



RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: _____ Company **WPX ENERGY**

CH086887 **Well C & C ENERGY GM 22-13**

API No: _____ **Field GRAND VALLEY**

0504522590000 **County GARFIELD State COLORADO**

Location

13 75 96W SHL: 271' FSL & 1015' FWL (SEC 12)

GM 24-12 PAD BHT: 1339' FNL & 2164' FWL (SEC 13)

H&P 318 SEC 13 TWP 7S RGE 96W

Other Services

RPM

Permanent Datum GL Elevation 5141 ft

Log Measured From KB 24 ft Above P. D.

Drill Measured From KELLY BUSHING

Elevations

KB 5165 ft

DF

GL 5141 ft

Date	14/JUN/14	
Run	ONE	
Service Order	US086887J	
Depth Driller	6494 ft	
Depth Logger	6494 ft	
Bottom Logged Interval	6484 ft	
Top Logged Interval	24 ft	
Time Started	1500	
Time Finished	1800	
Operator Rig Time	3 HRS	
Type of Fluid in Hole	WATER	
Fluid Density	NA	
Salinity	NA	
Fluid Level	60 ft	
Logged Cement Top	NA	
Wellhead Pressure	0 psi	
Maximum Hole Deviation	NA	
Nominal Logging Speed	65 fpm	
Maximum Recorded Temperature	198 degF	
Reference Log	NONE	
Reference Log Date	NA	
Equipment No.	4271	GRAND UCT
Recorded By	FLYOD RENEAU	
Witnessed By	JEFF BRADY	

- 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	24 ft	1661 ft
8.75 in	1661 ft	6494 ft

Casing Record				
Size	Weight	Grade	From	To
9.625 in			24 ft	1661 ft
4.5 in	11.6 lbm/ft	I-80	24 ft	6494 ft

Cement Data								
Job Type	From	To	Time	Date	Cement Type	Density	Volume	Additives

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 8 feet

The amount of linear shift is 8 feet.
Logged with zero PSI at wellhead.

BHT = 198°F

SJ = 3159'-3181'

Equipment Data					
Run	Trip	Tool	Series Number	Serial Number	Position
1	1	VDL	1426XA	10218496	CENT
1	1	GRICCL	2459XA	10417456	CENT

PRIMARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	30.937	6496.000
RAL	Amp Gate Start Near	195.000	usec	30.937	6496.000
RAL	Amp Gate Start Radial	195.000	usec	30.937	6496.000
RAL	Amp Gate Width Far	25.000	usec	30.937	6496.000
RAL	Amp Gate Width Near	25.000	usec	30.937	6496.000
RAL	Amp Gate Width Radial	25.000	usec	30.937	6496.000
RAL	casing od	4.500	inches	30.937	6496.000
RAL	casing wt	11.600	lbm/ft	30.937	6496.000
RAL	FB Start Far	291.900	usec	30.937	6496.000
RAL	FB Start Near	180.000	usec	30.937	6496.000
RAL	FB Start Radial	180.000	usec	30.937	6496.000
RAL	FB Thresh Far	10.000	mv	30.937	6496.000
RAL	FB Thresh Near	4.000	mv	30.937	6496.000
RAL	FB Thresh Radial	4.000	mv	30.937	6496.000
RAL	Fluid Travel Time	200.000	usec/ft	30.937	6495.687

DEPTH OFFSETS

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

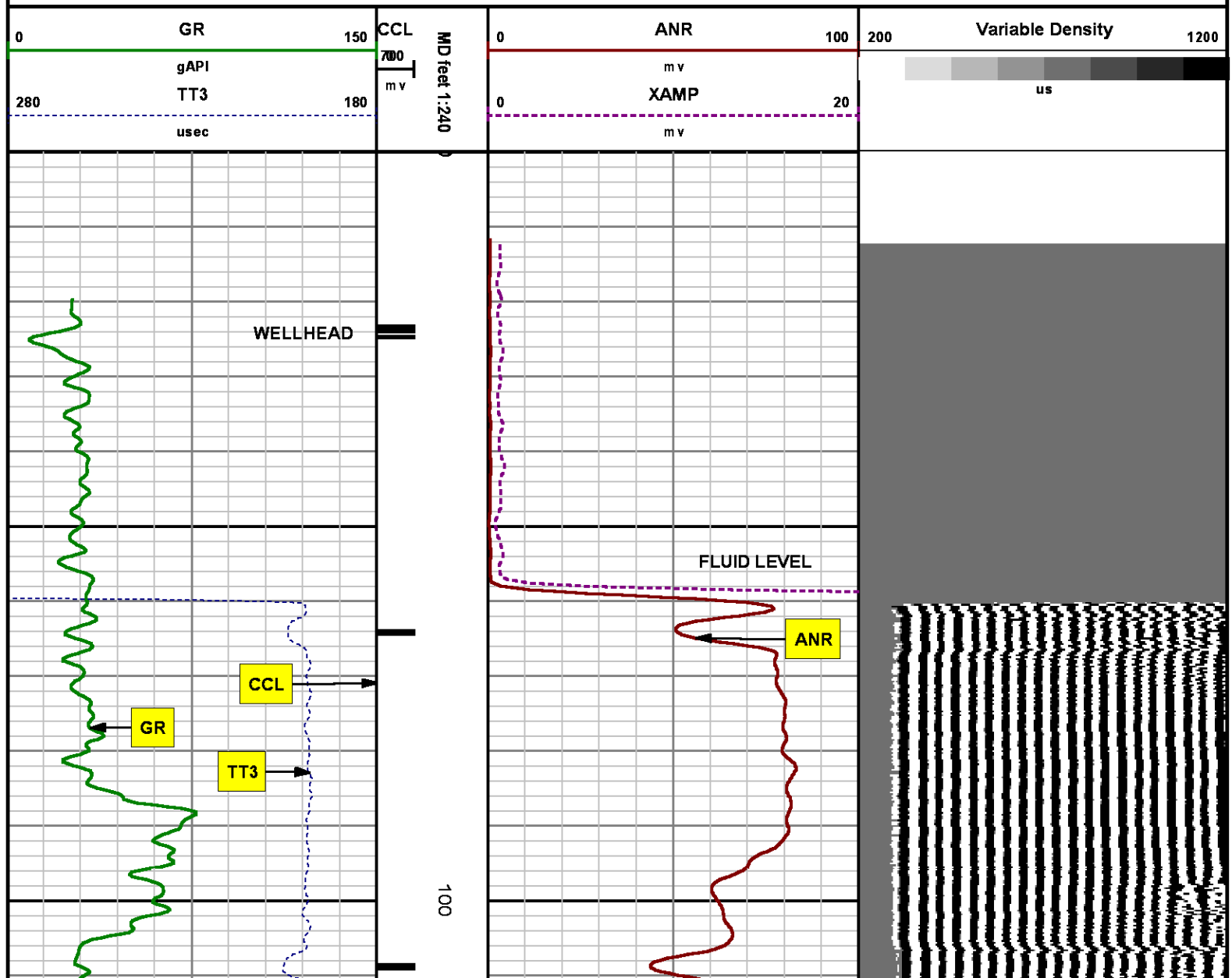
Well : C & C ENERGY GM 22-13

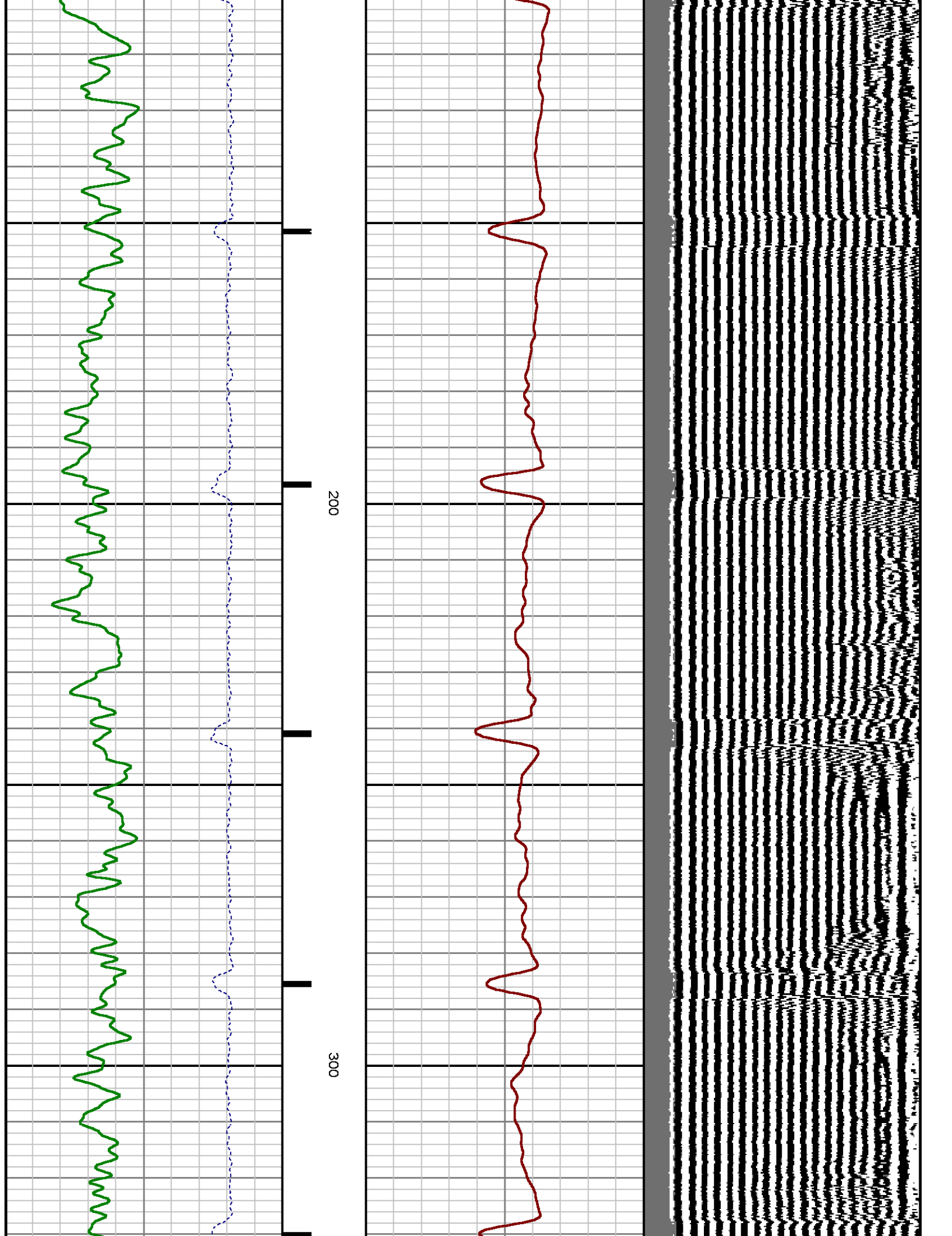
File Name : d:\welldata\wpx\gm 22-13\22ral\main.xtf

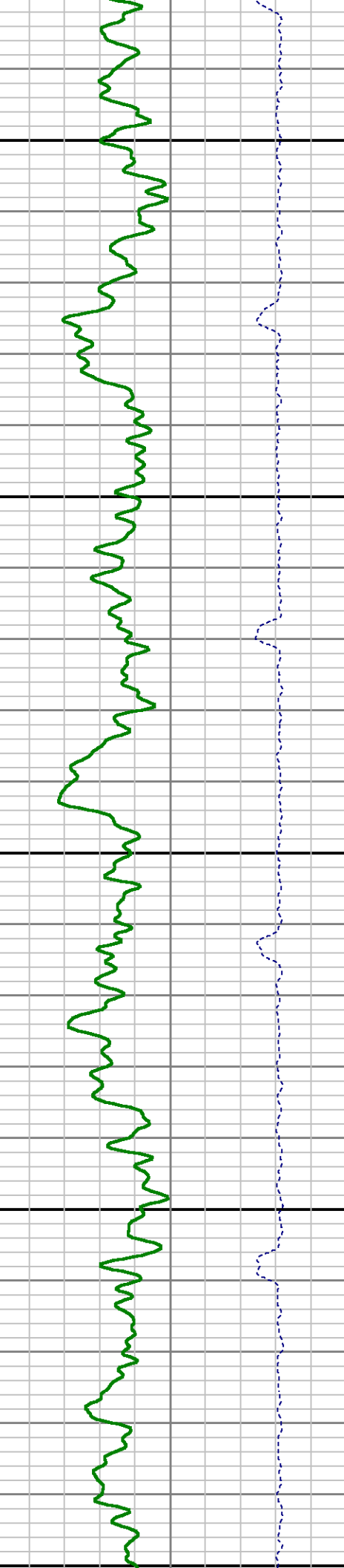
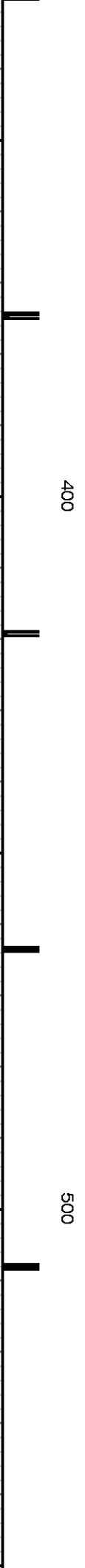
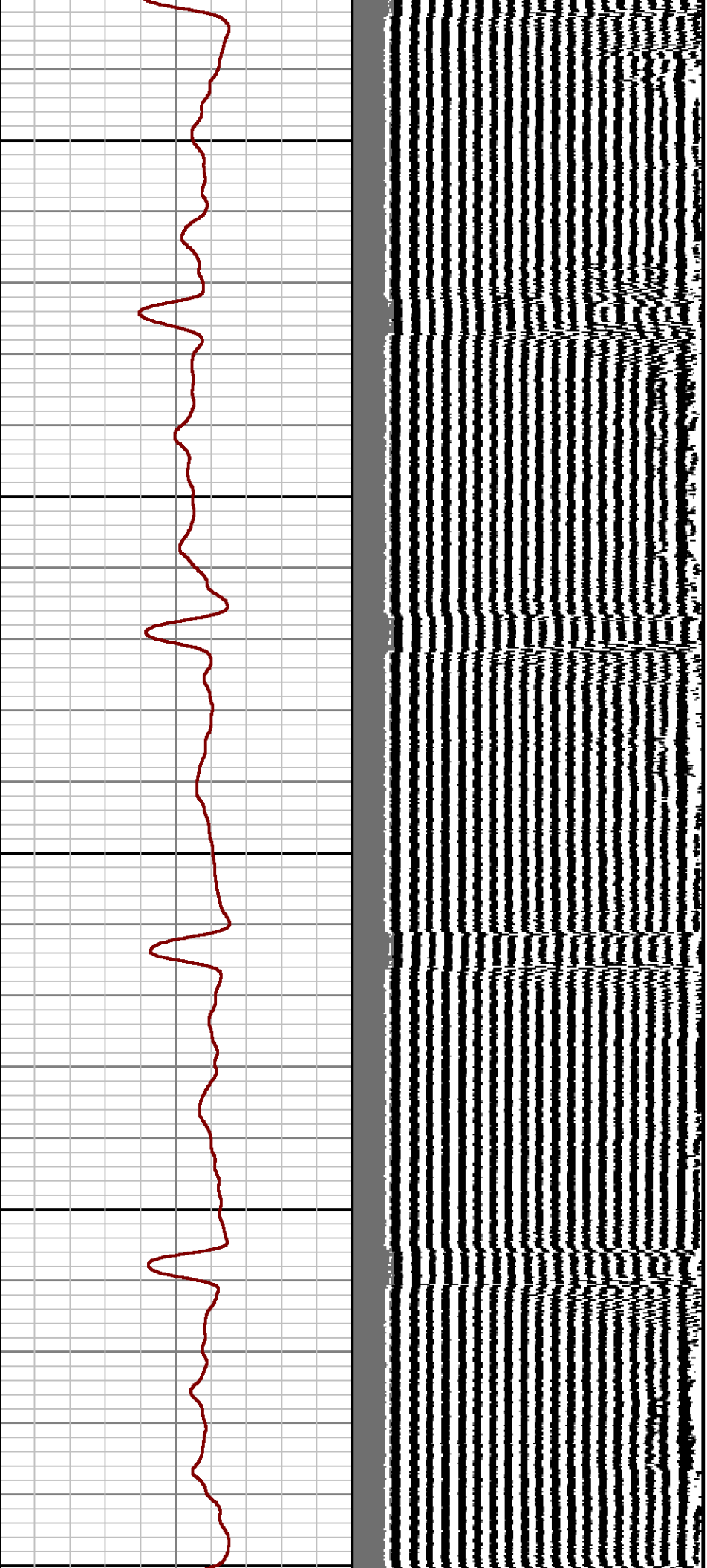
Mode : PlotMgr 5.4.504

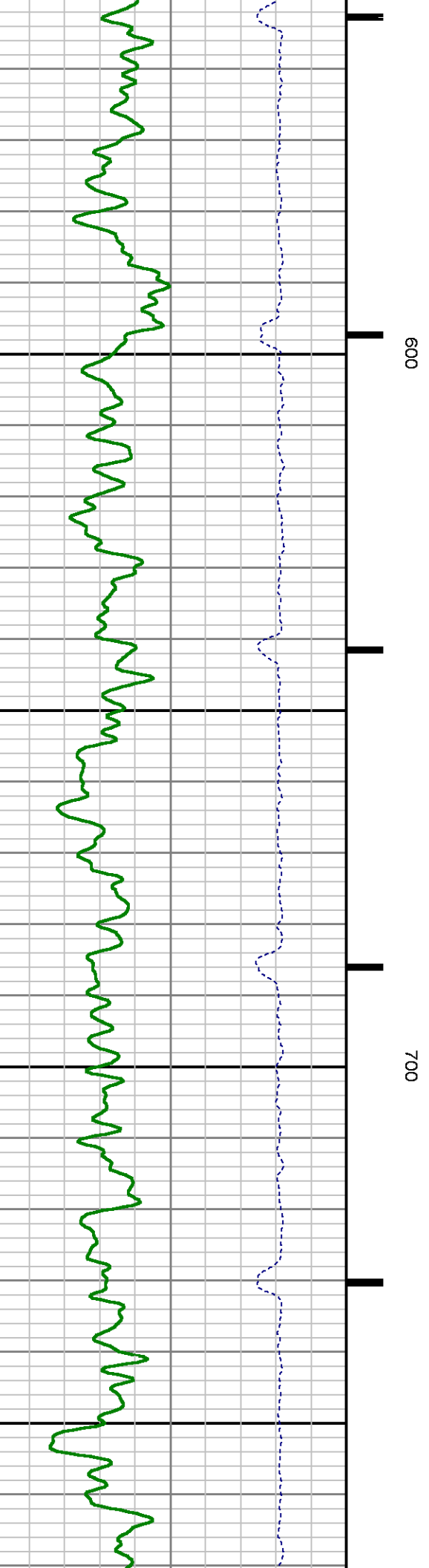
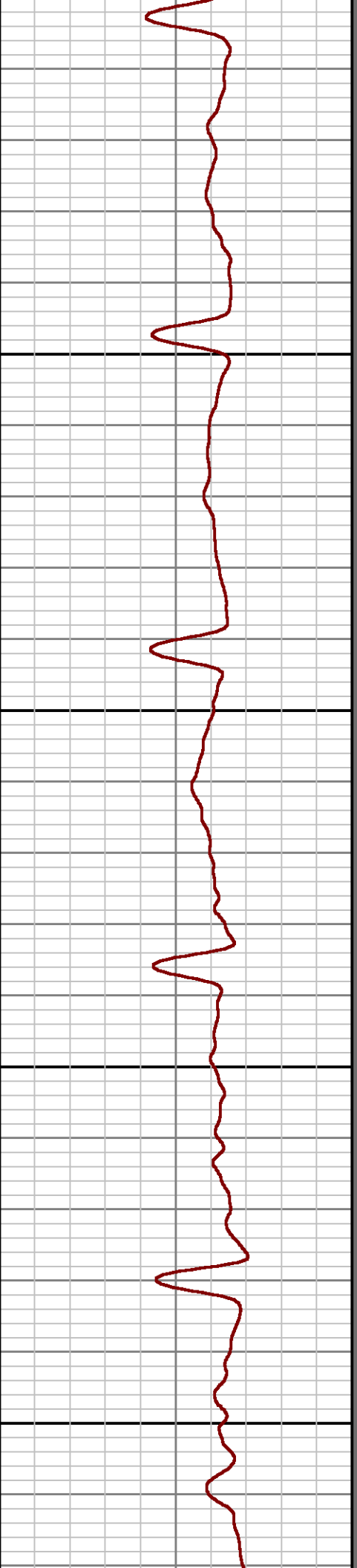
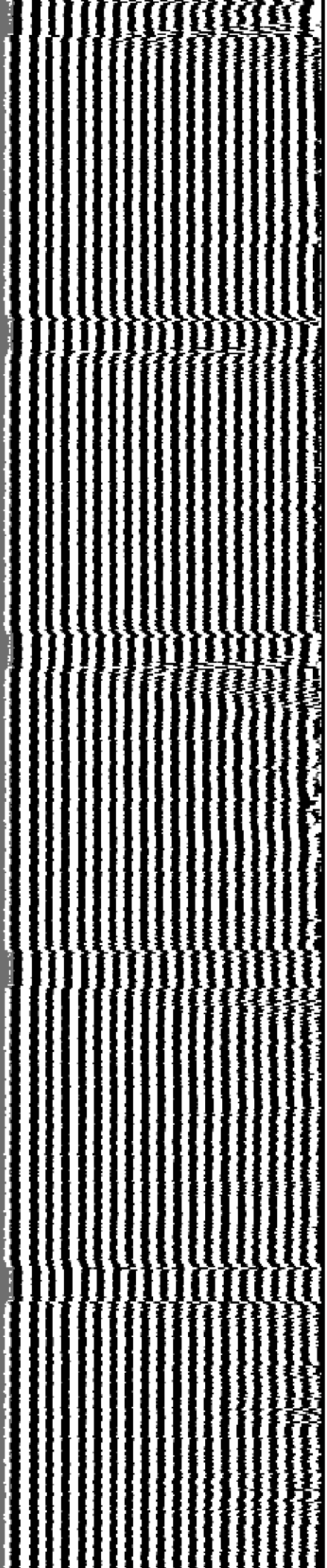
Interval : 0.00 - 6497.00 feet UP

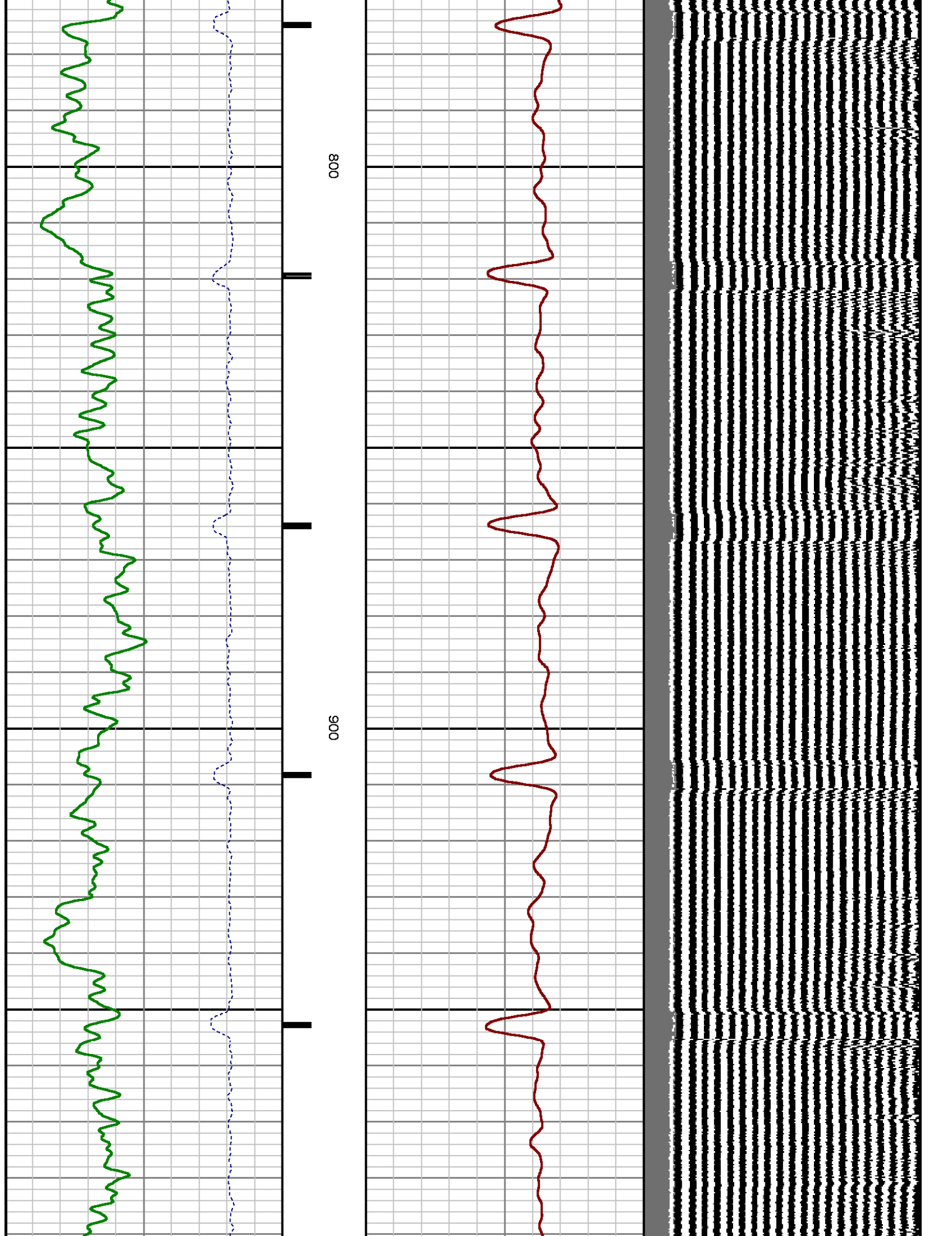
Created : 6/14/2014 3:25:44 PM

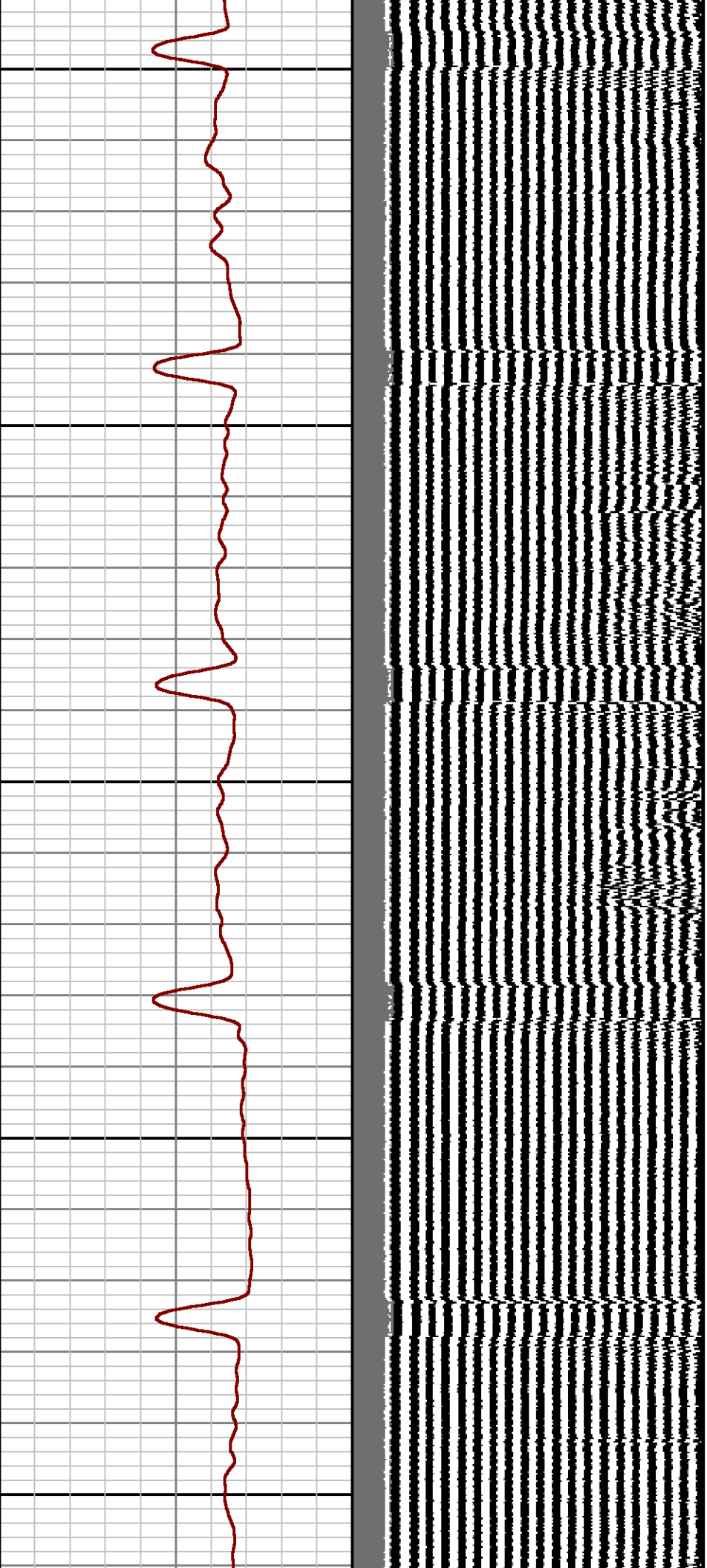








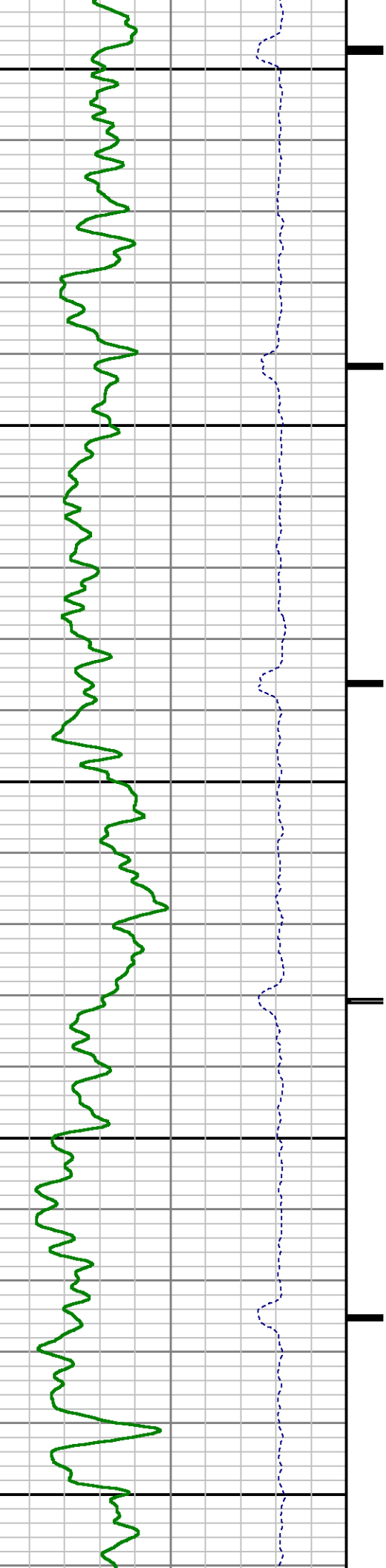


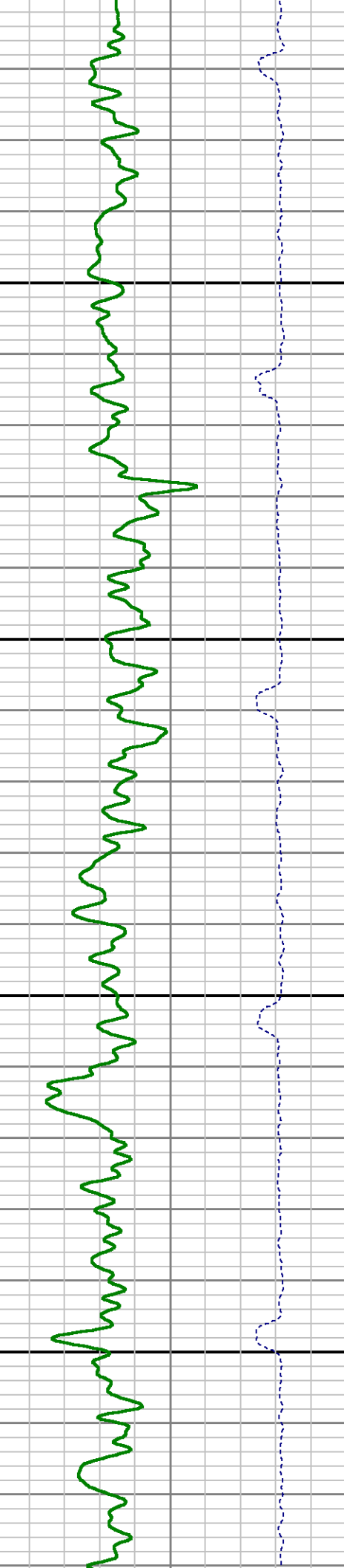
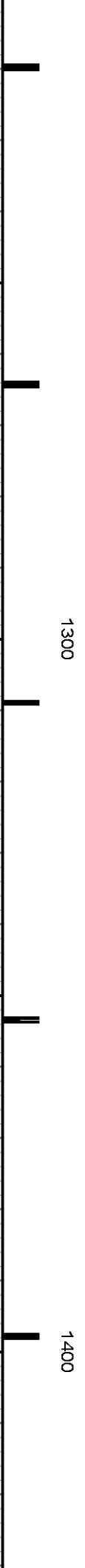
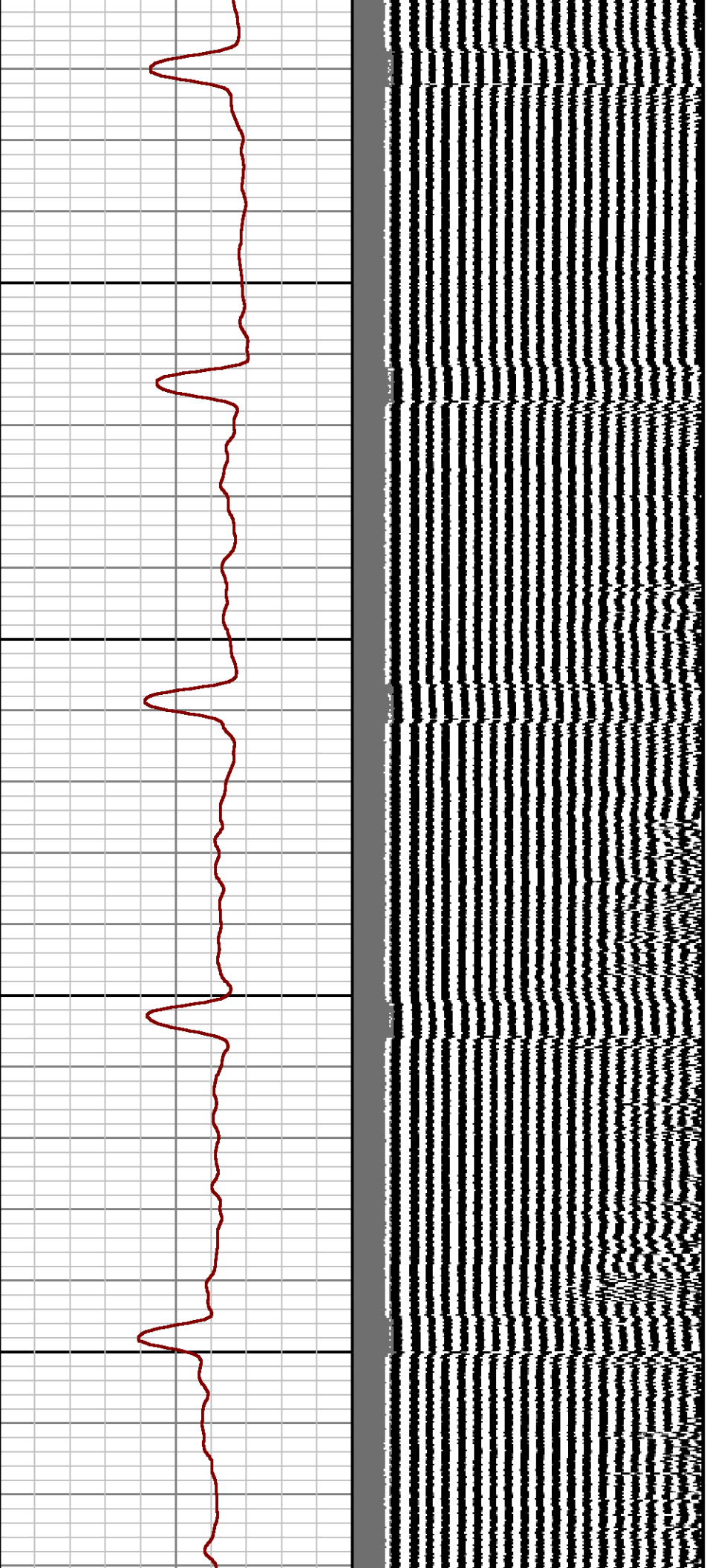


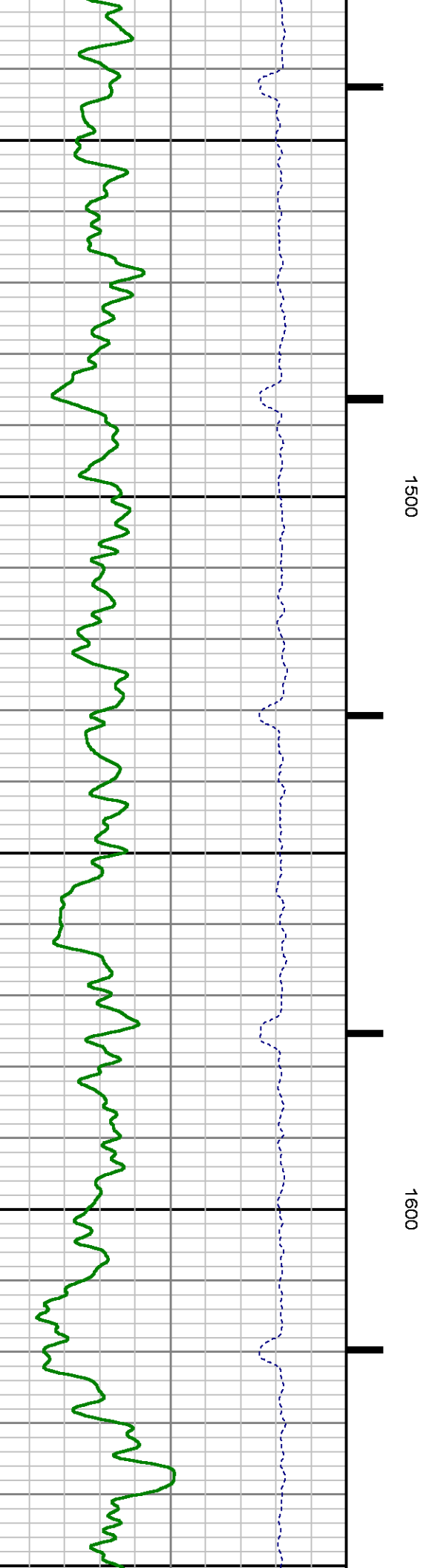
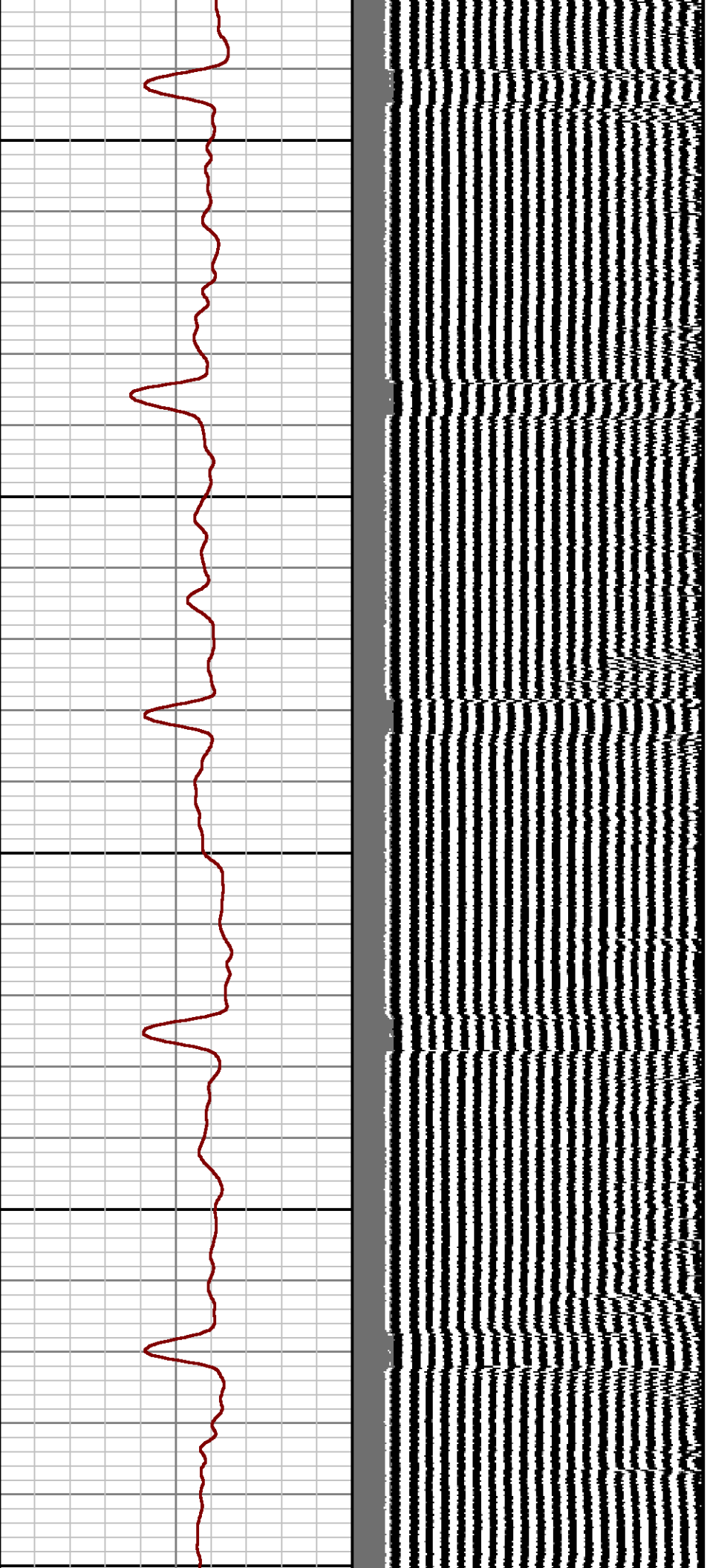
1000

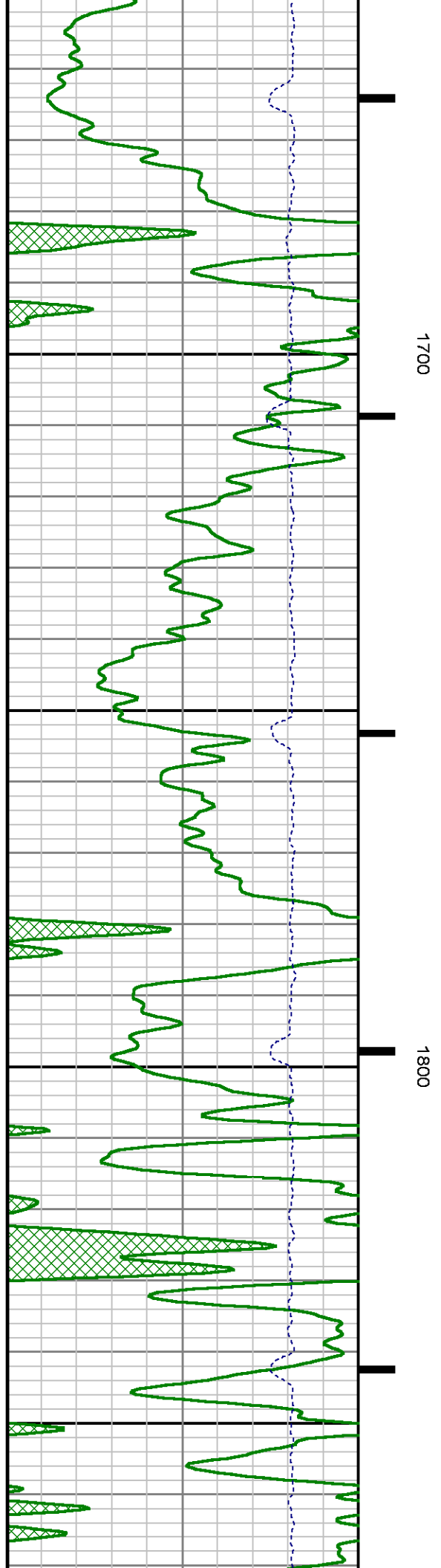
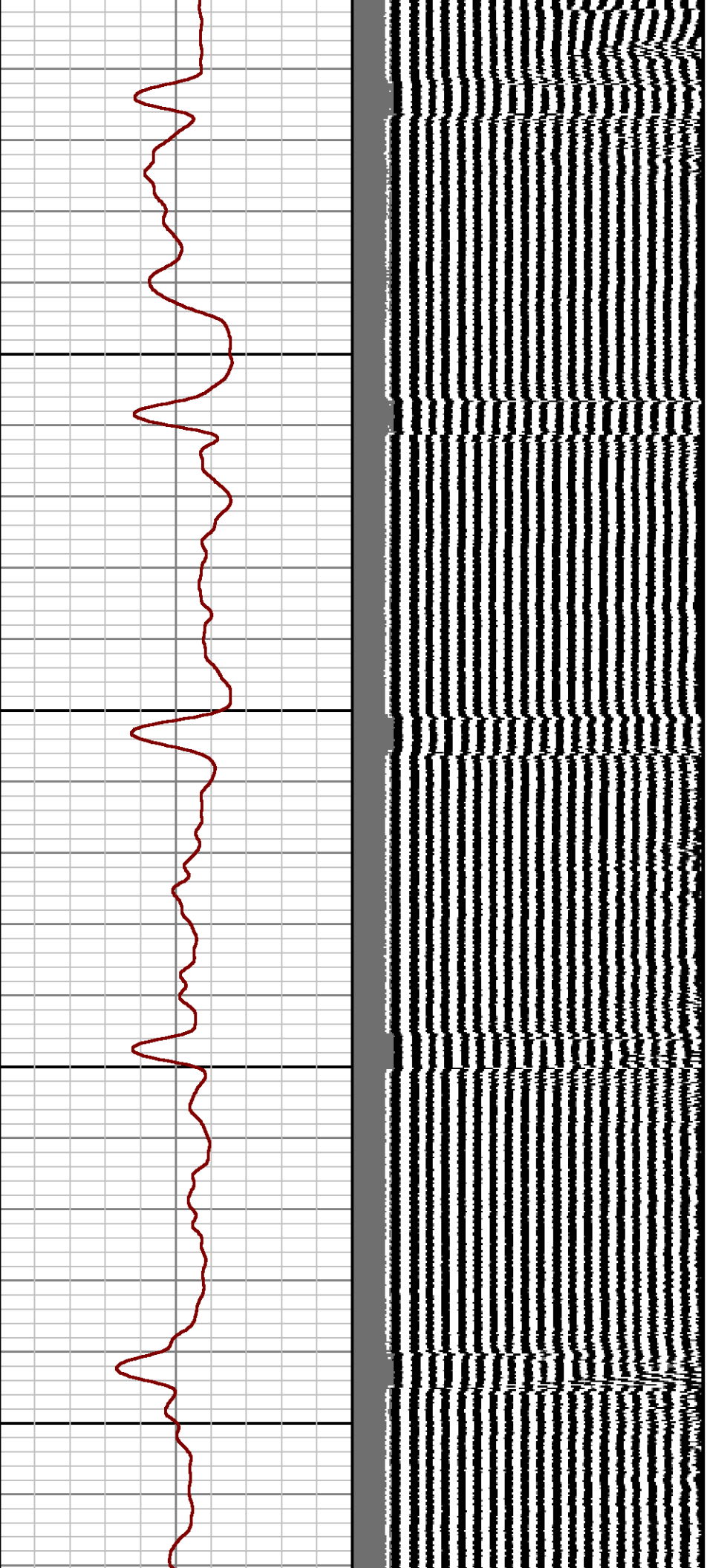
1100

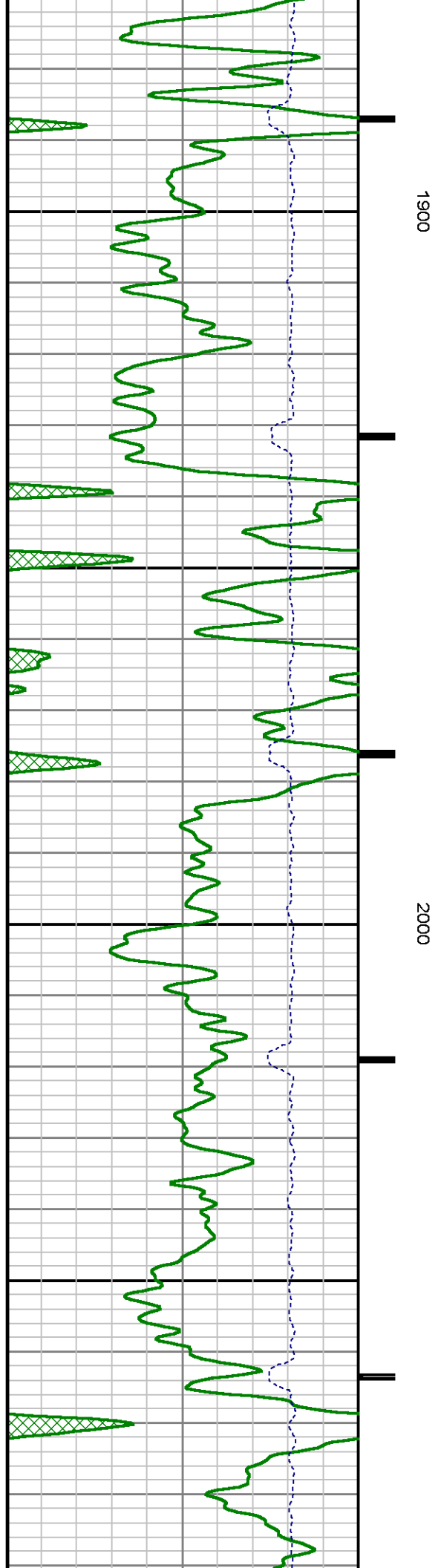
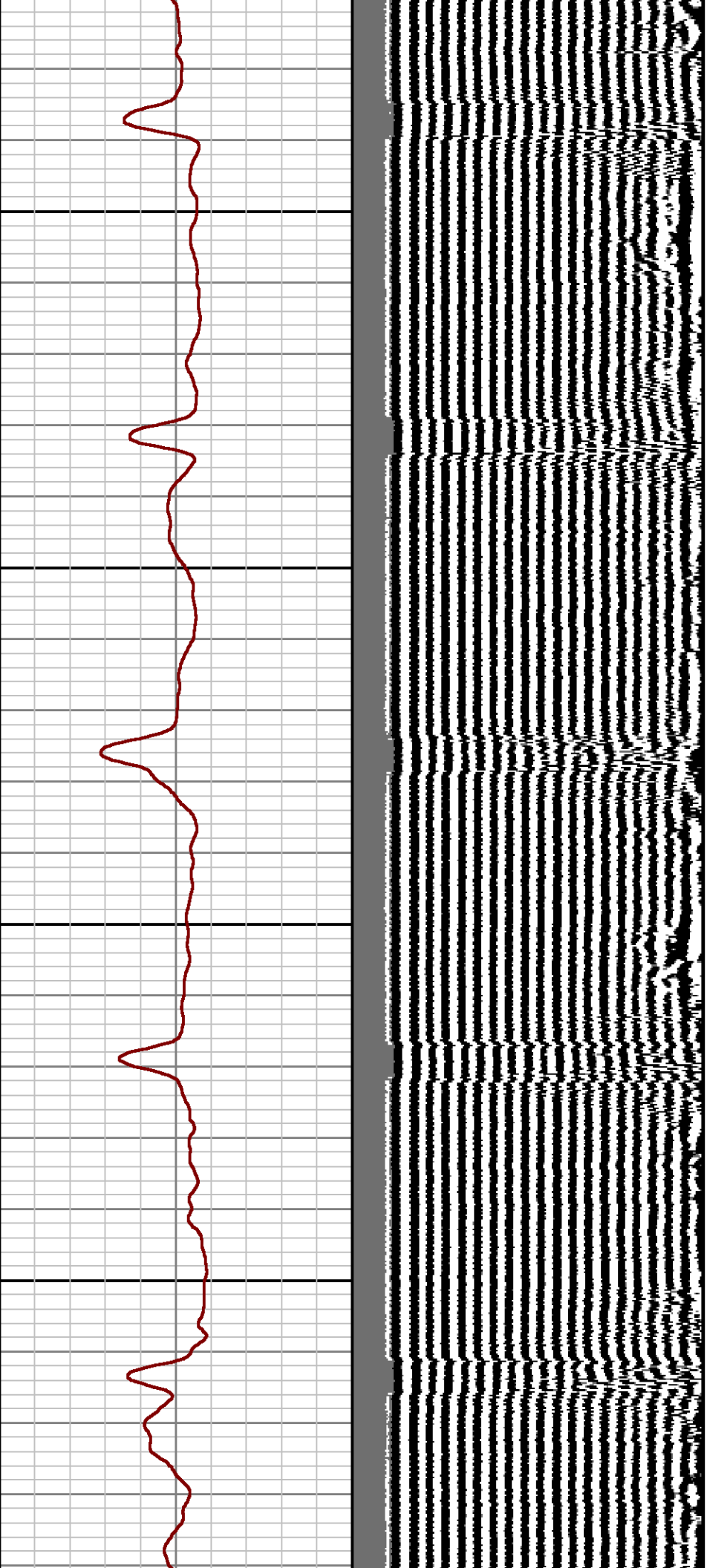
1200

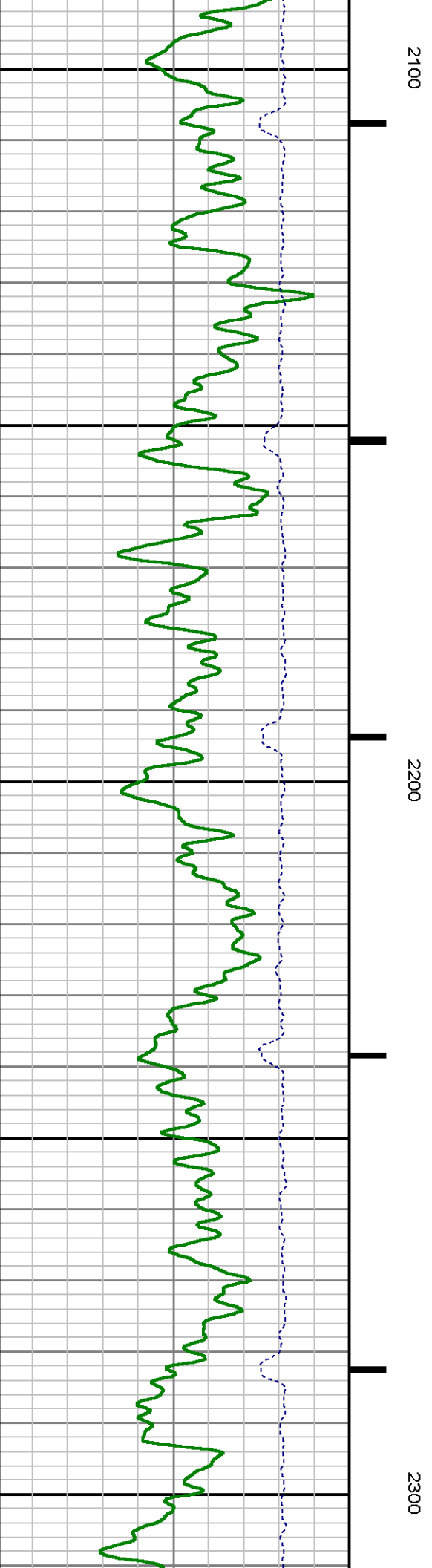
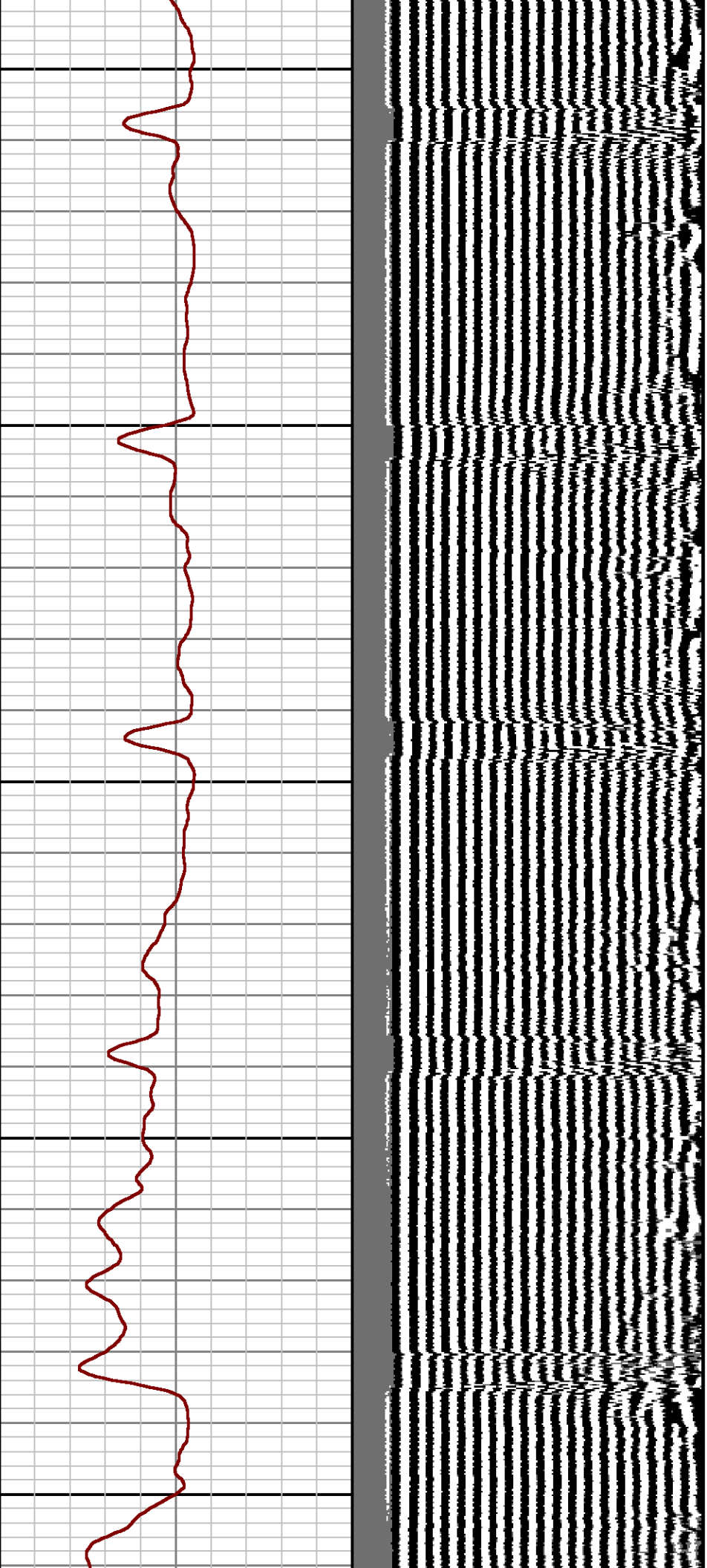


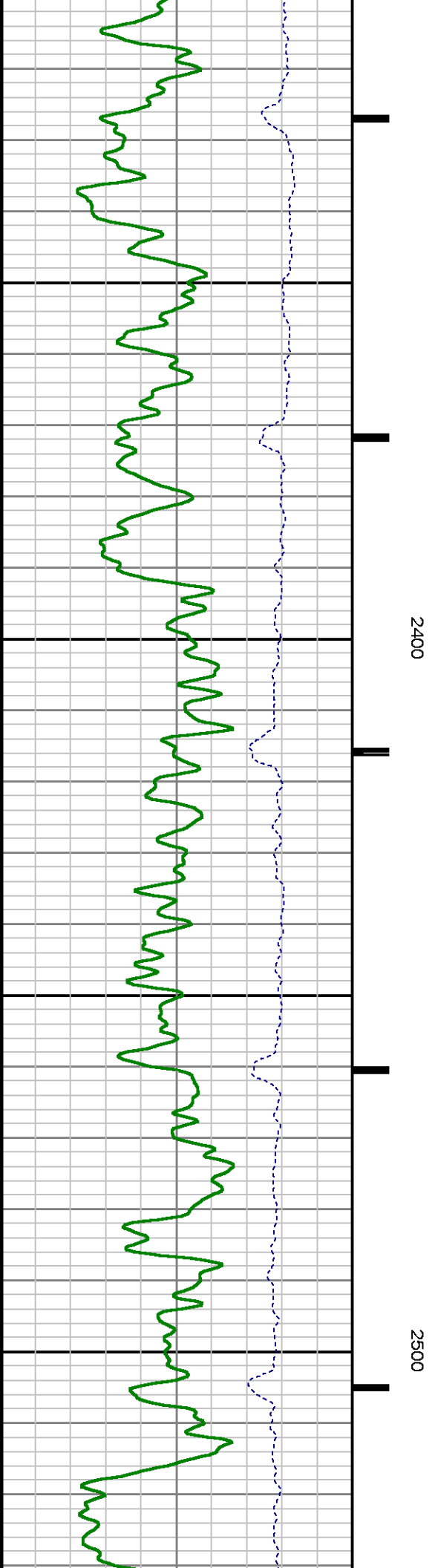
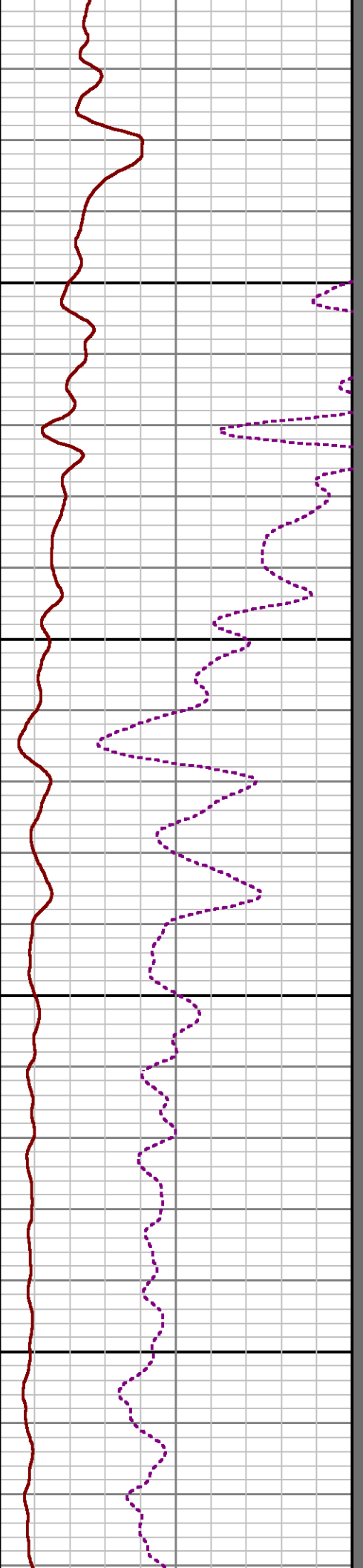
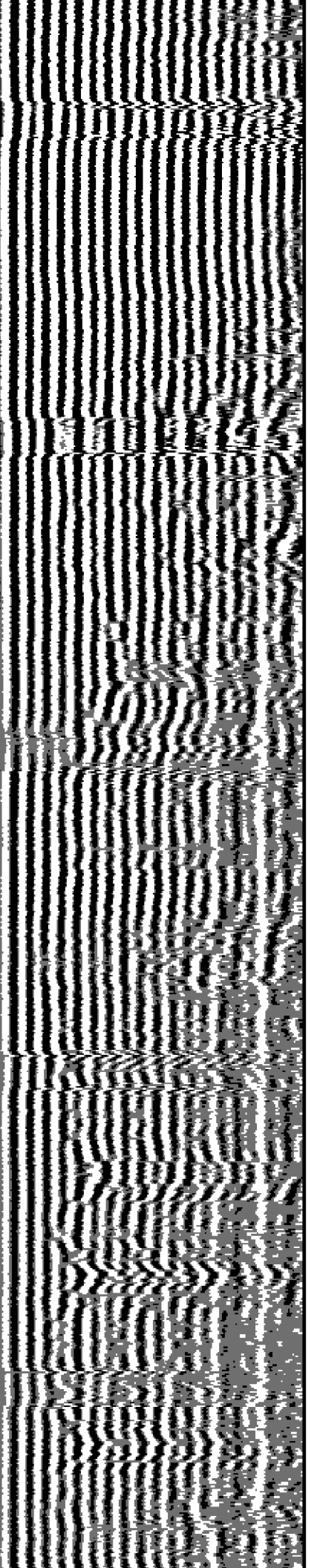


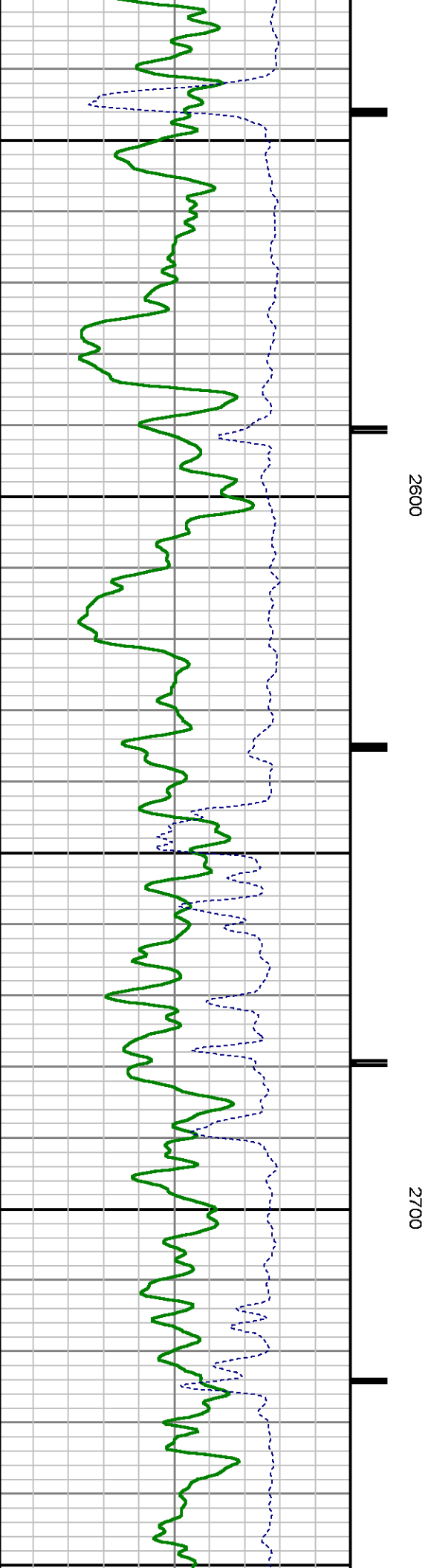
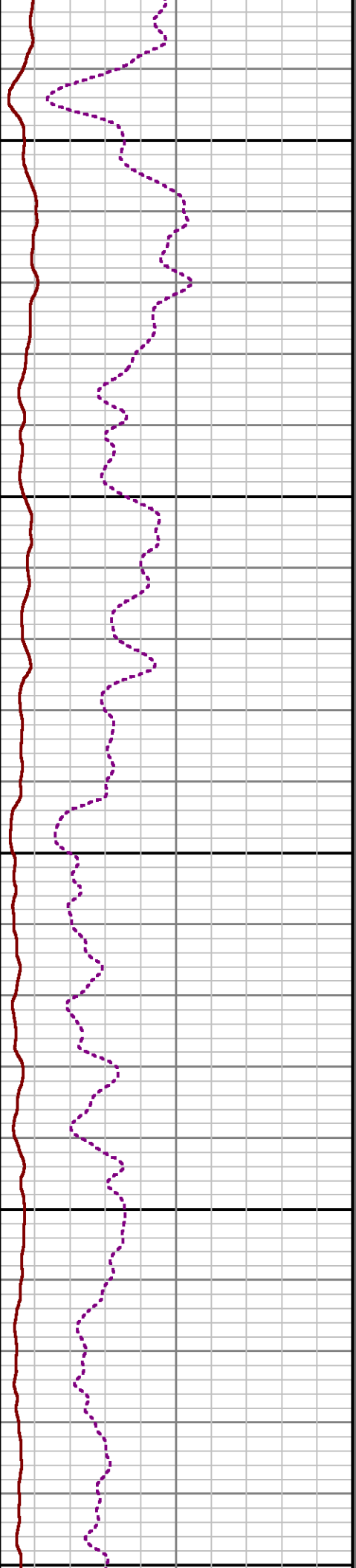
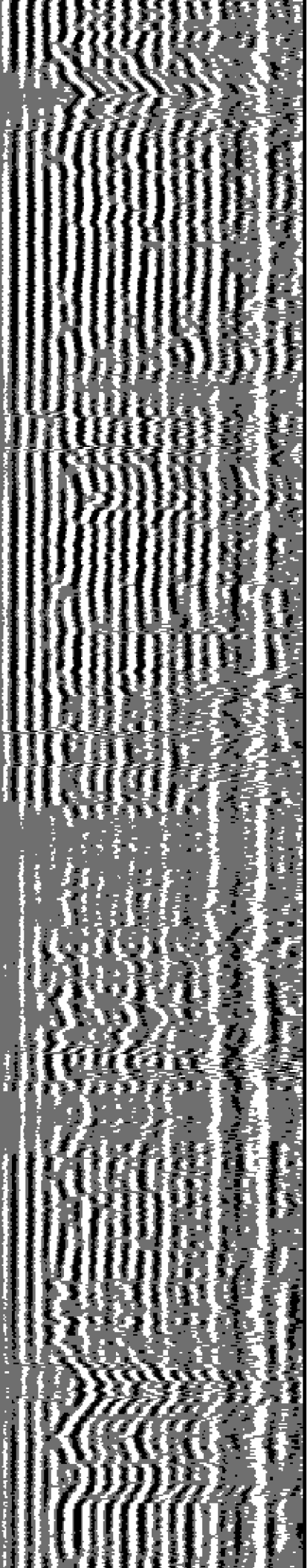


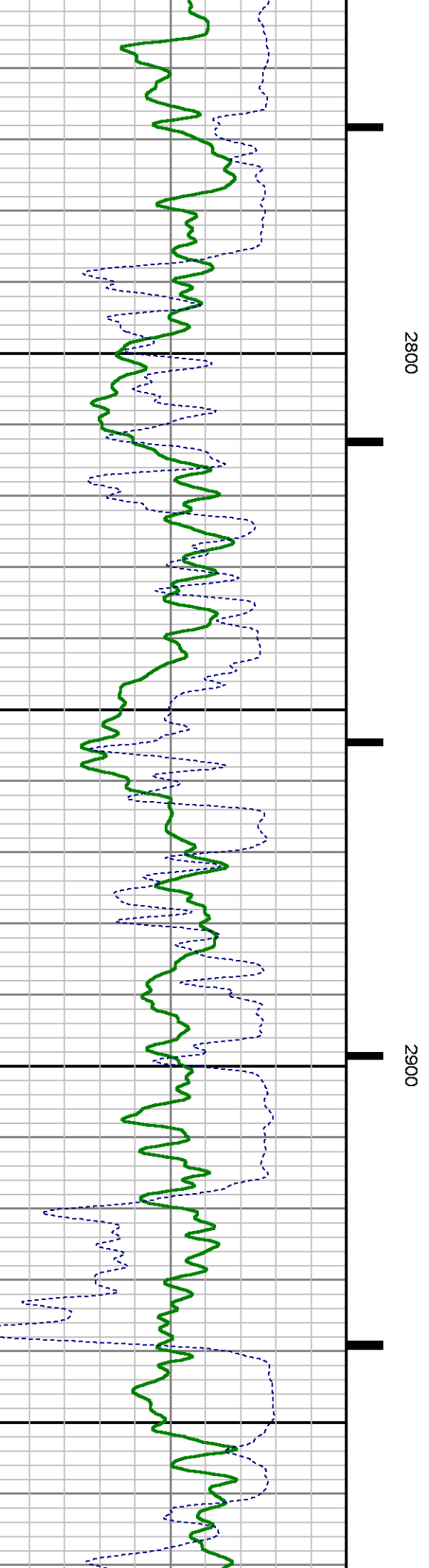
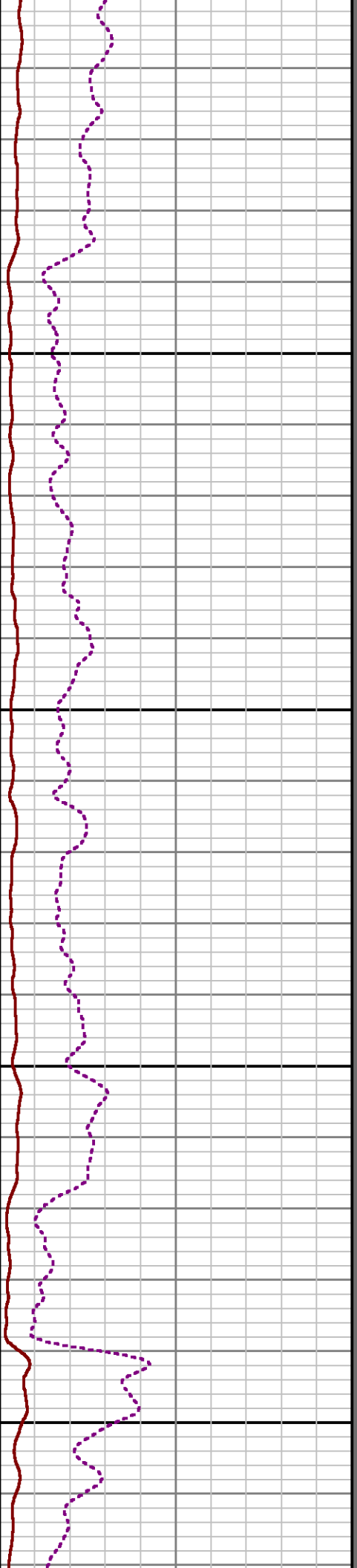
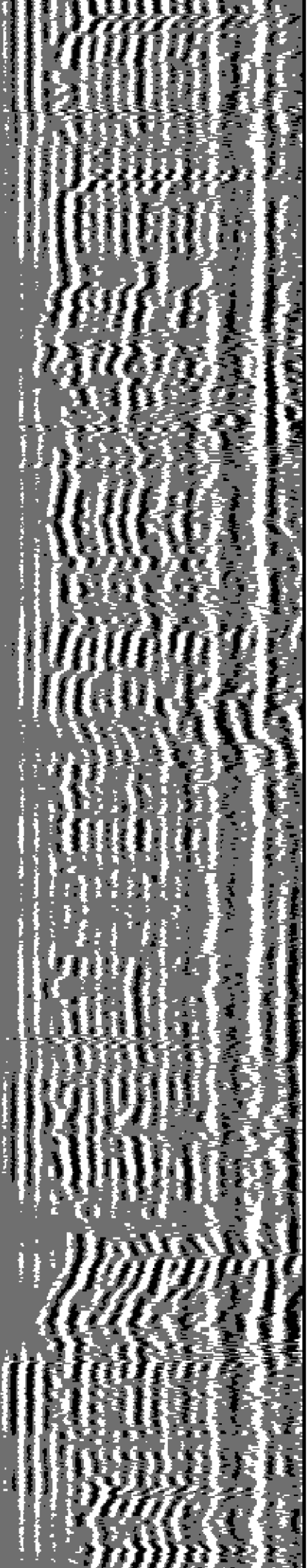


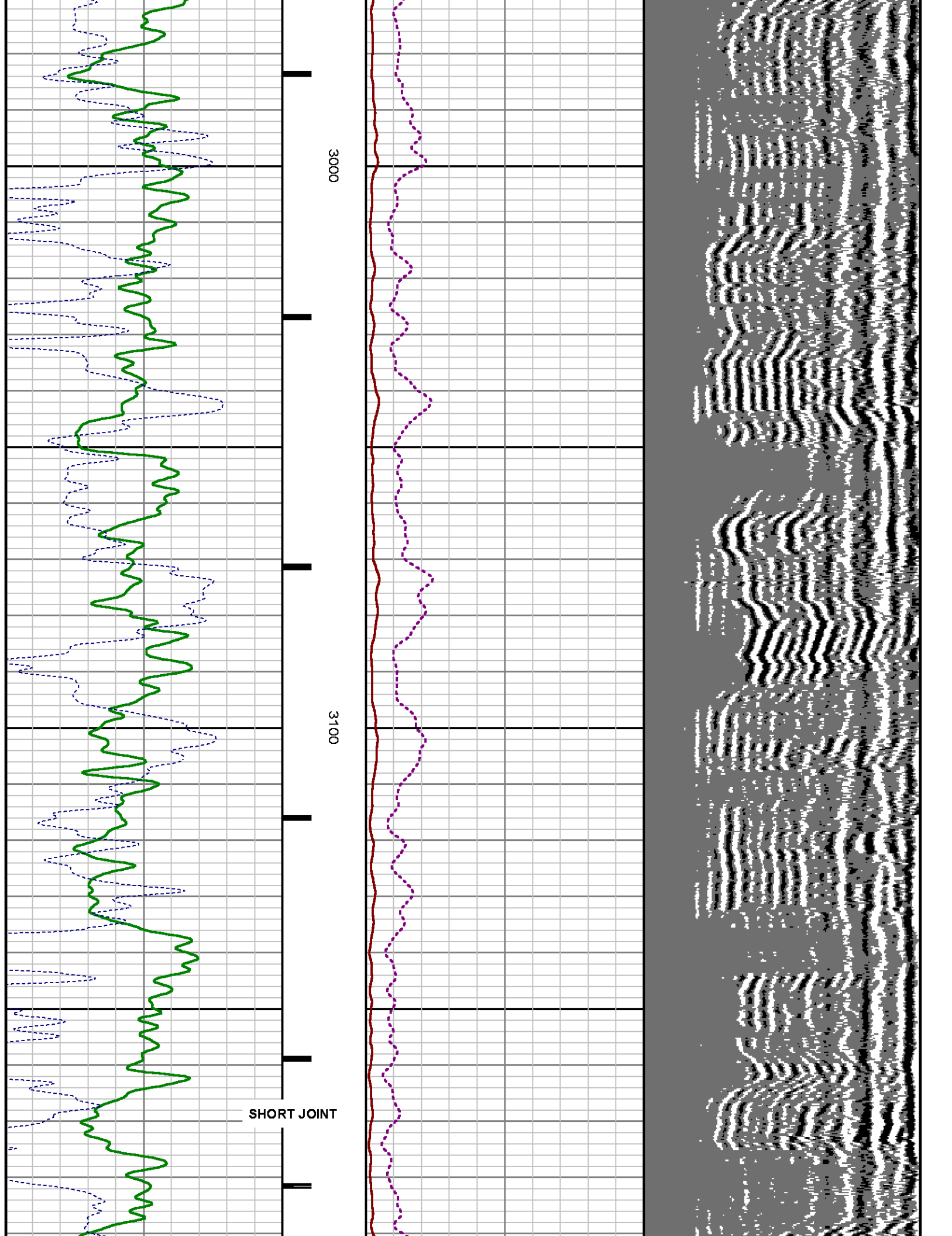


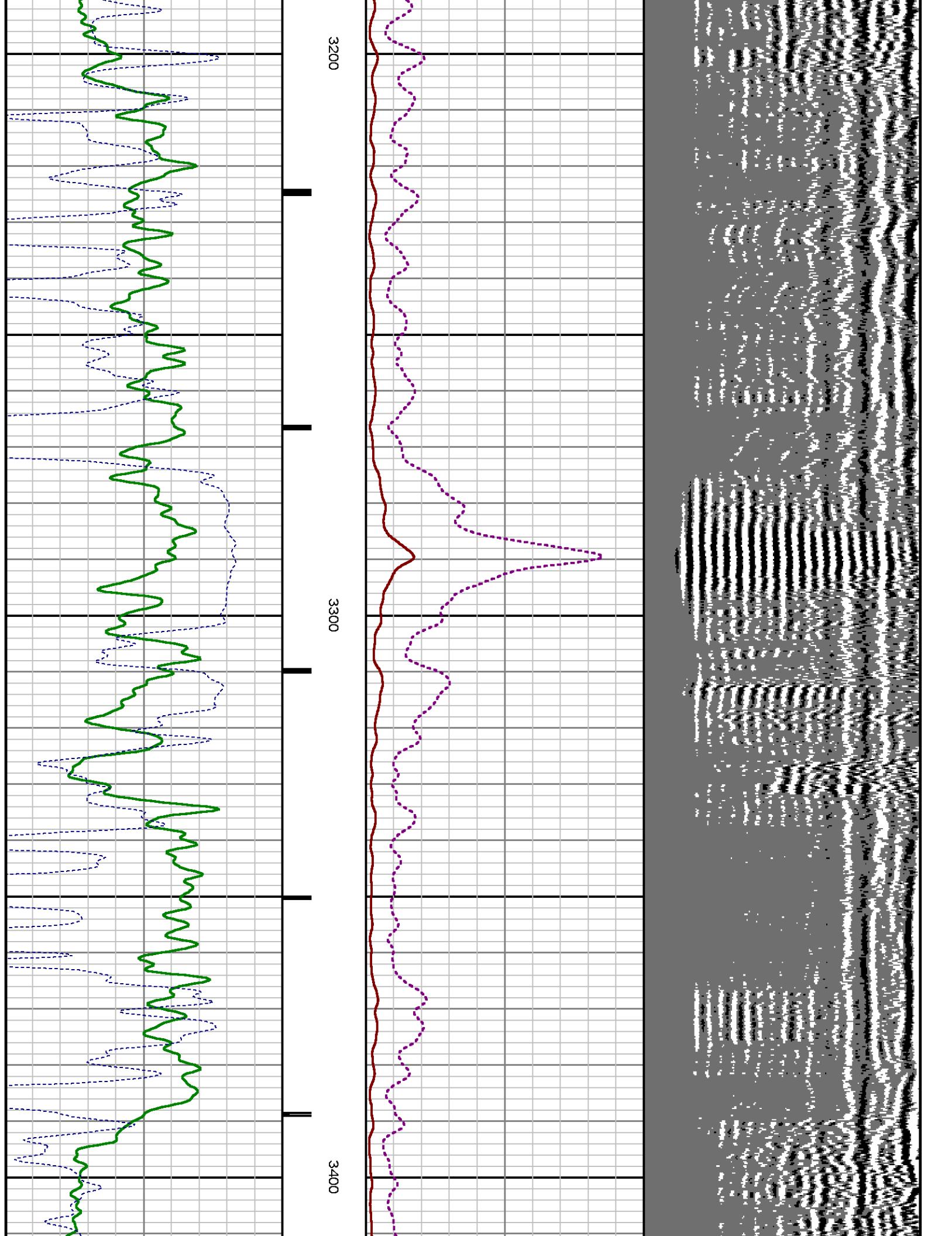


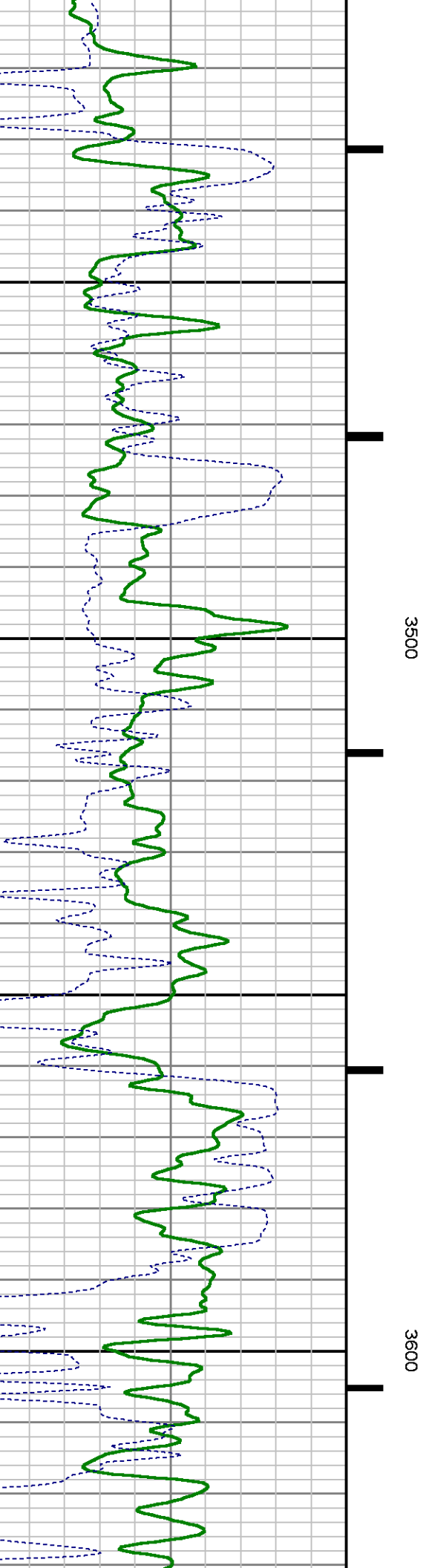
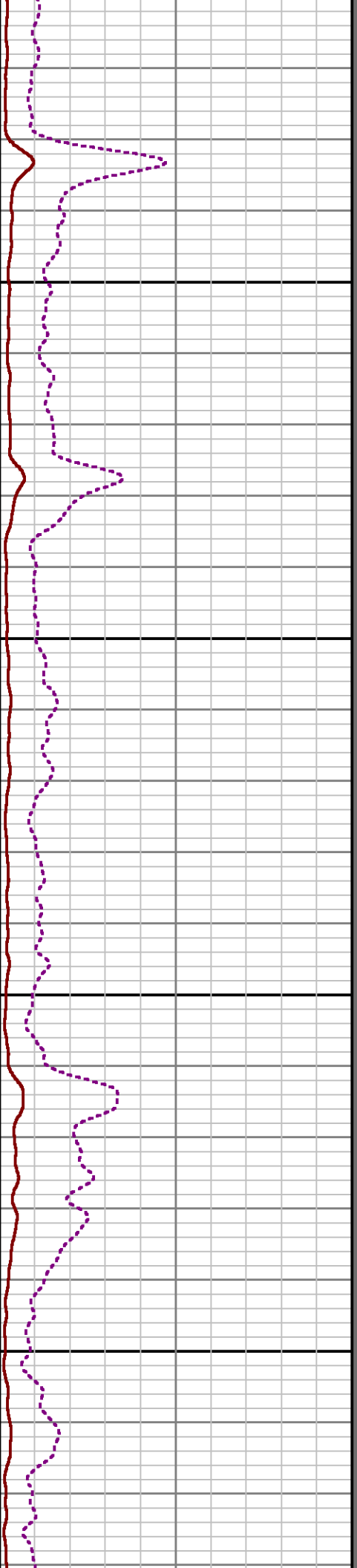
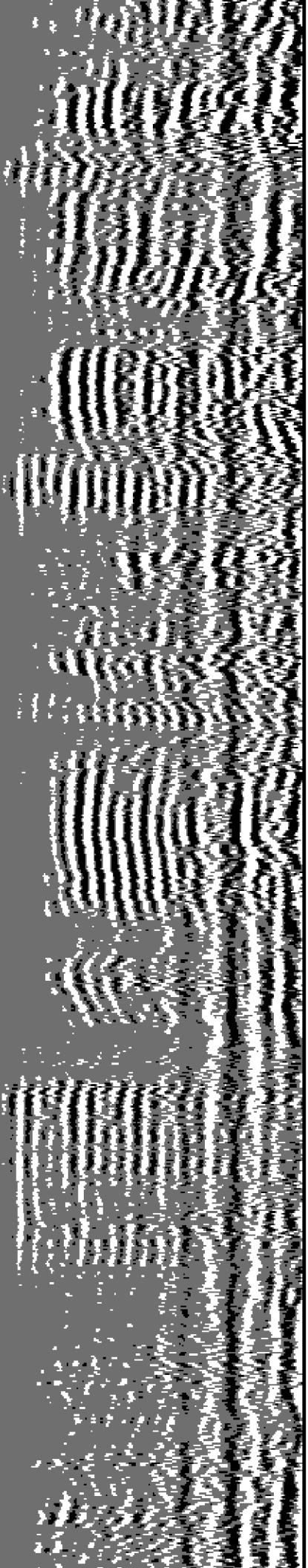


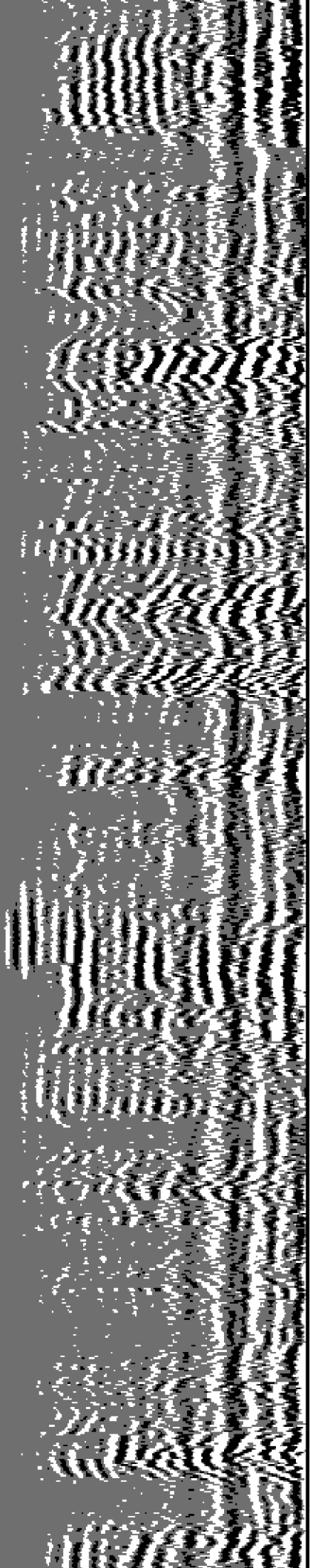






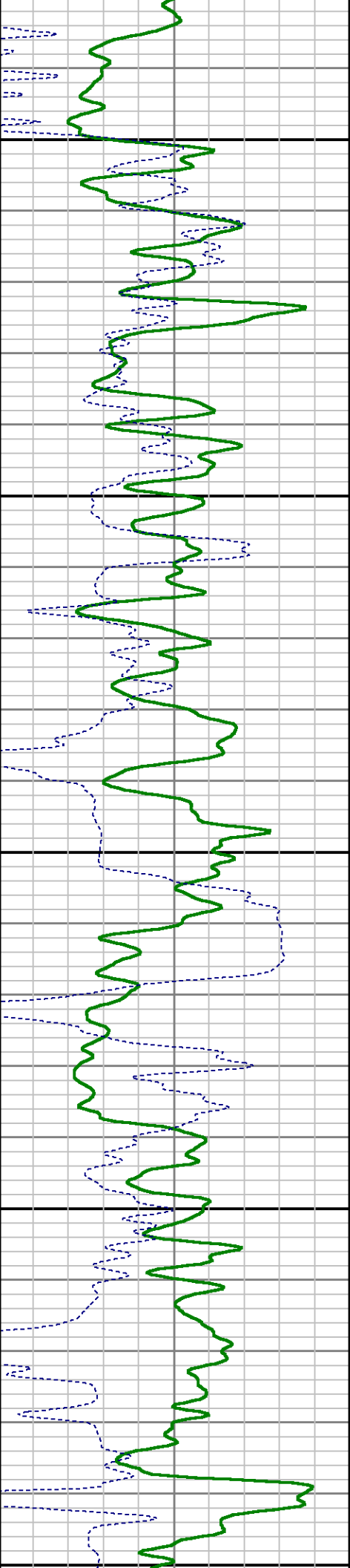


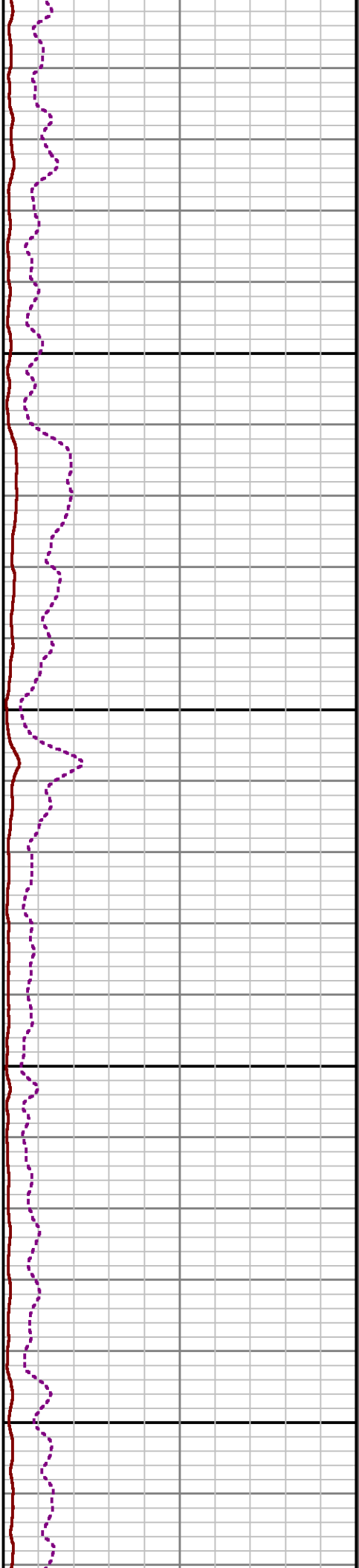
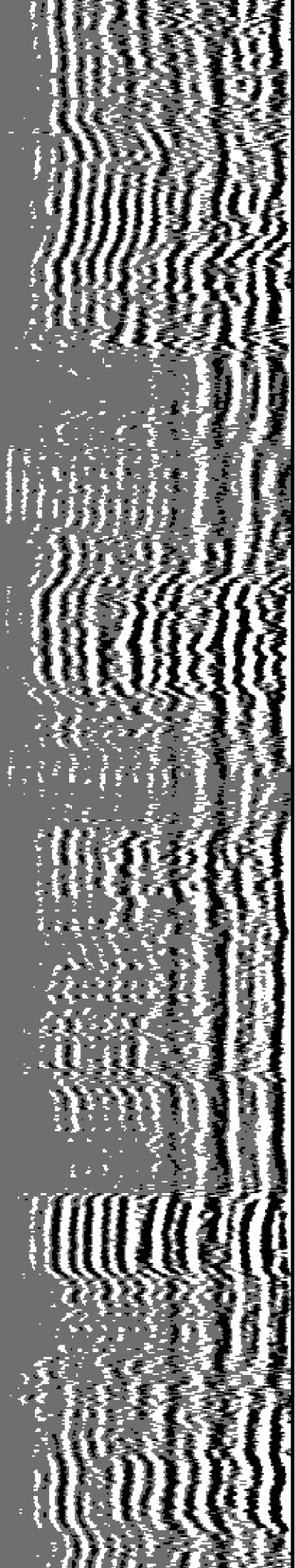




3700

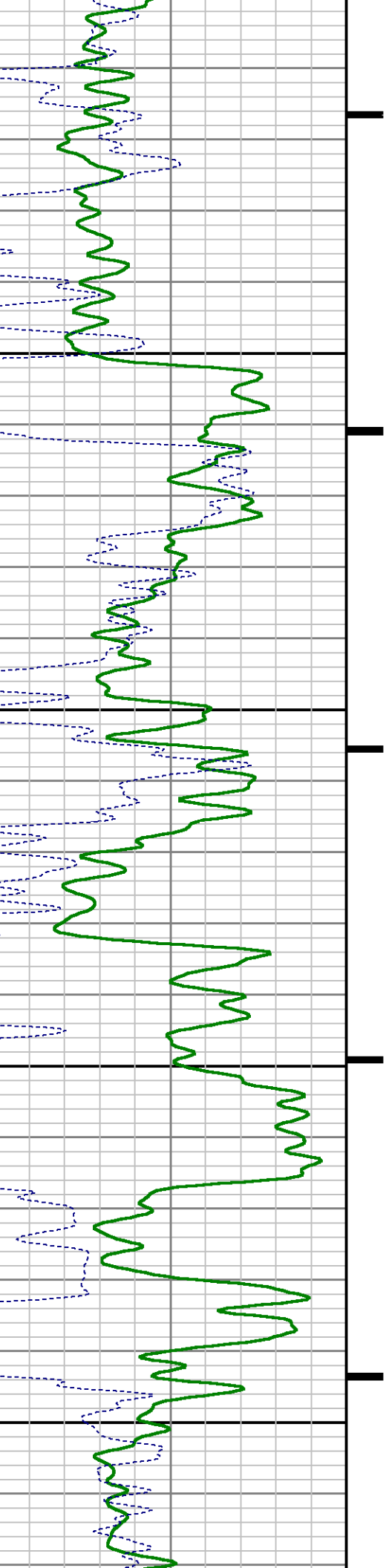
3800

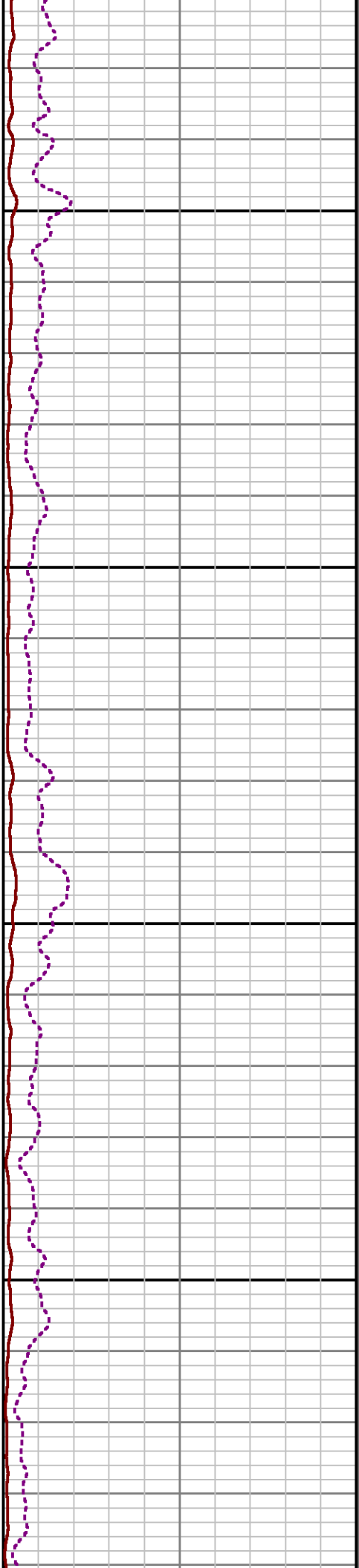
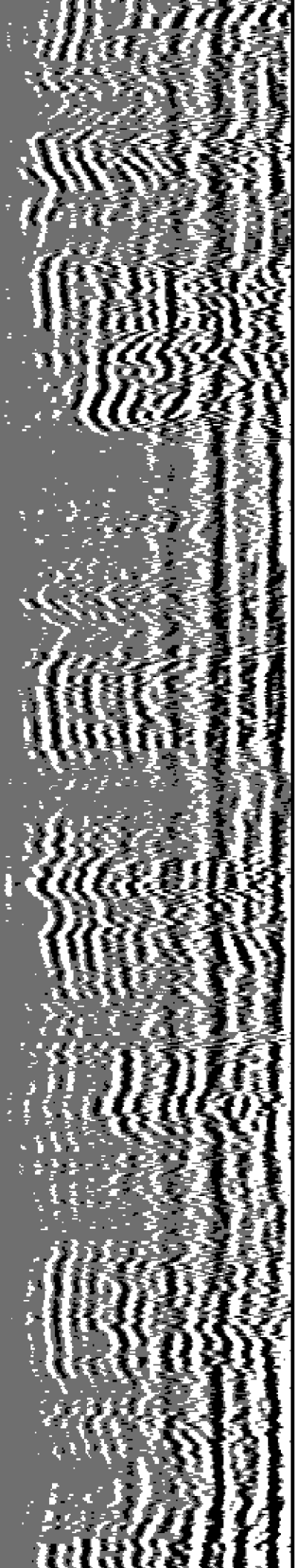




3900

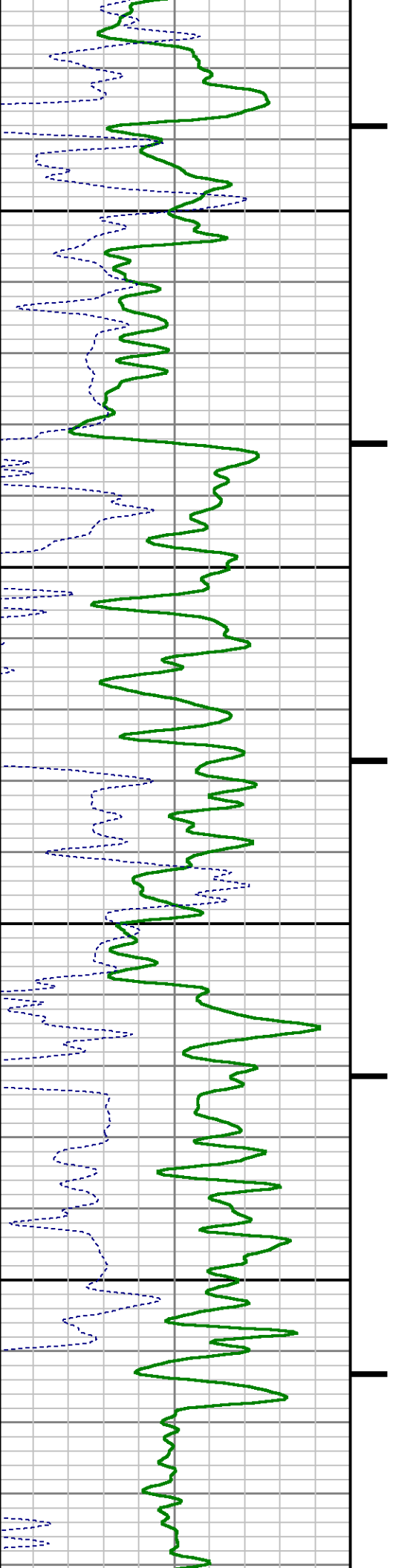
4000

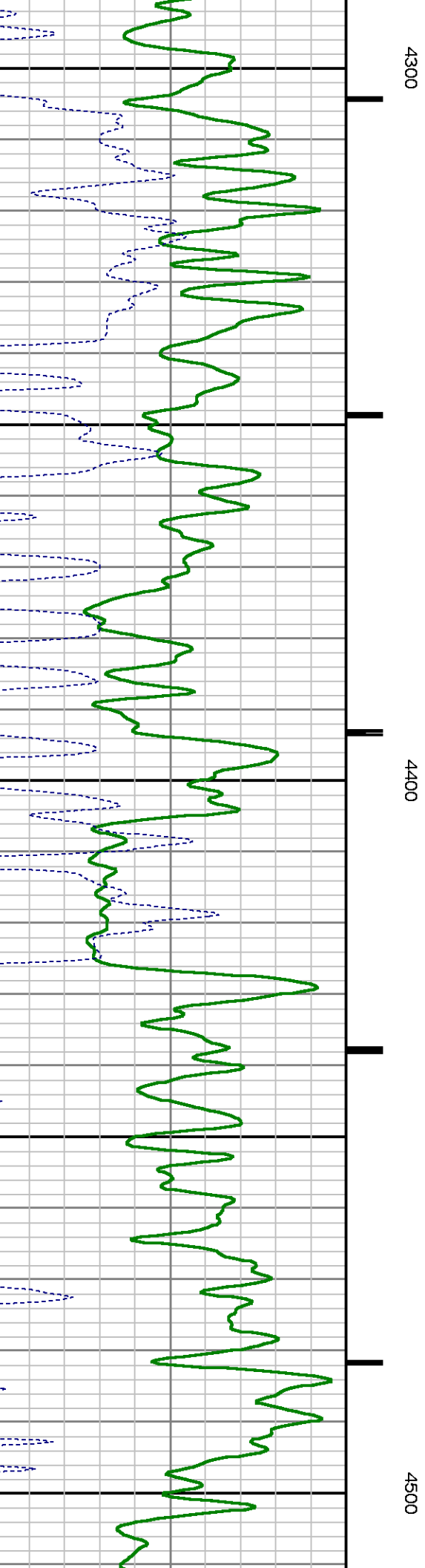
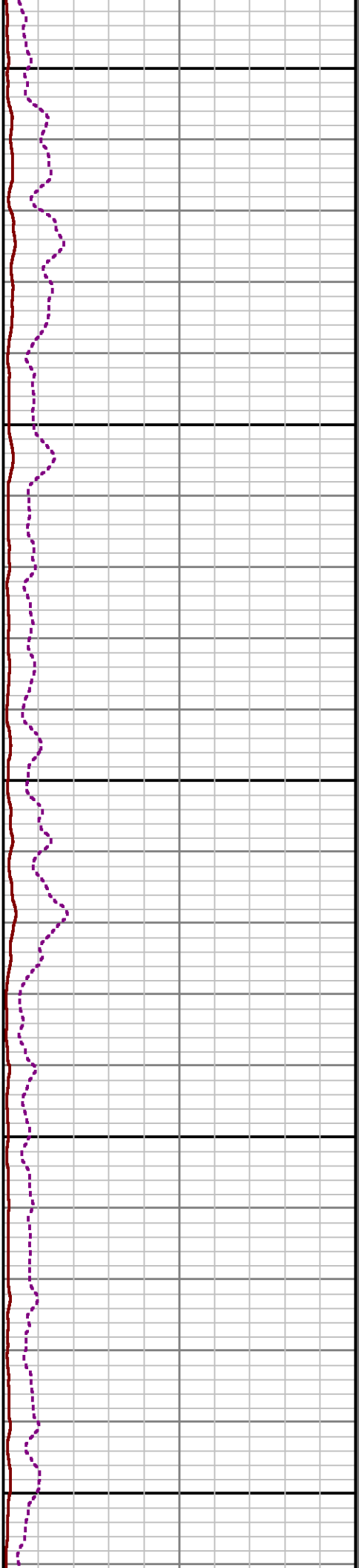
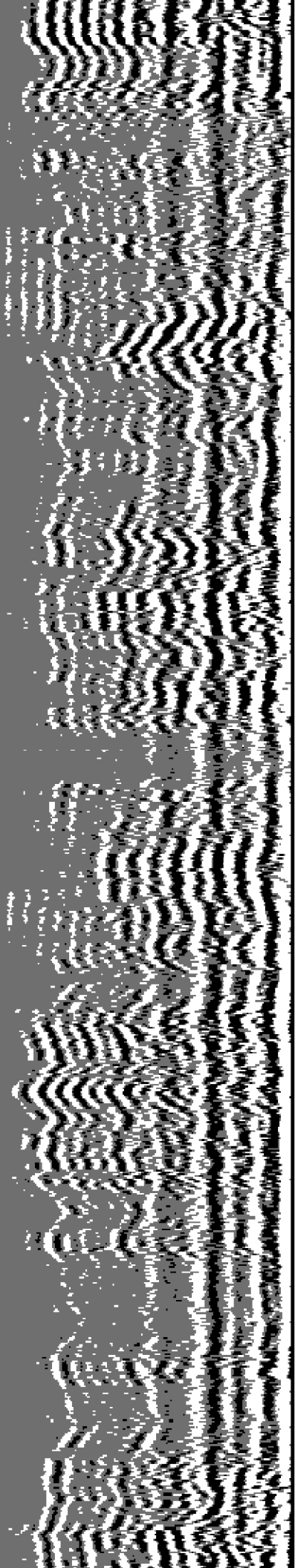


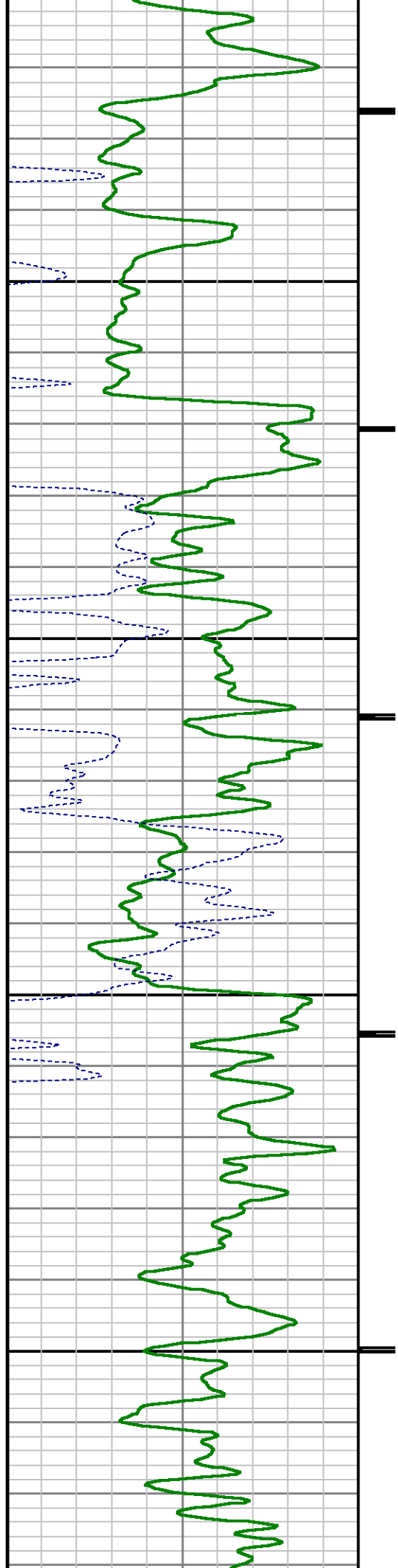
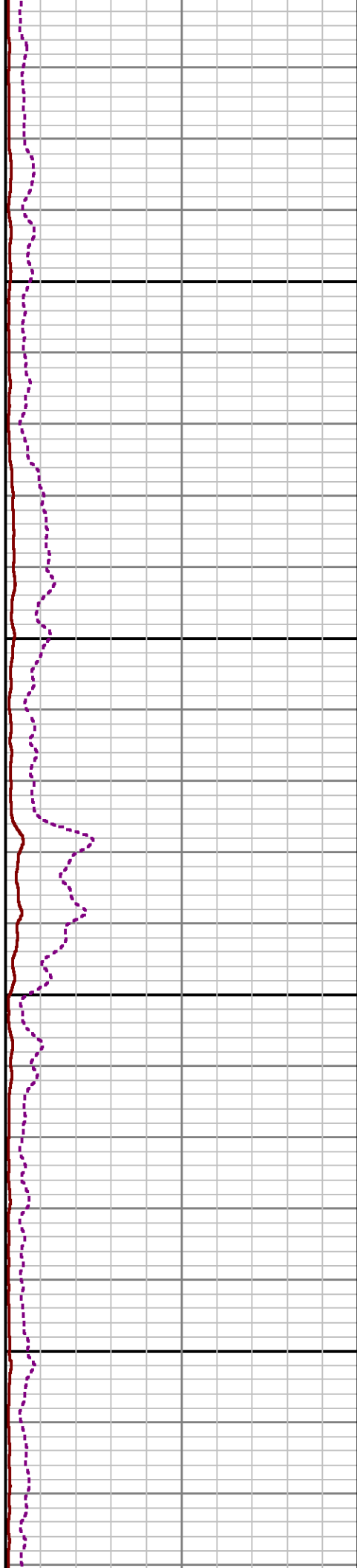
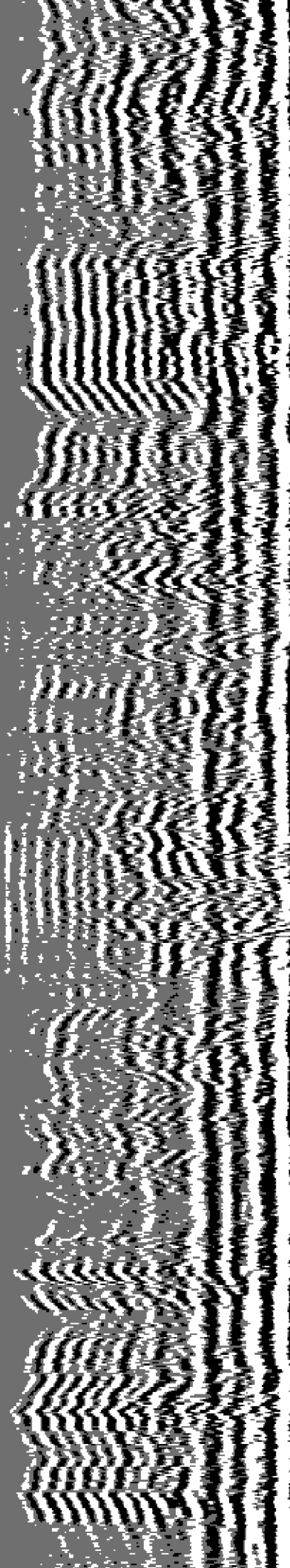


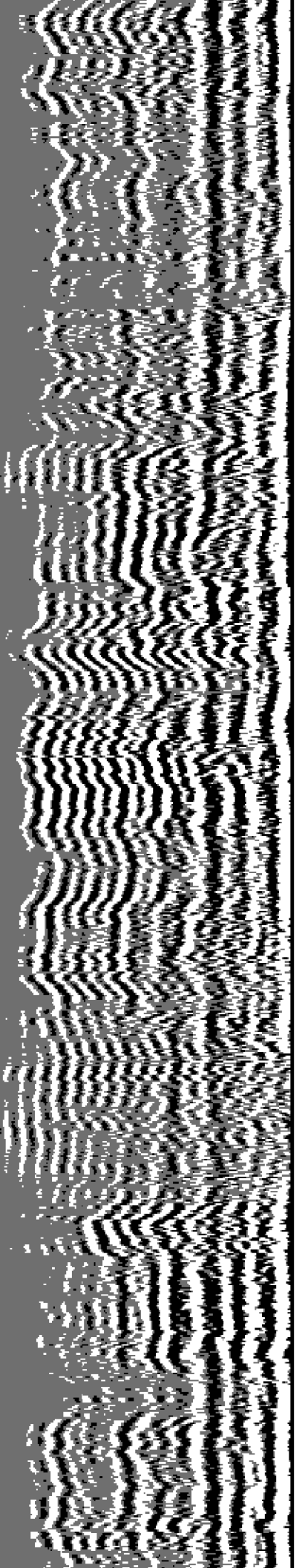
4100

4200



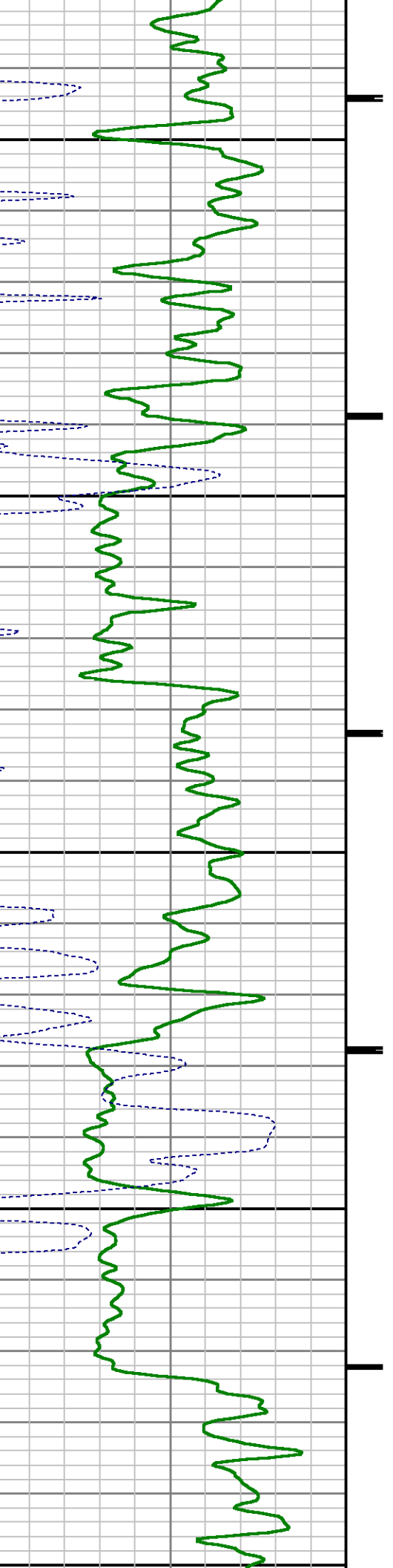


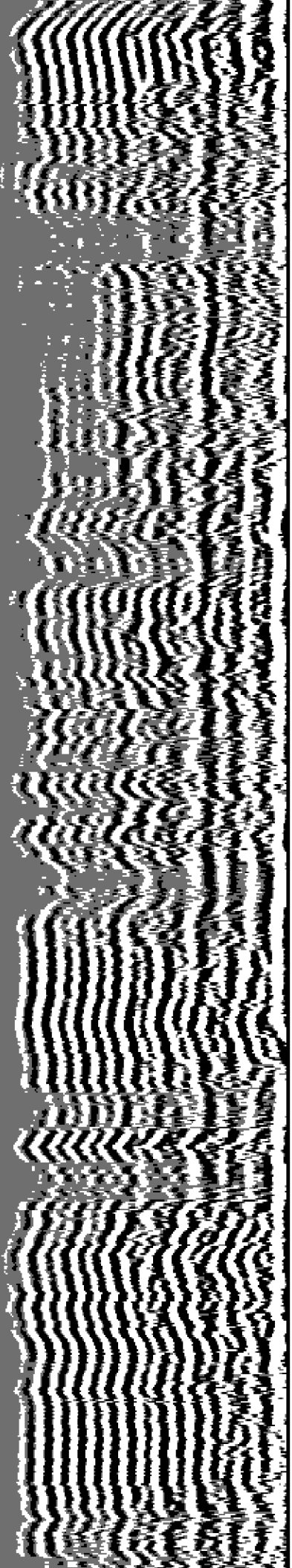




4800

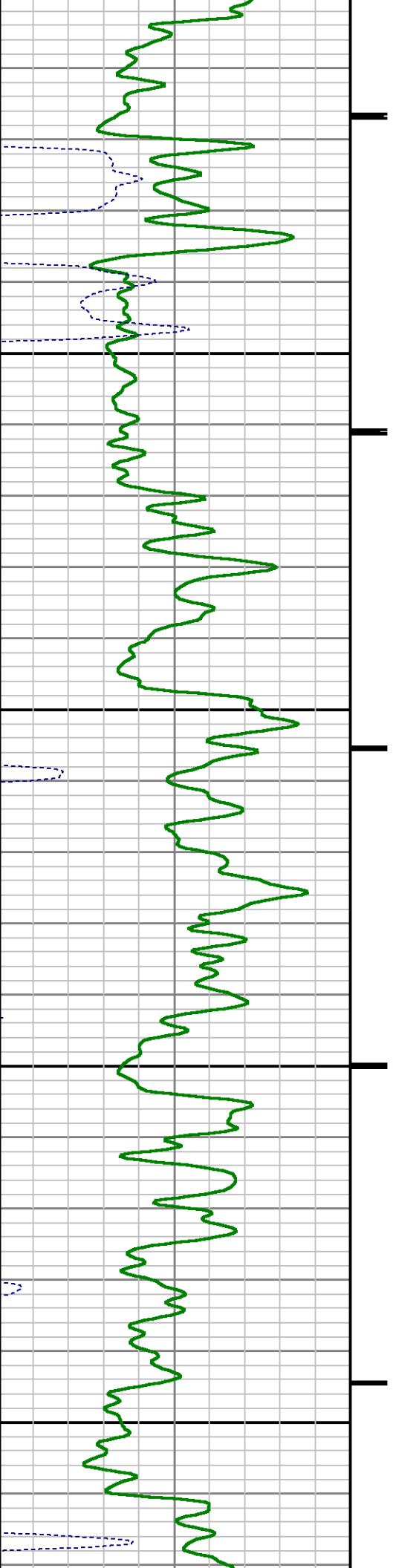
4900

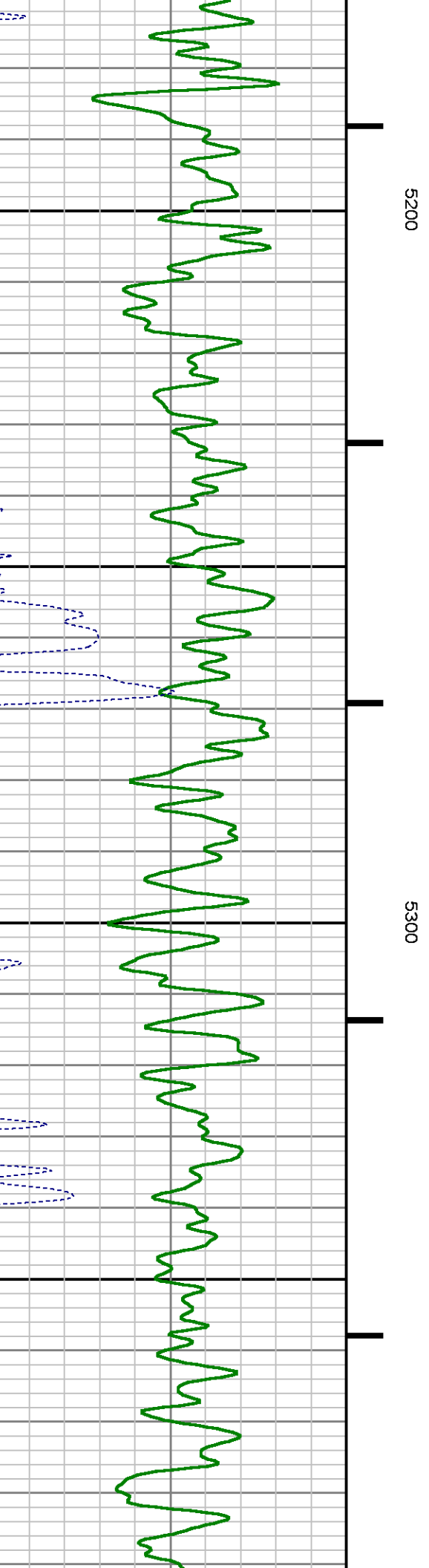
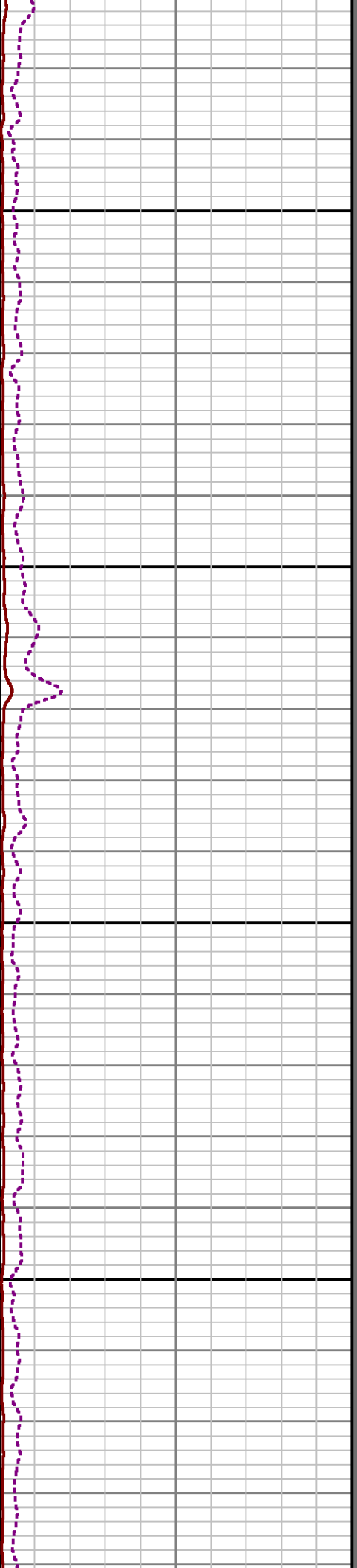
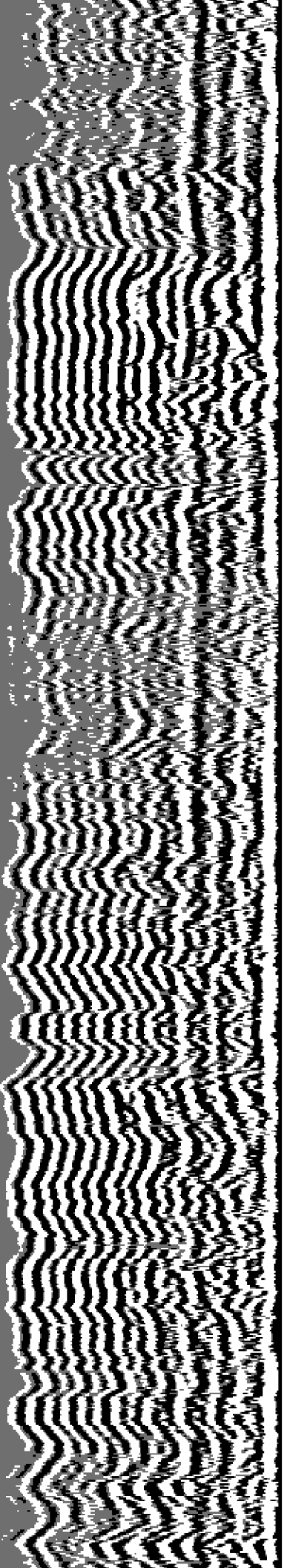


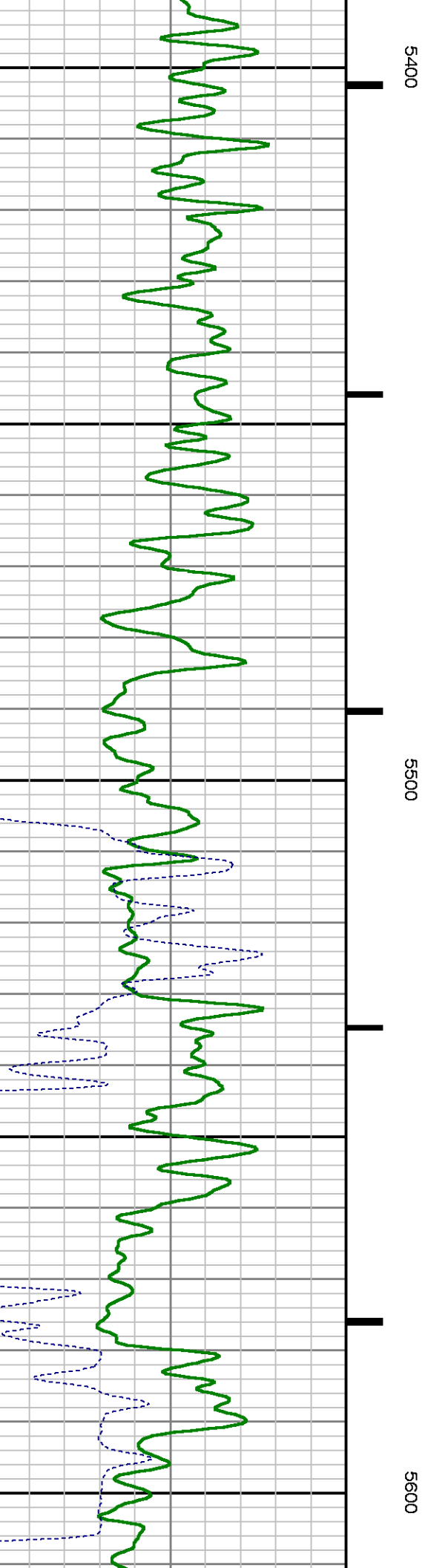
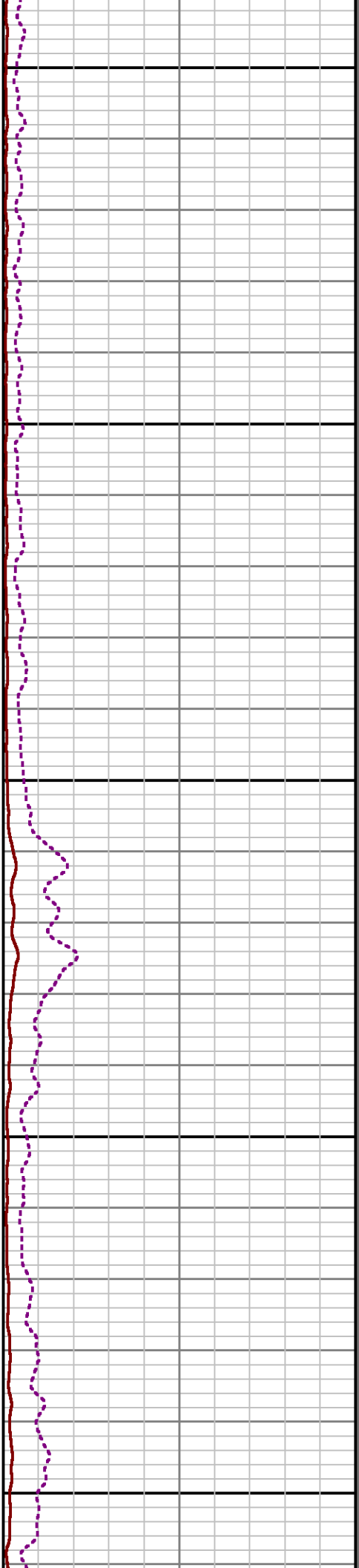
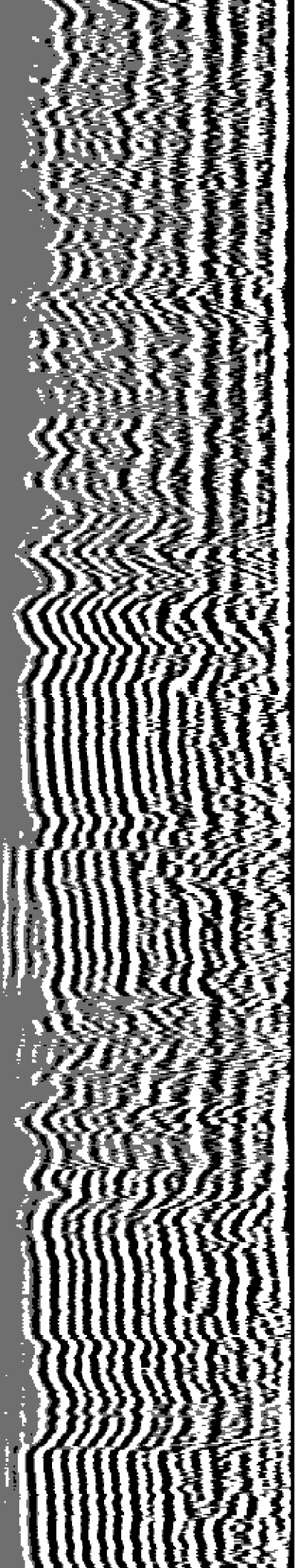


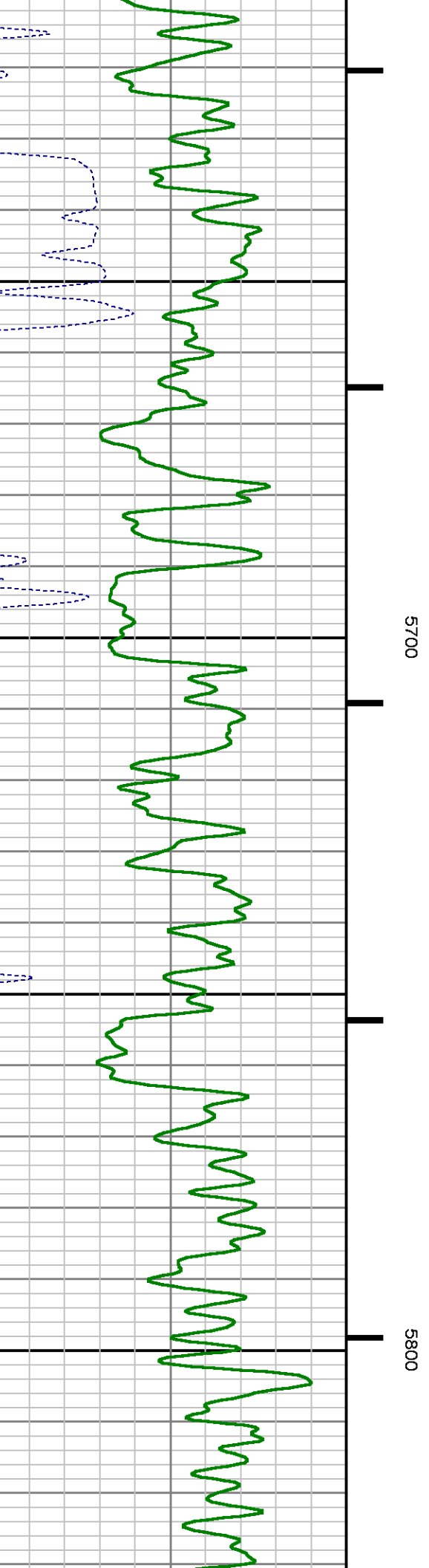
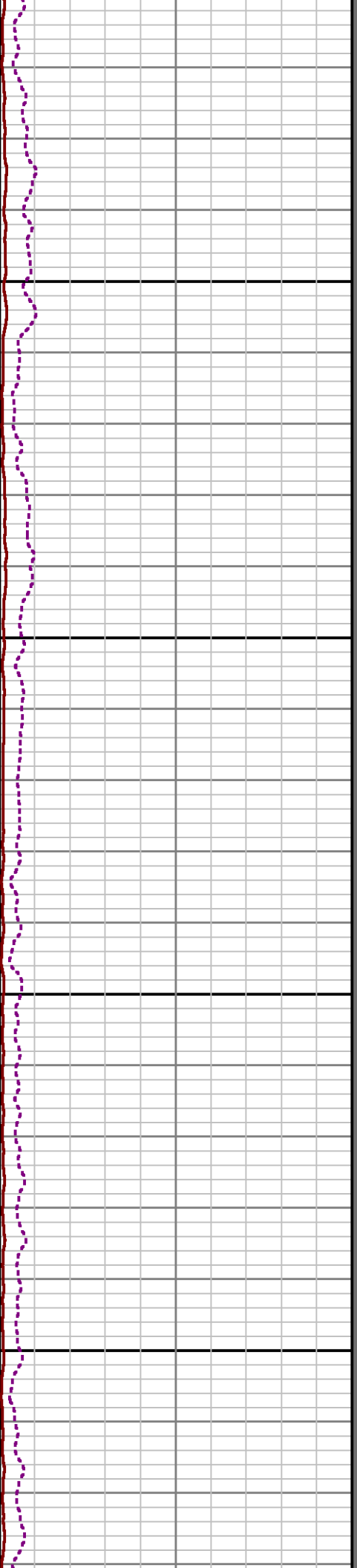
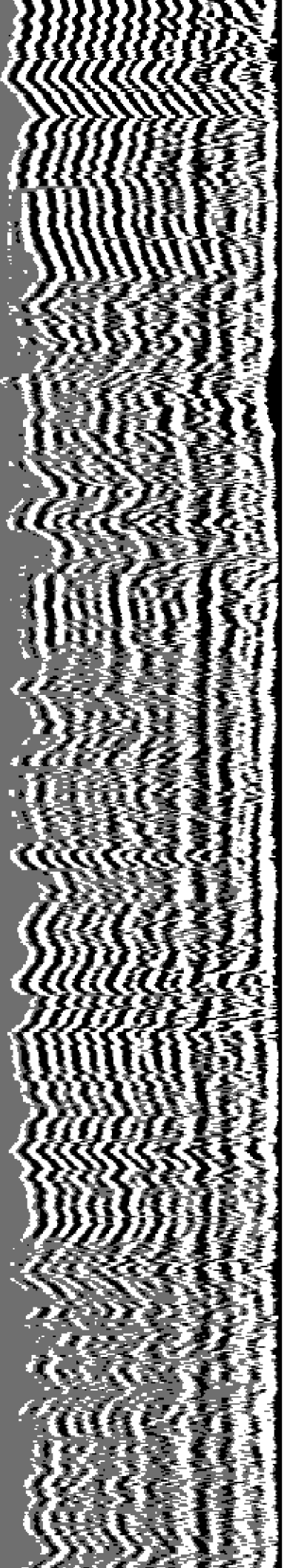
5000

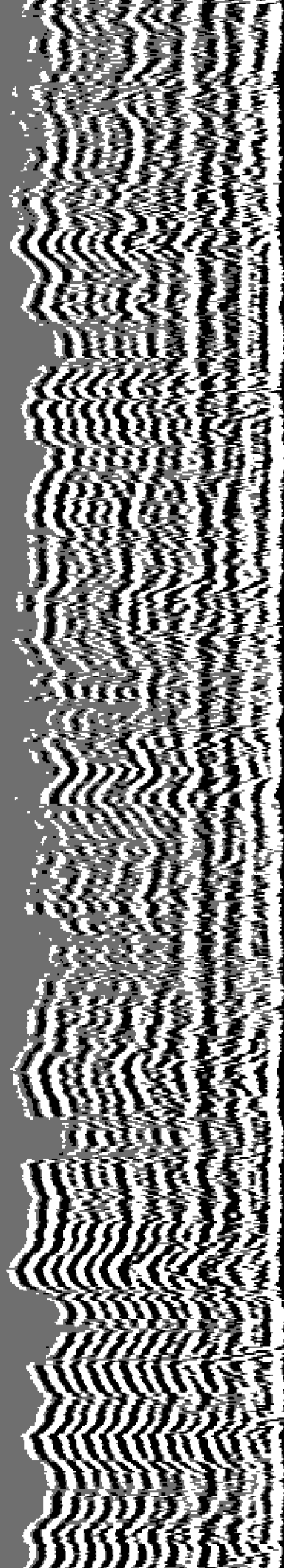
5100







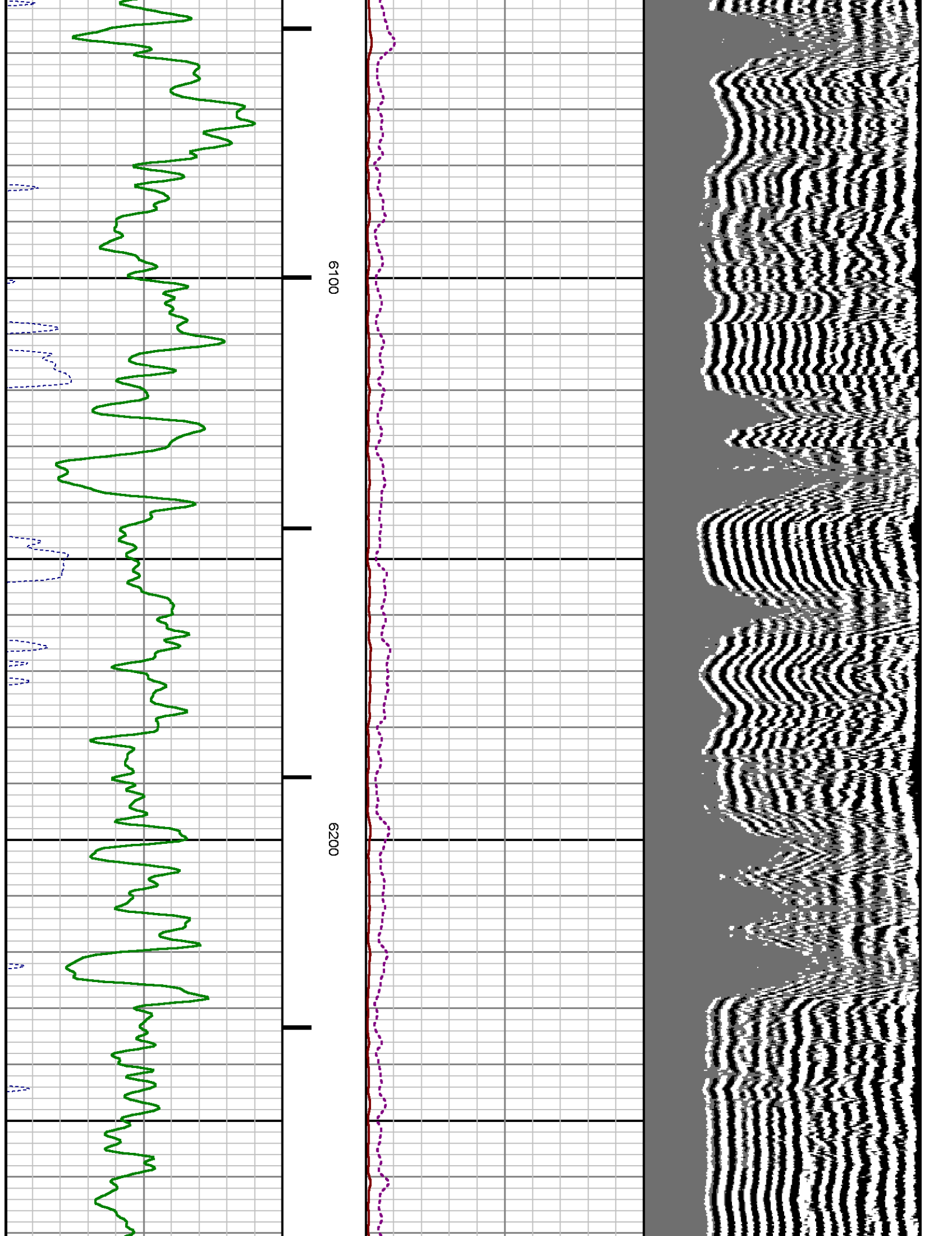


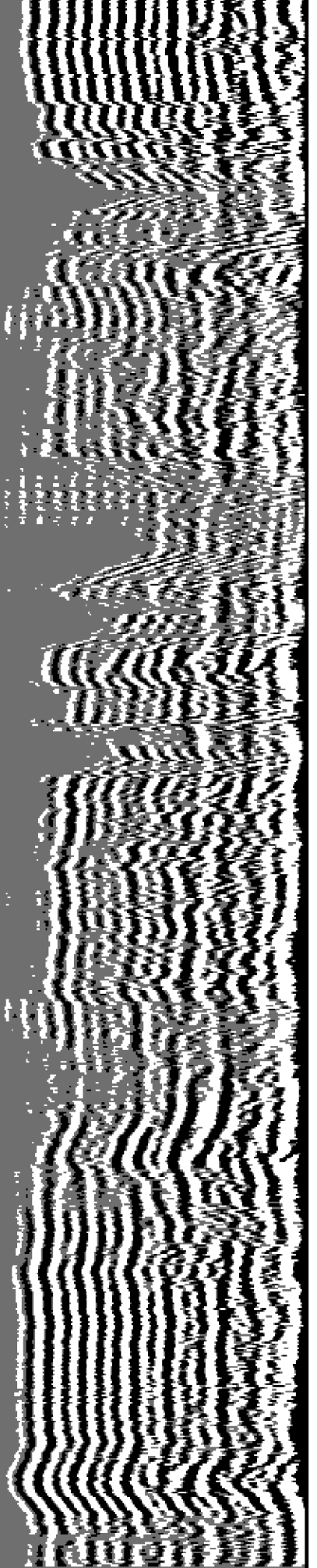


5900

6000







6300

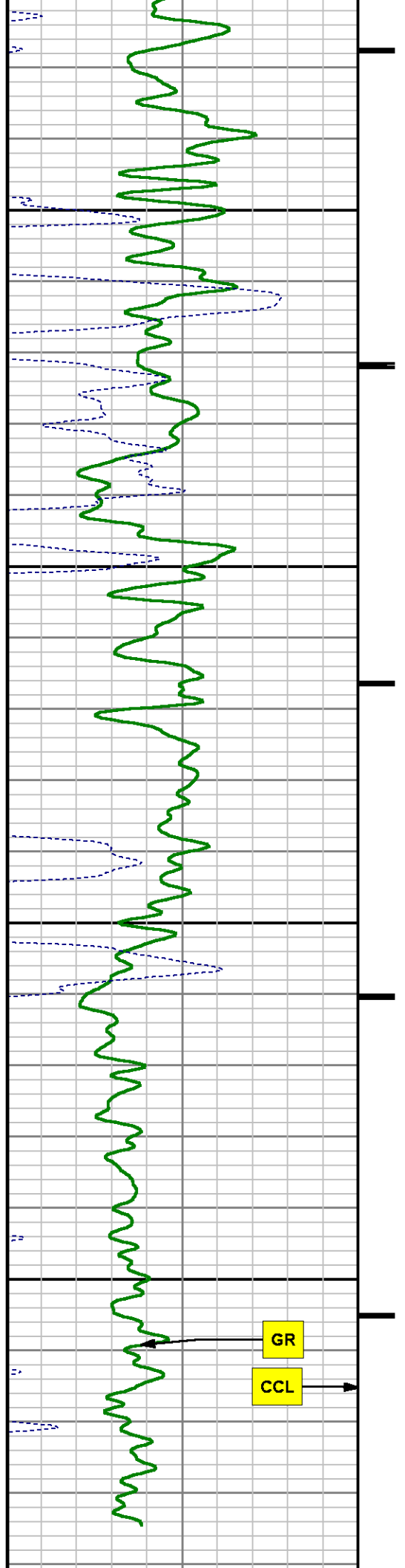
6400

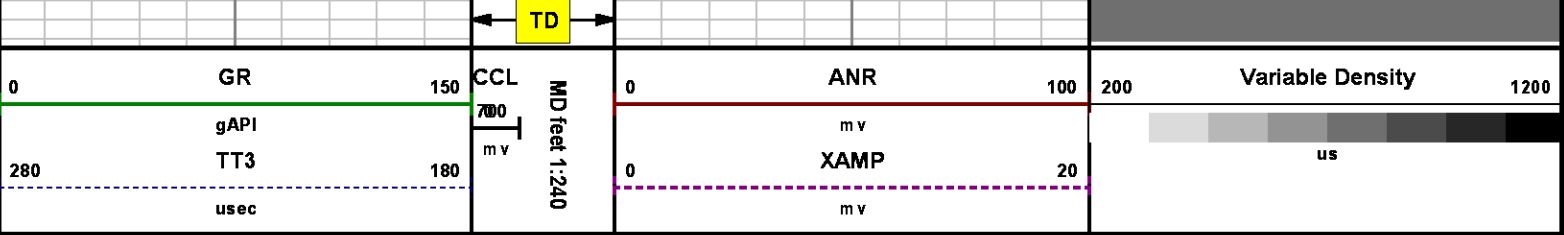
XAMP

ANR

GR

CCL





SECONDARY PRESENTATION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	30.937	6496.000
RAL	Amp Gate Start Near	195.000	usec	30.937	6496.000
RAL	Amp Gate Start Radial	195.000	usec	30.937	6496.000
RAL	Amp Gate Width Far	25.000	usec	30.937	6496.000
RAL	Amp Gate Width Near	25.000	usec	30.937	6496.000
RAL	Amp Gate Width Radial	25.000	usec	30.937	6496.000
RAL	casing od	4.500	inches	30.937	6496.000
RAL	casing wt	11.600	lbm/ft	30.937	6496.000
RAL	FB Start Far	291.900	usec	30.937	6496.000
RAL	FB Start Near	180.000	usec	30.937	6496.000
RAL	FB Start Radial	180.000	usec	30.937	6496.000
RAL	FB Thresh Far	10.000	mV	30.937	6496.000
RAL	FB Thresh Near	4.000	mV	30.937	6496.000
RAL	FB Thresh Radial	4.000	mV	30.937	6496.000
RAL	Fluid Travel Time	200.000	usec/ft	30.937	6495.687

DEPTH OFFSETS
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP

1426XA	-15.750	AFAR	SIG	TT5
2459XA	-11.340	CCL		
2459XA	-9.490	GR		
2459XA	-4.090	NEU		

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

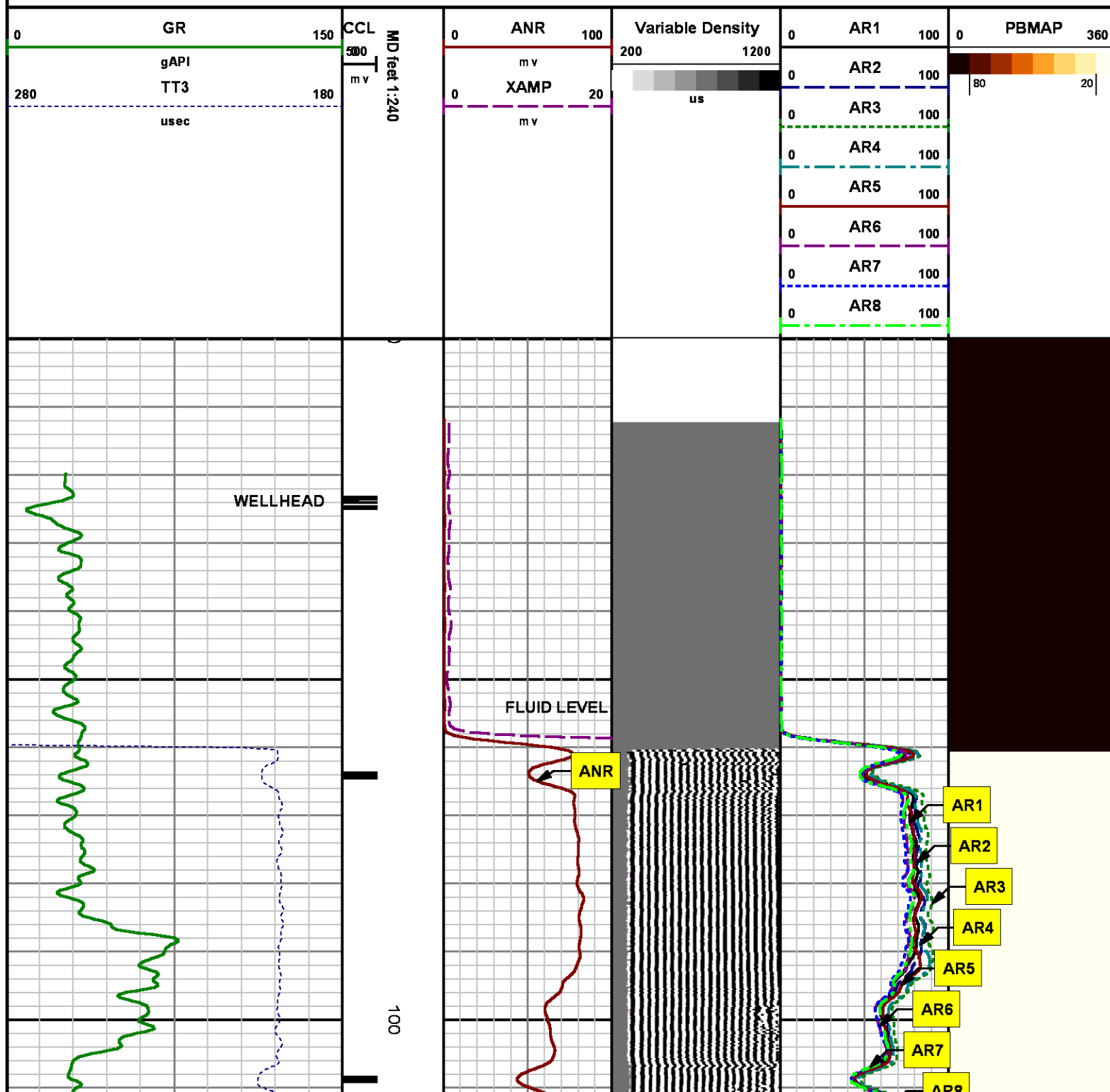
Well : C & C ENERGY GM 22-13

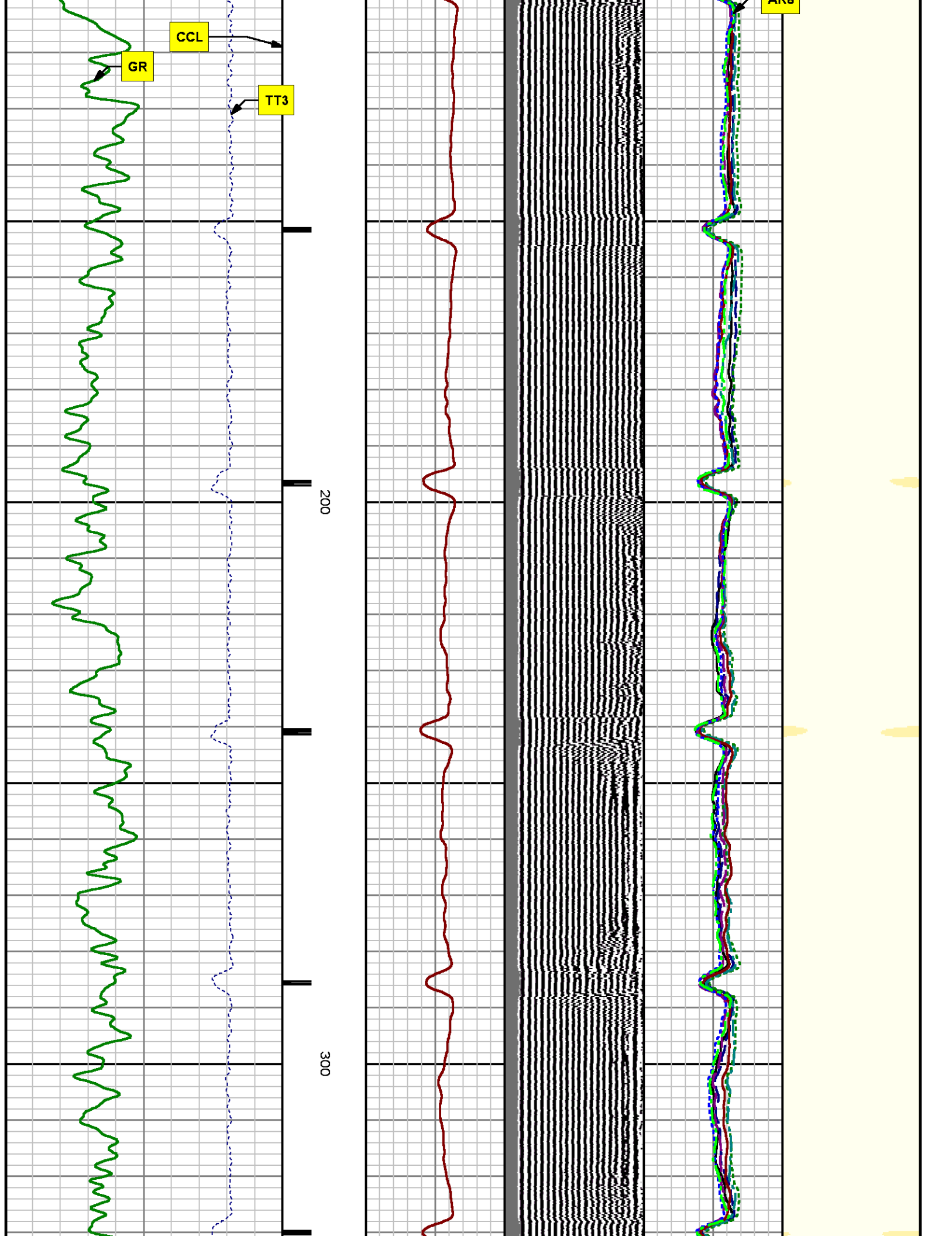
File Name : d:\welldata\wpx\gm 22-13\22ral\main.xtf

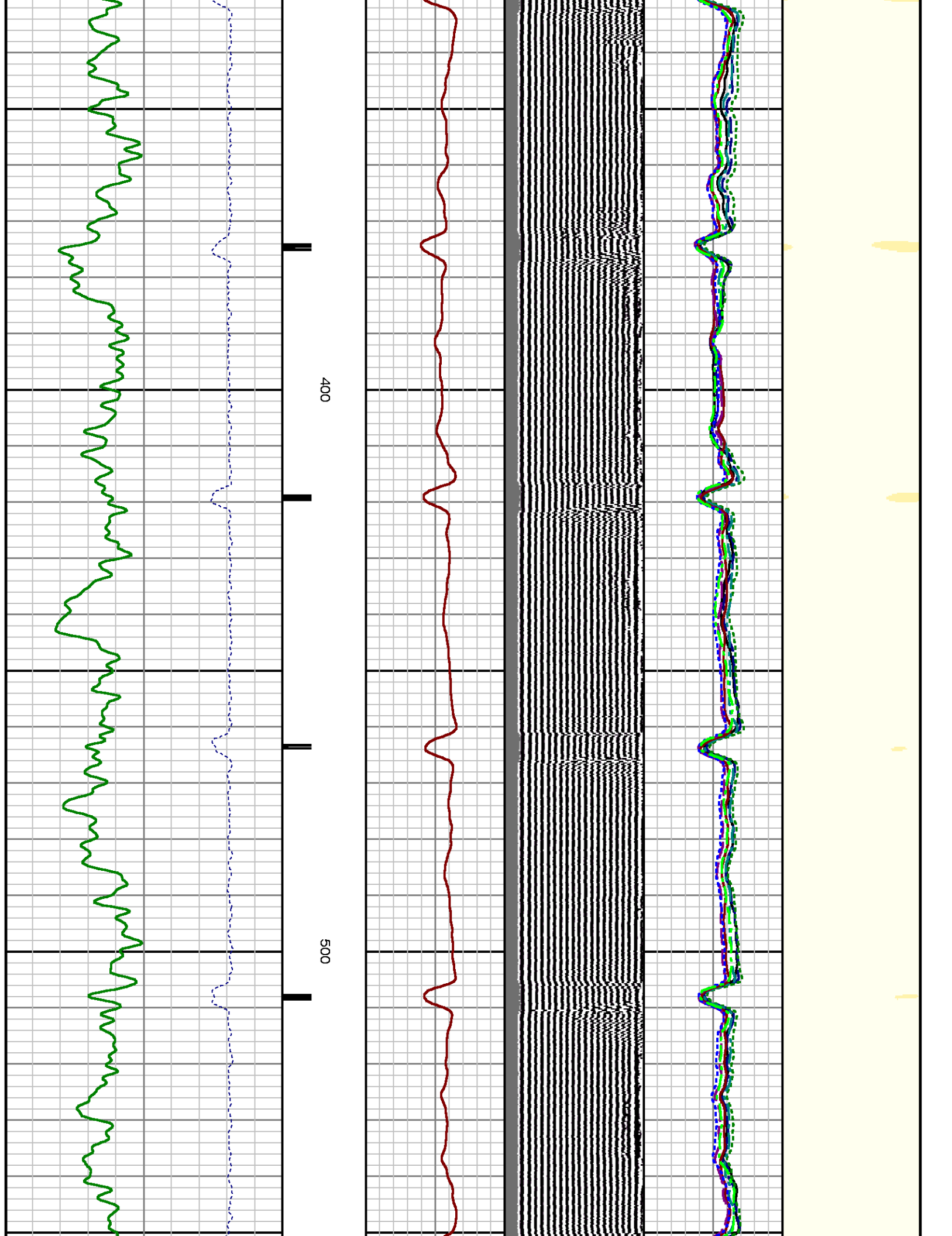
Mode : PlotMgr 5.4.504

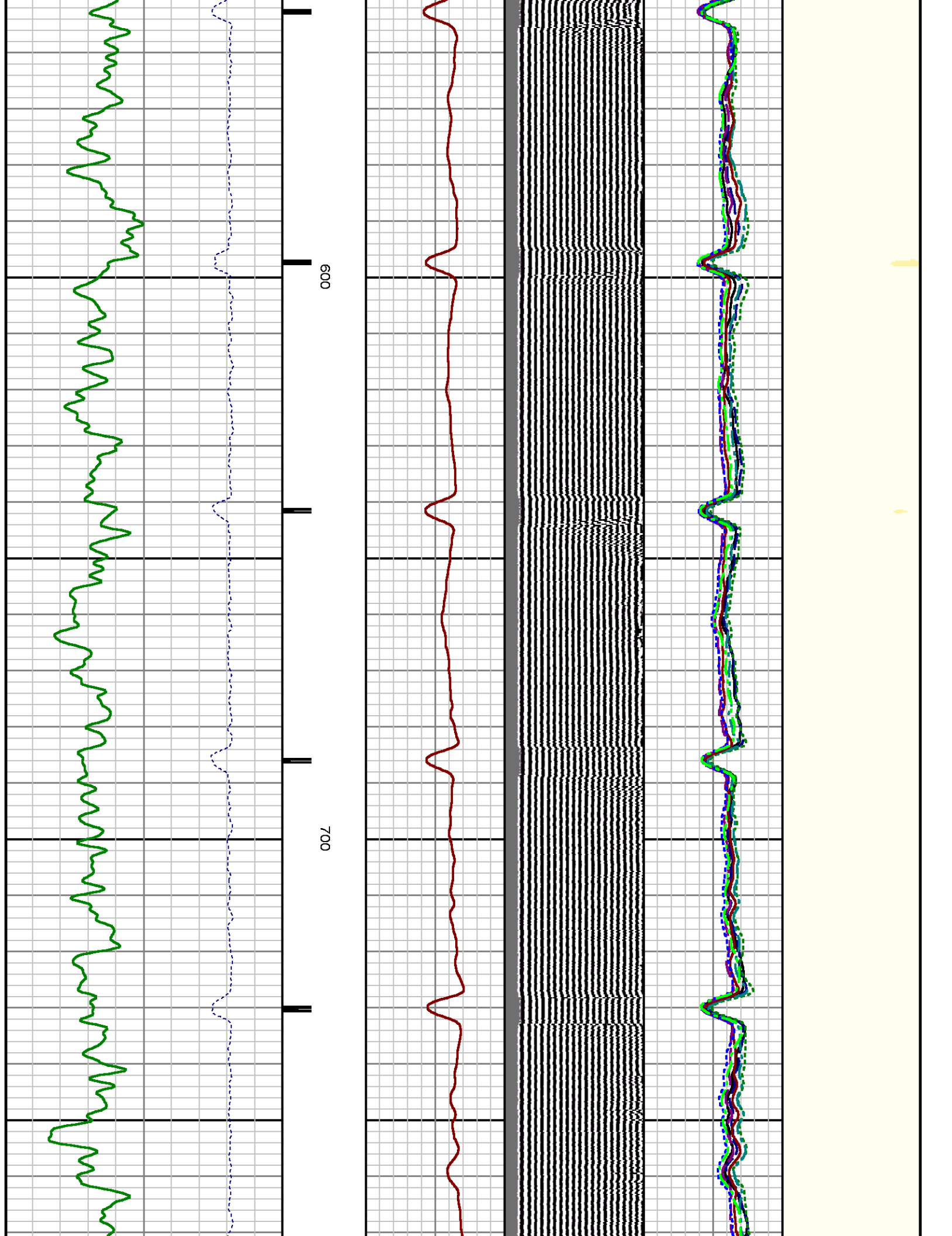
Interval : 0.00 - 6497.00 feet UP

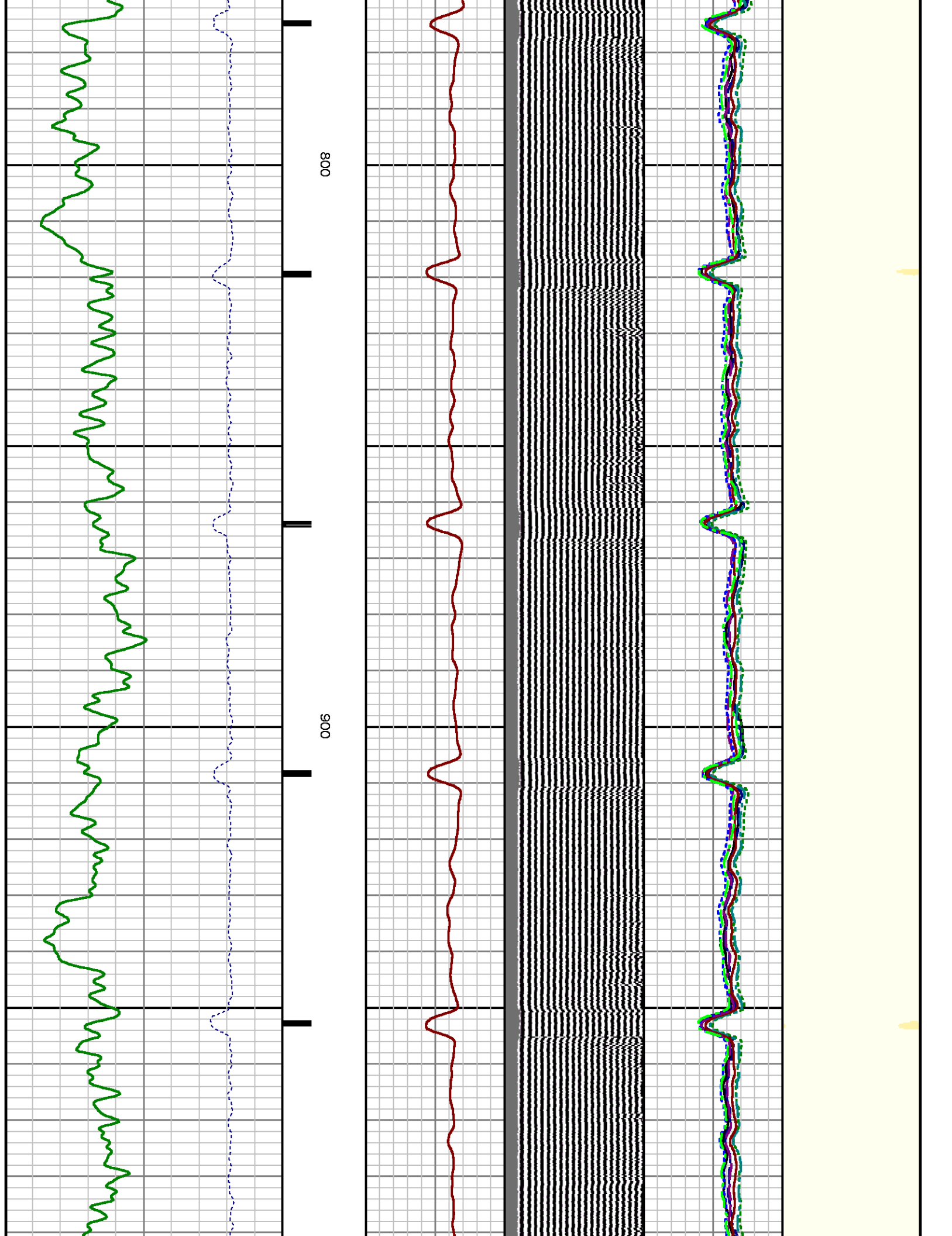
Created : 6/14/2014 3:25:44 PM

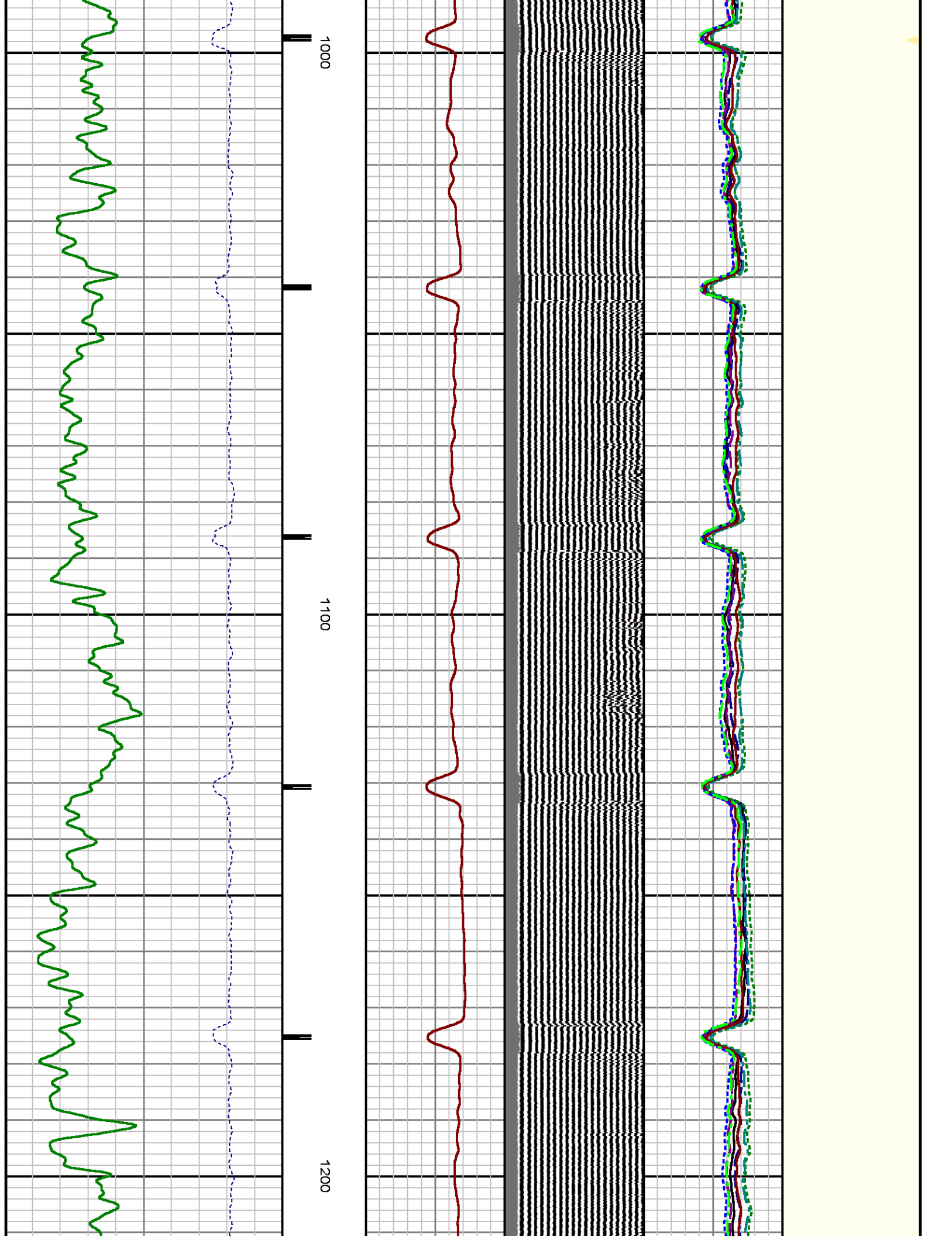


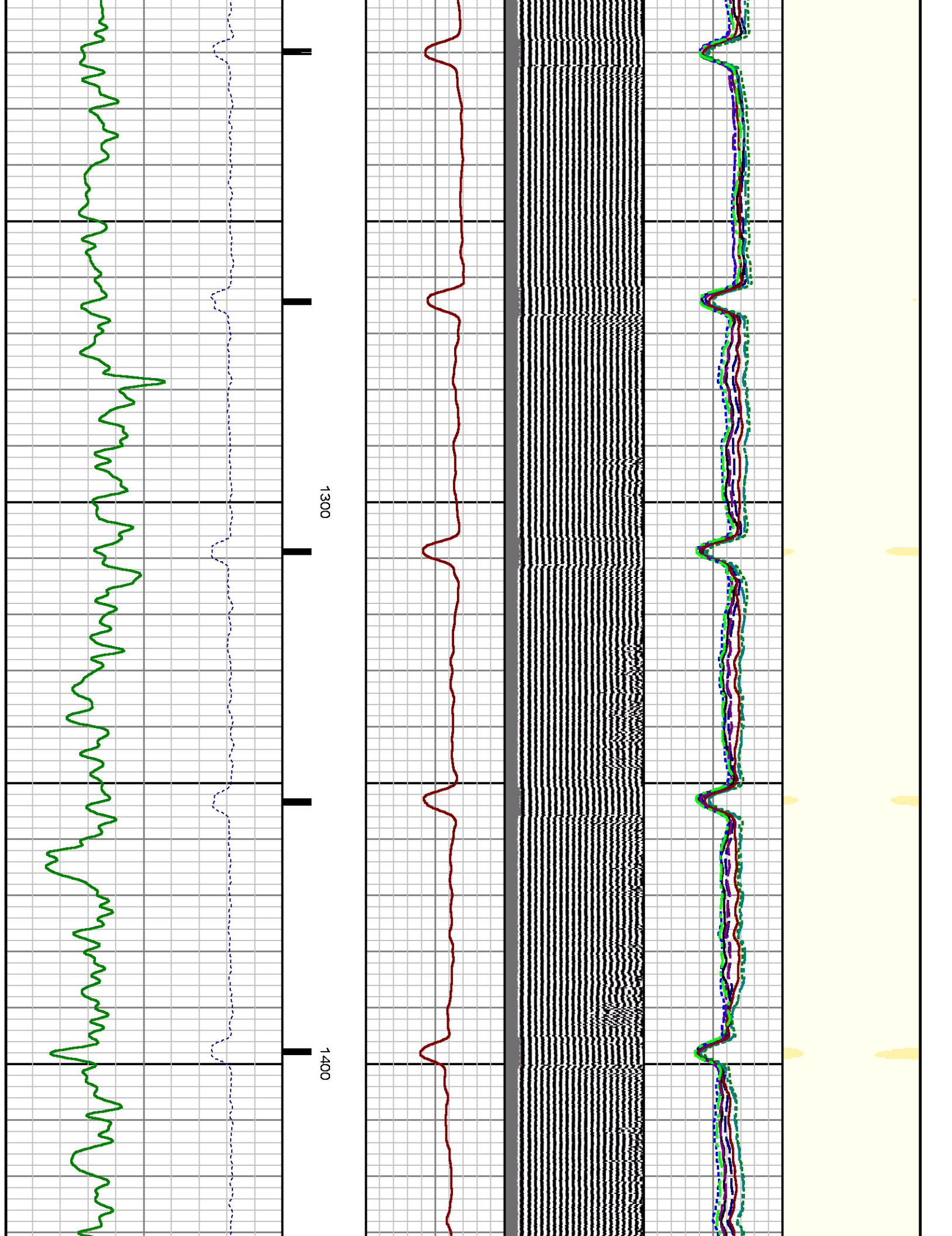


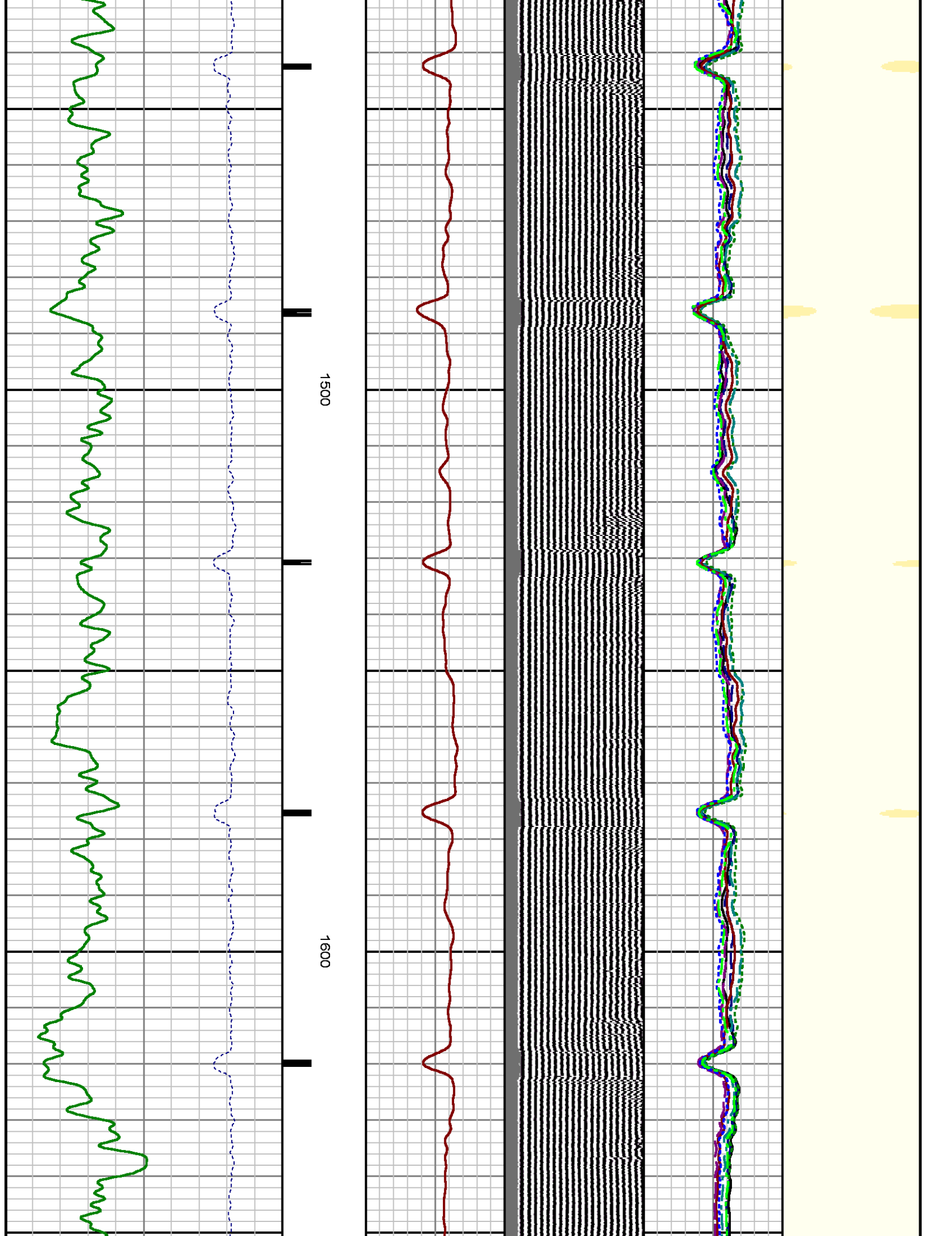


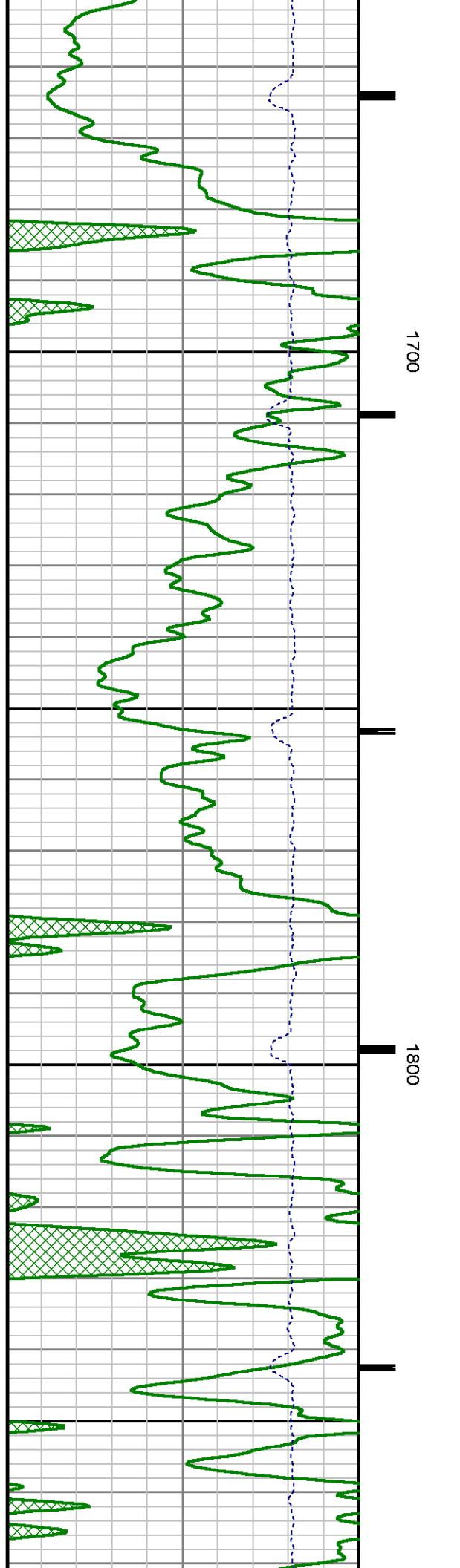
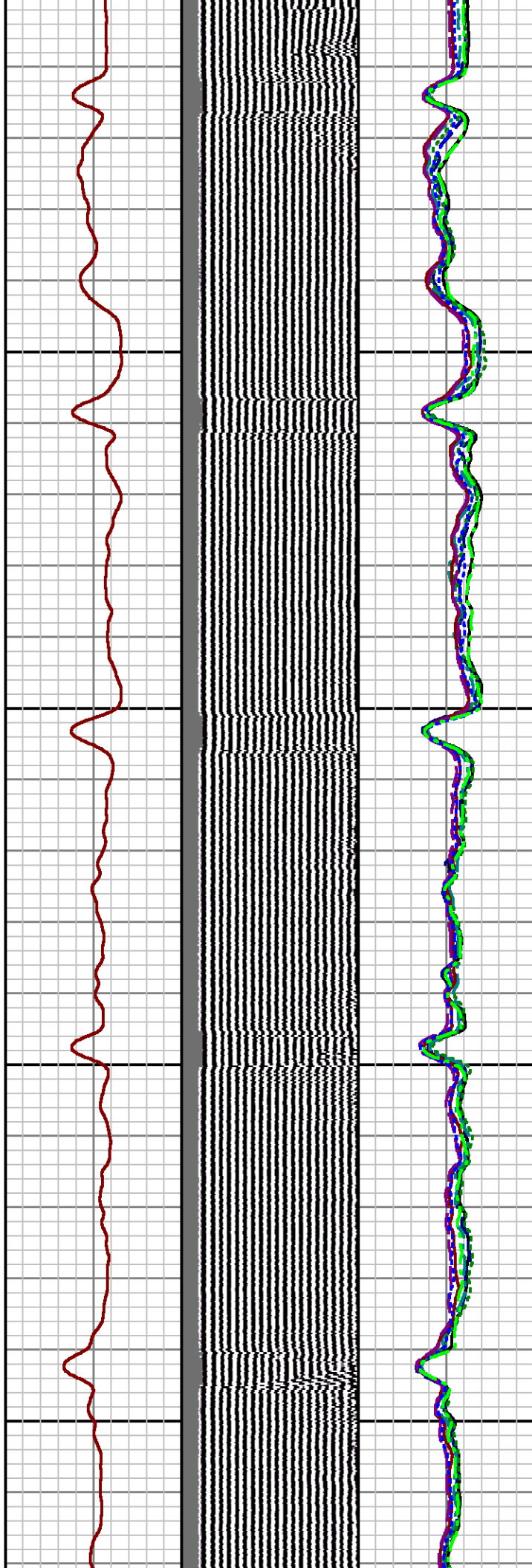
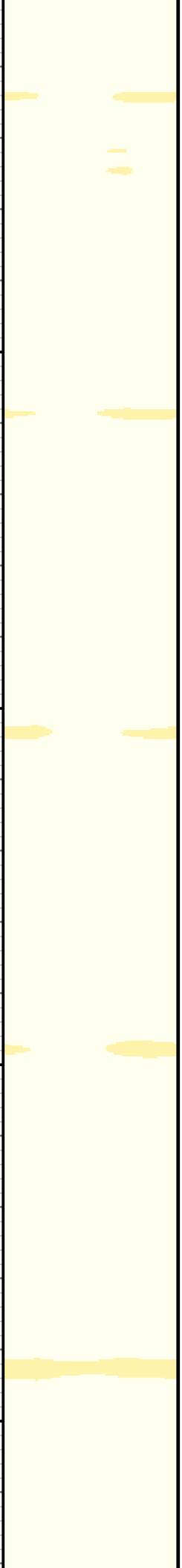


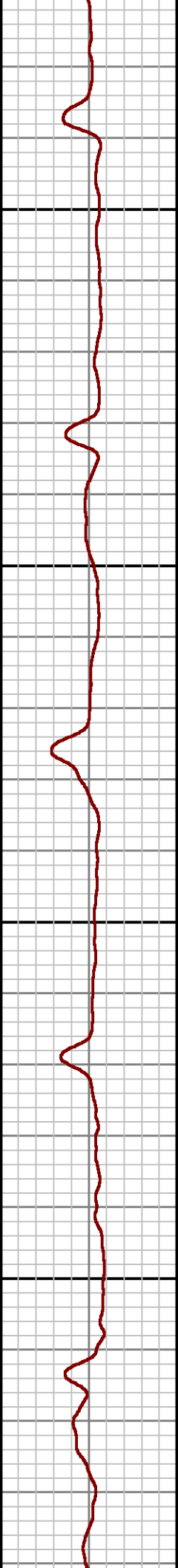
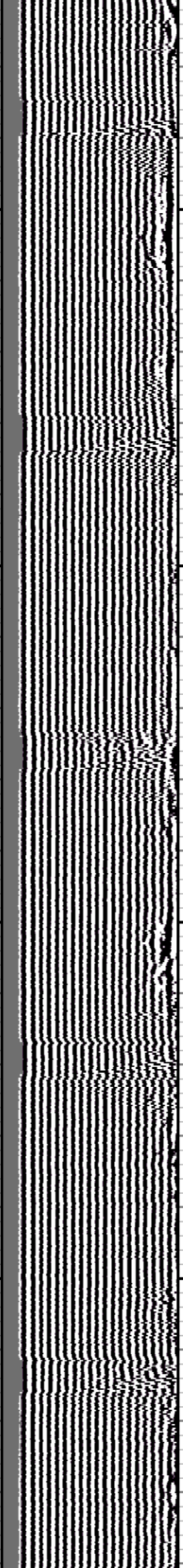
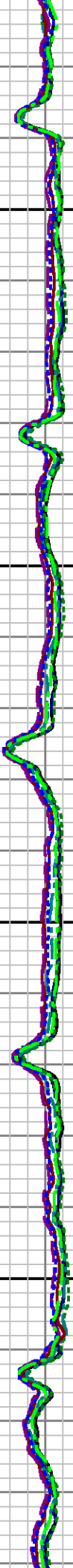
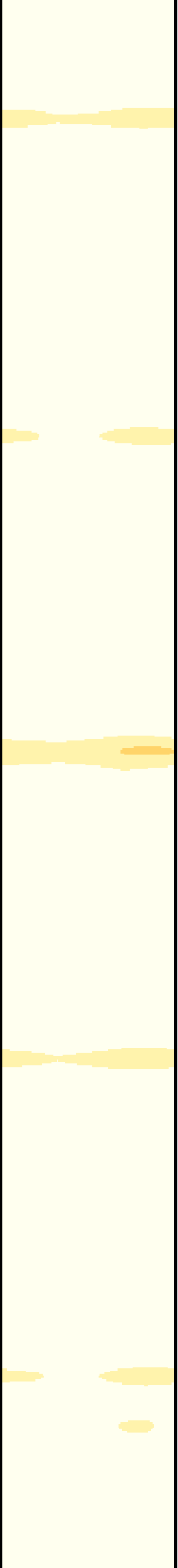






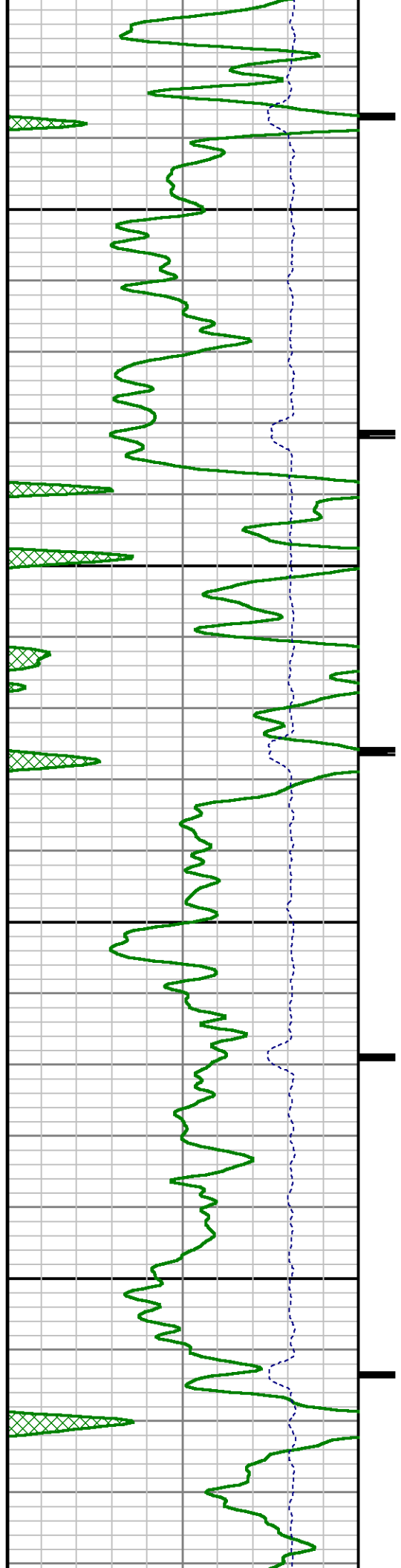


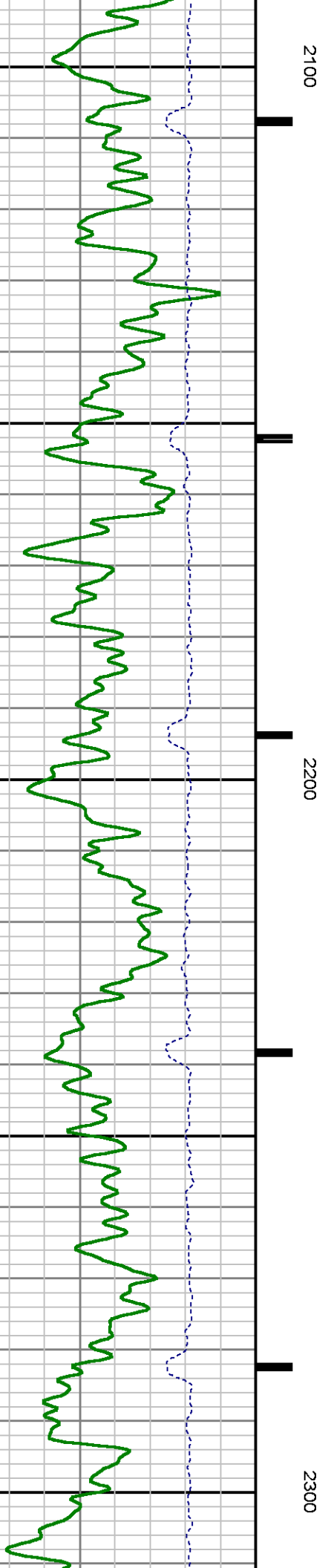
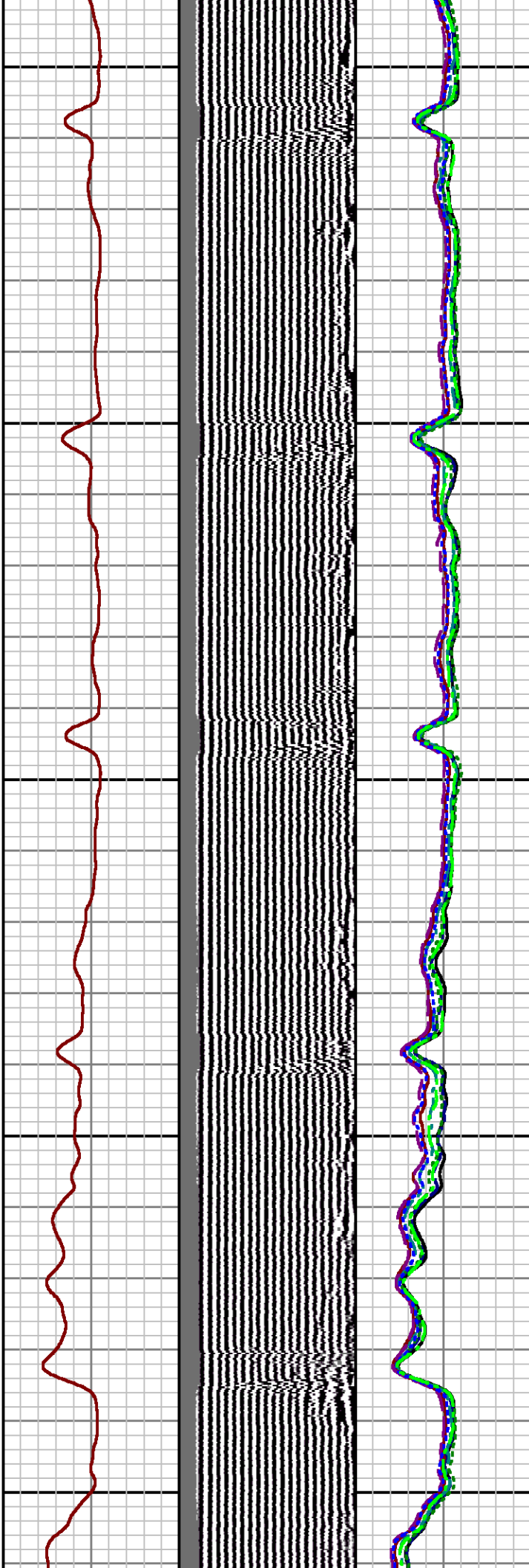
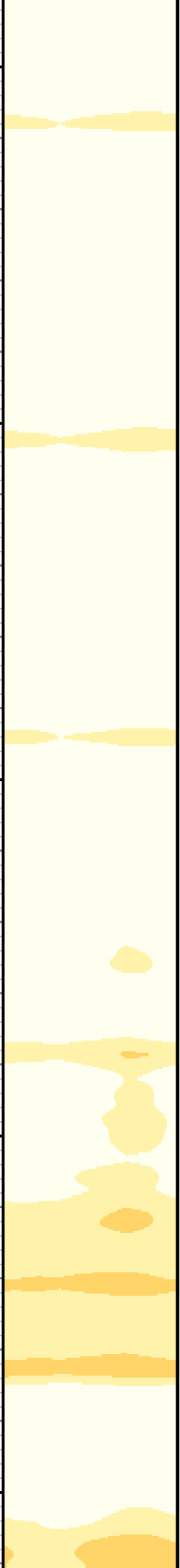


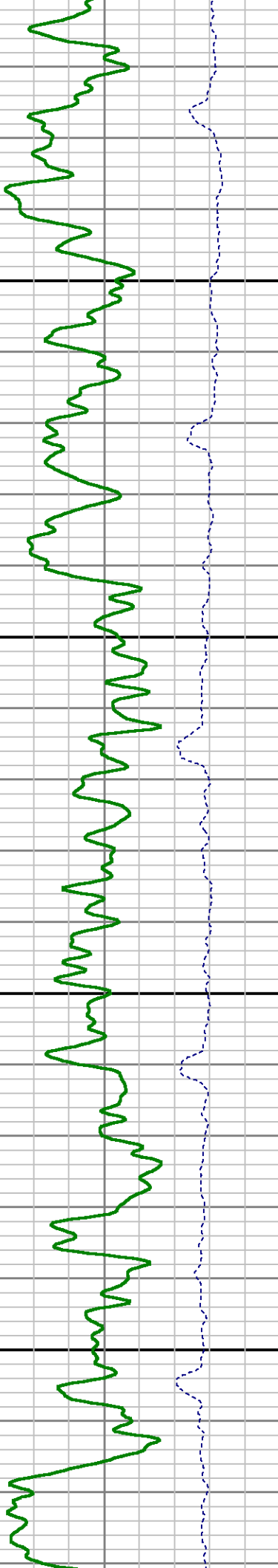
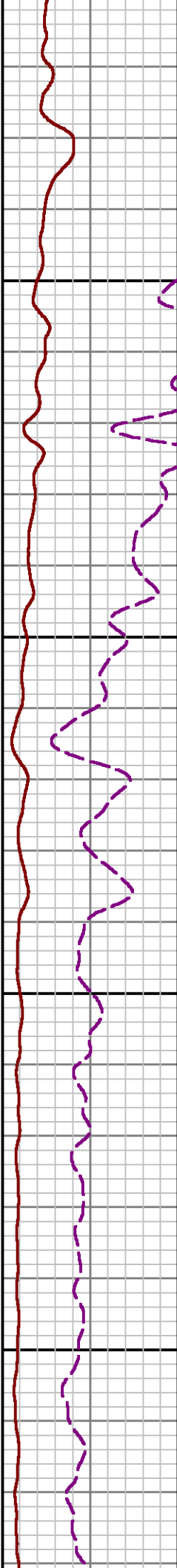
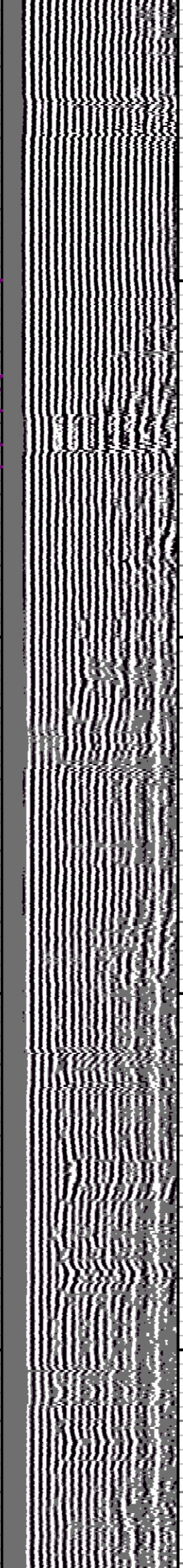
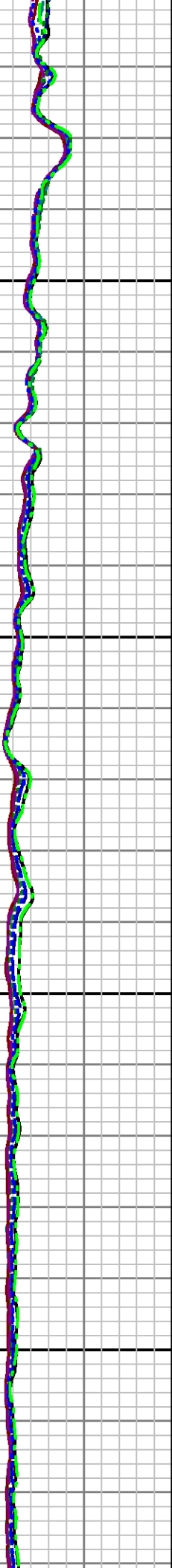


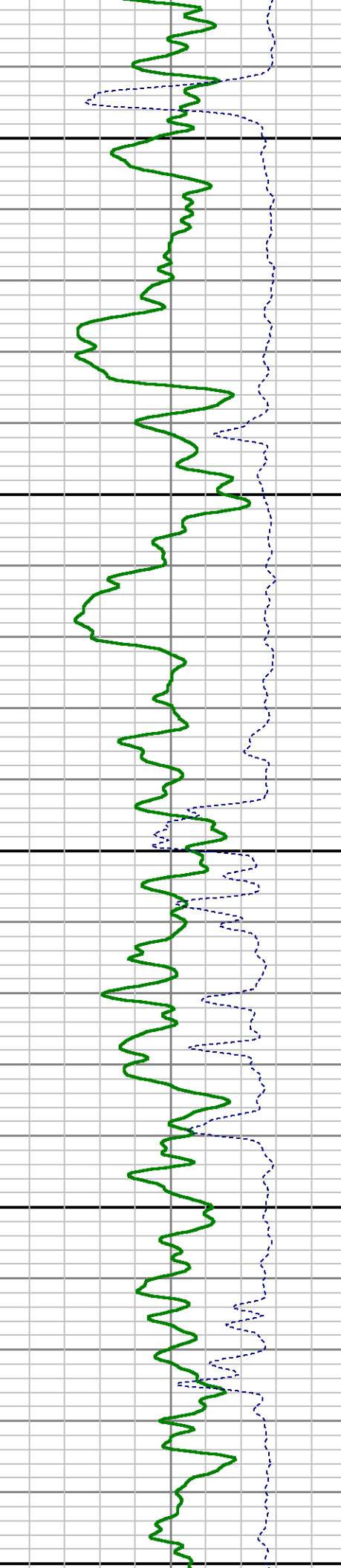
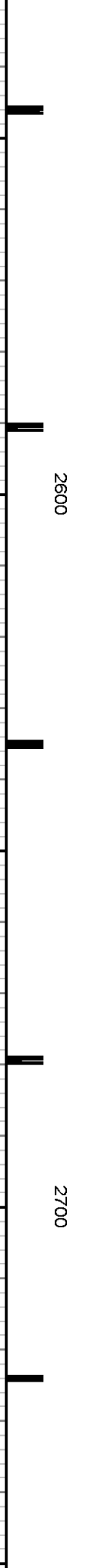
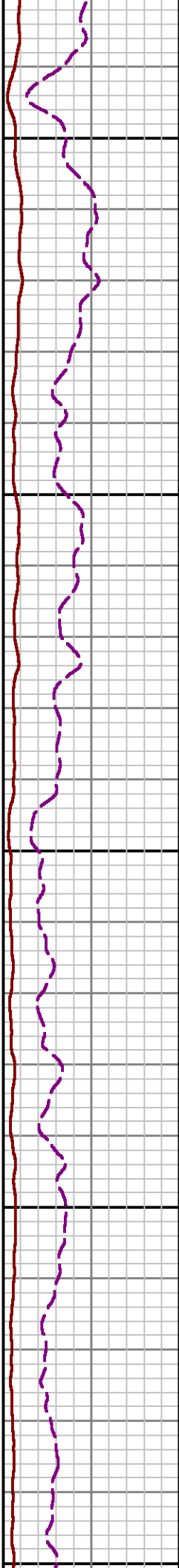
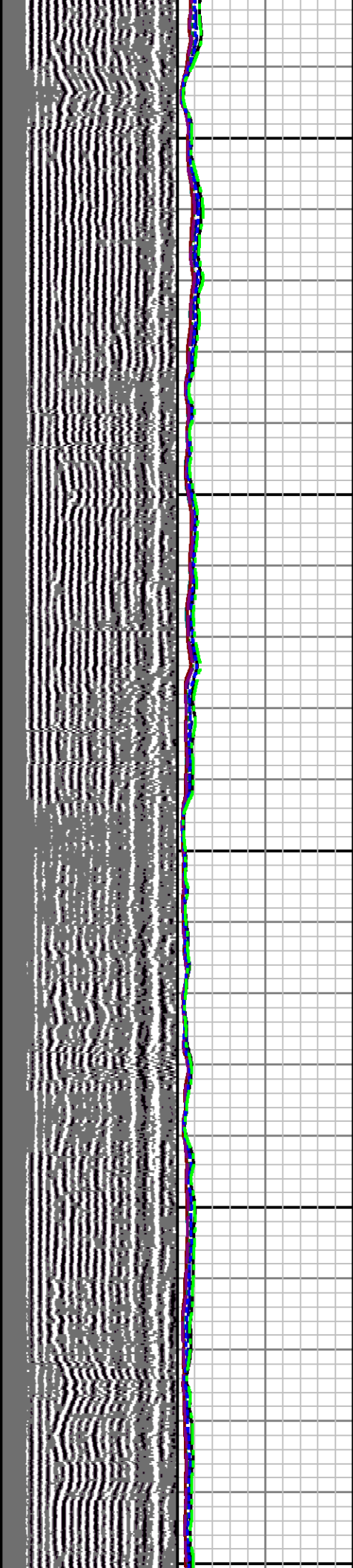
1900

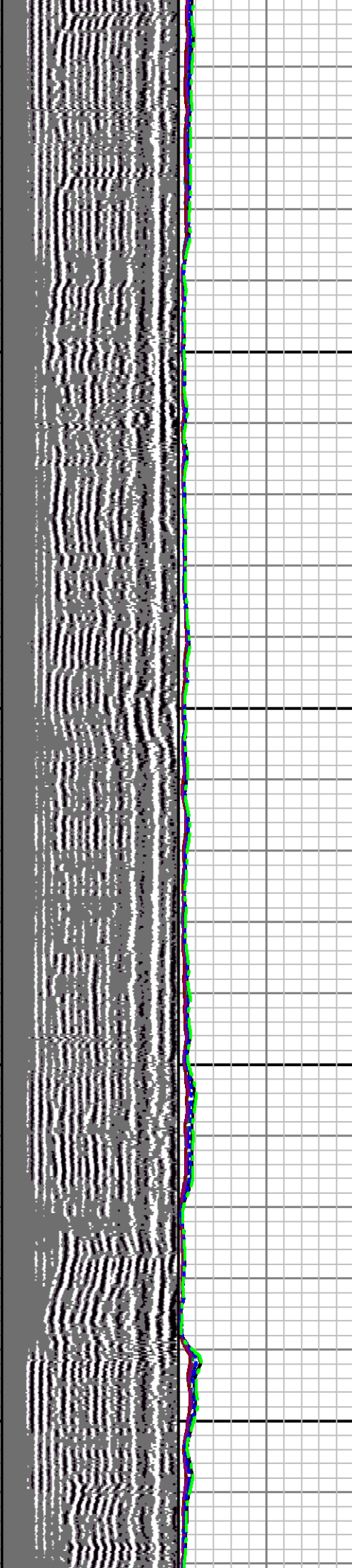
2000





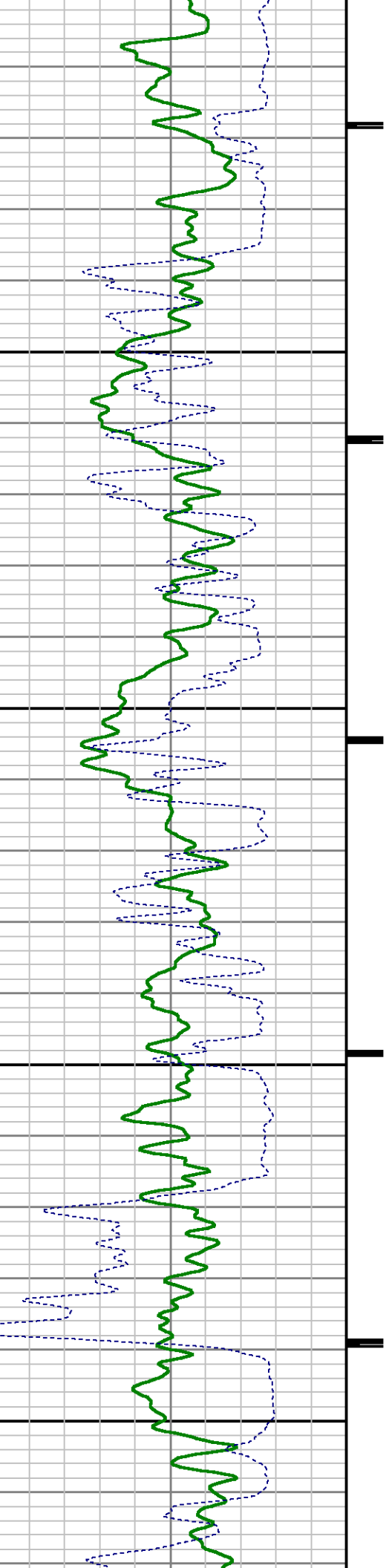


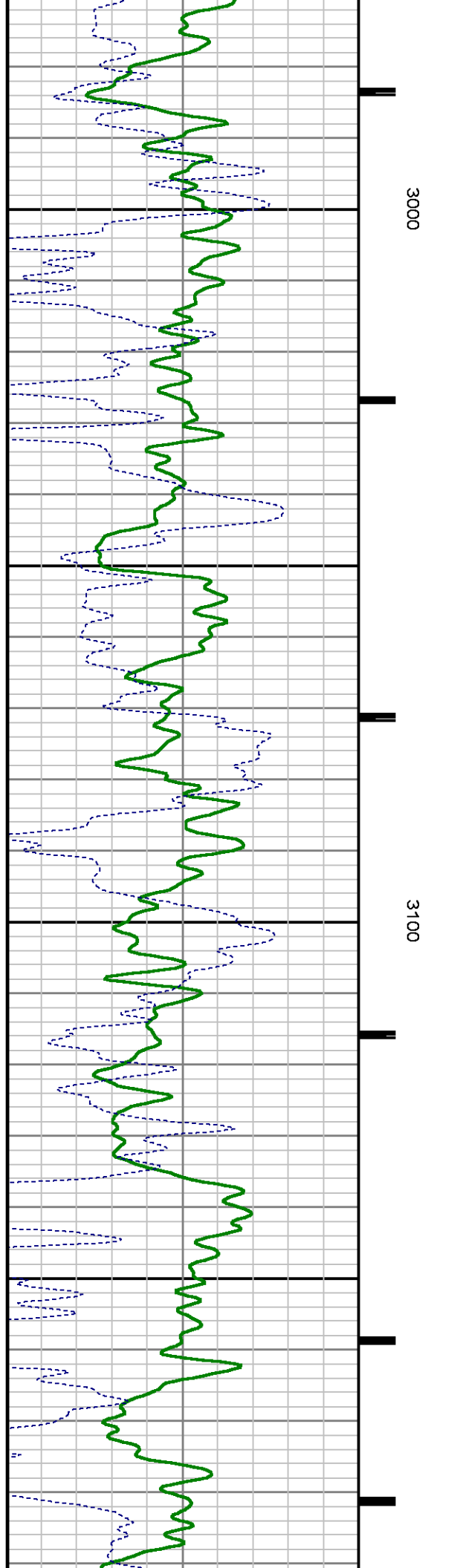
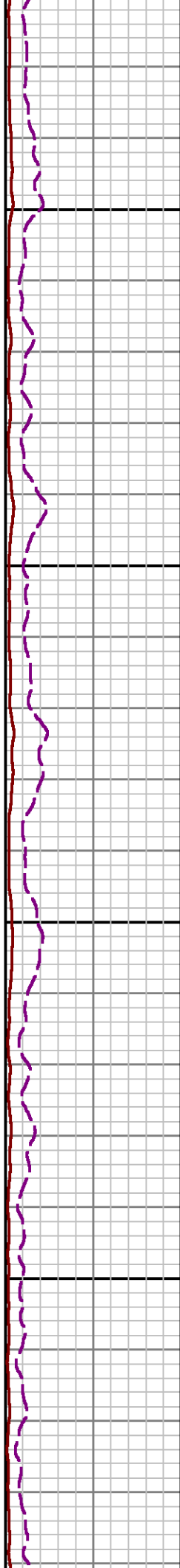
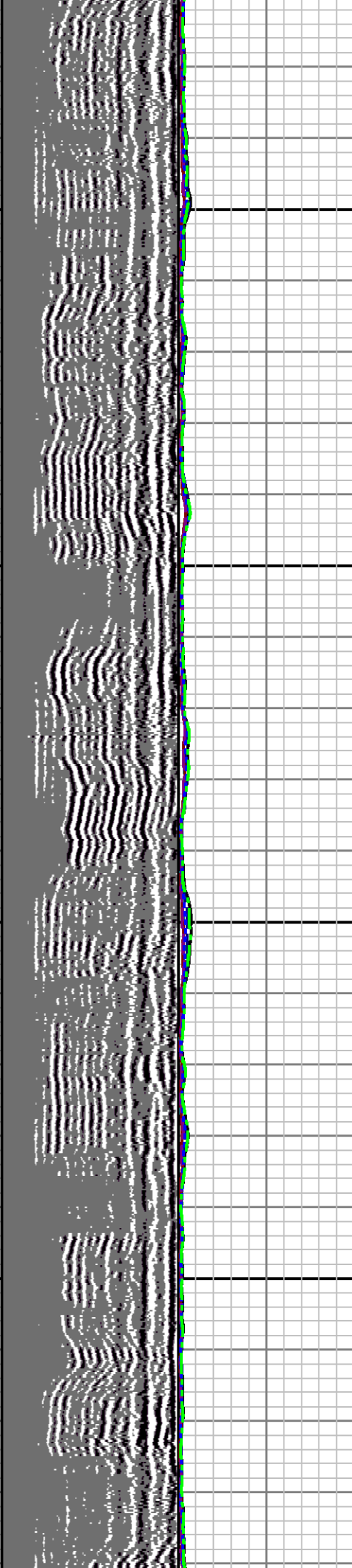
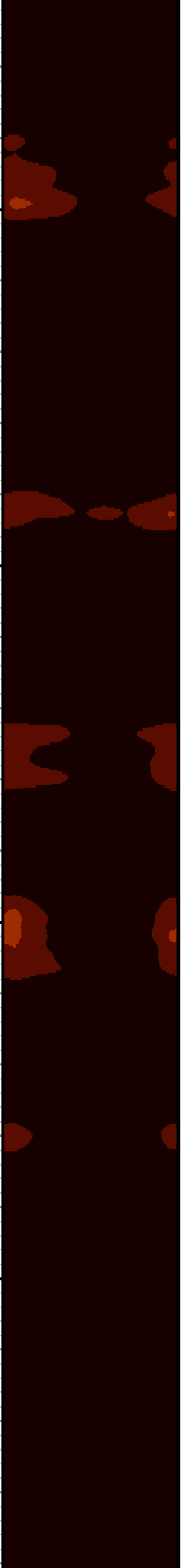


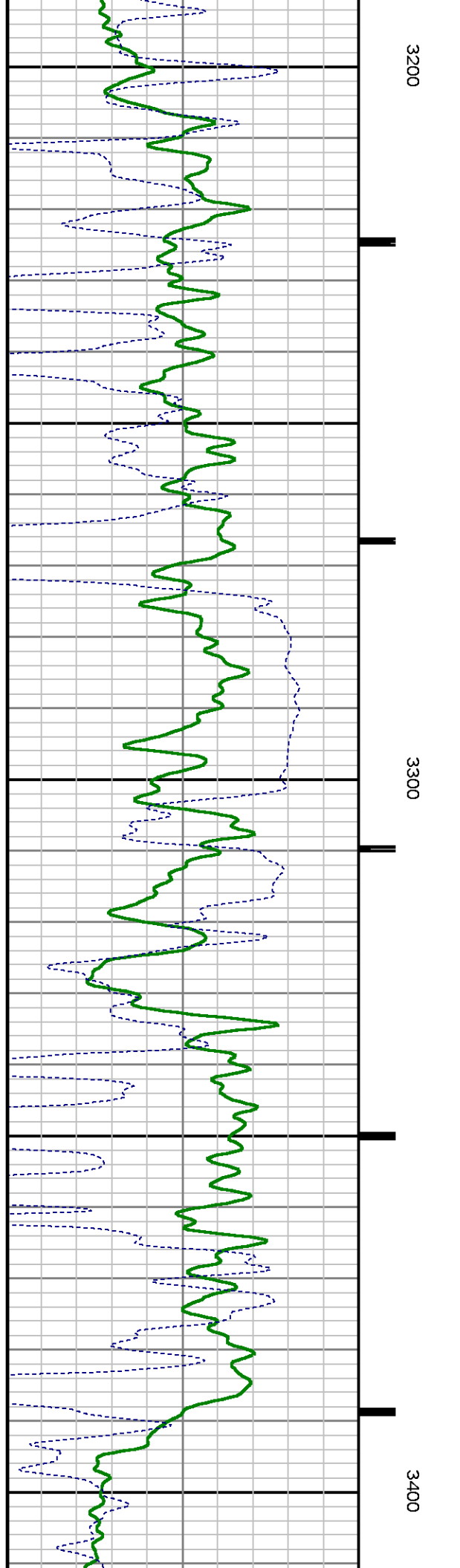
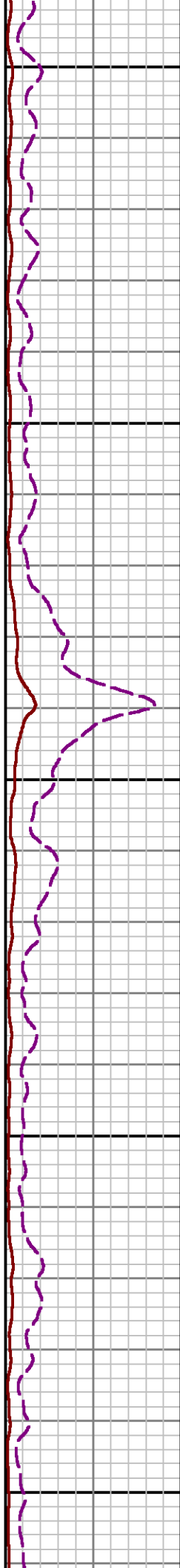
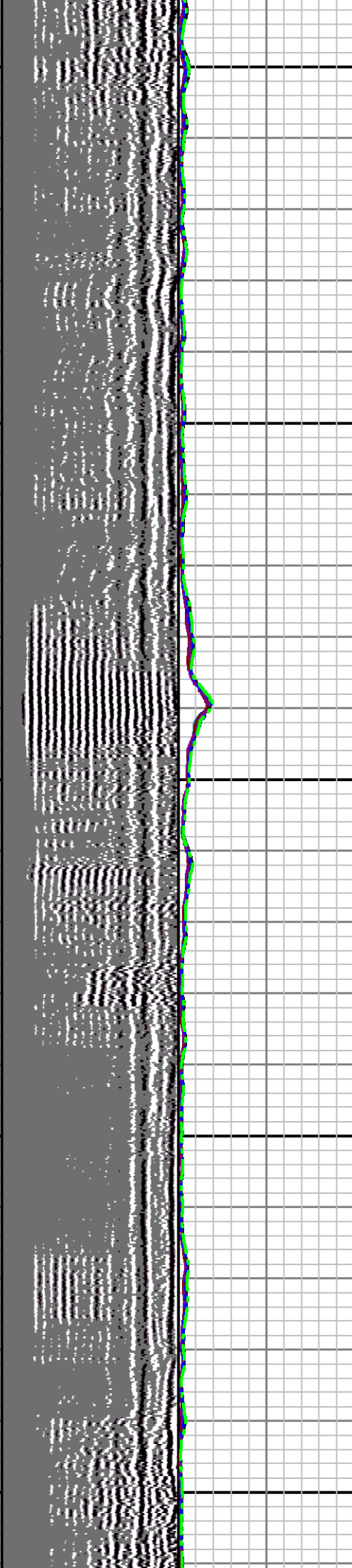


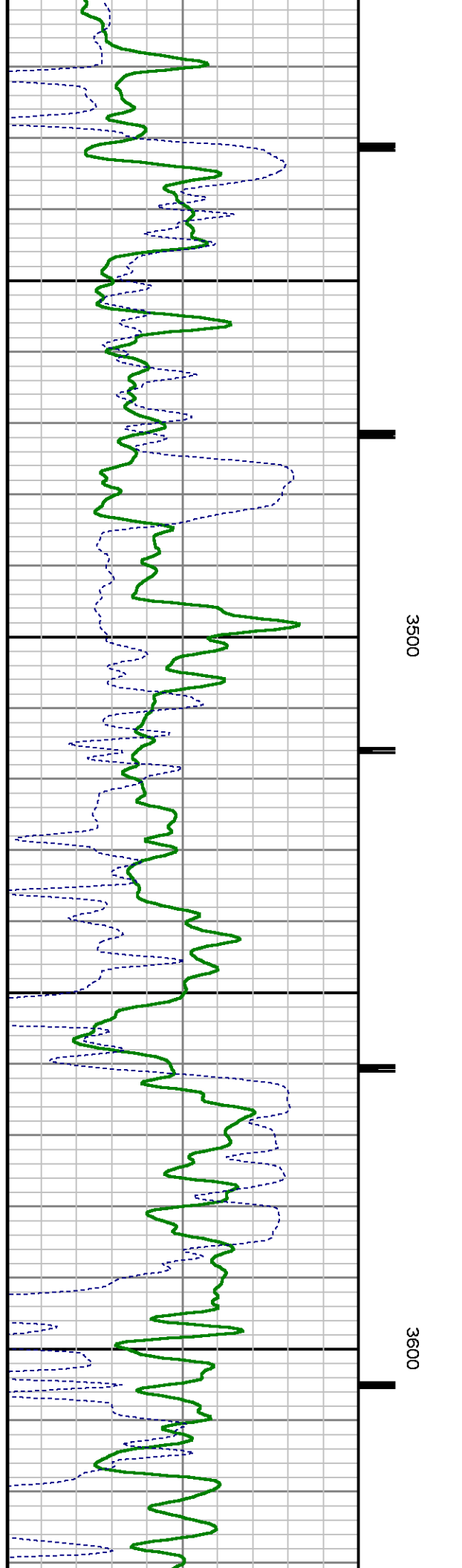
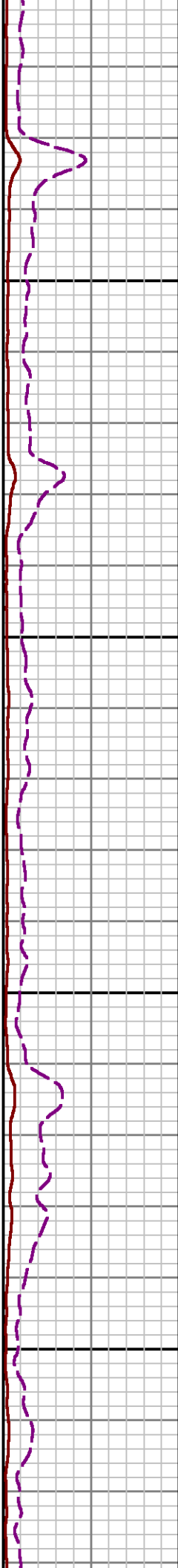
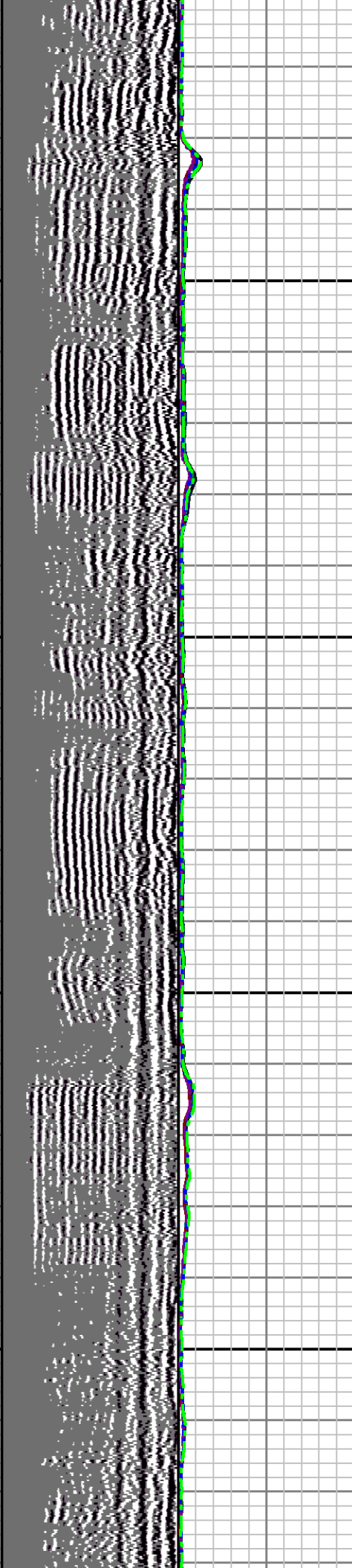
2800

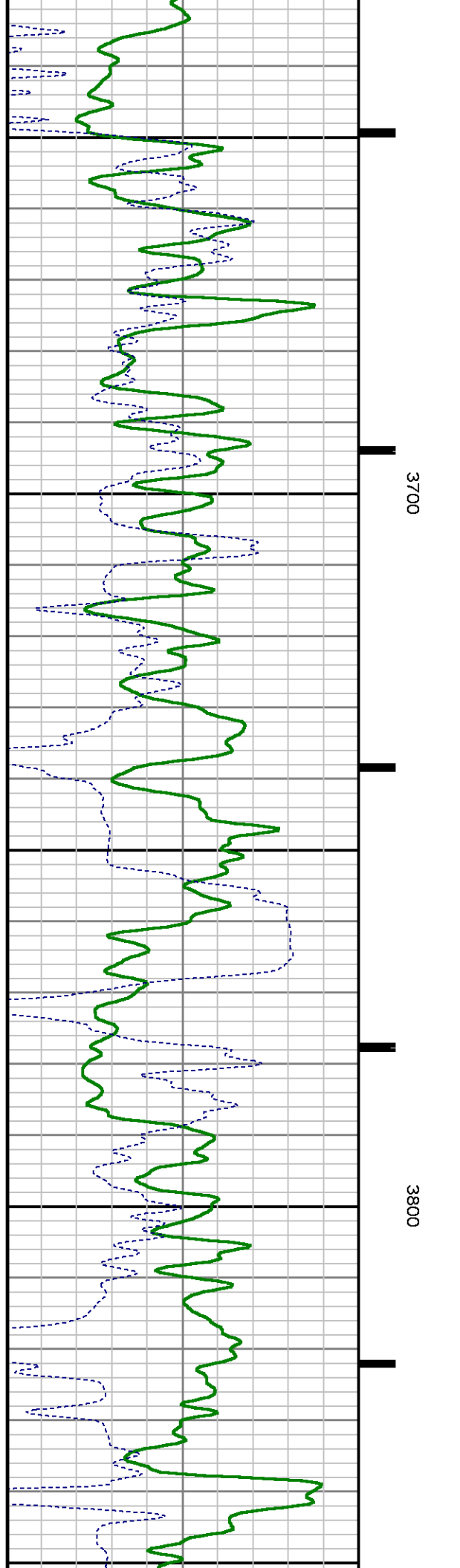
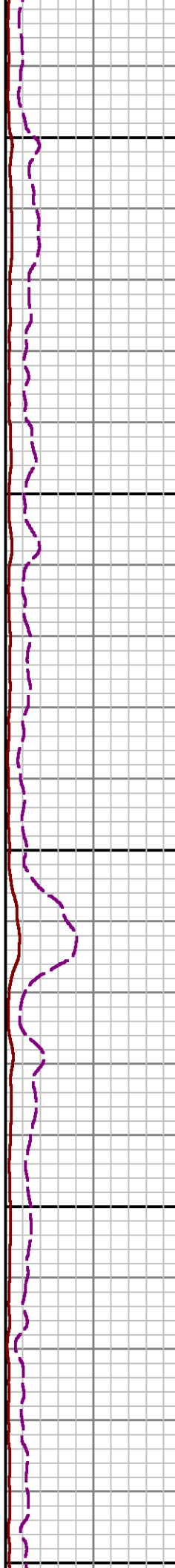
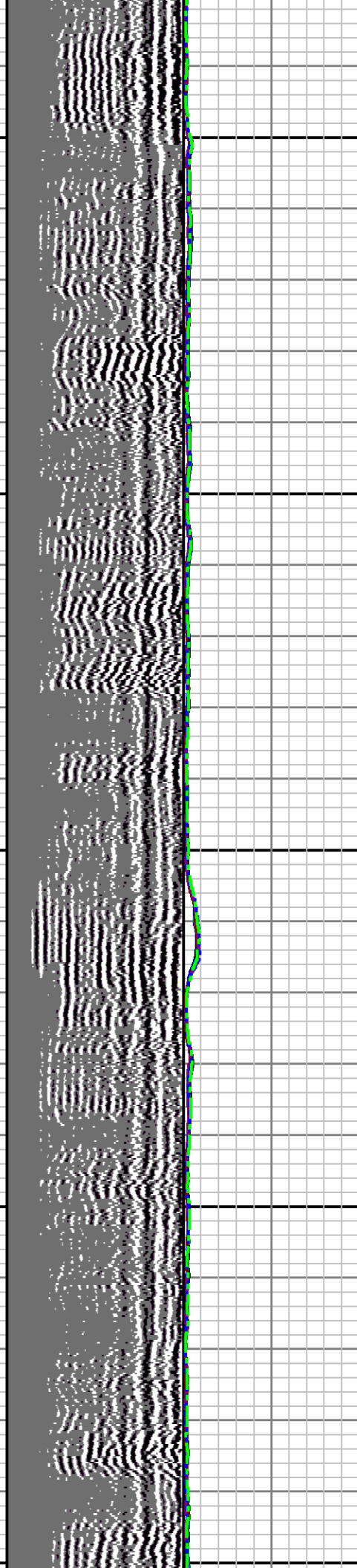
2900

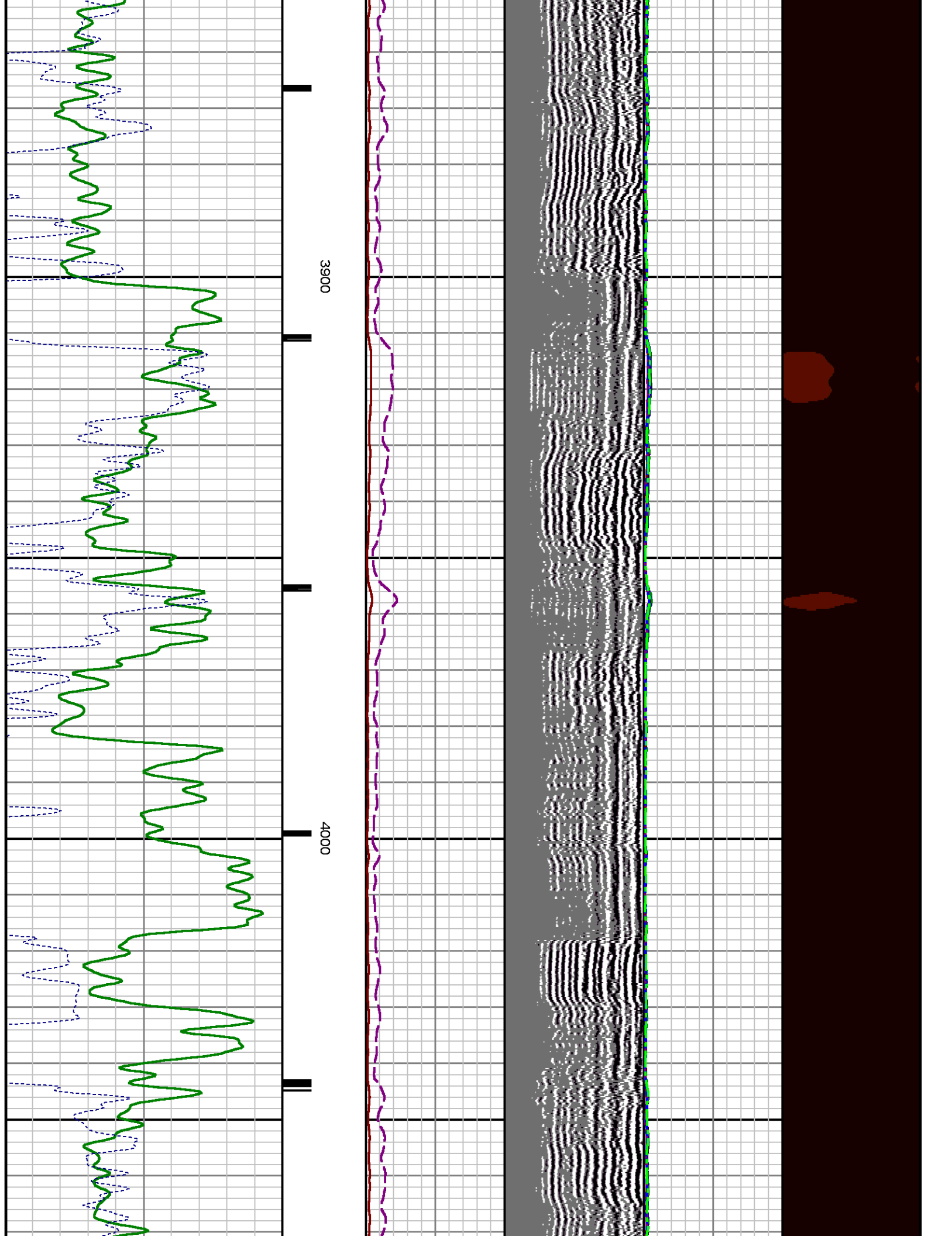


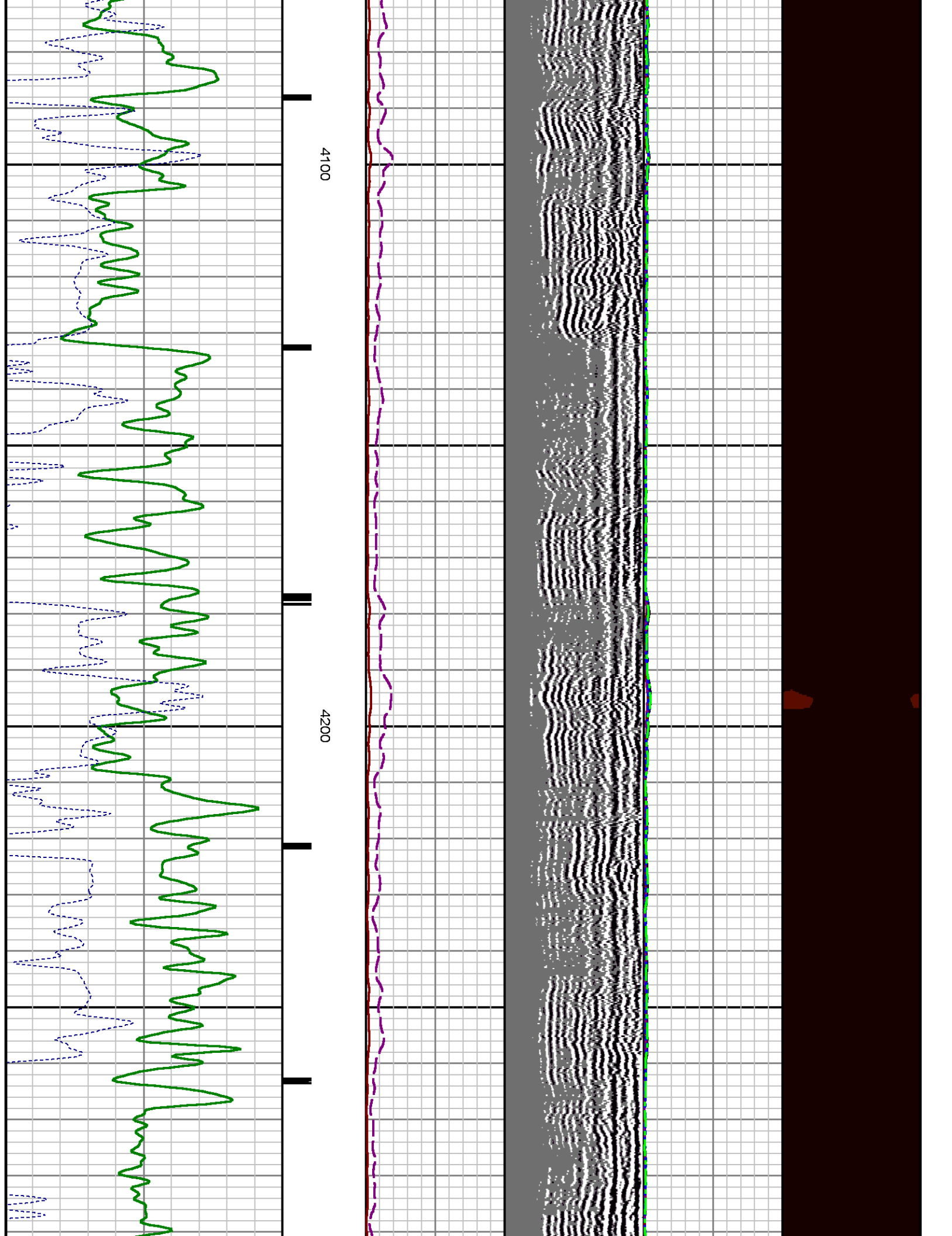


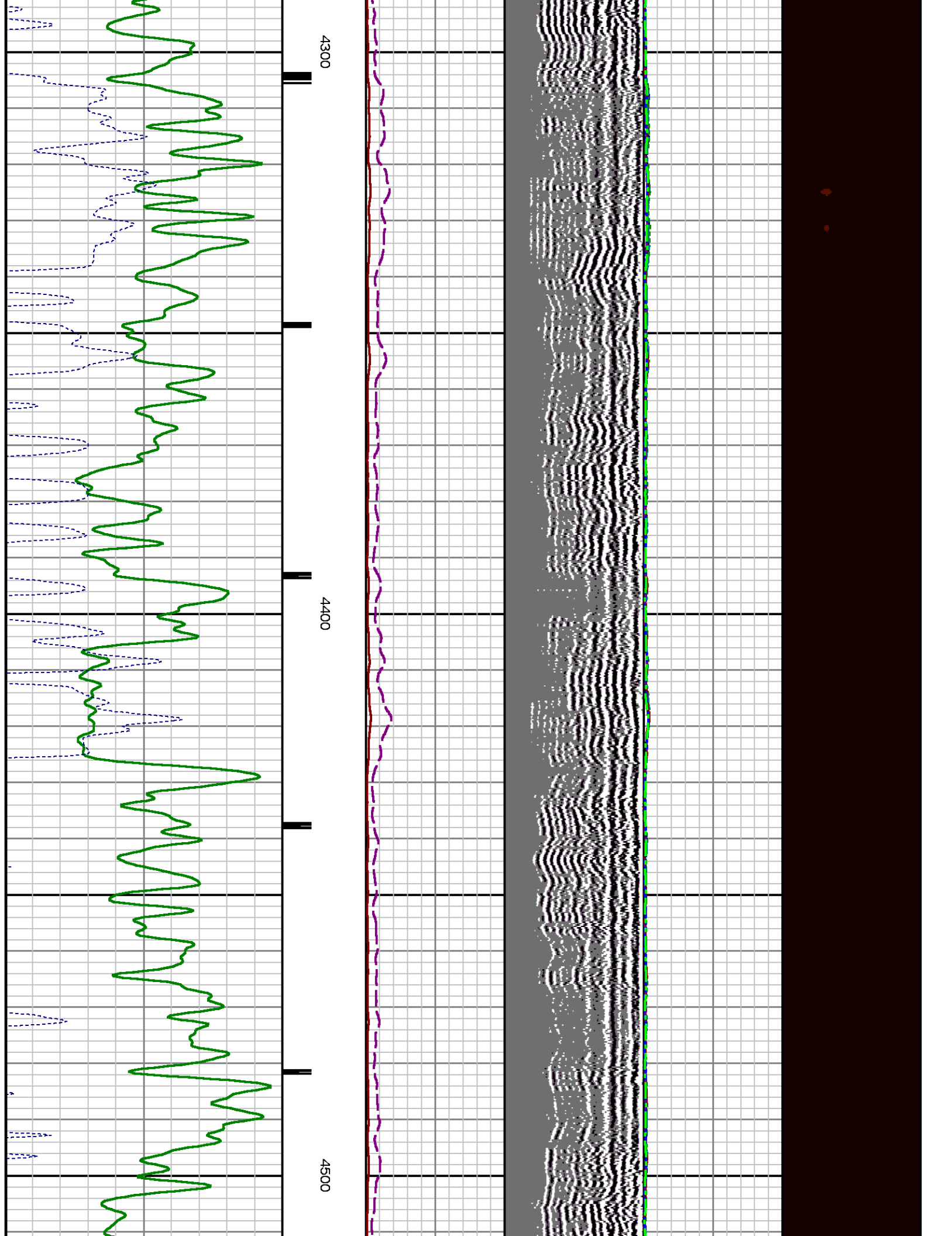


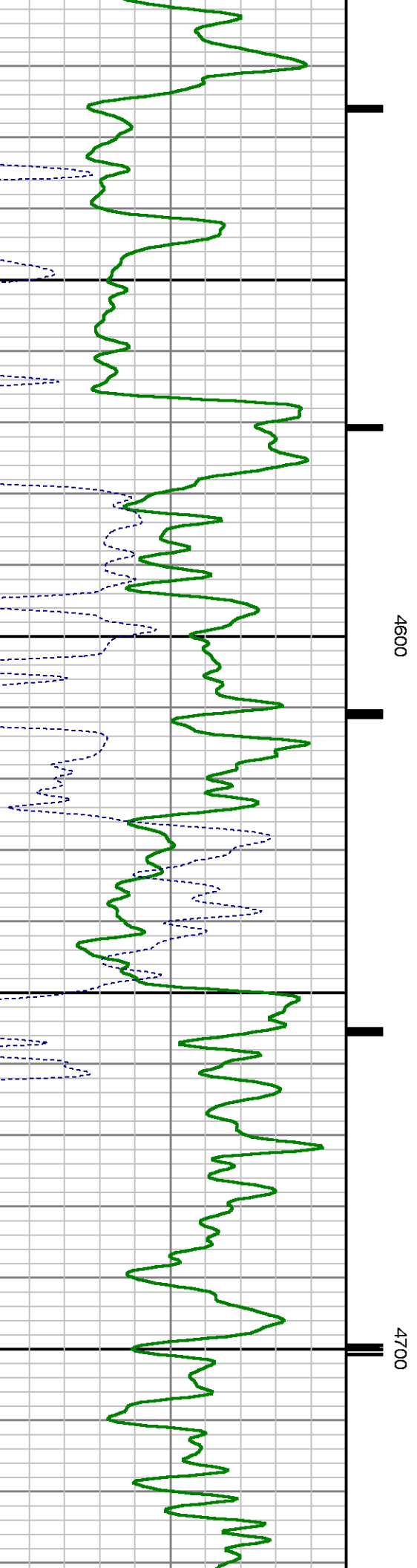
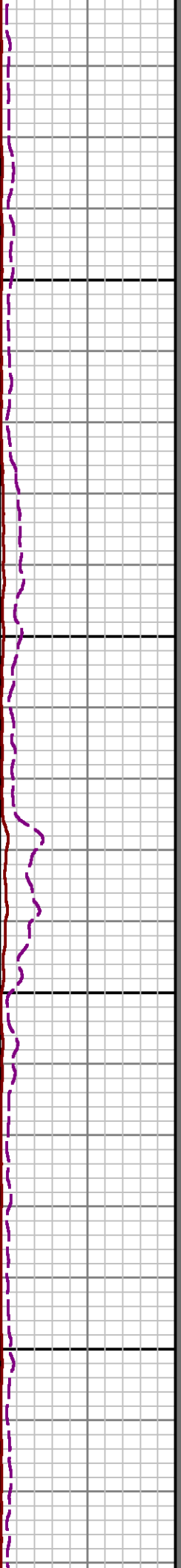
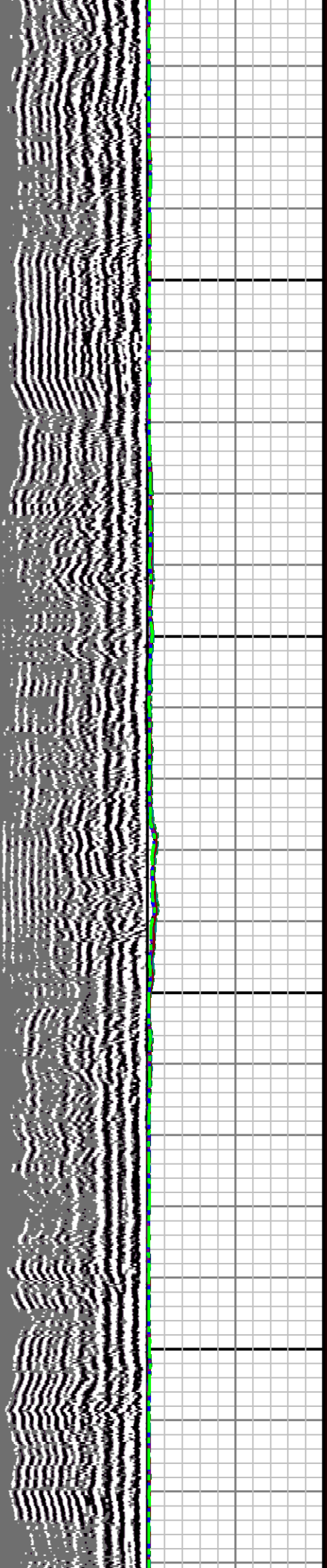


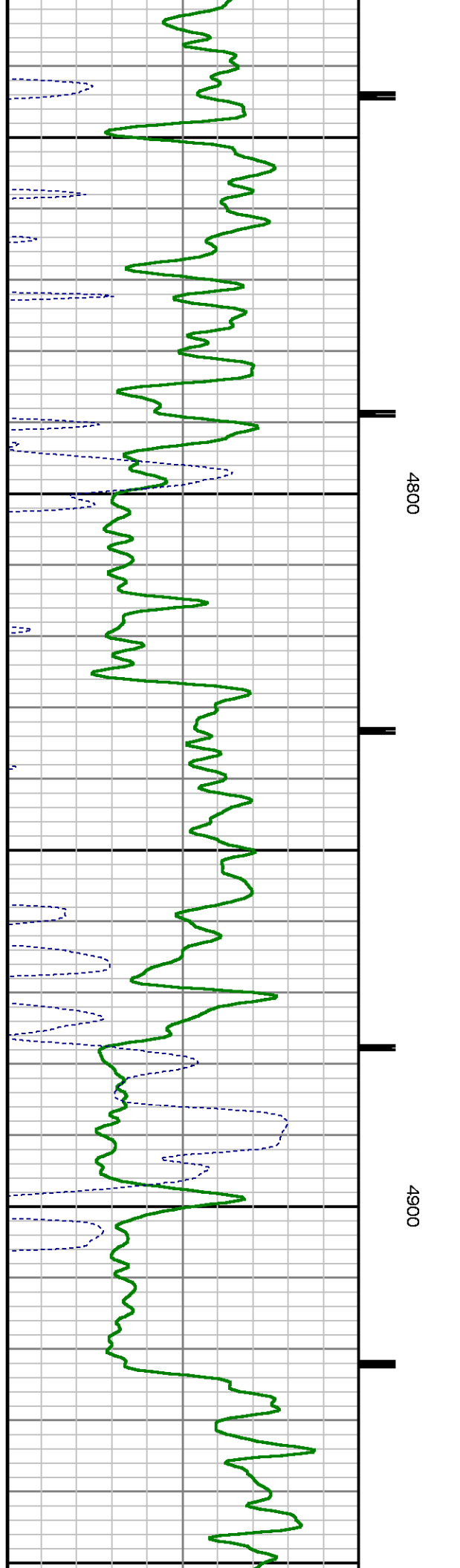
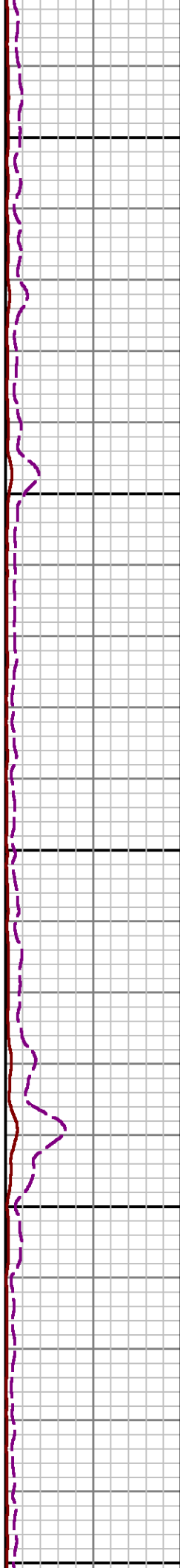
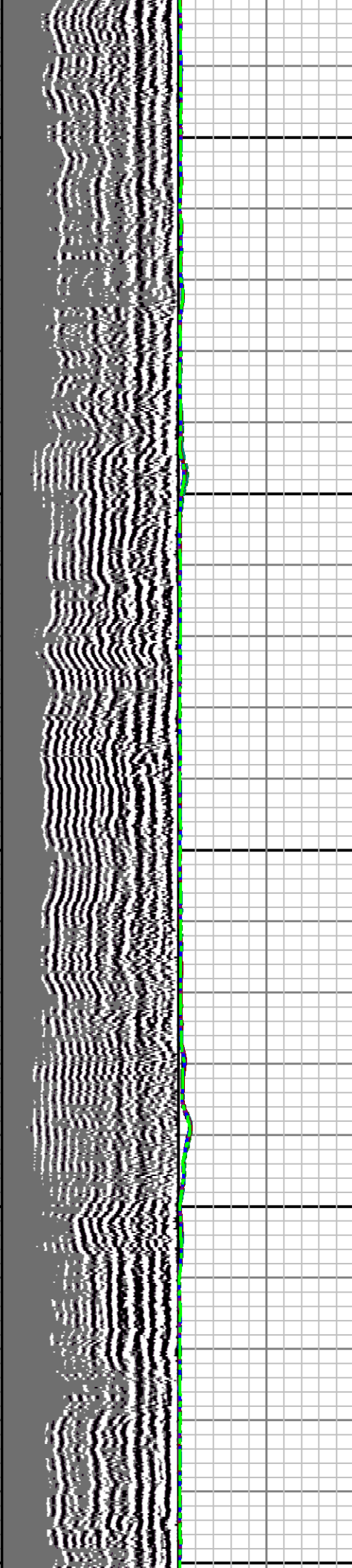


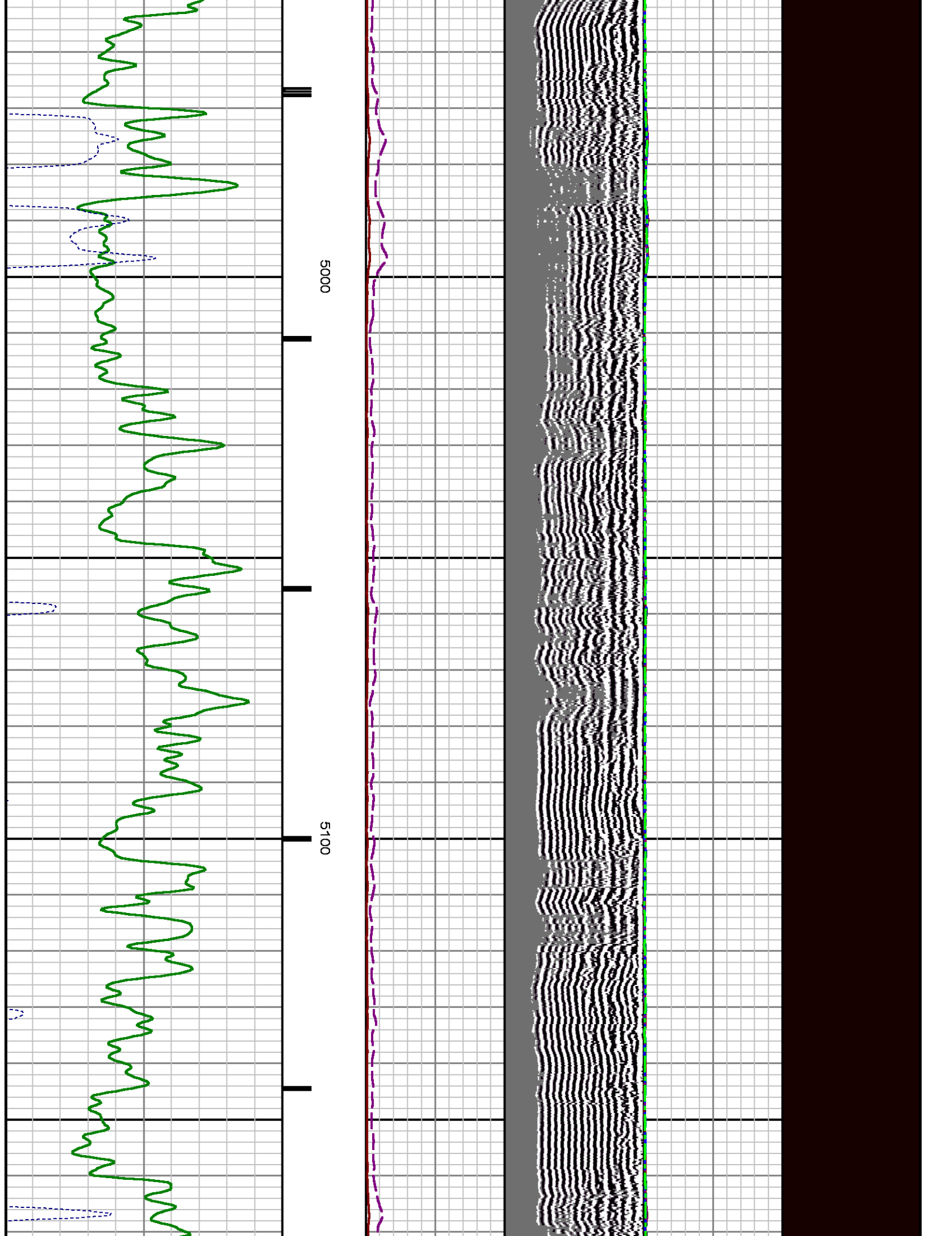


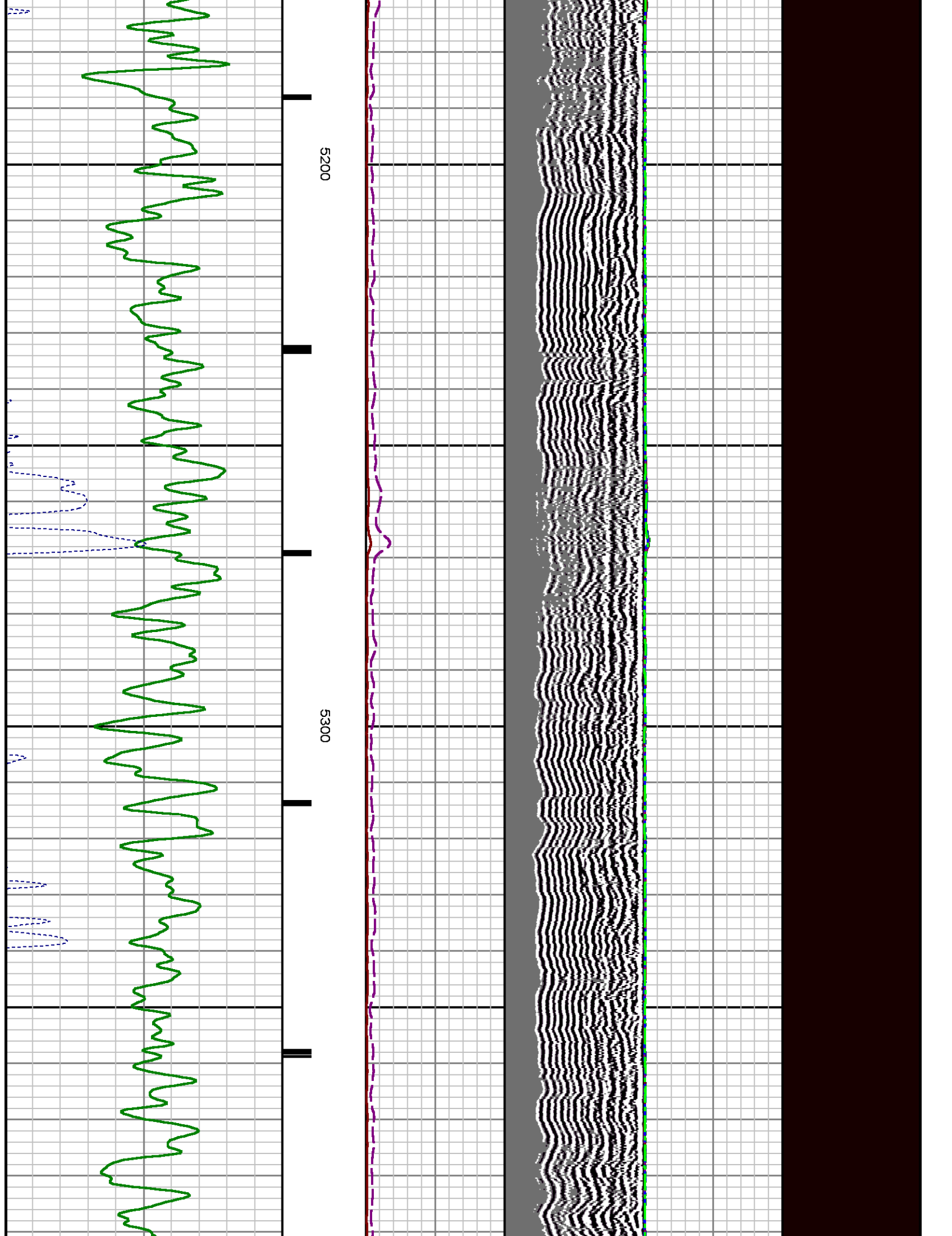


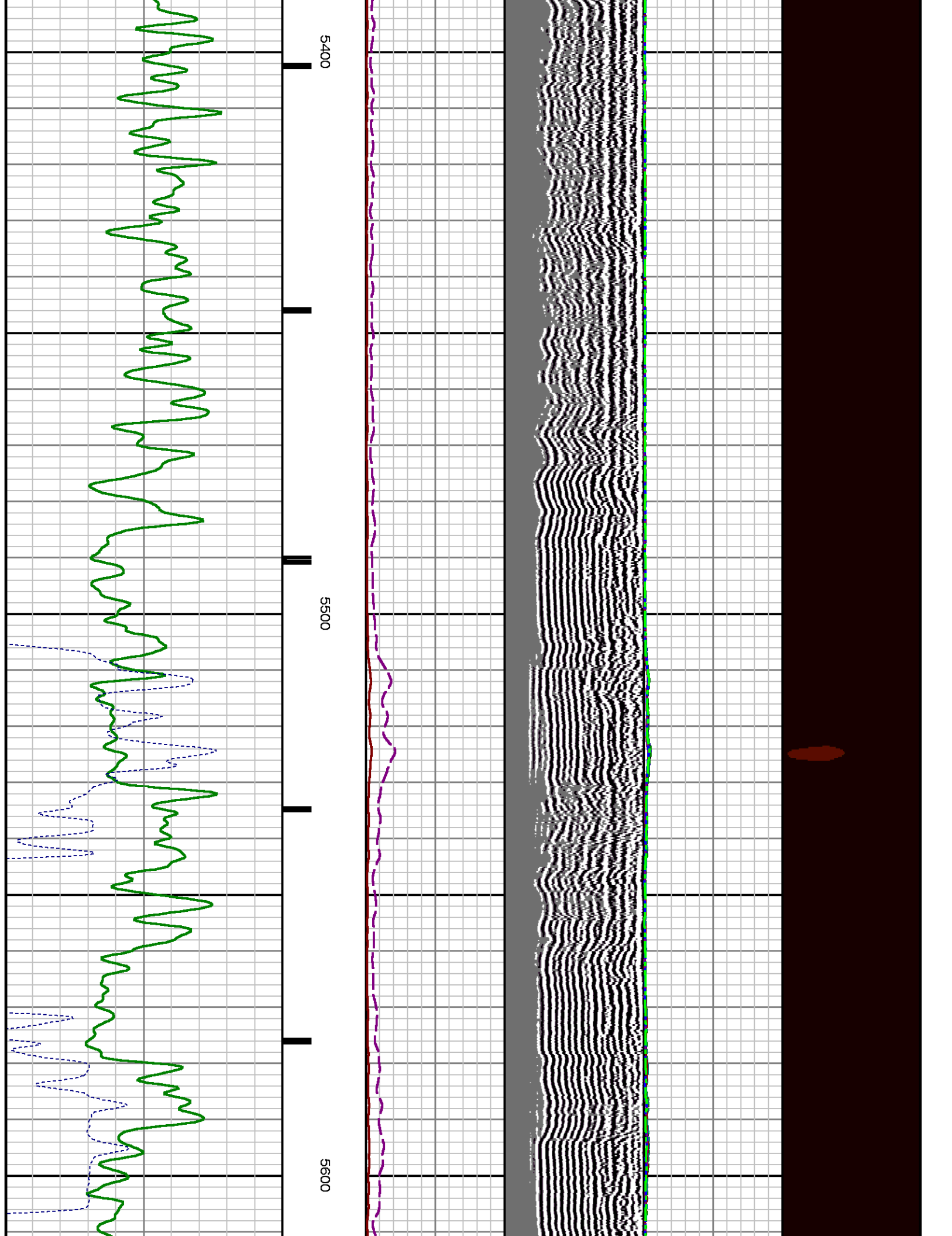


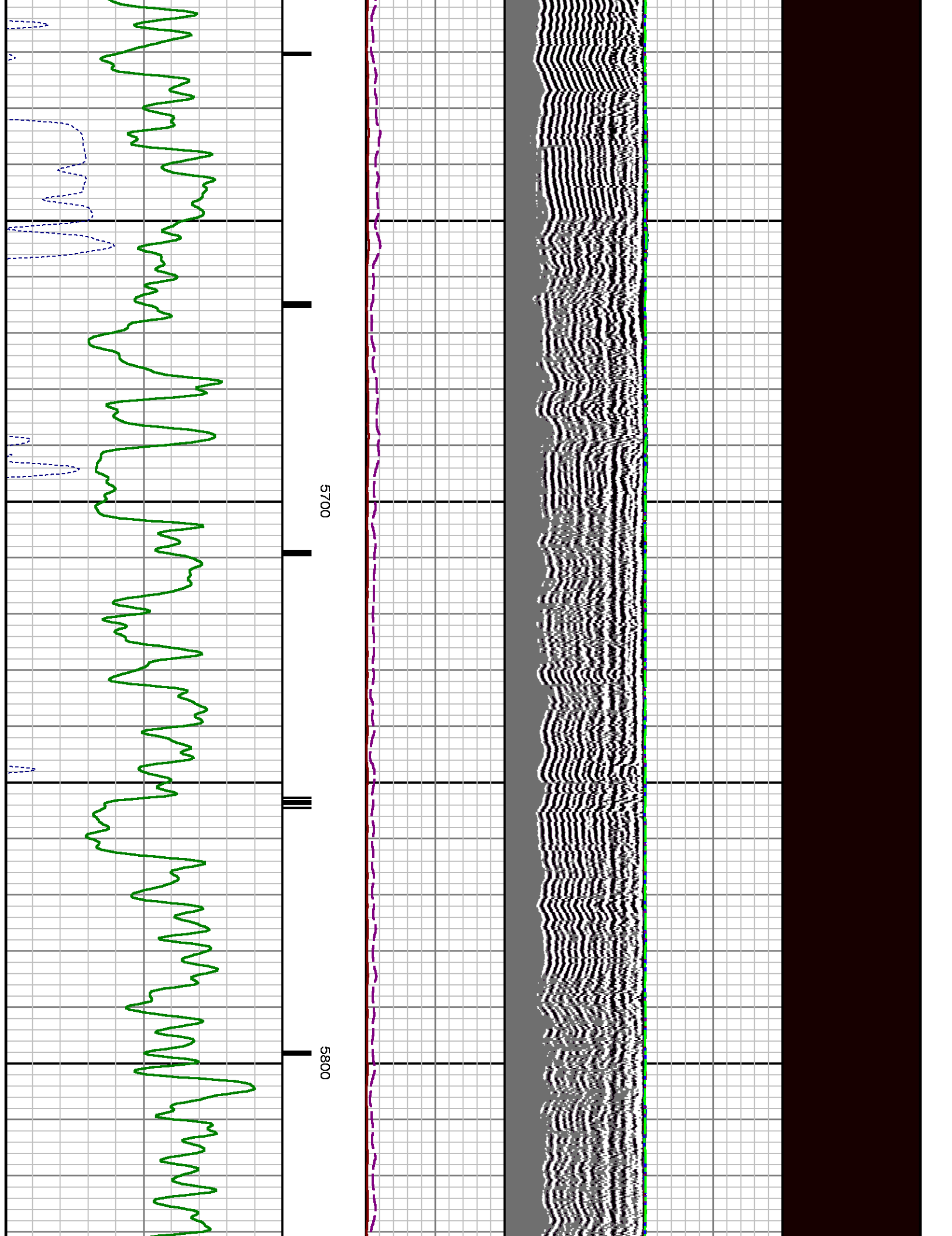


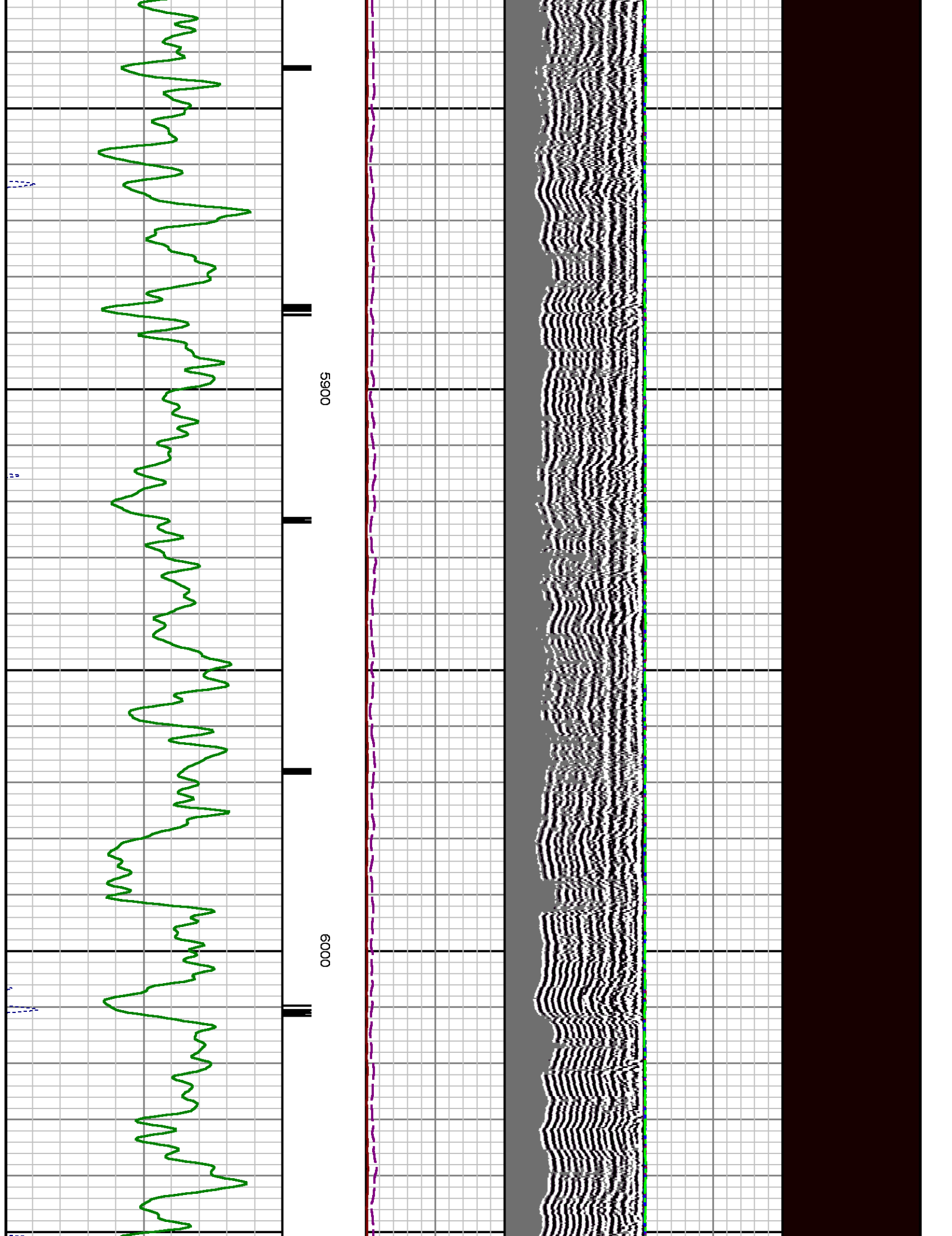


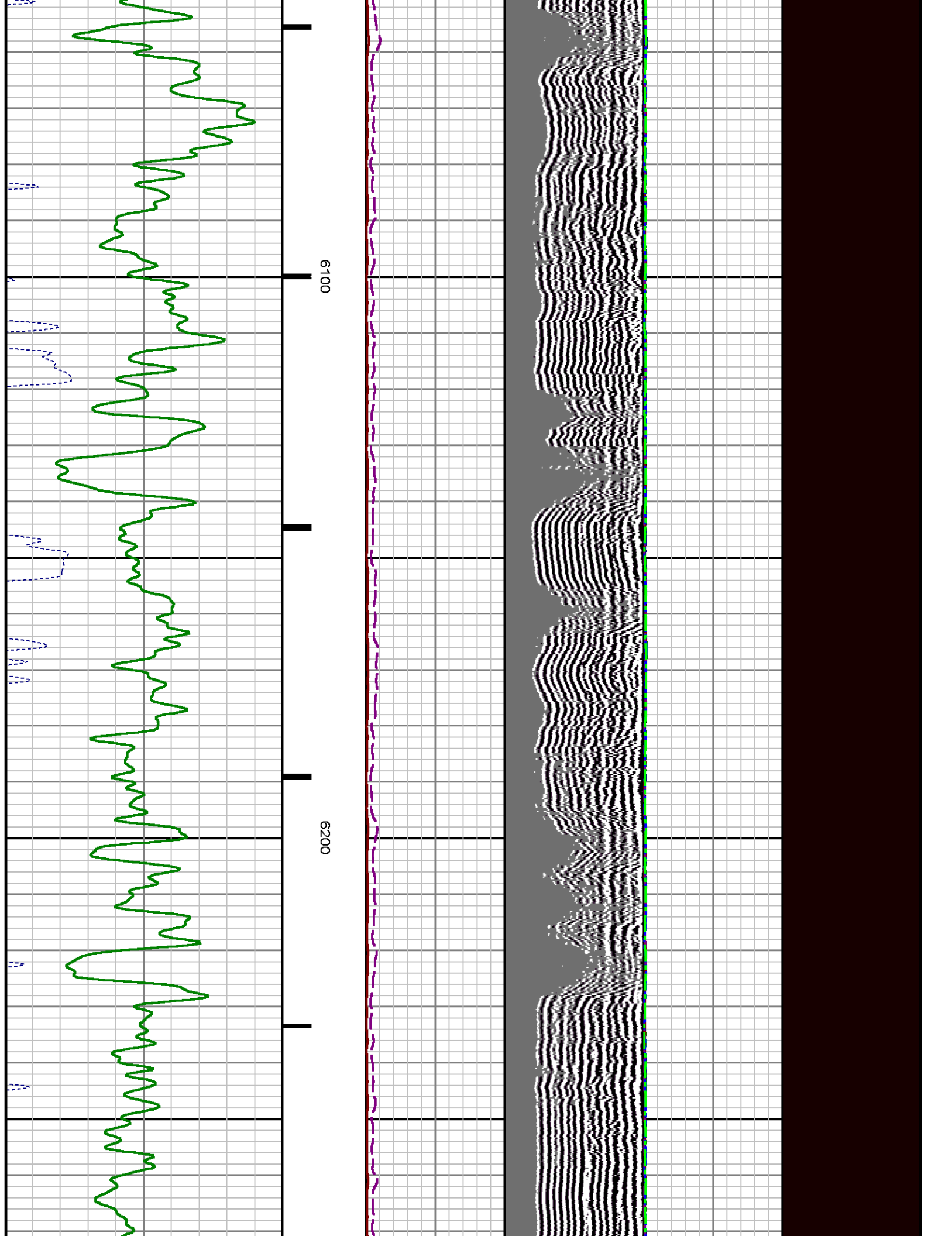


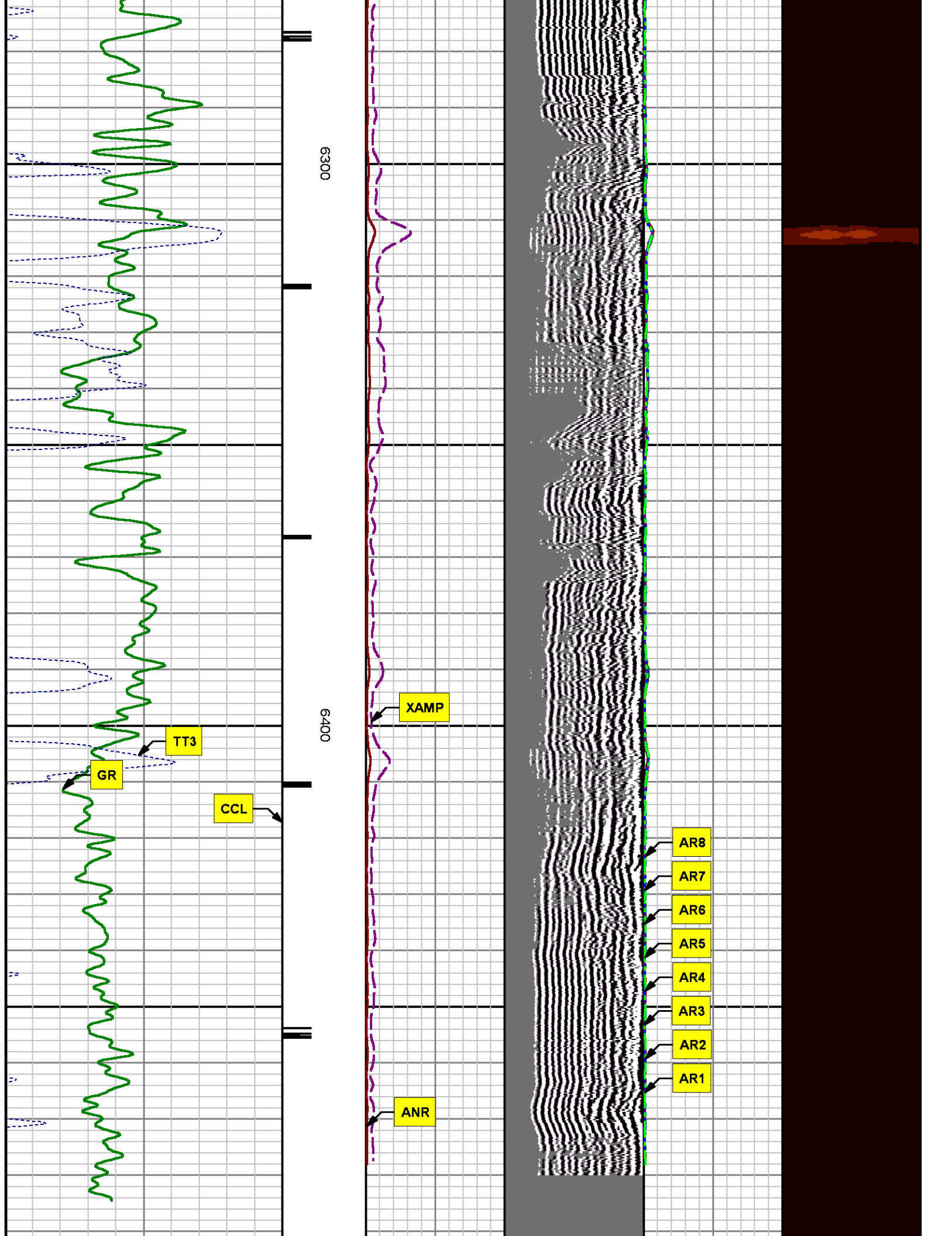


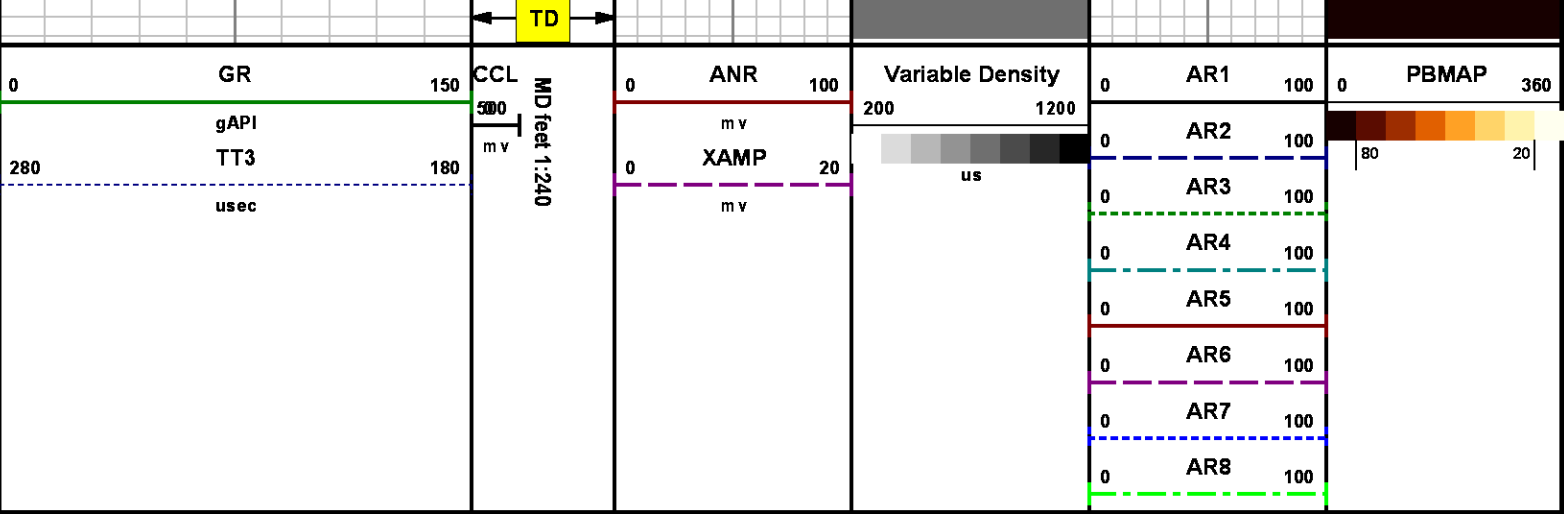












REPEAT SECTION
0 PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	305.000	usec	6177.808	6497.840
RAL	Amp Gate Start Near	195.000	usec	6177.808	6497.840
RAL	Amp Gate Start Radial	195.000	usec	6177.808	6497.840
RAL	Amp Gate Width Far	25.000	usec	6177.808	6497.840
RAL	Amp Gate Width Near	25.000	usec	6177.808	6497.840
RAL	Amp Gate Width Radial	25.000	usec	6177.808	6497.840
RAL	casing od	4.500	inches	6177.808	6497.840
RAL	casing wt	11.600	lbm/ft	6177.808	6497.840
RAL	FB Start Far	291.900	usec	6177.808	6497.840
RAL	FB Start Near	180.000	usec	6177.808	6497.840
RAL	FB Start Radial	180.000	usec	6177.808	6497.840
RAL	FB Thresh Far	10.000	mv	6177.808	6497.840
RAL	FB Thresh Near	4.000	mv	6177.808	6497.840
RAL	FB Thresh Radial	4.000	mv	6177.808	6497.840
RAL	Fluid Travel Time	200.000	usec/ft	6177.808	6497.746

DEPTH OFFSETS
(for Acquired Curves)

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-16.750	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
1426XA	-15.750	AFAR	SIG	TT5			
2459XA	-11.340	CCL					
2459XA	-9.490	GR					
2459XA	-4.090	NEU					

Created by : RAL, v4.8.008

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

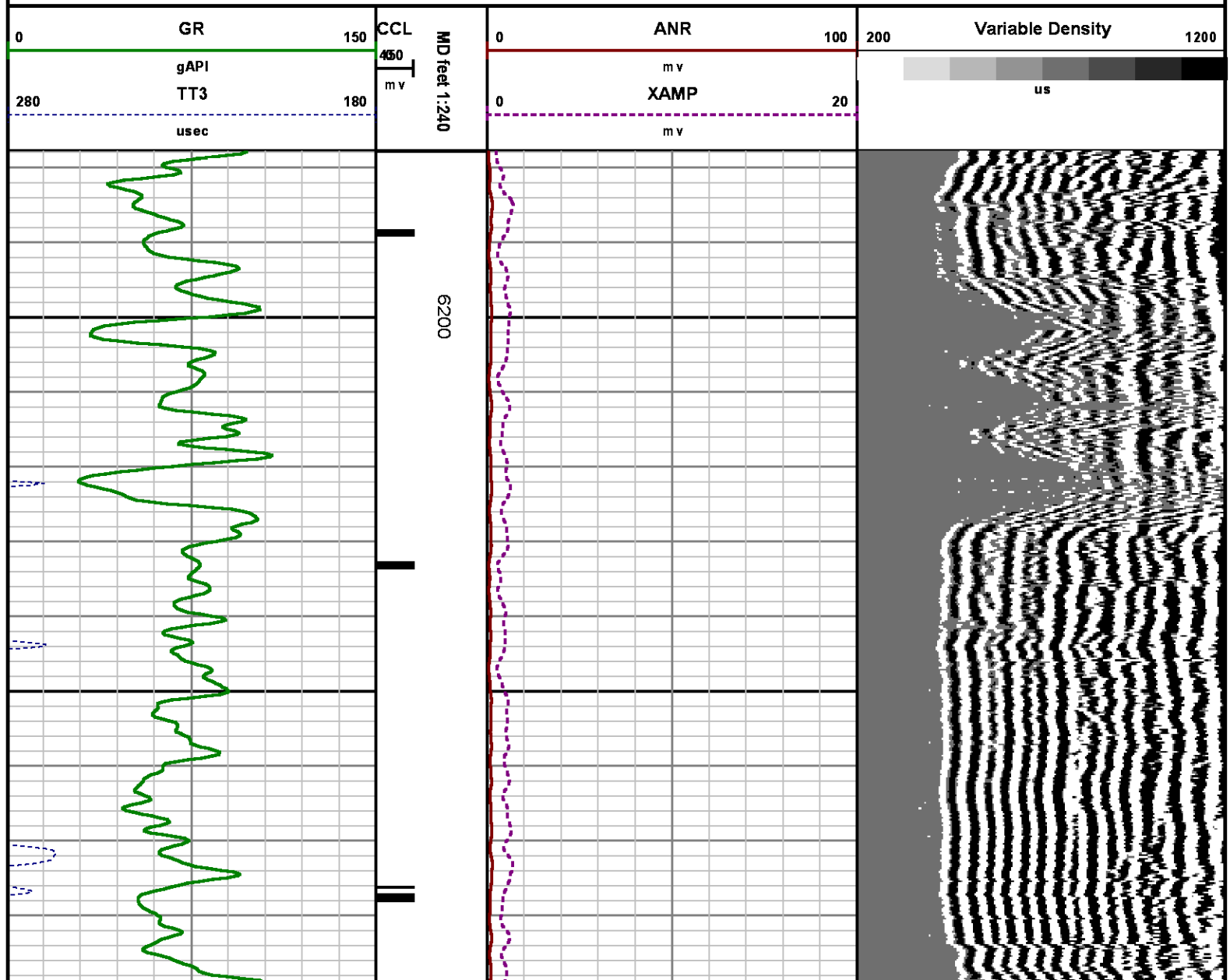
Well : C & C ENERGY GM 22-13

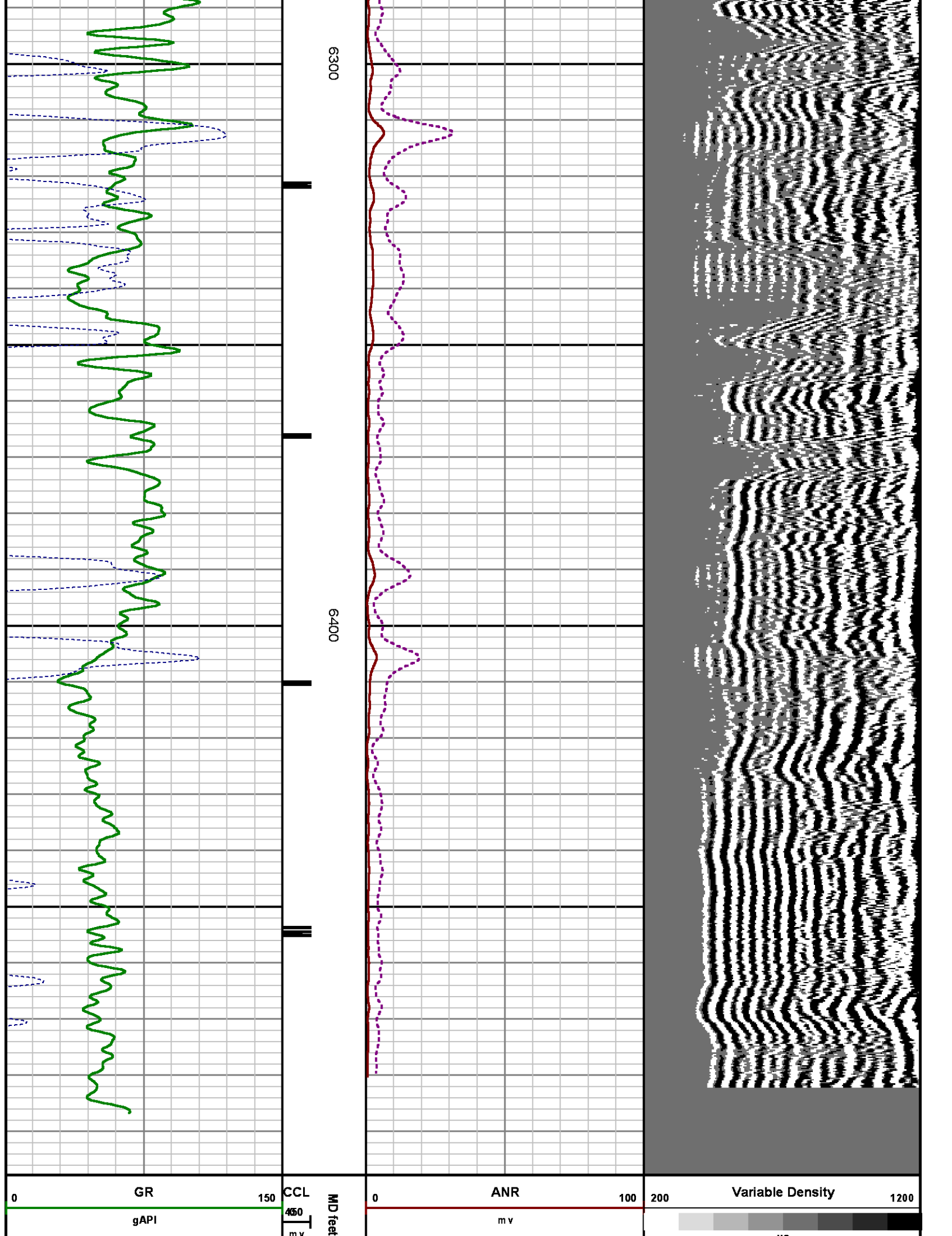
File Name : d:\welldata\wpx\gm 22-13\22ral\repeat.xtf

Mode : PlotMgr 5.4.504

Interval : 6177.84 - 6497.84 feet UP

Created : 6/14/2014 3:18:03 PM





280	TT3	180	1:240	0	XAMP	20	us
	u sec				m v		

CALIBRATION SUMMARY

RALSHP

Shop Calibration: C:\case\calver\RALSHP\496JU14_shp.cal

SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jun 14 12:31:50 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: JU14

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

RECEIVER	Travel Time [u sec]	Amp. Gate Start [u sec]	Amp. Gate Width [u sec]	Zero Gate Start [u sec]	Zero Gate Width [u sec]	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="0.283"/>	<input type="text" value="100.00"/>	<input type="text" value="0.33"/>
3 Ft. Receiver	<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="2.683"/>	<input type="text" value="100.00"/>	<input type="text" value="0.33"/>
5 Ft. Receiver	<input type="text" value="327"/>	<input type="text" value="325"/>	<input type="text" value="30"/>	<input type="text" value="215"/>	<input type="text" value="25"/>	<input type="text" value="-0.232"/>	<input type="text" value="150.00"/>	<input type="text" value="0.37"/>
Radial #1	<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="1.565"/>	<input type="text" value="100.00"/>	<input type="text" value="0.33"/>
Radial #2	<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="1.561"/>	<input type="text" value="100.00"/>	<input type="text" value="0.32"/>
Radial #3	<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="2.474"/>	<input type="text" value="100.00"/>	<input type="text" value="0.32"/>
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="2.334"/>	<input type="text" value="100.00"/>	<input type="text" value="0.32"/>
Radial #5	<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="2.081"/>	<input type="text" value="100.00"/>	<input type="text" value="0.32"/>
Radial #6	<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="2.216"/>	<input type="text" value="100.00"/>	<input type="text" value="0.33"/>
Radial #7	<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="2.027"/>	<input type="text" value="100.00"/>	<input type="text" value="0.33"/>
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="1.567"/>	<input type="text" value="100.00"/>	<input type="text" value="0.33"/>

RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\496JU14 fld.cal

WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jun 14 12:35:10 2014 TOOL SERIES: 1426XA ASSET: 496 SEQ: JU14

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

RECEIVER	Zero Gate Start [u sec]	Zero Gate Width [u sec]	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="0.053"/>	<input type="text" value="0.000"/>	<input type="text" value="1.00"/>	<input type="text" value="100.000"/>

3 Ft. Receiver	195	25	2.409
5 Ft. Receiver	305	25	3.052
Radial #1	195	25	1.690
Radial #2	195	25	1.760
Radial #3	195	25	2.024
Radial #4	195	25	2.212
Radial #5	195	25	2.284
Radial #6	195	25	2.371
Radial #7	195	25	1.922
Radial #8	195	25	1.721

GAMMA RAY

Calibration File: C:\case\calver\GR\456.J1 cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Tue Jun 10 11:37:19 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: J1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	93.20	369.51	0.670	62.40	247.40	185.00

Verification File: C:\case\calver\GR\456.J1 VP

PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Tue Jun 10 11:38:30 2014 TOOL SERIES: 2459XA ASSET: 456 SEQ: J1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K WA612	101.16	371.24	0.670	67.73	248.56	180.83

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



21.81'

XMIT 15.62'

Measure Point	2.67' NEAR RCVR
Measure Point	5.75' XMIT
Temp Rating	350.00 °F
Press Rating	18000.00 PSI

NEAR RCVR	12.54'
FAR RCVR	10.62'
CCL	8.92'
GR	7.06'
NEU	1.67'
	0.00'

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

Total Length: 21.81'
Total Weight: Not Available
Max Diameter: 0' 2.75"

**Baker Atlas***CASE***Company****WPX ENERGY****Well****C & C ENERGY GM 22-13****Field****GRAND VALLEY****County****GARFIELD****State****COLORADO****Location****SHL: 271' FSL & 1015' FWL (SEC 12)****BHT: 1339' FNL & 2164' FWL (SEC 13)****SEC****13****TWP****7S****RGE****96W****Elevations****KB 5165 ft****DF****GL 5141 ft****File No:****CH086887****API No:****05045222590000****13 7S 96W****GM 24-12 PAD****H&P 318**