



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH091024	Company Well Field County	WPX ENERGY FEDERAL SG 333-28 GRAND VALLEY GARFIELD	State COLORADO
API No: 0504521950	Location SHL: 2250' FSL & 477' FEL BHL: 1995' FSL & 2182' FEL (NWSE) SEC 28 TWP 7S RGE 96W		Other Services RPM
28 7S 96W SG 43-28 PAD H&P 318	Permanent Datum Log Measured From Drill Measured From	GL KB KELLY BUSHING	Elevations KB 5143 ft DF GL 5119 ft

Date	28/SEP/14	
Run	ONE	
Service Order	US091024	
Depth Driller	5561 ft	
Depth Logger	5498 ft	
Bottom Logged Interval	5488 ft	
Top Logged Interval	24 ft	
Time Started	1300	
Time Finished	1700	
Operator Rig Time	4 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	58 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	65 fpm	
Maximum Recorded Temperature	191 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	44271	GRAND JCT
Recorded By	FLOYD RENEAU	
Witnessed By	JEFF BRADY	

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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
13.5 in	24 ft	1455 ft
8.75 in	1455 ft	5561 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			24 ft	1455 ft
4.5 in	11.6 lbm/ft	I-80	24 ft	5561 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 7.5 feet.
Logged with zero PSI at wellhead.
BHT = 191°F
SJ = 2385'-2405'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENT
1	1	GR/CCL	2459XA	10417457	CENT

PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	29.379	5502.500
RAL	Amp Gate Start Near	195.000	usec	29.379	5502.500
RAL	Amp Gate Start Radial	195.000	usec	29.379	5502.500
RAL	Amp Gate Width Far	25.000	usec	29.379	5502.500
RAL	Amp Gate Width Near	25.000	usec	29.379	5502.500
RAL	Amp Gate Width Radial	25.000	usec	29.379	5502.500
RAL	casing od	4.500	inches	29.379	5502.500
RAL	casing wt	11.600	lbm/ft	29.379	5502.500
RAL	FB Start Far	291.900	usec	29.379	5502.500
RAL	FB Start Near	180.000	usec	29.379	5502.500
RAL	FB Start Radial	180.000	usec	29.379	5502.500
RAL	FB Thresh Far	10.000	mv	29.379	5502.500
RAL	FB Thresh Near	4.000	mv	29.379	5502.500
RAL	FB Thresh Radial	4.000	mv	29.379	5502.500
RAL	Fluid Travel Time	200.000	usec/ft	29.379	5501.004

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 SG 333-28

File Name : d:\welldata\wpx\sg 333-28\333ral\main.xtf

Mode : PlotMgr 5.4.504

Interval : 0.00 - 5502.50 feet UP

Created : 9/28/2014 3:43:22 PM

0

GR

150

gAPI

TT3

280

u sec

CCL

MD feet 1:240

400

mv

180

0

ANR

100

mv

XAMP

0

20

mv

200

Variable Density

1200

us

WELLHEAD

FLUID LEVEL

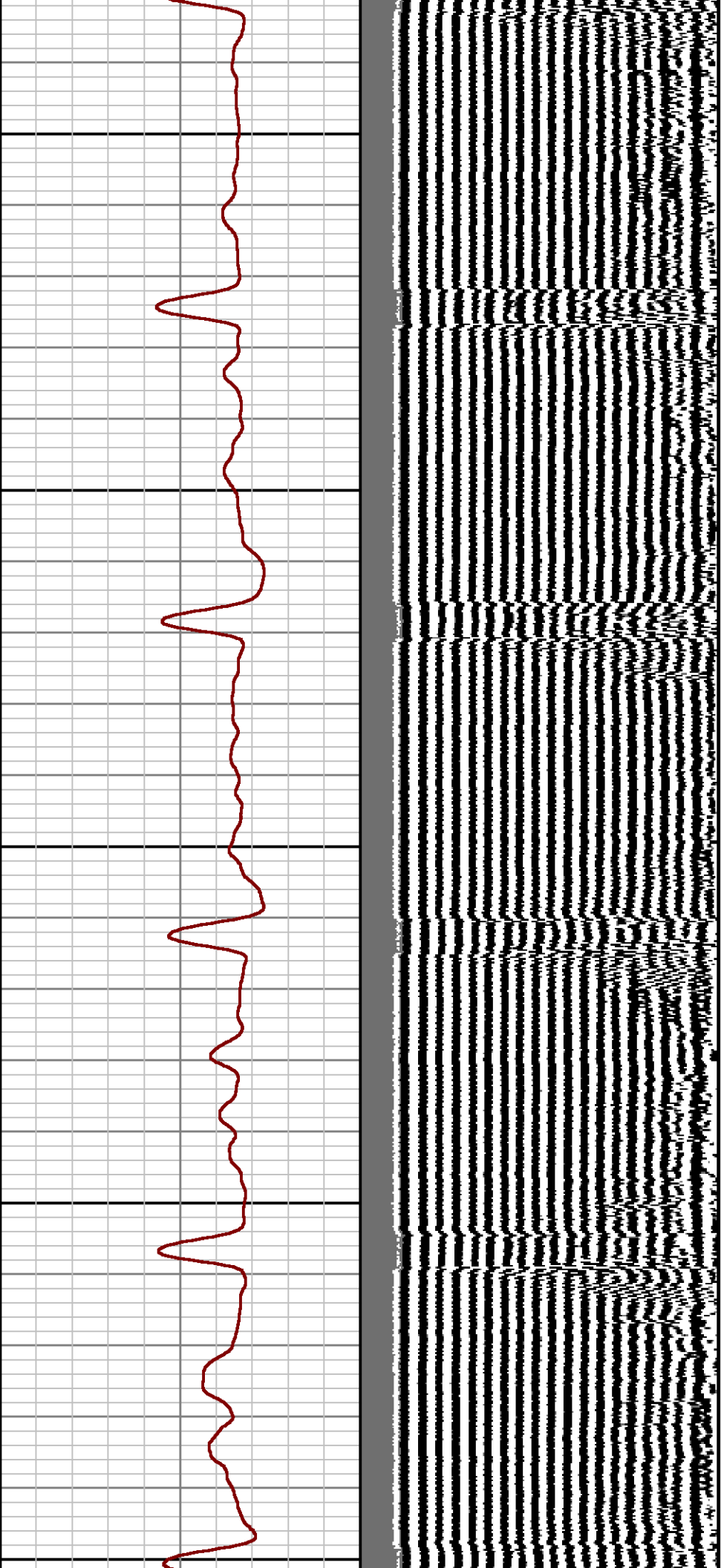
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CCL

GR

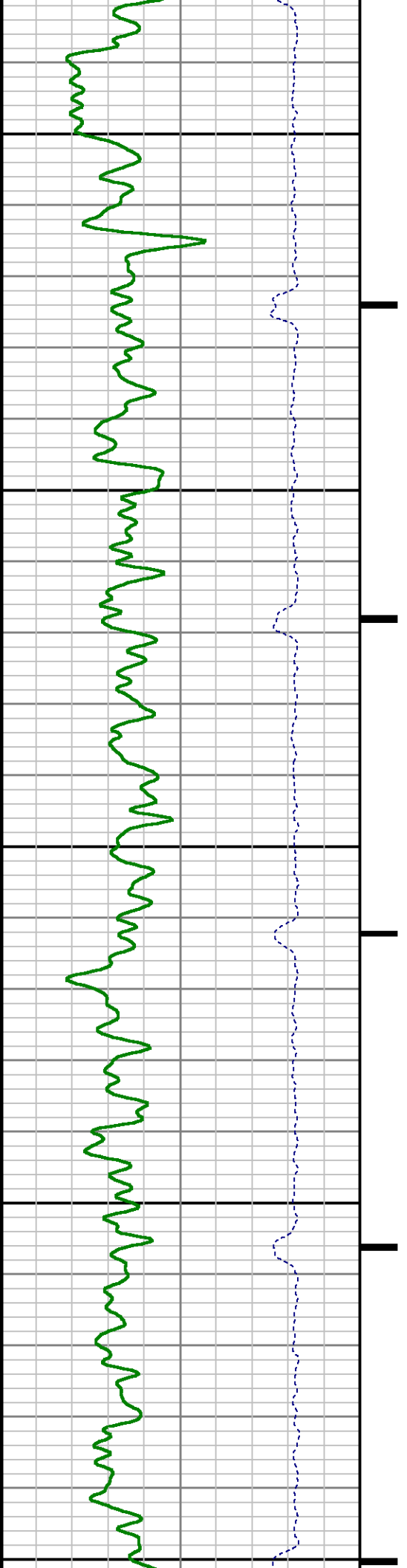
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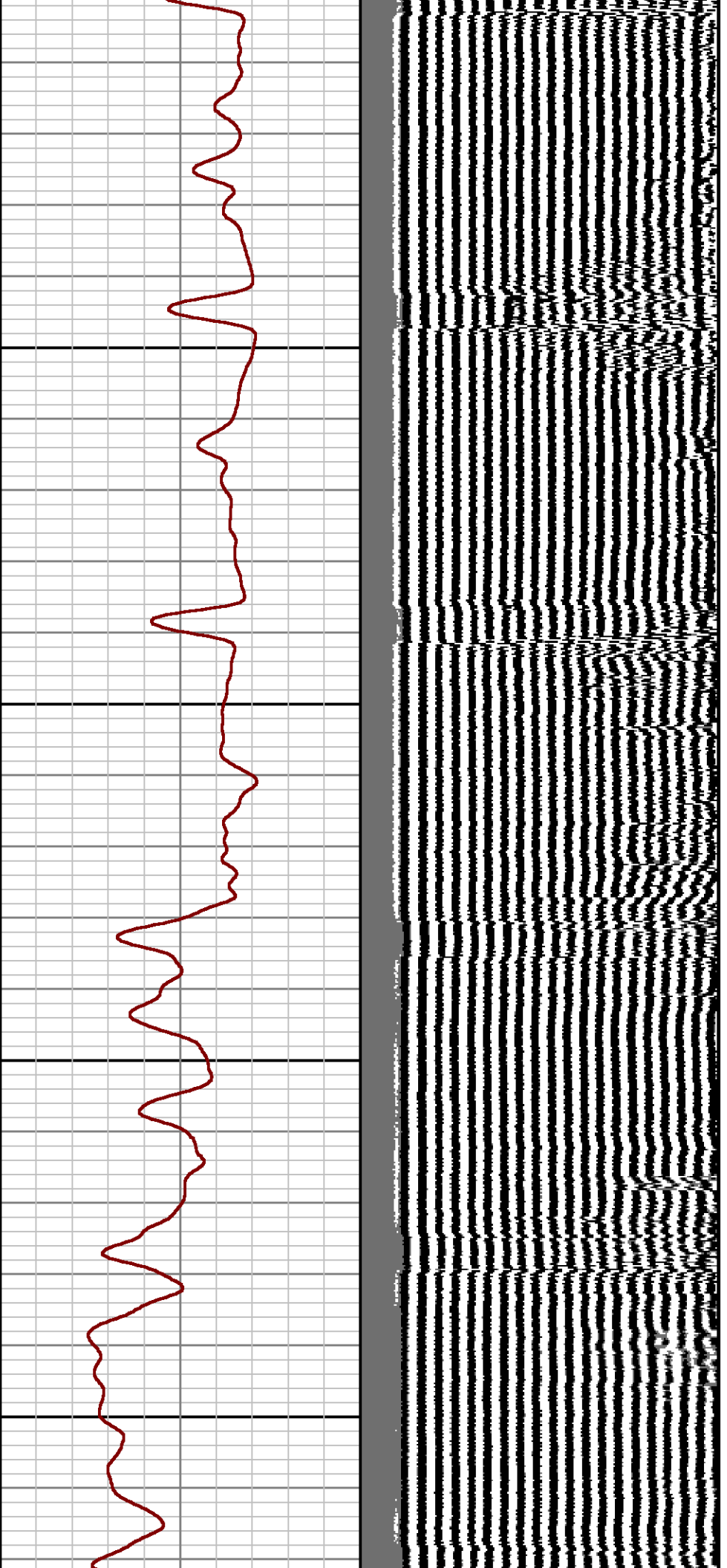
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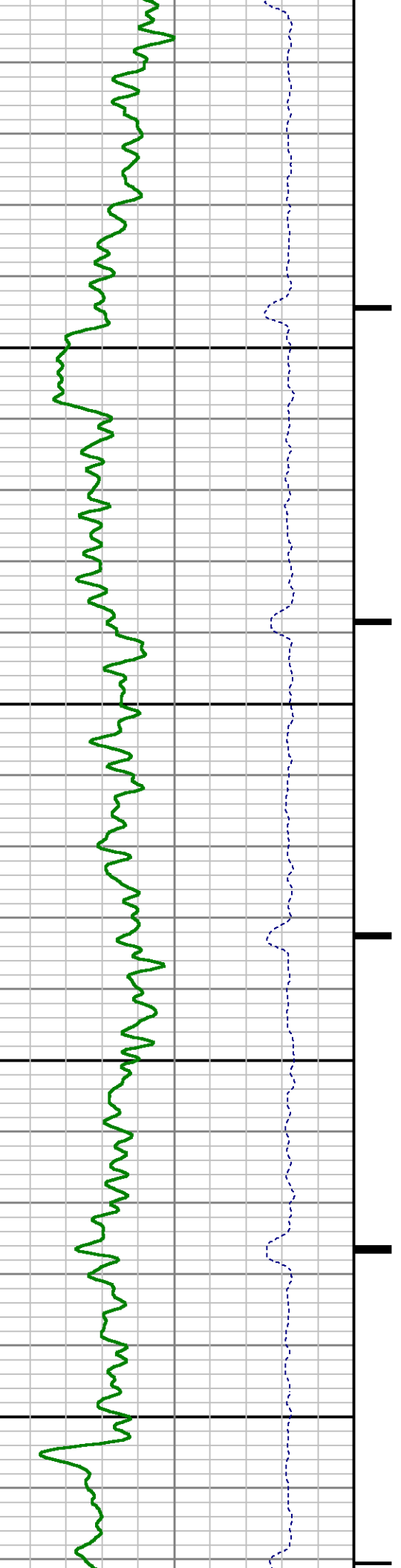
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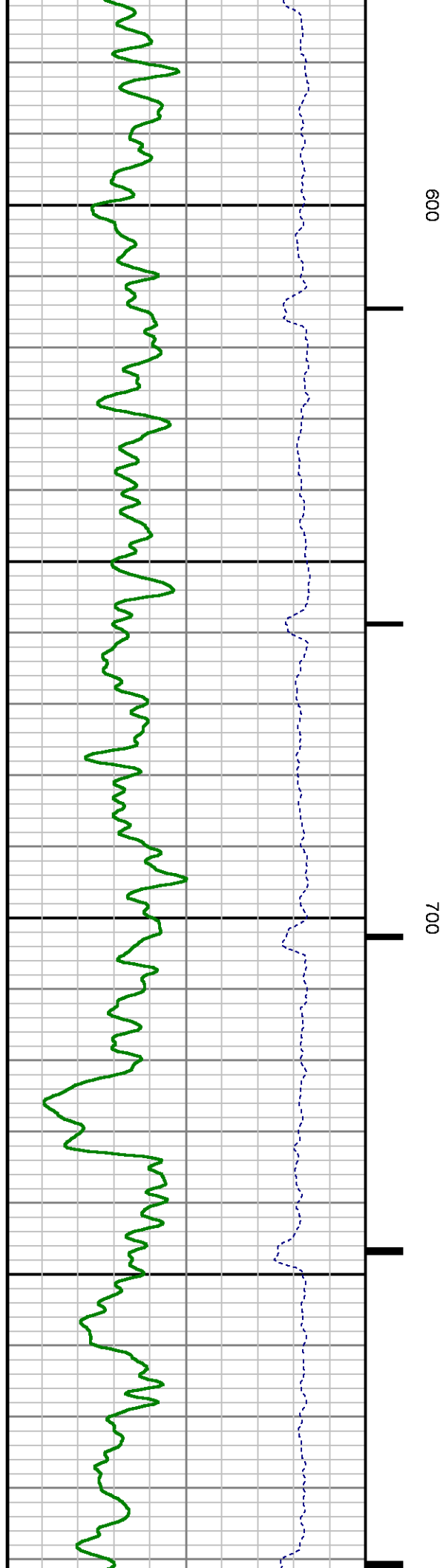
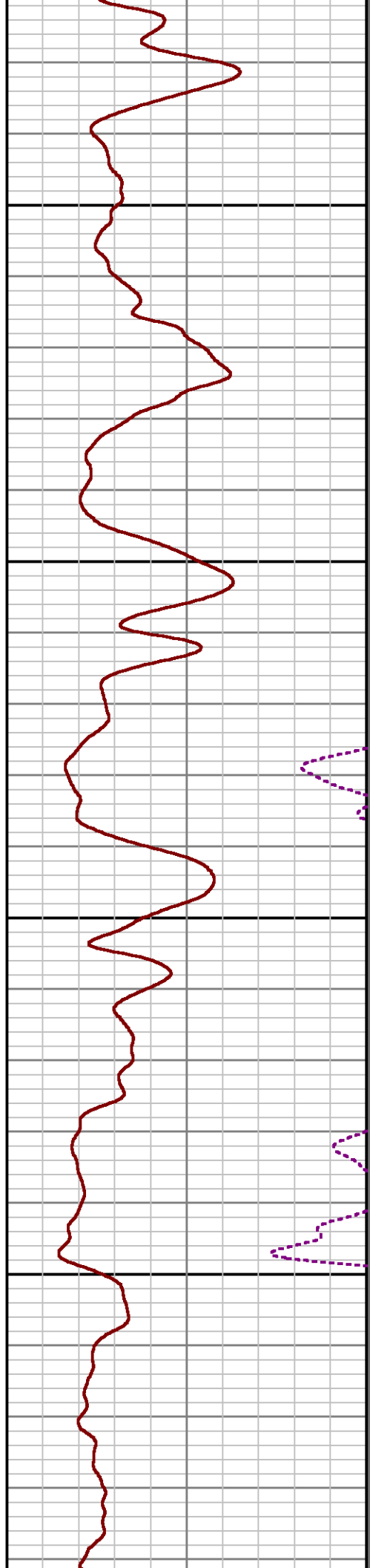
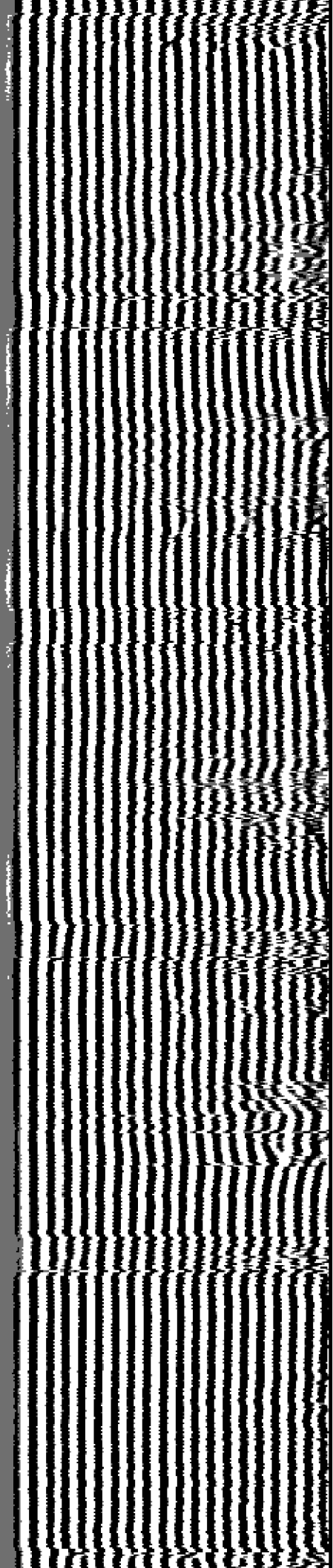


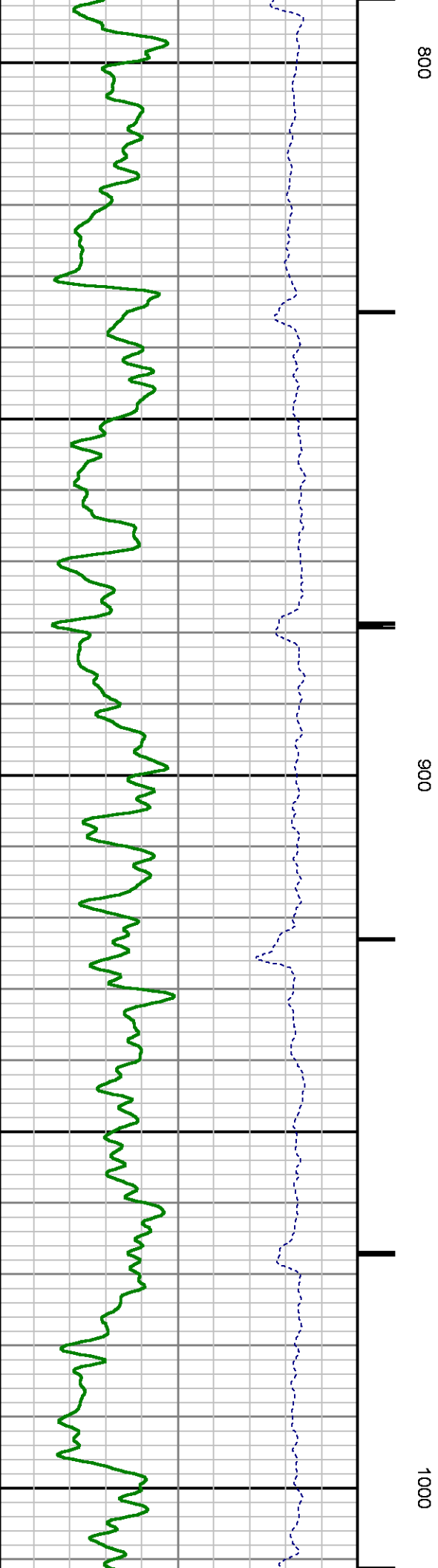
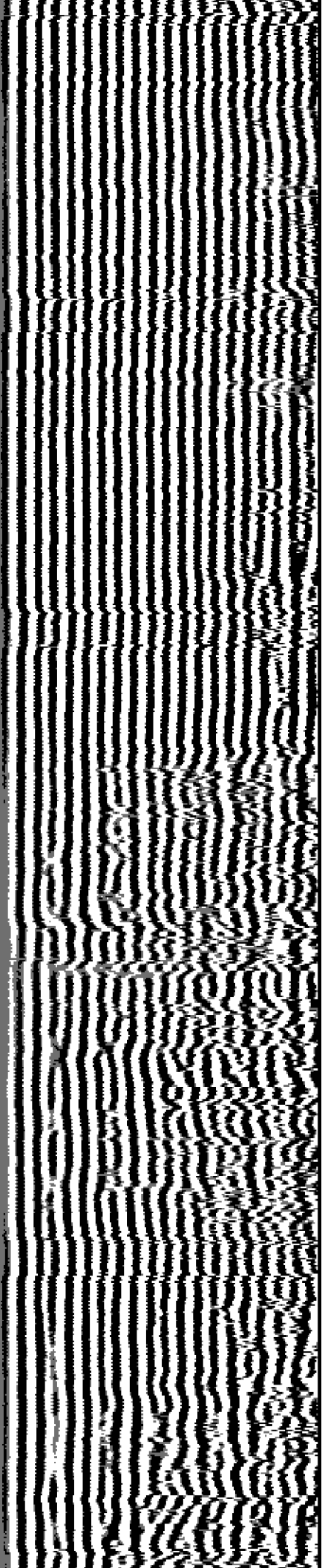


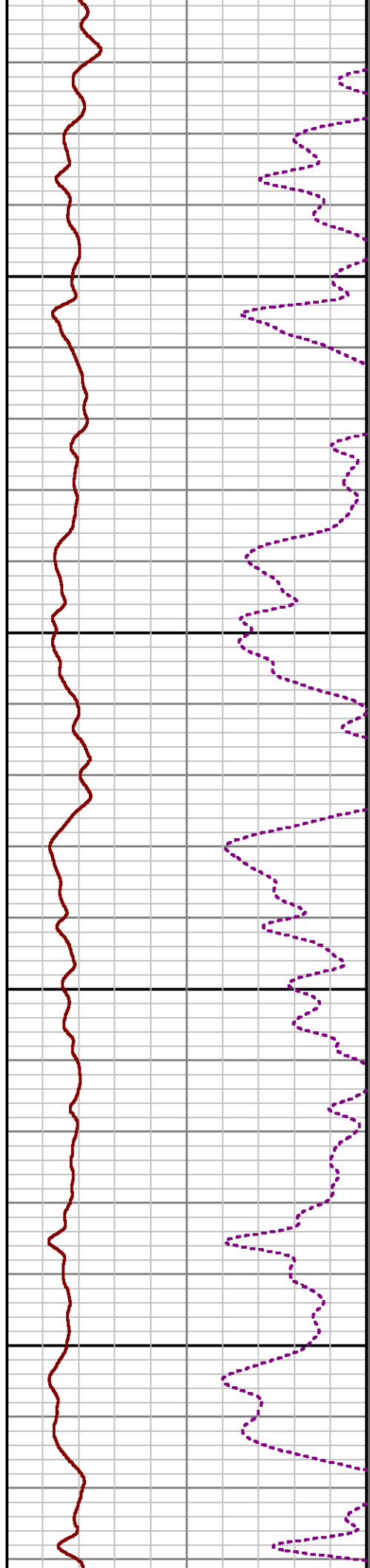
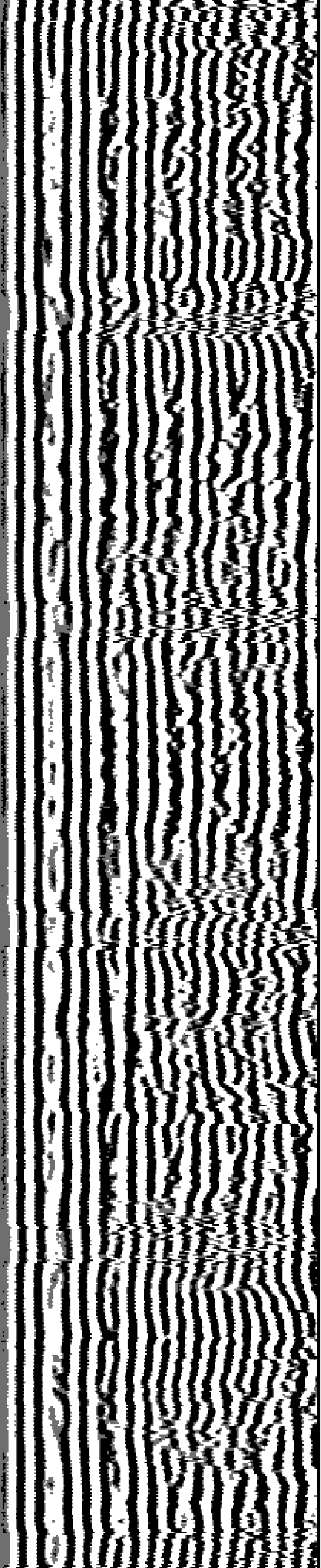
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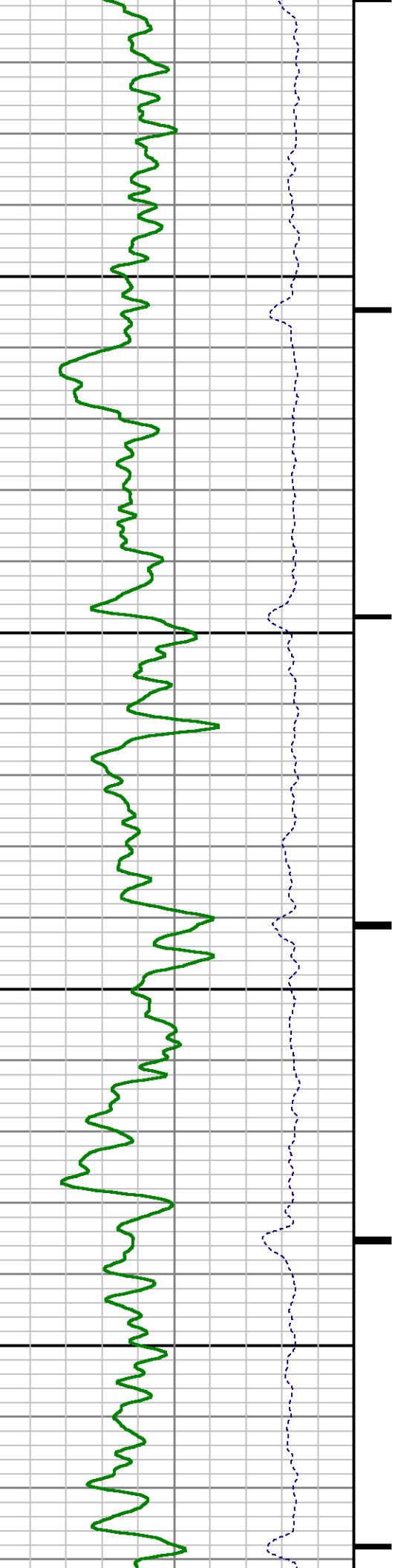


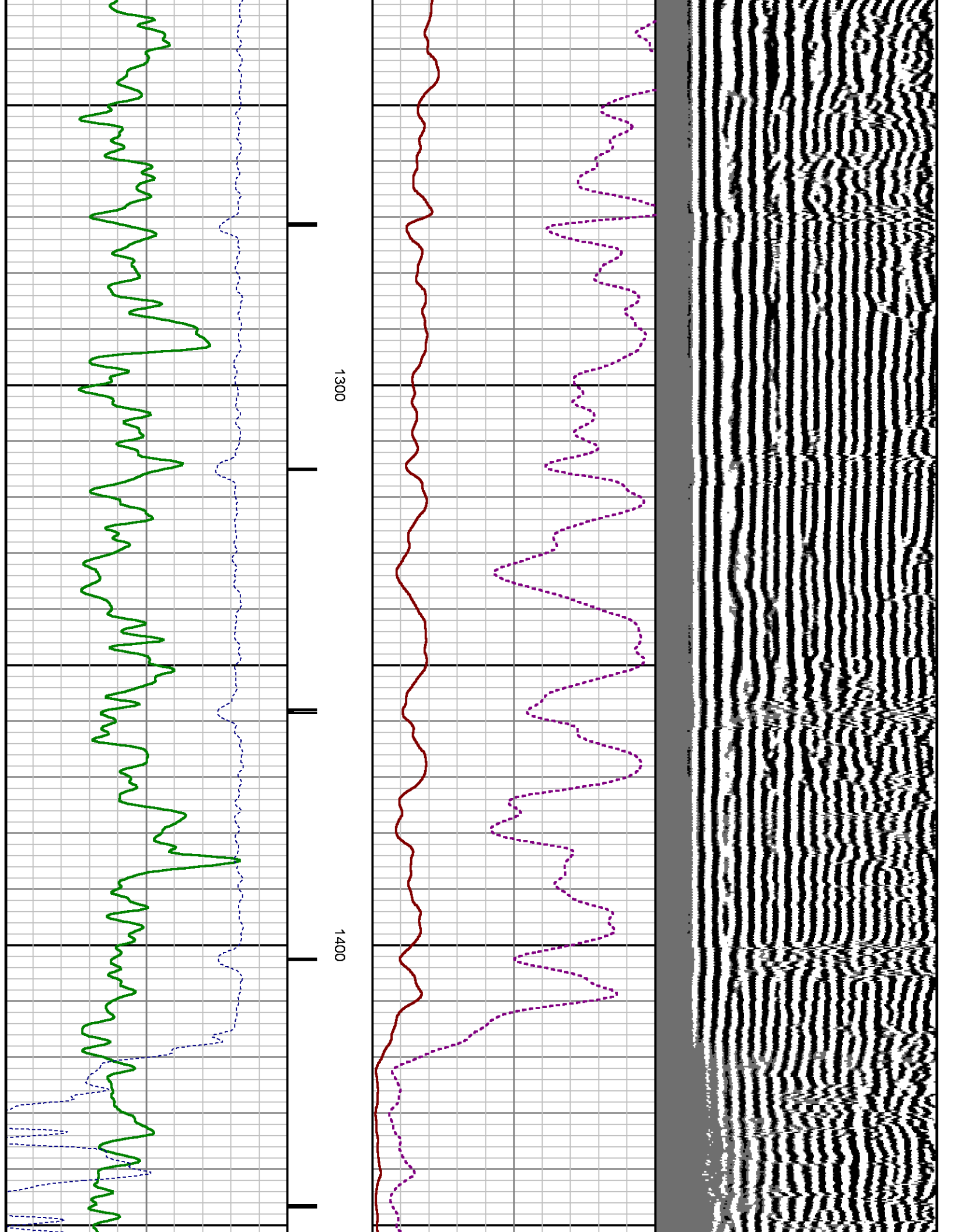


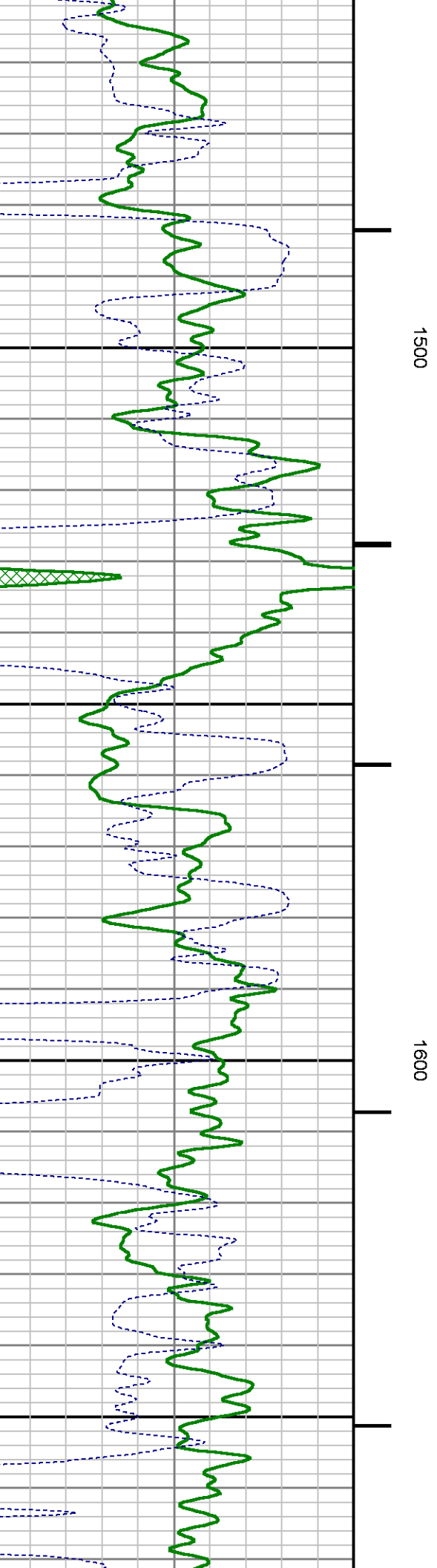
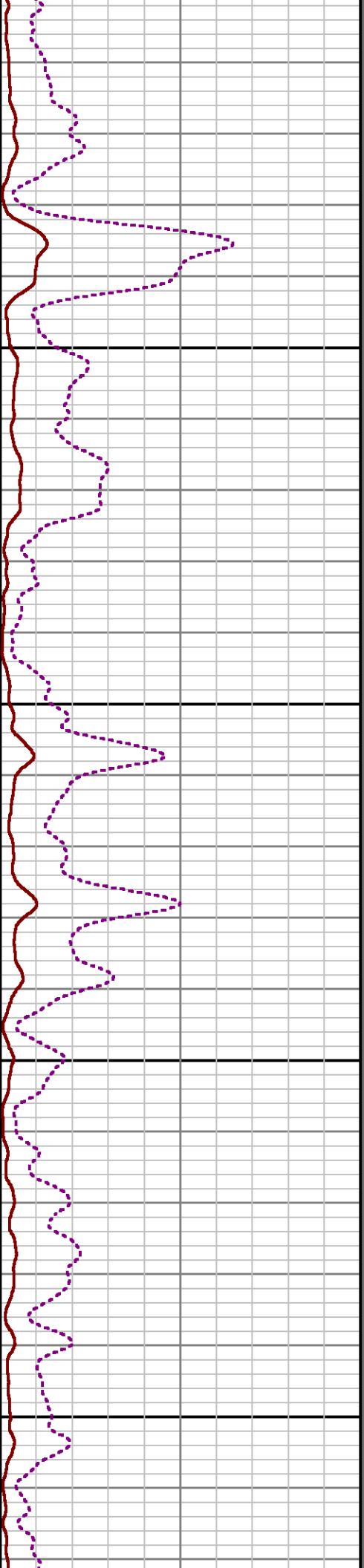
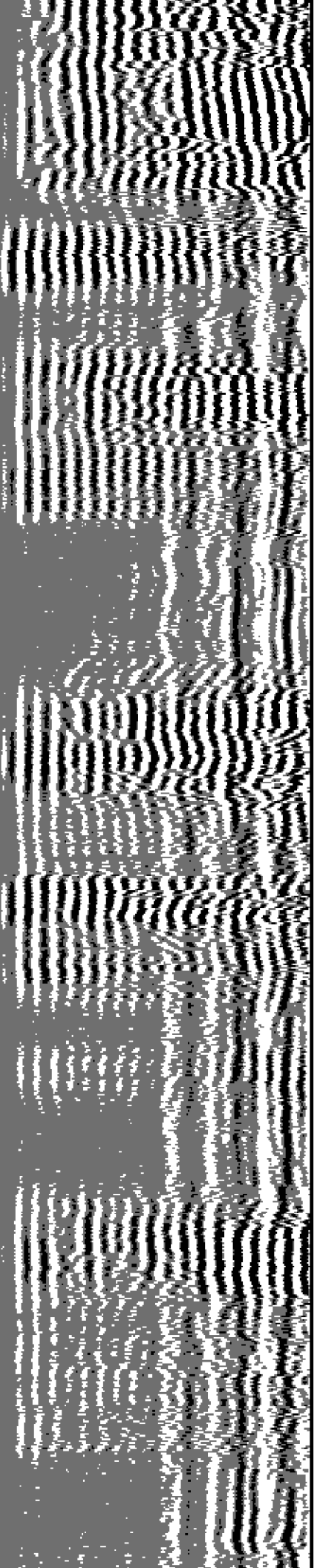


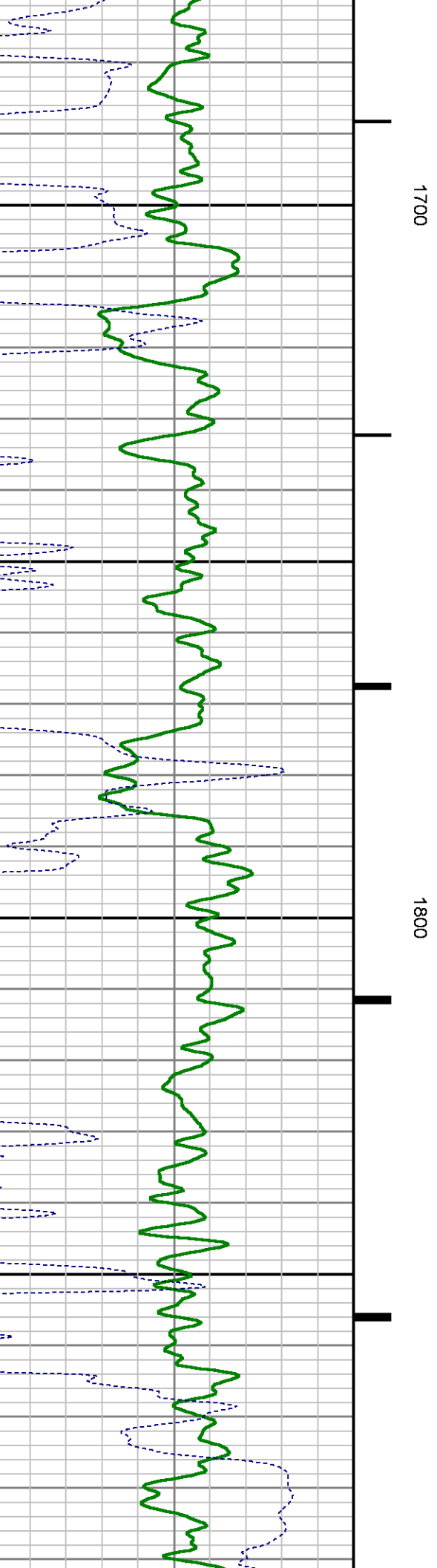
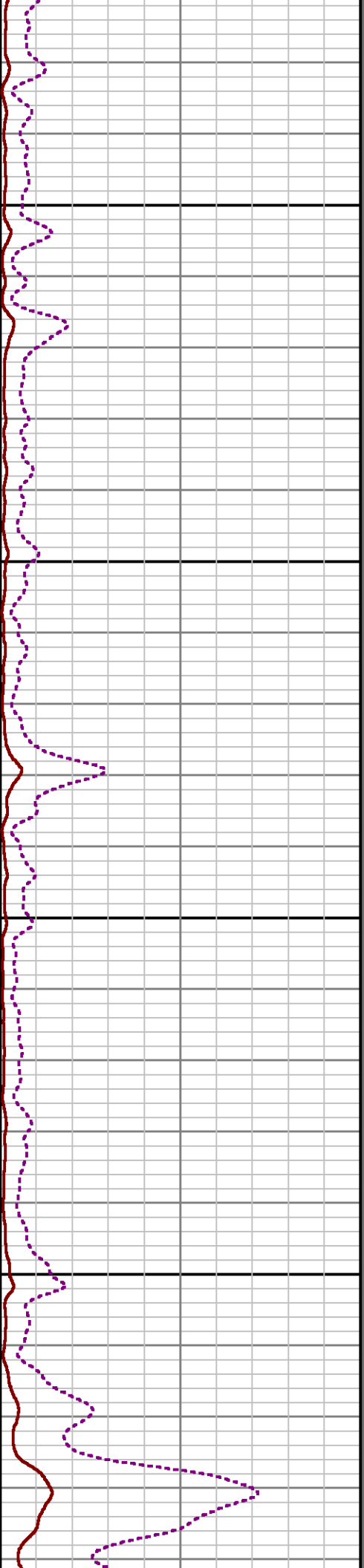
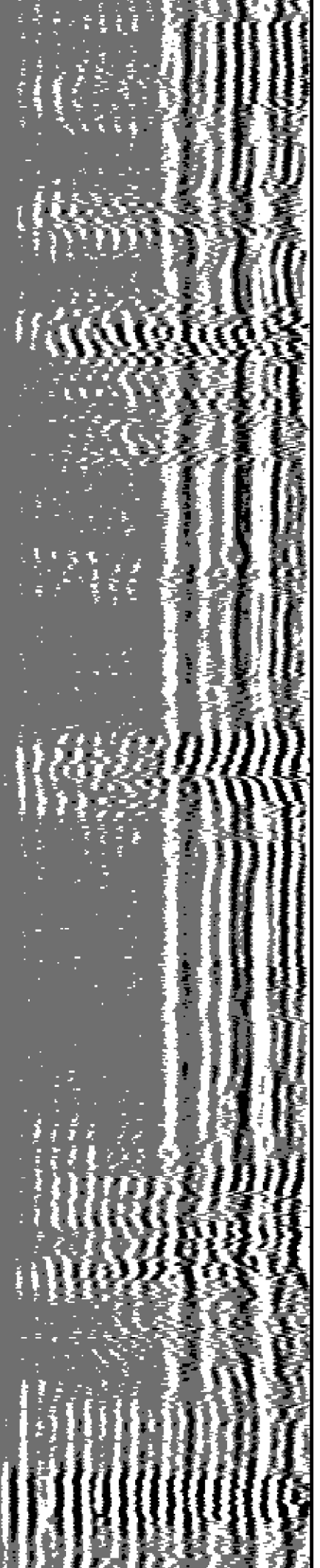
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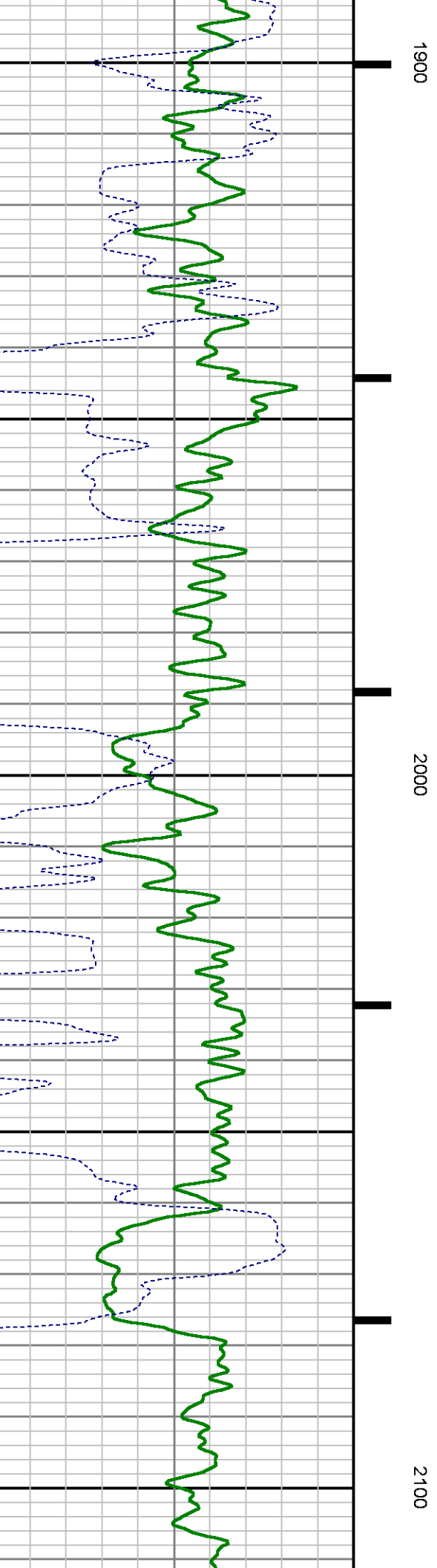
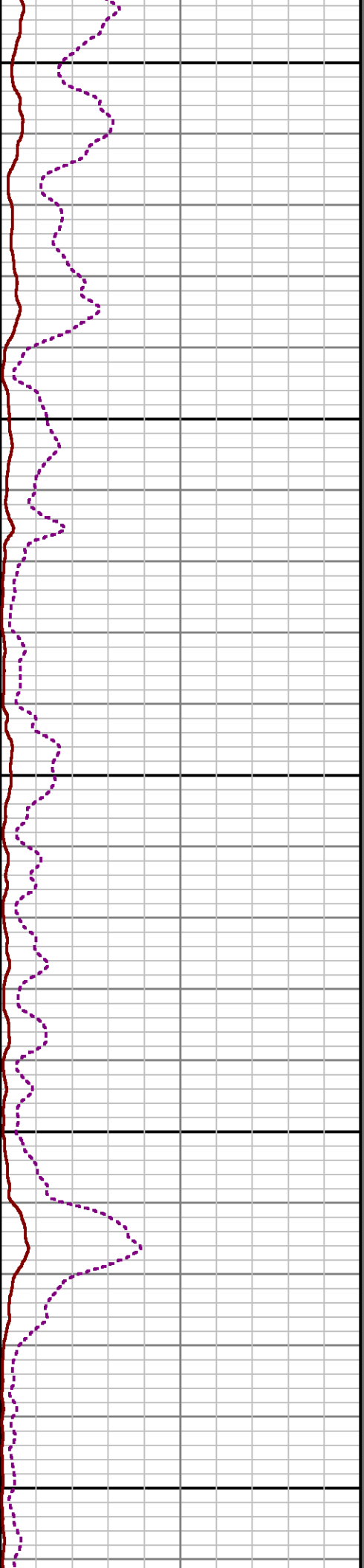
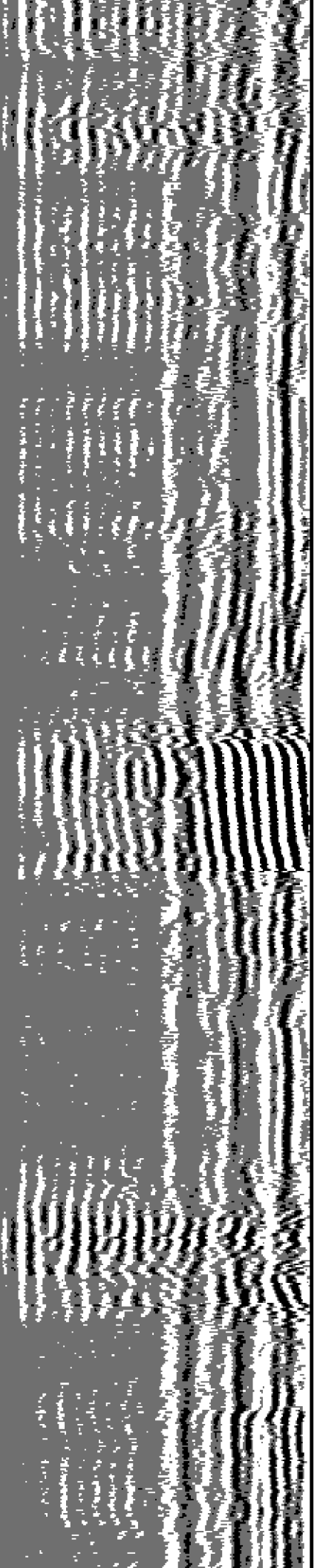
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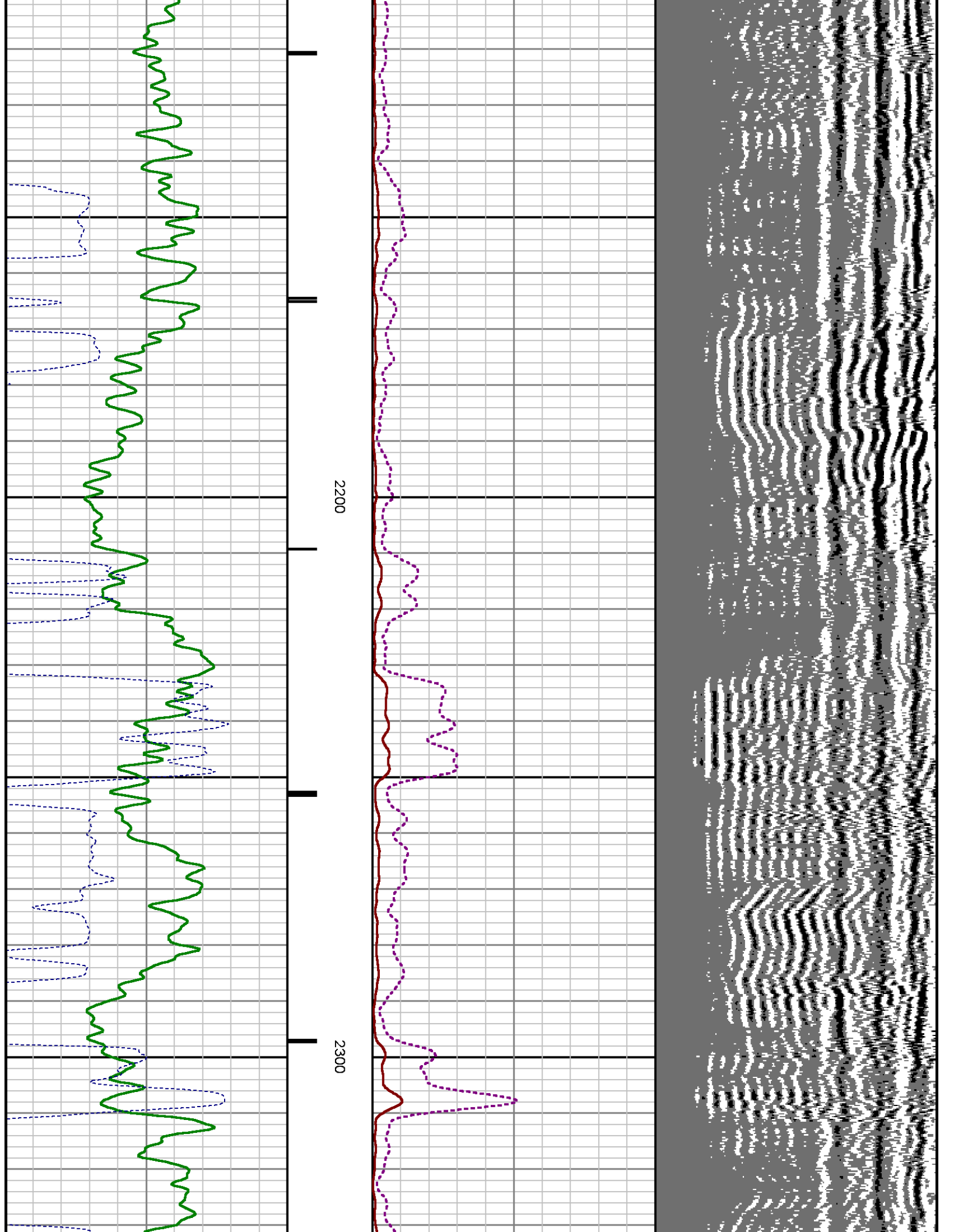


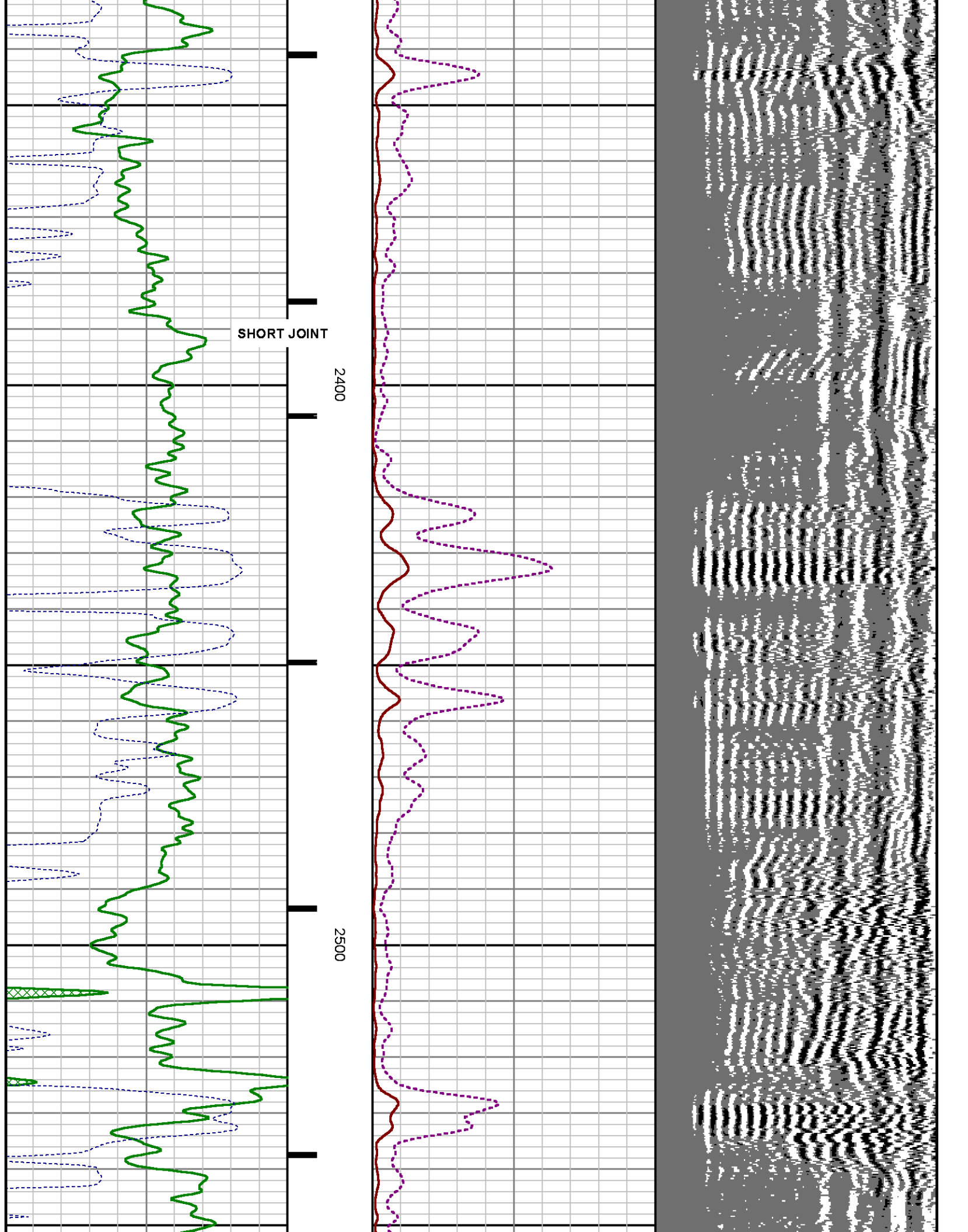


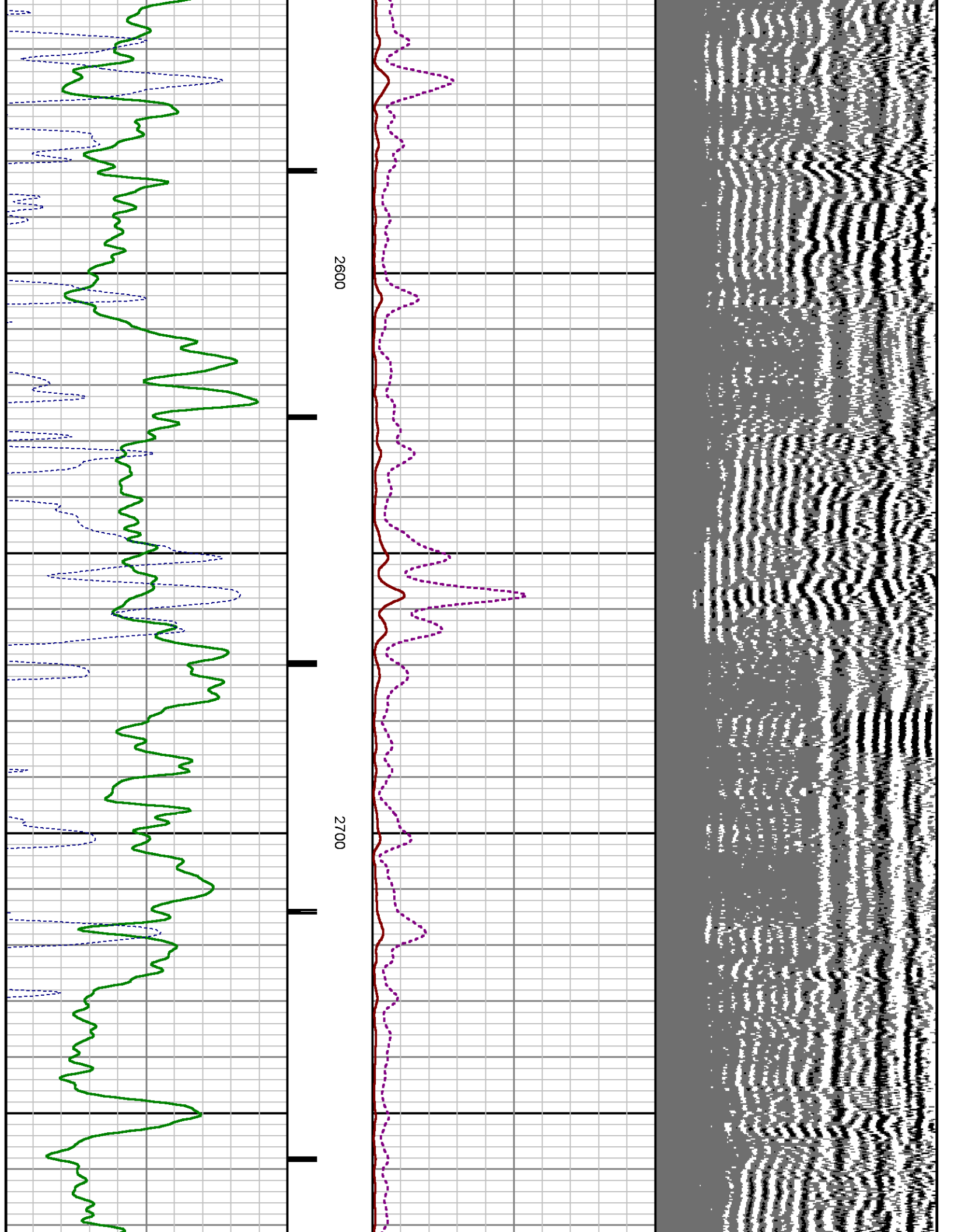


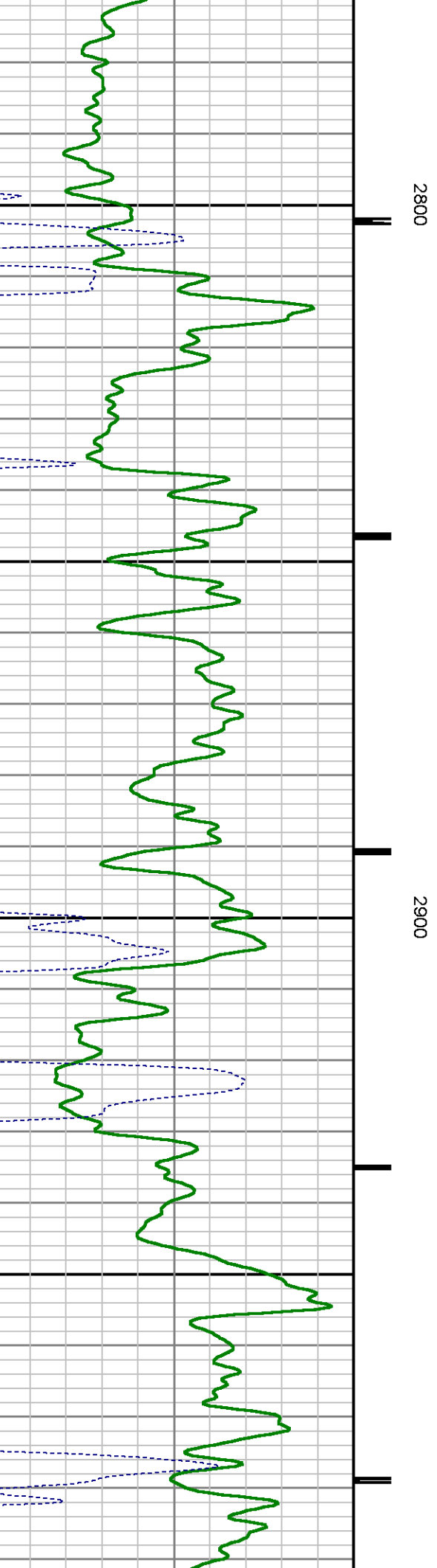
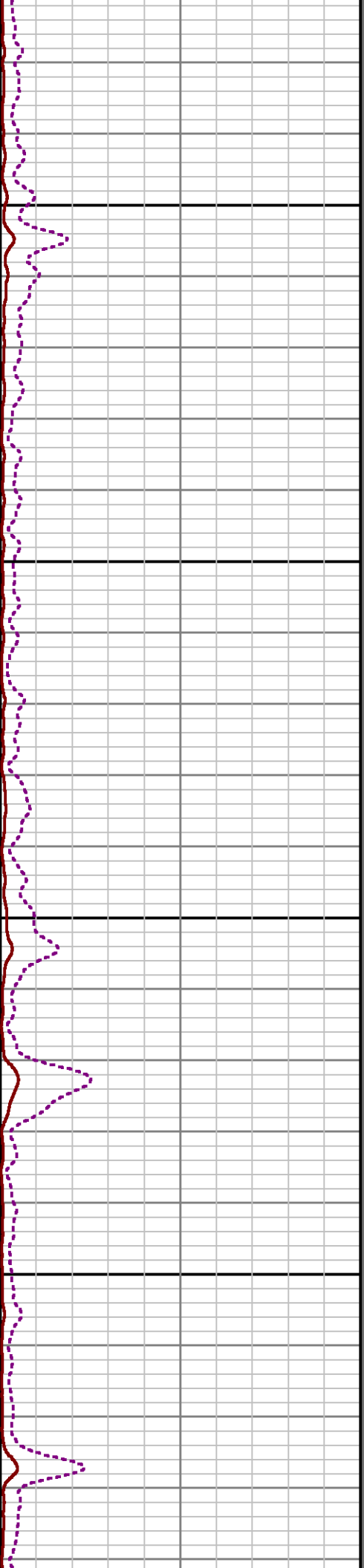
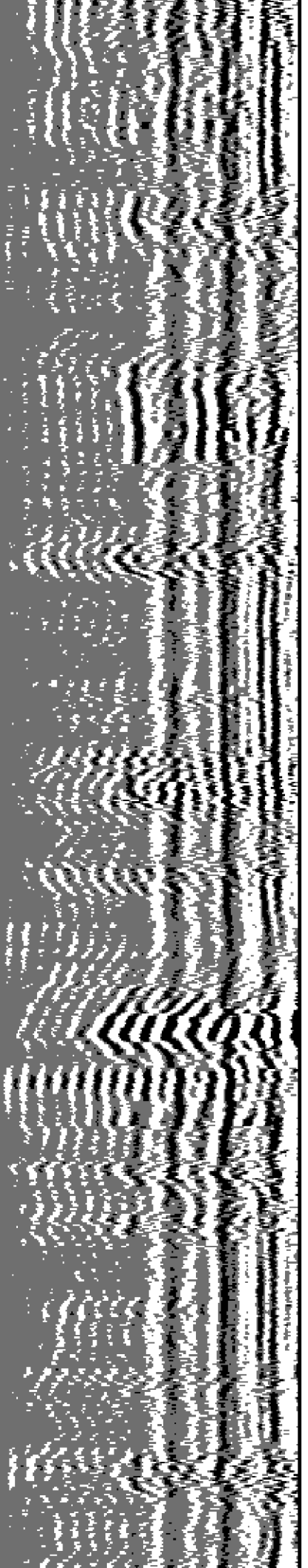


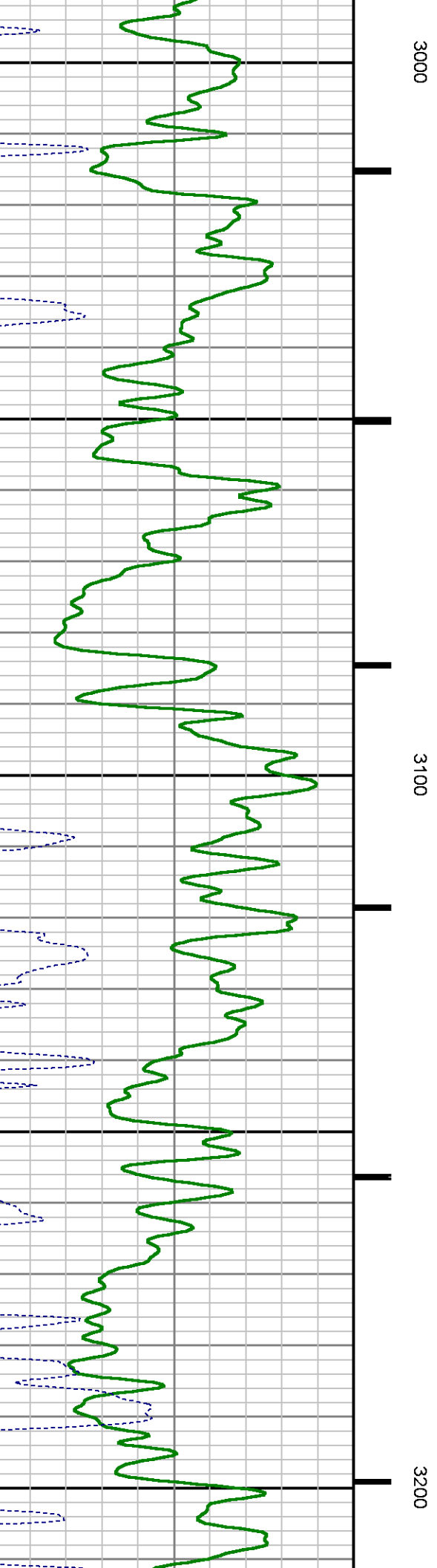
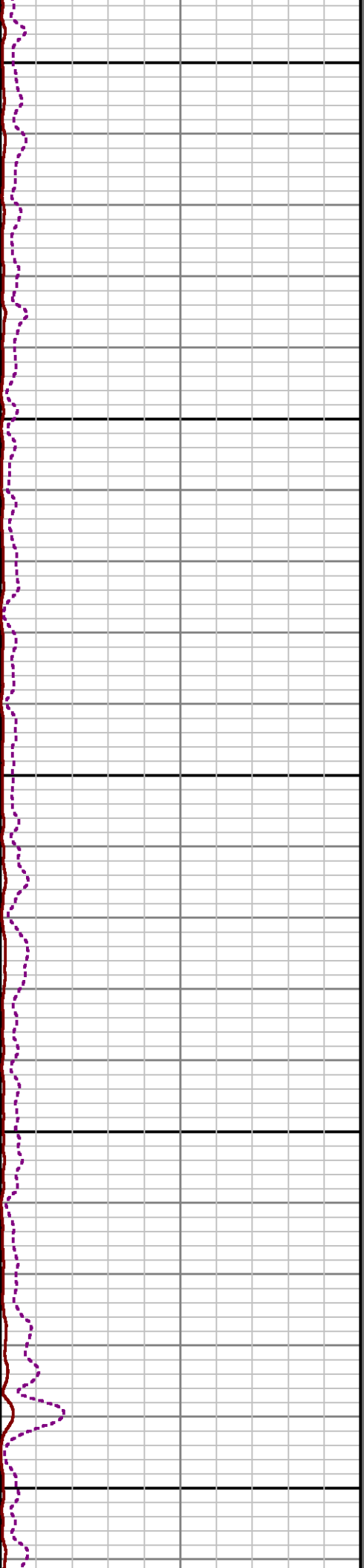
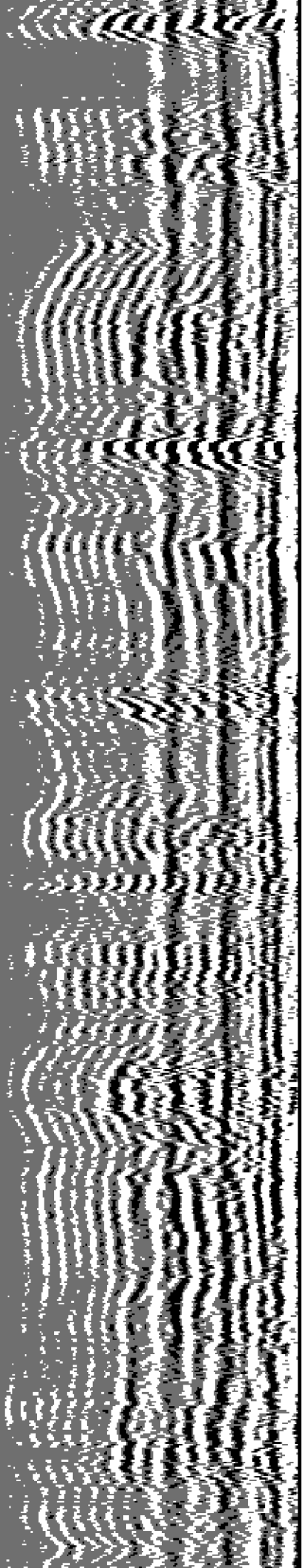


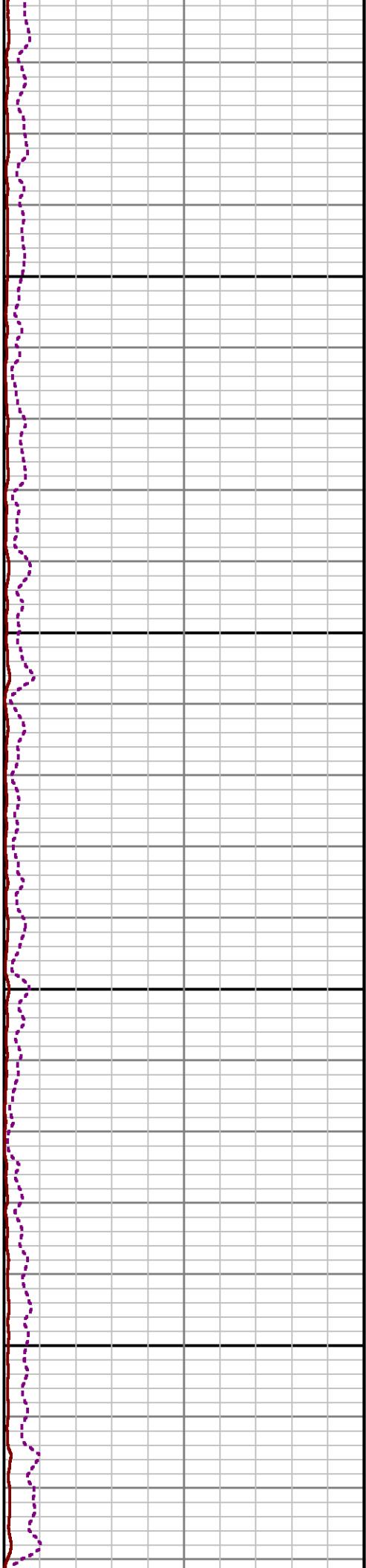
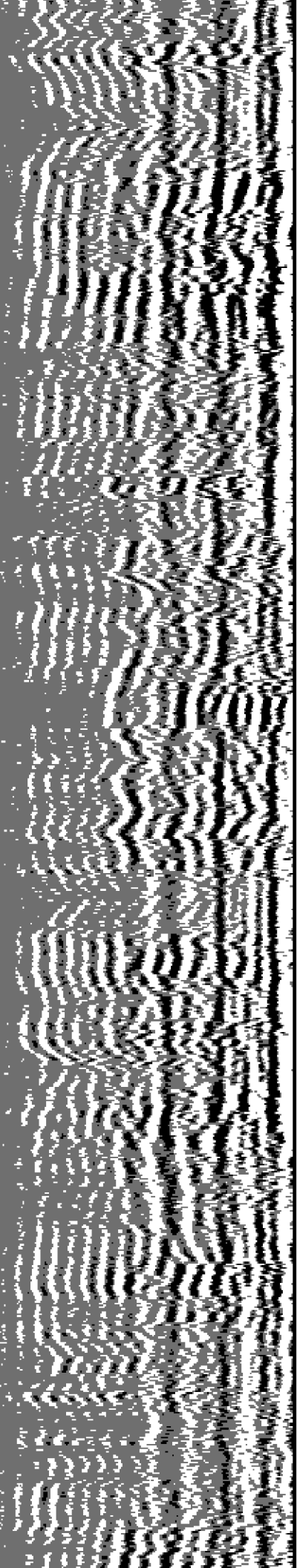






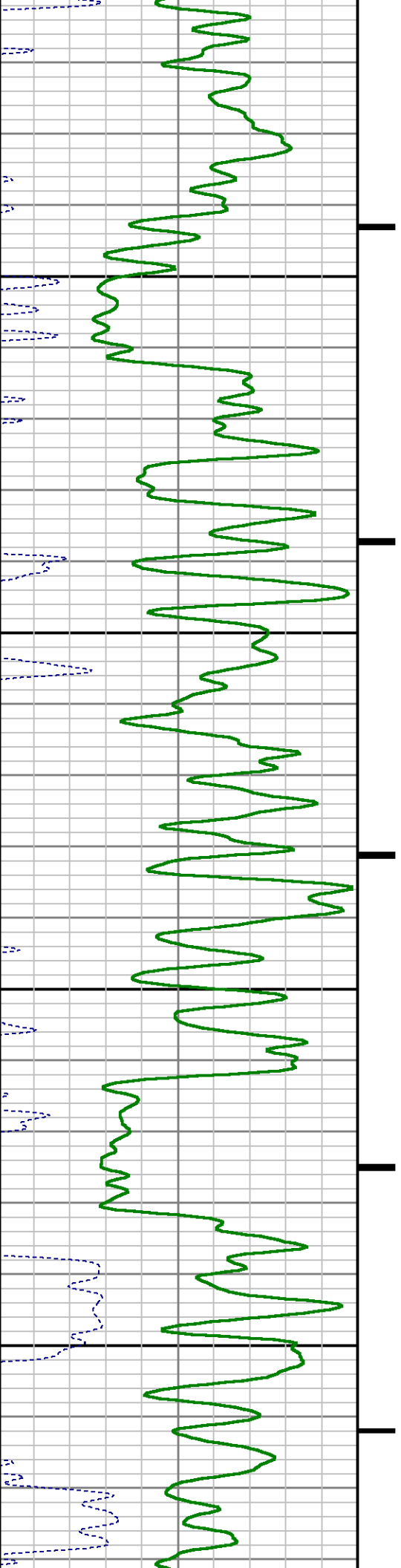


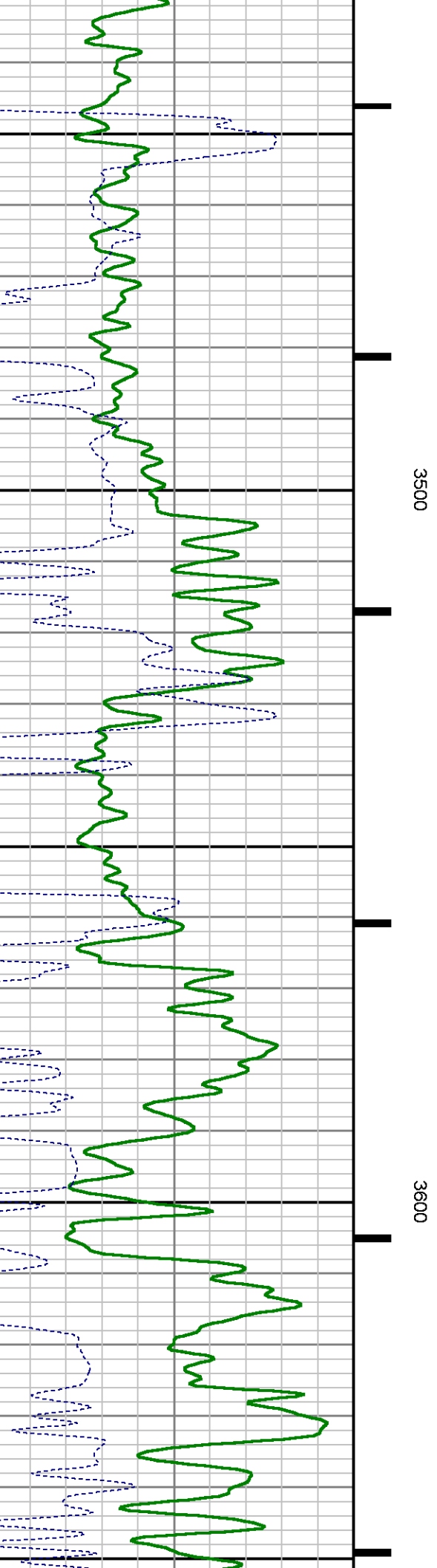
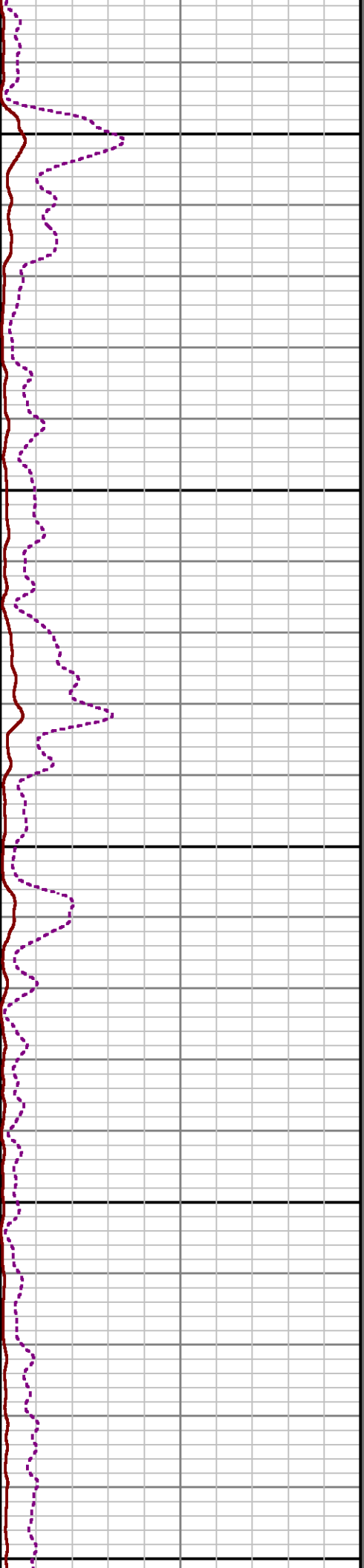
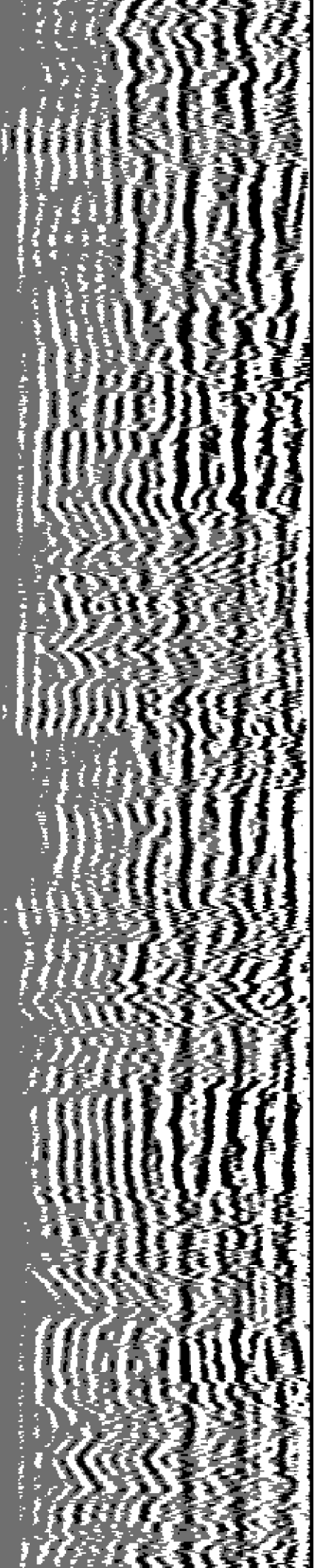


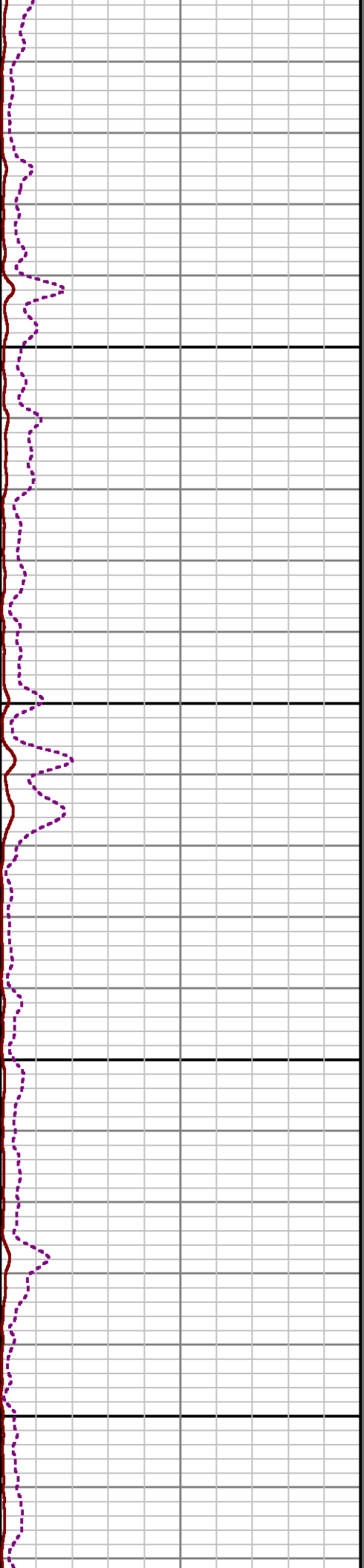
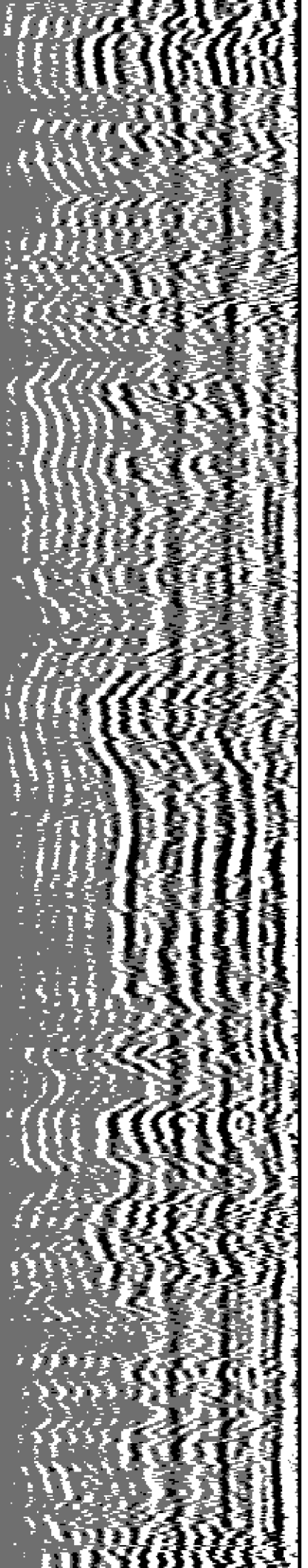


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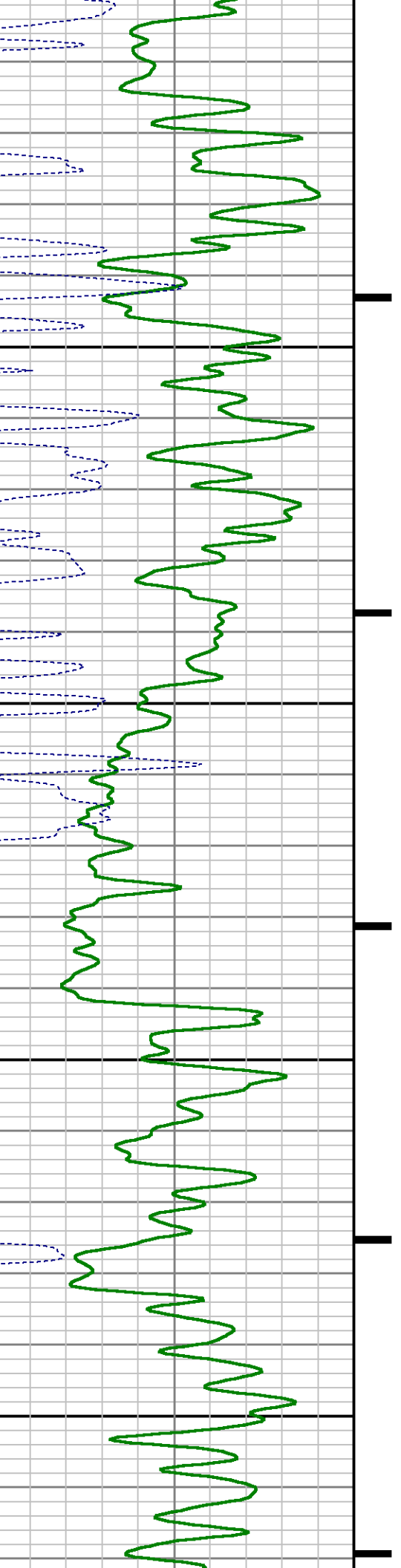


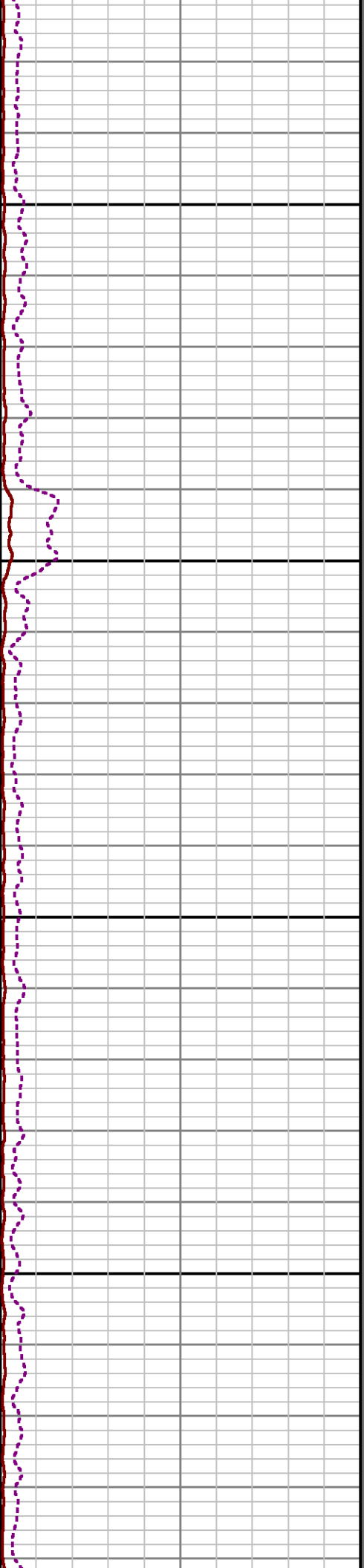
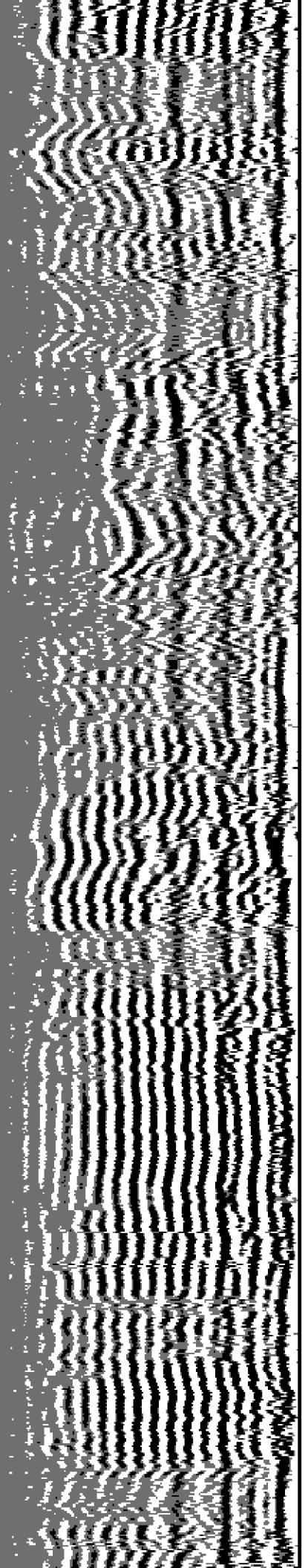




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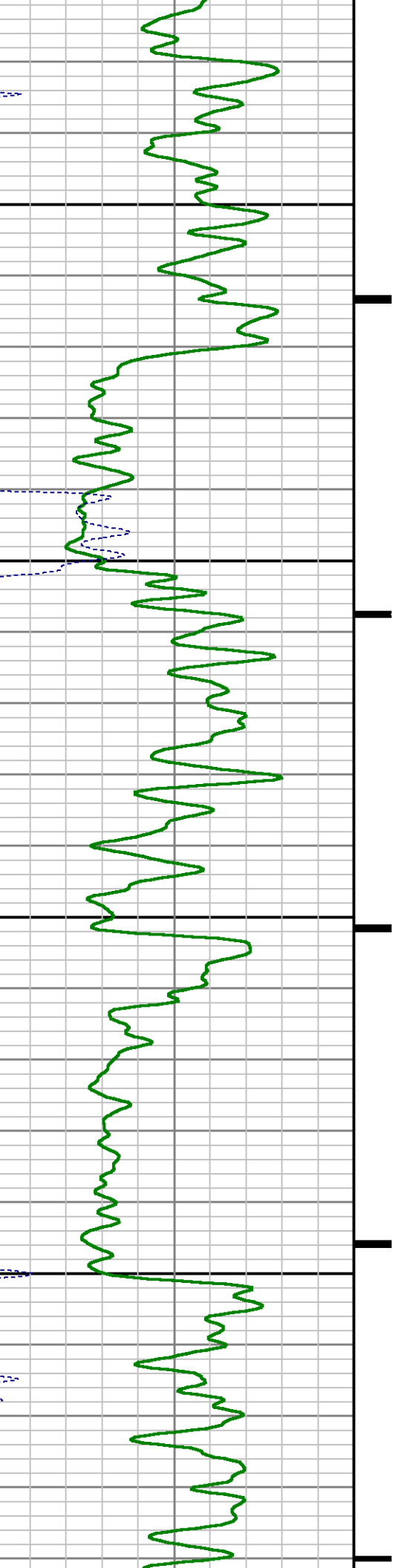
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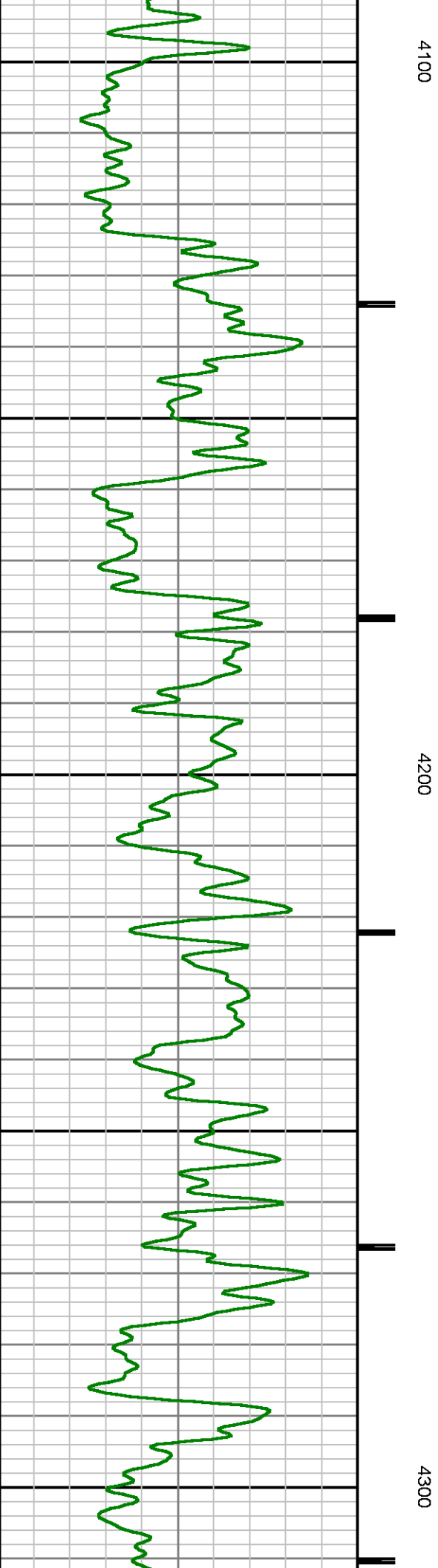
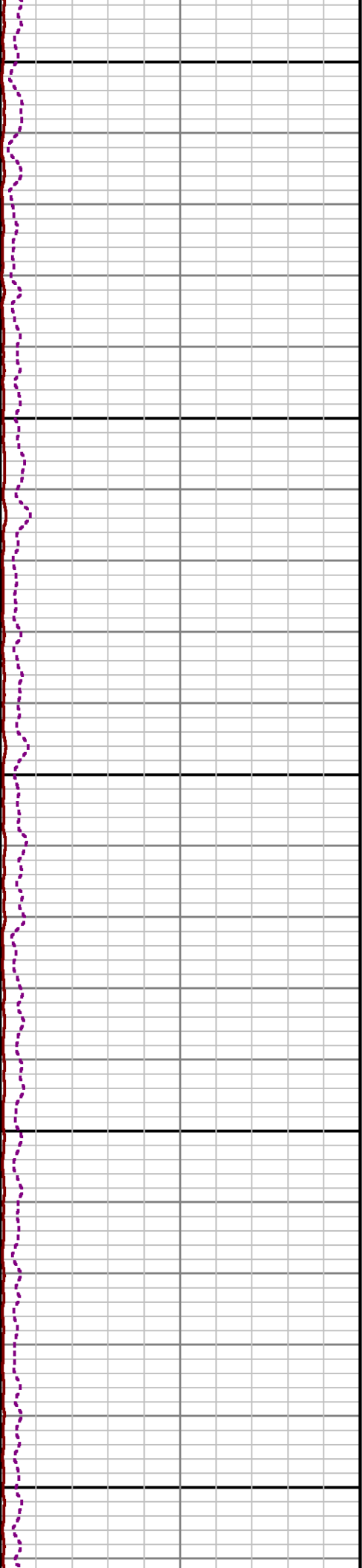
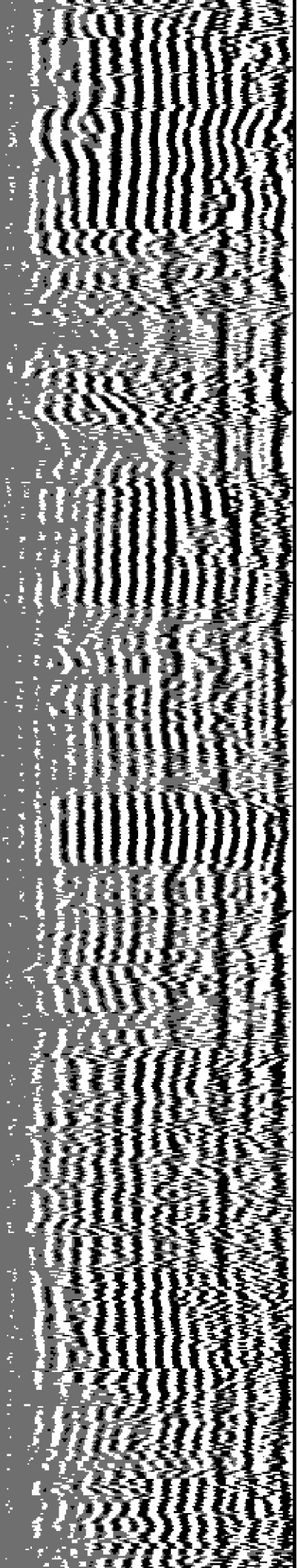


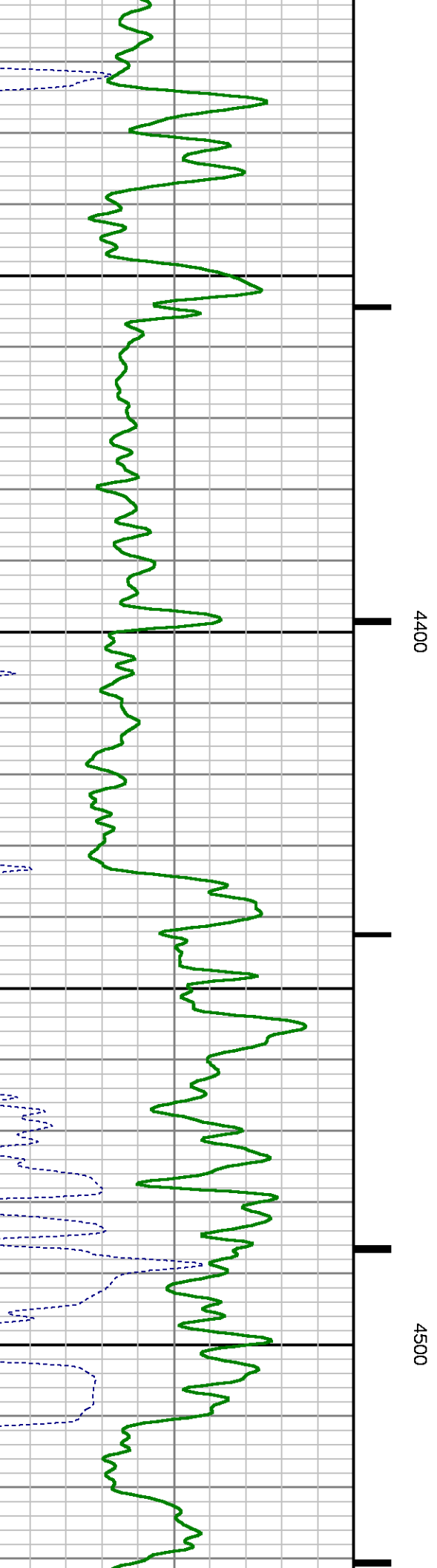
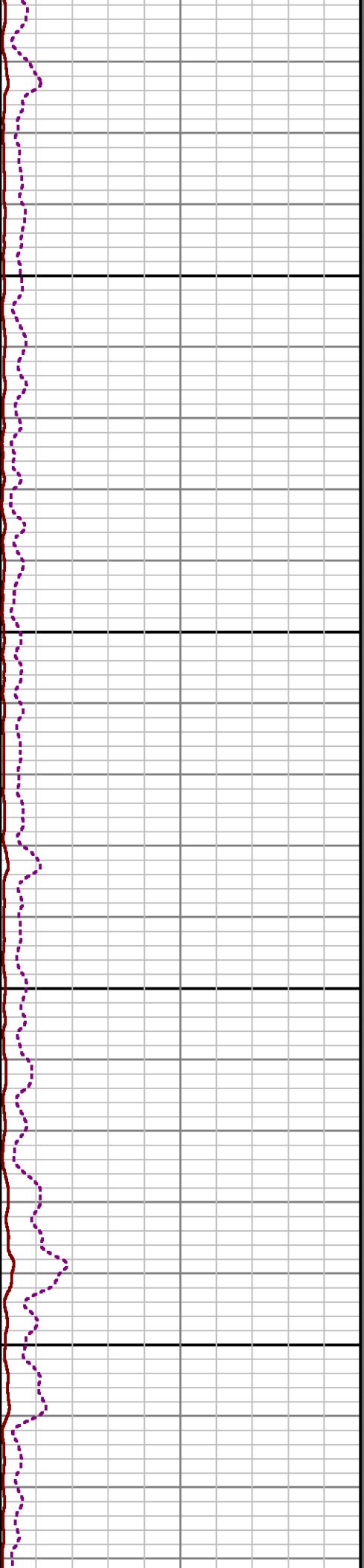
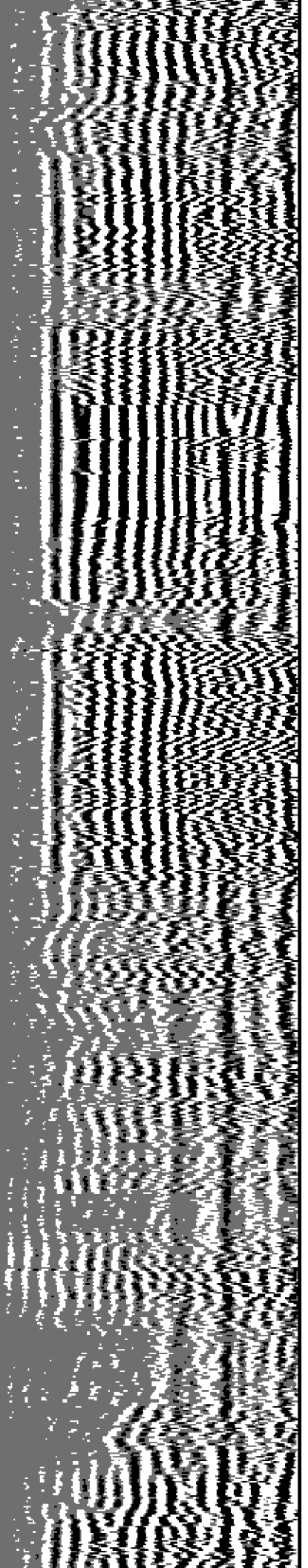


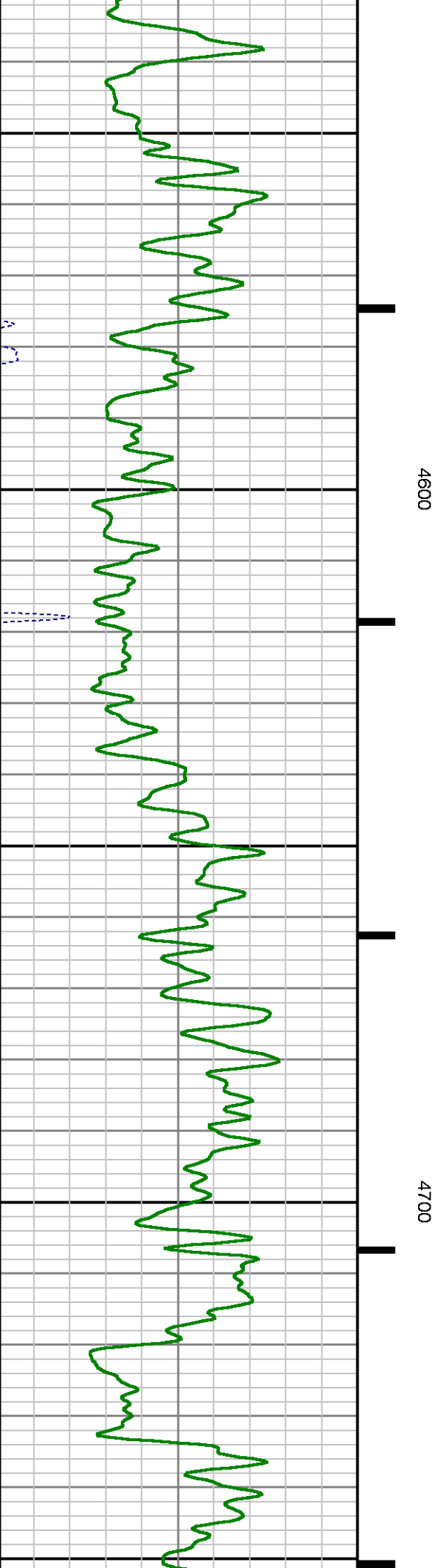
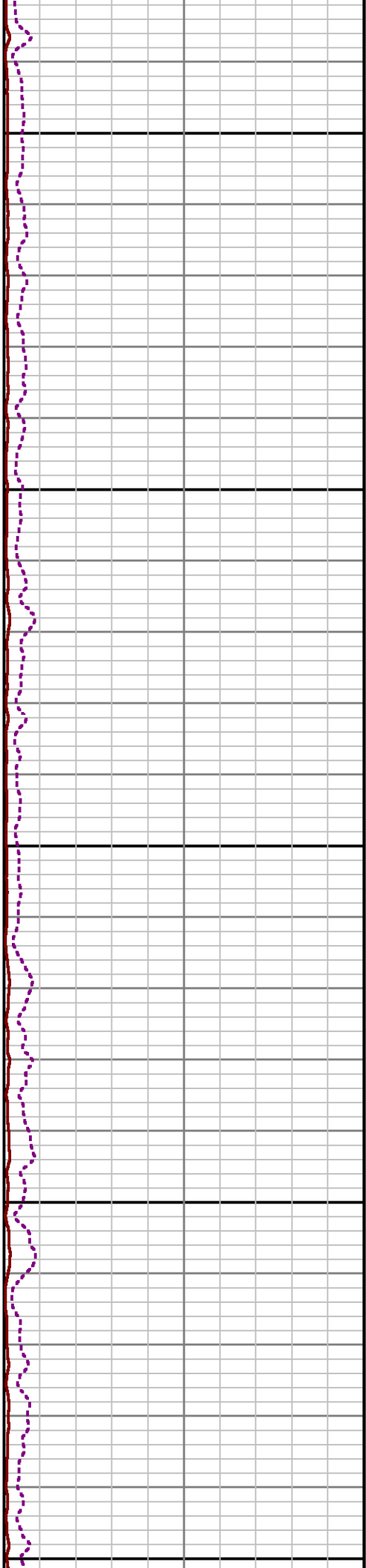
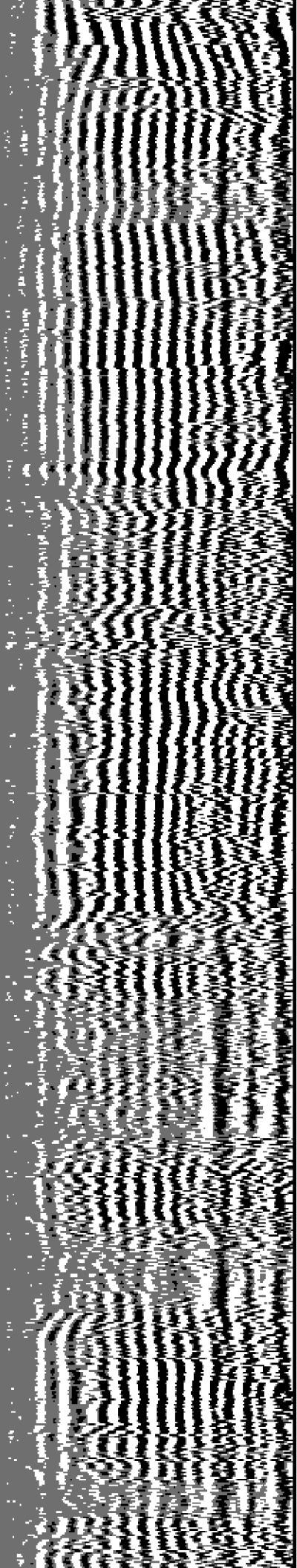
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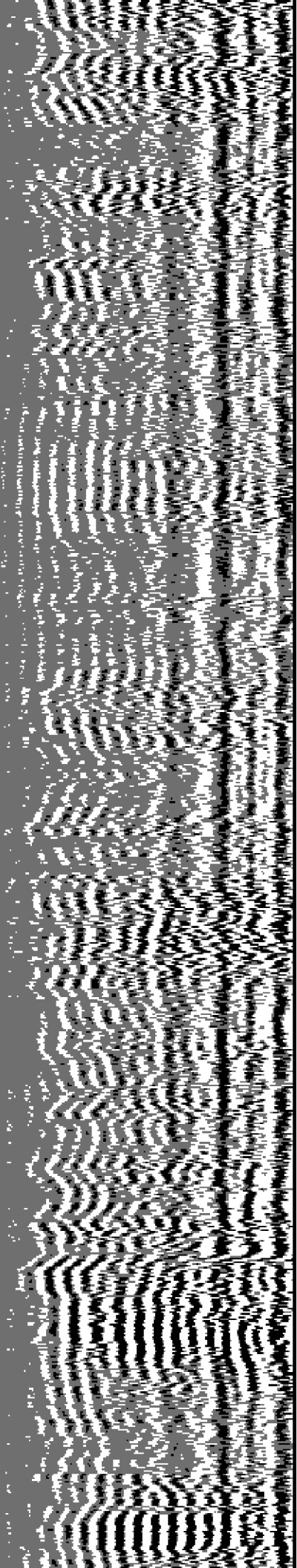
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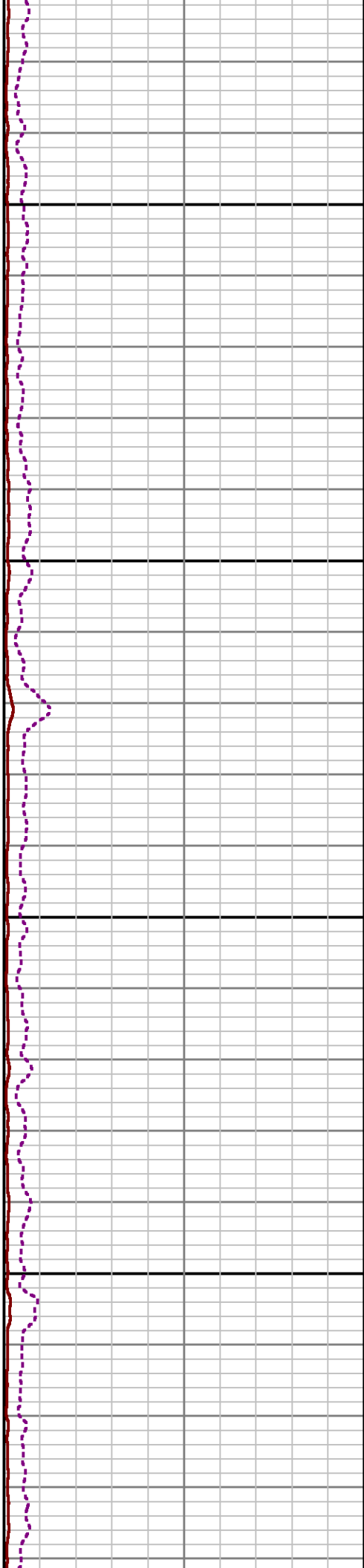
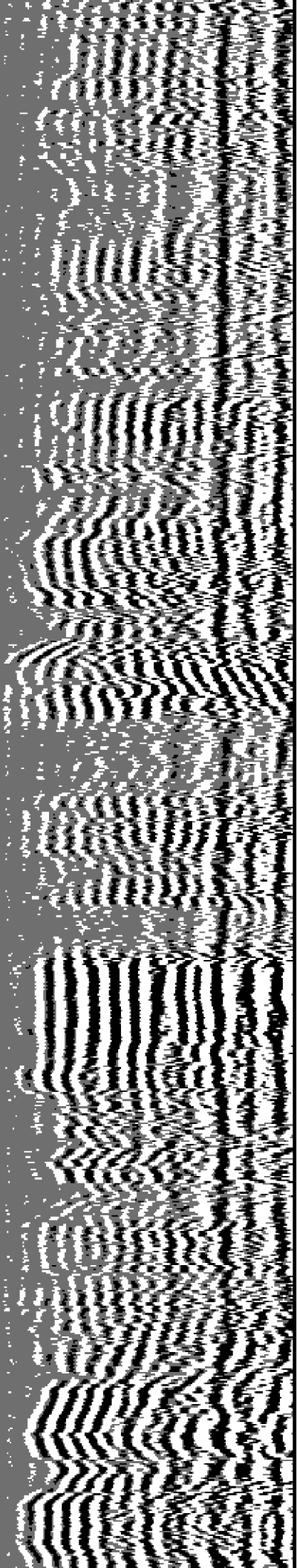


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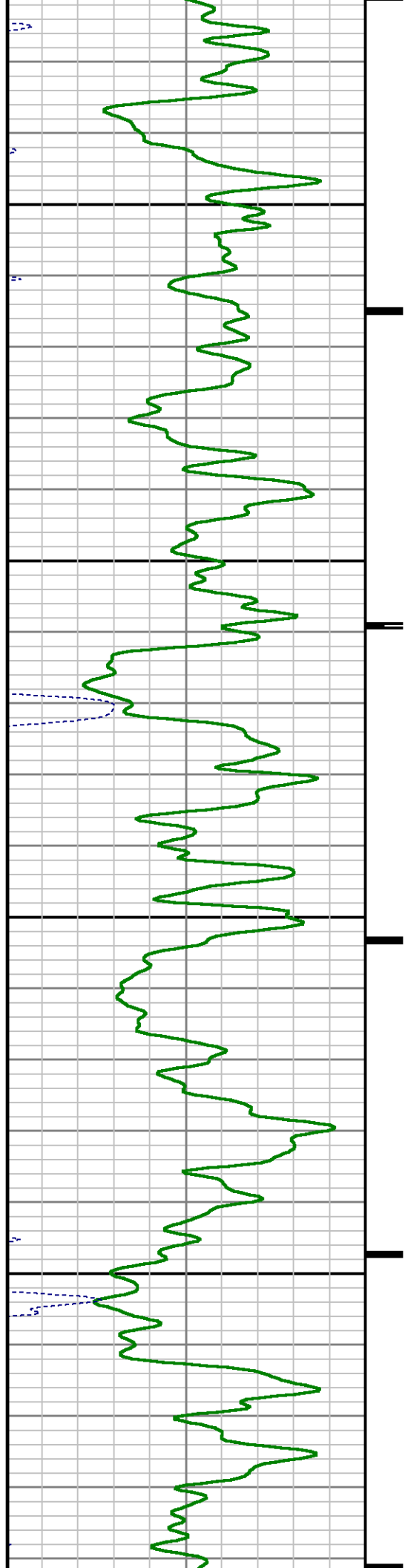


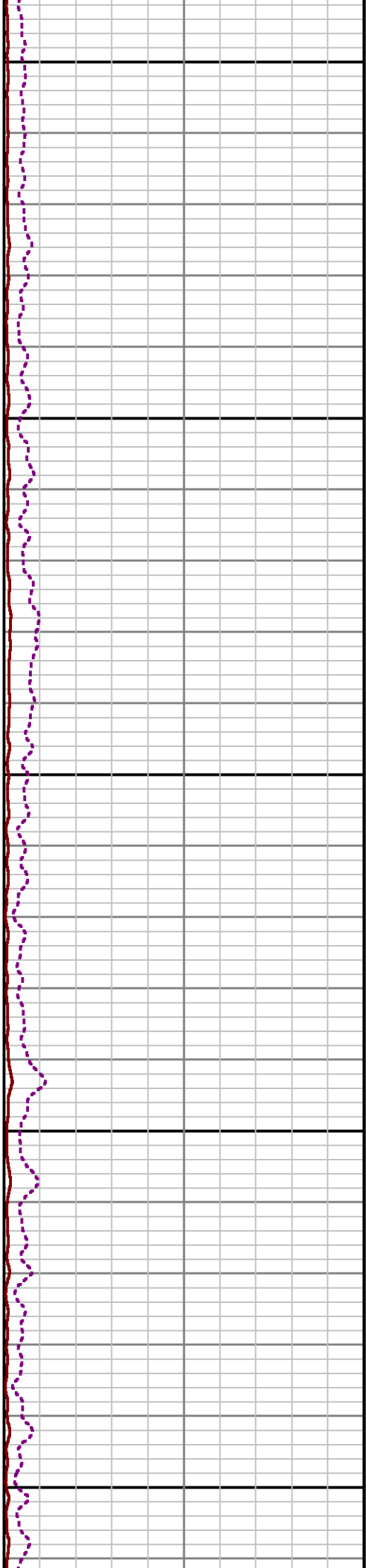
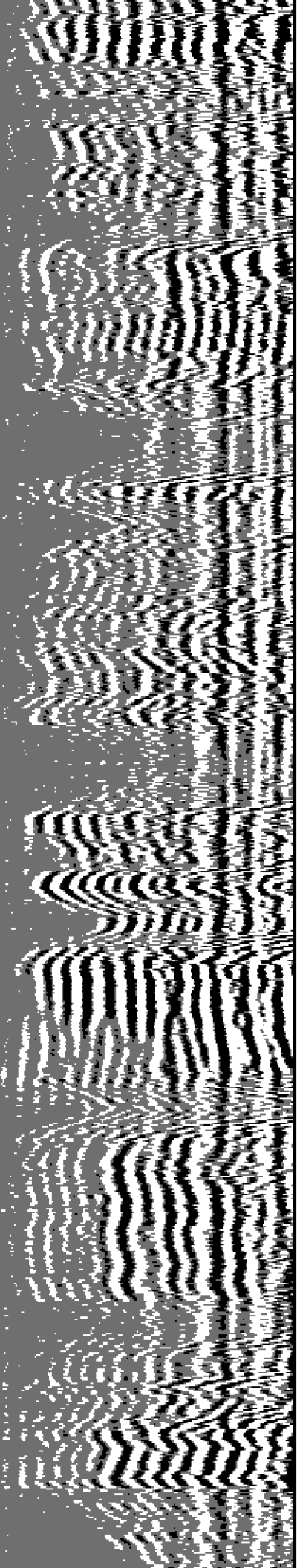
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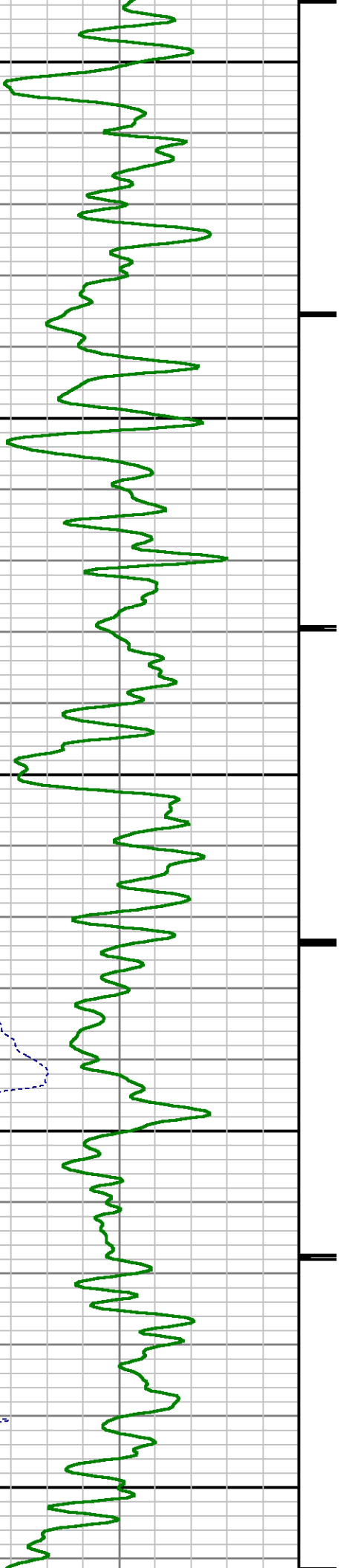


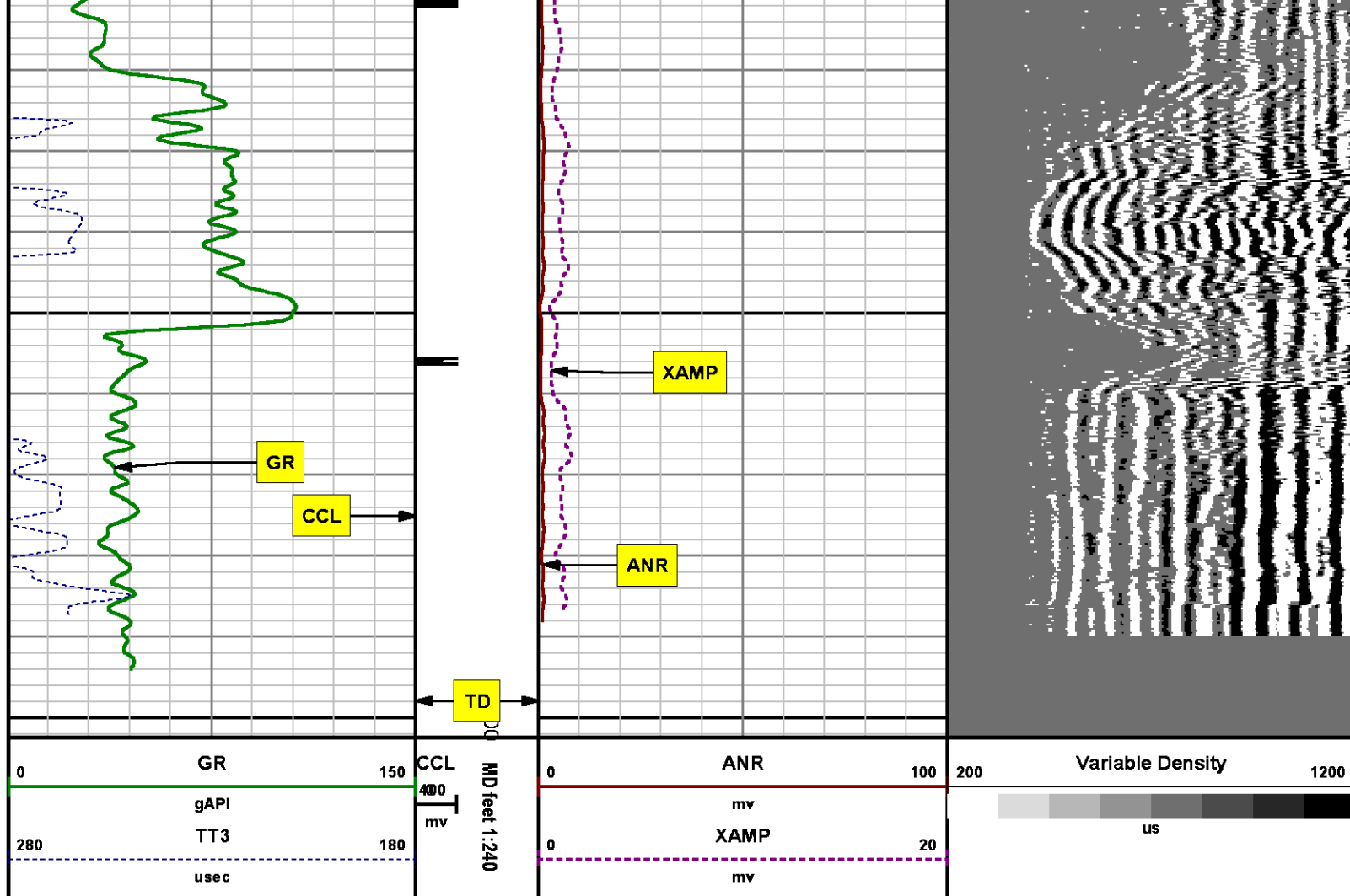


5200

5300

5400





SECONDARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	29.379	5502.500
RAL	Amp Gate Start Near	195.000	usec	29.379	5502.500
RAL	Amp Gate Start Radial	195.000	usec	29.379	5502.500
RAL	Amp Gate Width Far	25.000	usec	29.379	5502.500
RAL	Amp Gate Width Near	25.000	usec	29.379	5502.500
RAL	Amp Gate Width Radial	25.000	usec	29.379	5502.500
RAL	casing od	4.500	inches	29.379	5502.500
RAL	casing wt	11.600	lbm/ft	29.379	5502.500

RAL	FB Start Far	291.900	usec	29.379	5502.500
RAL	FB Start Near	180.000	usec	29.379	5502.500
RAL	FB Start Radial	180.000	usec	29.379	5502.500
RAL	FB Thresh Far	10.000	mv	29.379	5502.500
RAL	FB Thresh Near	4.000	mv	29.379	5502.500
RAL	FB Thresh Radial	4.000	mv	29.379	5502.500
RAL	Fluid Travel Time	200.000	usec/ft	29.379	5501.004

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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Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

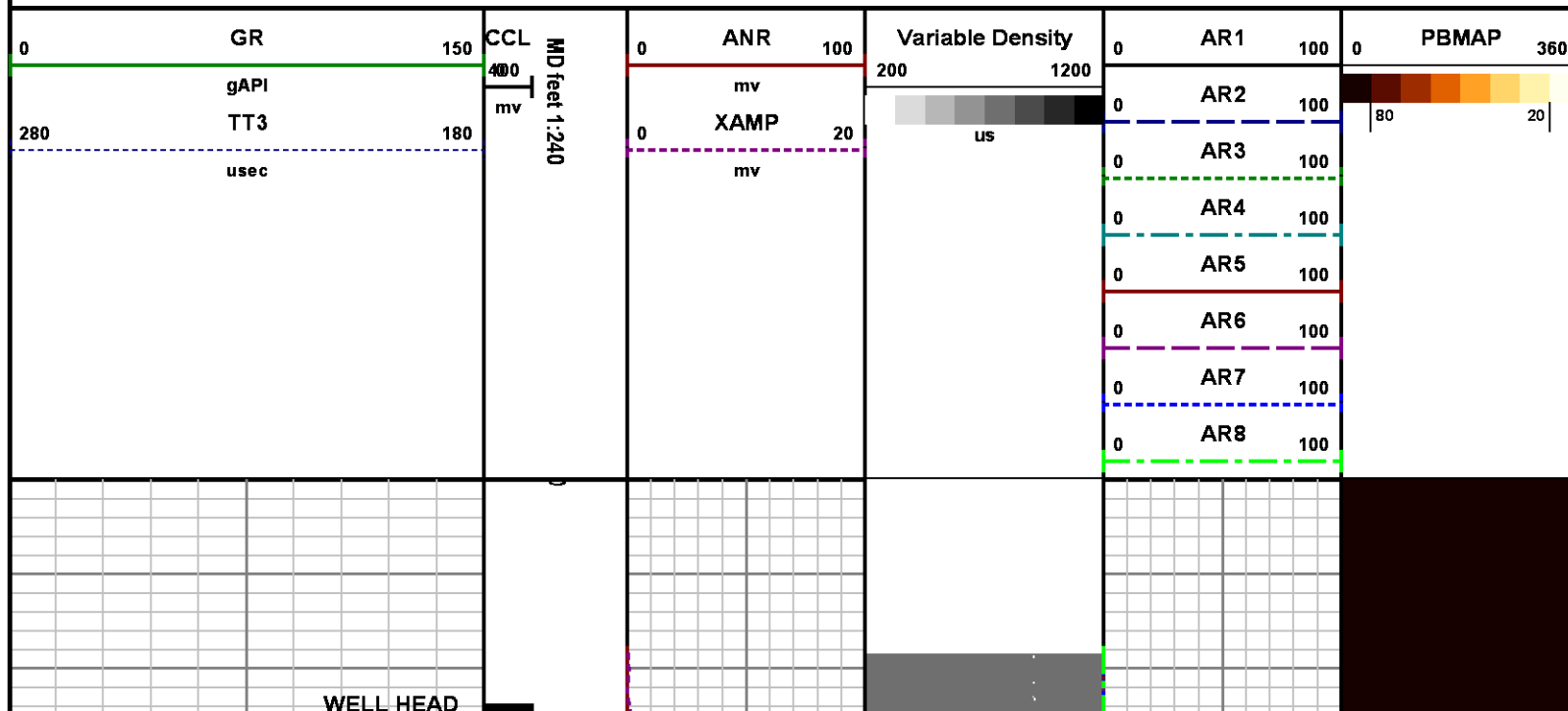
Well : FEDERAL SG 333-28

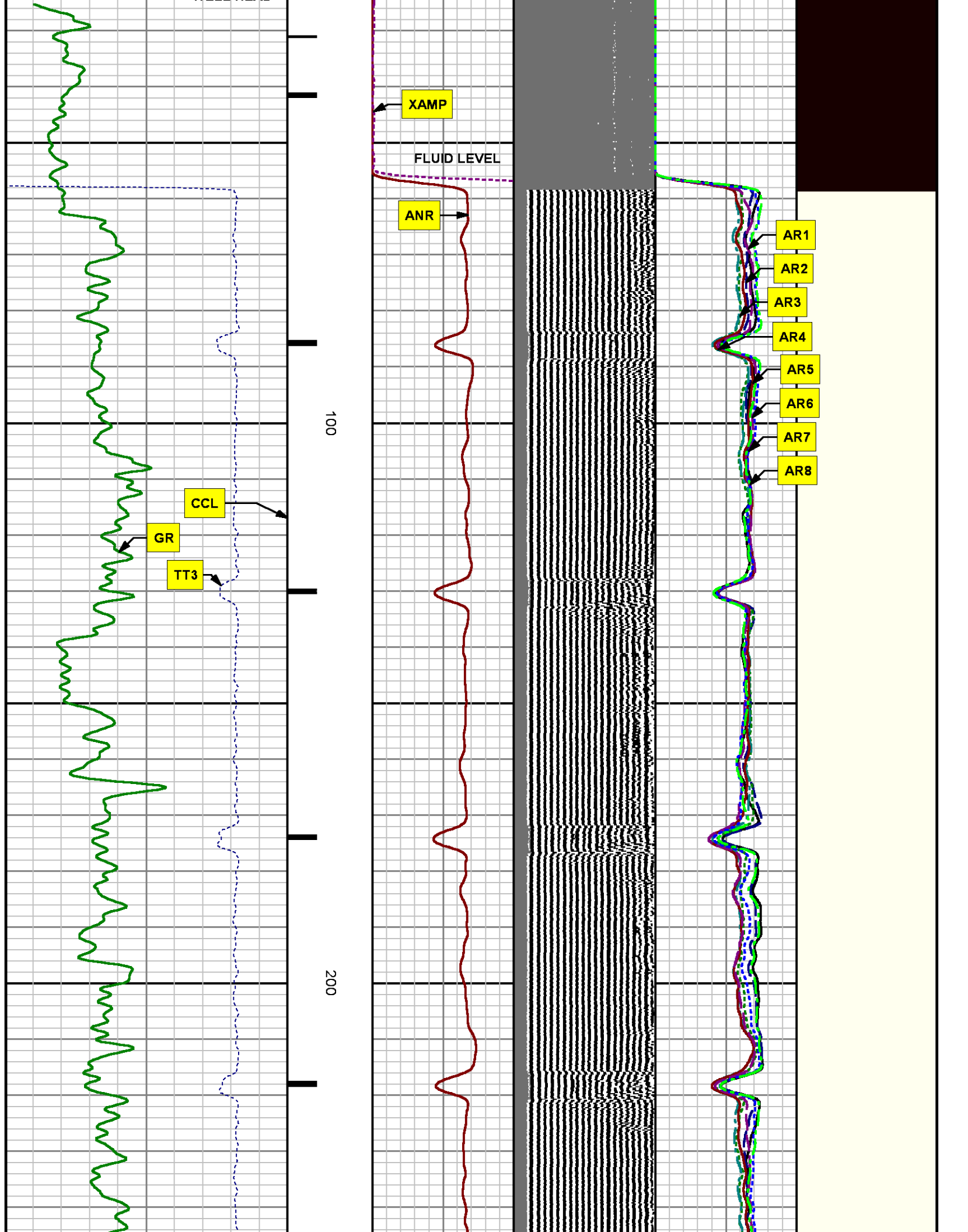
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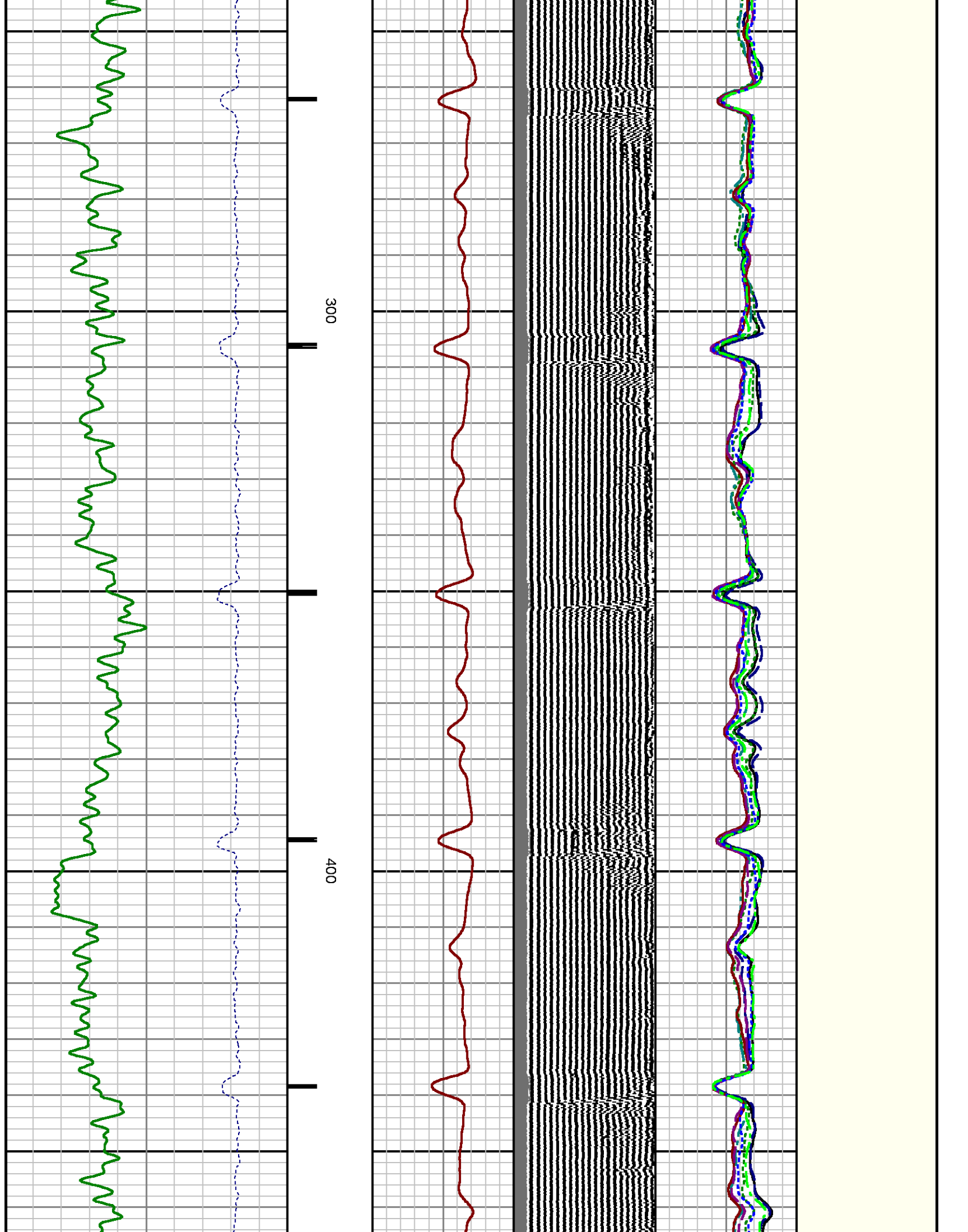
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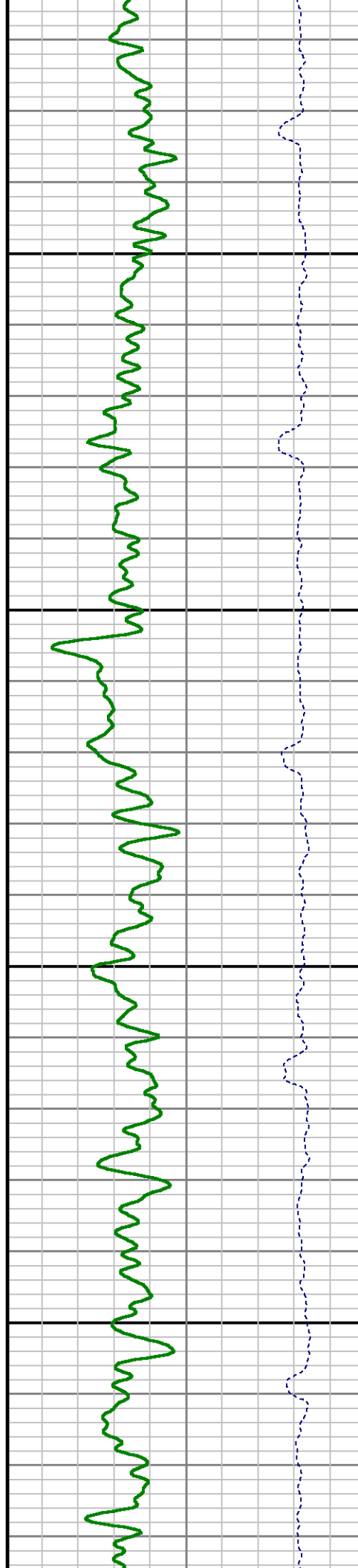
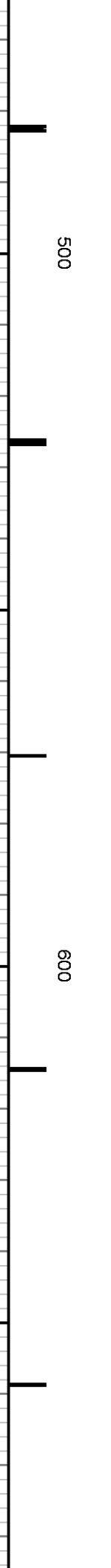
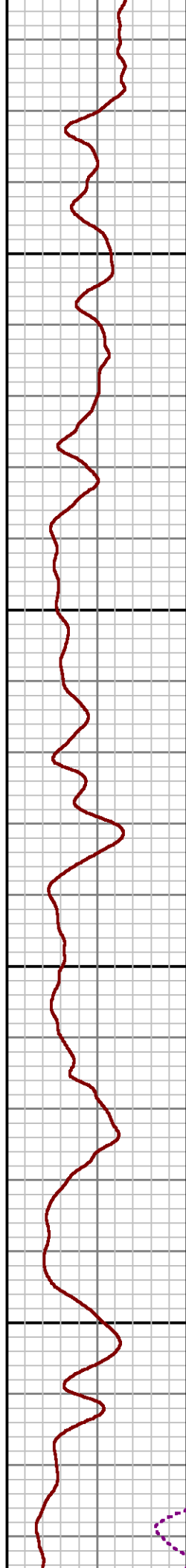
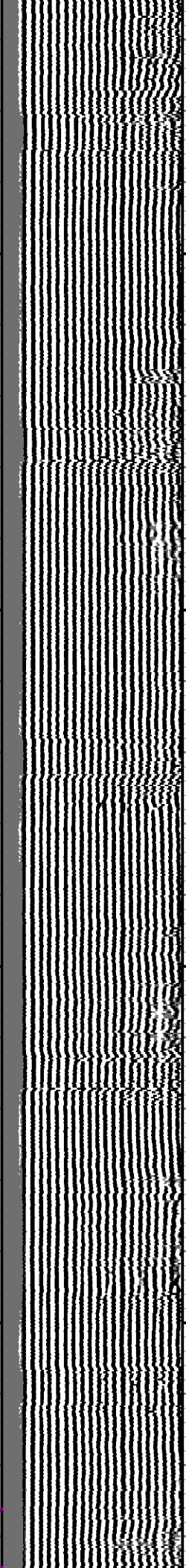
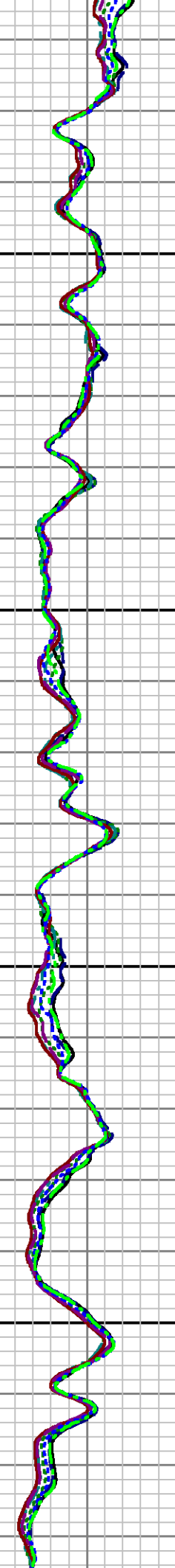
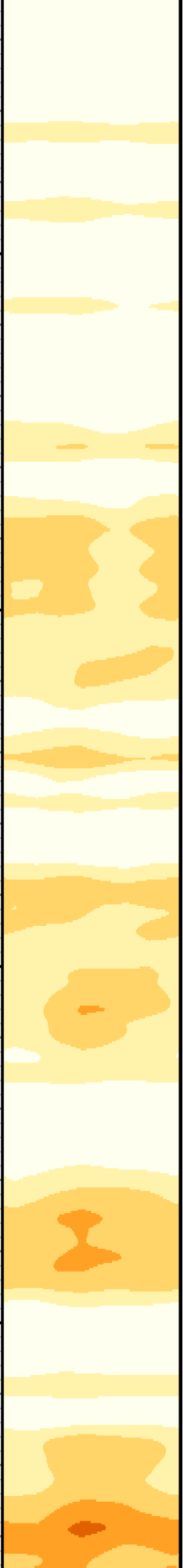
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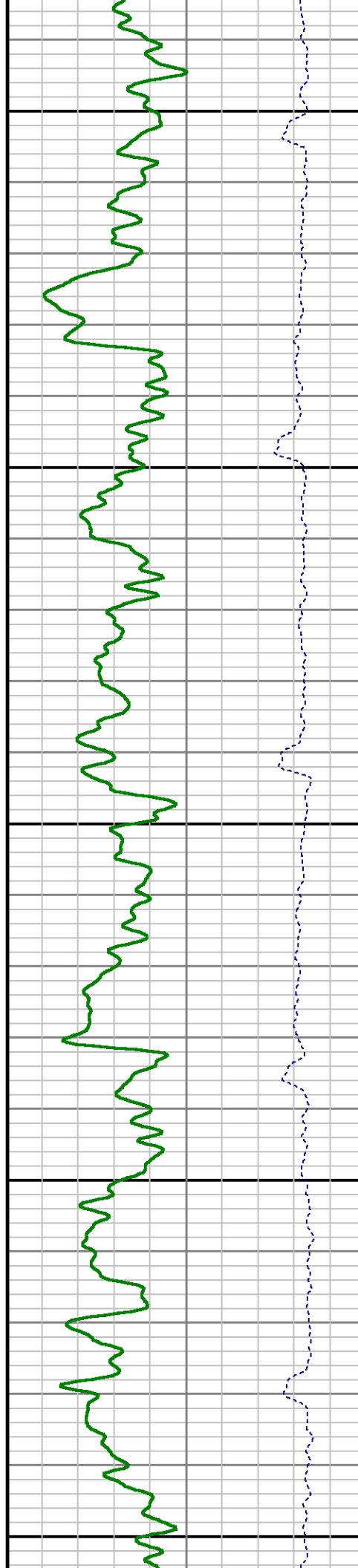
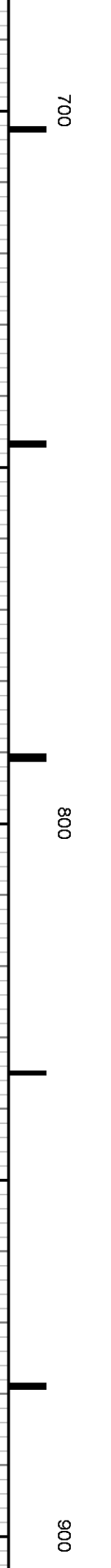
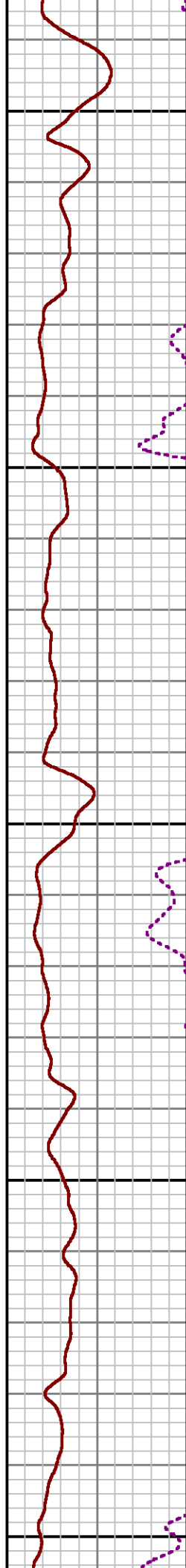
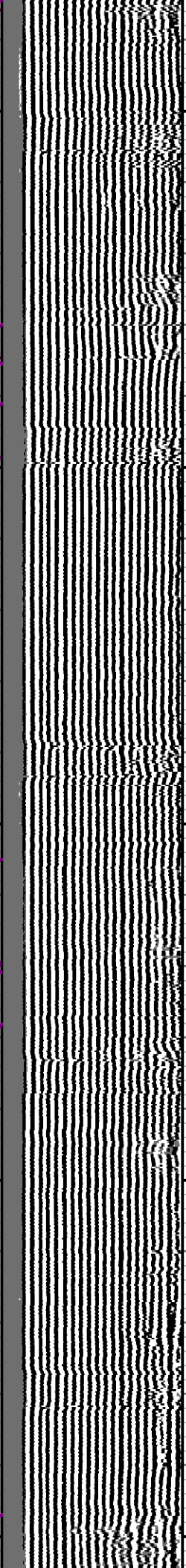
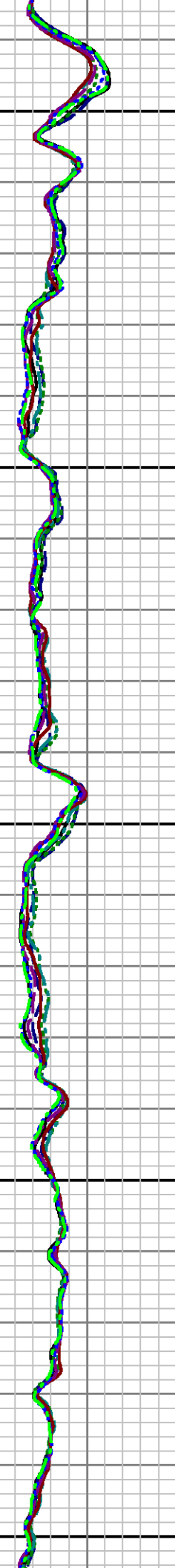
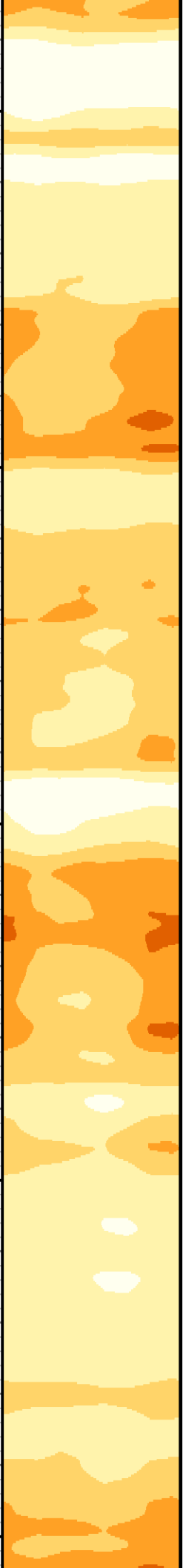
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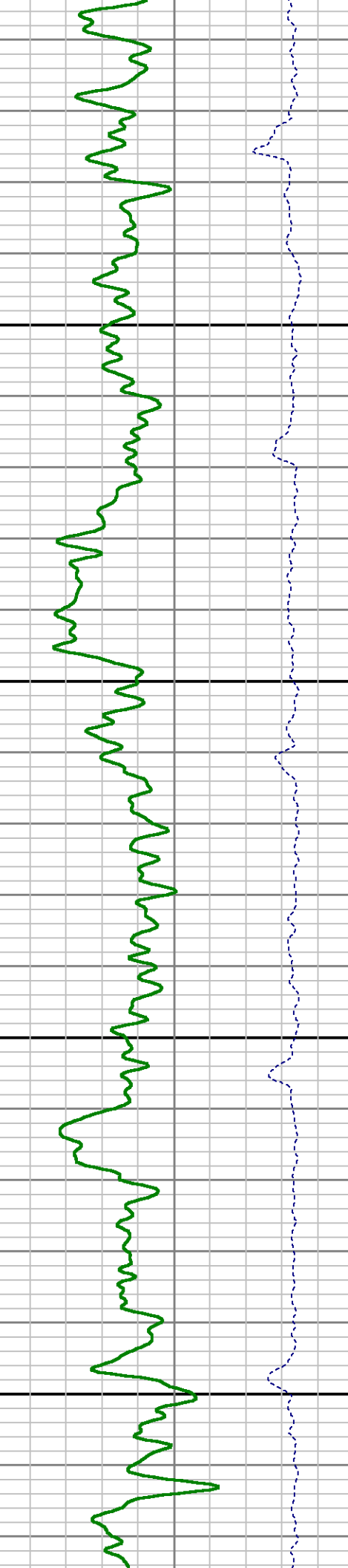
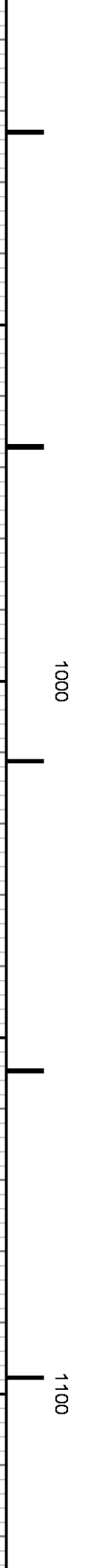
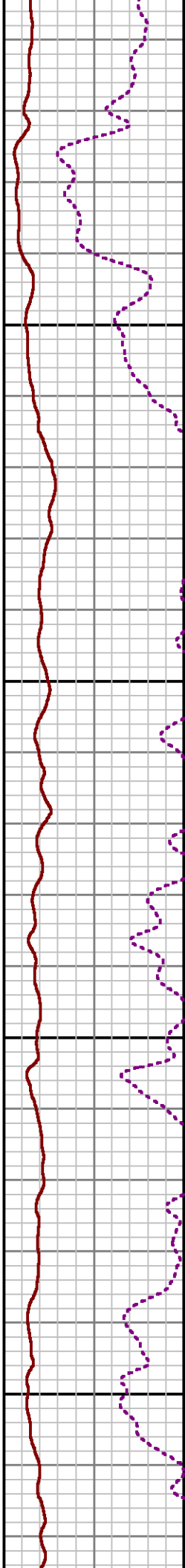
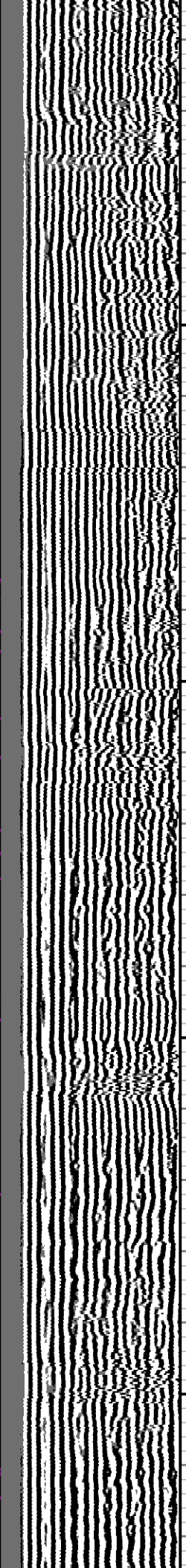
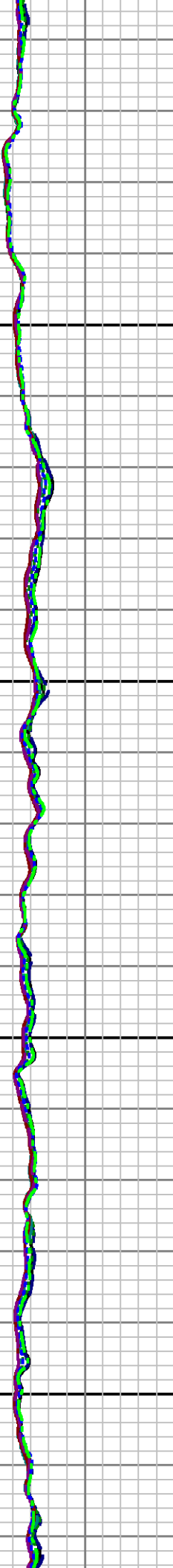
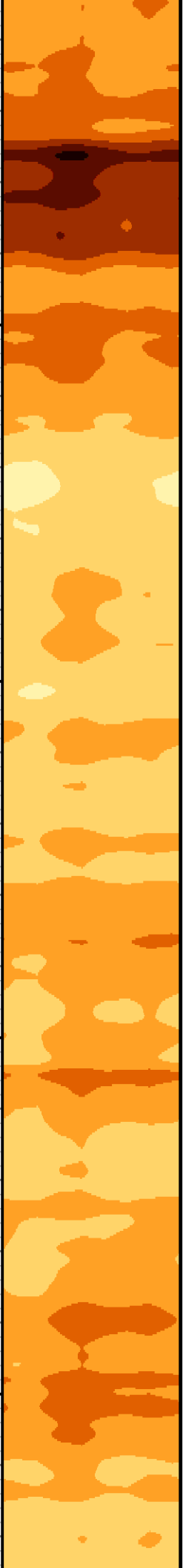


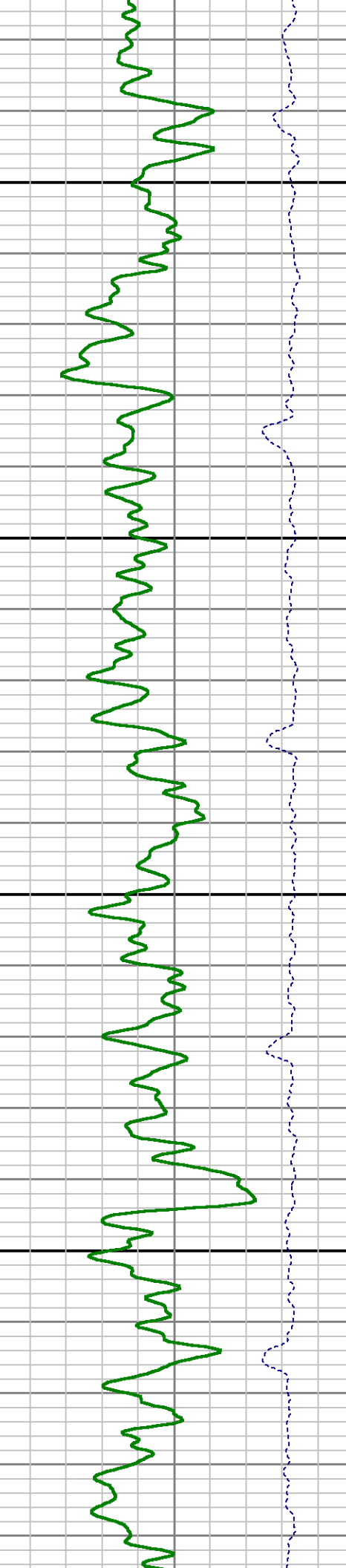
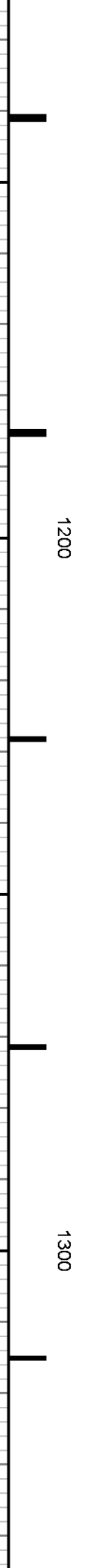
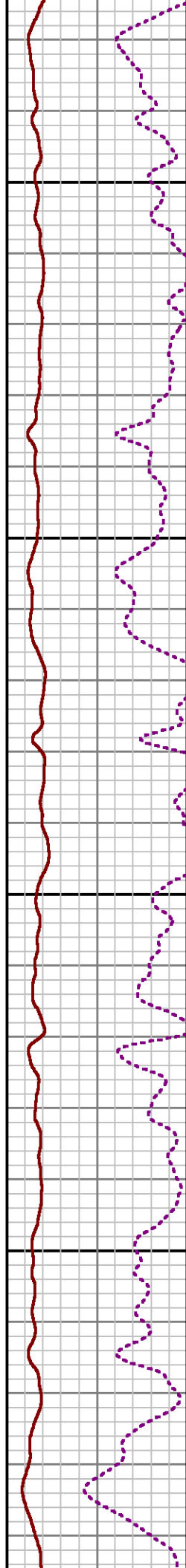
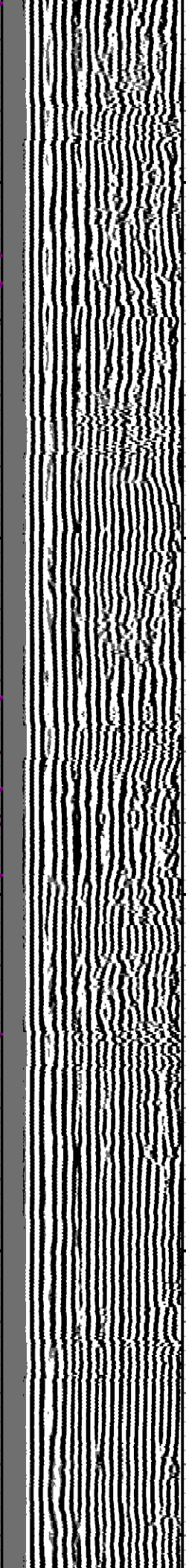
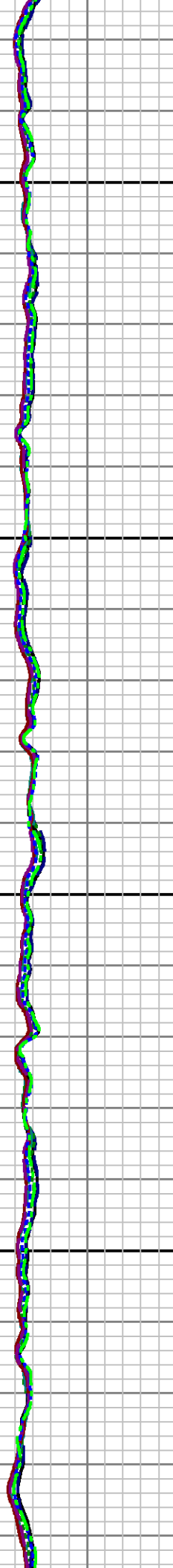
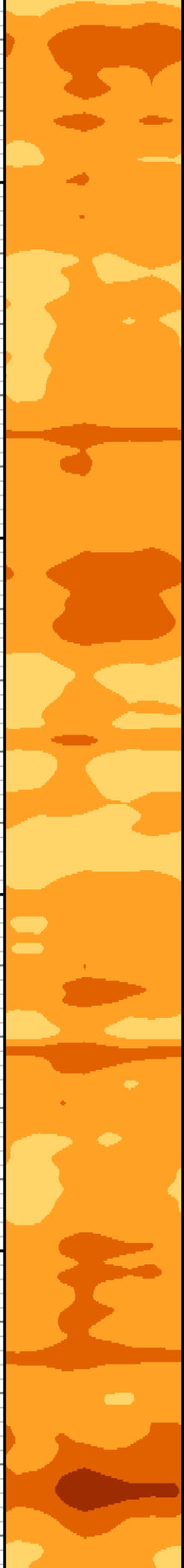


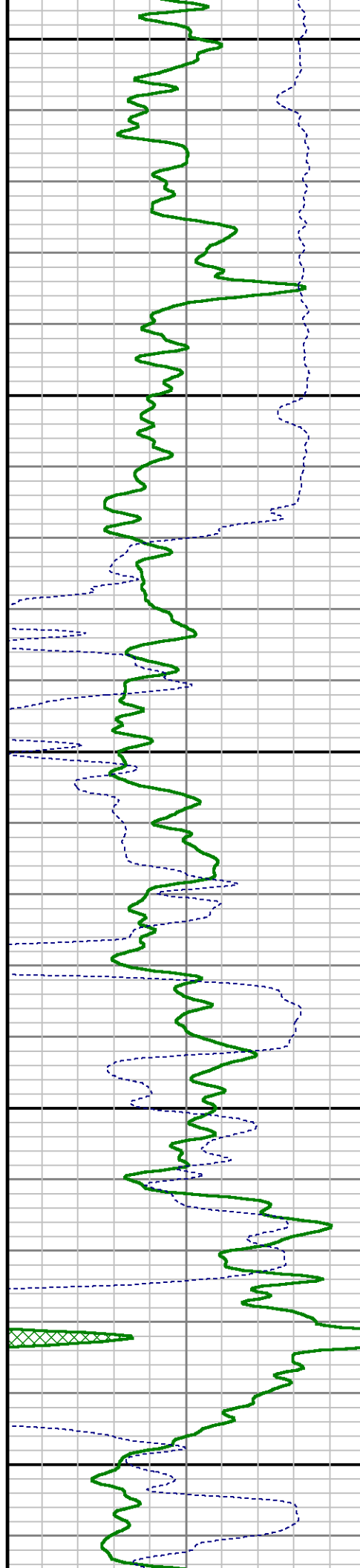
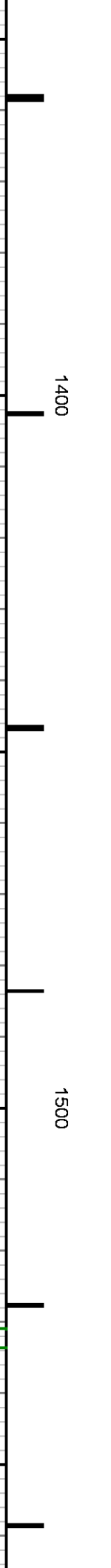
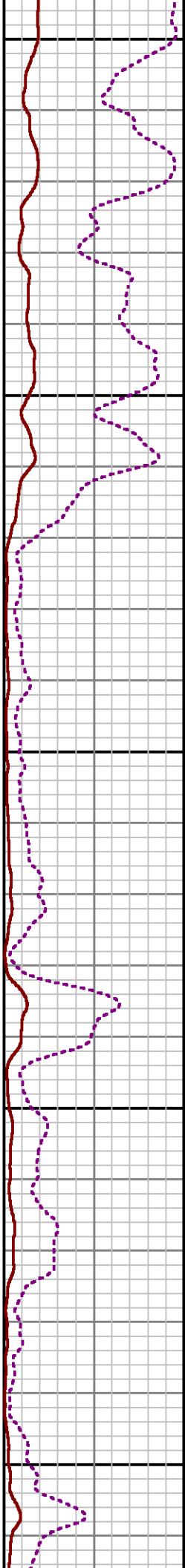
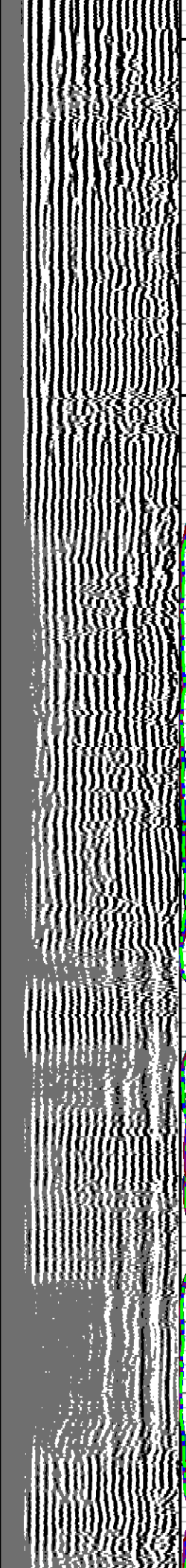
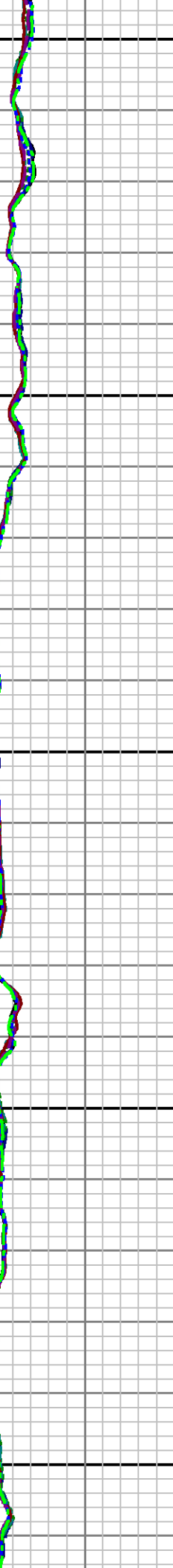
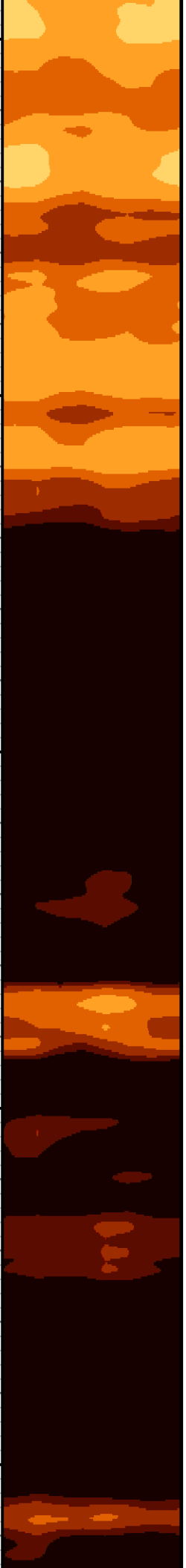


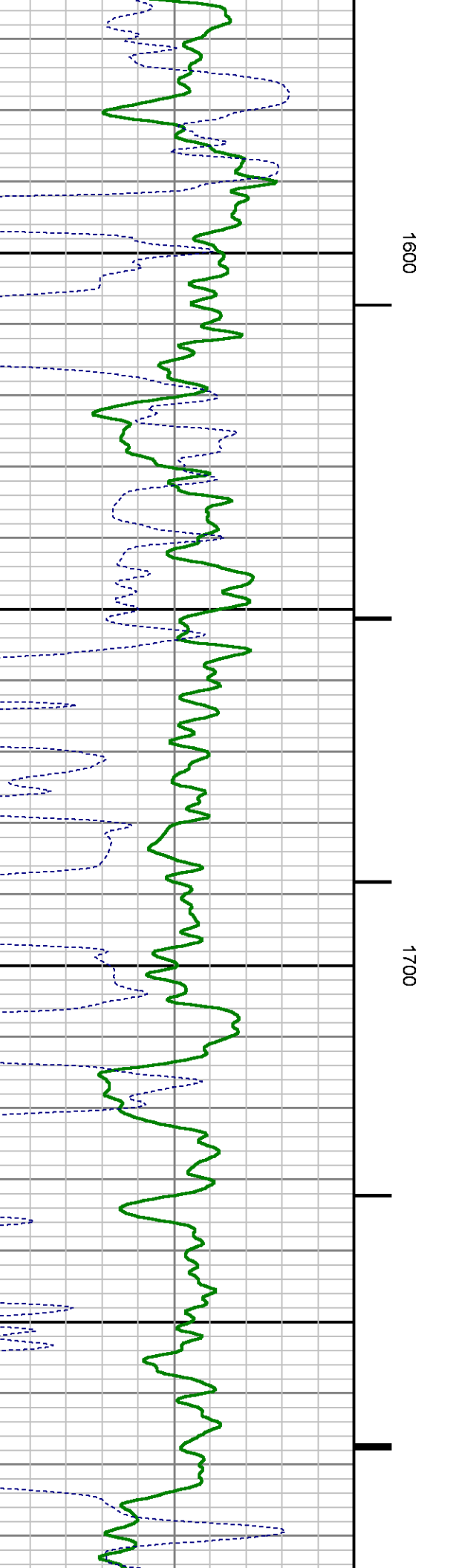
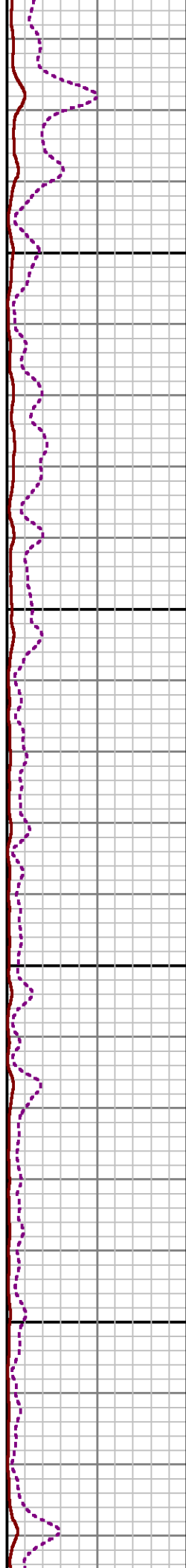
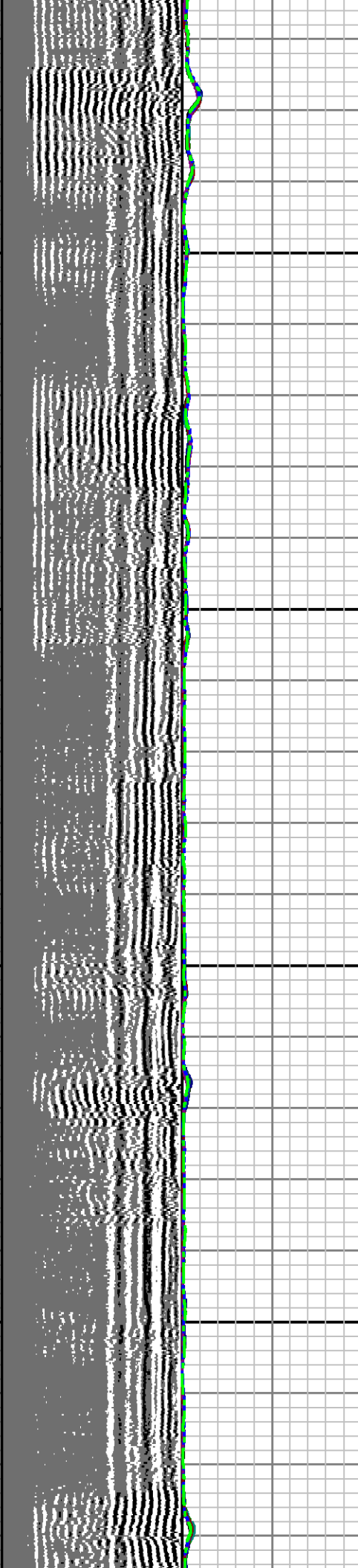


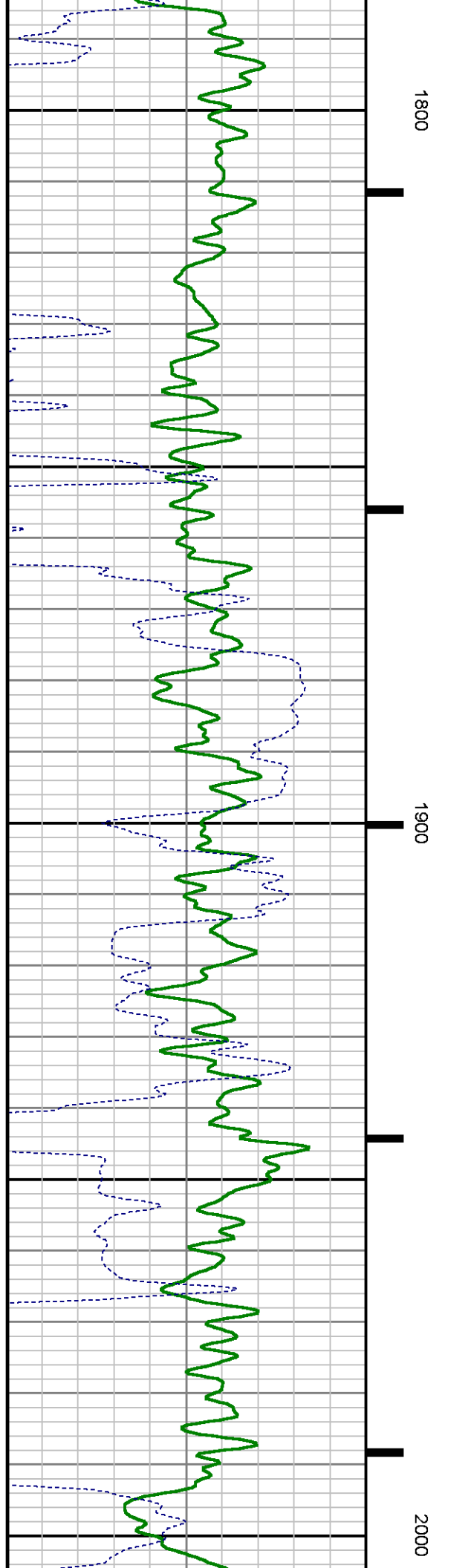
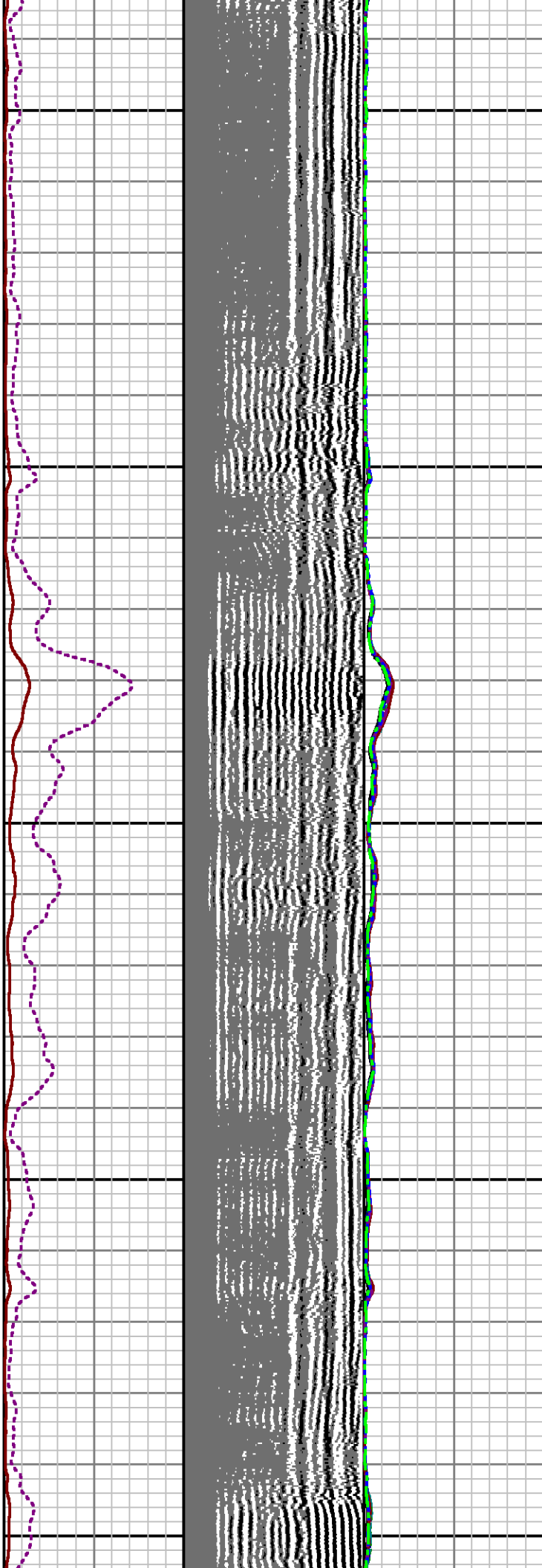


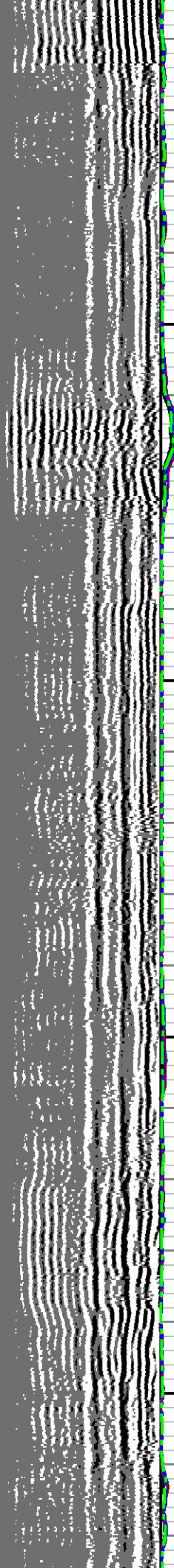






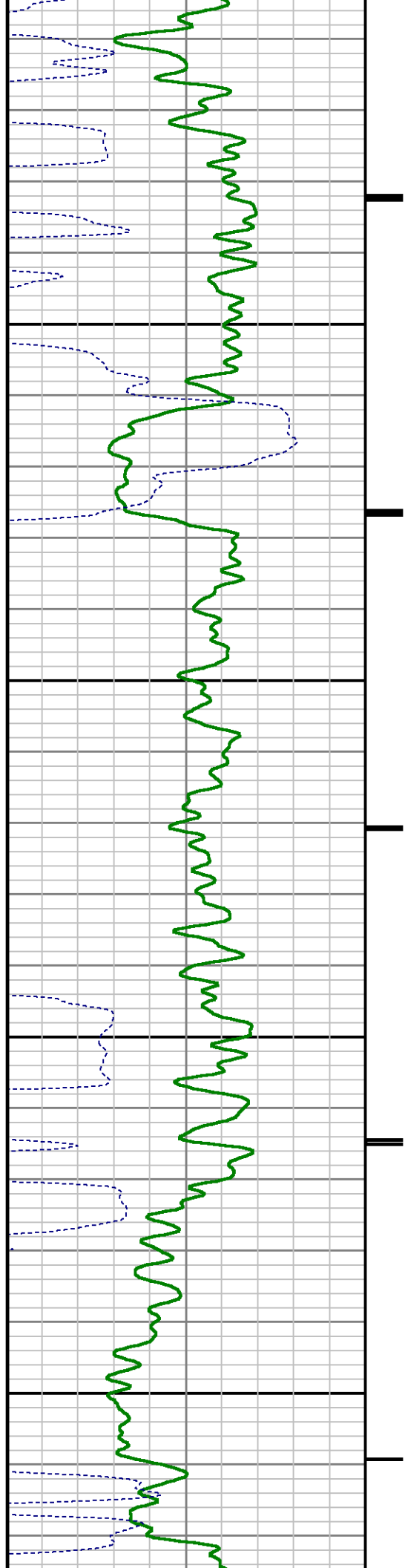


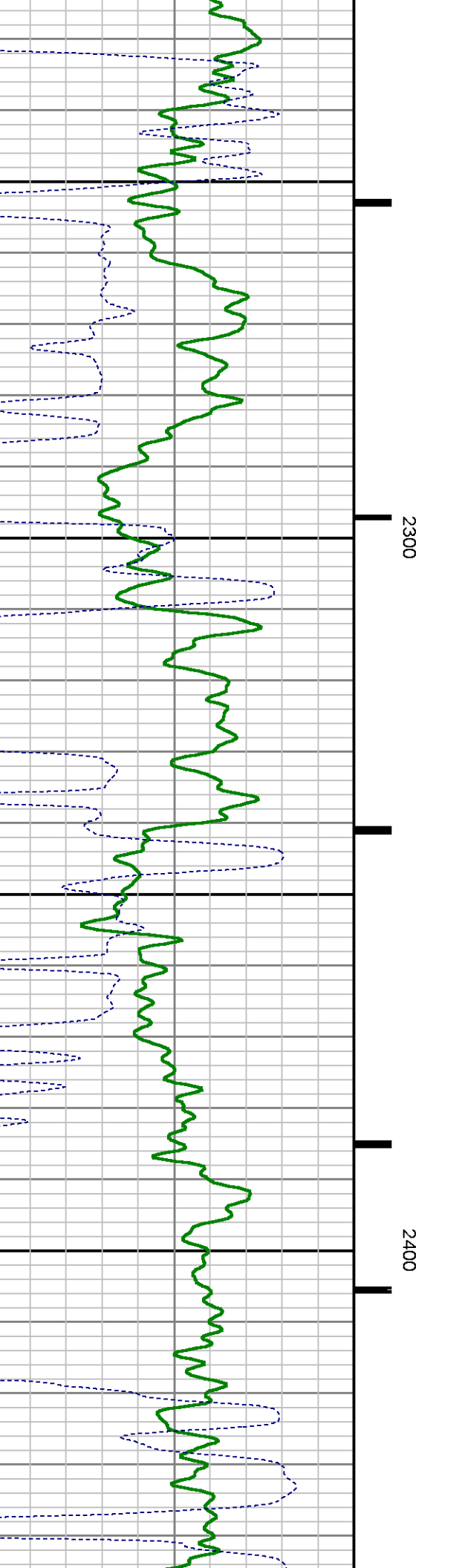
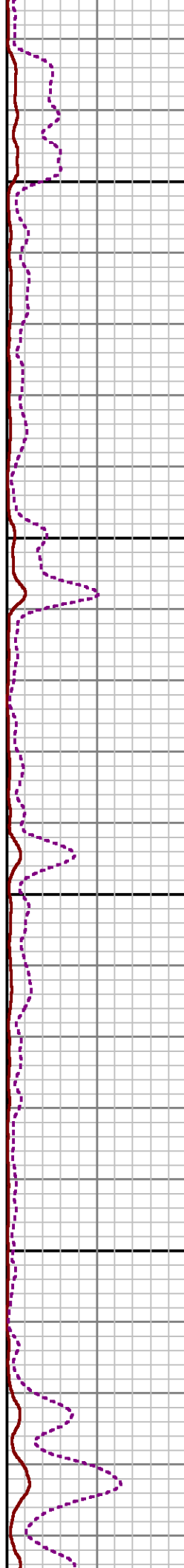
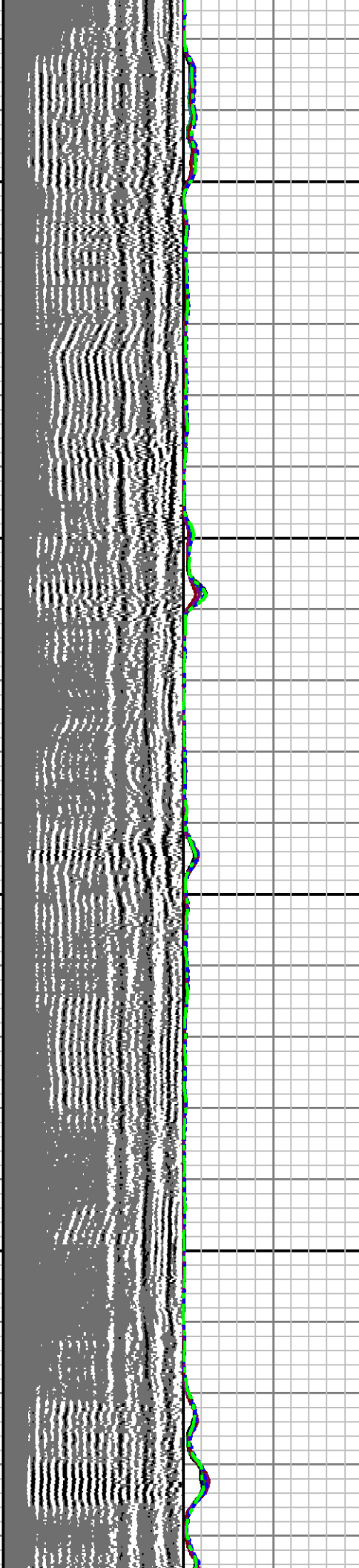
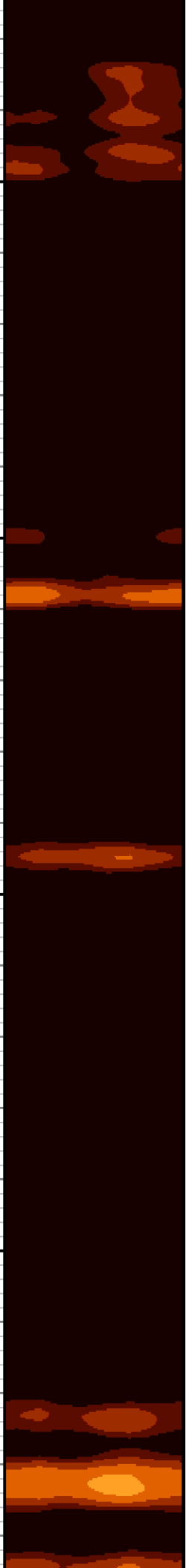


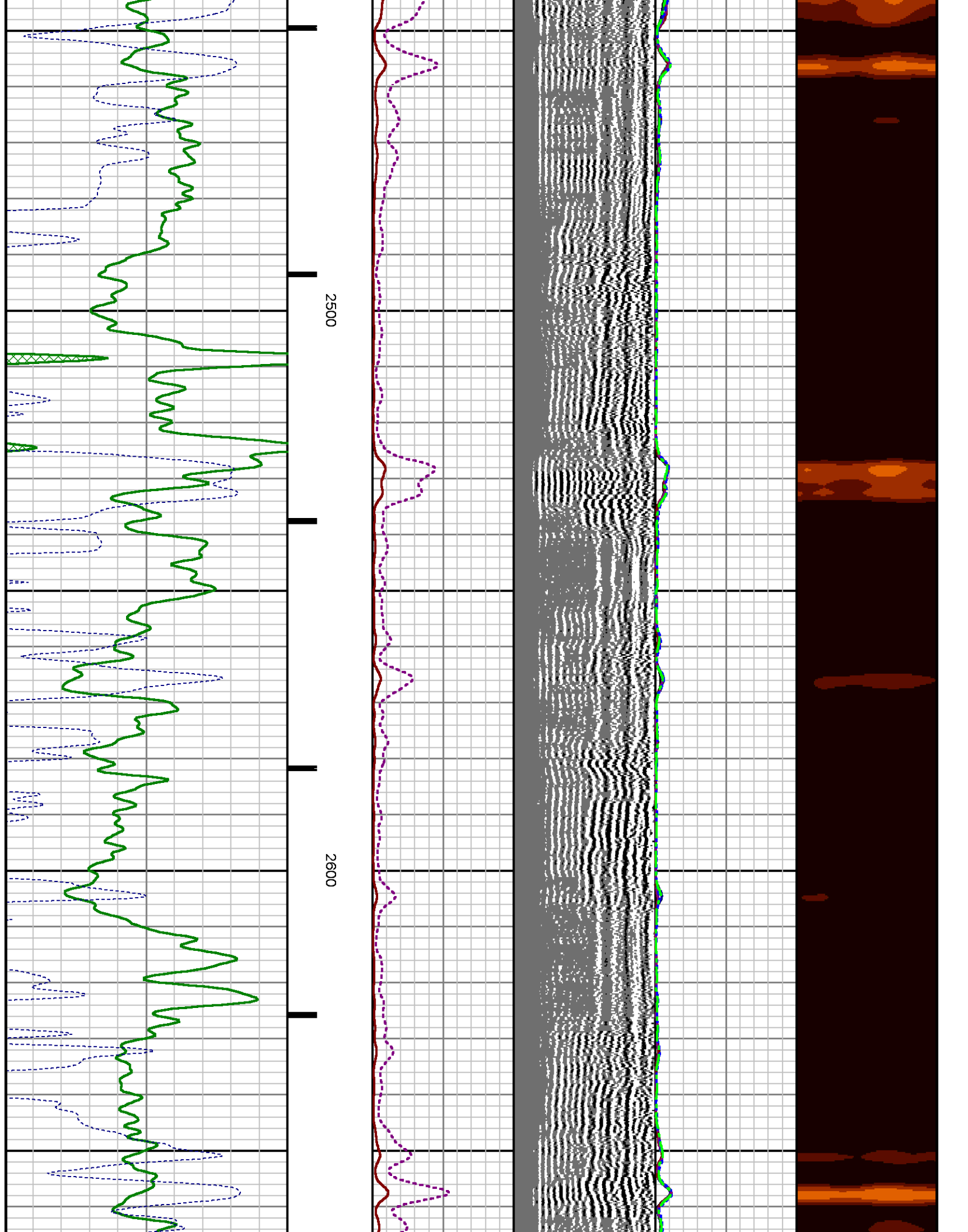


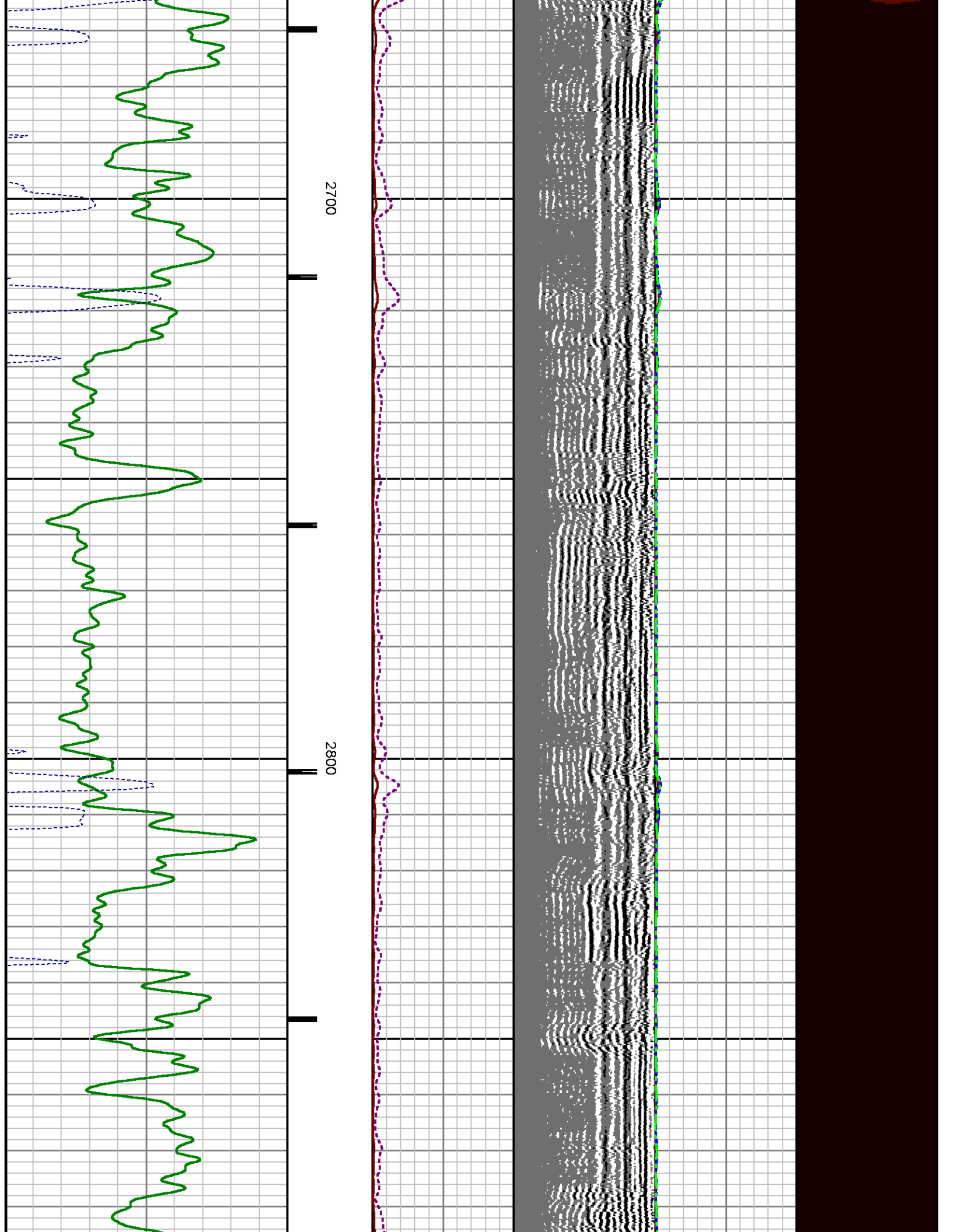
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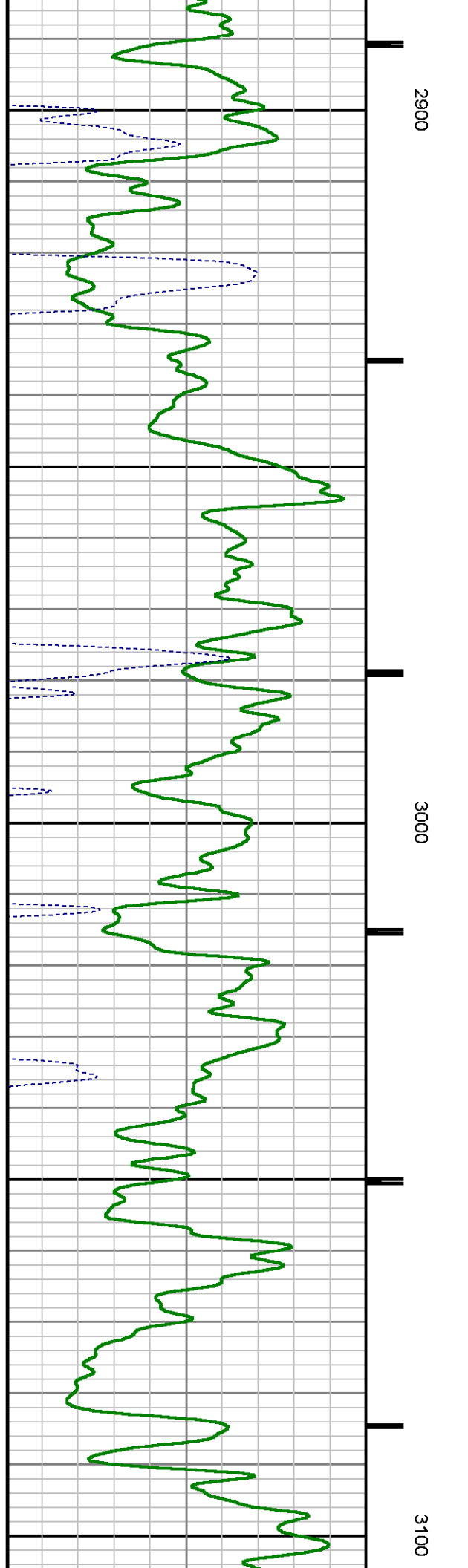
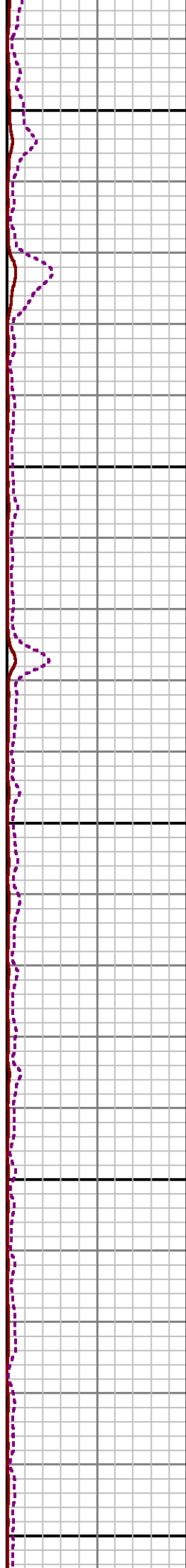
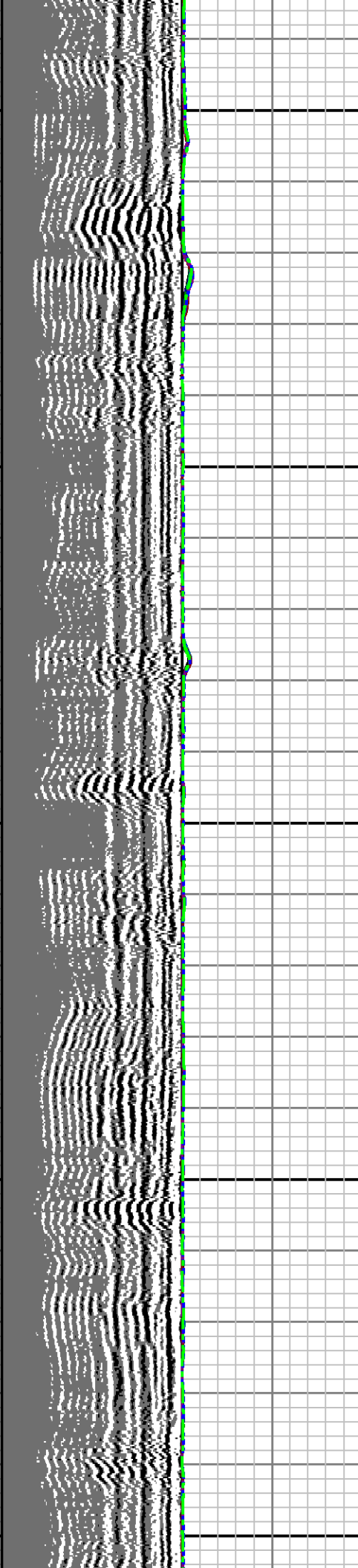
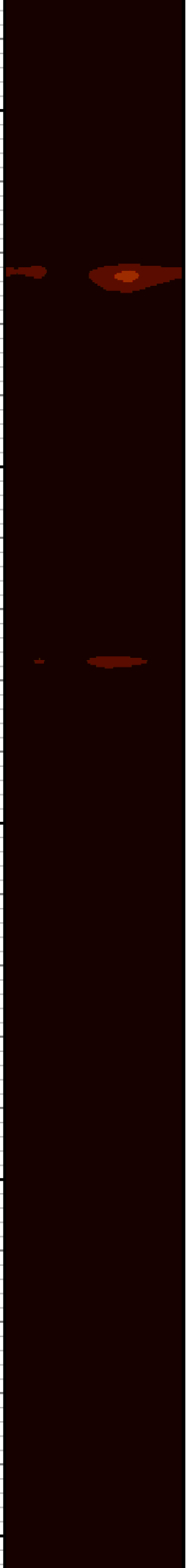
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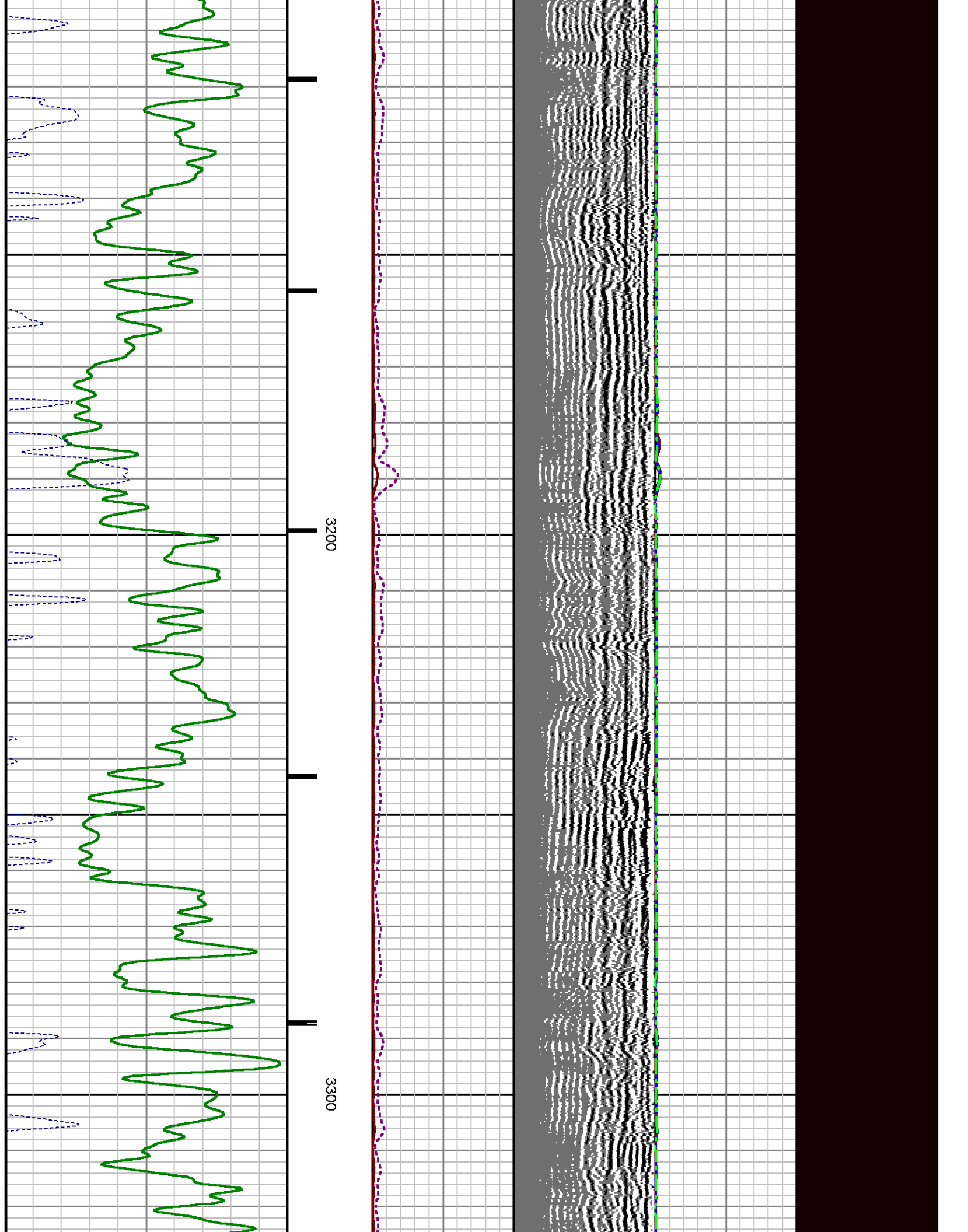


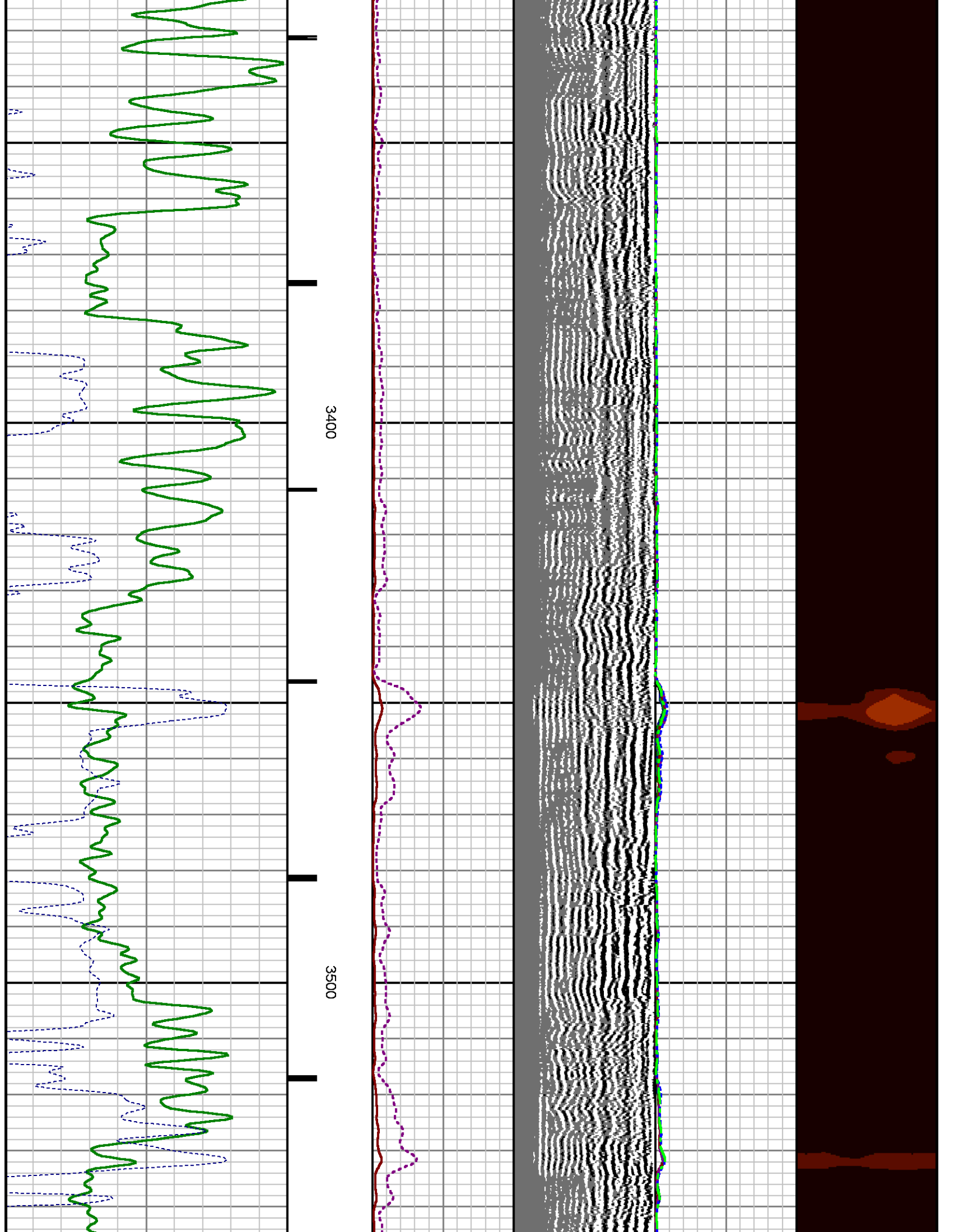


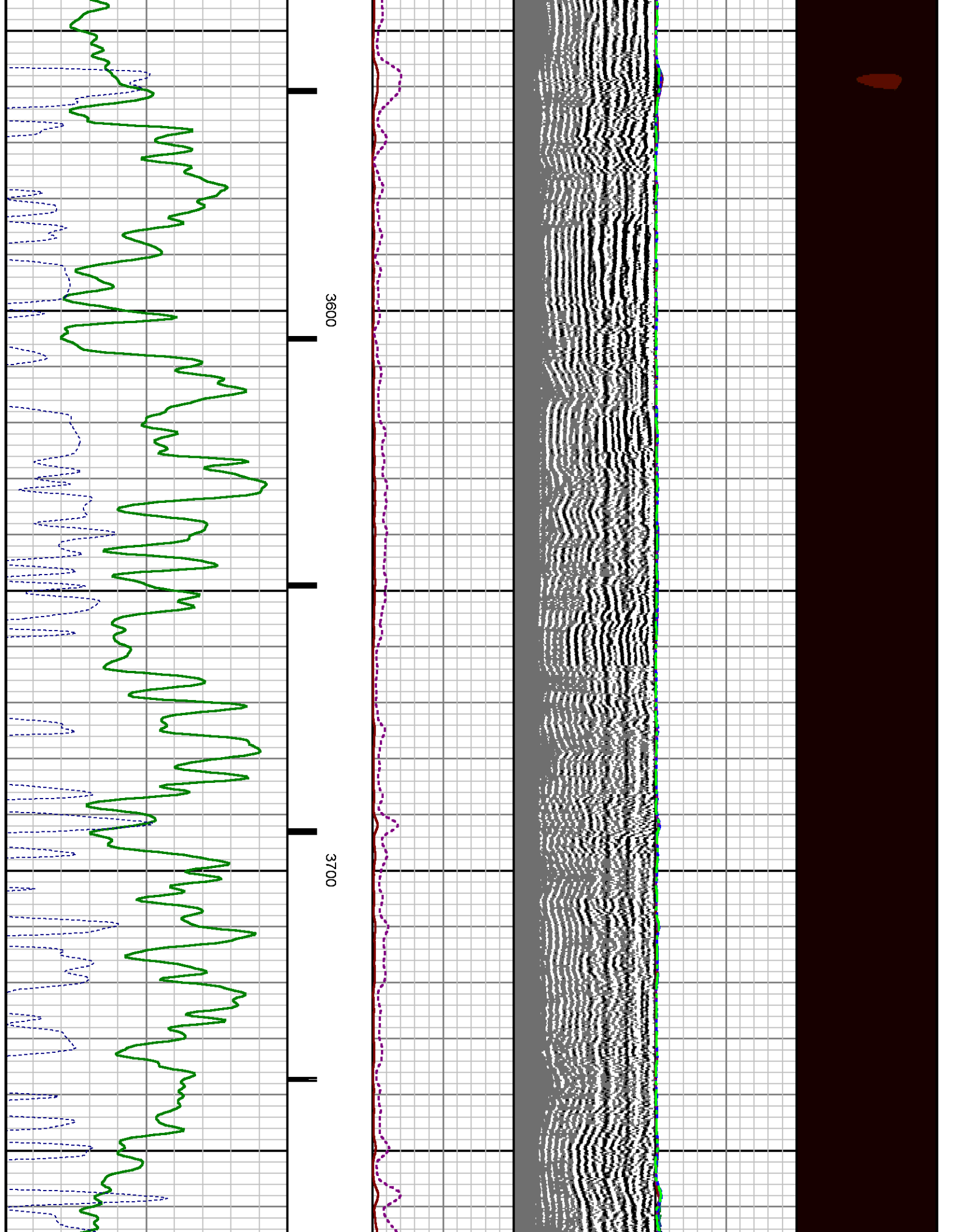


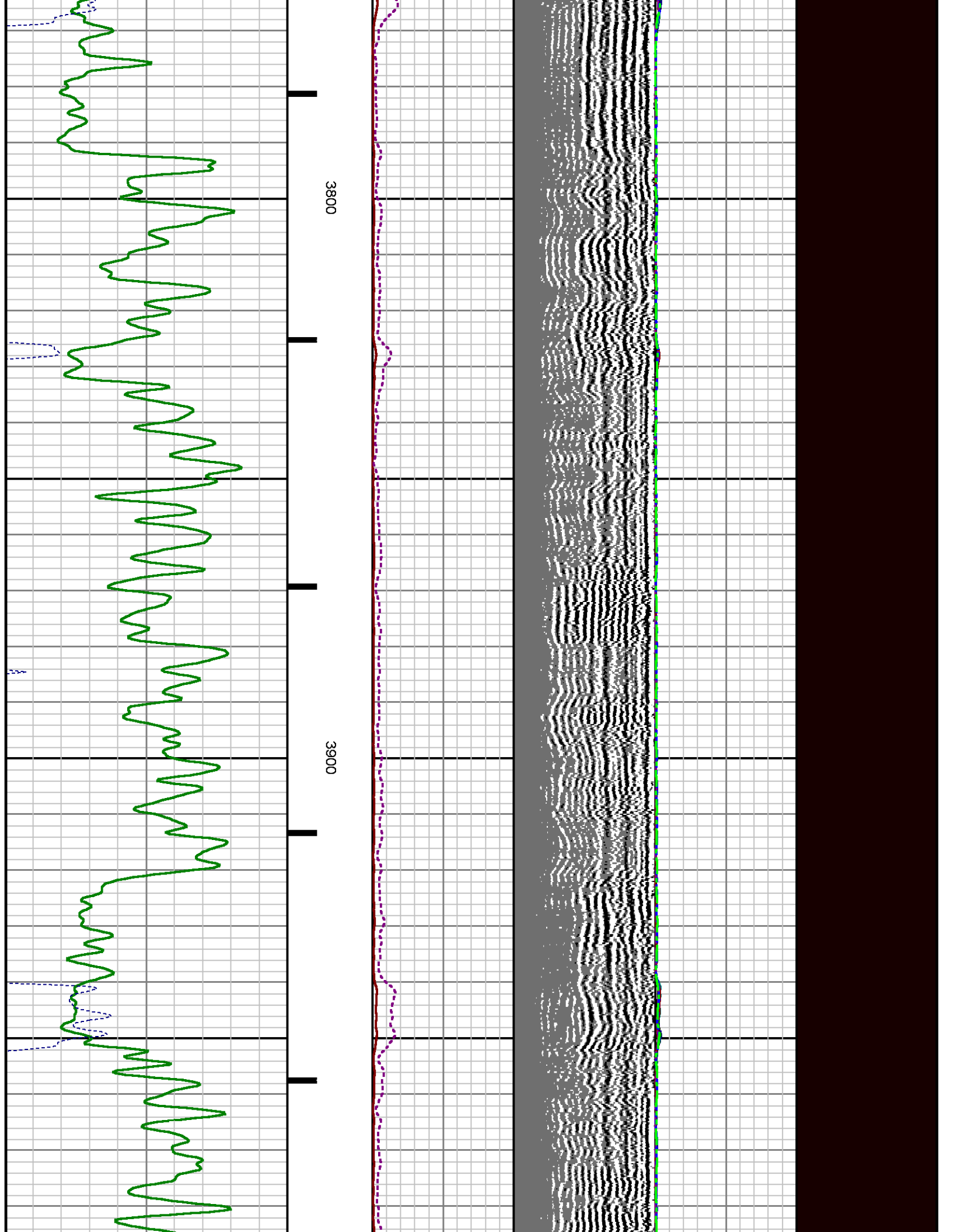


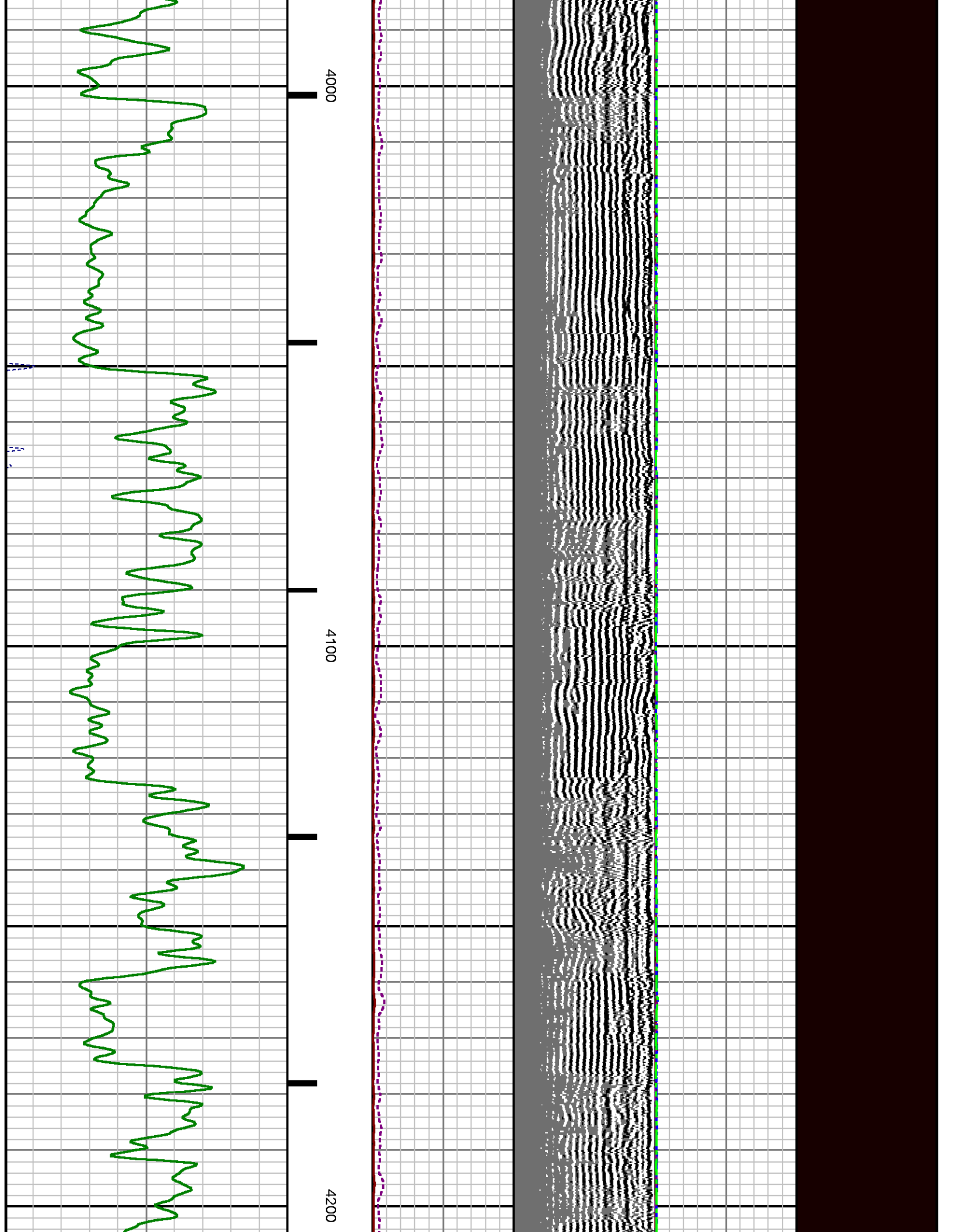


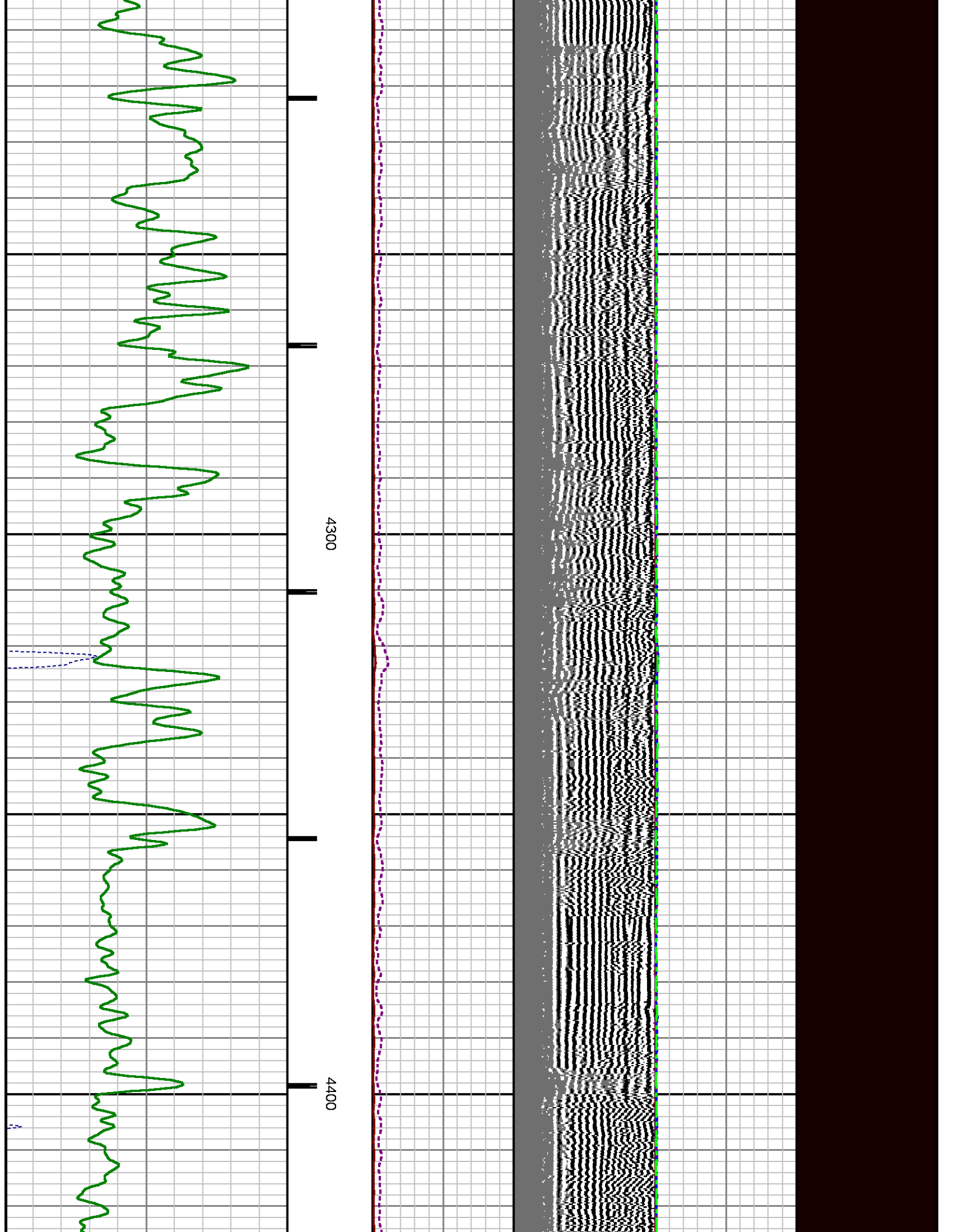


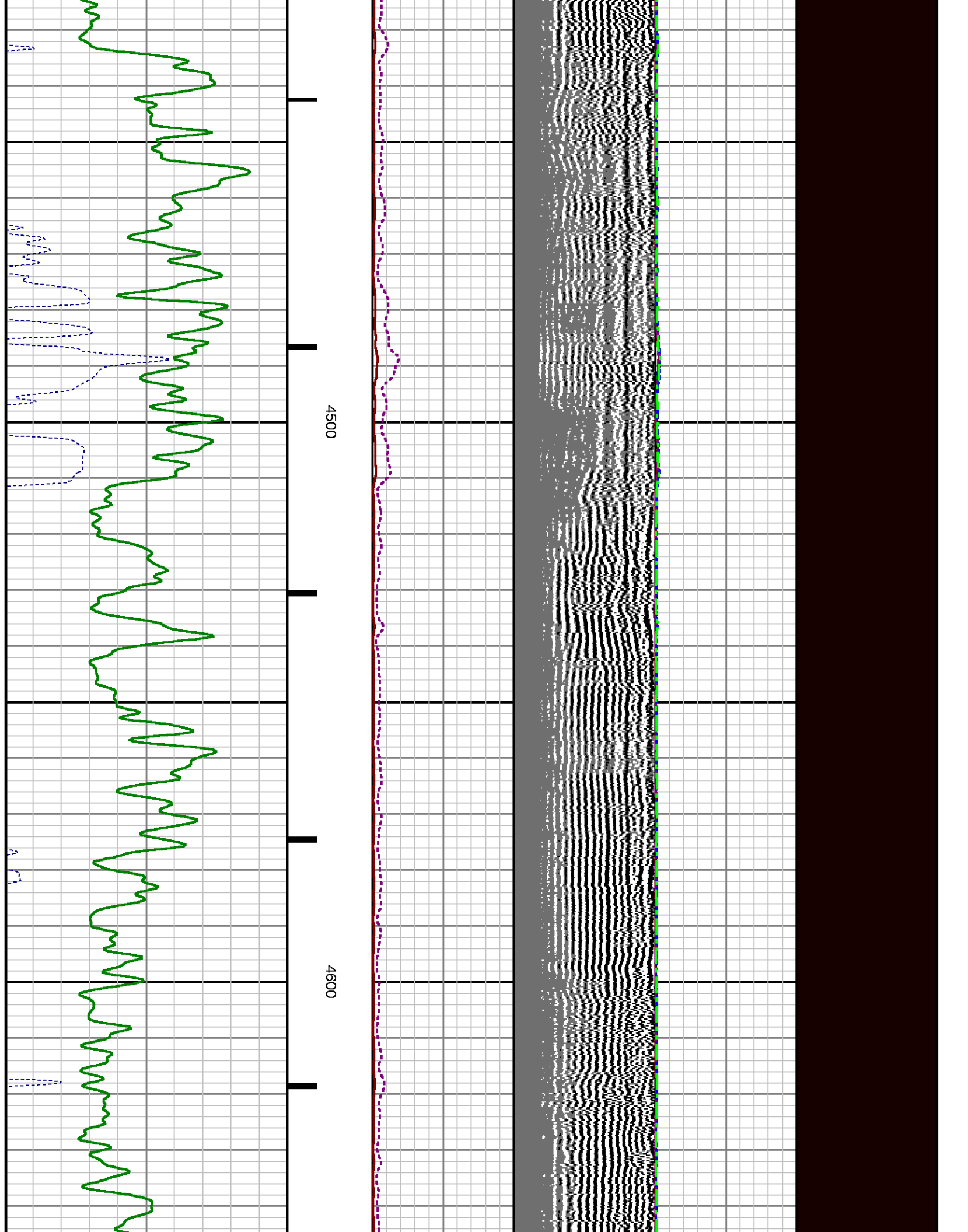


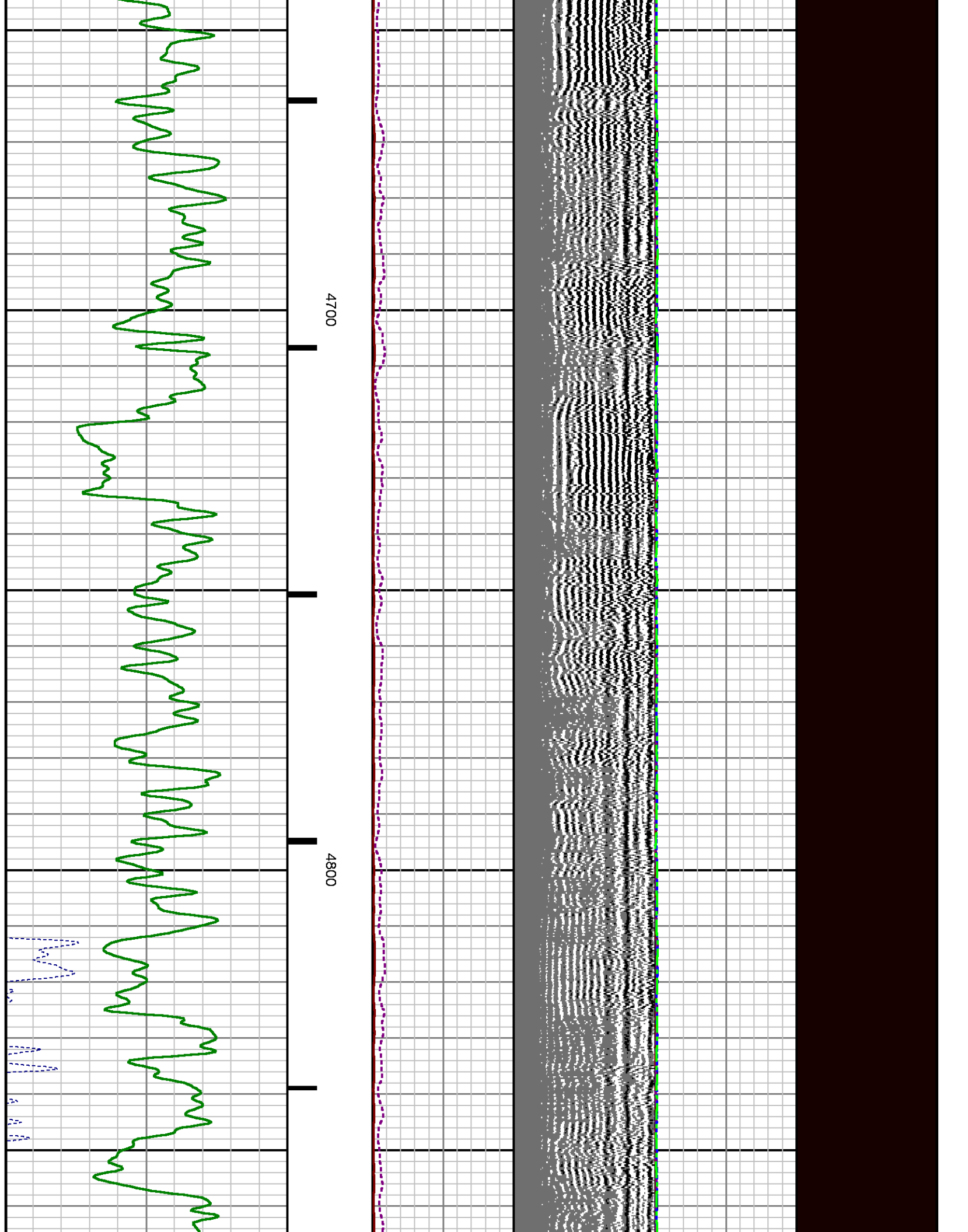


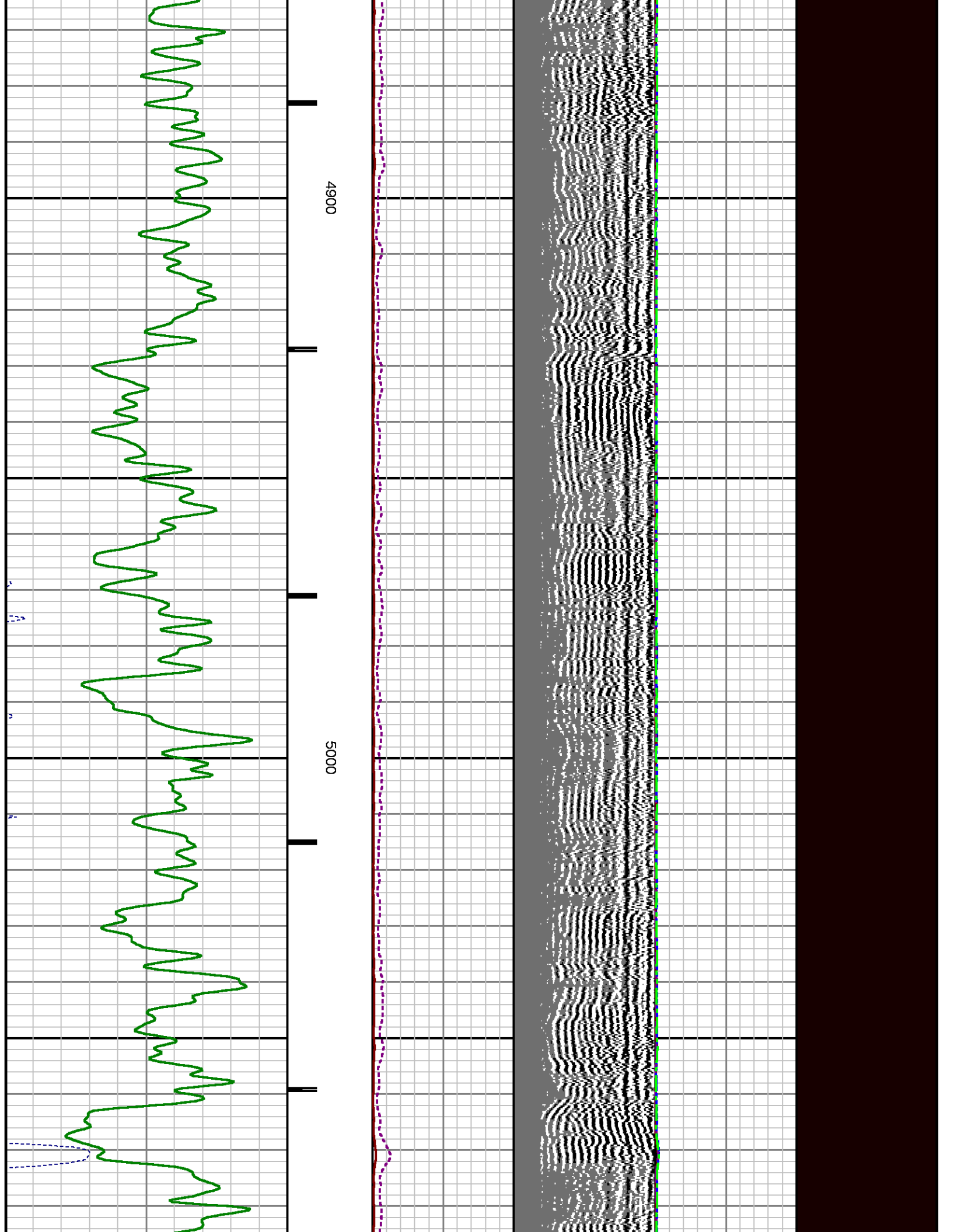


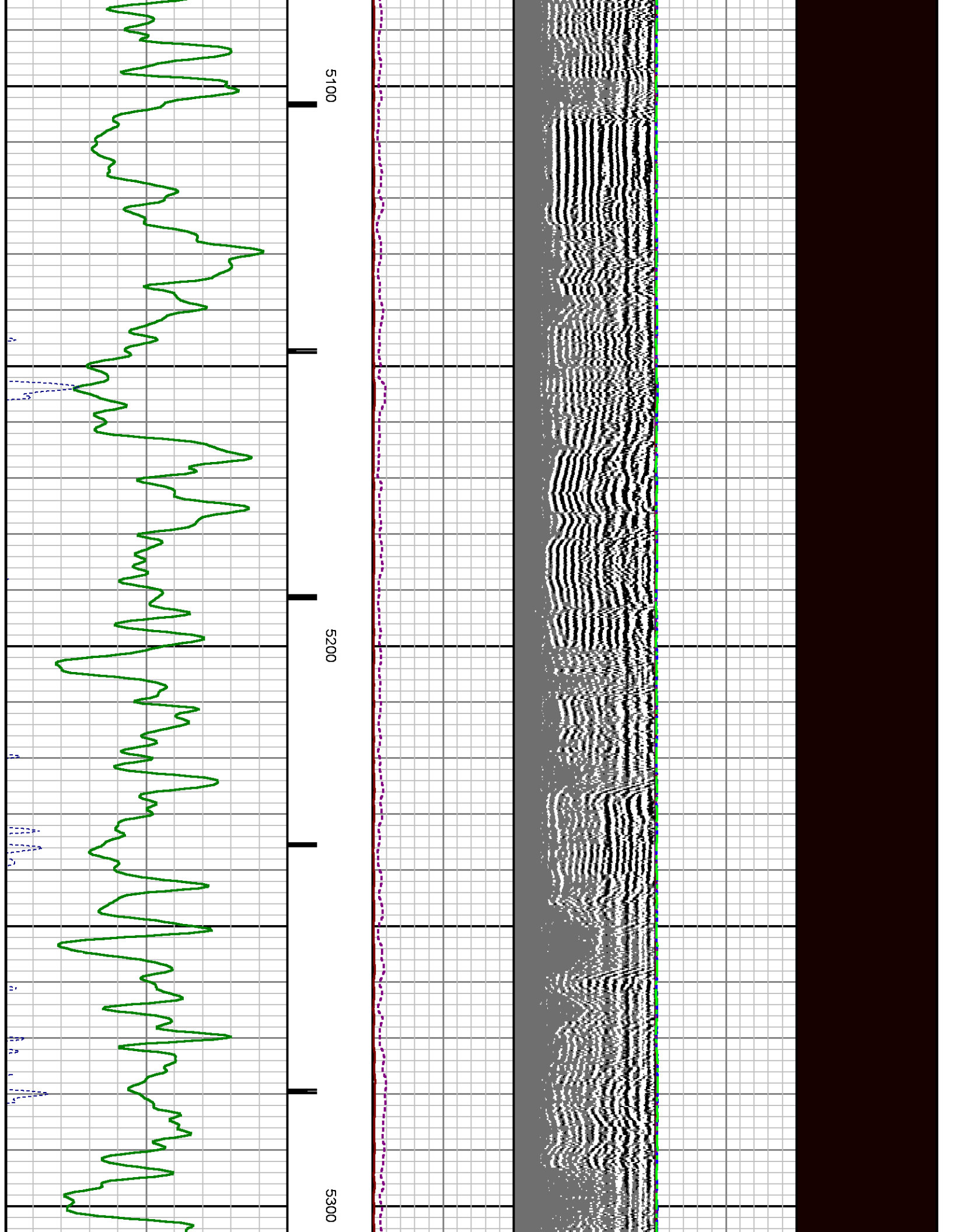


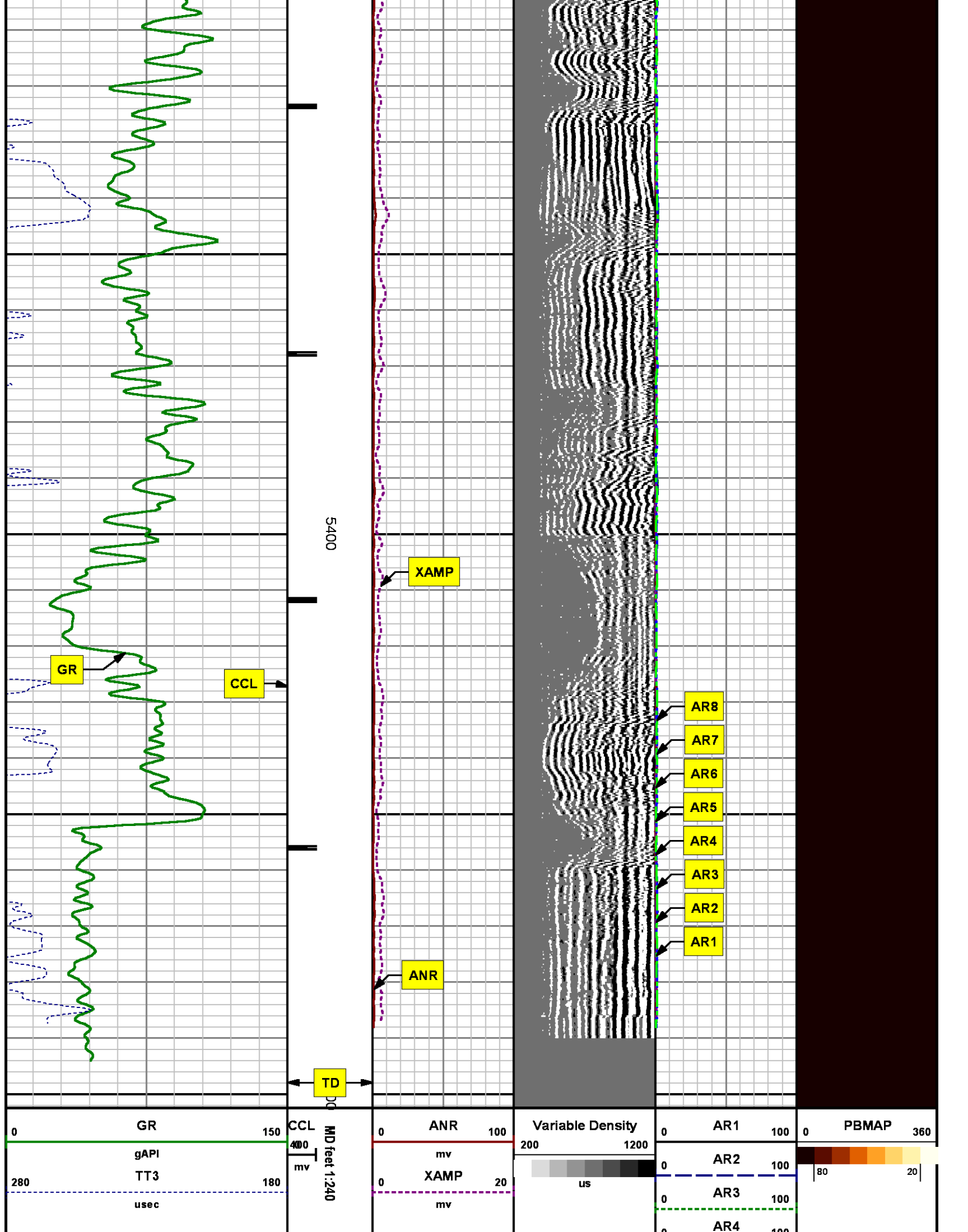












0	AR5	100
0	AR6	100
0	AR7	100
0	AR8	100

REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	5181.360	5501.610
RAL	Amp Gate Start Near	195.000	usec	5181.360	5501.610
RAL	Amp Gate Start Radial	195.000	usec	5181.360	5501.610
RAL	Amp Gate Width Far	25.000	usec	5181.360	5501.610
RAL	Amp Gate Width Near	25.000	usec	5181.360	5501.610
RAL	Amp Gate Width Radial	25.000	usec	5181.360	5501.610
RAL	casing od	4.500	inches	5181.360	5501.610
RAL	casing wt	11.600	lbm/ft	5181.360	5501.610
RAL	FB Start Far	291.900	usec	5181.360	5501.610
RAL	FB Start Near	180.000	usec	5181.360	5501.610
RAL	FB Start Radial	180.000	usec	5181.360	5501.610
RAL	FB Thresh Far	10.000	mv	5181.360	5501.610
RAL	FB Thresh Near	4.000	mv	5181.360	5501.610
RAL	FB Thresh Radial	4.000	mv	5181.360	5501.610
RAL	Fluid Travel Time	200.000	usec/ft	5181.360	5500.020

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

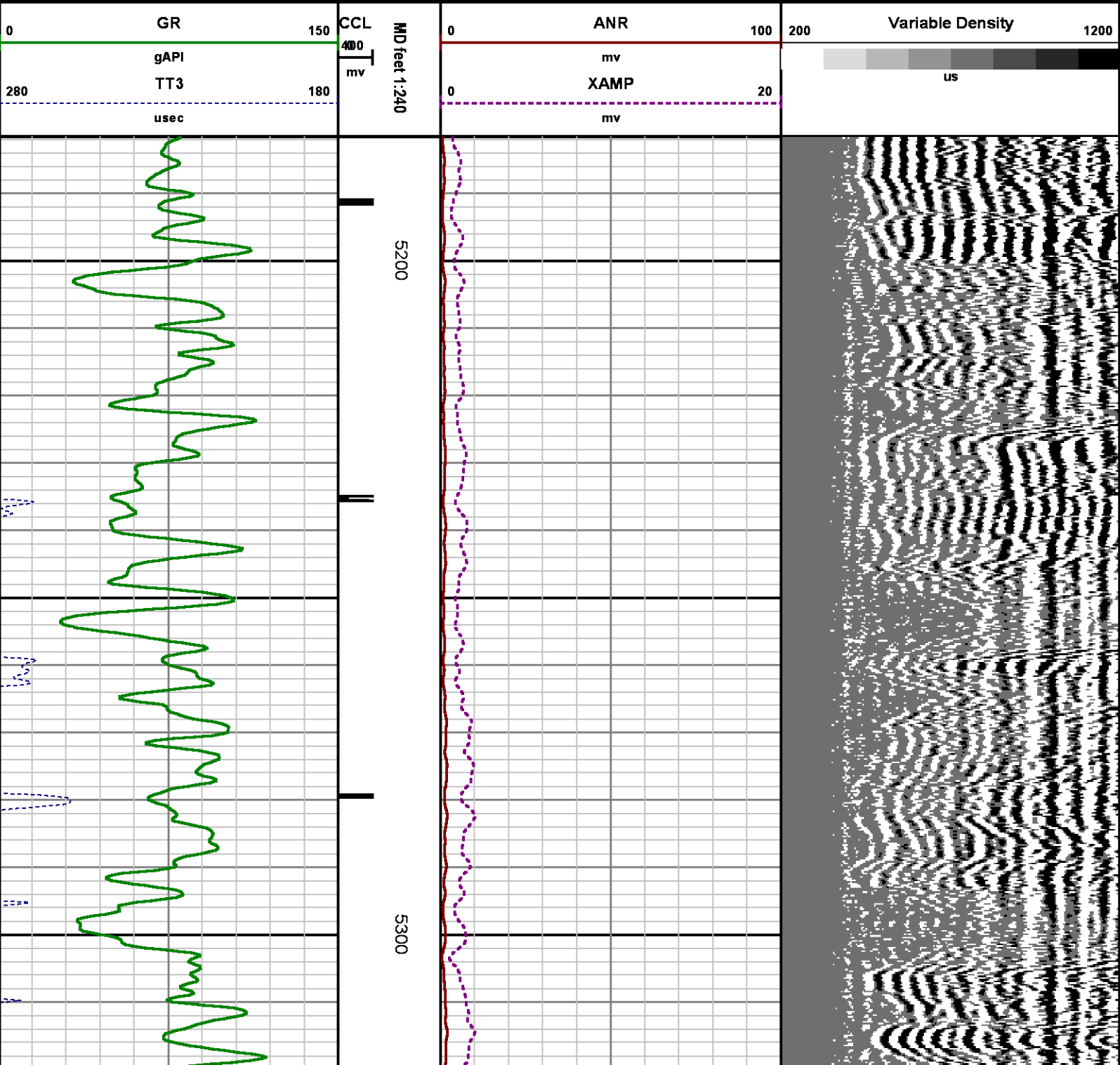
Well : FEDERAL SG 333-28

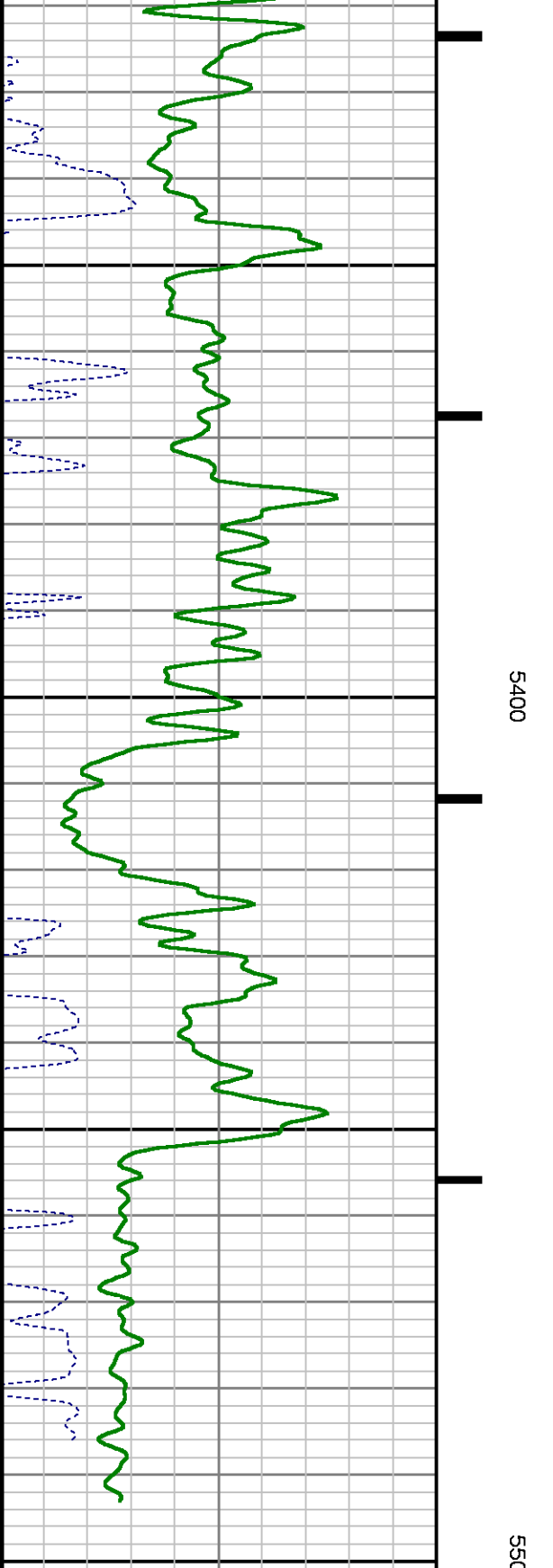
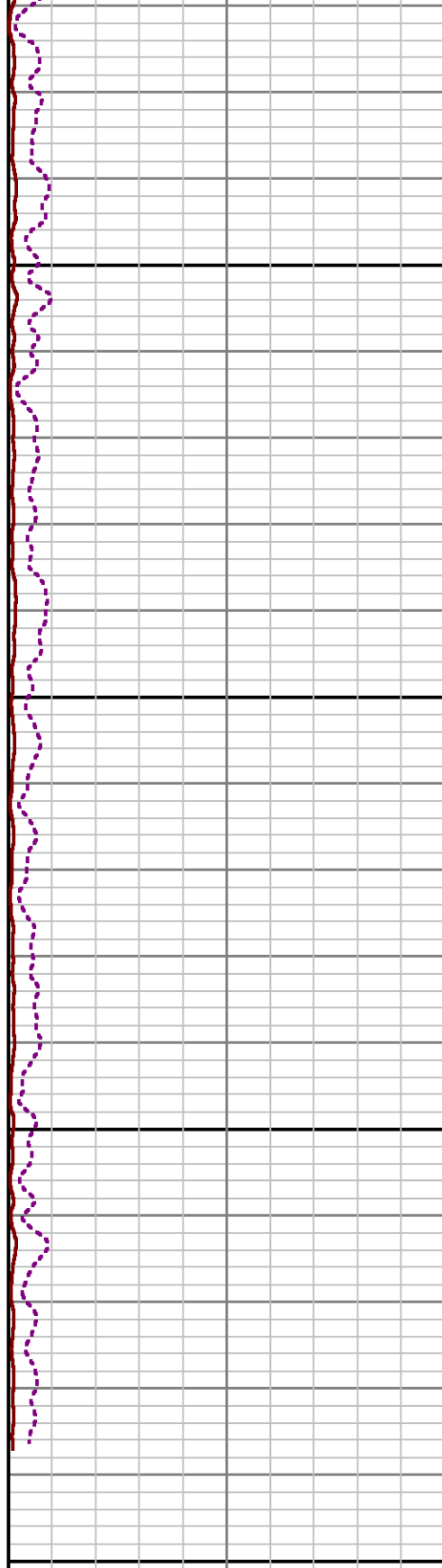
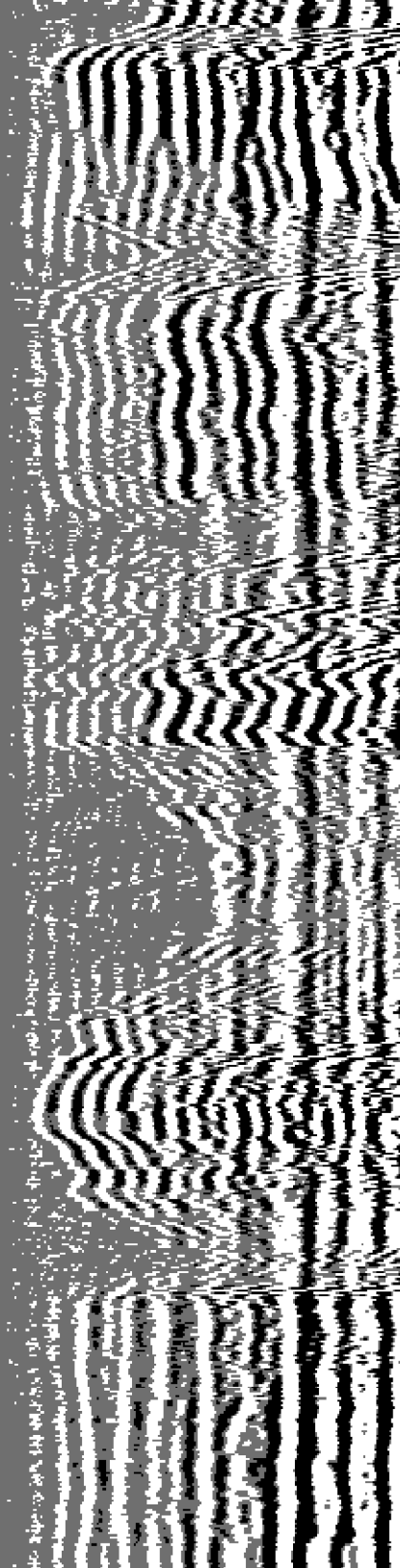
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Mode : PlotMgr 5.4.504

Interval : 5181.61 - 5501.61 feet UP

Created : 9/28/2014 3:35:27 PM





0 GR 150		0 ANR 100		200 Variable Density 1200	
gAPI		mV		us	
280 TT3 180		0 XAMP 20			
uSec		mV			

5400

5500 MD feet 1:240

CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\496SEP28_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Sep 28 14:04:57 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: SEP28

Tool Delay [usec]	-55.00	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	219	216	30	166	25	-0.054	100.00	0.30
3 Ft. Receiver	219	216	30	166	25	0.982	100.00	0.30
5 Ft. Receiver	327	332	30	282	25	4.785	150.00	0.35
Radial #1	219	216	30	166	25	1.002	100.00	0.30
Radial #2	219	216	30	166	25	0.740	100.00	0.30
Radial #3	219	216	30	166	25	0.824	100.00	0.30
Radial #4	219	216	30	166	25	1.038	100.00	0.30
Radial #5	219	216	30	166	25	1.424	100.00	0.30
Radial #6	219	216	30	166	25	1.155	100.00	0.30
Radial #7	219	216	30	166	25	1.252	100.00	0.31
Radial #8	219	216	30	166	25	1.113	100.00	0.31

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496SEP28 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Sep 28 14:07:03 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: SEP28

Tool Delay [usec]	-55.00	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	-0.138	0.000	1.00	100.000		
3 Ft. Receiver	195	25	3.540					
5 Ft. Receiver	305	25	5.365					
Radial #1	195	25	3.496					
Radial #2	195	25	3.419					
Radial #3	195	25	3.559					
Radial #4	195	25	3.593					
Radial #5	195	25	4.036					

Radial #6	195	25	4.156
Radial #7	195	25	3.312
Radial #8	195	25	3.408

GAMMA RAY

Calibration File: C:\case\calver\GR\45712.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Fri Sep 12 08:49:06 2014 TOOL SERIES: 2459XA ASSET: 457 SEQ: 12

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	92.09	359.07	0.693	63.81	248.81	185.00

Verification File: C:\case\calver\GR\45712.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Fri Sep 12 08:50:21 2014 TOOL SERIES: 2459XA ASSET: 457 SEQ: 12

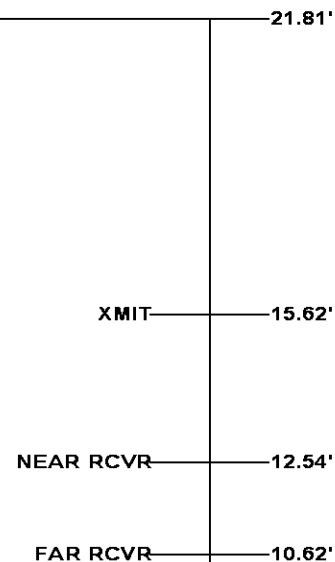
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	92.31	353.73	0.693	63.97	245.12	181.15

TOOL DIAGRAM

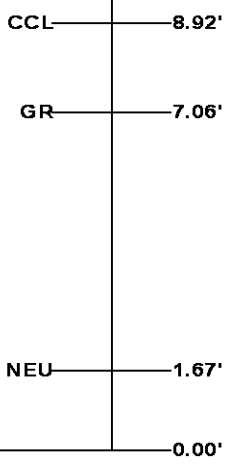
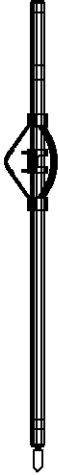
OTA SHORT CABLE HEAD

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"

<div></div> <div>Baker Atlas</div> <div></div>	Company	WPX ENERGY		File No:	CH091024
	Well	FEDERAL SG 333-28			
	Field	GRAND VALLEY		API No:	0504521950
	County	GARFIELD	State	COLORADO	
Location		Elevations			
SHL: 2250' FSL & 477' FEL		KB	5143 ft	28 7S 96W	
BHL: 1995' FSL & 2182' FEL (NWSE)		DF		SG 43-28 PAD	
		GL	5119 ft	H&P 318	
SEC 28 TWP 7S RGE 96W					