



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH79532	Company Well Field County	WPX ENERGY FEDERAL PA 513-12 PARACHUTE GARFIELD State CO
API No: 0504520630000	Location 12 7S 9SW PA 23-12 PAD MABORS 577 SHL: 2598' FSL & 1730' FWL BHL: 1495' FSL & 688' FWL SEC 12 TWP 7S RGE 9SW	Other Services RPM KB 6507 ft DF GL 6507 ft
Permanent Datum Log Measured From Drill Measured From	GL KB Elevation 26 ft Above P. D. KB	KB 6533 ft DF GL 6507 ft

Date	23/NOV/13	
Run	ONE	
Service Order	US625055	
Depth Driller	B255 ft	
Depth Logger	B230 ft	
Bottom Logged Interval	B220 ft	
Top Logged Interval	26 ft	
Time Started	9:30	
Time Finished	12:30	
Operator Rig Time	3 HOURS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	88 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	65 fpm	
Maximum Recorded Temperature	232 degF	
Reference Log	NA	
Reference Log Date	NA	
Equipment No.	4271	GRAND JCT.
Recorded By	TIM NEWELL	
Witnessed By	BILL 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	920 ft
7.875 in	920 ft	8320 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			0 ft	920 ft
4.5 in	11.6 lbm/ft	1-80	0 ft	8320 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 2 feet.
Logged with zero PSI at wellhead.
THE VDL DATA FROM 5860'-5863' AND 5872'-5877' IS INVALID DUE TO TOOL SPIKING.

BHT = 232 °F
SJ = 4864'-4888'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	CBL	1426XA	10218495	CENTRALIZED
1	1	GR/CCL	1355XA	10580209	CENTRALIZED

PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	30.499	8254.000
RAL	Amp Gate Start Near	195.000	usec	30.499	8254.000
RAL	Amp Gate Start Radial	195.000	usec	30.499	8254.000
RAL	Amp Gate Width Far	25.000	usec	30.499	8254.000
RAL	Amp Gate Width Near	25.000	usec	30.499	8254.000
RAL	Amp Gate Width Radial	25.000	usec	30.499	8254.000
RAL	casing od	4.500	inches	30.499	8254.000
RAL	casing wt	11.600	lbm/ft	30.499	8254.000
RAL	FB Start Far	291.900	usec	30.499	8254.000
RAL	FB Start Near	175.391	usec	30.499	8254.000
RAL	FB Start Radial	175.391	usec	30.499	8254.000
RAL	FB Thresh Far	10.000	mv	30.499	8254.000
RAL	FB Thresh Near	4.000	mv	30.499	8254.000
RAL	FB Thresh Radial	4.000	mv	30.499	8254.000
RAL	Fluid Travel Time	200.000	usec/ft	30.499	8254.000

DEPTH OFFSETS
(for Acquired Curves)

SERIES DEPTH OFFSET 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

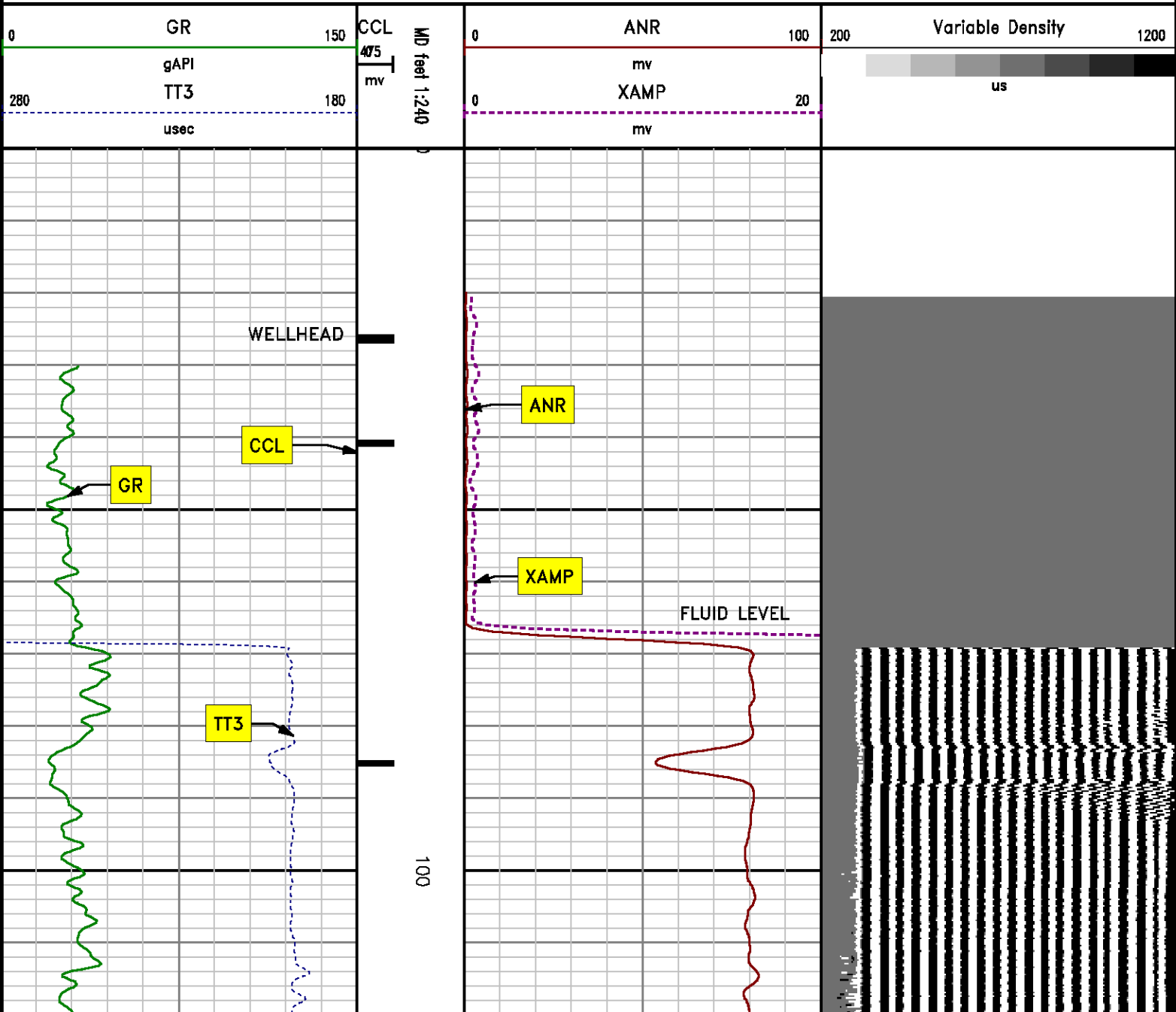
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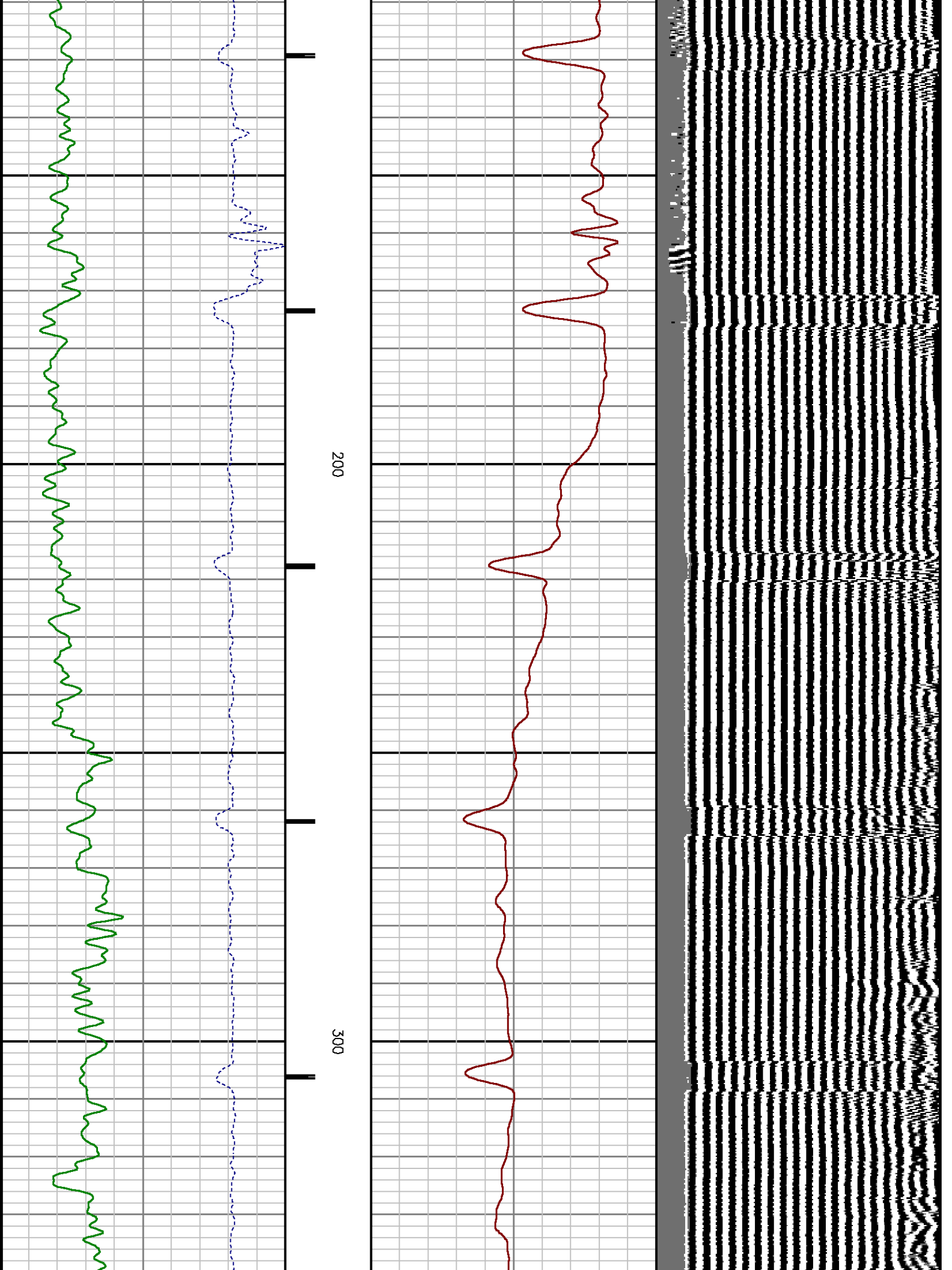
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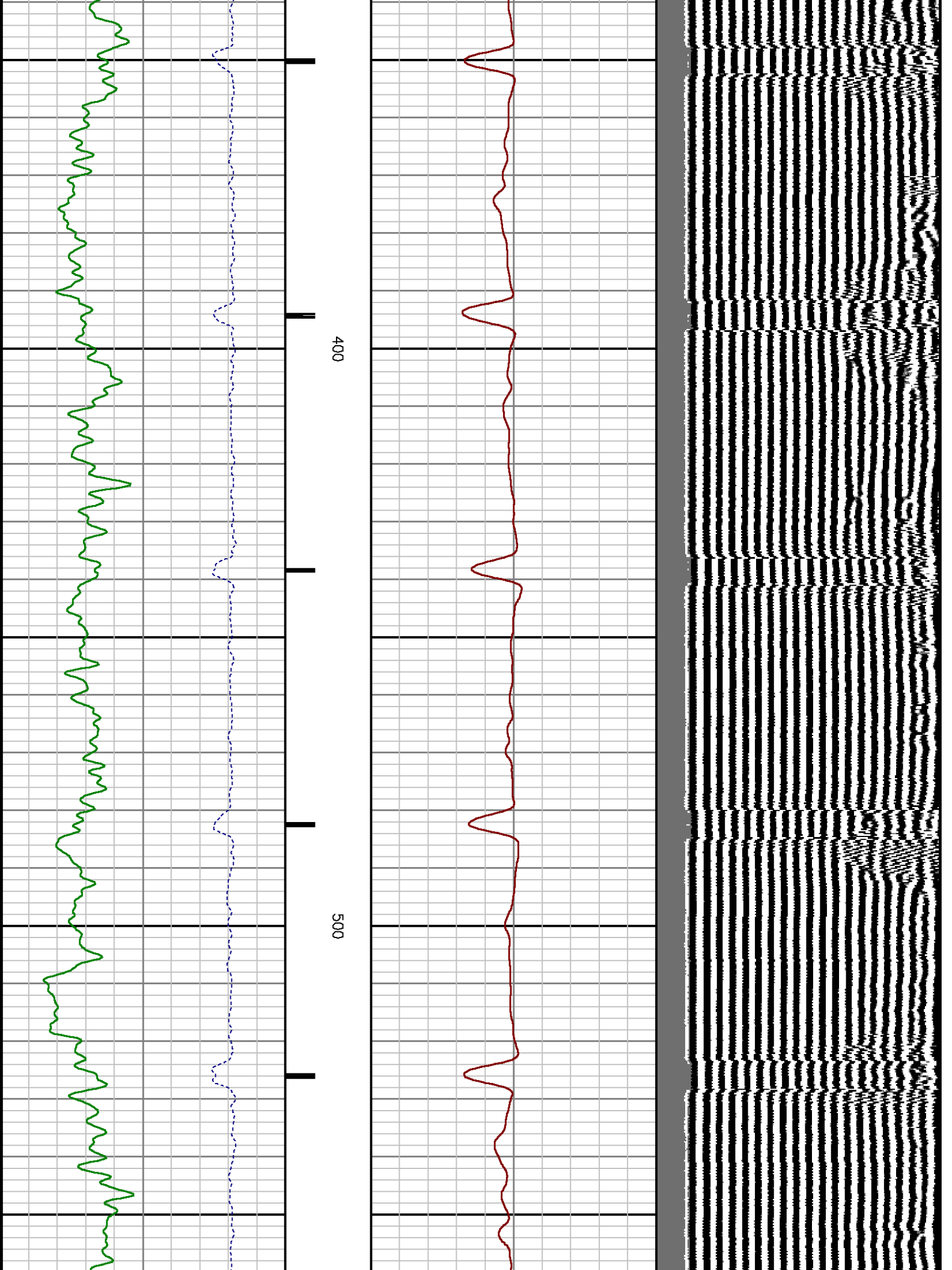
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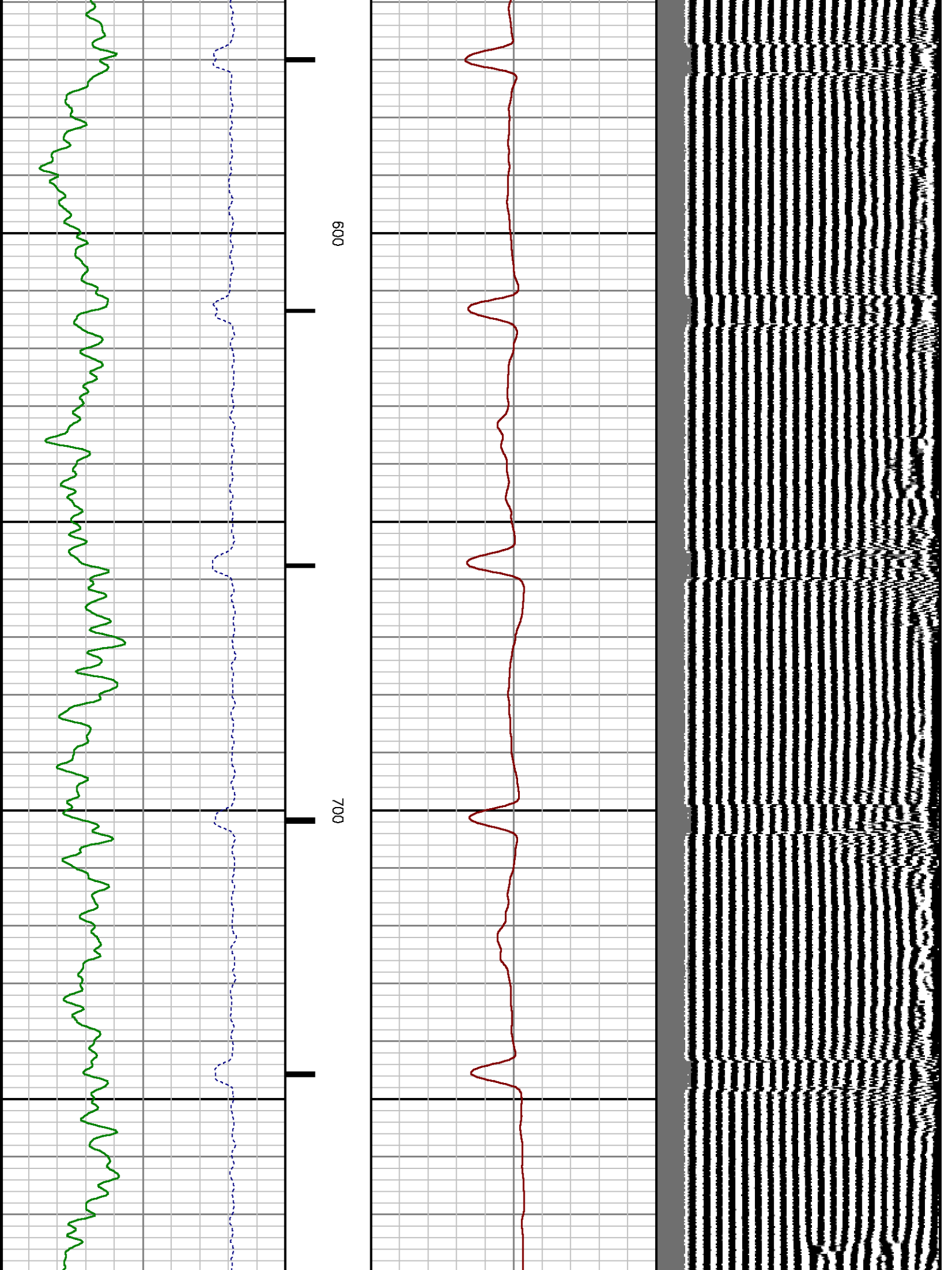
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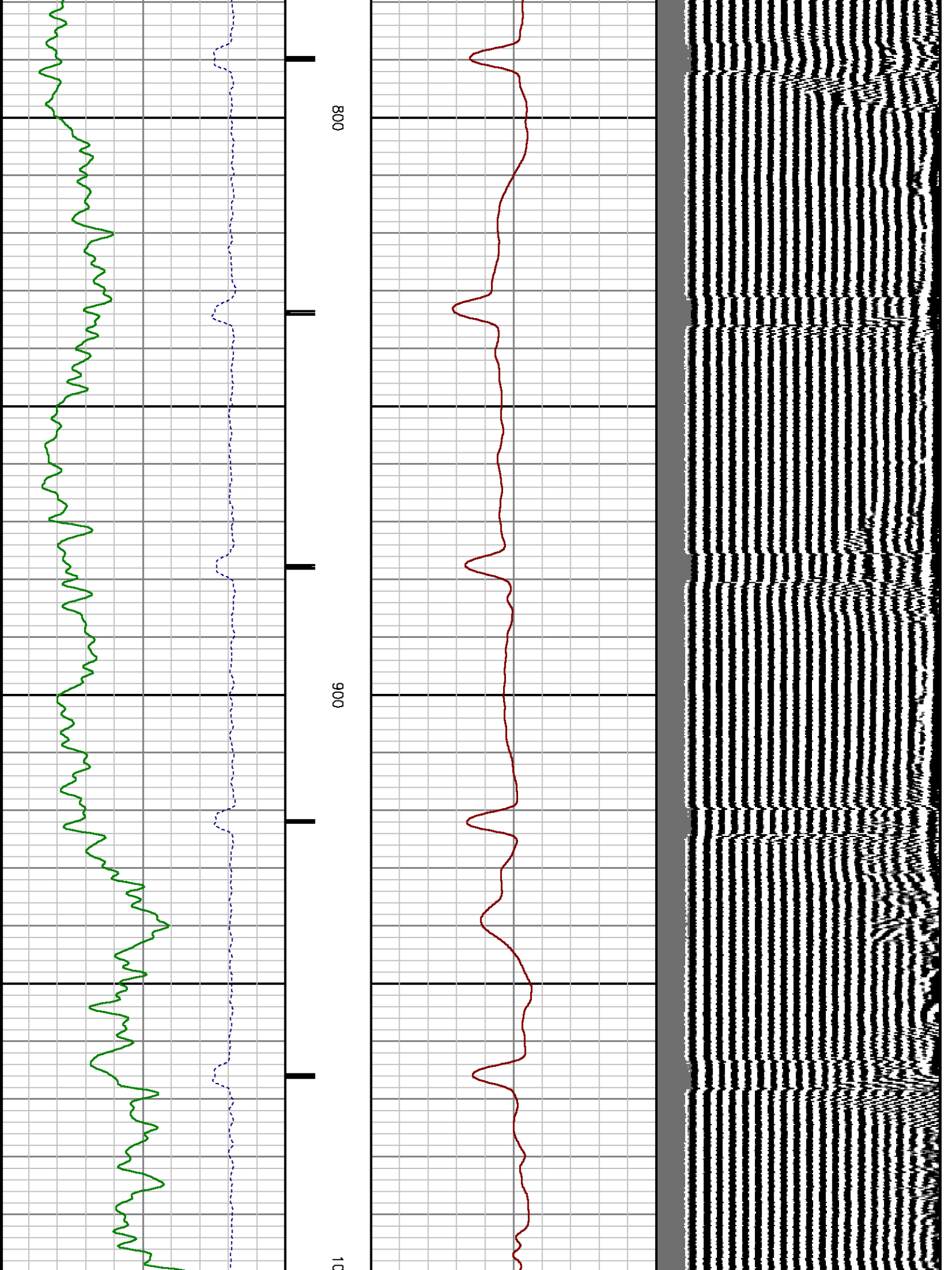
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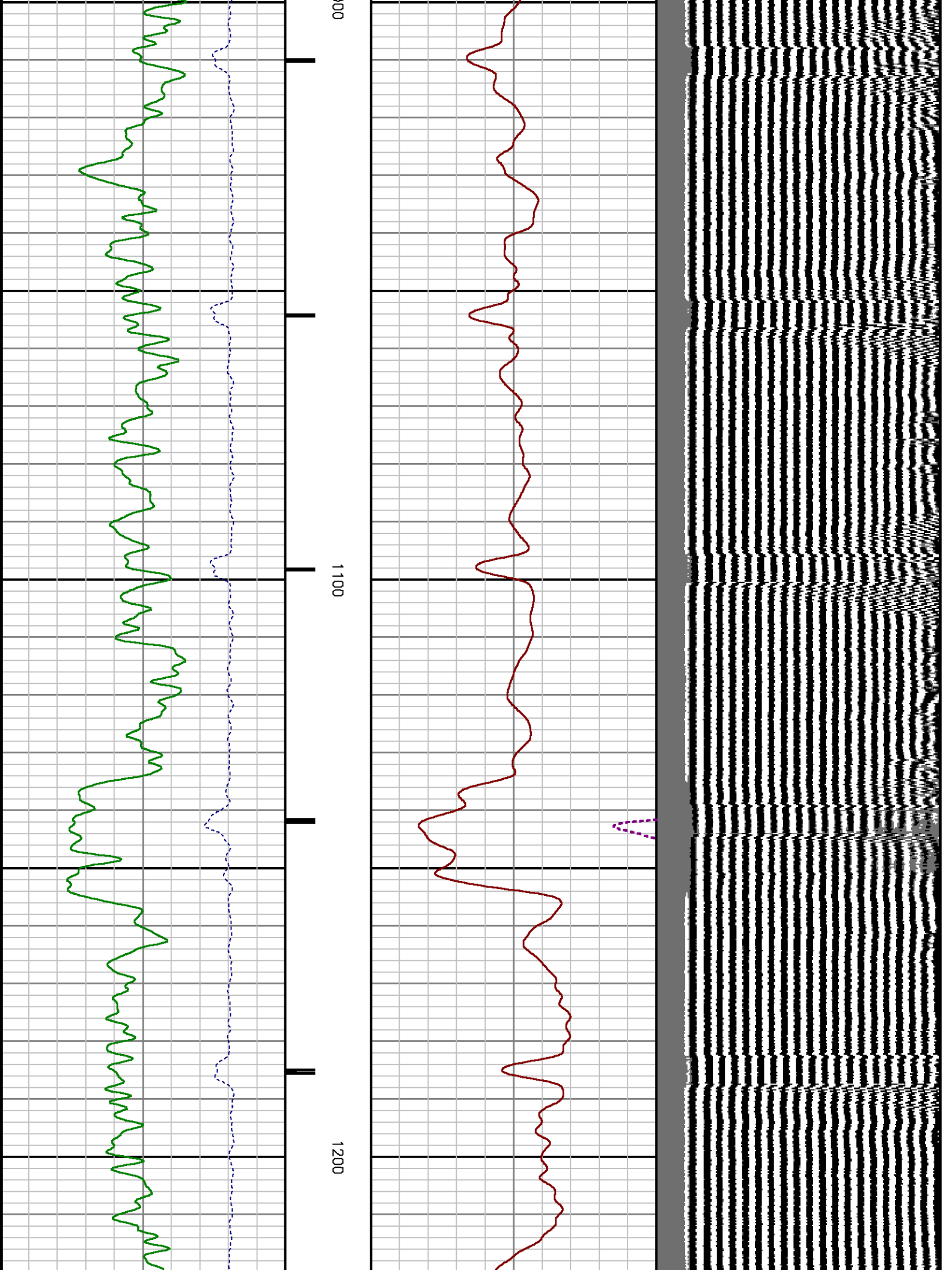


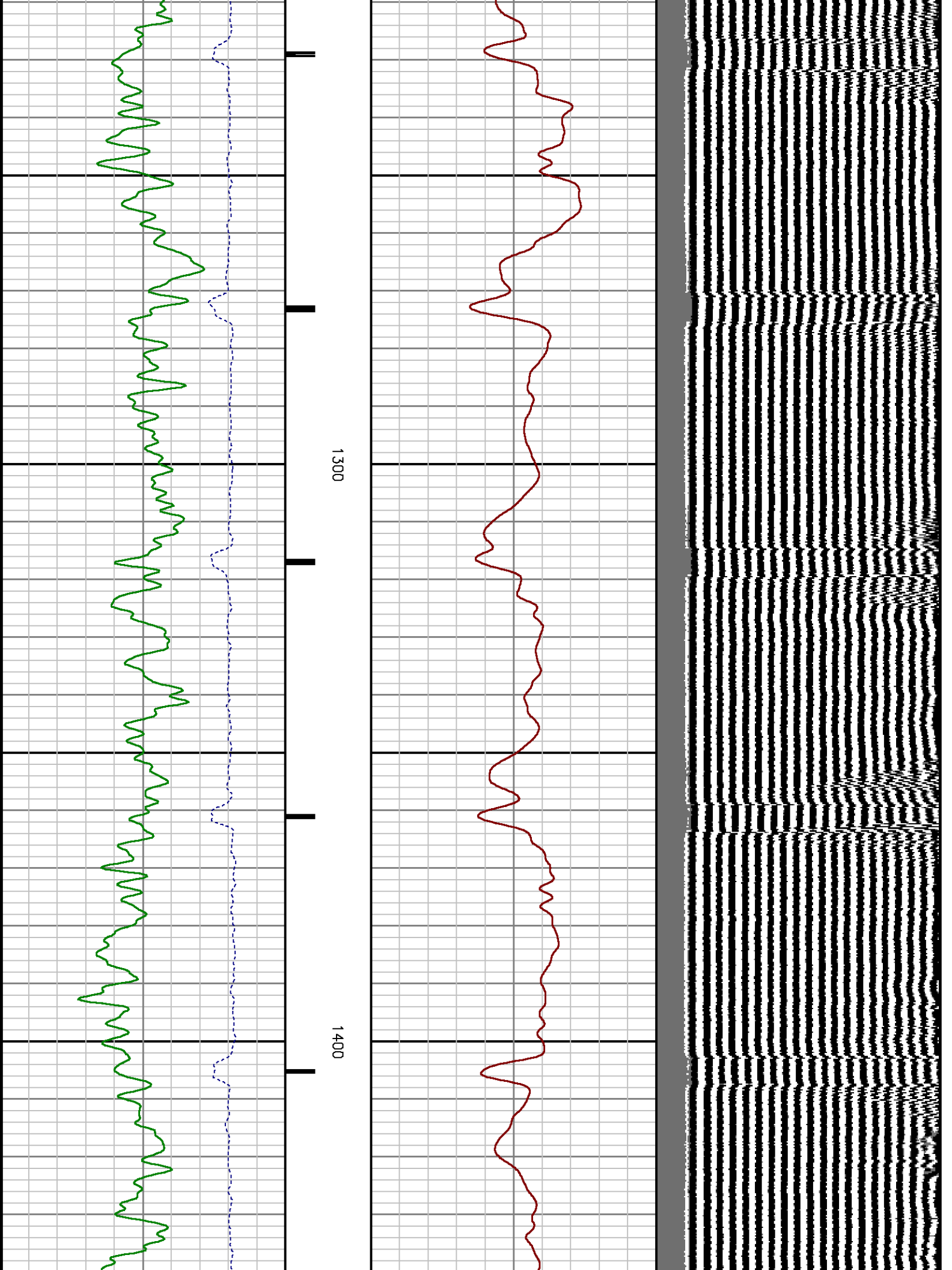


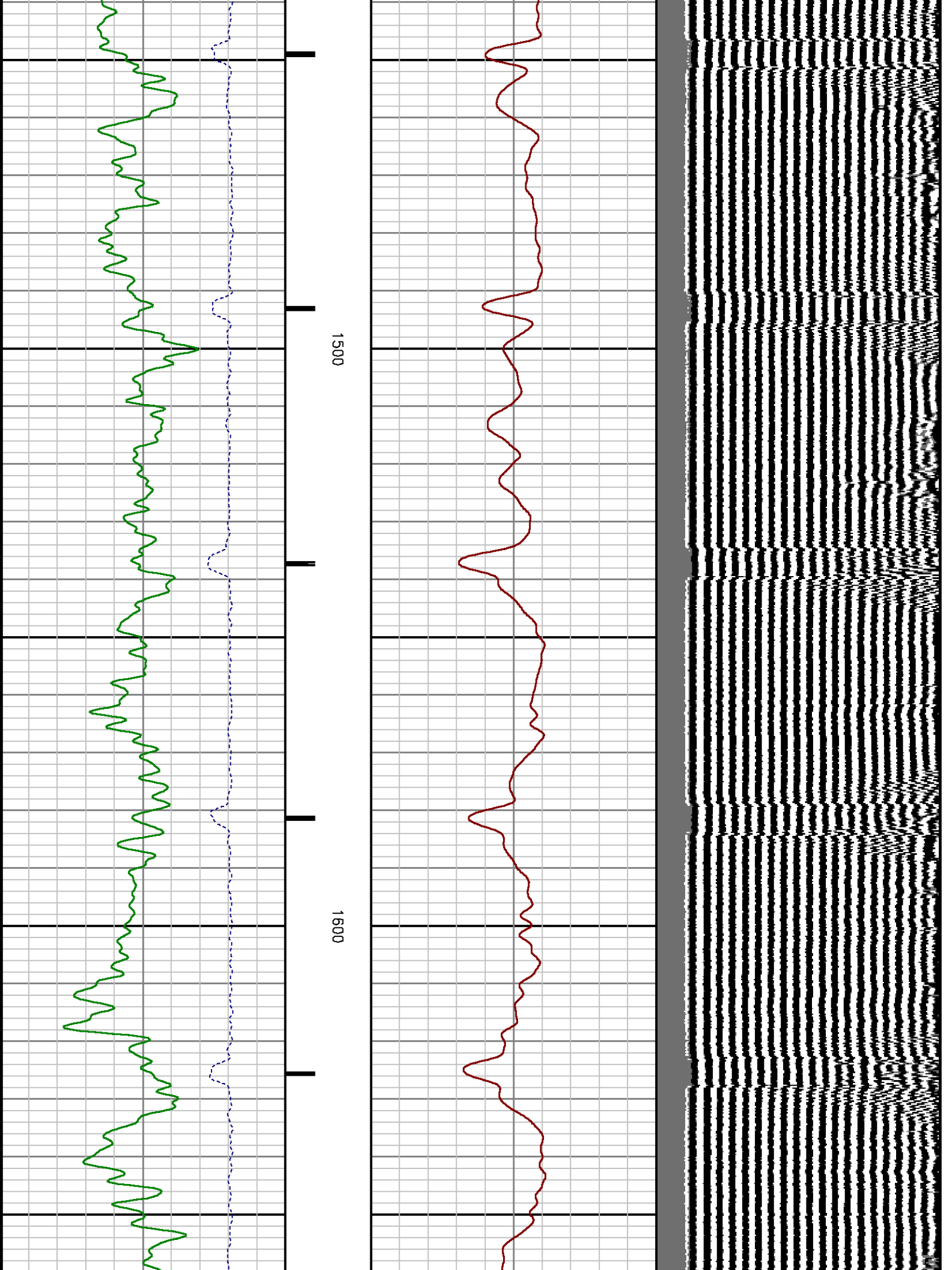


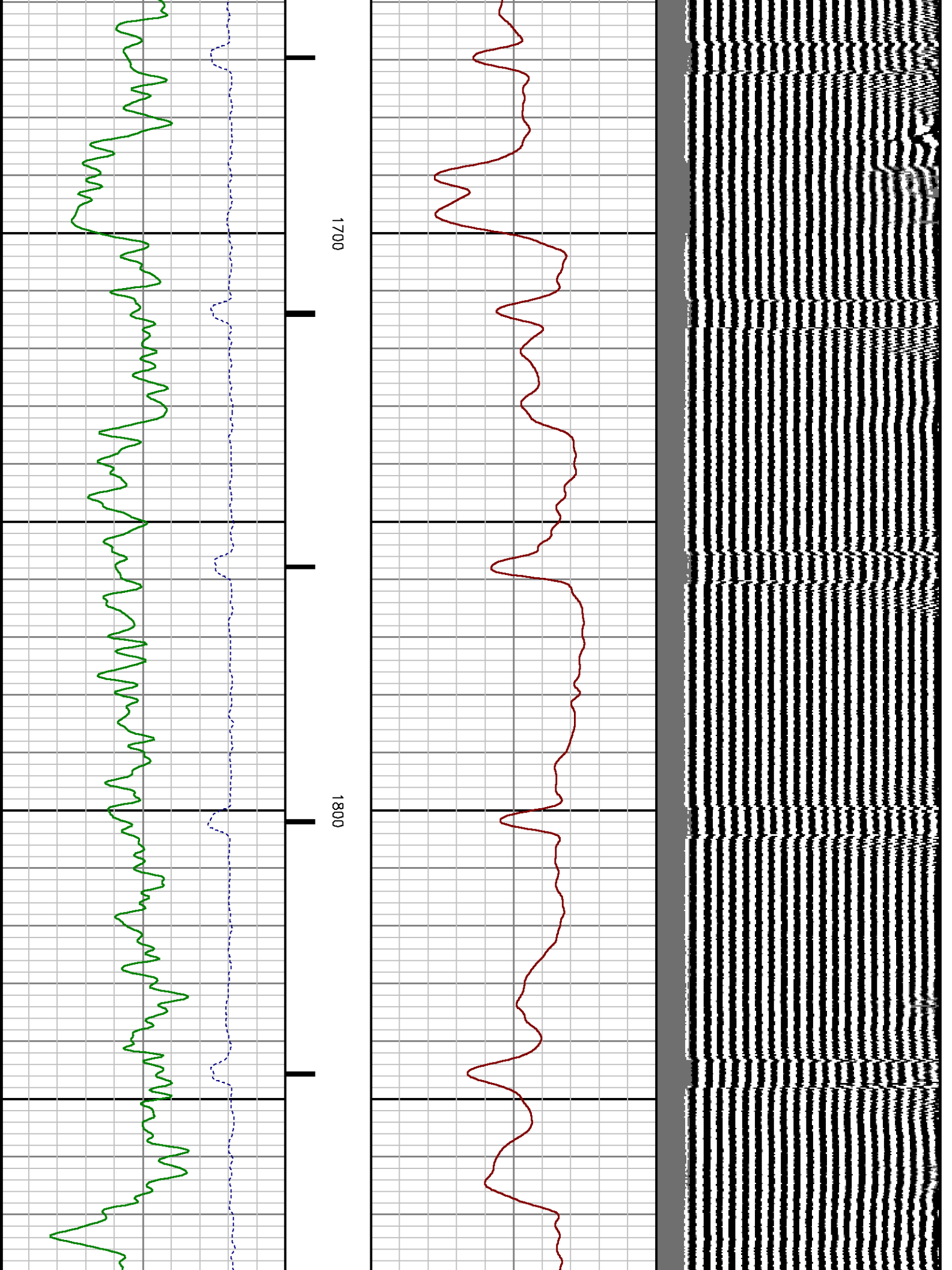


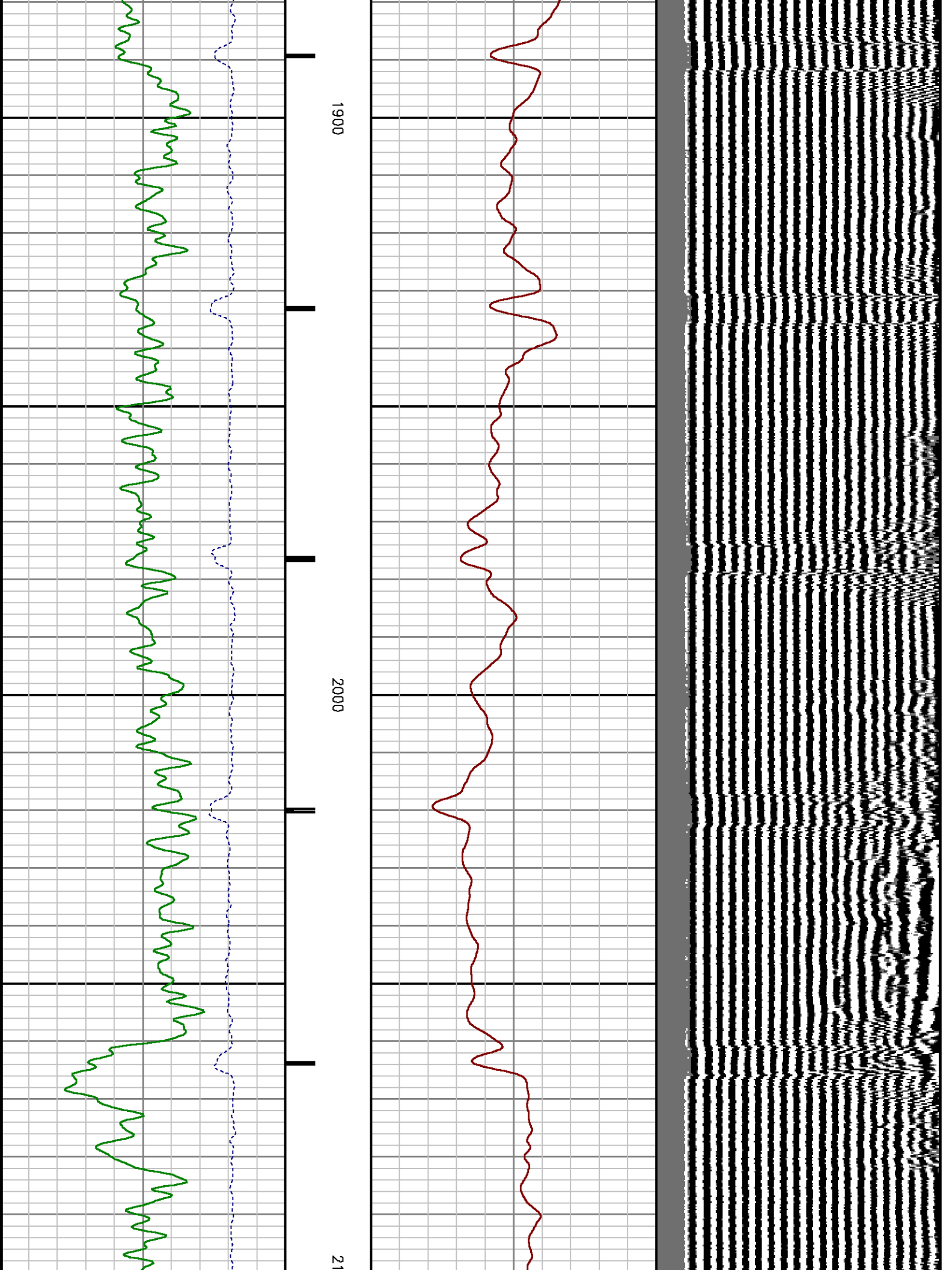


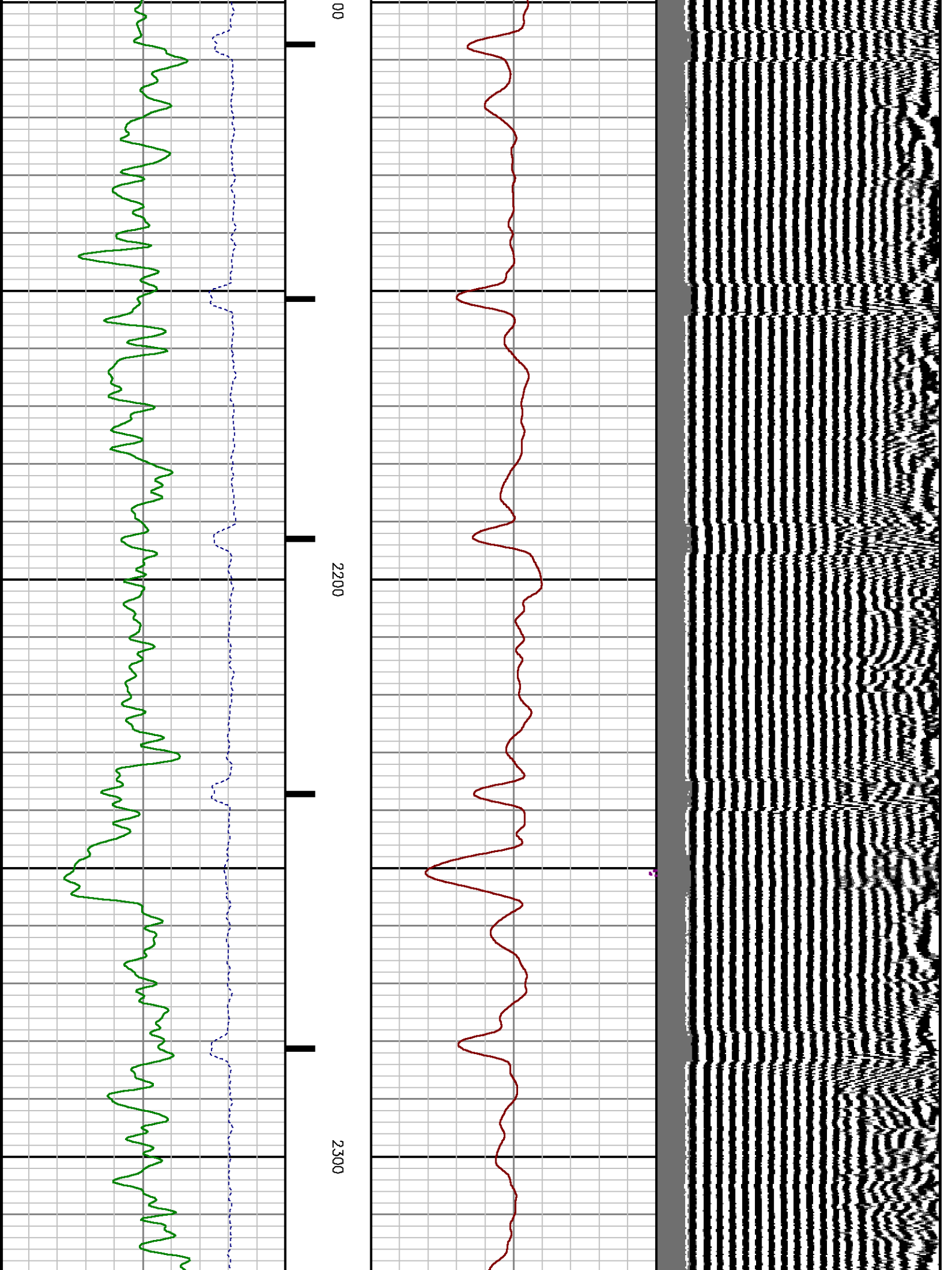


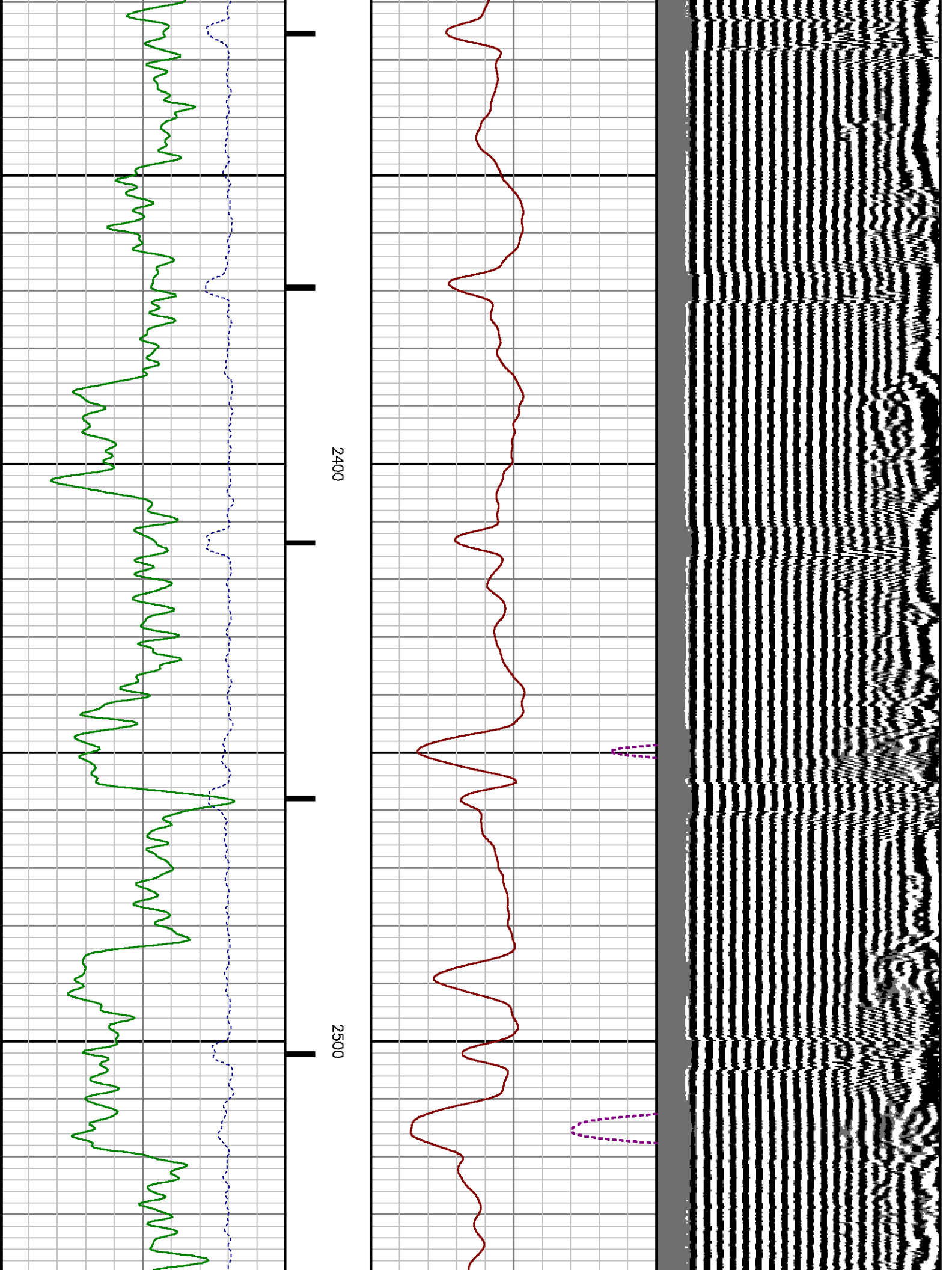


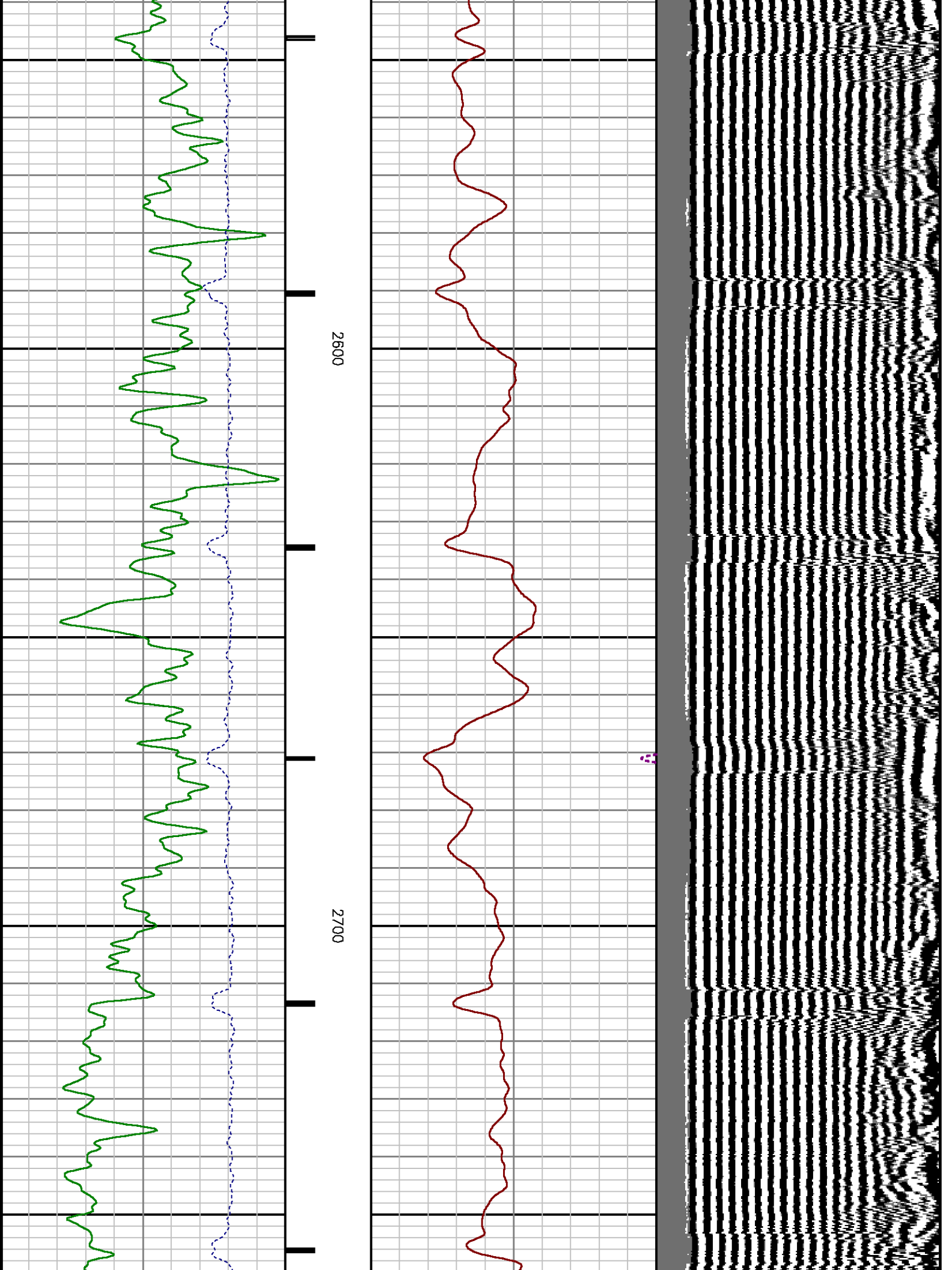


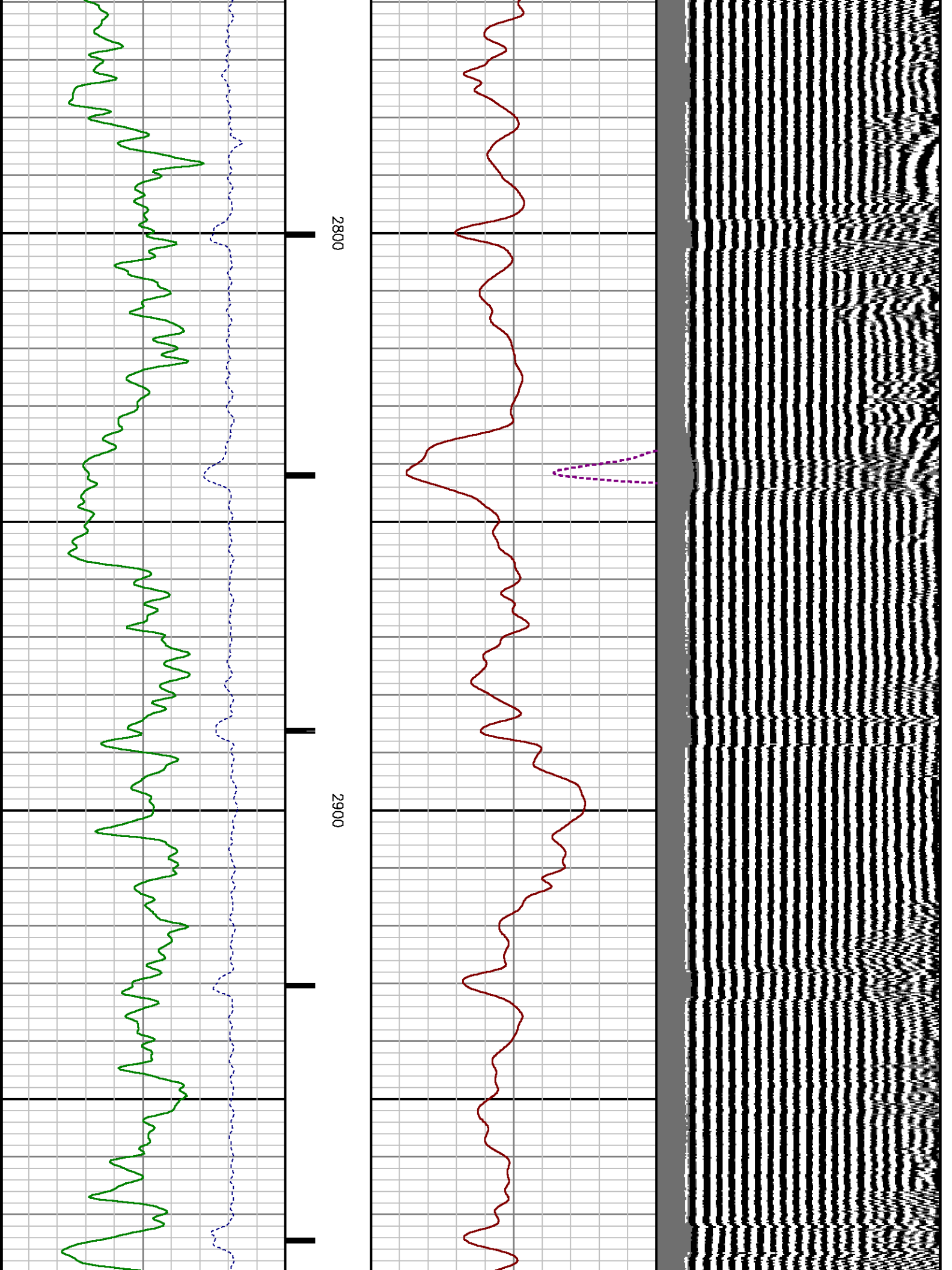


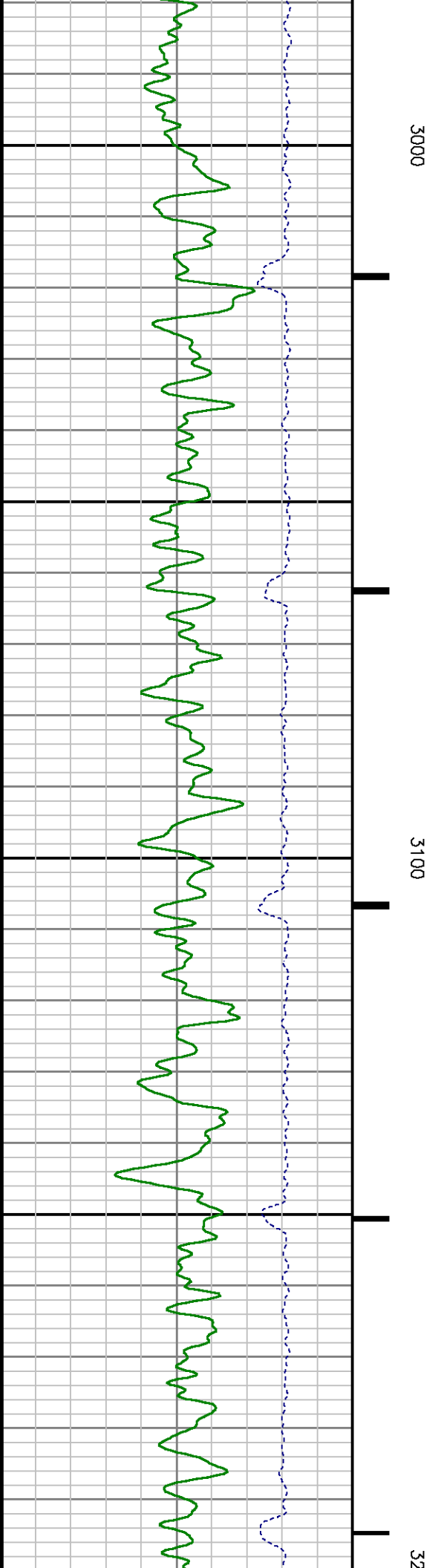
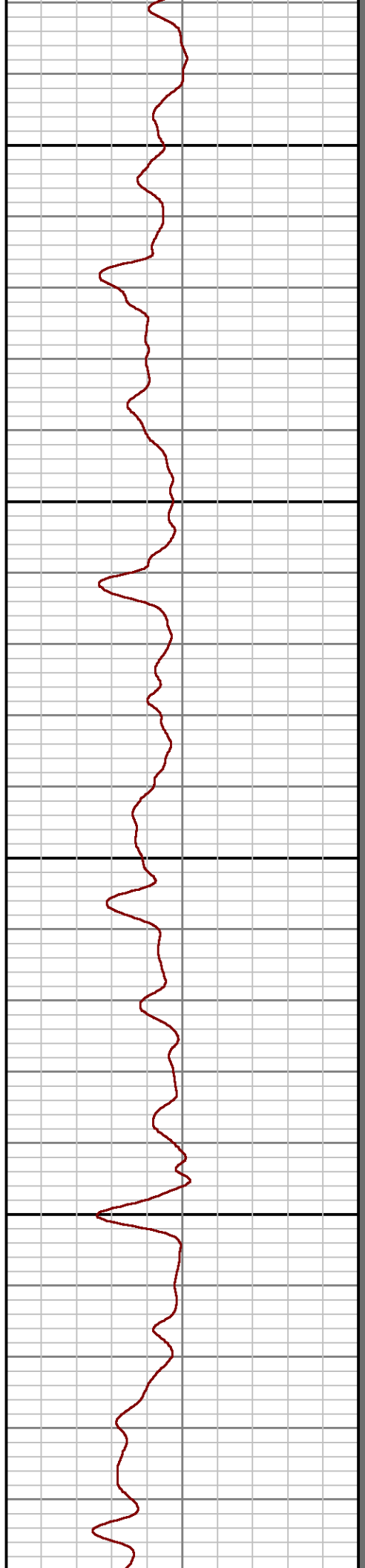
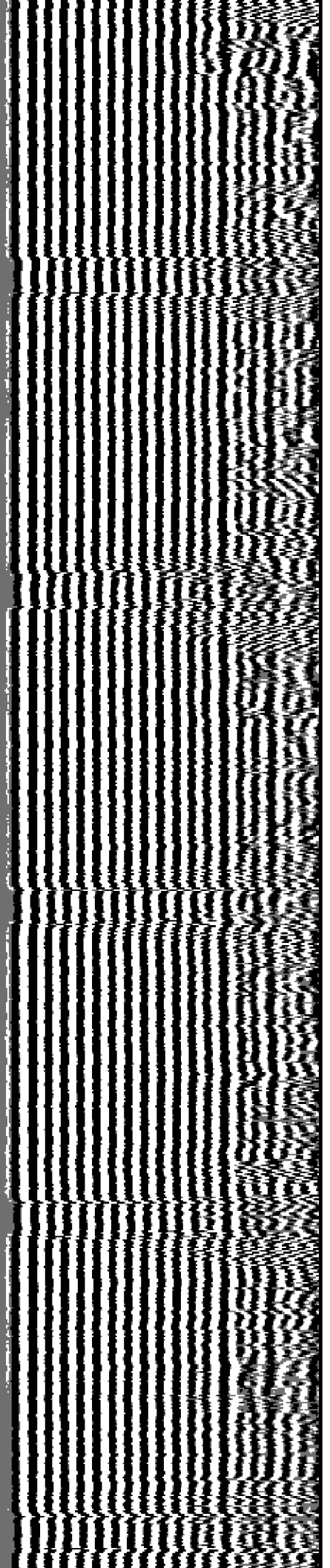


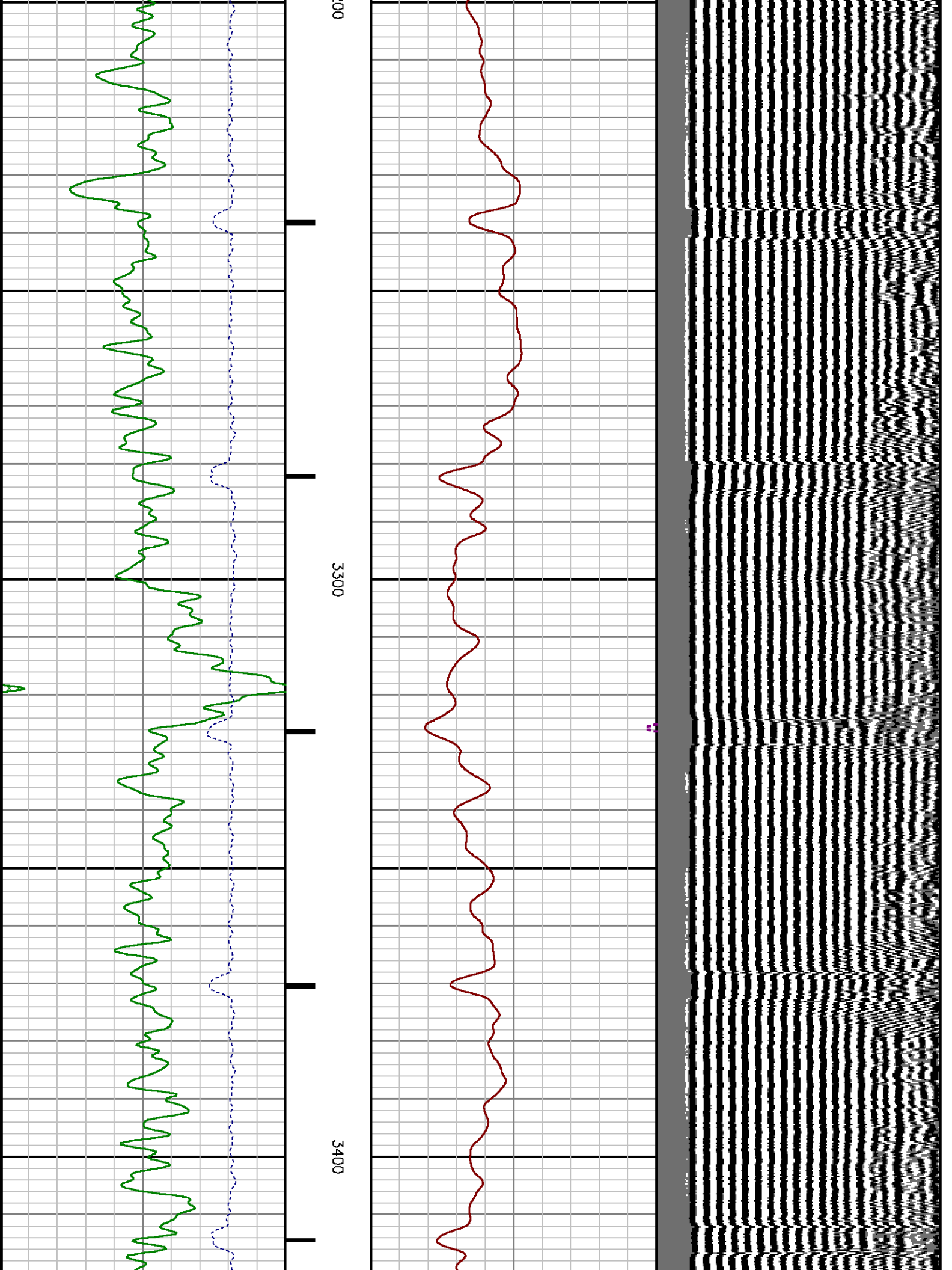


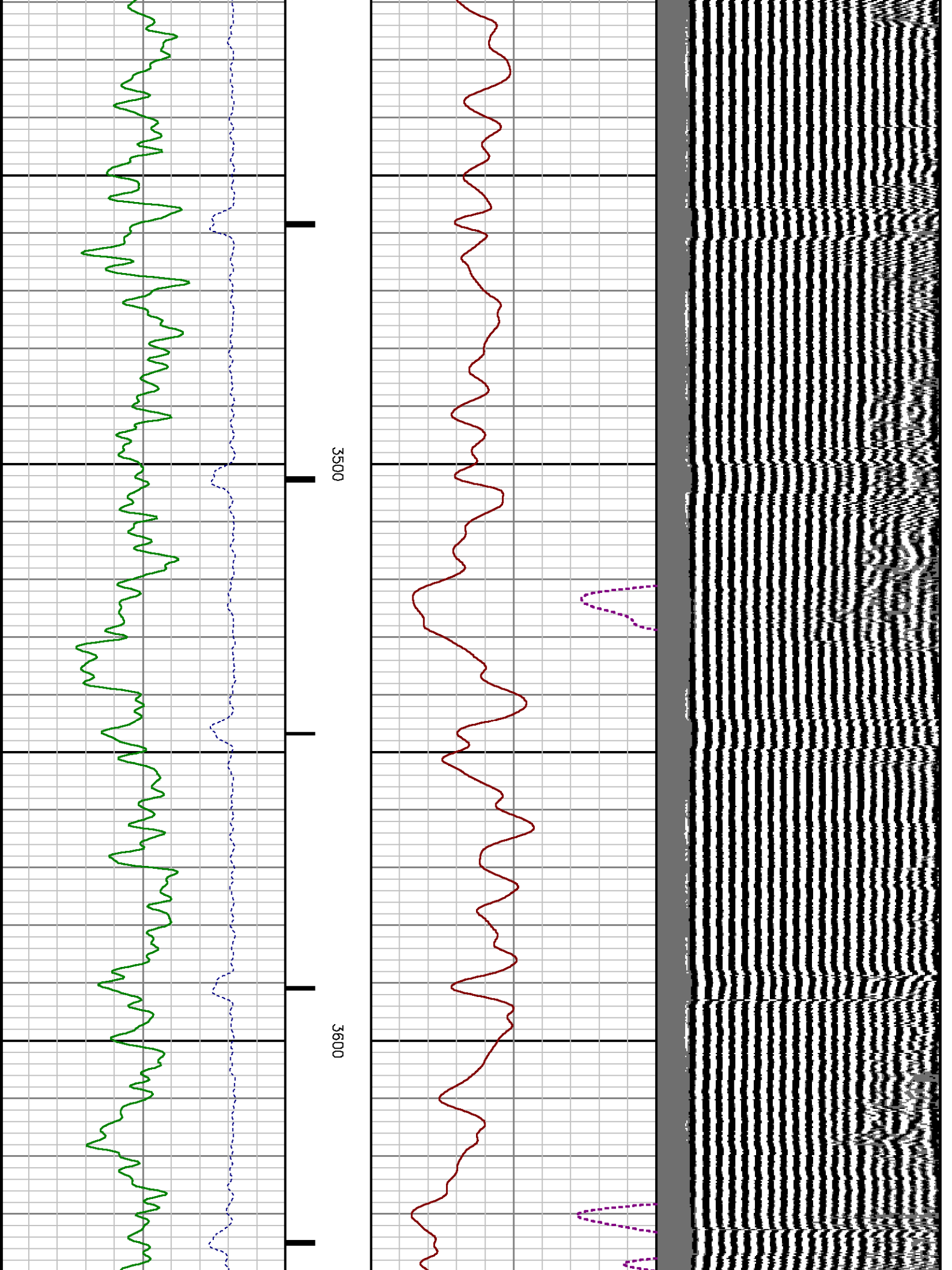


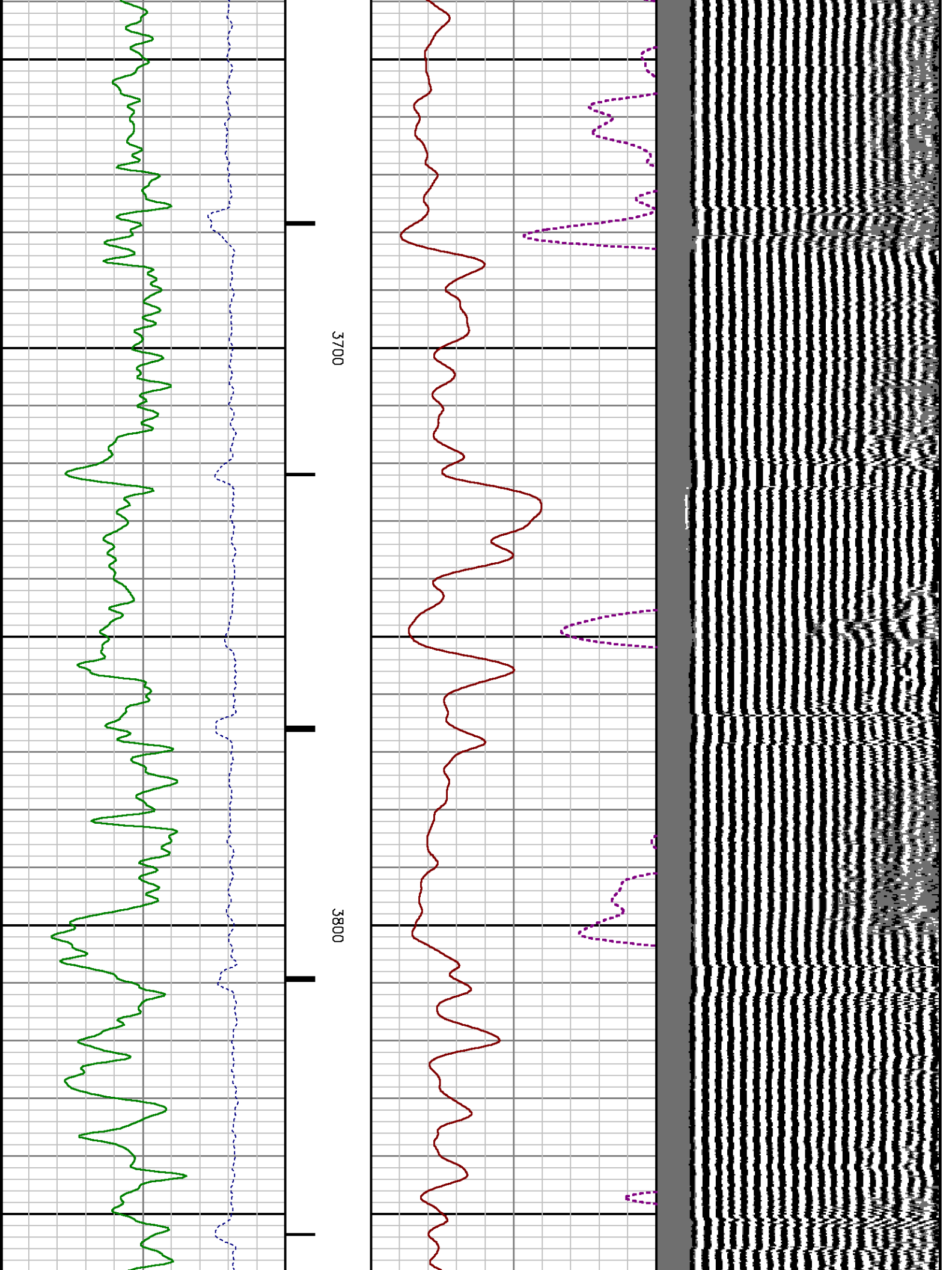


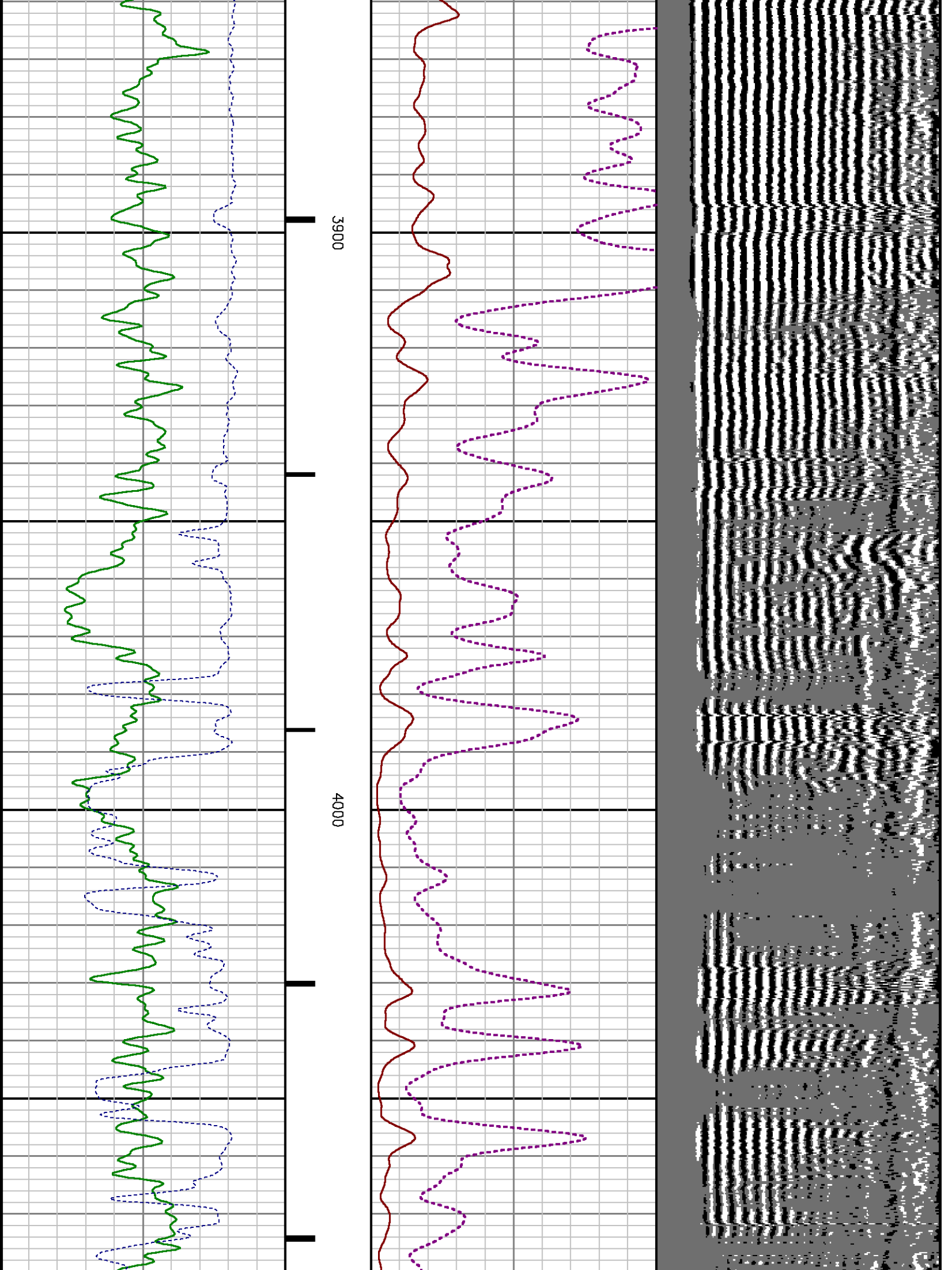


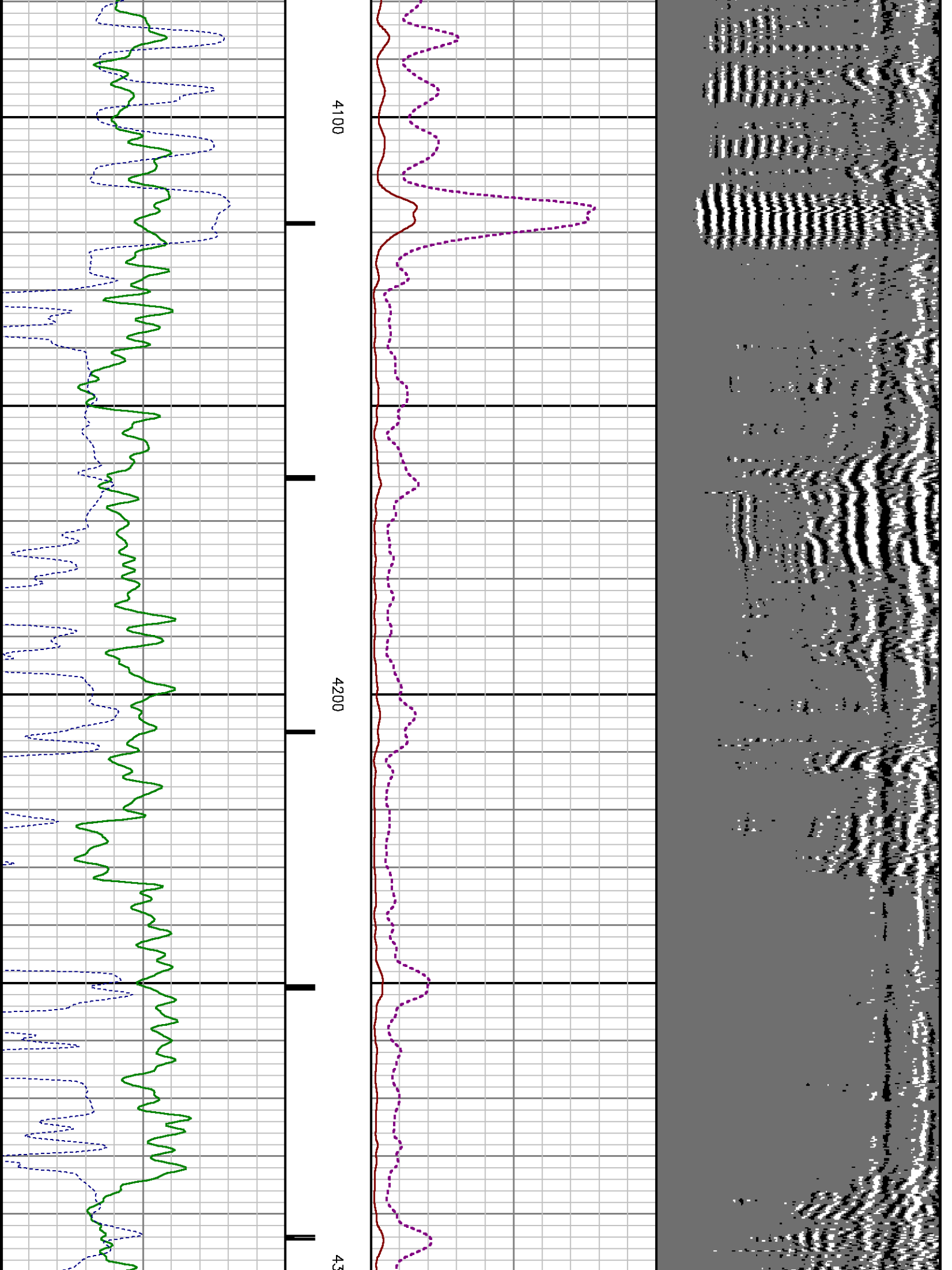


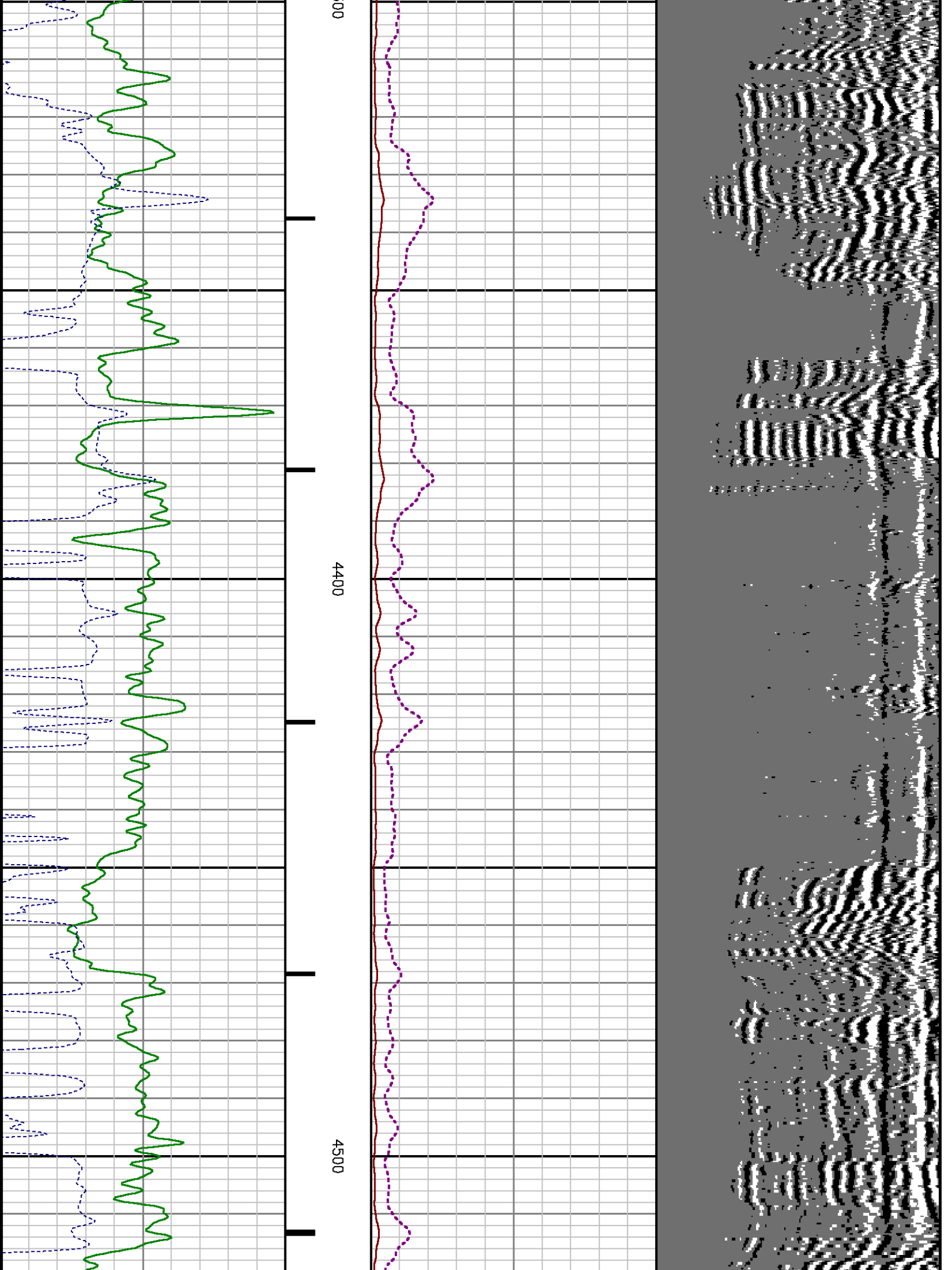


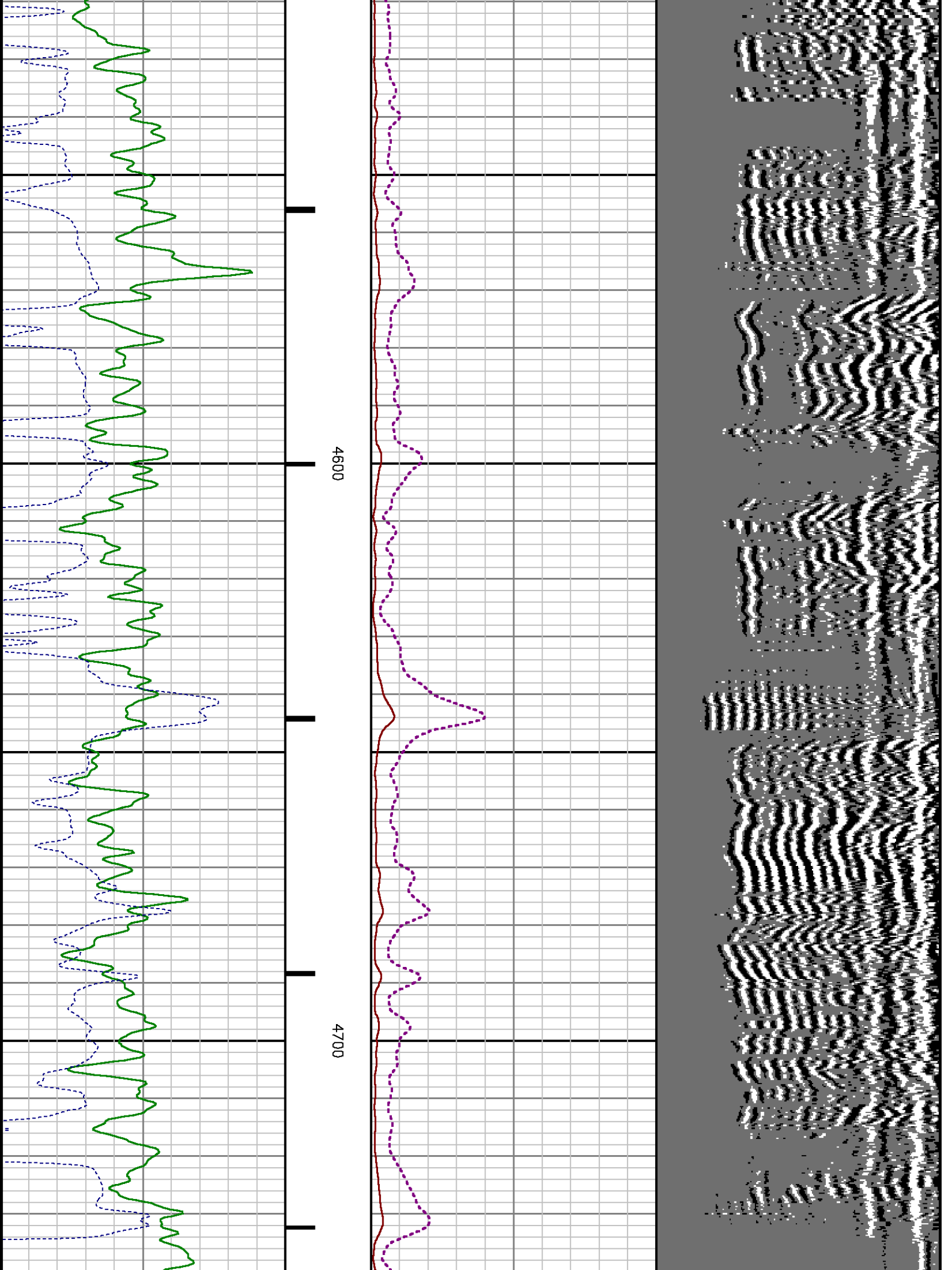


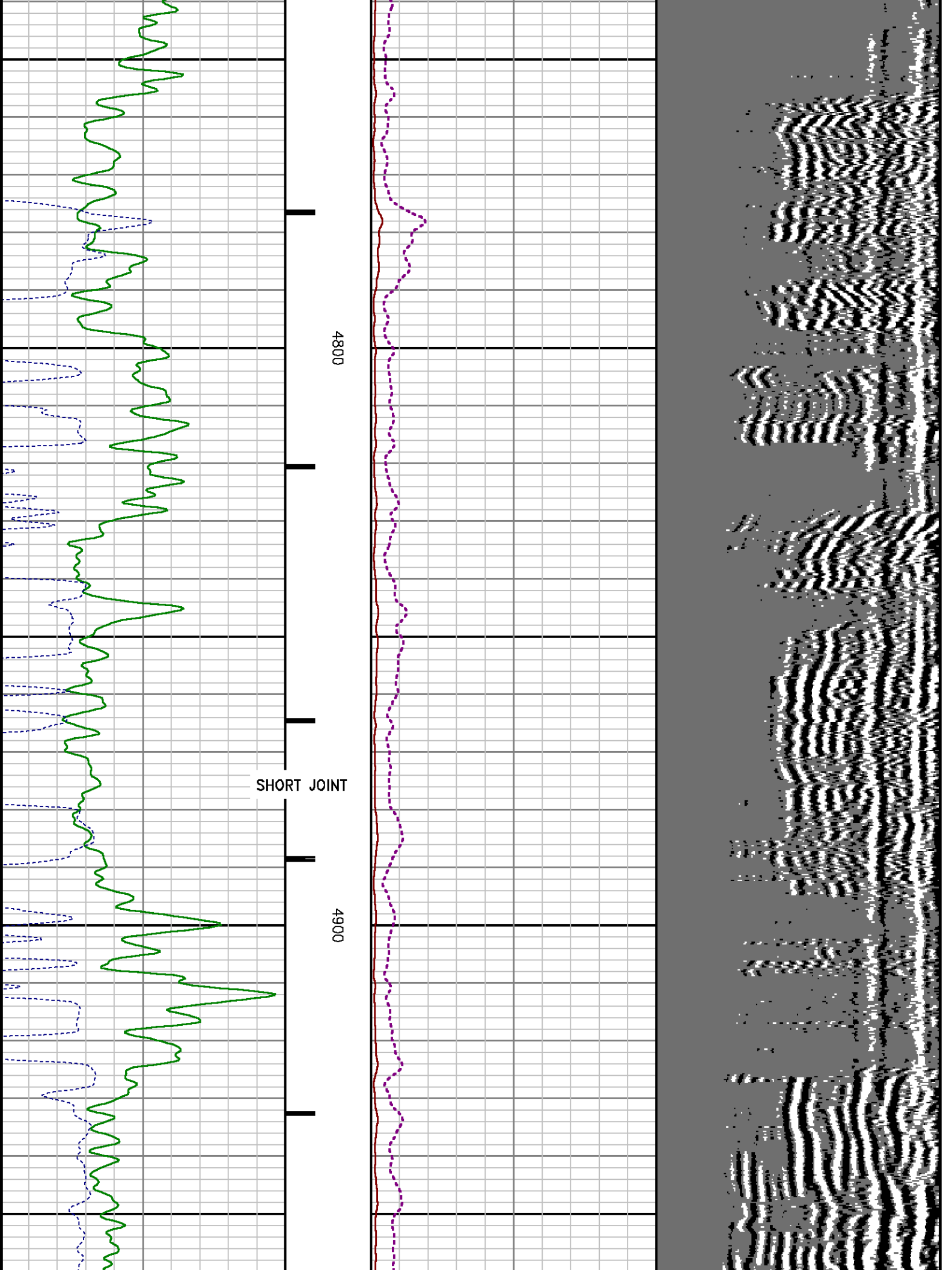


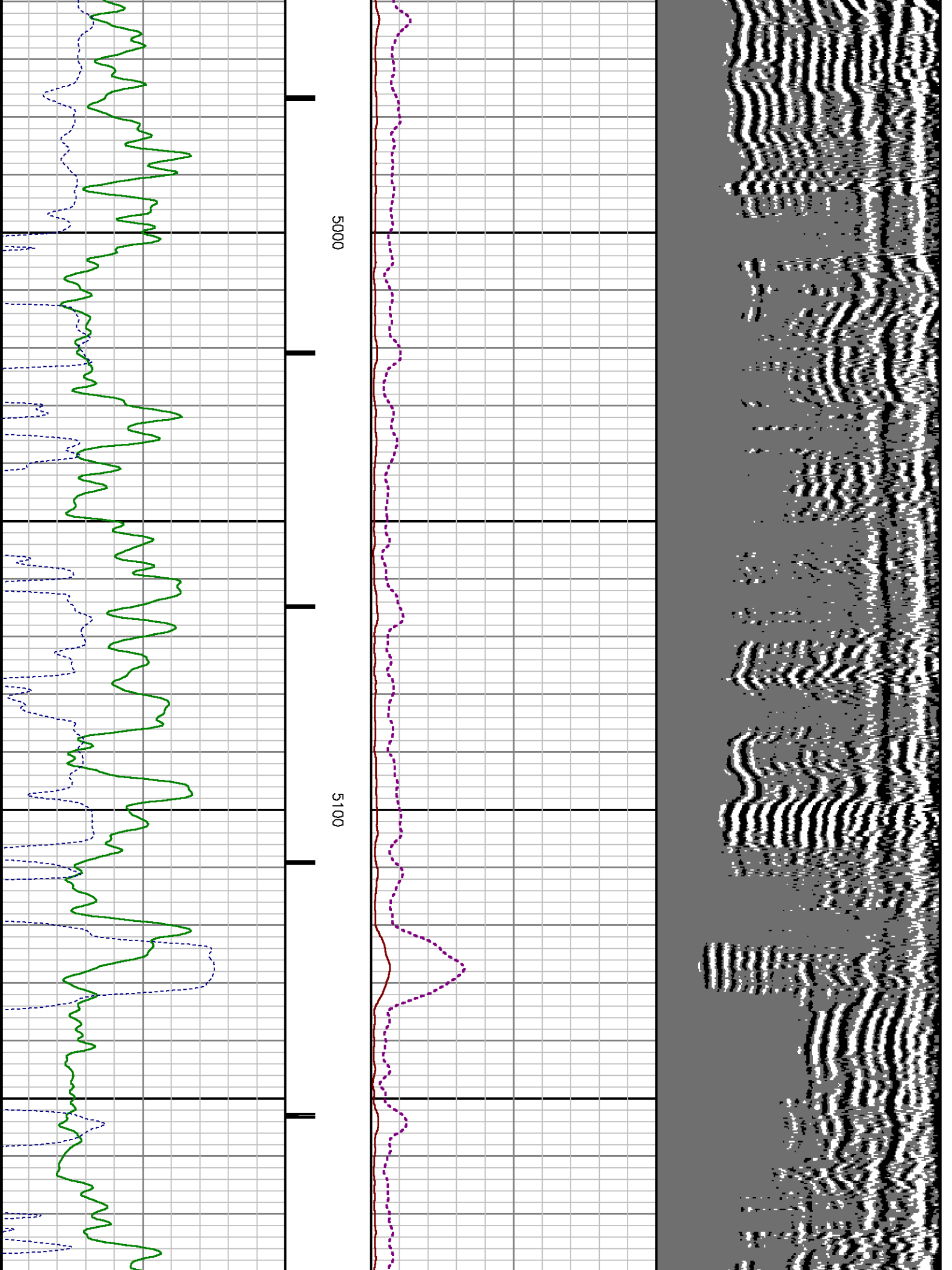


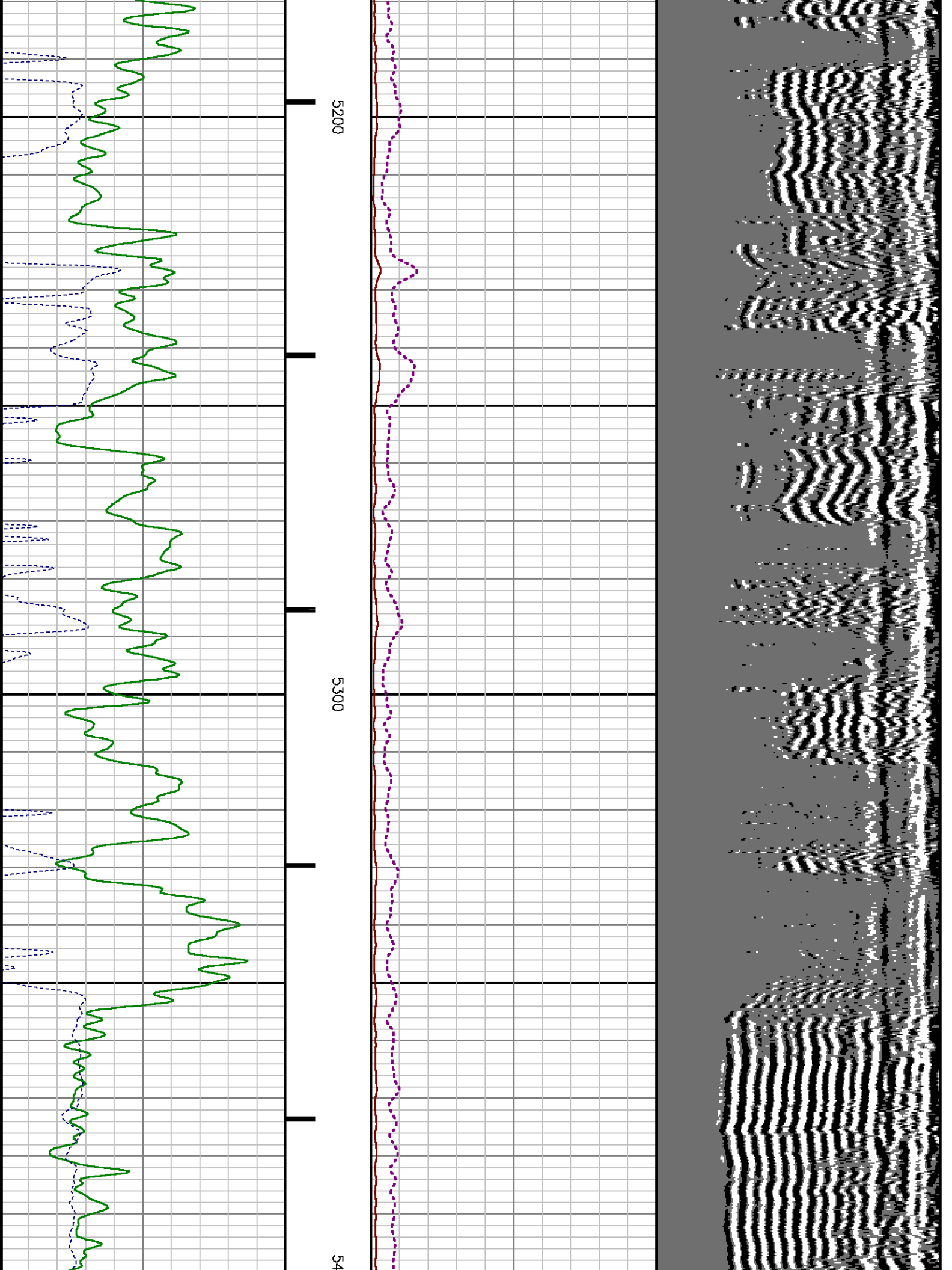


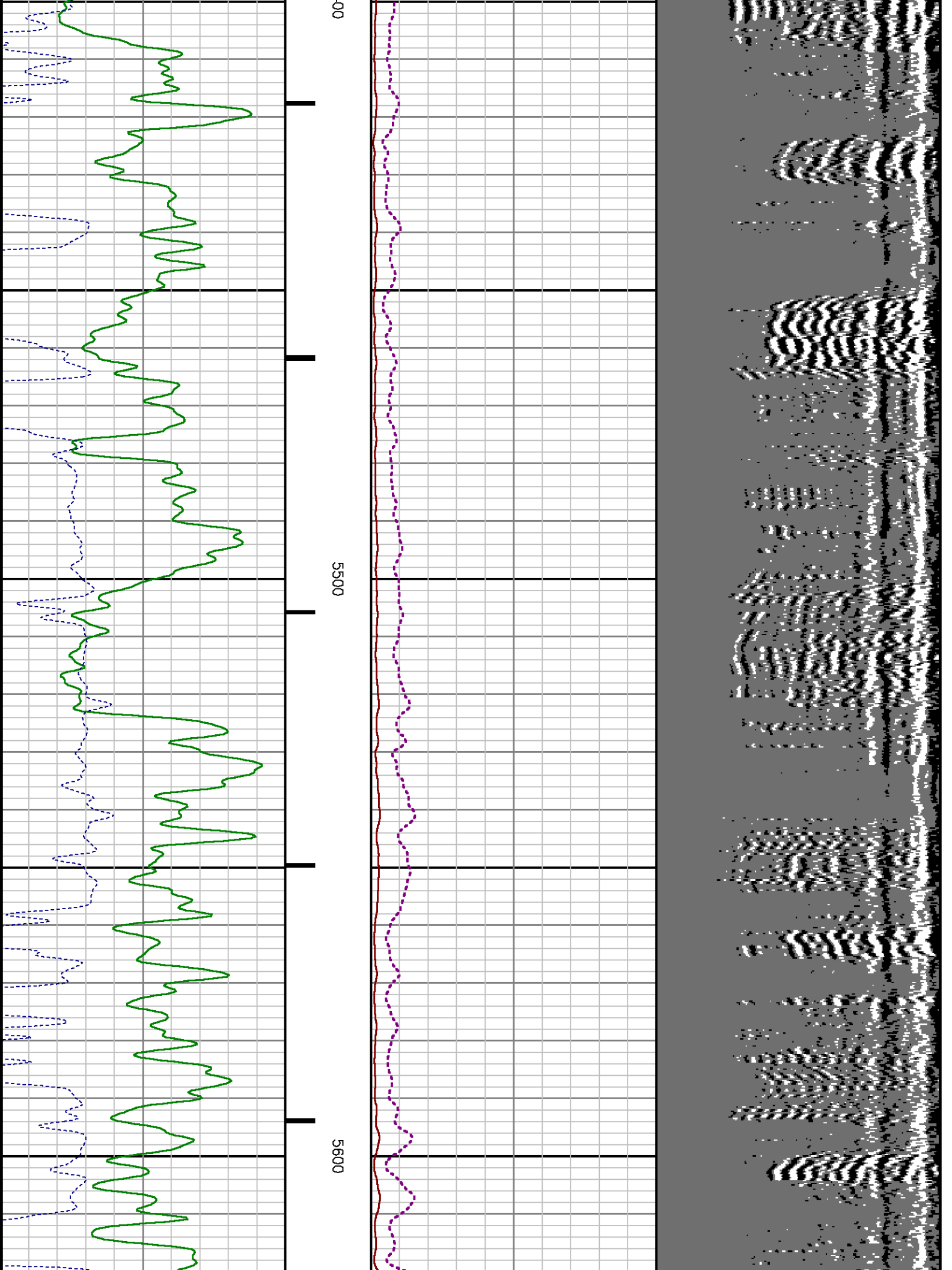


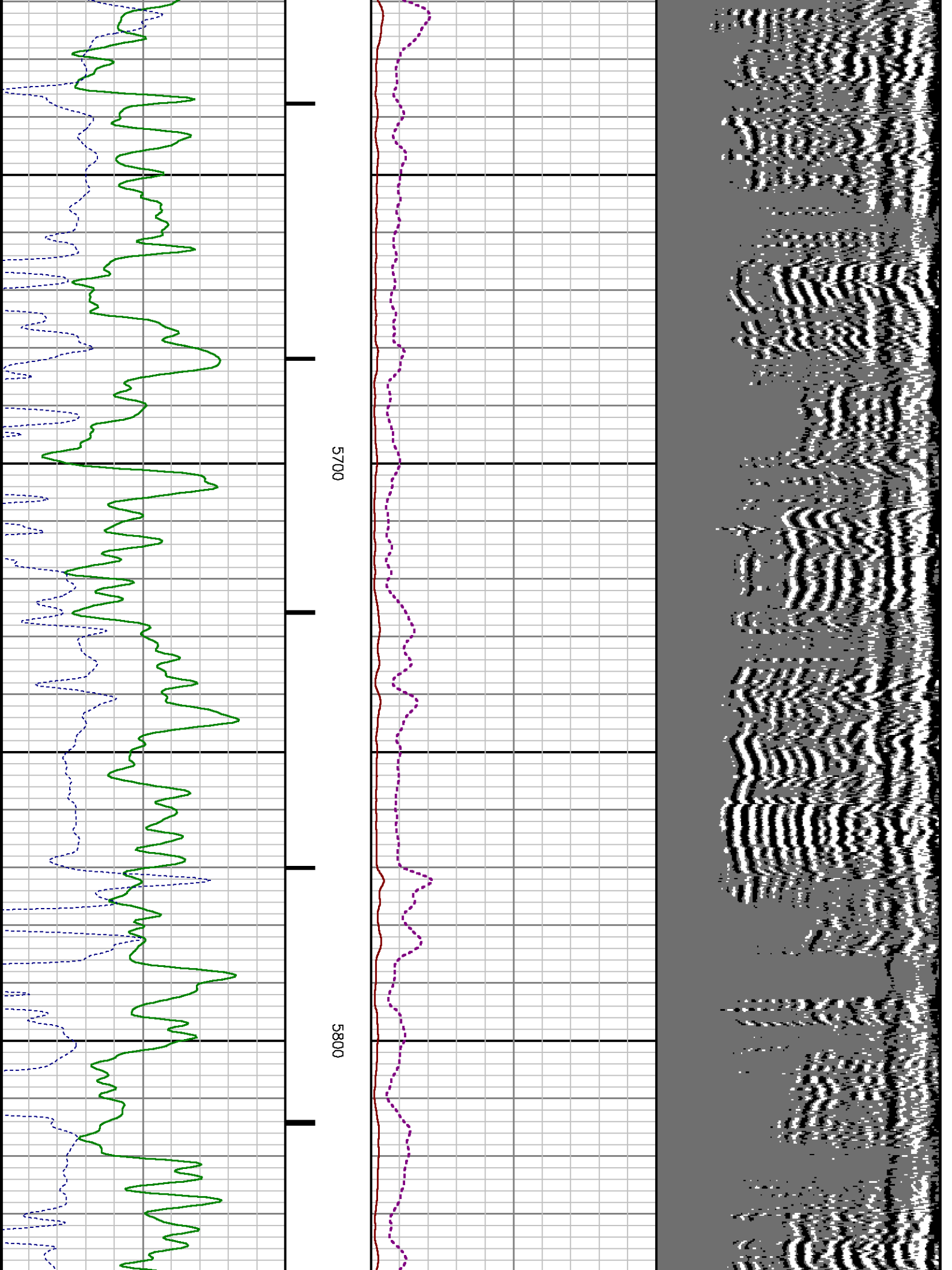


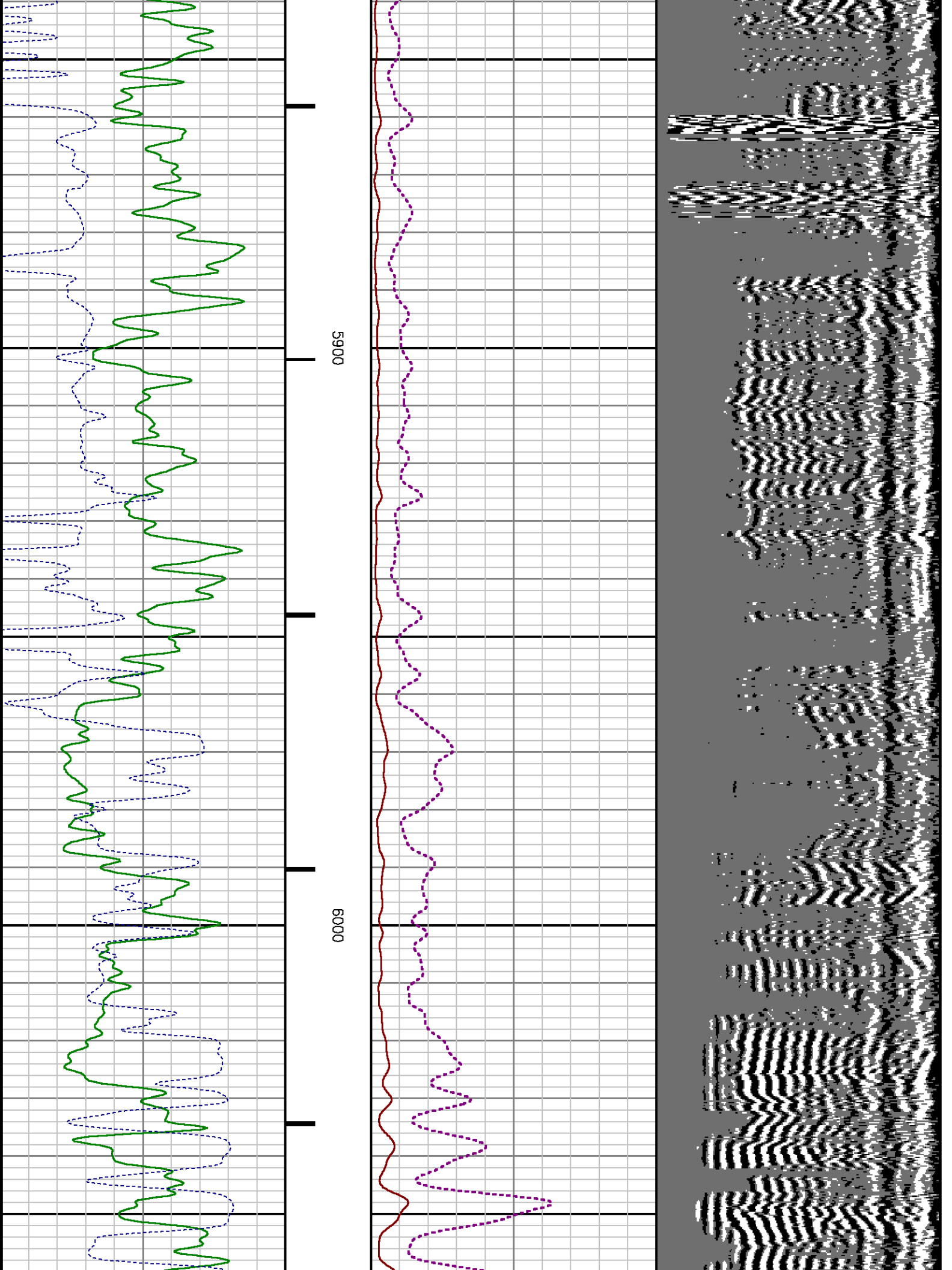


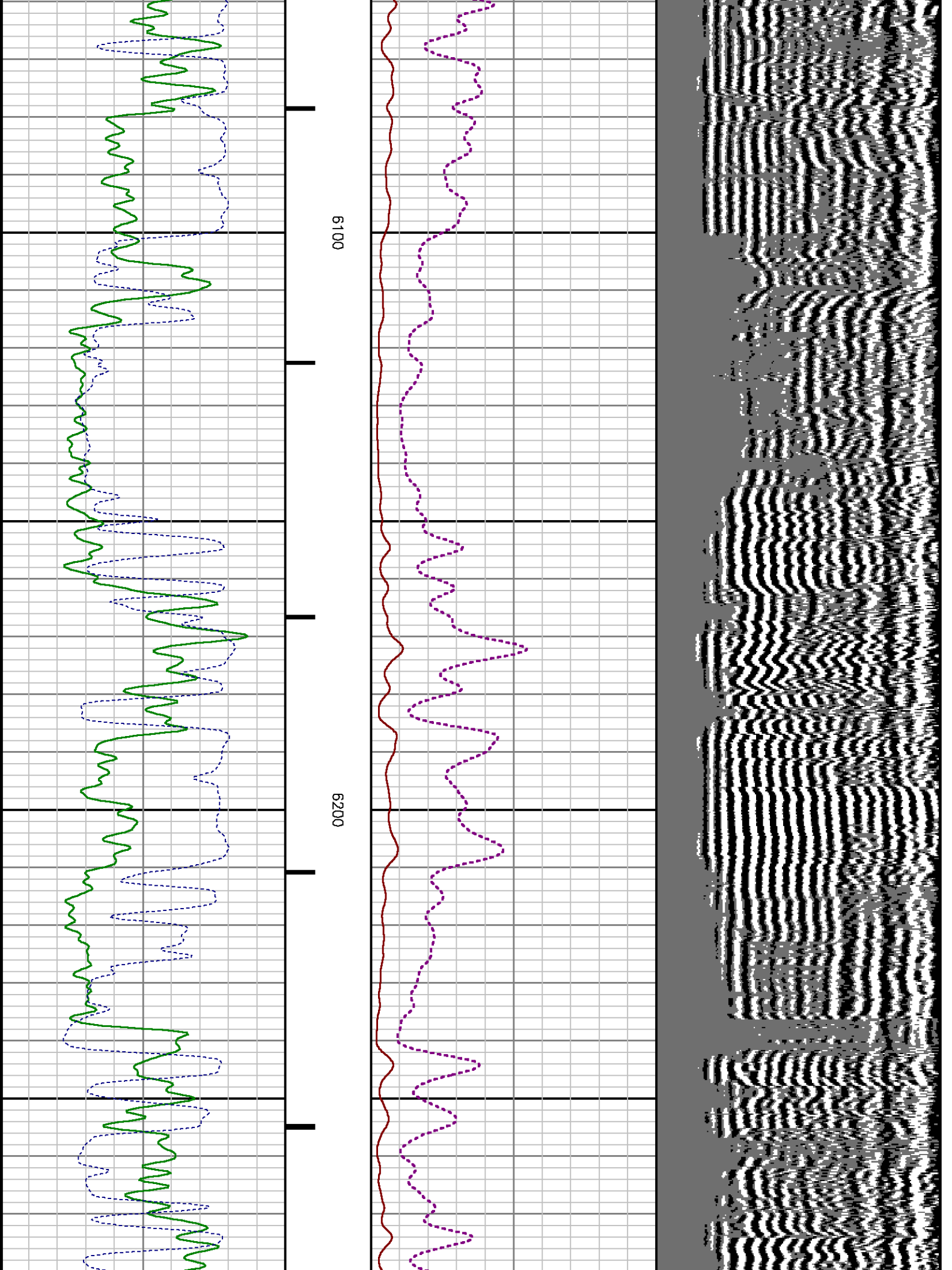


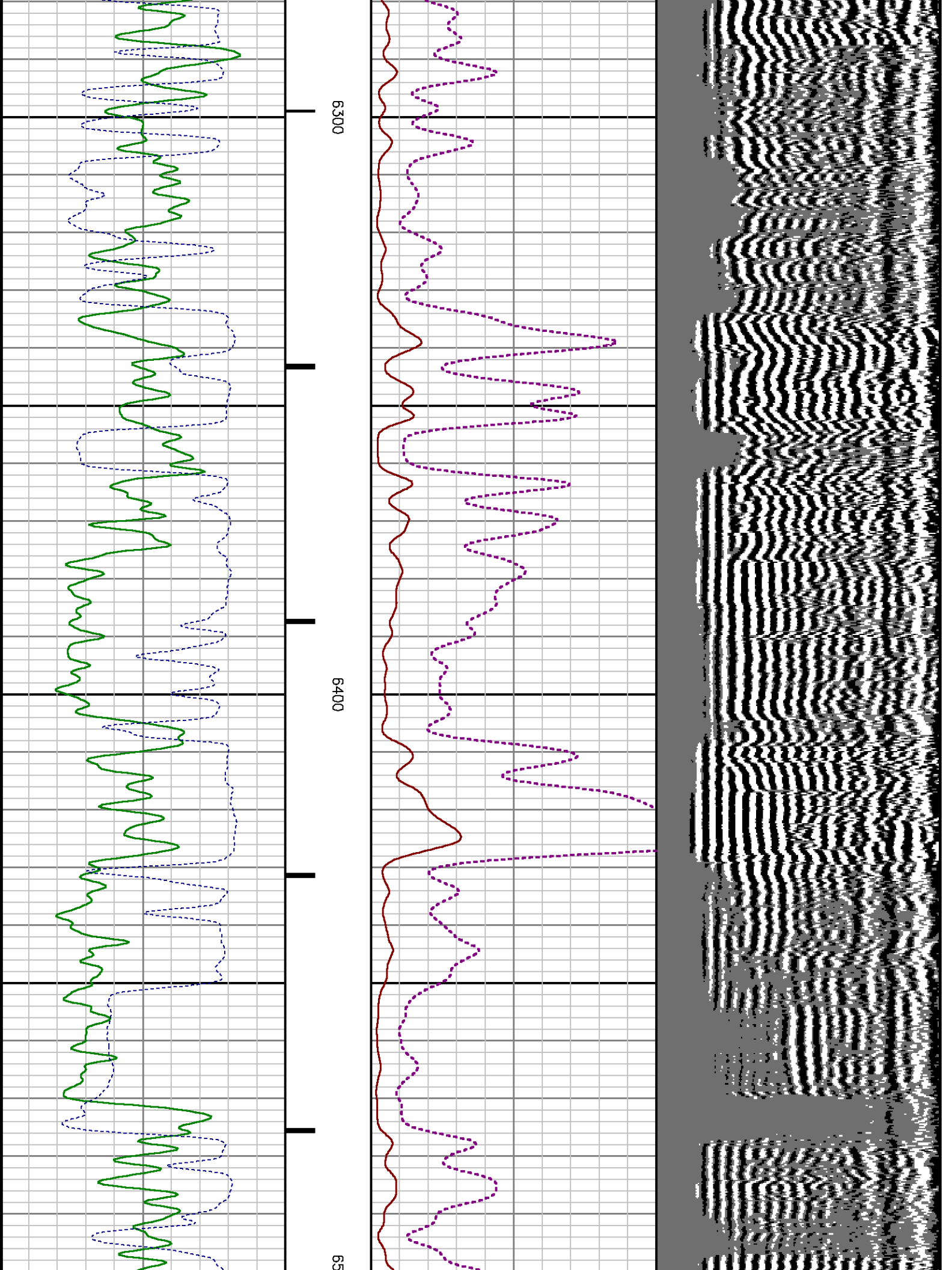


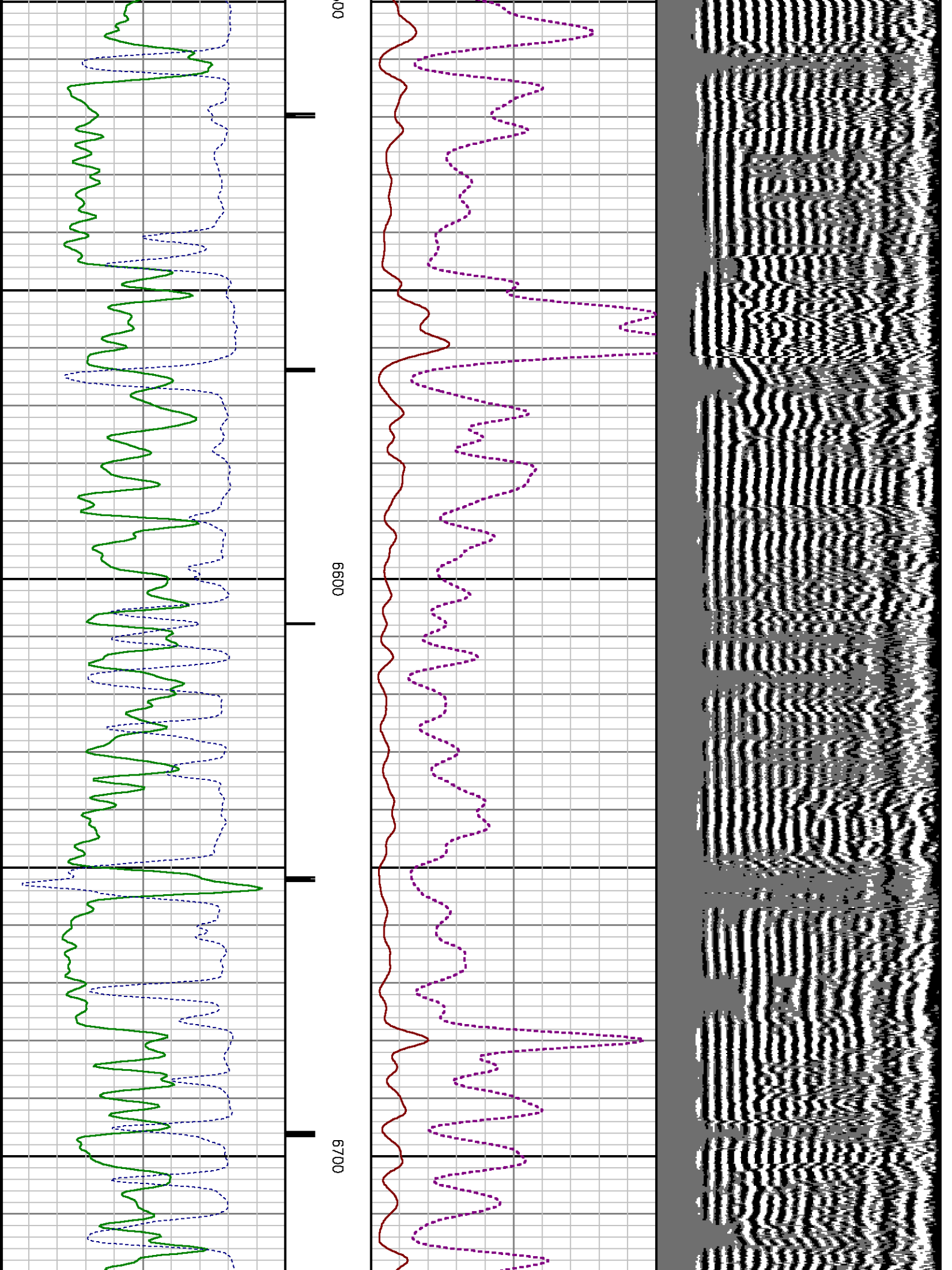


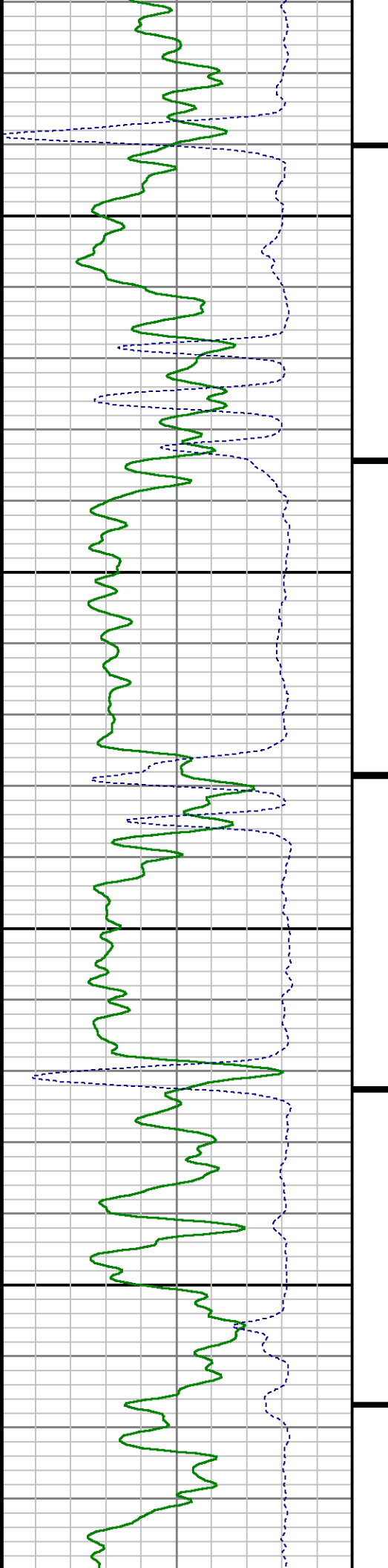






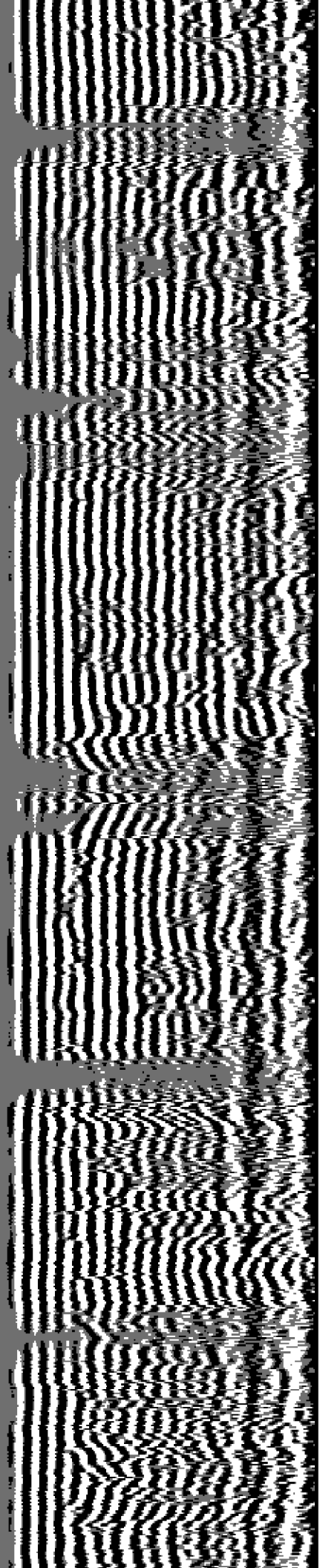
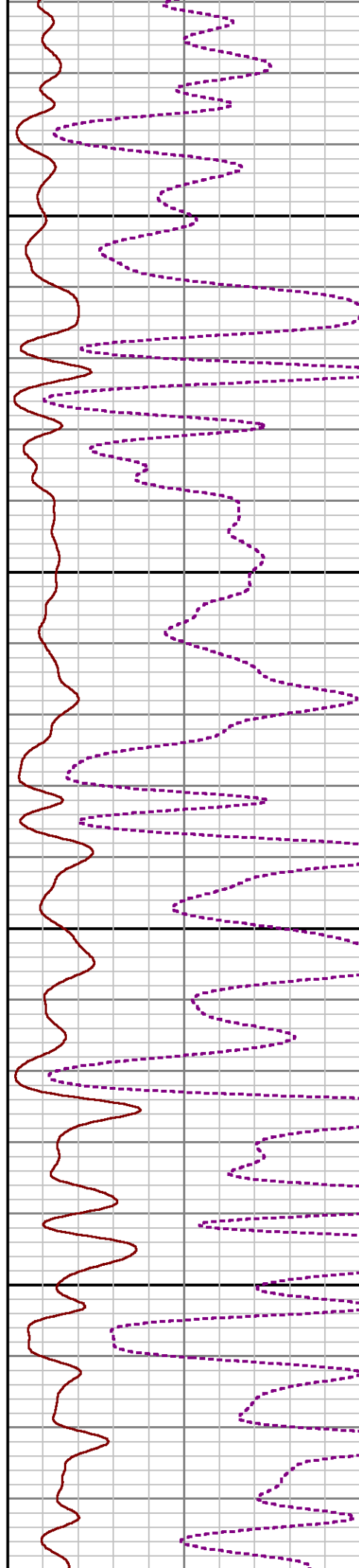


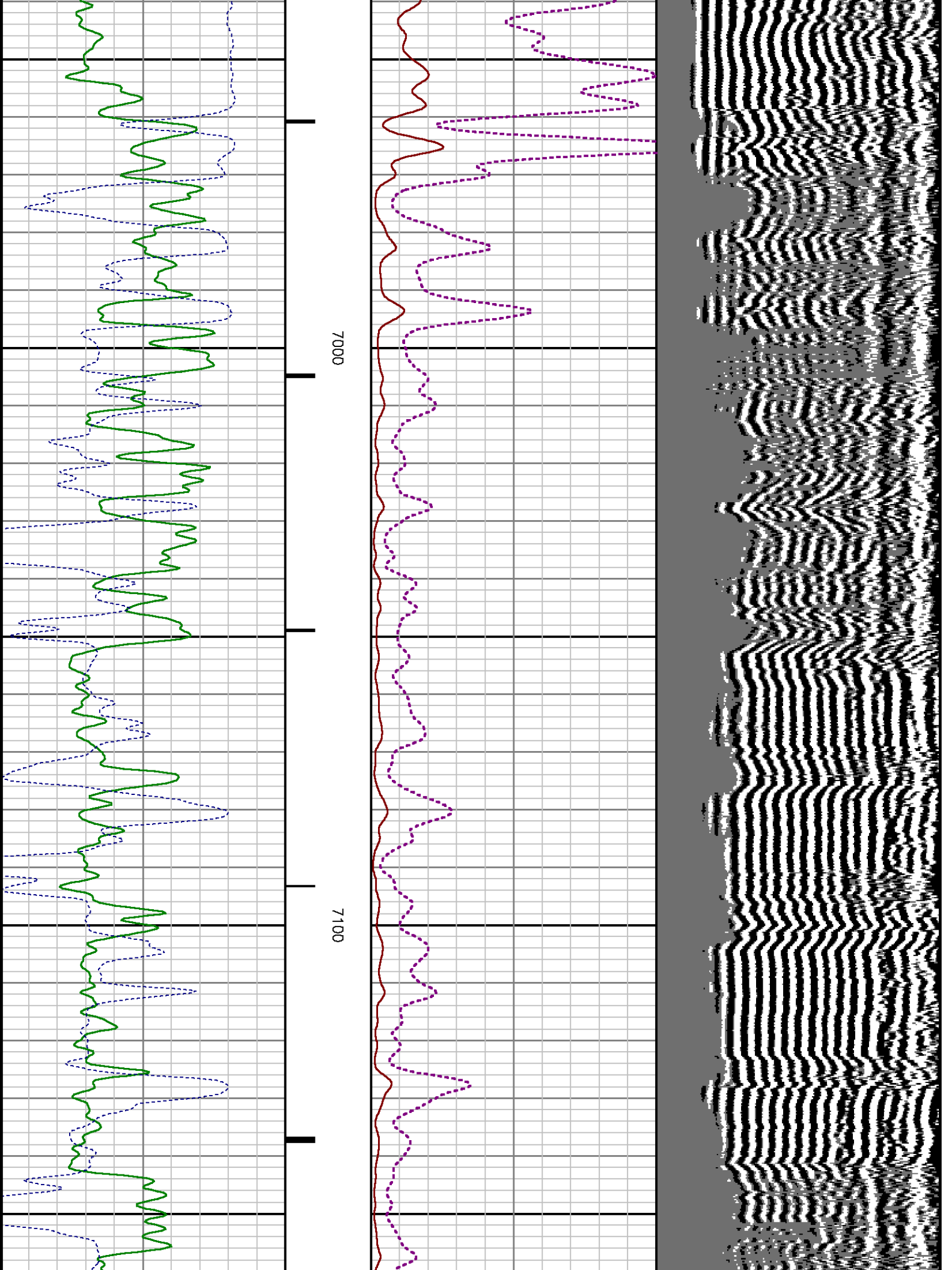


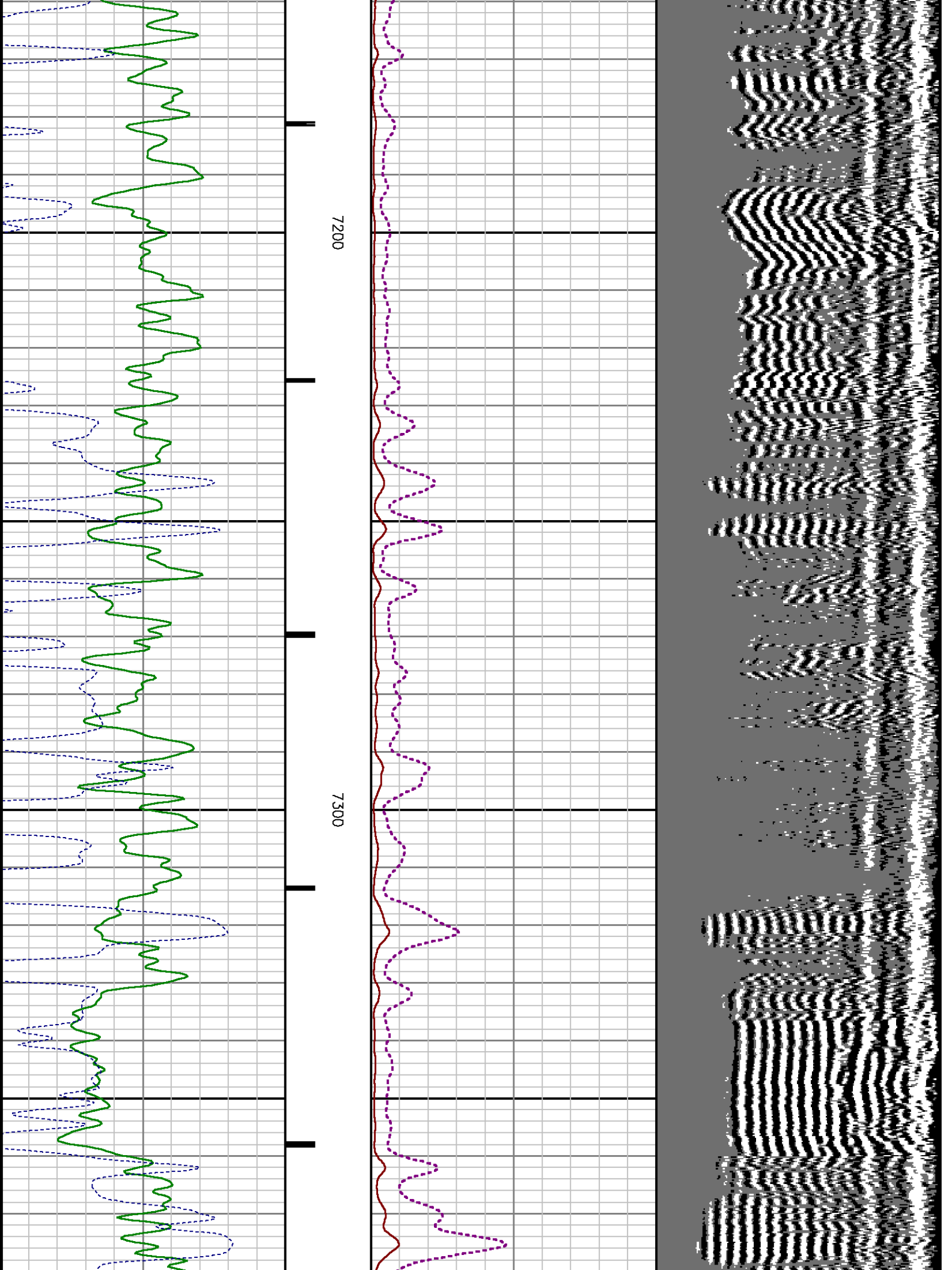


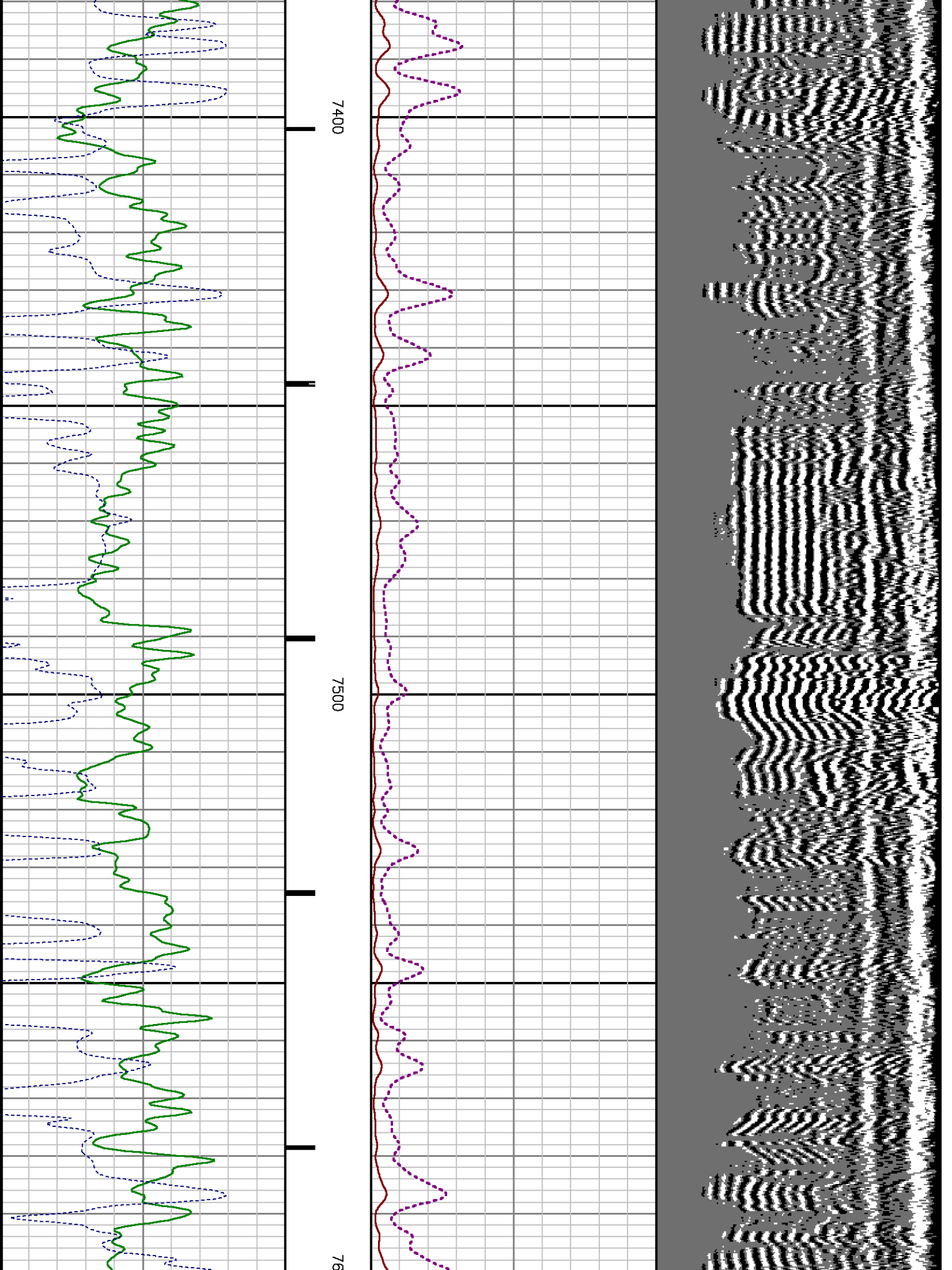
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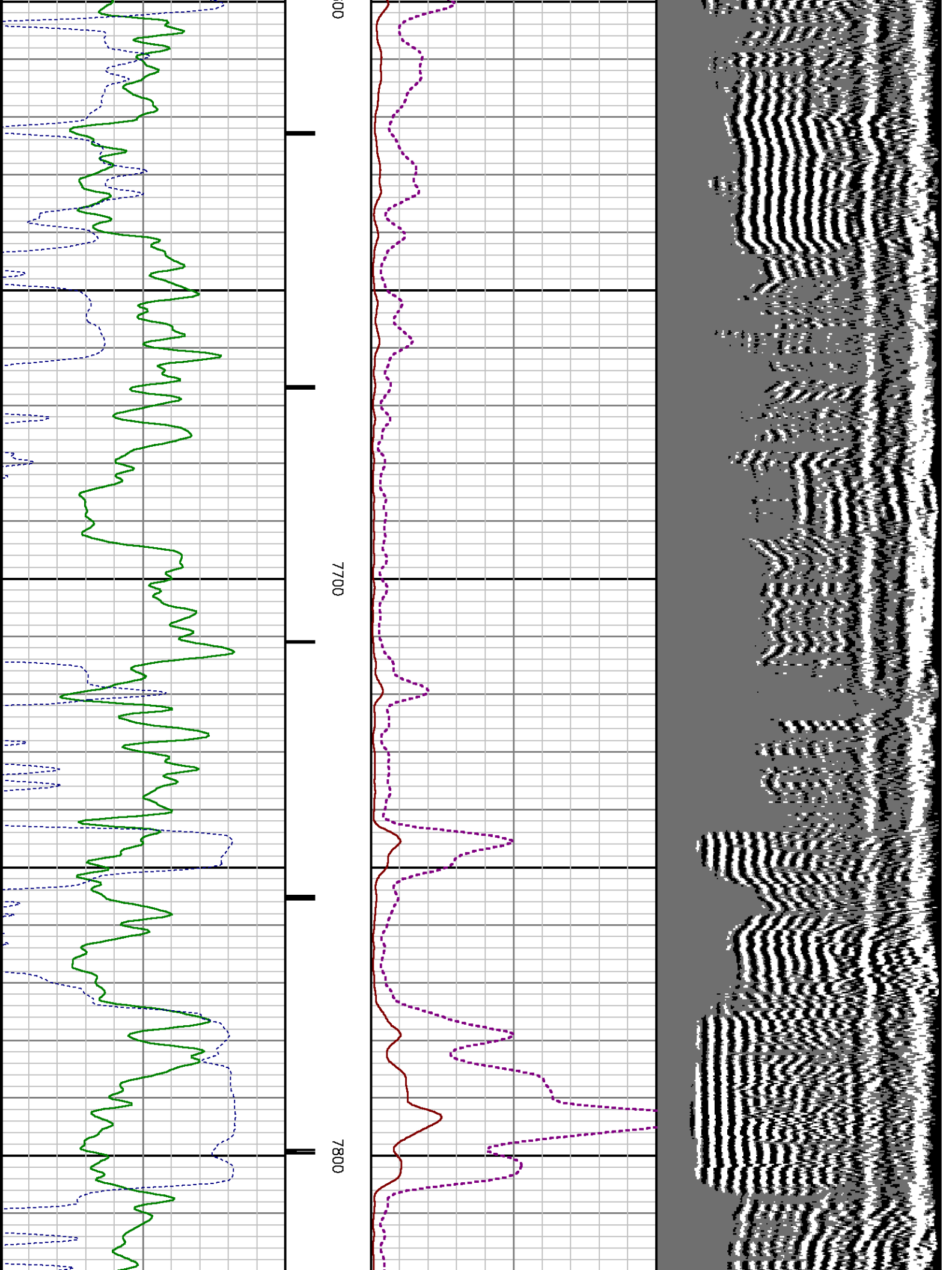
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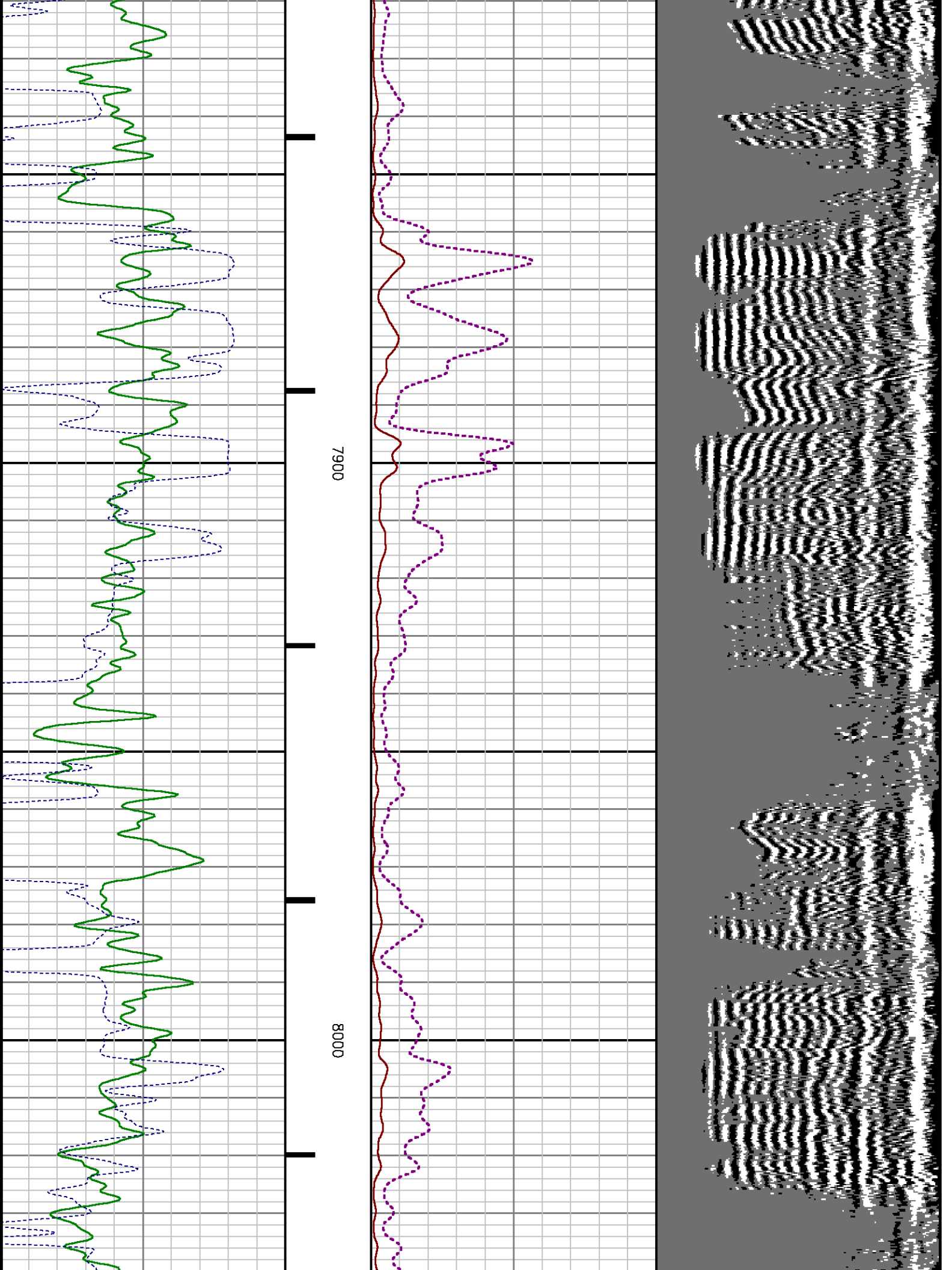


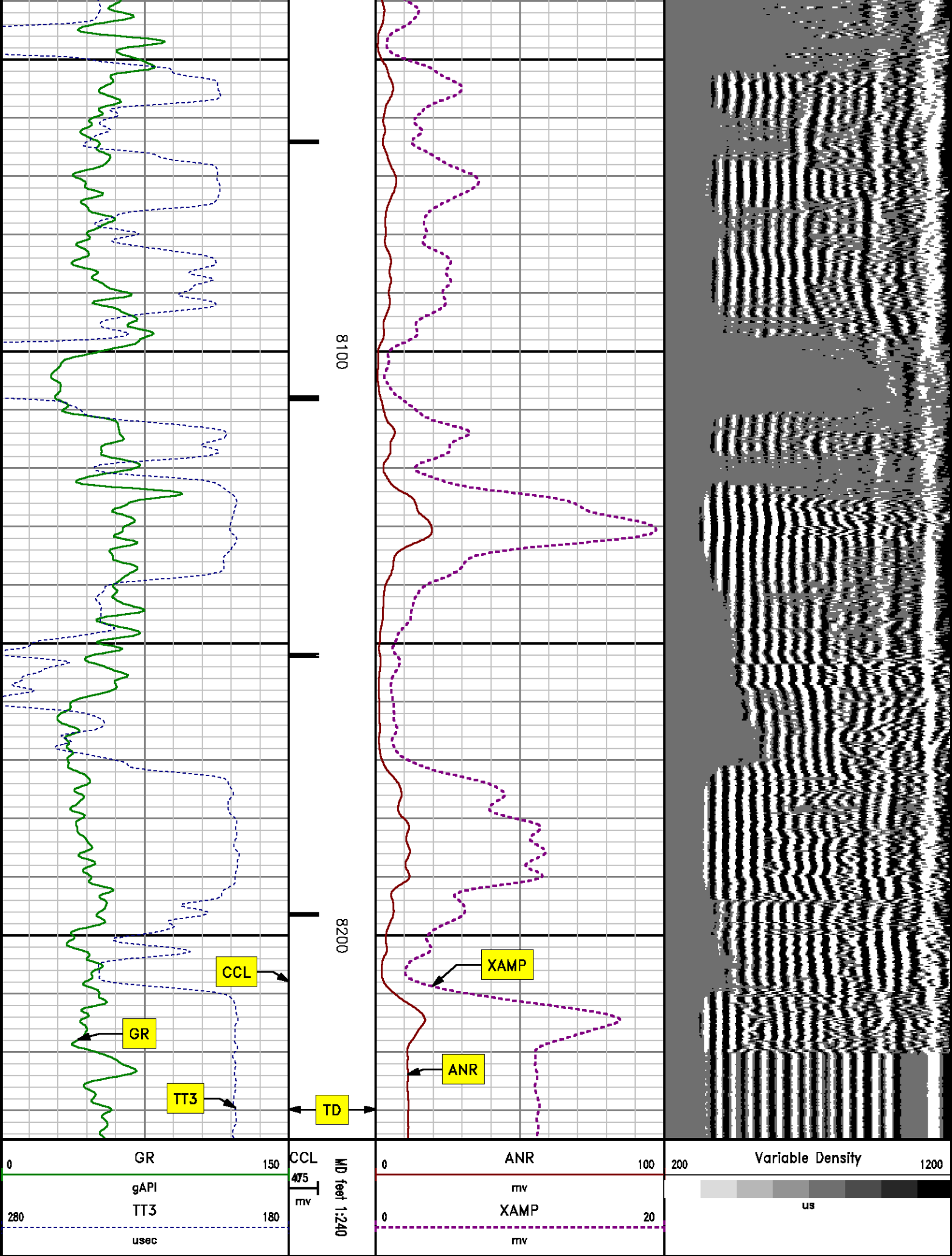












SECONDARY PRESENTATION

0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	30.499	8254.000
RAL	Amp Gate Start Near	195.000	usec	30.499	8254.000
RAL	Amp Gate Start Radial	195.000	usec	30.499	8254.000
RAL	Amp Gate Width Far	25.000	usec	30.499	8254.000
RAL	Amp Gate Width Near	25.000	usec	30.499	8254.000
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RAL	casing wt	11.600	lbm/ft	30.499	8254.000
RAL	FB Start Far	291.900	usec	30.499	8254.000
RAL	FB Start Near	175.391	usec	30.499	8254.000
RAL	FB Start Radial	175.391	usec	30.499	8254.000
RAL	FB Thresh Far	10.000	mv	30.499	8254.000
RAL	FB Thresh Near	4.000	mv	30.499	8254.000
RAL	FB Thresh Radial	4.000	mv	30.499	8254.000
RAL	Fluid Travel Time	200.000	usec/ft	30.499	8254.000

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					

Company : WPX ENERGY

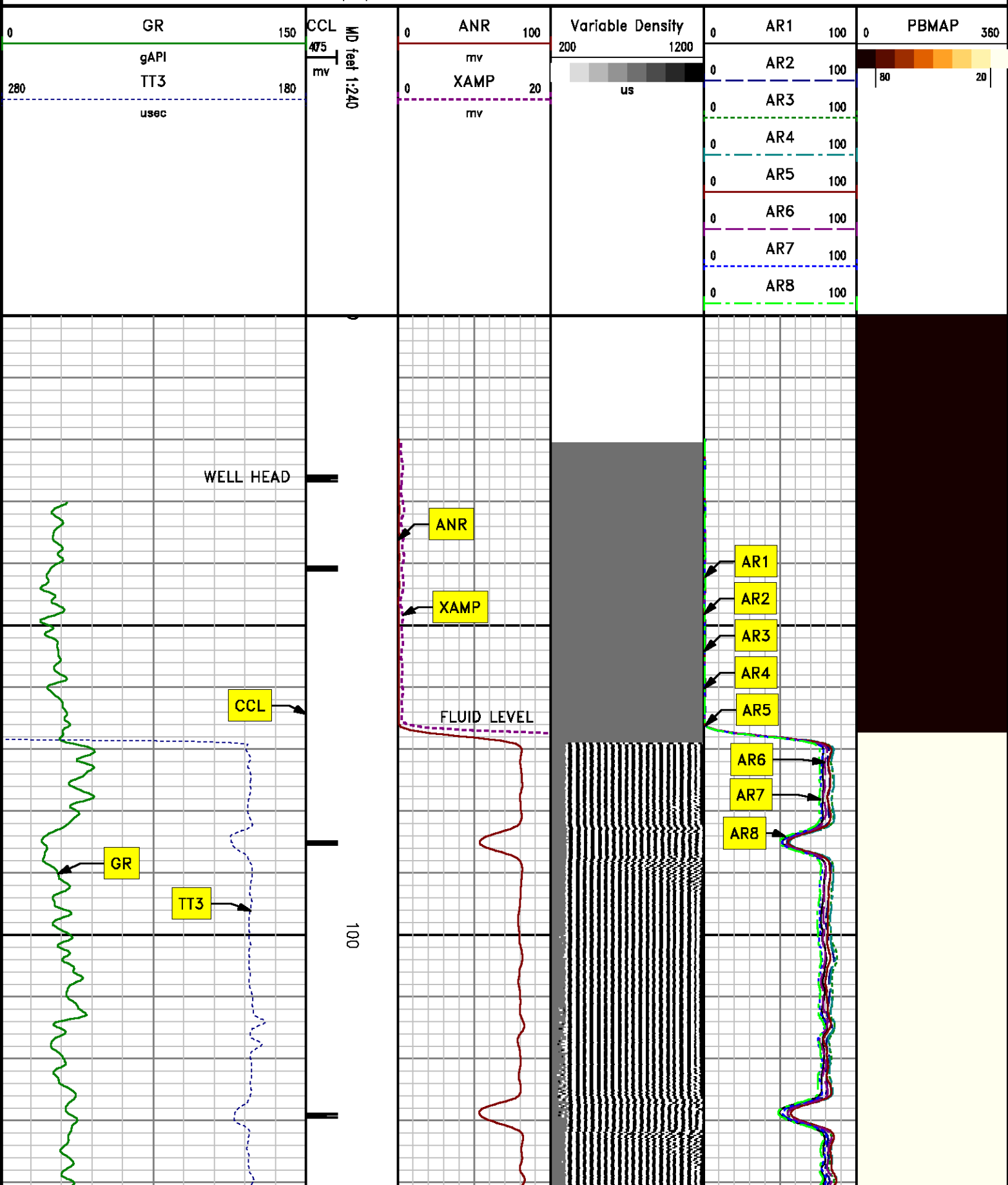
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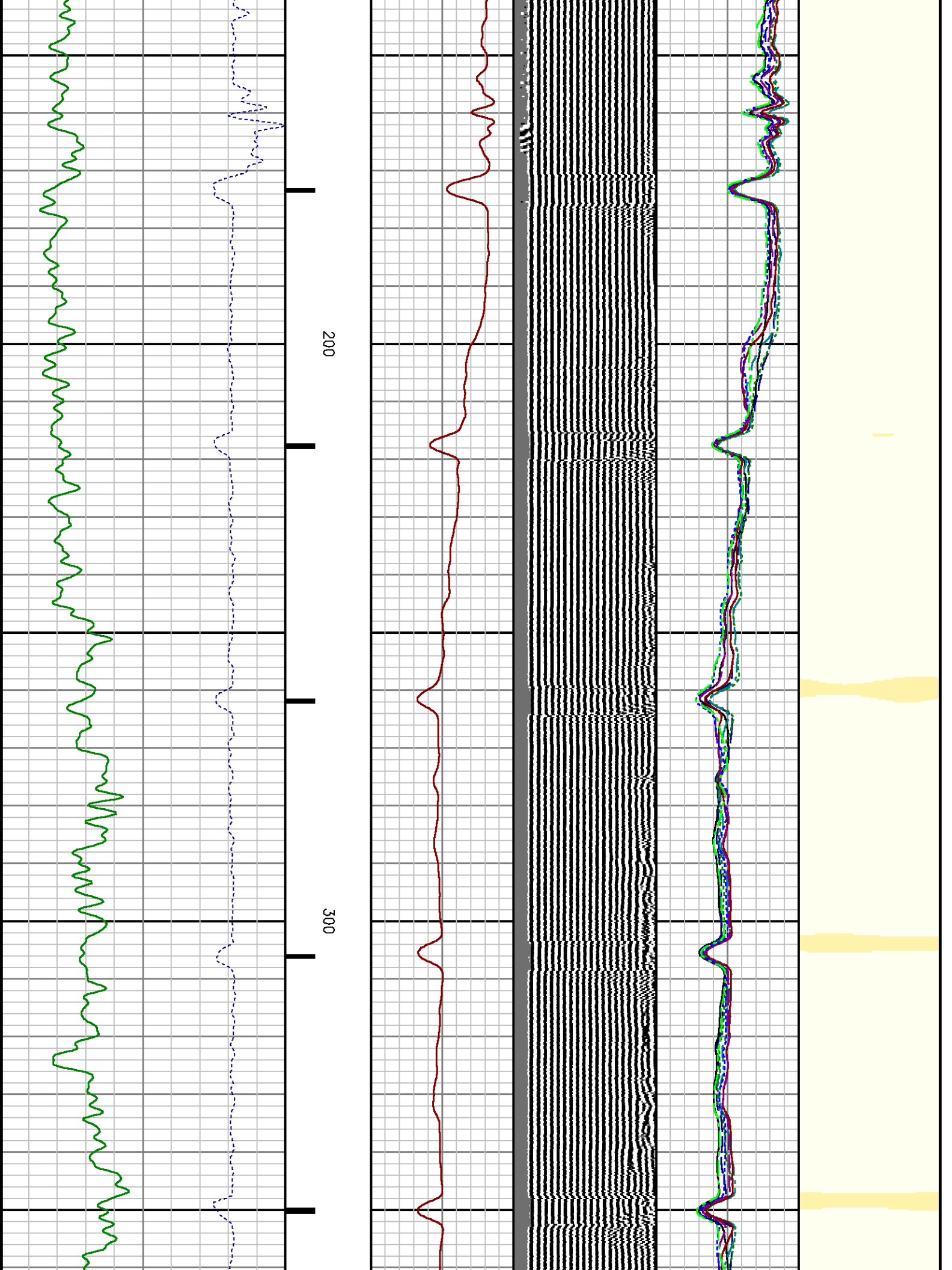
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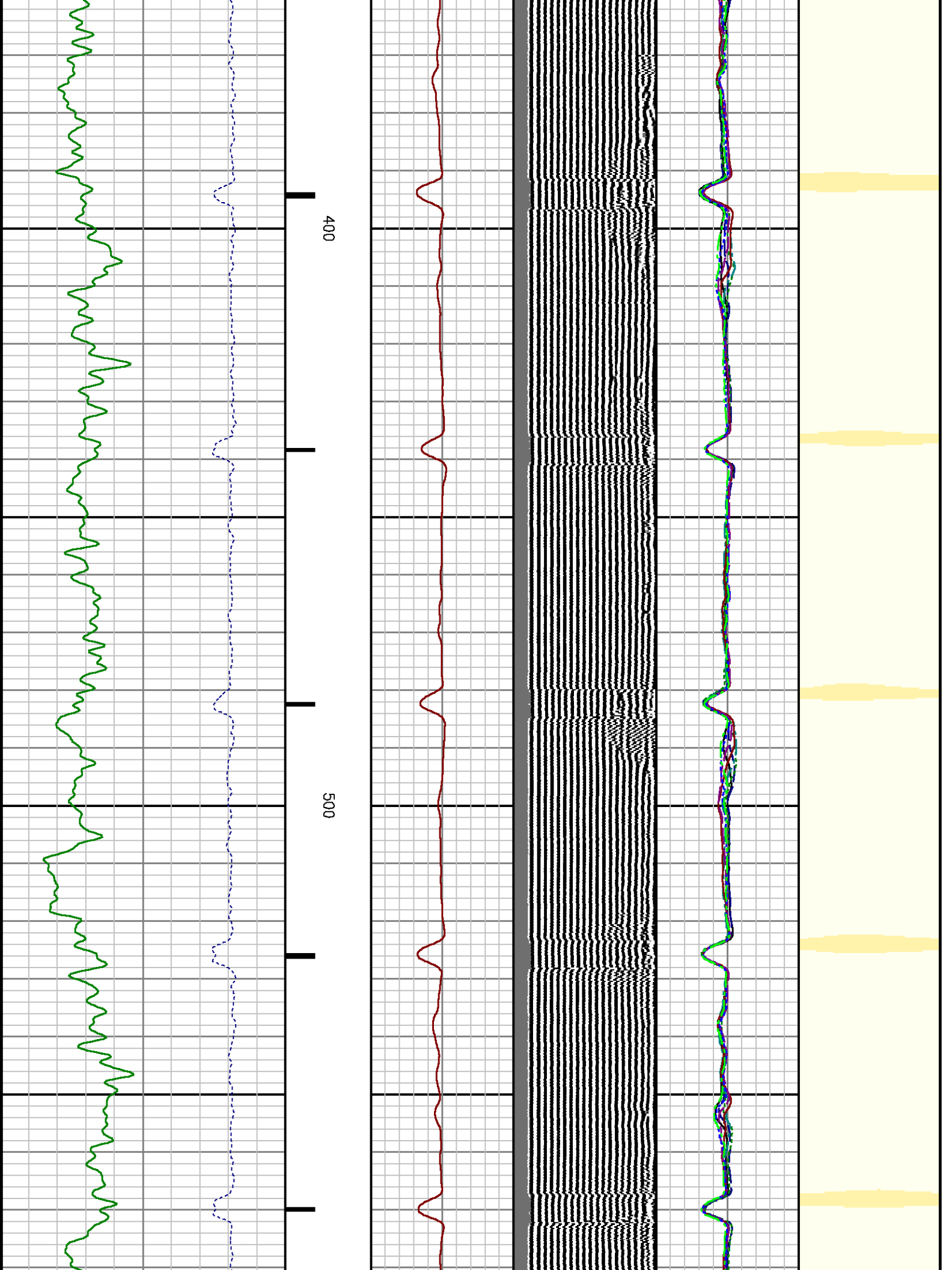
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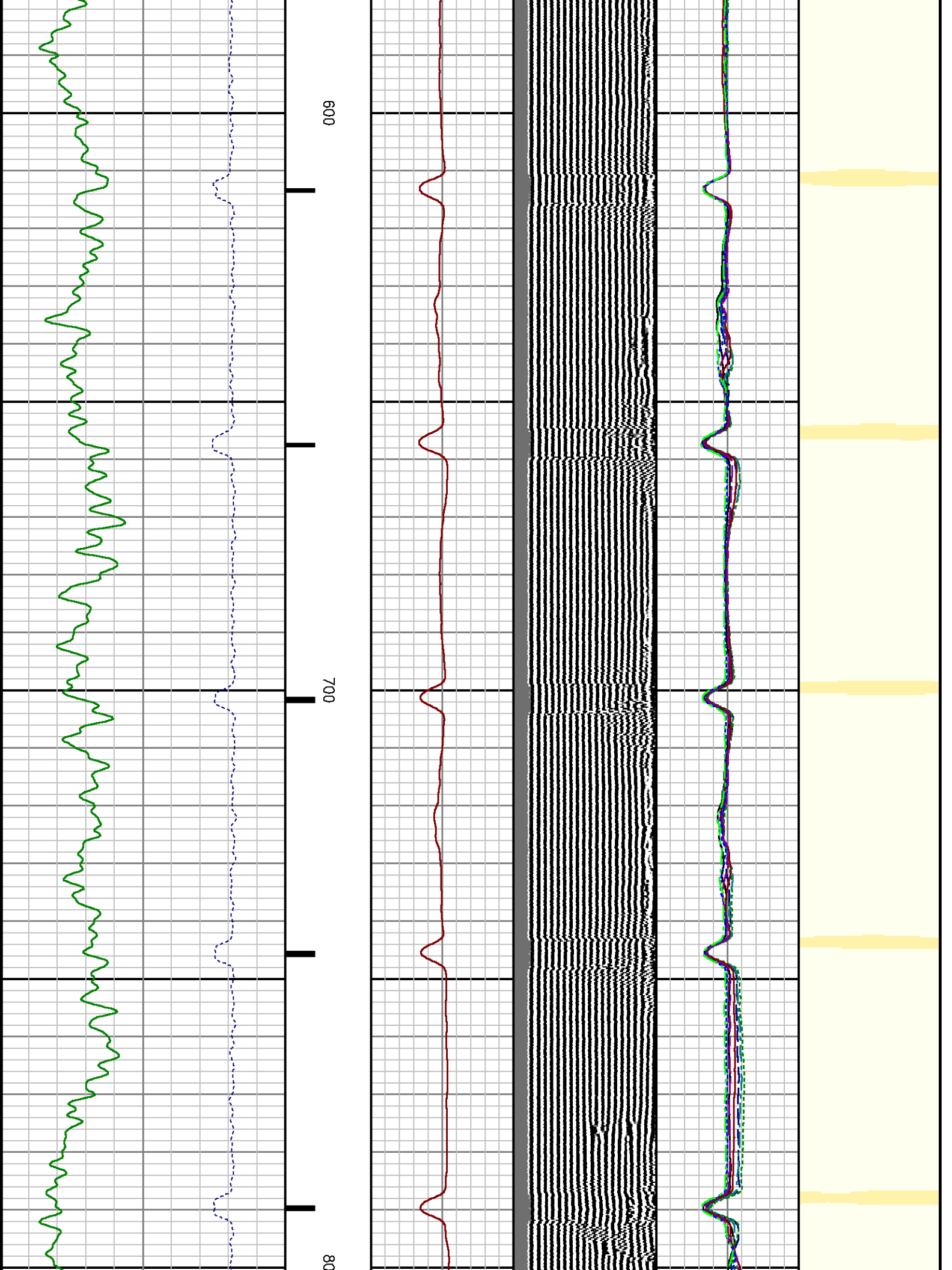
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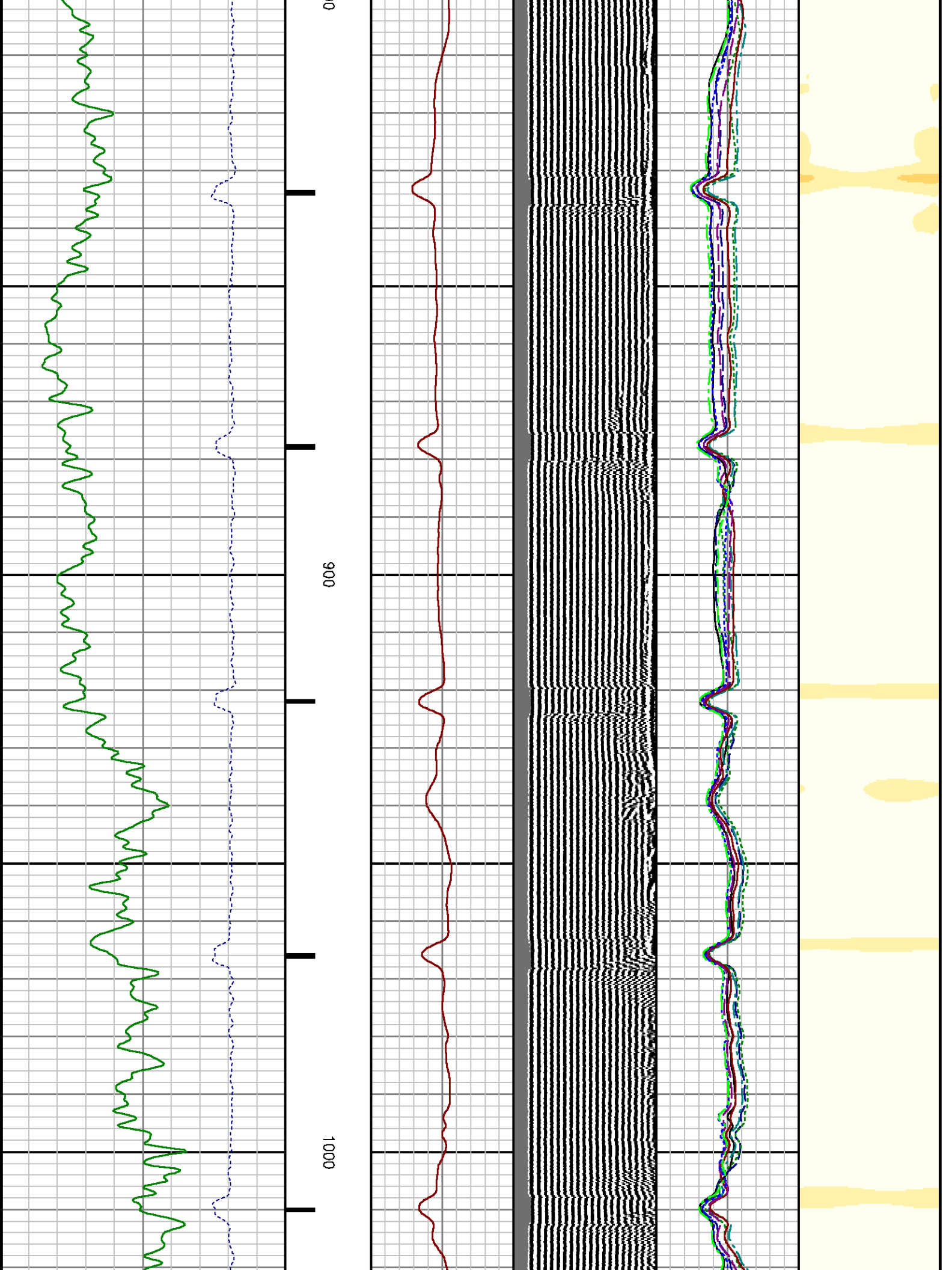
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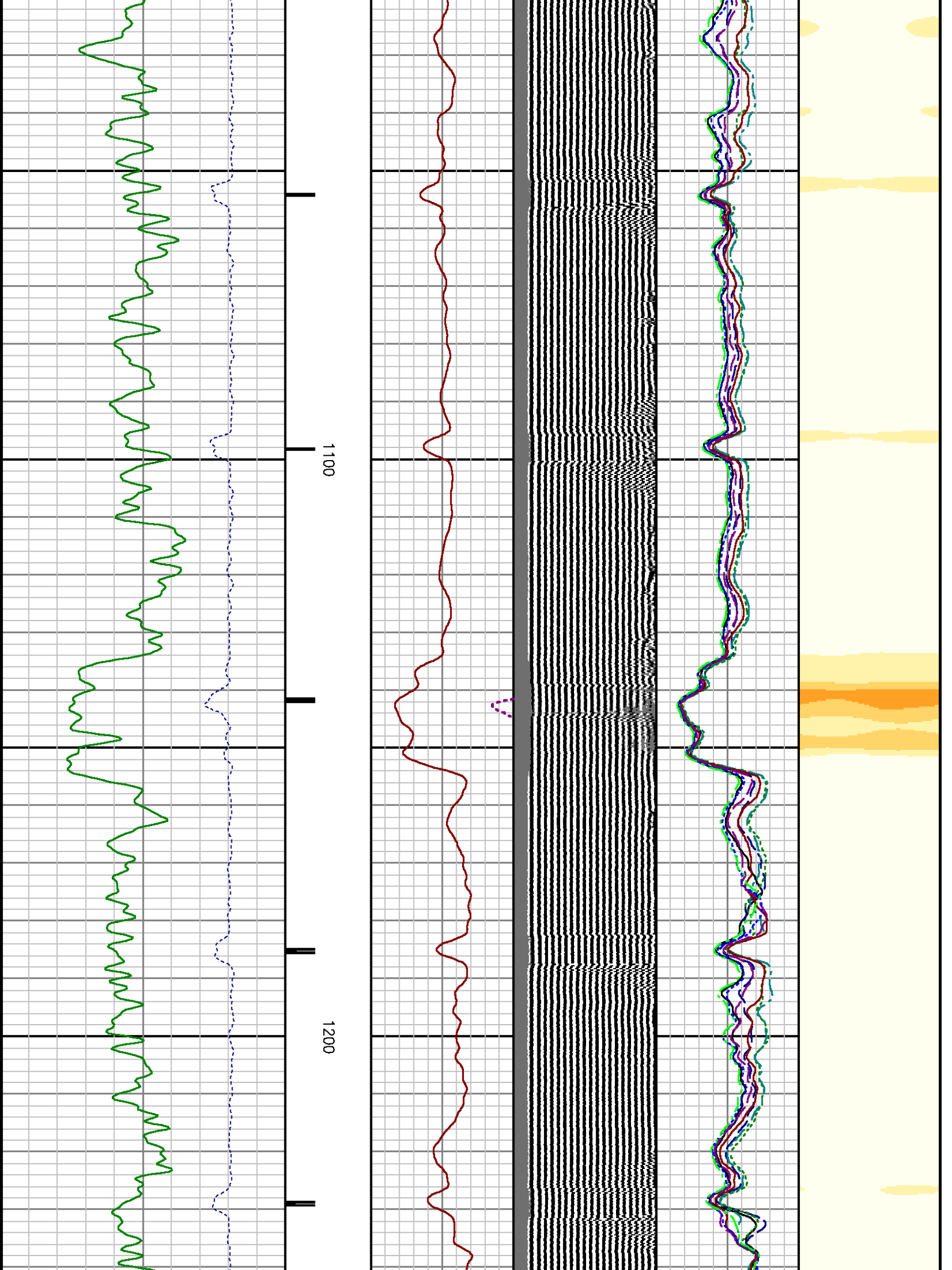


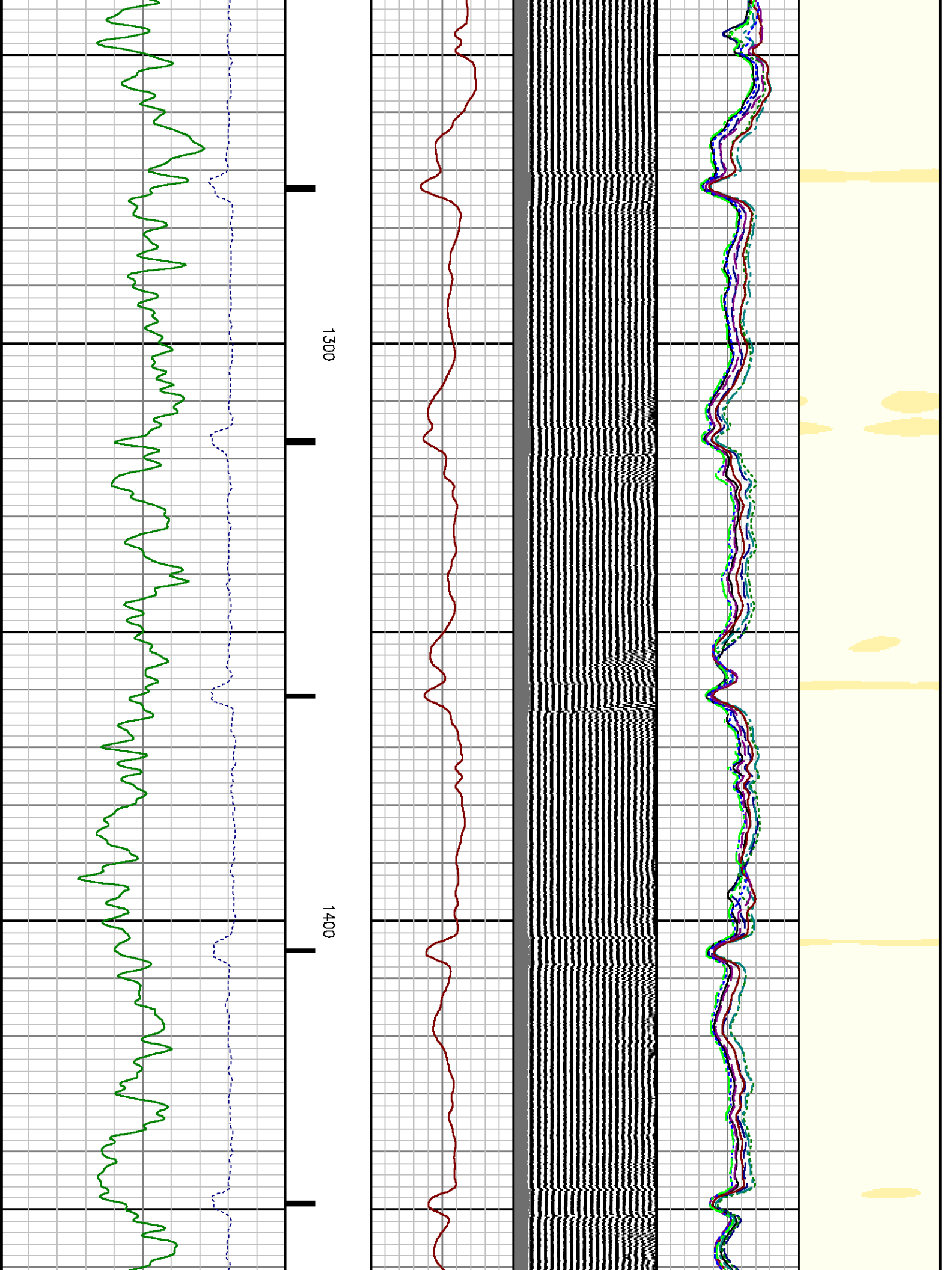


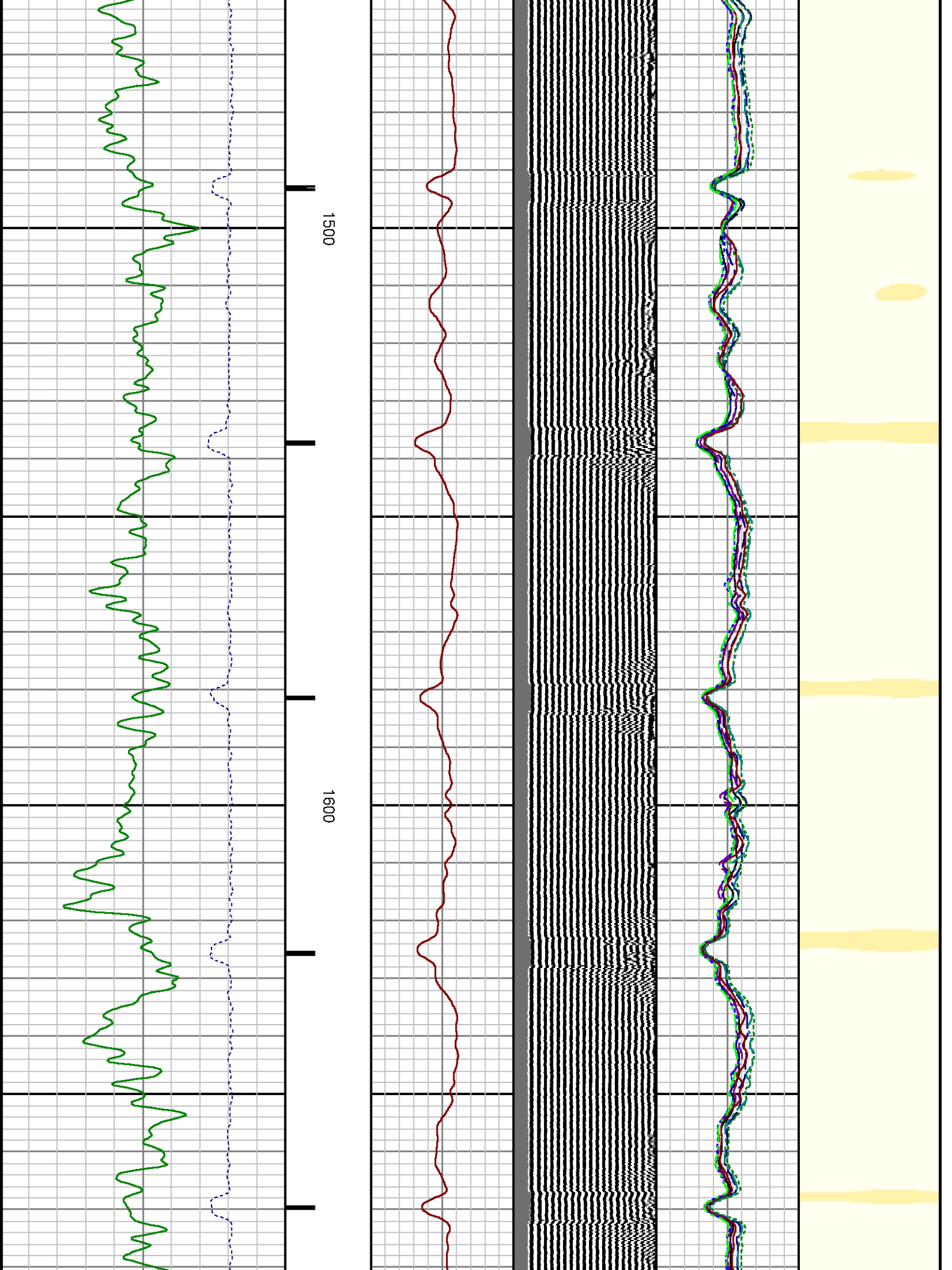


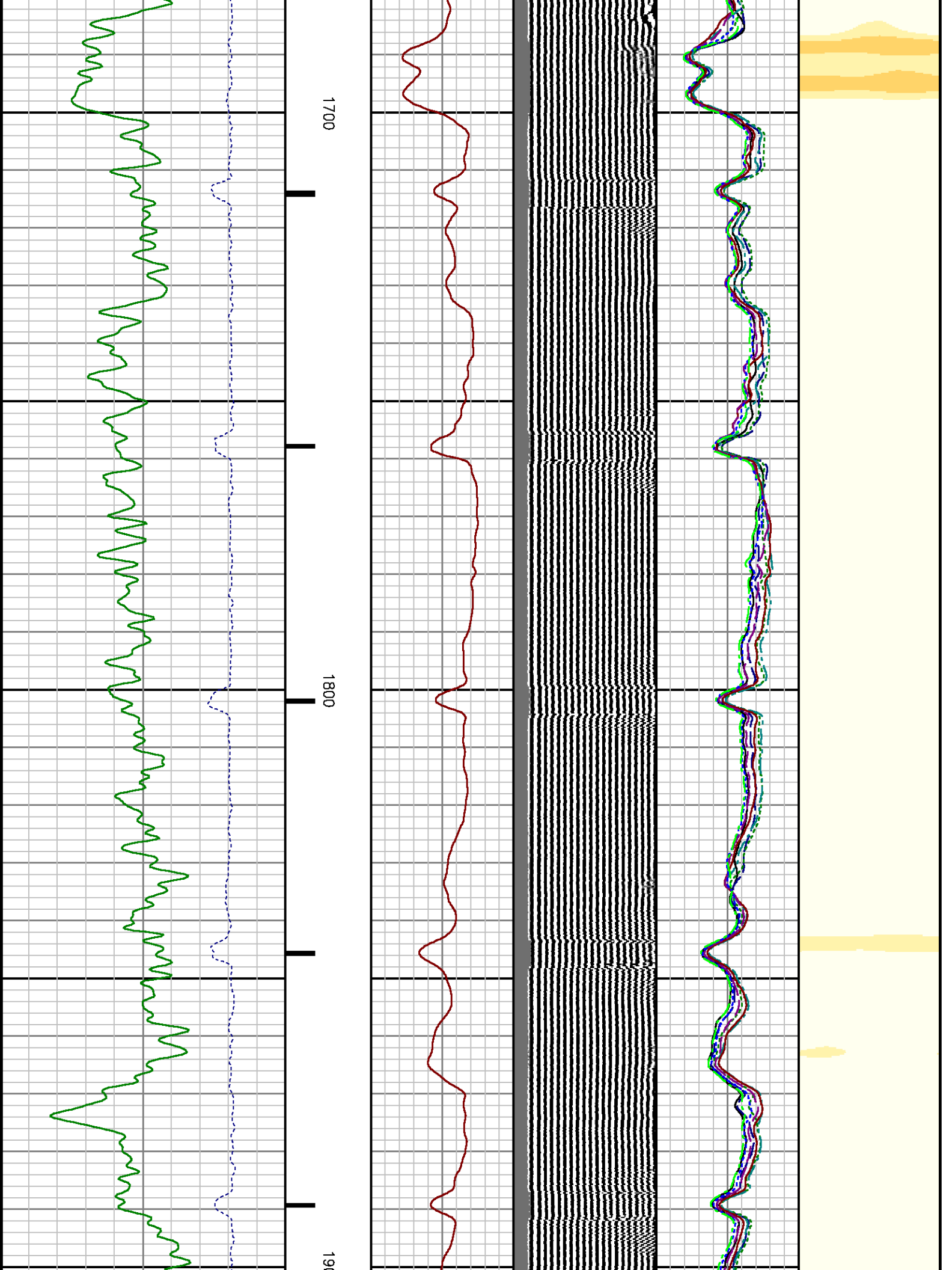


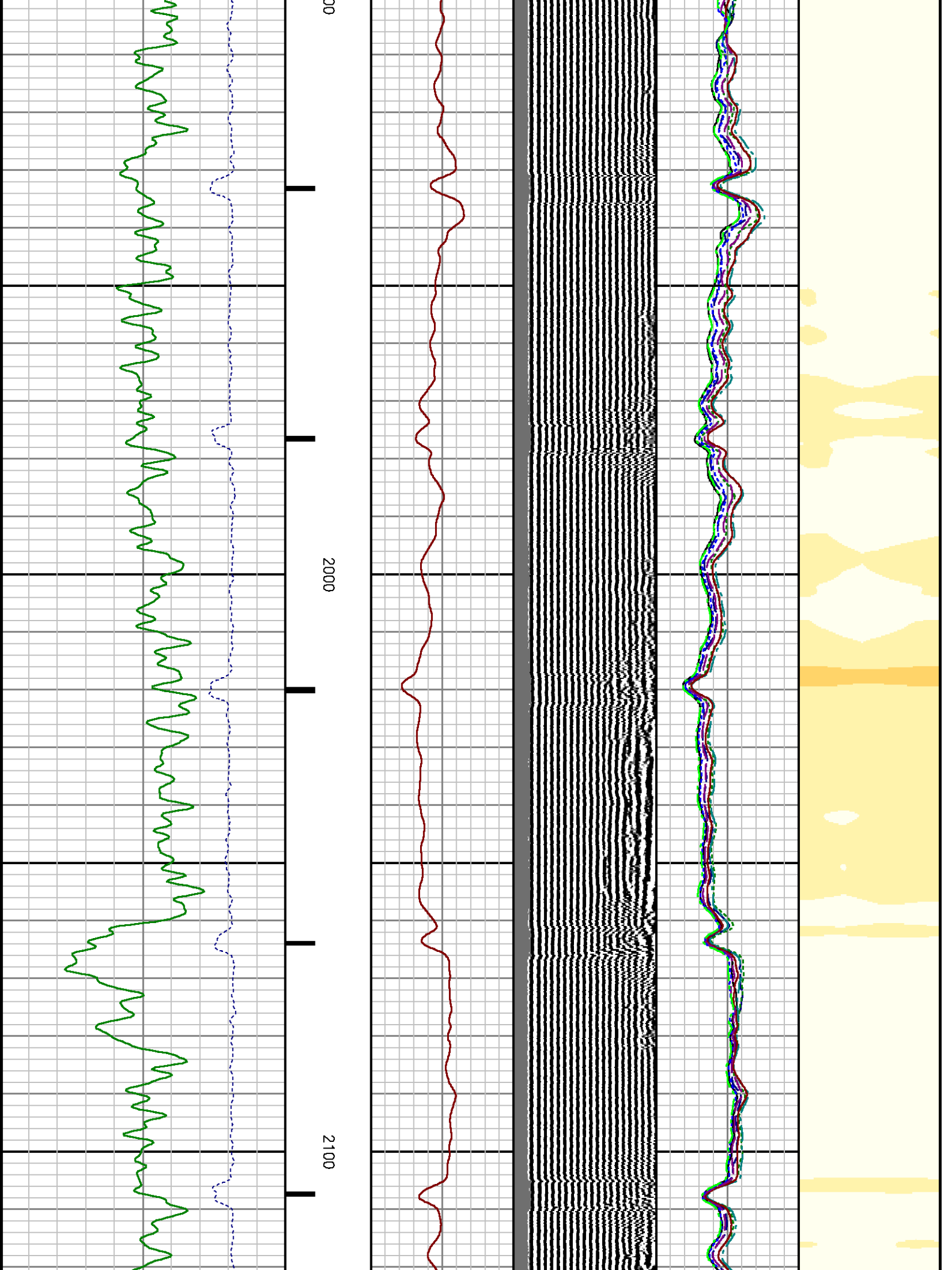


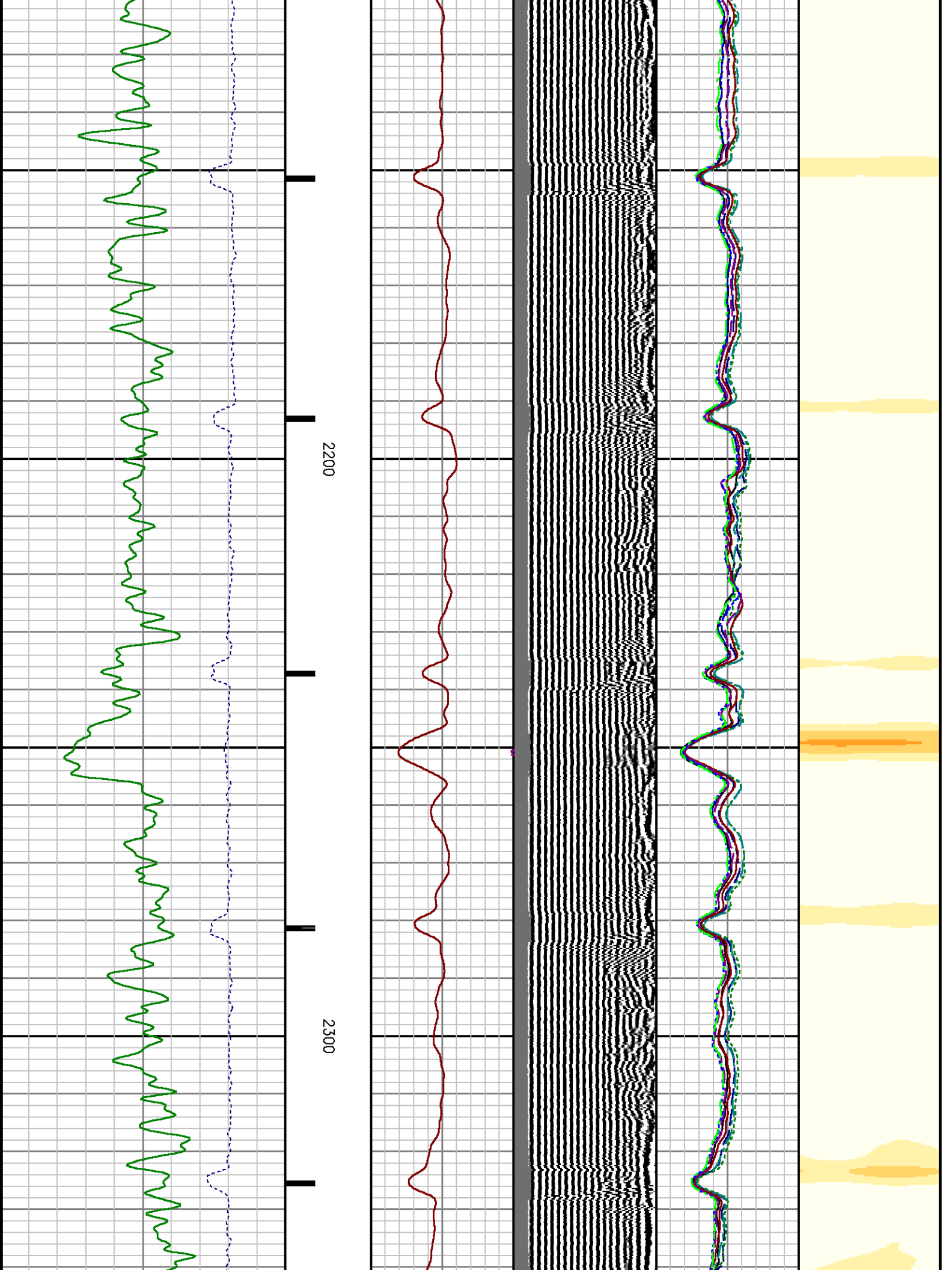


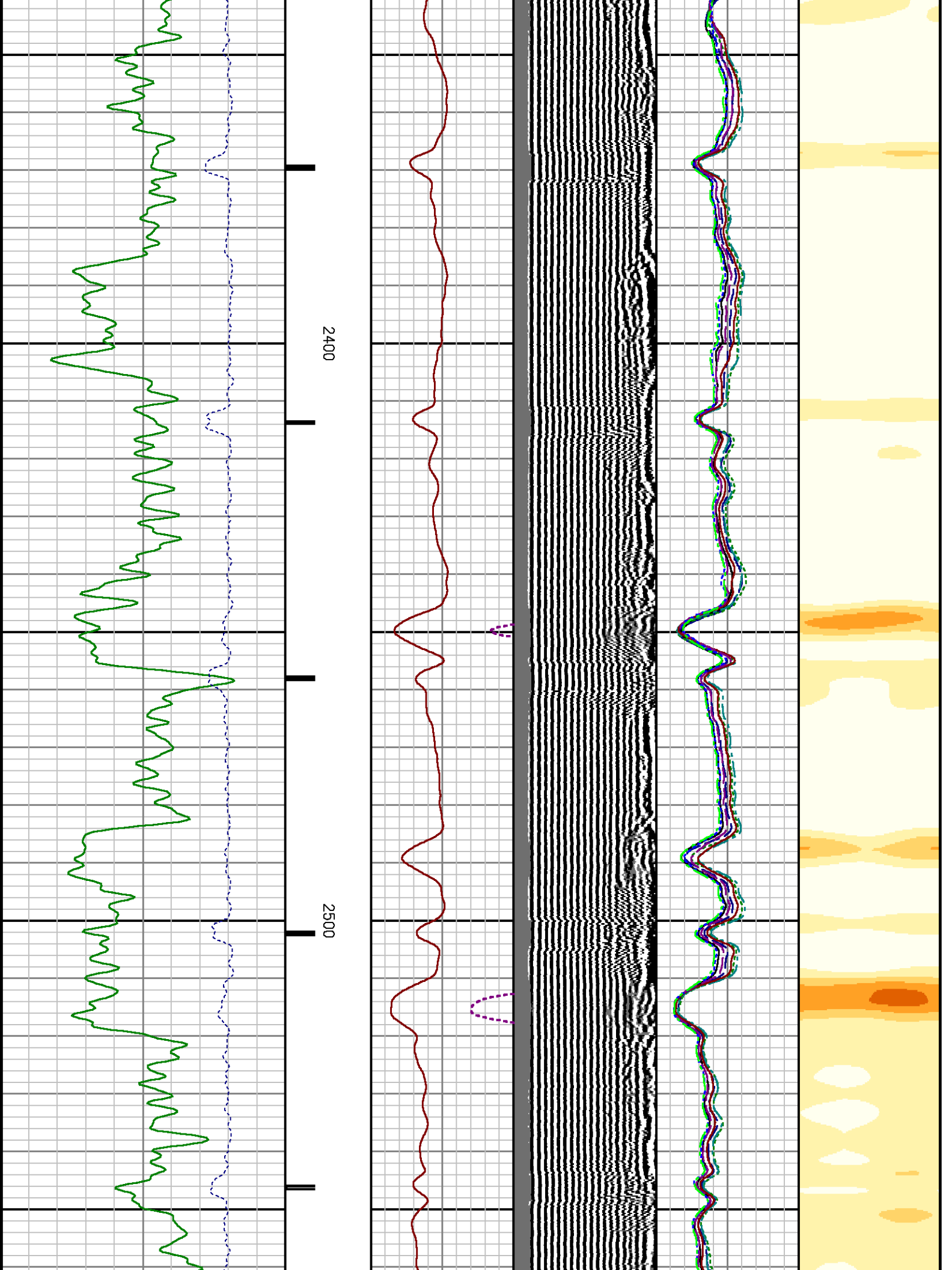


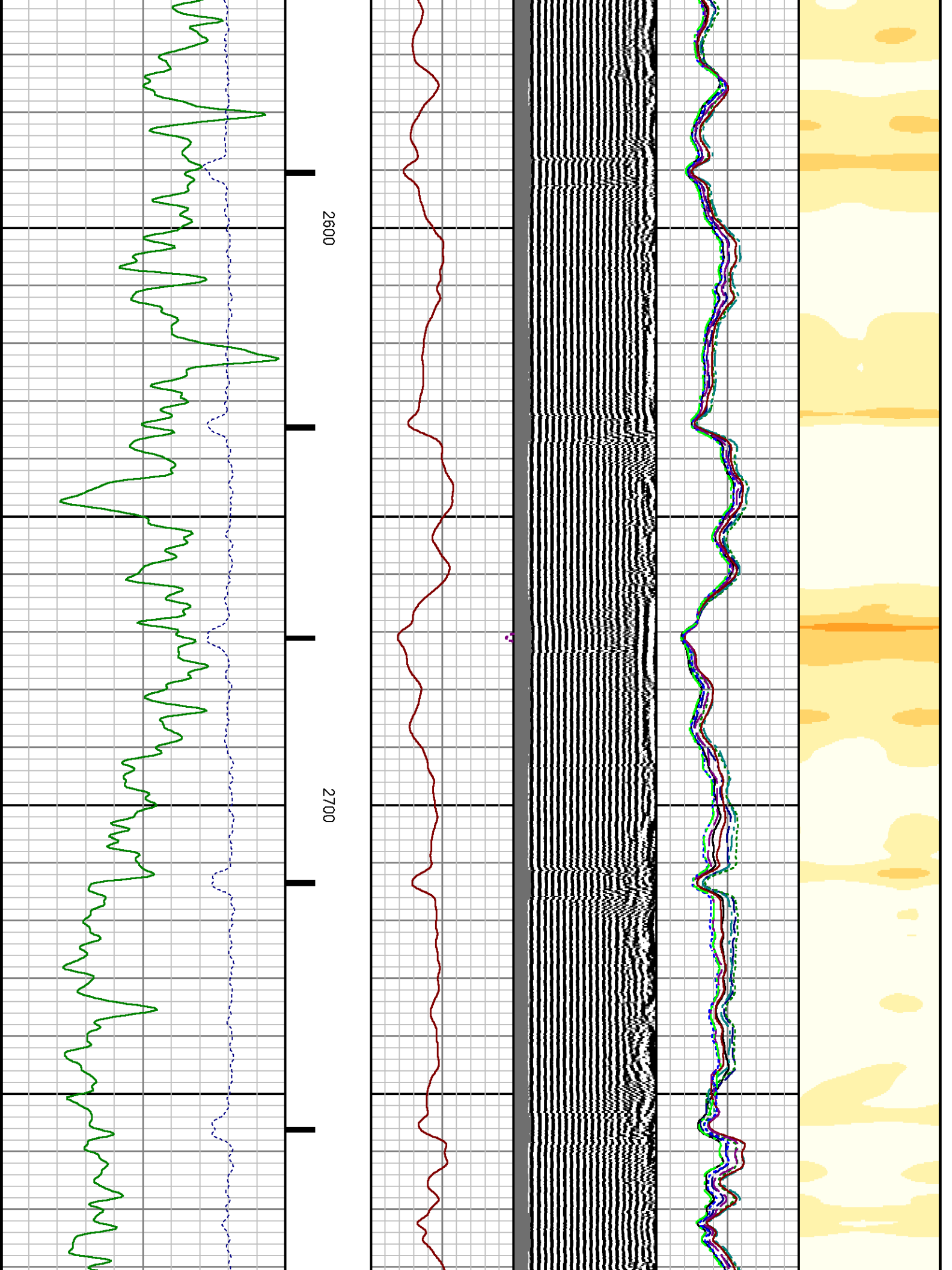


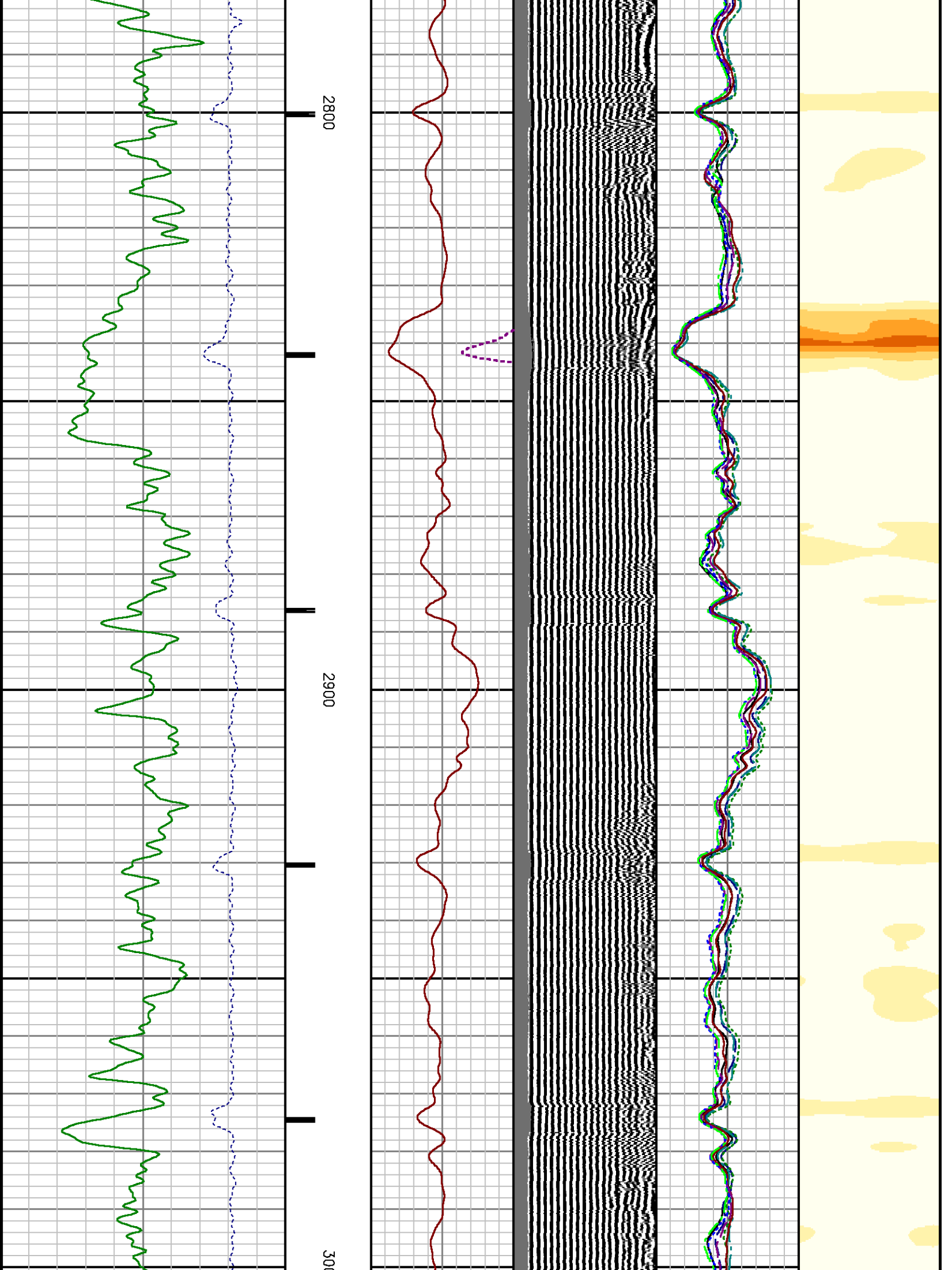


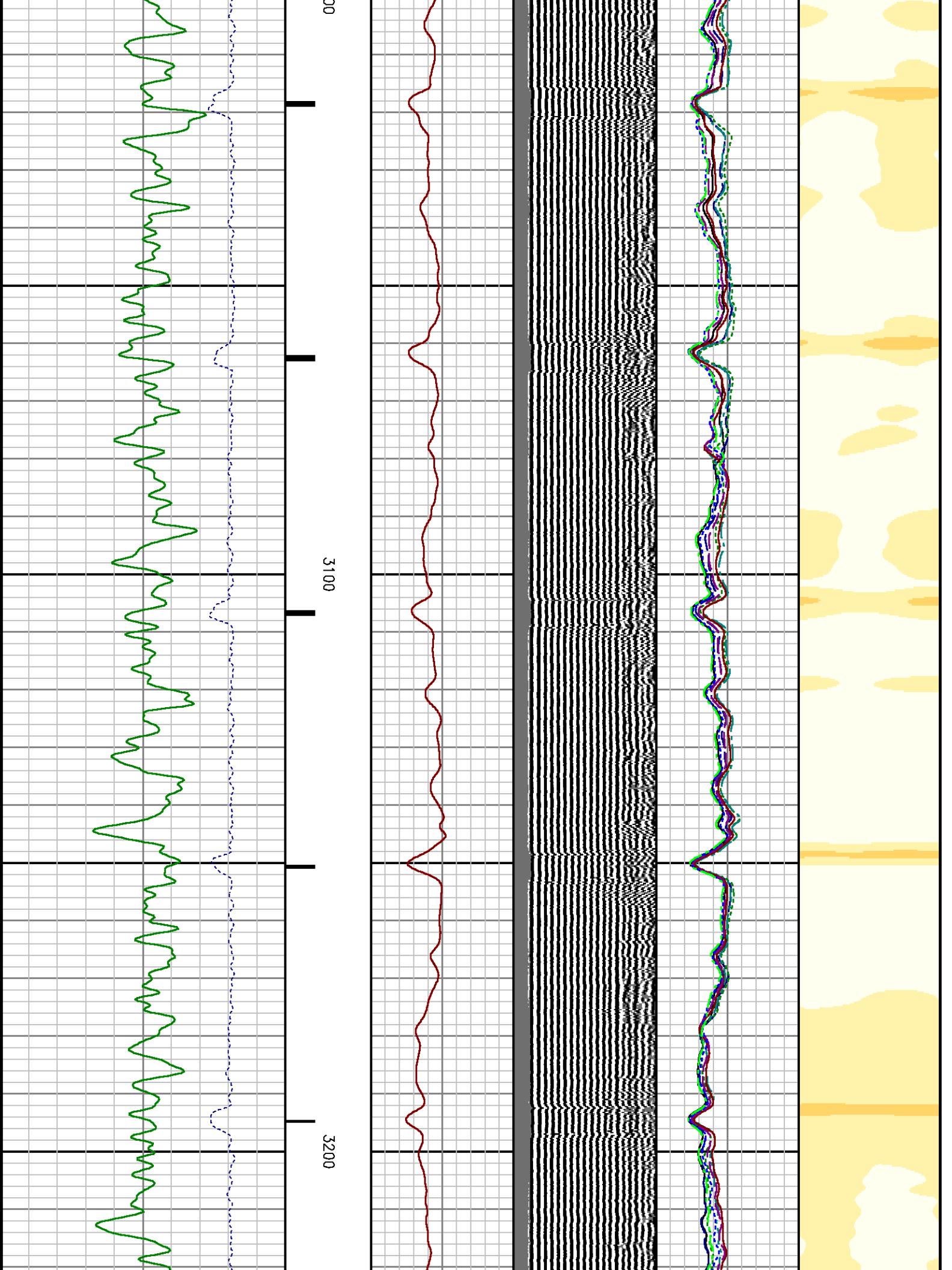


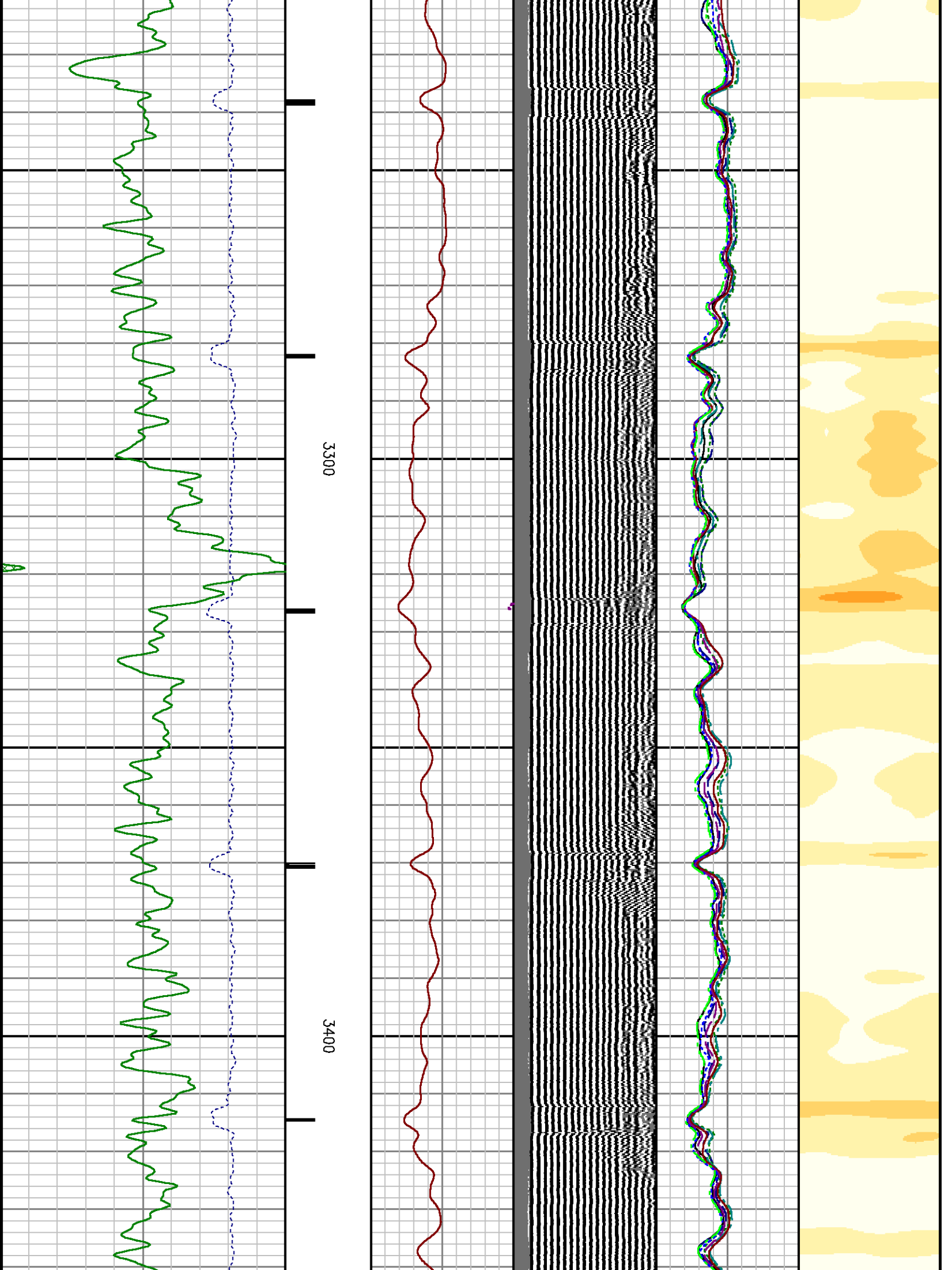


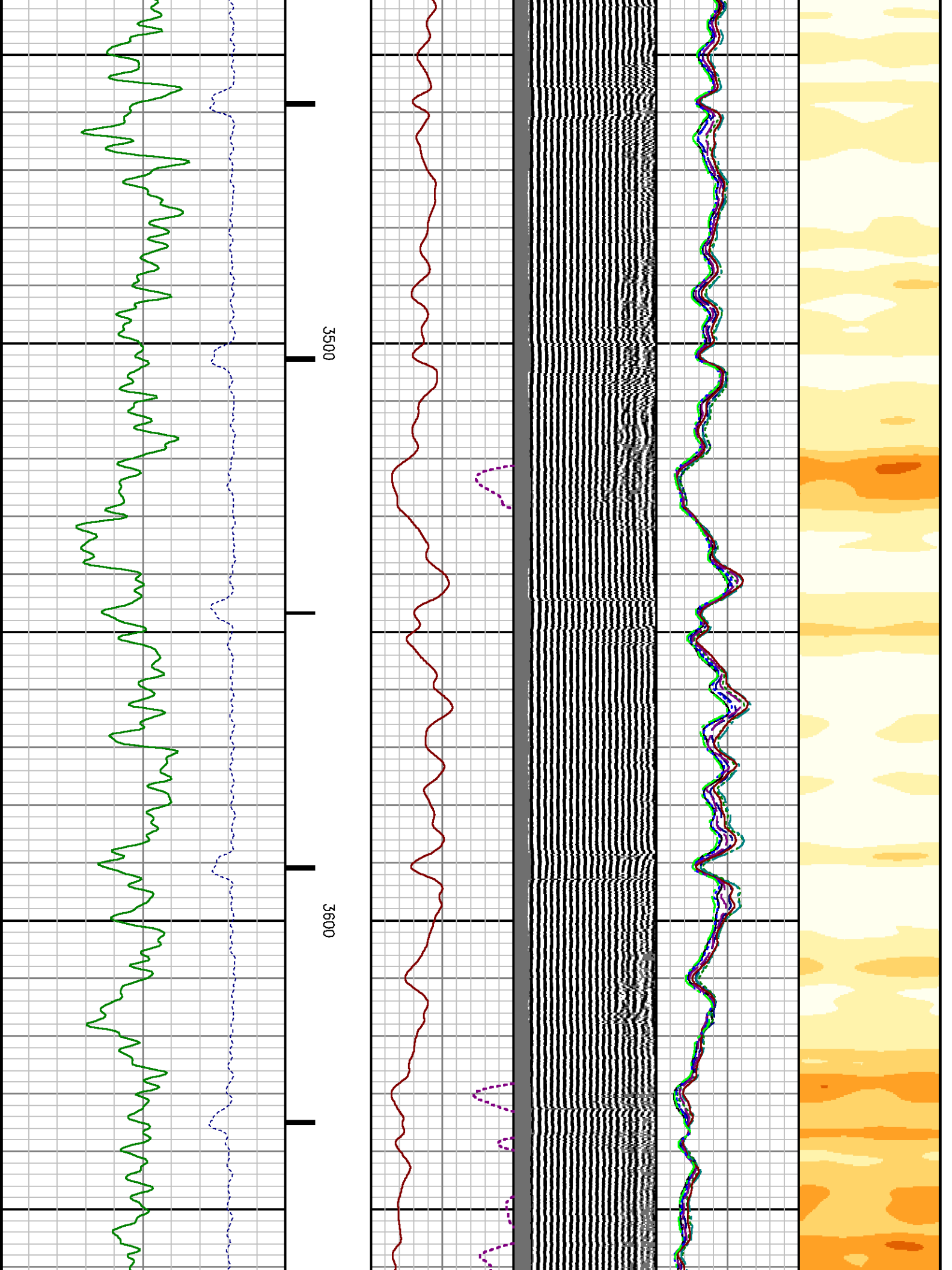


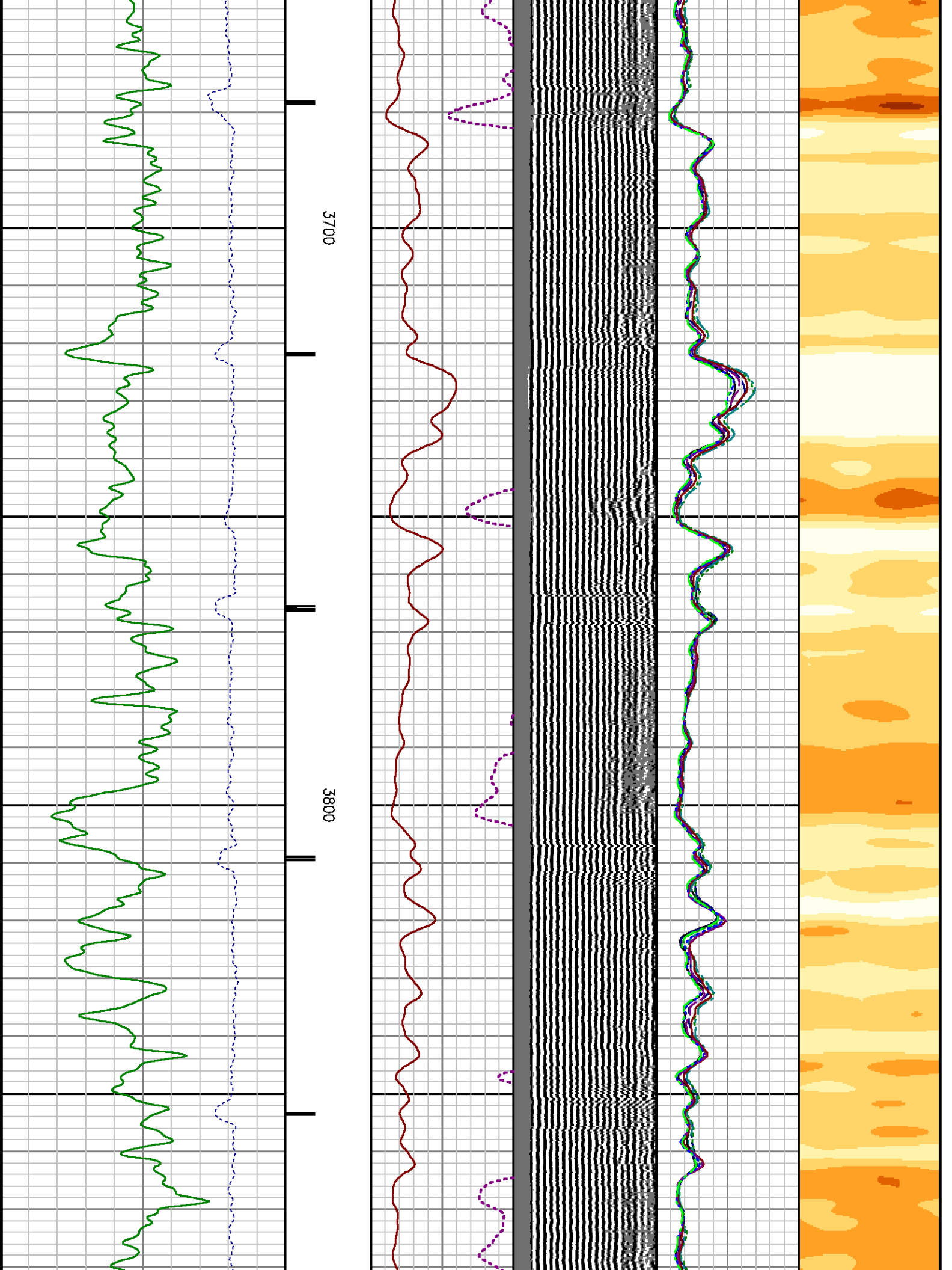


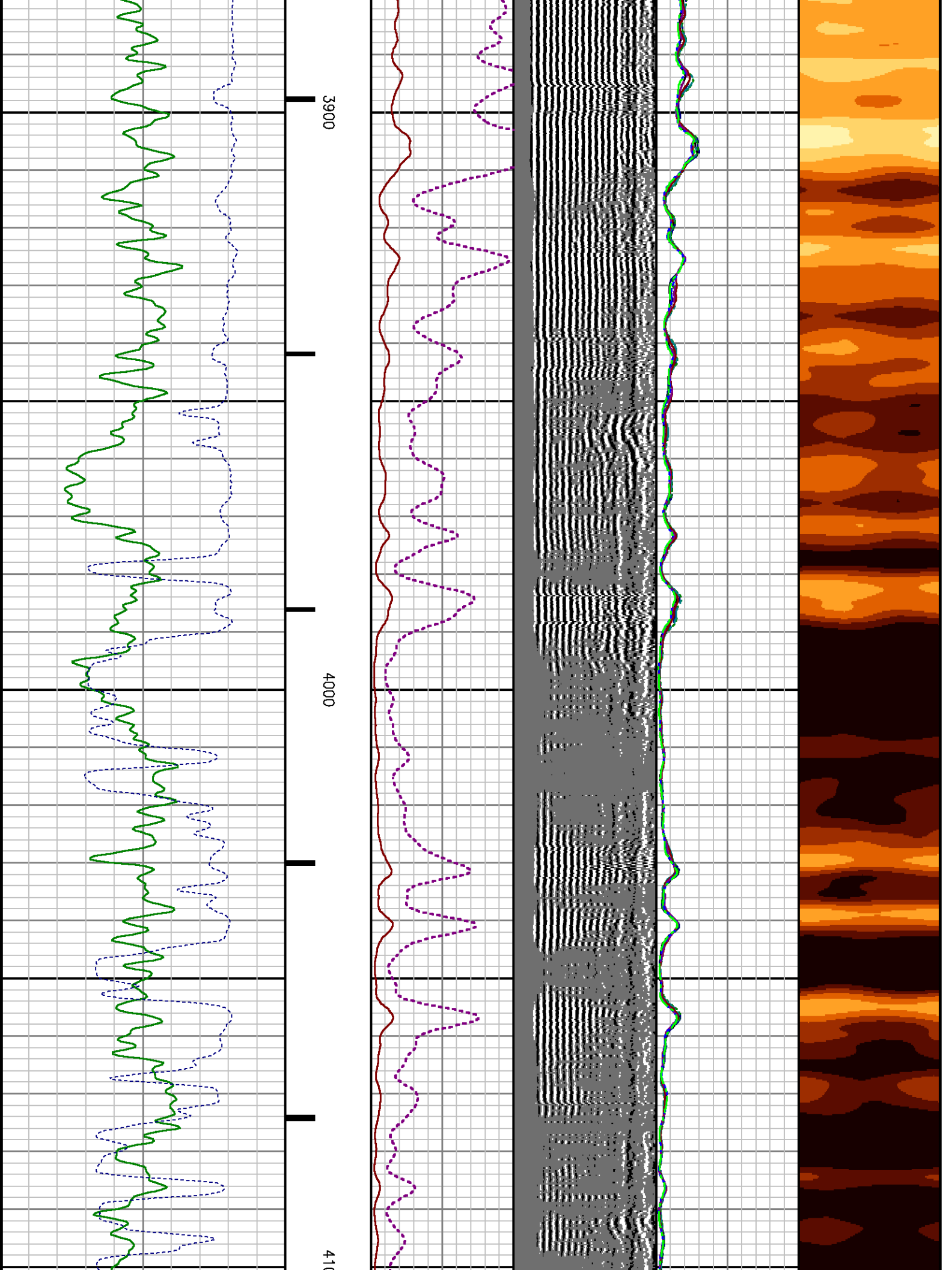


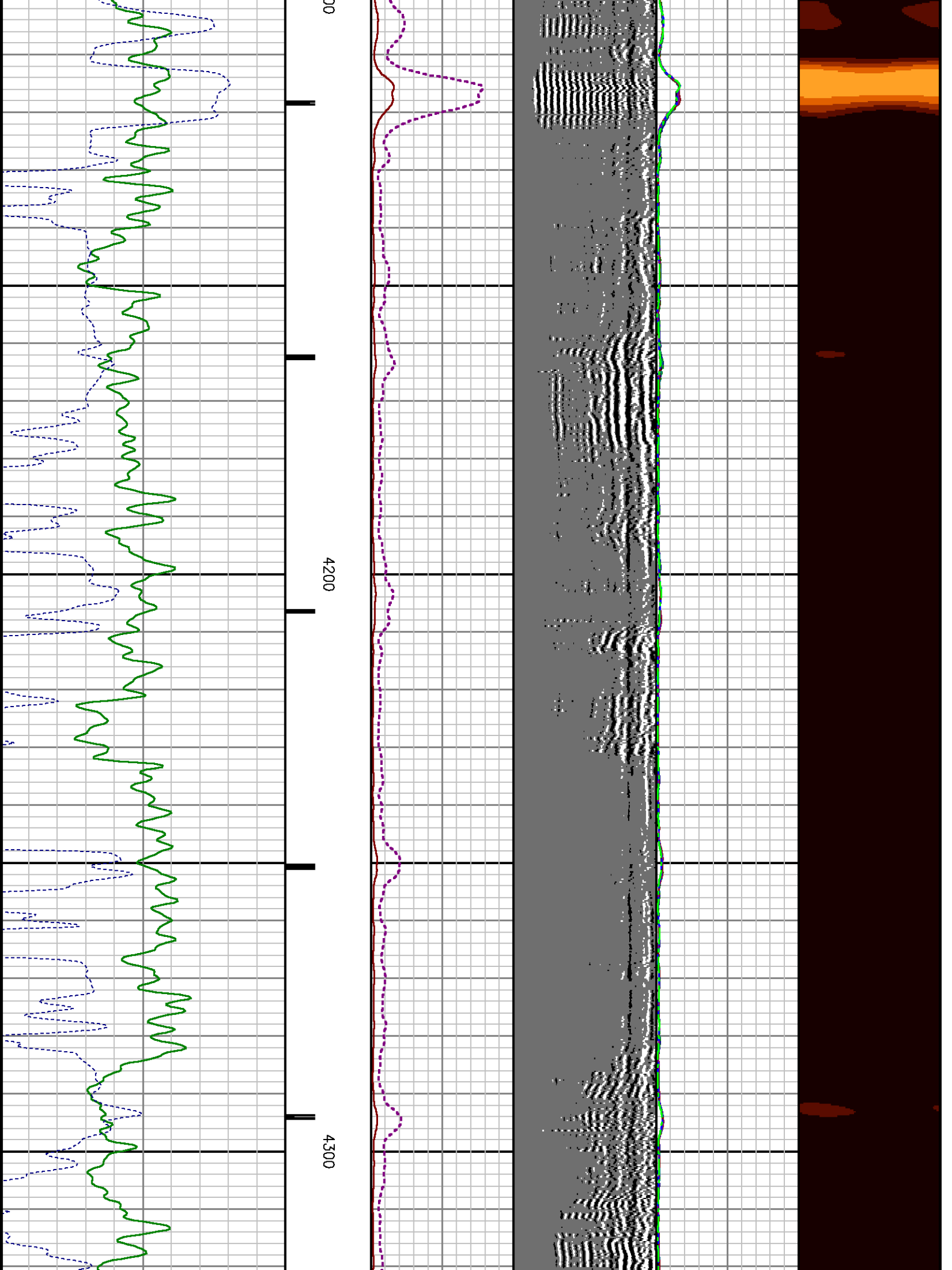


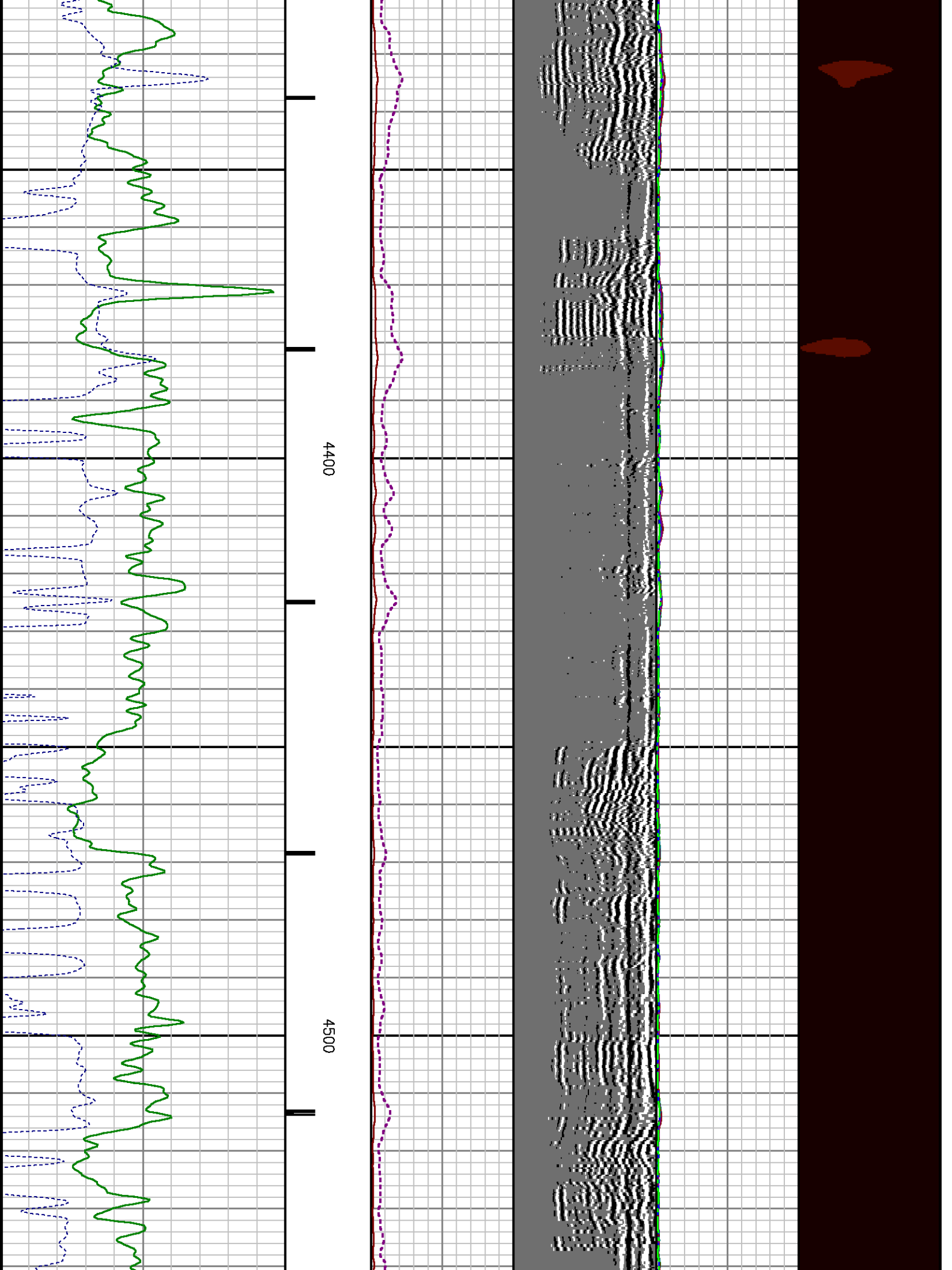


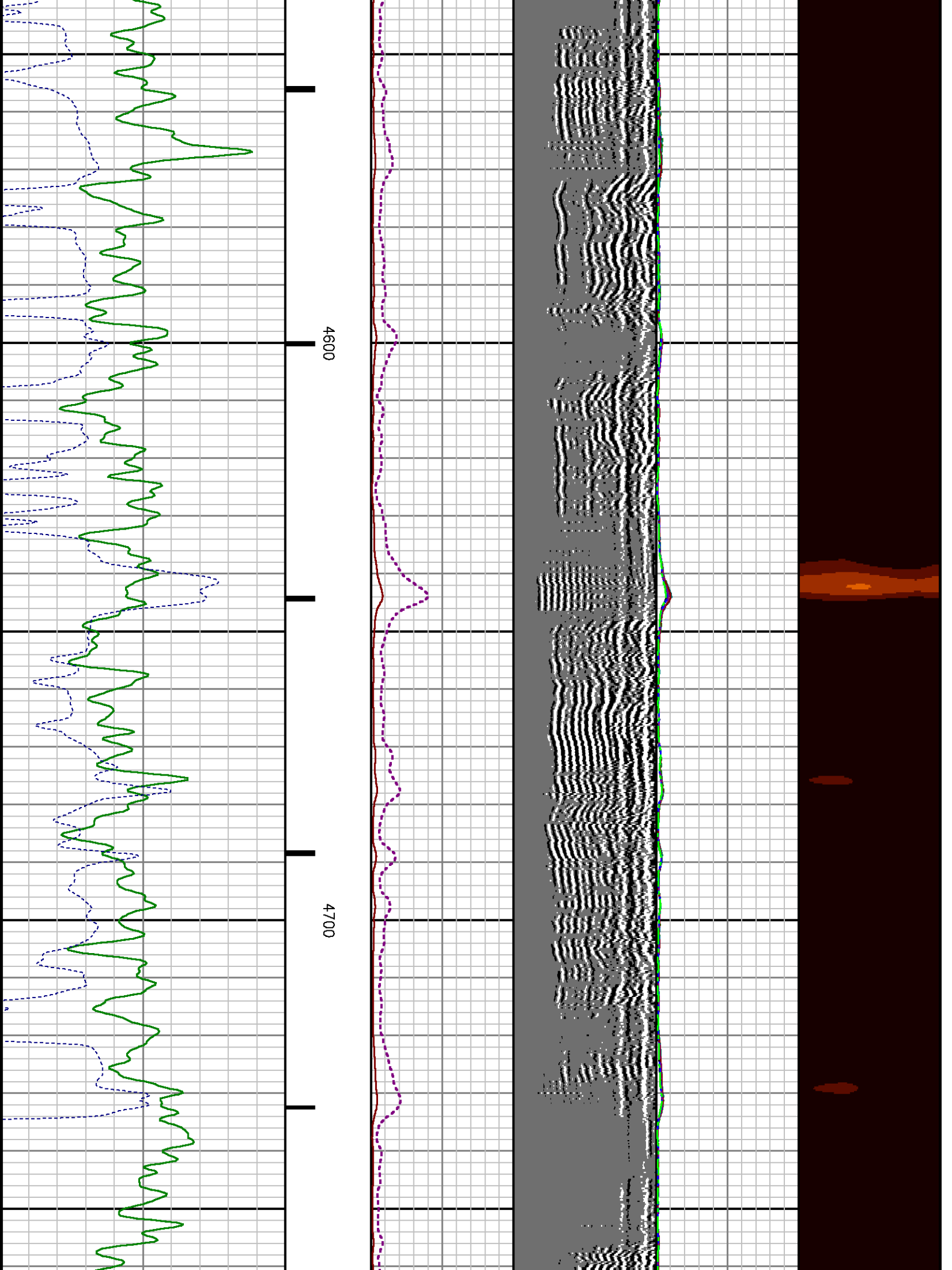


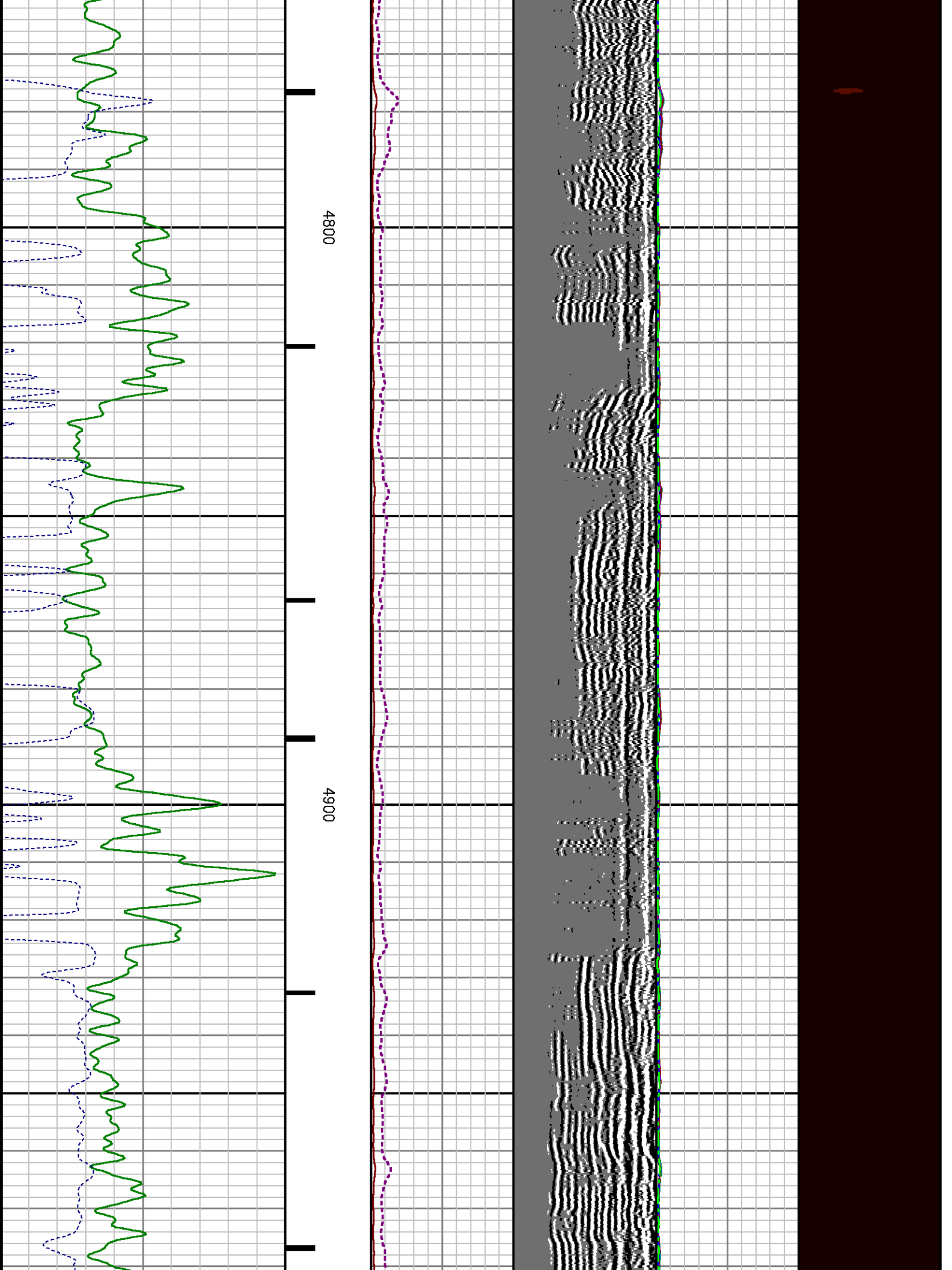


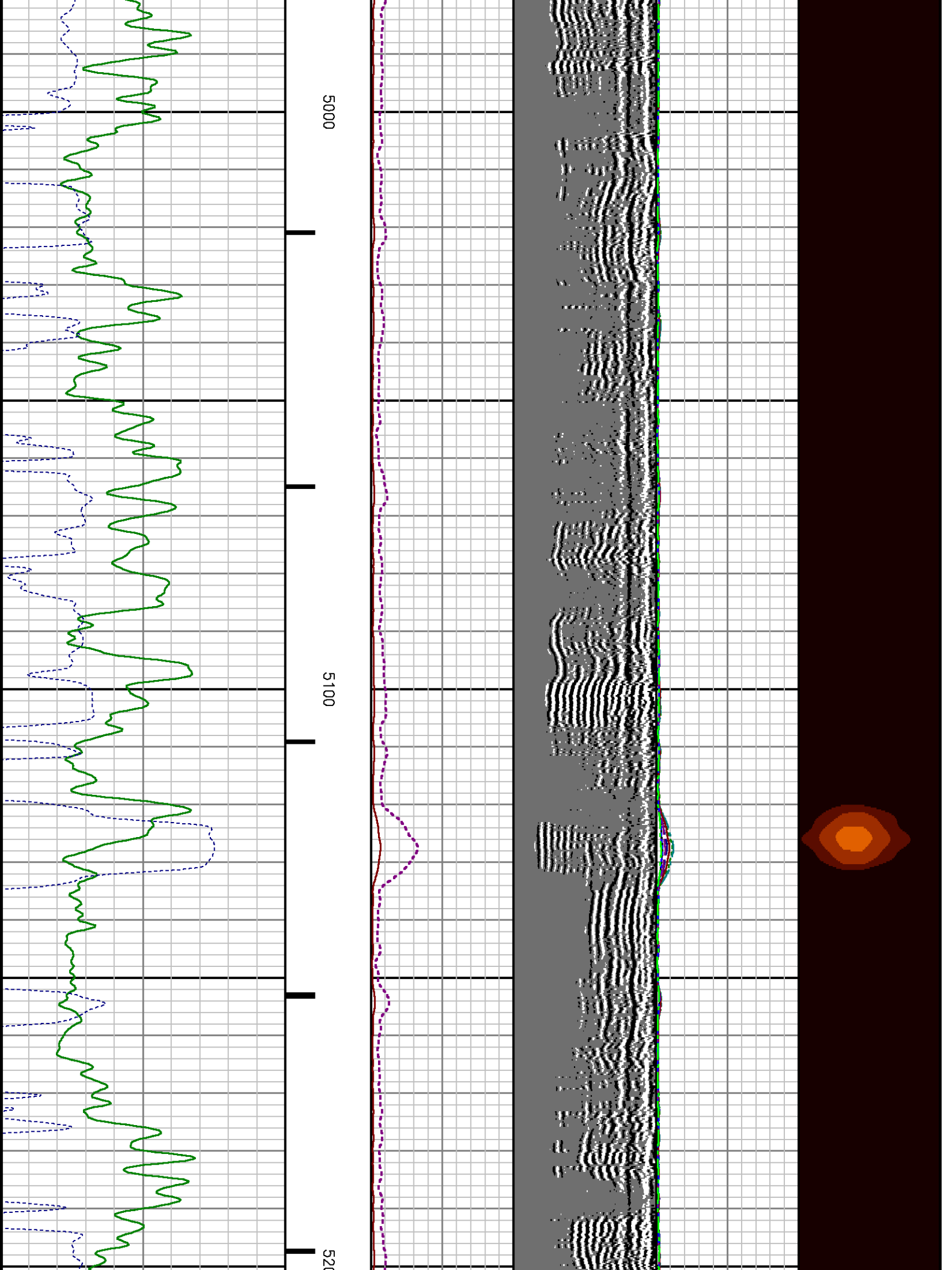


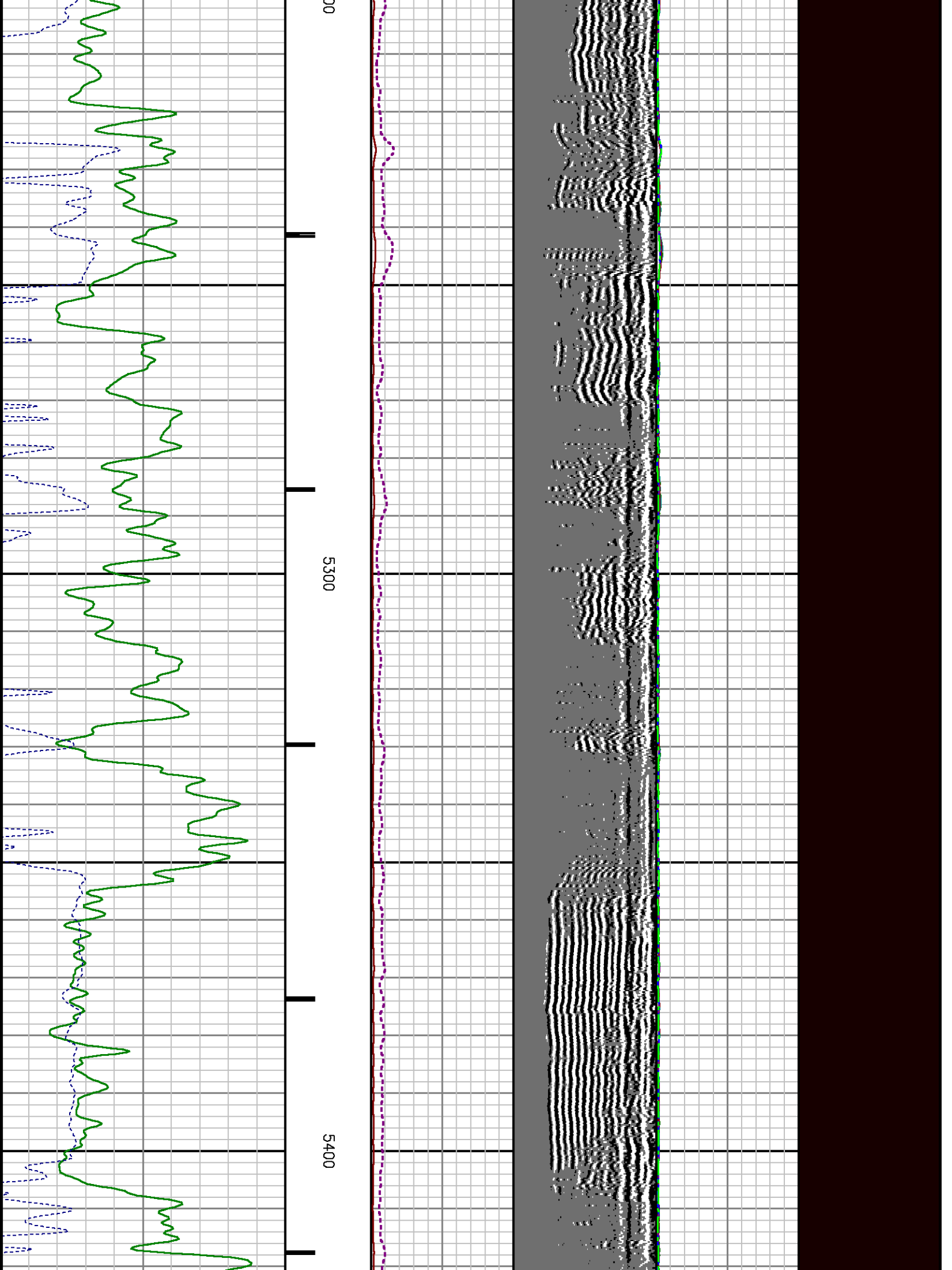


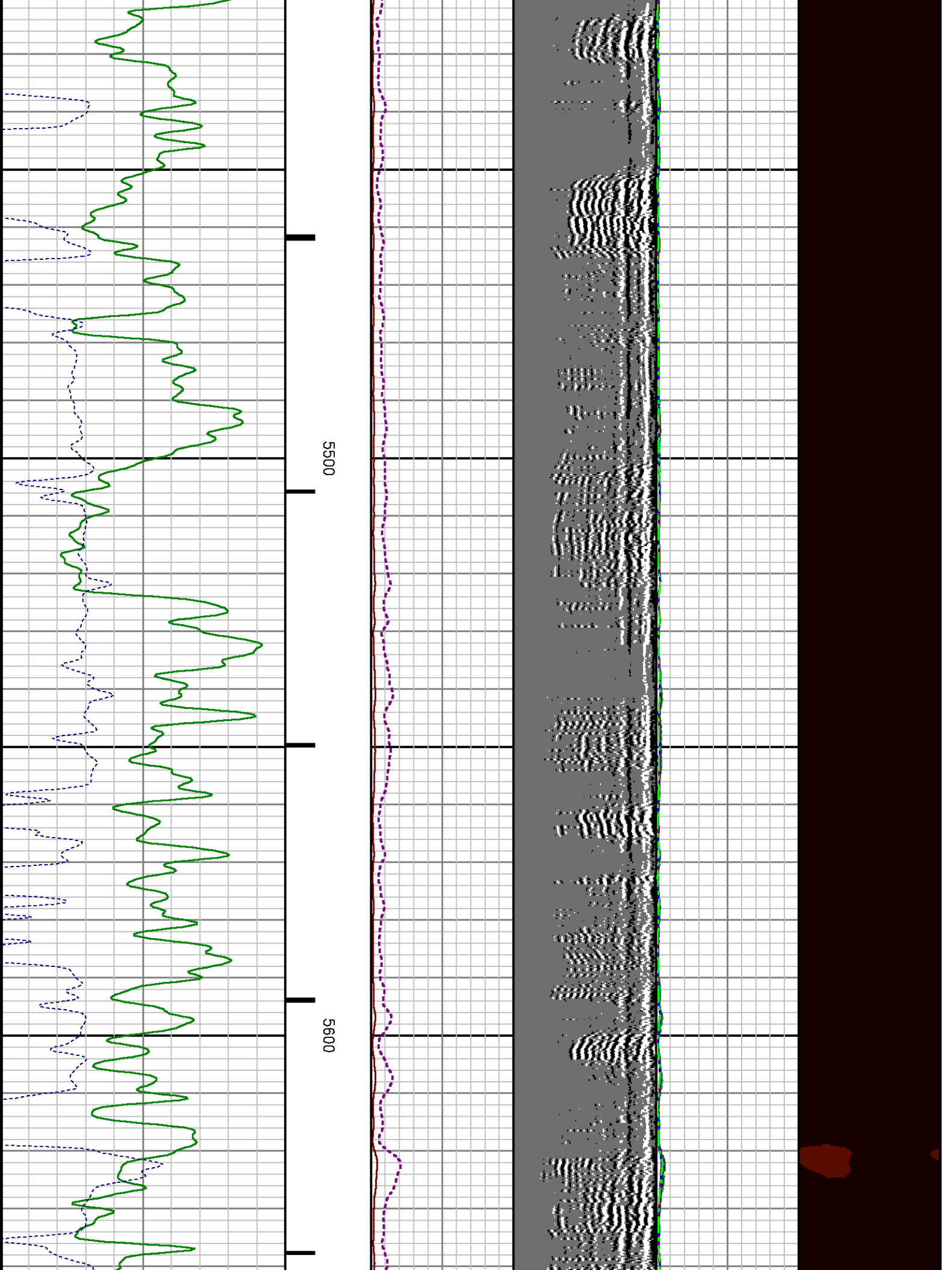


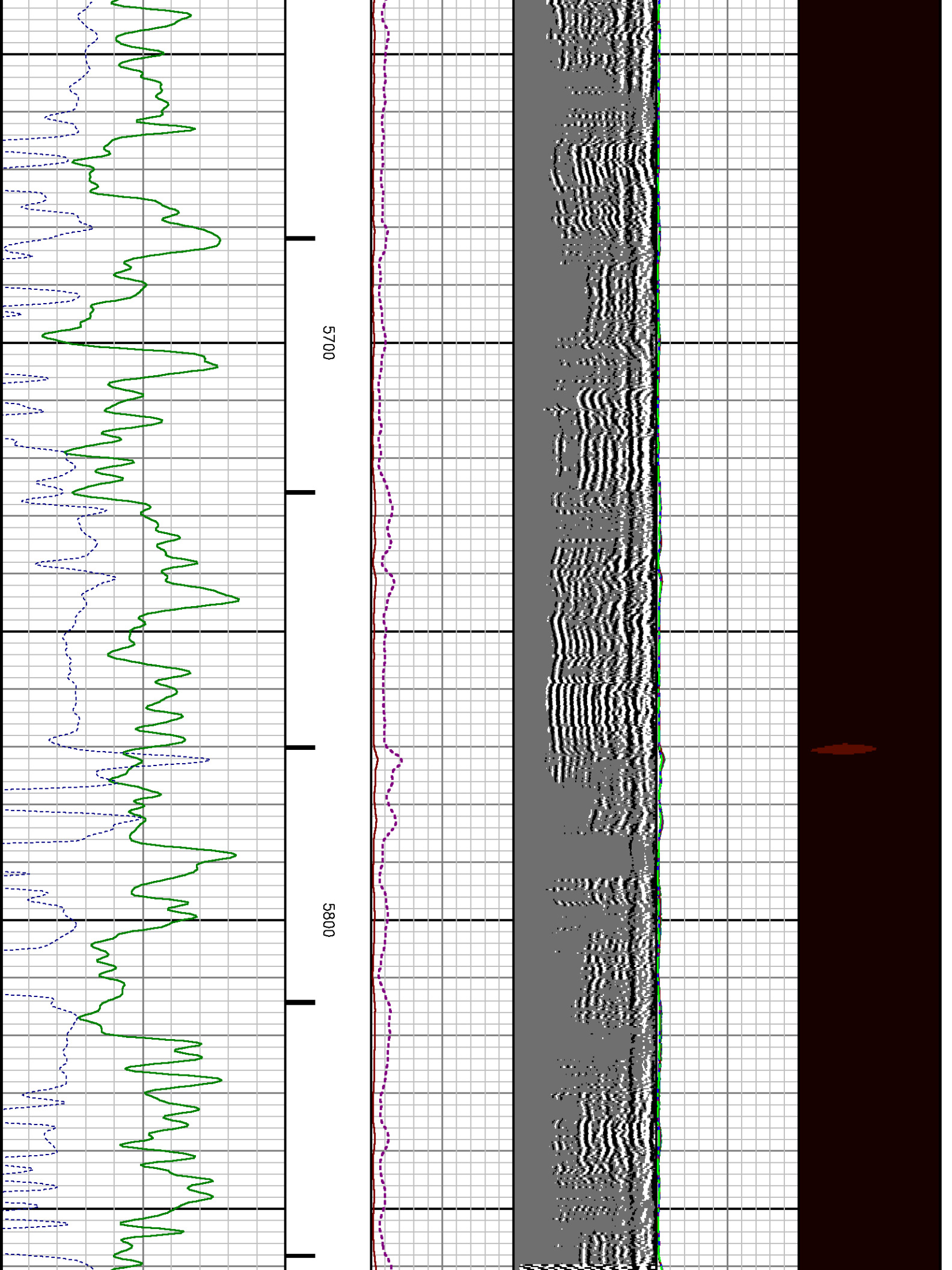


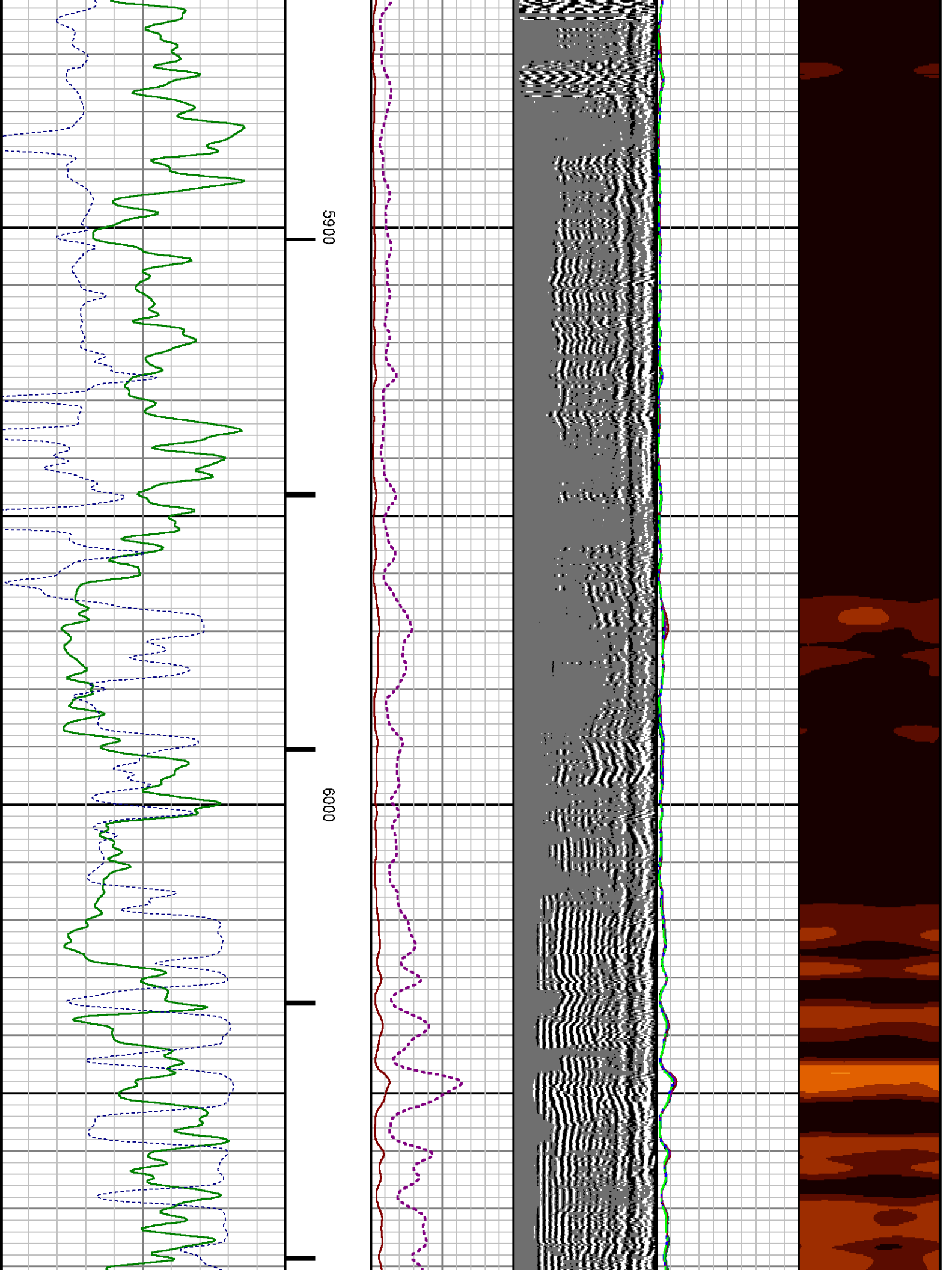


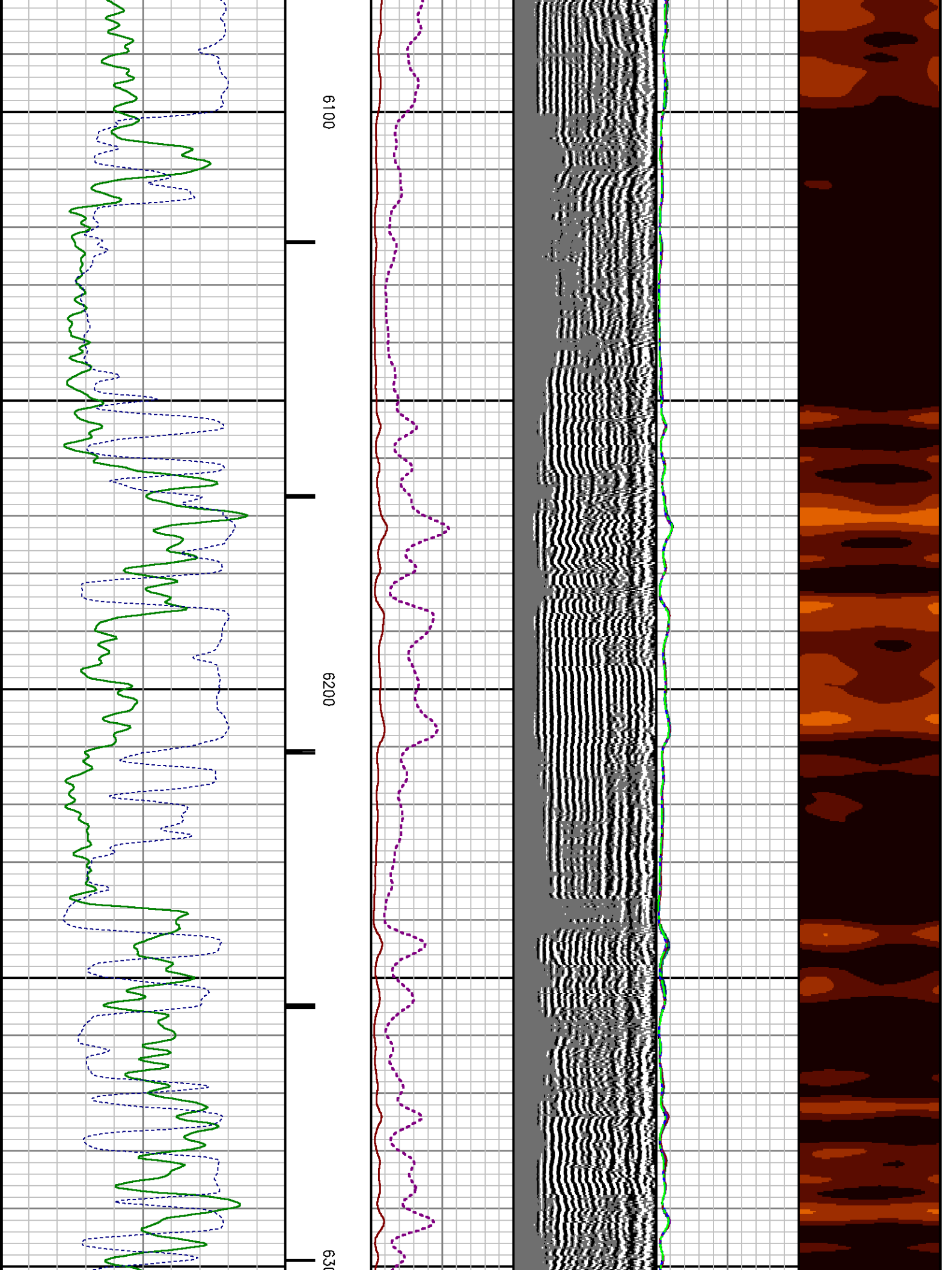


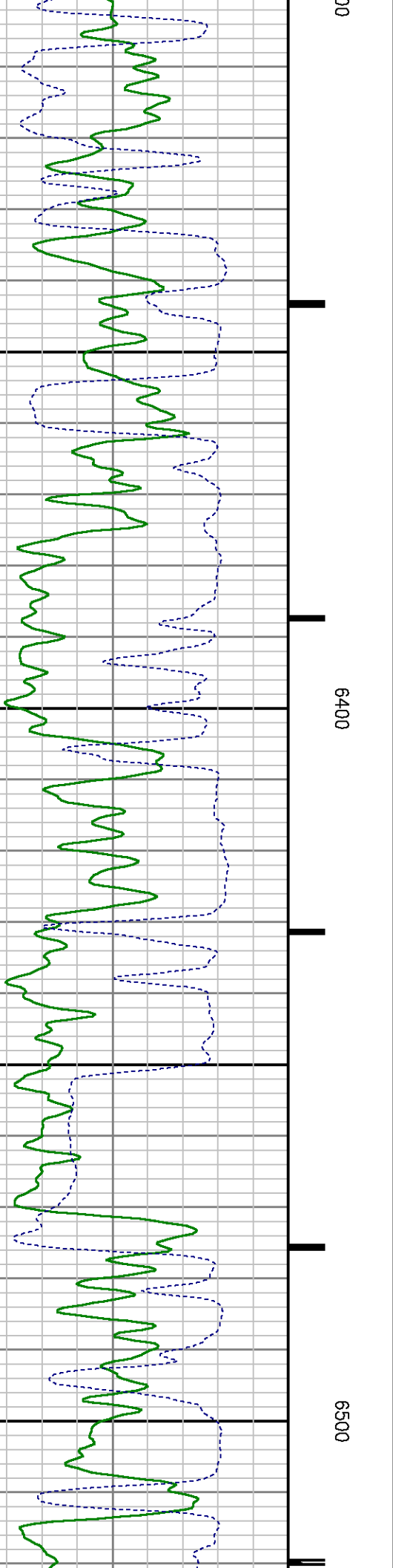
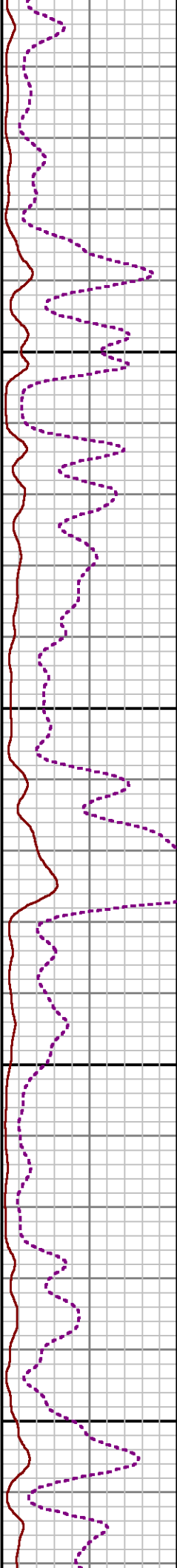
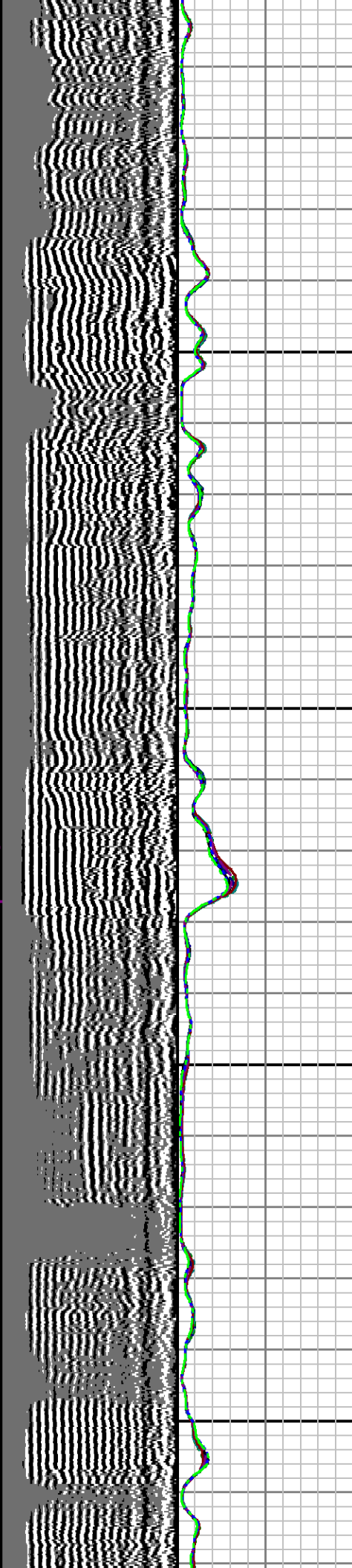


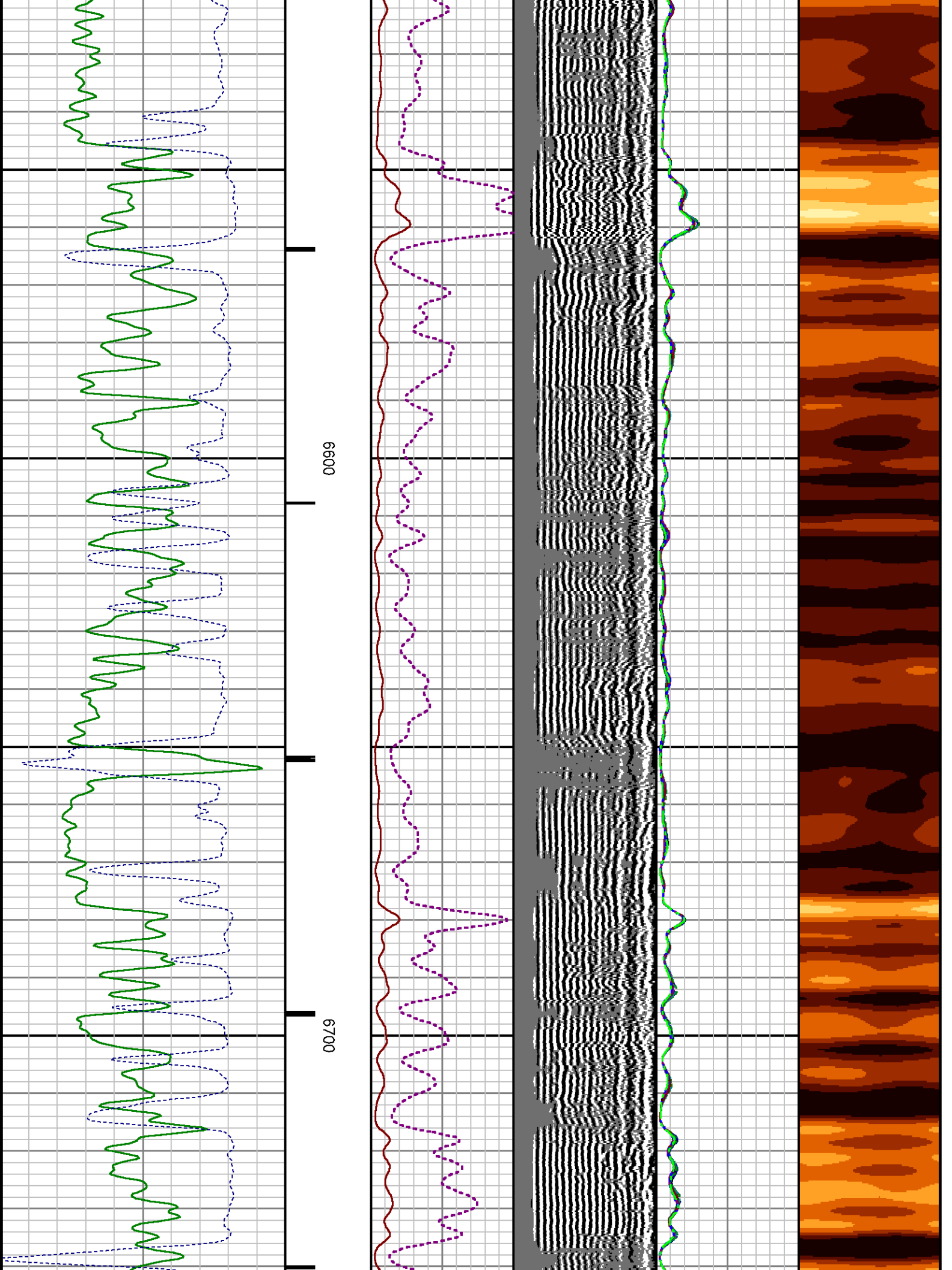


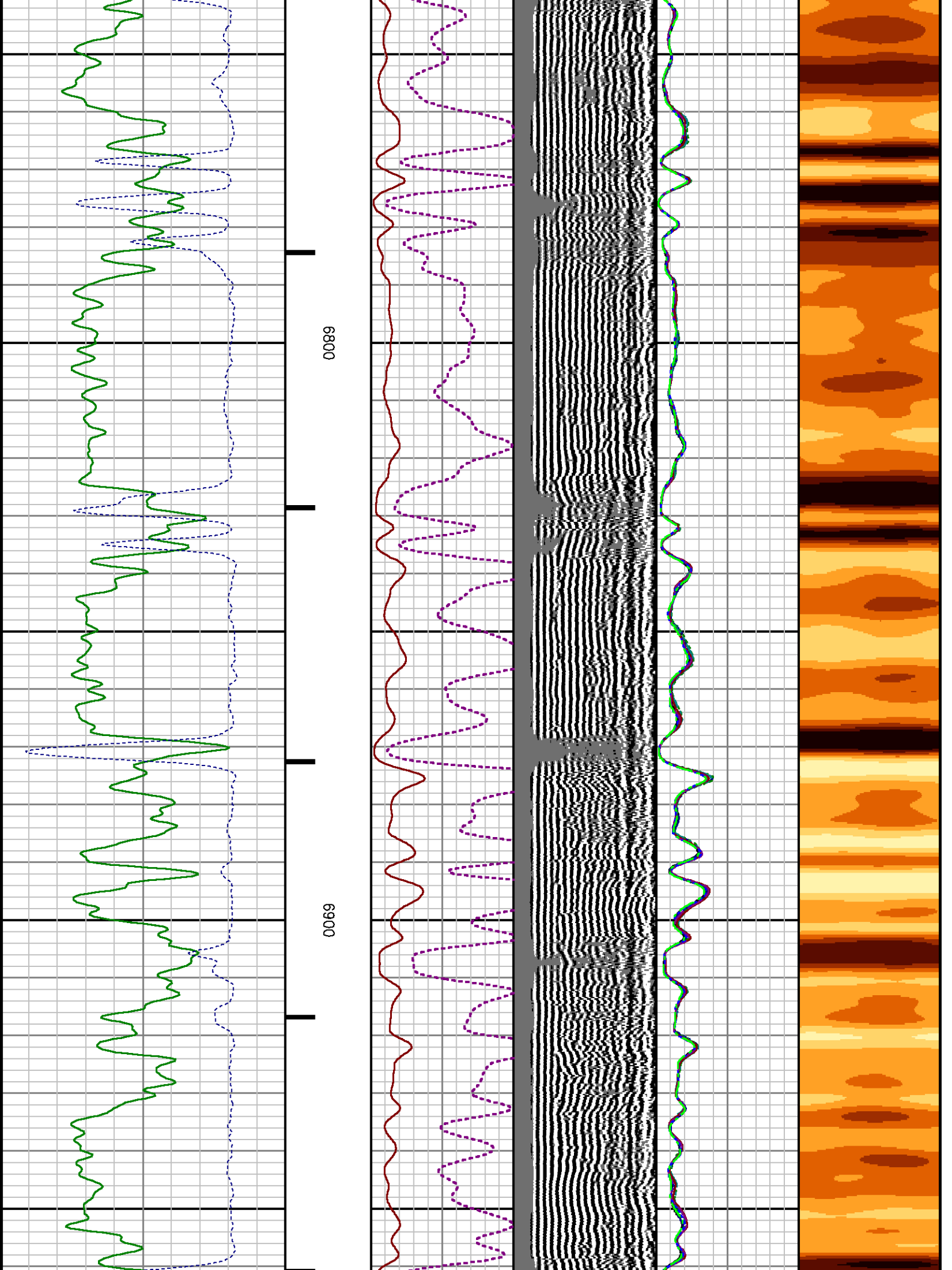


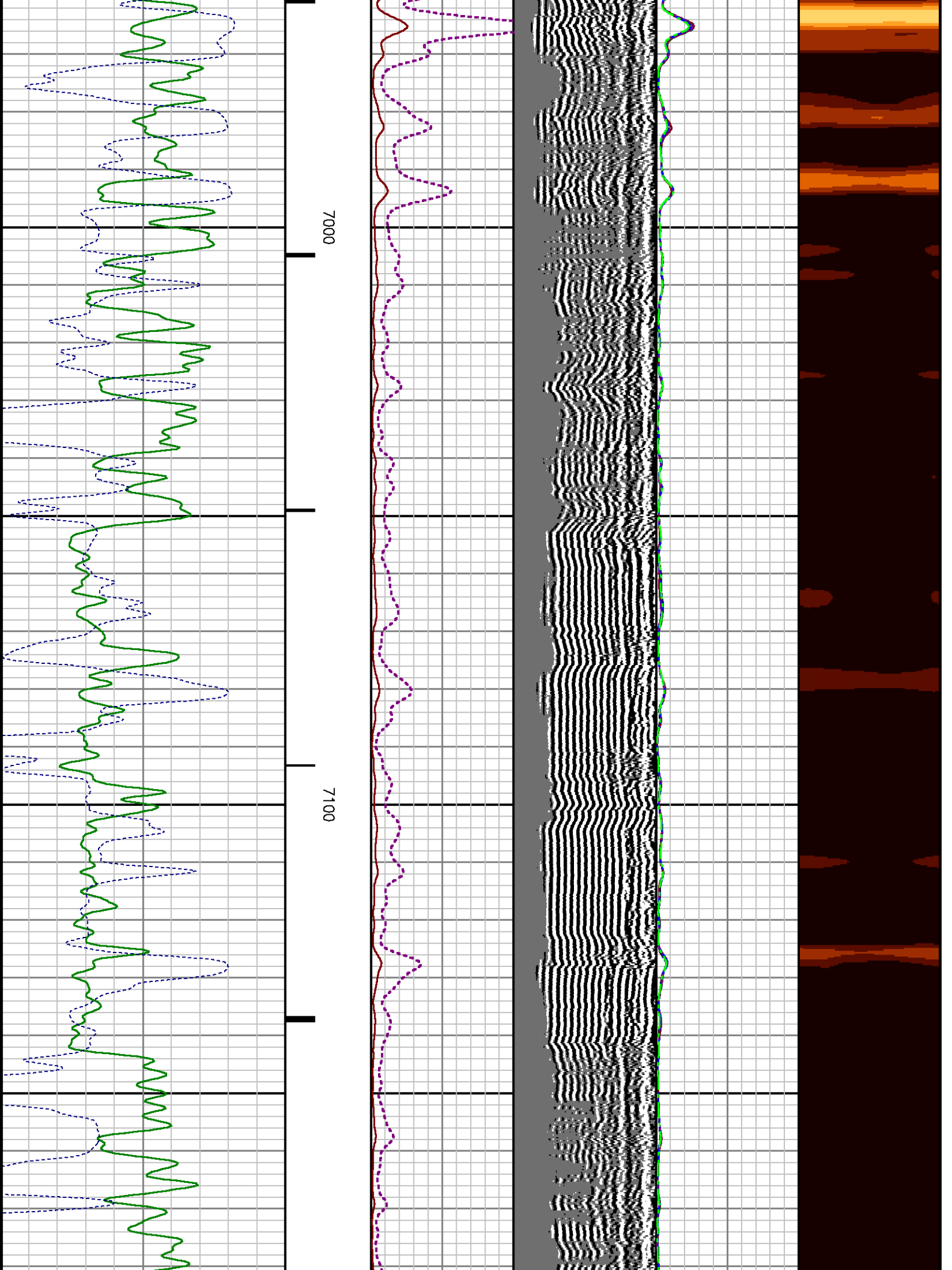


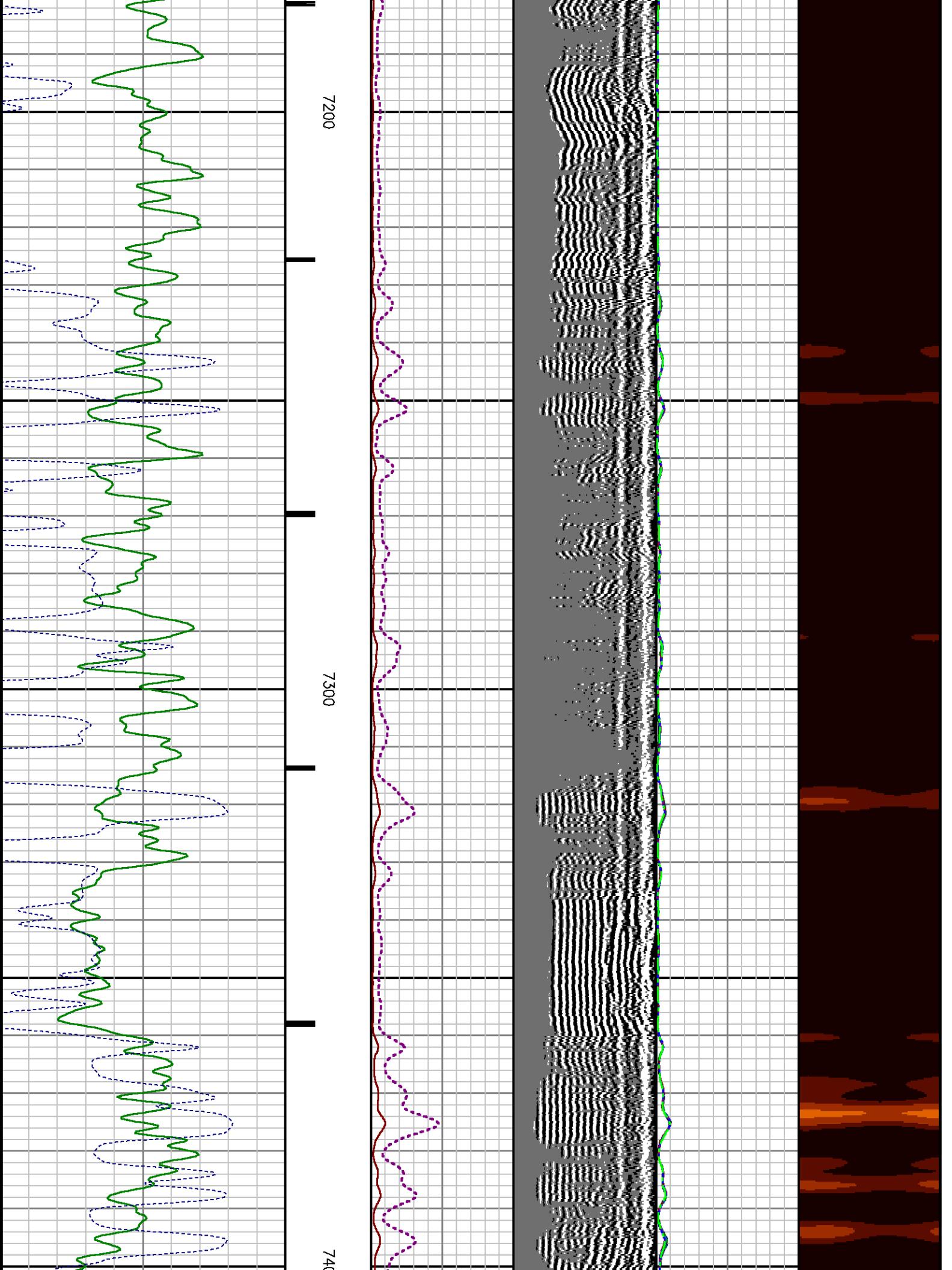


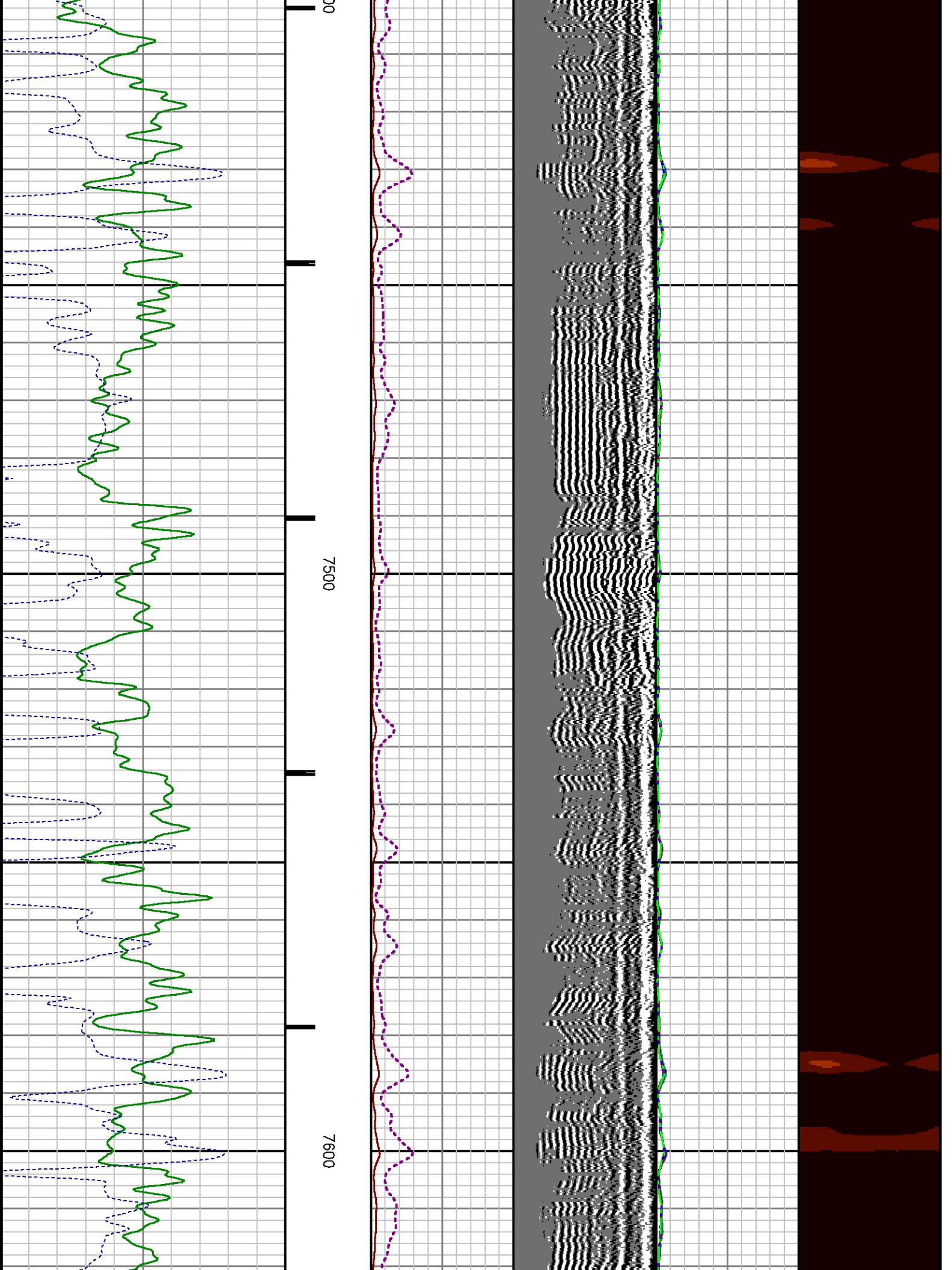


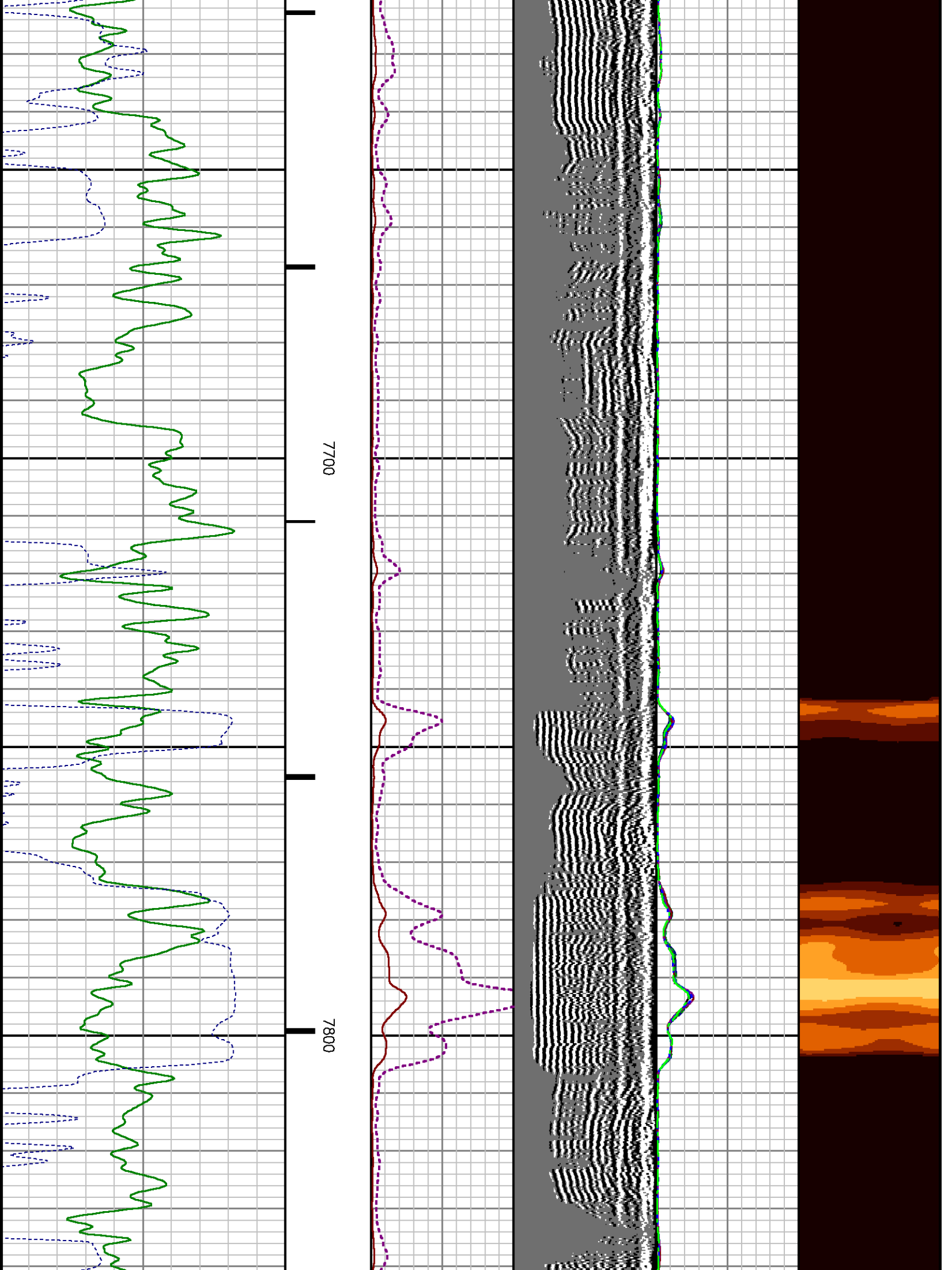


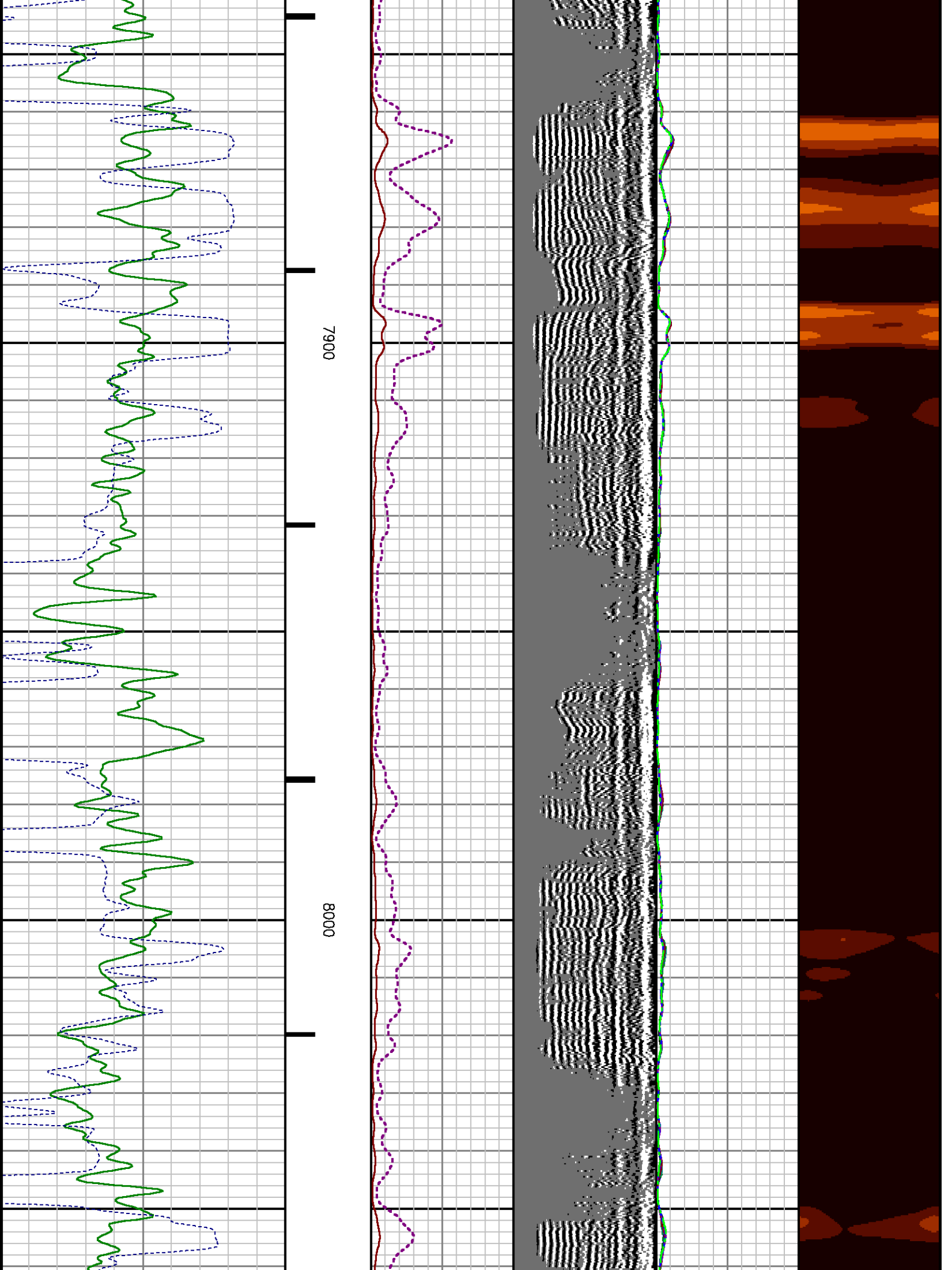


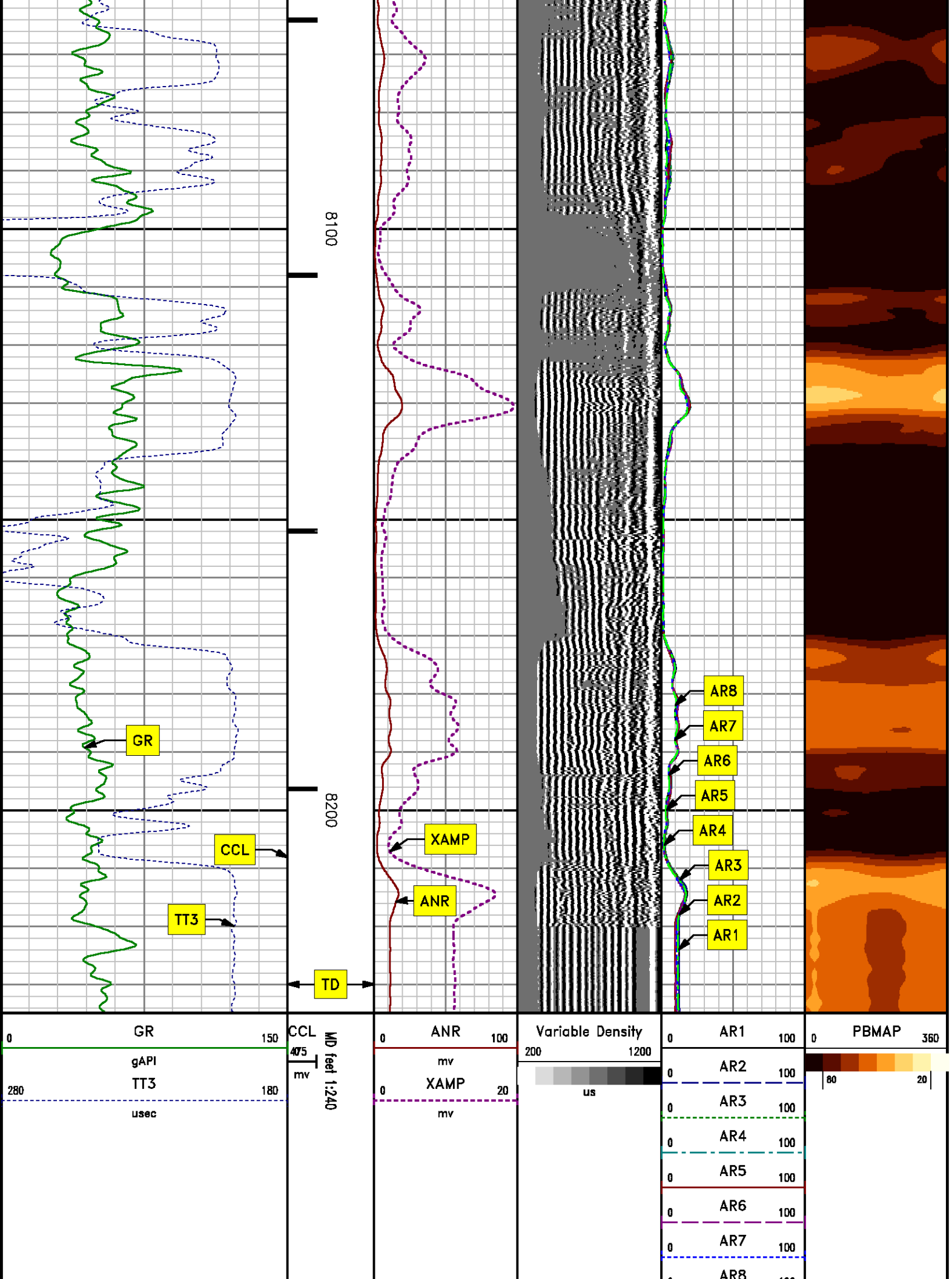












REPEAT SECTION ***0 PSI***

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	7932.290	8253.290
RAL	Amp Gate Start Near	195.000	usec	7932.290	8253.290
RAL	Amp Gate Start Radial	195.000	usec	7932.290	8253.290
RAL	Amp Gate Width Far	25.000	usec	7932.290	8253.290
RAL	Amp Gate Width Near	25.000	usec	7932.290	8253.290
RAL	Amp Gate Width Radial	25.000	usec	7932.290	8253.290
RAL	casing od	4.500	inches	7932.290	8253.290
RAL	casing wt	11.600	lbm/ft	7932.290	8253.290
RAL	FB Start Far	291.900	usec	7932.290	8253.290
RAL	FB Start Near	175.391	usec	7932.290	8253.290
RAL	FB Start Radial	175.391	usec	7932.290	8253.290
RAL	FB Thresh Far	10.000	mv	7932.290	8253.290
RAL	FB Thresh Near	4.000	mv	7932.290	8253.290
RAL	FB Thresh Radial	4.000	mv	7932.290	8253.290
RAL	Fluid Travel Time	200.000	usec/ft	7932.290	8253.914

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

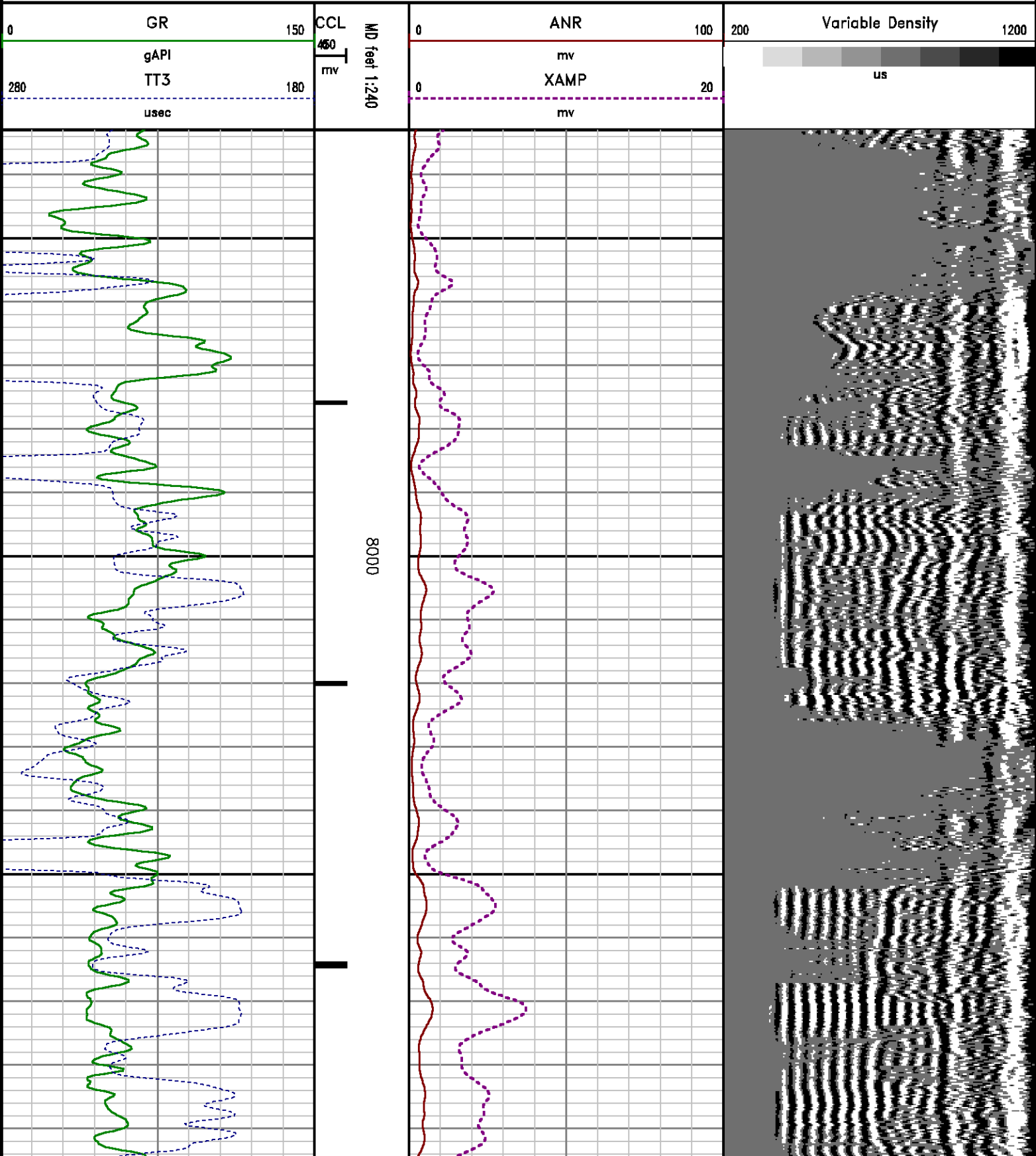
Well : FEDERAL PA 513-12

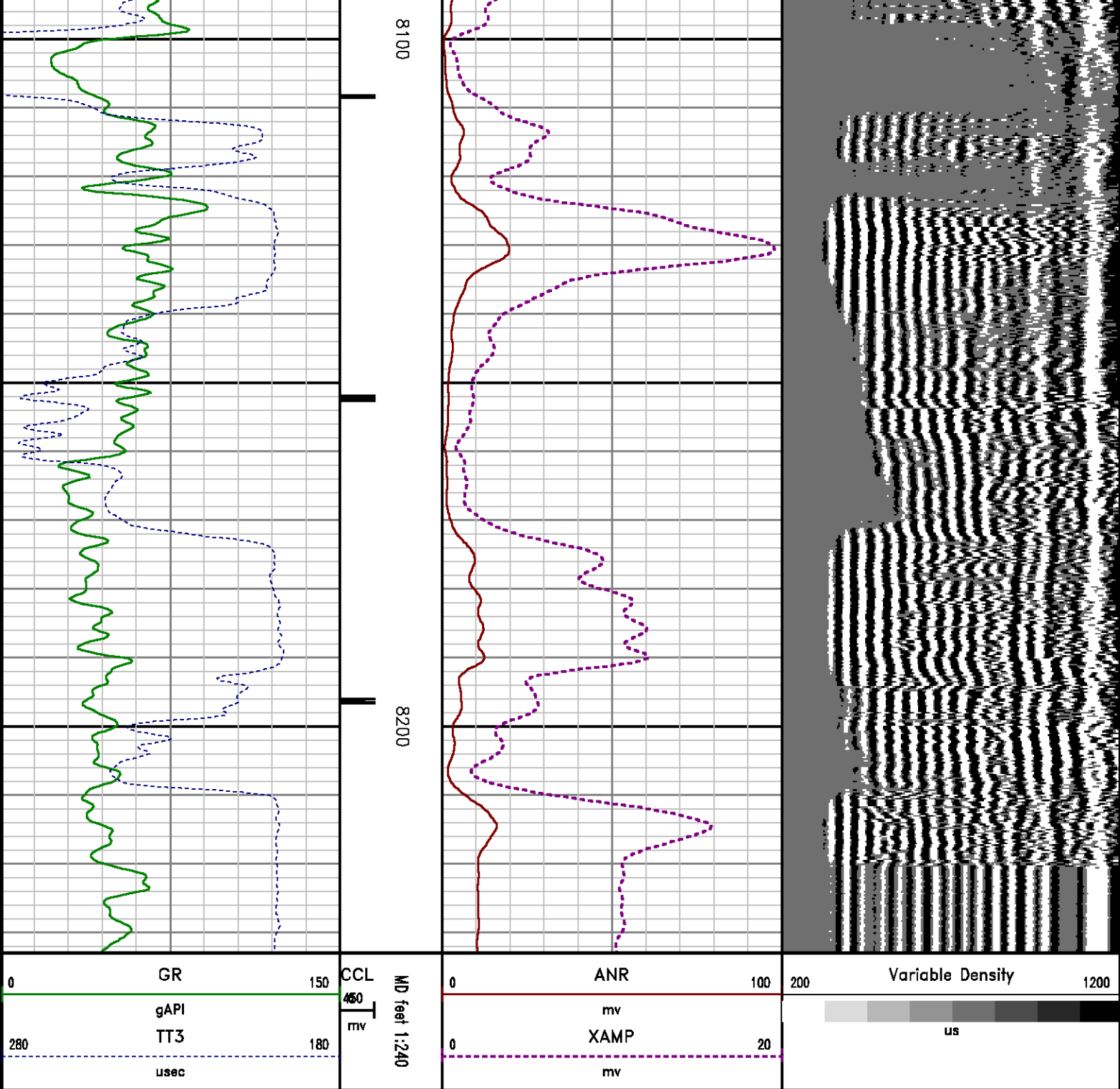
File Name : d:\welldata\wp\513-12\513cbl\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 7933.00 - 8233.00 feet UP

Created : 11/23/2013 2:04:28 PM





CALIBRATION SUMMARY

RALSHP

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Nov 21 12:27:33 2013 TOOL SERIES: 1426XA ASSET: 495 SEQ: 21

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="219"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.247"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
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="25"/>	<input type="text" value="-2.108"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
5 Ft. Receiver	<input type="text" value="328"/>	<input type="text" value="325"/>	<input type="text" value="30"/>	<input type="text" value="258"/>	<input type="text" value="25"/>	<input type="text" value="-1.445"/>	<input type="text" value="150.00"/>	<input type="text" value="0.15"/>
Radial #1	<input type="text" value="219"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="1.815"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
Radial #2	<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="1.790"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
Radial #3	<input type="text" value="217"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.283"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
Radial #4	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.760"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
Radial #5	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-1.378"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
Radial #6	<input type="text" value="216"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-1.844"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
Radial #7	<input type="text" value="217"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-1.149"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>
Radial #8	<input type="text" value="219"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-1.184"/>	<input type="text" value="100.00"/>	<input type="text" value="0.14"/>

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\49521 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Nov 21 12:29:31 2013 TOOL SERIES: 1426XA ASSET: 495 SEQ: 21

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="0.015"/>	<input type="text" value="0.000"/>	<input type="text" value="1.00"/>	<input type="text" value="100.000"/>
3 Ft. Receiver	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.356"/>			
5 Ft. Receiver	<input type="text" value="305"/>	<input type="text" value="25"/>	<input type="text" value="-0.460"/>			
Radial #1	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.309"/>			
Radial #2	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.391"/>			
Radial #3	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.332"/>			
Radial #4	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.358"/>			
Radial #5	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.353"/>			
Radial #6	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.373"/>			
Radial #7	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.311"/>			
Radial #8	<input type="text" value="195"/>	<input type="text" value="25"/>	<input type="text" value="-0.307"/>			

GAMMA RAY

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Nov 03 10:29:26 2013 TOOL SERIES: 1355XA ASSET: 209 SEQ: 03

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	152.76	595.33	0.418	63.85	248.85	185.00

Verification File: C:\case\calver\GR\20903.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Sun Nov 03 10:31:05 2013 TOOL SERIES: 1355XA ASSET: 209 SEQ: 03

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA-612	151.02	589.38	0.418	63.13	246.36	183.24

TOOL DIAGRAM

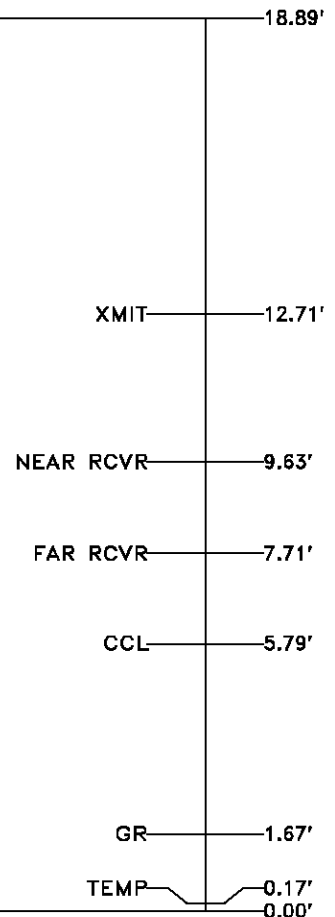
OTA SHORT CABLE HEAD

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

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



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



Company

WPX ENERGY

Well

FEDERAL PA 513-12

Field

PARACHUTE

County

GARFIELD

State

CO

File No:

CH79532

API No:

05045206630000

Location

SHL: 2588' FSL & 1730' FWL

BHL: 1495' FSL & 688' FWL

Elevations

KB 6533 ft

DF

GL 6507 ft

12 7S 95W

PA 23-12 PAD

NABORS 577

SEC 12

TWP 7S

RGE 95W

Baker Atlas

CASE