



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No:	Company	MARATHON OIL COMPANY
1753	Well	696-50-11
API No:	Field	GRAND VALLEY
00040103940000	County	GARFIELD
	State	COLORADO
Location		Other Services
SHL: 3474' FIL # 1307' FIL		3.761" GAUGE NEUTRON
SEC 5 TWP 8S RGE 68E		
Permanent Datum	G.L.	Elevation
Log Measured From	K.B.	24 ft Above P. D.
Drill Measured From	KELLY BUSHING	Elevations
		KB 8153 ft DF 8152 ft GL 8128 ft

Date	13-APR-2010
Run	ONE
Service Order	578798
Depth Driller	10097 ft
Depth Logger	10040 ft
Bottom Logged Interval	10040 ft
Top Logged Interval	2700 ft
Time Started	08:00
Time Finished	12:30
Operator Rig Time	4.5 HRS
Type of Fluid in Hole	WATER
Fluid Density	N/A
Salinity	N/A
Fluid Level	PULL
Logged Cement Top	2830 ft
Wellhead Pressure	1000 psi
Maximum Hole Deviation	N/A
Nominal Logging Speed	30 fpm
Maximum Recorded Temperature	253 degF
Reference Log	115/QUAD COMBO
Reference Log Date	5-MAR-10
Equipment No.	4271
Location	KAUTT/OSTLER
Recorded By	VERNAL,UT
Witnessed By	MR. DOUG EPPERSON

- 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
8.75 in		

Casing Record				
Size	Weight	Grade	From	To
9.825 in	36 lbm/ft	J-55	SURFACE	2331 ft
4.5	11.6 lbm/ft	P-110	SURFACE	10161 ft

Remarks
SHORT JOINT RECORDED @ 8318' - 8339'
THE GREN OF 4271 THANKS YOU.

Equipment Data				
Run	Trip	Tool	Series Number	Serial Number

	1	WANDREL	1426XA	10154957	CENTRALIZED
1	1	GAMMA RAY/NEU	2459XA	10417457	CENTRALIZED

***MAIN SECTION***  
***PRIMARY PRESENTATION***  
*1000# PSI*

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	316.900	usec	2710.904	3621.382
RAL	Amp Gate Start Near	200.391	usec	2710.904	3621.382
RAL	Amp Gate Start Radial	200.391	usec	2710.904	3621.382
RAL	Amp Gate Width Far	25.000	usec	2710.904	3621.382
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RAL	Amp Gate Width Radial	25.000	usec	2710.904	3621.382
RAL	casing od	4.500	inches	2710.904	3621.382
RAL	casing wt	11.600	lbm/ft	2710.904	3621.382
RAL	FB Start Far	291.900	usec	2710.904	3621.382
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RAL	FB Start Radial	175.391	usec	2710.904	3621.382
RAL	FB Thresh Far	15.000	mv	2710.904	3621.382
RAL	FB Thresh Near	10.000	mv	2710.904	3621.382
RAL	FB Thresh Radial	10.000	mv	2710.904	3621.382
RAL	Fluid Travel Time	200.000	usec/ft	2710.904	3621.328

DEPTH OFFSETS  
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	ARB	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP

1426XA	-14.360	AFAR	SIG	TT5
1426XA	-7.250	CCL		
1426XA	-5.390	GR		
1426XA	0.000	NEU		

Created by : RAL, v4.8.007

Plotted by : PlotMgr, v5.4.504

Company : MARATHON OIL COMPANY

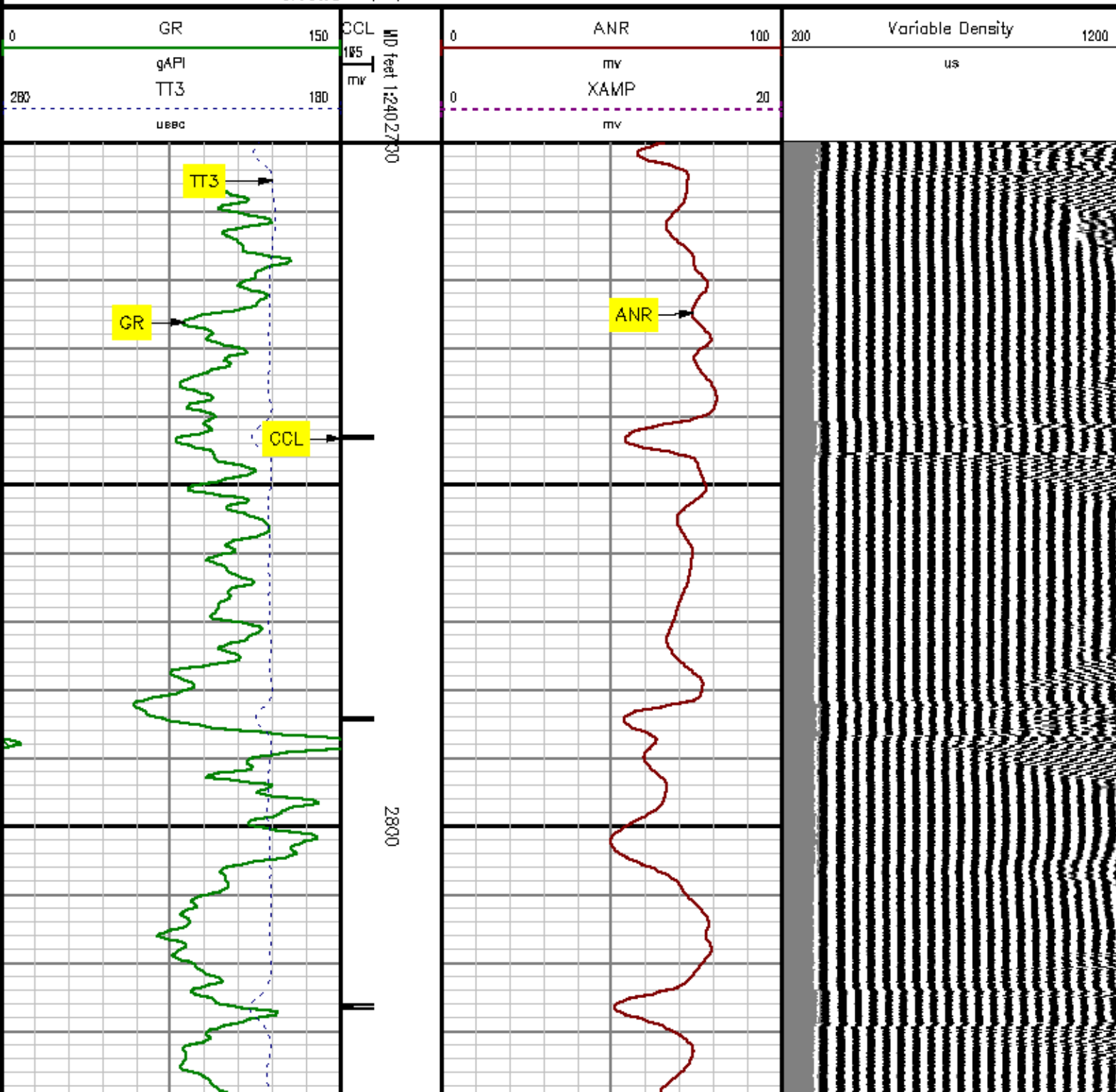
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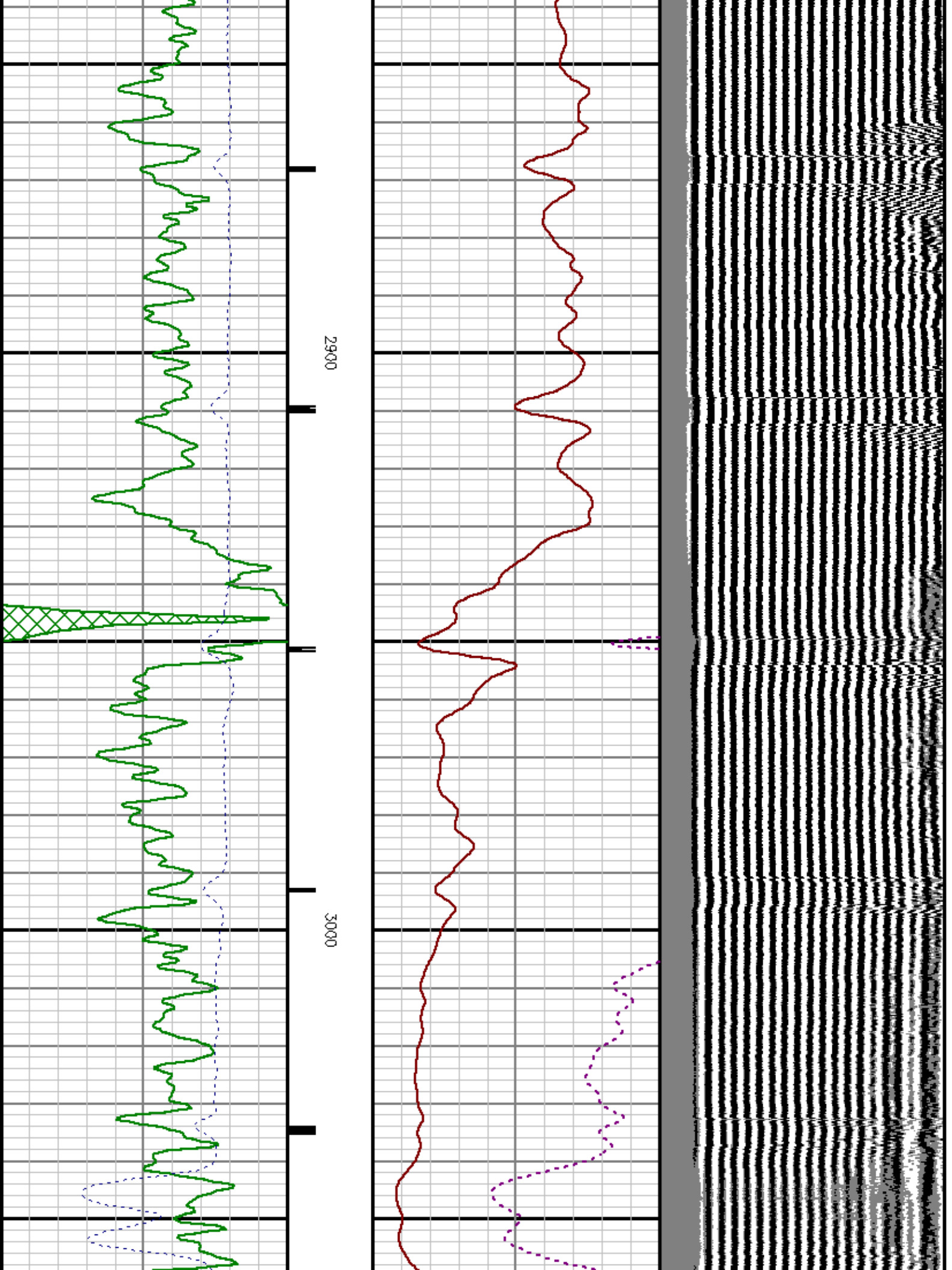
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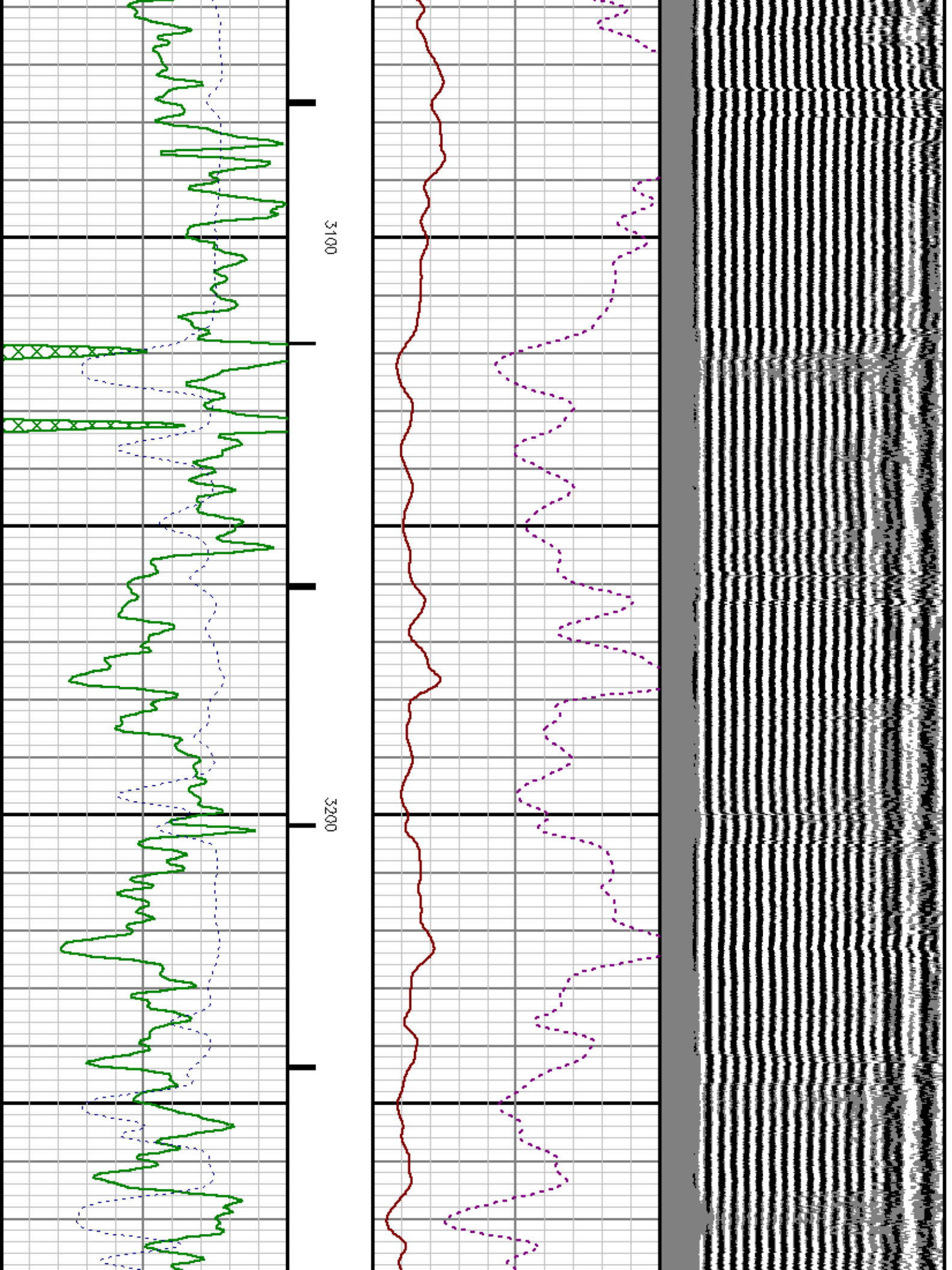
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Interval : 2700.00 - 10069.00 feet UP

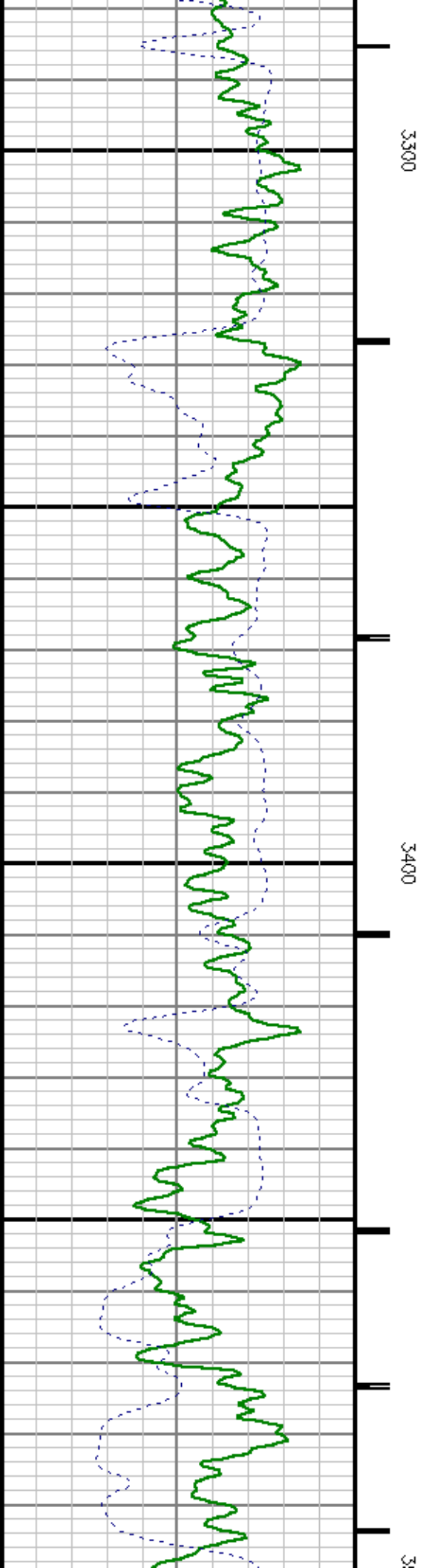
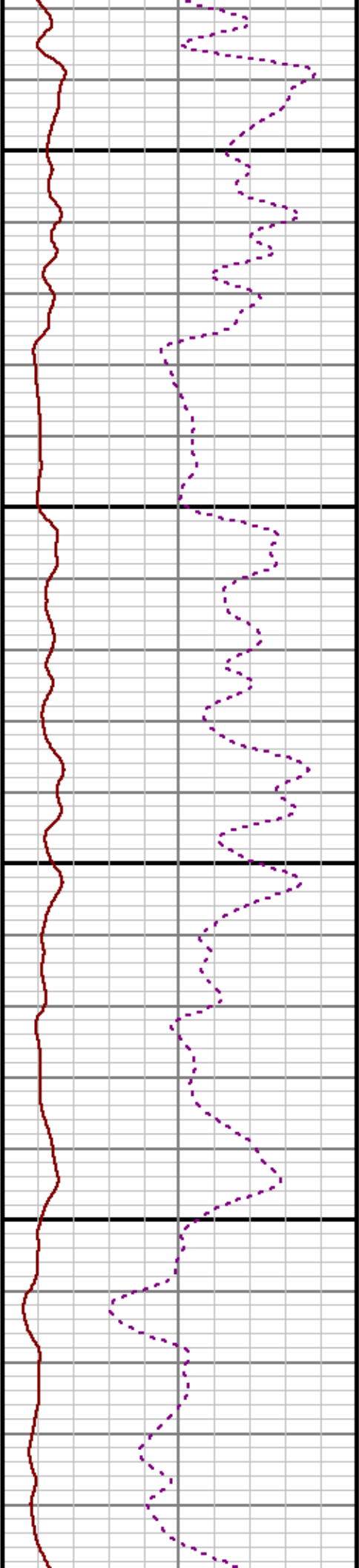
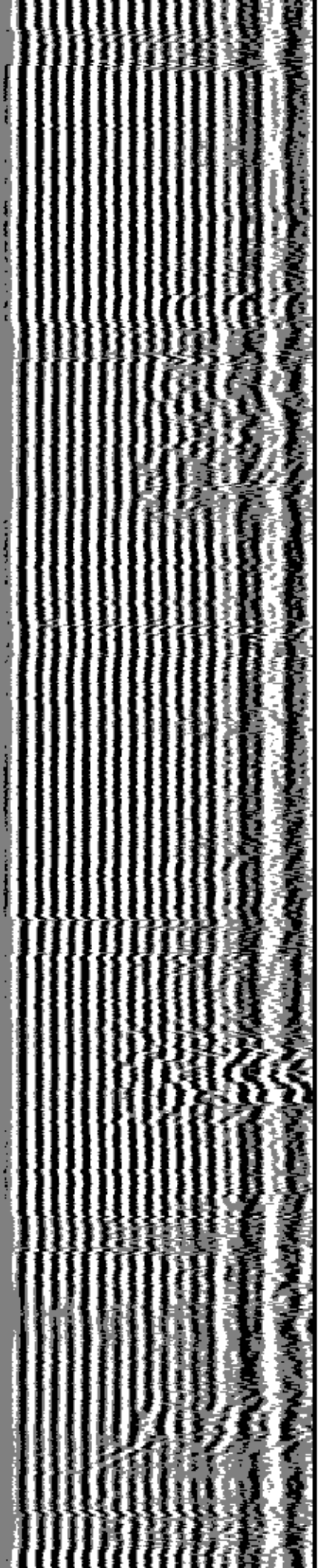
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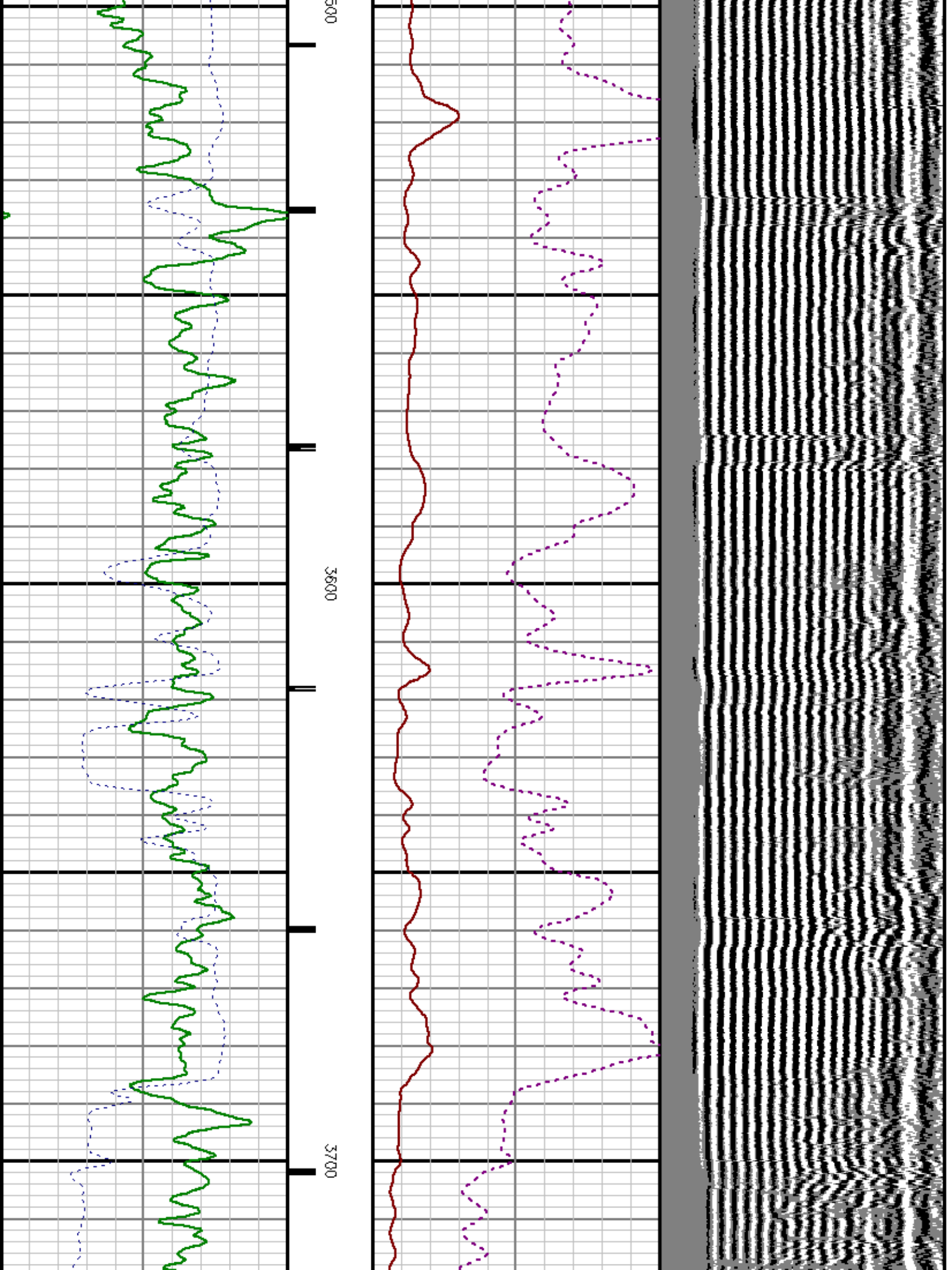


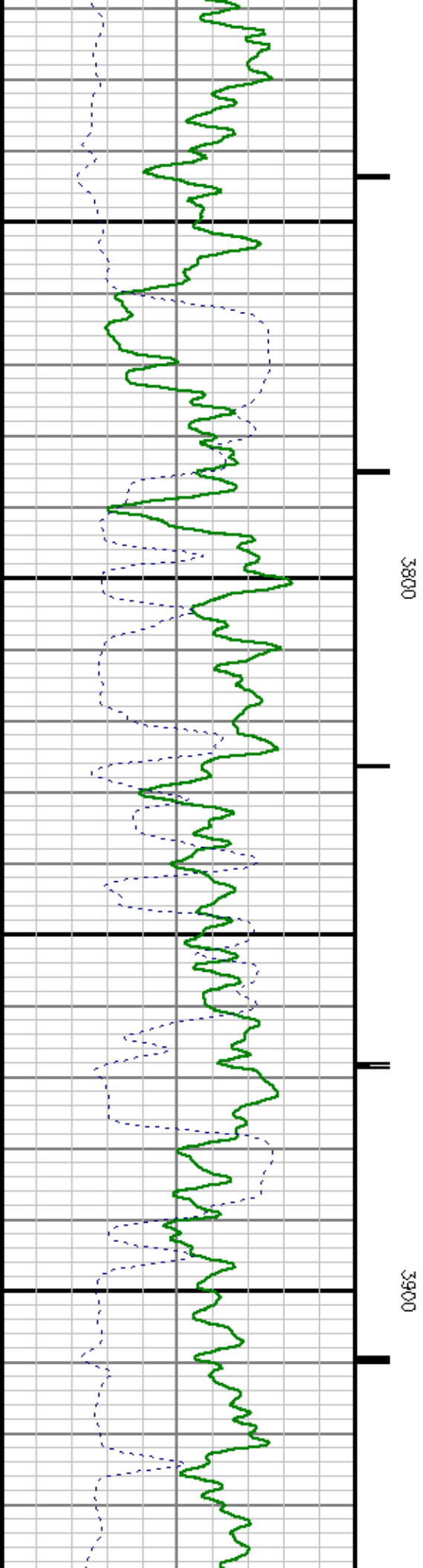
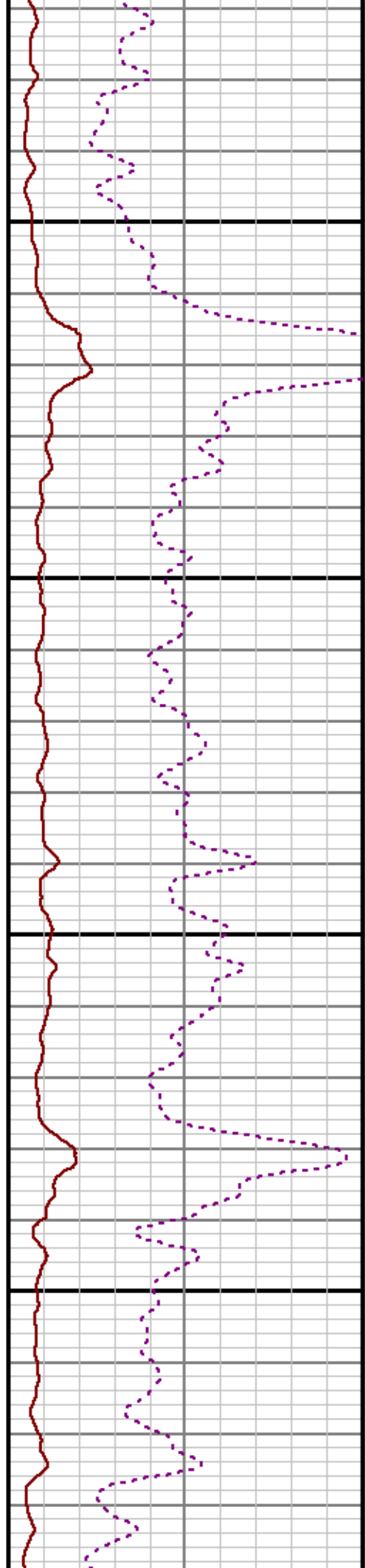
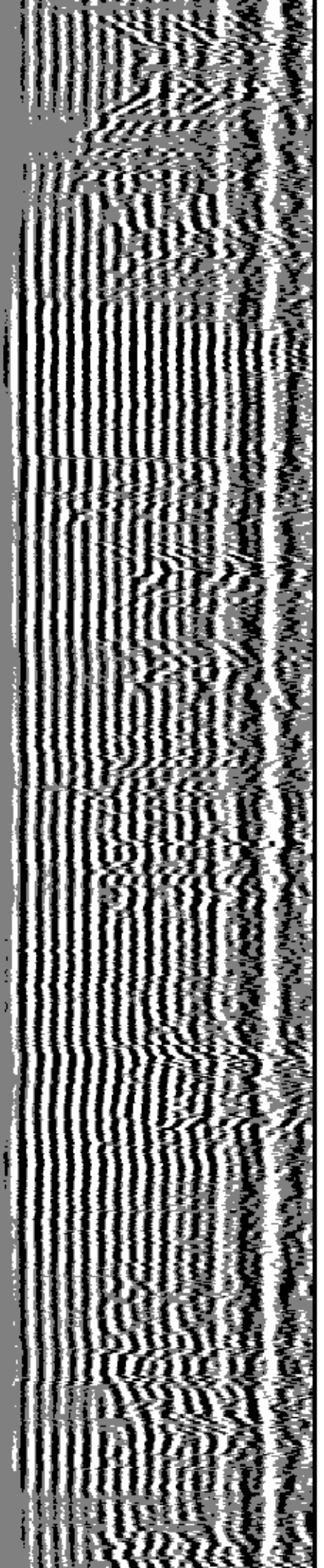




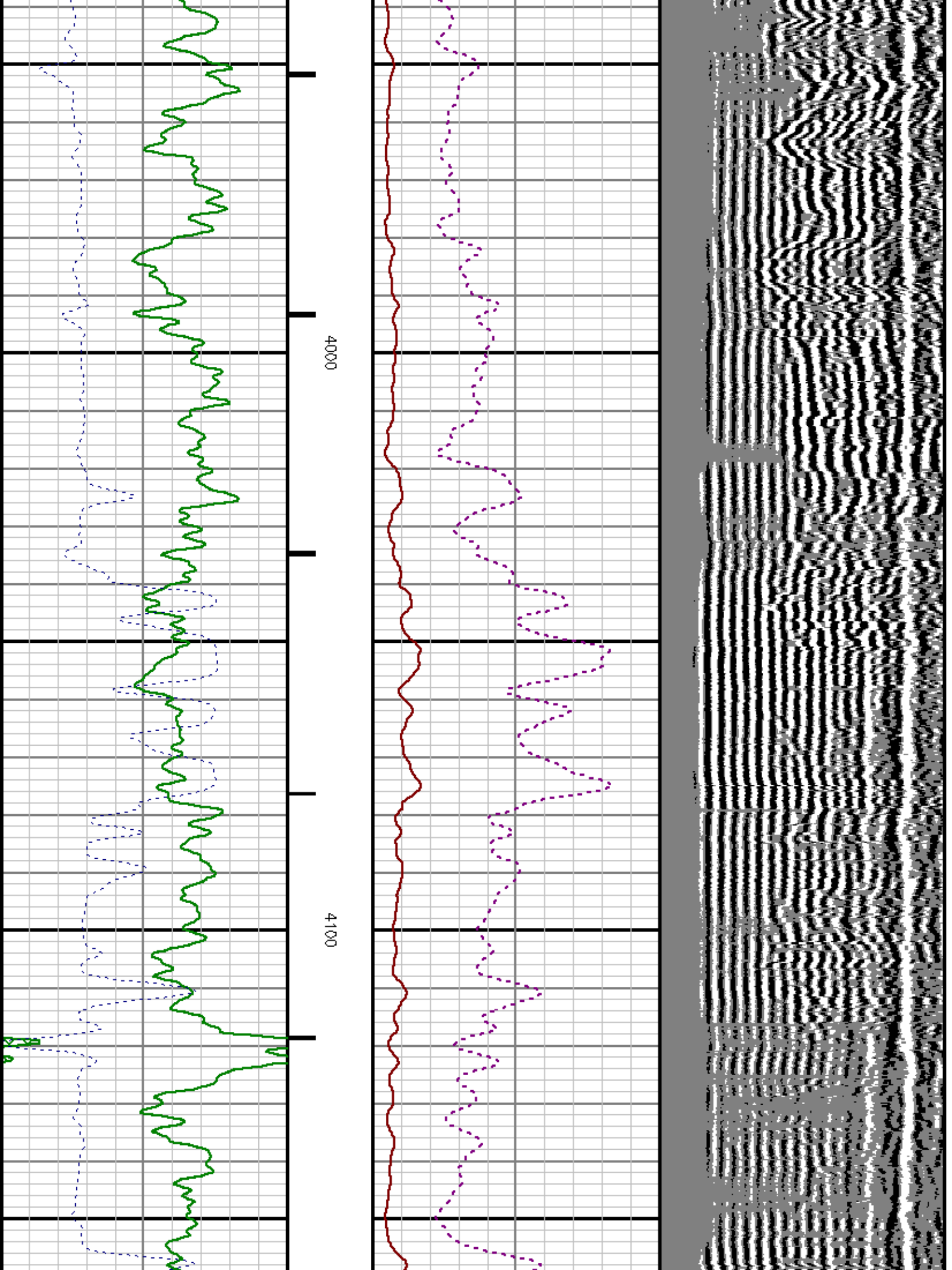


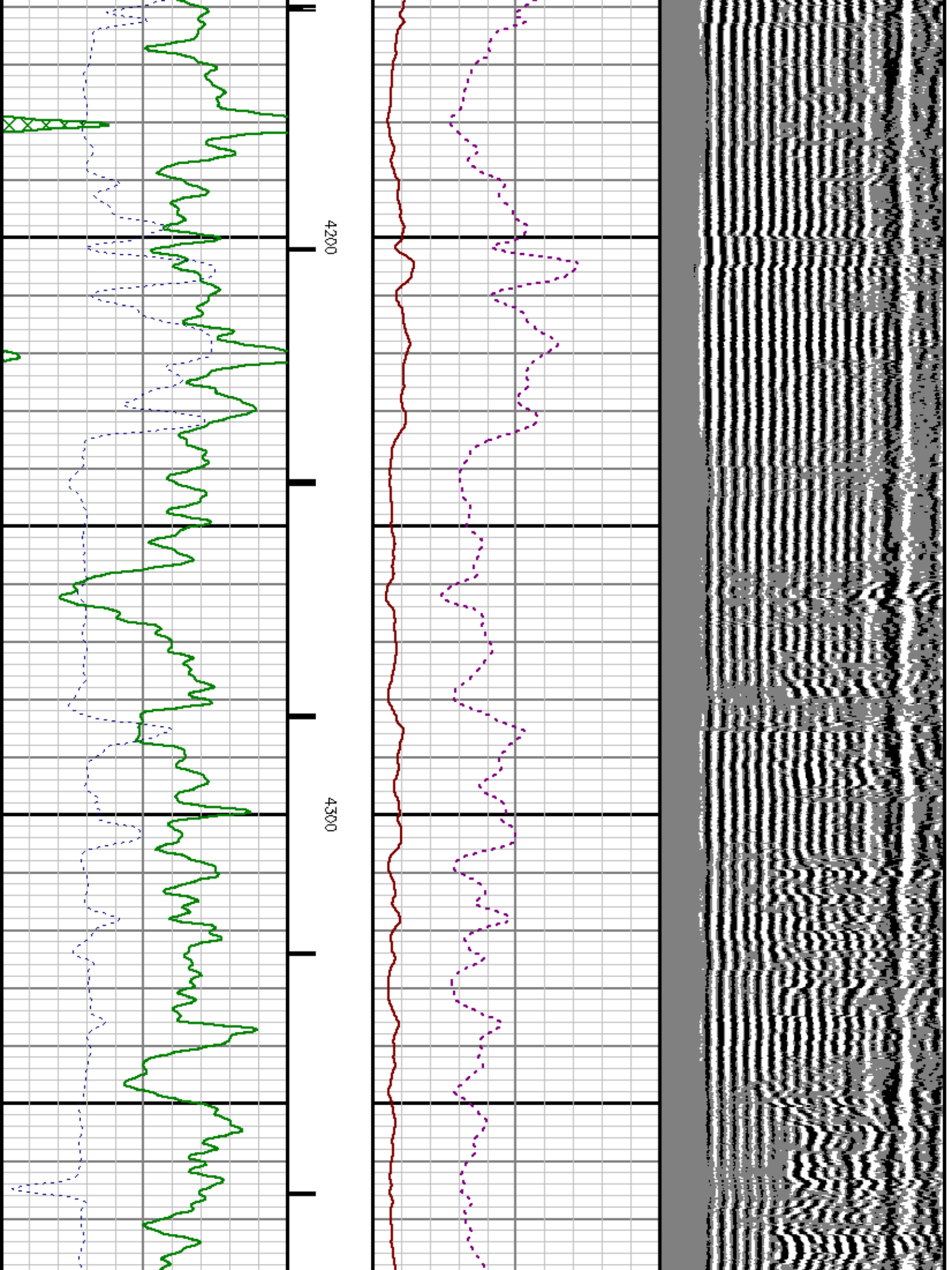


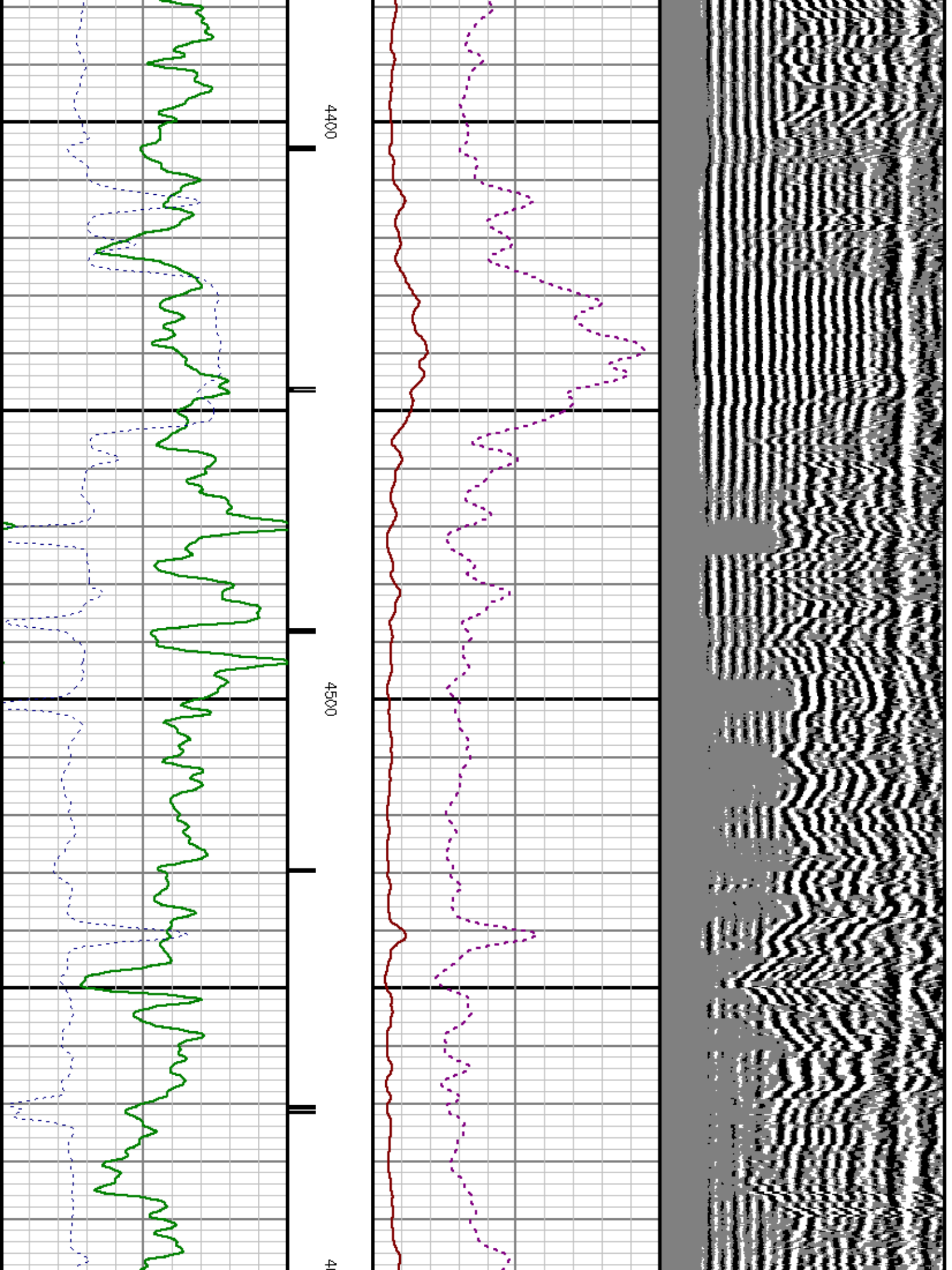




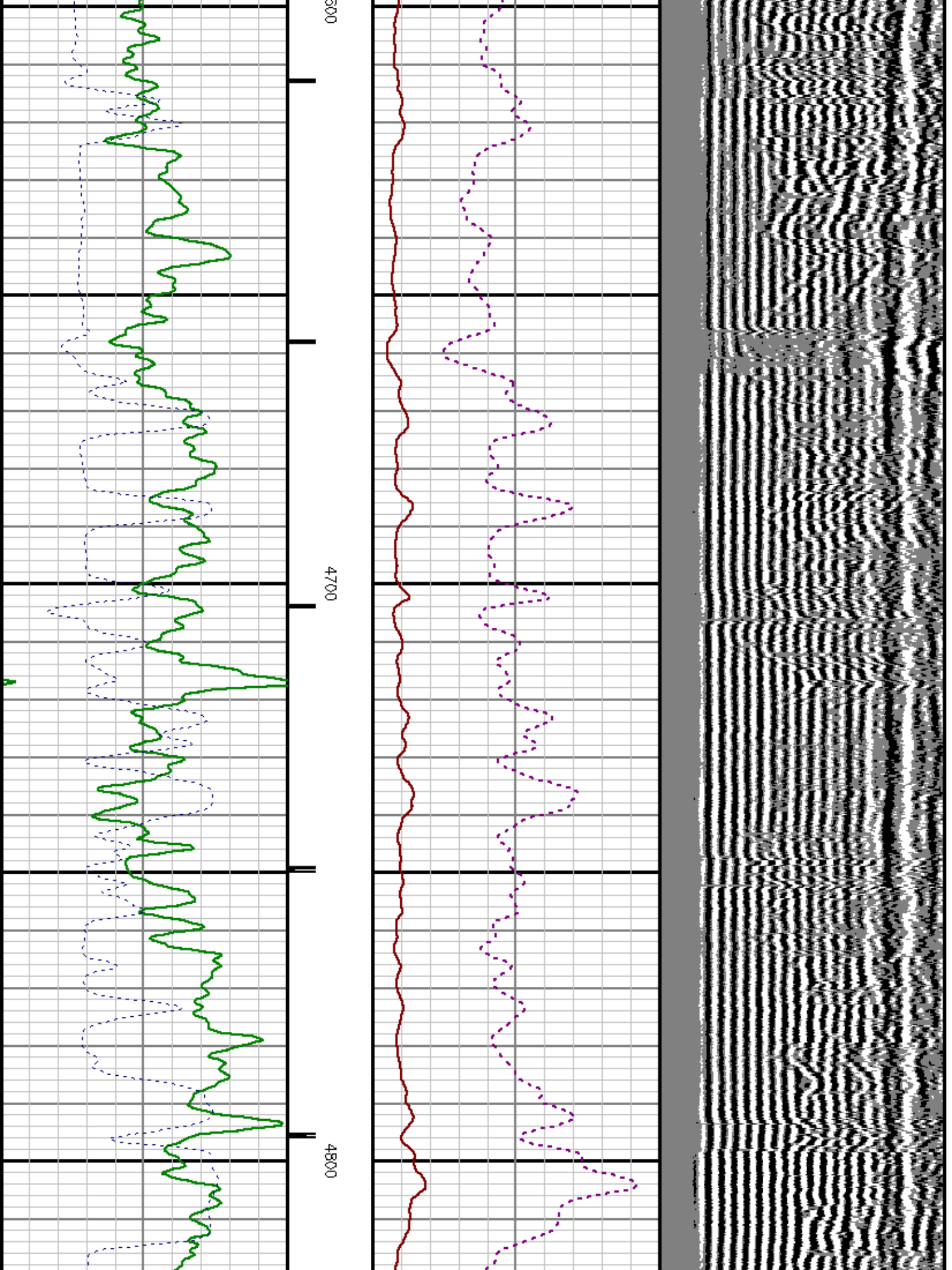




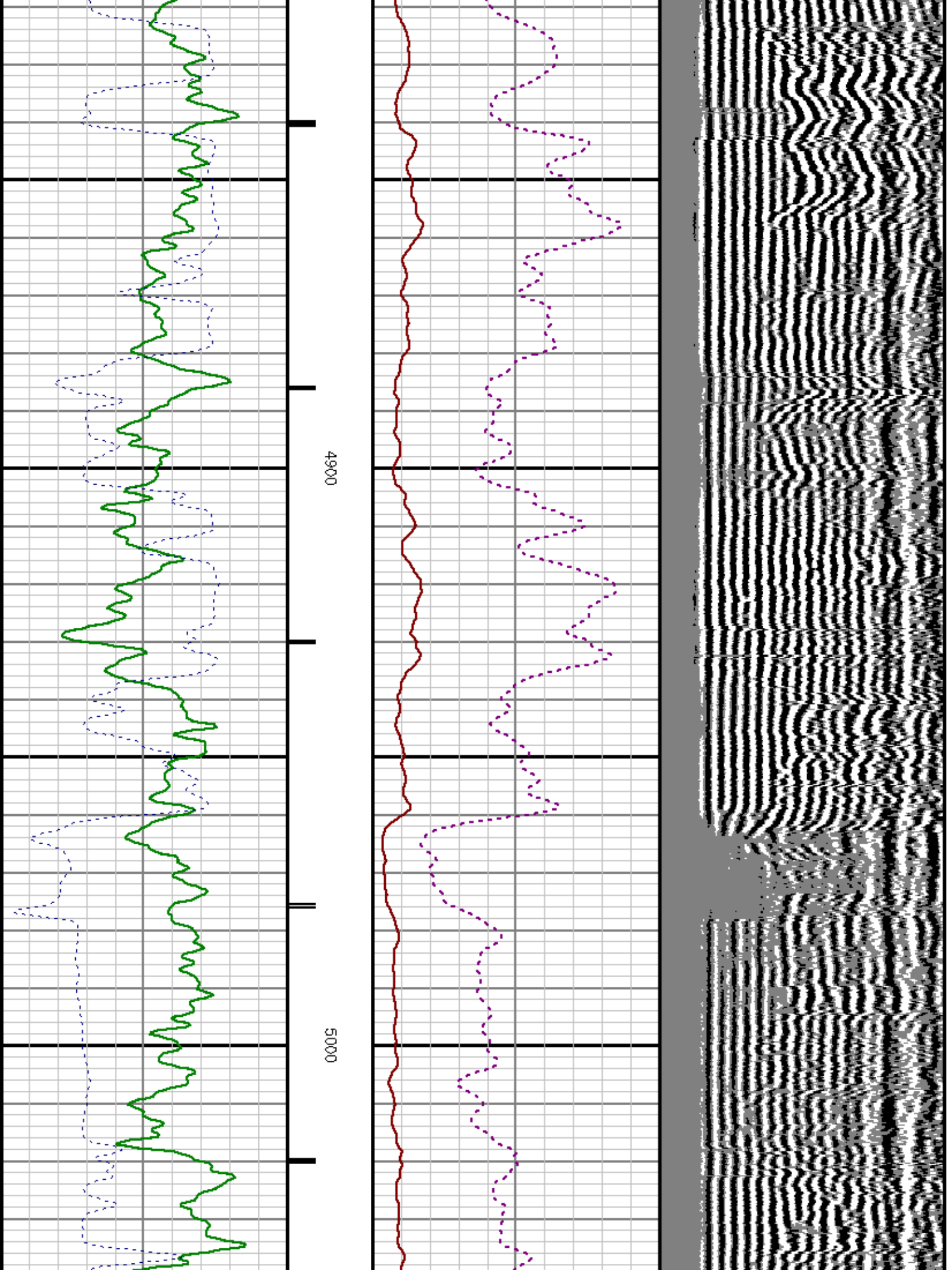


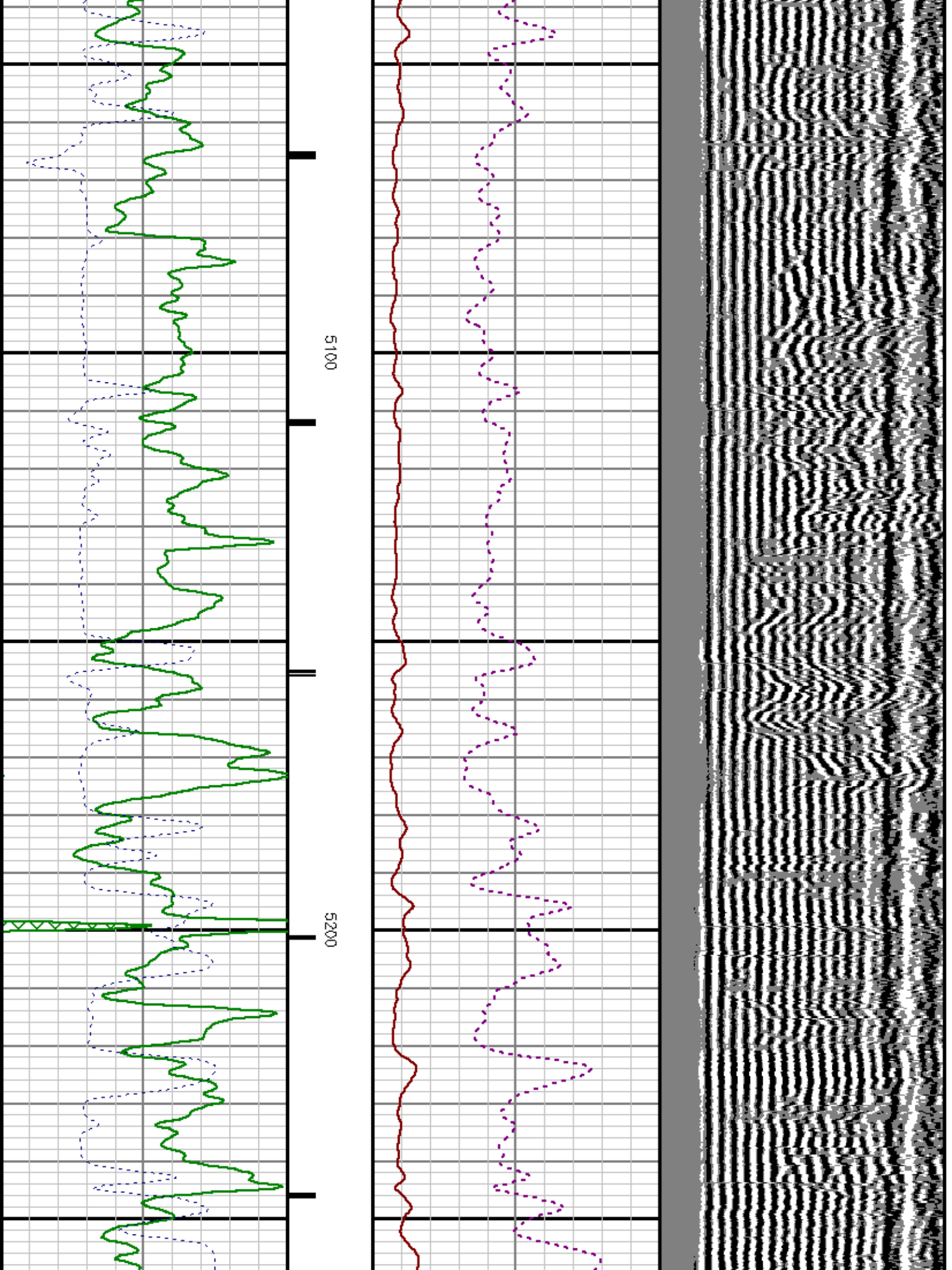


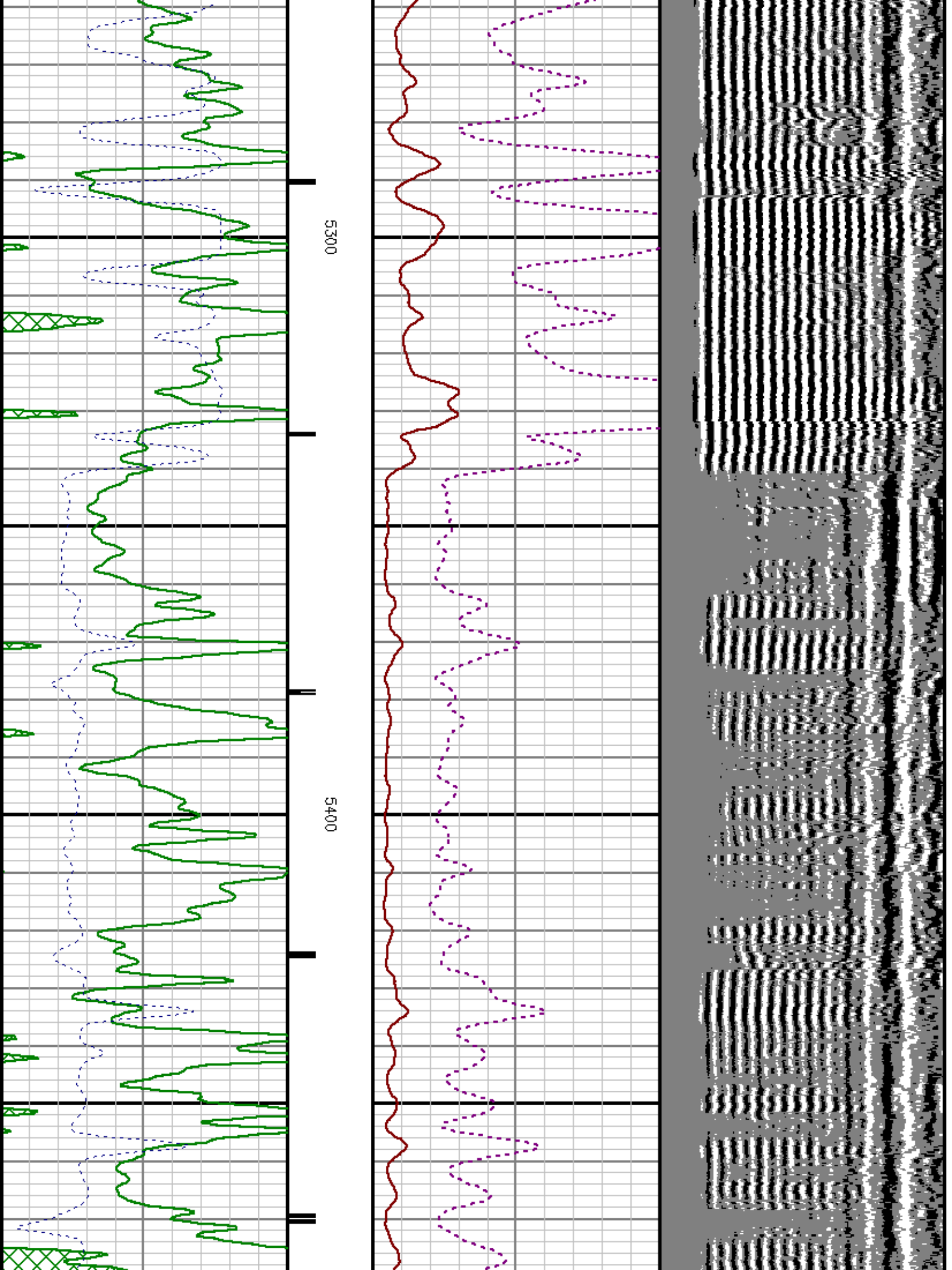




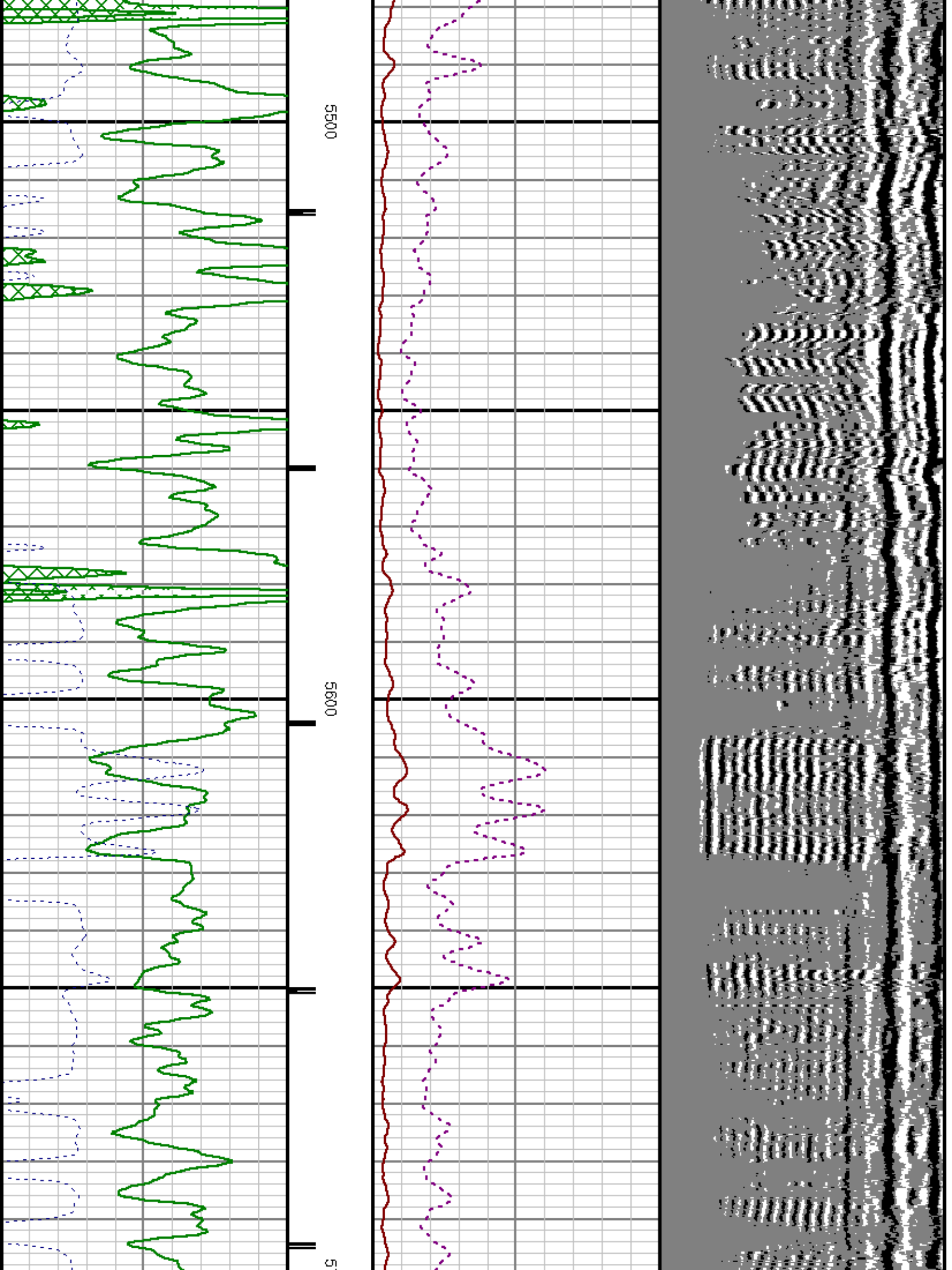




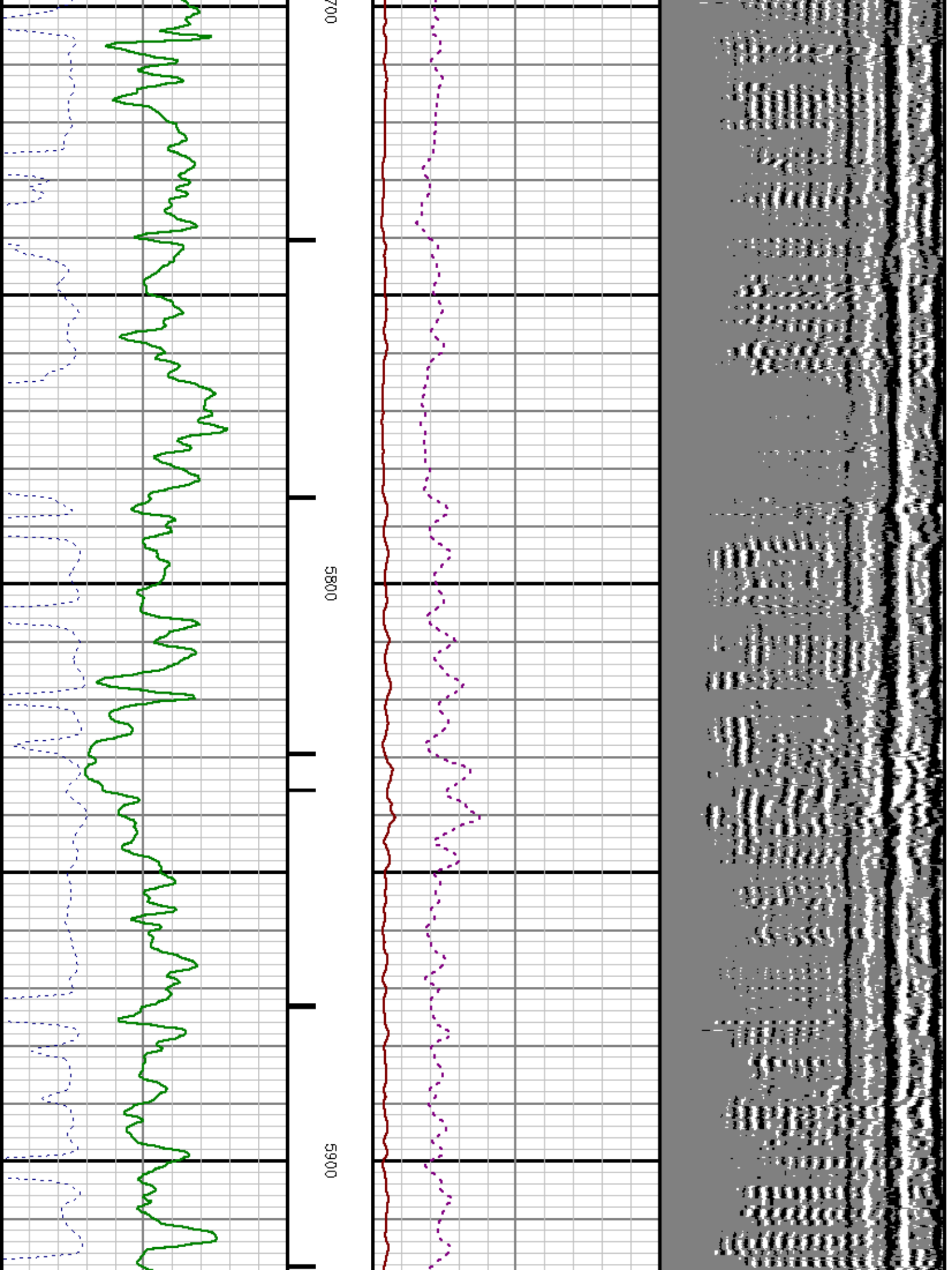


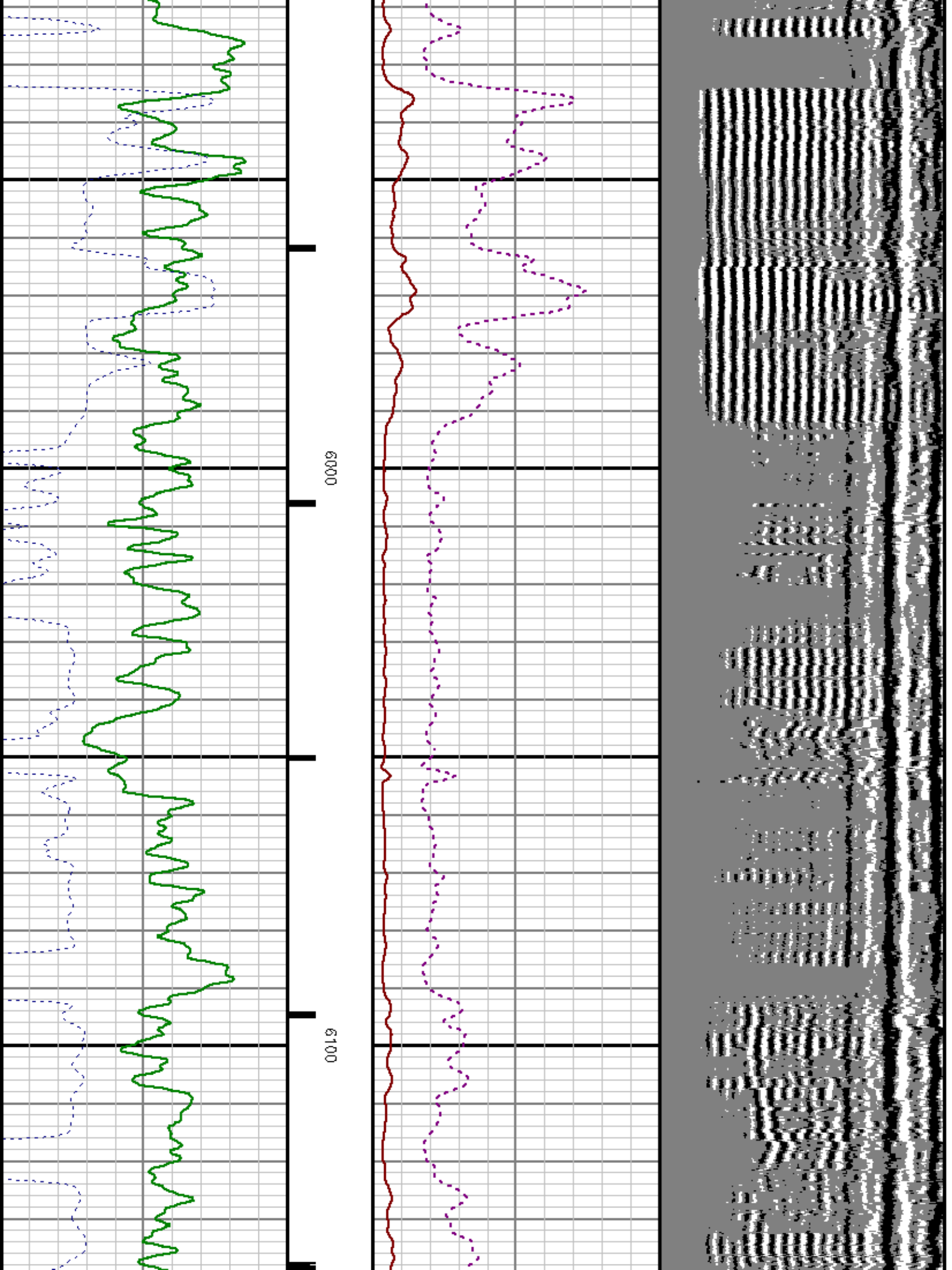


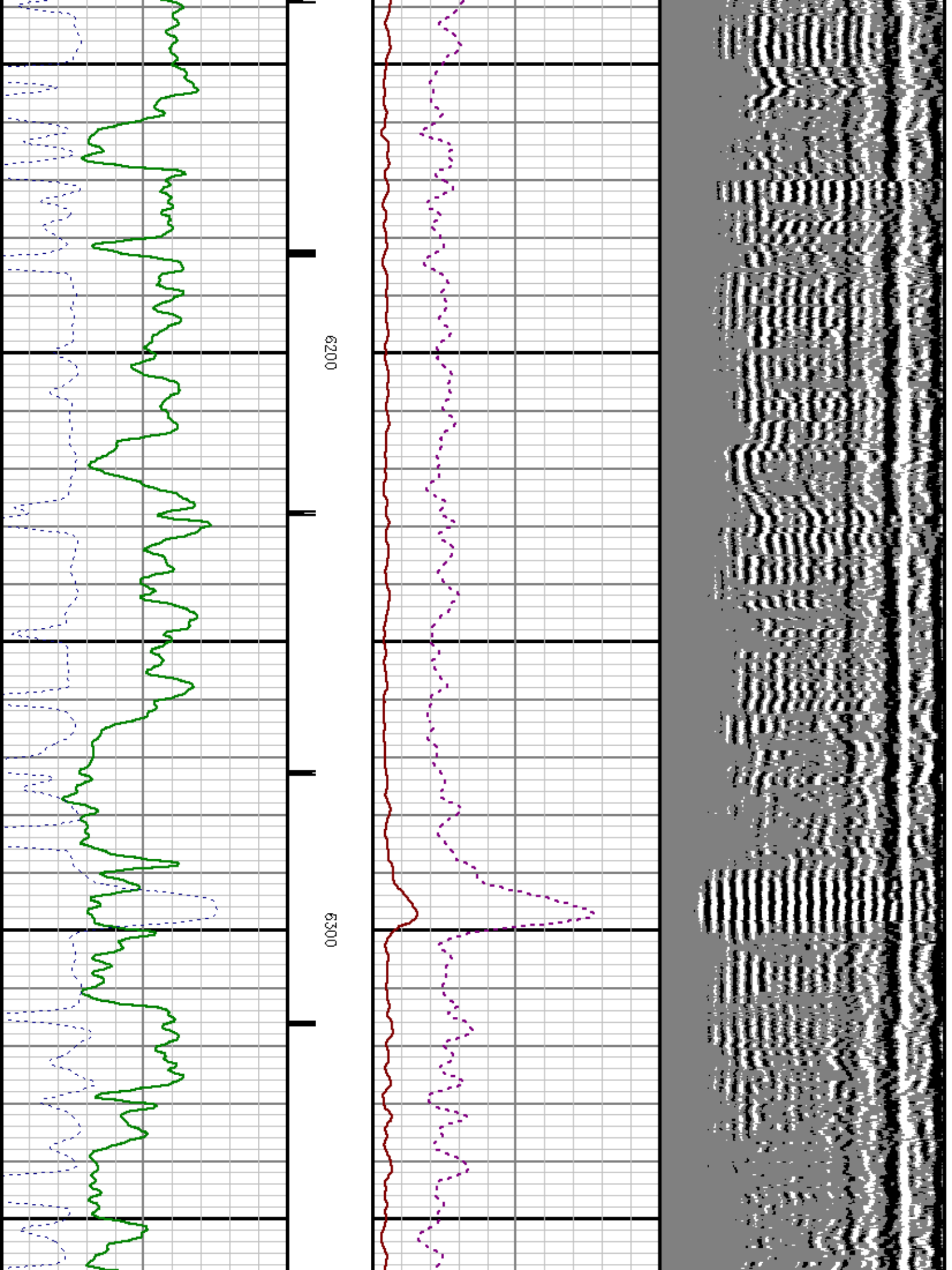


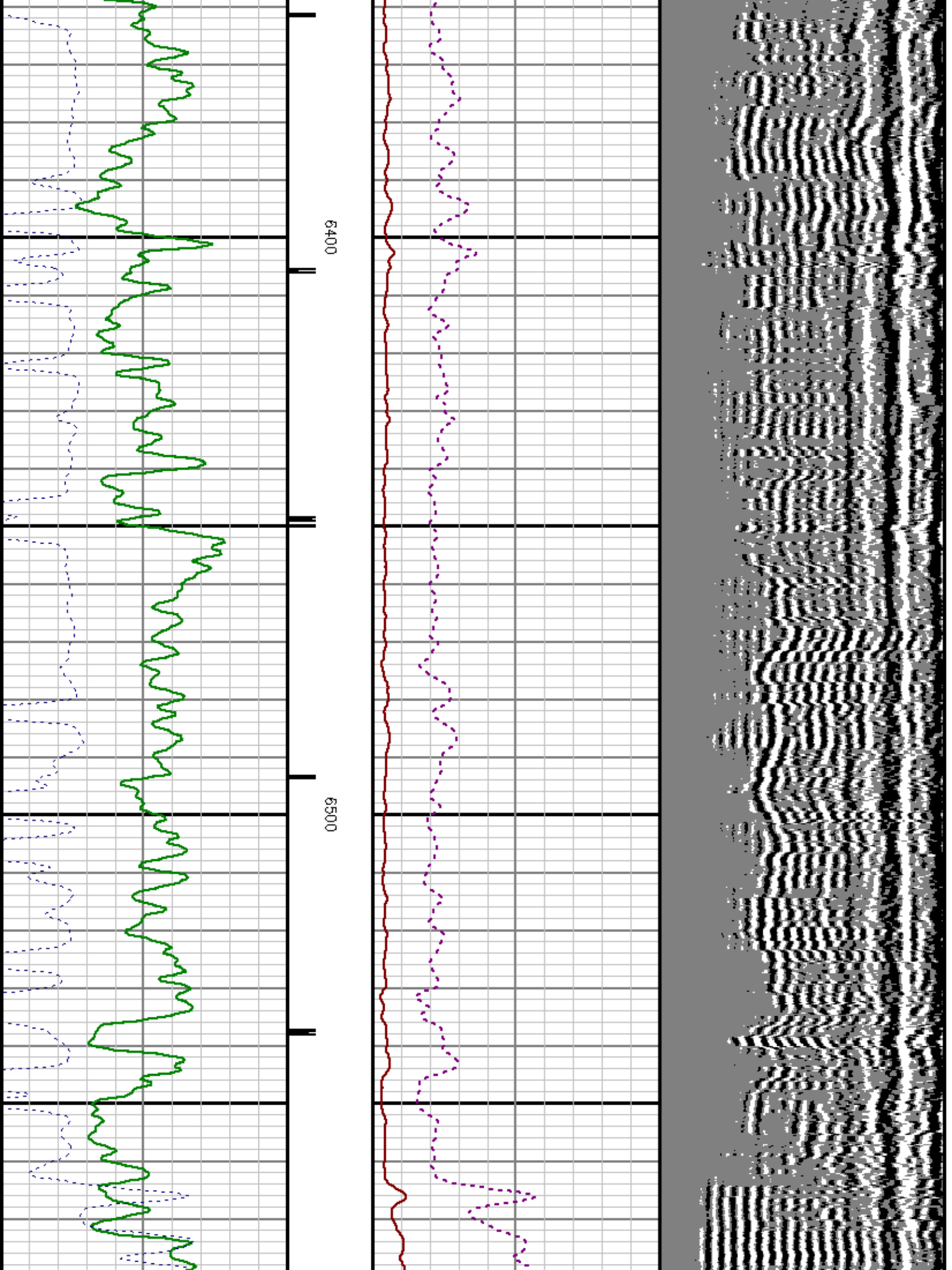




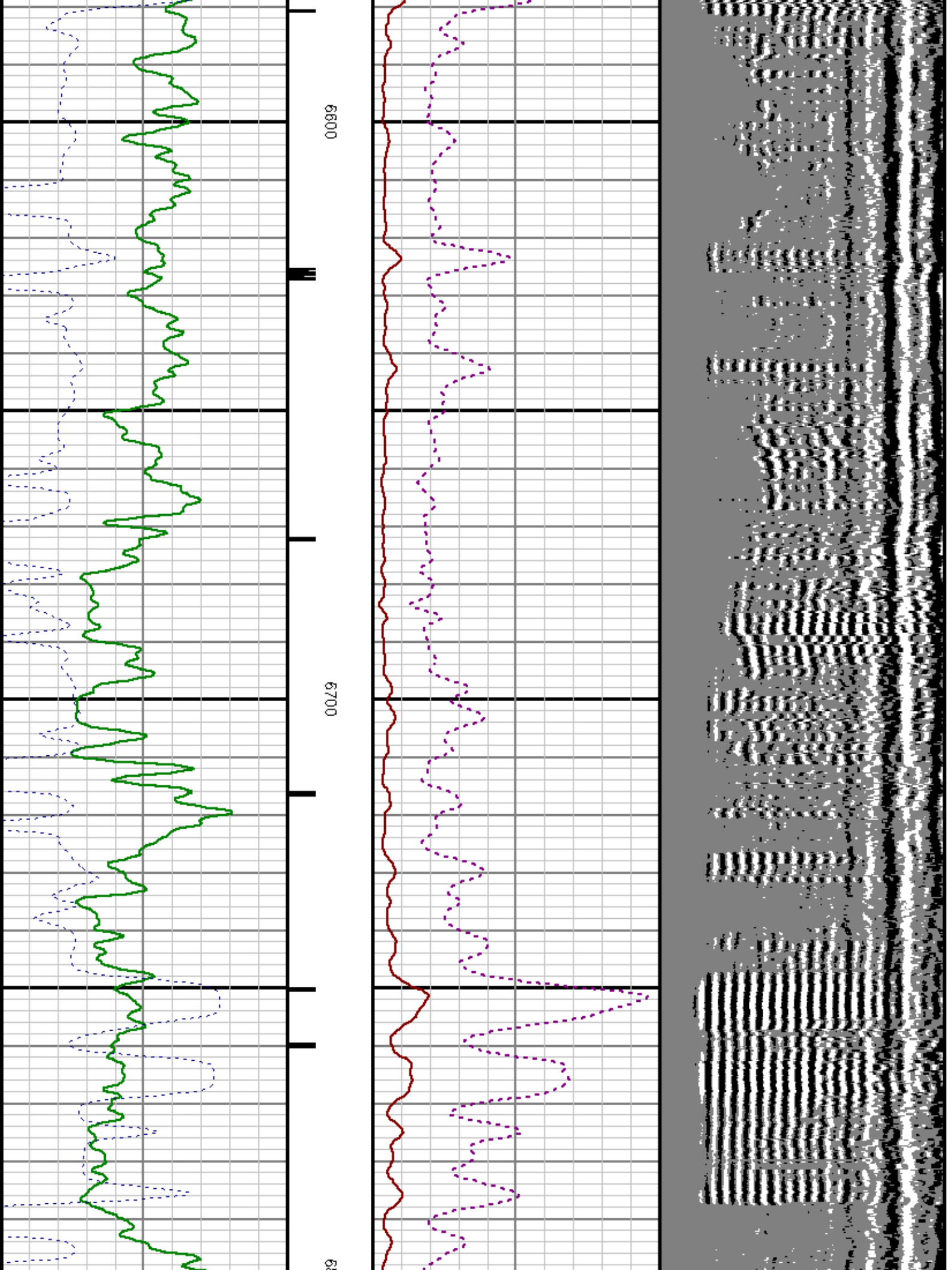


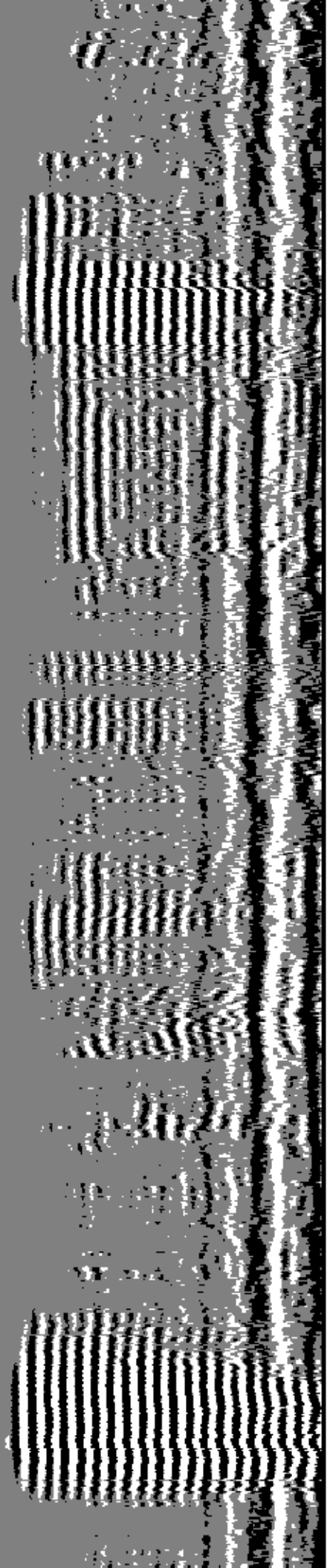
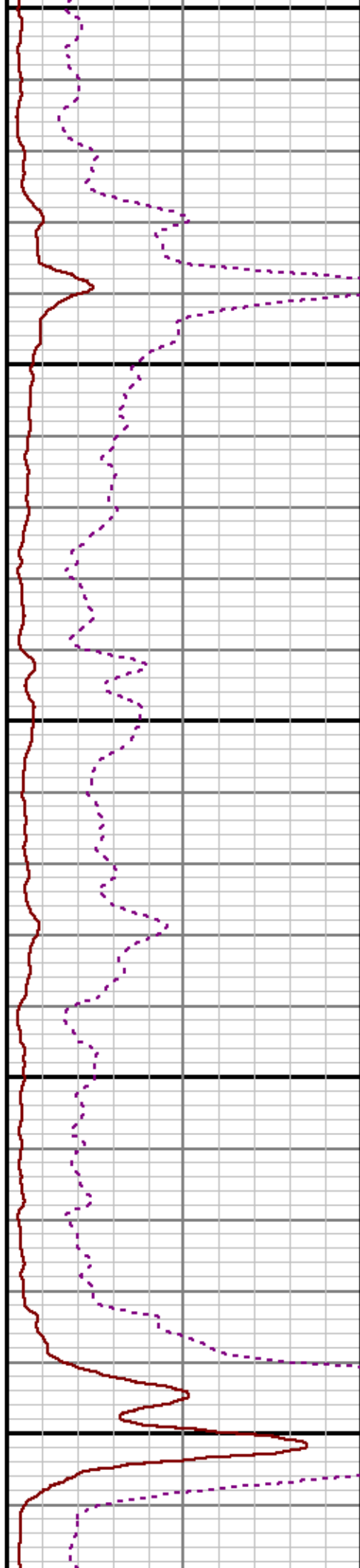
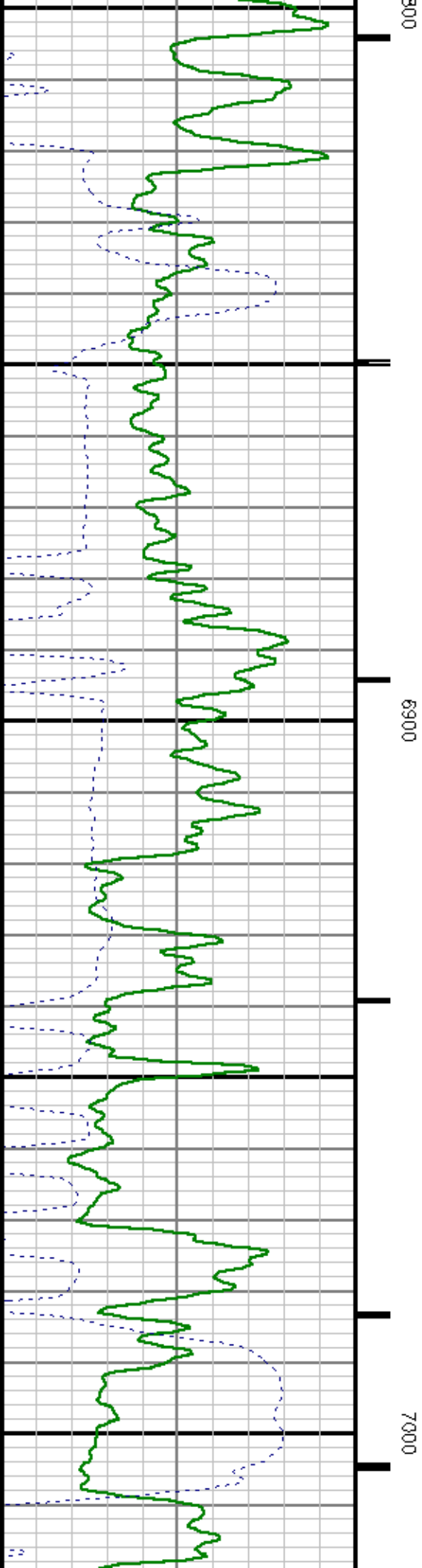


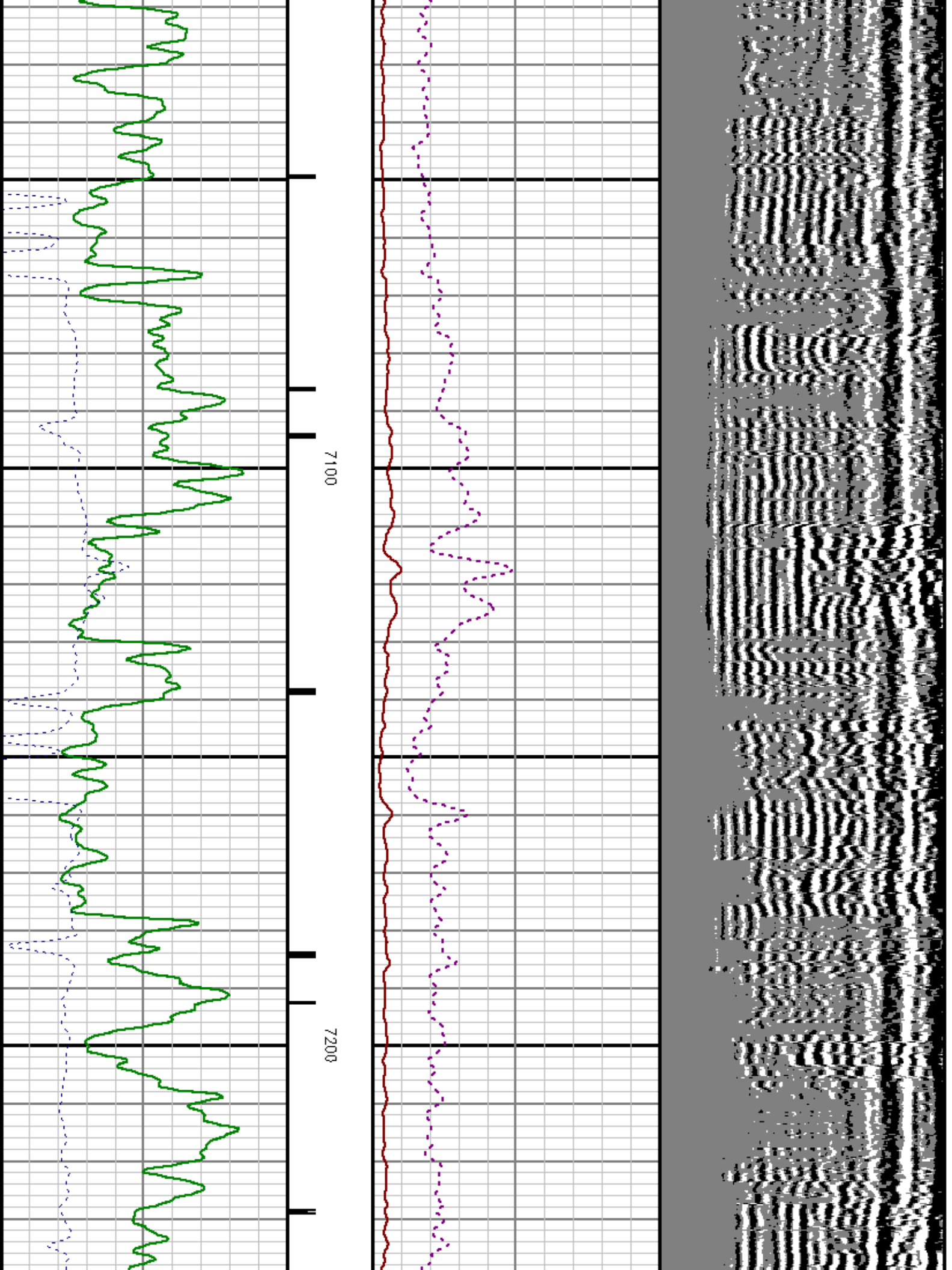


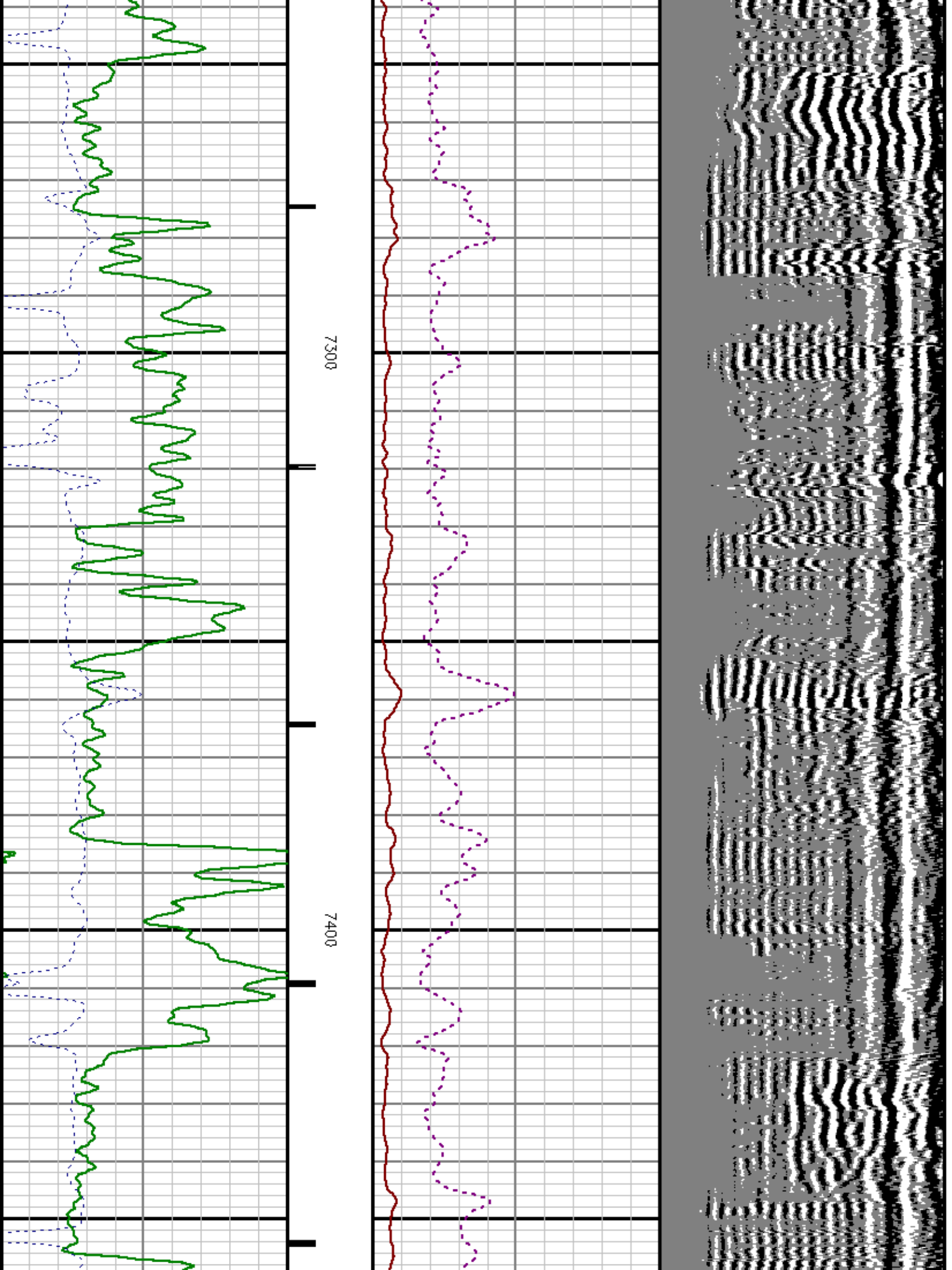




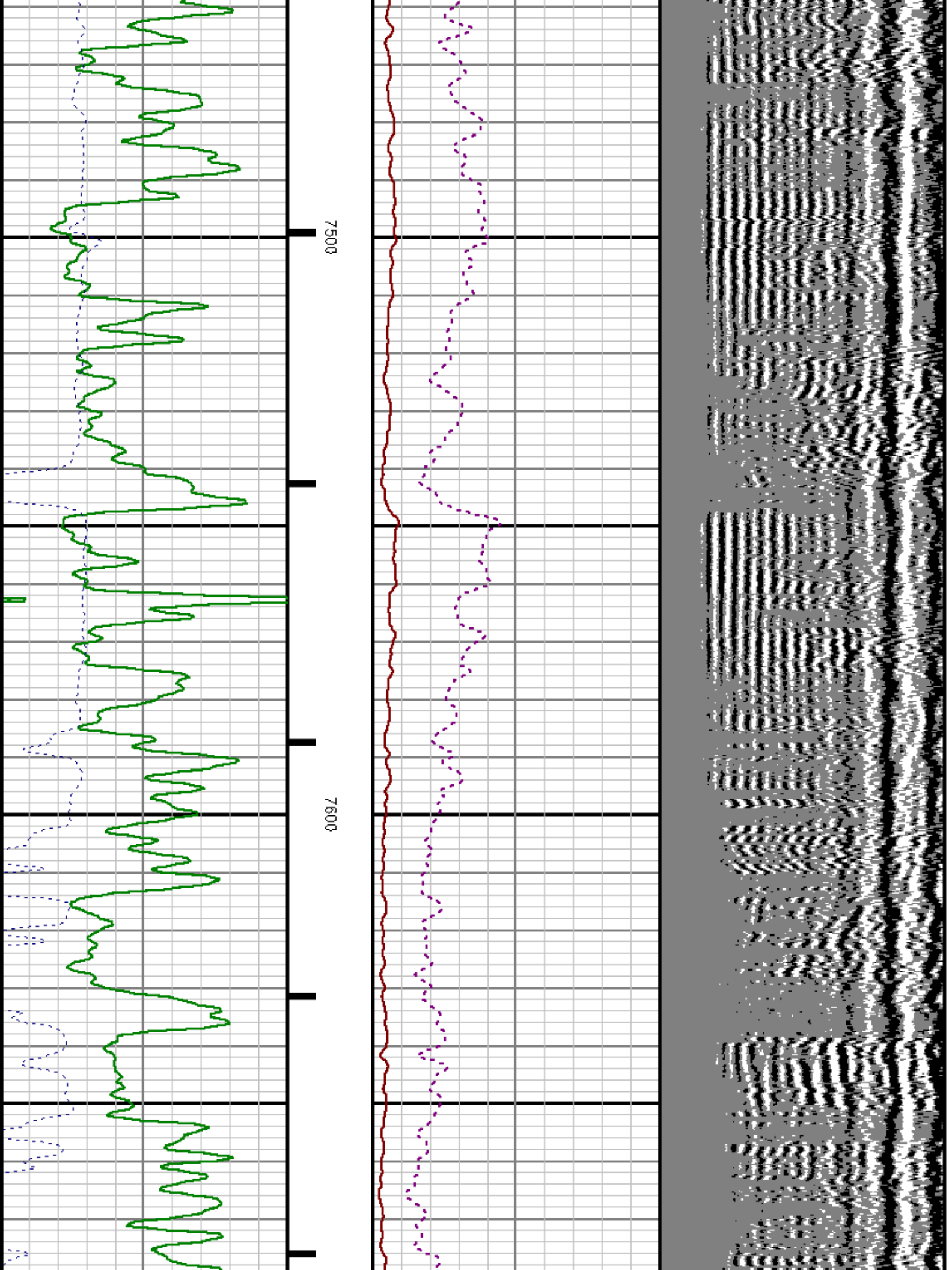


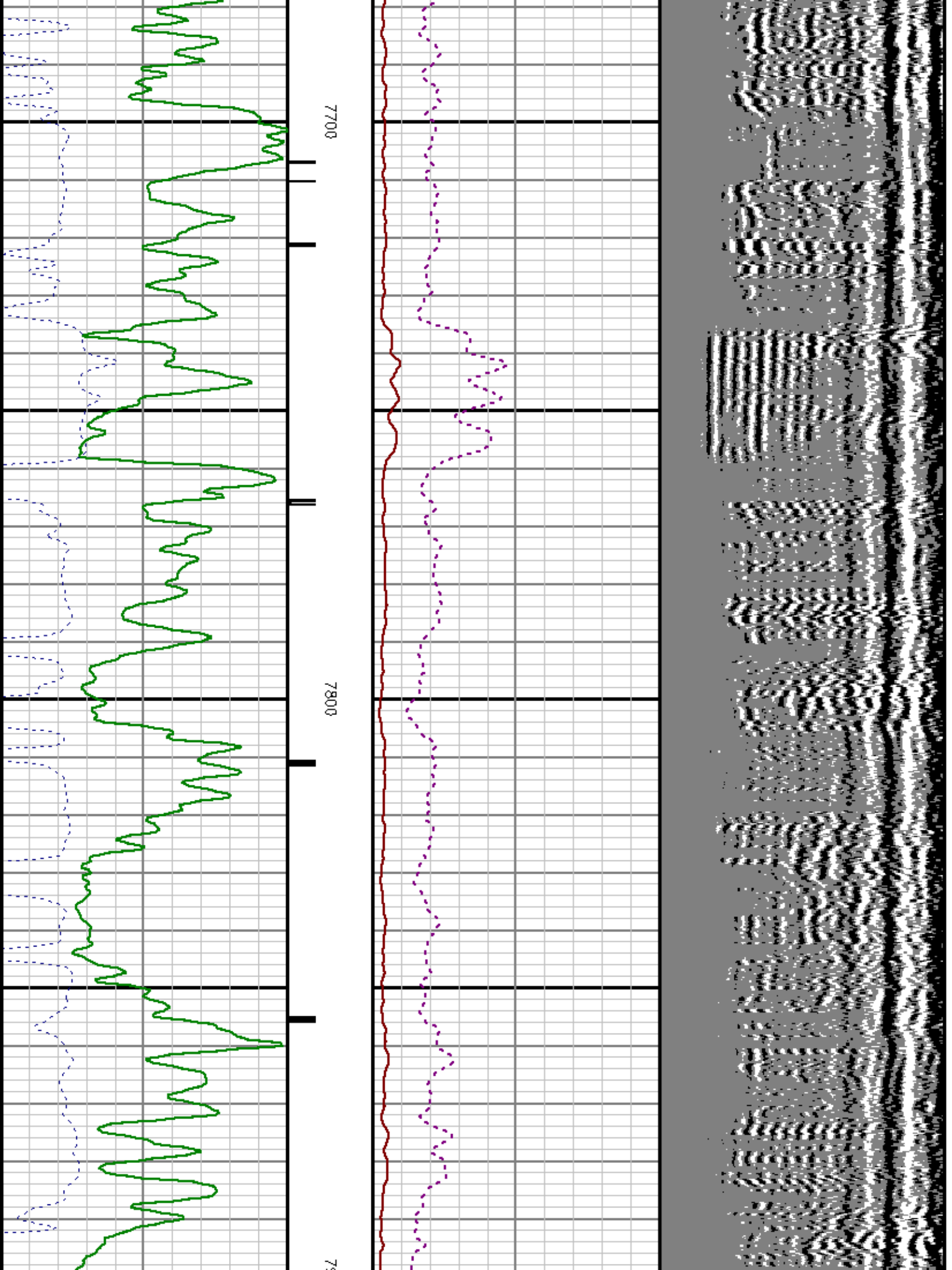


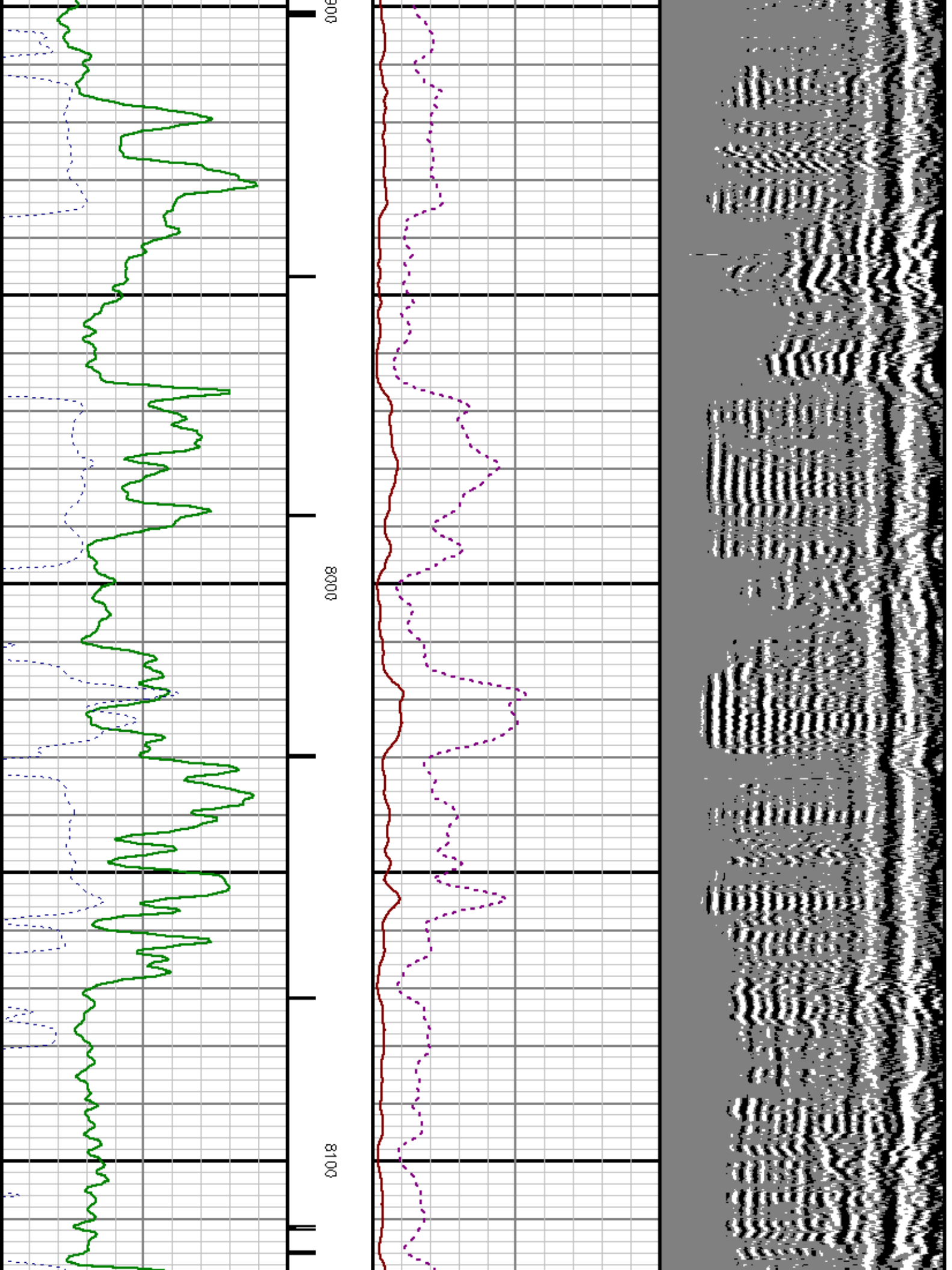


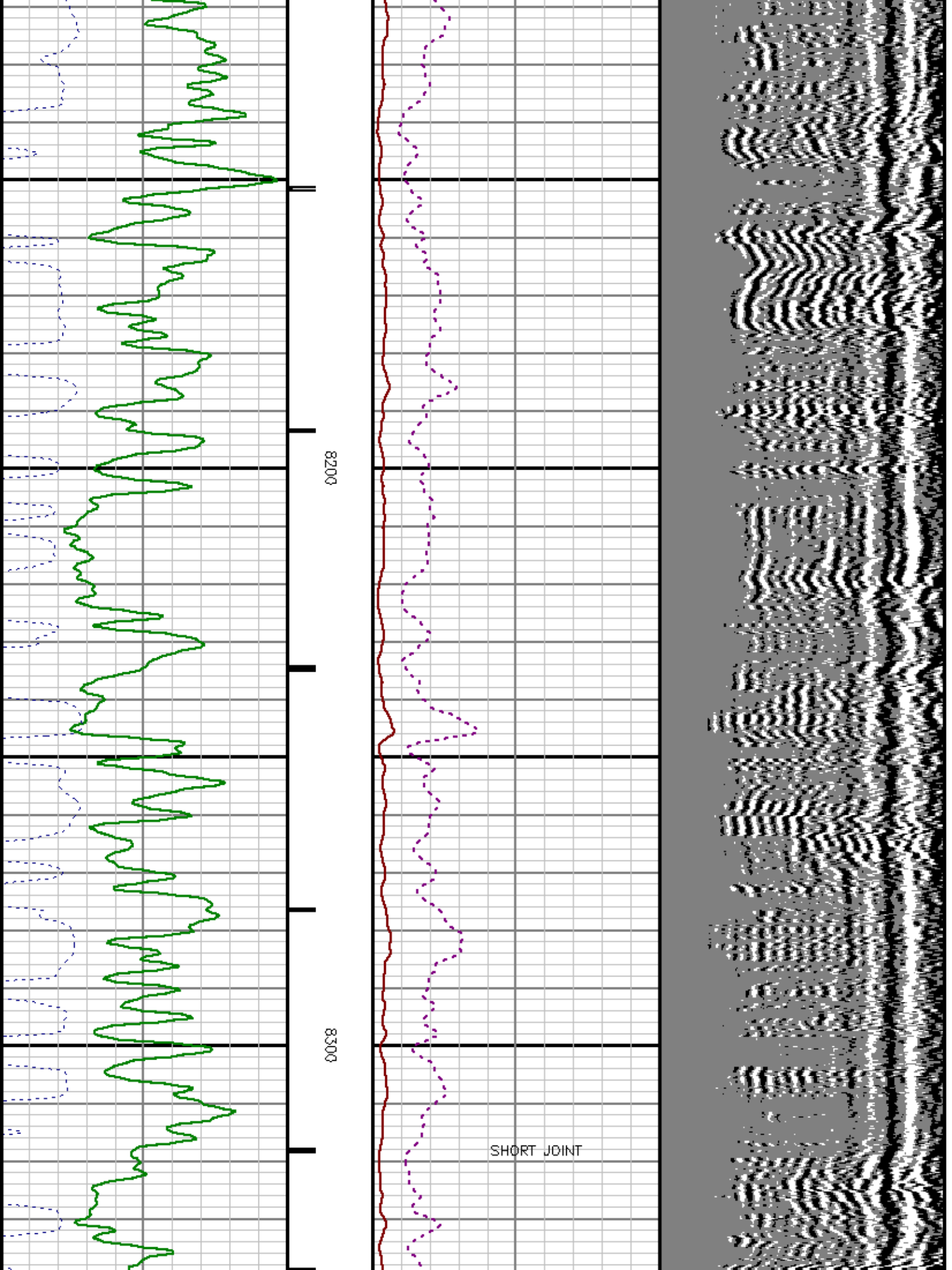




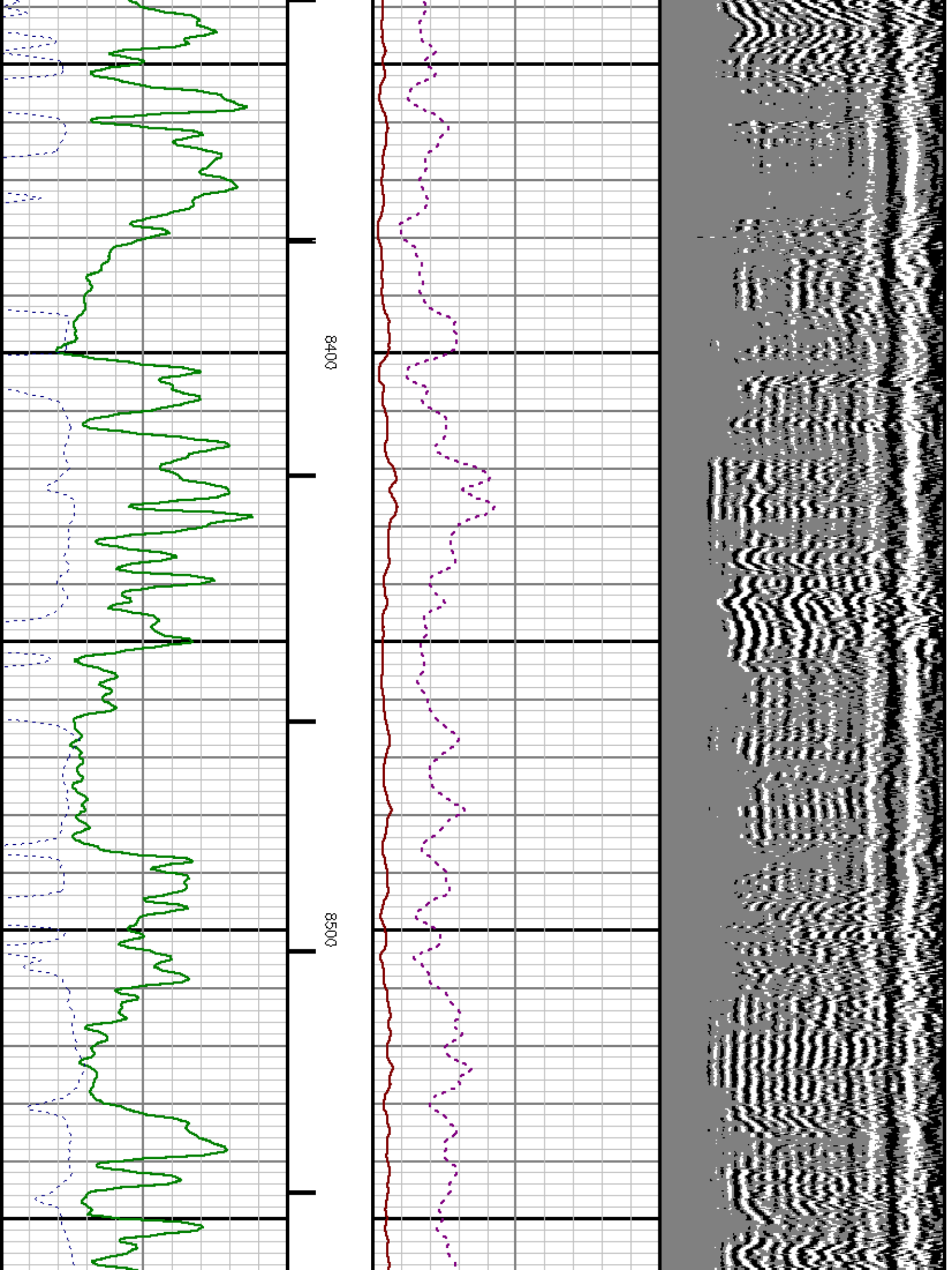


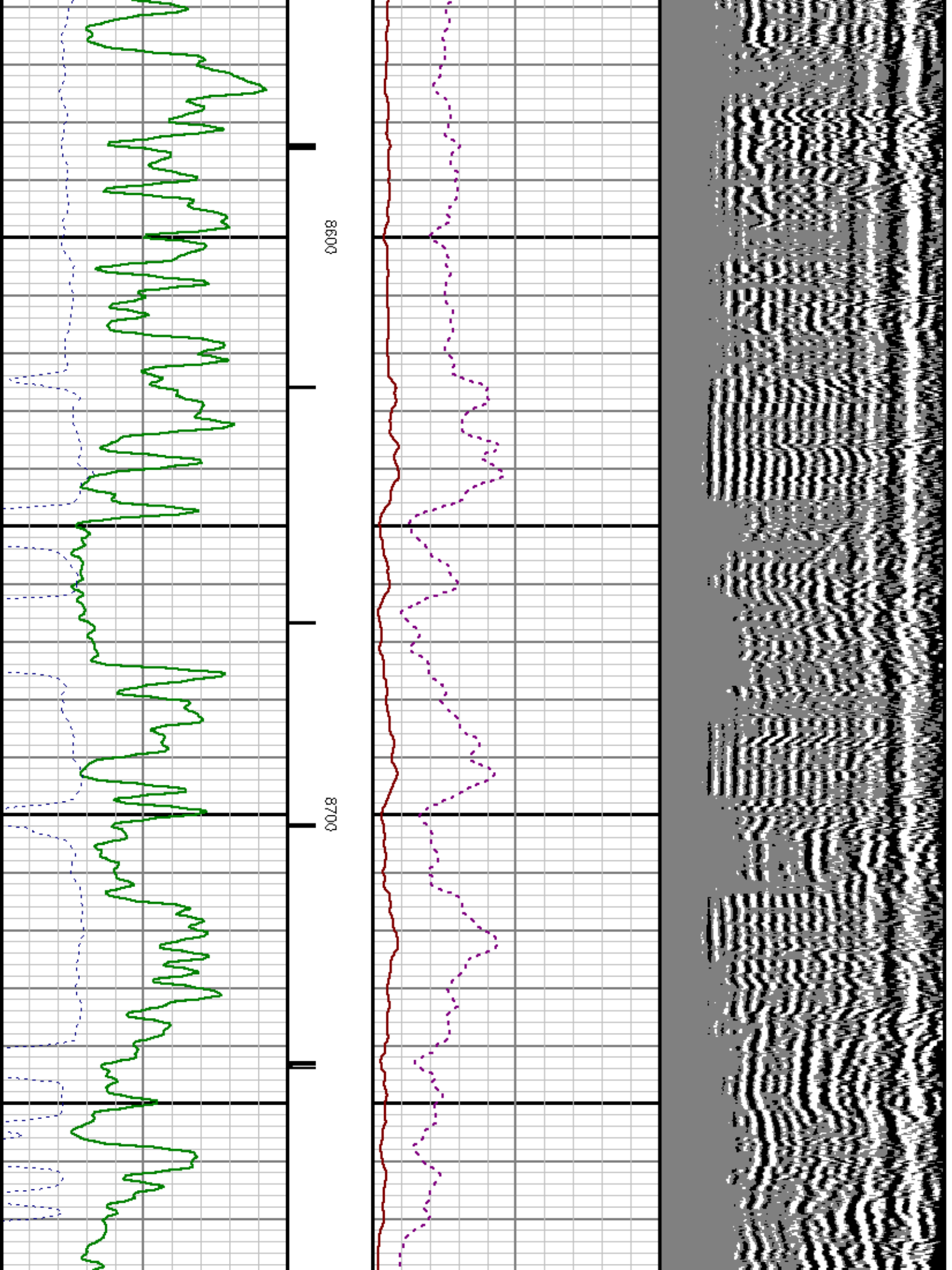


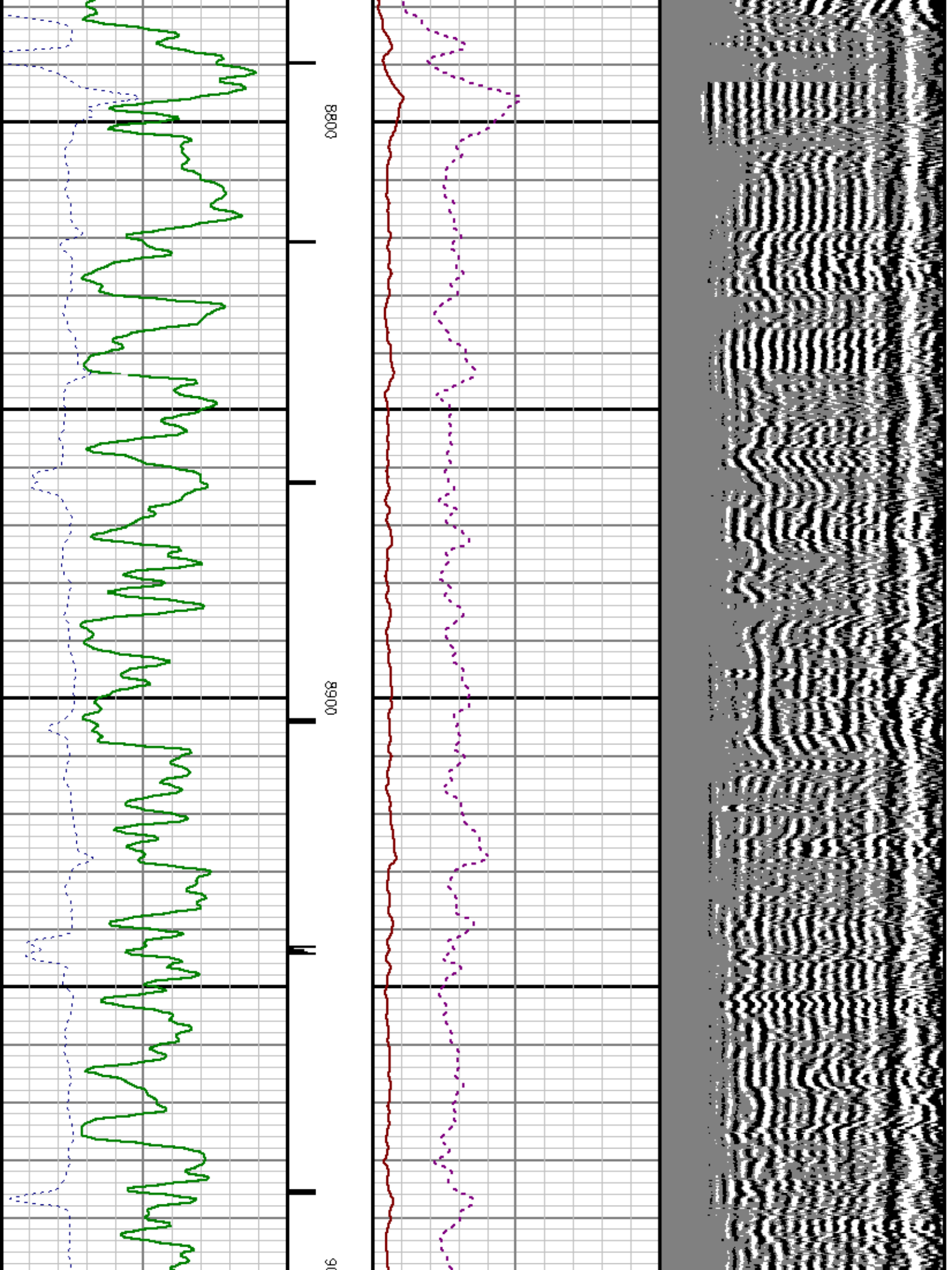




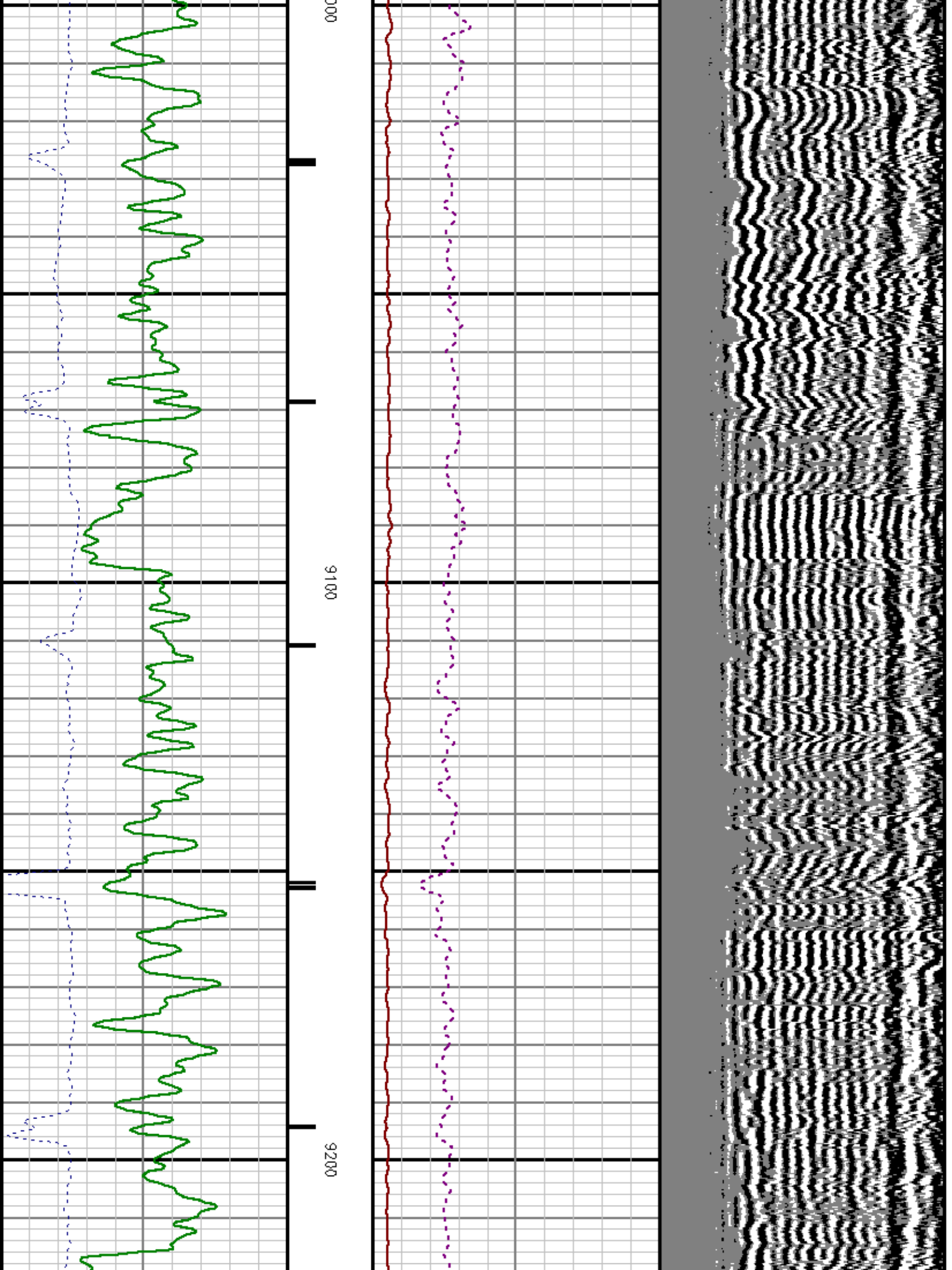




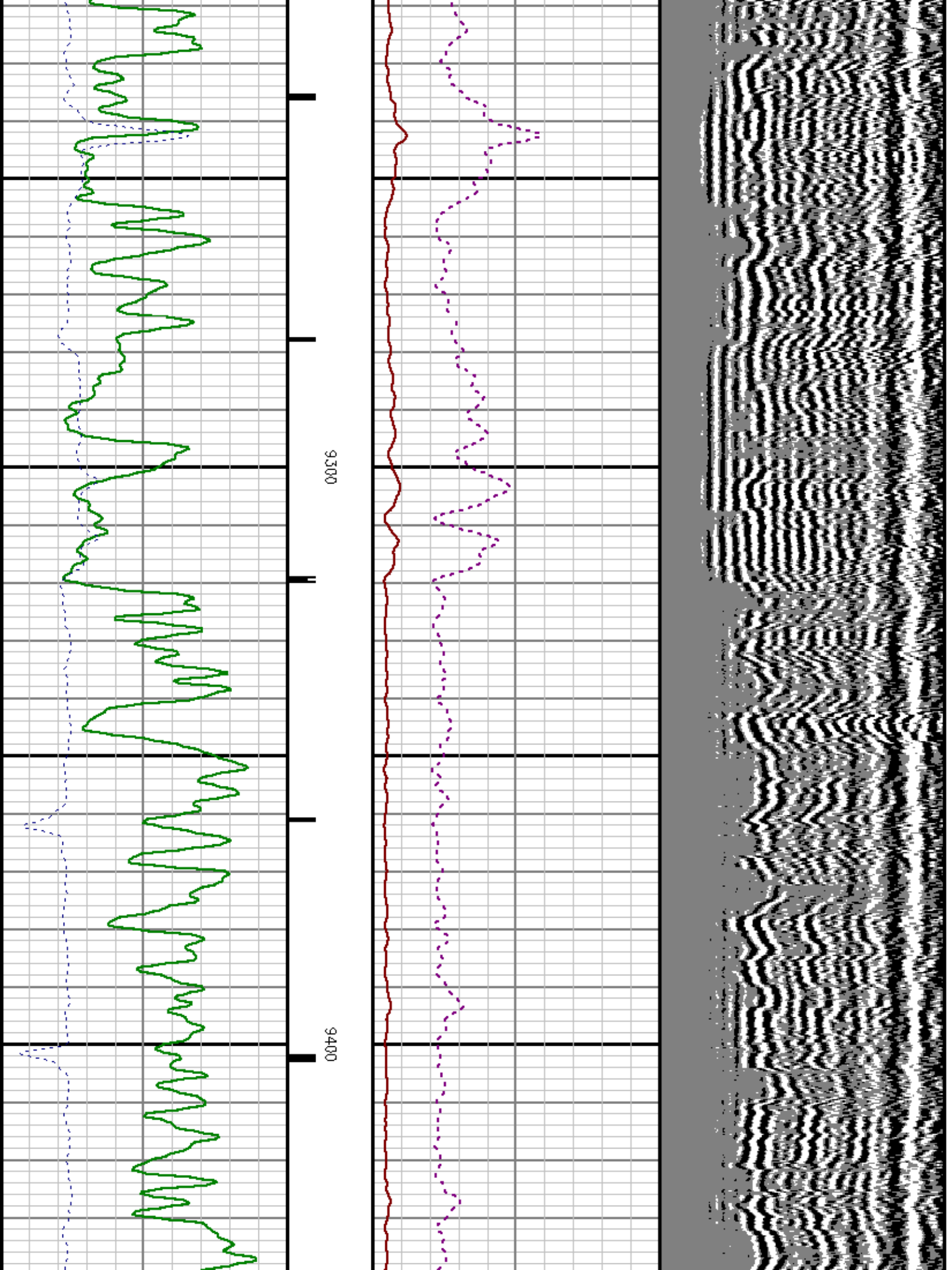


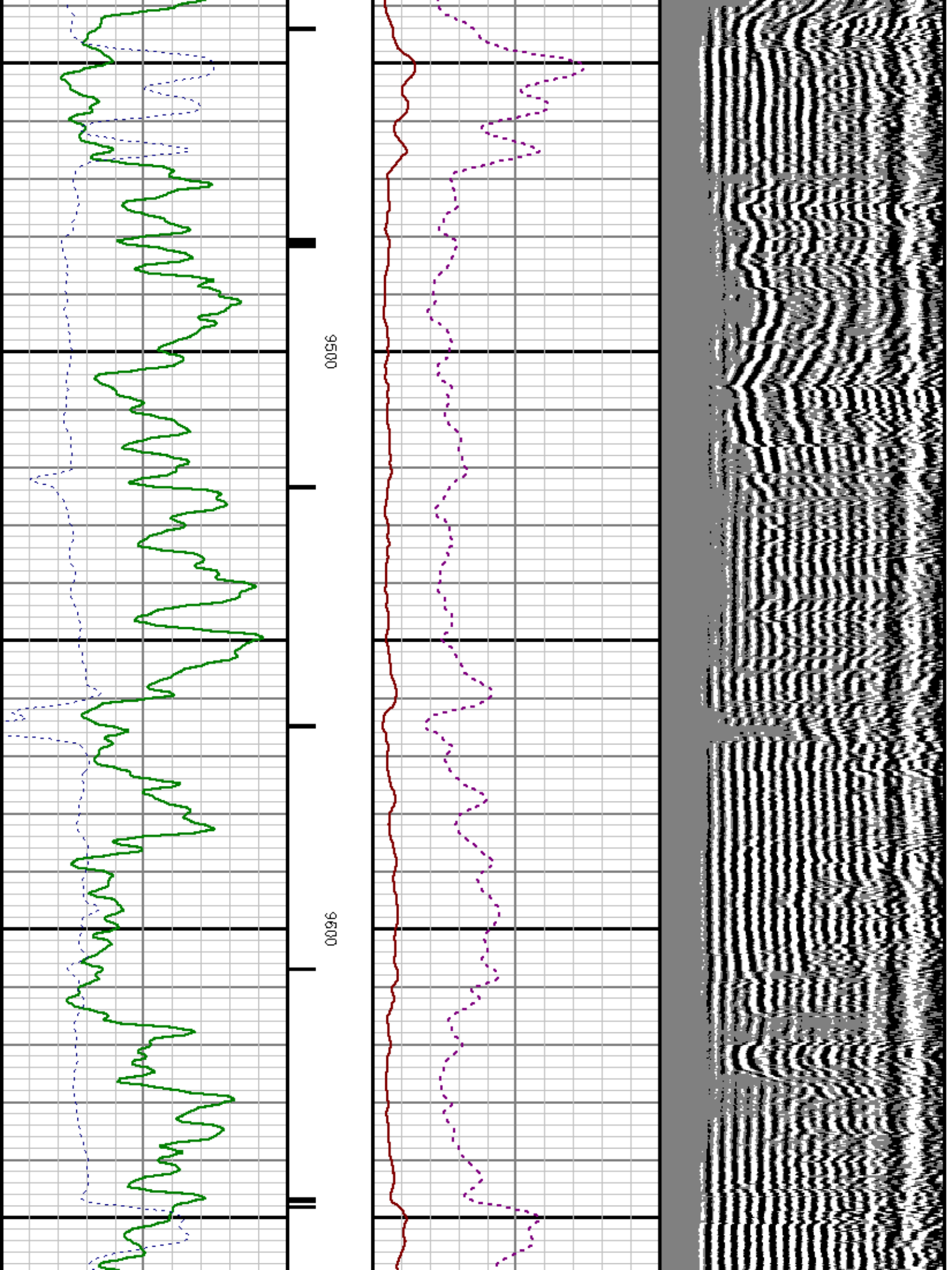


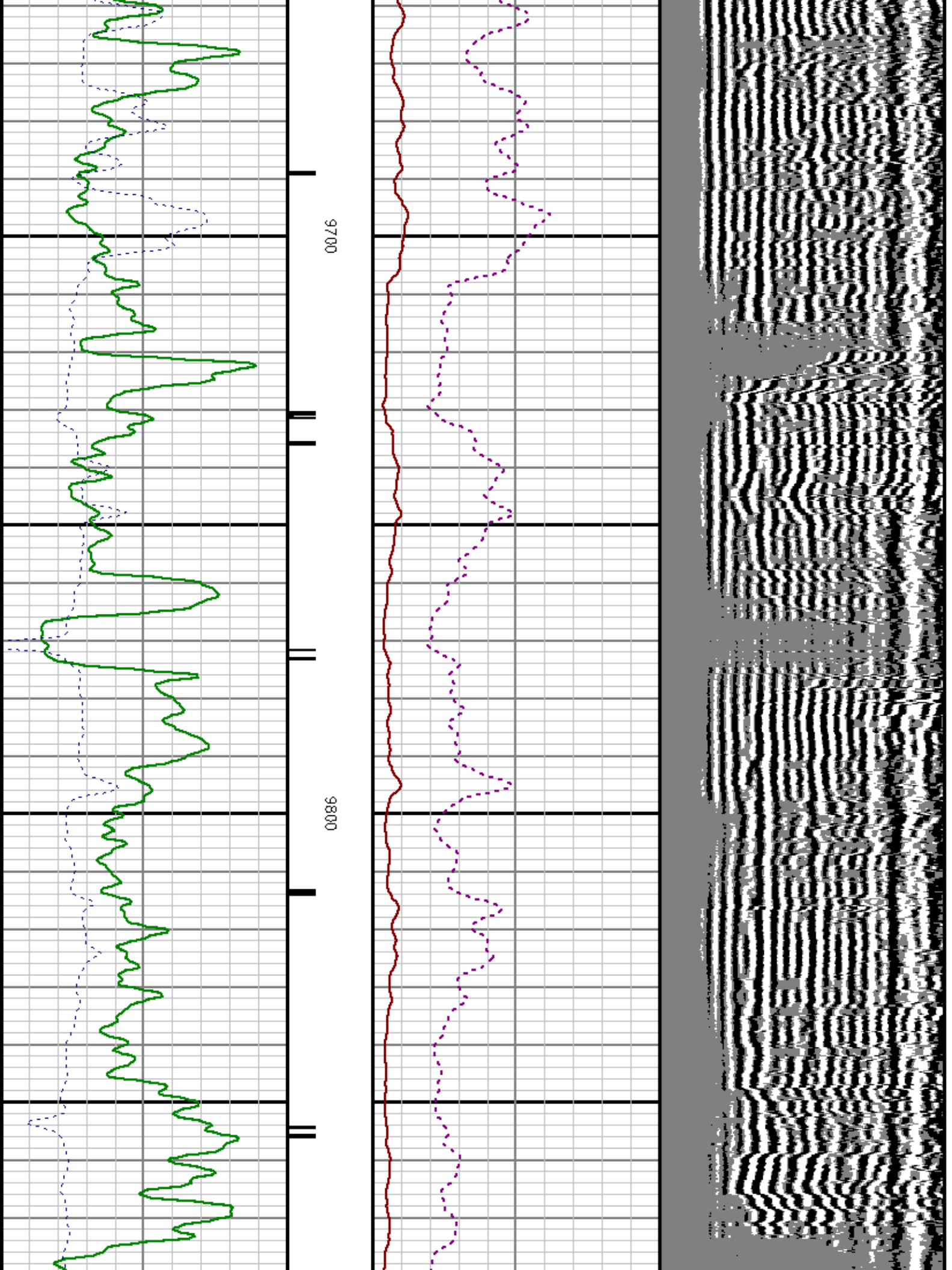


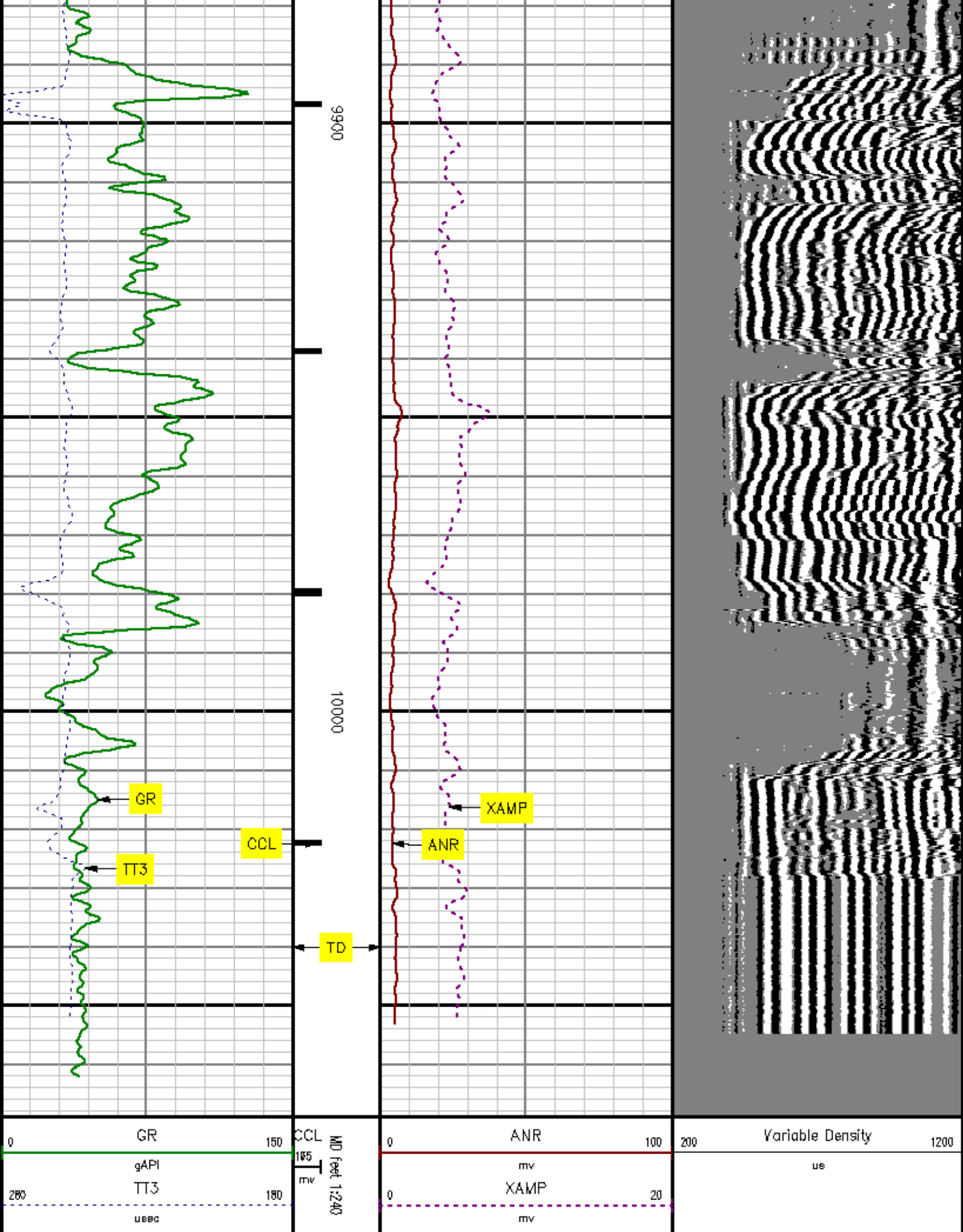














# MAIN SECTION

## SECONDARY PRESENTATION

1000# PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	316.900	usec	2710.904	3621.382
RAL	Amp Gate Start Near	200.391	usec	2710.904	3621.382
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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
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1426XA	-14.360	AFAR	SIG	TT5			
1426XA	-7.250	OCL					
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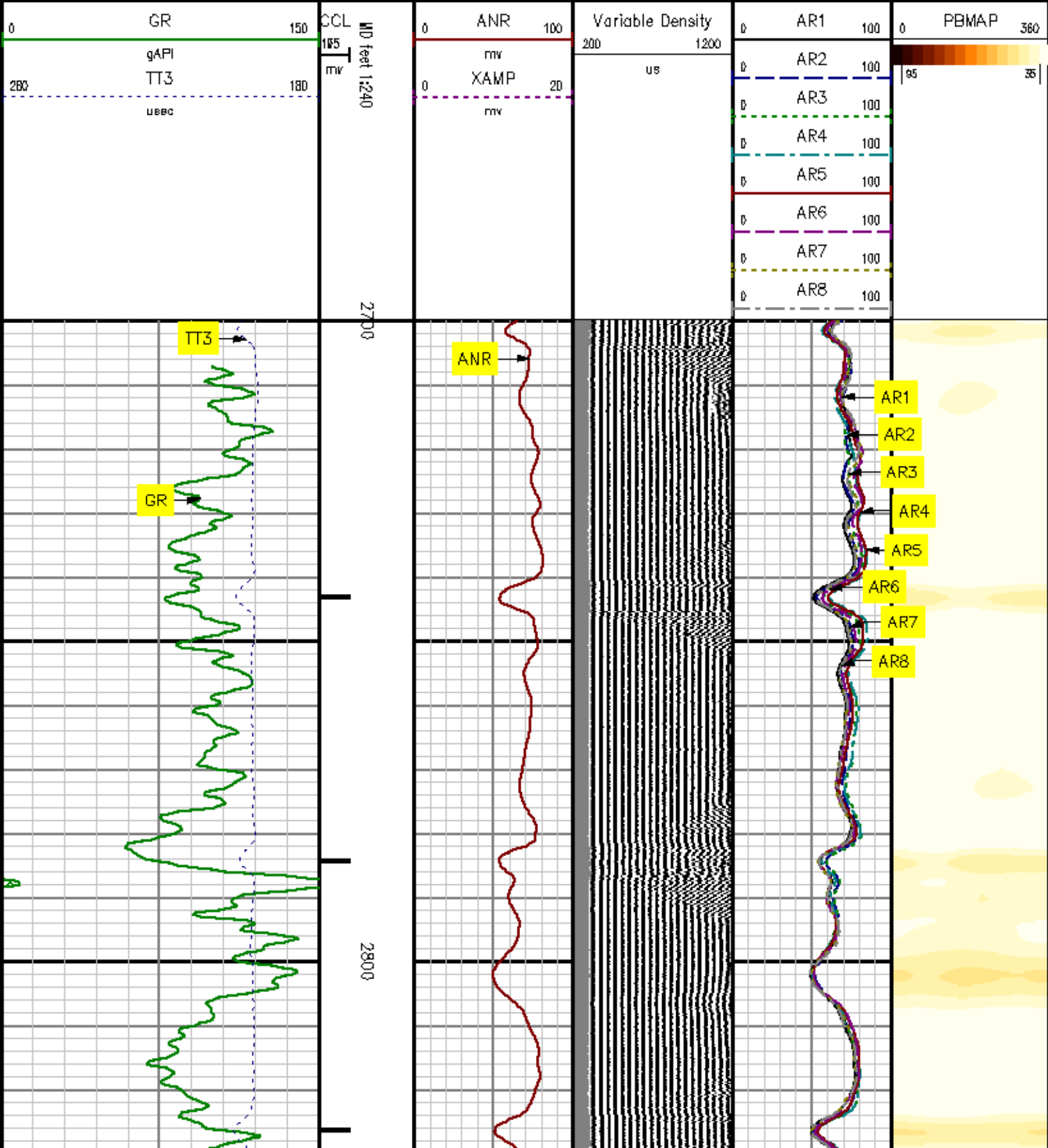
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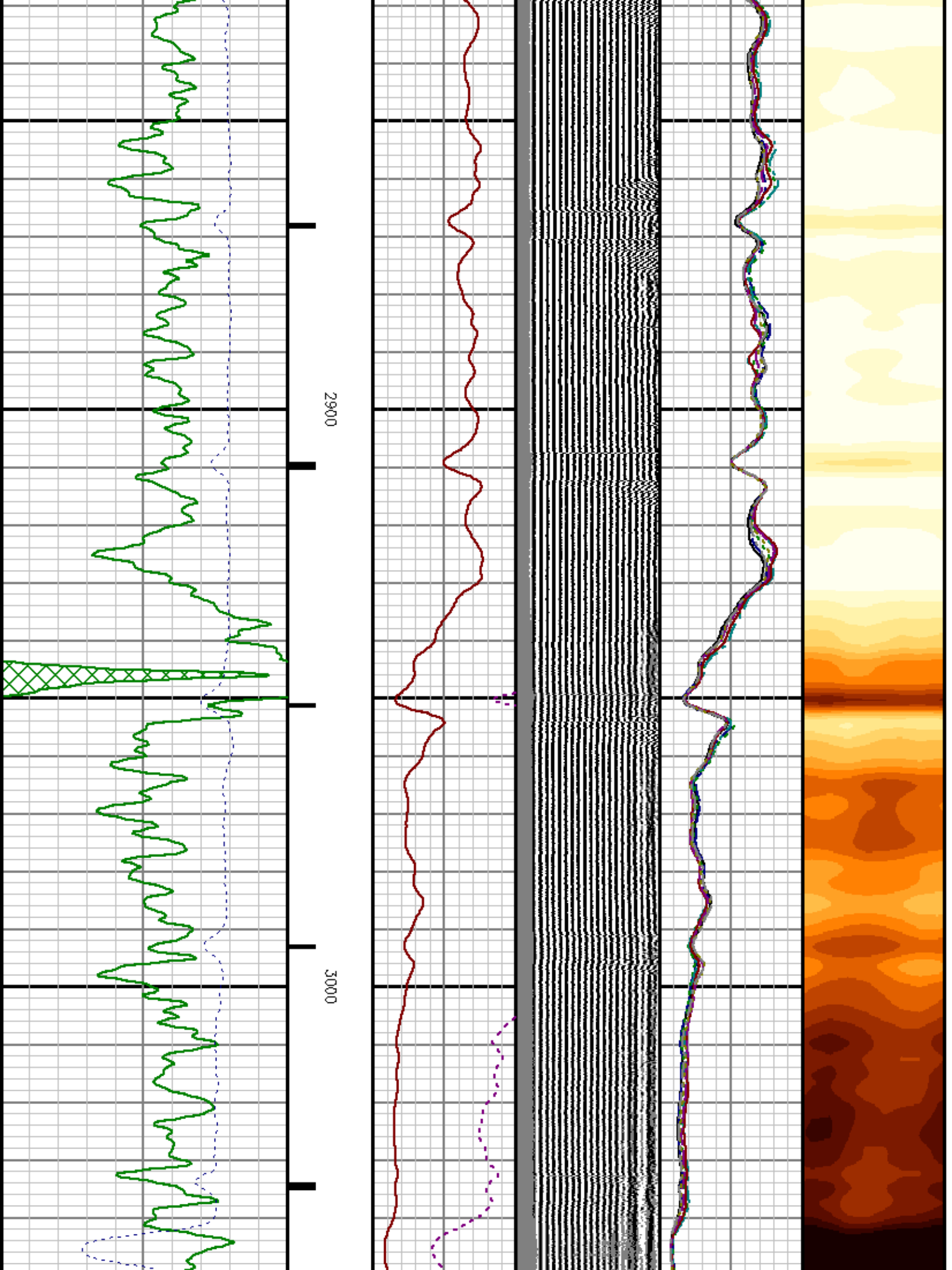
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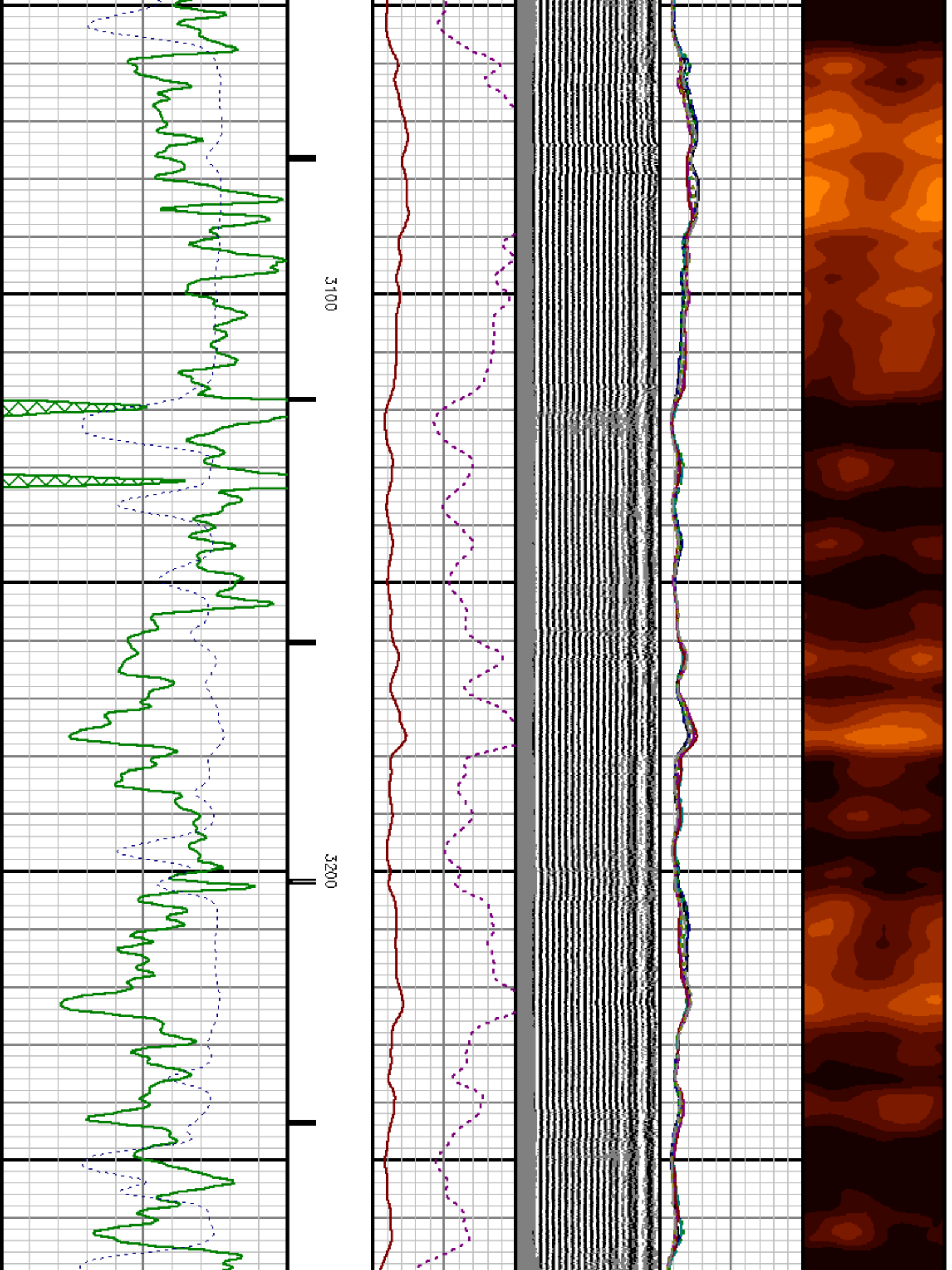
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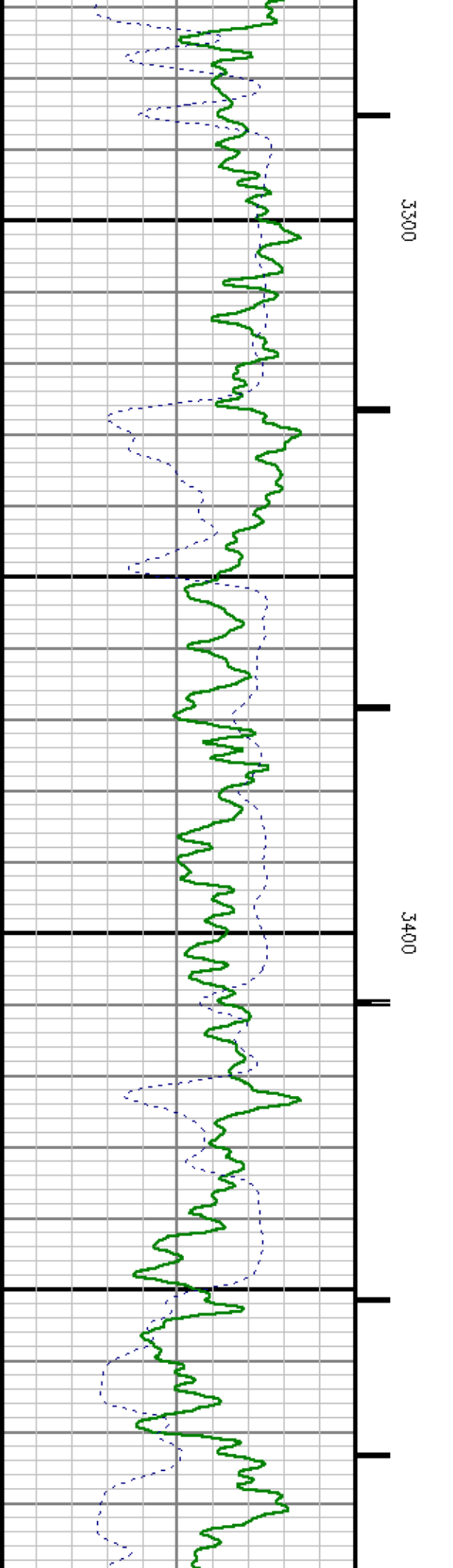
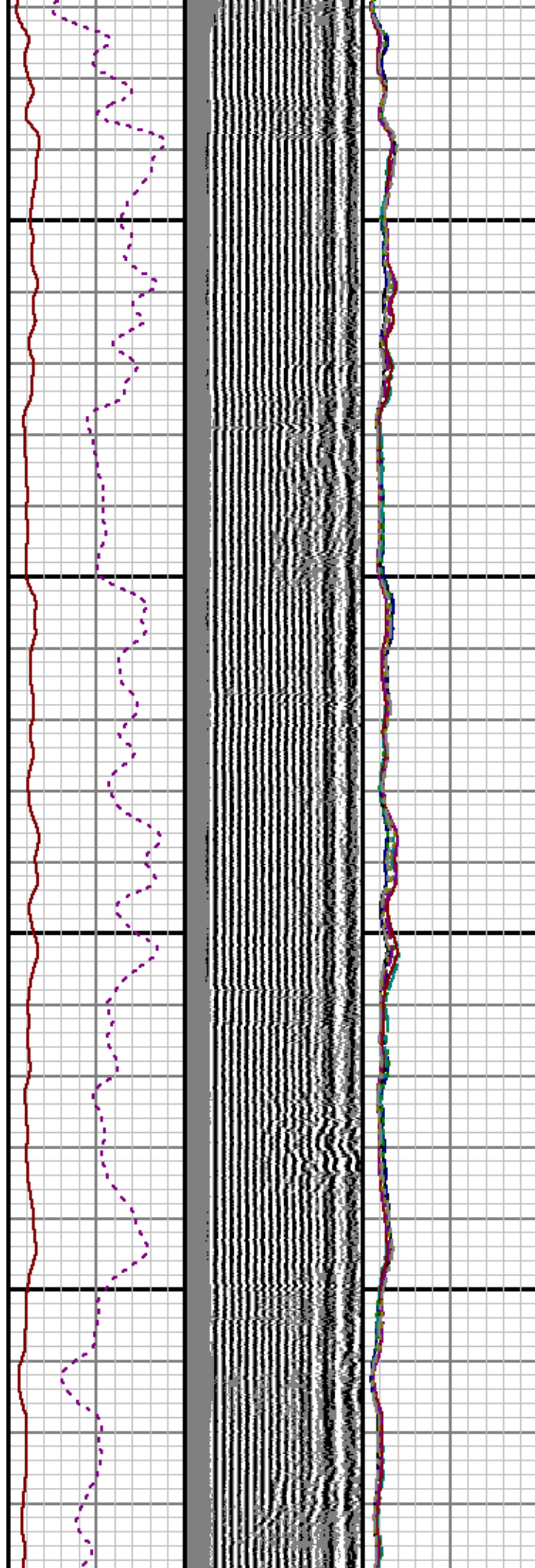
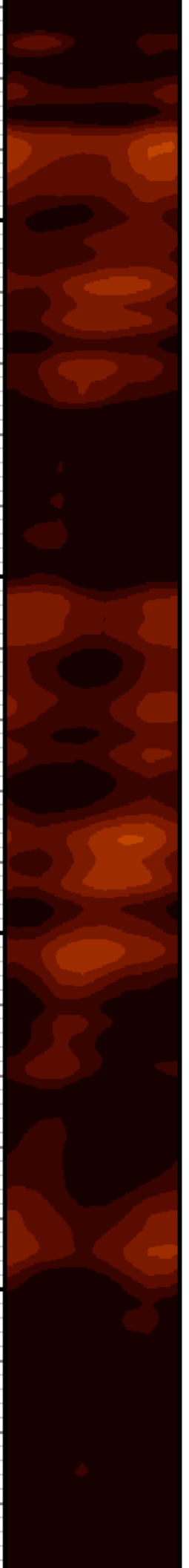
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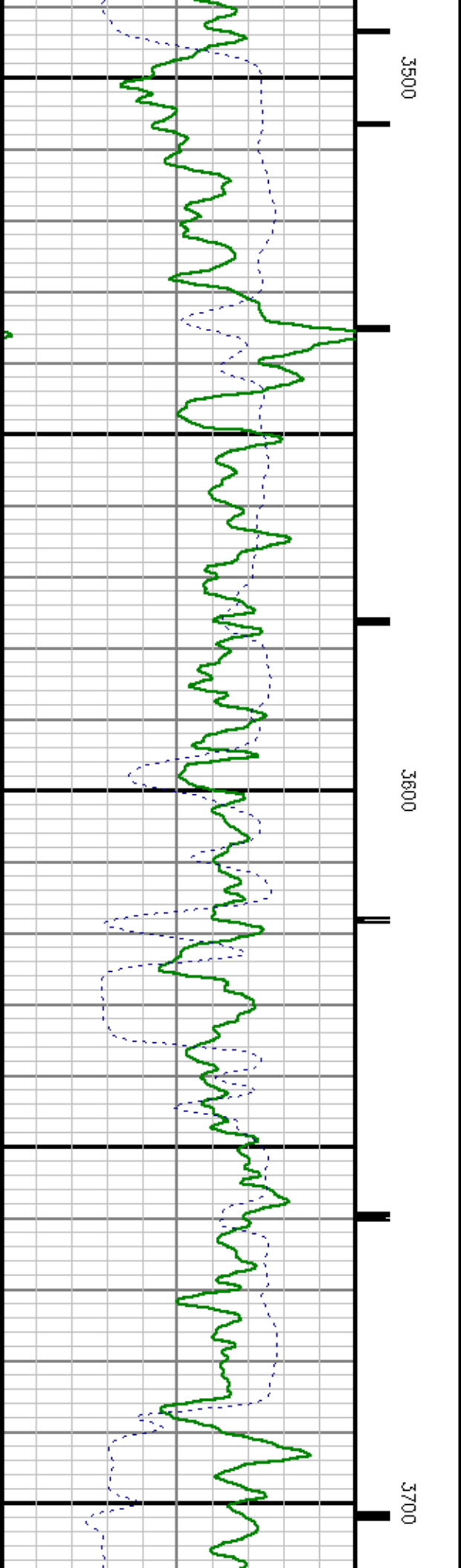
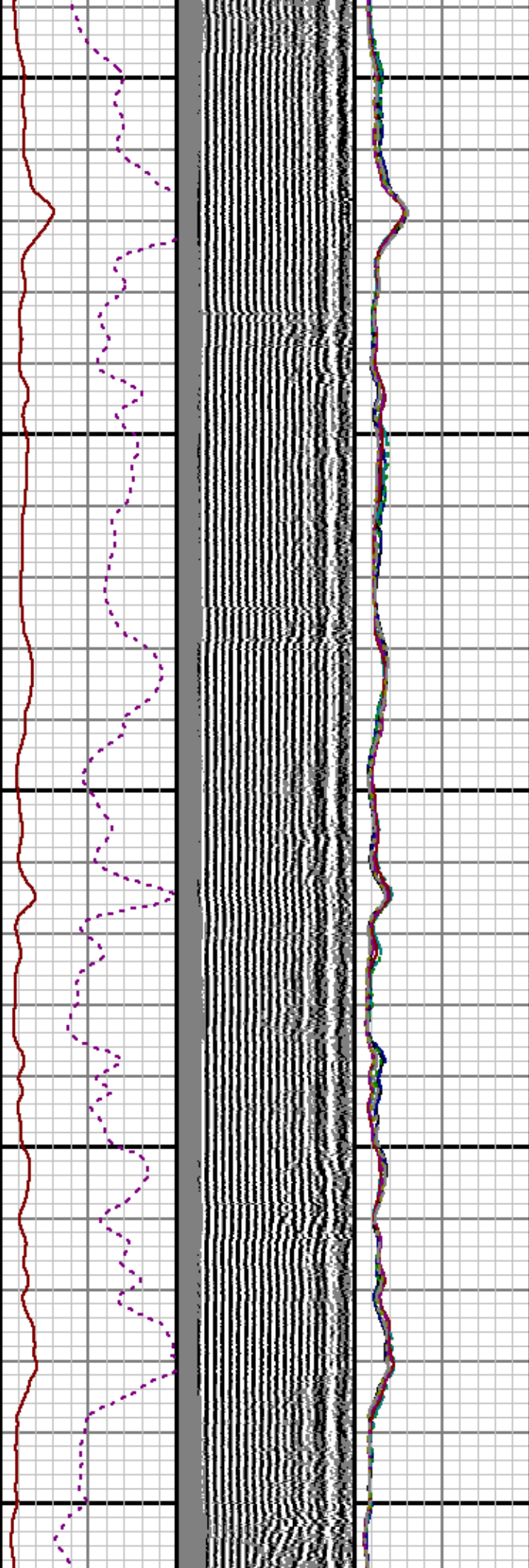
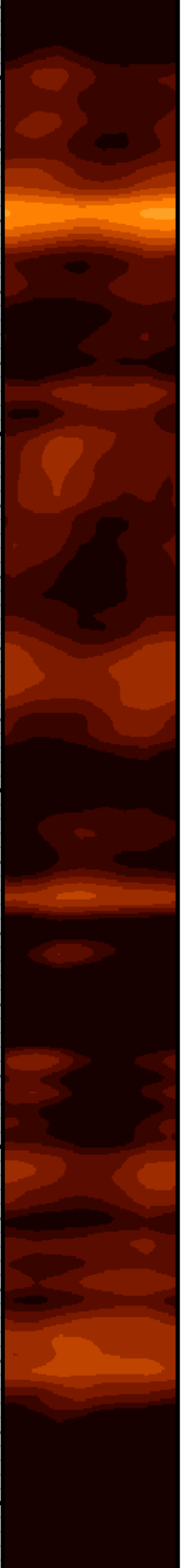


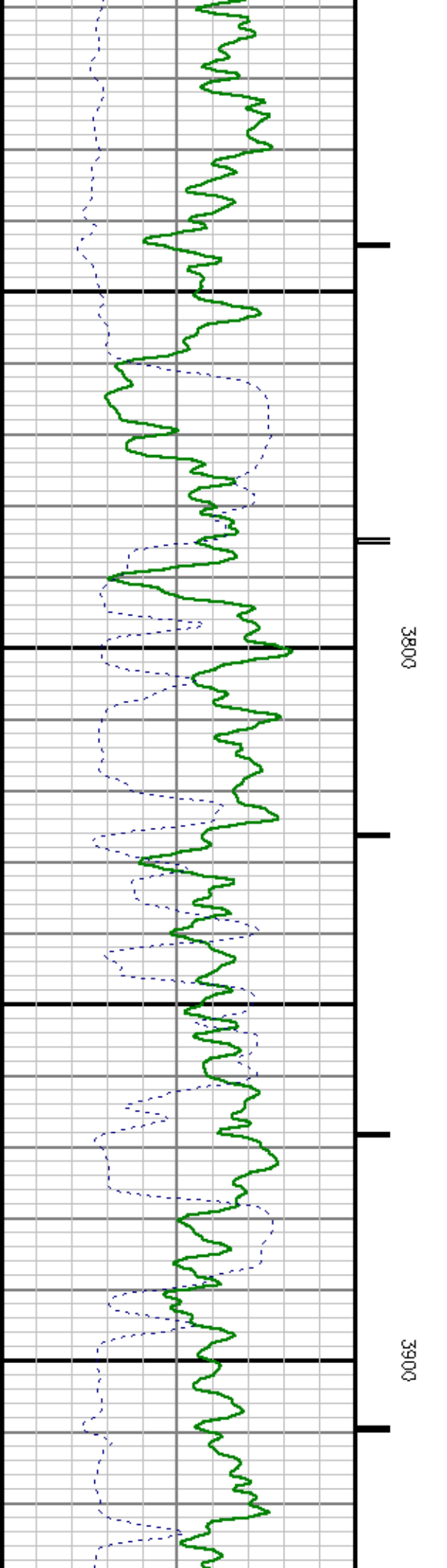
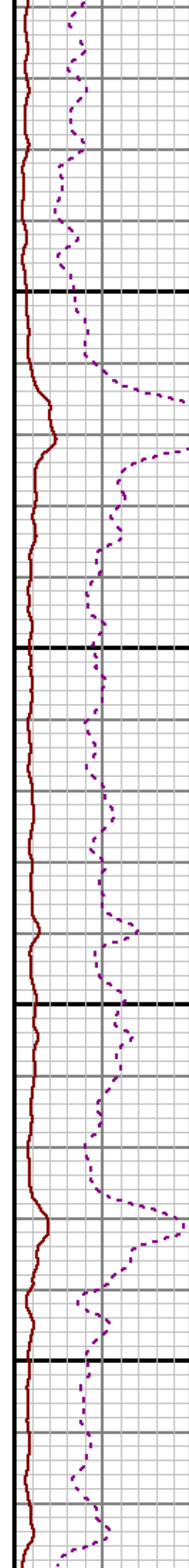
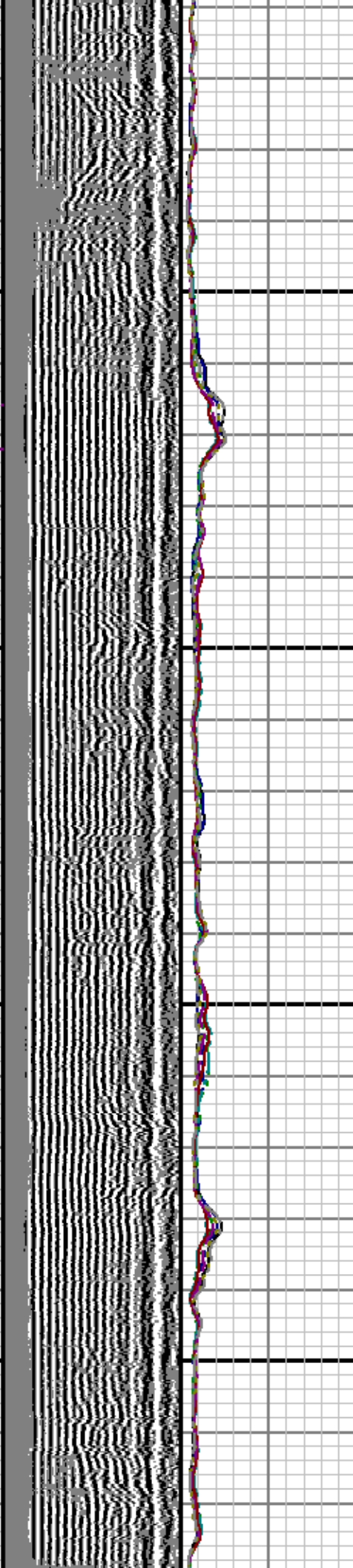
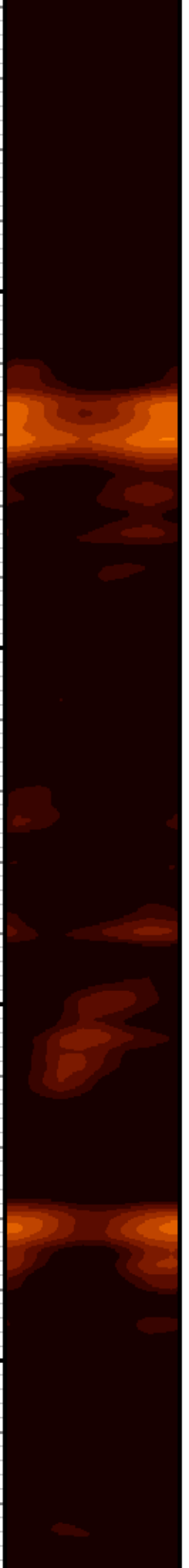


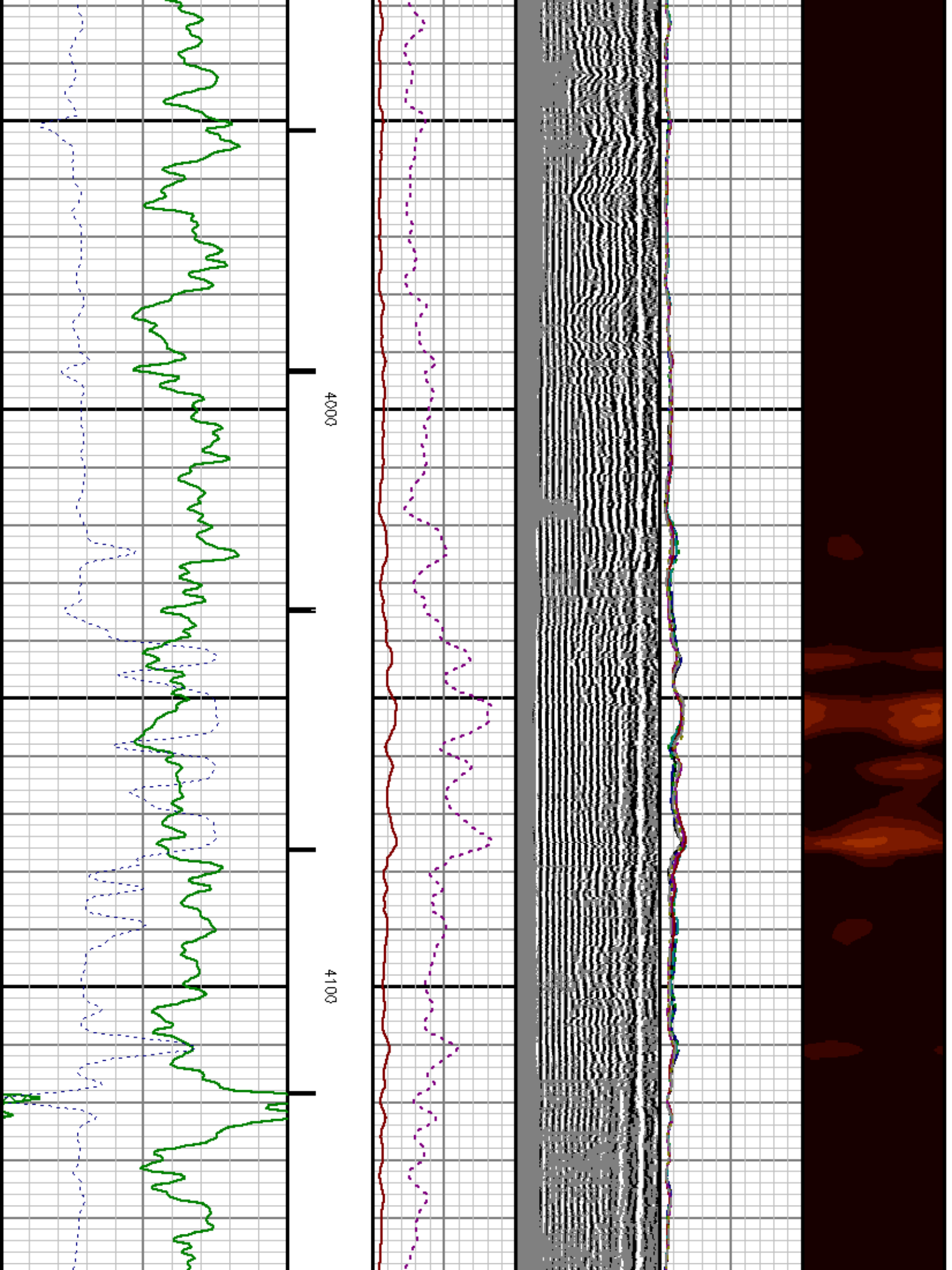




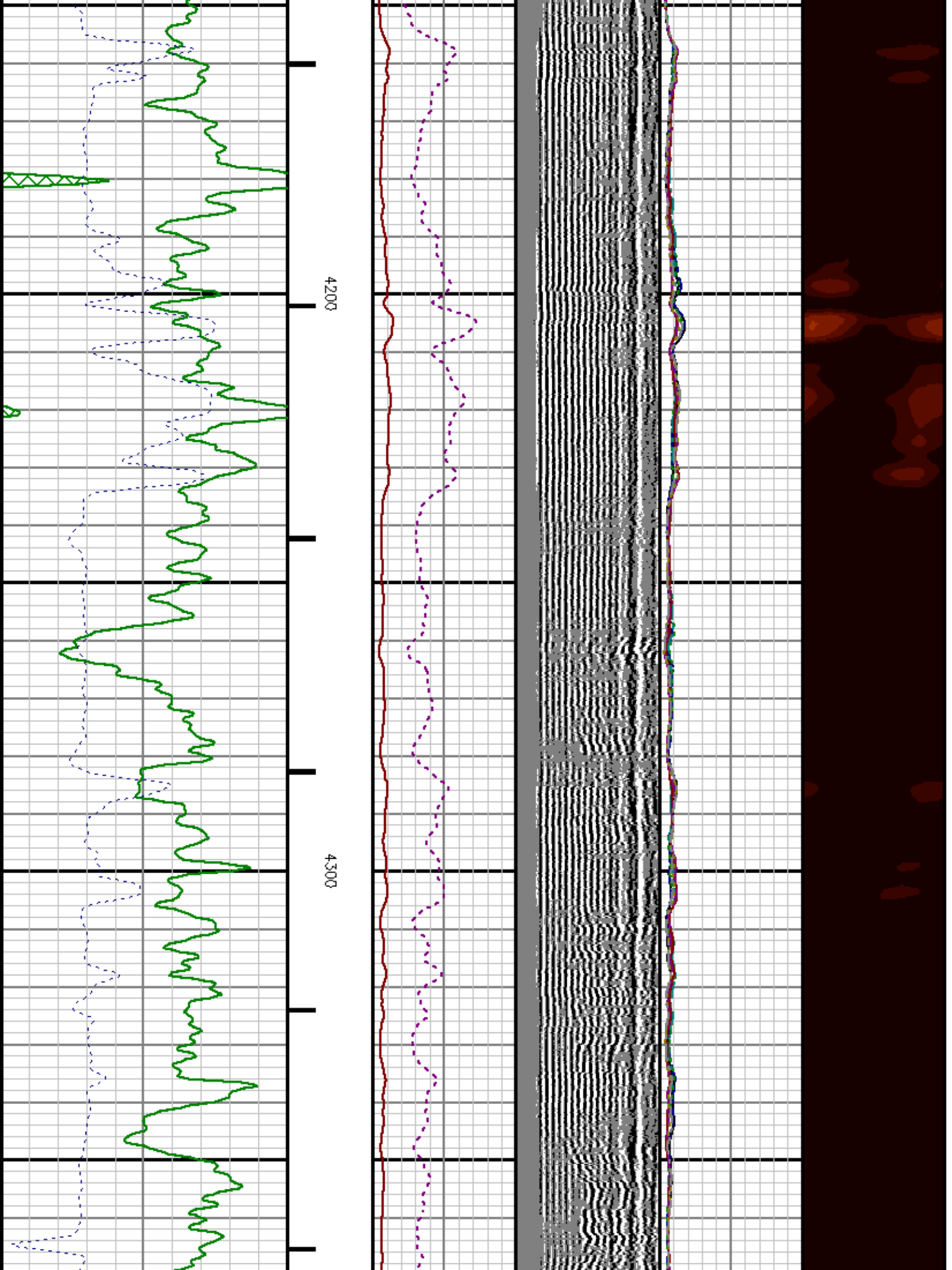


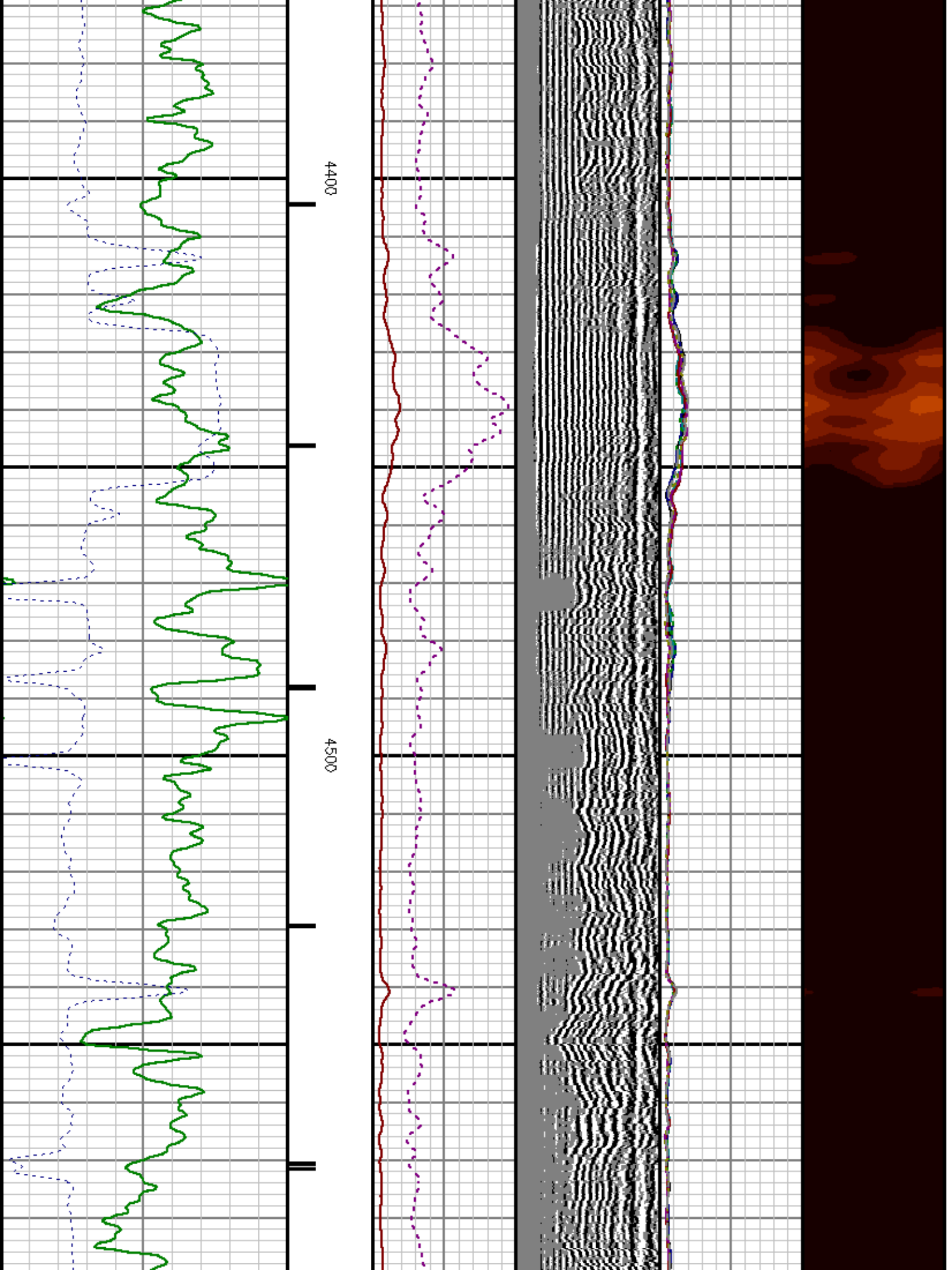


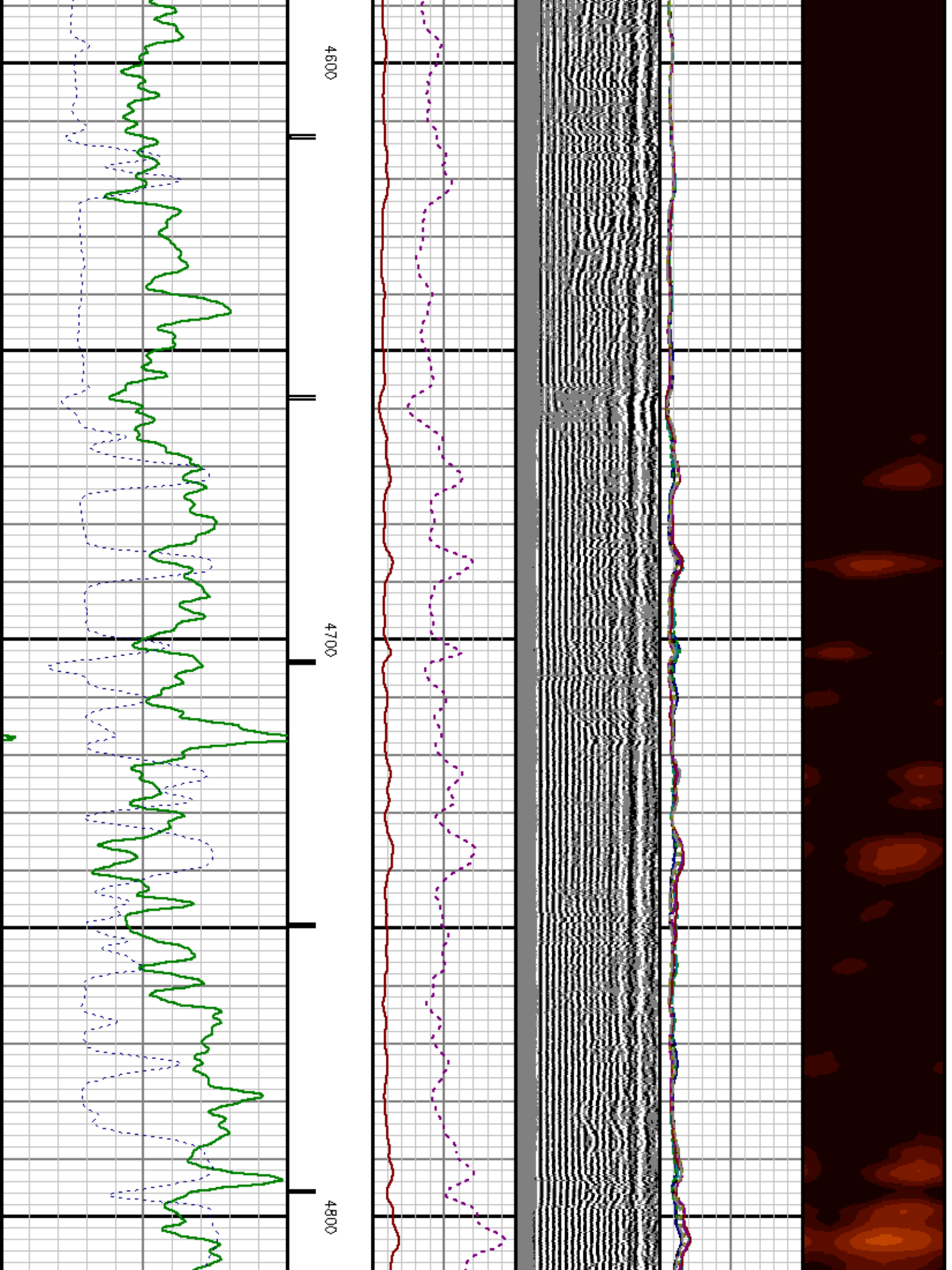


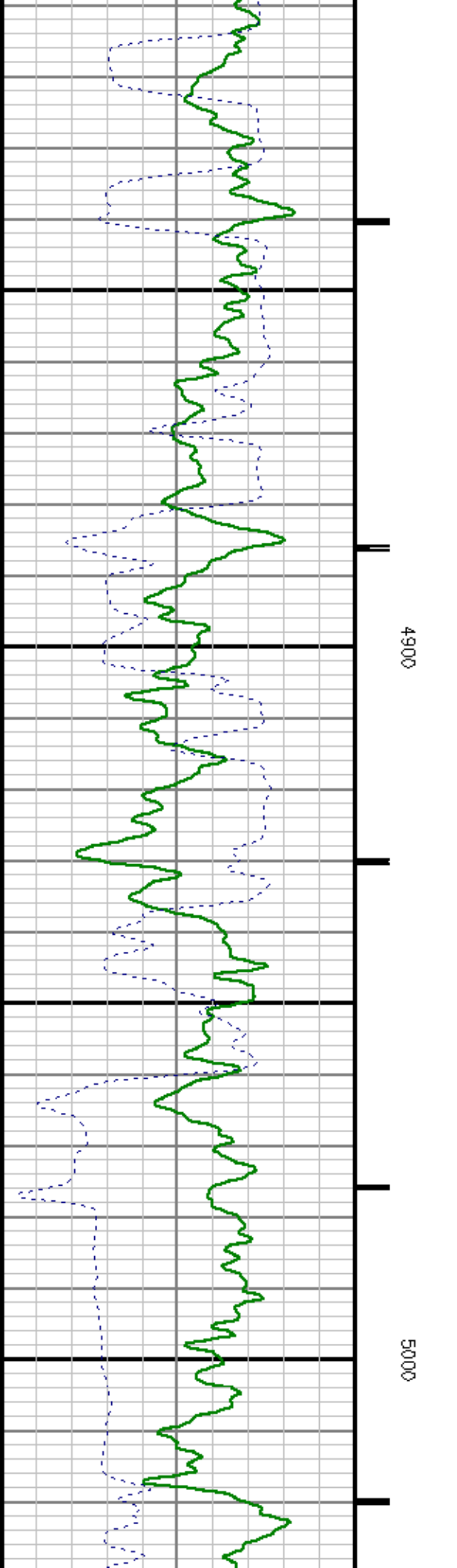
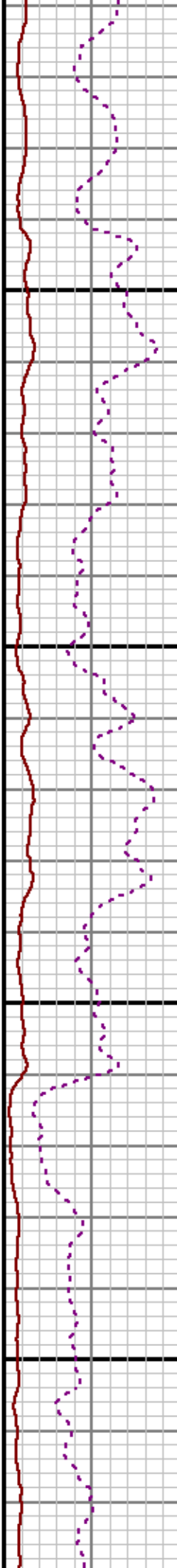
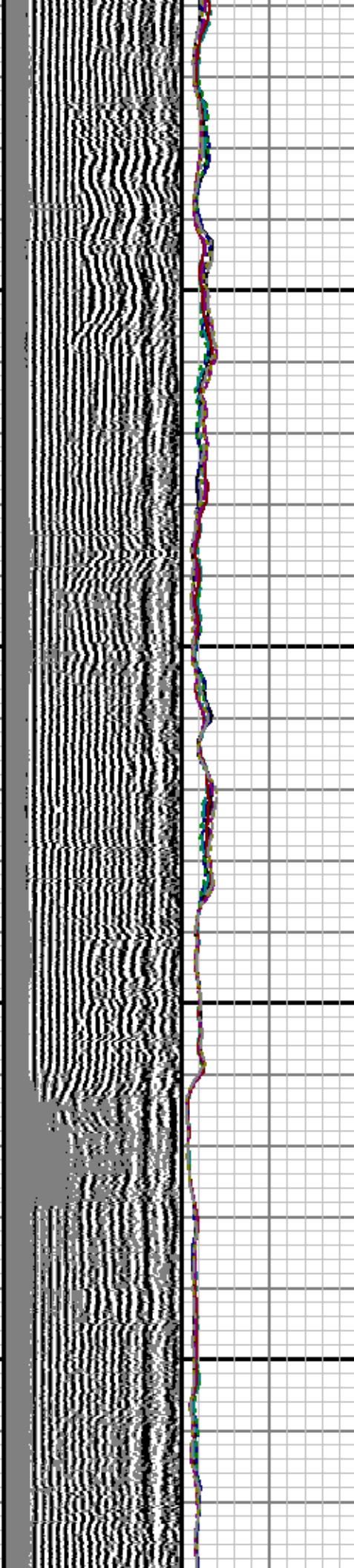
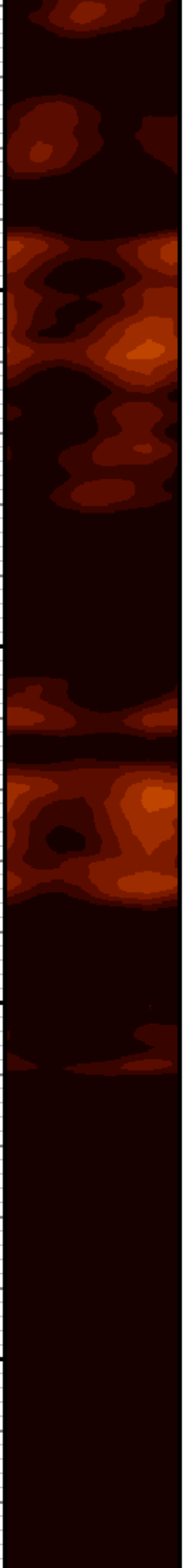




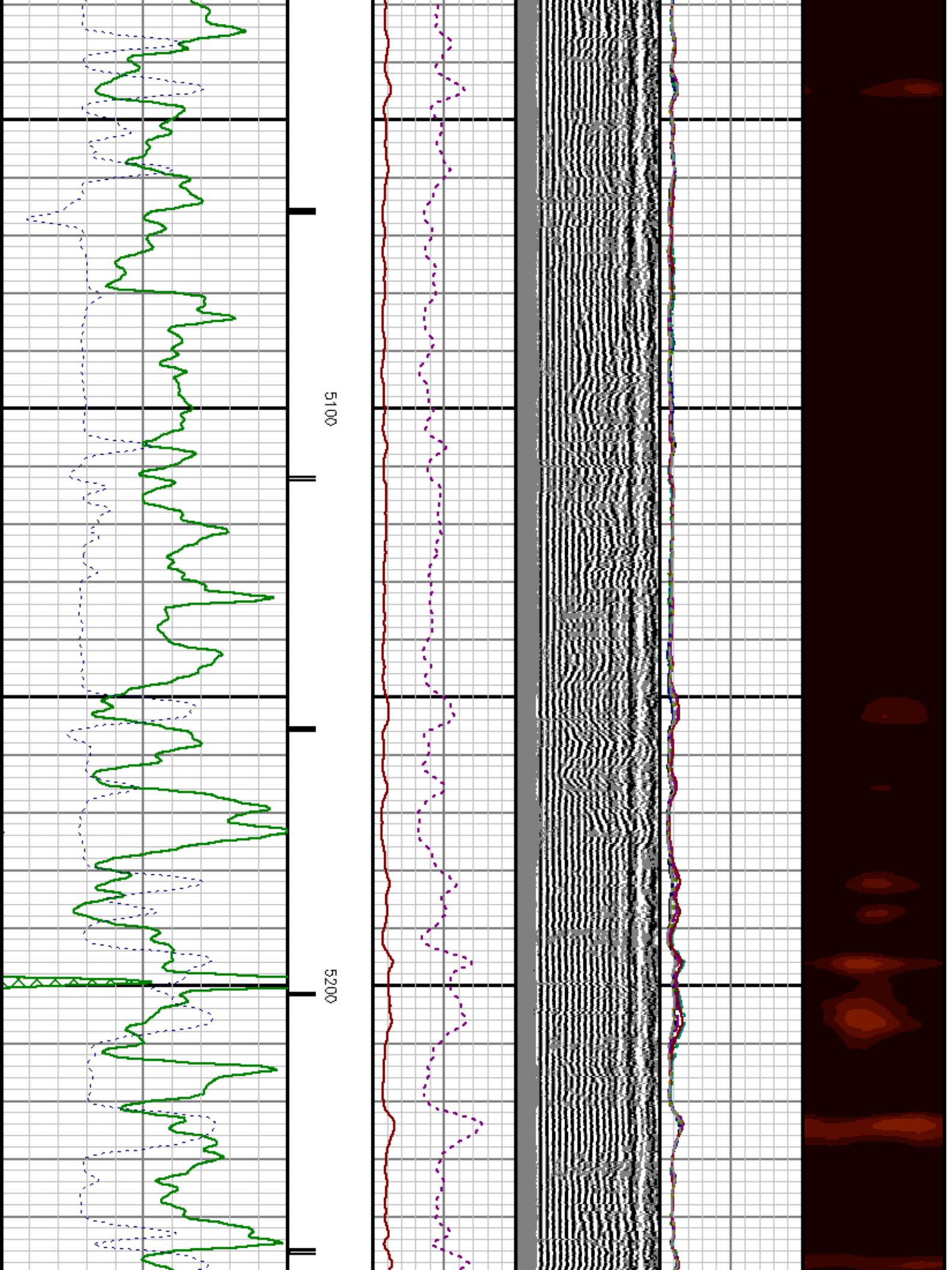


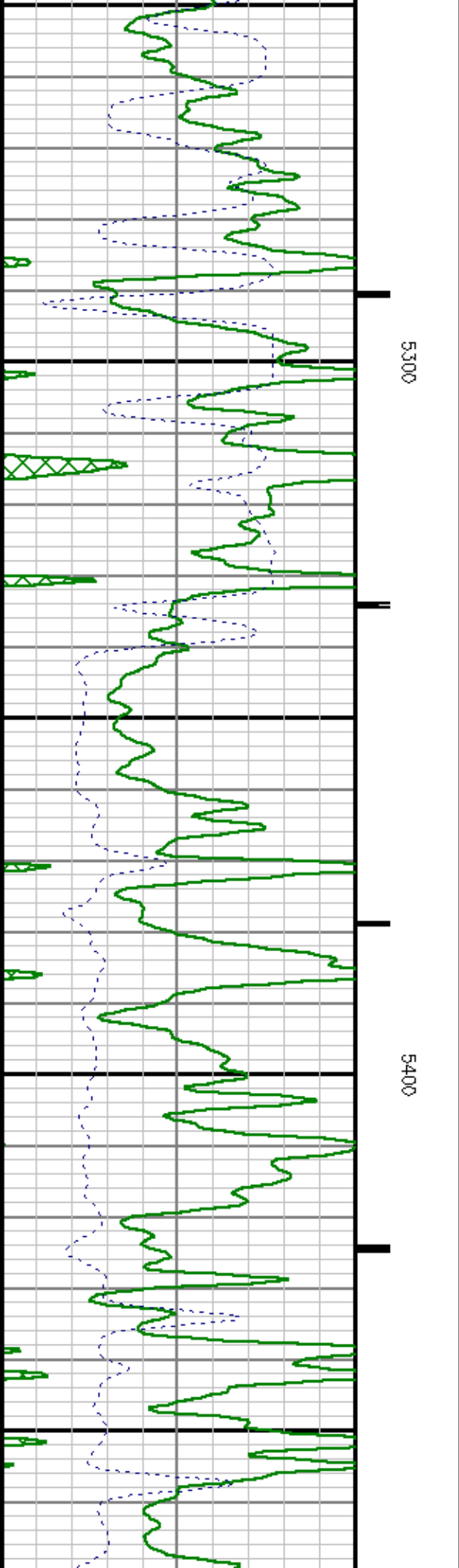
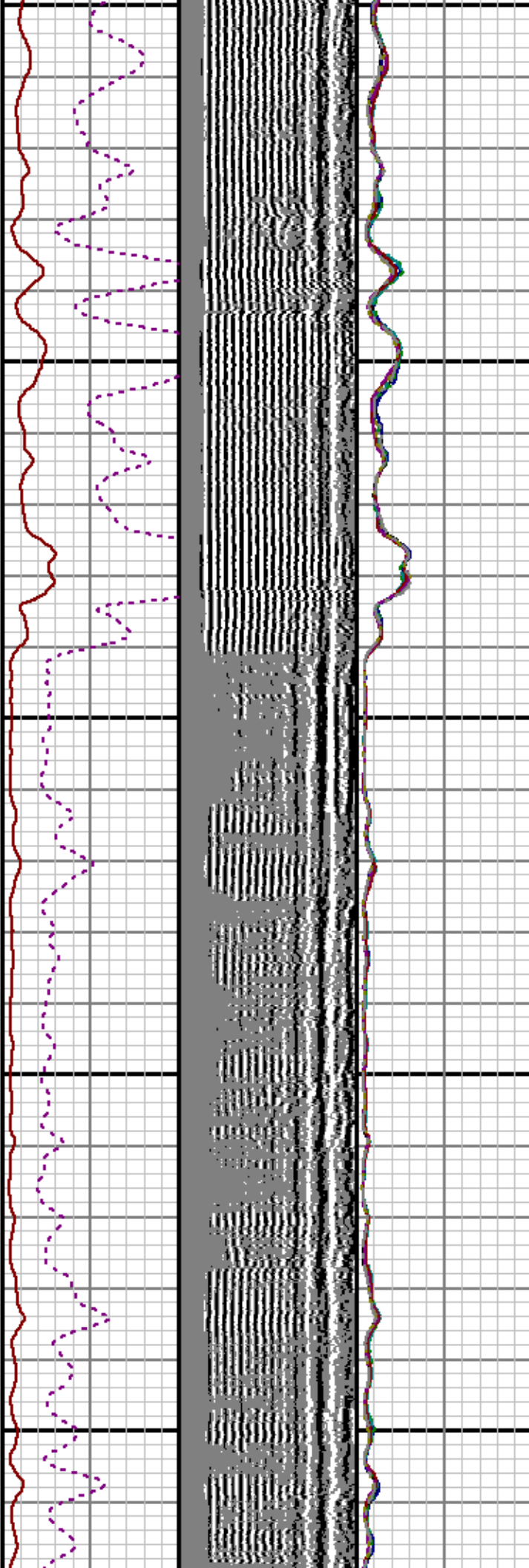


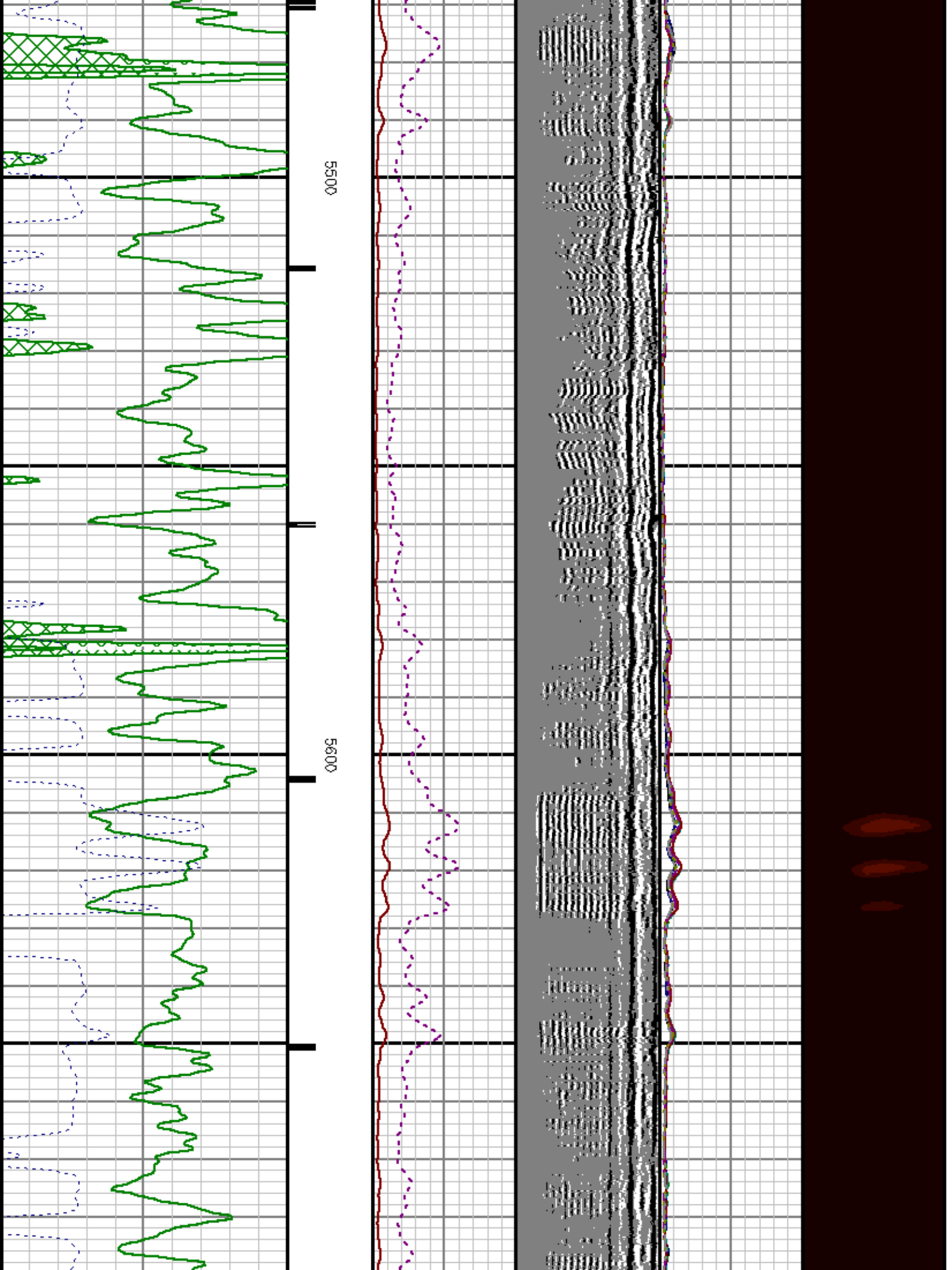


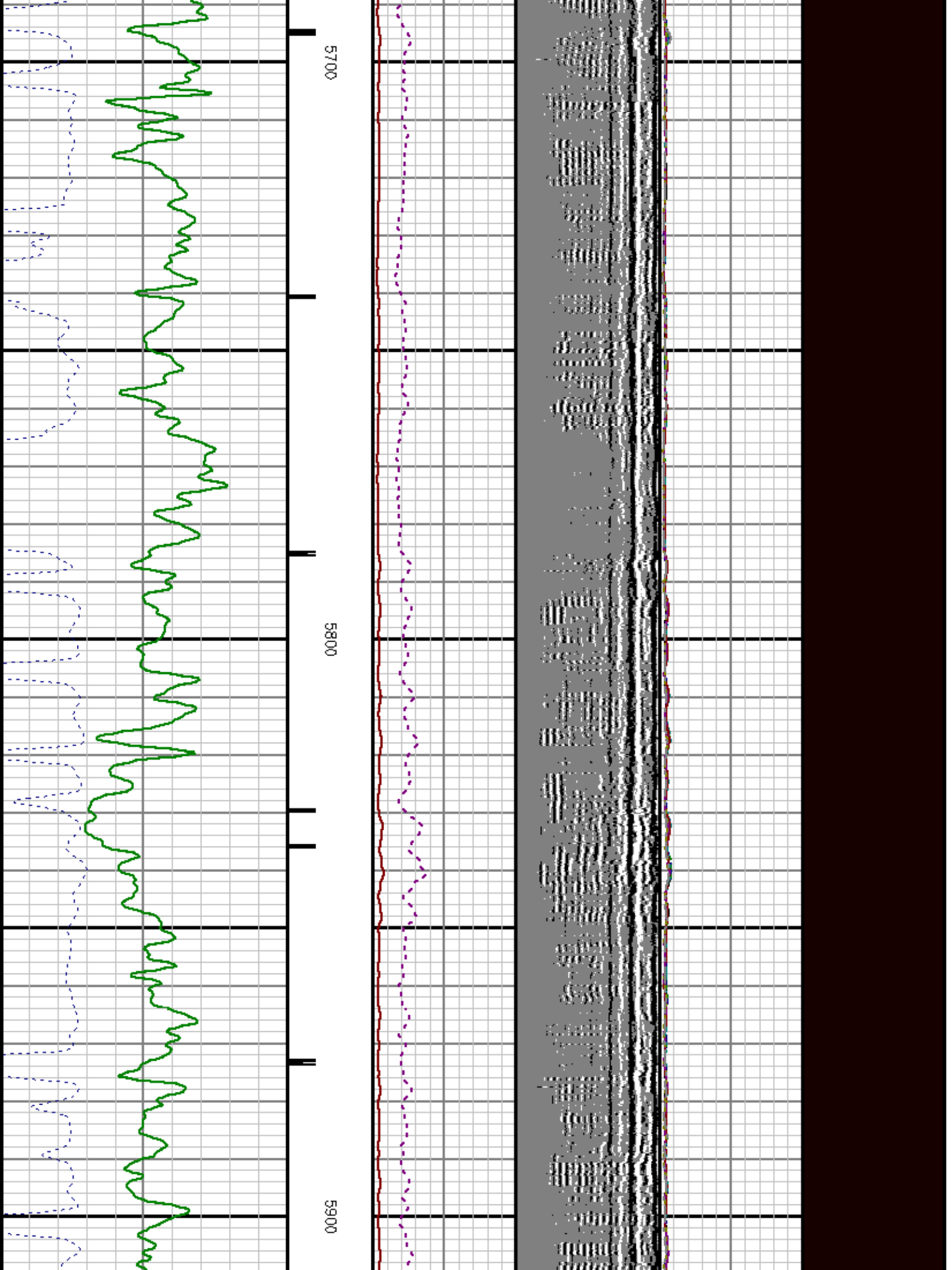




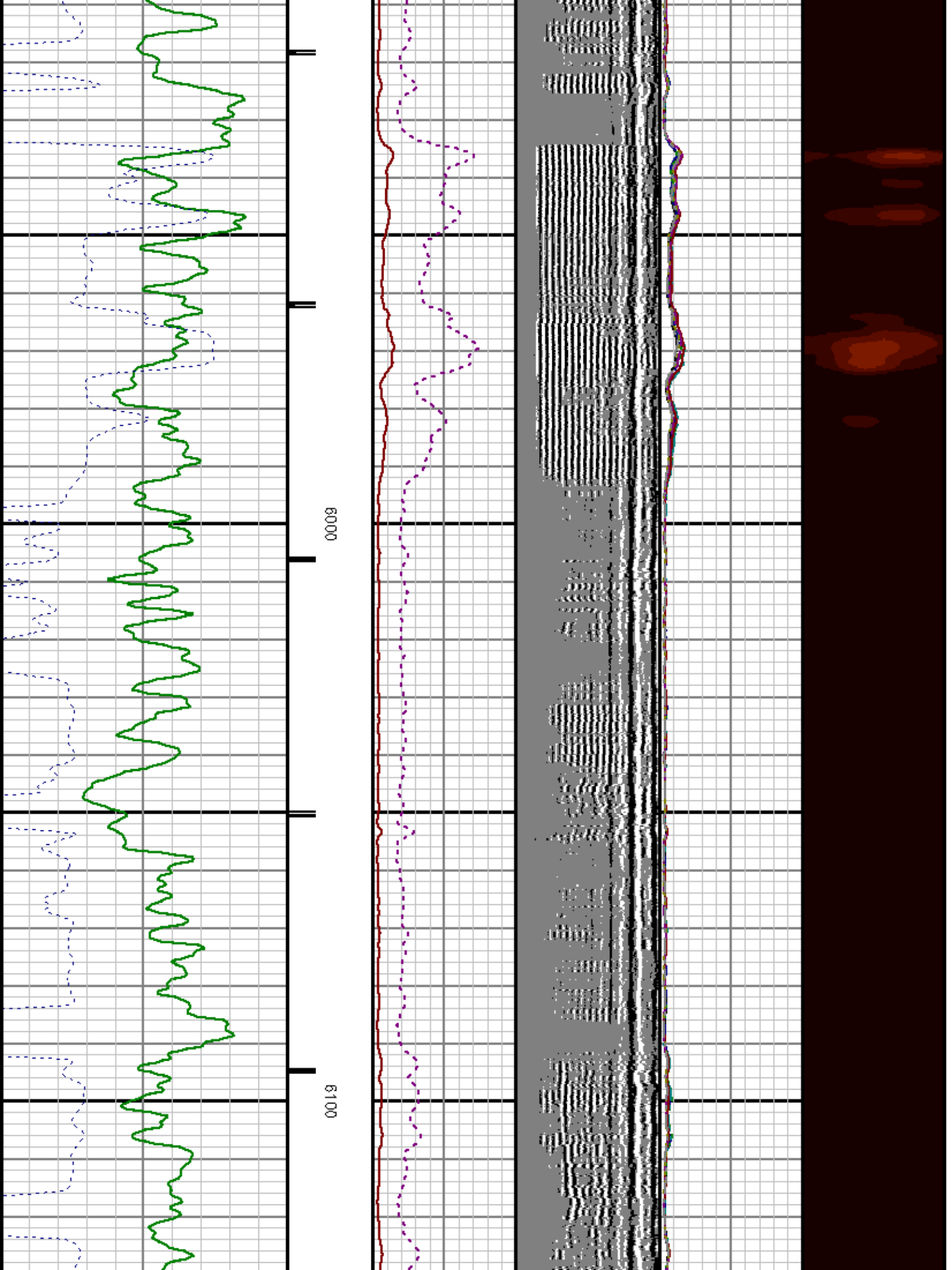


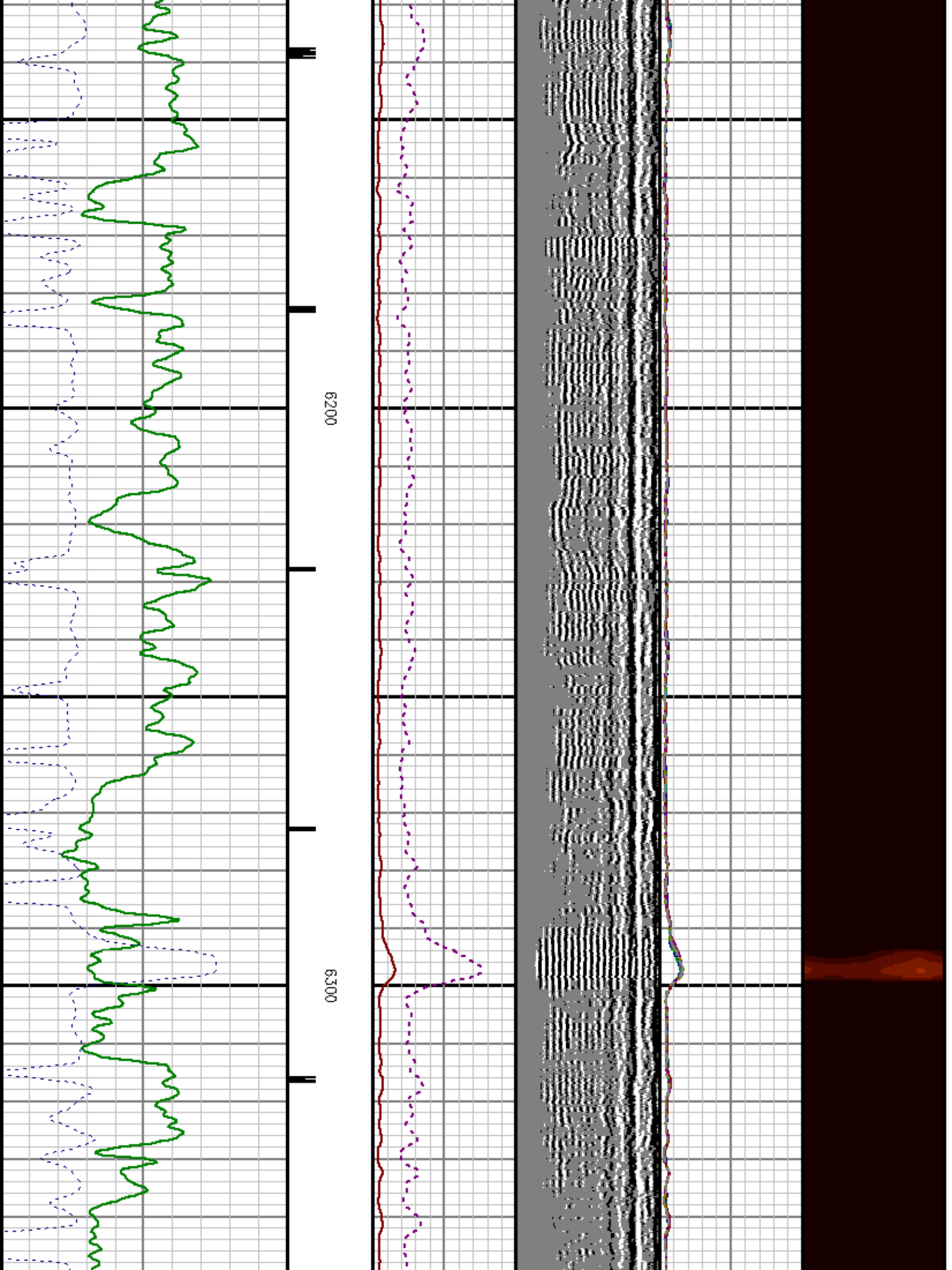


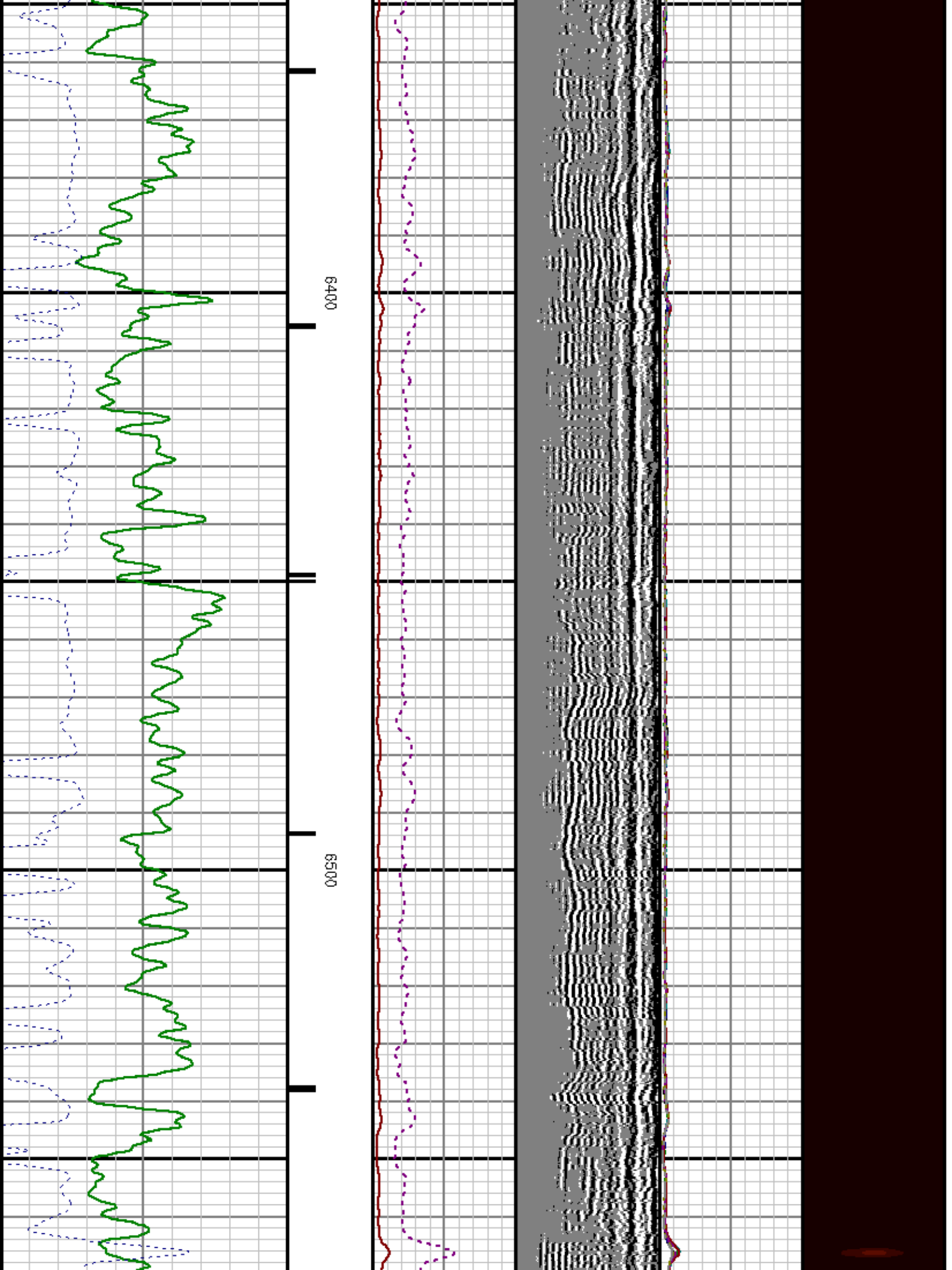


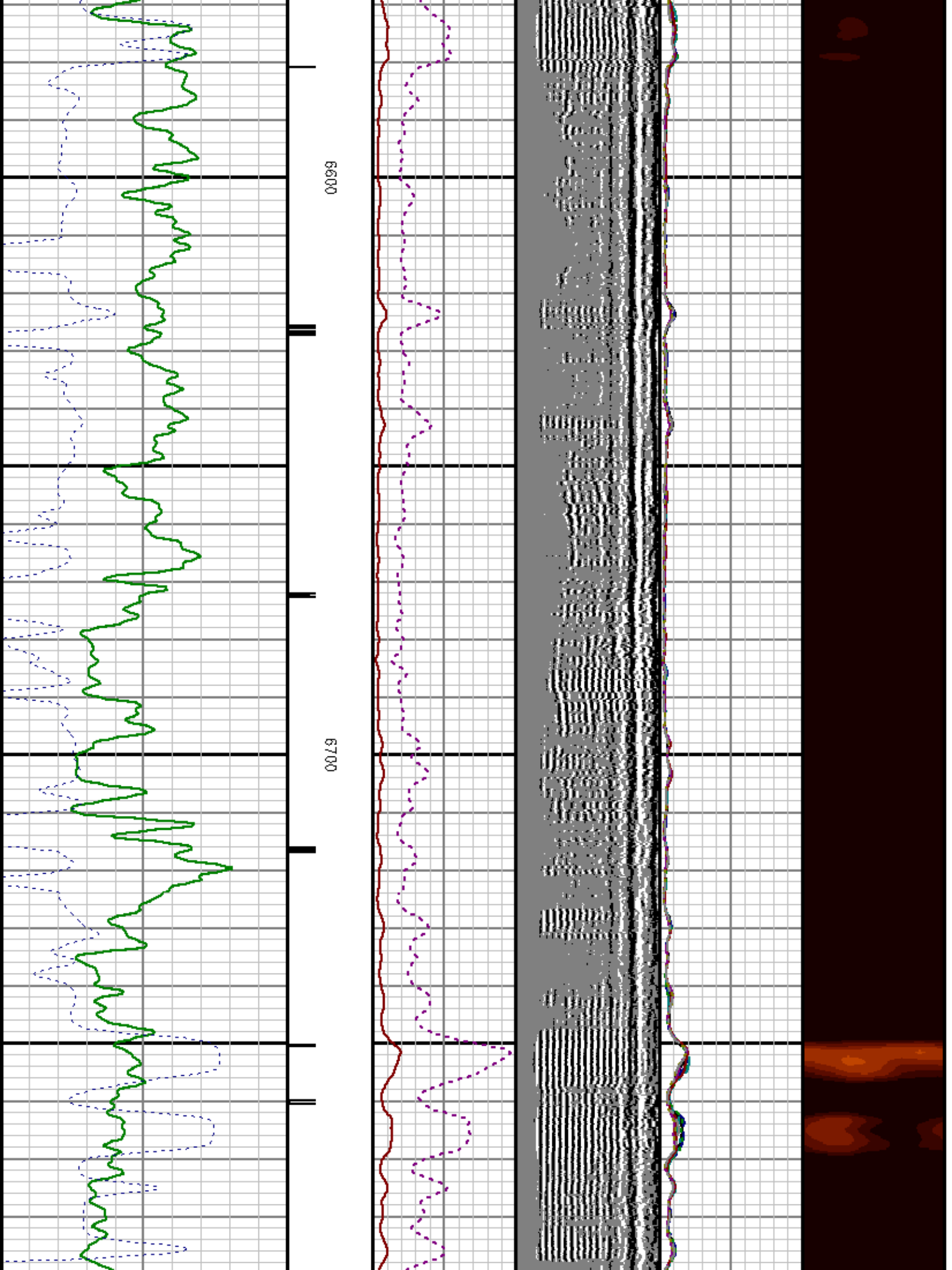




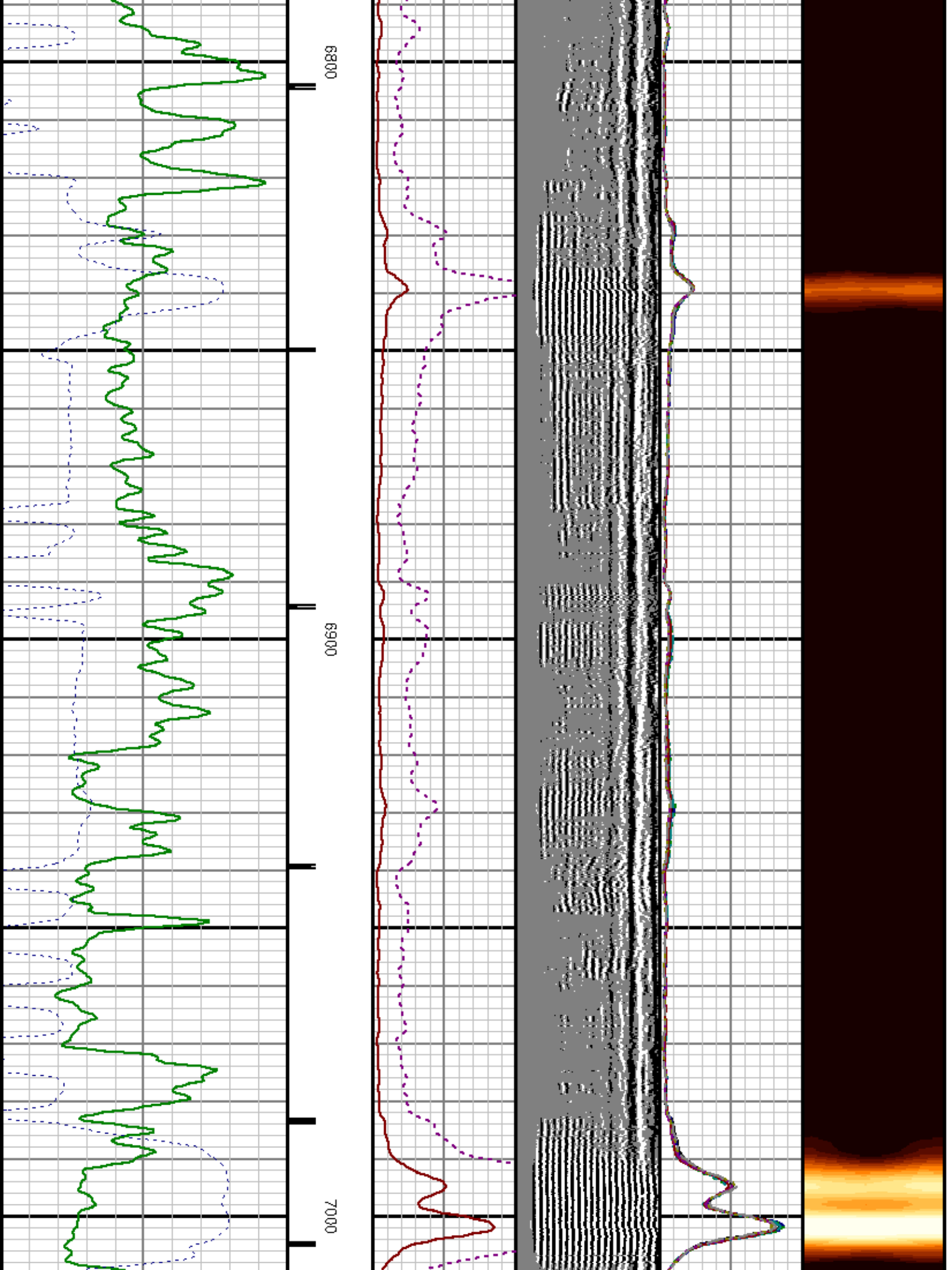


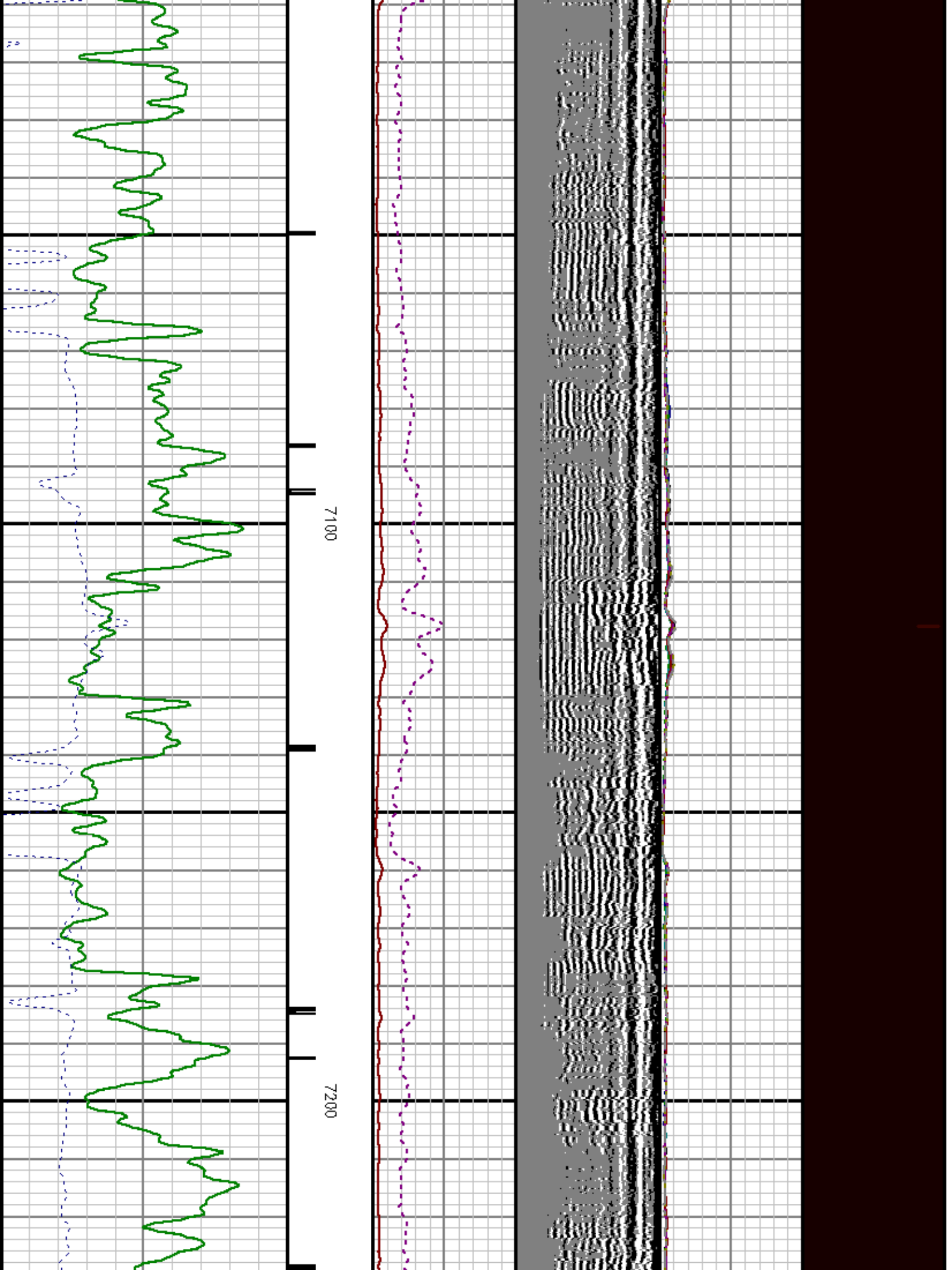


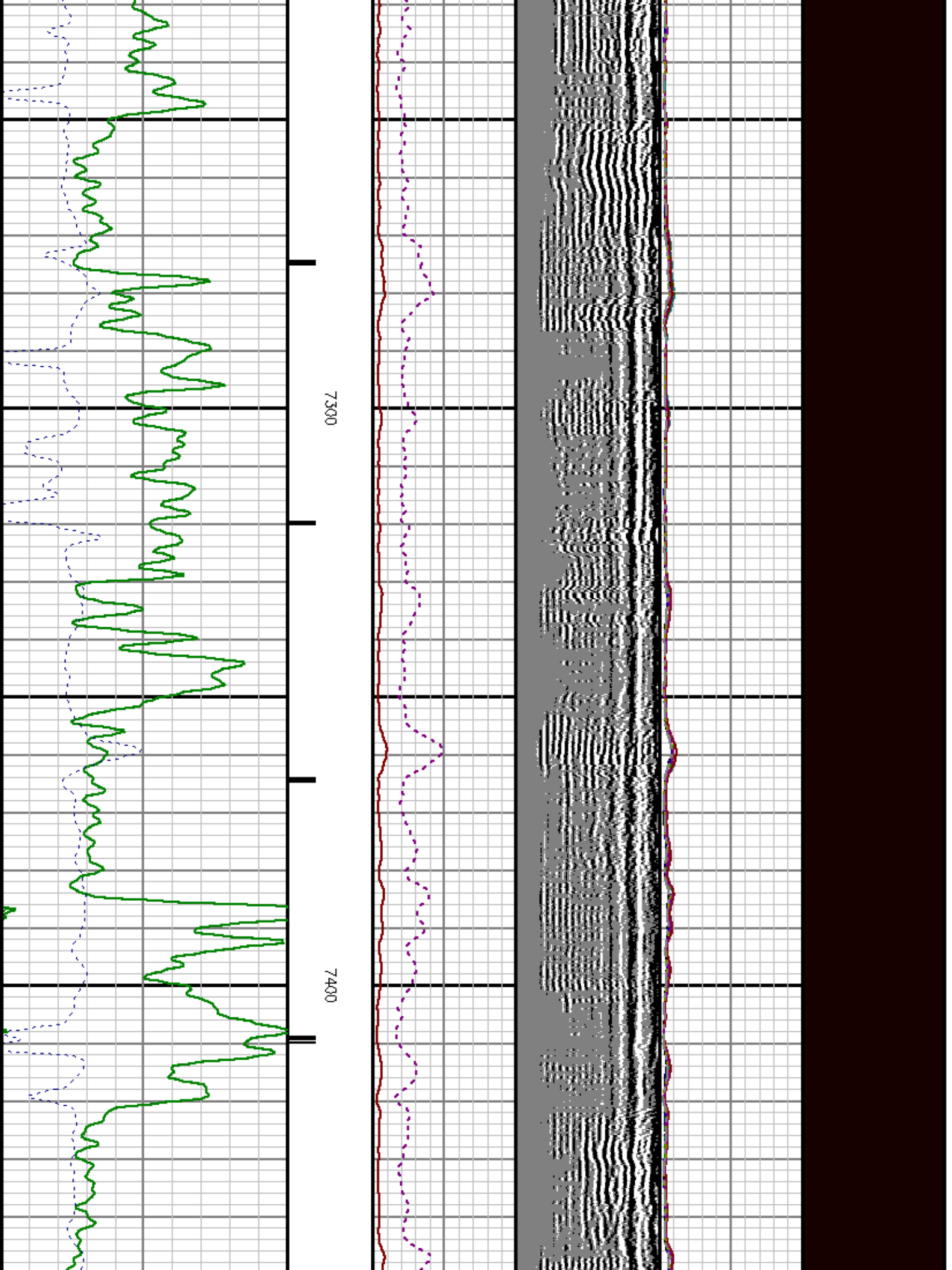


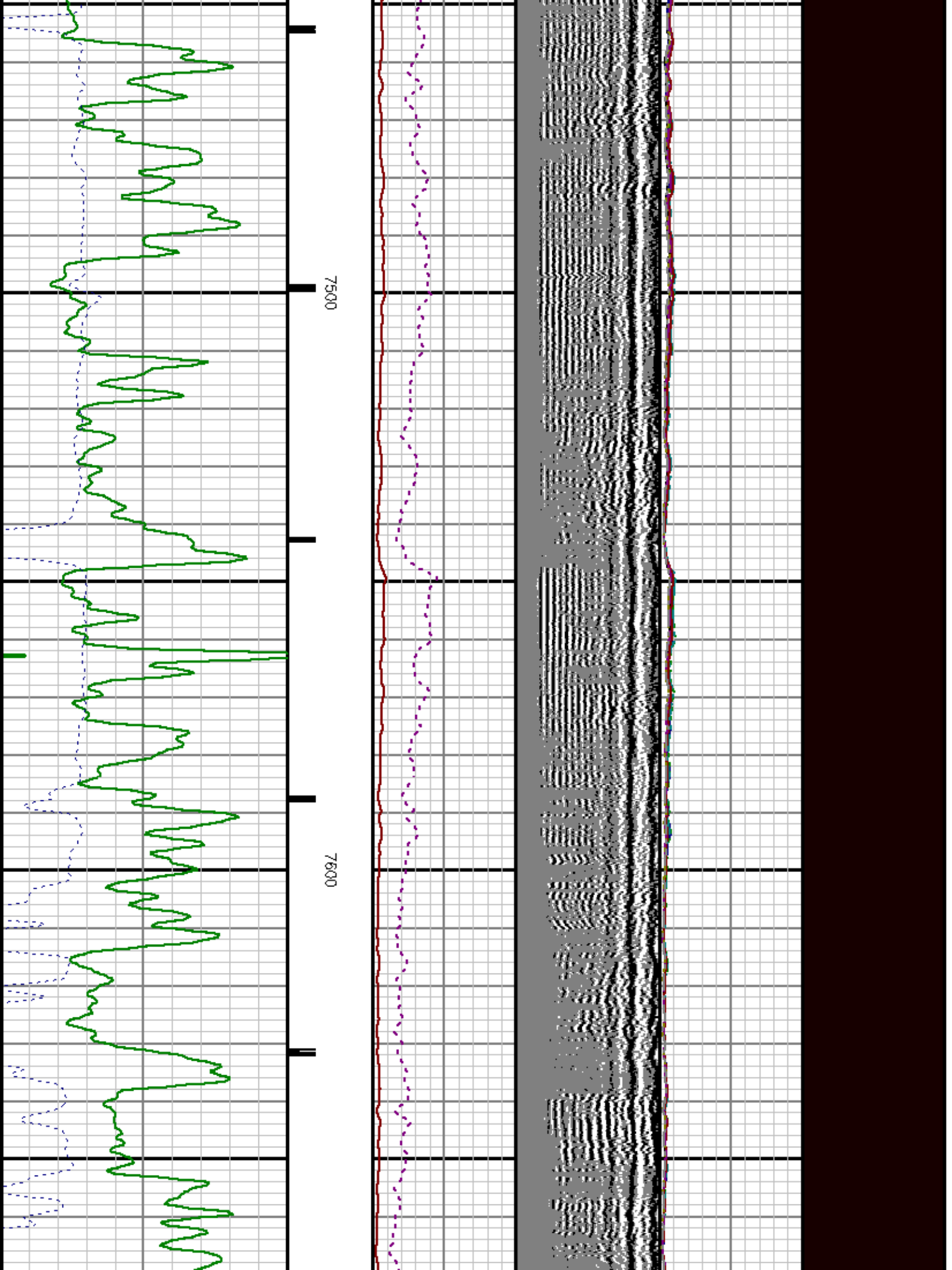




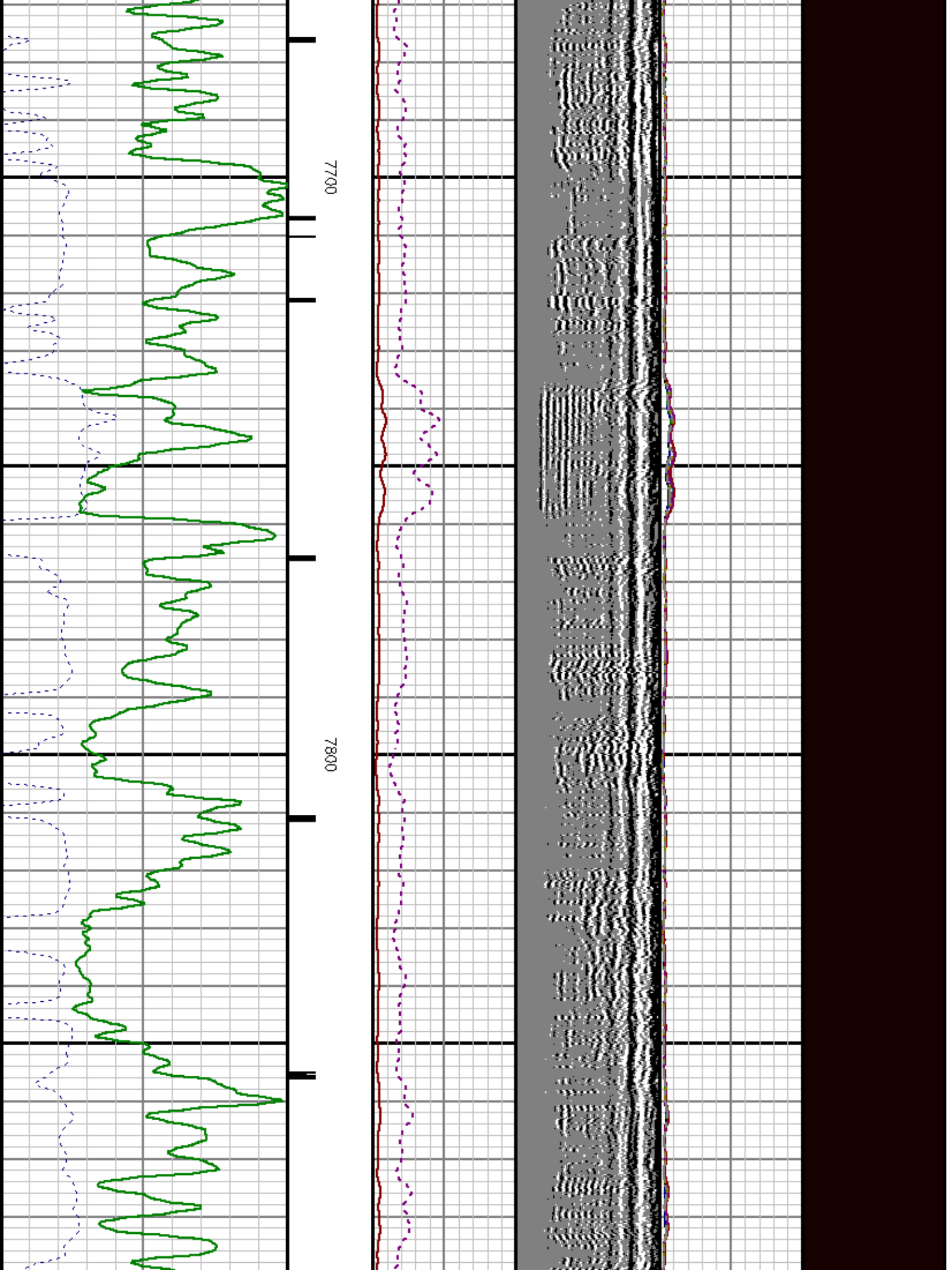


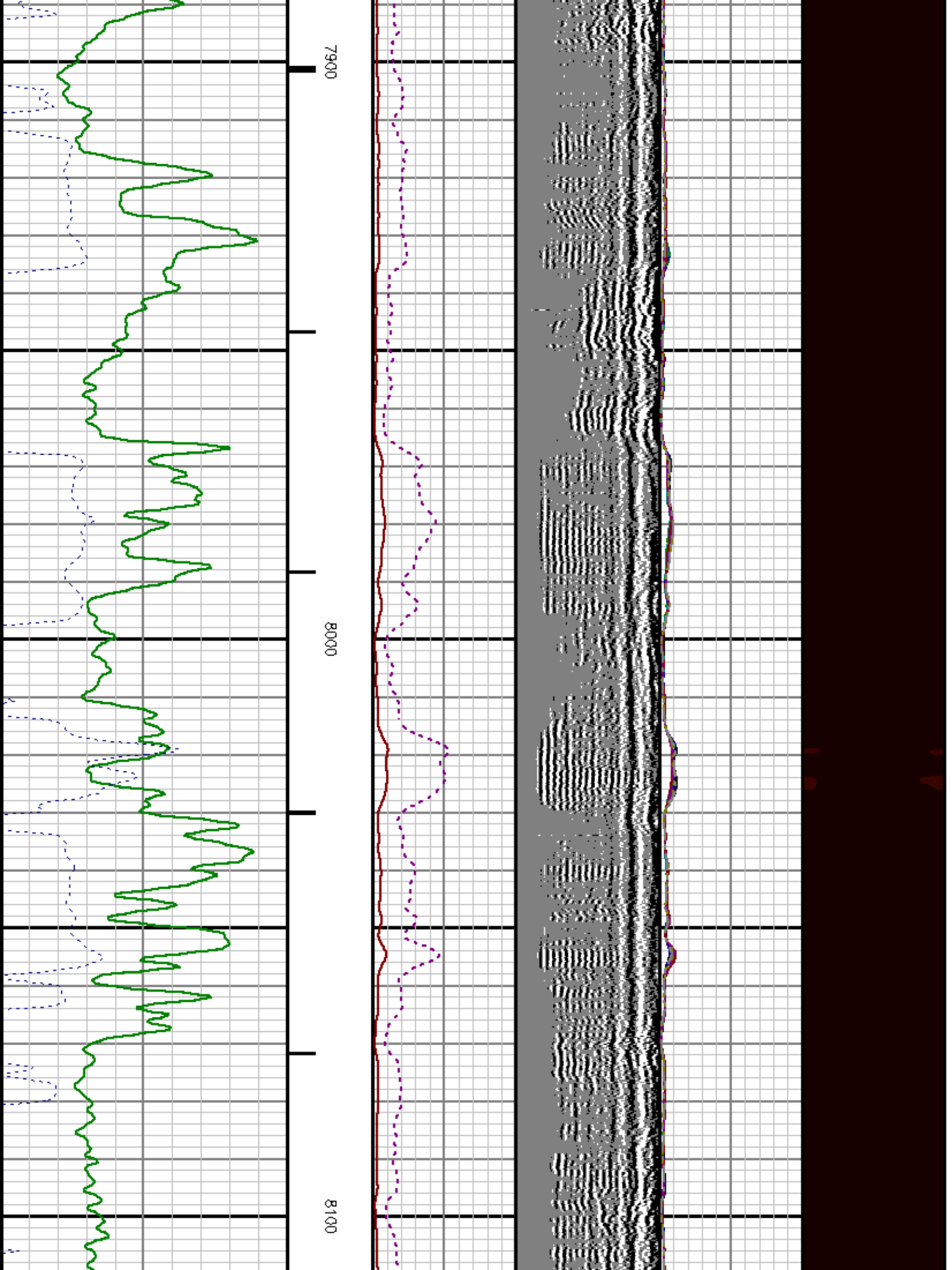


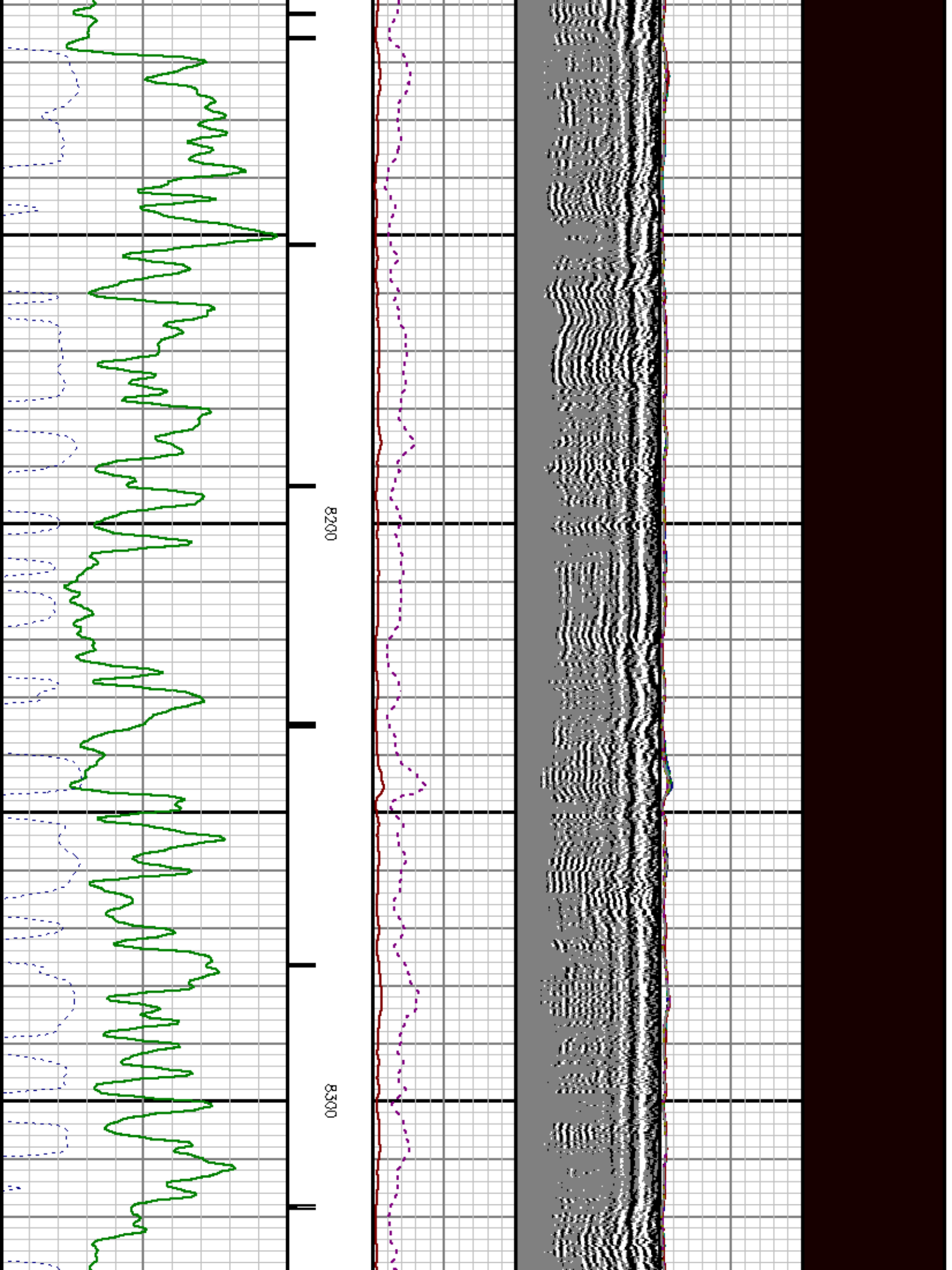


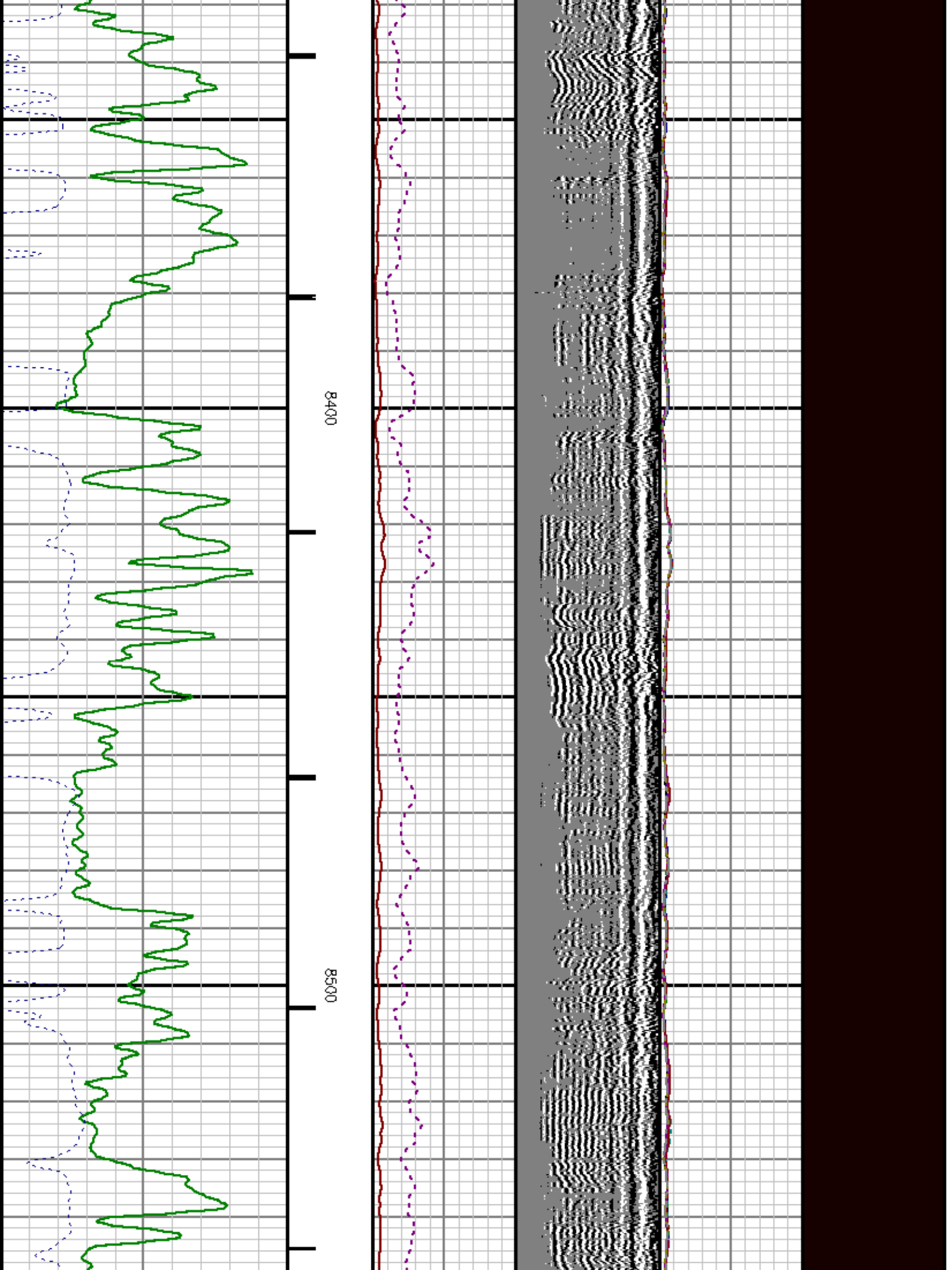




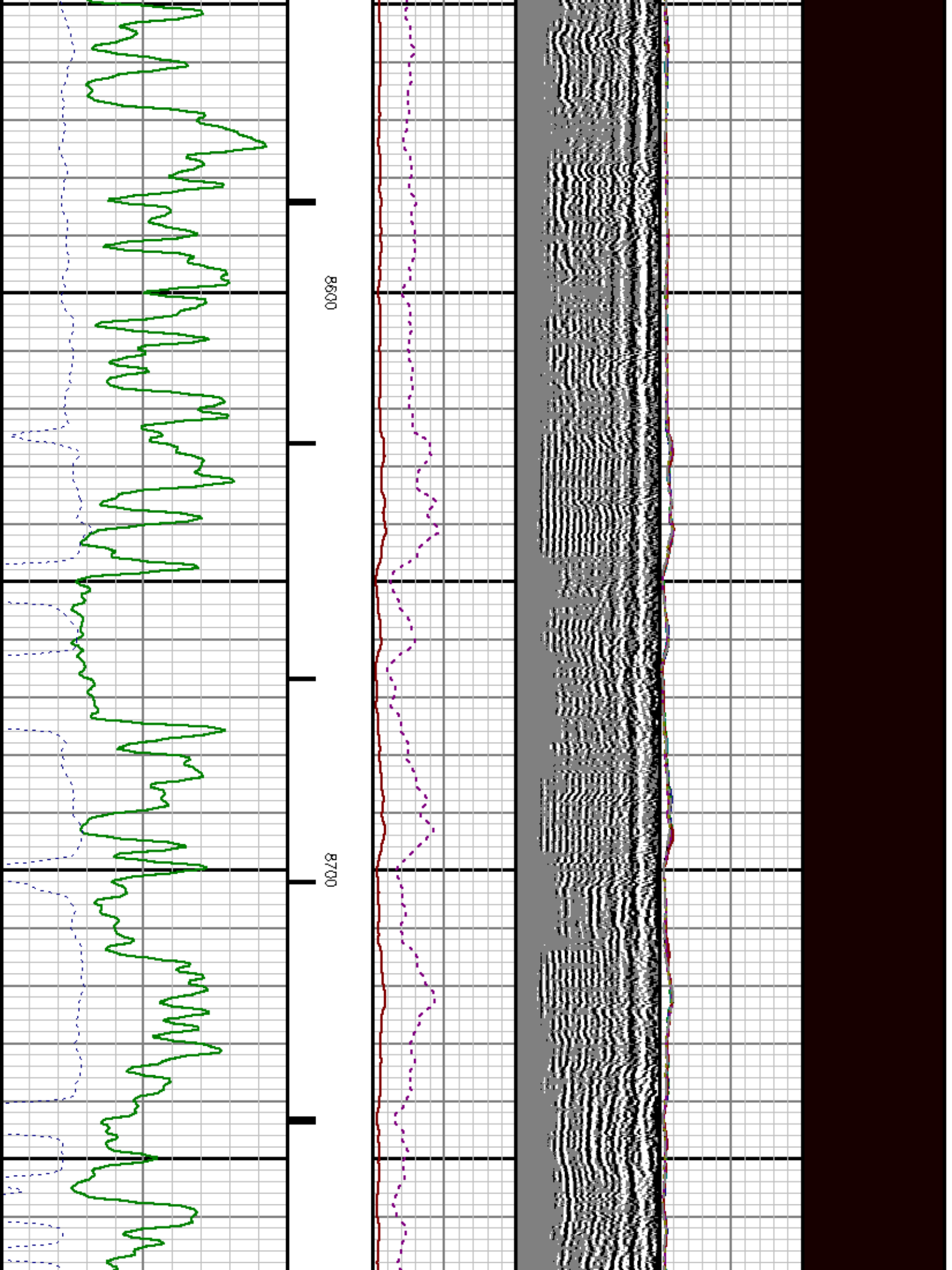


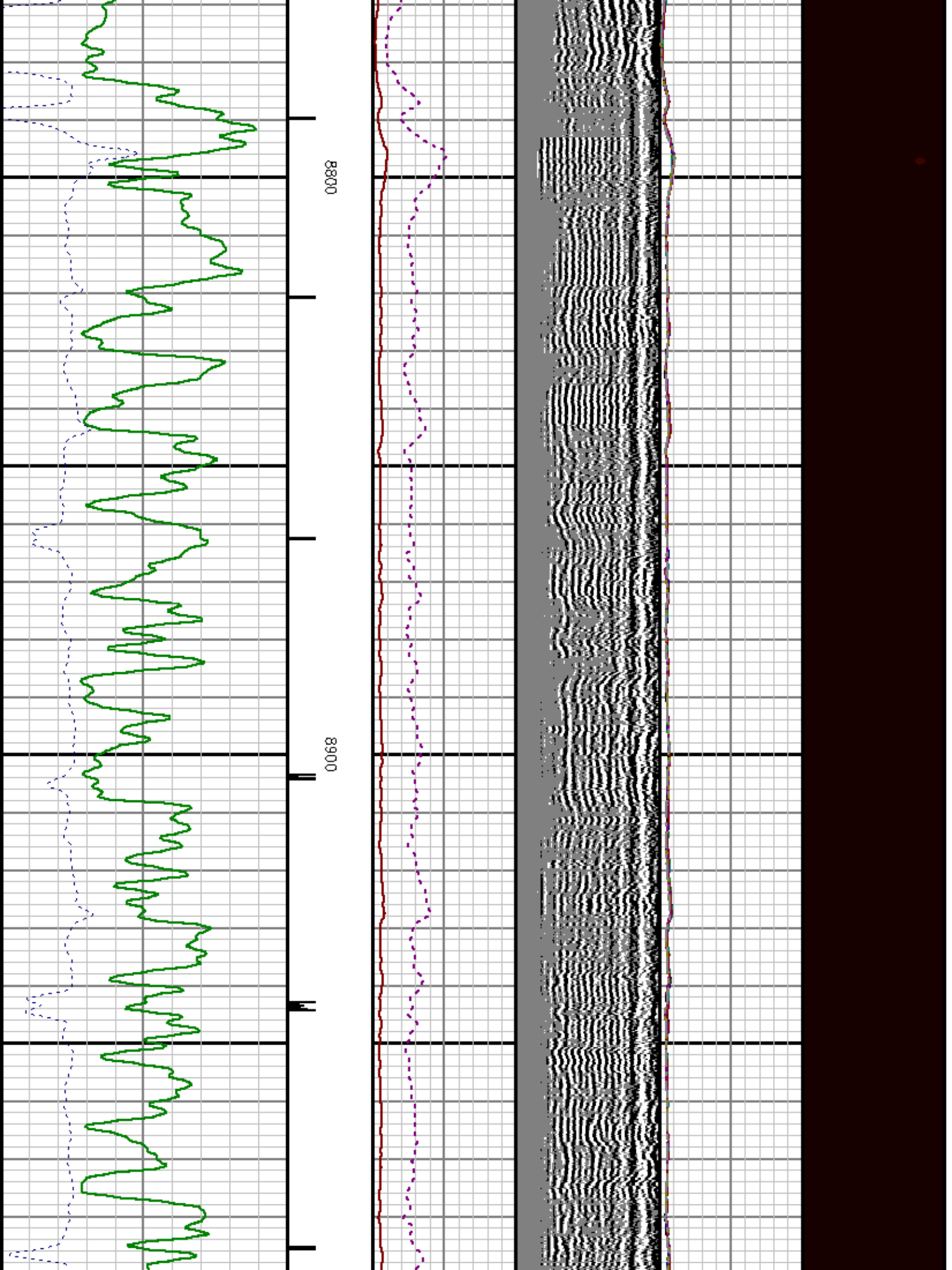


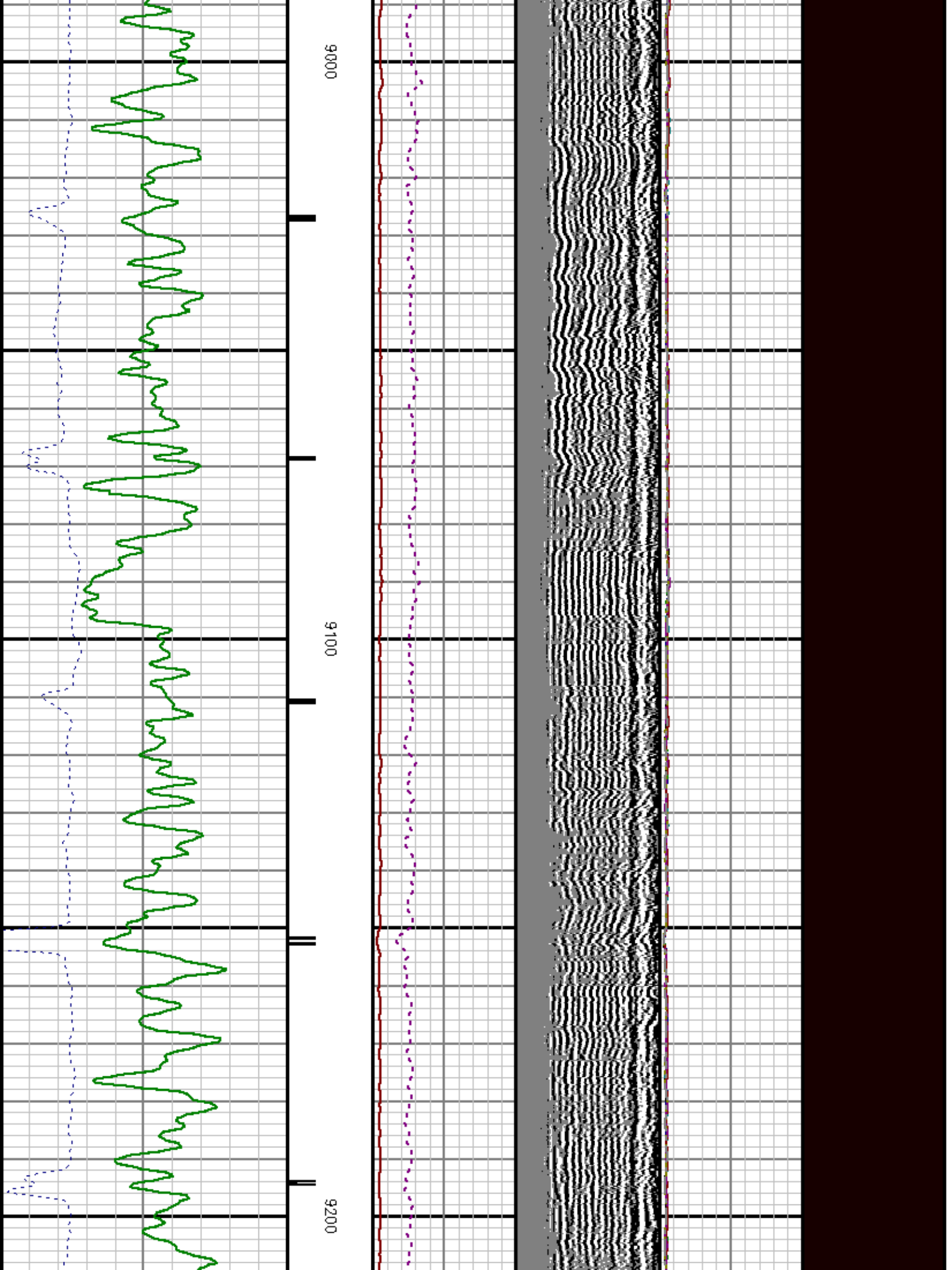


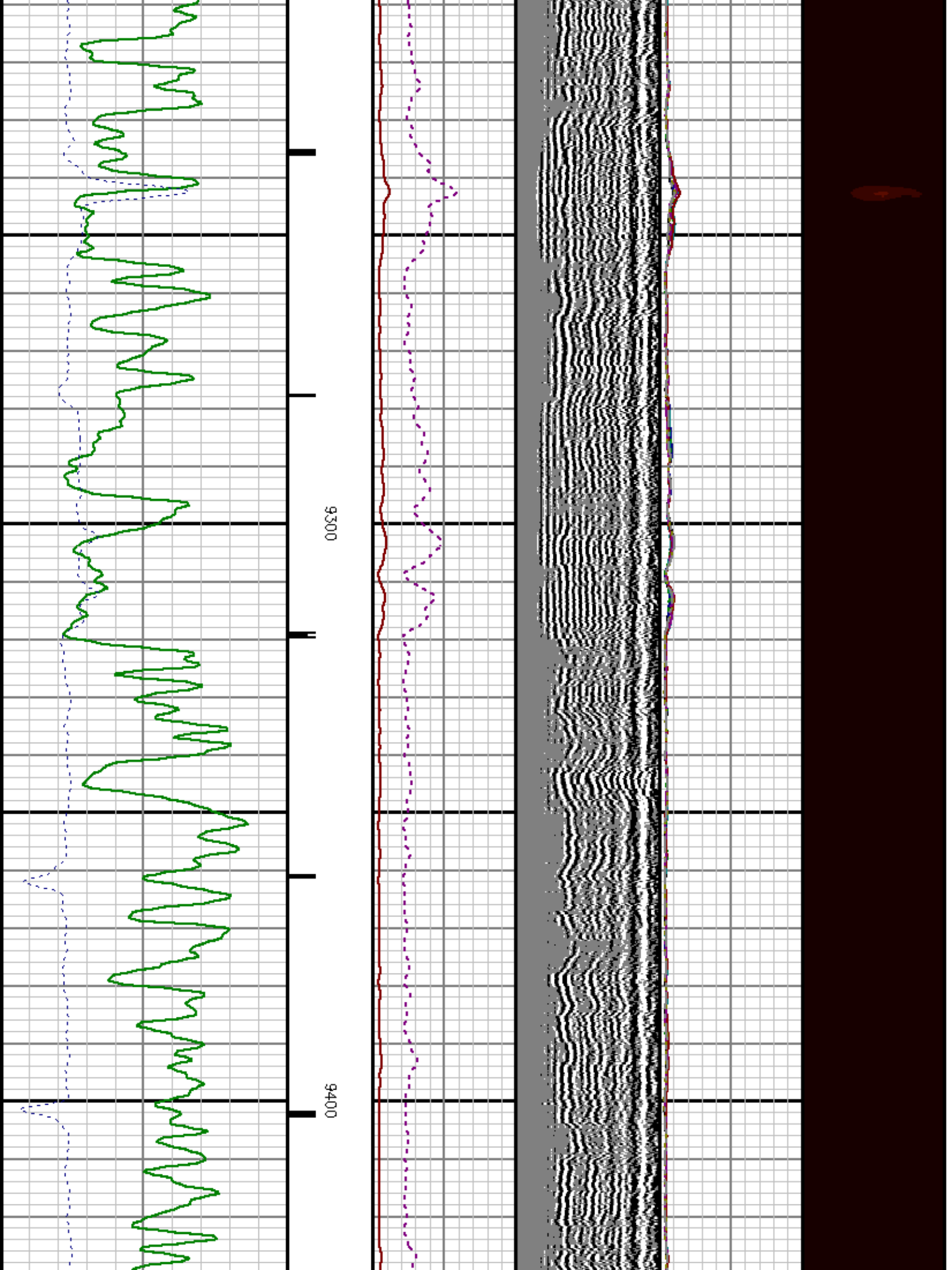




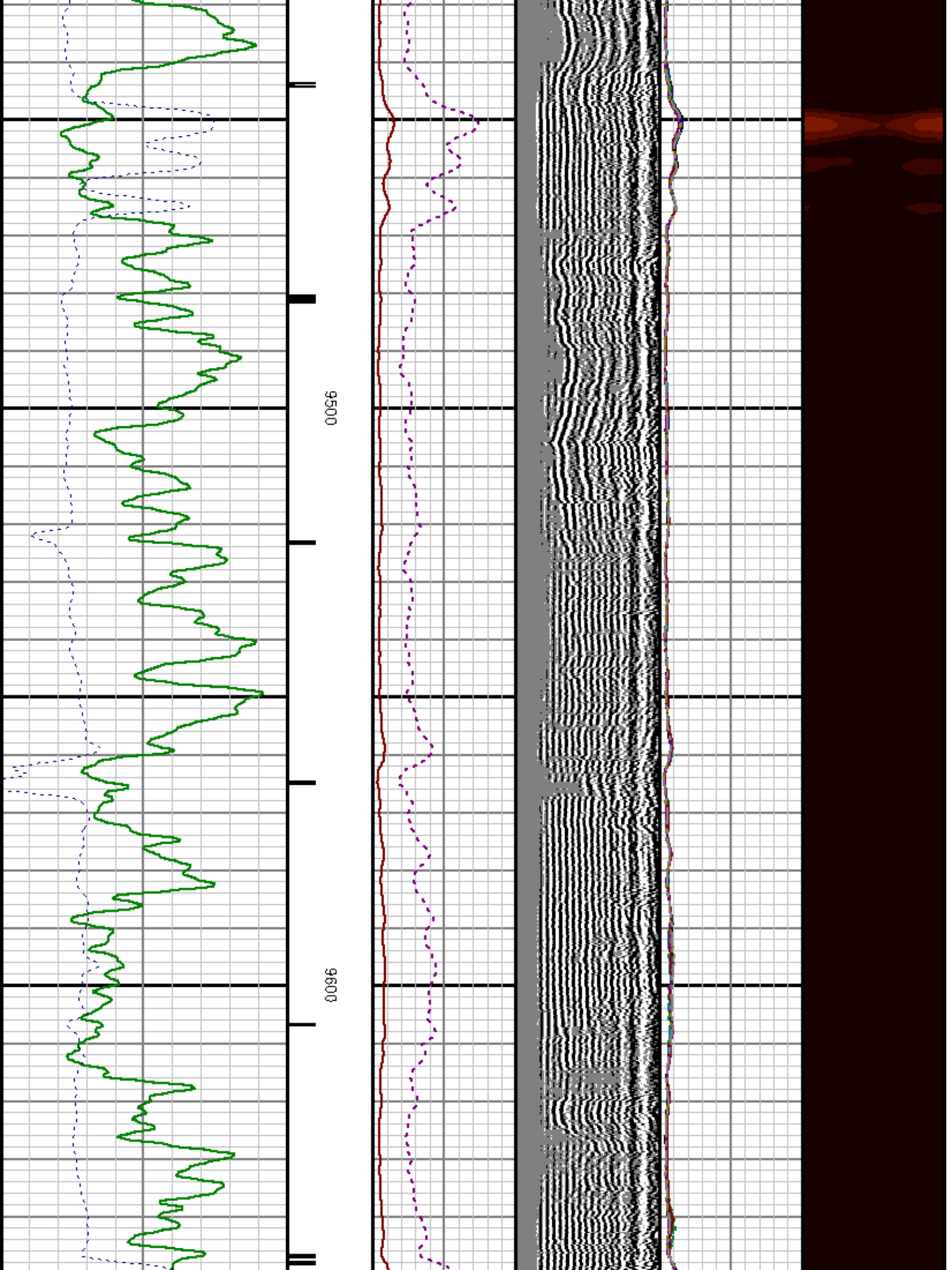


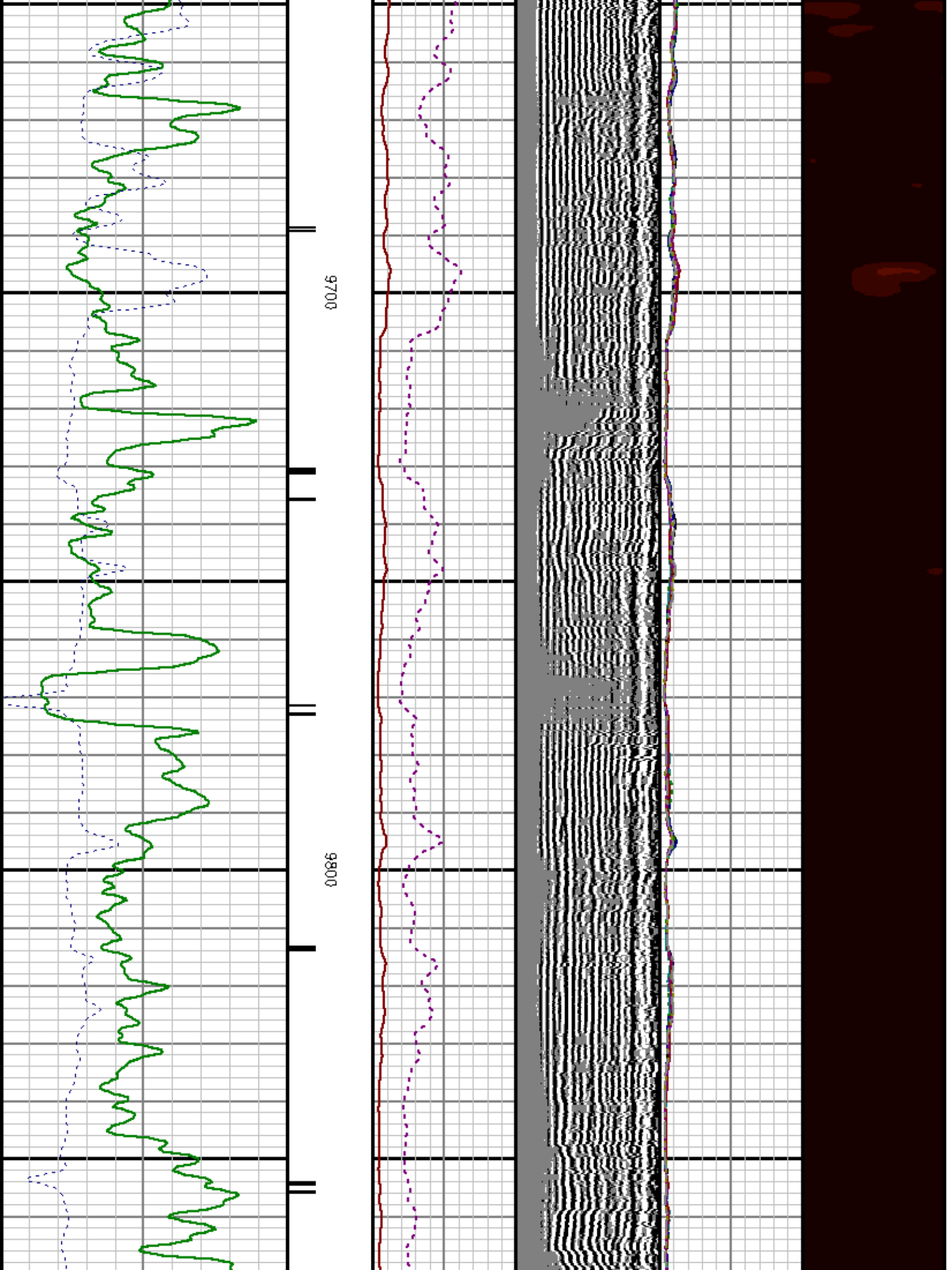


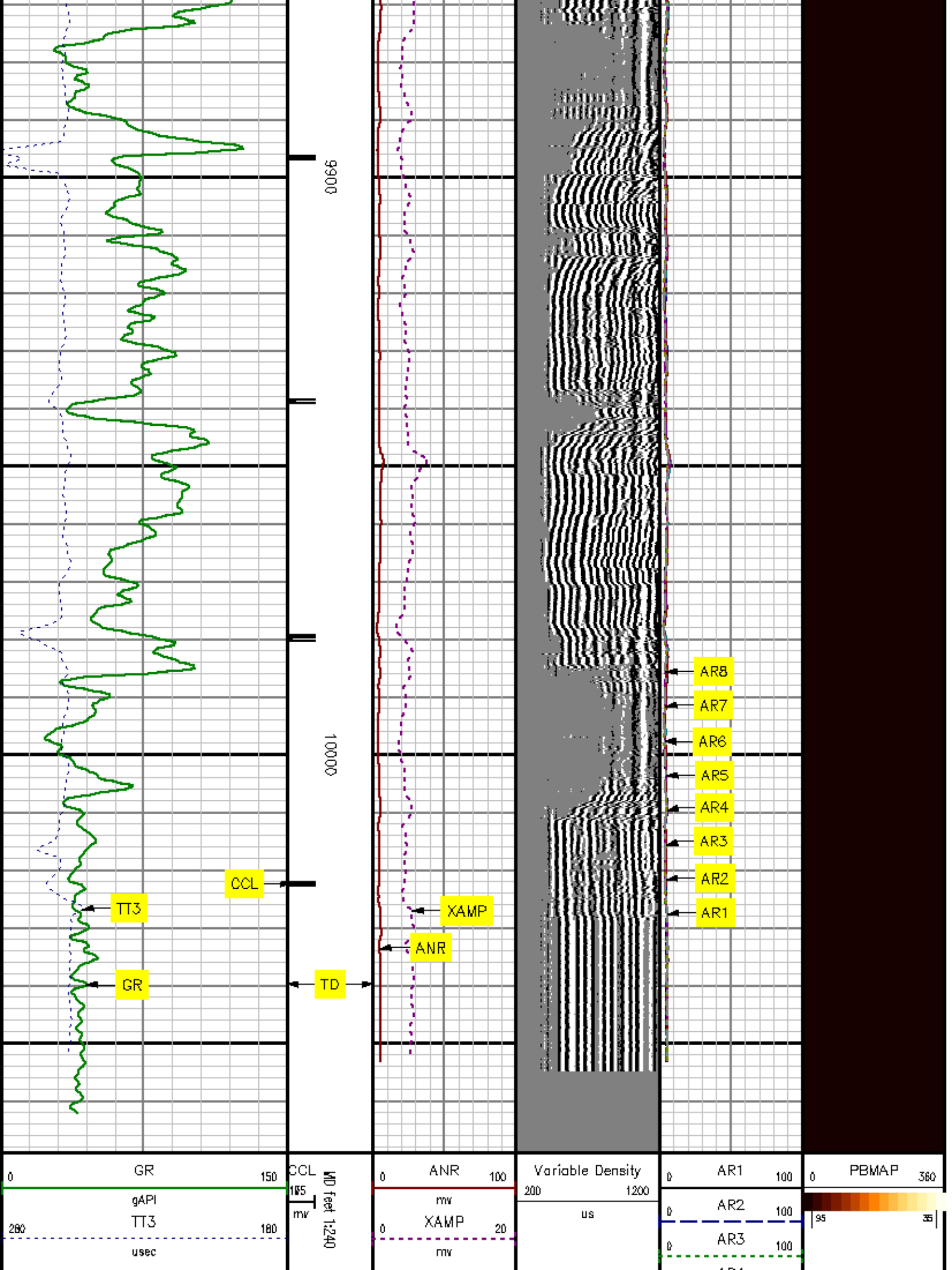












*REPEAT SECTION*  
*0# PSI*

DEPTH OFFSETS  
(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-15.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	YAW



1426XA -14.360  
 1426XA -7.250  
 1426XA -5.390  
 1426XA 0.000

AFAR SIG TT5  
 CCL  
 GR  
 NEU

Created by : RAL, v4.6.007

Plotted by : PlotMgr, v5.4.504

Company : MARATHON OIL COMPANY

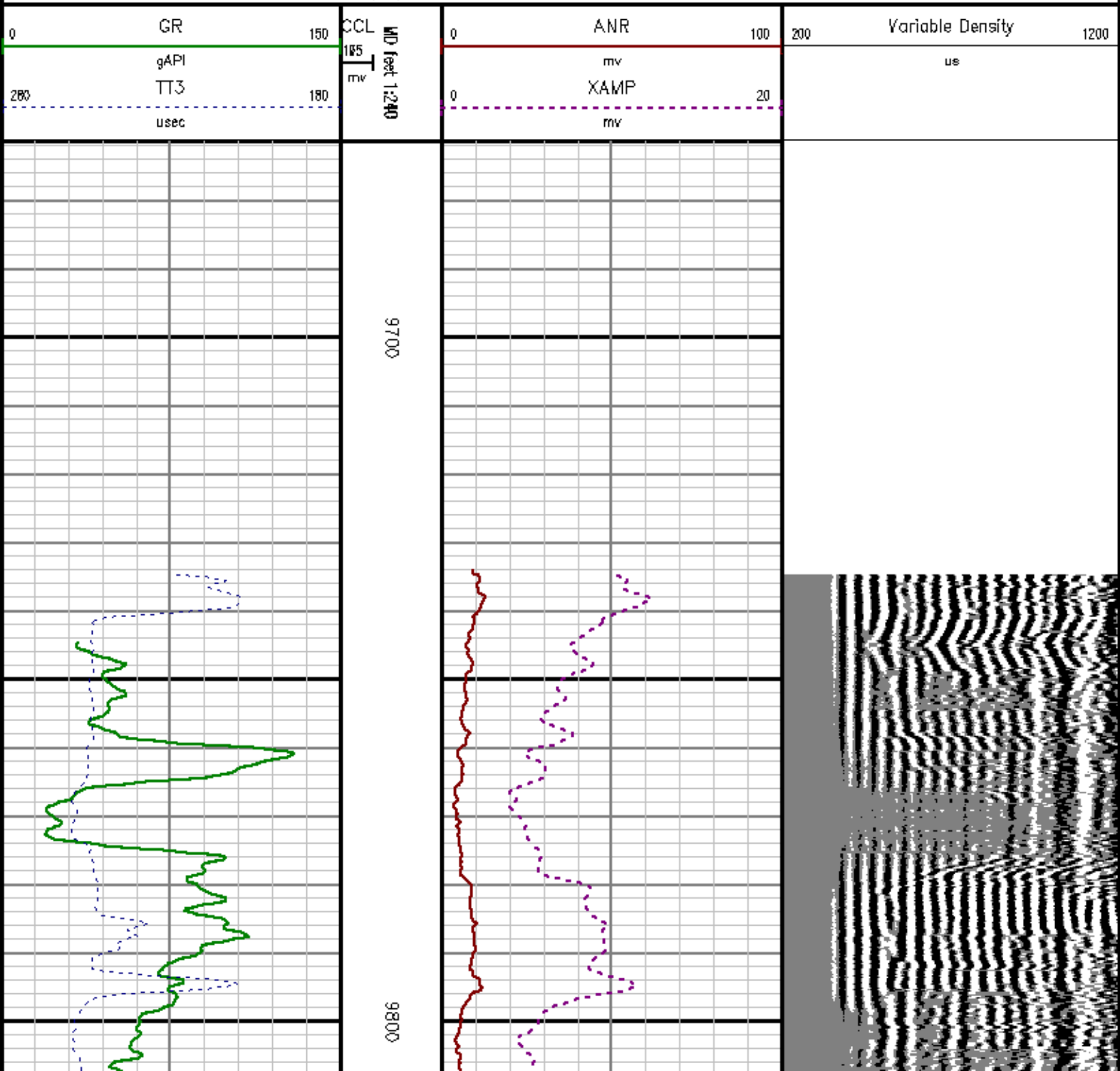
Well : 696-5C-11

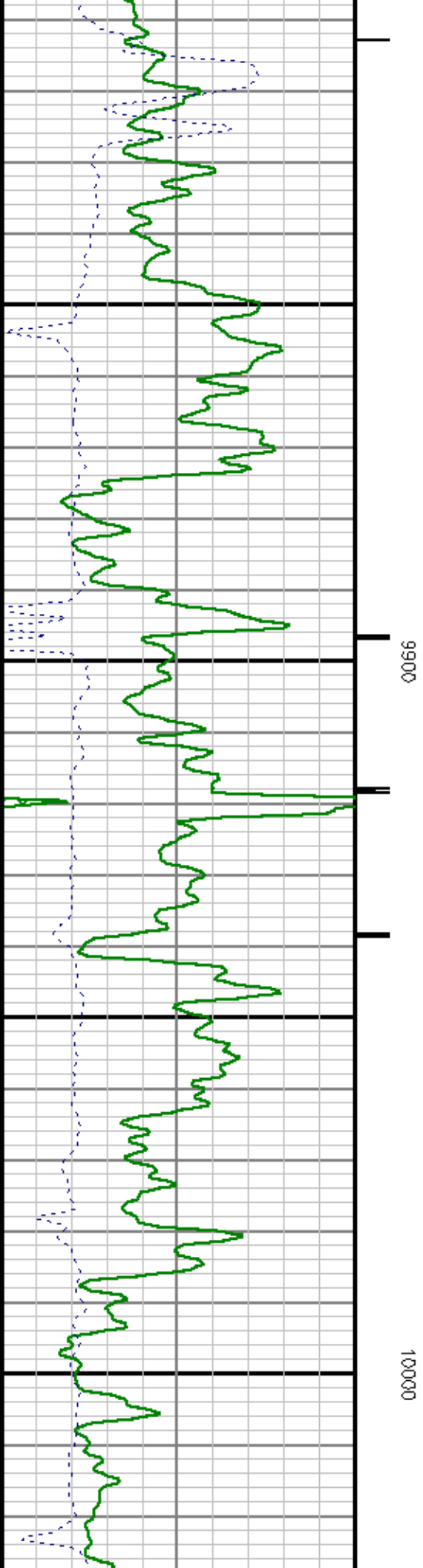
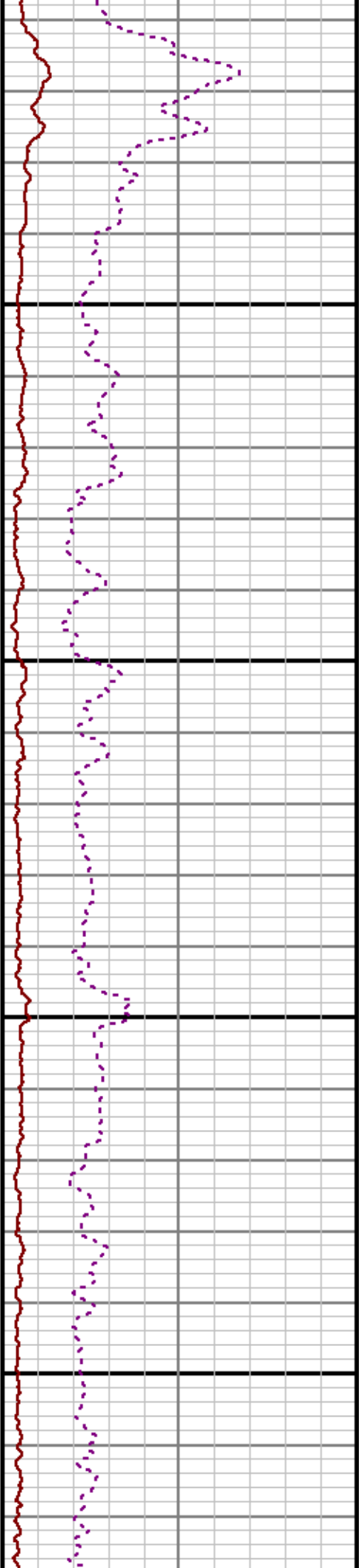
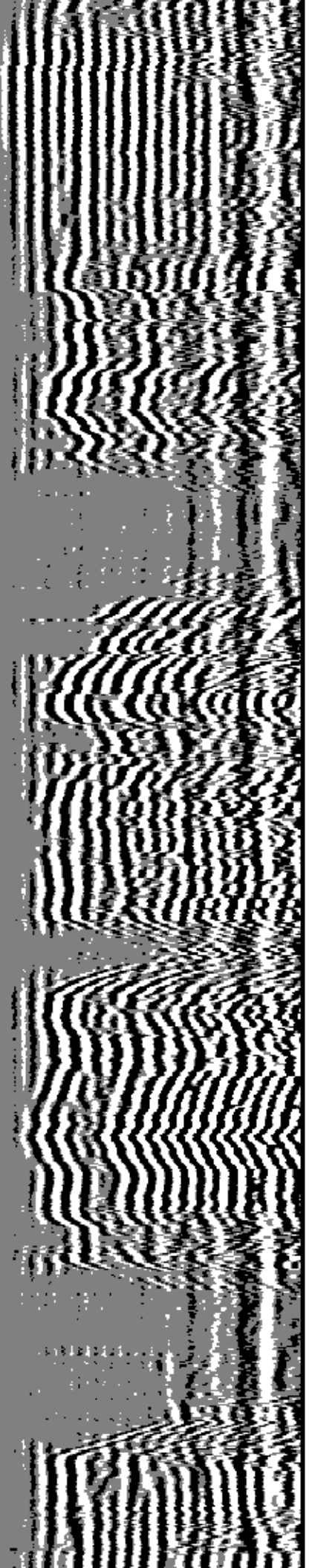
File Name : d:\well\data\11\_5c\rad\repeat.xtf

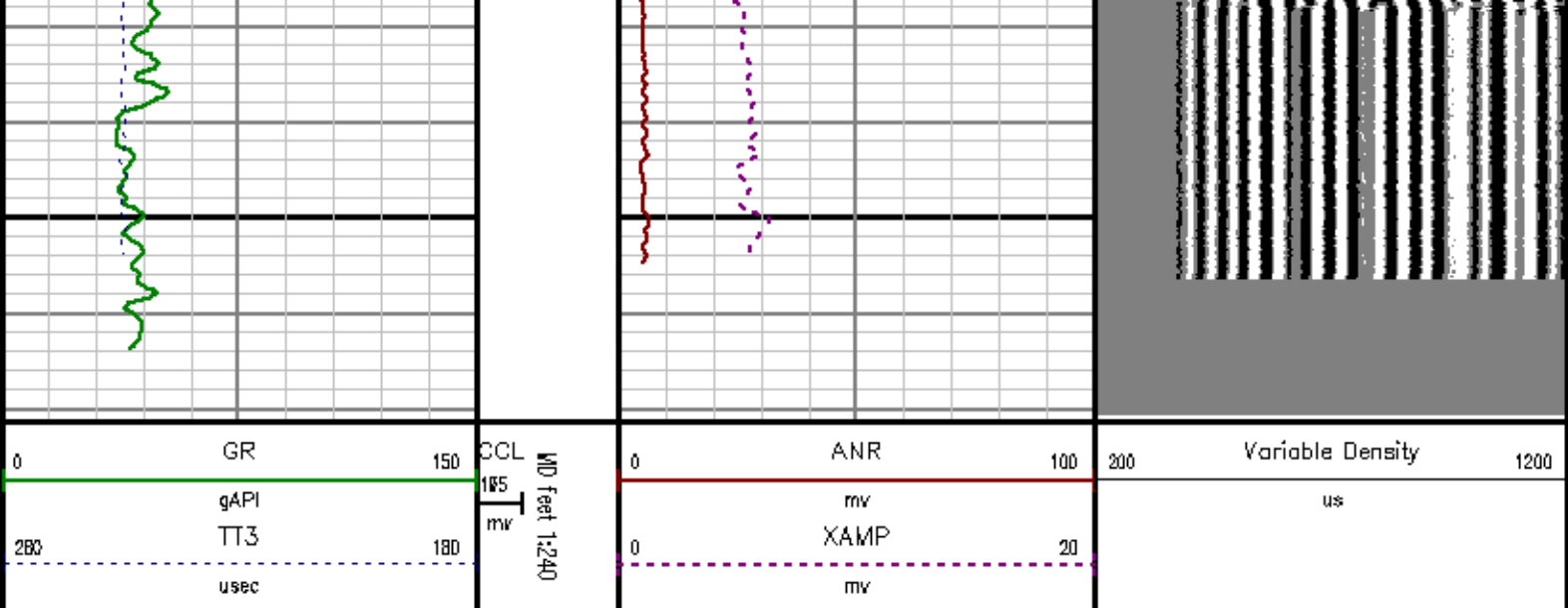
Mode : PlotMgr 5.4.504

Interval : 9671.25 - 10071.25 feet UP

Created : 4/19/2010 8:52:58 AM







## SURFACE CASING PASS

0# PSI

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	316.900	u sec	2225.469	2516.500
RAL	Amp Gate Start Near	200.391	u sec	2225.469	2516.500
RAL	Amp Gate Start Radial	200.391	u sec	2225.469	2516.500
RAL	Amp Gate Width Far	25.000	u sec	2225.469	2516.500
RAL	Amp Gate Width Near	25.000	u sec	2225.469	2516.500
RAL	Amp Gate Width Radial	25.000	u sec	2225.469	2516.500
RAL	casing od	4.500	inches	2225.469	2516.500
RAL	casing wt	11.600	lbm/ft	2225.469	2516.500
RAL	FB Start Far	291.900	u sec	2225.469	2516.500
RAL	FB Start Near	175.391	u sec	2225.469	2516.500
RAL	FB Start Radial	175.391	u sec	2225.469	2516.500
RAL	FB Thresh Far	15.000	mv	2225.469	2516.500
RAL	FB Thresh Near	10.000	mv	2225.469	2516.500
RAL	FB Thresh Radial	10.000	mv	2225.469	2516.500
RAL	Fluid Travel Time	200.000	u sec/ft	2225.469	2516.344

# DEPTH OFFSETS

(for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES							
1426XA	-15.360	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	-14.360	AFAR	SIG	TT5					
1426XA	-7.250	CCL							
1426XA	-5.390	GR							
1426XA	0.000	NEU							

Created by : RAL, v4.6.007

Plotted by : PlotMgr, v5.4.5D4

Company : MARATHON OIL COMPANY

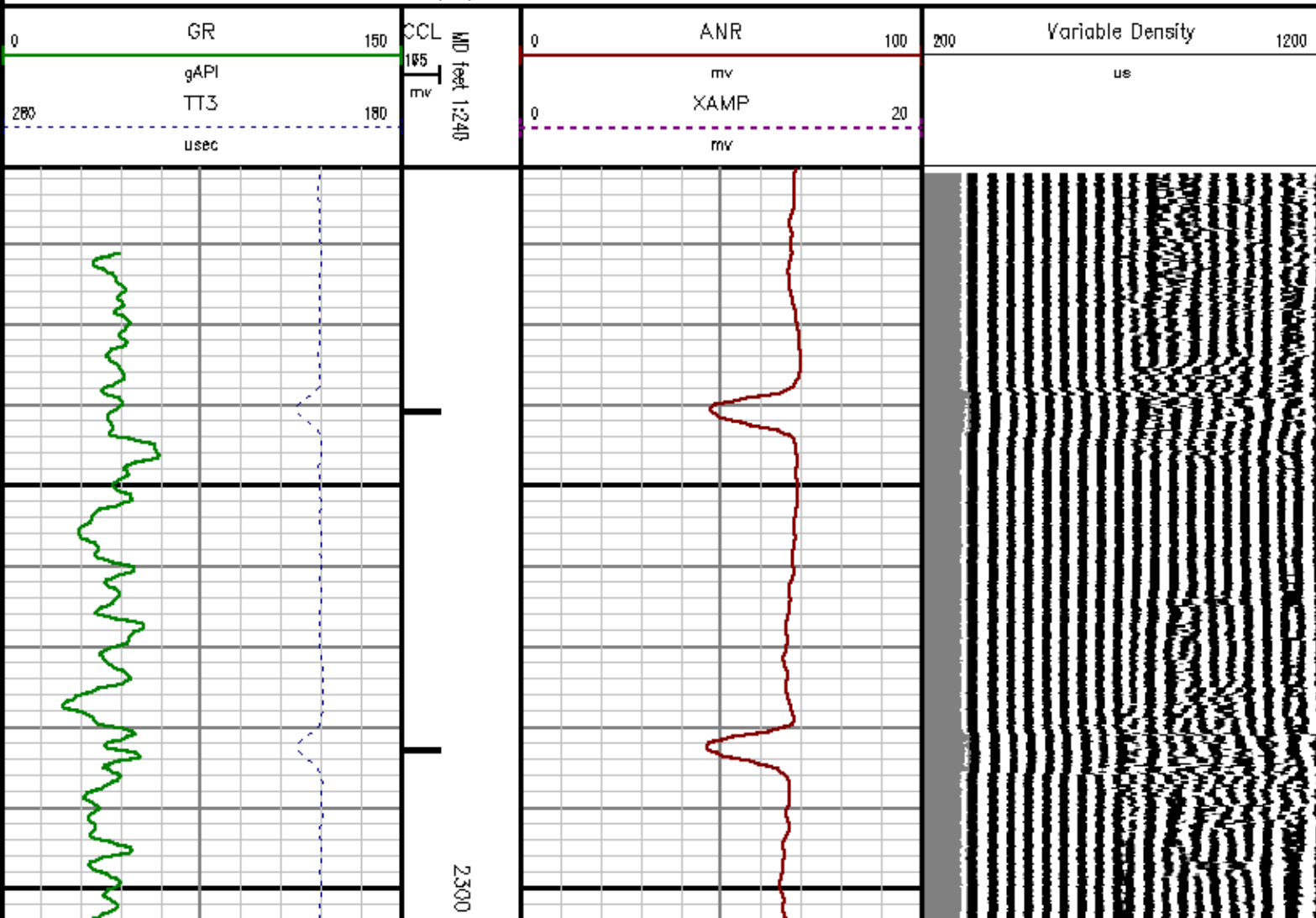
Well : 696-5C-11

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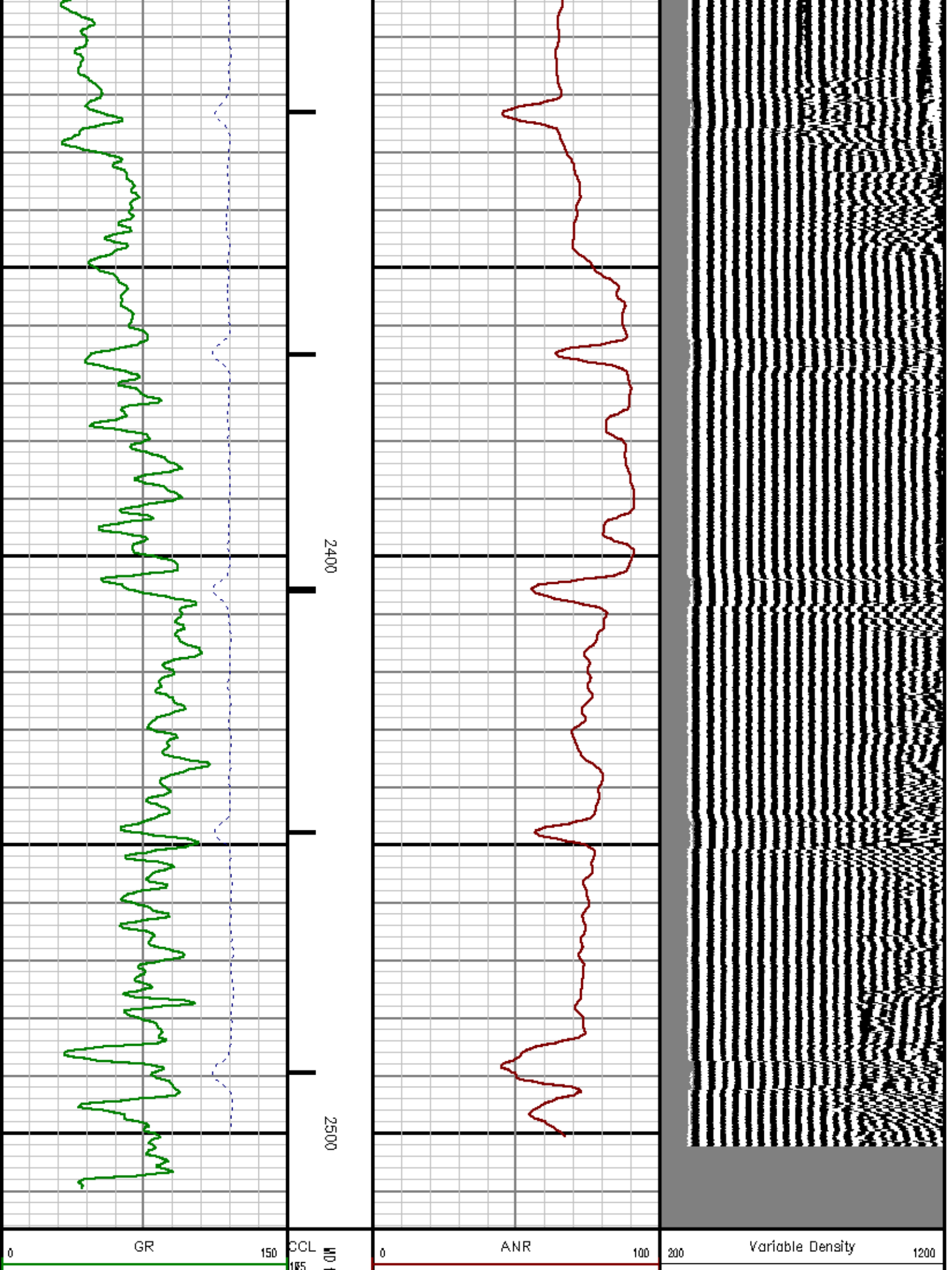
Mode : PlotMgr 5.4.5D4

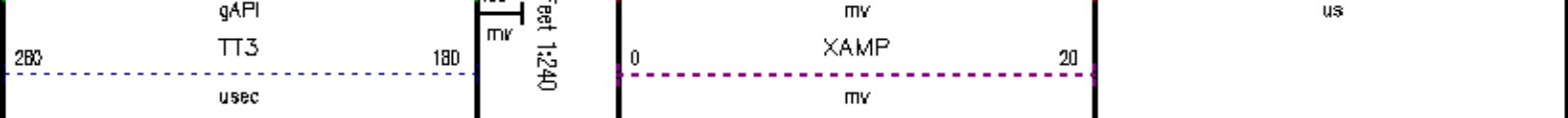
Interval : 2210.50 - 2516.50 feet UP

Created : 4/19/2010 8:16:16 AM









## CALIBRATION SUMMARY

## TOOL DIAGRAM

## GAMMA RAY

Calibration File: C:\case\calver\GR\457A1.cal

### CALIBRATION SUMMARY

DATE/TIME PERFORMED: Thu Apr 08 03:25:20 2010 TOOL SERIES: 2459XA ASSET: 457 SEQ: A1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA905	66.67	340.53	0.676	45.03	230.03	185.00

Verification File: C:\case\calver\GR\457A1.VP

### PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Thu Apr 08 03:27:39 2010 TOOL SERIES: 2459XA ASSET: 457 SEQ: A1

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA905	58.96	332.71	0.676	39.84	224.75	184.91

## RALSHP #2

Shop Calibration: C:\case\calver\RALSHP\947A2\_shp.cal

### SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Apr 18 08:26:07 2010 TOOL SERIES: 1426XA ASSET: 947 SEQ: A2

Tool Delay [usec]	-50.00	Tank OD in	5.50	Tank Wt lbm/ft	15.50	Tank ID in	4.95
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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	222	216	30	166	25	0.223	100.00	0.23
3 Ft. Receiver	222	216	33	166	25	0.553	100.00	0.23
5 Ft. Receiver	330	332	23	239	25	-0.115	150.00	0.25
Radial #1	223	216	27	131	34	-0.354	100.00	0.23
Radial #2	223	216	27	131	34	-0.110	100.00	0.23
Radial #3	222	216	27	131	34	-0.257	100.00	0.23
Radial #4	222	216	27	131	34	0.038	100.00	0.23
Radial #5	220	216	27	131	34	-0.013	100.00	0.23
Radial #6	220	216	27	131	34	-0.085	100.00	0.23
Radial #7	220	216	27	131	34	-0.285	100.00	0.23
Radial #8	223	216	27	131	34	-0.357	100.00	0.23

## RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\947A2 fld.cal

### WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sun Apr 18 06:27:16 2010 TOOL SERIES: 1426XA ASSET: 947 SEQ: A2

Tool Delay [usec] -50.00 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	0.088	0.000	1.00	100.000
3 Ft. Receiver	164	25	0.048			
5 Ft. Receiver	270	25	0.172			
Radial #1	173	25	0.240			
Radial #2	173	25	0.281			
Radial #3	173	25	0.367			
Radial #4	173	25	0.342			
Radial #5	173	25	0.157			
Radial #6	173	25	0.168			
Radial #7	173	25	0.178			
Radial #8	173	25	0.059			

#### OTA SHORT CABLE HEAD

##### CENTRALIZER

Series RALCENT  
Mnemonic CENT  
Diameter 3.12"  
Weight 20.00 lb



30.00'

PROBE 2 3/4 DUAL RECEIVER RADII (1426XA)

CENTRALIZER

Series RALCENT  
Mnemonic CENT  
Diameter 3.12"  
Weight 20.00 lb

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

XMIT 20.94'

NEAR RCVR 17.85'

FAR RCVR 15.94'

CCL 11.34'

GR 9.49'

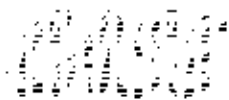
NEU 4.09'

0.00'

Total Length: 30.00'  
Total Weight: Not Available  
Max Diameter: 0' 3.12"



Baker Atlas



Company MARATHON OIL COMPANY

Well 696-5C-11

Field GRAND VALLEY

County GARFIELD State COLORADO

Location

SHL: 3474' FNL & 1307' FNL

Elevations

KB 8153 ft

DF 8152 ft

GL 8129 ft

SEC 5 TWP 6S RGE 96W

File No:

1753

API No:

06045183840000