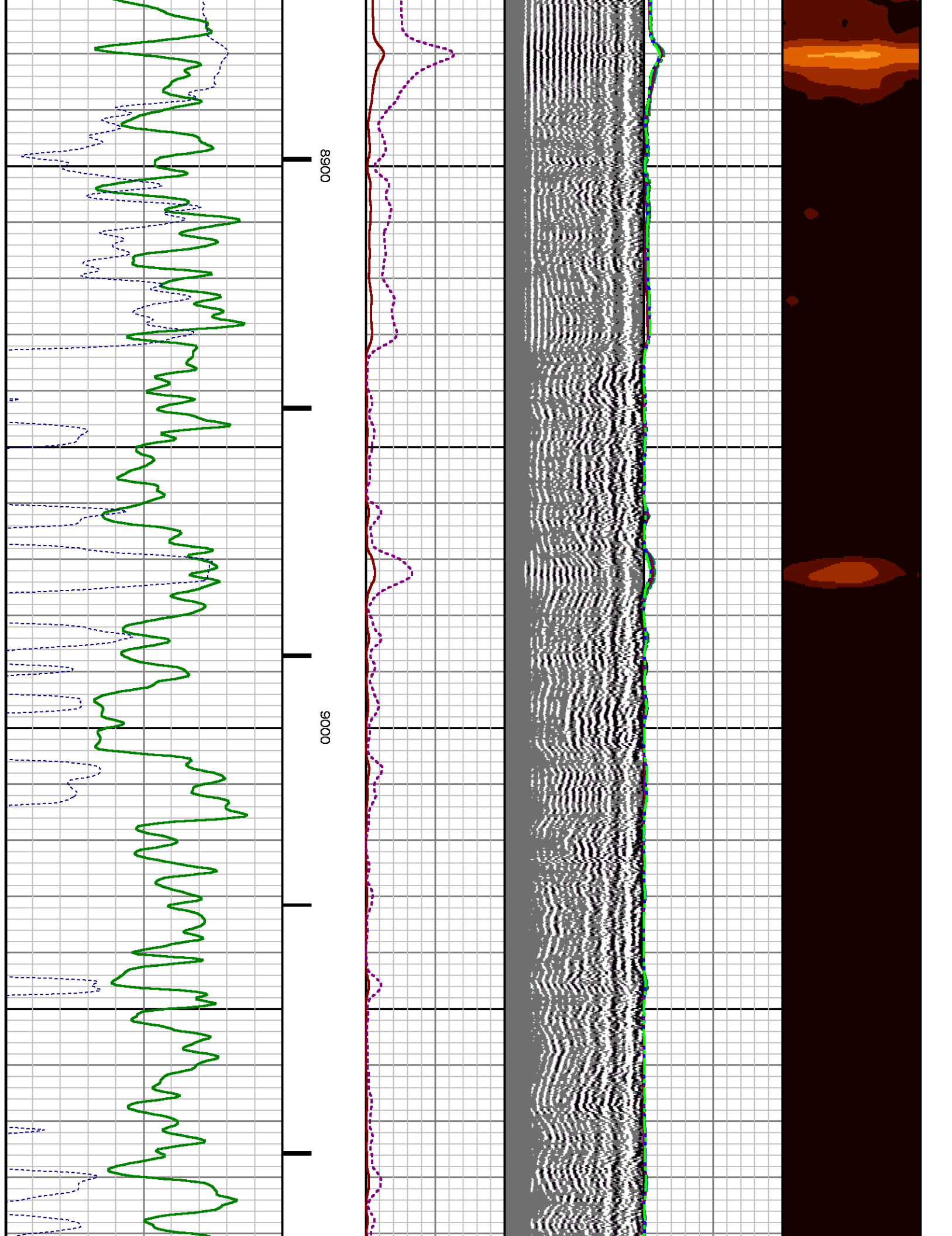


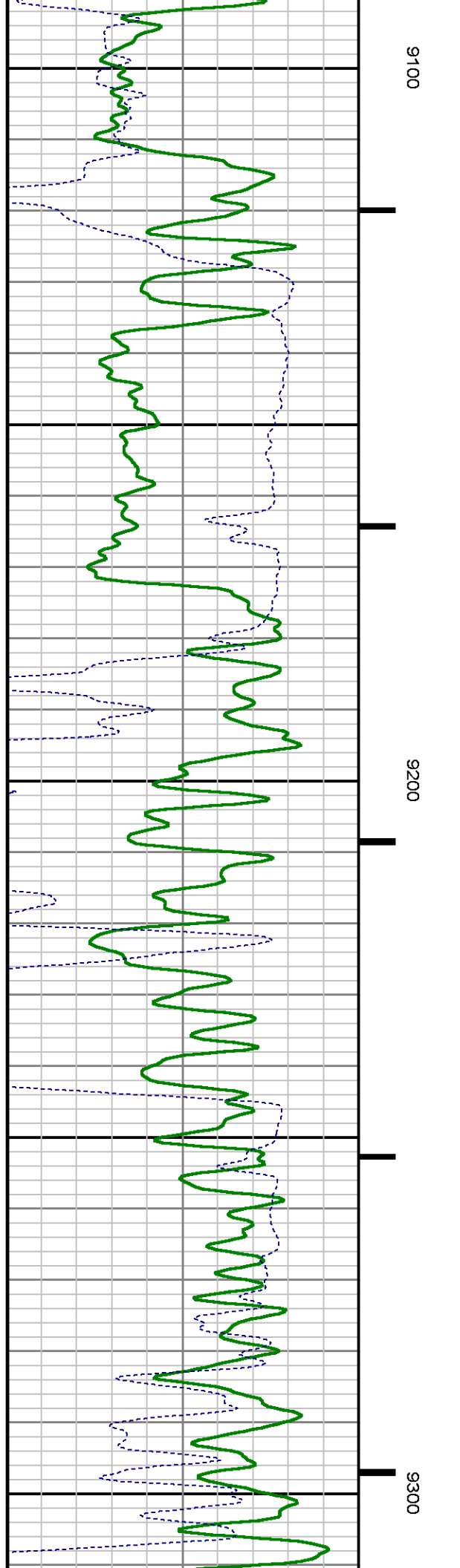
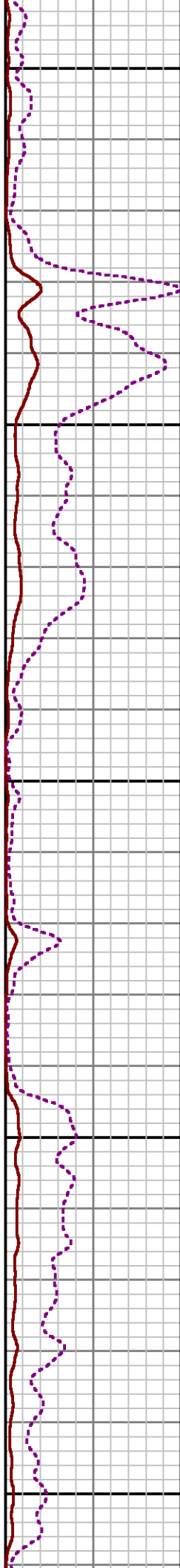
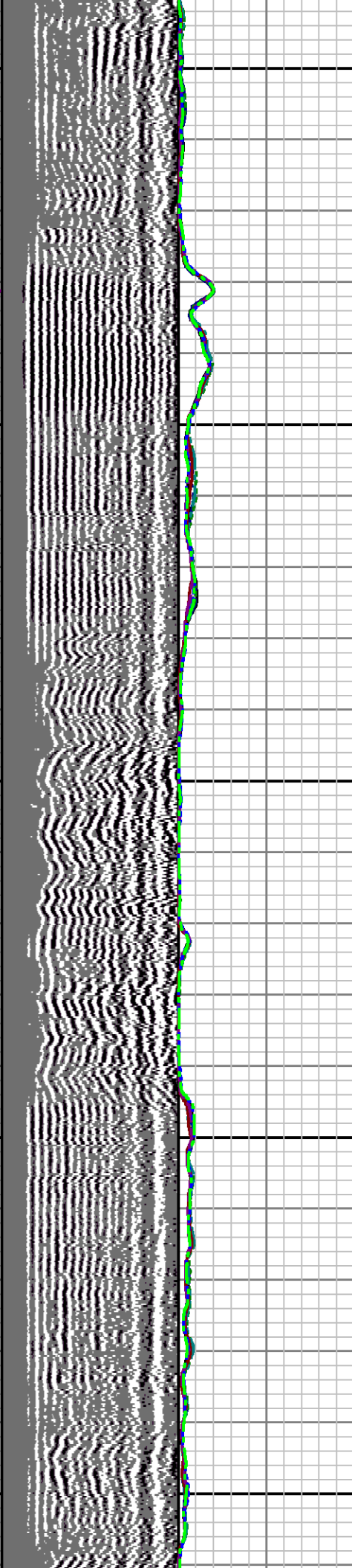


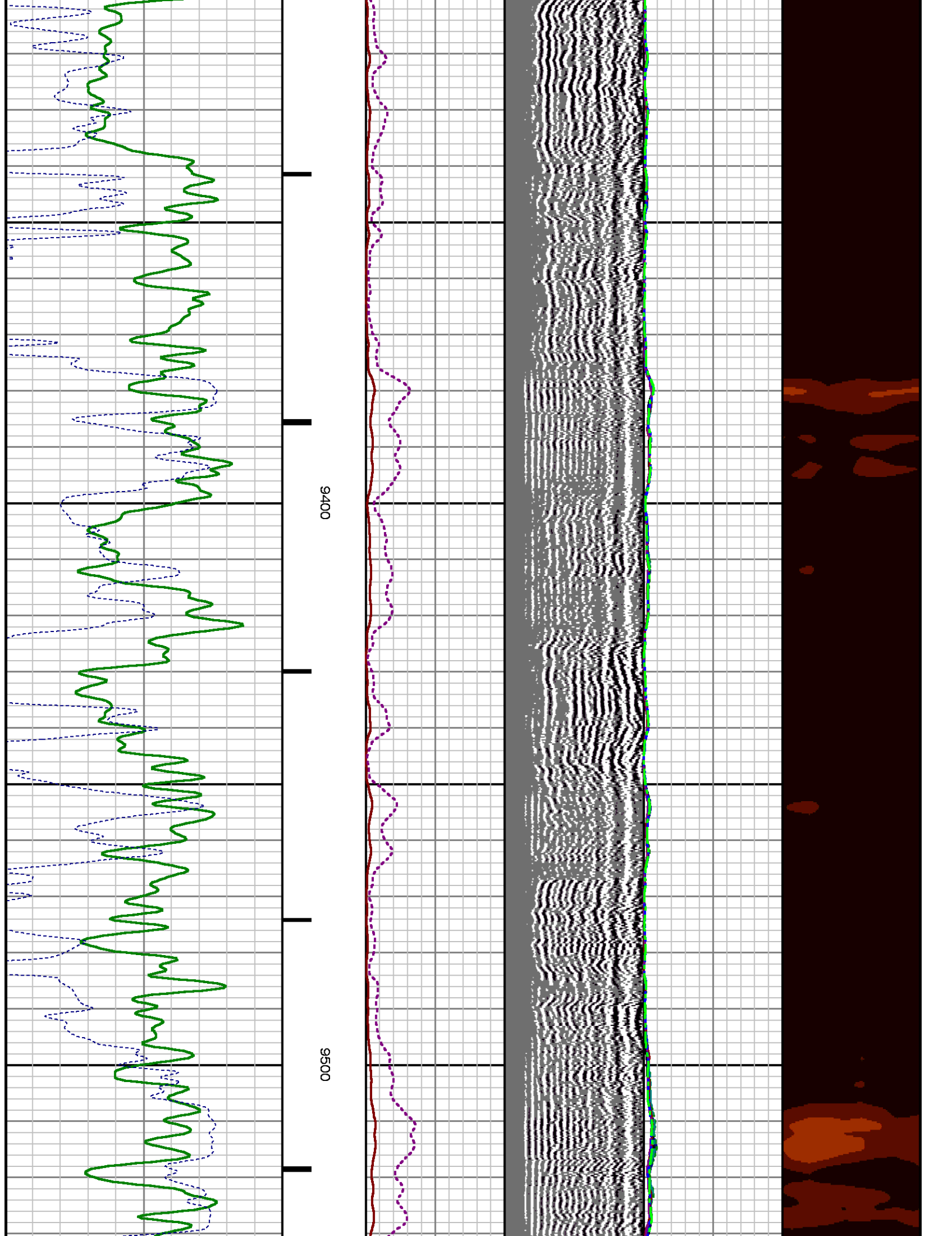


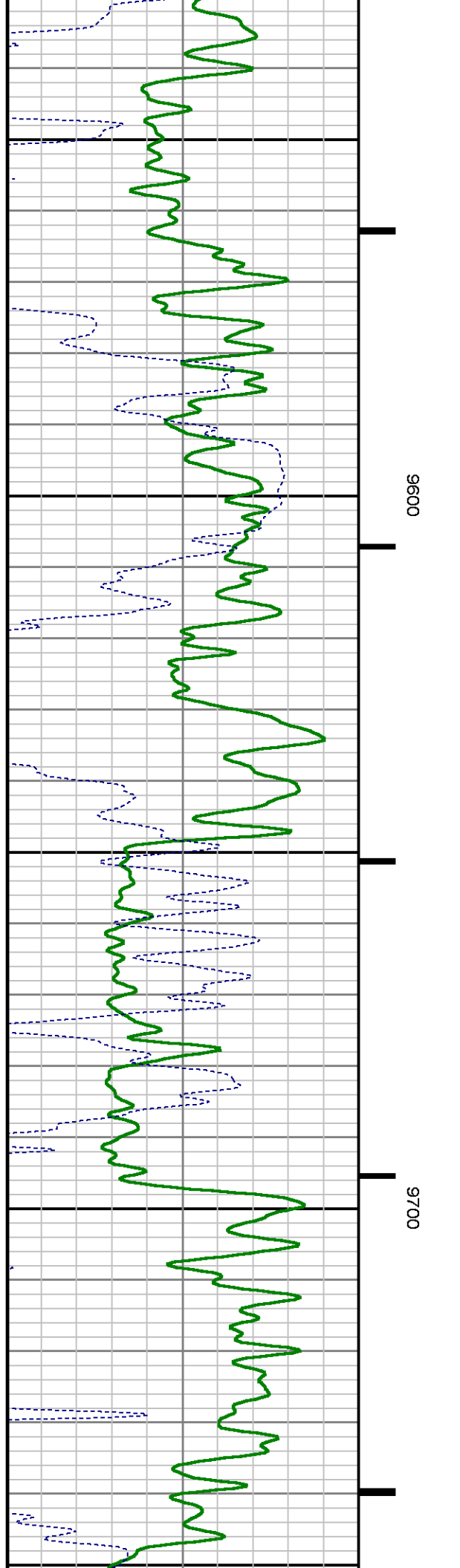
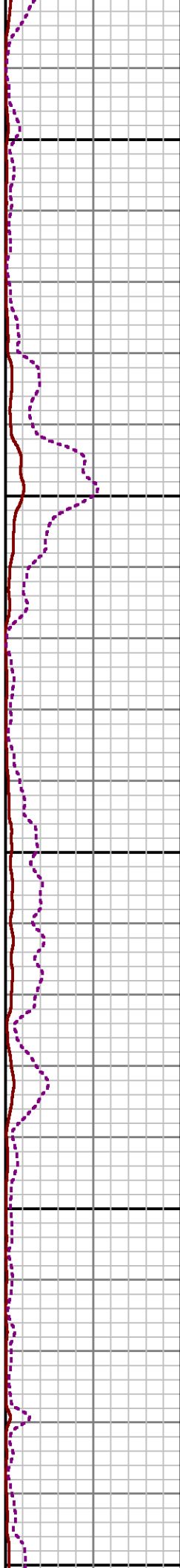
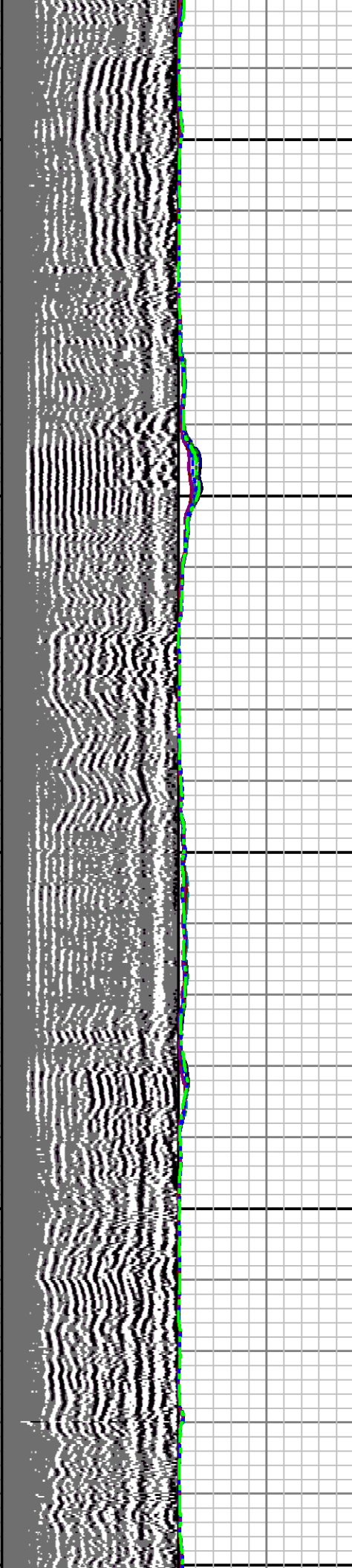


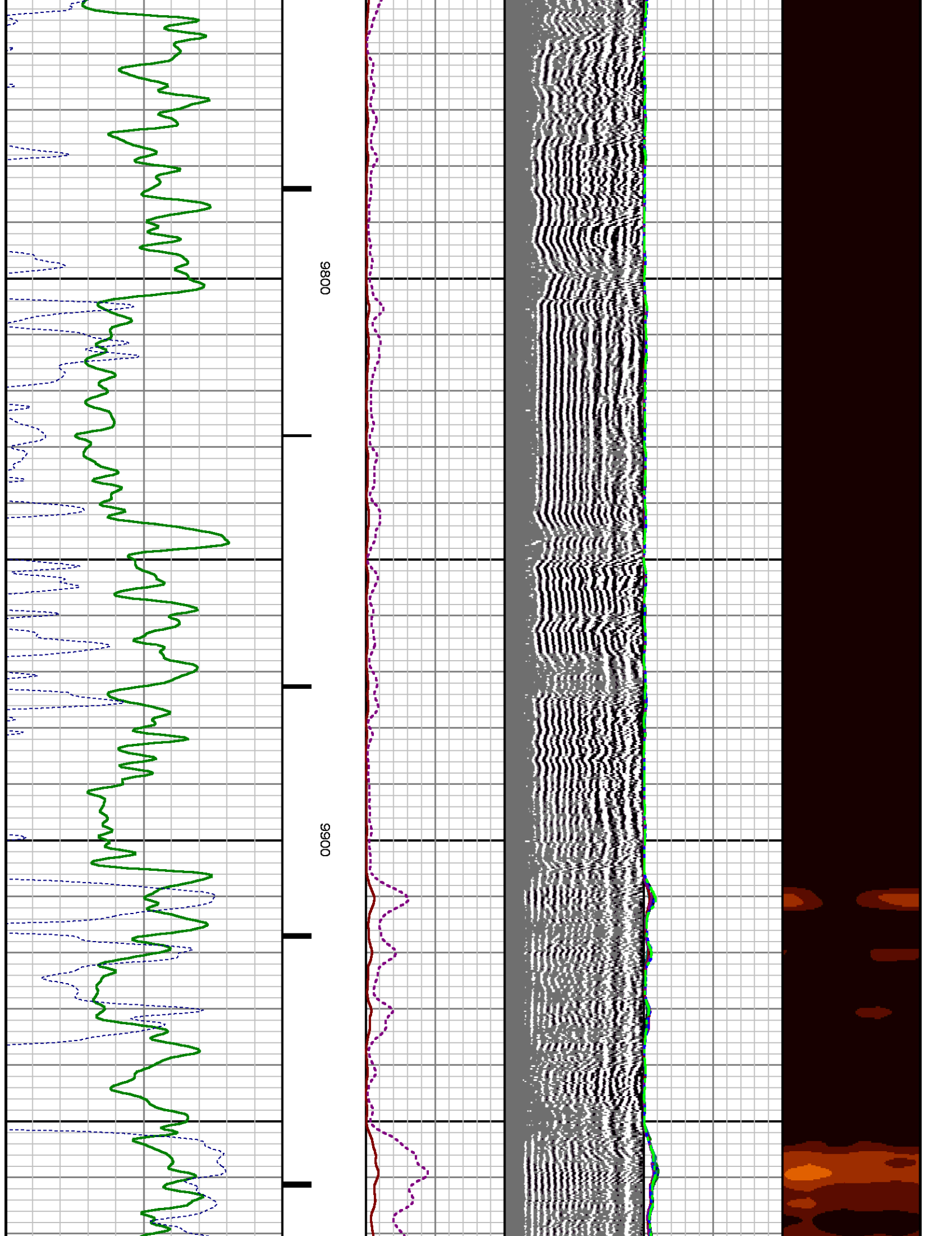


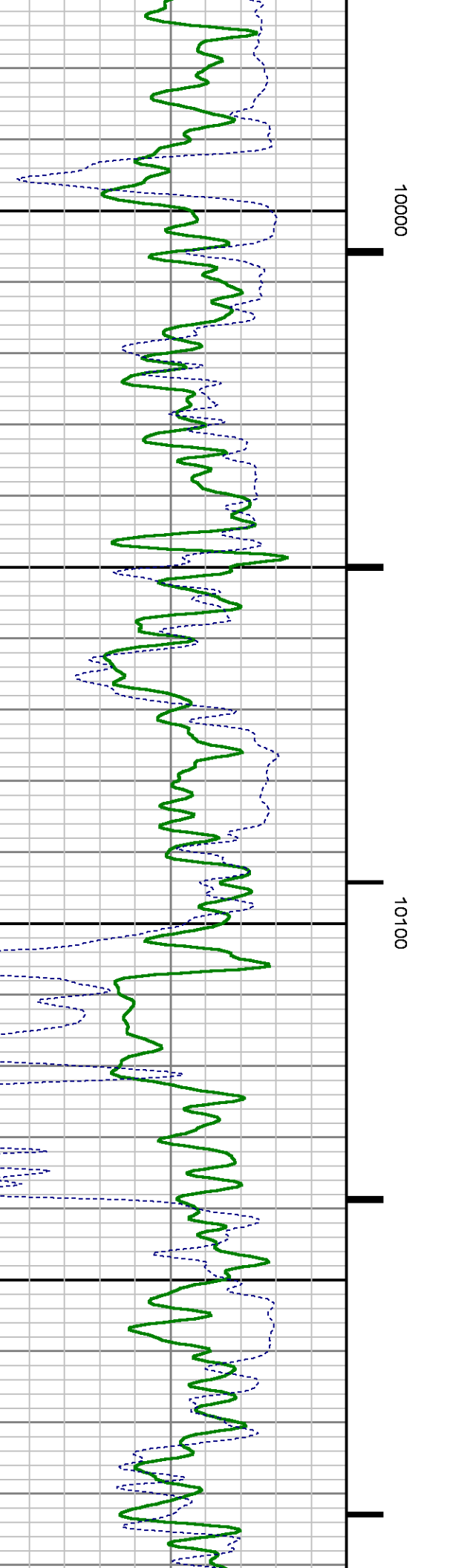
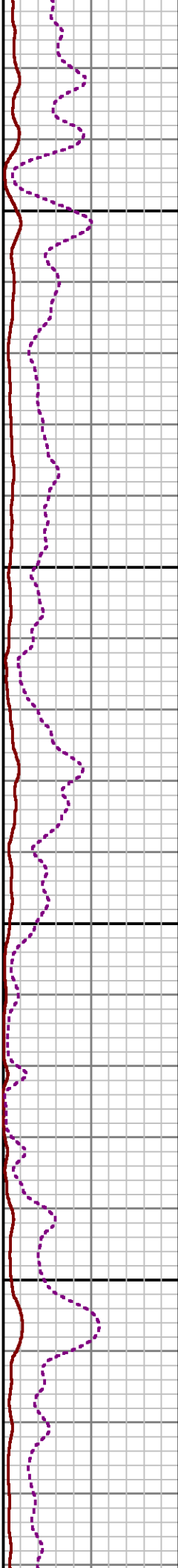
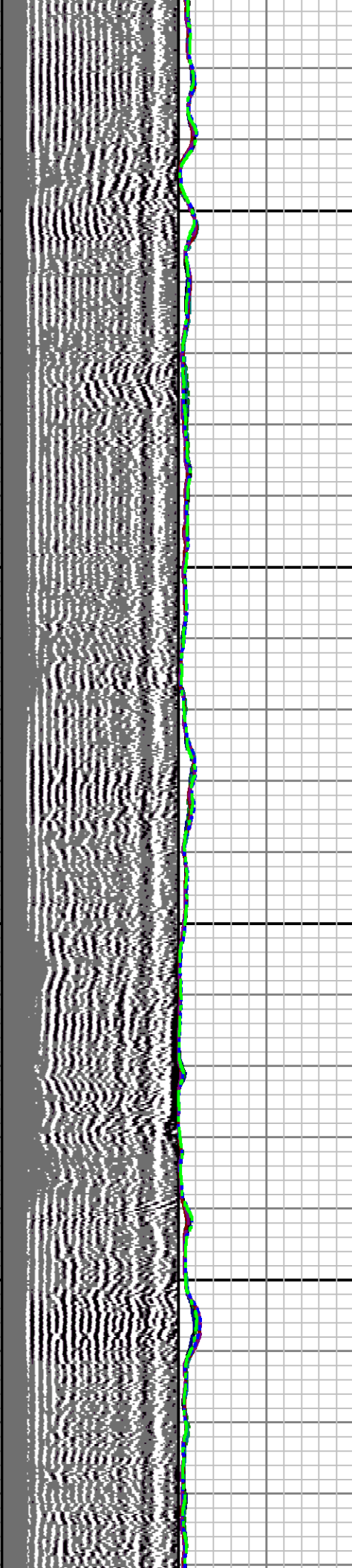
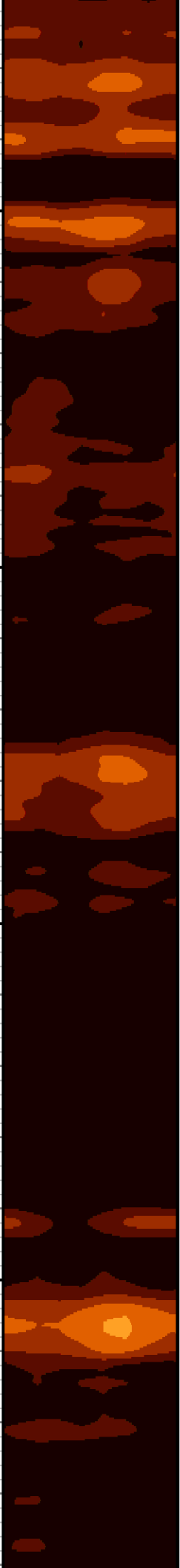


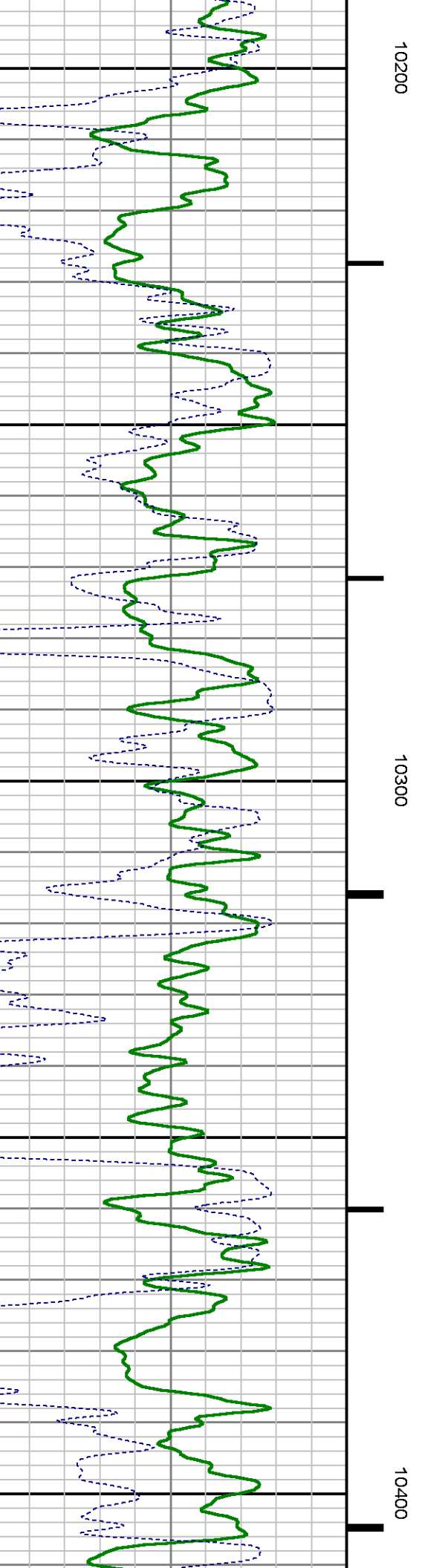
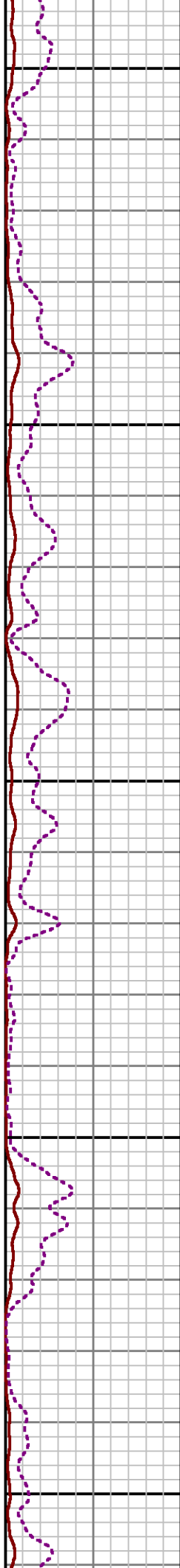
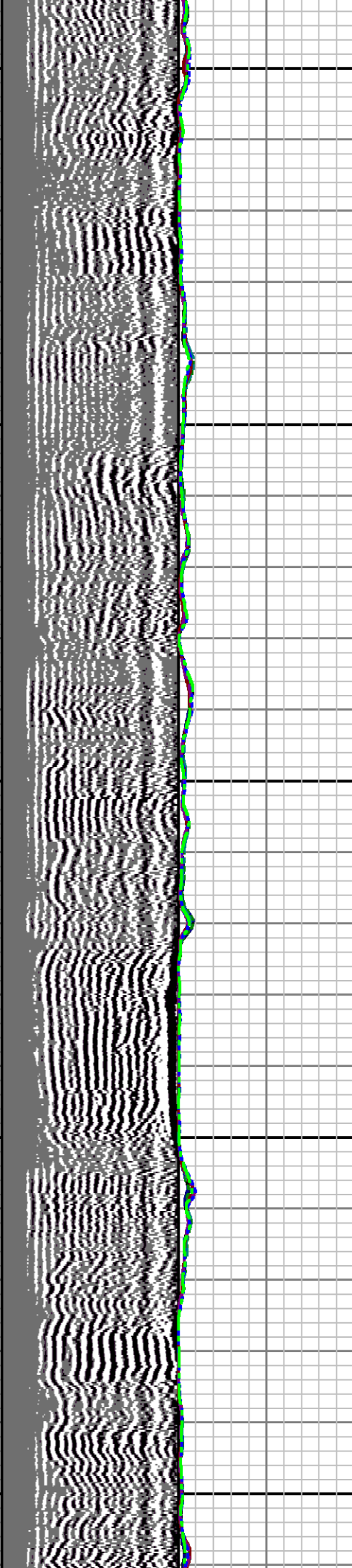


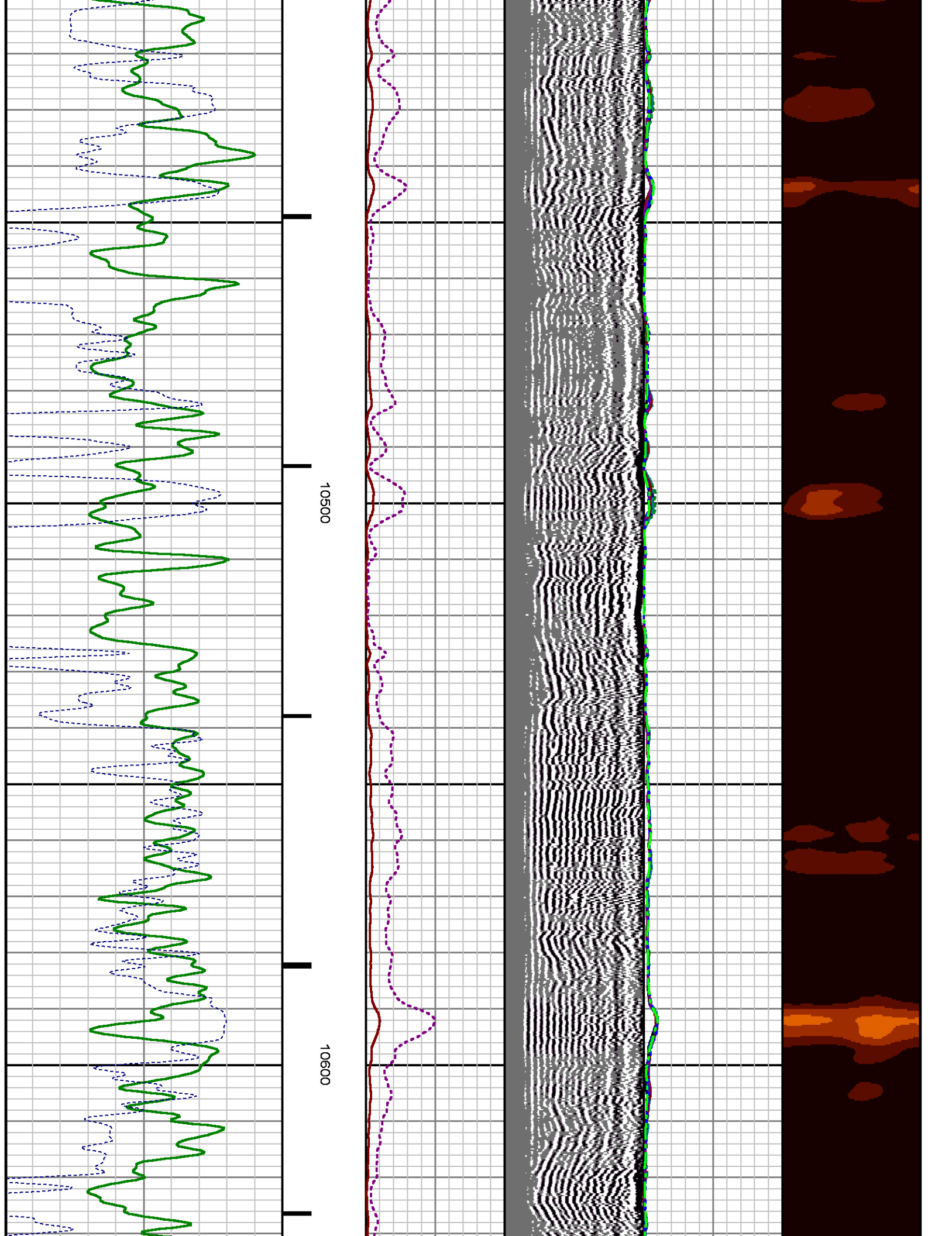


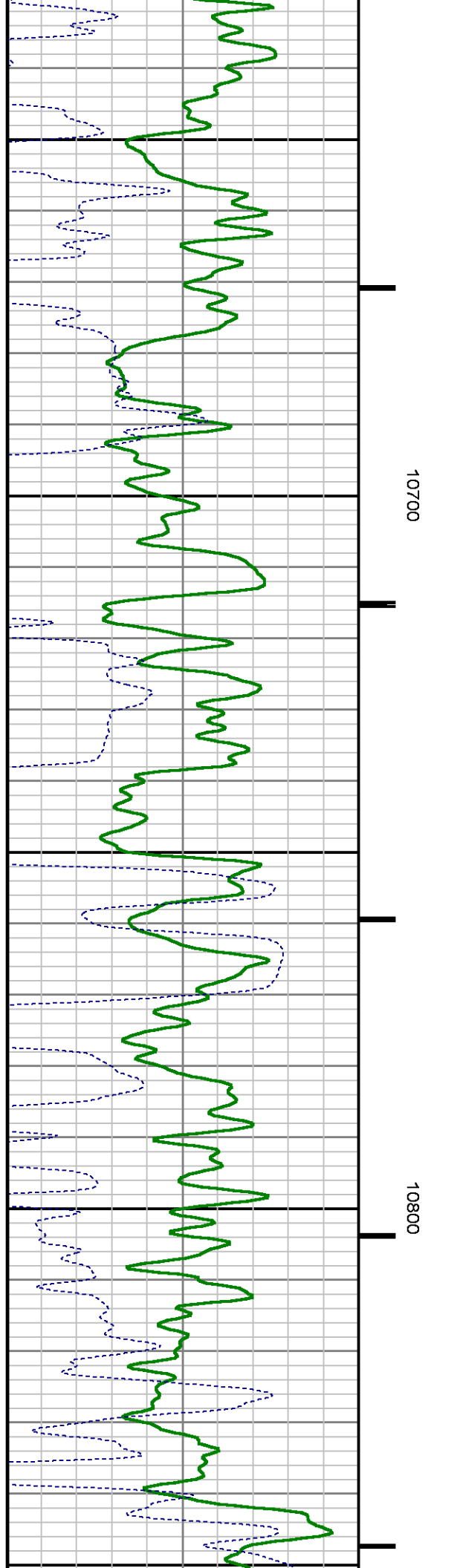
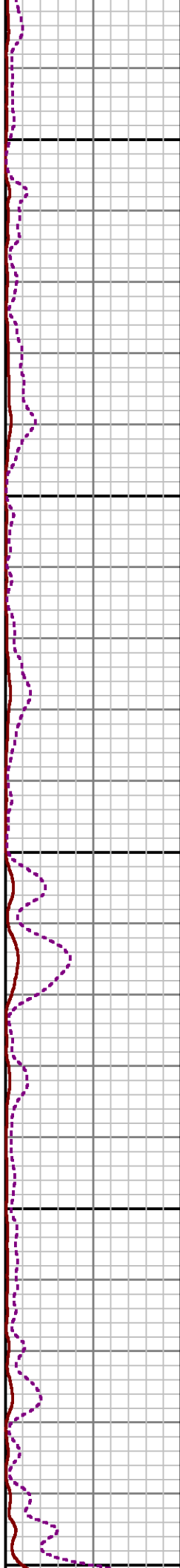
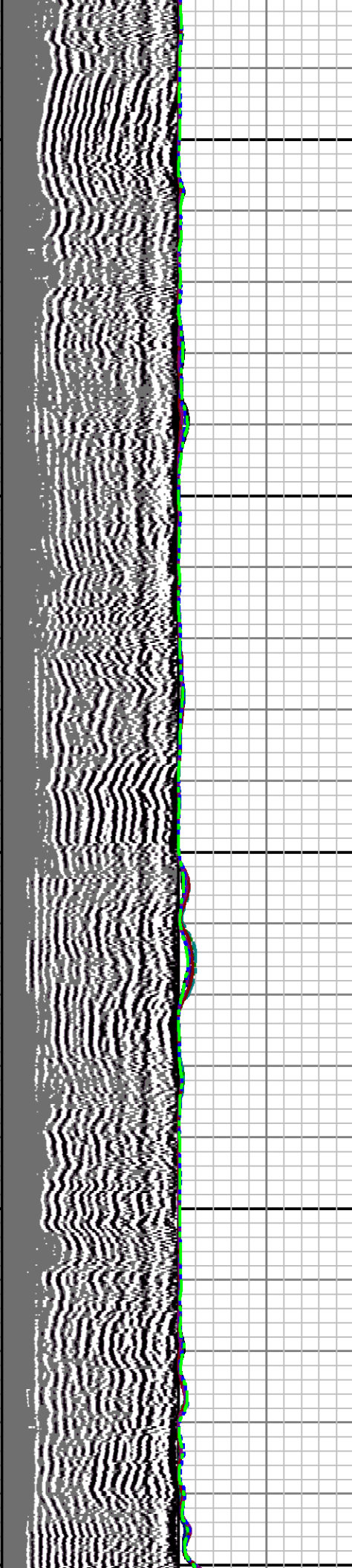
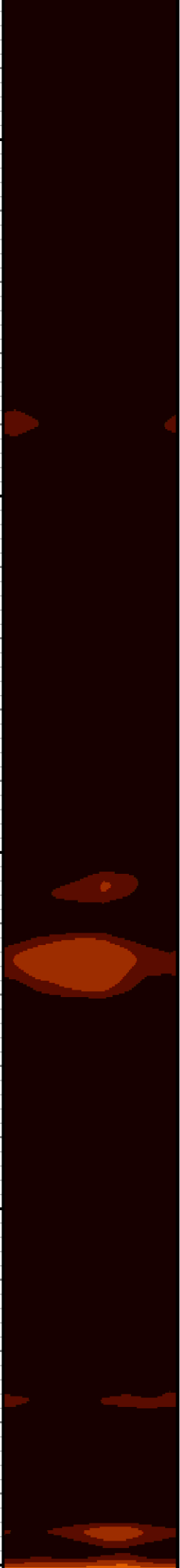


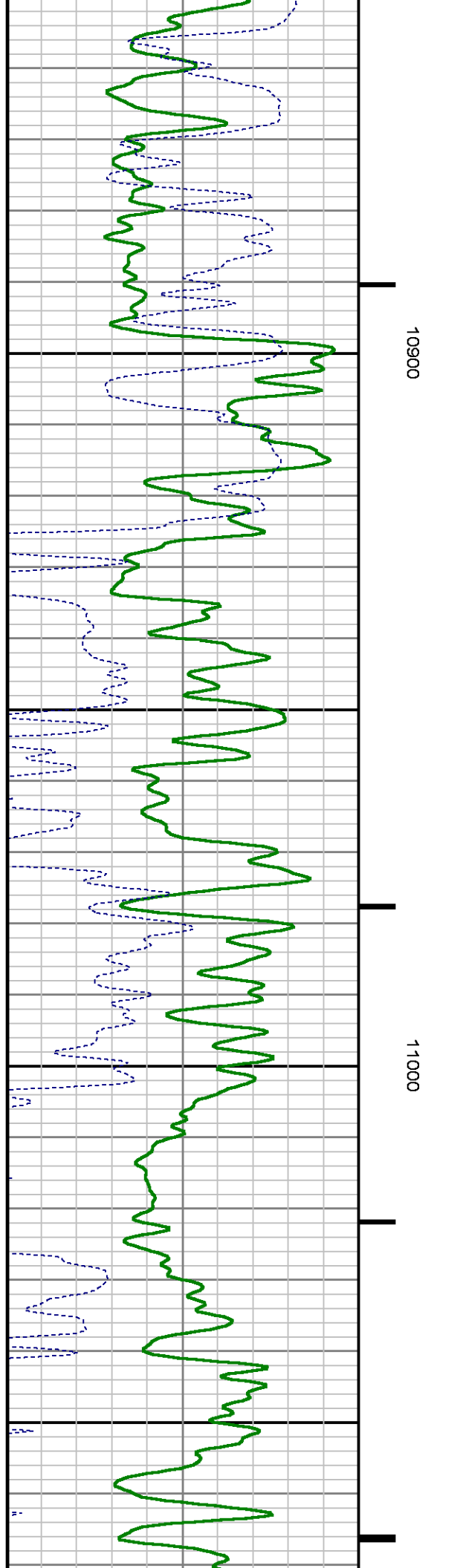
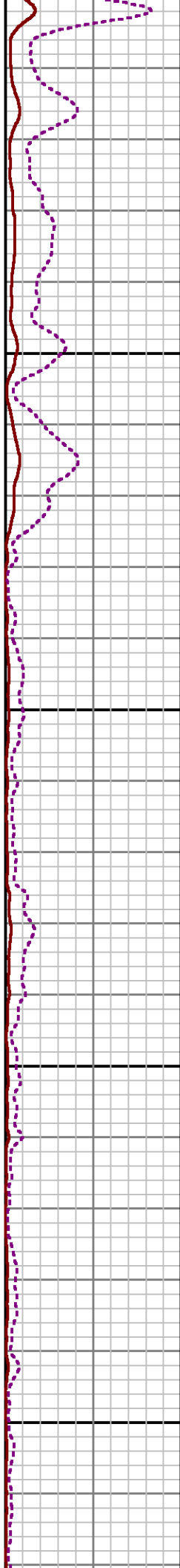
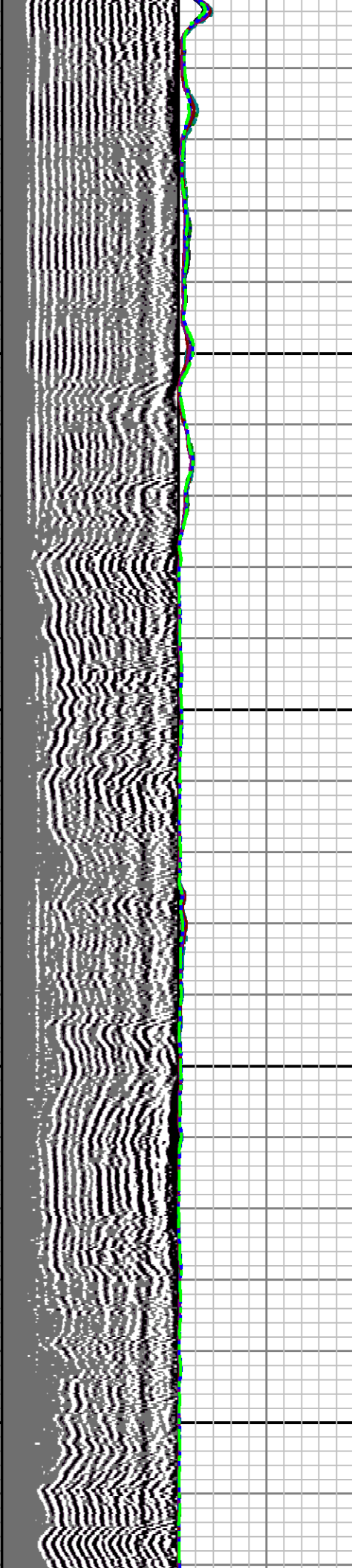
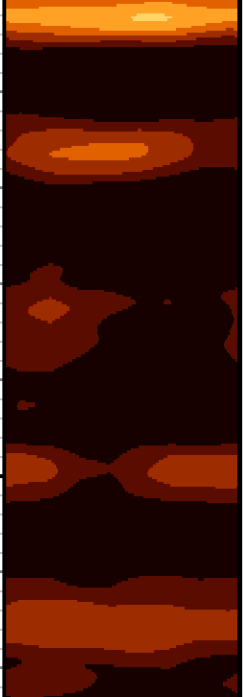


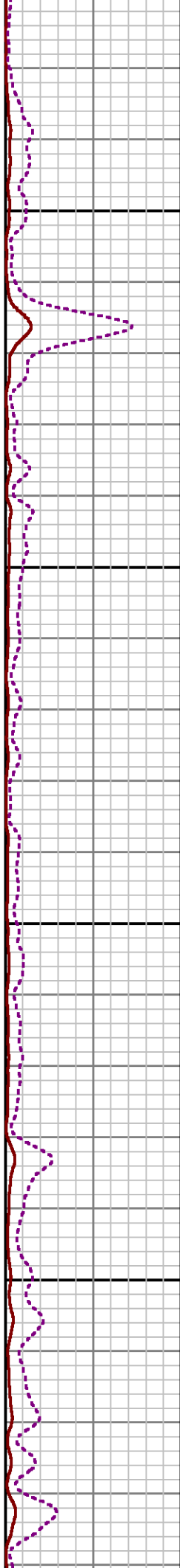
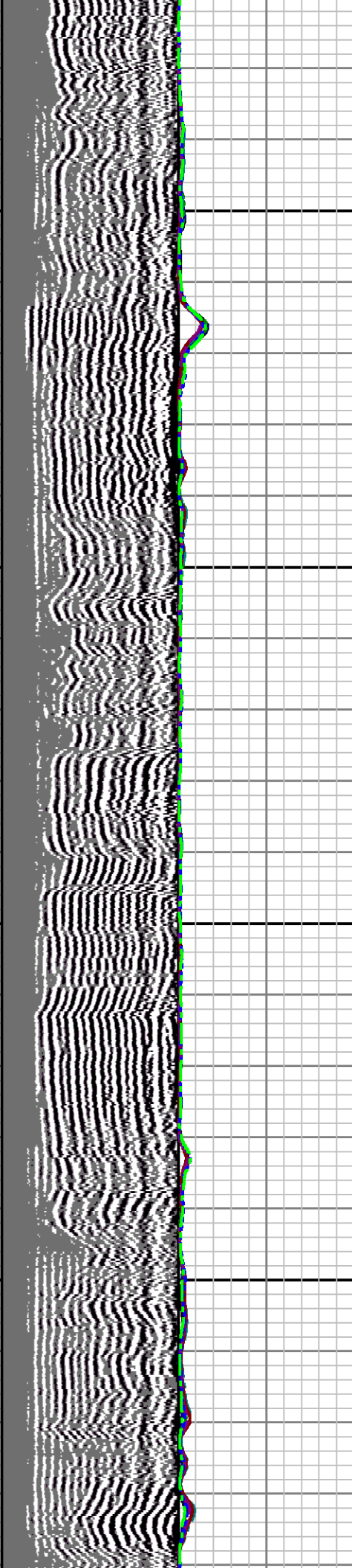






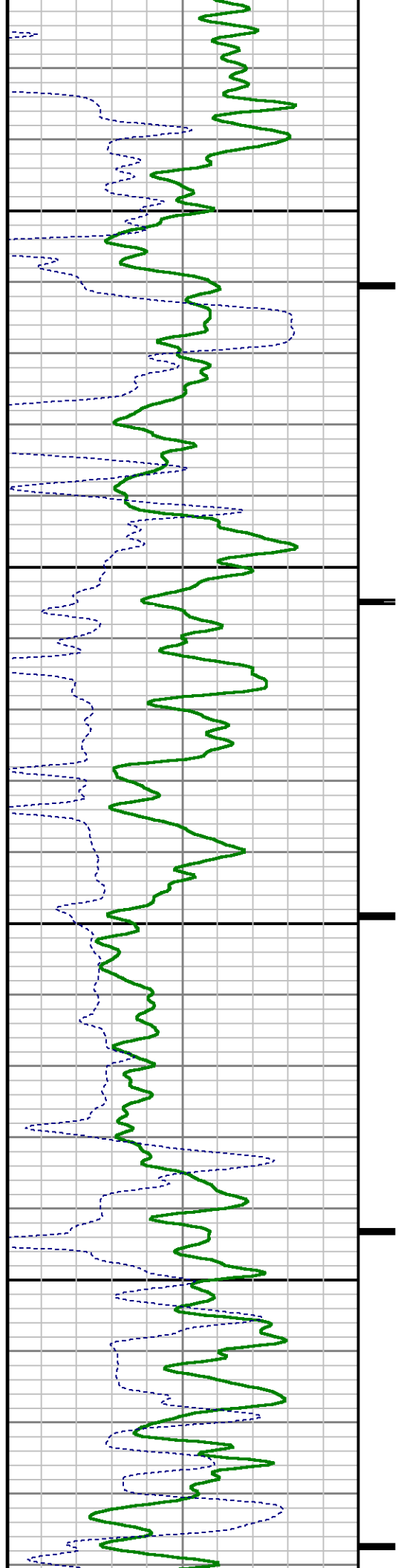


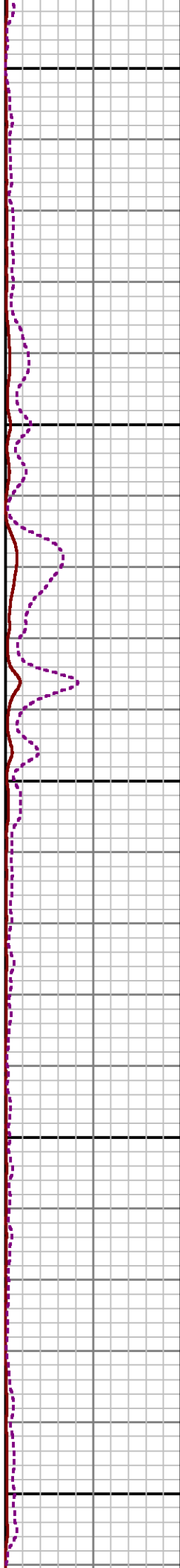
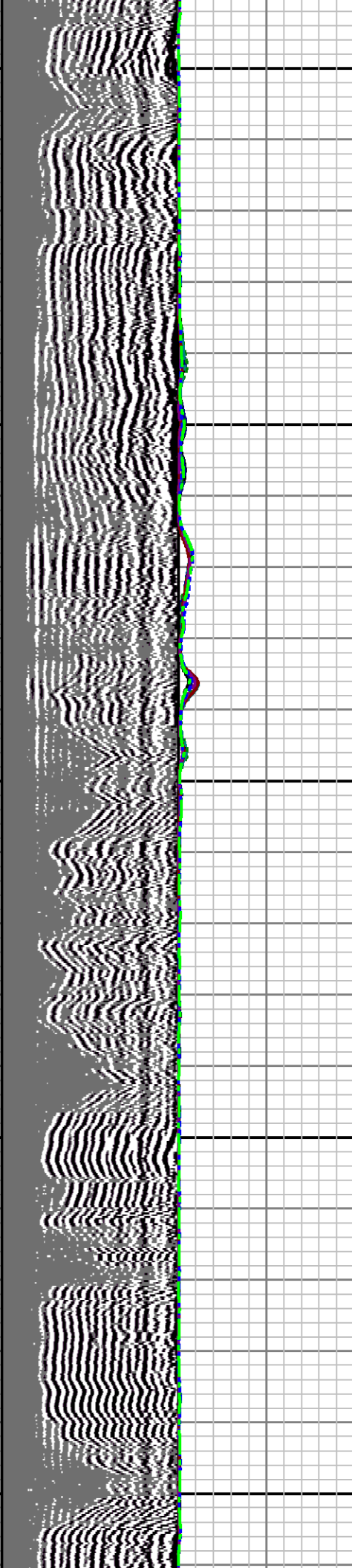




11100

11200

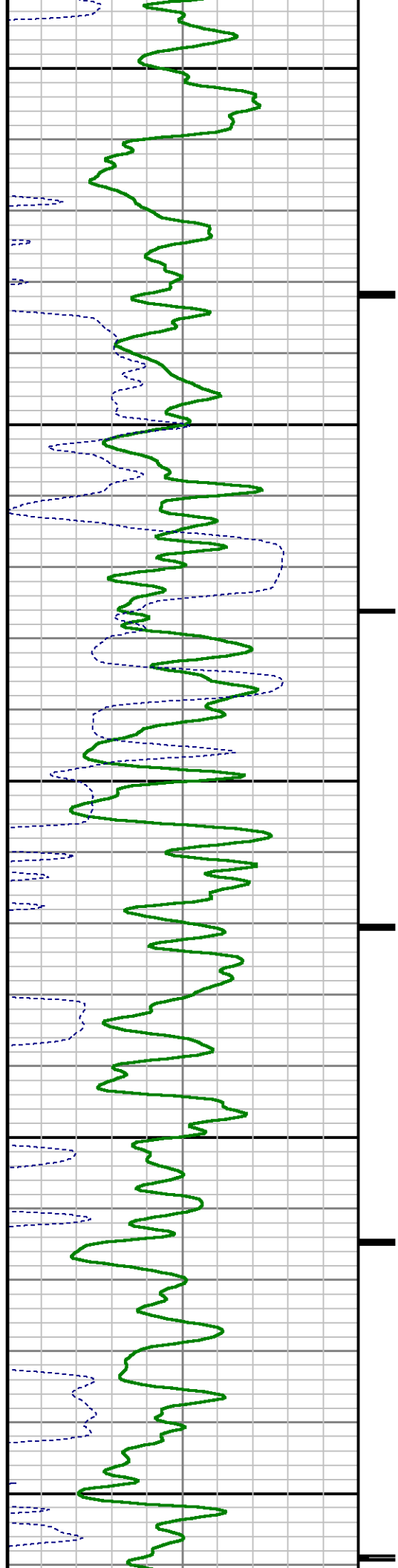


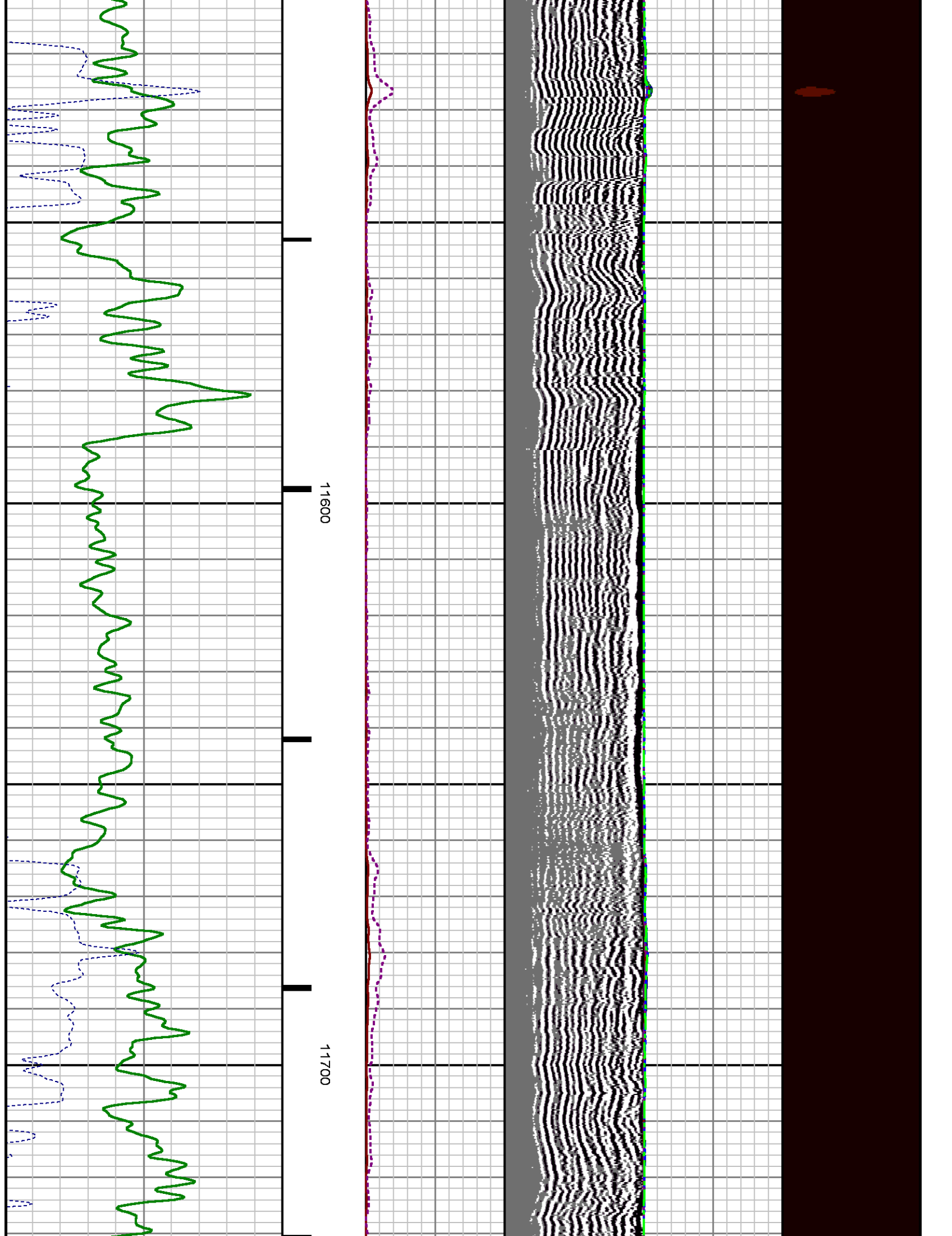


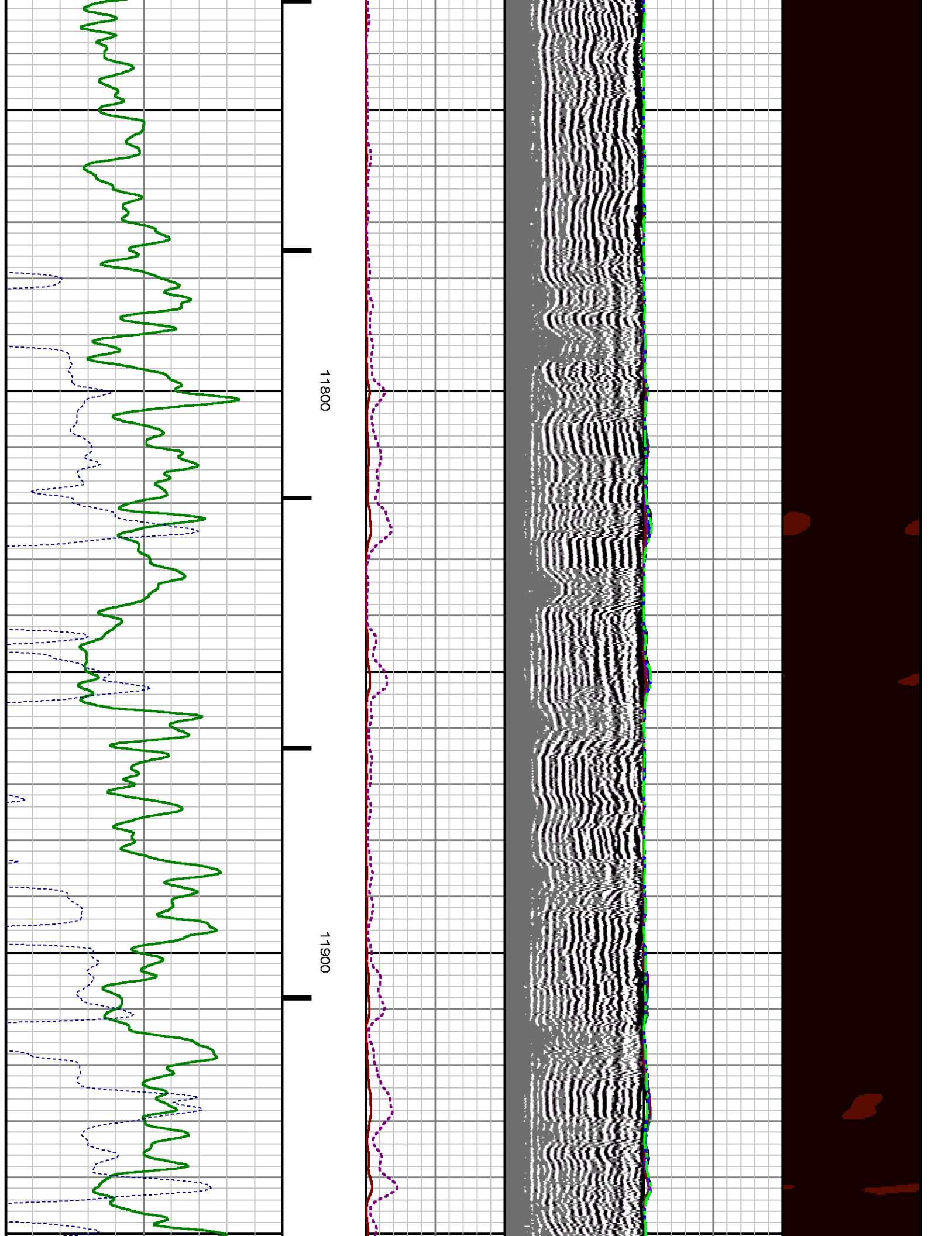
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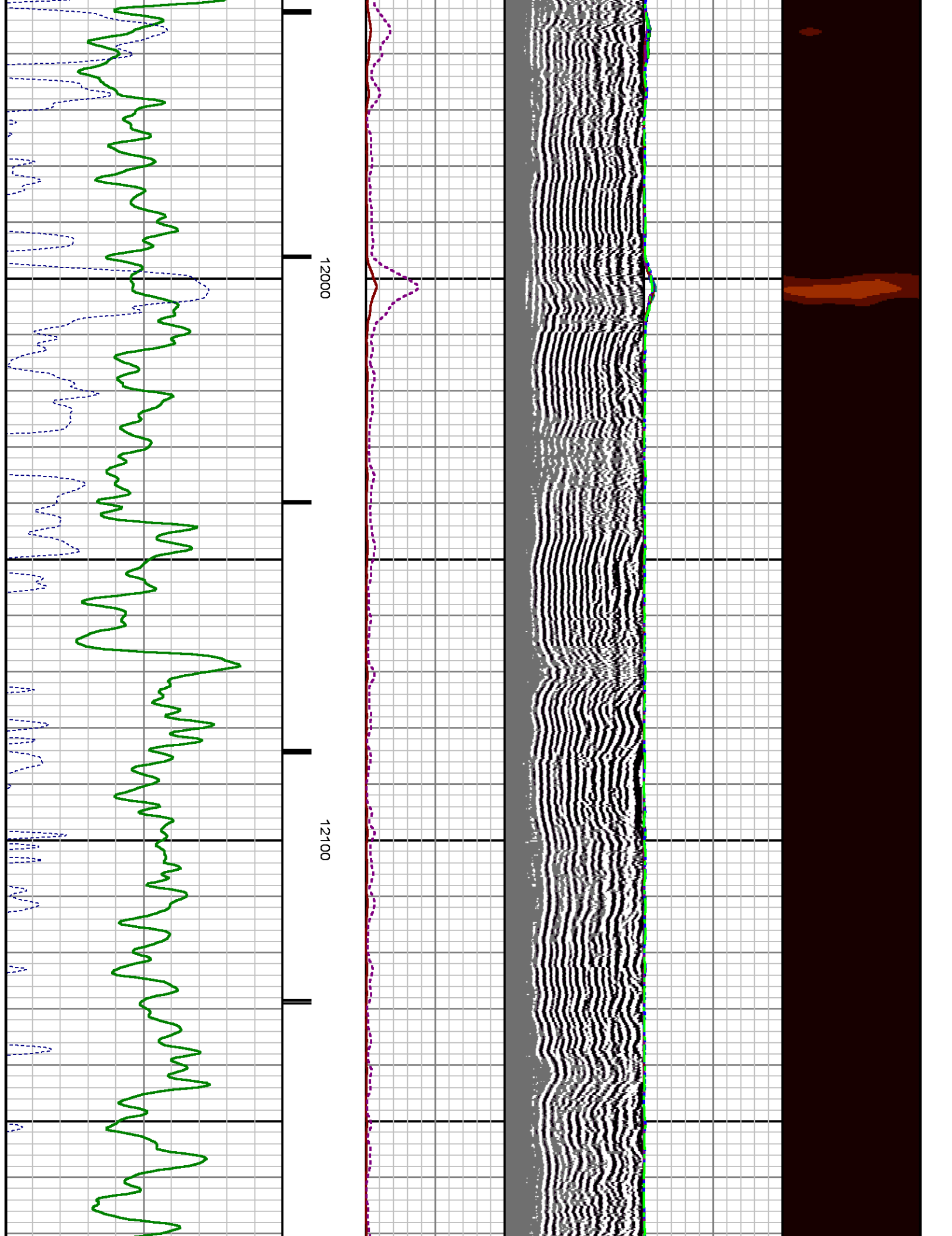
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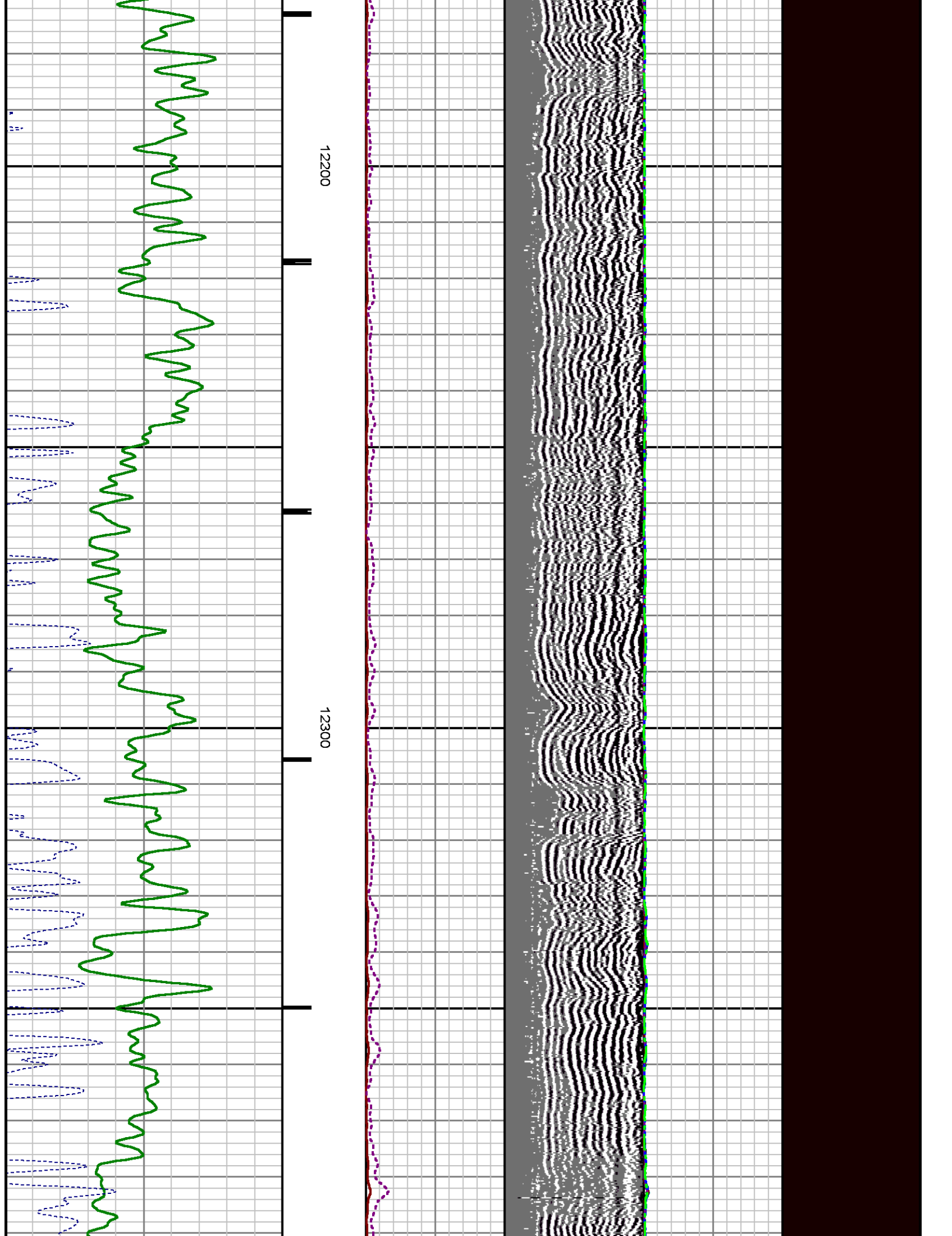
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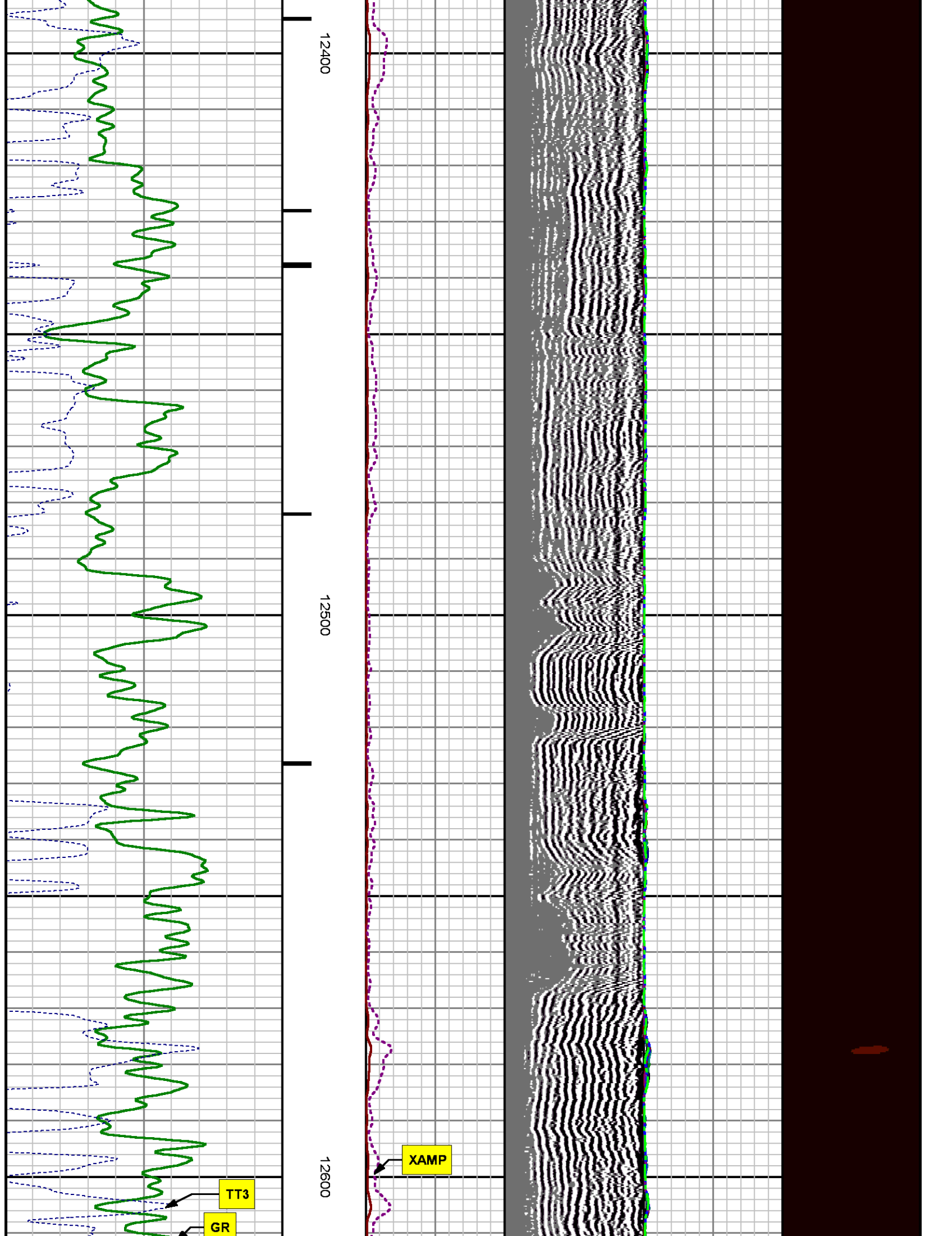


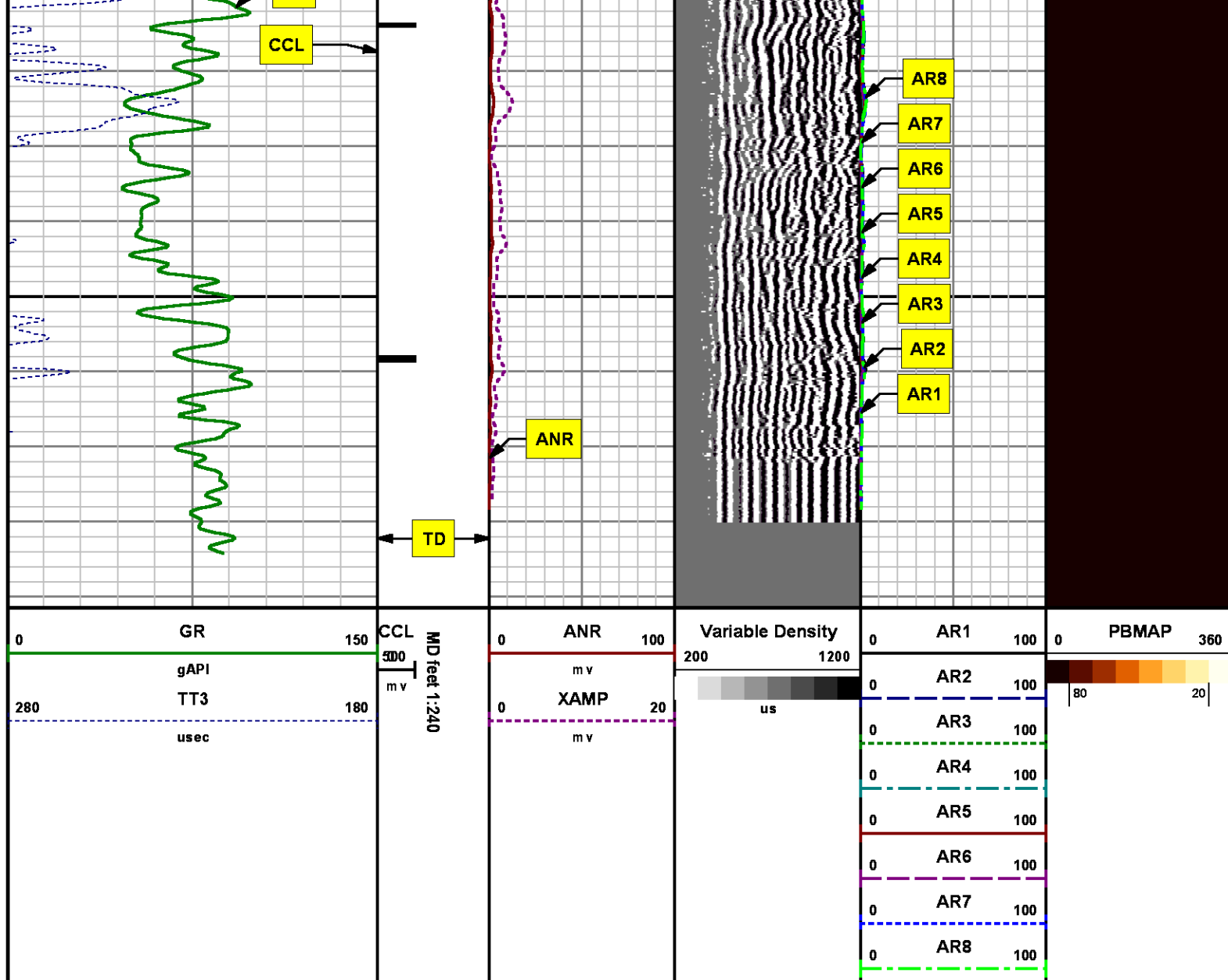












REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	uSec	12348.210	12681.460
RAL	Amp Gate Start Near	195.000	uSec	12348.210	12681.460
RAL	Amp Gate Start Radial	195.000	uSec	12348.210	12681.460

RAL	Amp Gate Width Far	25.000	usec	12348.210	12681.460
RAL	Amp Gate Width Near	25.000	usec	12348.210	12681.460
RAL	Amp Gate Width Radial	25.000	usec	12348.210	12681.460
RAL	casing od	4.500	inches	12348.210	12681.460
RAL	casing wt	11.600	lbm/ft	12348.210	12681.460
RAL	FB Start Far	291.900	usec	12348.210	12681.460
RAL	FB Start Near	180.000	usec	12348.210	12681.460
RAL	FB Start Radial	180.000	usec	12348.210	12681.460
RAL	FB Thresh Far	10.000	mv	12348.210	12681.460
RAL	FB Thresh Near	4.000	mv	12348.210	12681.460
RAL	FB Thresh Radial	4.000	mv	12348.210	12681.460
RAL	Fluid Travel Time	200.000	usec/ft	12348.210	12681.334

DEPTH OFFSETS

(for Acquired Curves)

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

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

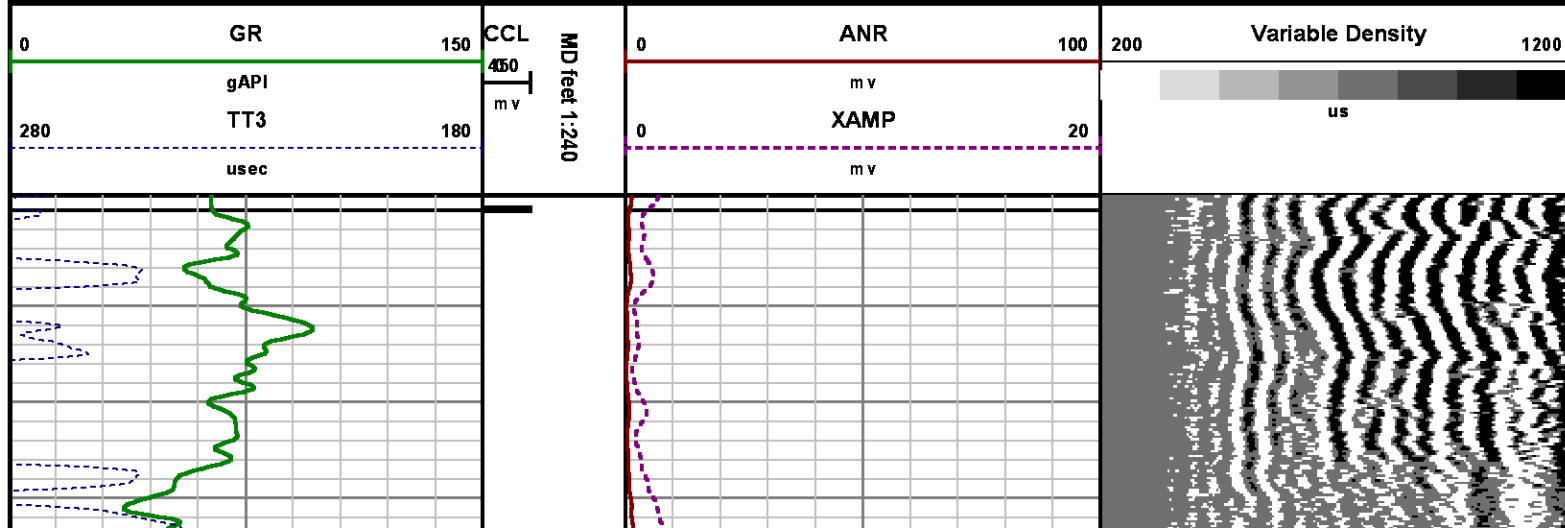
Well : FEDERAL RGU 534-24-198

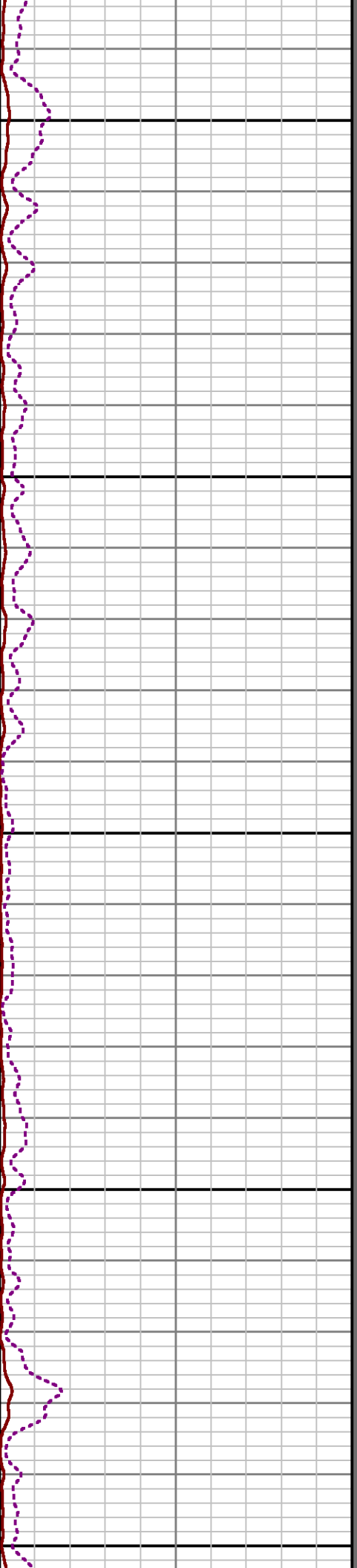
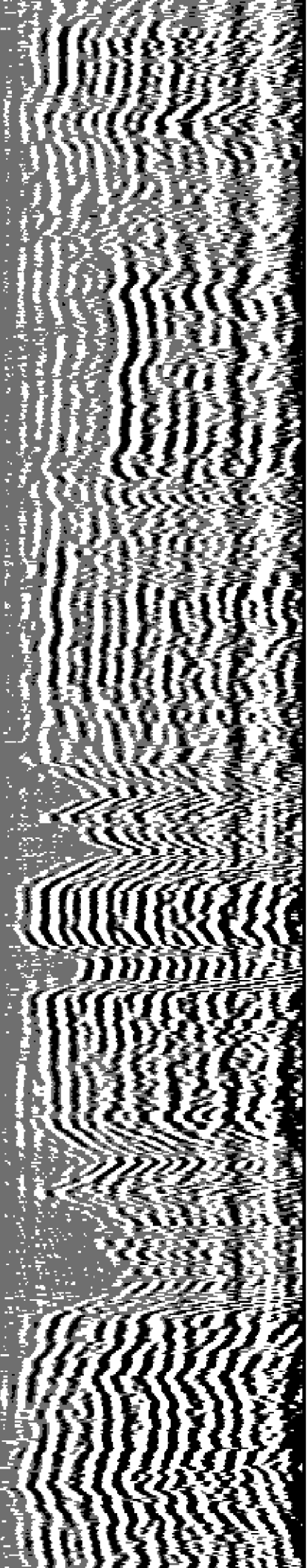
File Name : d:\welldata\wpx\rgu 543-24-198\534ralrepeat.xtf

Mode : PlotMgr 5.4.504

Interval : 12348.46 - 12681.46 feet UP

Created : 8/28/2014 11:16:19 AM

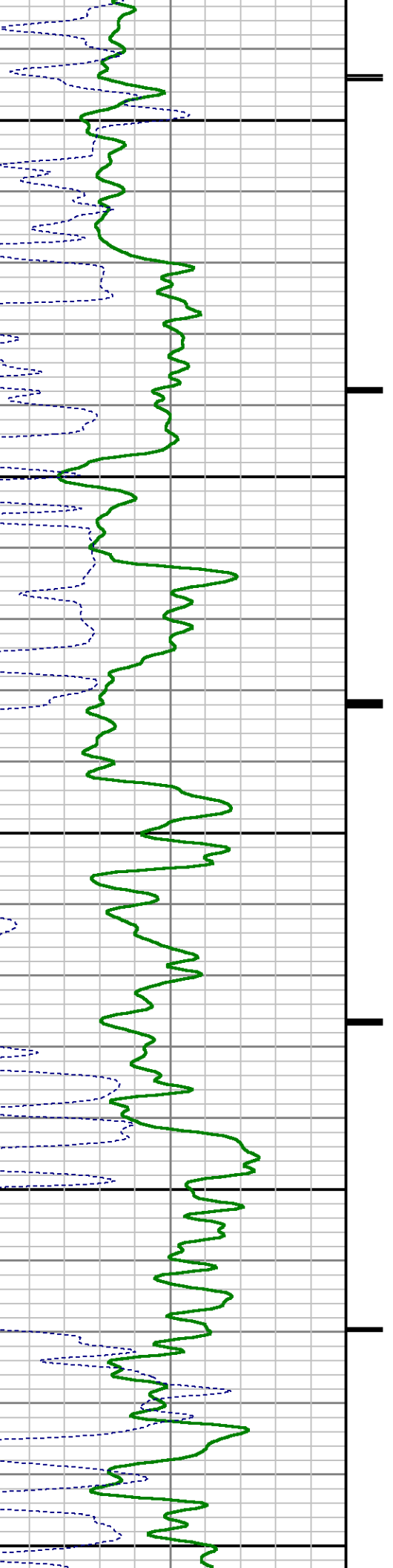


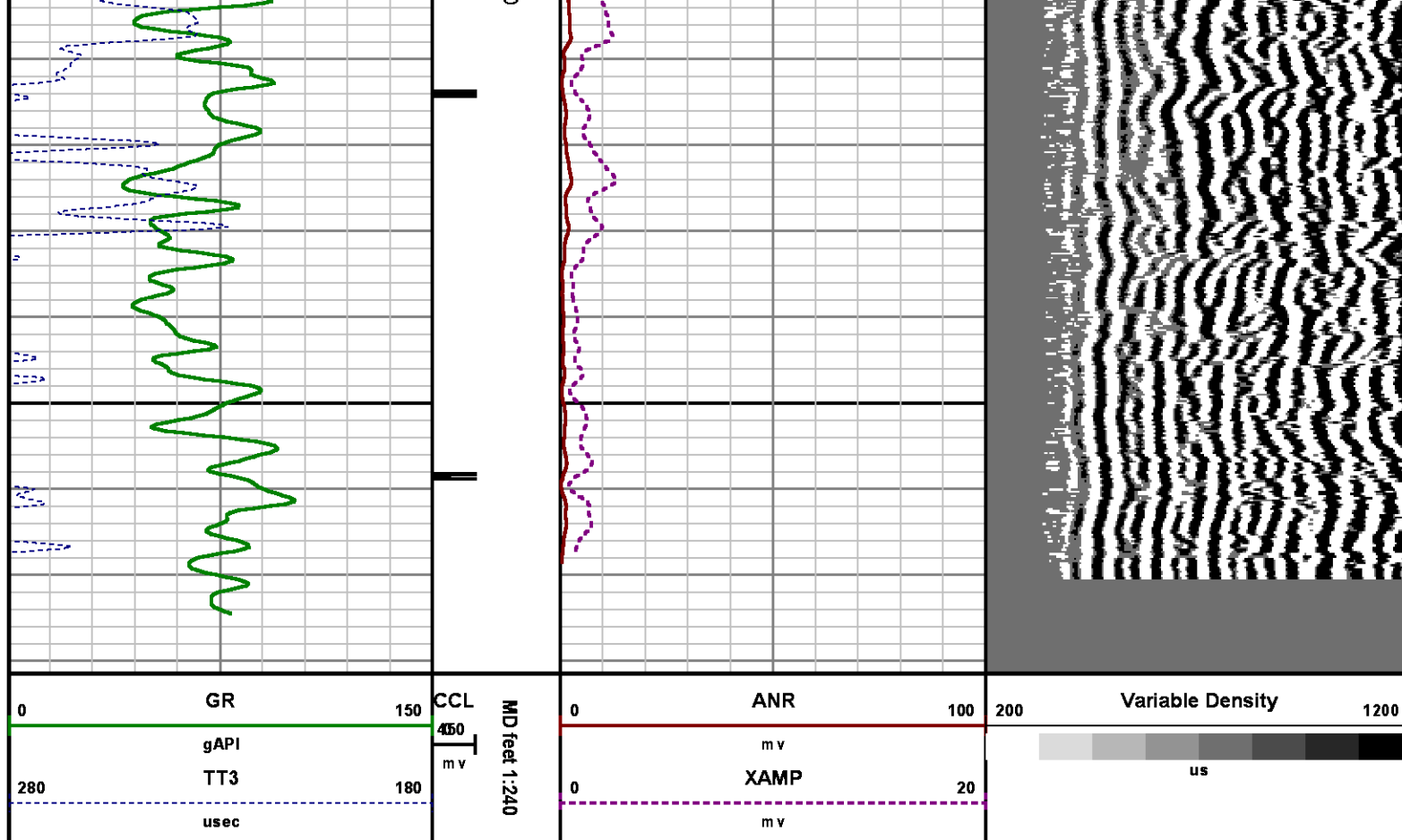


12400

12500

12600





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\486AU27_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Aug 27 09:23:18 2014

TOOL SERIES: 1426XA

ASSET: 486

SEQ: AU27

Tool Delay
[u sec]

-59.00

Tank OD
in

5.50

Tank Wt
lbm/ft

15.50

Tank ID
in

4.95

RECEIVER	Travel Time [u sec]	Amp. Gate Start [u sec]	Amp. Gate Width [u sec]	Zero Gate Start [u sec]	Zero Gate Width [u sec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	219	216	30	166	25	0.099	100.00	0.32
3 Ft. Receiver	217	216	30	166	25	2.340	100.00	0.32
5 Ft. Receiver	327	325	30	253	25	0.628	150.00	0.36
Radial #1	217	216	30	166	25	2.097	100.00	0.32
Radial #2	216	216	30	166	25	1.598	100.00	0.31
Radial #3	215	216	30	166	25	2.127	100.00	0.31
Radial #4	215	216	30	166	25	2.318	100.00	0.31

Radial #5	215	216	30	166	25	2.361	100.00	0.31
Radial #6	217	216	30	166	25	2.260	100.00	0.32
Radial #7	217	216	30	166	25	2.112	100.00	0.32
Radial #8	219	216	30	166	25	1.824	100.00	0.32

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\486AU27 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Aug 27 09:26:00 2014 TOOL SERIES: 1426XA ASSET: 486 SEQ: AU27

Tool Delay [usec] -59.00 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	-0.012	0.000	1.01	100.000
3 Ft. Receiver	195	25	3.645			
5 Ft. Receiver	305	25	5.320			
Radial #1	195	25	3.279			
Radial #2	195	25	3.579			
Radial #3	195	25	4.052			
Radial #4	195	25	4.032			
Radial #5	195	25	4.153			
Radial #6	195	25	4.092			
Radial #7	195	25	3.058			
Radial #8	195	25	3.117			

GAMMA RAY

Calibration File: C:\case\calver\GR\8504A2.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Aug 25 10:47:06 2014 TOOL SERIES: 2459XA ASSET: 8504 SEQ: A2

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	80.00	339.69	0.712	56.99	241.99	185.00

GAMMA RAY #2

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

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\GR\121BB.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

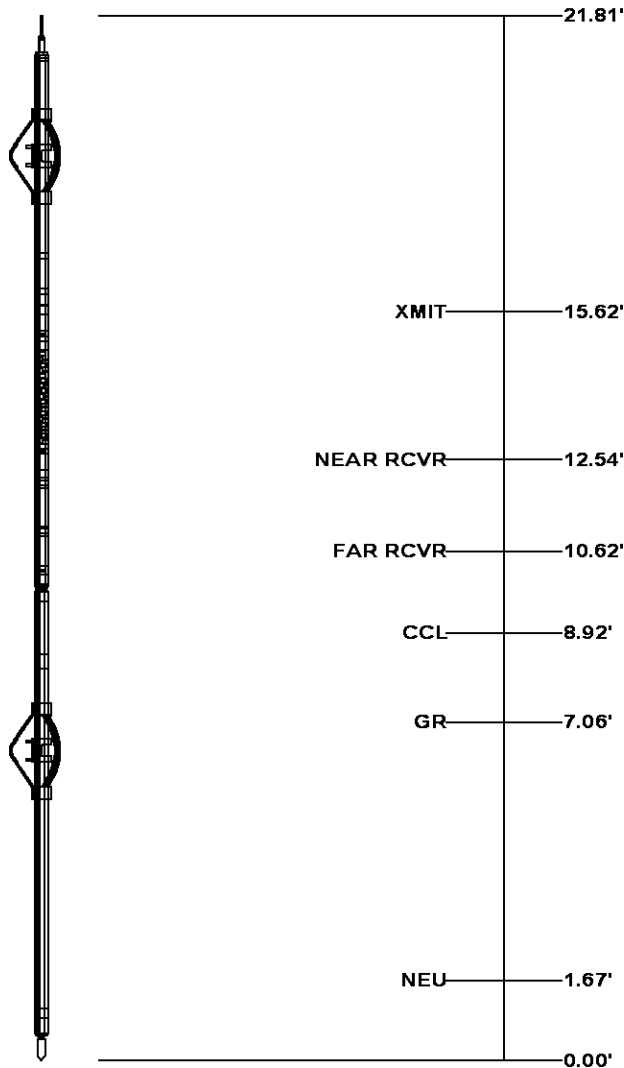
OTA SHORT CABLE HEAD

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



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



Baker Atlas



Company	WPX ENERGY		
Well	FEDERAL RGU 534-24-198		
Field	SULPHUR CREEK		
County	RIO BLANCO	State	COLORADO

File No:
CH089588
API No:
05103120770000

Location		Elevations	
SHL: 2128' FSL & 1688' FEL		KB	6617 ft
BHL: 1241' FSL & 1897' FEL (SWSE)		DF	
		GL	6596 ft
SEC	24	TWP	1S
		RGE	98W

24 1S 98W
RGU 33-24-198 PAD
CYCLONE 29