



**RADIAL CEMENT BOND W/
VARIABLE DENSITY,
GAMMA RAY, CCL, TEMP LOG**

Company	GREAT WESTERN OIL & GAS		
Well	RAINDANCE FC 23-232HN		
Field	WATTENBERG		
County	WELD	State	COLORADO
Location:	API # : 05-123-51581 40.463084 / -104.927261		Other Services N/A
Permanent Datum	GL	Elevation	4788'
Log Measured From	KB		
Drilling Measured From	KB		
SEC 30 TWP 6N RGE 67W			

Date	1-NOV-2021
Run Number	ONE
Depth Driller	21273'
Depth Logger	8296'
Bottom Logged Interval	8295'
Top Log Interval	SURFACE
Open Hole Size	-
Type Fluid	WATER
Density / Viscosity	-
Max. Recorded Temp.	227°F
Estimated Cement Top	-
Time Well Ready	11:09
Time Logger on Bottom	12:04
Equipment Number	80
Location	PLATTEVILLE, CO
Recorded By	C. WILKINS
Witnessed By	D. POZAS
Borehole Record	
Run Number	Bit From To Size Weight From To
Casing Record	Size Wgt/Ft Top Bottom
Surface String	9-5/8" 40# SURFACE 2072'
Prot. String	
Production String	5-1/2" 20# SURFACE 21273'
Liner	

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

TOOLS RAN AS PER TOOLSTRING DIAGRAM
TOOLSTRING CENTRALIZED VIA 3 X GEMCO CENTRALIZERS
CORRELATED TO MARKER JOINT AT 7246'-7257'

THANK YOU FOR USING KLX ENERGY SERVICES

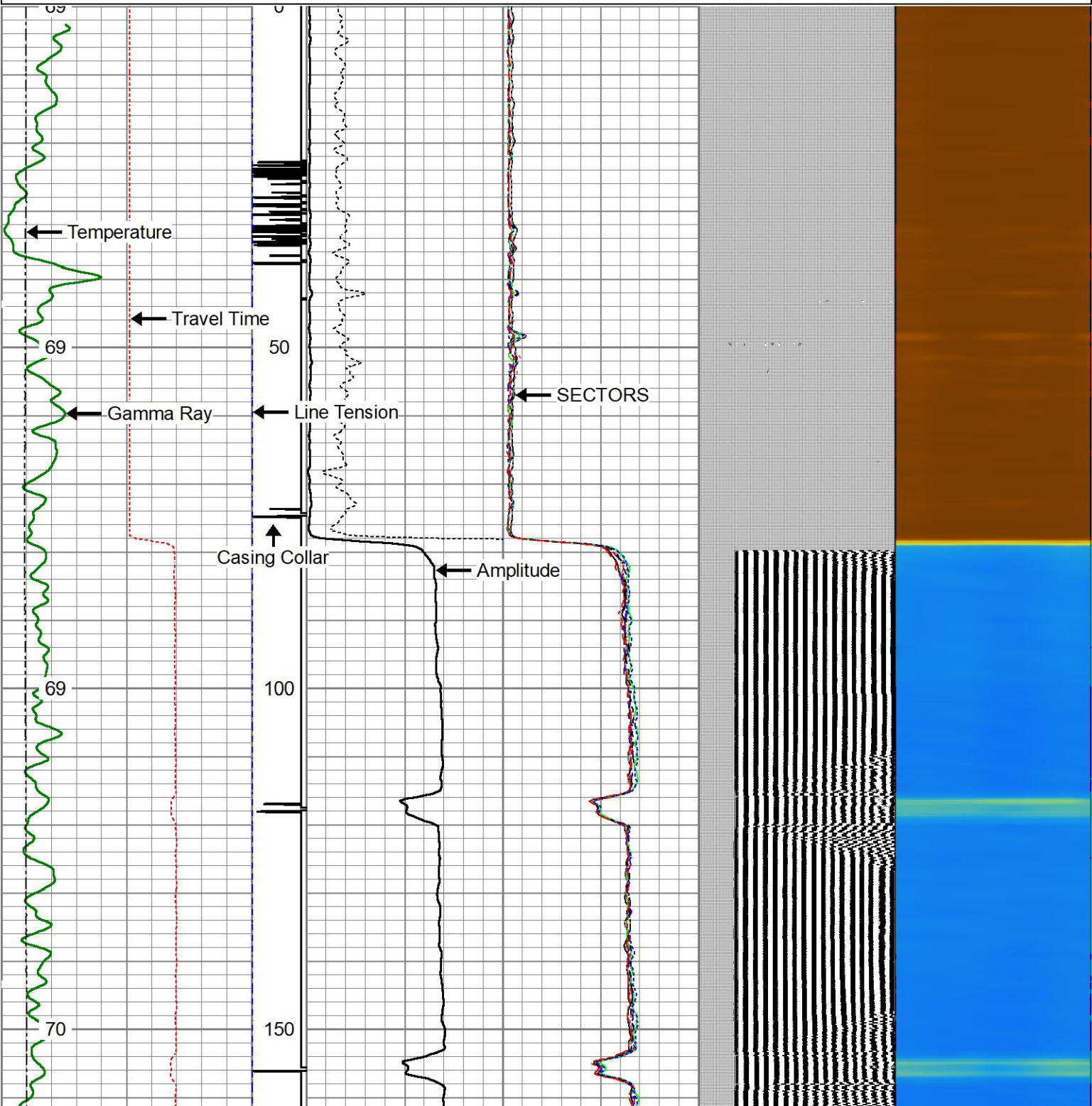


MAIN PASS

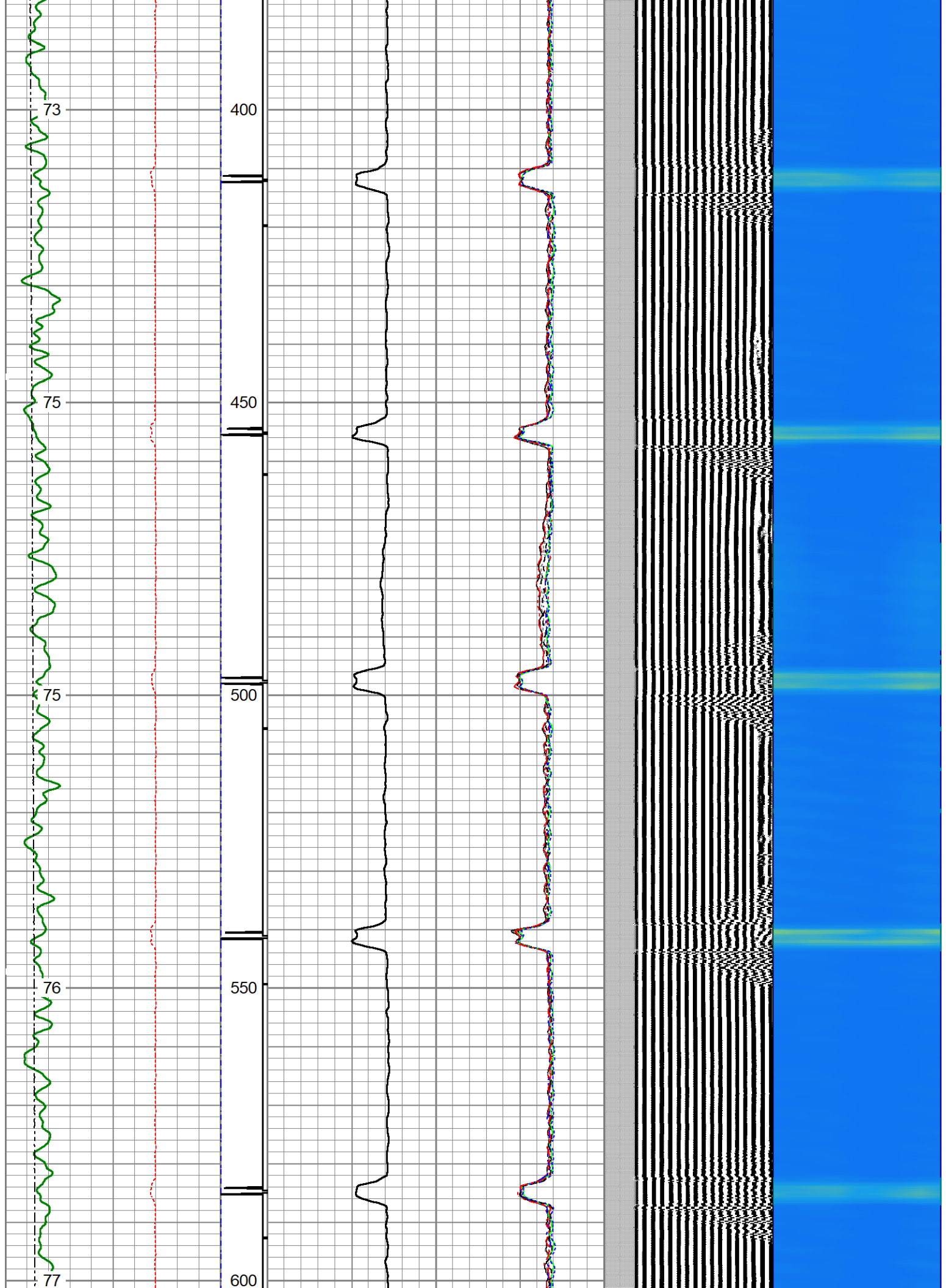
LOGGED WITH 0 PSI SURFACE INDUCED PRESSURE

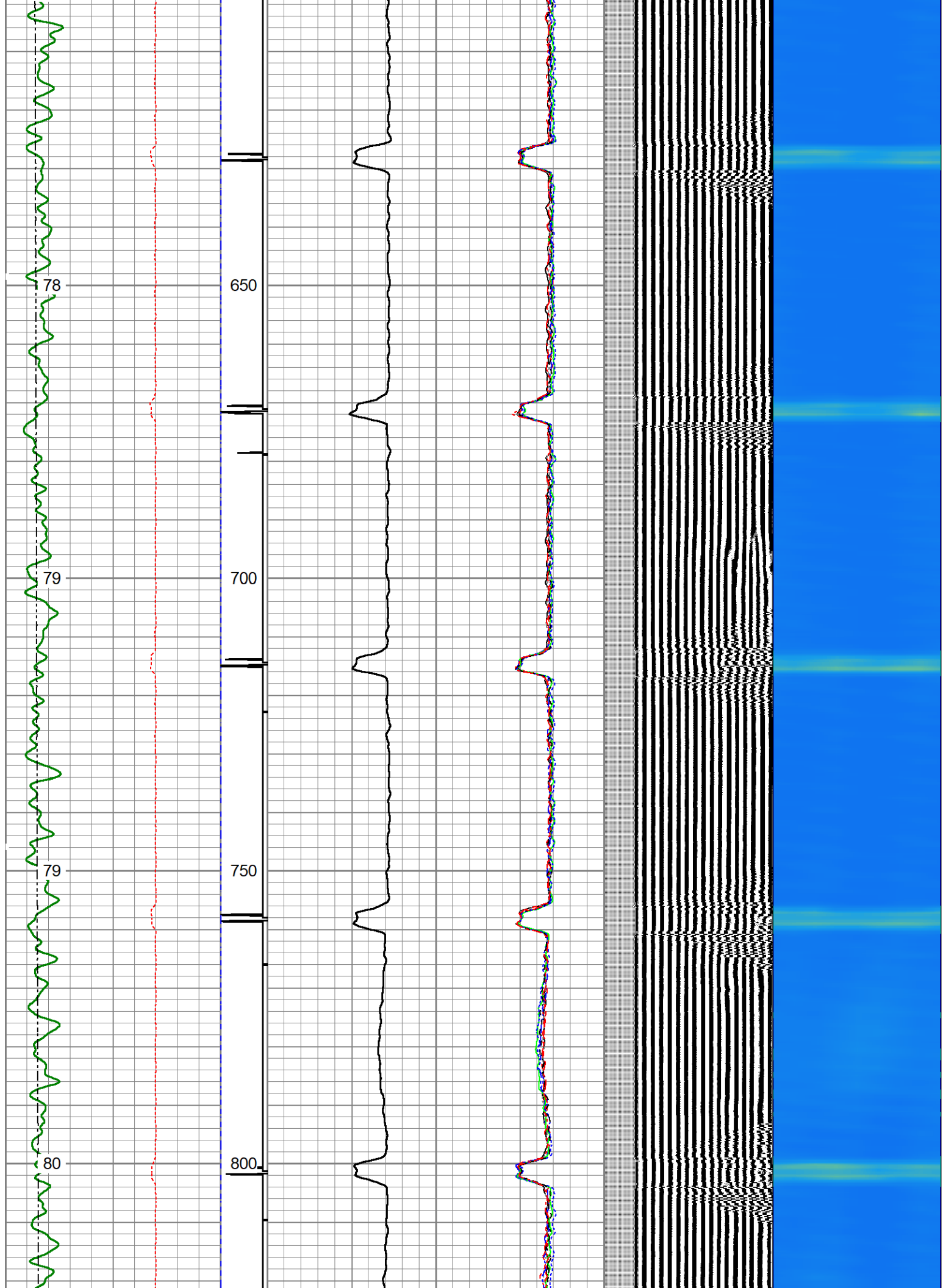
Database File	raindance_fc_23-232hn_rcbl11-01-21.db
Dataset Pathname	RCBL1/pass12
Presentation Format	rcbl_hh
Dataset Creation	Mon Nov 01 12:10:54 2021
Charted by	Depth in Feet scaled 1:240

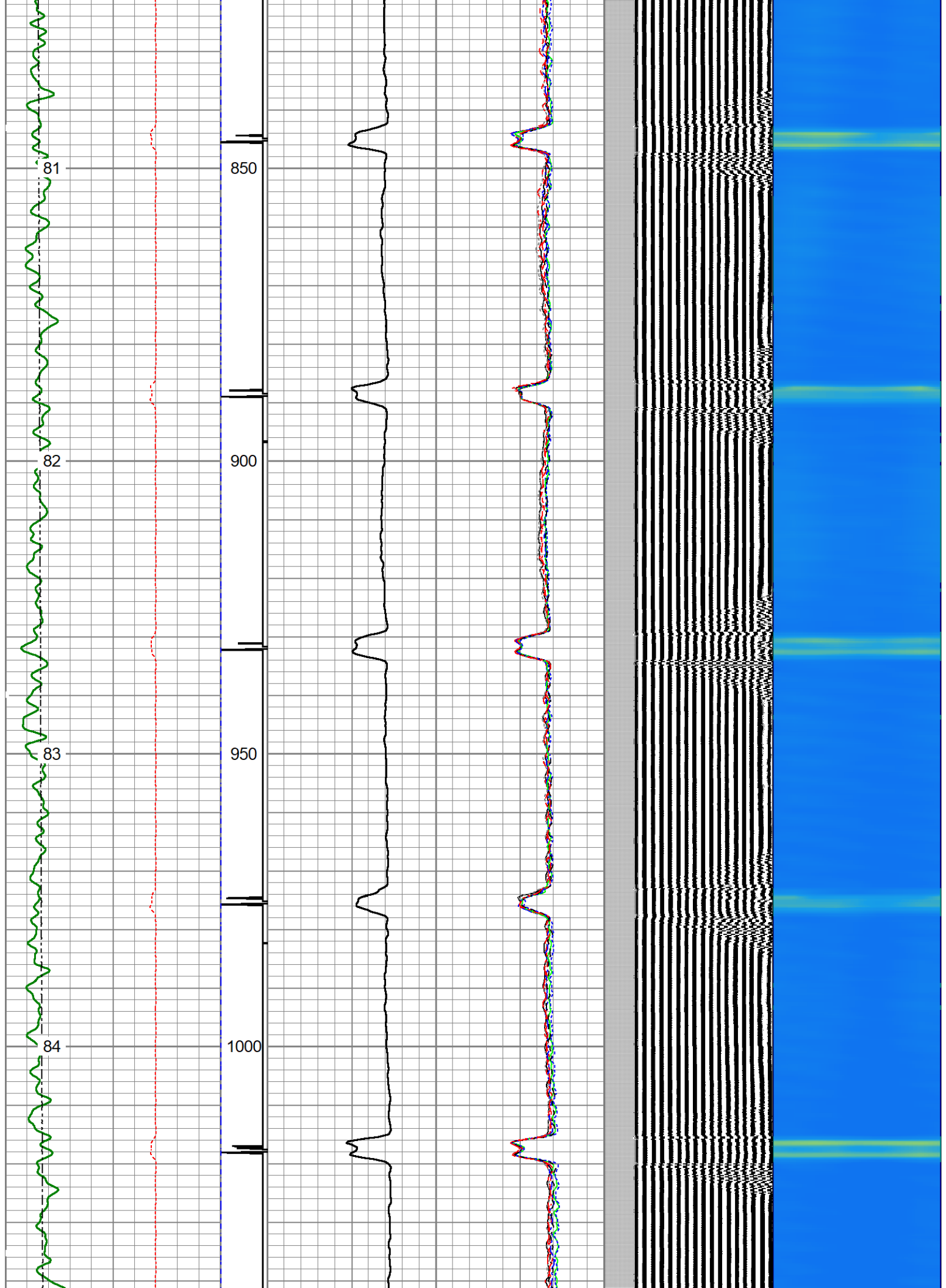
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0	Gamma Ray (GAPI)	150	9 -1 0	(mV)	100	-5	Sector 2	150	200	(usec)	1200
50	TEMP (degF)	250	e Tens	Amplified Amplitude	-5	Sector 3	150				
TEMP			(lb)	(mV)	10	-5	Sector 4	150			
(degF)			(2000			-5	Sector 5	150			
						-5	Sector 6	150			
						-5	Sector 7	150			
						-5	Sector 8	150			

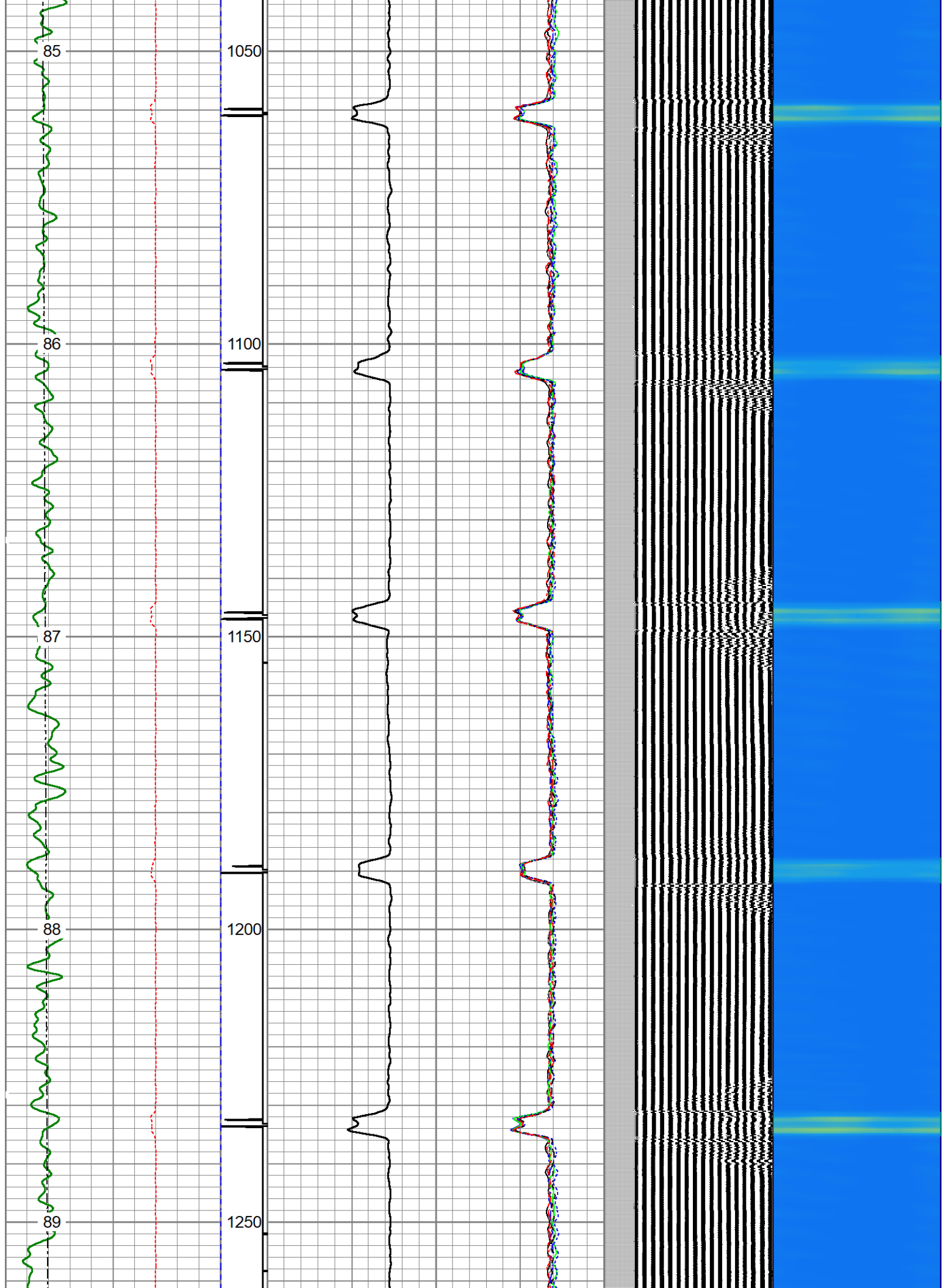


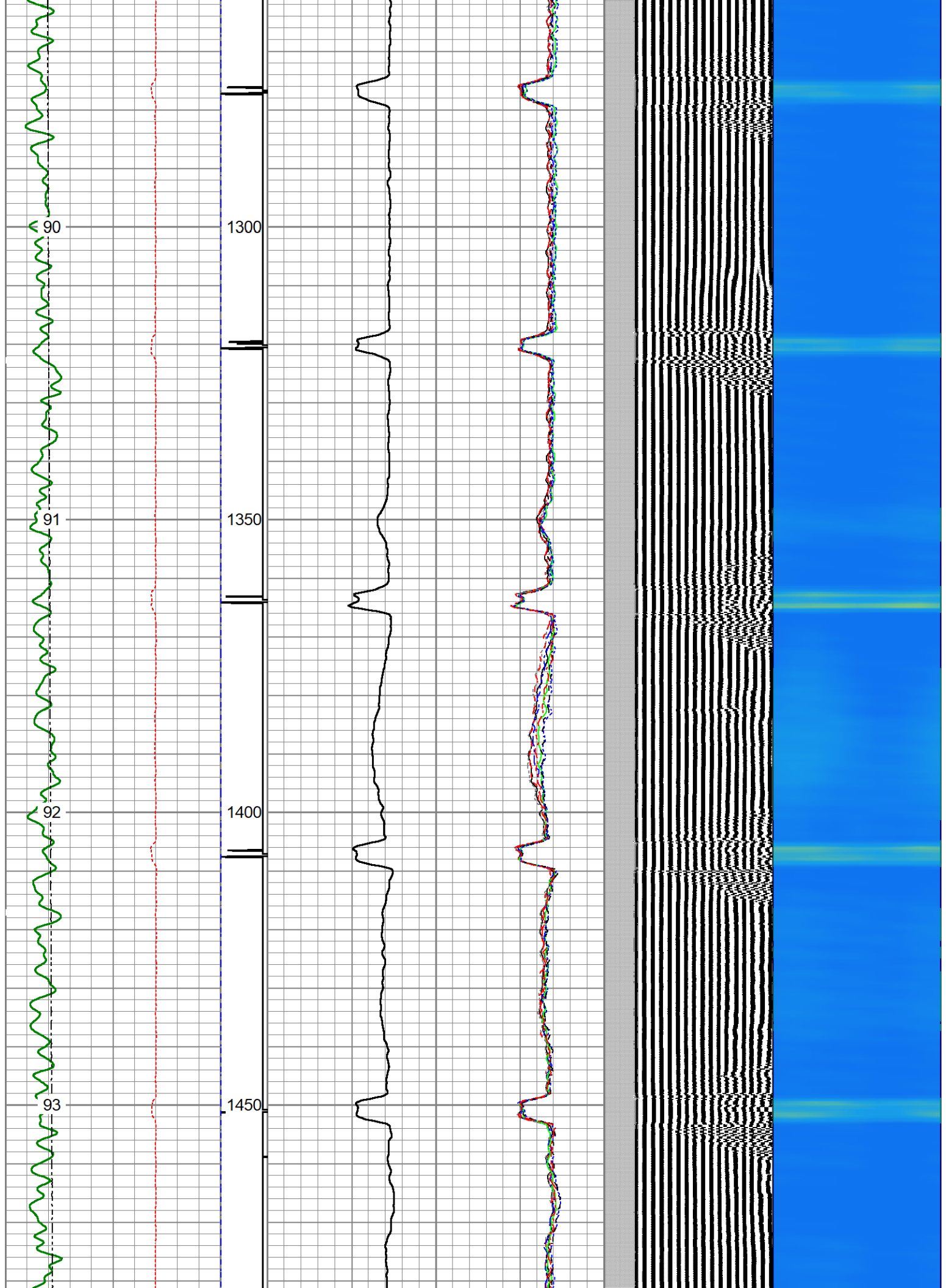


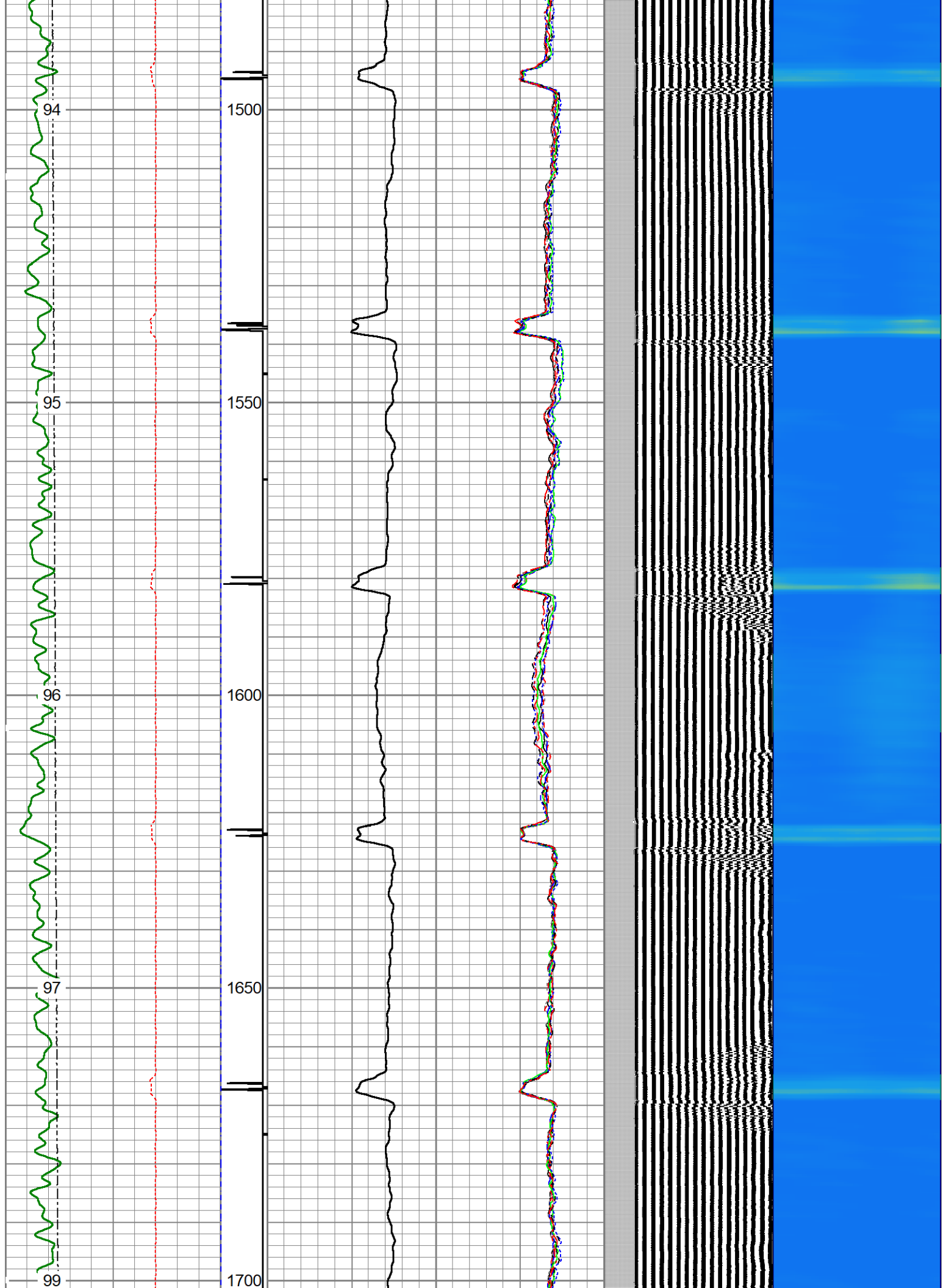


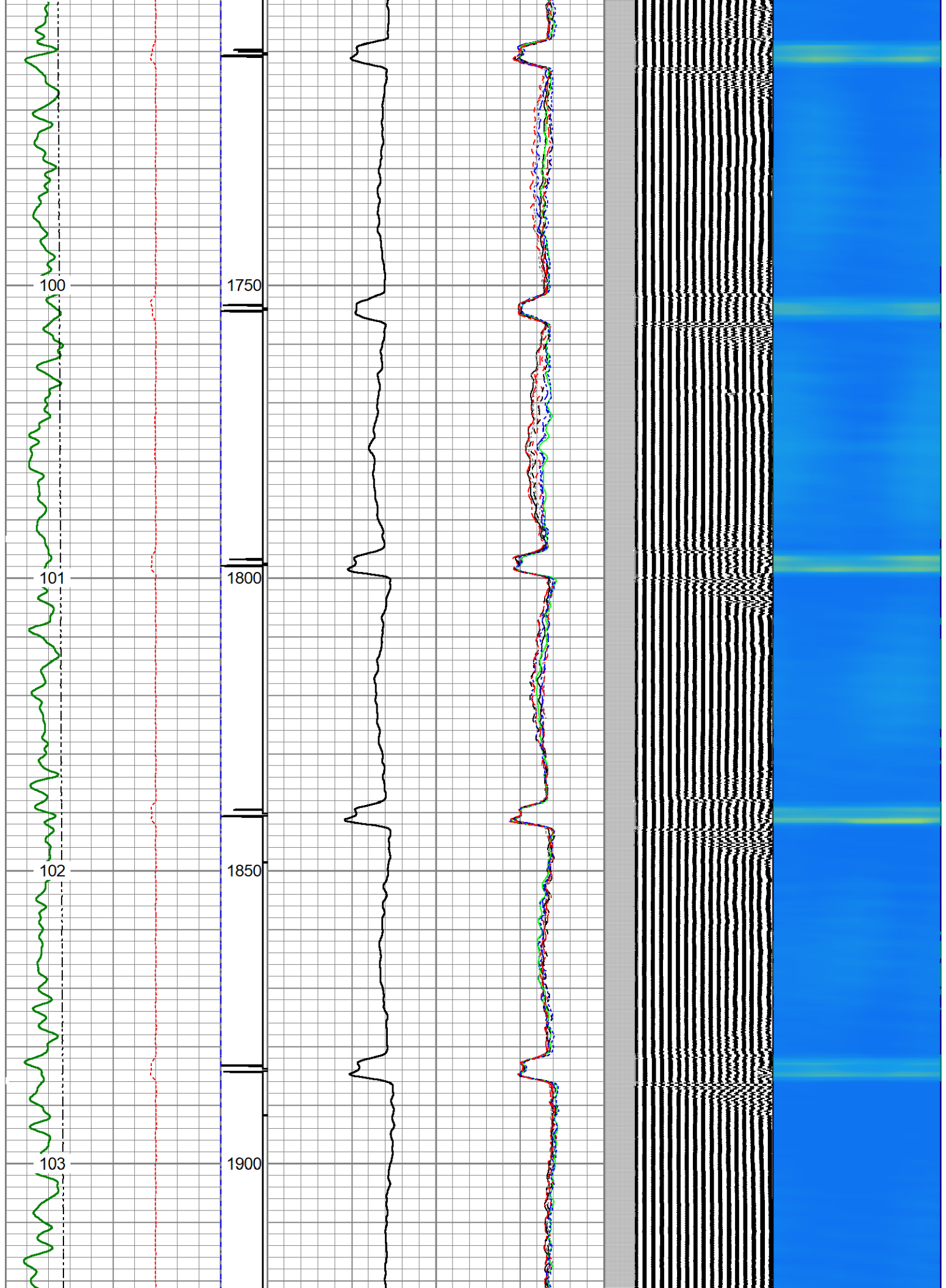


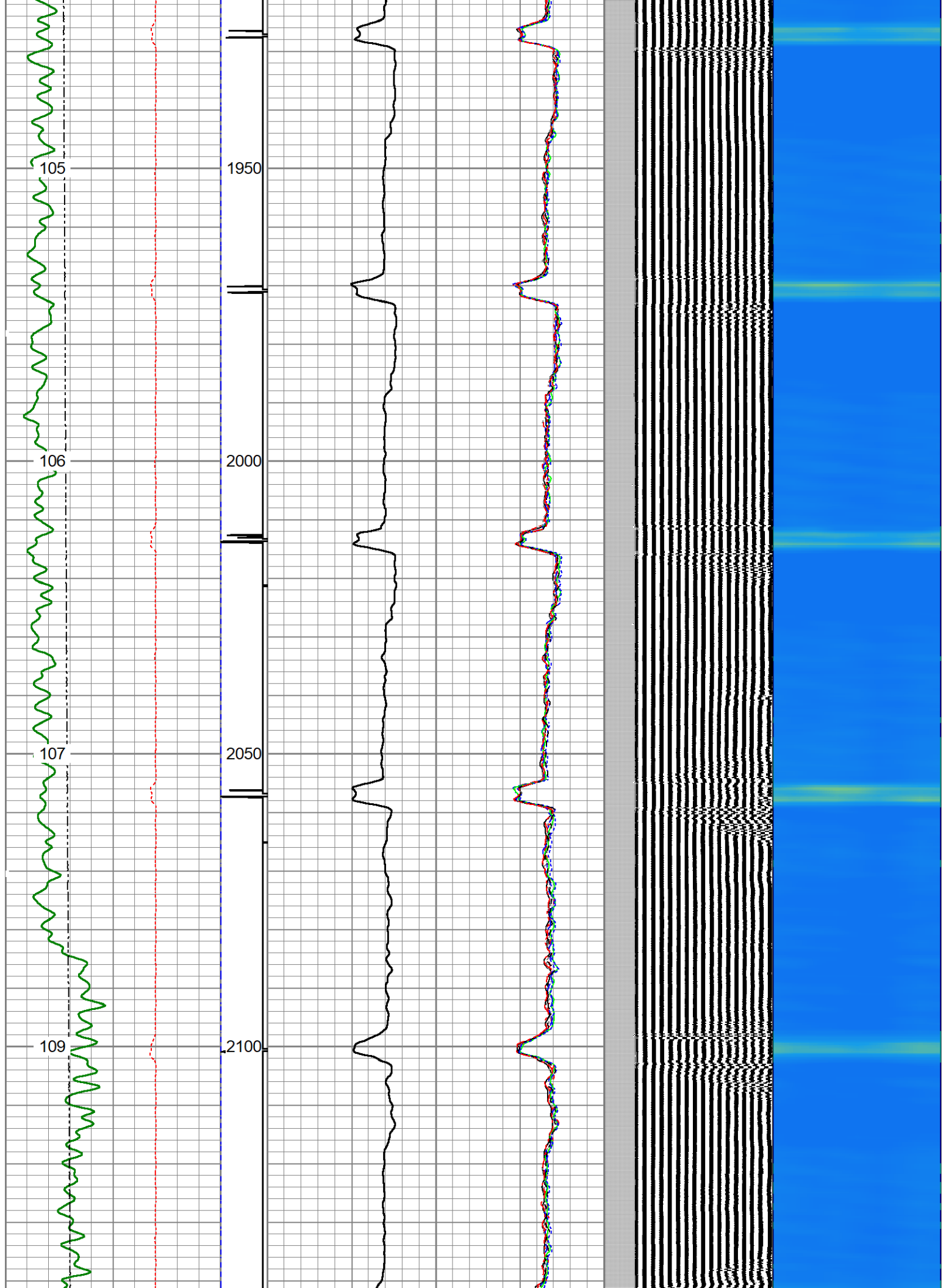


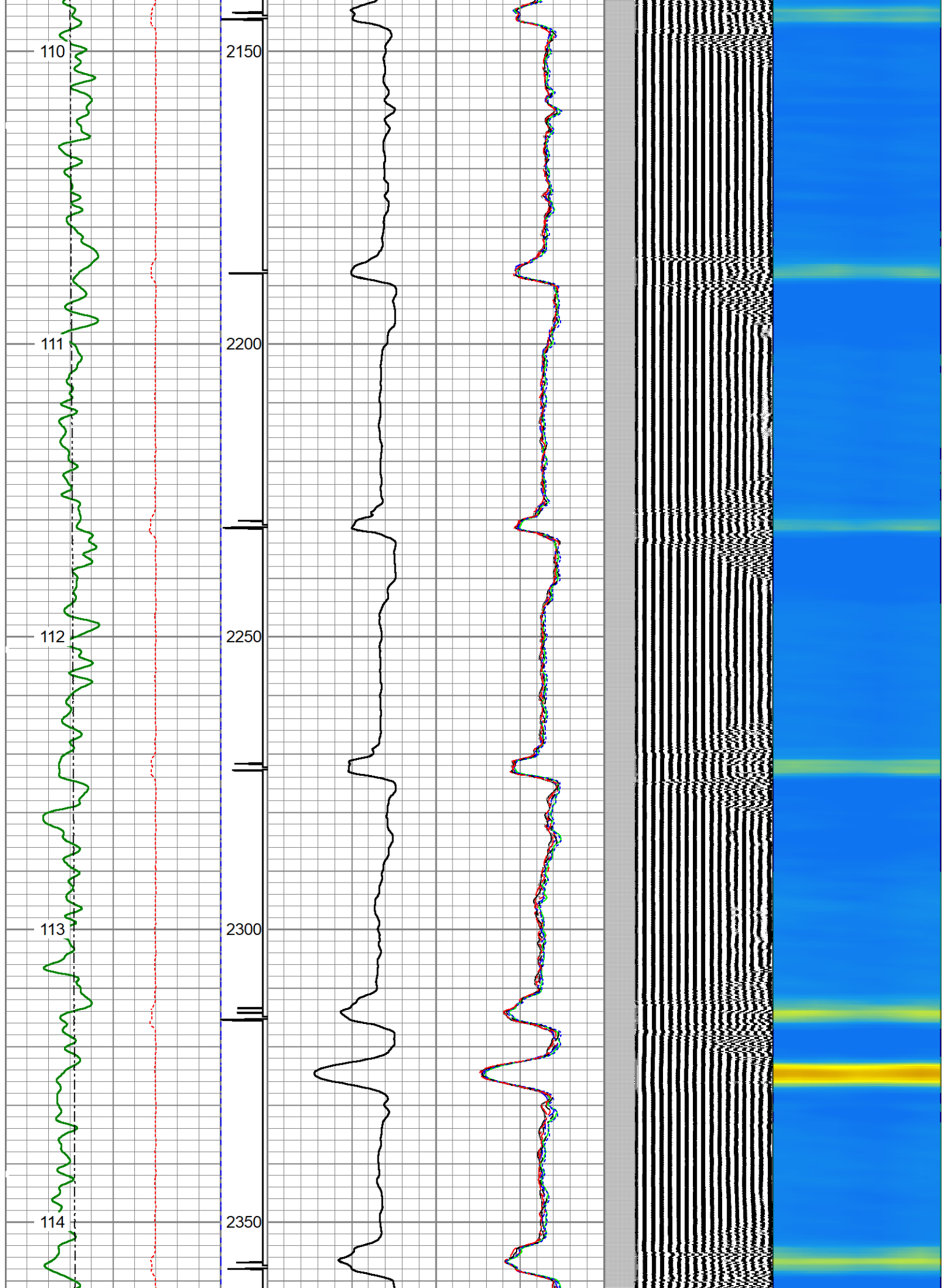


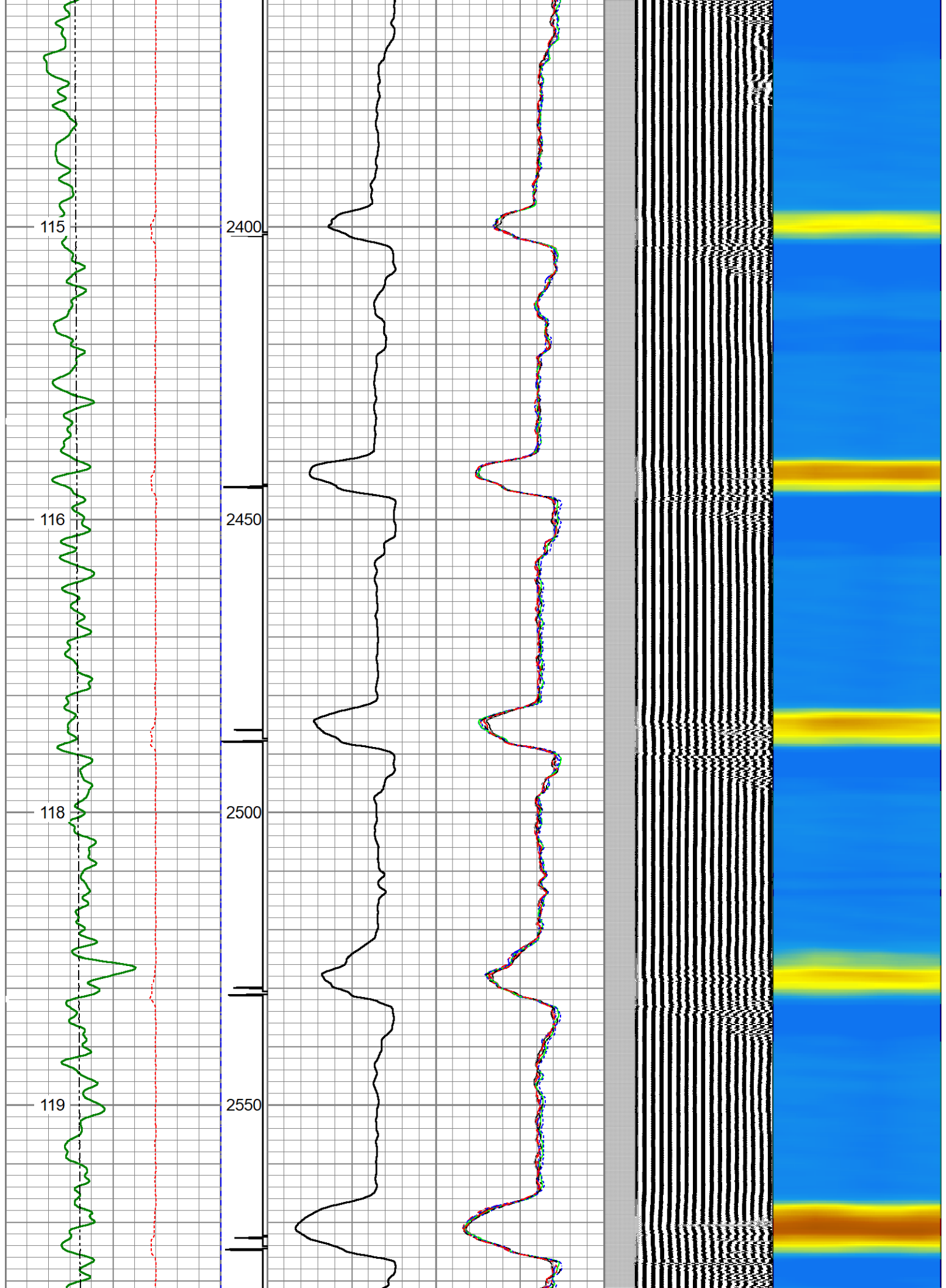


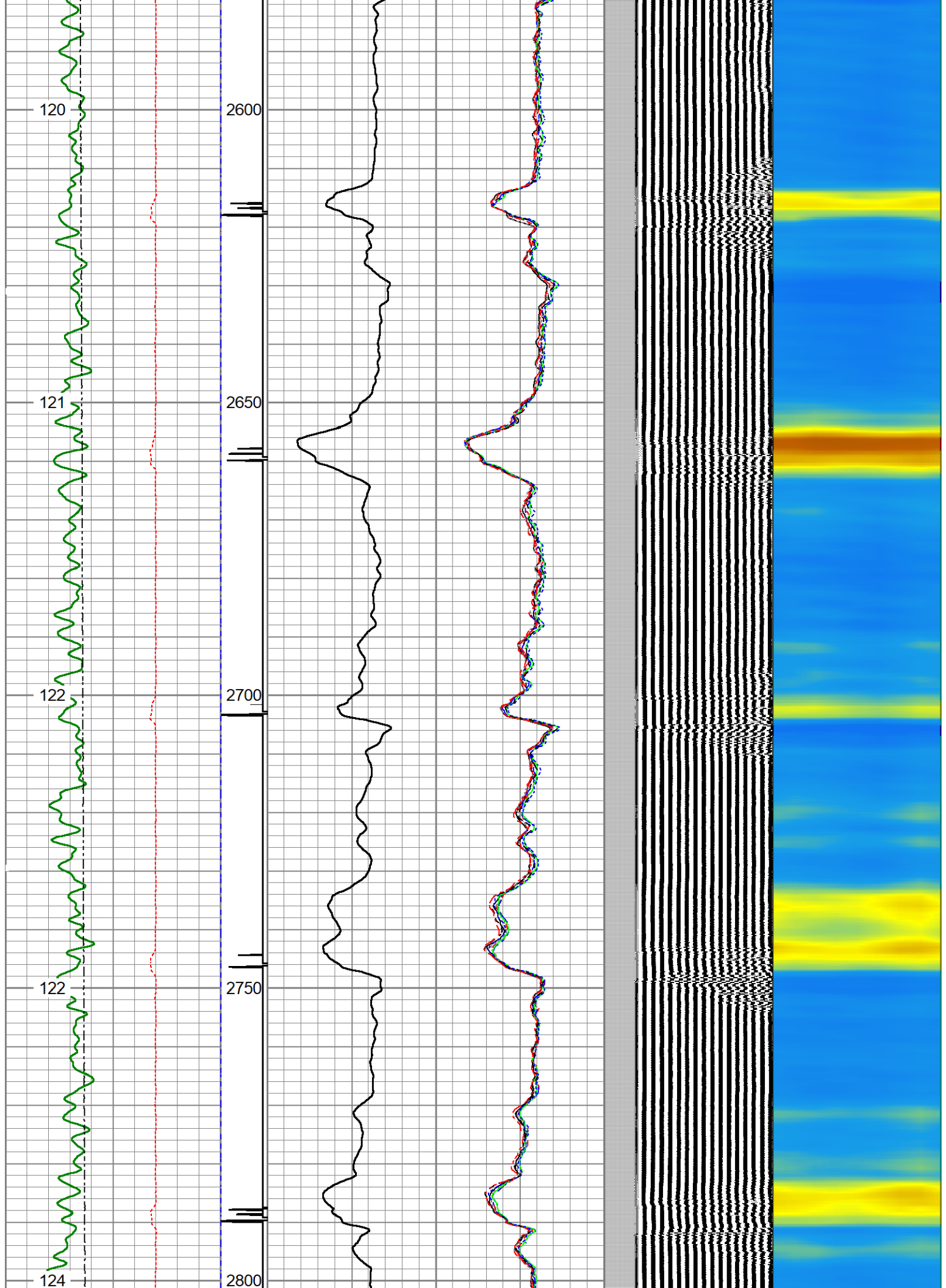


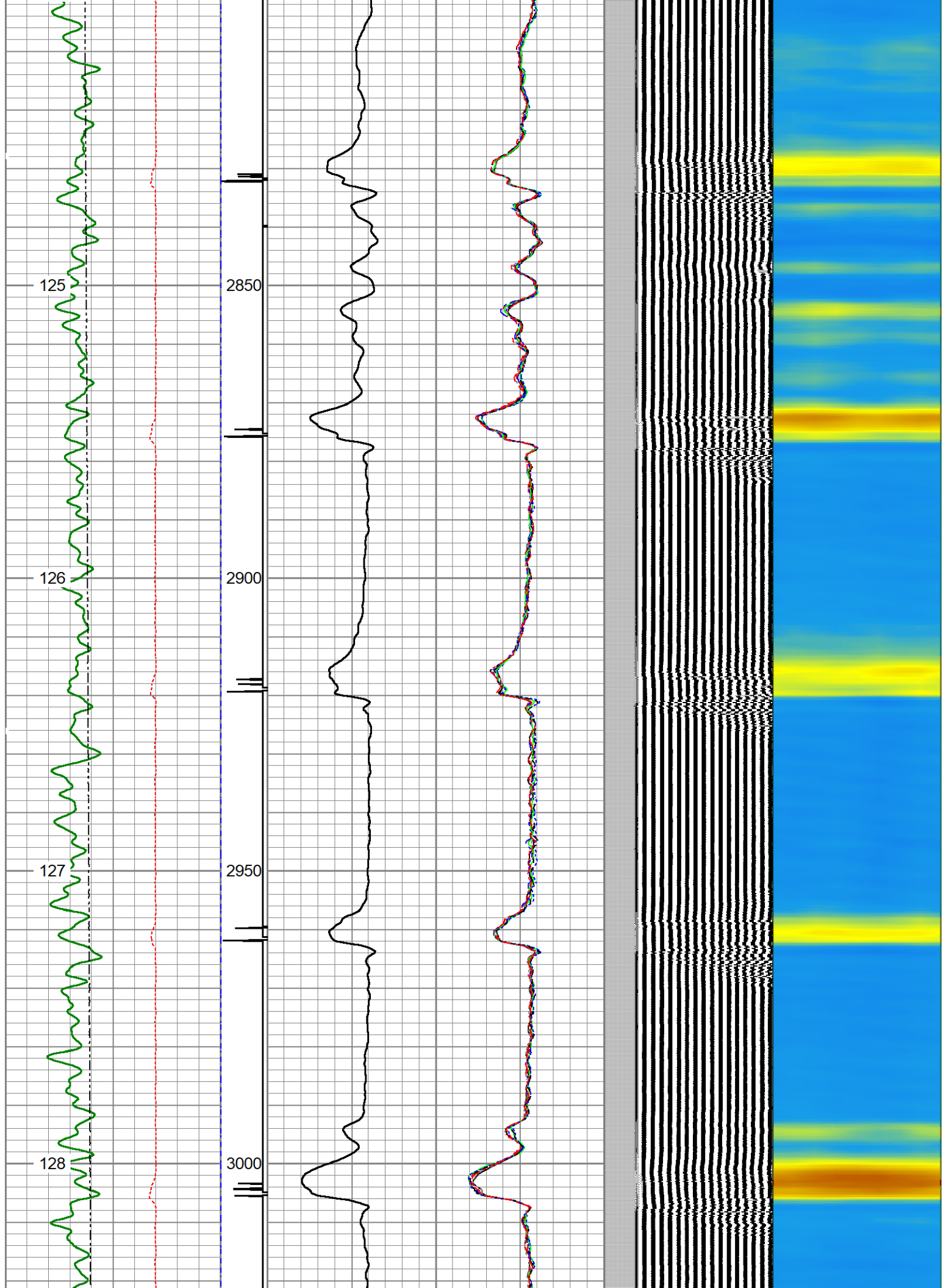


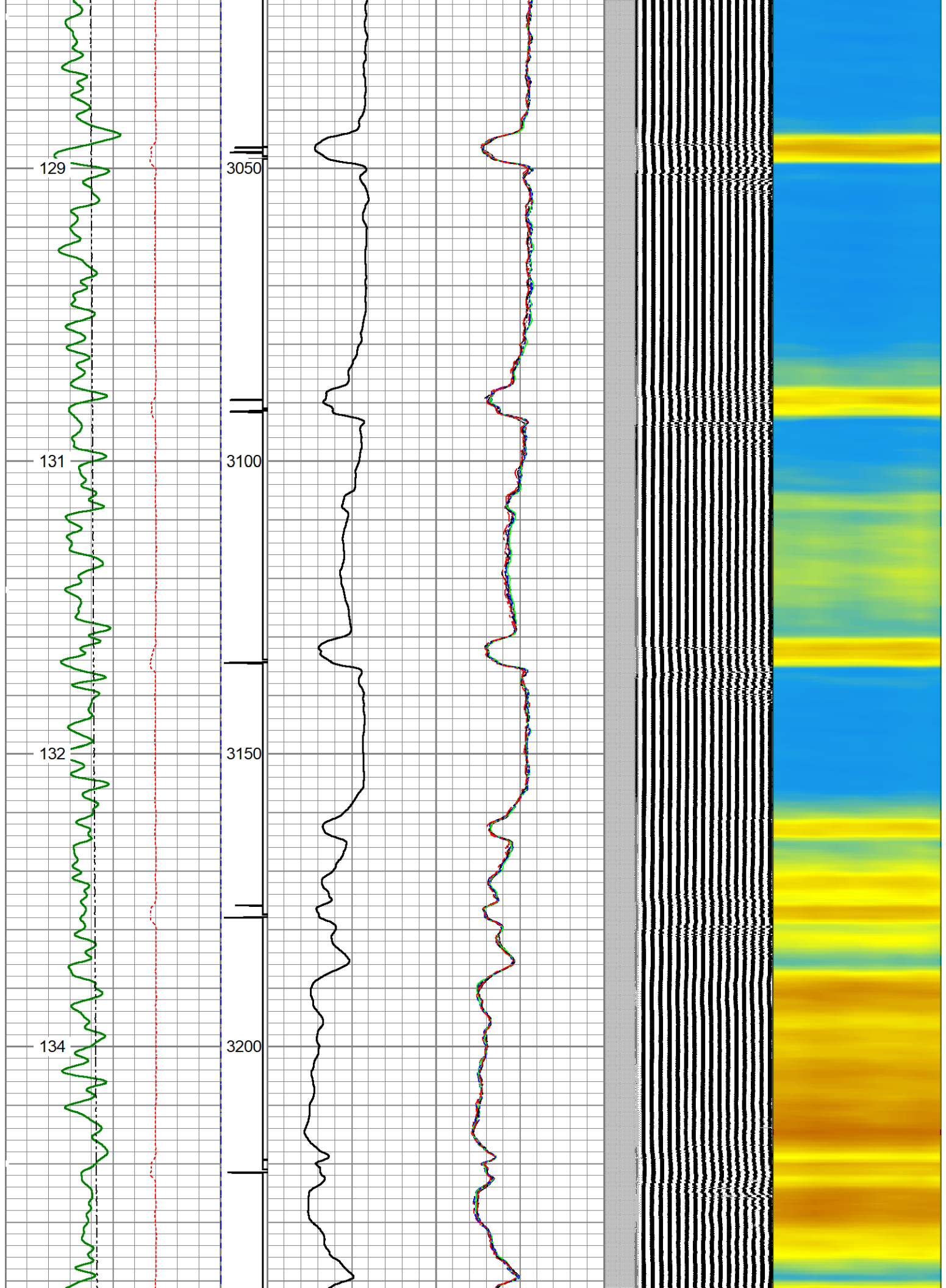


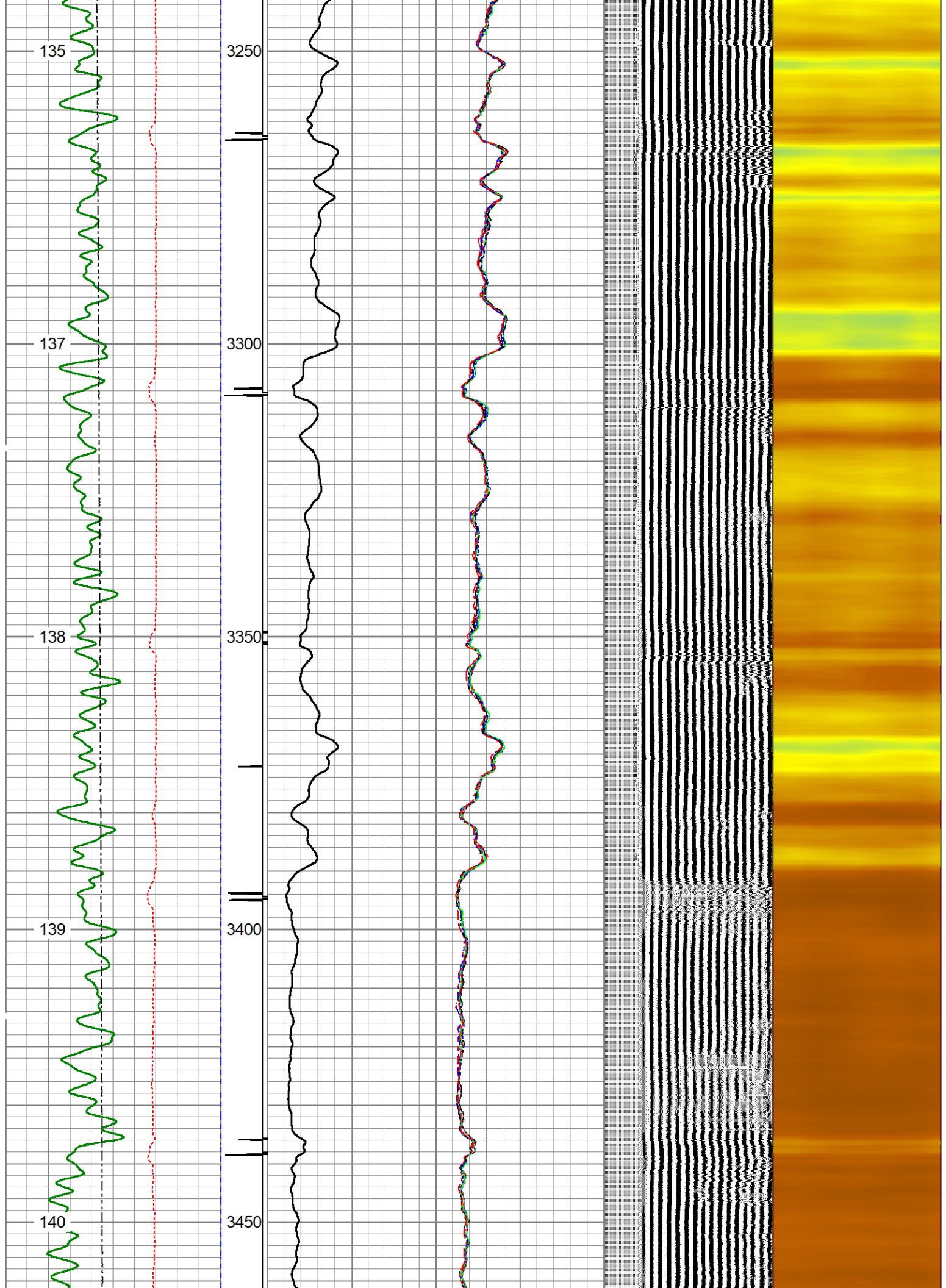


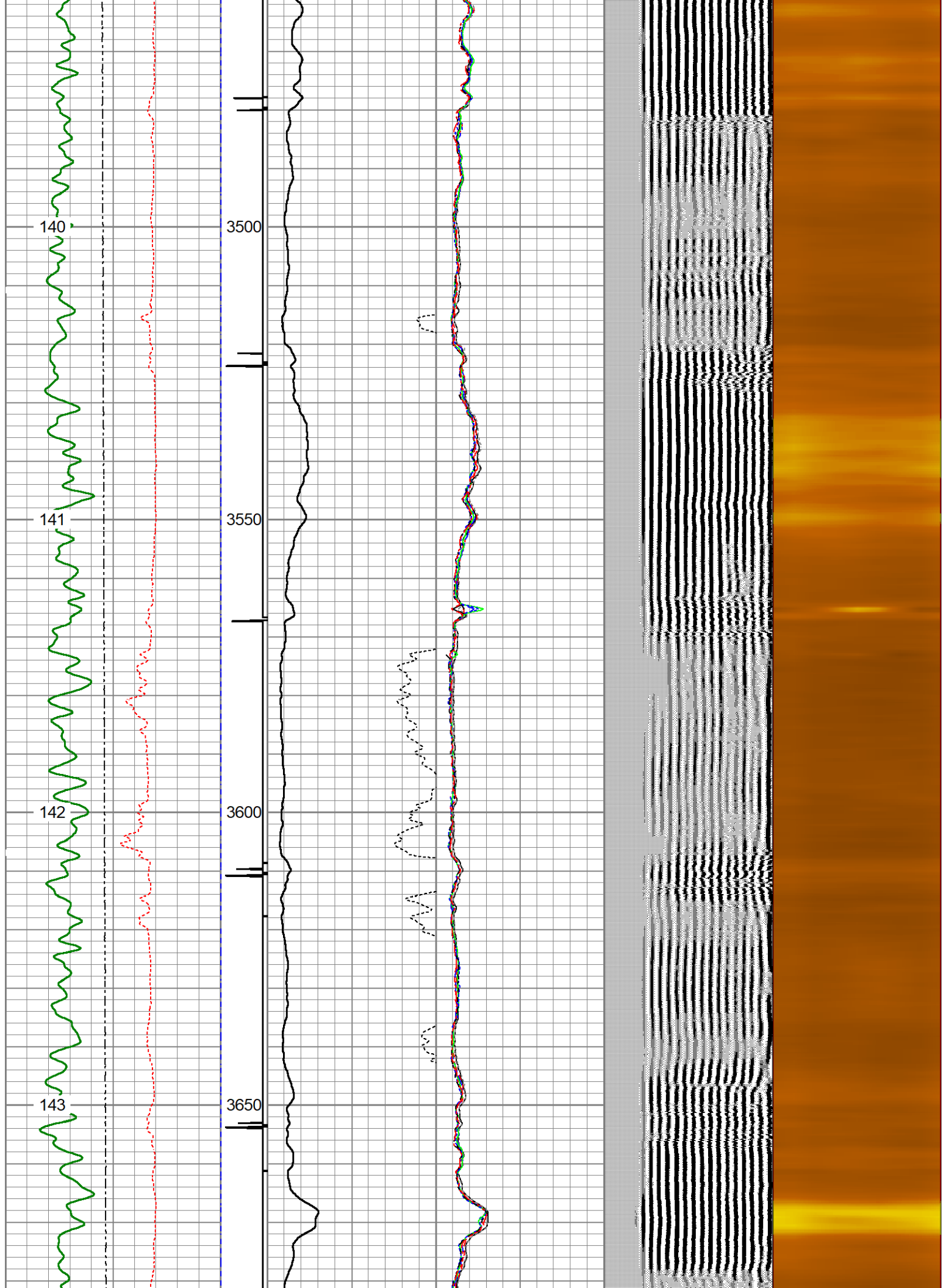


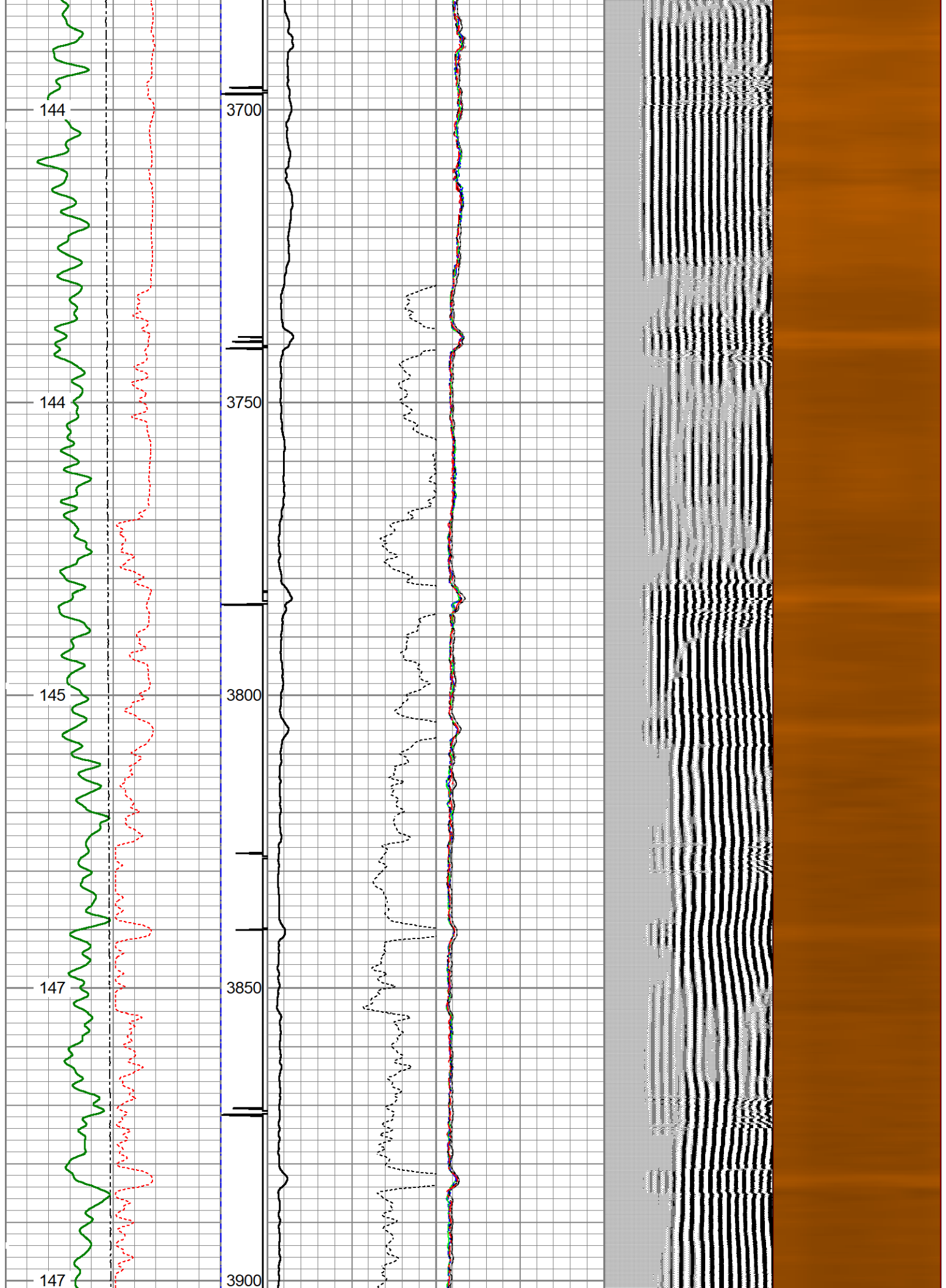


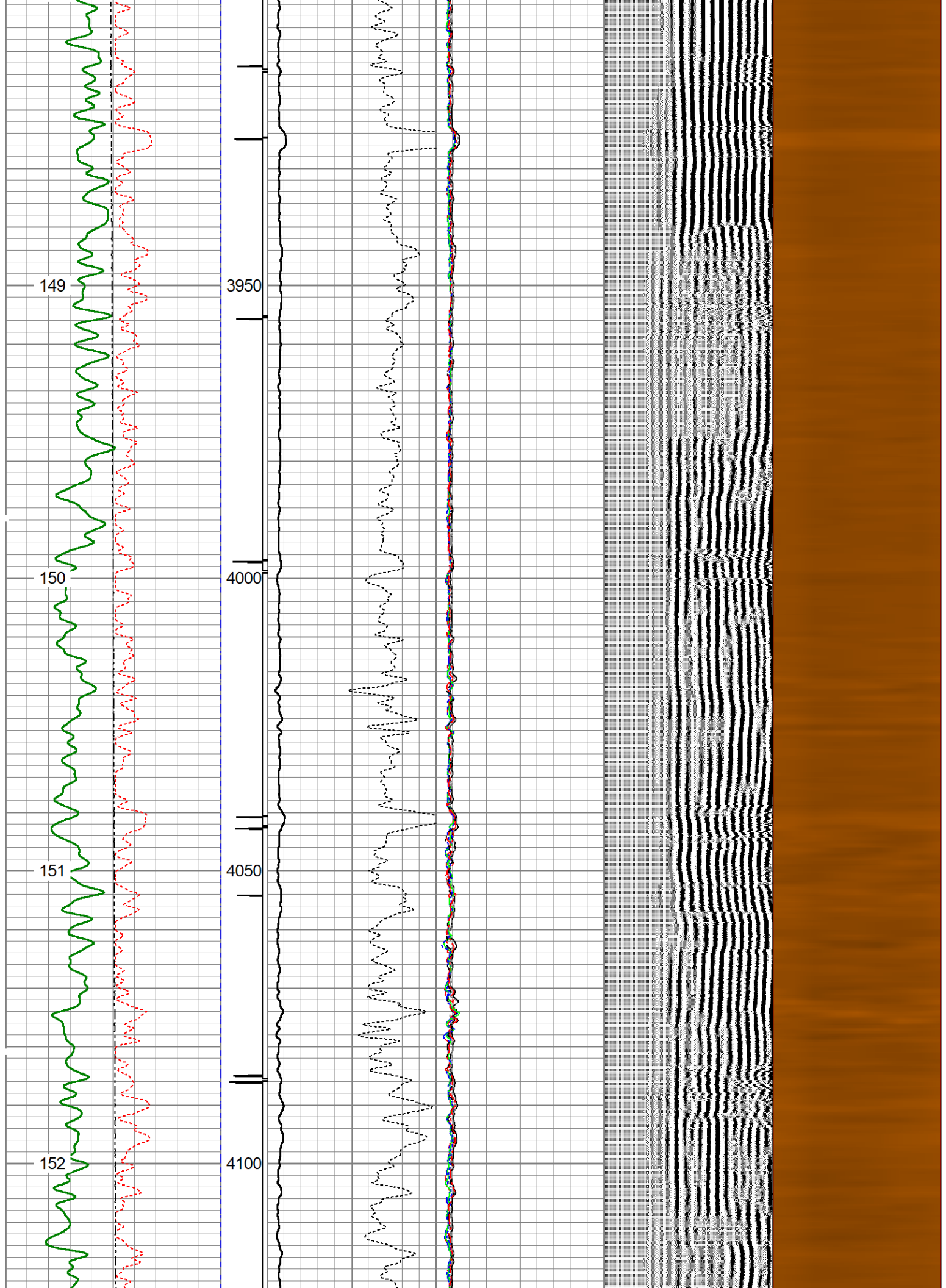


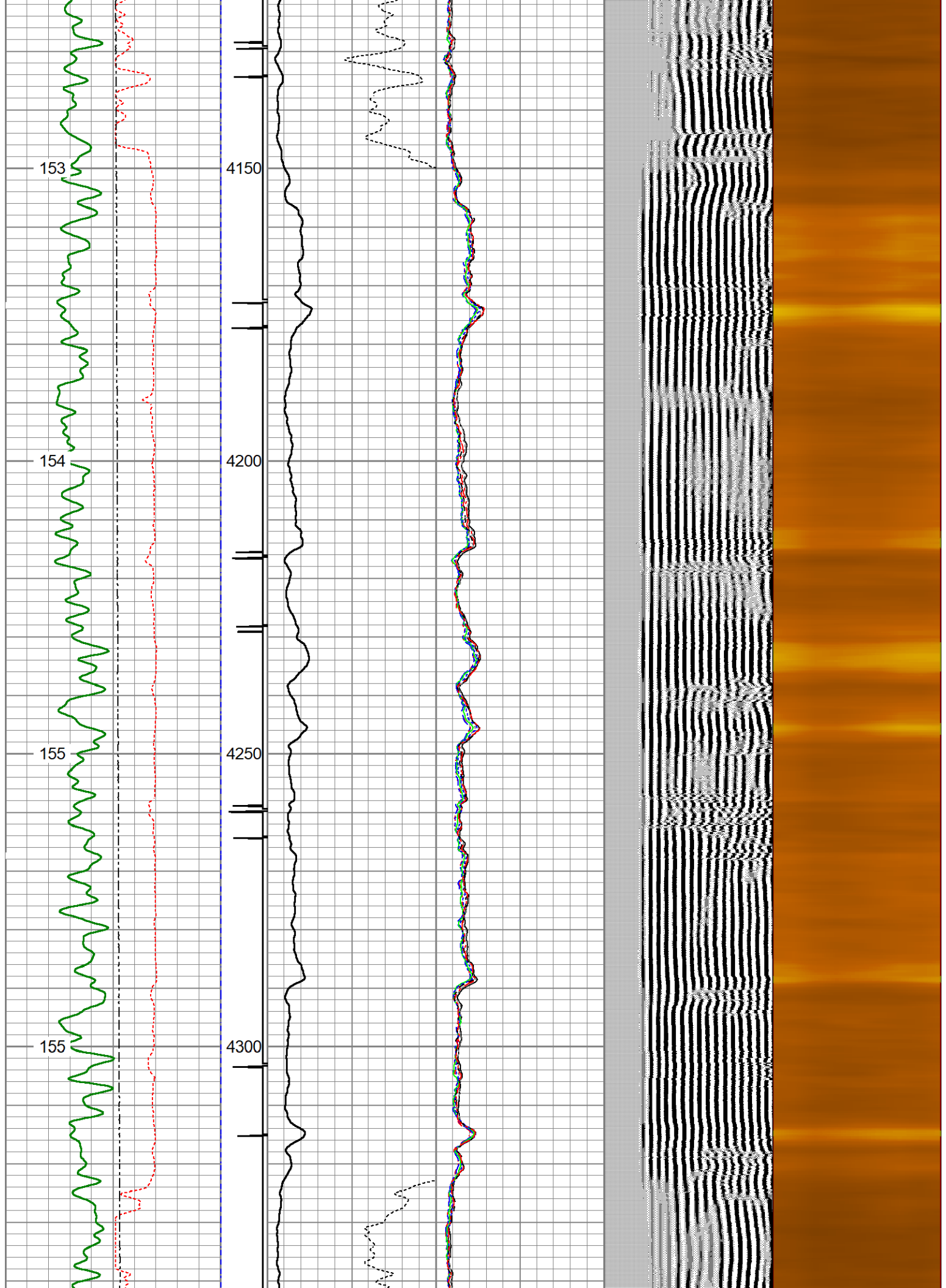


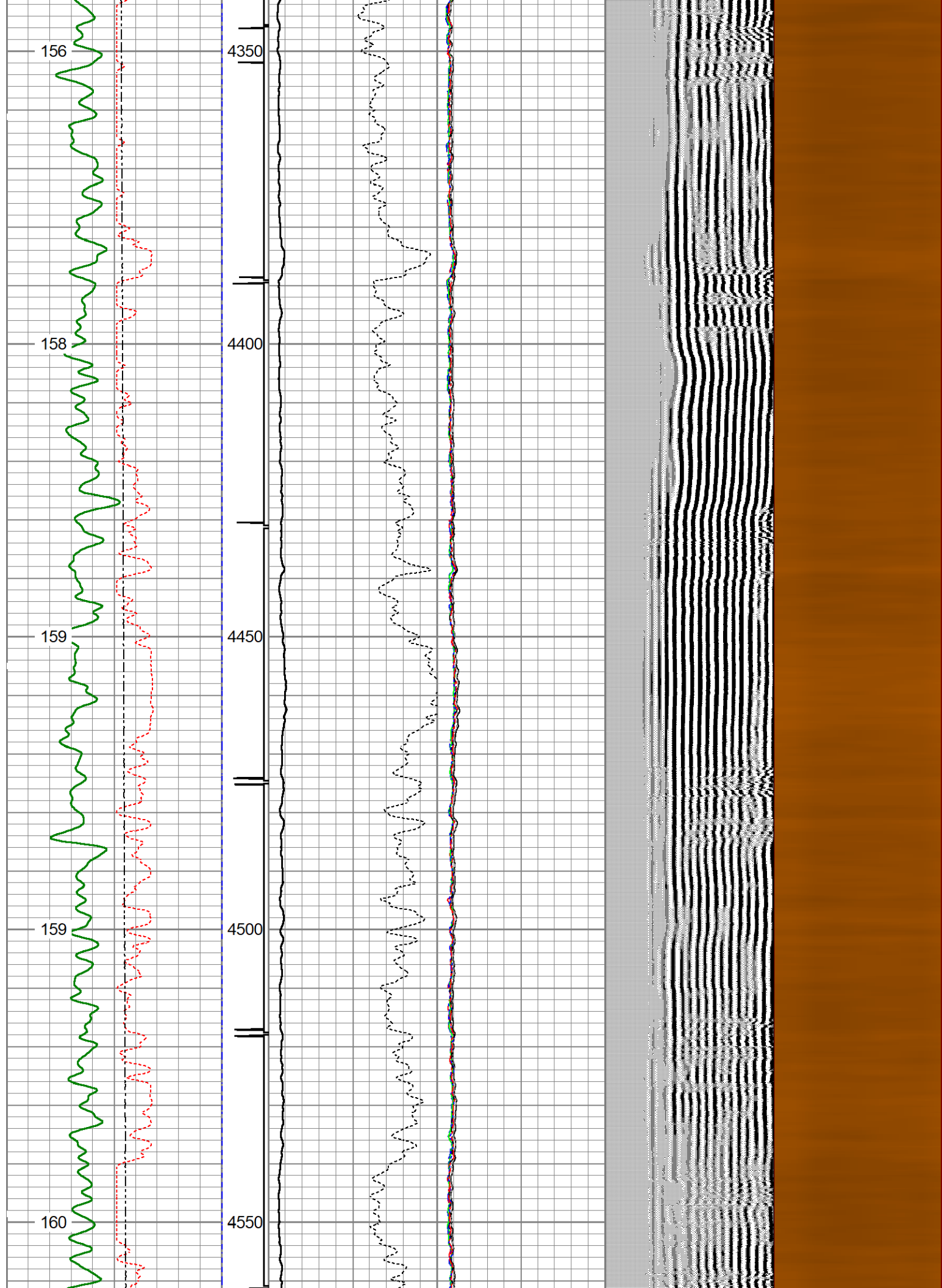


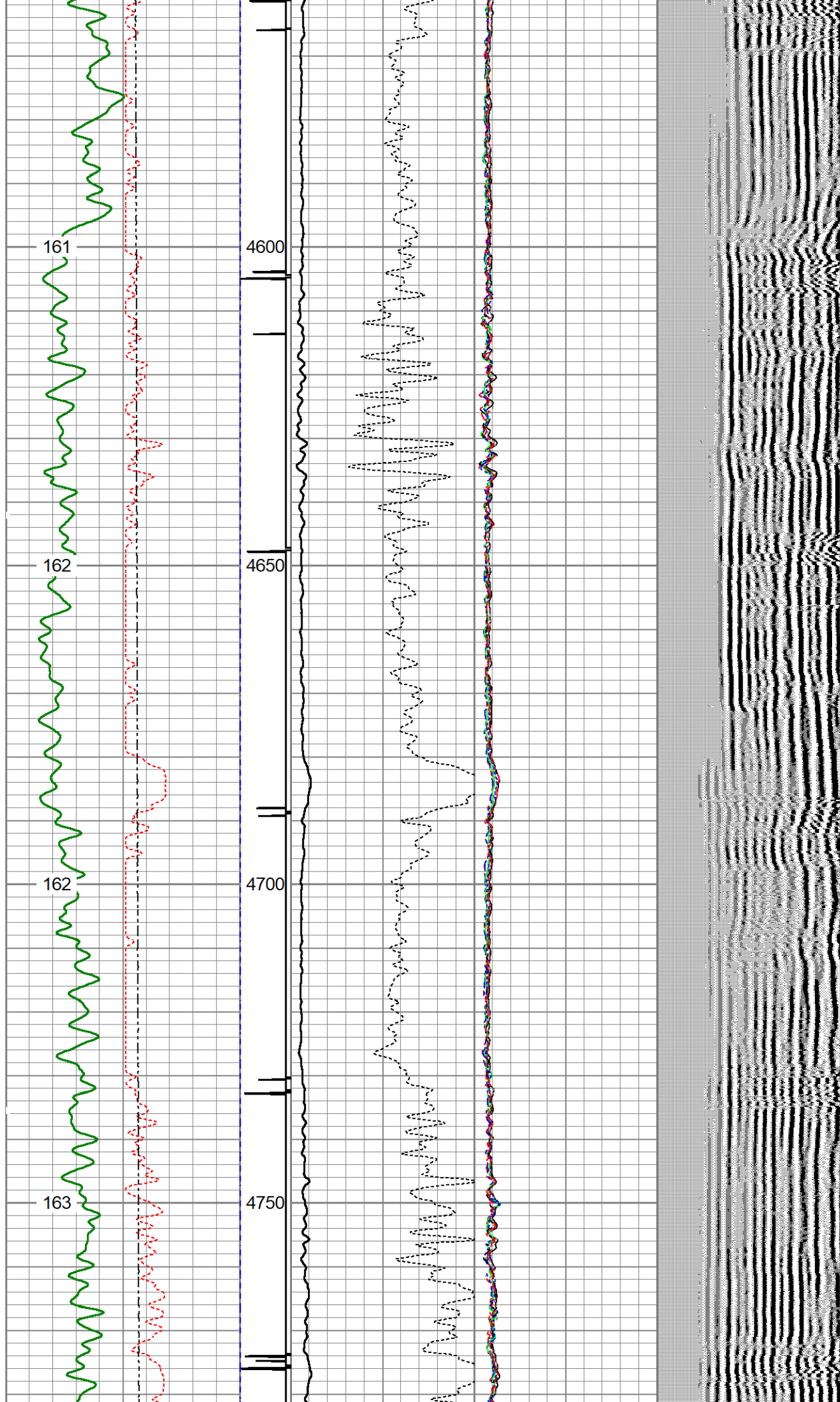


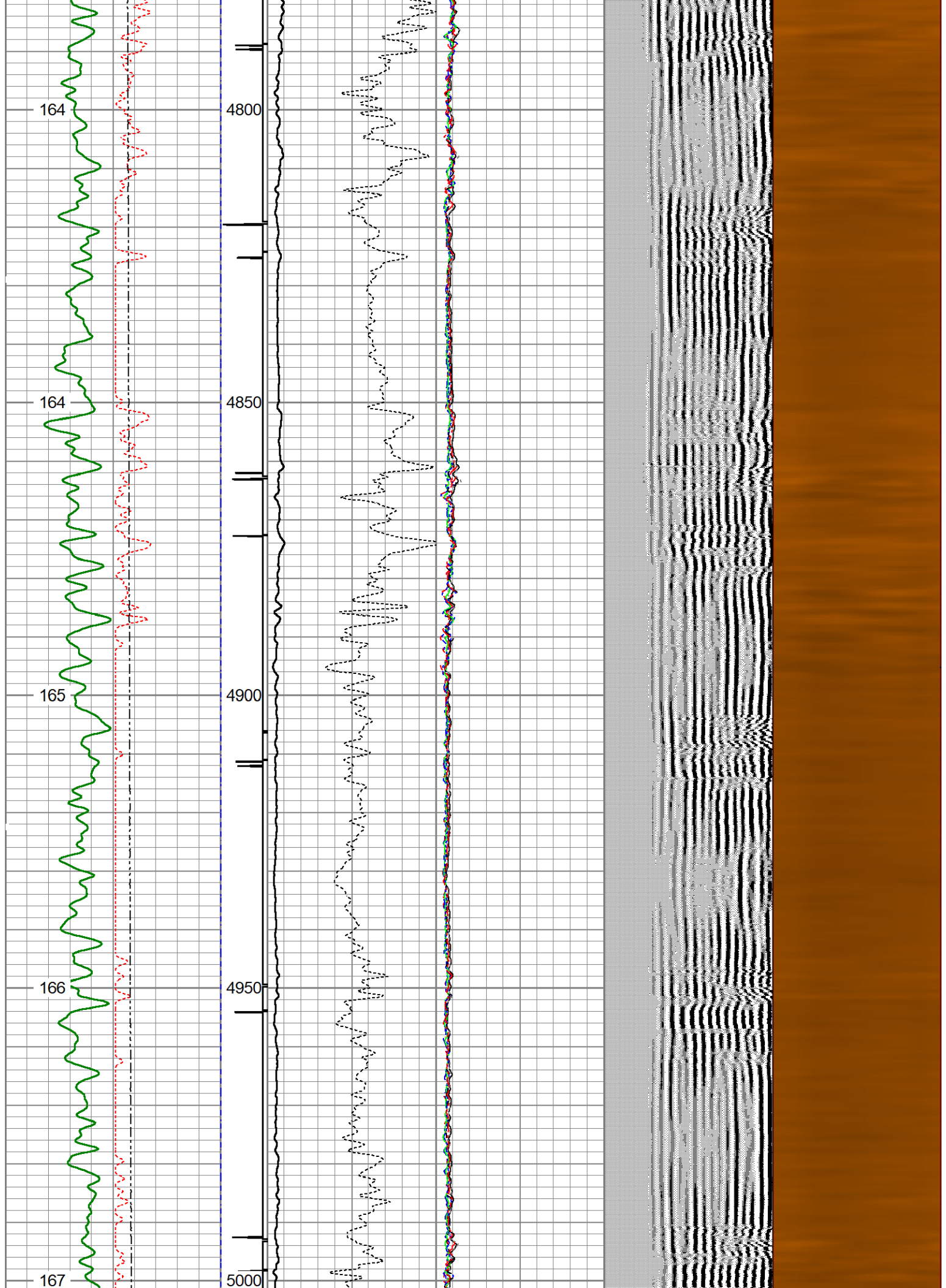


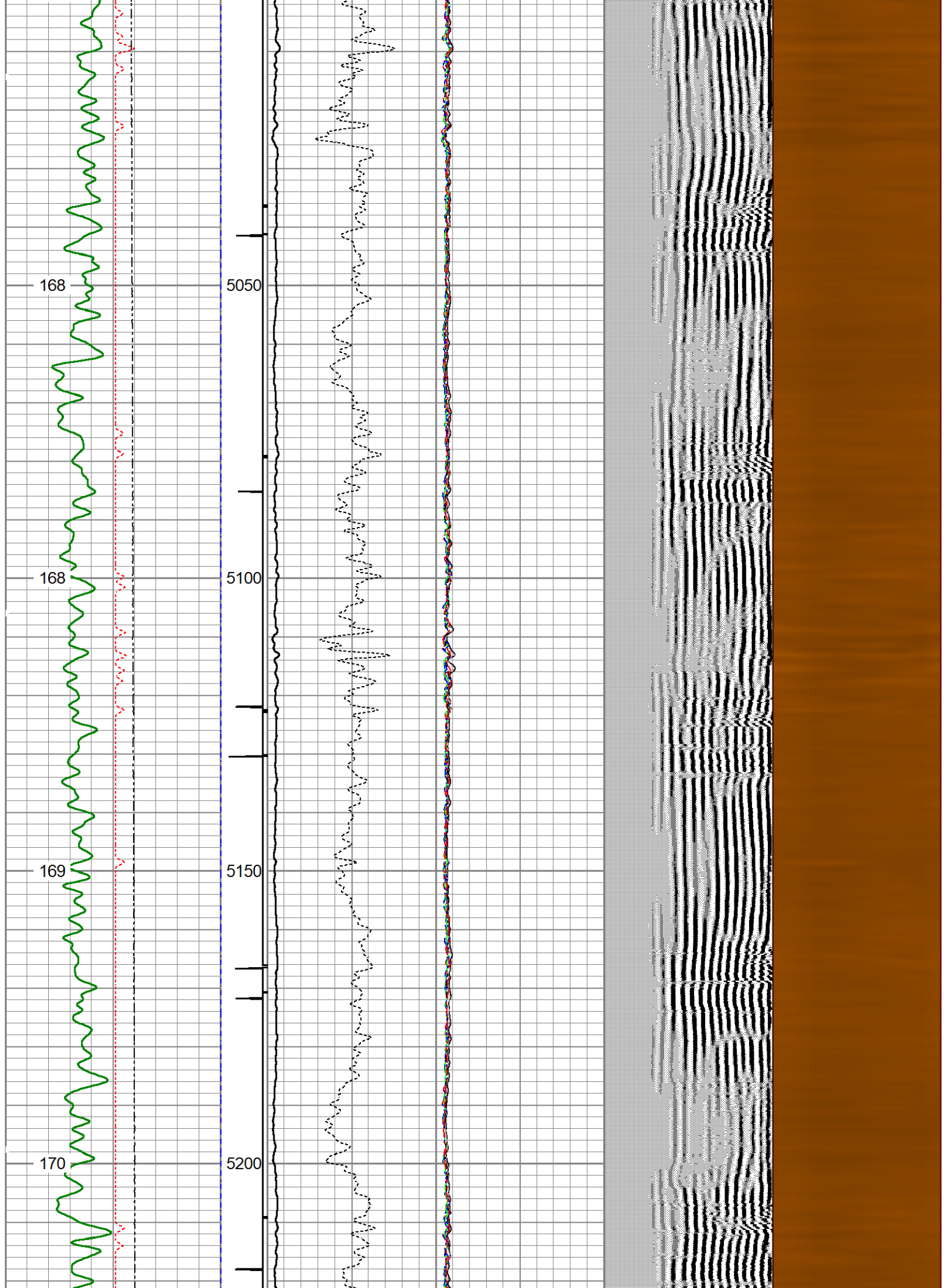


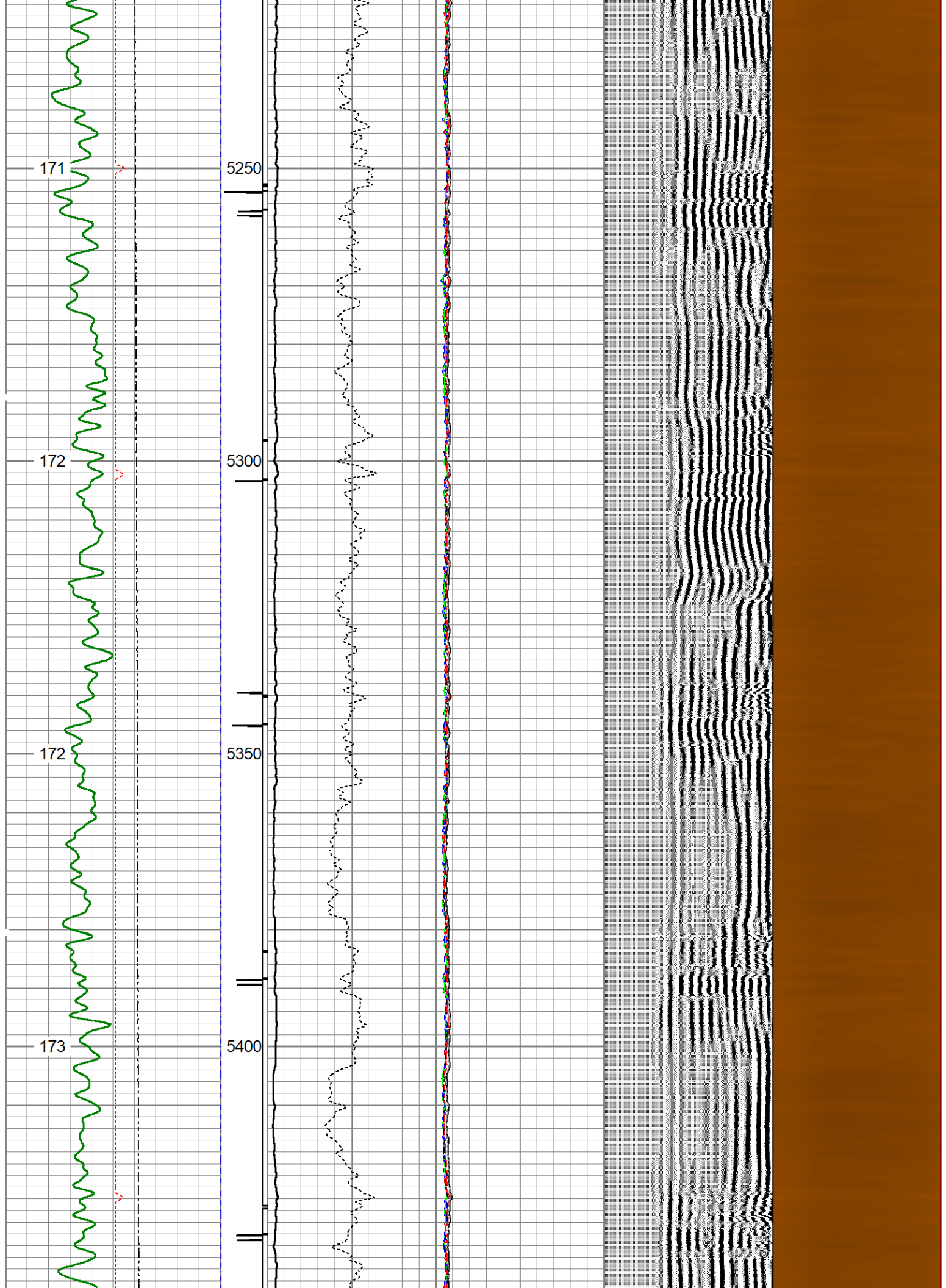


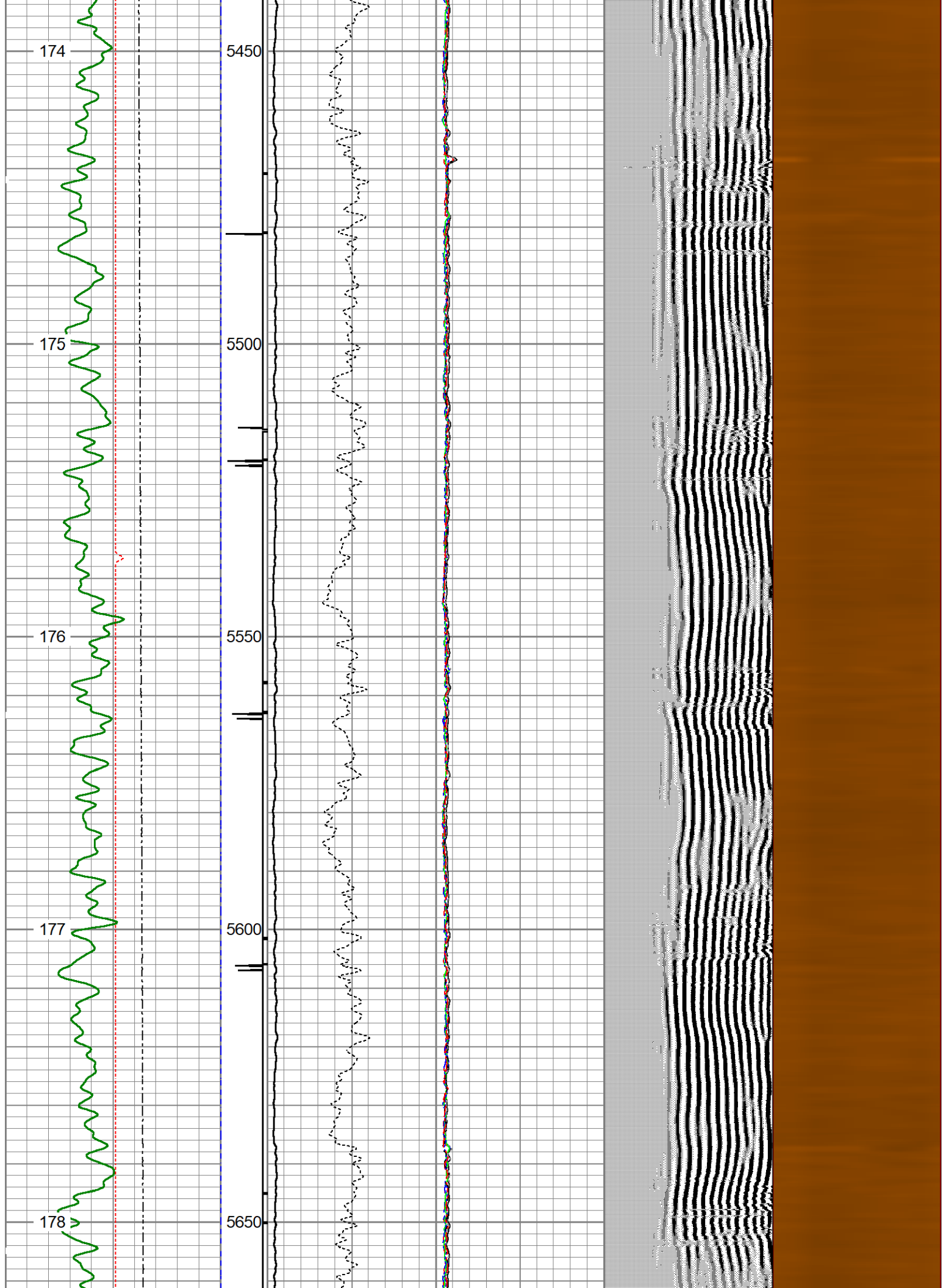


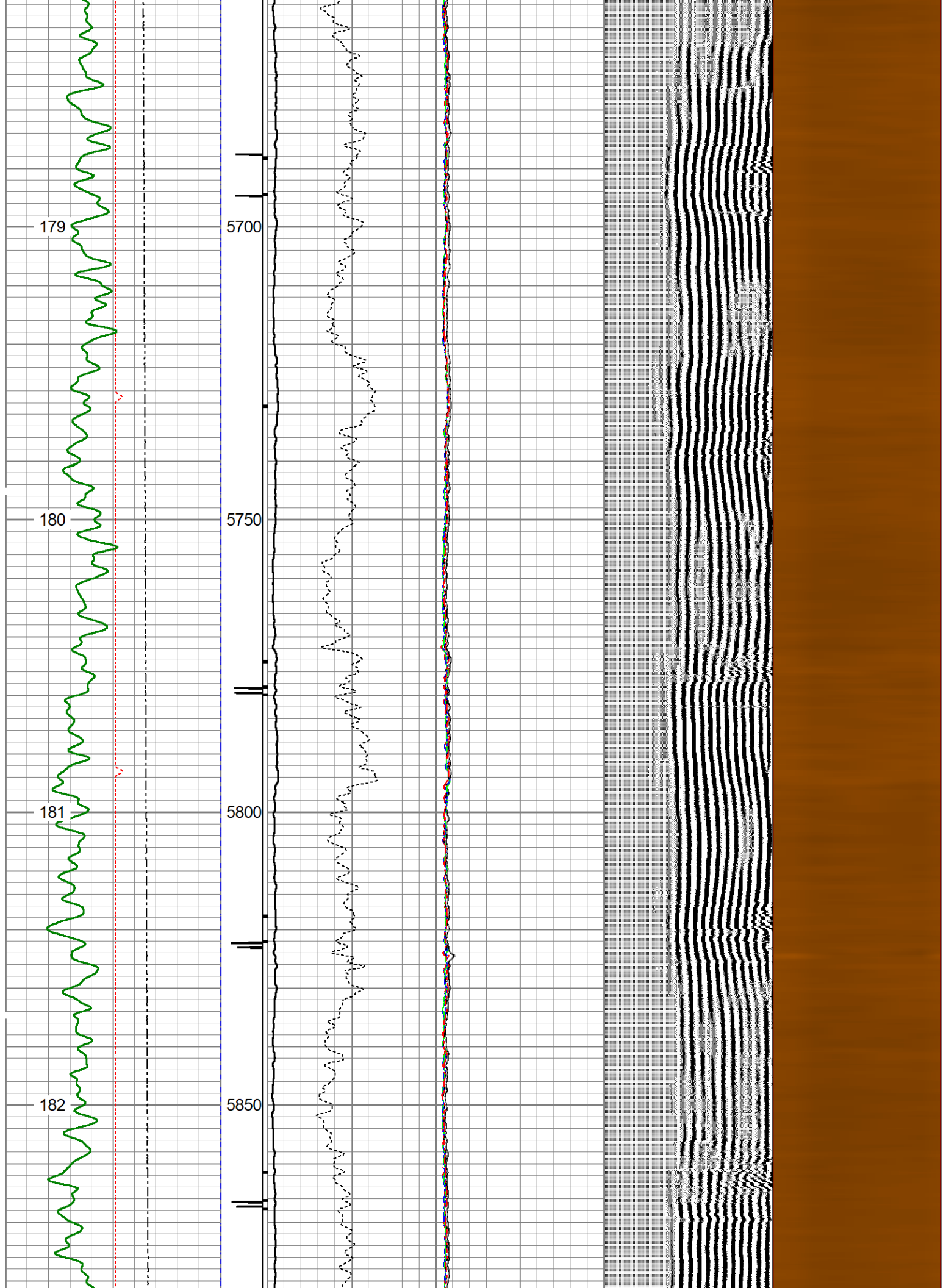


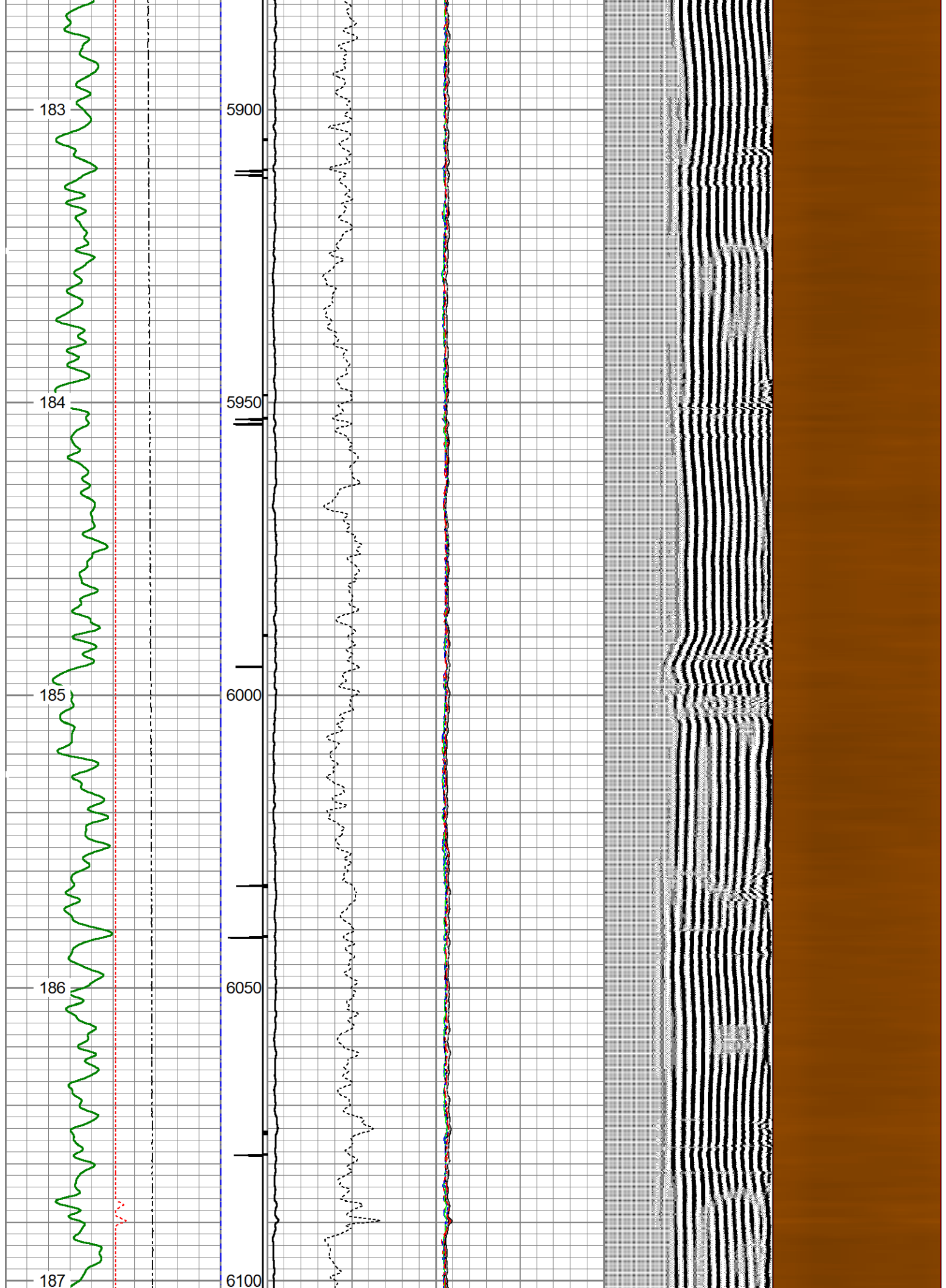


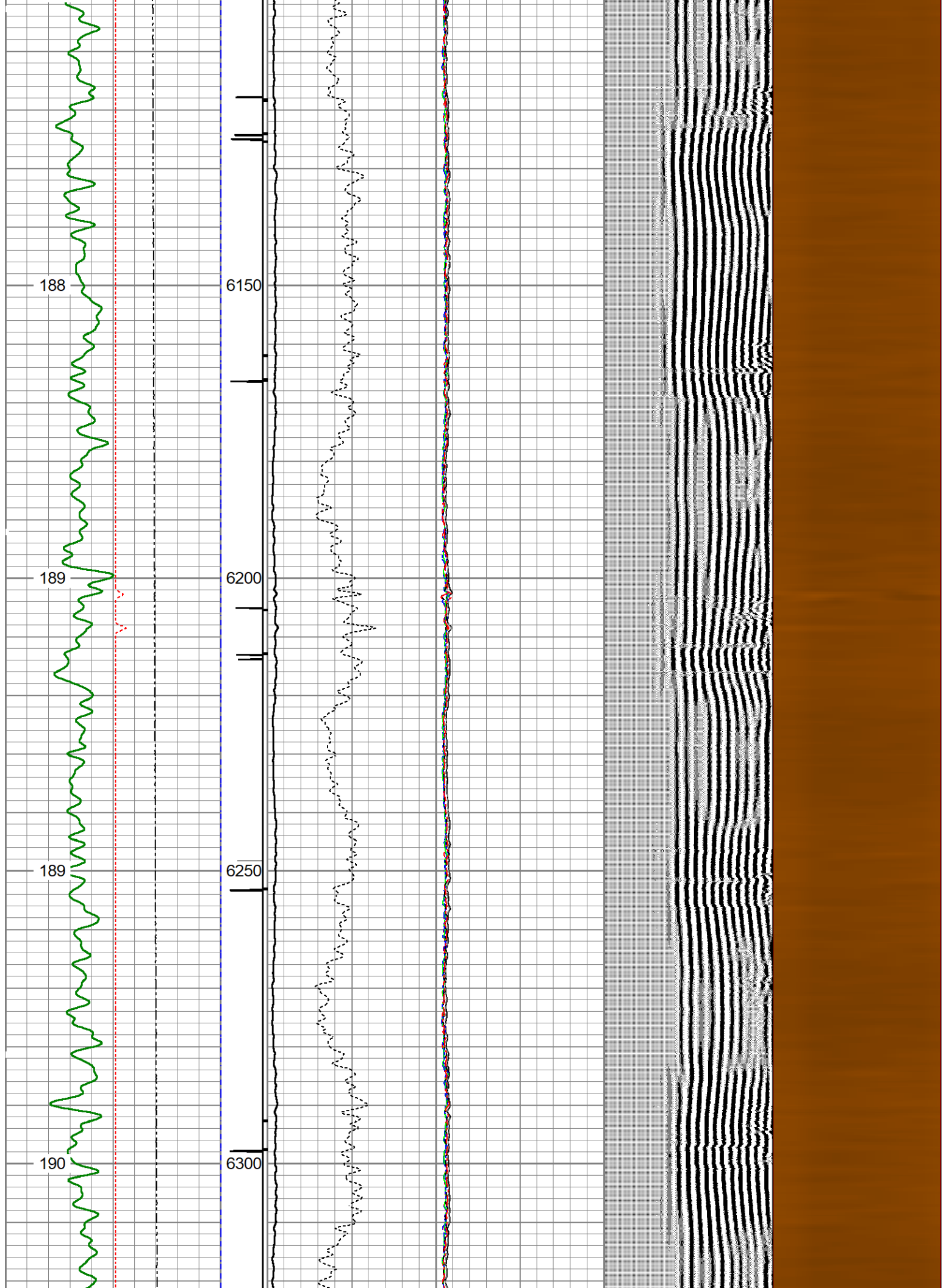


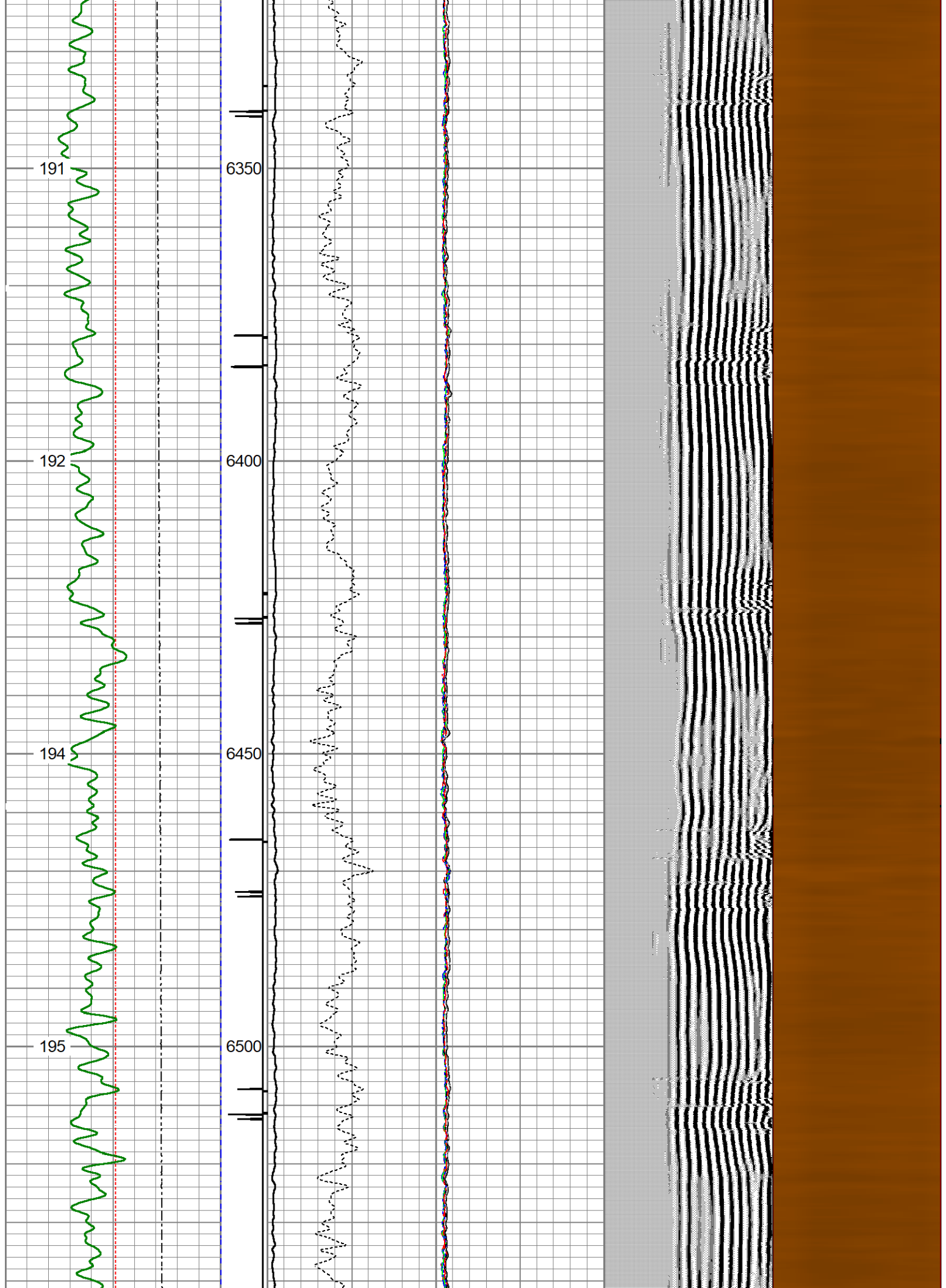




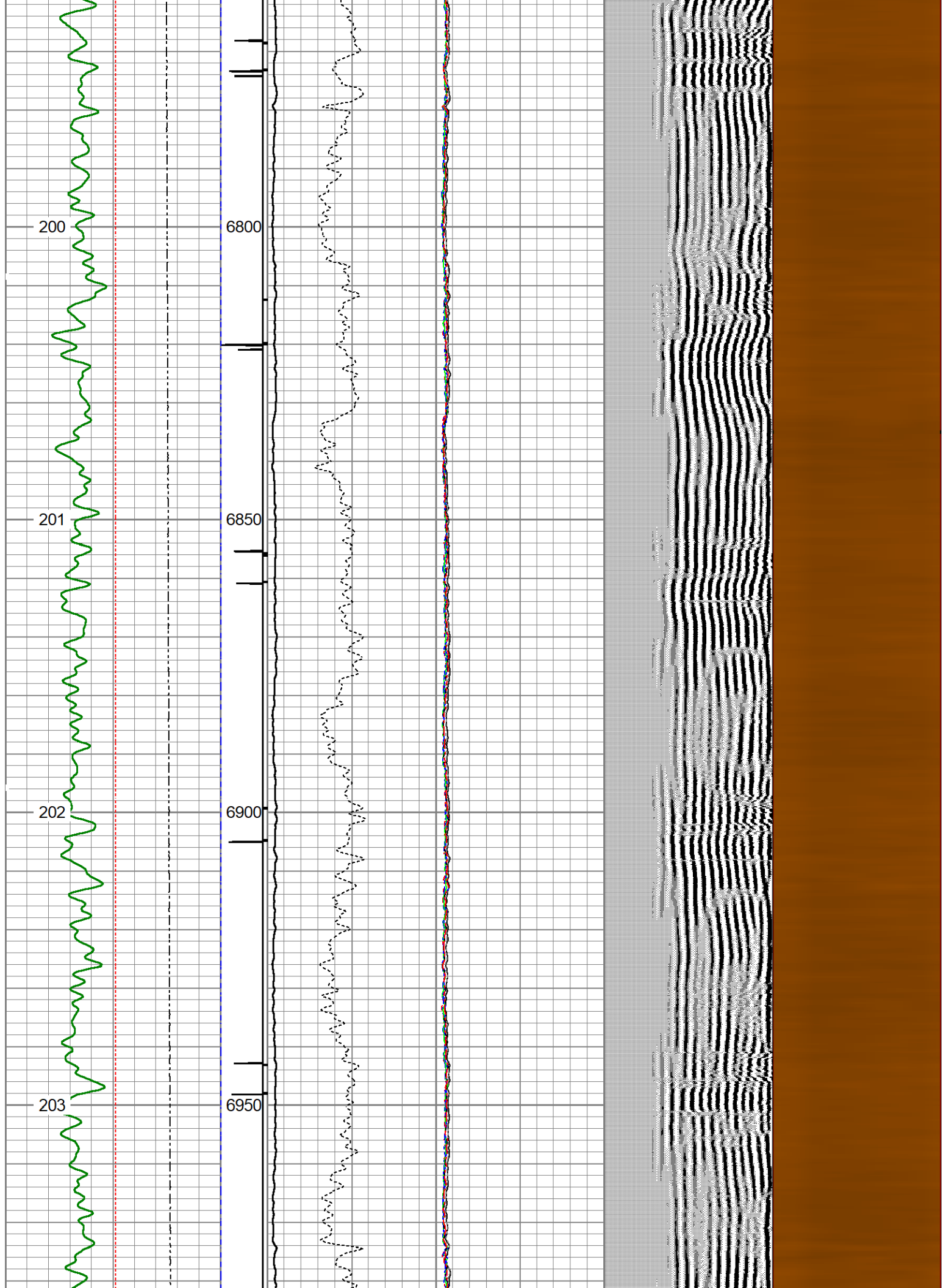




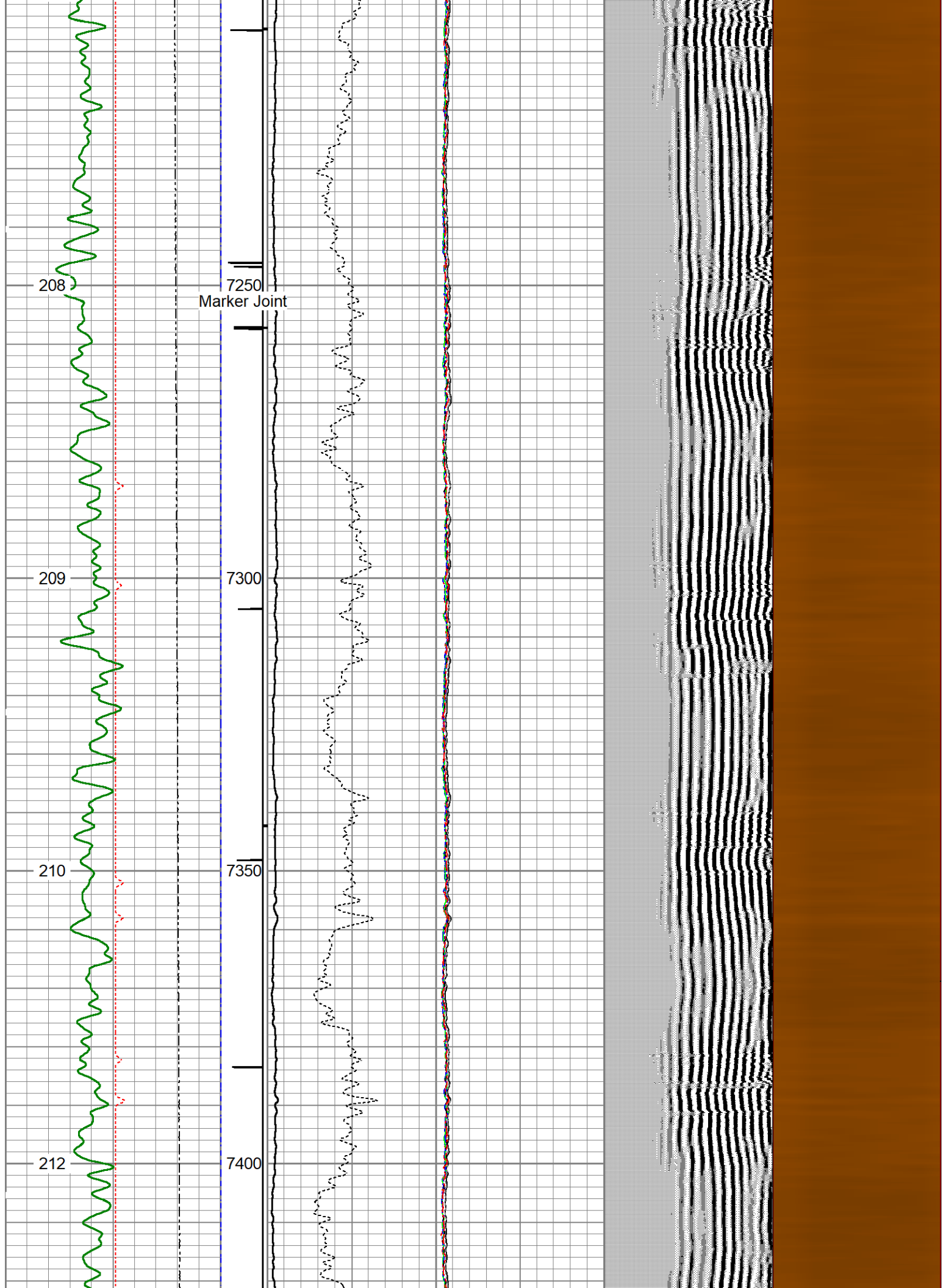


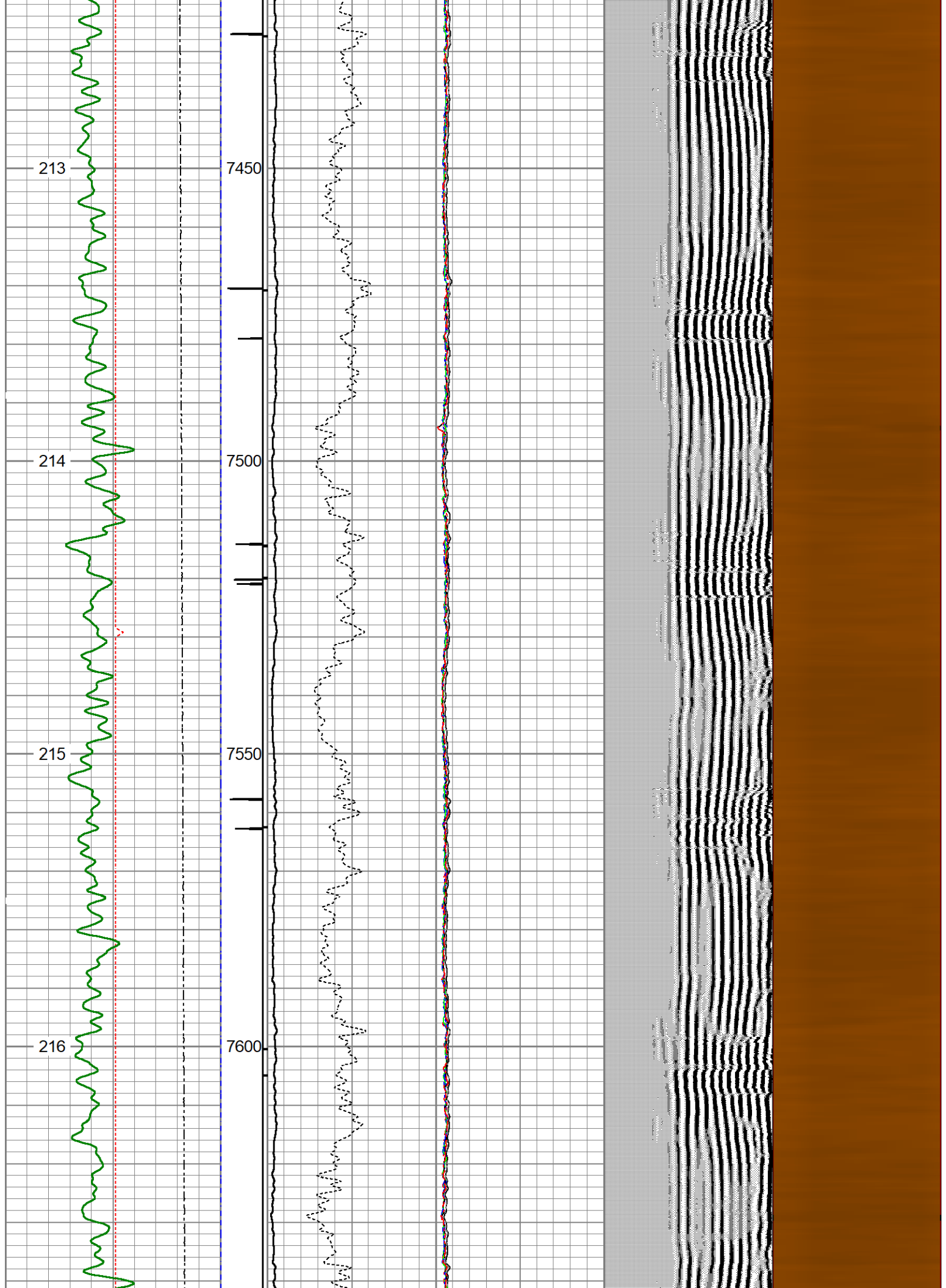


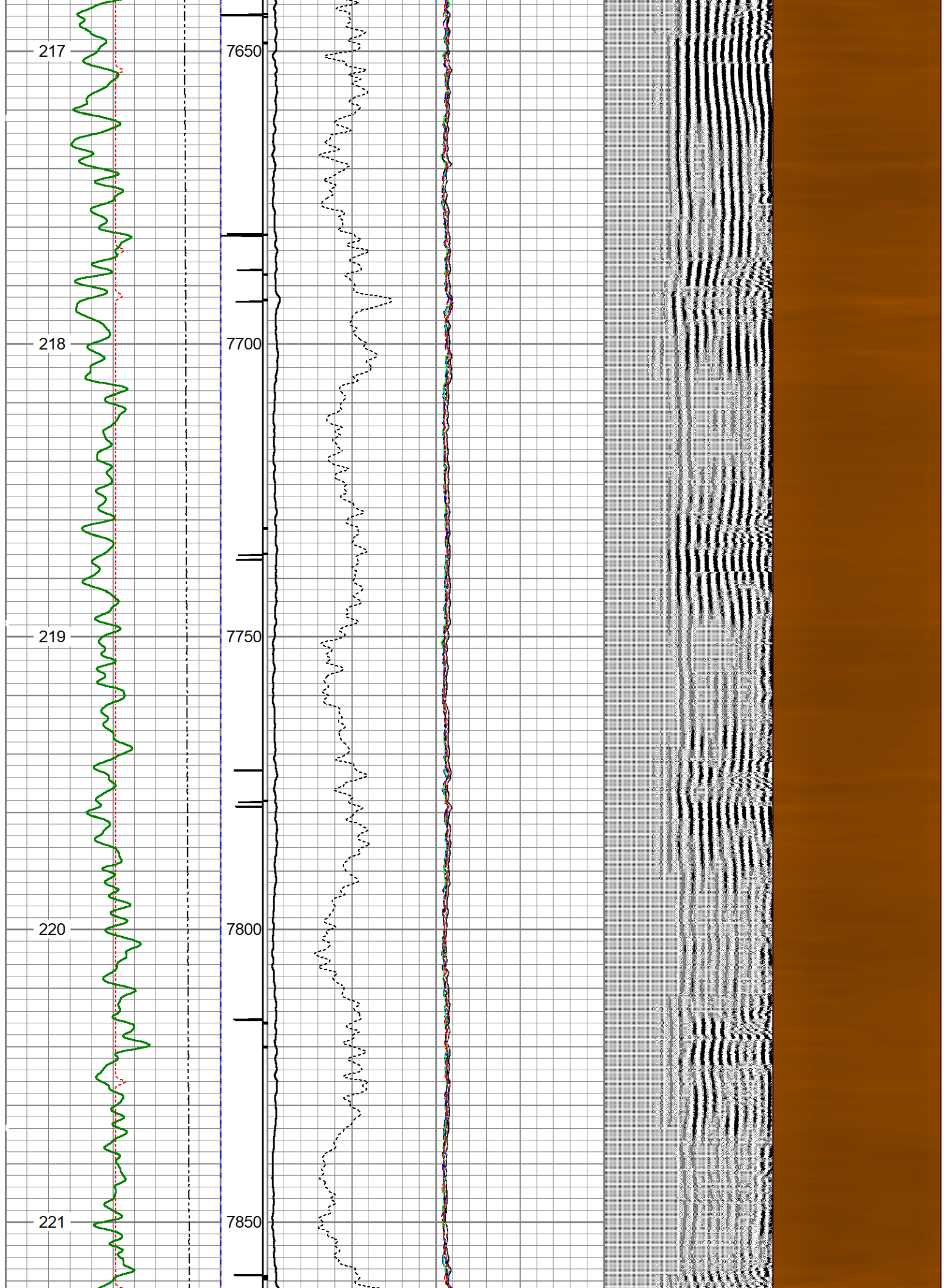


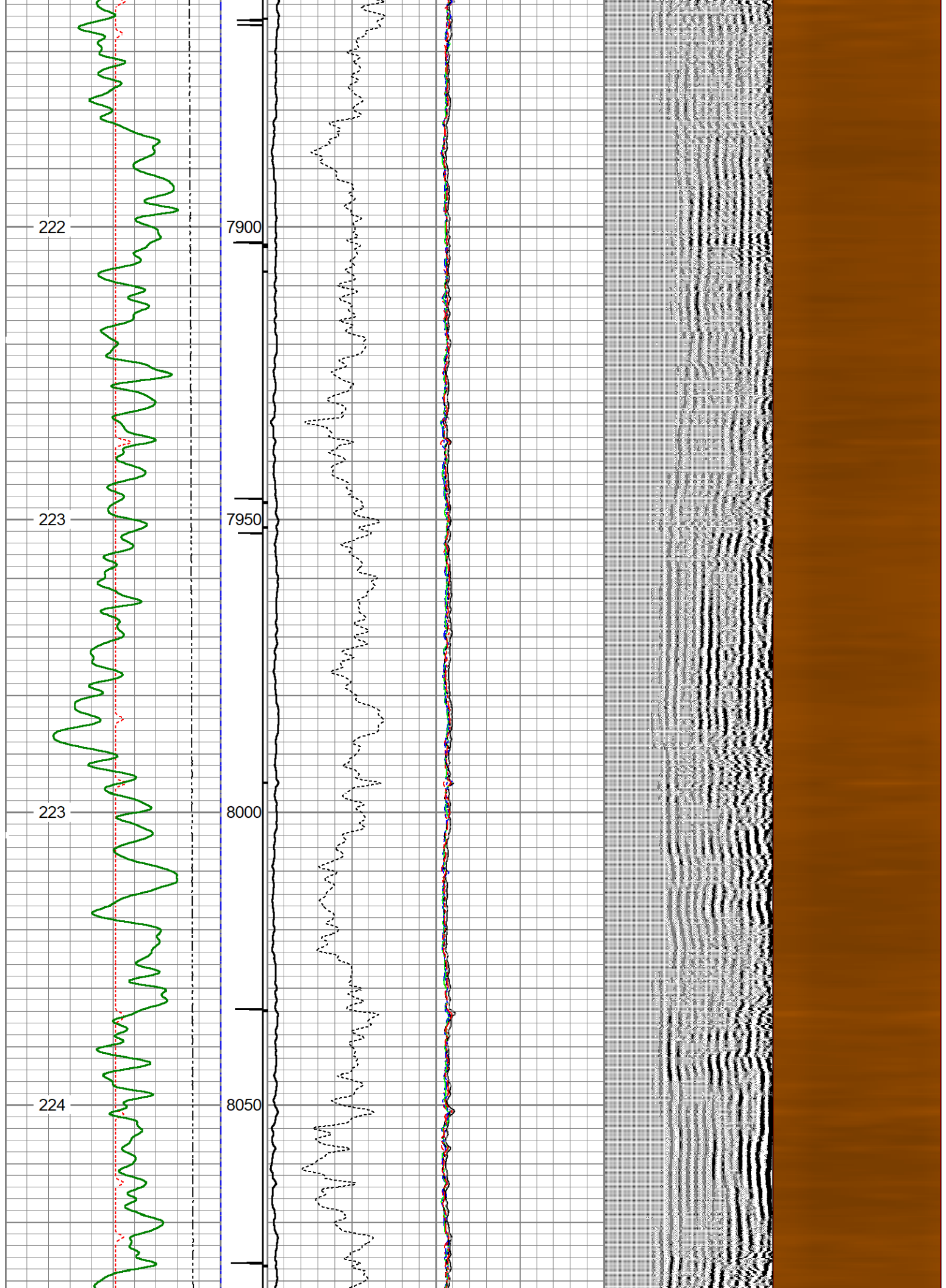


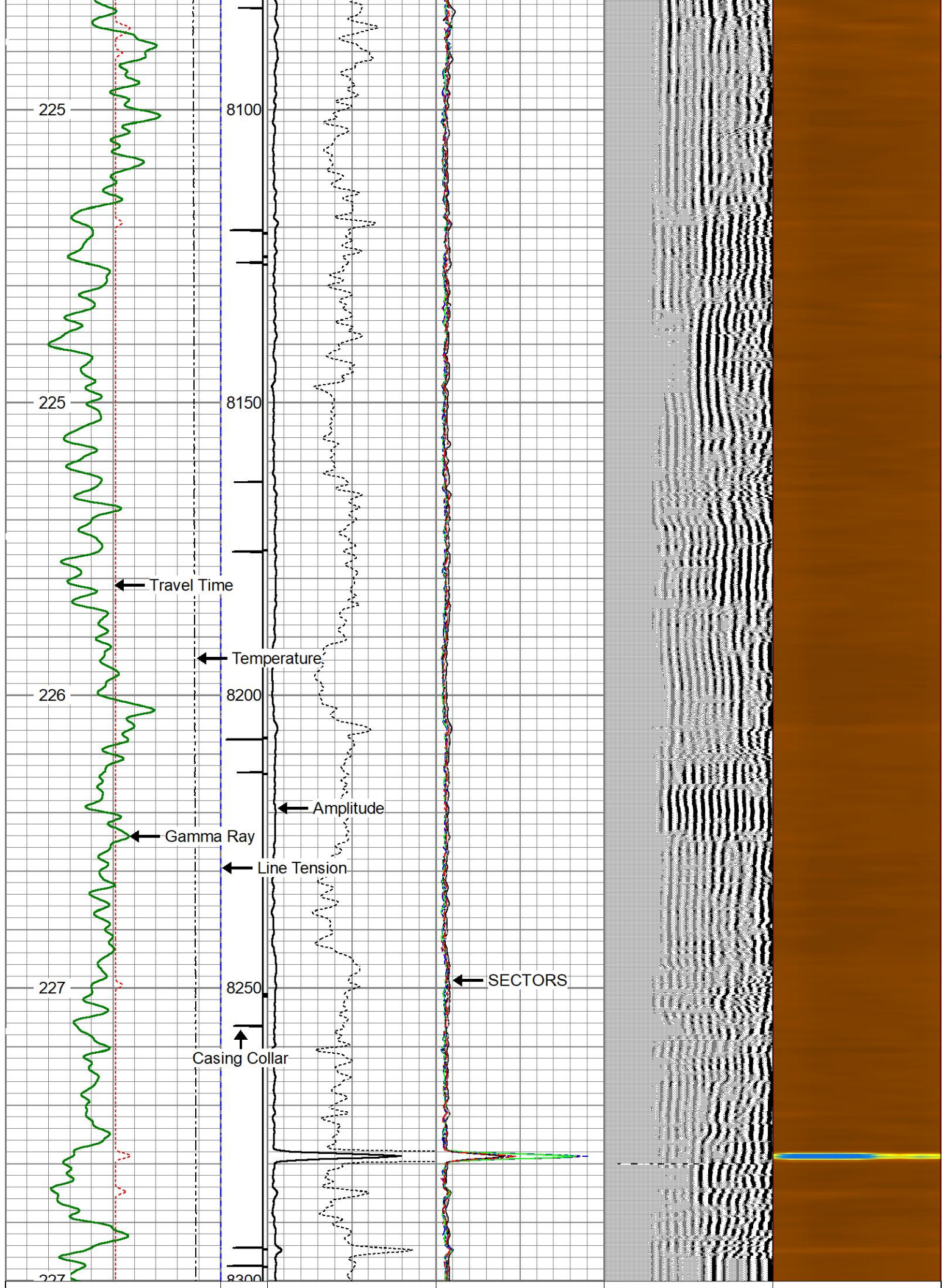













400	Travel Time (usec)	200	ing Co	0	Amplitude	100	-5	Sector 1	150	Variable Density	1	Cement Map	8
0	Gamma Ray (GAPI)	150	9 -1	0	(mV)	100	-5	Sector 2	150	200 (usec)	1200		
50	TEMP (degF)	250	e Tens	0	Amplified Amplitude	10	-5	Sector 3	150				
TEMP			(lb)	0	(mV)	10	-5	Sector 4	150				
(degF)			(2000				-5	Sector 5	150				
							-5	Sector 6	150				
							-5	Sector 7	150				
							-5	Sector 8	150				



REPEAT PASS

LOGGED WITH 0 PSI SURFACE INDUCED PRESSURE

Database File

raindance_fc_23-232hn_rcbl11-01-21.db

Dataset Pathname

RCBL1/pass10

Presentation Format

rcbl_hh

Dataset Creation

Mon Nov 01 12:04:30 2021

Charted by

Depth in Feet scaled 1:240

400

Travel Time (usec)

200

ing Co

0

Amplitude (mV)

100

-5

Sector 1

150

Variable Density

1

Cement Map

8

0

Gamma Ray (GAPI)

150

9 -1

0

Amplified Amplitude

10

-5

Sector 2

150

200 (usec)

1200

50

TEMP (degF)

250

e Tens

0

(mV)

10

-5

Sector 3

150

TEMP

(degF)

(lb)

(2000

-5

Sector 4

150

-5

Sector 5

150

-5

Sector 6

150

-5

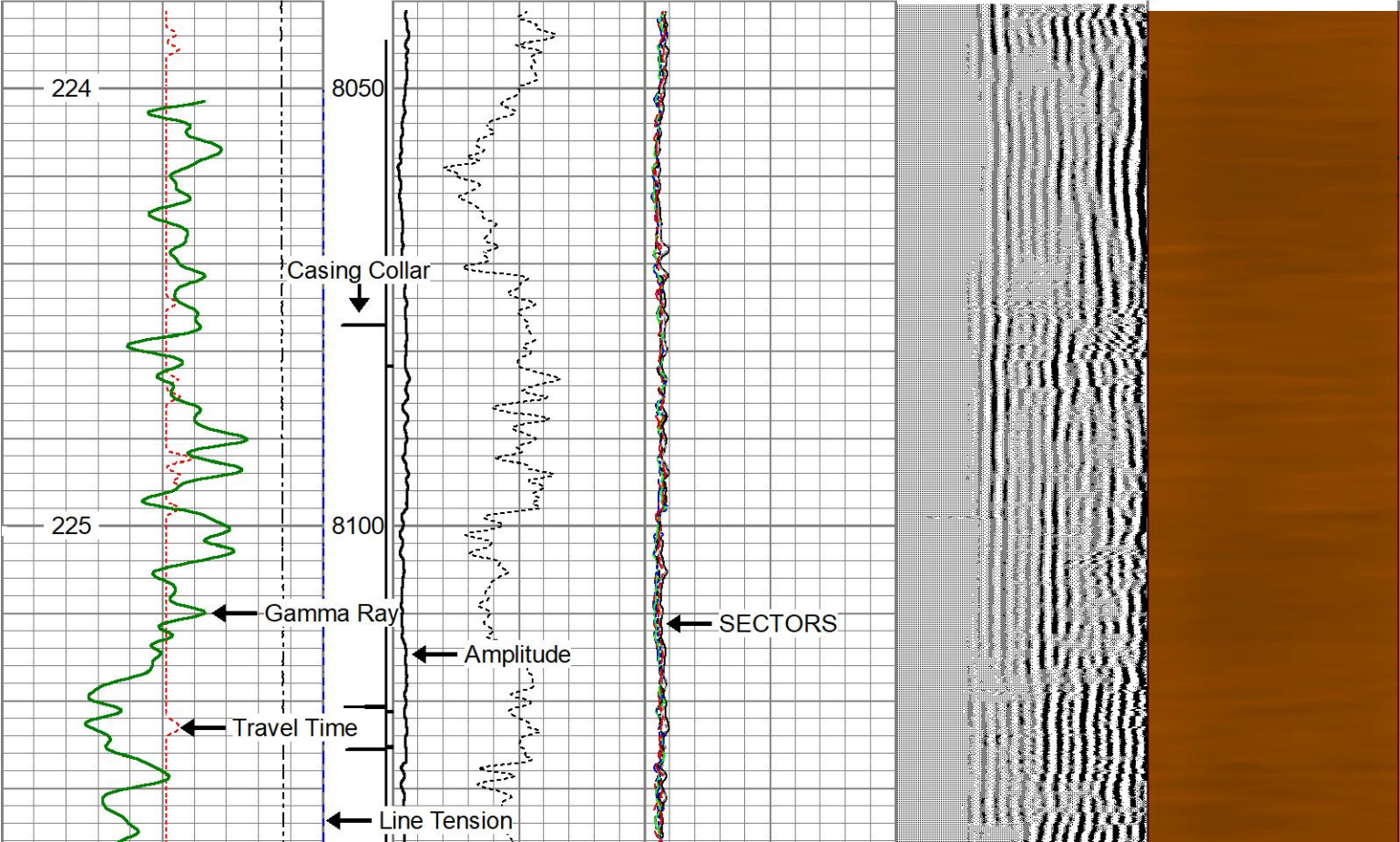
Sector 7

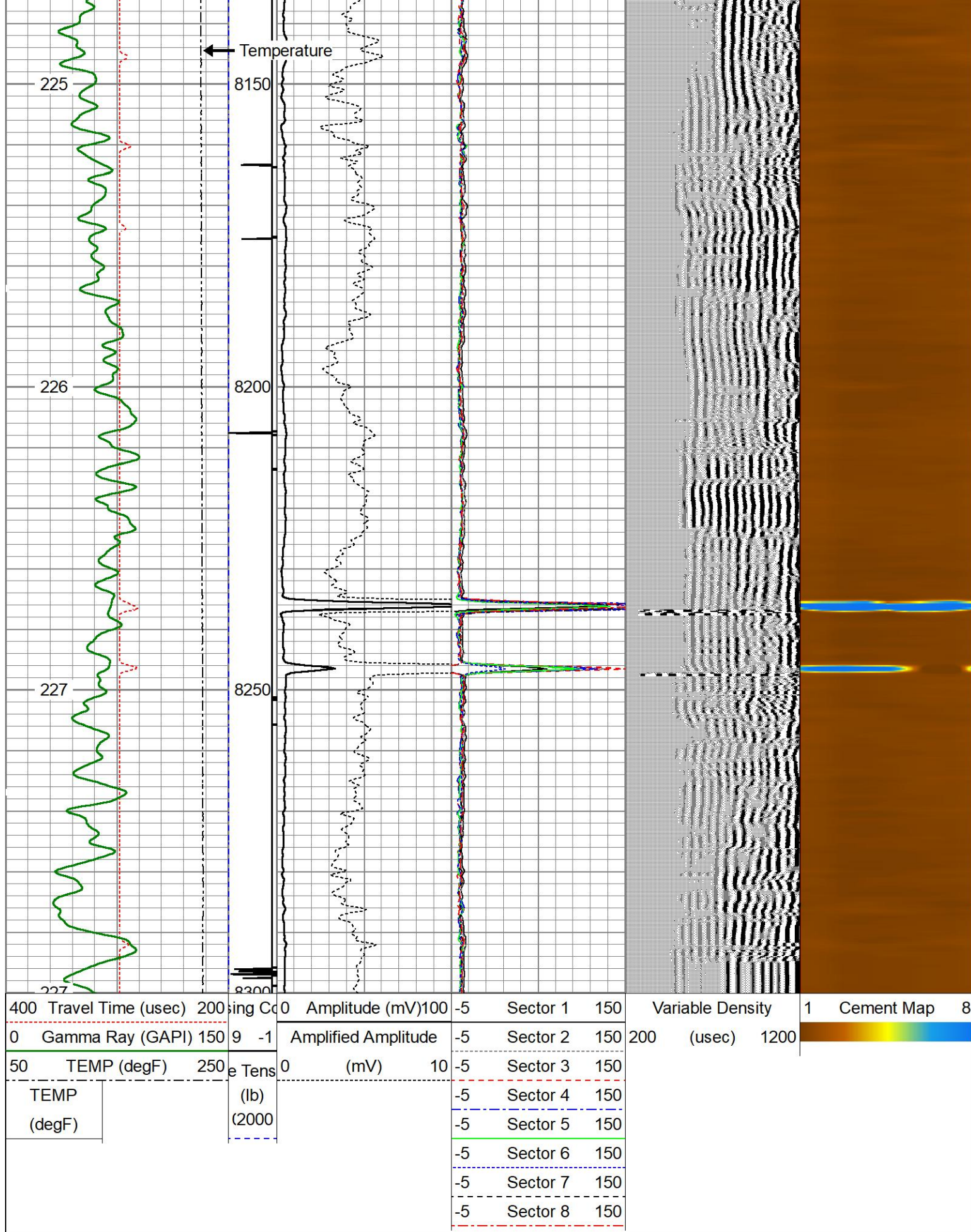
150

-5

Sector 8

150





Calibration Report

Database File raindance_fc_23-232hn_rcbl11-01-21.db
Dataset Pathname RCBL1/pass12

Dataset Creation

Mon Nov 01 12:10:54 2021

Gamma Ray Calibration Report						
Type / Serial:			Probe275dig / 080829			
SHOP CALIBRATION		Fri Oct 29 12:45:52 2021				
	Counts/Sec.	Gain	Offset	Jig	Units	
Background	87.1				cps	
Calibrator	1889.0				cps	
		0.5751			GAPI/cps	
PRIMARY VERIFICATION		Fri Oct 29 12:49:01 2021				
Background	50.1				cps	
Calibrator	1086.6				cps	
Difference				1036.5	GAPI	
BEFORE SURVEY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0				cps	
Difference				0.0	GAPI	
AFTER SURVEY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0				cps	
Difference				0.0	GAPI	


Segmented Cement Bond Log Calibration Report				
Serial Number:		FW1409-41		
Tool Model:		Probe 2.75 Radii W/Temp		
Calibration Casing Diameter:		5.500	in	
Calibration Depth:		1295.700	ft	


Master Calibration, performed Mon Nov 1 11:30:38 2021:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.493	1.000	71.921	143.911	0.947
CAL	0.000	0.616				
5'	0.001	0.438	1.000	71.921	162.209	0.834
SUM						
S1	-0.004	0.481	0.000	100.000	206.124	0.788
S2	-0.002	0.473	0.000	100.000	210.775	0.386
S3	0.010	0.479	0.000	100.000	213.450	-2.150
S4	0.010	0.490	0.000	100.000	208.443	-2.112
S5	0.009	0.493	0.000	100.000	206.629	-1.947
S6	0.009	0.497	0.000	100.000	204.882	-1.896
S7	0.009	0.502	0.000	100.000	202.948	-1.853
S8	0.008	0.498	0.000	100.000	203.883	-1.635

Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.616	1.000	0.000

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HeadVolt	15.73		CHD-Titan Titan 1 7/16" GO Cablehead	1.00	1.44	5.00
Temp	12.88					
WVFS8	10.65		RBT-Probe 2.75 Radii W/Temp (FW1409-41) Probe 2.75" Radial with Integral Temperature Sub	9.21	2.75	90.00
WVFS7	10.65					
WVFS6	10.65					
WVFS5	10.65					
WVFS4	10.65					
WVFS3	10.65					
WVFS2	10.65					
WVFS1	10.65					
WVFCAL	10.65					
WVF3FT	10.65					
WVF5FT	9.65					
HEADVOLT	6.40					
CCL	5.44					

GR	1.42		GR-Probe275dig (080829) HT Probe 2 3/4" Gamma CCL	6.40	2.75	57.00
Dataset: raindance_fc_23-232hn_rcbl11-01-21.db: field/well/RCBL1/pass12 Total length: 16.60 ft Total weight: 152.00 lb O.D.: 2.75 in						

	Company	GREAT WESTERN OIL & GAS	
	Well	RAINDANCE FC 23-232HN	
	Field	WATTENBERG	
	County	WELD	
	State	COLORADO	Country USA