



# RADIAL ANALYSIS BOND LOG

Baker Atlas

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

CH091651 **Well** **FEDERAL SG 532-28**

API No: **Field** **GRAND VALLEY**

05045219560000 **County** **GARFIELD** **State** **CO**

## Location

SHL: 2273' FSL & 495' FEL

BHL: 2630' FNL & 2302' FEL

SEC 28 TWP 7S RGE 96W

## Other Services

RPM

Permanent Datum **GL** **Elevation** **5119**

Log Measured From **KB** **24** **Above P. D.**

Drill Measured From **KB** **Elevations** **KB 5143** **DF** **GL 5119**

Date	28/OCT/14	
Run	ONE	
Service Order	US091651	
Depth Driller	5634	
Depth Logger	5603	
Bottom Logged Interval	5593	
Top Logged Interval	24	
Time Started	9:30	
Time Finished	12:00	
Operator Rig Time	2.5 HOURS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	56	
Logged Cement Top	NA	
Wellhead Pressure	0	
Maximum Hole Deviation	NA	
Nominal Logging Speed	65	
Maximum Recorded Temperature	192	
Reference Log	NA	
Reference Log Date	NA	
Equipment No.	4271	GRAND JUNCTION
Recorded By	NEWELL	
Witnessed By	JEFF BRADY	

- FOLD HERE

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

Borehole Record		
Bit Size	From	To
13.5	0	1743
8.75	1743	5655

Casing Record				
Size	Weight	Grade	From	To
9.625			0	1743
4.5	11.6	1-80	0	5655

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 3 feet.
Logged with zero PSI at wellhead.
BHT = 192 °F

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	CBL	1426XA	10218495	CENTRALIZED
1	1	GR/CCL	2459XA	10218503	CENTRALIZED

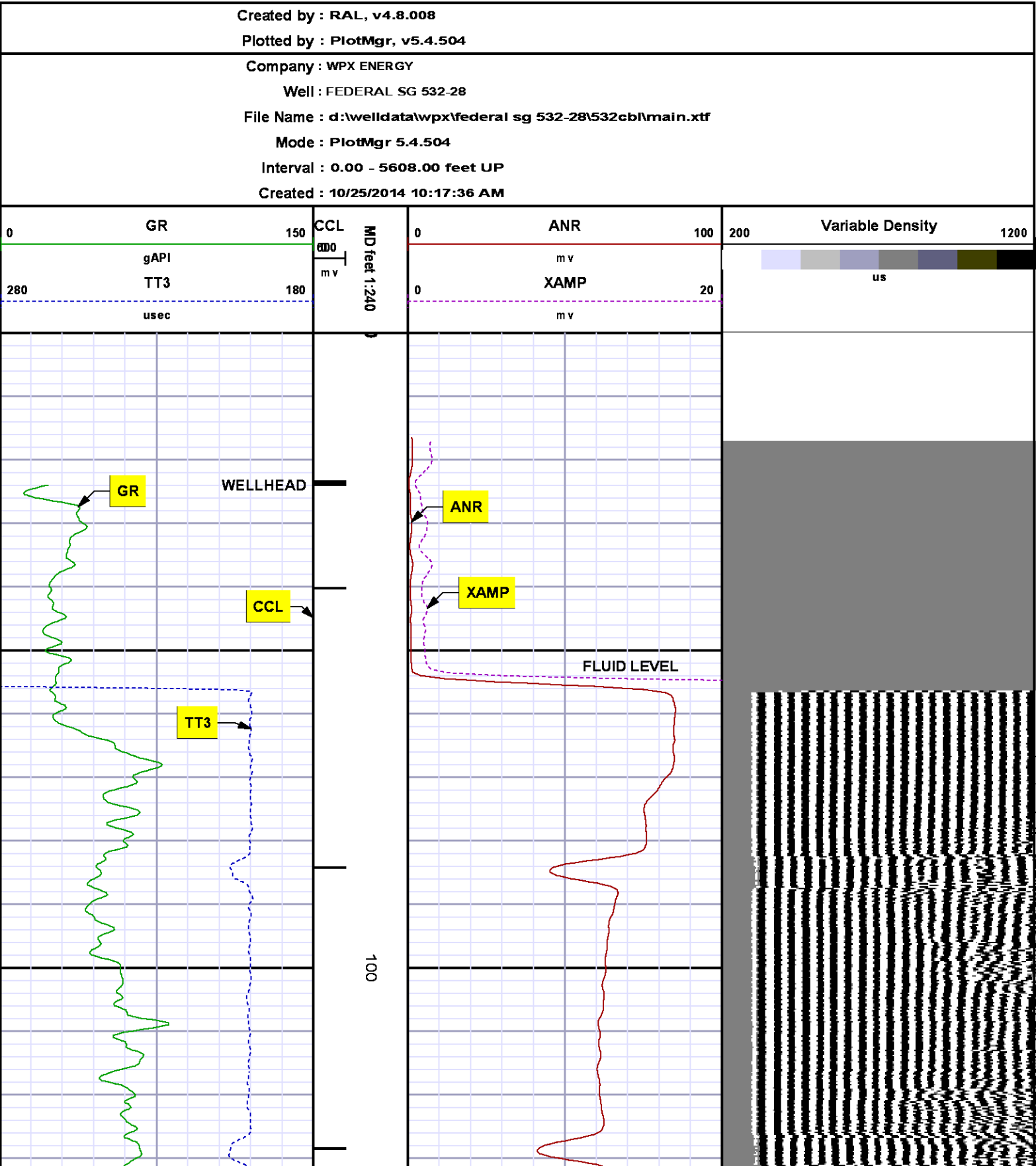
PRIMARY PRESENTATION  
0 PSI

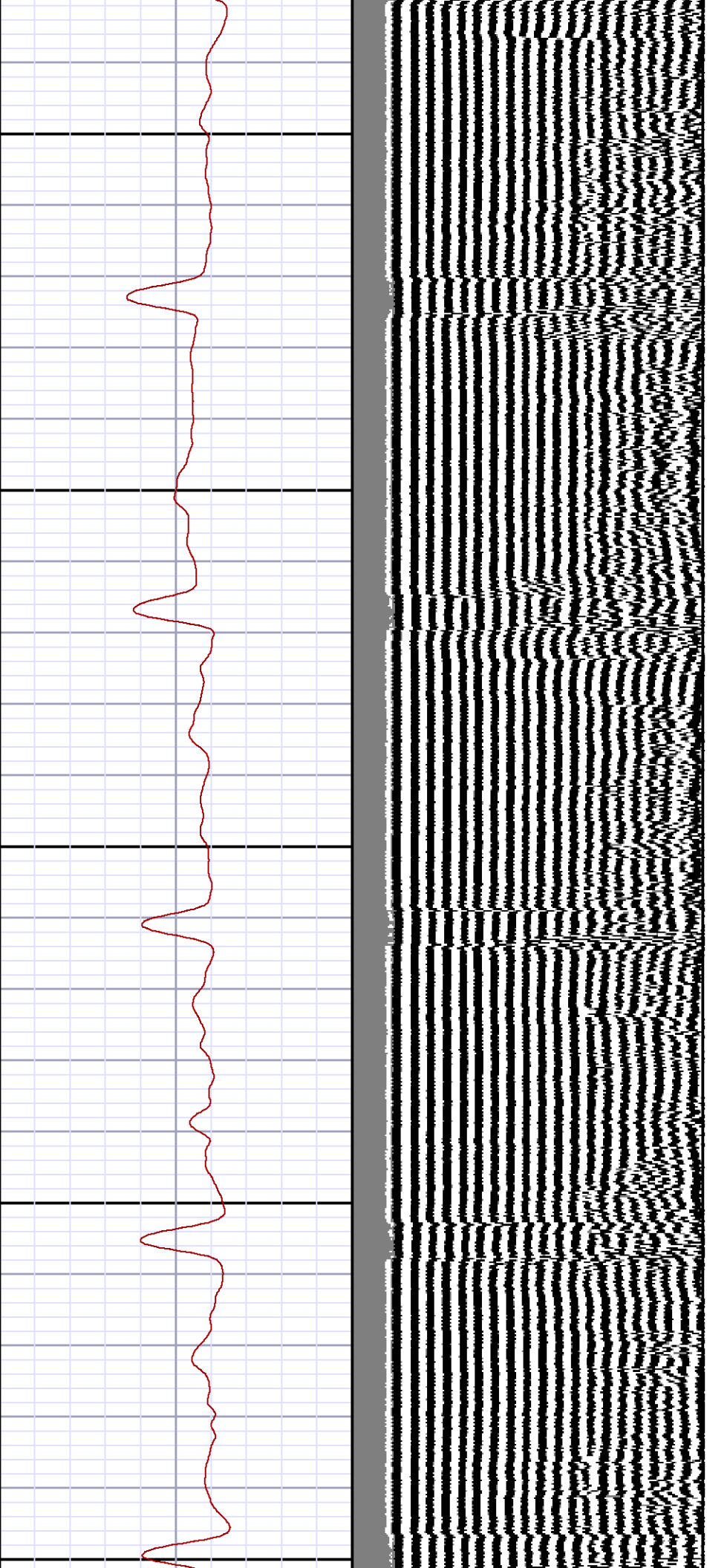
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	28.125	5604.250
RAL	Amp Gate Start Near	195.000	usec	28.125	5604.250
RAL	Amp Gate Start Radial	195.000	usec	28.125	5604.250
RAL	Amp Gate Width Far	25.000	usec	28.125	5604.250
RAL	Amp Gate Width Near	25.000	usec	28.125	5604.250
RAL	Amp Gate Width Radial	25.000	usec	28.125	5604.250
RAL	casing od	4.500	inches	28.125	5604.250
RAL	casing wt	11.600	lbm/ft	28.125	5604.250
RAL	FB Start Far	291.900	usec	28.125	5604.250
RAL	FB Start Near	175.391	usec	28.125	5604.250
RAL	FB Start Radial	175.391	usec	28.125	5604.250
RAL	FB Thresh Far	10.000	mv	28.125	5604.250
RAL	FB Thresh Near	4.000	mv	28.125	5604.250
RAL	FB Thresh Radial	4.000	mv	28.125	5604.250
RAL	Fluid Travel Time	200.000	usec/ft	28.125	5604.250

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

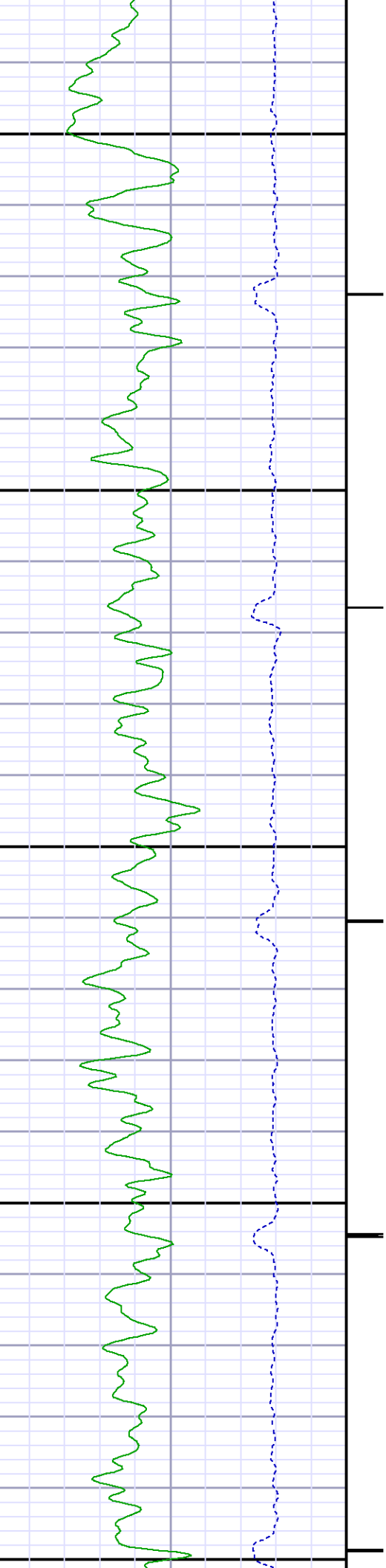
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-11.360	AFAR	SIG	TT5			
2459XA	-7.250	CCL					
2459XA	-5.390	GR					
2459XA	0.000	NEU					

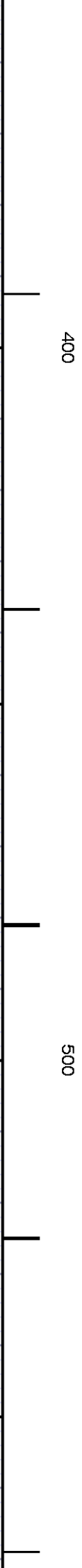
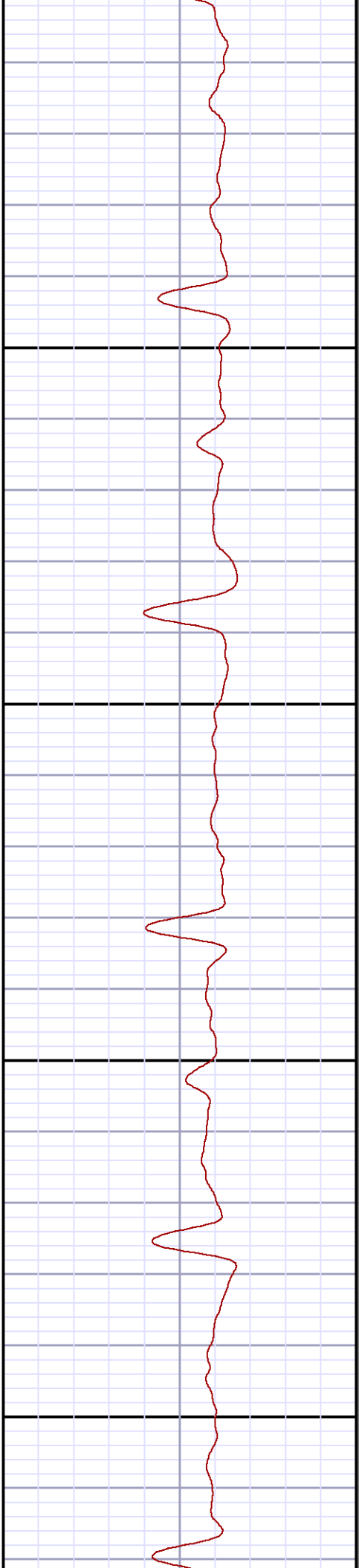
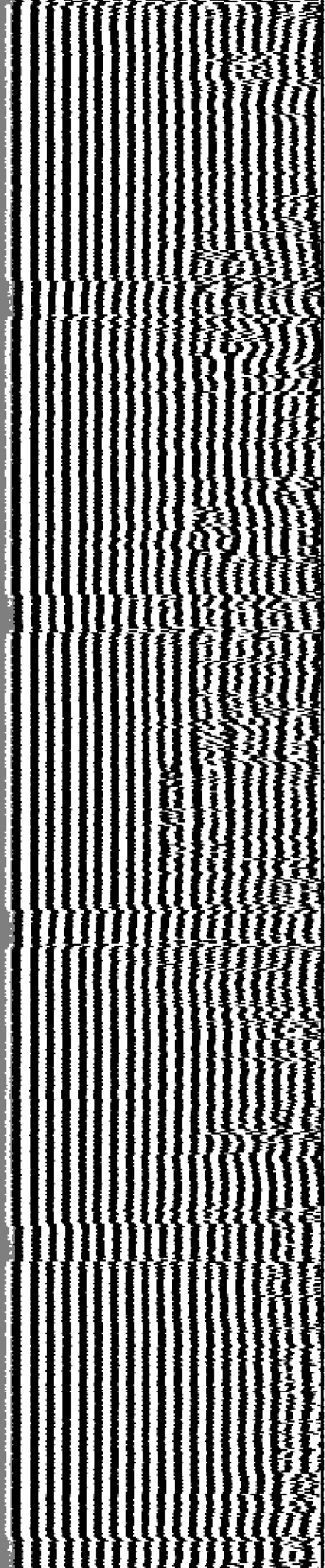


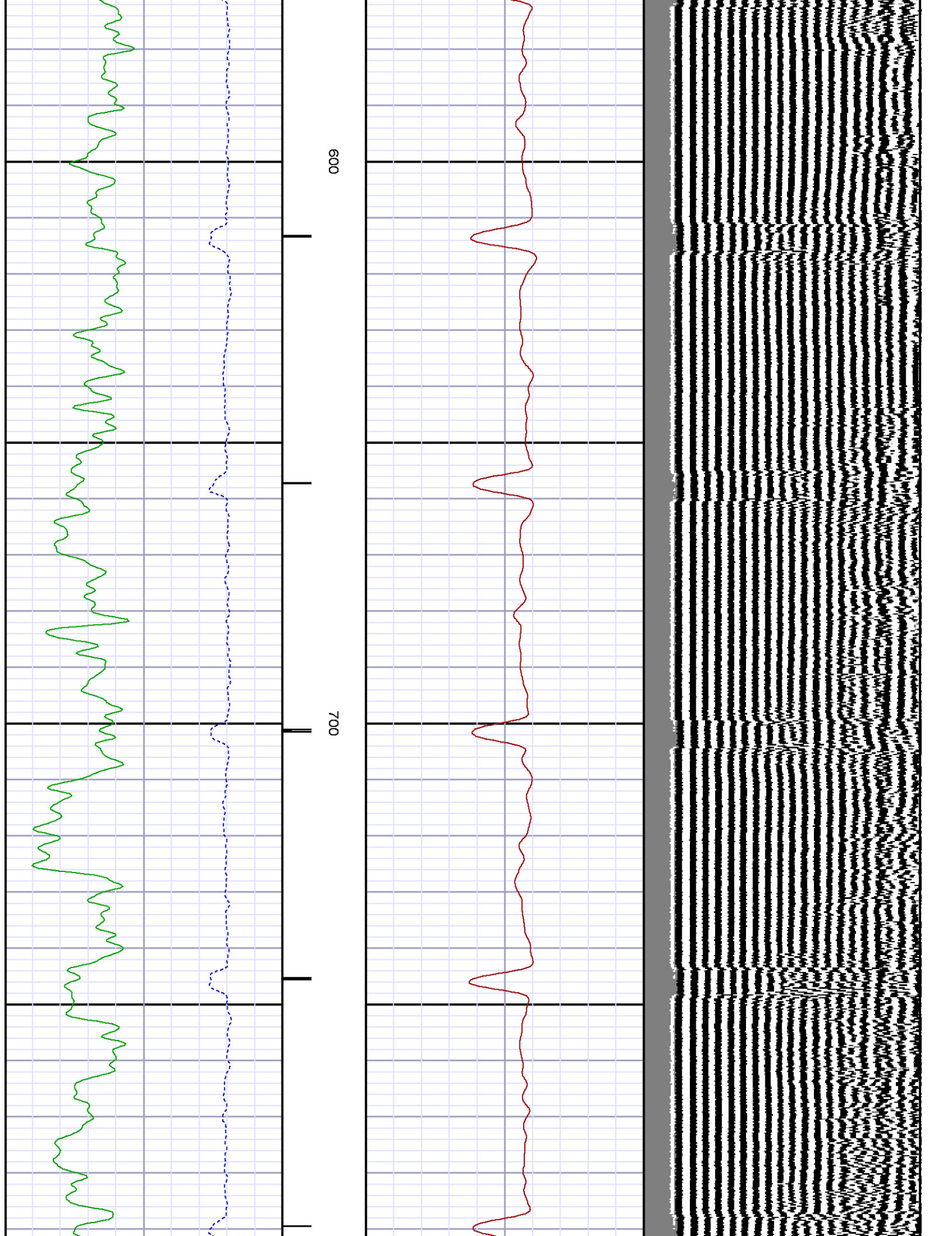


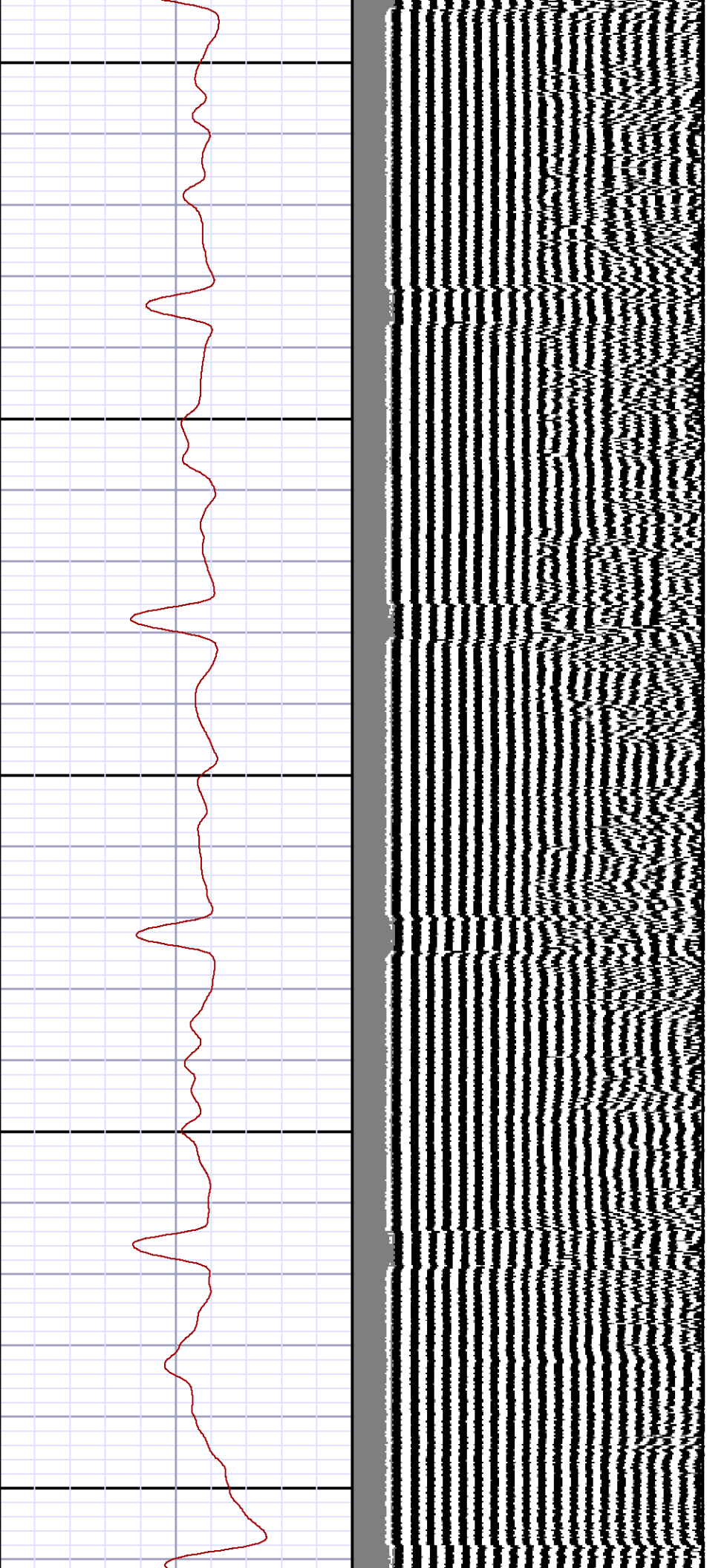
200

300





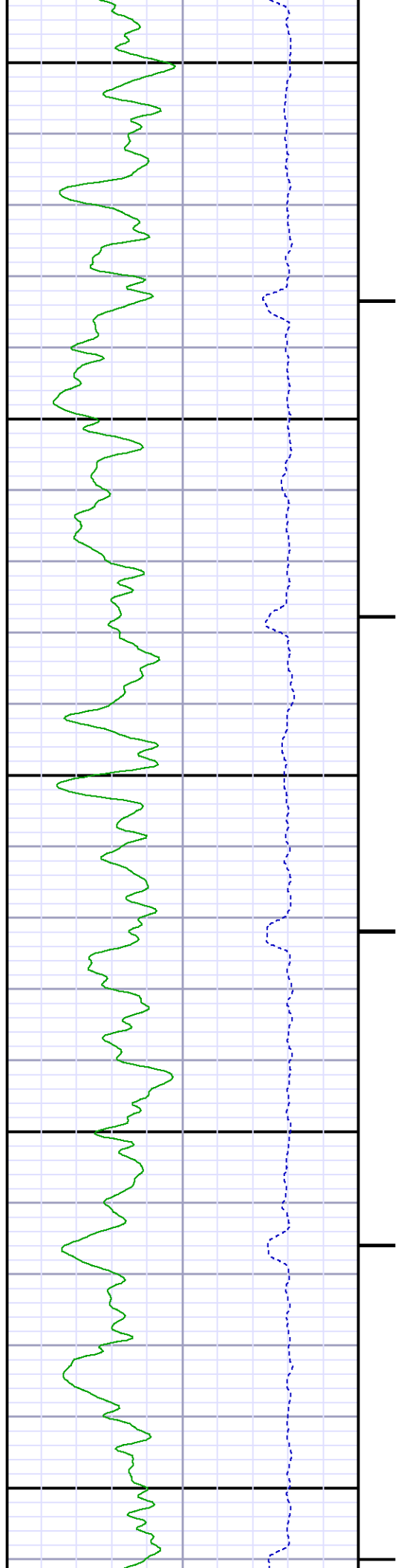




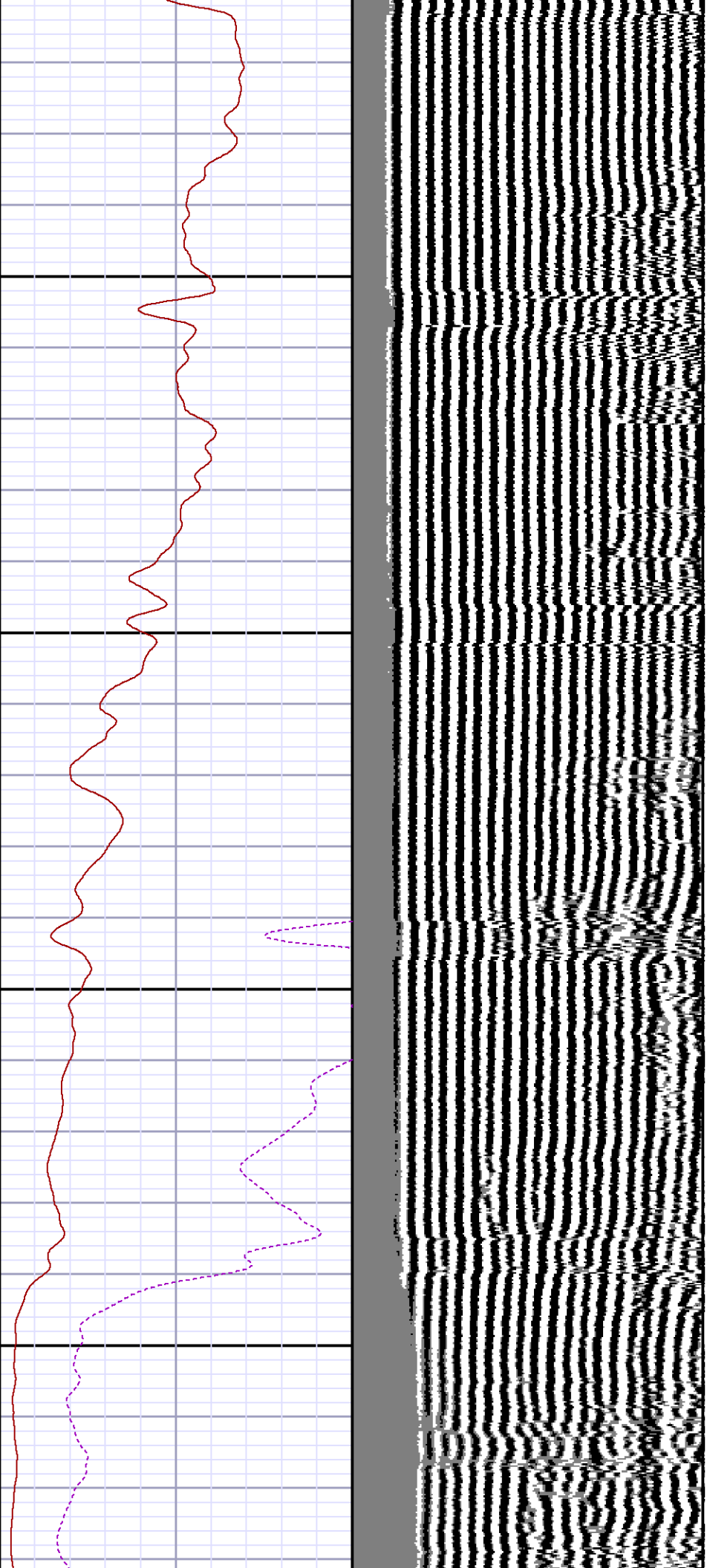
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900

1000

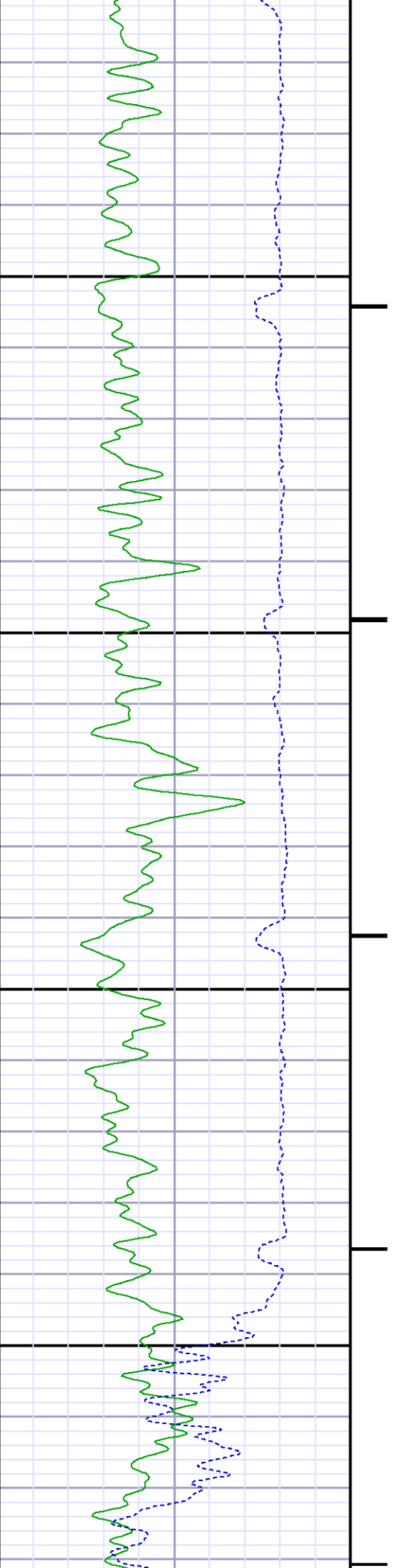




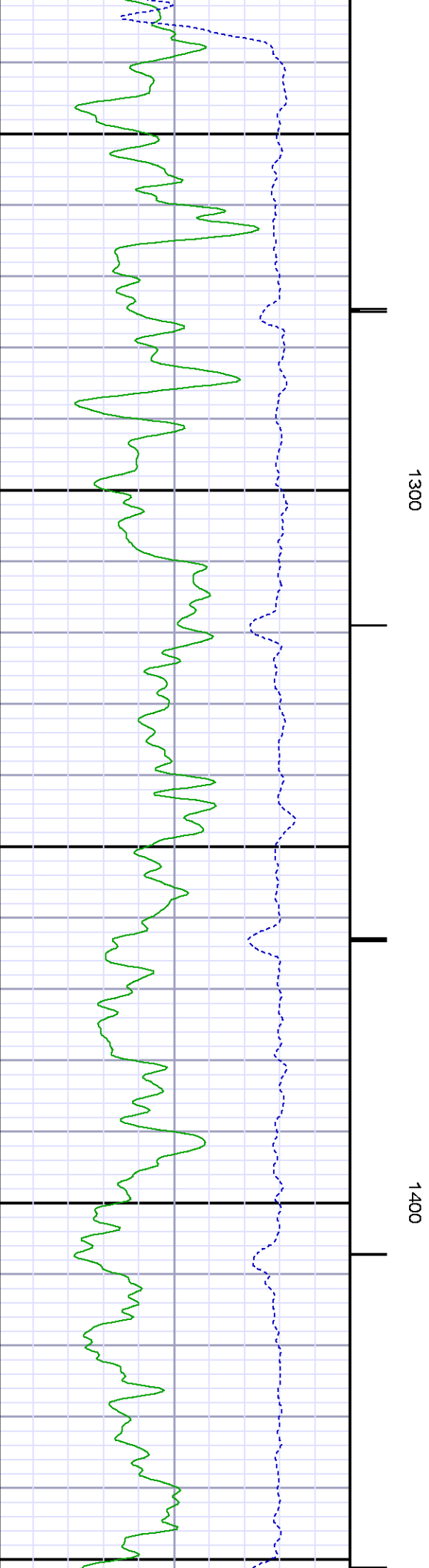
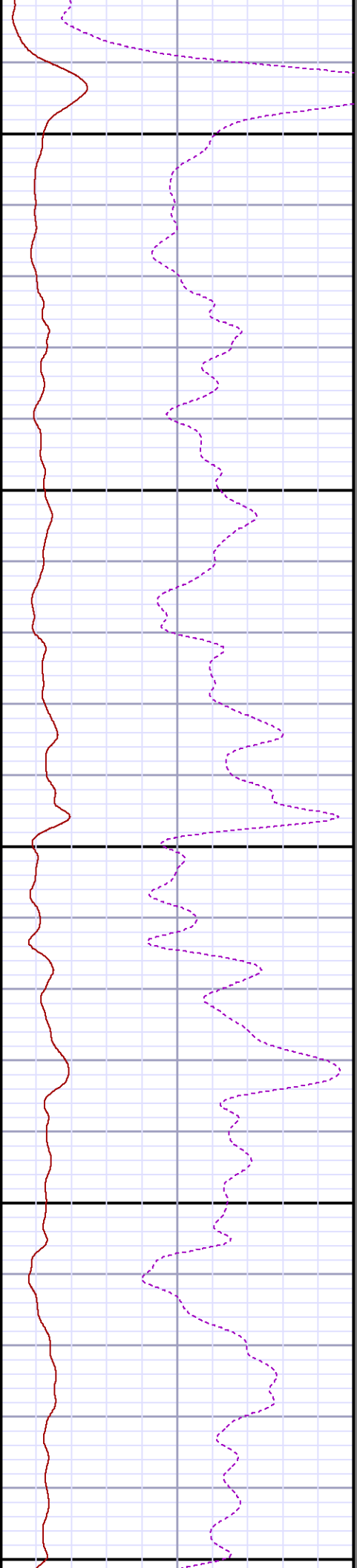
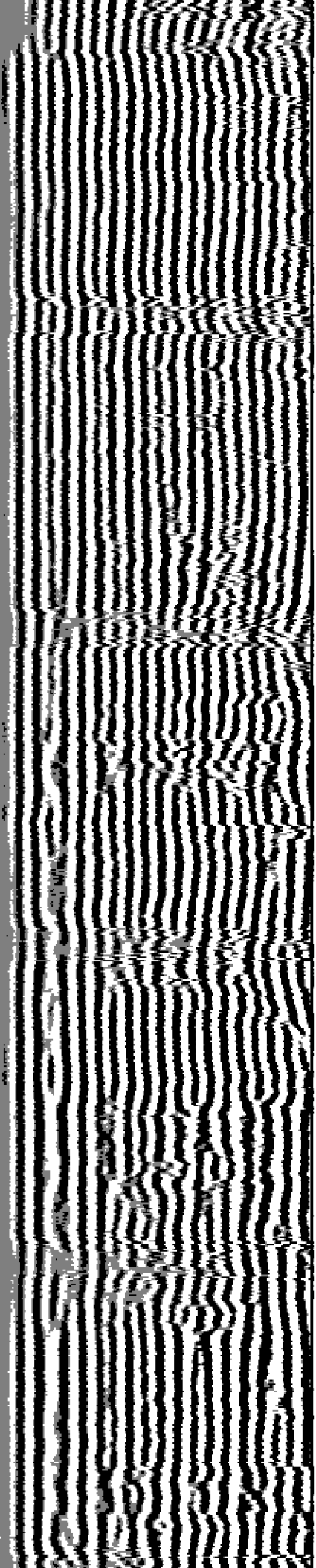


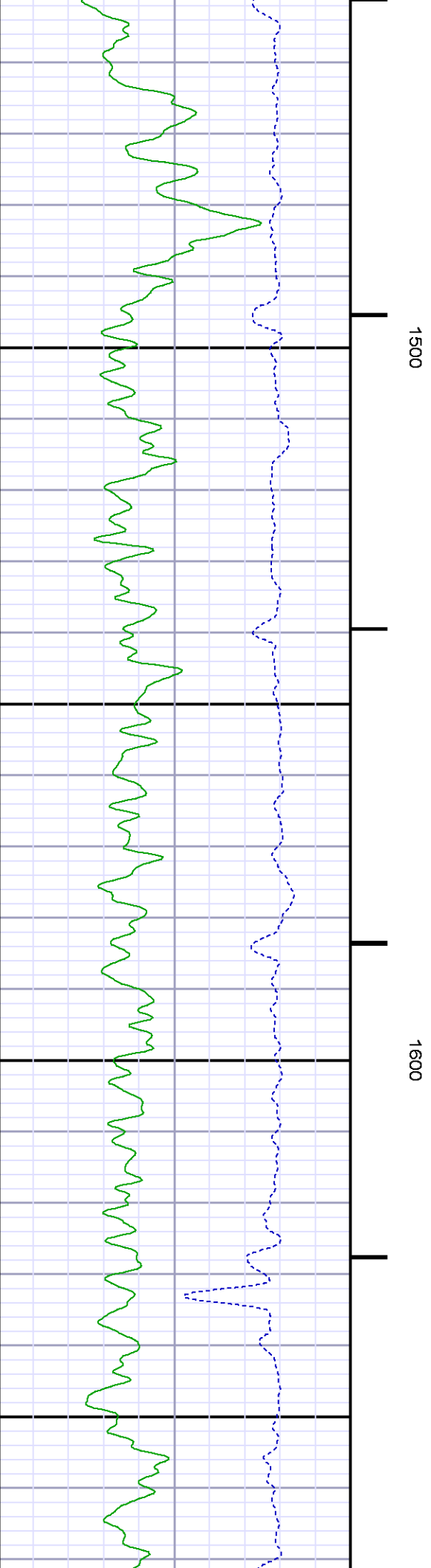
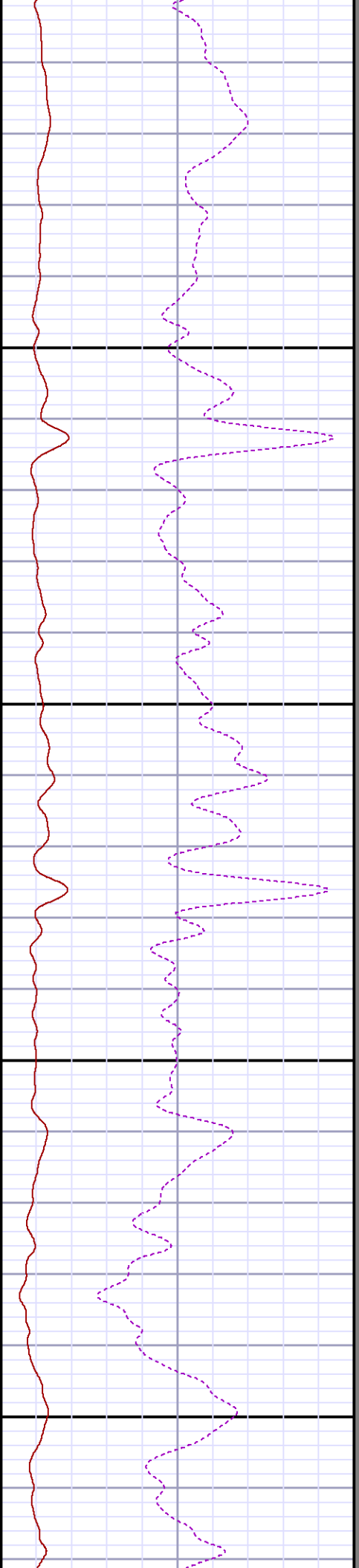
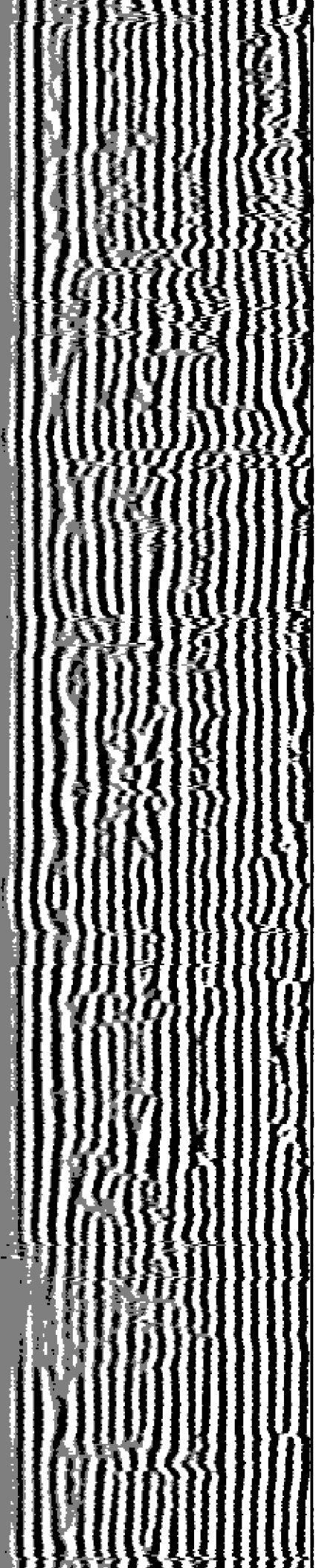
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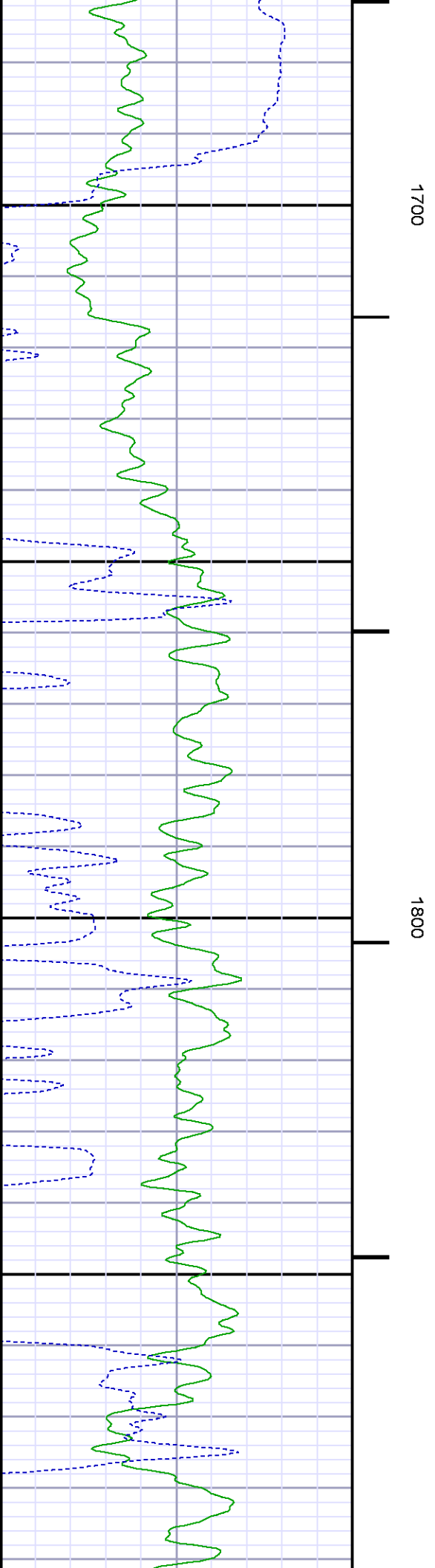
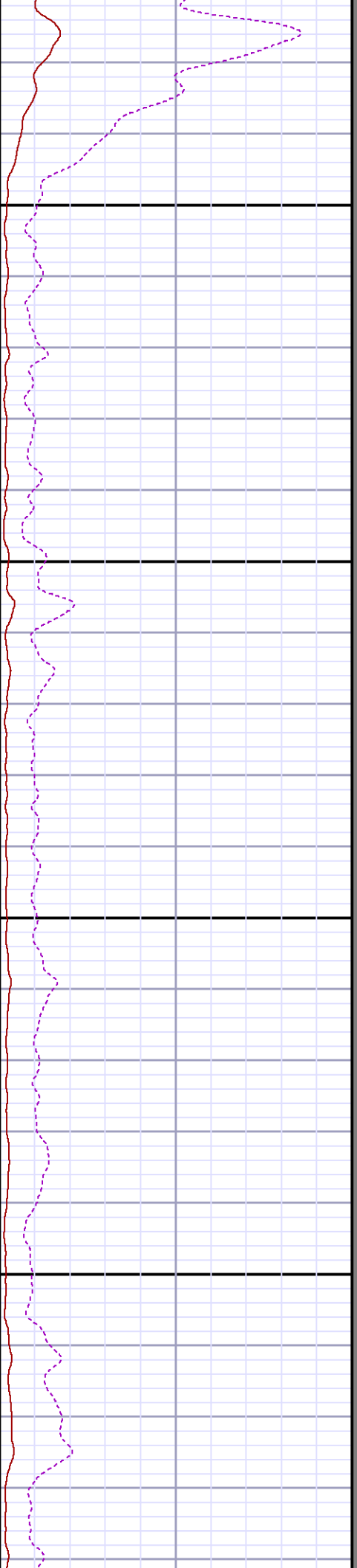
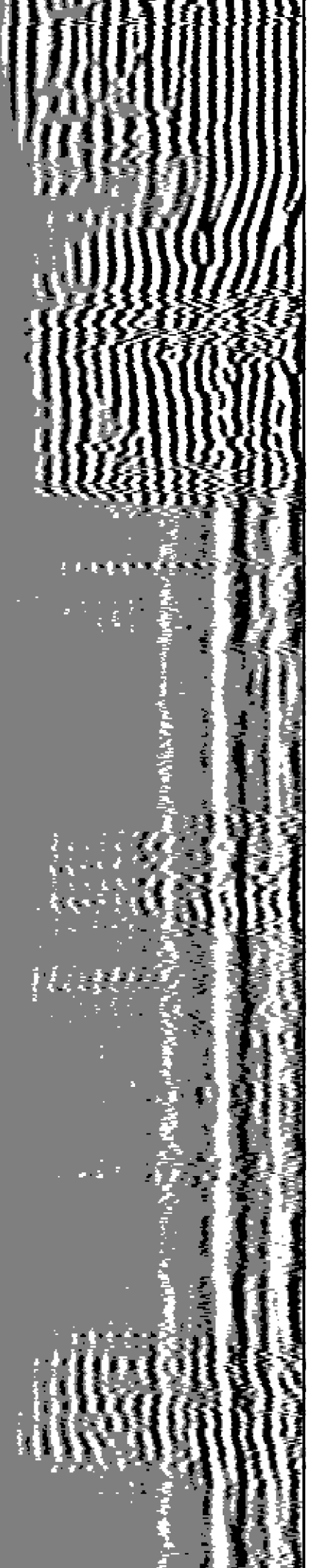
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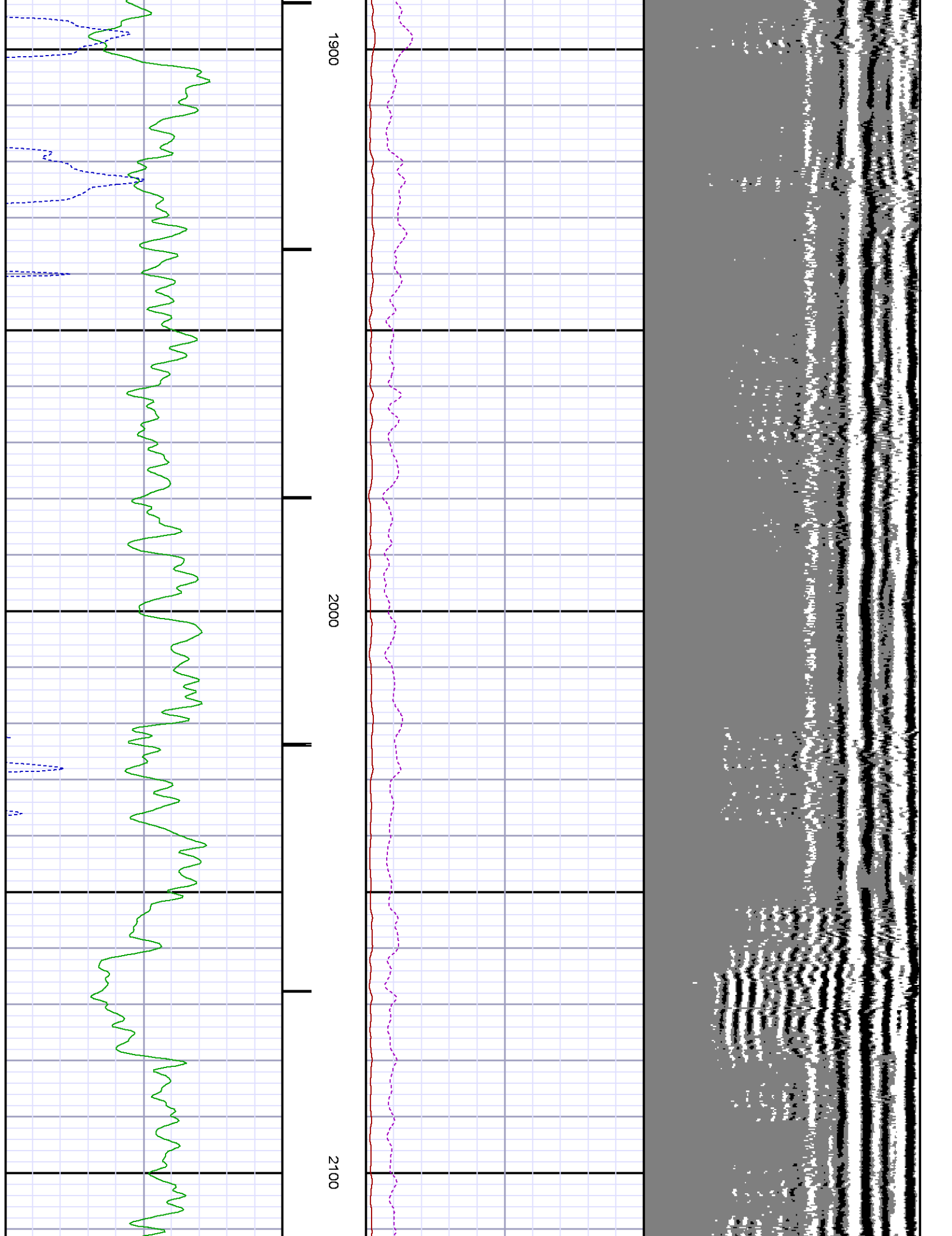


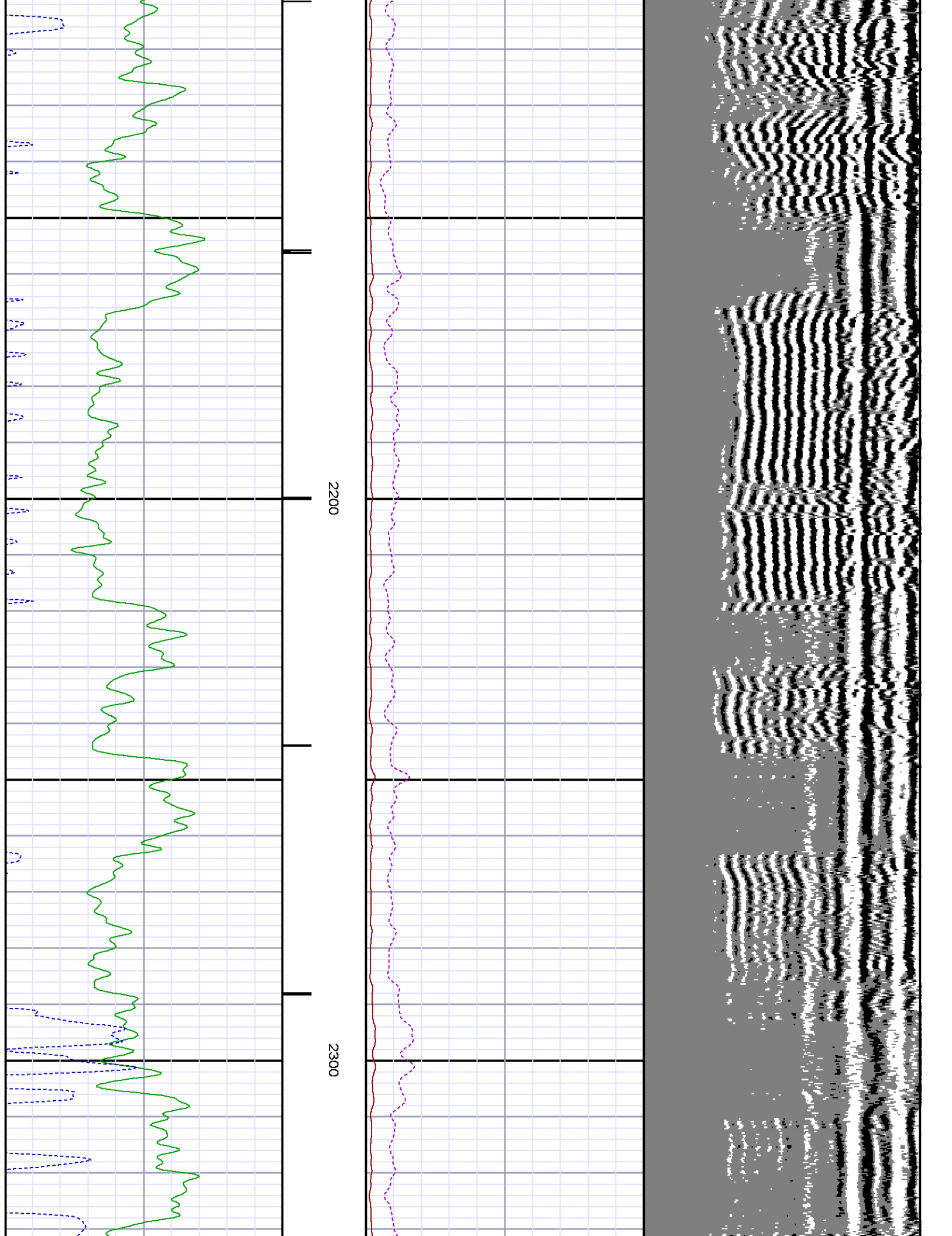


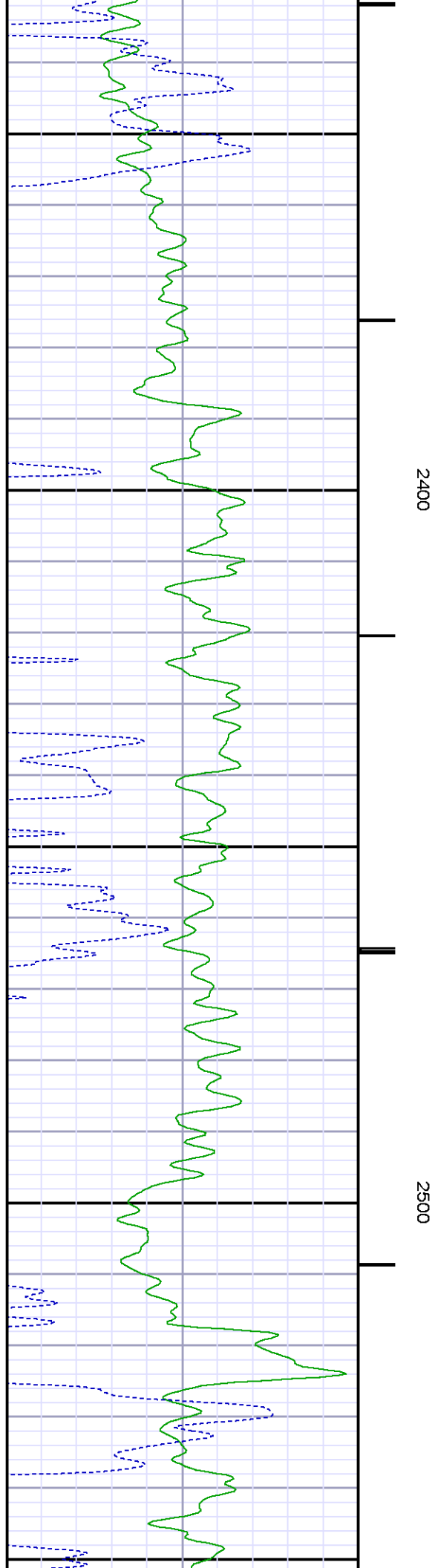
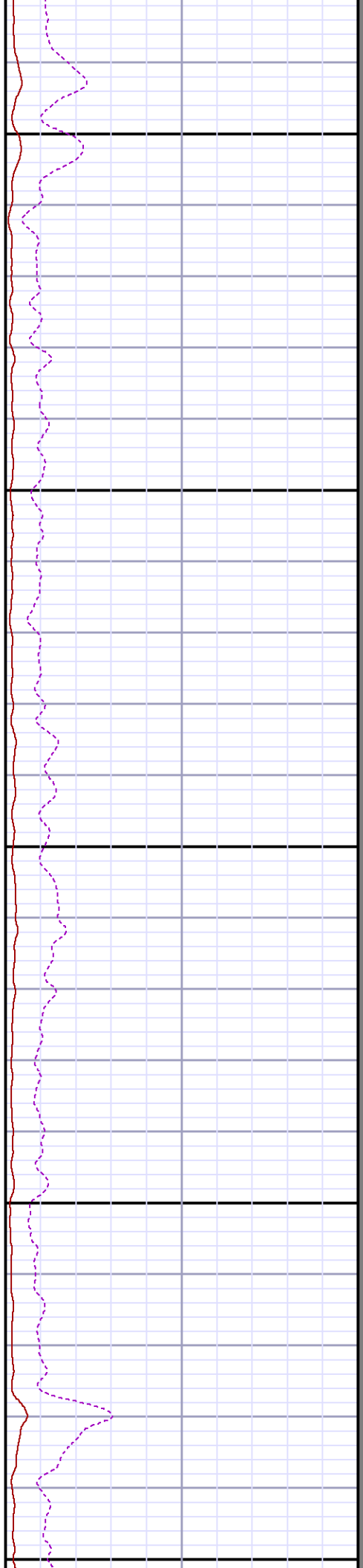
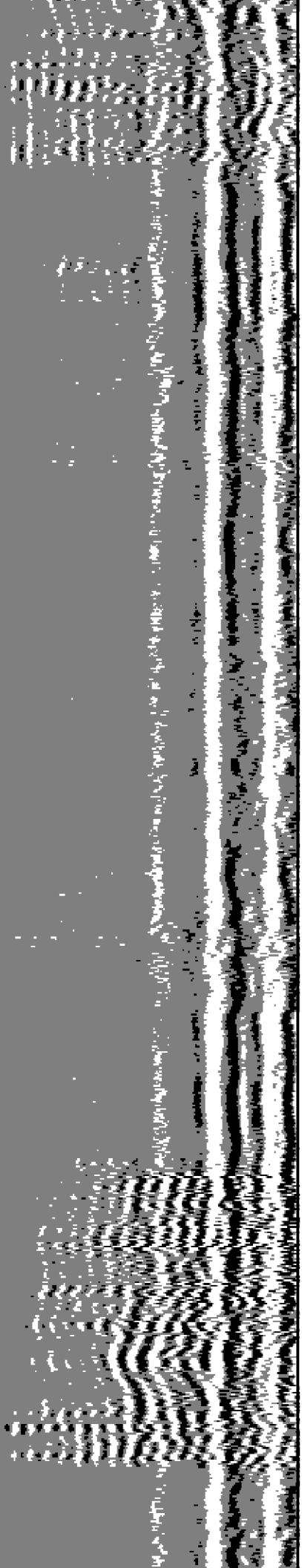




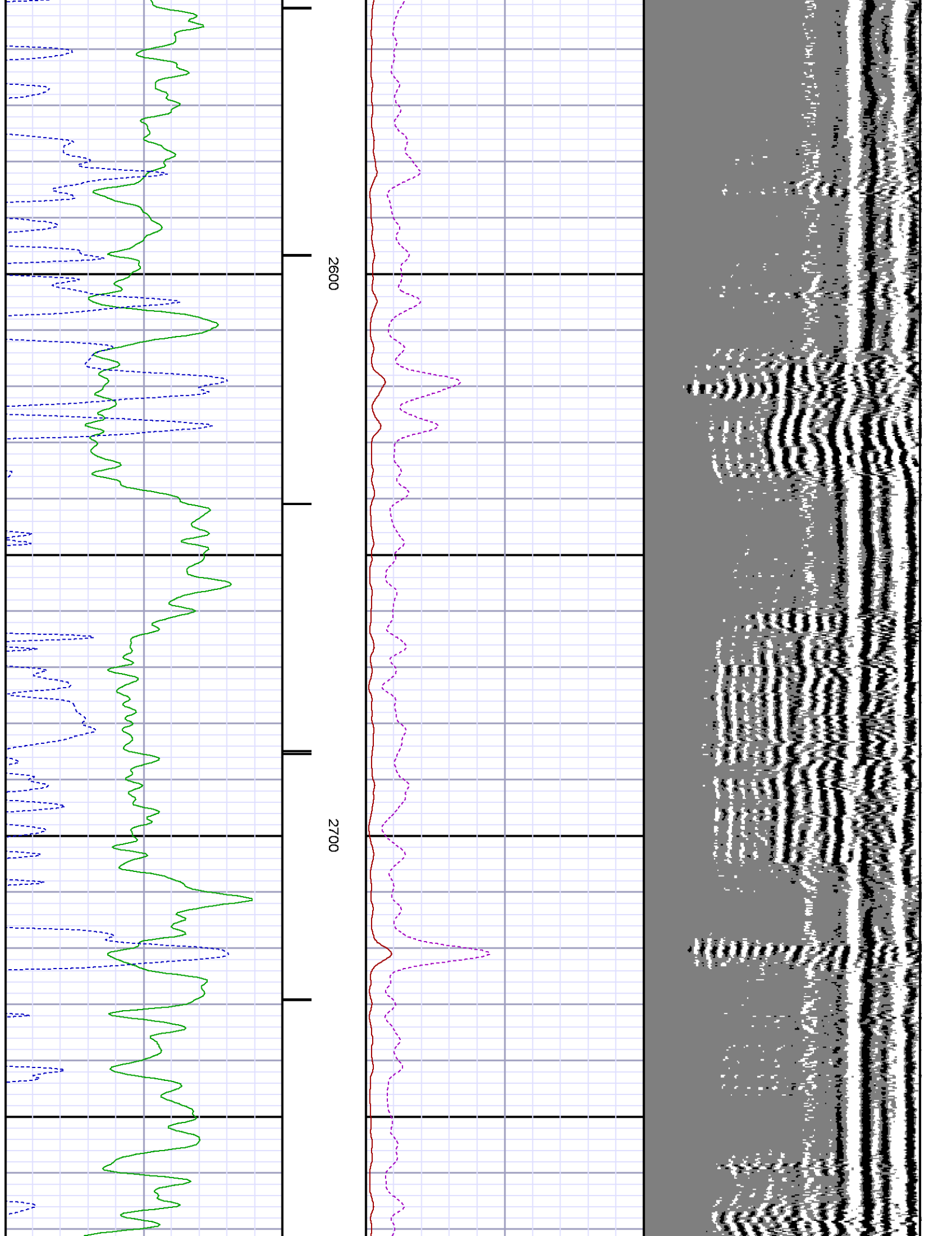


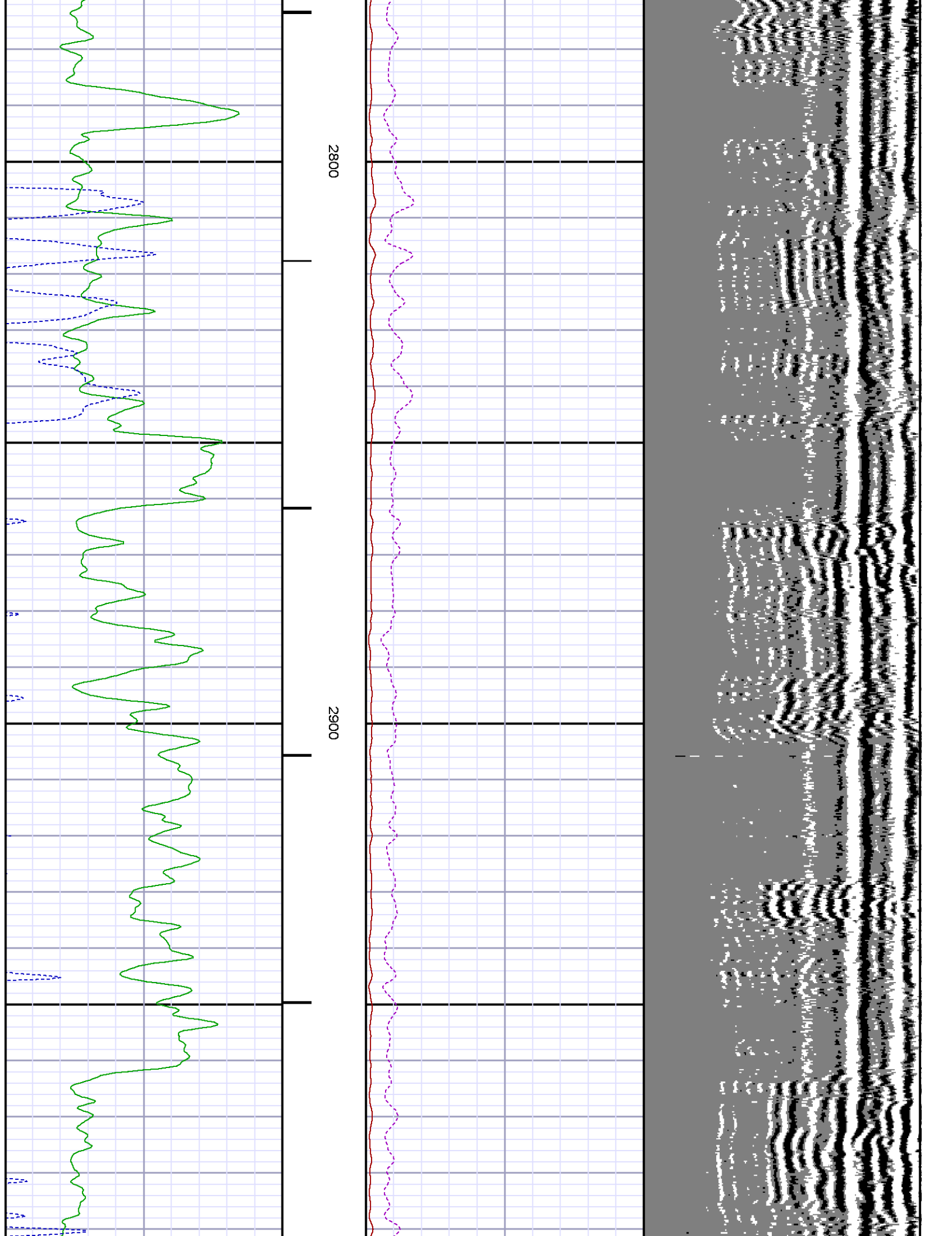


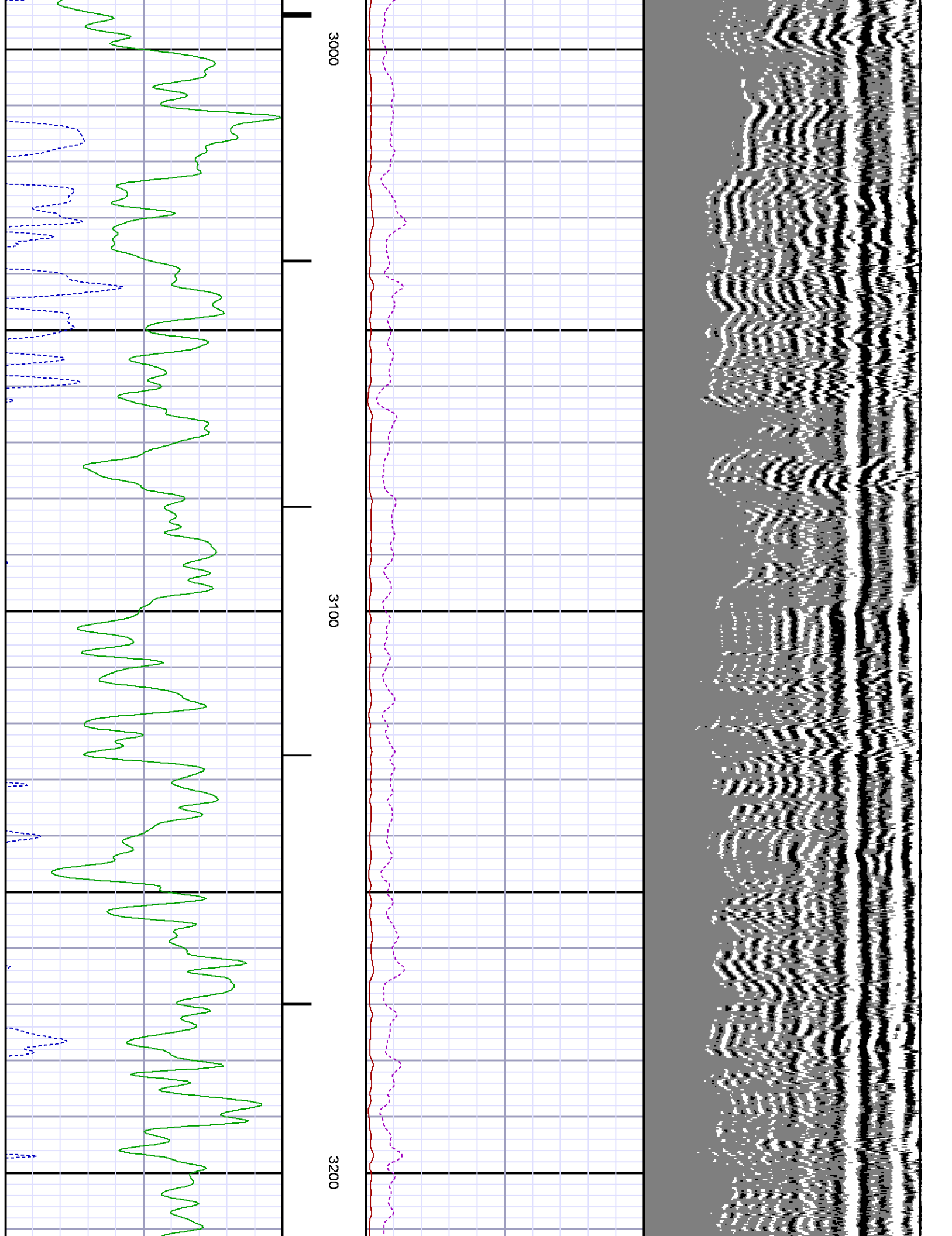


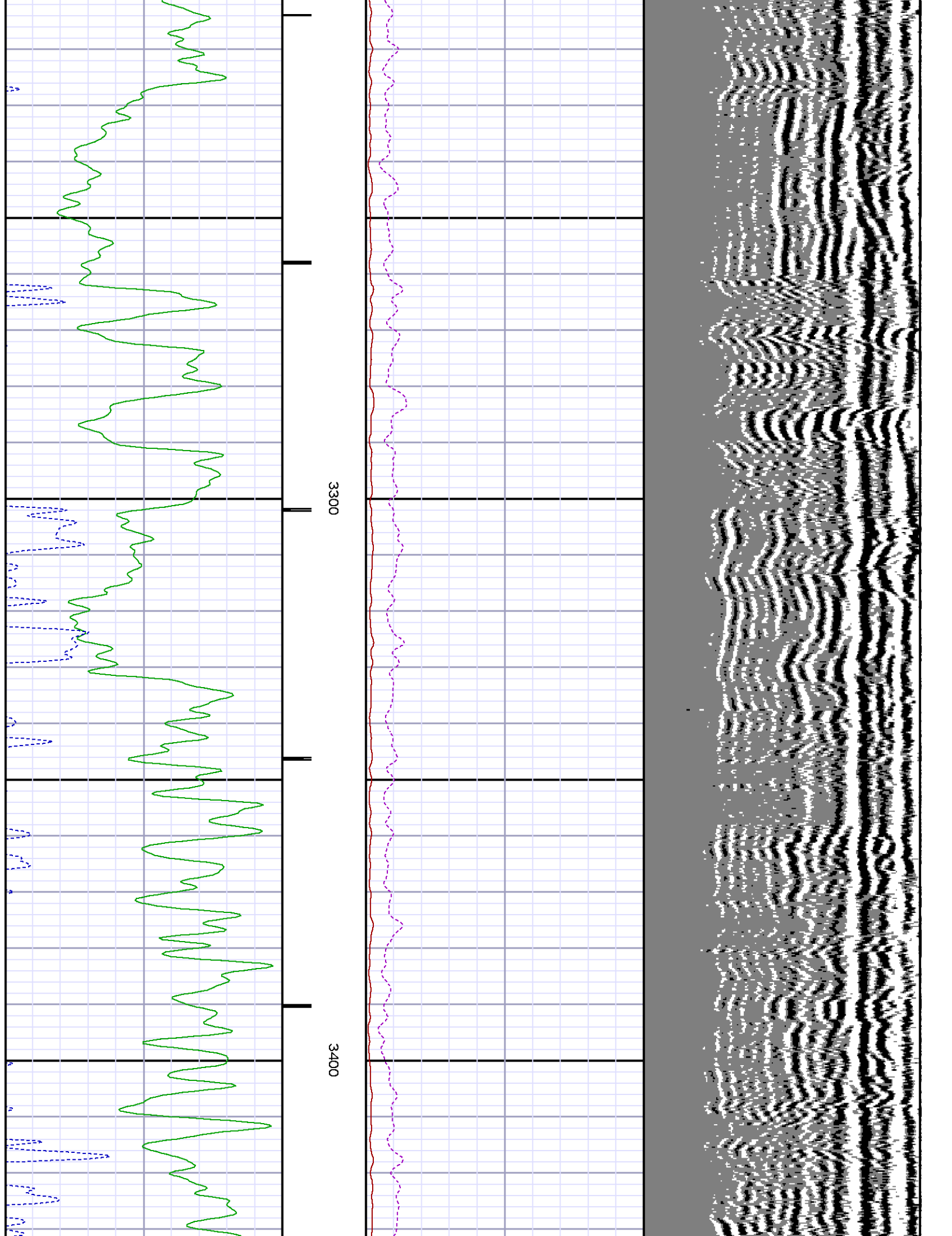


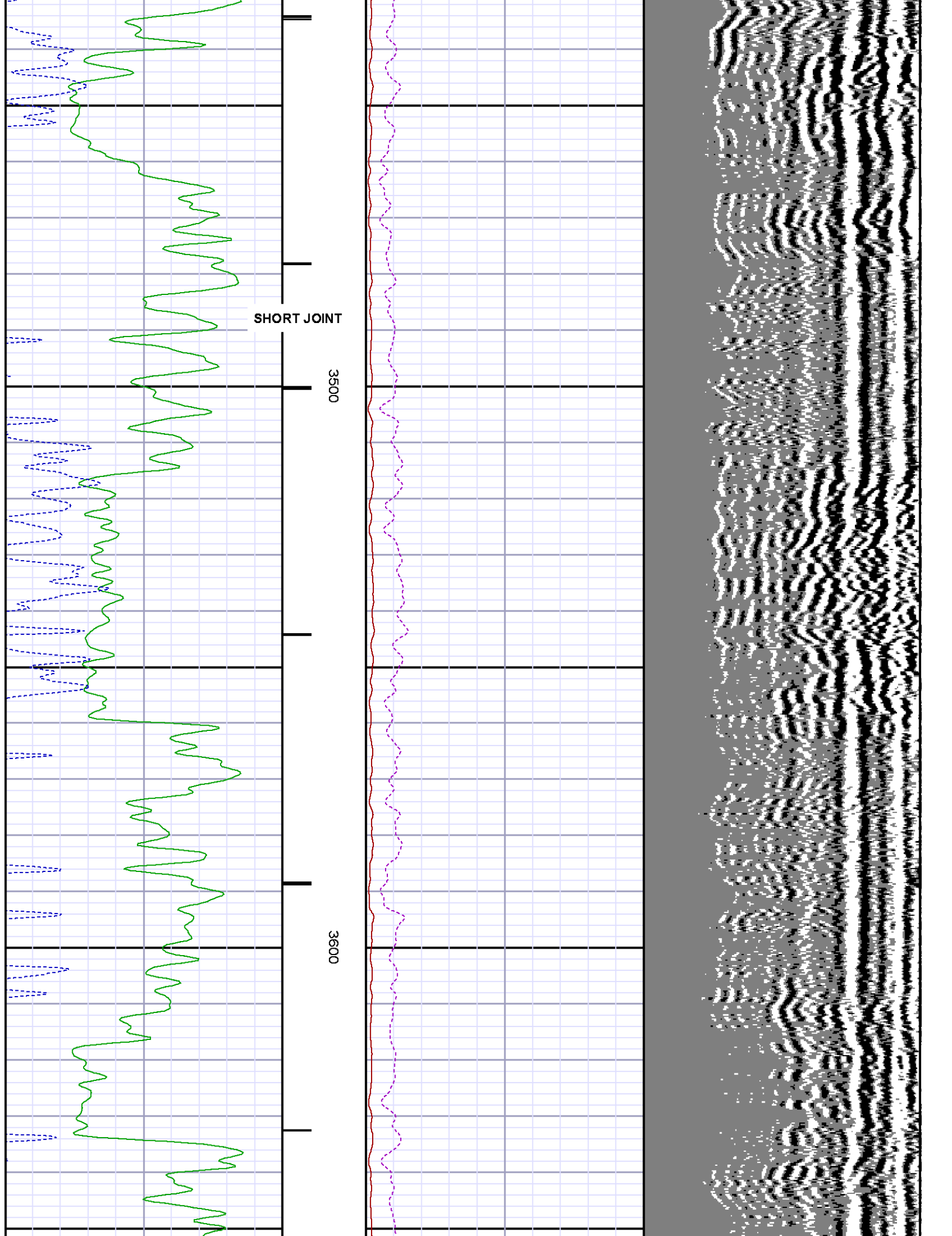


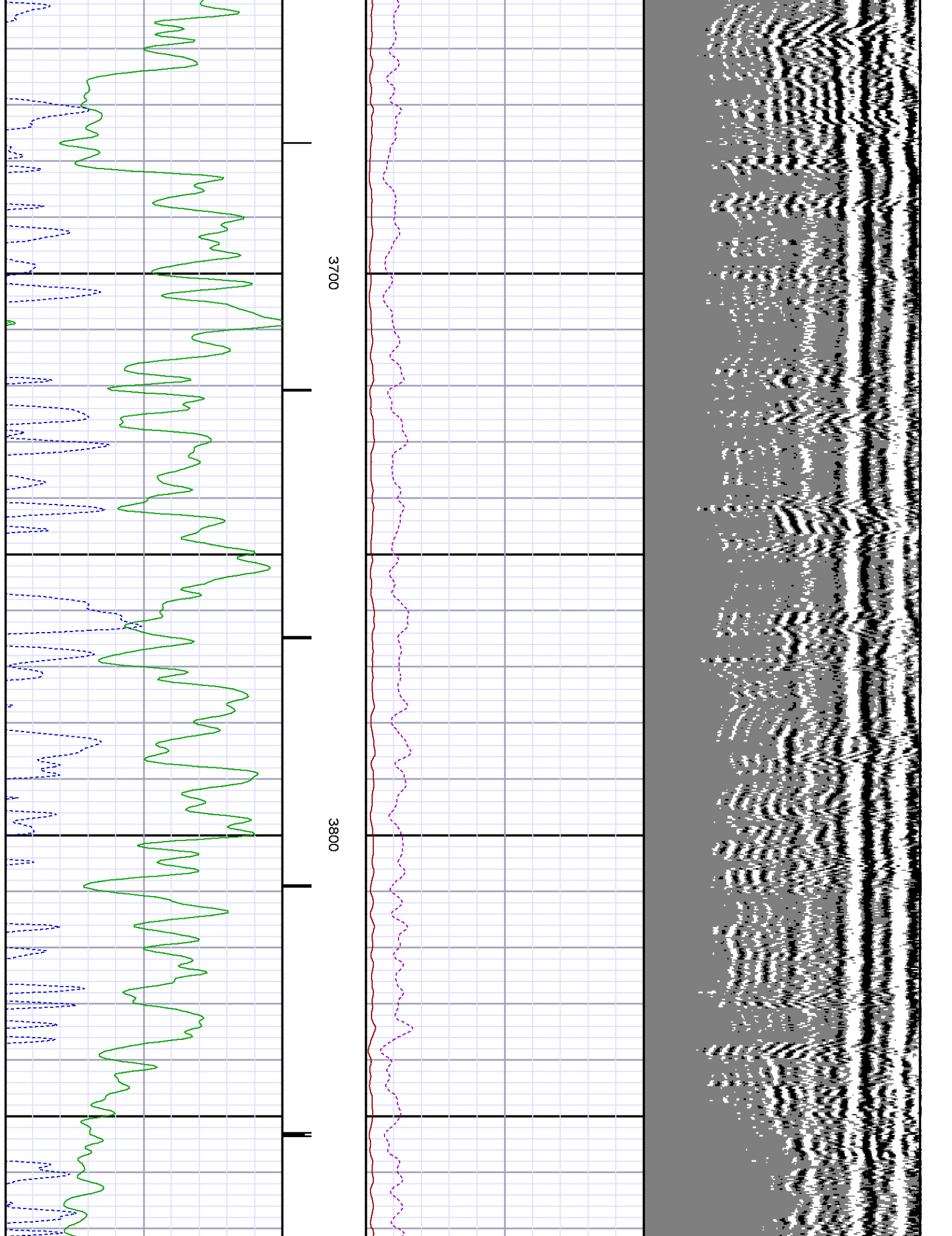




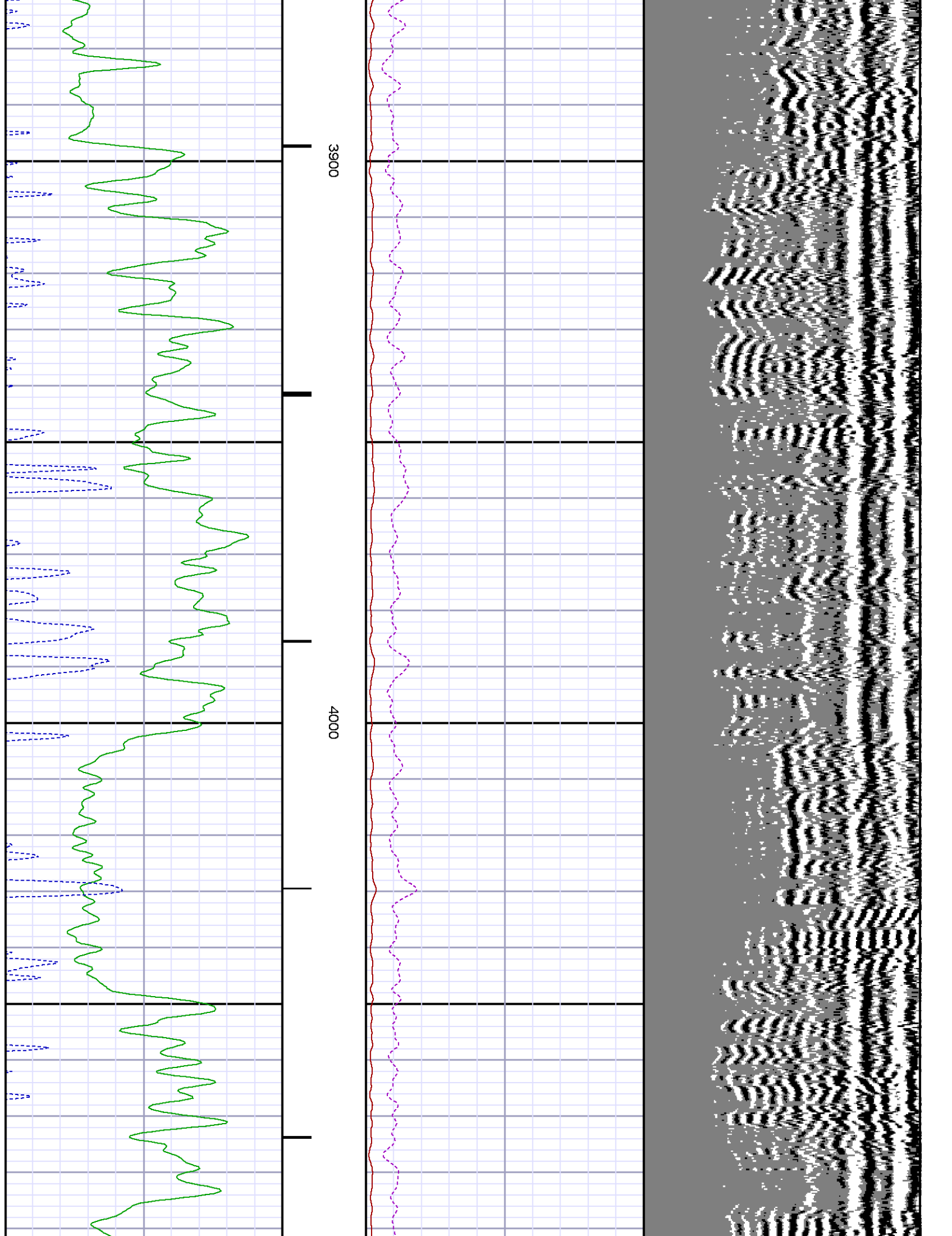


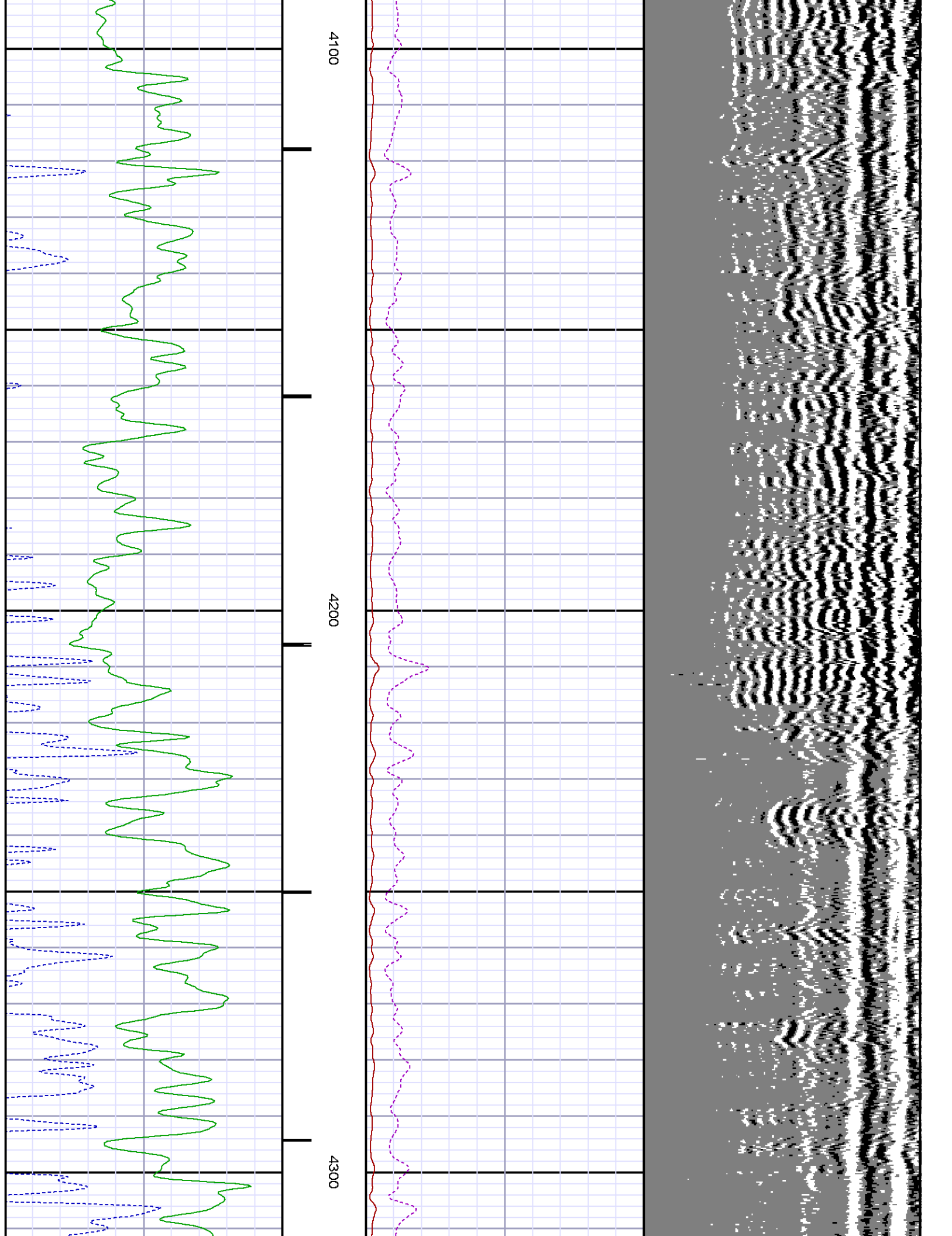


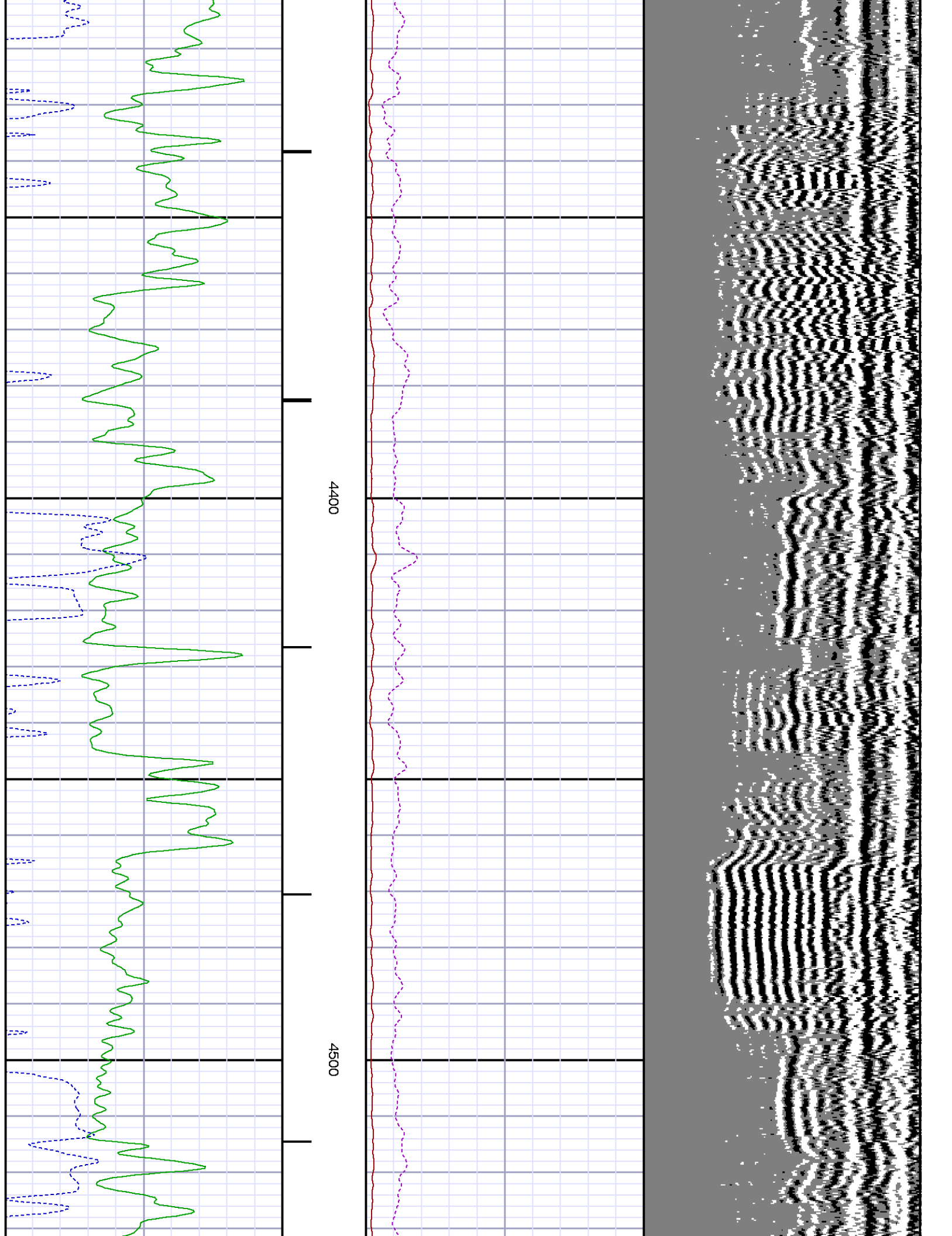


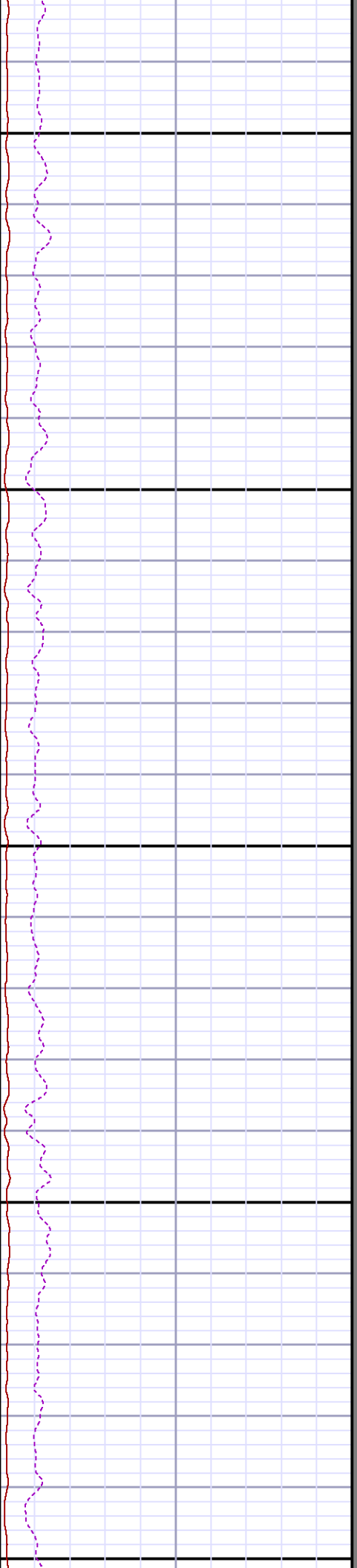
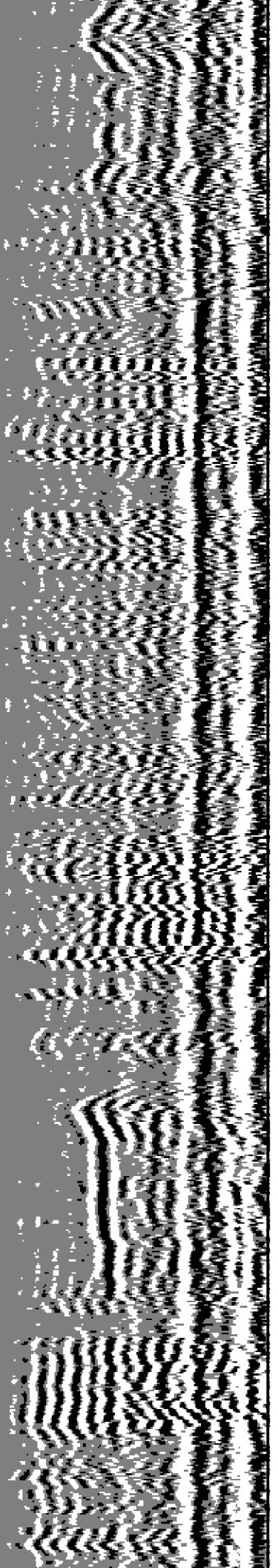






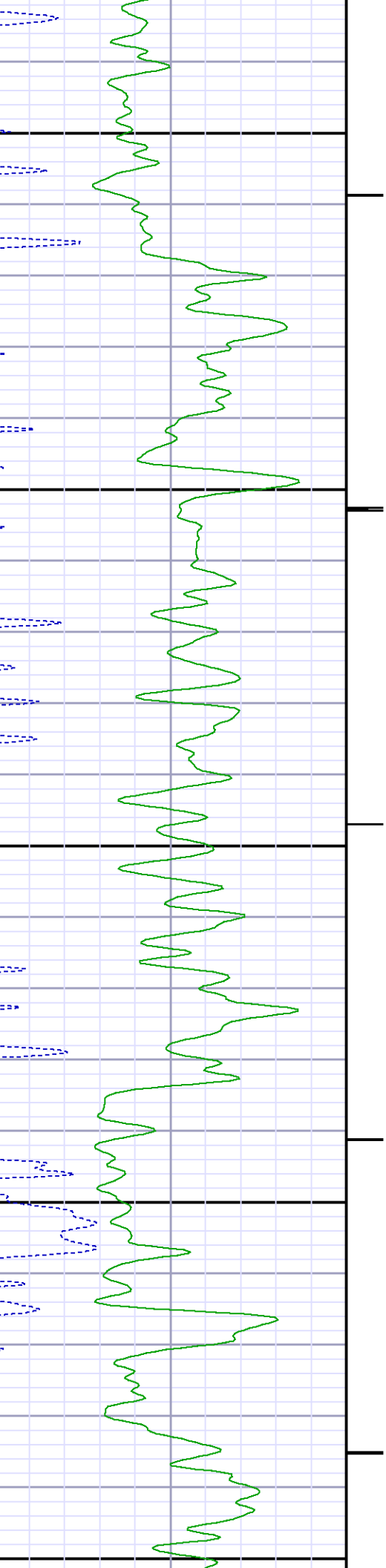


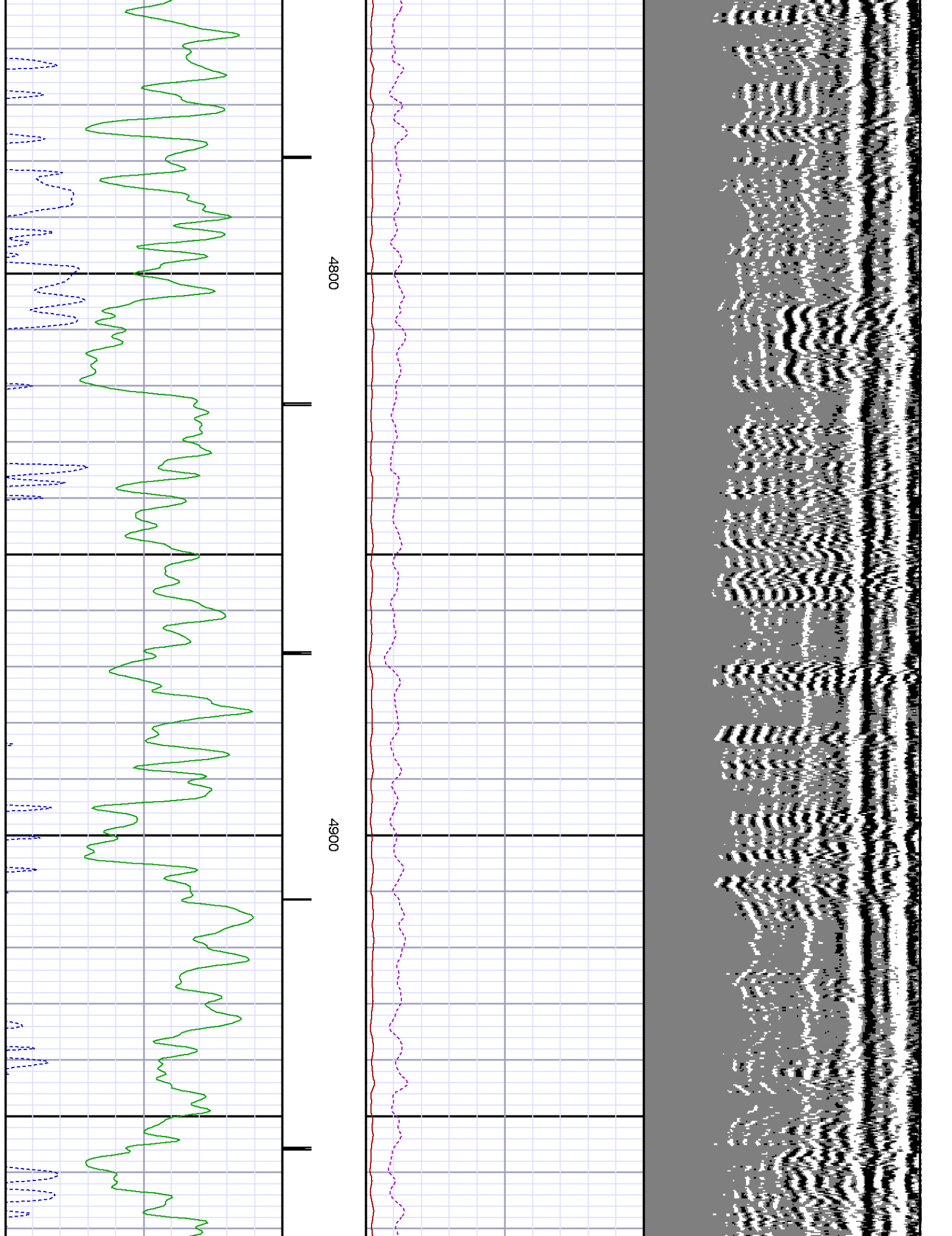


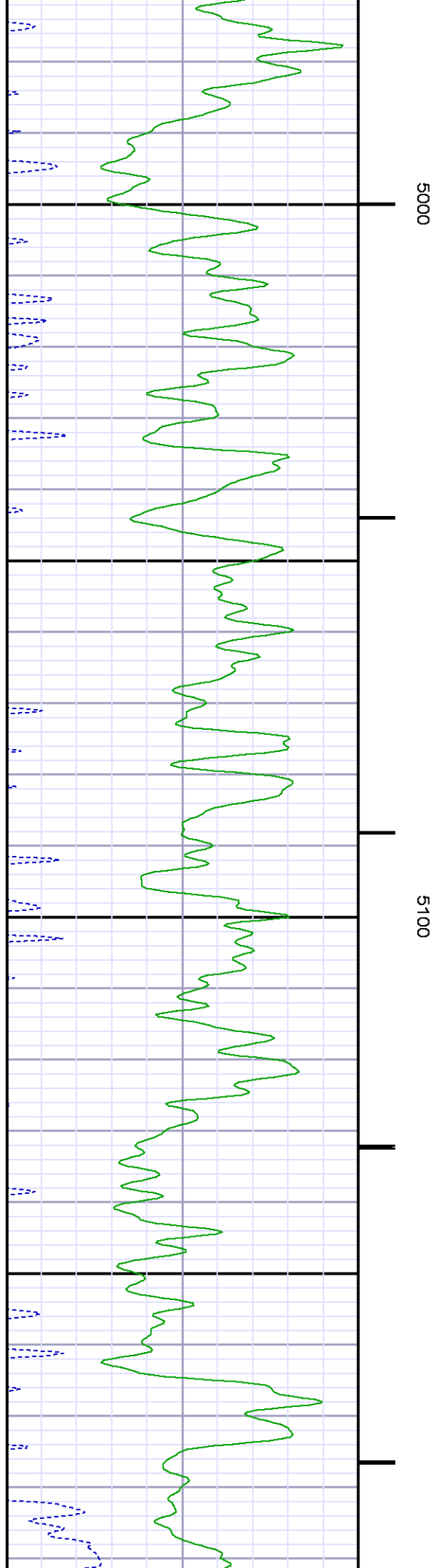
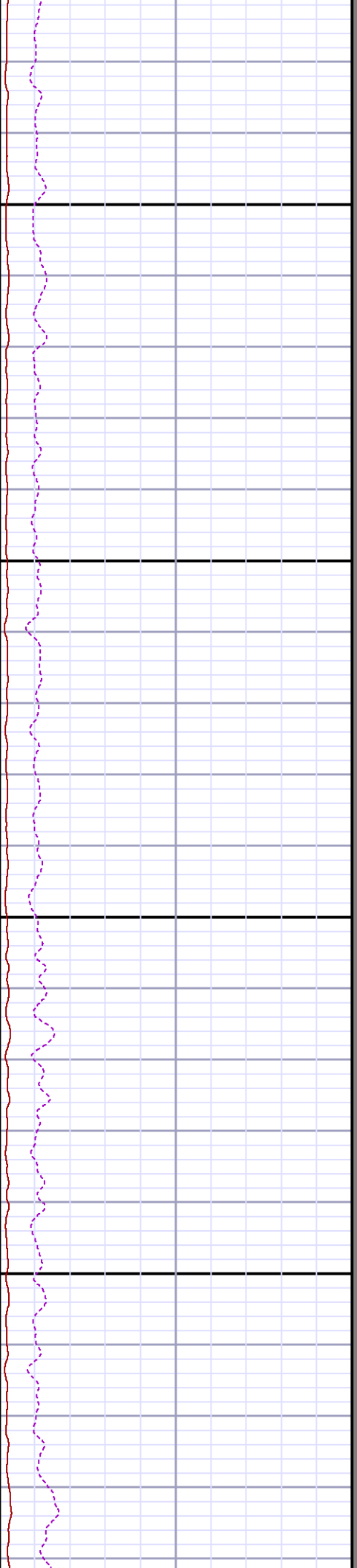
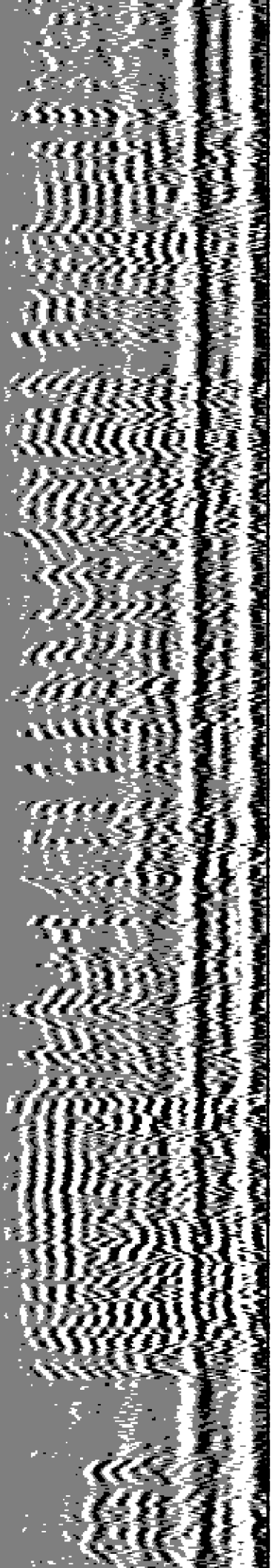


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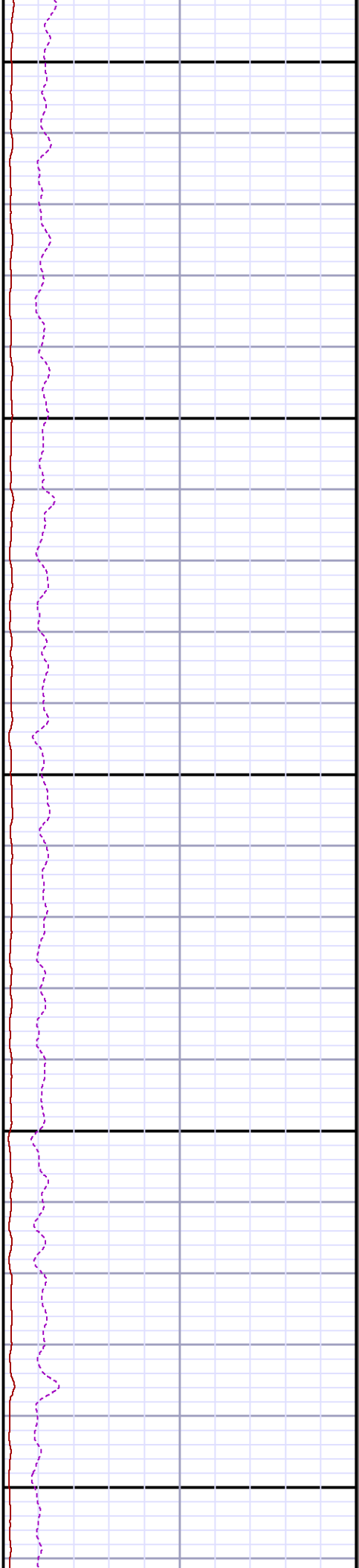
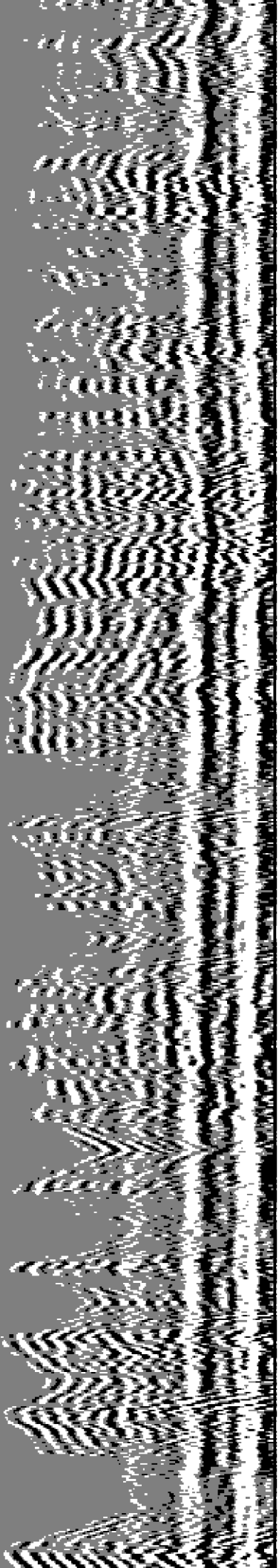
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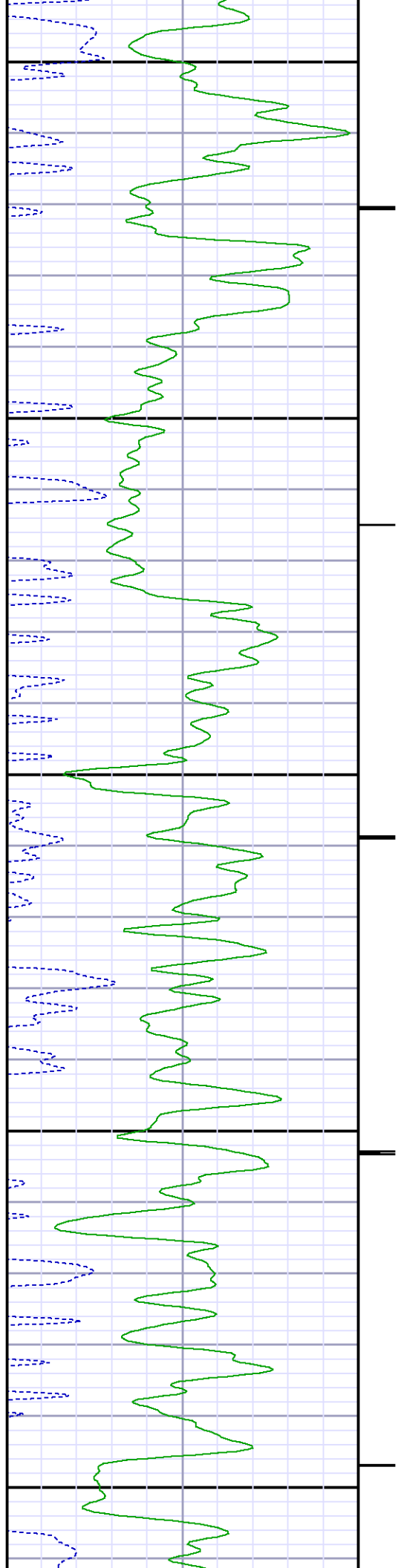


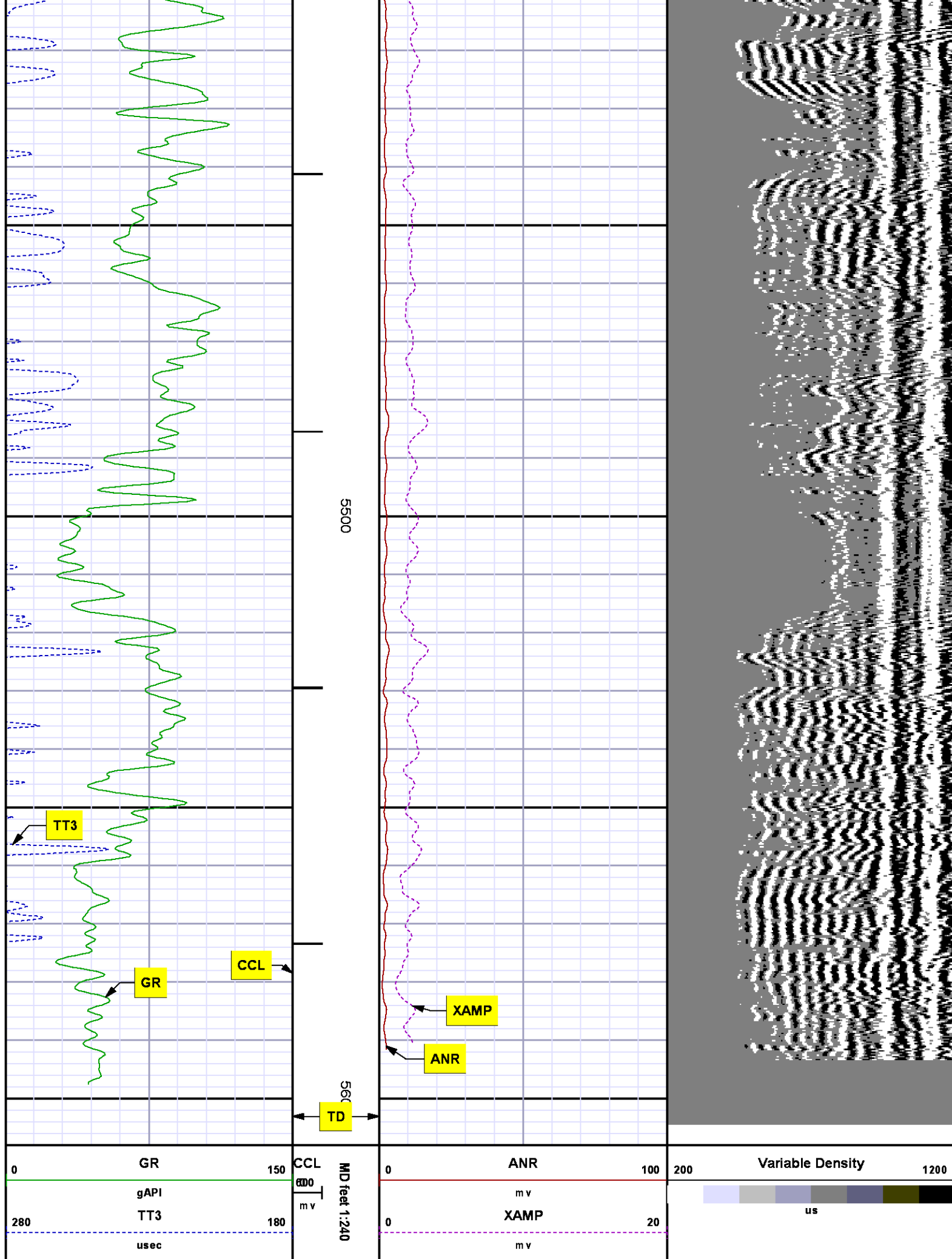


5200

5300

5400





# SECONDARY PRESENTATION

## 0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	28.125	5604.250
RAL	Amp Gate Start Near	195.000	usec	28.125	5604.250
RAL	Amp Gate Start Radial	195.000	usec	28.125	5604.250
RAL	Amp Gate Width Far	25.000	usec	28.125	5604.250
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RAL	casing od	4.500	inches	28.125	5604.250
RAL	casing wt	11.600	lbm/ft	28.125	5604.250
RAL	FB Start Far	291.900	usec	28.125	5604.250
RAL	FB Start Near	175.391	usec	28.125	5604.250
RAL	FB Start Radial	175.391	usec	28.125	5604.250
RAL	FB Thresh Far	10.000	mv	28.125	5604.250
RAL	FB Thresh Near	4.000	mv	28.125	5604.250
RAL	FB Thresh Radial	4.000	mv	28.125	5604.250
RAL	Fluid Travel Time	200.000	usec/ft	28.125	5604.250

### DEPTH OFFSETS

(for Acquired Curves)

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

Company : WPX ENERGY

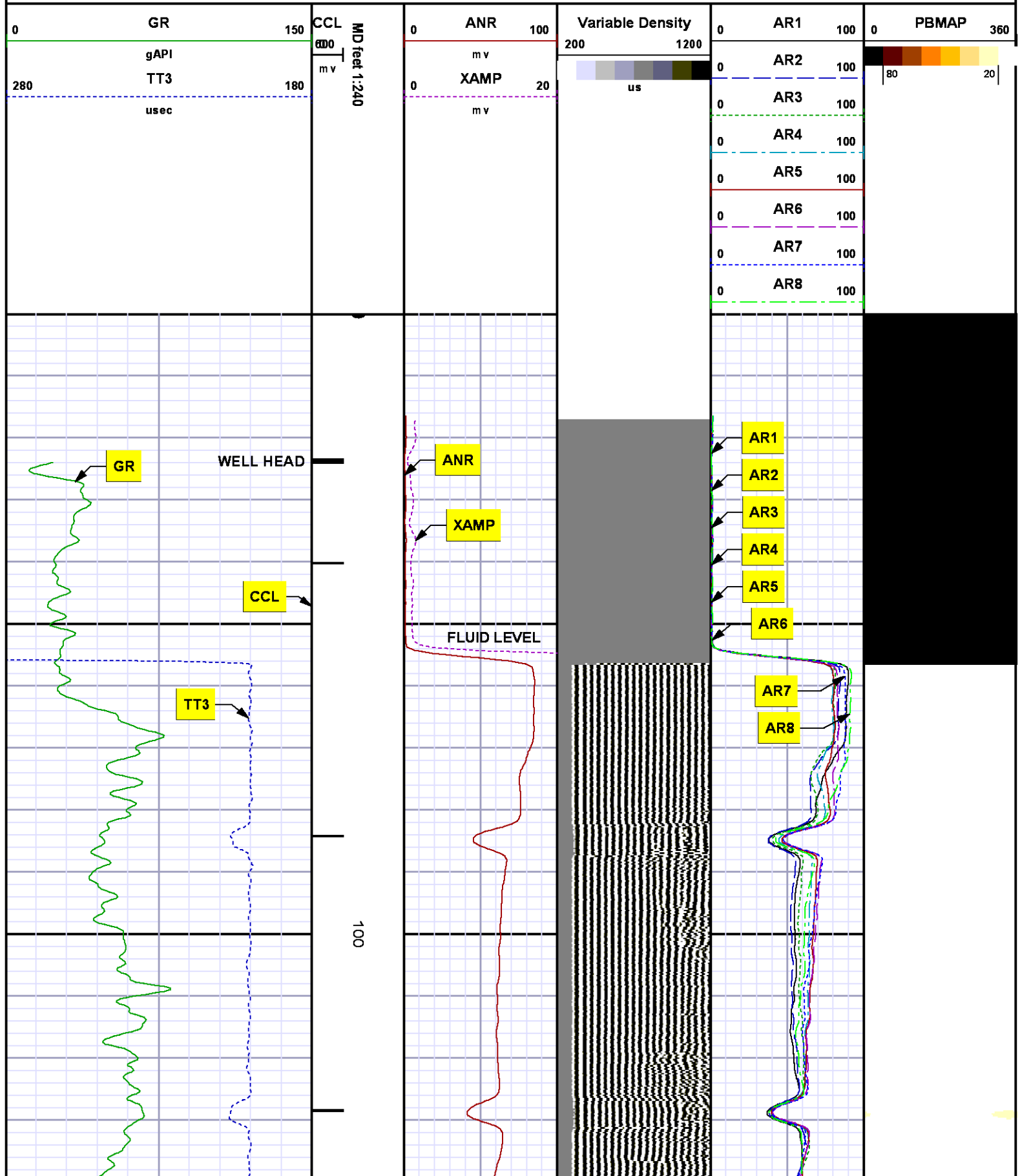
Well : FEDERAL SG 532-28

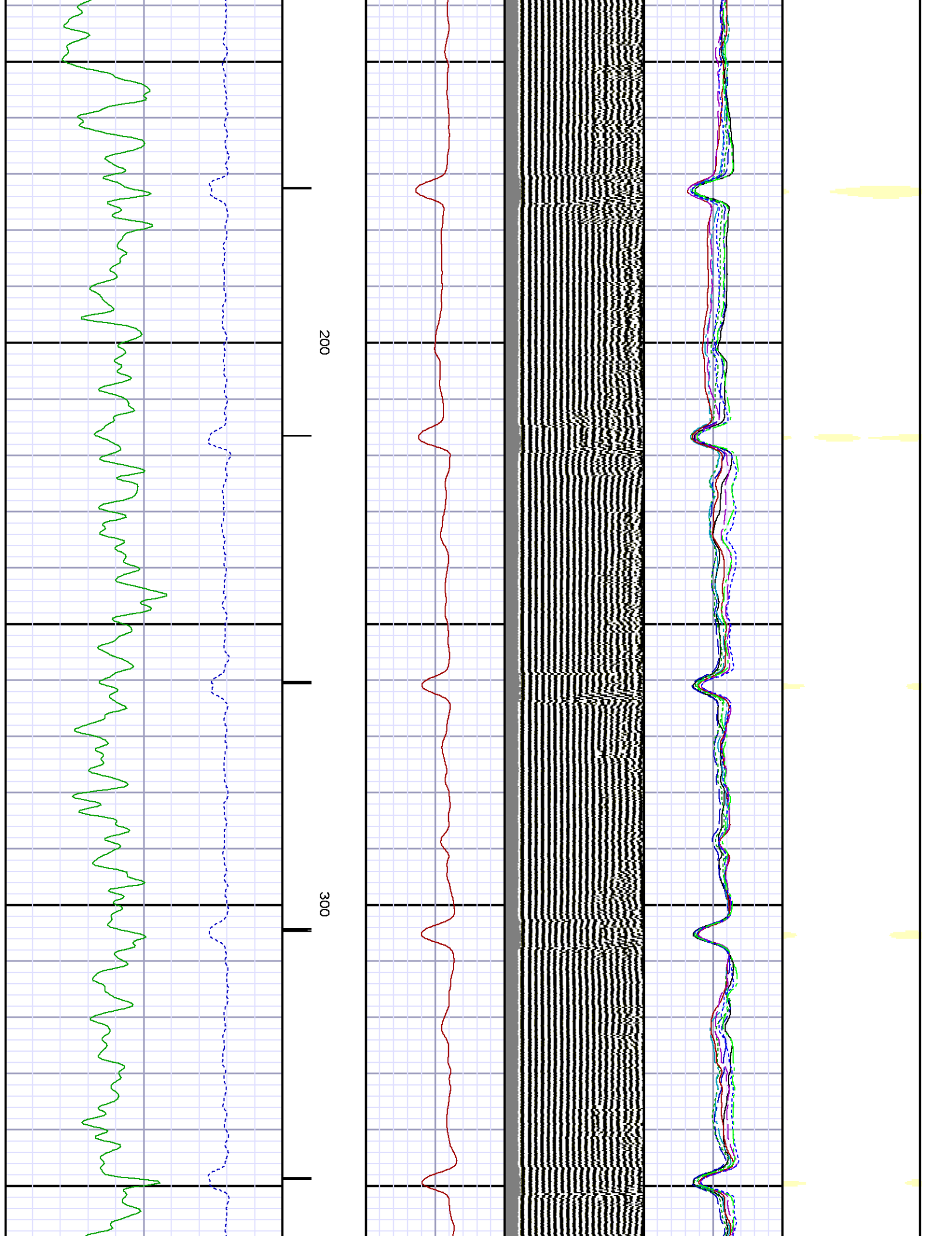
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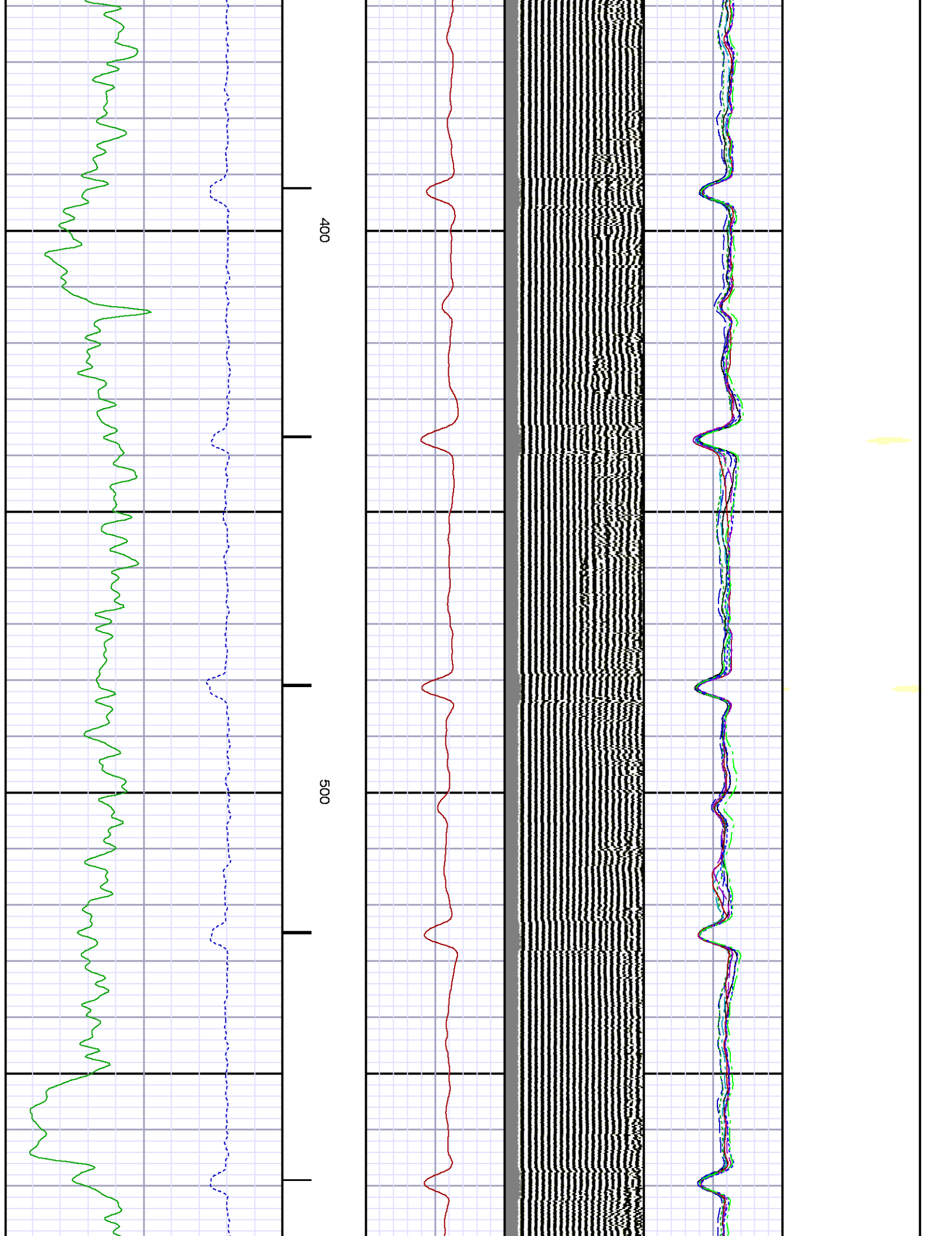
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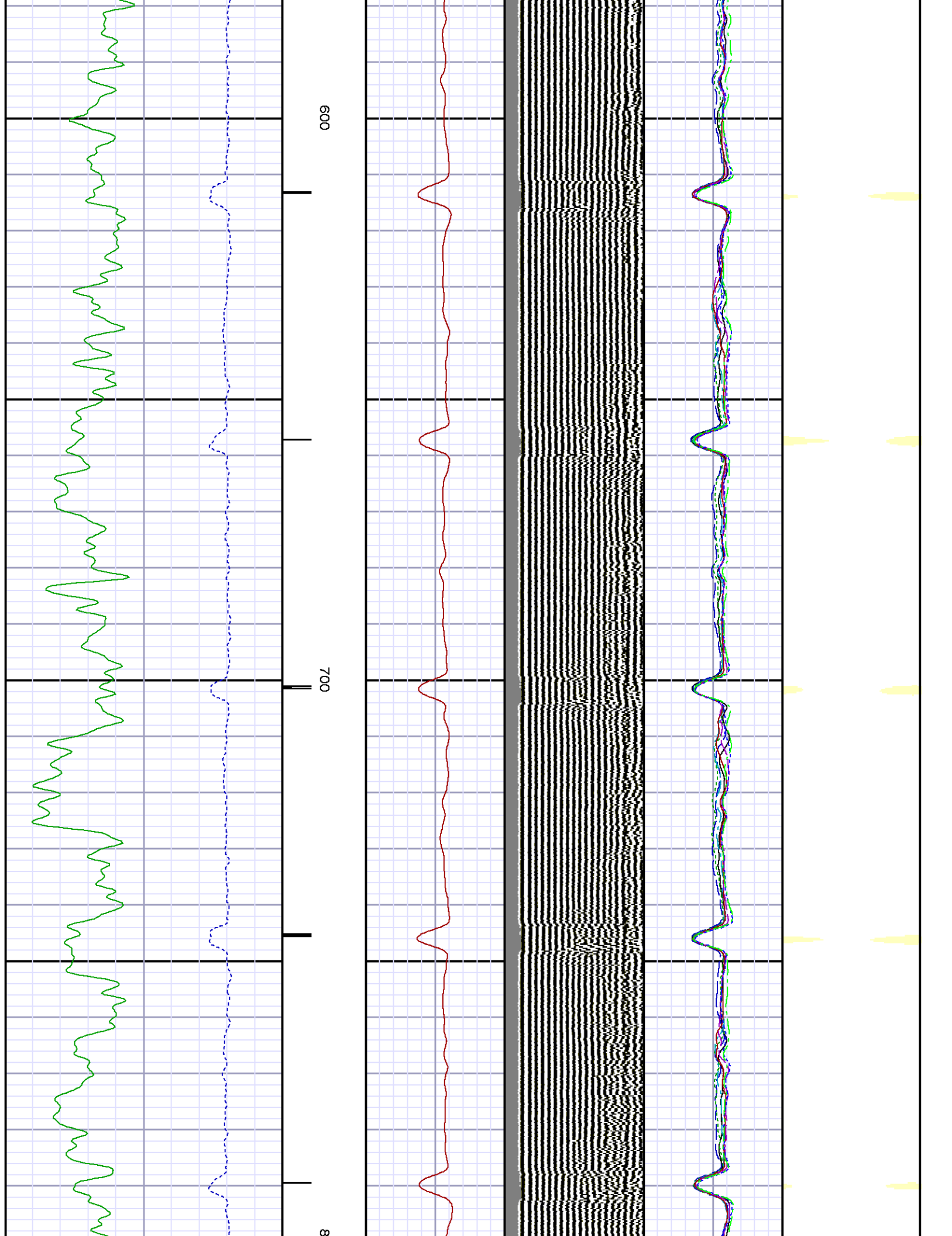
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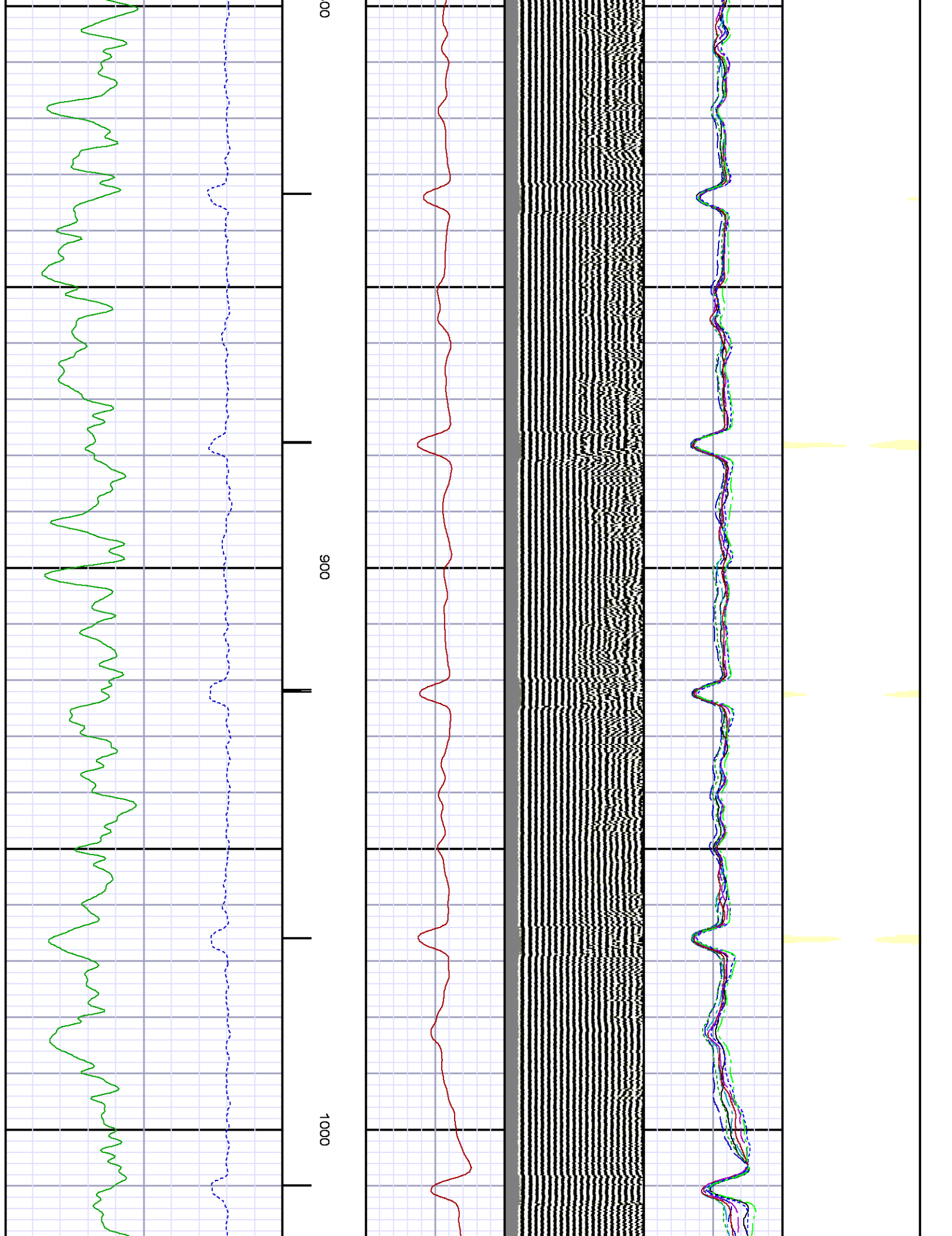


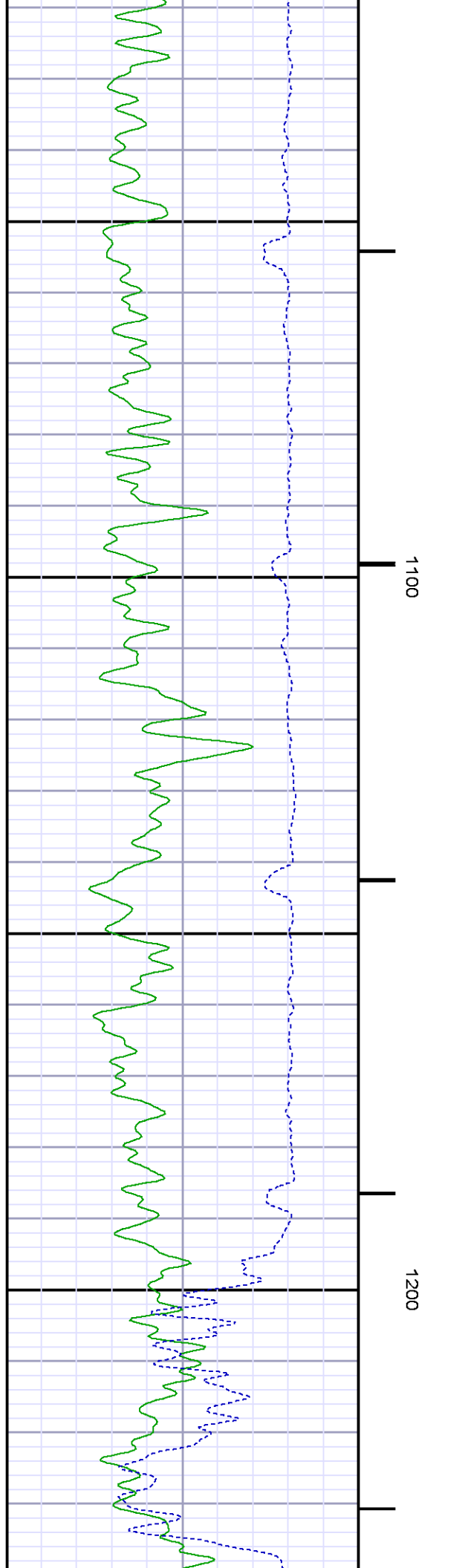
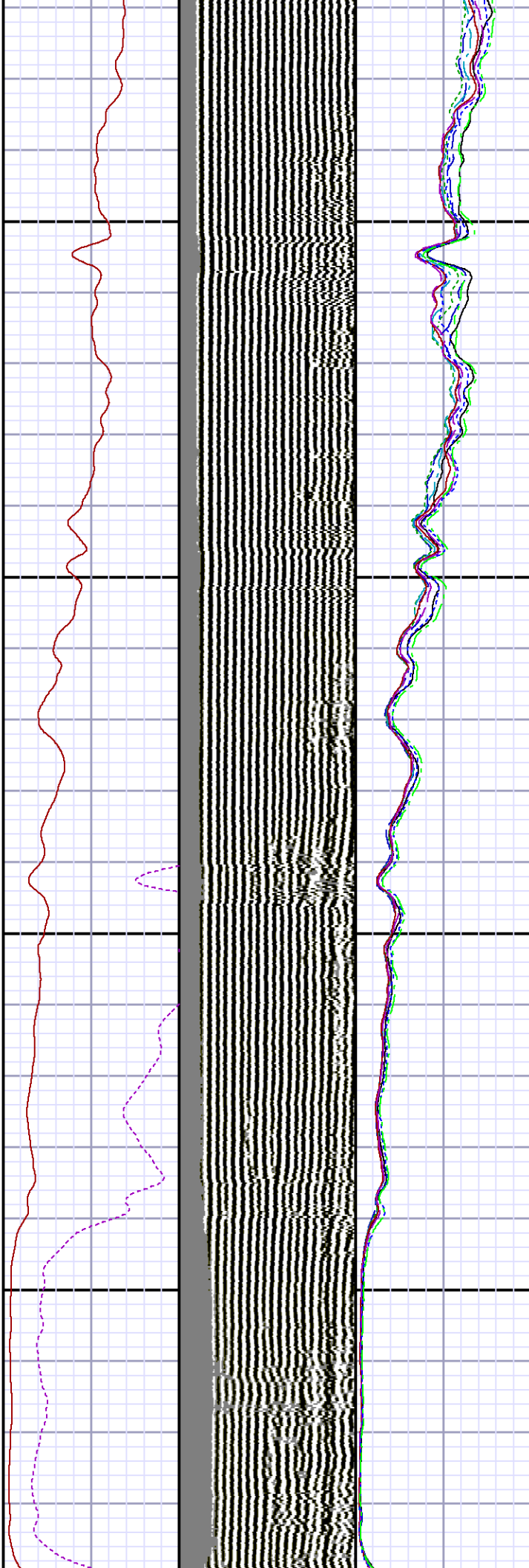
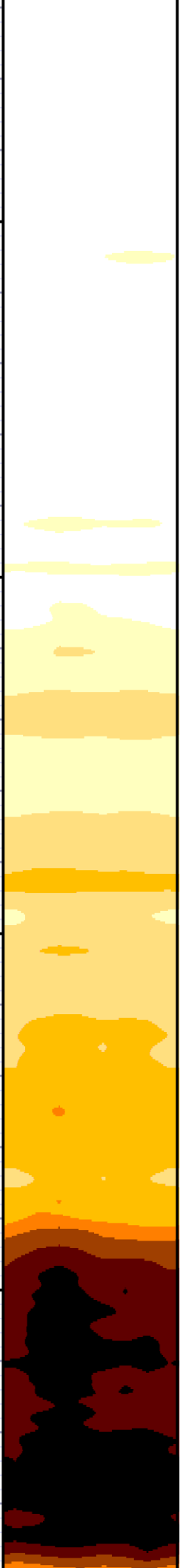


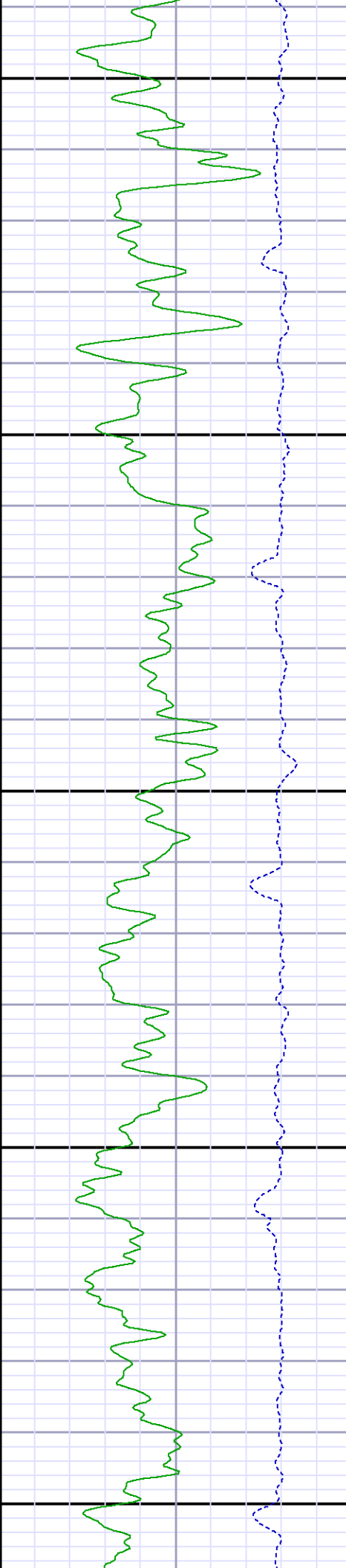
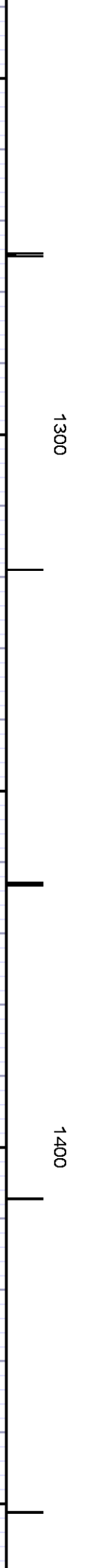
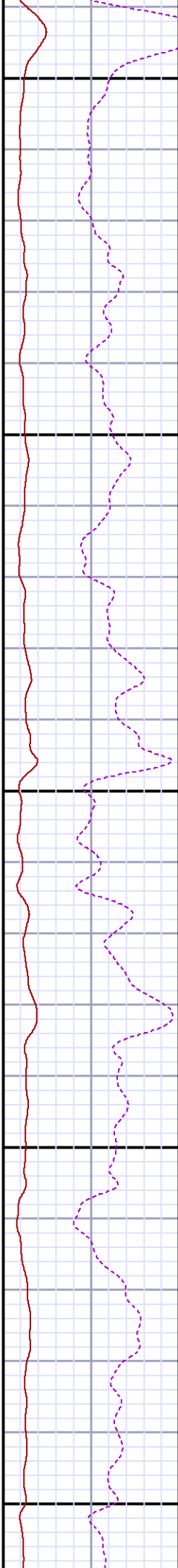
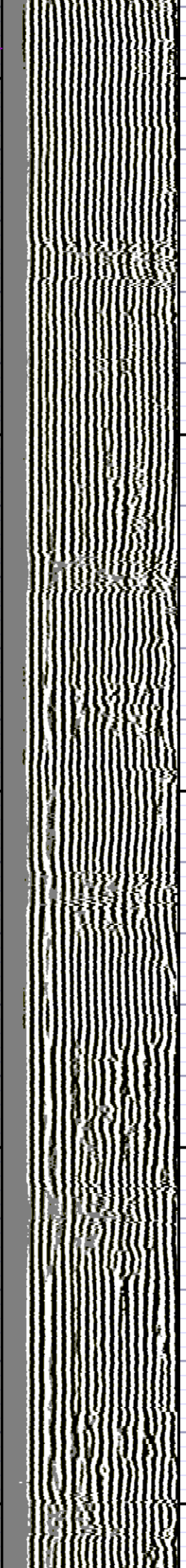
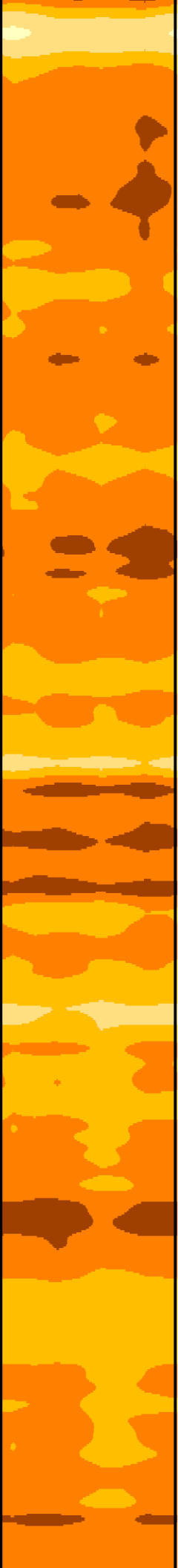


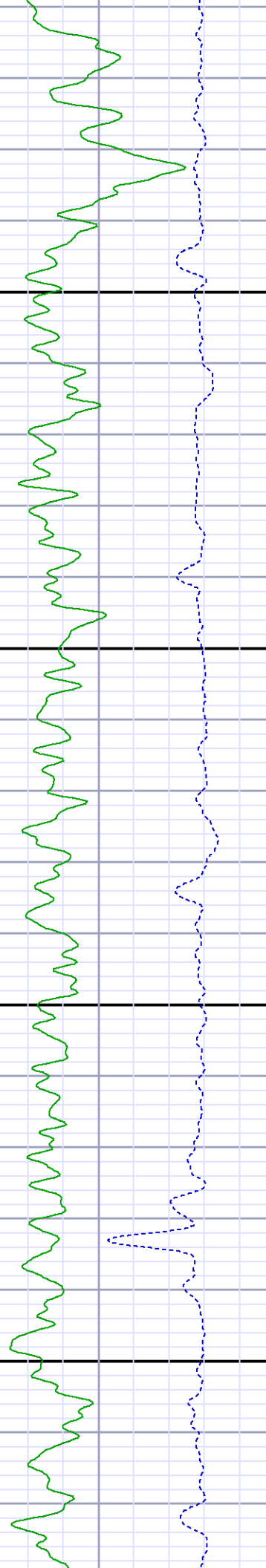
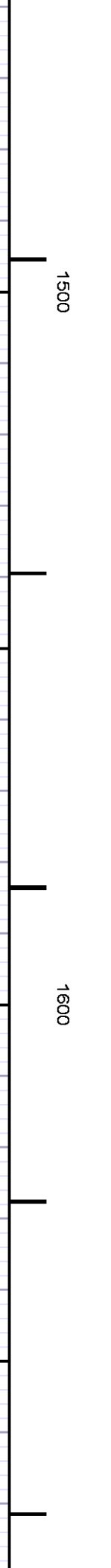
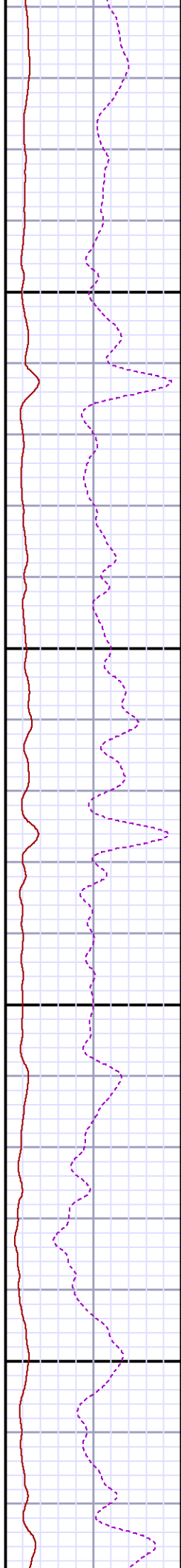
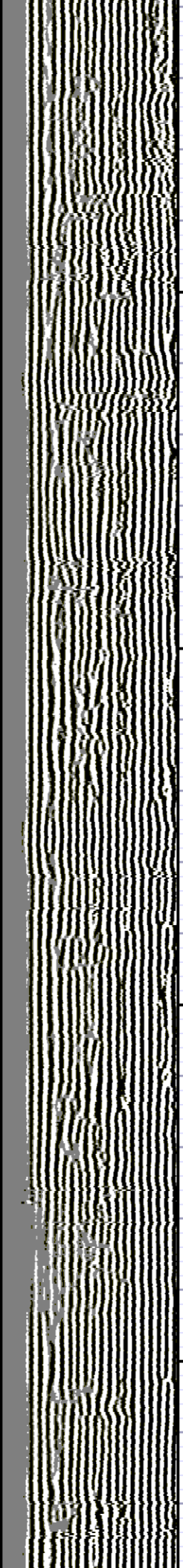
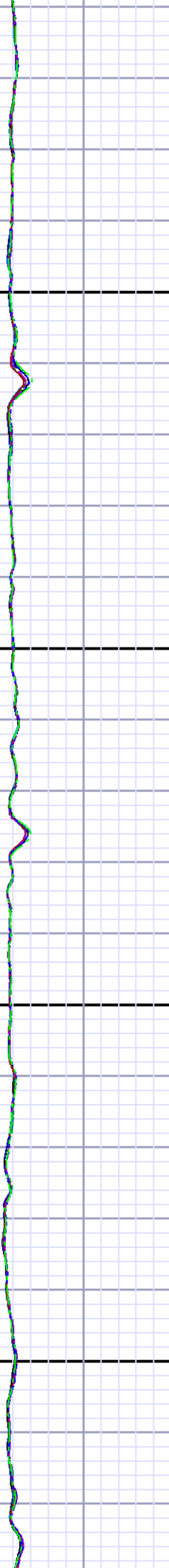
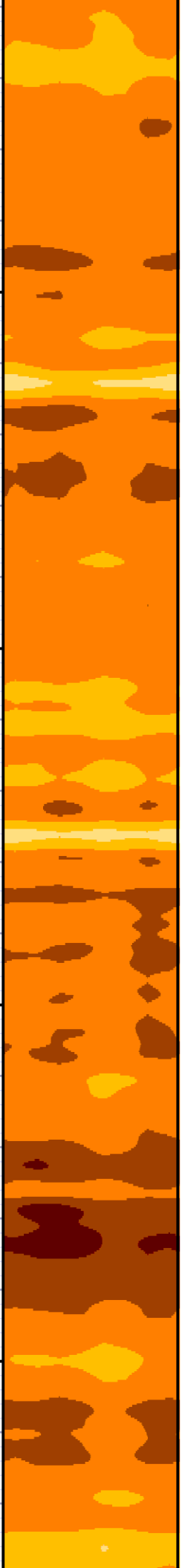




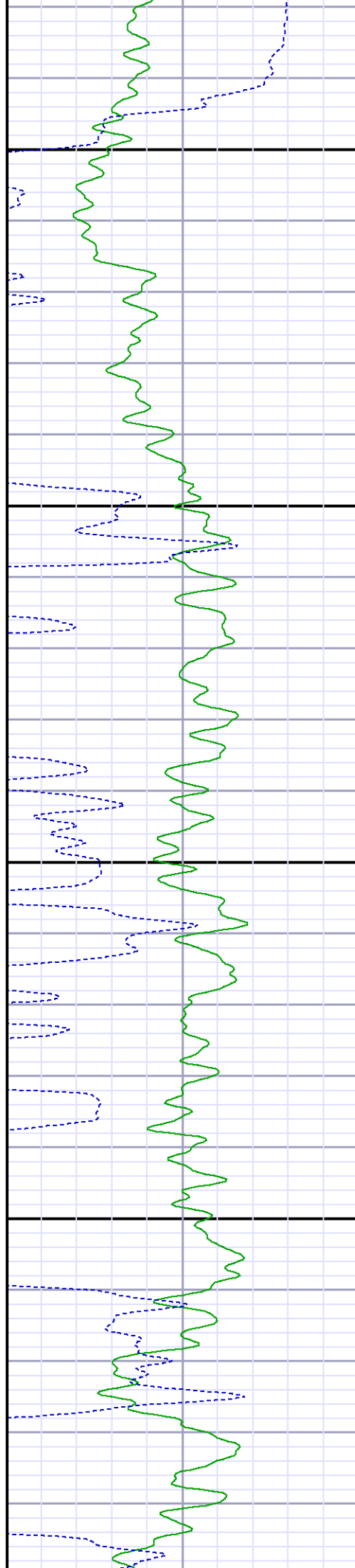
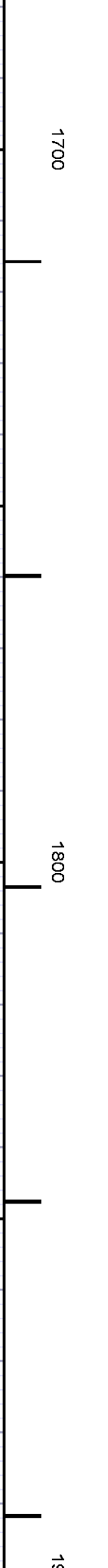
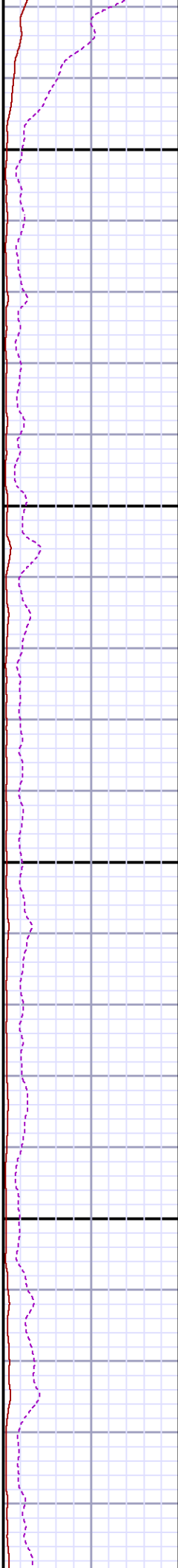
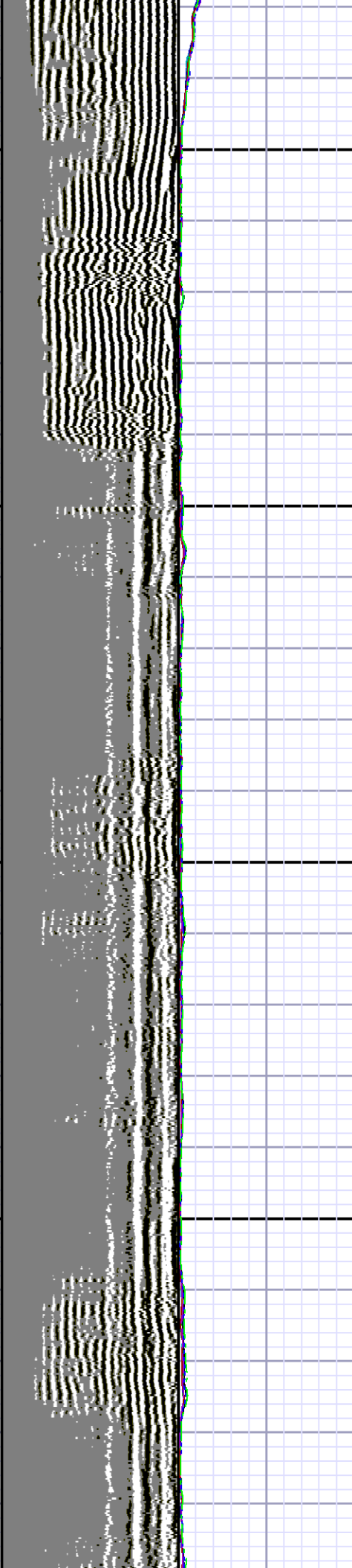




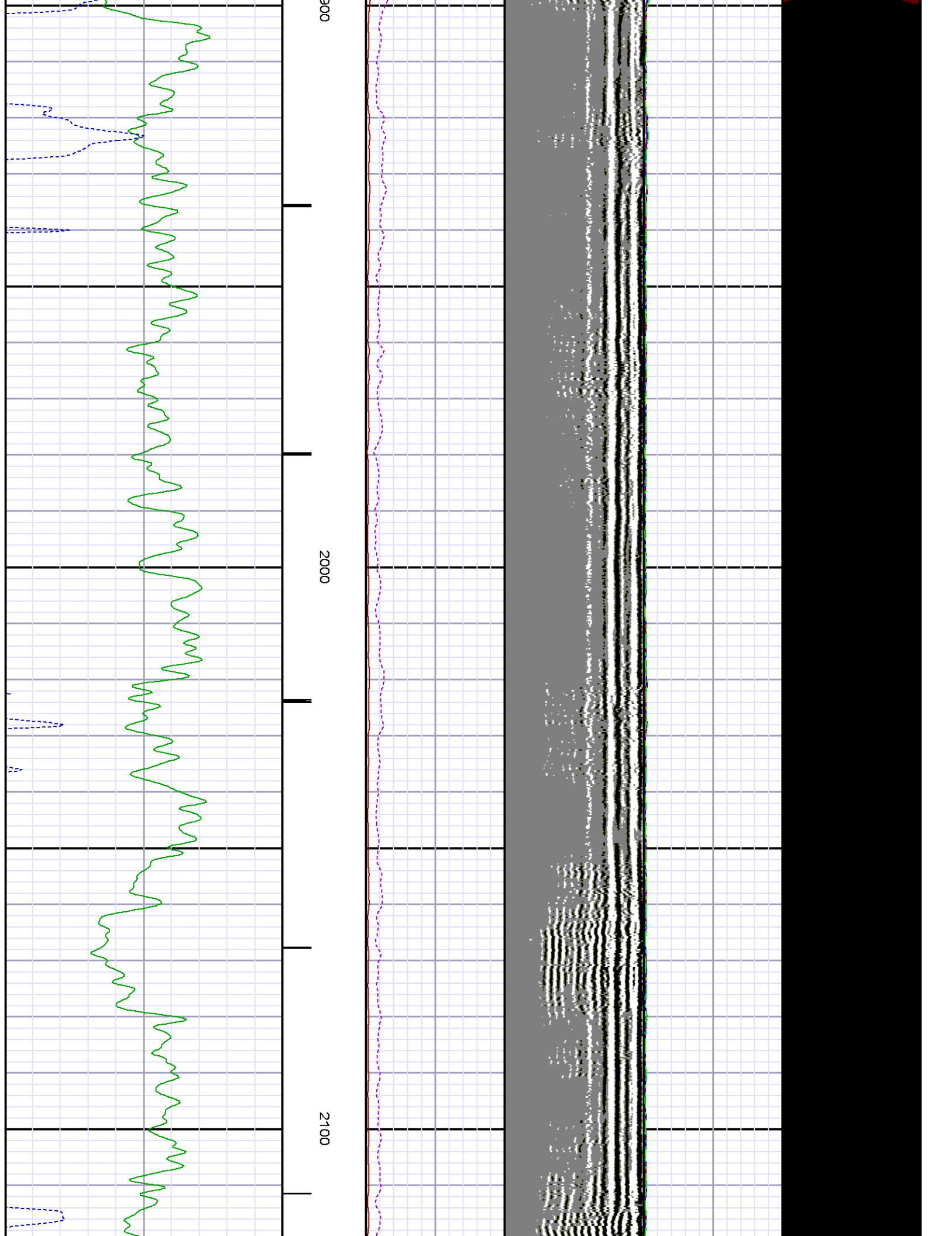


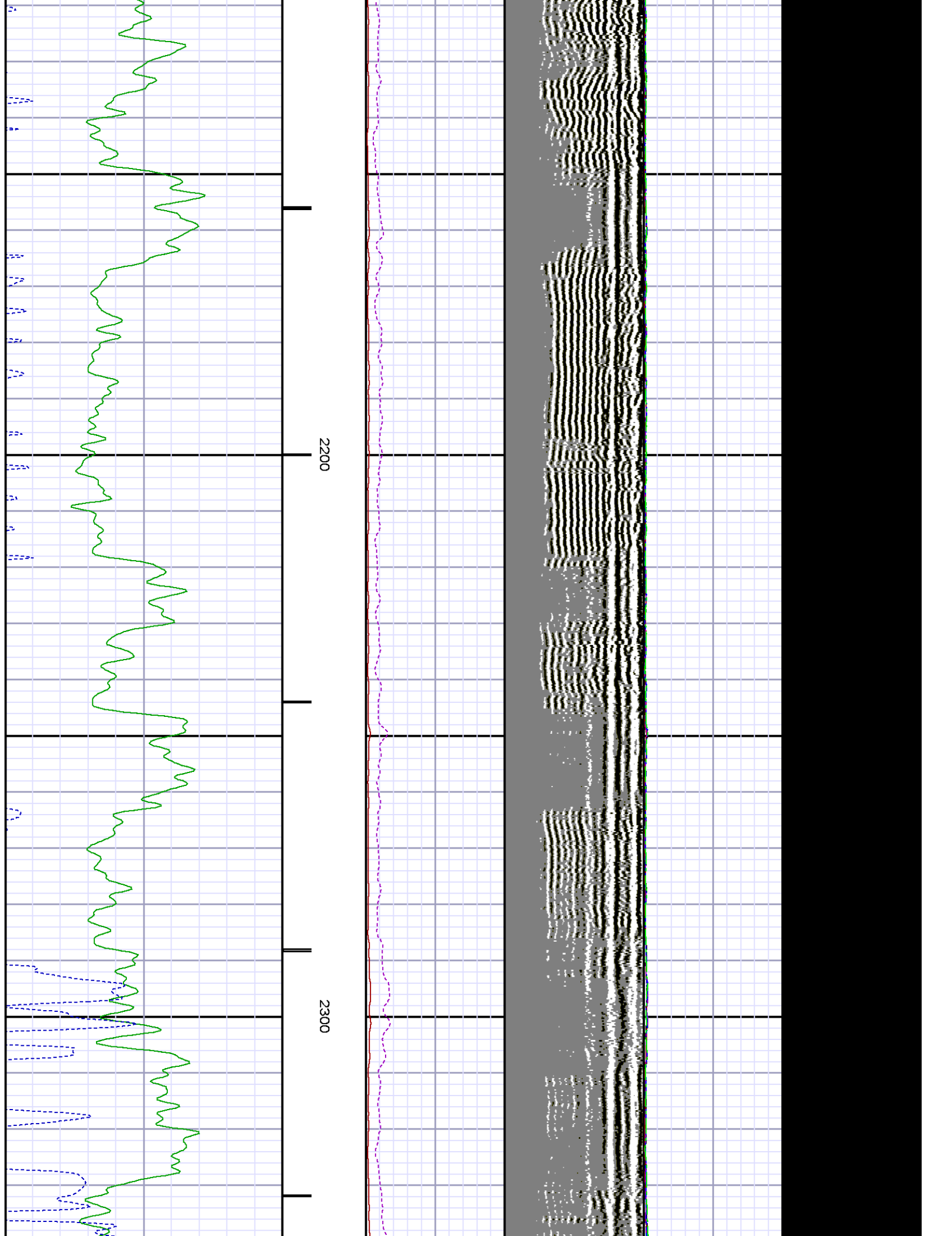


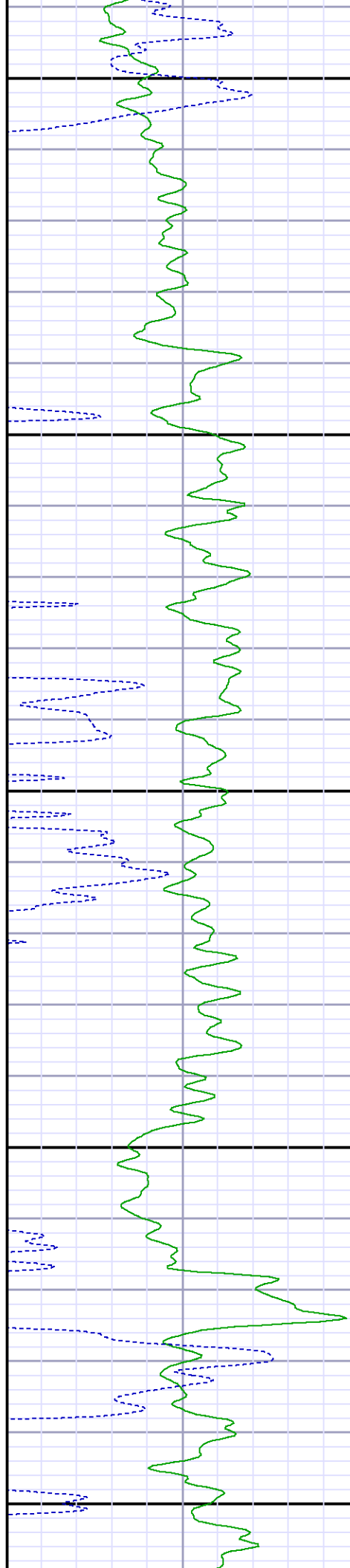
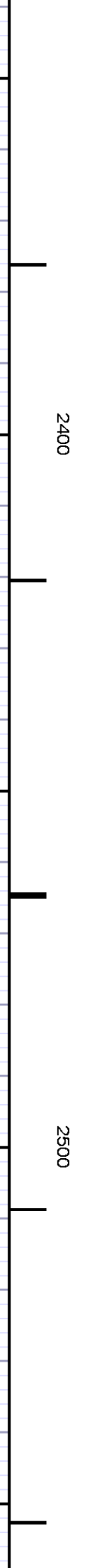
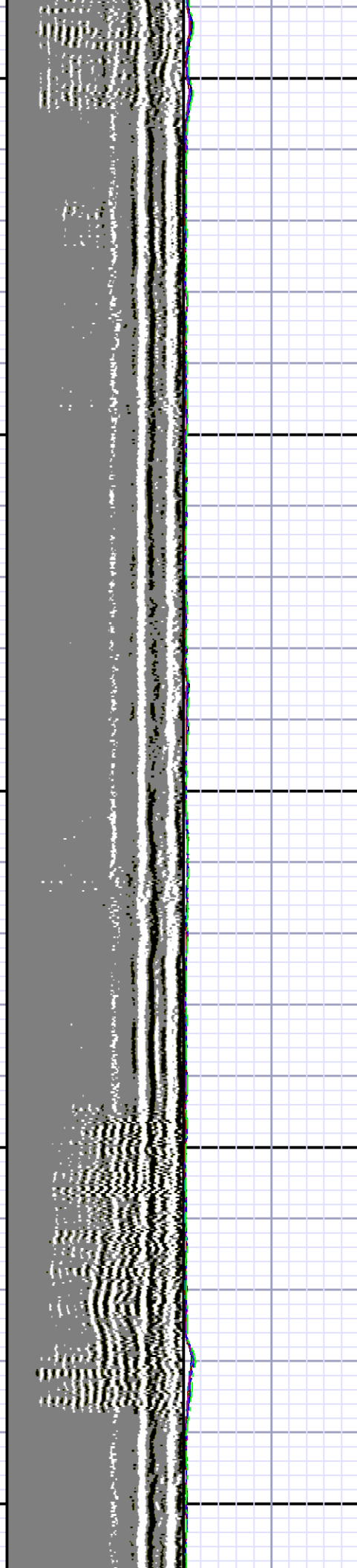


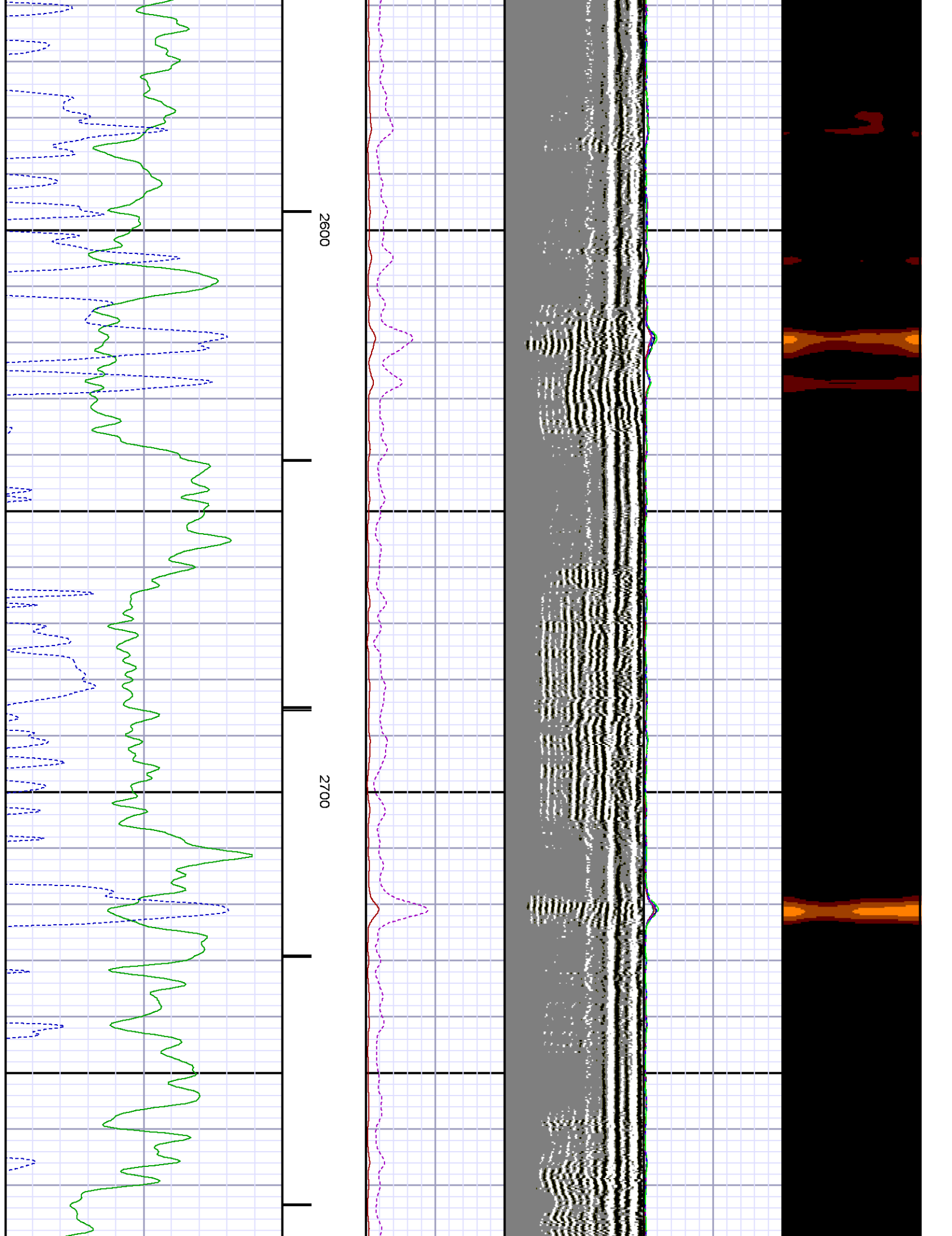


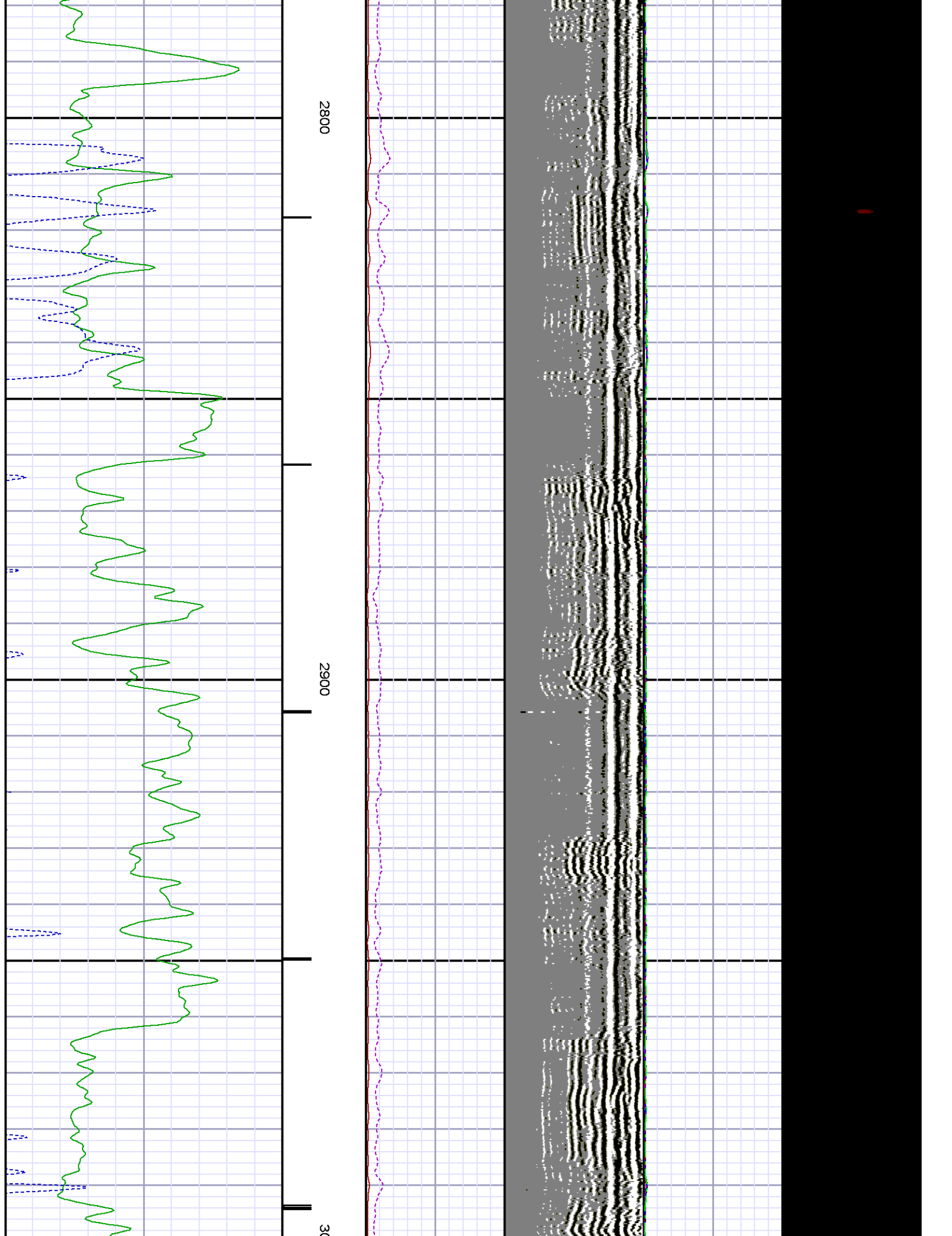


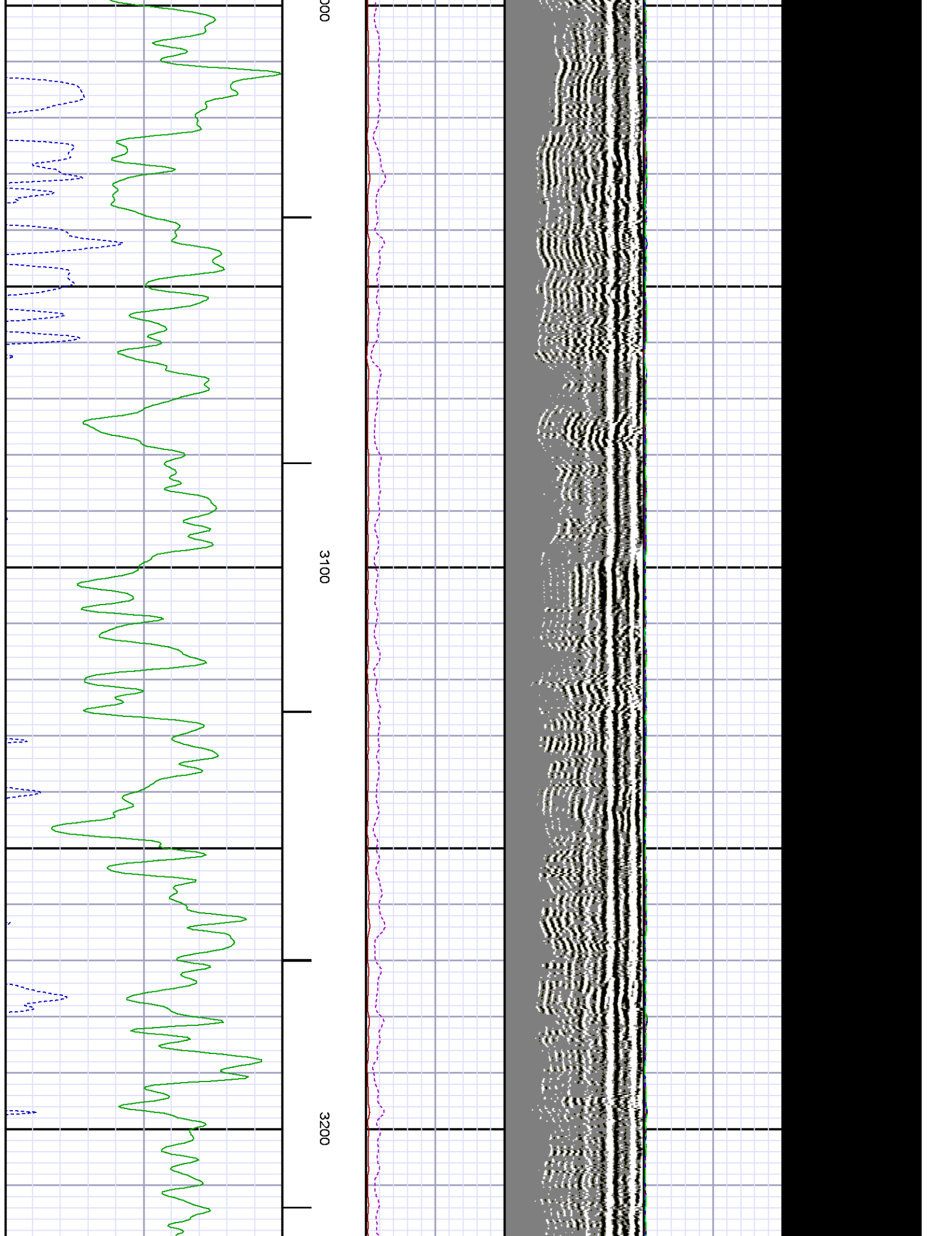




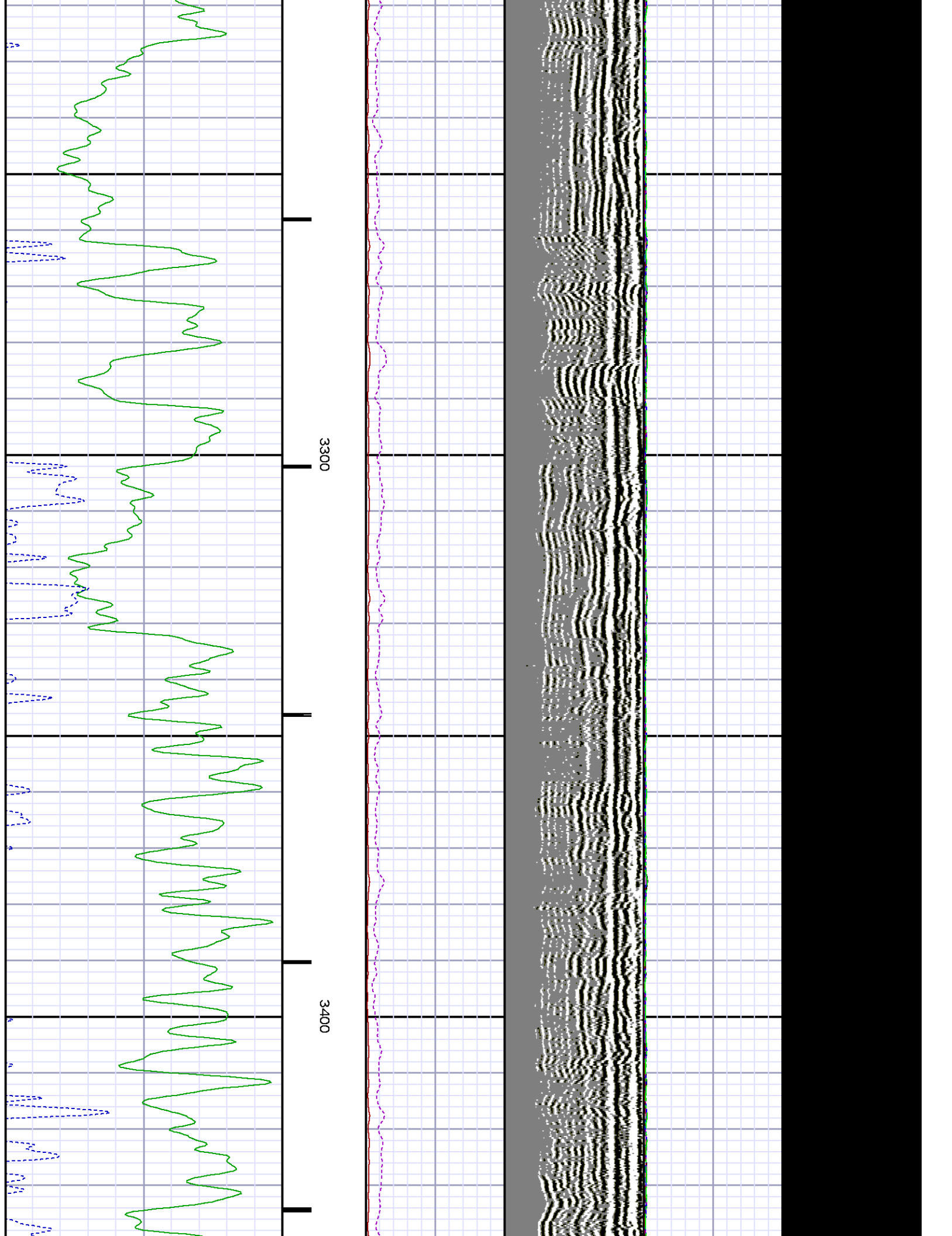


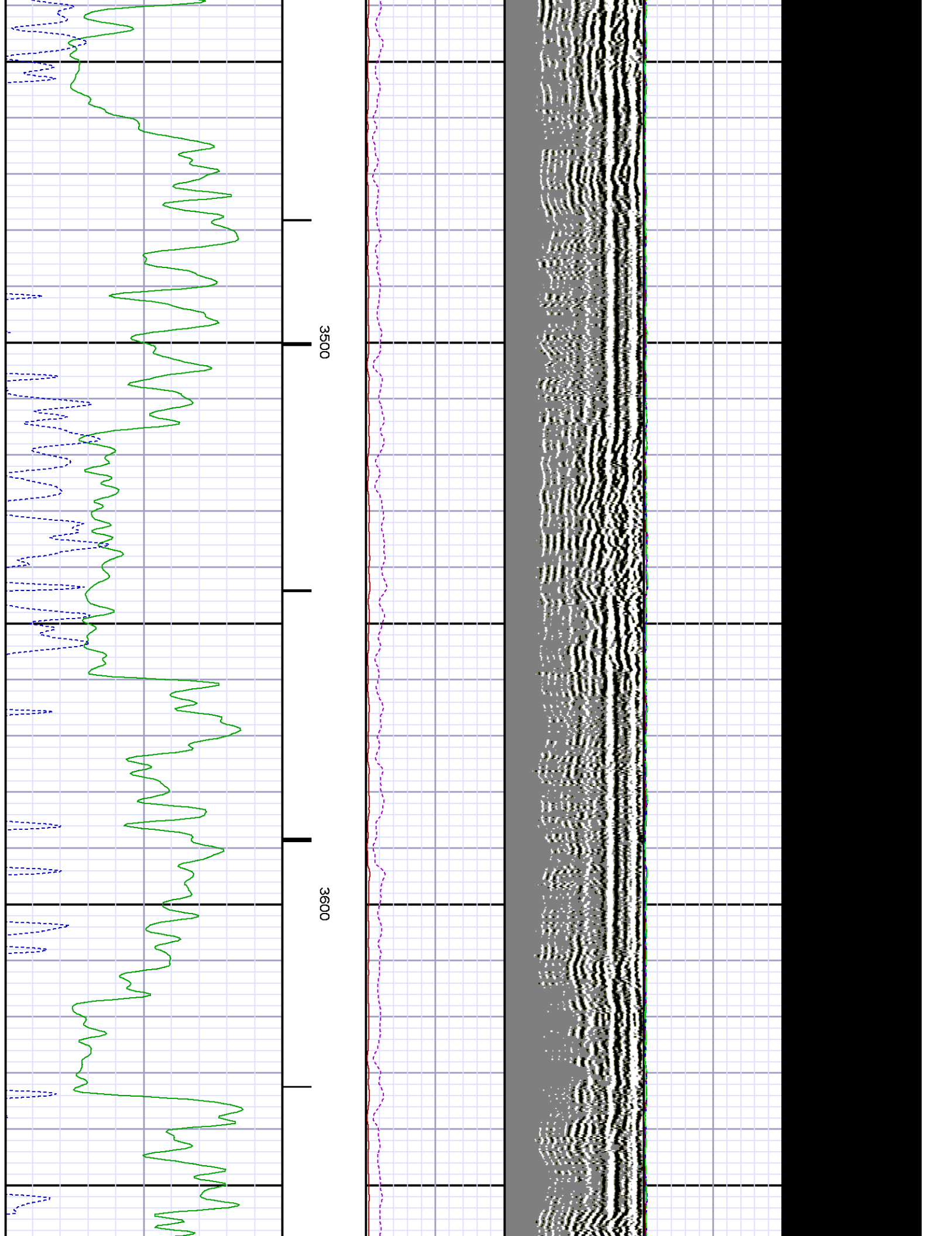


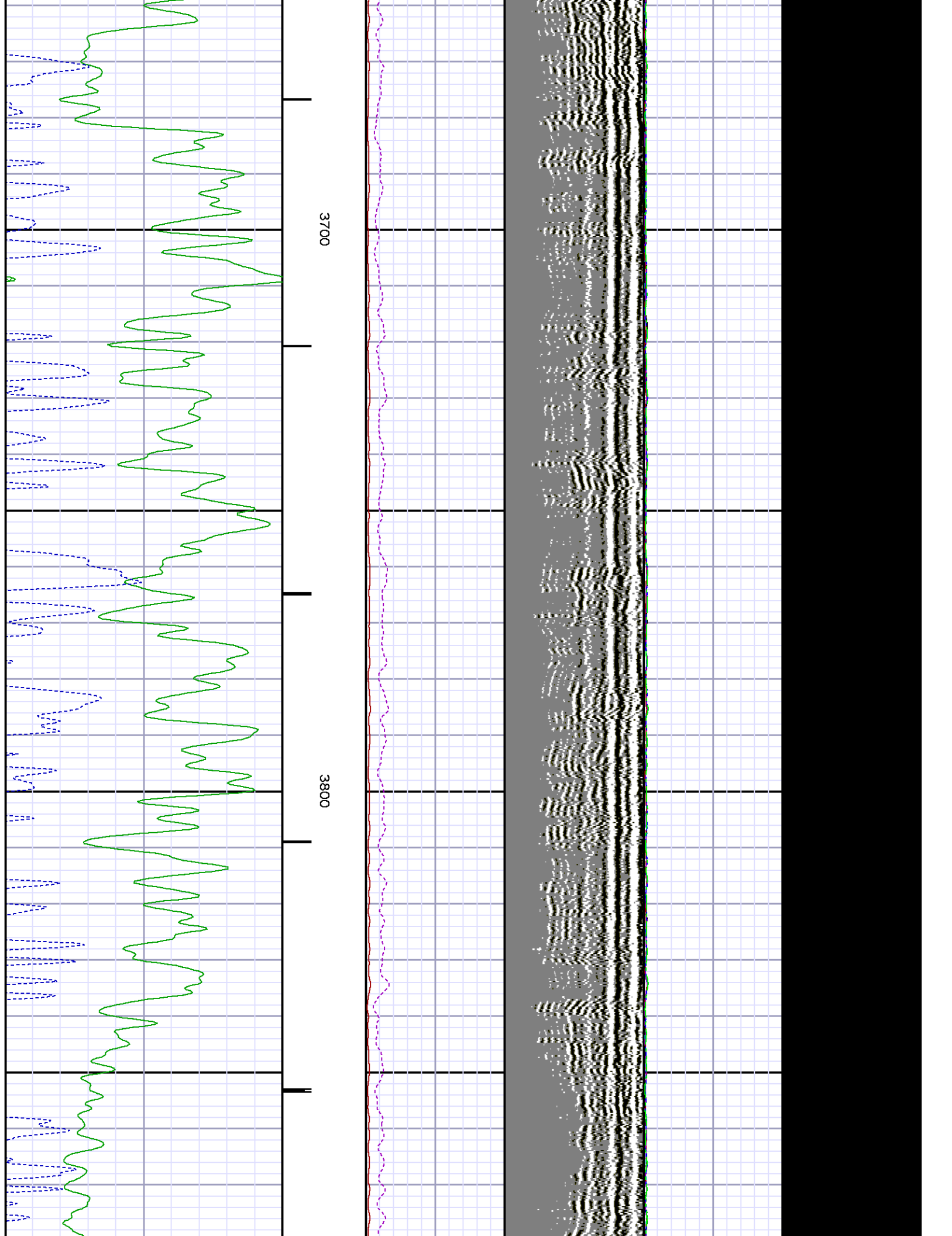


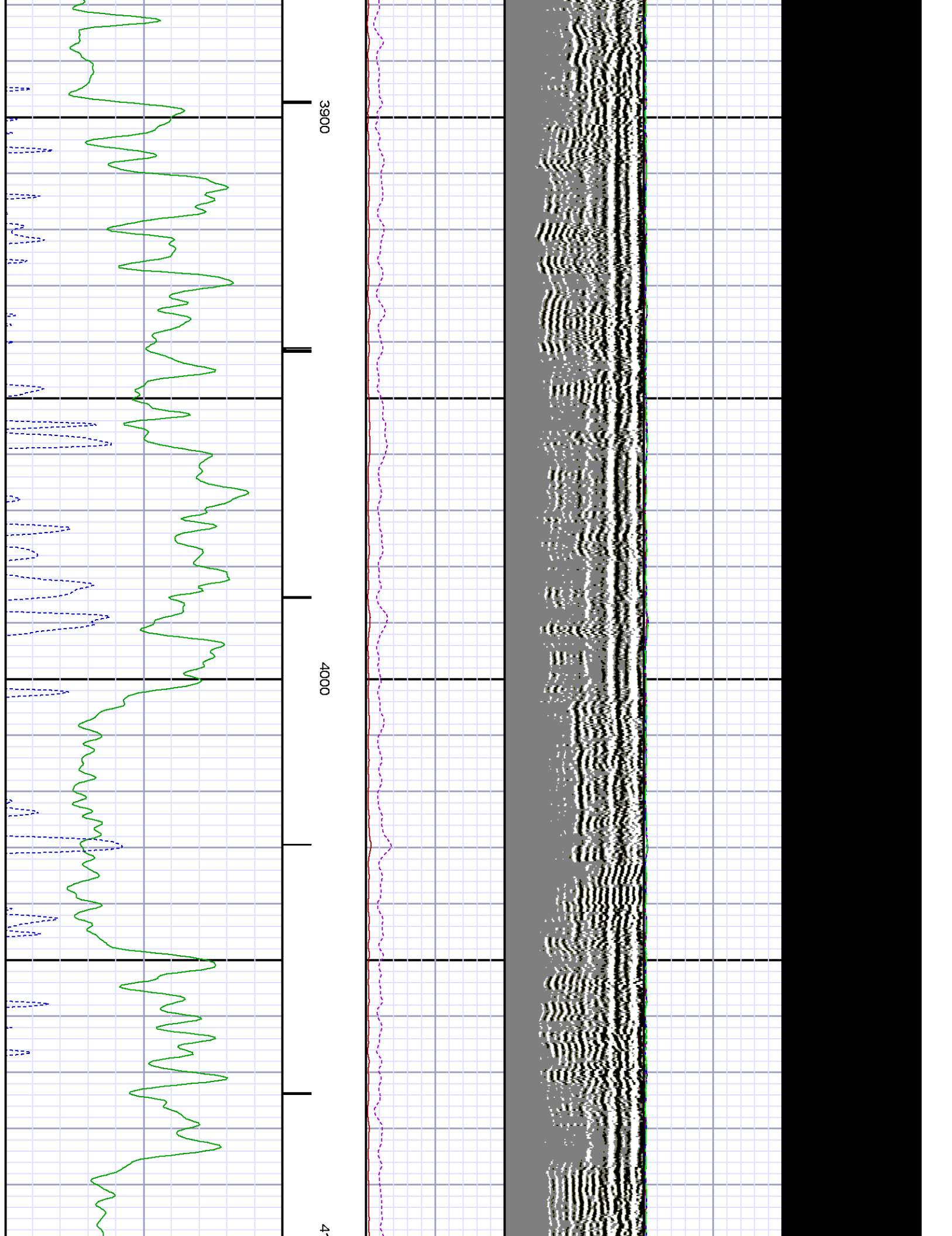


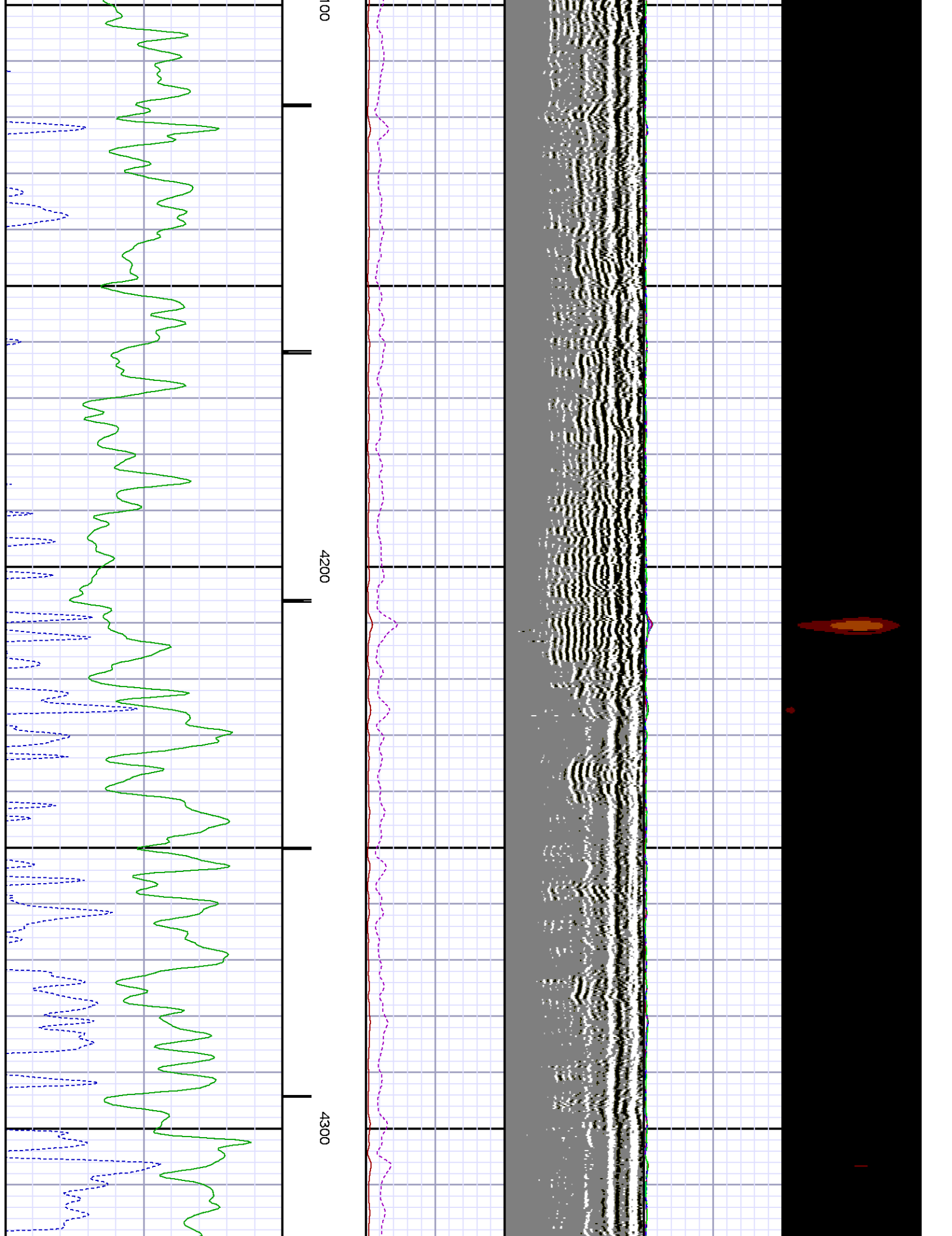


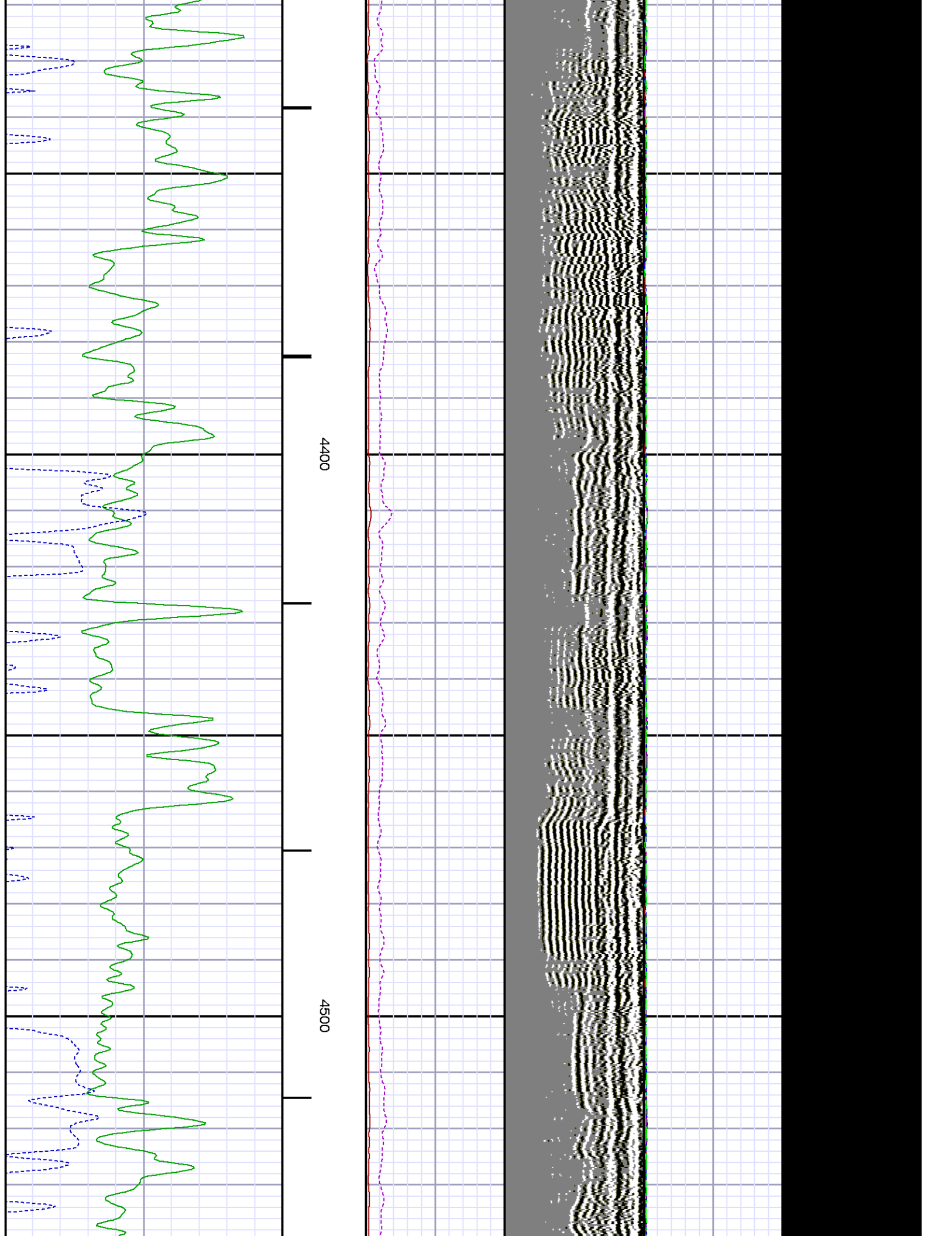




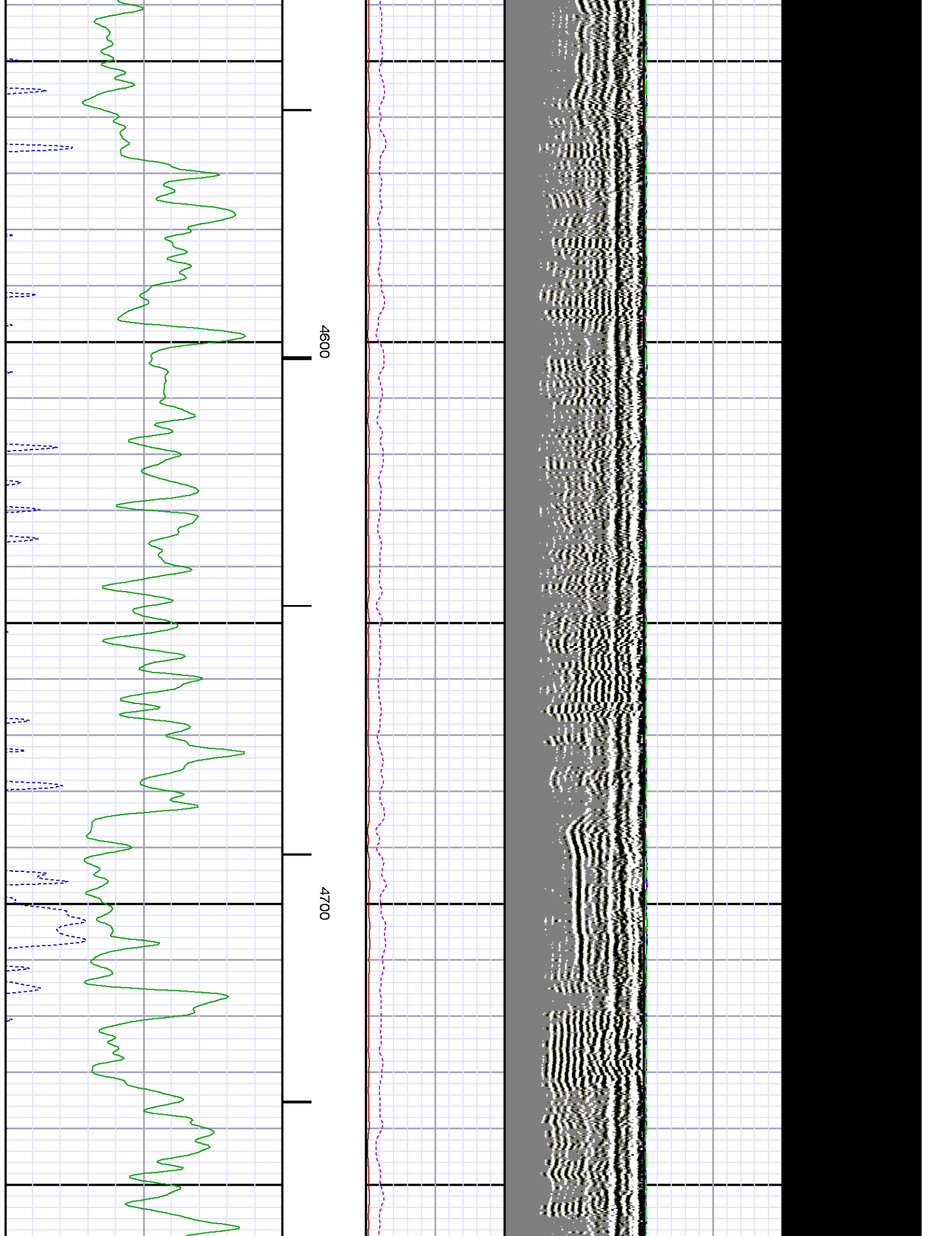


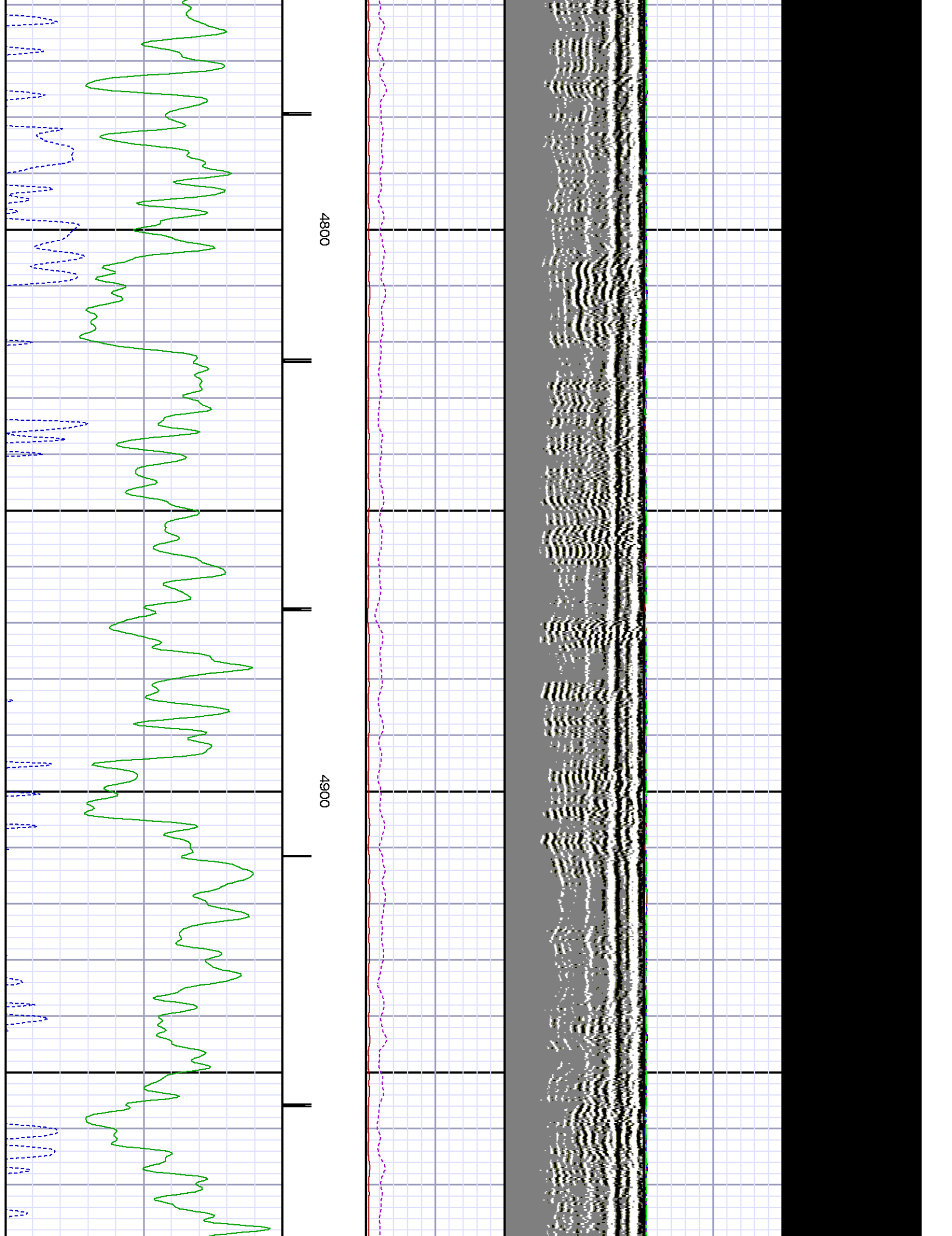


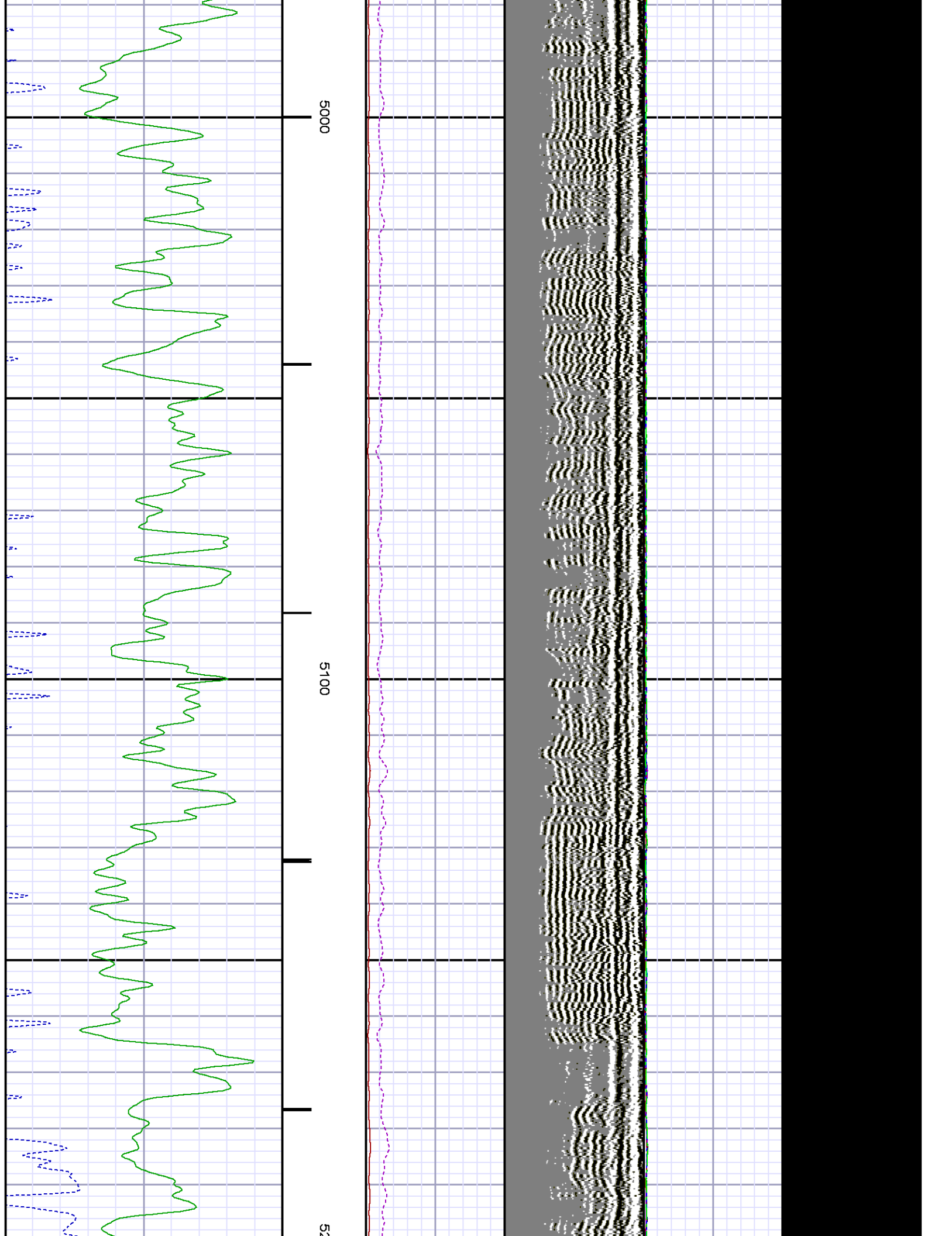


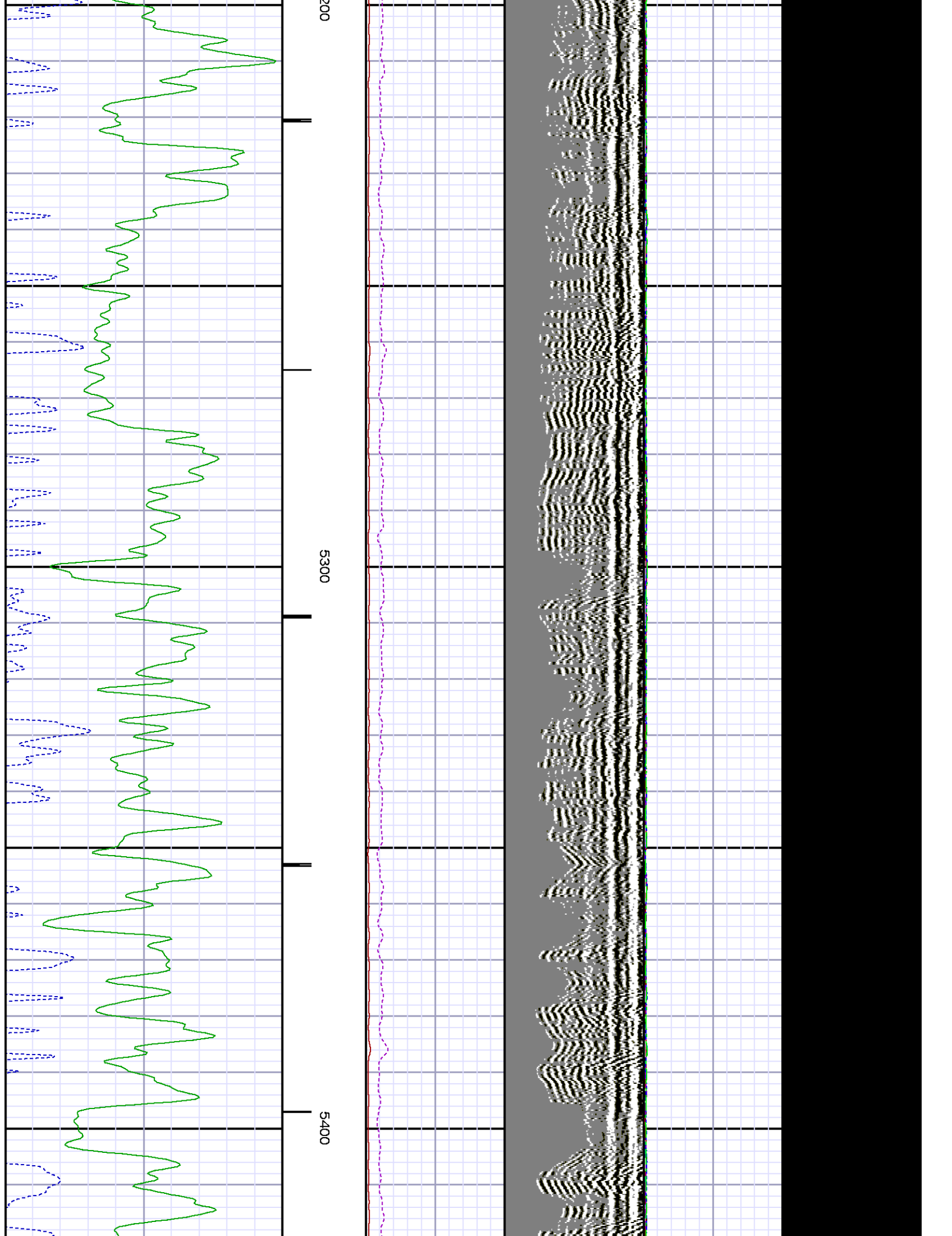


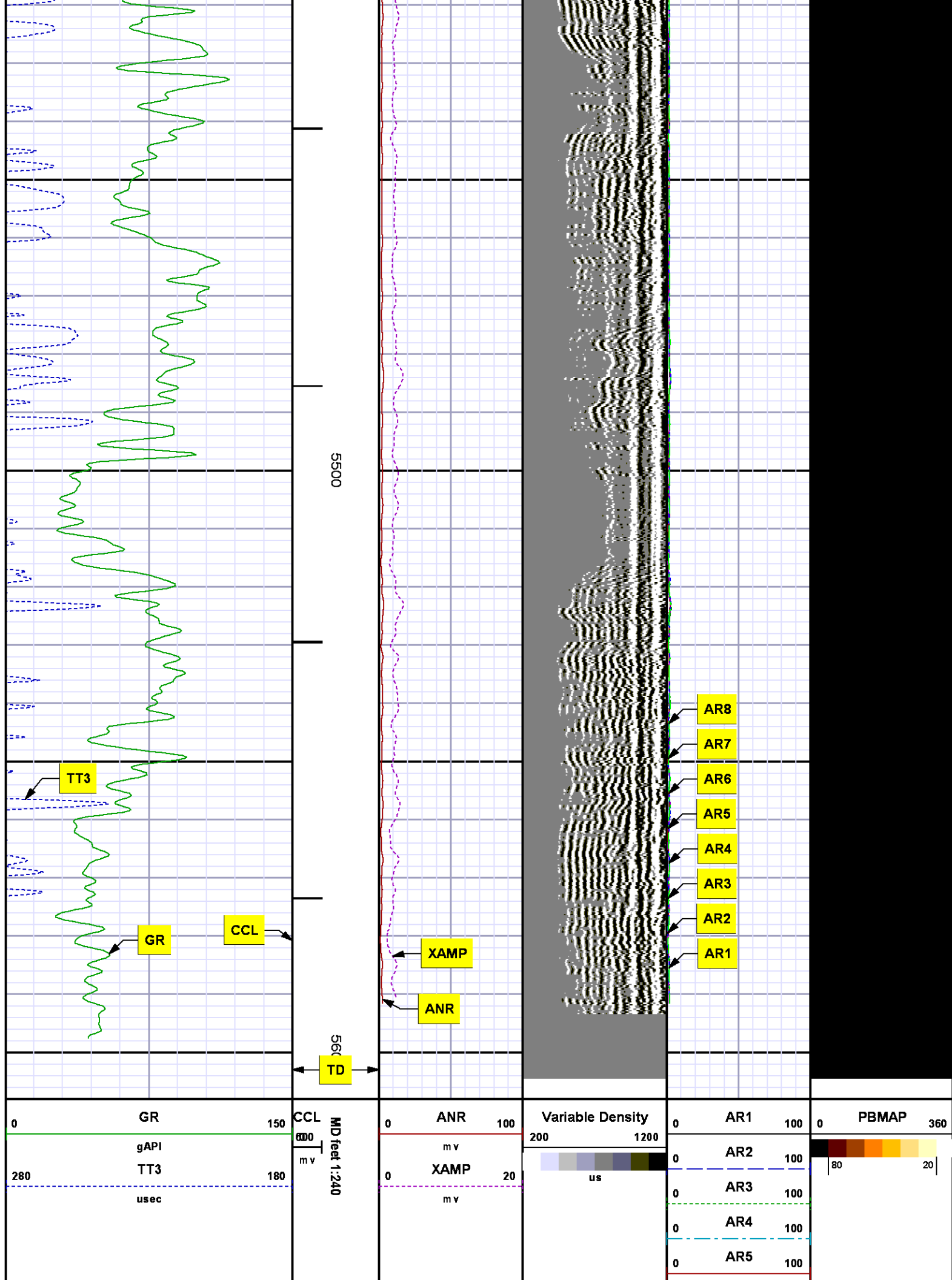












0	AR6	100
0	AR7	100
0	AR8	100

# *REPEAT SECTION* *0 PSI*

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	5272.371	5610.590
RAL	Amp Gate Start Near	195.000	usec	5272.371	5610.590
RAL	Amp Gate Start Radial	195.000	usec	5272.371	5610.590
RAL	Amp Gate Width Far	25.000	usec	5272.371	5610.590
RAL	Amp Gate Width Near	25.000	usec	5272.371	5610.590
RAL	Amp Gate Width Radial	25.000	usec	5272.371	5610.590
RAL	casing od	4.500	inches	5272.371	5610.590
RAL	casing wt	11.600	lbm/ft	5272.371	5610.590
RAL	FB Start Far	291.900	usec	5272.371	5610.590
RAL	FB Start Near	175.391	usec	5272.371	5610.590
RAL	FB Start Radial	175.391	usec	5272.371	5610.590
RAL	FB Thresh Far	10.000	mV	5272.371	5610.590
RAL	FB Thresh Near	4.000	mV	5272.371	5610.590
RAL	FB Thresh Radial	4.000	mV	5272.371	5610.590
RAL	Fluid Travel Time	200.000	usec/ft	5272.371	5607.059

## **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
		AFAR	SIG	TT5			
1426XA	-11.360						
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

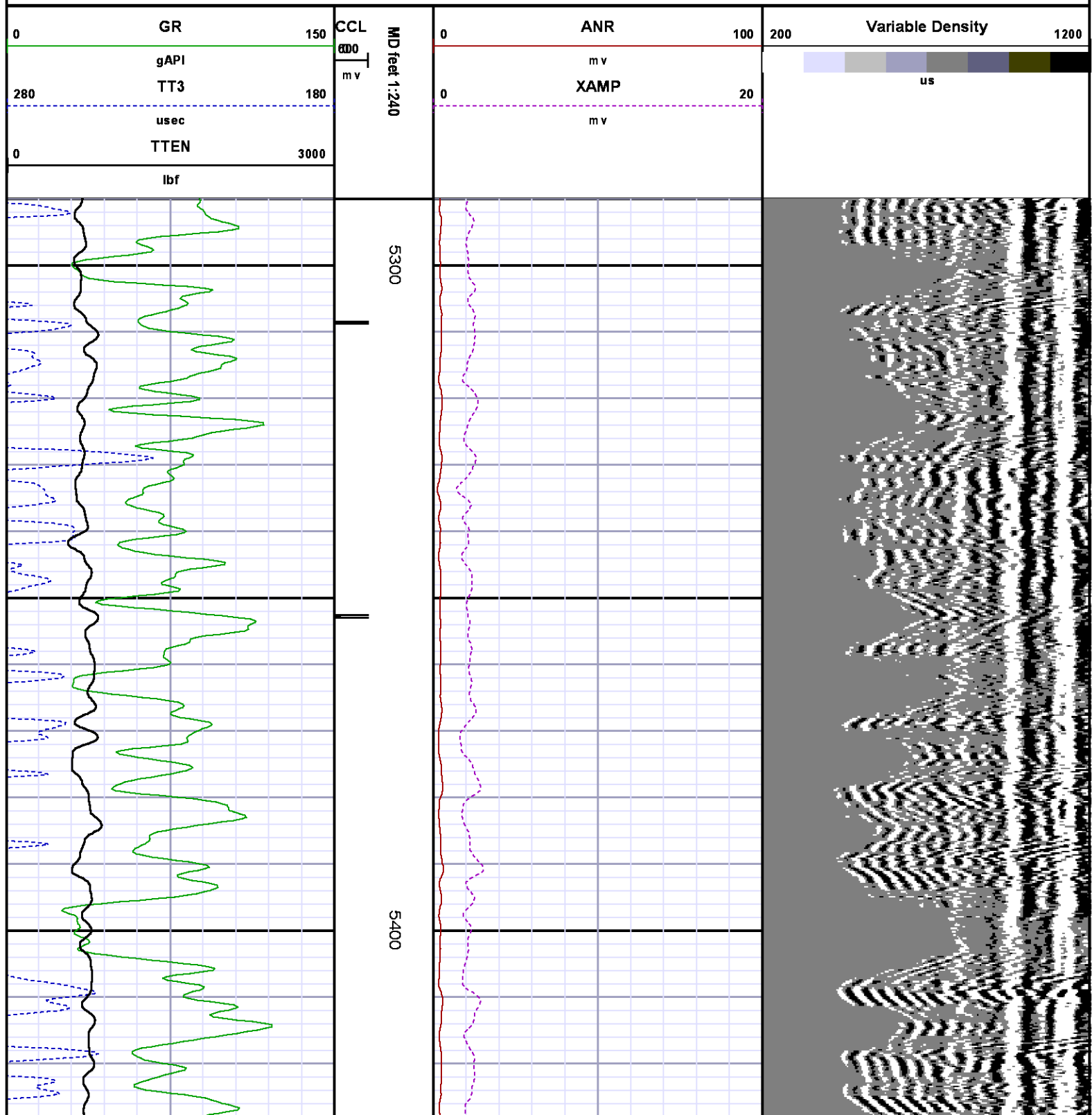
Well : FEDERAL SG 532-28

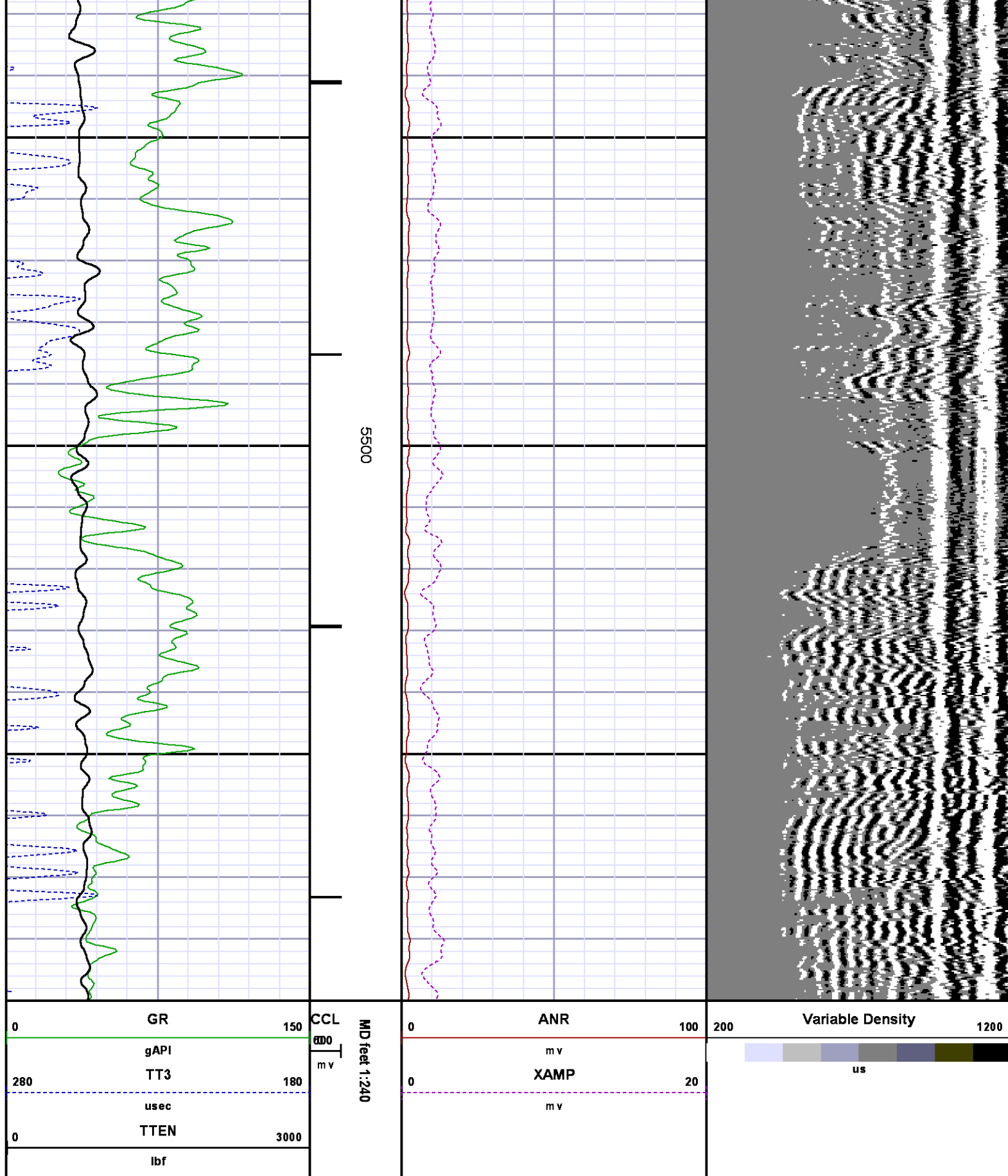
File Name : d:\welldata\wpx\federal sg 532-28\532cb\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 5290.00 - 5590.00 feet UP

Created : 10/25/2014 10:08:31 AM





## CALIBRATION SUMMARY

# RALSHP

Shop Calibration: C:\case\calver\RALSHP\49525\_shp.cal

## SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Oct 25 09:39:22 2014 TOOL SERIES: 1426XA ASSET: 495 SEQ: 25

Tool Delay [usec] -51.00 Tank OD in 5.50 Tank Wt lbm/ft 15.50 Tank ID in 4.95

RECEIVER	Travel Time [usec]	Amp. Gate Start [usec]	Amp. Gate Width [usec]	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Amp Ref. [mV]	Shop Factor
CAL Pulse	218	216	30	166	25	-0.532	100.00	0.27
3 Ft. Receiver	218	216	30	166	25	1.304	100.00	0.26
5 Ft. Receiver	328	325	30	256	44	3.245	150.00	0.29
Radial #1	218	216	30	166	19	0.913	100.00	0.26
Radial #2	218	216	30	166	19	0.085	100.00	0.26
Radial #3	217	216	30	166	19	0.431	100.00	0.26
Radial #4	216	216	30	166	19	0.297	100.00	0.26
Radial #5	216	216	30	166	19	0.620	100.00	0.26
Radial #6	216	216	30	166	19	0.310	100.00	0.26
Radial #7	217	216	30	166	19	0.285	100.00	0.26
Radial #8	219	216	30	166	19	0.647	100.00	0.26

# RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\49525 fld.cal

## WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Oct 25 09:44:52 2014 TOOL SERIES: 1426XA ASSET: 495 SEQ: 25

Tool Delay [usec] -51.00 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	0.001	0.000	1.00	100.000
3 Ft. Receiver	200	30	1.520			
5 Ft. Receiver	317	30	2.739			
Radial #1	200	30	1.245			
Radial #2	200	30	1.288			
Radial #3	200	30	1.168			
Radial #4	200	30	1.278			
Radial #5	200	30	1.281			
Radial #6	200	30	1.338			
Radial #7	200	30	1.320			
Radial #8	200	30	1.170			

Radial #0 200 30 1.178

# GAMMA RAY

Calibration File: C:\case\calver\GR\503O5.cal

## CALIBRATION SUMMARY

<b>DATE/TIME PERFORMED:</b>	Wed Oct 15 10:27:26 2014	<b>TOOL SERIES:</b>	2459XA	<b>ASSET:</b>	503	<b>SEQ:</b>	O5
<b>Calibrator #</b>	<b>Background</b>	<b>Calibrator On</b>	<b>Multiplicative</b>	<b>Background</b>	<b>Calibrator On</b>	<b>Differential</b>	
	[cps]	[cps]		[api]	[api]	[api]	
S2K WA612	94.67	359.07	0.700	66.24	251.24	185.00	

Verification File: C:\case\calver\GR\503O5.VP

## PRIMARY LOG VERIFICATION

<b>DATE/TIME PERFORMED:</b>	Wed Oct 15 10:29:17 2014	<b>TOOL SERIES:</b>	2459XA	<b>ASSET:</b>	503	<b>SEQ:</b>	O5
<b>Calibrator #</b>	<b>Background</b>	<b>Calibrator On</b>	<b>Multiplicative</b>	<b>Background</b>	<b>Calibrator On</b>	<b>Differential</b>	
	[cps]	[cps]		[api]	[api]	[api]	
S2K WA612	94.09	365.73	0.700	65.83	255.90	190.07	

# 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



21.35'

XMIT 15.17'

NEAR RCVR 12.08'

FAR RCVR 10.17'

CCL 8.46'

**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

GR 6.60'

NEU 1.21'

0.00'

**Total Length: 21.35'**  
**Total Weight: Not Available**  
**Max Diameter: 0' 2.75"**

**Baker Atlas***CASE***Company**

WPX ENERGY

**Well**

FEDERAL SG 532-28

**Field**

GRAND VALLEY

**County**

GARFIELD

**State**

CO

**File No:**

CH091651

**API No:**

05045219560000

**Location**

SHL: 2273' FSL &amp; 495' FEL

BHL: 2630' FNL &amp; 2302' FEL

**Elevations**

KB 5143

DF

GL 5119

28 7S 96W

SG 43-28 PAD

H&amp;P 318

SEC 28 TWP 7S RGE 96W