



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: CH075119	Company Well Field County	WPX ENERGY STRAIT SG 442-22 GRAND VALLEY GARFIELD	State COLORADO
API No: 05045217550000			
22 75 96W SG 42-22 CYCLONE 17	Location SHL: 1525' FNL & 279' FEL SEC:22 BHL: 2254' FNL & 1115' FEL SEC:22 SEC 22 TWP 75 RGE 96W	Other Services RPM	
Permanent Datum Log Measured From Drill Measured From	G.L. _____ Elevation 5222 ft K.B. _____ 22 ft Above P. D. KELLY BUSHING	Elevations KB 5244 ft DF GL 5222 ft	

Date	24/JUL/13	
Run	ONE	
Service Order	B24A58	
Depth Driller	5587 ft	
Depth Logger	5574 ft	
Bottom Logged Interval	5564 ft	
Top Logged Interval	22 ft	
Time Started	7:00	
Time Finished	10:00	
Operator Rig Time	3 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	N/A	
Salinity	N/A	
Fluid Level	51 ft	
Logged Cement Top	N/A	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	N/A	
Nominal Logging Speed	45 fpm	
Maximum Recorded Temperature	185 degF	
Reference Log	BAKER HUGHES HDIL LOG	
Reference Log Date	07/JUL/15	
Equipment No.	4271	GRAND JUNCTION
Recorded By	M. KINSEL	9721
Witnessed By	MR. AL DUNIHOO	GRAND JUNCTION

- FOLD HERE

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

Borehole Record		
Bit Size	From	To
13.5 In	0 ft	1489 ft
8.75 In	0 ft	5662 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 In	N/A	N/A	0 ft	1438 ft
4.5 In	11.6 lbm/ft	1-80	0 ft	5587 ft

Remarks
ALL DATA IN THIS LOG WAS DEPTH SHIFTED TO MATCH A BAKER HUGHES HDIL LOG DATED 7 JULY 2013 AT THE CLIENT'S REQUEST. THE AMOUNT OF LINEAR SHIFT WAS 6 FEET DOWN. DEPTH SHIFTING PROCESS CREATES THE POTENTIAL FOR COLLAR LENGTHS TO VARY FROM OTHER CASED HOLE LOGS WITHOUT A GAMMA RAY REFERENCE.
SHORT JOINT: 3438' - 3460'
BHT: 185 degF

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10124106	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	16.187	5591.000
RAL	Amp Gate Start Near	199.015	usec	16.187	5591.000
RAL	Amp Gate Start Radial	198.578	usec	16.187	5591.000
RAL	Amp Gate Width Far	25.000	usec	16.187	5591.000
RAL	Amp Gate Width Near	25.000	usec	16.187	5591.000
RAL	Amp Gate Width Radial	25.000	usec	16.187	5591.000
RAL	casing od	4.500	inches	16.187	5591.000
RAL	casing wt	11.600	lbm/ft	16.187	5591.000
RAL	FB Start Far	291.900	usec	16.187	5591.000
RAL	FB Start Near	175.391	usec	16.187	5591.000
RAL	FB Start Radial	175.391	usec	16.187	5591.000
RAL	FB Thresh Far	10.000	mv	16.187	5591.000
RAL	FB Thresh Near	4.000	mv	16.187	5591.000
RAL	FB Thresh Radial	4.000	mv	16.187	5591.000
RAL	Fluid Travel Time	200.000	usec/ft	16.187	5591.000

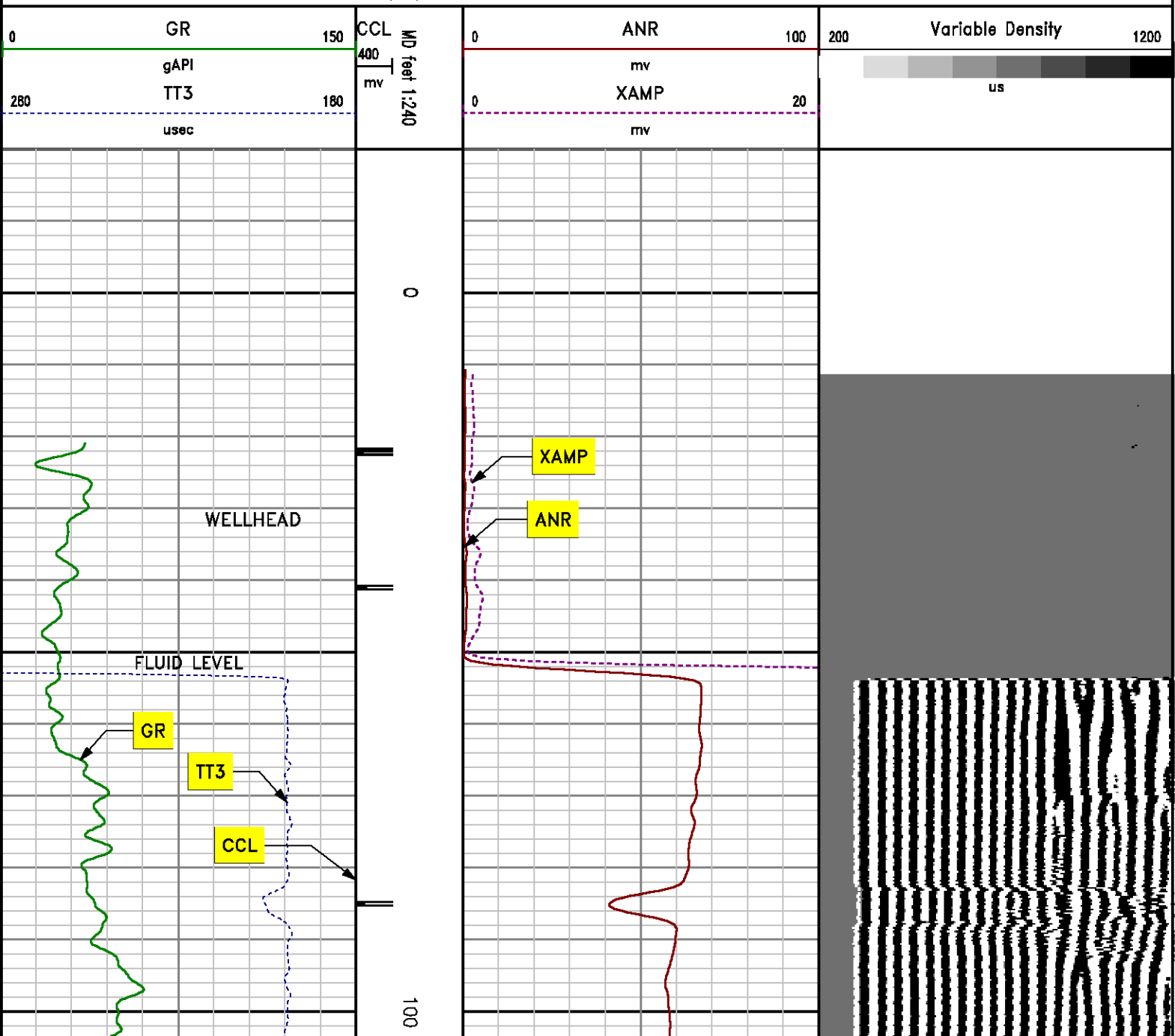
DEPTH OFFSETS  
(for Acquired Curves)

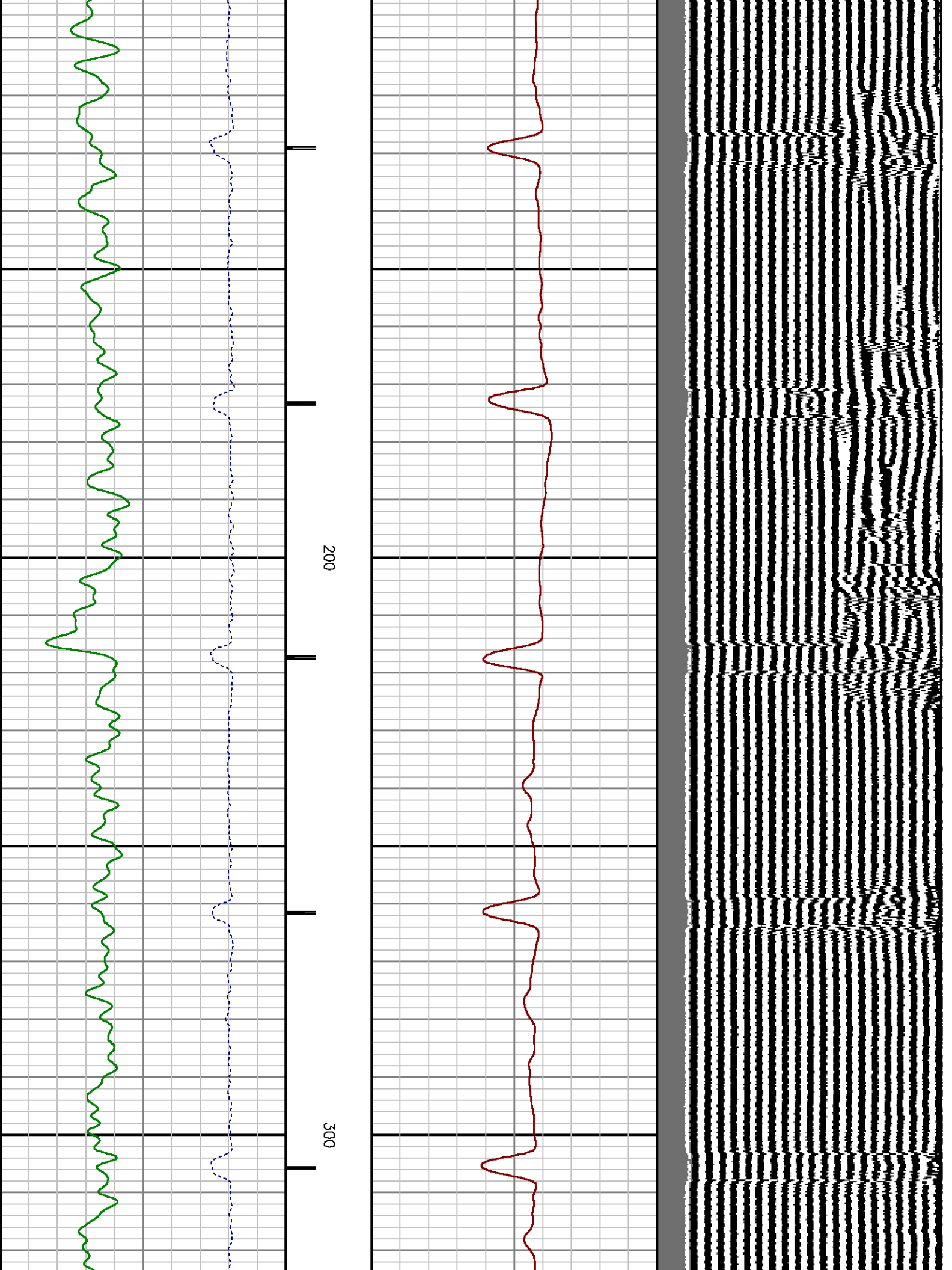
SERIES	DEPTH OFFSET	ACQUIRED CURVES
1426XA	16.187	10124106 10580209

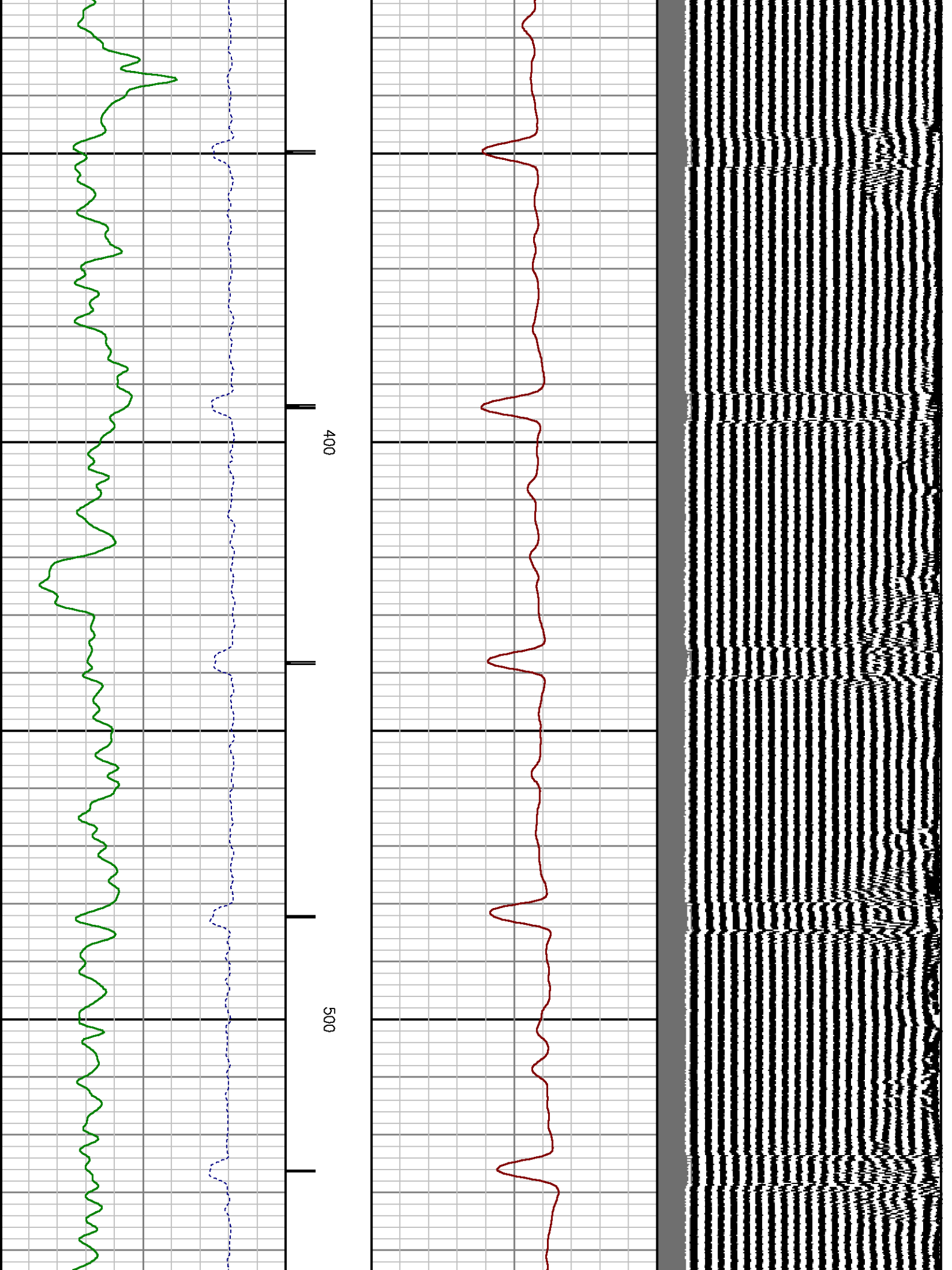
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 1355XA -5.620  
 1355XA -1.500  
 1355XA 0.000

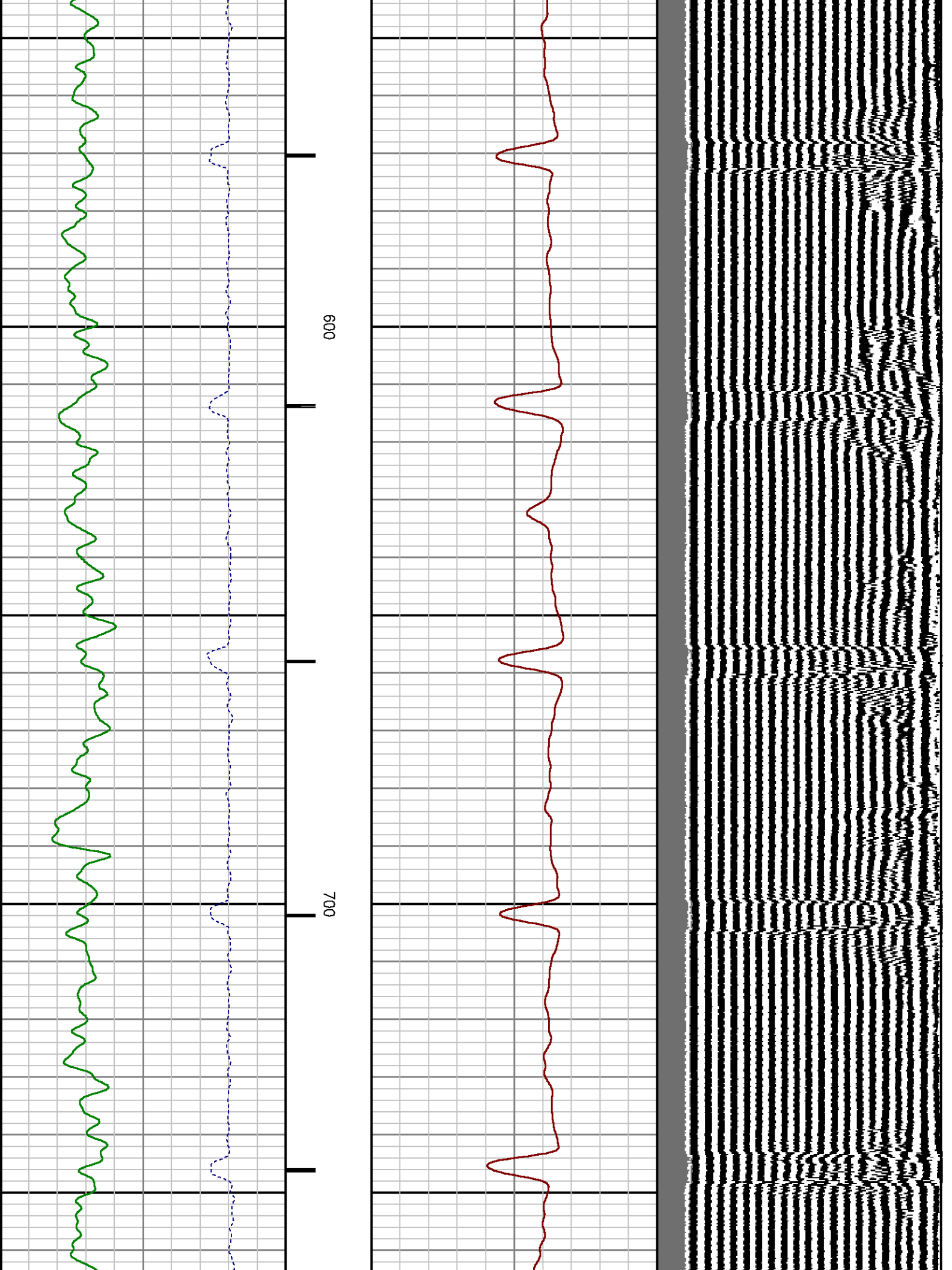
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AR5	AR6	AR7	AR8	CHV	FPR2
FPR3	FPR5	TT3	TTR1	TTR2	TTR3
TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
AFAR	SIG	TT5			
CCL					
GR					
TEMP					

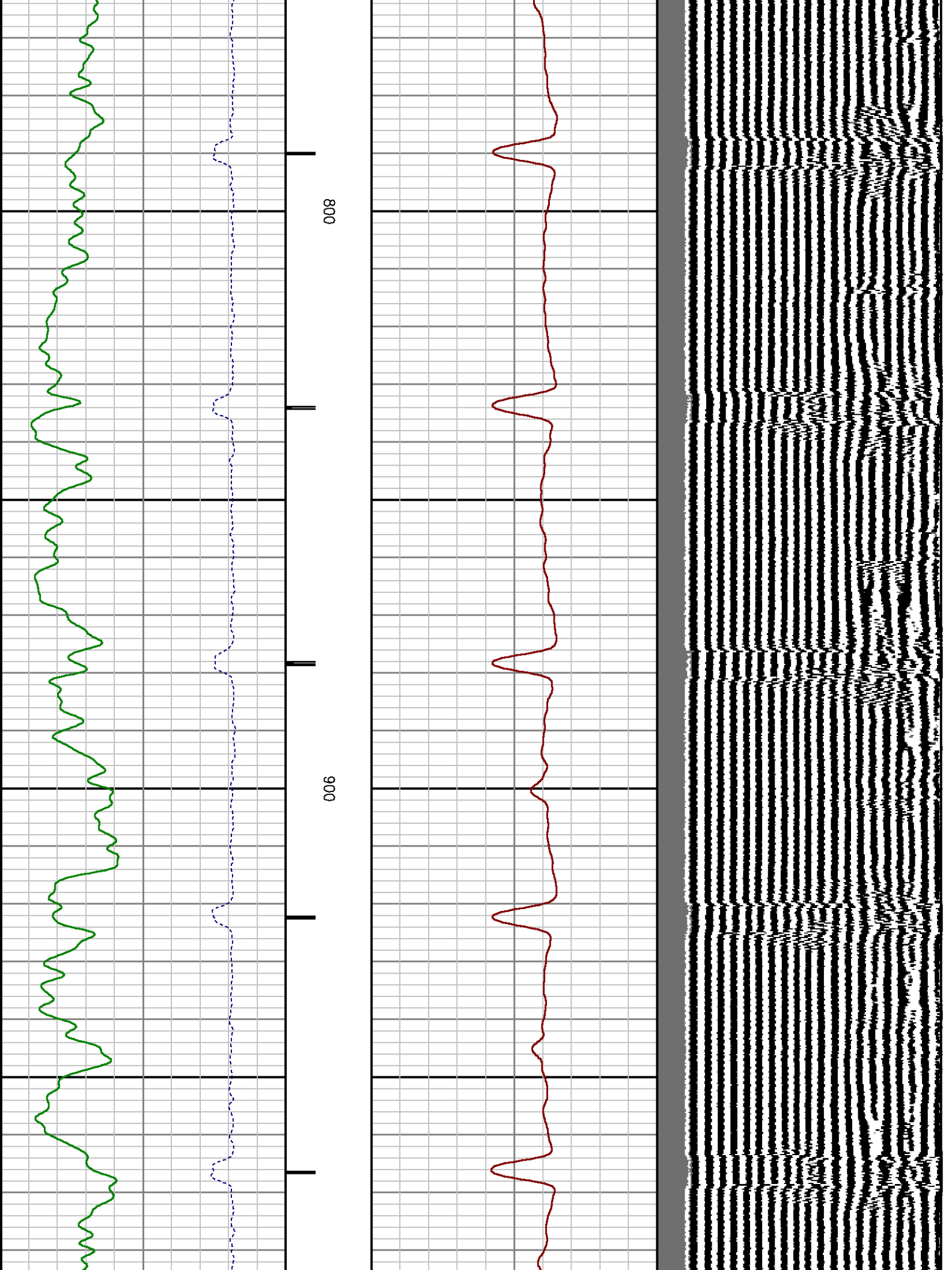
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 Plotted by : PlotMgr, v5.4.504  
 Company : WPX ENERGY  
 Well : STRAIT SG 442-22  
 File Name : d:\welldata\442cbl\main.xtf  
 Mode : PlotMgr 5.4.504  
 Interval : -20.00 - 5580.00 feet UP  
 Created : 7/24/2013 8:54:46 AM

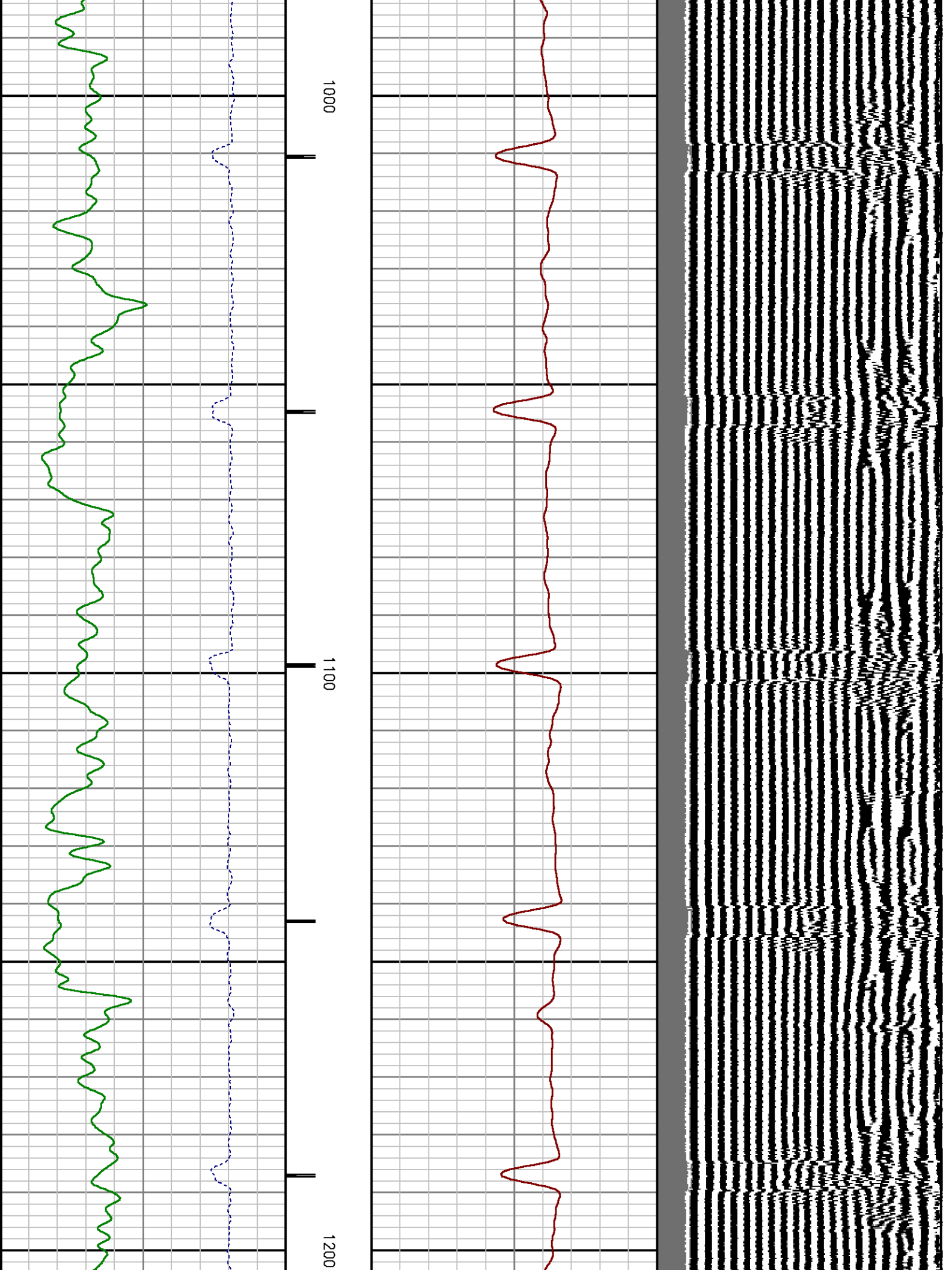




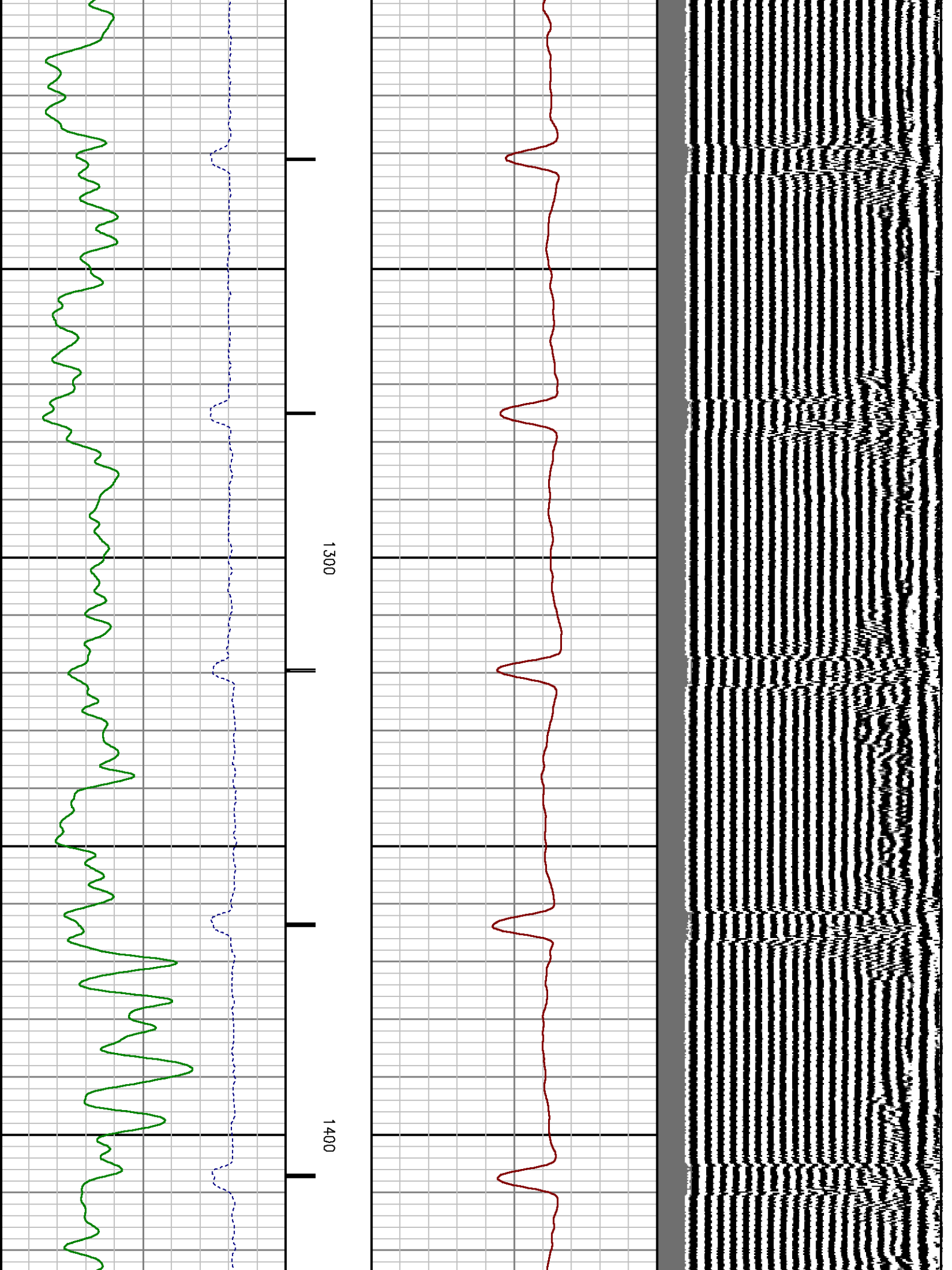


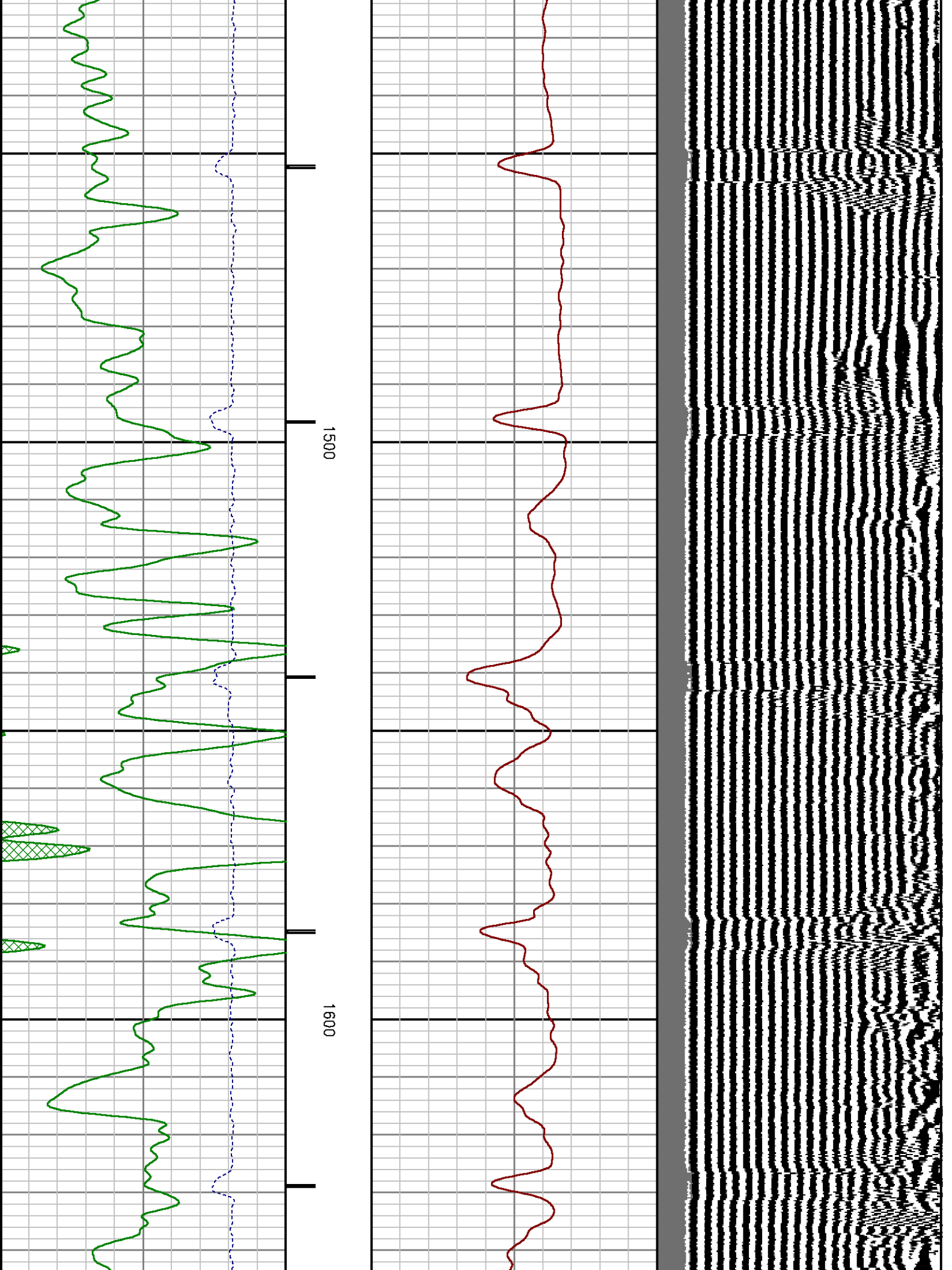


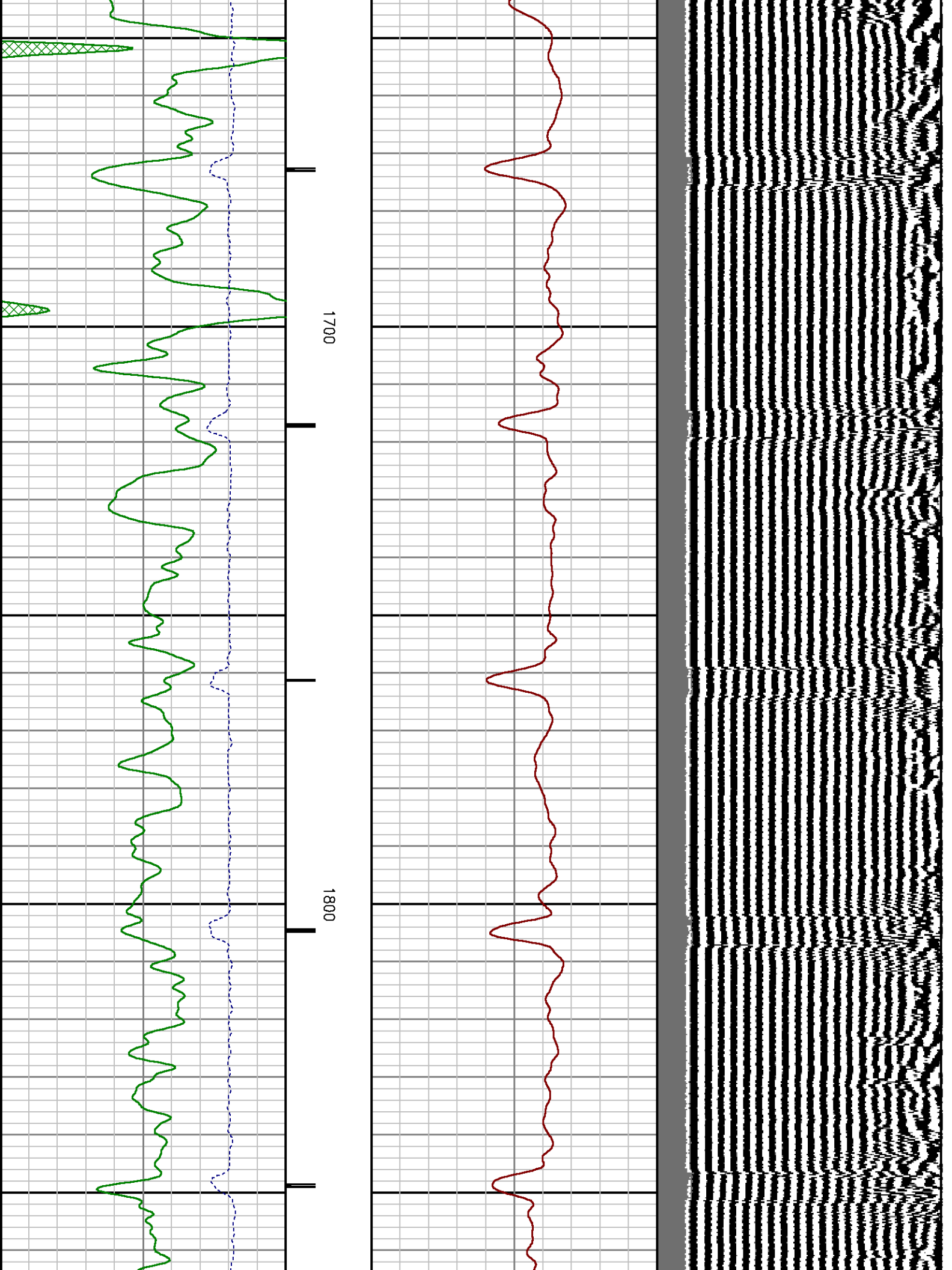


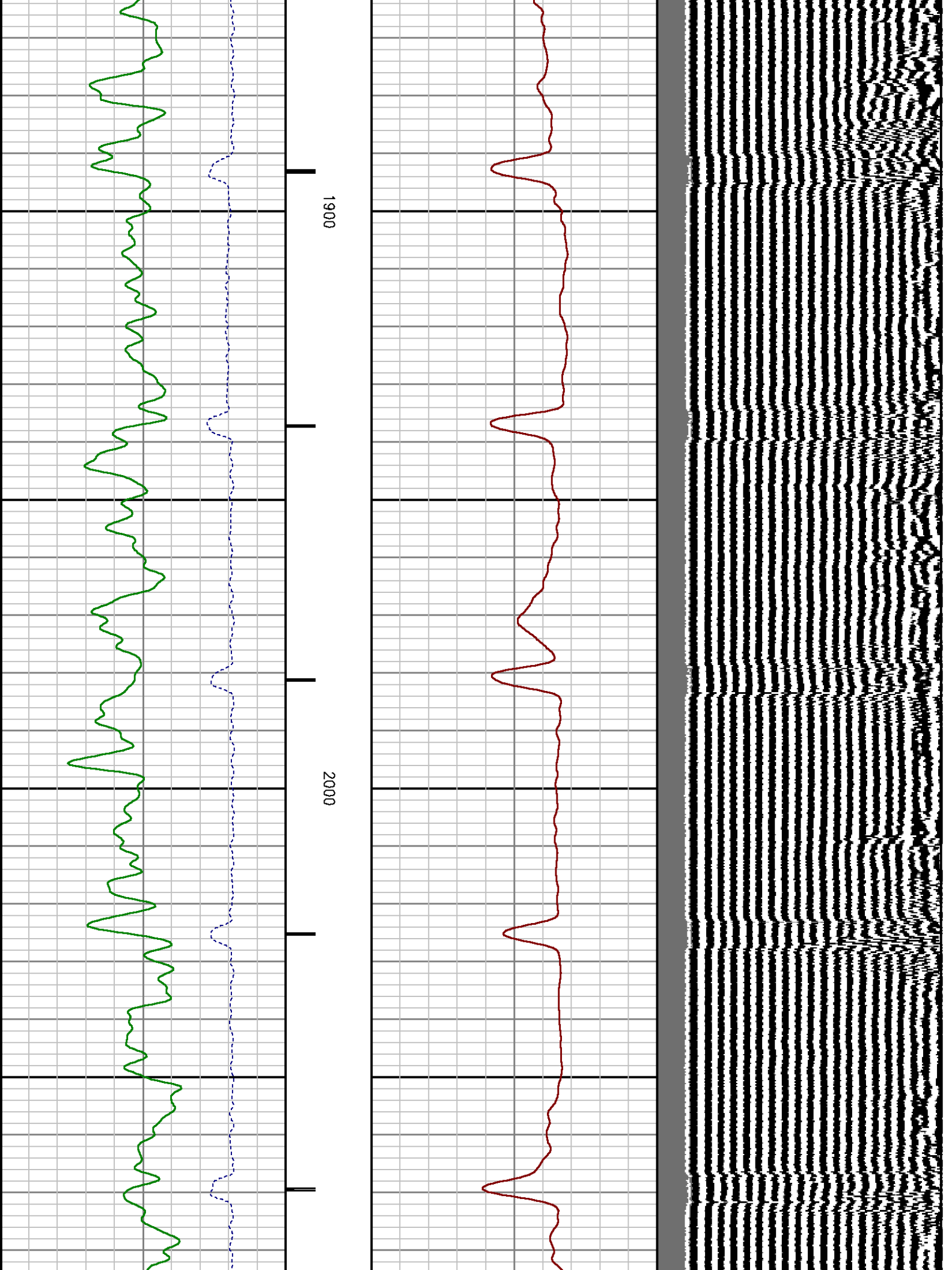


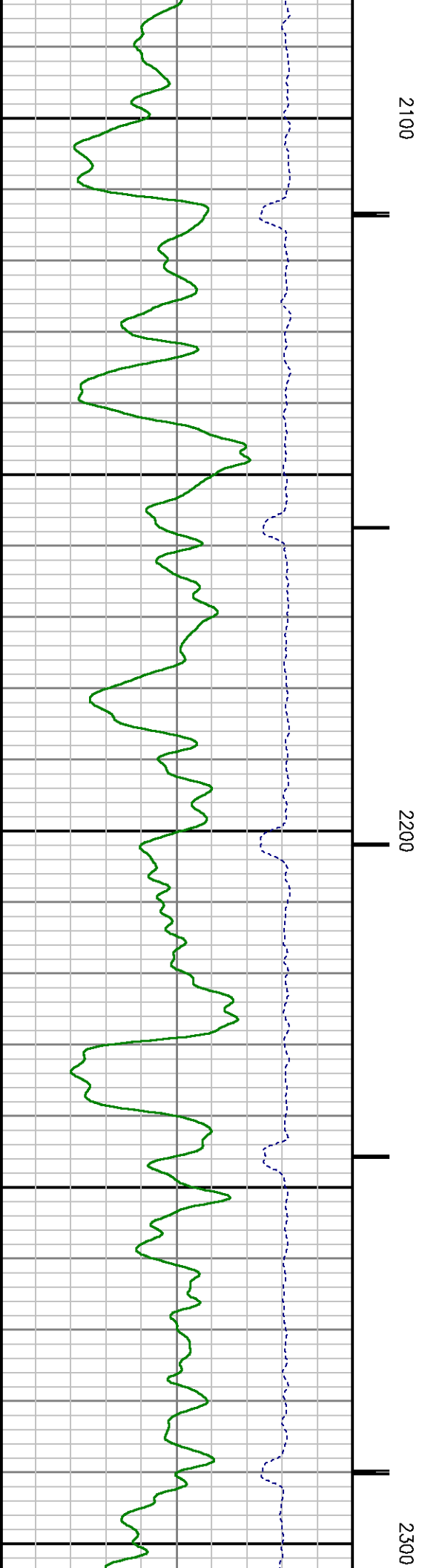
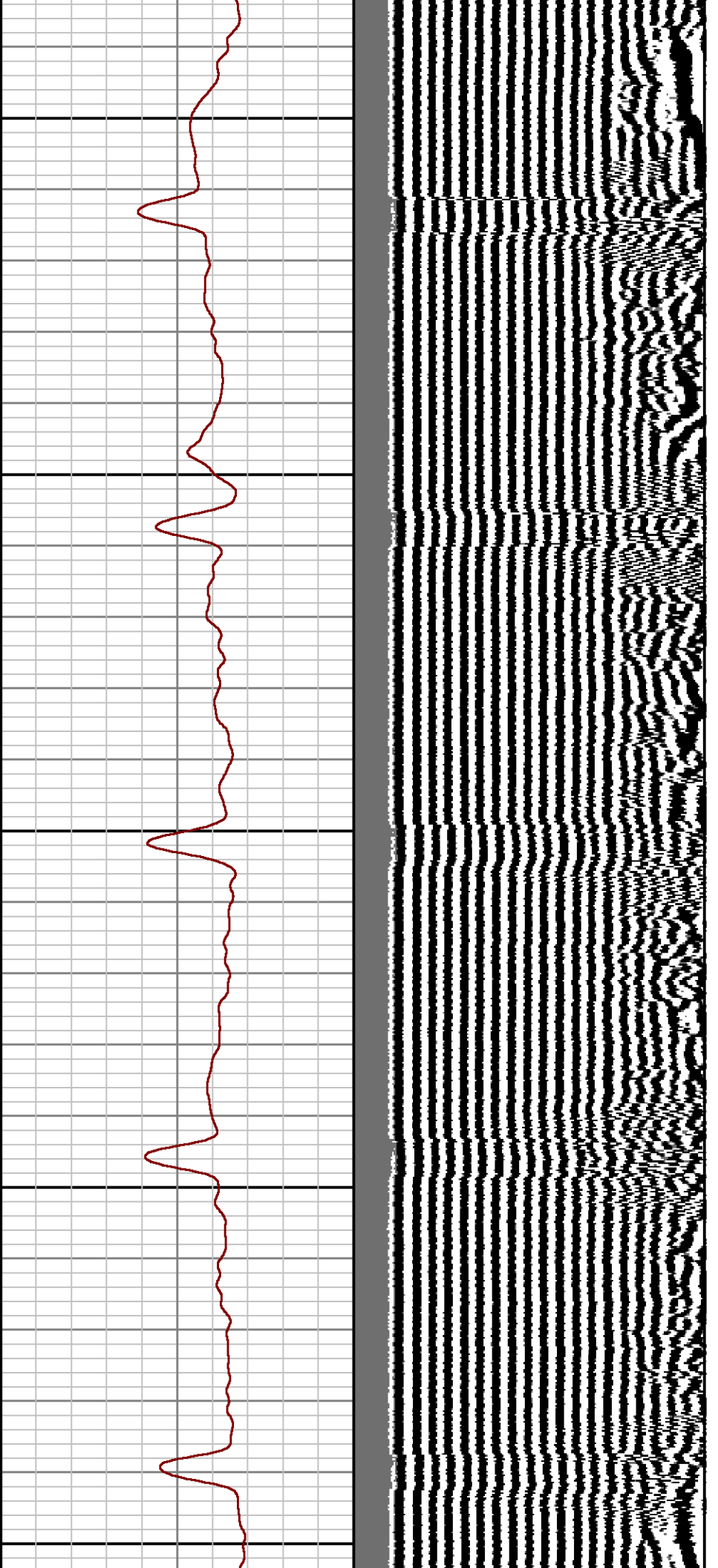


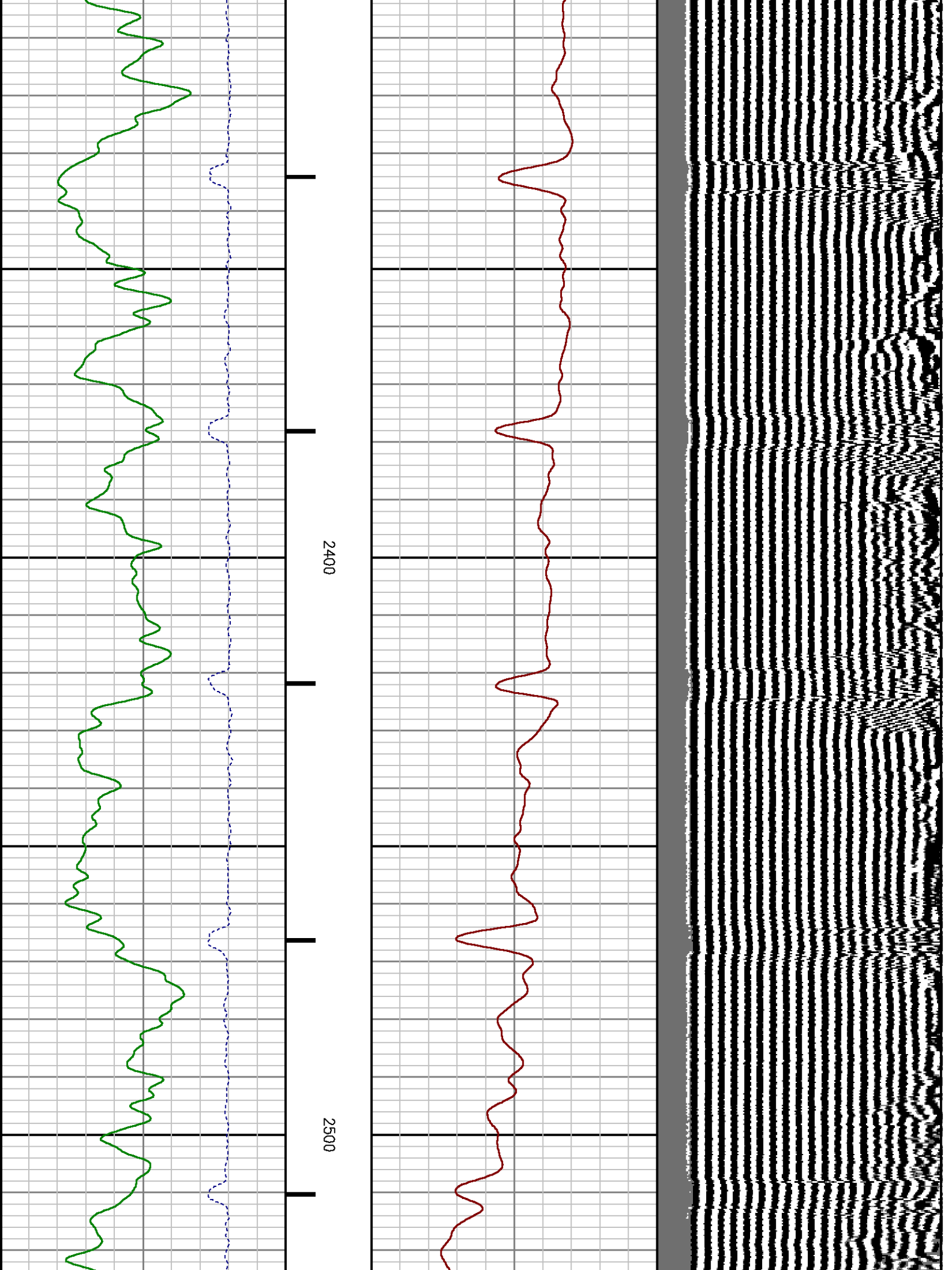




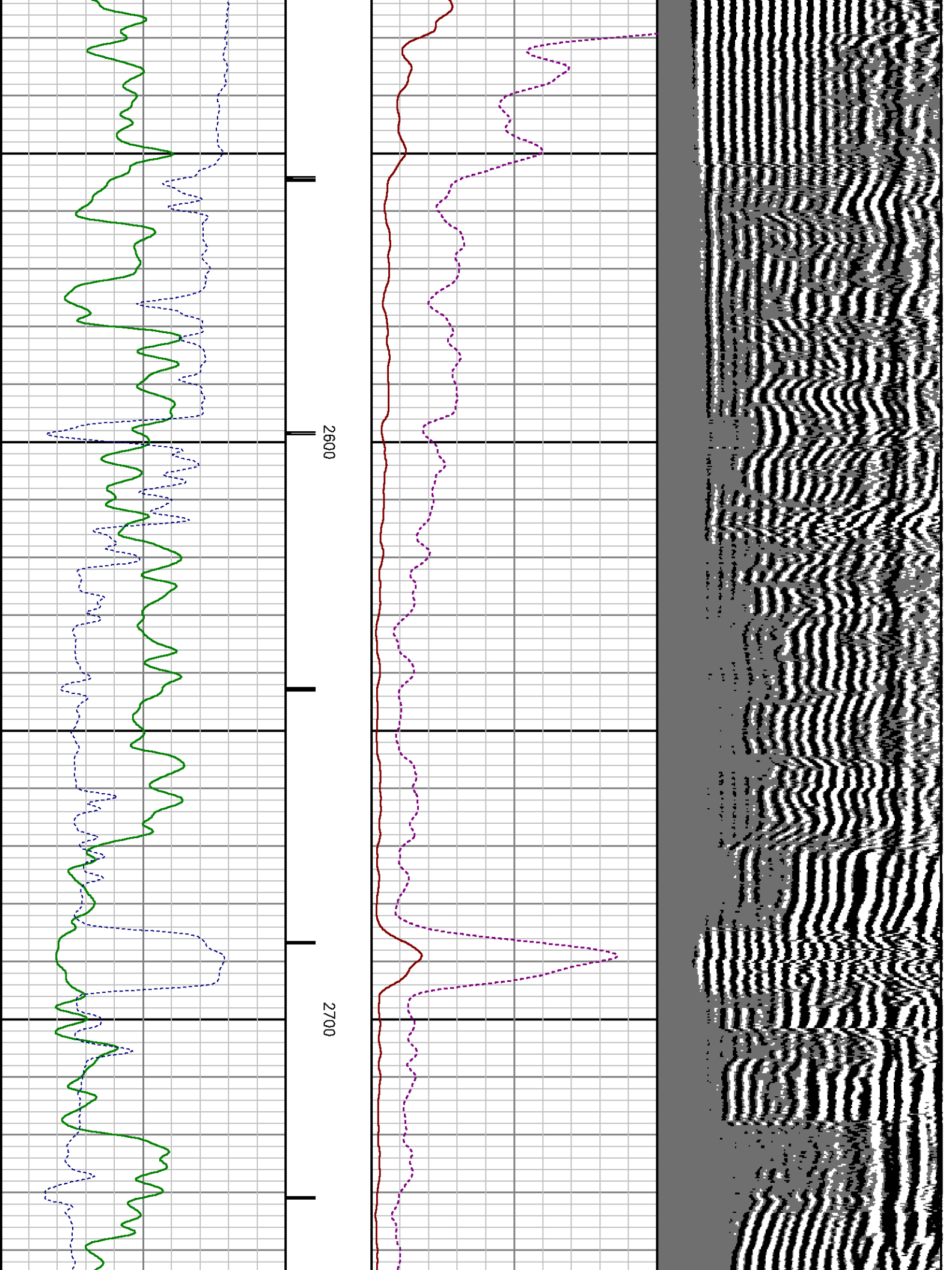


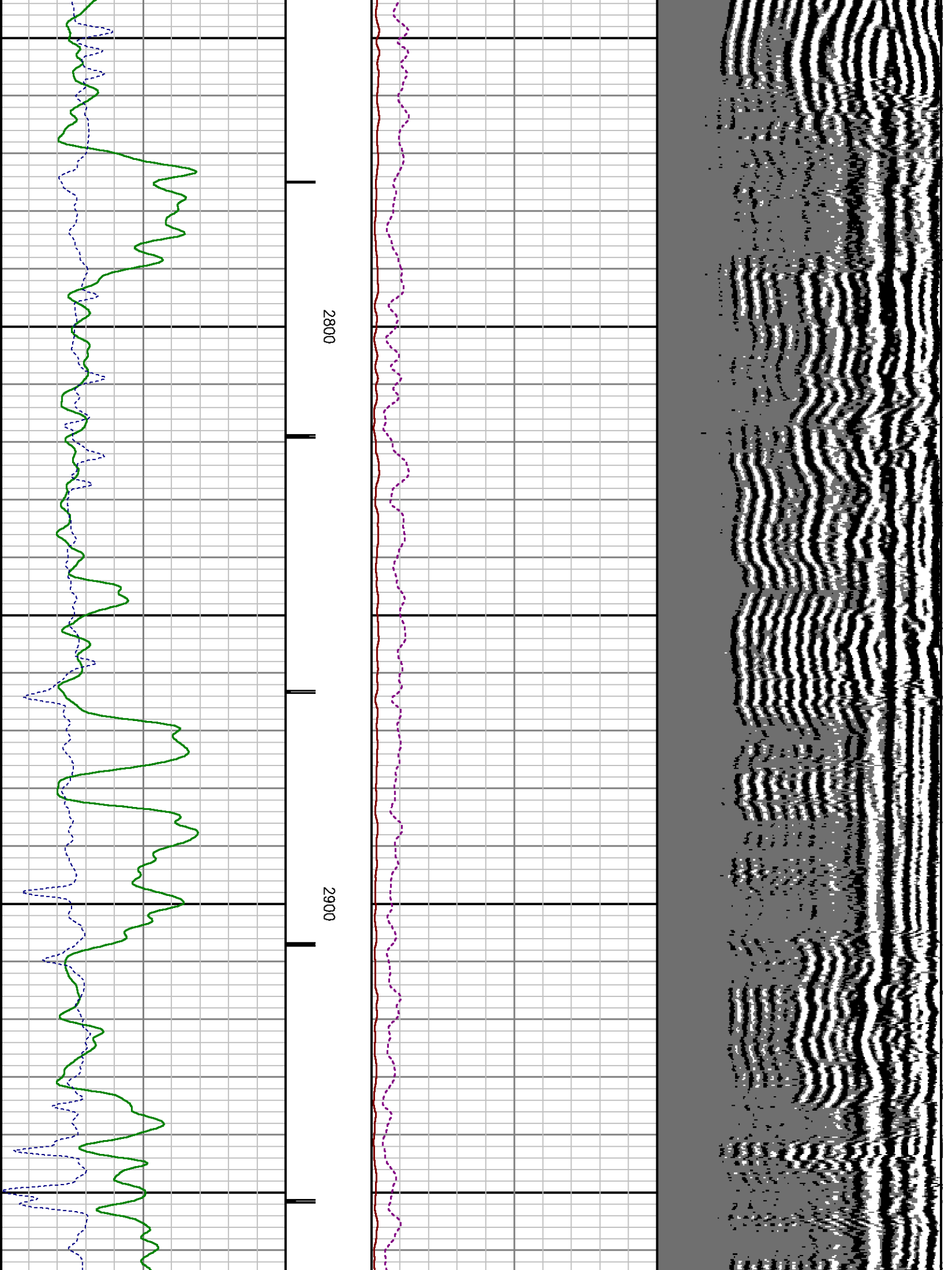




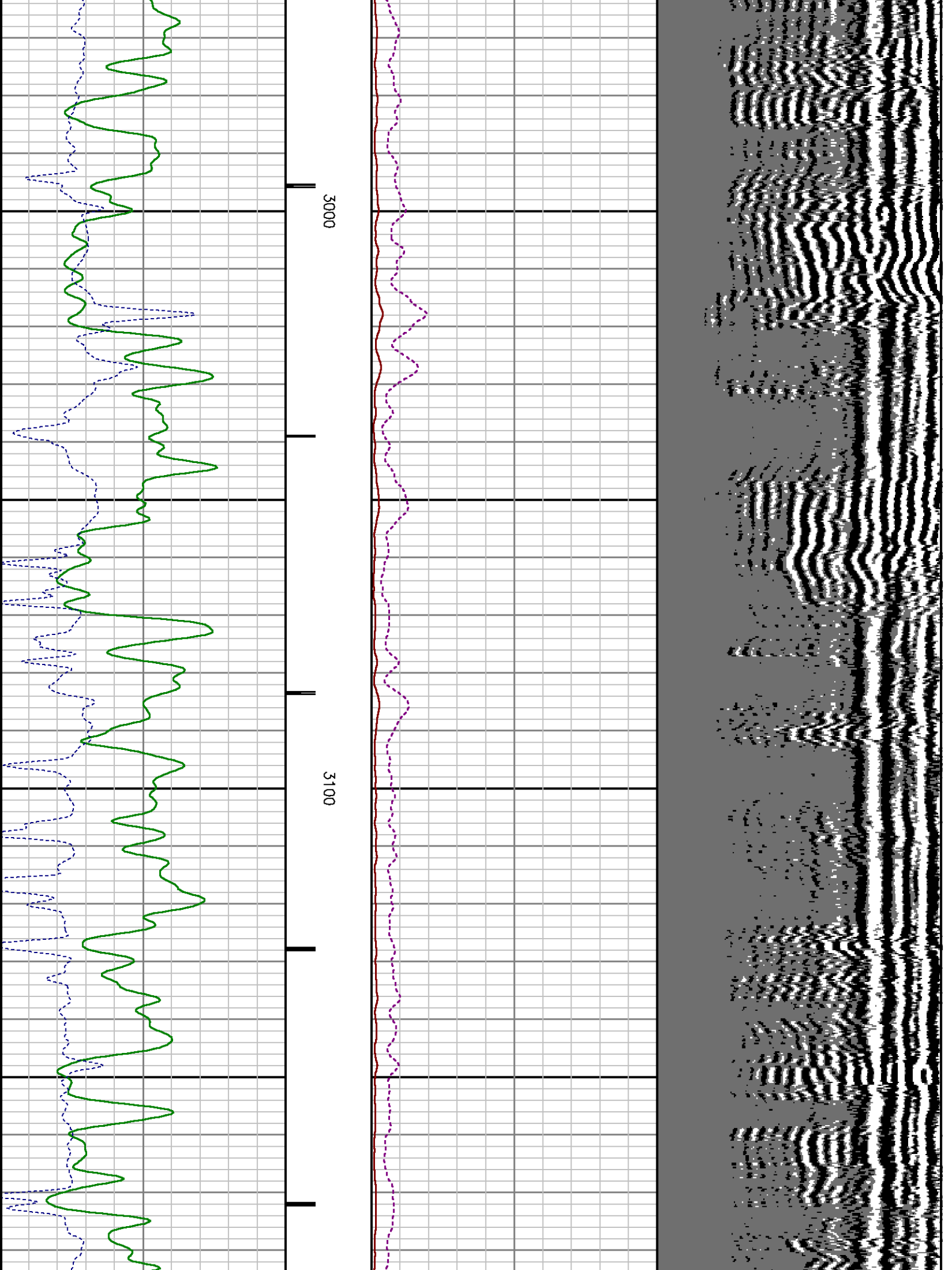


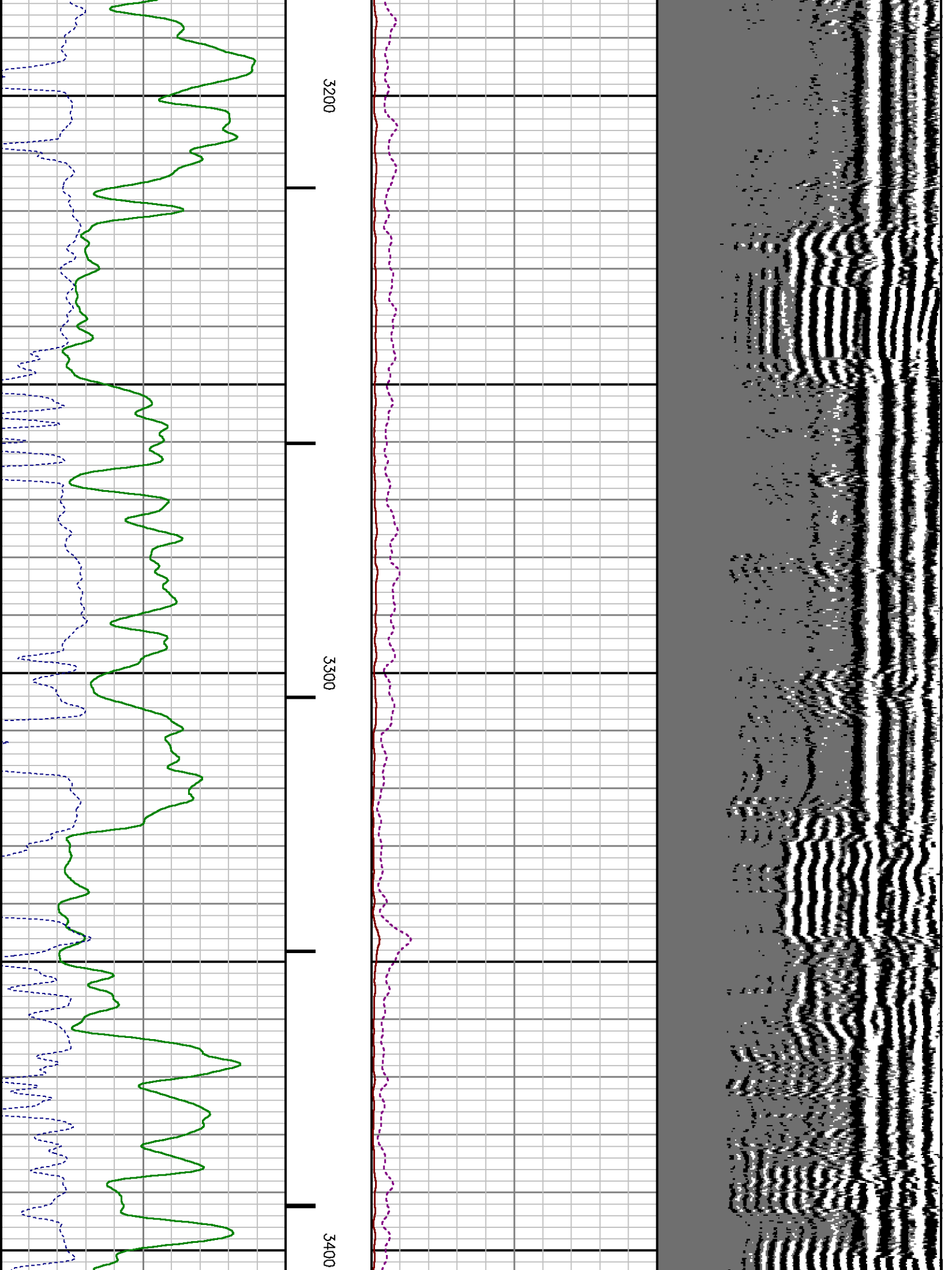


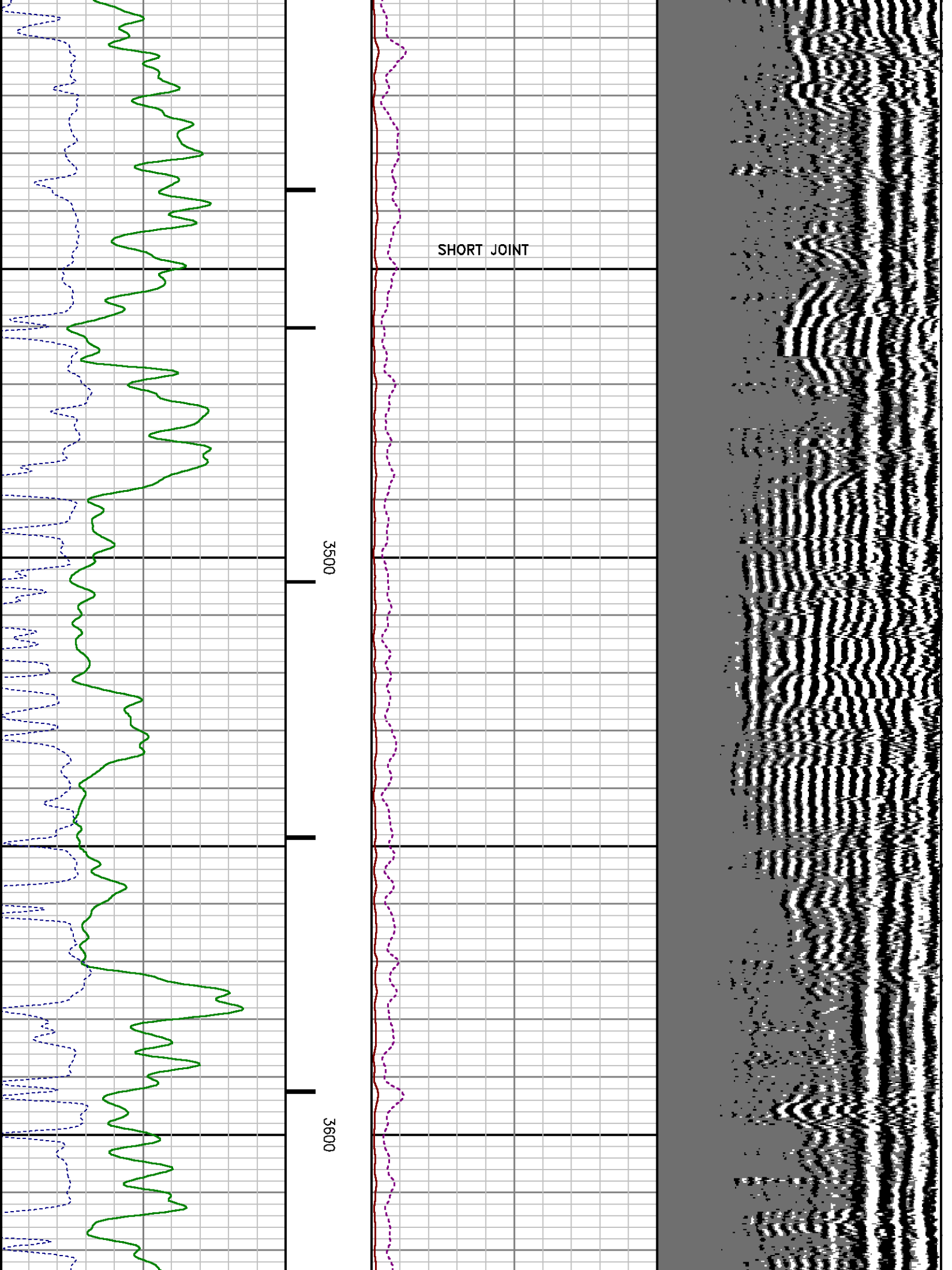


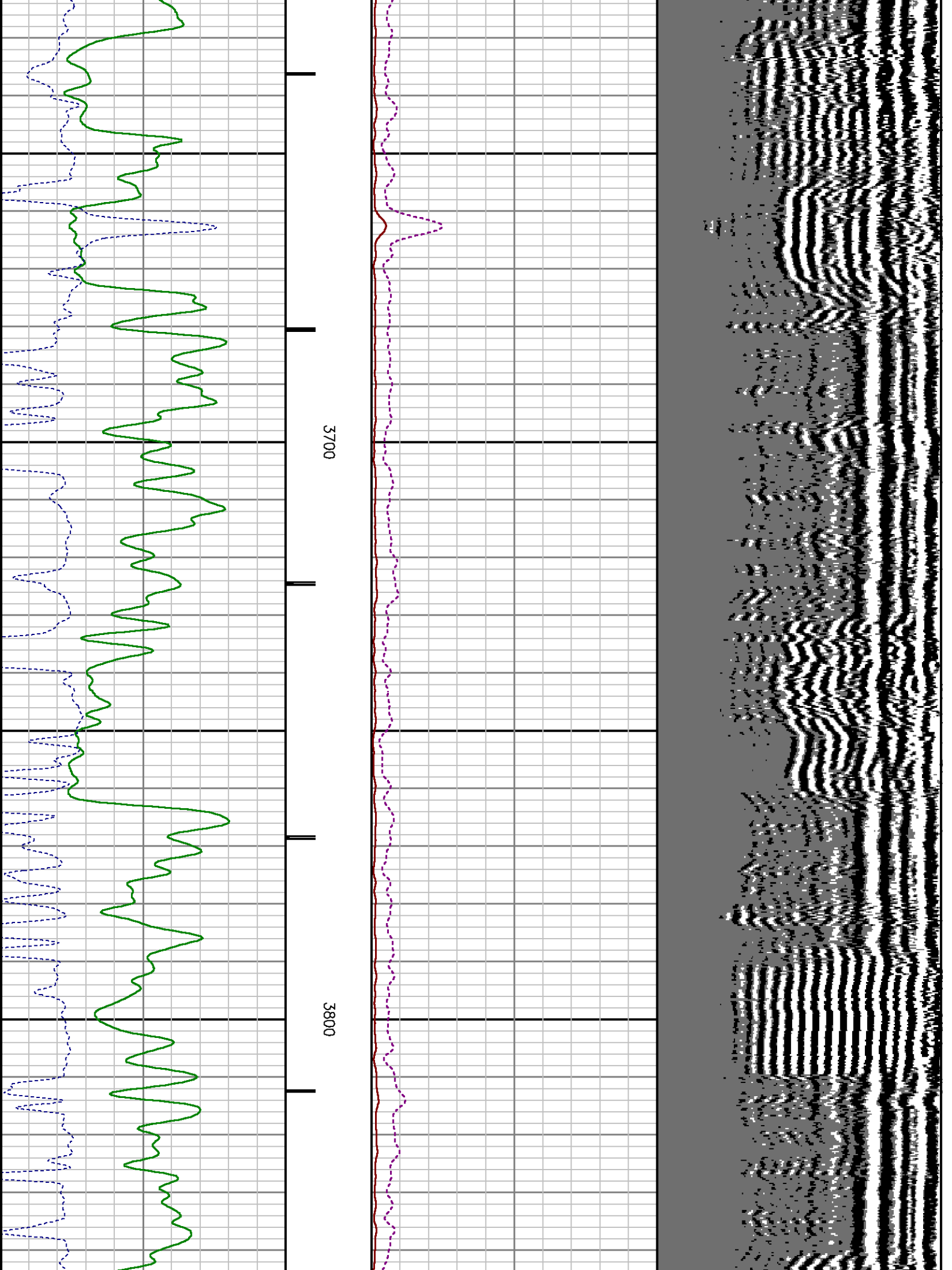


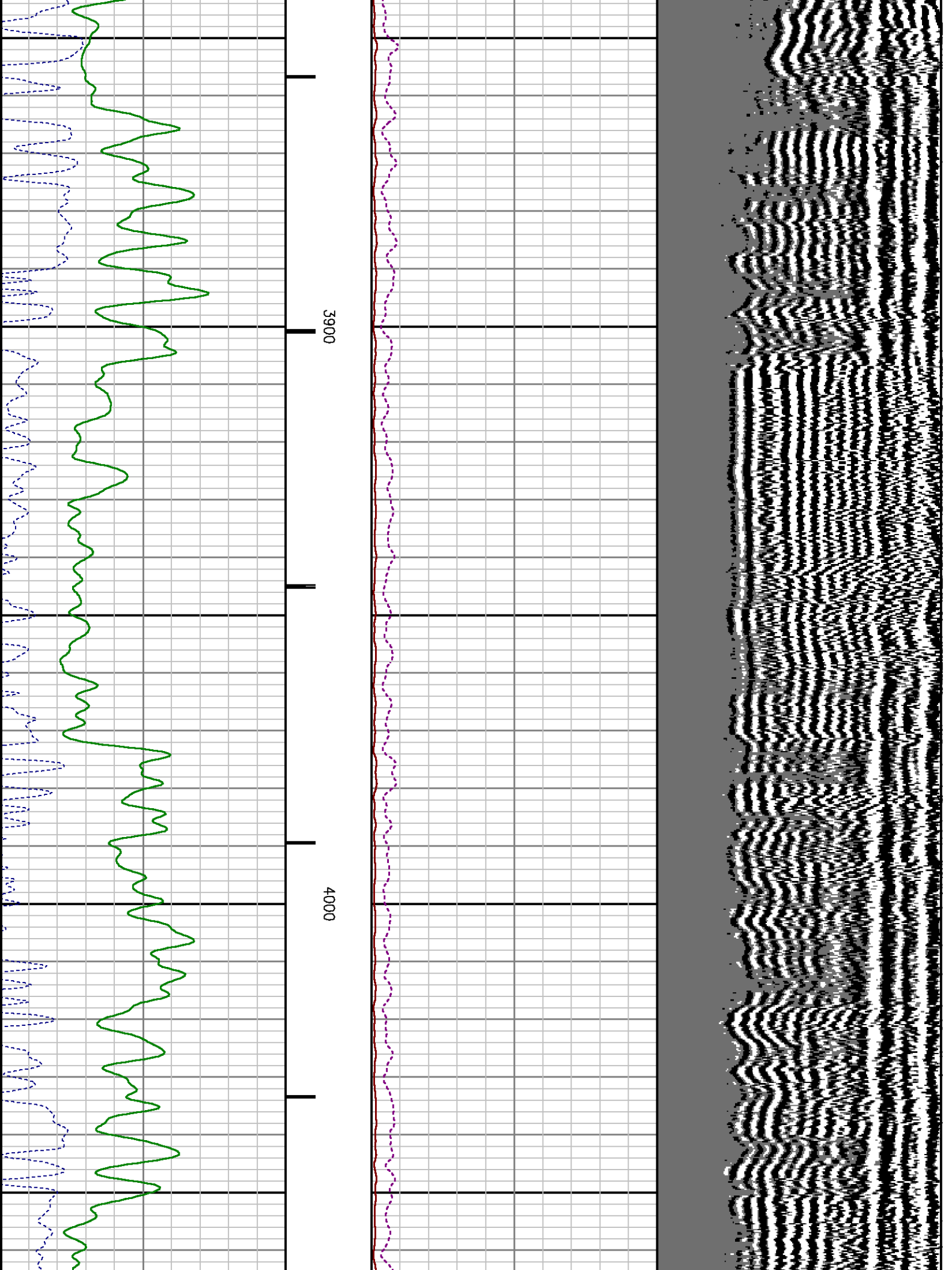


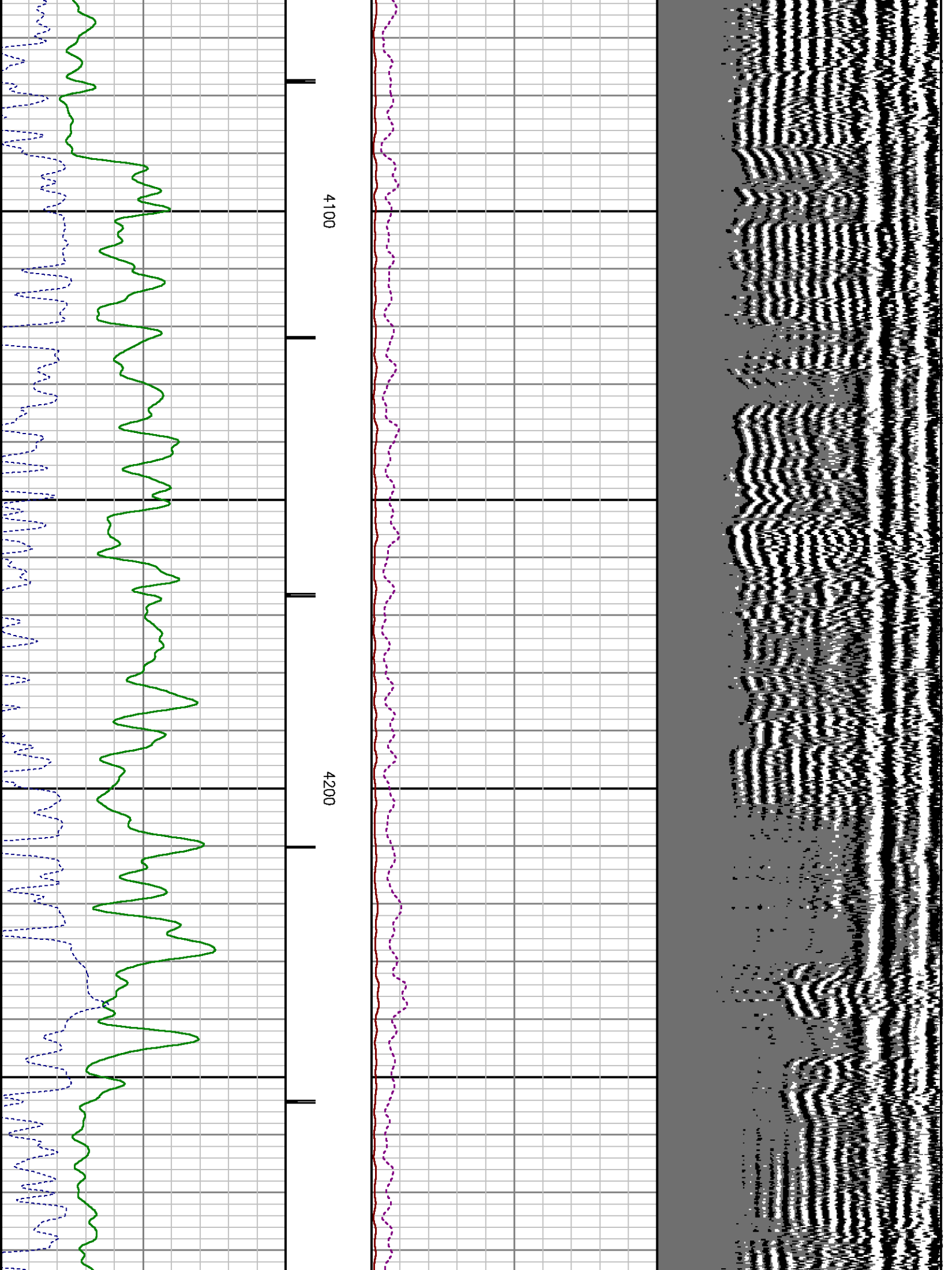




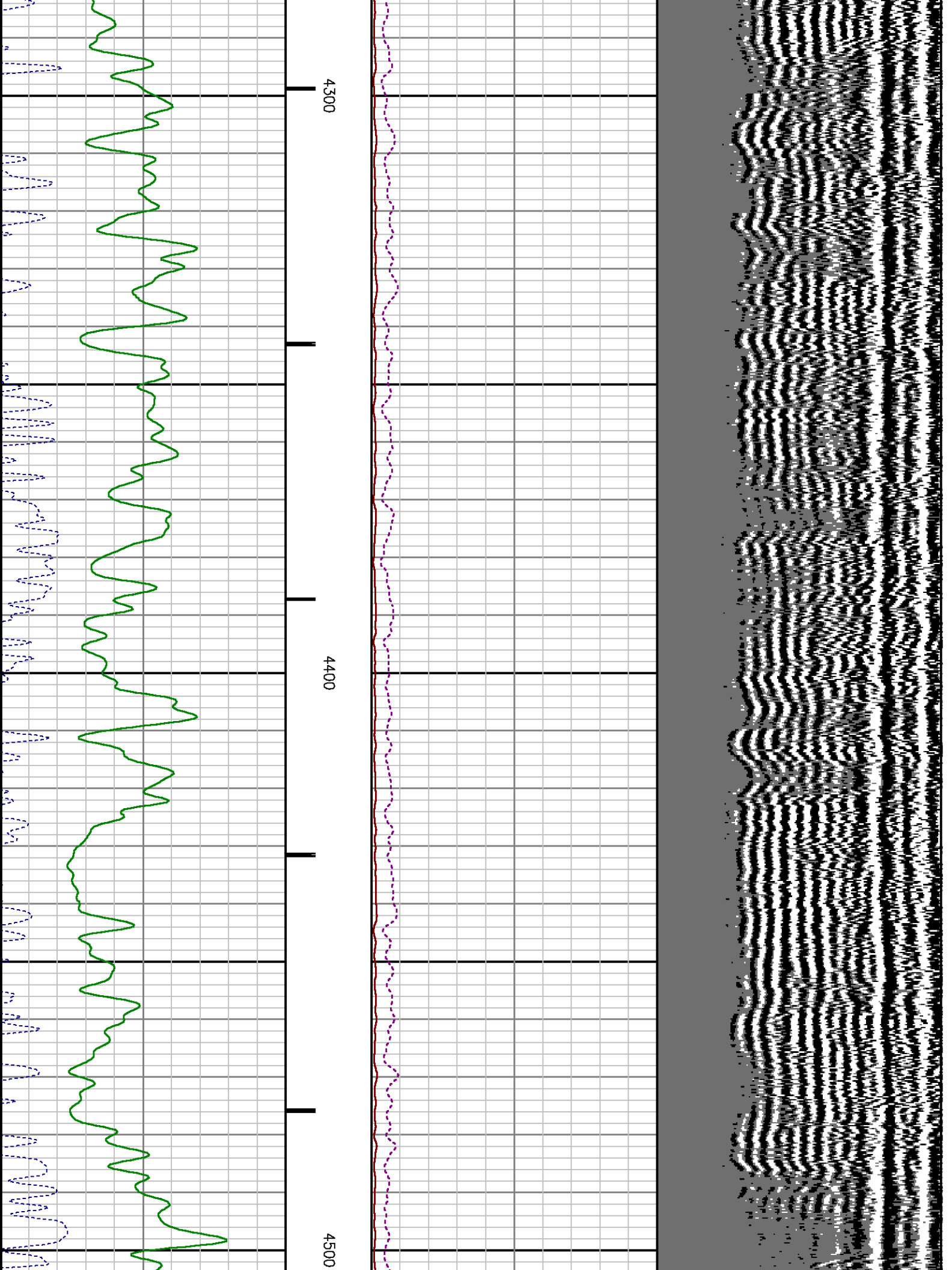


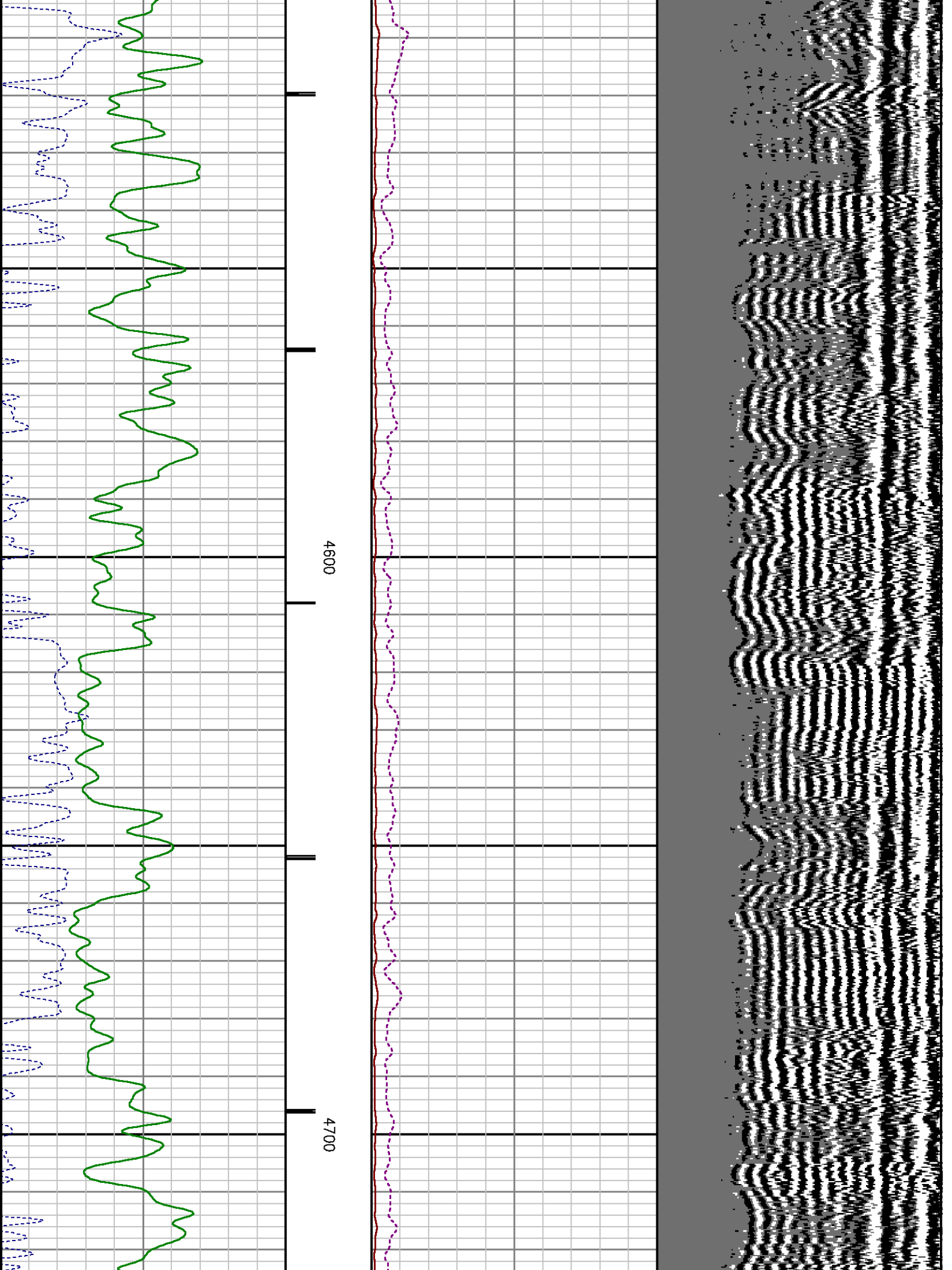




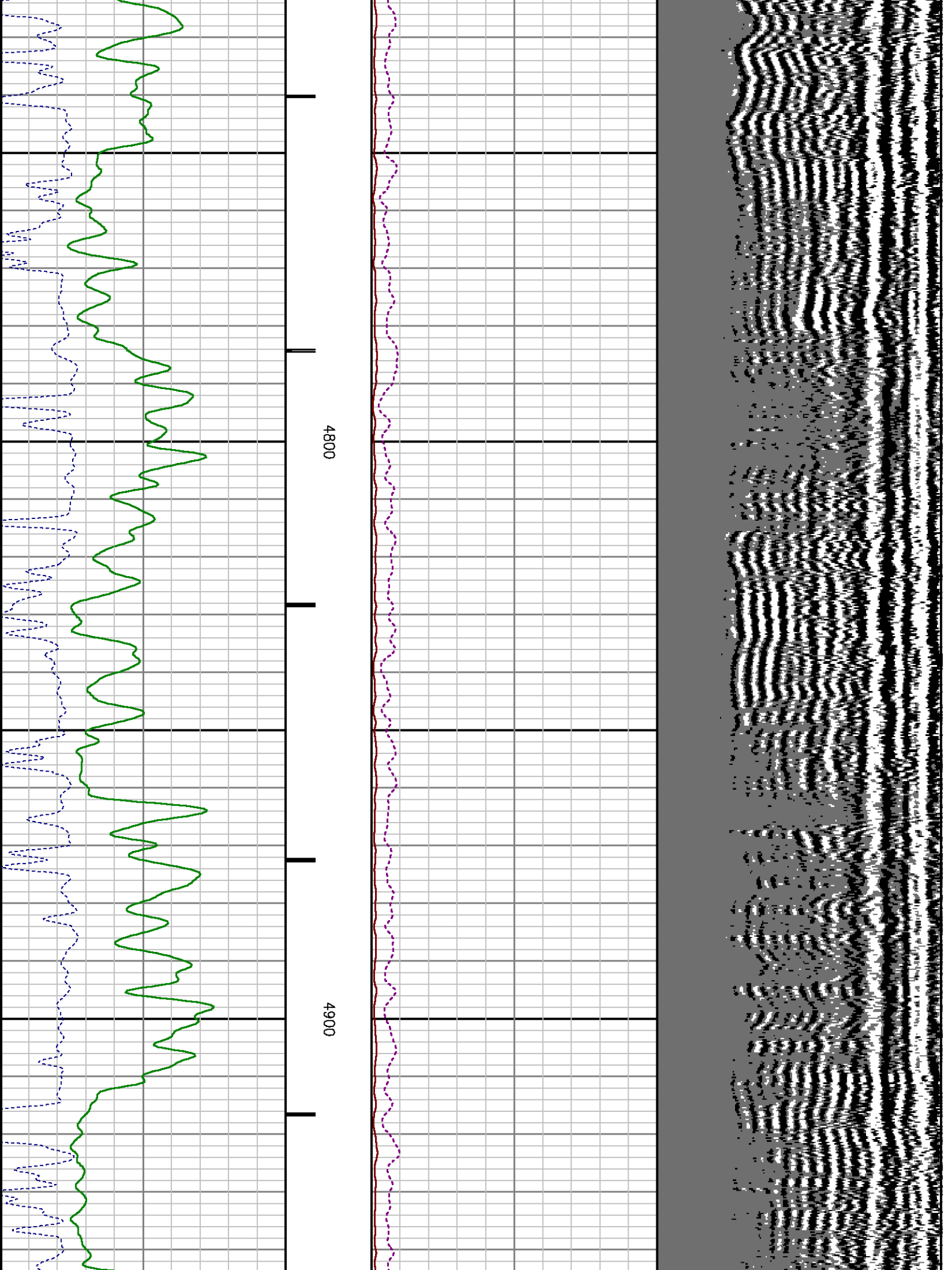


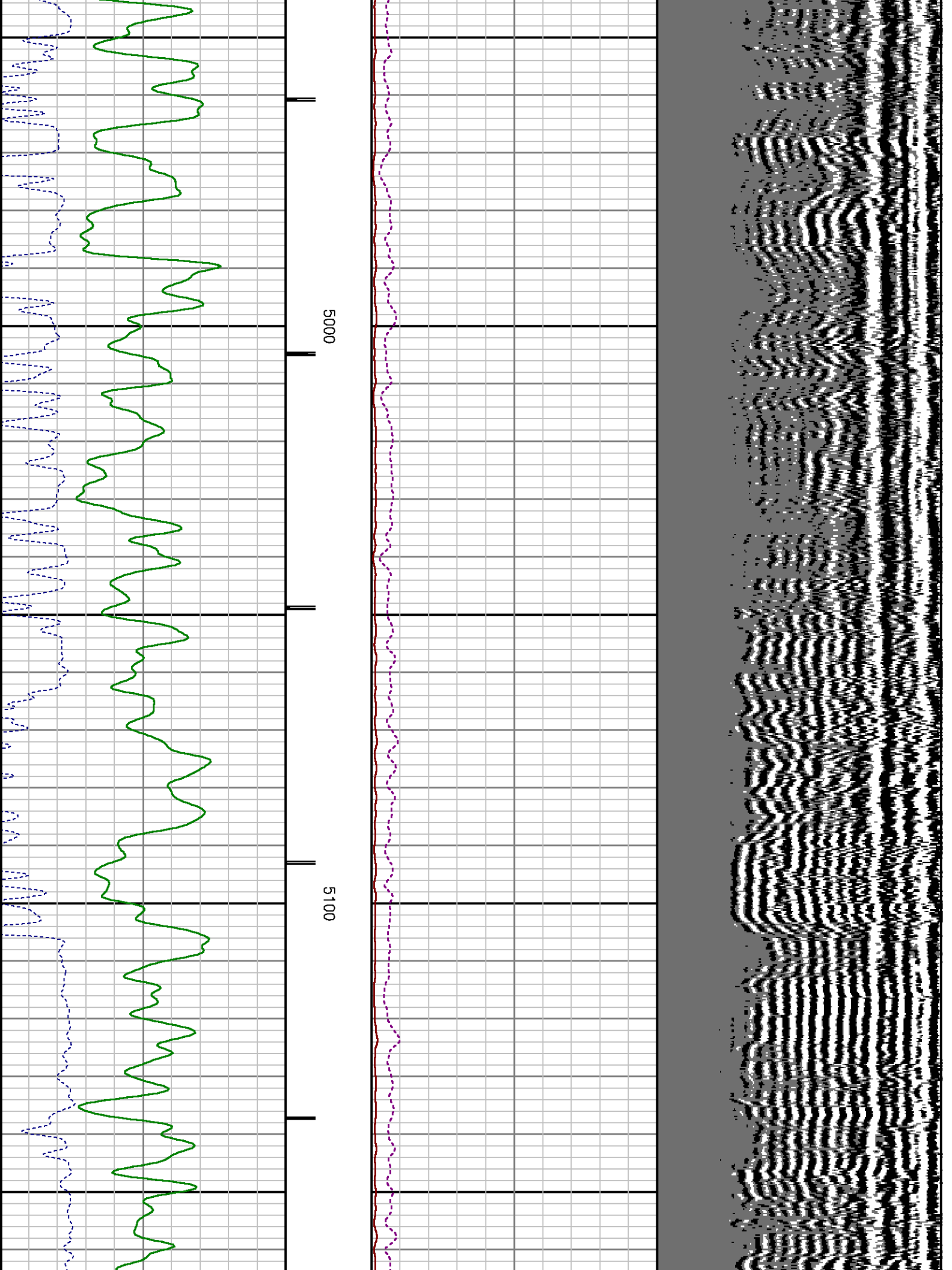


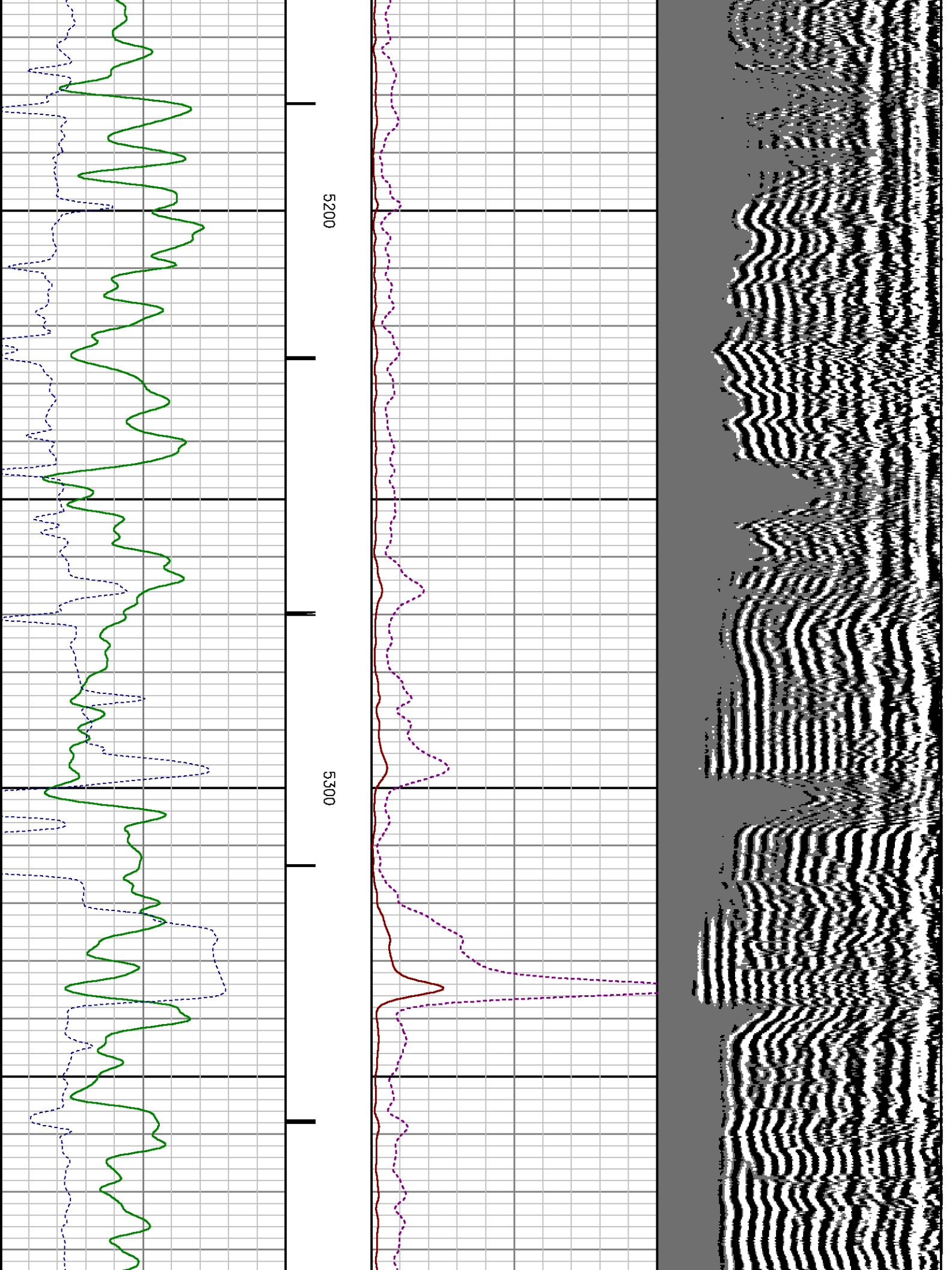


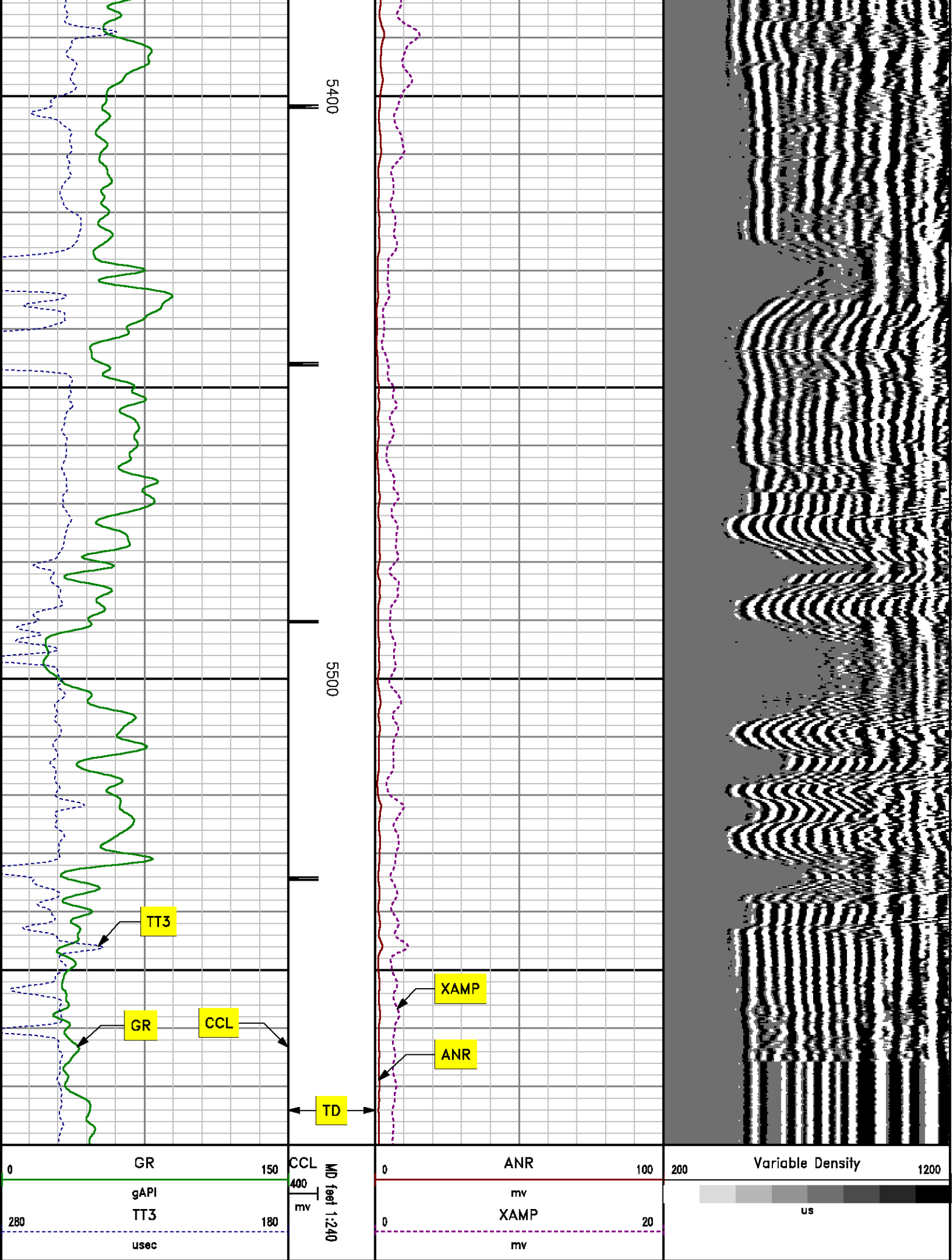












# MAIN LOG SECONDARY PRESENTATION

## 0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	306.674	usec	16.187	5591.000
RAL	Amp Gate Start Near	199.015	usec	16.187	5591.000
RAL	Amp Gate Start Radial	198.578	usec	16.187	5591.000
RAL	Amp Gate Width Far	25.000	usec	16.187	5591.000
RAL	Amp Gate Width Near	25.000	usec	16.187	5591.000
RAL	Amp Gate Width Radial	25.000	usec	16.187	5591.000
RAL	casing od	4.500	inches	16.187	5591.000
RAL	casing wt	11.600	lbm/ft	16.187	5591.000
RAL	FB Start Far	291.900	usec	16.187	5591.000
RAL	FB Start Near	175.391	usec	16.187	5591.000
RAL	FB Start Radial	175.391	usec	16.187	5591.000
RAL	FB Thresh Far	10.000	mv	16.187	5591.000
RAL	FB Thresh Near	4.000	mv	16.187	5591.000
RAL	FB Thresh Radial	4.000	mv	16.187	5591.000
RAL	Fluid Travel Time	200.000	usec/ft	16.187	5591.000

### 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

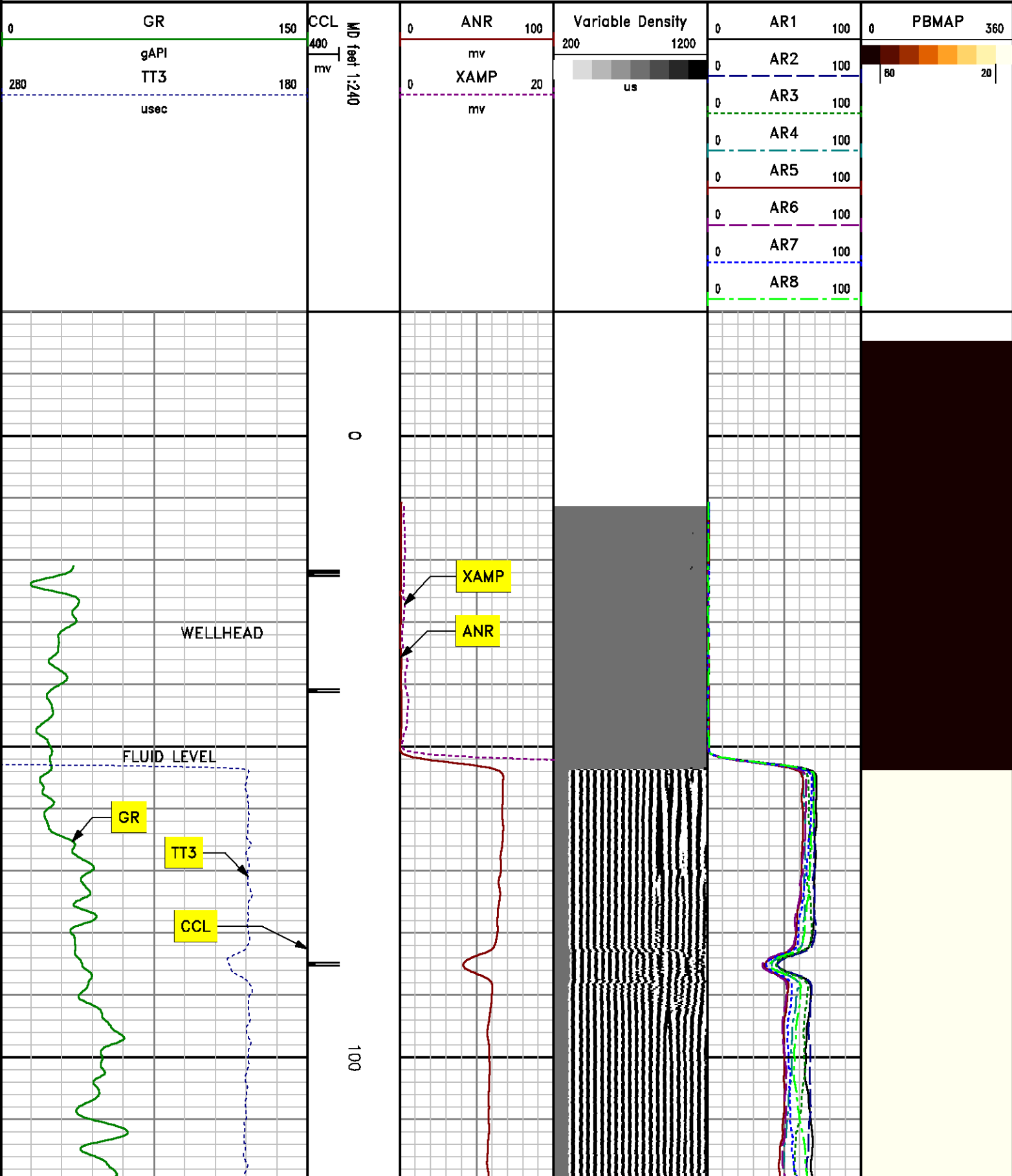
Well : STRAIT SG 442-22

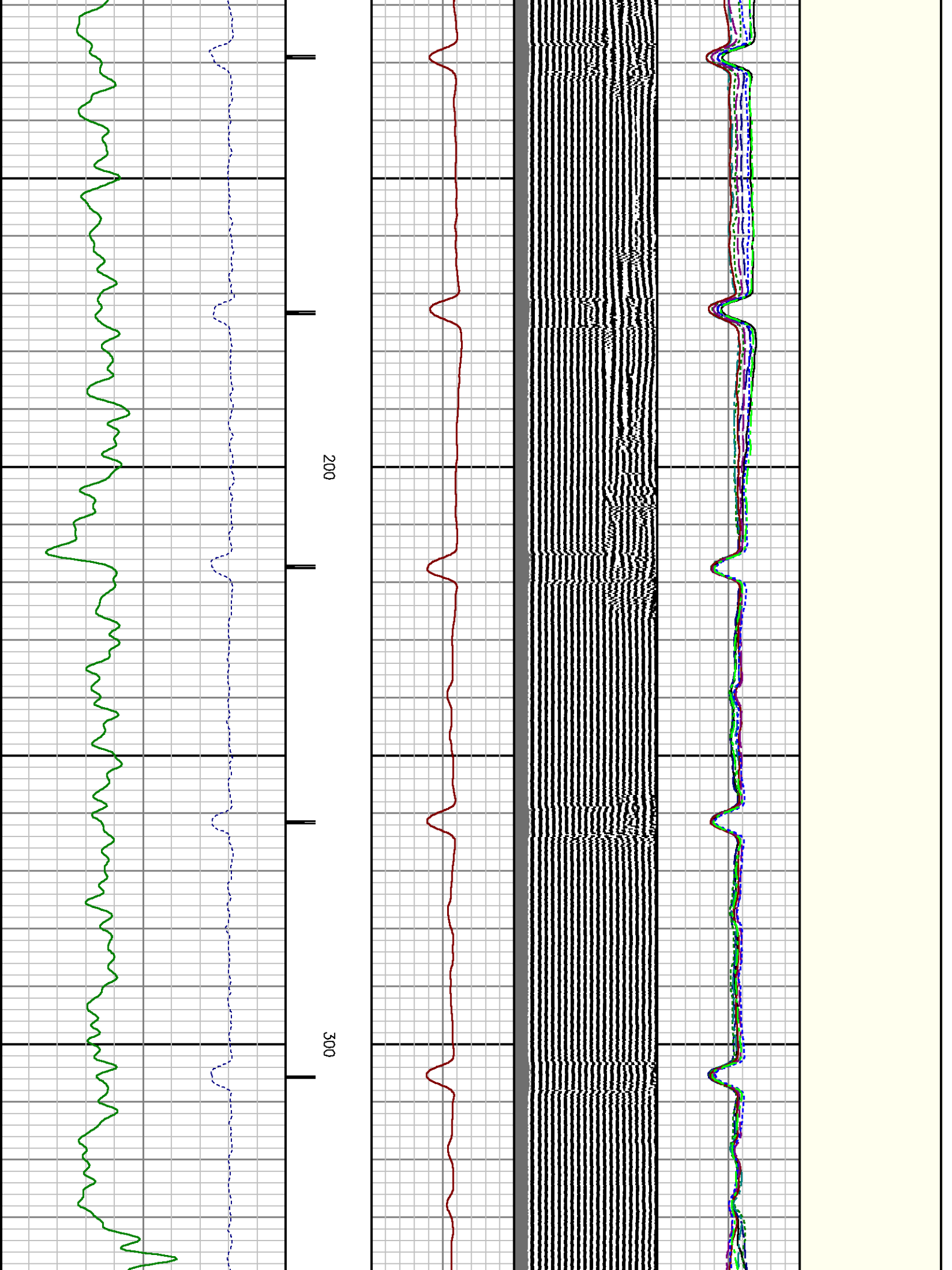
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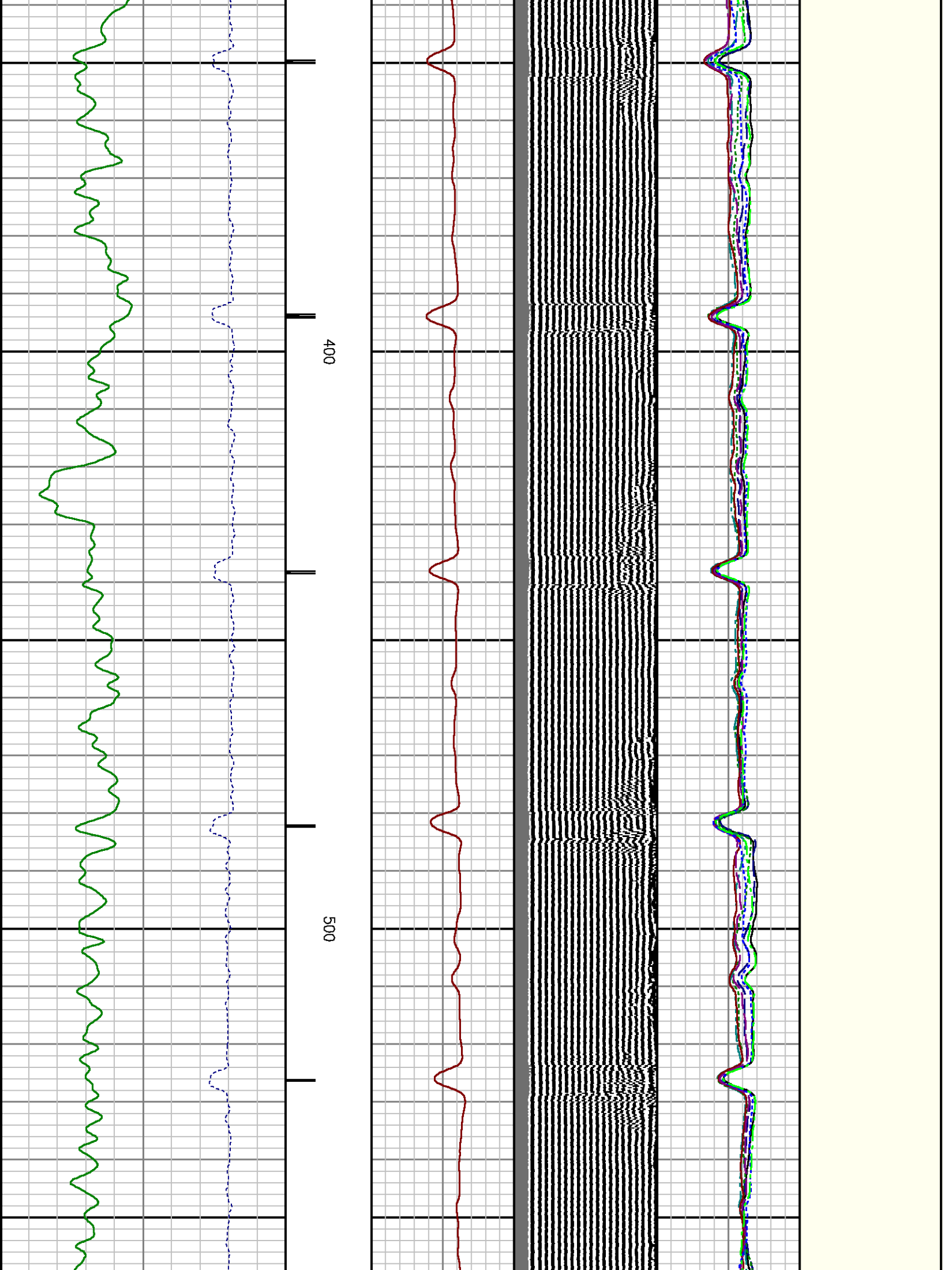
Interval : -20.00 - 5580.00 feet UP

Created : 7/24/2013 8:54:46 AM

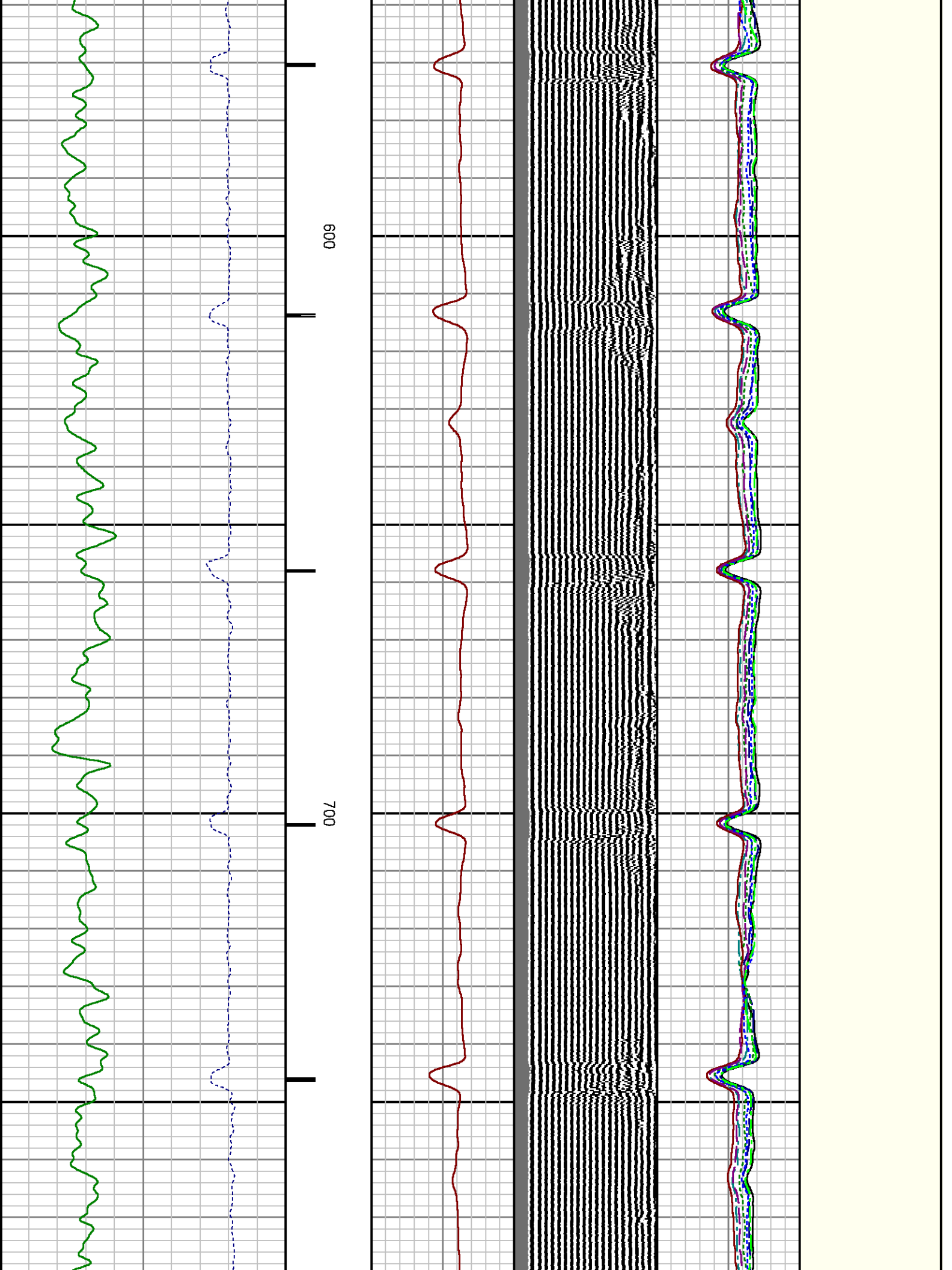


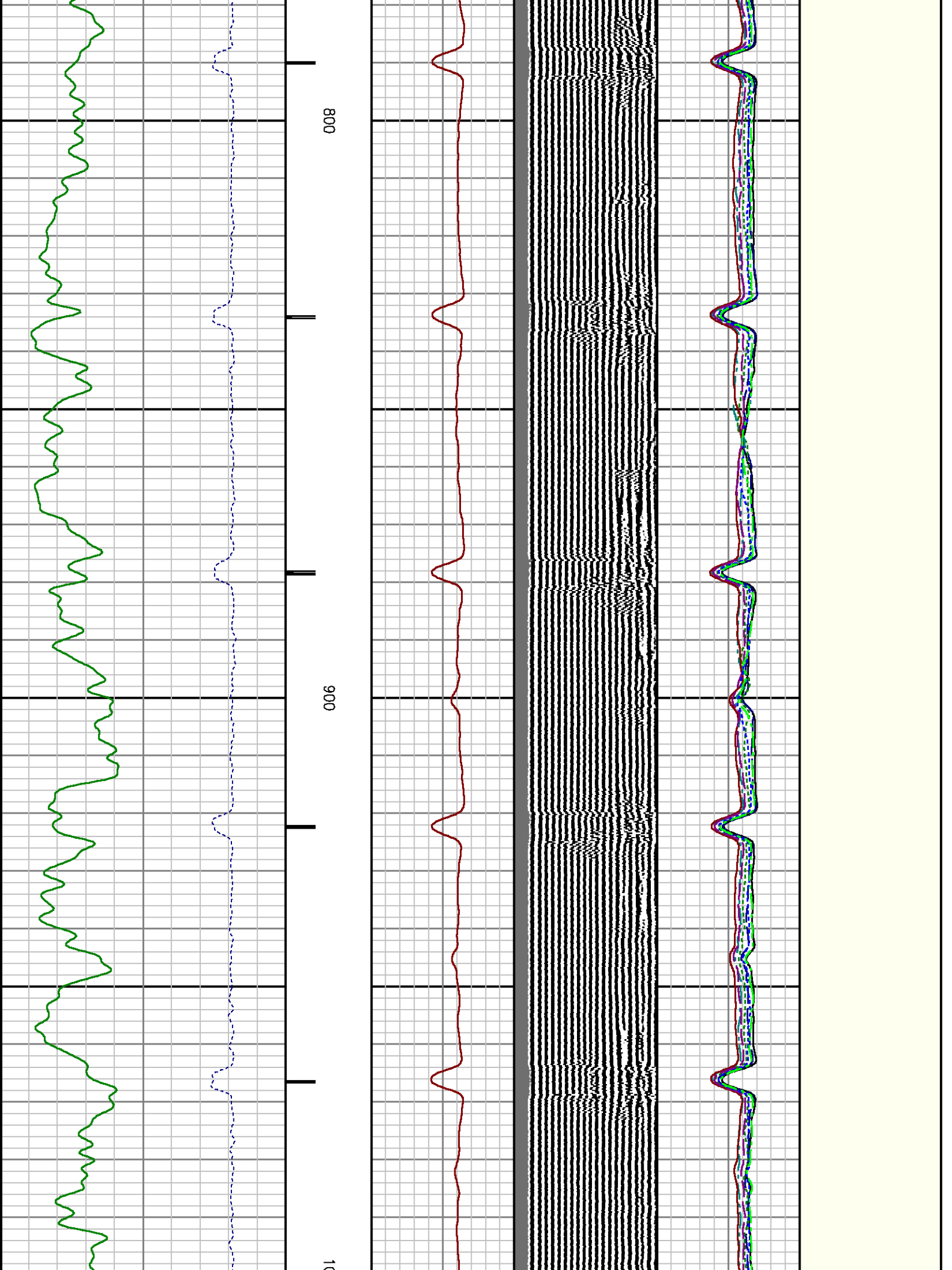


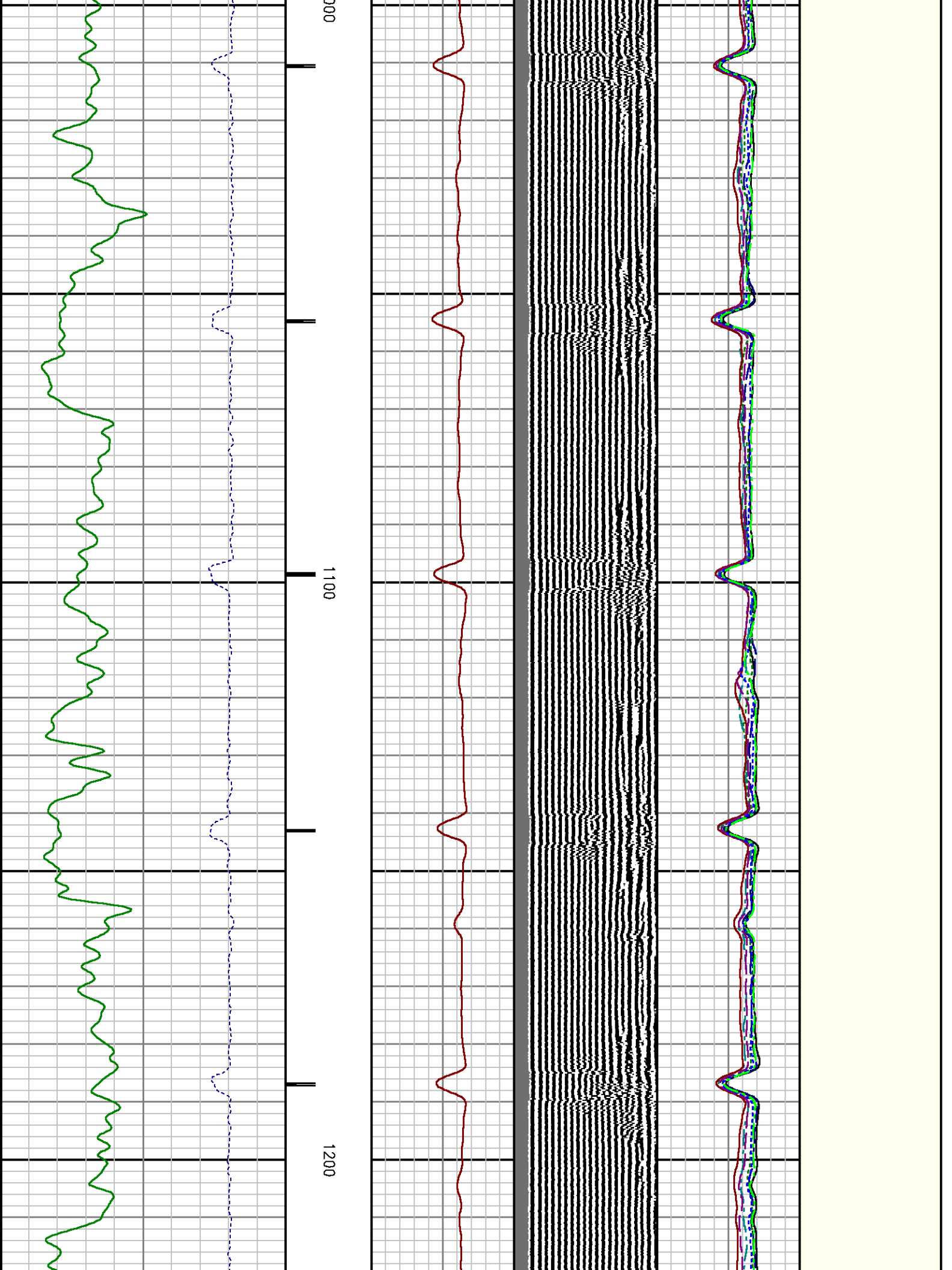


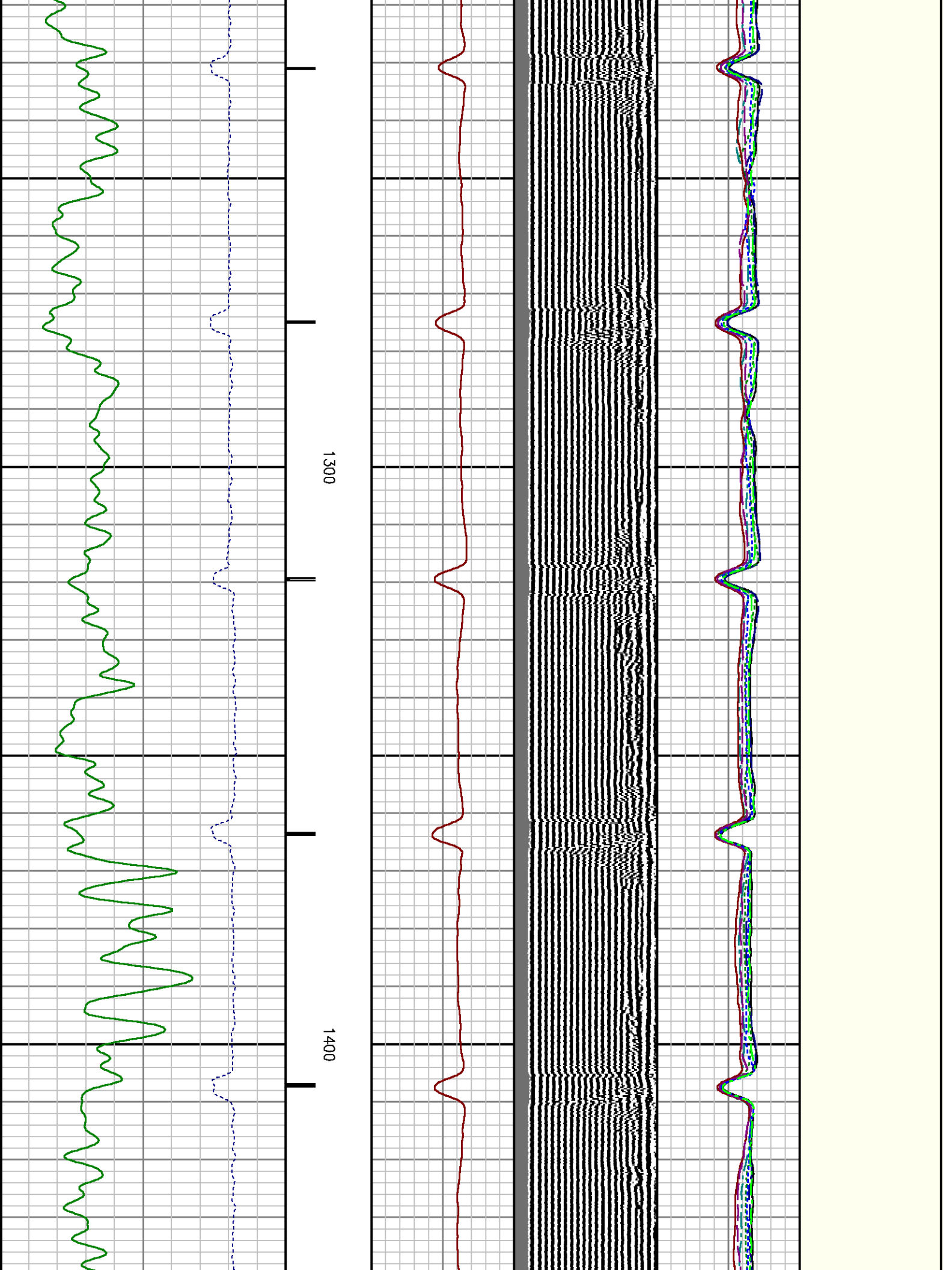


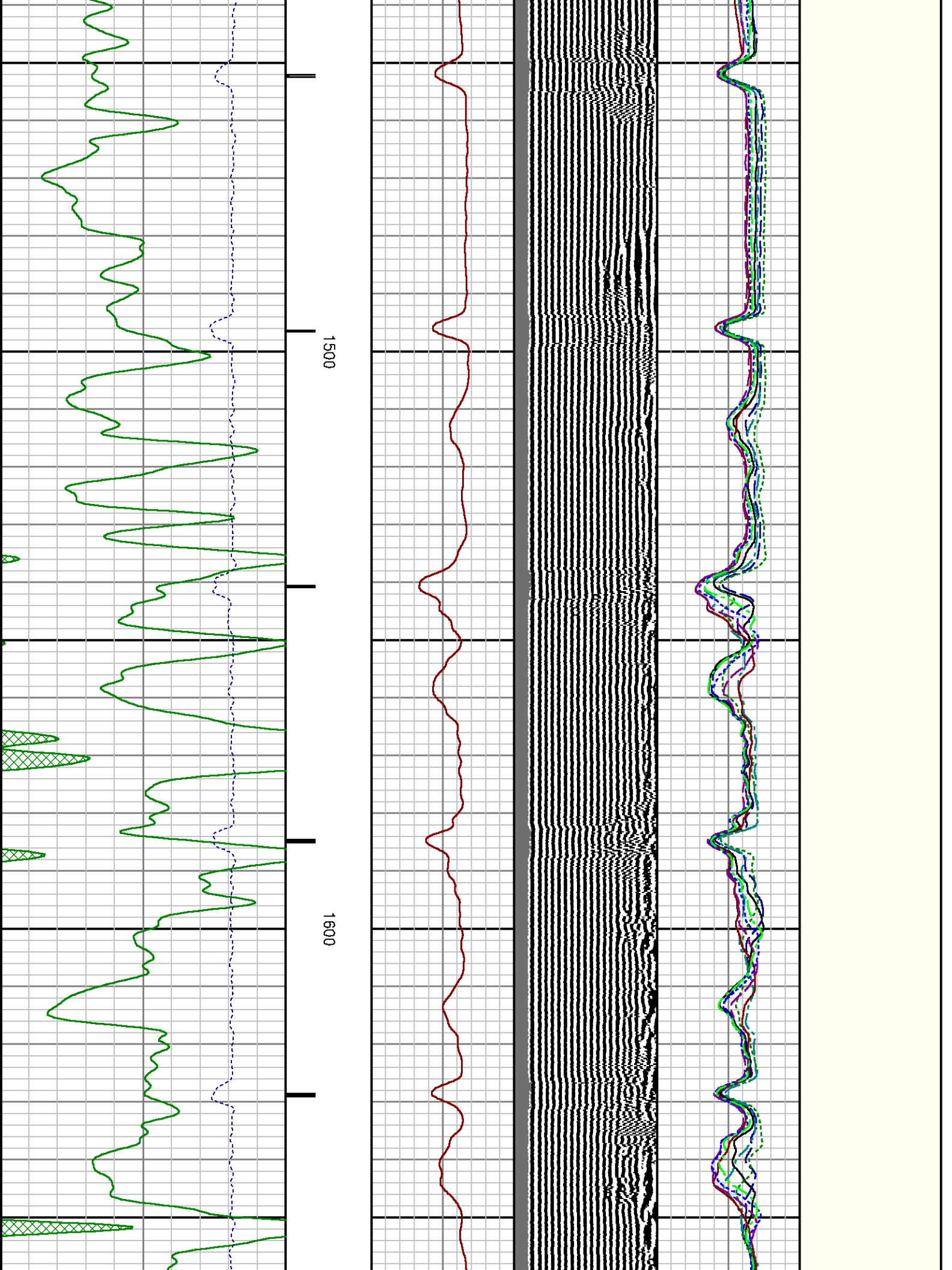


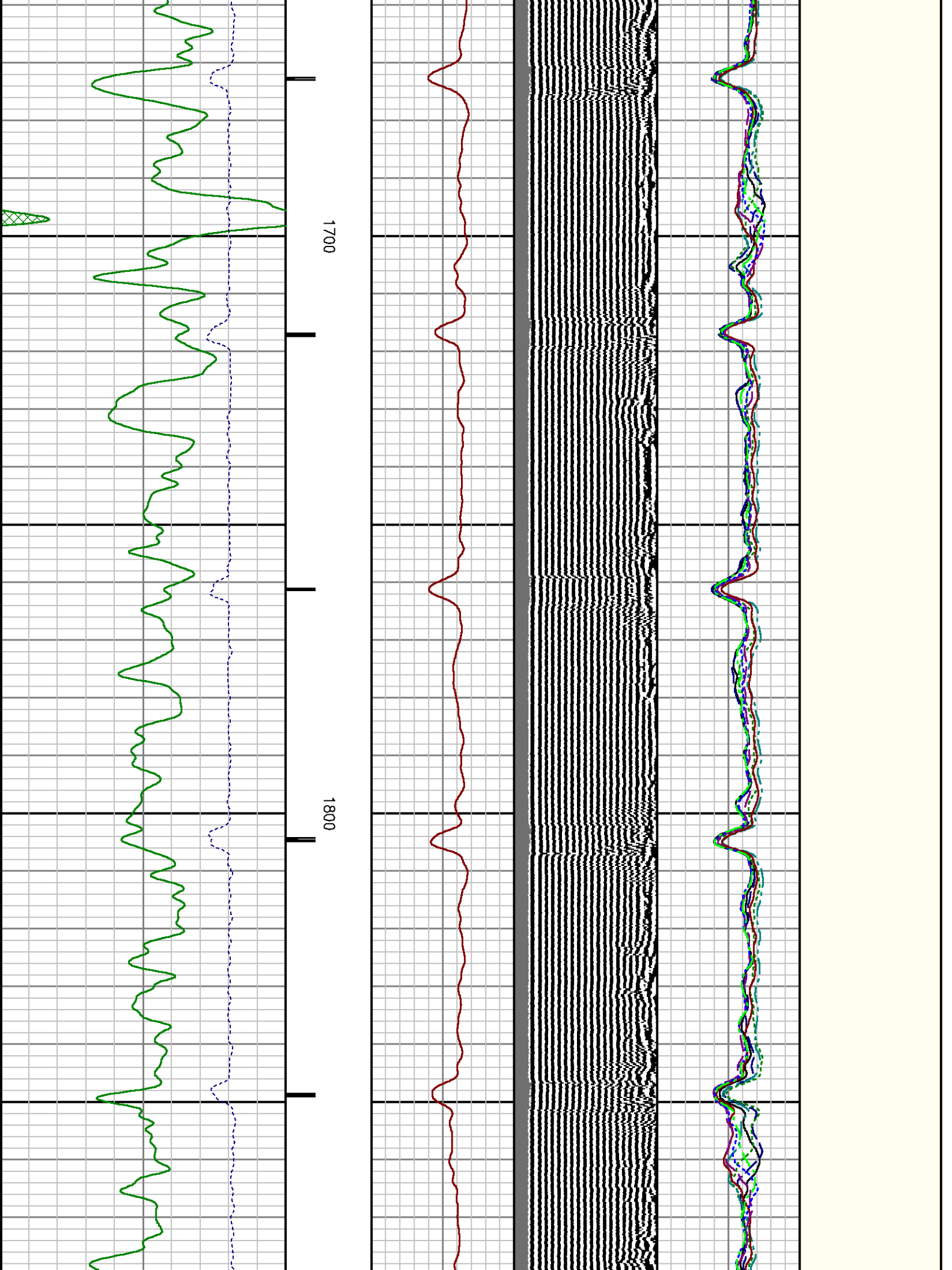




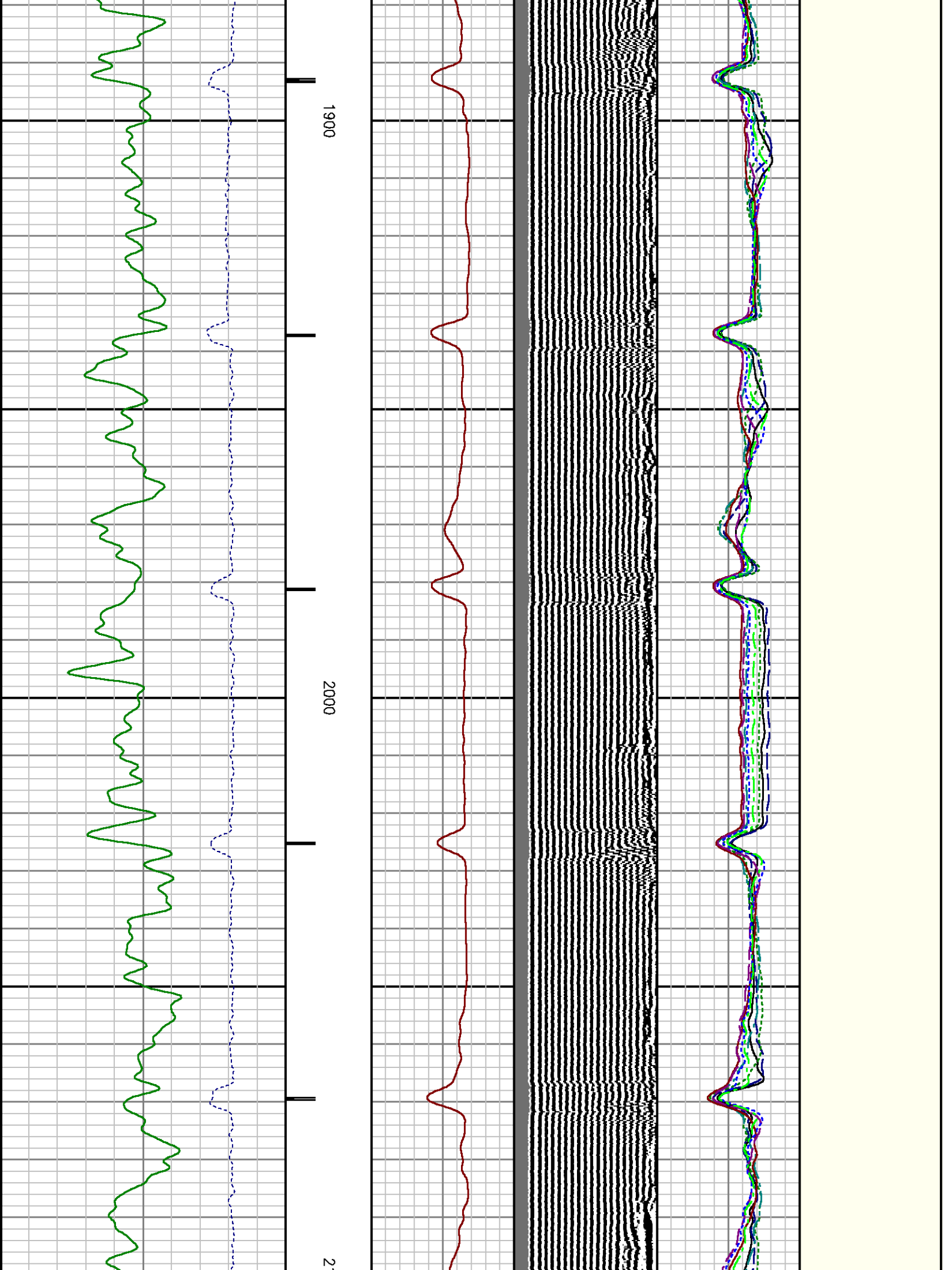


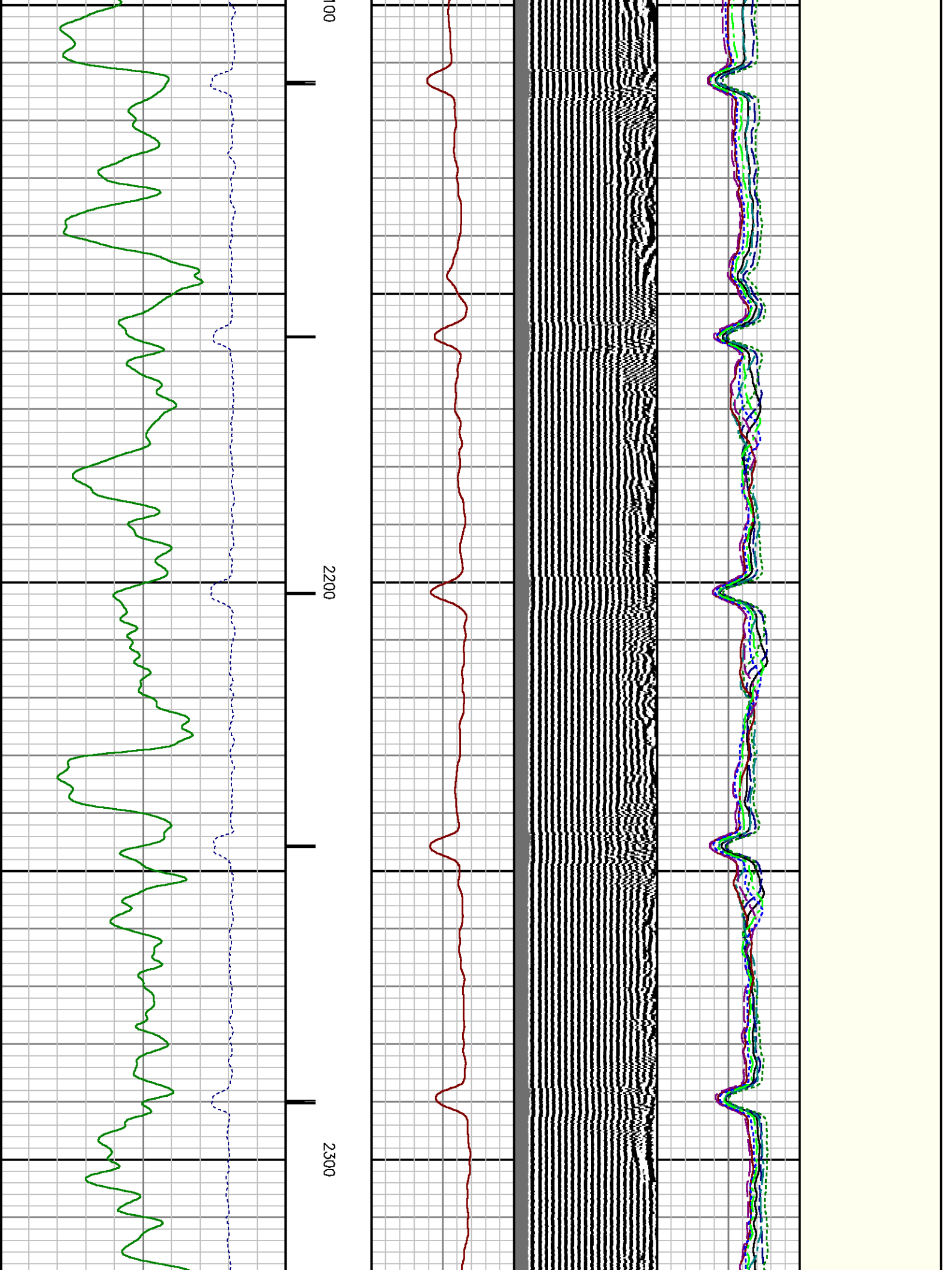




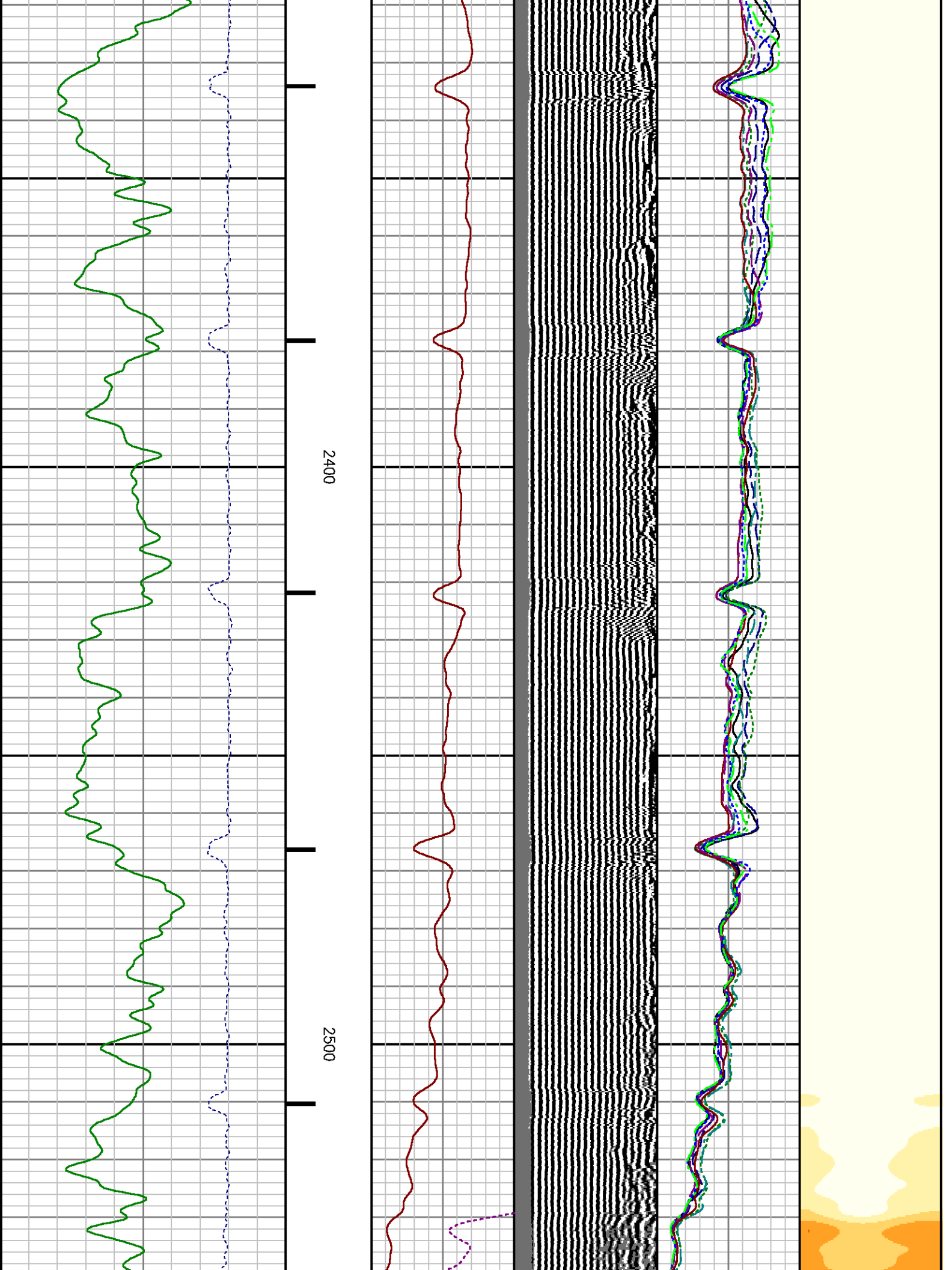


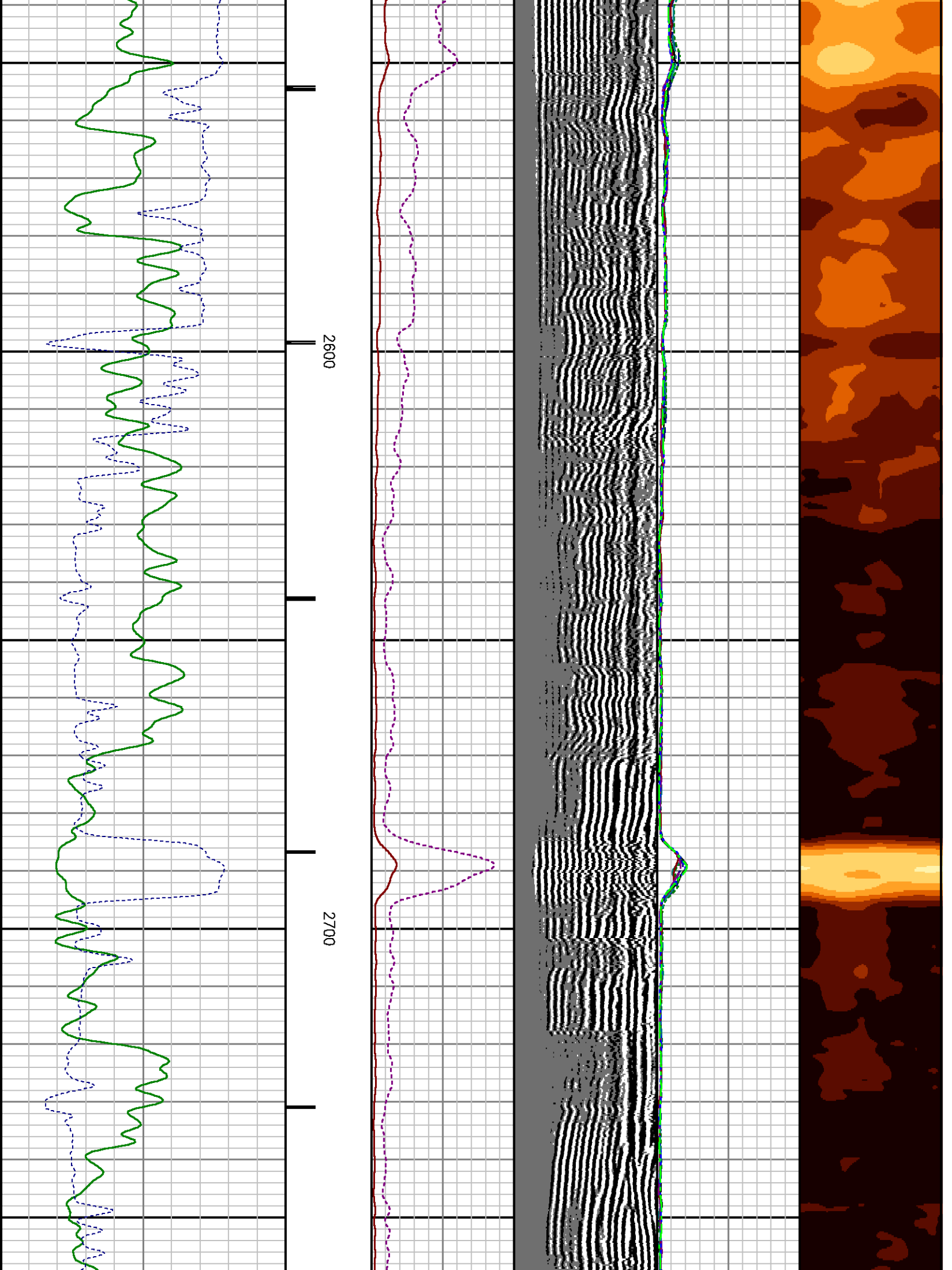


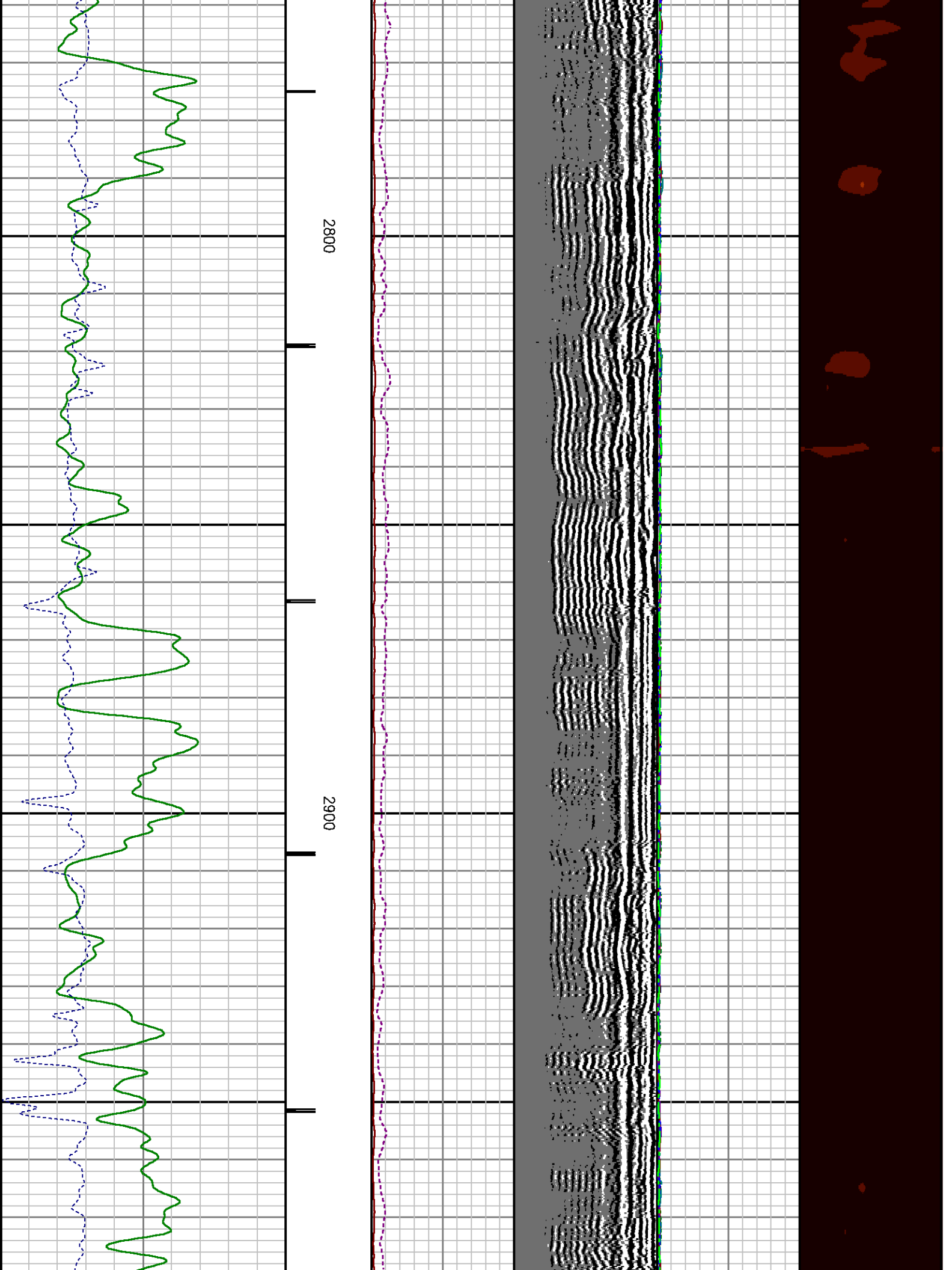


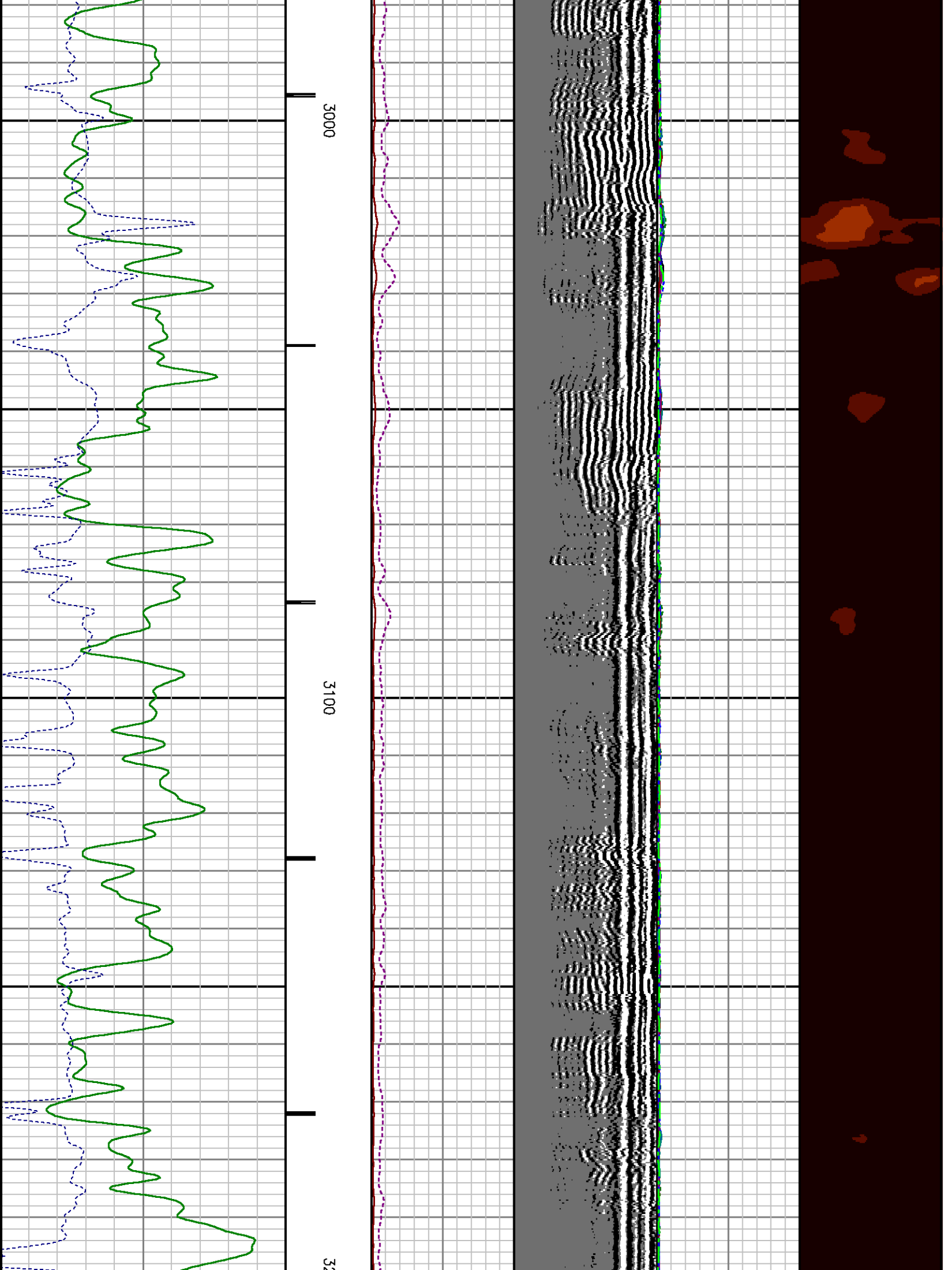


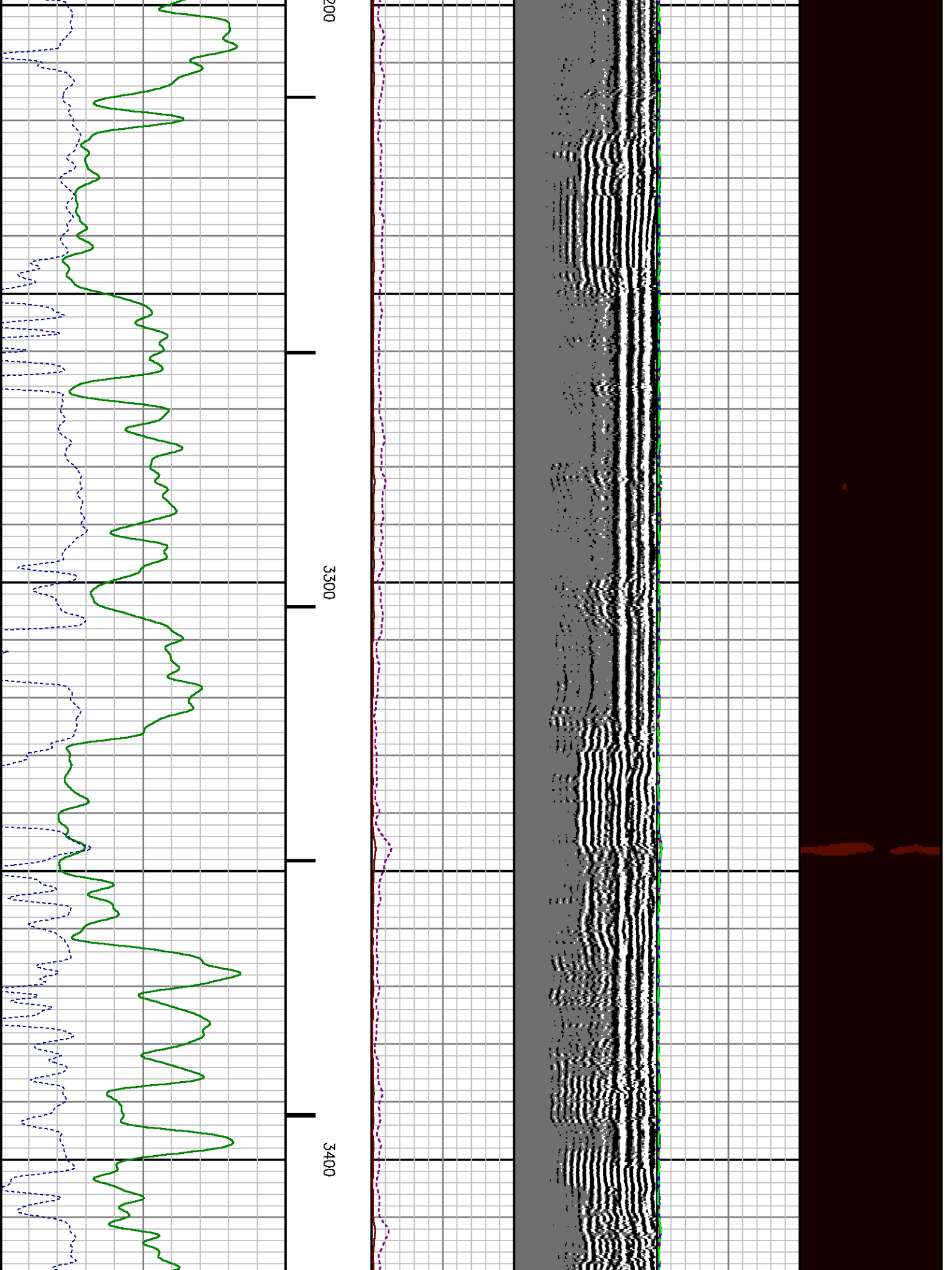


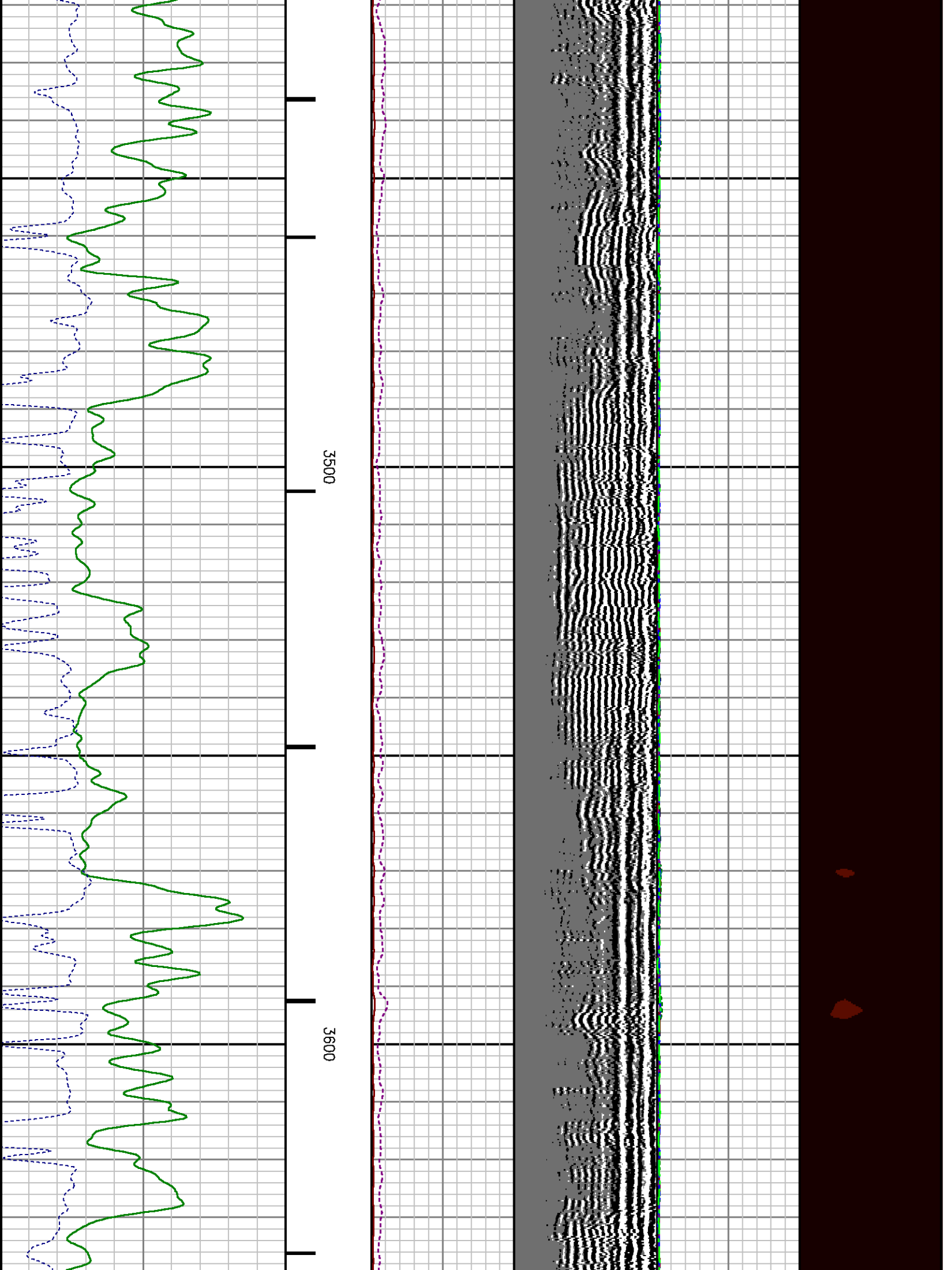


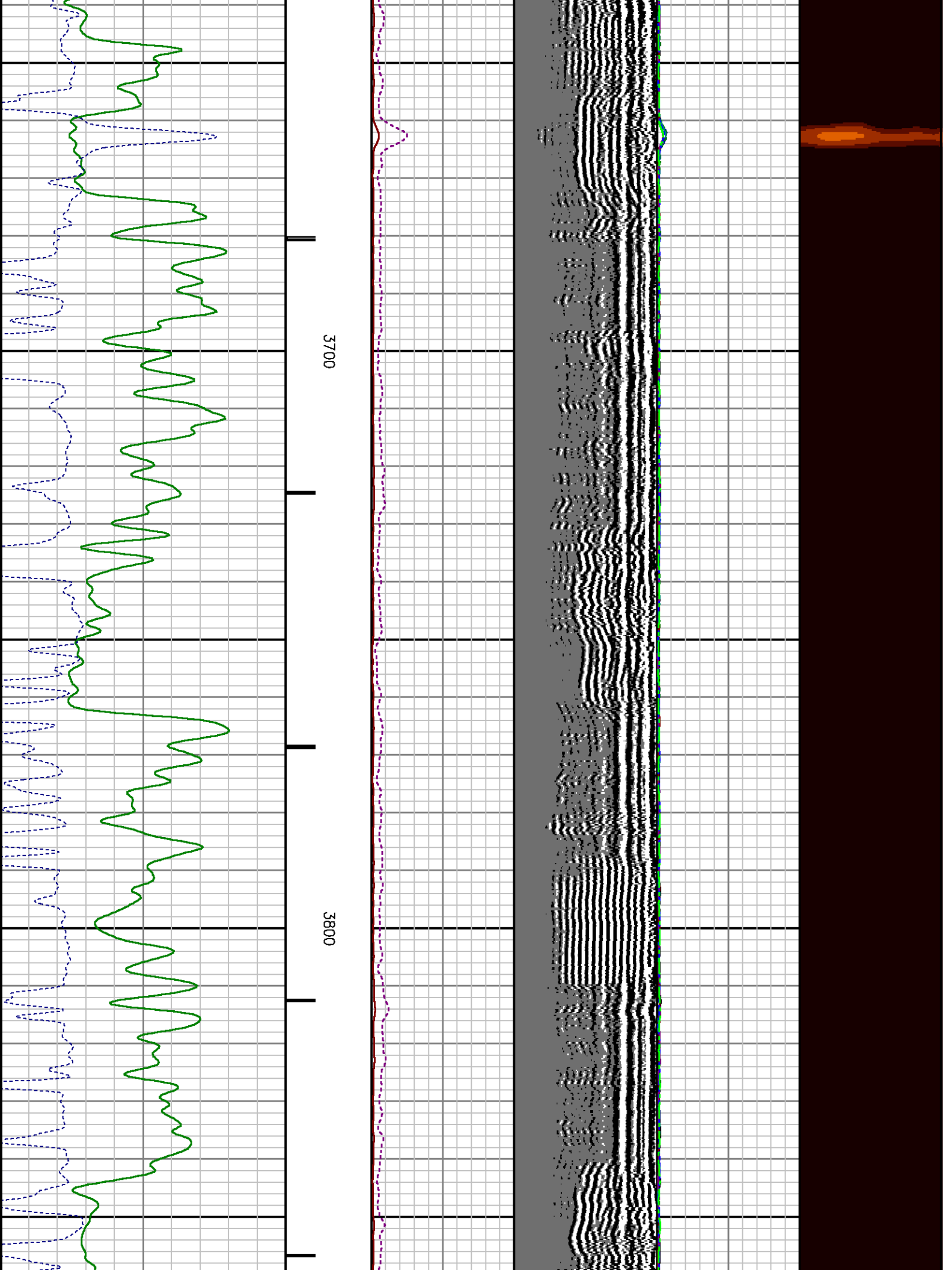




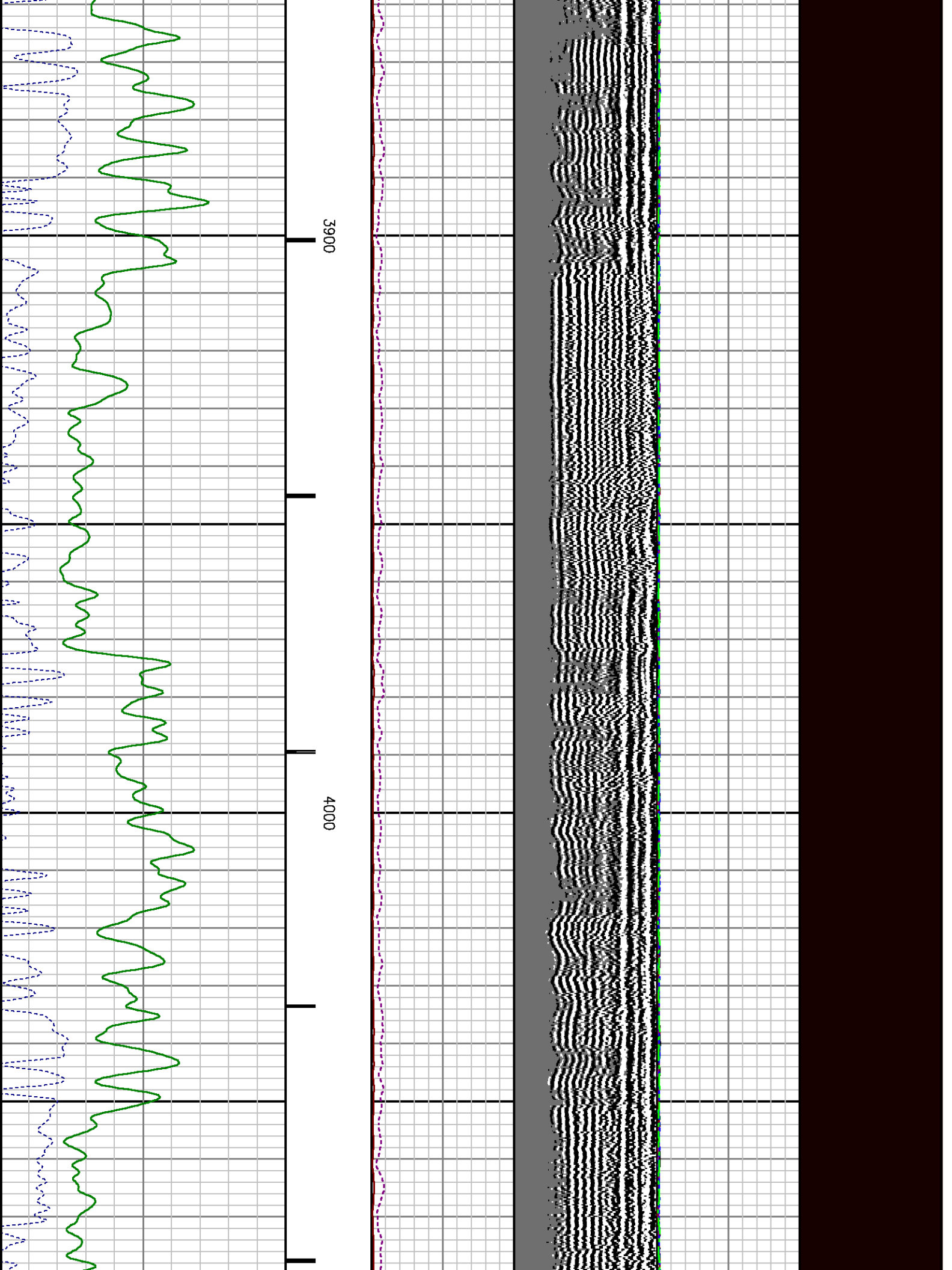


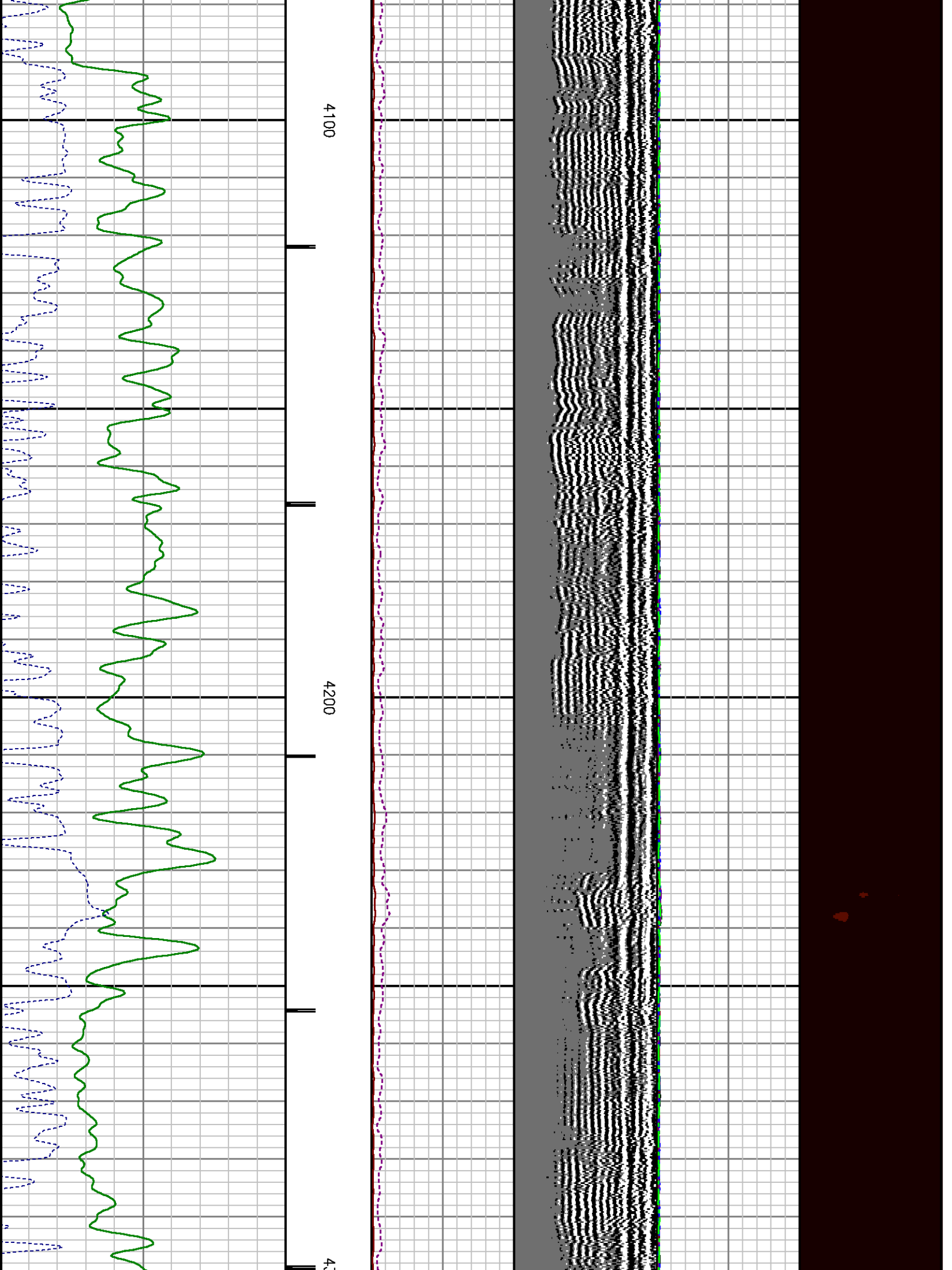


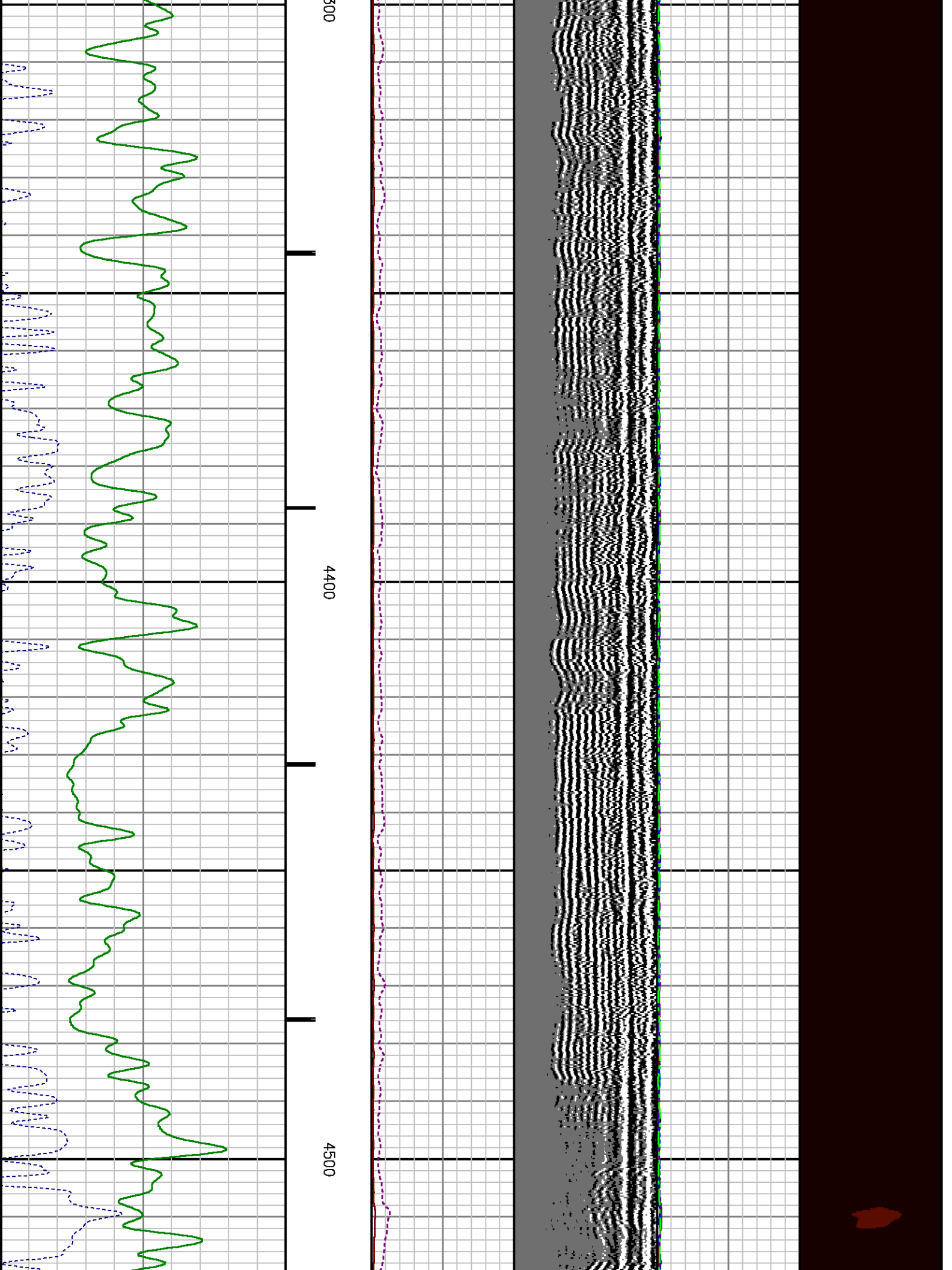


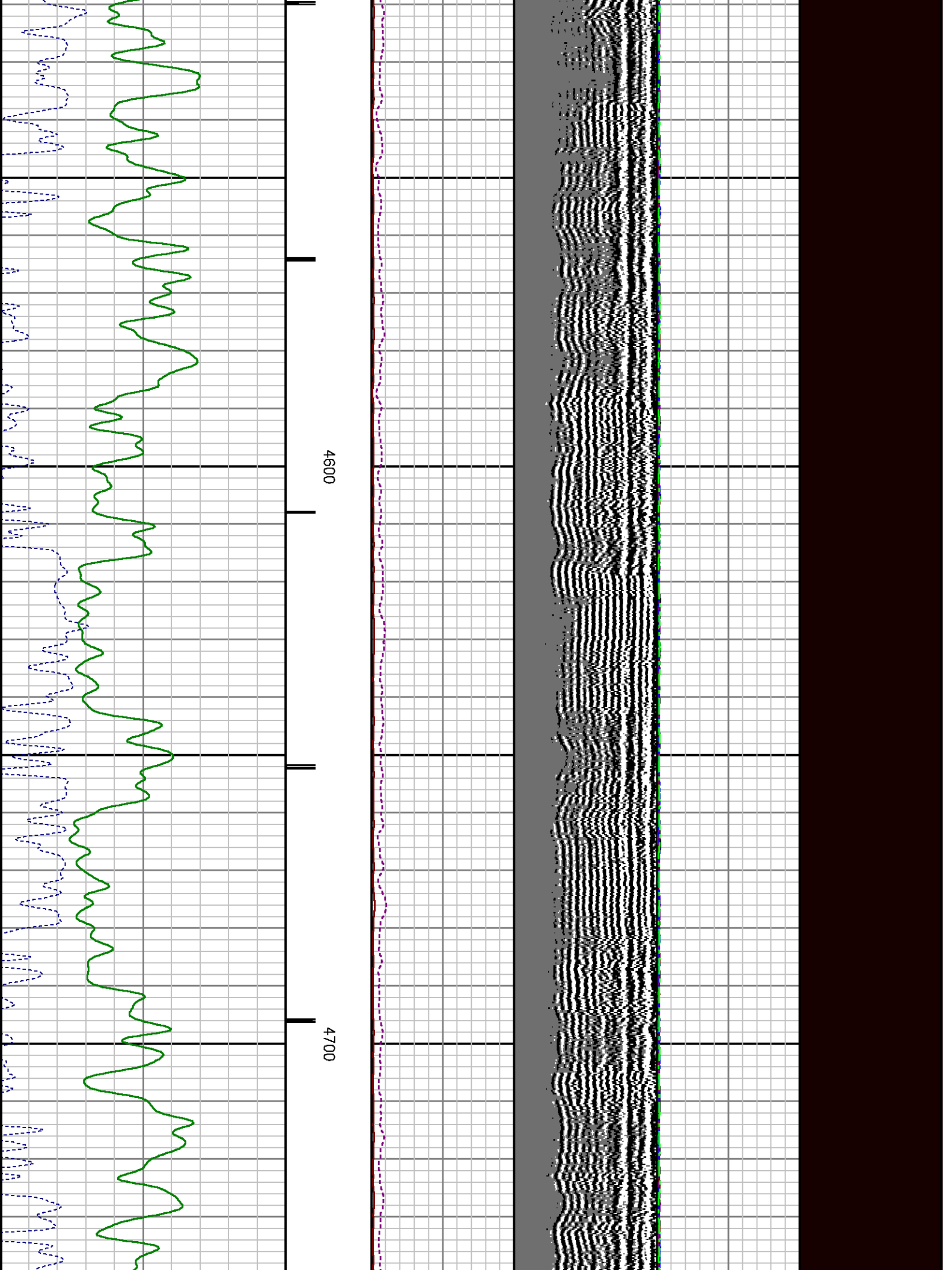


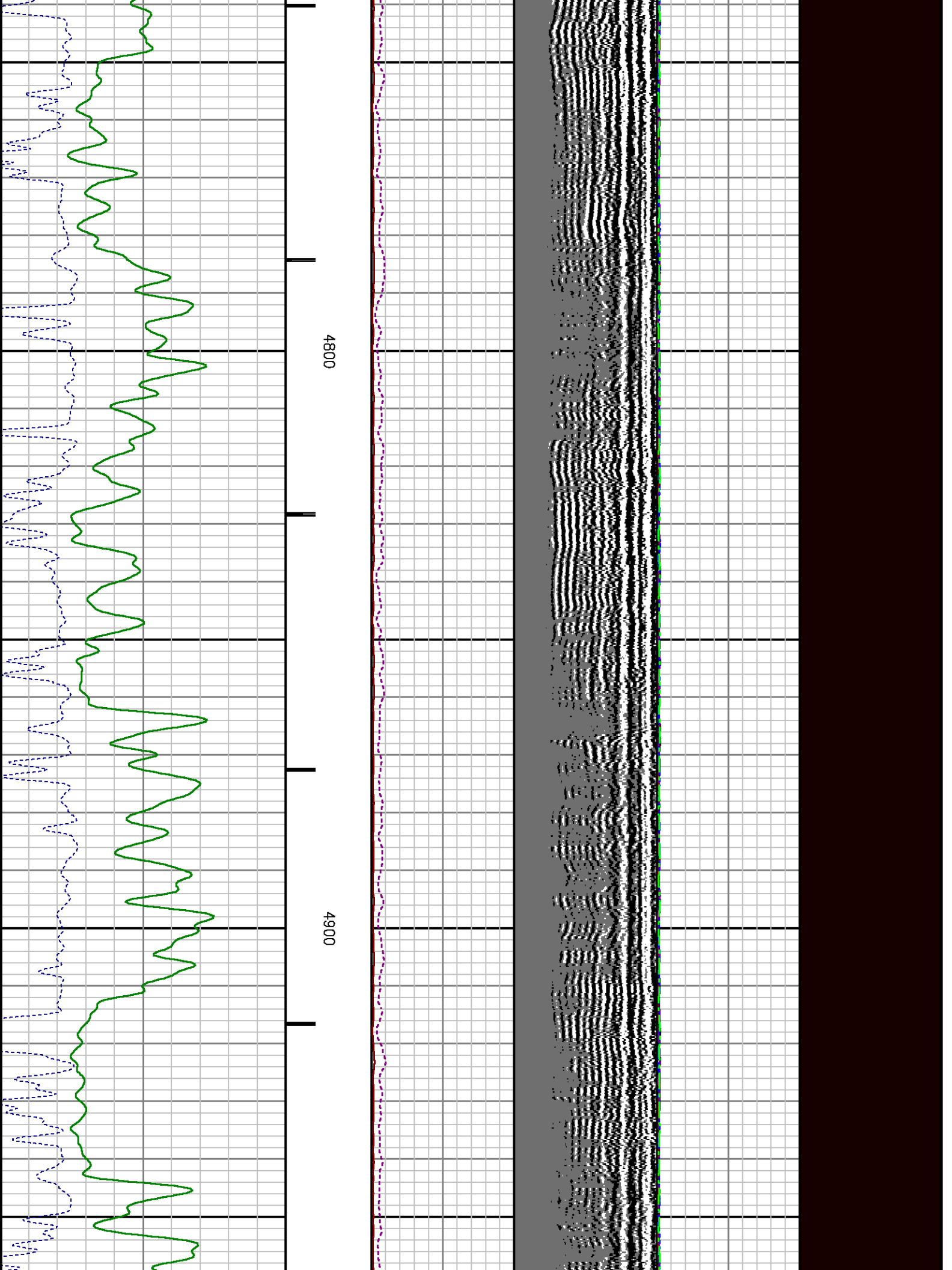


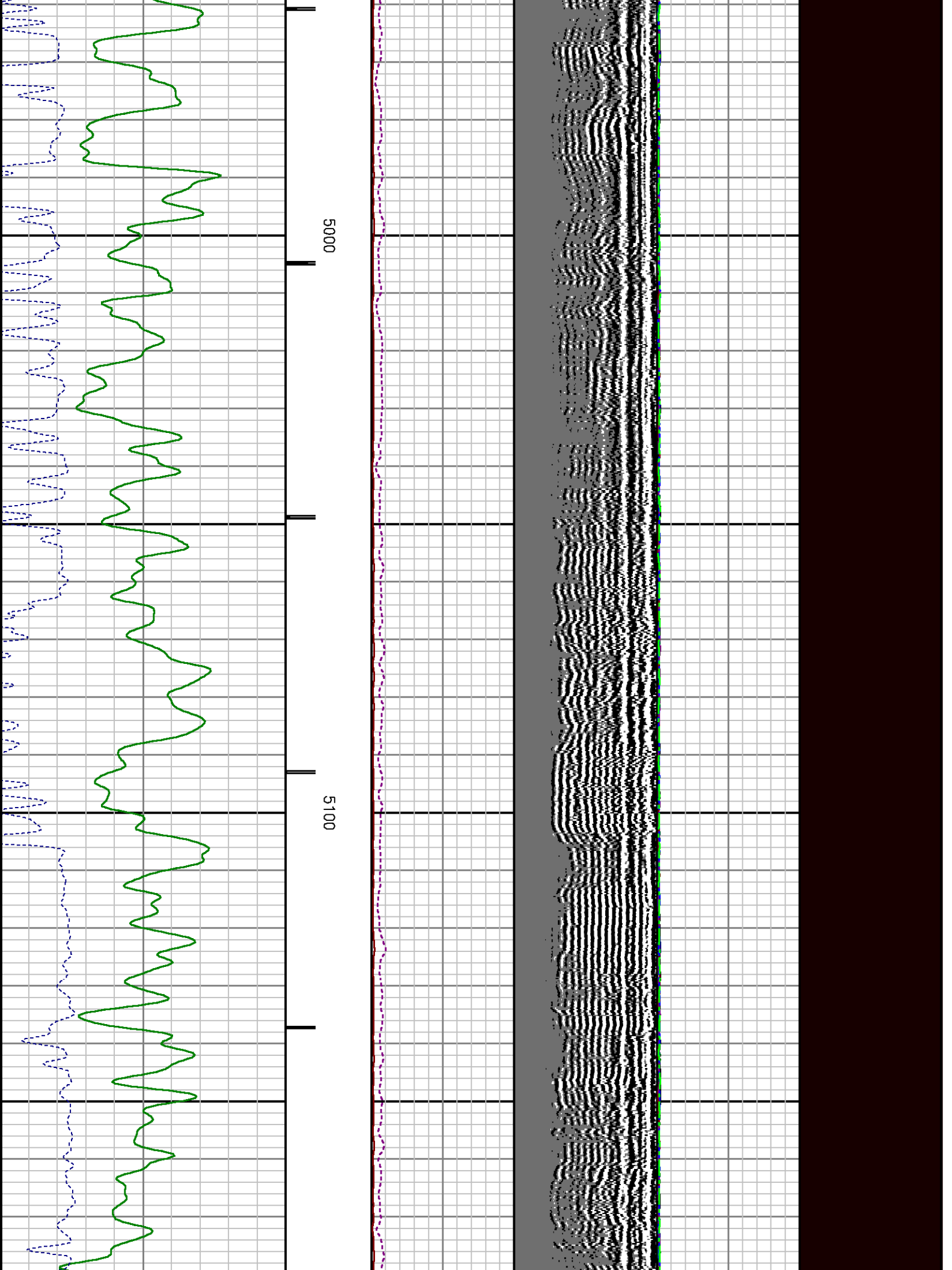




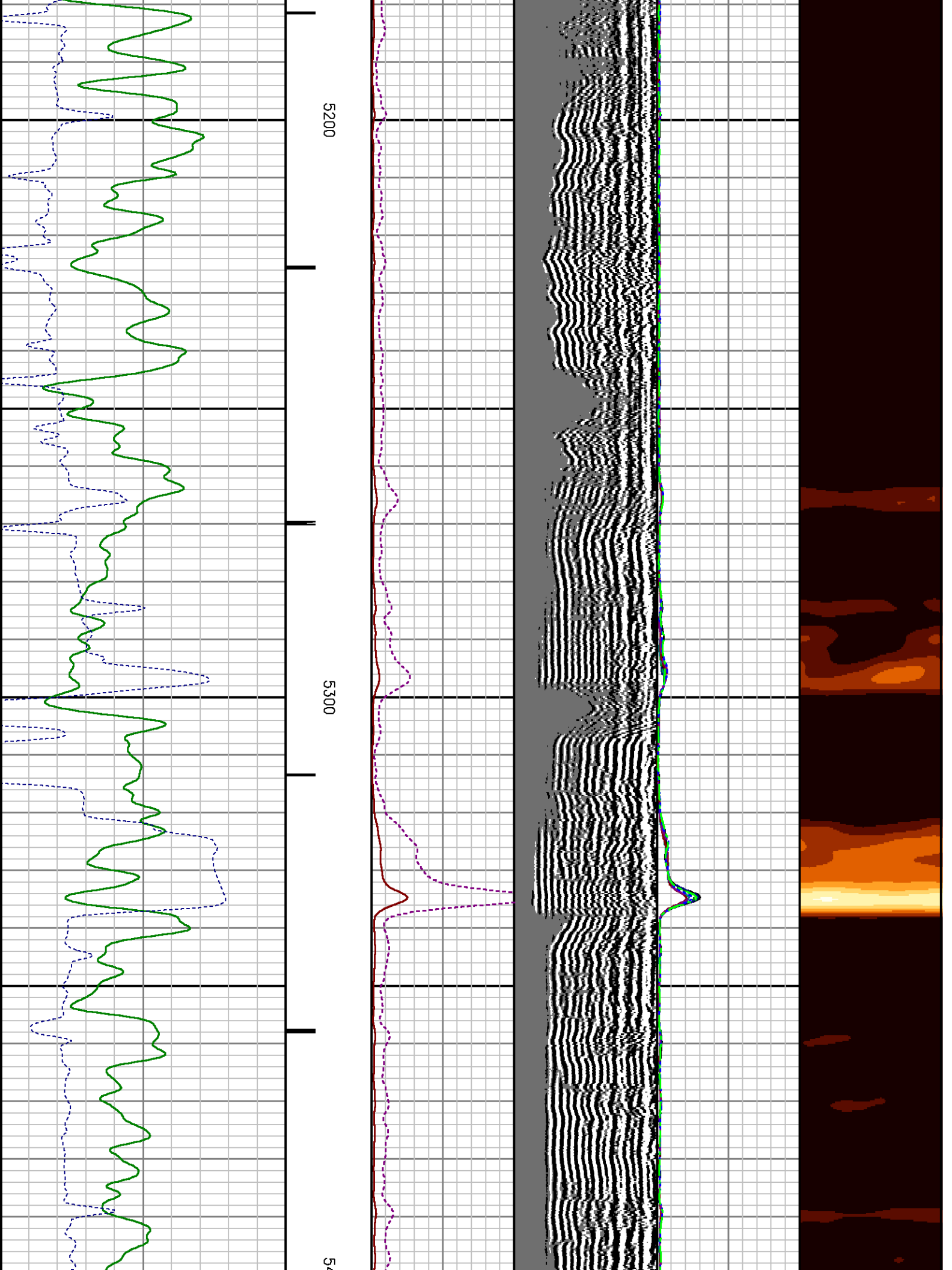




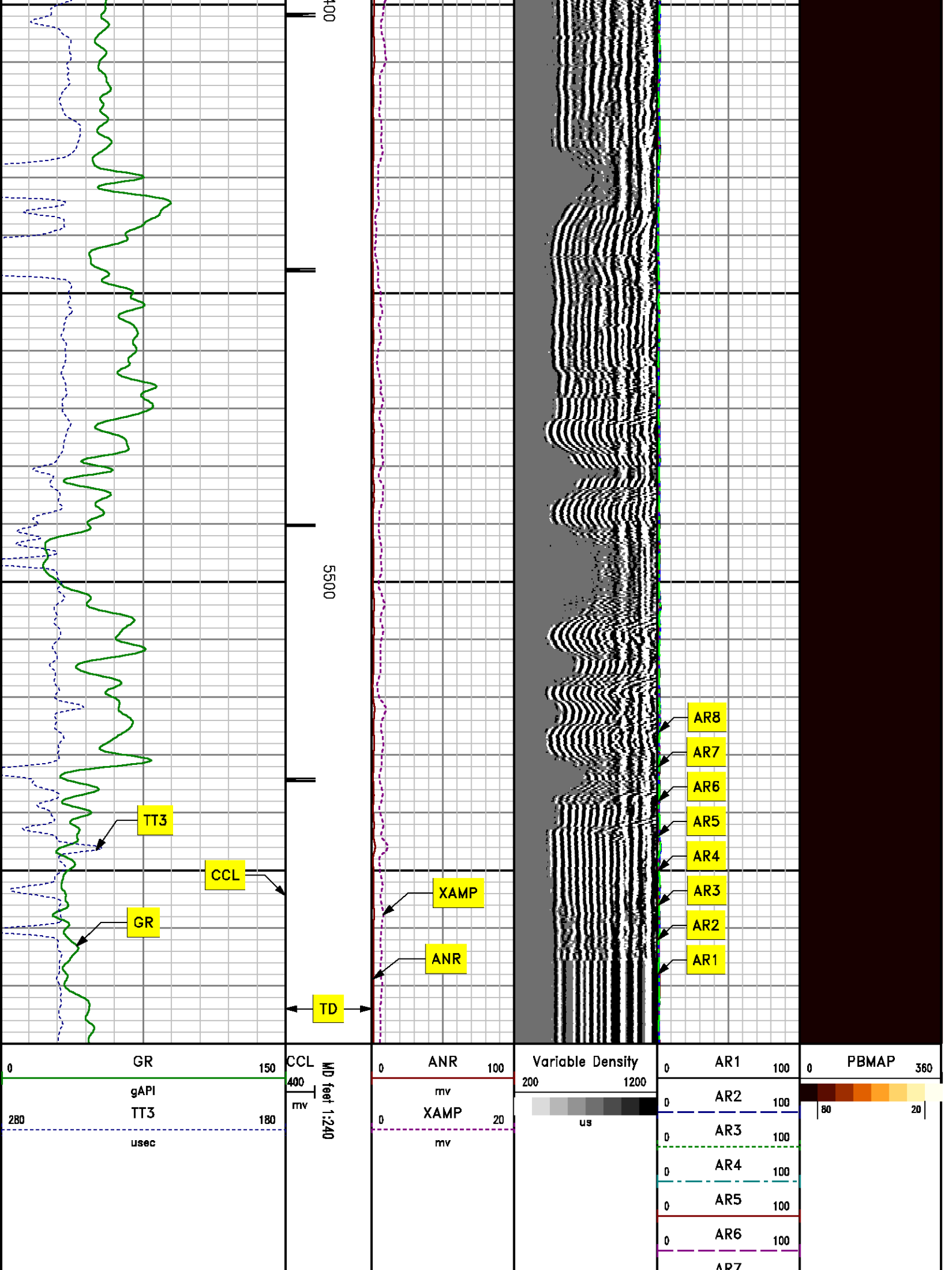












0	AR7	100
0	AR8	100

# *REPEAT PASS* *0 PSI*

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	306.674	usec	5259.968	5591.000
RAL	Amp Gate Start Near	199.015	usec	5259.968	5591.000
RAL	Amp Gate Start Radial	198.578	usec	5259.968	5591.000
RAL	Amp Gate Width Far	25.000	usec	5259.968	5591.000
RAL	Amp Gate Width Near	25.000	usec	5259.968	5591.000
RAL	Amp Gate Width Radial	25.000	usec	5259.968	5591.000
RAL	casing od	4.500	inches	5259.968	5591.000
RAL	casing wt	11.600	lbm/ft	5259.968	5591.000
RAL	FB Start Far	291.900	usec	5259.968	5591.000
RAL	FB Start Near	175.391	usec	5259.968	5591.000
RAL	FB Start Radial	175.391	usec	5259.968	5591.000
RAL	FB Thresh Far	10.000	mv	5259.968	5591.000
RAL	FB Thresh Near	4.000	mv	5259.968	5591.000
RAL	FB Thresh Radial	4.000	mv	5259.968	5591.000
RAL	Fluid Travel Time	200.000	usec/ft	5259.968	5590.781

## **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

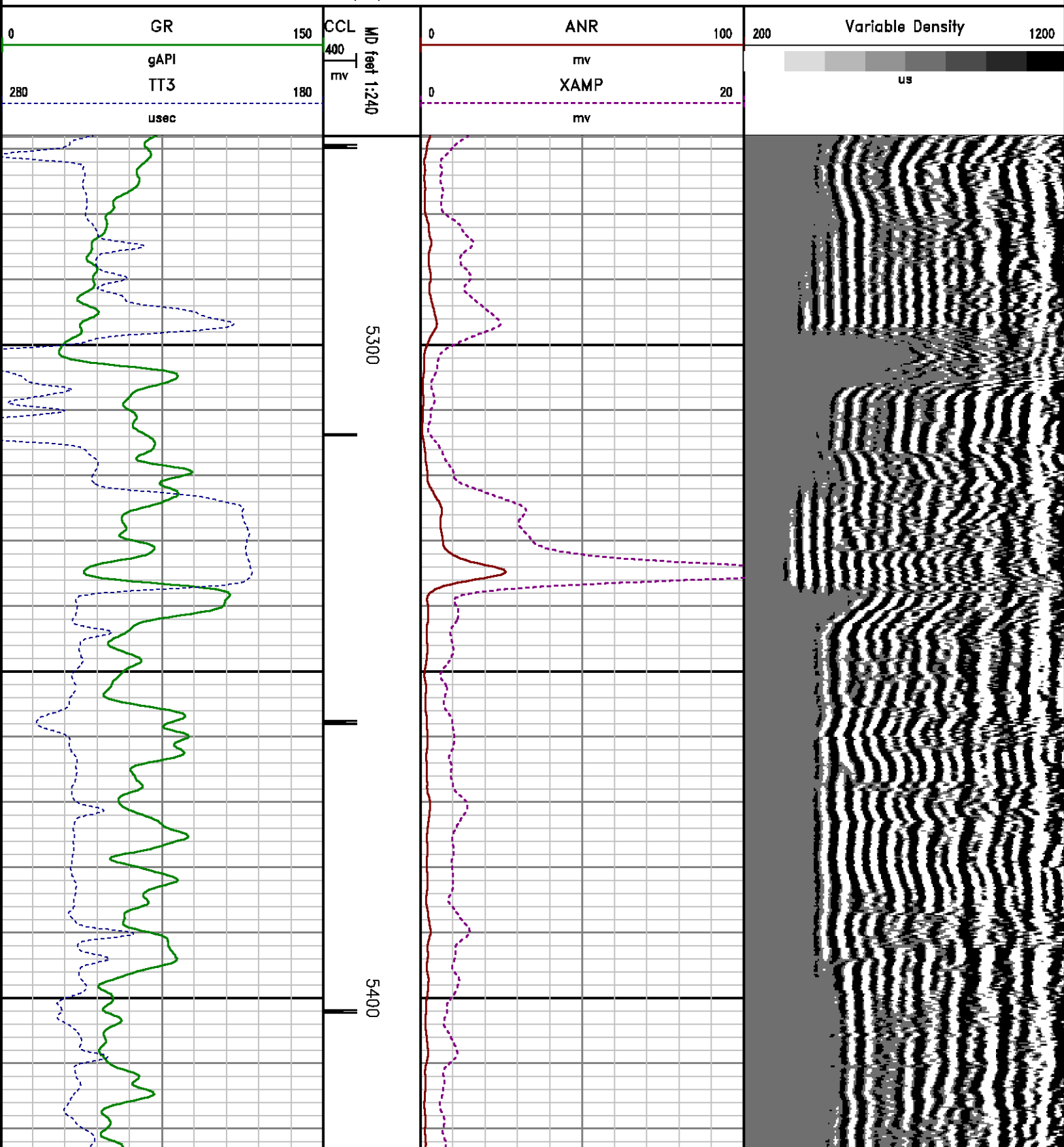
Well : STRAIT SG 442-22

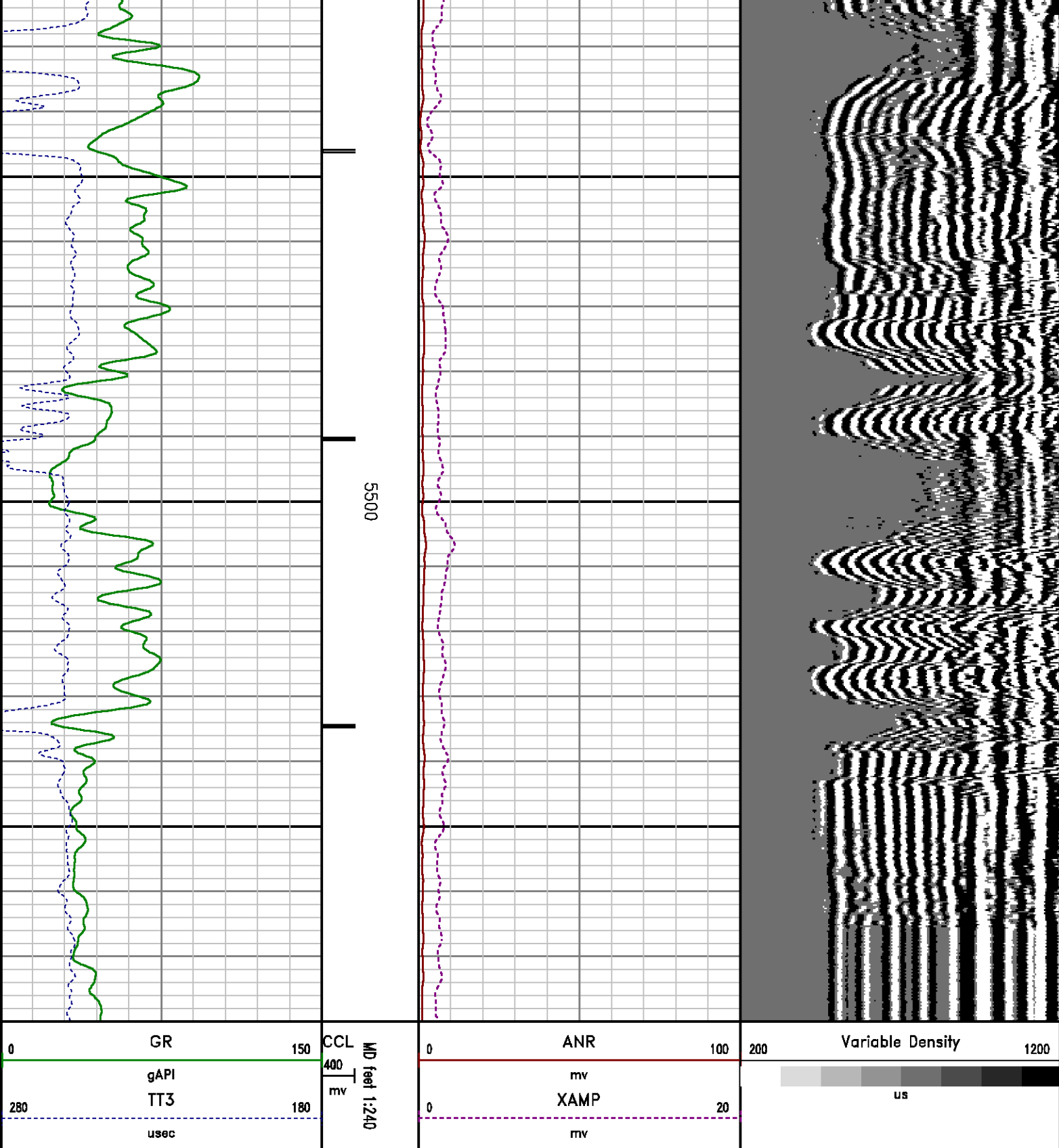
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Mode : PlotMgr 5.4.504

Interval : 5268.00 - 5580.00 feet UP

Created : 7/24/2013 8:46:56 AM





## CALIBRATION SUMMARY

# GAMMA RAY

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

## CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Jun 27 10:51:00 2013 TOOL SERIES: 2459XA ASSET: 209 SEQ: J7

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [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: 2459XA ASSET: 209 SEQ: J7

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	140.71	580.31	0.410	57.71	237.98	180.28

# RALSHP

Shop Calibration: C:\case\calver\RALSHP\106JUL24\_shp.cal

## SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Jul 24 08:21:01 2013 TOOL SERIES: 1426XA ASSET: 106 SEQ: JUL24

Tool Delay [usec]	Tank OD In	Tank Wt lbm/ft	Tank ID In
-58.00	5.50	15.50	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	218	216	30	166	25	-0.313	100.00	0.19
3 Ft. Receiver	218	216	30	166	25	-0.293	100.00	0.19
5 Ft. Receiver	326	322	30	263	25	0.484	150.00	0.20
Radial #1	218	216	30	166	25	-0.585	100.00	0.19
Radial #2	218	216	30	166	25	-0.082	100.00	0.19
Radial #3	218	216	30	166	25	-0.391	100.00	0.19
Radial #4	218	216	30	166	25	0.169	100.00	0.19
Radial #5	218	216	30	166	25	-0.664	100.00	0.19
Radial #6	218	216	30	166	25	-0.448	100.00	0.19
Radial #7	218	216	30	166	25	0.177	100.00	0.19
Radial #8	218	216	30	166	25	-0.722	100.00	0.18

# RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\106JUL24 fld.cal

DATE/TIME PERFORMED: Wed Jul 24 08:22:43 2013

TOOL SERIES:

1426XA

ASSET:

106

SEQ: JUL24

Tool Delay  
[usec]

-58.00

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	-0.094	0.000	1.00	100.000
3 Ft. Receiver	200	30	-1.151			
5 Ft. Receiver	317	30	-1.749			
Radial #1	200	30	-2.244			
Radial #2	200	30	-1.677			
Radial #3	200	30	-1.380			
Radial #4	200	30	-1.655			
Radial #5	200	30	-1.457			
Radial #6	200	30	-1.524			
Radial #7	200	30	-1.100			
Radial #8	200	30	-1.451			

## TOOL DIAGRAM

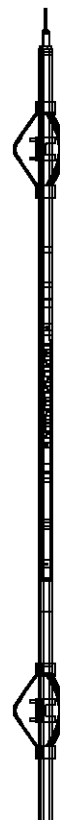
### OTA SHORT CABLE HEAD

### 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





	18.89'
XMIT	12.71'
NEAR RCVR	9.63'
FAR RCVR	7.71'
CCL	5.79'

Temp Rating	400.00 °F
Press Rating	20000.00 PSI

GR	1.67'
TEMP	0.17'
	0.00'

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

 Baker Atlas 	Company WPX ENERGY Well STRAIT SG 442-22 Field GRAND VALLEY County GARFIELD State COLORADO		File No: CH075119 API No: 05045217550000
	Location SHL: 1525' FNL & 279' FEL SEC:22 BHL: 2254' FNL & 1115' FEL SEC:22  SEC 22 TWP 7S RGE 96W	Elevations KB 5244 ft DF GL 5222 ft	22 7S 96W SG 42-22 CYCLONE 17