



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH022655	Company Well	WPX ENERGY FEDERAL RG 541-15-298
API No: 05103120750000	Field County	SULPHUR CREEK RIO BLANCO State CO
15 2S 98W RG 12-14-298 PAD CYCLONE 29	Location SHL: 1638' FNL & 496' FNL (14 2S 98W) BHL: 1229' FNL & 657' FEL (15 2S 98W)	Other Services
Permanent Datum Log Measured From Drill Measured From	GL KB KB KB Elevation 21 ft Above P. D.	Elevations KB 6561 ft DF GL 6560 ft

Date	22/FEB/14
Run	ONE
Service Order	US625292
Depth Driller	10944 ft
Depth Logger	10886 ft
Bottom Logged Interval	10876 ft
Top Logged Interval	21 ft
Time Started	8:30
Time Finished	12:30
Operator Rig Time	4 HOURS
Type of Fluid in Hole	WATER
Fluid Density	NA
Salinity	NA
Fluid Level	64 ft
Logged Cement Top	NA
Wellhead Pressure	0 psi
Maximum Hole Deviation	NA
Nominal Logging Speed	65 fpm
Maximum Recorded Temperature	263 degF
Reference Log	BAKER HUGHES OPEN HOLE LOG
Reference Log Date	26/JAN/14
Equipment No.	4271
Recorded By	NEWELL
Witnessed By	WAYNE MARCOTTE

- 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
30 in	0 ft	80 ft
14.75/13.5	80 ft	3062 ft
8.75/7.875	3062 ft	11036 ft

Casing Record				
Size	Weight	Grade	From	To
18 in			0 ft	80 ft
9.625 in			0 ft	3062 ft
4.5 in	11.6 lbm/ft	P-110	0 ft	11036 ft

Remarks
All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes HDIL/ZDL/CN/GR open hole log dated 1/26/2014 at the clients request.
The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference.

The amount of linear shift is 23 feet.

Logged with zero PSI at wellhead.

BHT = 263 °F

SJ = 5515'–5537'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	CBL	1426XA	10124106	CENTRALIZED
1	1	GR/CCL	2459XA	10124121	CENTRALIZED

PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	1.719	10866.000
RAL	Amp Gate Start Near	195.000	usec	1.719	10866.000
RAL	Amp Gate Start Radial	195.000	usec	1.719	10866.000
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RAL	Amp Gate Width Near	25.000	usec	1.719	10866.000
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RAL	FB Start Radial	175.391	usec	1.719	10866.000
RAL	FB Thresh Far	10.000	mv	1.719	10866.000
RAL	FB Thresh Near	4.000	mv	1.719	10866.000
RAL	FB Thresh Radial	4.000	mv	1.719	10866.000
RAL	Fluid Travel Time	200.000	usec/ft	1.719	10866.844

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4		
		AR5	AR6	AR7	ARB	CHV	FPR2		
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3		
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP		
1426XA	-15.750	AFAR	SIG	TT5					
2459XA	-11.340	CCL							
2459XA	-9.490	GR							
2459XA	-4.090	NEU							

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

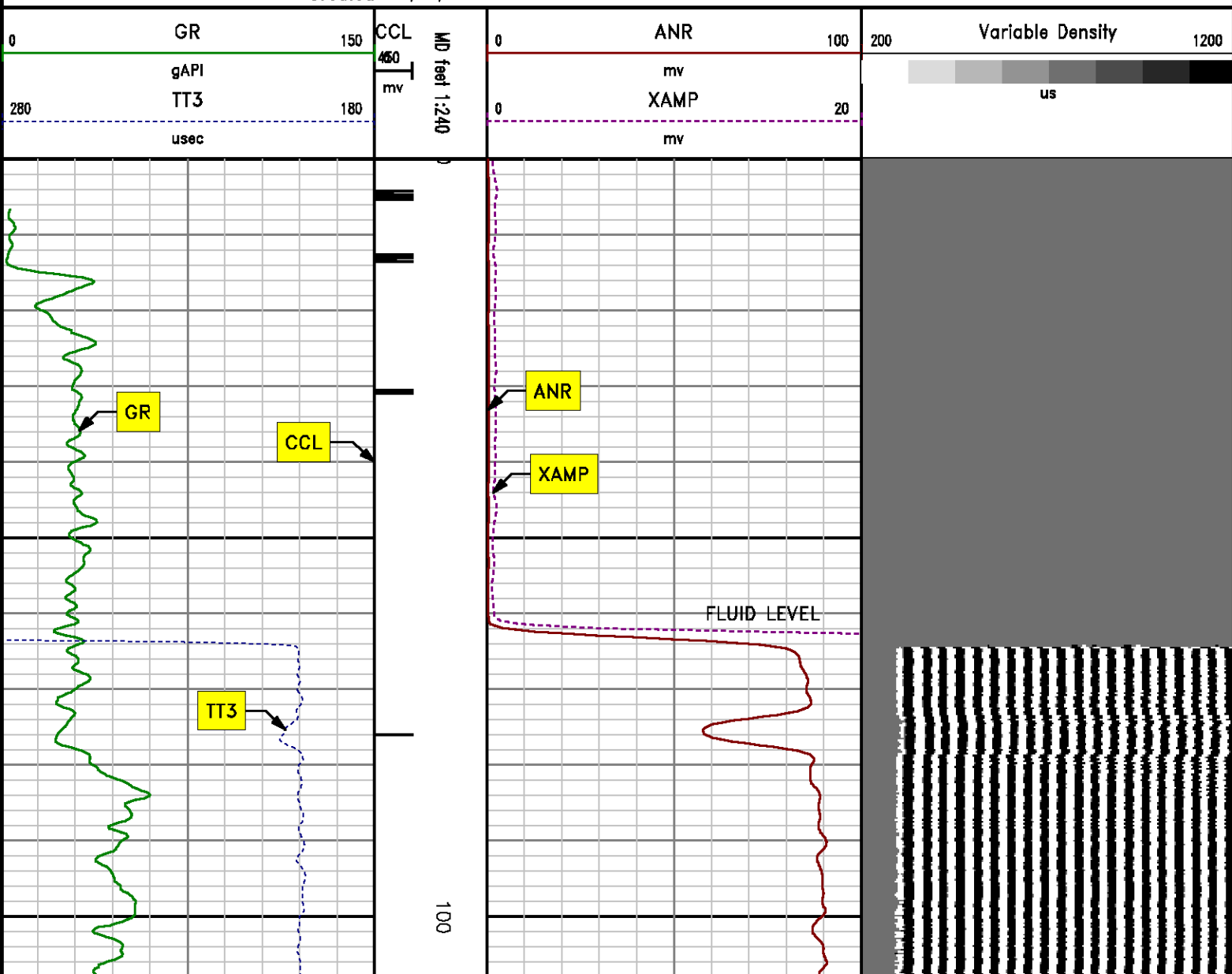
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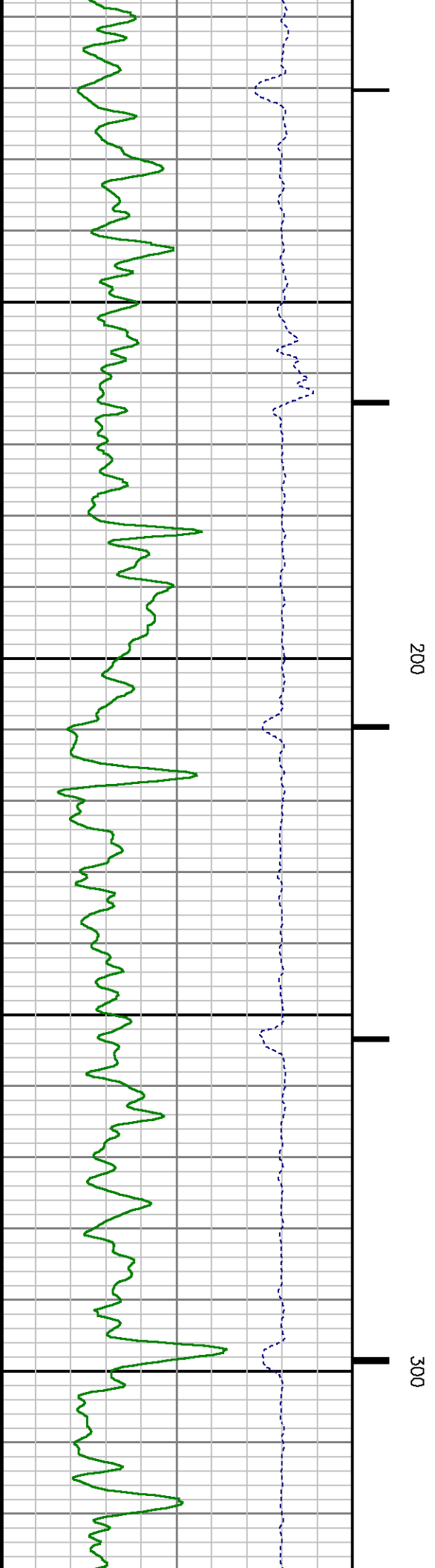
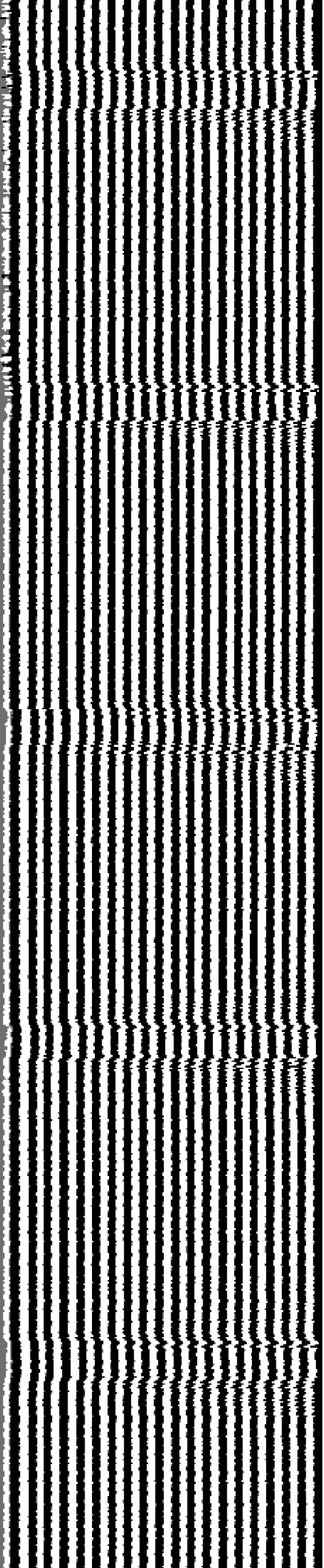
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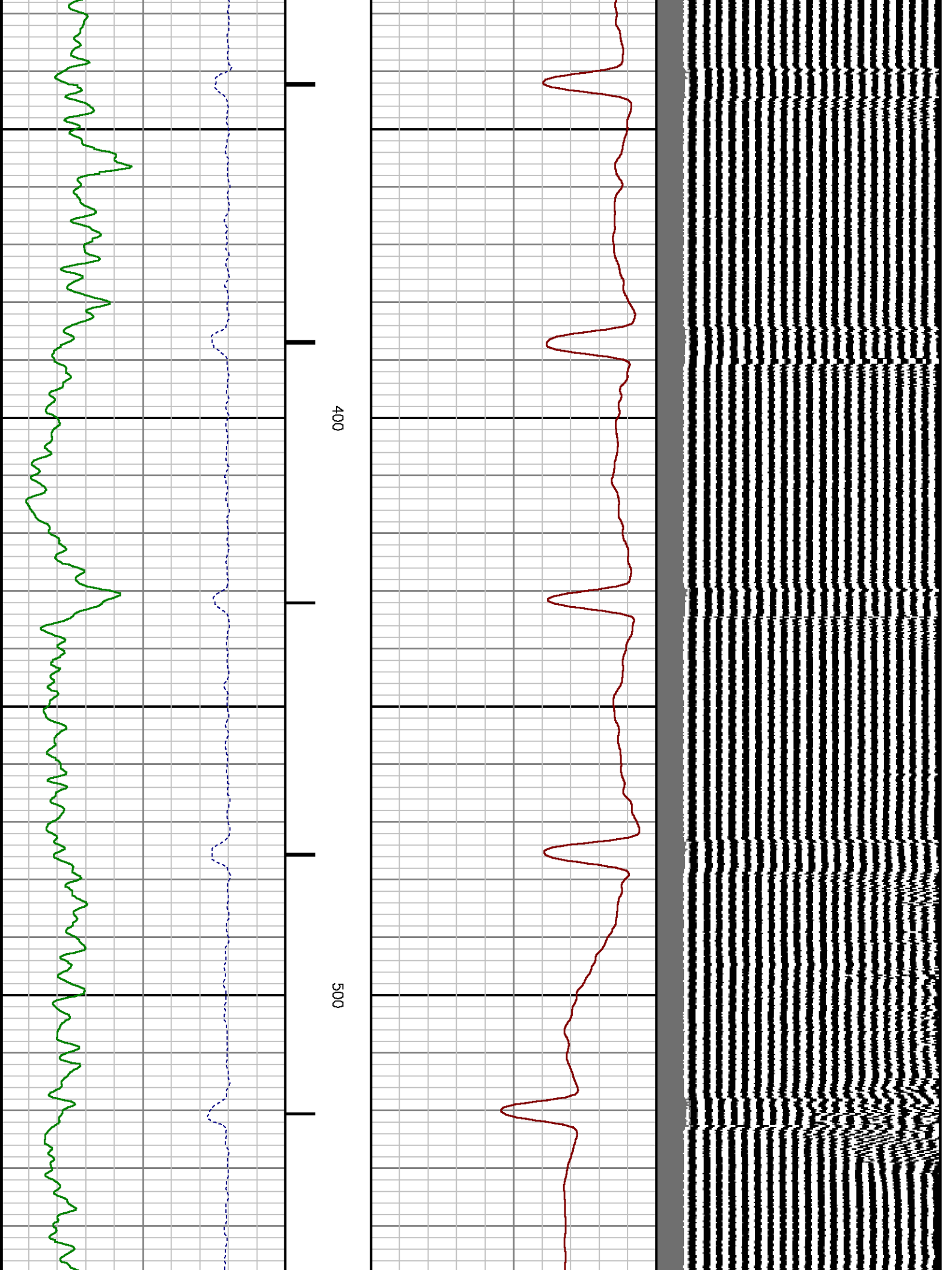
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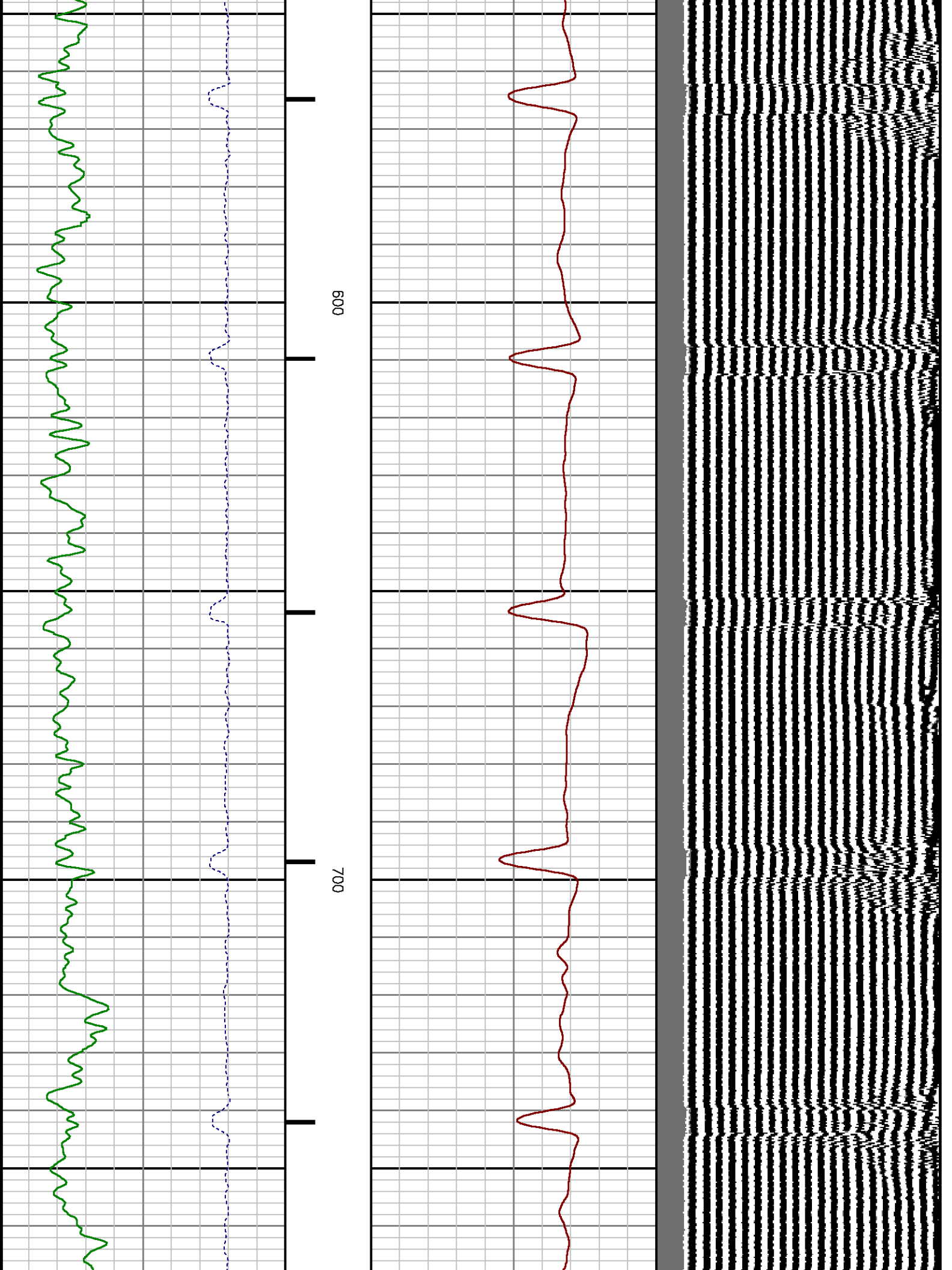
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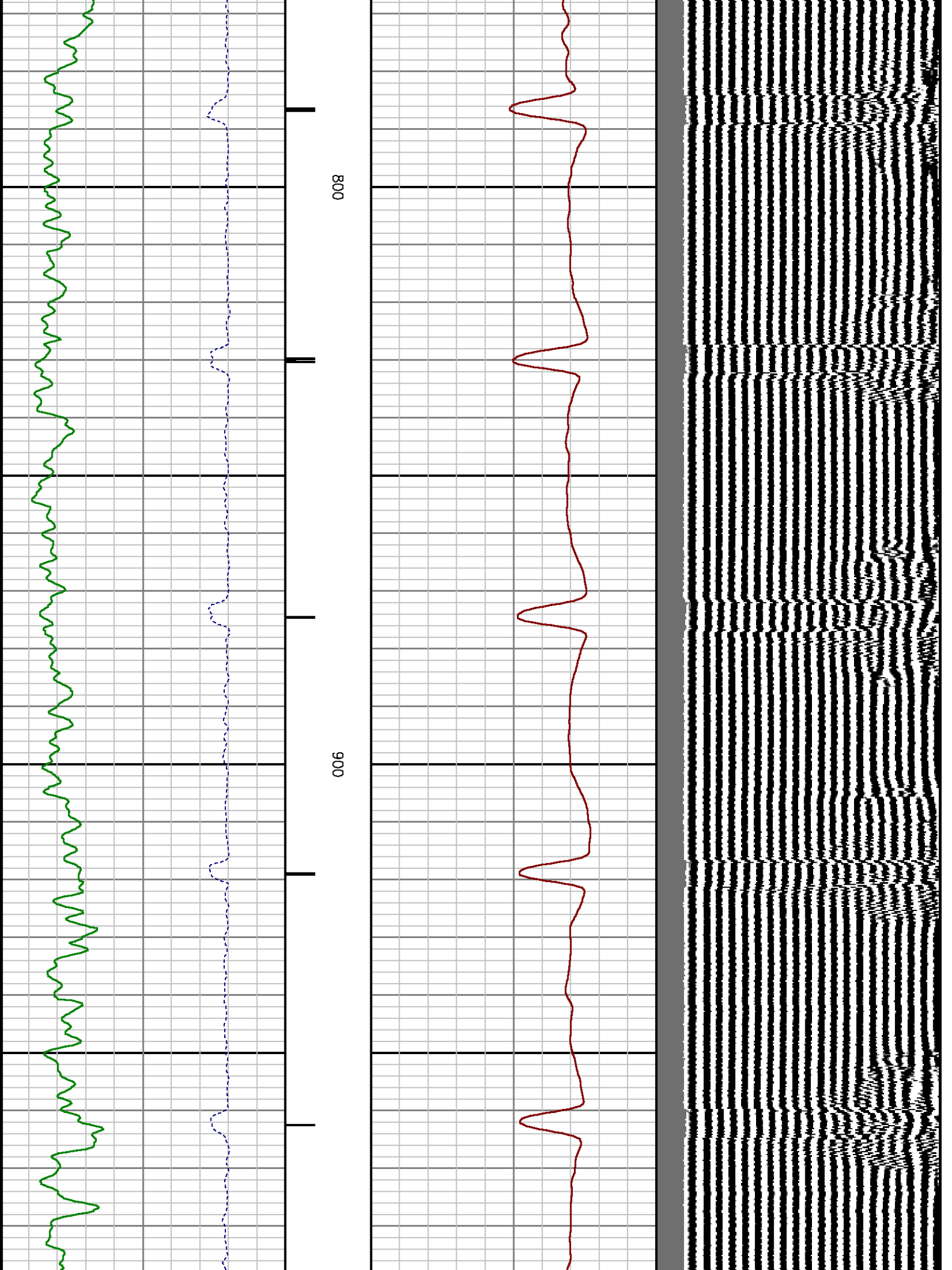
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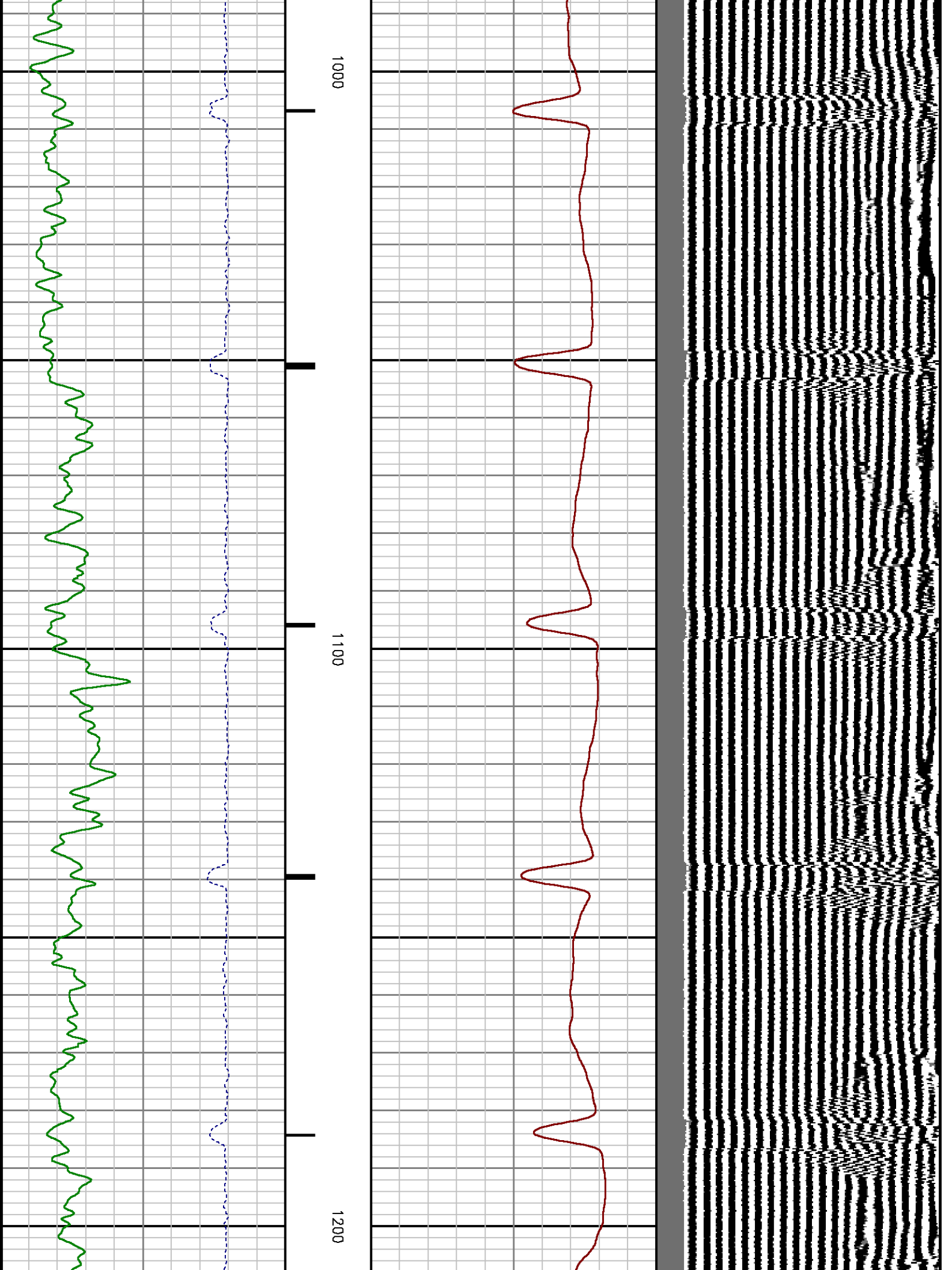


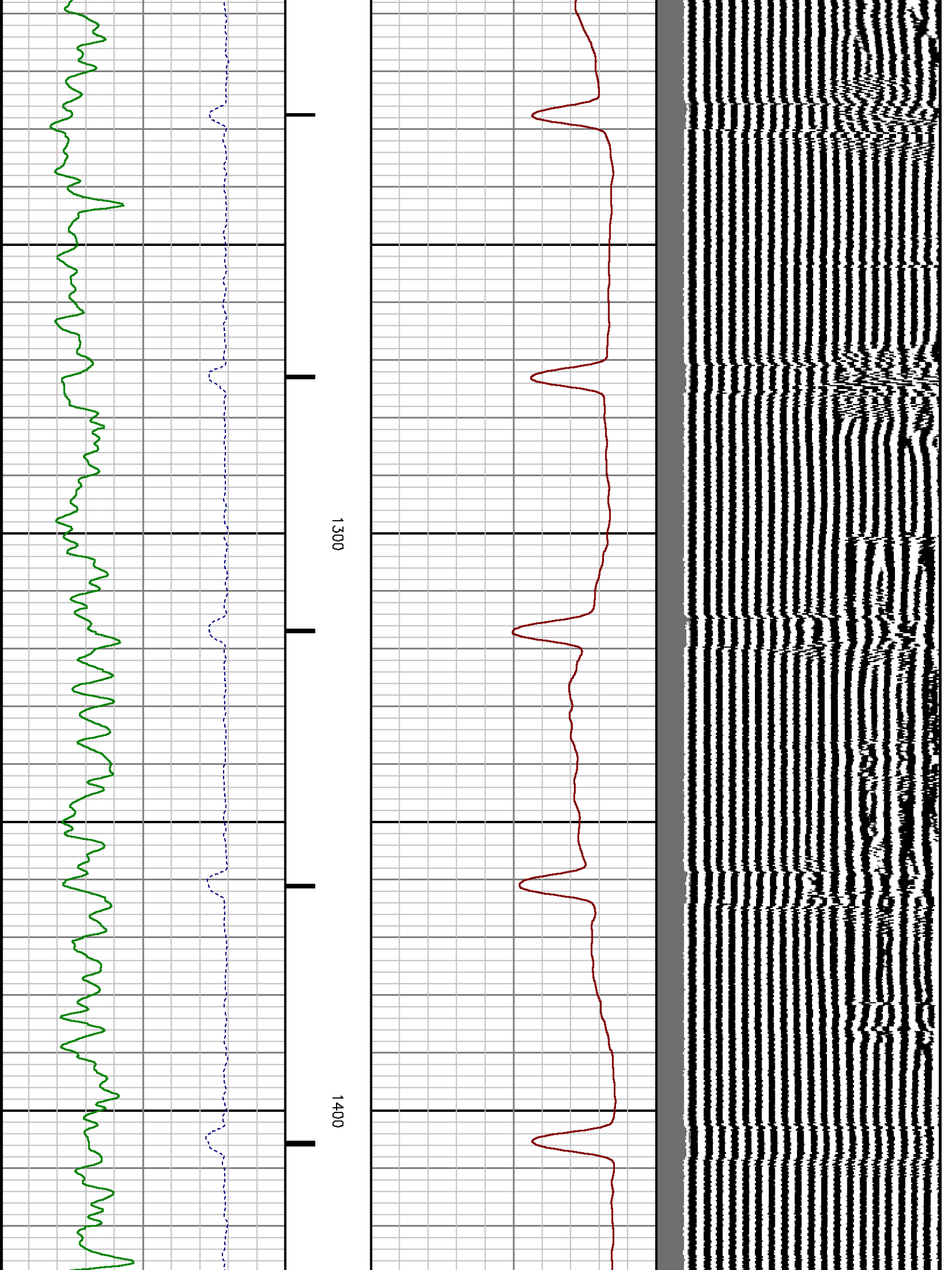


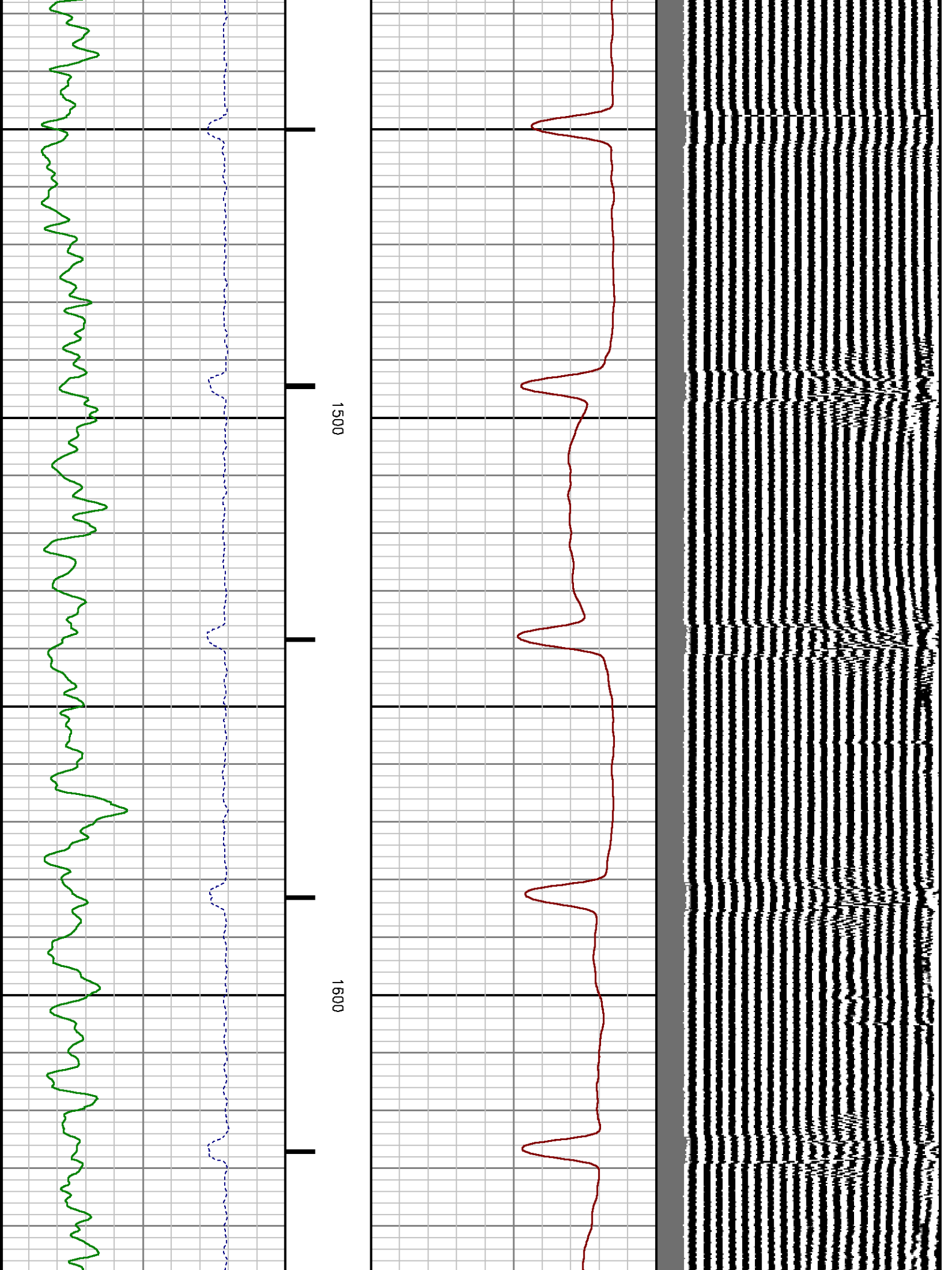


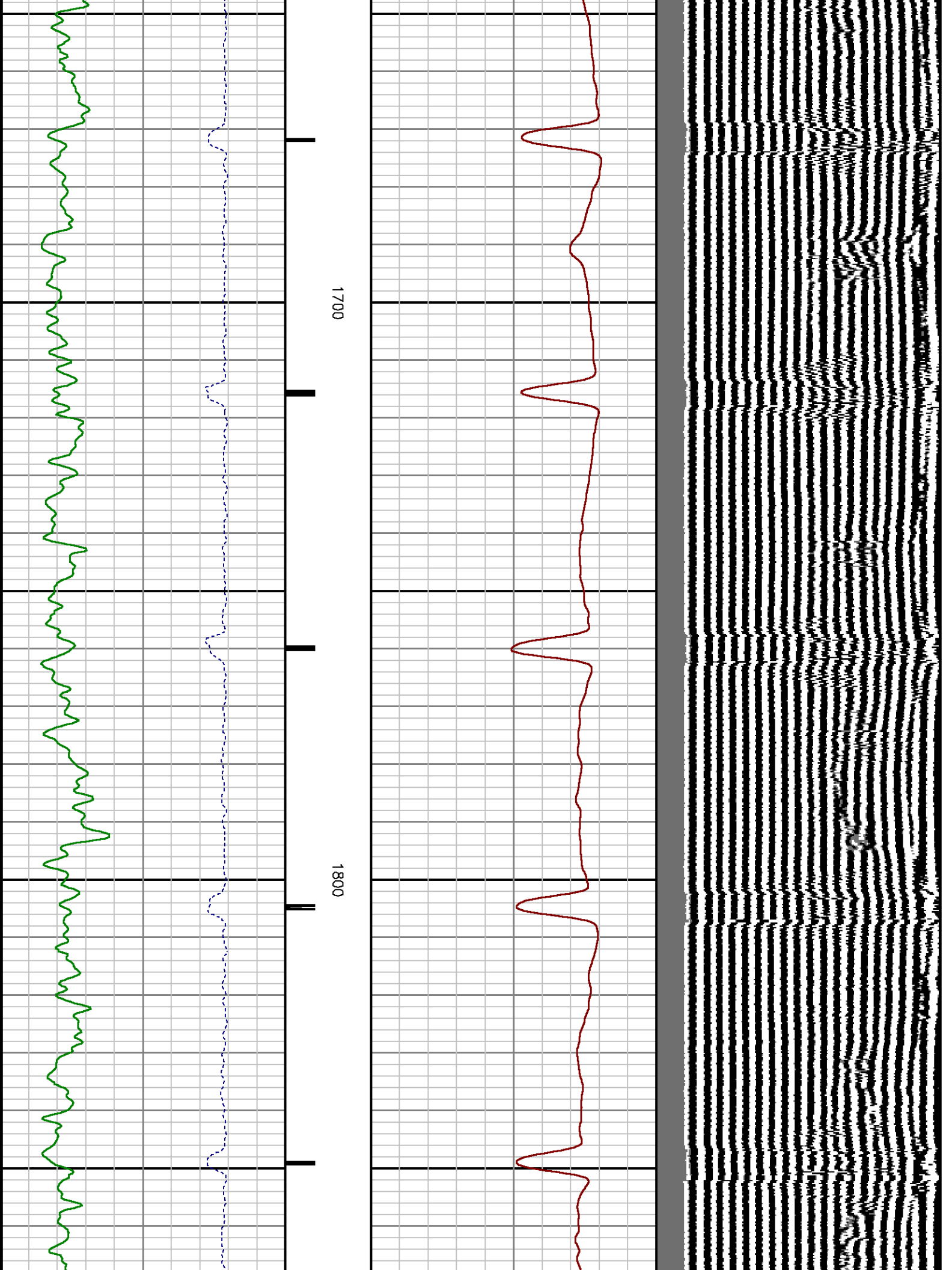


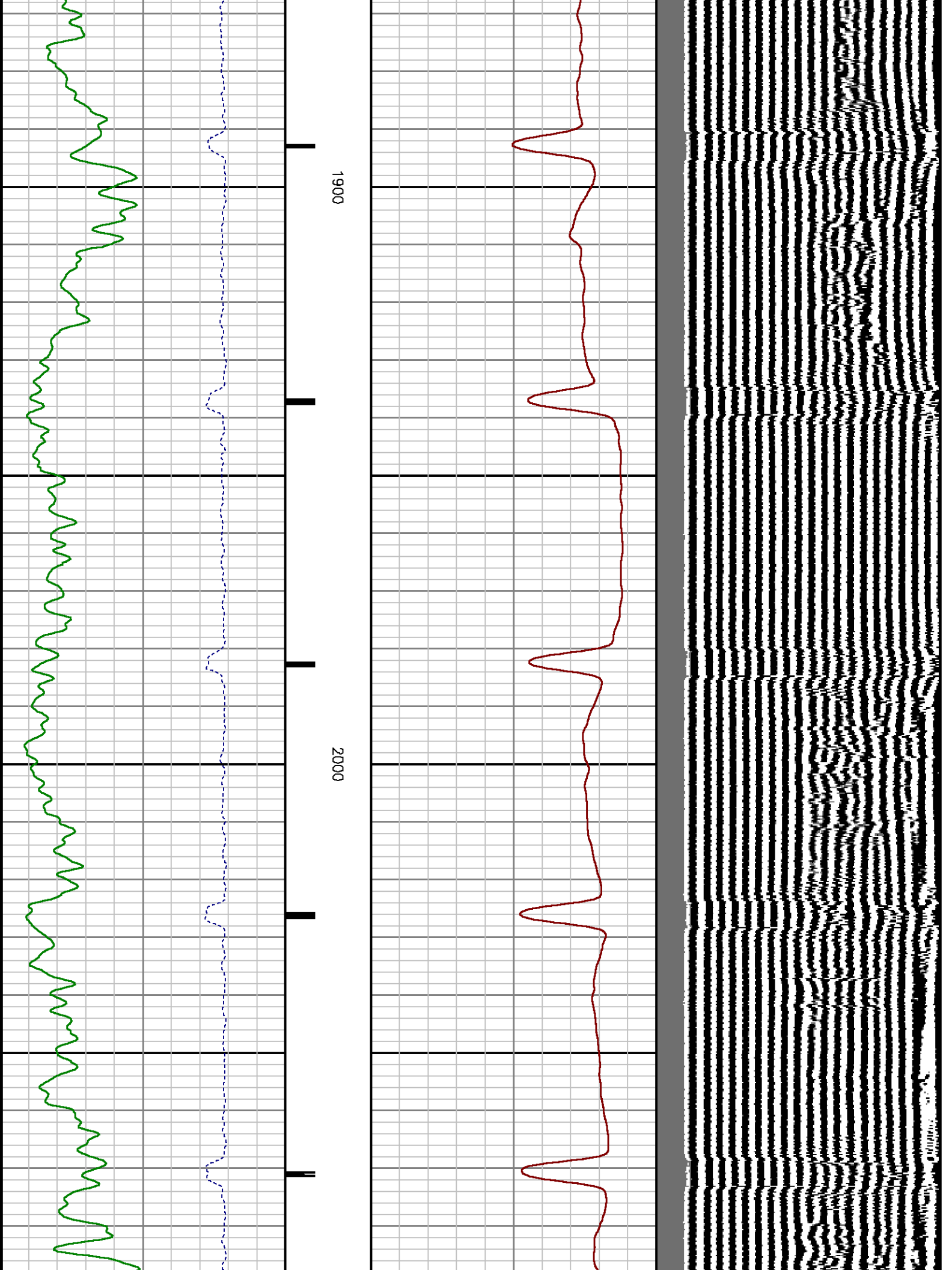


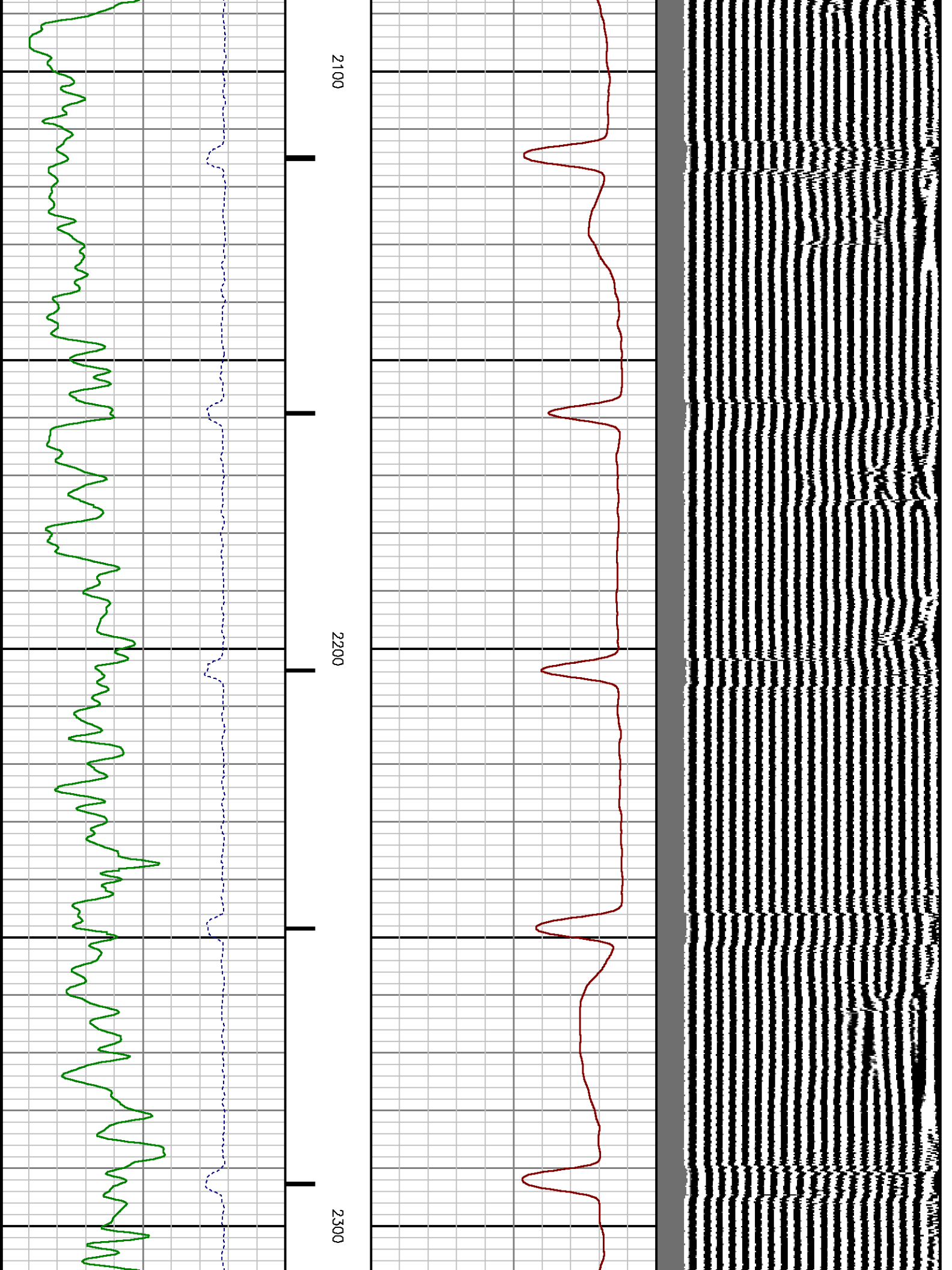


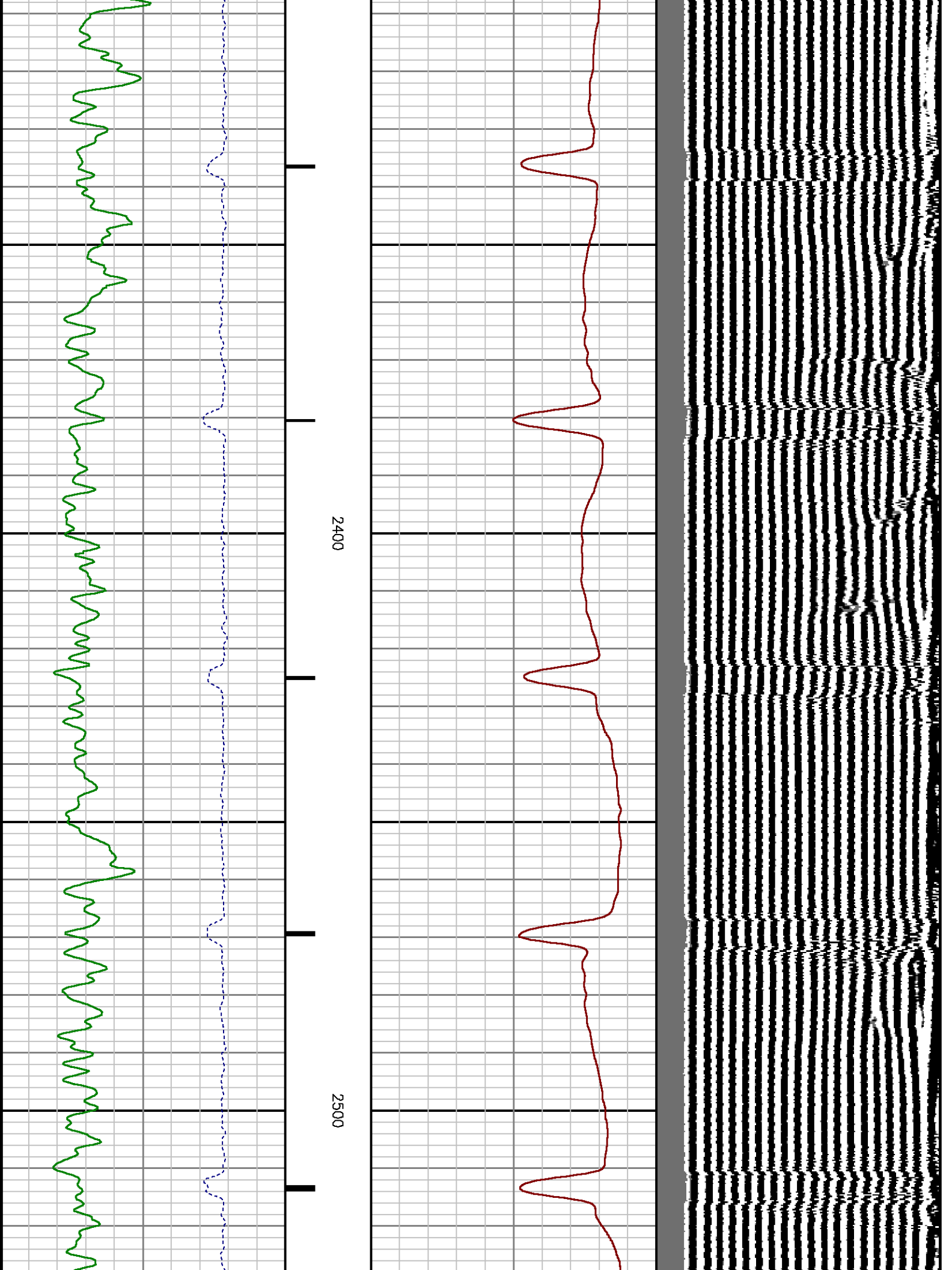


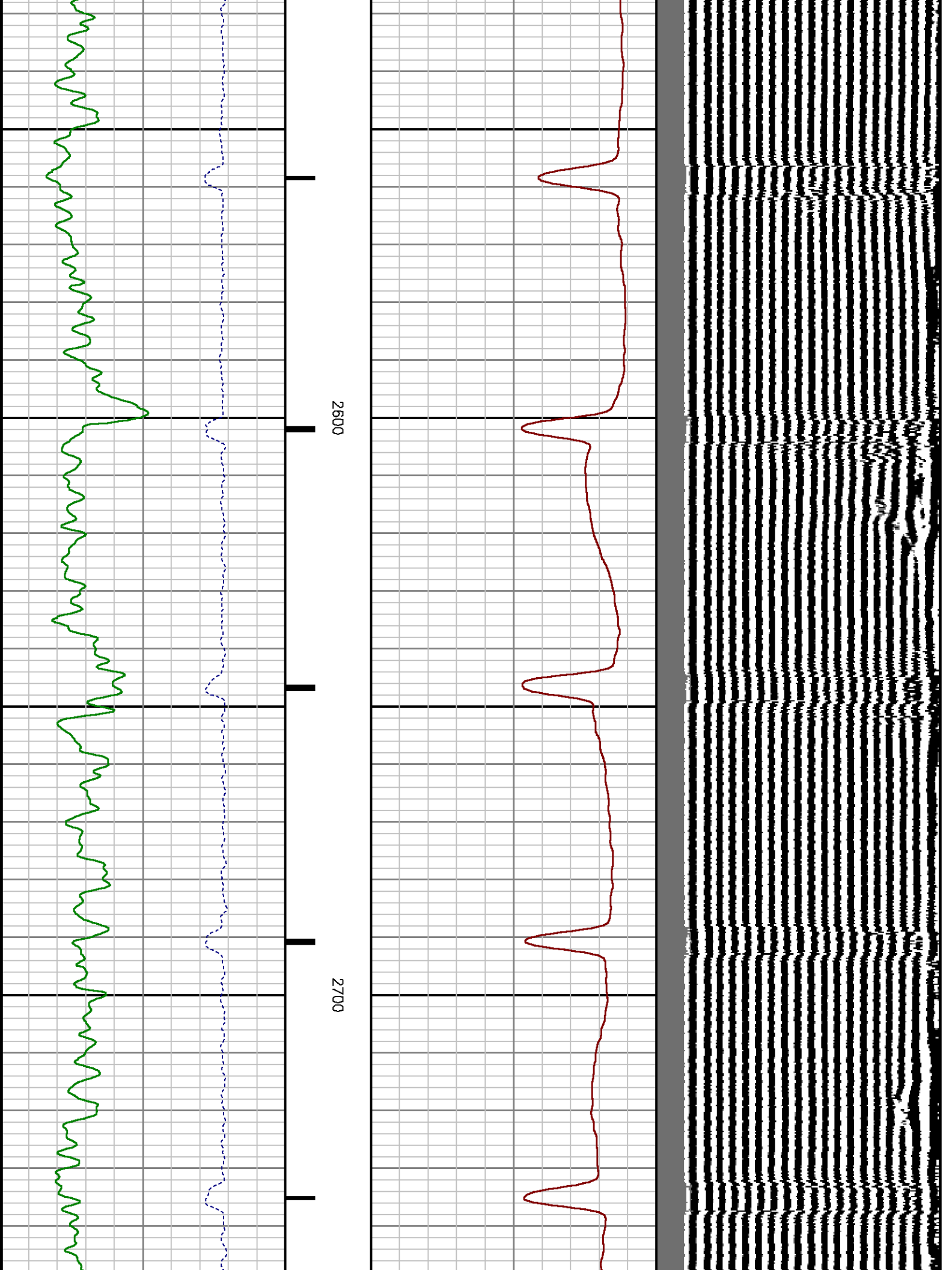


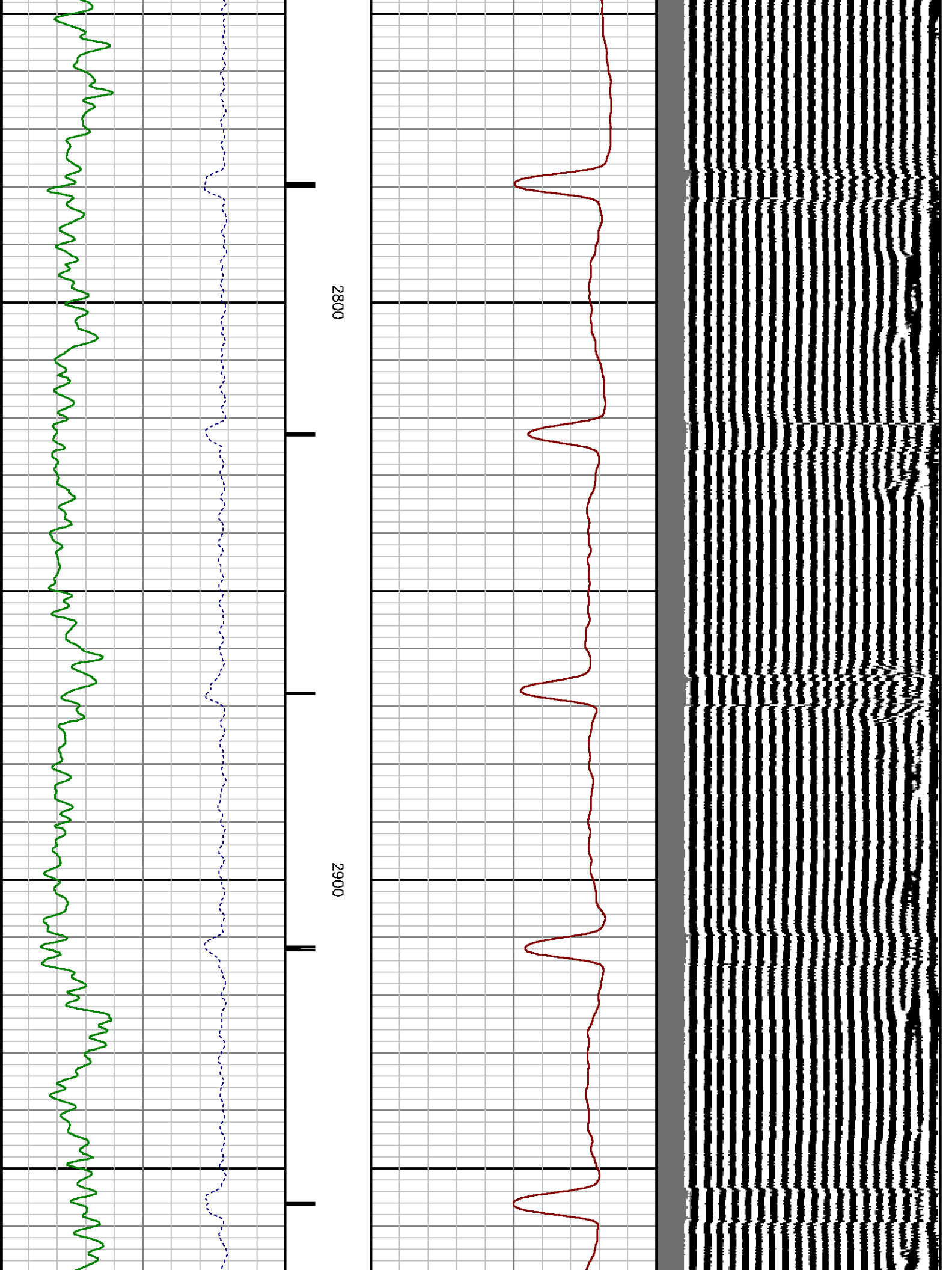


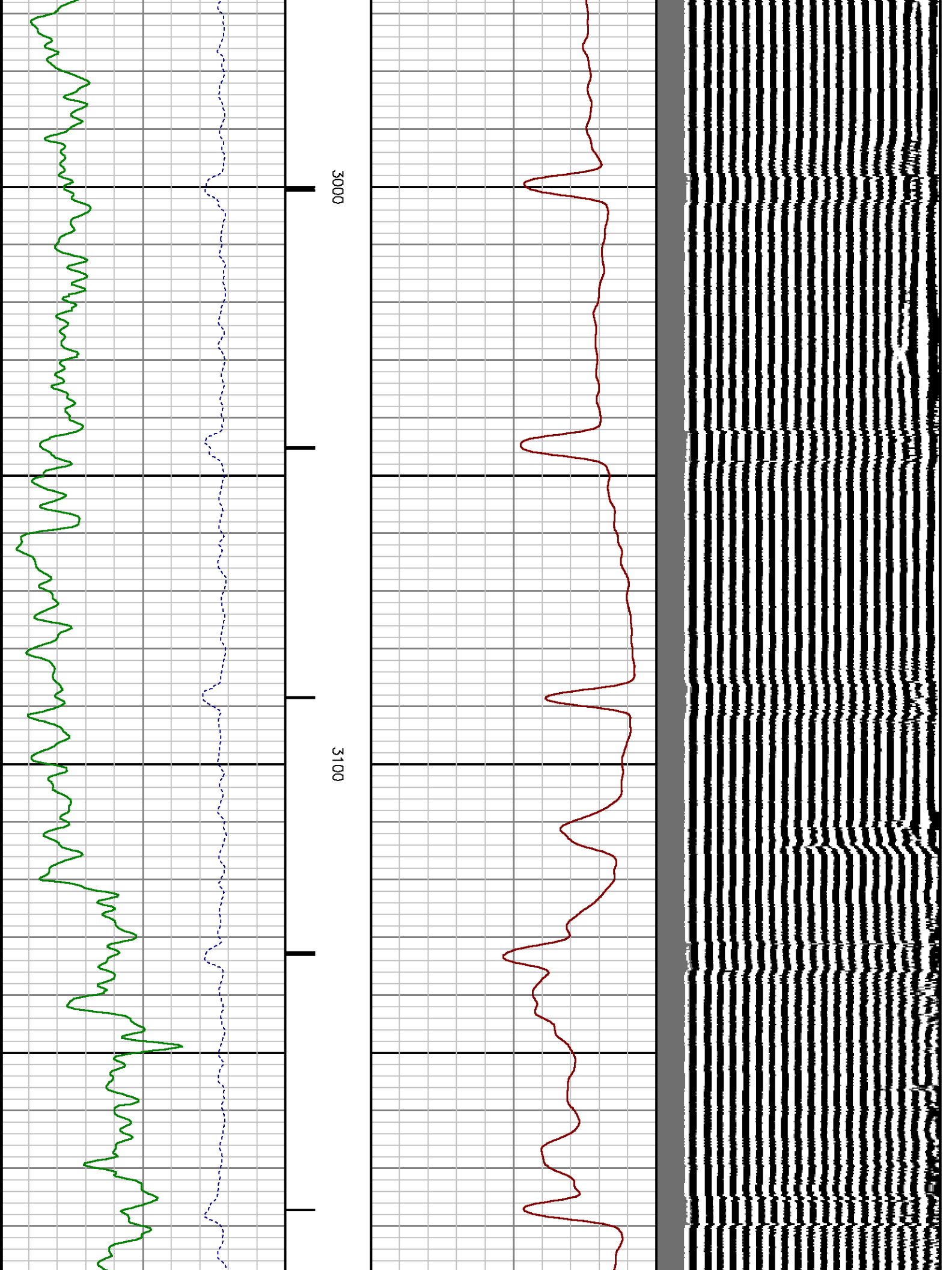


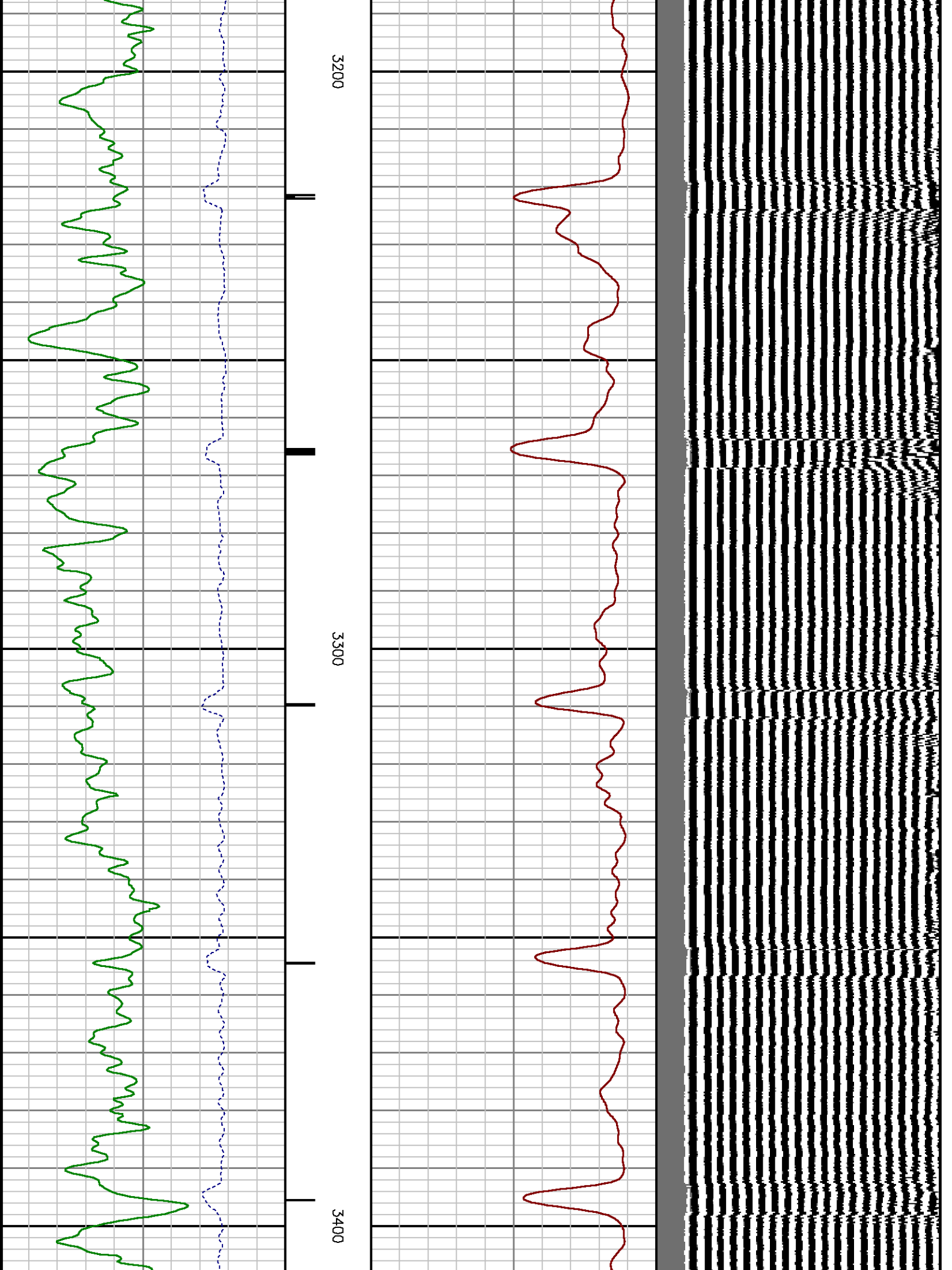


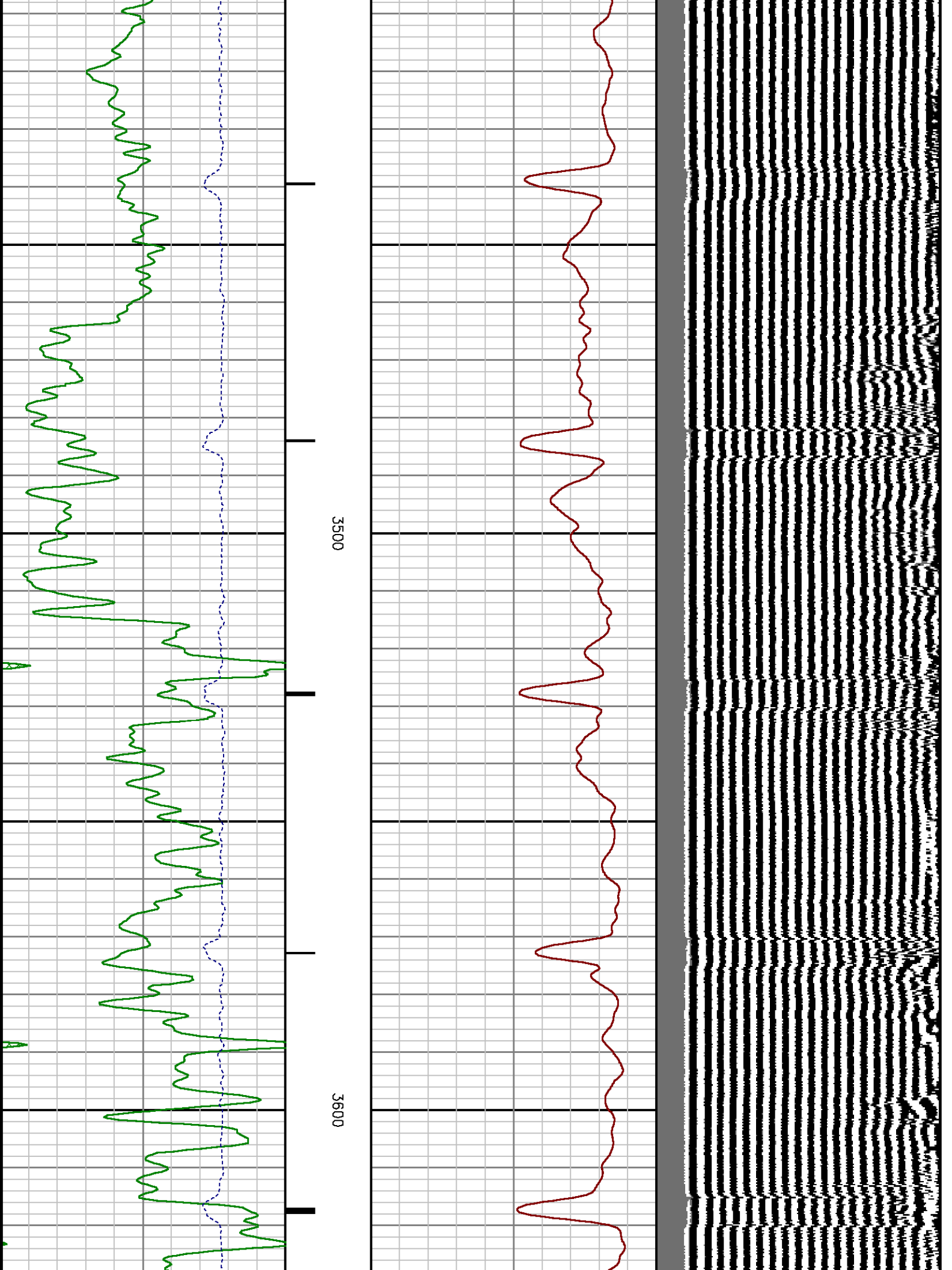


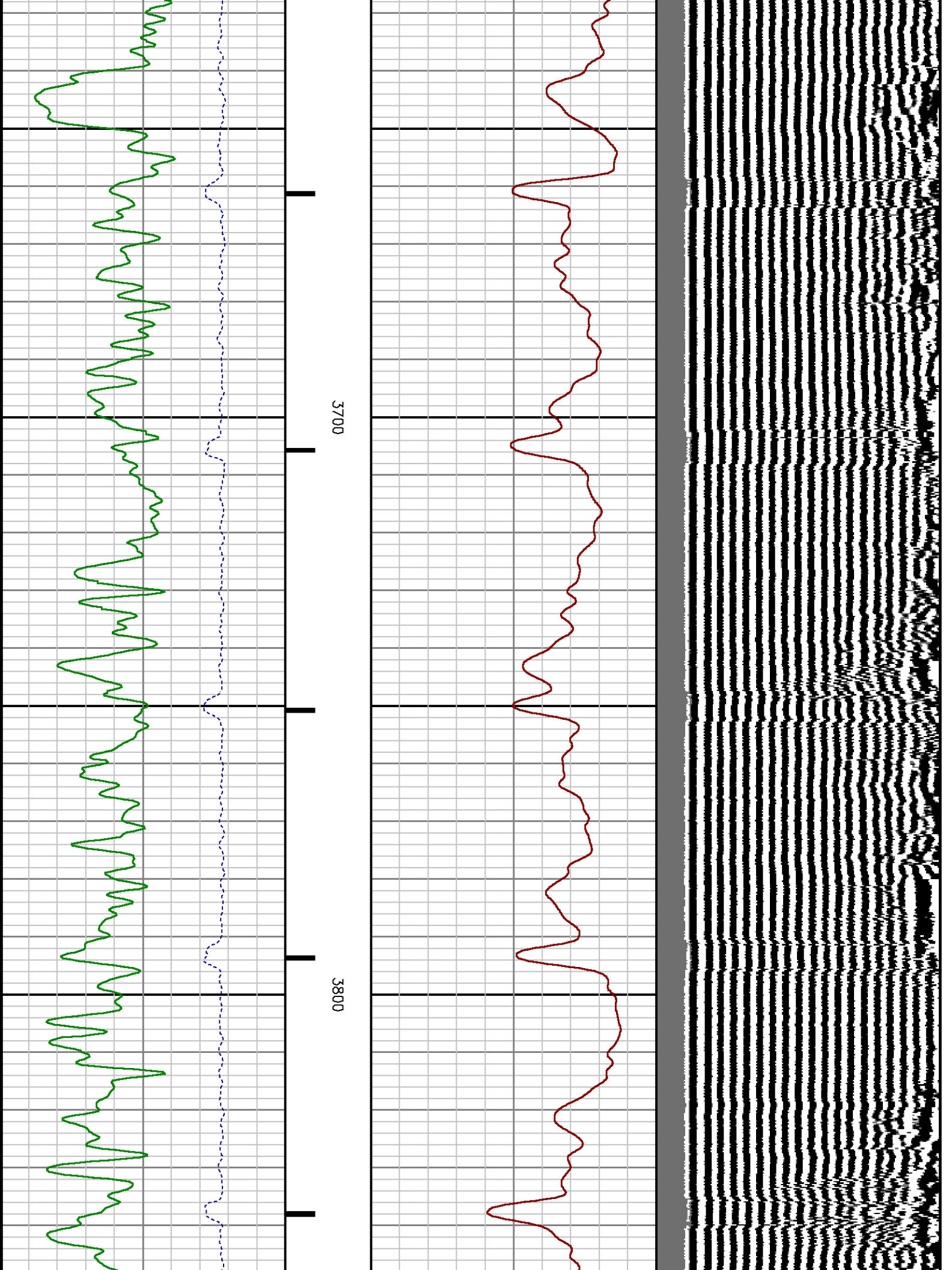


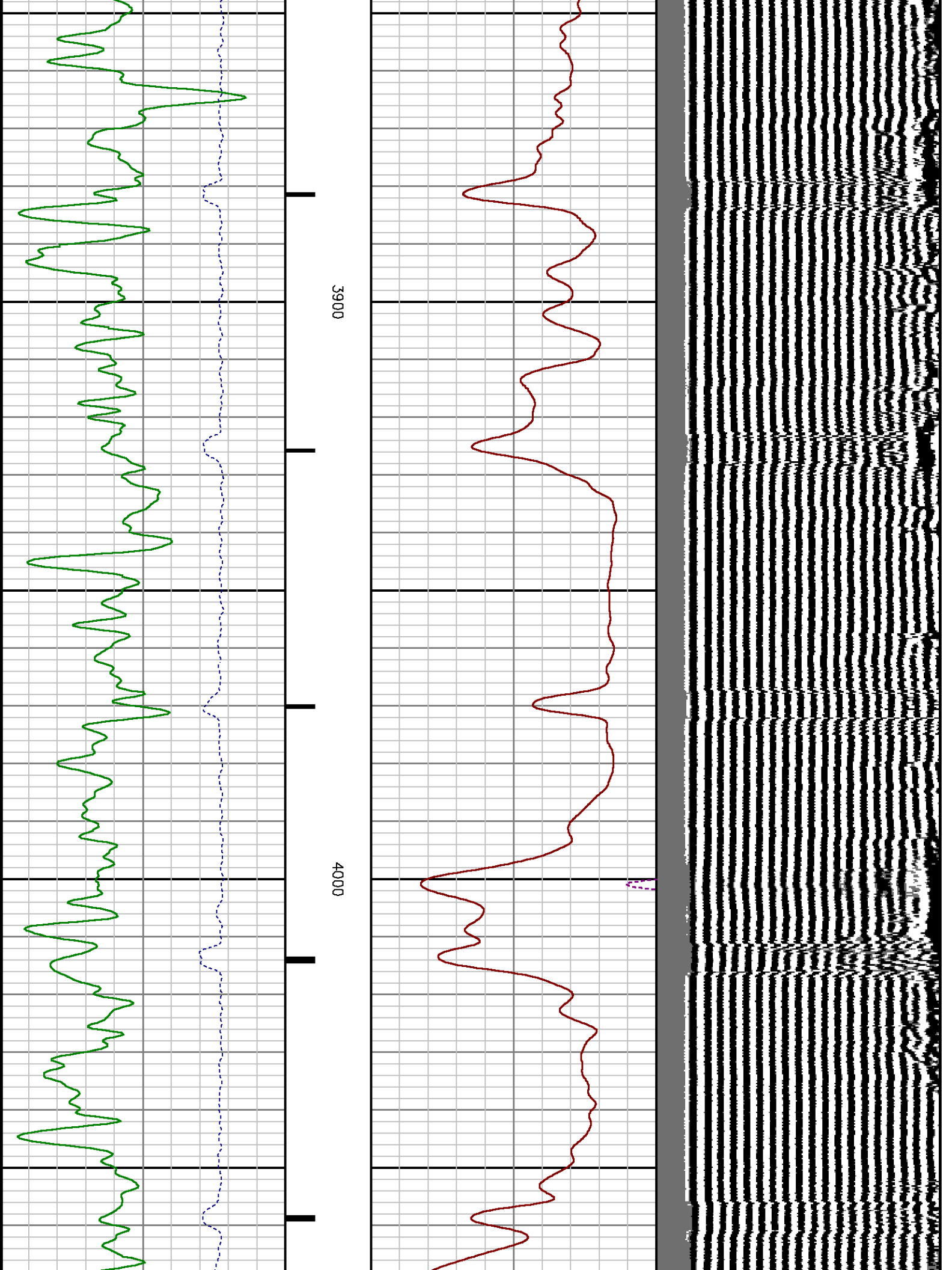


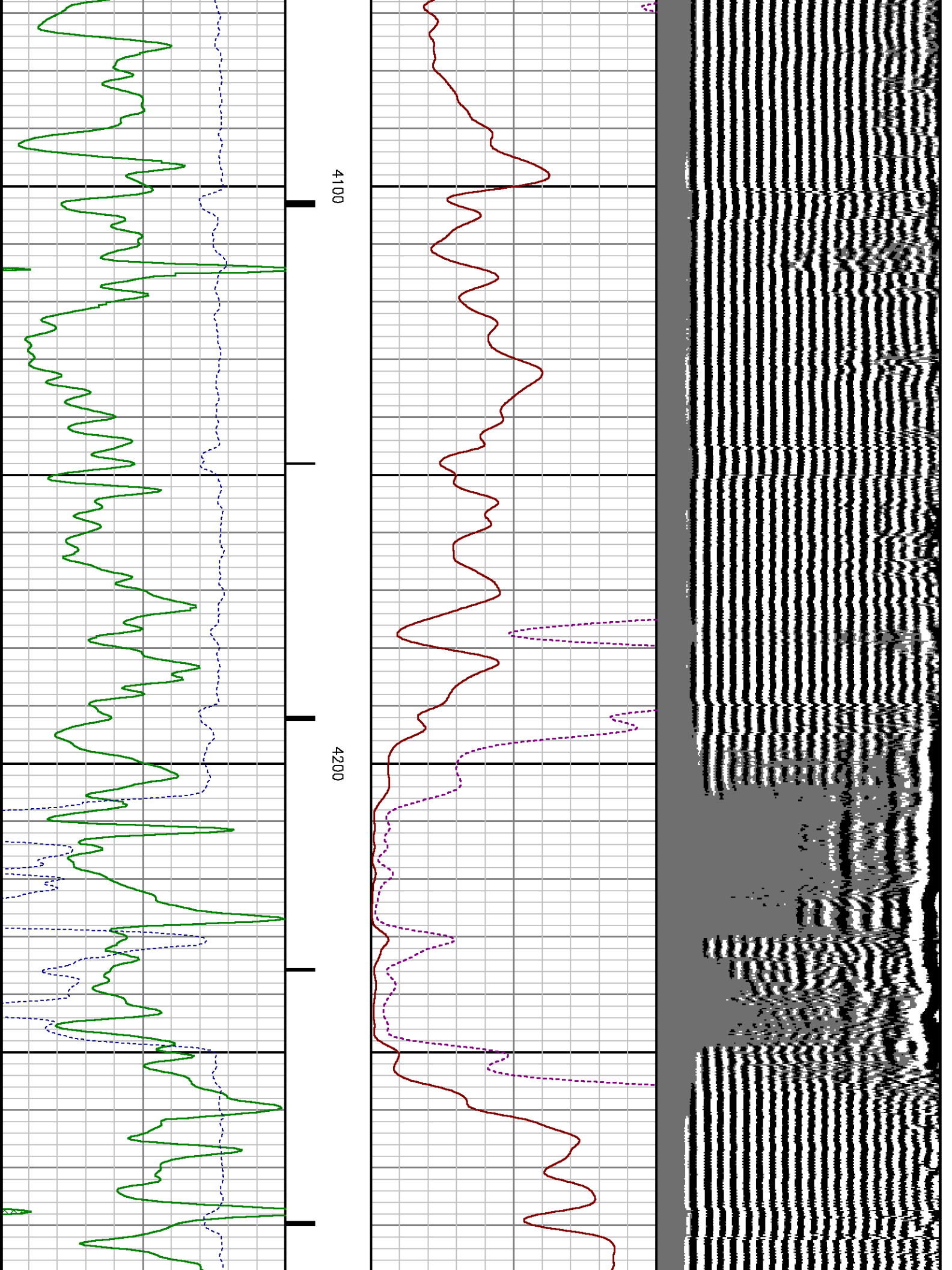


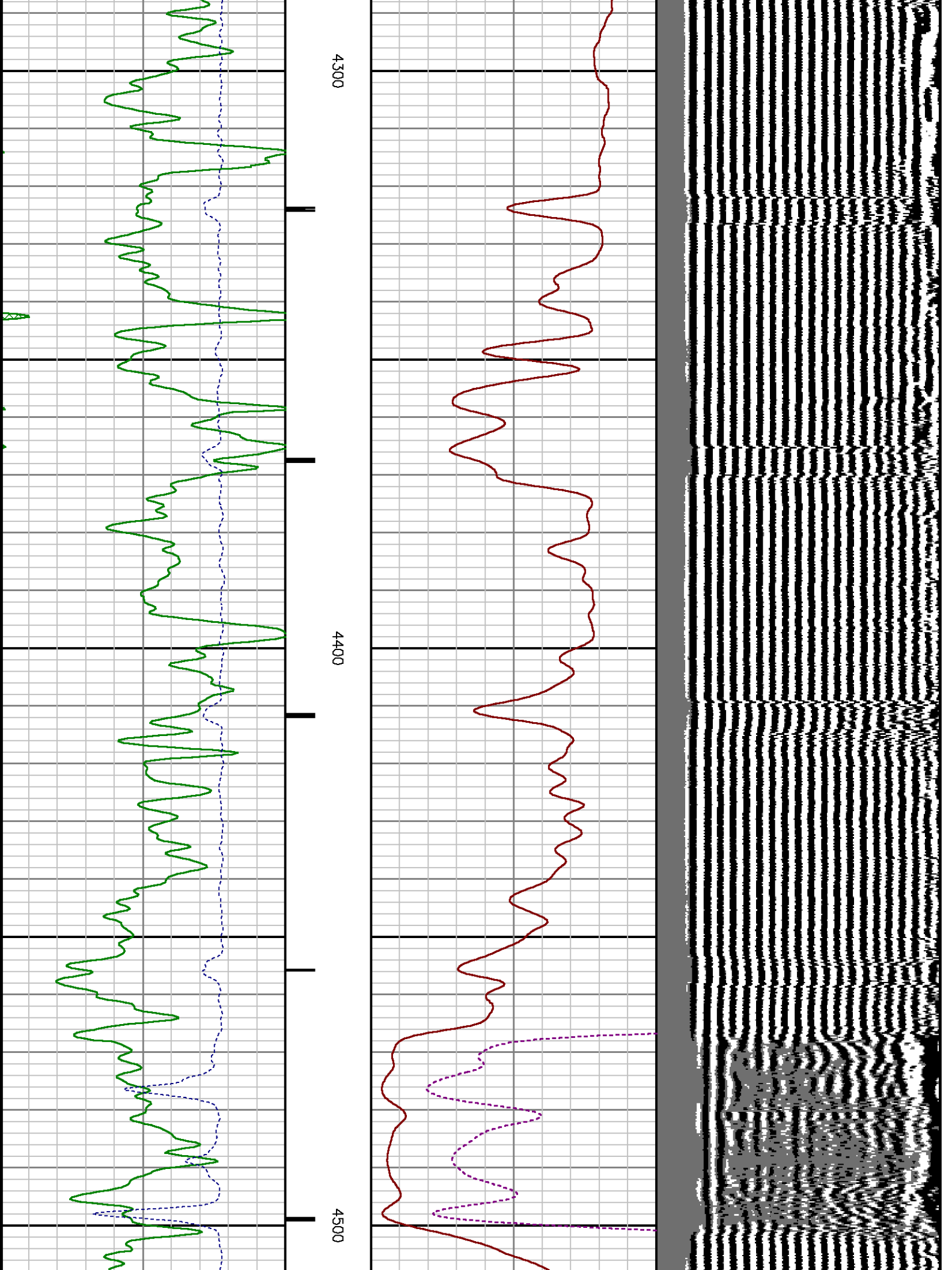


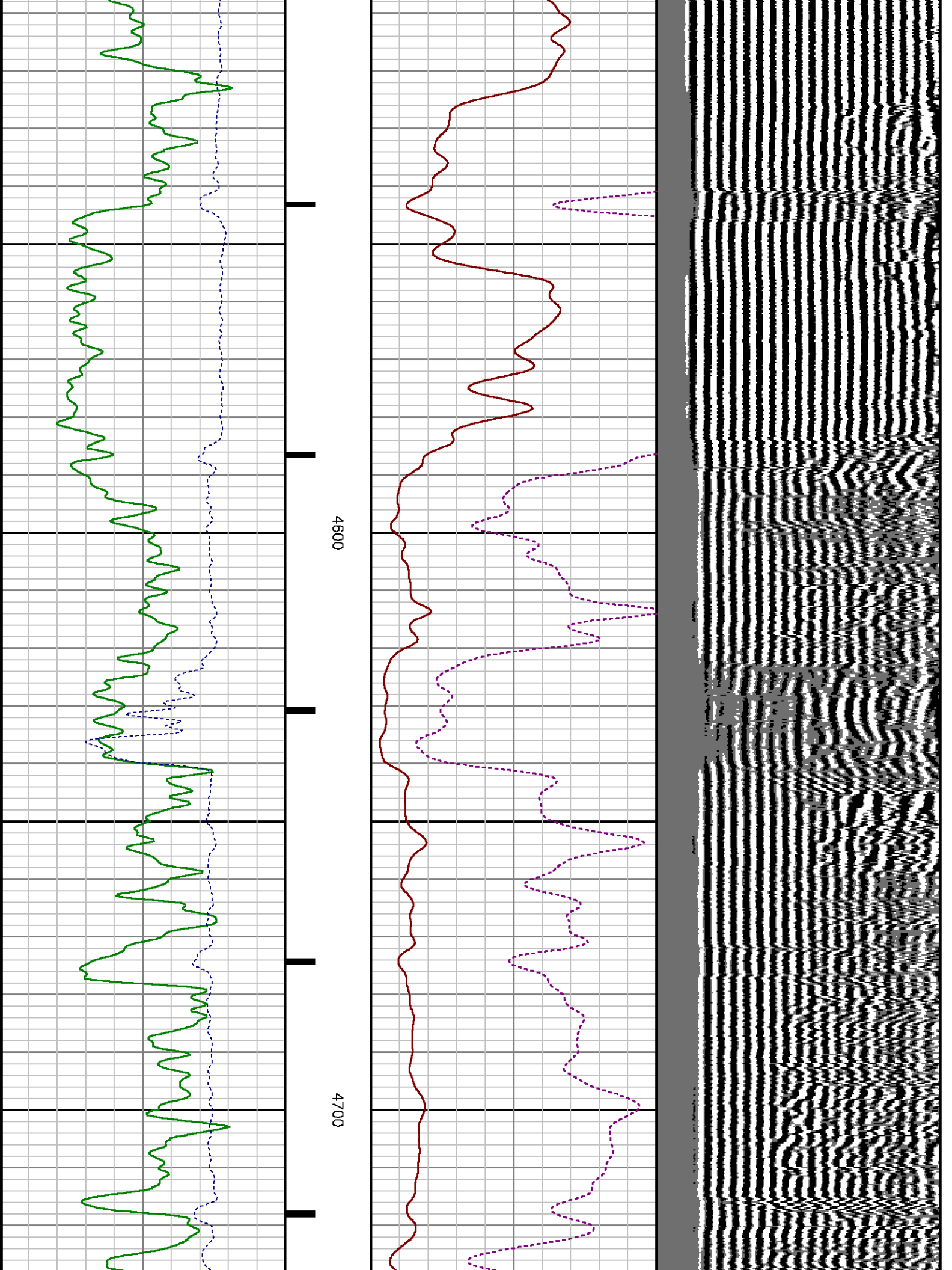


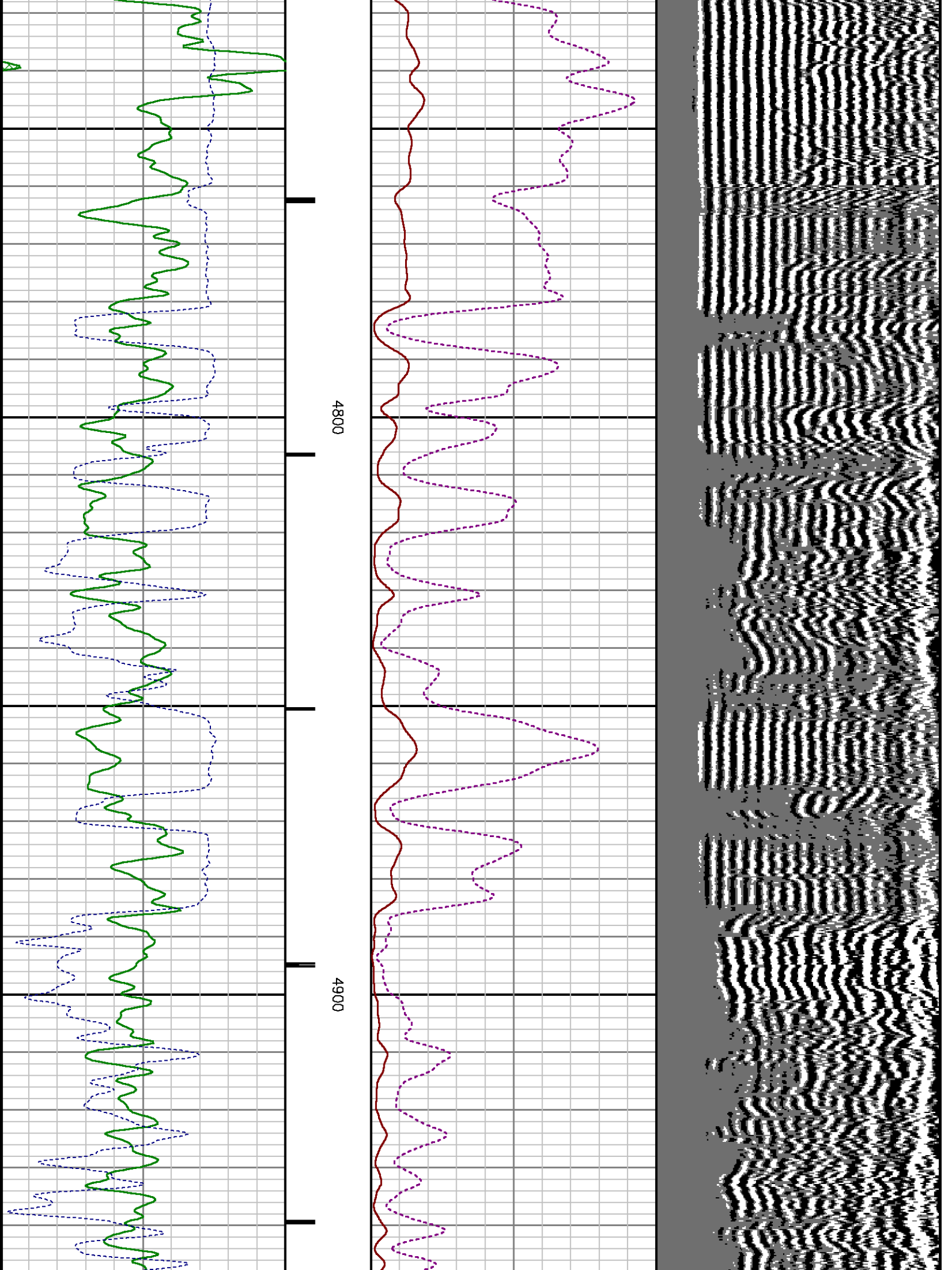


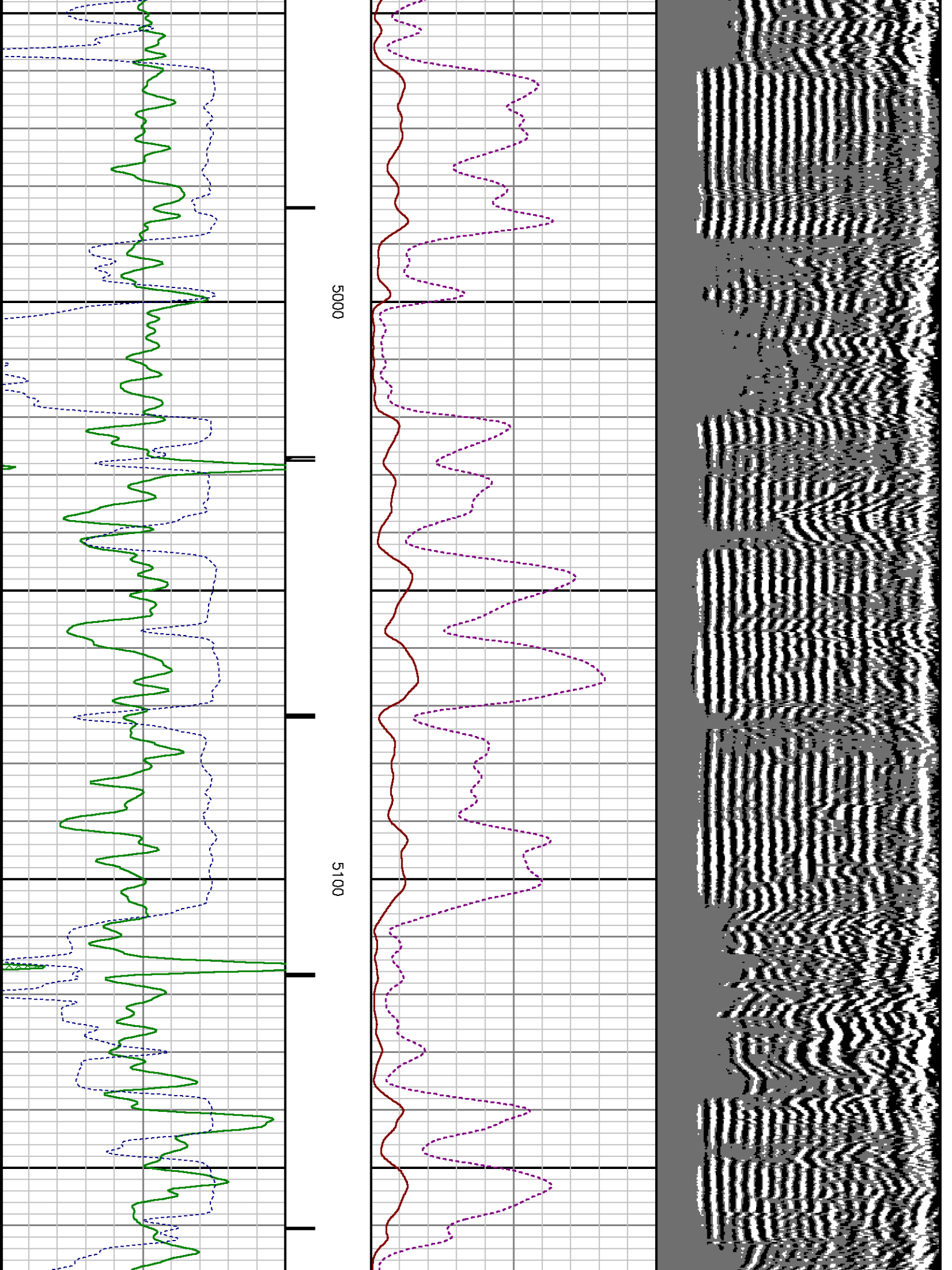


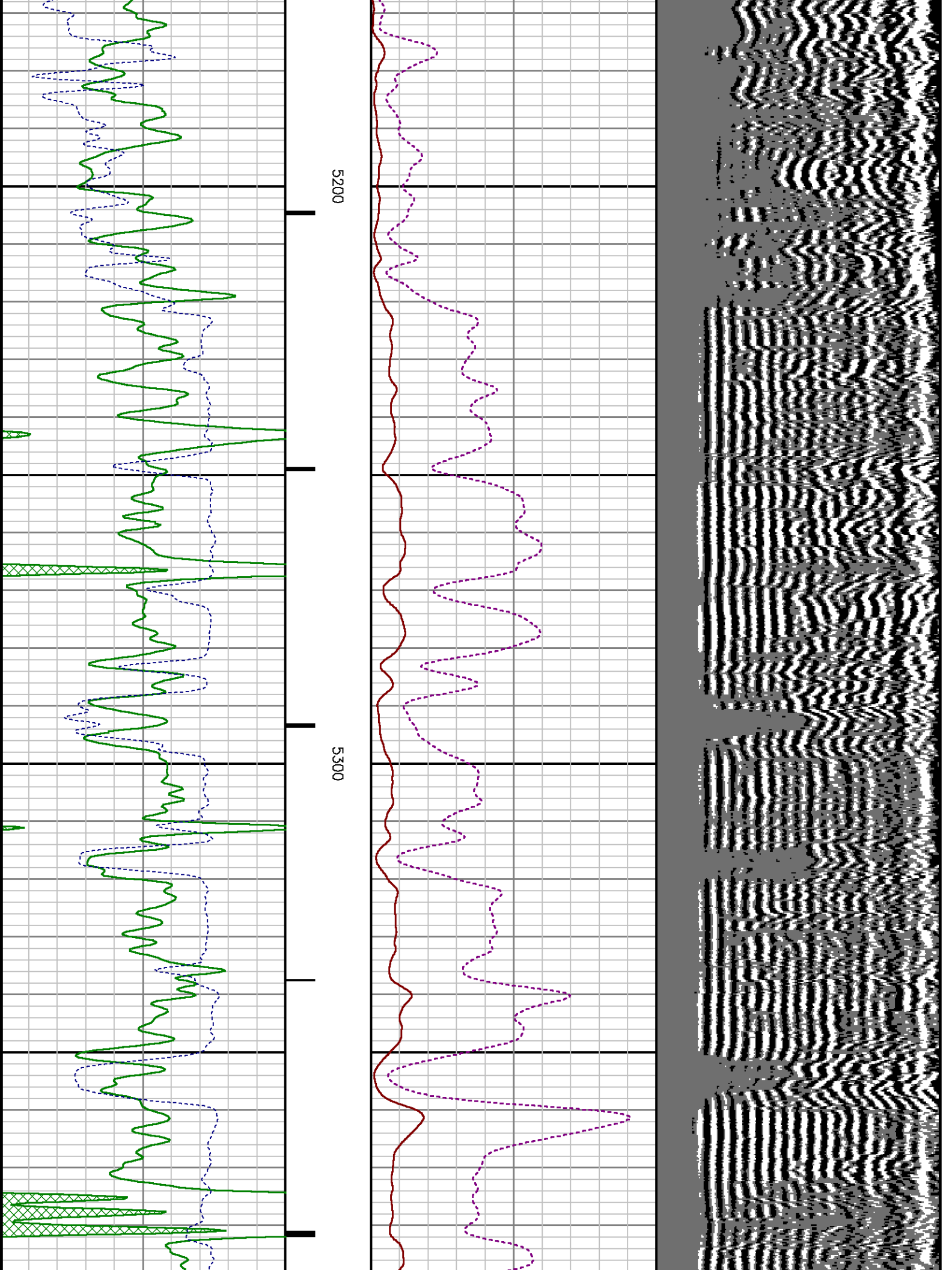


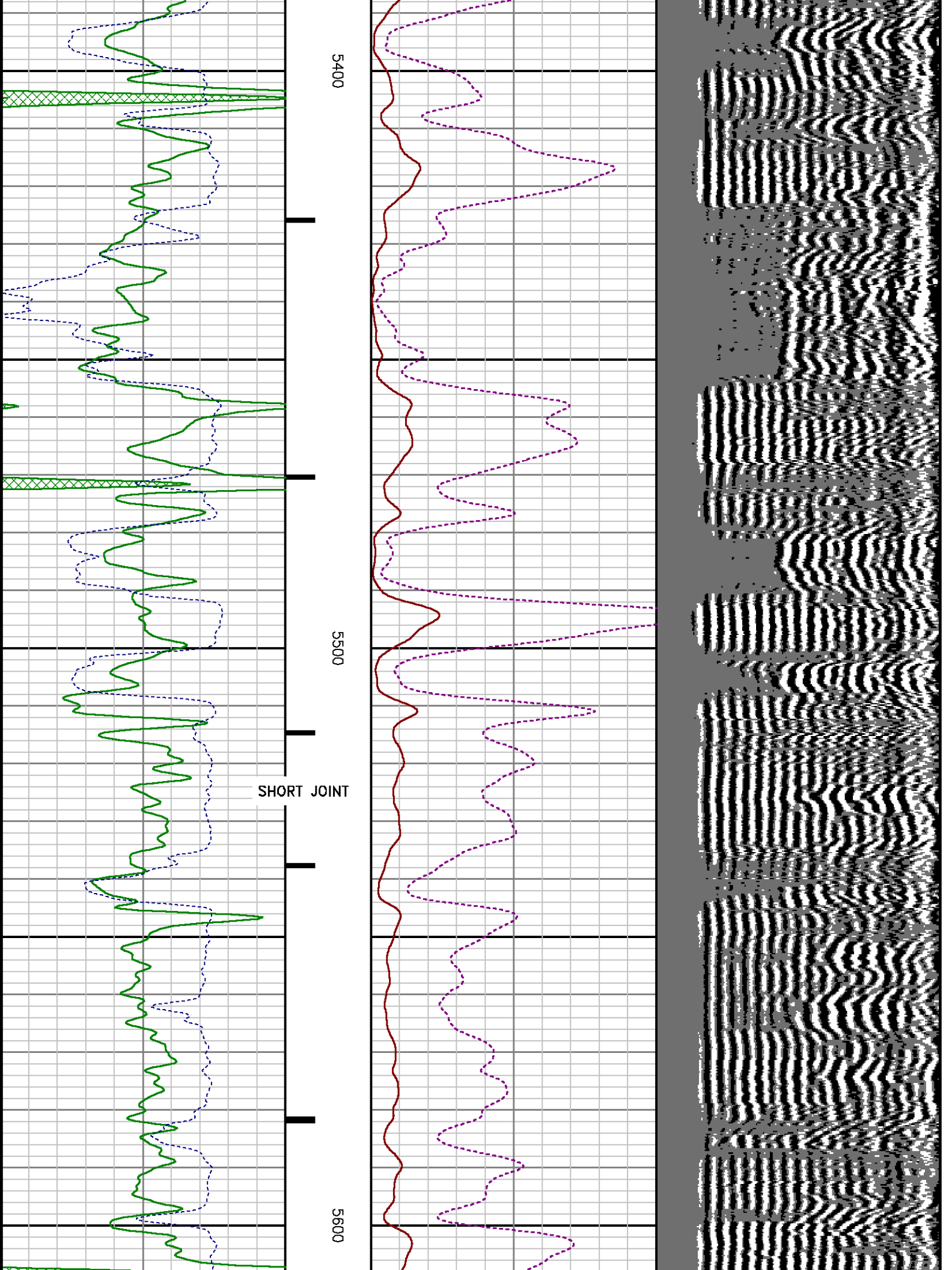


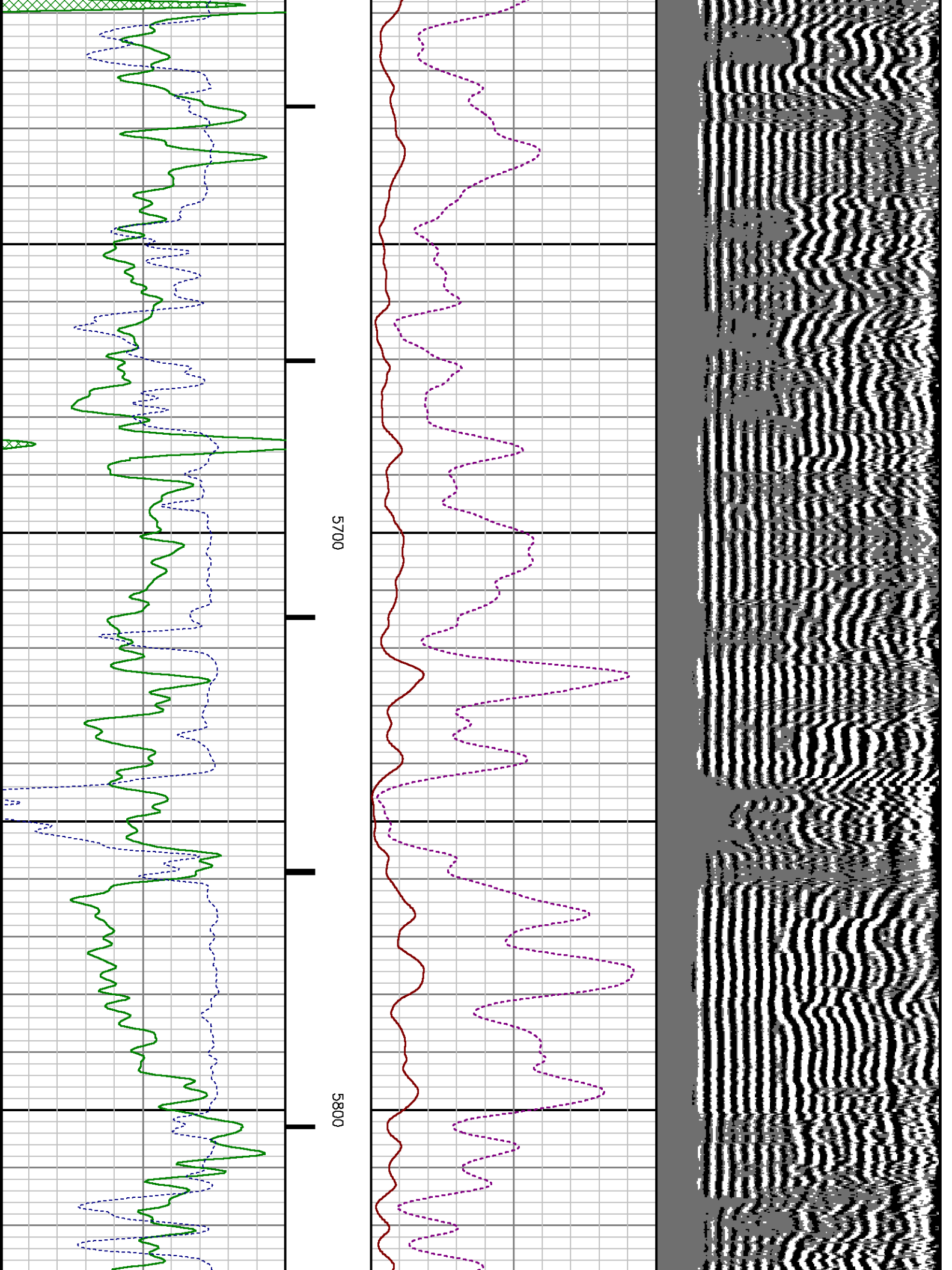


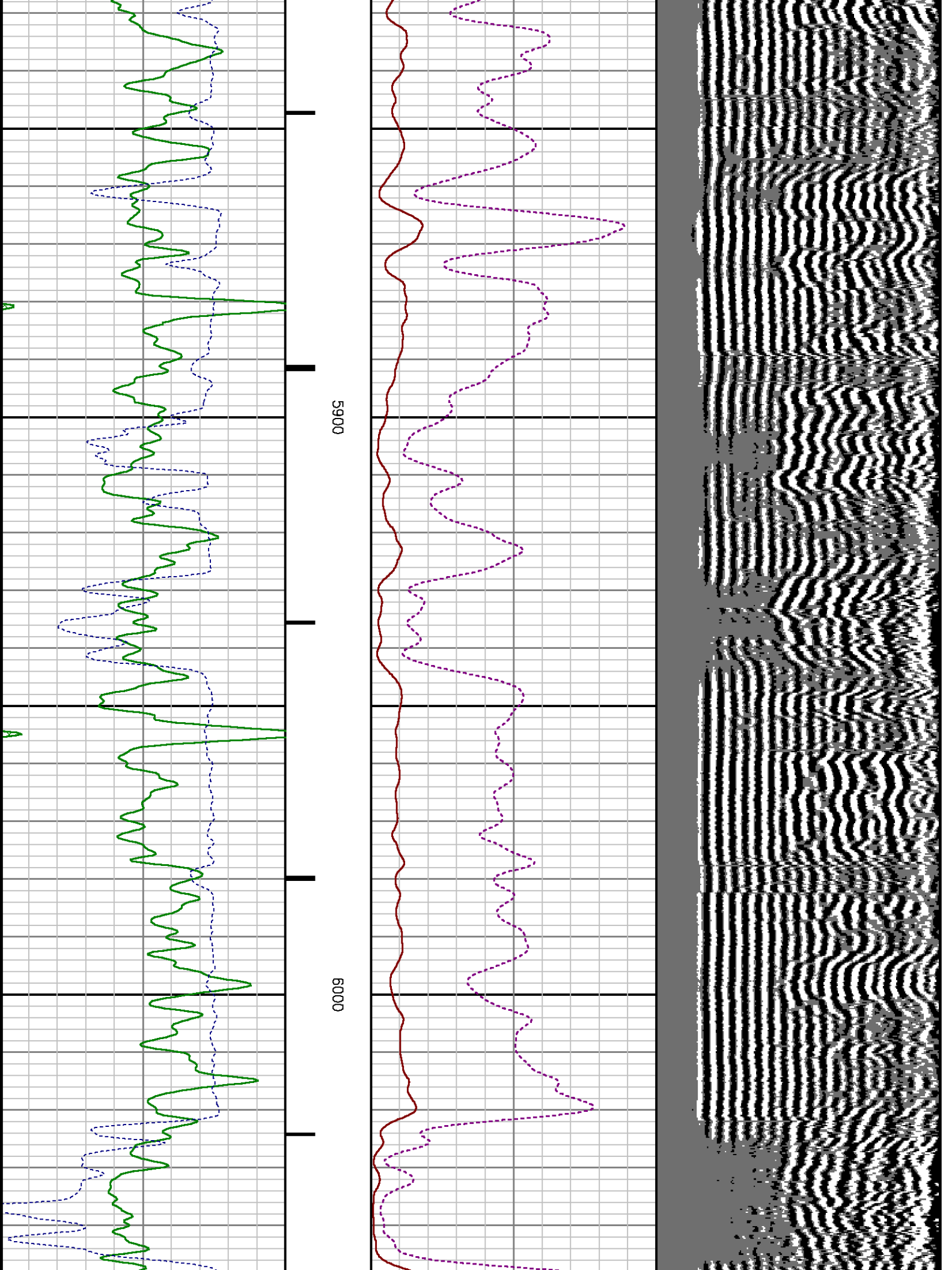


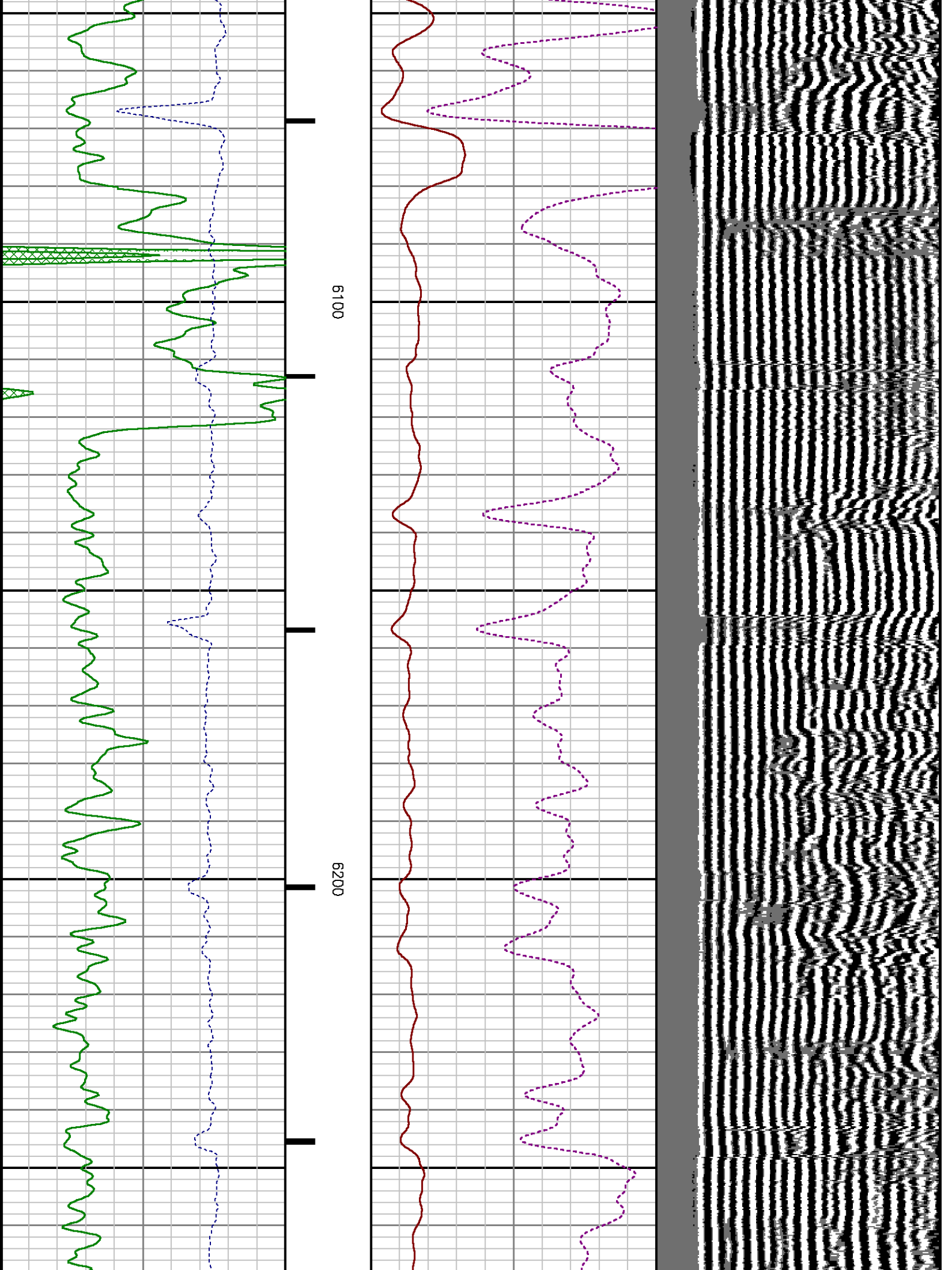


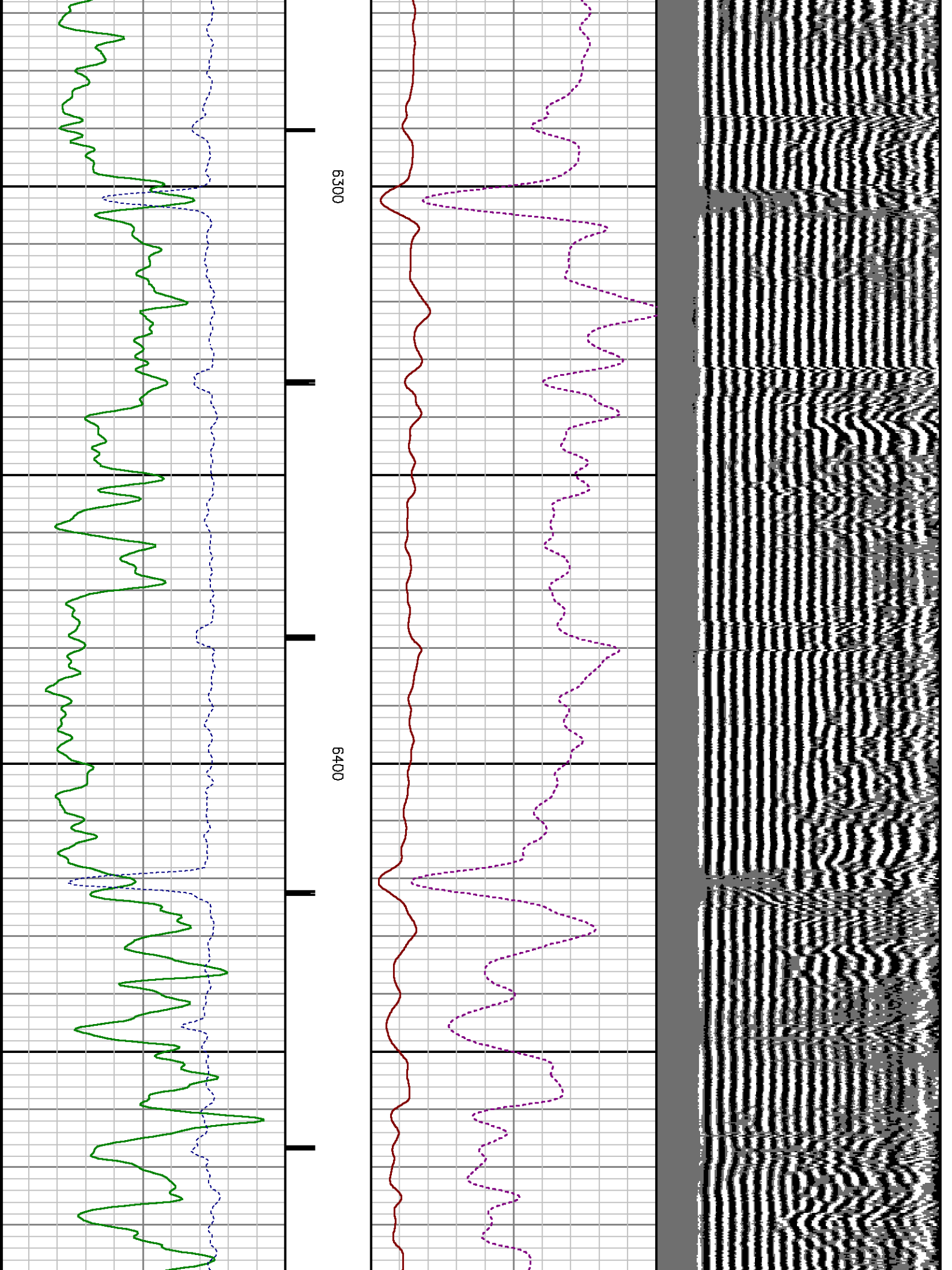


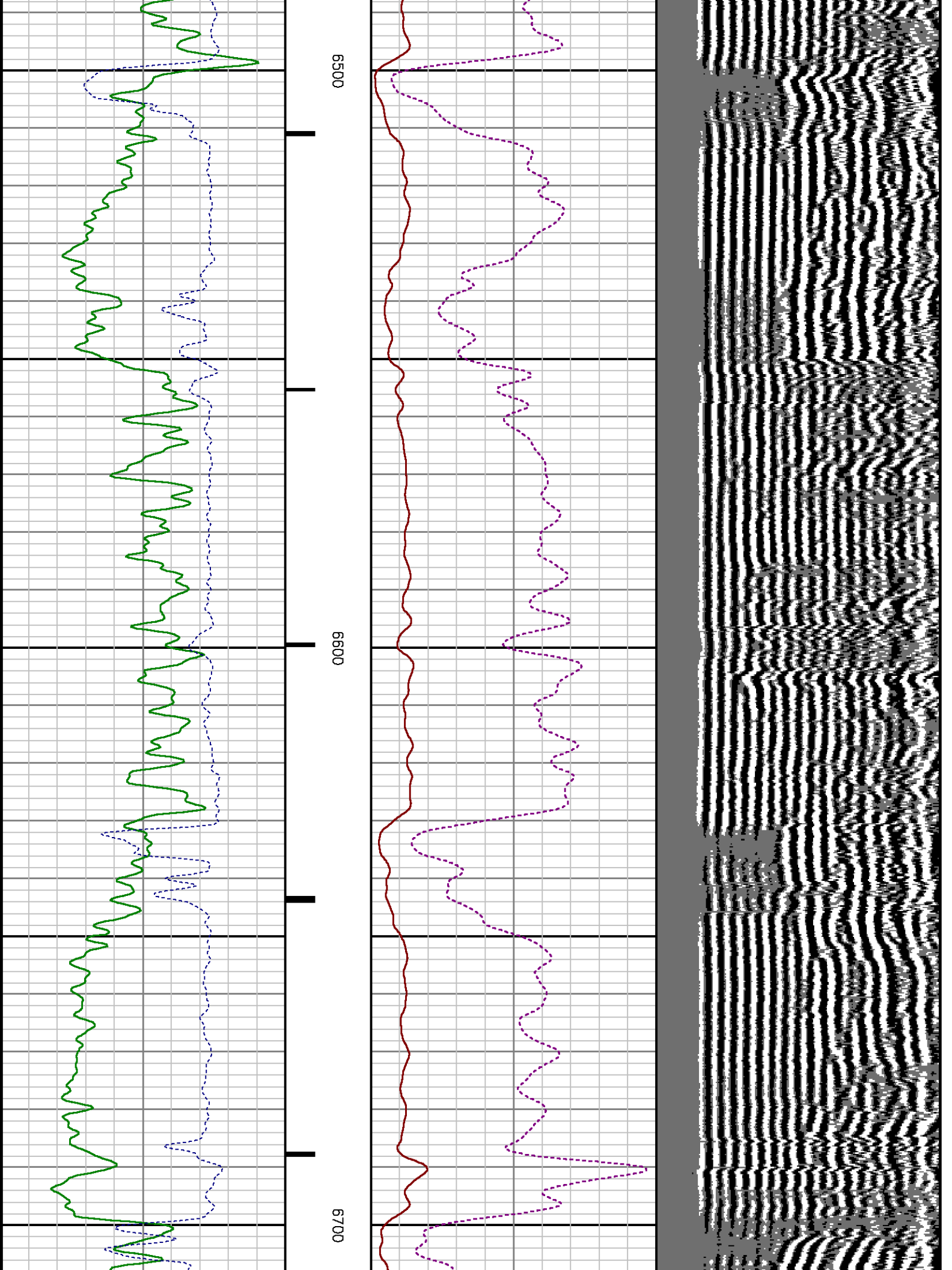


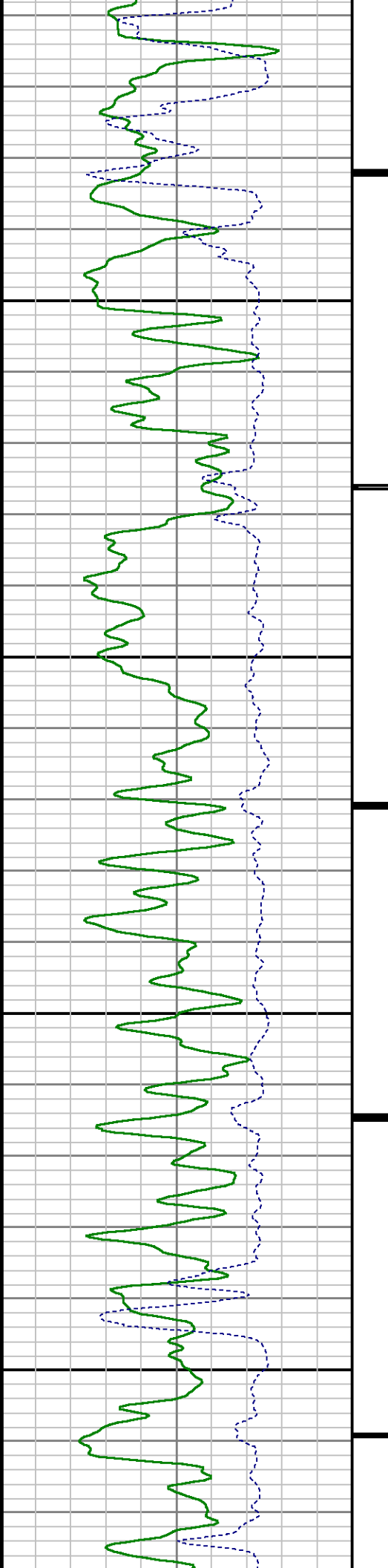






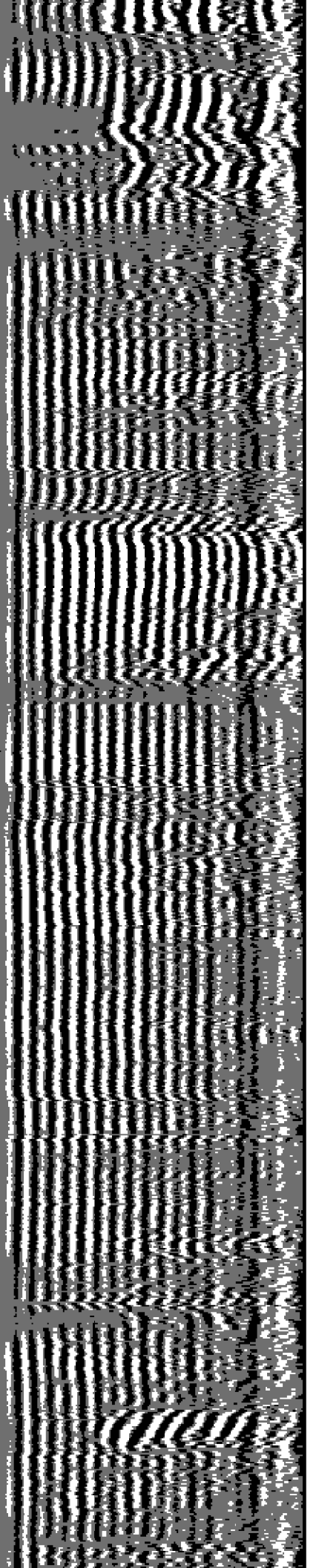
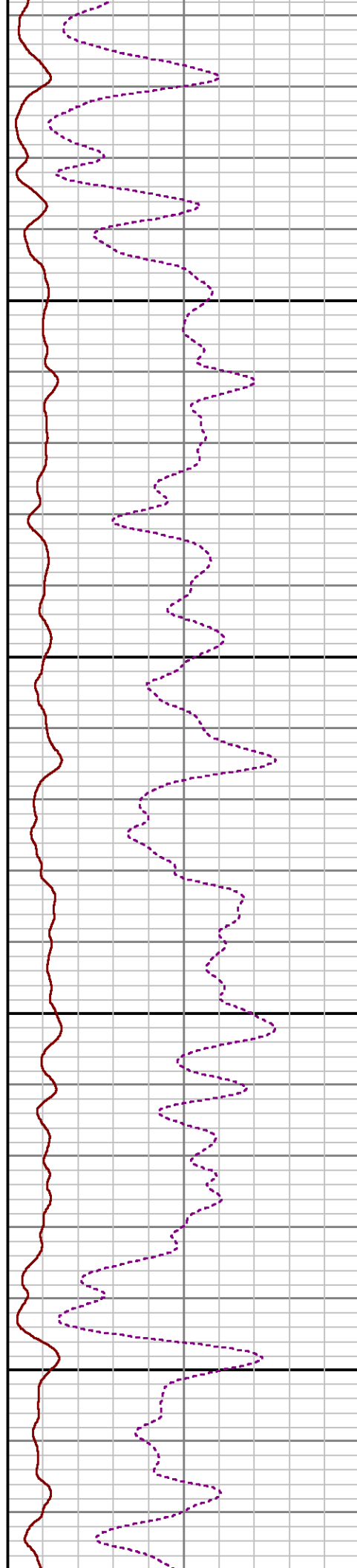


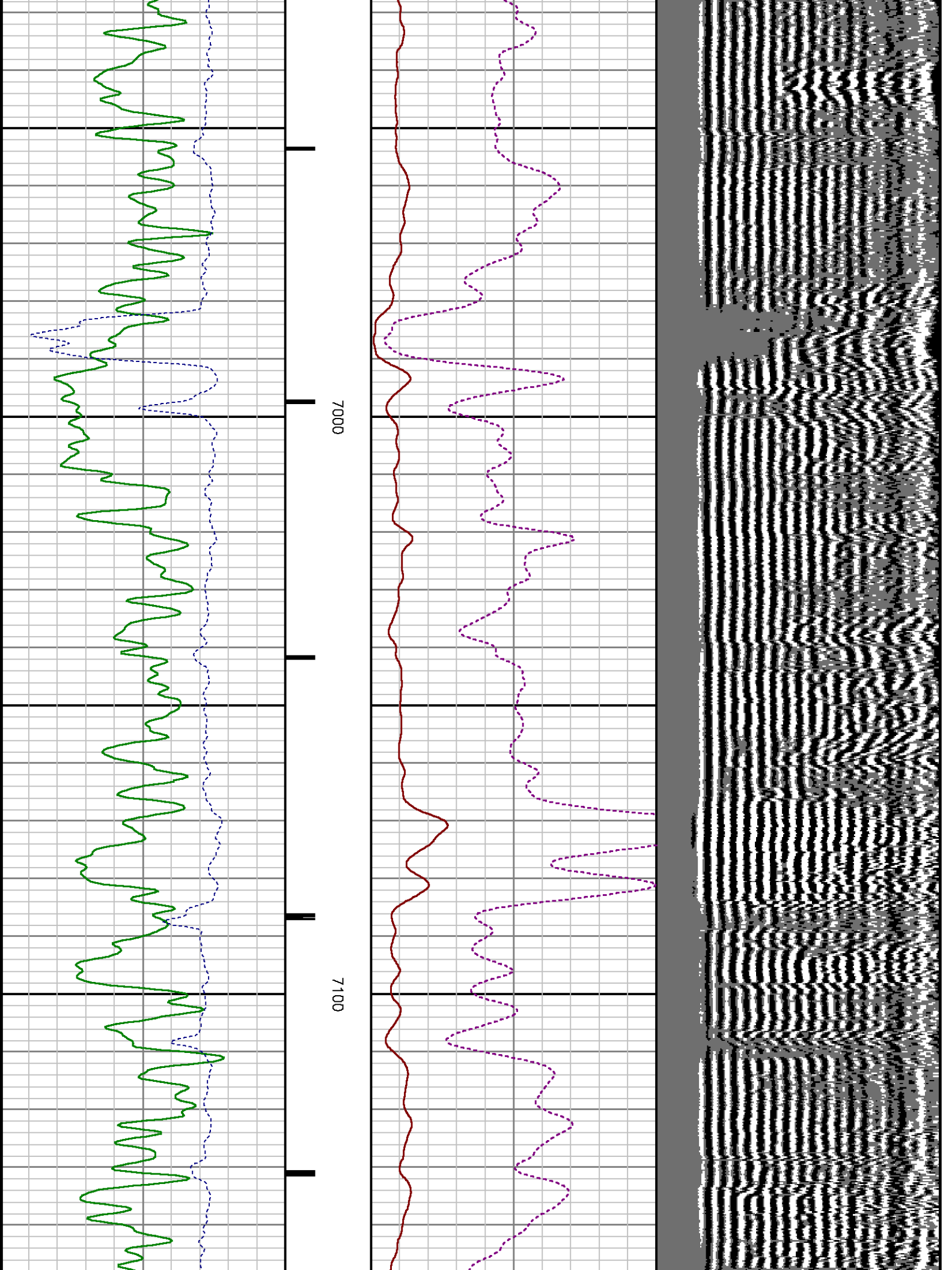


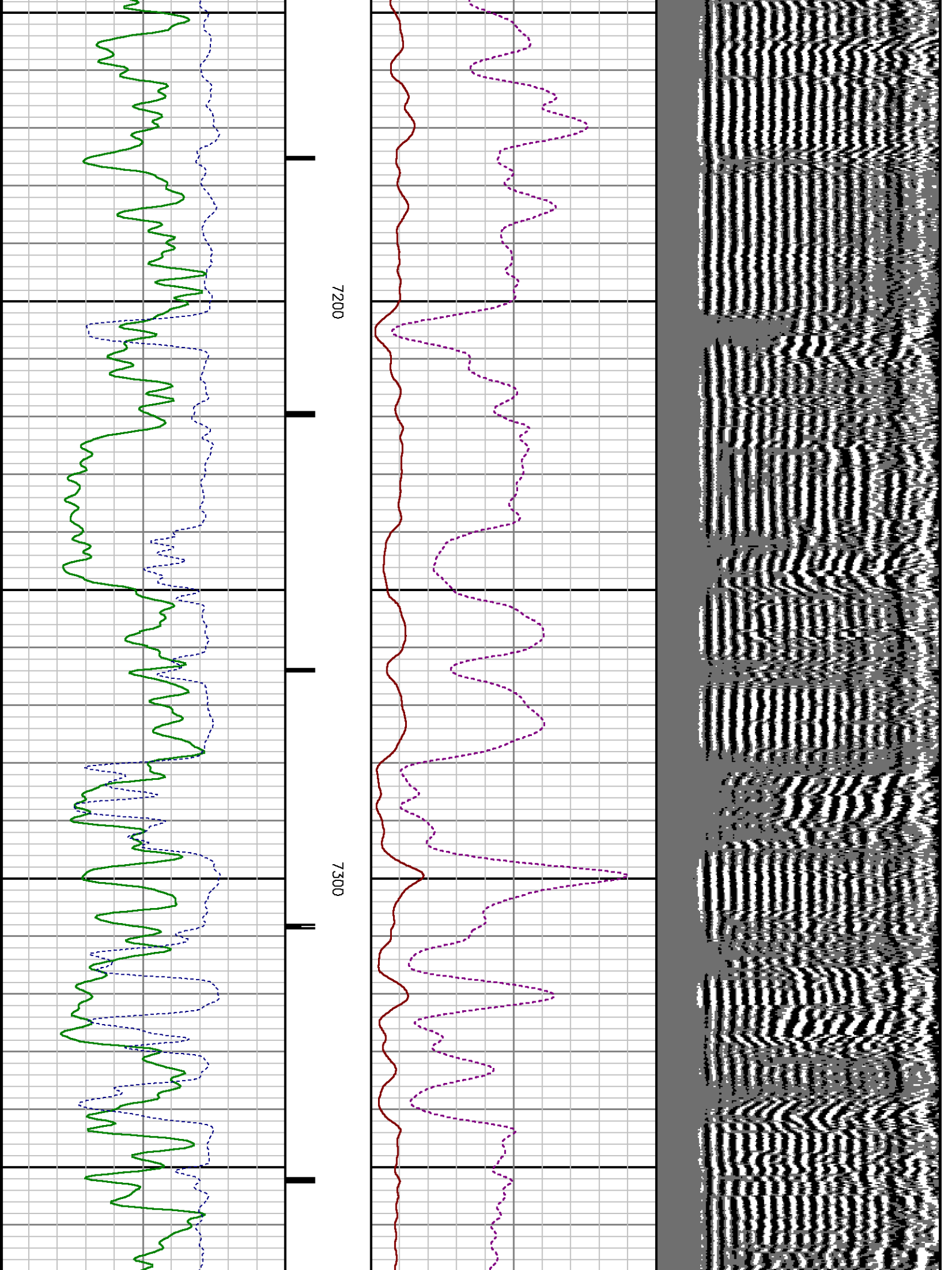


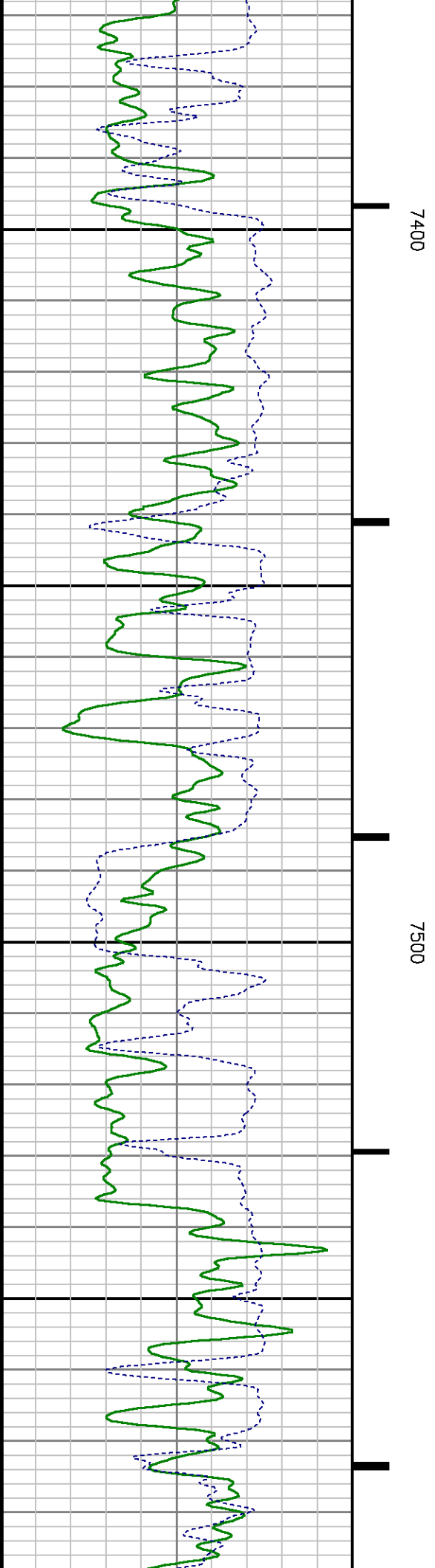
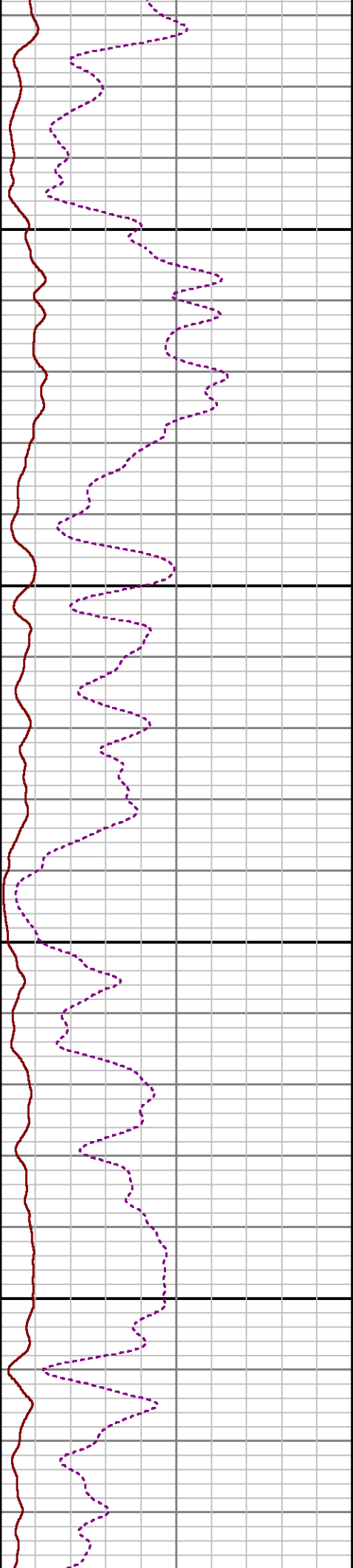
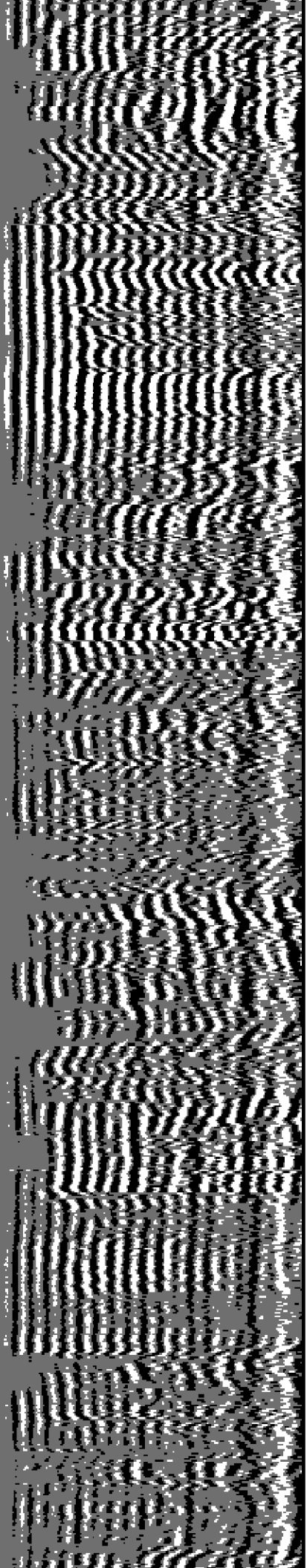
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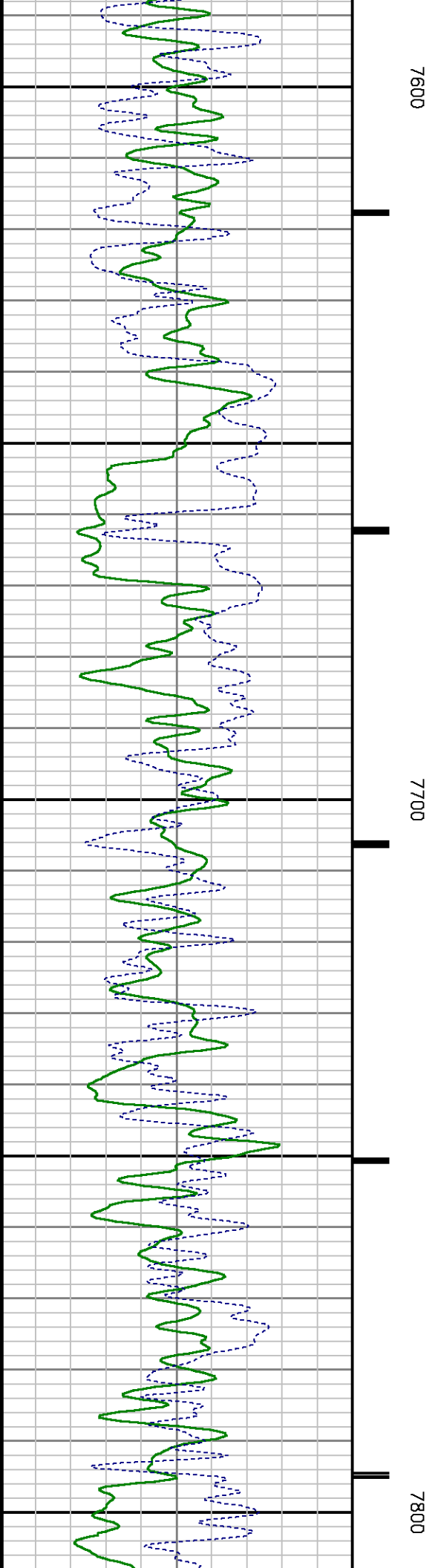
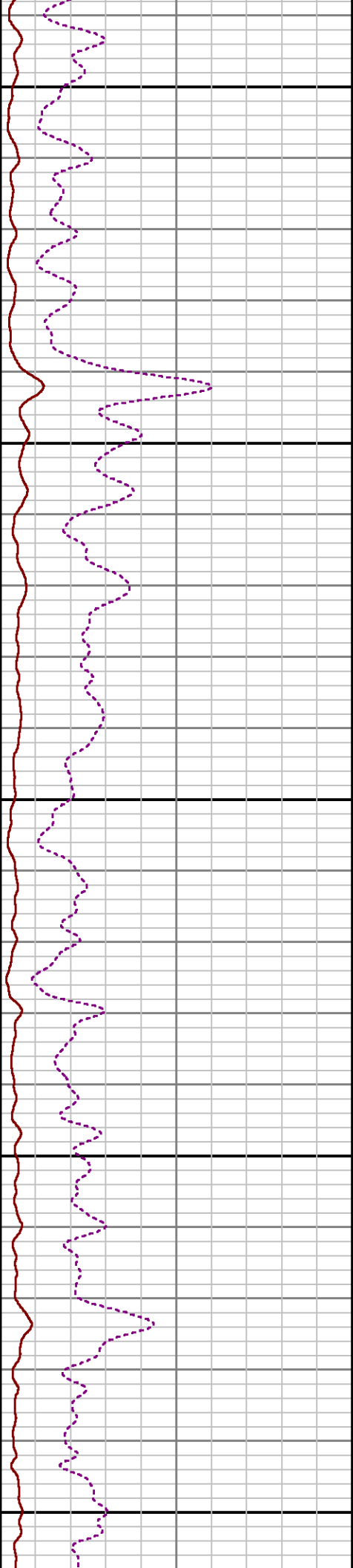
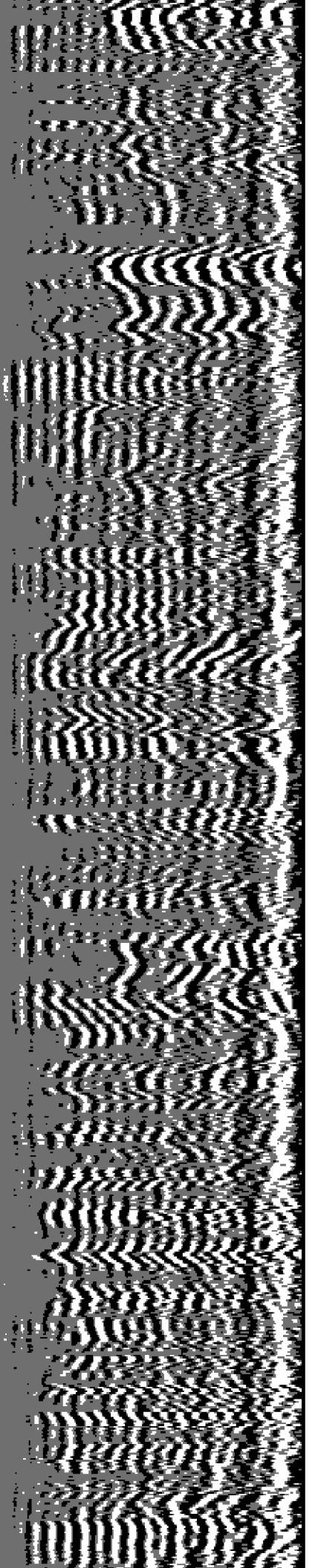
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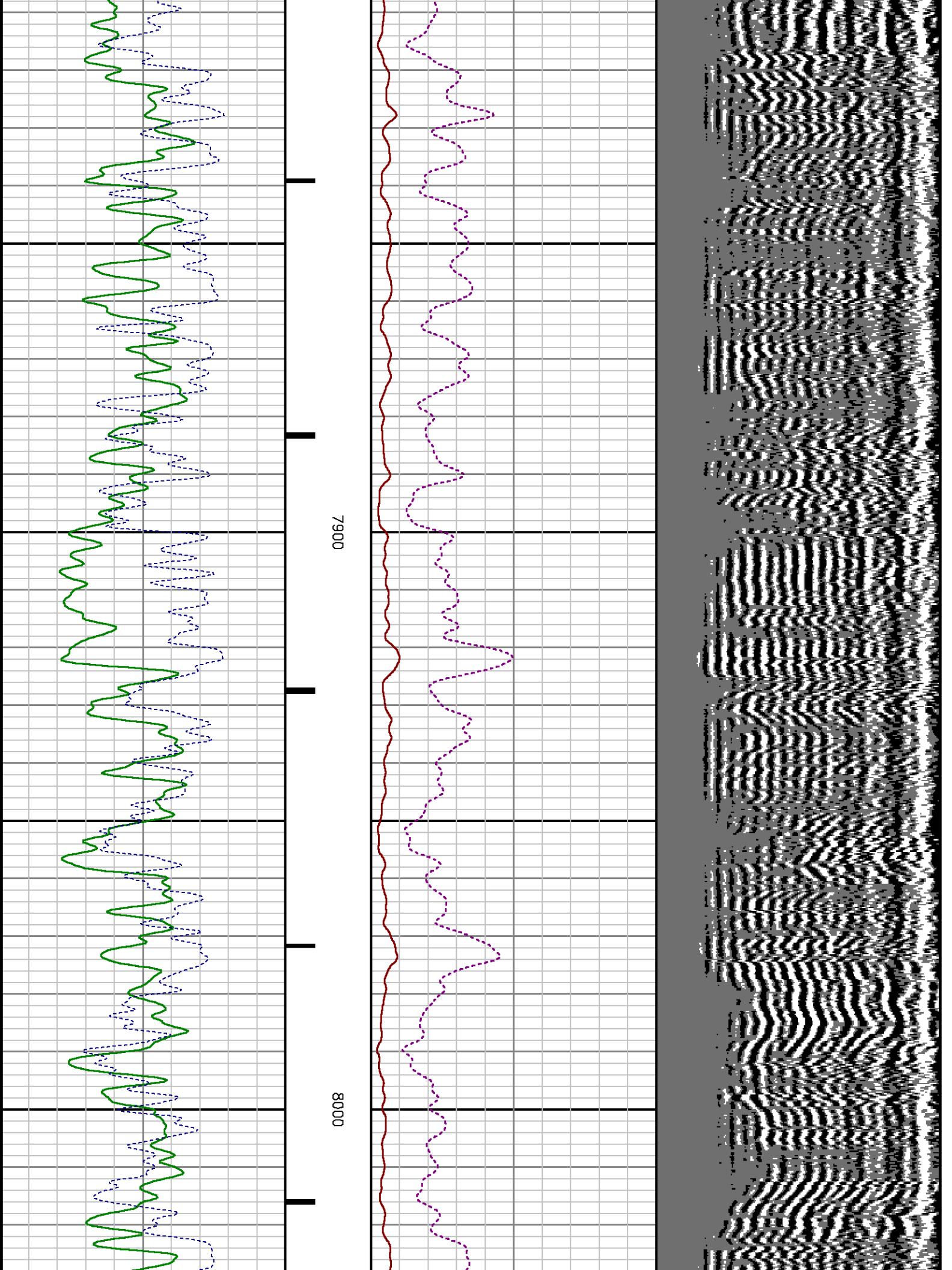


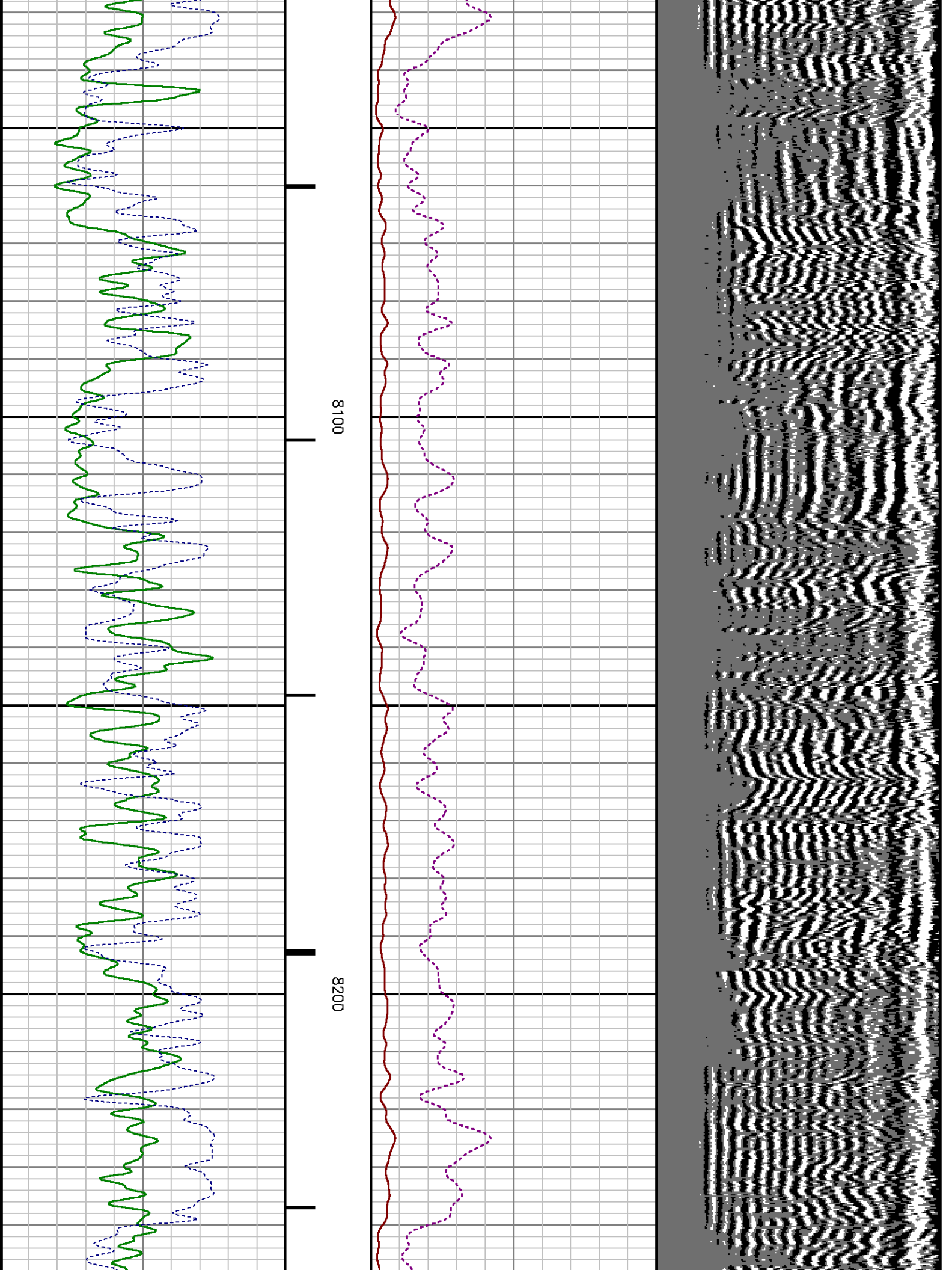


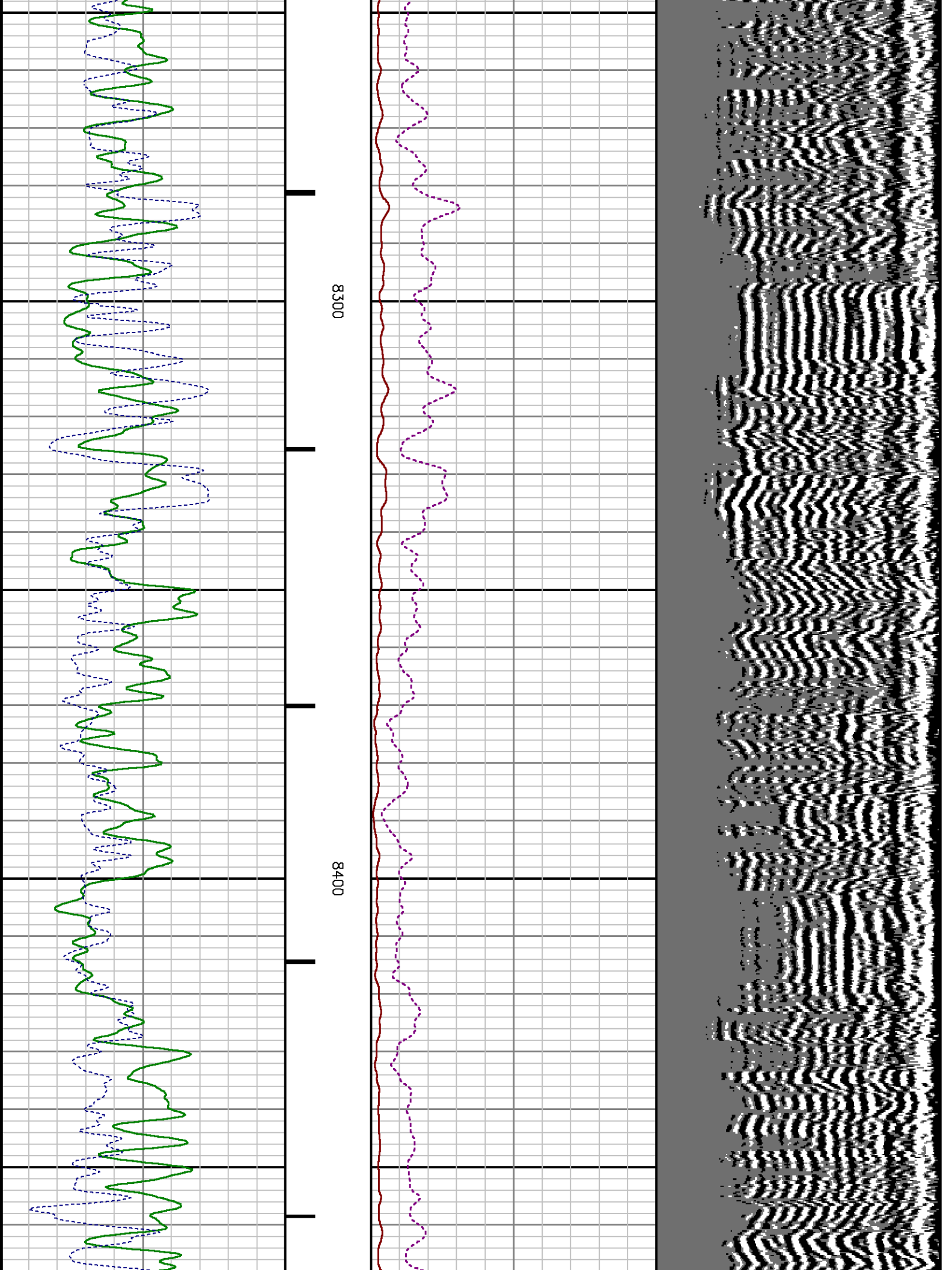


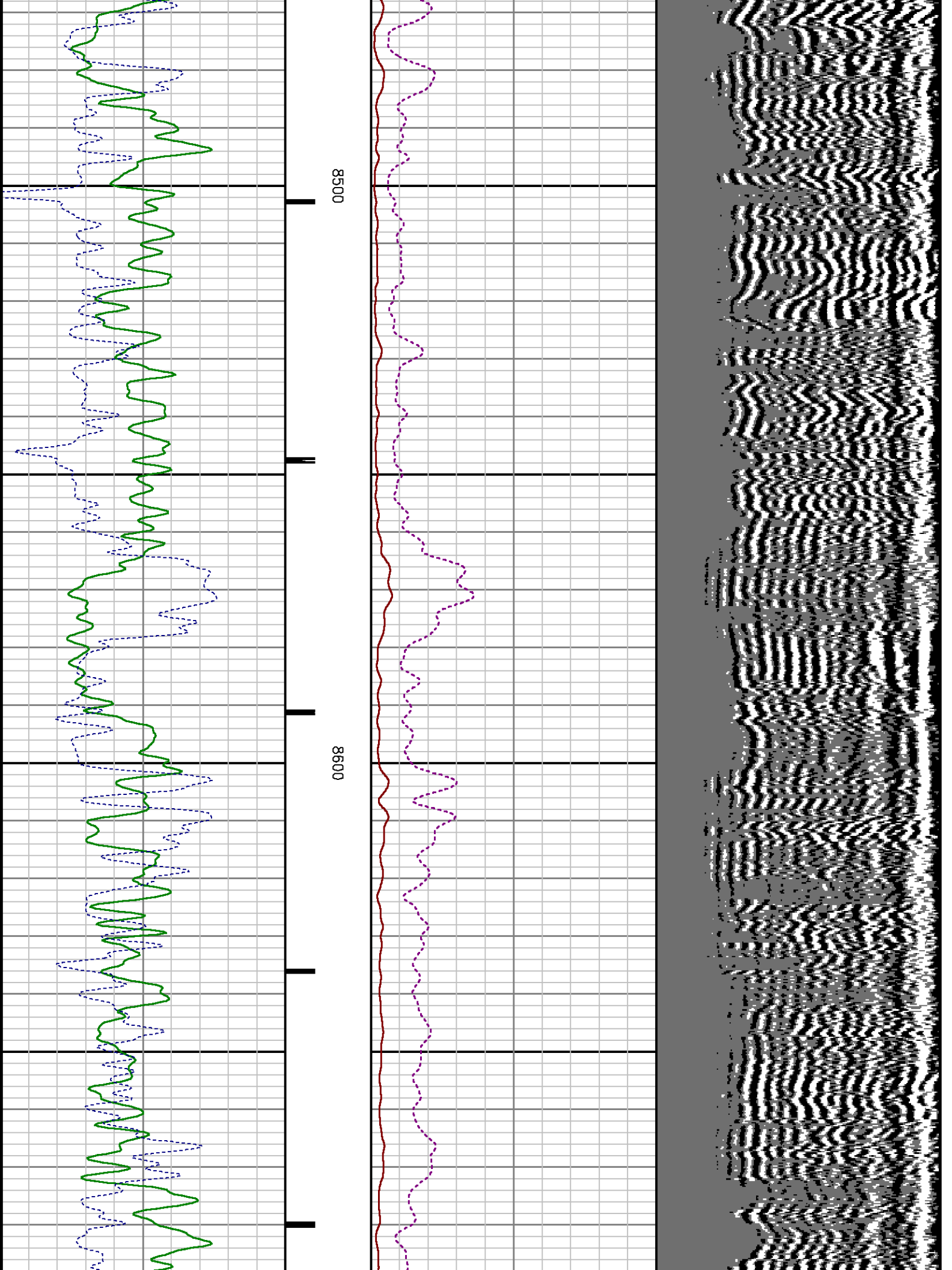


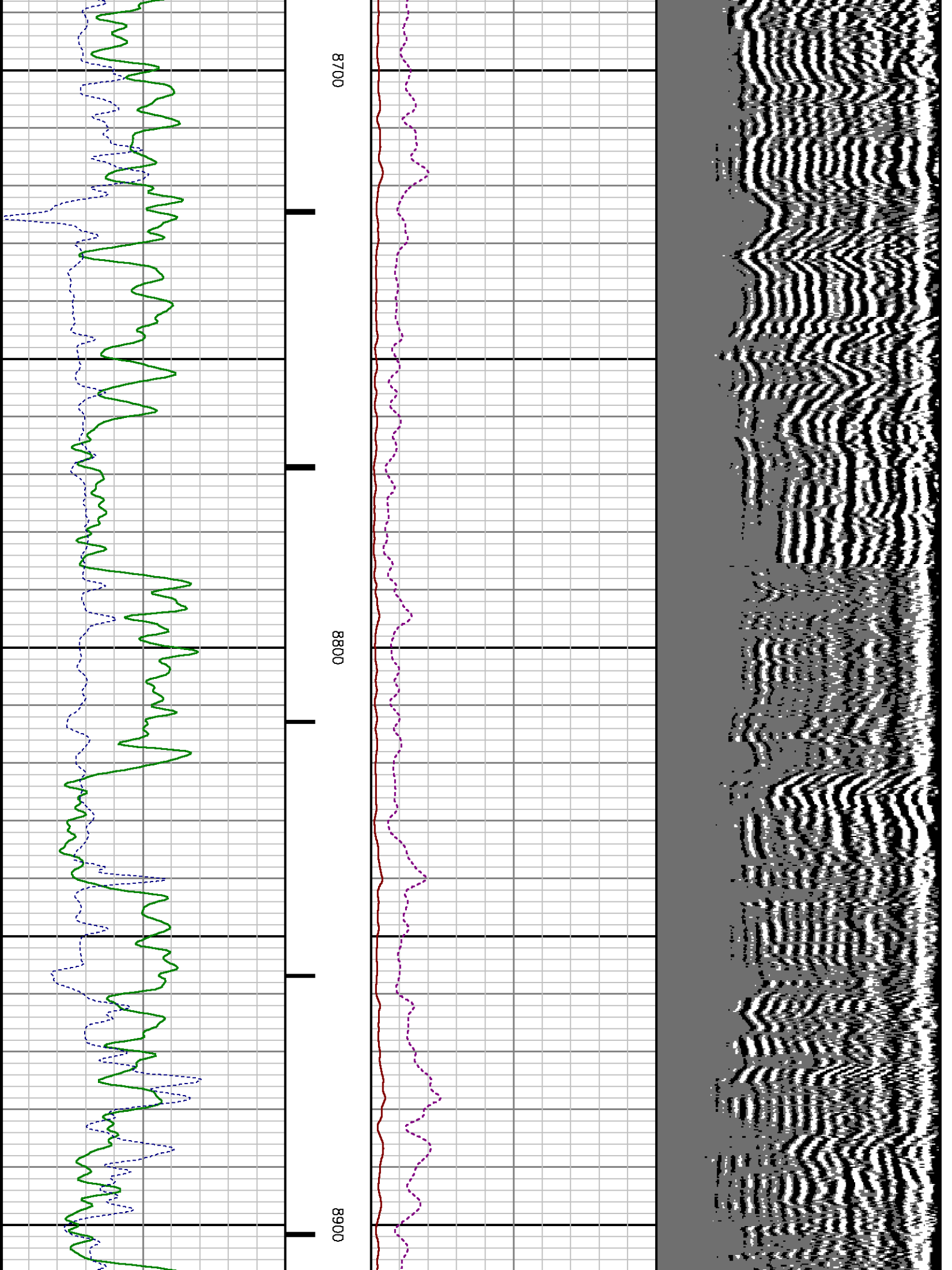


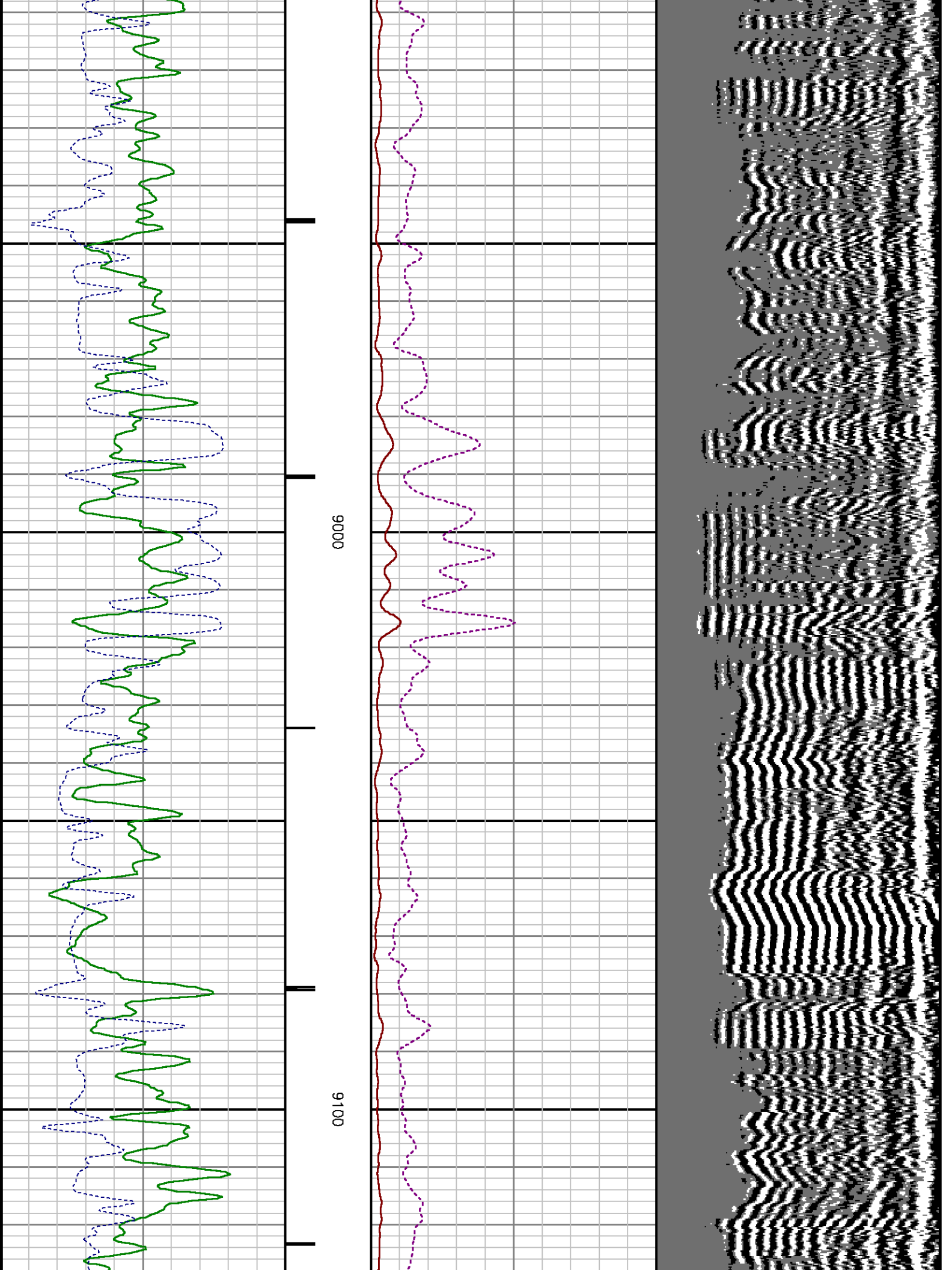


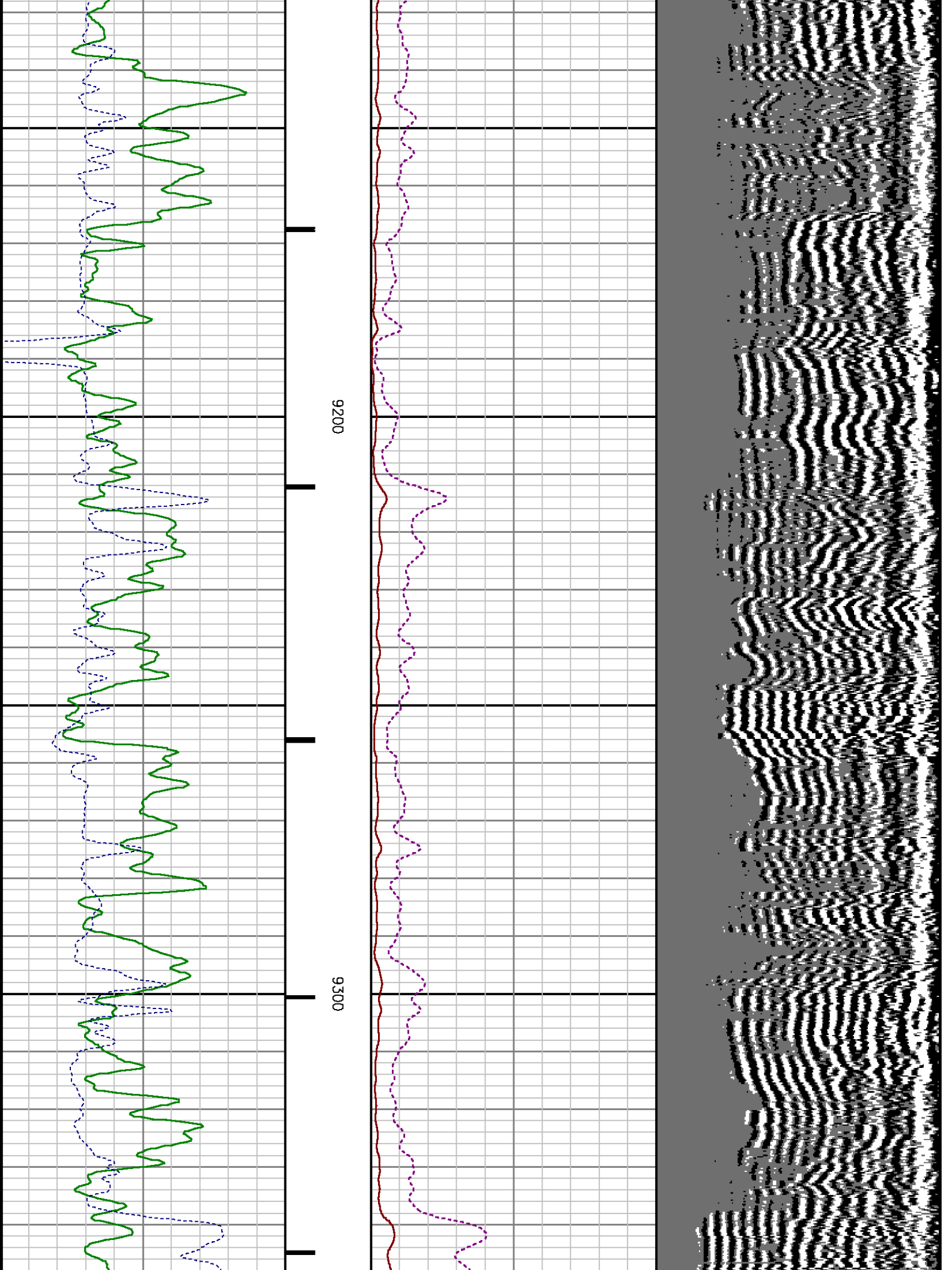


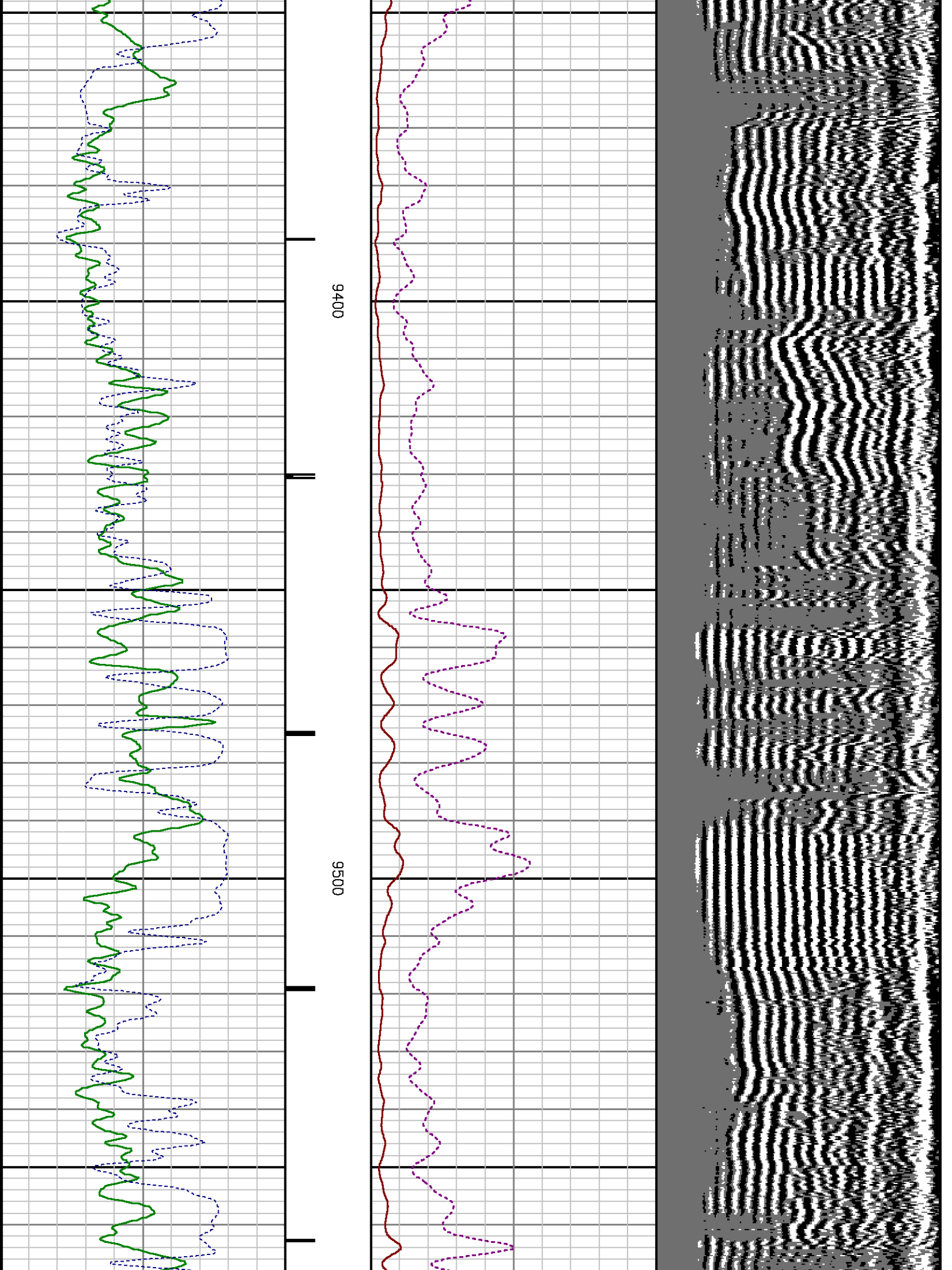


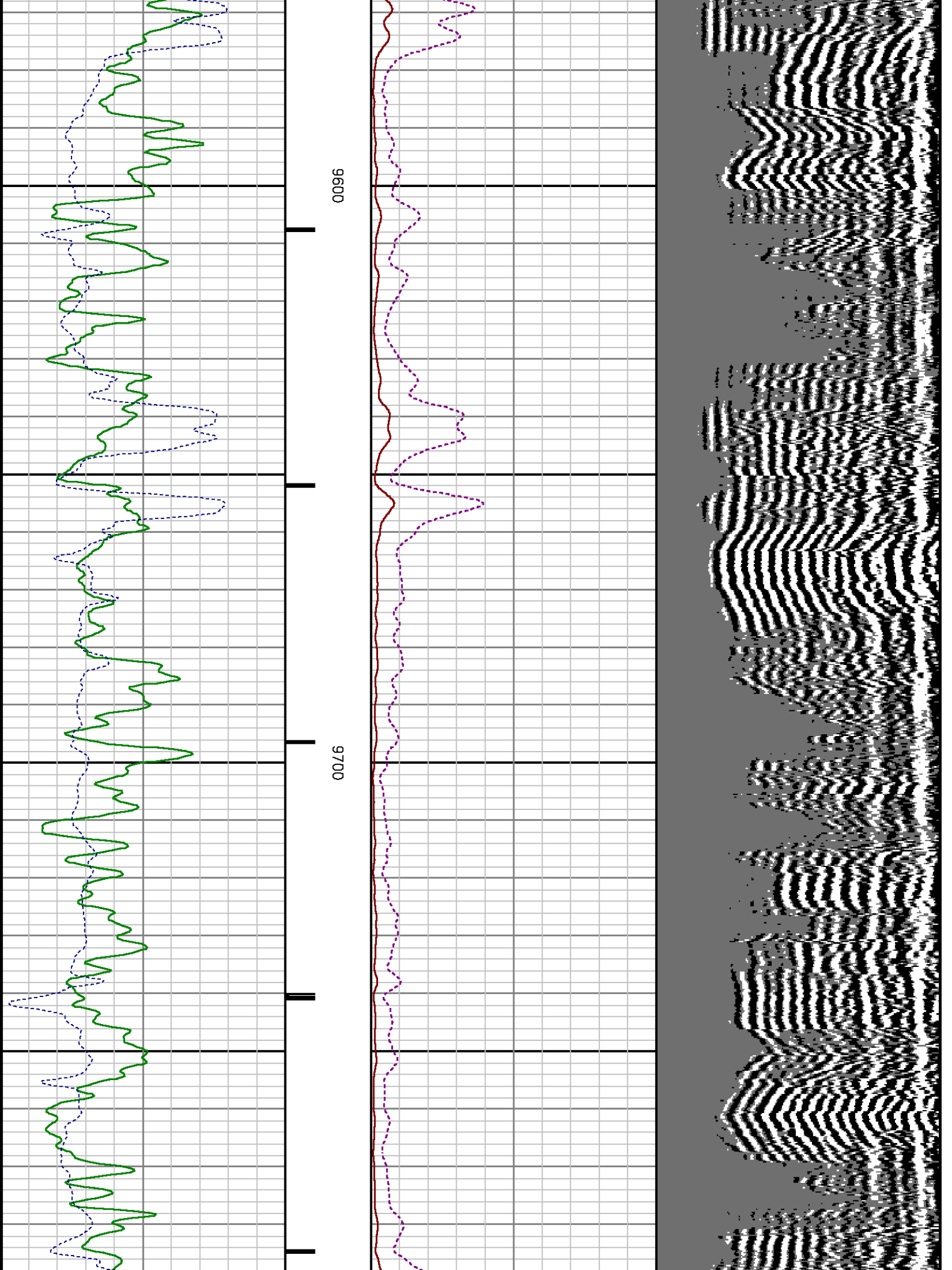


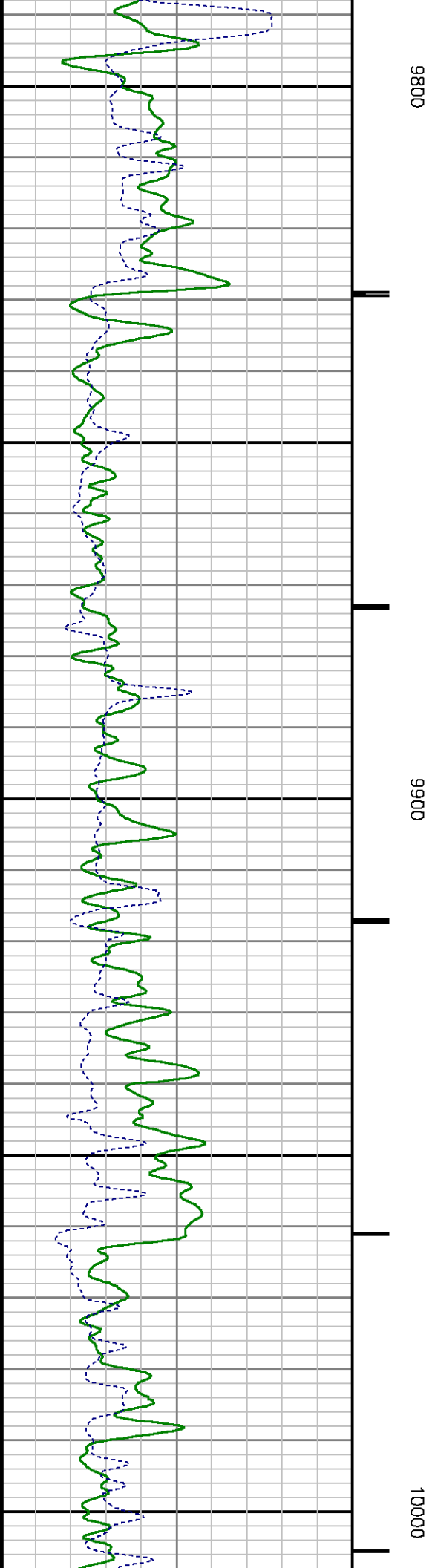
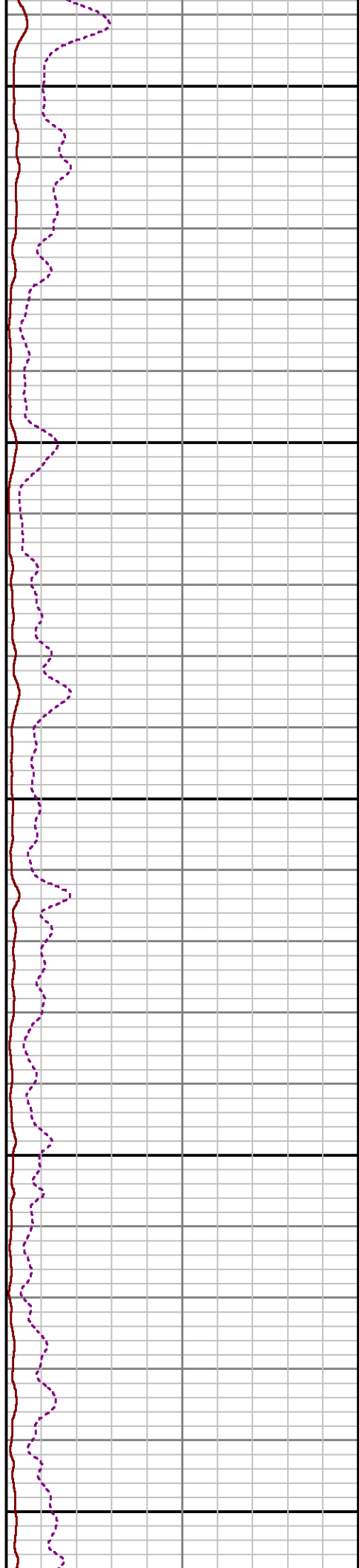
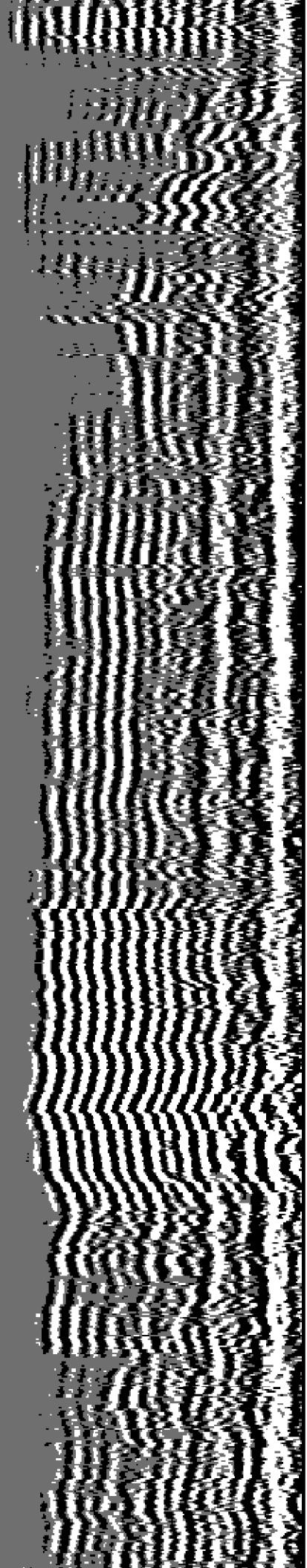


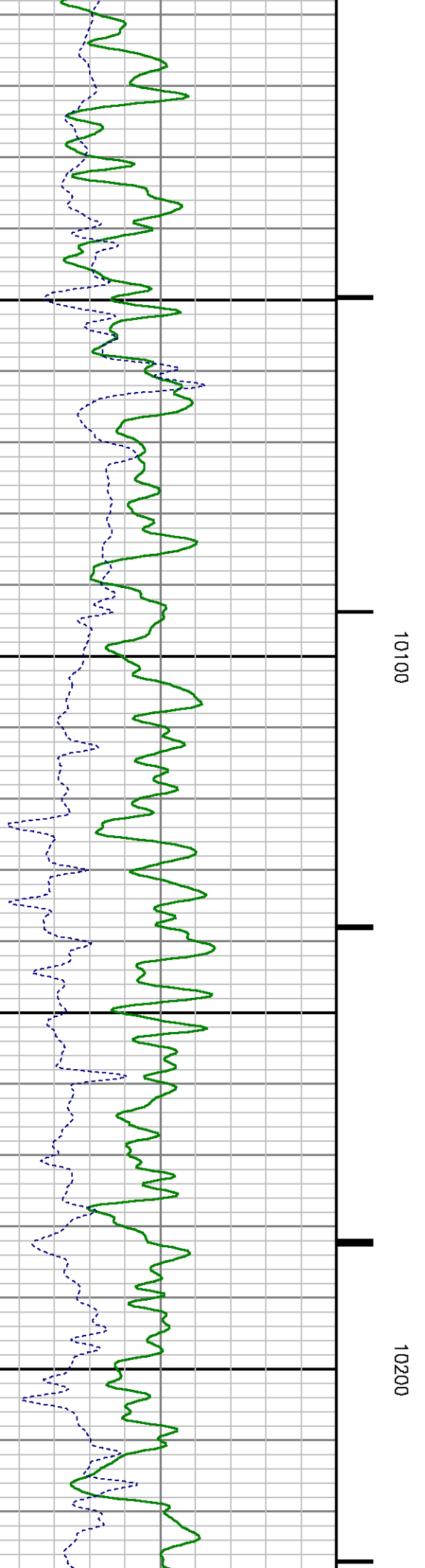
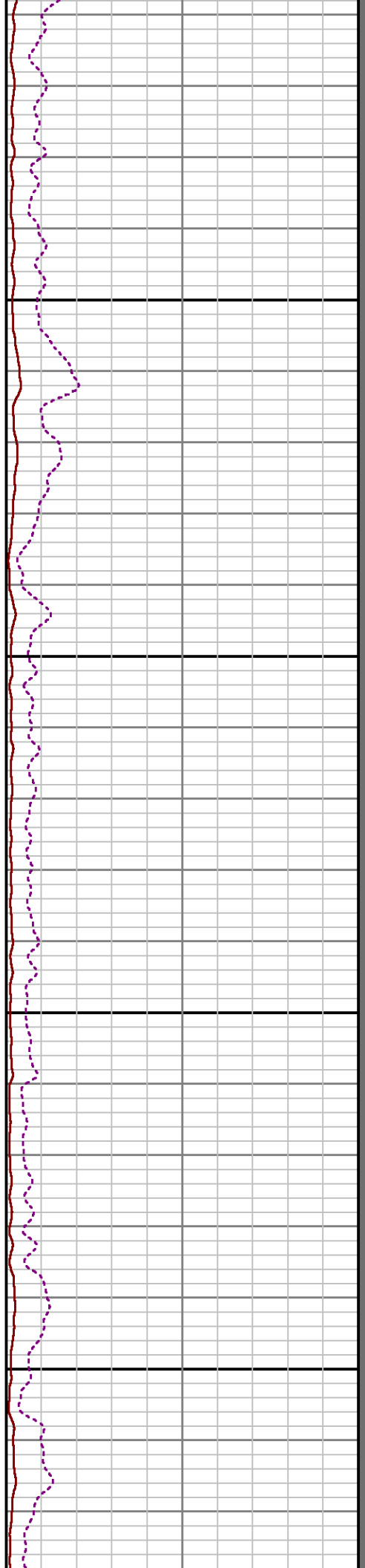
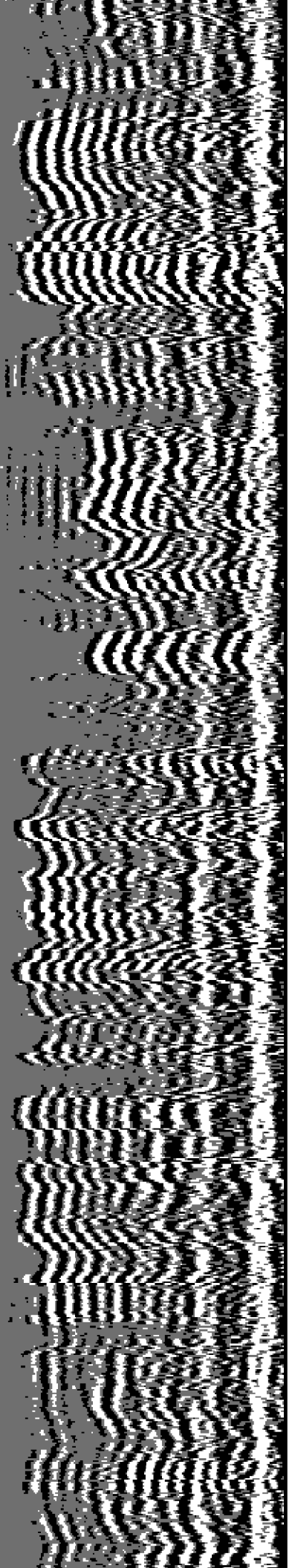


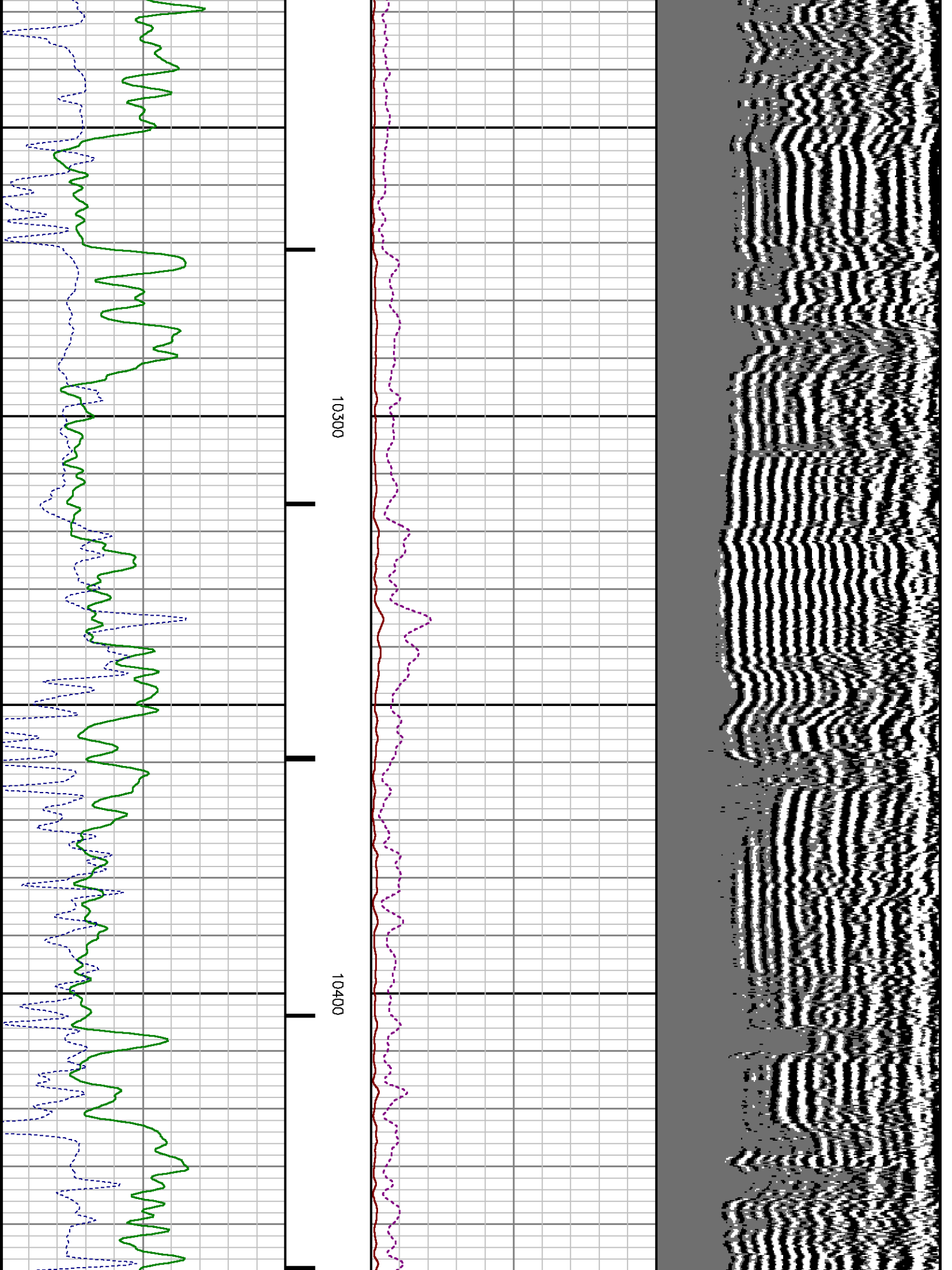


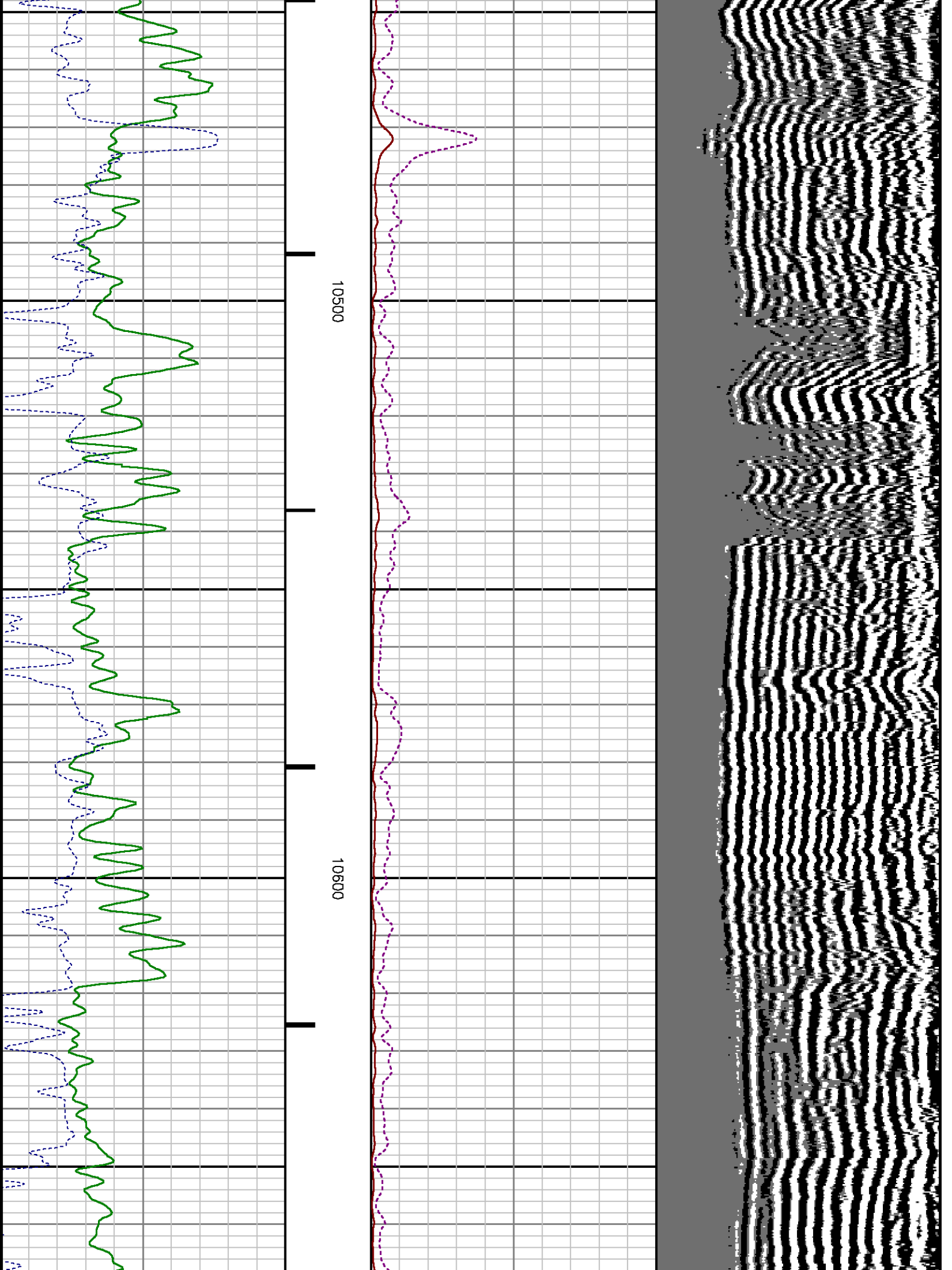


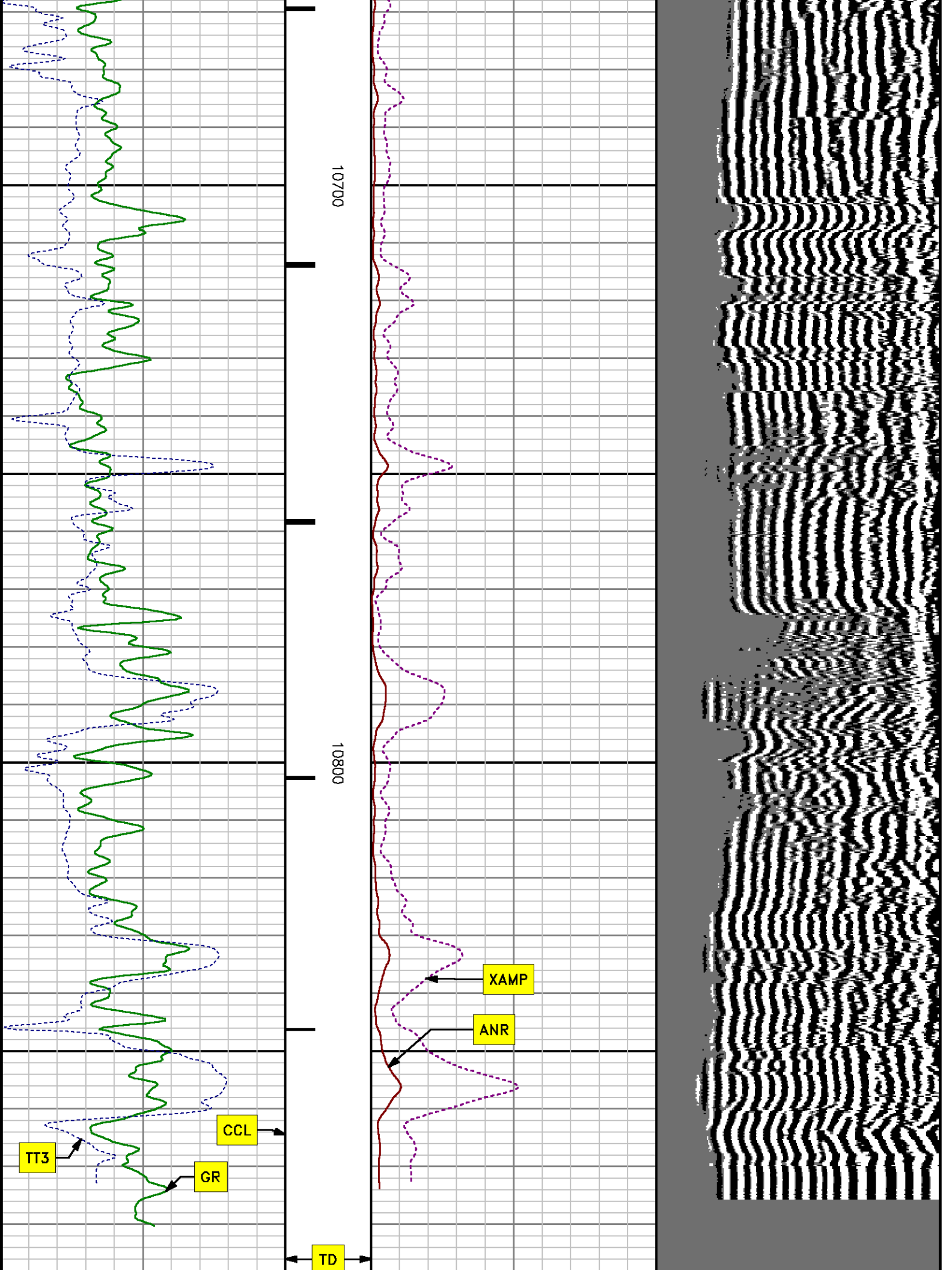


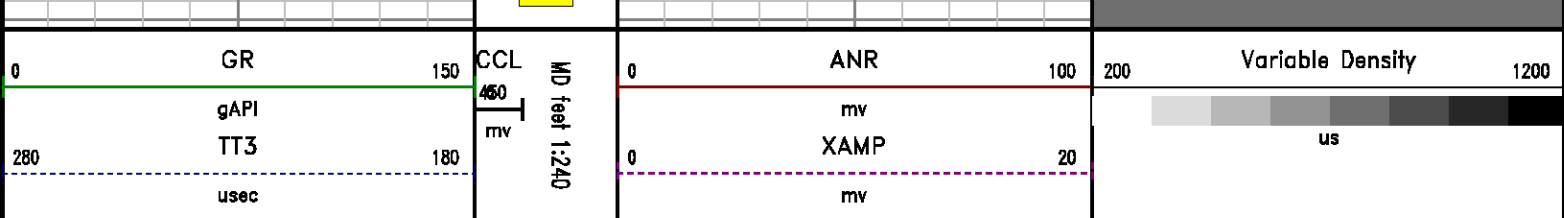












SECONDARY PRESENTATION

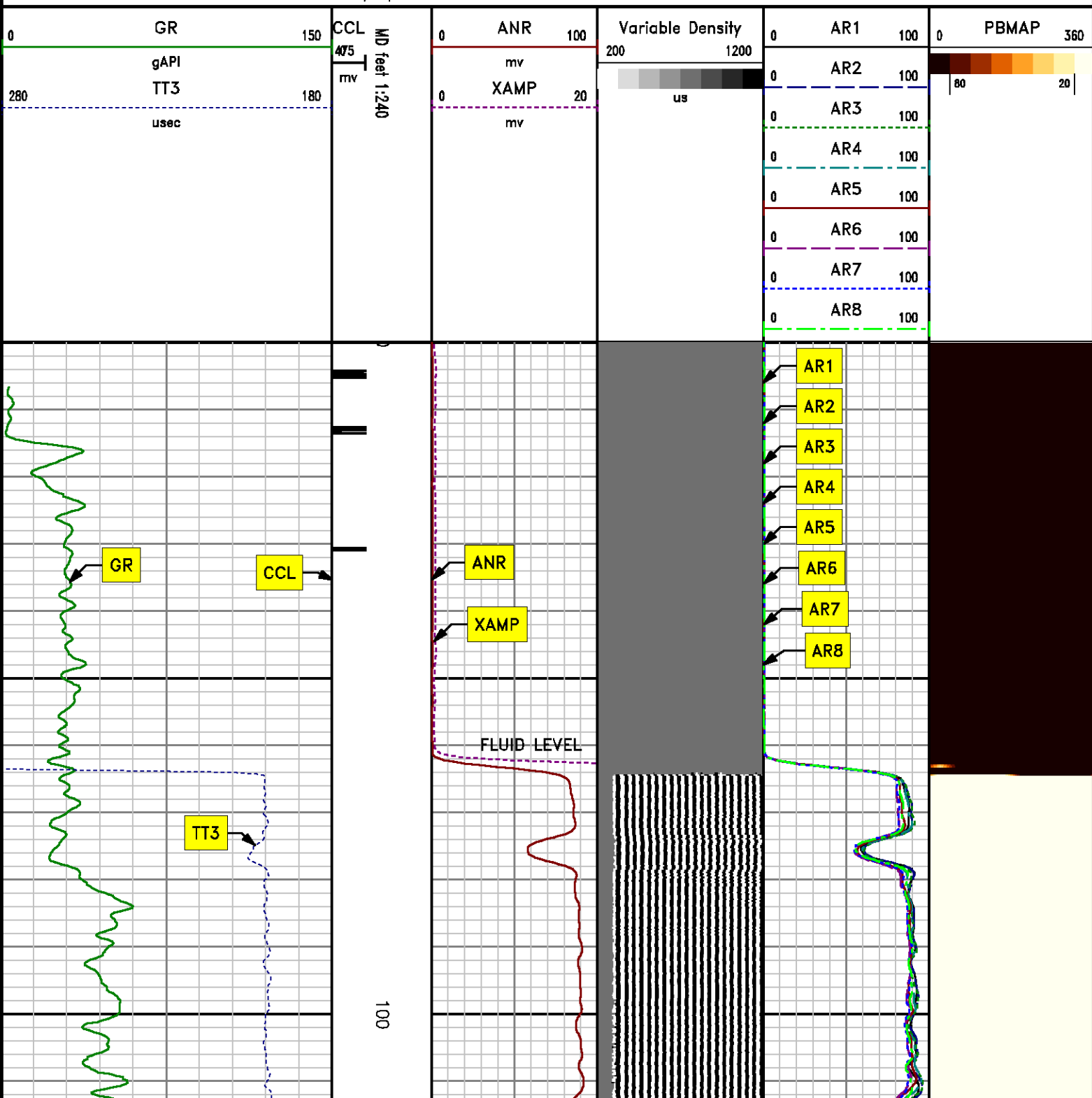
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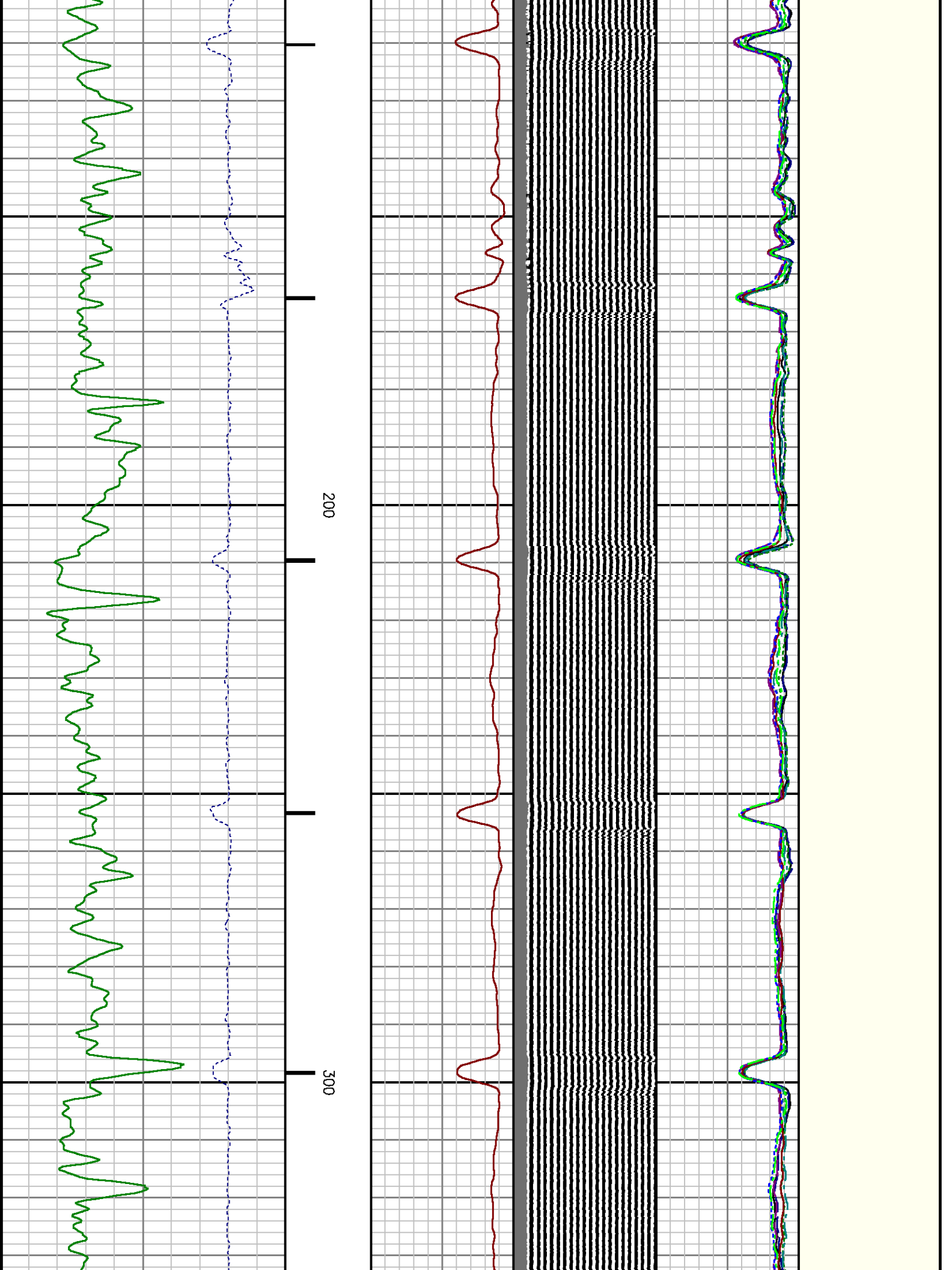
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RAL	FB Start Radial	175.391	usec	1.719	10866.000
RAL	FB Thresh Far	10.000	mv	1.719	10866.000
RAL	FB Thresh Near	4.000	mv	1.719	10866.000
RAL	FB Thresh Radial	4.000	mv	1.719	10866.000
RAL	Fluid Travel Time	200.000	usec/ft	1.719	10866.844

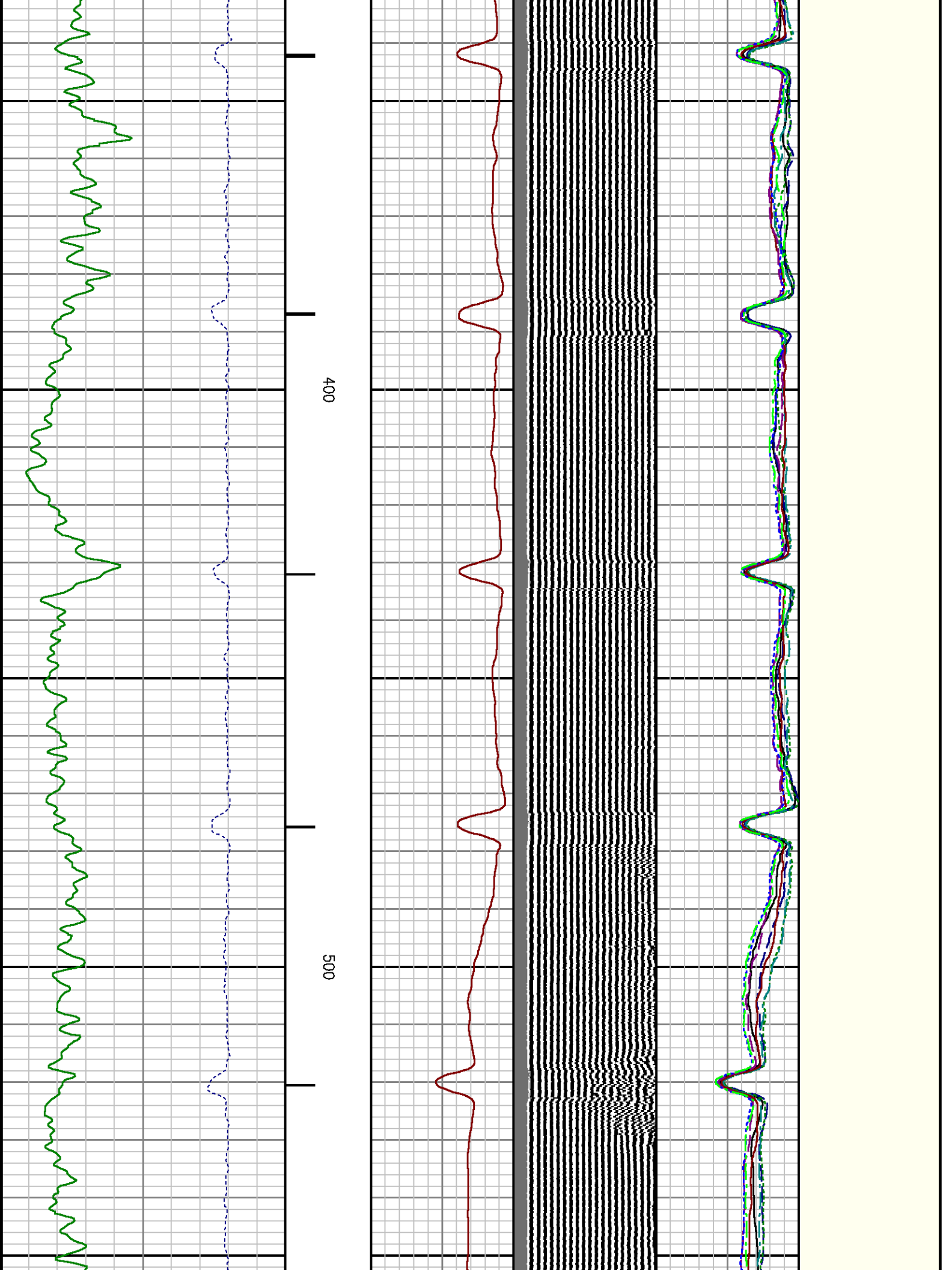
DEPTH OFFSETS

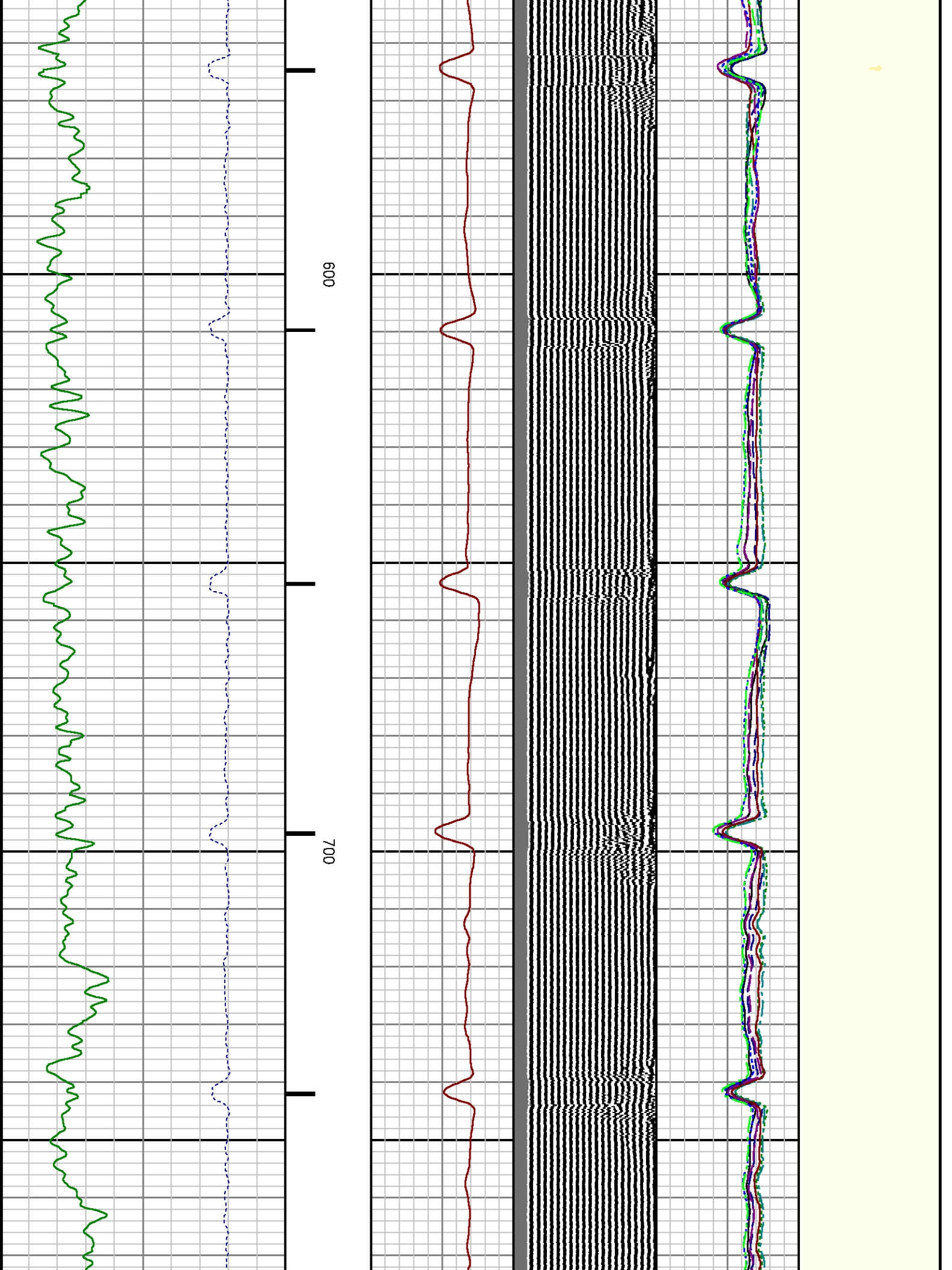
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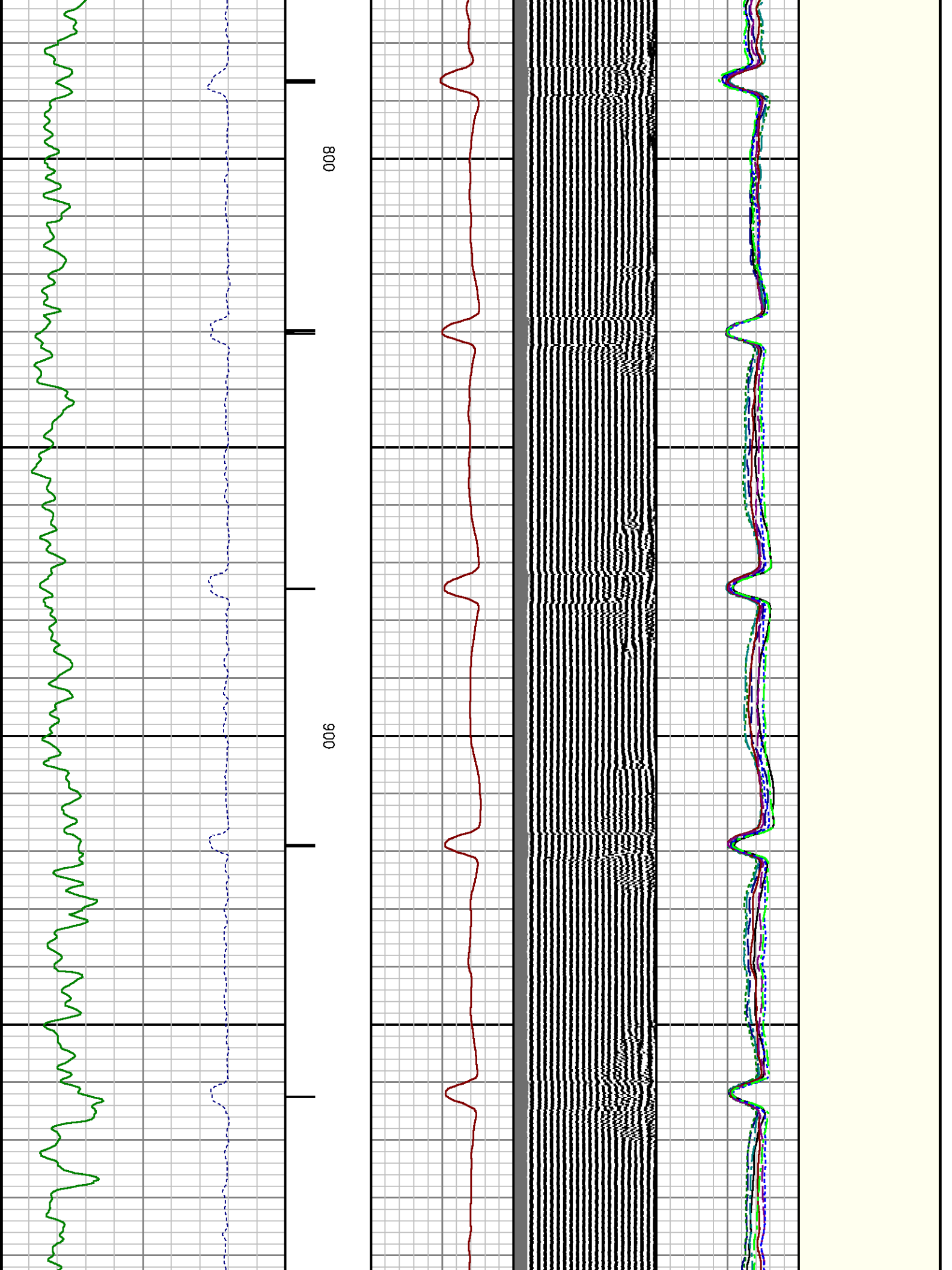
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			

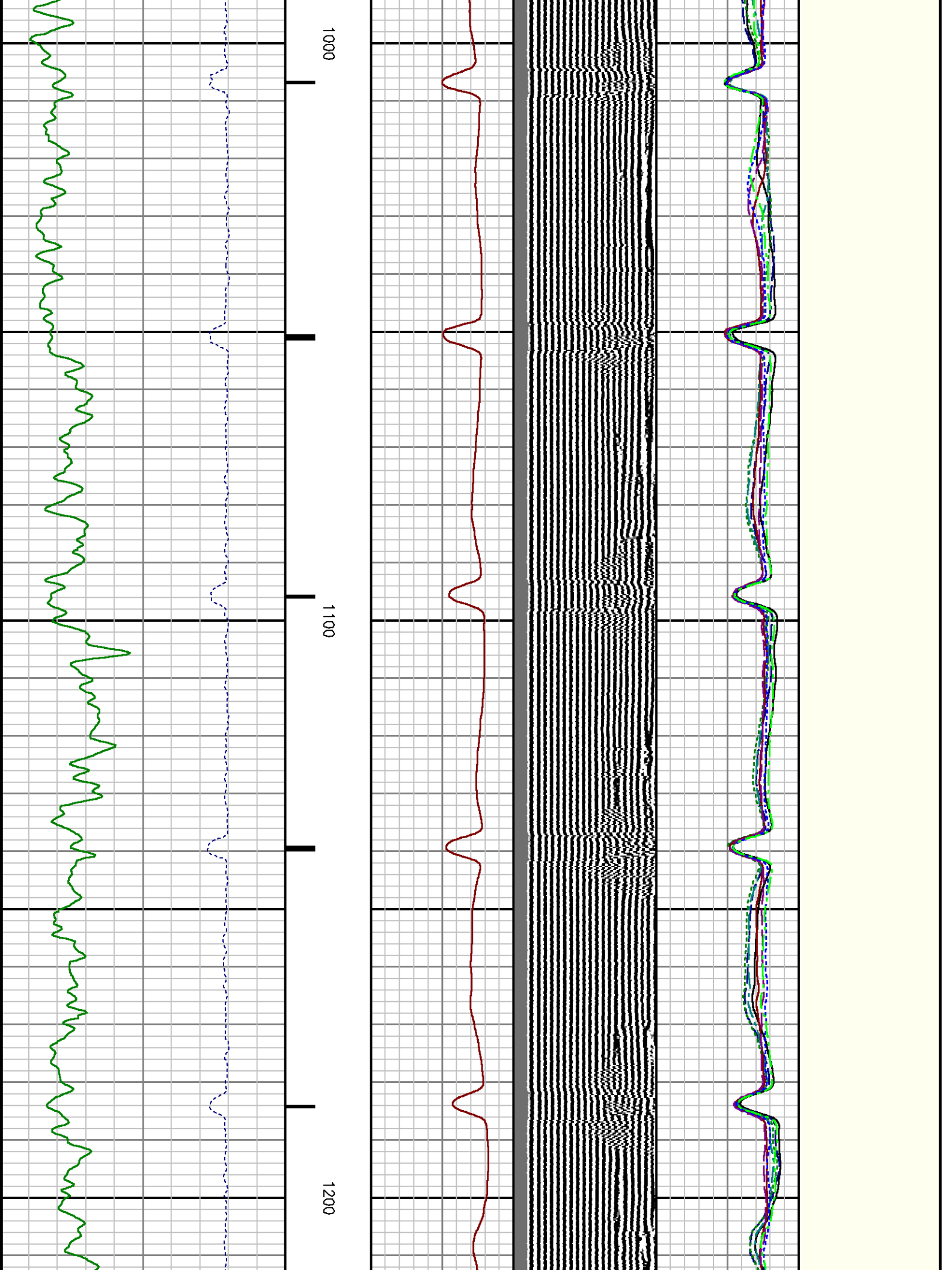


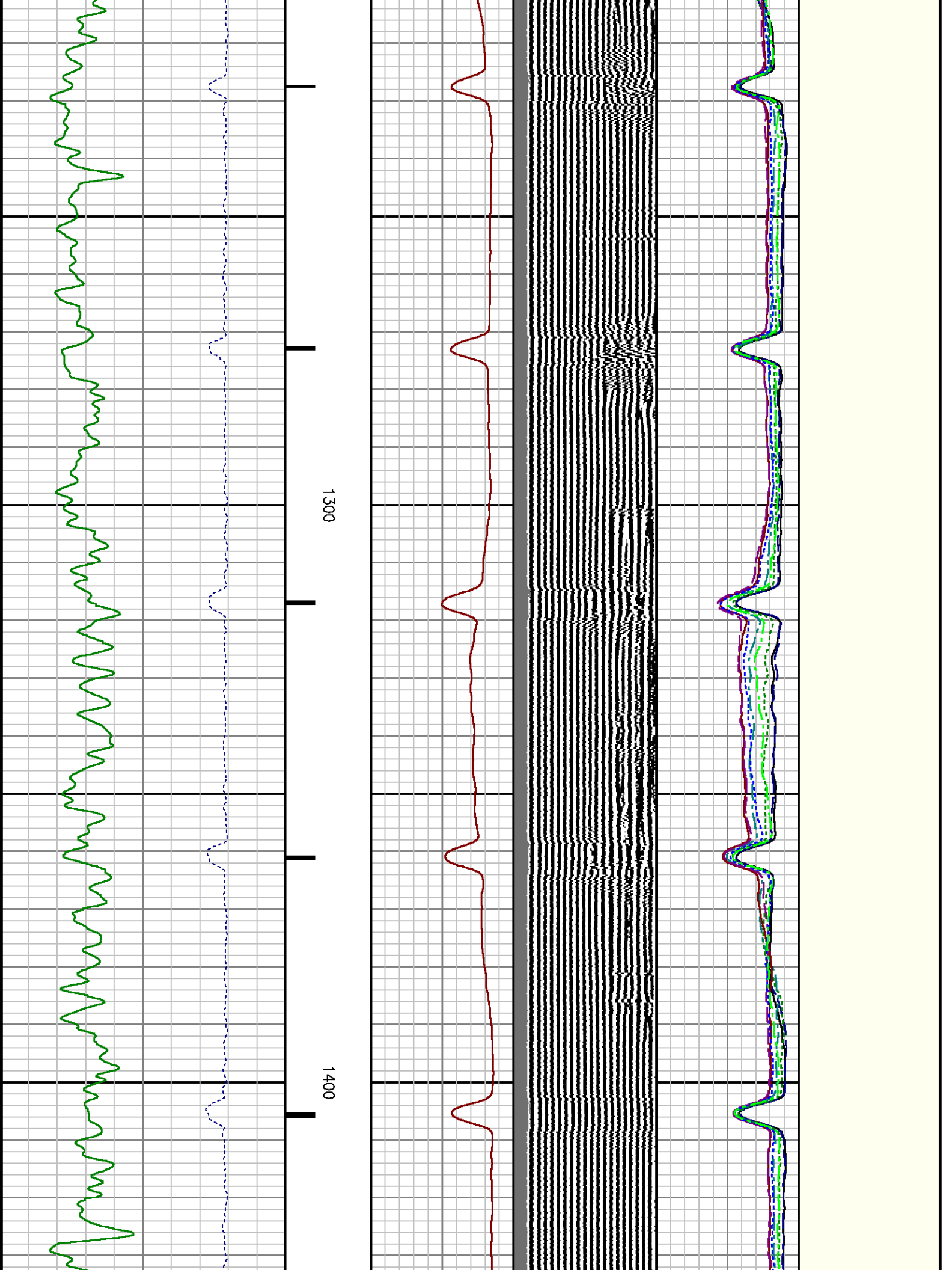


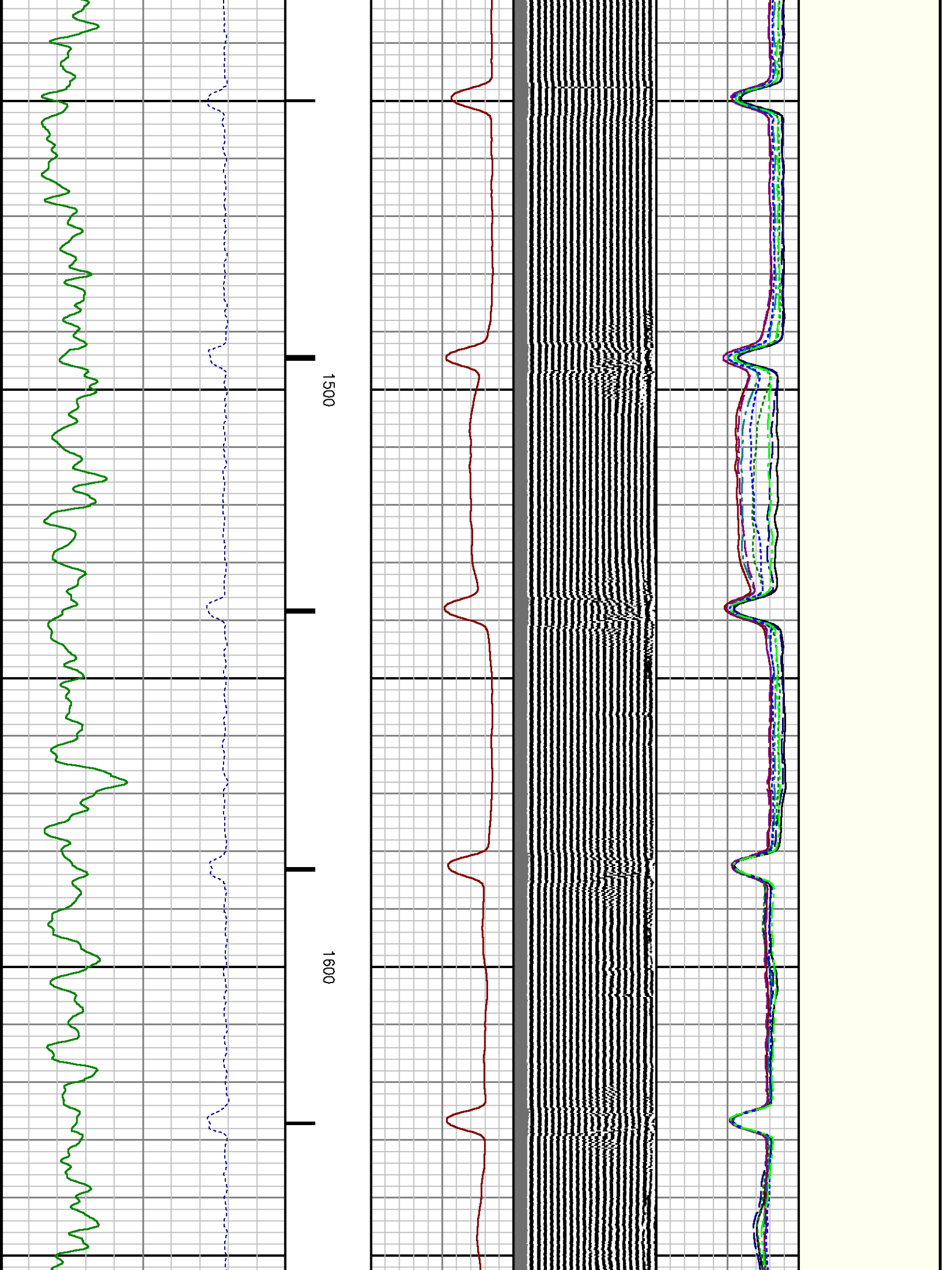


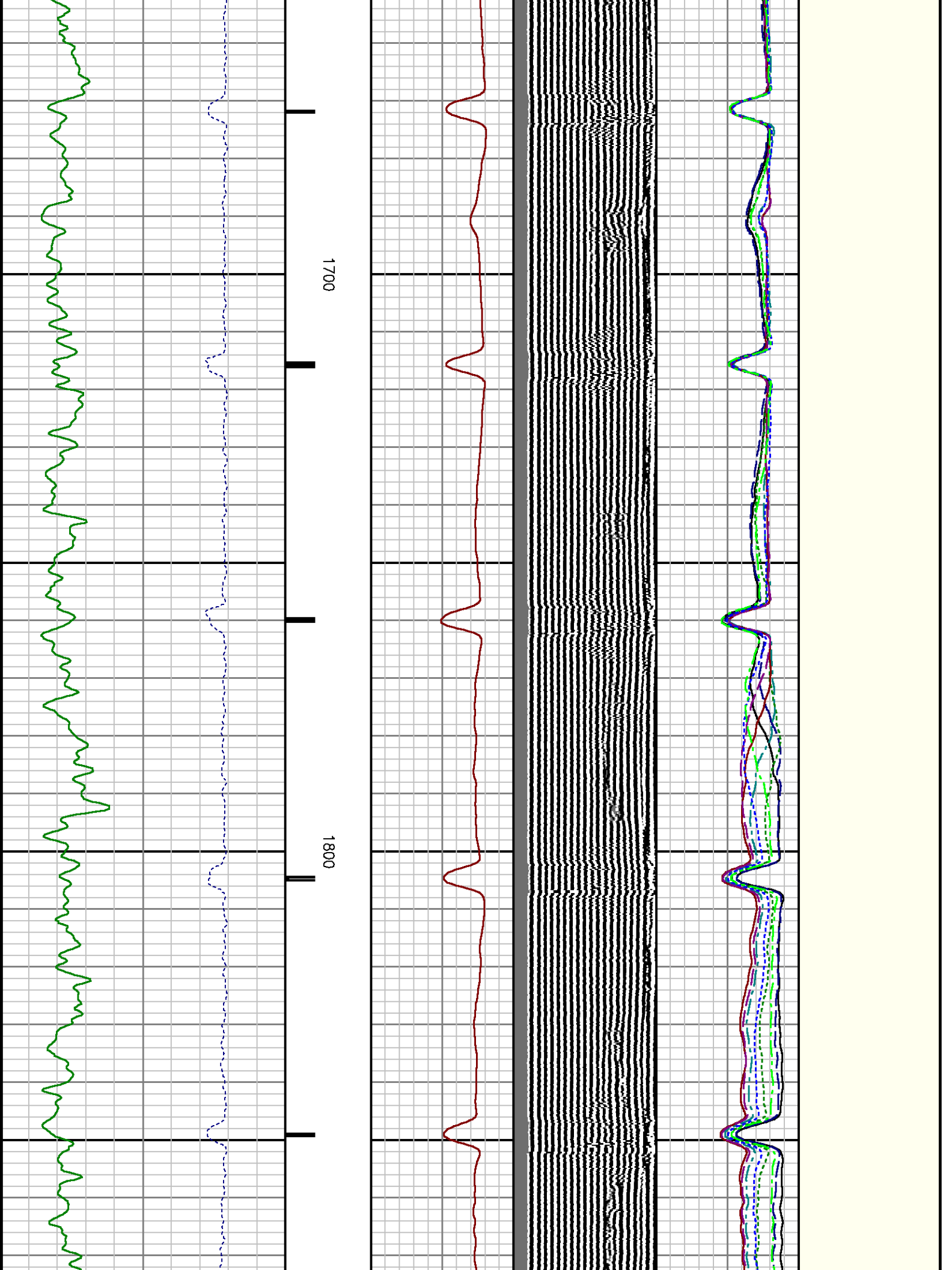


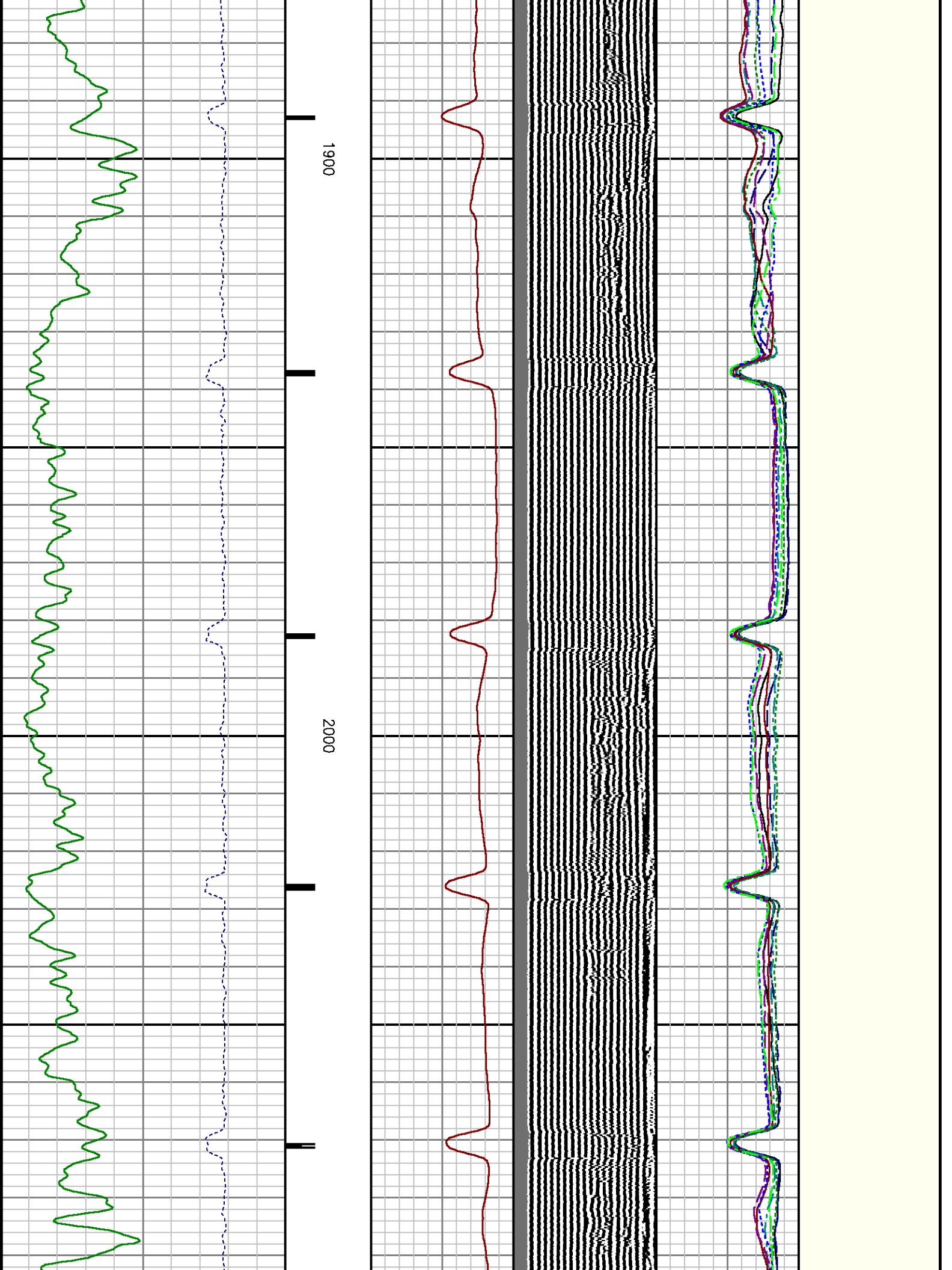


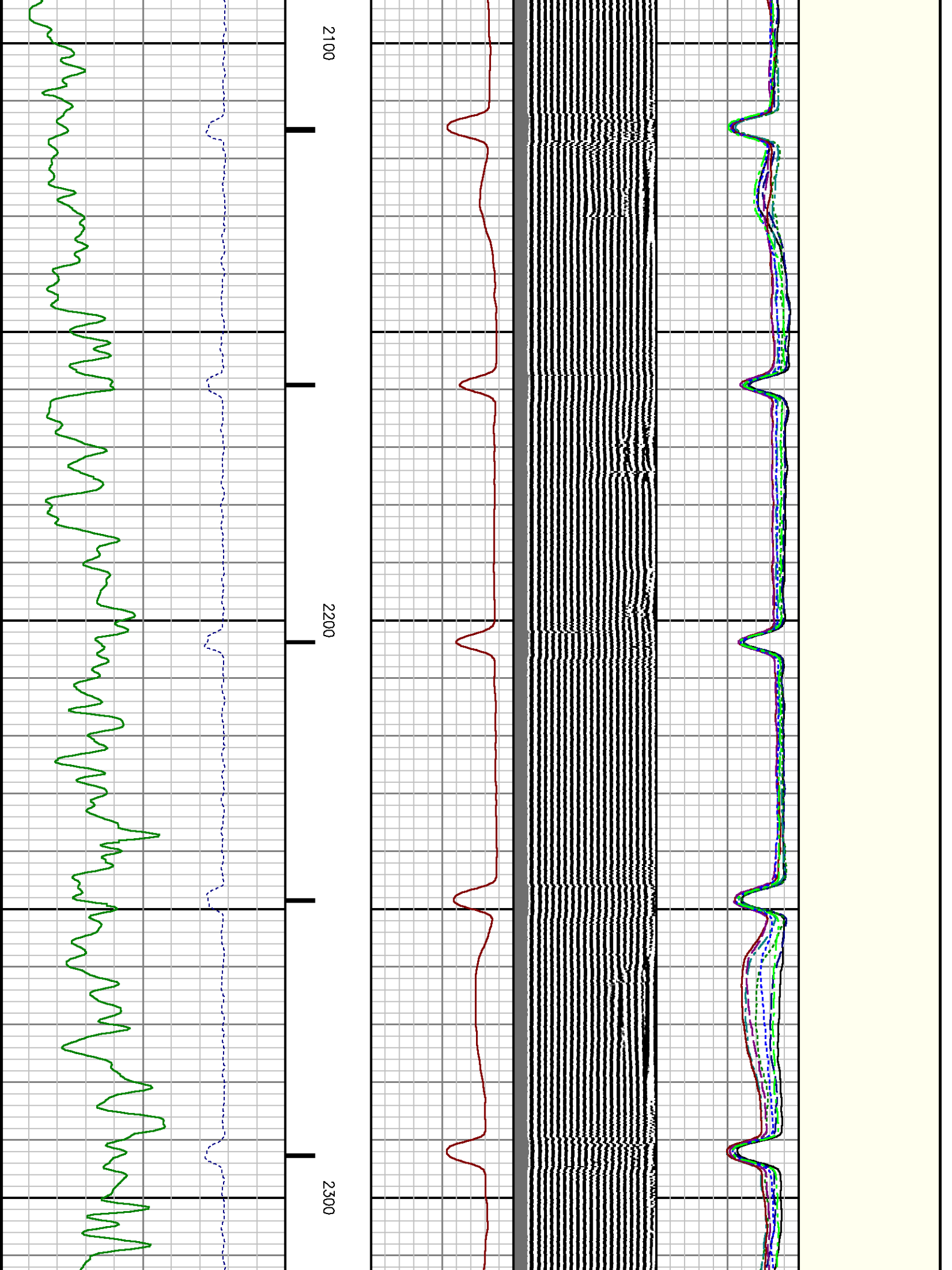


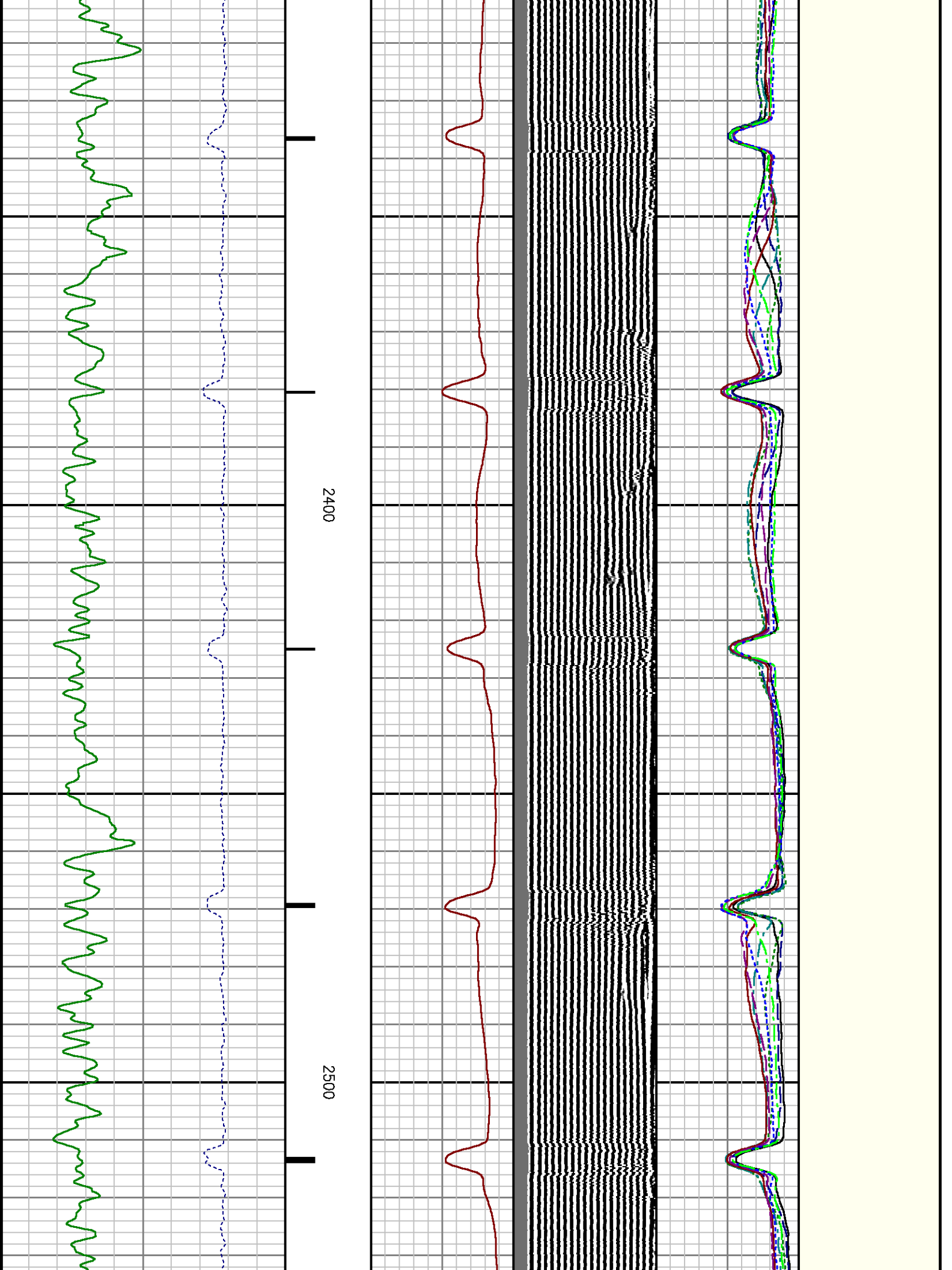


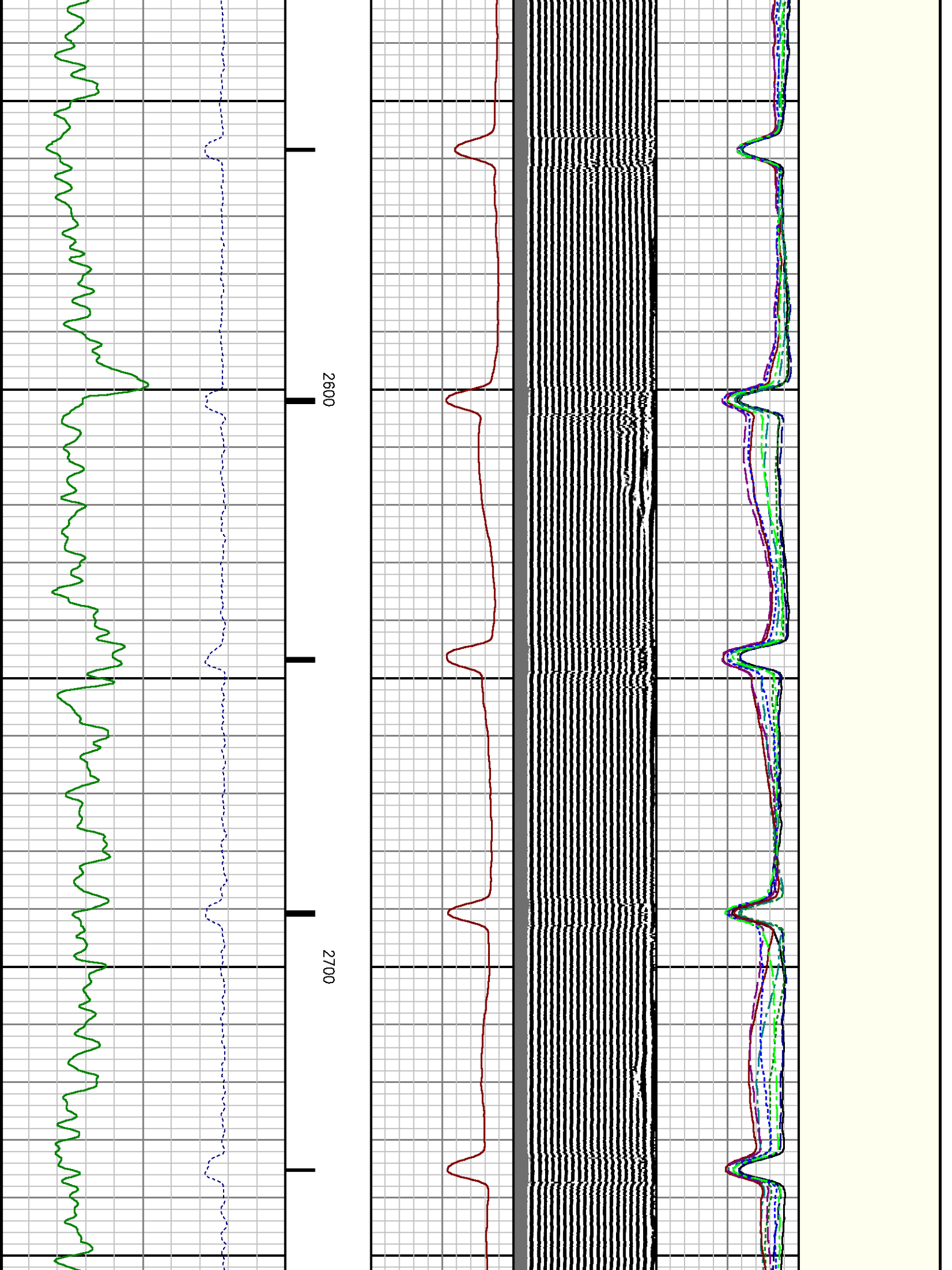


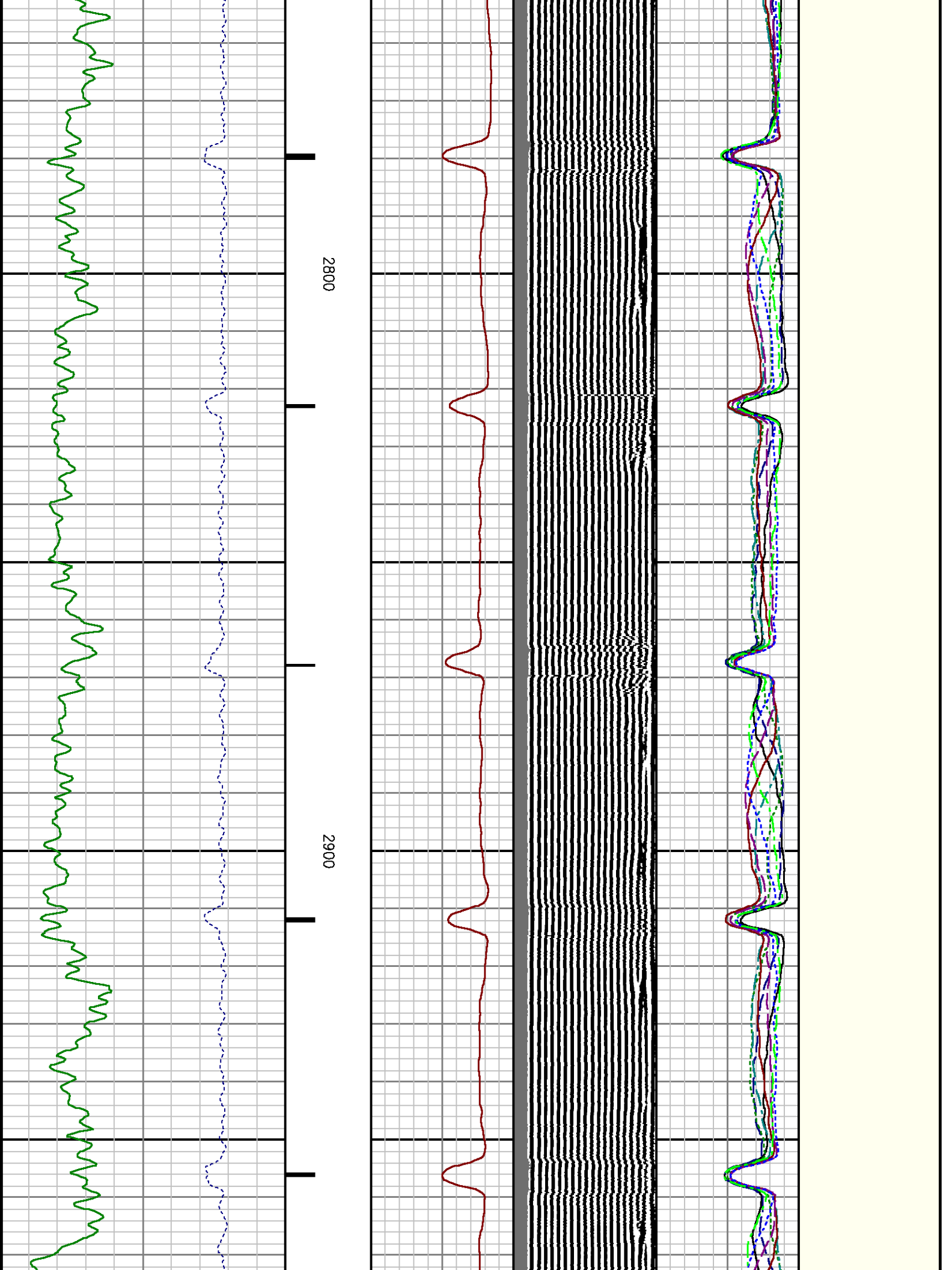


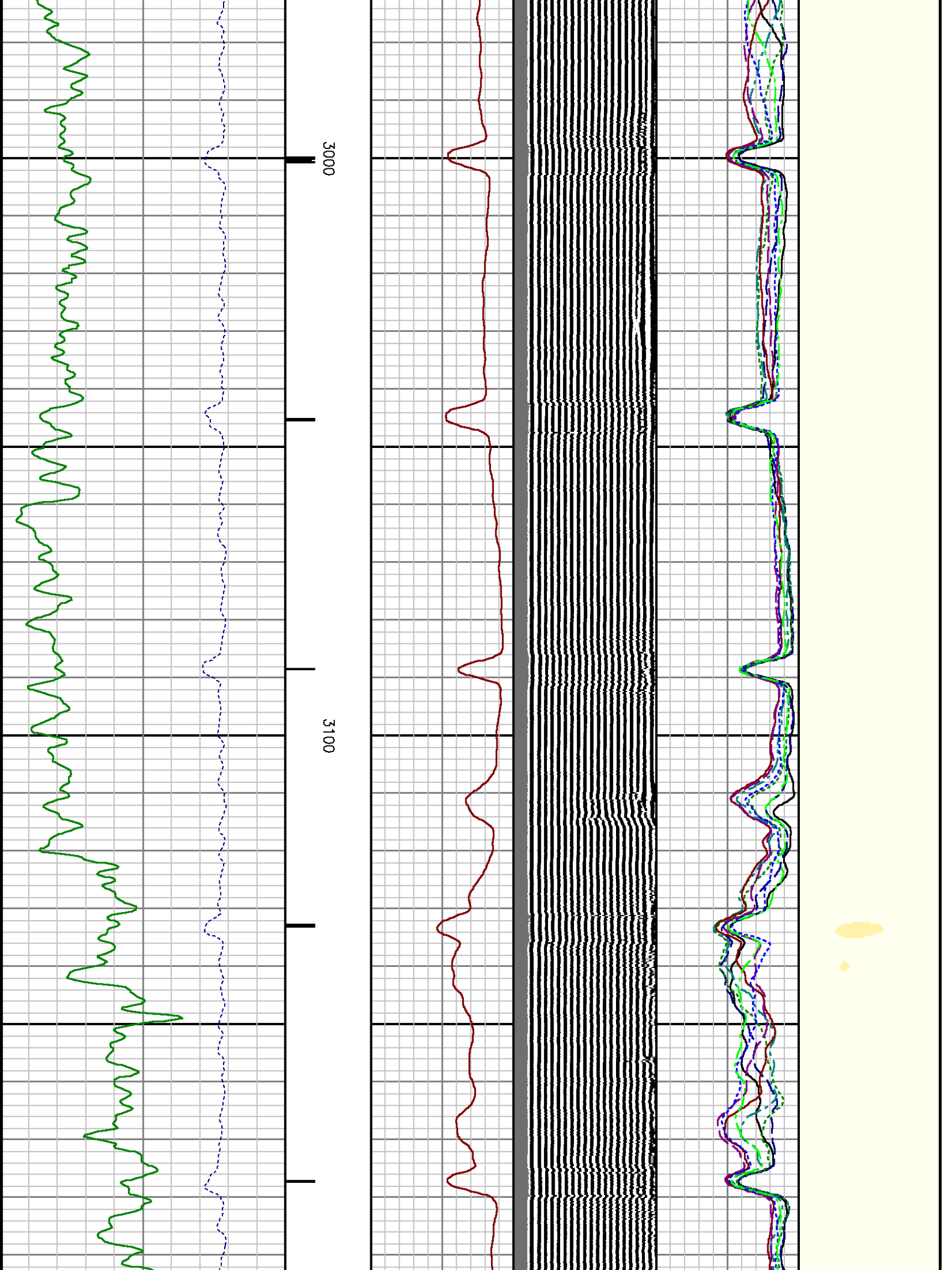


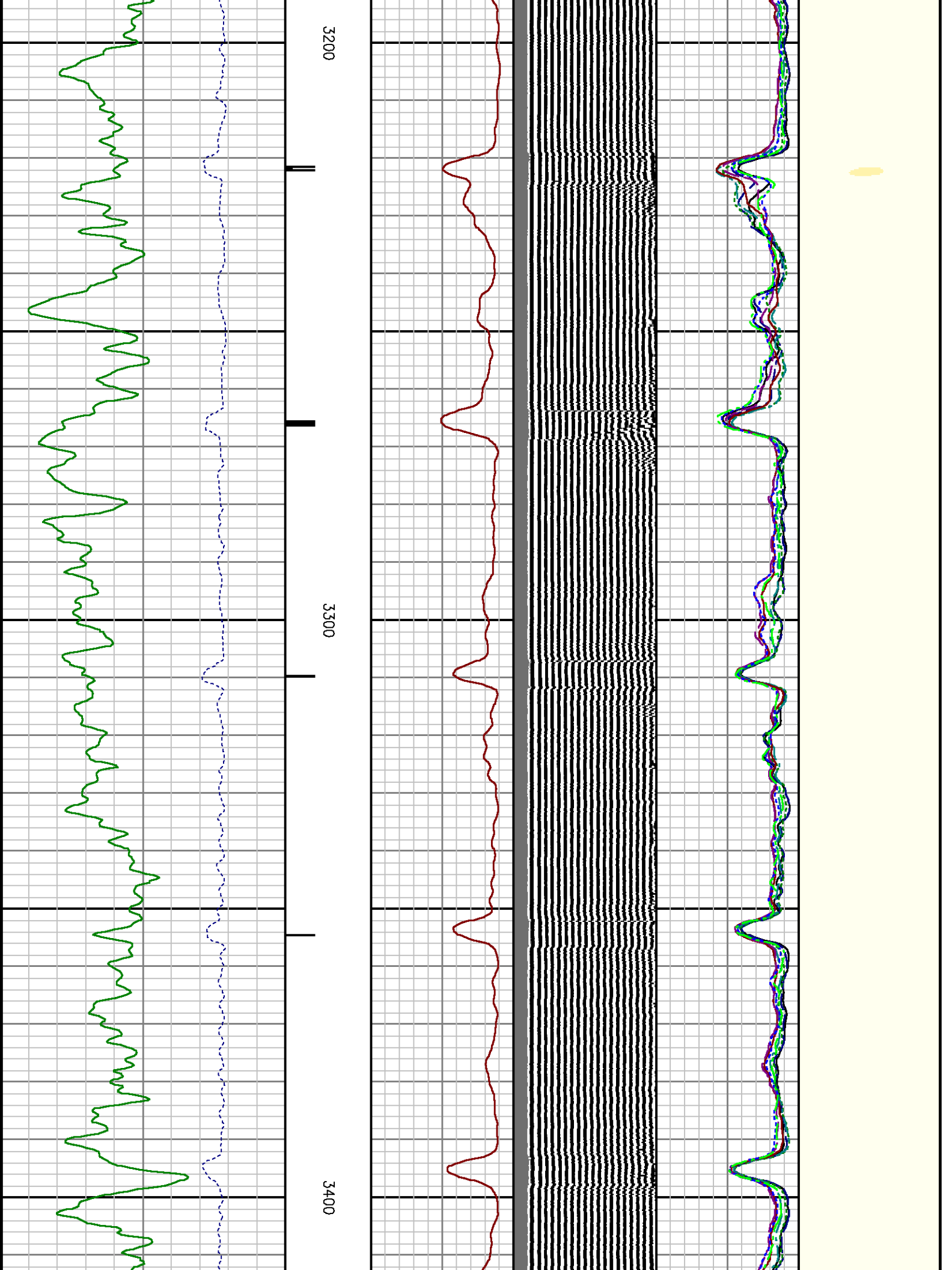


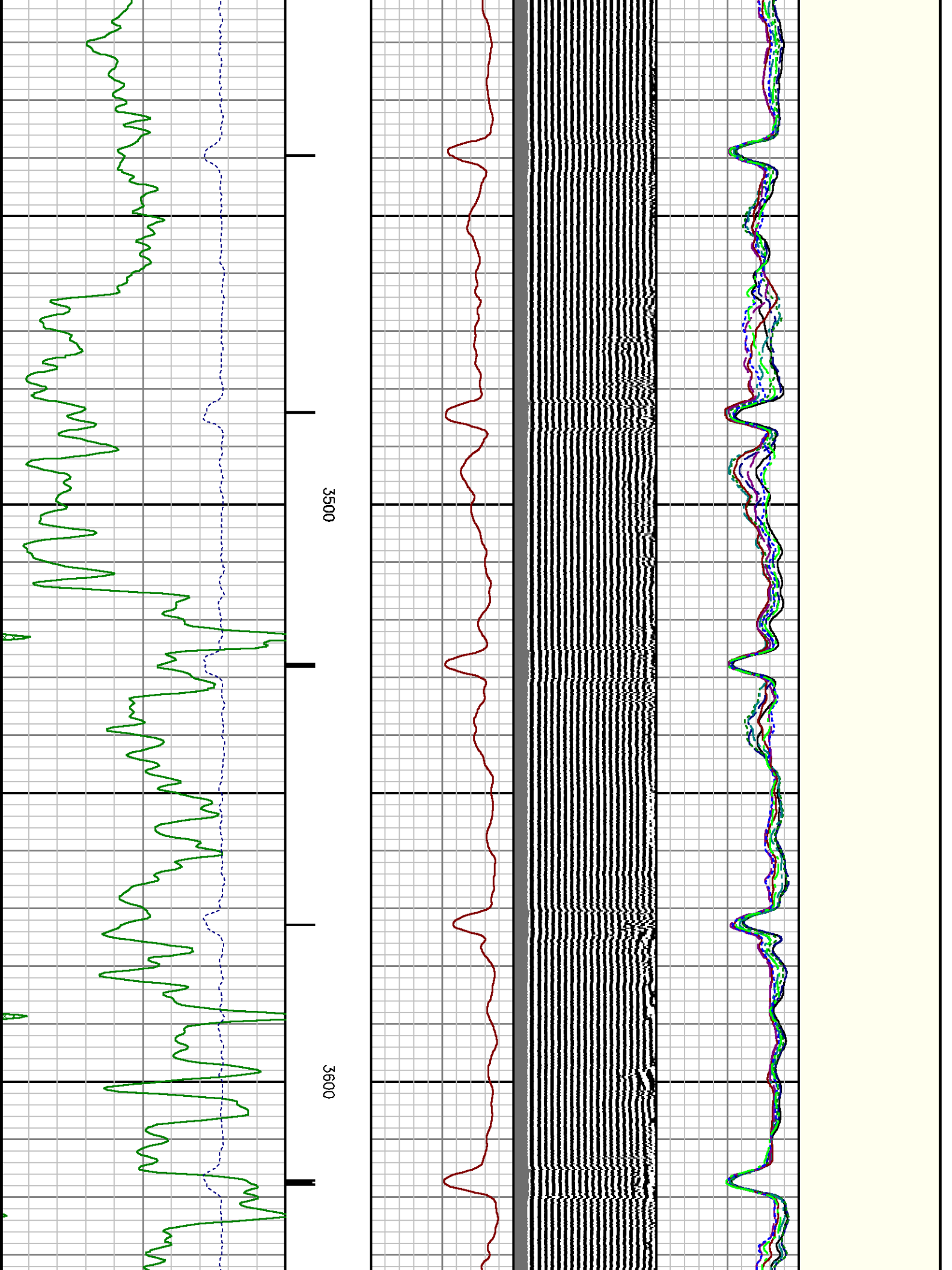


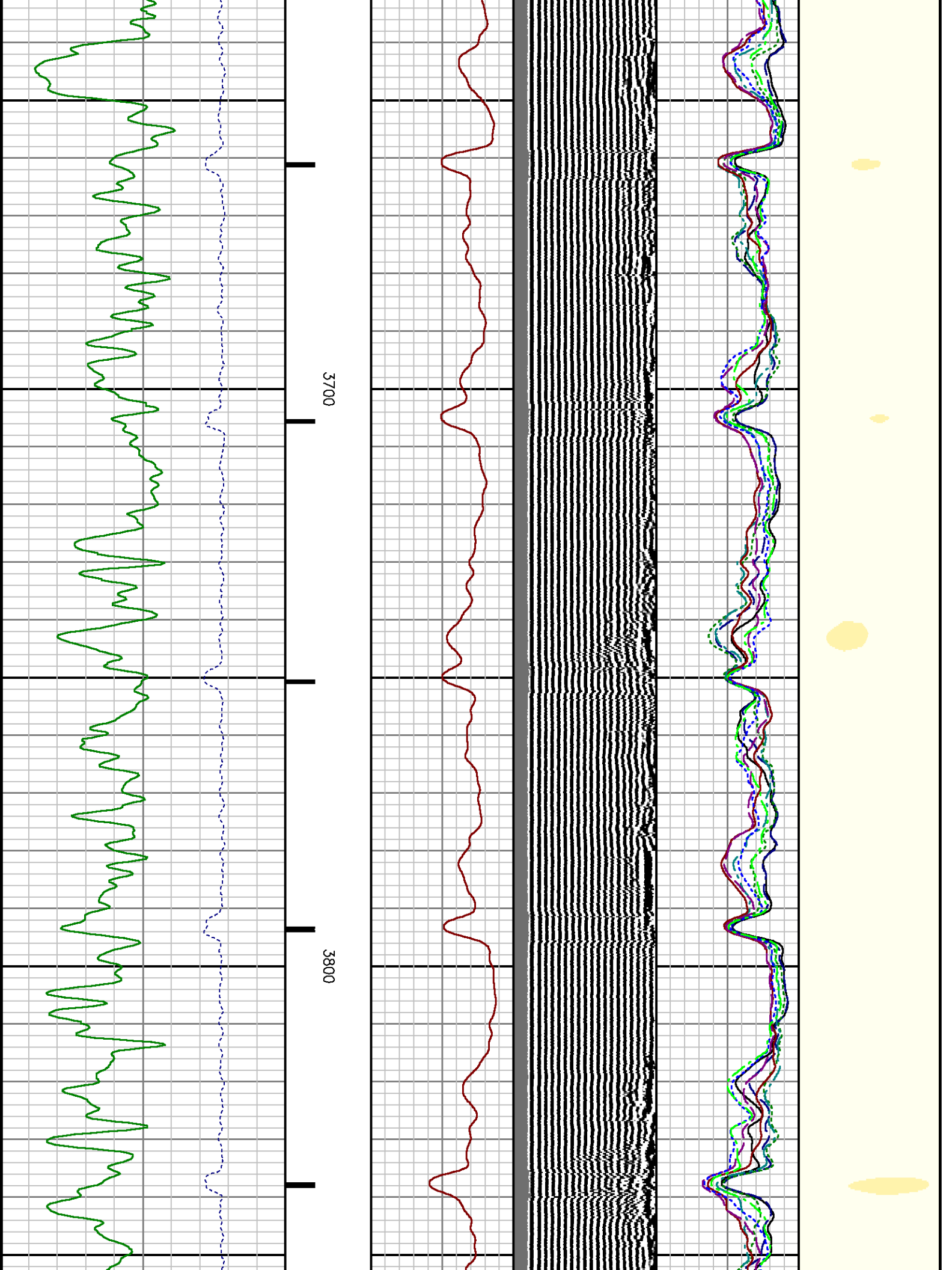


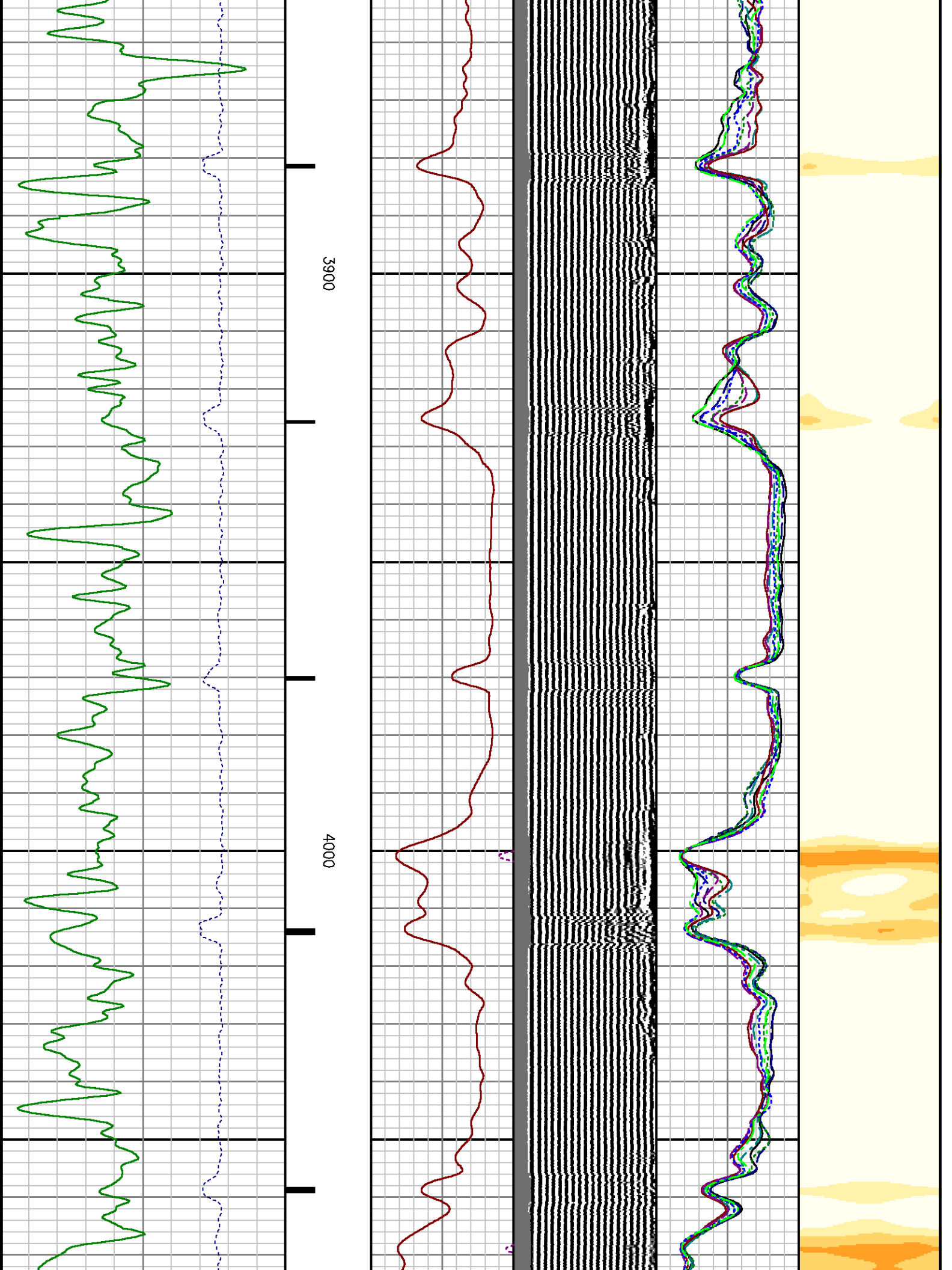


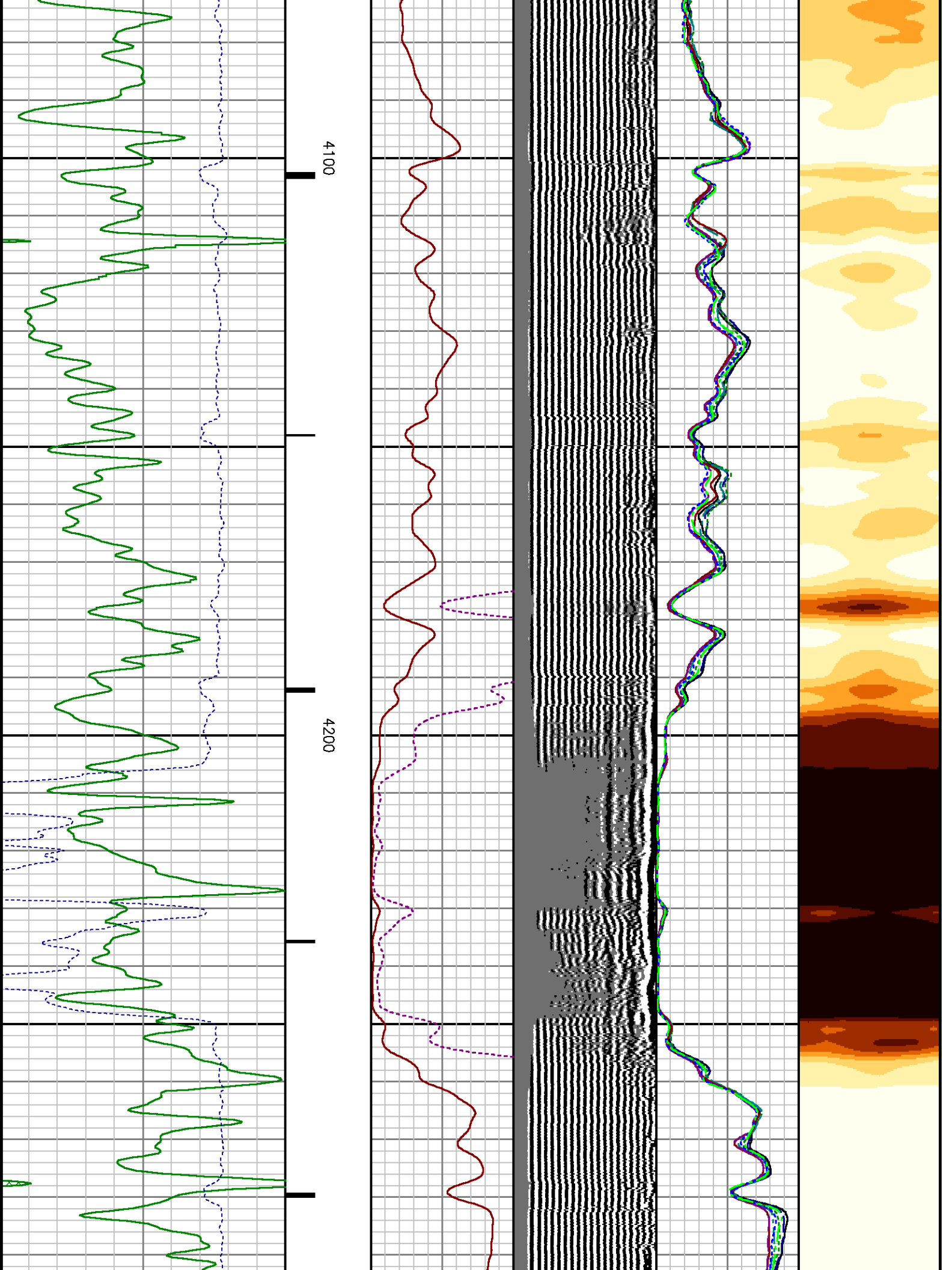


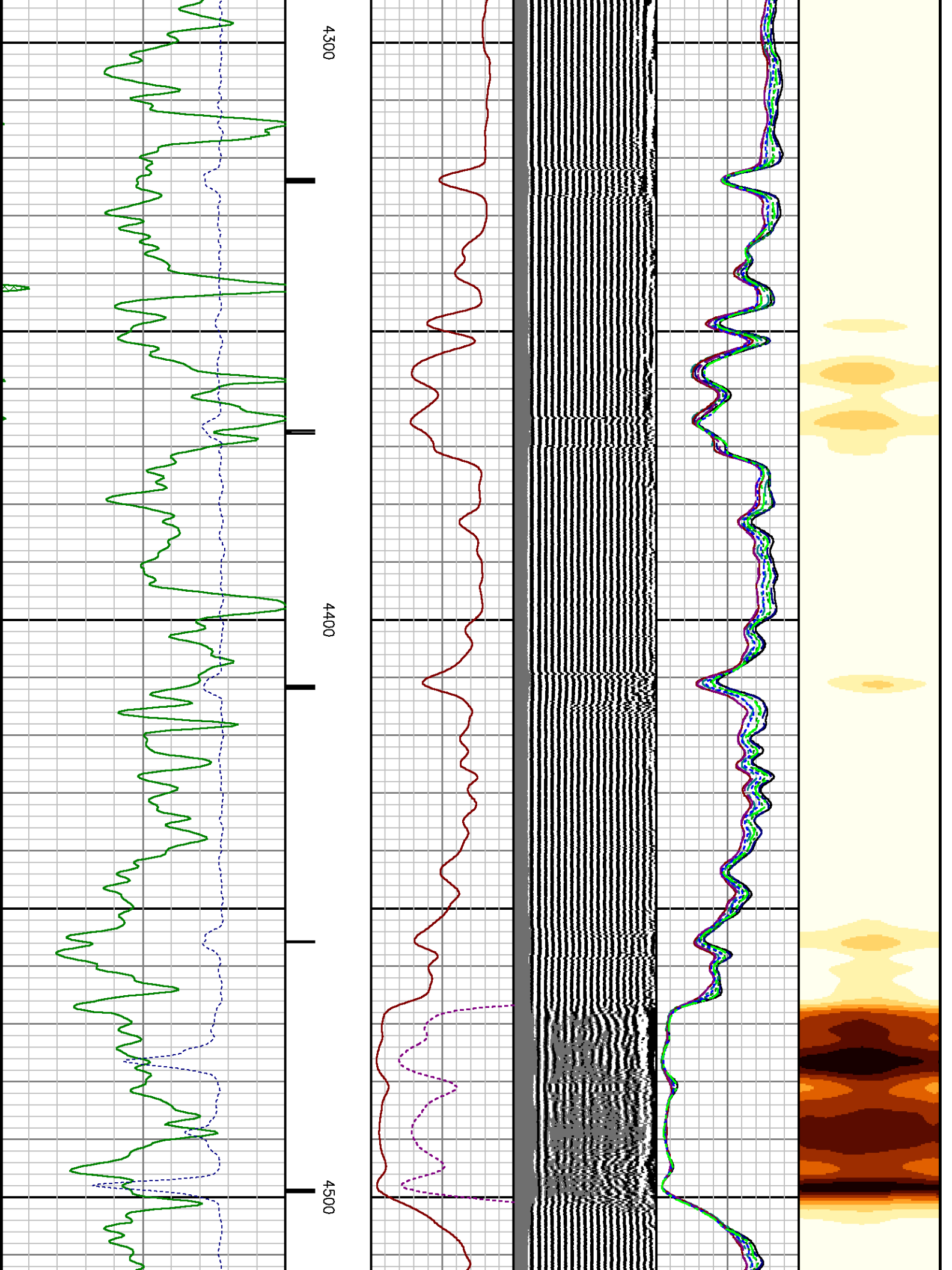


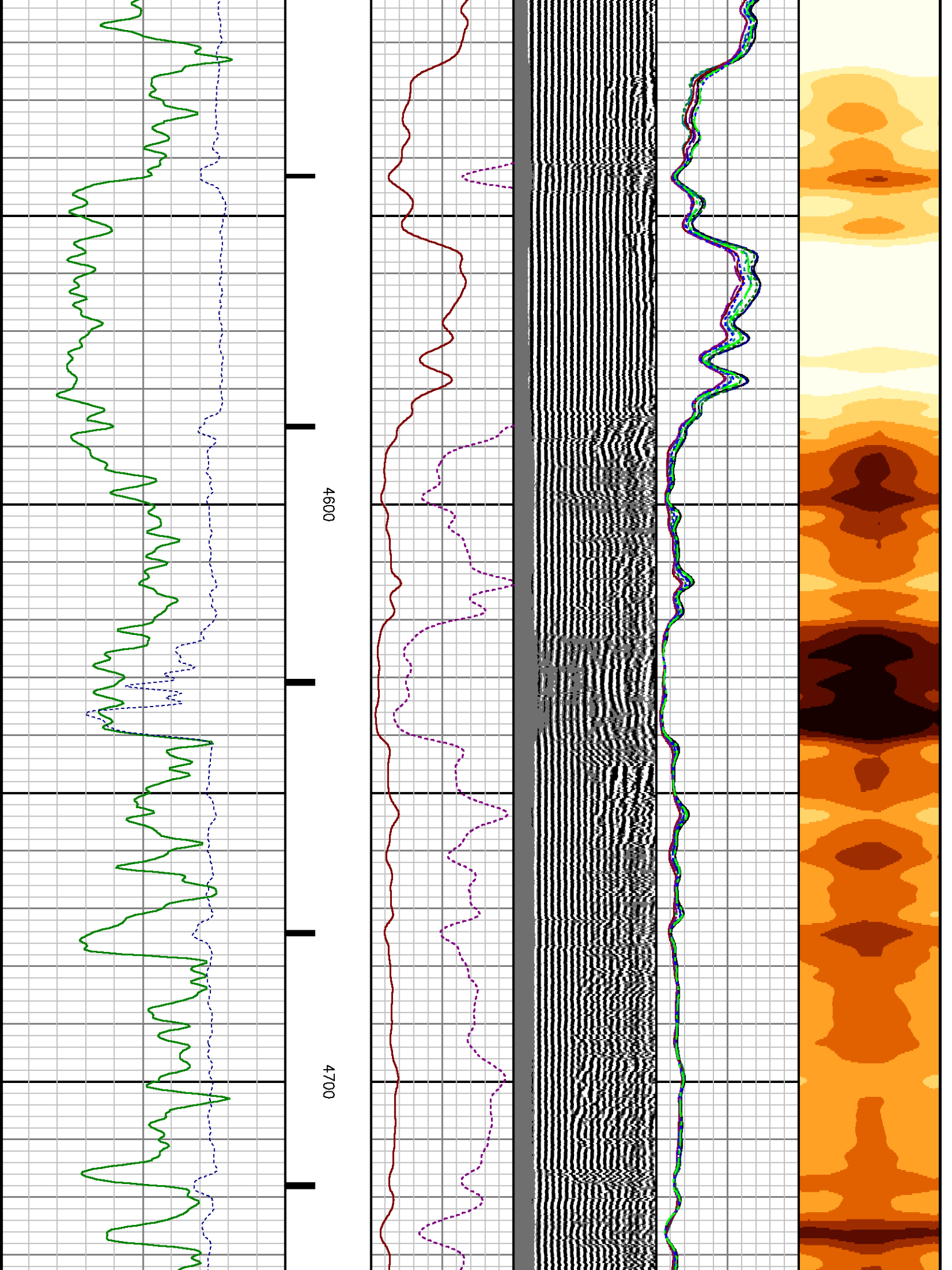


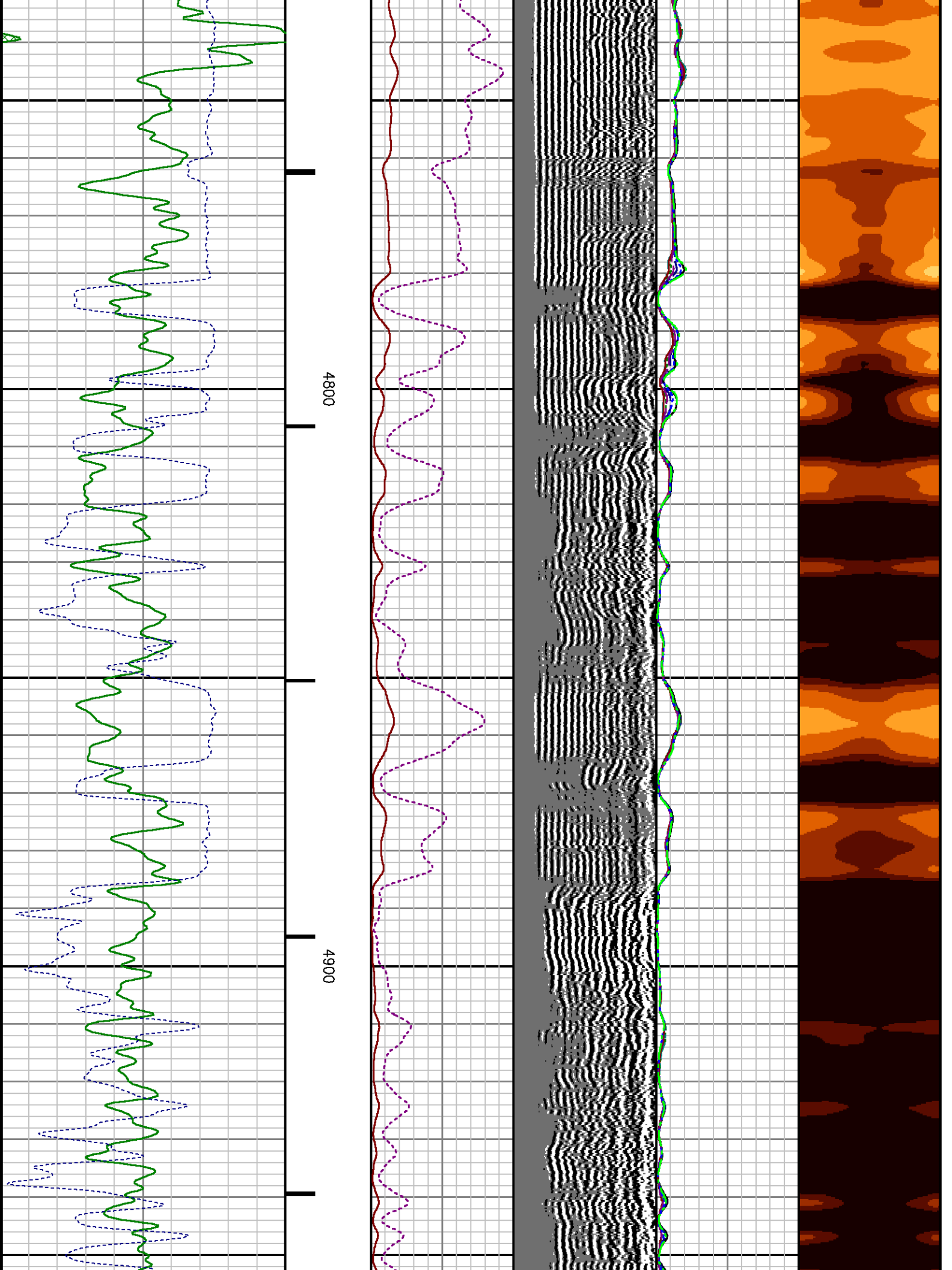


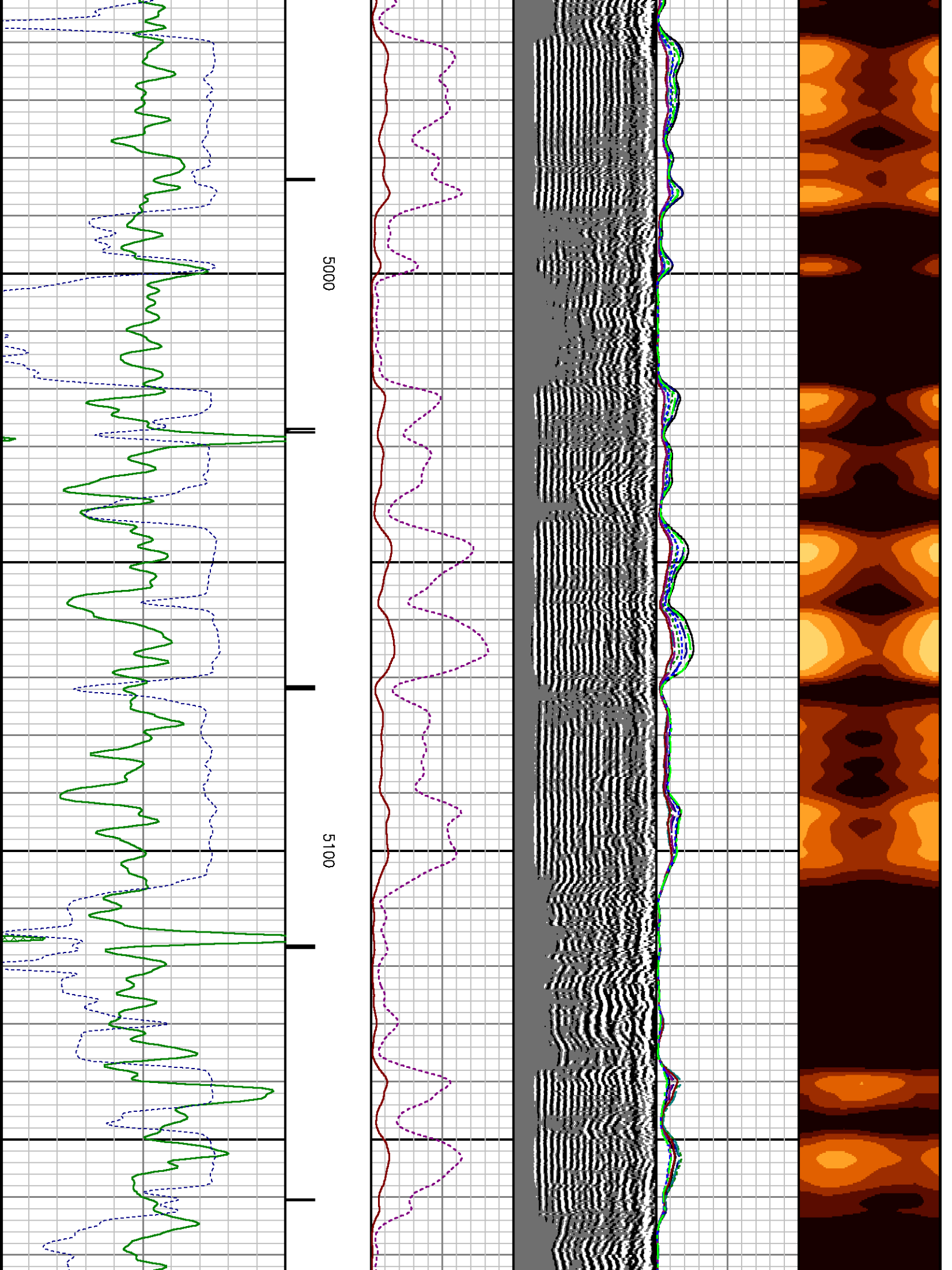


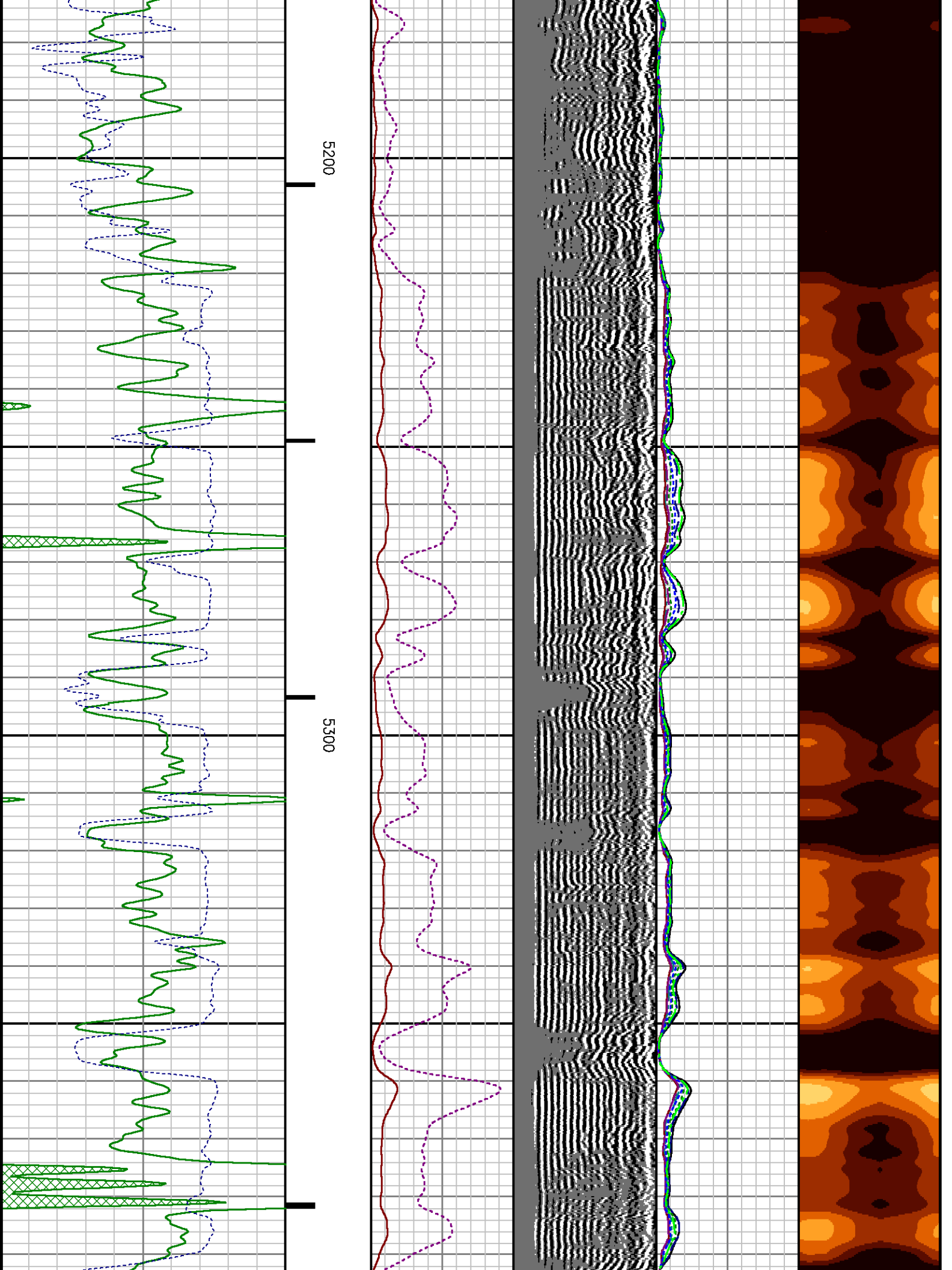


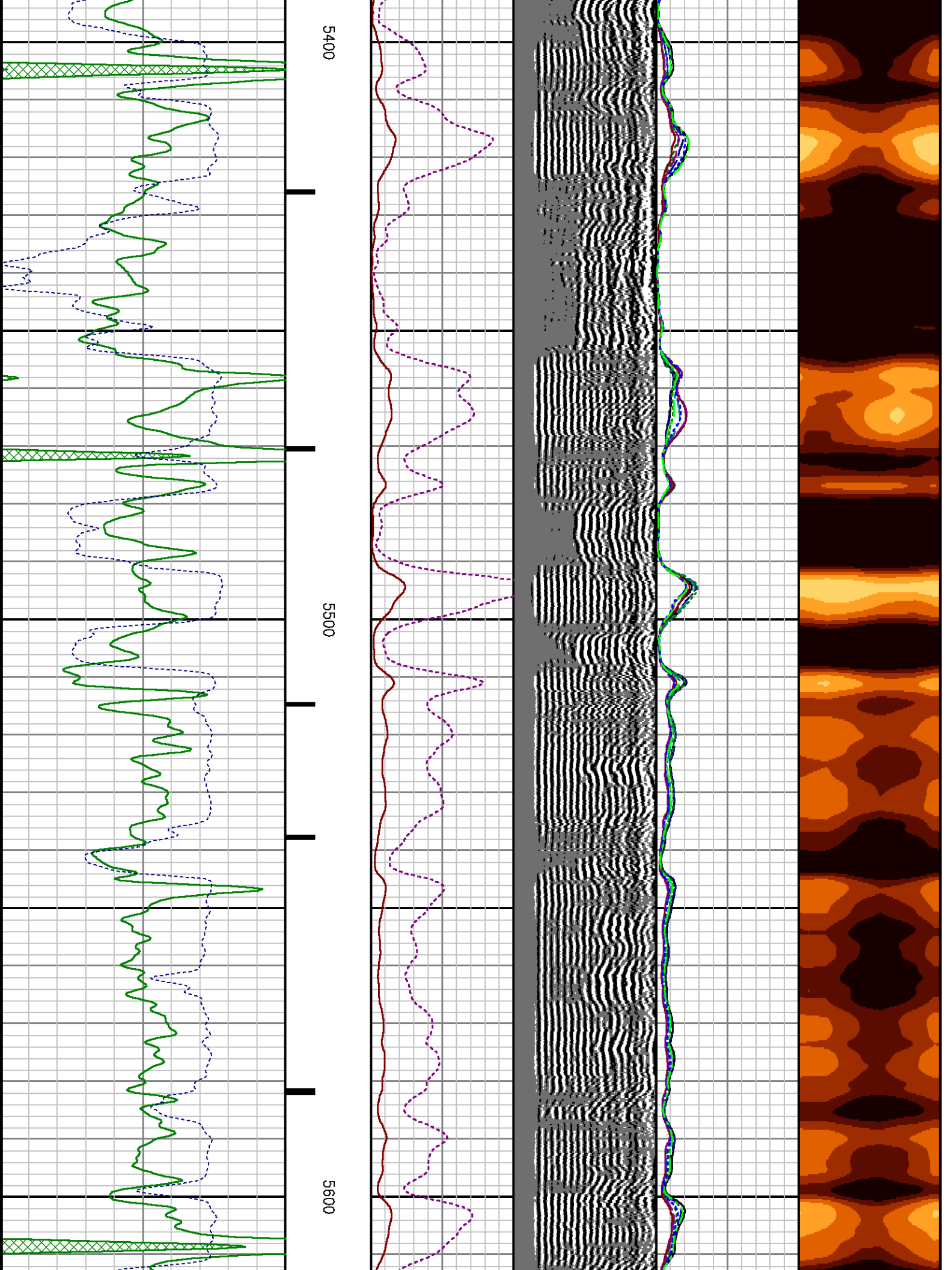


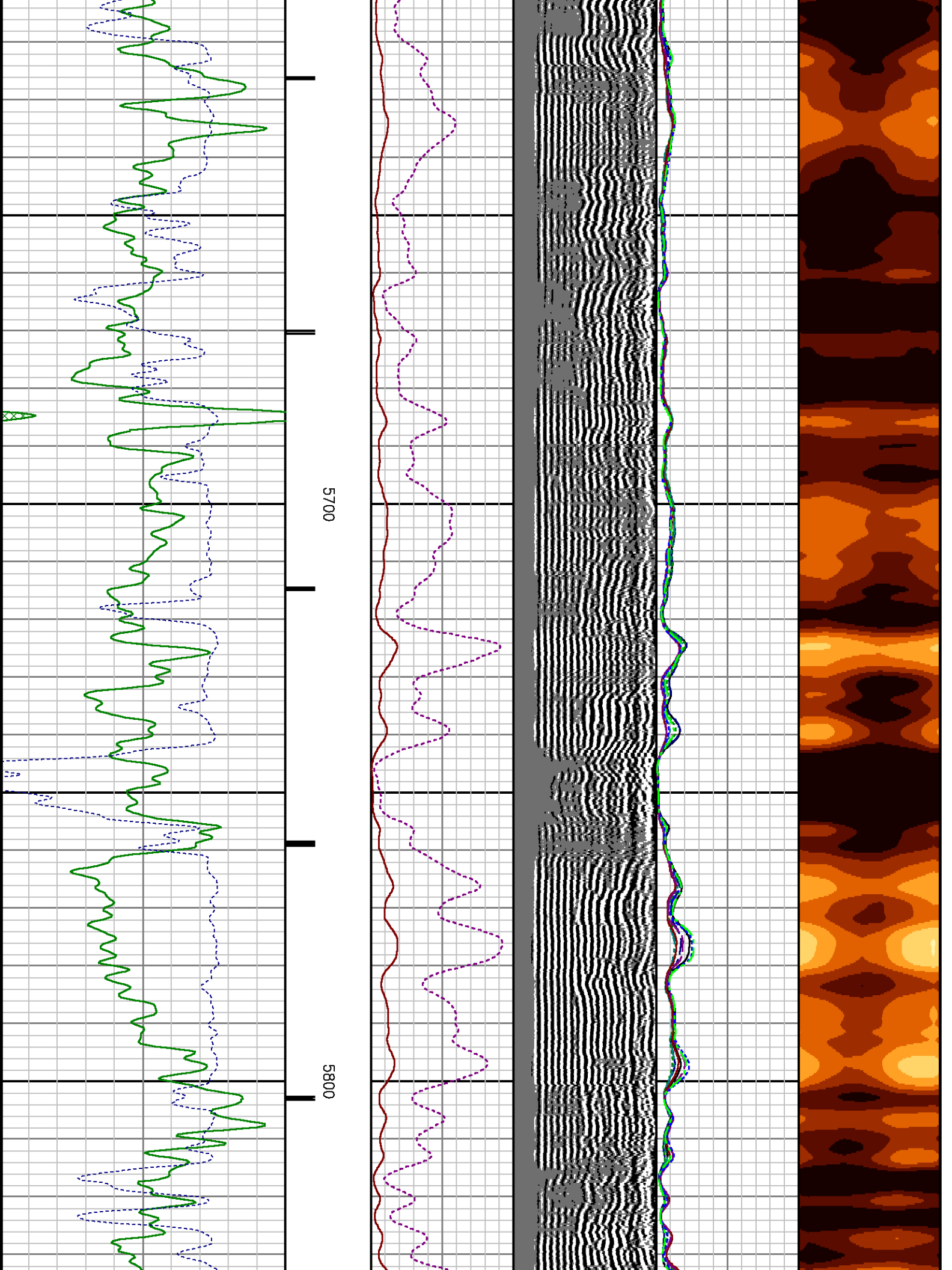


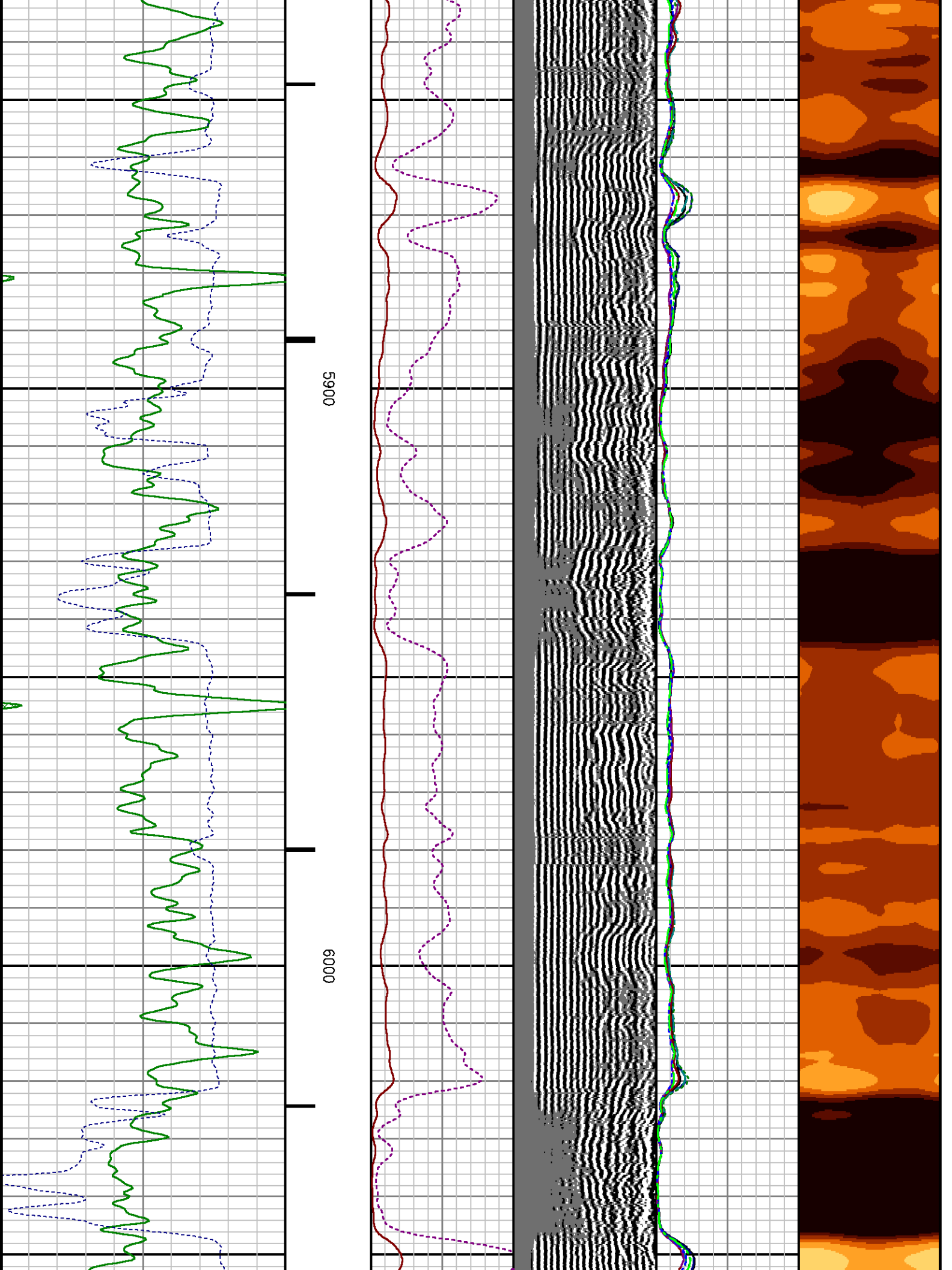


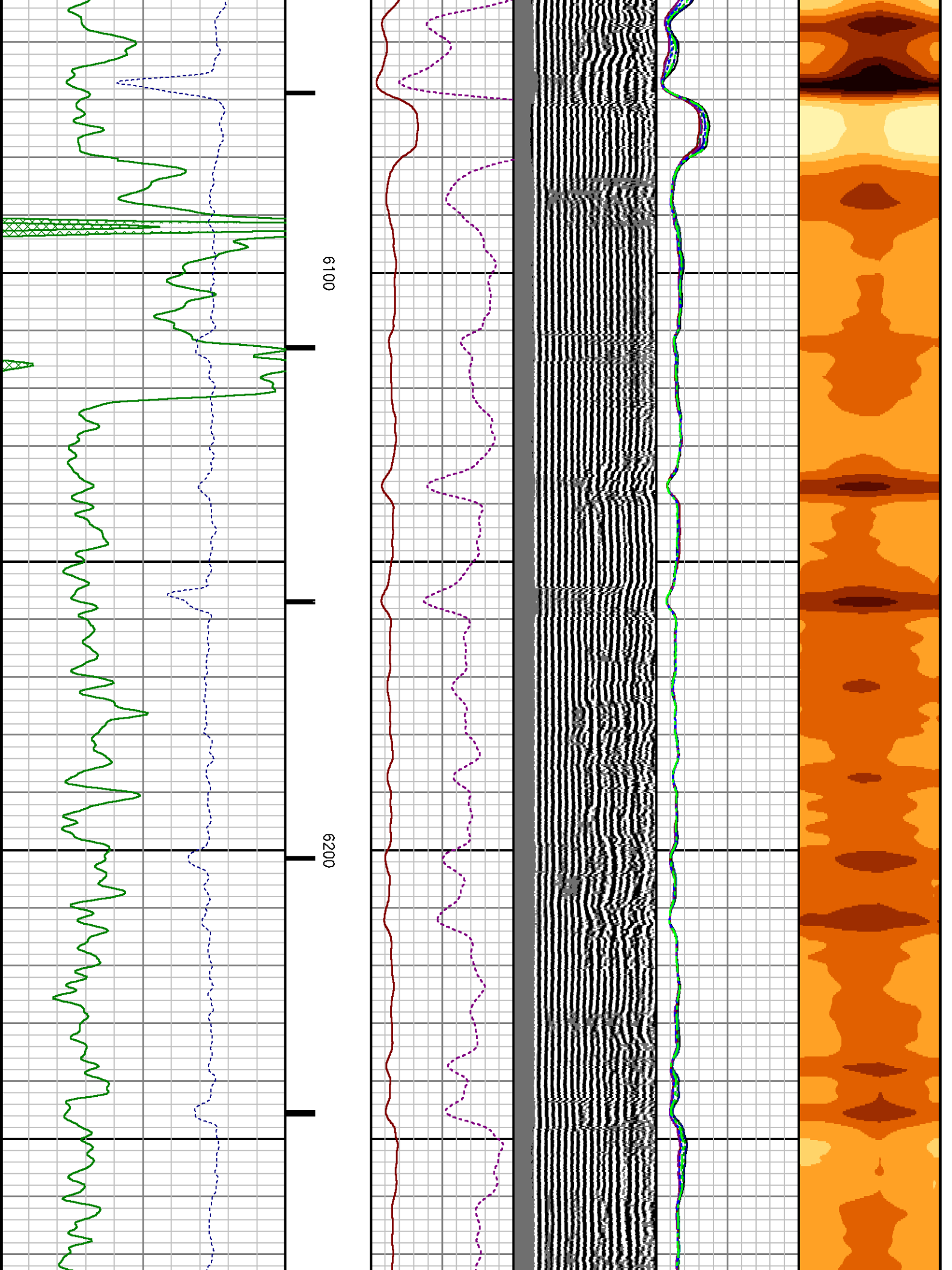


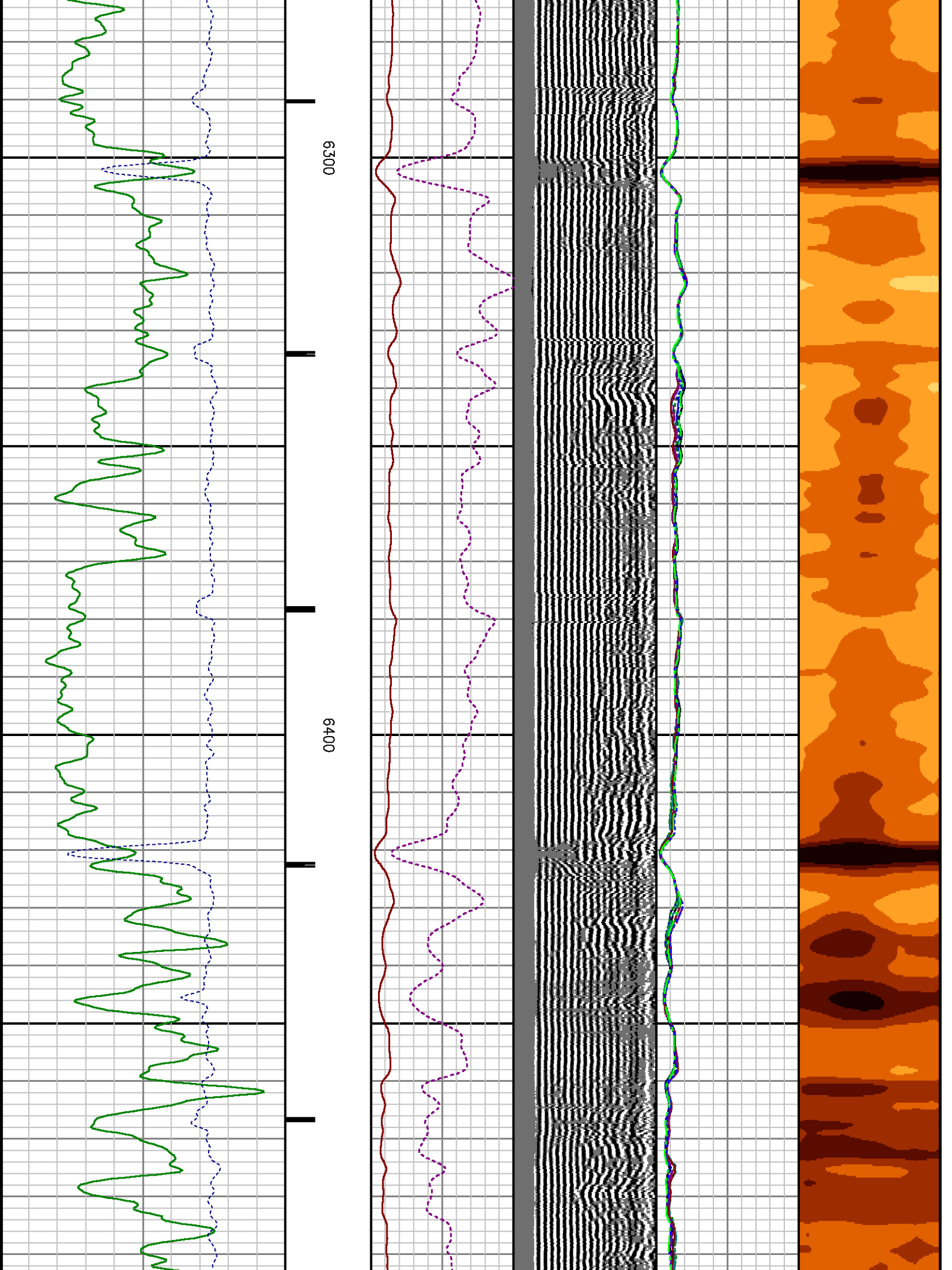


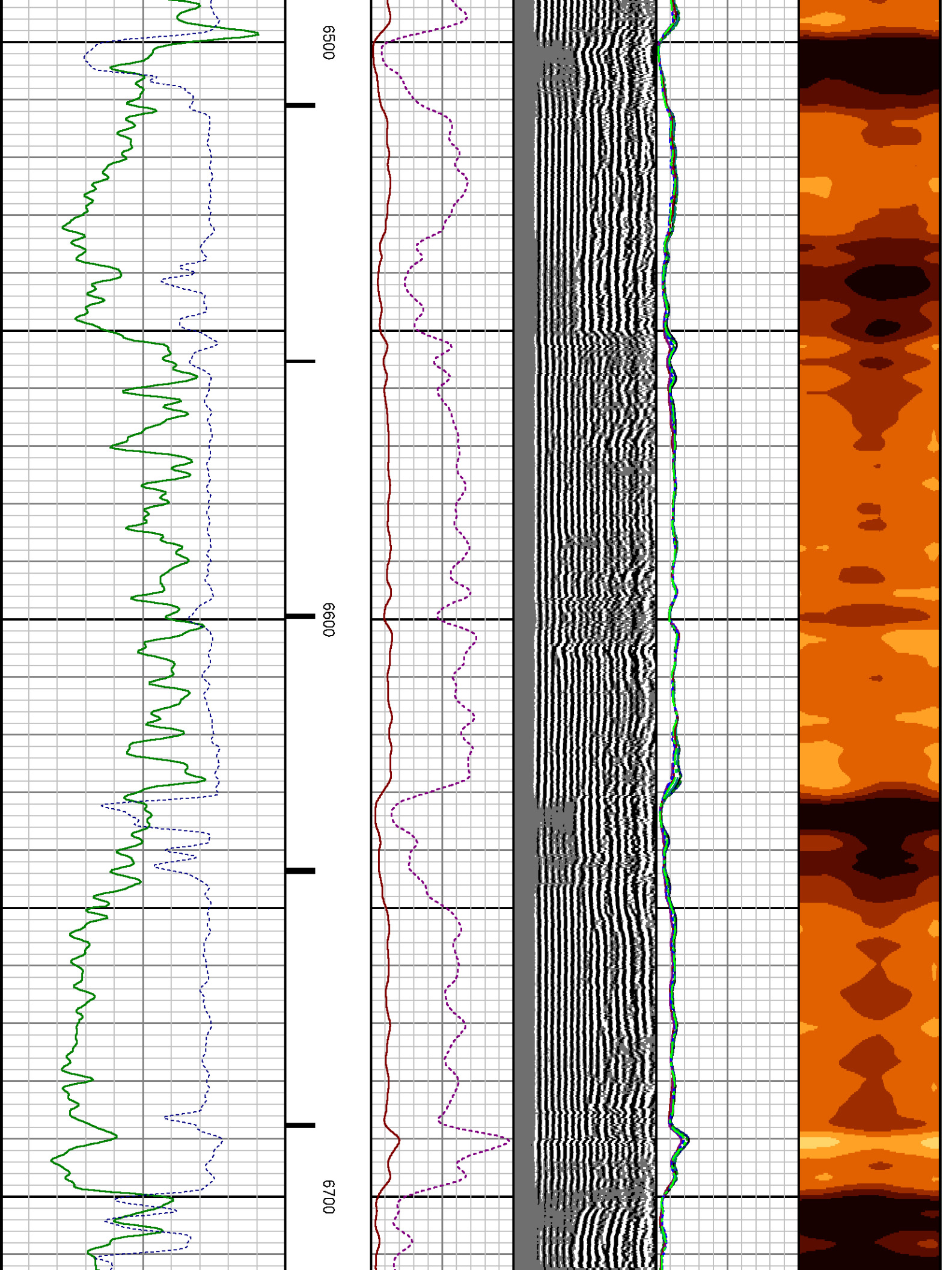


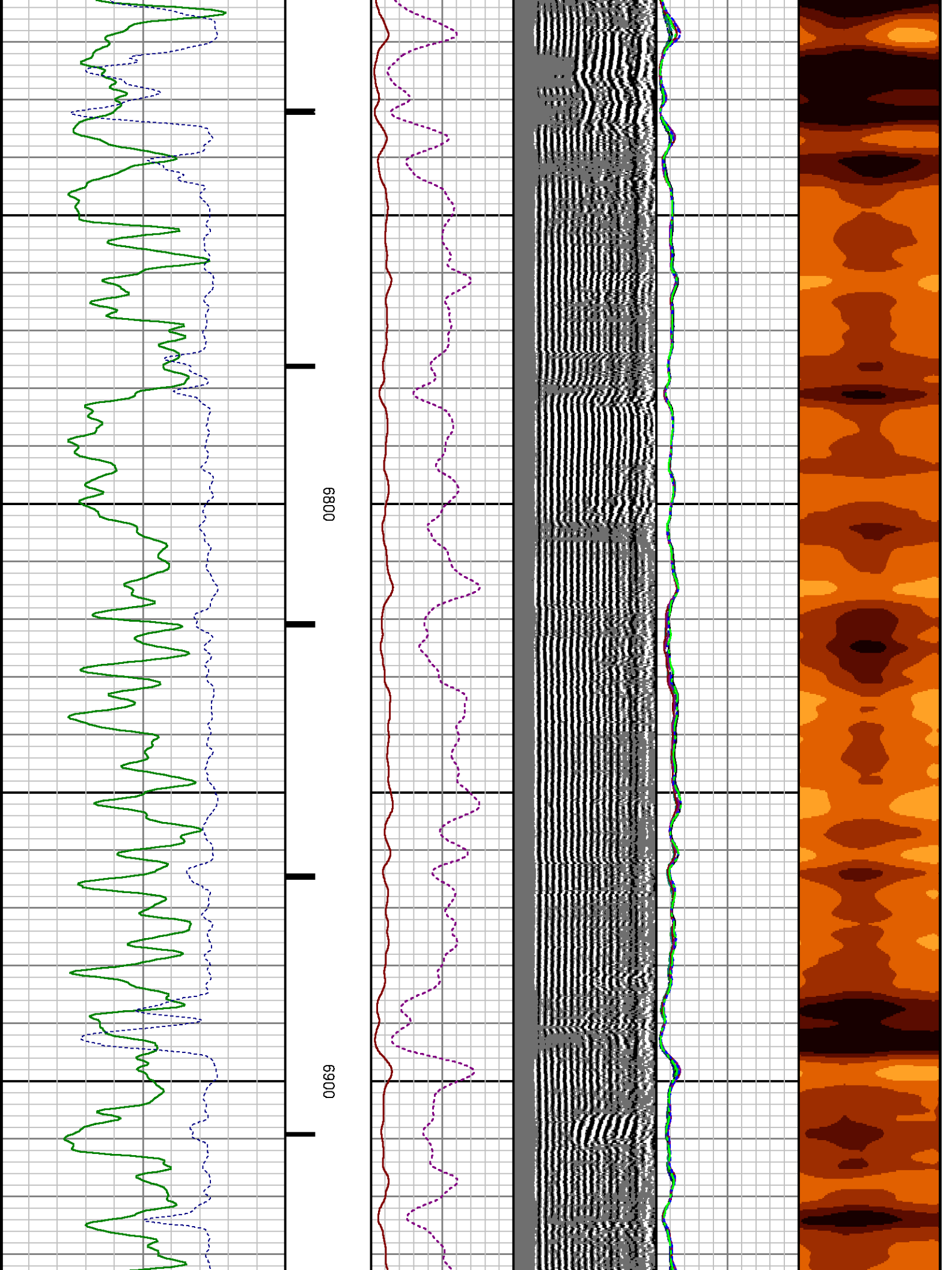


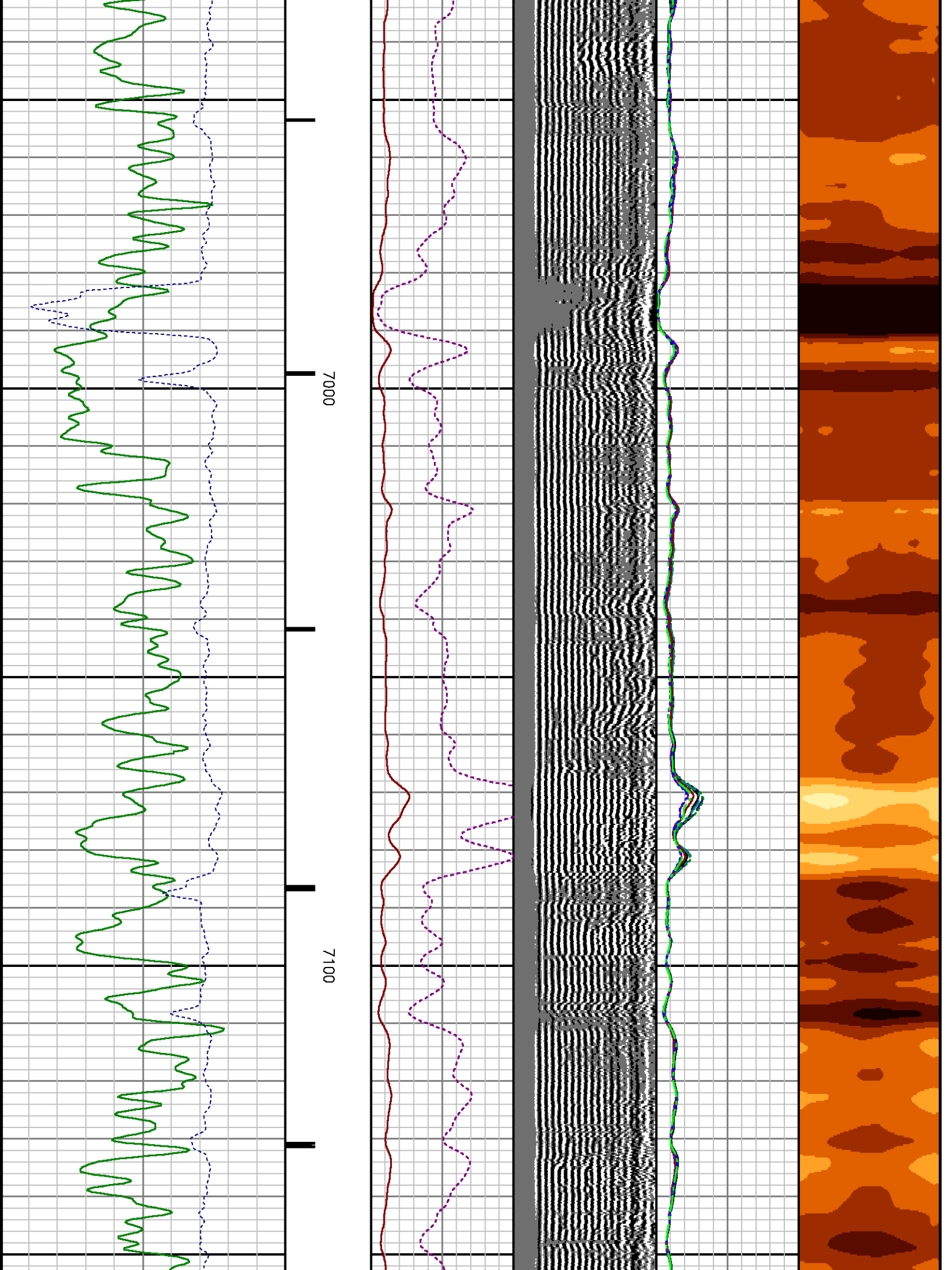


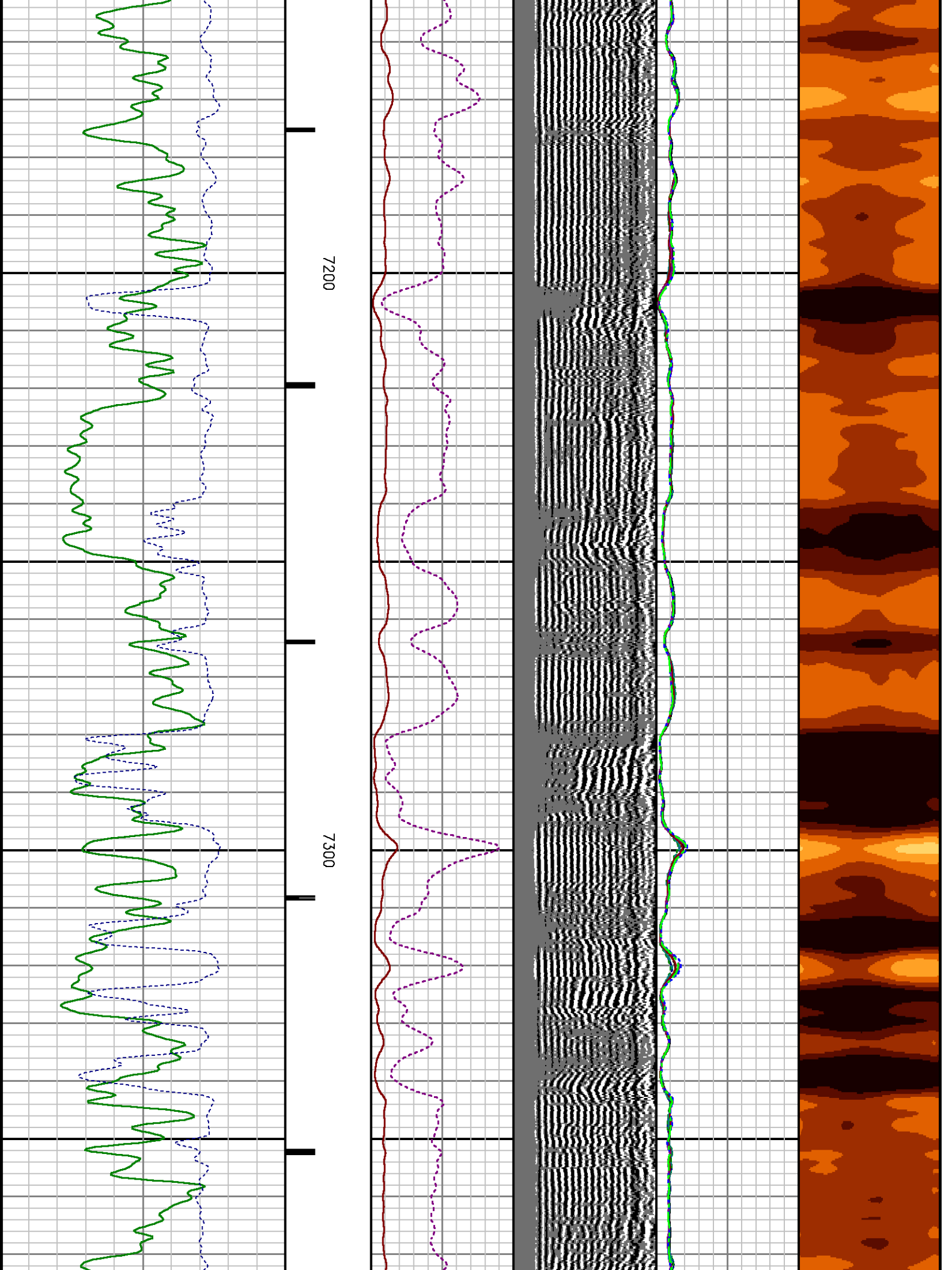


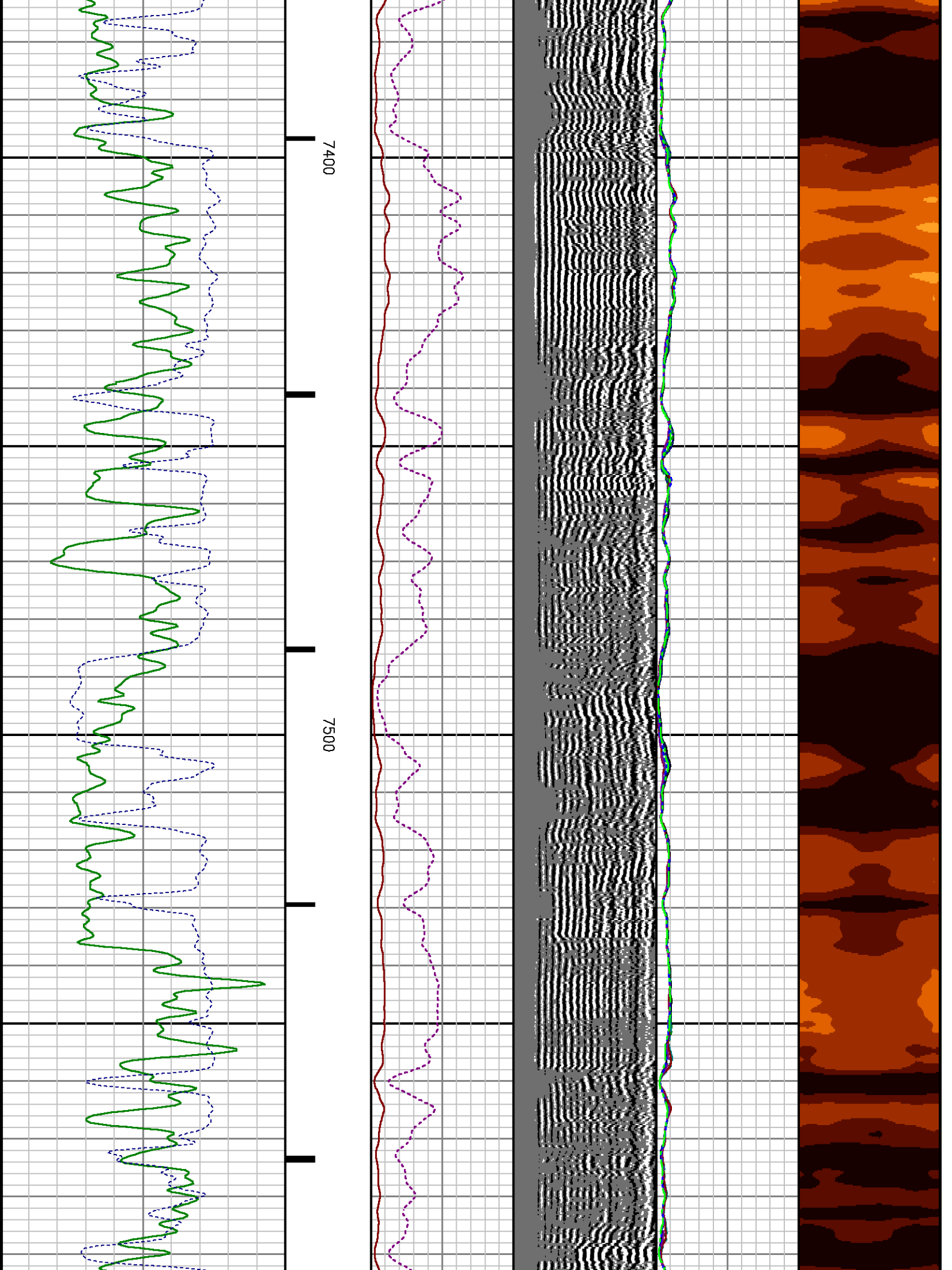


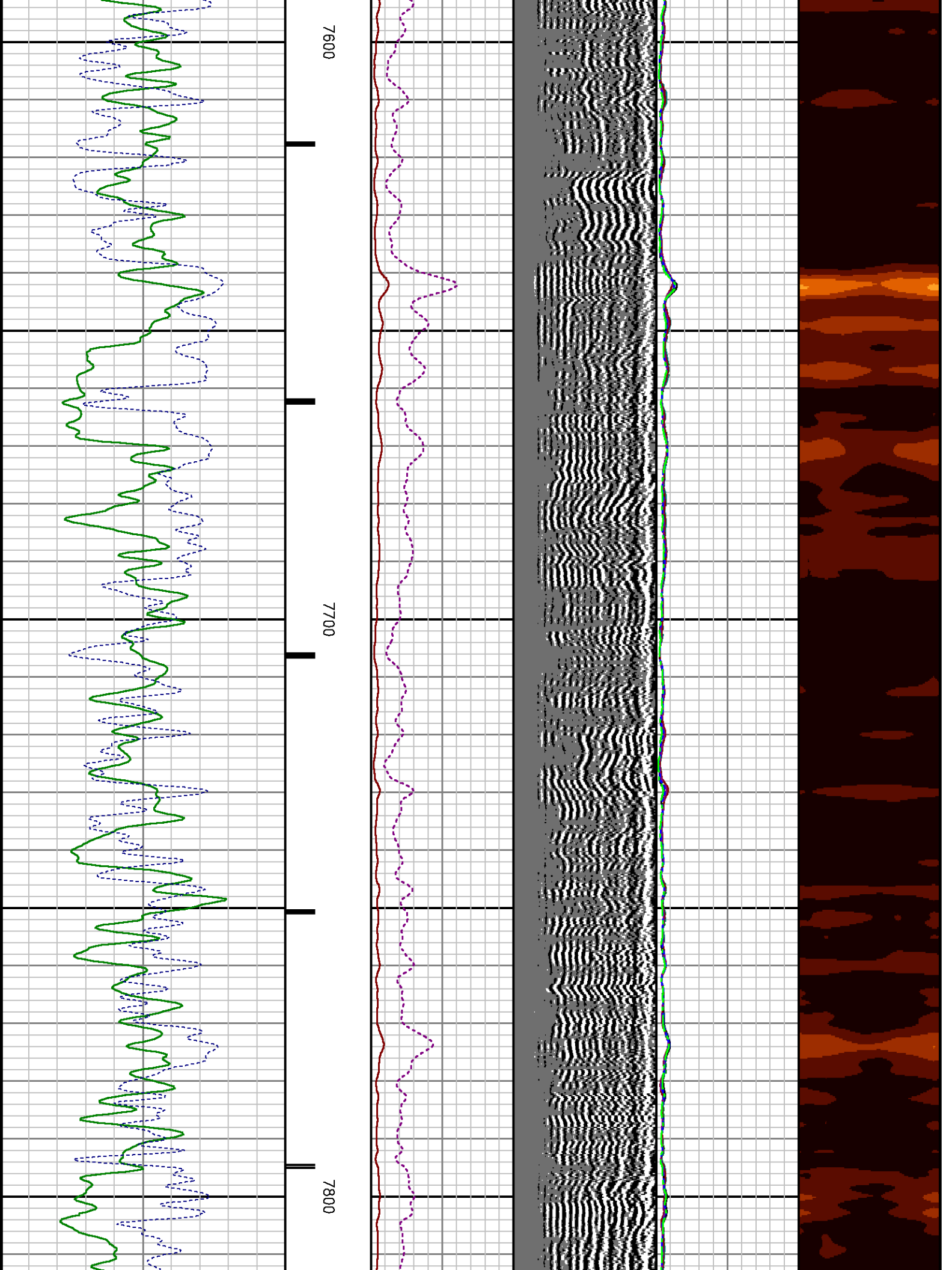


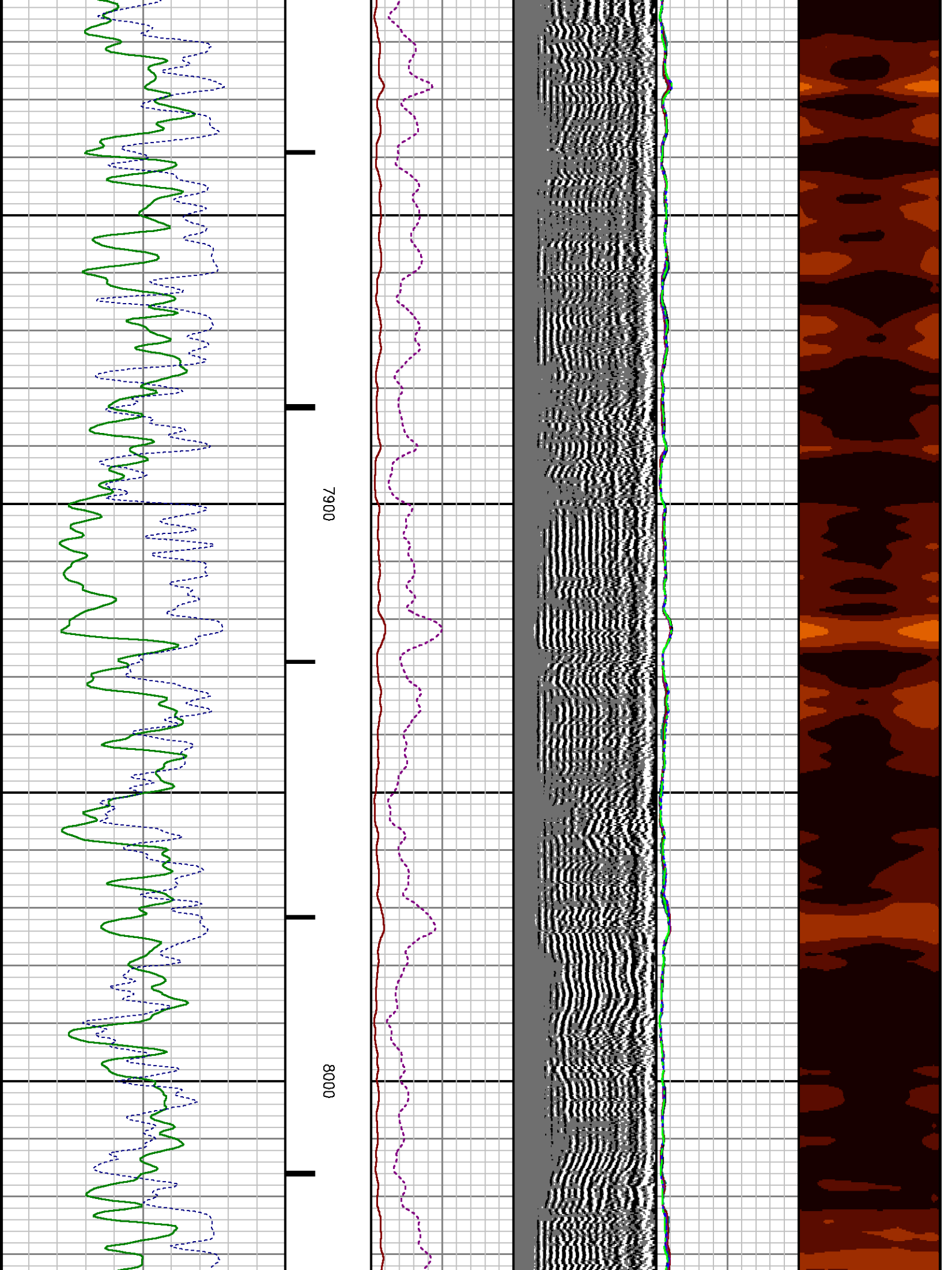


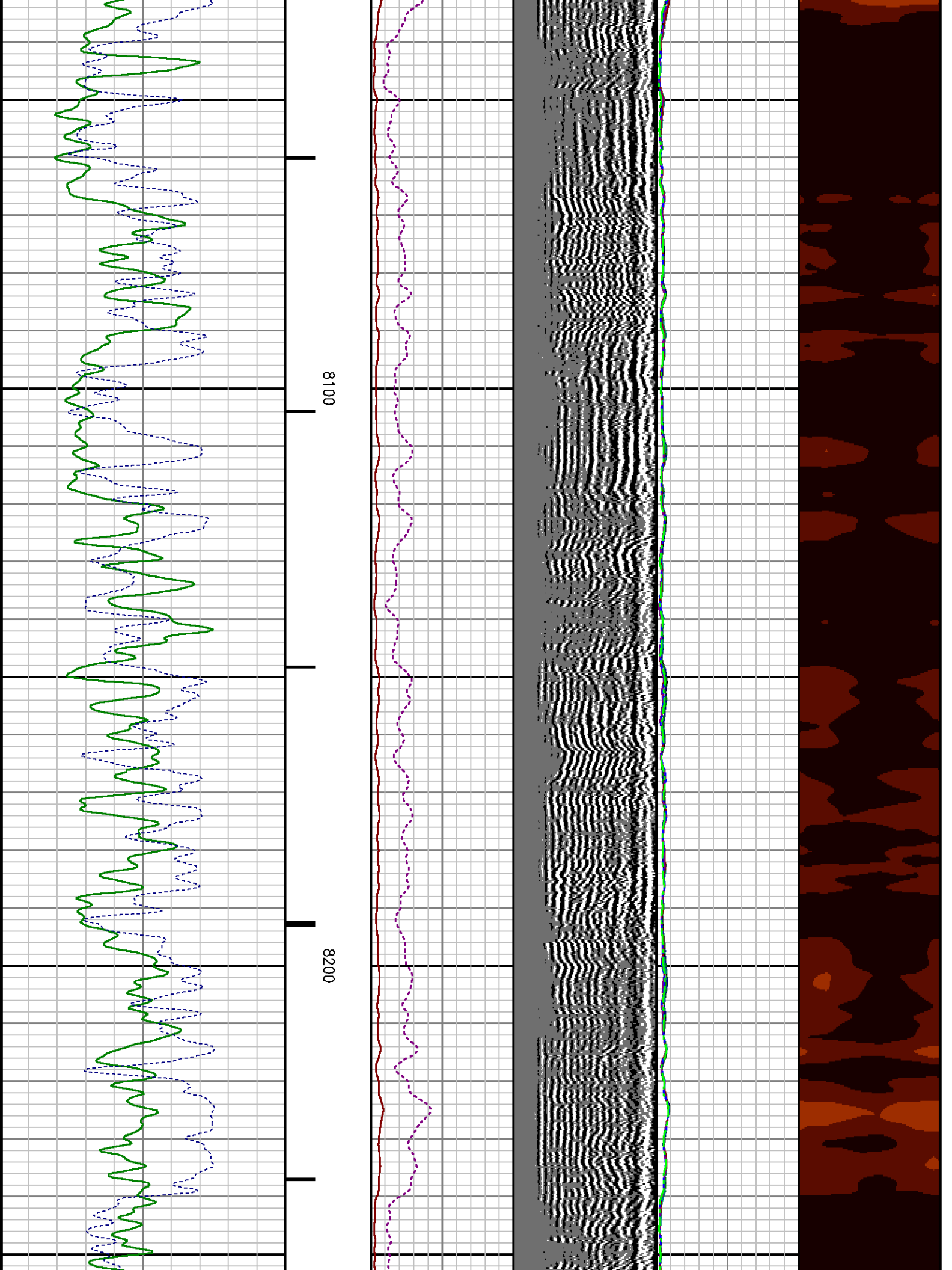


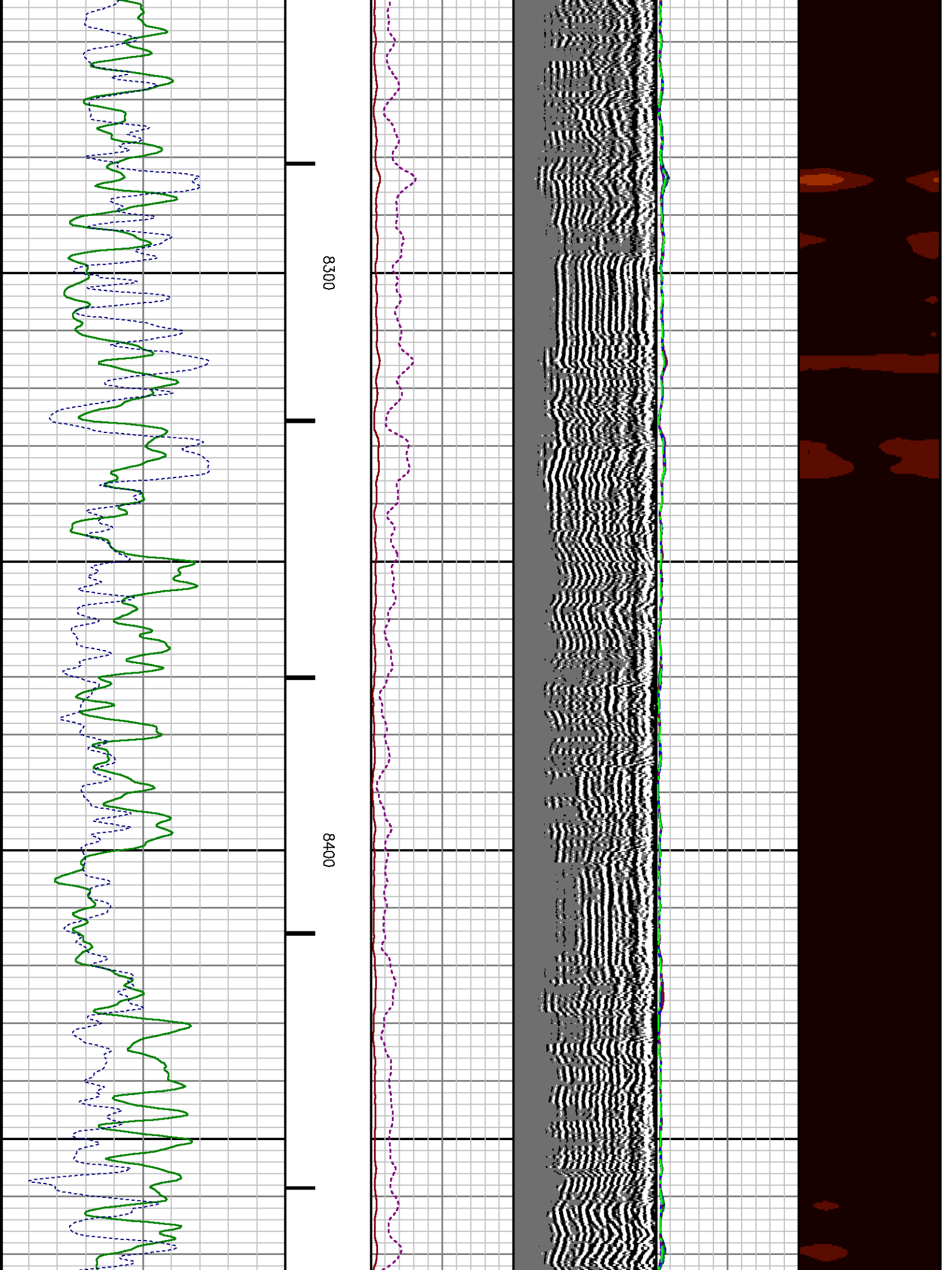


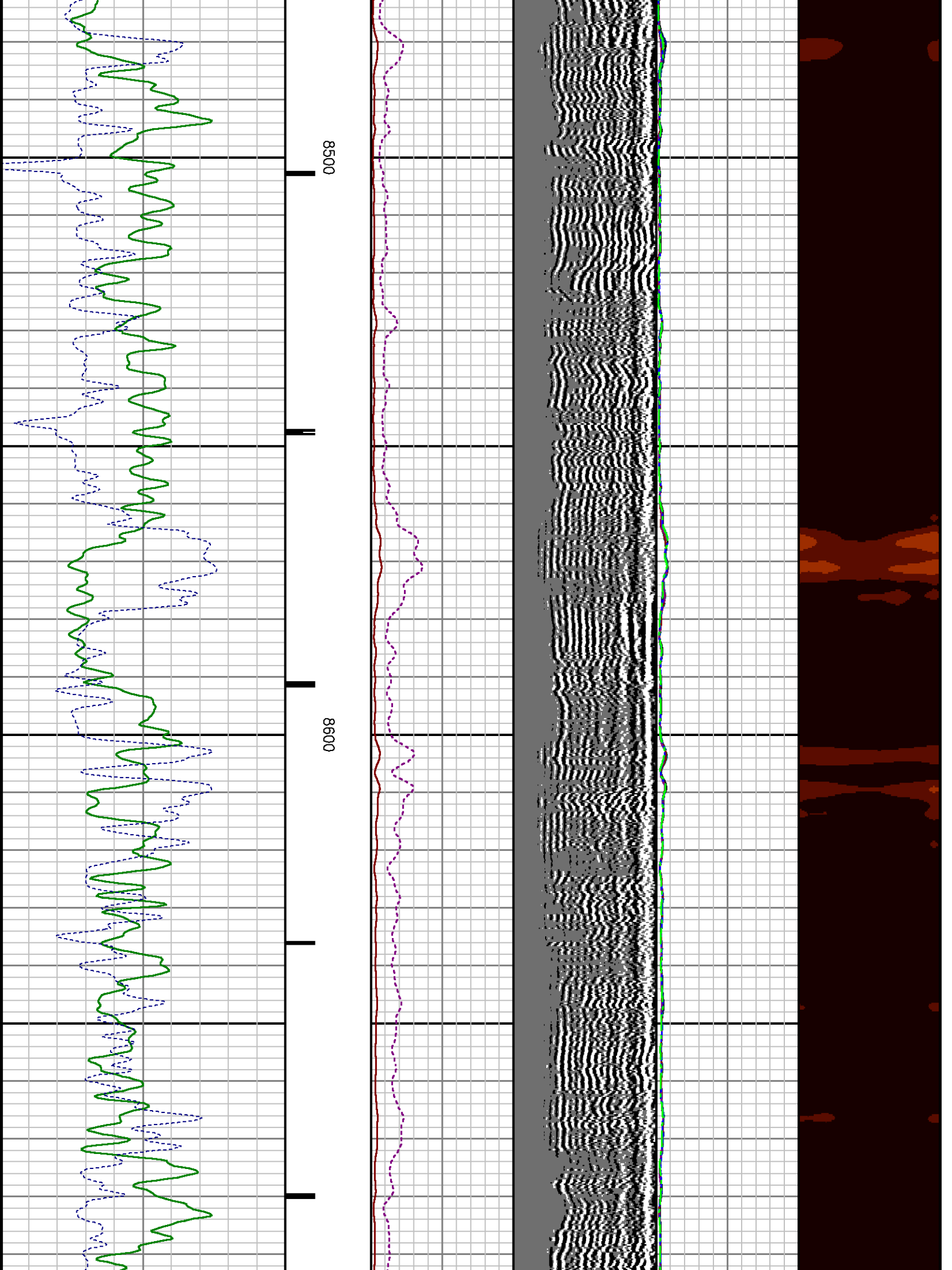


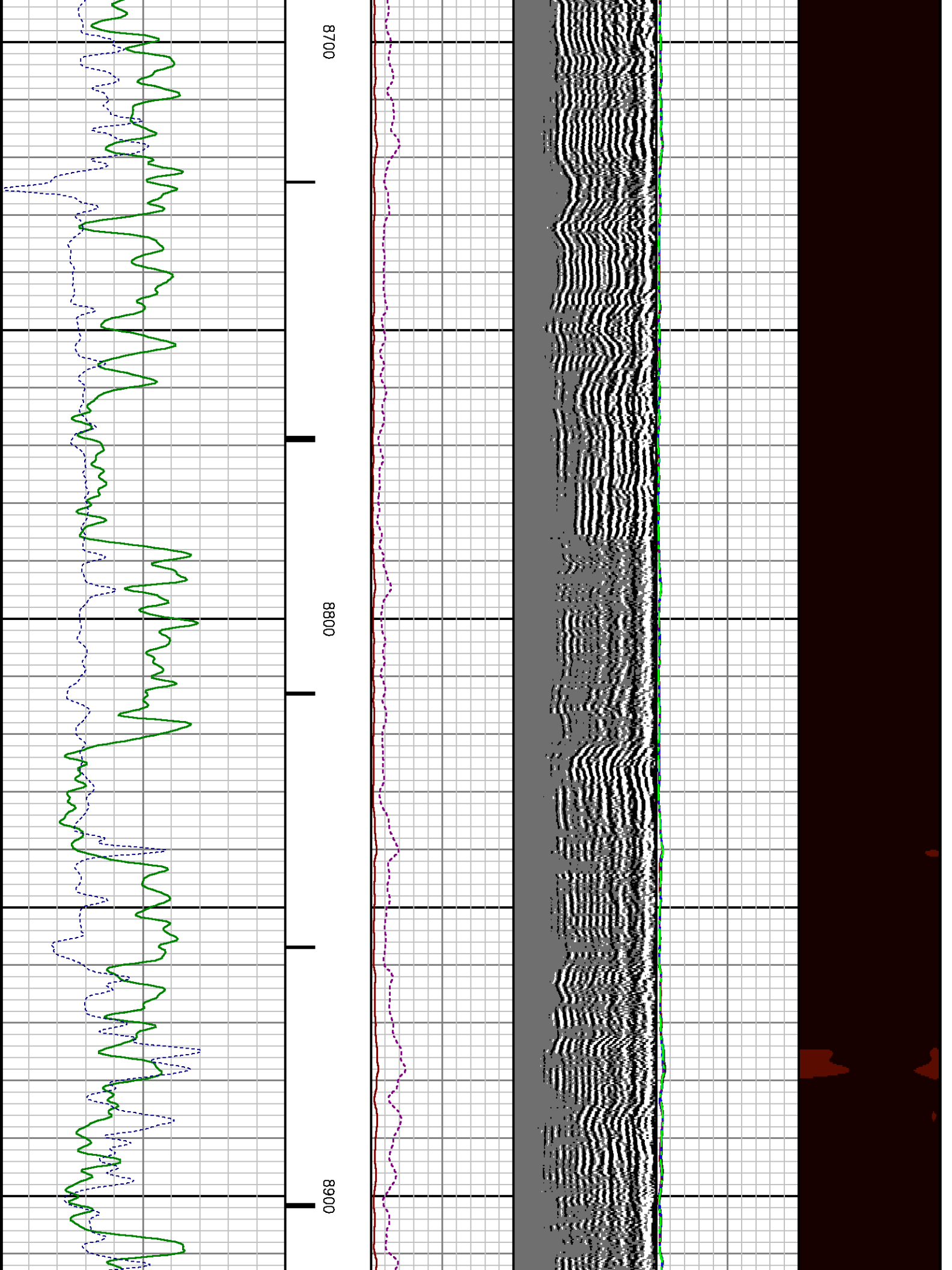


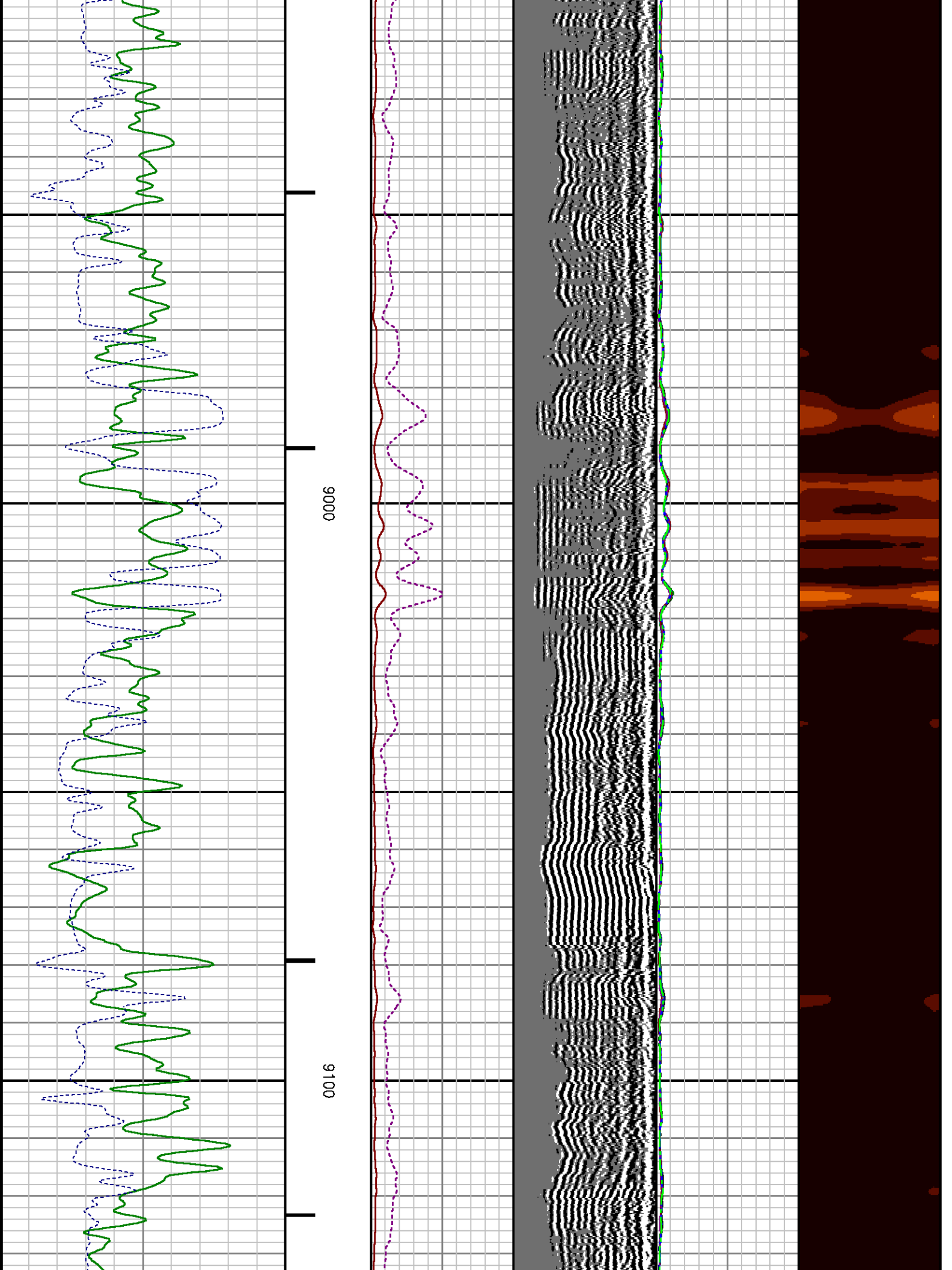


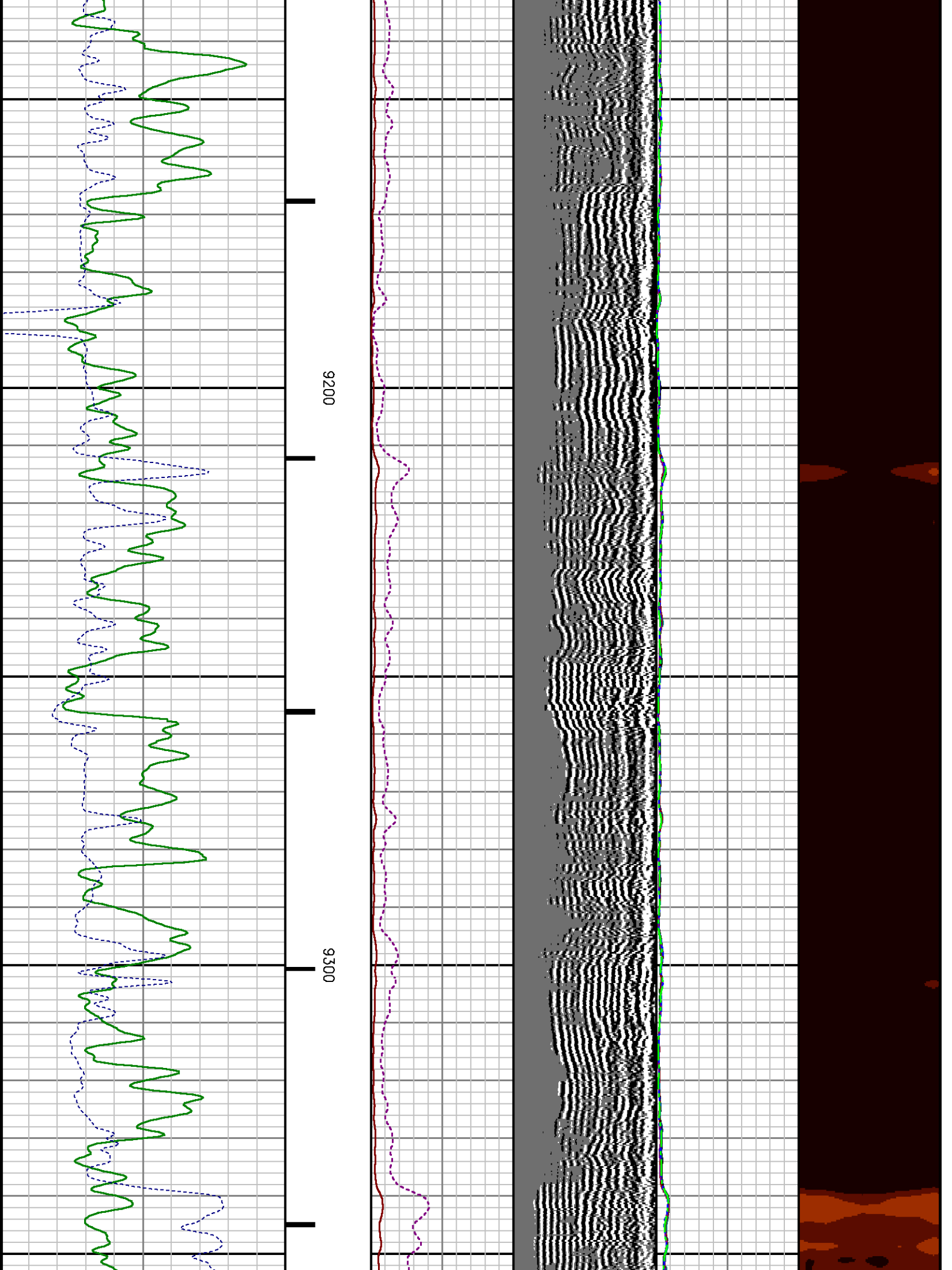


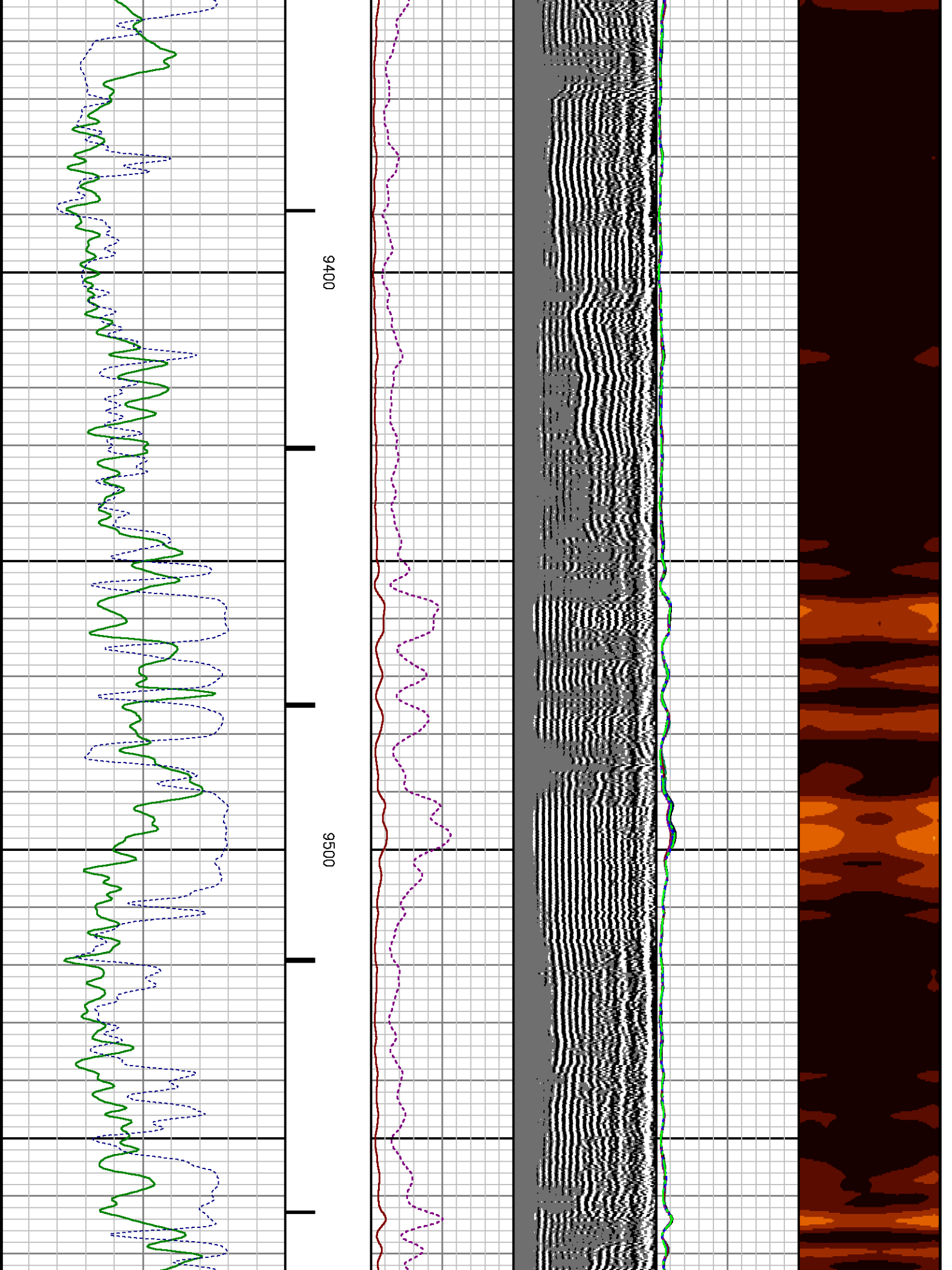


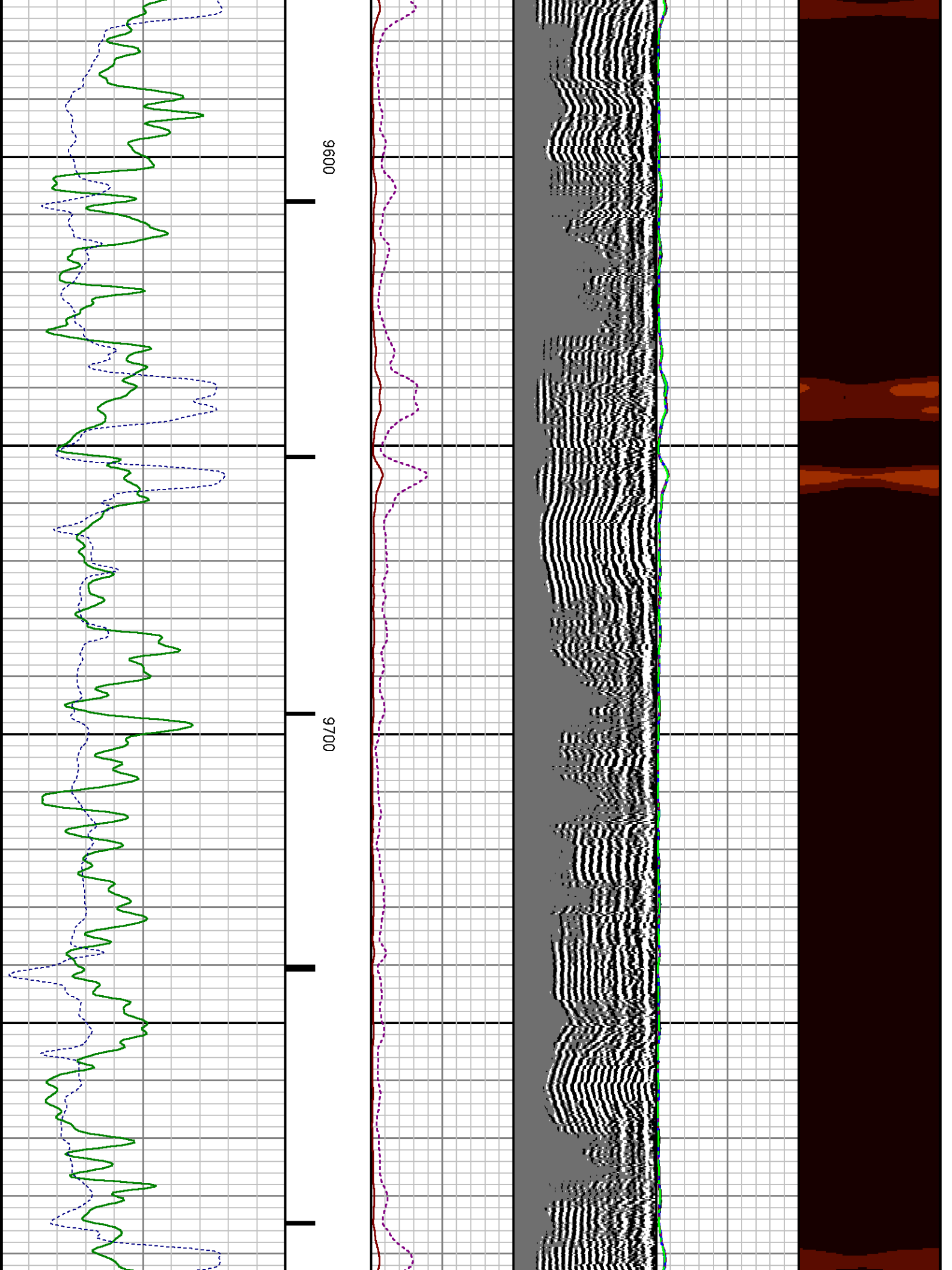


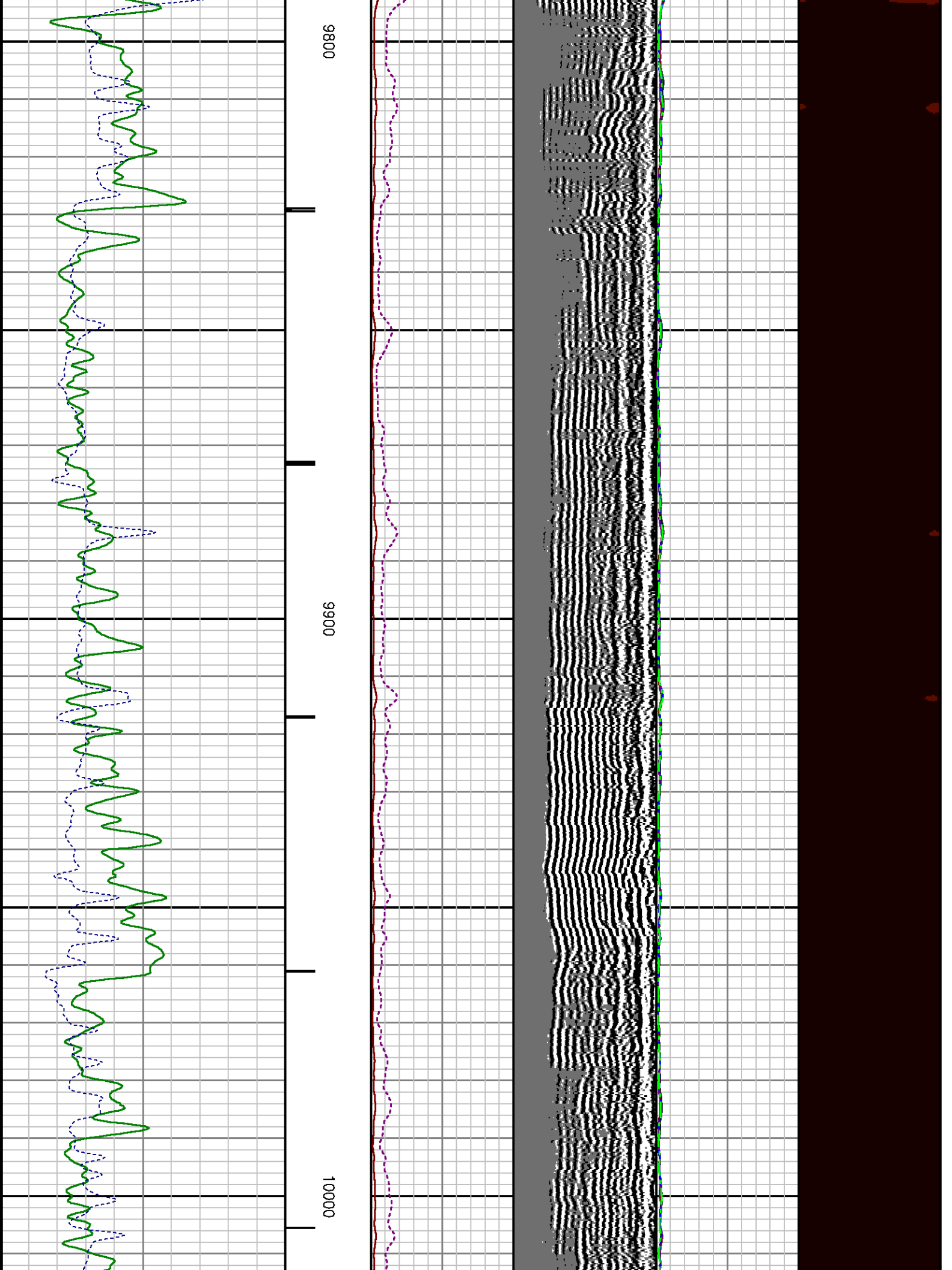


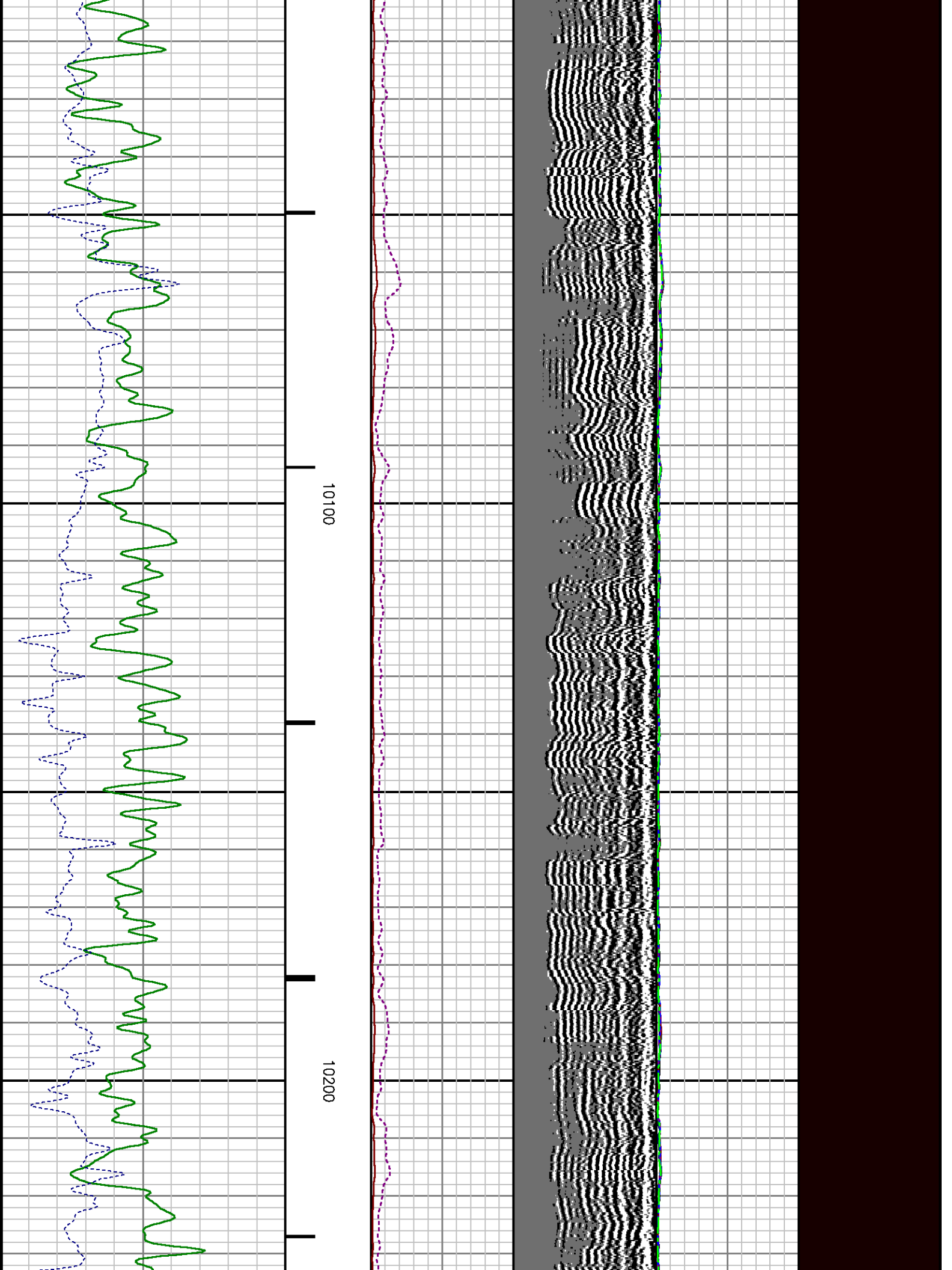


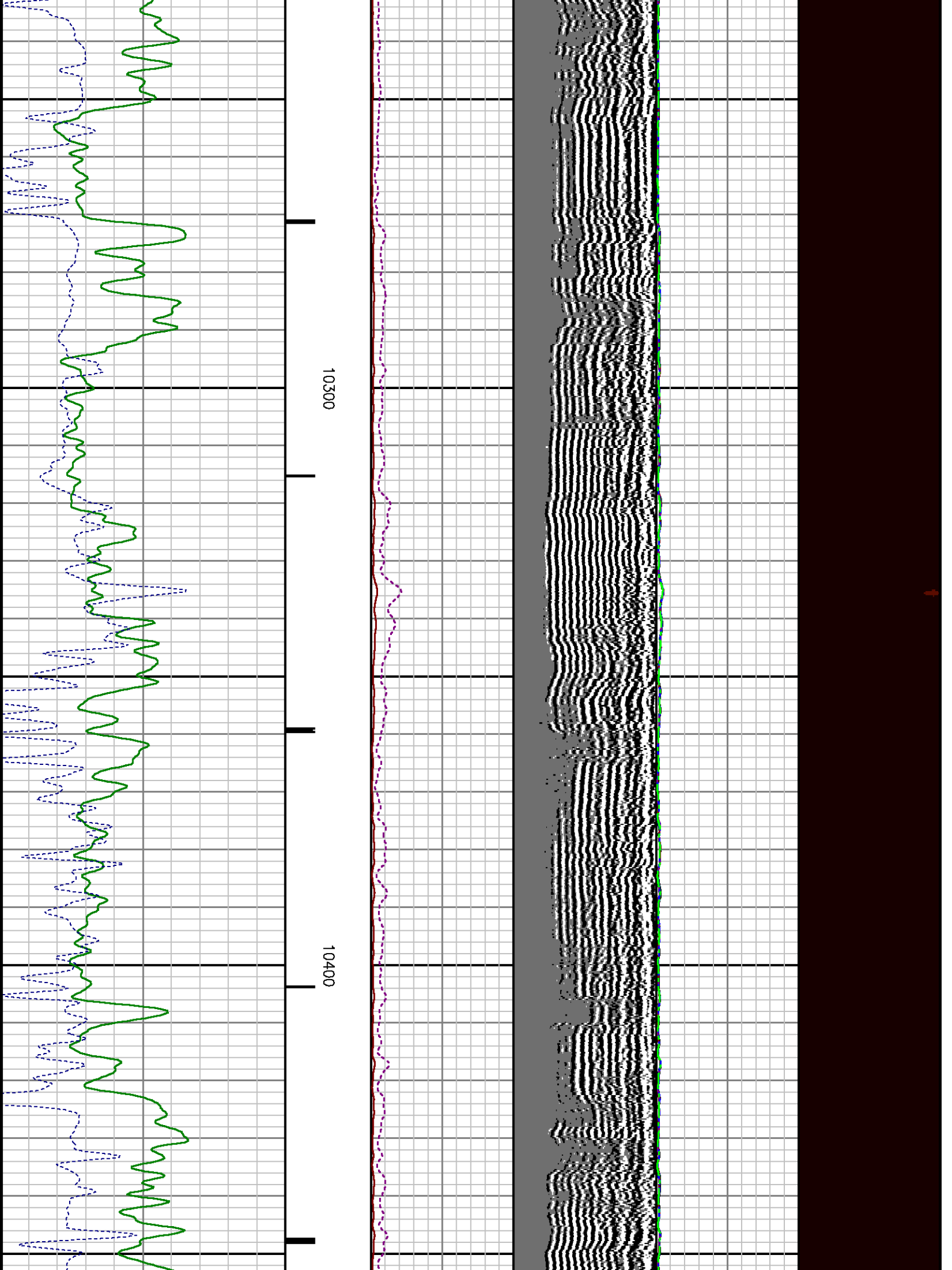


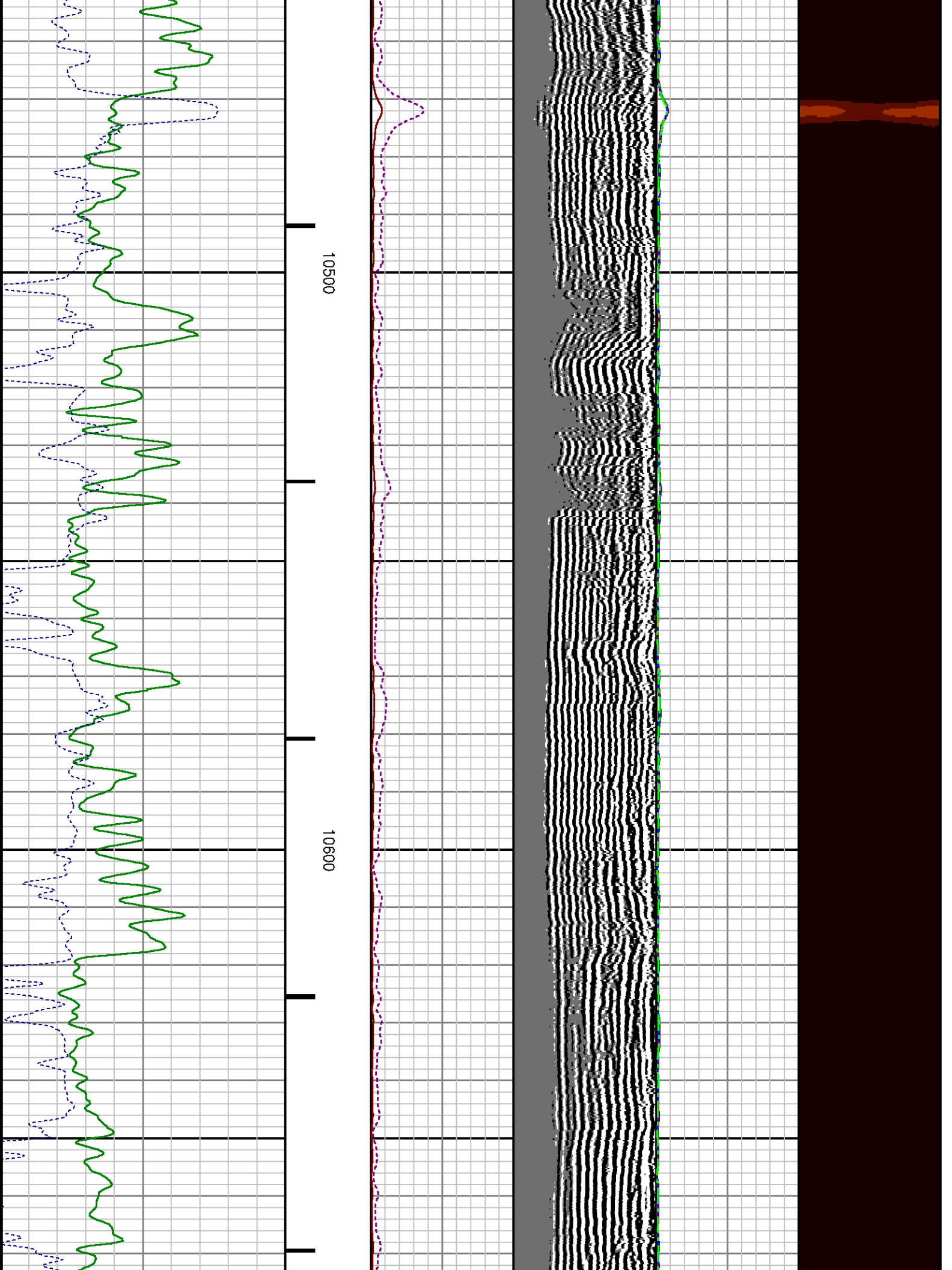


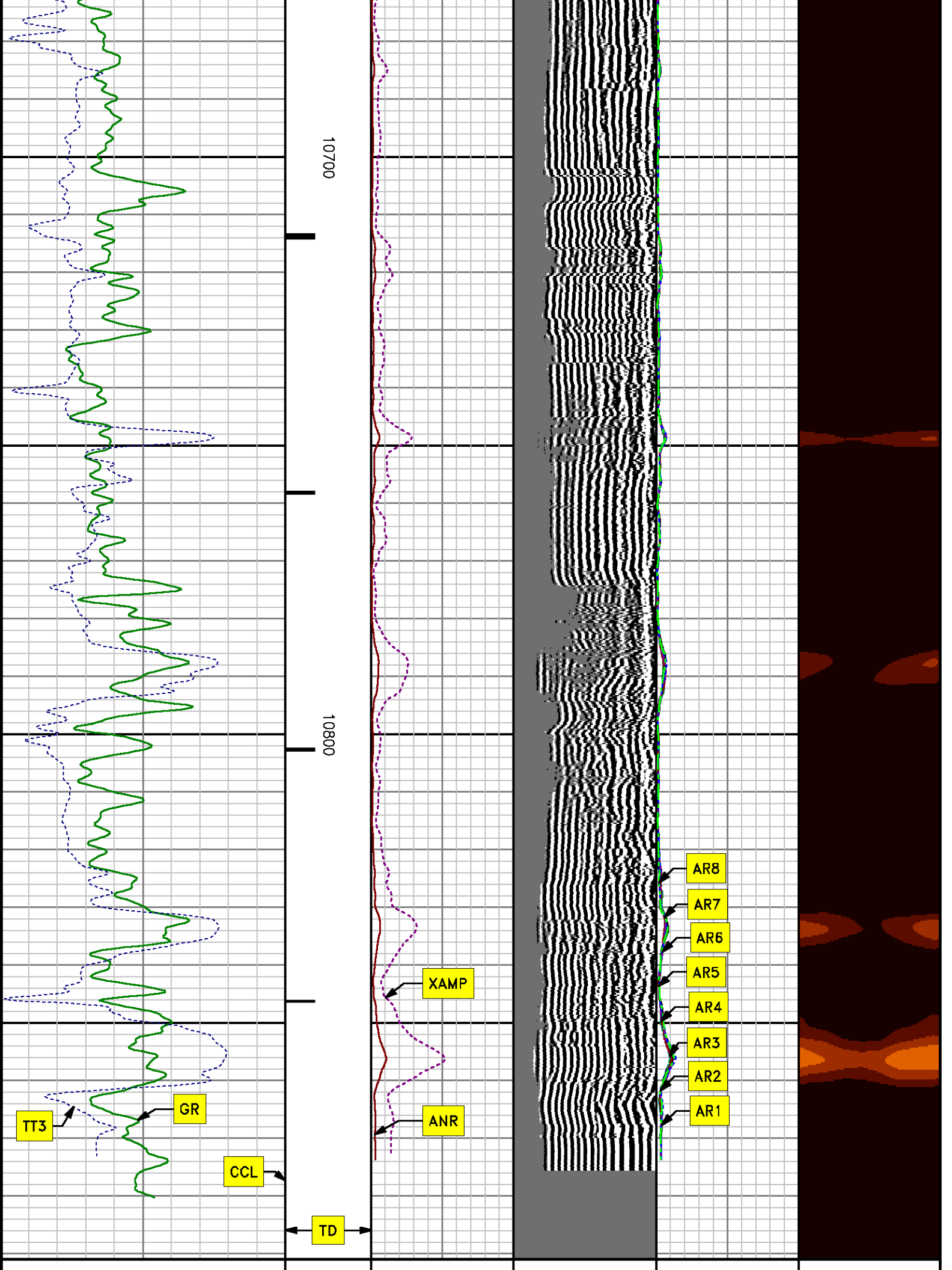


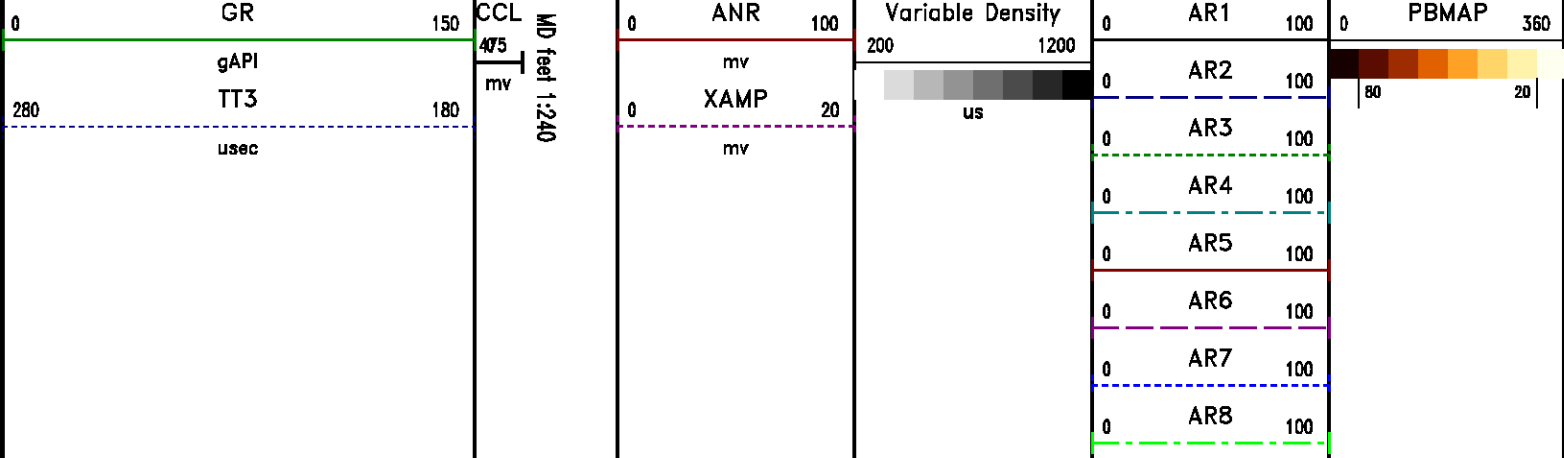












REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	10554.421	10891.421
RAL	Amp Gate Start Near	195.000	usec	10554.421	10891.421
RAL	Amp Gate Start Radial	195.000	usec	10554.421	10891.421
RAL	Amp Gate Width Far	25.000	usec	10554.421	10891.421
RAL	Amp Gate Width Near	25.000	usec	10554.421	10891.421
RAL	Amp Gate Width Radial	25.000	usec	10554.421	10891.421
RAL	casing od	4.500	inches	10554.421	10891.421
RAL	casing wt	11.600	lbm/ft	10554.421	10891.421
RAL	FB Start Far	291.900	usec	10554.421	10891.421
RAL	FB Start Near	175.391	usec	10554.421	10891.421
RAL	FB Start Radial	175.391	usec	10554.421	10891.421
RAL	FB Thresh Far	10.000	mv	10554.421	10891.421
RAL	FB Thresh Near	4.000	mv	10554.421	10891.421
RAL	FB Thresh Radial	4.000	mv	10554.421	10891.421
RAL	Fluid Travel Time	200.000	usec/ft	10554.421	10891.421

DEPTH OFFSETS
(for Acquired Curves)

SERIES

DEPTH OFFSET

ACQUIRED CURVES

1426XA

-16.750

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

-15.750

AFAR

SIG

TT5

2459XA

-11.340

CCL

2459XA

-9.490

GR

2459XA

-4.090

NEU

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

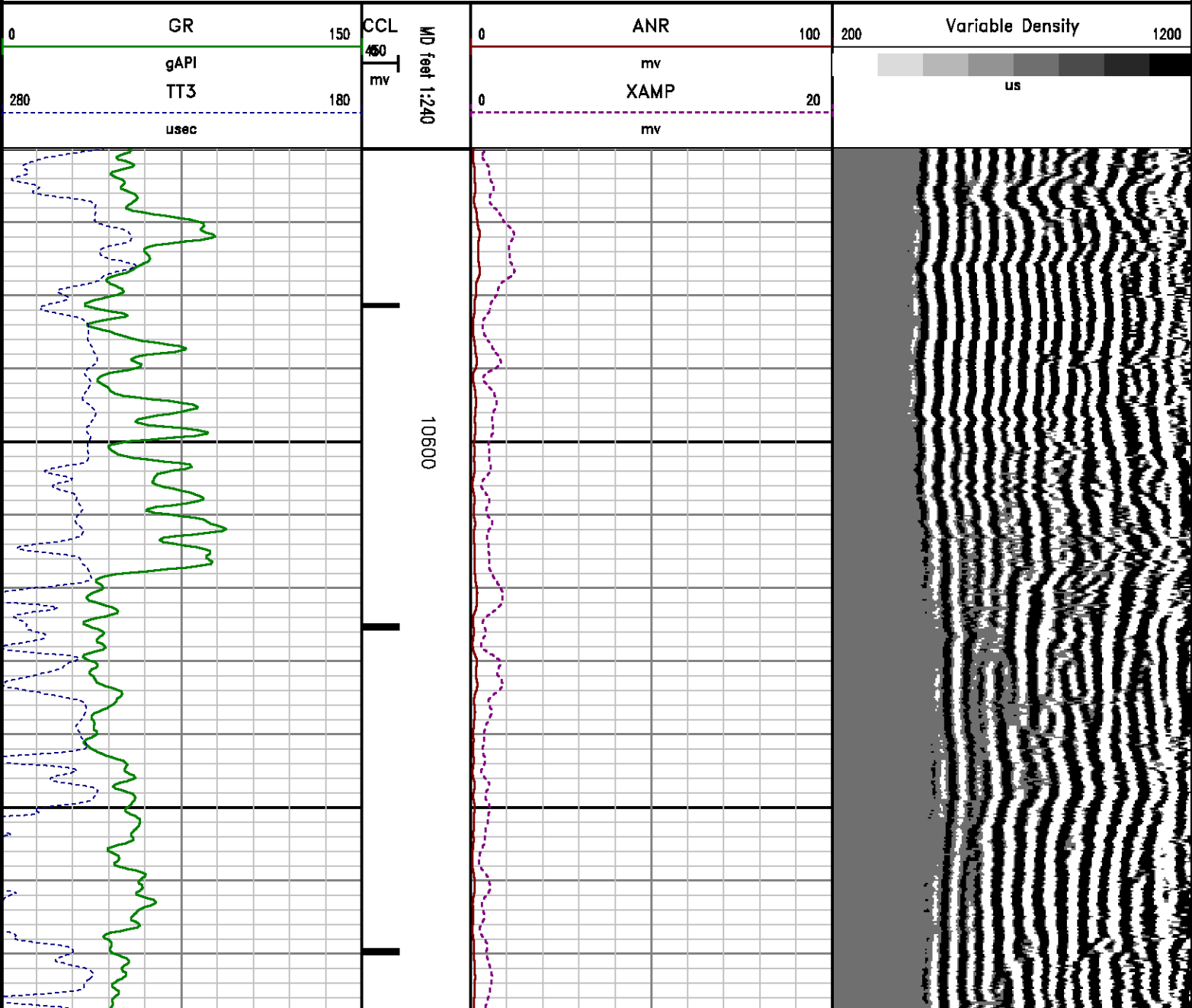
Well : FEDERAL RG 541-15-298

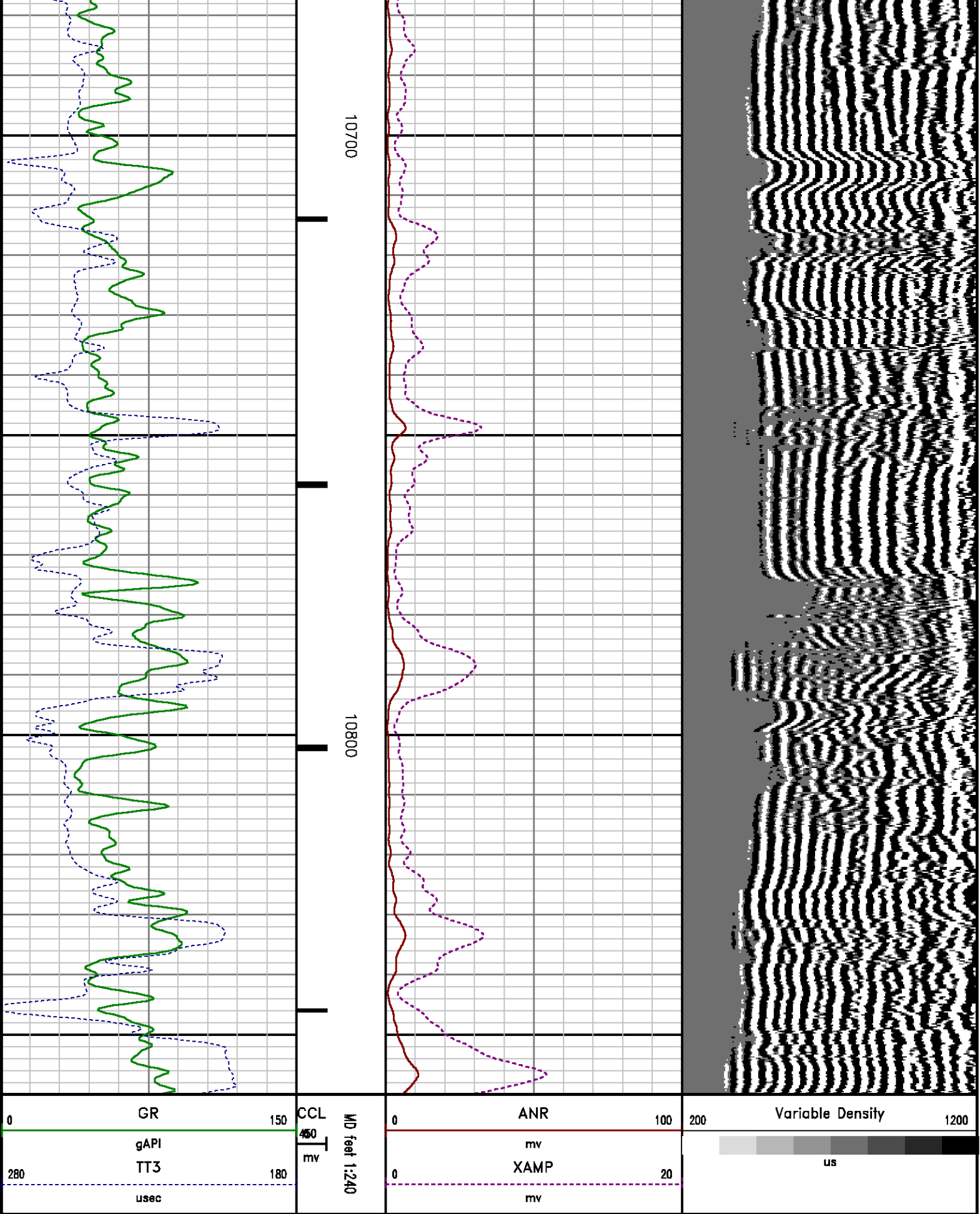
File Name : d:\welldata\wpx\federal rg 541-15-298\cb1541\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 10560.00 - 10860.00 feet UP

Created : 2/22/2014 7:41:49 PM





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\10620_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Feb 20 10:07:15 2014 TOOL SERIES: 1426XA ASSET: 106 SEQ: 20

Tool Delay [usec] -54.00 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	0.143	100.00	0.16
3 Ft. Receiver	219	216	30	166	20	-0.300	100.00	0.15
5 Ft. Receiver	327	325	30	257	20	0.045	150.00	0.16
Radial #1	218	216	30	166	18	-0.369	100.00	0.15
Radial #2	218	216	30	166	18	-0.150	100.00	0.15
Radial #3	218	216	30	166	18	-0.113	100.00	0.15
Radial #4	218	216	30	166	18	0.242	100.00	0.15
Radial #5	219	216	30	166	18	-0.363	100.00	0.15
Radial #6	219	216	30	166	18	-0.702	100.00	0.15
Radial #7	218	216	30	166	18	-0.444	100.00	0.15
Radial #8	220	216	30	166	18	-0.627	100.00	0.15

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\10622 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Feb 22 12:12:20 2014 TOOL SERIES: 1426XA ASSET: 106 SEQ: 22

Tool Delay [usec] -54.00 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	-0.006	0.000	1.12	100.000
3 Ft. Receiver	195	25	-1.129			
5 Ft. Receiver	305	25	-1.430			
Radial #1	195	25	-1.980			
Radial #2	195	25	-1.708			
Radial #3	195	25	-1.353			
Radial #4	195	25	-1.564			
Radial #5	195	25	-1.303			

Radial #6	195	25	-1.395
Radial #7	195	25	-0.992
Radial #8	195	25	-1.255

GAMMA RAY #2

Calibration File: C:\case\calver\GR\1012412122.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Feb 22 12:18:15 2014		TOOL SERIES: 2459XA		ASSET: 10124121		SEQ: 22
Calibrator #	Background	Calibrator On	Multiplicative	Background	Calibrator On	Differential
	[cps]	[cps]		[api]	[api]	[api]
S2K WA-612	36.22	291.56	0.725	26.24	211.24	185.00

Verification File: C:\case\calver\GR\1012412122.VP

PRIMARY LOG VERIFICATION

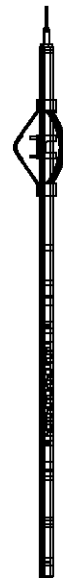
DATE/TIME PERFORMED: Sat Feb 22 12:19:23 2014		TOOL SERIES: 2459XA		ASSET: 10124121		SEQ: 22
Calibrator #	Background	Calibrator On	Multiplicative	Background	Calibrator On	Differential
	[cps]	[cps]		[api]	[api]	[api]
S2K WA-612	41.96	293.60	0.725	30.40	212.73	182.33

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



	24.23'
XMIT	18.05'
NEAR RCVR	14.97'
FAR RCVR	13.05'



<i>Probe GR/CCL/NEU</i>	
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

<i>CENTRALIZER</i>	
Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb



CCL	11.34'
GR	9.49'
NEU	4.09'
	0.00'

Total Length: 24.23'
Total Weight: Not Available
Max Diameter: 0' 3.12"

<div></div> <div>BAKER HUGHES</div>	Company		WPX ENERGY		File No: CH082855 API No: 05103120750000
	Well		FEDERAL RG 541-15-298		
	Field		SULPHUR CREEK		
	County		RIO BLANCO	StateCO	
<div>Baker Atlas</div> <div></div>	Location			Elevations	15 2S 98W RG 12-14-298 PAD CYCLONE 29
	SHL: 1838' FNL & 496' FWL (14 2S 98W)			KB 6581 ft	
	BHL: 1229' FNL & 657' FEL (15 2S 98W)			DF	
	SEC 15 TWP 2S RGE 98W			GL 6560 ft	