



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH074117	Company Well Field County	WPX ENERGY DUGGAN RWF 14-29 RULISON GARFIELD	State COLORADO
API No: 05045216690000			
Location 29 6S 94W RWF 14-29 NABORS SSD 573	SHL: 513' FSL & 599' FWL BHL: 450' FSL & 1036' FWL SEC 29 TWP 6S RGE 94W	Other Services N/A	
Permanent Datum Log Measured From Drill Measured From	G.L. _____ Elevation 5419.2 ft K.B. 26 ft Above P. D. KELLY BUSHING	Elevations KB 5445.2 ft DF GL 5419.2 ft	

Date	09/JUL/15	
Run	ONE	
Service Order	B24440	
Depth Driller	7851 ft	
Depth Logger	7804 ft	
Bottom Logged Interval	7794 ft	
Top Logged Interval	26 ft	
Time Started	11:00	
Time Finished	14:00	
Operator Rig Time	3 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	64 ft	
Logged Cement Top	N/A	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	45 fpm	
Maximum Recorded Temperature	222 degF	
Reference Log	BAKER HUGHES HDIL LOG	
Reference Log Date	09/JUN/15	
Equipment No.	4271	9721
Recorded By	M. KINSEL	GRAND JUNCTION
Witnessed By	MR. BOB CADY	

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

Borehole Record		
Bit Size	From	To
13.5 in	0 ft	1104 ft
8.75 in	0 ft	7907 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in	N/A	N/A	0 ft	1100 ft
4.5 in	11.6 lbm/ft	1-80	0 ft	7851 ft

Remarks
ALL DATA IN THIS LOG WAS DEPTH SHIFTED TO MATCH THE TOP CCL MARK WITH KB LEVEL
AT THE CLIENT'S REQUEST. THE AMOUNT OF LINEAR SHIFT WAS 10 FEET DOWN.
SHORT JOINT: 4458' - 4482'
BHT: 222 degF
LOG DONE WITH 0 PSI ON WELLHEAD

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10404539	CENTRALIZED
1	1	GAMMA RAY/CCL	1355XA	10580209	CENTRALIZED

MAIN LOG PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	306.674	usec	17.937	7815.000
RAL	Amp Gate Start Near	199.015	usec	17.937	7815.000
RAL	Amp Gate Start Radial	199.599	usec	17.937	7815.000
RAL	Amp Gate Width Far	25.000	usec	17.937	7815.000
RAL	Amp Gate Width Near	25.000	usec	17.937	7815.000
RAL	Amp Gate Width Radial	25.000	usec	17.937	7815.000
RAL	casing od	4.500	inches	17.937	7815.000
RAL	casing wt	11.600	lbm/ft	17.937	7815.000
RAL	FB Start Far	291.900	usec	17.937	7815.000
RAL	FB Start Near	175.391	usec	17.937	7815.000
RAL	FB Start Radial	175.391	usec	17.937	7815.000
RAL	FB Thresh Far	10.000	mv	17.937	7815.000
RAL	FB Thresh Near	4.000	mv	17.937	7815.000
RAL	FB Thresh Radial	4.000	mv	17.937	7815.000
RAL	Fluid Travel Time	200.000	usec/ft	17.937	7814.750

DEPTH OFFSETS							
(for Acquired Curves)							
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-11.000	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2

1426XA -10.040
1355XA -5.620
1355XA -1.500
1355XA 0.000

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

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

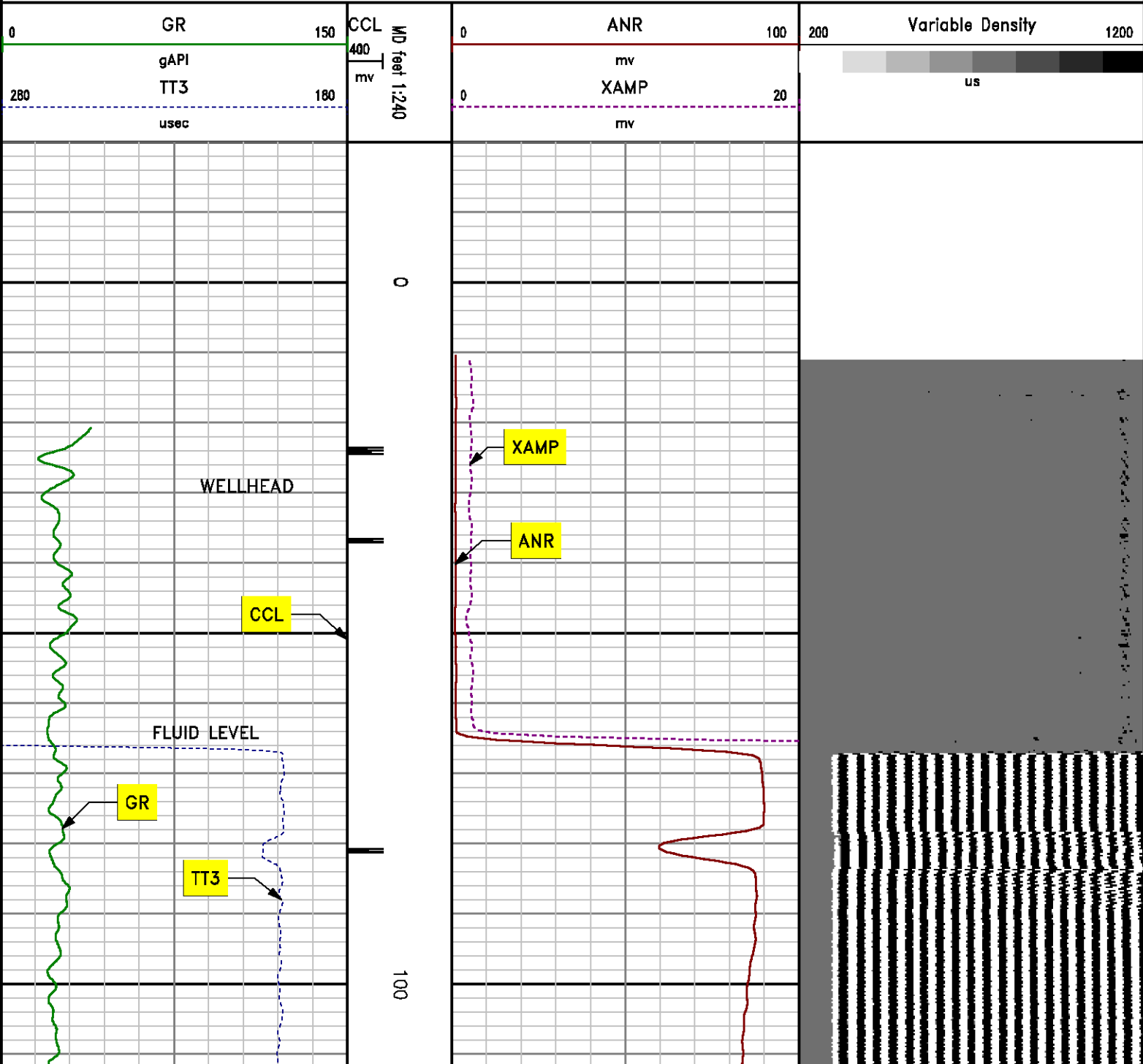
Well : DUGGAN RWF 14-29

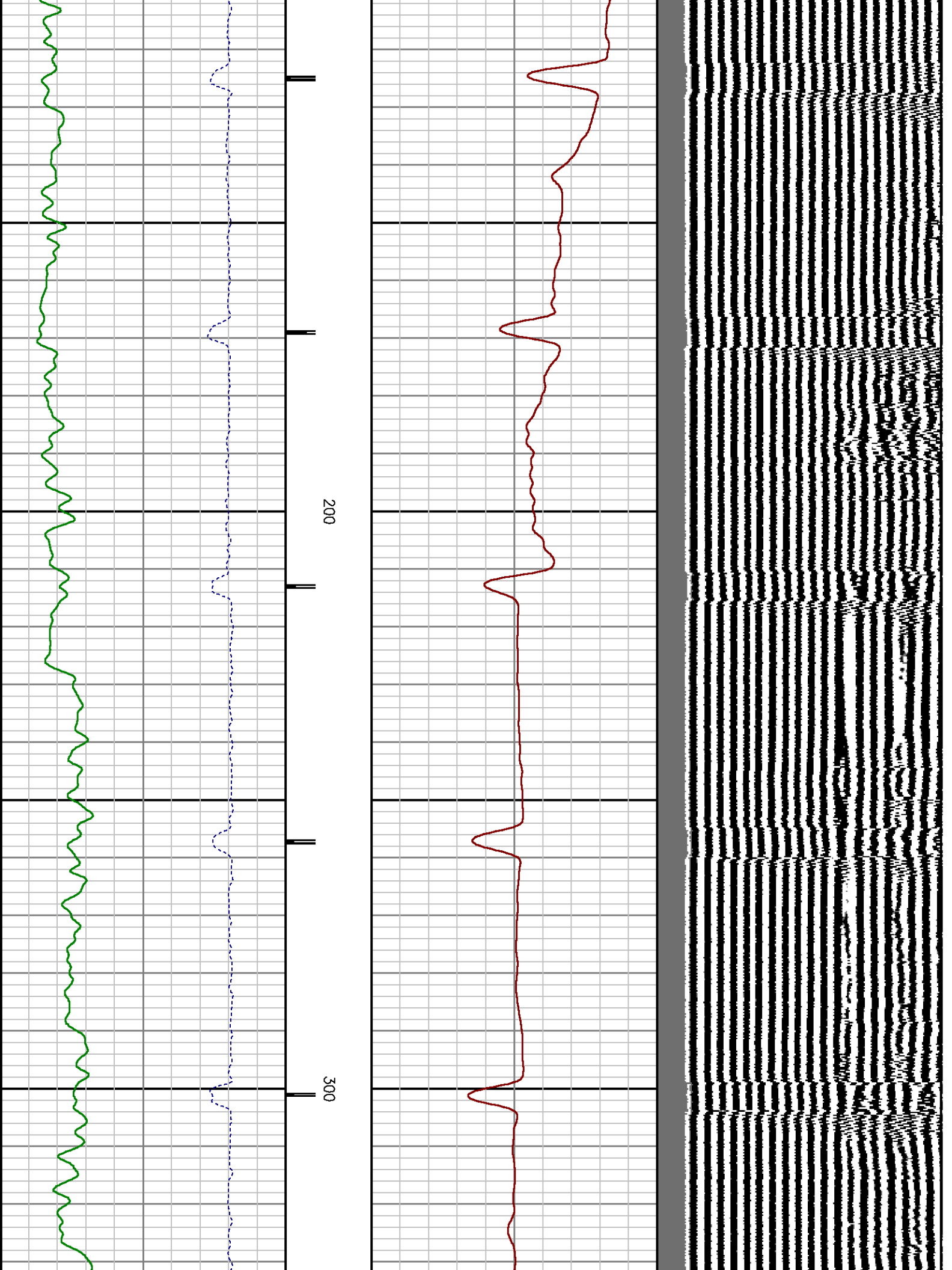
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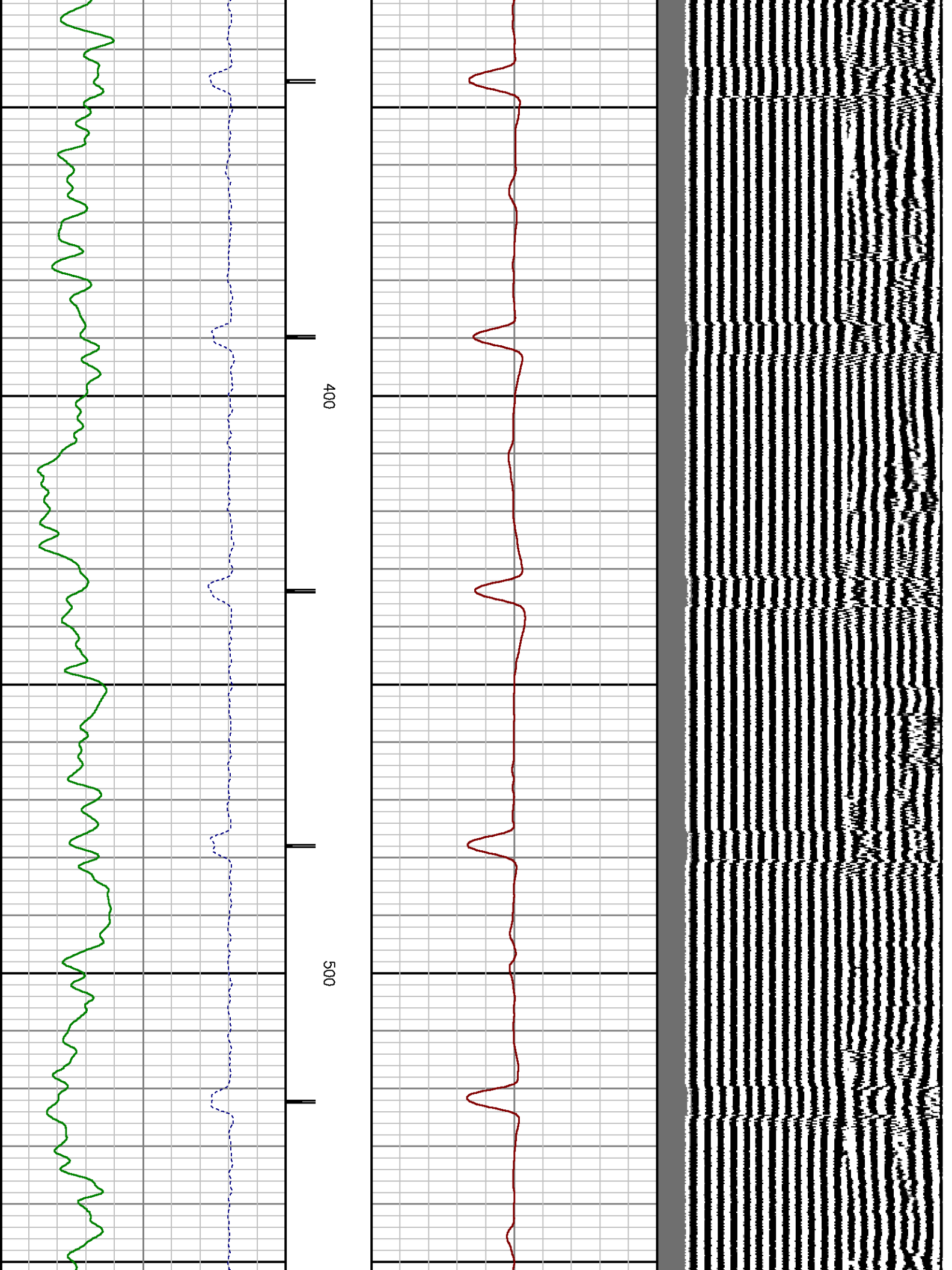
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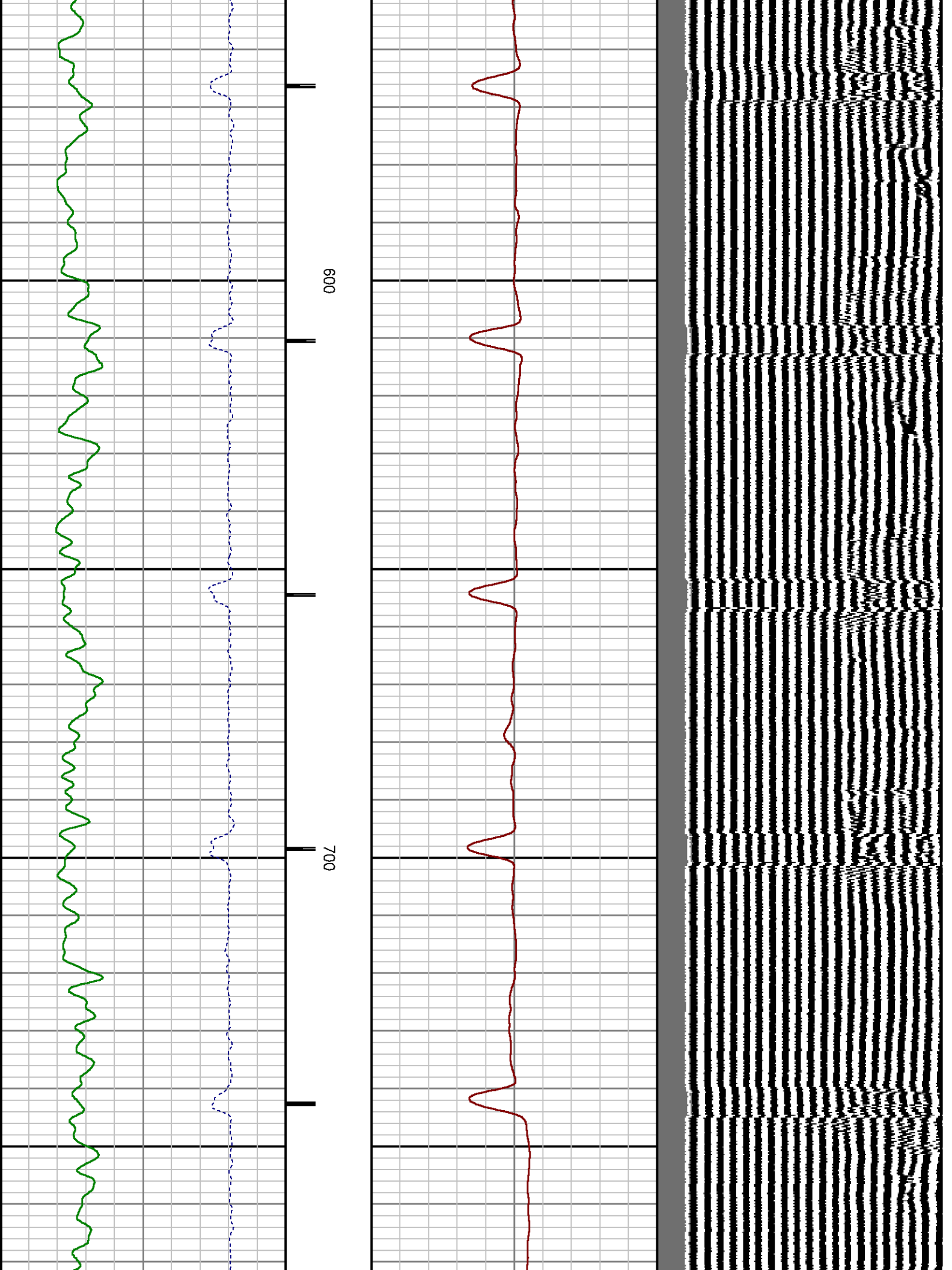
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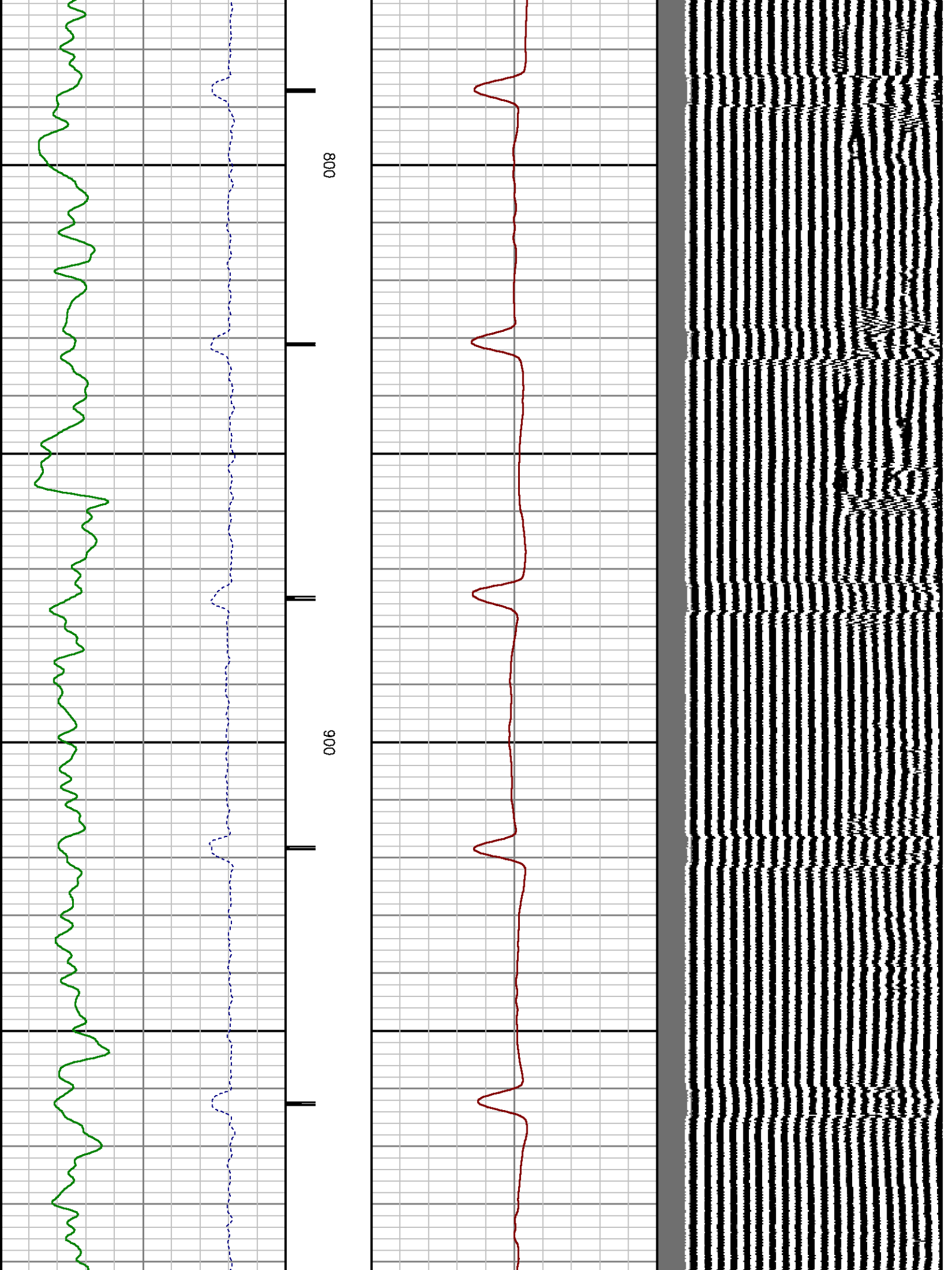
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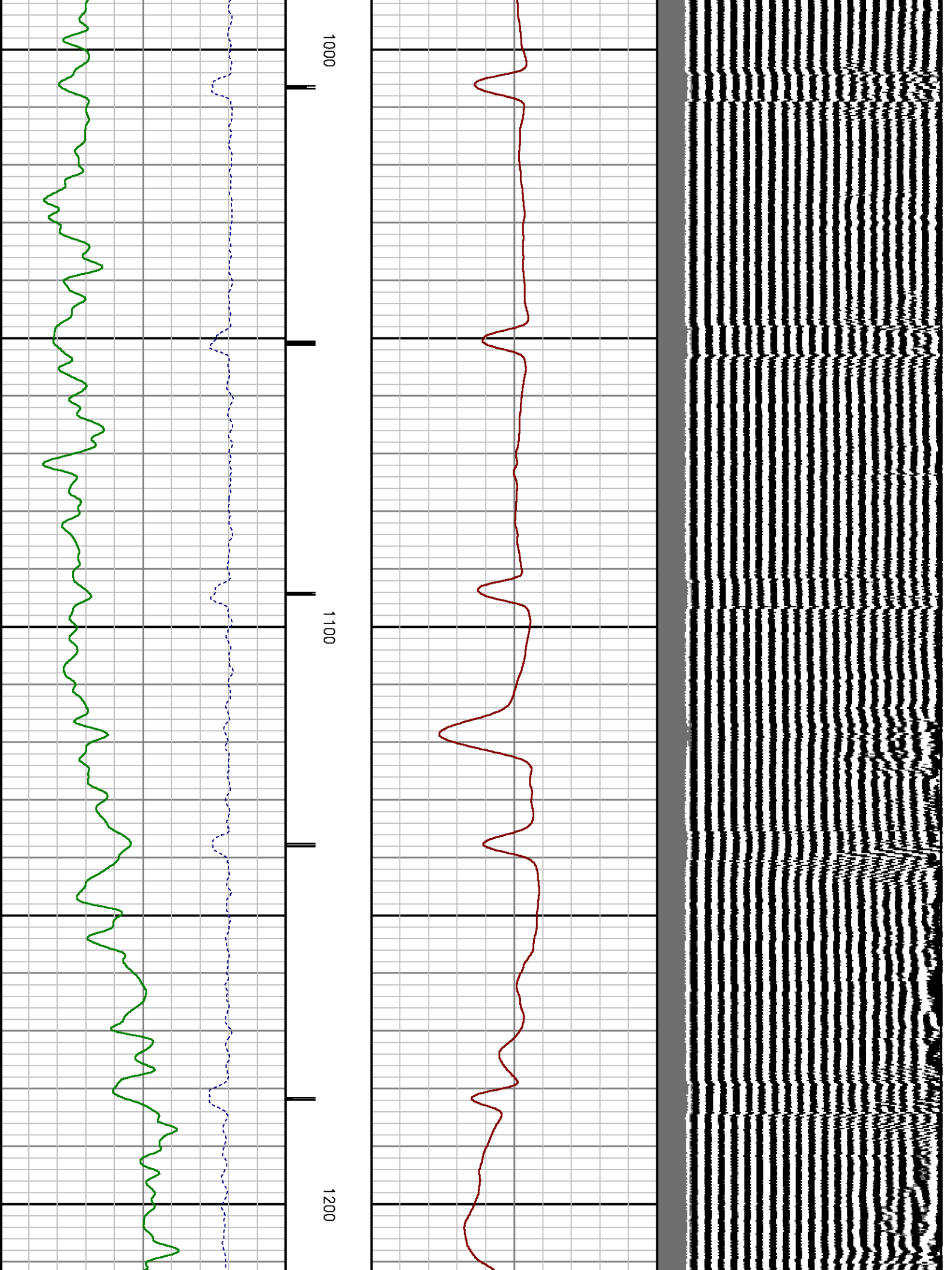


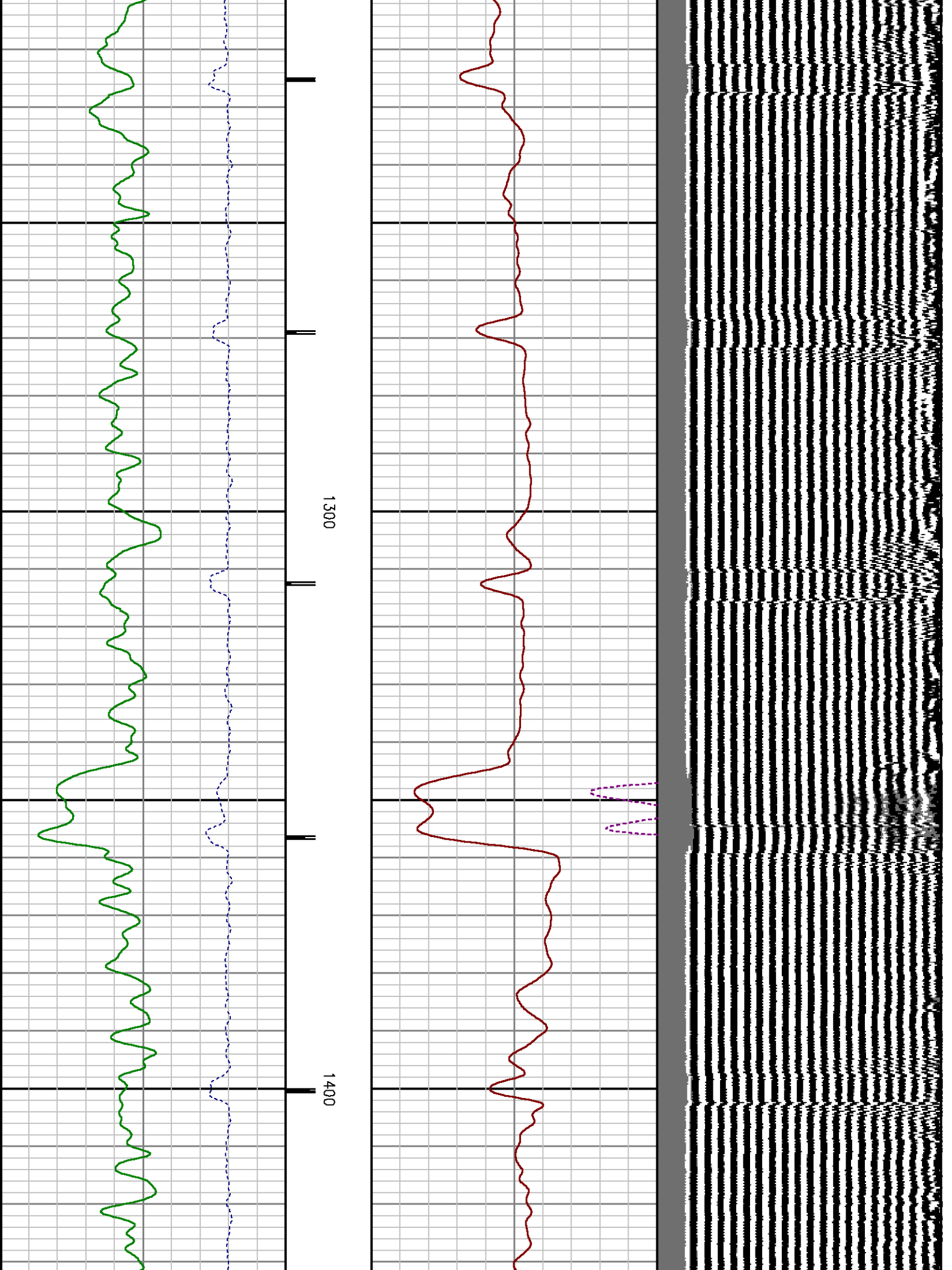


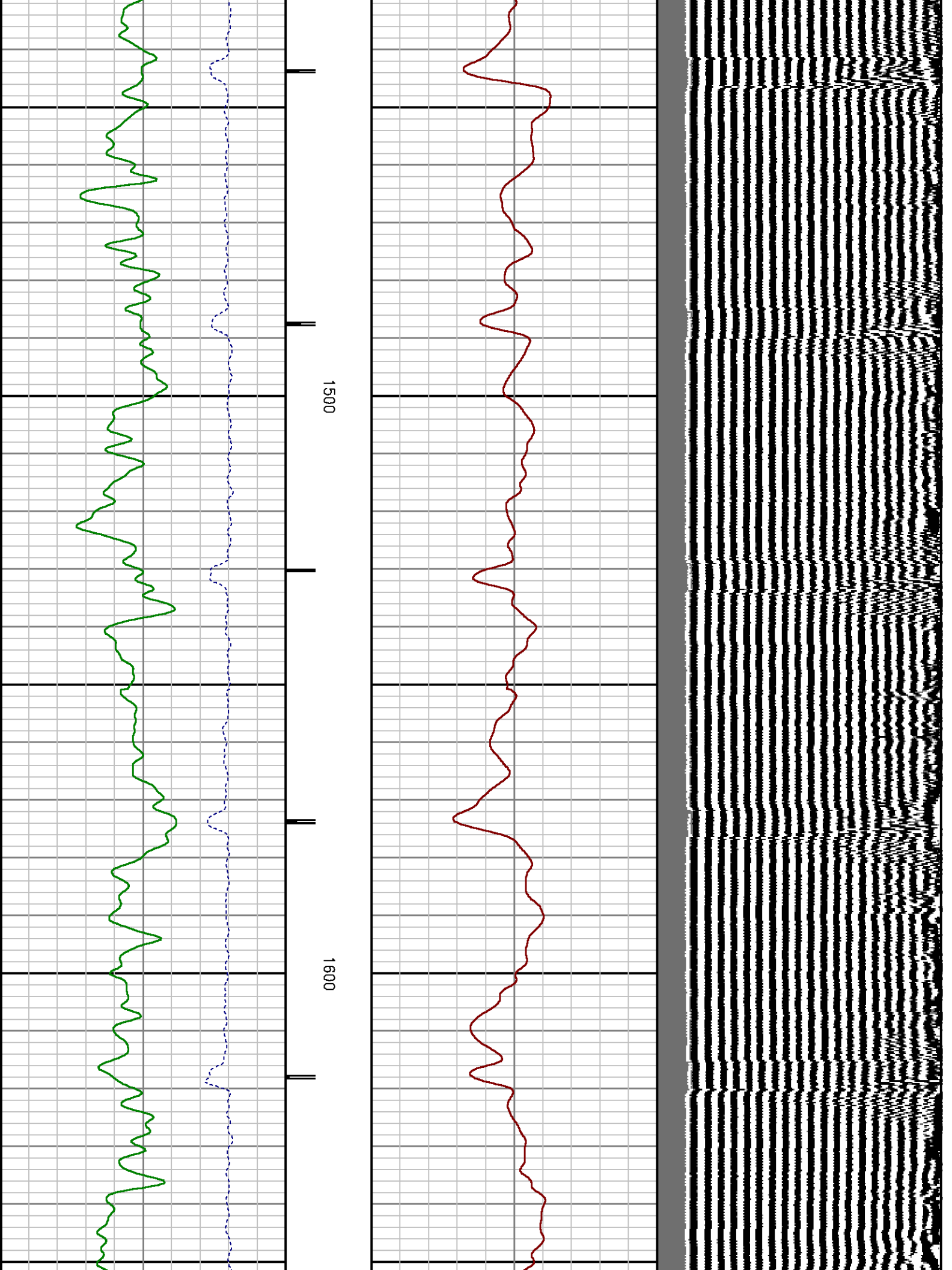


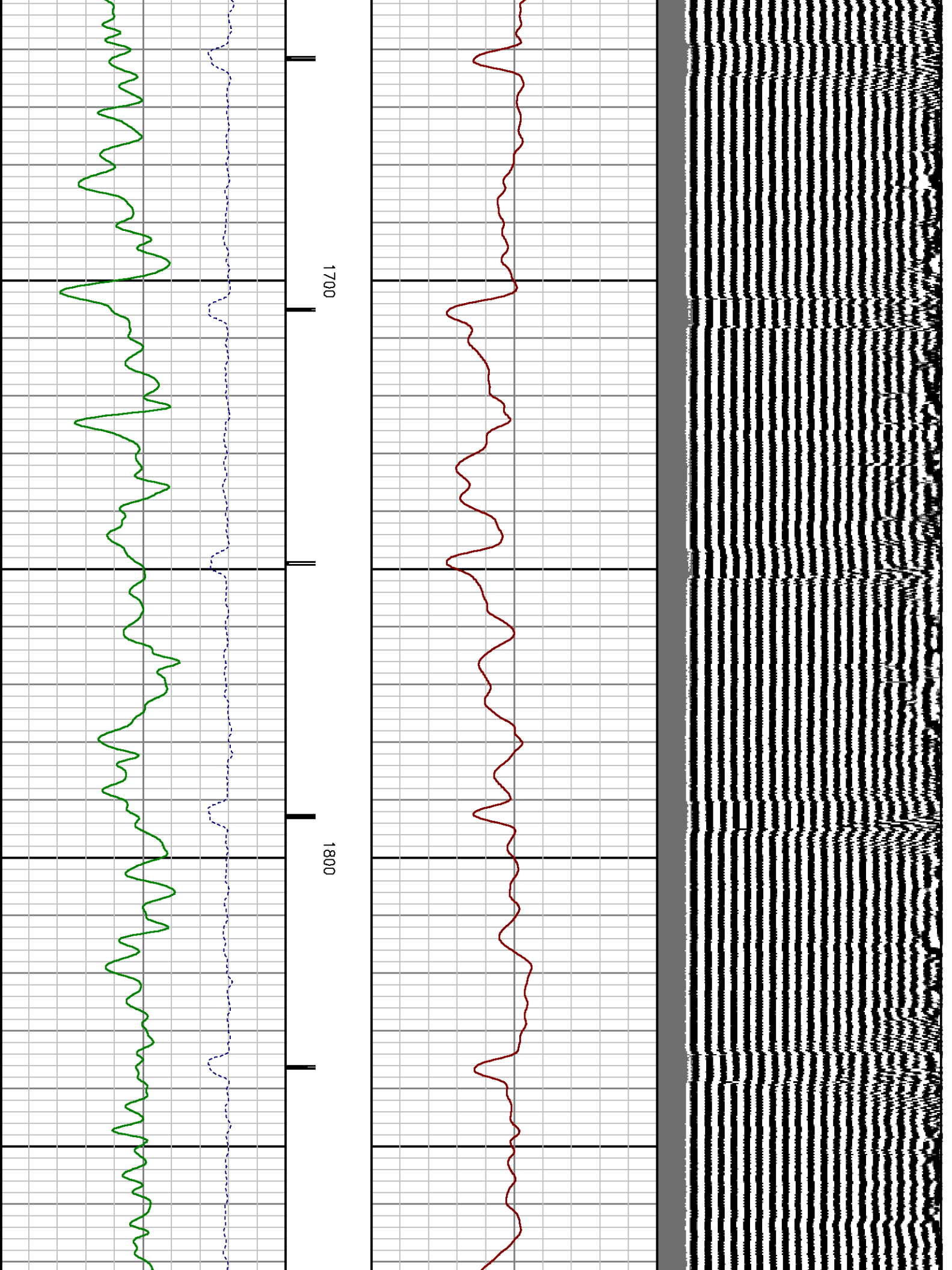


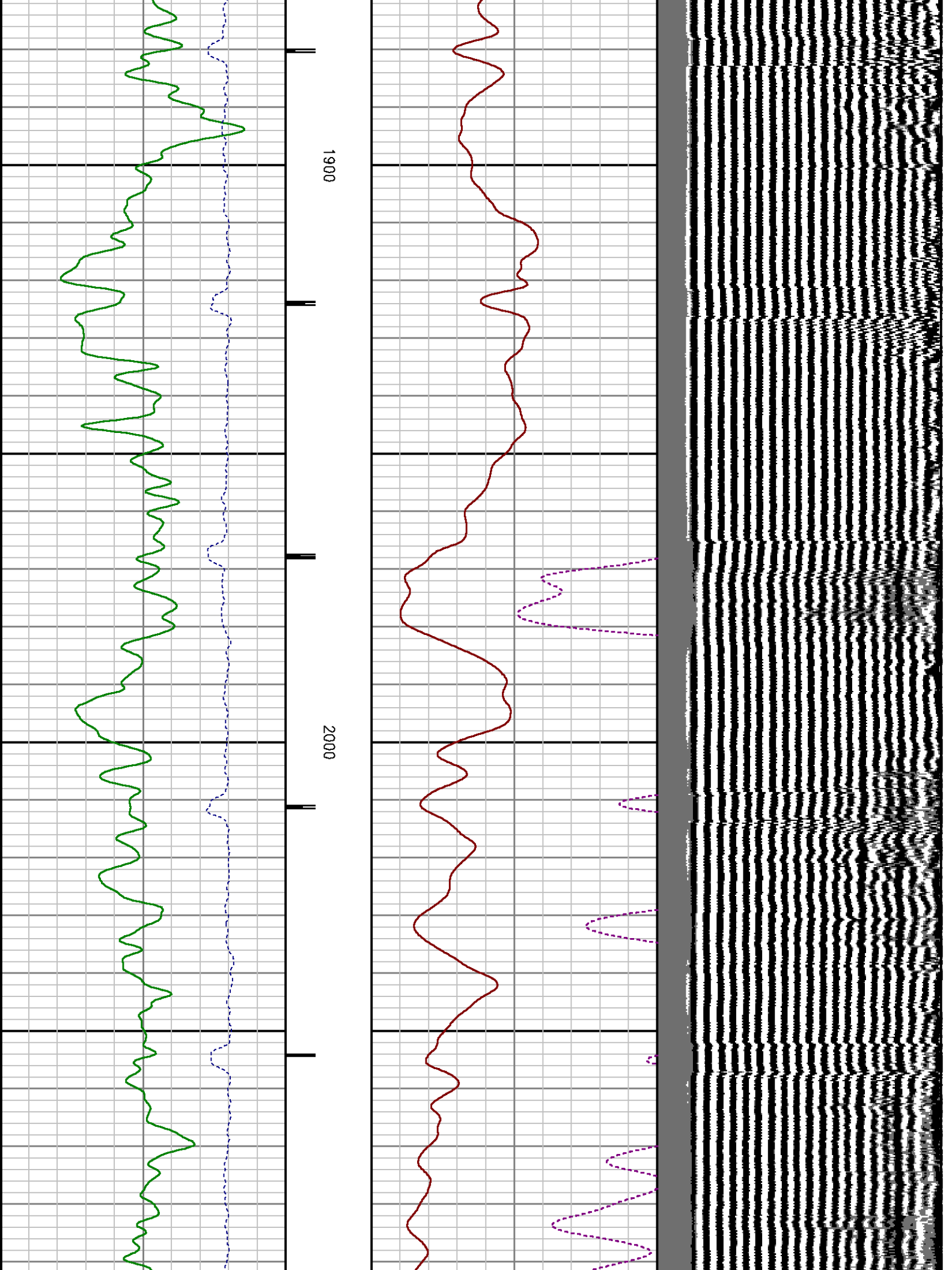


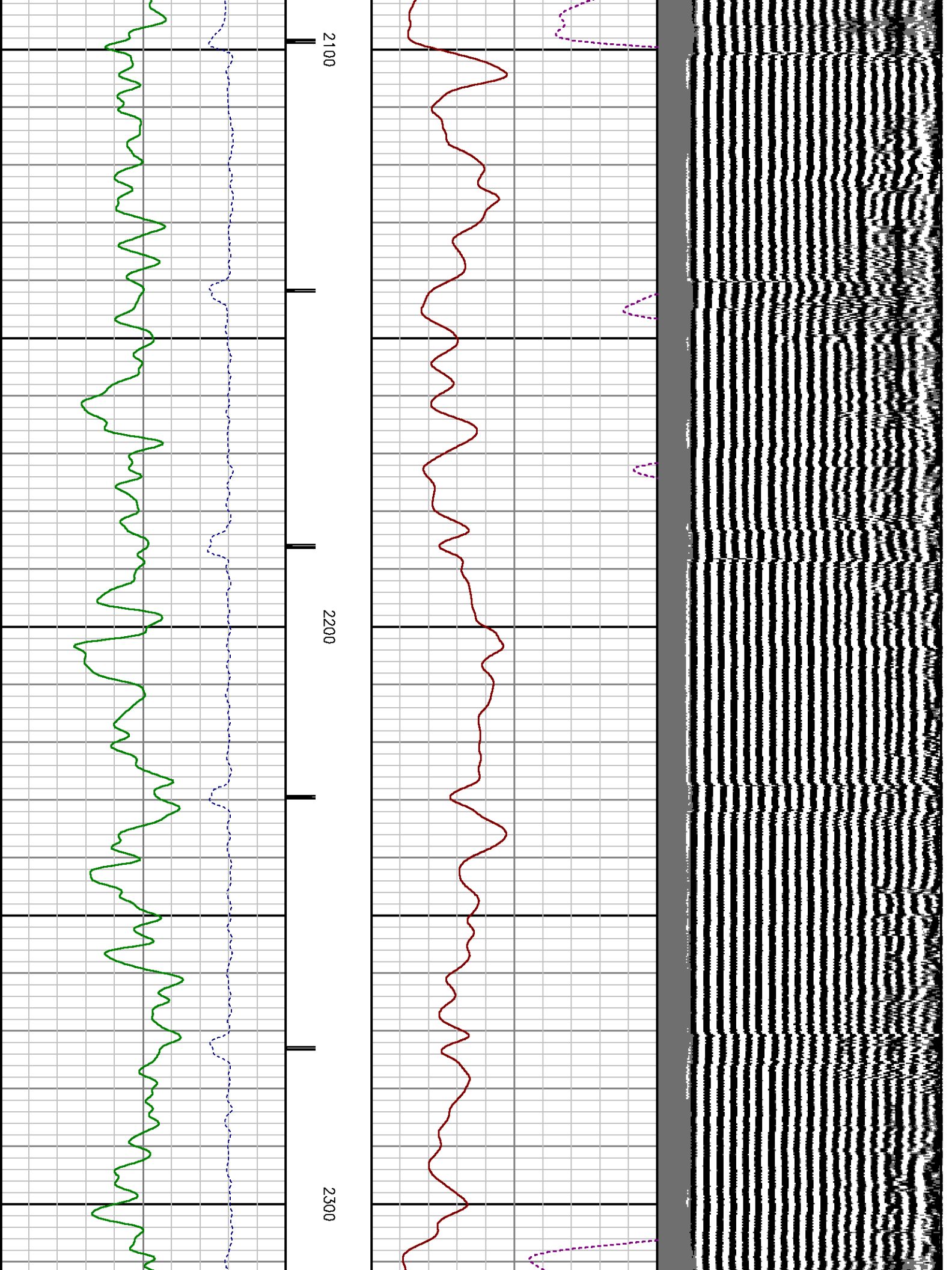


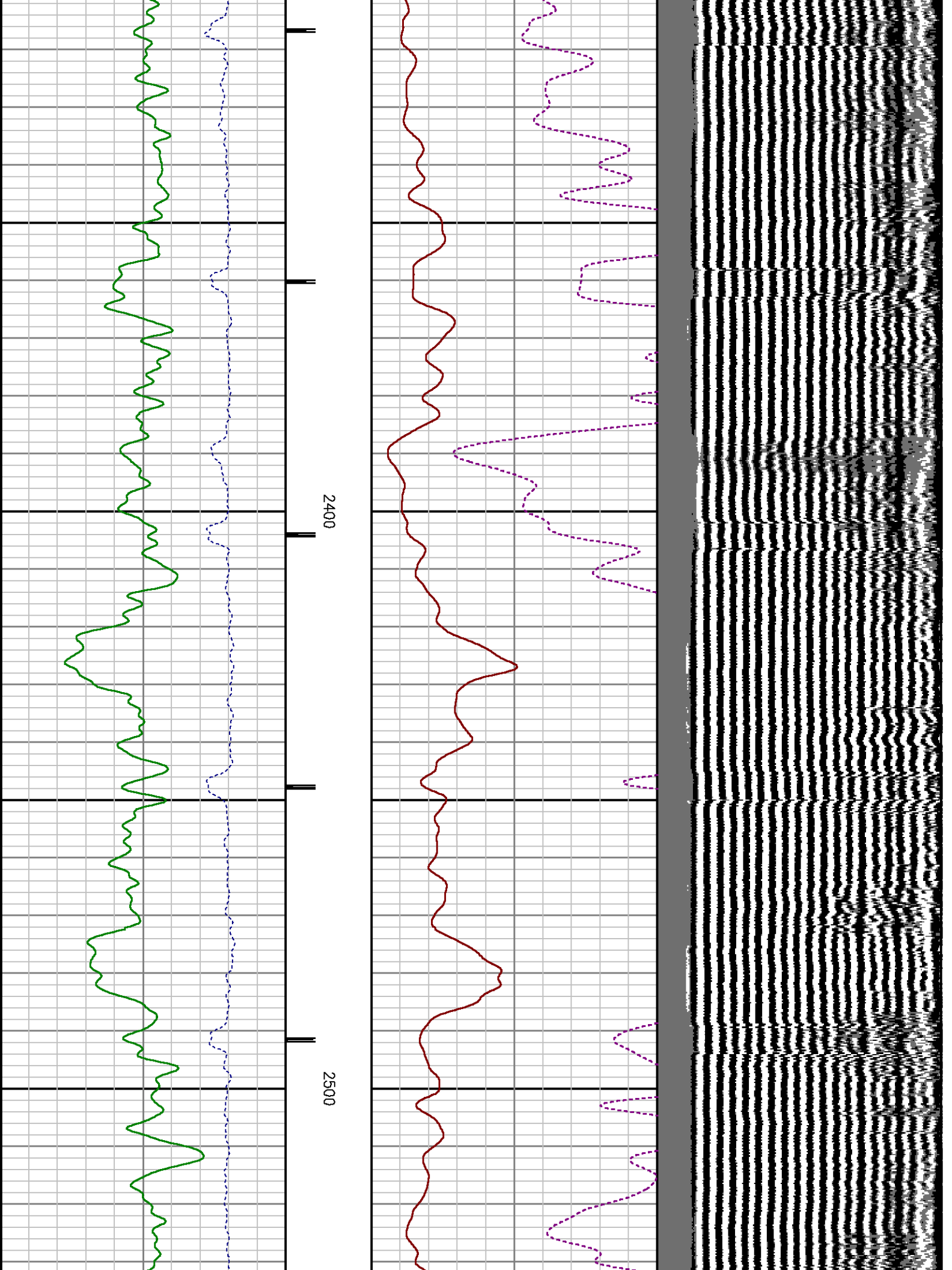


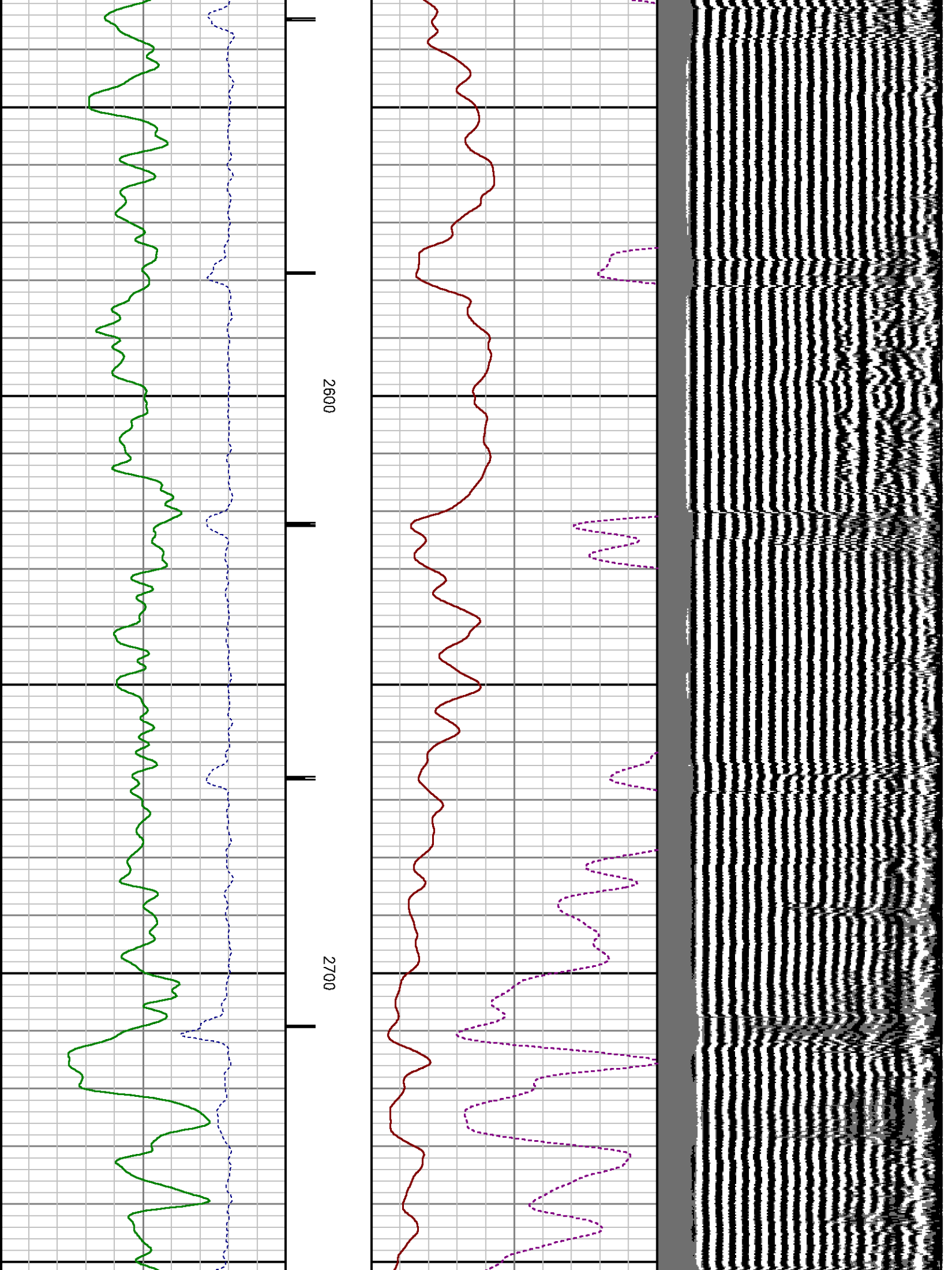


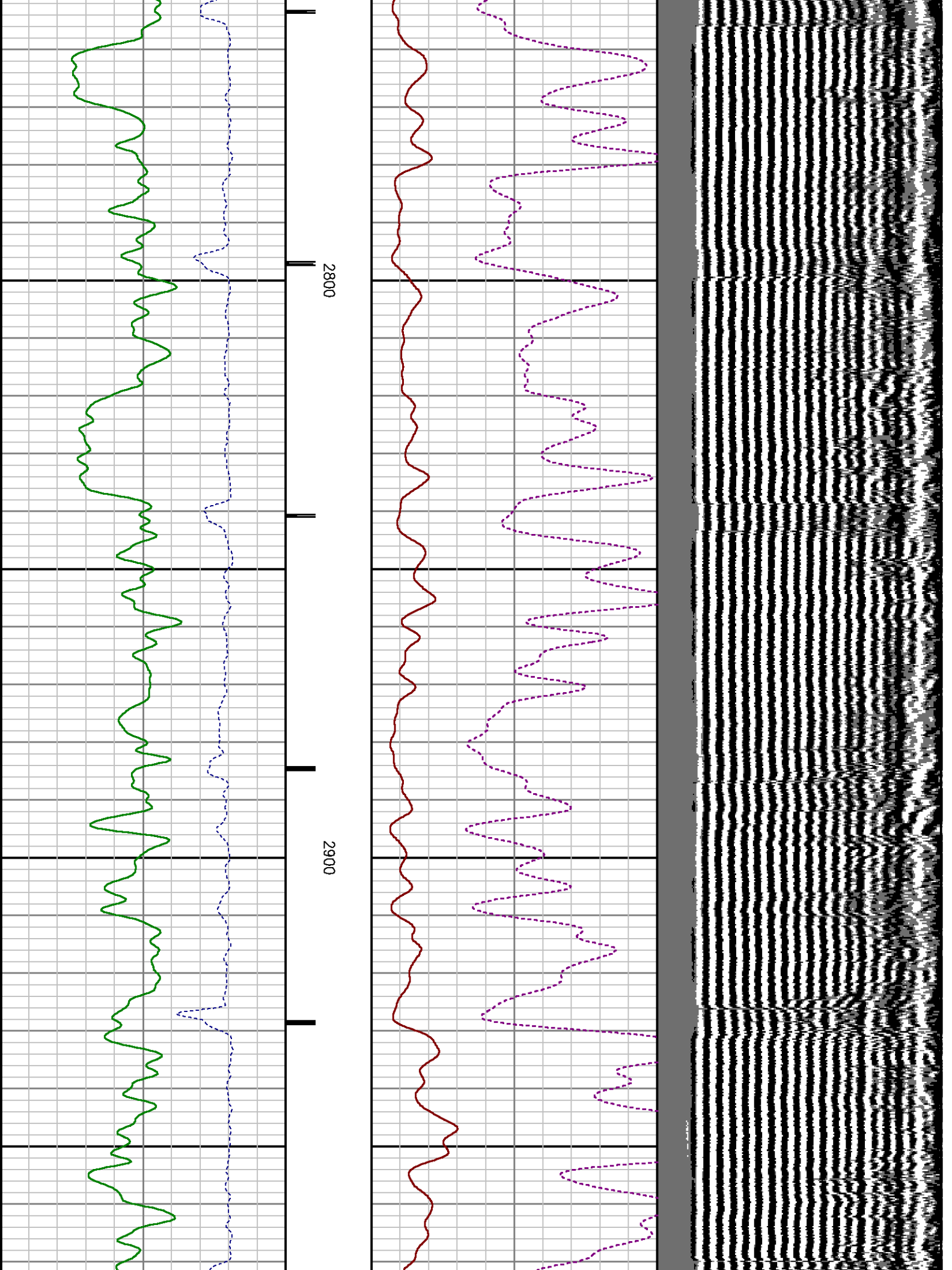


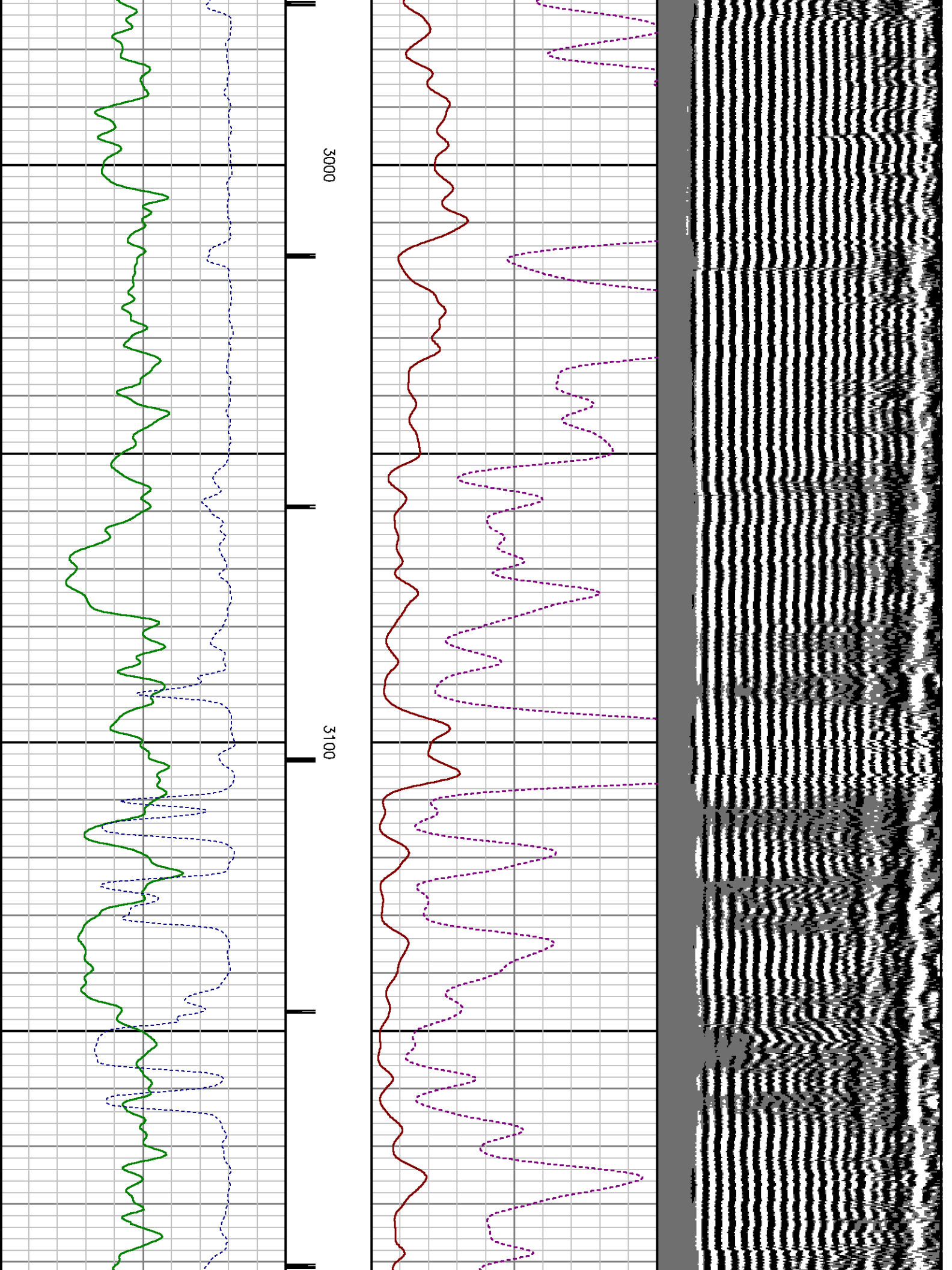


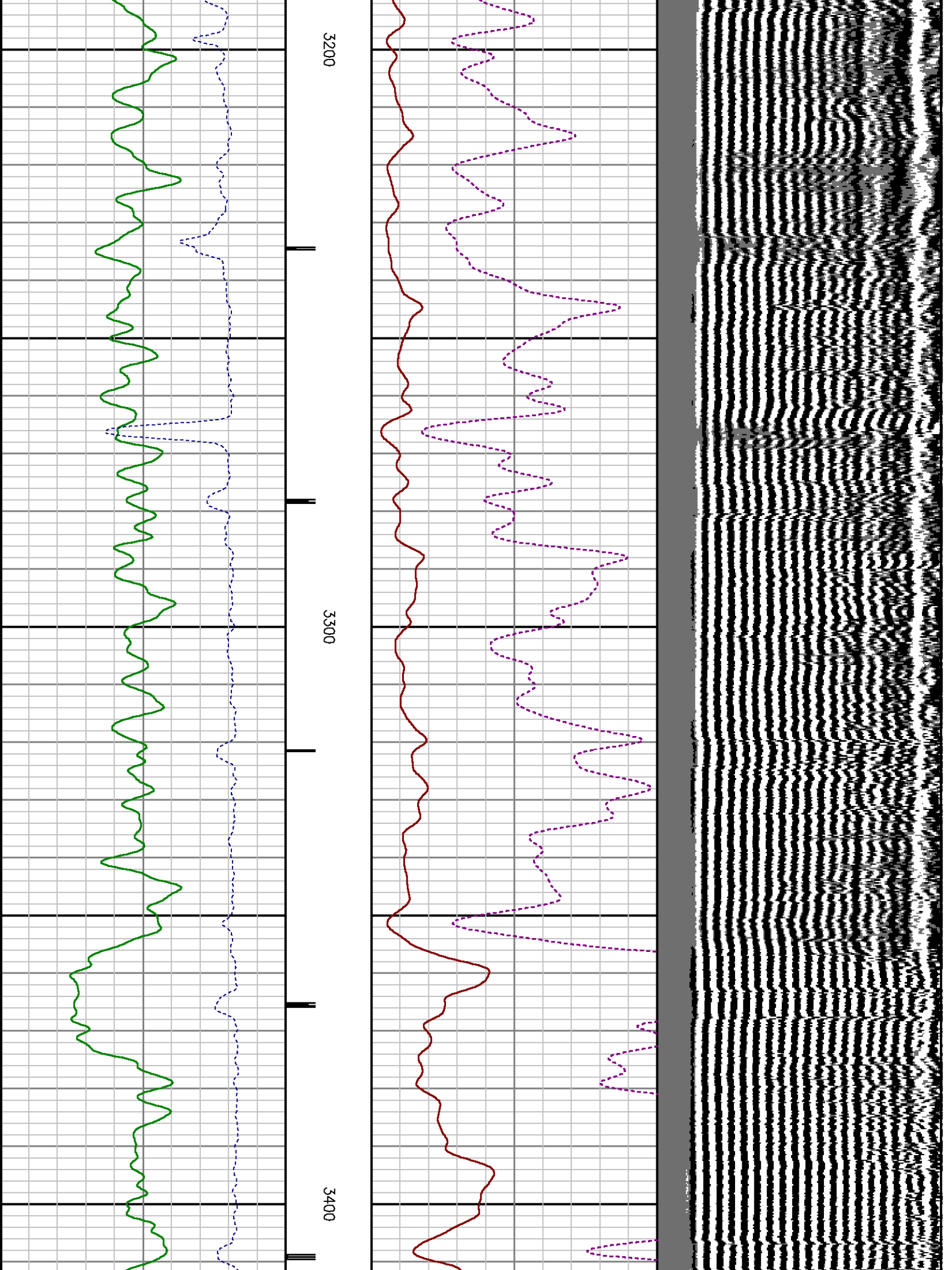


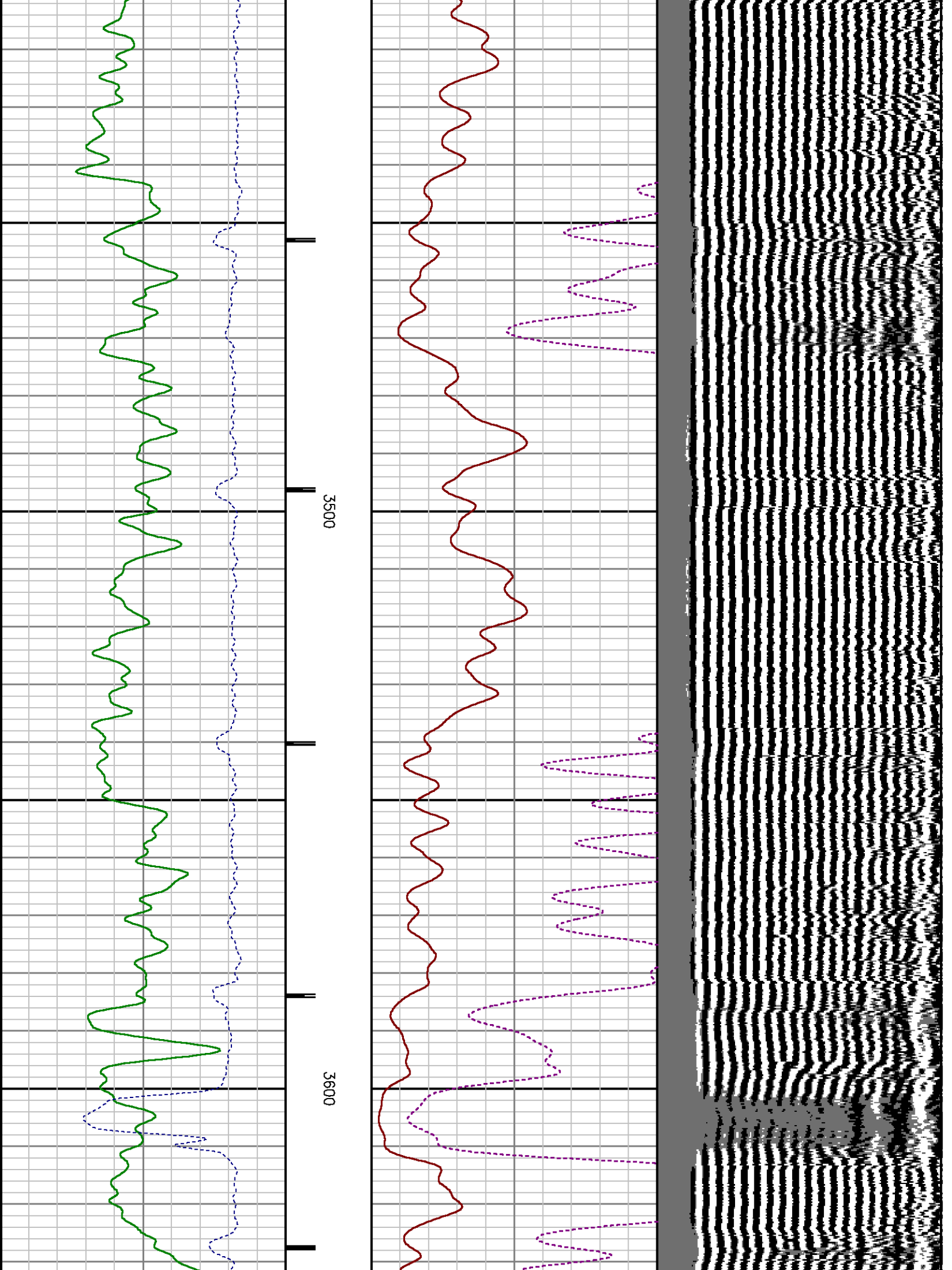


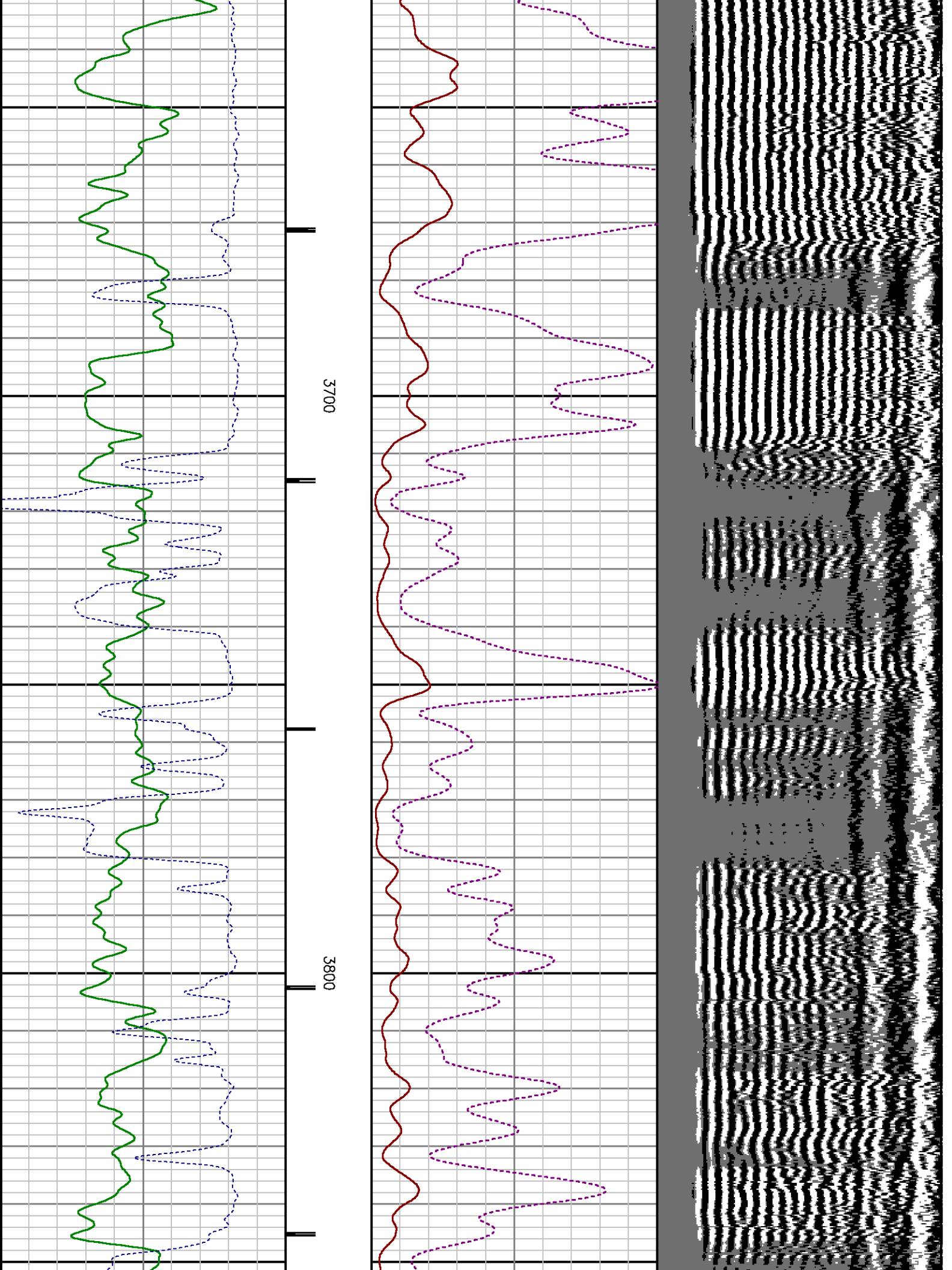


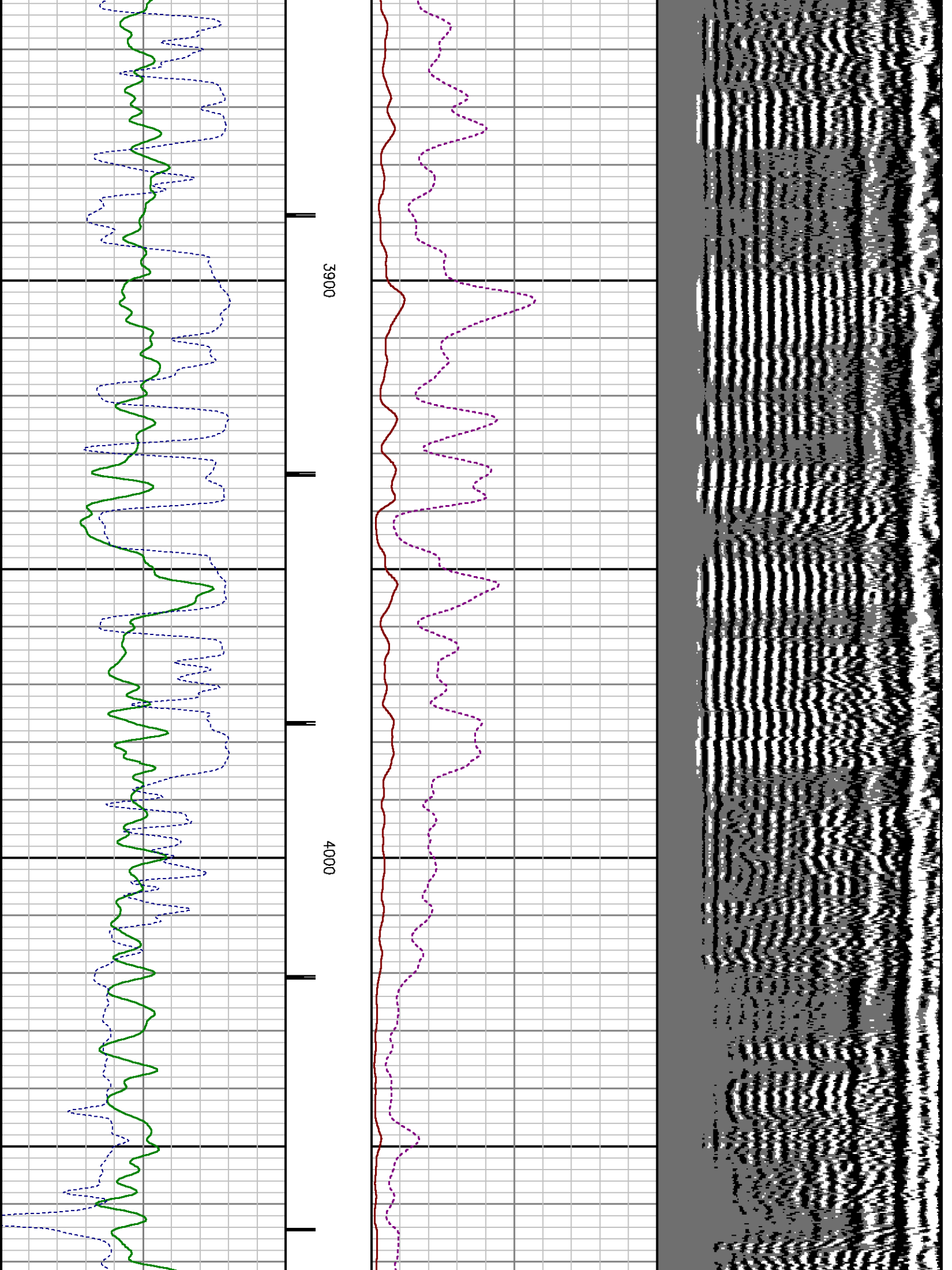


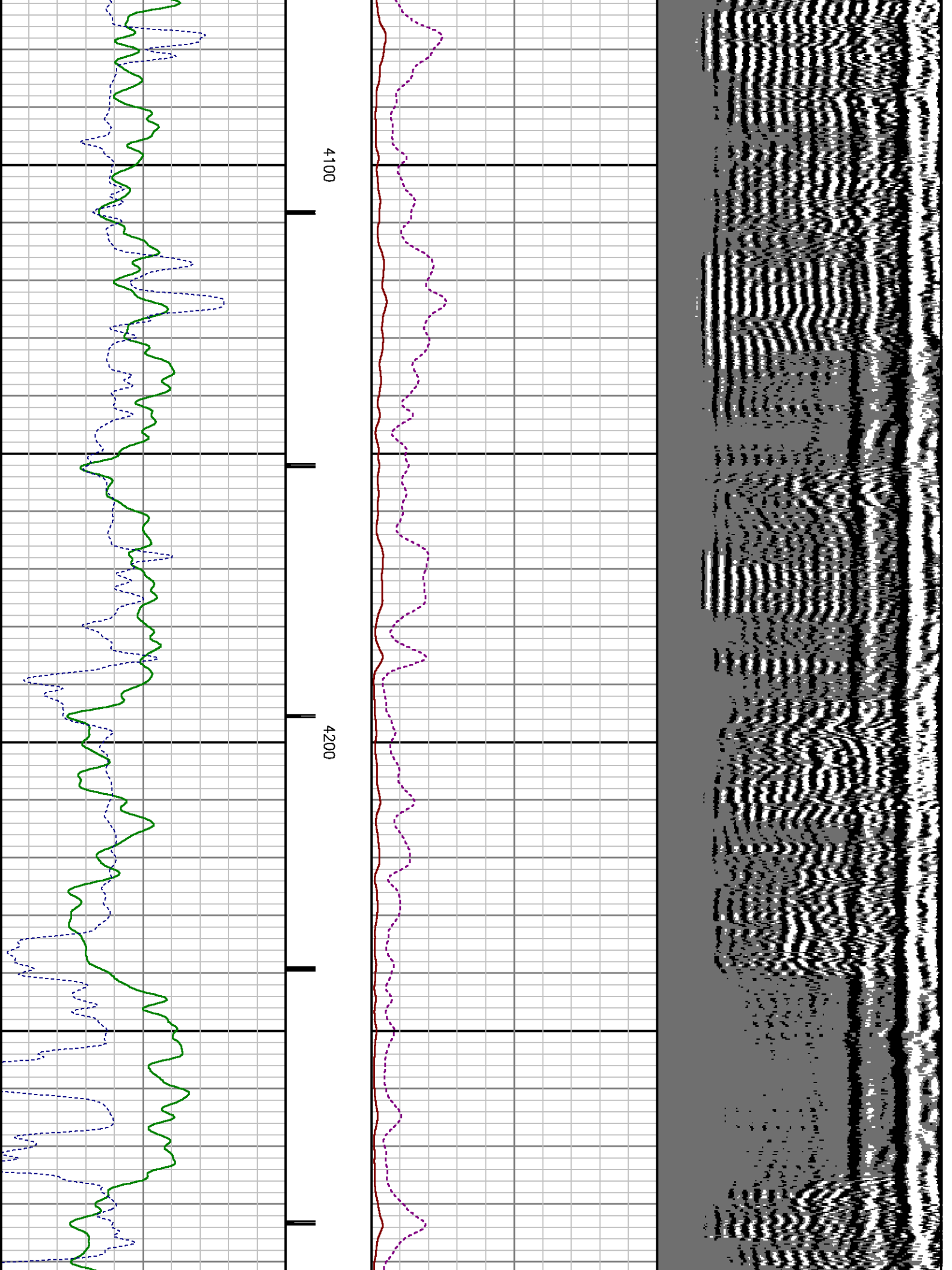


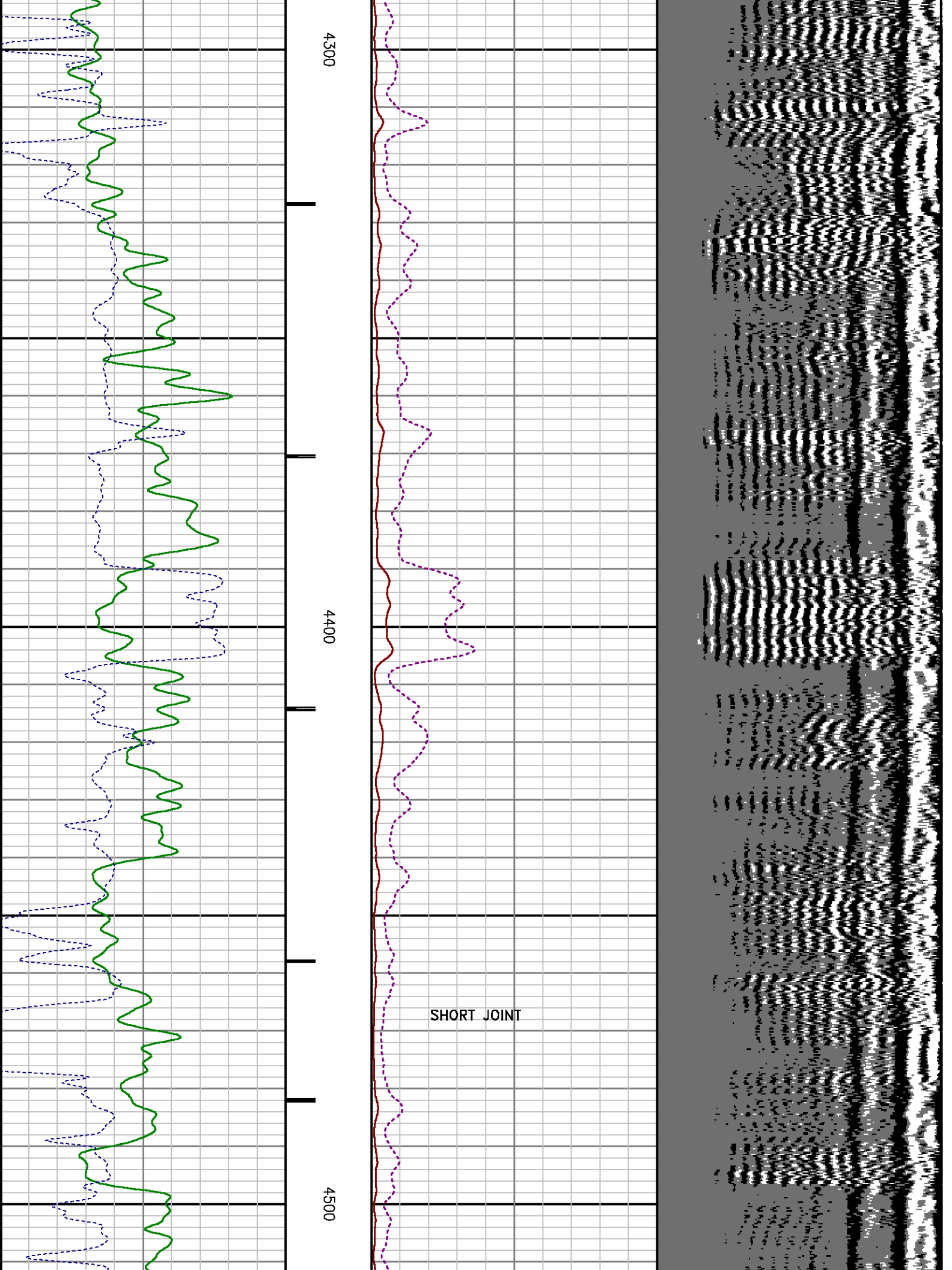


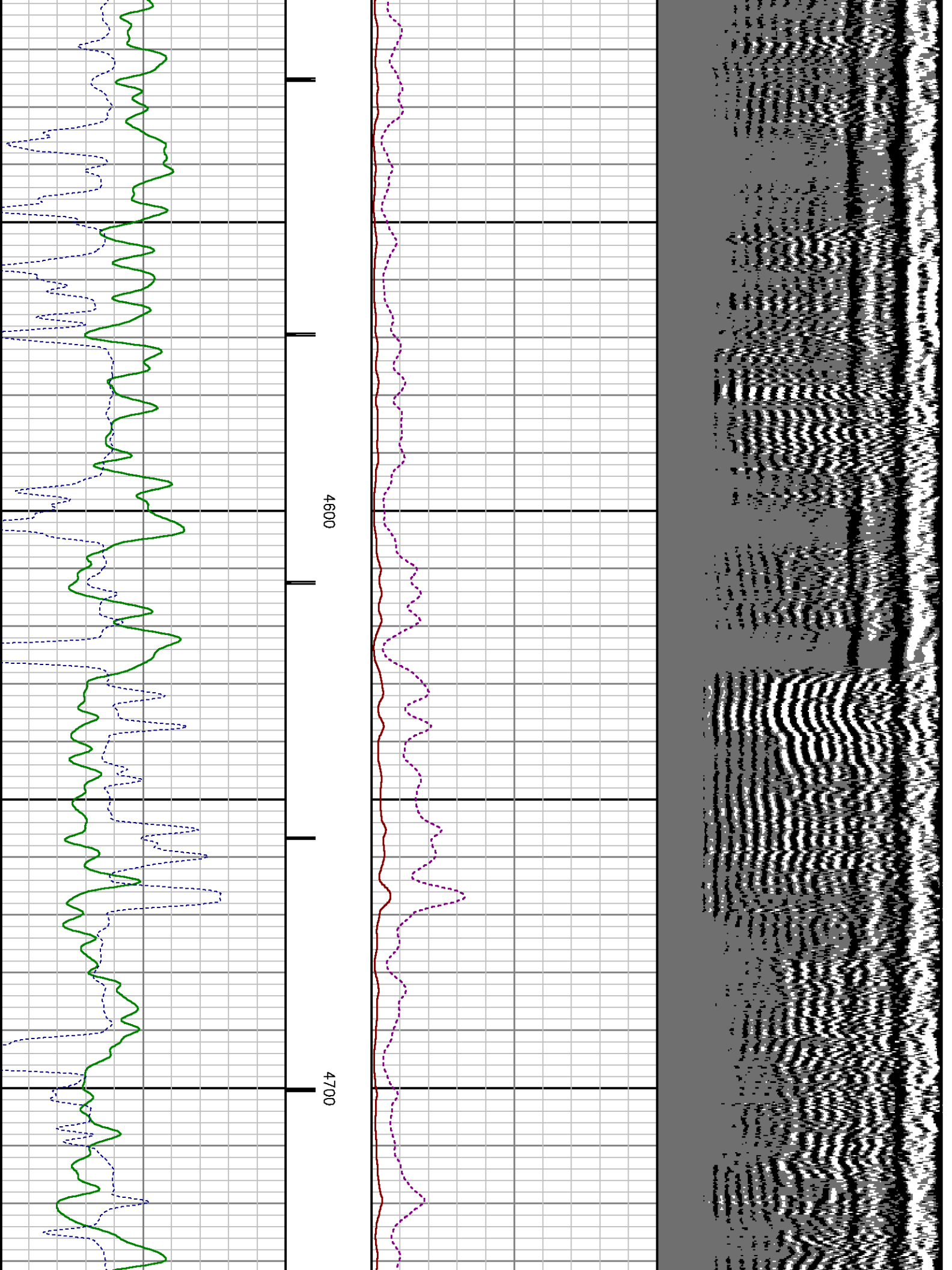


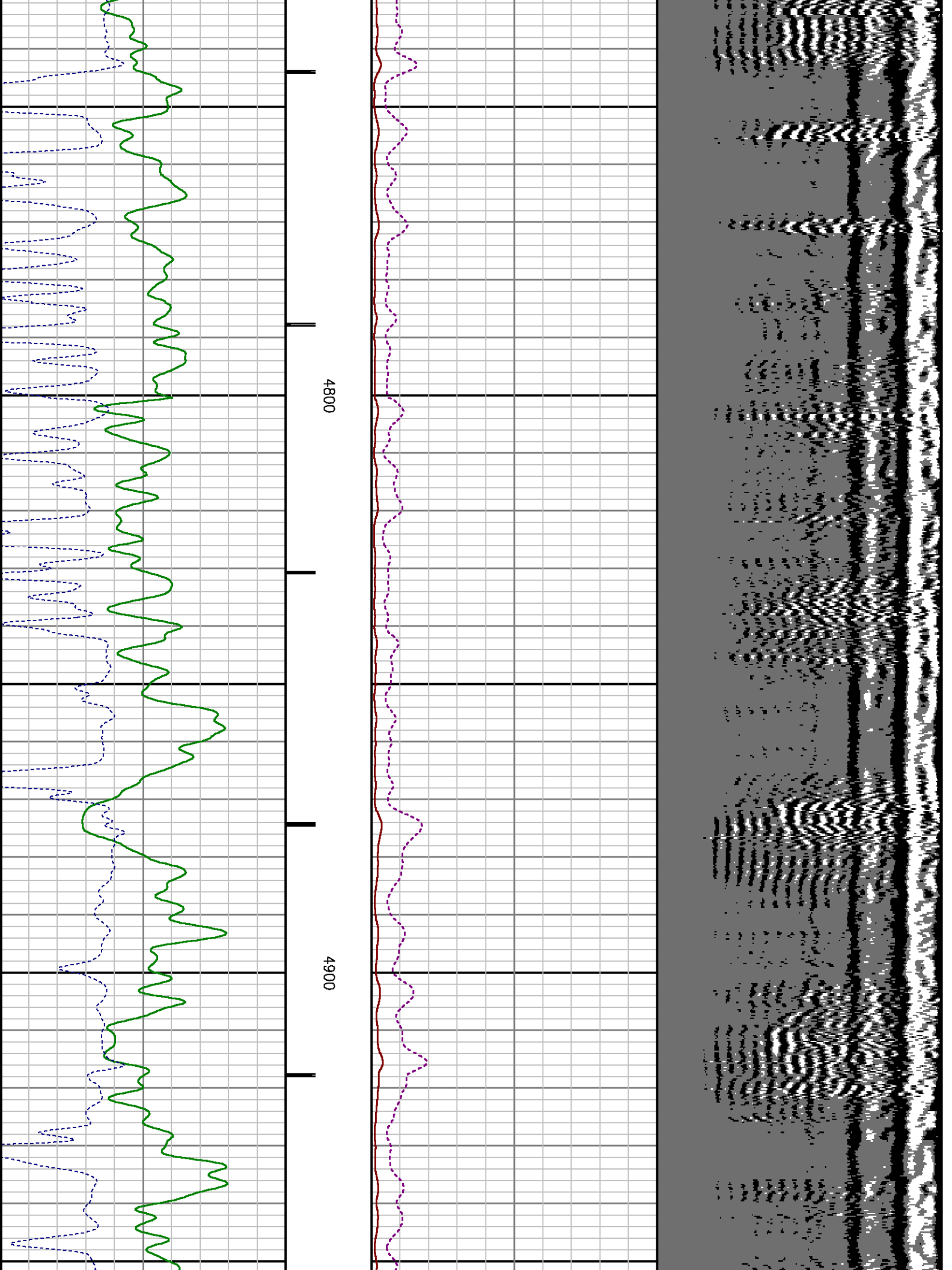


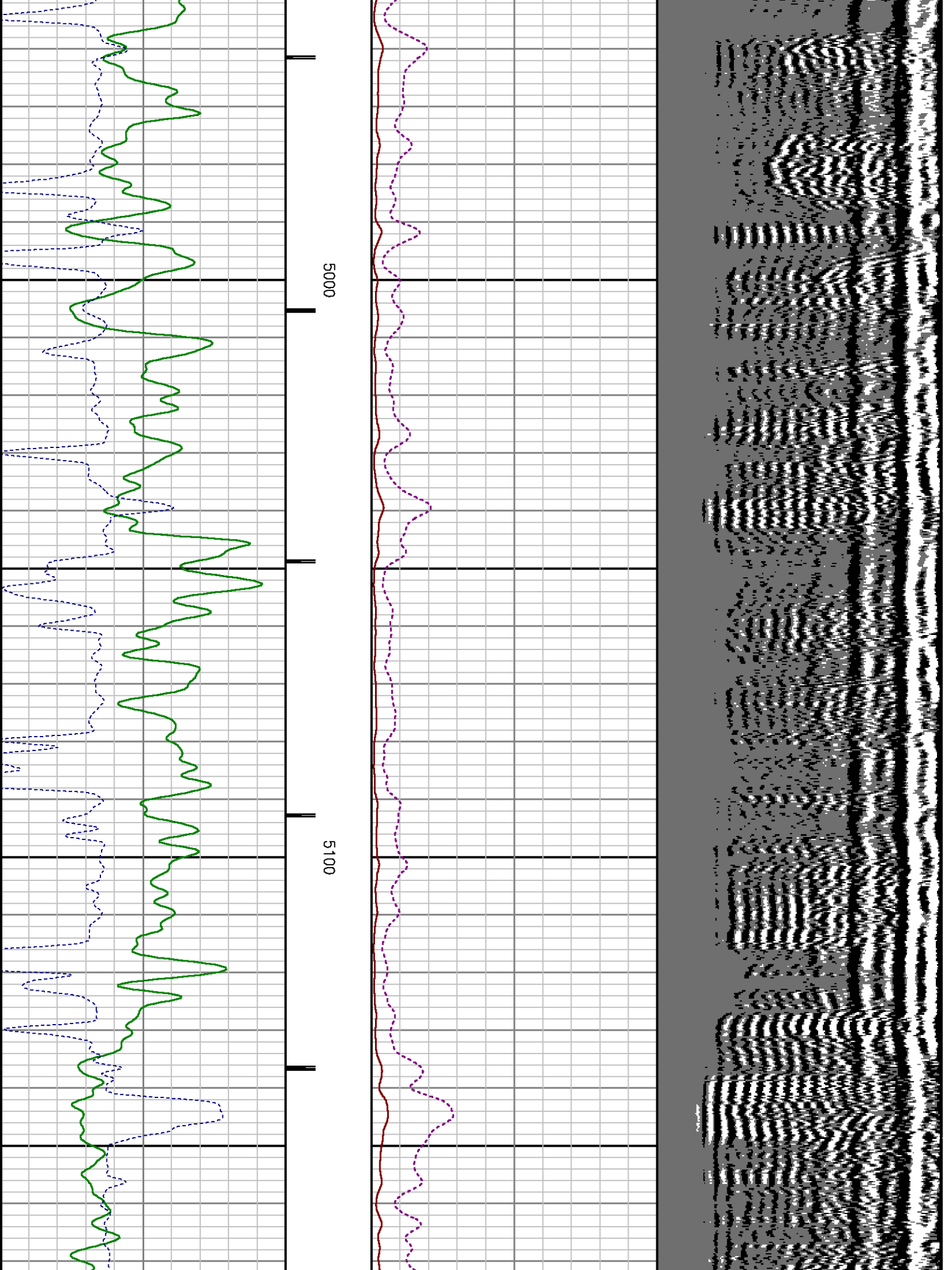


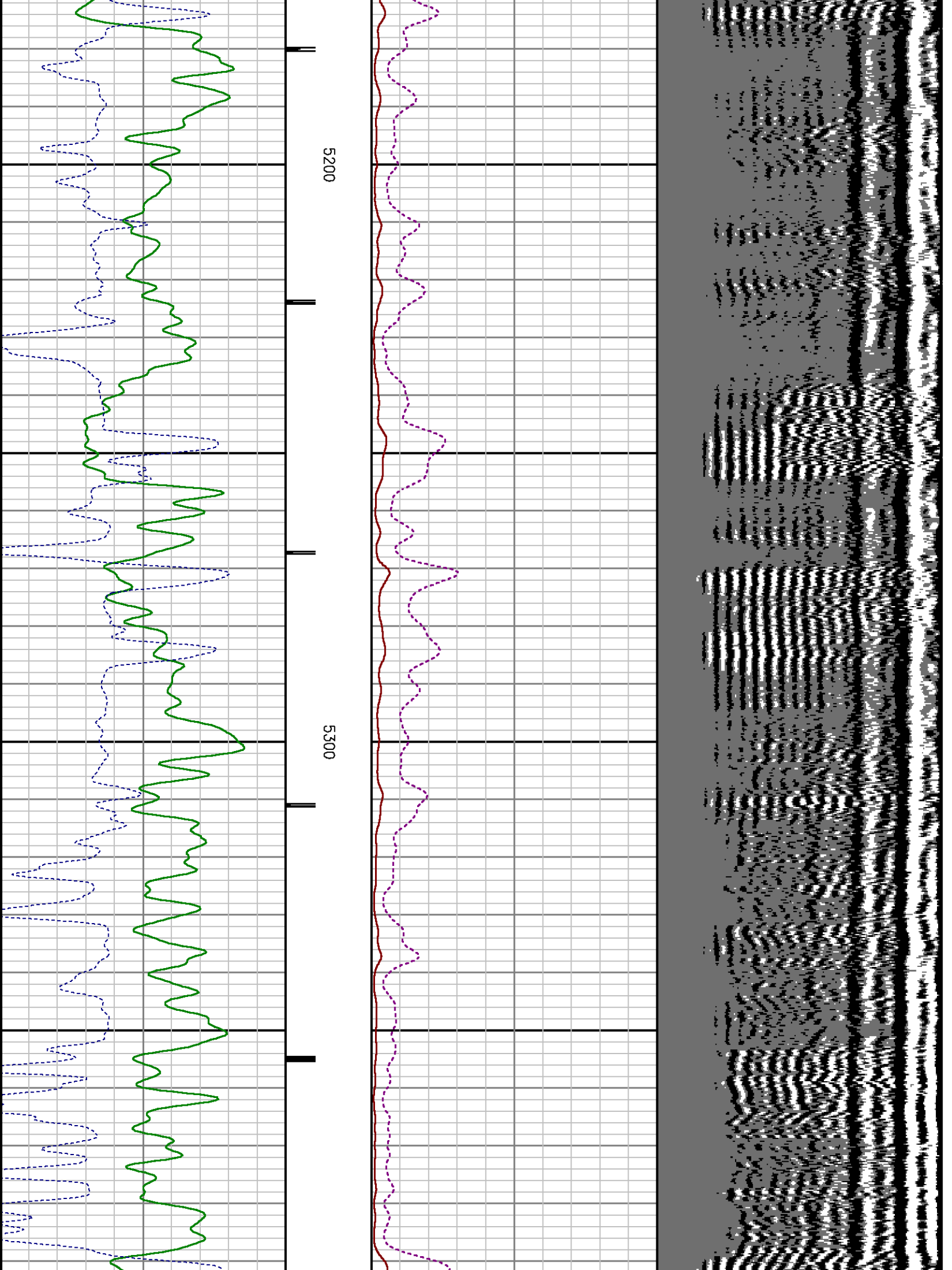


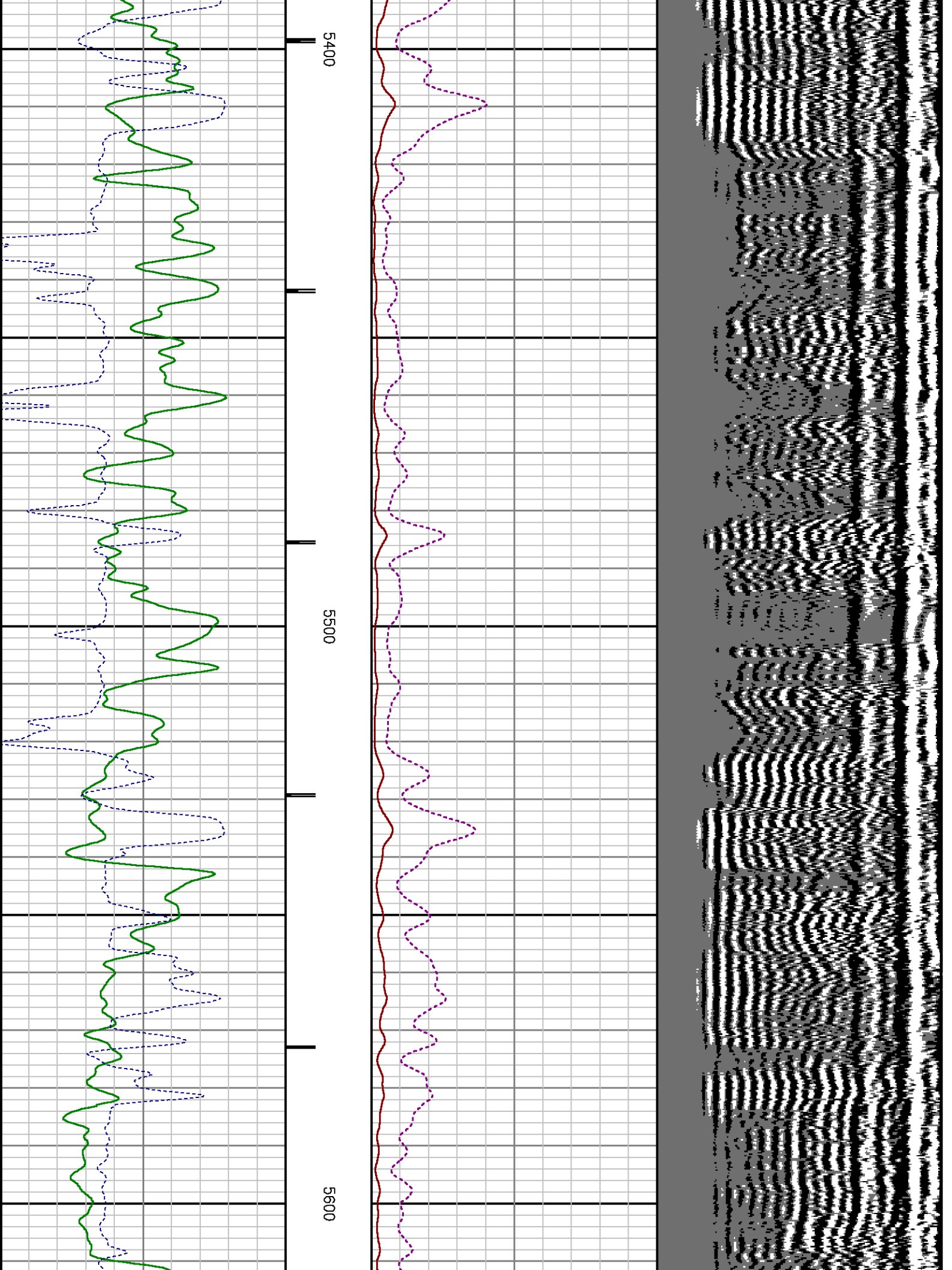


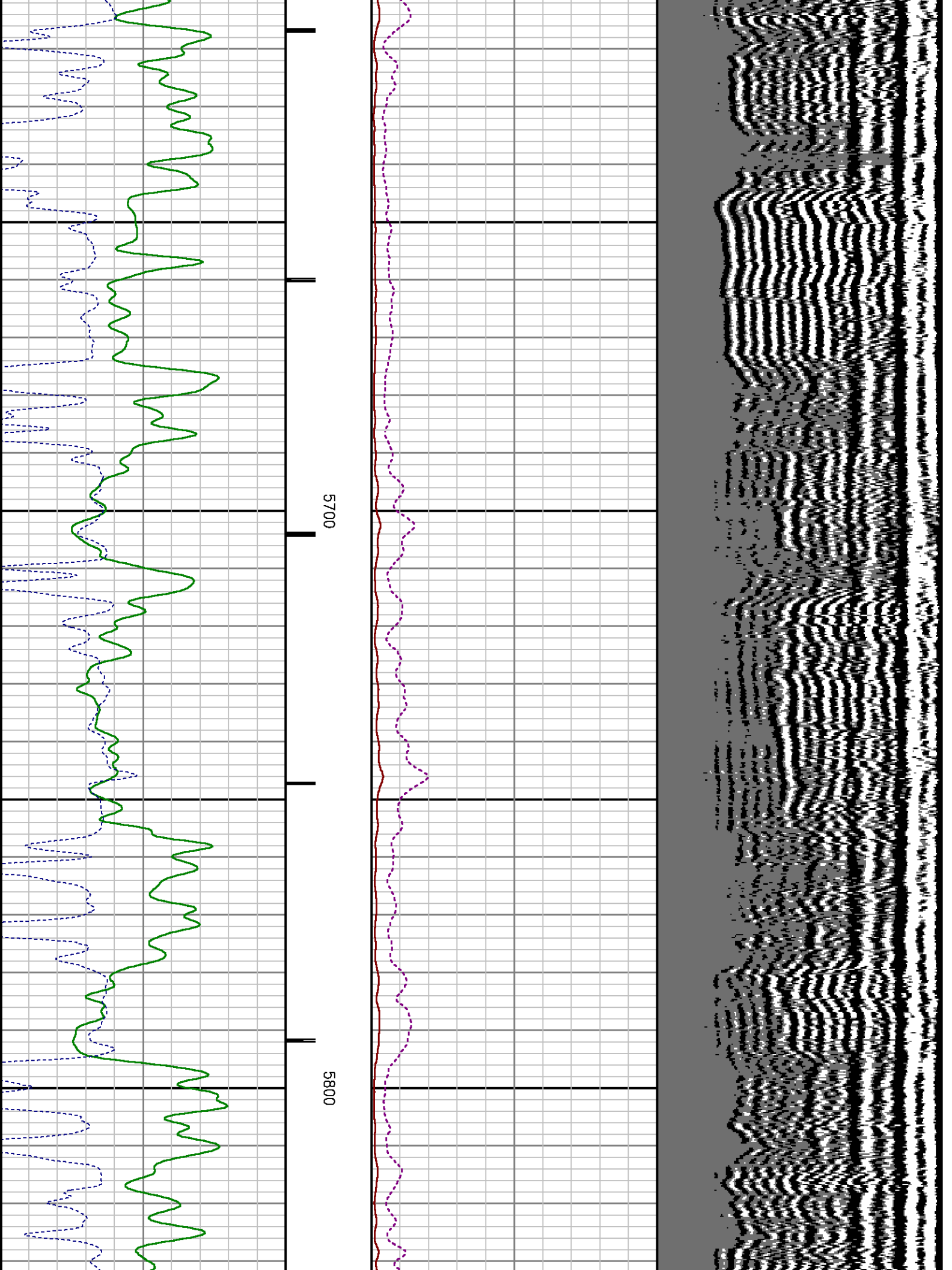


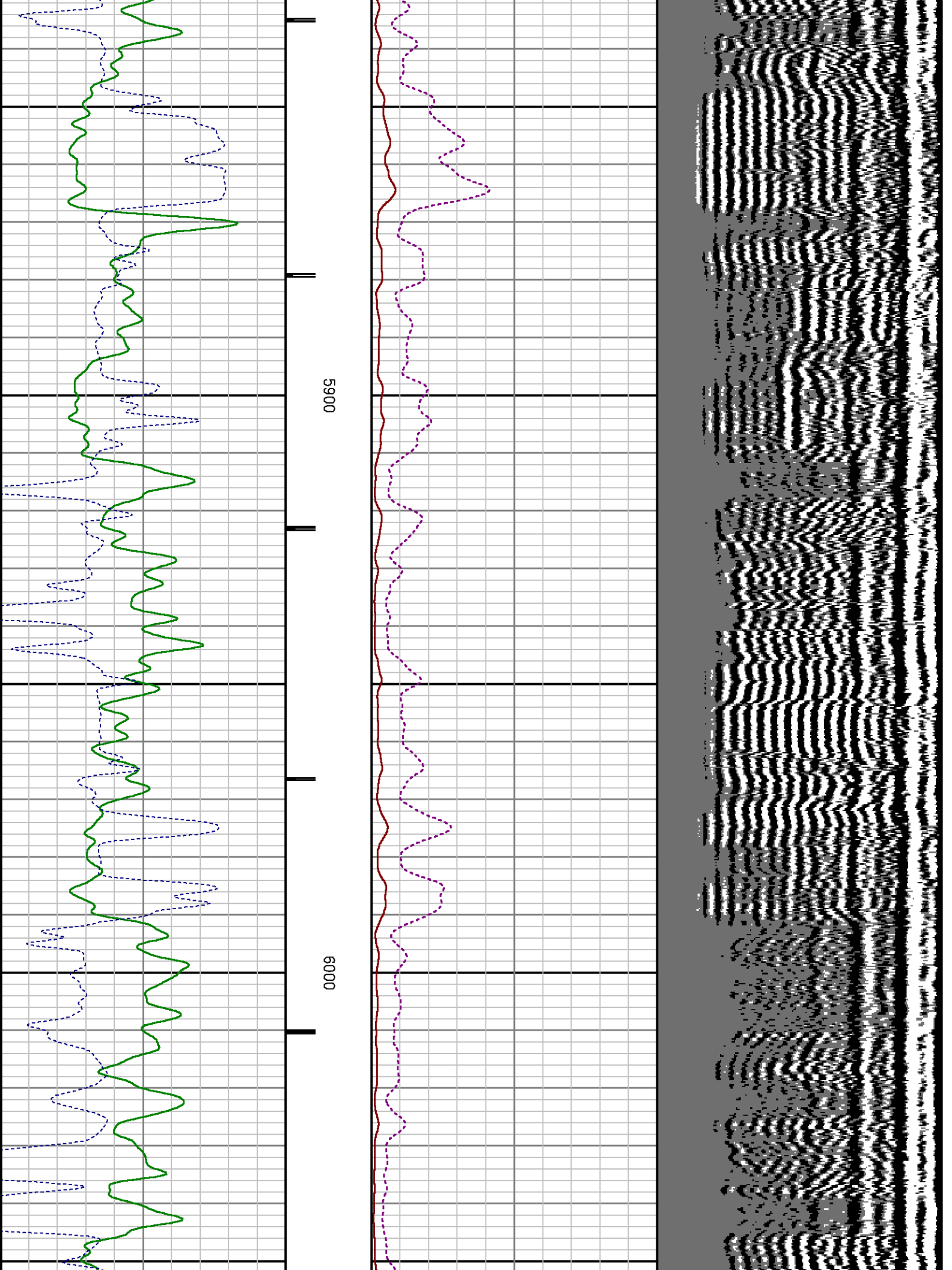


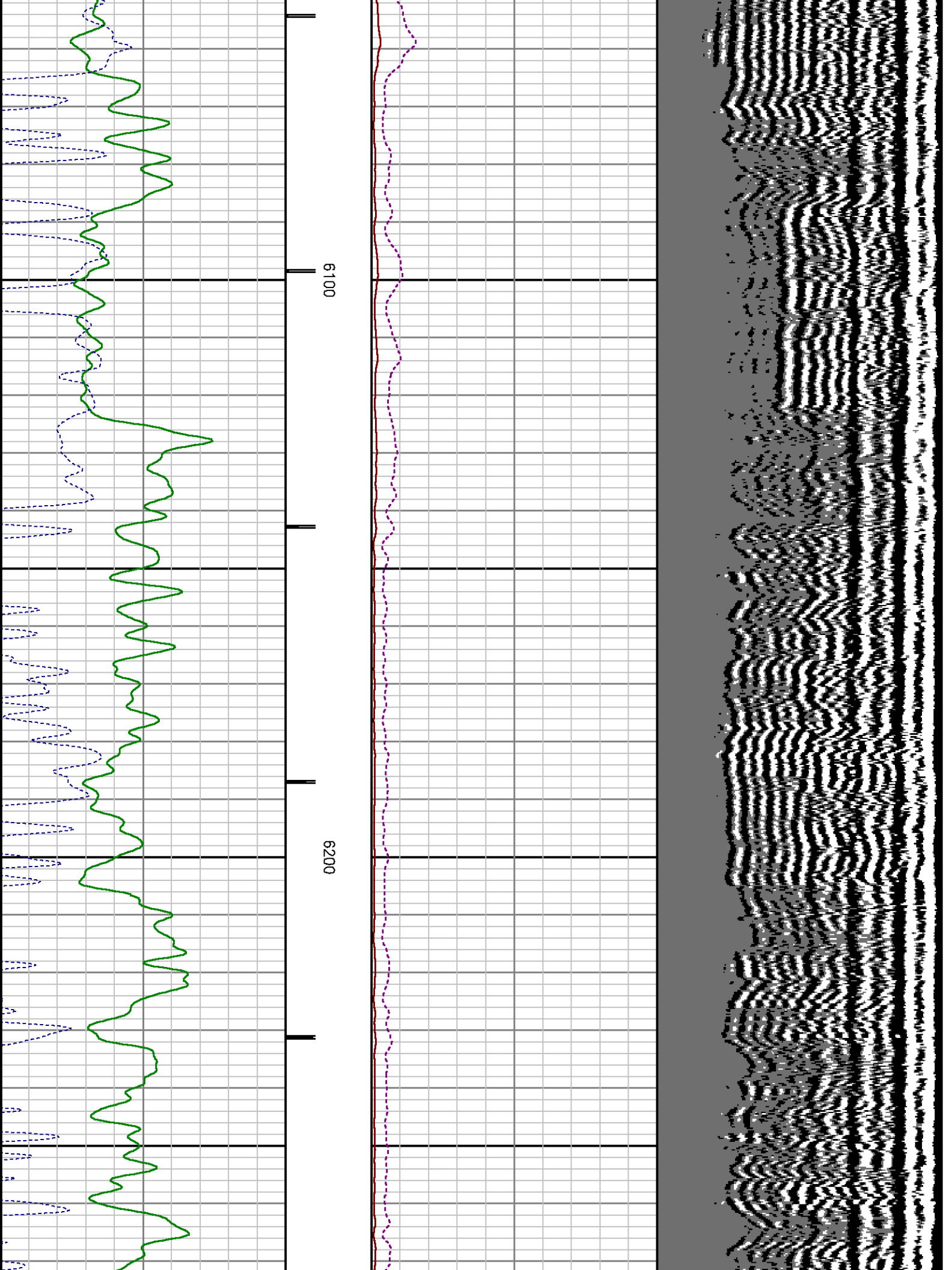


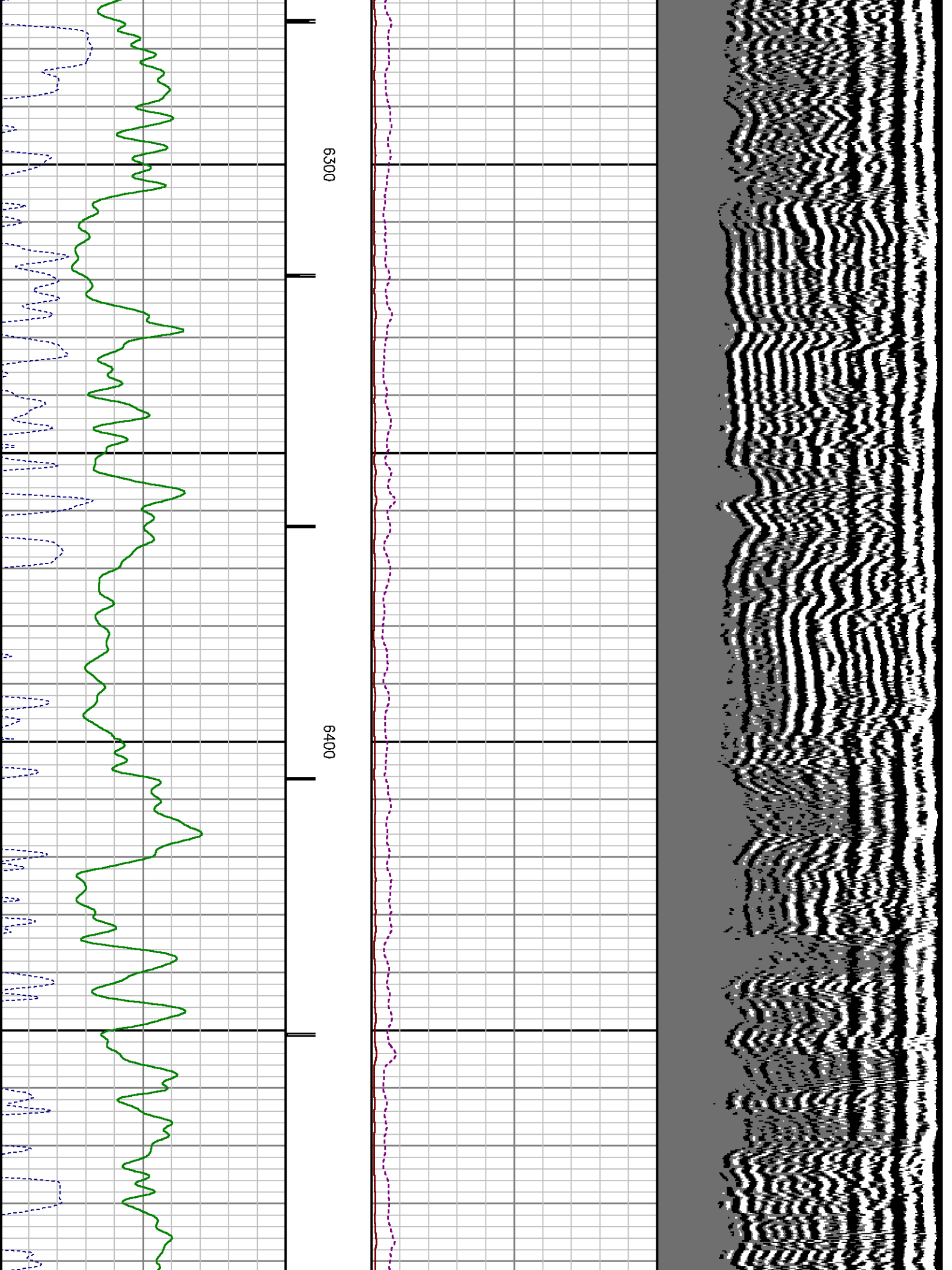


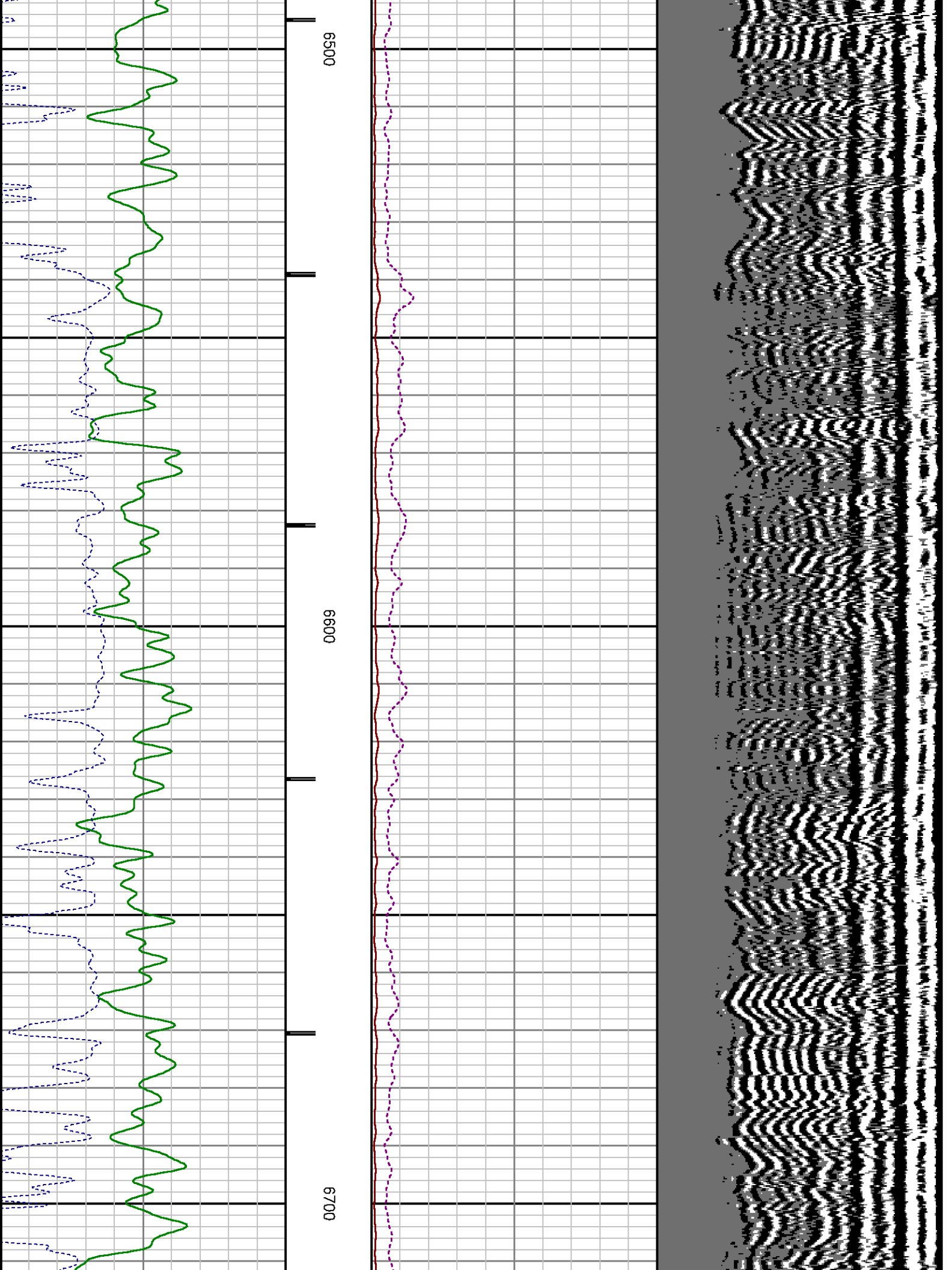


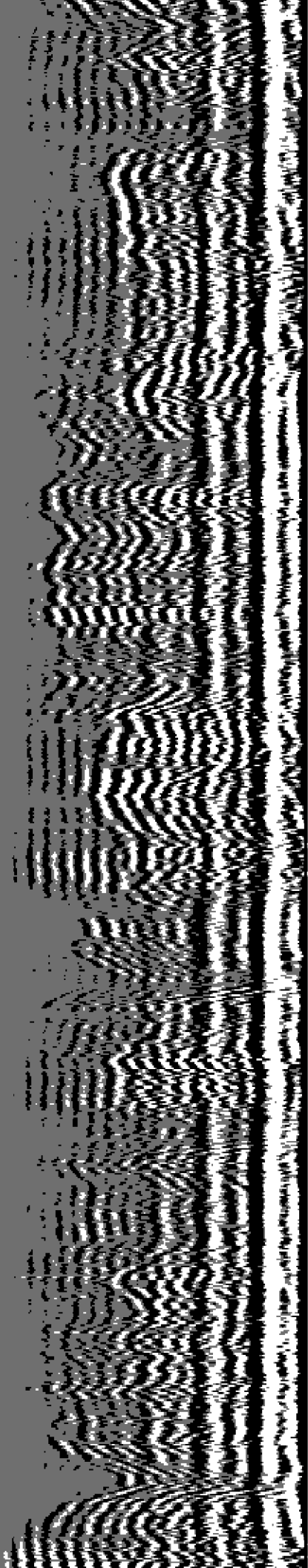
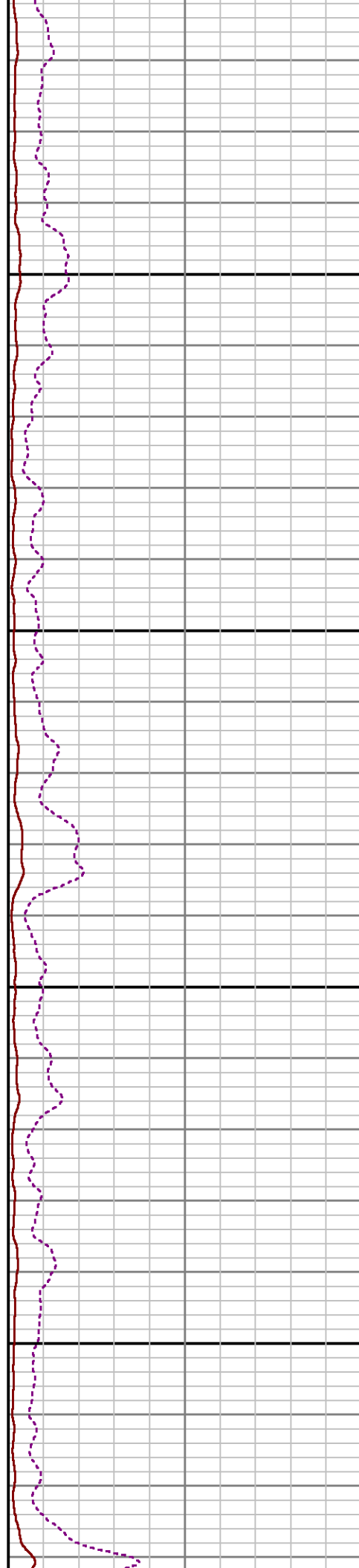
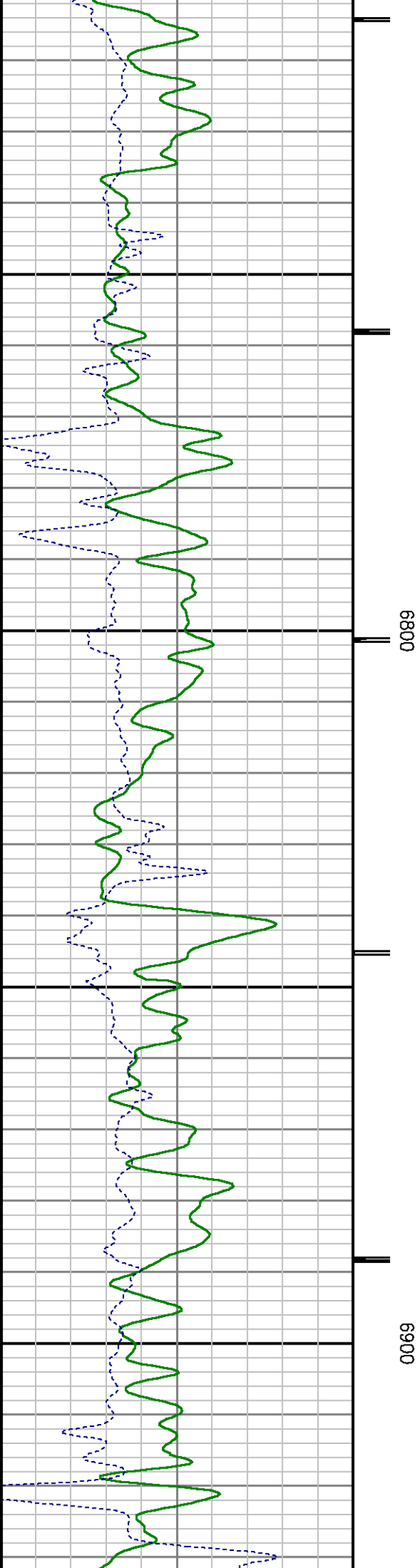


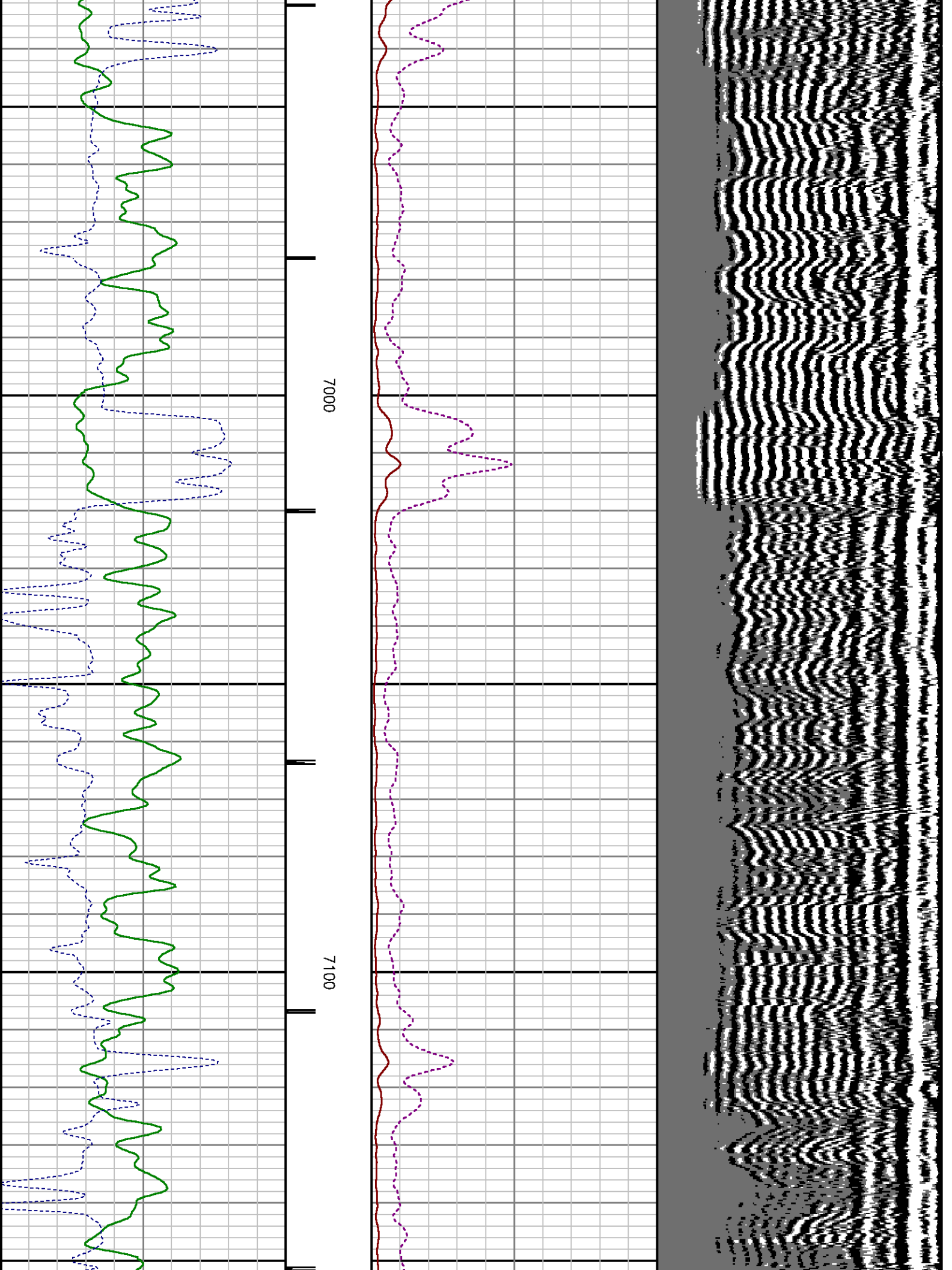


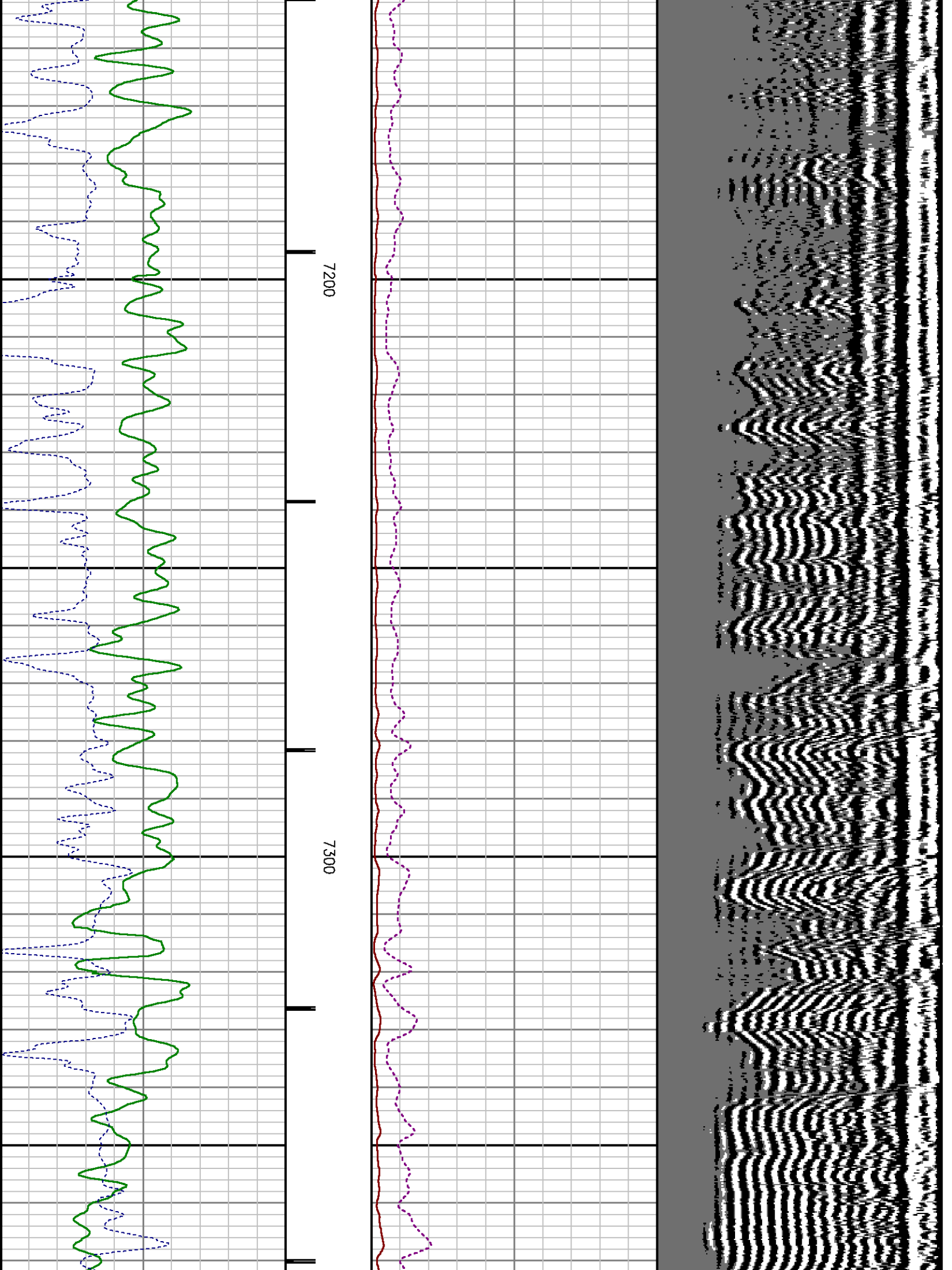


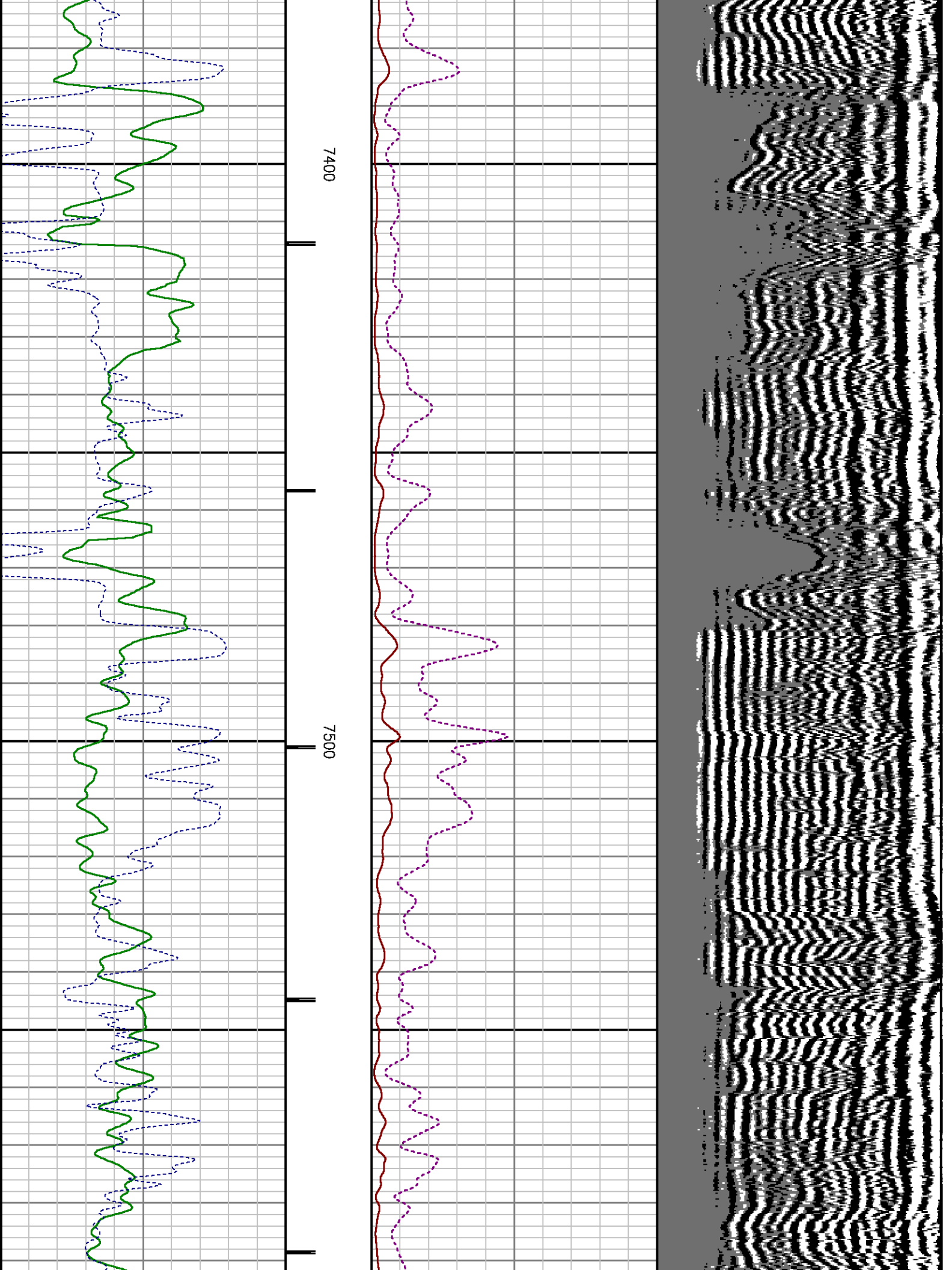


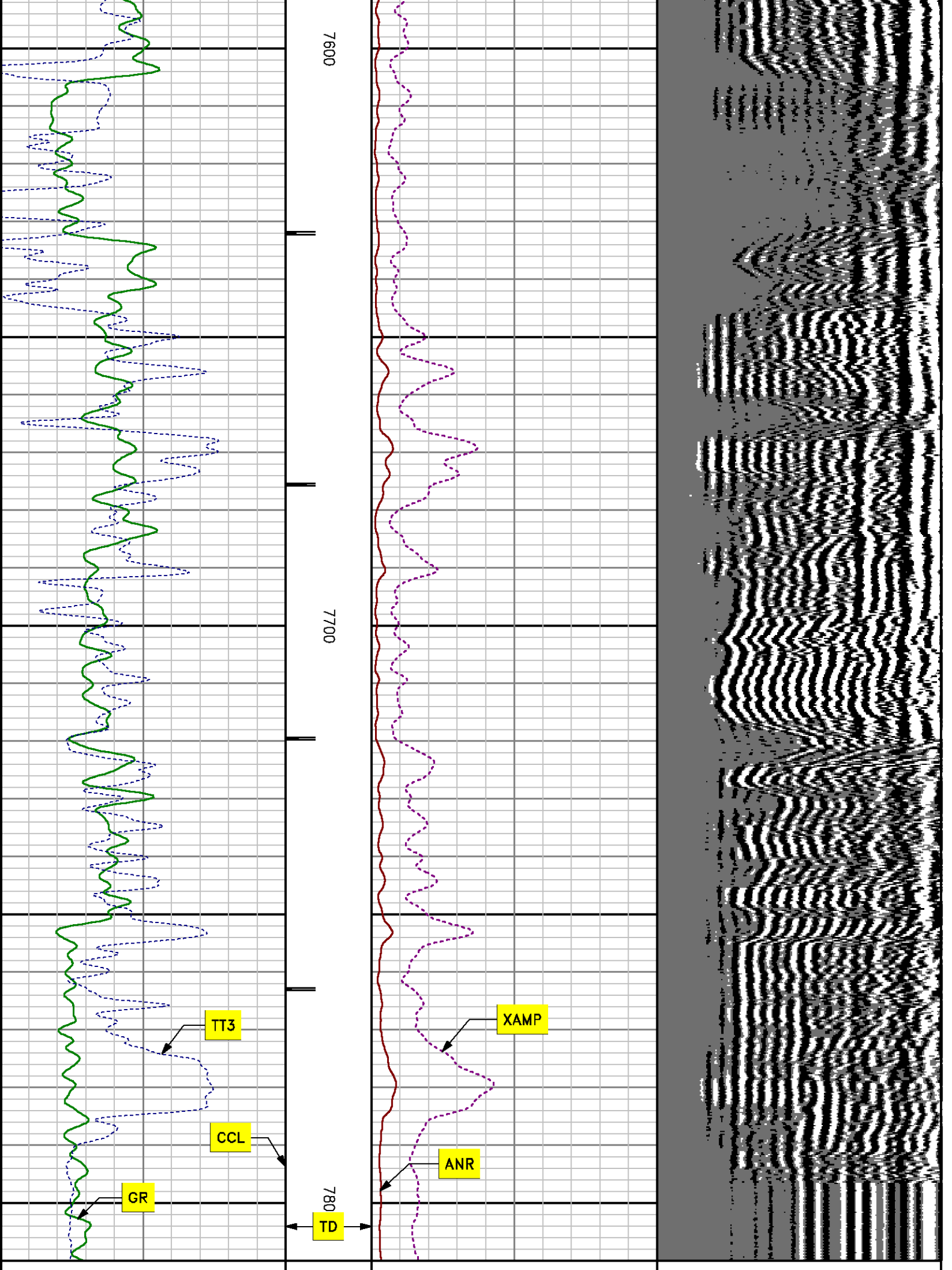


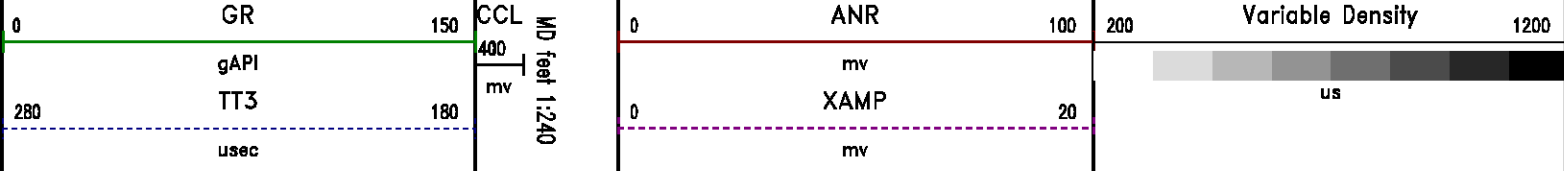












MAIN LOG SECONDARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	306.674	usec	17.937	7815.000
RAL	Amp Gate Start Near	199.015	usec	17.937	7815.000
RAL	Amp Gate Start Radial	199.599	usec	17.937	7815.000
RAL	Amp Gate Width Far	25.000	usec	17.937	7815.000
RAL	Amp Gate Width Near	25.000	usec	17.937	7815.000
RAL	Amp Gate Width Radial	25.000	usec	17.937	7815.000
RAL	casing od	4.500	inches	17.937	7815.000
RAL	casing wt	11.600	lbm/ft	17.937	7815.000
RAL	FB Start Far	291.900	usec	17.937	7815.000
RAL	FB Start Near	175.391	usec	17.937	7815.000
RAL	FB Start Radial	175.391	usec	17.937	7815.000
RAL	FB Thresh Far	10.000	mv	17.937	7815.000
RAL	FB Thresh Near	4.000	mv	17.937	7815.000
RAL	FB Thresh Radial	4.000	mv	17.937	7815.000
RAL	Fluid Travel Time	200.000	usec/ft	17.937	7814.750

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-11.000	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	-10.040	AFAR	SIG	TT5			
1355XA	-5.620	CCL					

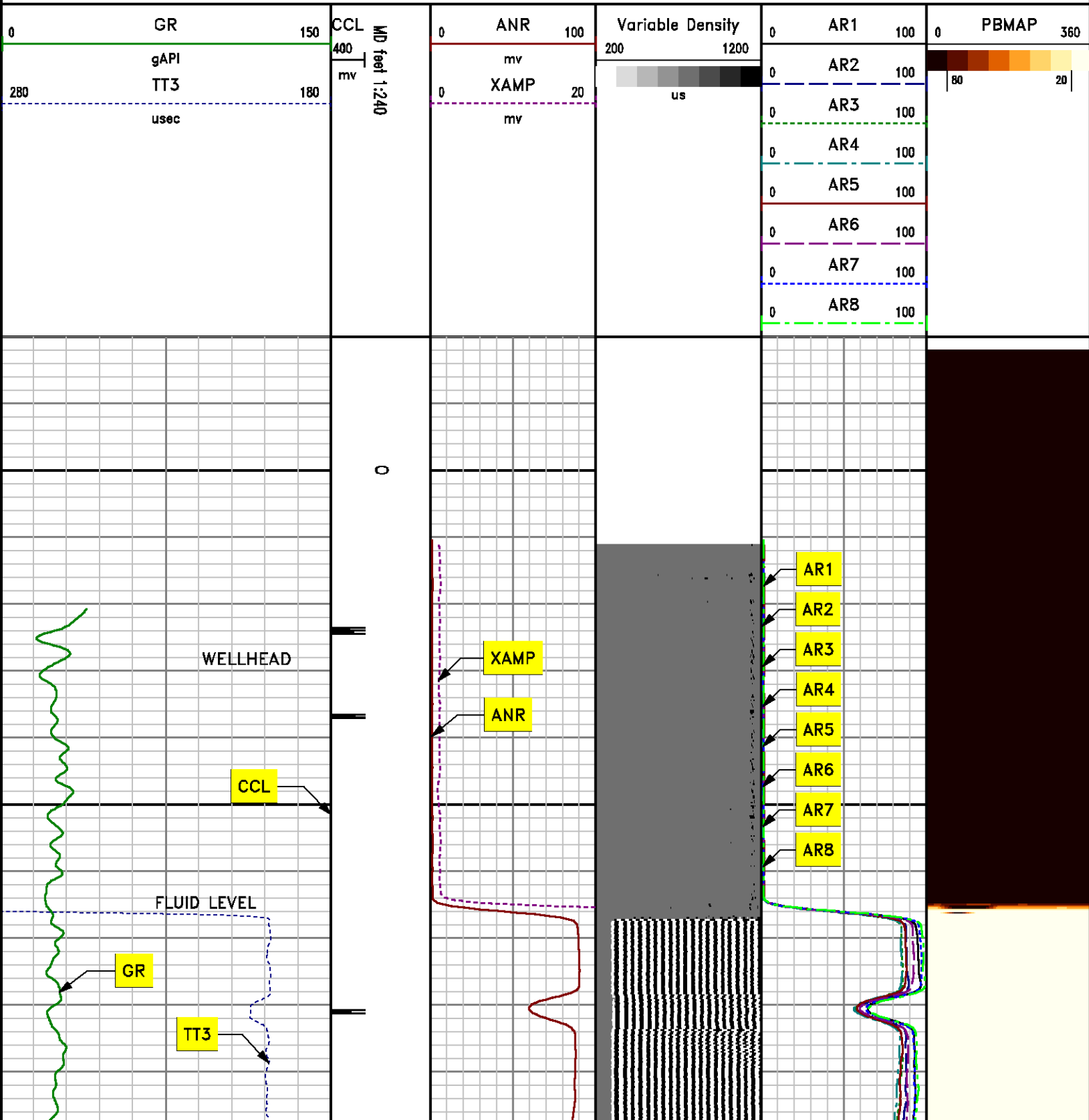
1355XA
1355XA

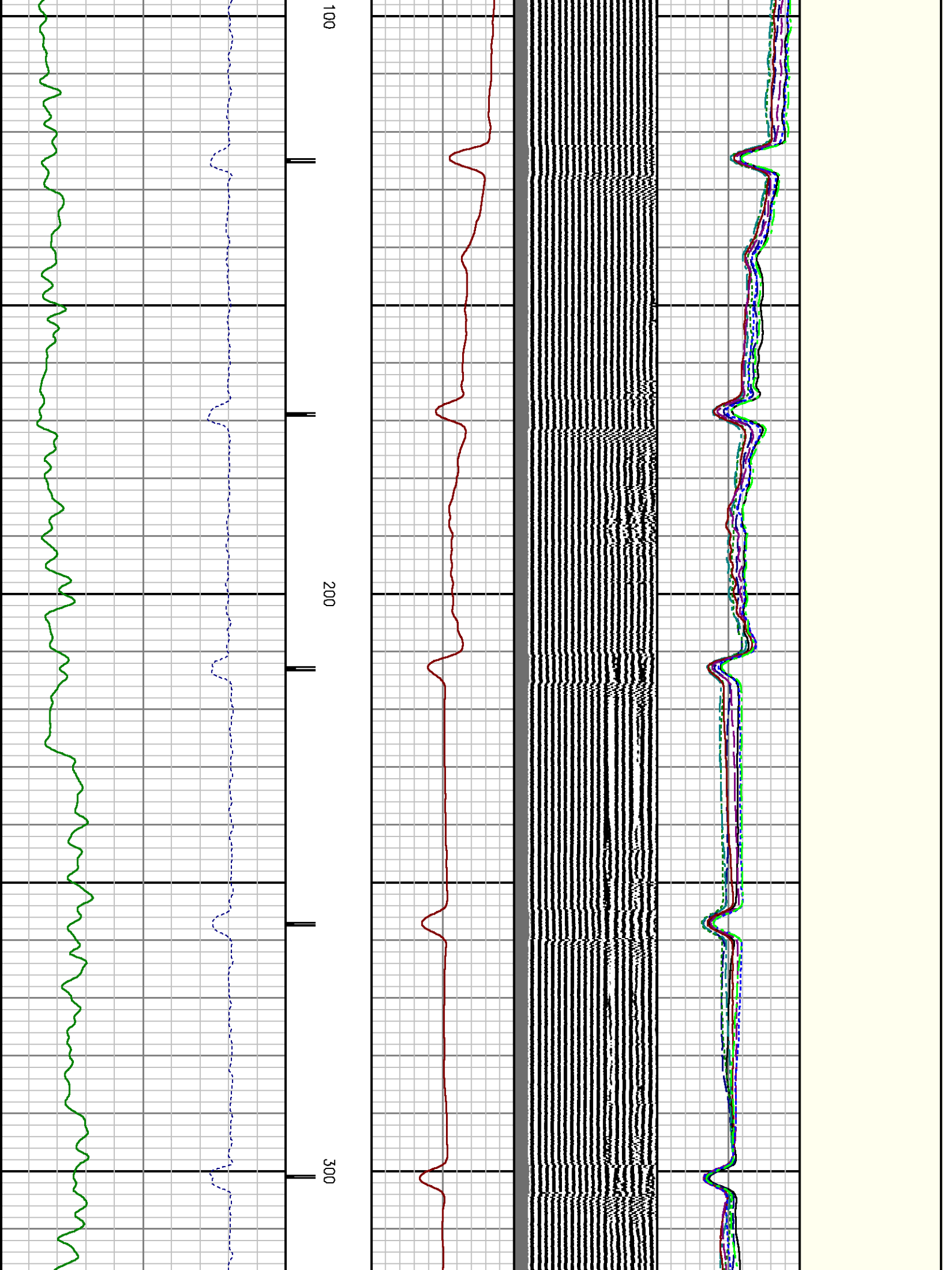
-1.500
0.000

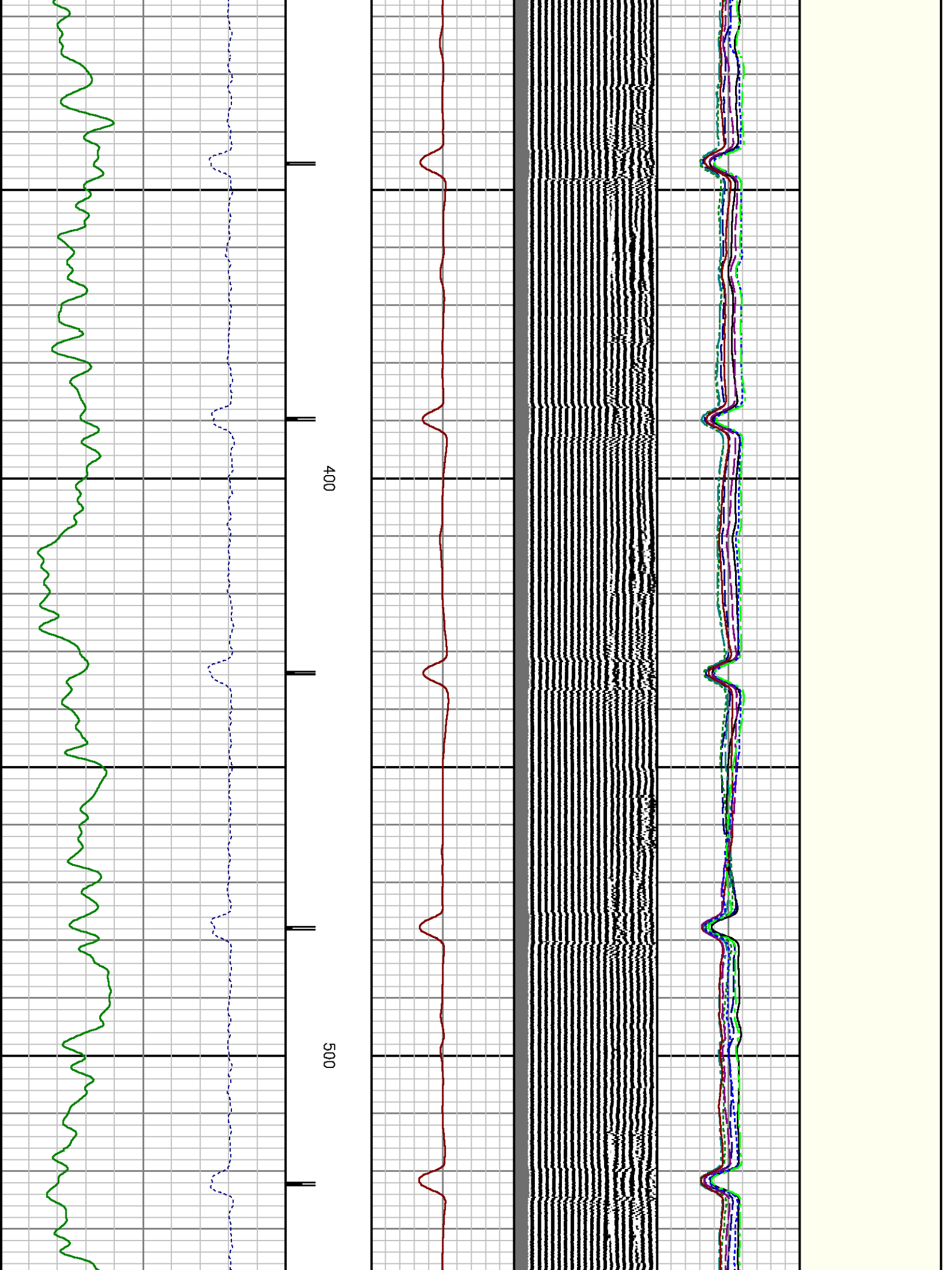
GR
TEMP

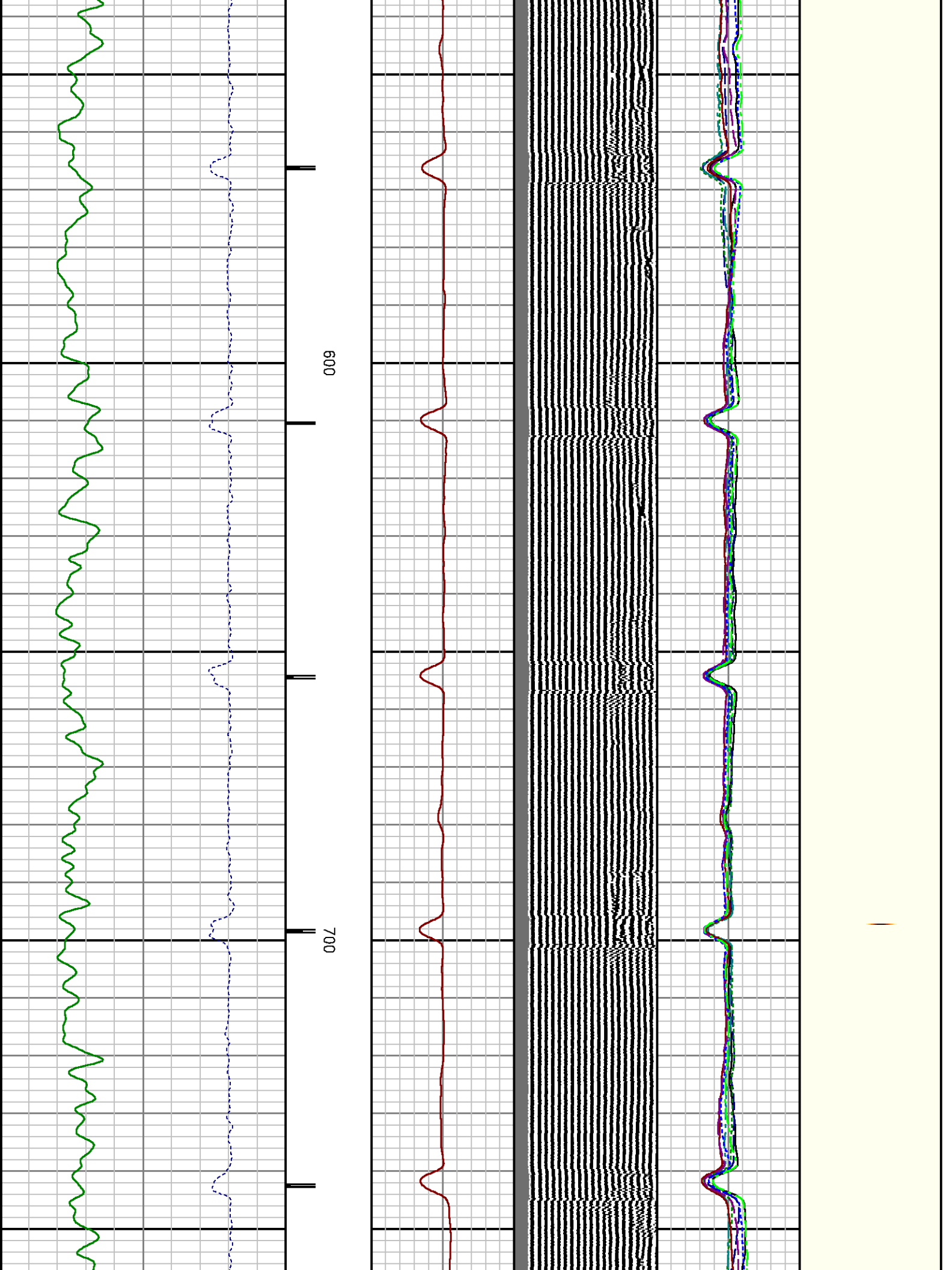
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Plotted by : PlotMgr, v5.4.504

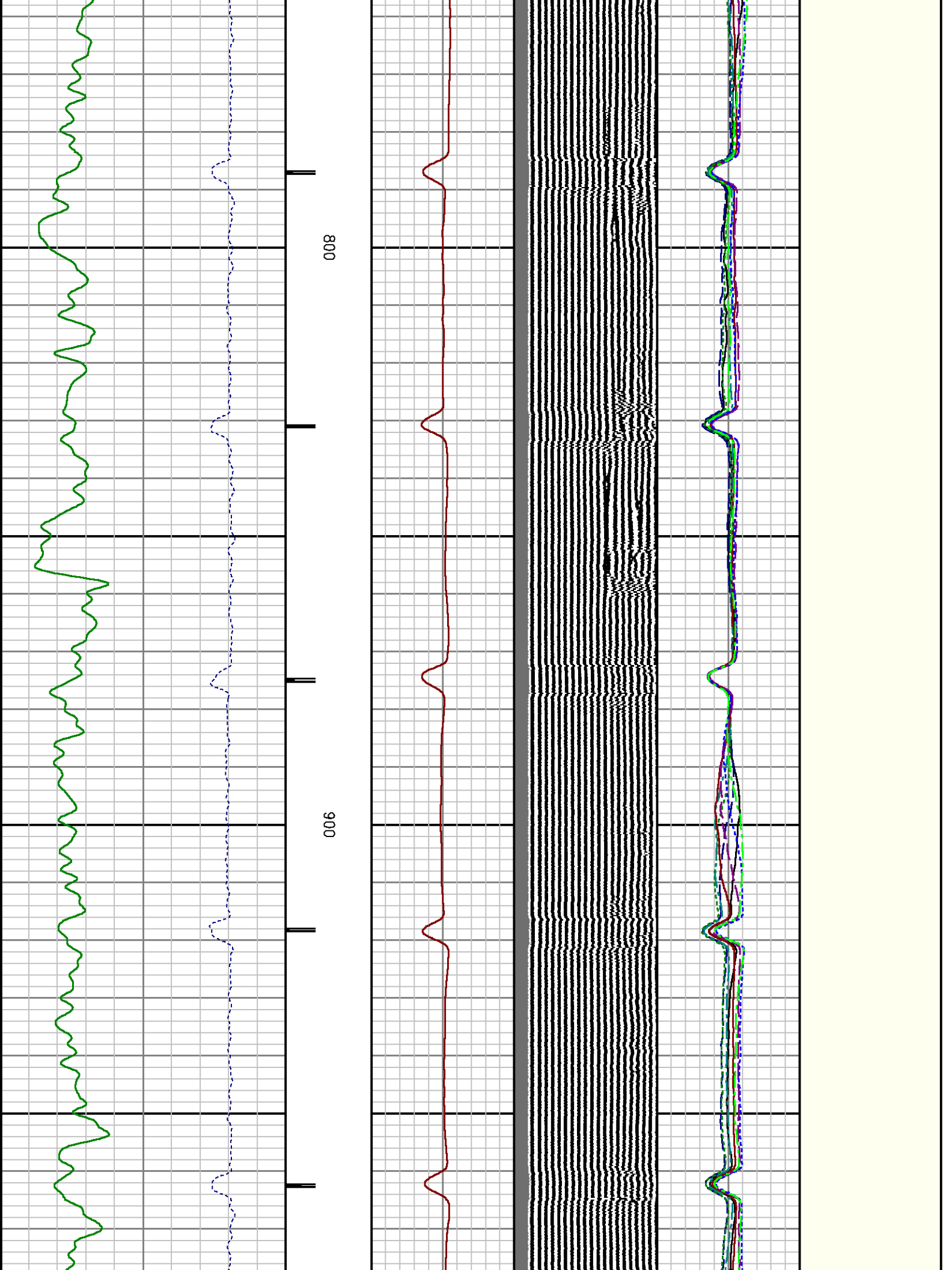
Company : WPX ENERGY
Well : DUGGAN RWF 14-29
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Interval : -20.00 - 7810.00 feet UP
Created : 7/9/2013 11:53:28 AM

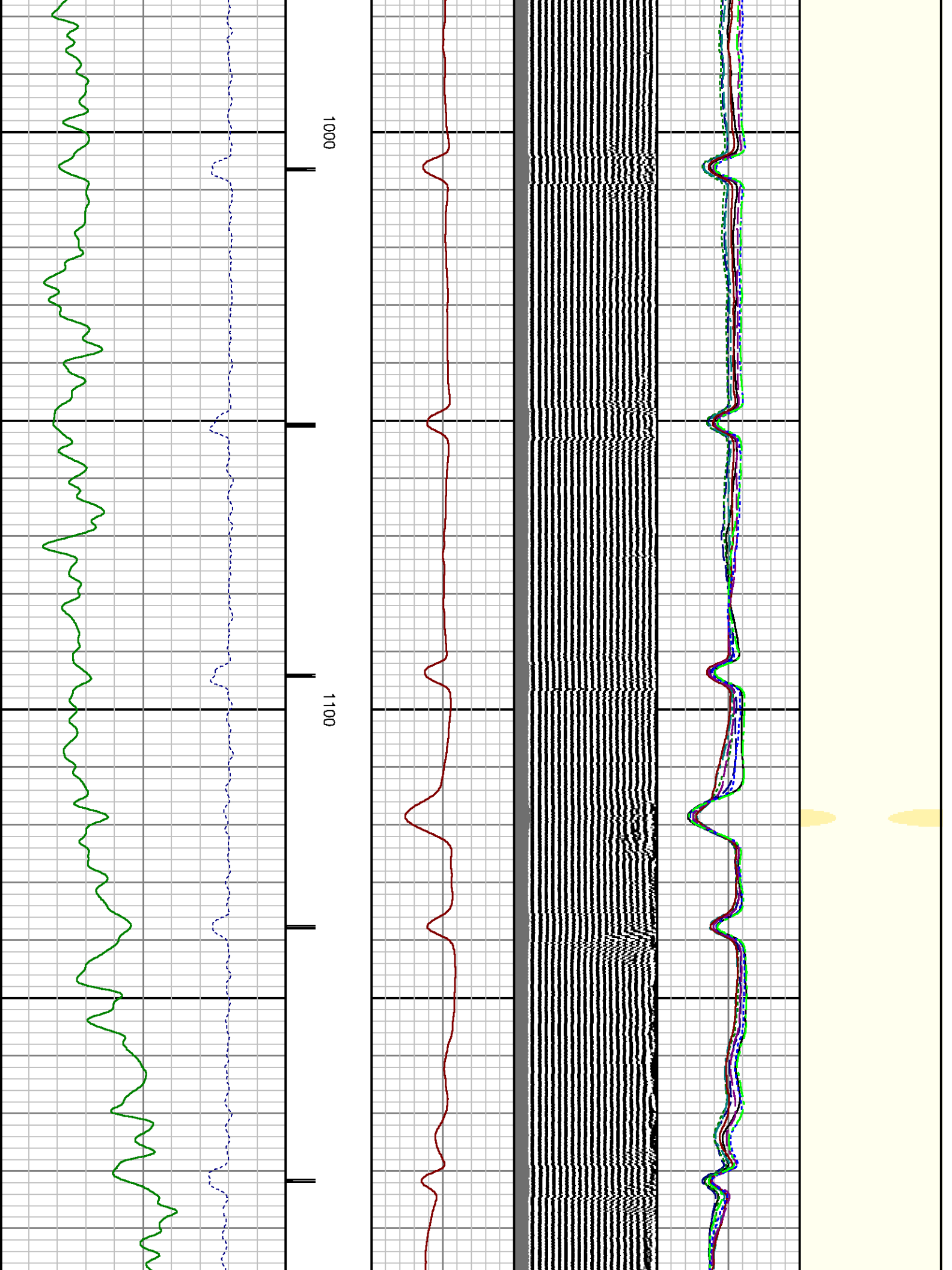


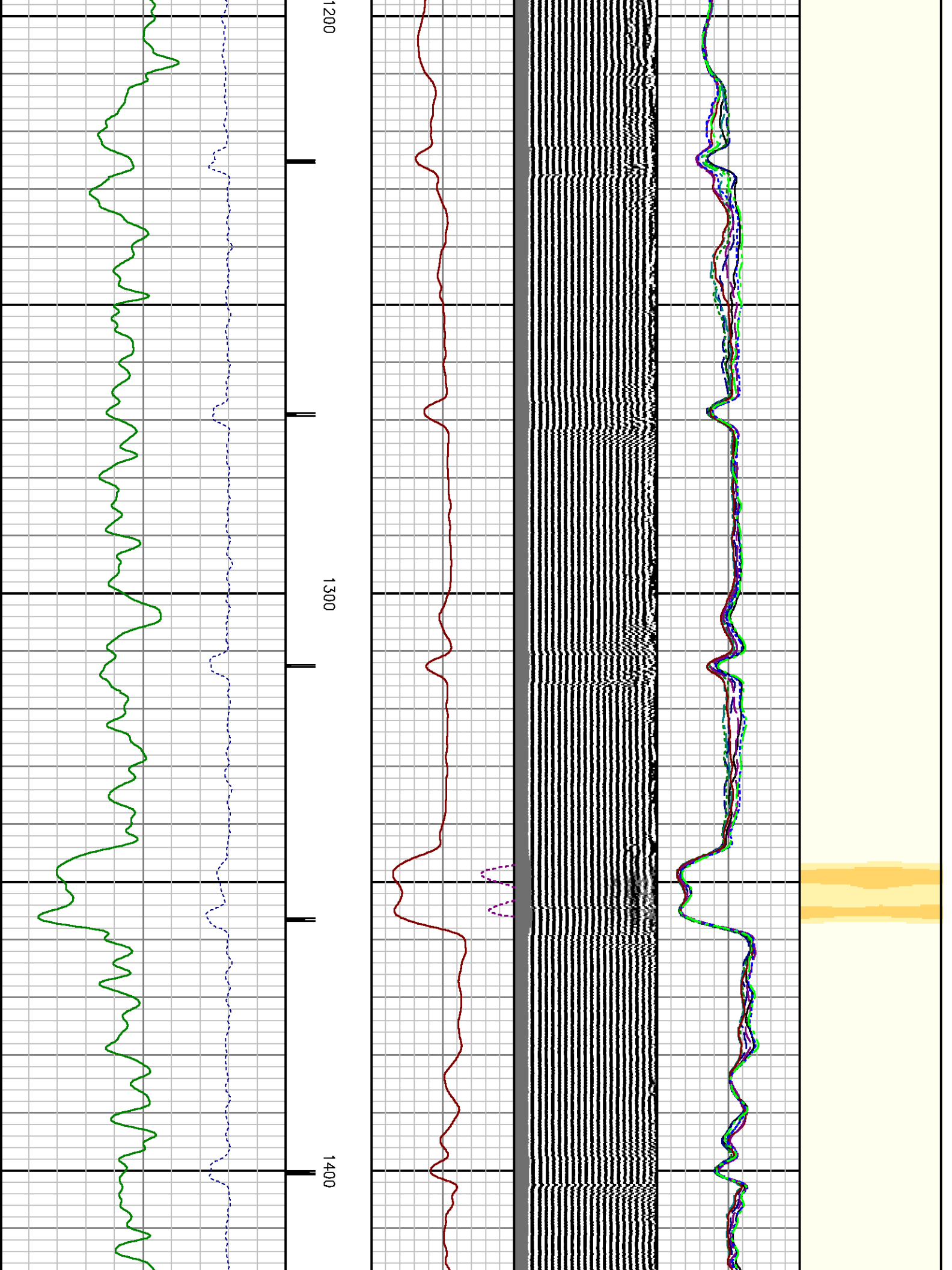


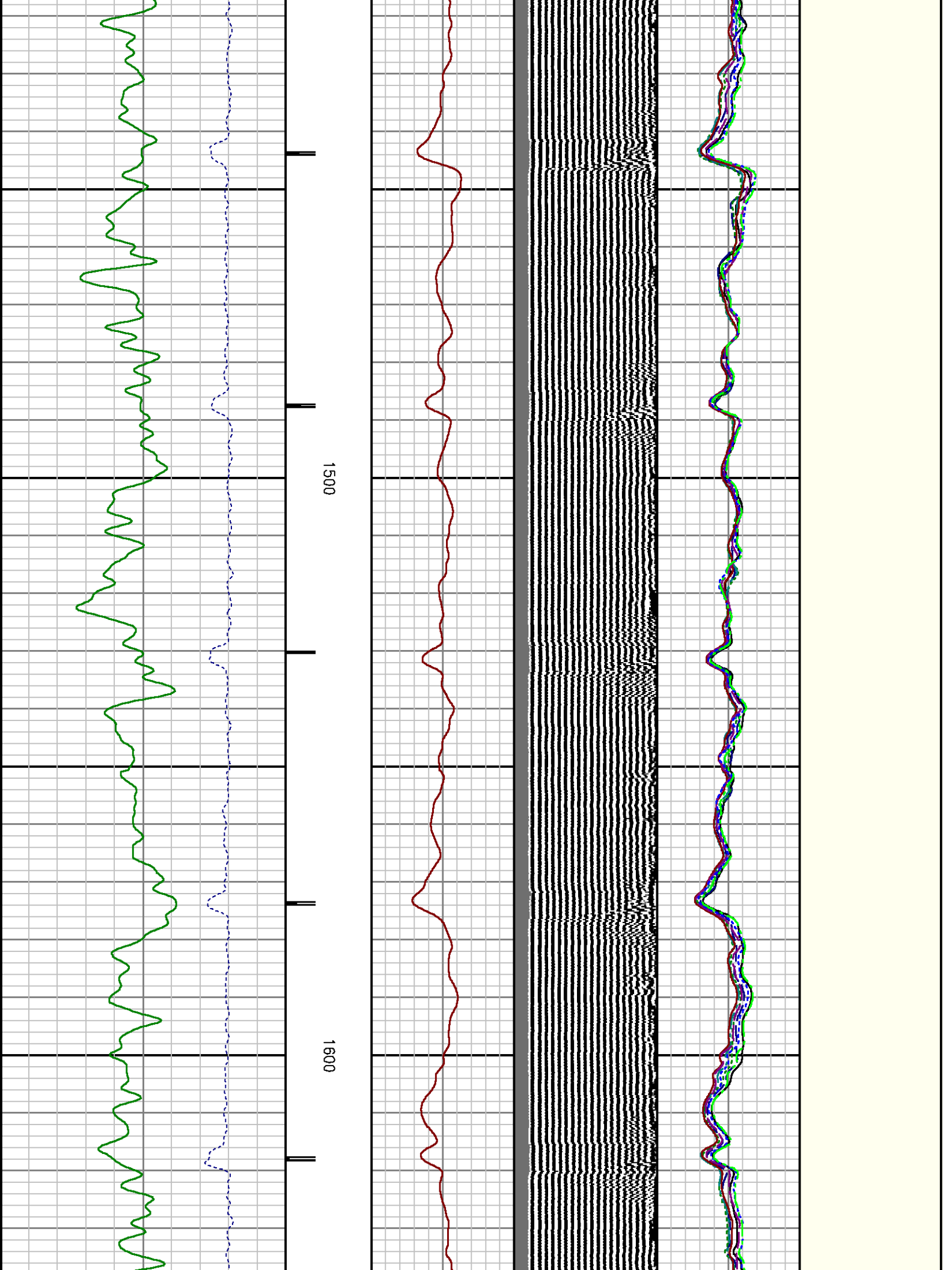


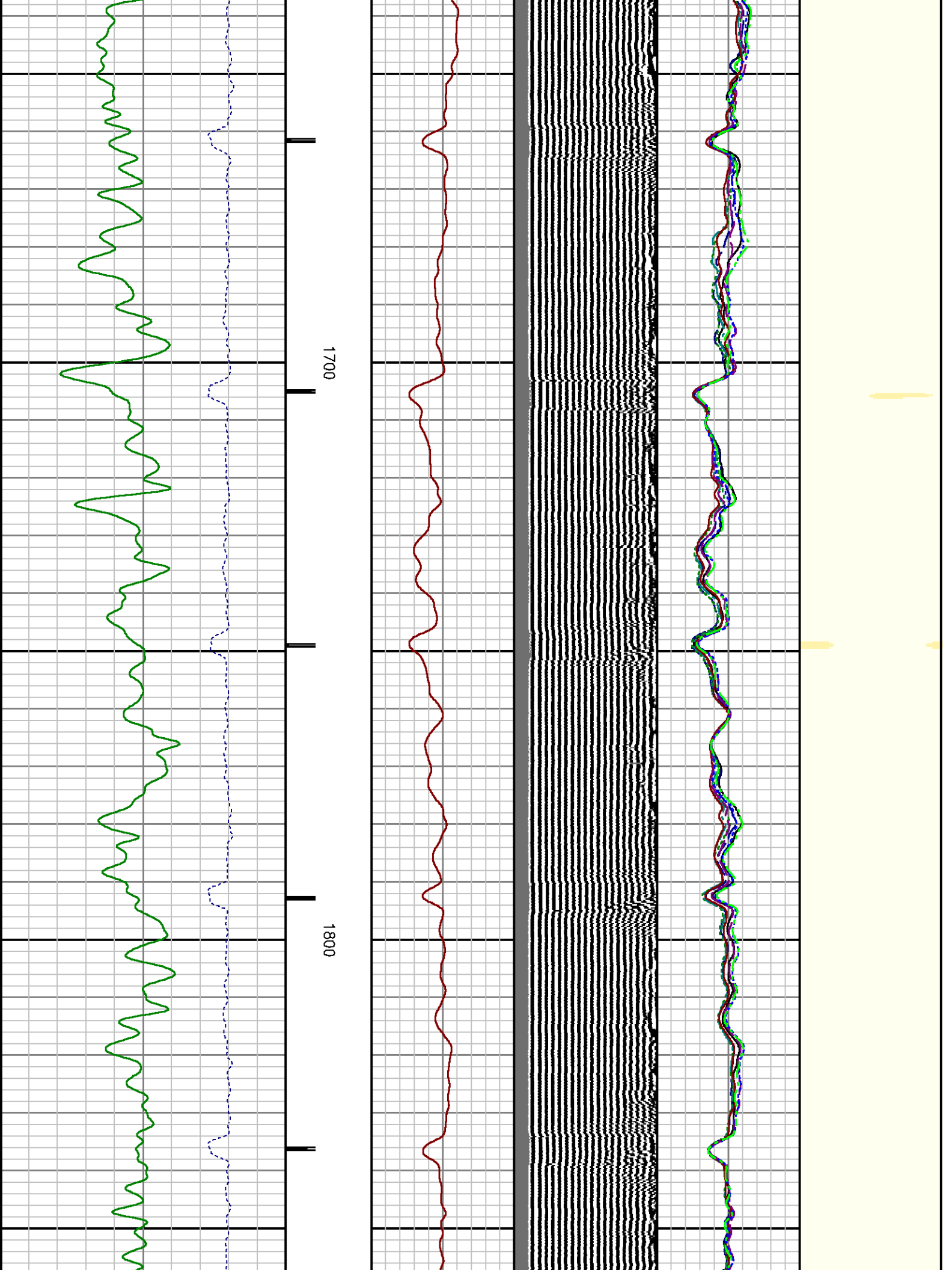


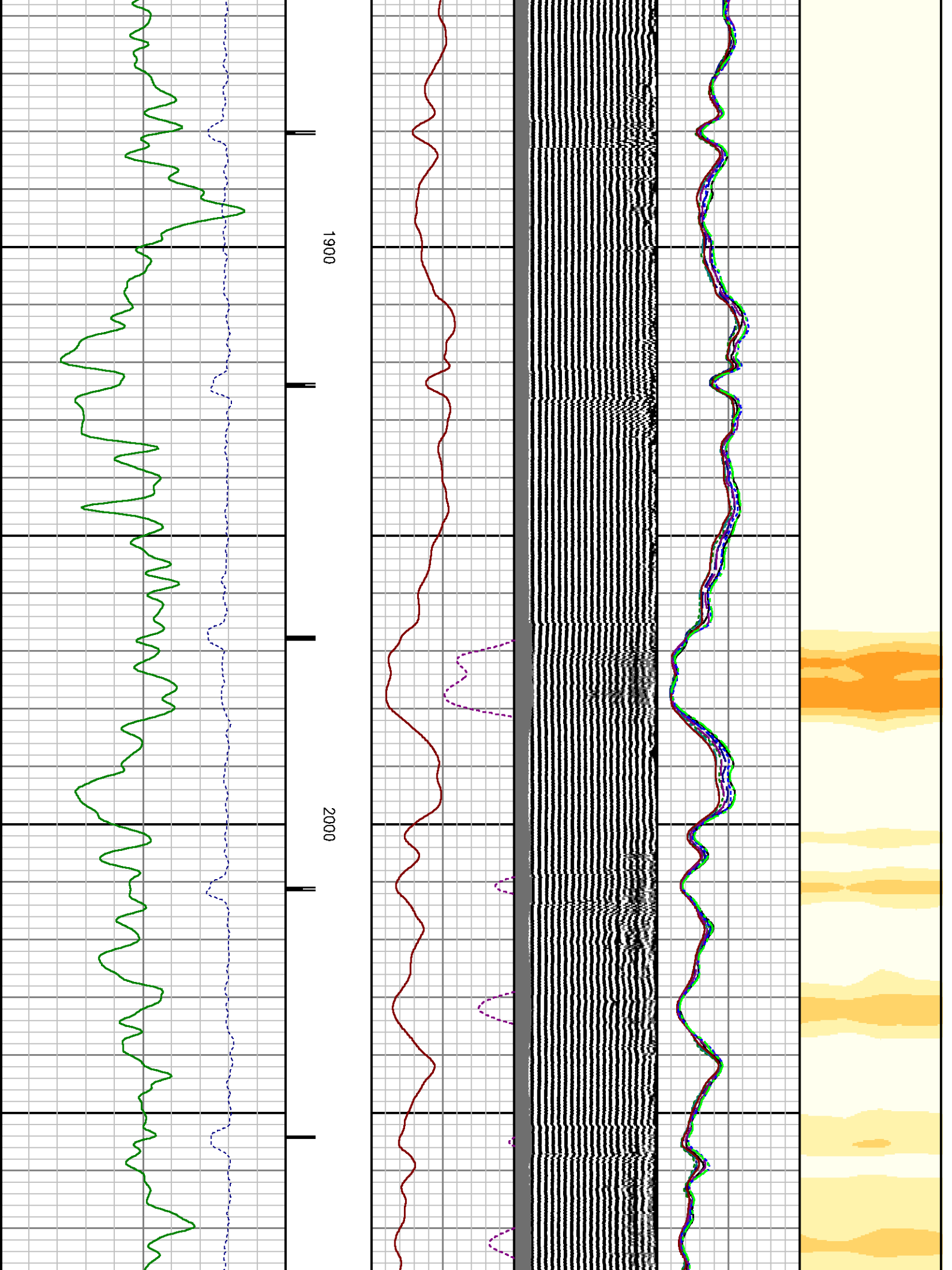


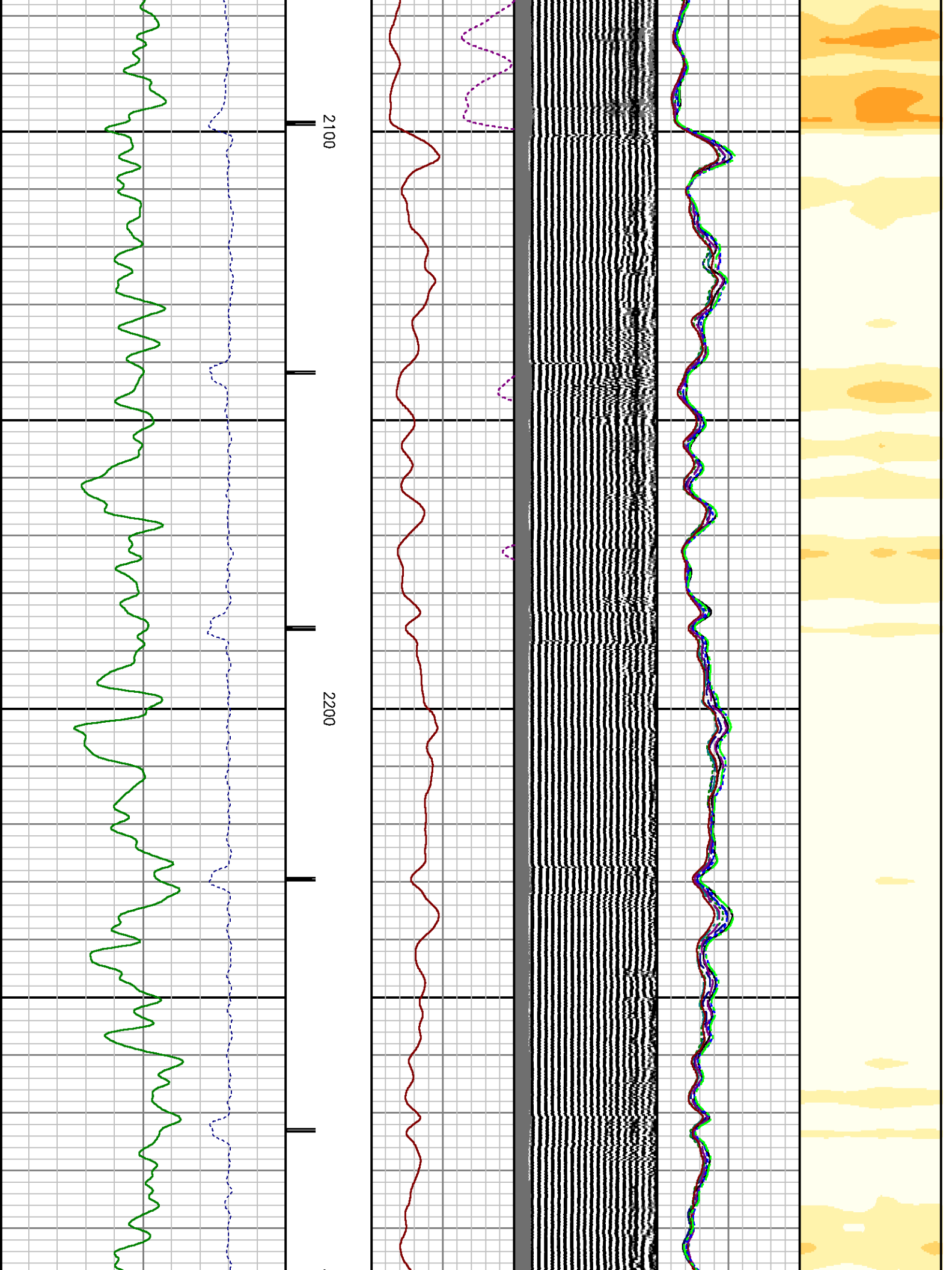


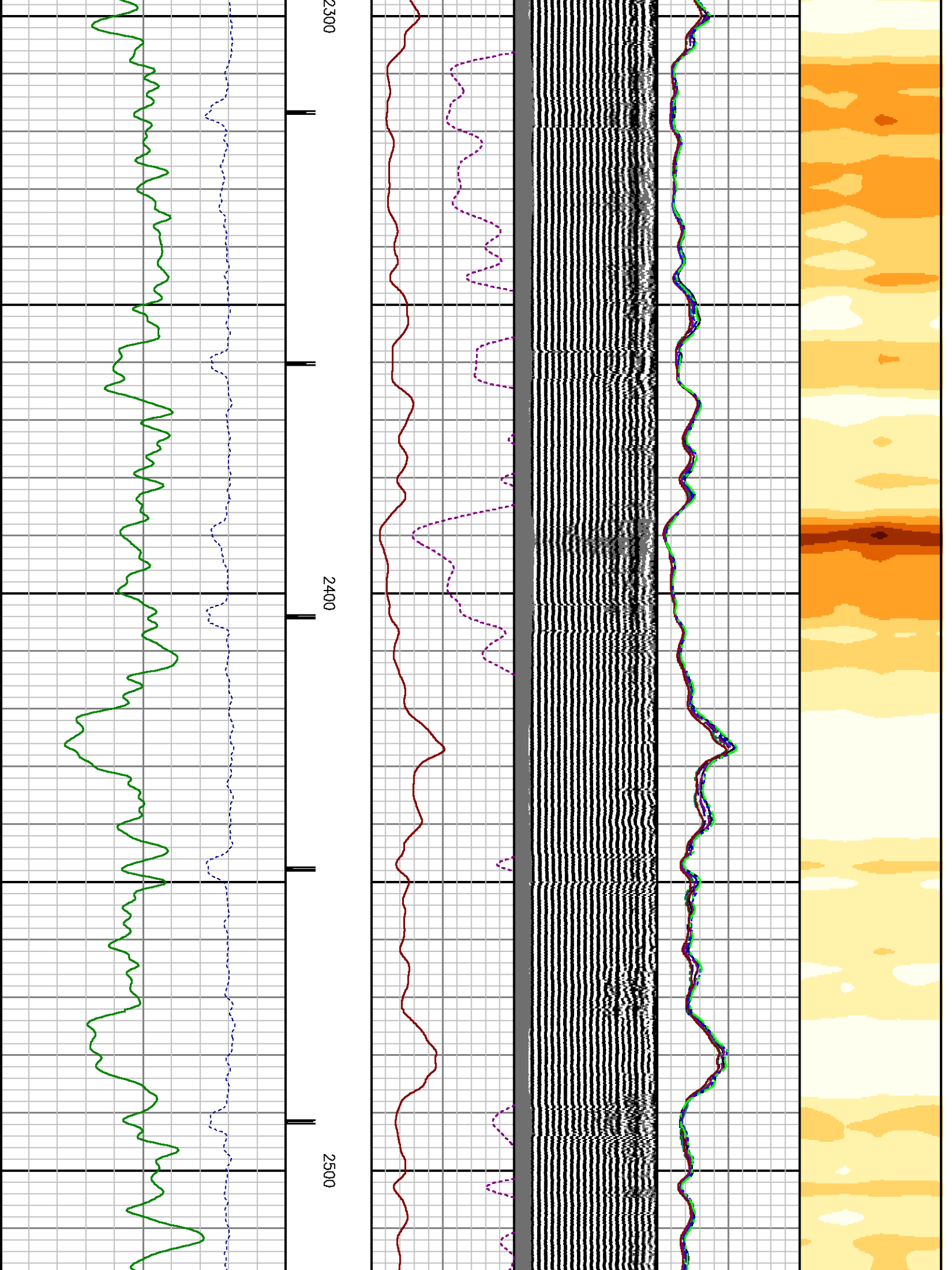


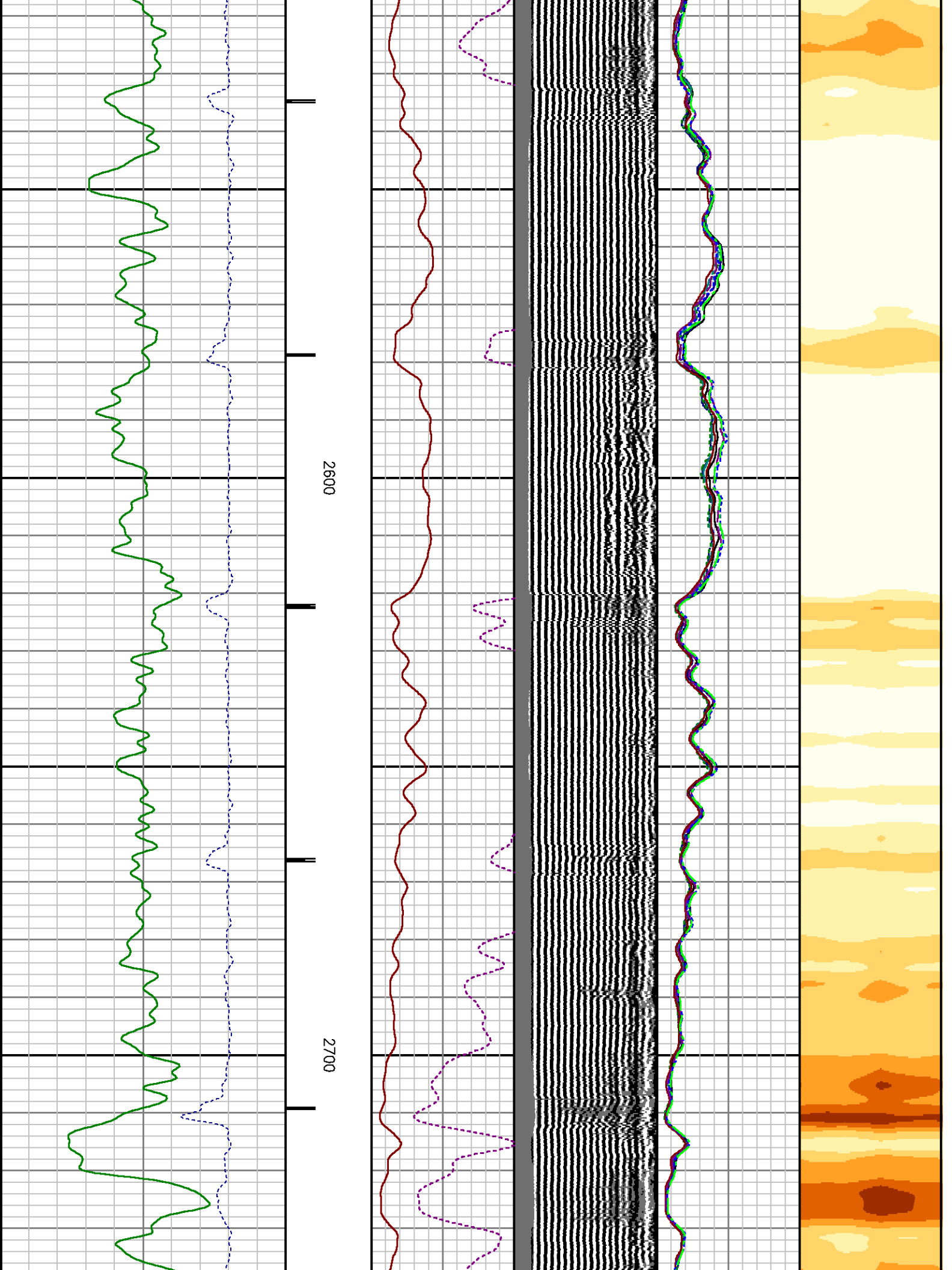


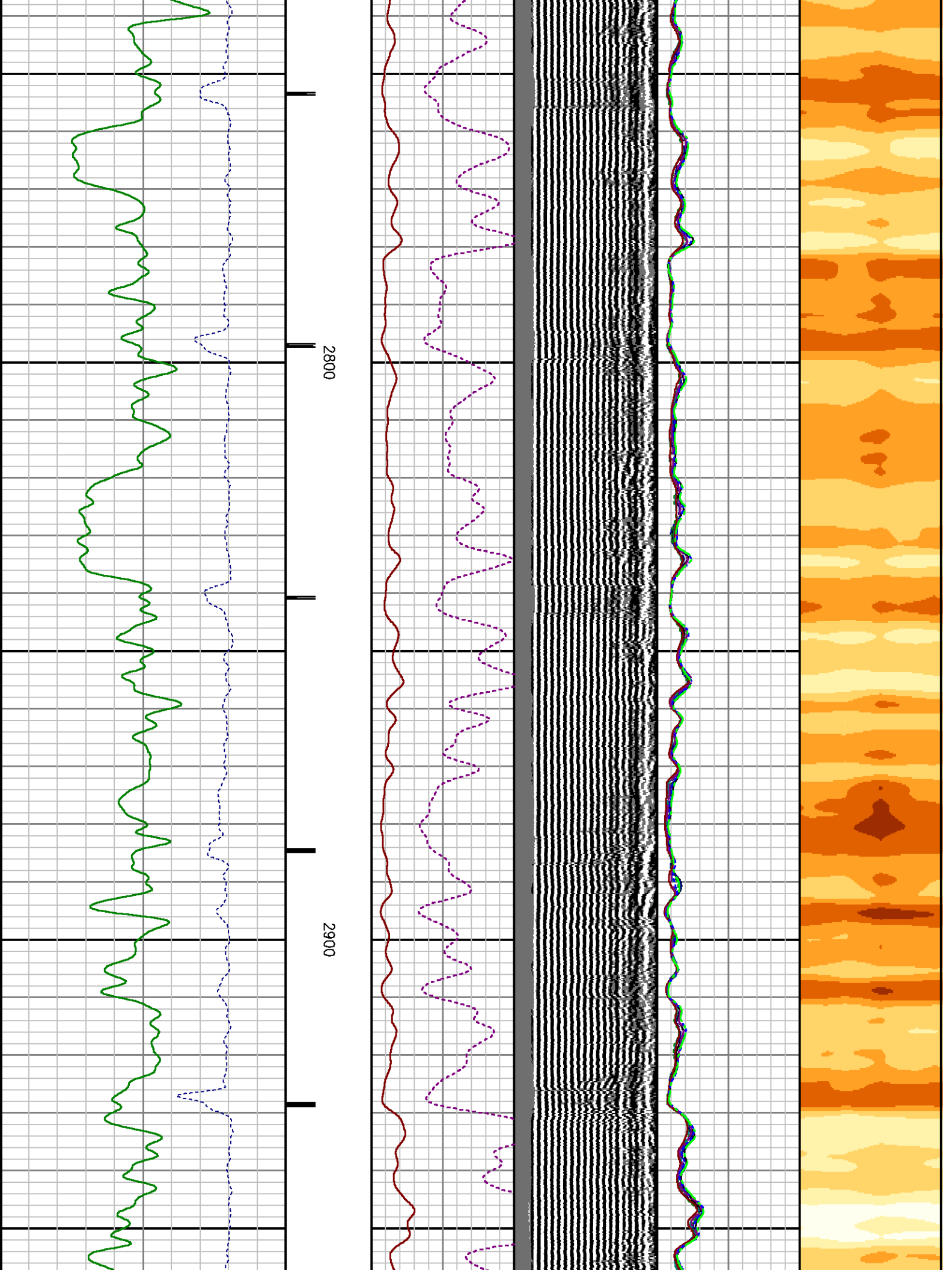


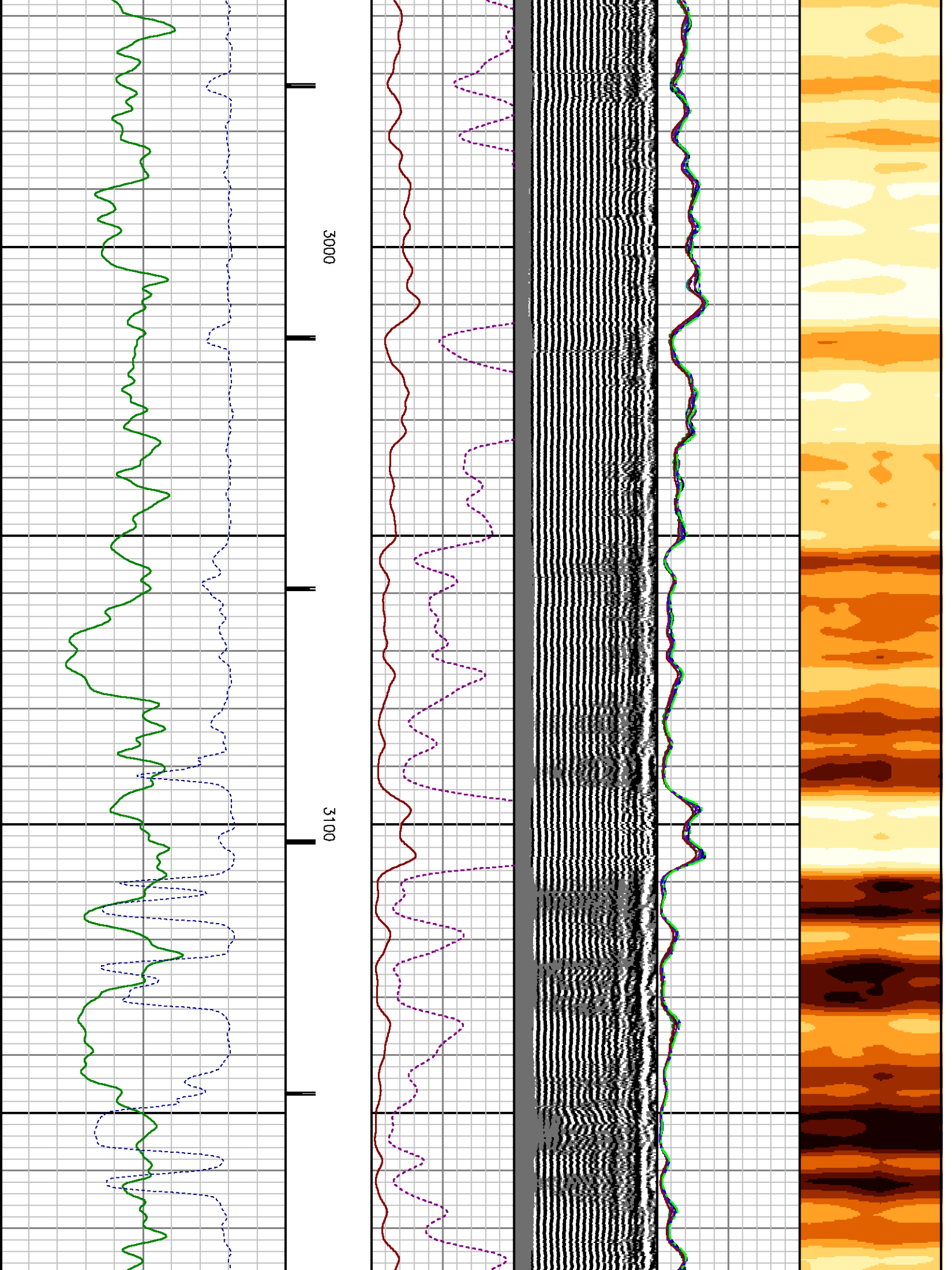


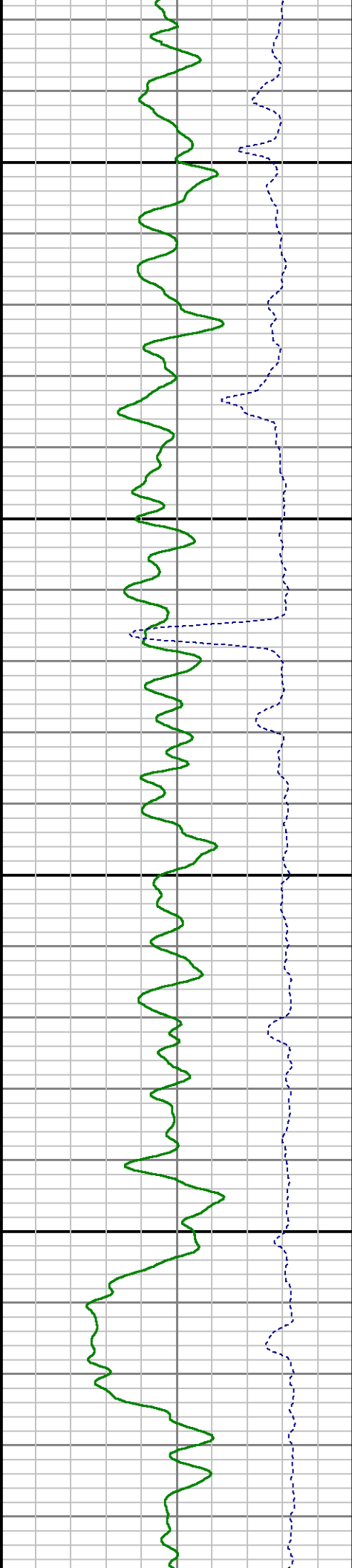
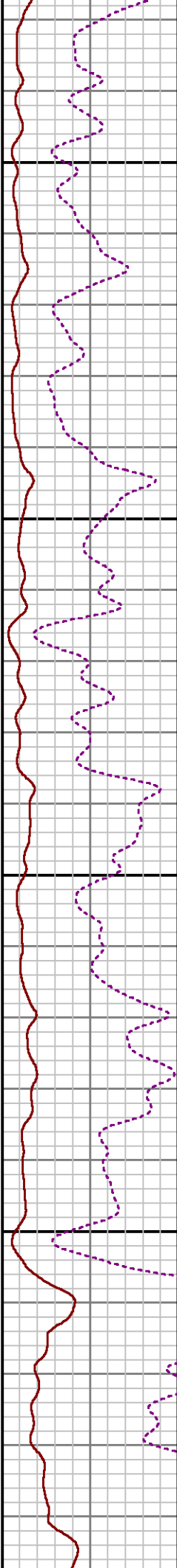
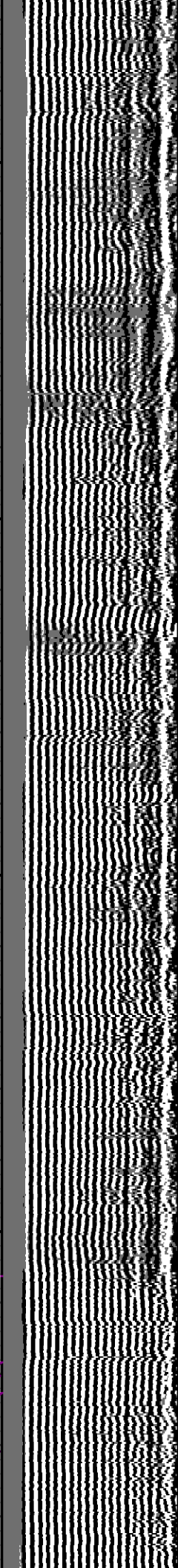
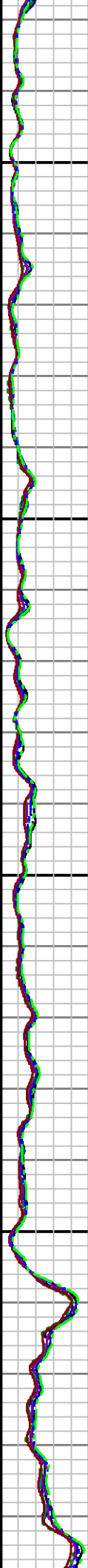
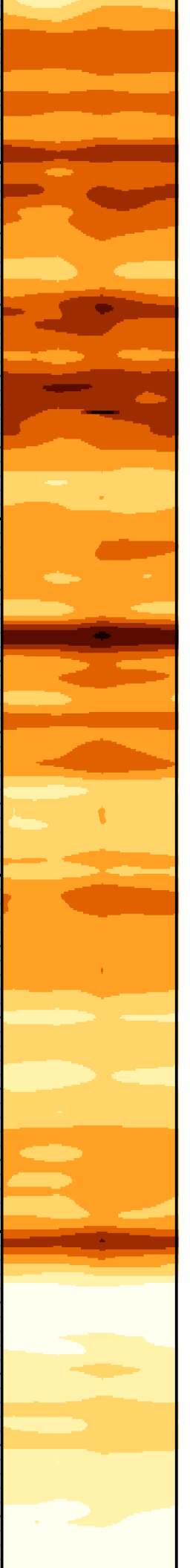


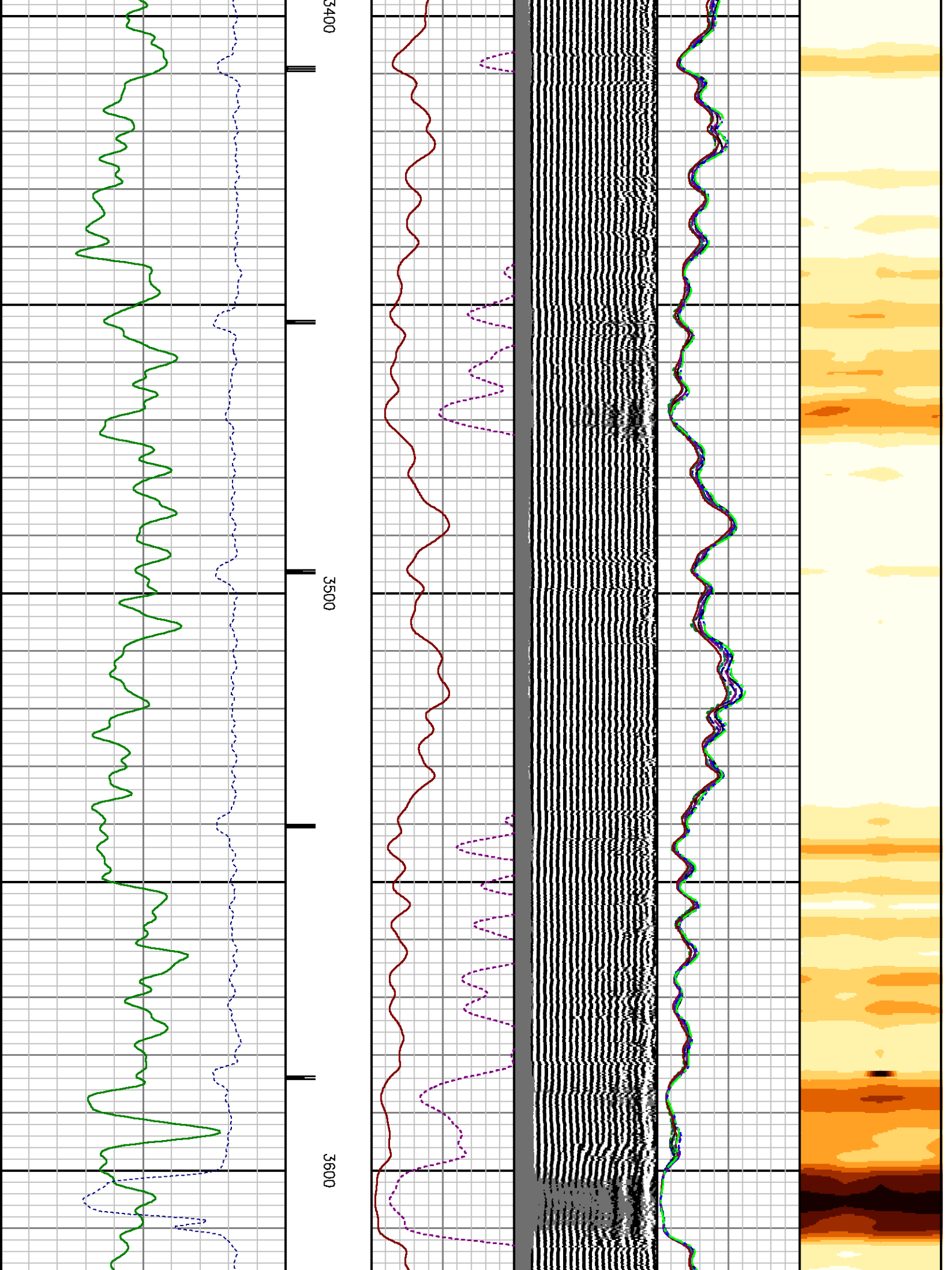


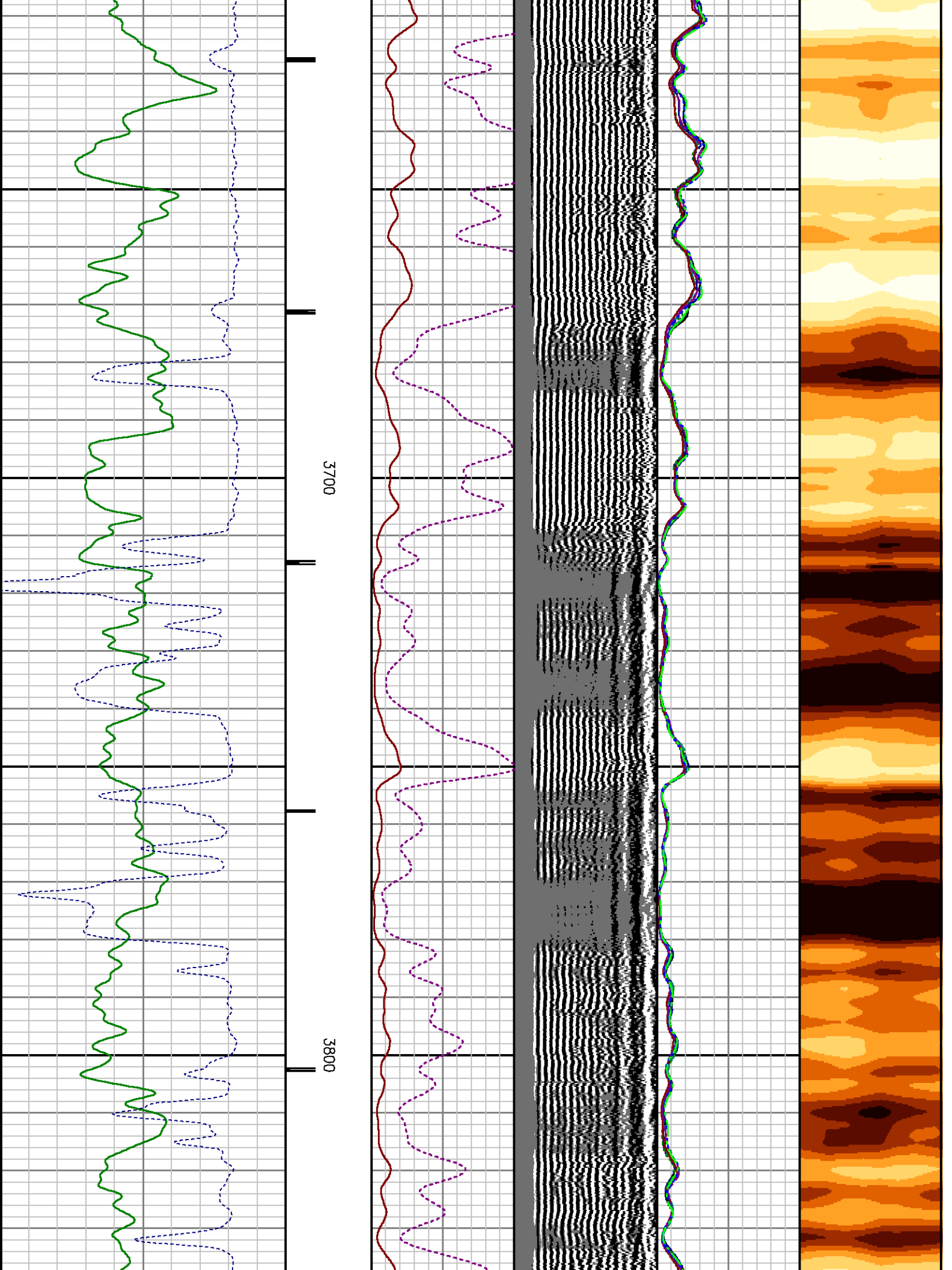


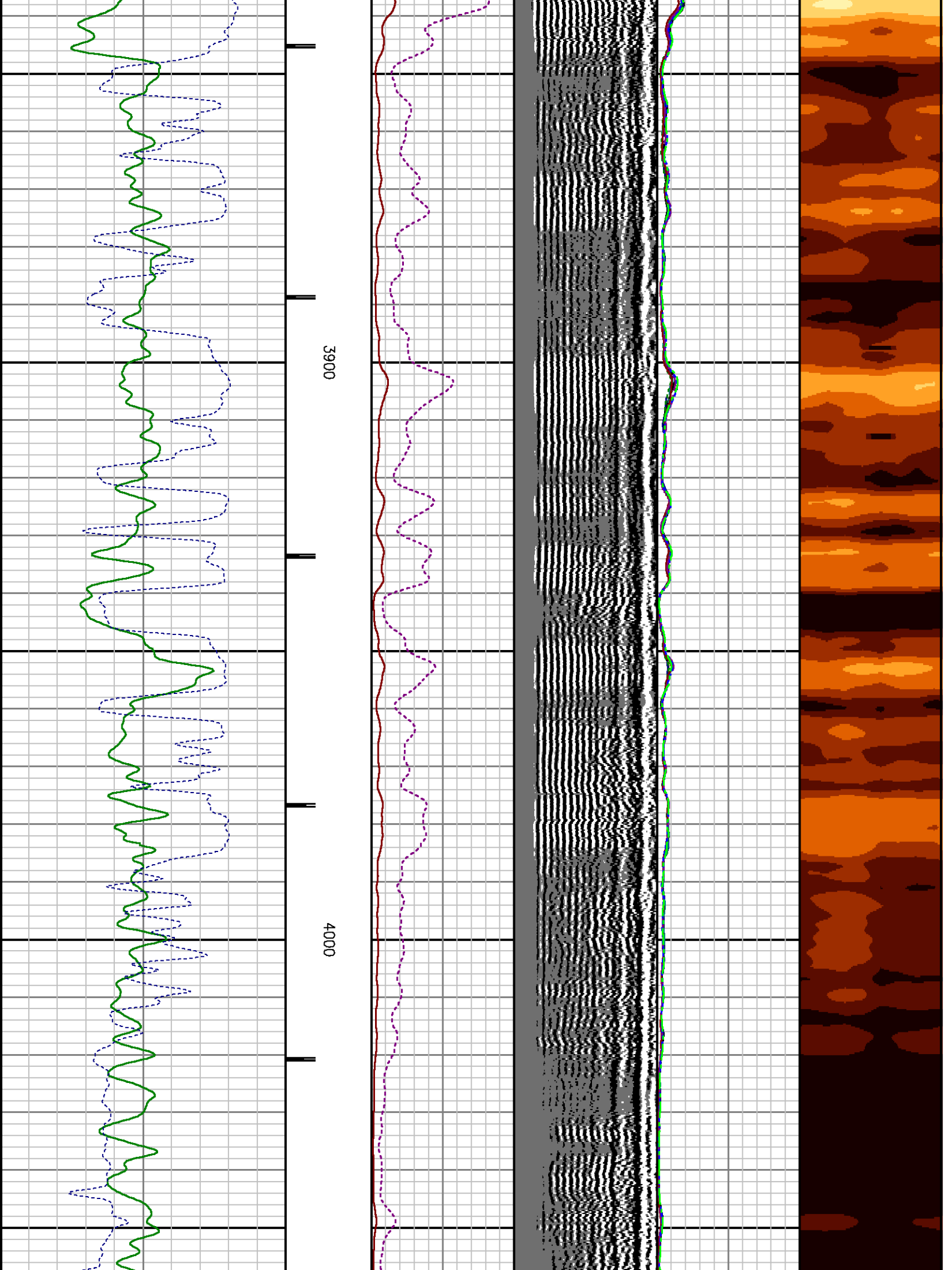


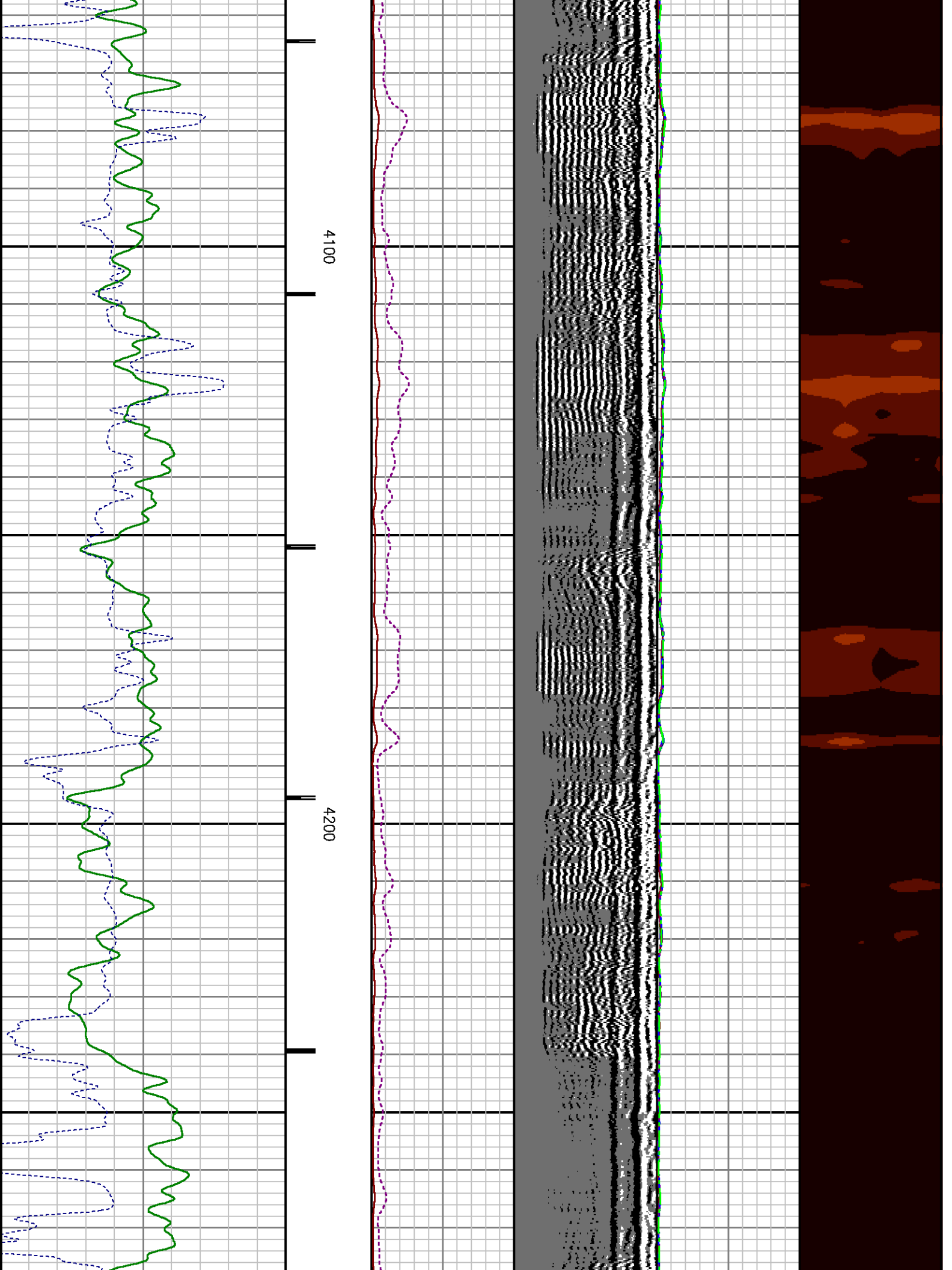


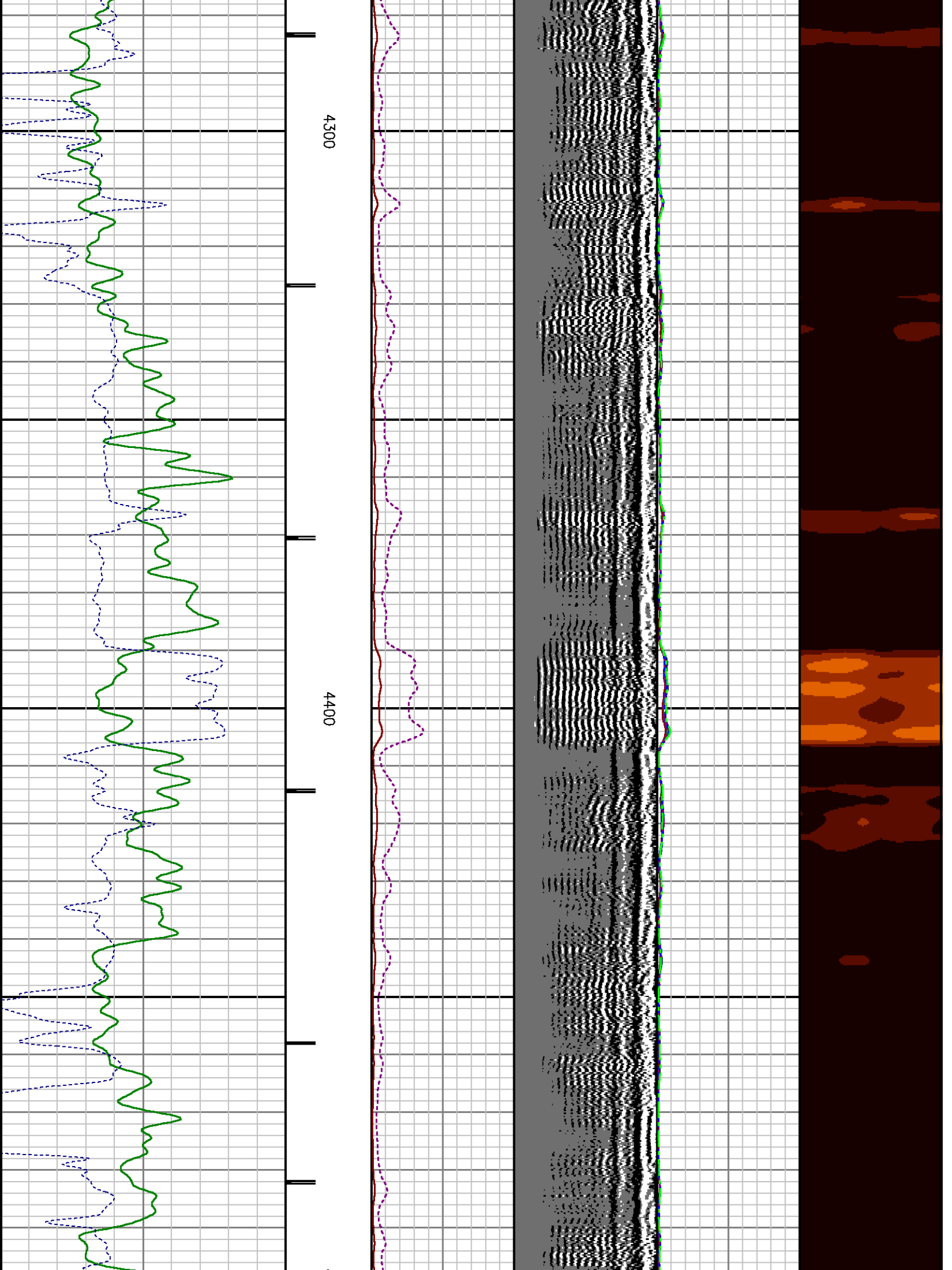


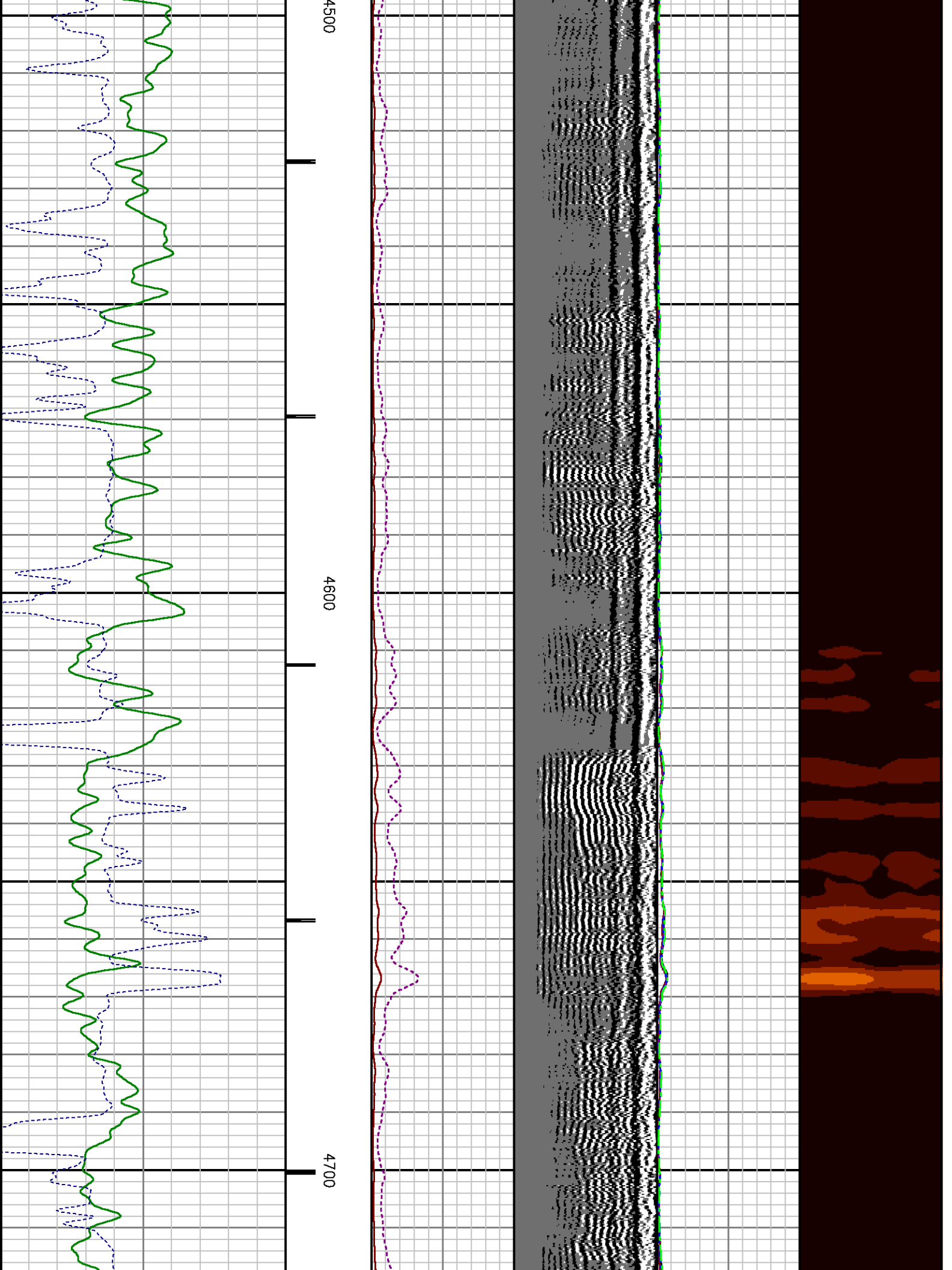


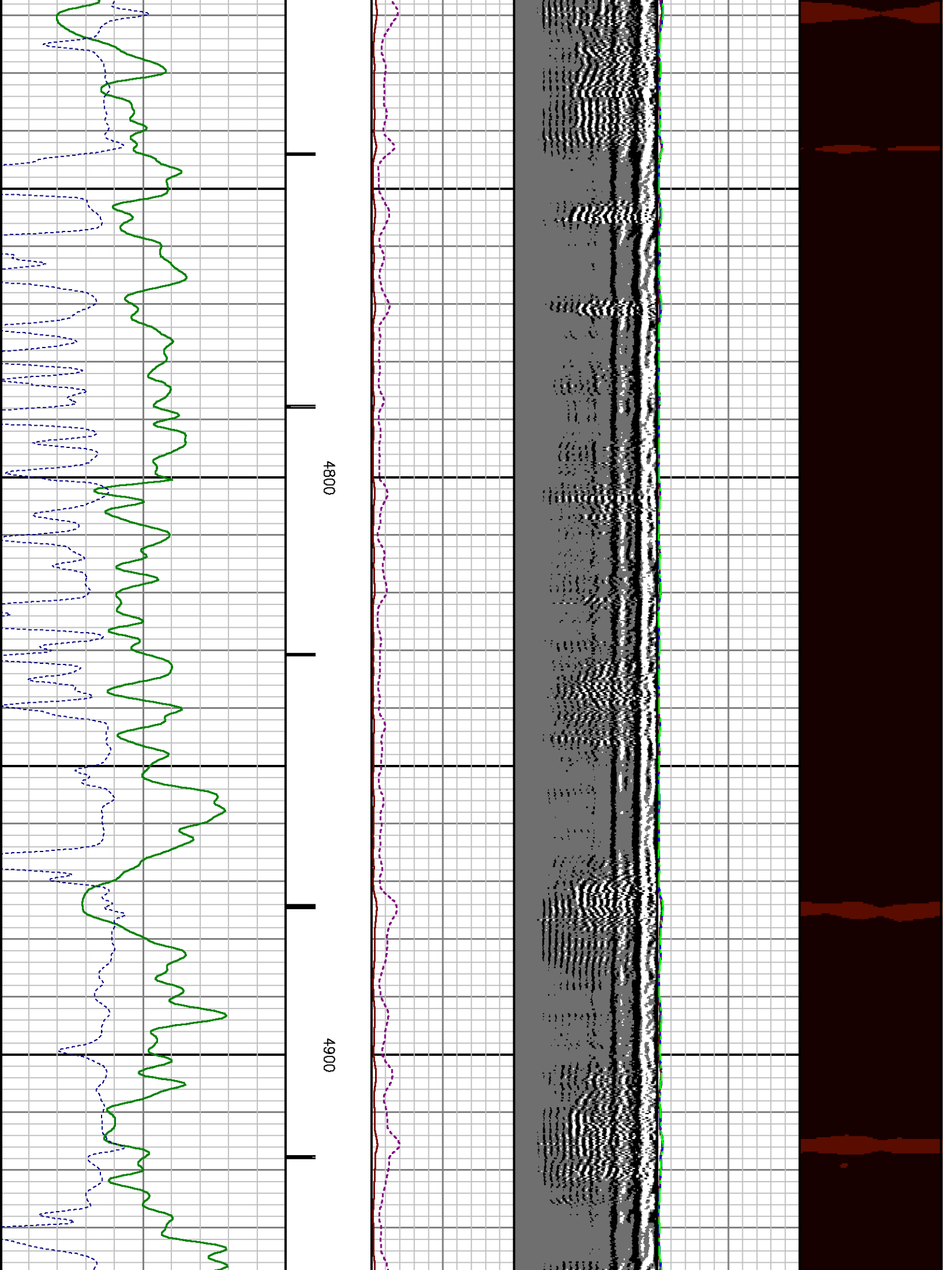


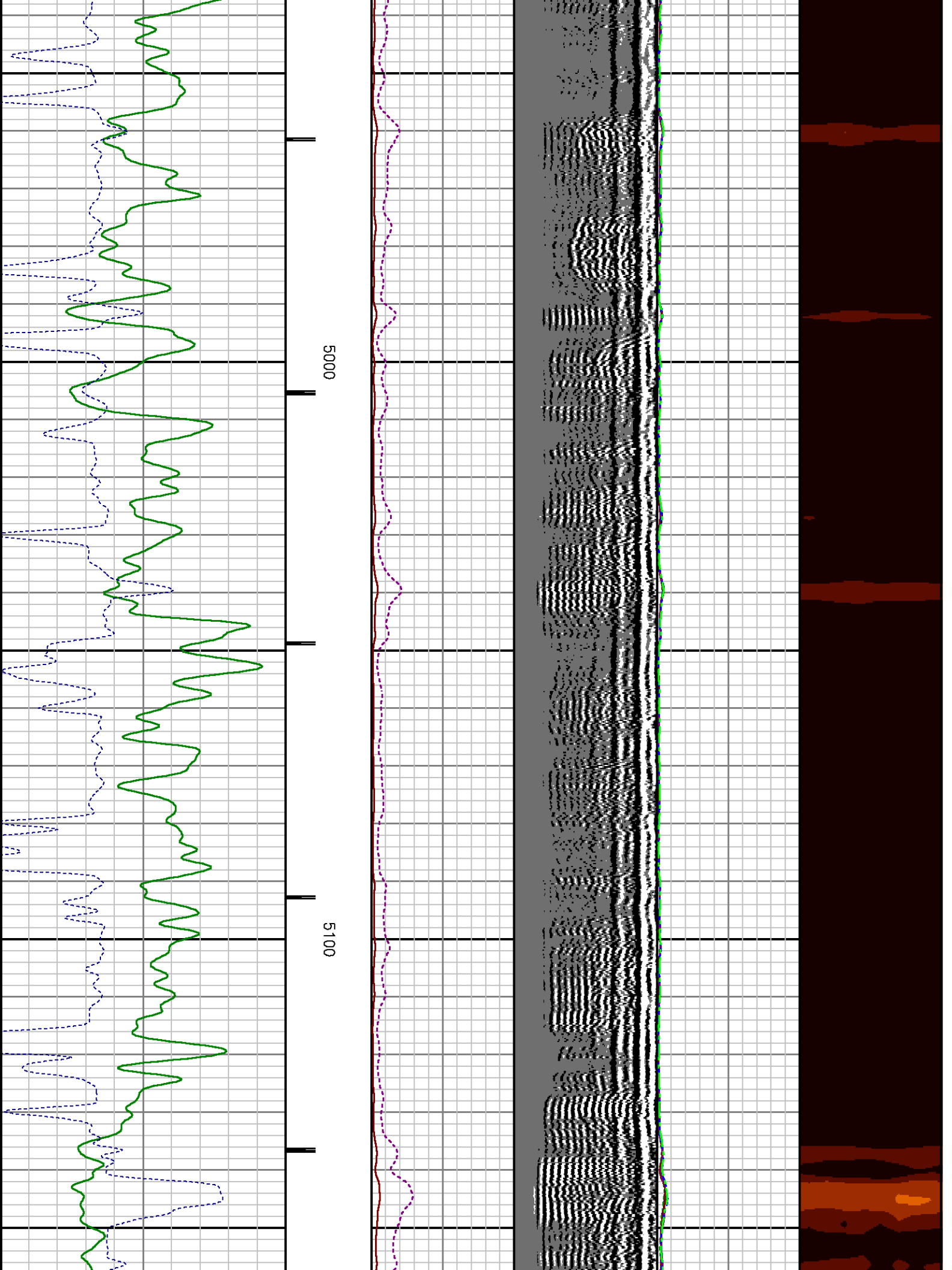


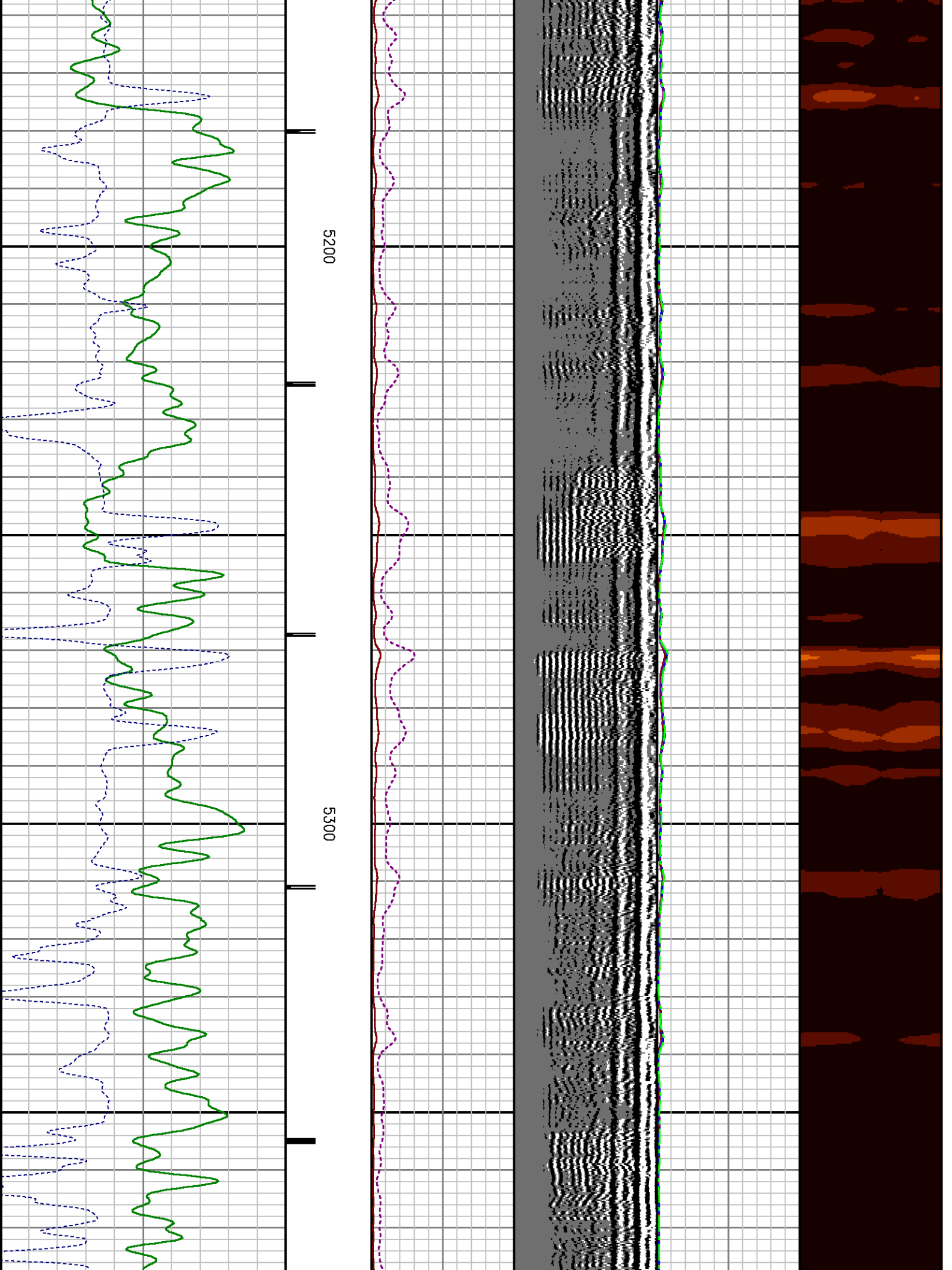


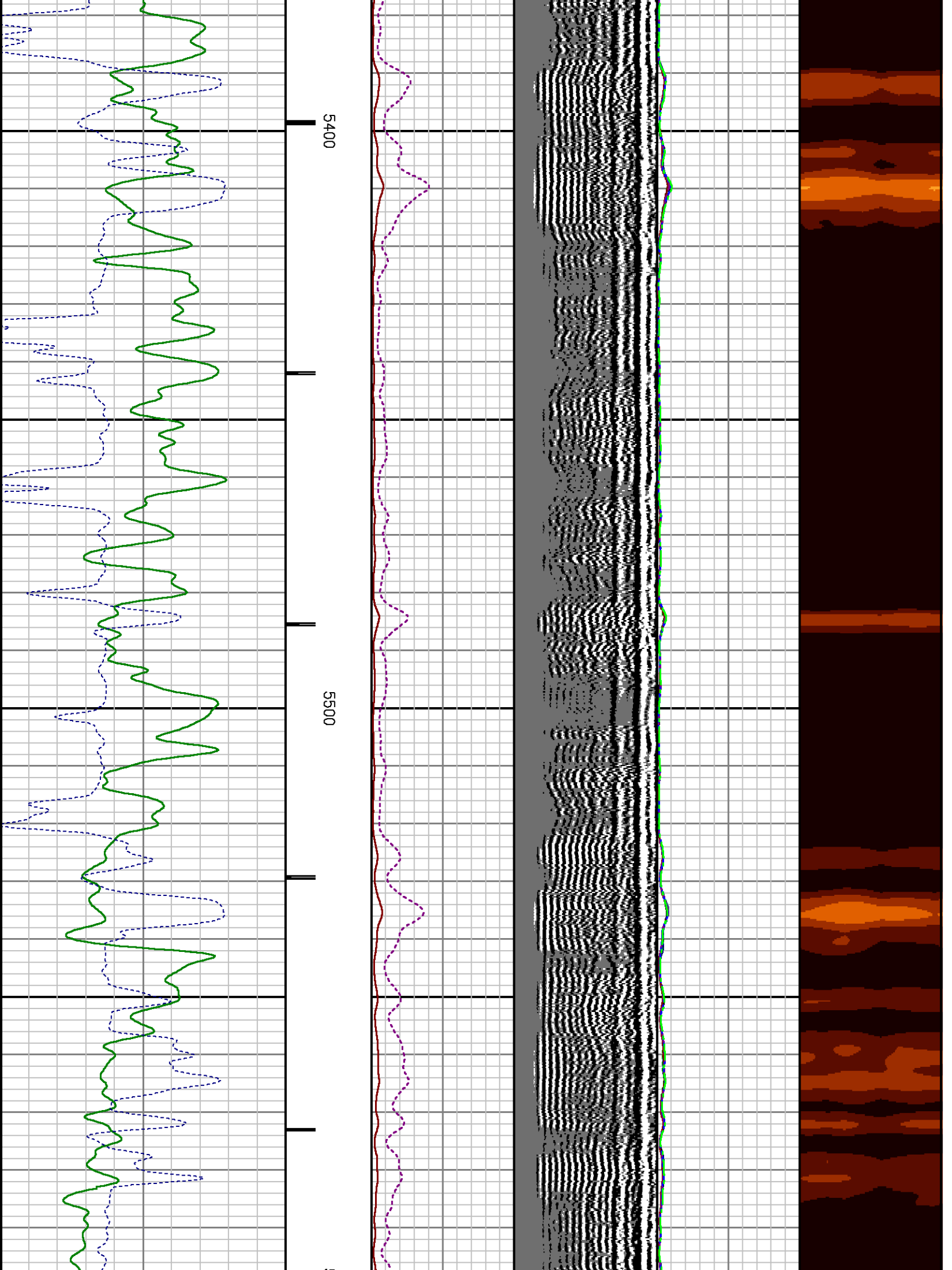


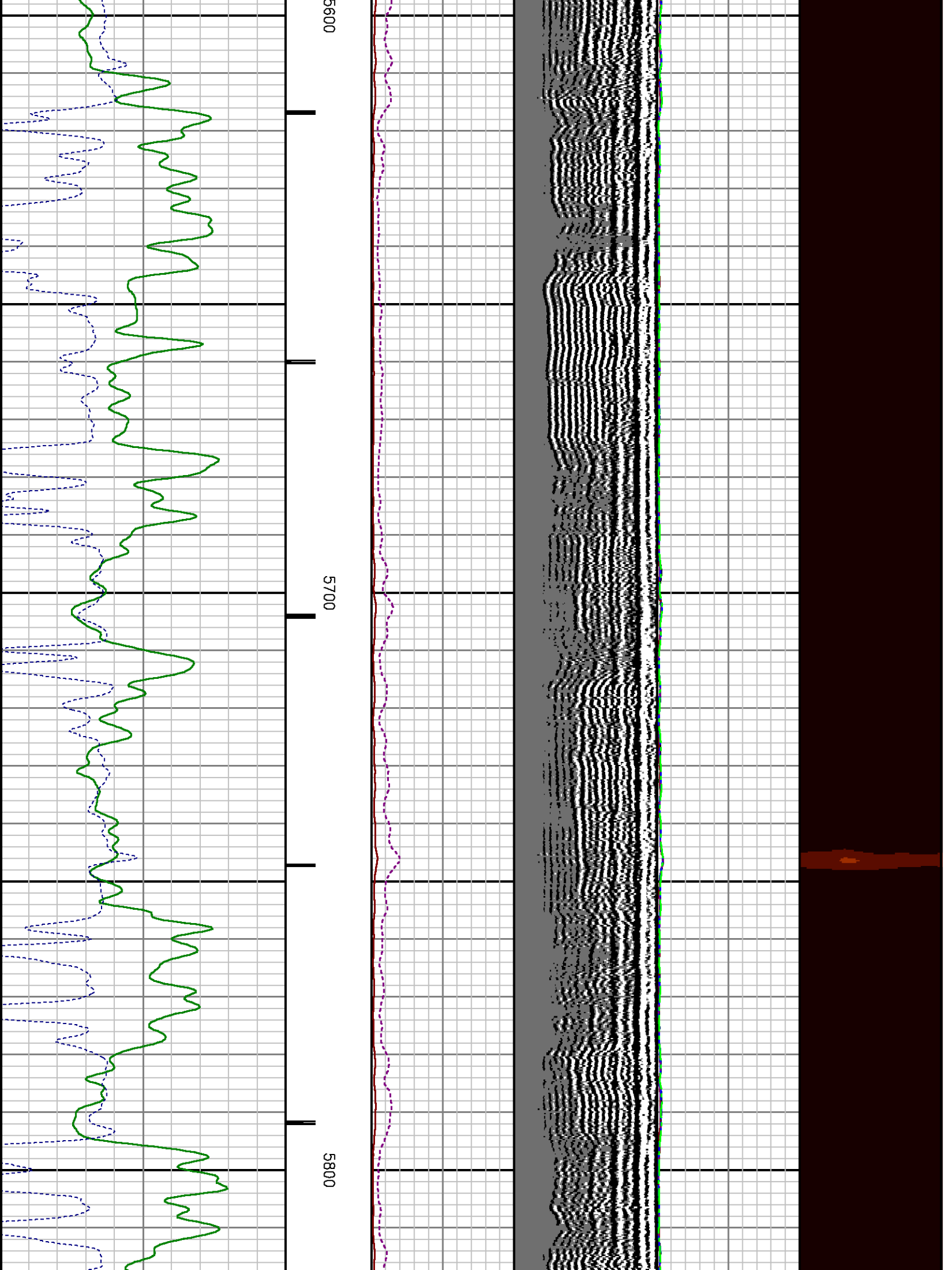


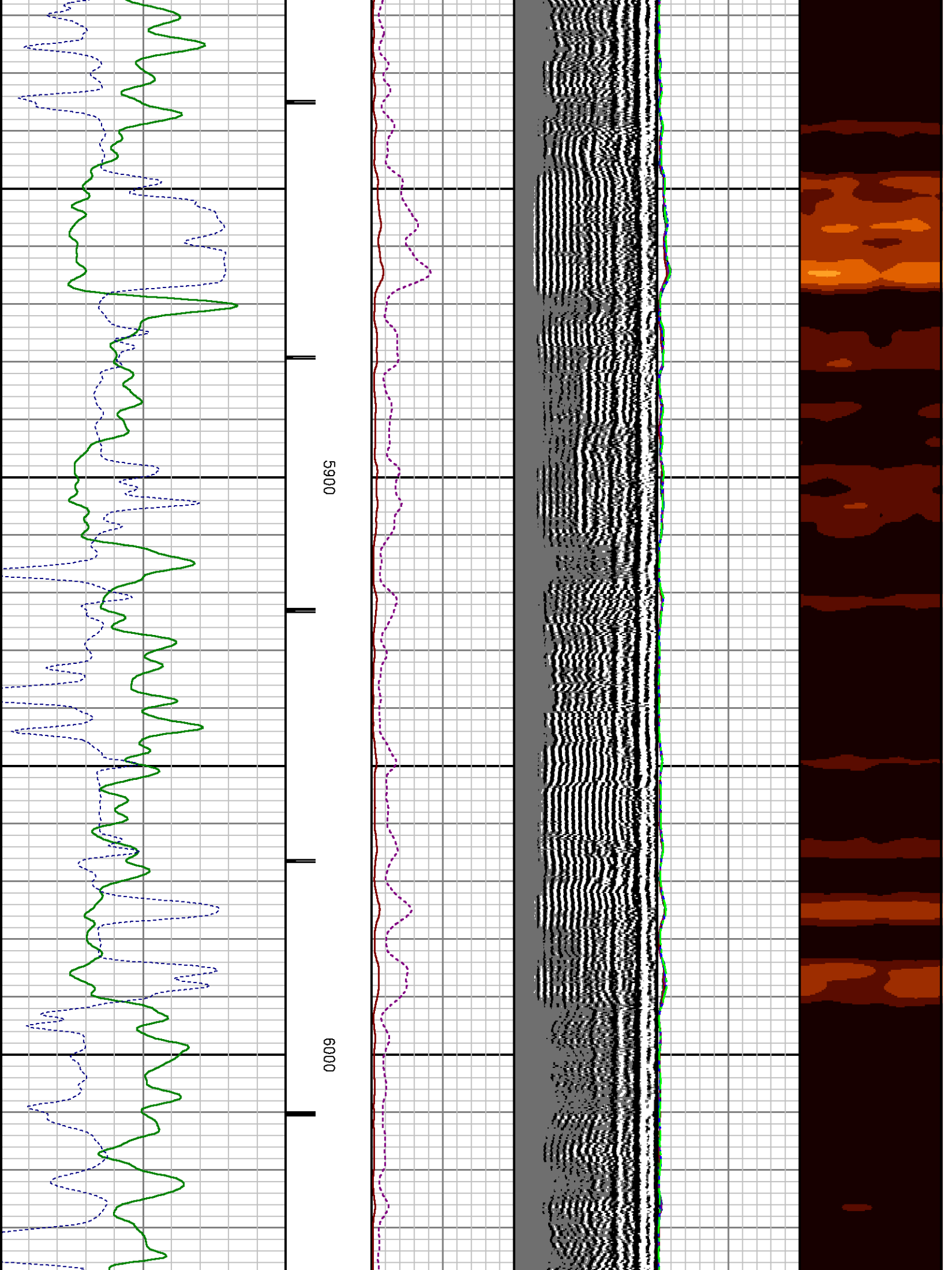


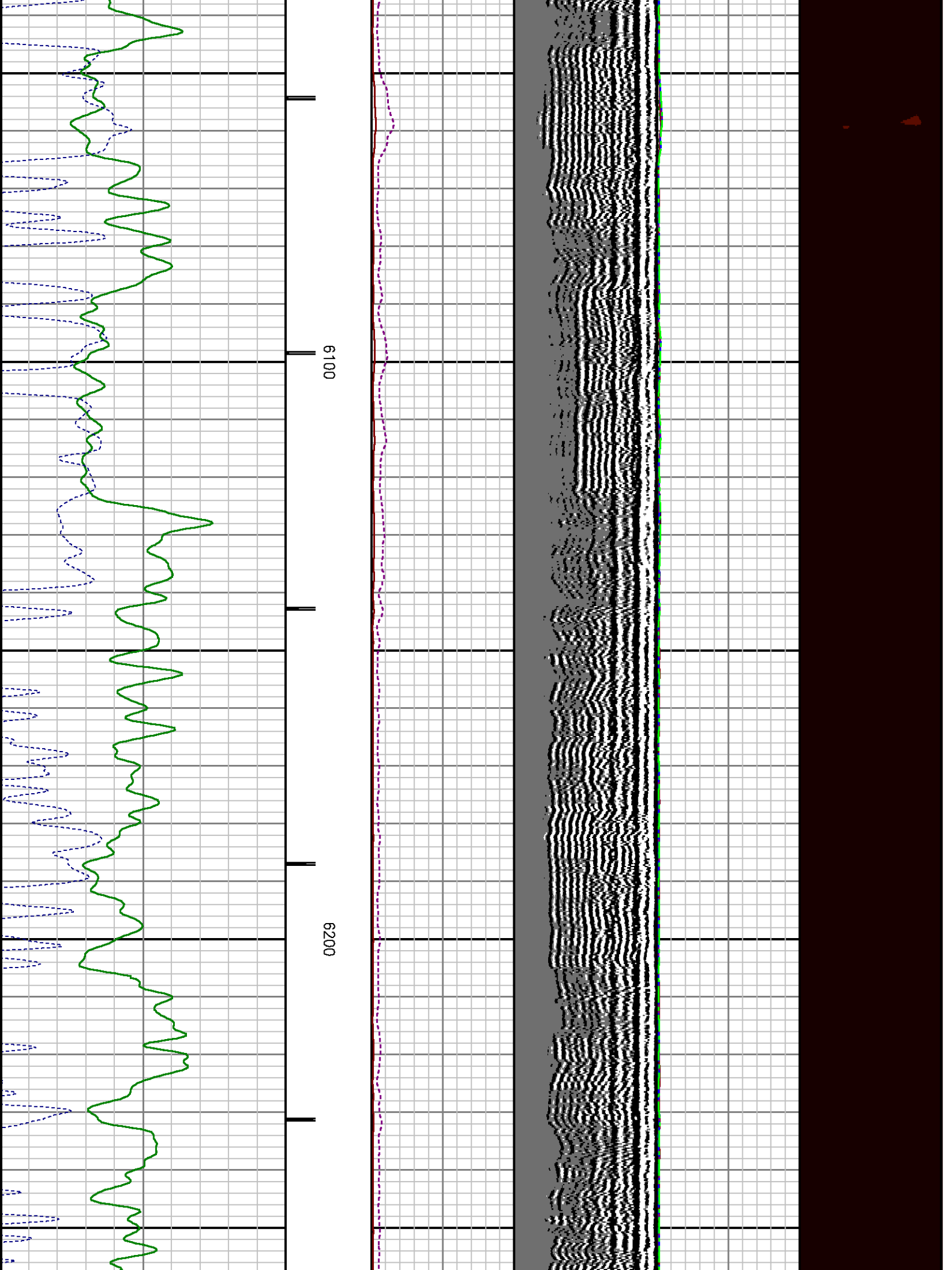


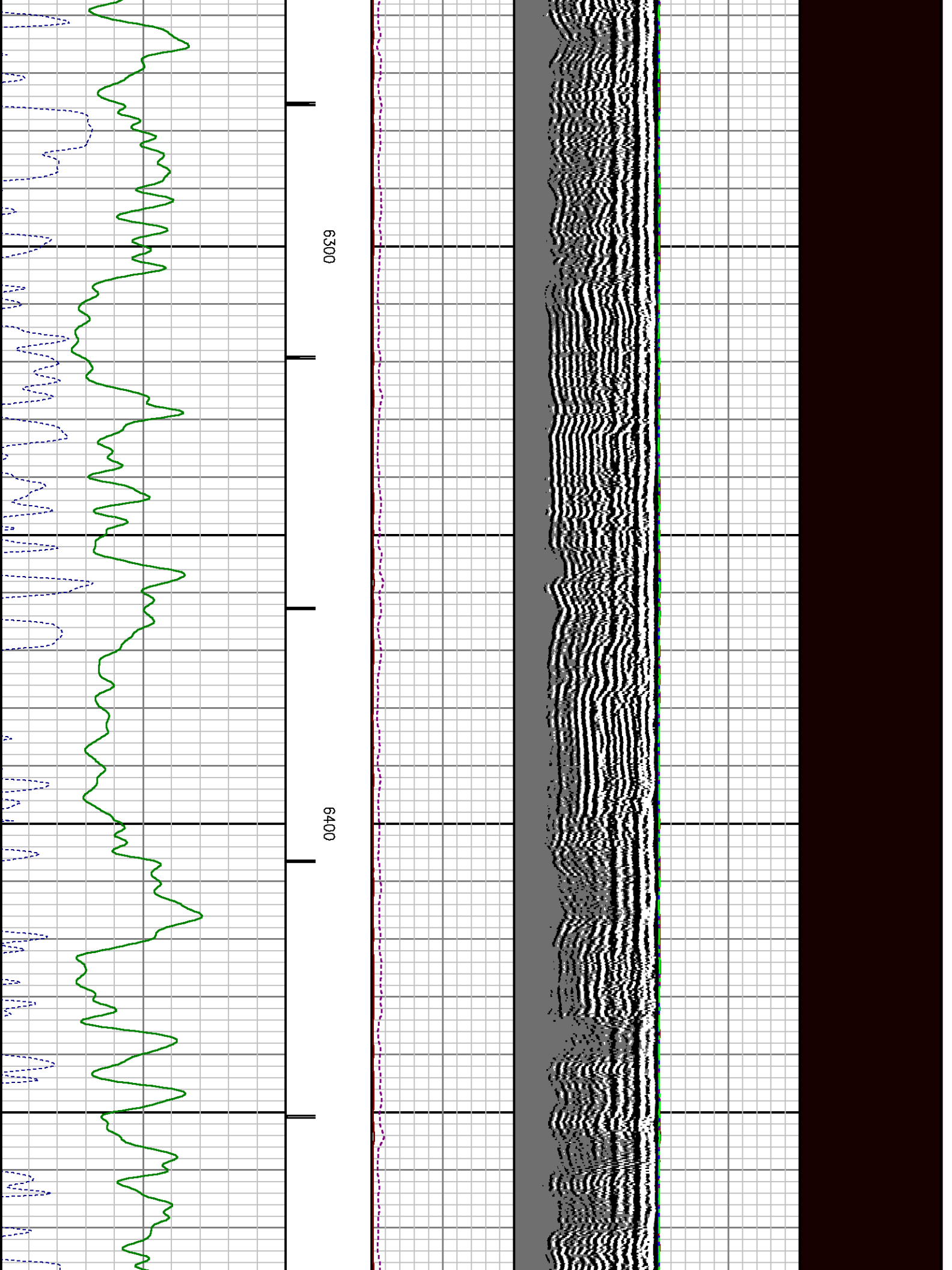


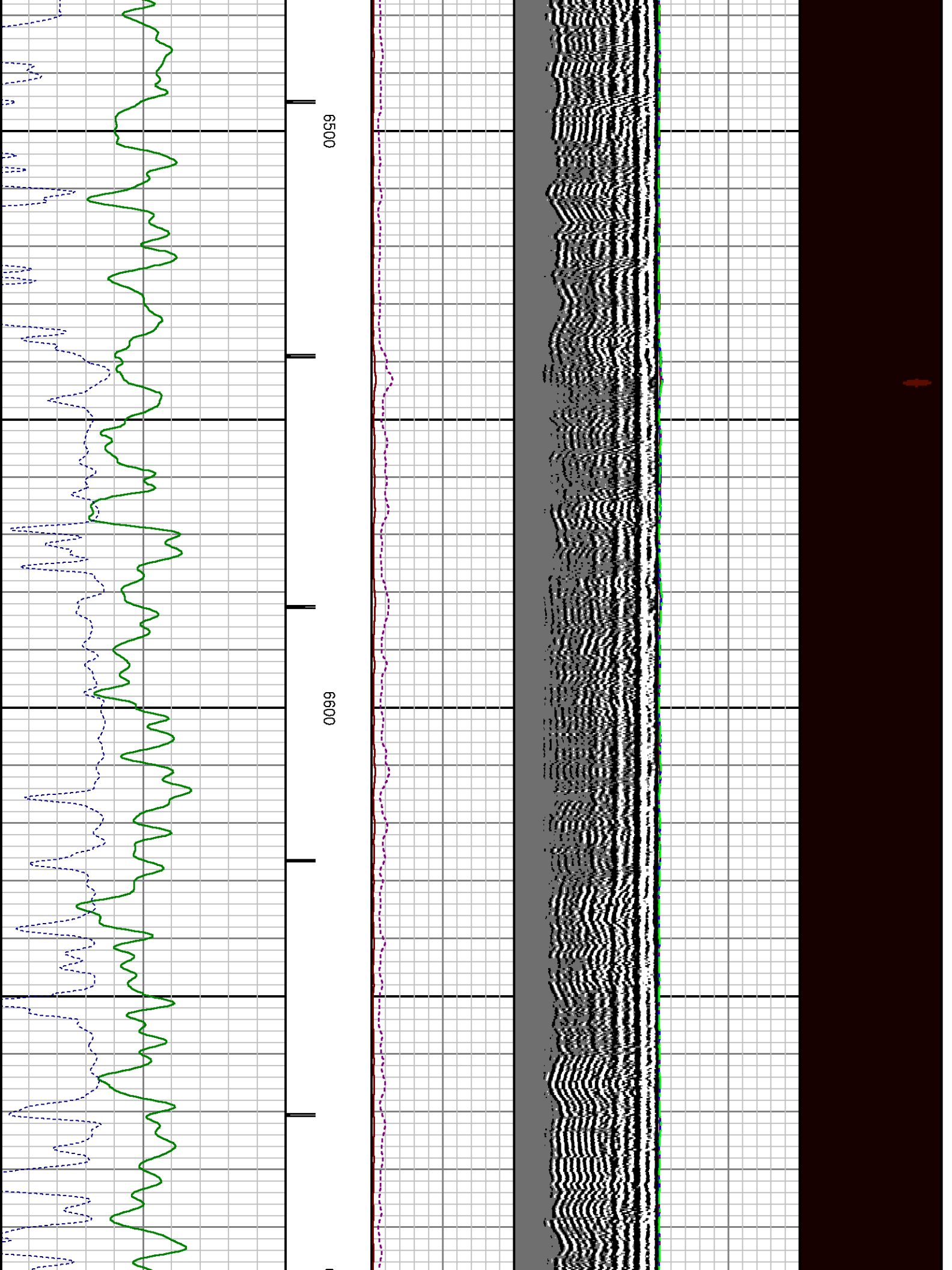


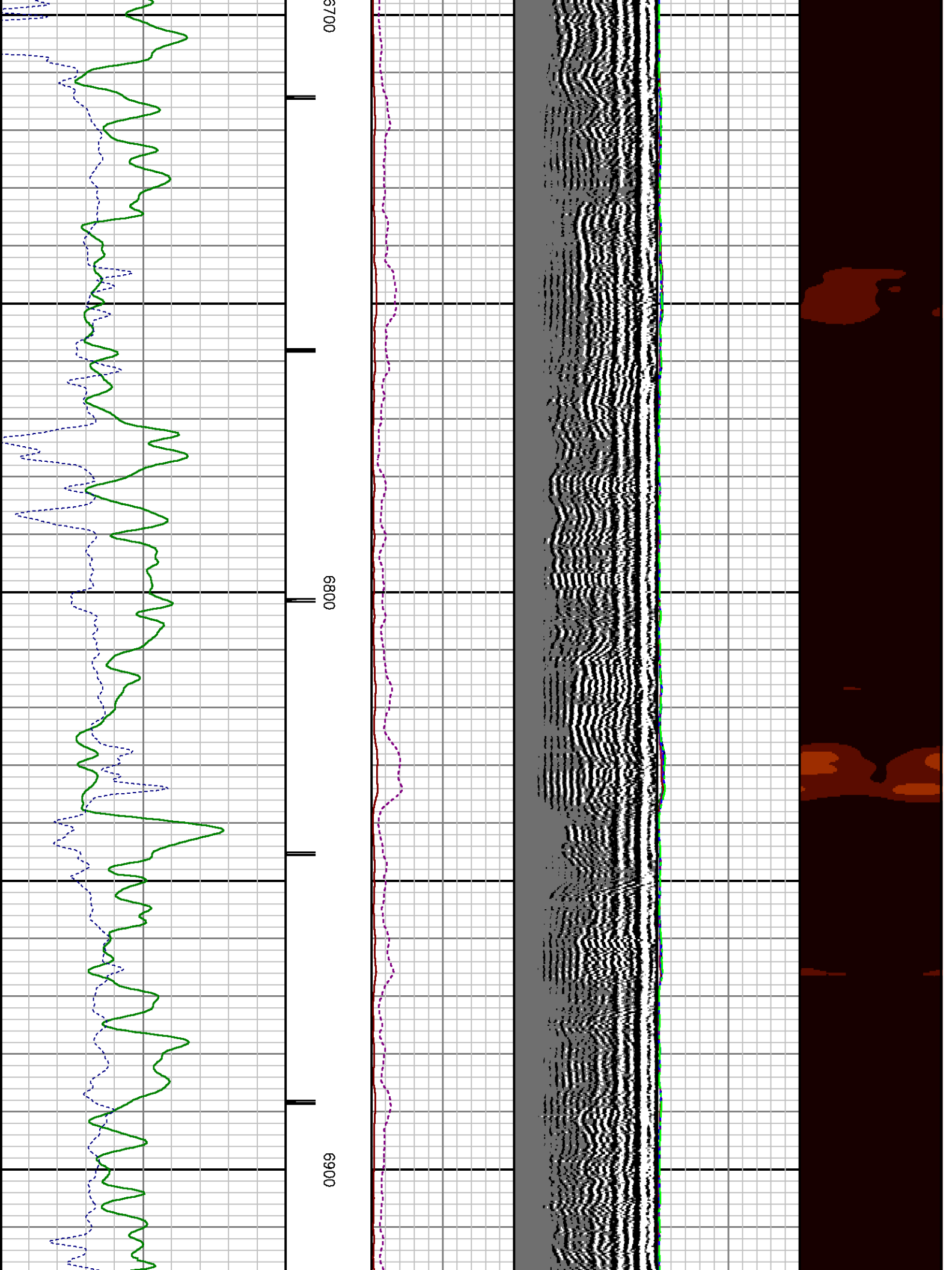


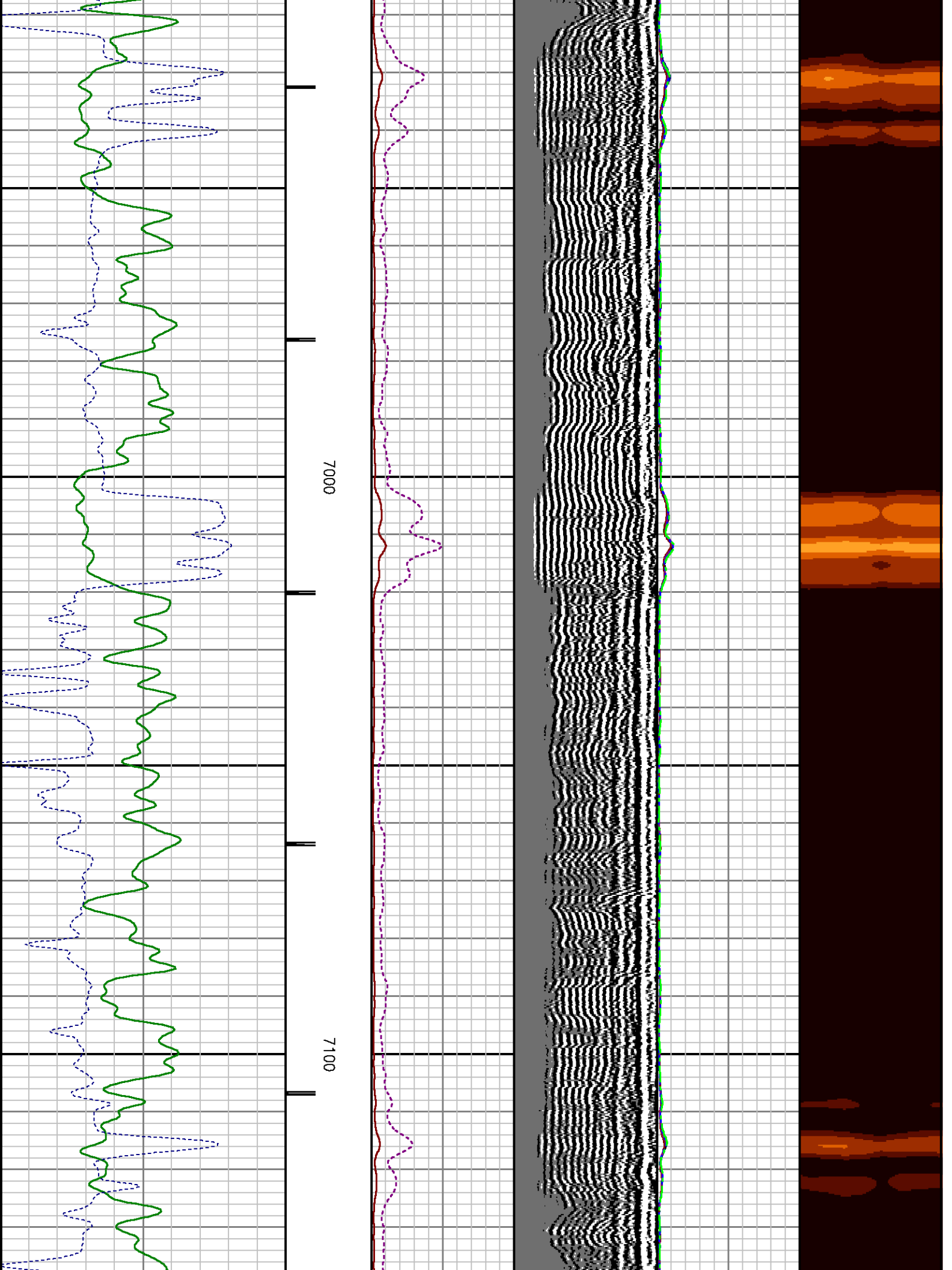


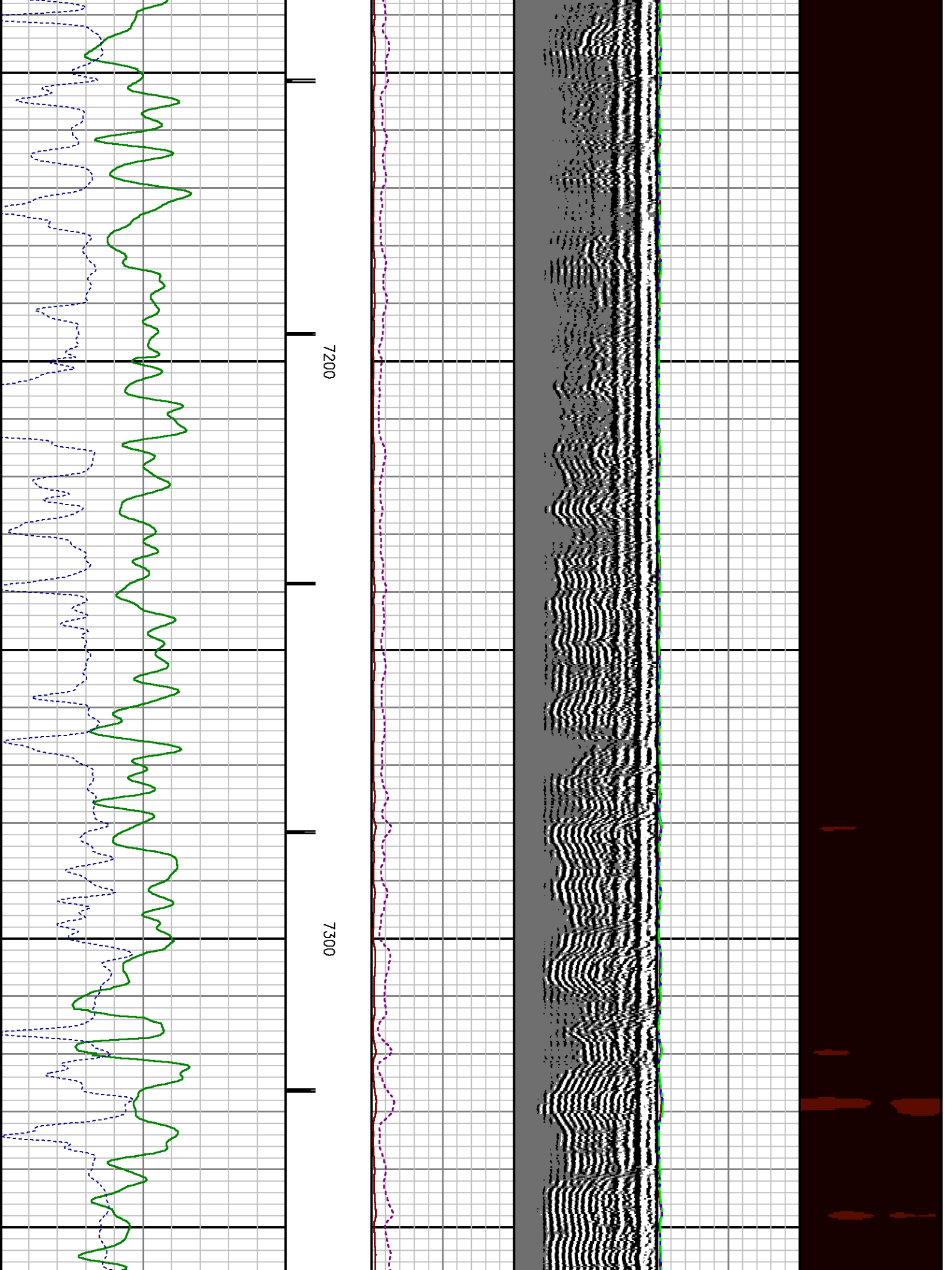


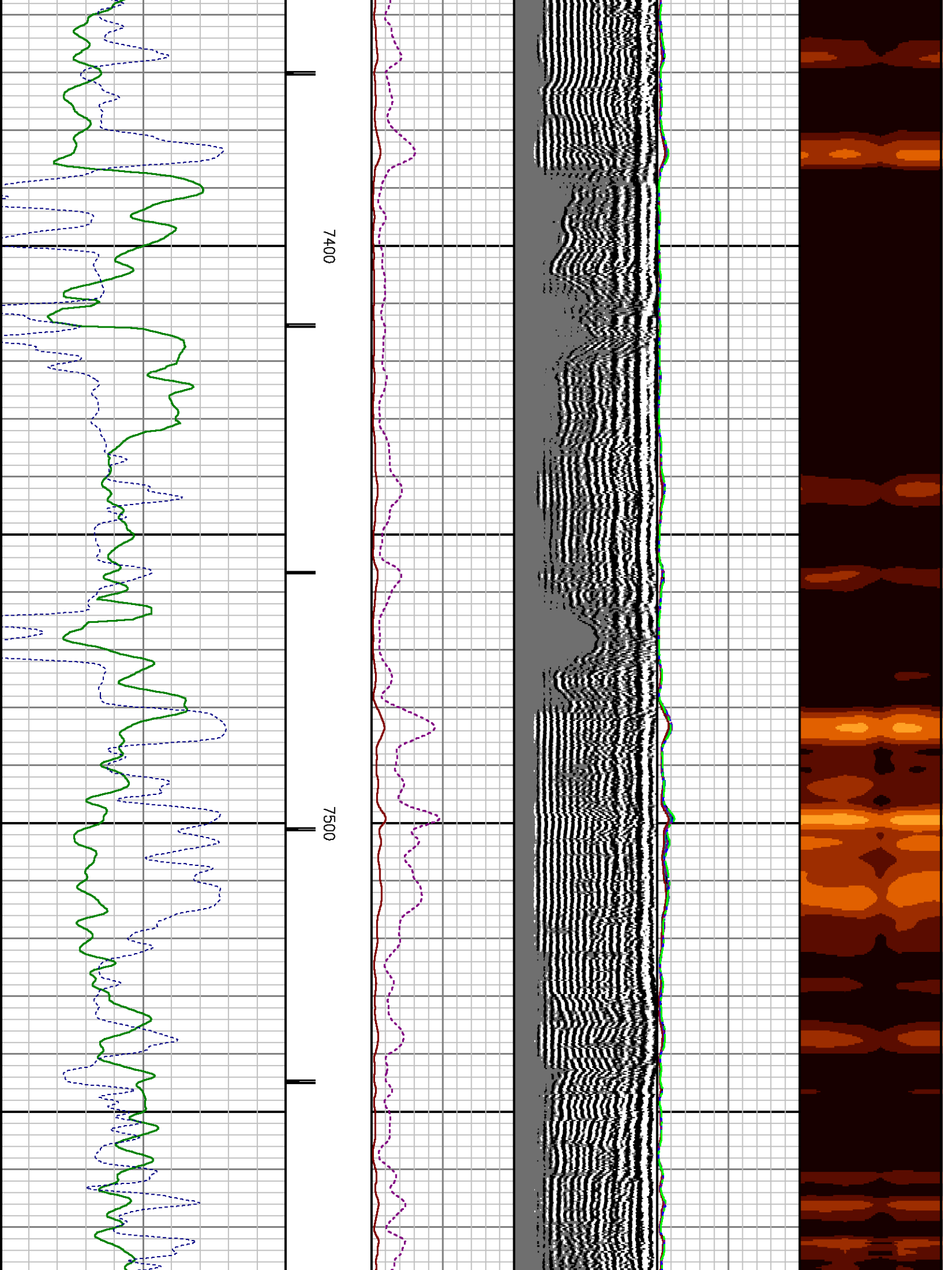


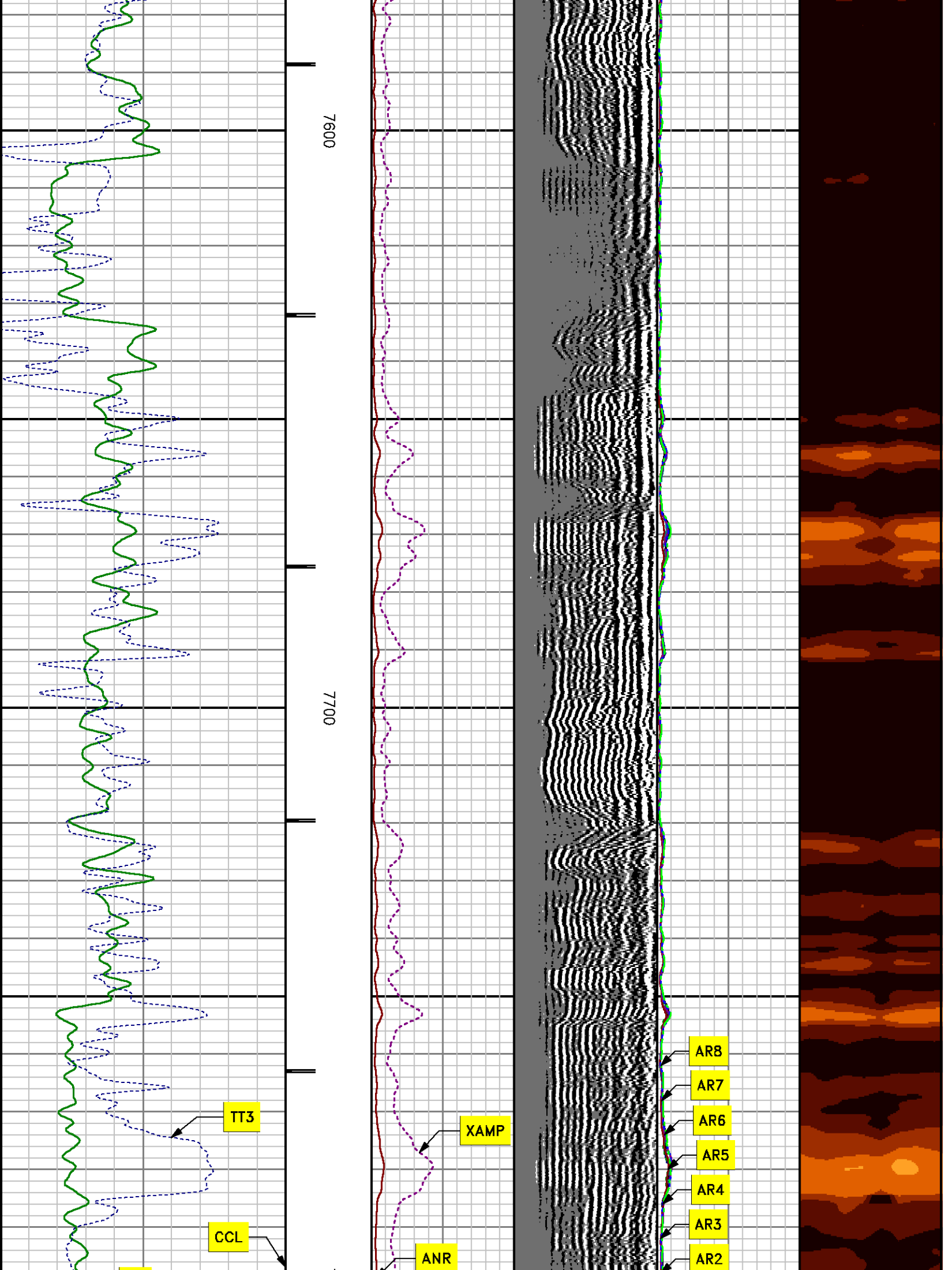


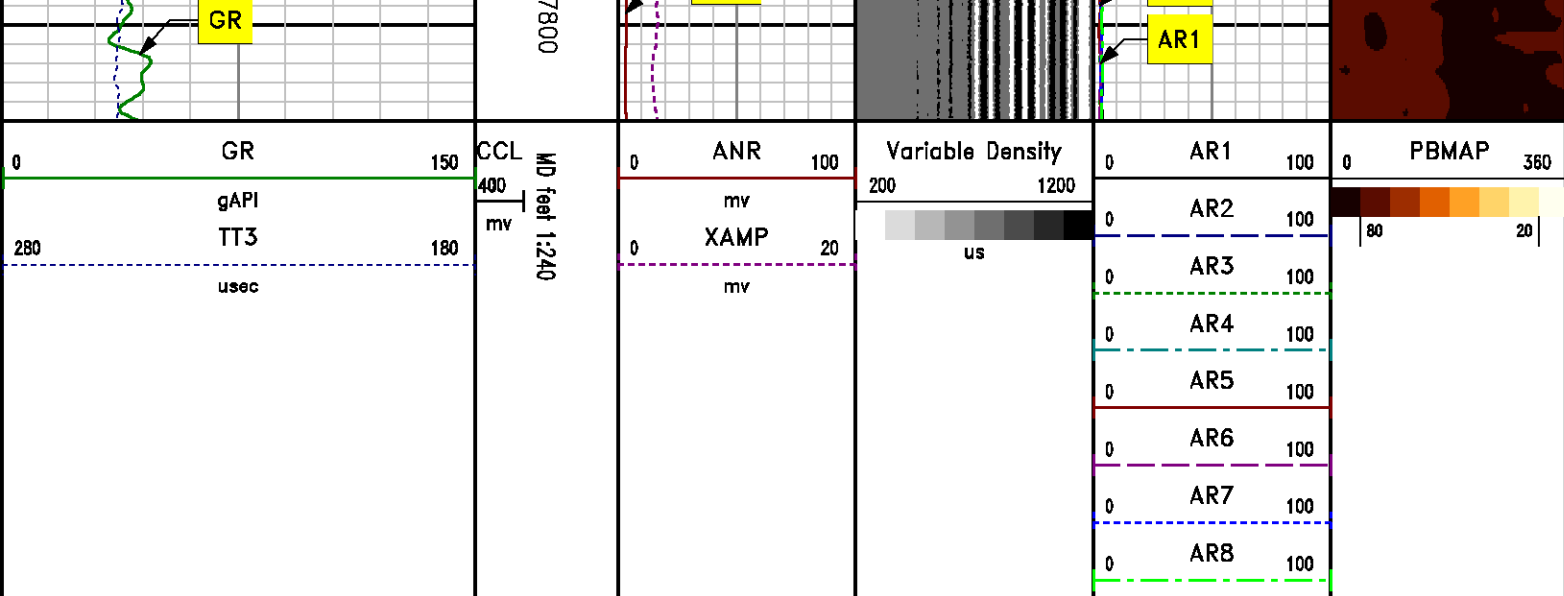












REPEAT PASS
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	306.674	usec	7499.750	7815.000
RAL	Amp Gate Start Near	199.015	usec	7499.750	7815.000
RAL	Amp Gate Start Radial	199.599	usec	7499.750	7815.000
RAL	Amp Gate Width Far	25.000	usec	7499.750	7815.000
RAL	Amp Gate Width Near	25.000	usec	7499.750	7815.000
RAL	Amp Gate Width Radial	25.000	usec	7499.750	7815.000
RAL	casing od	4.500	inches	7499.750	7815.000
RAL	casing wt	11.600	lbm/ft	7499.750	7815.000
RAL	FB Start Far	291.900	usec	7499.750	7815.000
RAL	FB Start Near	175.391	usec	7499.750	7815.000
RAL	FB Start Radial	175.391	usec	7499.750	7815.000
RAL	FB Thresh Far	10.000	mv	7499.750	7815.000
RAL	FB Thresh Near	4.000	mv	7499.750	7815.000
RAL	FB Thresh Radial	4.000	mv	7499.750	7815.000
RAL	Fluid Travel Time	200.000	usec/ft	7499.750	7814.843

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-11.000	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	-10.040	AFAR	SIG	TT5					
1355XA	-5.620	CCL							
1355XA	-1.500	GR							
1355XA	0.000	TEMP							

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

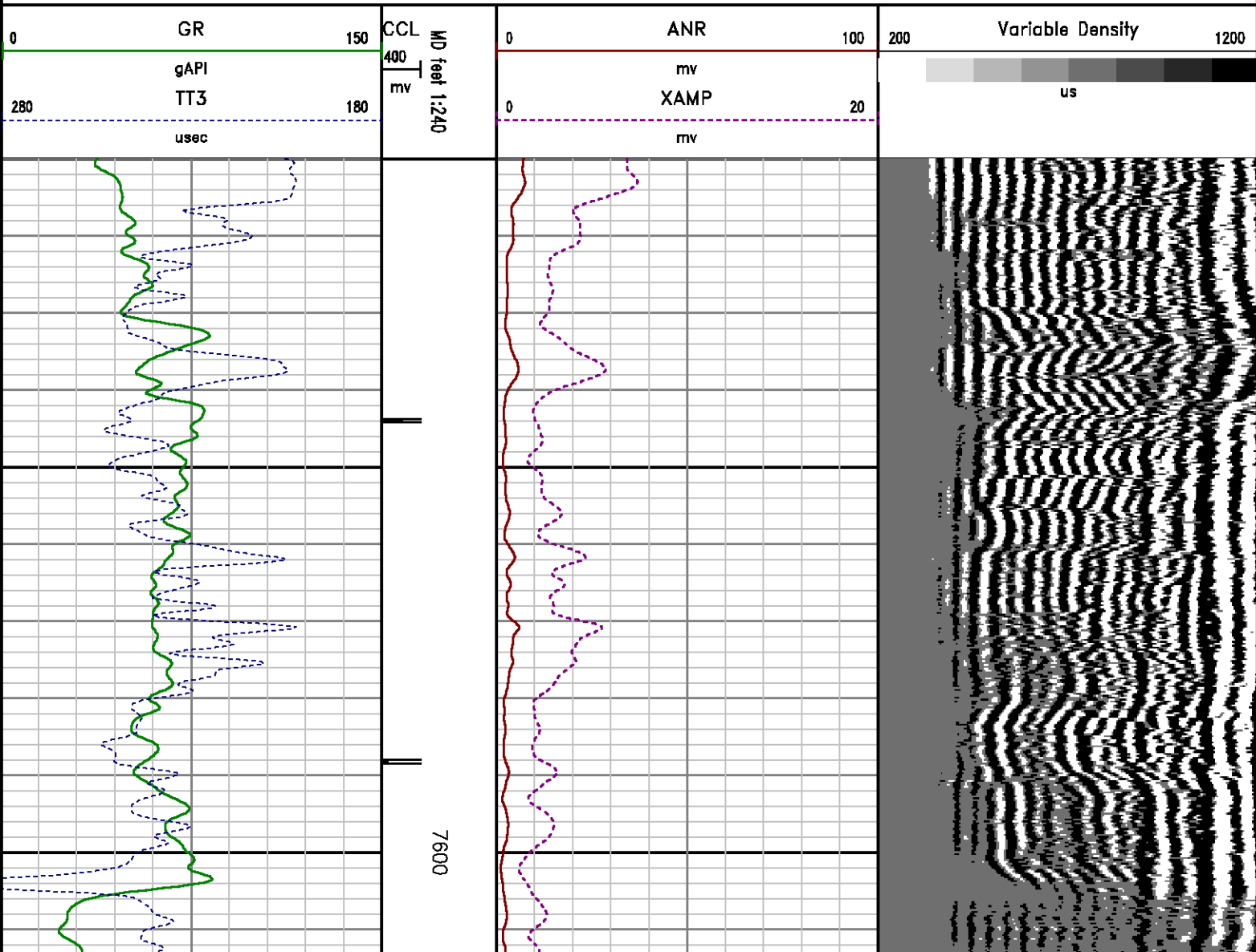
Well : DUGGAN RWF 14-29

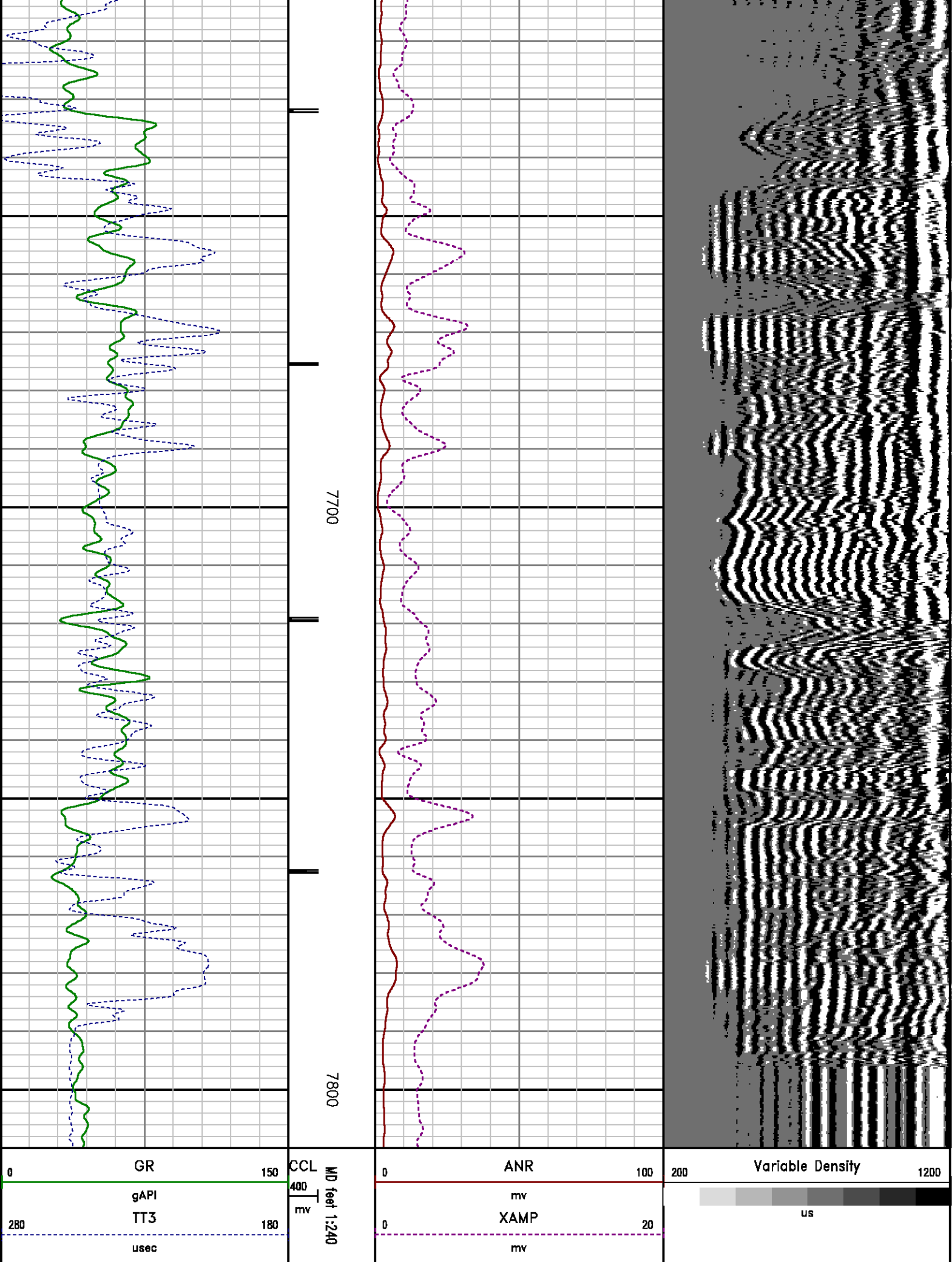
File Name : d:\welldata\14cbl\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 7510.00 - 7810.00 feet UP

Created : 7/9/2013 11:45:27 AM





CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\539JUL9 shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jul 09 08:18:49 2013 TOOL SERIES: 1426XA ASSET: 539 SEQ: JUL9

Tool Delay [usec] -62.00 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	-0.355	100.00	0.17
3 Ft. Receiver	218	216	30	160	25	-2.106	100.00	0.17
5 Ft. Receiver	326	323	30	244	25	0.545	150.00	0.19
Radial #1	219	216	30	147	25	0.536	100.00	0.17
Radial #2	219	216	30	147	25	0.302	100.00	0.17
Radial #3	219	216	30	147	25	-0.102	100.00	0.17
Radial #4	218	216	30	147	25	-0.277	100.00	0.17
Radial #5	218	216	30	147	25	-0.133	100.00	0.17
Radial #6	217	216	30	147	25	-0.306	100.00	0.17
Radial #7	216	216	30	147	25	-0.215	100.00	0.17
Radial #8	219	216	30	147	25	-0.374	100.00	0.17

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\539JUL9 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jul 09 08:20:22 2013 TOOL SERIES: 1426XA ASSET: 539 SEQ: JUL9

Tool Delay [usec] -62.00 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	-0.060	0.000	1.00	100.000
3 Ft. Receiver	200	30	-2.491			
5 Ft. Receiver	317	30	-3.283			
Radial #1	200	30	-4.083			

Radial #2	200	30	-3.268
Radial #3	200	30	-3.495
Radial #4	200	30	-3.553
Radial #5	200	30	-5.091
Radial #6	200	30	-3.649
Radial #7	200	30	-3.686
Radial #8	200	30	-3.697

GAMMA RAY

Calibration File: C:\case\calver\GR\209J7.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED:		Thu Jun 27 10:51:00 2013		TOOL SERIES:		1355XA	ASSET:		209	SEQ:		J7
Calibrator #	Background	Calibrator On		Multiplicative	Background	Calibrator On	Differential					
	[cps]	[cps]			[api]	[api]	[api]					
S2K WA612	132.31	583.42		0.410	54.26	239.26	185.00					

Verification File: C:\case\calver\GR\209J7.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED:		Thu Jun 27 10:52:46 2013		TOOL SERIES:		1355XA	ASSET:		209	SEQ:		J7
Calibrator #	Background	Calibrator On		Multiplicative	Background	Calibrator On	Differential					
	[cps]	[cps]			[api]	[api]	[api]					
S2K WA612	140.71	580.31		0.410	57.71	237.98	180.28					

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



18.89'

XMIT 12.71'

RAL GR/TEMP/CCL/CHV DETECTOR	
Series	1355XA
Mnemonic	RAL
Diameter	2.75"
Weight	85.00 lb
Length	6.96'
Measure Point	0.17' TEMP
Measure Point	1.67' GR
Measure Point	5.79' CCL
Temp Rating	400.00 °F
Press Rating	20000.00 PSI



NEAR RCVR	9.63'
FAR RCVR	7.71'
CCL	5.79'
GR	1.67'
TEMP	0.17'
	0.00'

Total Length: 18.89'
Total Weight: Not Available
Max Diameter: 0' 2.75"



Company

WPX ENERGY

Well

DUGGAN RWF 14-29

Field

RULISON

County

GARFIELD

State

COLORADO

File No:

CH074117

API No:

05045216560000

Location

SHL: 513' FSL & 599' FWL

BHL: 450' FSL & 1036' FWL

Elevations

KB 5445.2 ft

DF

GL 5419.2 ft

29 6S 94W

RWF 14-29

NABORS SSD 573

SEC 29

TWP 6S

RGE 94W

Baker Atlas

