



# RADIAL ANALYSIS BOND LOG

Baker Atlas

File No: EXXONMOBIL PRODUCTION COMPANY

CHC98987 PCU 296-5A1

Well PICEANCE CREEK

API No. RIO BLANCO State COLORADO

08103112480000

Location: Other Services

SHL: 60B' PNL & 561' PNL

RPM

SEC: 5 TWP: 2S RGE: 98W

G.L. Elevation 8308 ft

K.B. 30.2 ft Above P. D.

KELLY BISHING

Elevations

KB 7338.2 ft

DF 7338.8 ft

GL 7308 ft

Permanent Datum  
Log Measured From  
Orill Measured From

Date 23-JULY-2011

Run ONE

Service Order 575379

Depth Driller 14179 ft

Depth Logger 14068 ft

Bottom Logged Interval 14068 ft

Top Logged Interval 9650 ft

Time Started 18:00

Time Finished 23:00

Operator Rig Time 4 HRS

Type of Fluid in Hole WATER

Fluid Density N/A

Fluid Salinity N/A

Fluid Level PULL

Logged Cement Top N/A

Wellhead Pressure 0 psi

Maximum Hole Deviation N/A

Nominal Logging Speed 45 fpm

Maximum Recorded Temperature 294 degF

Reference Log N/A

Reference Log Date N/A

Equipment Location 4271

Recorded By TIM KAUTT

Witnessed By MR. JIM PETERSON

- 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
9.875 in		
8.125 in		

## Casing Record

Size	Weight	Grade	From	To
7 in	26 lbm/ft	P-110	SURFACE	10094 ft
4.5 in	15.1 lbm/ft	P-110	SURFACE	14179 ft

## Remarks

Short joints are marked on log.  
The crew of 4271 Thanks You.

## Equipment Data

Run	Trip	Tool	Series Number	Serial Number	Position

	1	WANDREL	1426XA	10154957	CENTRALIZED
1	1	GAMMA RAY	2456KA	10417457	CENTRALIZED

## MAIN SECTION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	5949.750	14116.000
RAL	Amp Gate Start Near	197.754	usec	5949.750	14116.000
RAL	Amp Gate Start Radial	197.754	usec	5949.750	14116.000
RAL	Amp Gate Width Far	25.000	usec	5949.750	14116.000
RAL	Amp Gate Width Near	25.000	usec	5949.750	14116.000
RAL	Amp Gate Width Radial	25.000	usec	5949.750	14116.000
RAL	casing od	4.500	inches	5949.750	14116.000
RAL	casing wt	15.100	lbm/ft	5949.750	14116.000
RAL	FB Start Far	289.263	usec	5949.750	14116.000
RAL	FB Start Near	172.754	usec	5949.750	14116.000
RAL	FB Start Radial	172.754	usec	5949.750	14116.000
RAL	FB Thresh Far	10.000	mv	5949.750	14116.000
RAL	FB Thresh Near	4.000	mv	5949.750	14116.000
RAL	FB Thresh Radial	4.000	mv	5949.750	14116.000
RAL	Fluid Travel Time	200.000	usec/ft	5949.750	14115.942

## DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	ACAL	ANR	AR1	AR2	AR3	AR4
		AR5	AR6	AR7	AR8	CHV	FPR2
		FPR3	FPR5	TT3	TTR1	TTR2	TTR3
		TTR4	TTR5	TTR6	TTR7	TTR8	XAMP
		AFAR	SIG	TT5			
1426XA	-11.360						
1426XA	-7.250	CCL					
1426XA	-5.390	GR					
1426XA	0.000	NEU					

Created by : RAL, v4.8.D07

Plotted by : PlotMgr, v5.4.5D4

Company : EXXONMOBIL PRODUCTION COMPANY

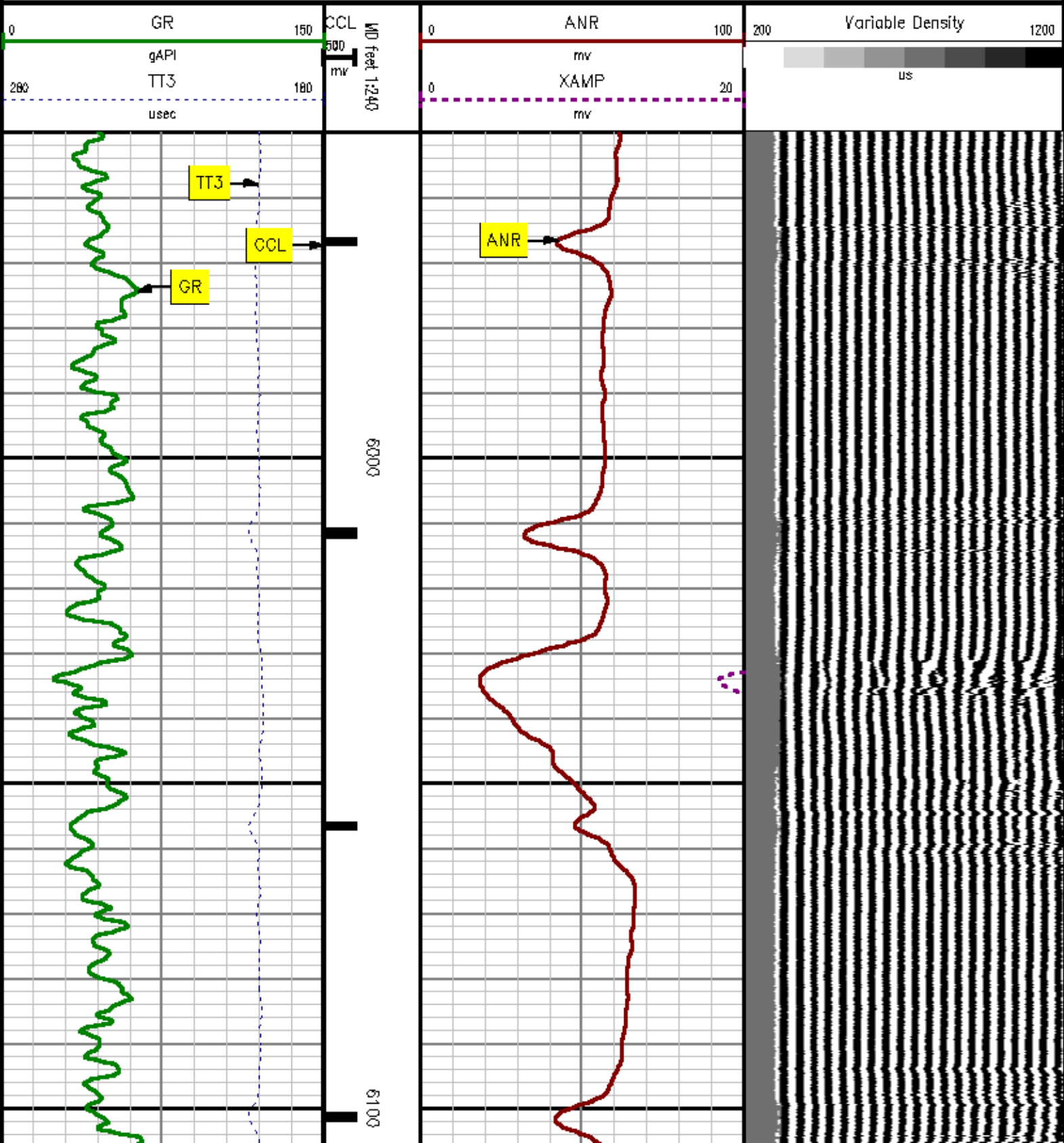
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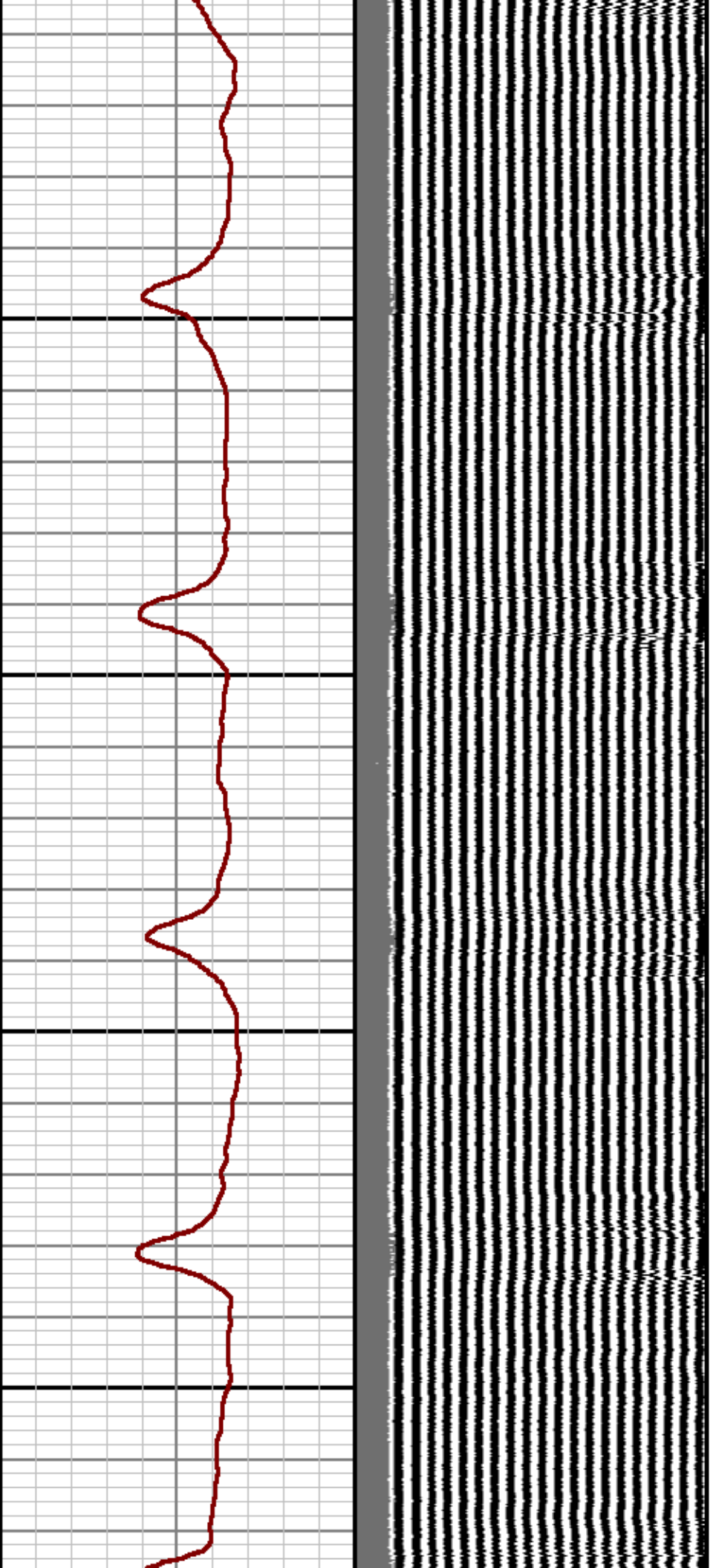
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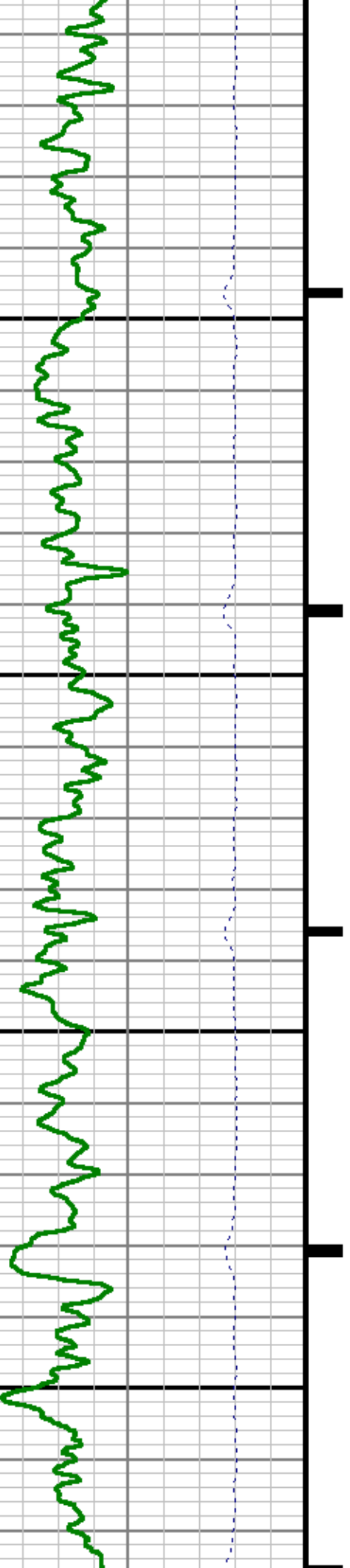
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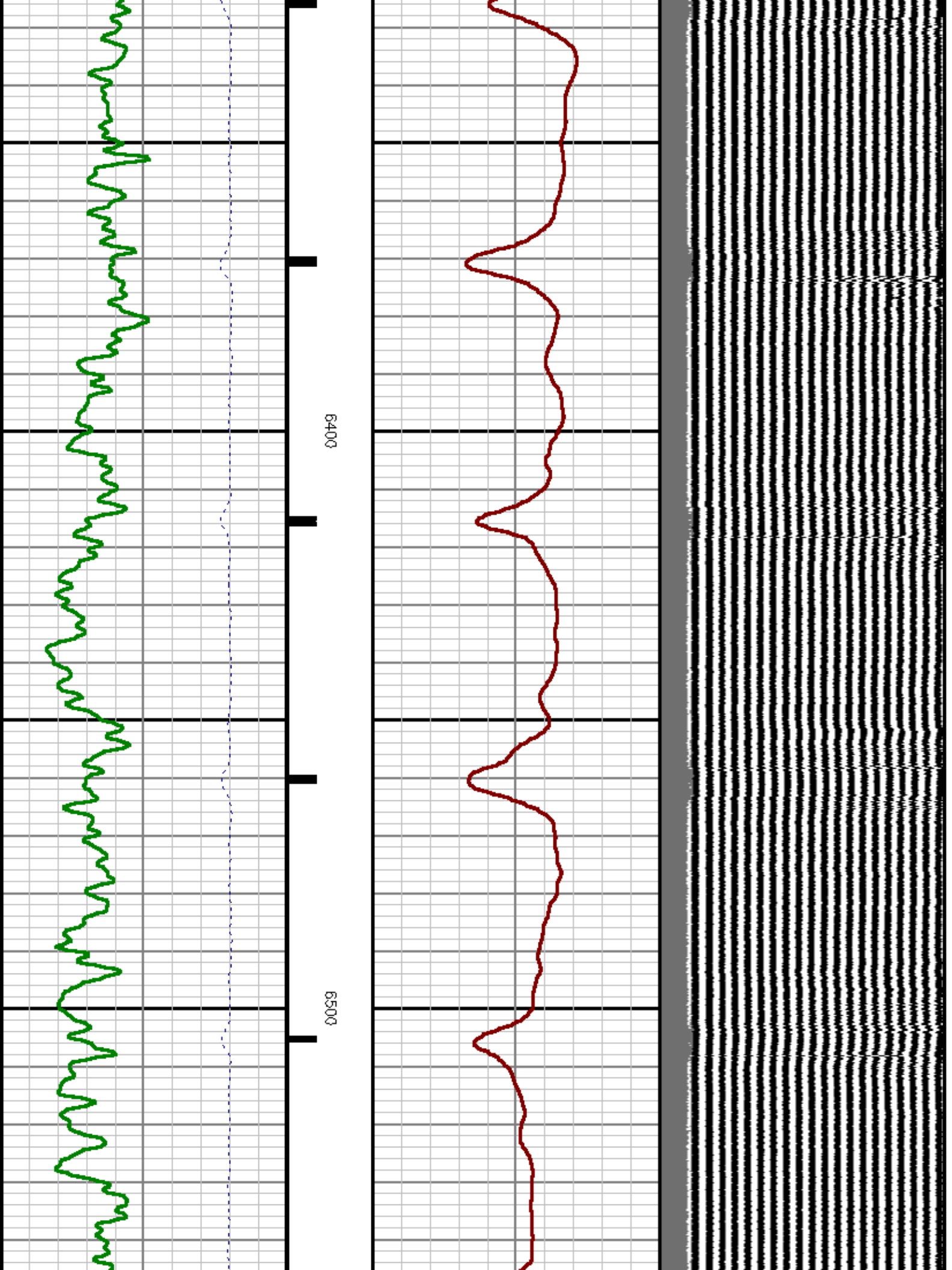




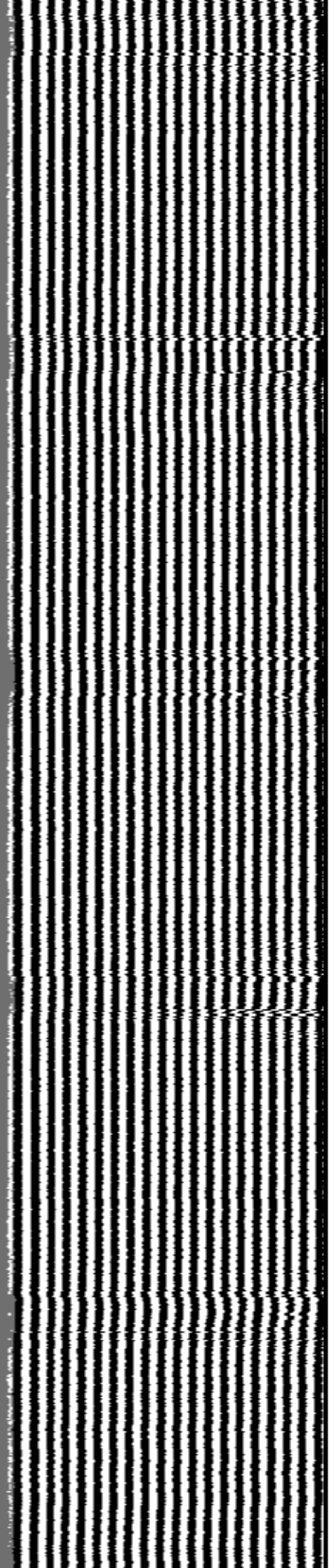
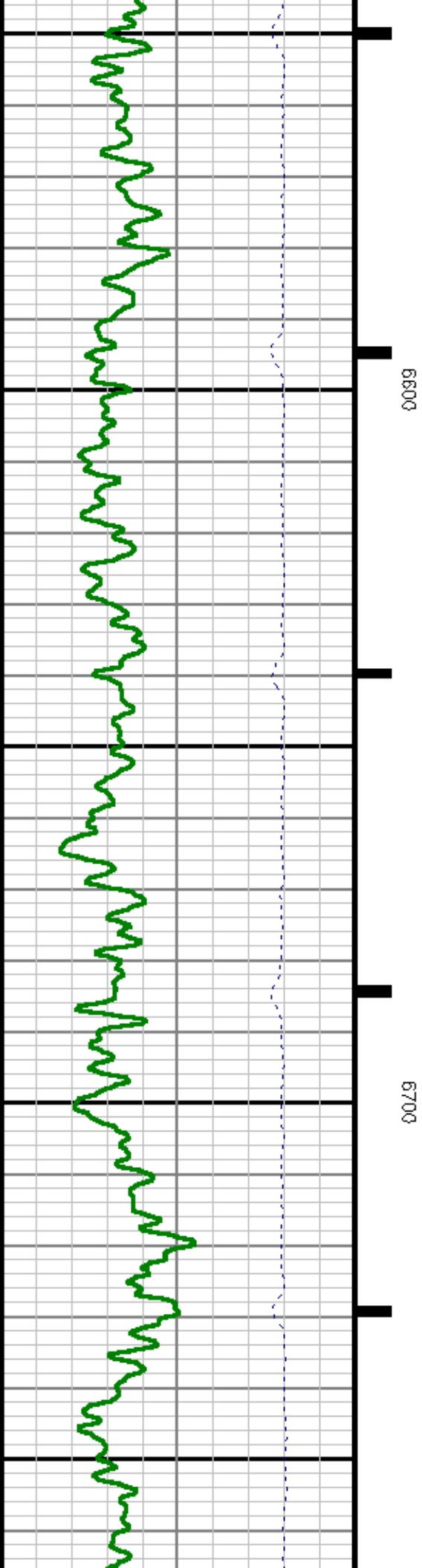
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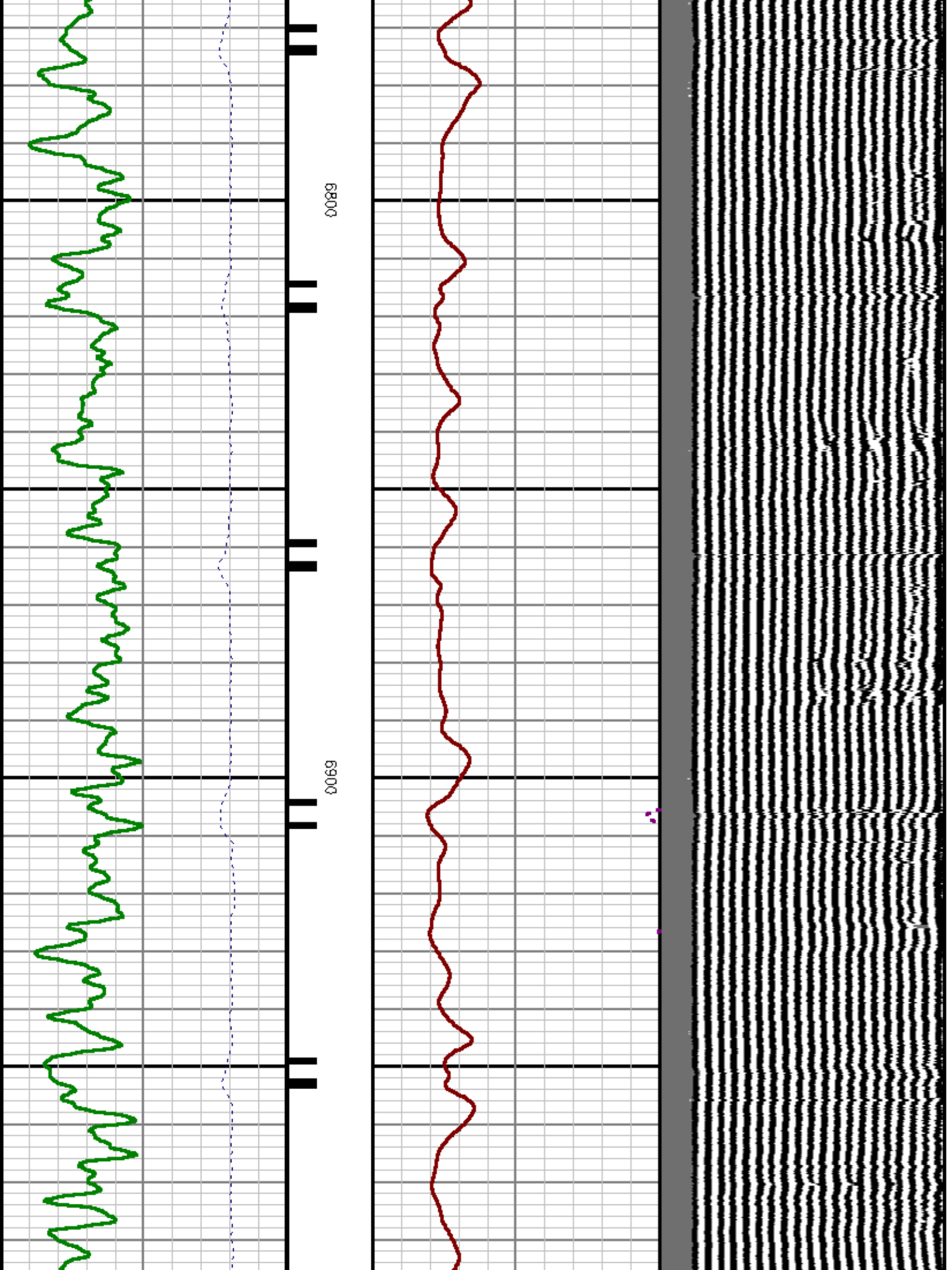
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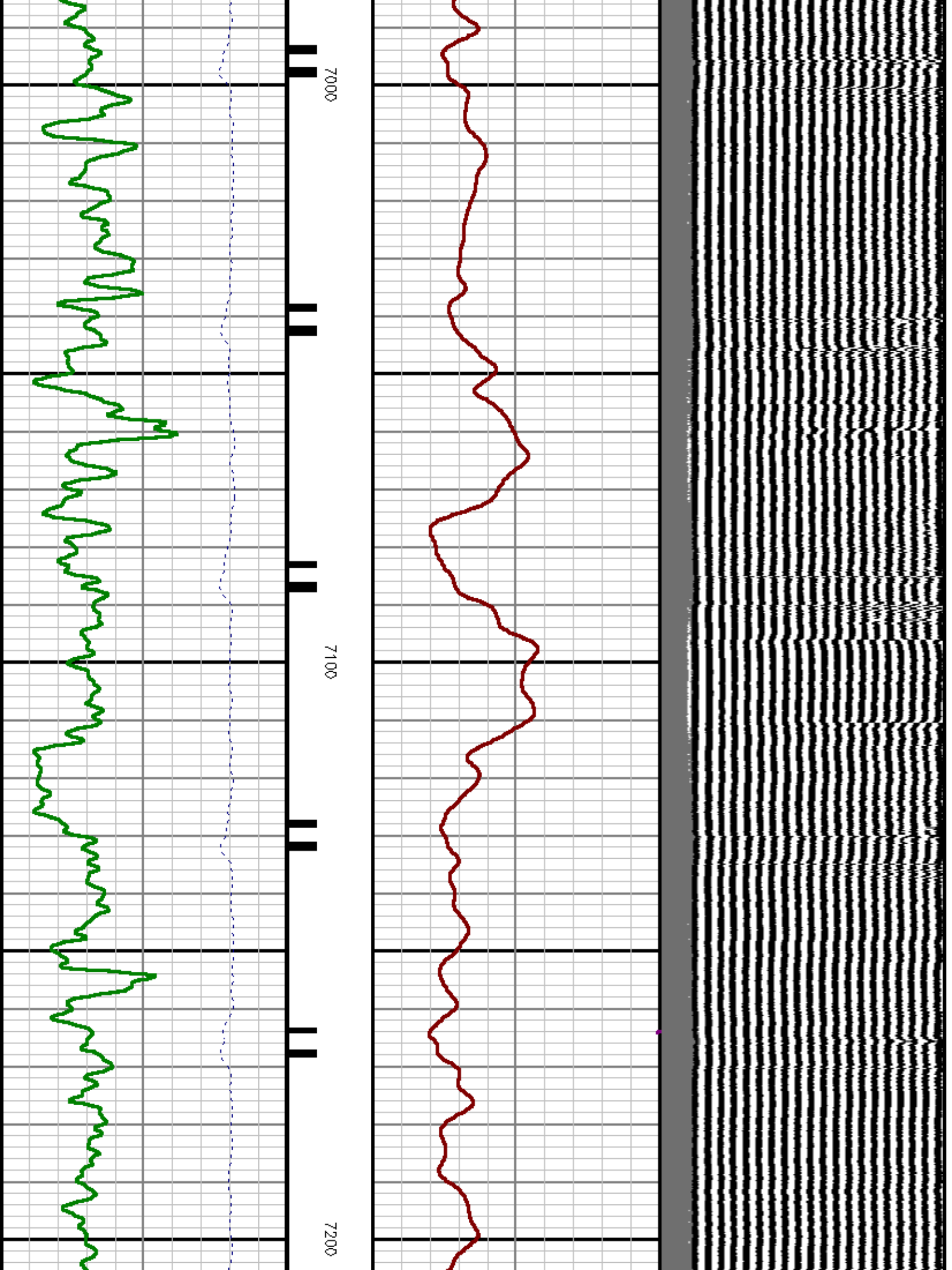




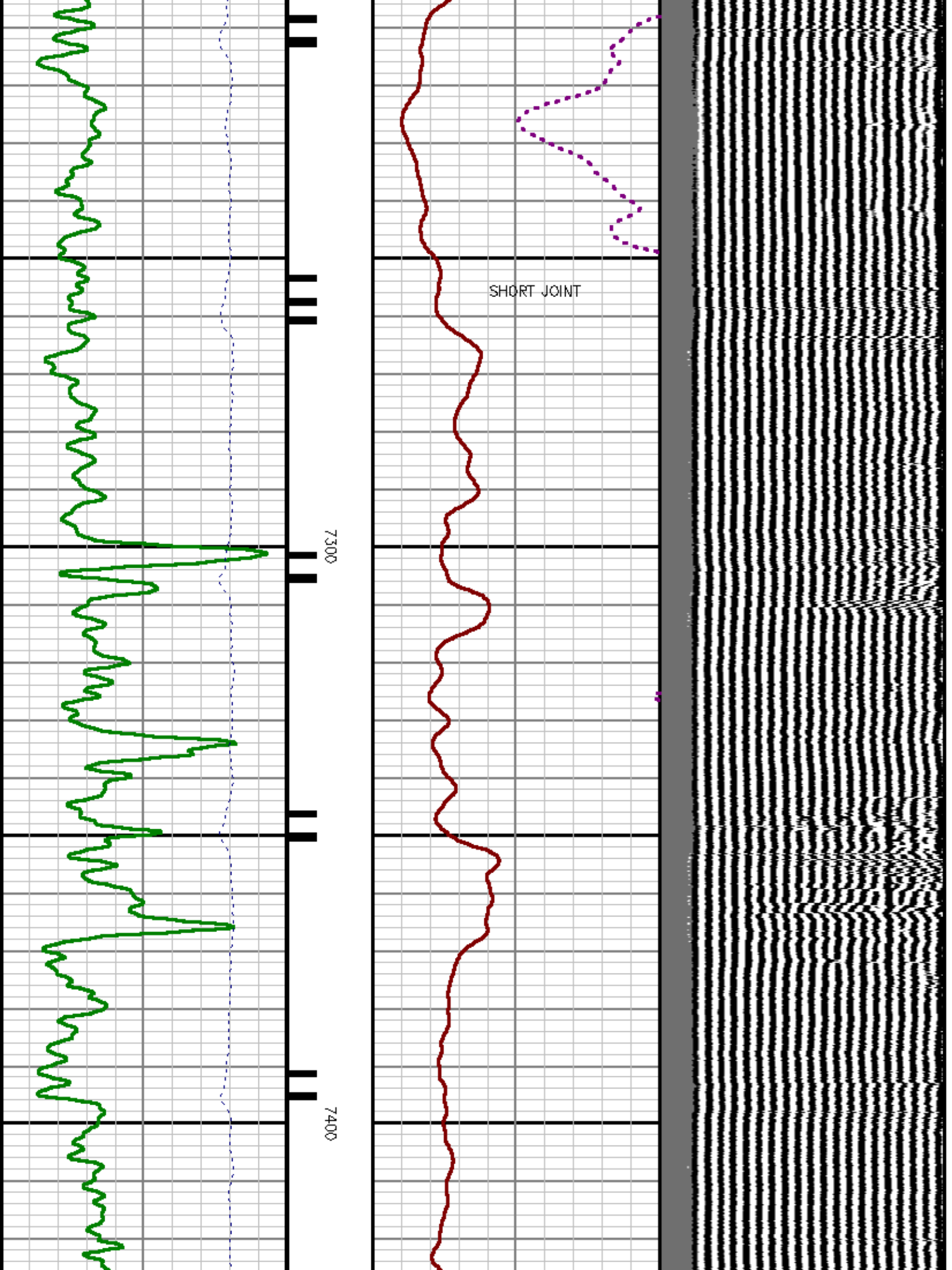


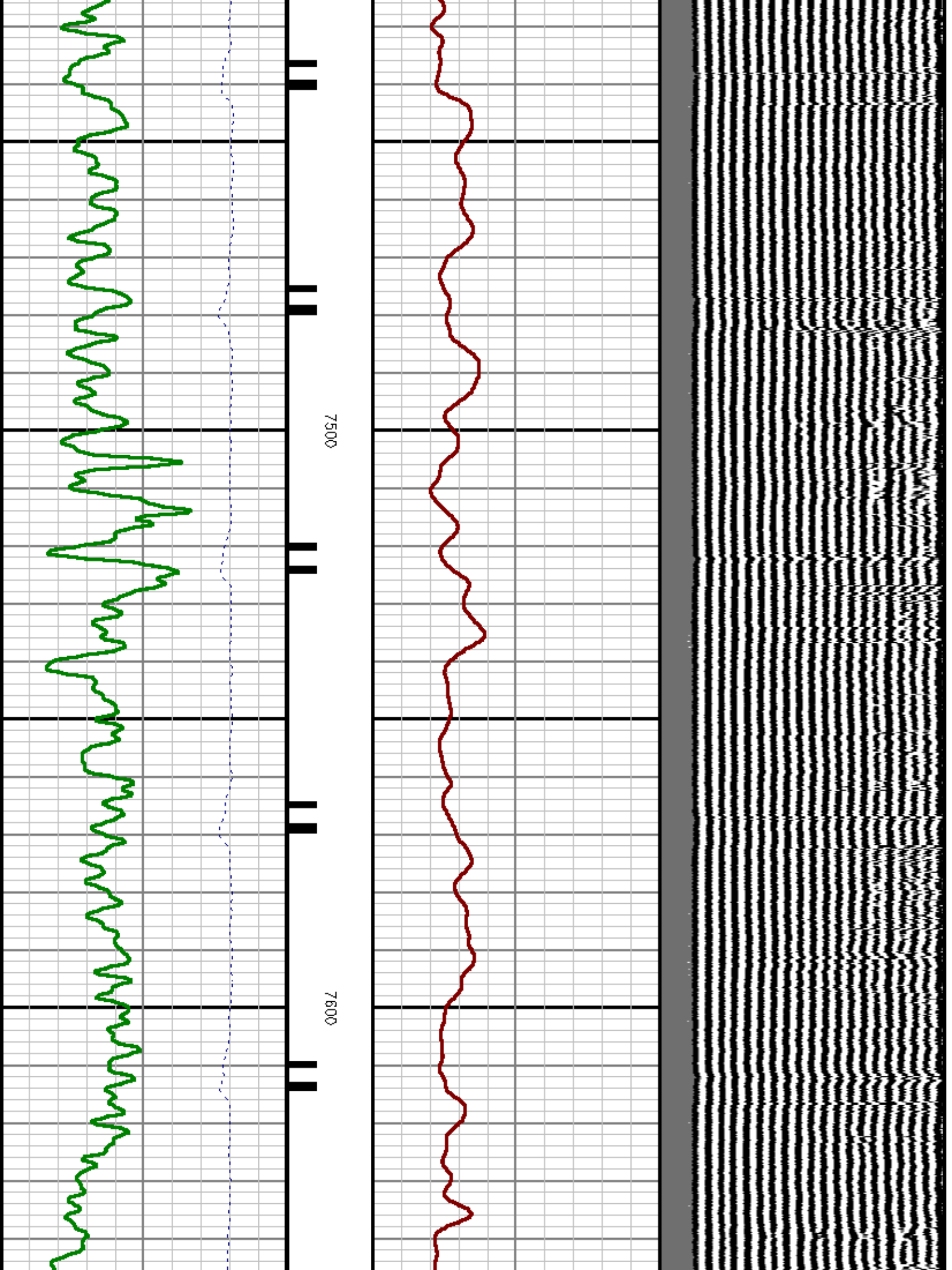


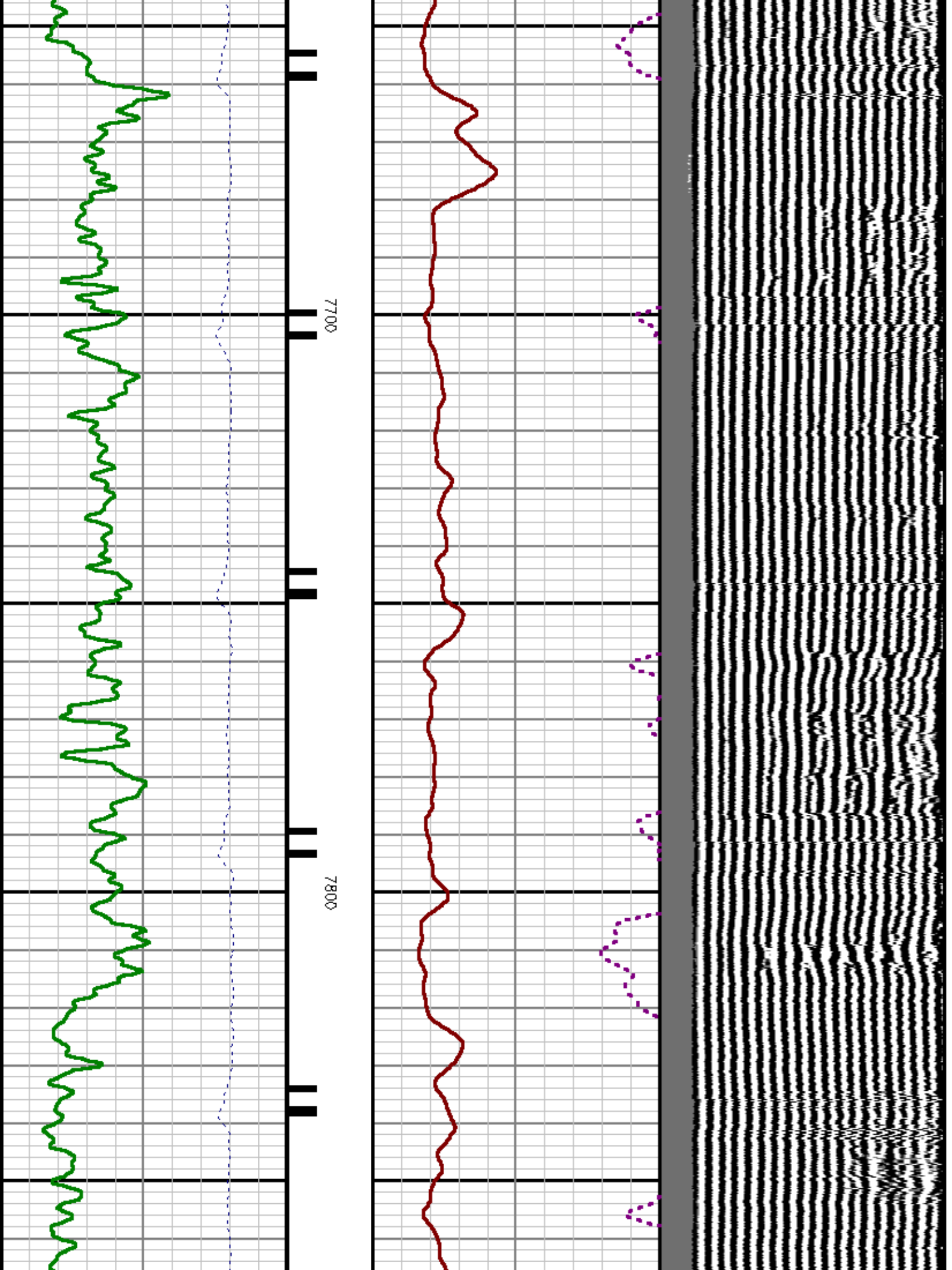




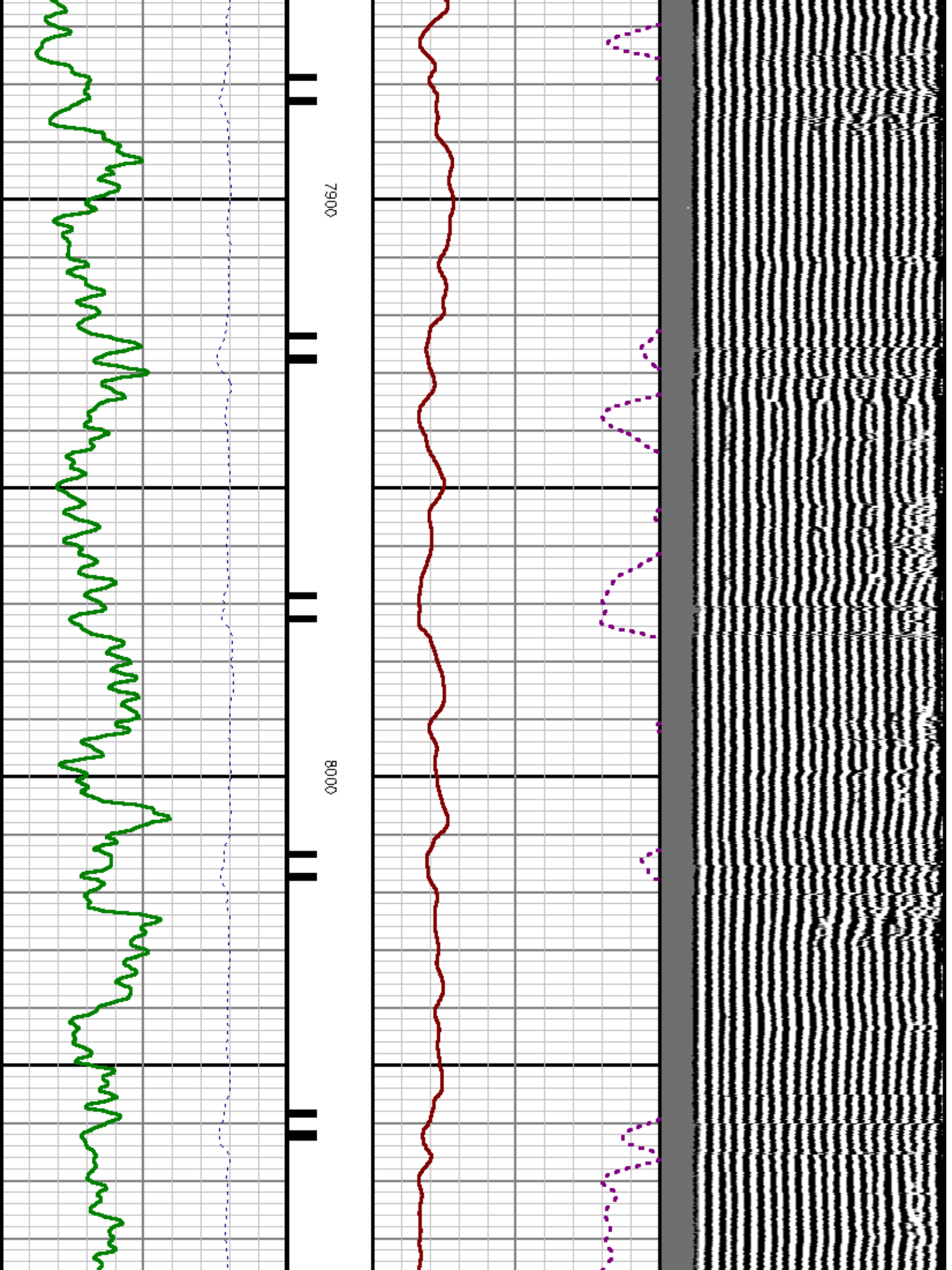


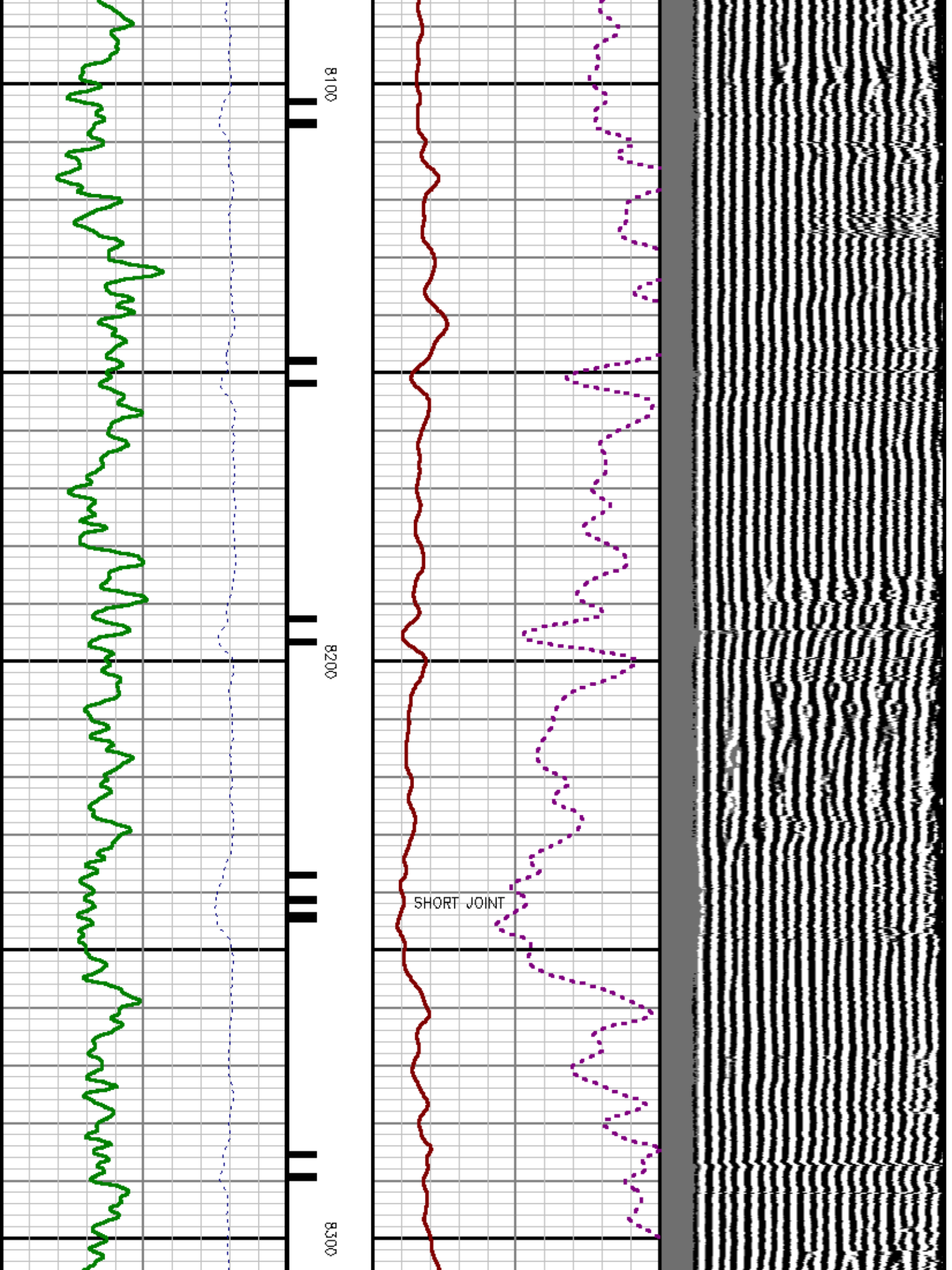




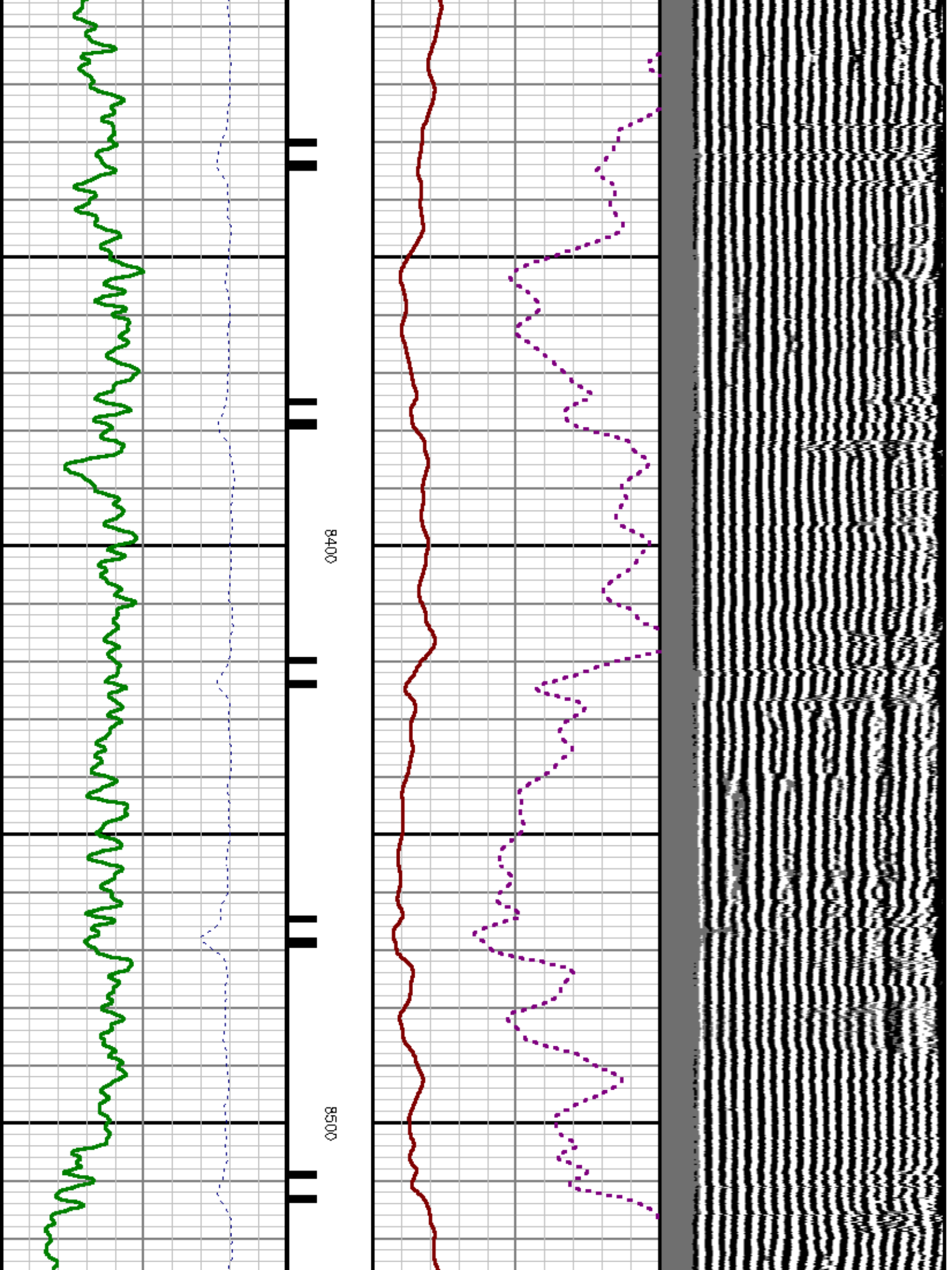


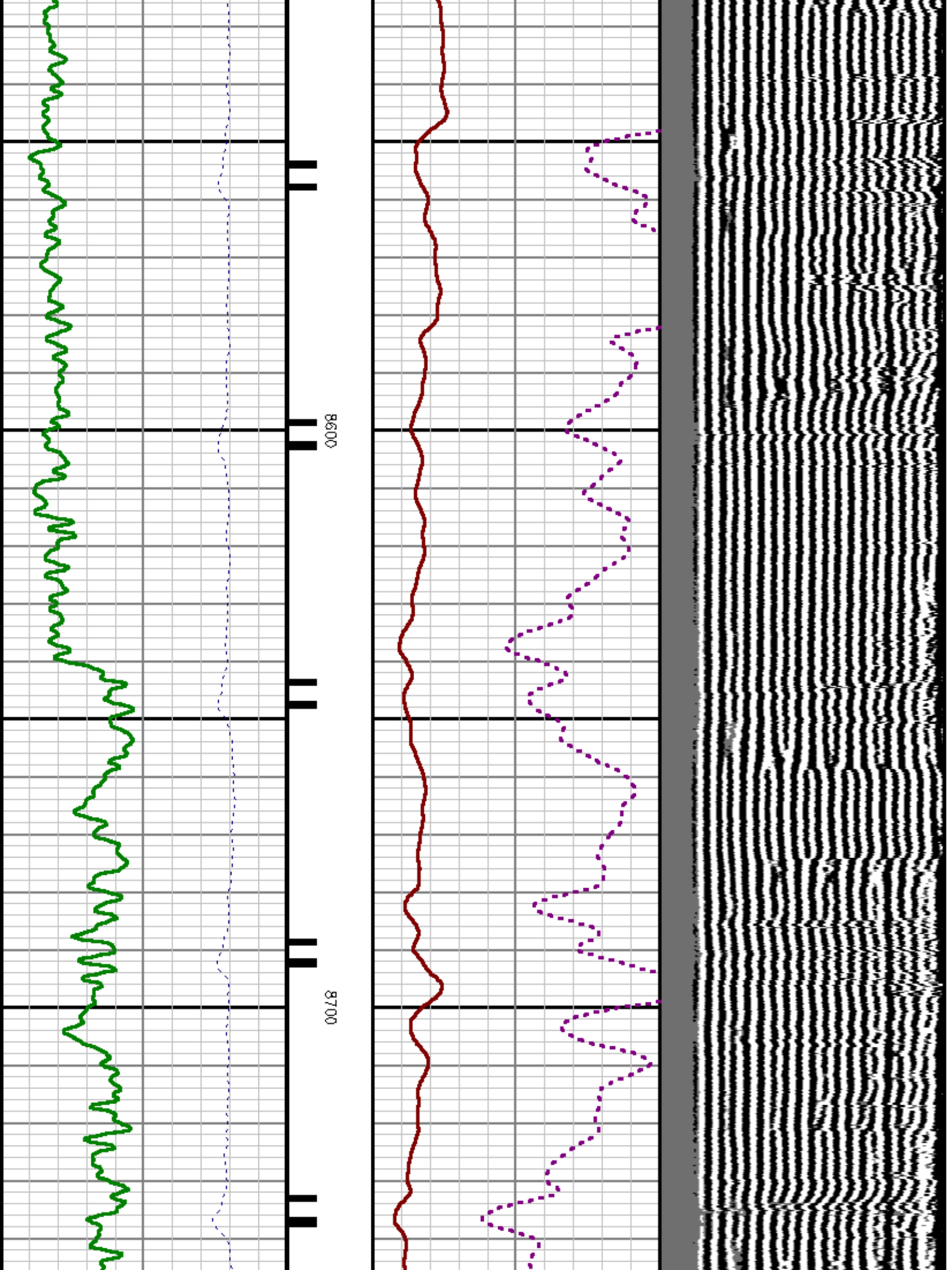


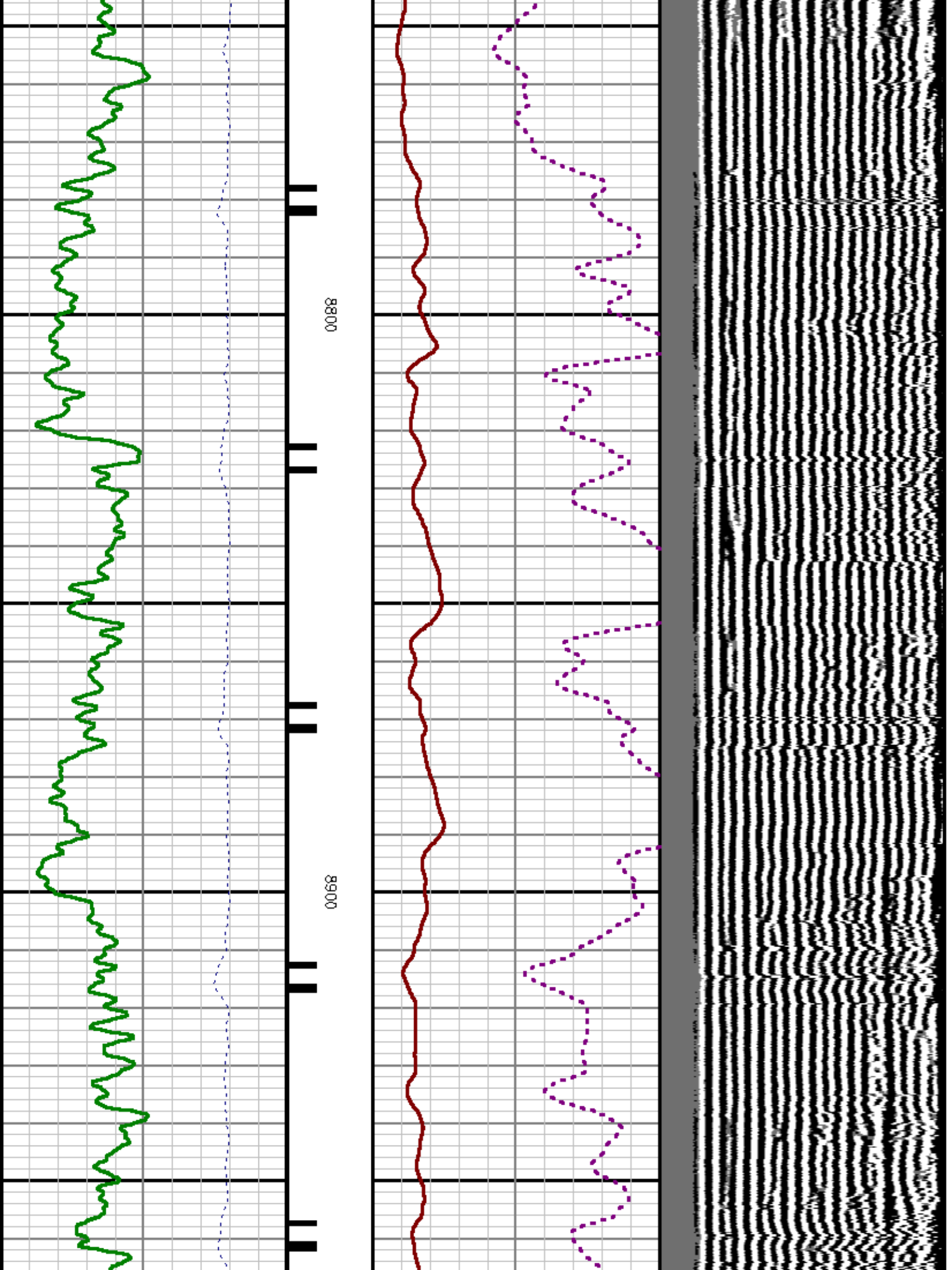




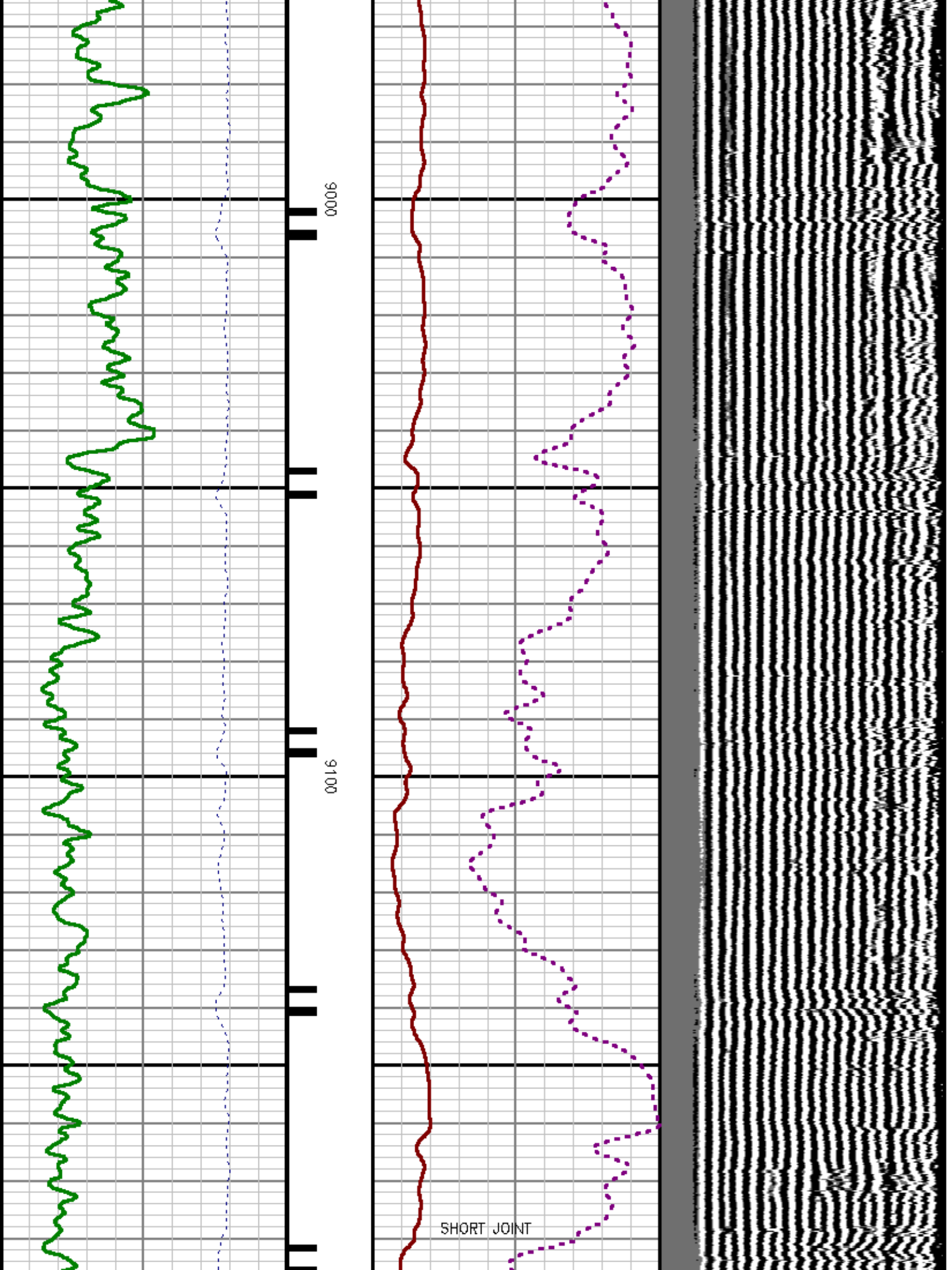


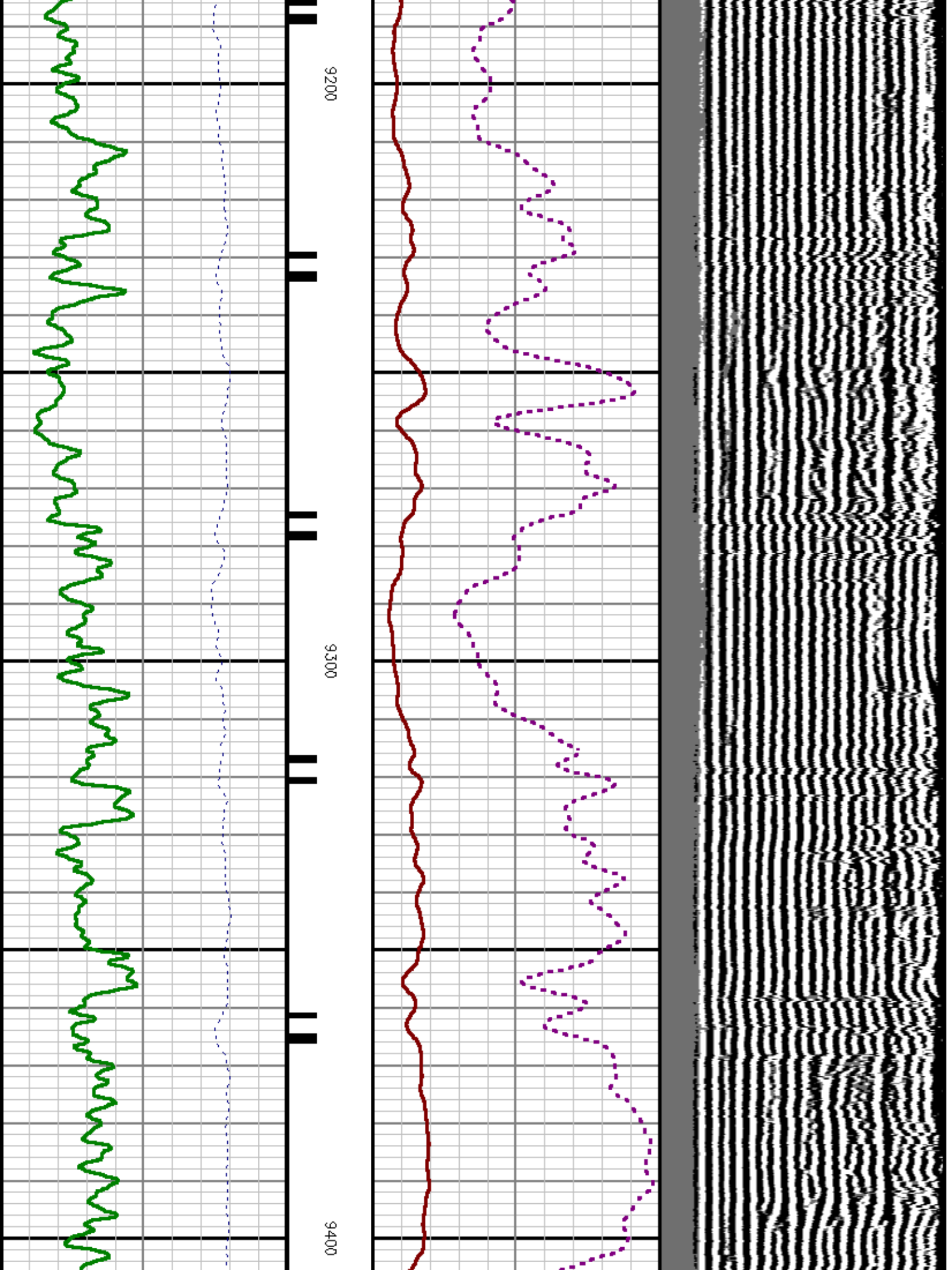




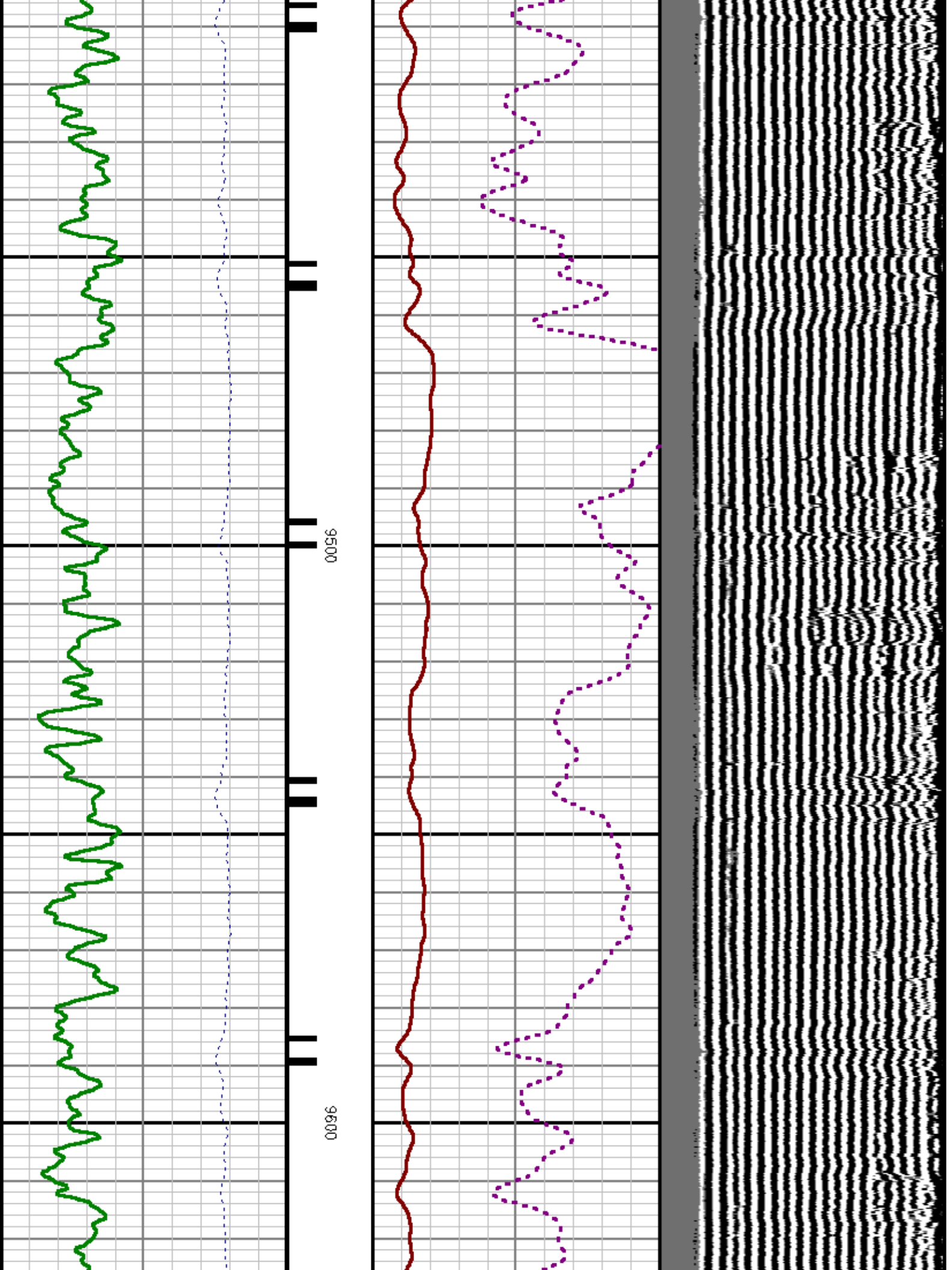


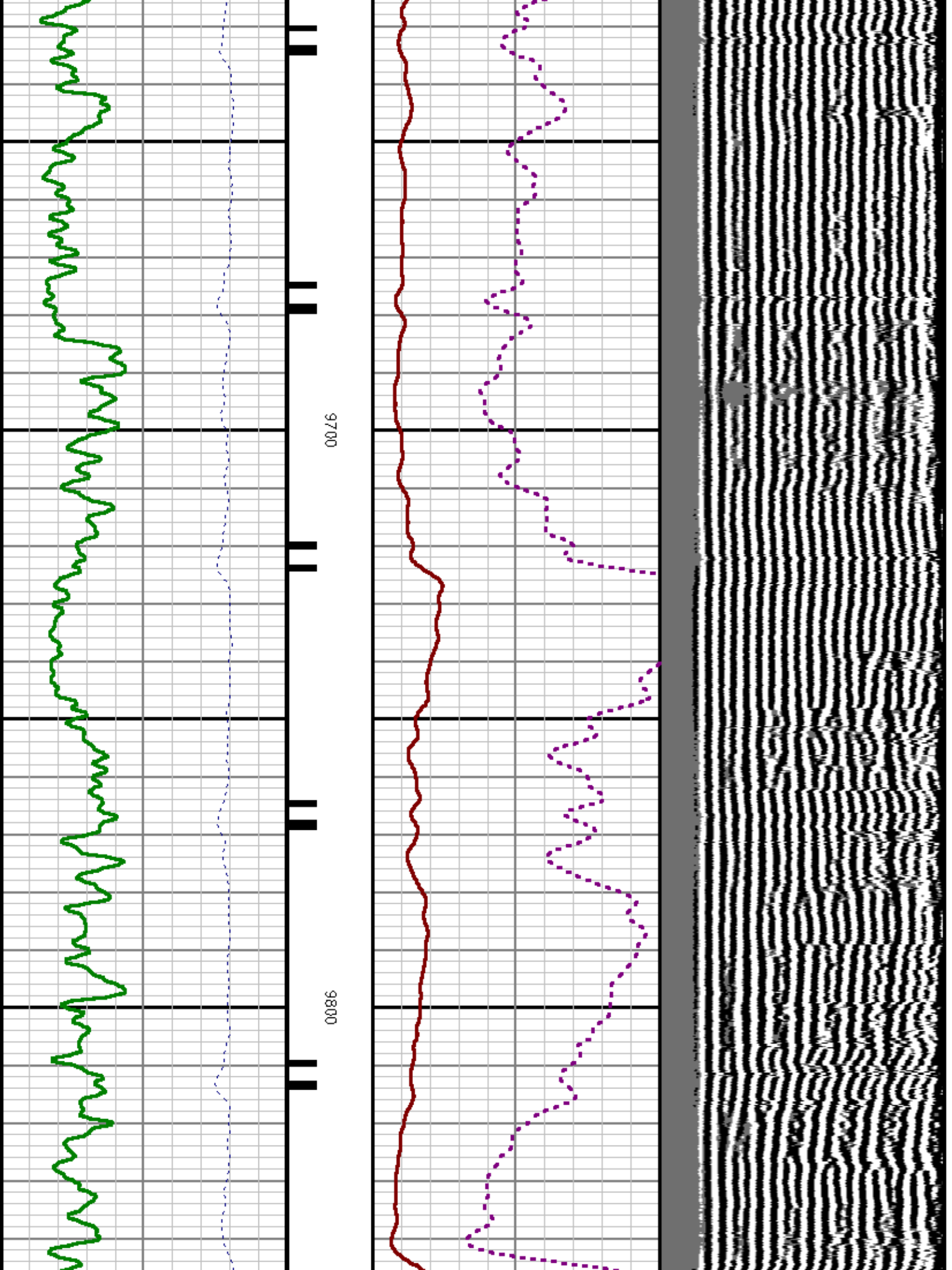


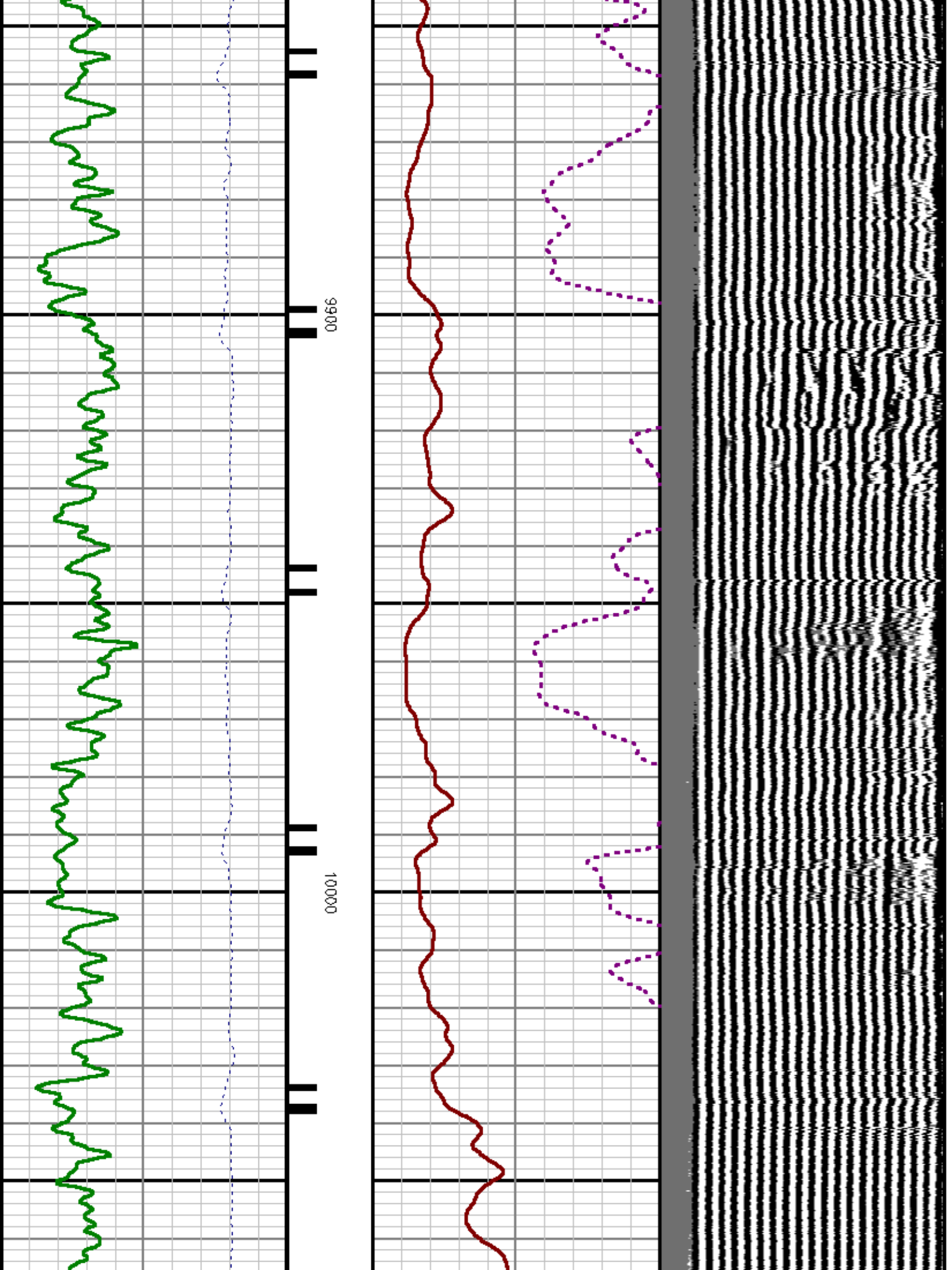




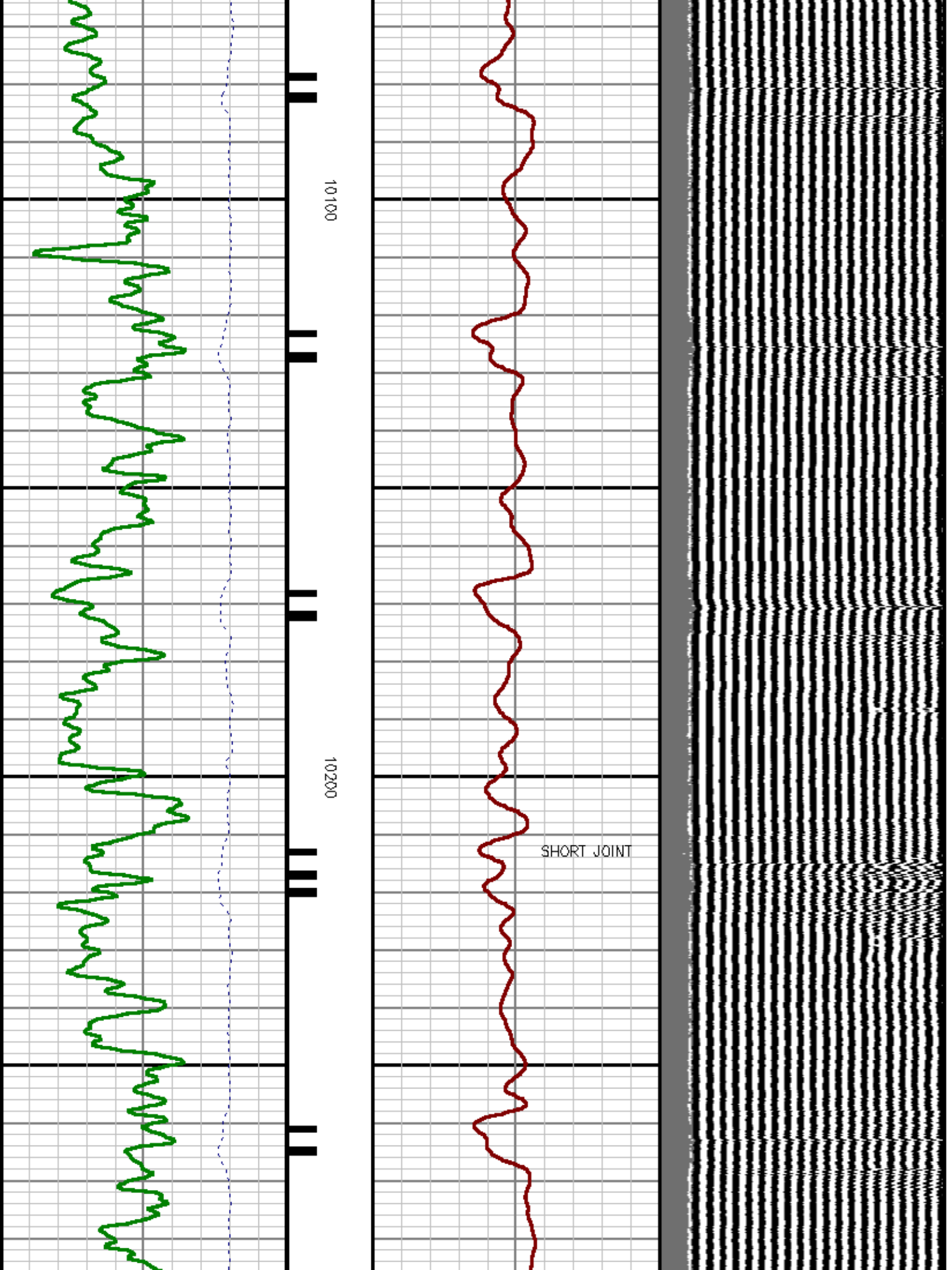


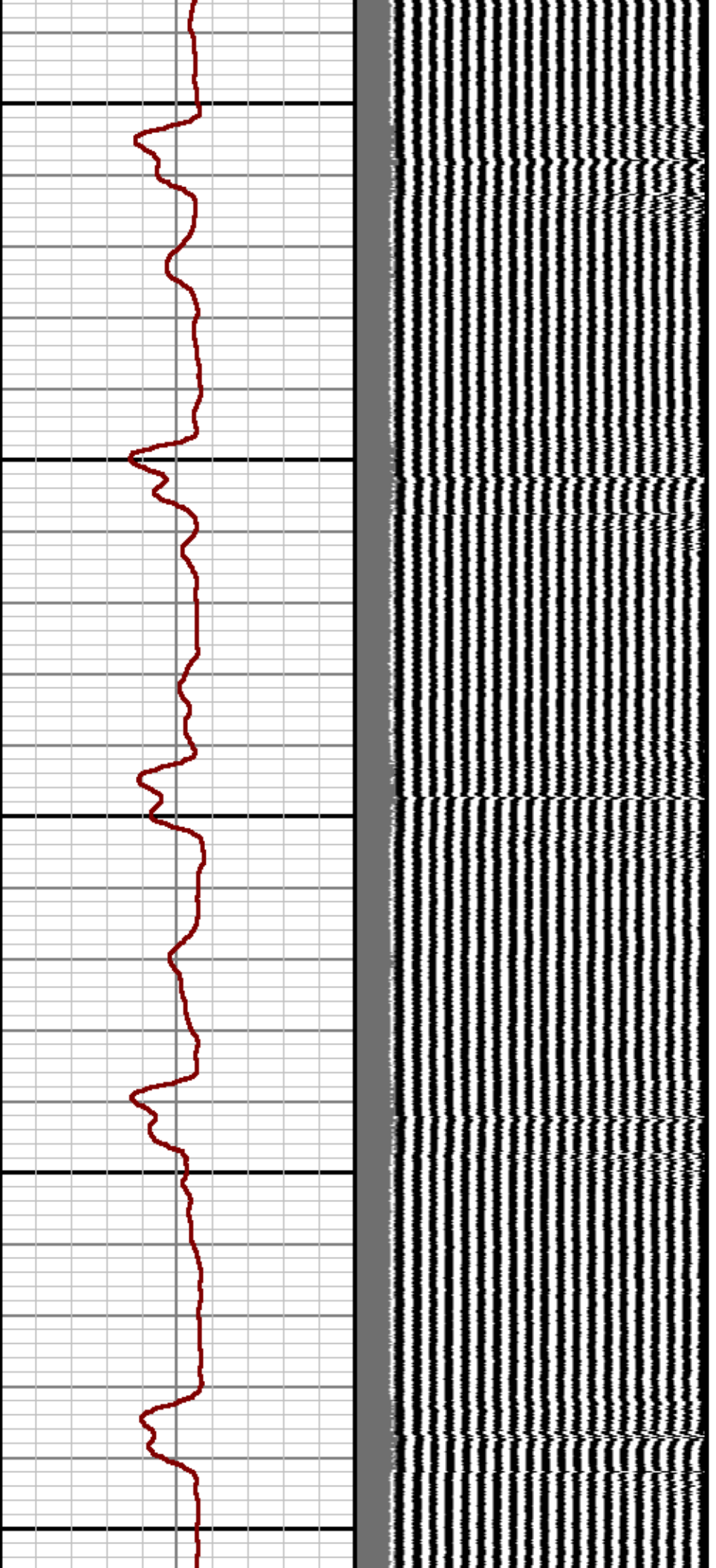








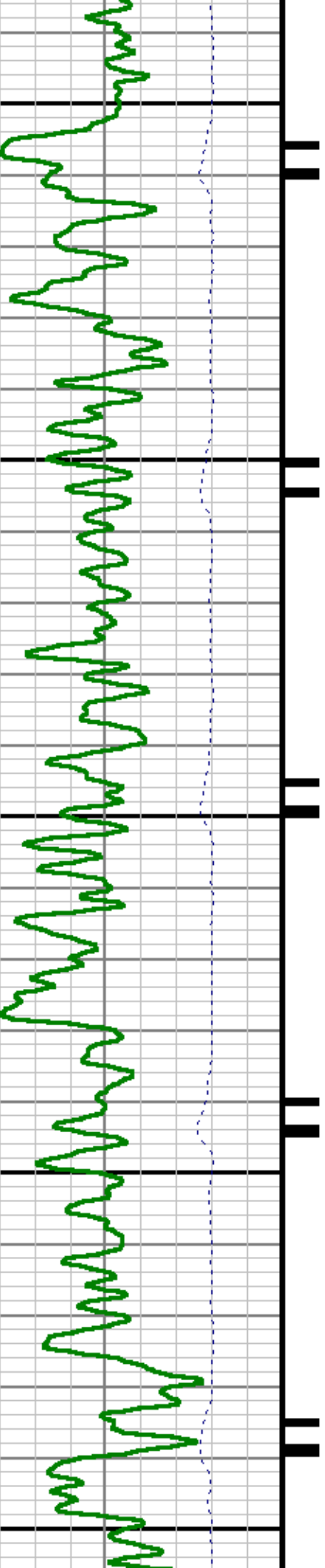




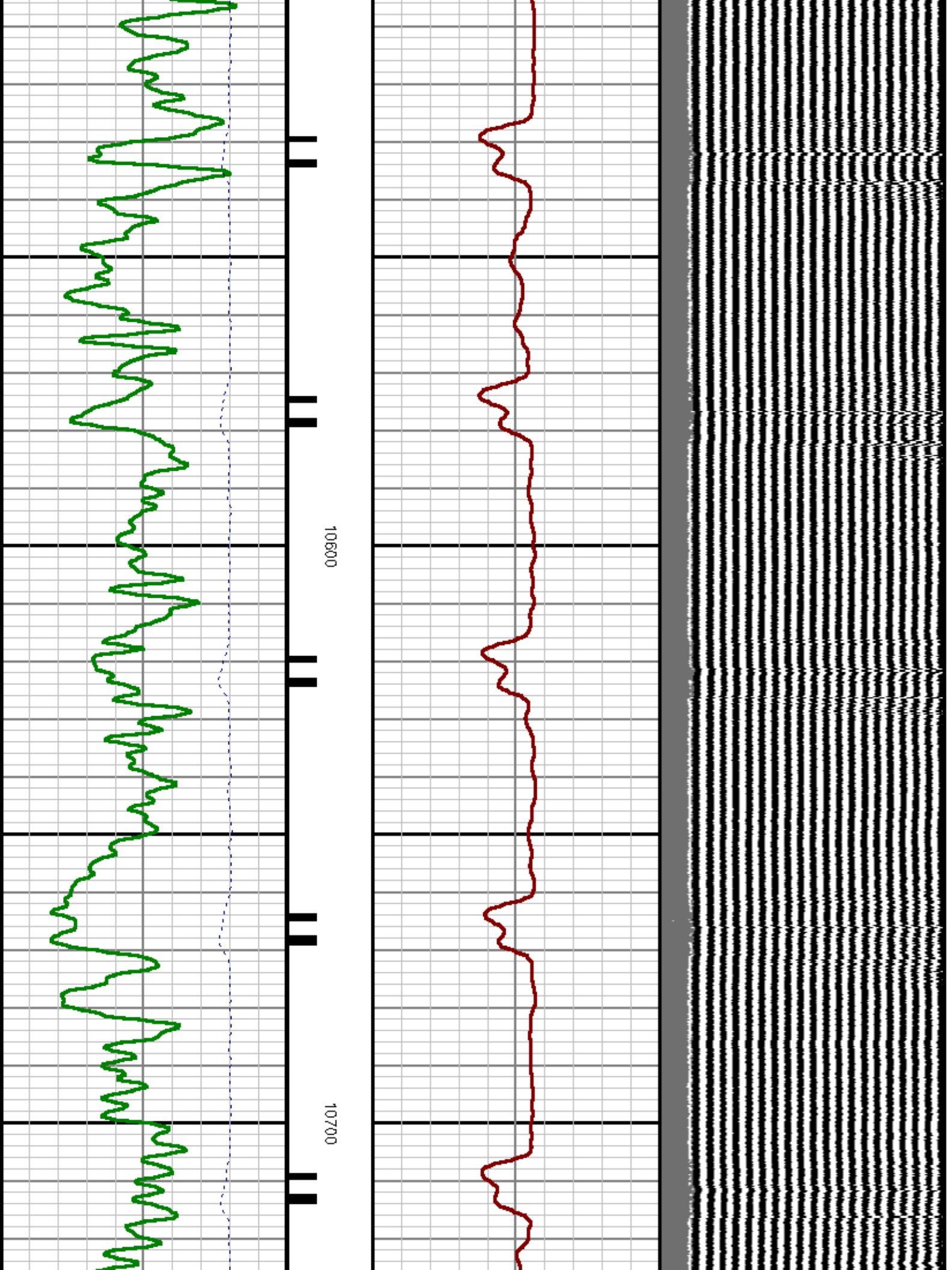
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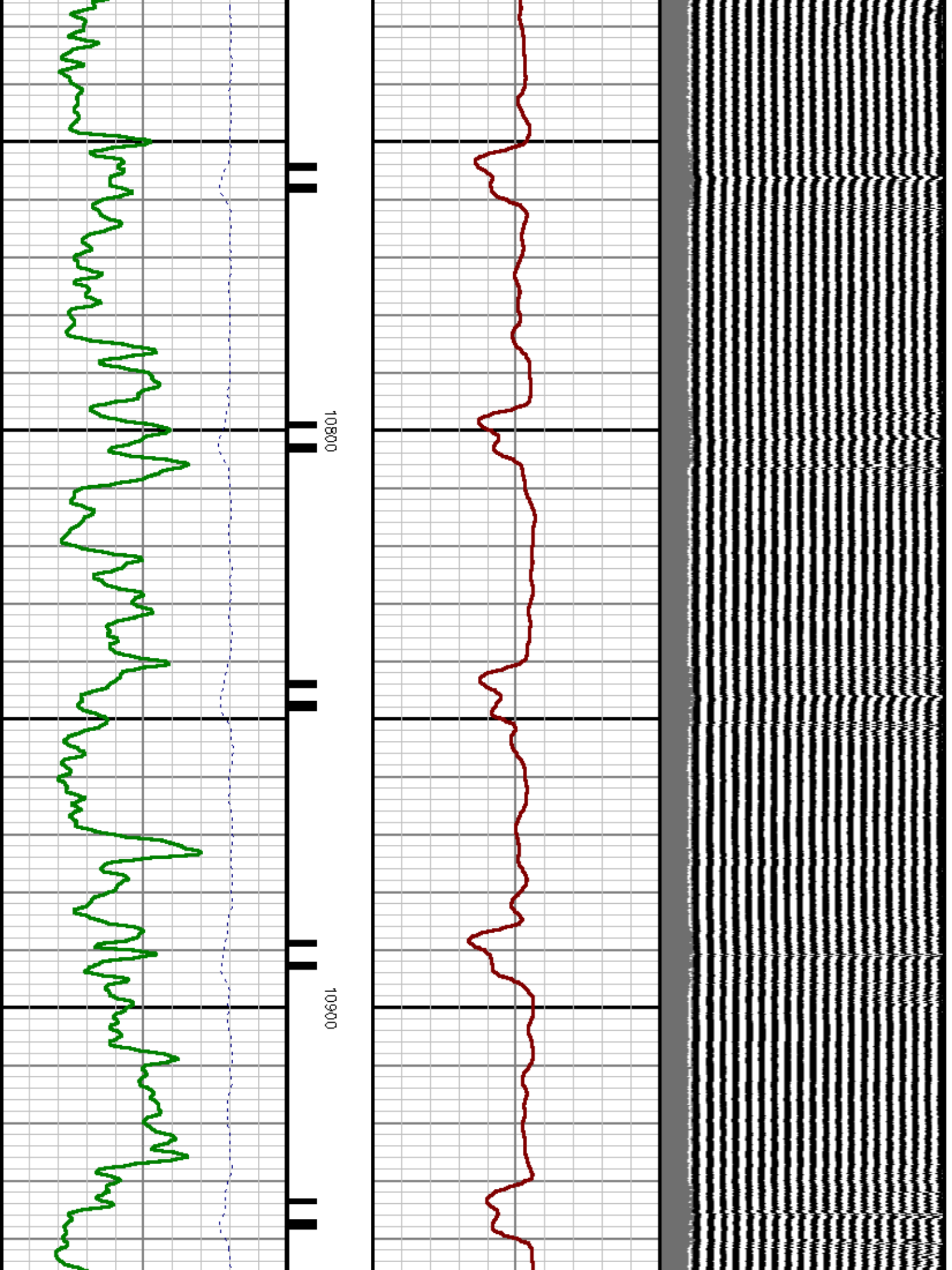
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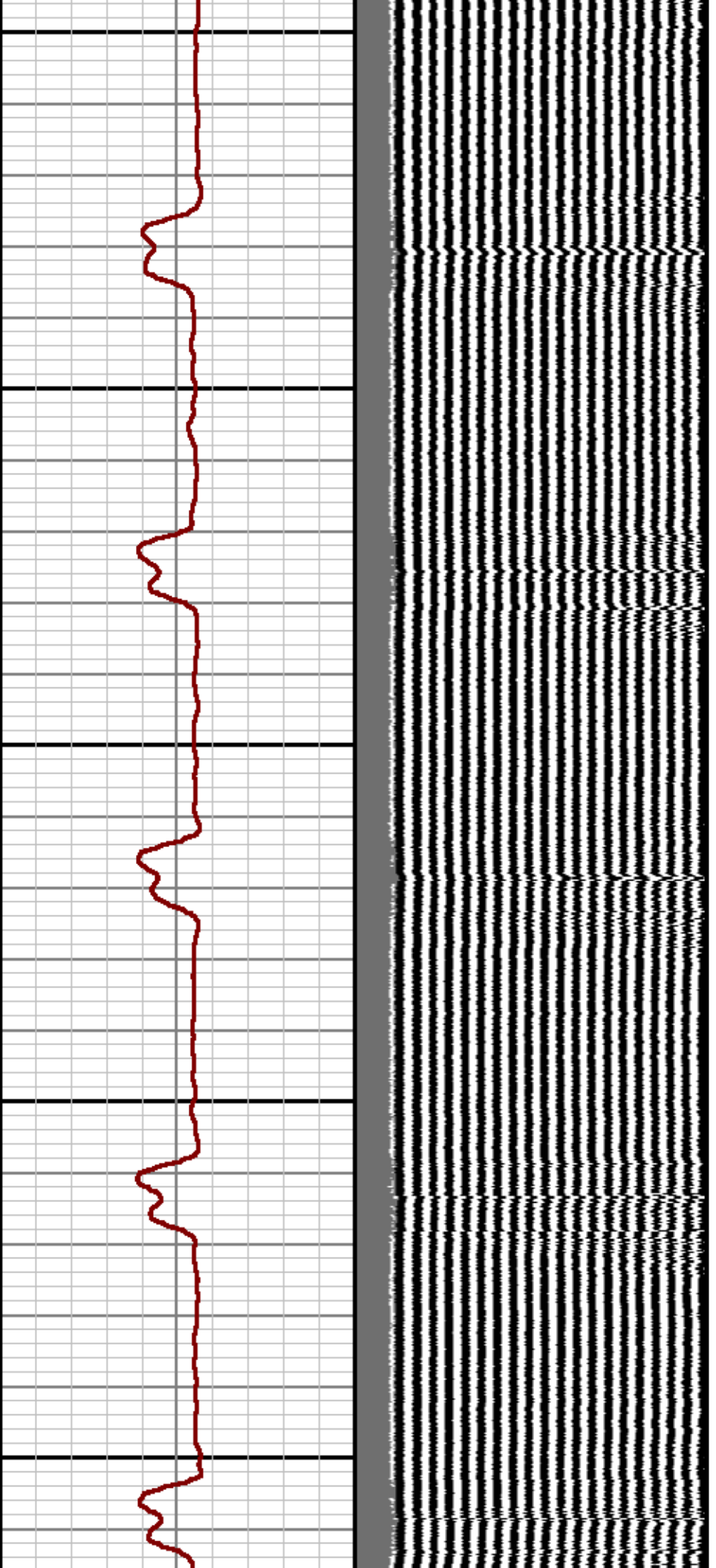
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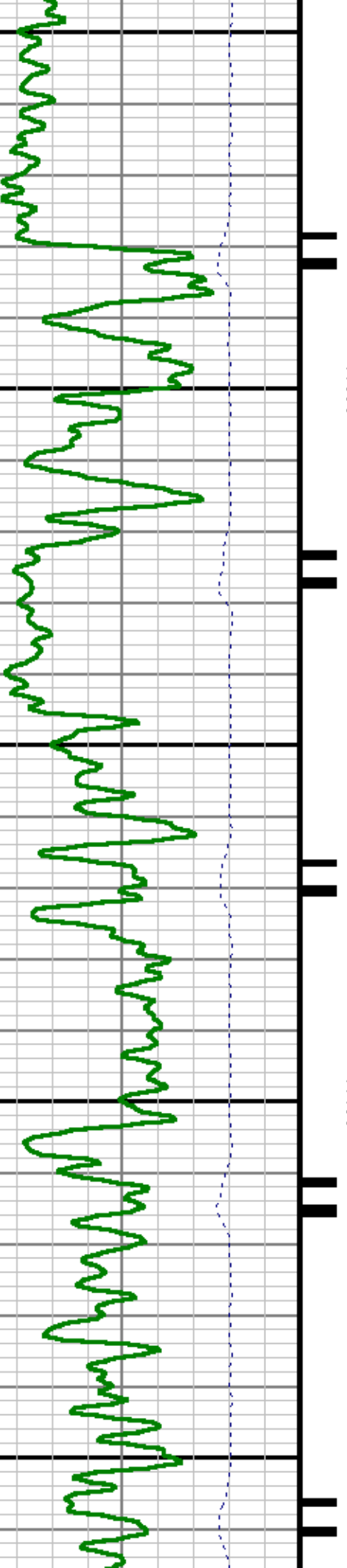


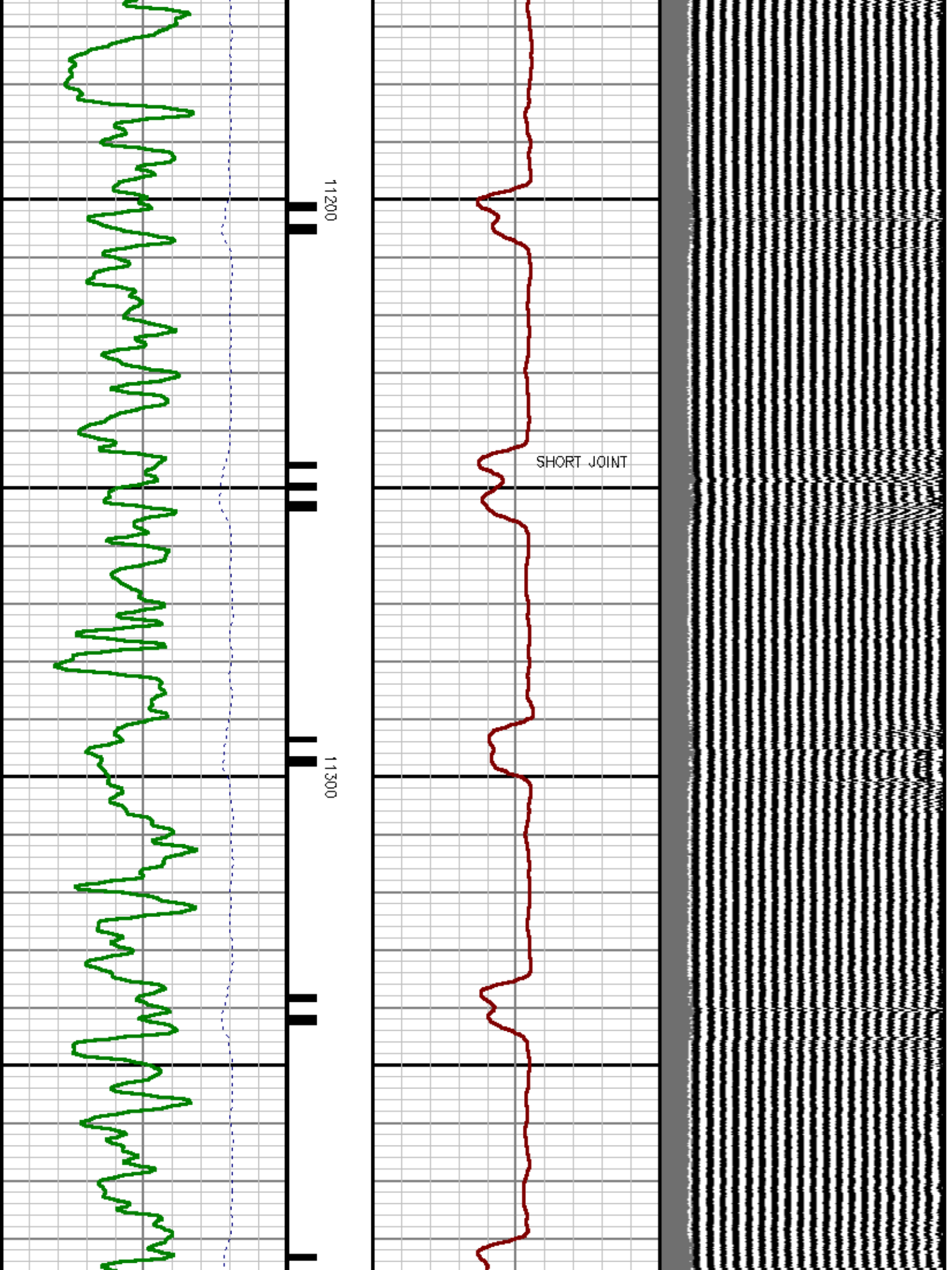




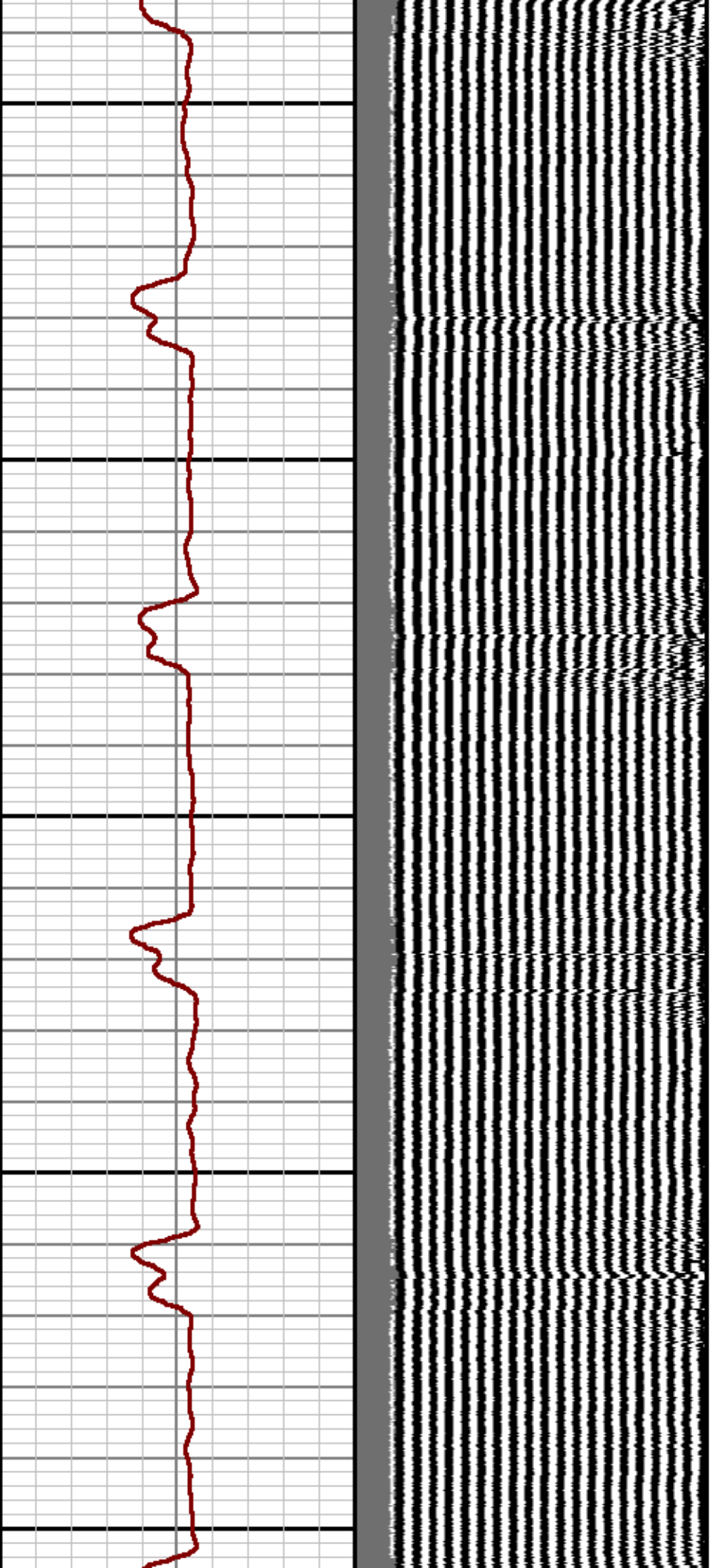
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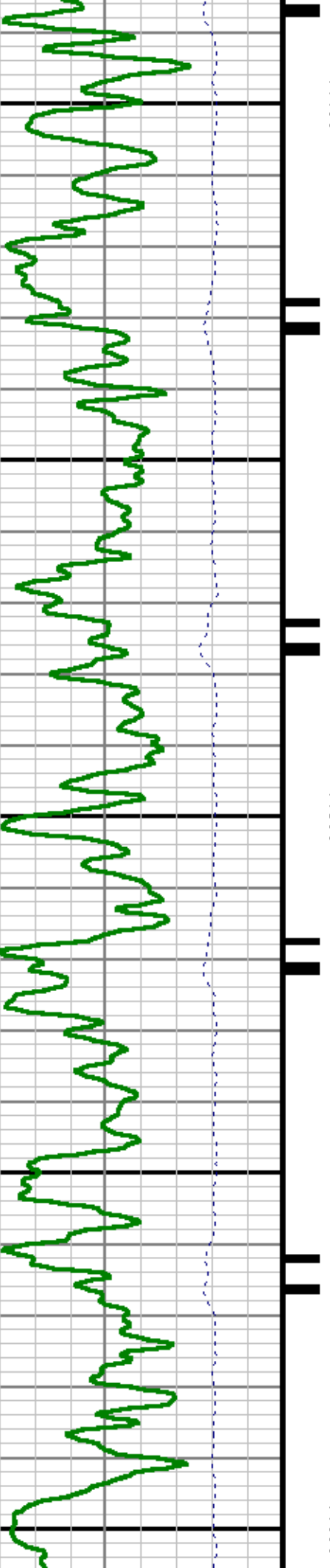




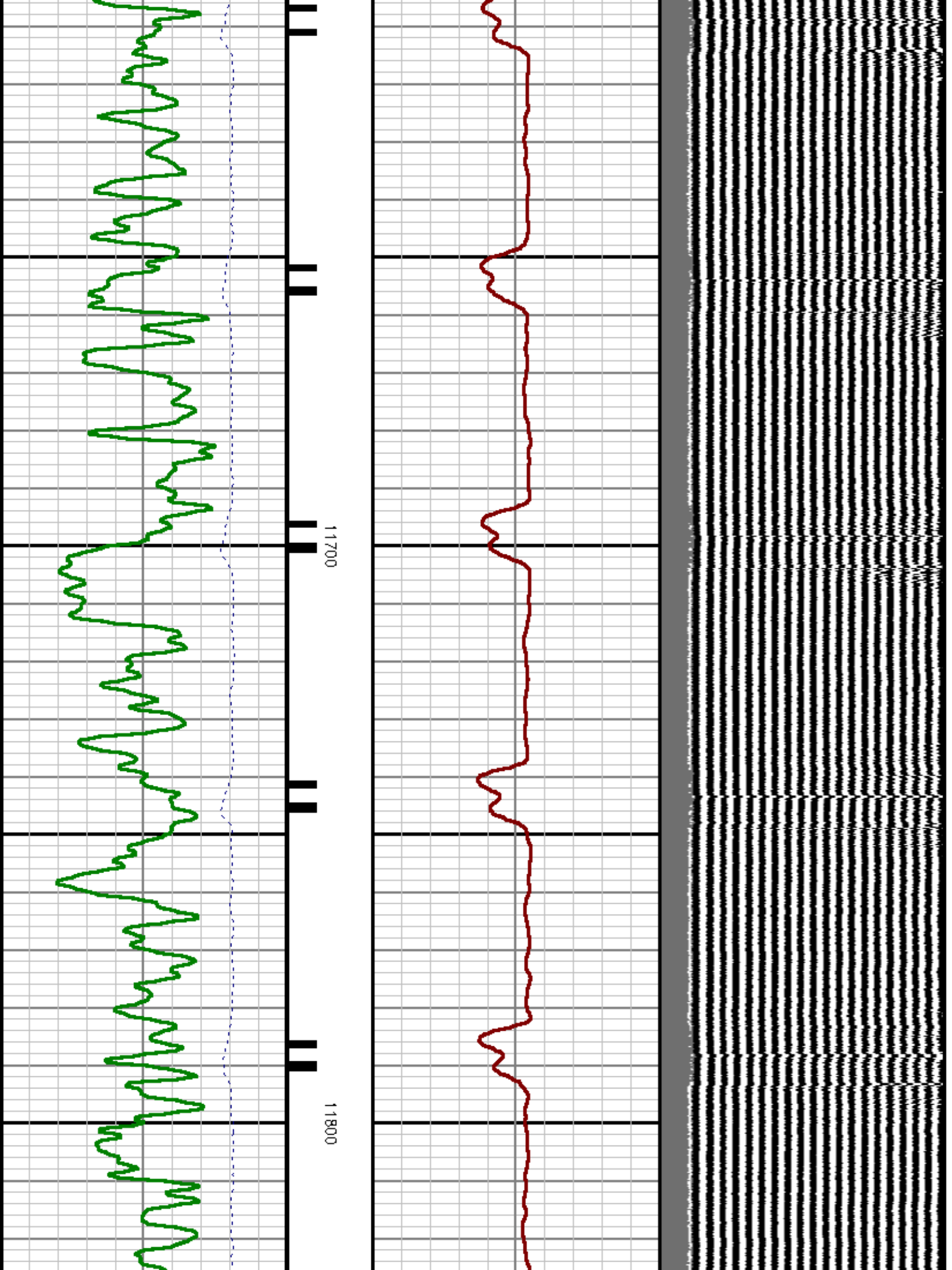
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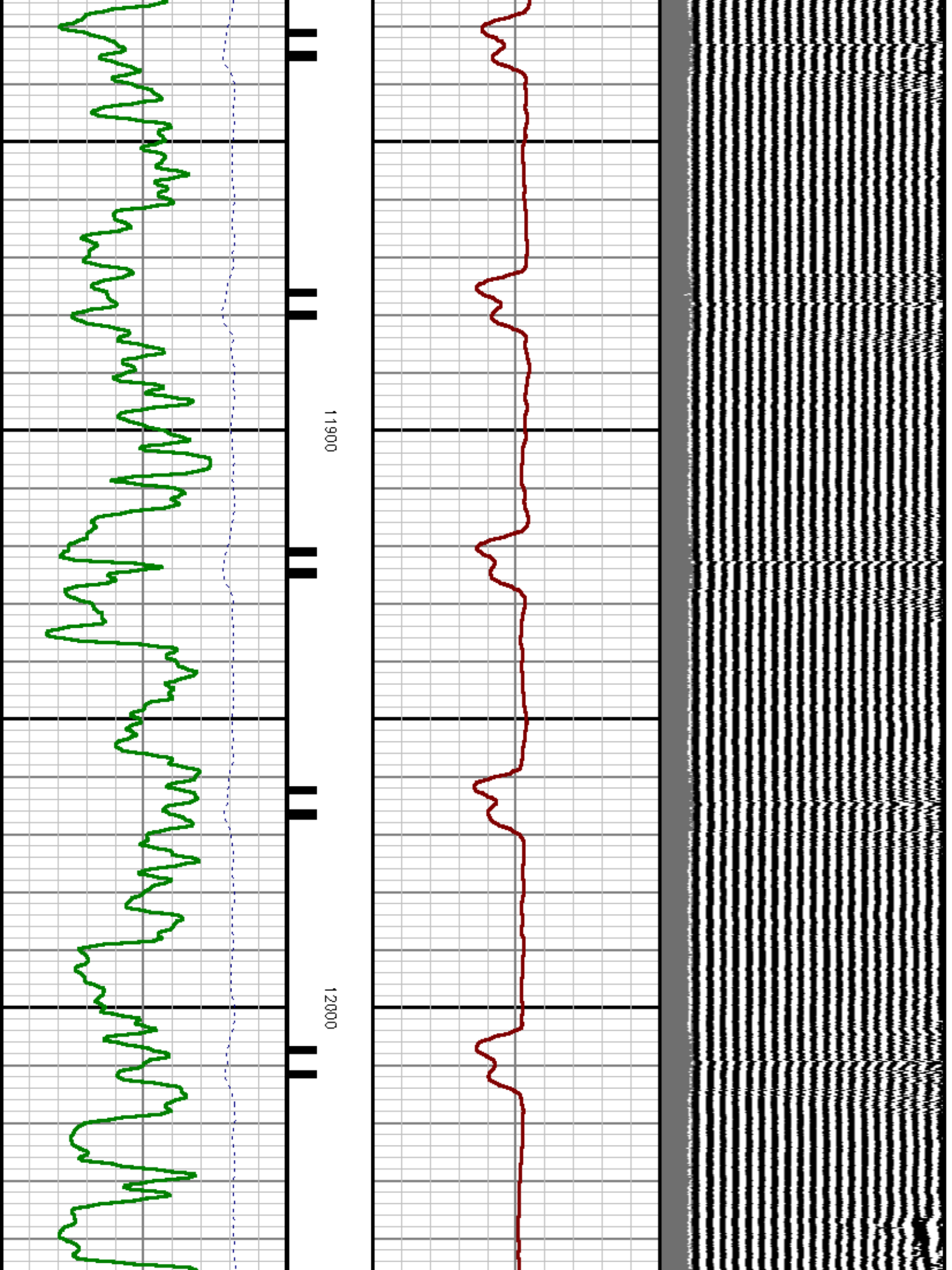
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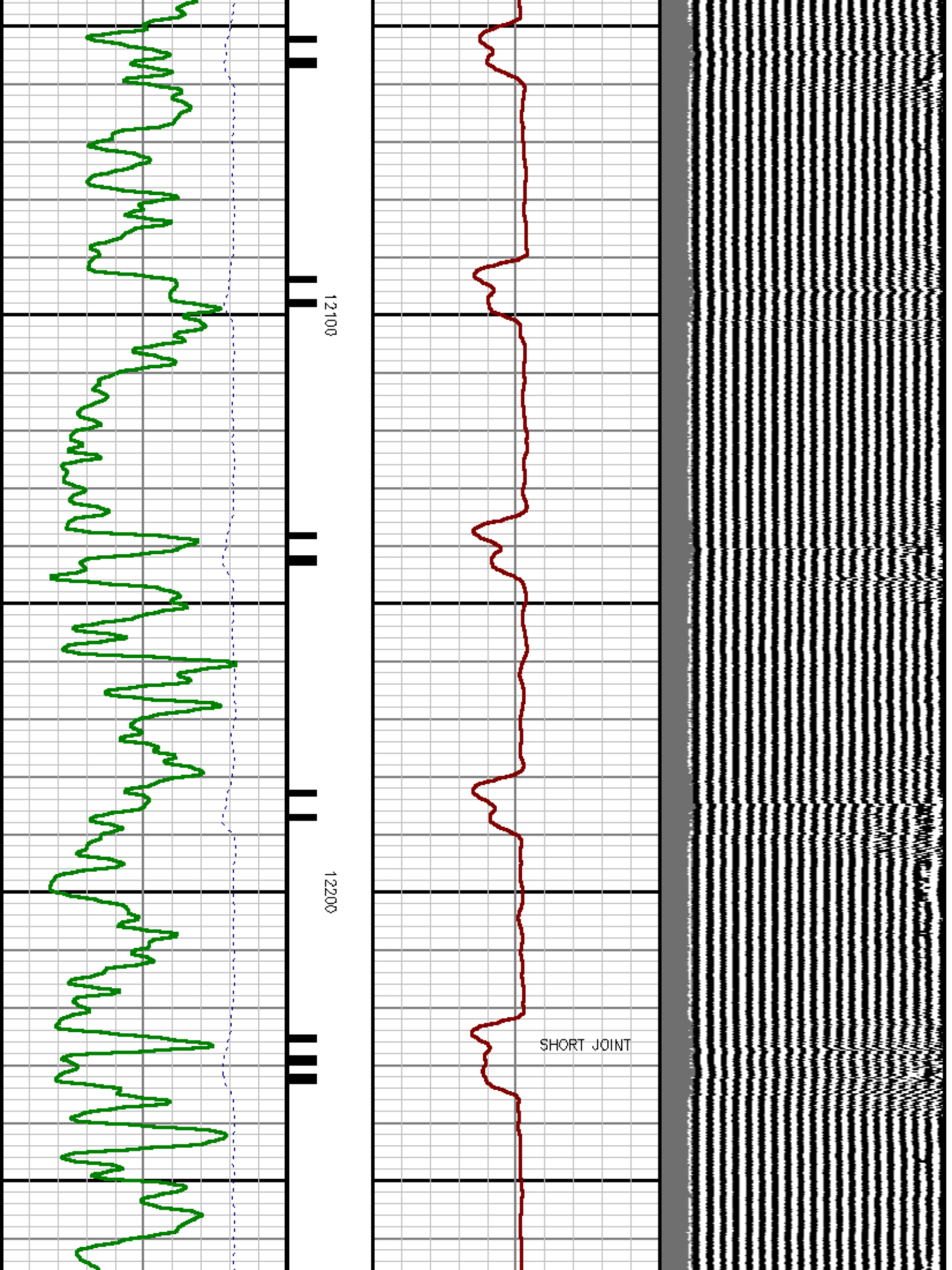
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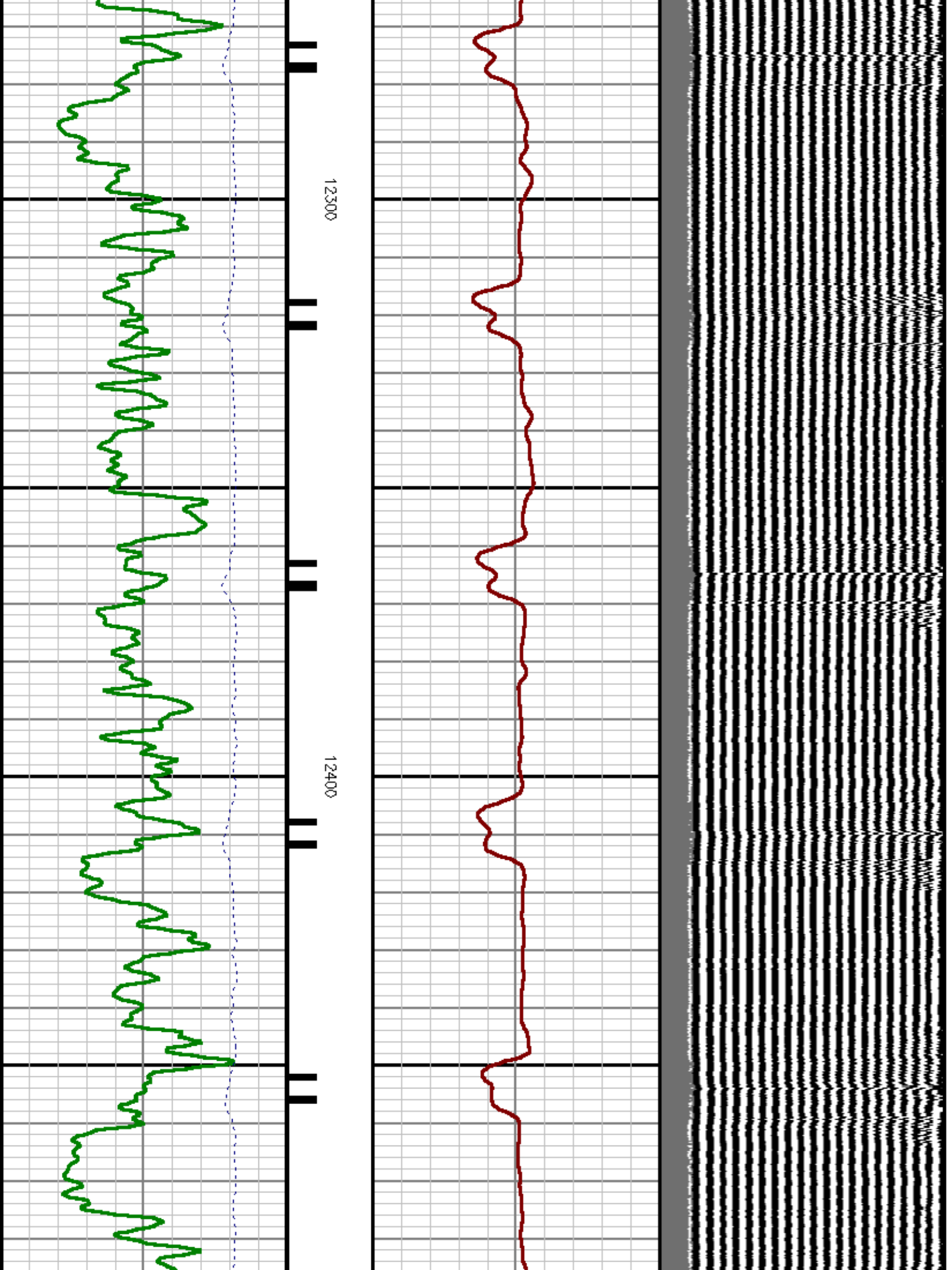




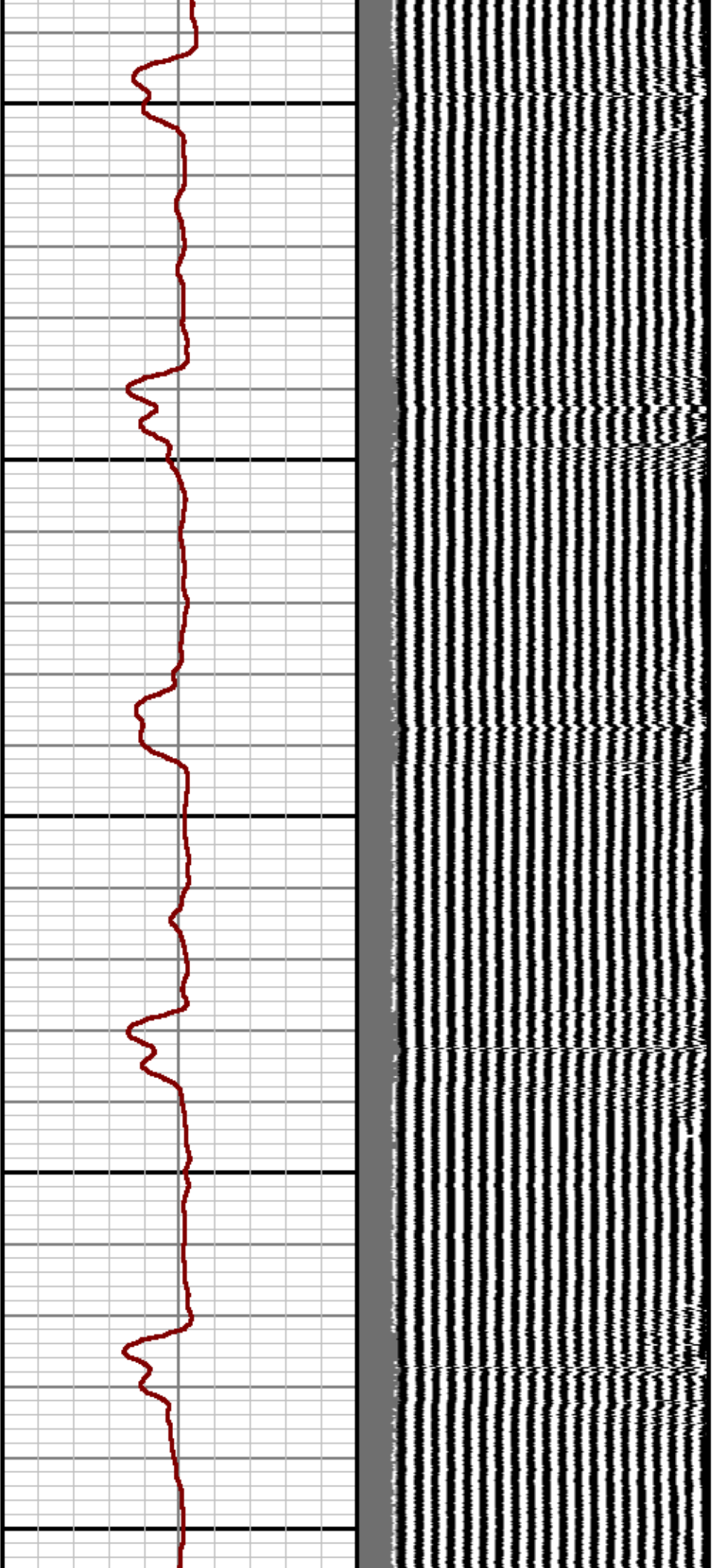








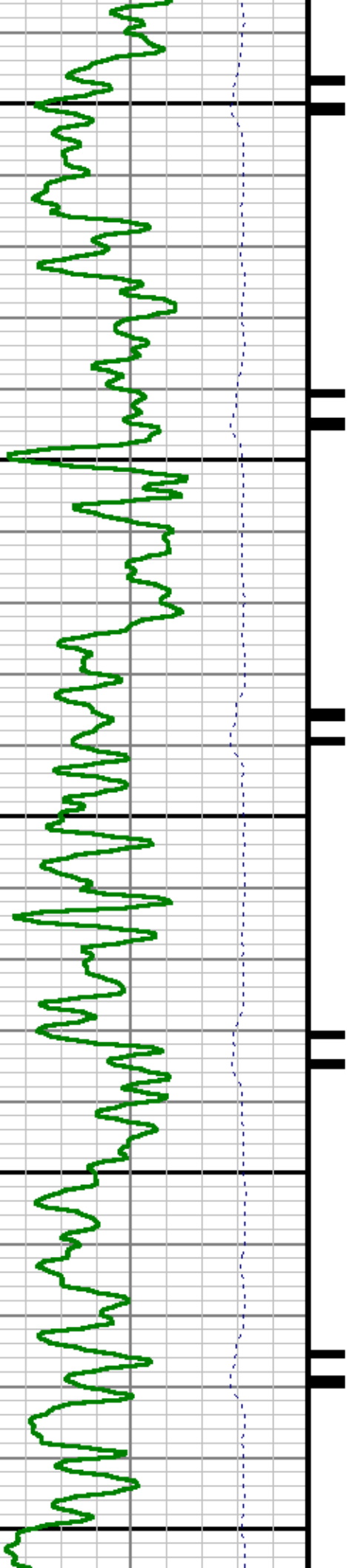


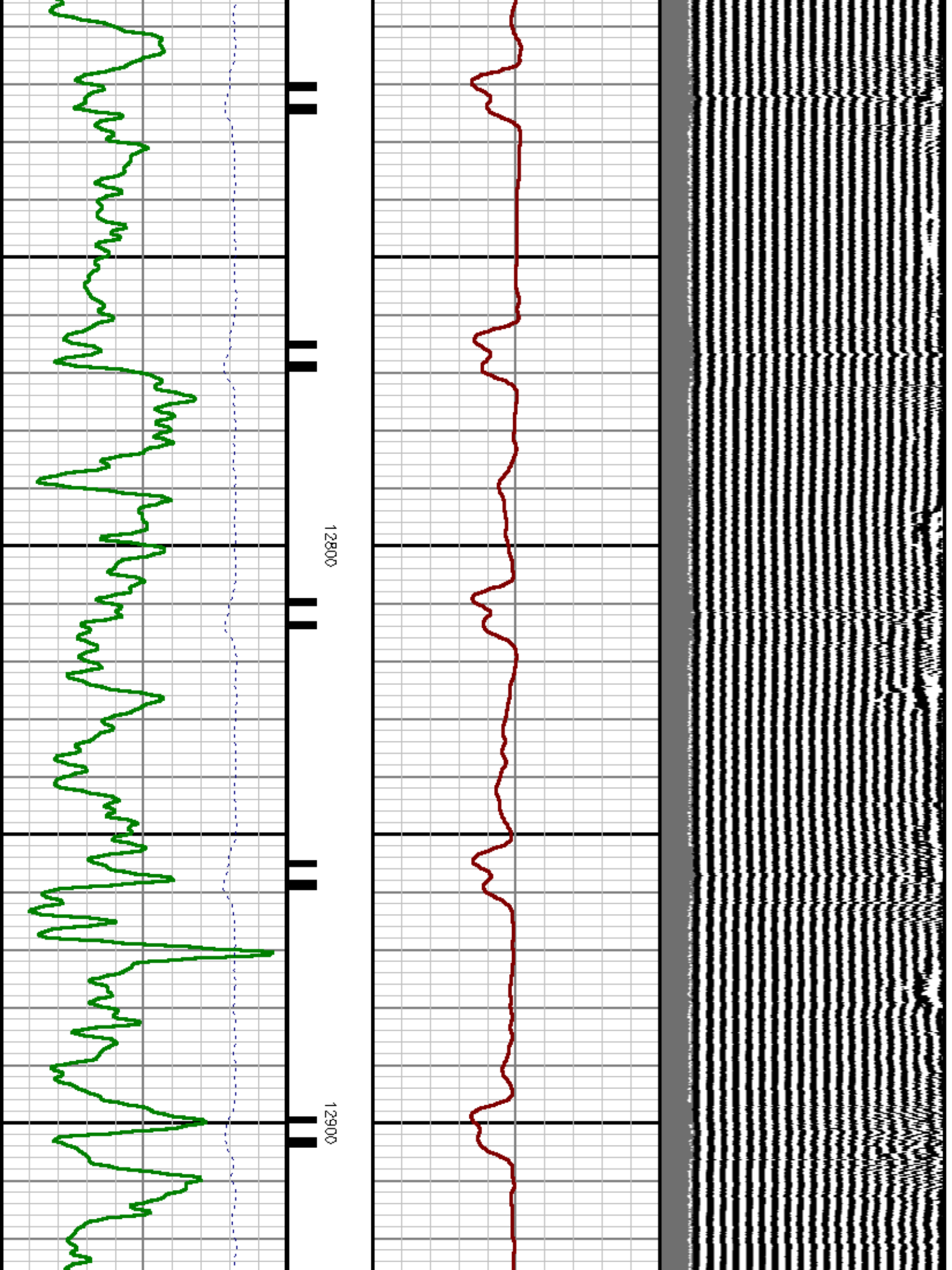


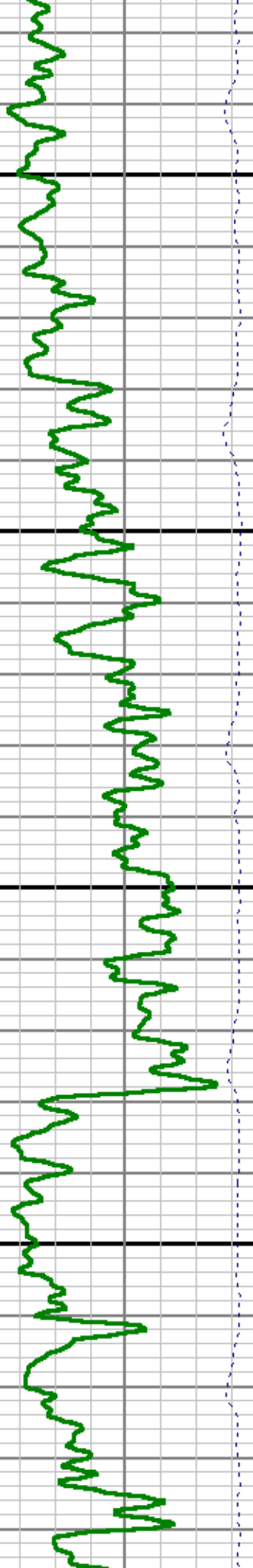
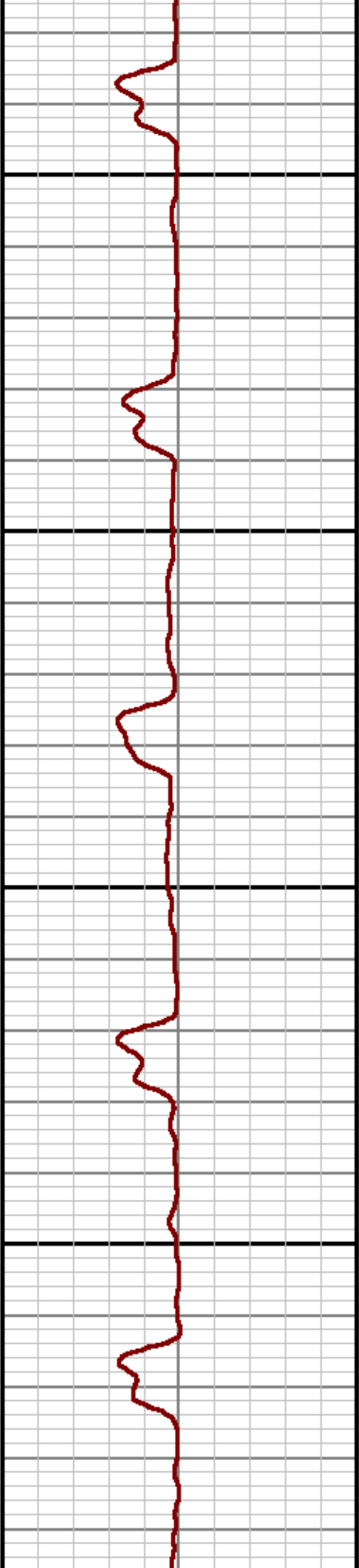
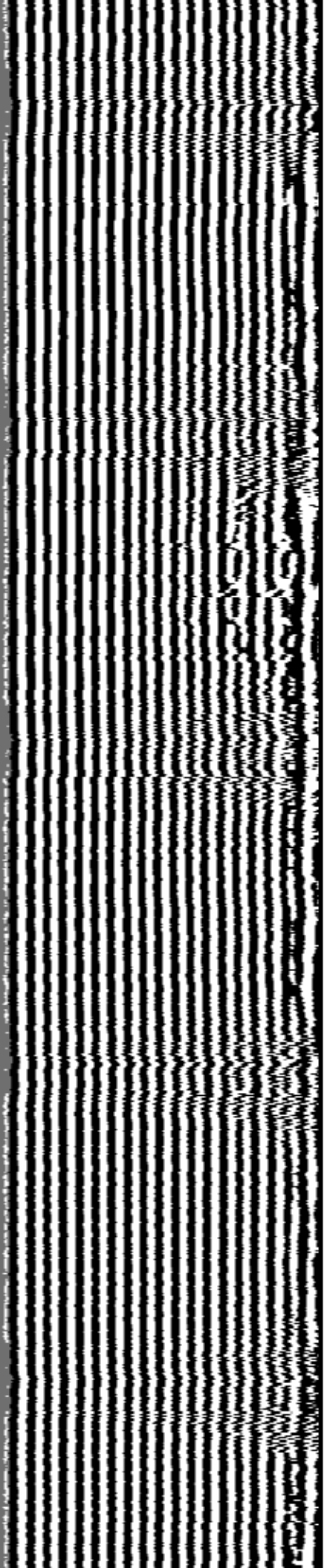
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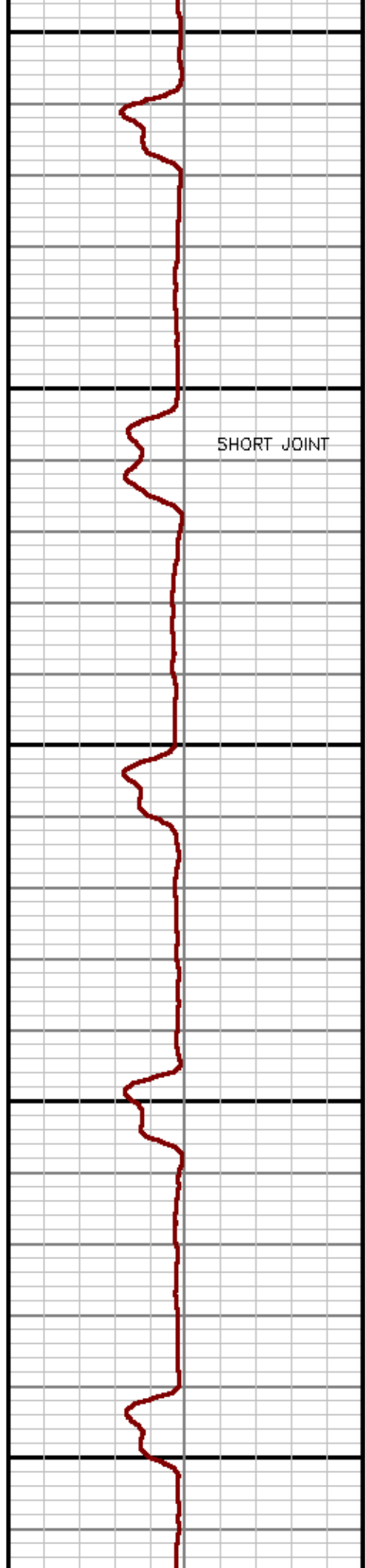
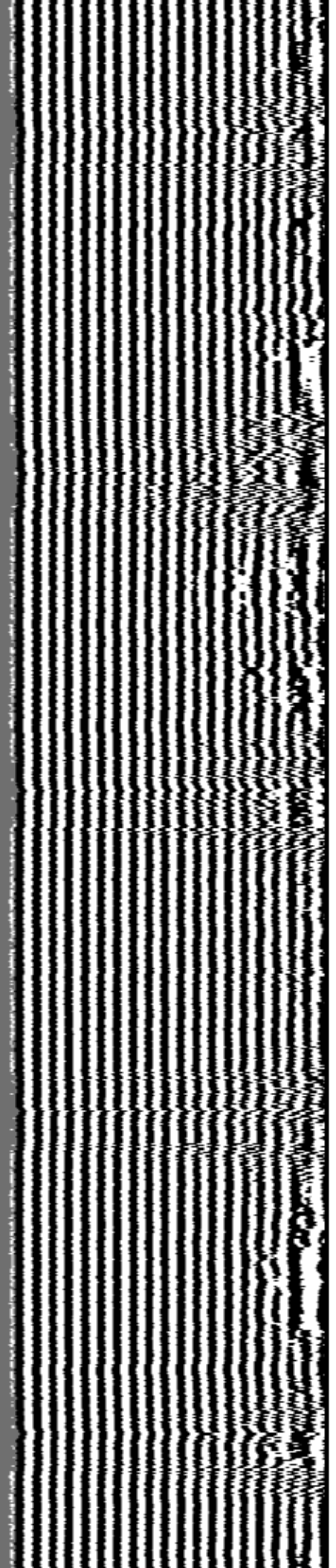
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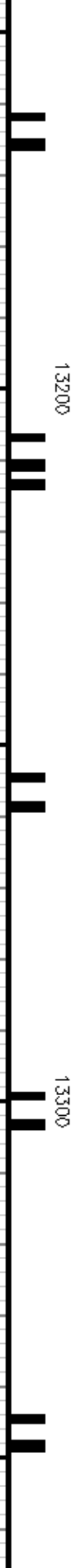






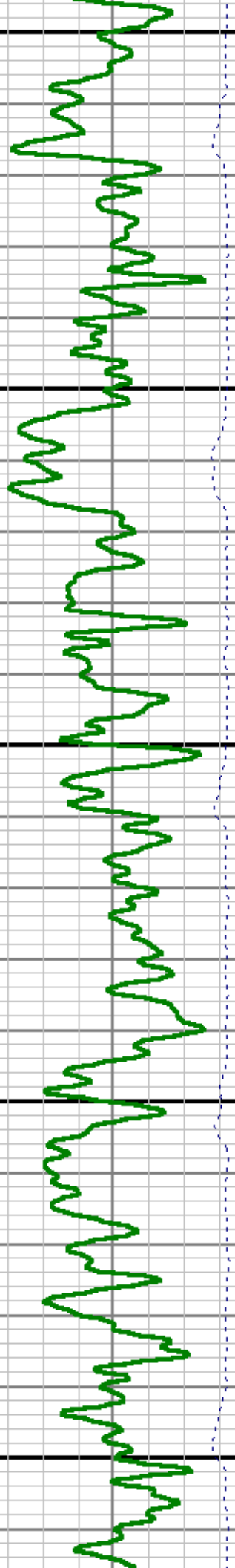


SHORT JOINT

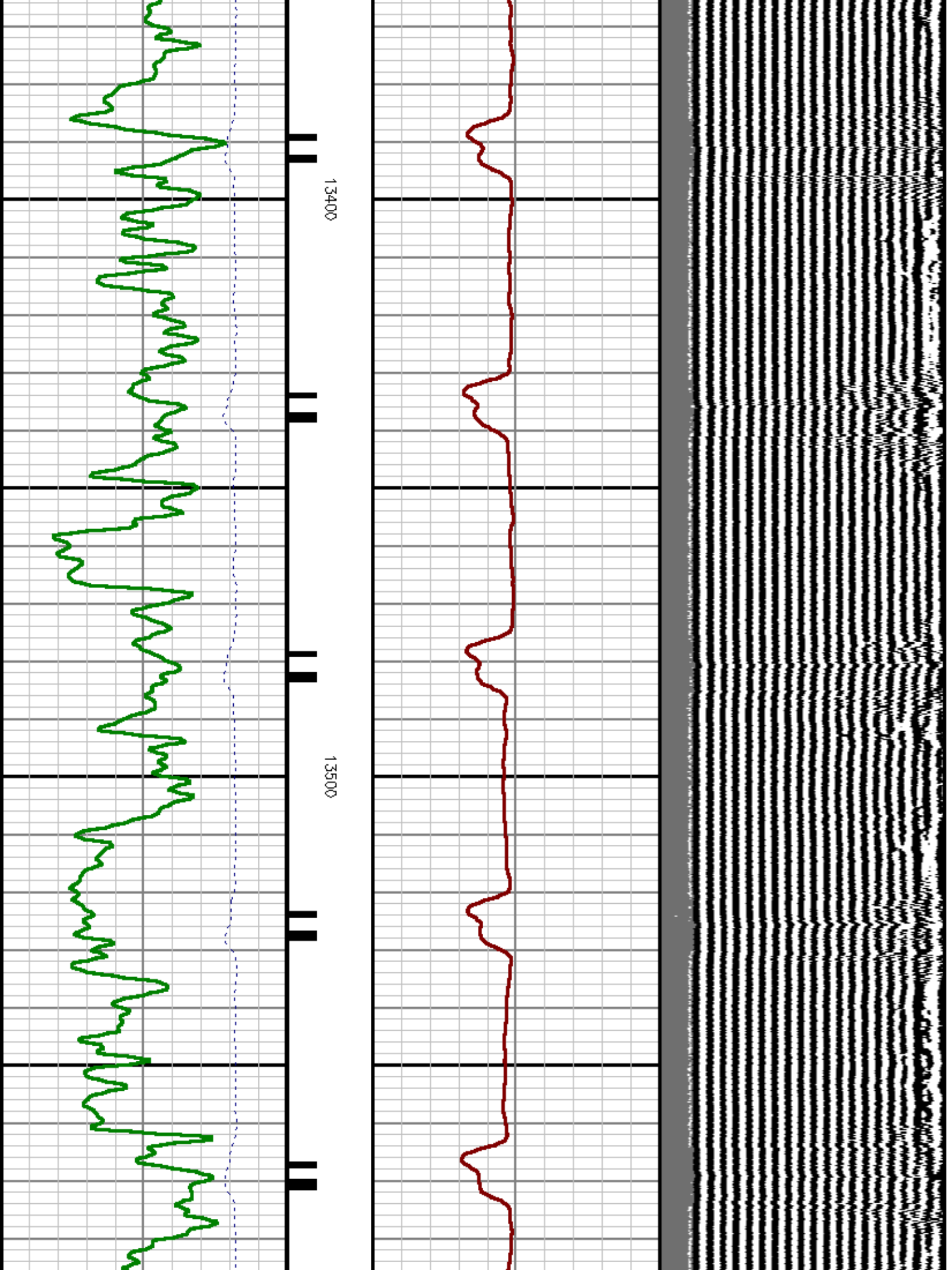


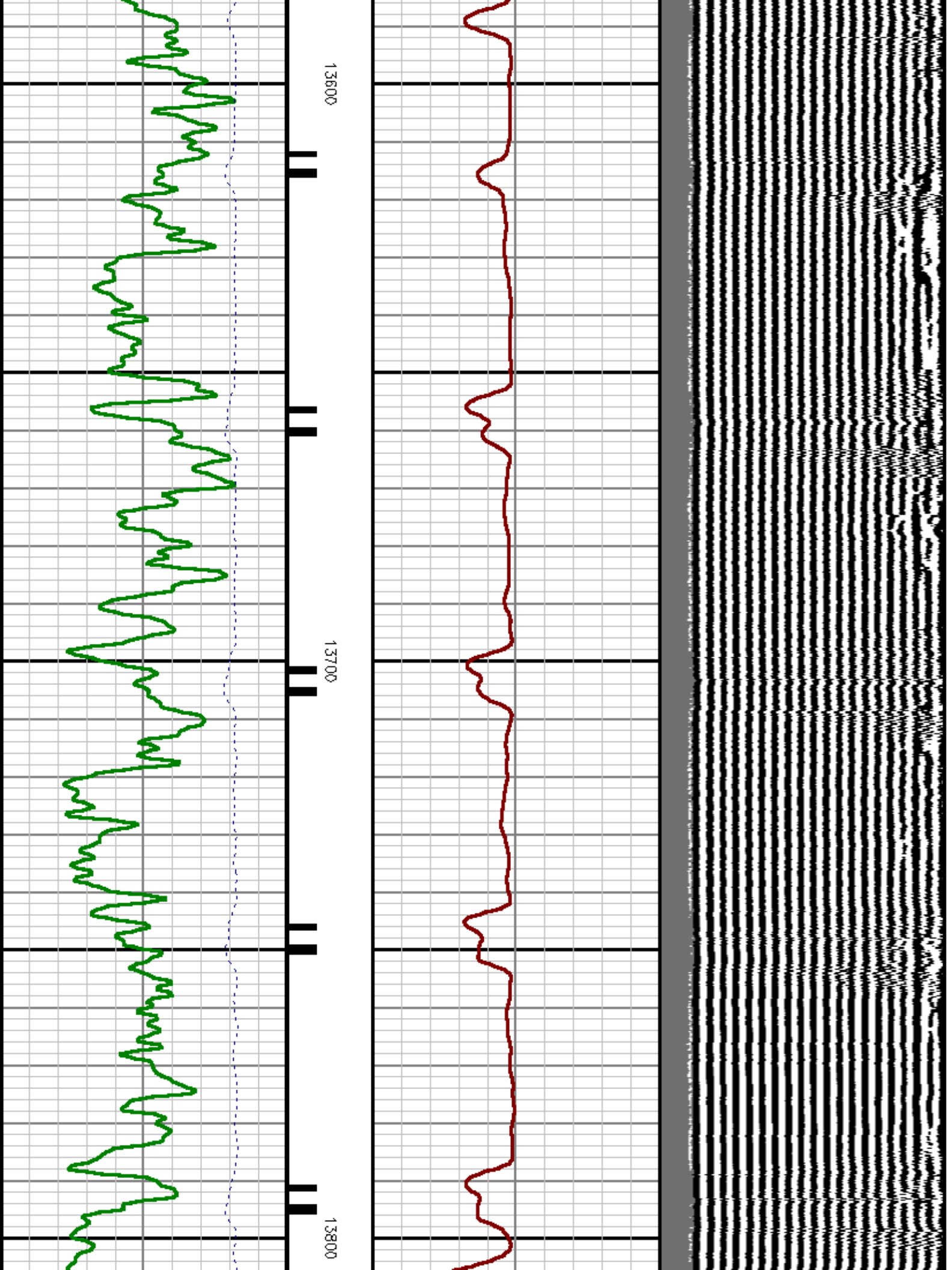
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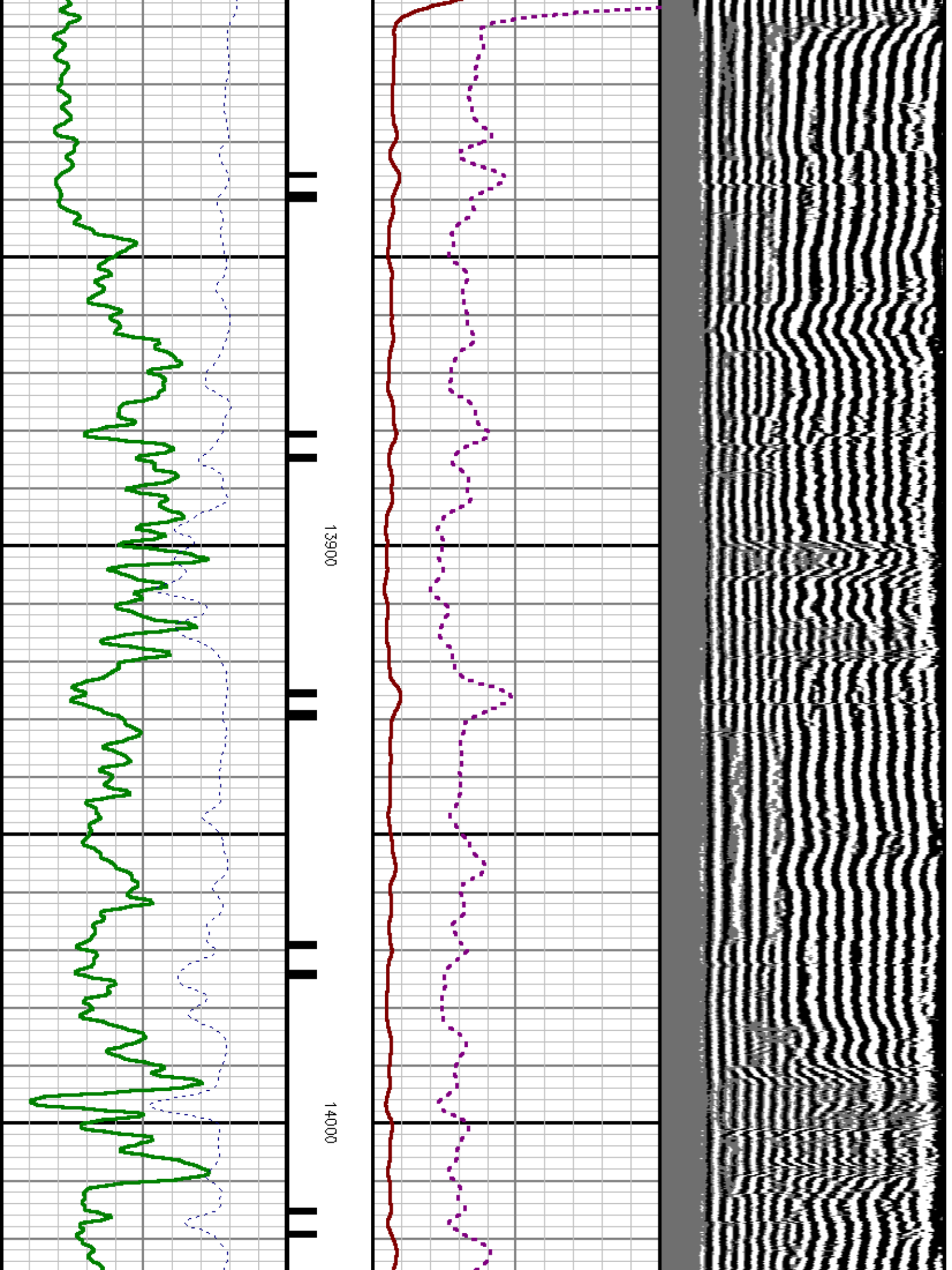
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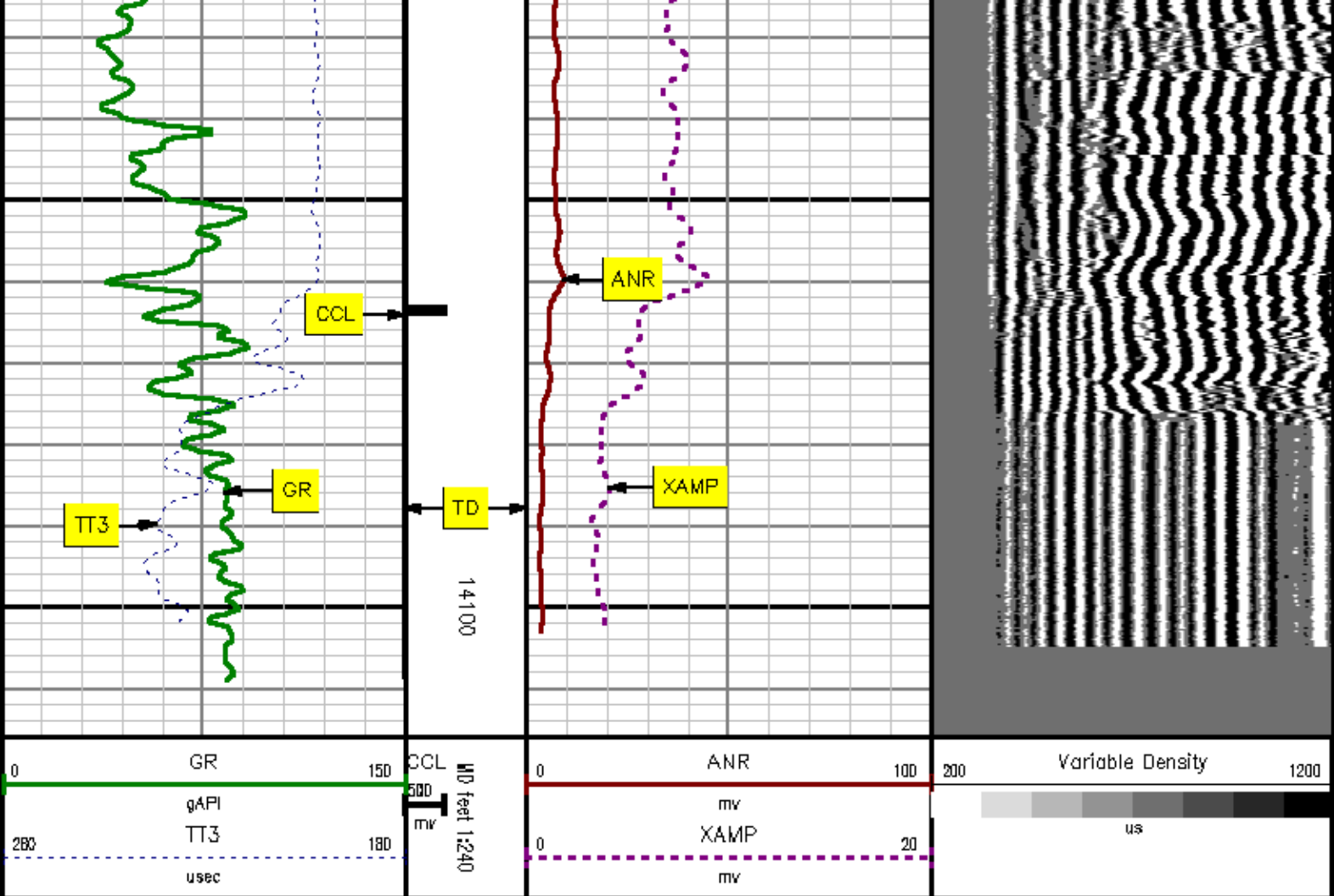












## REPEAT SECTION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	13838.000	14117.000
RAL	Amp Gate Start Near	197.754	usec	13838.000	14117.000
RAL	Amp Gate Start Radial	197.754	usec	13838.000	14117.000
RAL	Amp Gate Width Far	25.000	usec	13838.000	14117.000
RAL	Amp Gate Width Near	25.000	usec	13838.000	14117.000
RAL	Amp Gate Width Radial	25.000	usec	13838.000	14117.000
RAL	casing od	4.500	inches	13838.000	14117.000
RAL	casing wt	15.100	lbm/ft	13838.000	14117.000
RAL	FB Start Far	289.263	usec	13838.000	14117.000
RAL	FB Start Near	172.754	usec	13838.000	14117.000
RAL	FB Start Radial	172.754	usec	13838.000	14117.000



RAL	FB Thresh Far	10.000	mv	13838.000	14117.000
RAL	FB Thresh Near	4.000	mv	13838.000	14117.000
RAL	FB Thresh Radial	4.000	mv	13838.000	14117.000
RAL	Fluid Travel Time	200.000	. usec/ft	13838.000	14116.780

# DEPTH OFFSETS (for Acquired Curves)

SERIES	DEPTH OFFSET	ACQUIRED CURVES					
1426XA	-12.360	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	-11.360	AFAR	SIG	TT5			
1426XA	-7.250	CCL					
1426XA	-5.390	GR					
1426XA	0.000	NEU					

Created by : RAL, v4.8.007

Plotted by : PlotMgr, v5.4.5D4

Company : EXXONMOBIL PRODUCTION COMPANY

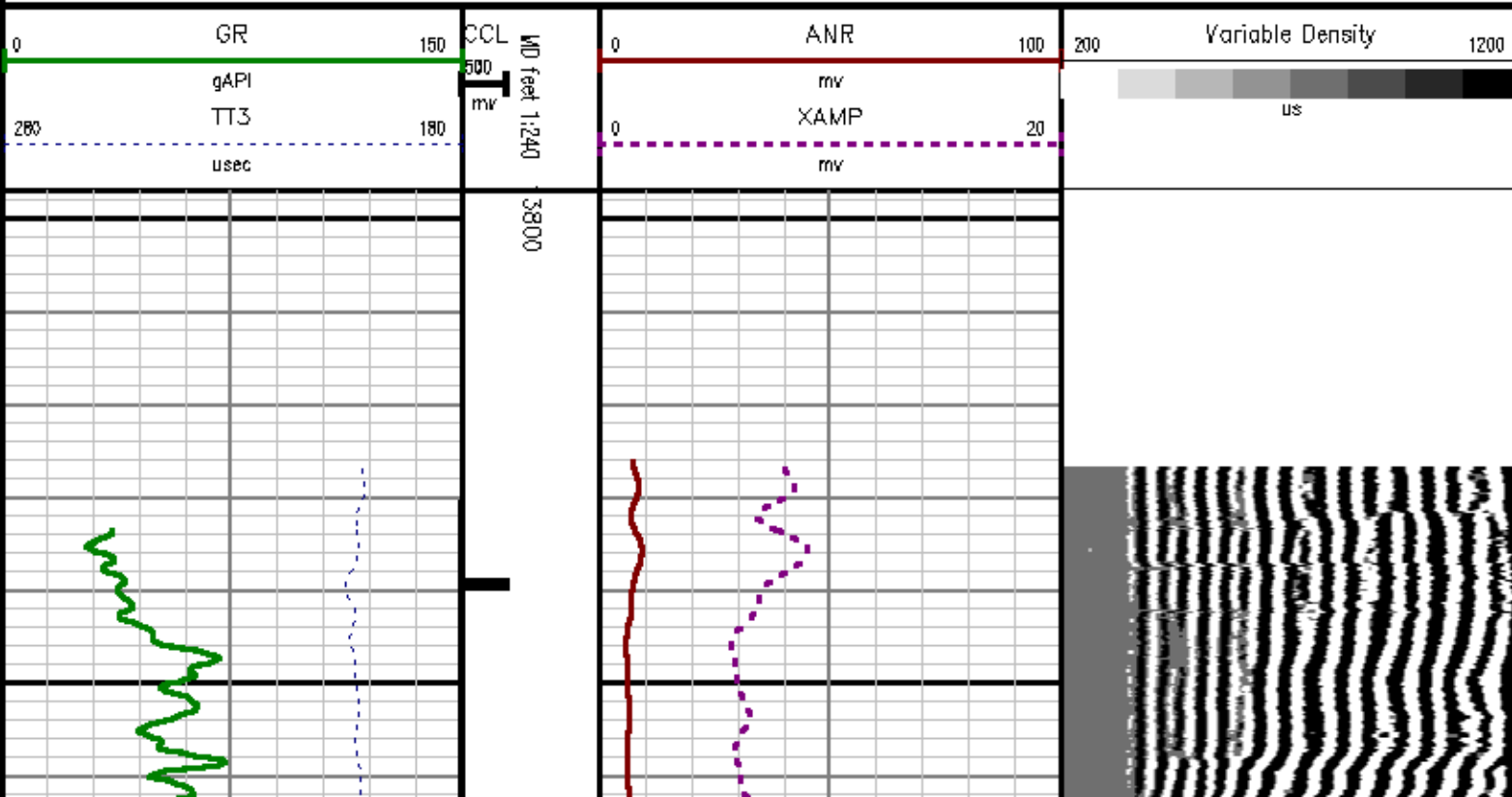
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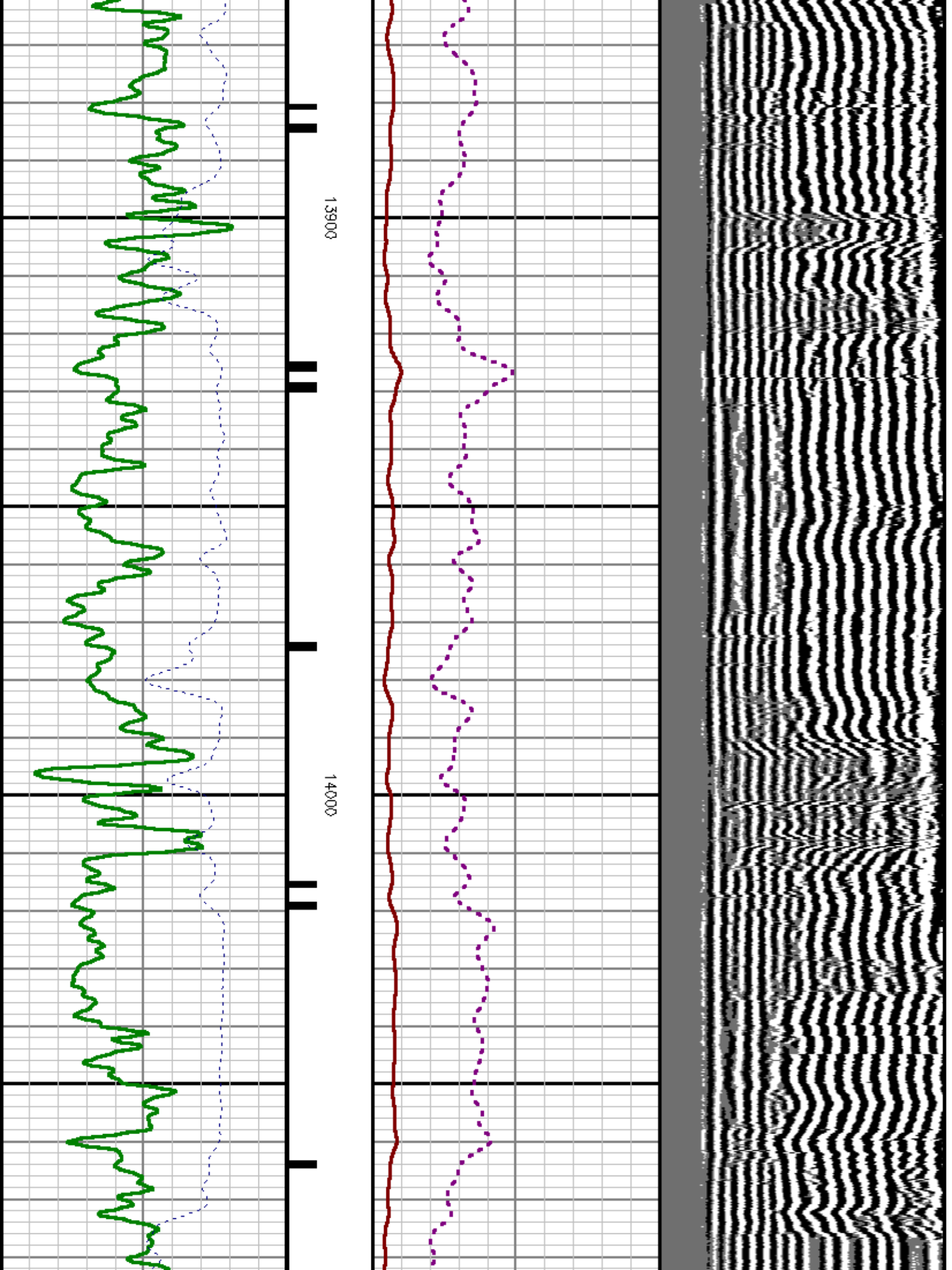
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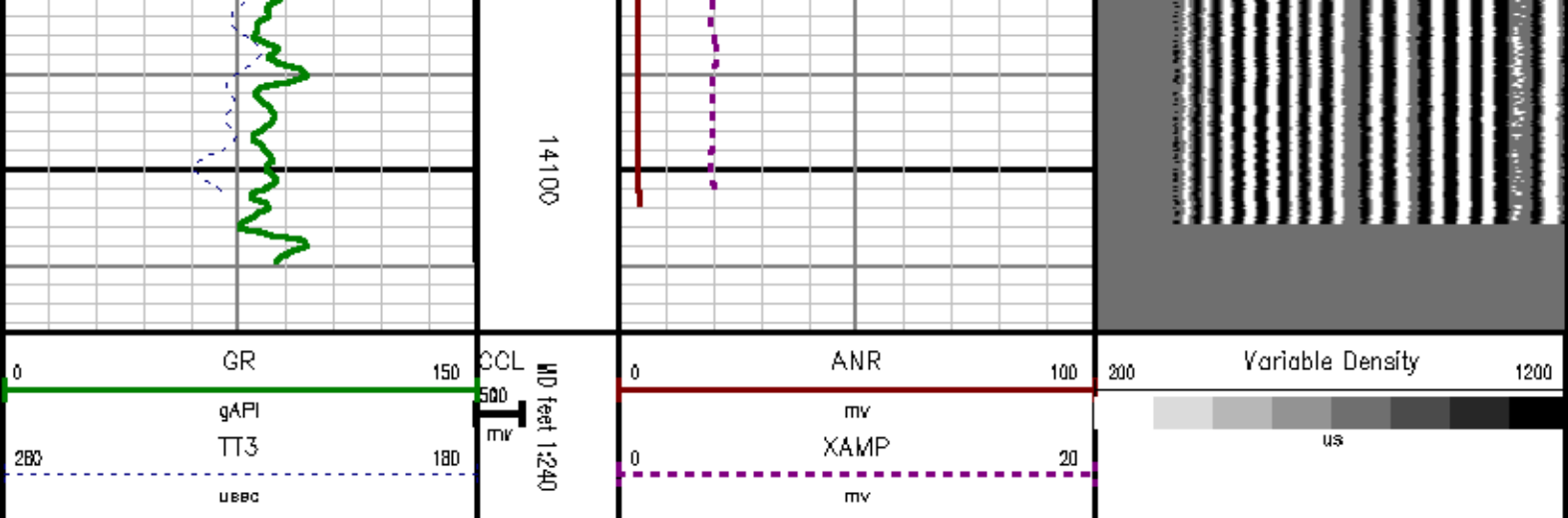
Mode : PlotMgr 5.4.5D4

Interval : 13797.00 - 14117.00 feet UP

Created : 7/23/2011 8:05:37 PM







## FREE PIPE SECTION

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	TOP	BOTTOM
RAL	Amp Gate Start Far	314.263	usec	3234.250	3427.000
RAL	Amp Gate Start Near	197.754	usec	3234.250	3427.000
RAL	Amp Gate Start Radial	197.754	usec	3234.250	3427.000
RAL	Amp Gate Width Far	25.000	usec	3234.250	3427.000
RAL	Amp Gate Width Near	25.000	usec	3234.250	3427.000
RAL	Amp Gate Width Radial	25.000	usec	3234.250	3427.000
RAL	casing od	4.500	inches	3234.250	3427.000
RAL	casing wt	15.100	lbm/ft	3234.250	3427.000
RAL	FB Start Far	289.263	usec	3234.250	3427.000
RAL	FB Start Near	172.754	usec	3234.250	3427.000
RAL	FB Start Radial	172.754	usec	3234.250	3427.000
RAL	FB Thresh Far	10.000	mv	3234.250	3427.000
RAL	FB Thresh Near	4.000	mv	3234.250	3427.000
RAL	FB Thresh Radial	4.000	mv	3234.250	3427.000
RAL	Fluid Travel Time	200.000	usec/ft	3234.250	3427.000

## DEPTH OFFSETS (for Acquired Curves)

SERIES DEPTH OFFSET ACQUIRED CURVES

1426XA -12.360

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 -11.360

AFAR

SIG

TT5

1426XA -7.250

CCL

1426XA -5.390

GR

1426XA 0.000

NEU

Created by : RAL, v4.6.007

Plotted by : PlotMgr, v5.4.504

Company : EXXONMOBIL PRODUCTION COMPANY

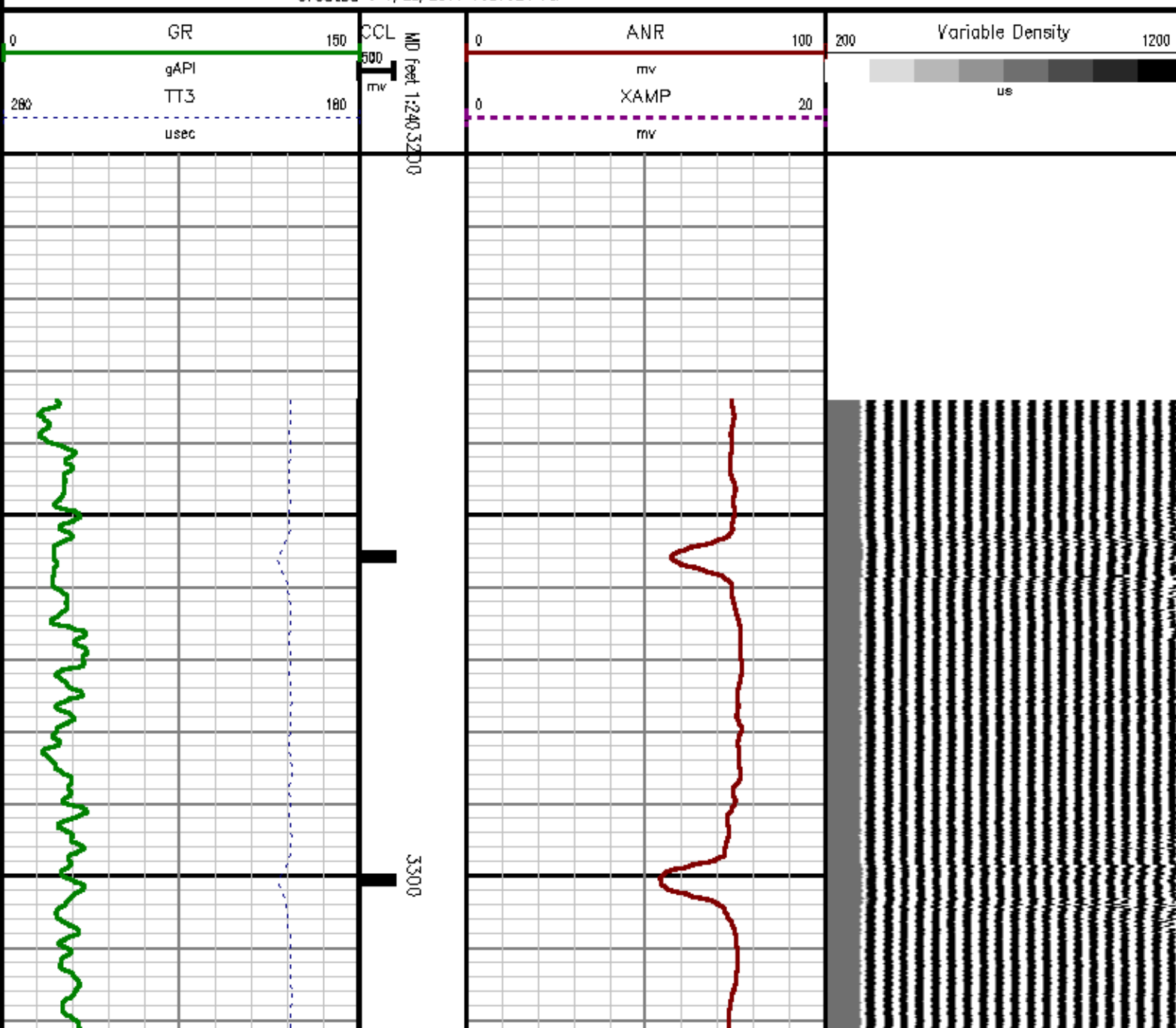
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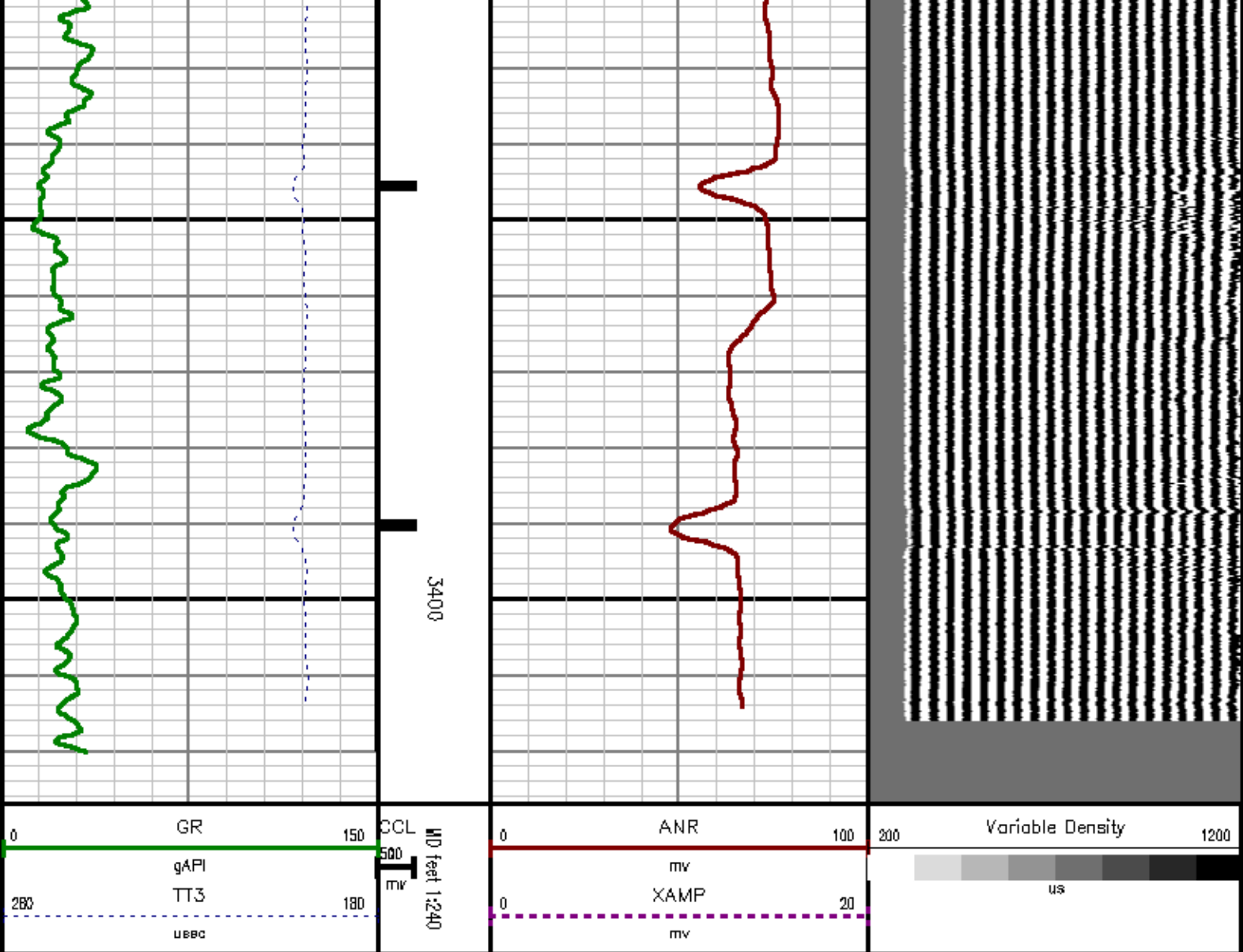
Mode : PlotMgr 5.4.504

Interval : 3200.00 - 3427.00 feet UP

Created : 7/23/2011 7:57:24 PM







## CALIBRATION SUMMARY

*RALSHP*

Shop Calibration: C:\case\calver\RALSHP\432JU\_shop.cal

### SHOP CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jul 23 04:41:50 2011 TOOL SERIES: 1426XA ASSET: 432 SEQ: JU

Tool Delay [usec] -54.00 Tank OD in 5.50 Tank Wt lbm/ft 15.50 Tank ID in 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	219	216	25	166	25	-0.226	100.00	0.21
3 Ft. Receiver	219	216	25	150	25	0.034	100.00	0.21
5 Ft. Receiver	328	326	23	248	25	0.368	150.00	0.23
Radial #1	219	216	25	150	25	0.019	100.00	0.21
Radial #2	219	216	25	150	25	0.002	100.00	0.21
Radial #3	218	216	25	150	25	-0.042	100.00	0.21
Radial #4	218	216	25	150	25	0.020	100.00	0.21
Radial #5	218	216	25	150	25	-0.156	100.00	0.21
Radial #6	219	216	25	150	25	-0.047	100.00	0.21
Radial #7	219	216	25	150	25	-0.124	100.00	0.21
Radial #8	219	216	25	150	25	-0.046	100.00	0.21

## RALFLD

Wellsite Calibration: C:\case\calver\RALFLD\432JU fld.cal

### WELLSITE CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Jul 23 04:44:14 2011 TOOL SERIES: 1426XA ASSET: 432 SEQ: JU

Tool Delay [usec]  Casing OD  Casing Wt  Casing ID

RECEIVER	Zero Gate Start [usec]	Zero Gate Width [usec]	Zero Amp. [mV]	Full Amp. [mV]	Wellsite Factor	Amp. Ref [mV]
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3 Ft. Receiver	<input type="text" value="152"/>	<input type="text" value="24"/>	<input type="text" value="-0.135"/>			
5 Ft. Receiver	<input type="text" value="256"/>	<input type="text" value="25"/>	<input type="text" value="0.020"/>			
Radial #1	<input type="text" value="153"/>	<input type="text" value="25"/>	<input type="text" value="-0.267"/>			
Radial #2	<input type="text" value="153"/>	<input type="text" value="25"/>	<input type="text" value="-0.368"/>			
Radial #3	<input type="text" value="153"/>	<input type="text" value="25"/>	<input type="text" value="-0.364"/>			
Radial #4	<input type="text" value="153"/>	<input type="text" value="25"/>	<input type="text" value="-0.381"/>			
Radial #5	<input type="text" value="153"/>	<input type="text" value="25"/>	<input type="text" value="-0.368"/>			
Radial #6	<input type="text" value="153"/>	<input type="text" value="25"/>	<input type="text" value="-0.370"/>			
Radial #7	<input type="text" value="153"/>	<input type="text" value="25"/>	<input type="text" value="-0.399"/>			
Radial #8	<input type="text" value="153"/>	<input type="text" value="25"/>	<input type="text" value="-0.312"/>			

## GAMMA RAY

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

### CALIBRATION SUMMARY

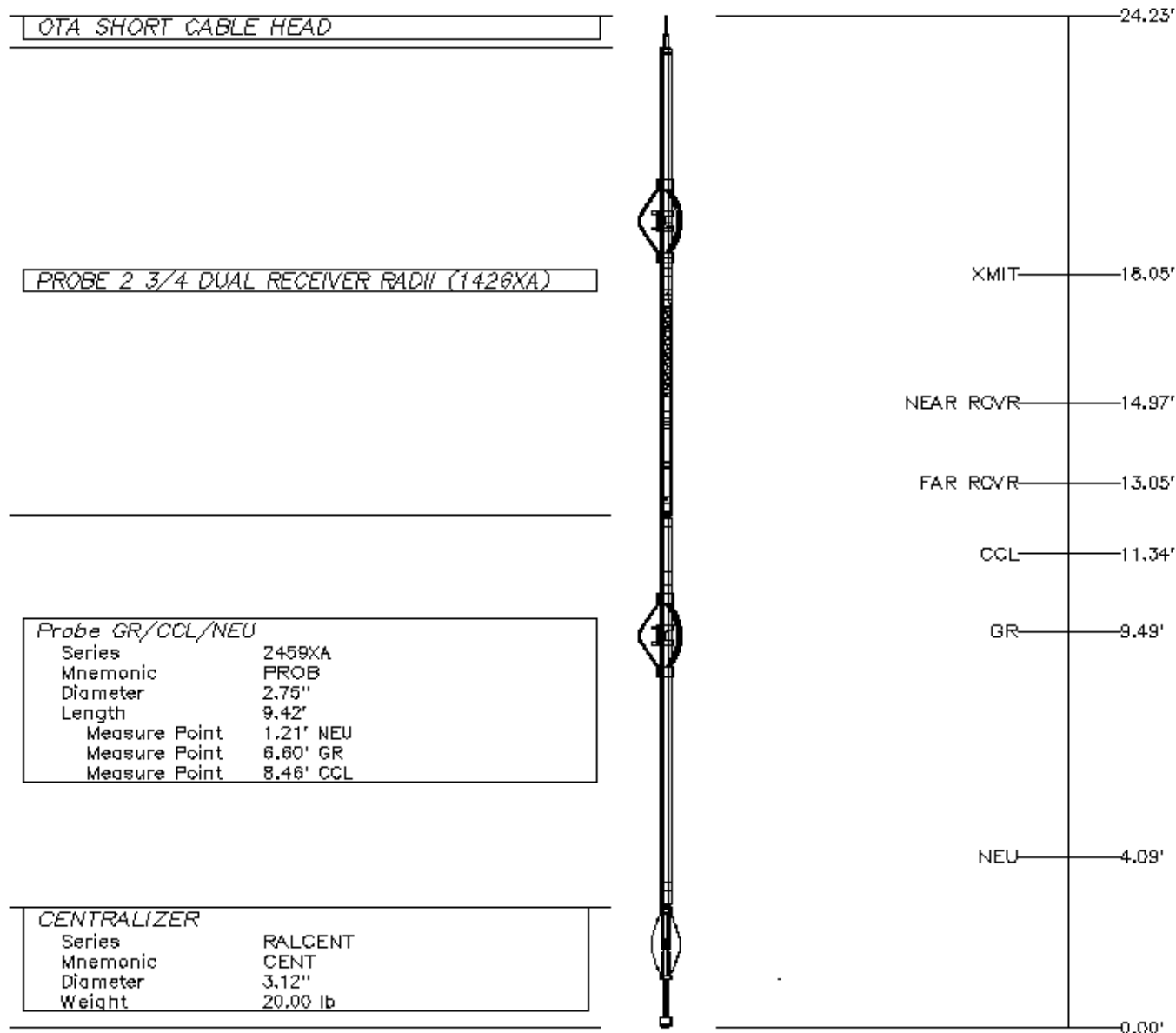
DATE/TIME PERFORMED: Sat Jul 16 07:39:07 2011 TOOL SERIES: 1426XA ASSET: 457 SEQ: JY

Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]
S2K DA612	<input type="text" value="67.24"/>	<input type="text" value="309.51"/>	<input type="text" value="0.784"/>	<input type="text" value="51.35"/>	<input type="text" value="236.35"/>	<input type="text" value="185.00"/>

## PRIMARY LOG VERIFICATION

DATE/TIME PERFORMED: Sat Jul 16 07:40:27 2011		TOOL SERIES: 1426XA		ASSET: 457		SEQ: JY	
Calibrator #	Background [cps]	Calibrator On [cps]	Multiplicative	Background [api]	Calibrator On [api]	Differential [api]	
S2K DA612	67.82	317.64	0.784	51.79	242.56	190.77	

## TOOL DIAGRAM



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



Company	EXXONMOBIL PRODUCTION COMPANY		
Well	PCU 296-5A1		
Field	PICEANCE CREEK		
County	RIO BLANCO	State	COLORADO

File No:
CH038997
API No:
05103112480000

Location:

SHL: 609' FWL & 561' FWL

Elevations

KB 7339.2 ft

DF 7338.2 ft

GL 7308 ft

SEC: 5      TWP: 2S      RGE: 96W

Baker Atlas

CASE