



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company SRC Energy Inc
Well Goetzel 12N-30B-M
Field Wattenberg
County Weld State Colorado

Location: API #: 05-123-44189
SEC 29 TWP 6N RGE 66W
GR / RBP
Other Services
Permanent Datum Ground Level Elevation 4735'
Log Measured From Gound Level 0 FT
Drilling Measured From Kelly Bushing
K.B. 4755'
D.F. 4754'
G.L. 4735'

Date	19-JAN-2018			
Run Number	Three			
Depth Driller	15833 FT			
Depth Logger	6597 FT			
Bottom Logged Interval	6592 FT			
Top Log Interval	Surface			
Open Hole Size	---			
Type Fluid	Water			
Density / Viscosity	8.34 lb/gal			
Max. Recorded Temp.	216°F			
Estimated Cement Top	See Log			
Time Well Ready	ROA			
Time Logger on Bottom	11:37 A.M.			
Equipment Number	HD-325			
Location	Fort Lupton, CO			
Recorded By	W.Wacker			
Witnessed By	Nate Brehmer			
Borehole Record				
Run Number	Bit	From	To	Size
				Weight
				From
				To
Tubing Record				
Casing Record	Size (in)	Wgt (lbs/ft)	Grade	Top
Surface Casing	9 5/8	36	---	Surface
Intermediate #1	5 1/2	20	P-110	Surface
Intermediate #2				
Inner				

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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

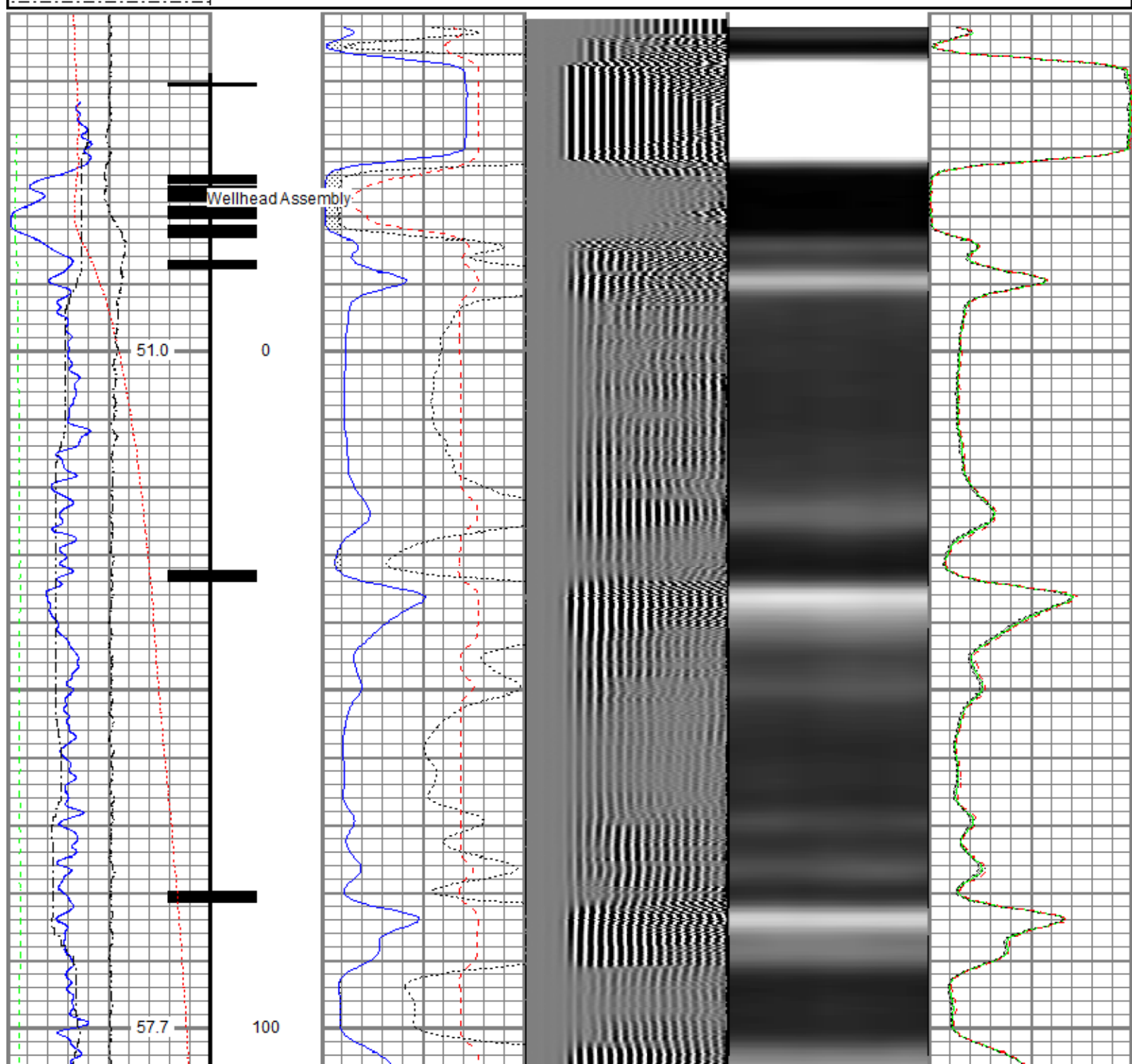
Log ran as per customer request
Depth referenced to Casing Tally reported Marker Joint at 6314 FT
Adjusted -15 FT to correlate with Marker Joint
Gauge Ring/Junk Basket ran to 6730 FT with no debris
RBP Set at 6630 FT
Log ran from just above RBP to Surface
Log ran with 2500 PSI Surface Induced Pressure
Logging tools were clean and free of any debris upon completion of operations
Thank you for choosing Reliance Oilfield Services, LLC!!

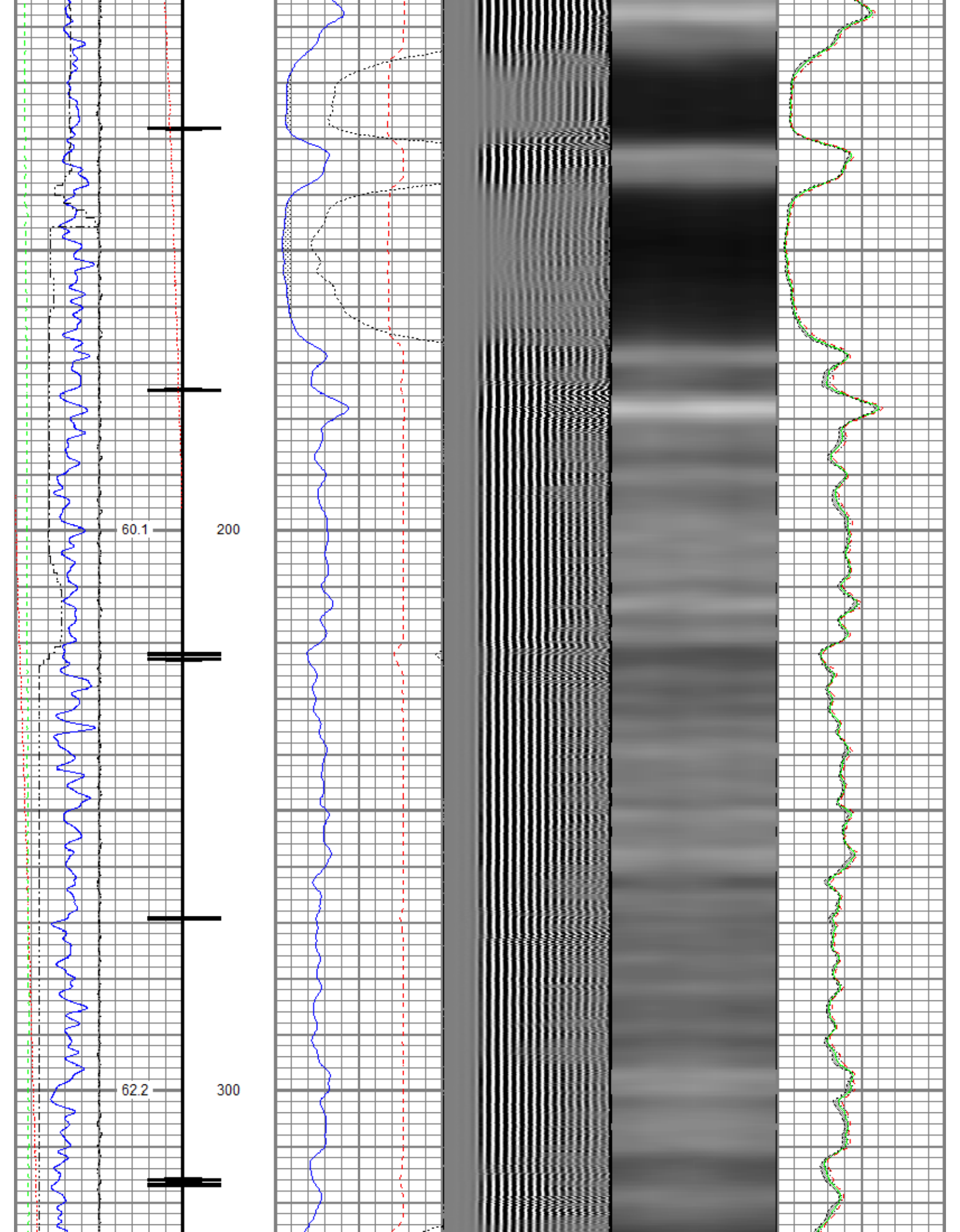
Main Pass

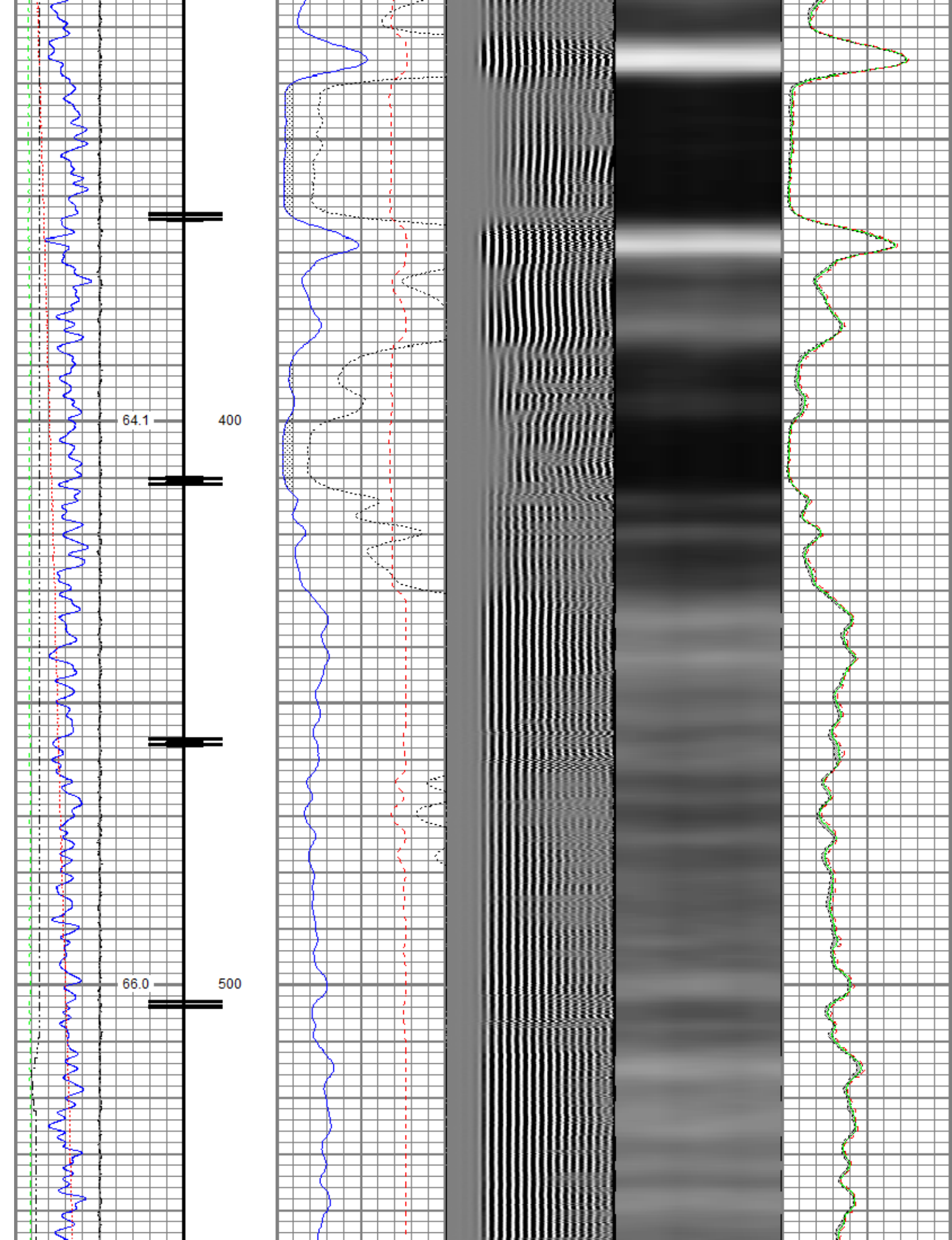


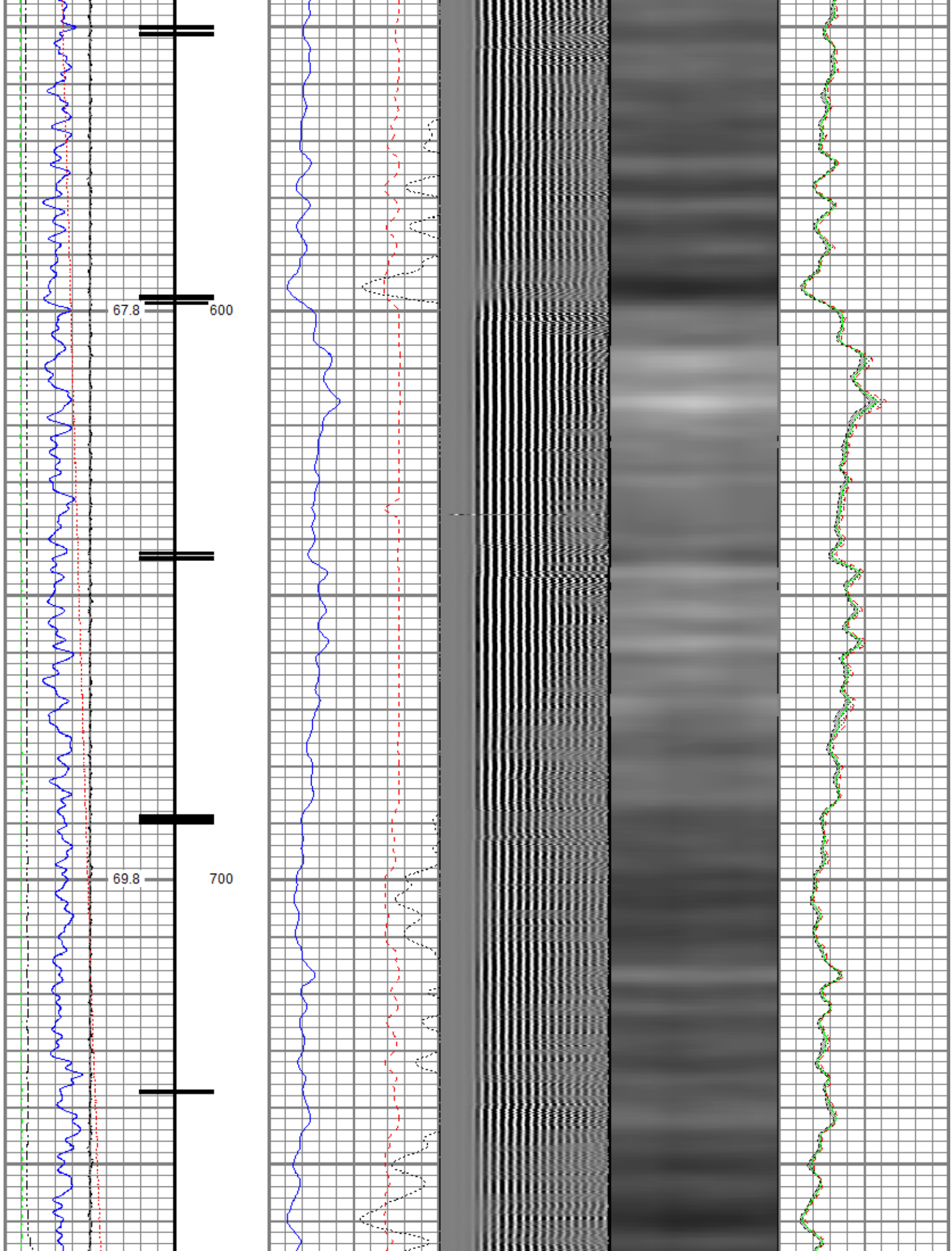
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 Dataset Pathname main.1
 Presentation Format ros_radri
 Dataset Creation Fri Jan 19 12:33:32 2018
 Charted by Depth in Feet scaled 1:240

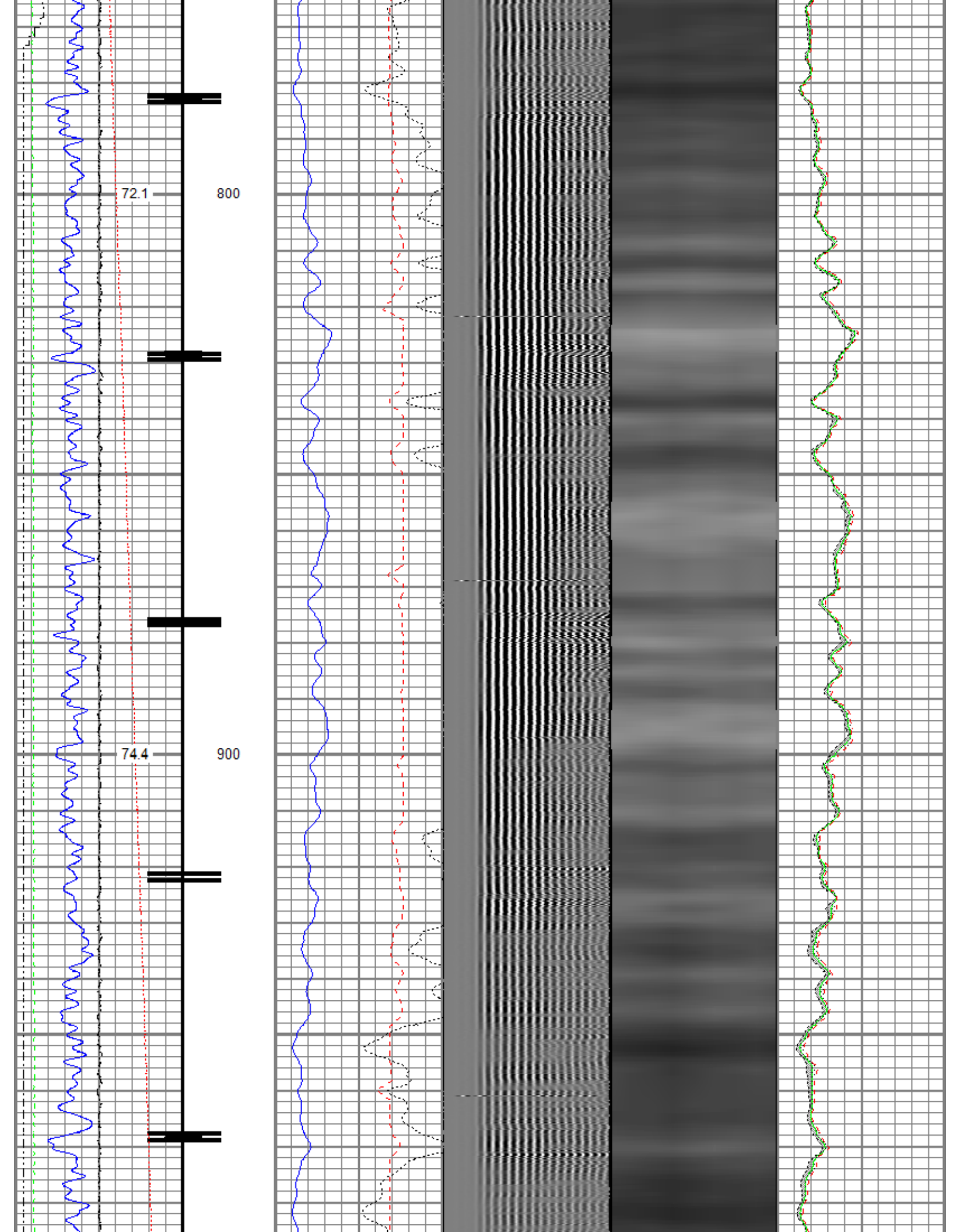
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min) 150						
Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						

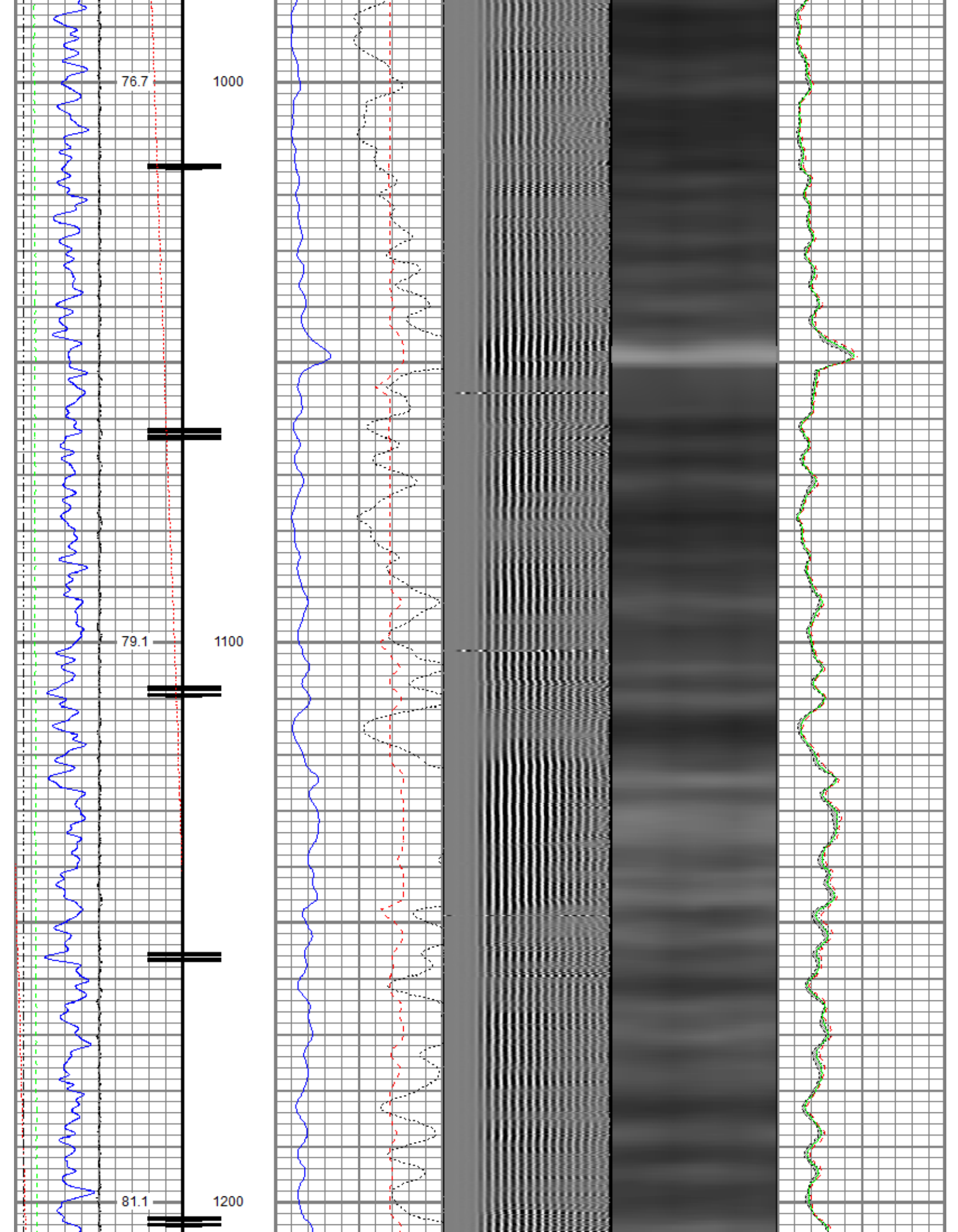


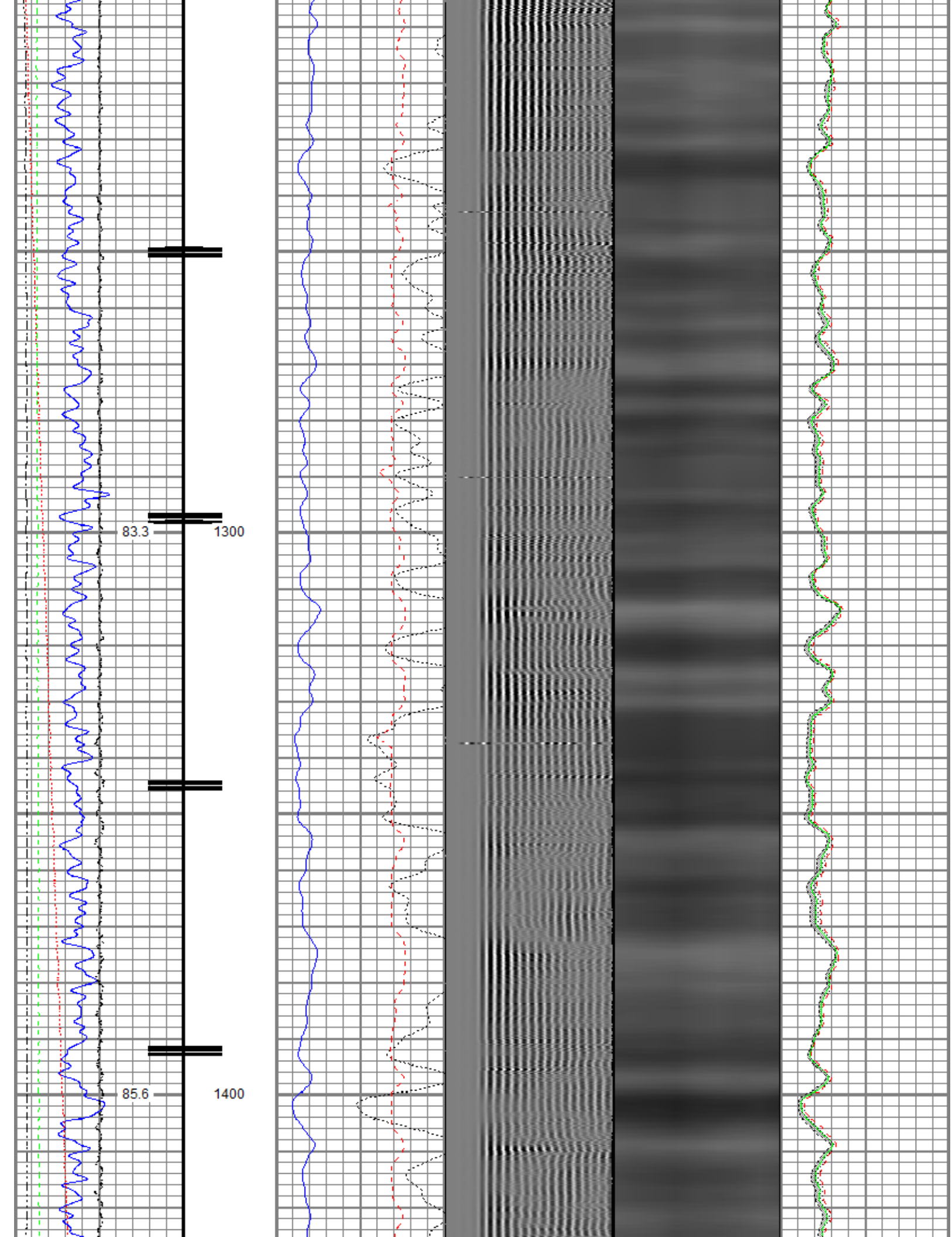


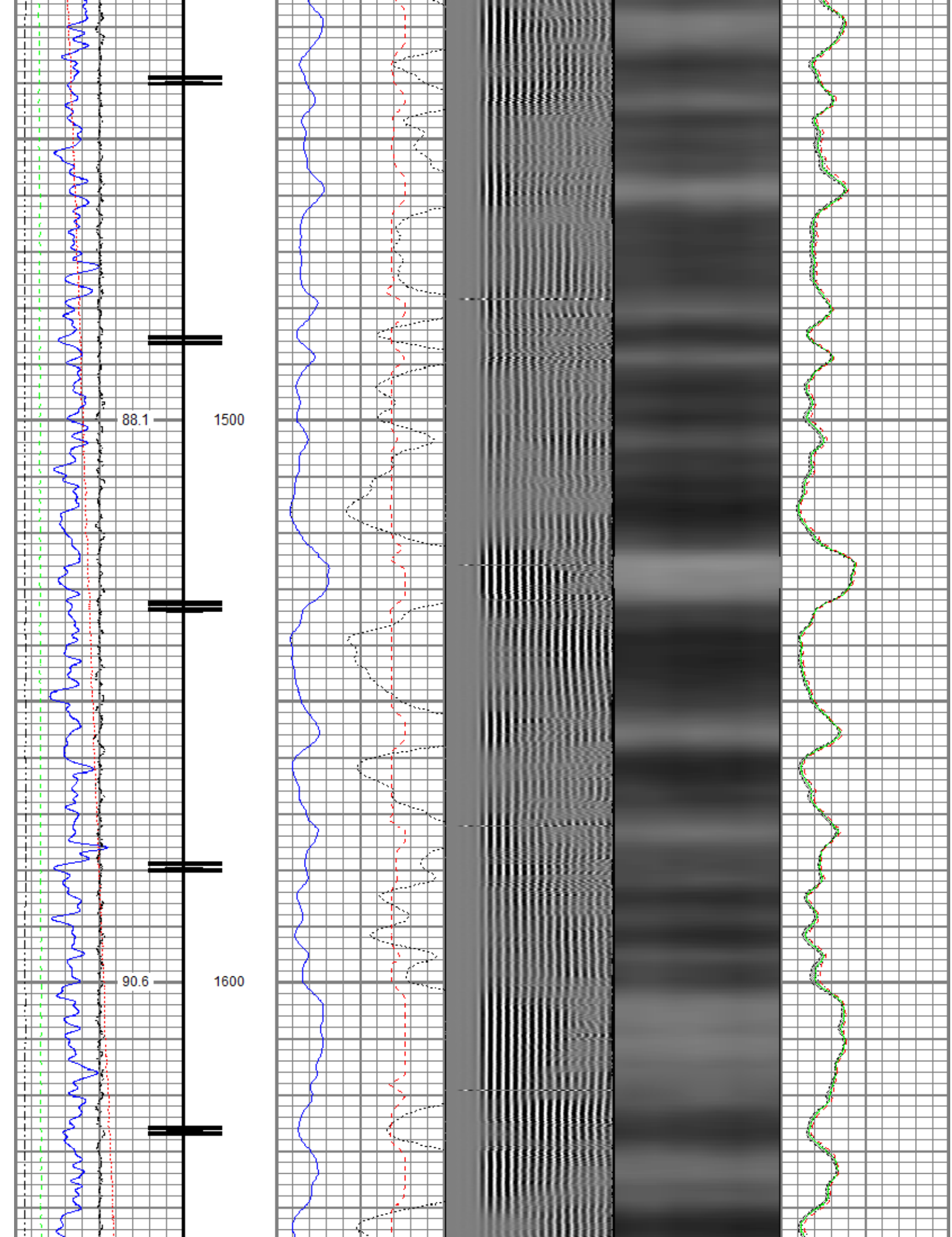


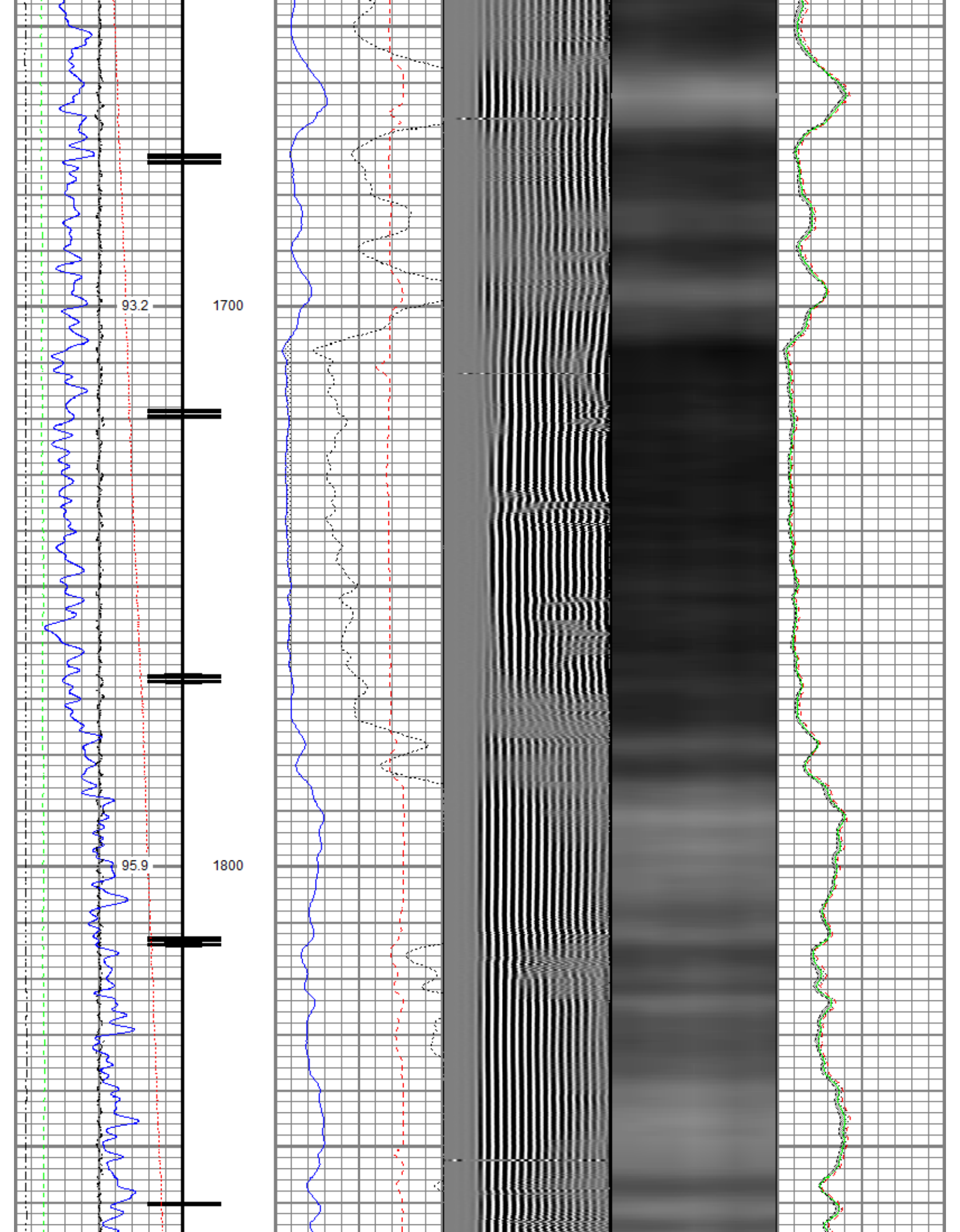


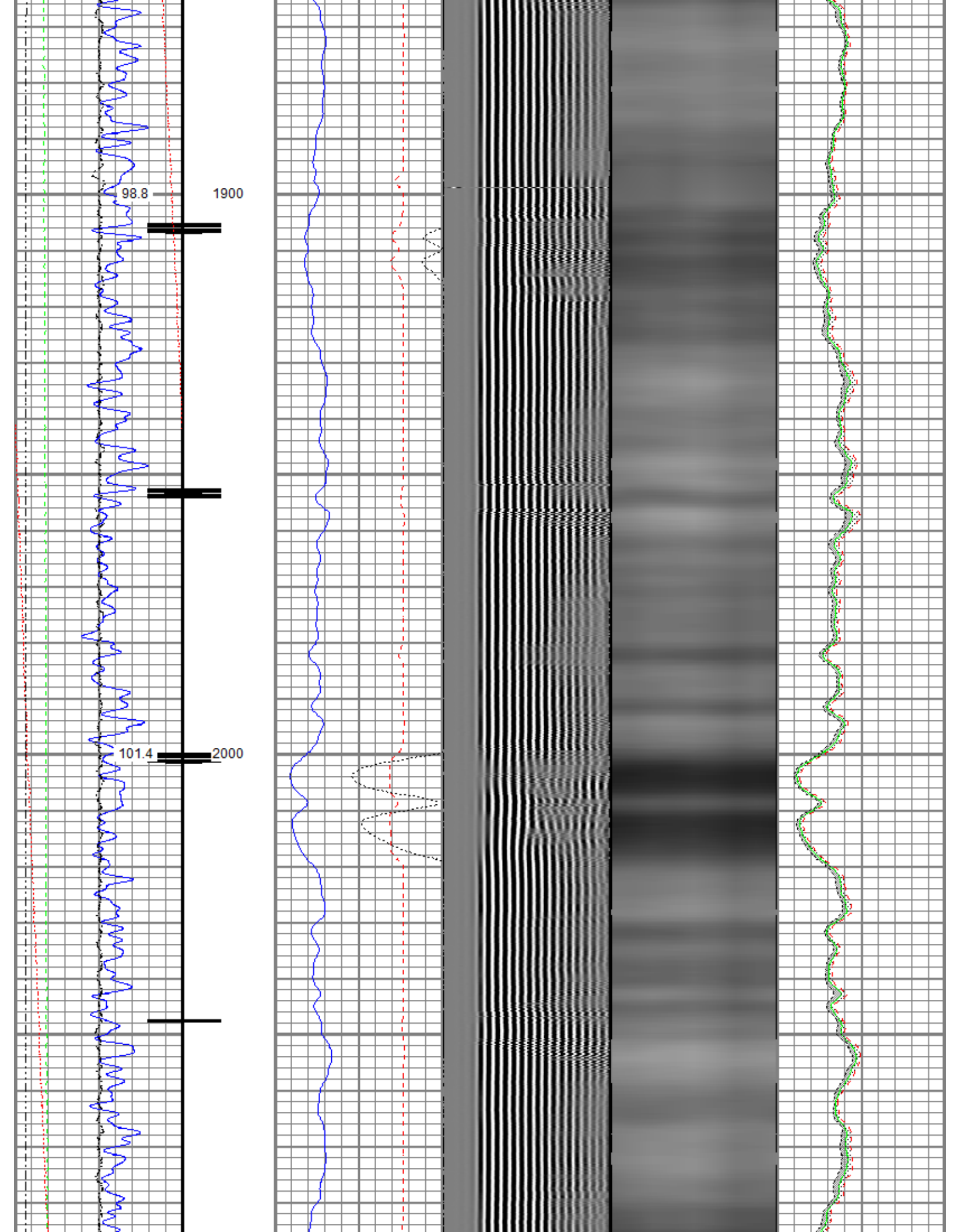


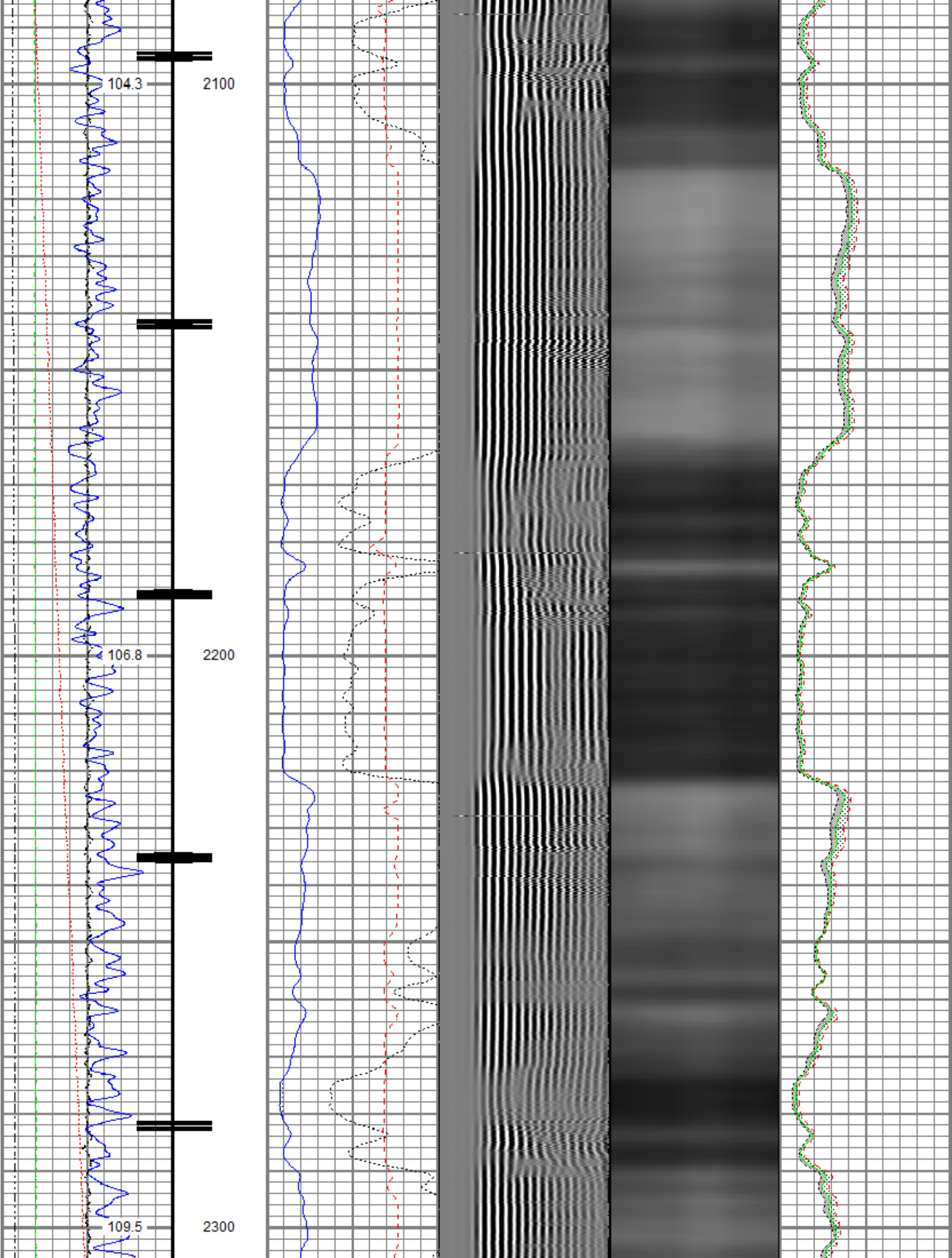


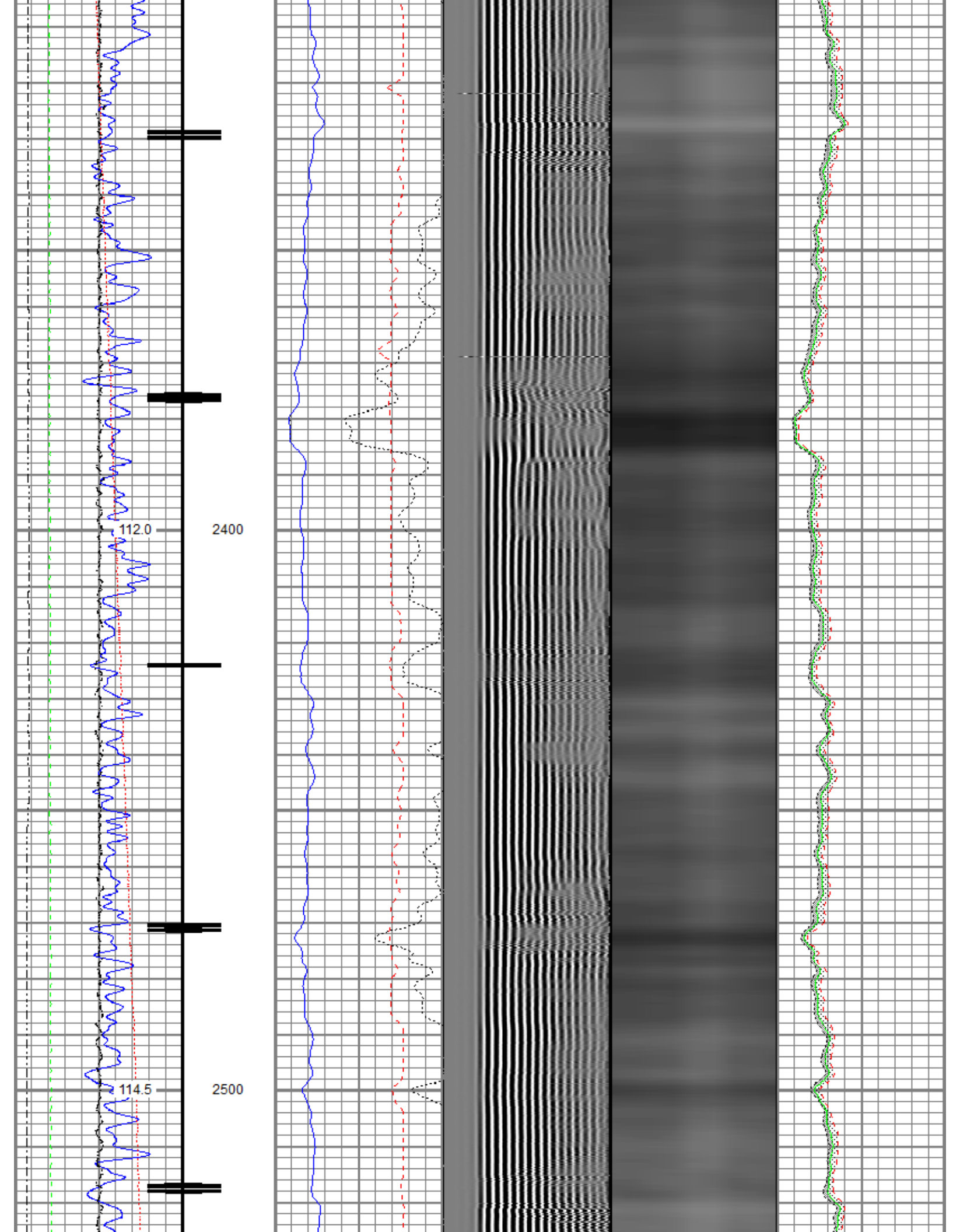


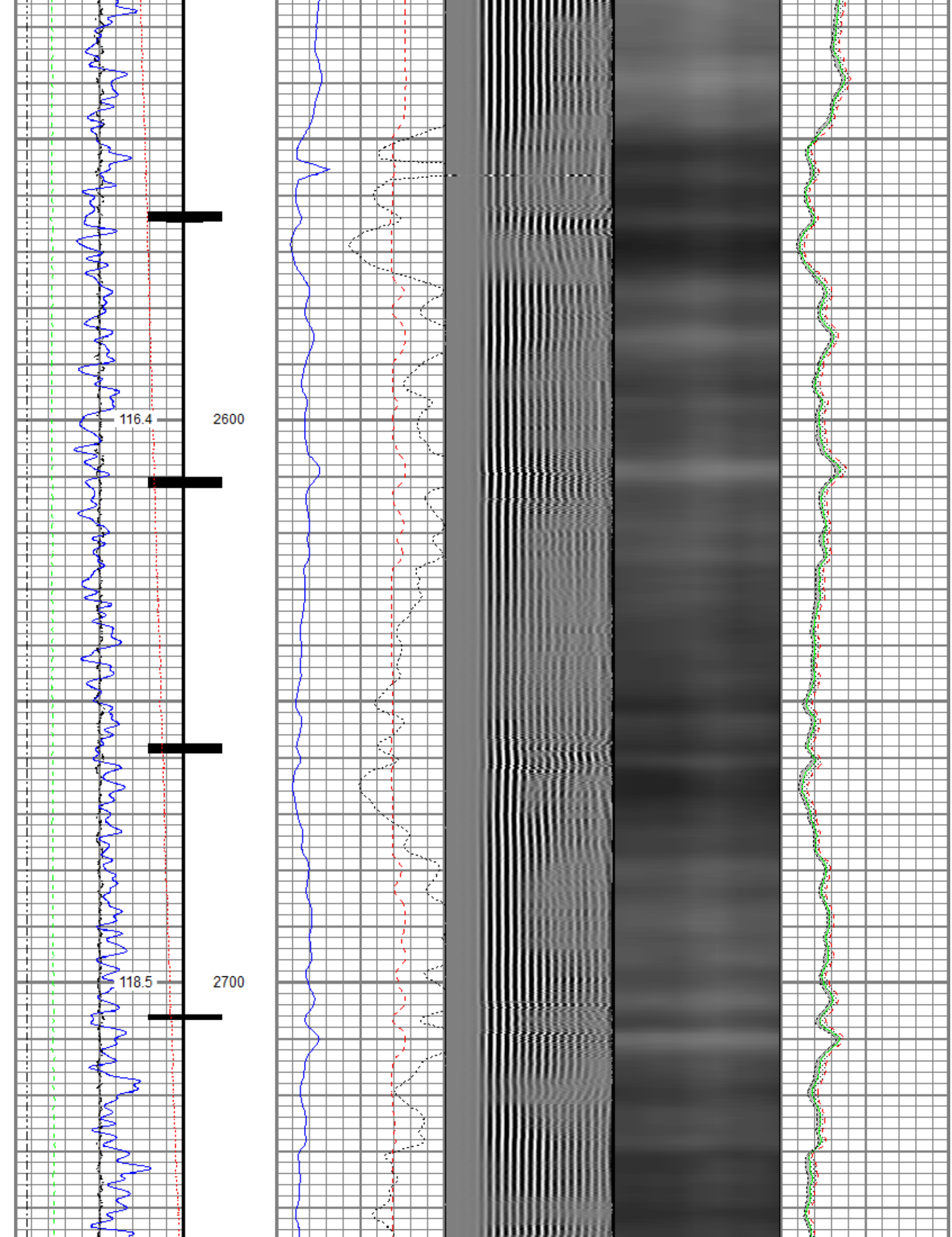


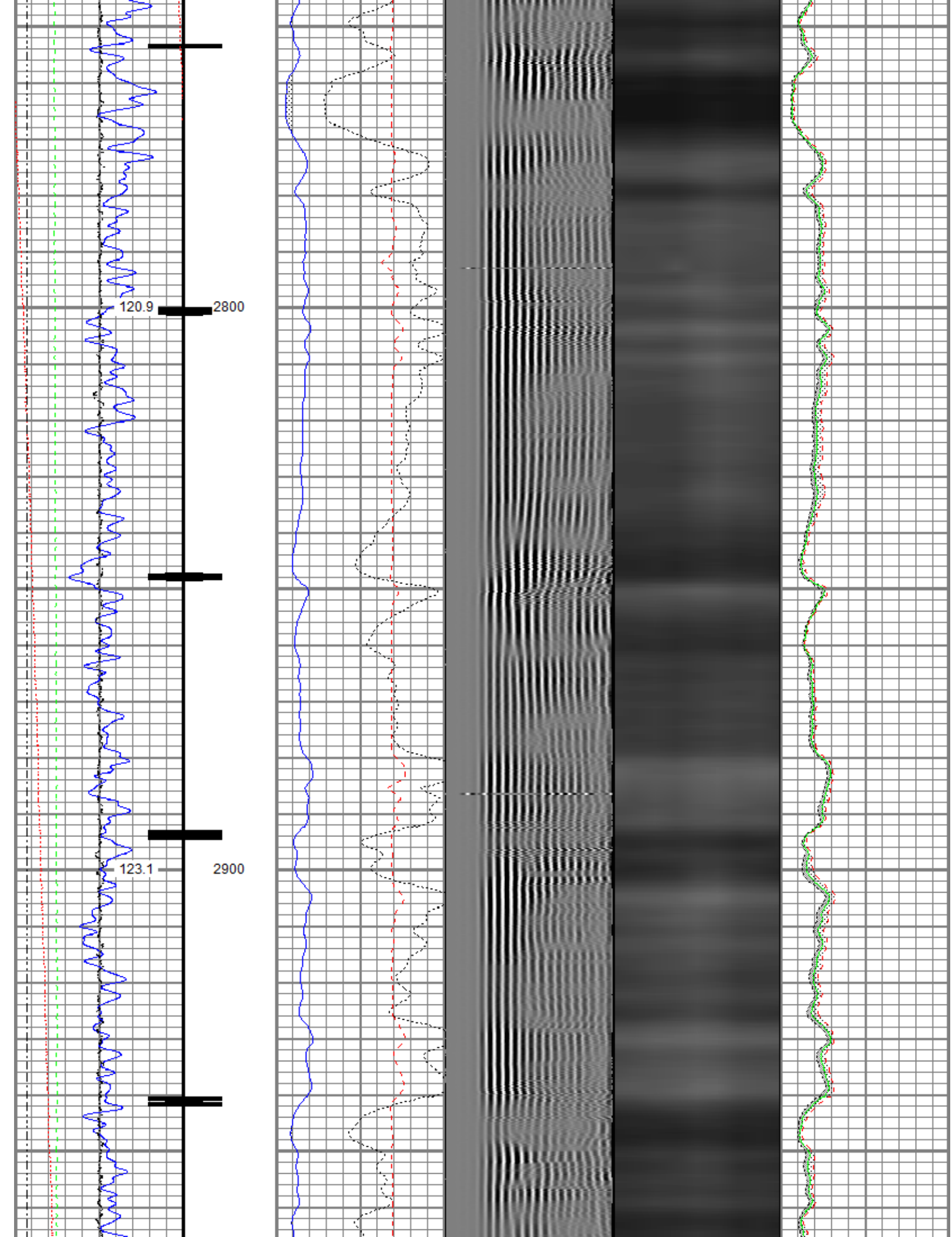


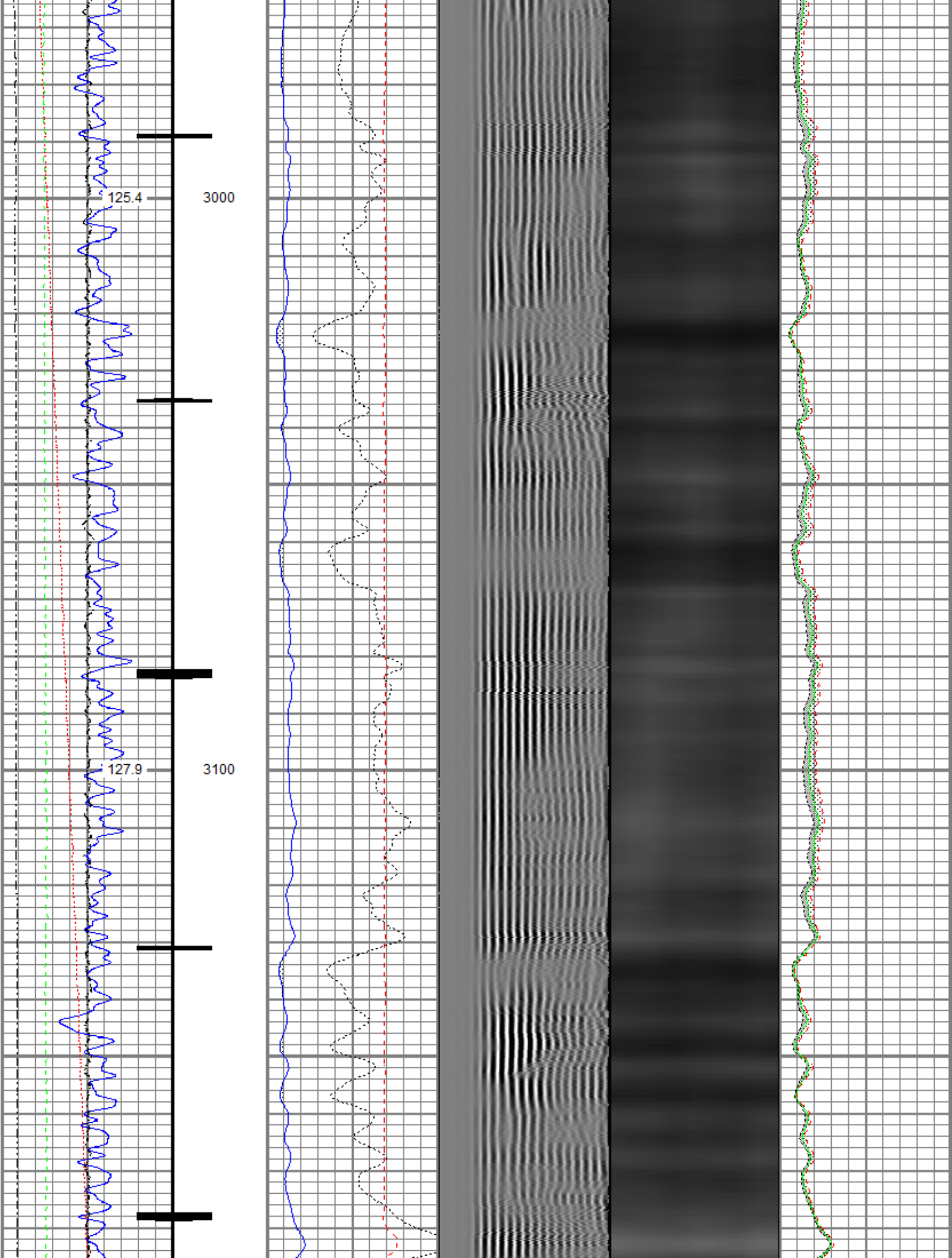


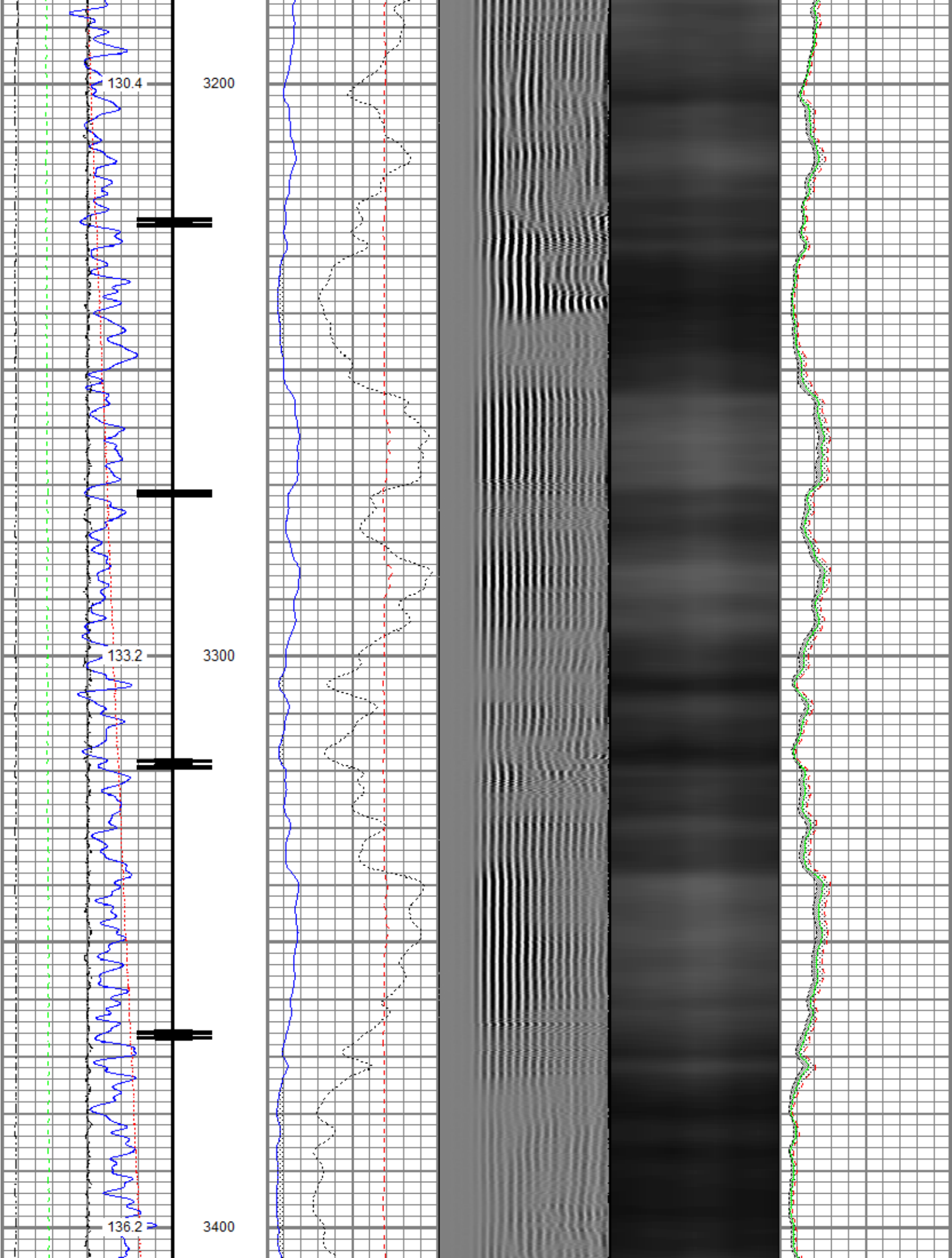


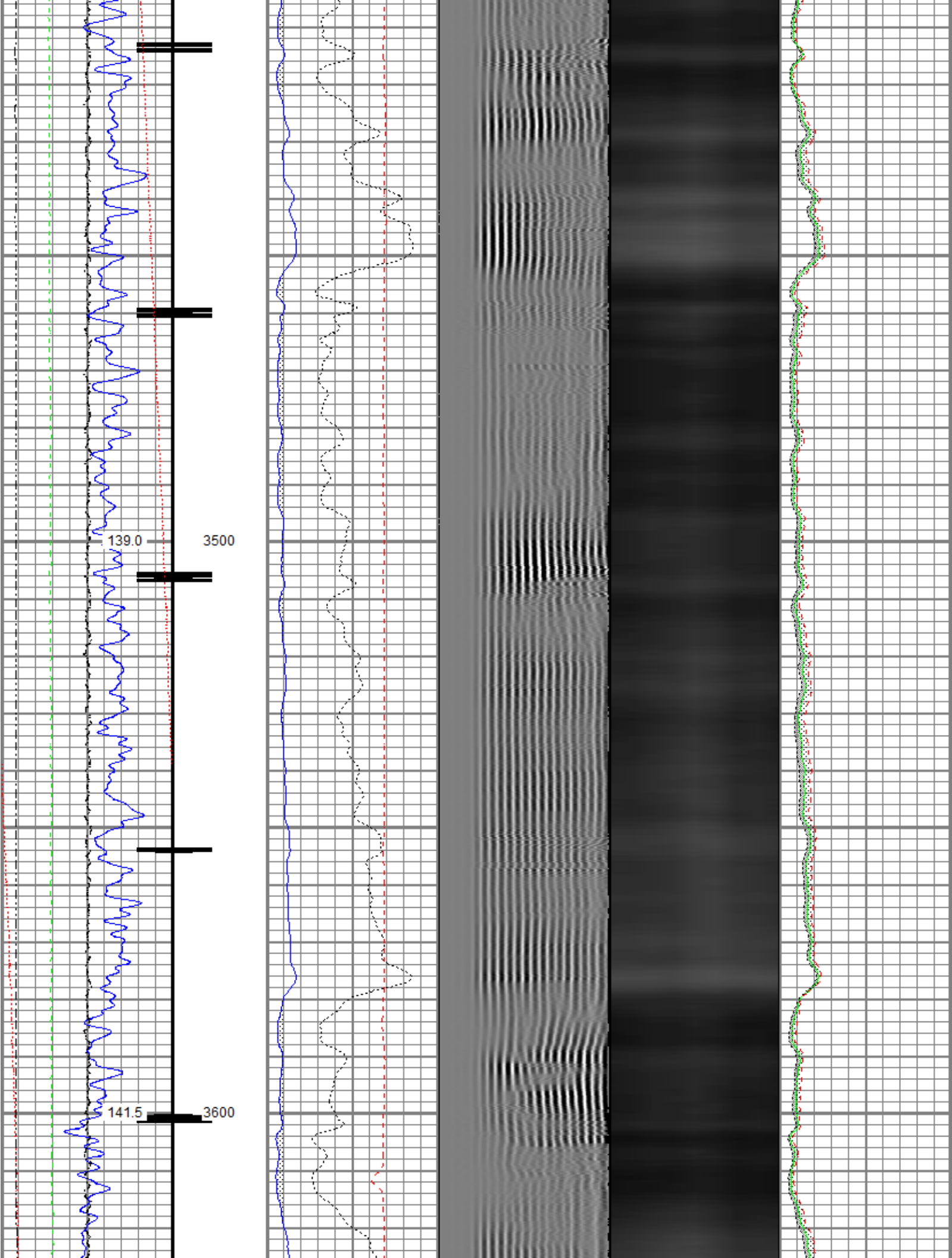


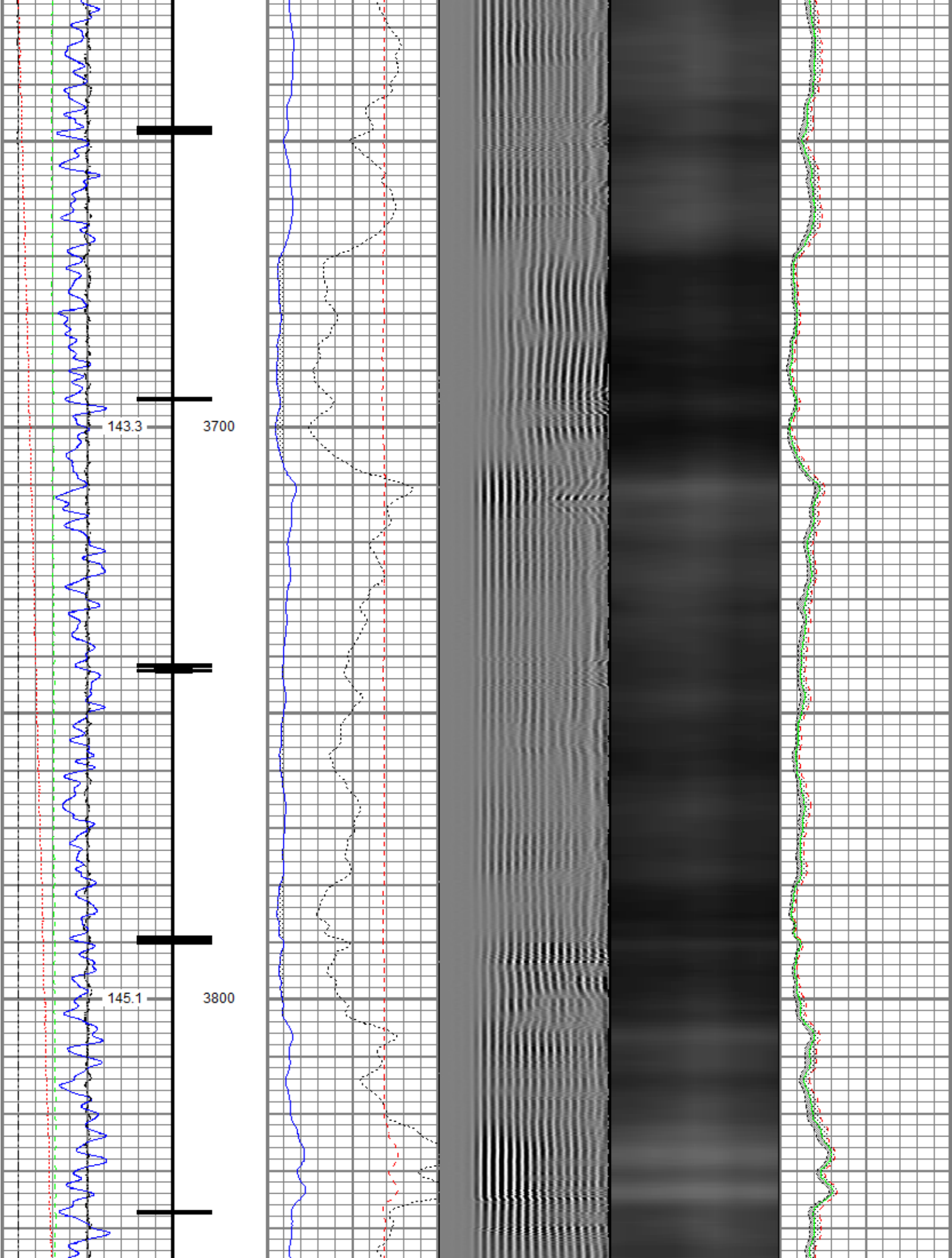


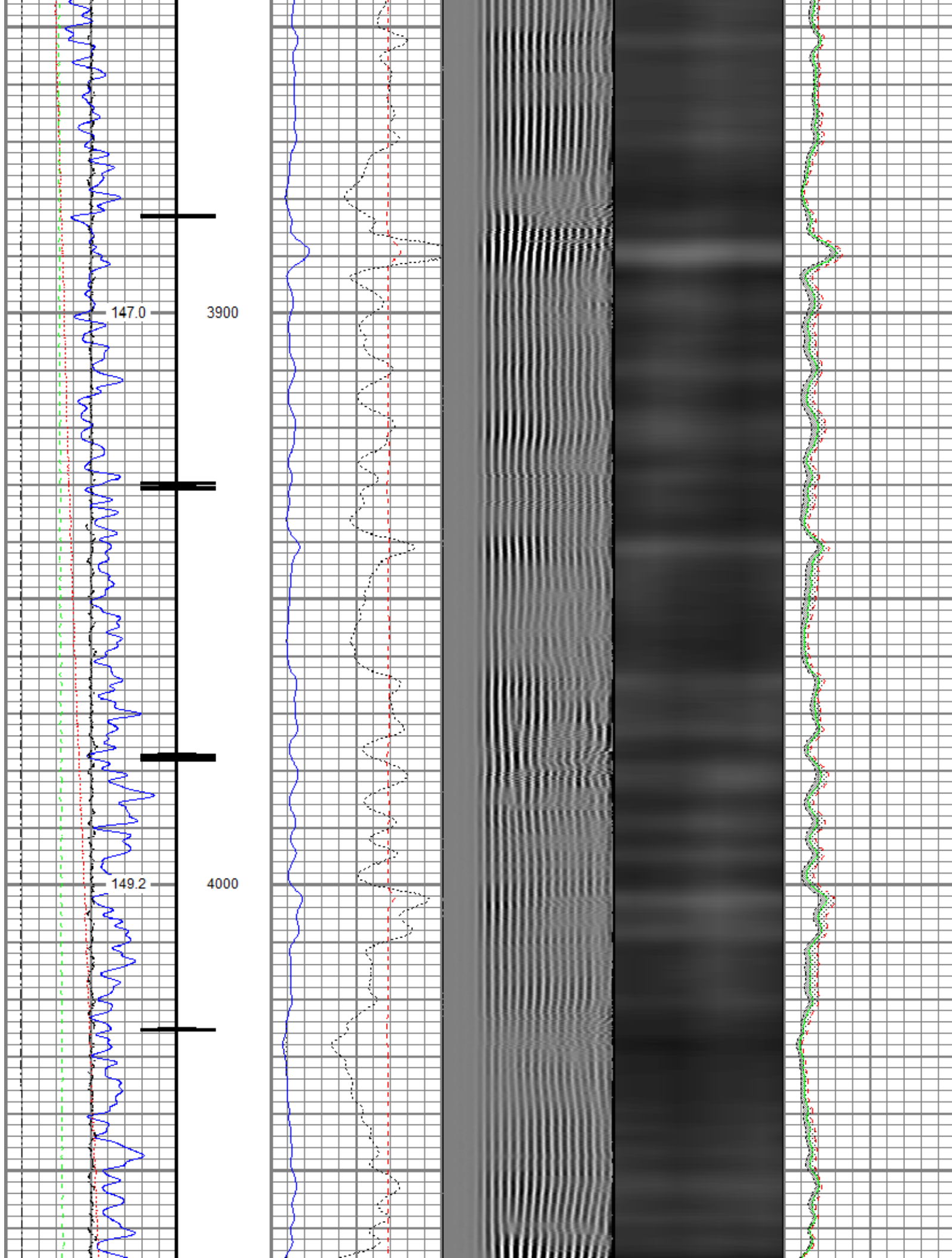


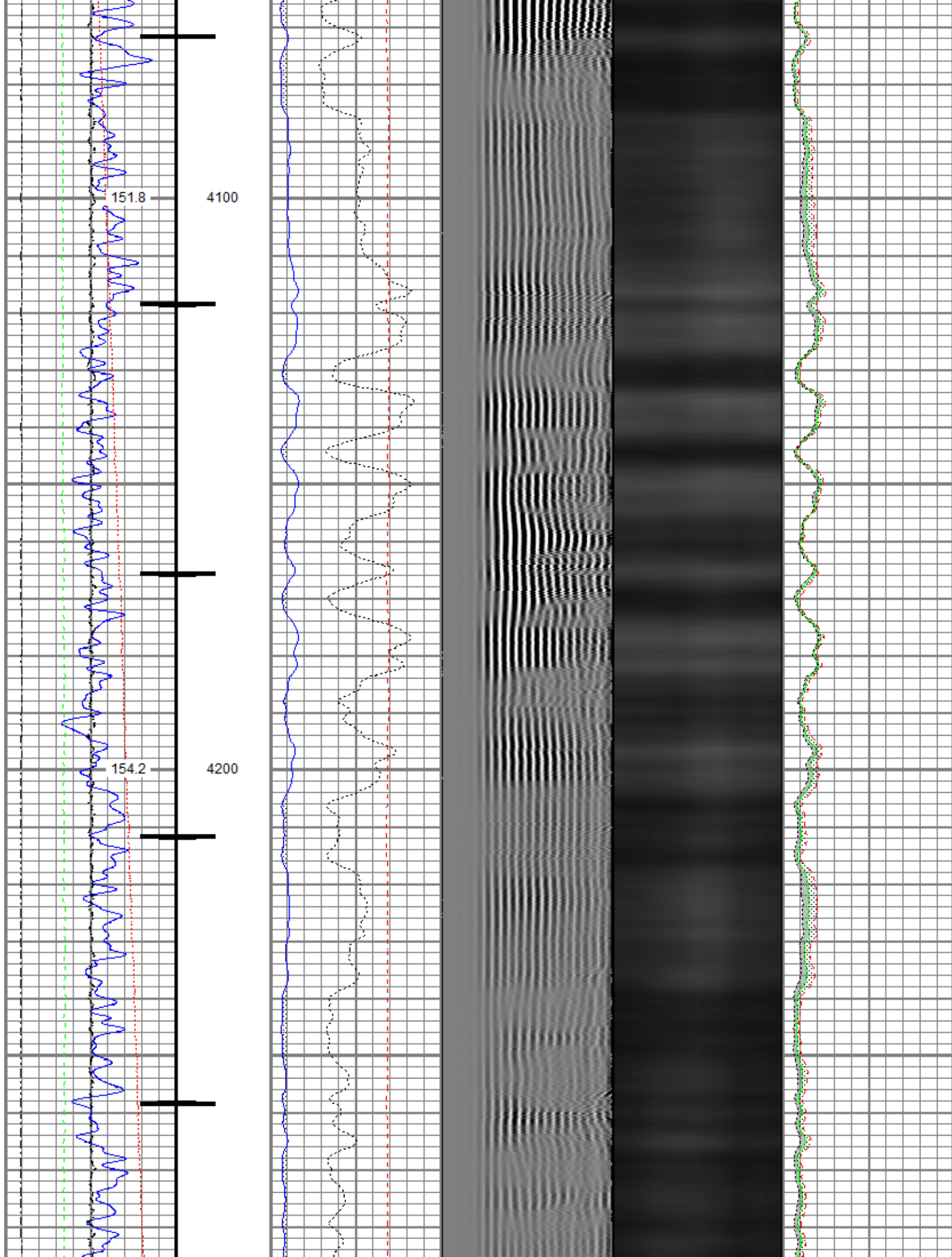


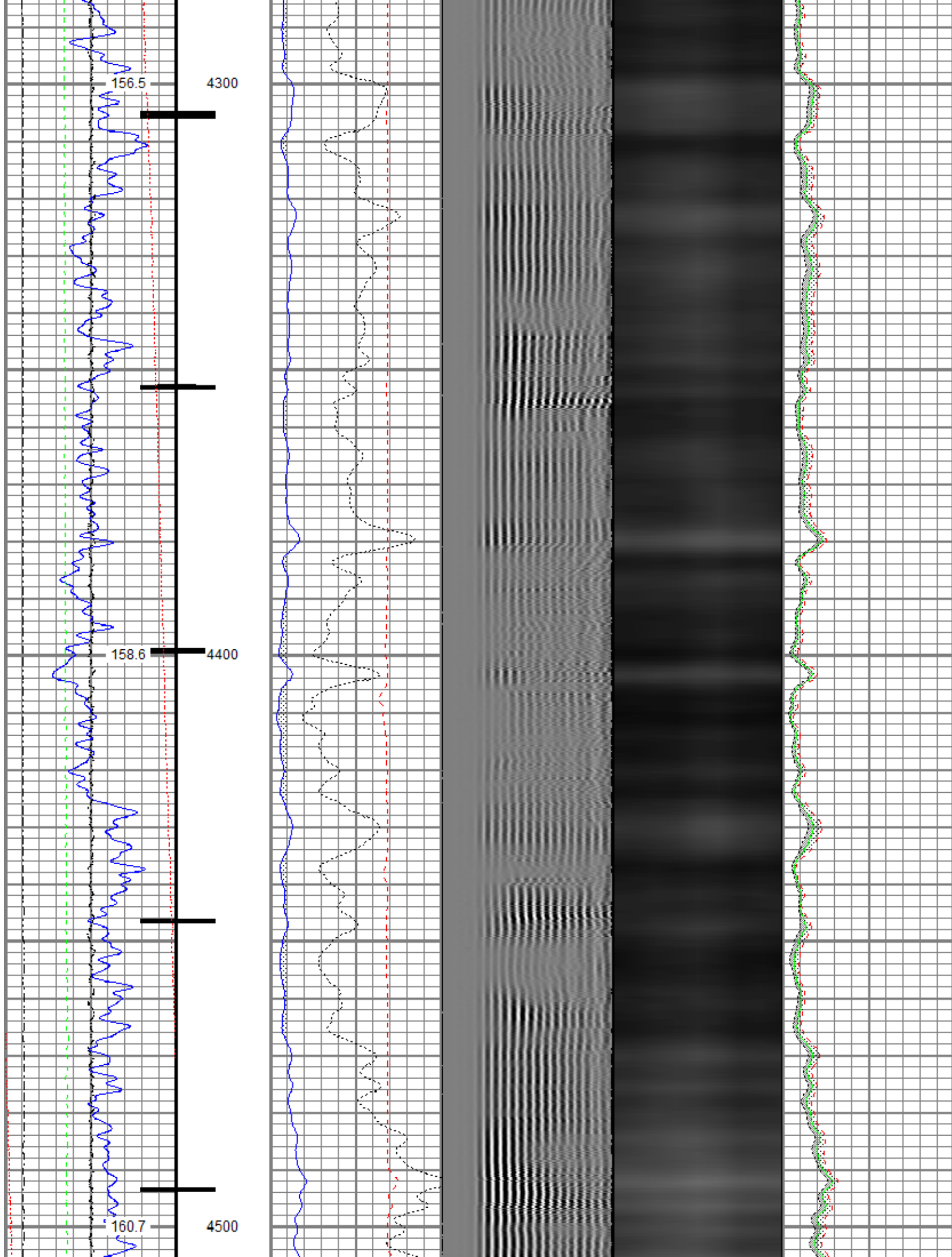


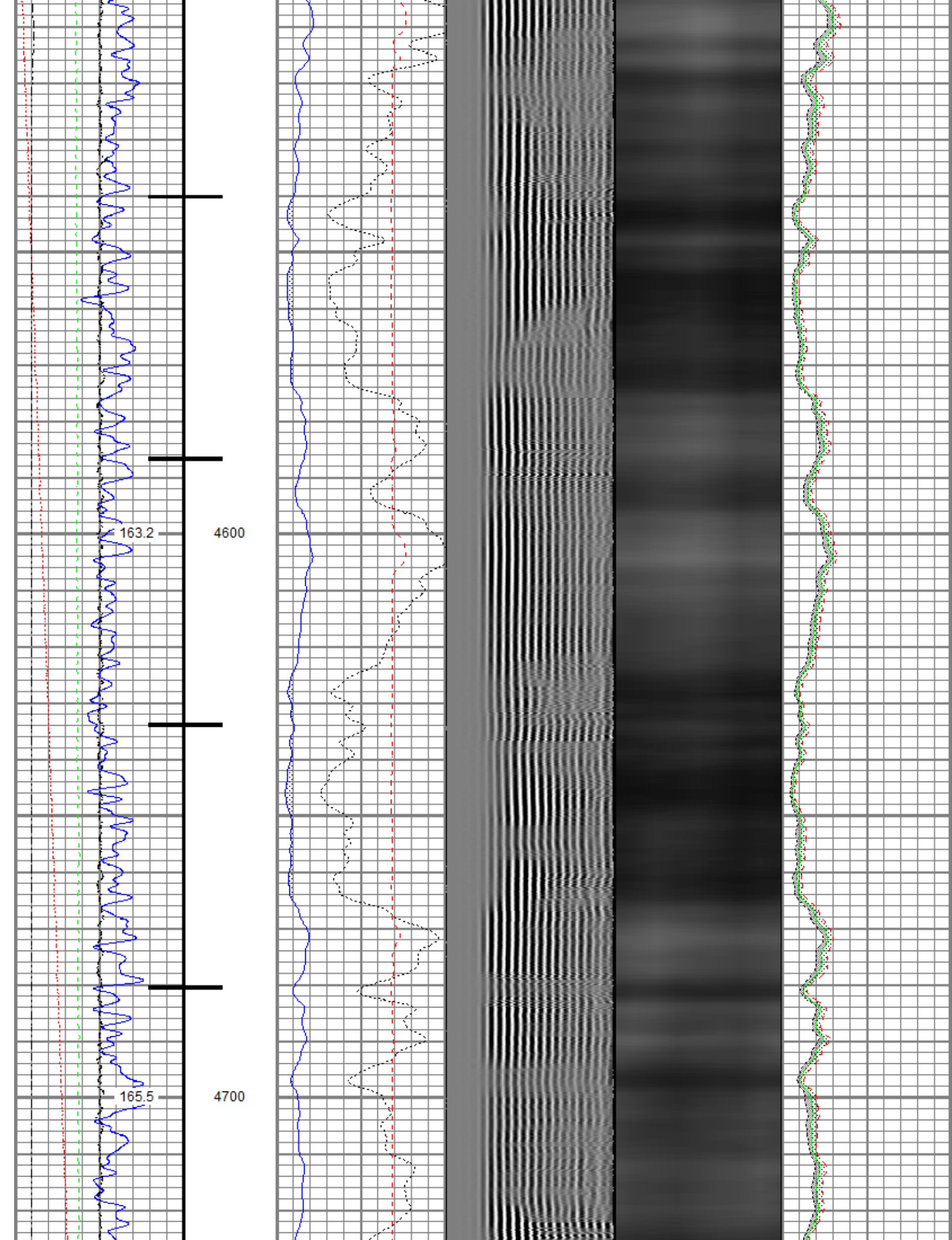


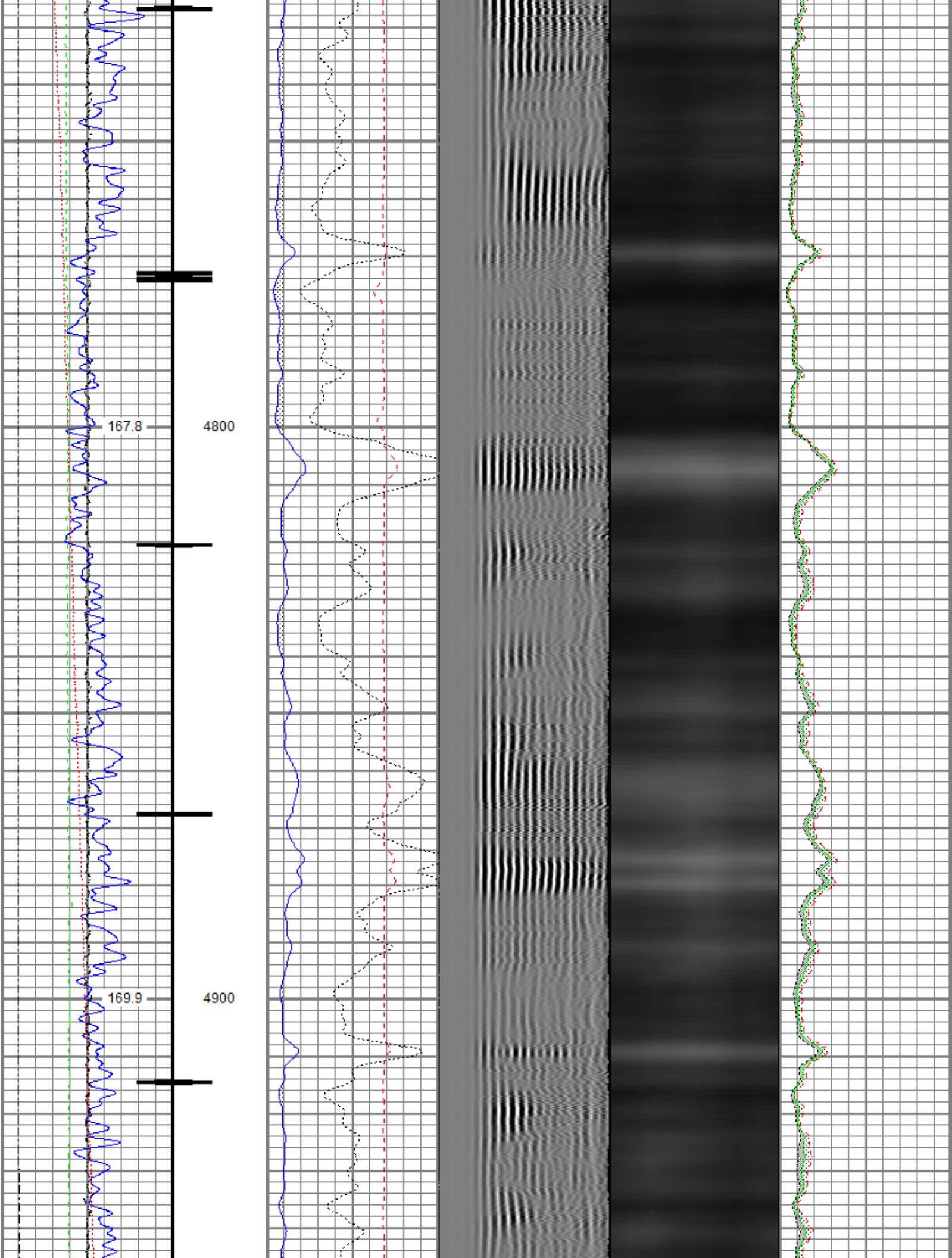


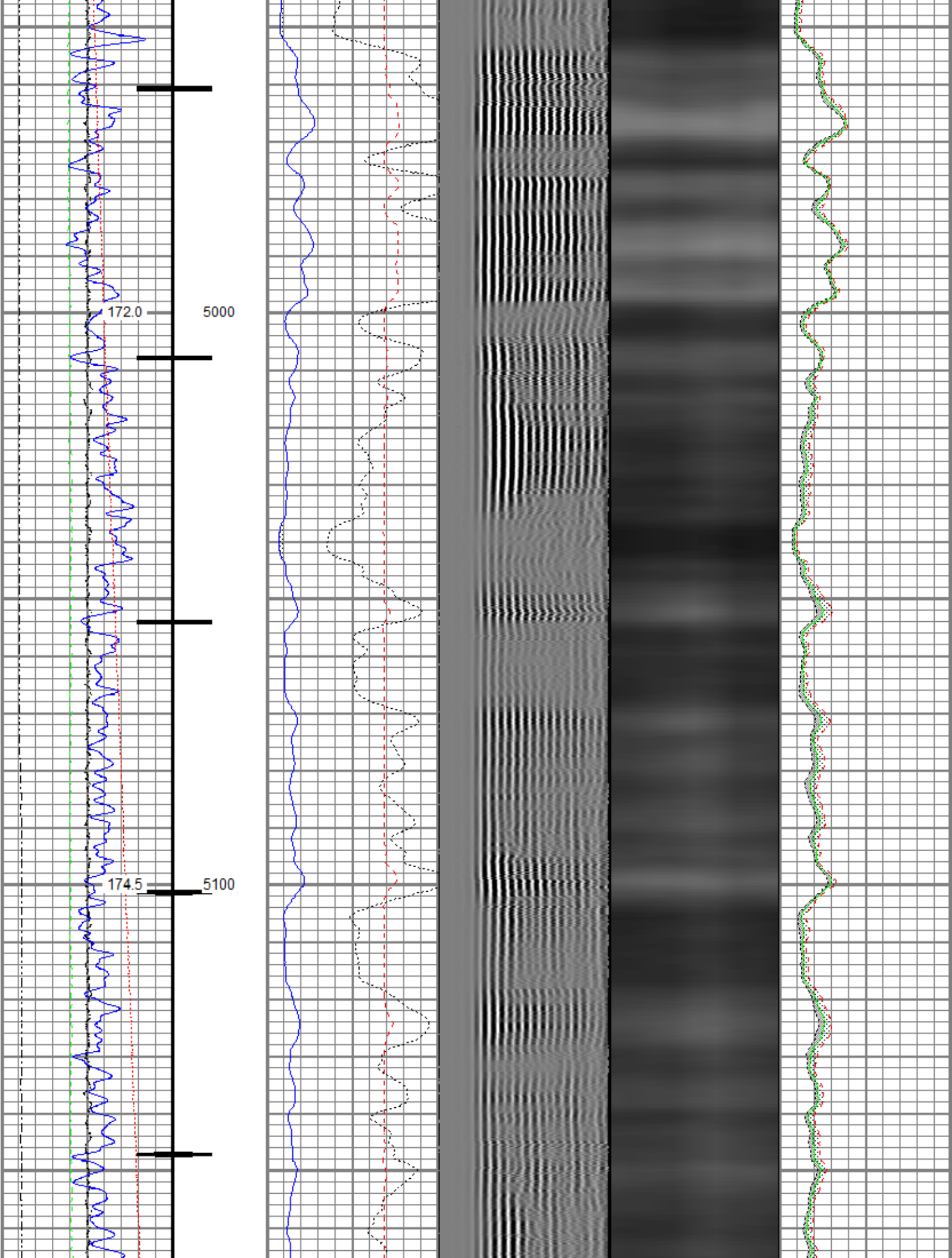


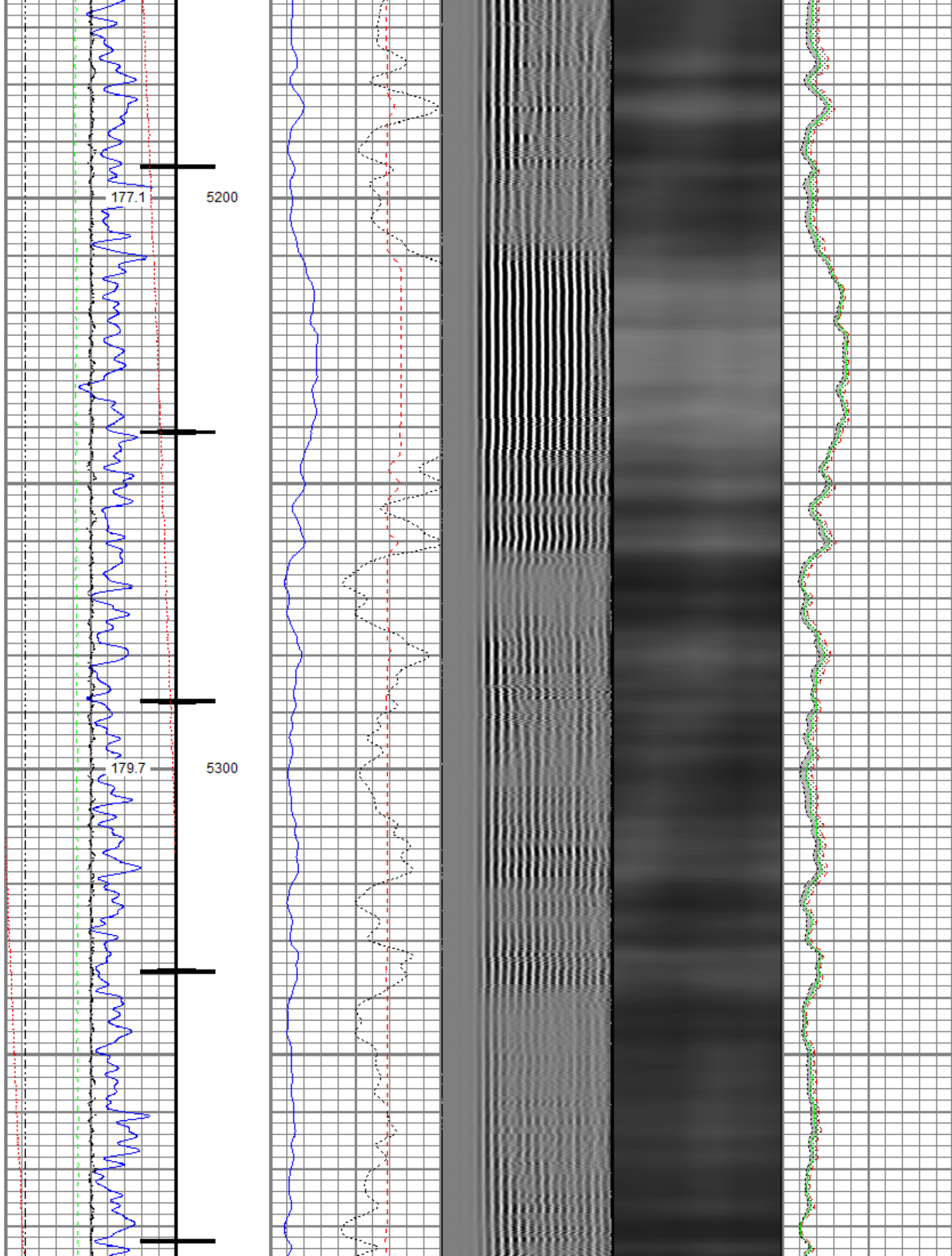


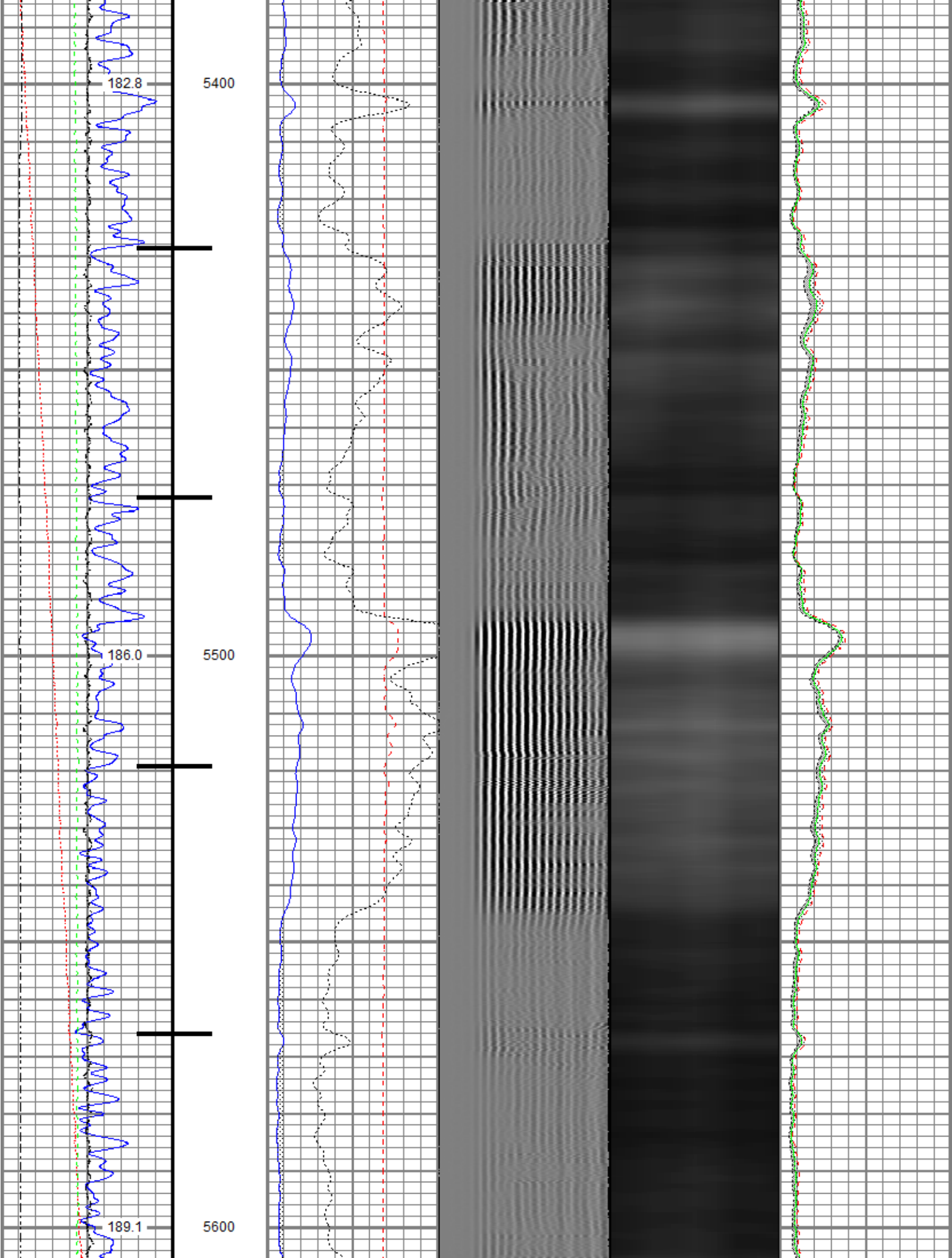


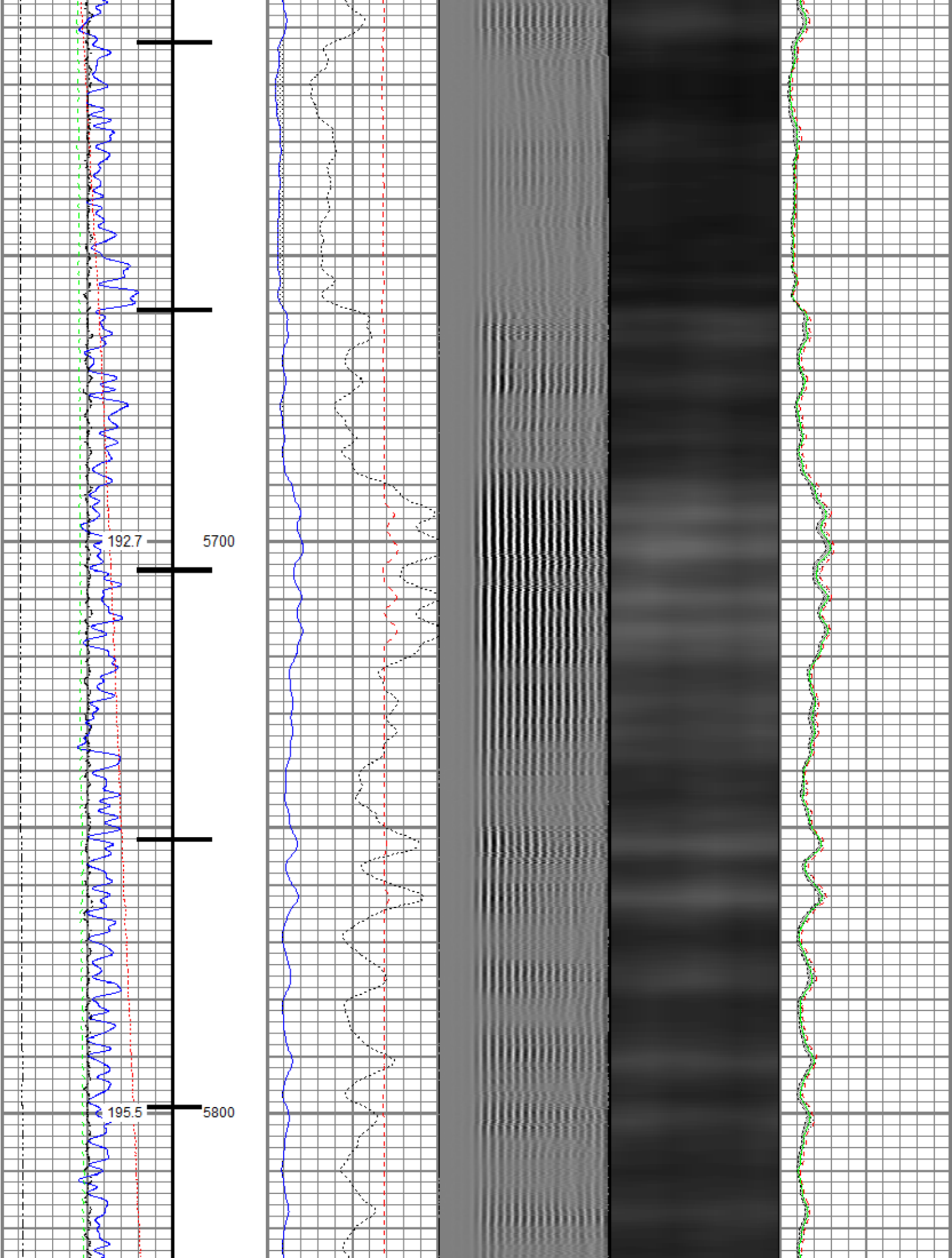


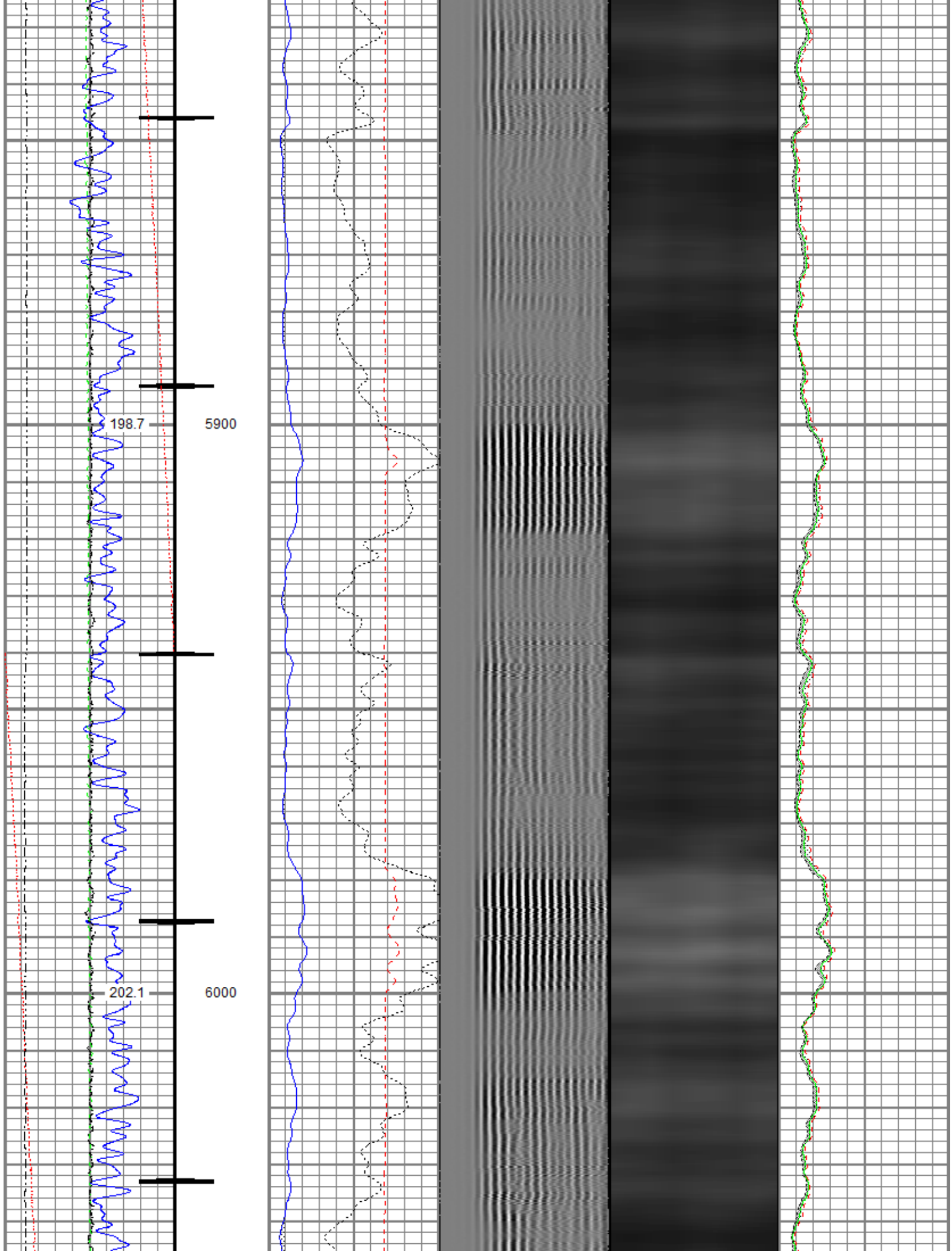


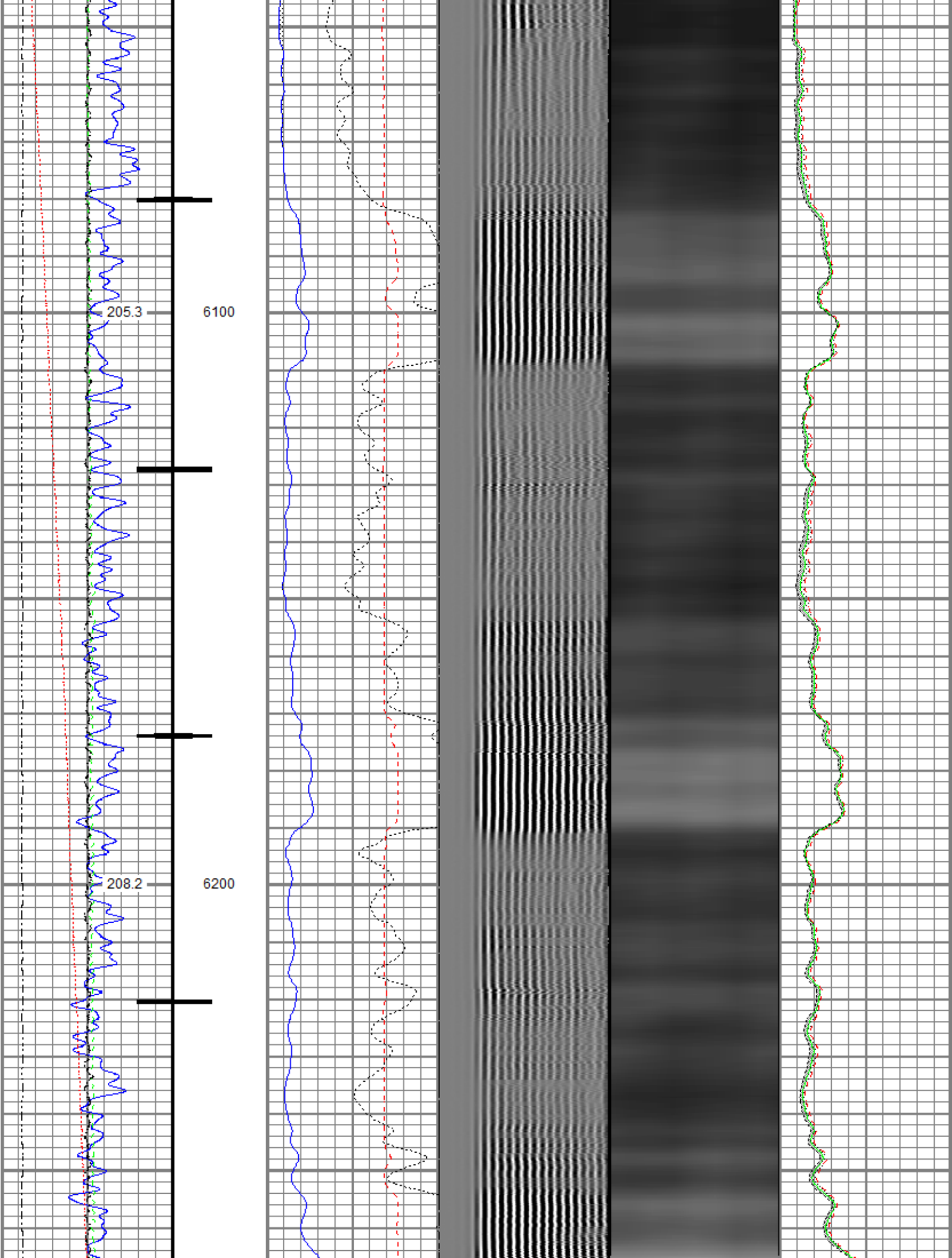


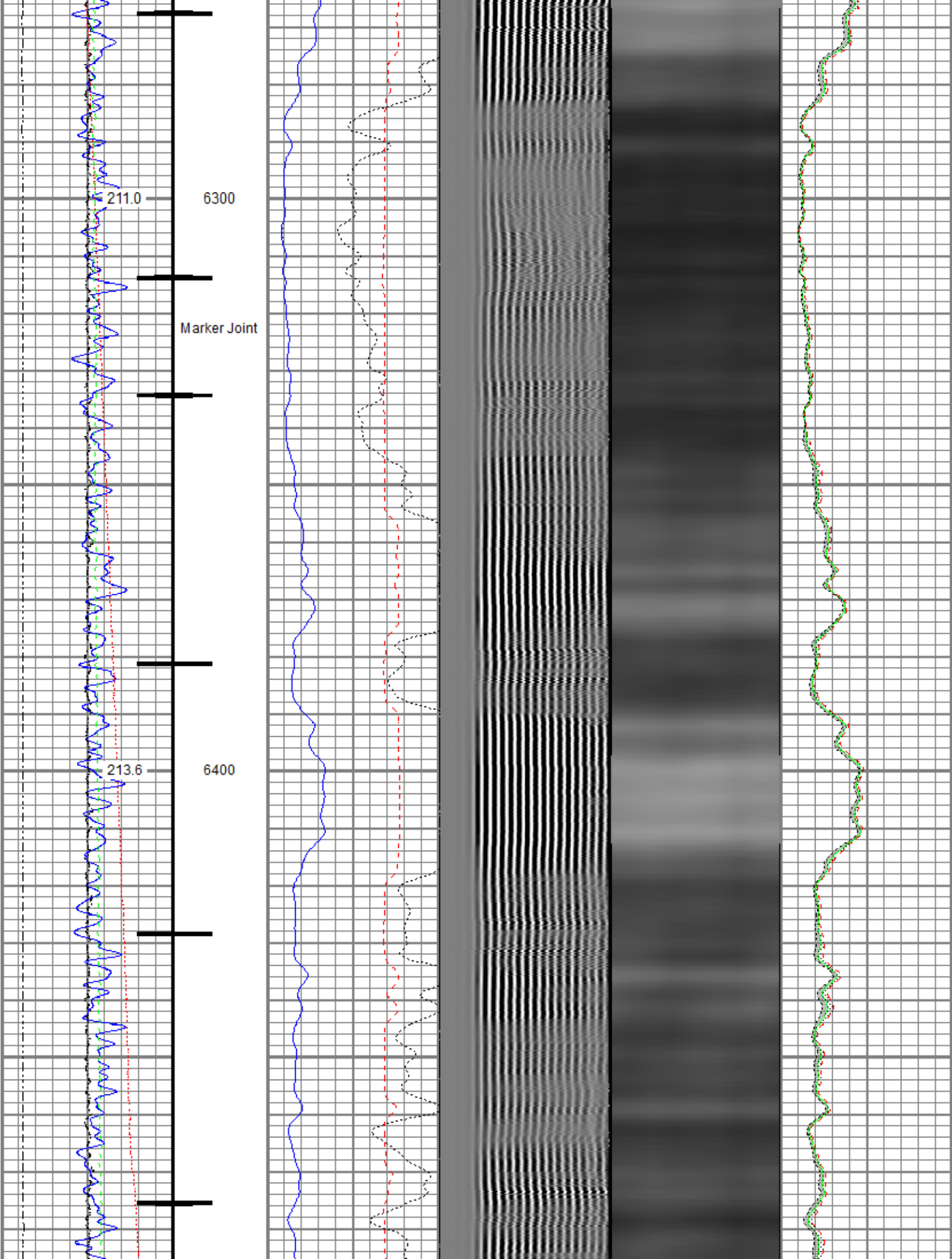


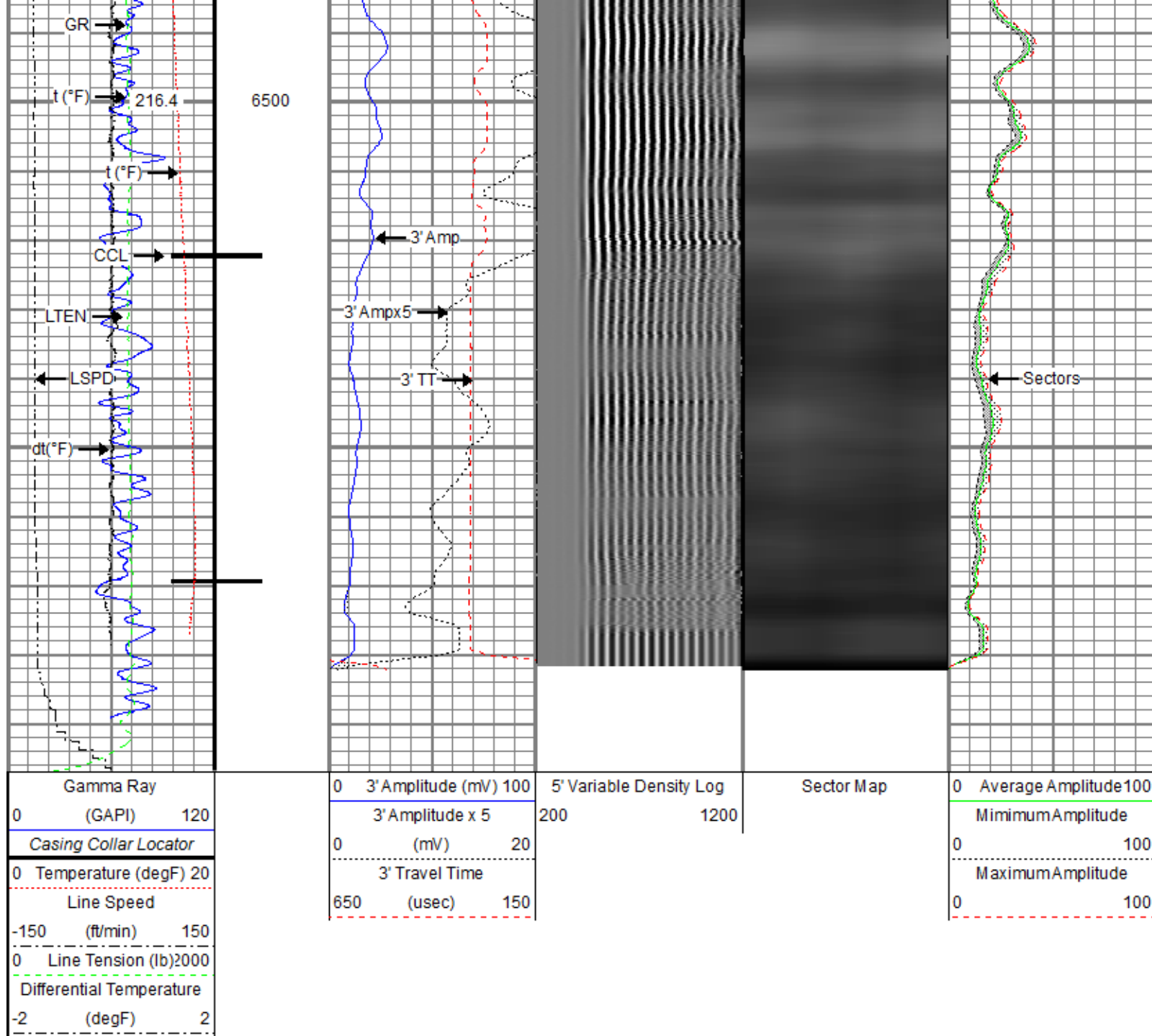








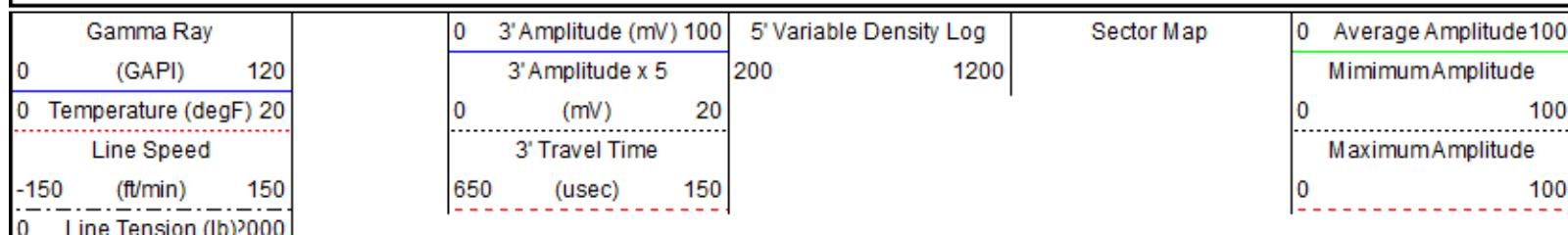


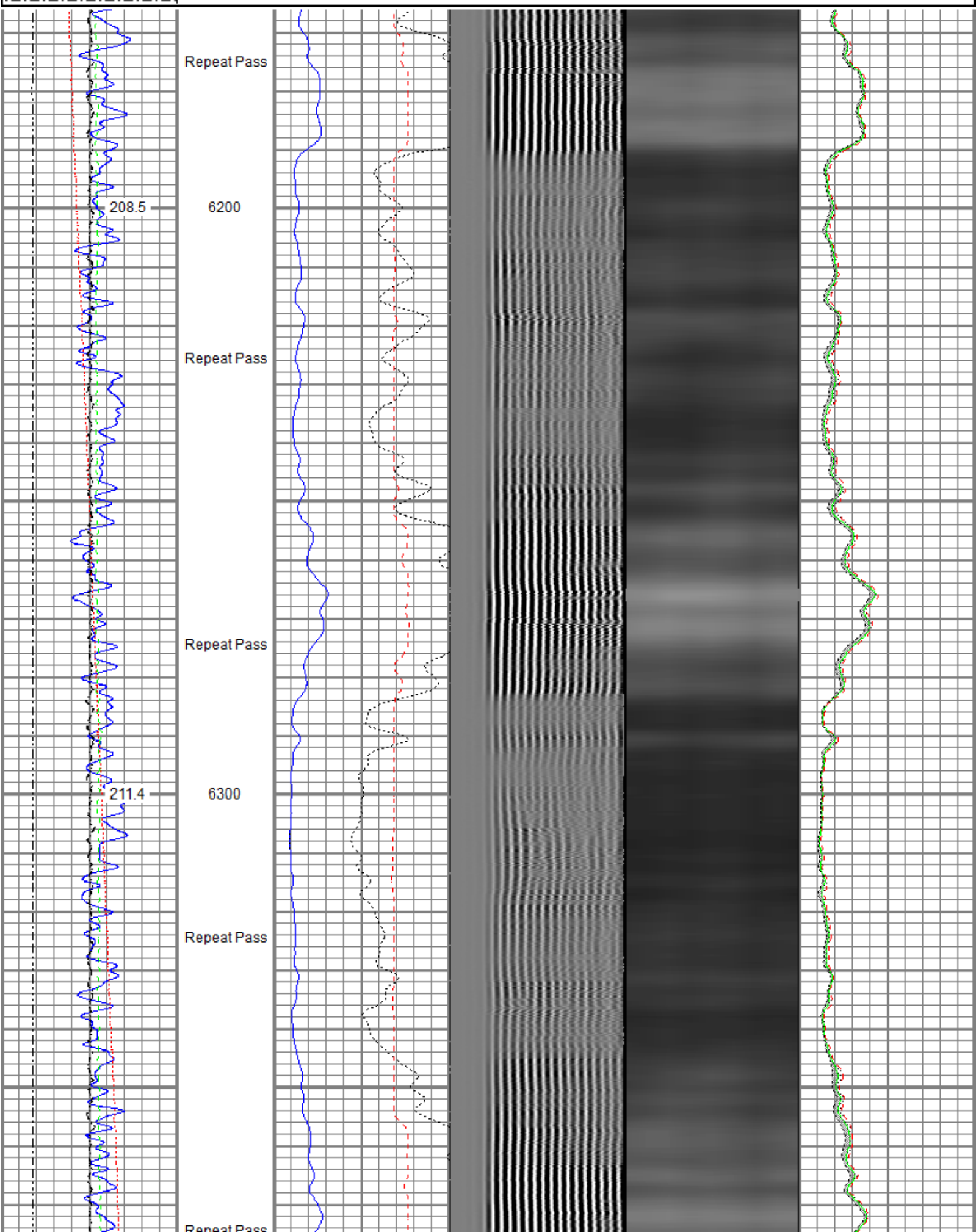


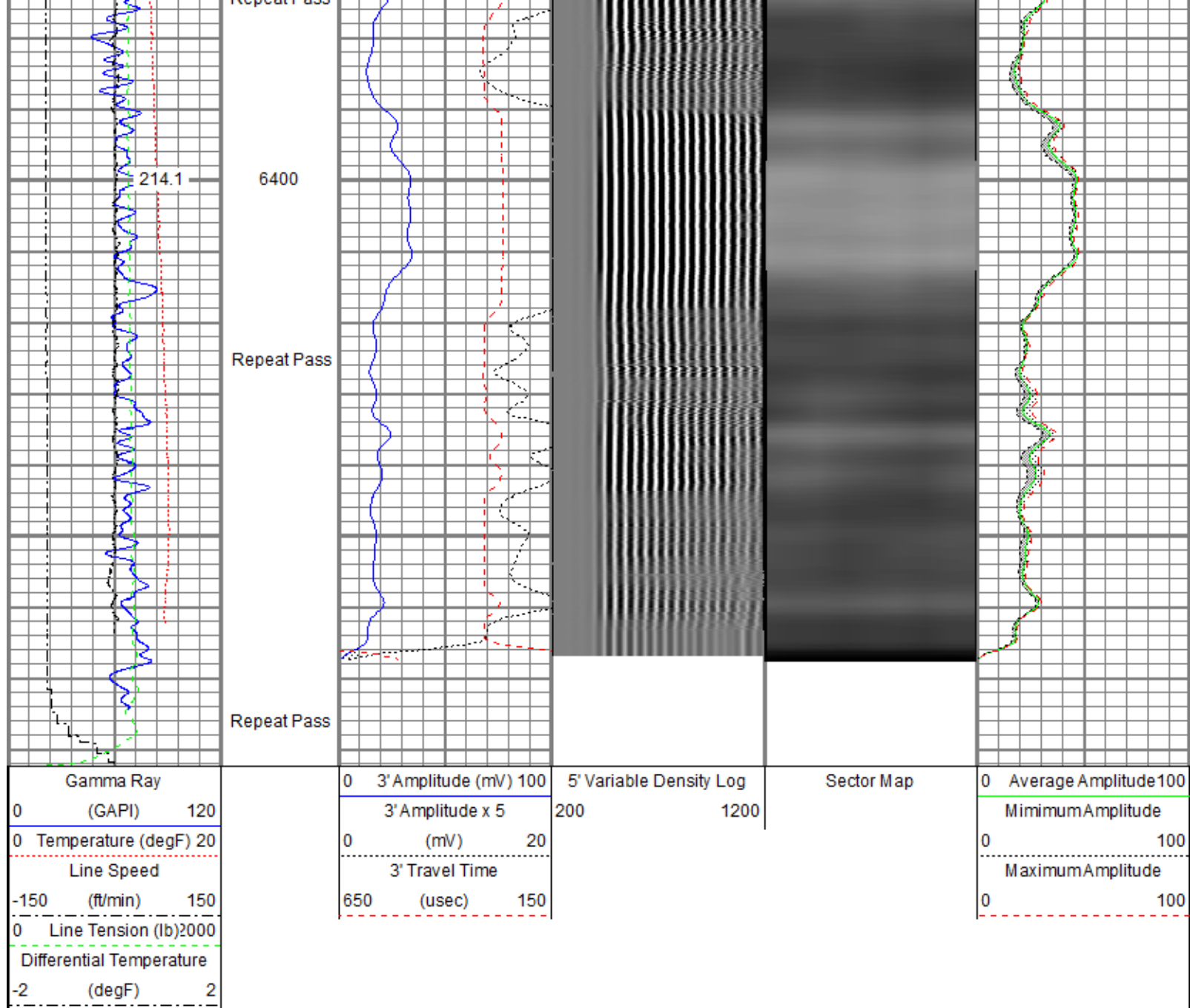
Repeat Pass

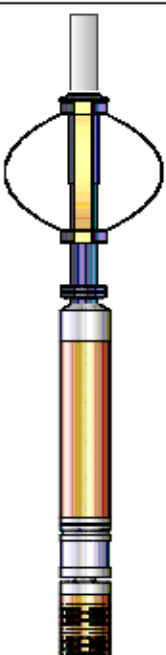
Recorded With 2500 PSI Surface Induced Pressure

Database File src energy_goetzel 12n-30b-misrc energy_goetzel 12n-30b-m_rbl_01-19-18.db
 Dataset Pathname repeat.1
 Presentation Format ros_radri
 Dataset Creation Sat Jan 20 10:39:58 2018
 Charted by Depth in Feet scaled 1:240







Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	18.52		Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
			Probe Radii 2750 PRT (FW1305 096)	9.39	2.75	105.00

WVFS8	16.28		Probe Radial-2750 RDT (FW1305-096) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	3.33	2.75	105.00
WVFS7	16.28					
WVFS6	16.28					
WVFS5	16.28					
WVFS4	16.28					
WVFS3	16.28					
WVFS2	16.28					
WVFS1	16.28					
WVFCAL	16.28					
WVF3FT	16.28					
WVF5FT	15.28					
HEADVOLT	12.03		Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	7.66		Probe CCL-2750 SA (FW1307-076) Probe 2-3/4" Digital Six Magnet Logging CCL	2.66	2.75	35.00
CCL\$1	7.66					
GR	5.53		Probe GR-2750 SA (FW1307-078) Probe 2-3/4" Digital Stand Alone Gamma Ray	3.33	2.75	55.00
			Probe ADPT-6P-GO Probe 2-3/4" 6-Pin Top to GO Bottom Adaptor Sub	0.28	2.75	2.00
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: SRC Energy_Goetzel 12N-30B-M_RBL_01-19-18.db: field/well/run1/main Total length: 25.34 ft Total weight: 260.60 lb O.D.: 2.75 in						

Calibration Report			
Database File	c:\programdata\warrior\data\src energy_goetzel 12n-30b-mlsrc energy_goetzel 12n-30b-m_rbl_01-19-18.db		
Dataset Pathname	main.1		
Dataset Creation	Fri Jan 19 12:33:32 2018		
Gamma Ray Calibration Report			
Serial Number:	FW1307-078		
Tool Model:	2750 SA		
Performed:	Sun Nov 12 06:08:32 2017		
Calibrator Value:	637.0	GAPI	
Background Reading:	108.2	cps	
Calibrator Reading:	1134.5	cps	
Sensitivity:	0.6207	GAPI/cps	
Segmented Cement Bond Log Calibration Report			
Serial Number:	FW1305-096		
Tool Model:	2750 RBT		

Tool Model: 2750 RBT
Calibration Casing Diameter: 5.500 in
Calibration Depth: 0.000 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.481	0.800	71.921	148.427	0.552
CAL	0.501	0.503				
5'	0.001	0.448	0.800	71.921	158.823	0.697
SUM						
S1	0.001	0.471	0.000	100.000	212.847	-0.180
S2	0.001	0.473	0.000	100.000	211.992	-0.317
S3	0.002	0.478	0.000	100.000	209.712	-0.319
S4	0.001	0.479	0.000	100.000	209.339	-0.308
S5	0.002	0.483	0.000	100.000	207.607	-0.357
S6	0.002	0.489	0.000	100.000	205.397	-0.384
S7	0.002	0.488	0.000	100.000	205.819	-0.374
S8	0.002	0.485	0.000	100.000	206.804	-0.376

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.501	0.503	1.000	0.000

Air Zero Calibration, performed Fri Jan 19 10:57:40 2018:

	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

Temperature Calibration Report

Serial Number: FW1305-096
Tool Model: 2750 RBT
Performed: Sun Nov 12 13:42:10 2017

	Reference		Reading	
Low Reference:	100.00	degF	109.43	degF
High Reference:	350.00	degF	405.87	degF

Gain: 0.84
Offset: 7.72
Delta Spacing: 1

Field

Wattenberg

County

Weld

State

Colorado