



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH083303	Company Well	WPX ENERGY Savage RWF 11-25
API No: 05045219670000	Field County	RULISON GARFIELD State CO
25 GS 94W RWF 22-25 PAD CYCLONE 17	Location SHL: 2459' FNL & 1417' FNL BHL: 405' FNL & 530' FNL SEC 25 TWP 6S RGE 94W	Other Services RPM
Permanent Datum Log Measured From Drill Measured From	GL KB KB Elevation 21 ft Above P. D.	Elevations KB 6058 ft DF GL 6037 ft

Date	06/MAR/14
Run	ONE
Service Order	US625355
Depth Driller	9053 ft
Depth Logger	9006 ft
Bottom Logged Interval	8996 ft
Top Logged Interval	21 ft
Time Started	15:30
Time Finished	19:00
Operator Rig Time	3.5 HOURS
Type of Fluid in Hole	WATER
Fluid Density	NA
Salinity	NA
Fluid Level	71 ft
Logged Cement Top	NA
Wellhead Pressure	0 psi
Maximum Hole Deviation	NA
Nominal Logging Speed	65 fpm
Maximum Recorded Temperature	235 degF
Reference Log	NA
Reference Log Date	NA
Equipment No.	4271
Location	GRAND JCT.
Recorded By	NEWELL
Witnessed By	COLE APPLIGATE

- FOLD HERE

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

Borehole Record		
Bit Size	From	To
13.5 In	0 ft	1157 ft
8.75 In	1157 ft	9111 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 In			0 ft	1157 ft
4.5 In	11.6 lbm/ft	1-80	0 ft	9111 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 11 feet.
Logged with zero PSI at wellhead.
BHT = 235 °F

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	CBL	1426XA	10218496	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	28.937	9007.250
RAL	Amp Gate Start Near	195.000	usec	28.937	9007.250
RAL	Amp Gate Start Radial	195.000	usec	28.937	9007.250
RAL	Amp Gate Width Far	25.000	usec	28.937	9007.250
RAL	Amp Gate Width Near	25.000	usec	28.937	9007.250
RAL	Amp Gate Width Radial	25.000	usec	28.937	9007.250
RAL	casing od	4.500	inches	28.937	9007.250
RAL	casing wt	11.600	lbm/ft	28.937	9007.250
RAL	FB Start Far	291.900	usec	28.937	9007.250
RAL	FB Start Near	180.000	usec	28.937	9007.250
RAL	FB Start Radial	180.000	usec	28.937	9007.250
RAL	FB Thresh Far	10.000	mv	28.937	9007.250
RAL	FB Thresh Near	4.000	mv	28.937	9007.250
RAL	FB Thresh Radial	4.000	mv	28.937	9007.250
RAL	Fluid Travel Time	200.000	usec/ft	28.937	9007.905

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	TTD1	TTD2	TTD3

1426XA -15.750
2459XA -11.340
2459XA -9.490
2459XA -4.090

FPR3 FPR5 TT3 TTR1 TTR2 TTR3
TTR4 TTR5 TTR6 TTR7 TTR8 XAMP
AFAR SIG TT5
CCL
GR
NEU

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

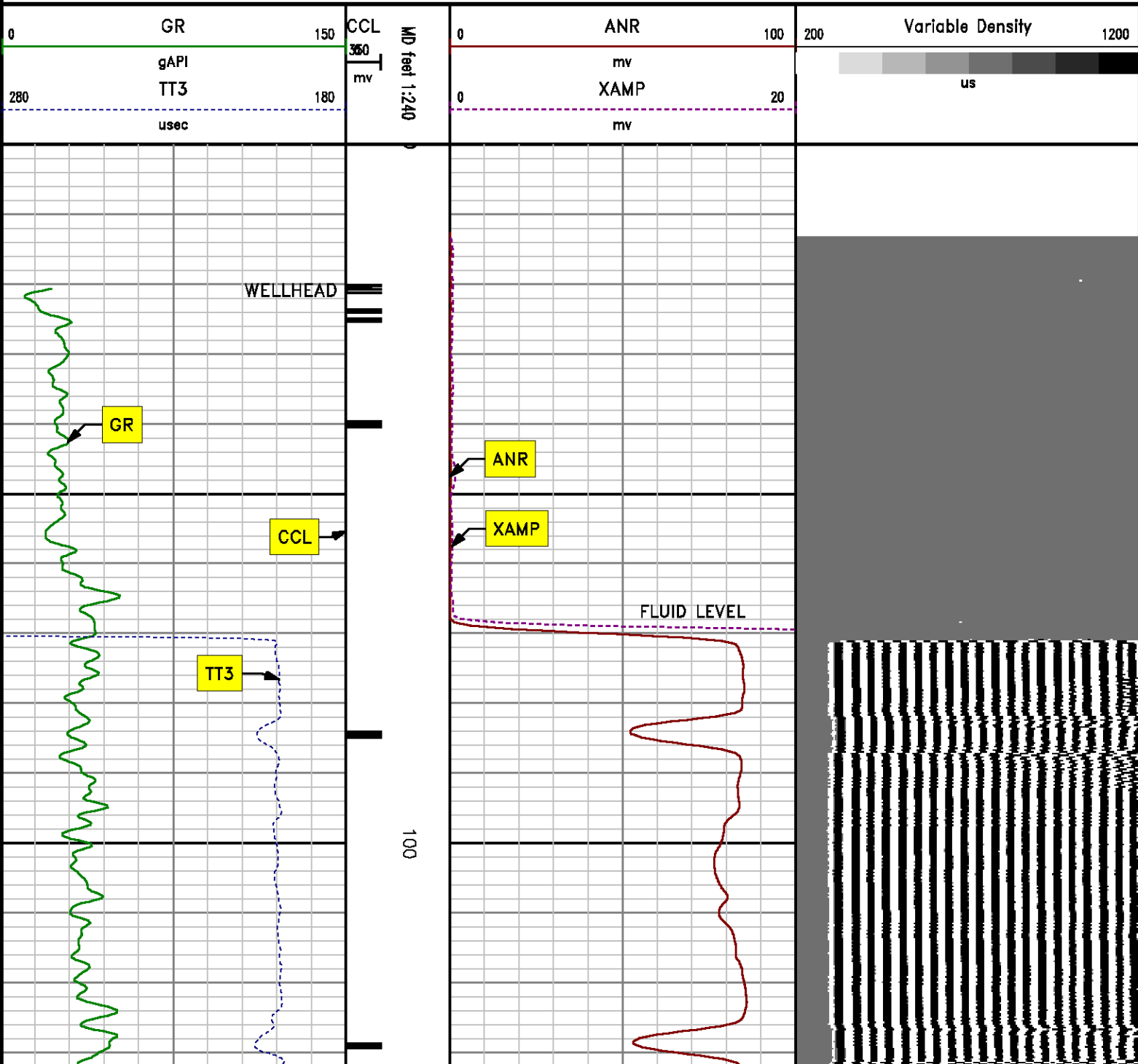
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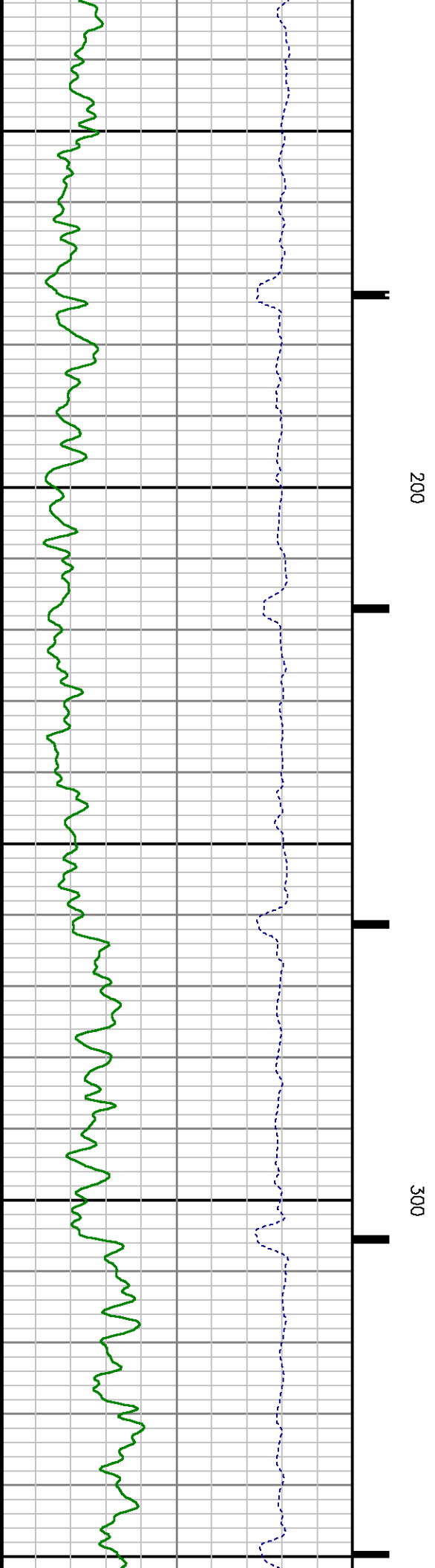
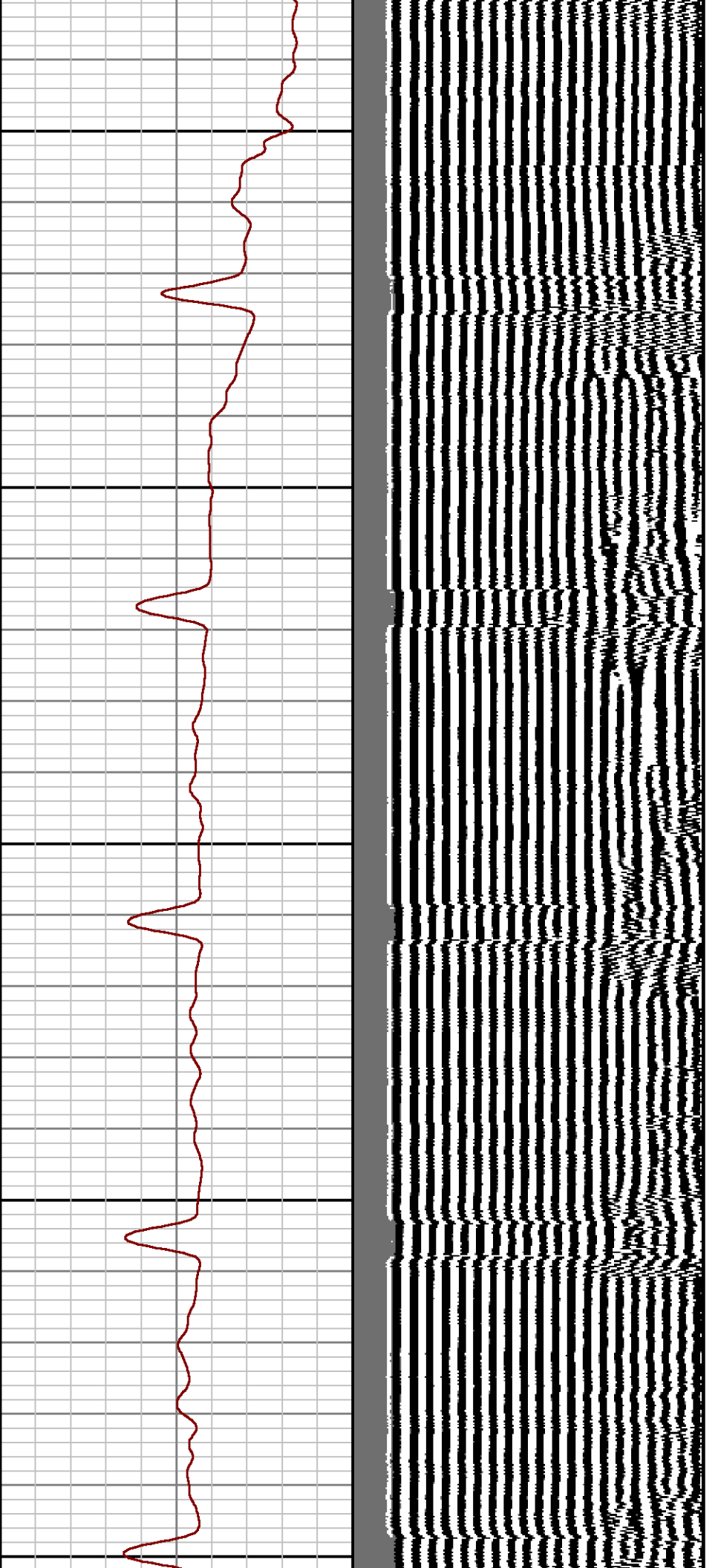
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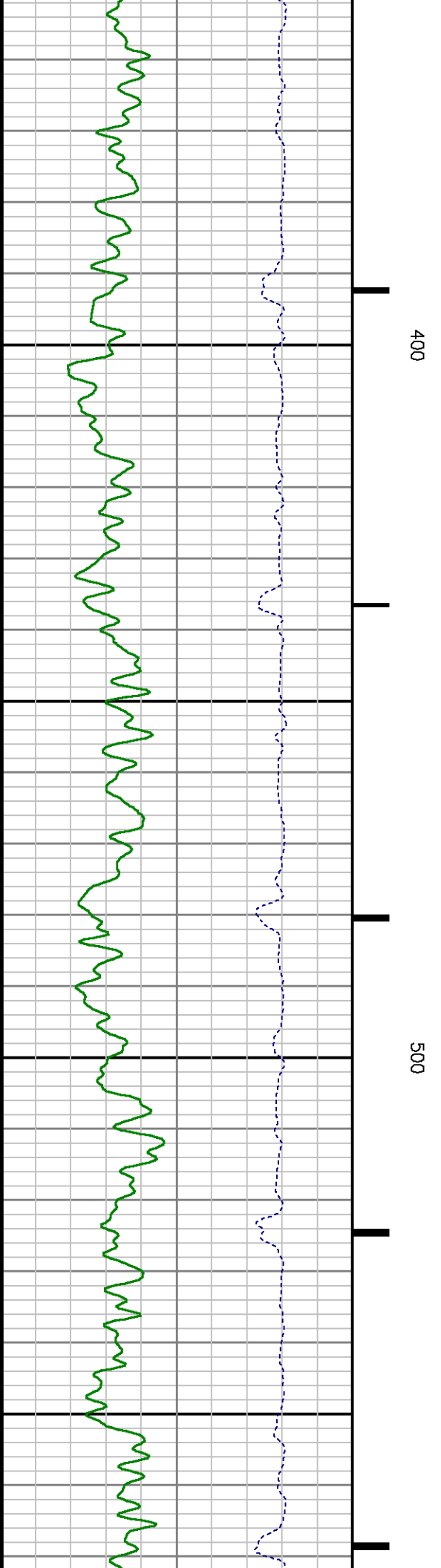
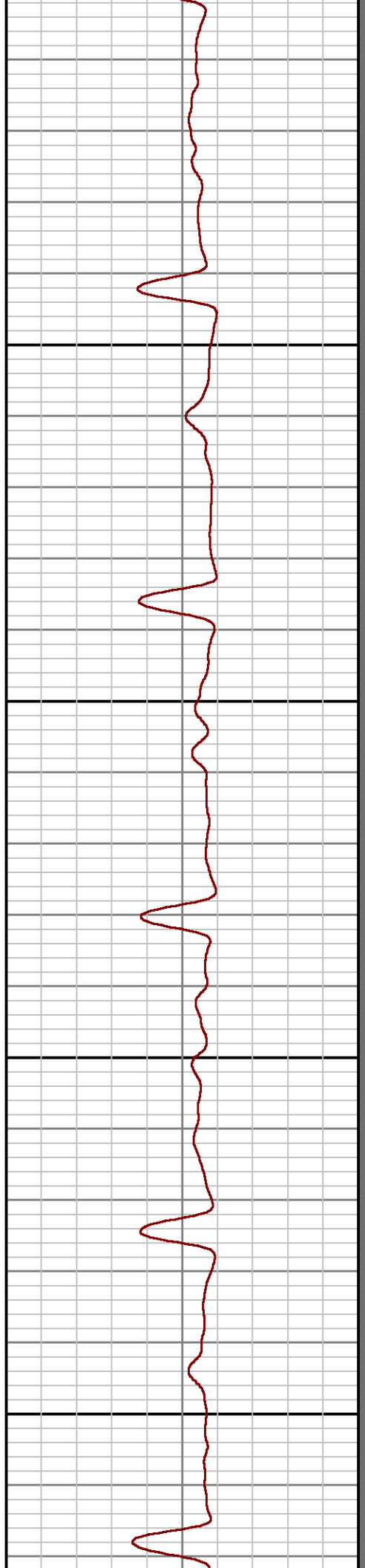
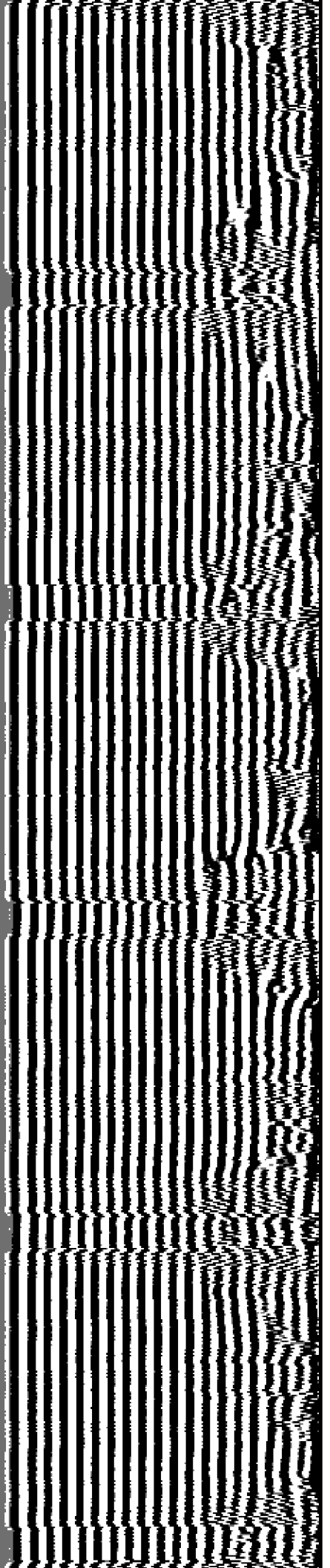
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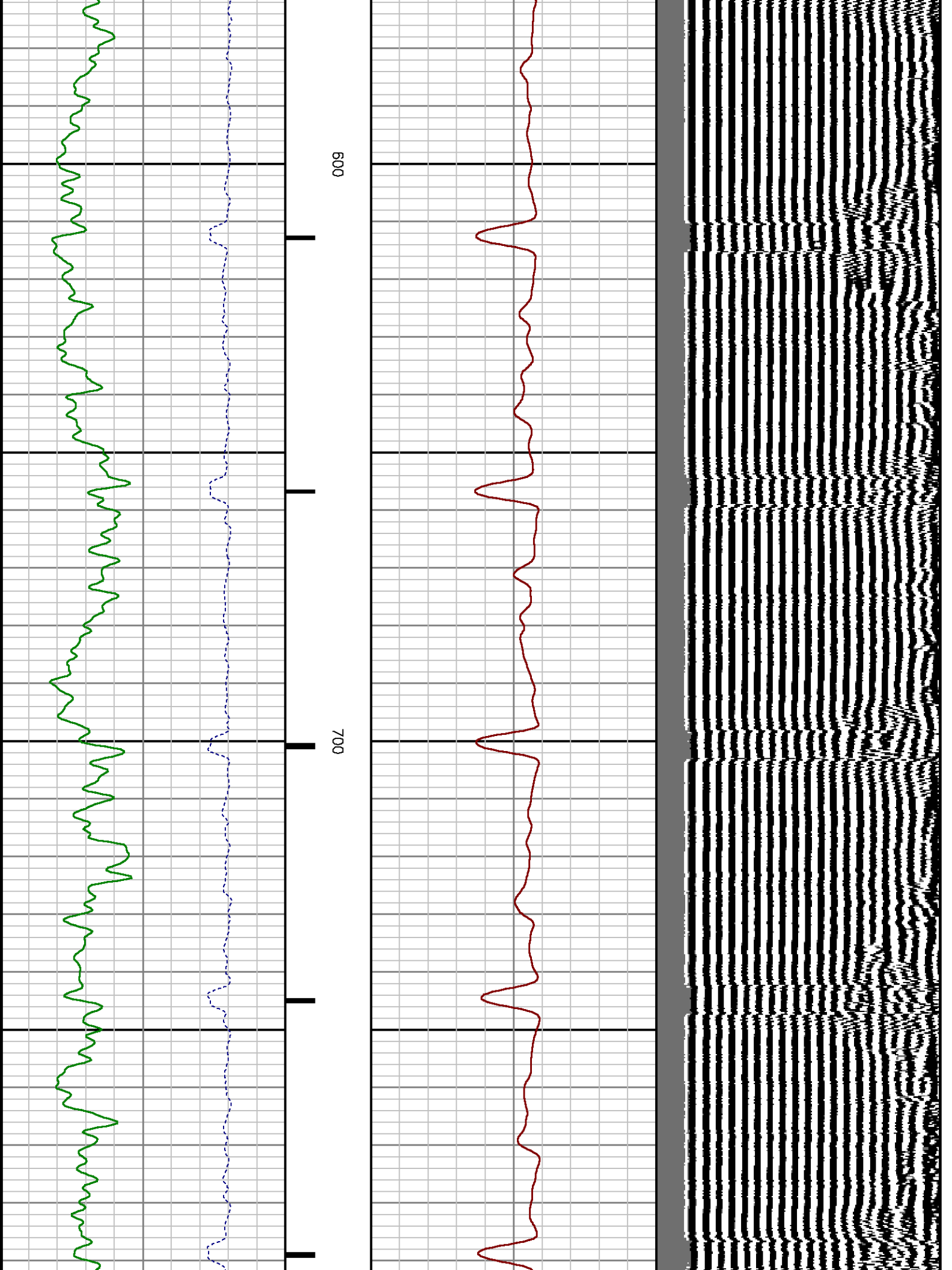
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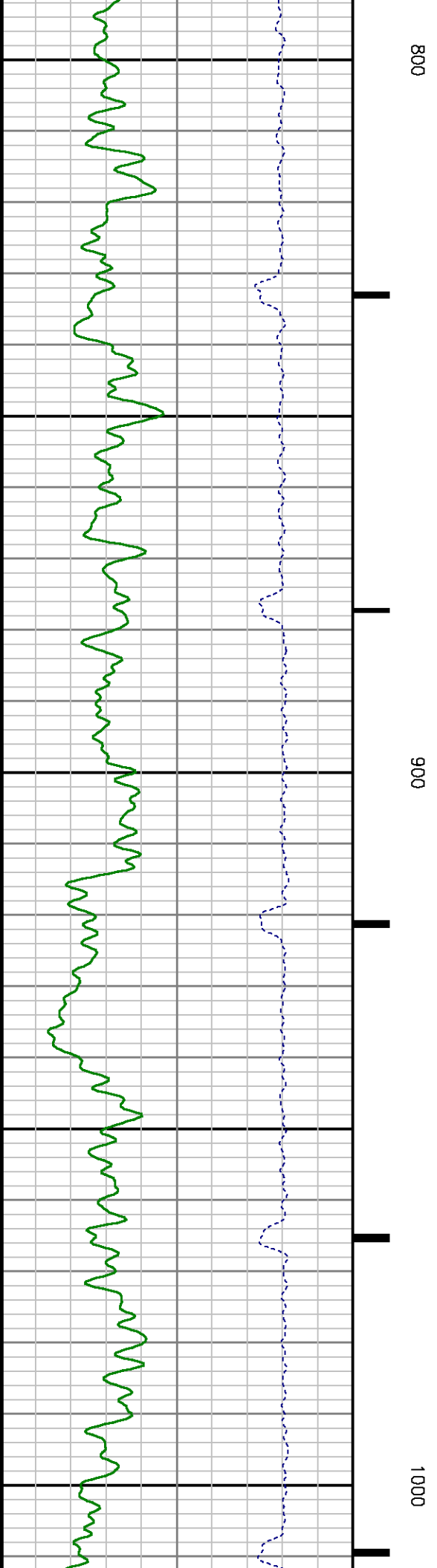
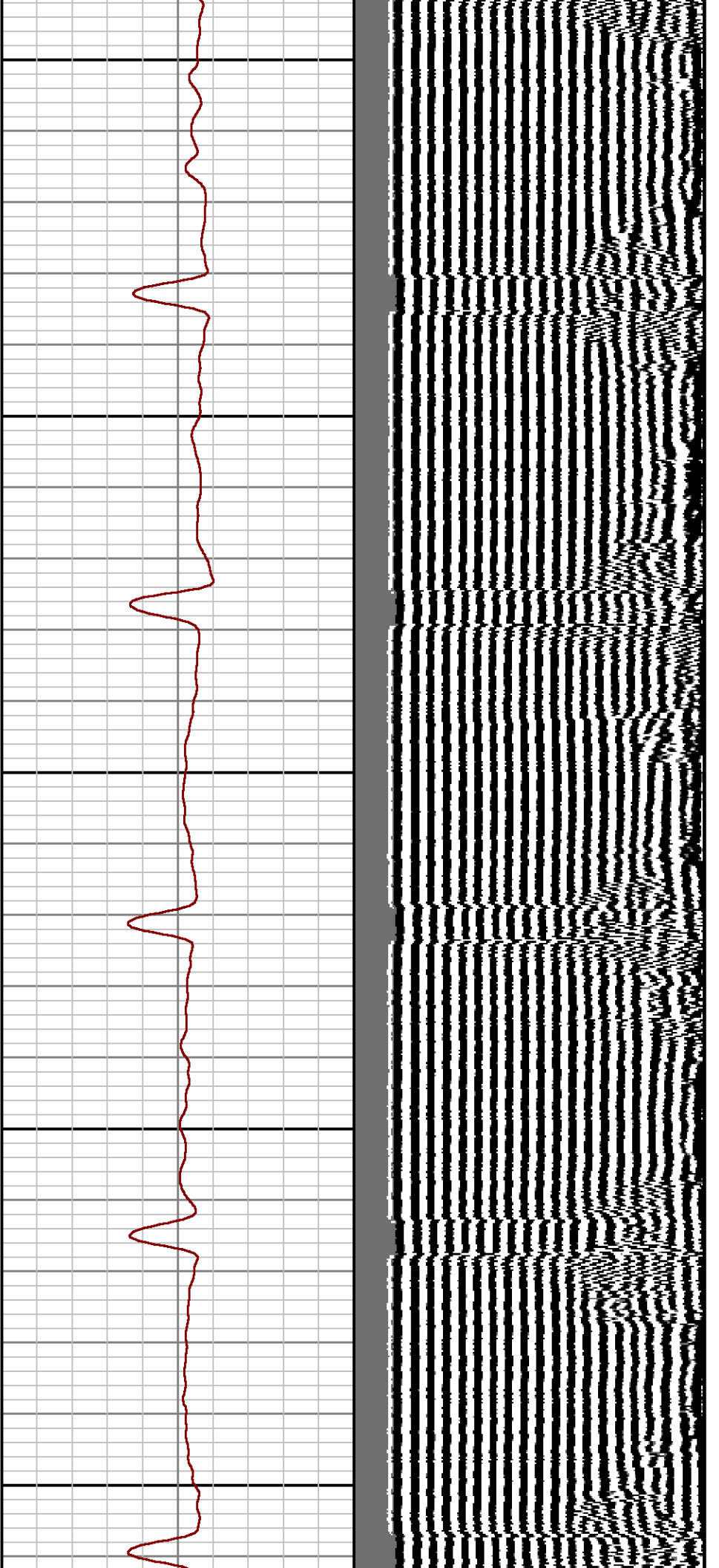
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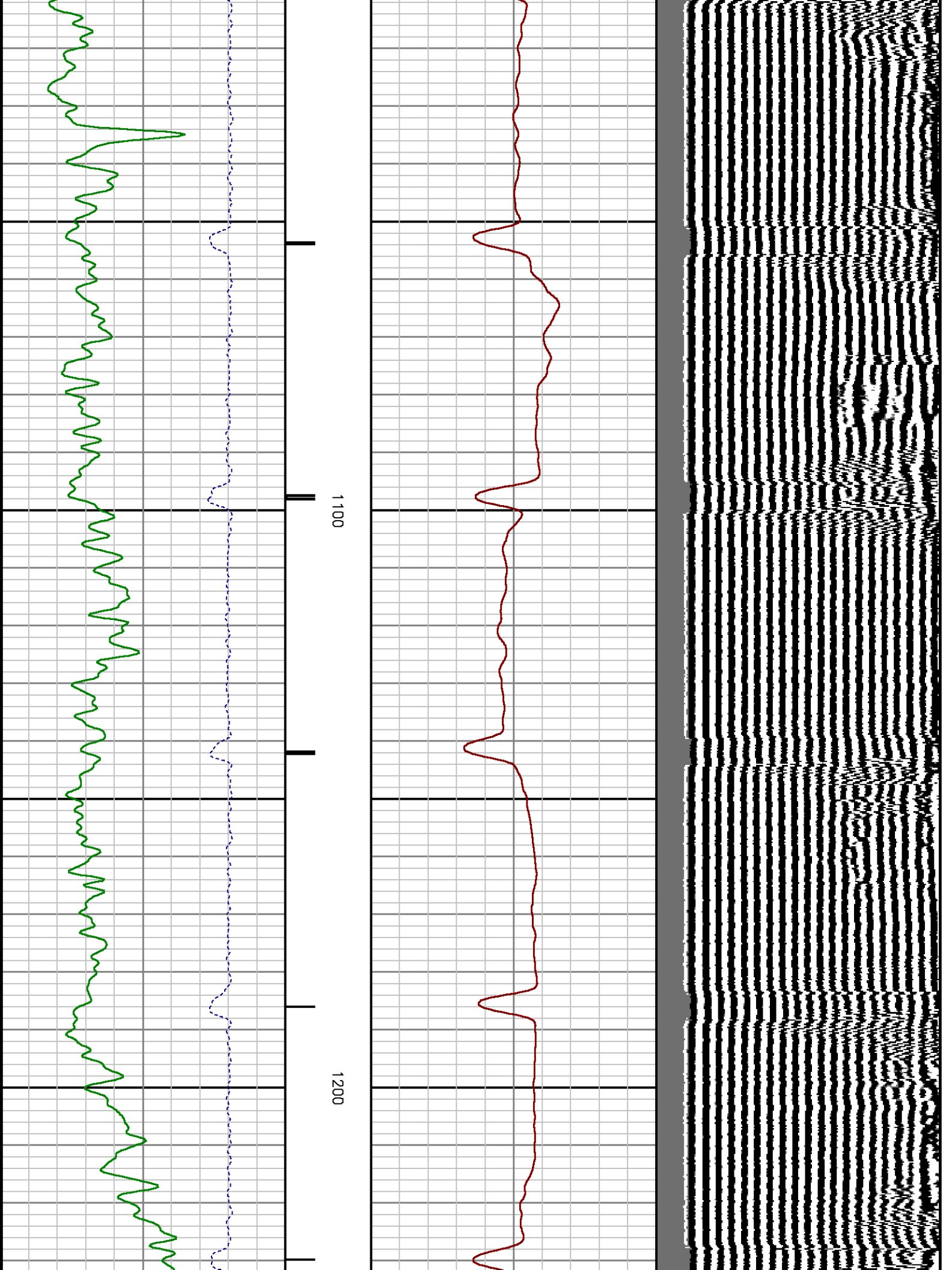


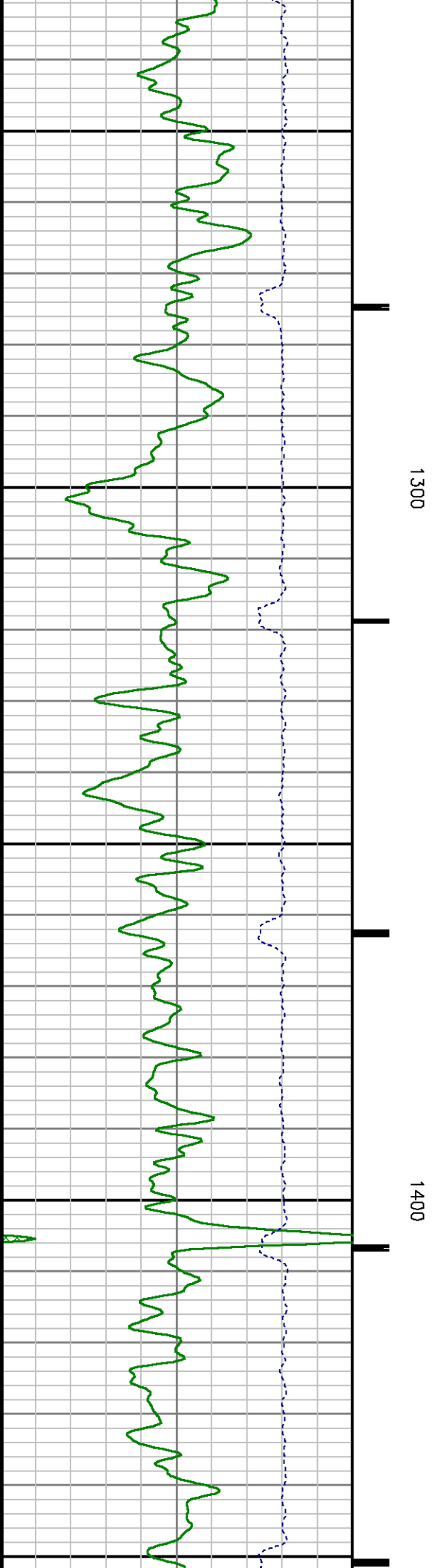
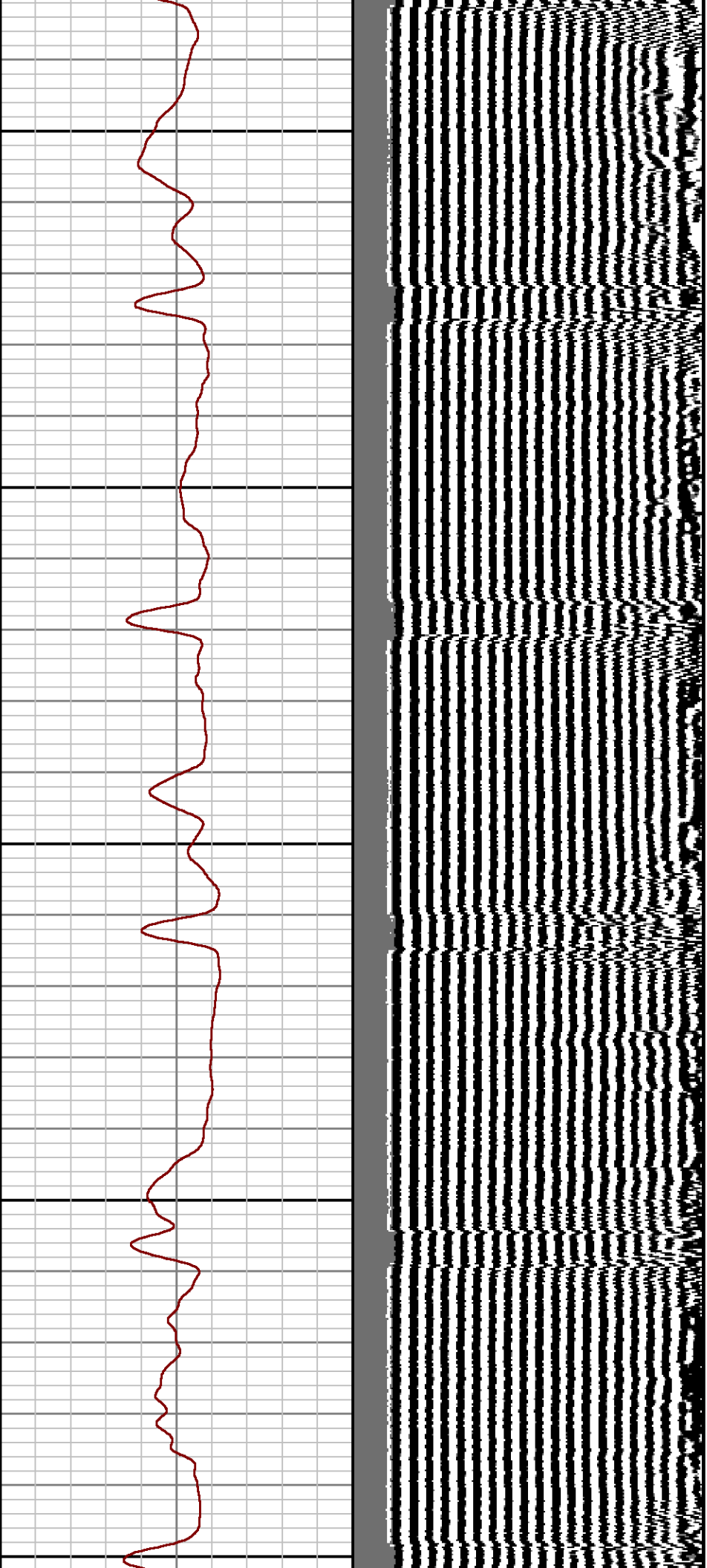


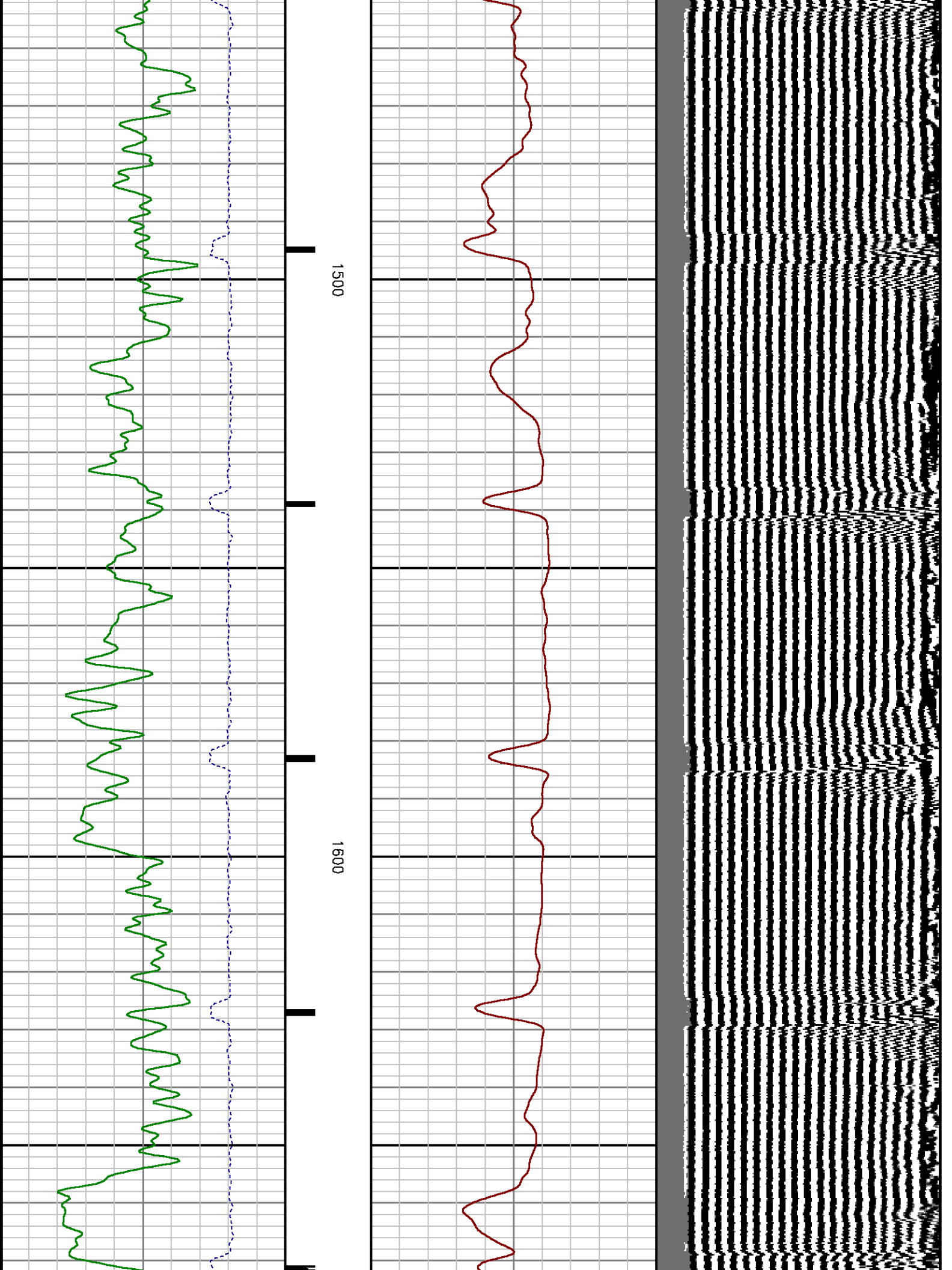


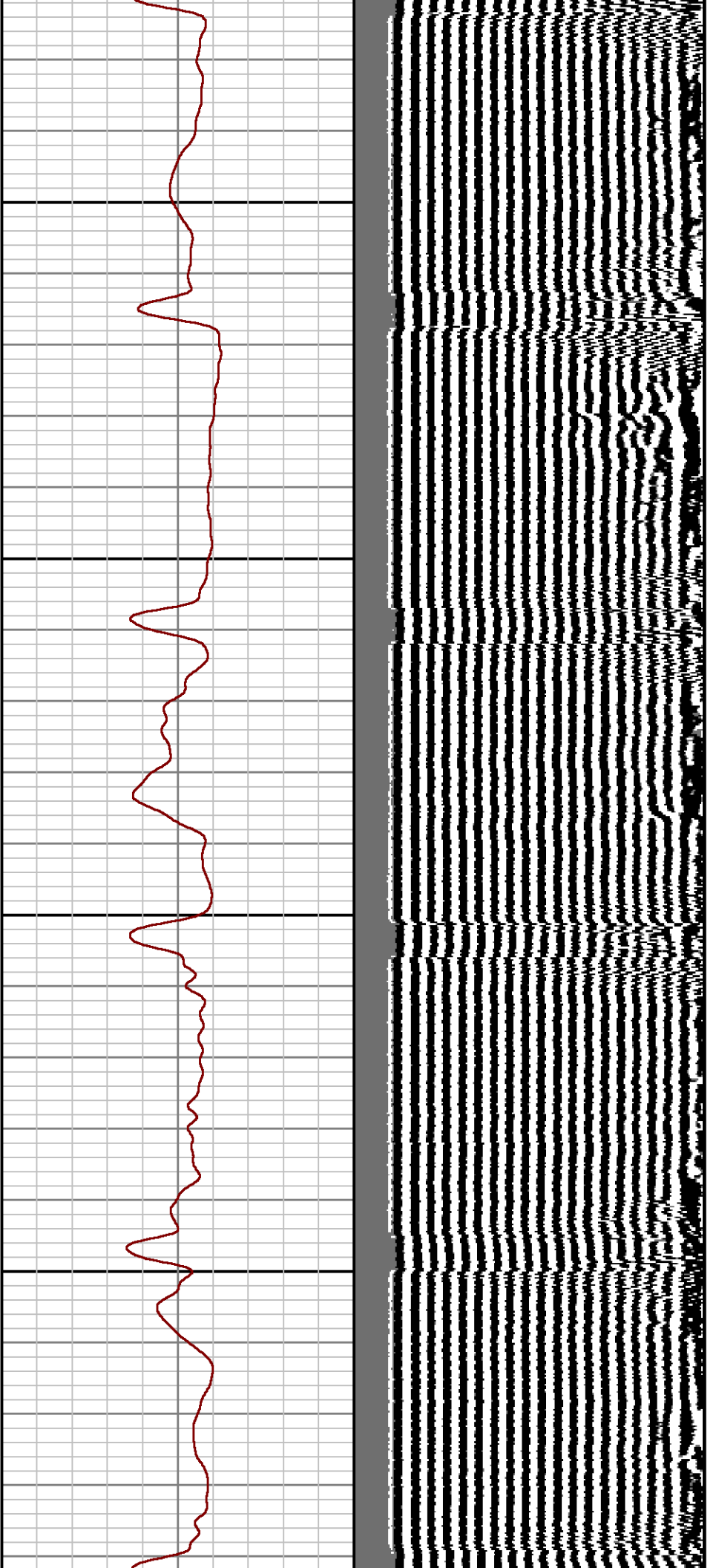






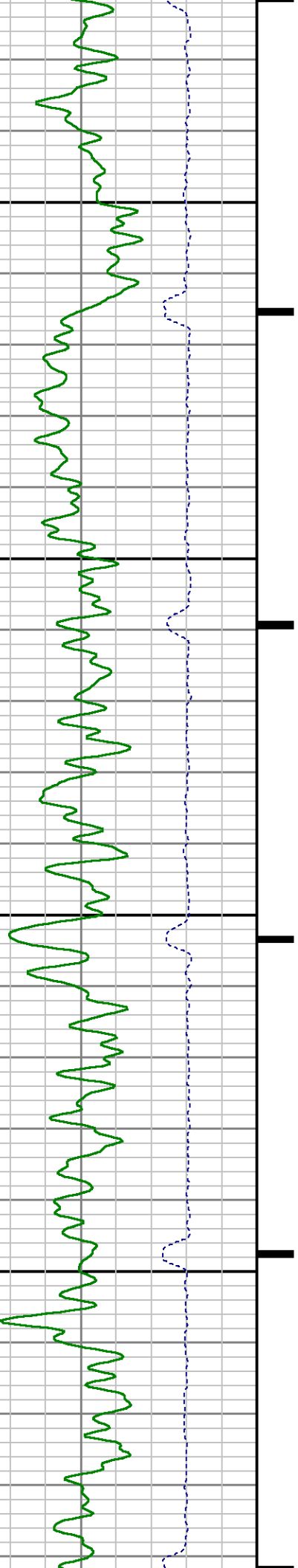


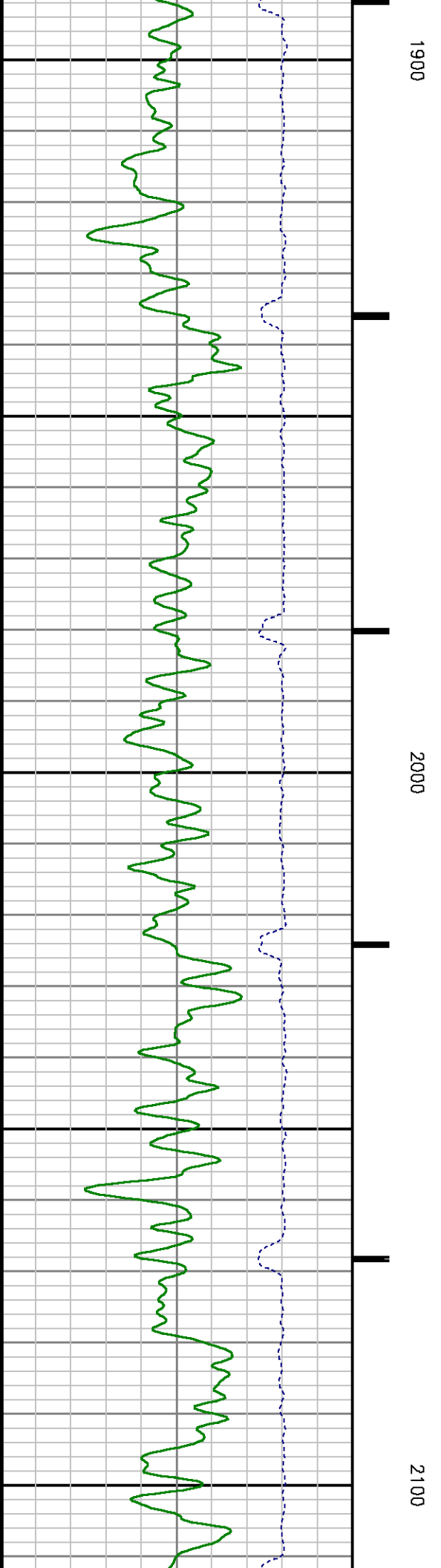
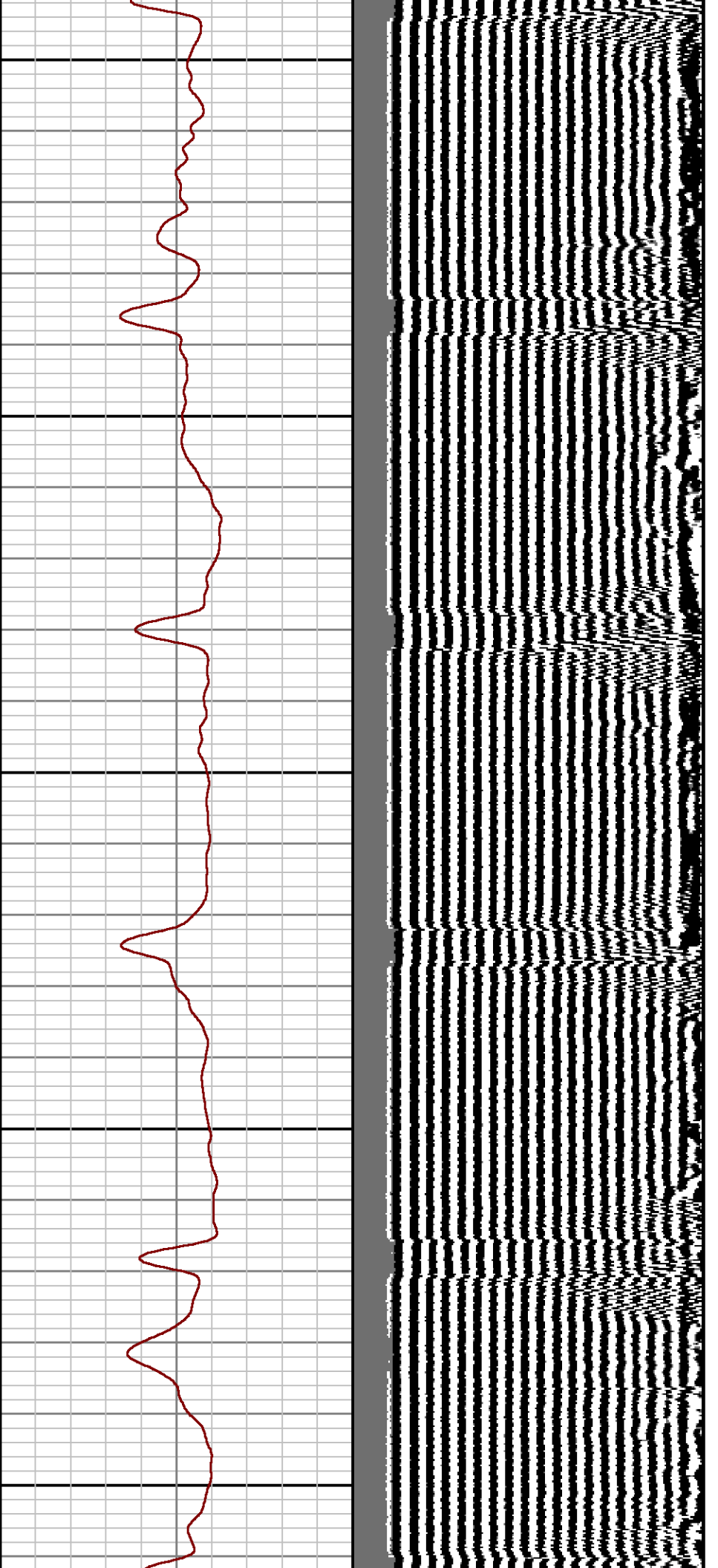


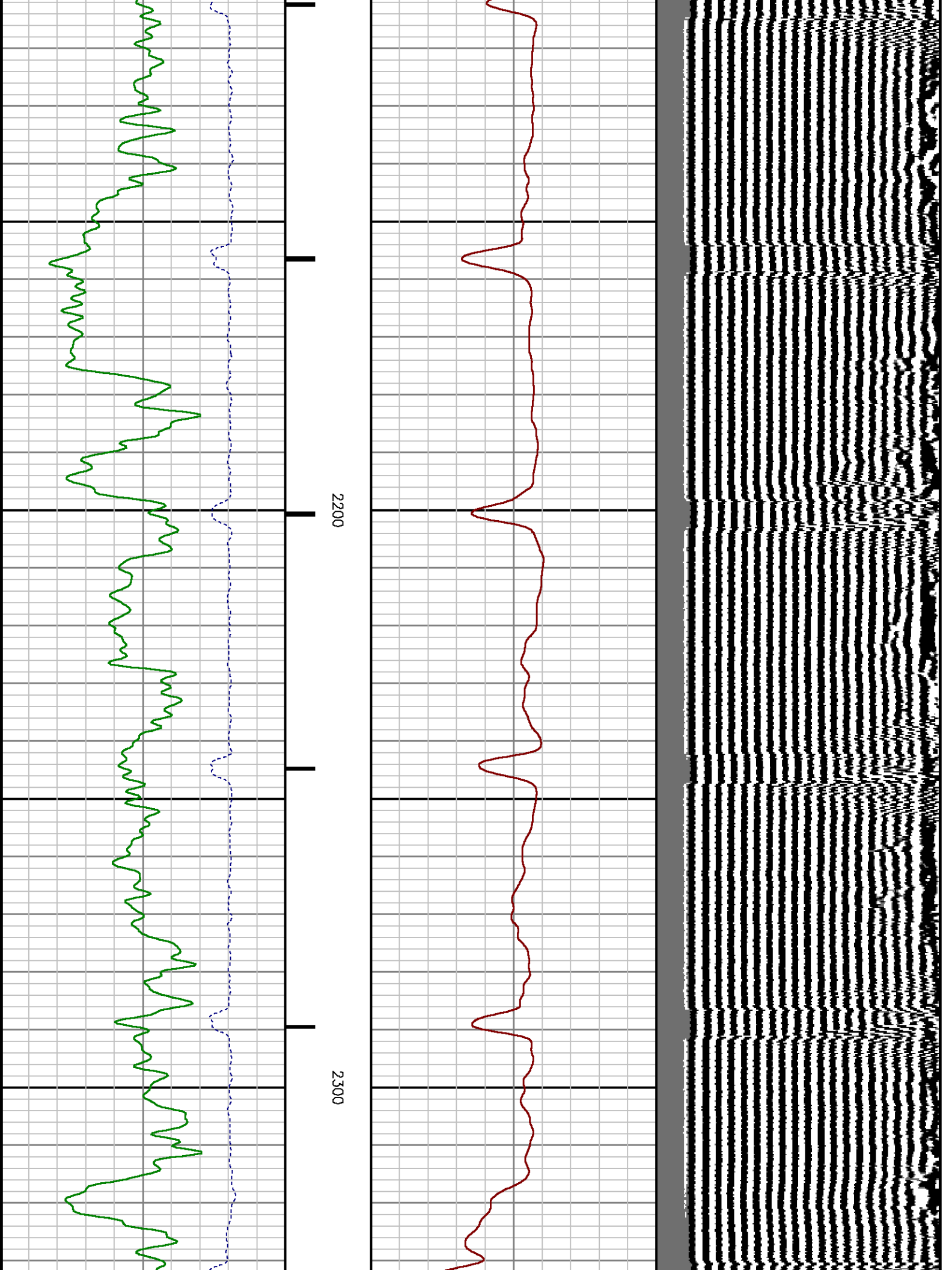


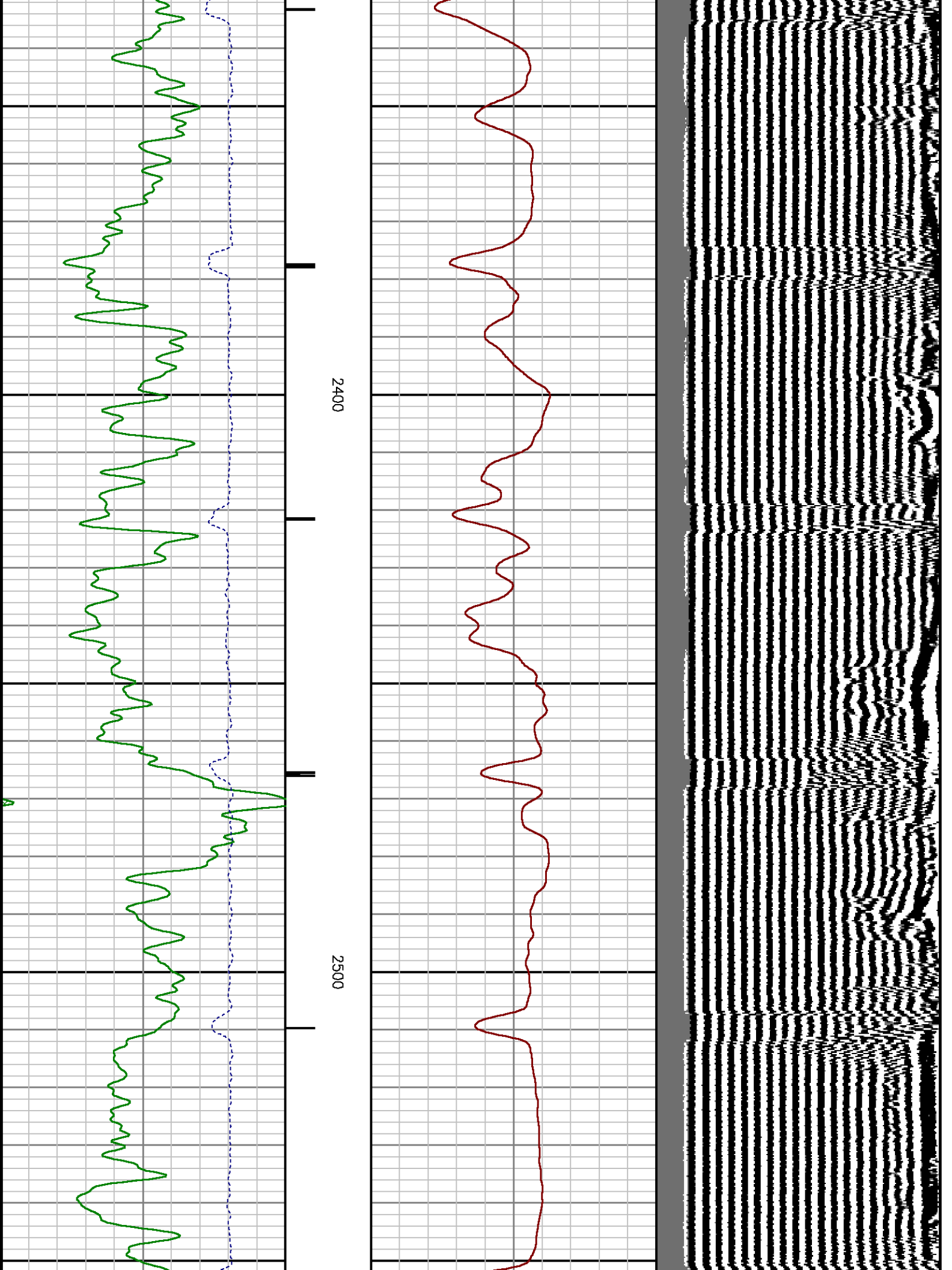
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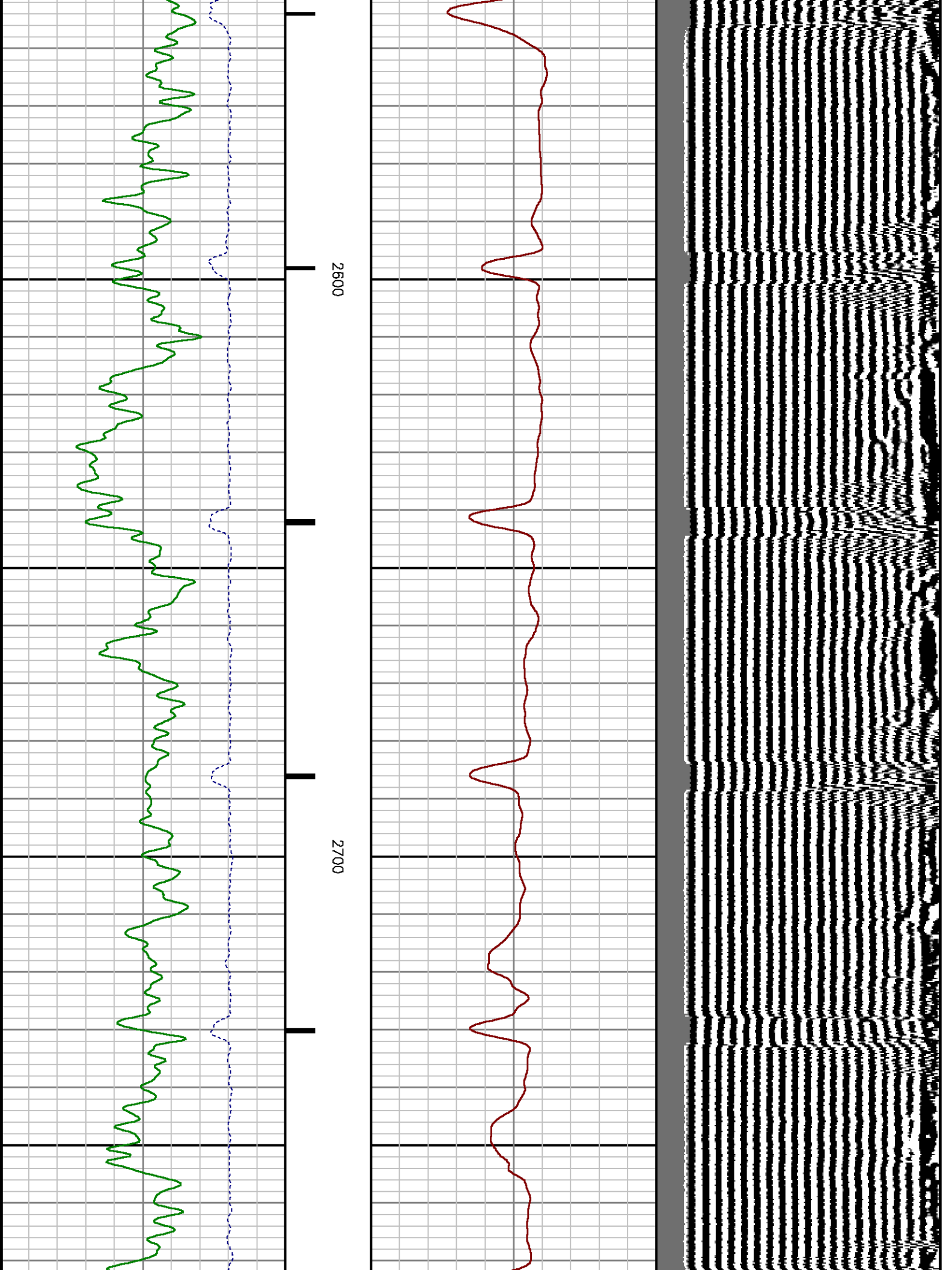
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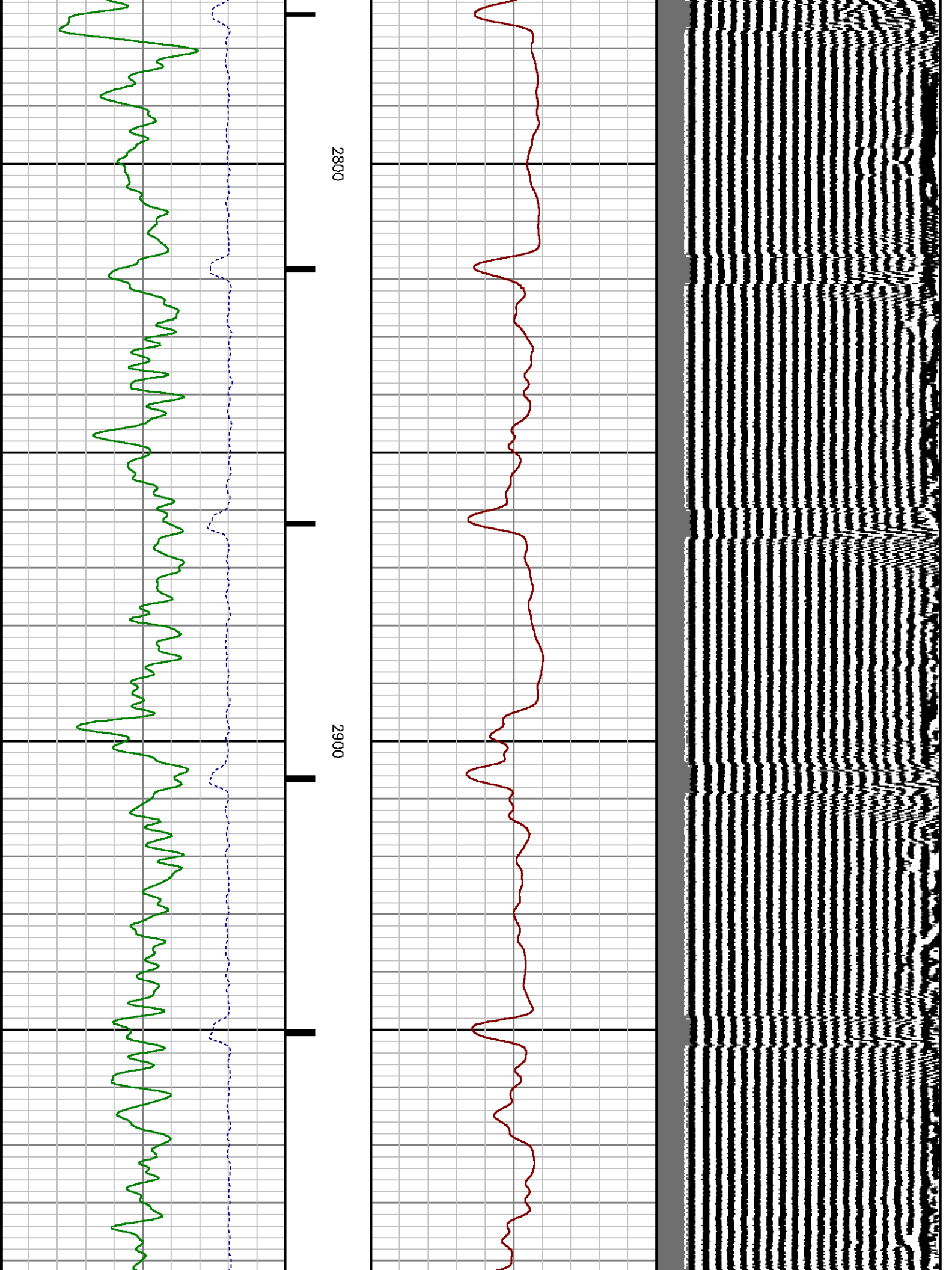


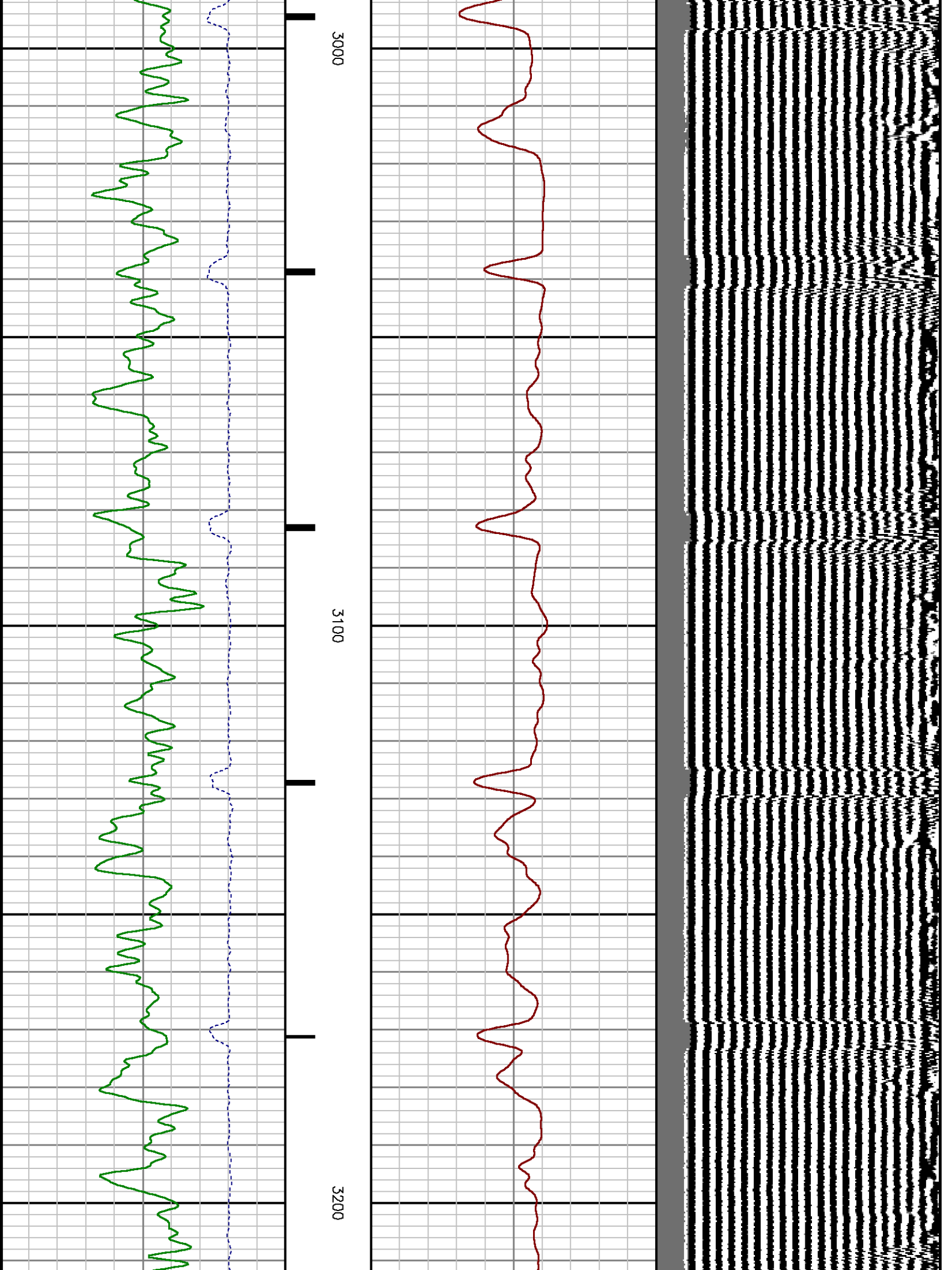


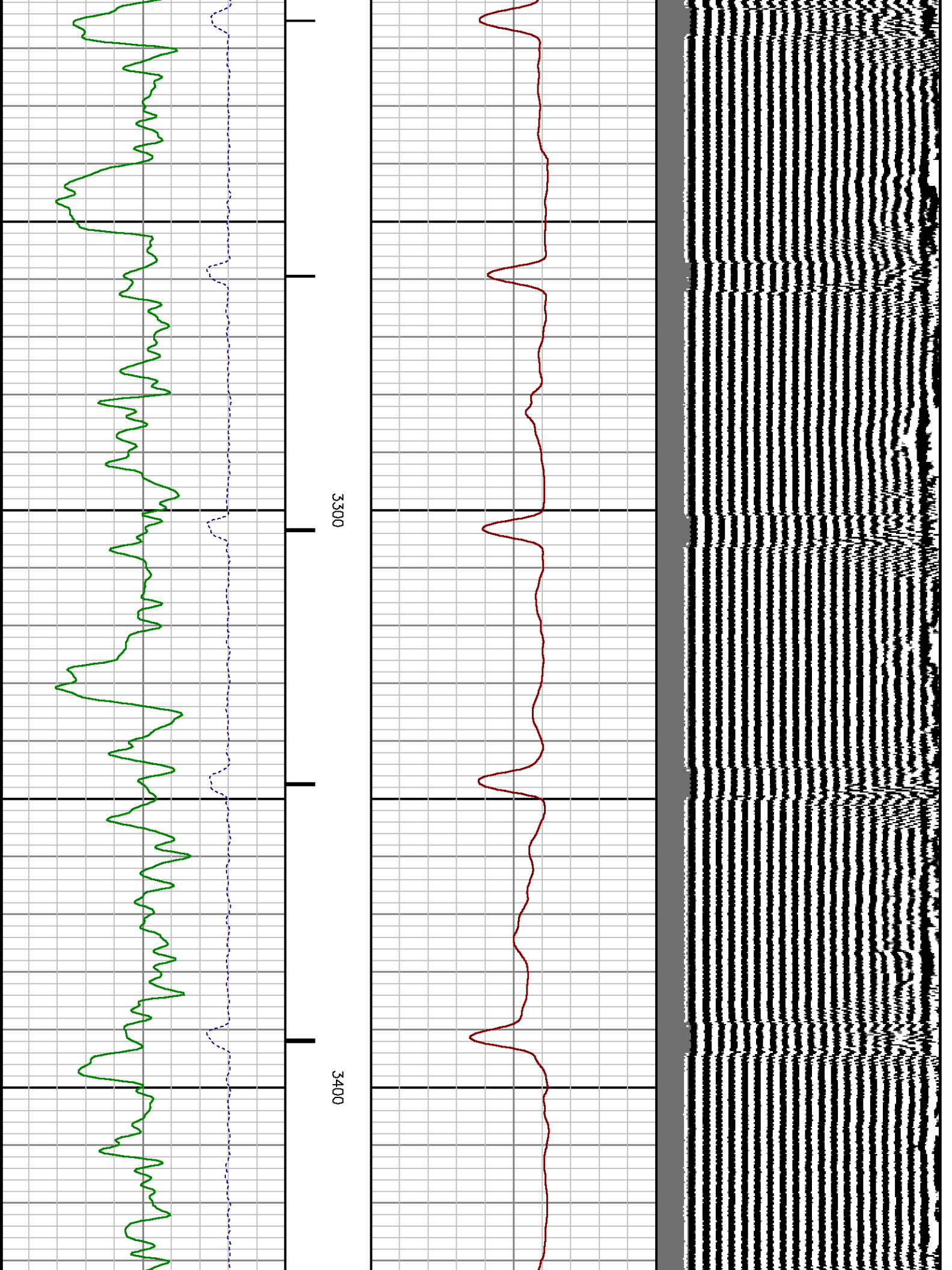


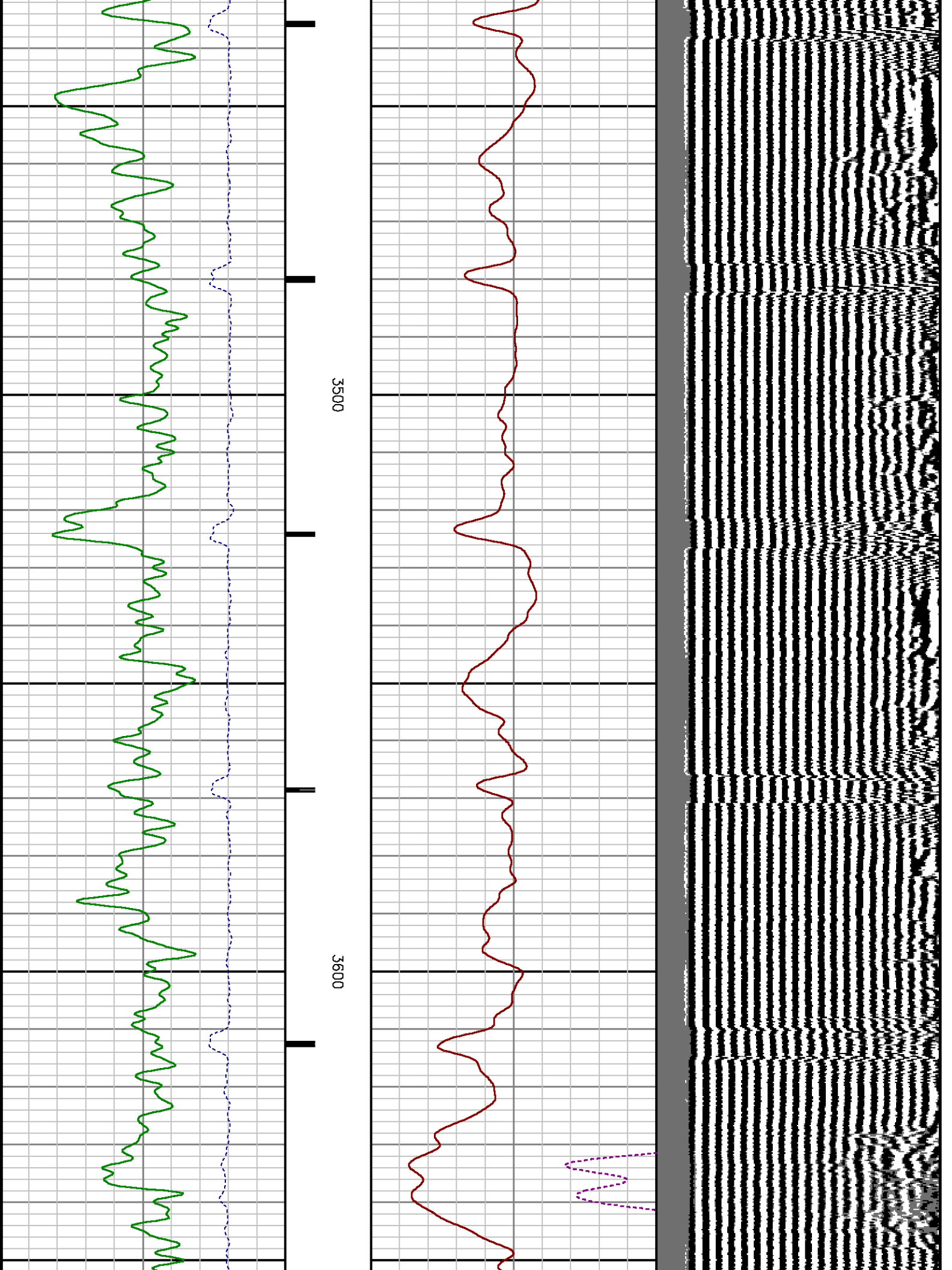


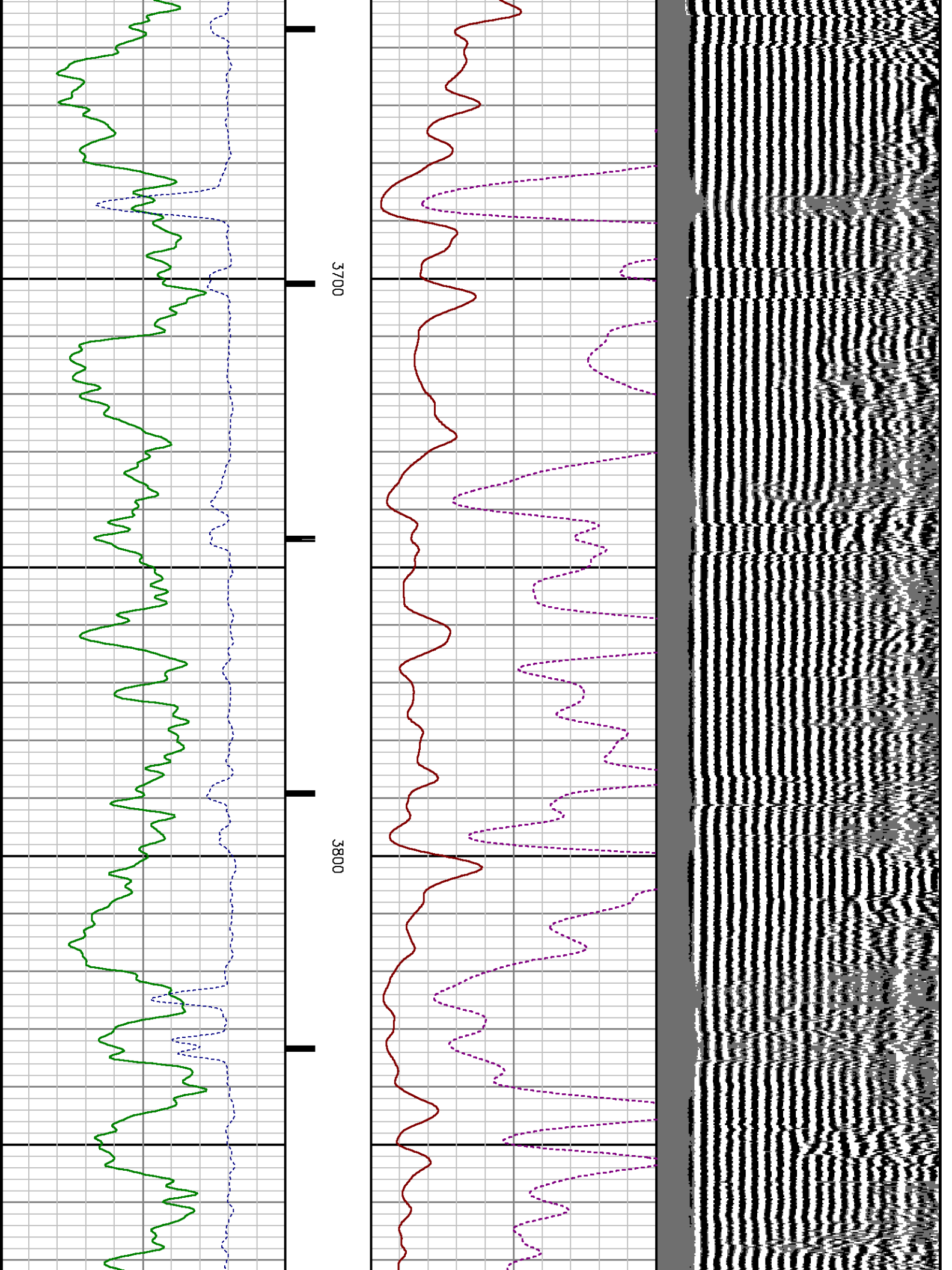


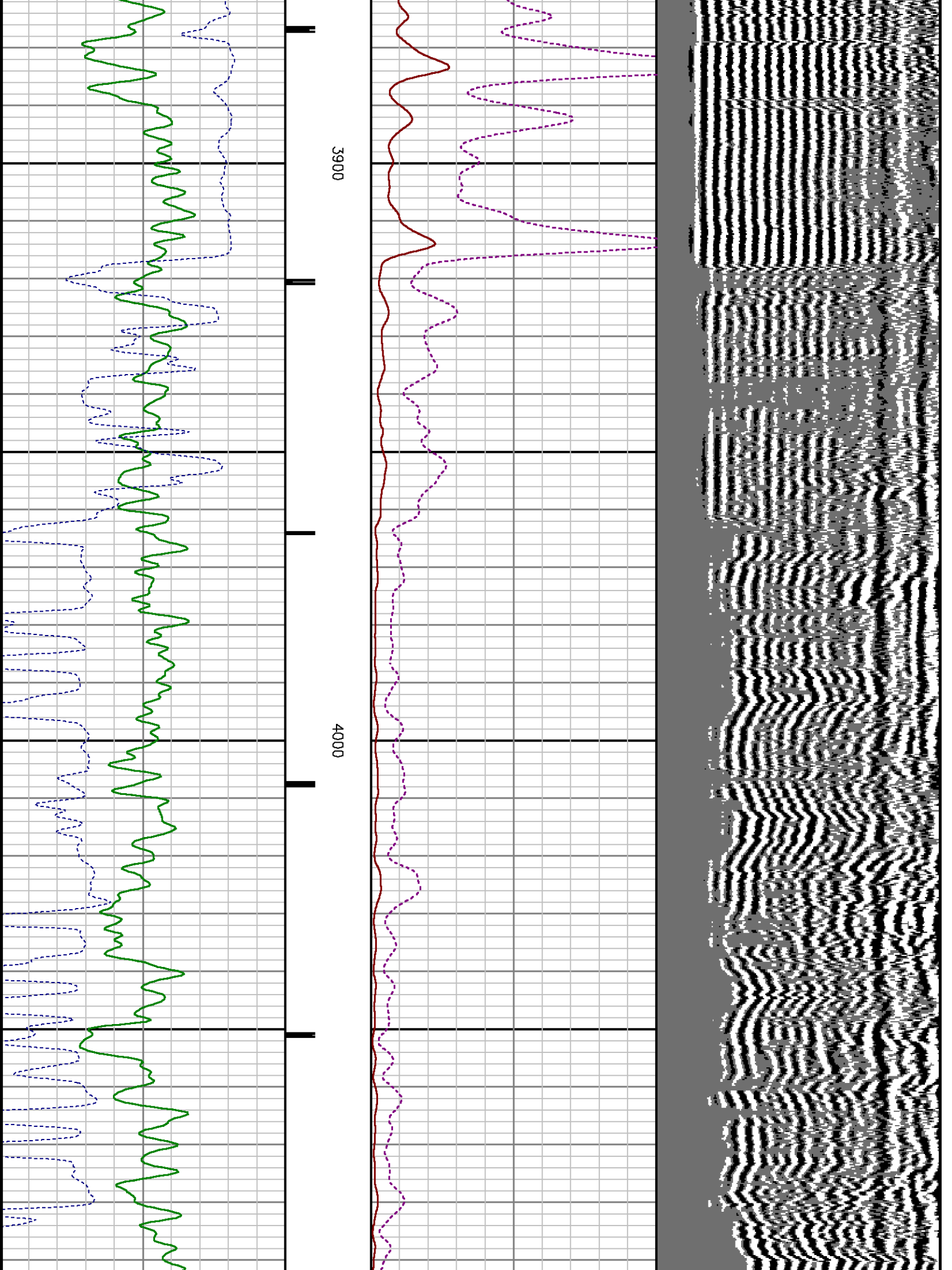


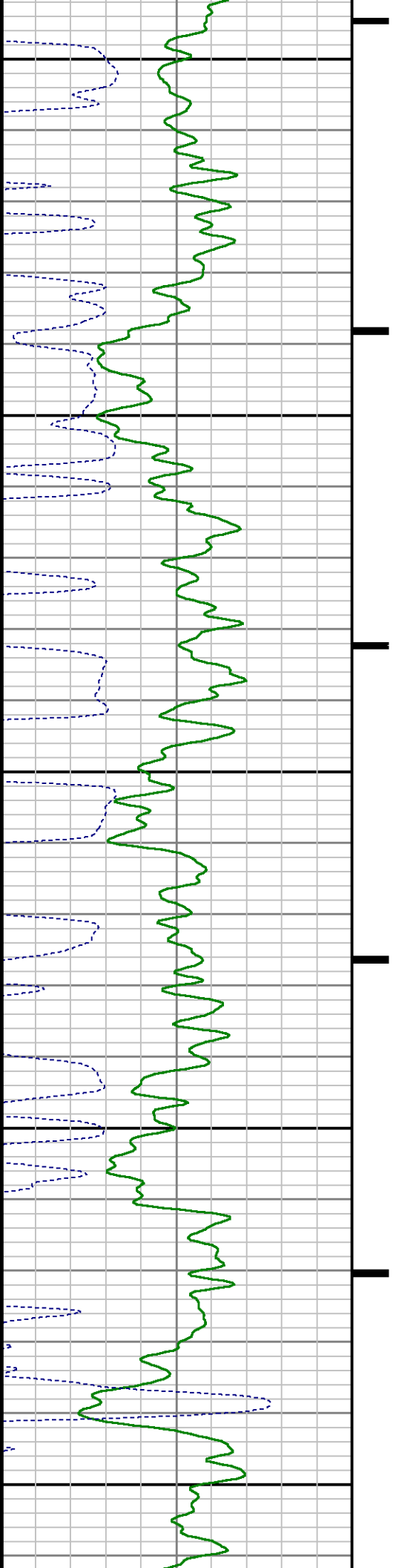
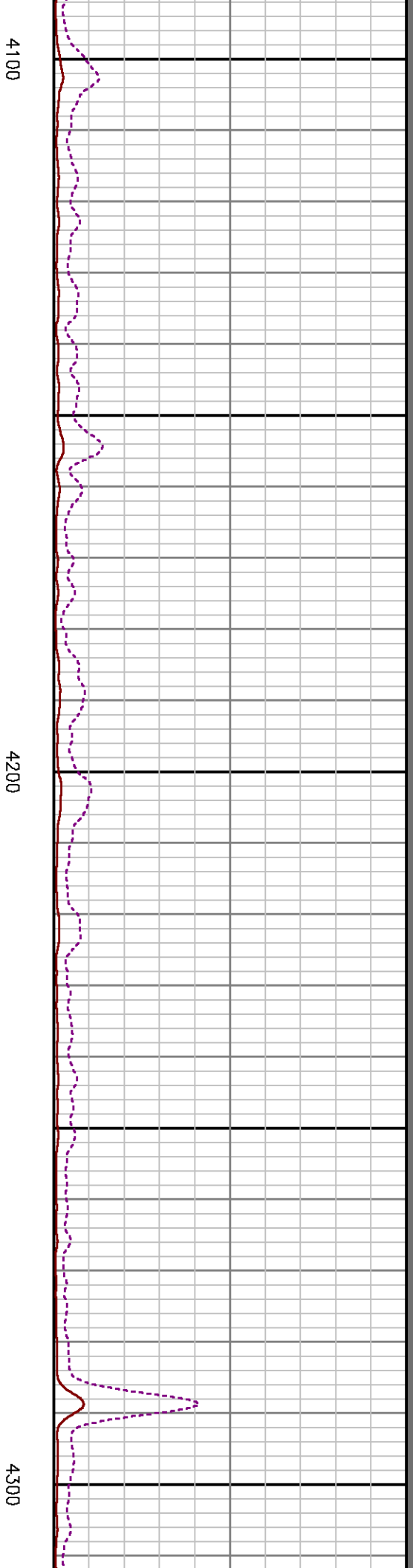
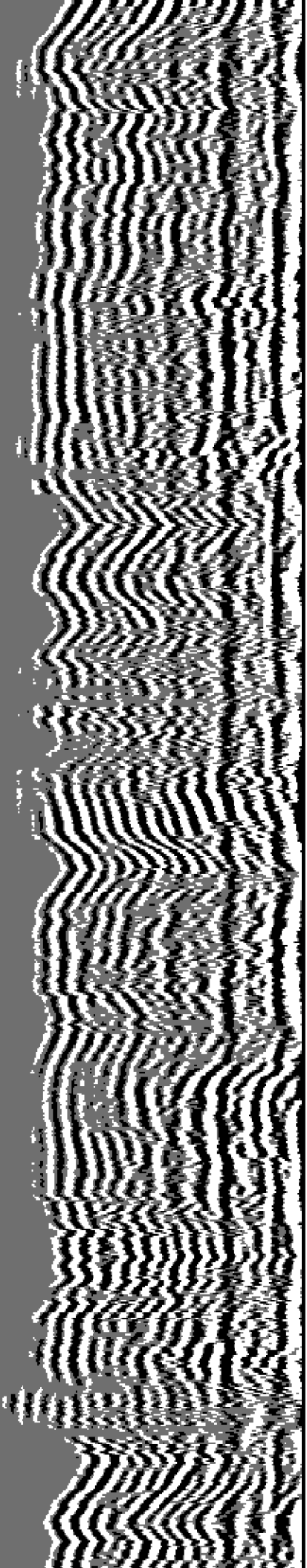


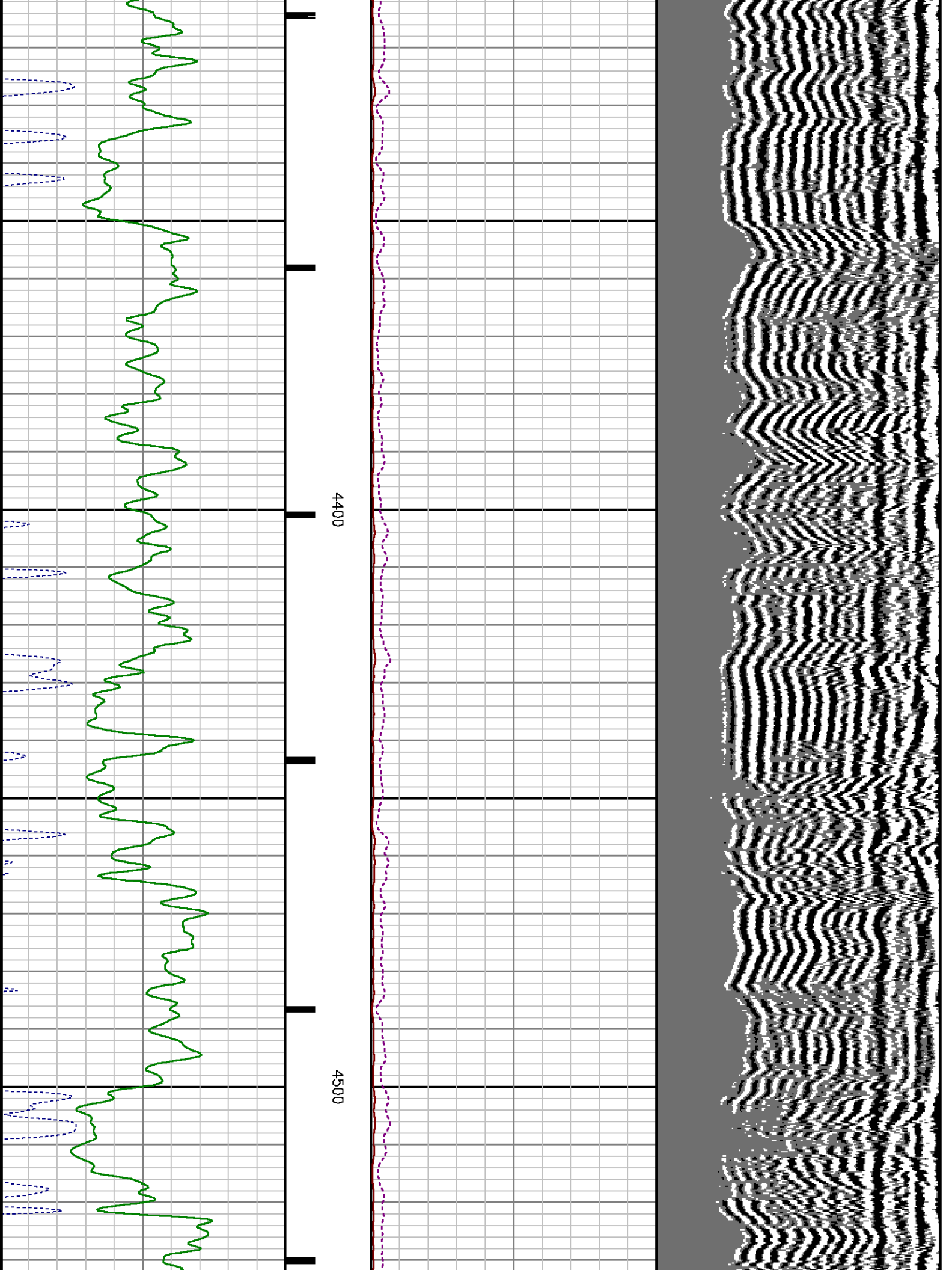


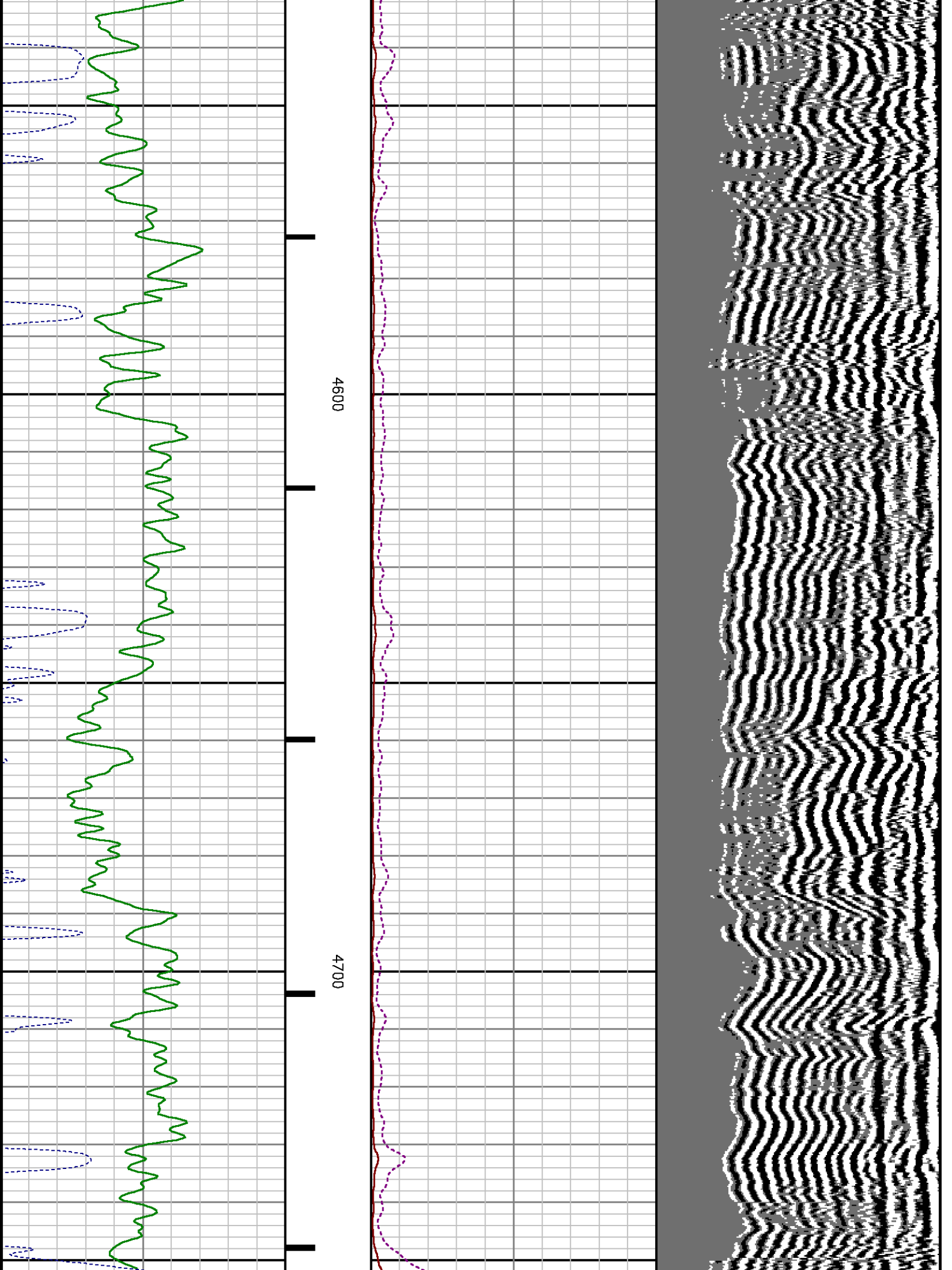


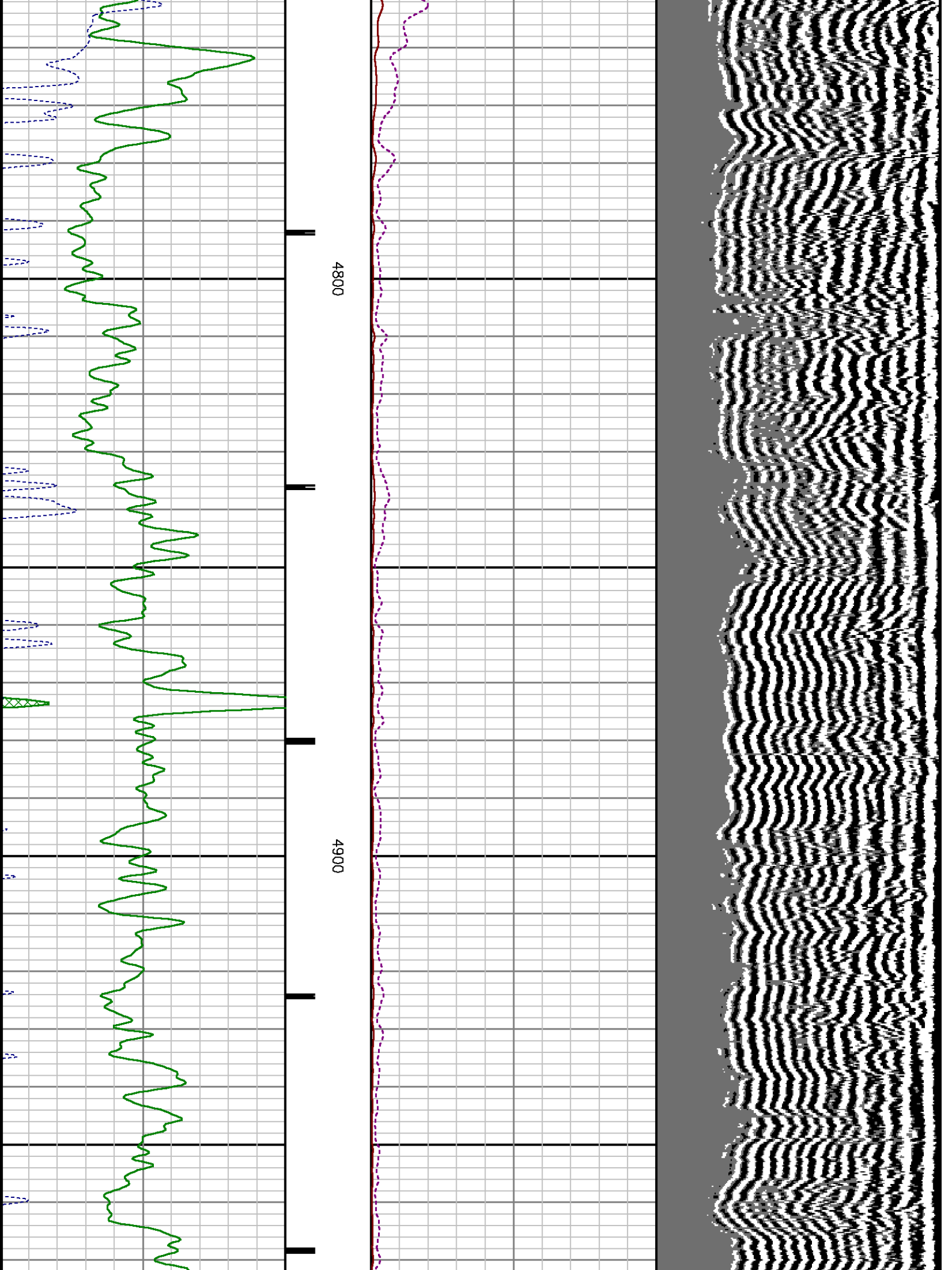


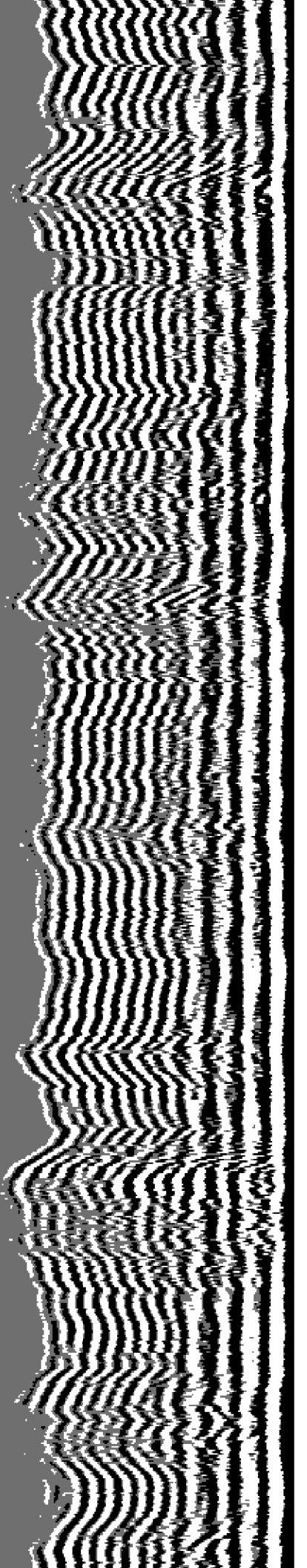






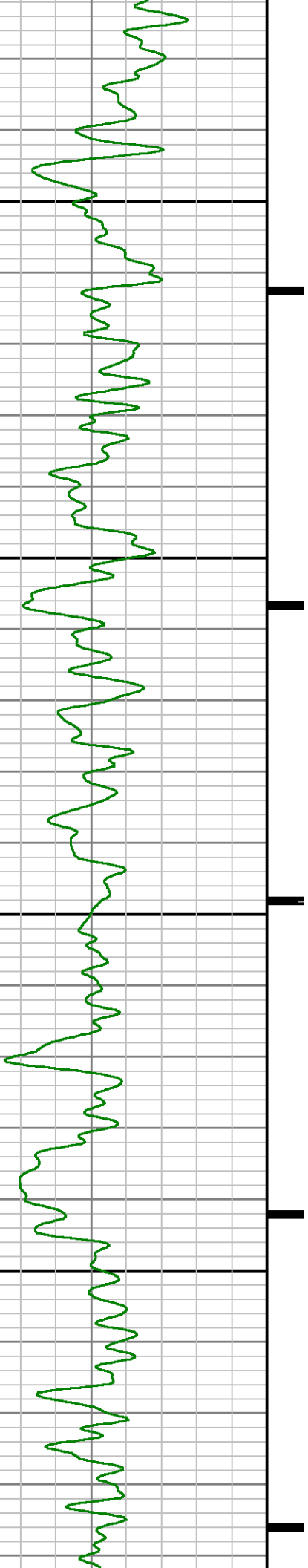


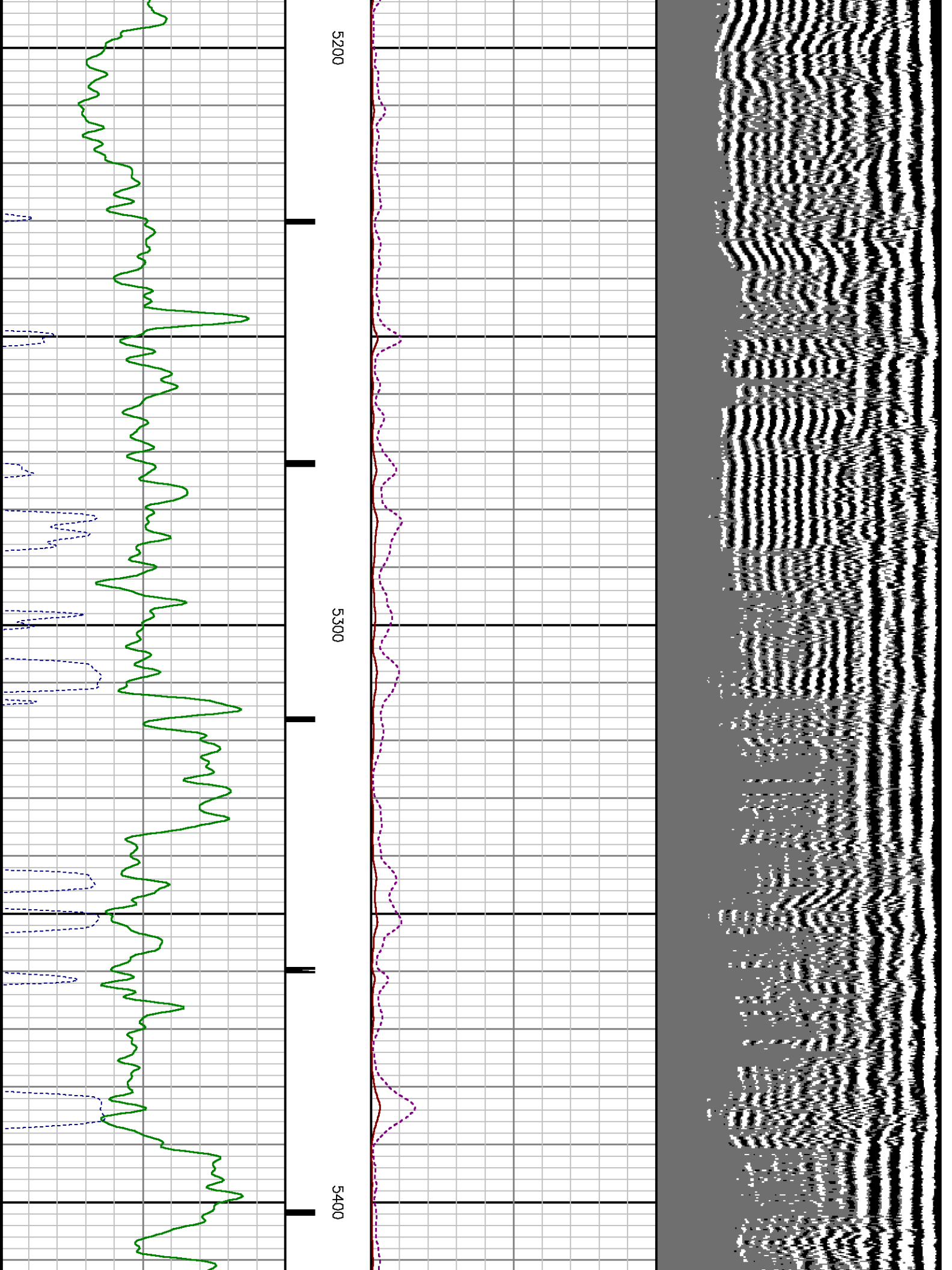


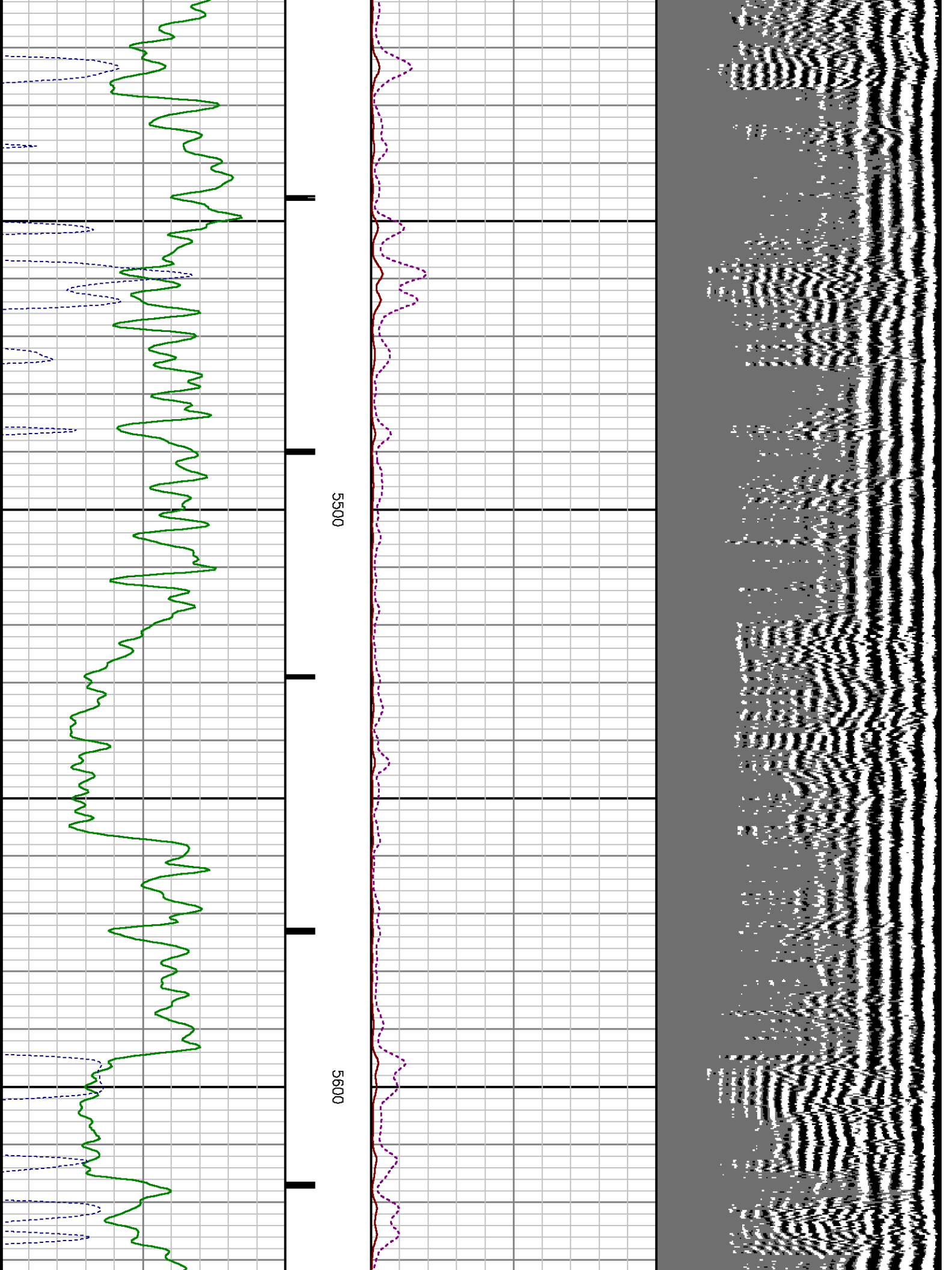


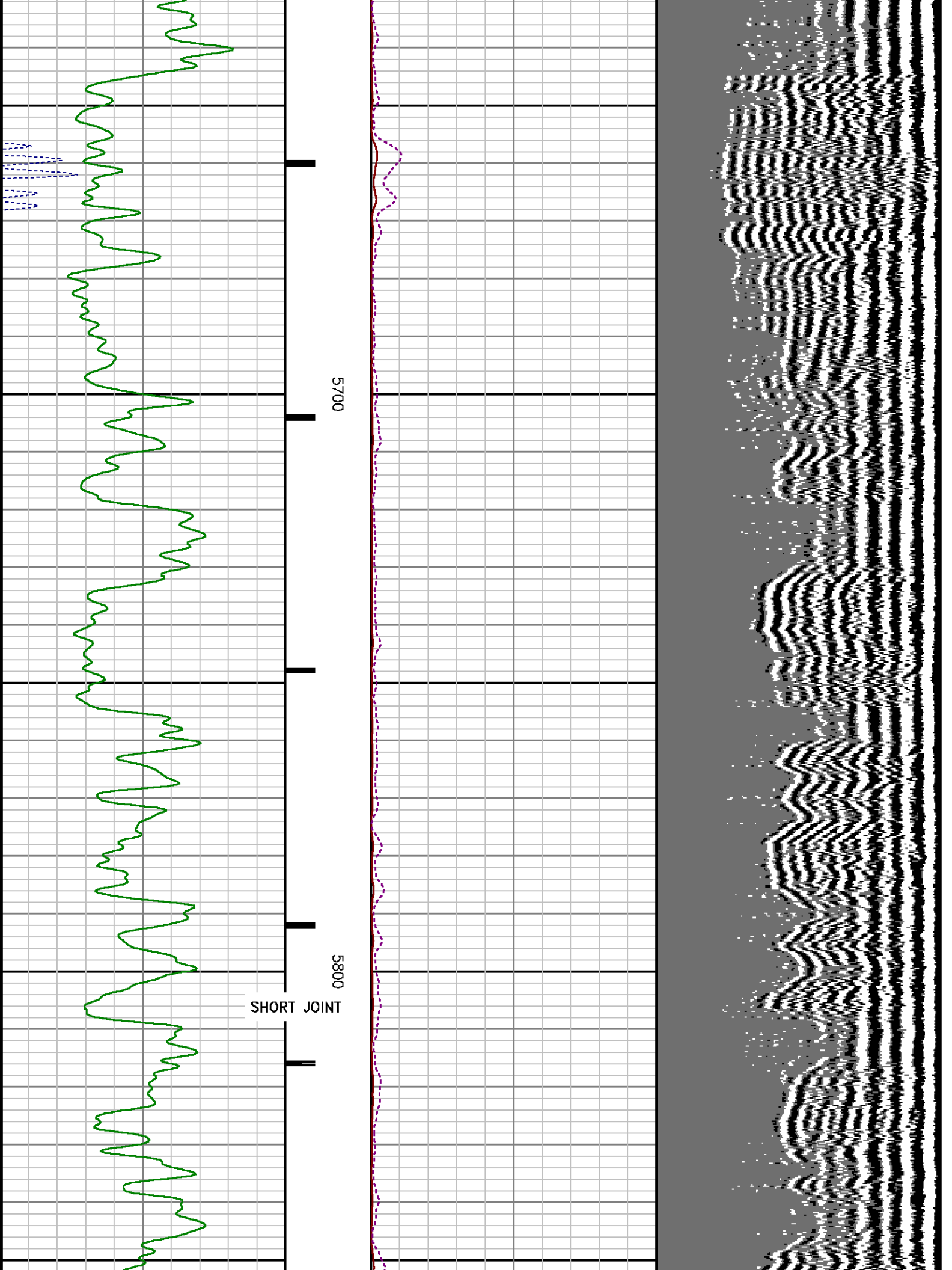
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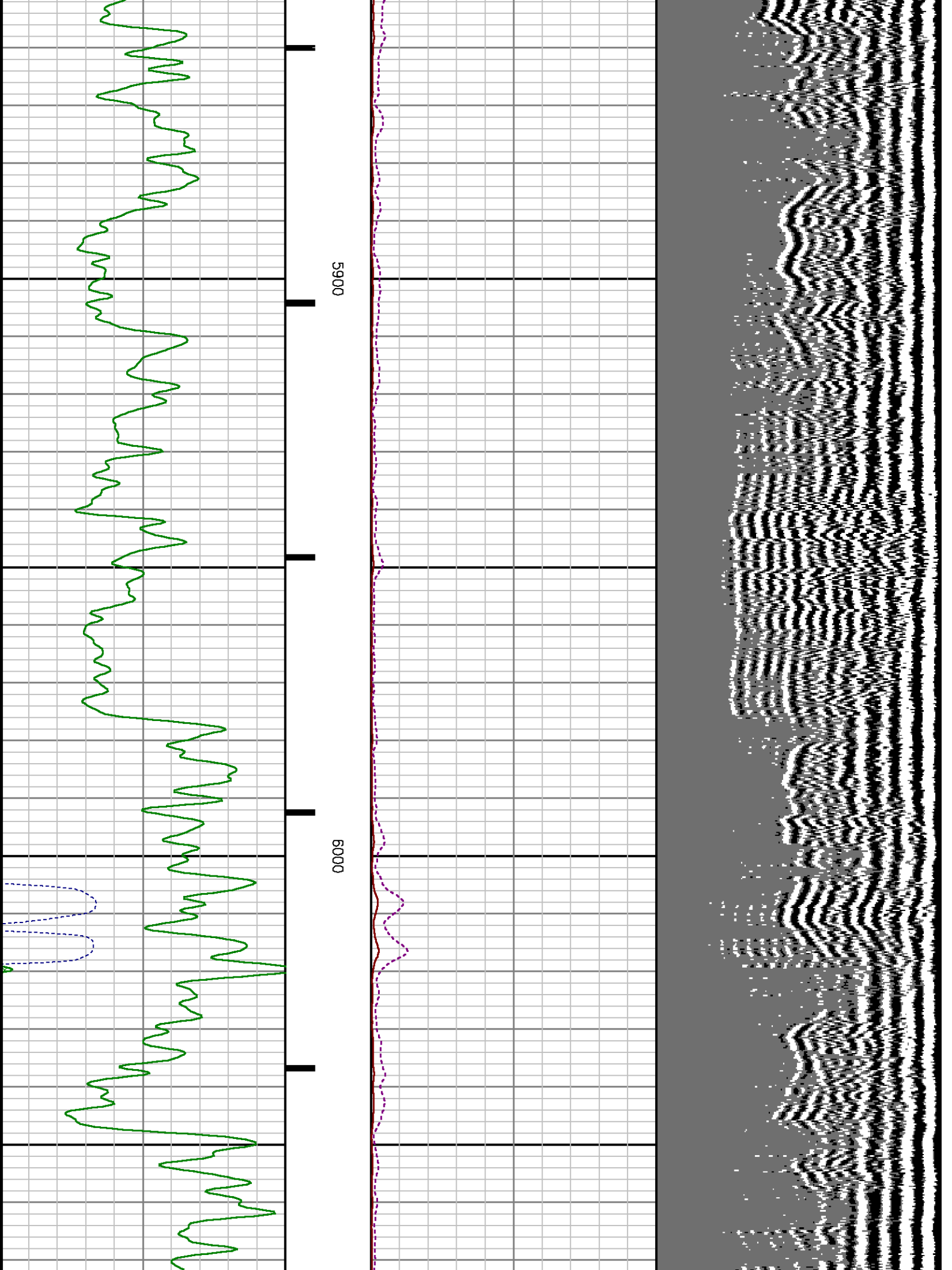
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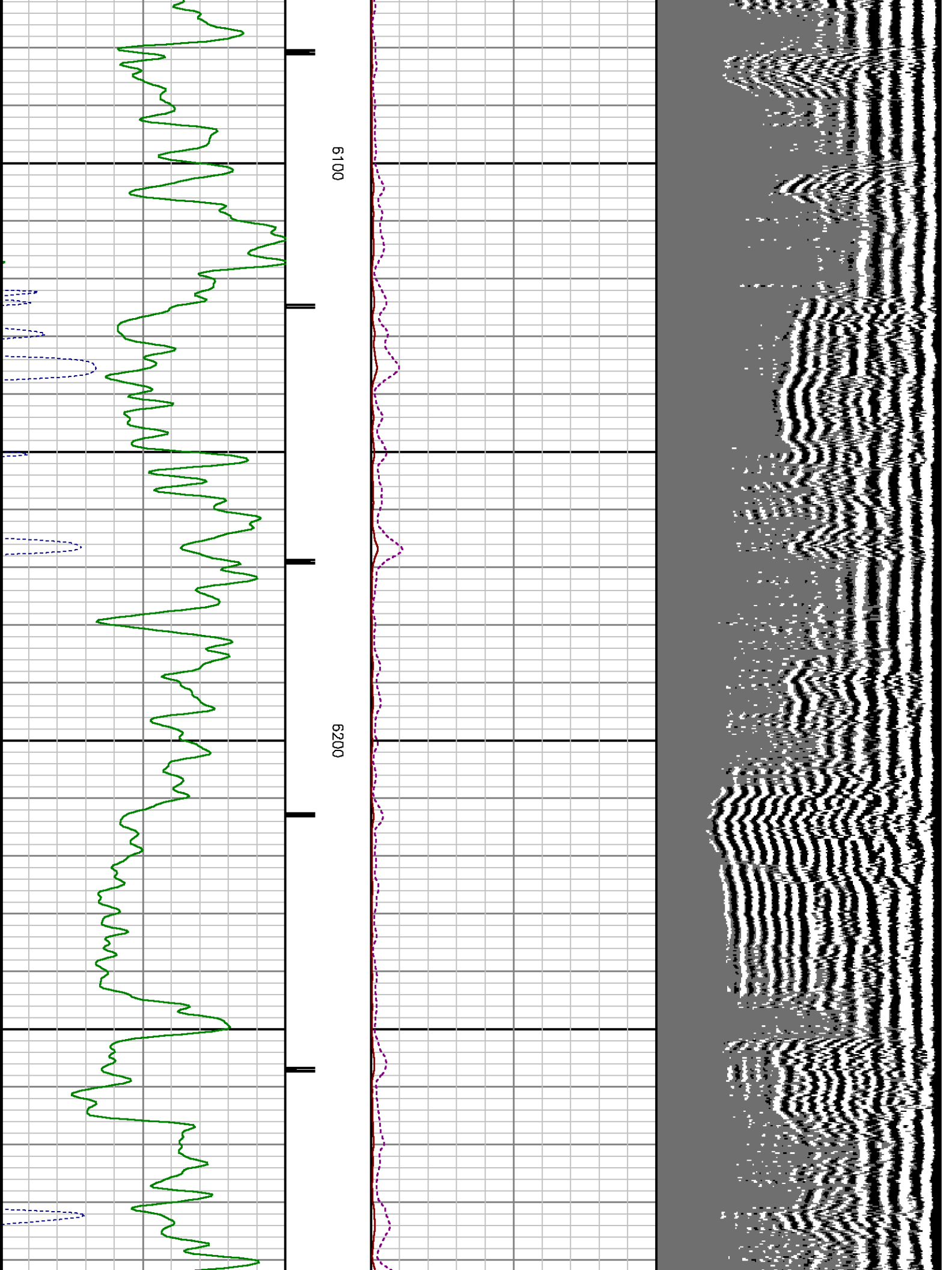


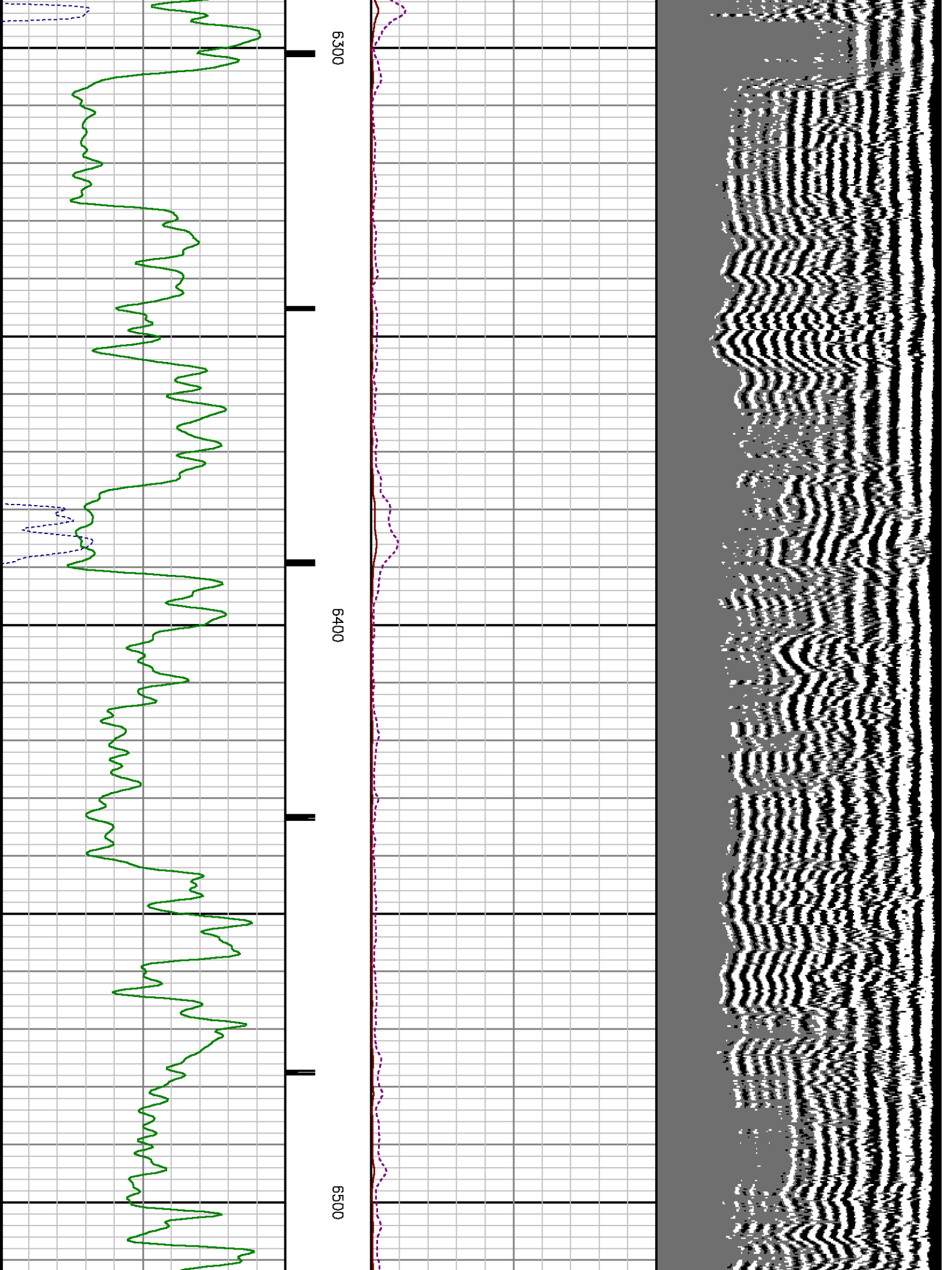


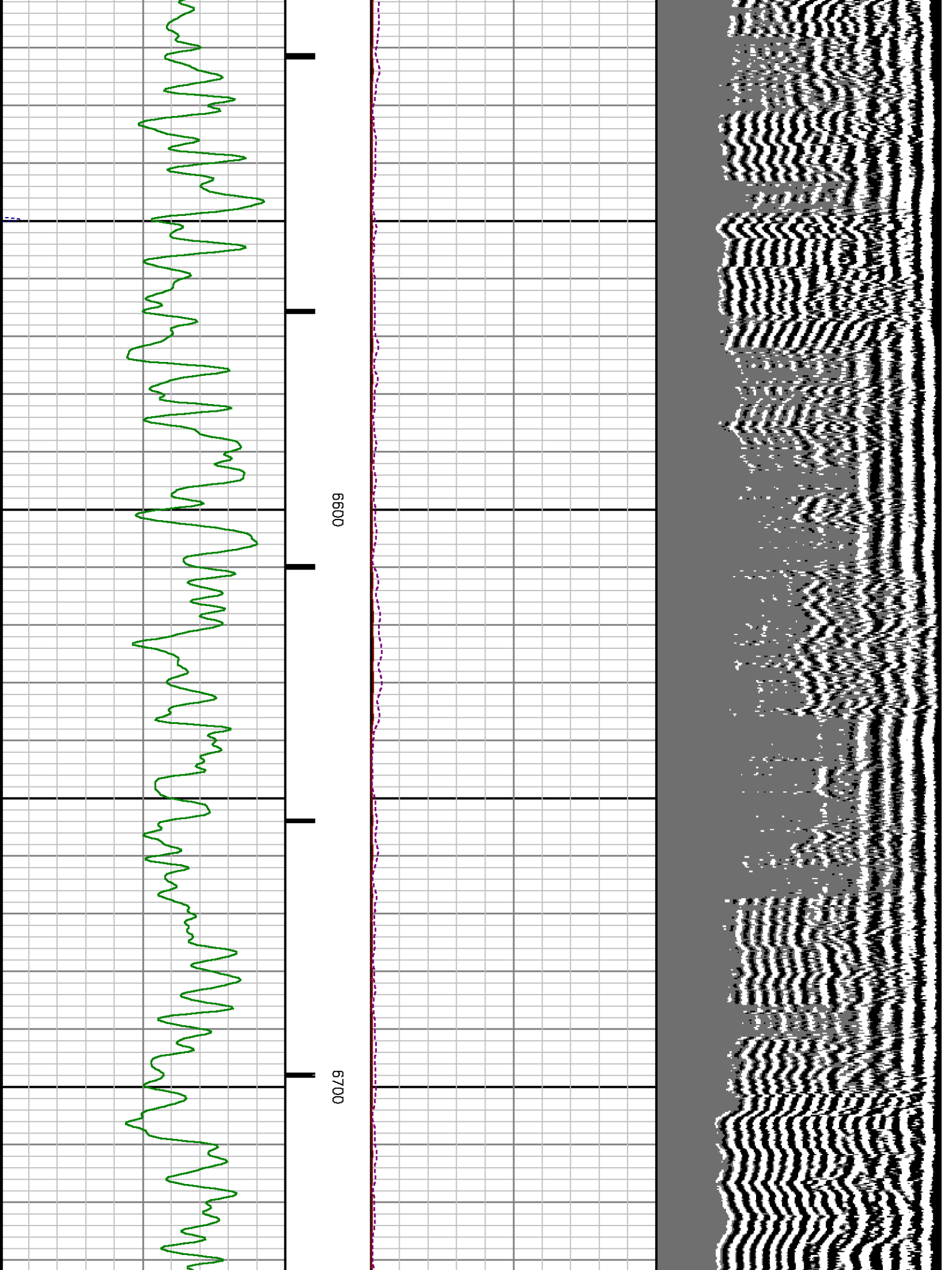


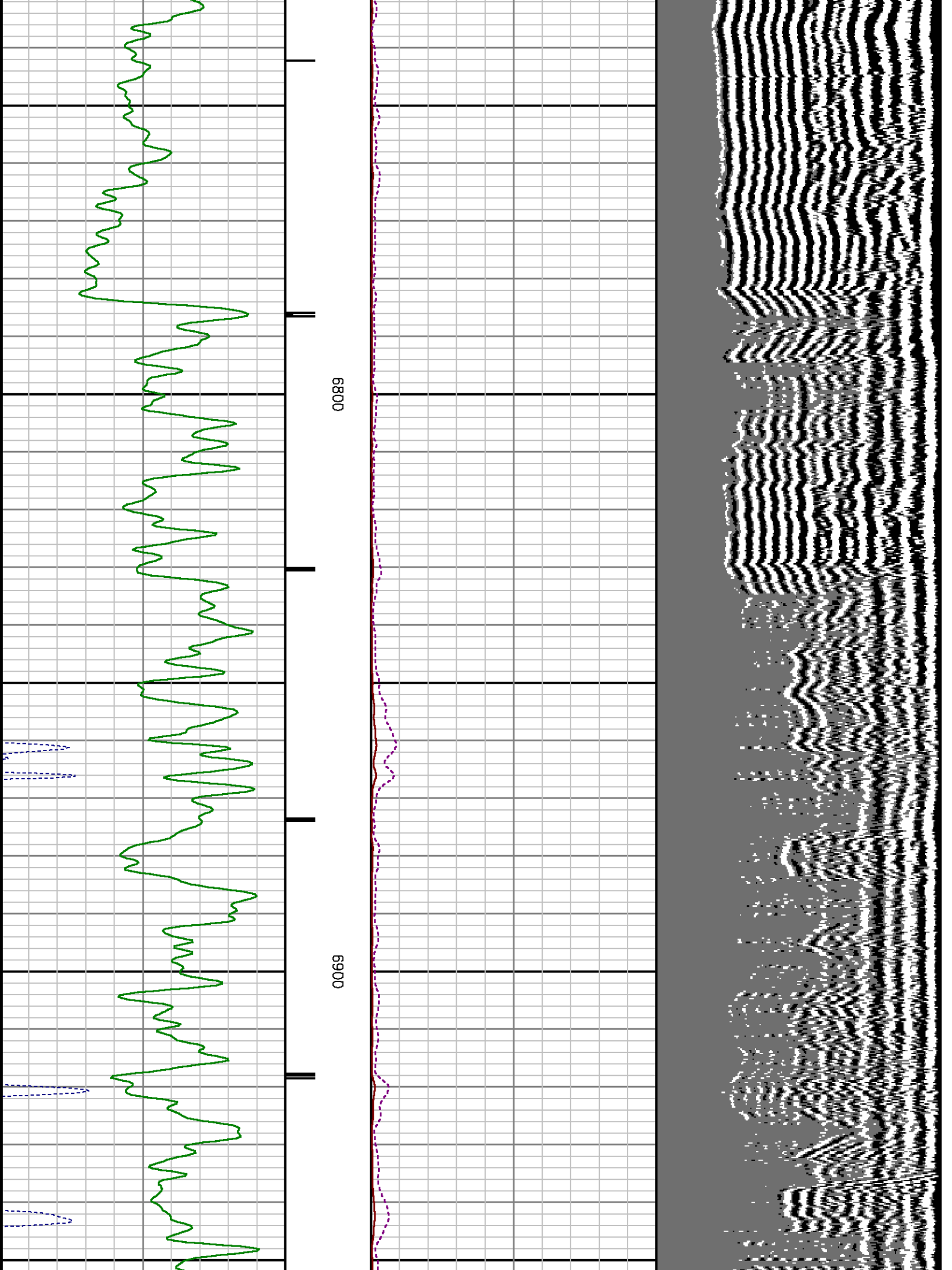


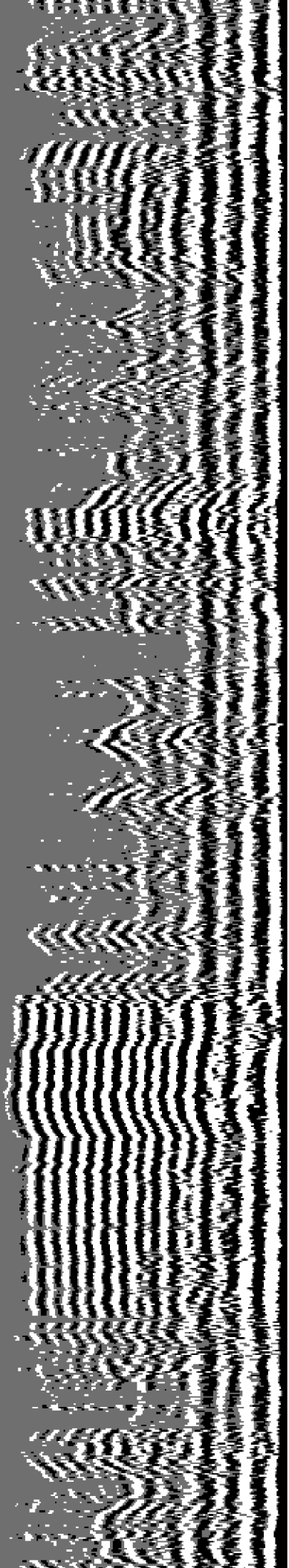








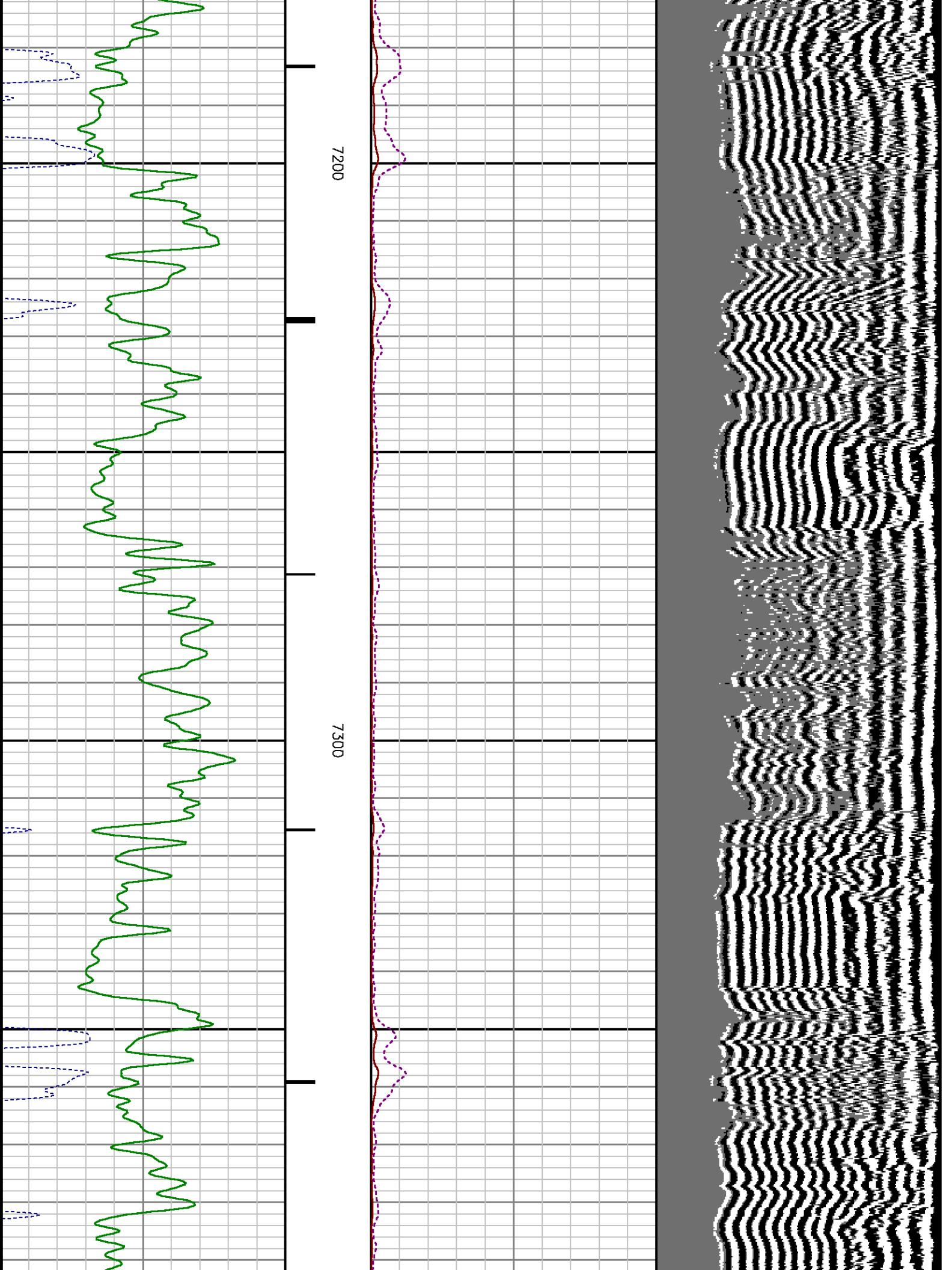


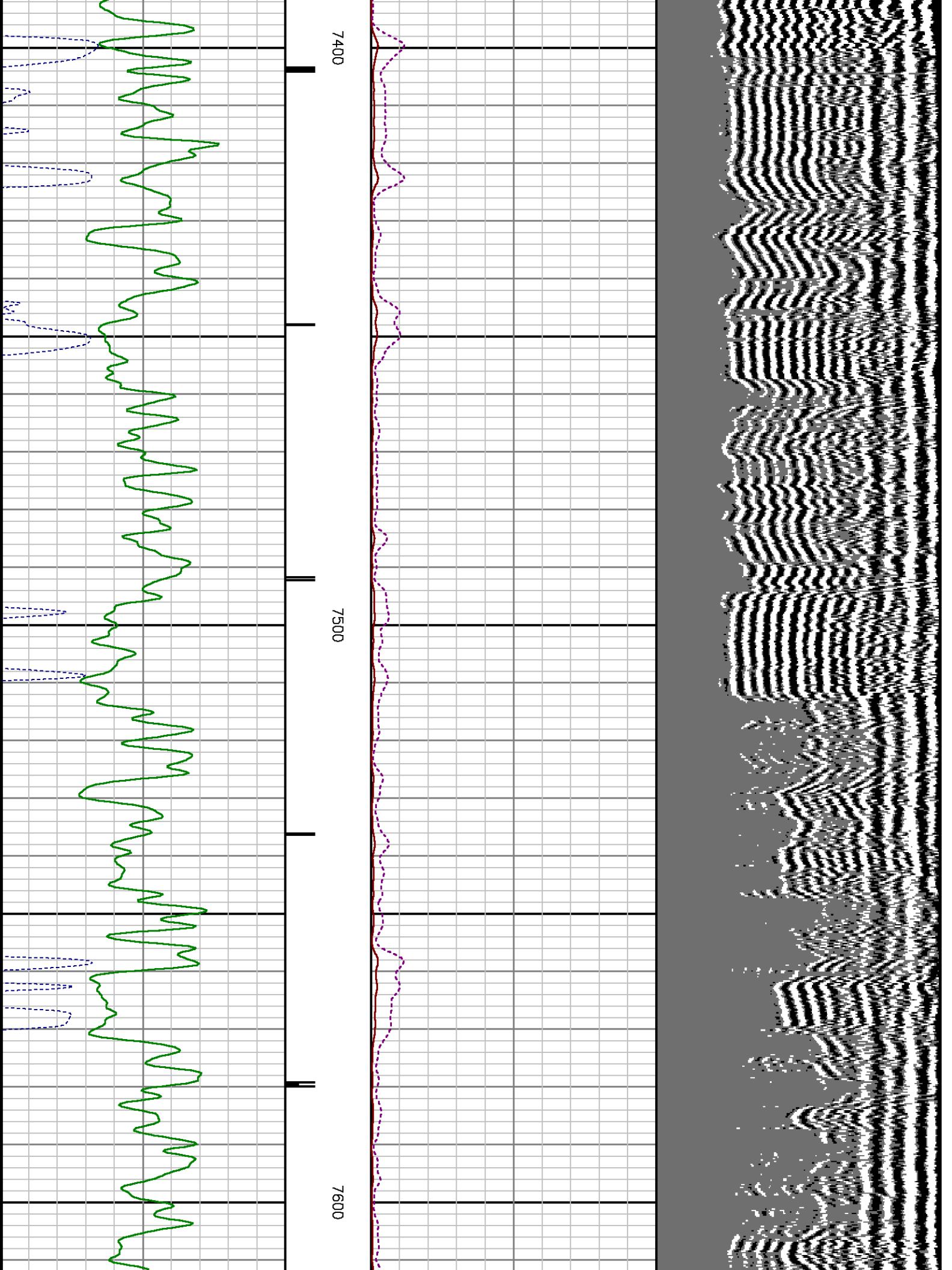


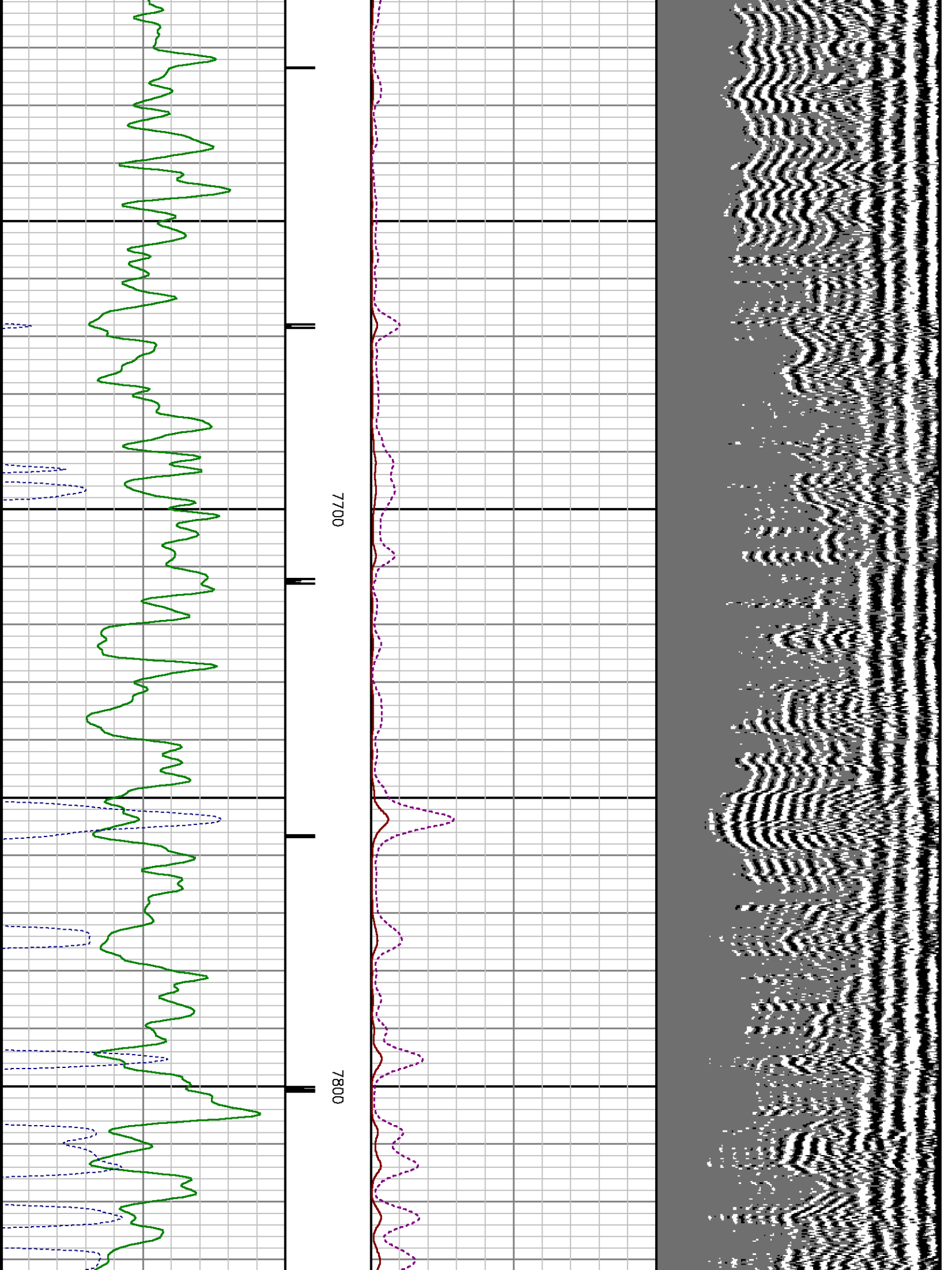
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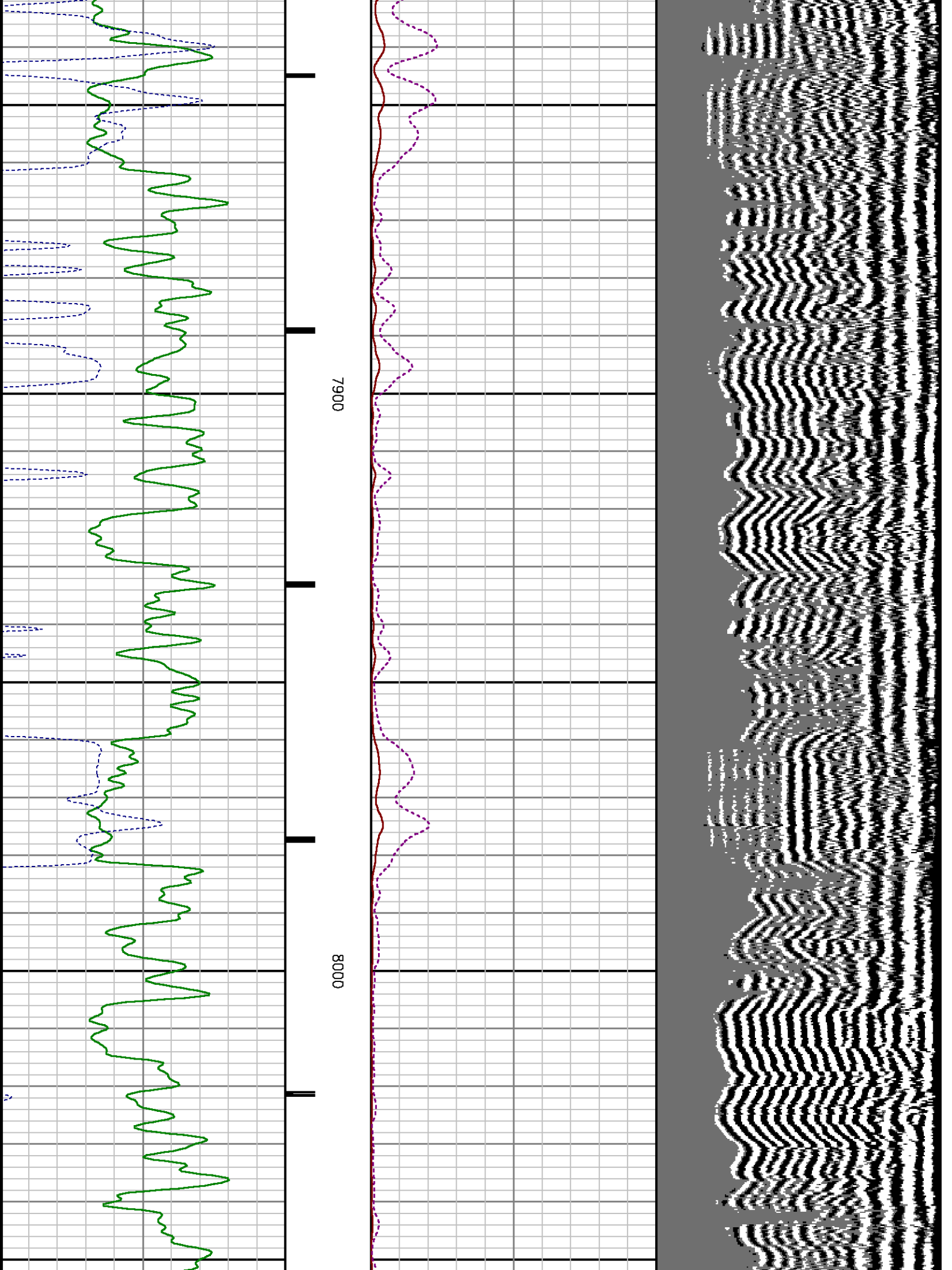
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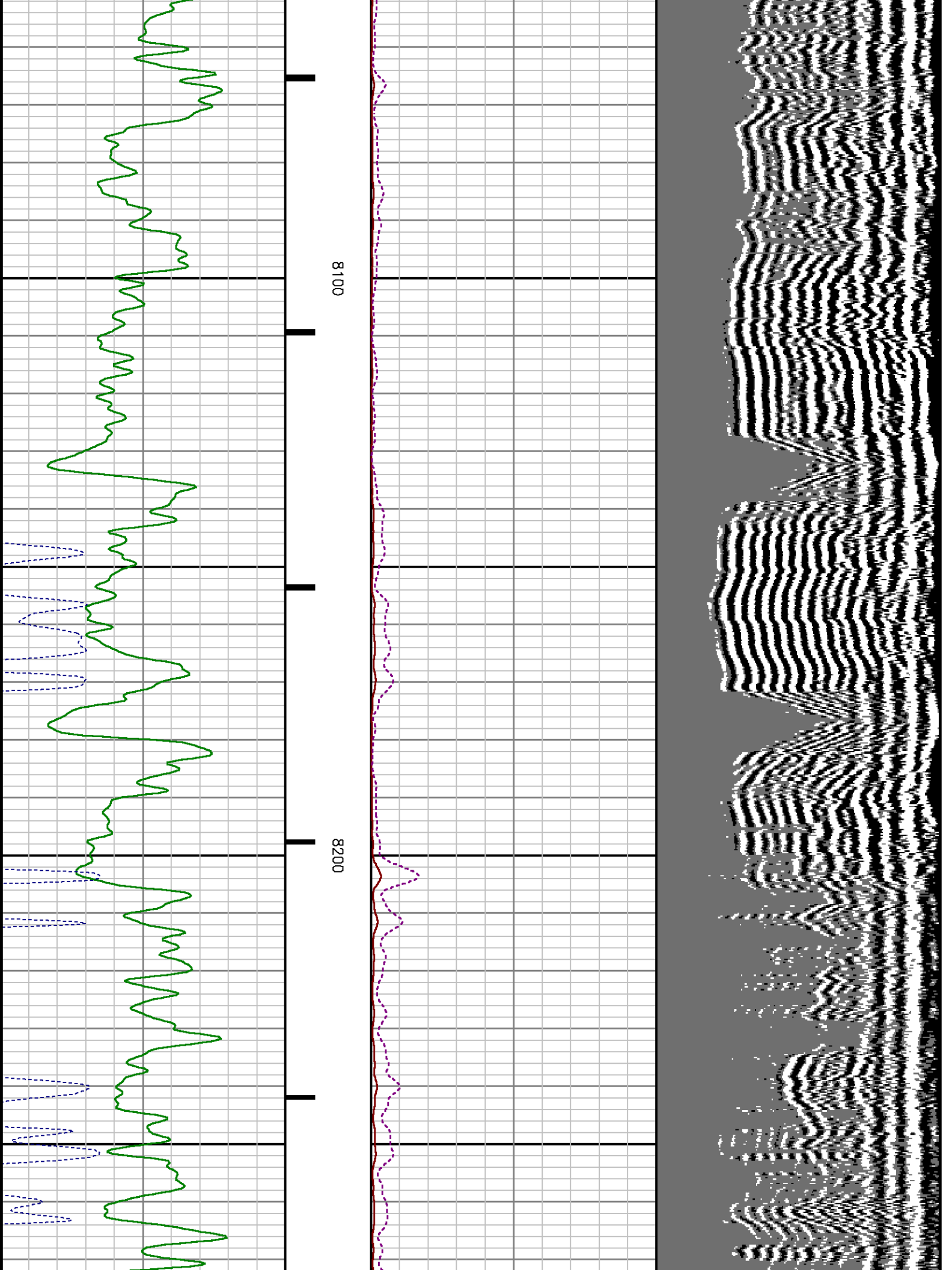


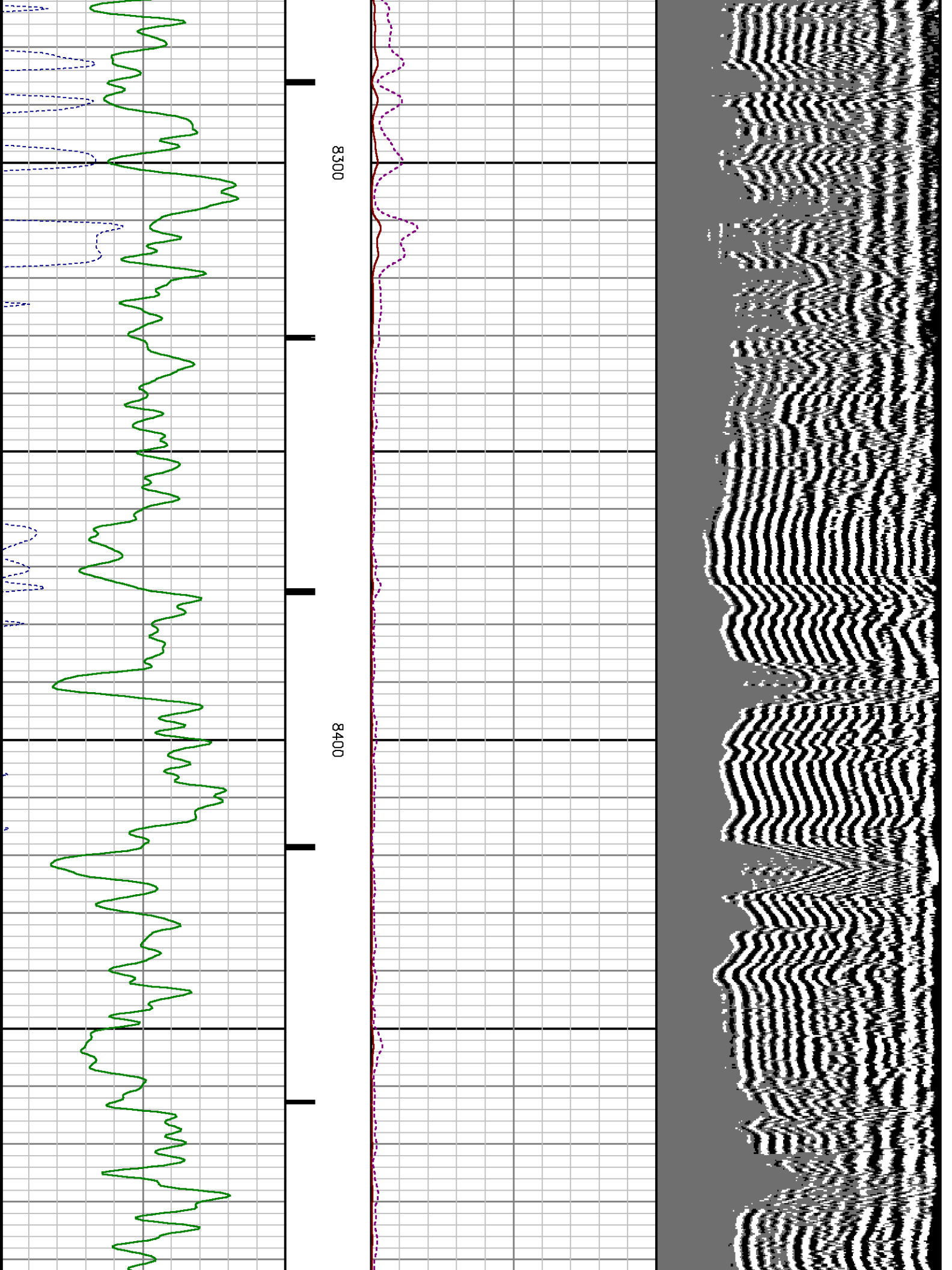


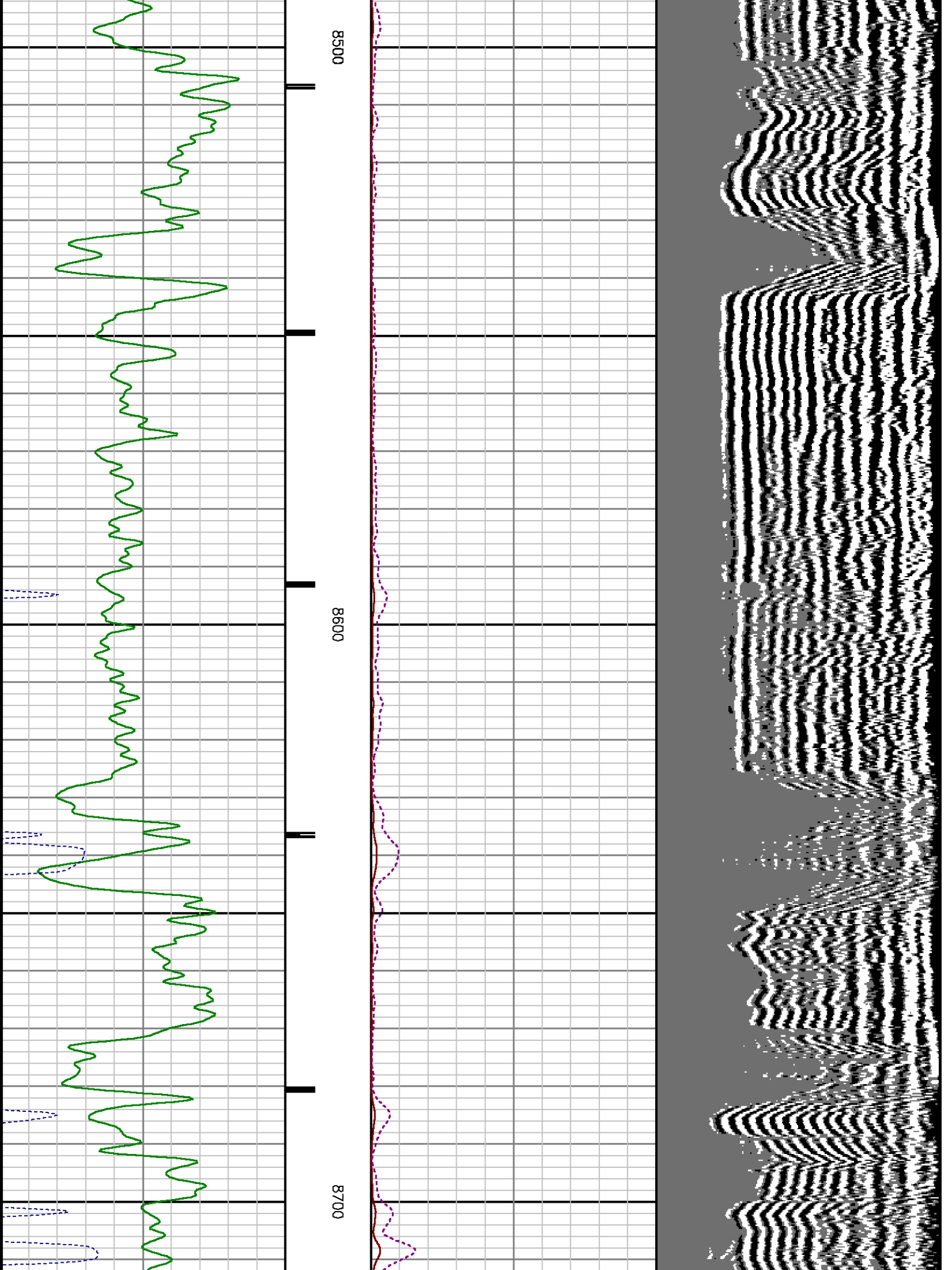


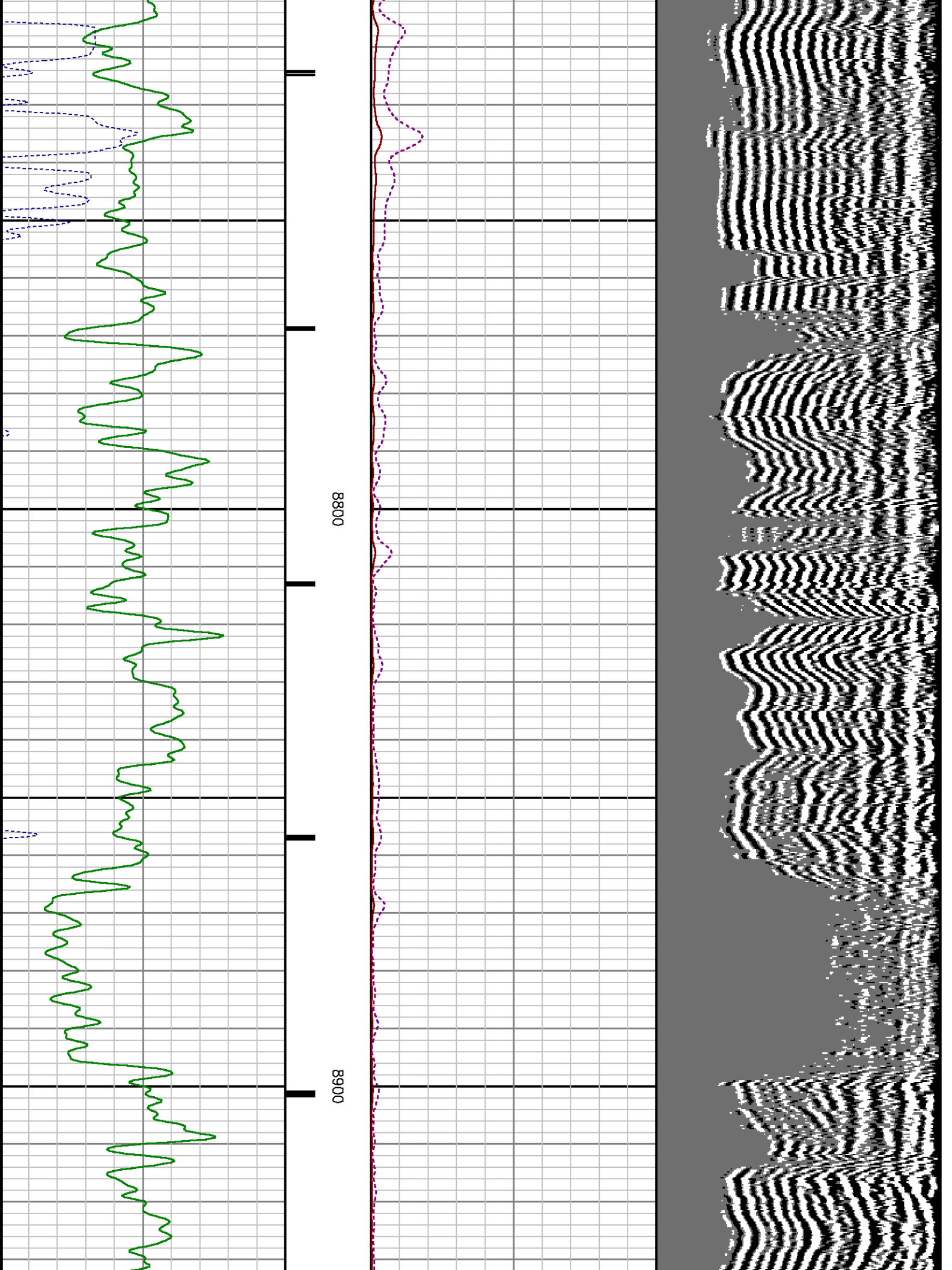


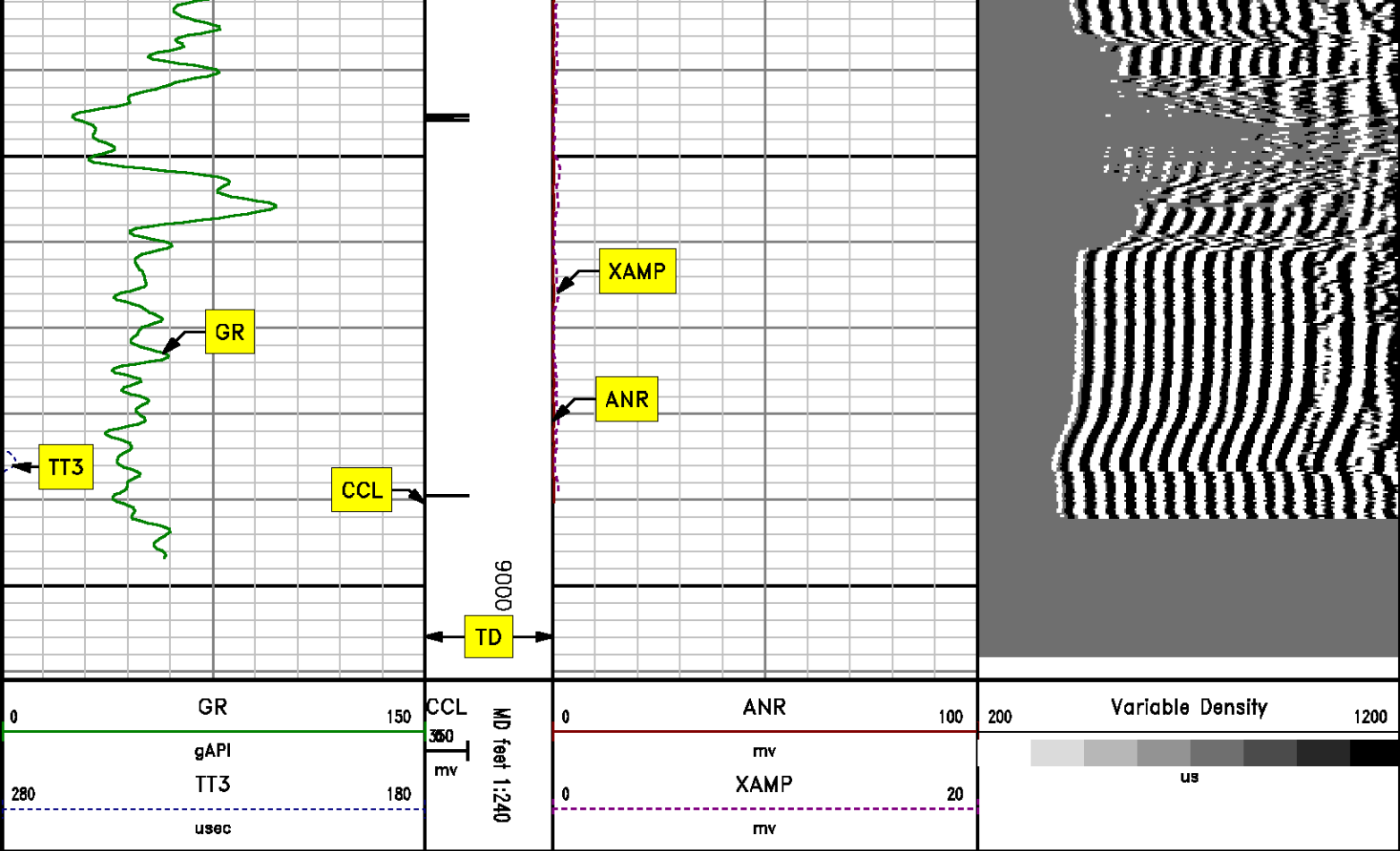












SECONDARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	28.937	9007.250
RAL	Amp Gate Start Near	195.000	usec	28.937	9007.250
RAL	Amp Gate Start Radial	195.000	usec	28.937	9007.250
RAL	Amp Gate Width Far	25.000	usec	28.937	9007.250
RAL	Amp Gate Width Near	25.000	usec	28.937	9007.250
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RAL	casing od	4.500	inches	28.937	9007.250
RAL	casing wt	11.600	lbm/ft	28.937	9007.250
RAL	FB Start Far	291.900	usec	28.937	9007.250
RAL	FB Start Near	180.000	usec	28.937	9007.250
RAL	FB Start Radial	180.000	usec	28.937	9007.250

RAL	FB Thresh Far	10.000	mv	28.937	9007.250
RAL	FB Thresh Near	4.000	mv	28.937	9007.250
RAL	FB Thresh Radial	4.000	mv	28.937	9007.250
RAL	Fluid Travel Time	200.000	usec/ft	28.937	9007.905

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

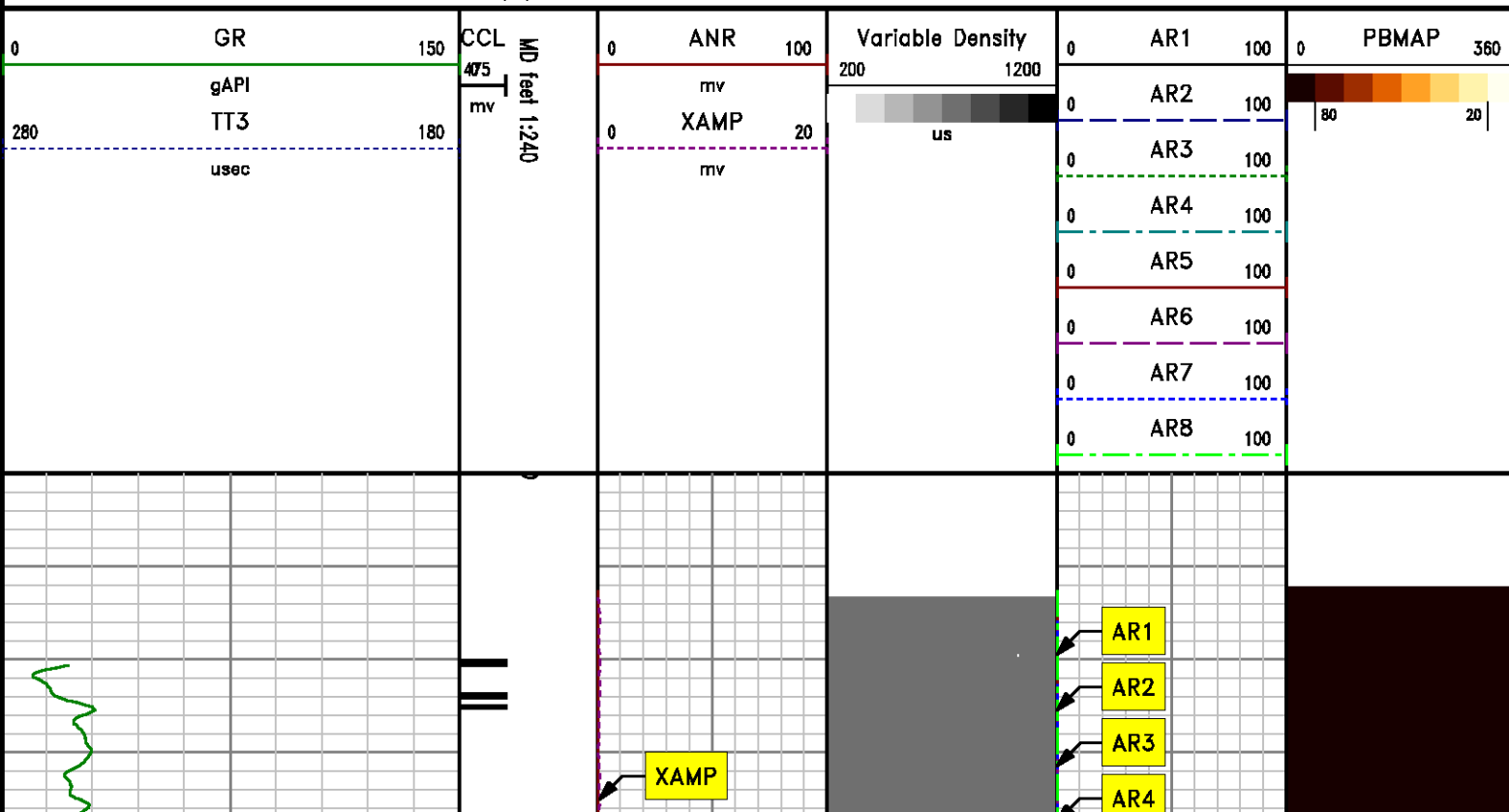
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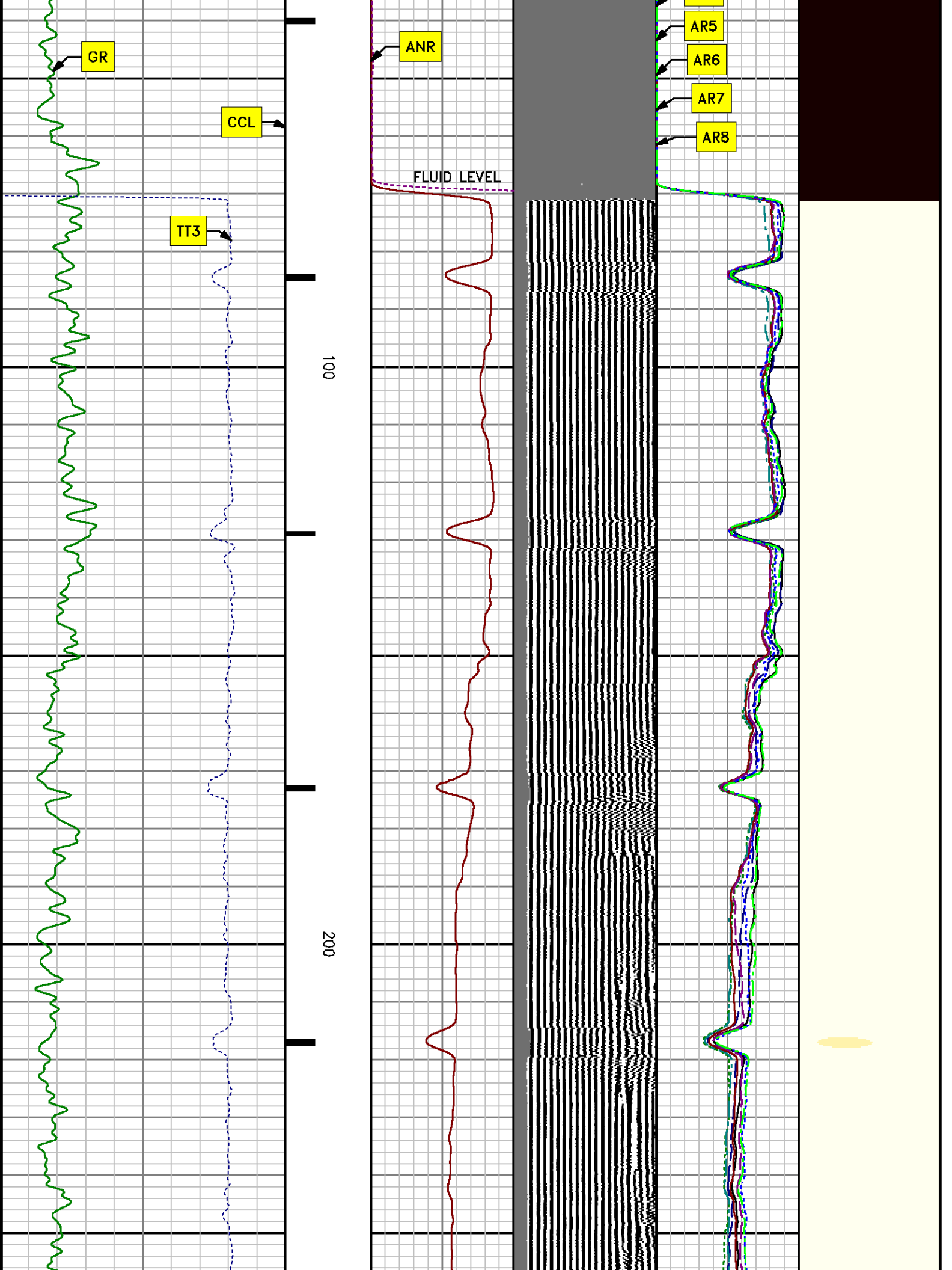
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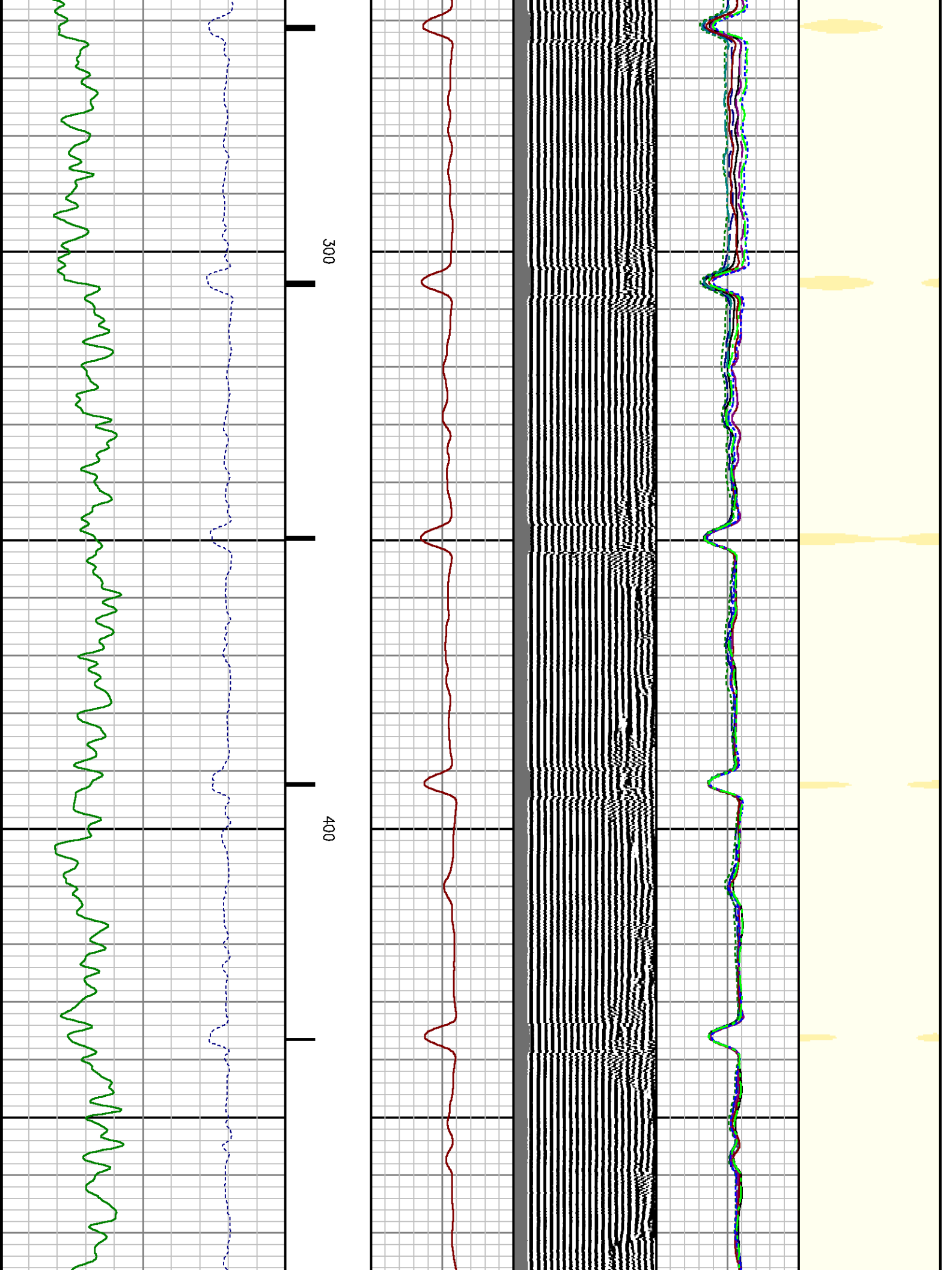
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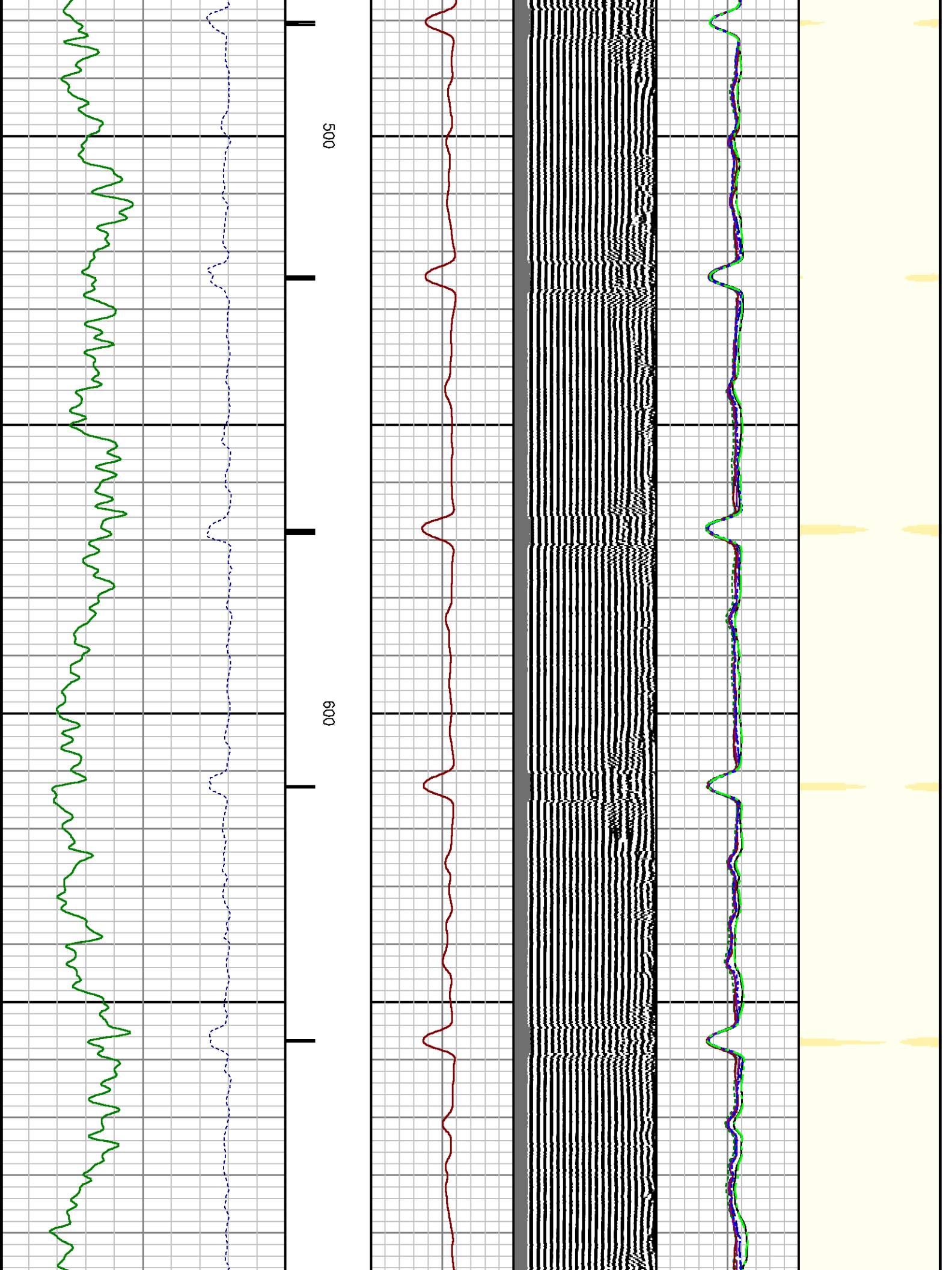
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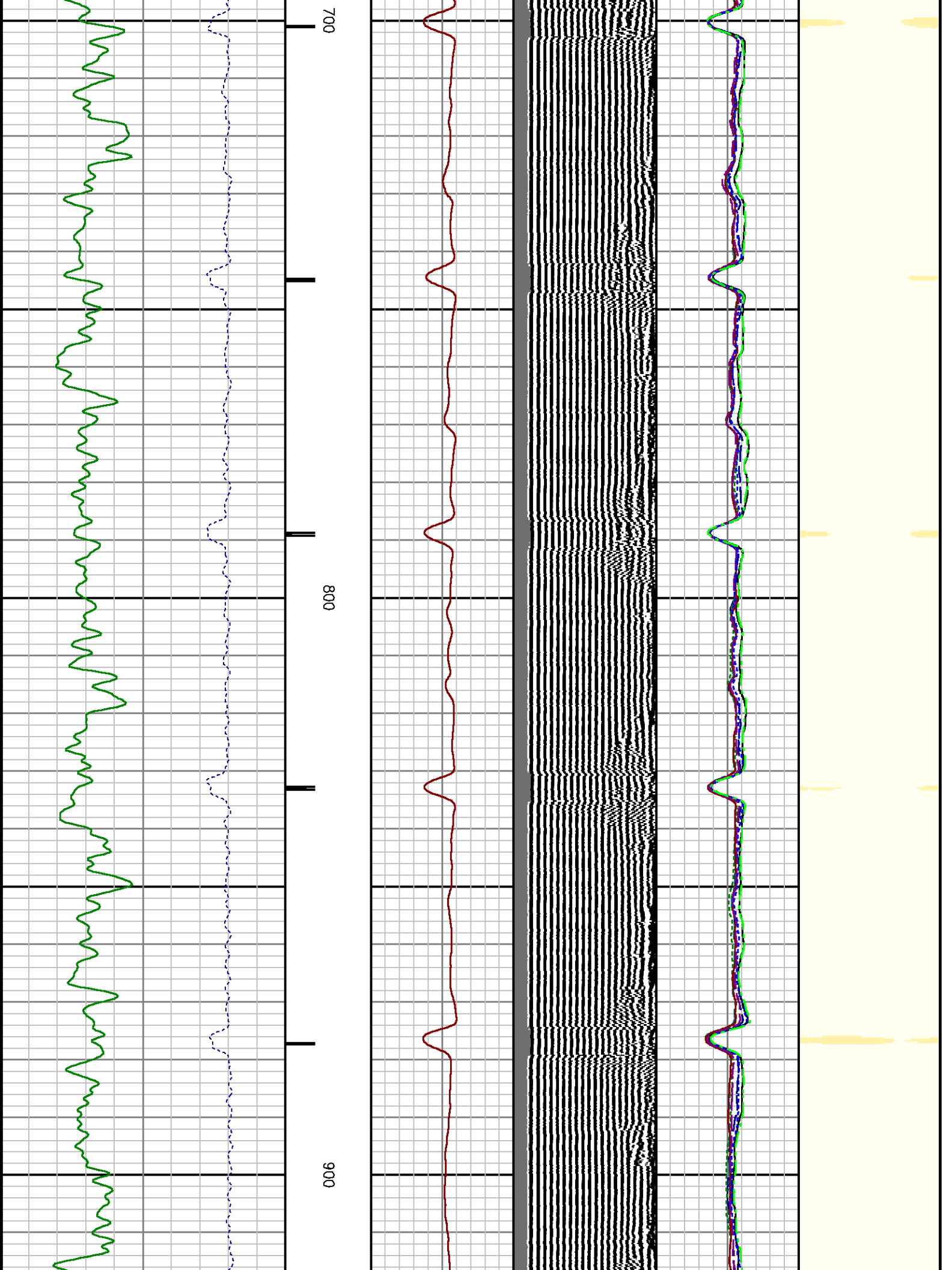
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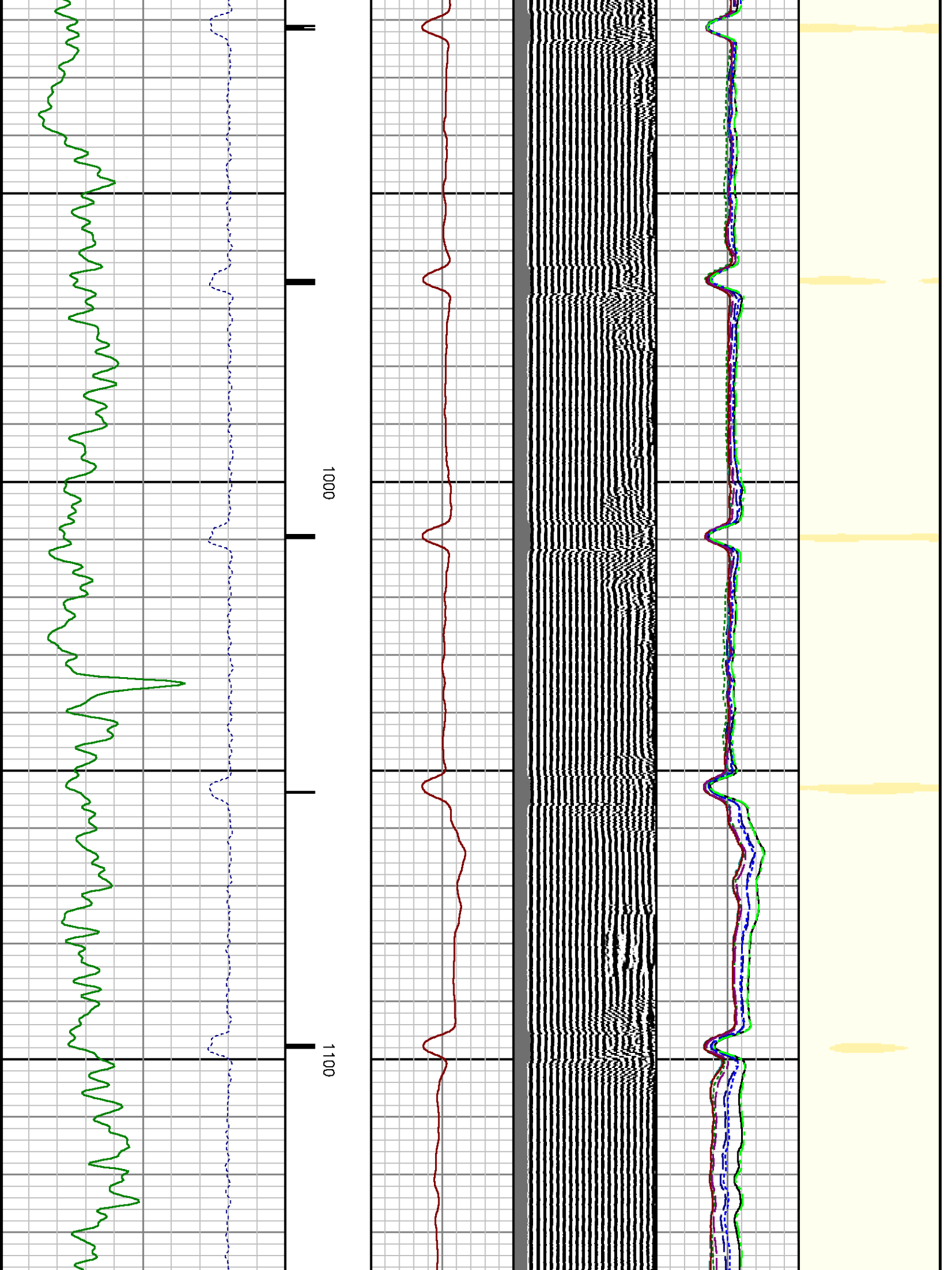


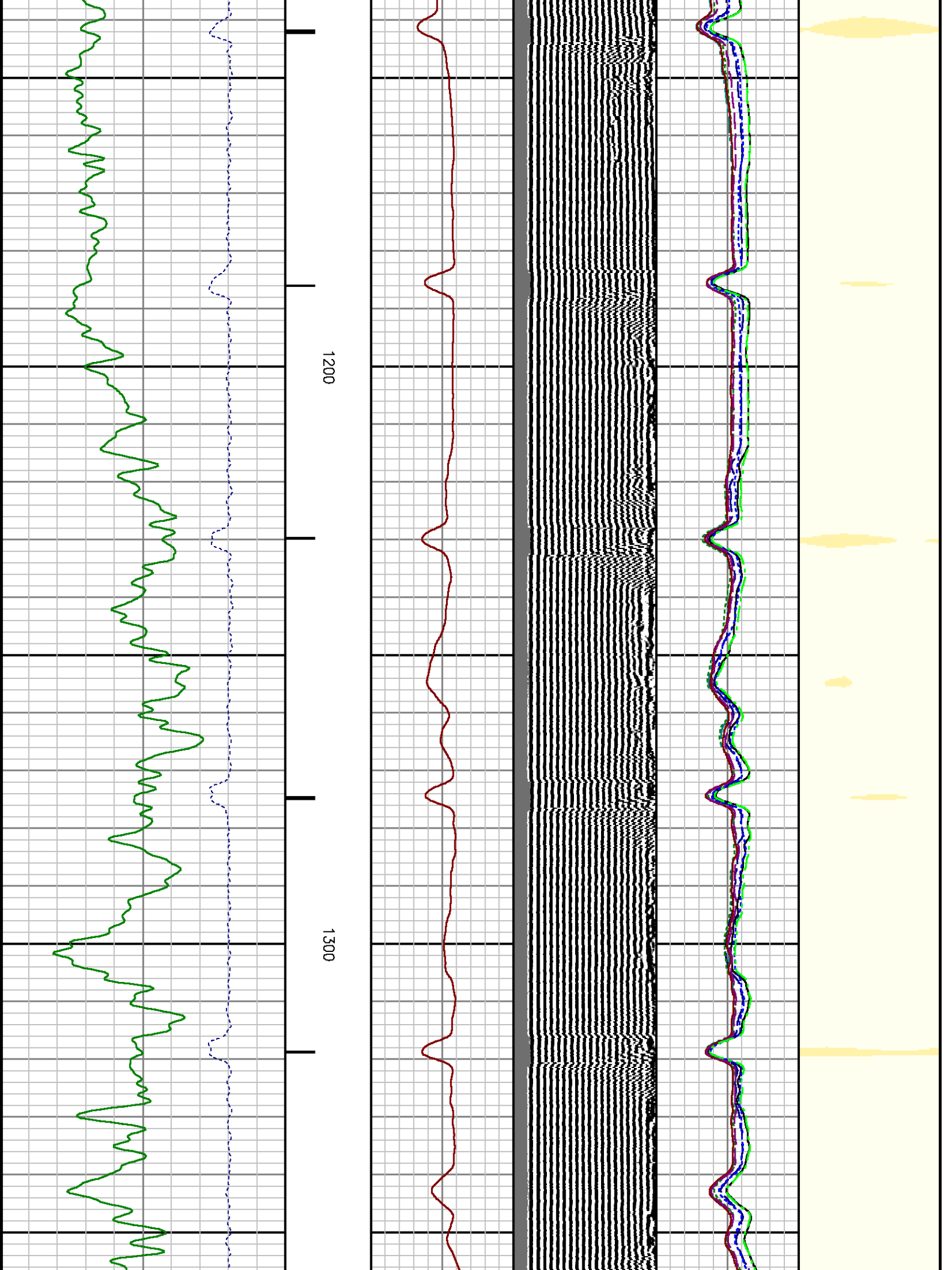


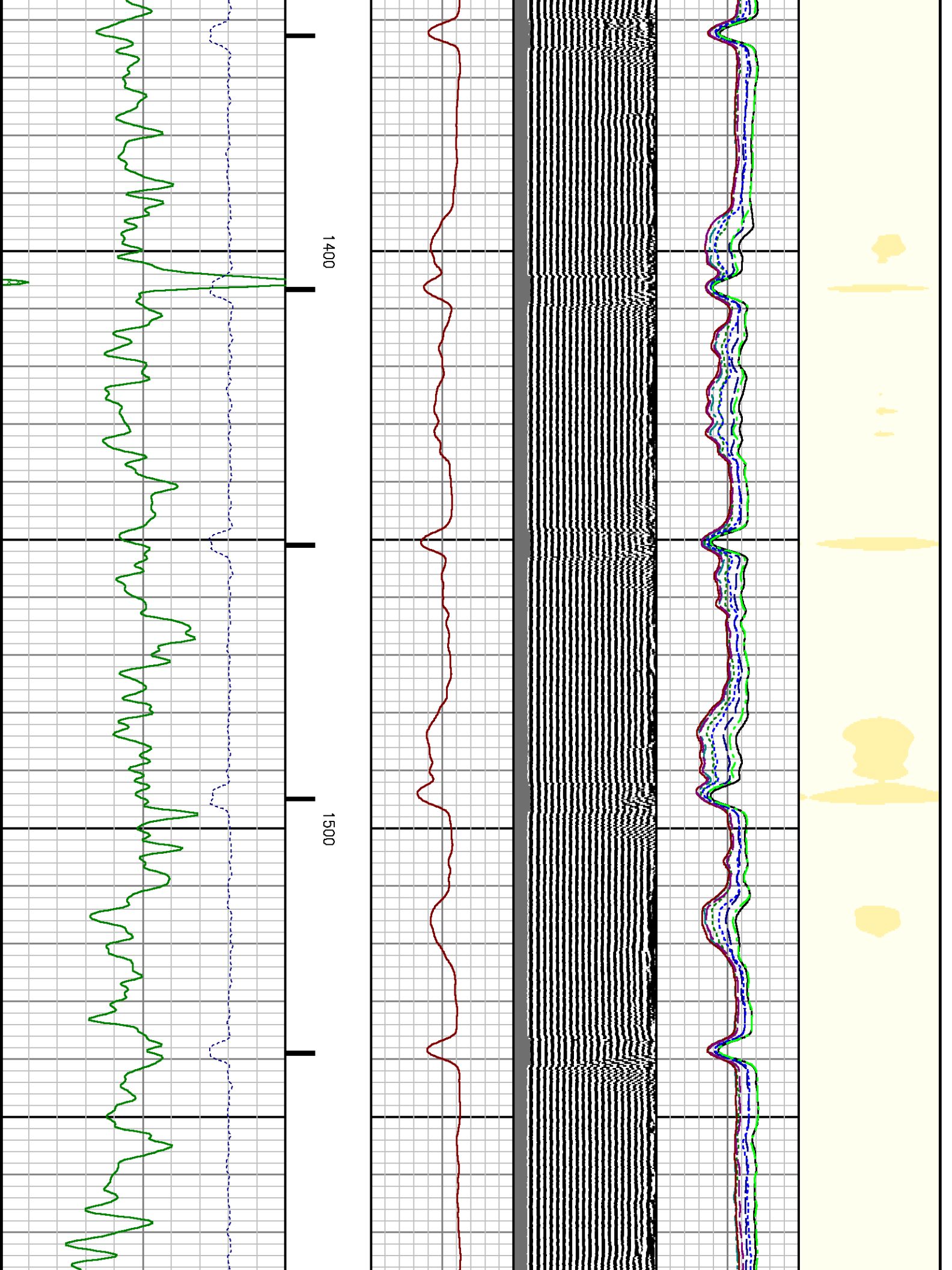


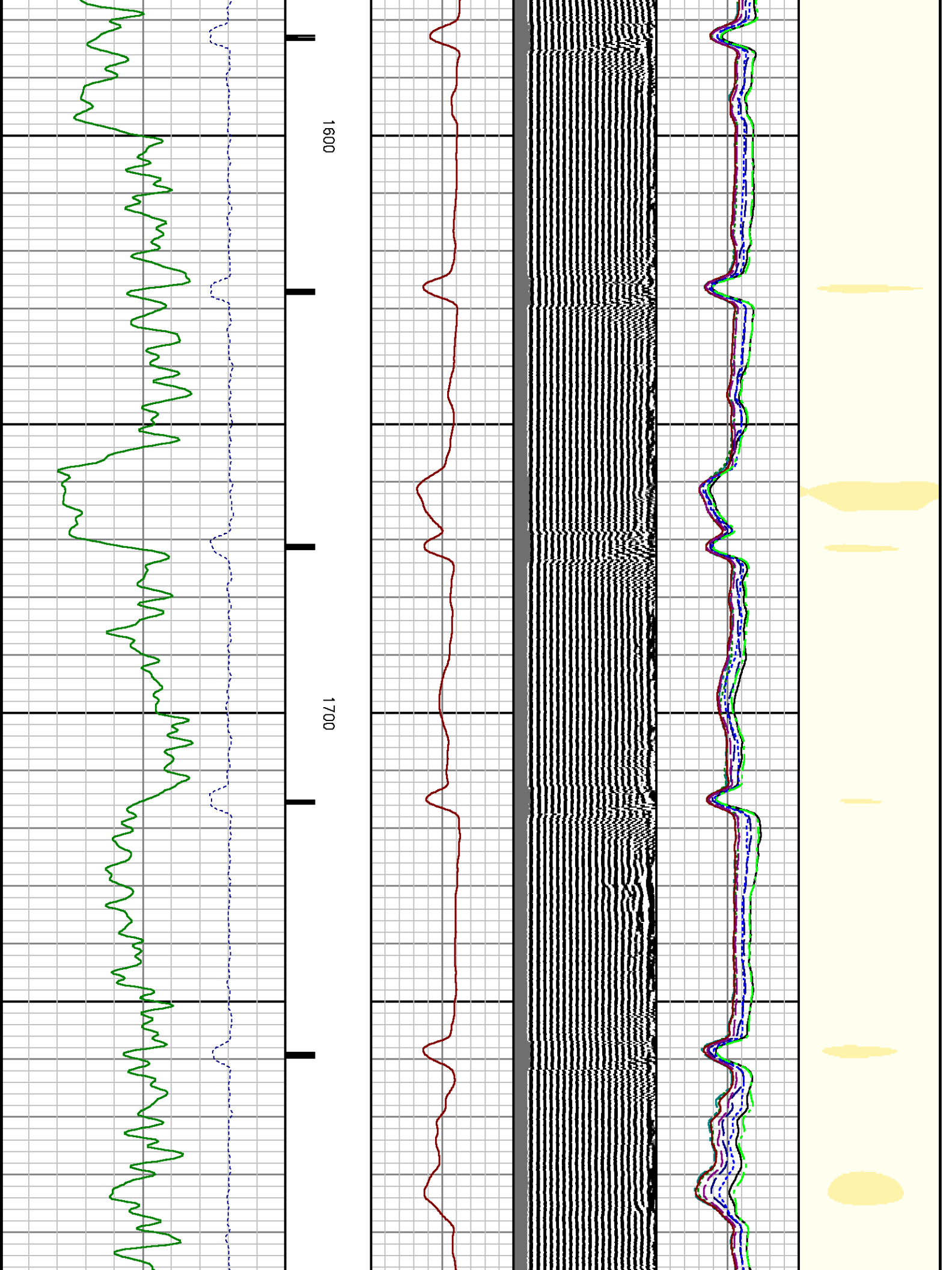


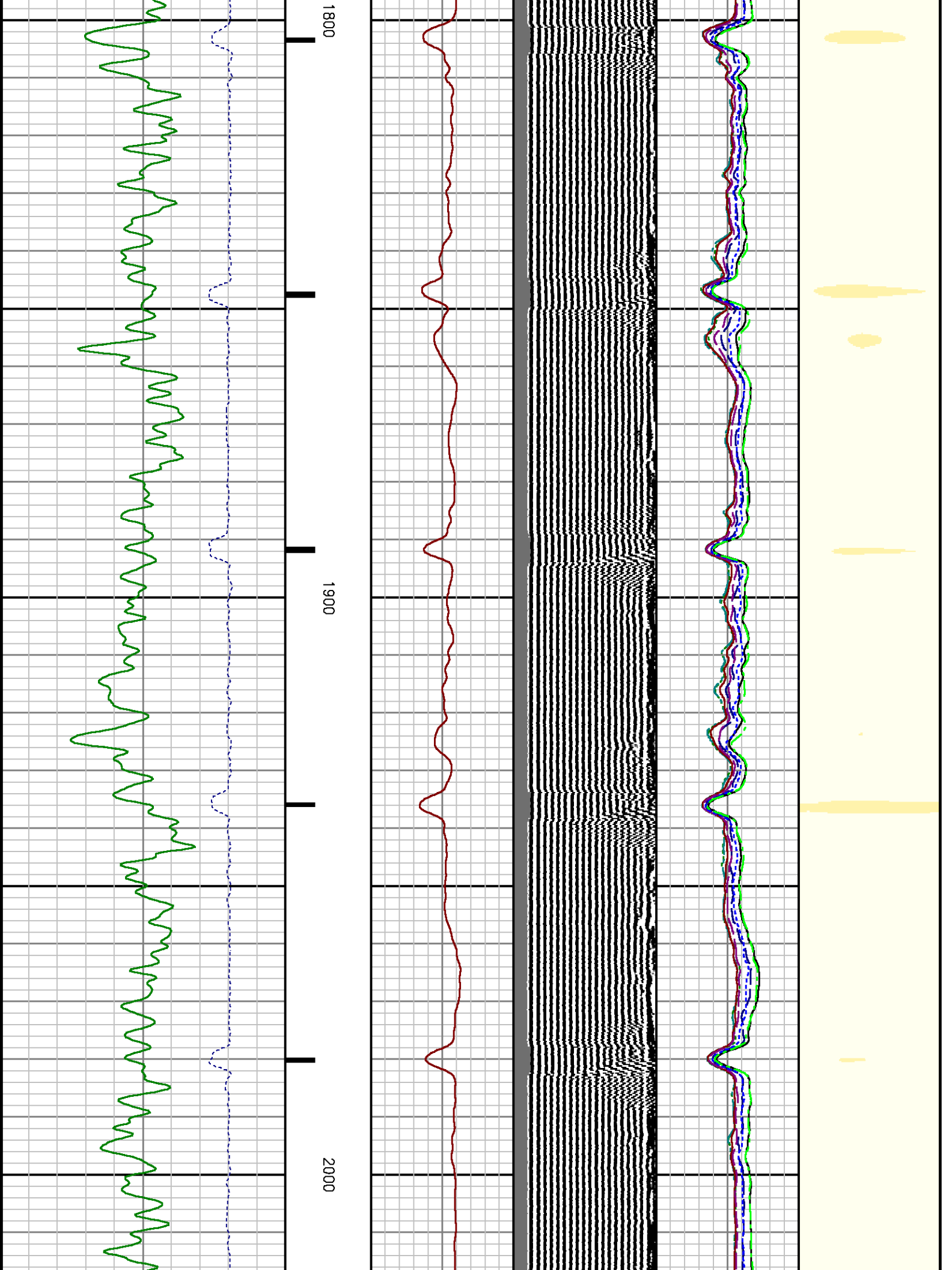


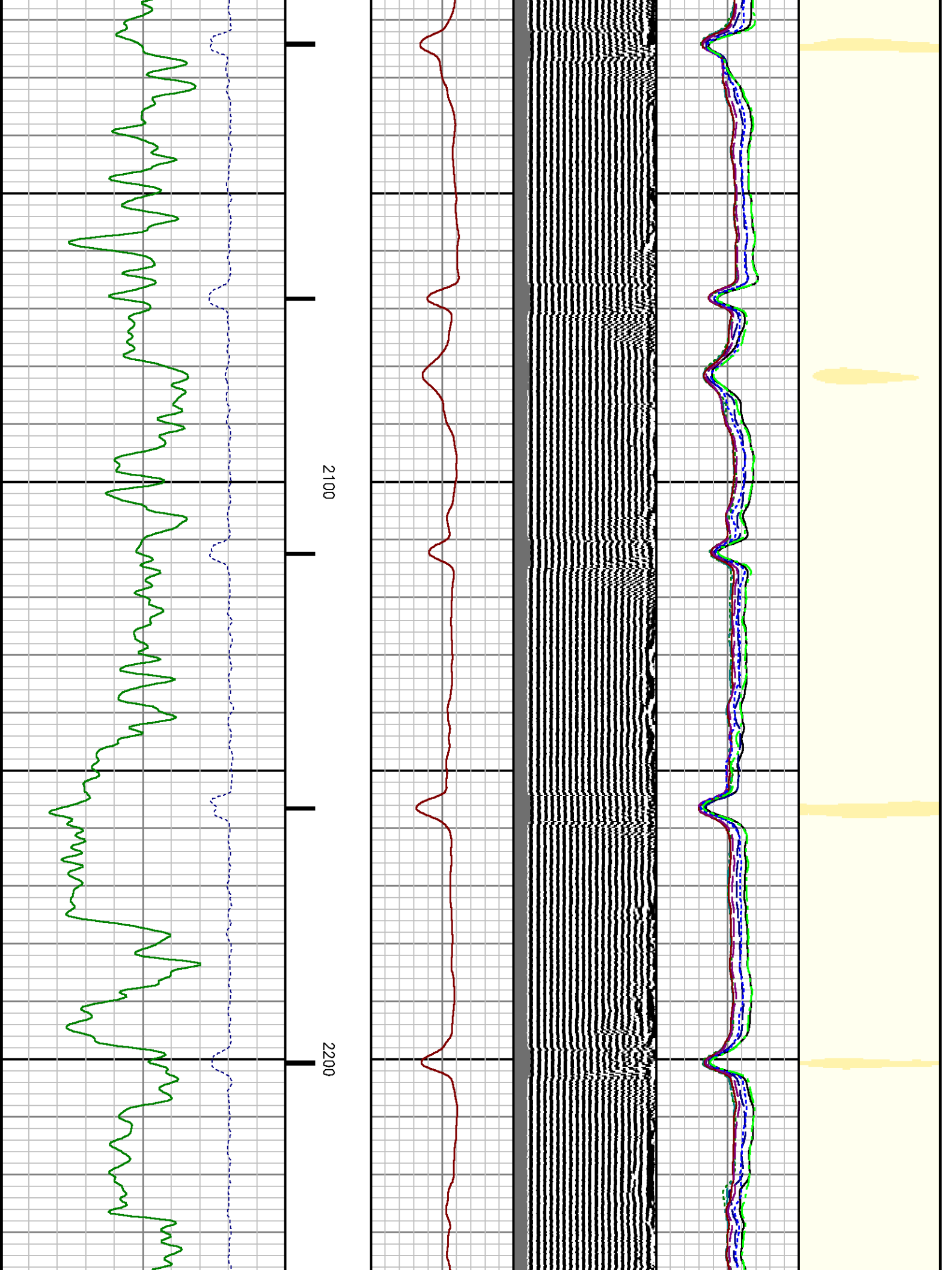


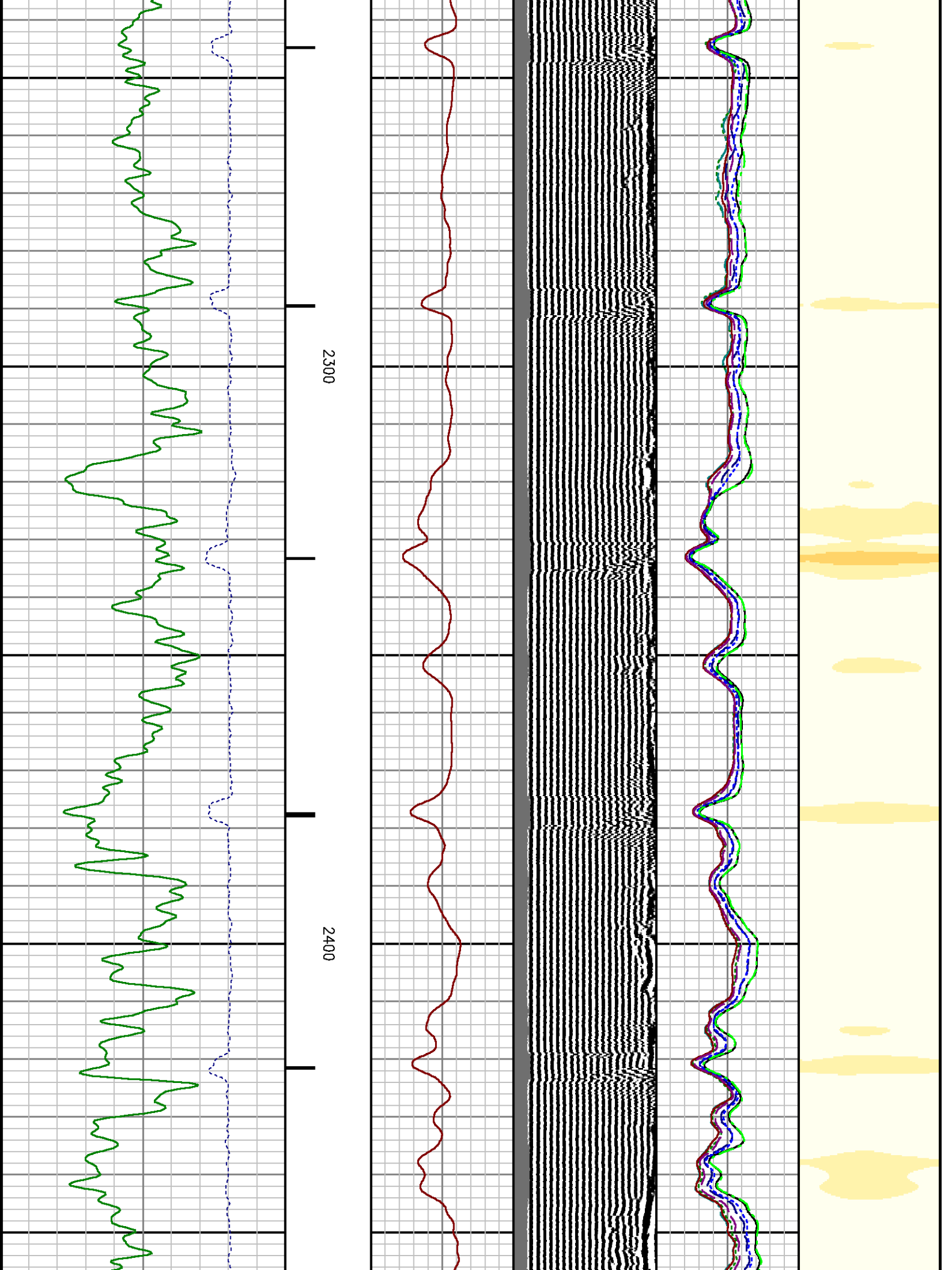


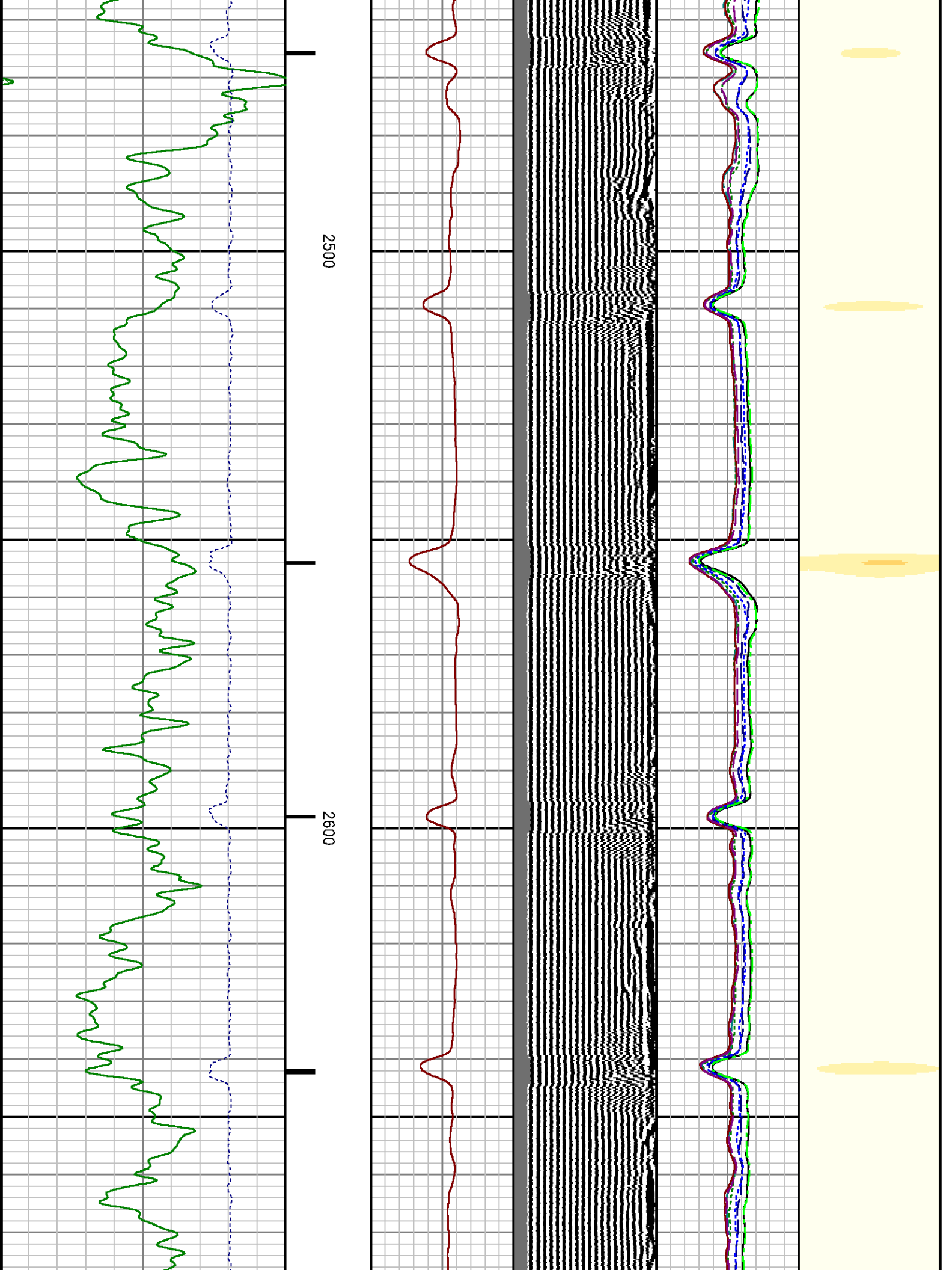


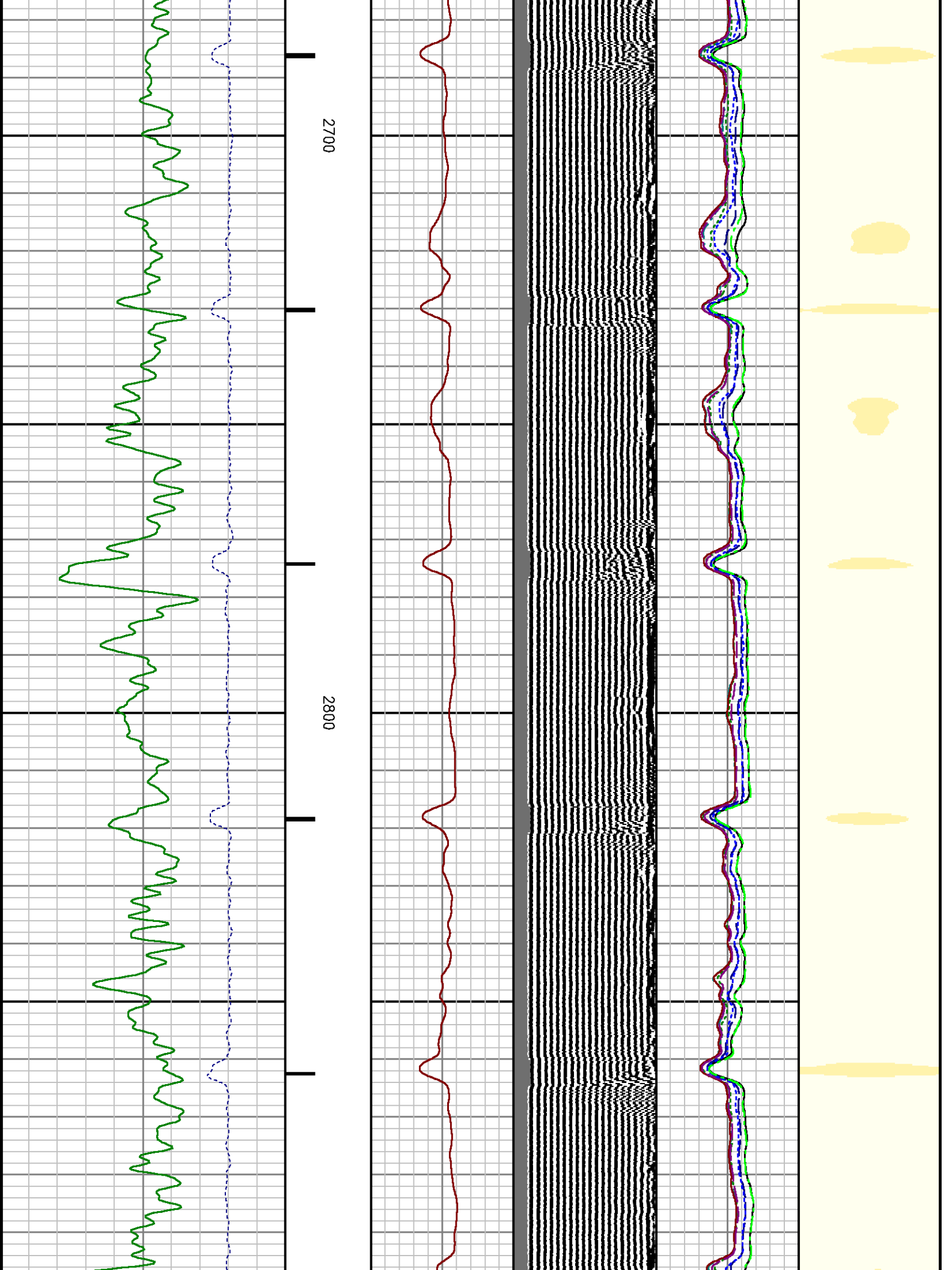


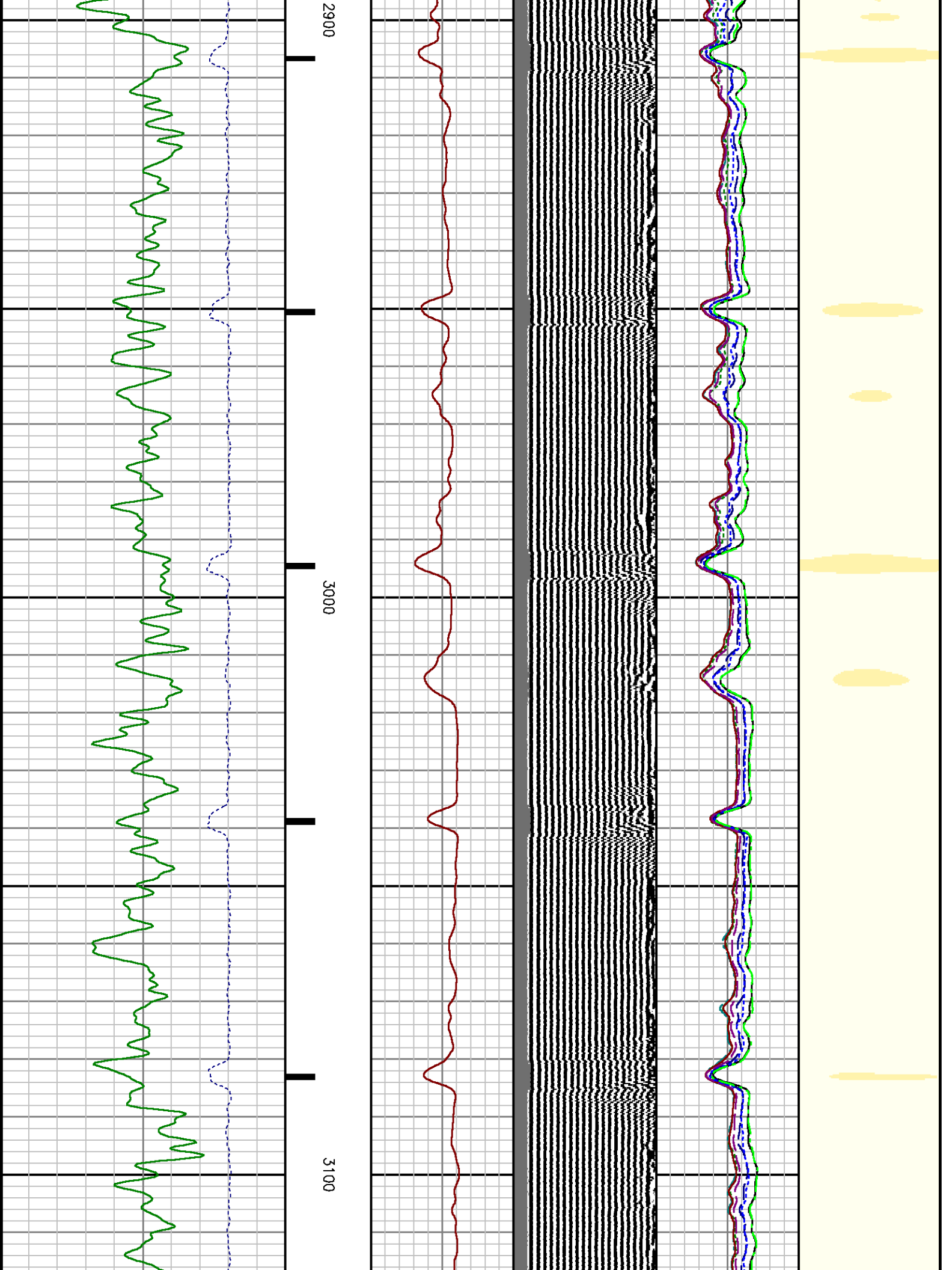


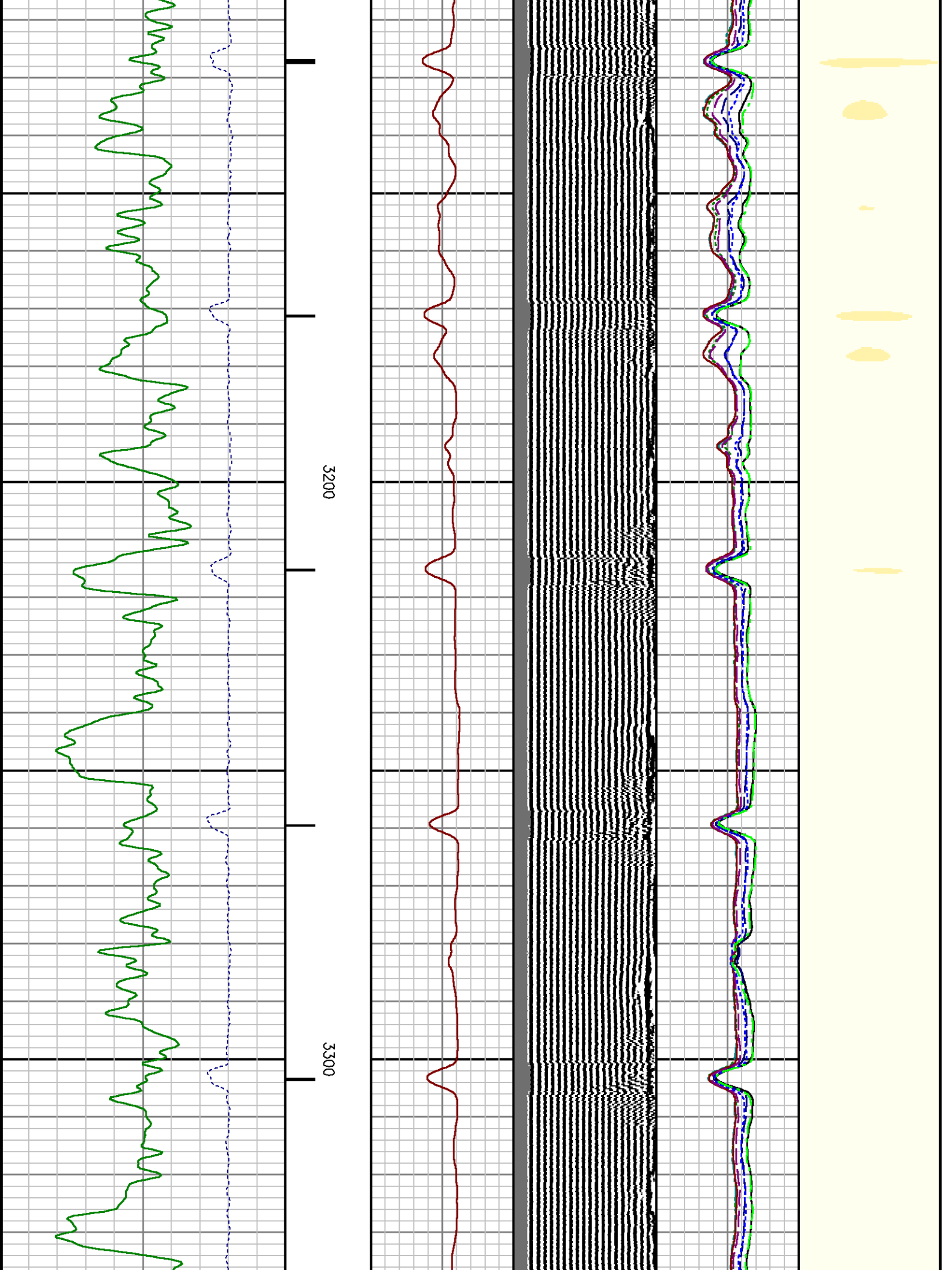


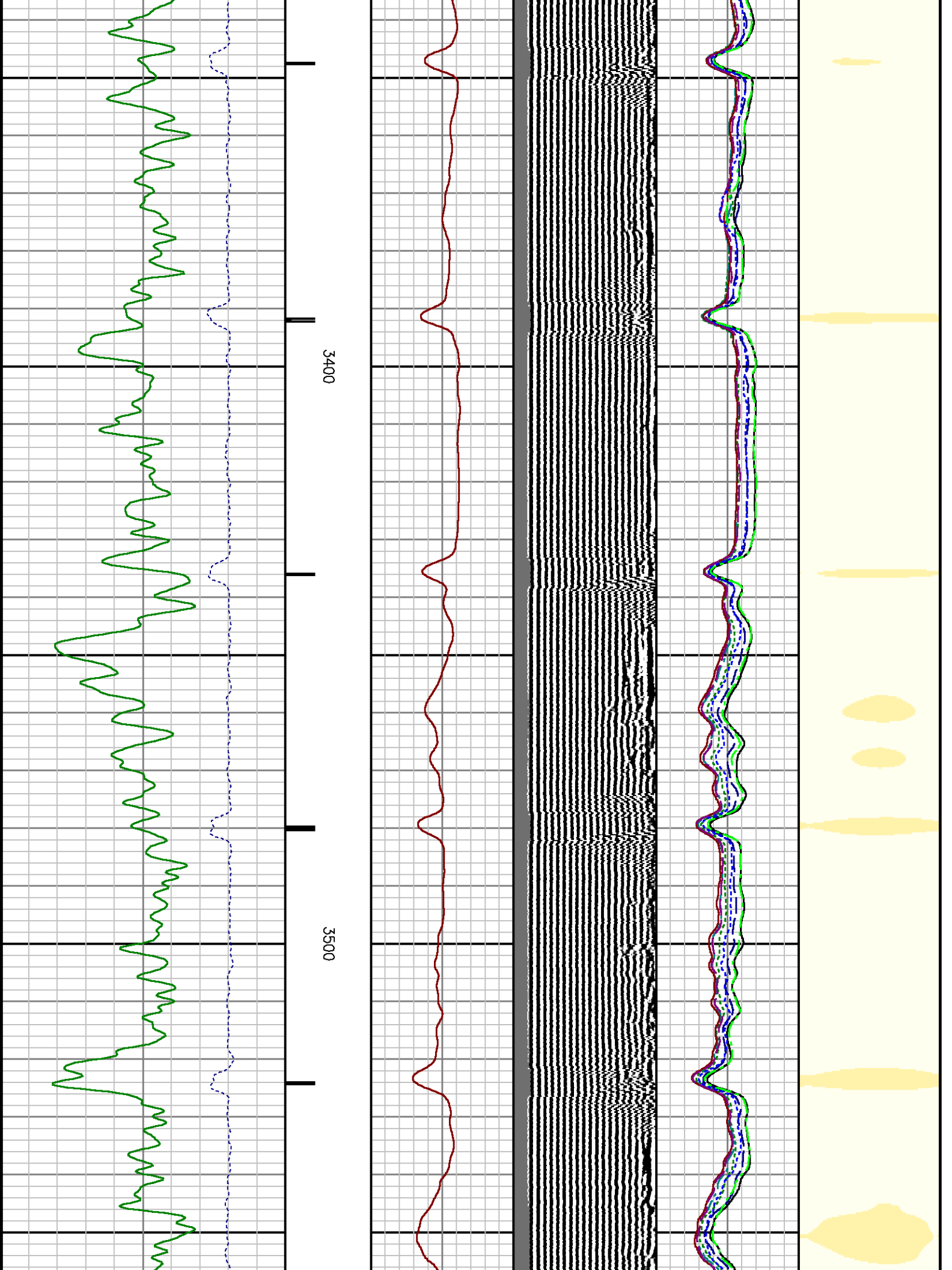


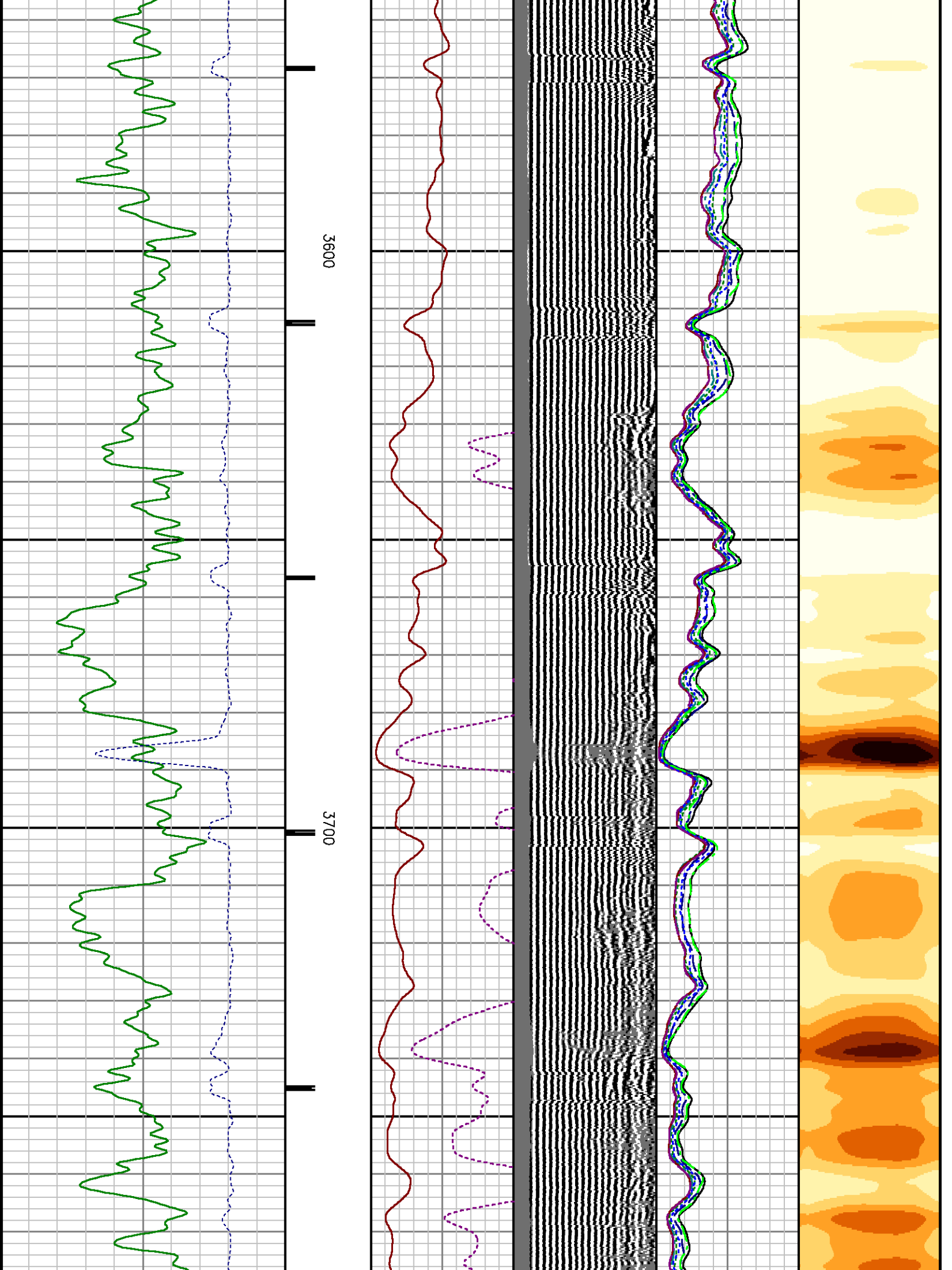


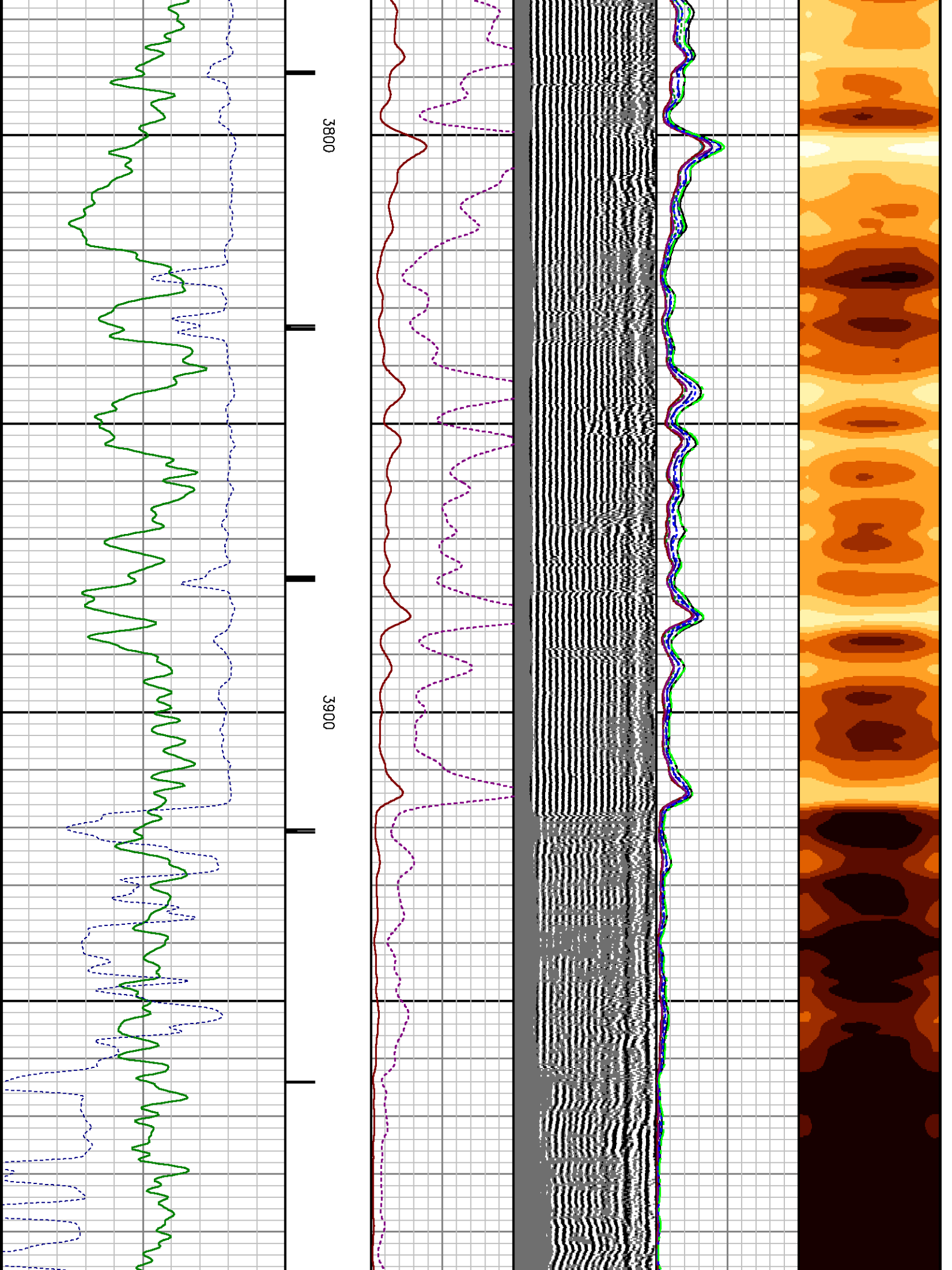


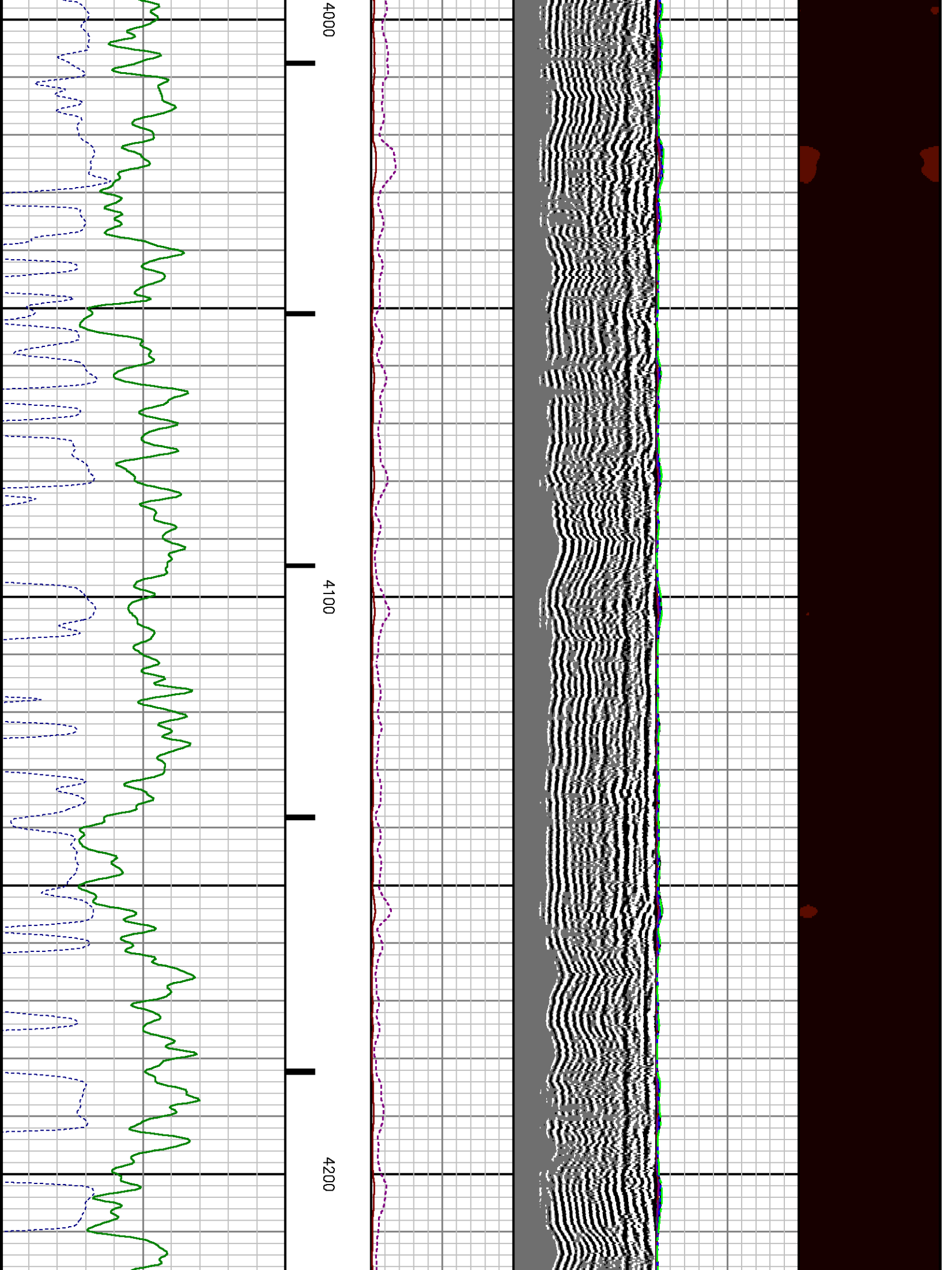


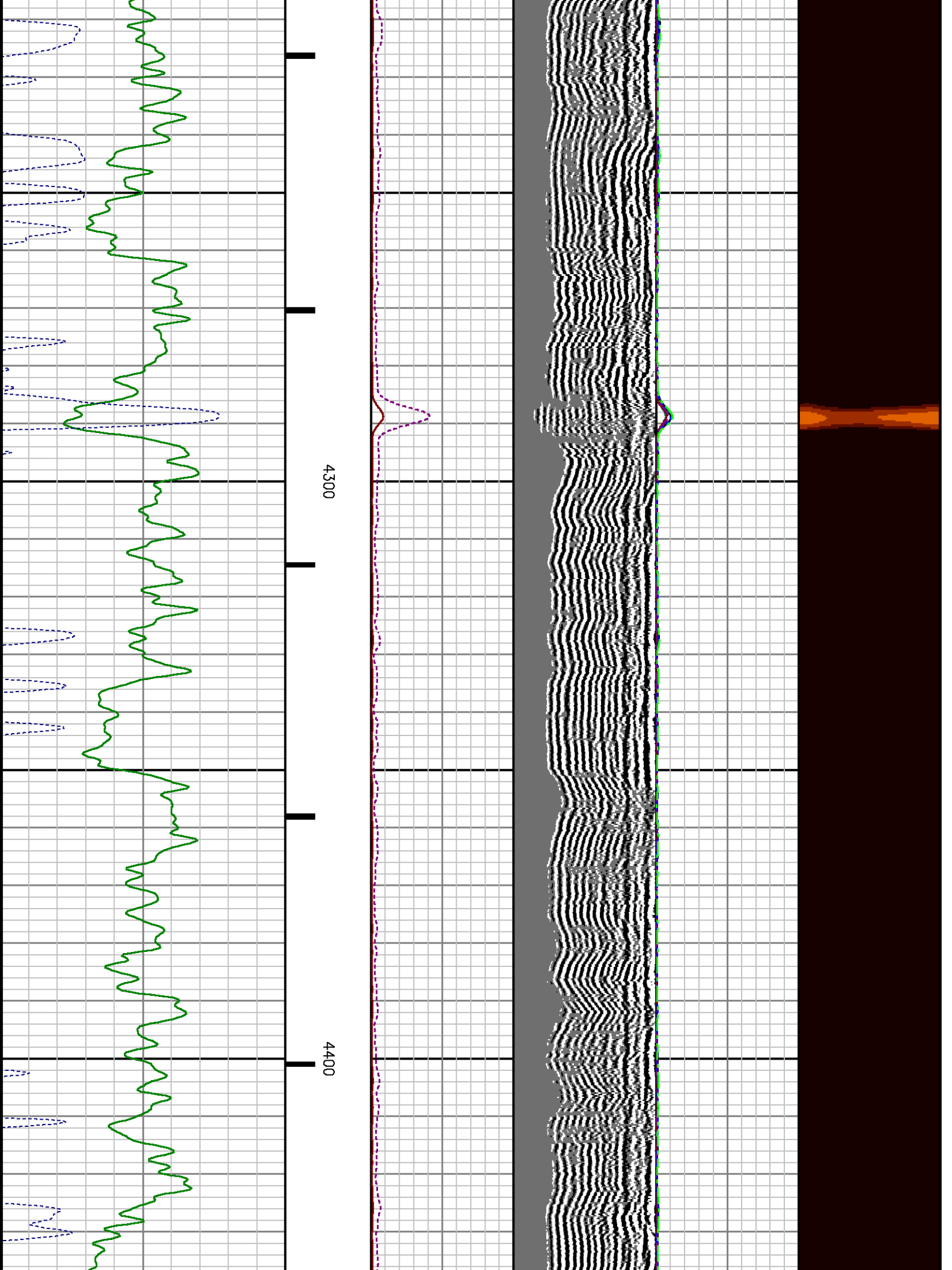


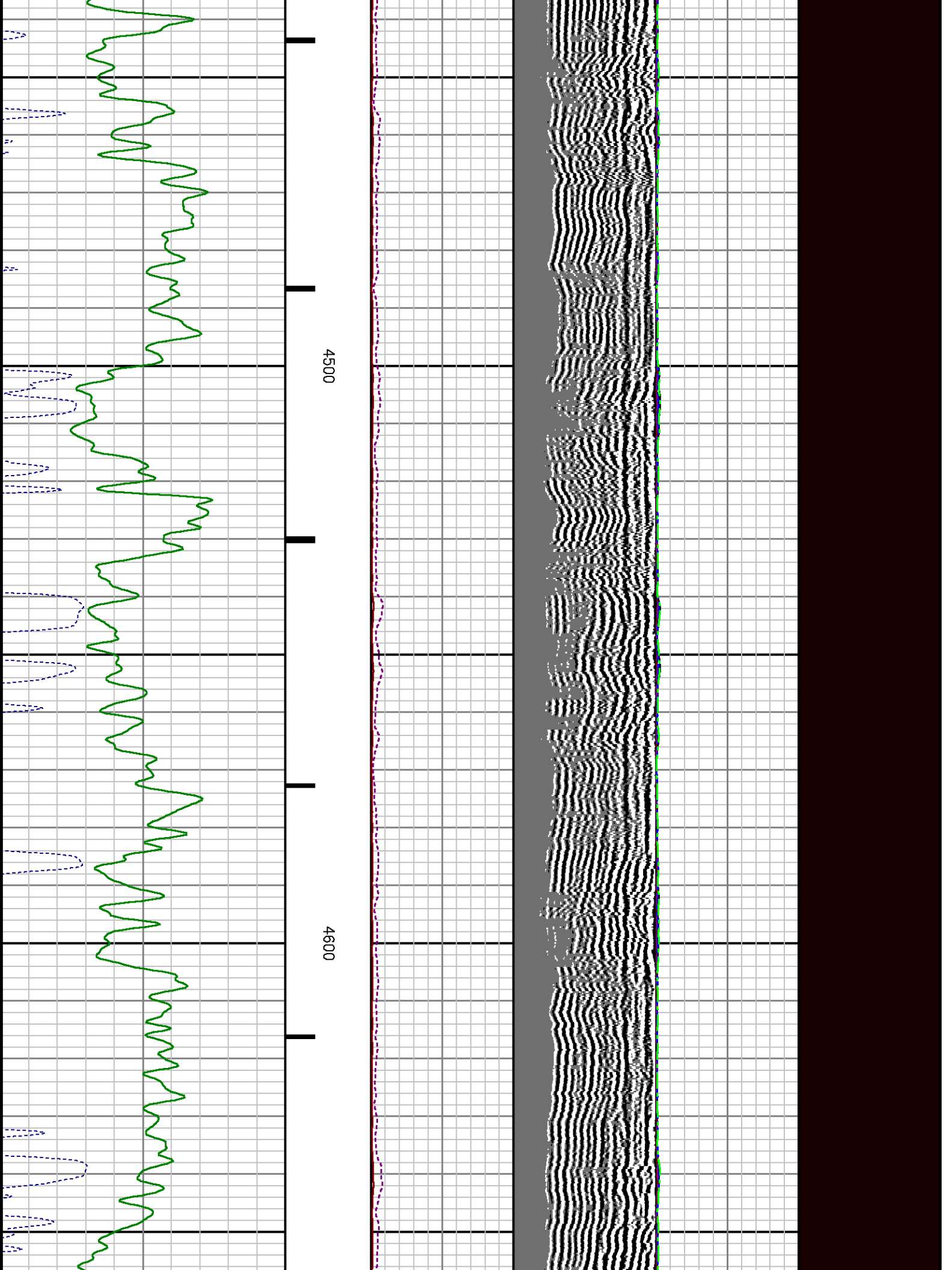


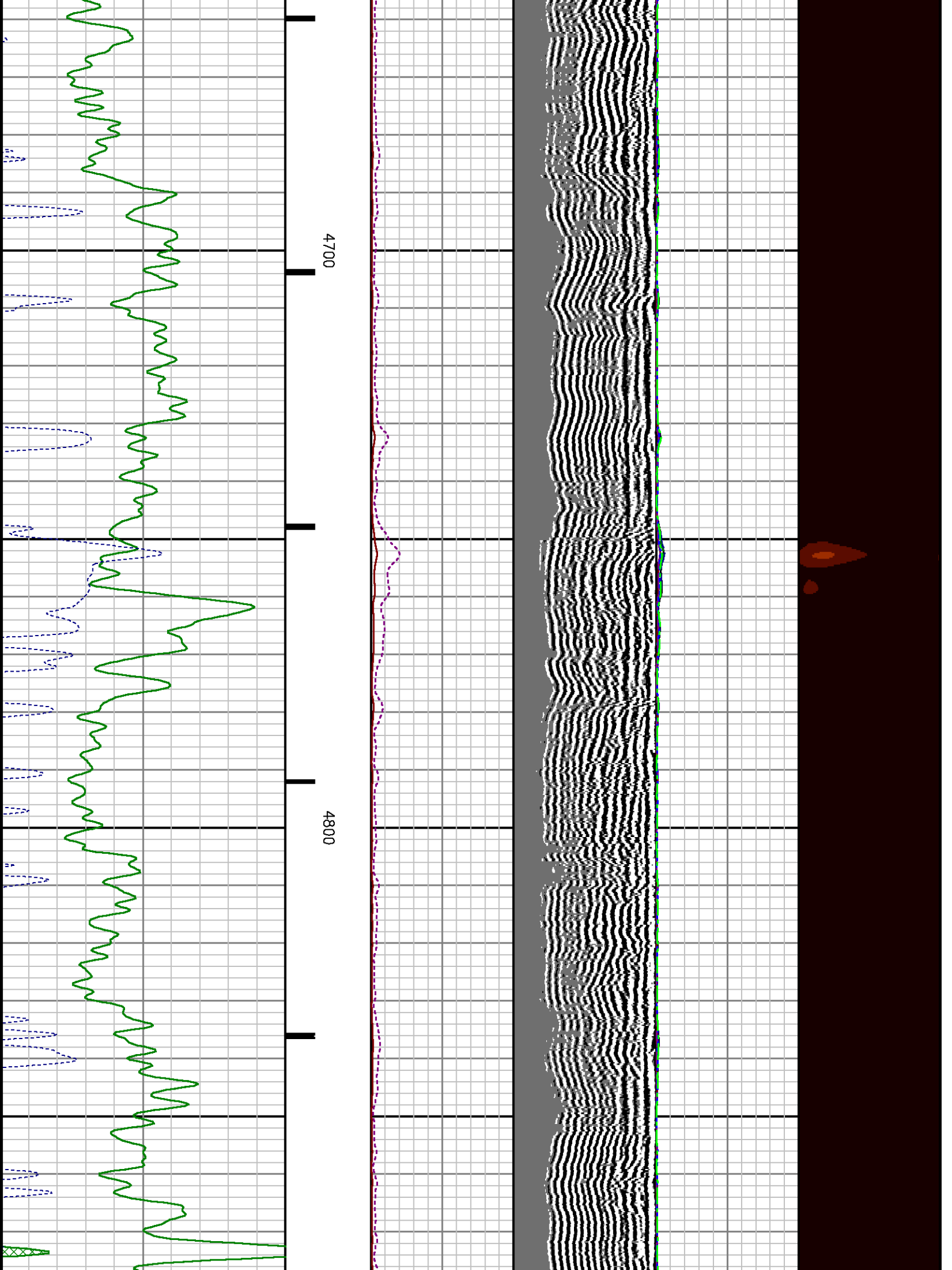


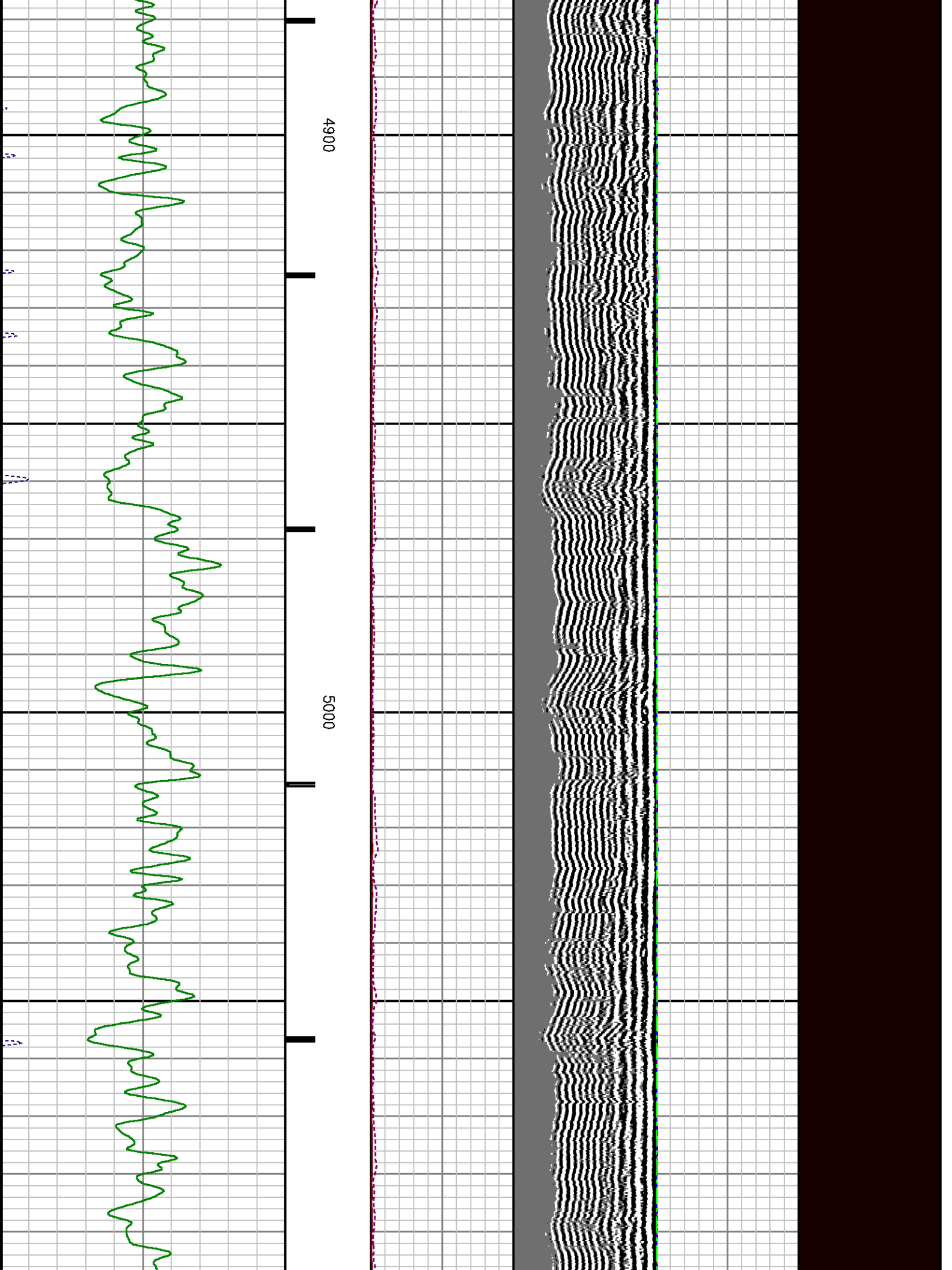


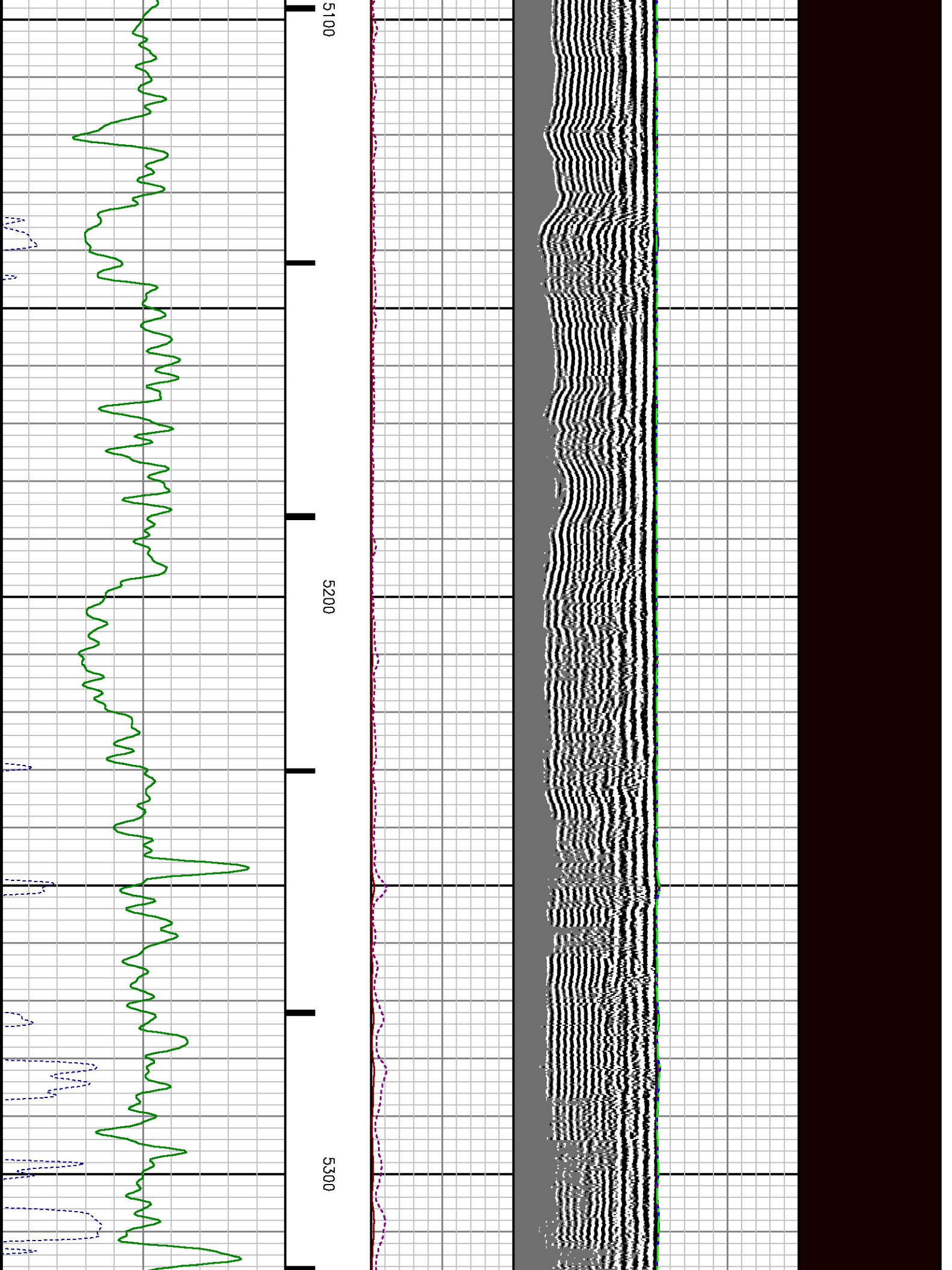


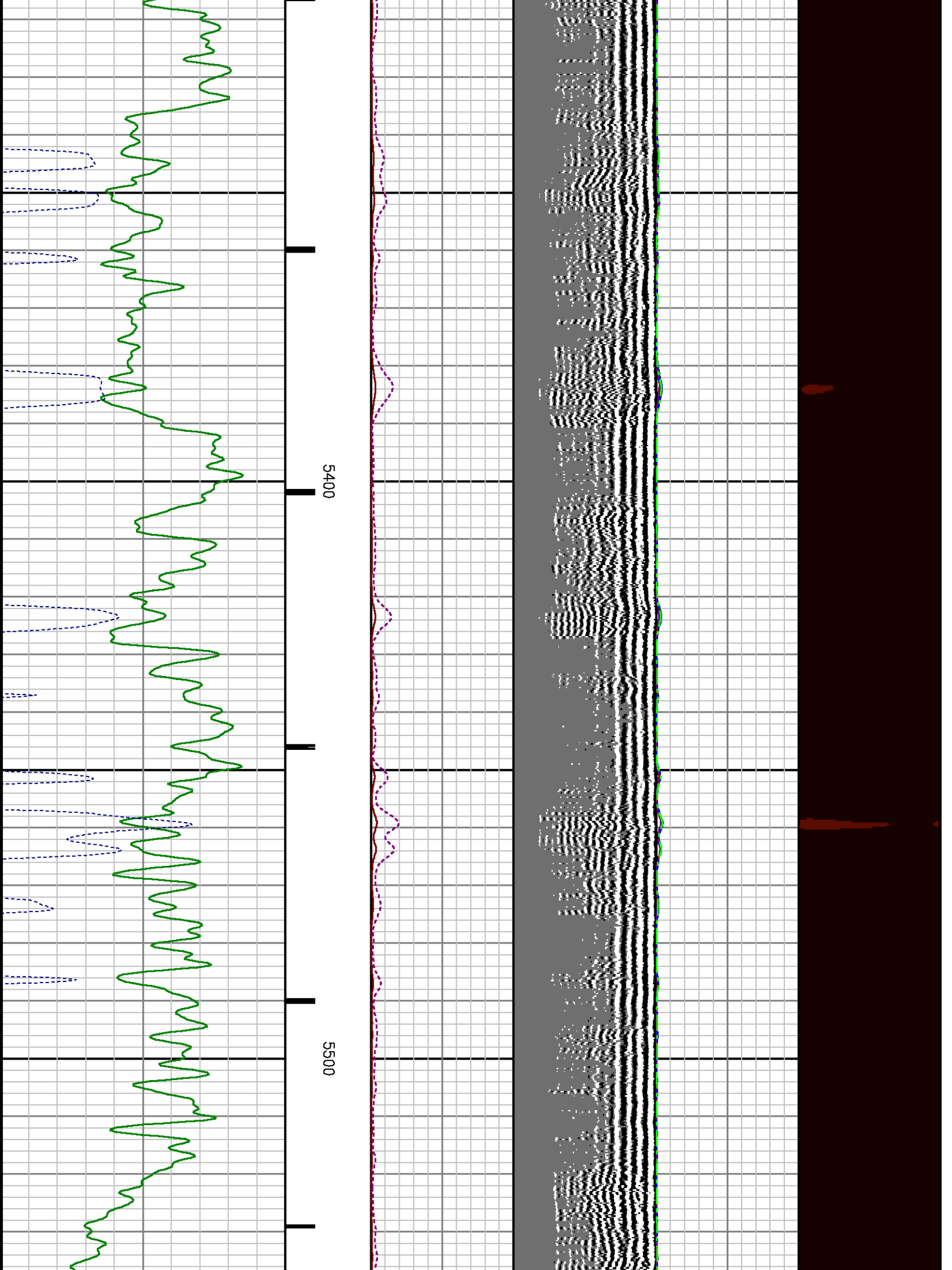


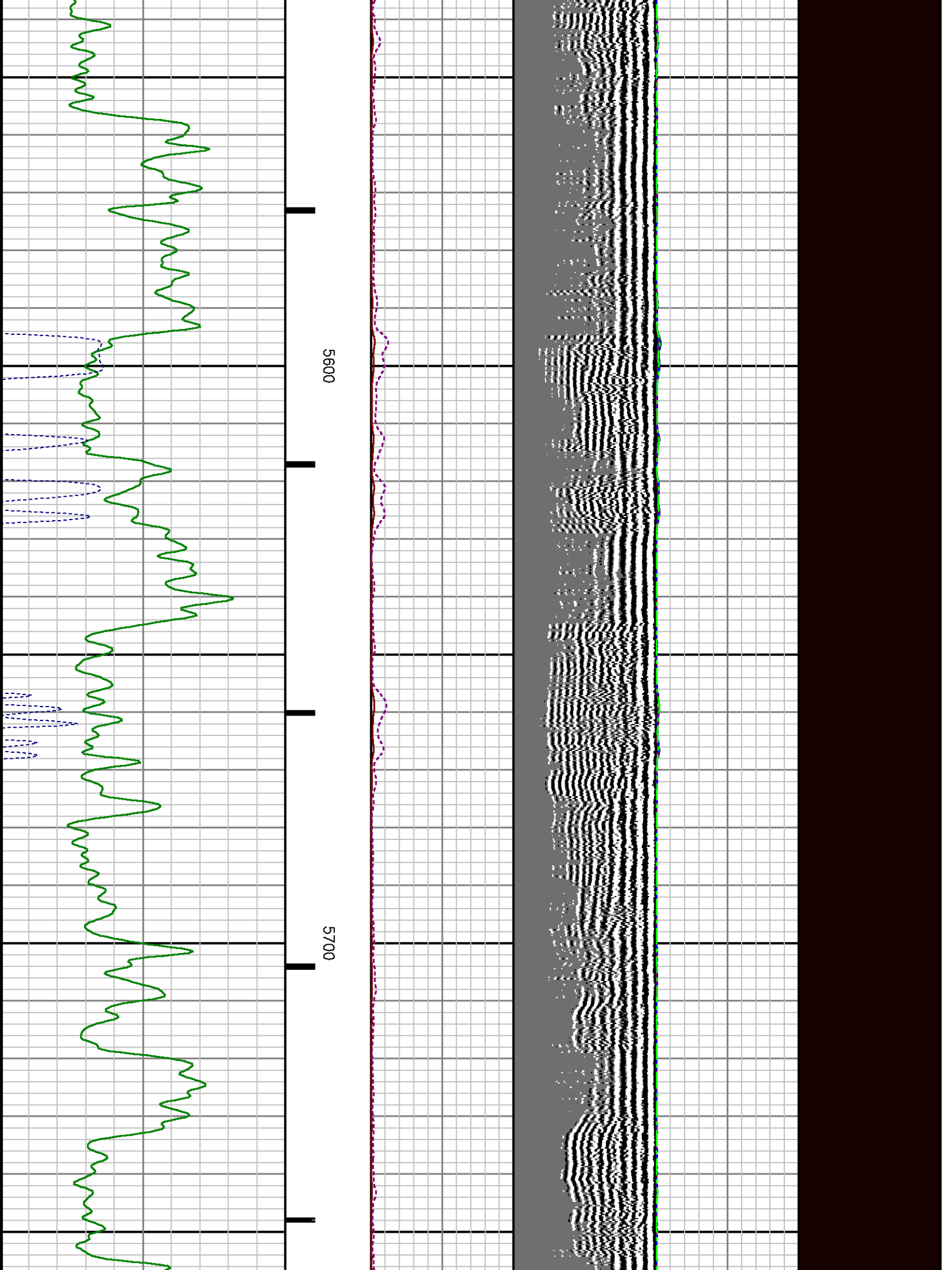


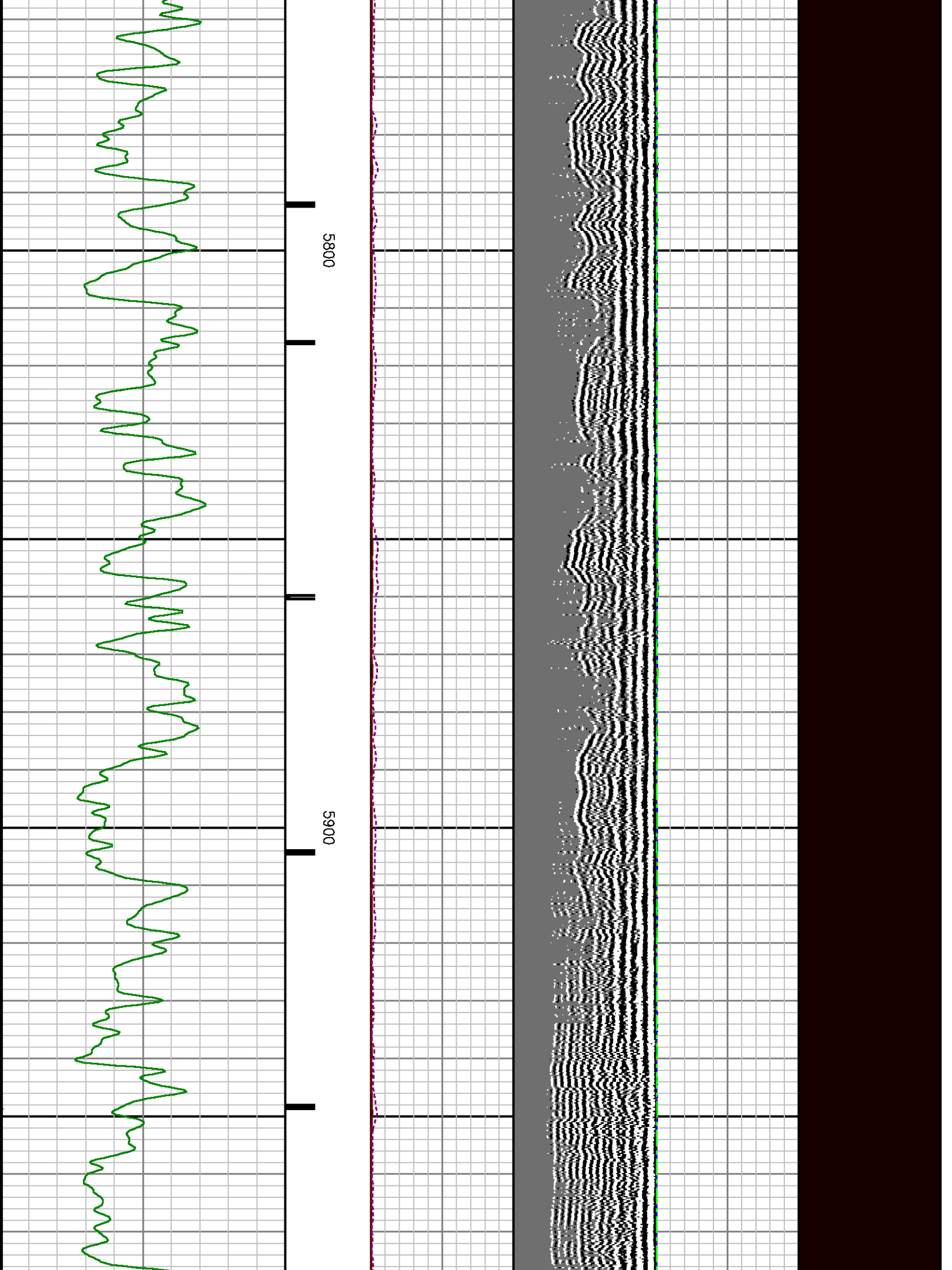


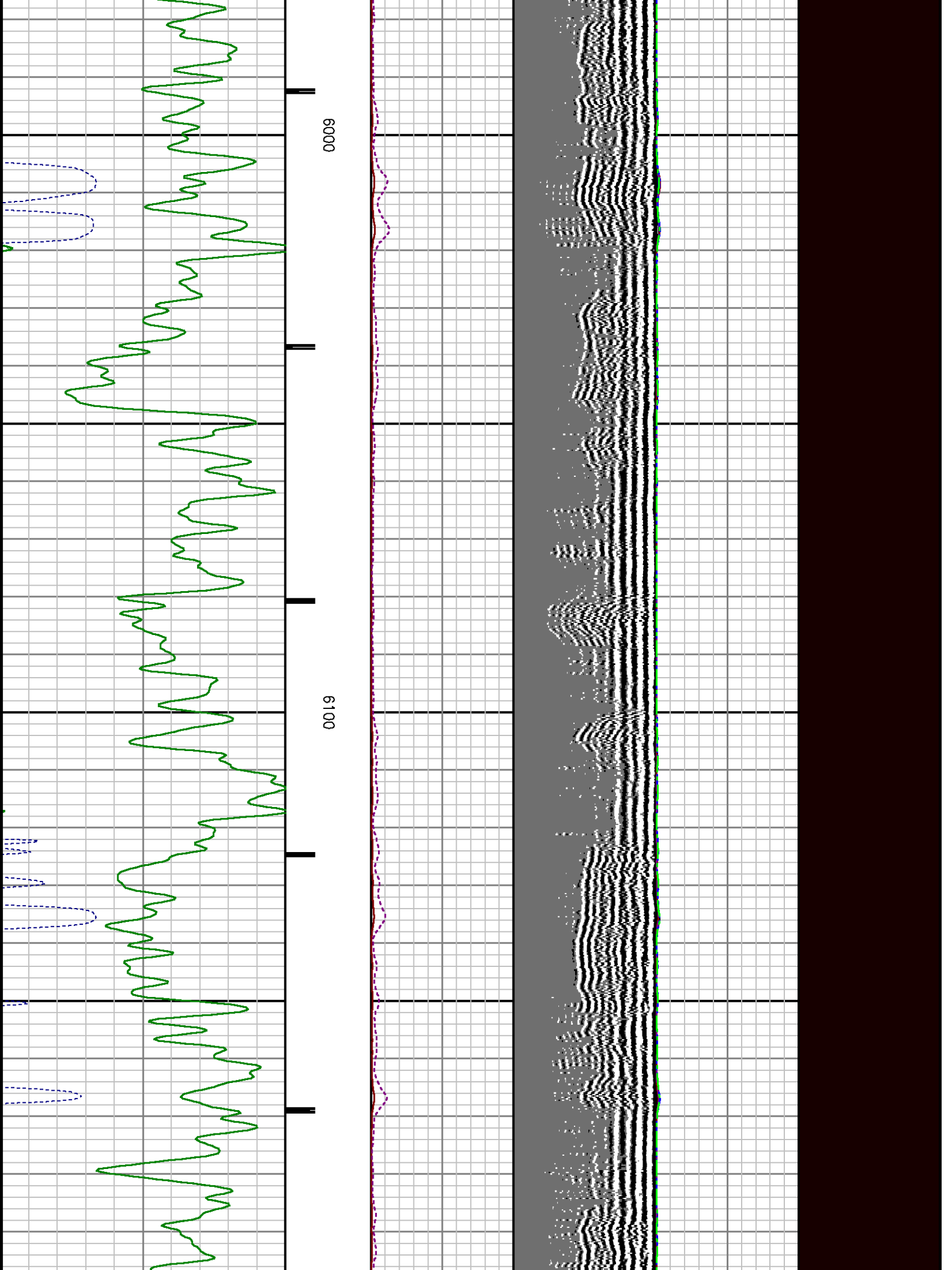


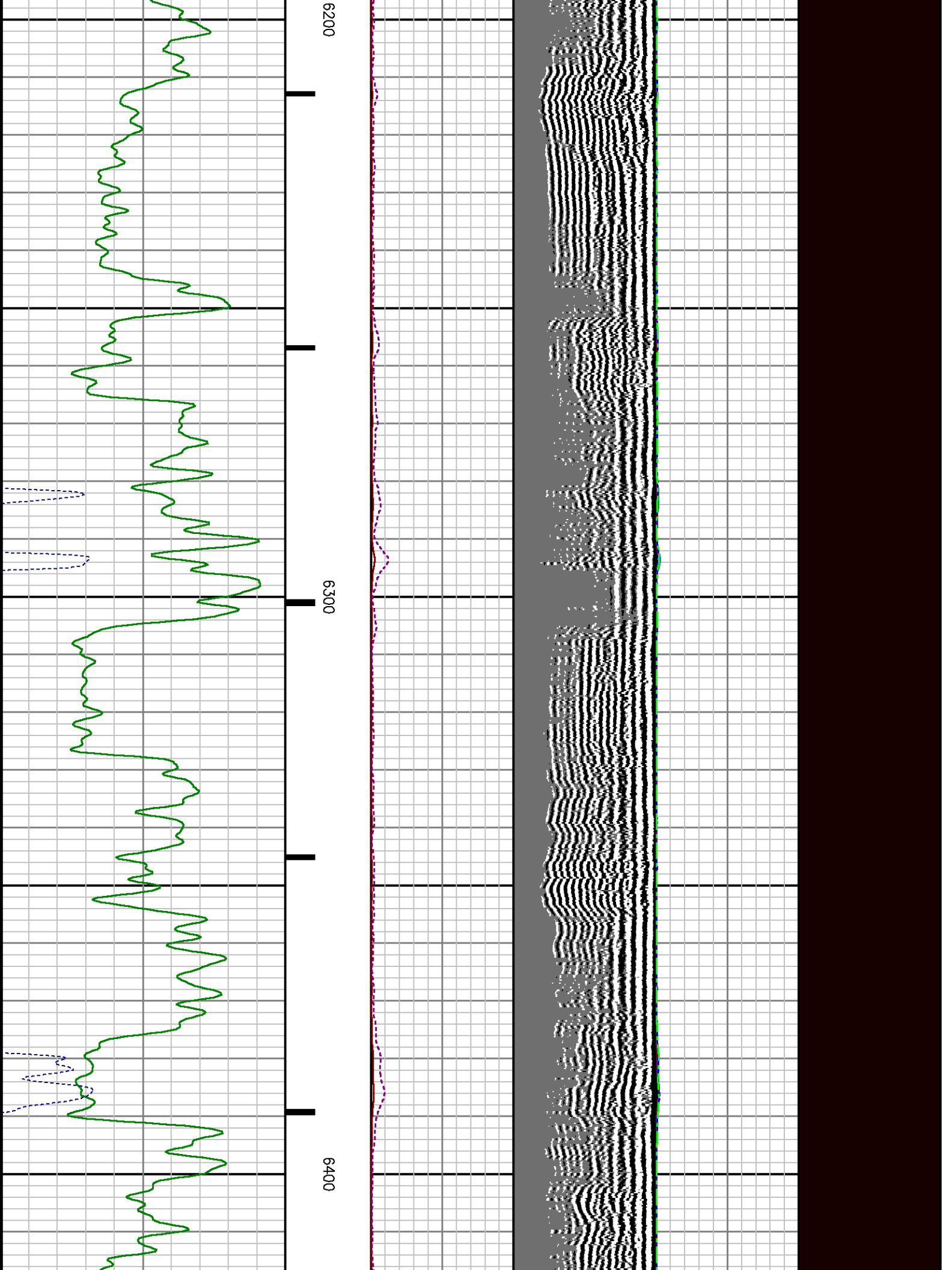


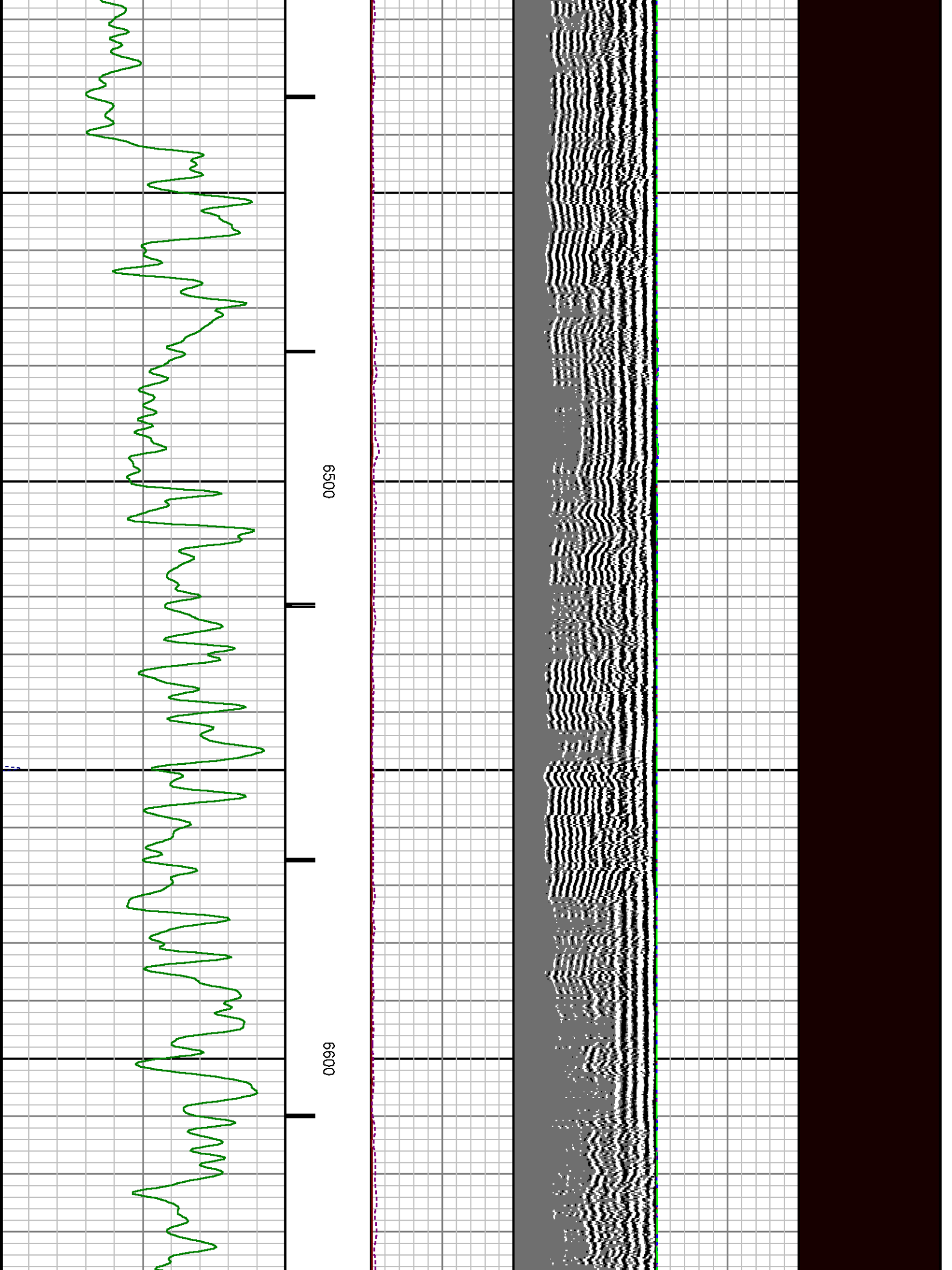






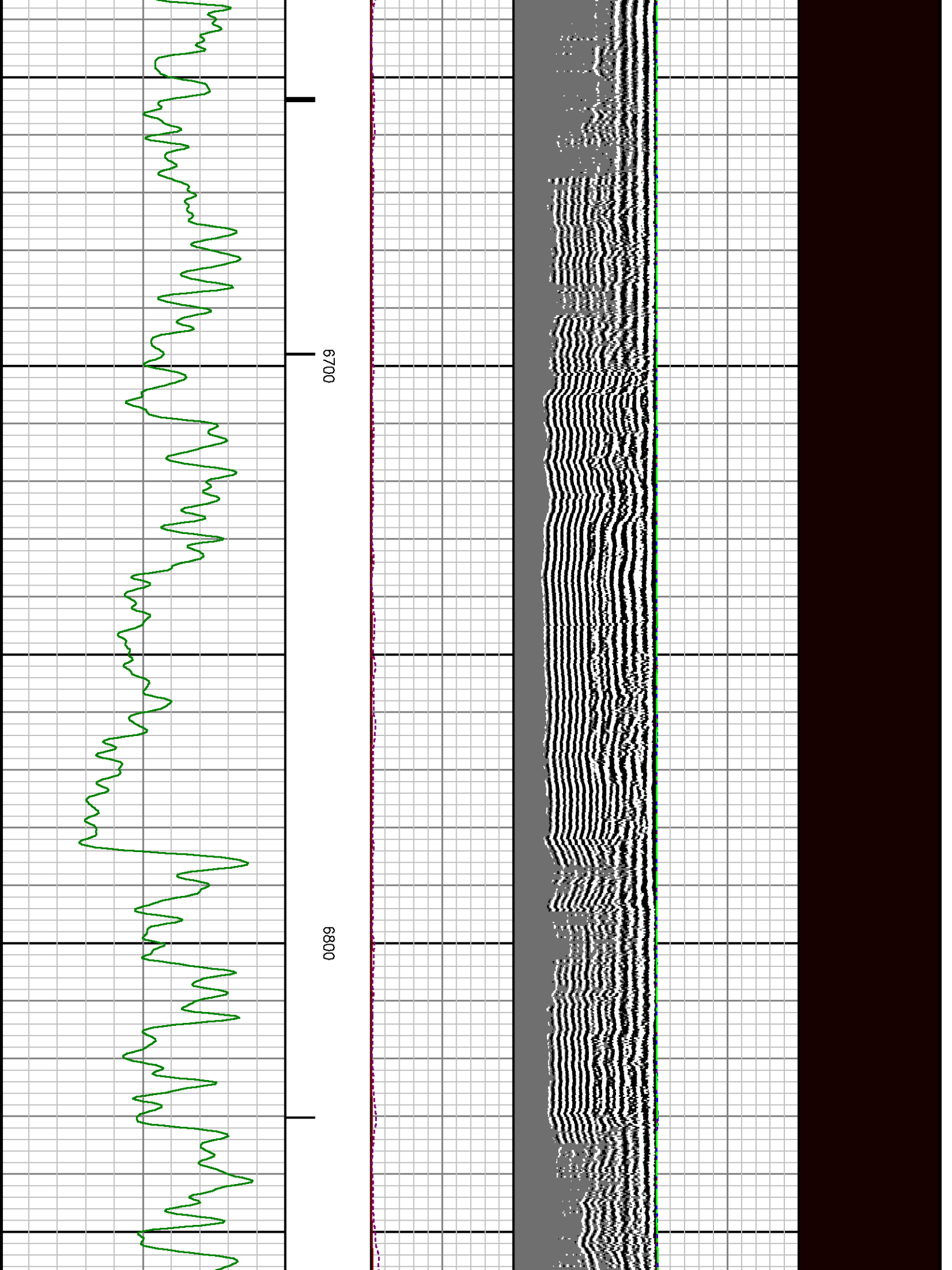


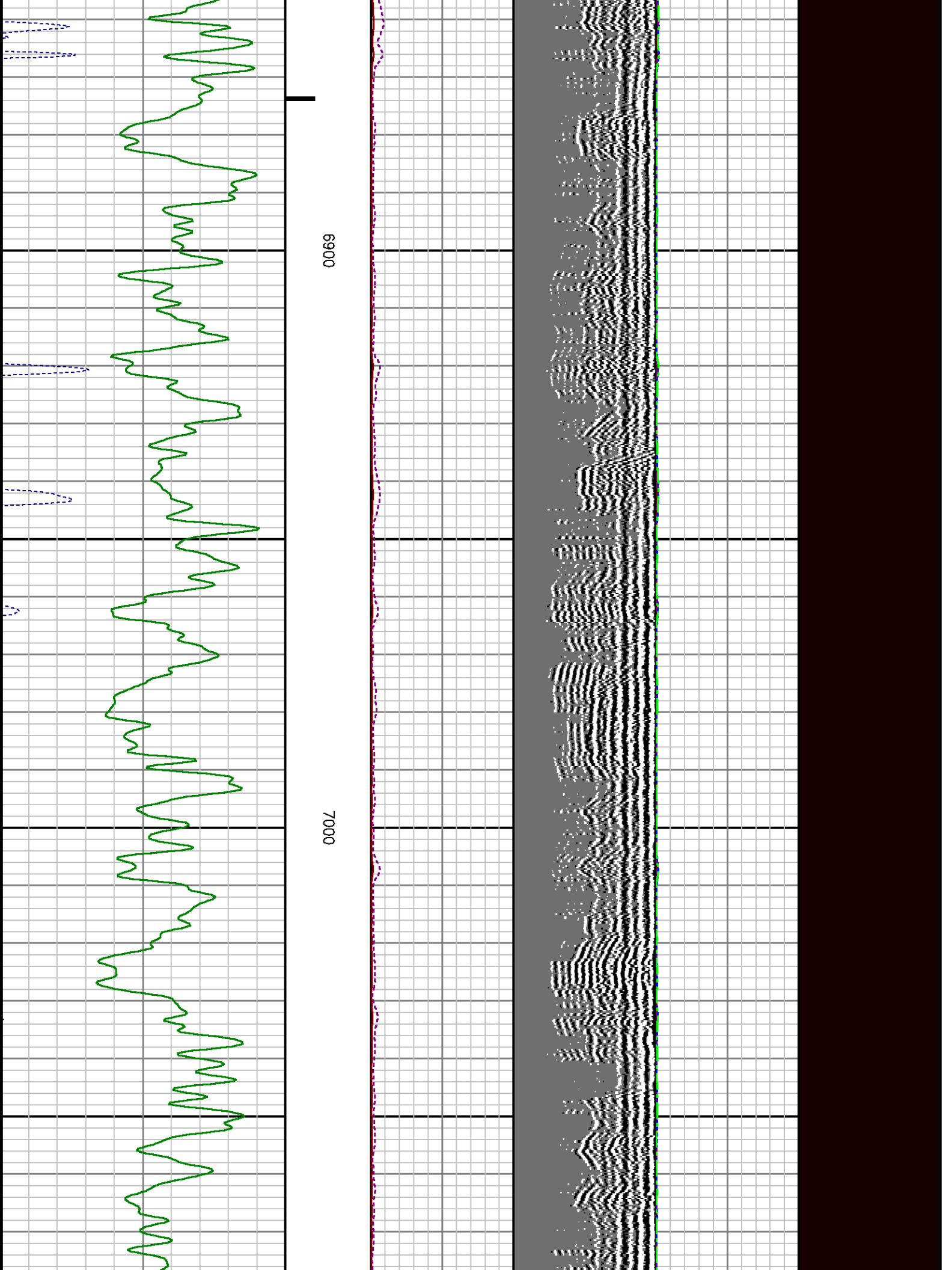


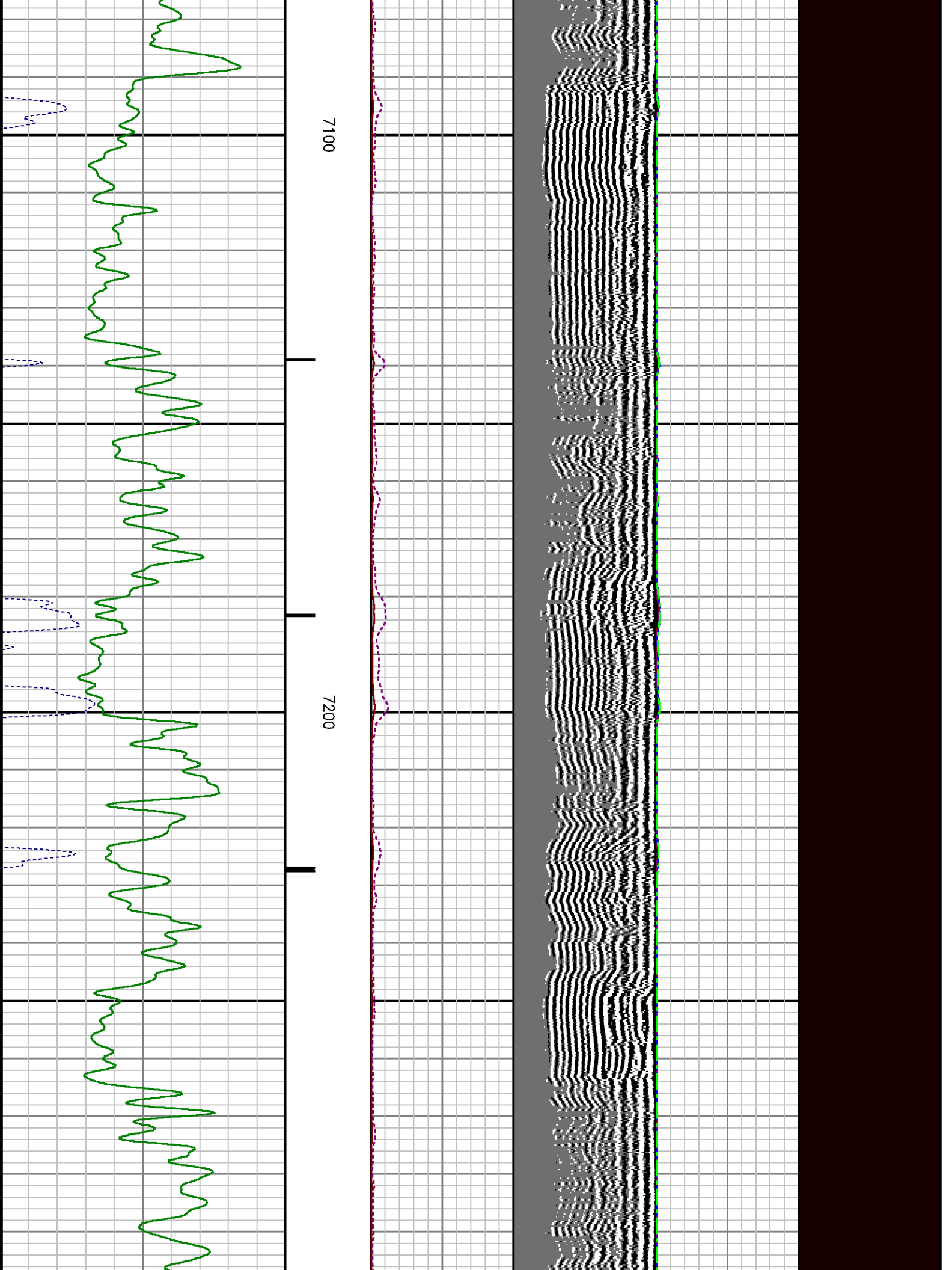


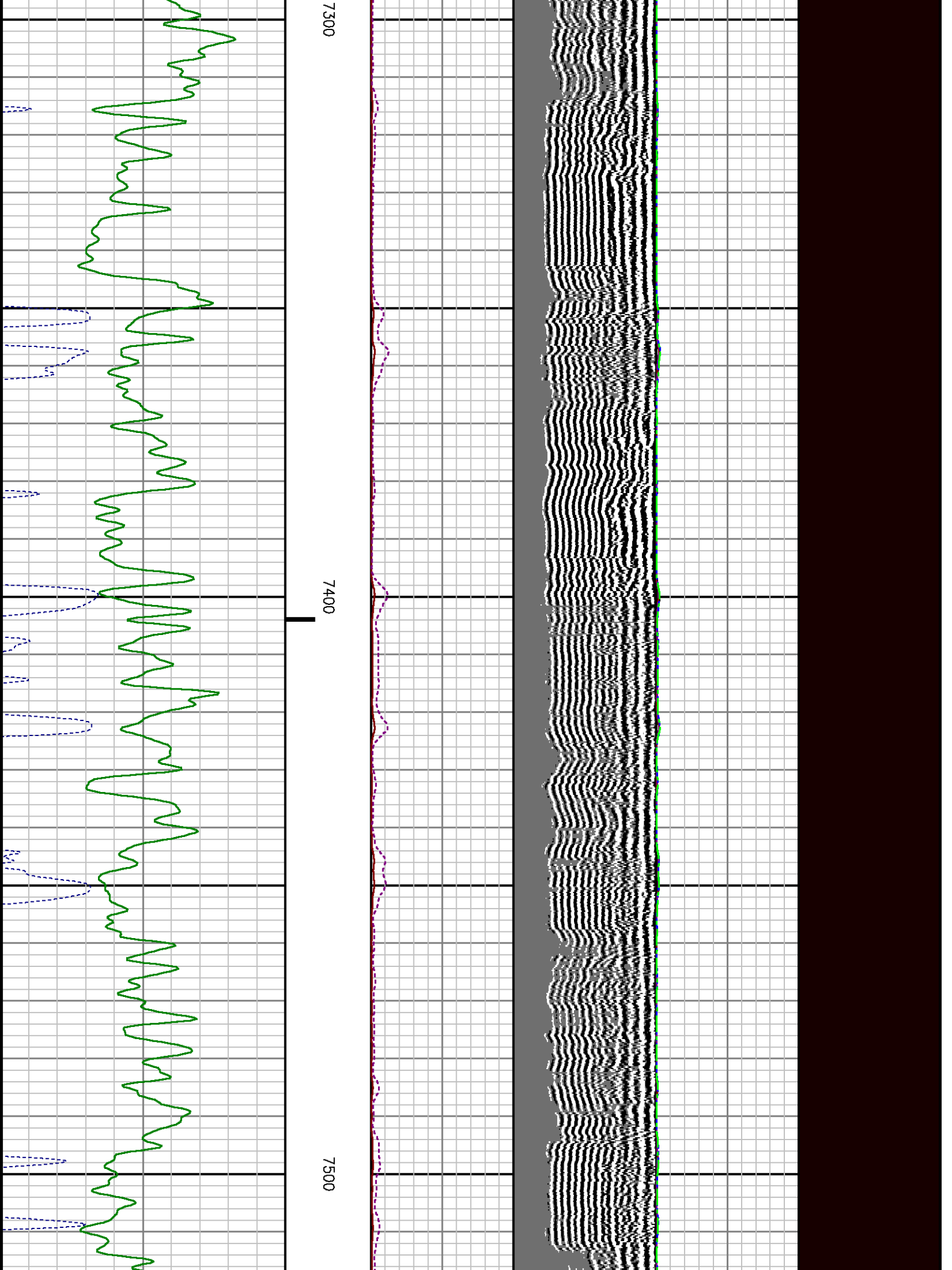
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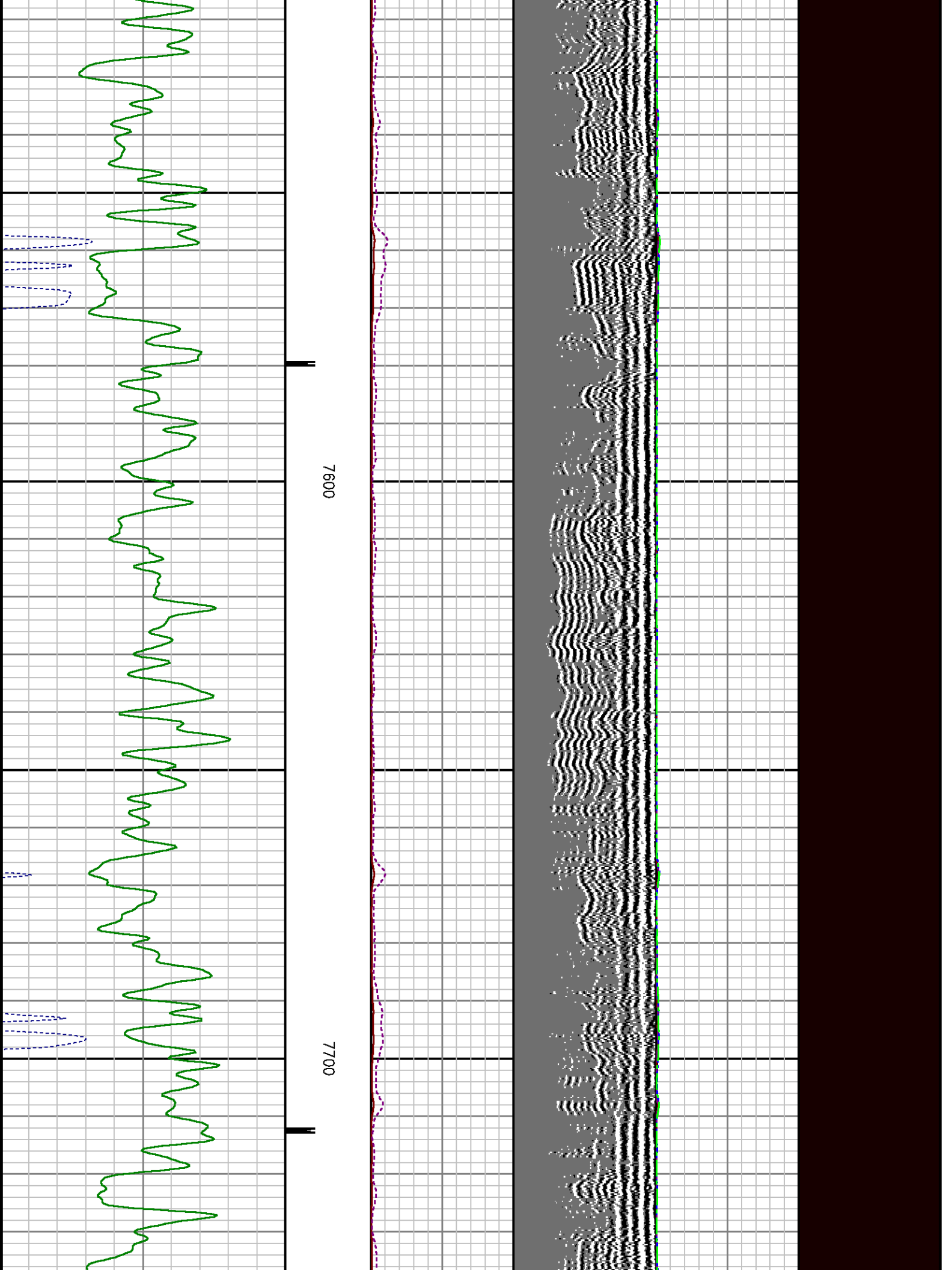
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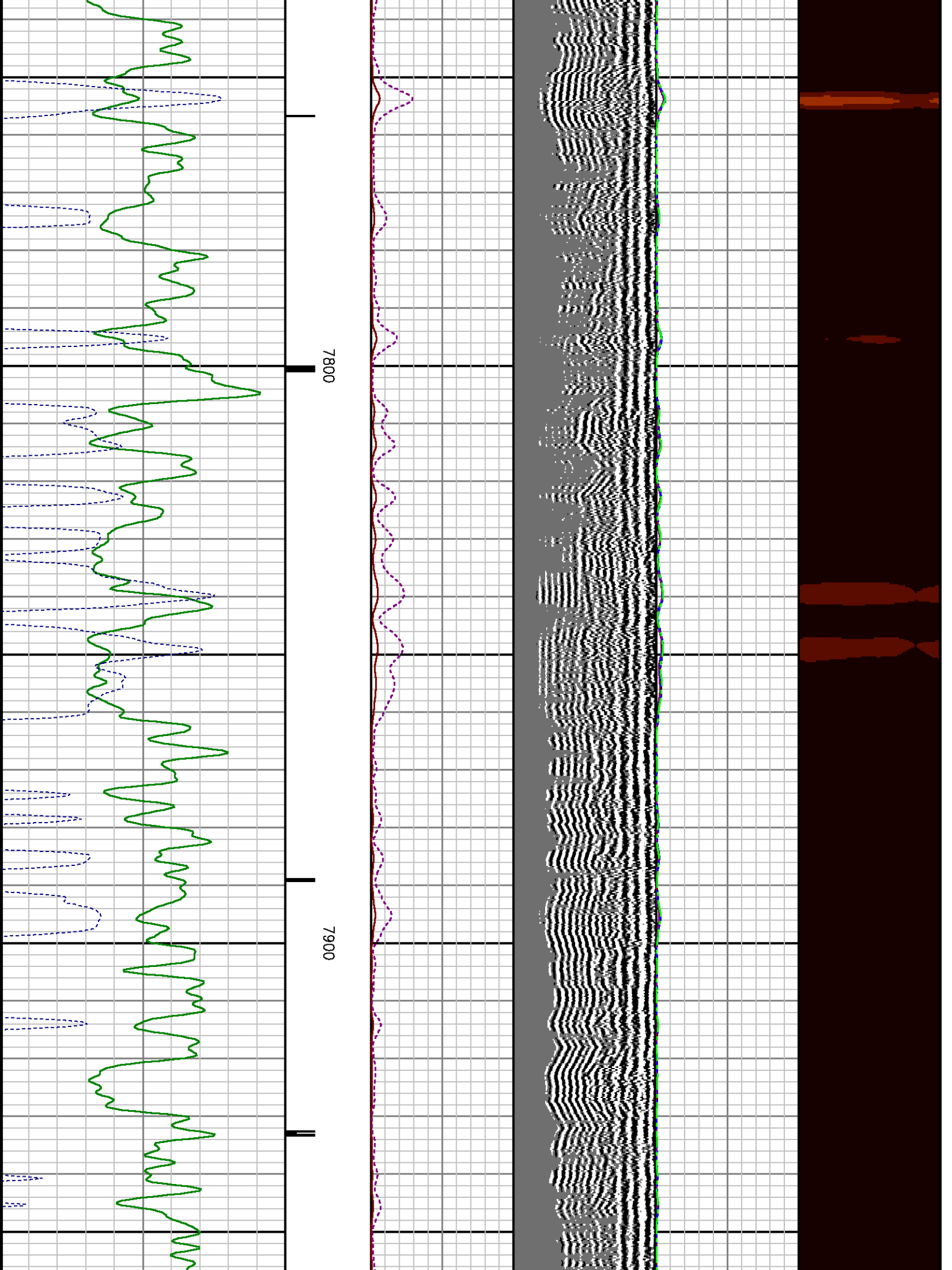


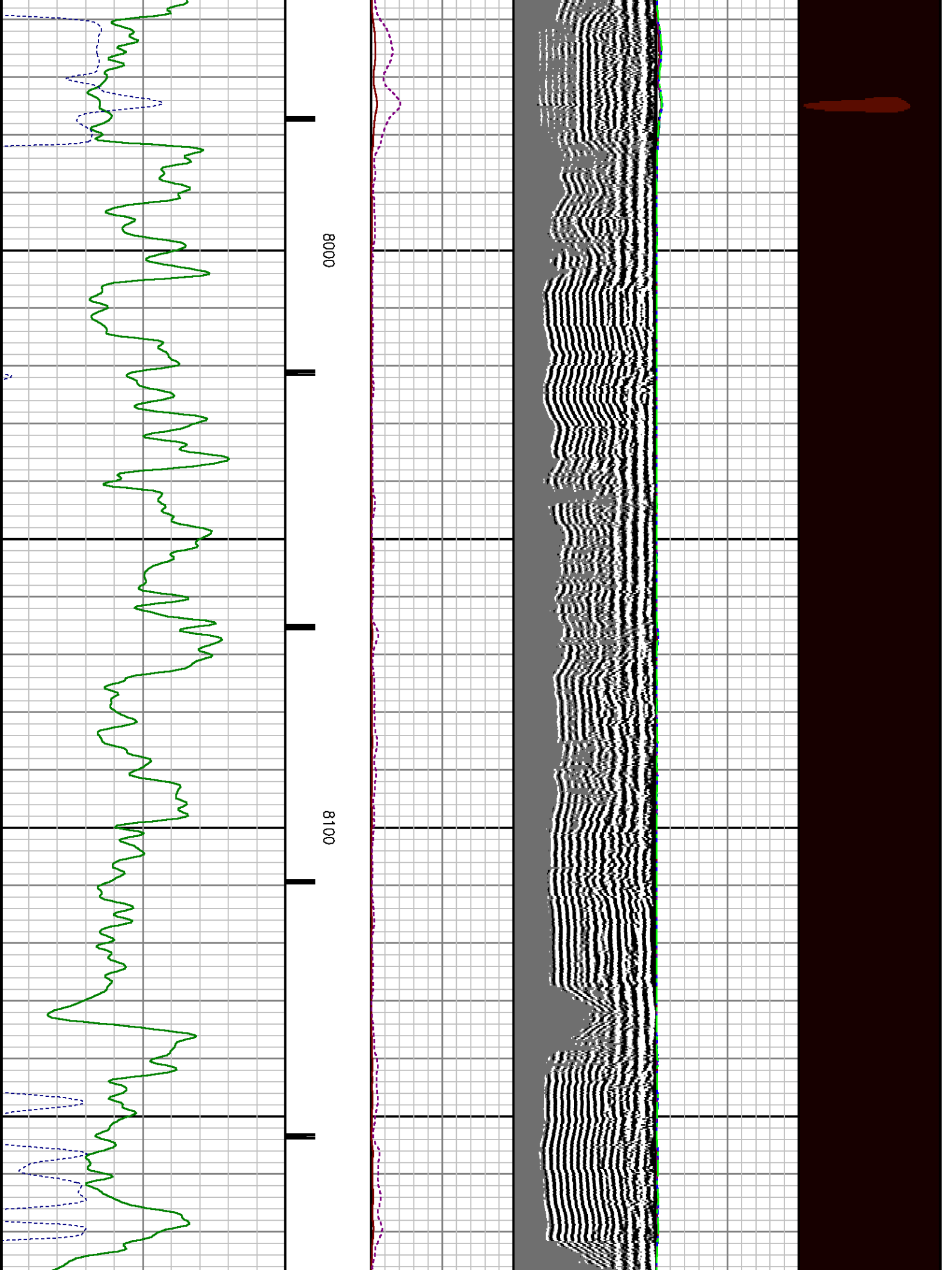


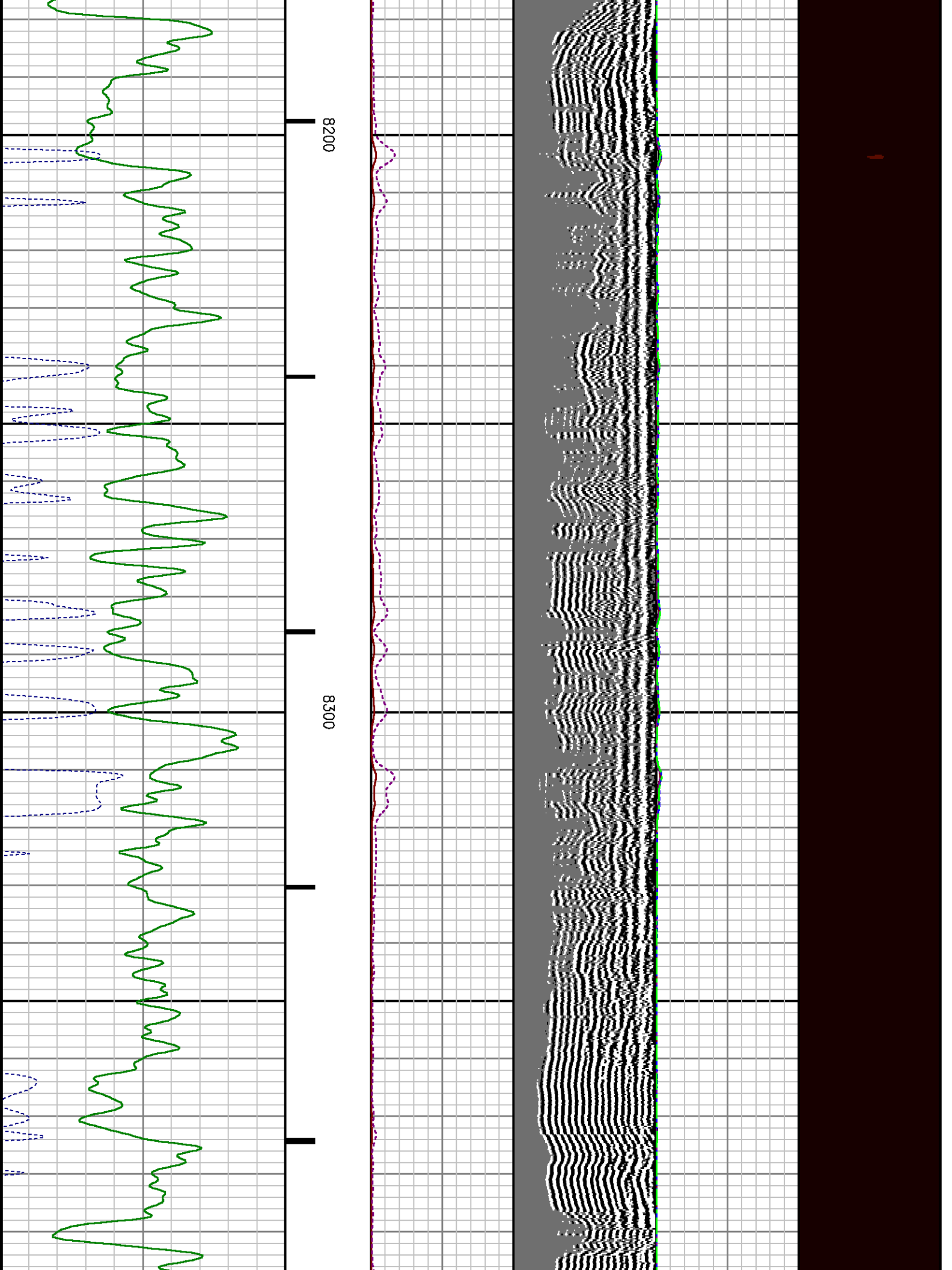


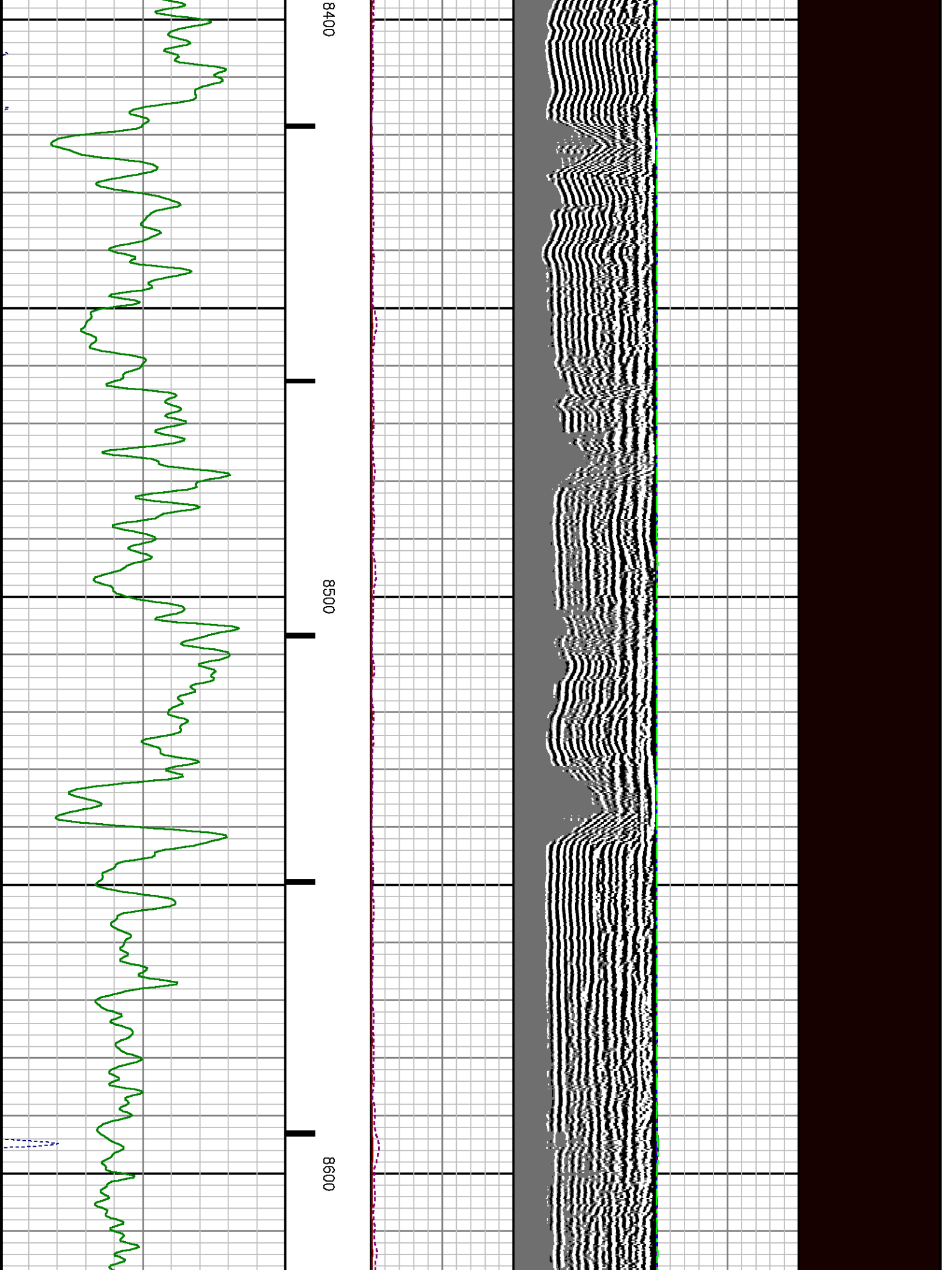


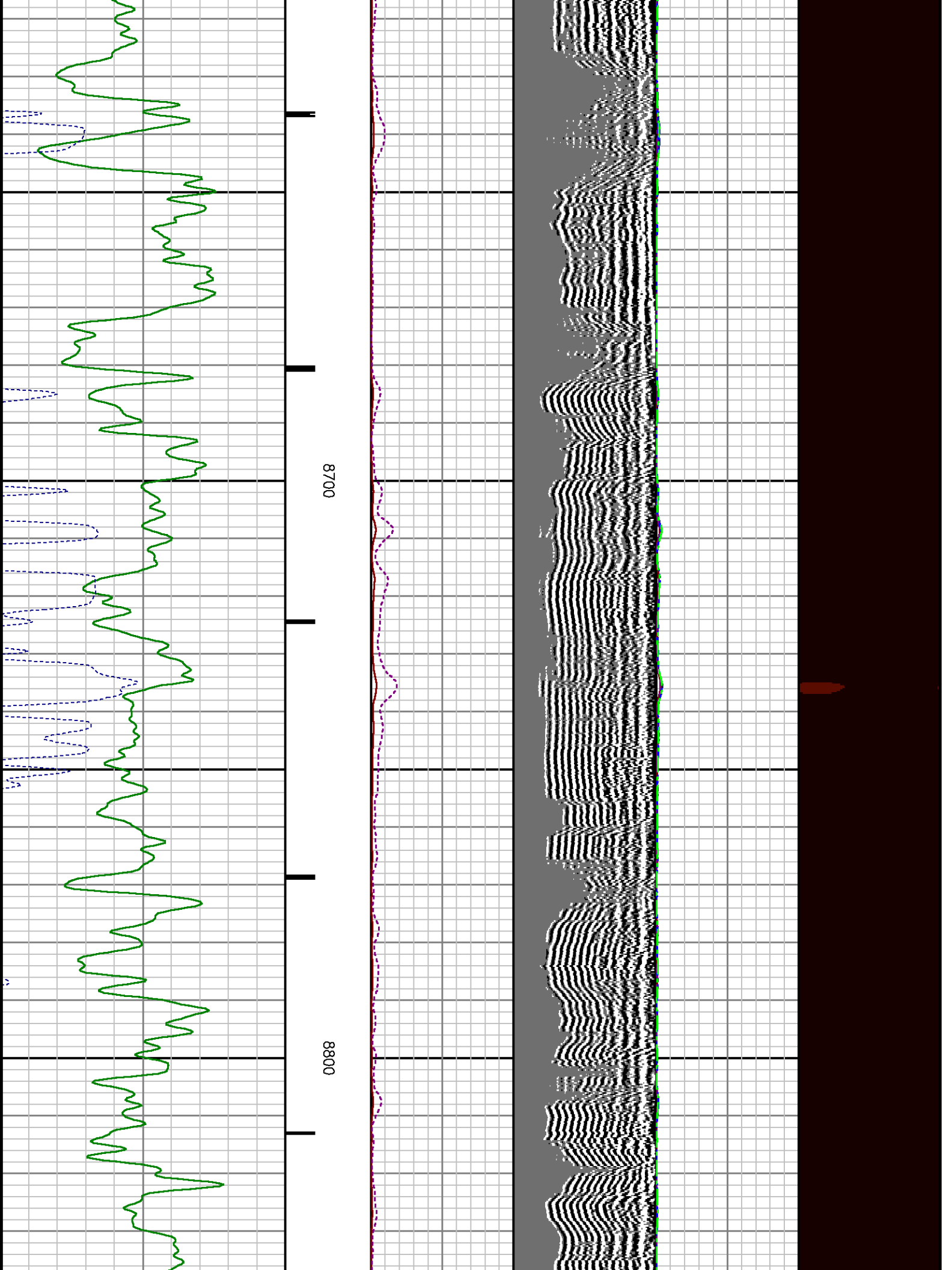


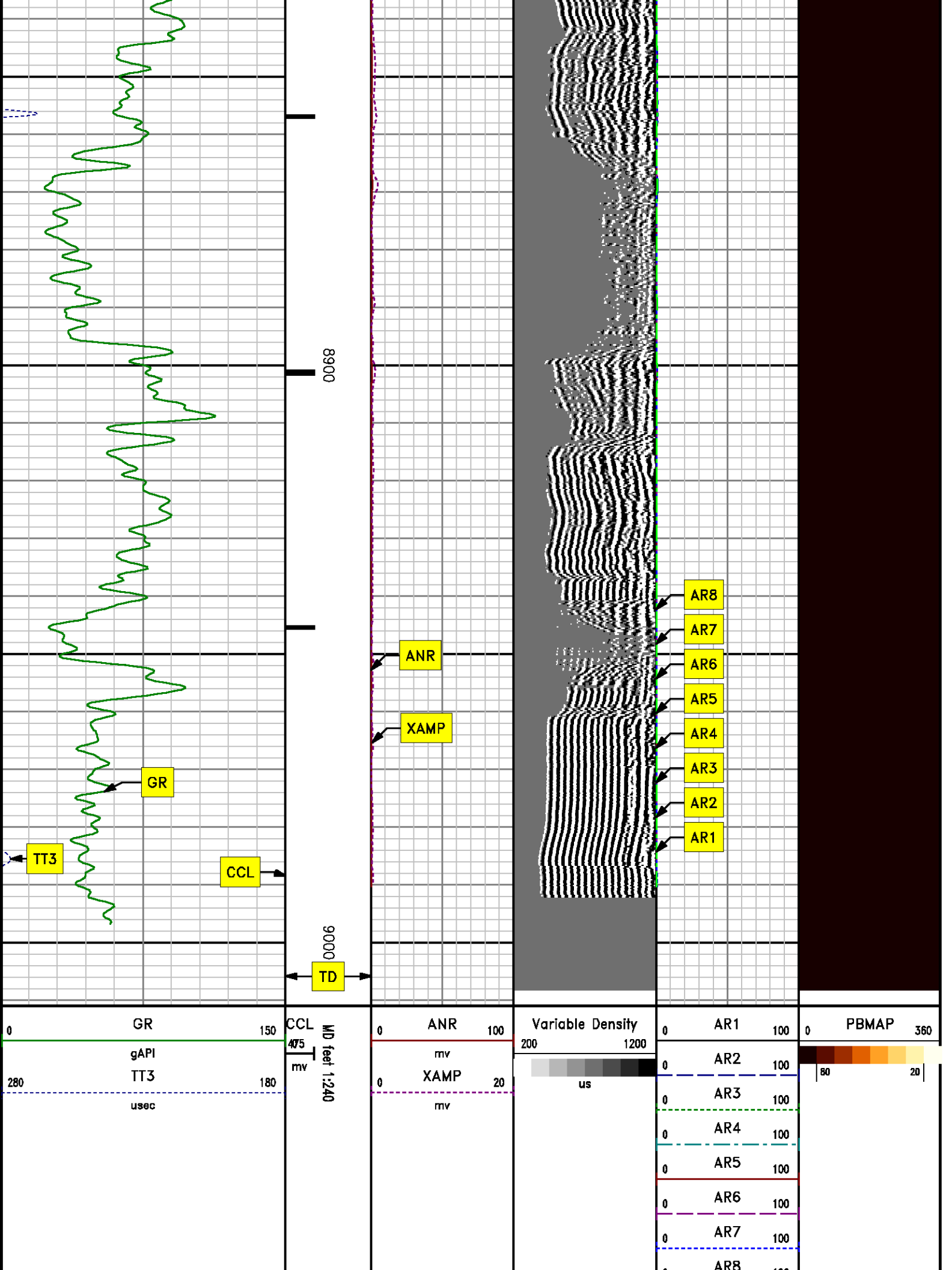












REPEAT SECTION ***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	8671.820	9006.820
RAL	Amp Gate Start Near	195.000	usec	8671.820	9006.820
RAL	Amp Gate Start Radial	195.000	usec	8671.820	9006.820
RAL	Amp Gate Width Far	25.000	usec	8671.820	9006.820
RAL	Amp Gate Width Near	25.000	usec	8671.820	9006.820
RAL	Amp Gate Width Radial	25.000	usec	8671.820	9006.820
RAL	casing od	4.500	inches	8671.820	9006.820
RAL	casing wt	11.600	lbm/ft	8671.820	9006.820
RAL	FB Start Far	291.900	usec	8671.820	9006.820
RAL	FB Start Near	180.000	usec	8671.820	9006.820
RAL	FB Start Radial	180.000	usec	8671.820	9006.820
RAL	FB Thresh Far	10.000	mv	8671.820	9006.820
RAL	FB Thresh Near	4.000	mv	8671.820	9006.820
RAL	FB Thresh Radial	4.000	mv	8671.820	9006.820
RAL	Fluid Travel Time	200.000	usec/ft	8671.820	9007.726

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

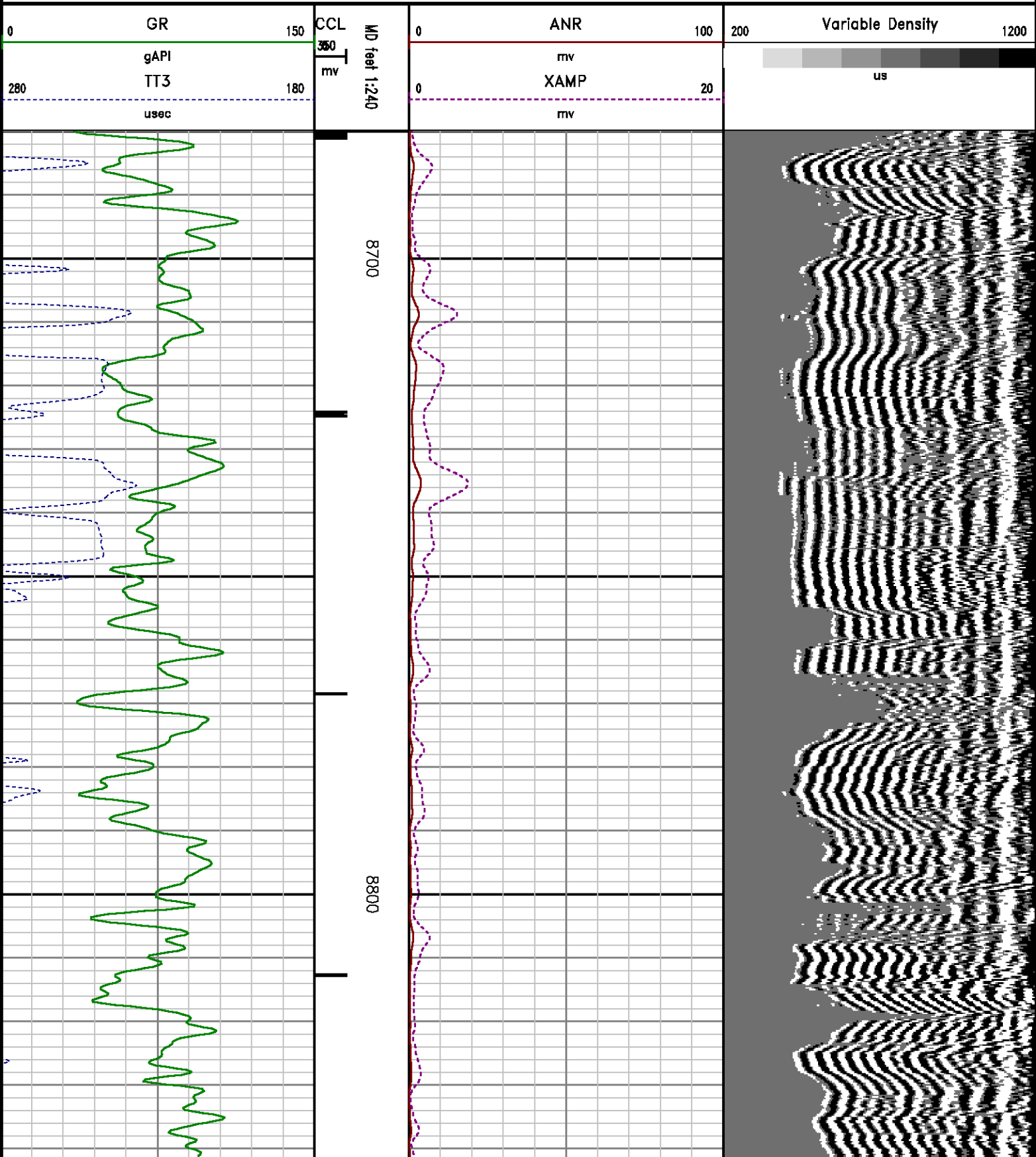
Well : SAVAGE RWF 11-25

File Name : D:\WELLDATA\WPX\Savage RWF 11-25\1cbl\REPEAT.XTF

Mode : PlotMgr 5.4.504

Interval : 8680.00 - 8980.00 feet UP

Created : 3/6/2014 10:17:51 PM



SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Mar 05 12:47:54 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: M5

Tool Delay [usec] Tank OD Tank Wt Tank ID

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	<input type="text" value="218"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="0.117"/>	<input type="text" value="100.00"/>	<input type="text" value="0.17"/>
3 Ft. Receiver	<input type="text" value="218"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="21"/>	<input type="text" value="1.357"/>	<input type="text" value="100.00"/>	<input type="text" value="0.16"/>
5 Ft. Receiver	<input type="text" value="326"/>	<input type="text" value="325"/>	<input type="text" value="30"/>	<input type="text" value="272"/>	<input type="text" value="25"/>	<input type="text" value="3.746"/>	<input type="text" value="150.00"/>	<input type="text" value="0.18"/>
Radial #1	<input type="text" value="217"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="181"/>	<input type="text" value="9"/>	<input type="text" value="4.287"/>	<input type="text" value="100.00"/>	<input type="text" value="0.16"/>
Radial #2	<input type="text" value="218"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="181"/>	<input type="text" value="9"/>	<input type="text" value="2.667"/>	<input type="text" value="100.00"/>	<input type="text" value="0.16"/>
Radial #3	<input type="text" value="218"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="181"/>	<input type="text" value="9"/>	<input type="text" value="3.192"/>	<input type="text" value="100.00"/>	<input type="text" value="0.17"/>
Radial #4	<input type="text" value="218"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="181"/>	<input type="text" value="9"/>	<input type="text" value="4.042"/>	<input type="text" value="100.00"/>	<input type="text" value="0.17"/>
Radial #5	<input type="text" value="218"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="181"/>	<input type="text" value="9"/>	<input type="text" value="4.750"/>	<input type="text" value="100.00"/>	<input type="text" value="0.17"/>
Radial #6	<input type="text" value="217"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="181"/>	<input type="text" value="9"/>	<input type="text" value="5.263"/>	<input type="text" value="100.00"/>	<input type="text" value="0.17"/>
Radial #7	<input type="text" value="215"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="181"/>	<input type="text" value="9"/>	<input type="text" value="2.450"/>	<input type="text" value="100.00"/>	<input type="text" value="0.16"/>
Radial #8	<input type="text" value="218"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="181"/>	<input type="text" value="9"/>	<input type="text" value="3.296"/>	<input type="text" value="100.00"/>	<input type="text" value="0.16"/>

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496M5 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Mar 05 15:15:40 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: M5

Tool Delay [usec] Casing OD Casing Wt Casing ID

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
CAL Pulse	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="0.005"/>	<input type="text" value="0.000"/>	<input type="text" value="0.97"/>	<input type="text" value="100.000"/>
3 Ft. Receiver	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.932"/>			
5 Ft. Receiver	<input type="text" value="305"/>	<input type="text" value="25"/>	<input type="text" value="2.263"/>			
Radial #1	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.447"/>			
Radial #2	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.433"/>			
Radial #3	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.606"/>			
Radial #4	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.646"/>			
Radial #5	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.812"/>			
Radial #6	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.959"/>			
Radial #7	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.591"/>			
Radial #8	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="1.547"/>			

GAMMA RAY

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Feb 22 12:18:15 2014 TOOL SERIES: 2459XA ASSET: 10124121 SEQ: 22

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [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 [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	41.96	293.60	0.725	30.40	212.73	182.33

TOOL DIAGRAM

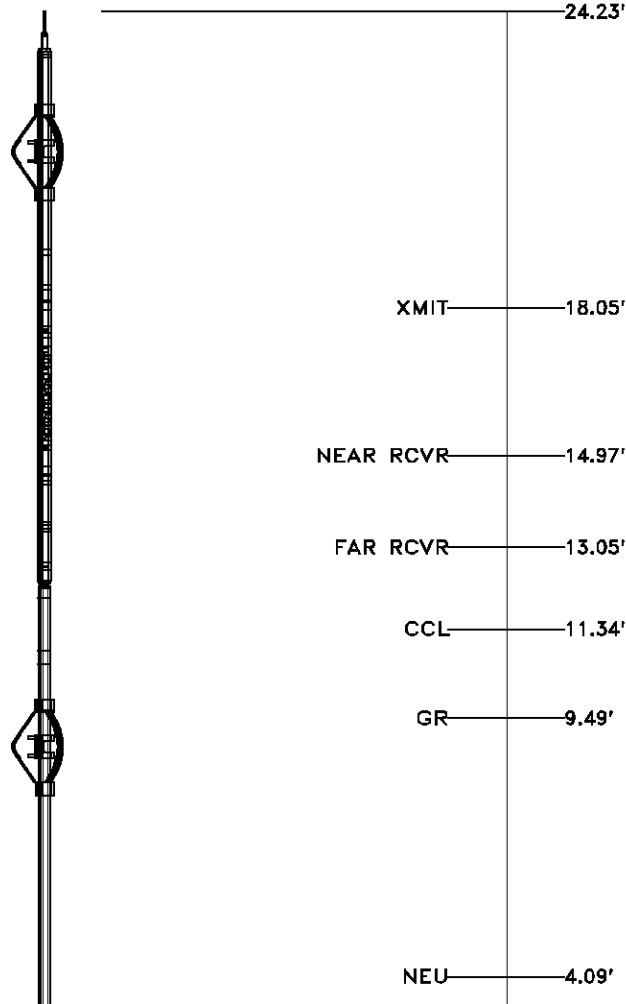
OTA SHORT CABLE HEAD

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

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





CENTRALIZER	
Series	RALCENT
Mnemonic	CENT
Diameter	3.12"
Weight	20.00 lb



0.00'

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

 Baker Atlas	Company WPX ENERGY		File No: CH083303
	Well SAVAGE RWF 11-25		API No: 05045219670000
	Field RULISON		
	County GARFIELD	State CO	
	Location		Elevations
	SHL: 2459' FNL & 1417' FWL BHL: 405' FNL & 530' FWL		KB 6058 ft DF GL 6037 ft
SEC 25		TWP 6S	RGE 94W

25 6S 94W
RWF 22-25 PAD
CYCLONE 17