



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No:	Company			WILLIAMS PRODUCTION COMPANY
API No:	Well	KP 433-23		
06X46195700000	Field	KOKOPELLI		
	County	GARFIELD	State	COLORADO
23 6S 91W KP 24-23 PAD CYCLONE 30	Location SHL: 794' FSL & 1825' FHL BHL: 1727' FSL & 1998' FHL		Other Services NONE	
	SEC 23	TWP 85	RGE 91W	
Permanent Datum	GL	Elevation	6321 ft	
Log Measured From	KB	24 ft	Above P. D.	
Drill Measured From	KELLY BUSHING		Elevations KB 6345 ft DF 6344 ft GL 6321 ft	

Date	12 SEP 2010	
Run	ONE	
Service Order	574356	
Depth Driller	7655 ft	
Depth Logger	7734 ft	
Bottom Logged Interval	7730 ft	
Top Logged Interval	20 ft	
Time Started	14:00	
Time Finished	17:30	
Operator Rig Time	3.5 hrs	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	FULL	
Logged Cement Top	N/A	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	45 fpm	
Maximum Recorded Temperature	215 degF	
Reference Log	BAKER ATLAS TRIPLE COMBO	
Reference Log Date	18 AUG 2010	
Equipment No.	4214	G.M., COLORADO
Recorded By	J. OSTLER	
Witnessed By	MR. JEFF BRADY	

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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	SURFACE	1172 ft
7.875 in	SURFACE	7656 ft

Casing Record				
Size	Weight	Grade	From	To
9.825 in			SURFACE	1172 ft
4.5 in	11.8 lbm/ft	P-110	SURFACE	7655 ft

Remarks

LOG WAS TIED INTO A BAKER ATLAS TRIPLE COMBO LOG
WELL WAS LOGGED WITH 0 PSI AT THE WELL HEAD
BHT = 215°F
SHORT JOINT AT 4182' to 4203'

Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENTRALIZED
1	1	GR/CCL/NEU	2459XA	10404544	CENTRALIZED

MAIN SECTION
PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	316.900	usec	15.666	7764.000
RAL	Amp Gate Start Near	200.391	usec	15.666	7764.000
RAL	Amp Gate Start Radial	200.391	usec	15.666	7764.000
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RAL	casing od	4.500	inches	15.666	7764.000
RAL	casing wt	11.600	lbm/ft	15.666	7764.000
RAL	FB Start Far	291.900	usec	15.666	7764.000
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RAL	FB Start Radial	175.391	usec	15.666	7764.000
RAL	FB Thresh Far	10.000	mv	15.666	7764.000
RAL	FB Thresh Near	4.000	mv	15.666	7764.000
RAL	FB Thresh Radial	4.000	mv	15.666	7764.000
RAL	Fluid Travel Time	200.000	usec/ft	15.666	7764.375

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.450	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPRS	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP

1426XA	-15.450	AFAR	SIG	TT5
2459XA	-11.340	OCL		
2459XA	-9.490	GR		
2459XA	-4.090	NEU		

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WILLIAMS PRODUCTION COMPANY

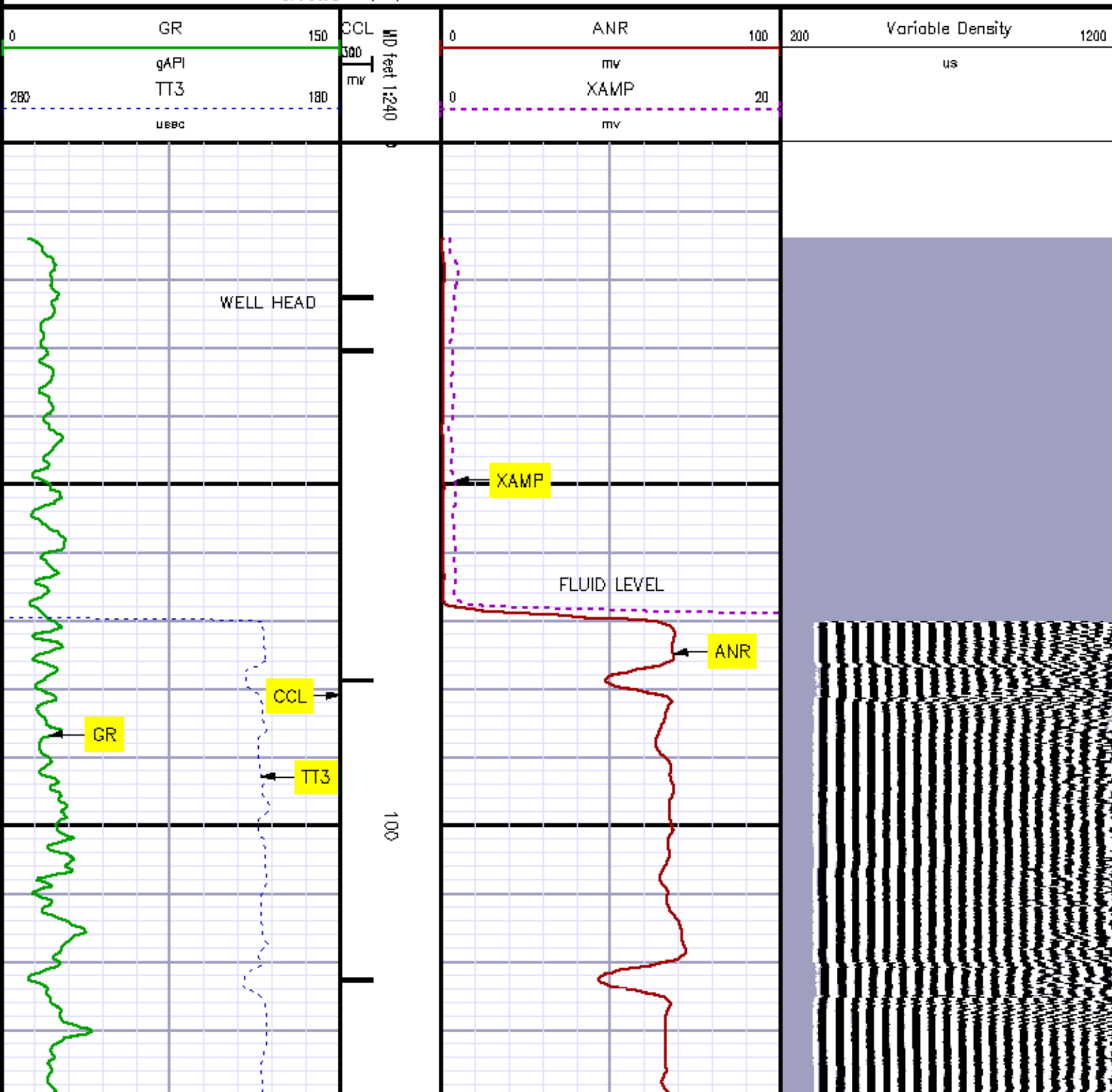
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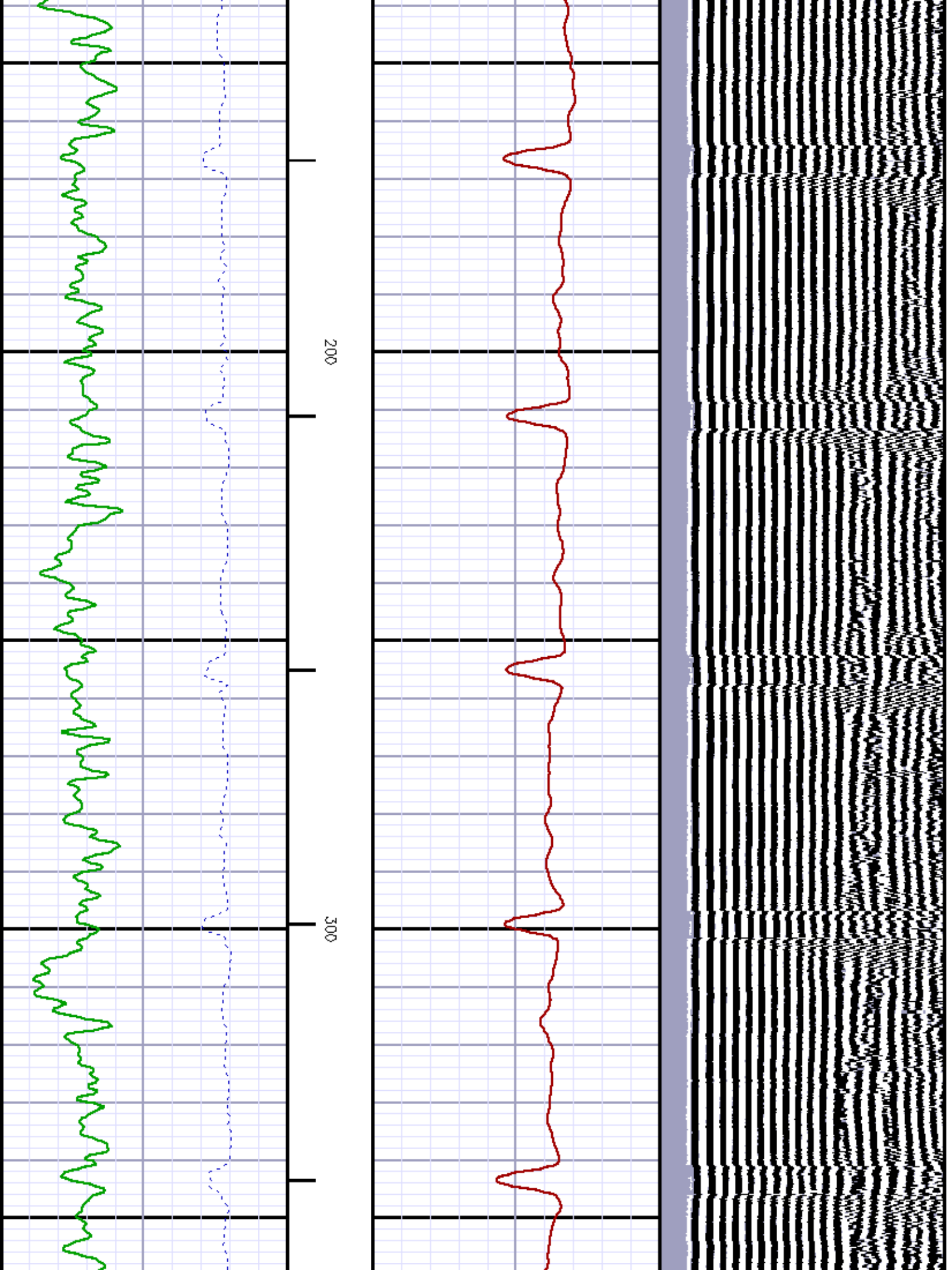
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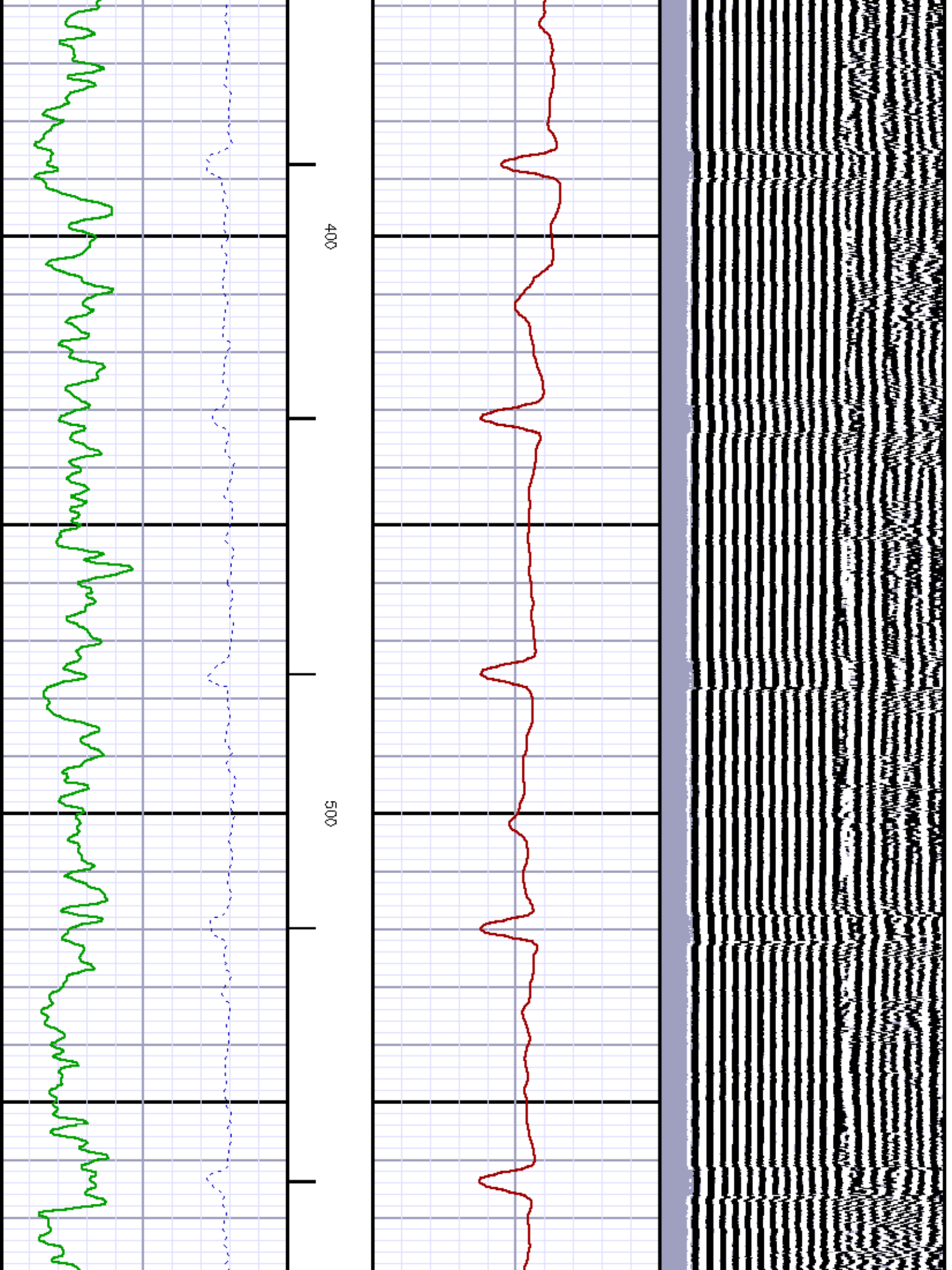
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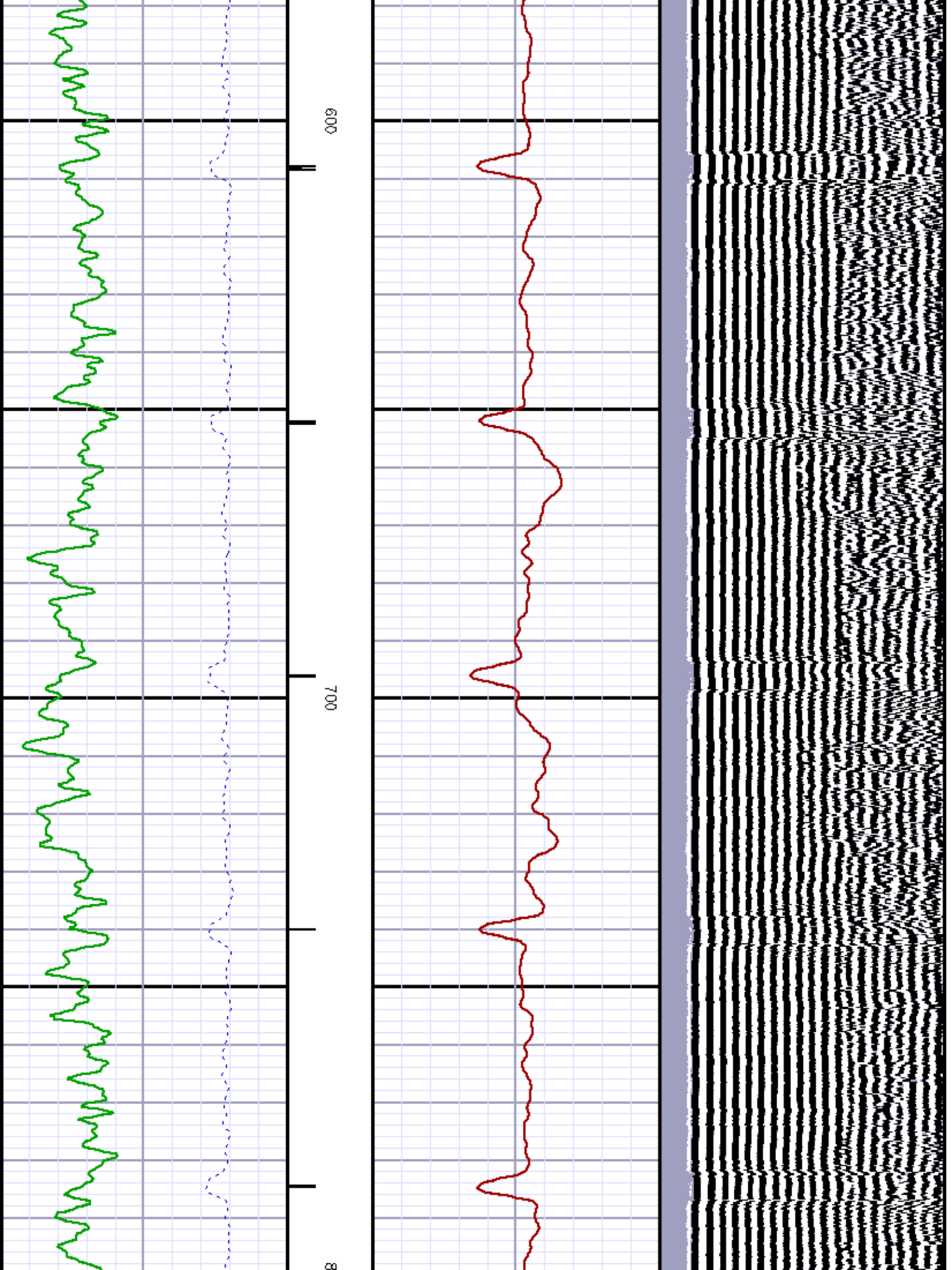
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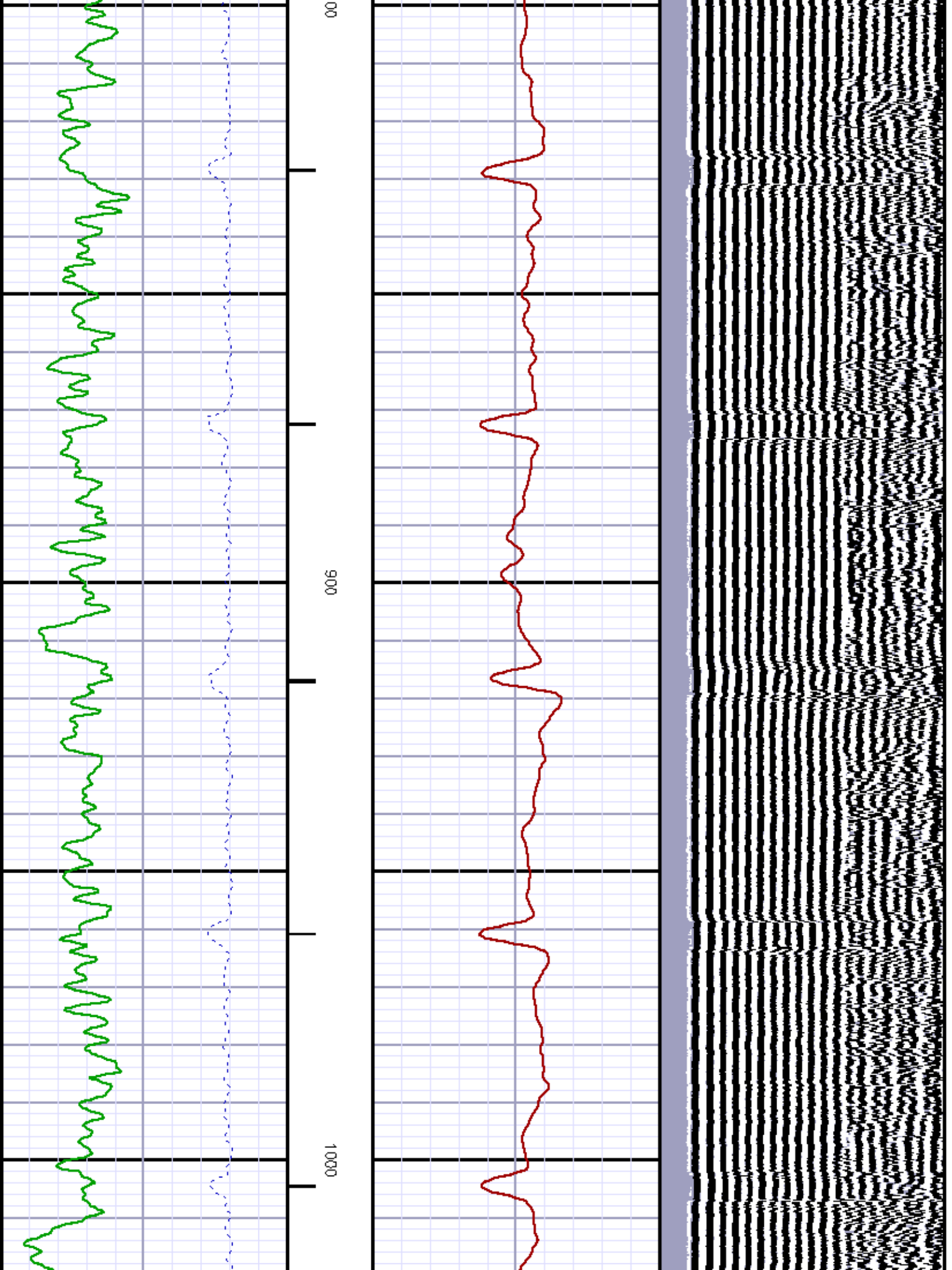
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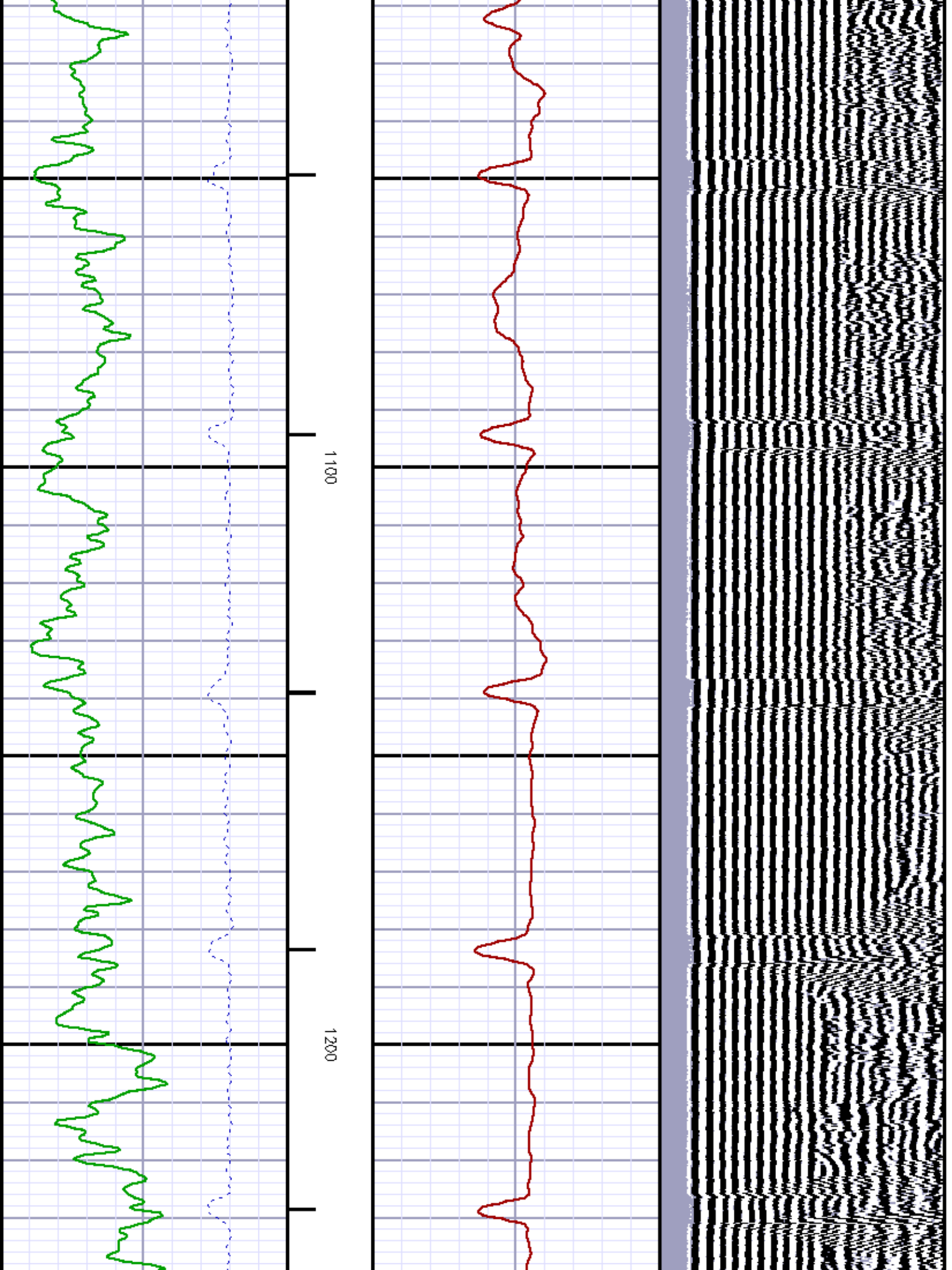


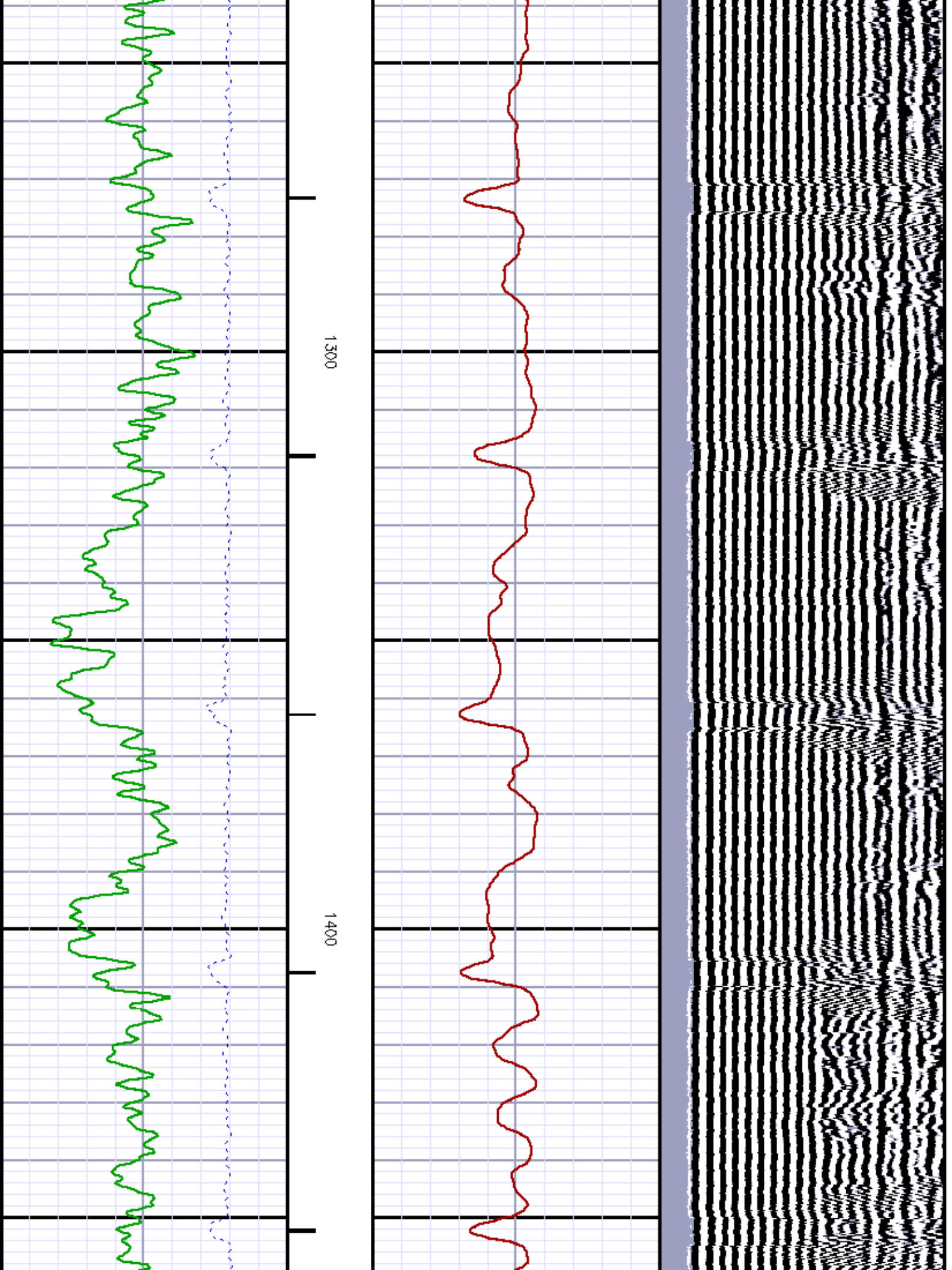


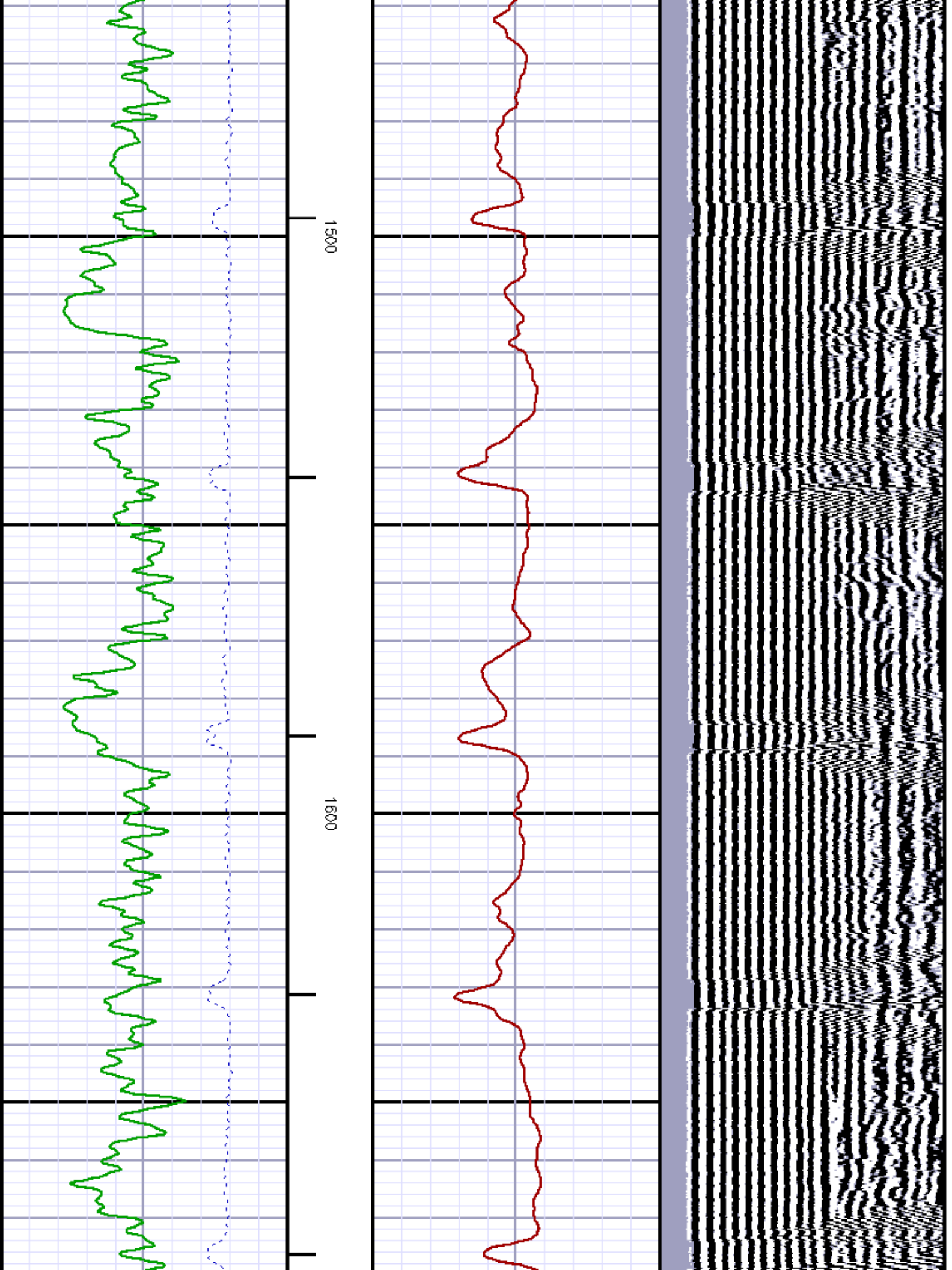


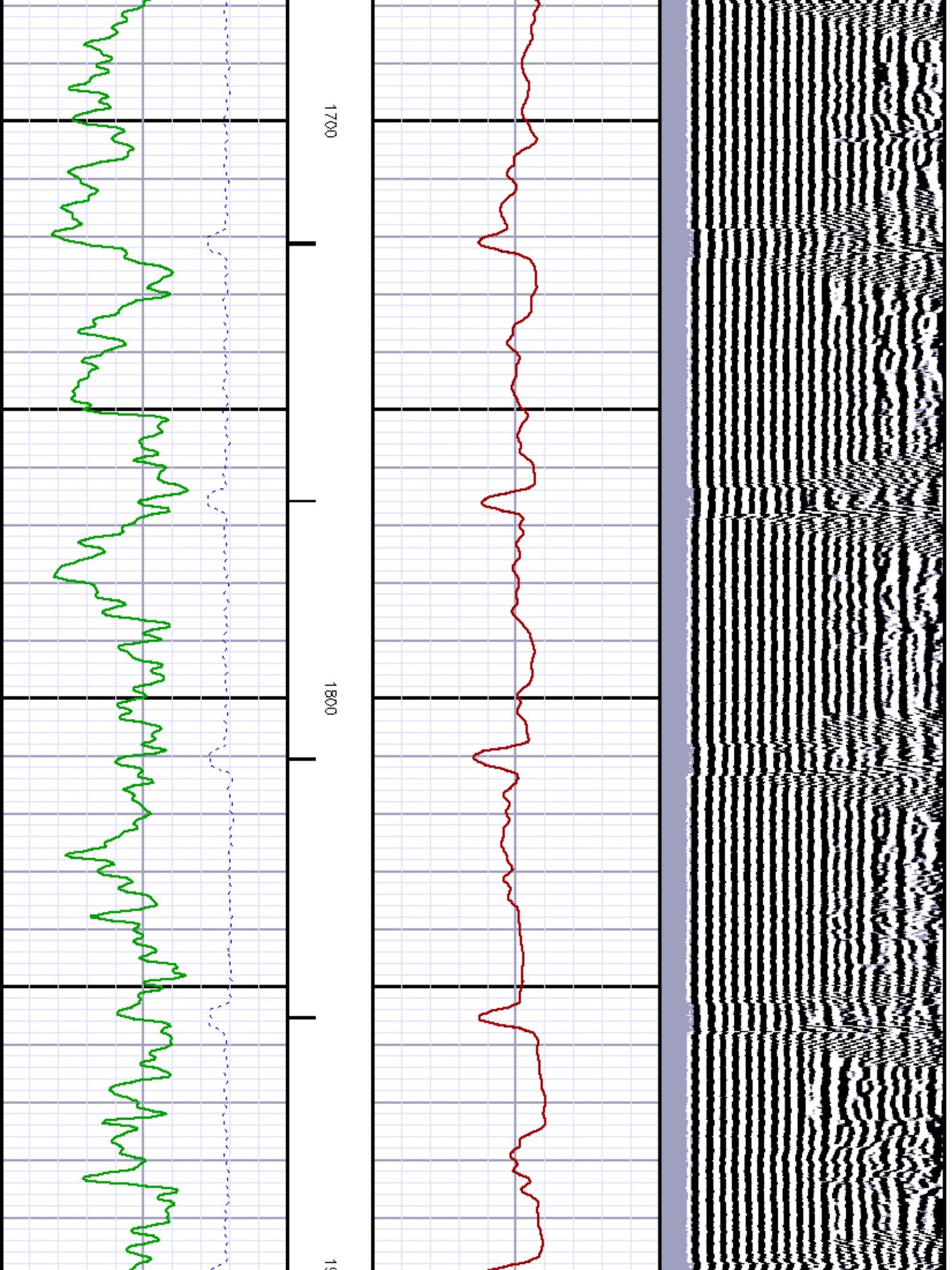


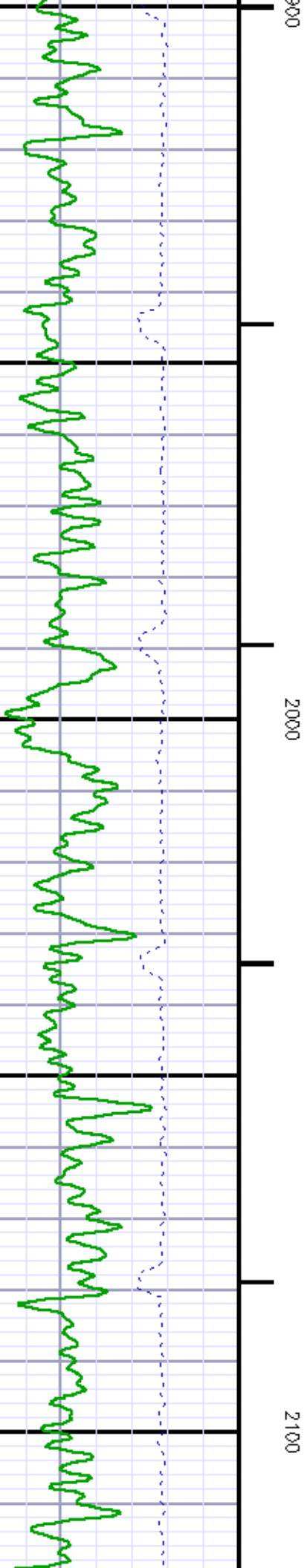
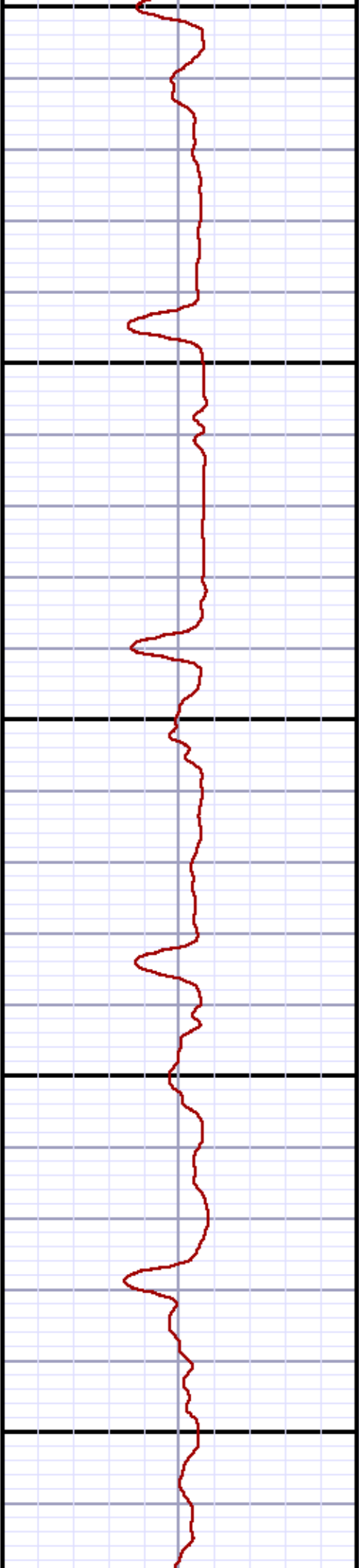
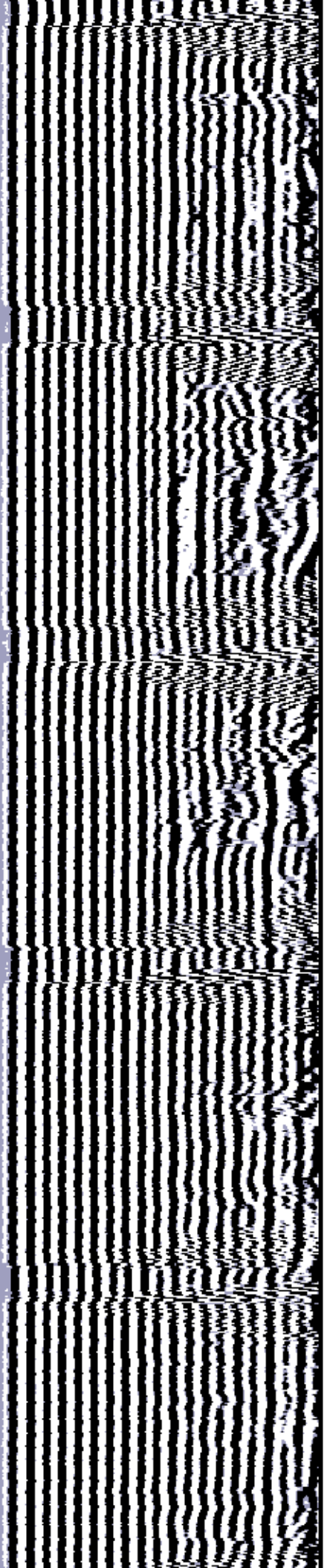


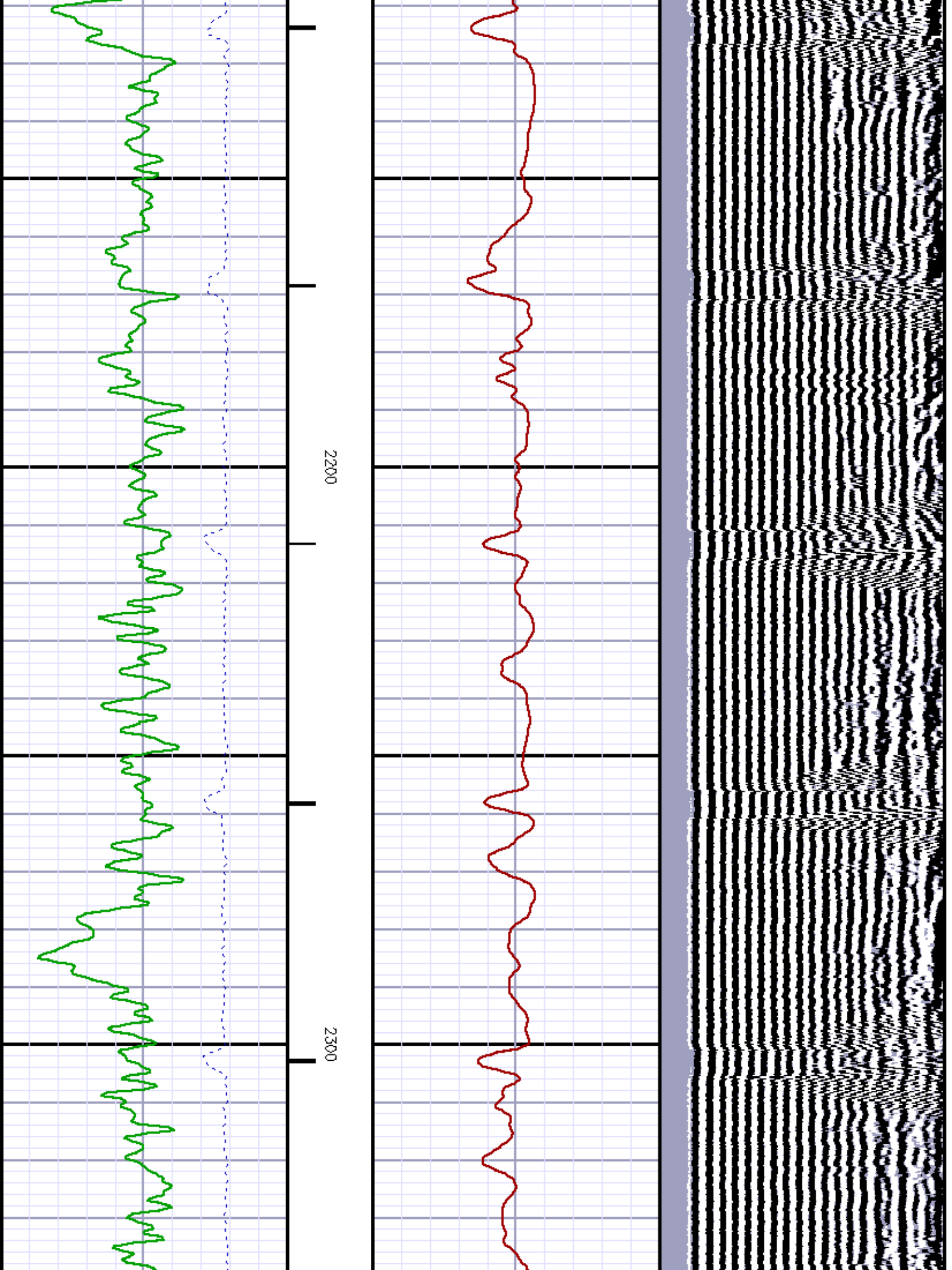


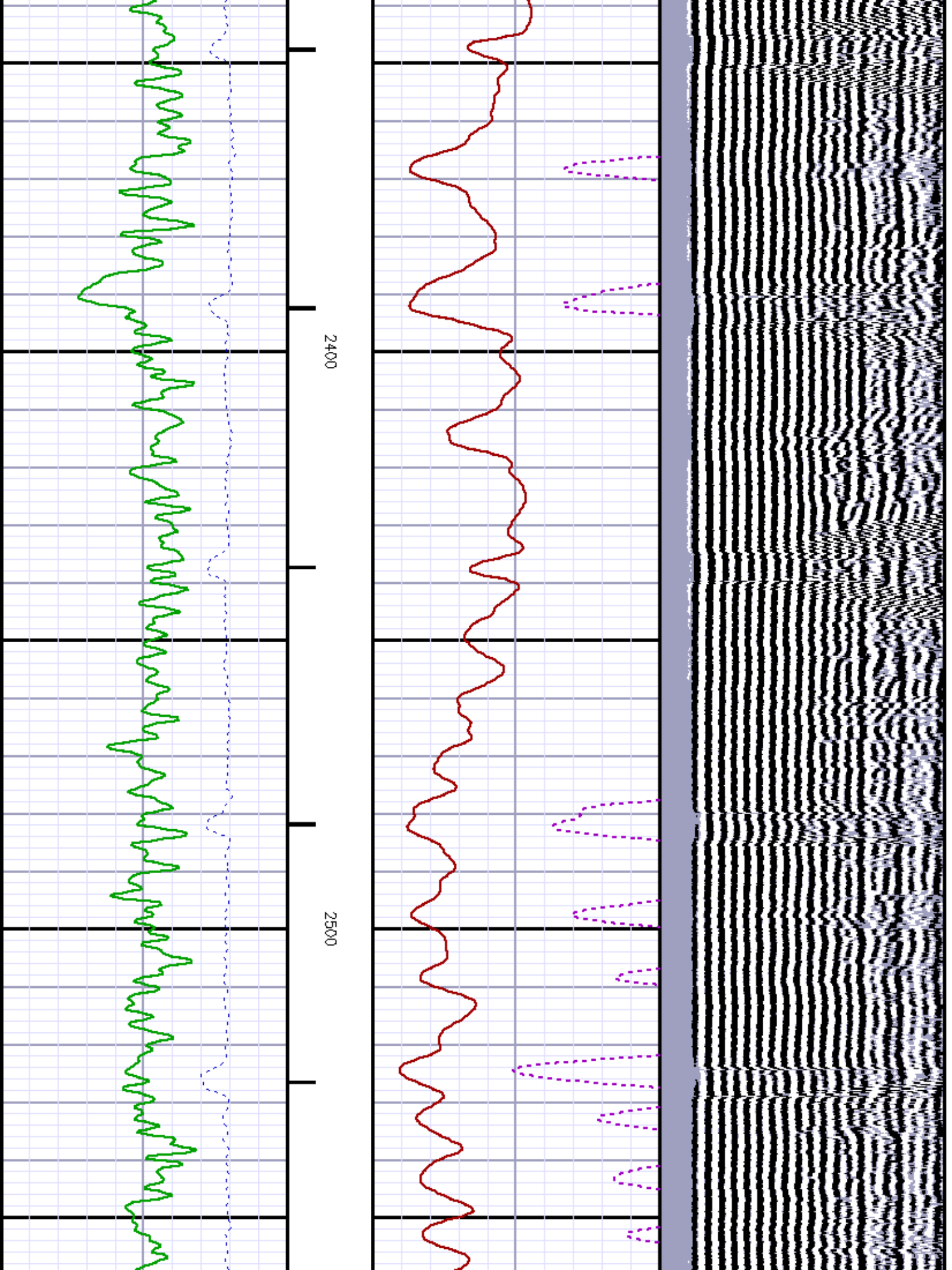


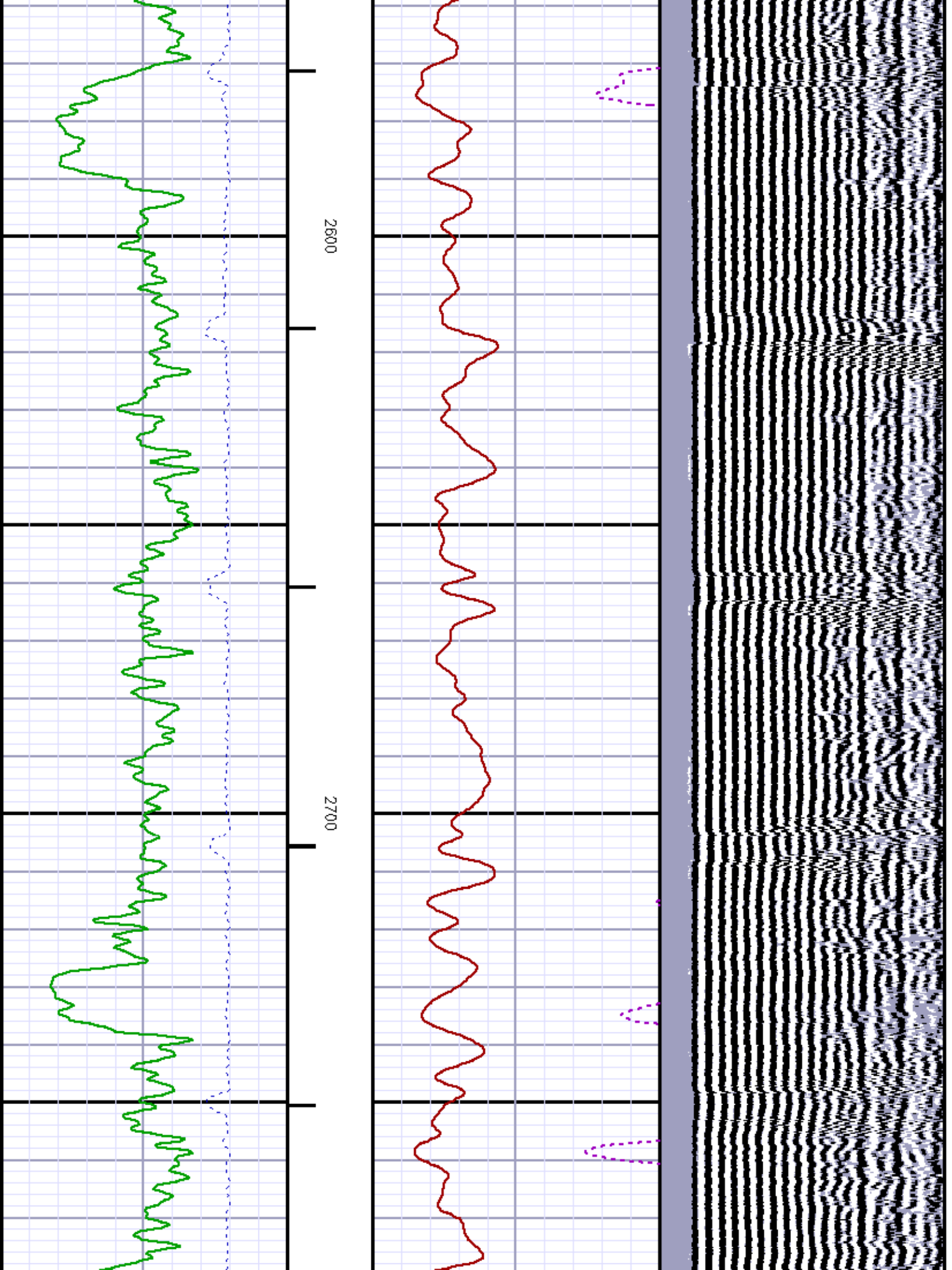


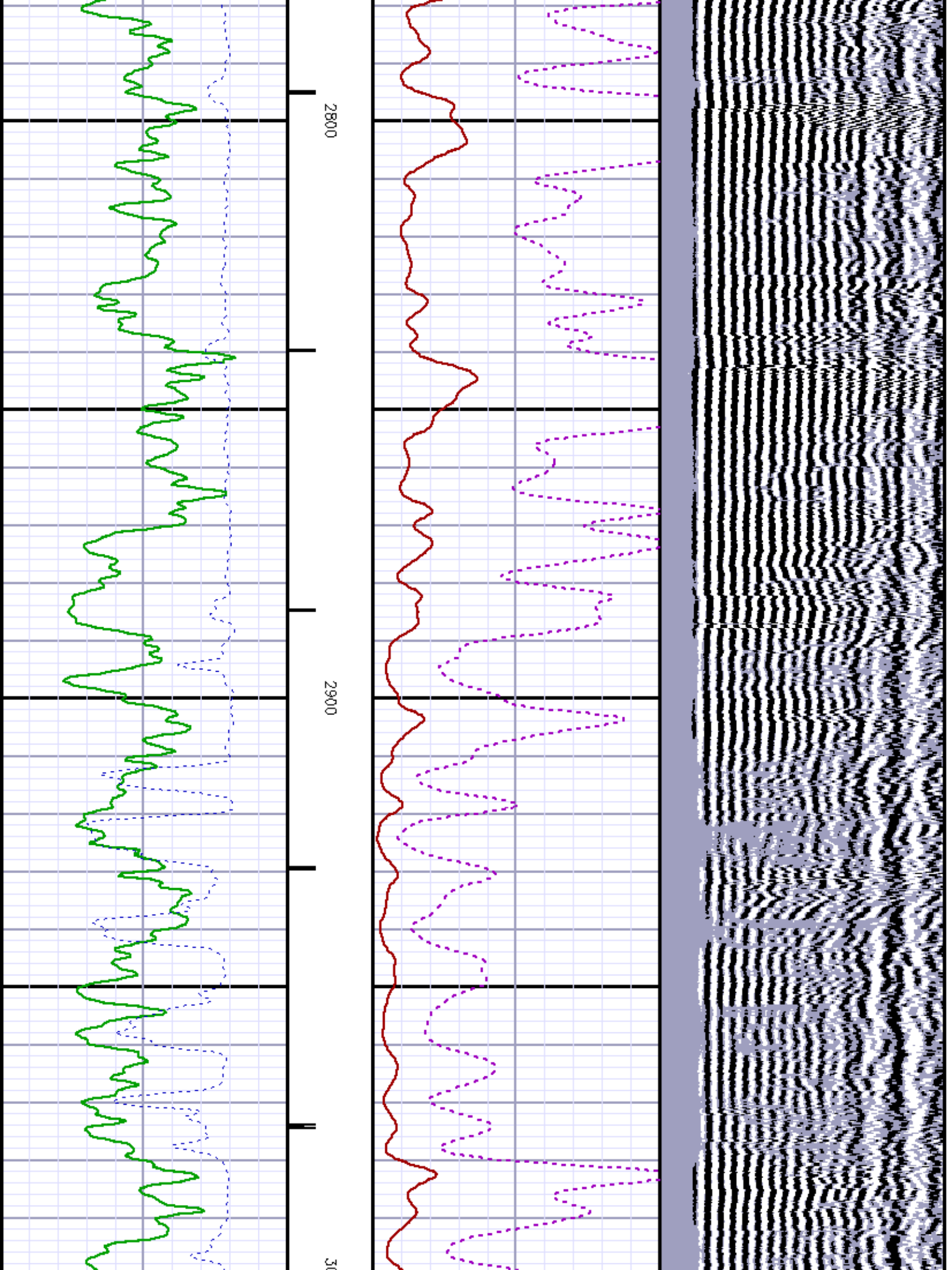


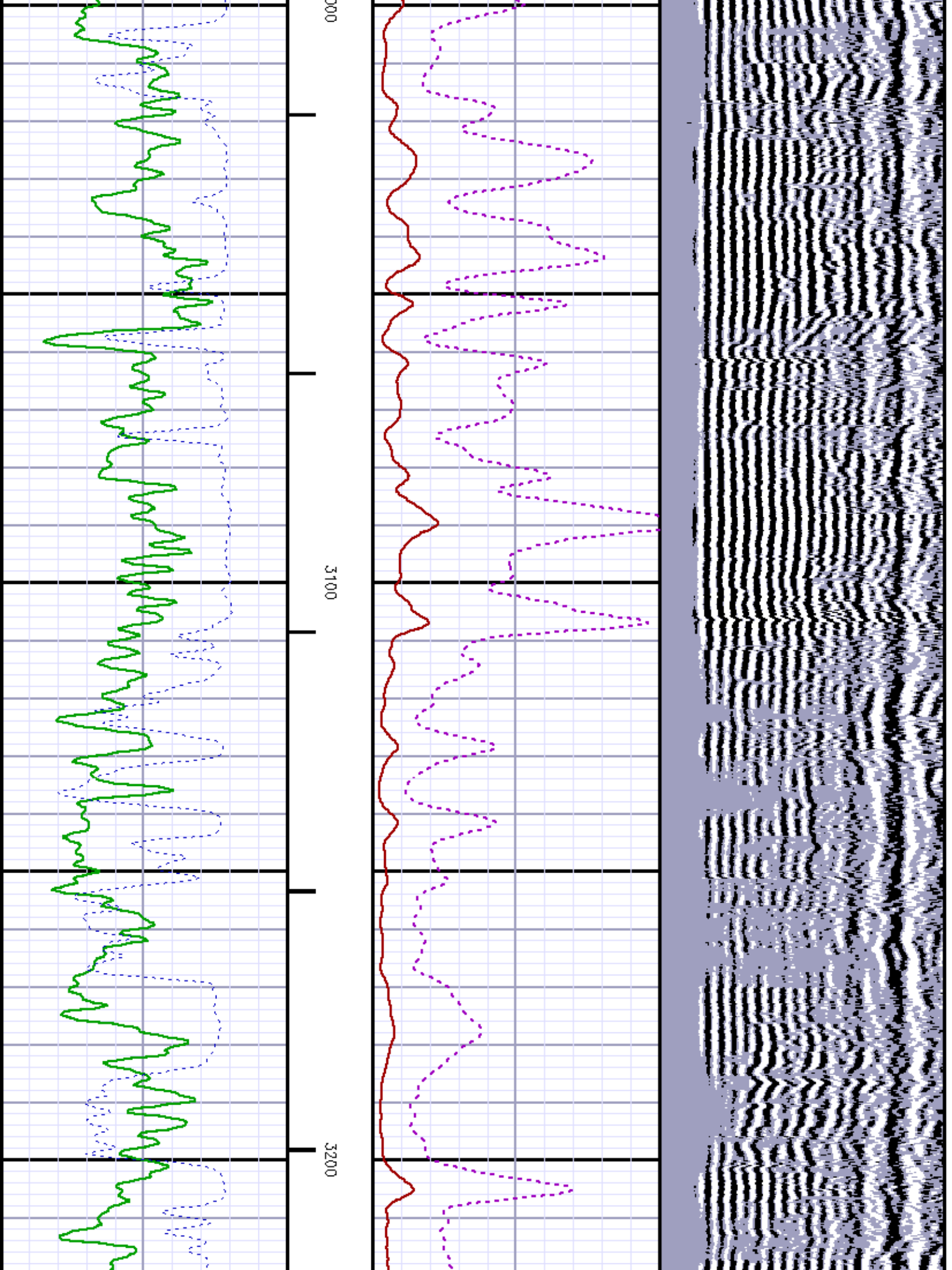


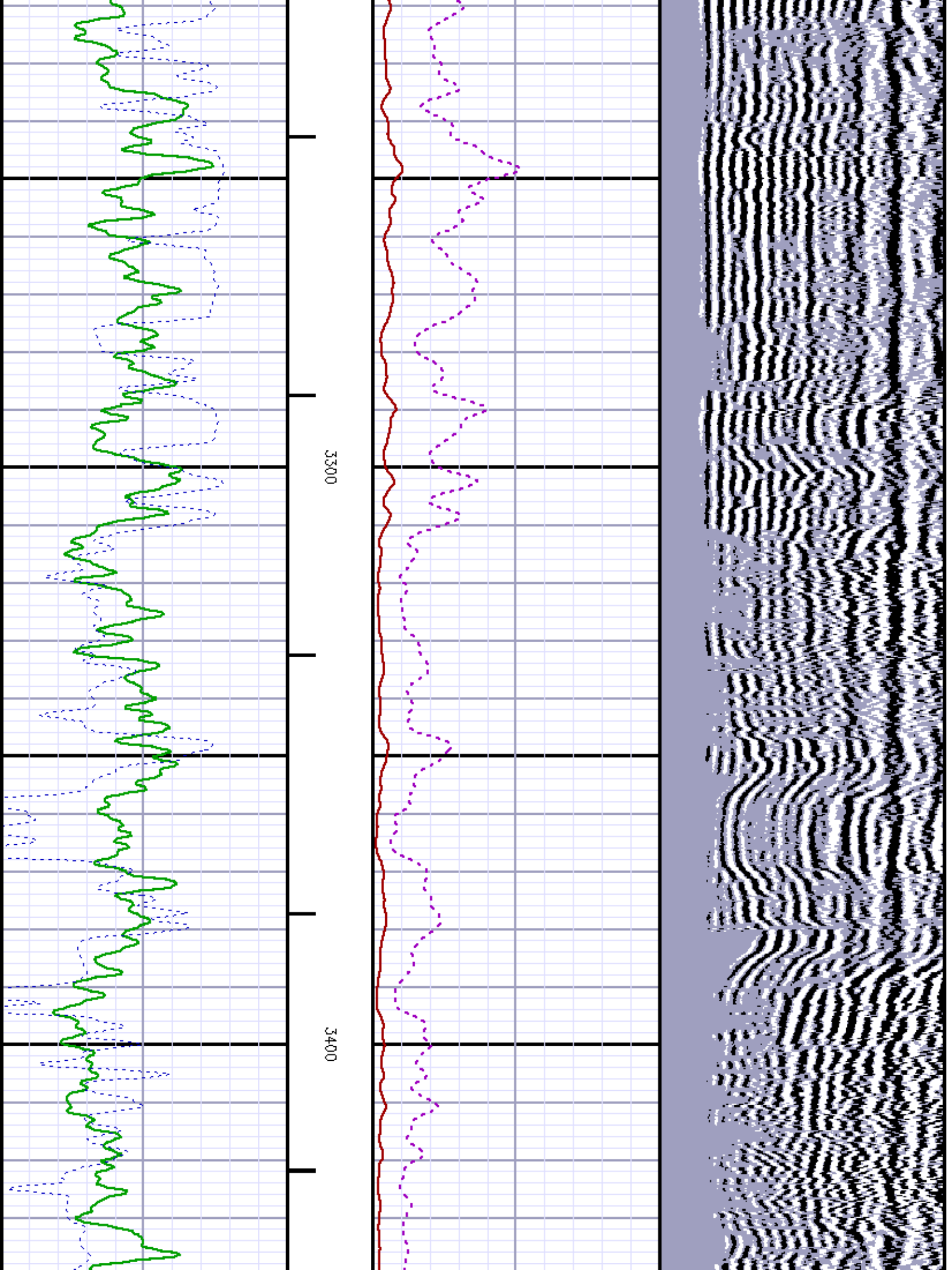


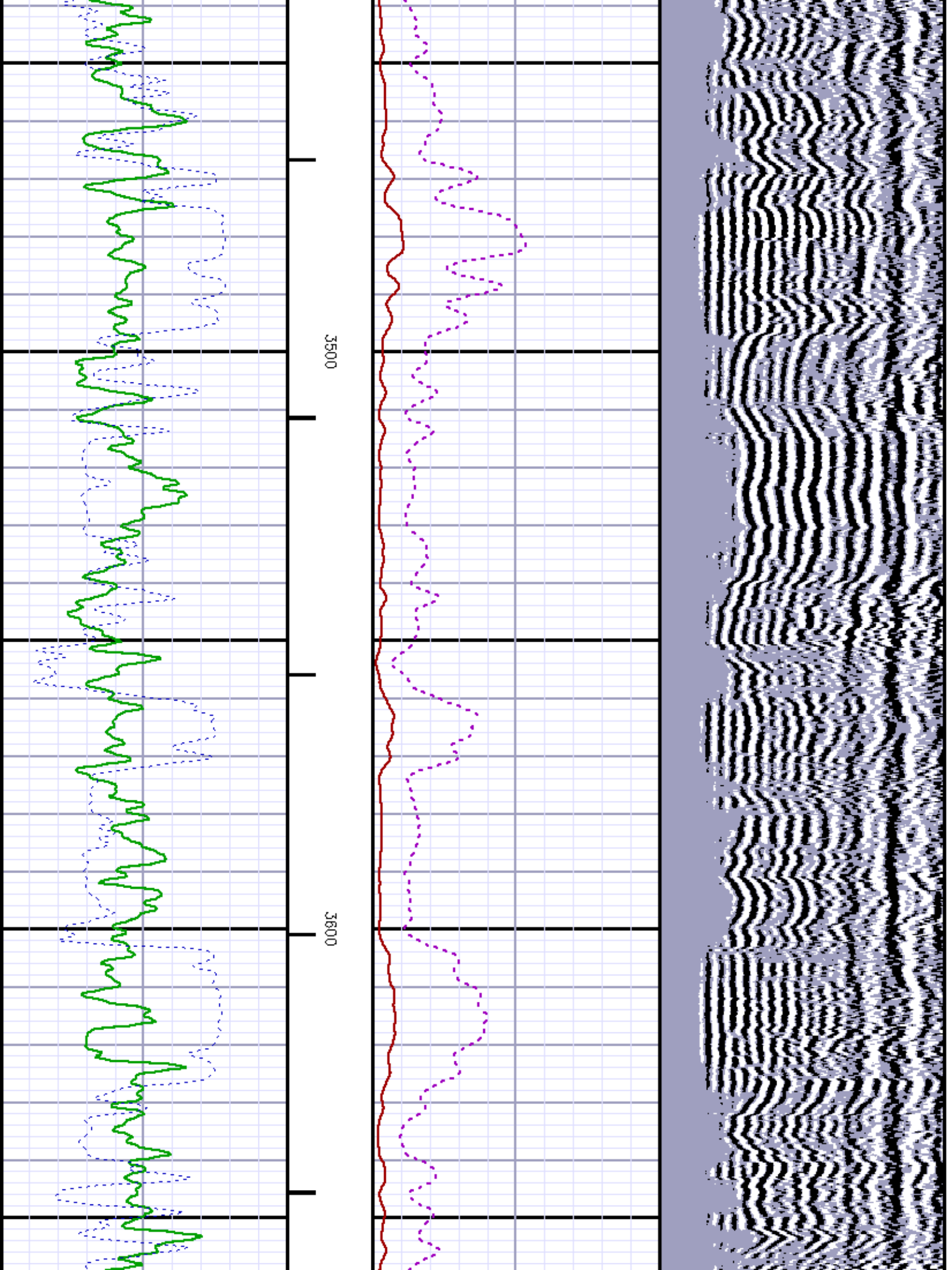


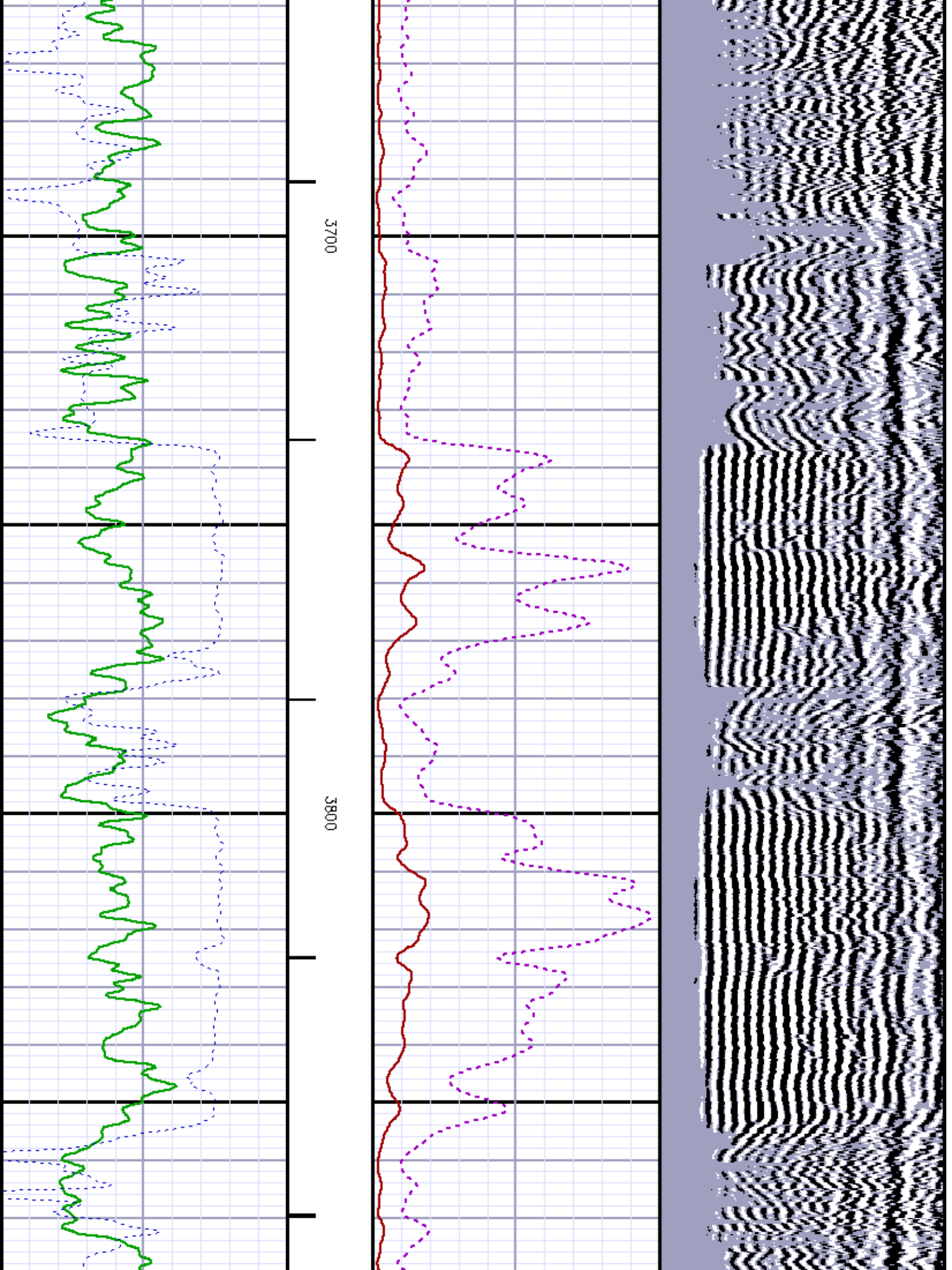


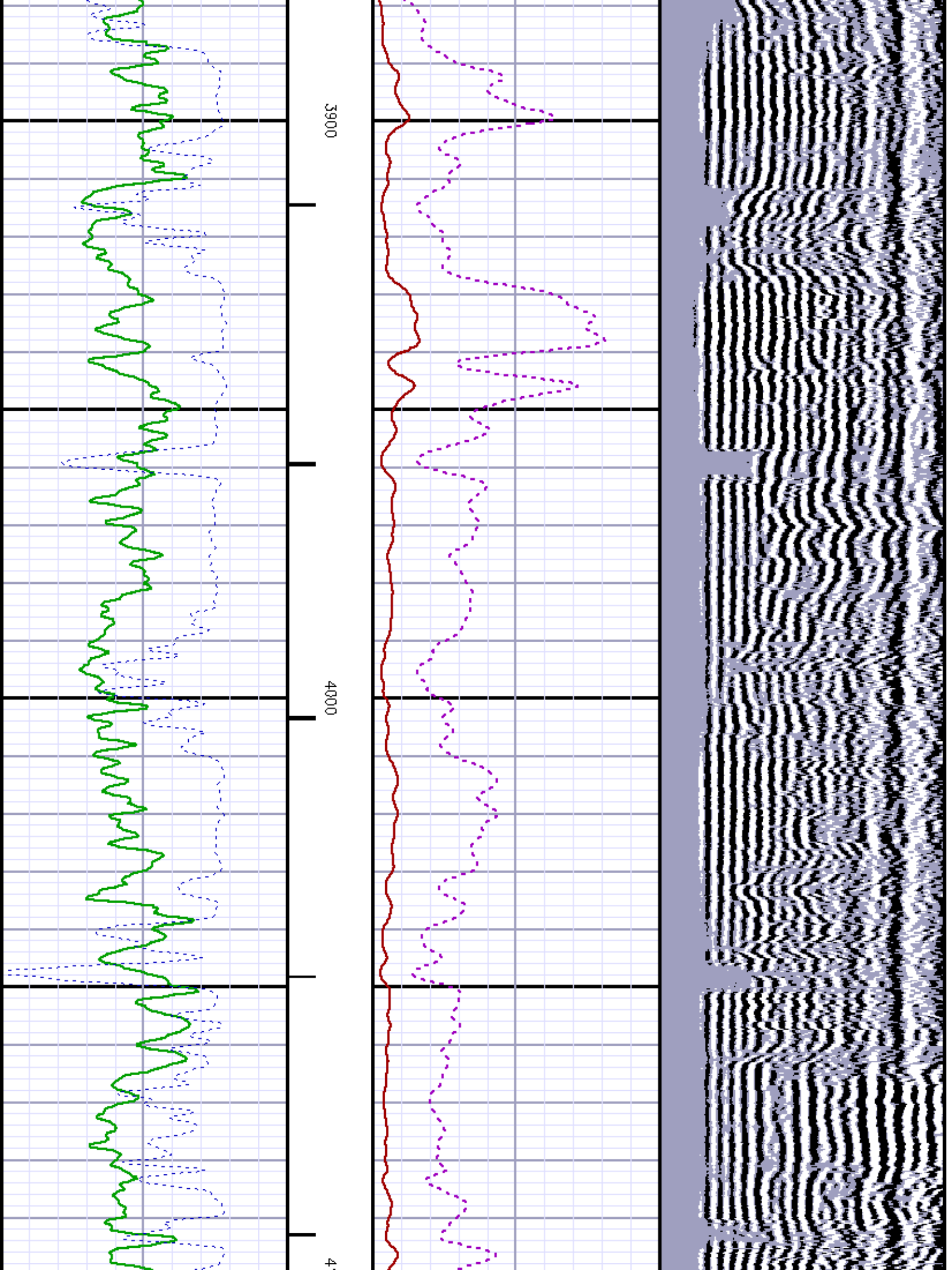


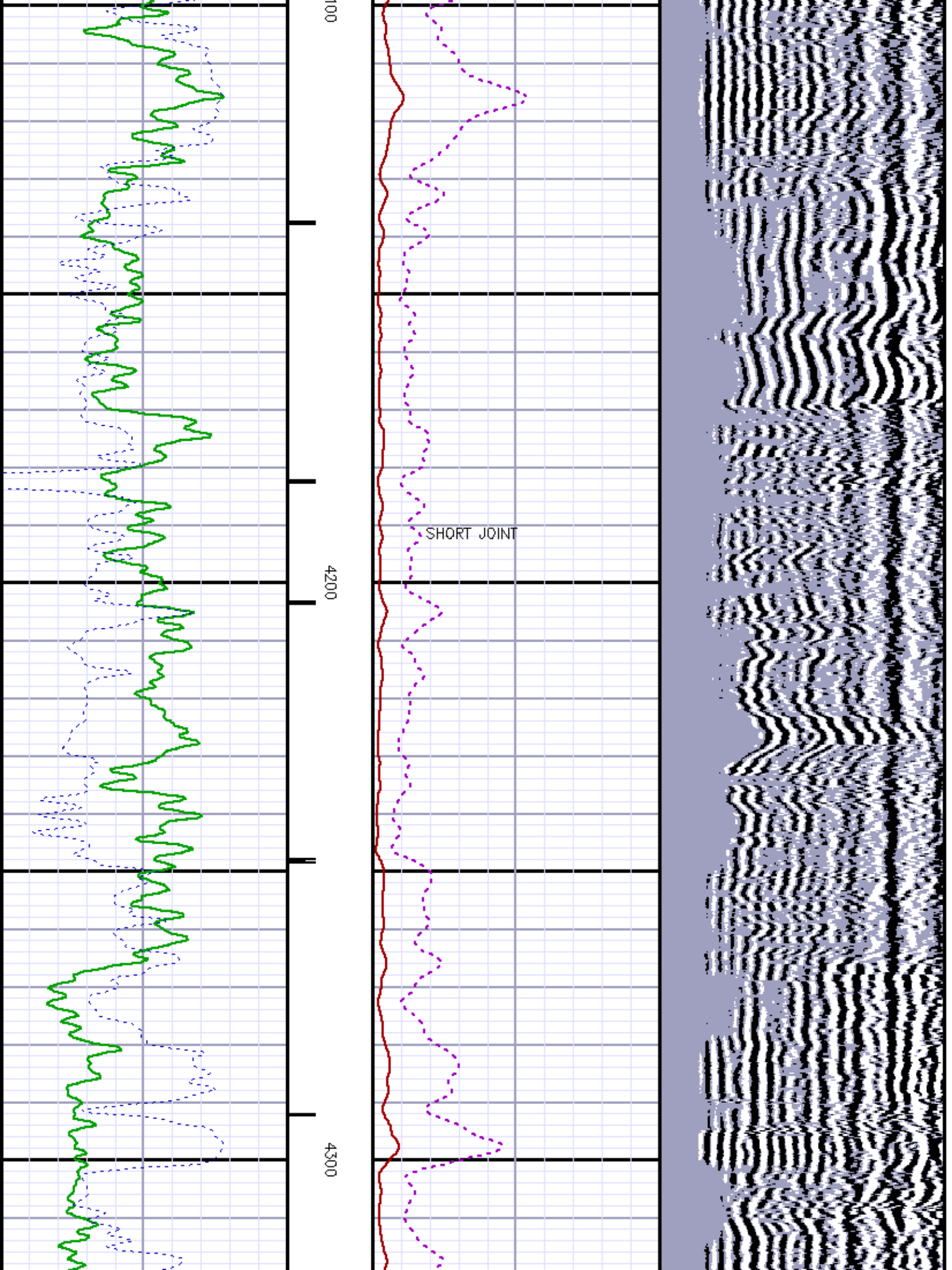


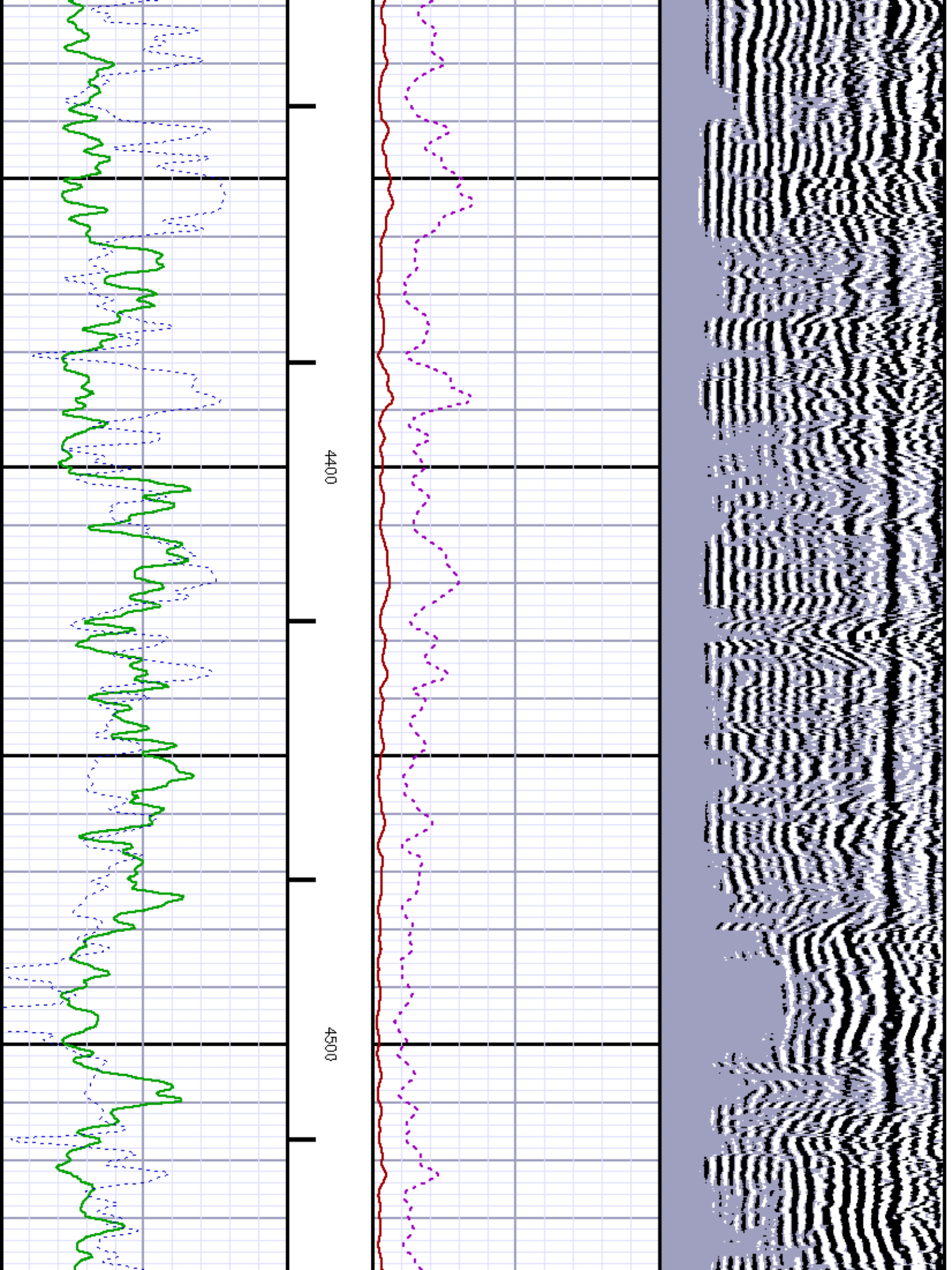


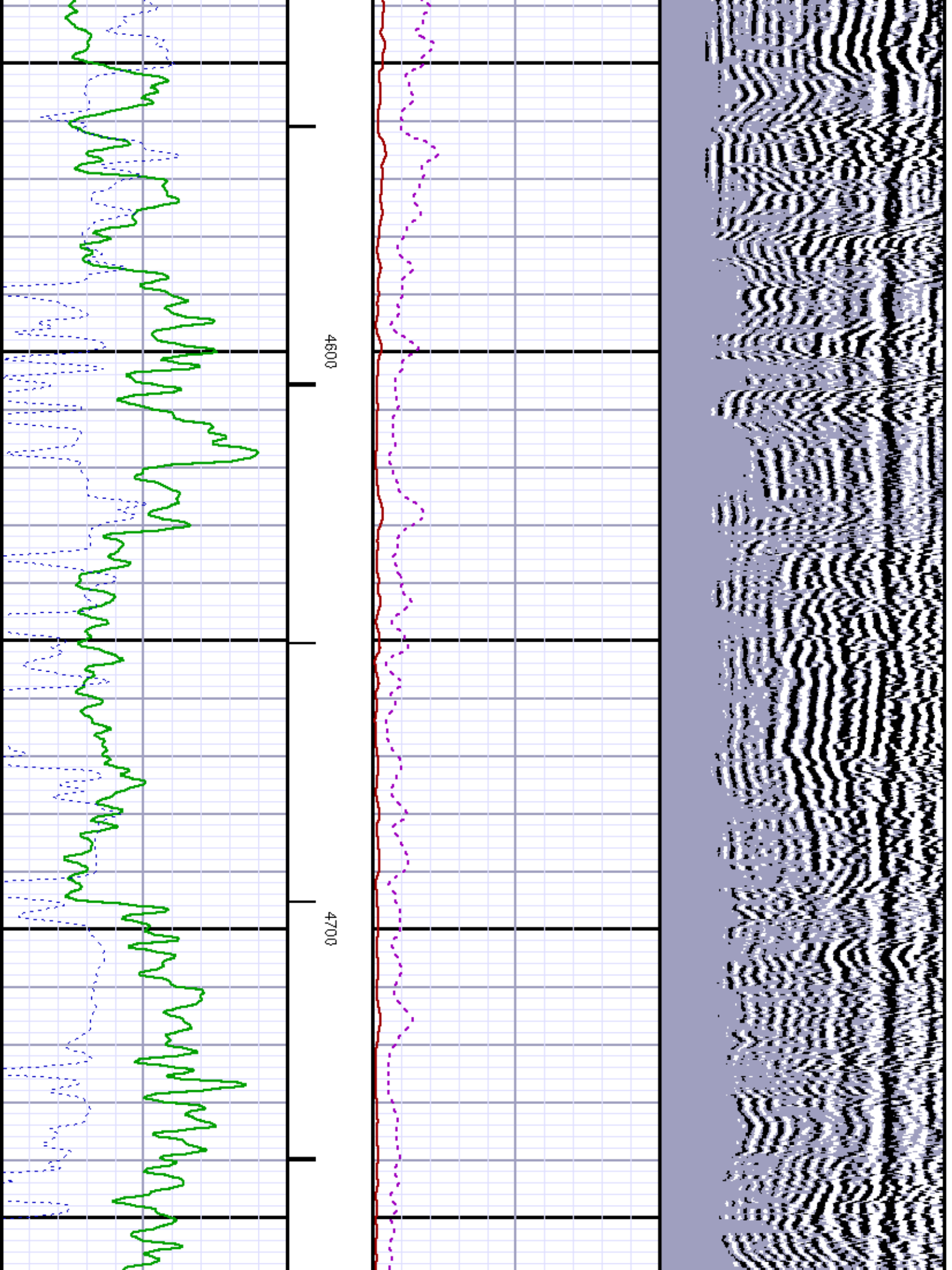


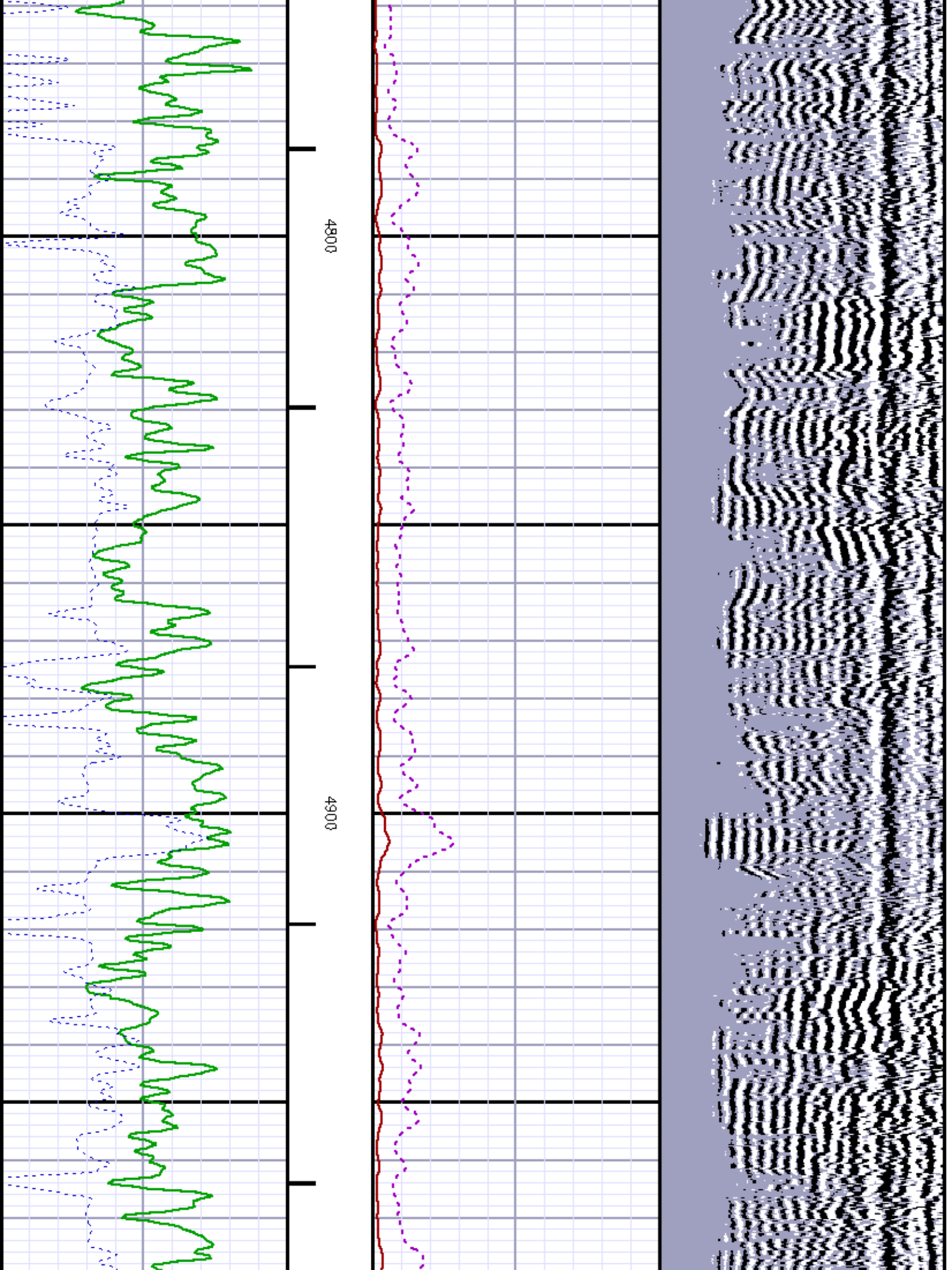


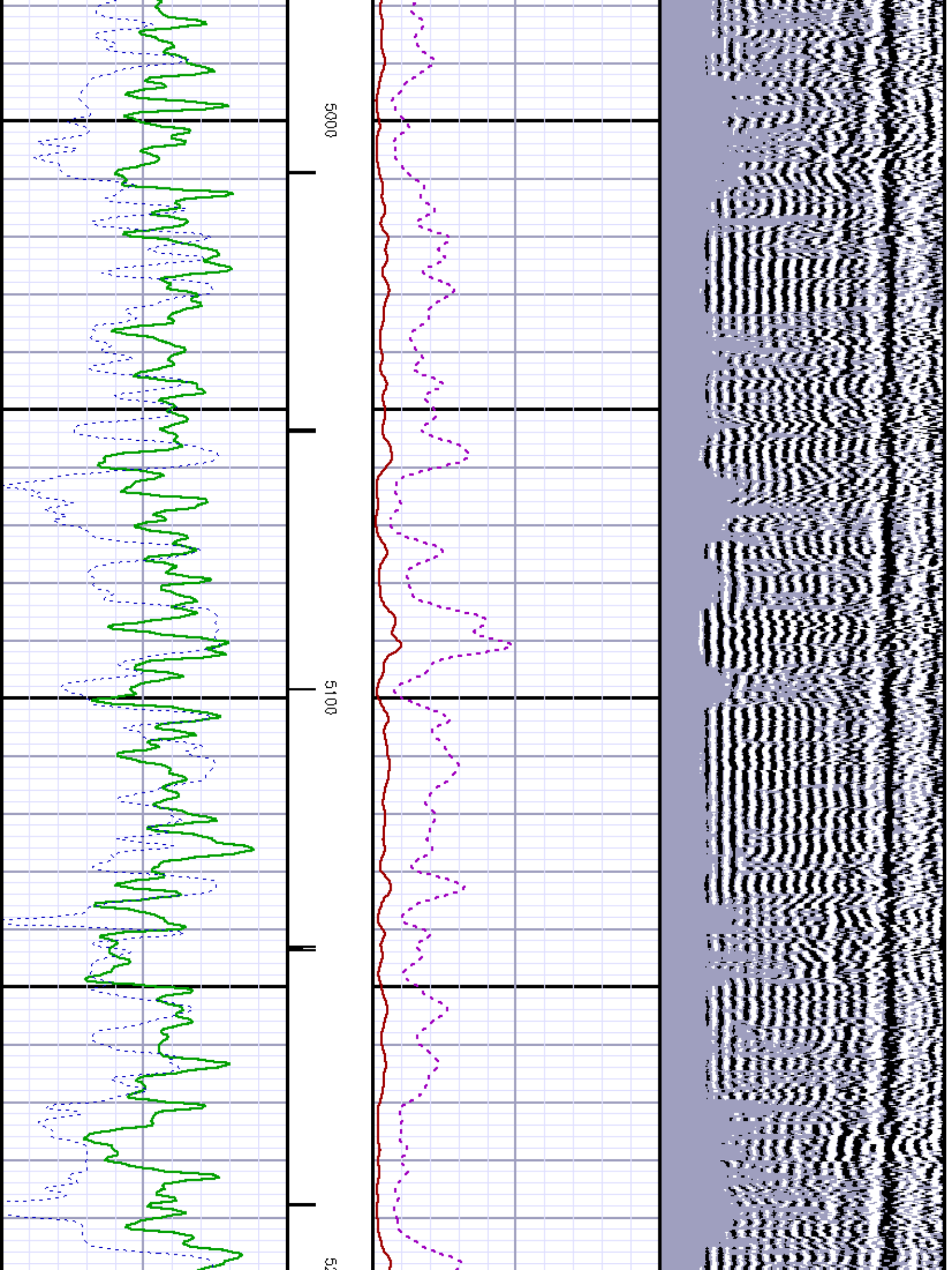


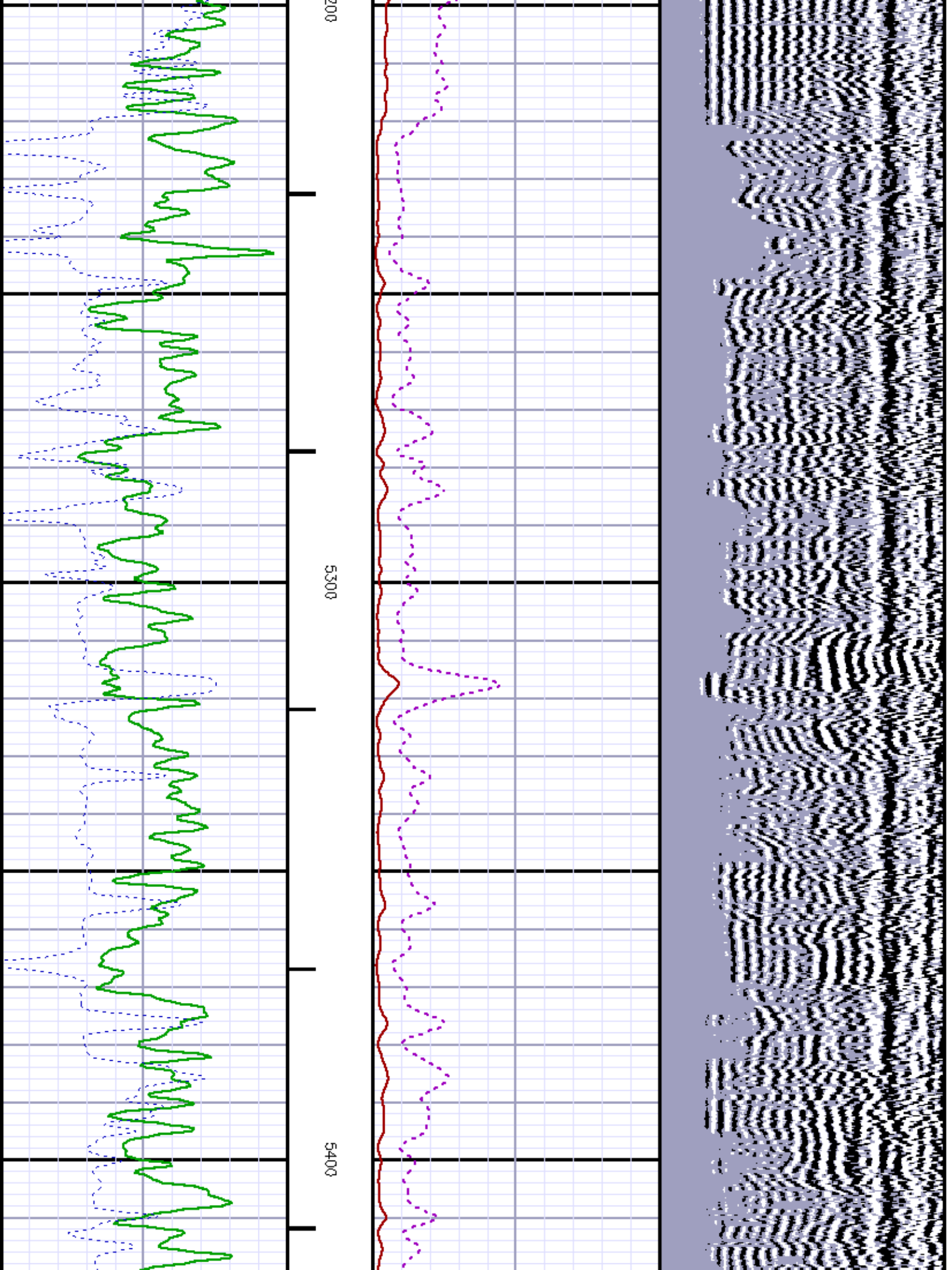


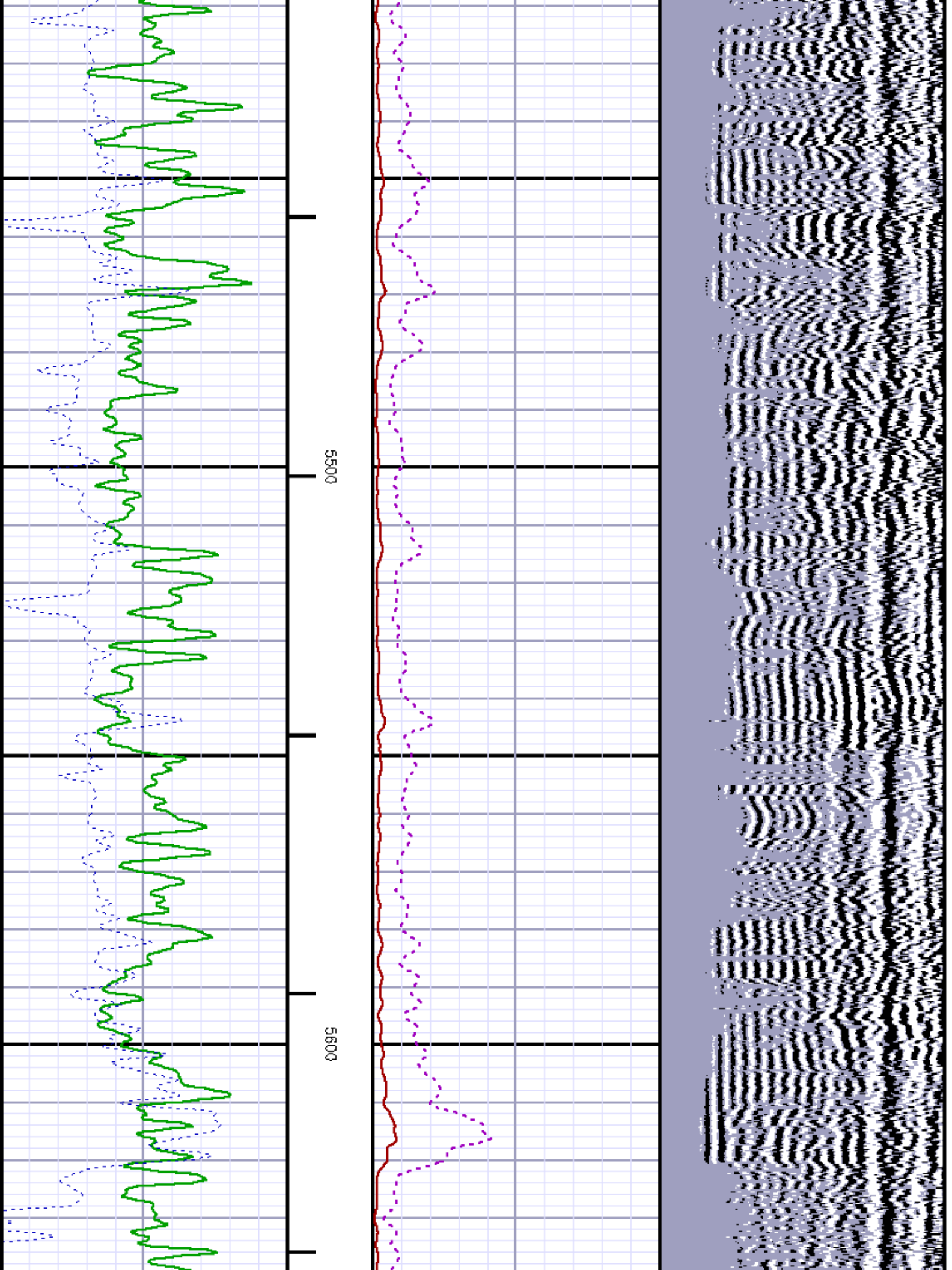


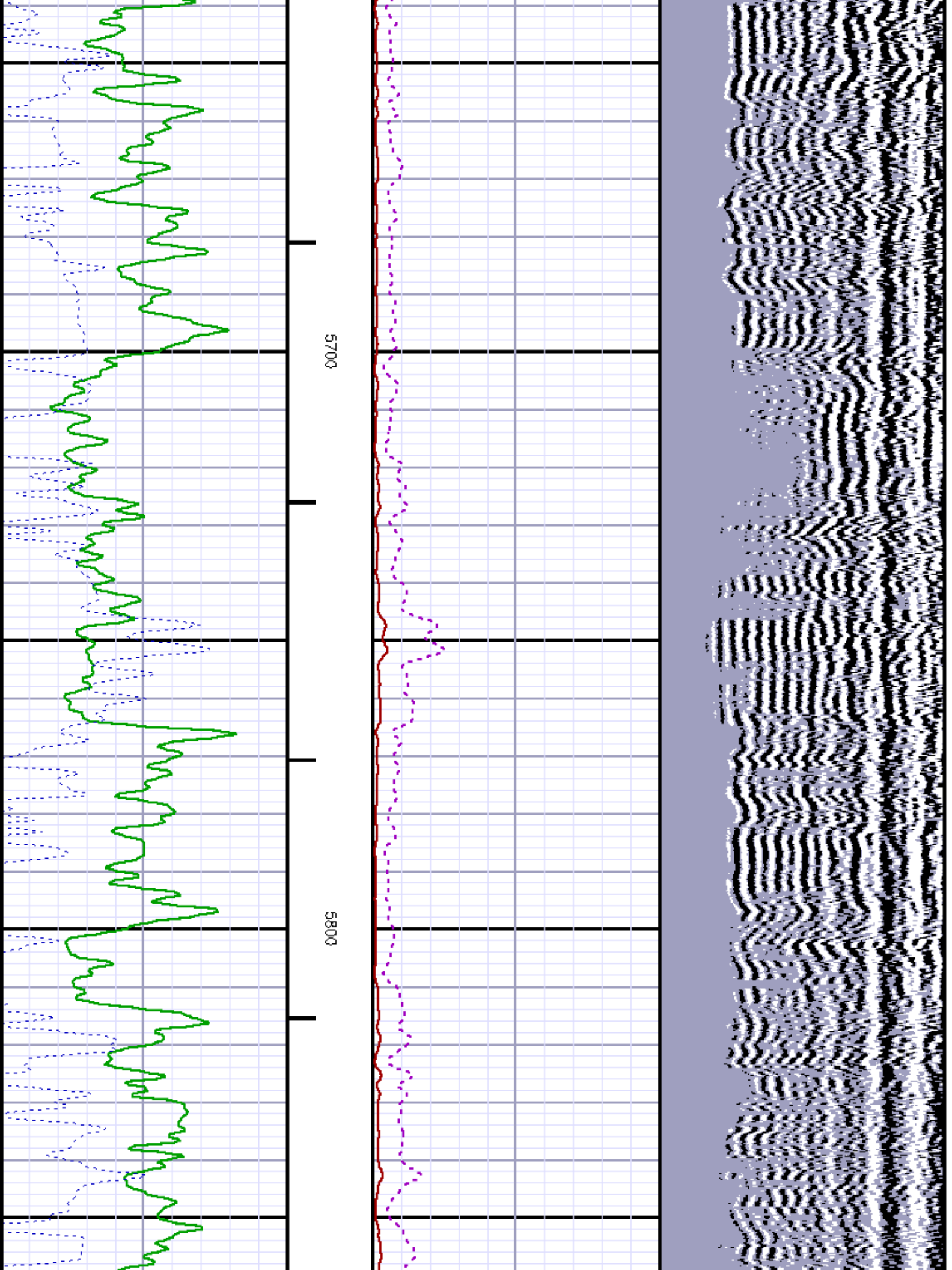


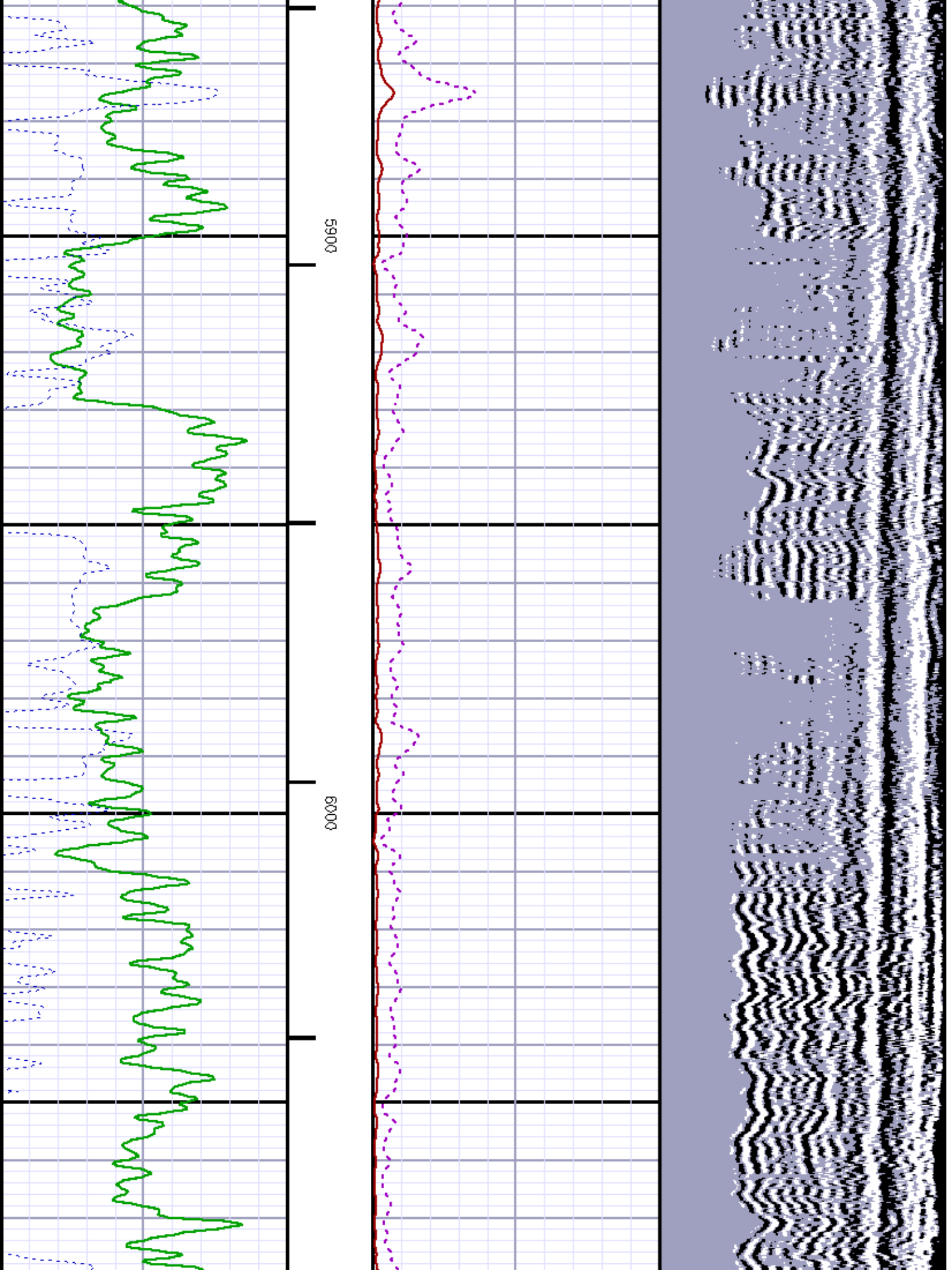


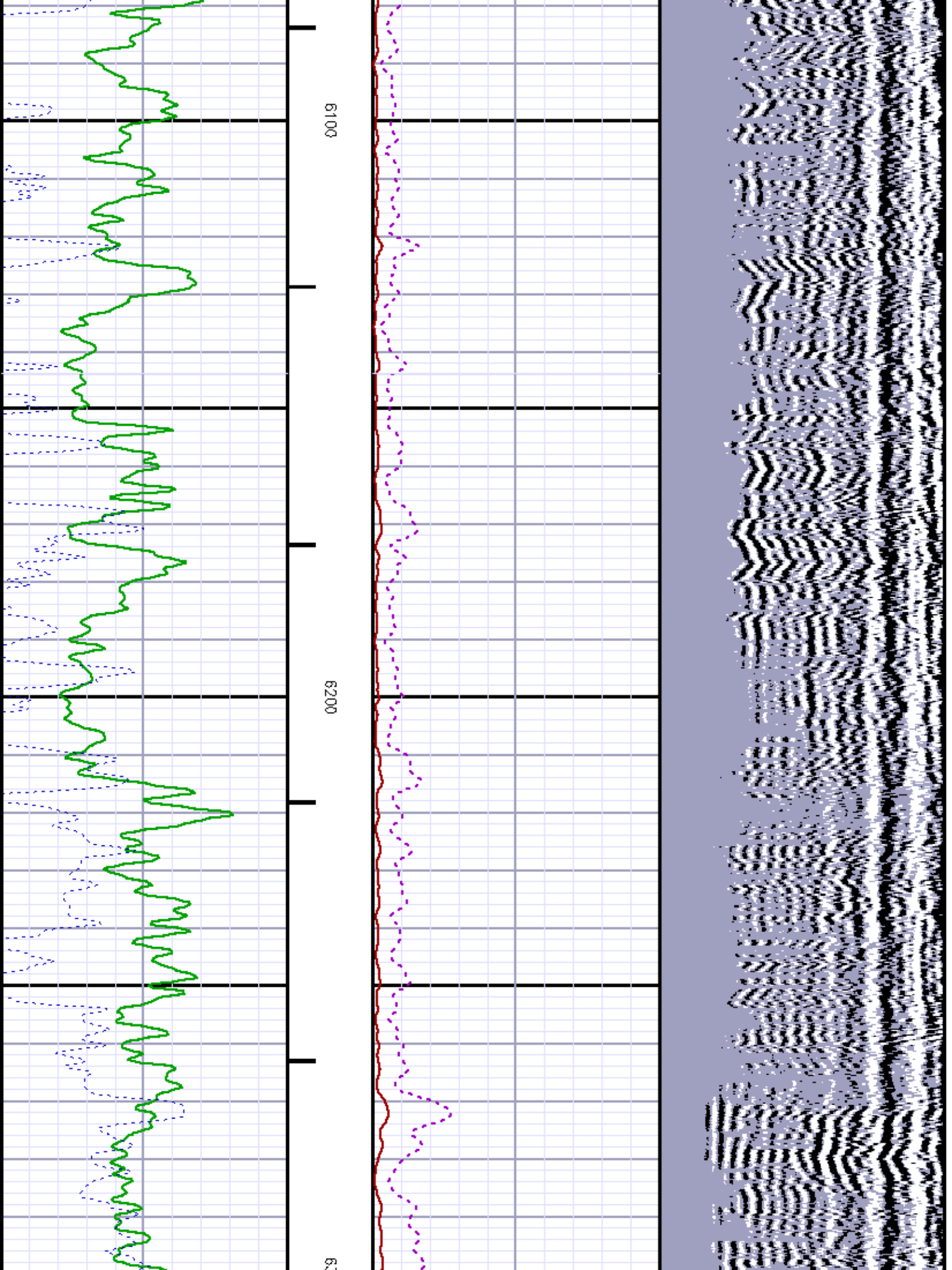


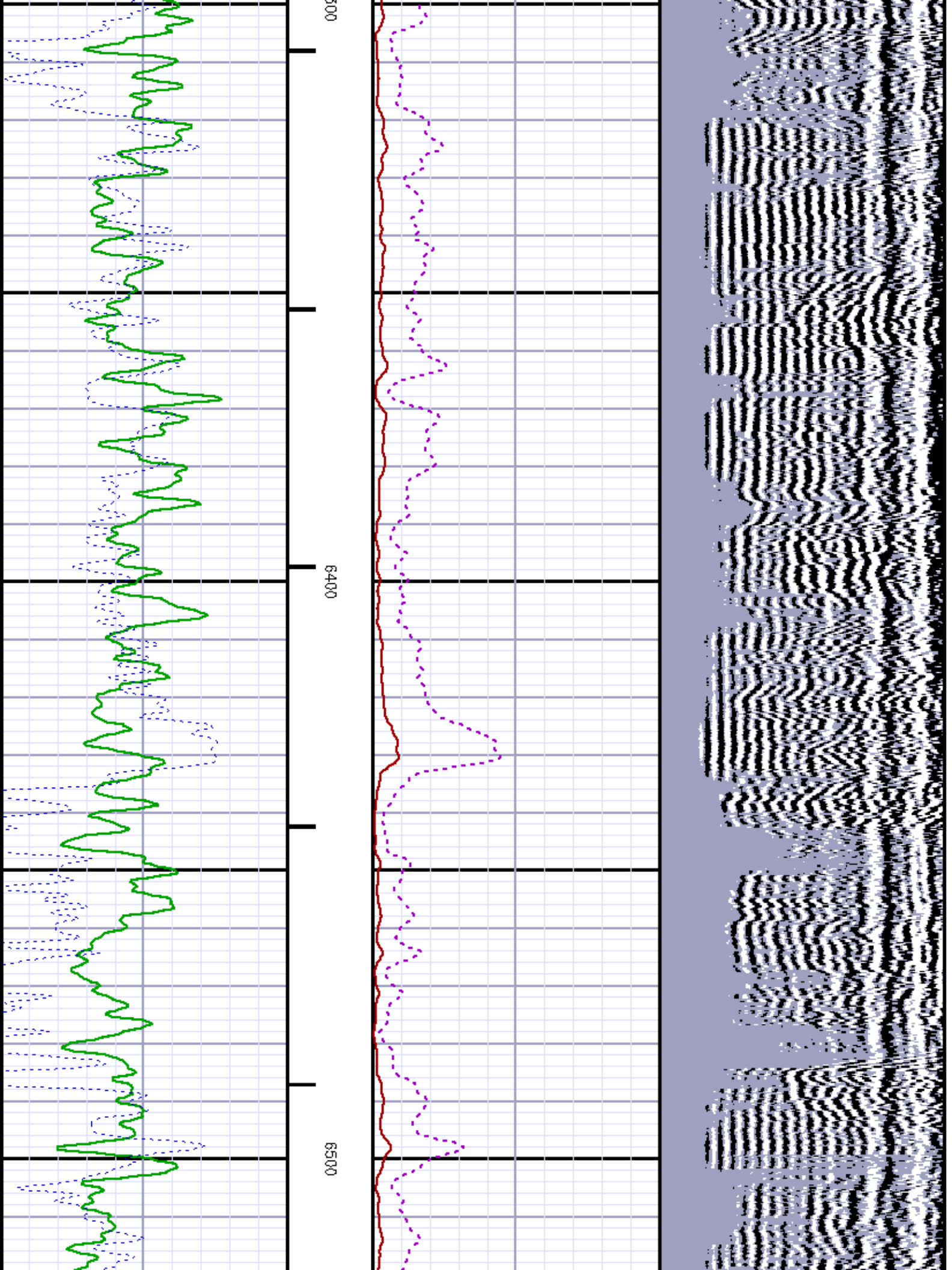


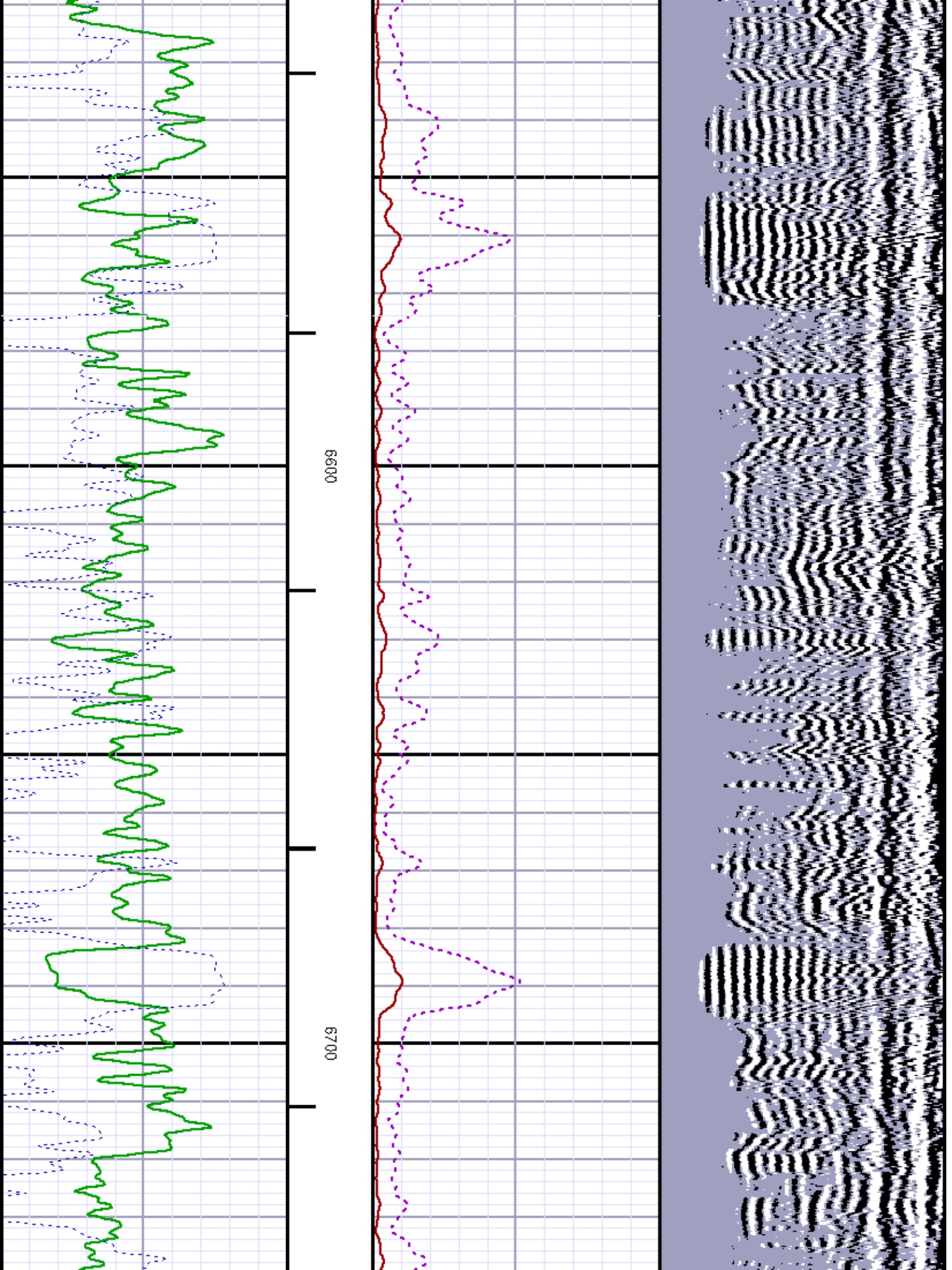


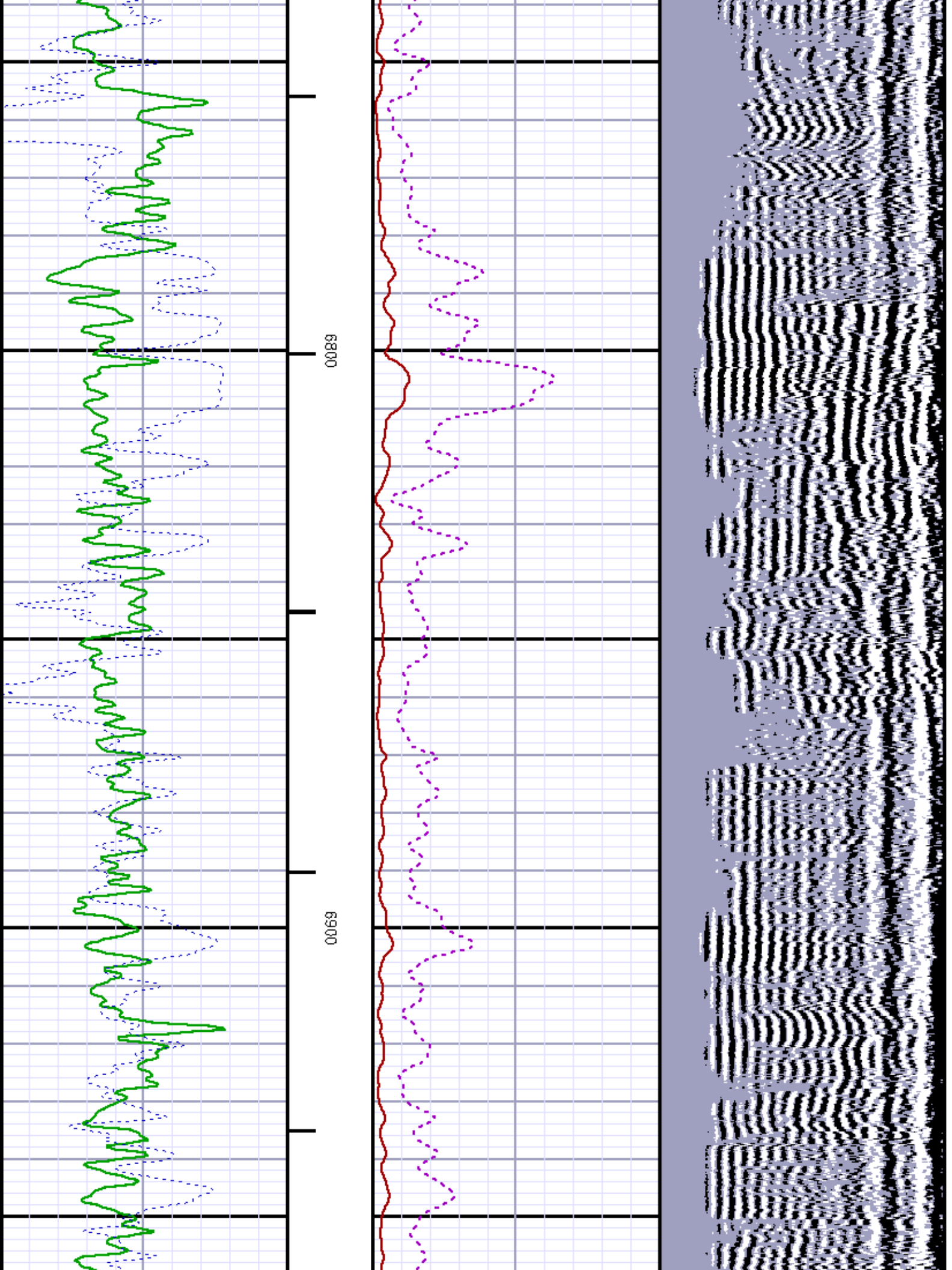


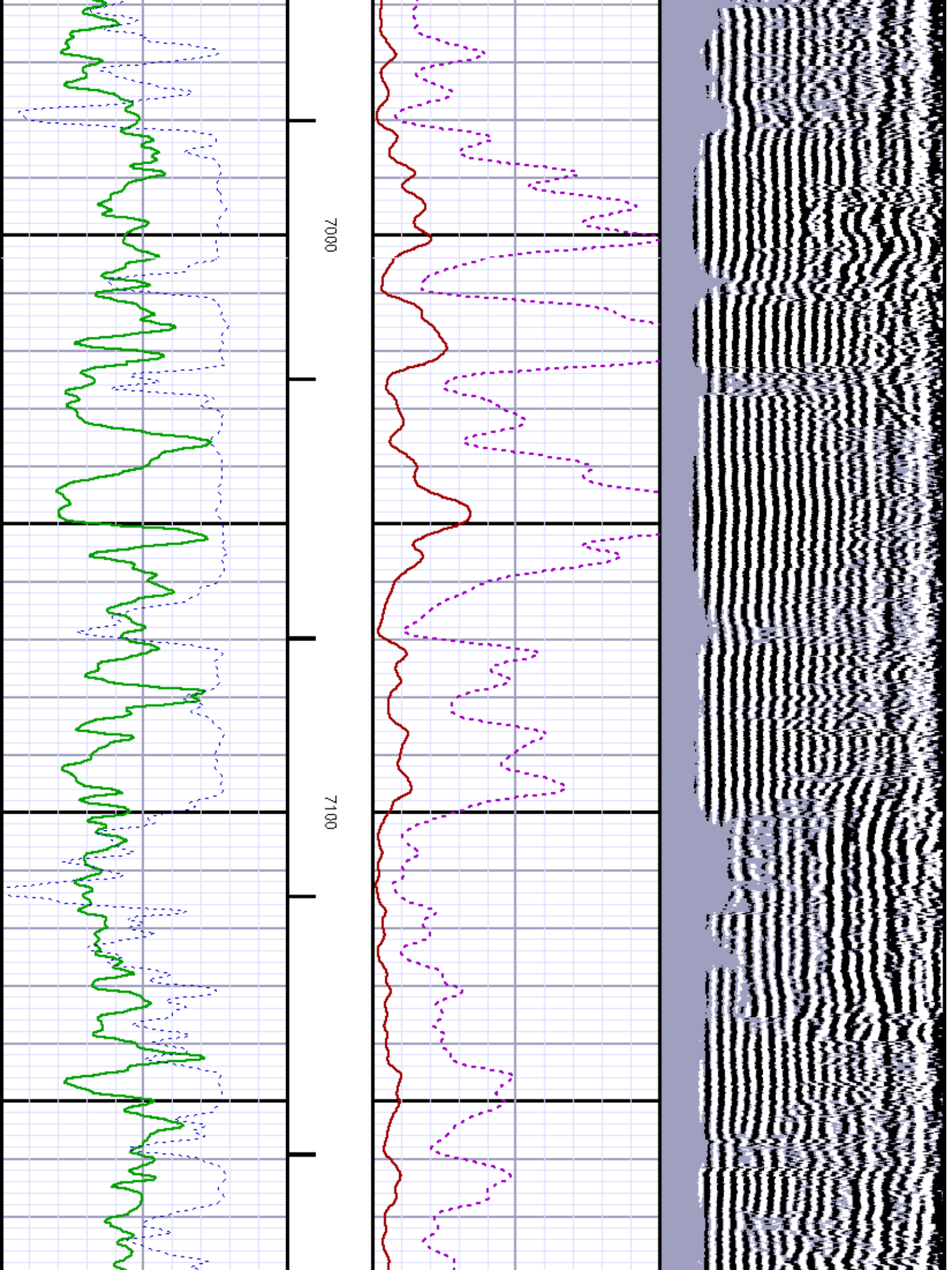


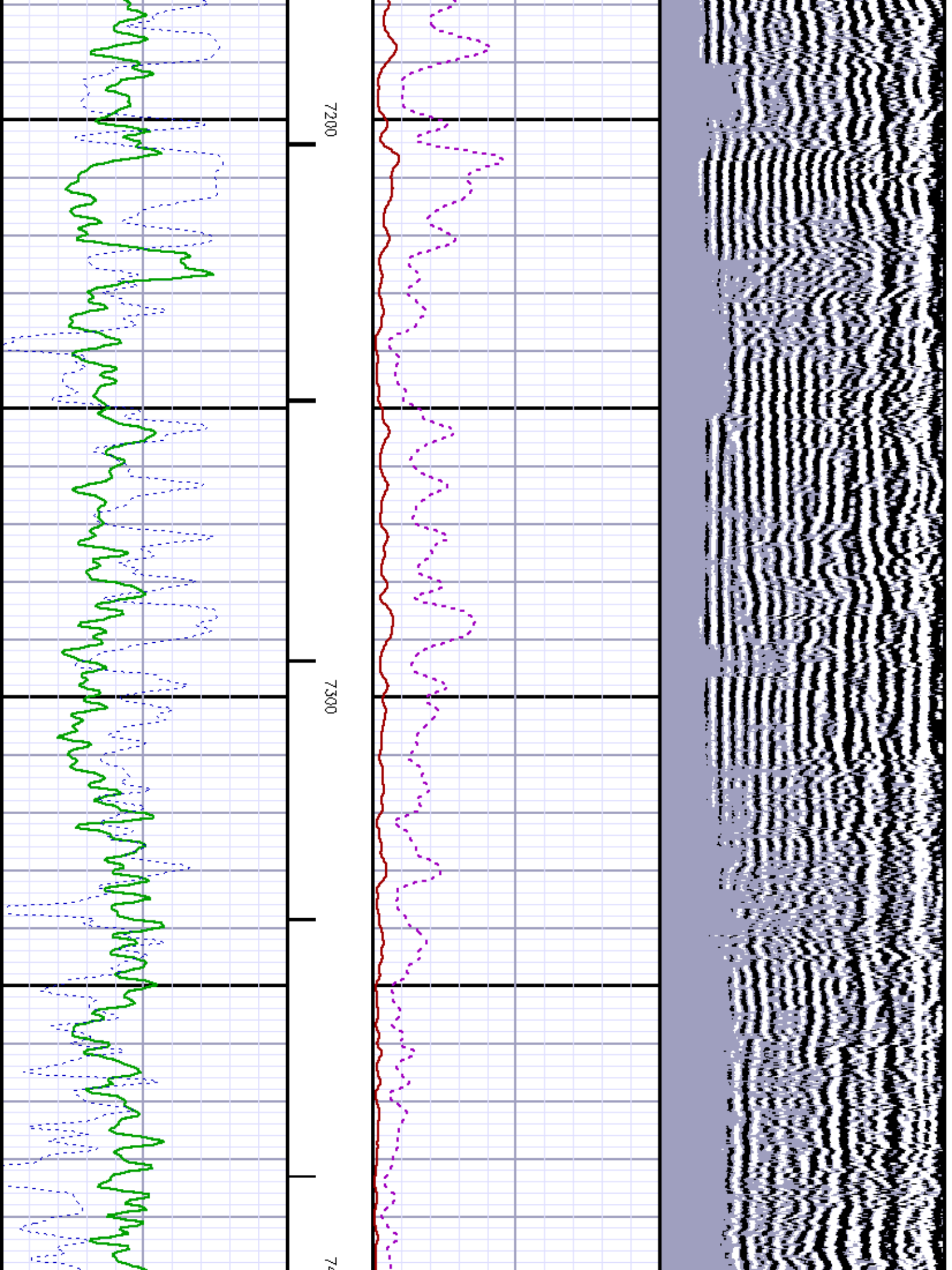


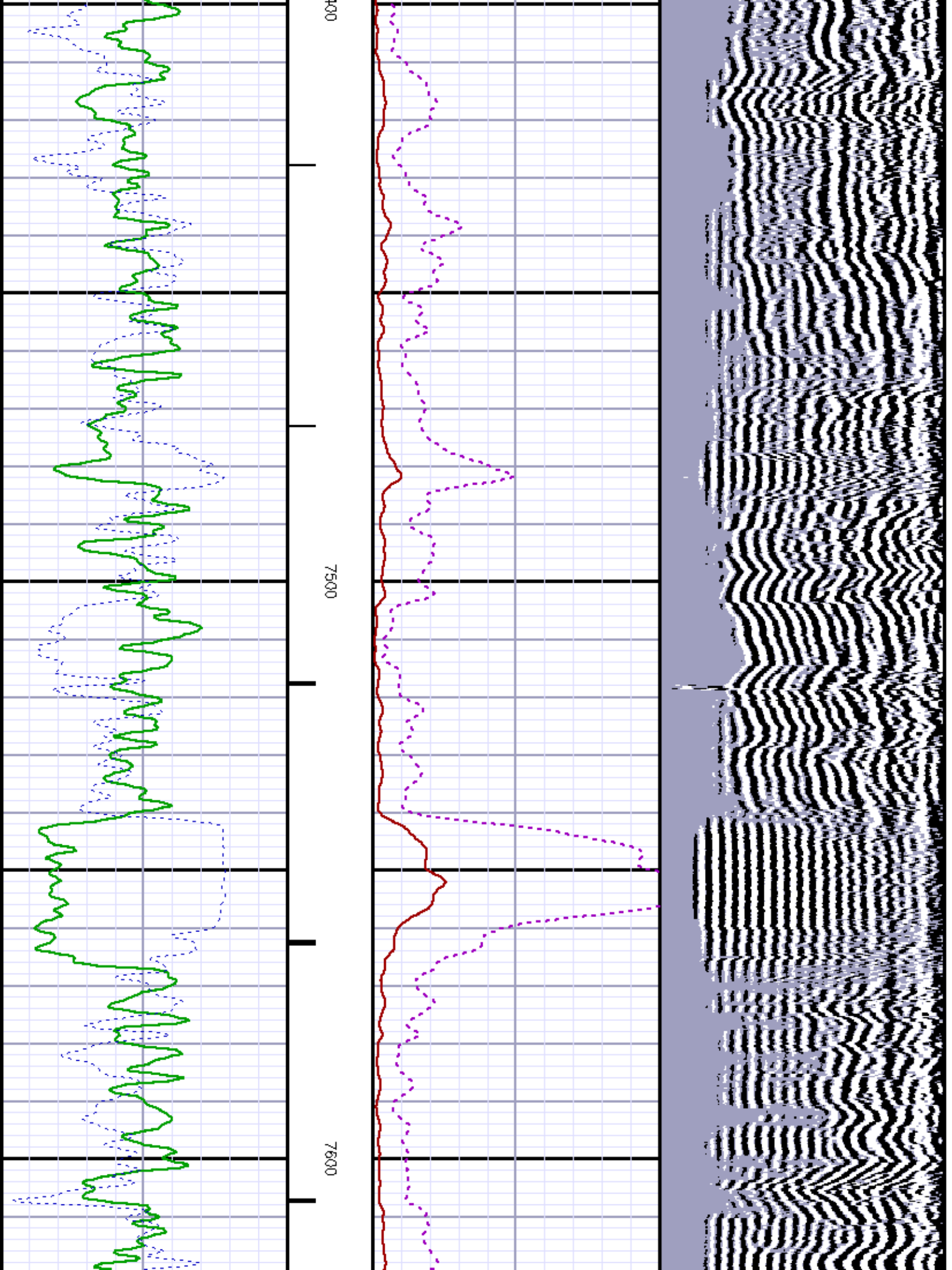


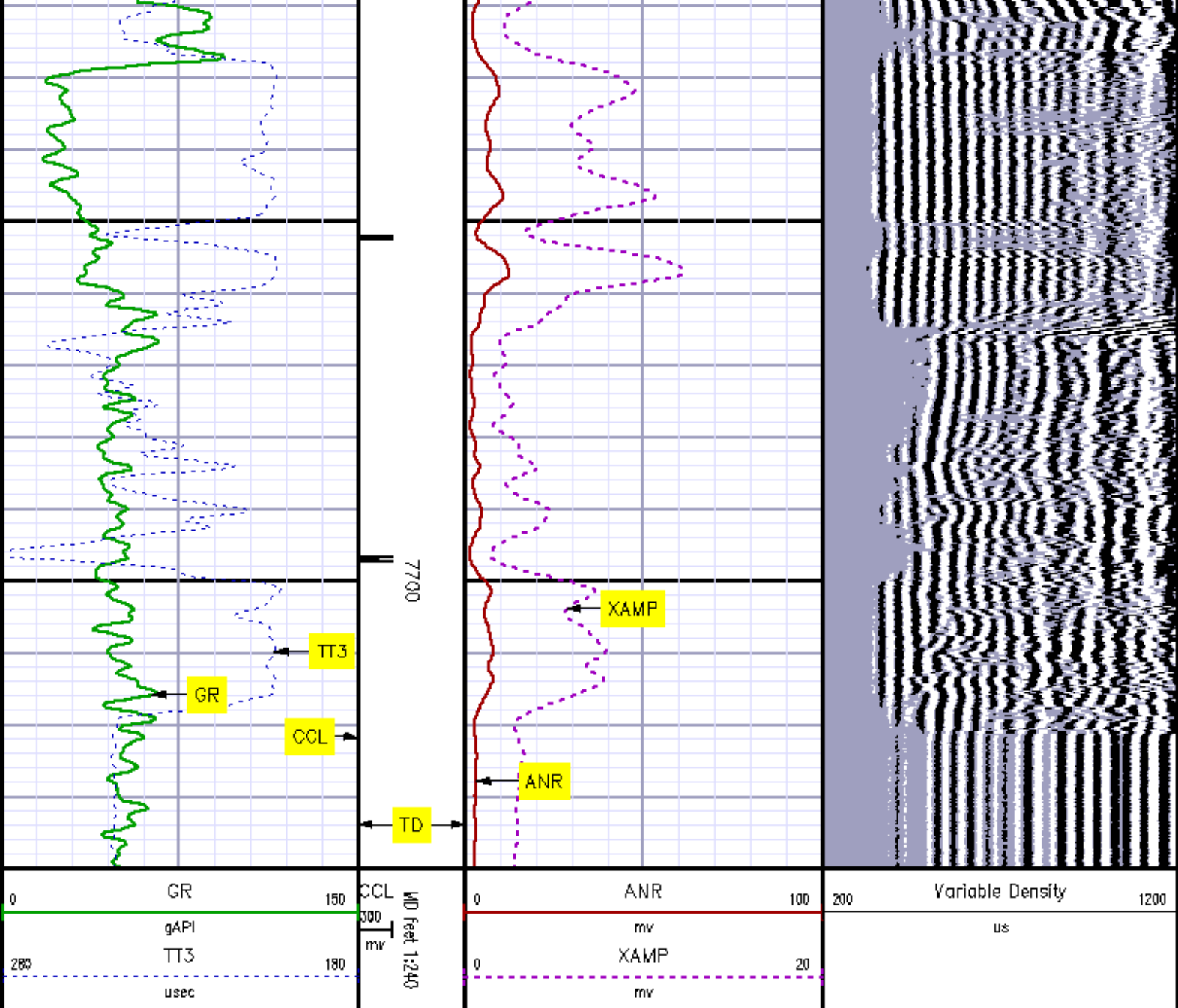










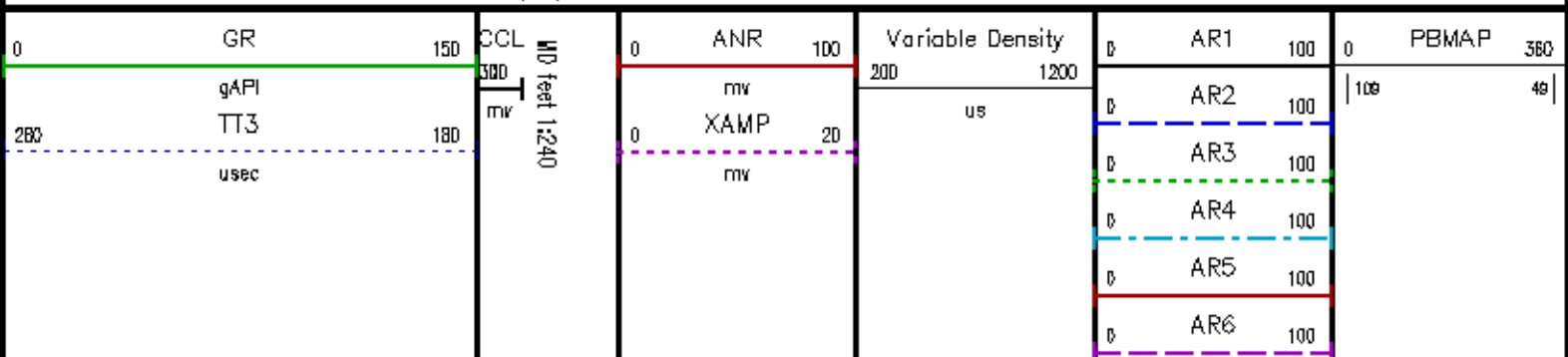


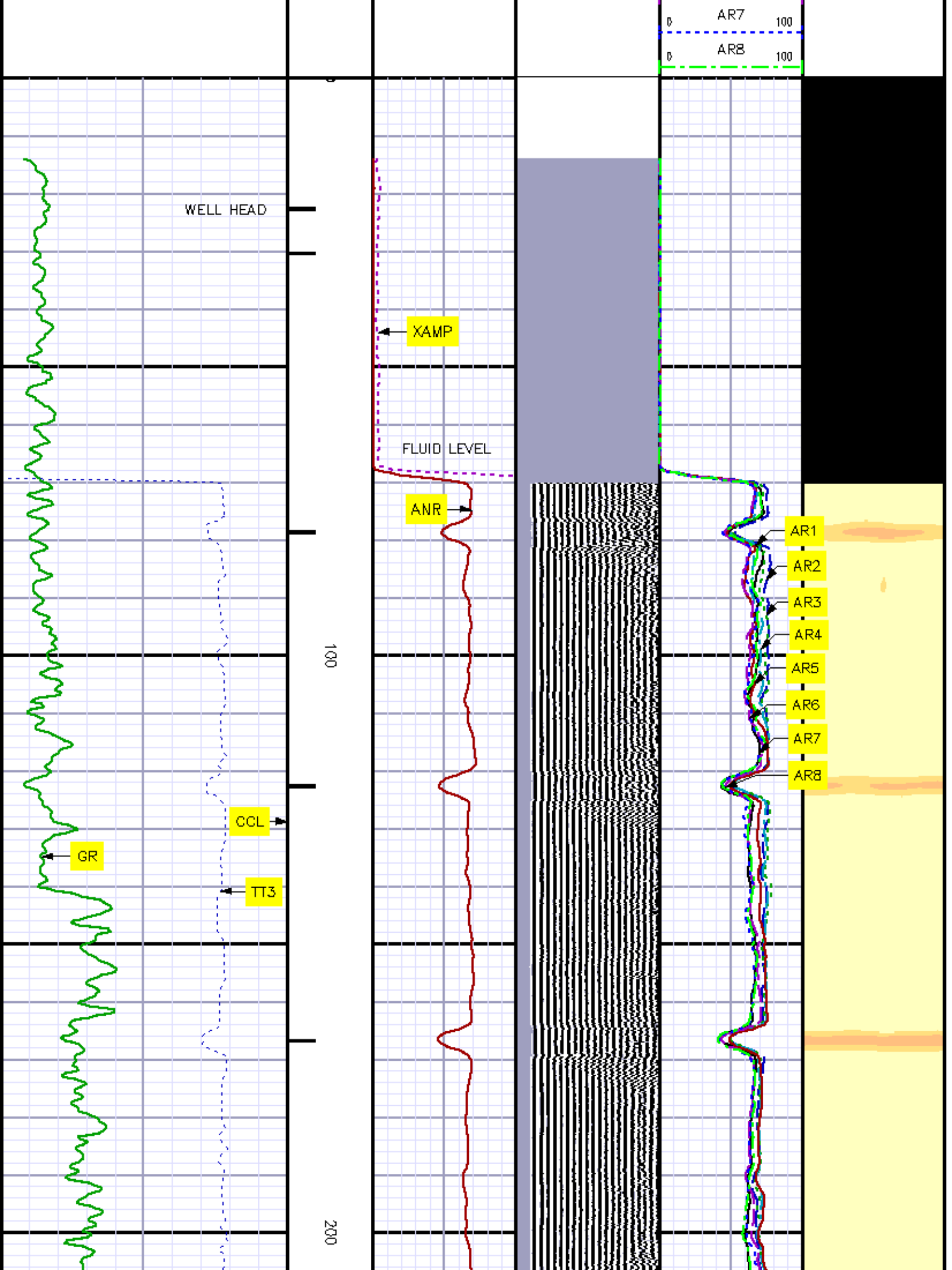
MAIN SECTION
SECONDARY PRESENTATION
0 PSI

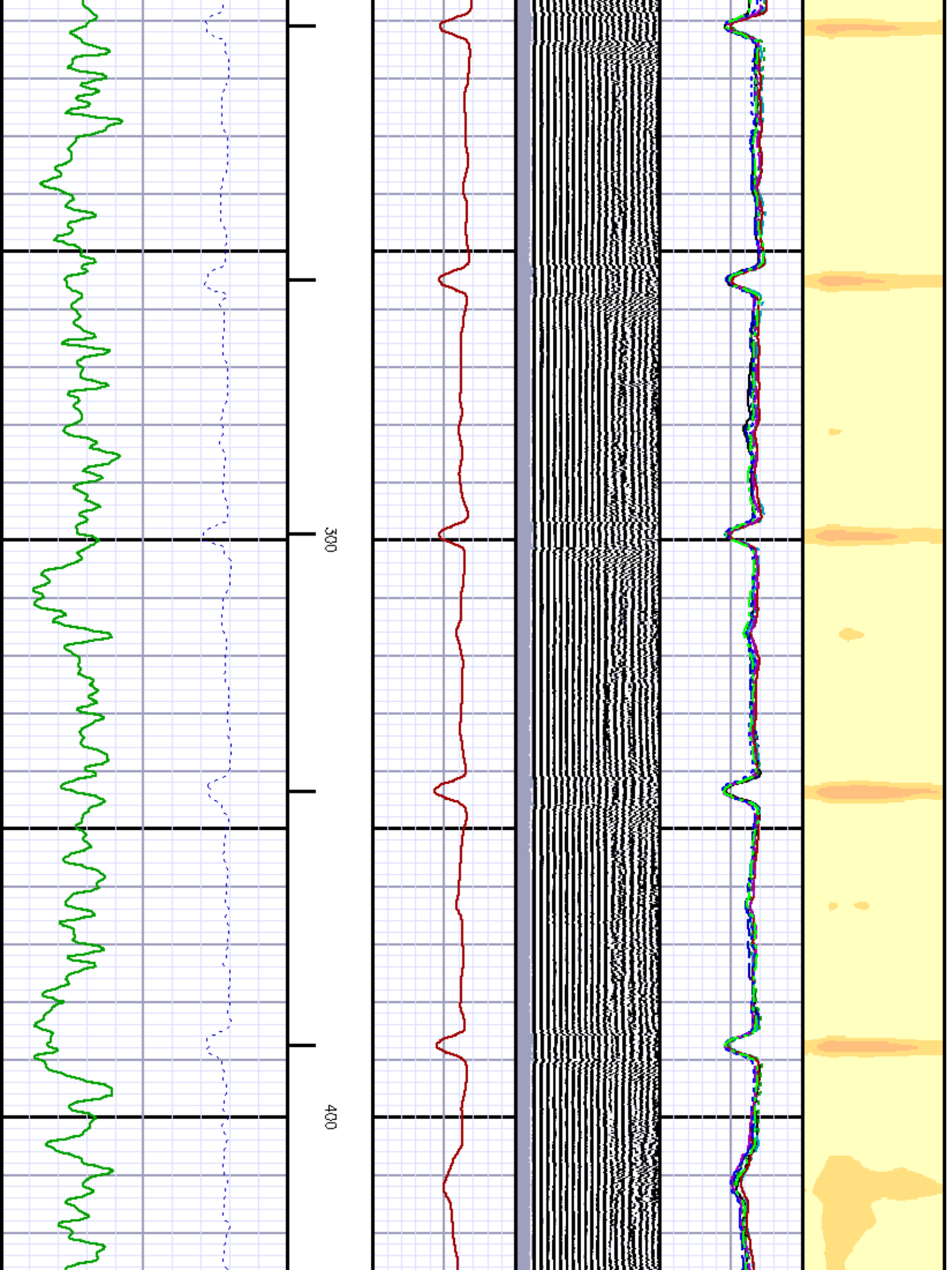
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
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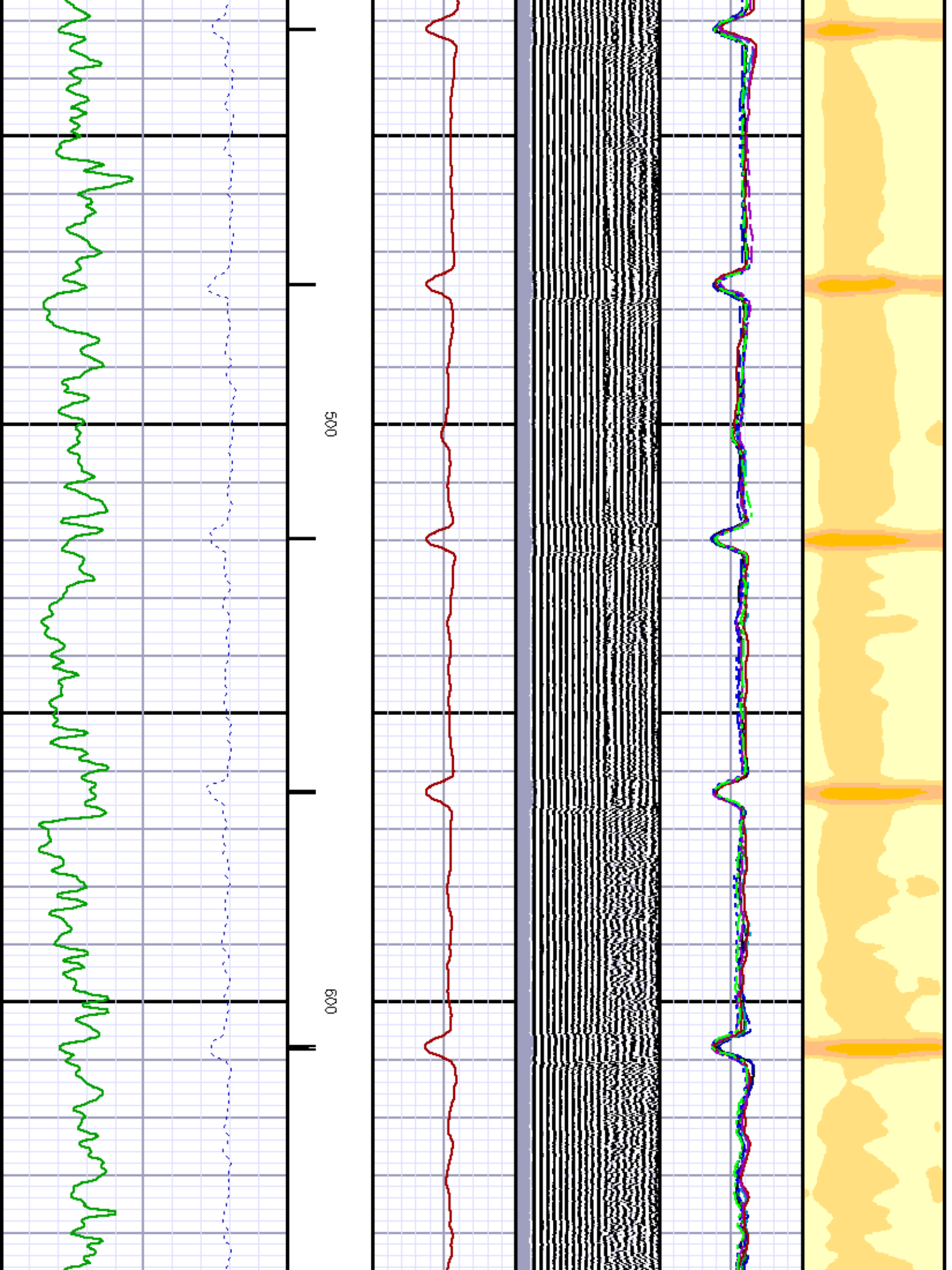
DEPTH OFFSETS (for Acquired Curves)							
SERIES	DEPTH OFFSET	ACQUIRED CURVES					
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		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.450	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

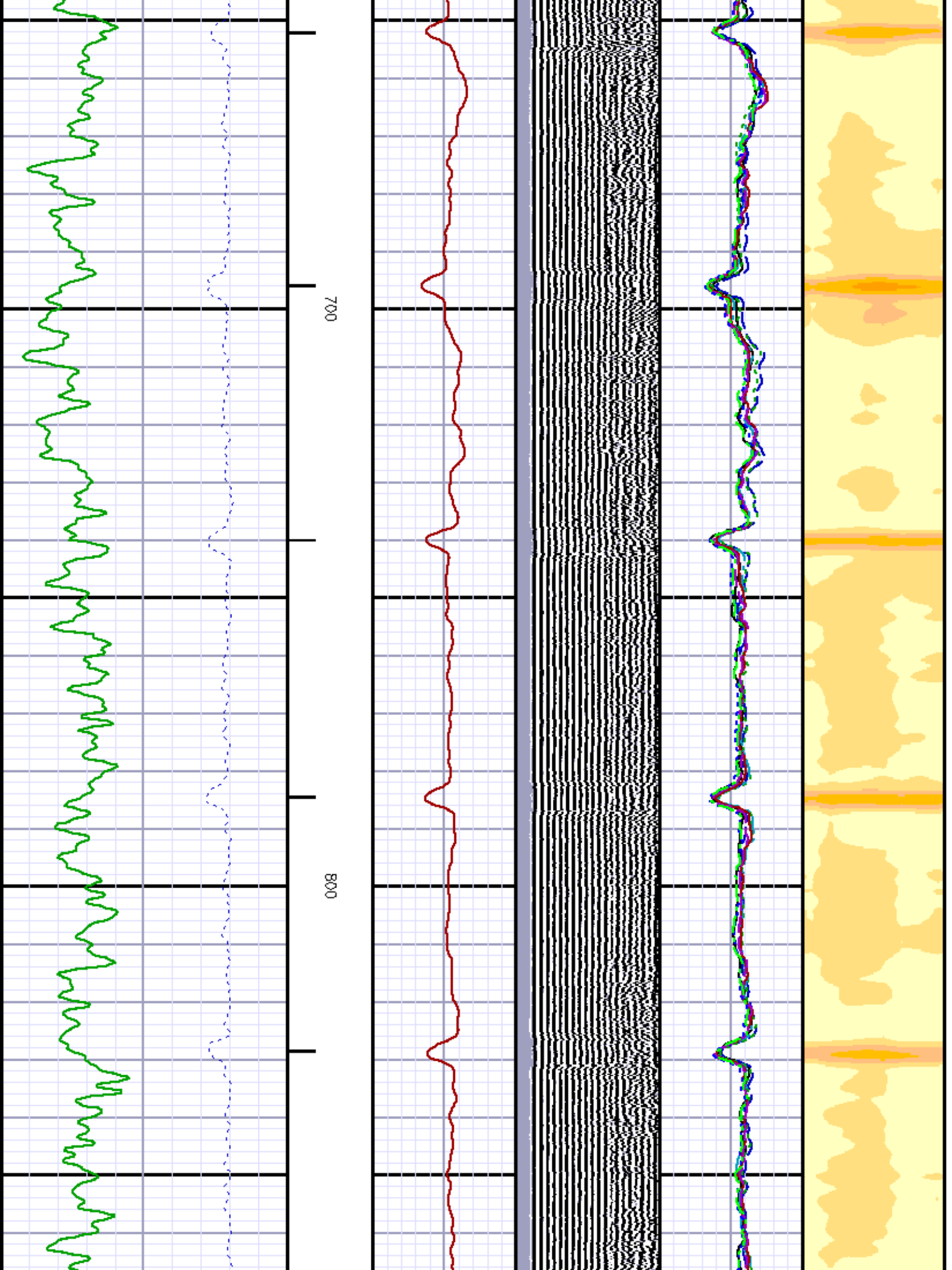
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Company : WILLIAMS PRODUCTION COMPANY
Well : KP 433-23
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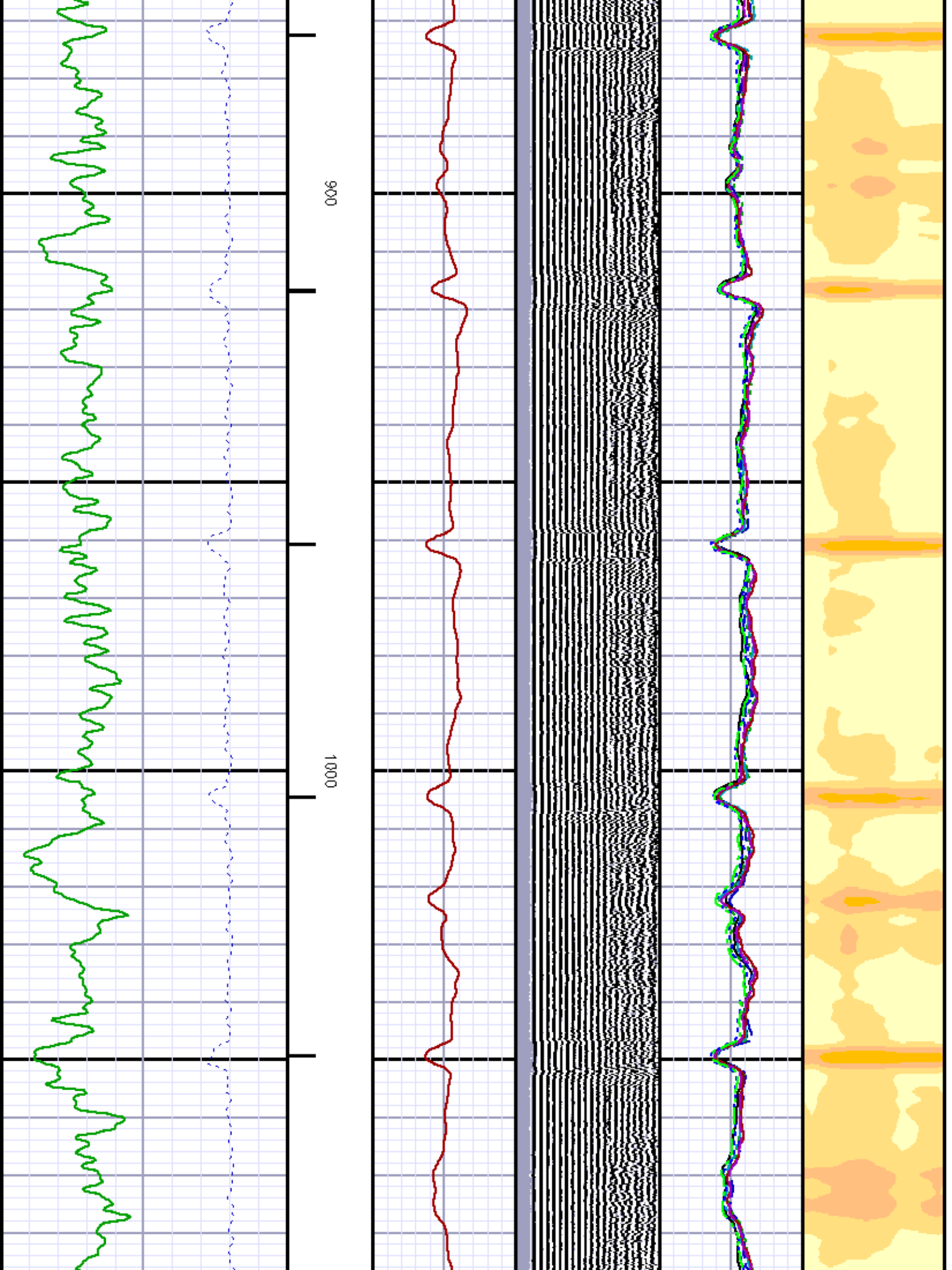


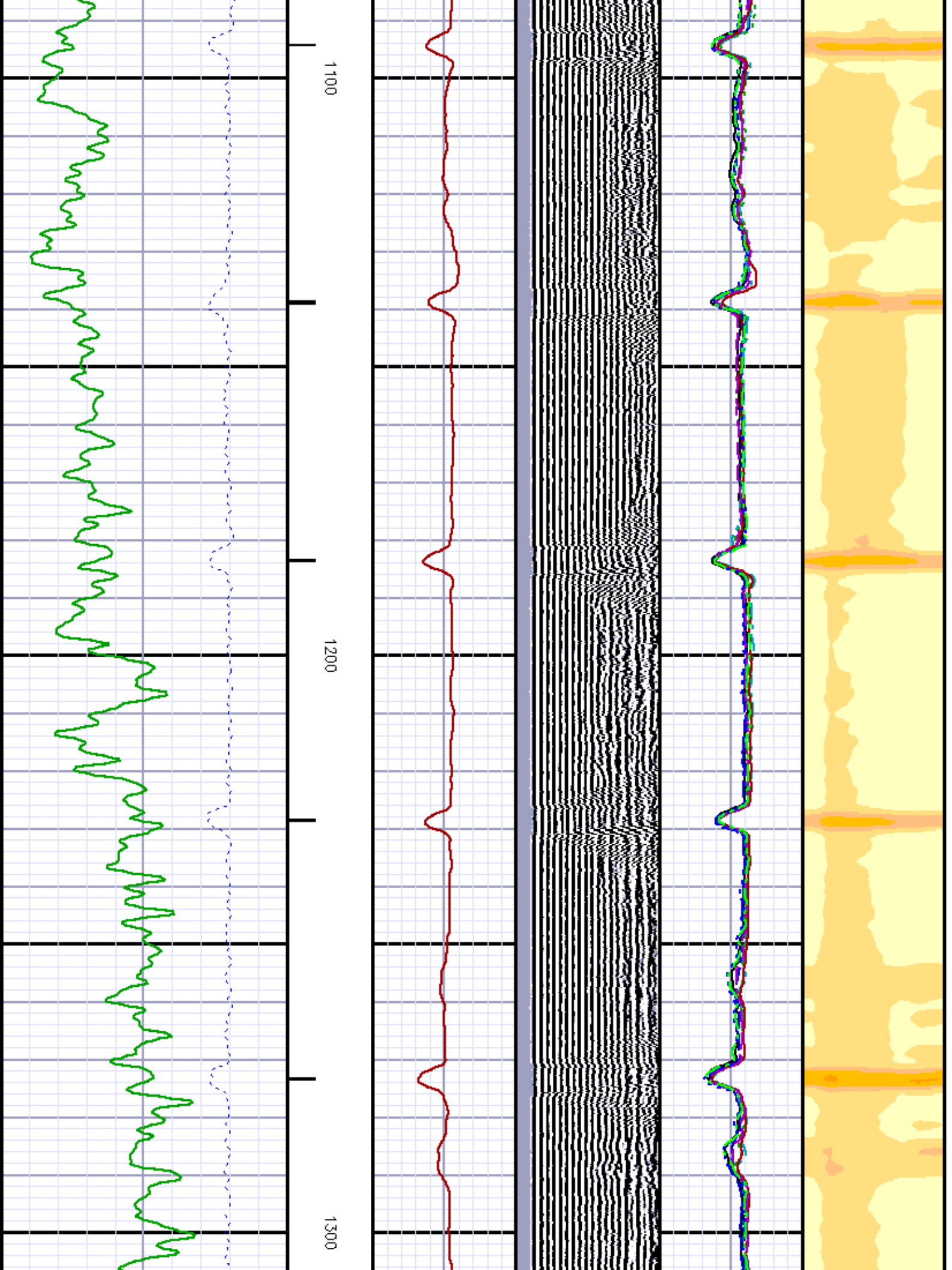


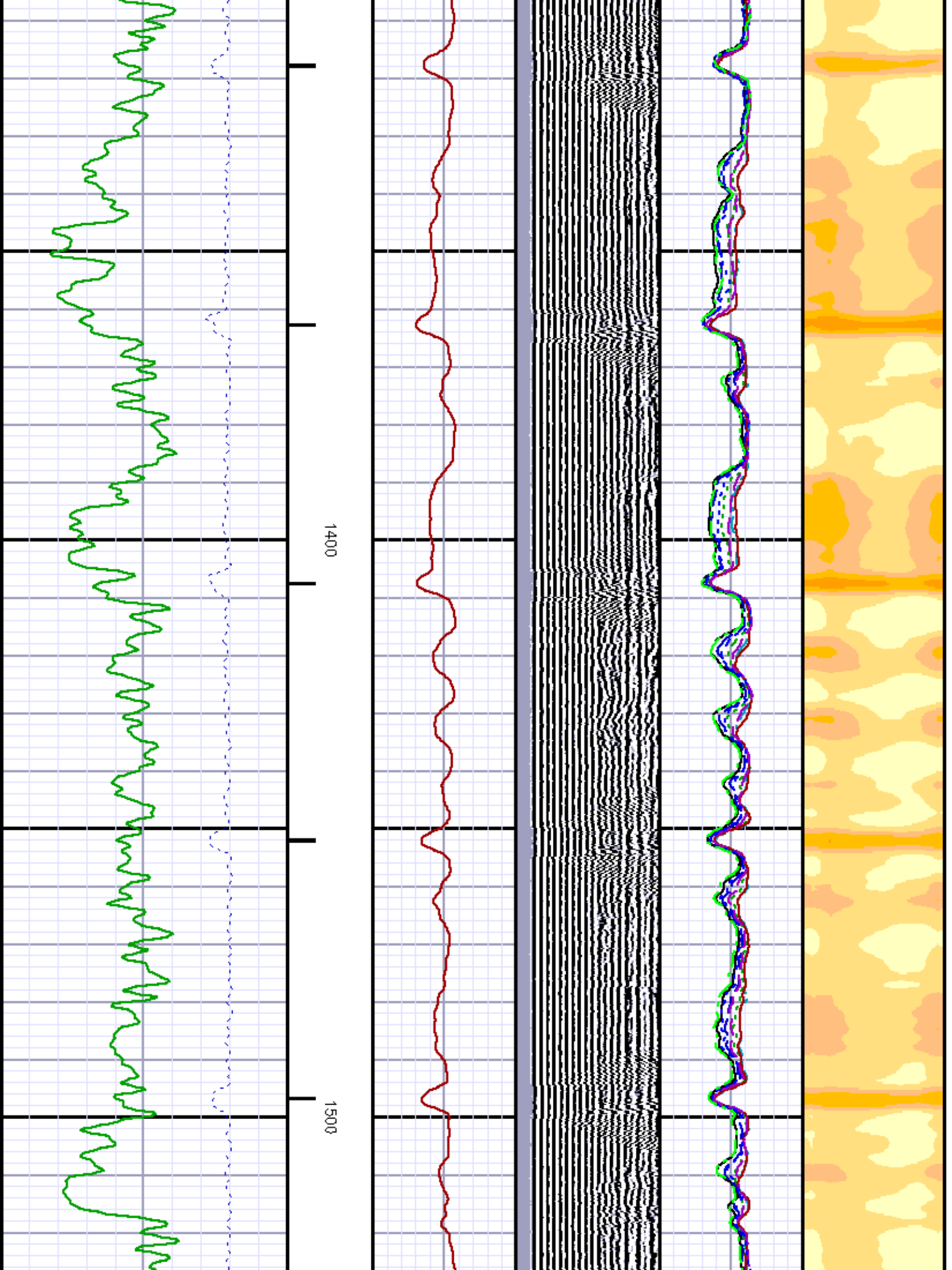


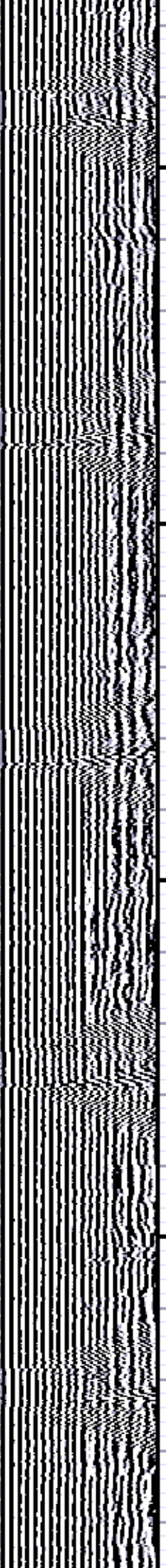






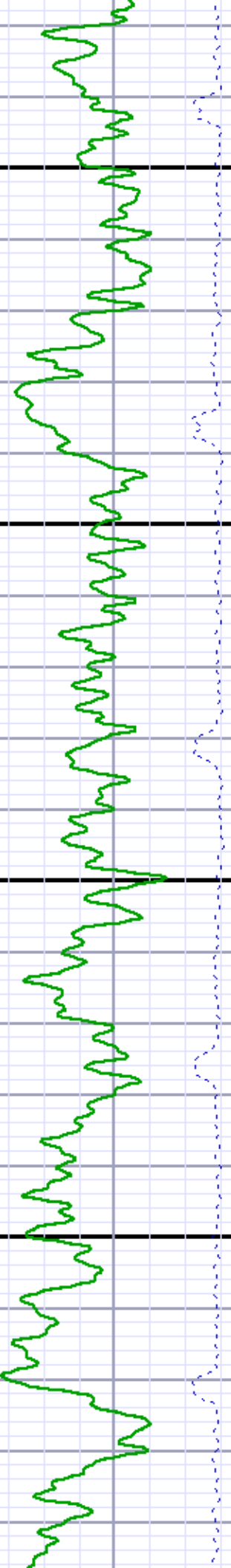


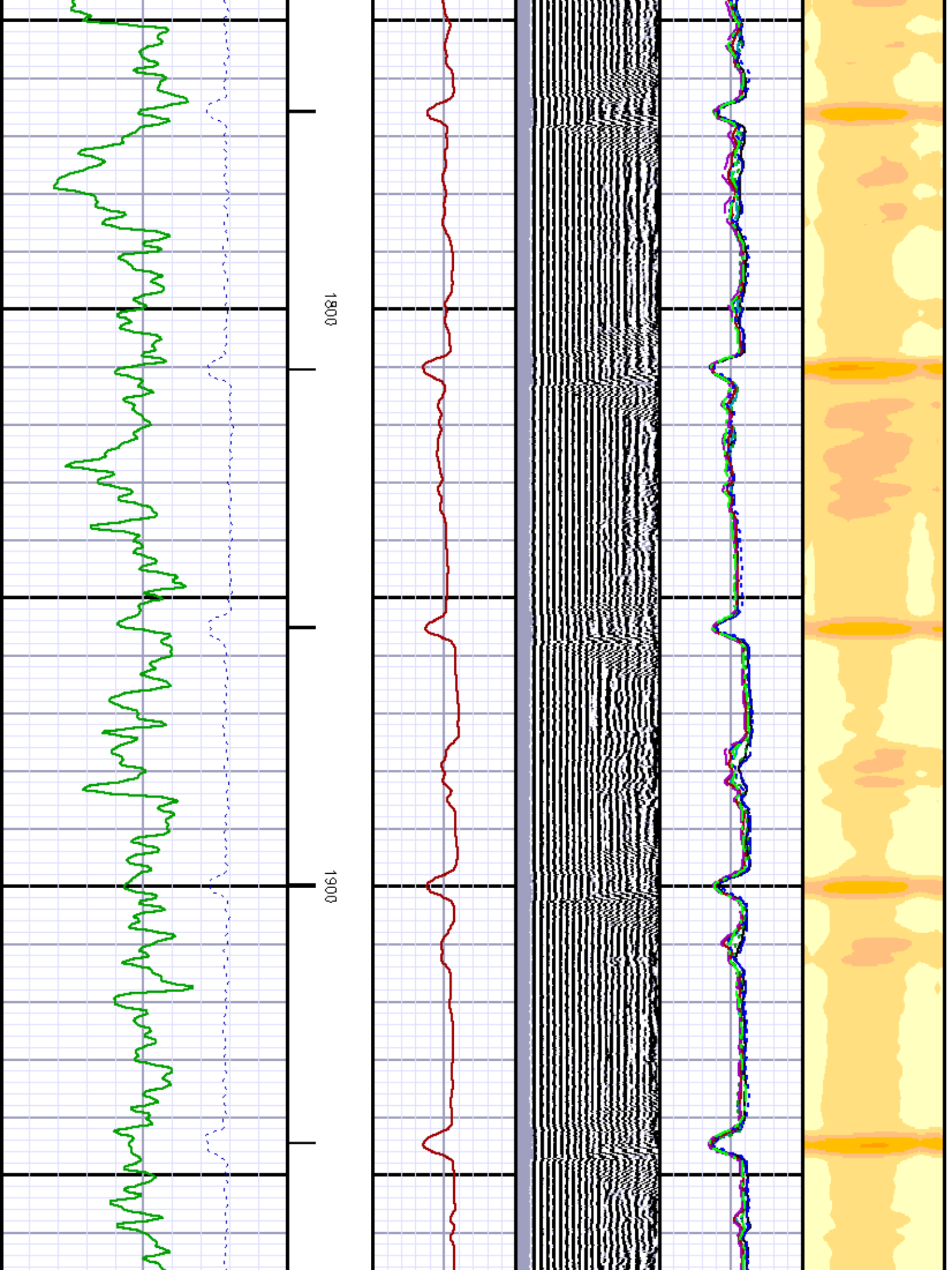


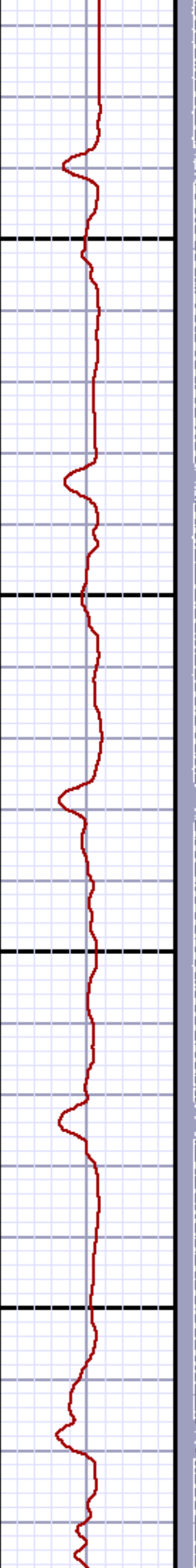
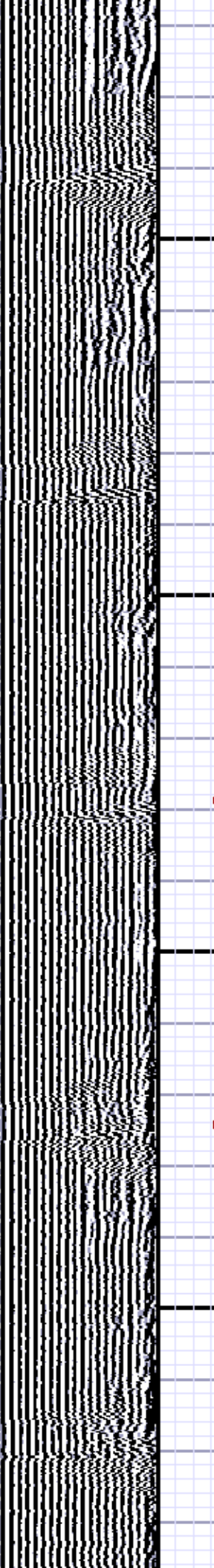
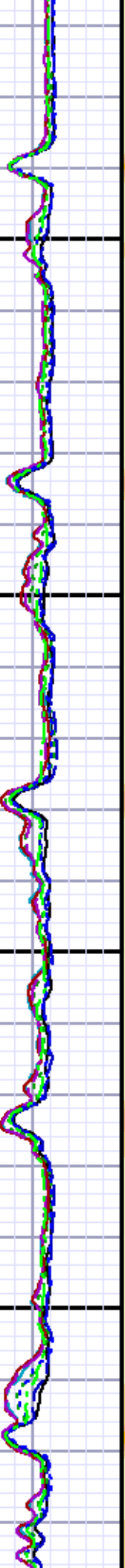


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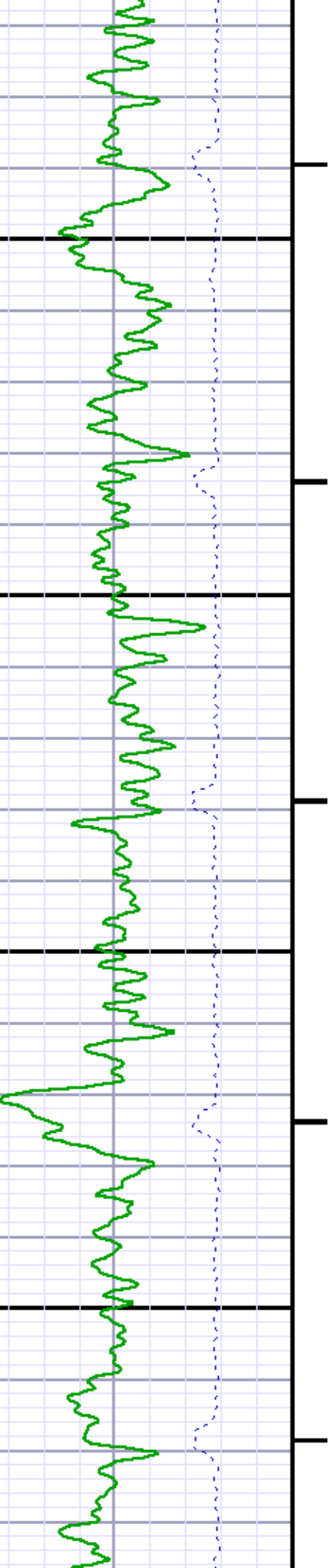


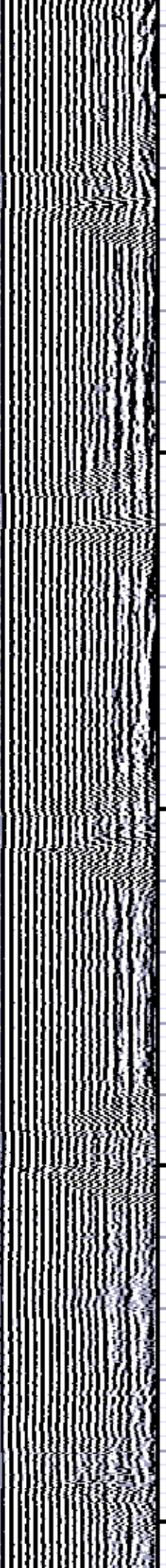
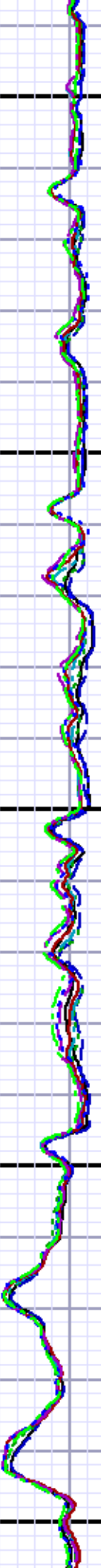




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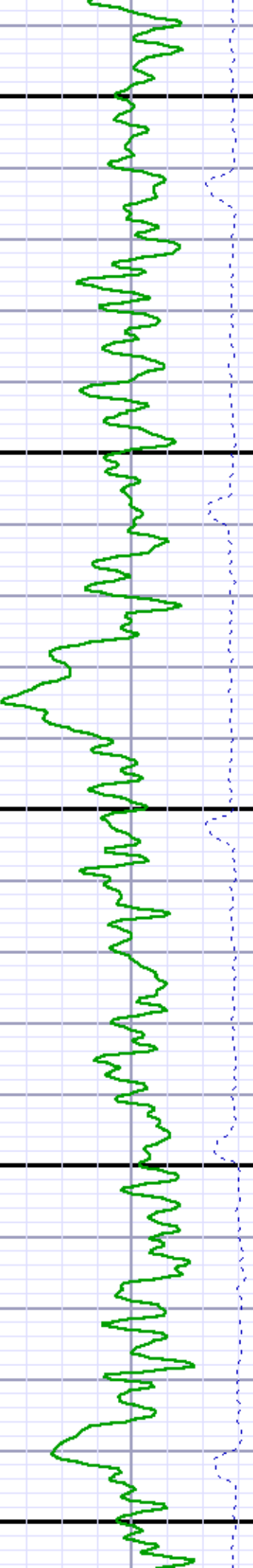


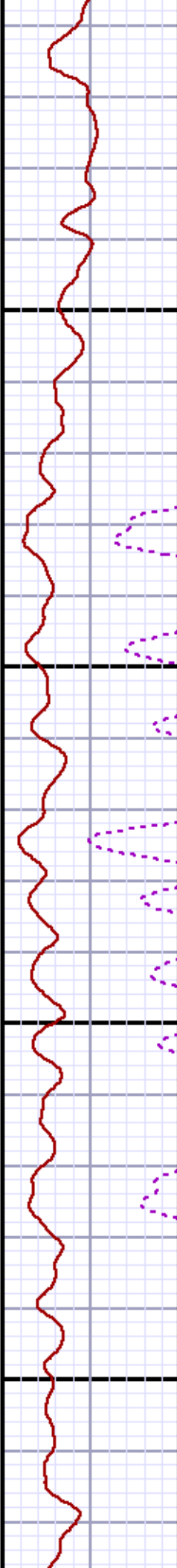
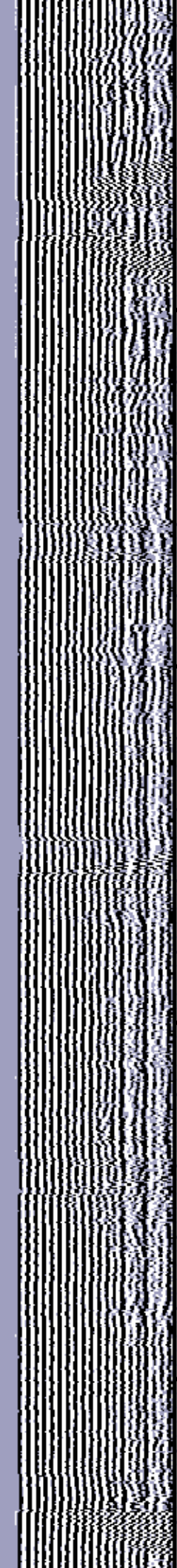
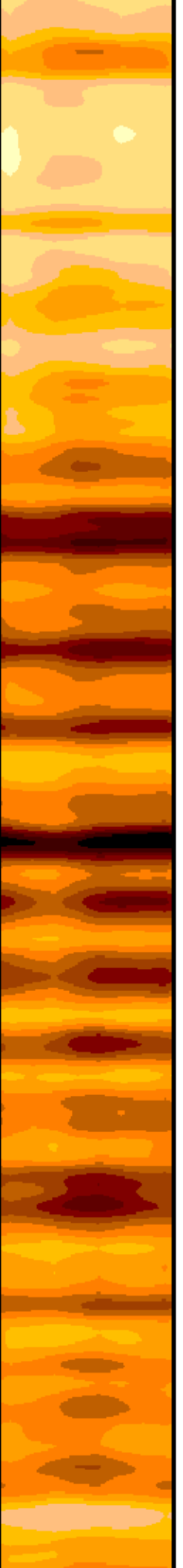


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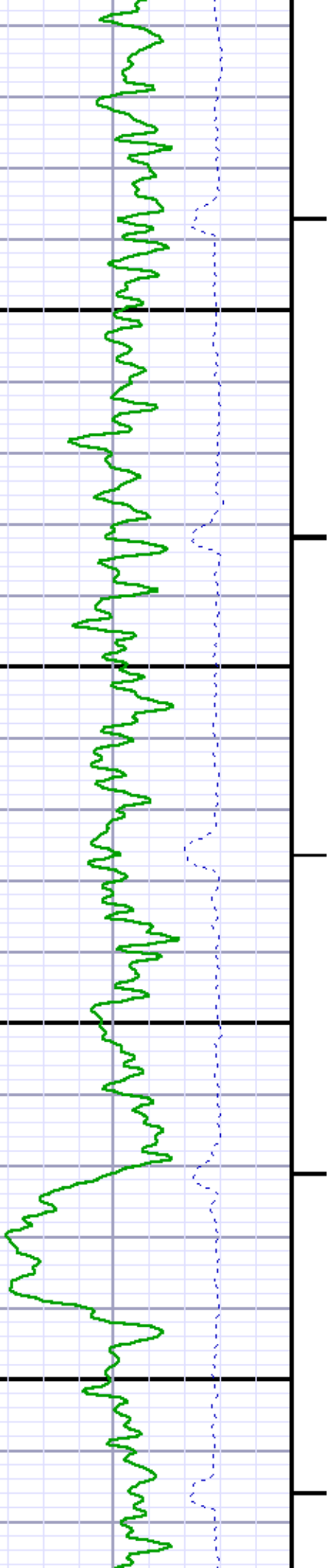
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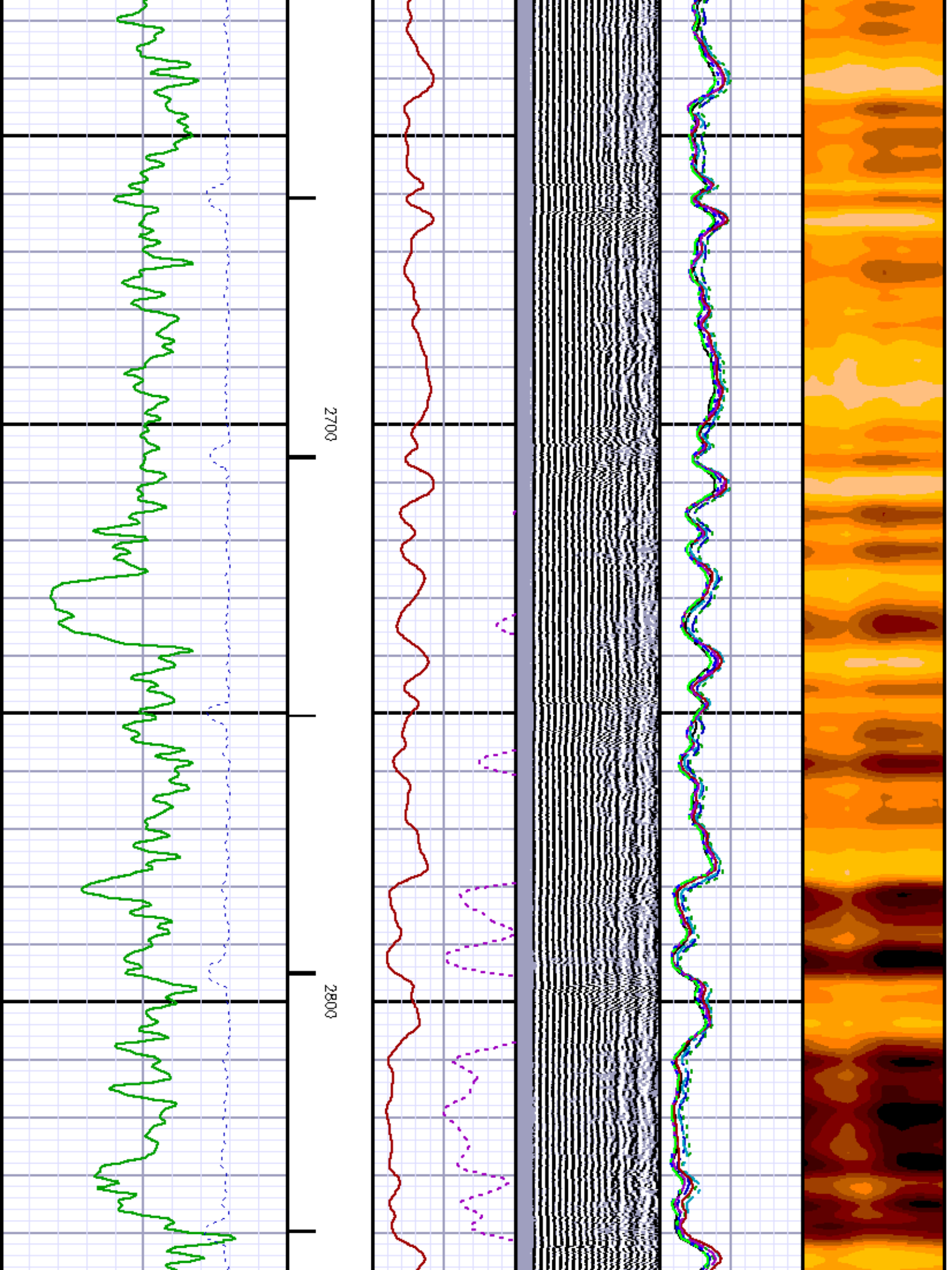


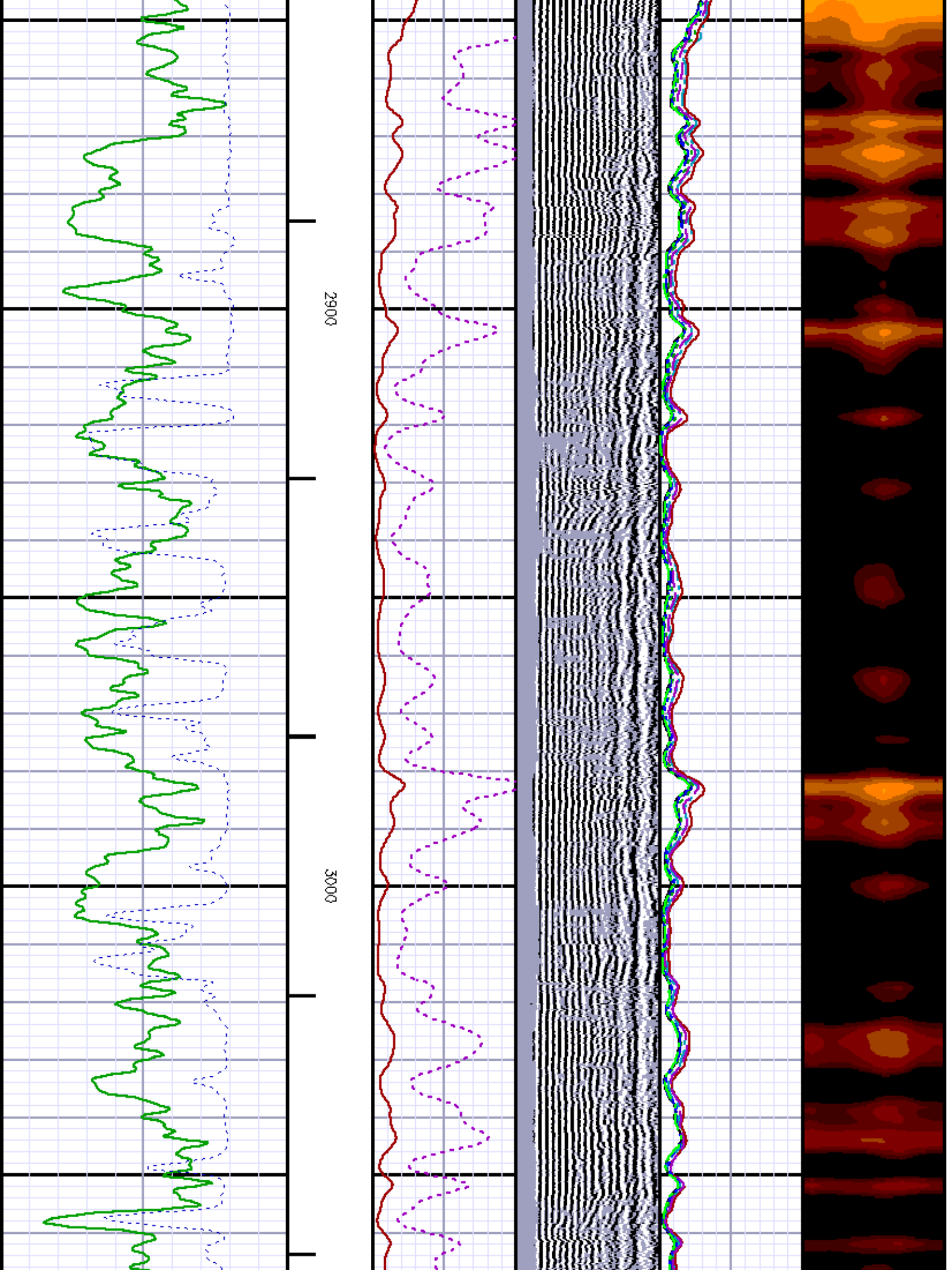


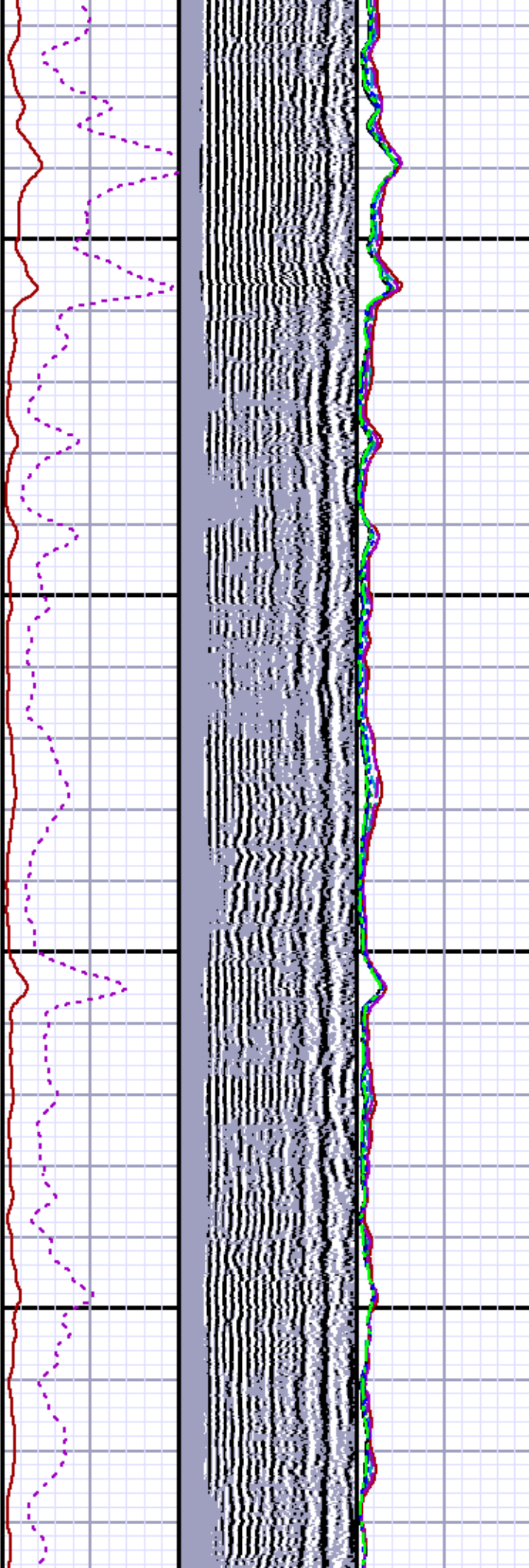
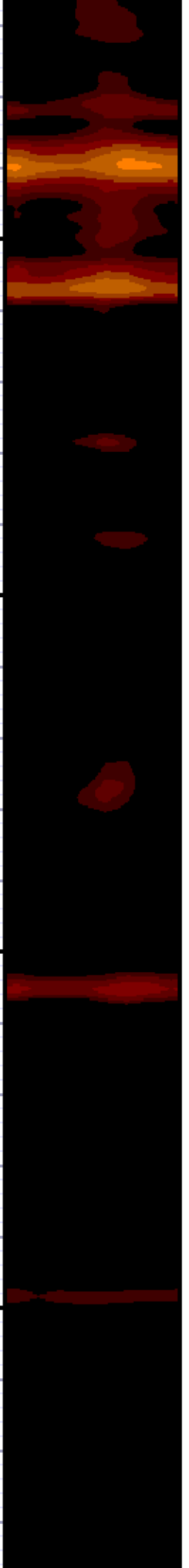
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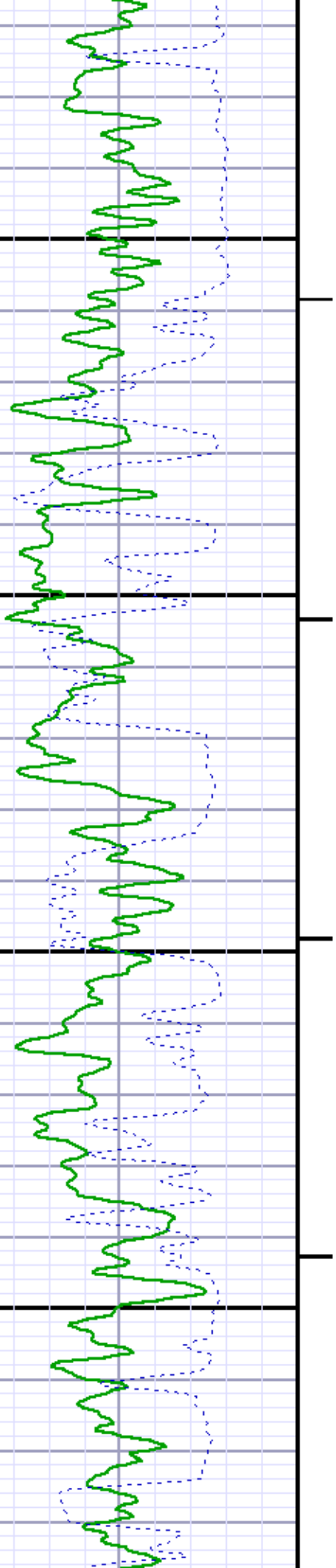


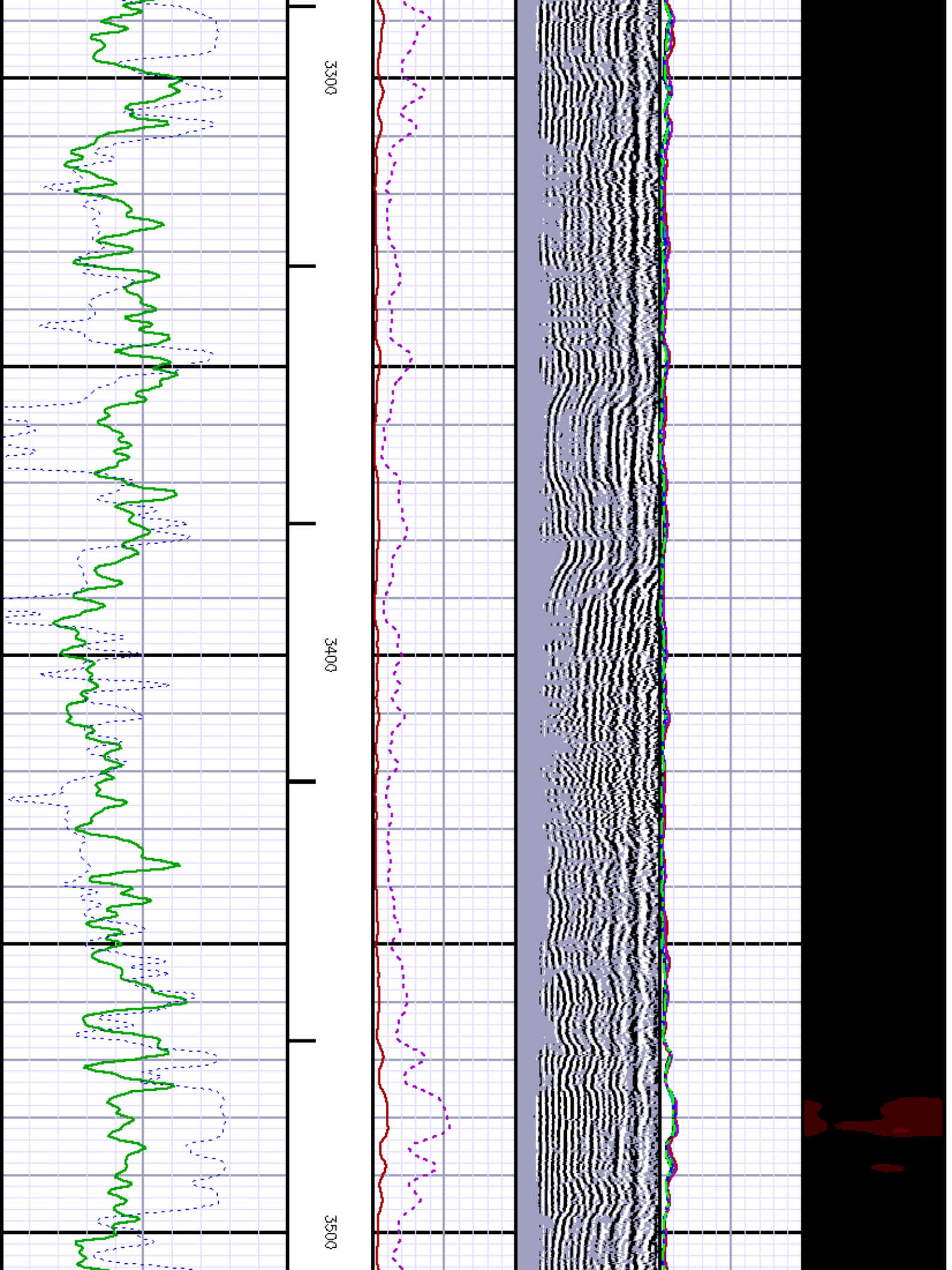


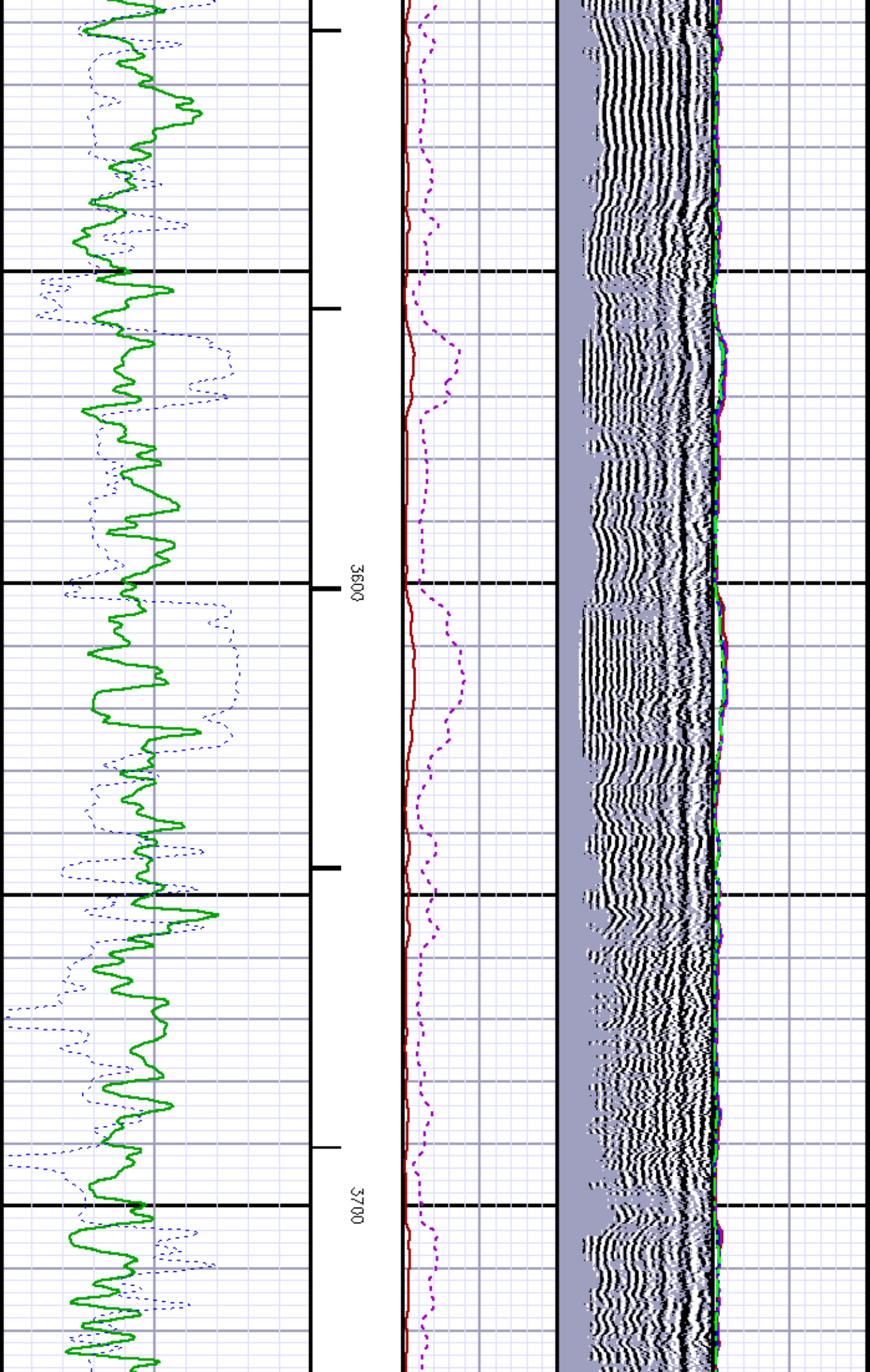


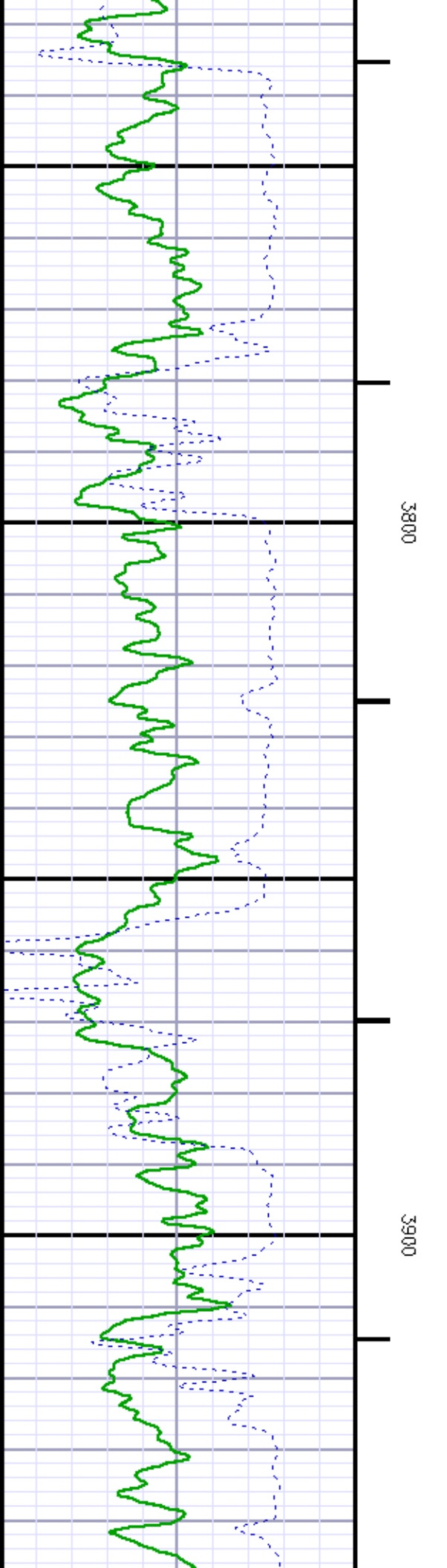
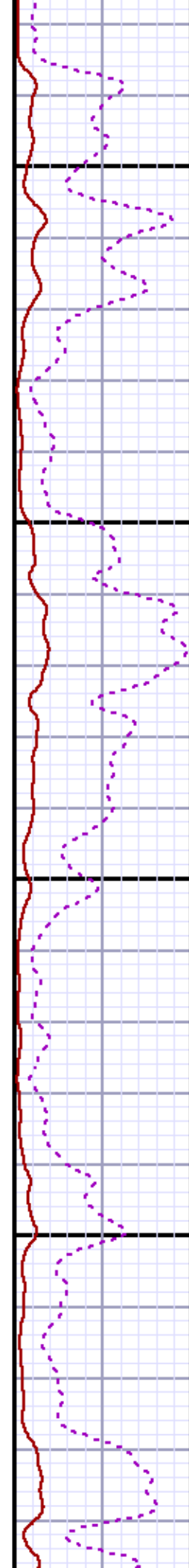
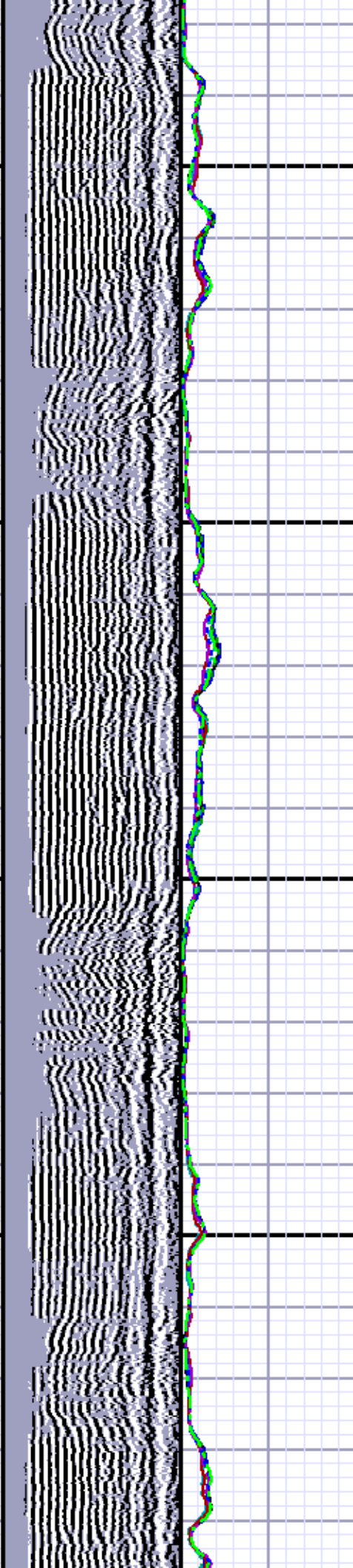
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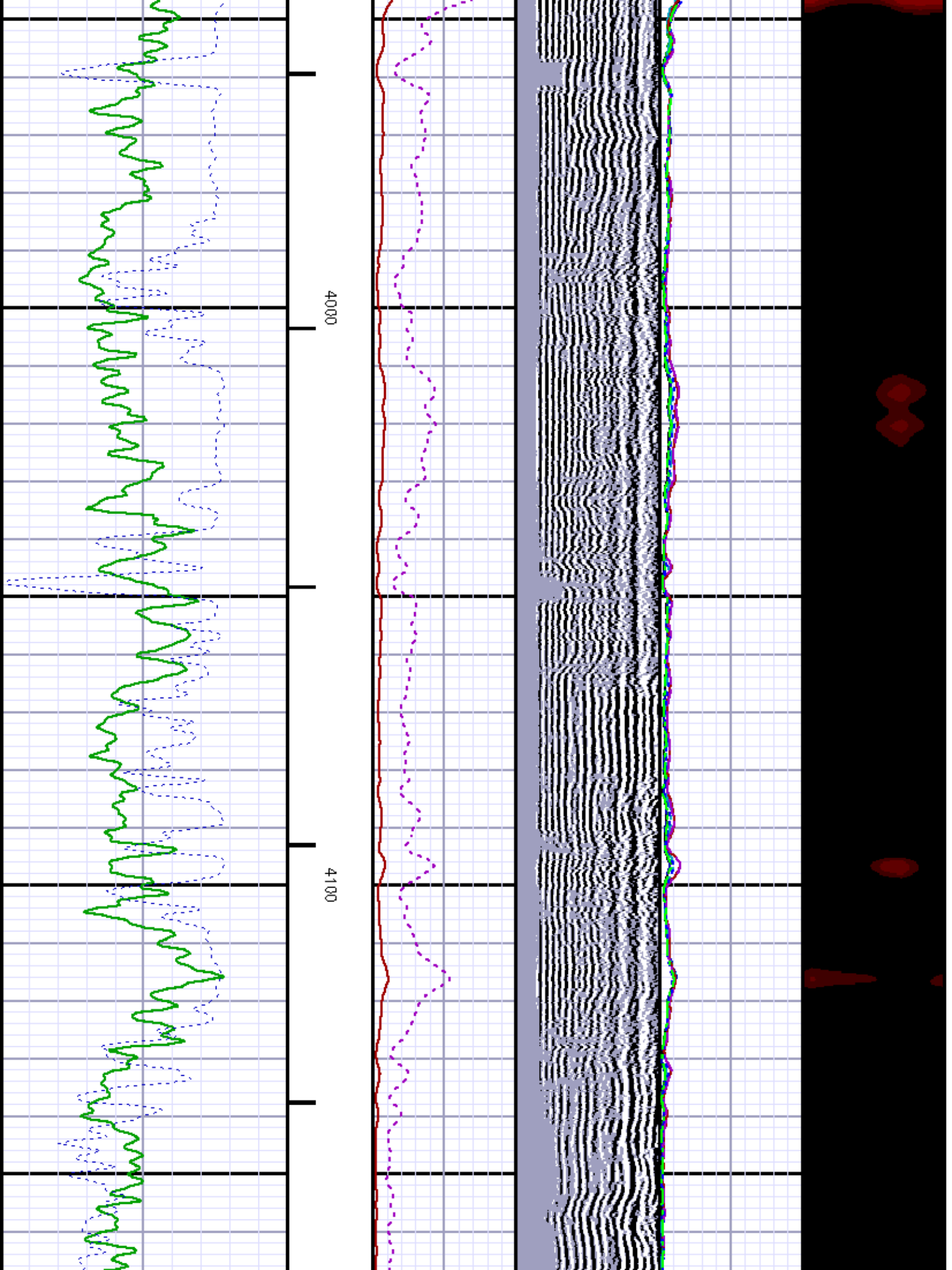
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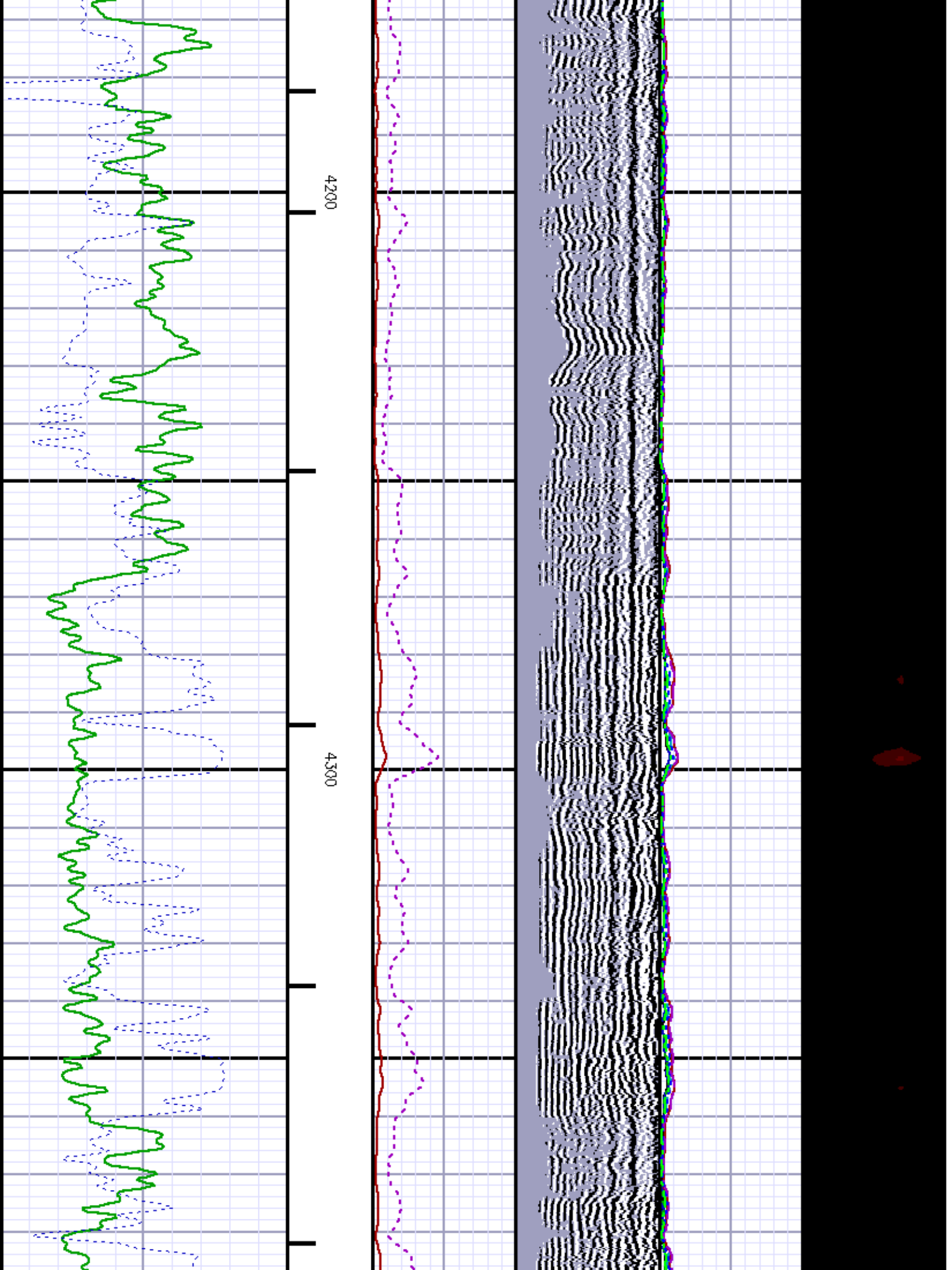


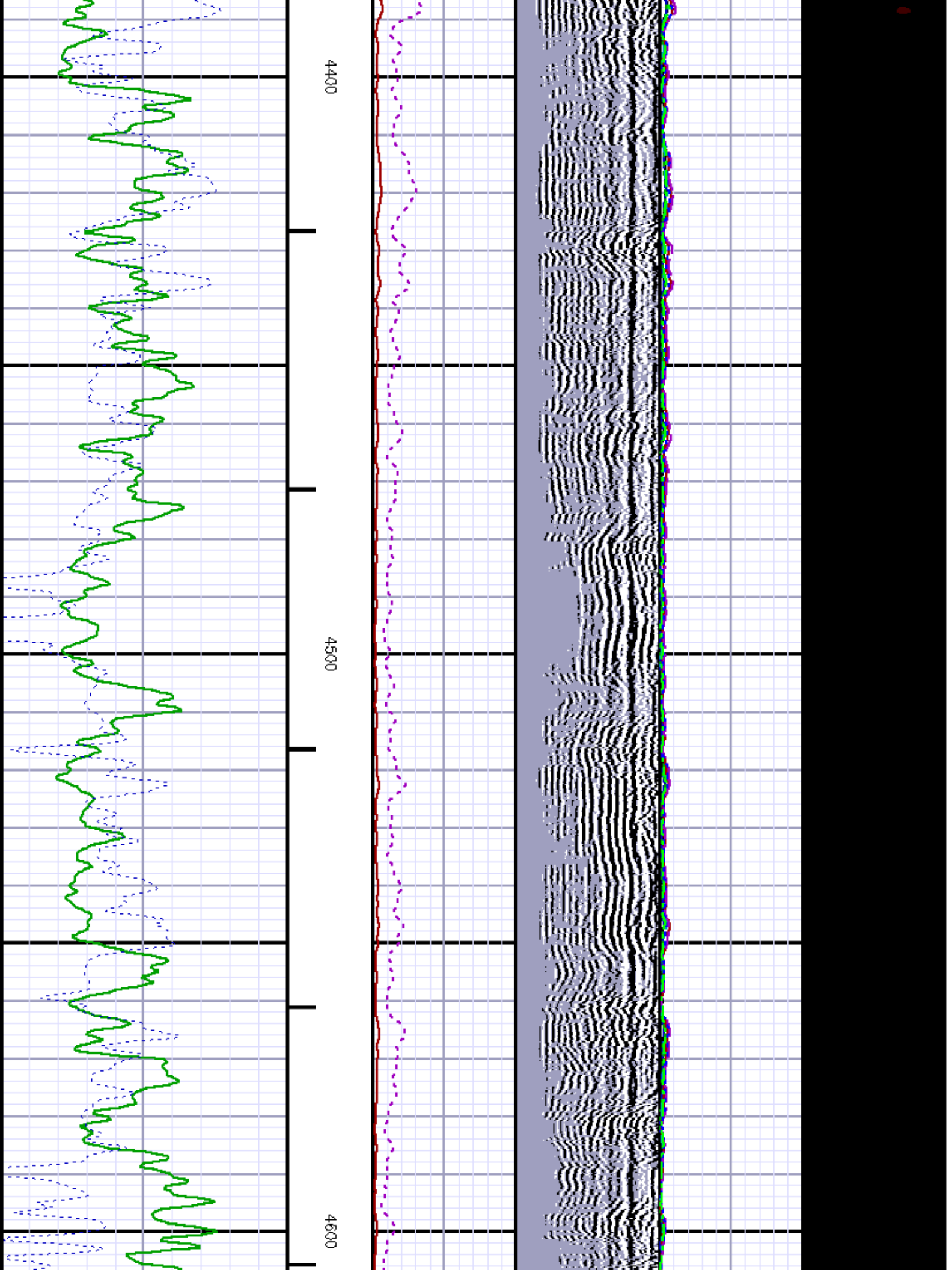


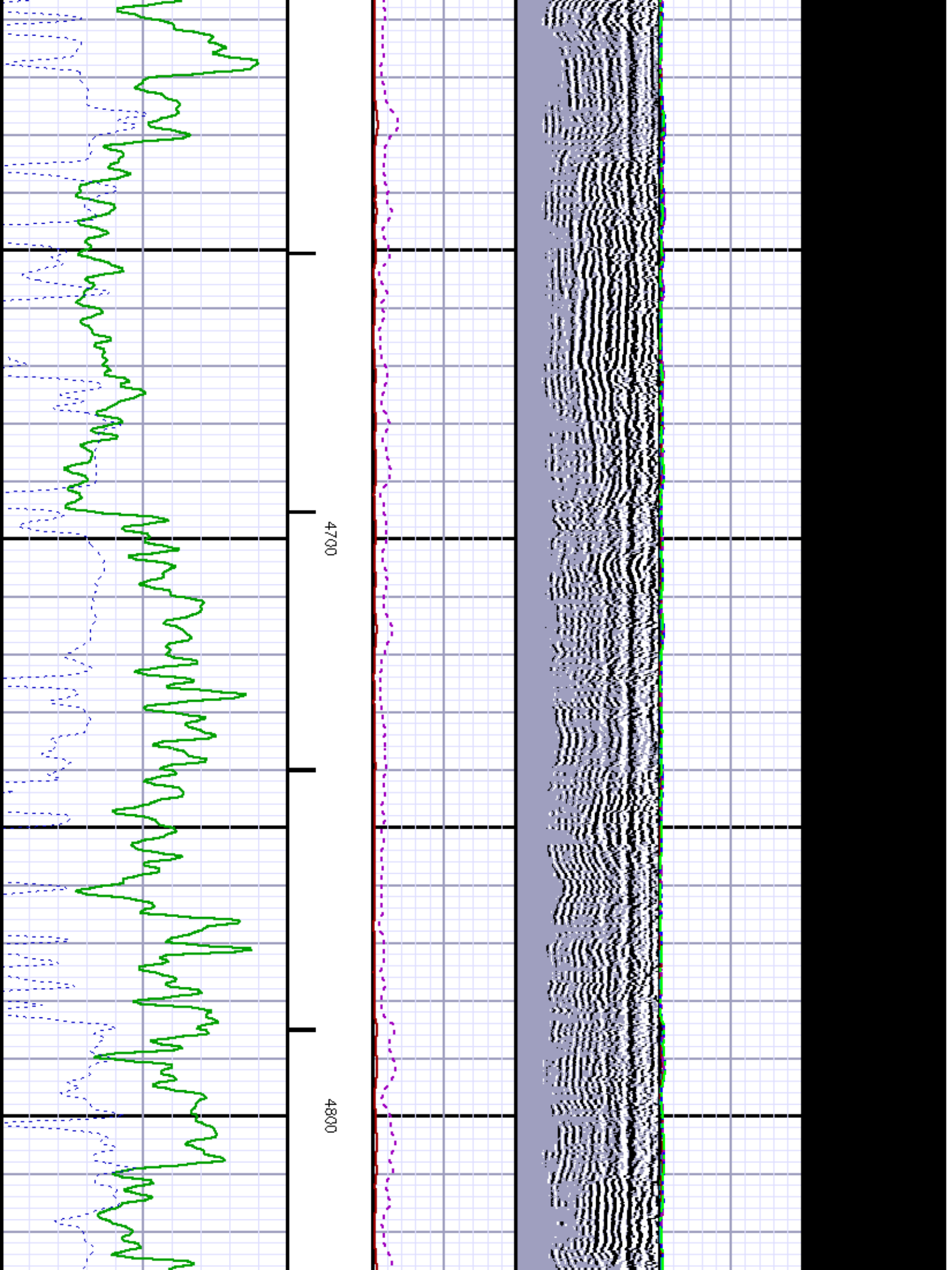


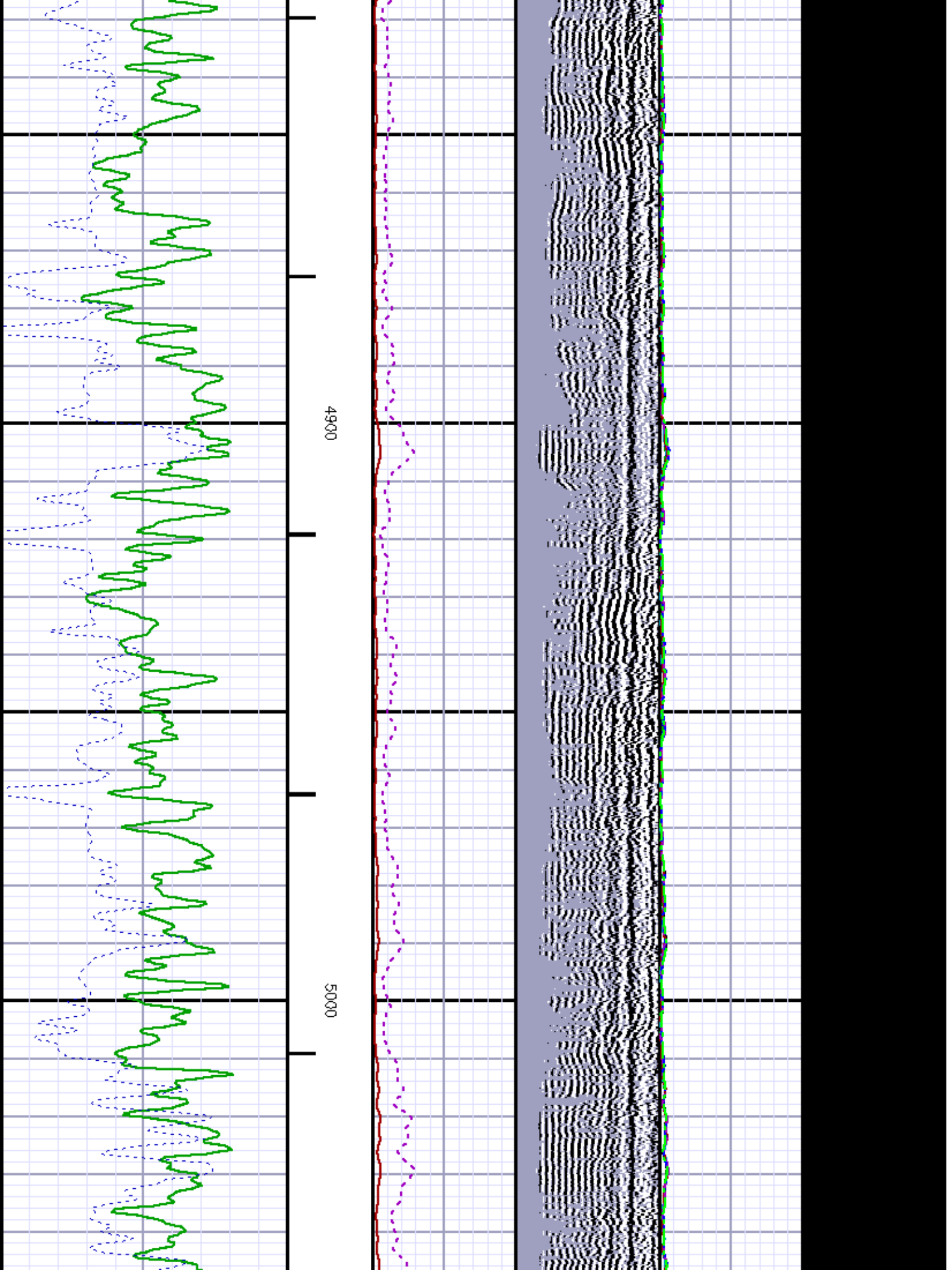


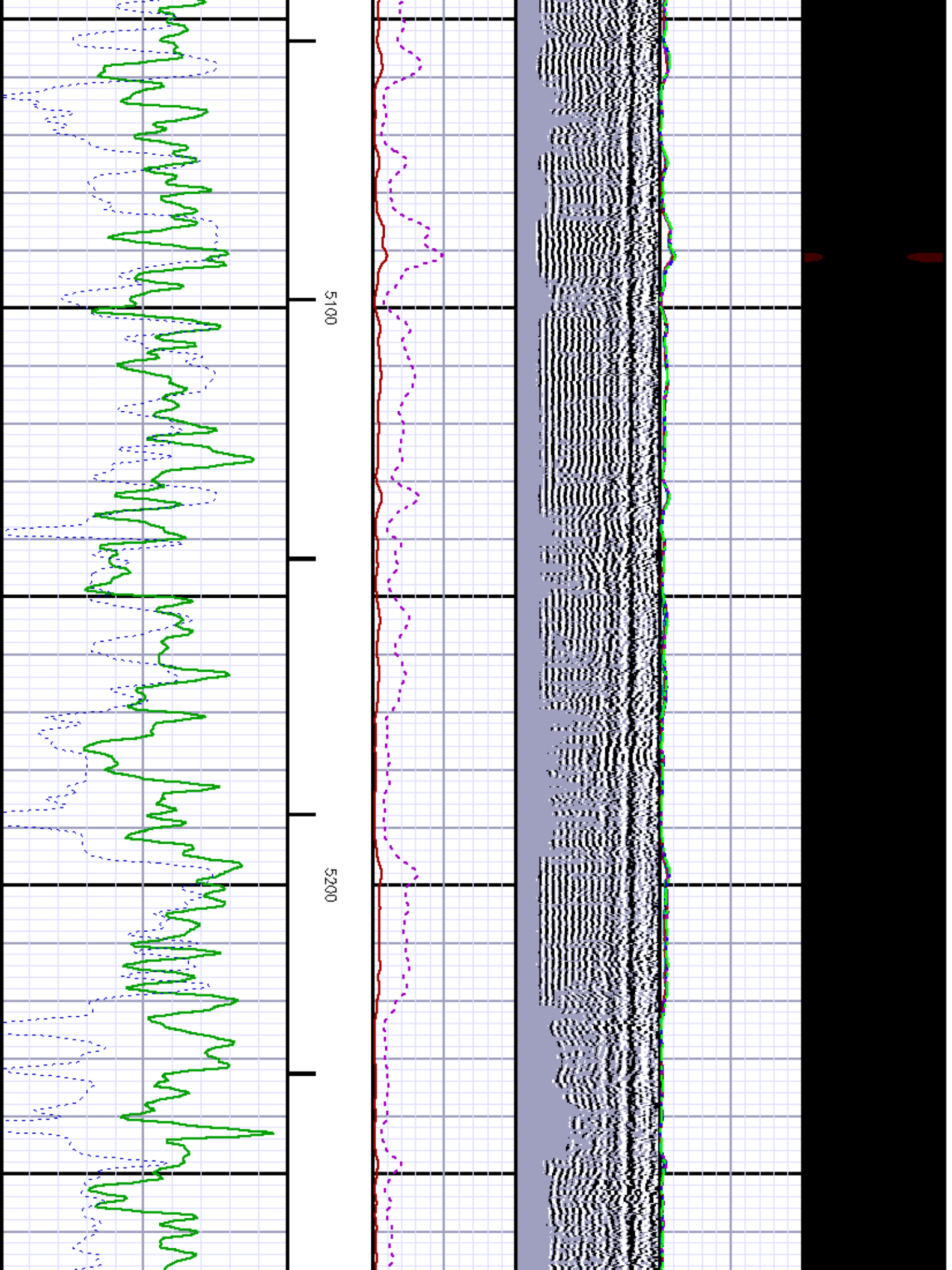


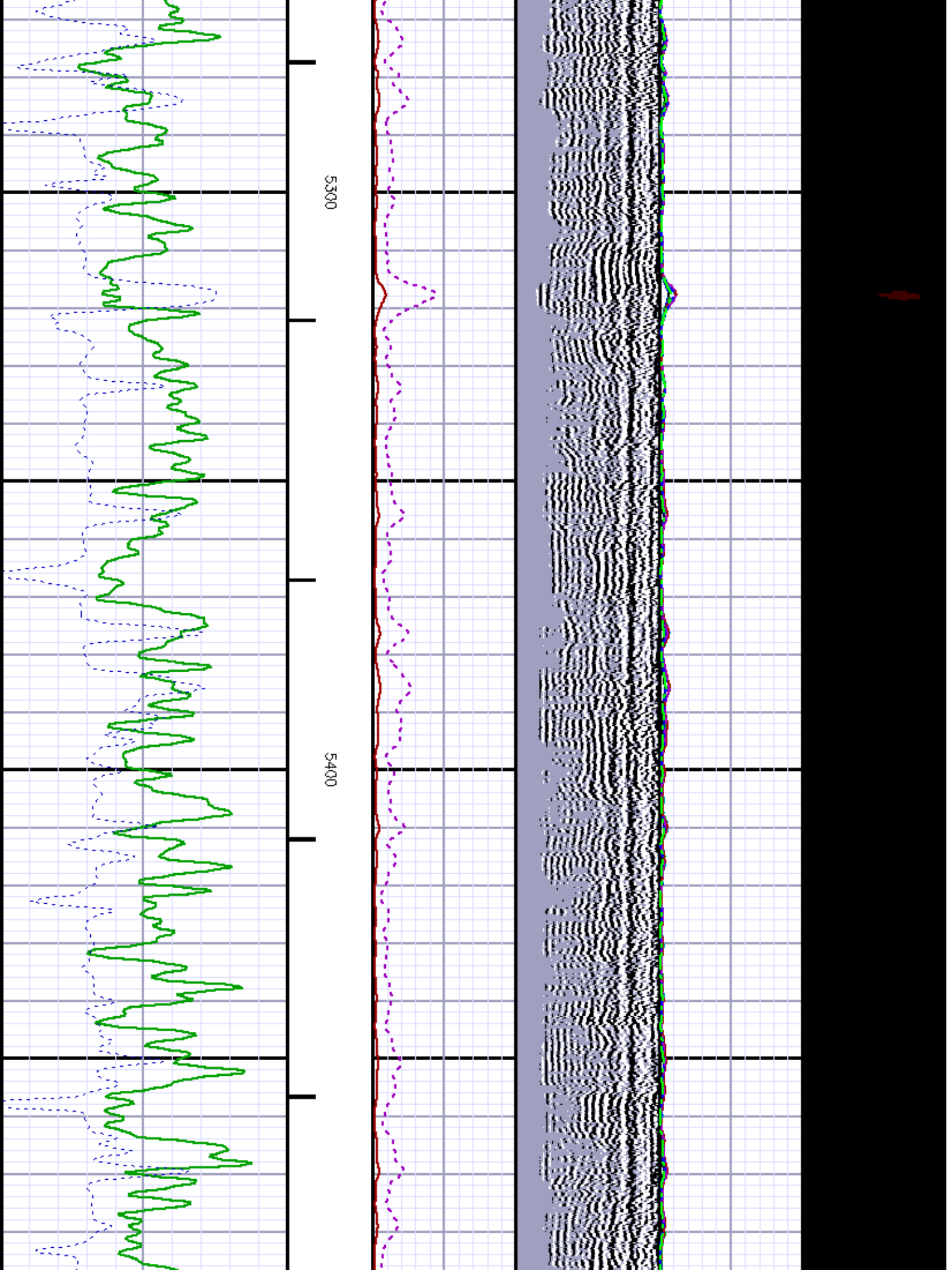


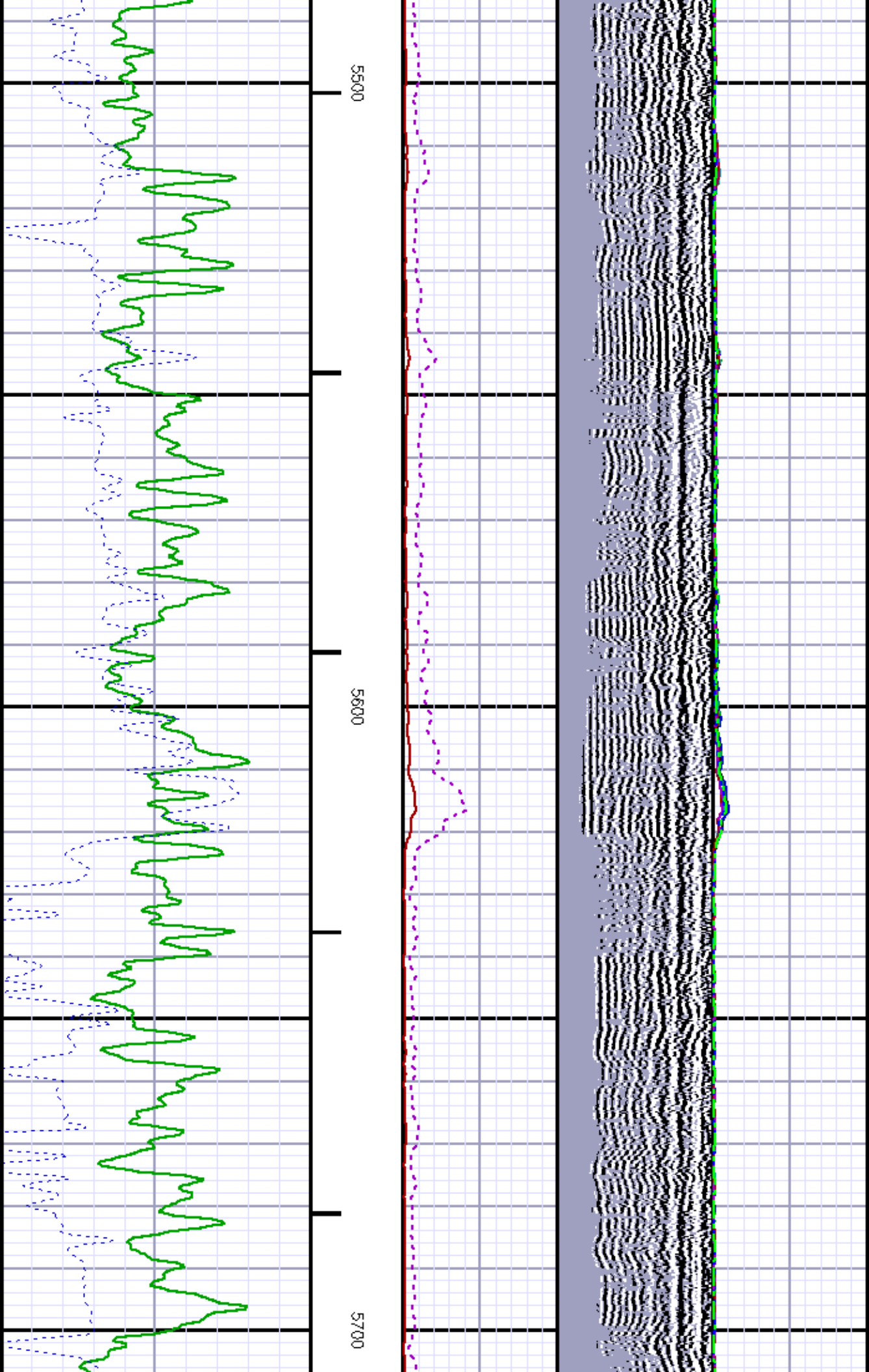


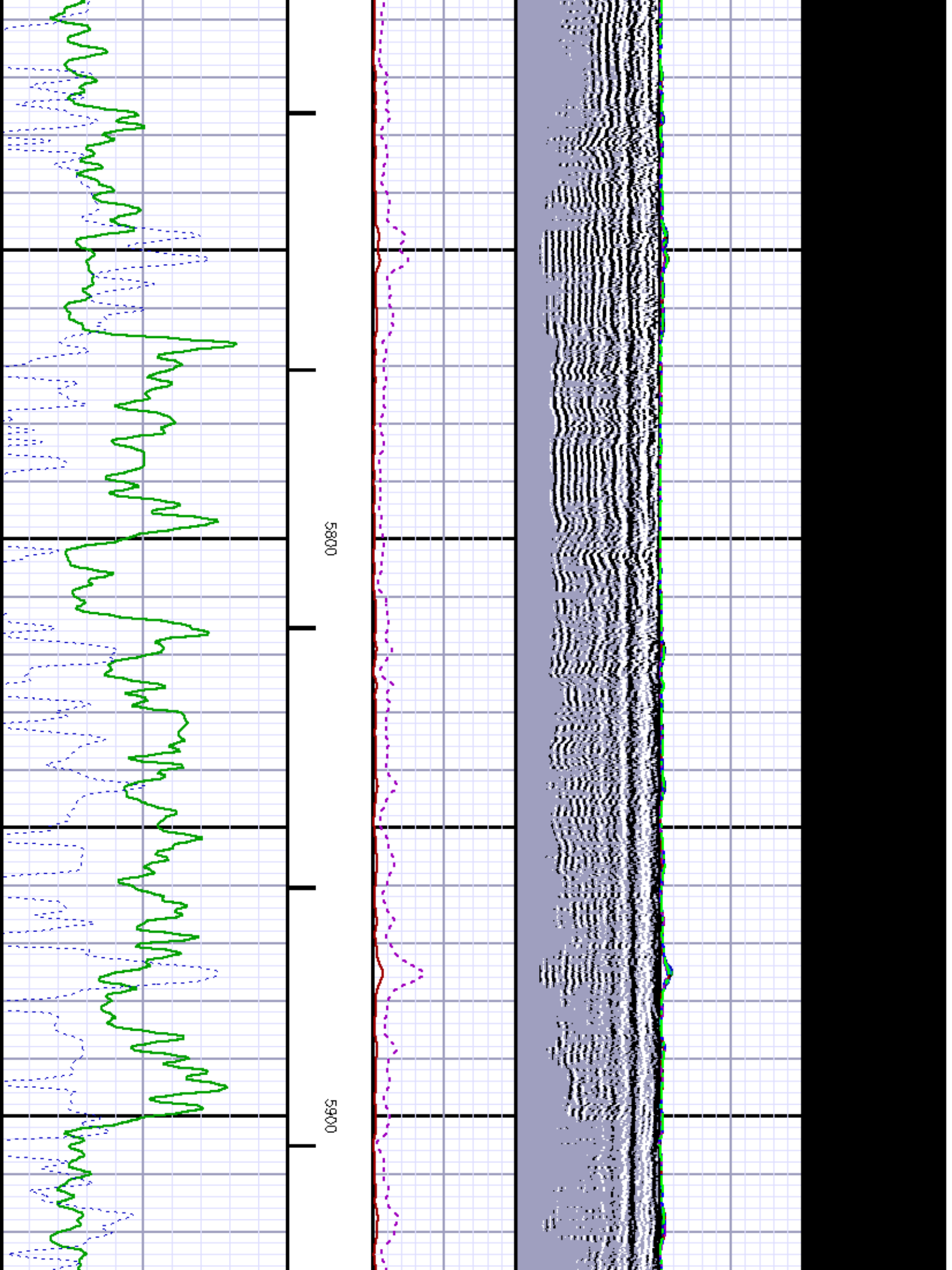


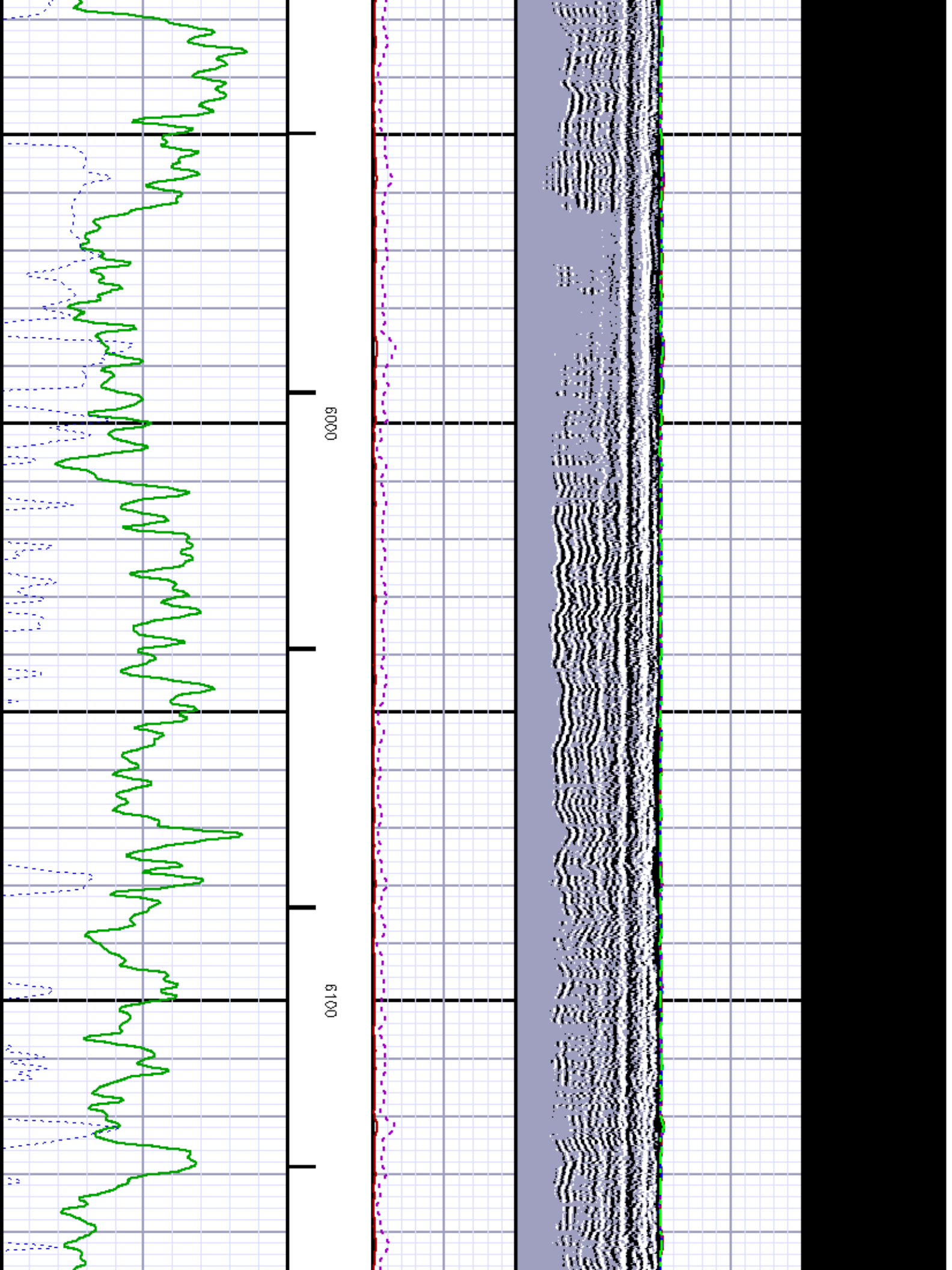


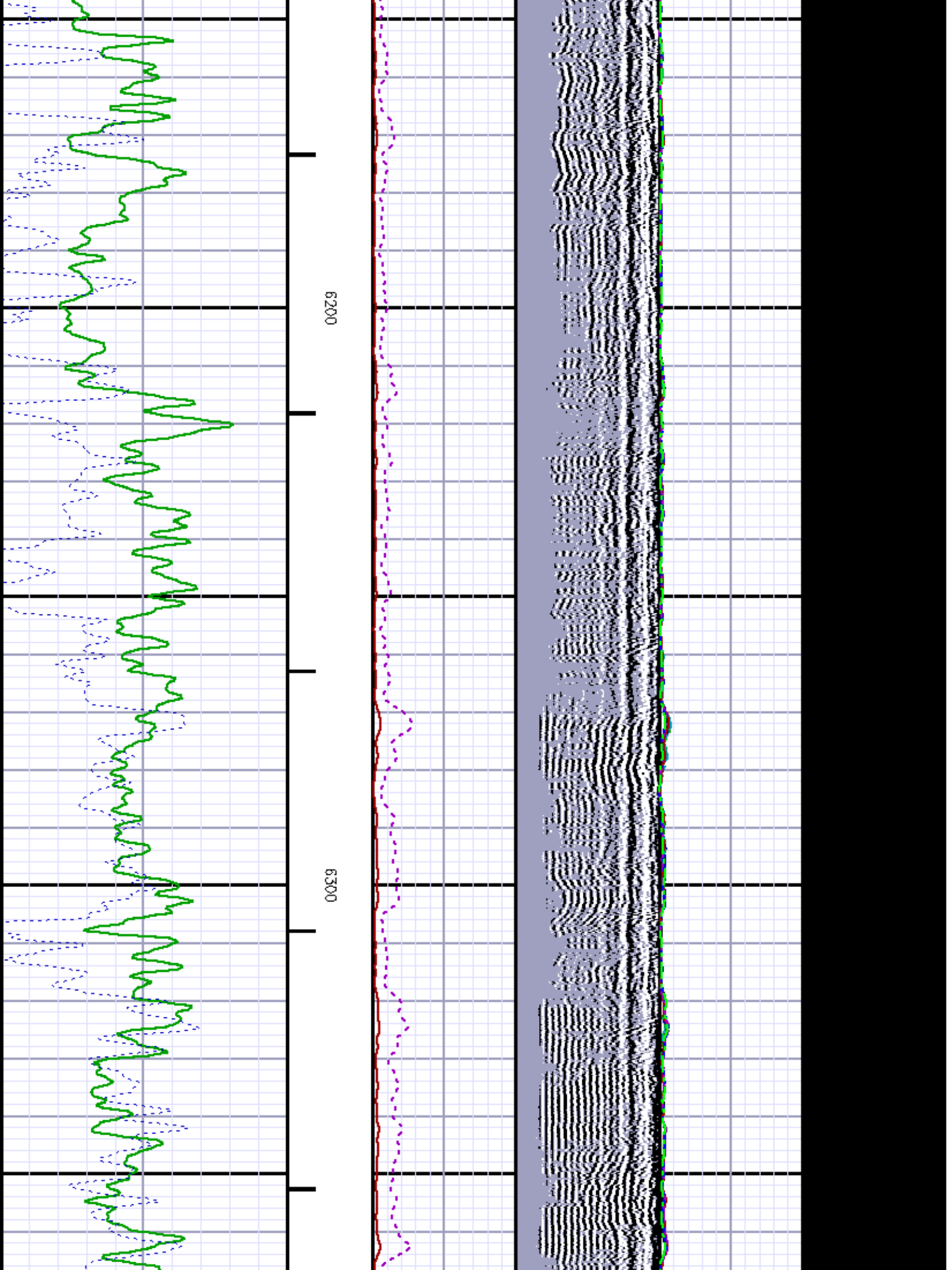


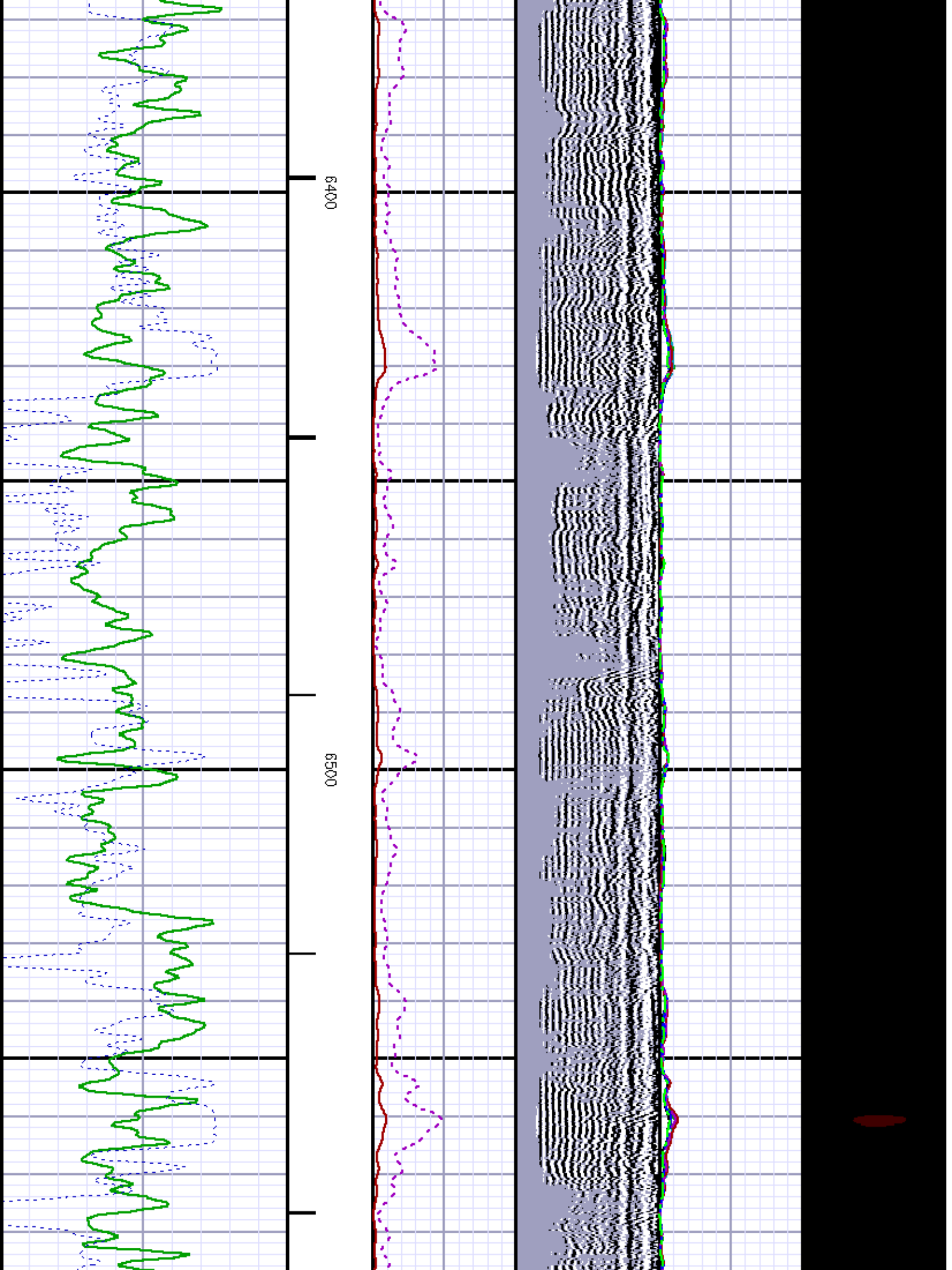


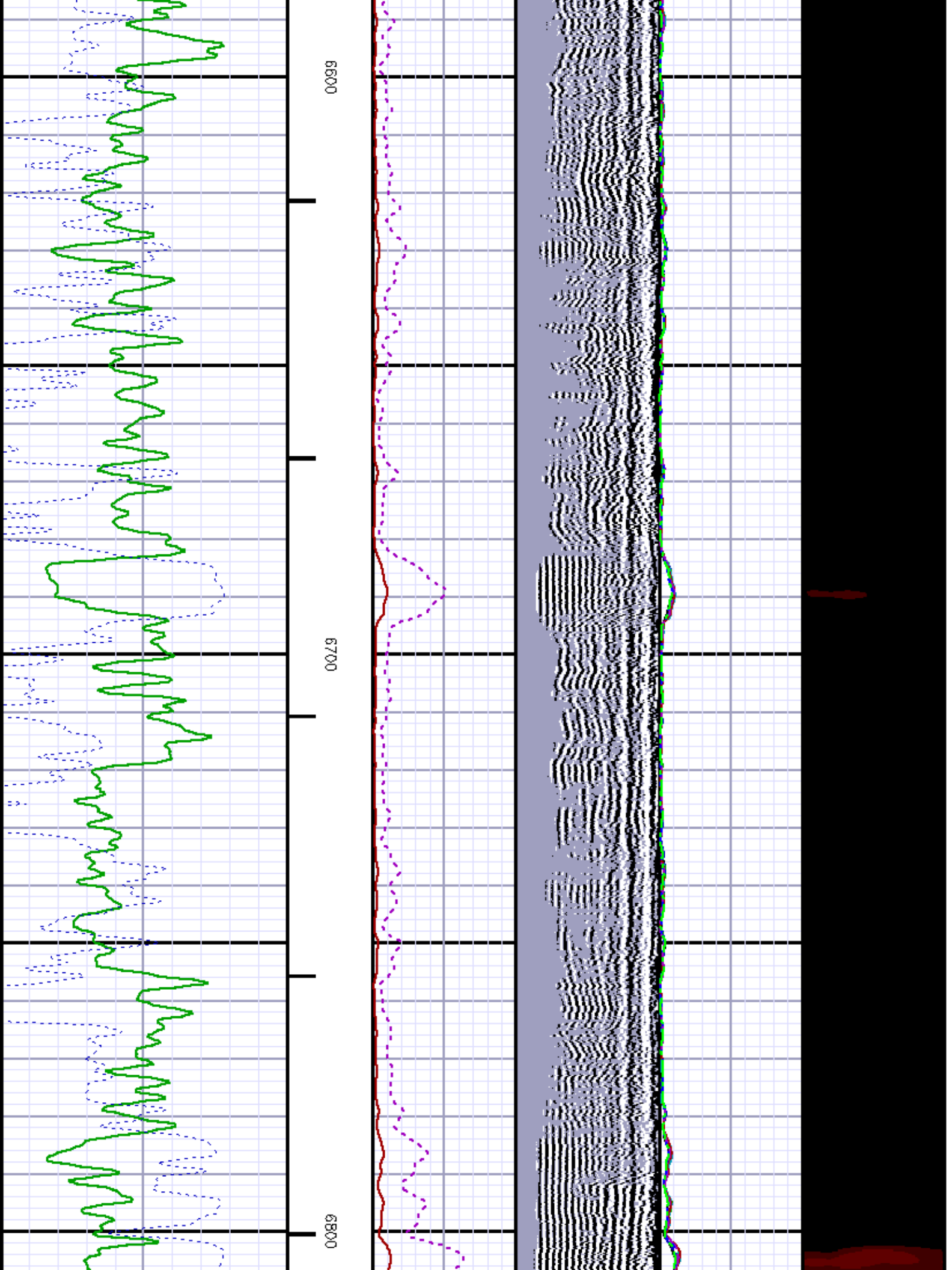


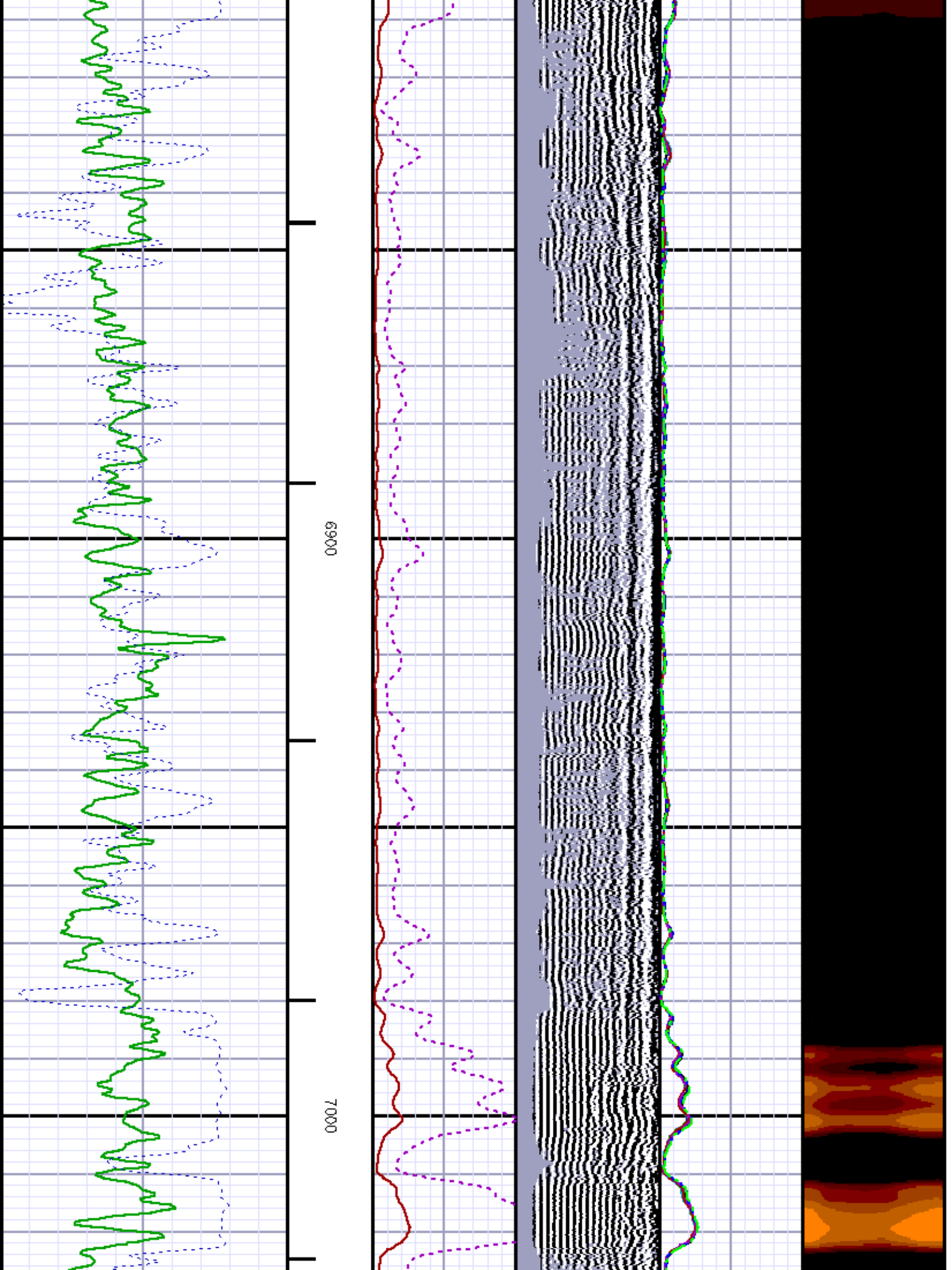


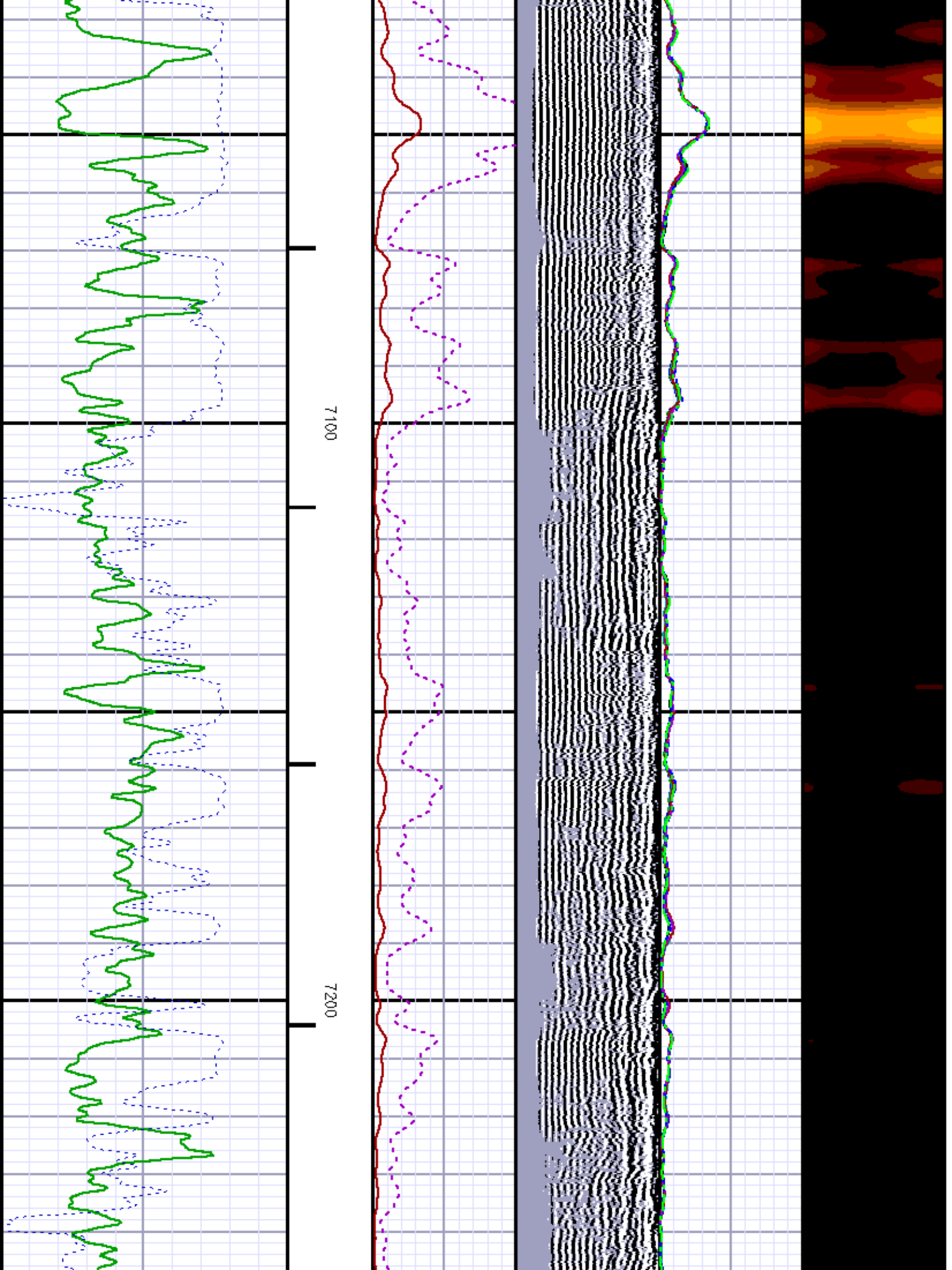


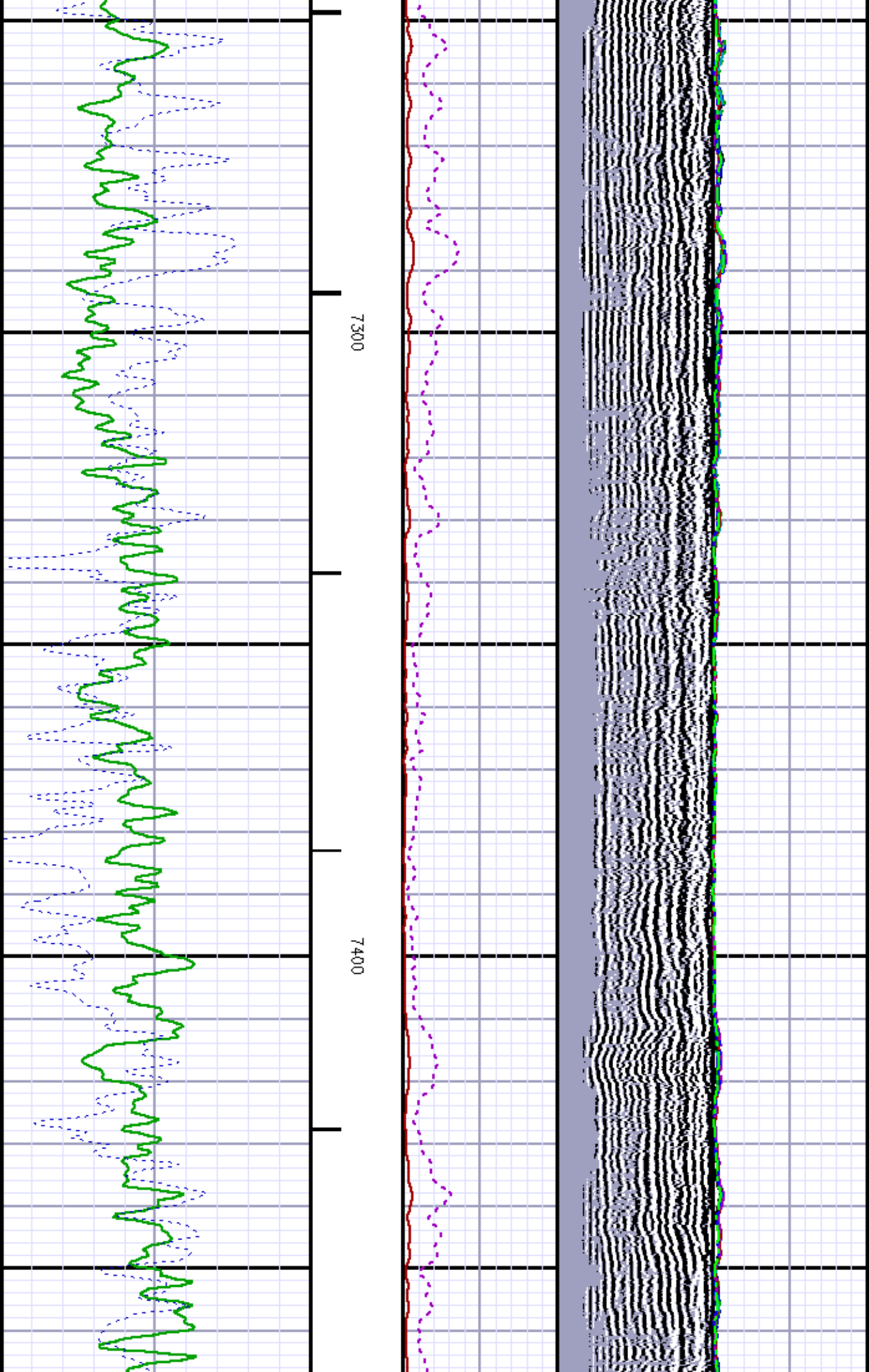


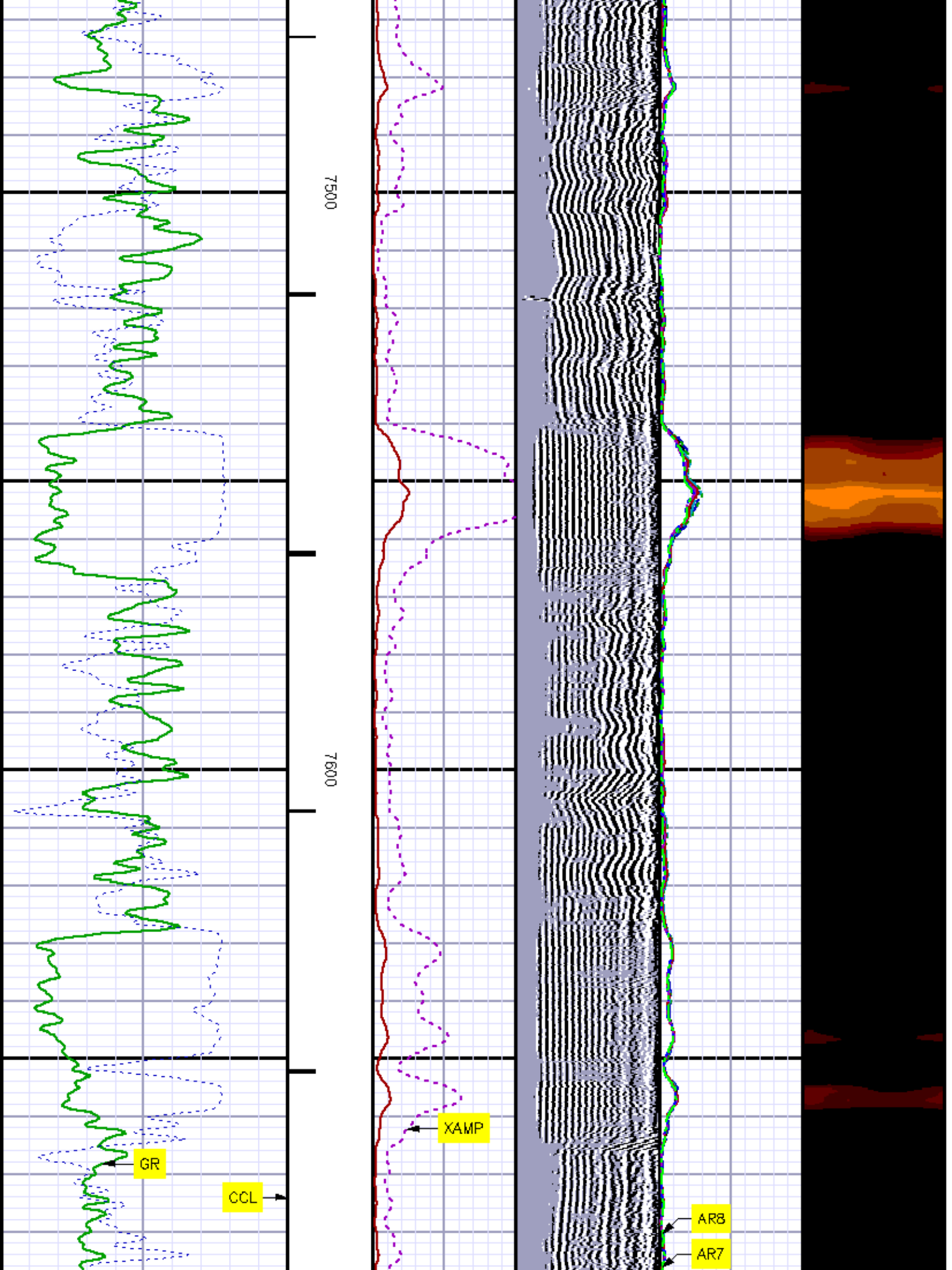


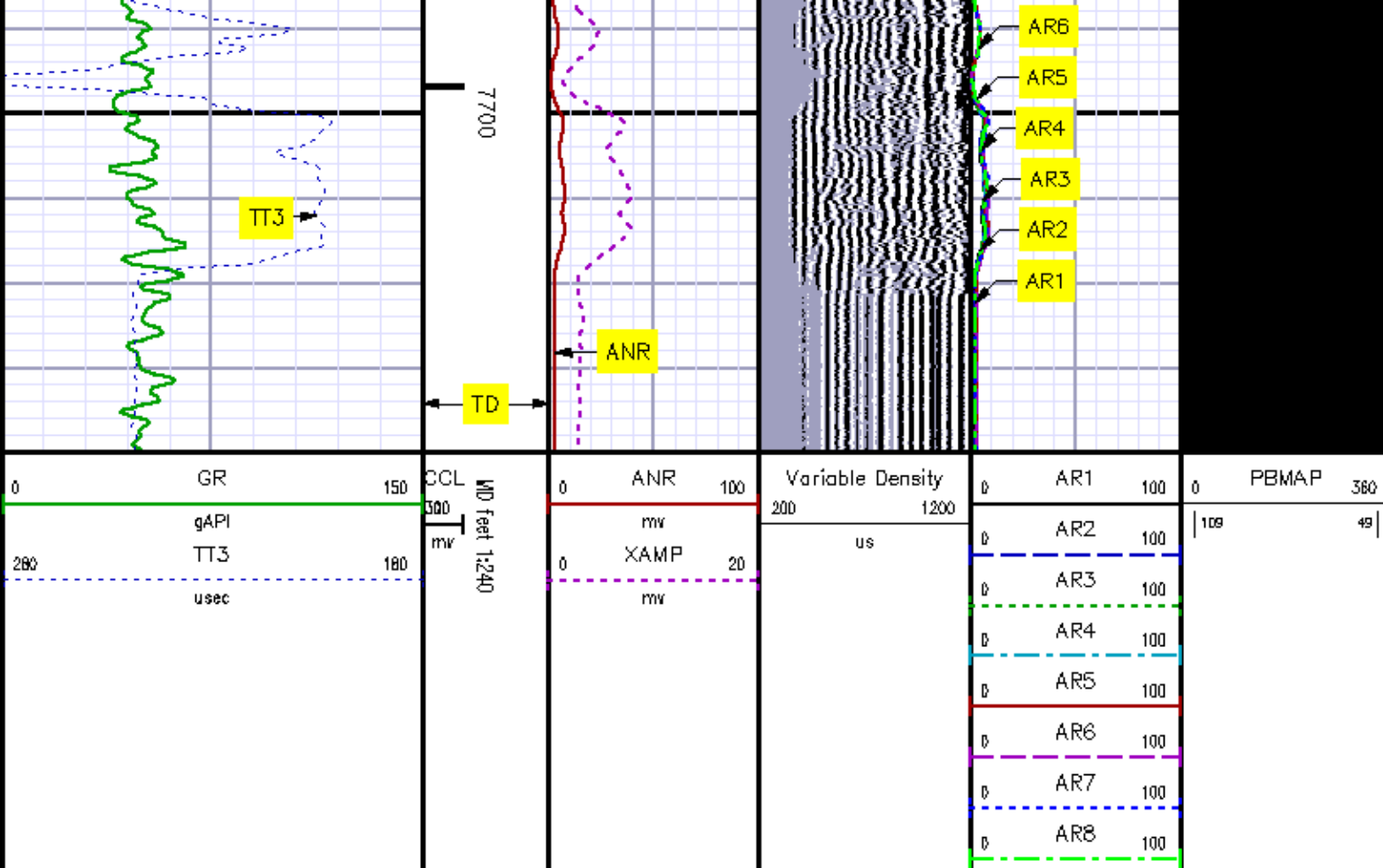












REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	316.900	usec	7400.000	7765.000
RAL	Amp Gate Start Near	200.391	usec	7400.000	7765.000
RAL	Amp Gate Start Radial	200.391	usec	7400.000	7765.000
RAL	Amp Gate Width Far	30.000	usec	7400.000	7765.000
RAL	Amp Gate Width Near	30.000	usec	7400.000	7765.000
RAL	Amp Gate Width Radial	30.000	usec	7400.000	7765.000
RAL	casing od	4.500	inches	7400.000	7765.000
RAL	casing wt	11.600	lbm/ft	7400.000	7765.000
RAL	FB Start Far	291.900	usec	7400.000	7765.000
RAL	FB Start Near	175.391	usec	7400.000	7765.000

RAL	FB Start Radial	175.391	usec	7400.000	7765.000
RAL	FB Thresh Far	10.000	mv	7400.000	7765.000
RAL	FB Thresh Near	4.000	mv	7400.000	7765.000
RAL	FB Thresh Radial	4.000	mv	7400.000	7765.000
RAL	Fluid Travel Time	200.000	usec/ft	7400.000	7765.594

DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-16.450	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	-15.450	AFAR	SIG	TT5					
2459XA	-11.340	CCL							
2459XA	-9.490	GR							
2459XA	-4.090	NEU							

Created by : RAL, v4.6.006

Plotted by : PlotMgr, v5.4.504

Company : WILLIAMS PRODUCTION COMPANY

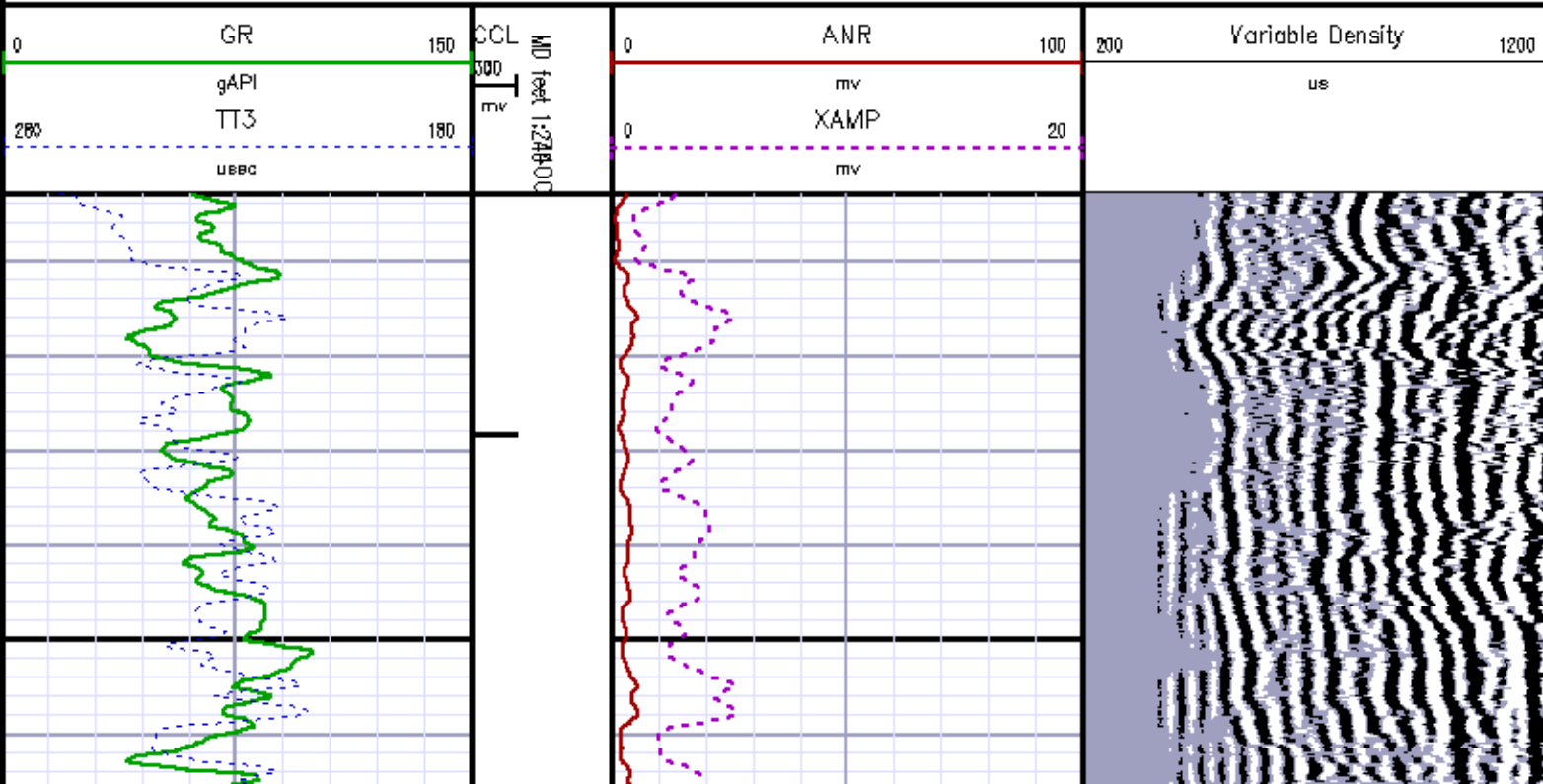
Well : KP 433-23

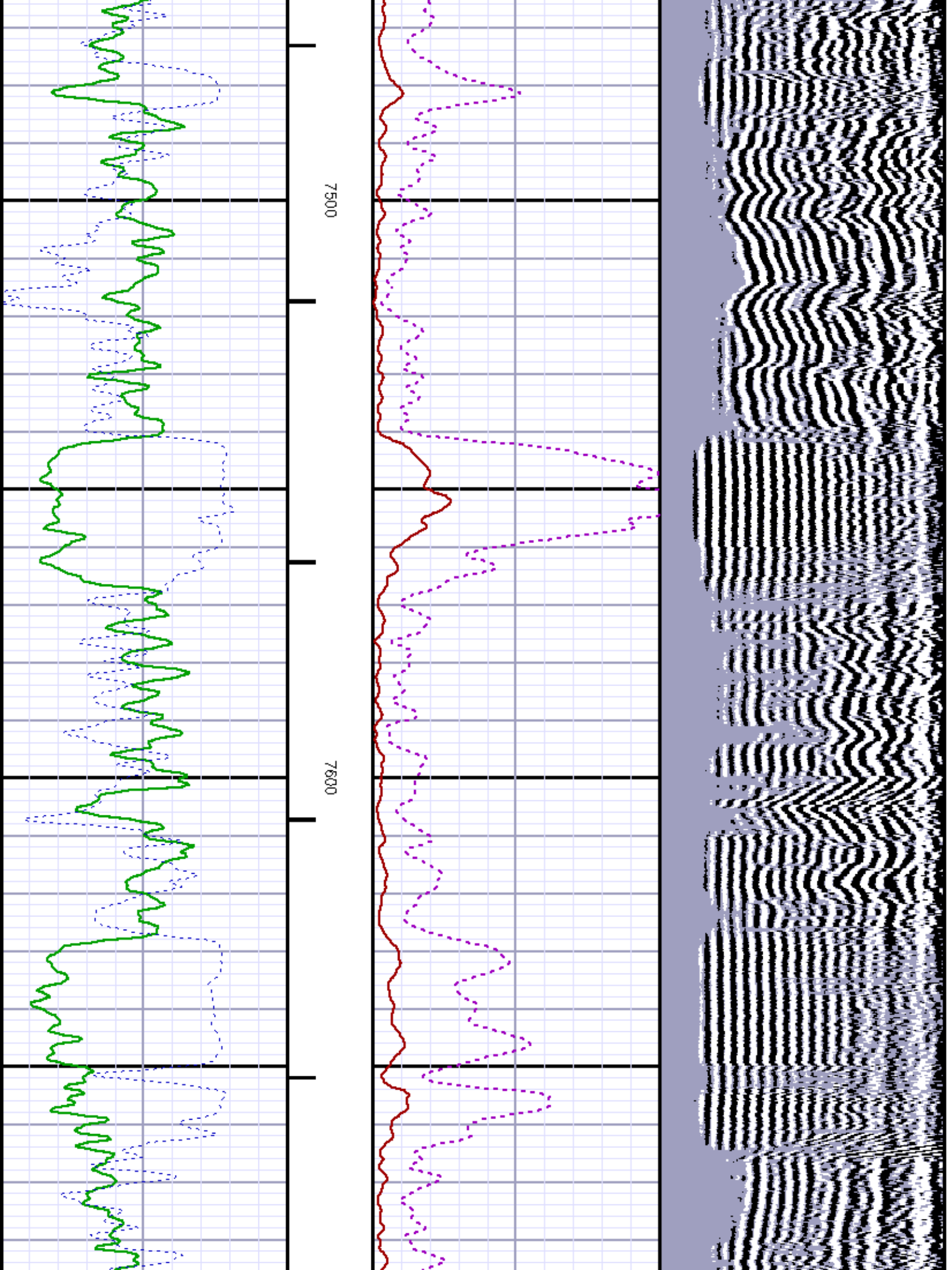
File Name : d:\well\data\rad433\repeatrdrr.xtf

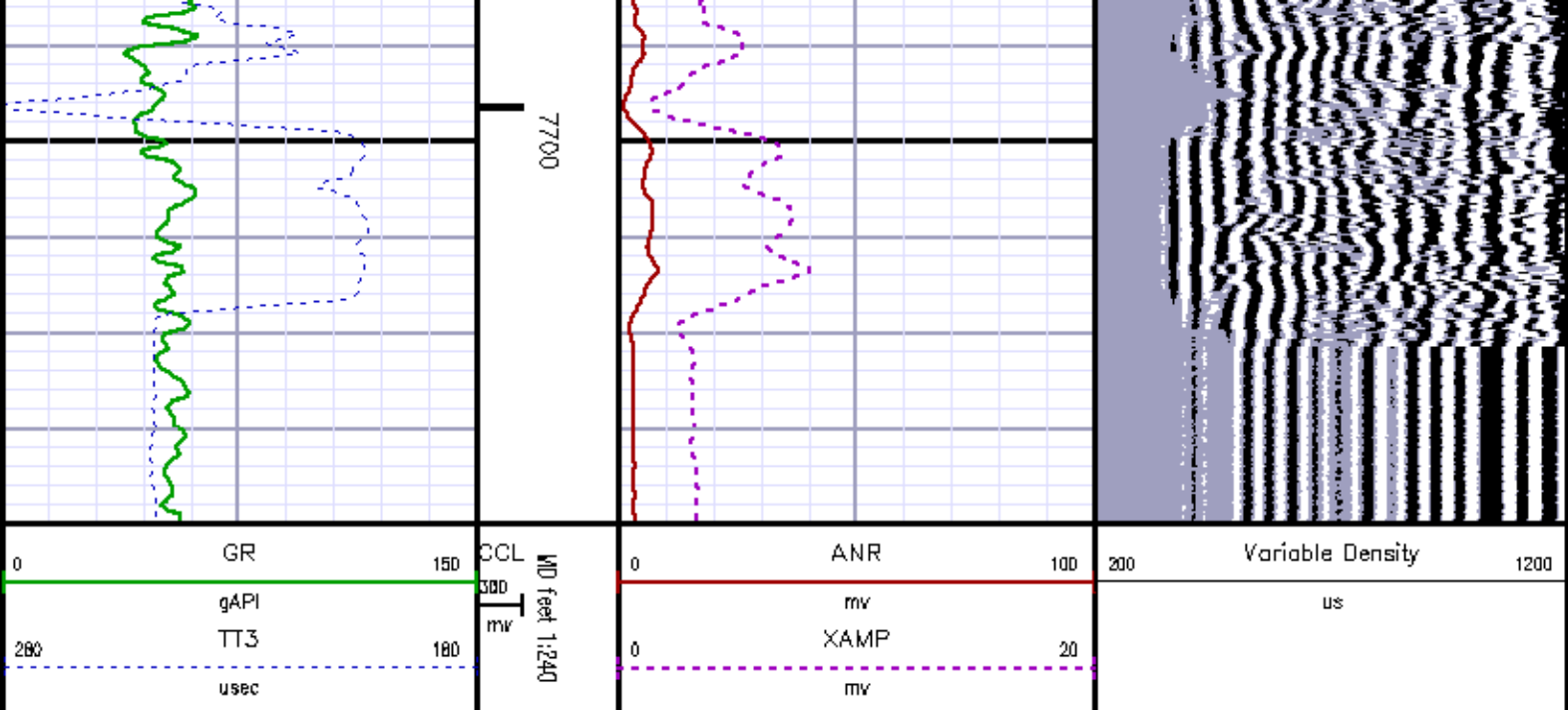
Mode : PlotMgr 5.4.504

Interval : 7403.00 - 7740.00 feet UP

Created : 9/12/2010 4:34:10 PM







CALIBRATION SUMMARY

GAMMA RAY

Calibration File: C:\case\calver\GR\201S1.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Sep 12 10:09:12 2010 TOOL SERIES: 2459XA ASSET: 201 SEQ: 51

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
52K WA-612	38.62	161.33	1.508	58.23	243.23	185.00

Verification File: C:\case\calver\GR\201S1.VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Sun Sep 12 10:10:28 2010 TOOL SERIES: 2459XA ASSET: 201 SEQ: 51

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
52K WA-612	42.09	166.62	1.508	63.45	251.20	187.75

RALSHP

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Sep 12 10:03:30 2010 TOOL SERIES: 1426XA ASSET: 1000 SEQ: 512

Tool Delay [usec] Tank OD Tank Wt Tank ID
in lbm/ft in

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="220"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.033"/>	<input type="text" value="100.00"/>	<input type="text" value="0.28"/>
3 Ft. Receiver	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="106"/>	<input type="text" value="74"/>	<input type="text" value="-1.381"/>	<input type="text" value="100.00"/>	<input type="text" value="0.27"/>
5 Ft. Receiver	<input type="text" value="328"/>	<input type="text" value="332"/>	<input type="text" value="30"/>	<input type="text" value="282"/>	<input type="text" value="25"/>	<input type="text" value="0.589"/>	<input type="text" value="150.00"/>	<input type="text" value="0.29"/>
Radial #1	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.338"/>	<input type="text" value="100.00"/>	<input type="text" value="0.27"/>
Radial #2	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-2.049"/>	<input type="text" value="100.00"/>	<input type="text" value="0.27"/>
Radial #3	<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="-2.135"/>	<input type="text" value="100.00"/>	<input type="text" value="0.27"/>
Radial #4	<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="0.003"/>	<input type="text" value="100.00"/>	<input type="text" value="0.27"/>
Radial #5	<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="0.185"/>	<input type="text" value="100.00"/>	<input type="text" value="0.27"/>
Radial #6	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="0.465"/>	<input type="text" value="100.00"/>	<input type="text" value="0.27"/>
Radial #7	<input type="text" value="220"/>	<input type="text" value="216"/>	<input type="text" value="30"/>	<input type="text" value="166"/>	<input type="text" value="25"/>	<input type="text" value="-0.667"/>	<input type="text" value="100.00"/>	<input type="text" value="0.27"/>
Radial #8	<input type="text" value="222"/>	<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="0.27"/>

RALFLD

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Sep 12 13:22:19 2010 TOOL SERIES: 1426XA ASSET: 1000 SEQ: 512

Tool Delay [usec] Casing OD Casing Wt Casing ID
in lbm/ft in

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="-0.024"/>	<input type="text" value="0.000"/>	<input type="text" value="1.01"/>	<input type="text" value="100.000"/>
3 Ft. Receiver	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.202"/>			
5 Ft. Receiver	<input type="text" value="307"/>	<input type="text" value="30"/>	<input type="text" value="0.168"/>			
Radial #1	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.232"/>			
Radial #2	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.102"/>			
Radial #3	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.273"/>			
Radial #4	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.180"/>			
Radial #5	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.185"/>			
Radial #6	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.143"/>			
Radial #7	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.149"/>			
Radial #8	<input type="text" value="200"/>	<input type="text" value="30"/>	<input type="text" value="0.171"/>			

TOOL DIAGRAM

OTA SHORT CABLE HEAD

PROBE 2 3/4 DUAL RECEIVER RADII

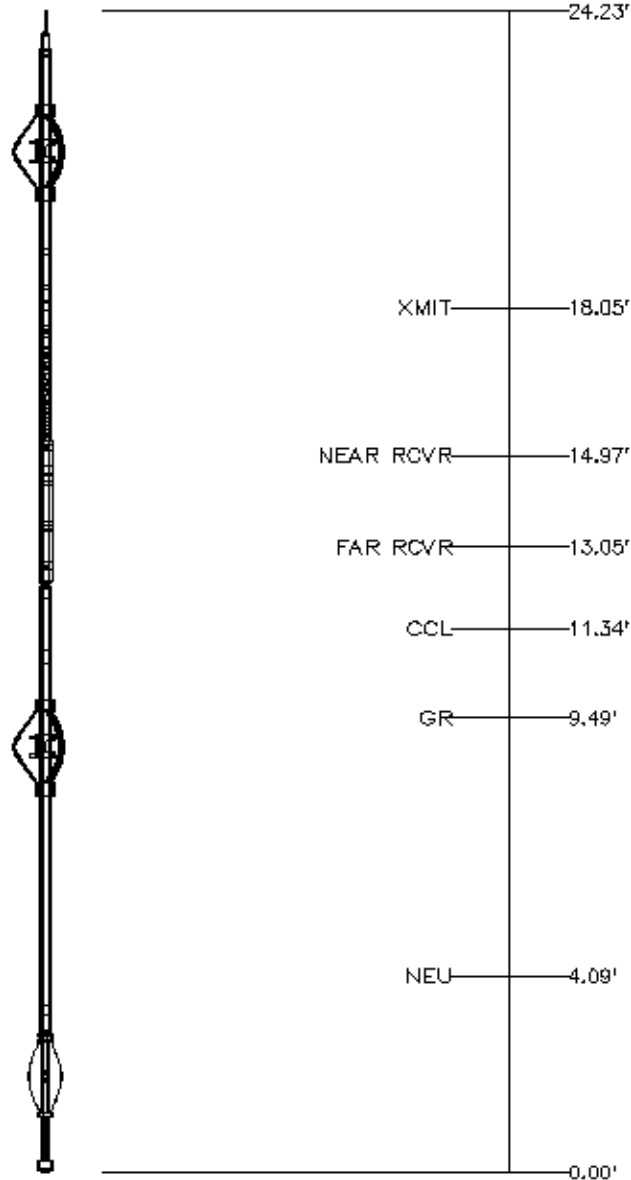
Series	1426XA
Mnemonic	PROB
Diameter	2.75"
Length	11.17'
Measure Point	0.75' FAR RCVR
Measure Point	2.67' NEAR RCVR
Measure Point	5.75' XMIT
Temp Rating	350.00 °F
Press Rating	18000.00 PSI

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



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



Company WILLIAMS PRODUCTION COMPANY

Well KP 433-23

Field KOKOPELLI

County GARFIELD State COLORADO

Location

SHL: 794' FSL & 1825' FWL

BHL: 1727' FSL & 1886' FWL

Elevations

KB 6345 ft

DF 6344 ft

GL 6321 ft

File No:

API No:

C5045195700000

23 BS 91W

KP 24-23 PAD

CYCLONE 30

Baker Atlas

CASE

