



County	Adams	State	Colorado
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Other Services

Elevation

Drilling Measured From Kelly Bushing

G.L. 5049

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

Log ran as per customer request
Depth referenced to Casing Tally reported Flotation Collar at 6787 FT
Adjusted 0 FT to correlate with Flotation Collar
Using Flotation Collar as Marker Joint
Log ran with 0 PSI Surface Induced Pressure
Logging tools were clean and free of debris upon completion of operations

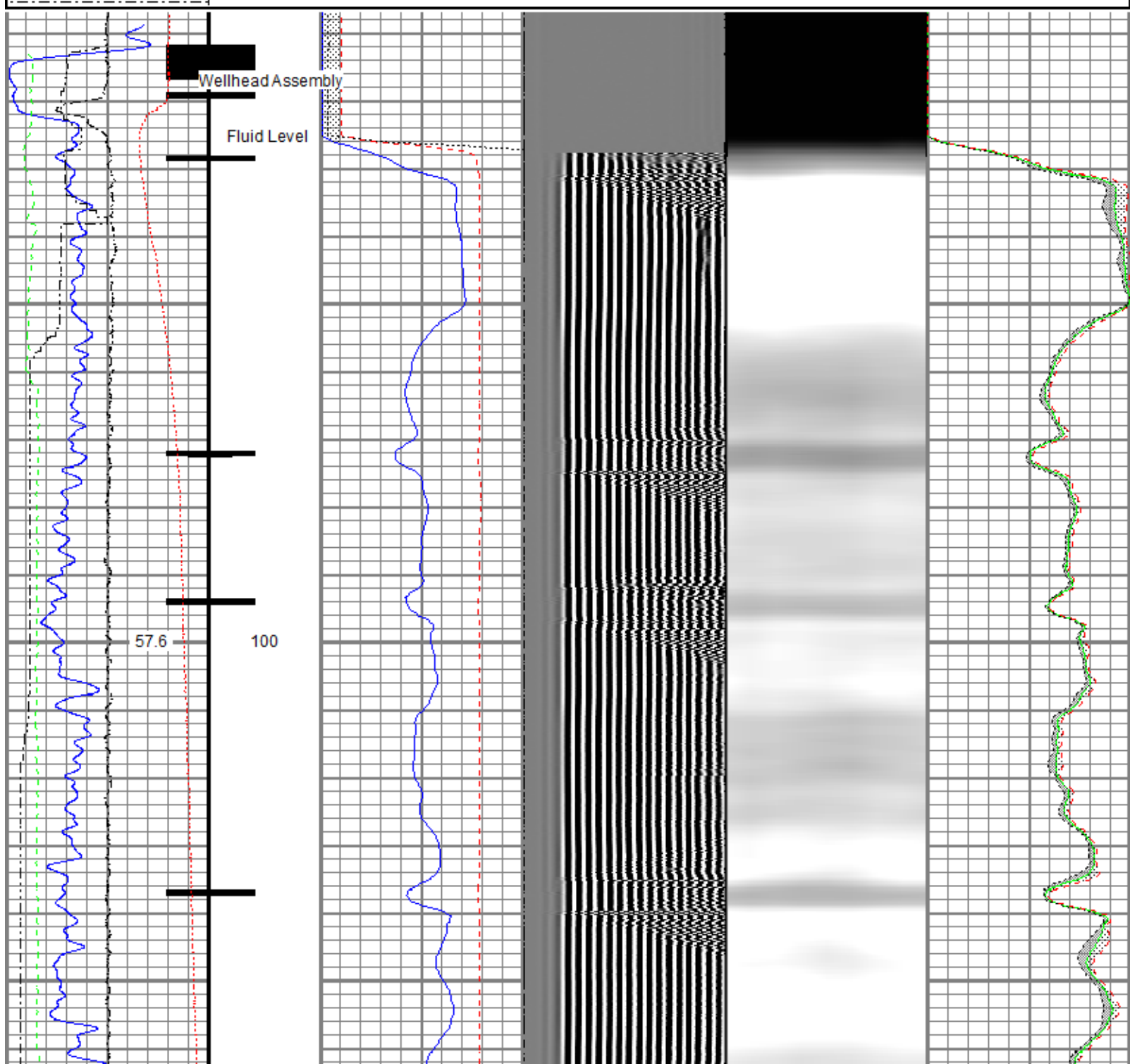
Thank you for choosing Reliance Oilfield Services, LLC!!

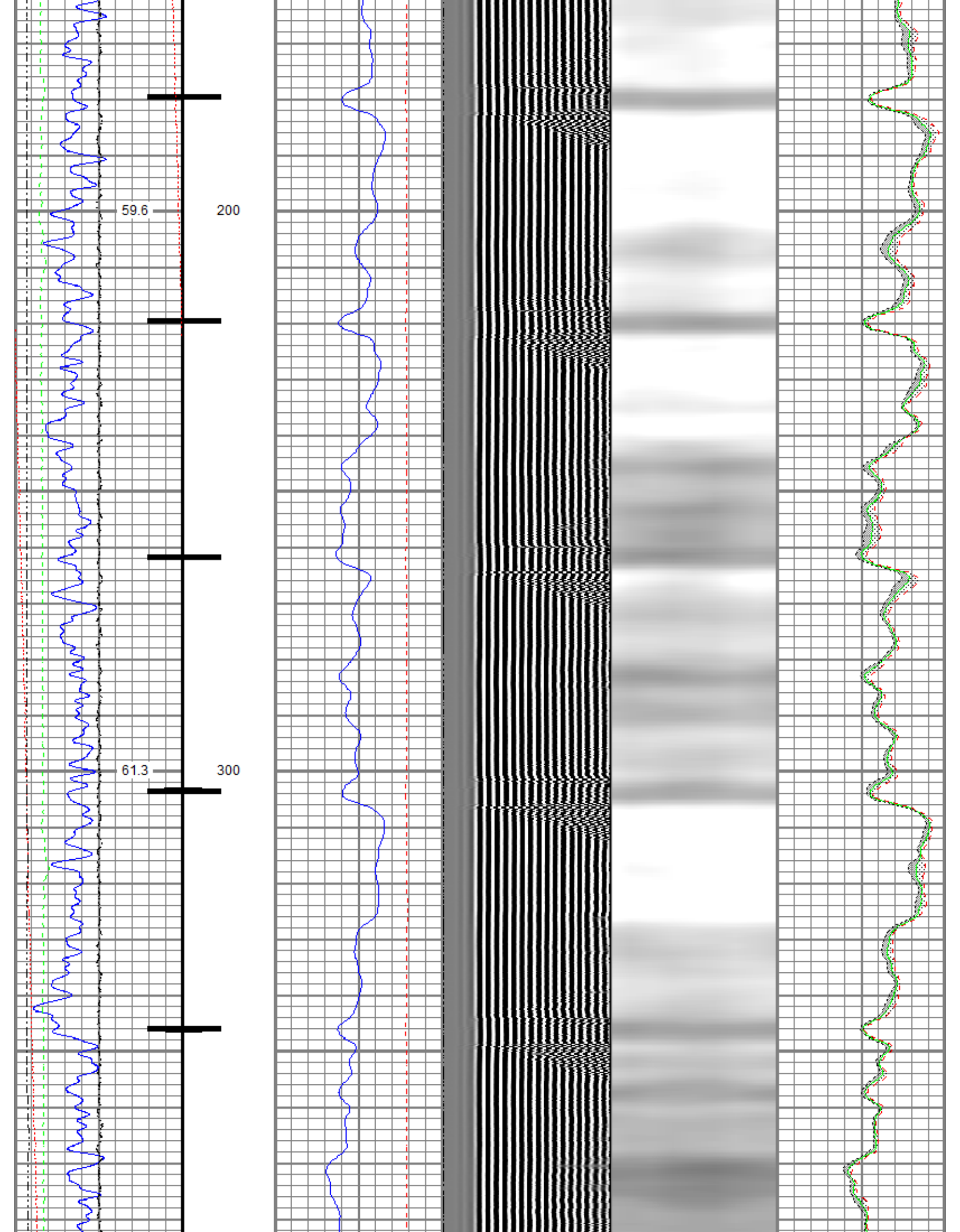
Main Pass

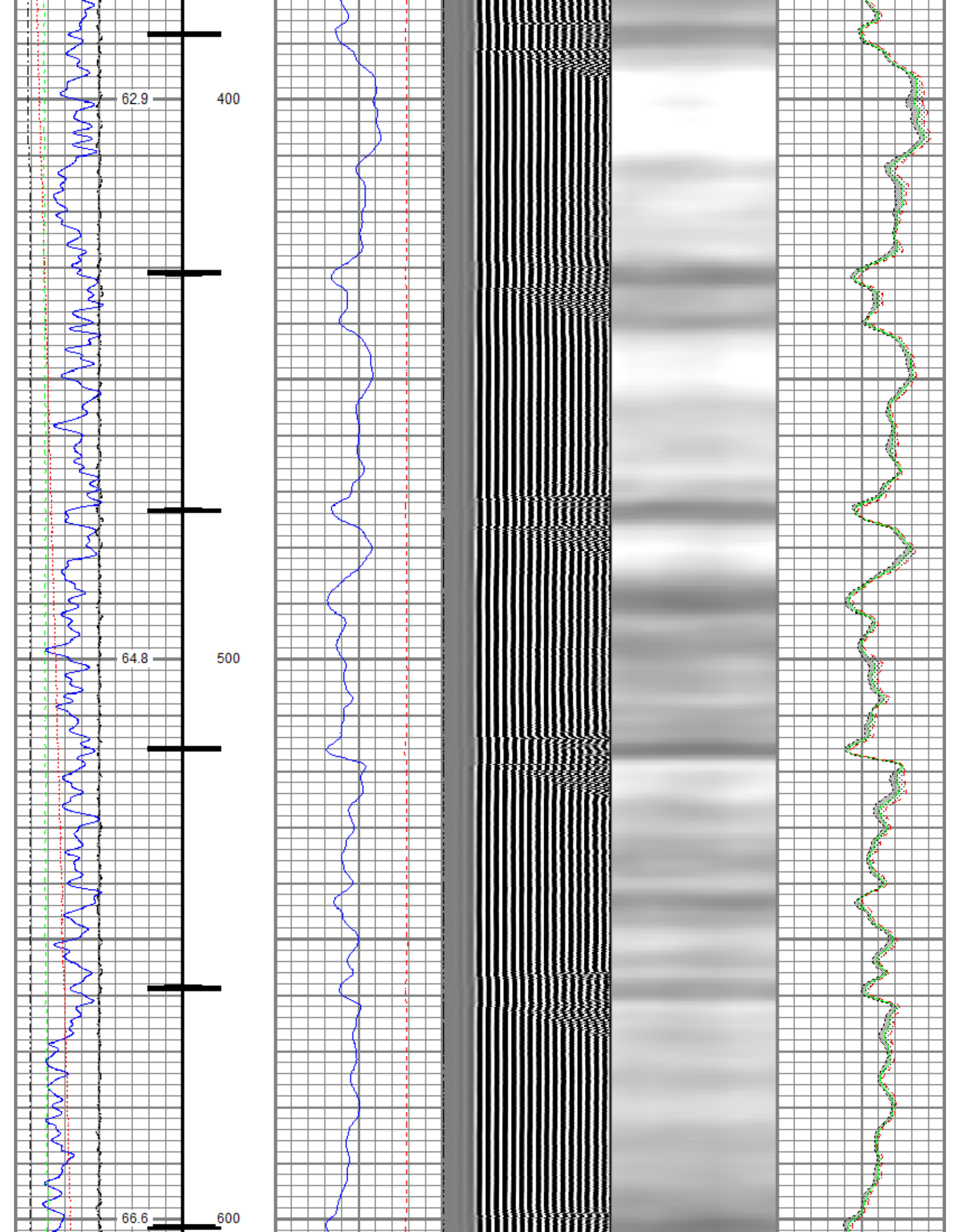


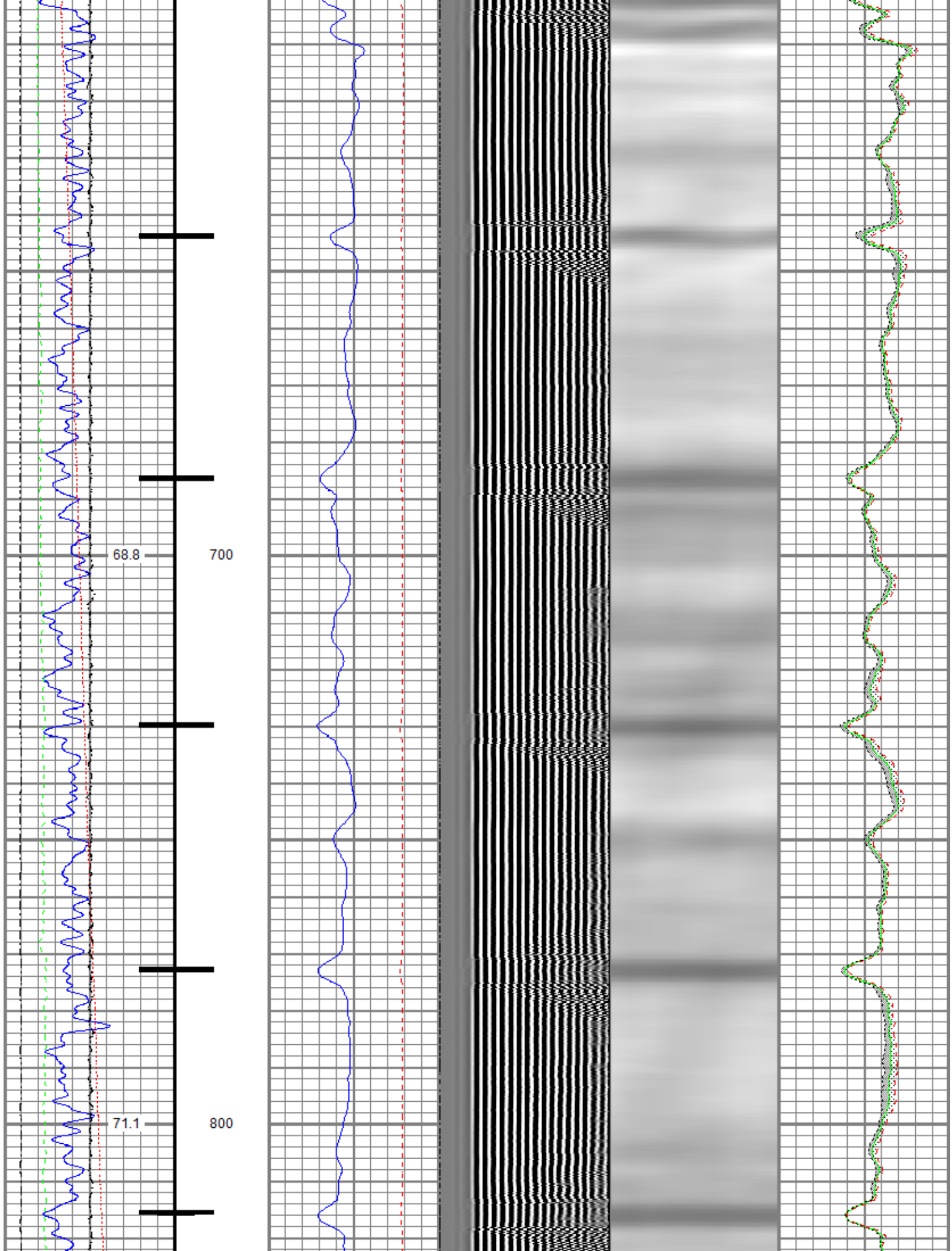
Database File	petro\petro_bef west 14_rbl_04-02-19\processed_petro_bef west 14_rbl_04-02-19.db
Dataset Pathname	Main.1
Presentation Format	ros_radri
Dataset Creation	Wed Apr 03 08:07:55 2019
Charted by	Depth in Feet scaled 1:240

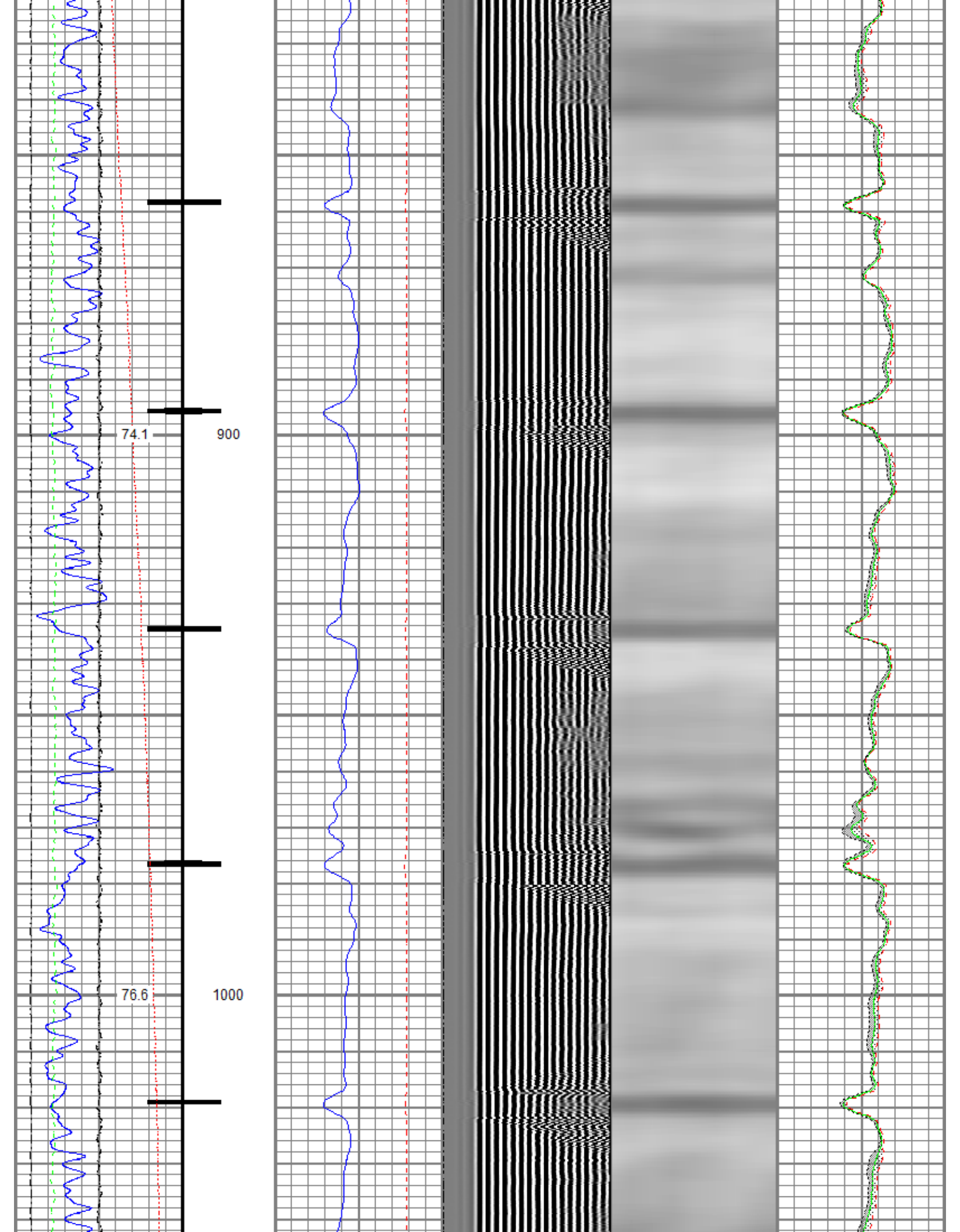
Gamma Ray	0	3' Amplitude (mV)	100	5' Variable Density Log	Sector Map	0	Average Amplitude	100
(GAPI)	120	3' Amplitude x 5	200	1200			Minimum Amplitude	
Casing Collar Locator		0	(mV)	20		0	100	
Temperature (degF)	20	3' Travel Time					Maximum Amplitude	
Line Speed		650	(usec)	150		0	100	
(ft/min)	150							
Line Tension (lb)	2000							
Differential Temperature								
(degF)	2							

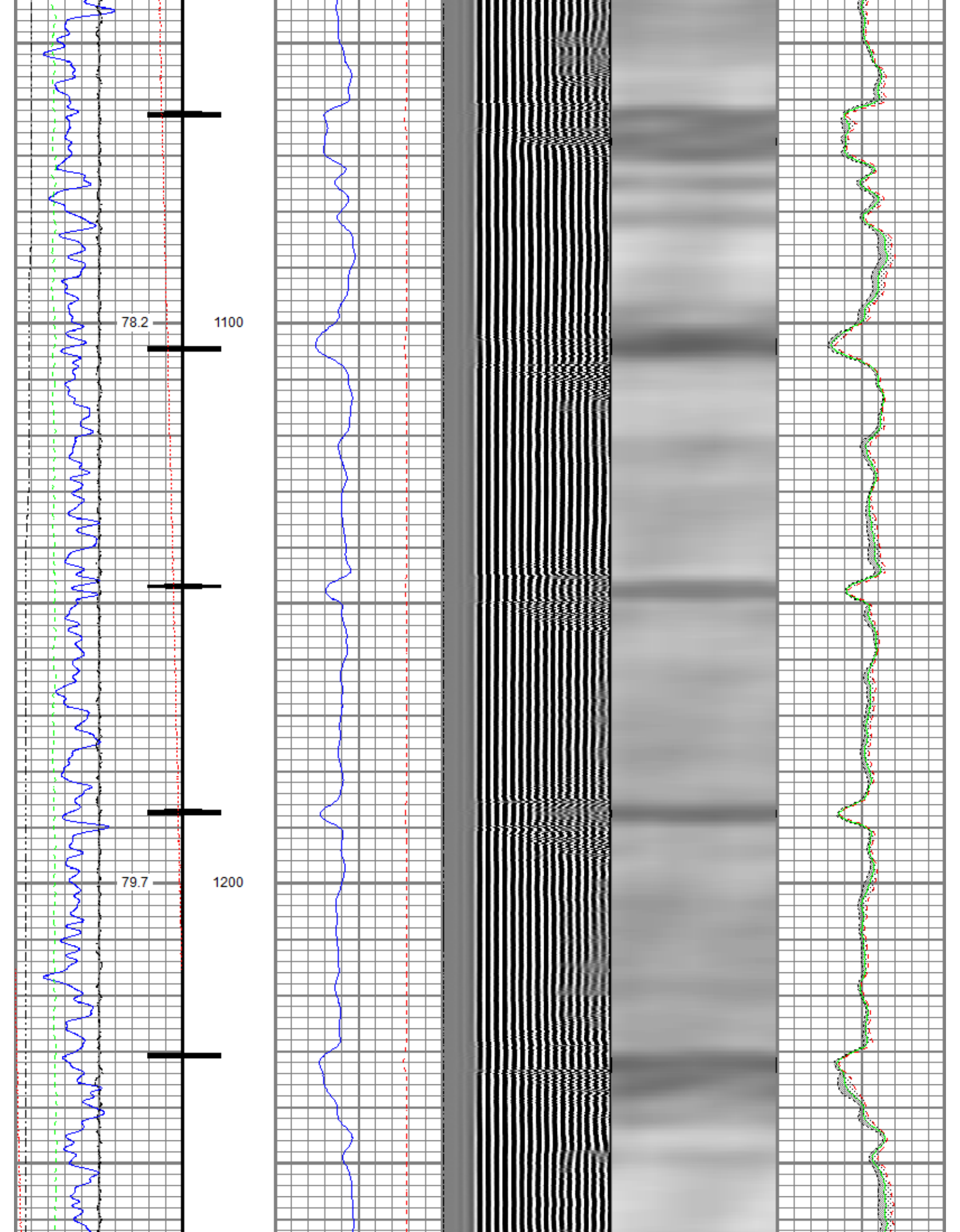


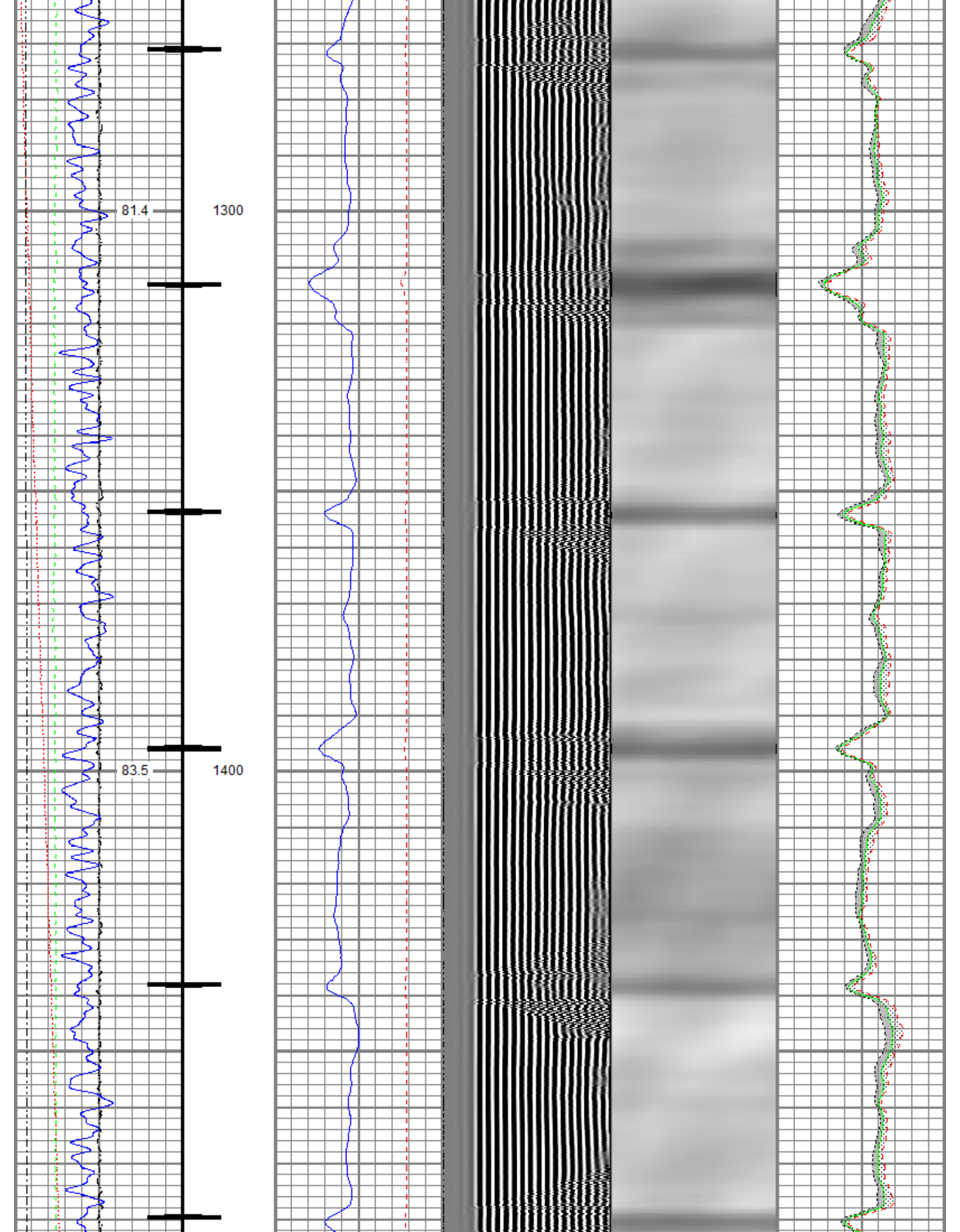


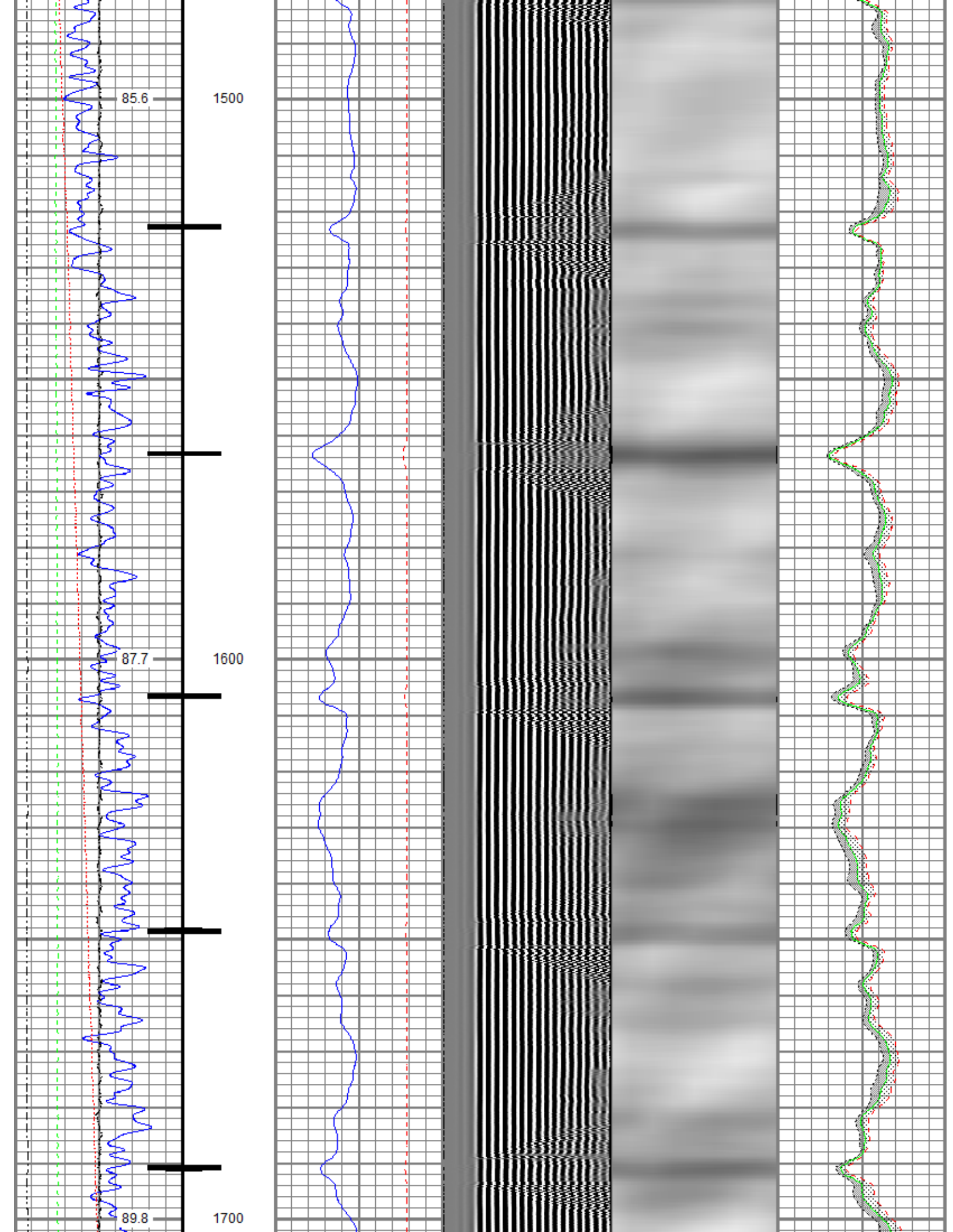


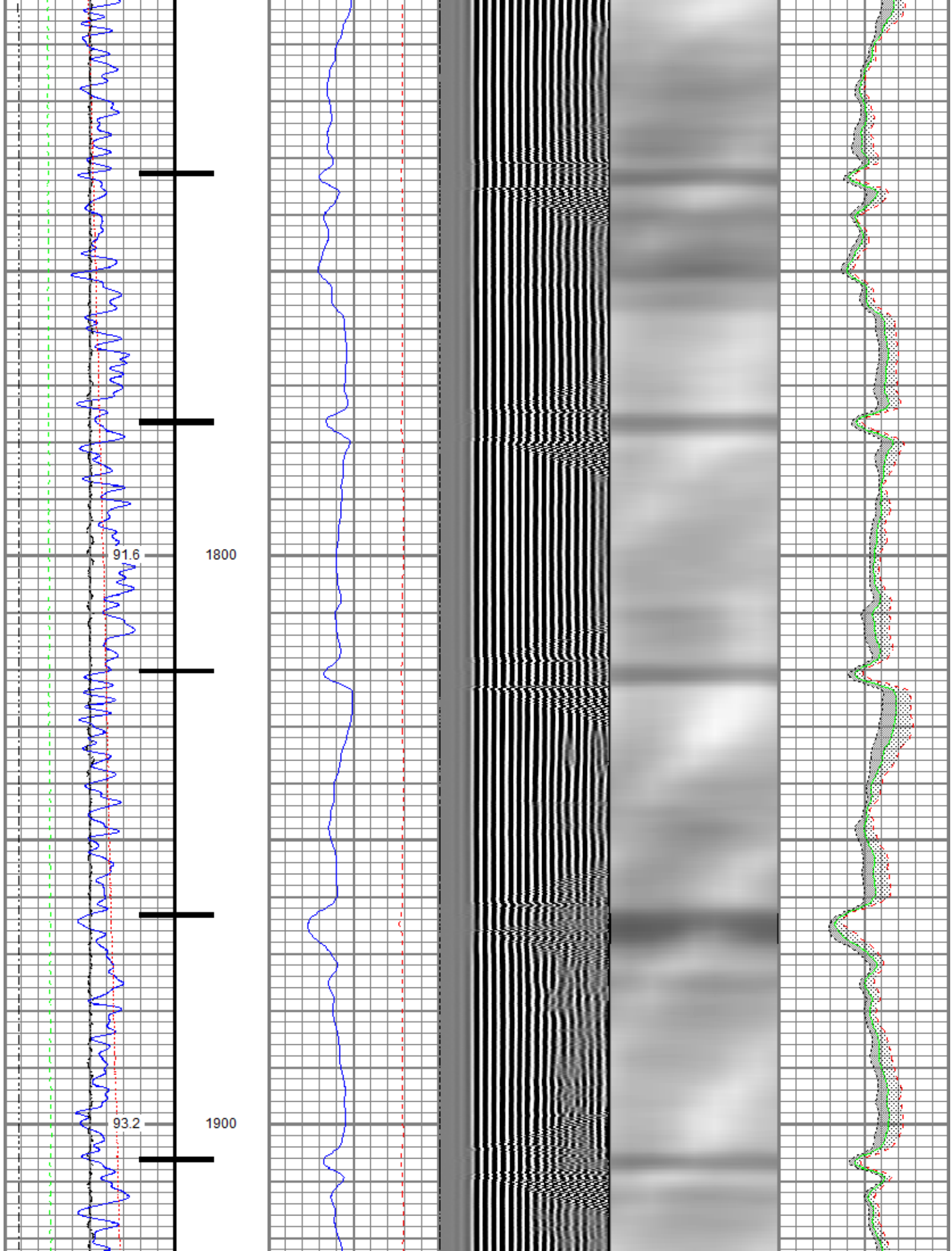


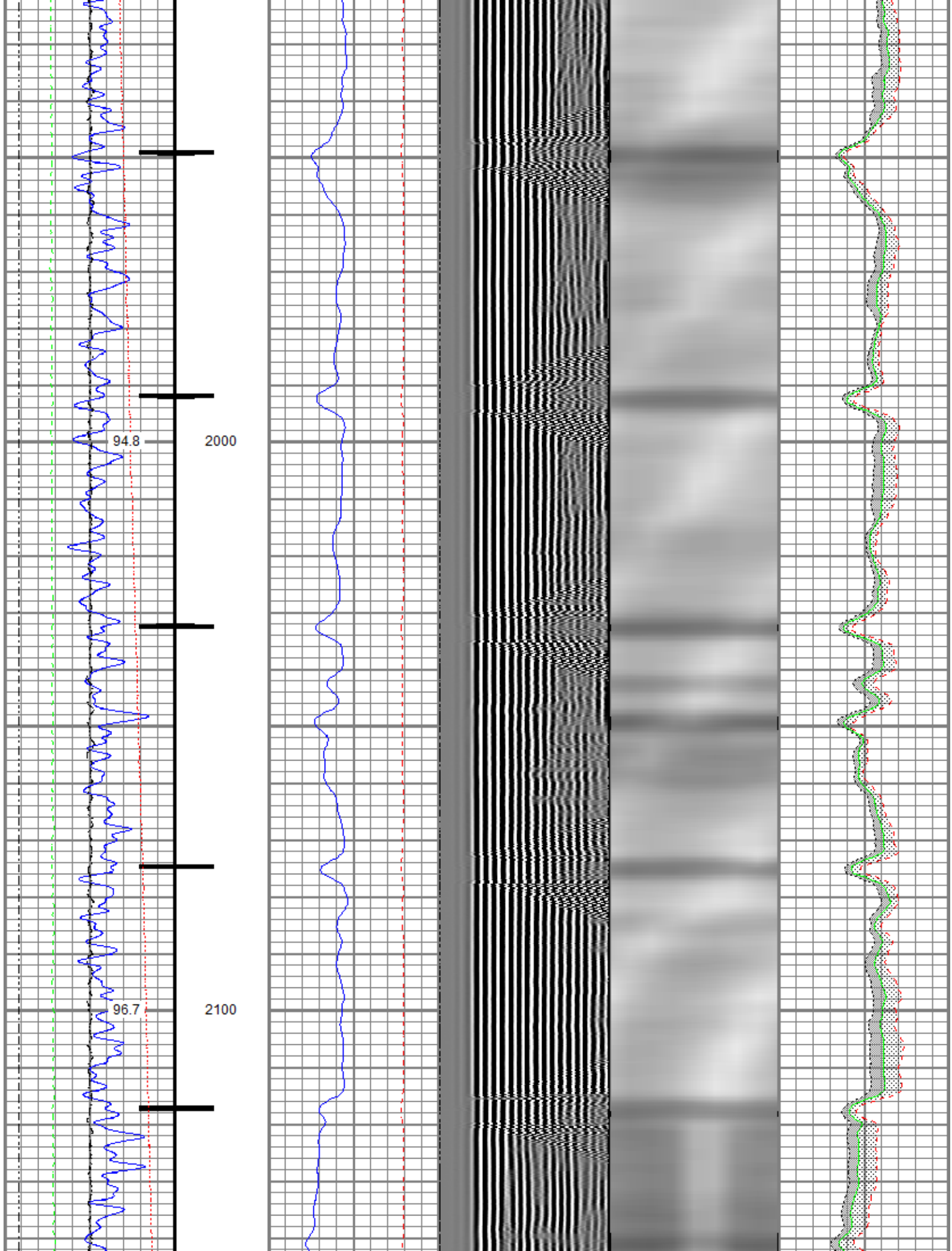


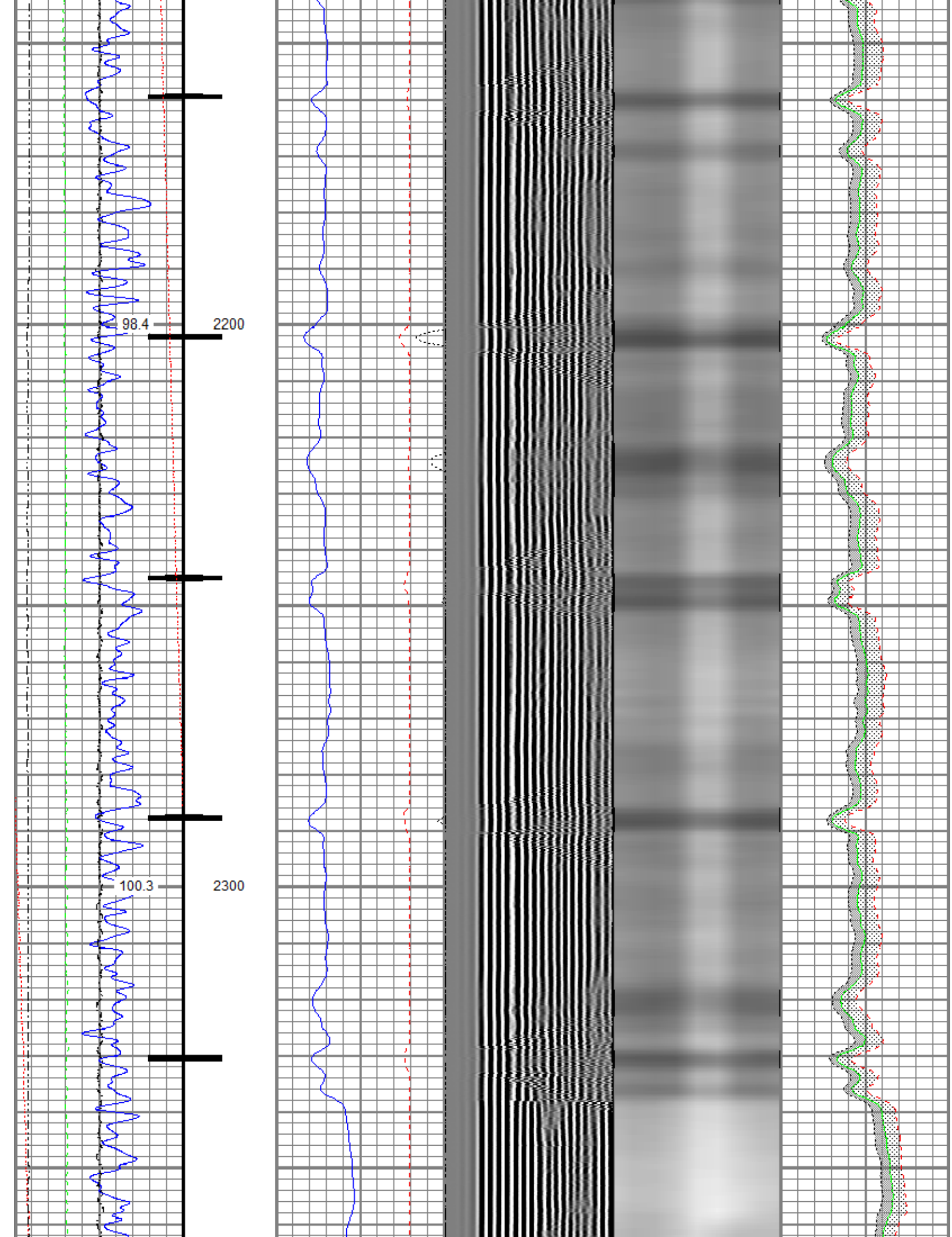


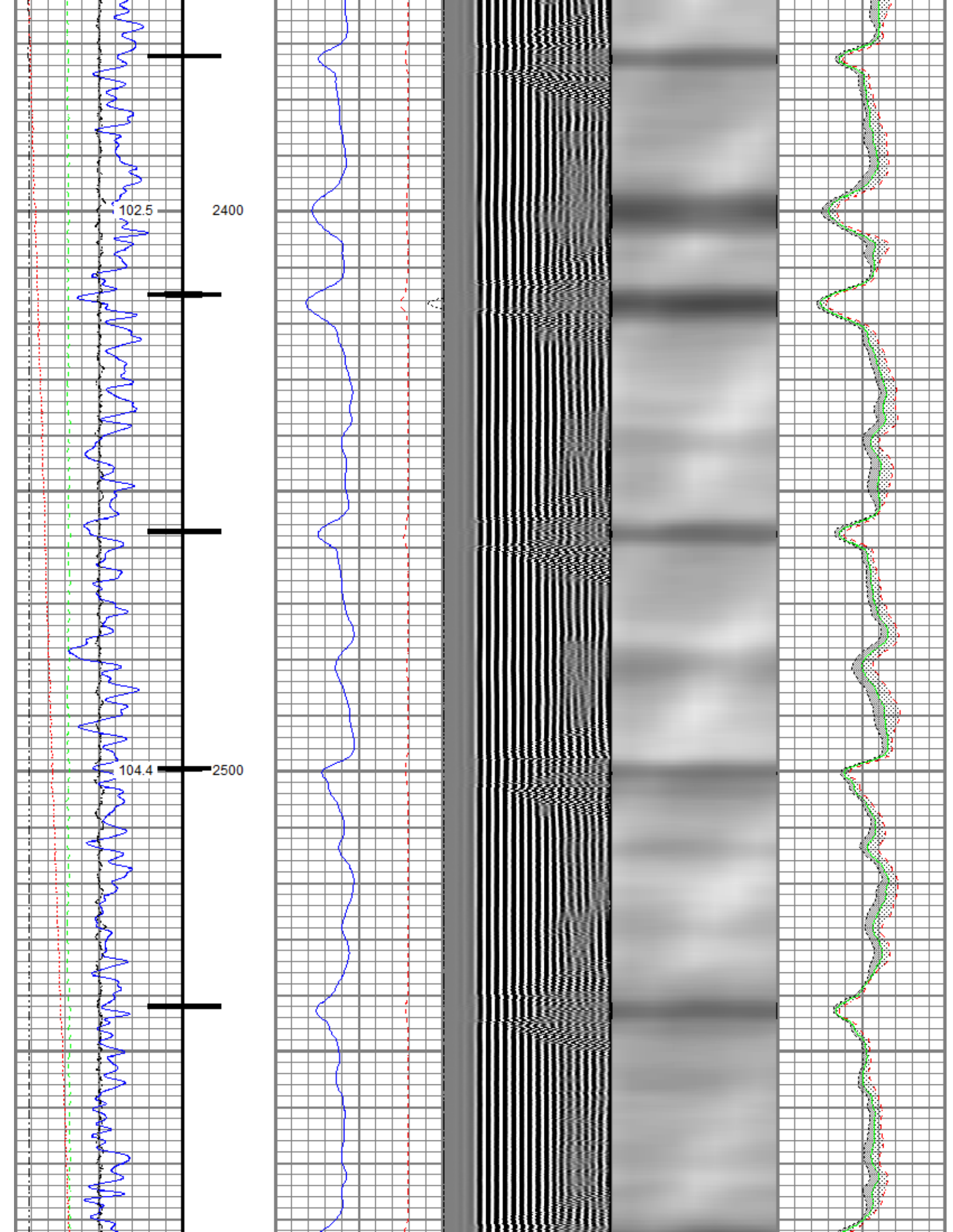


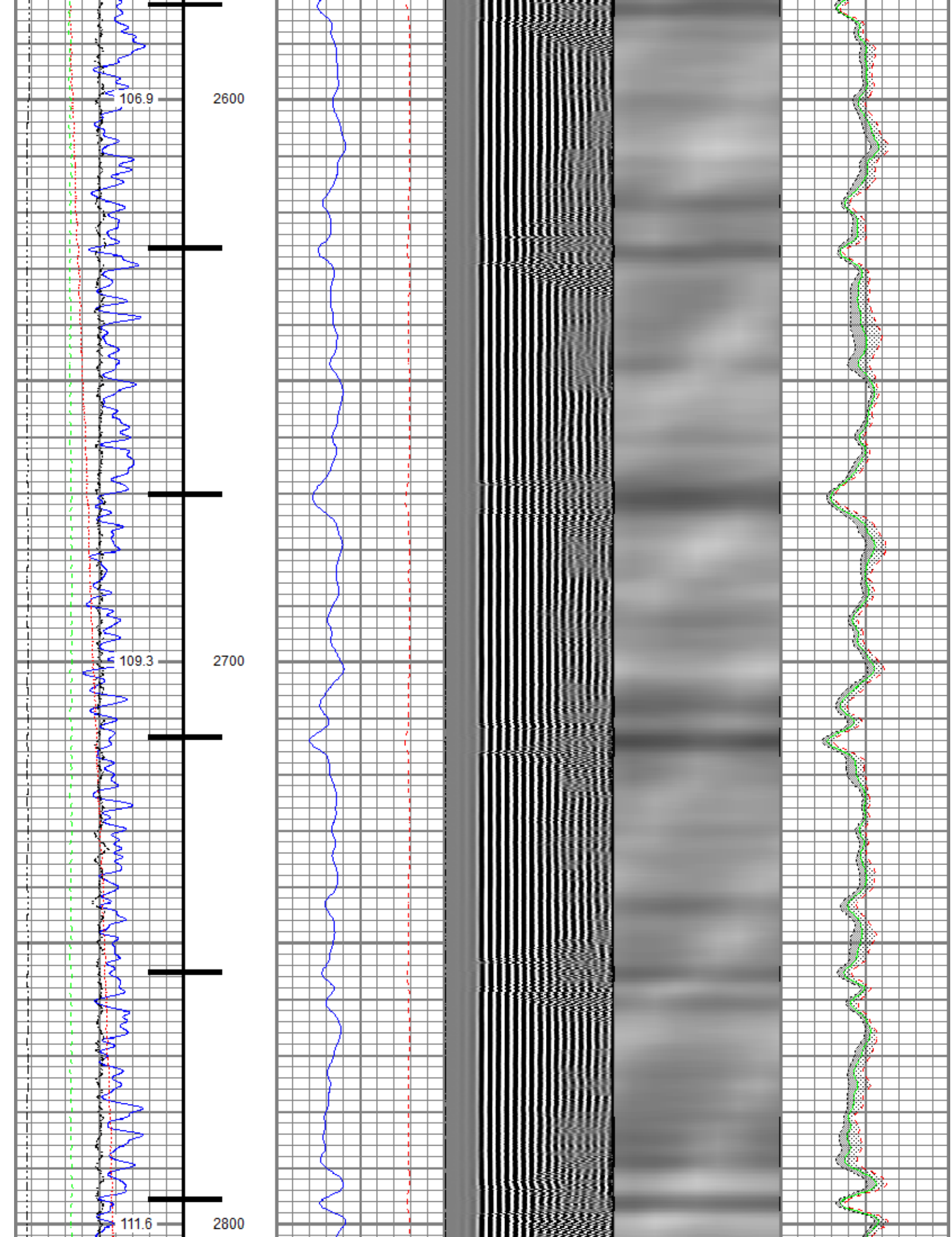


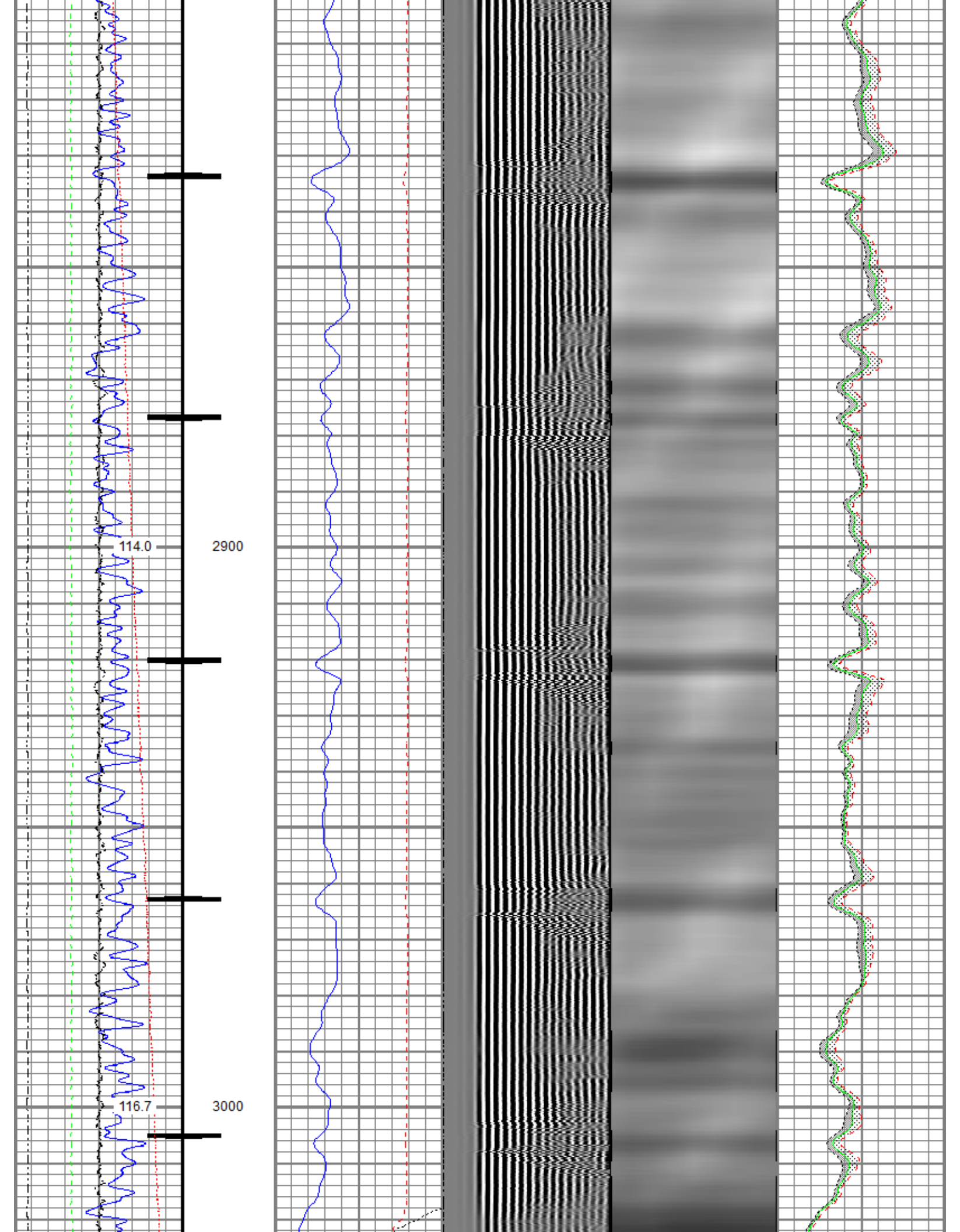


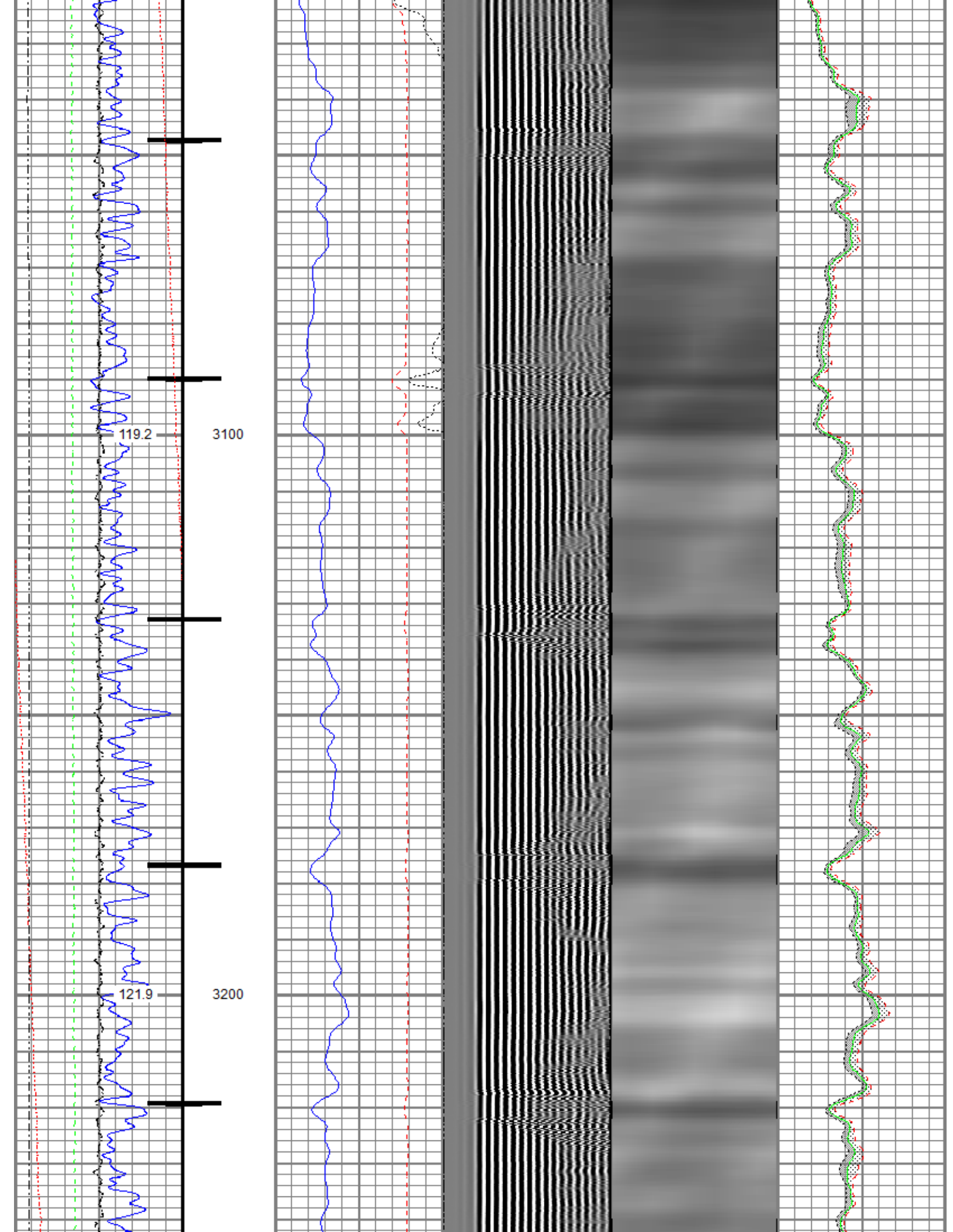


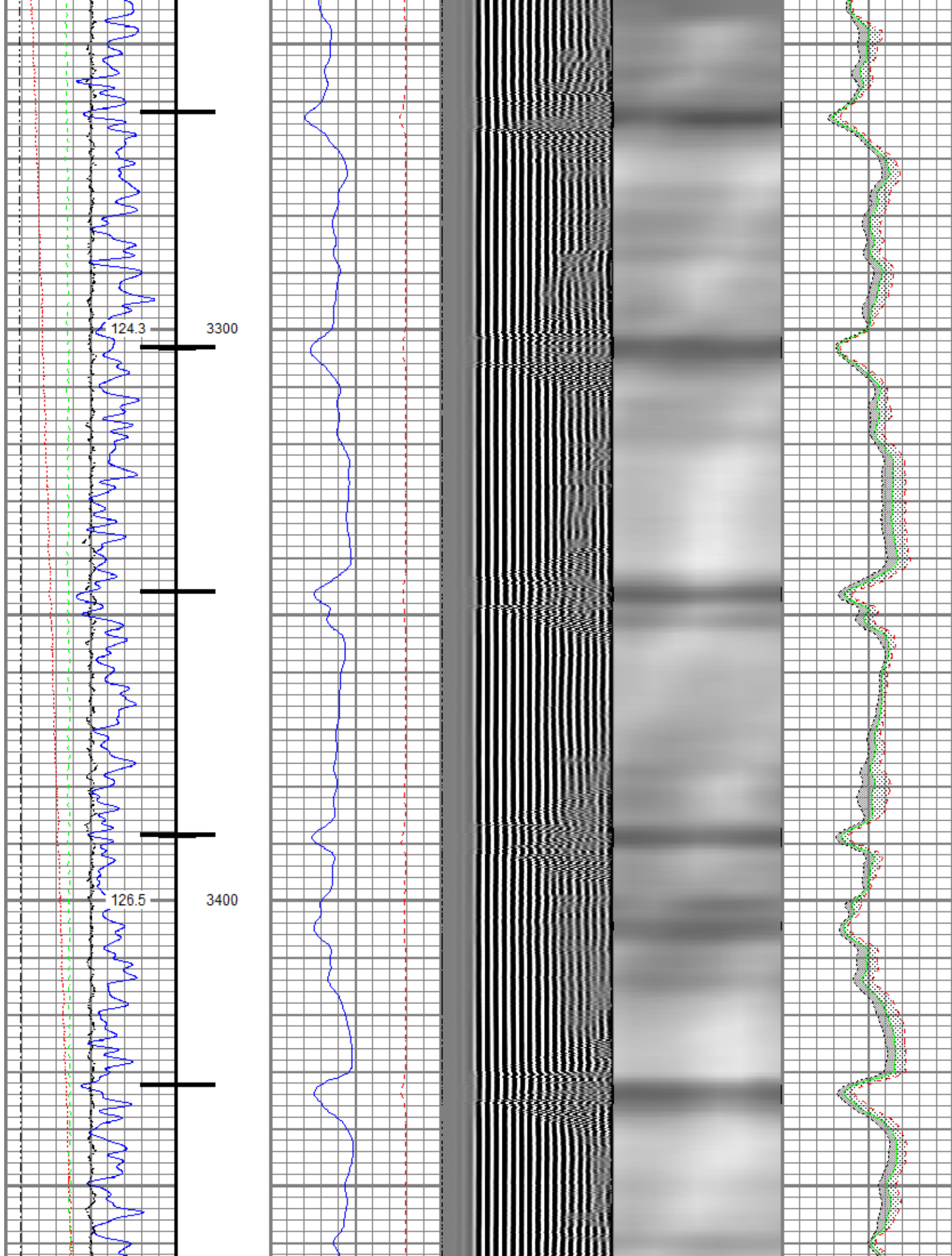


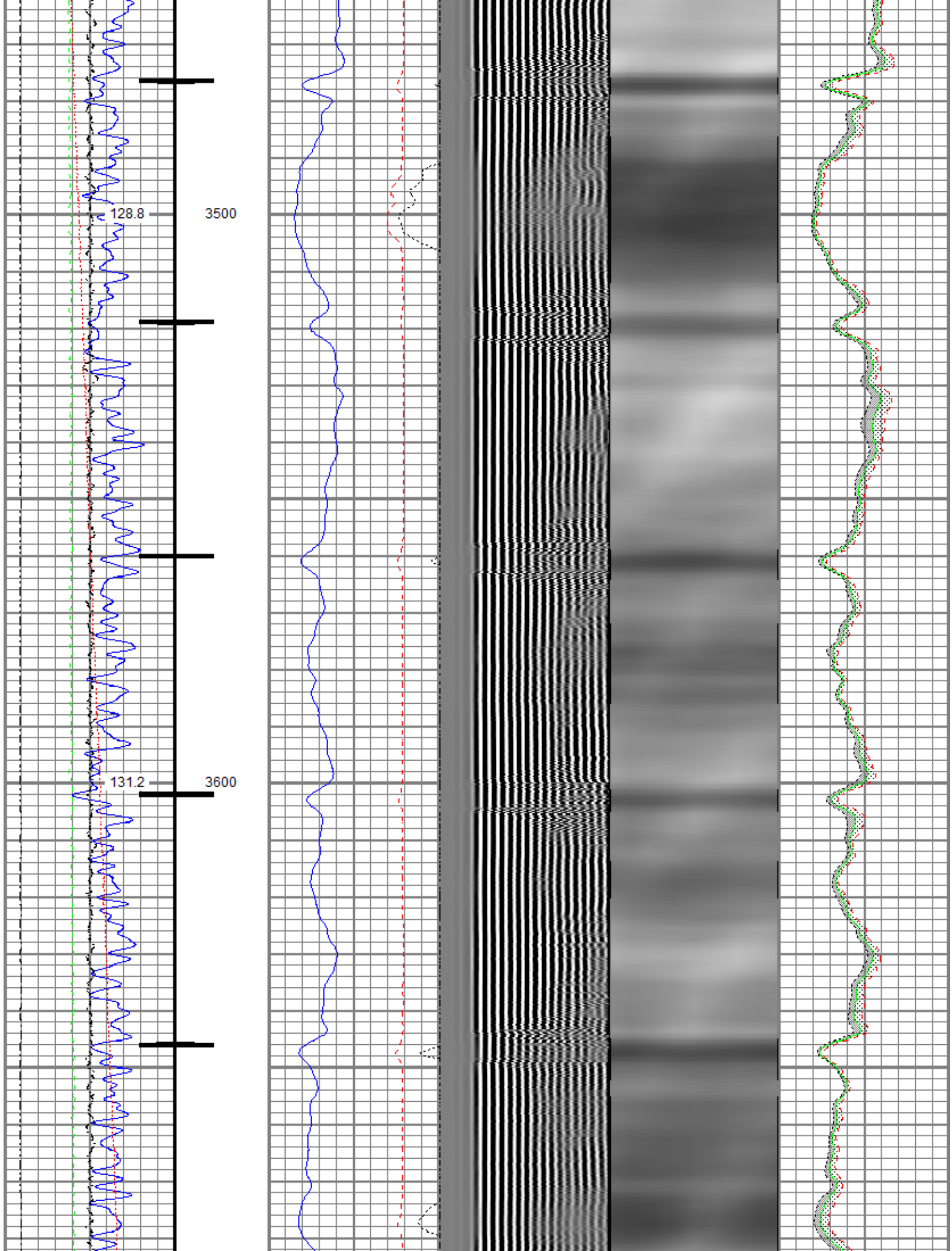


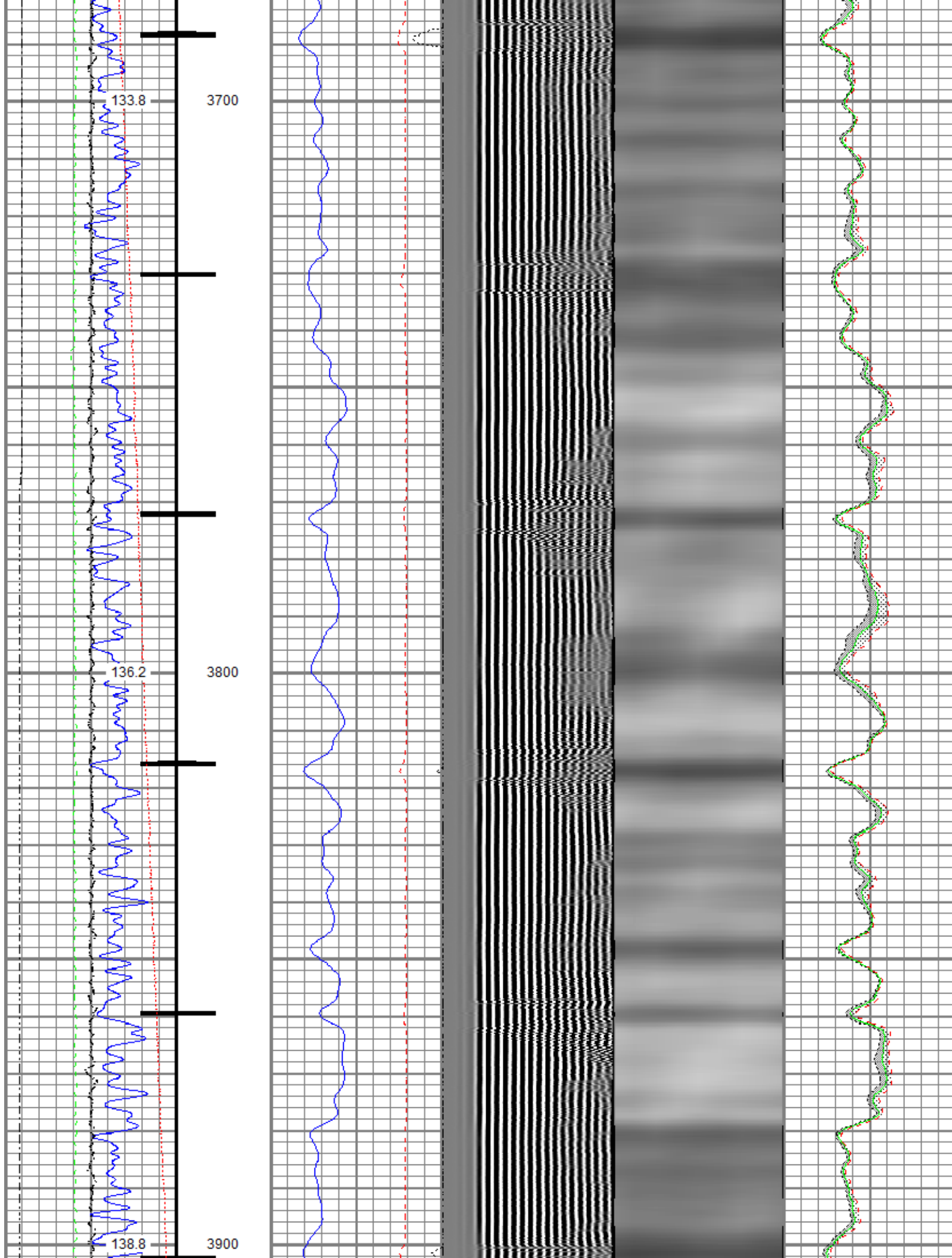


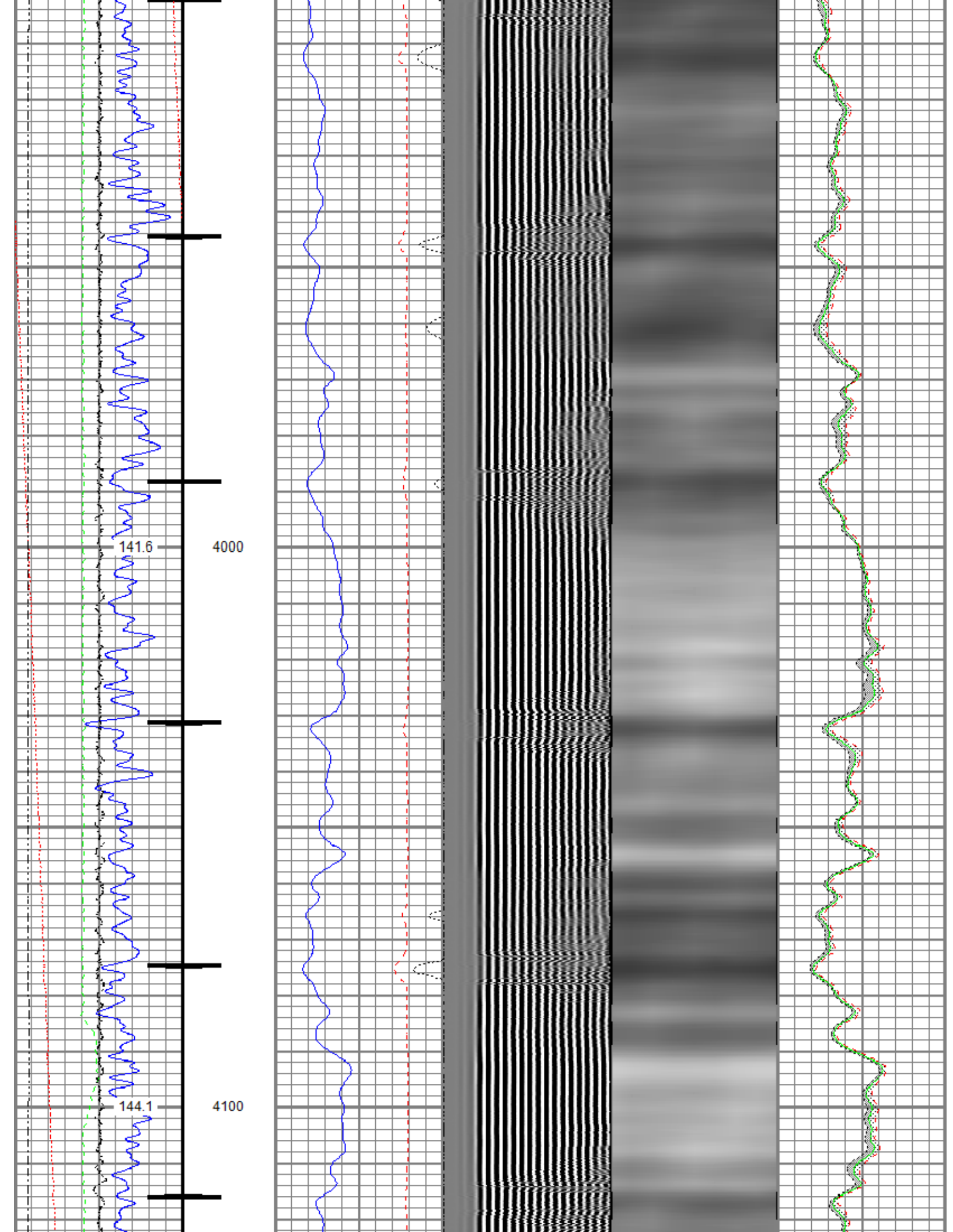


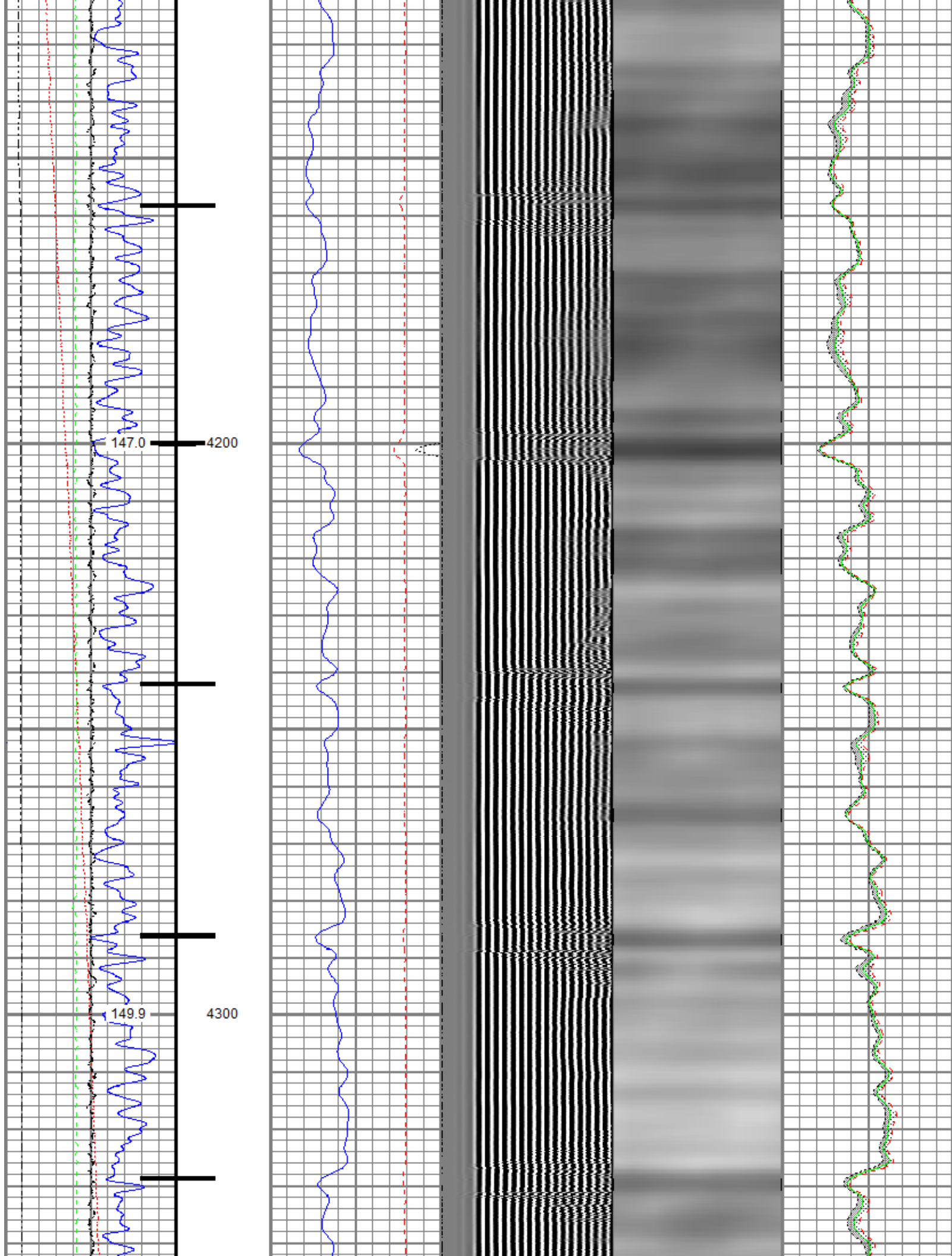


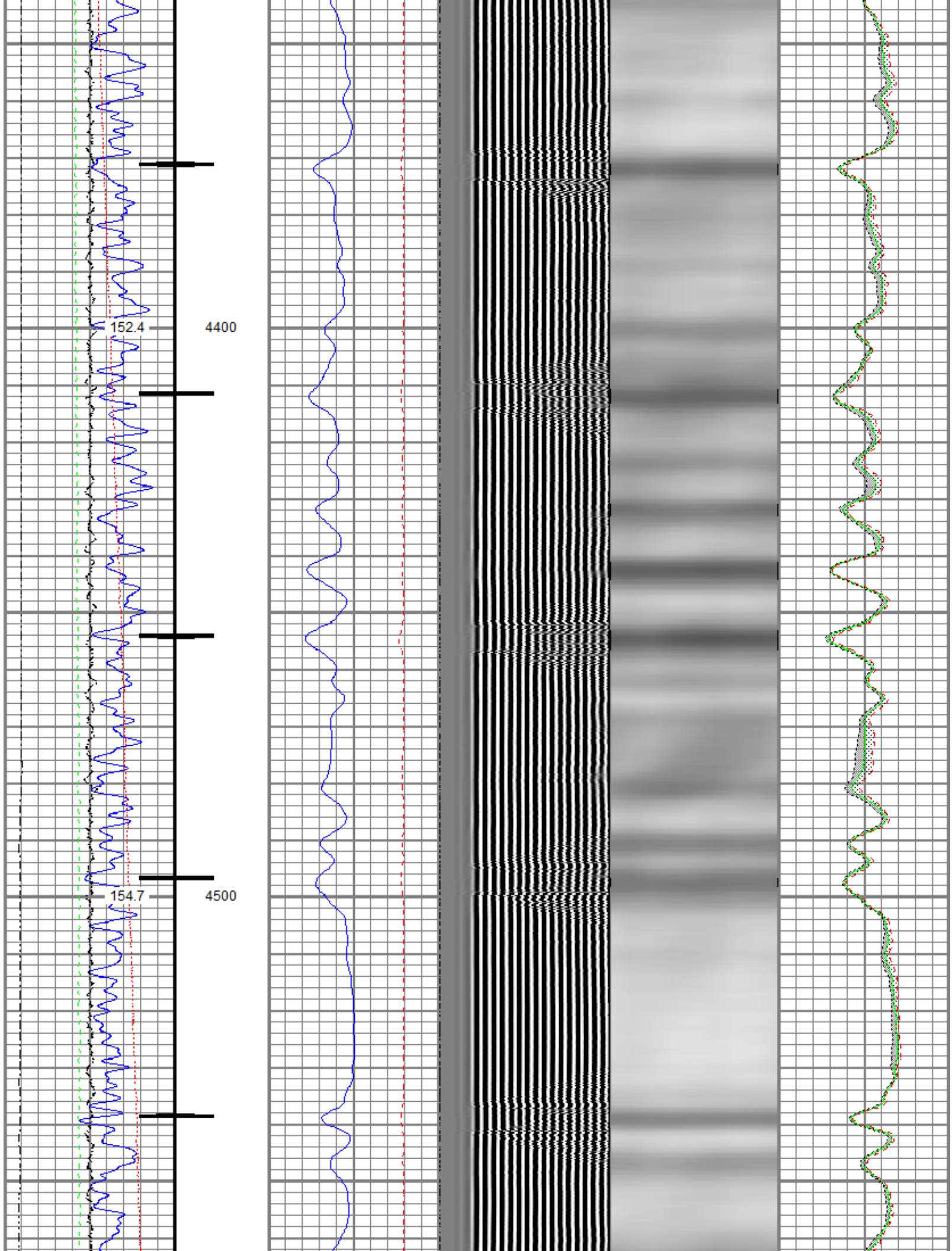


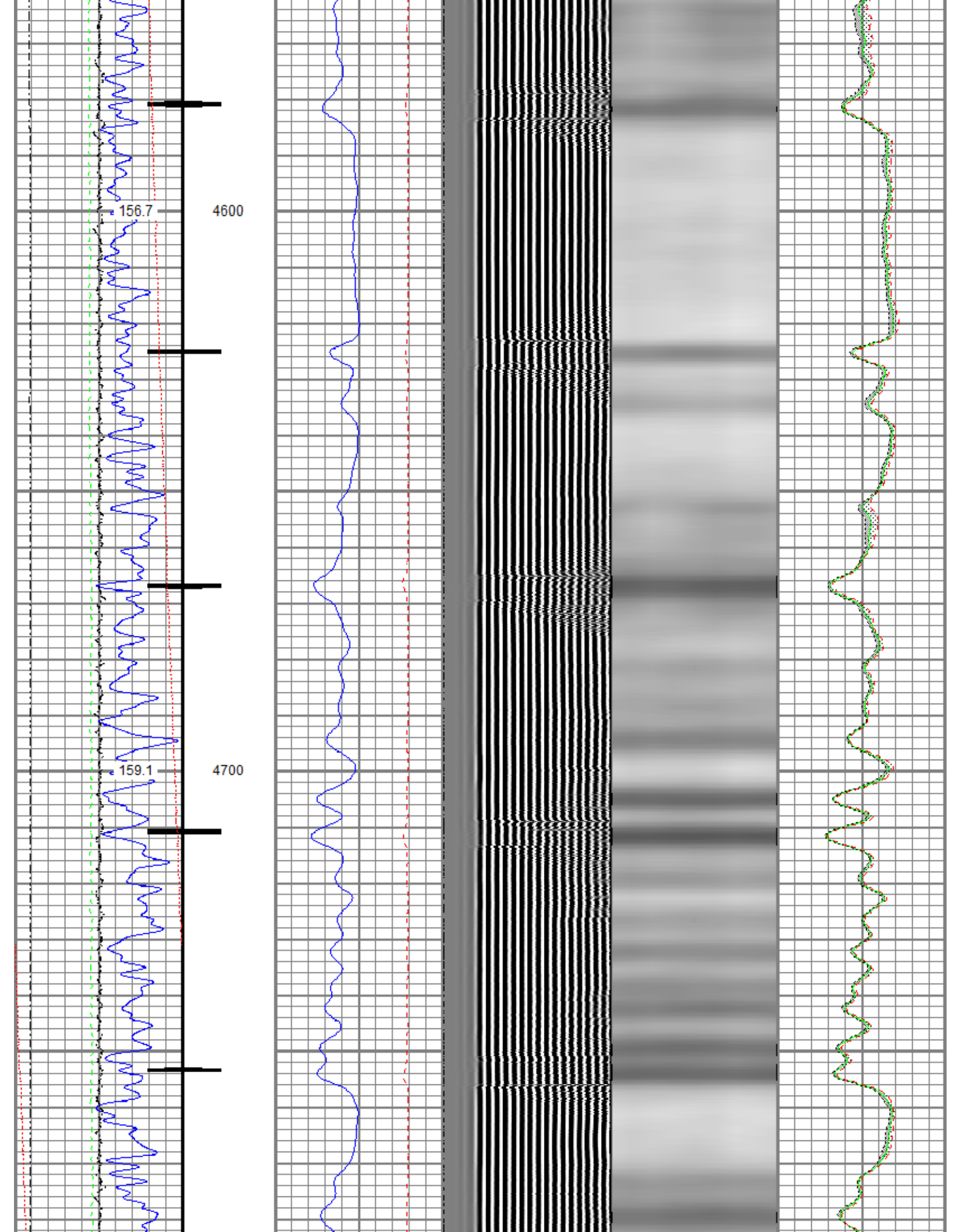


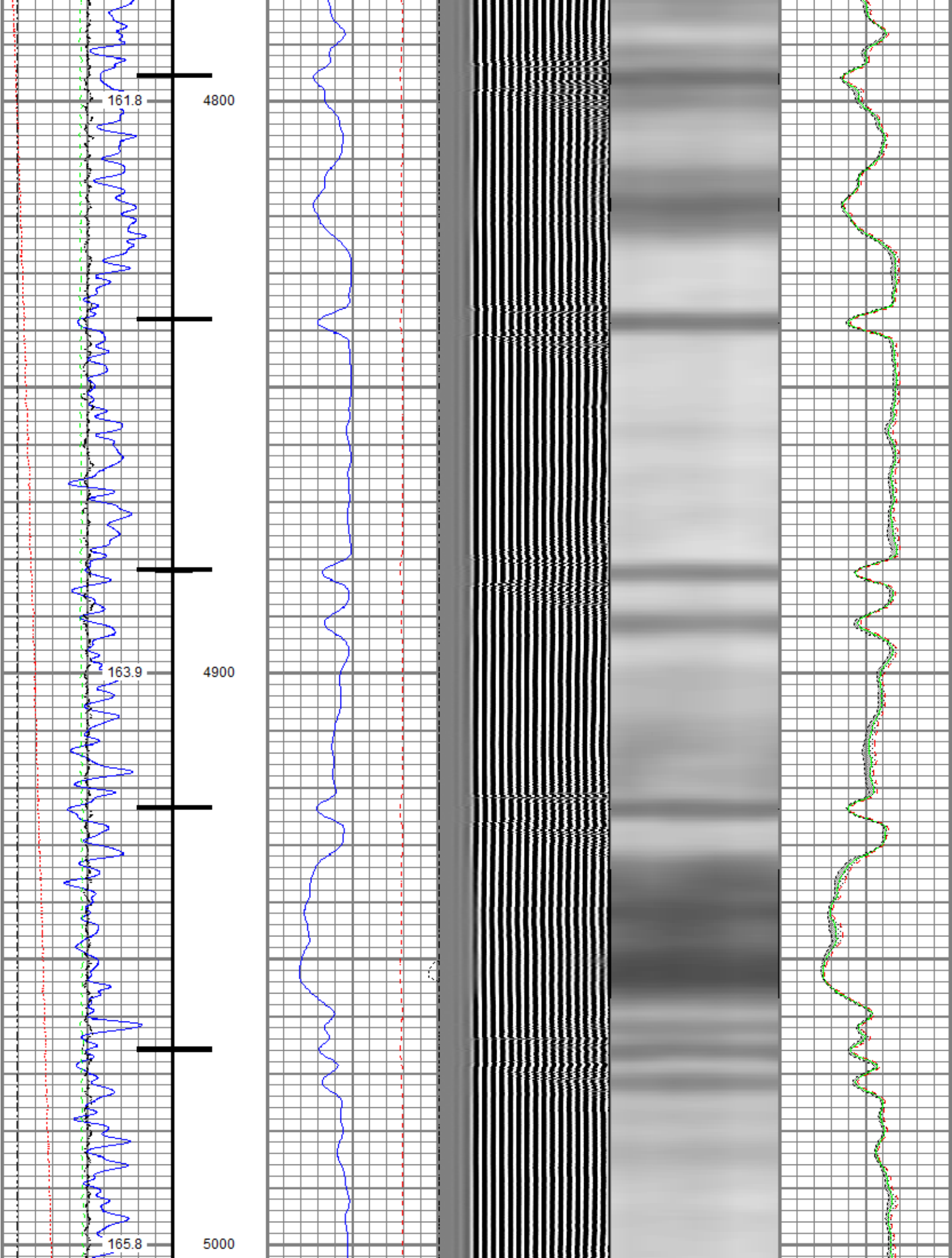


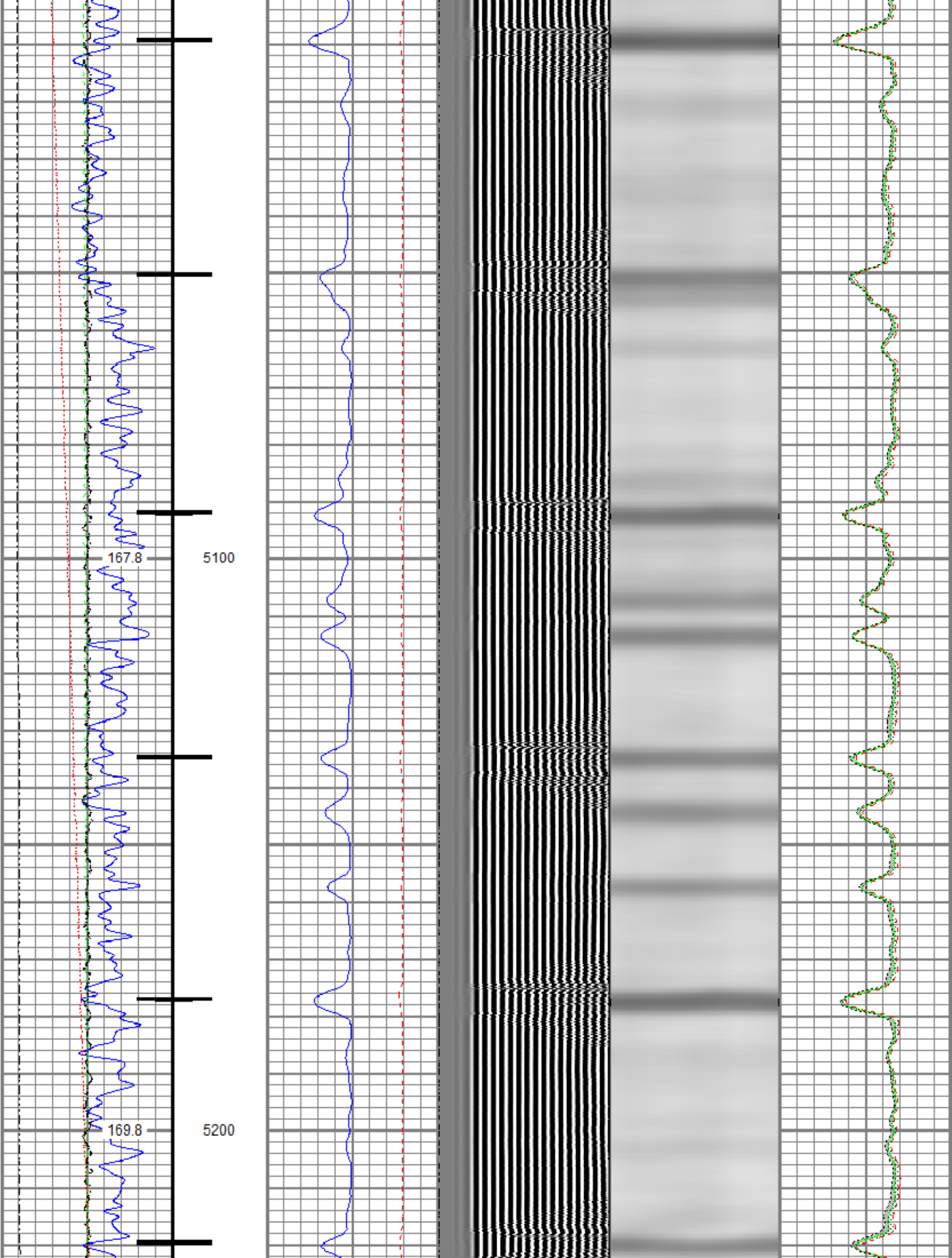


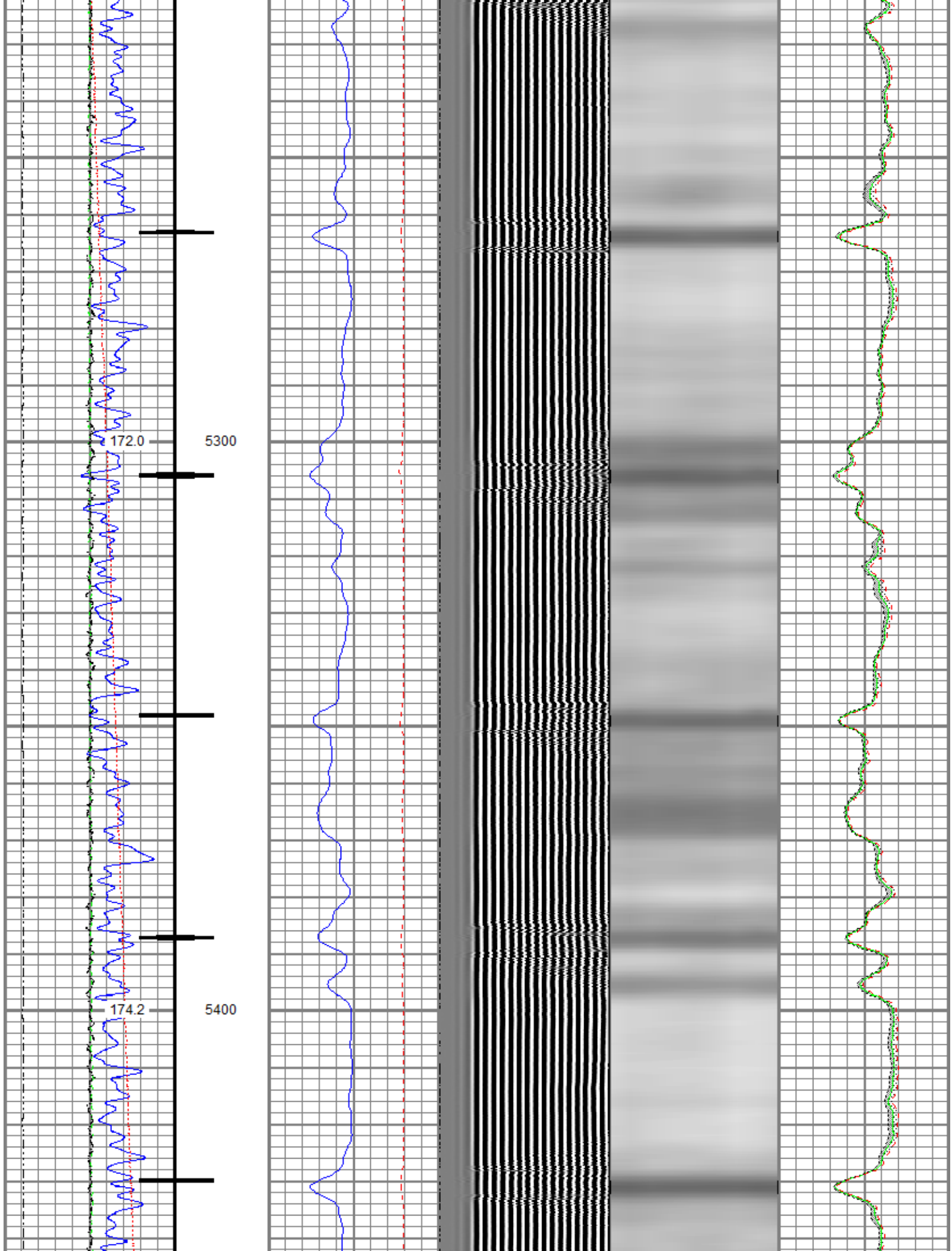


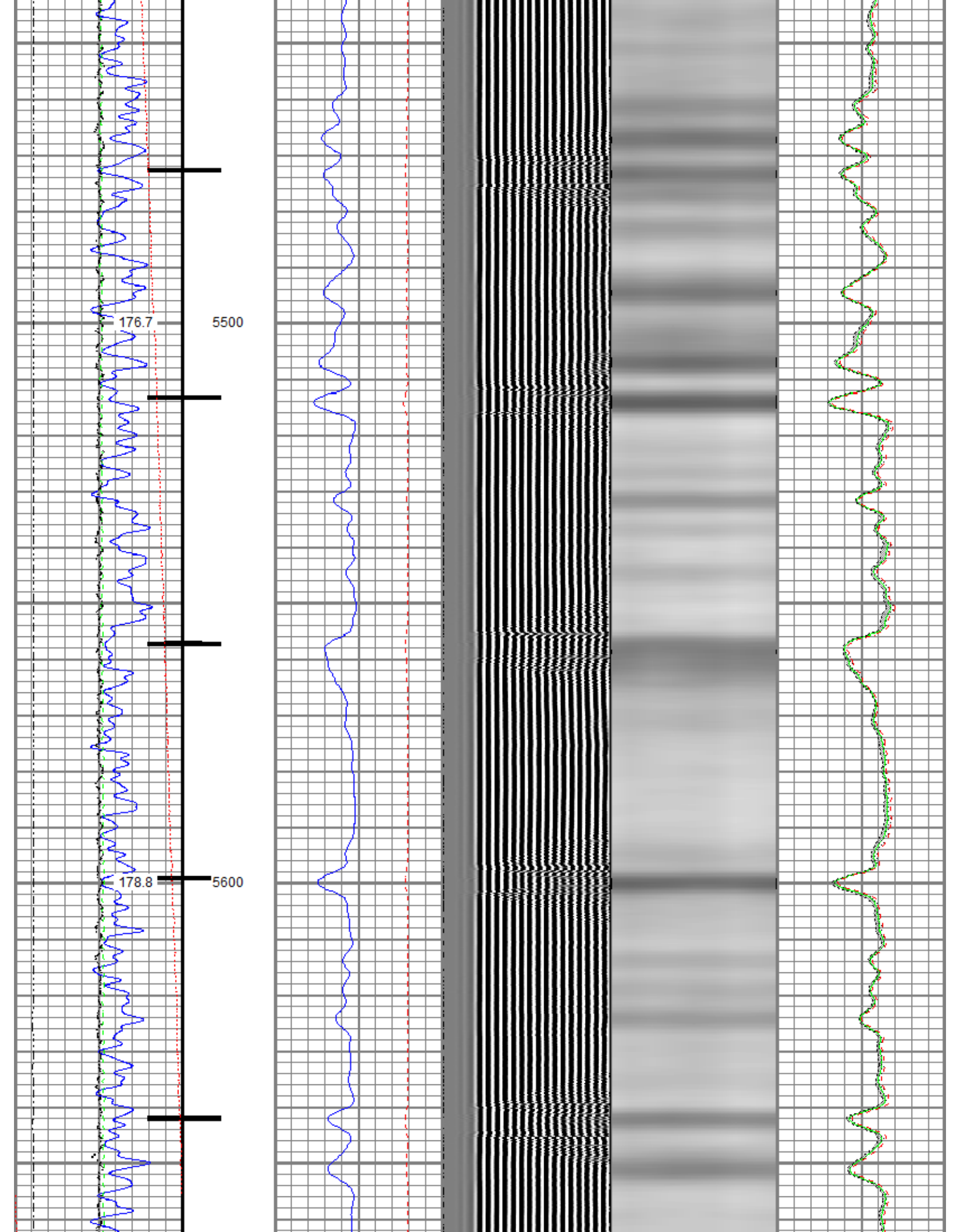


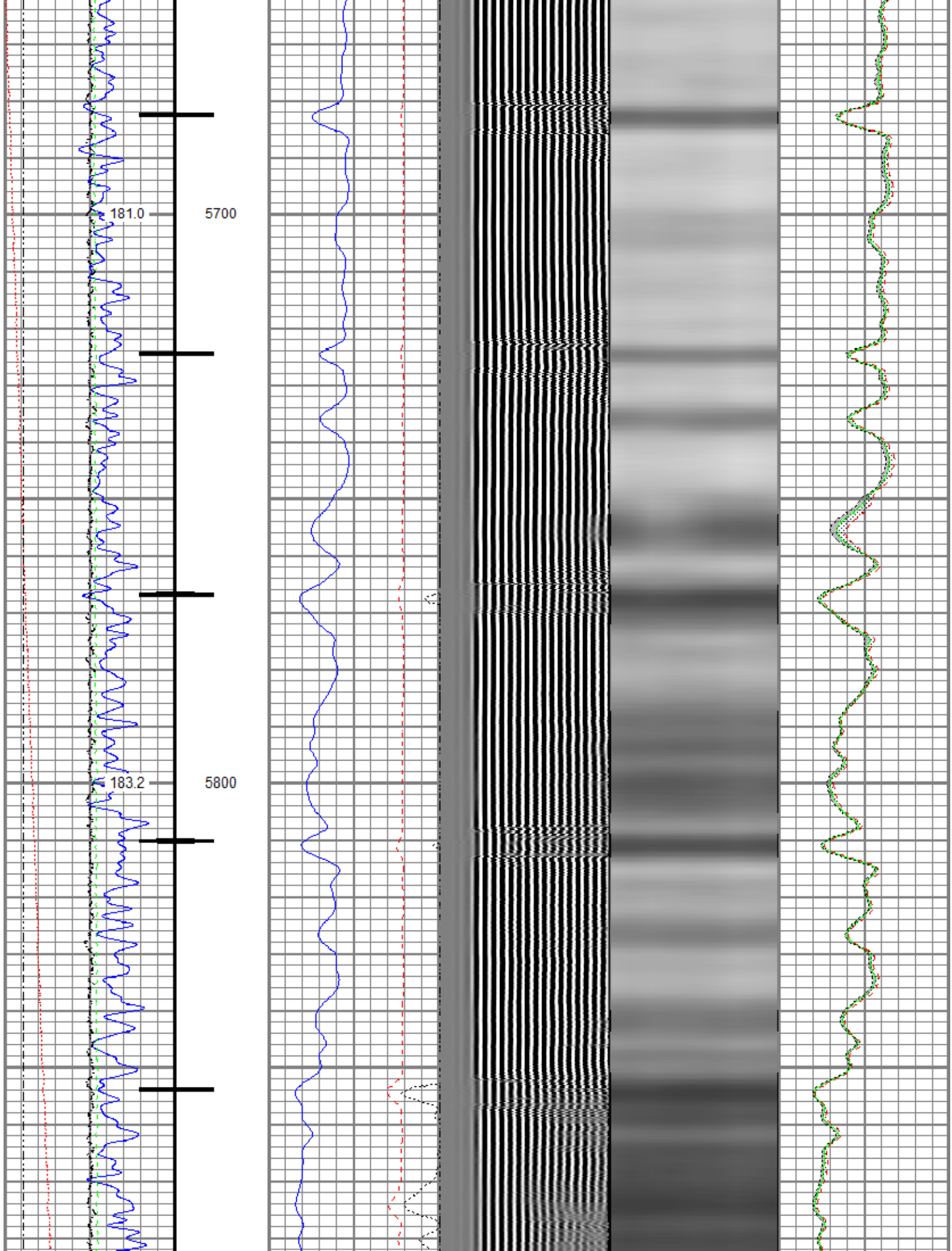


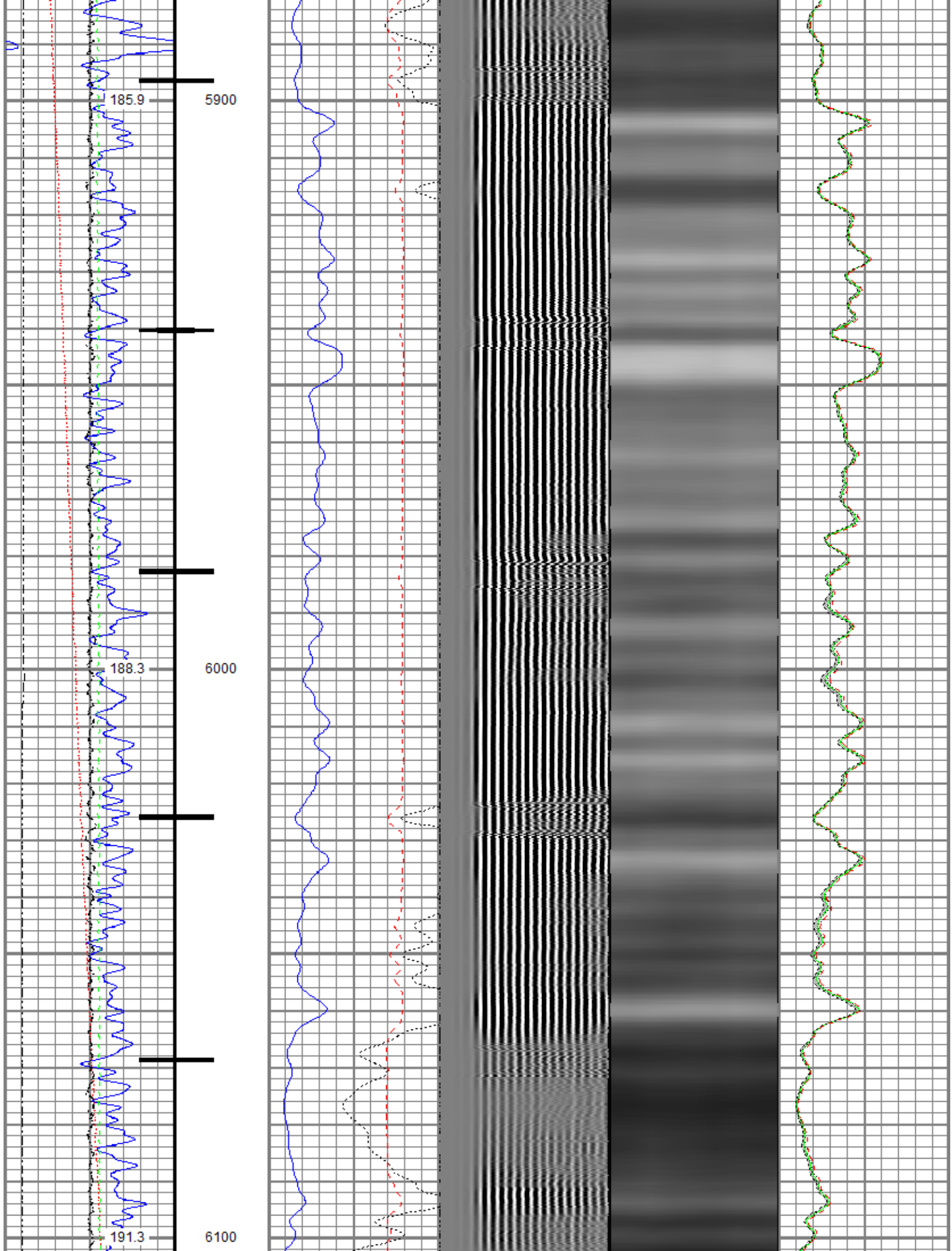


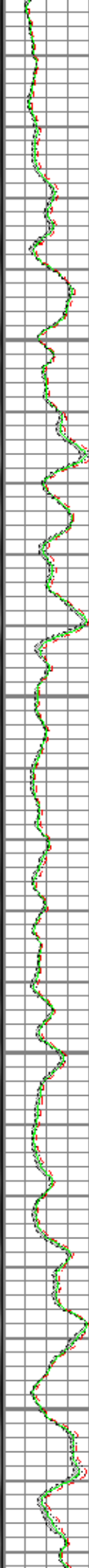
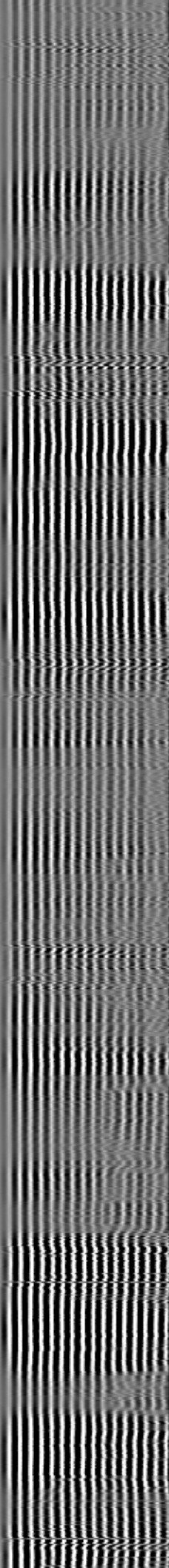
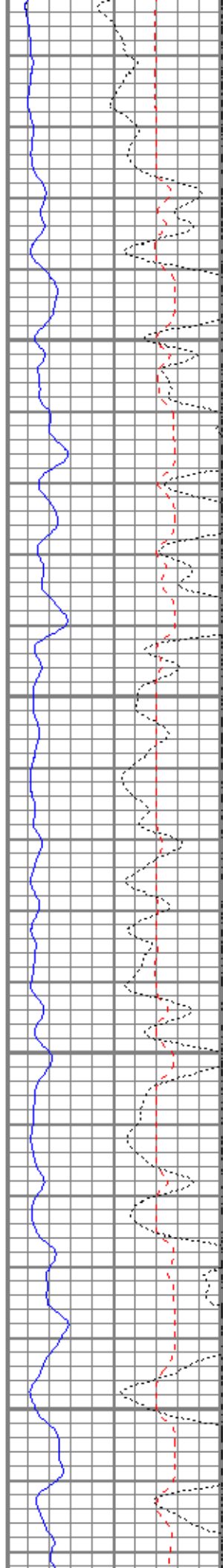
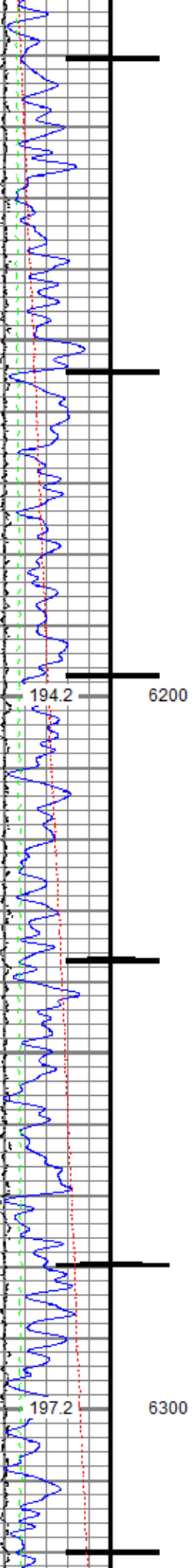


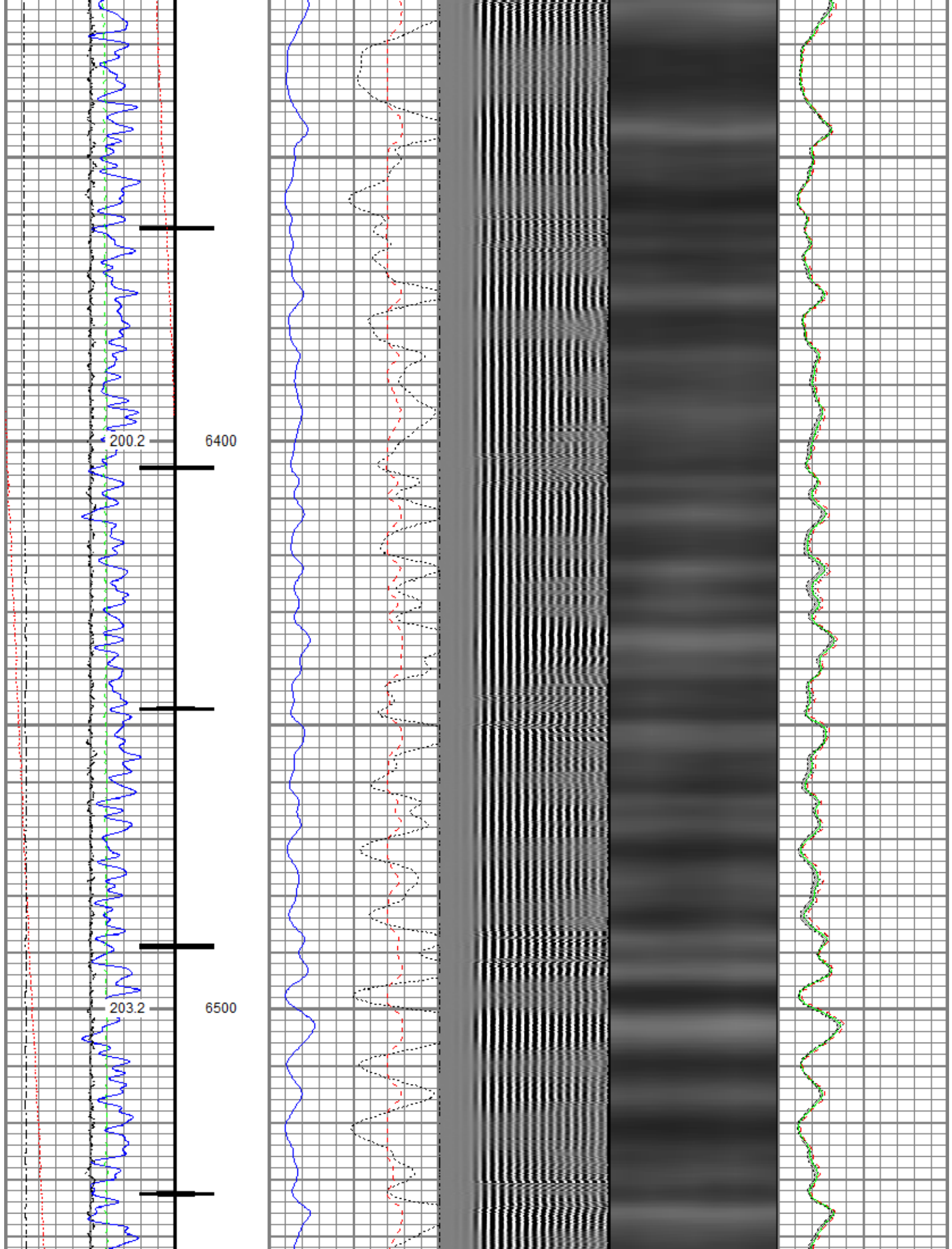


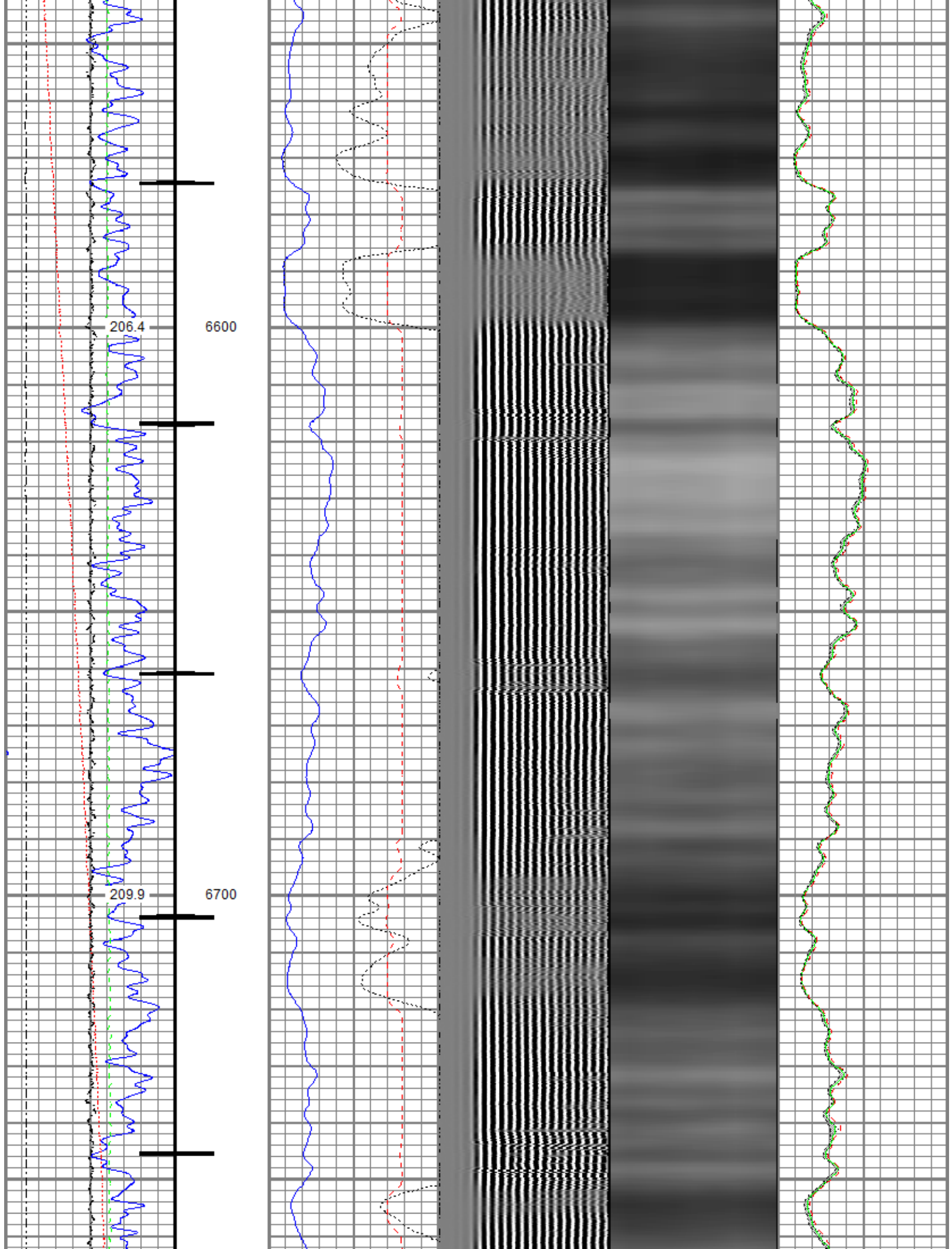


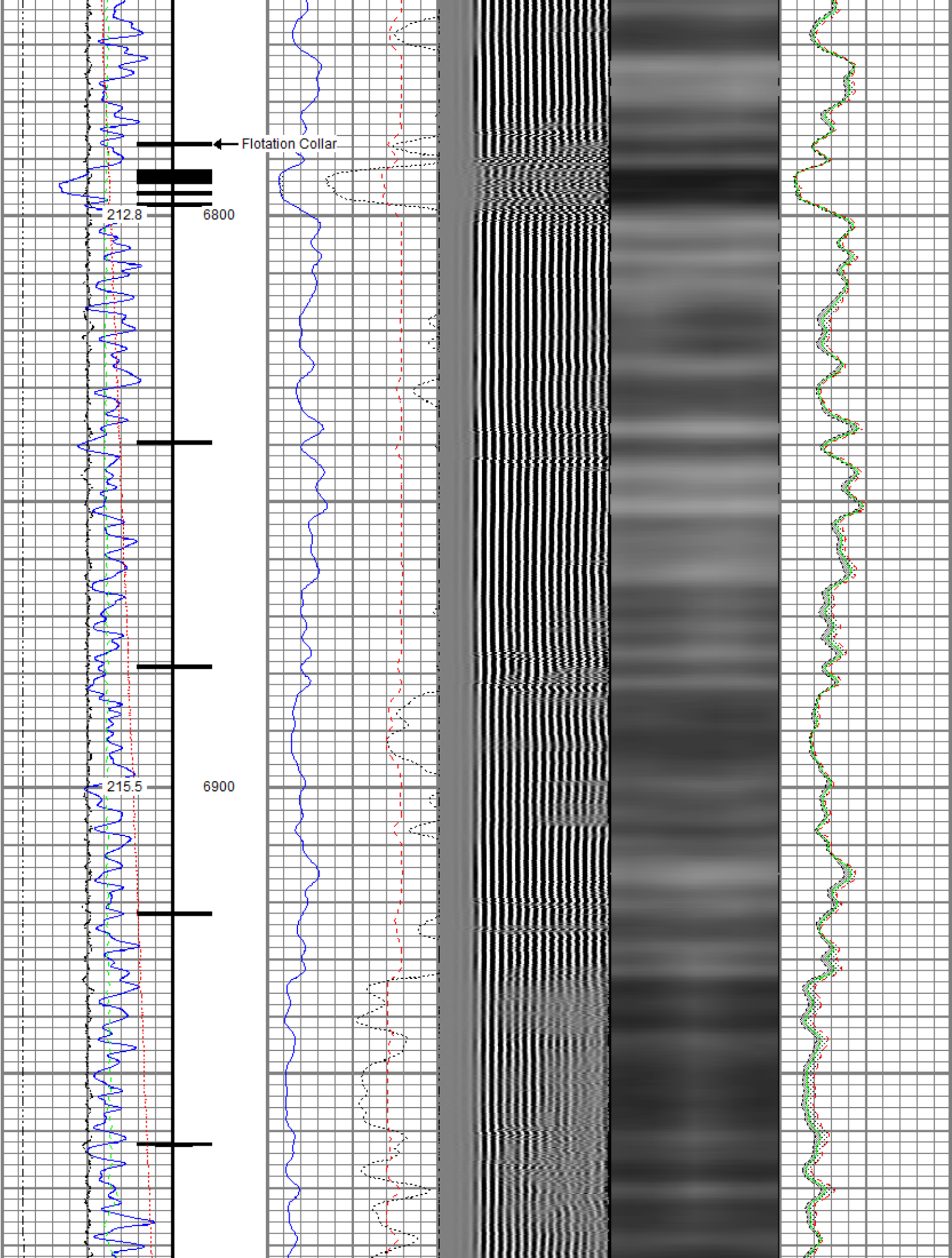


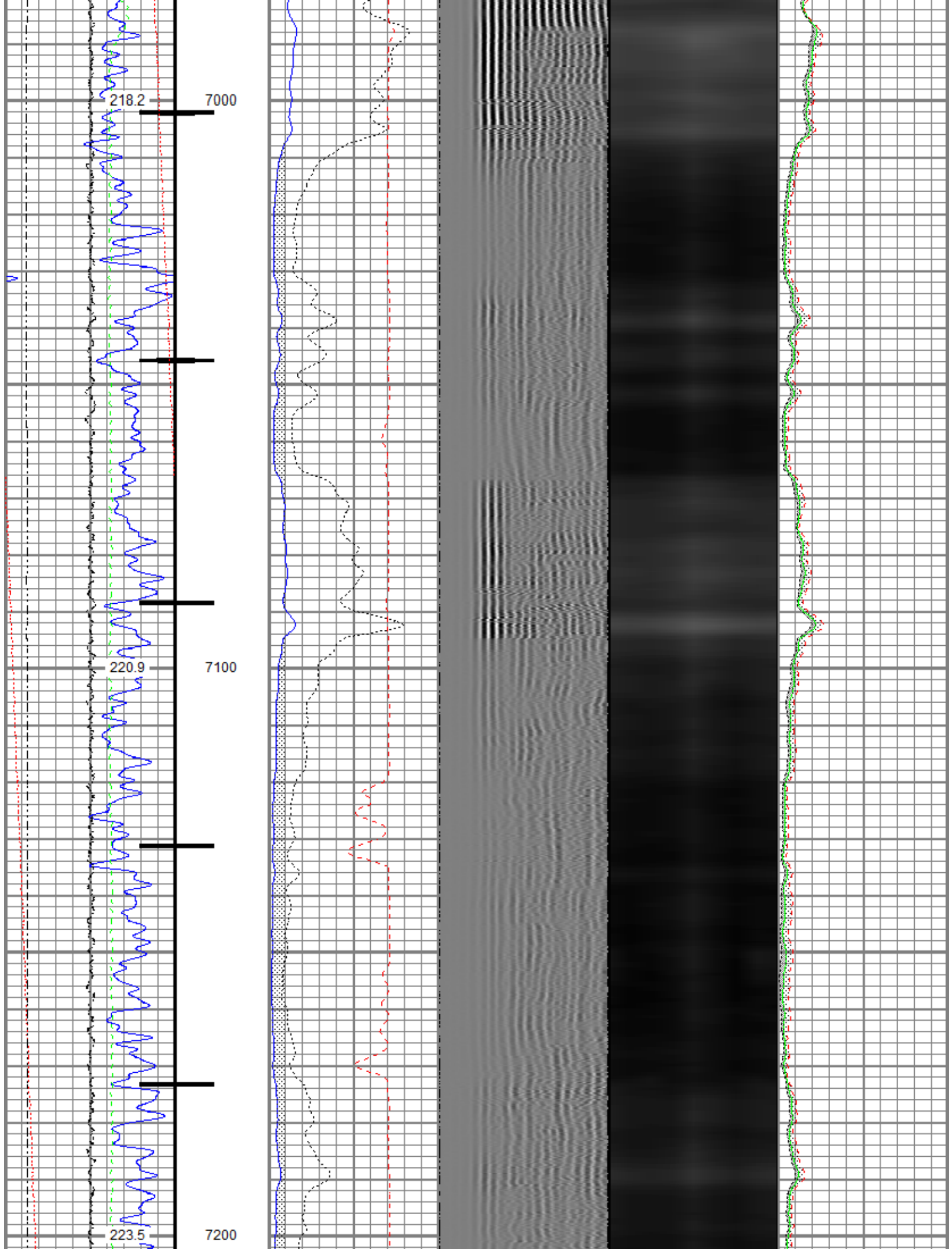


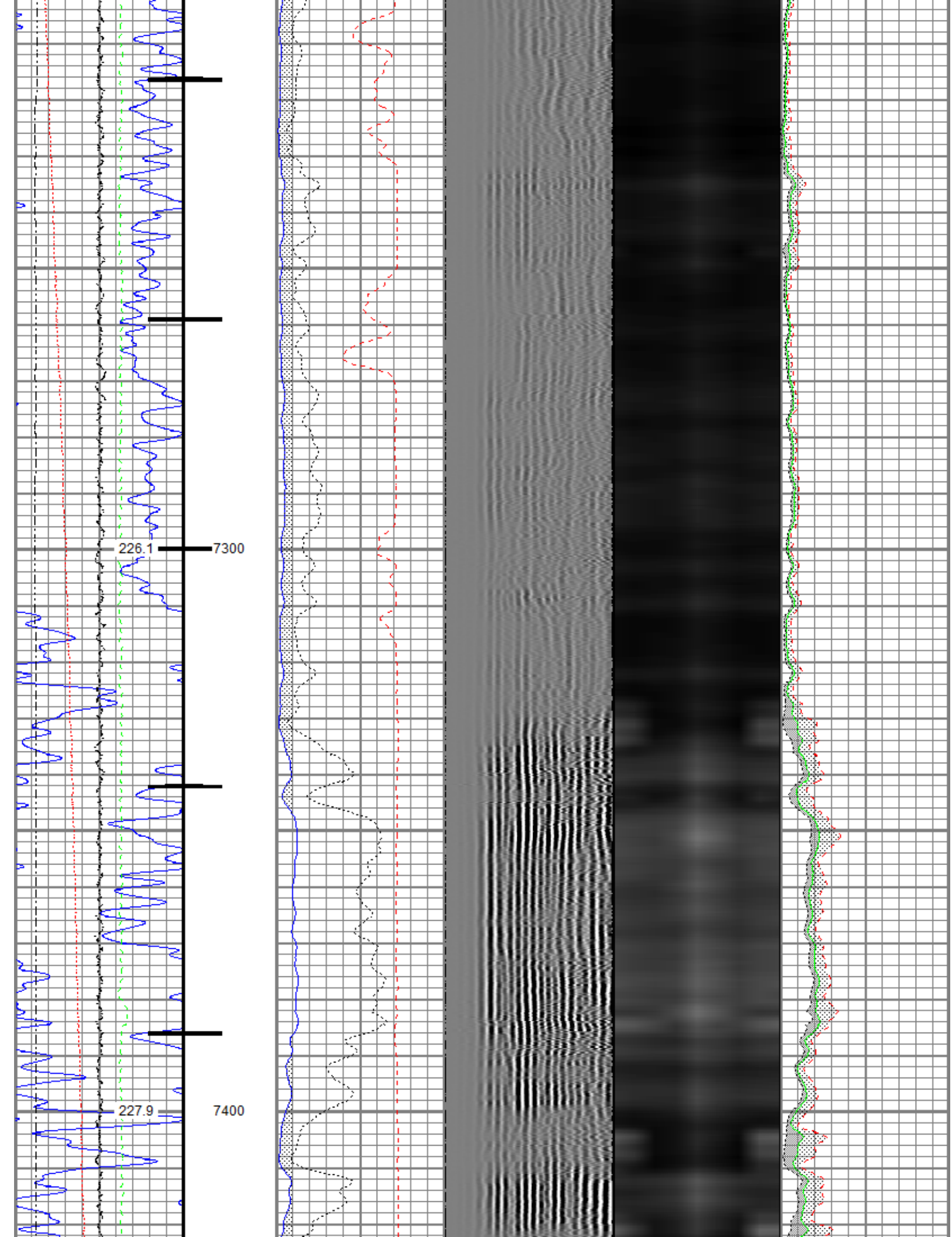


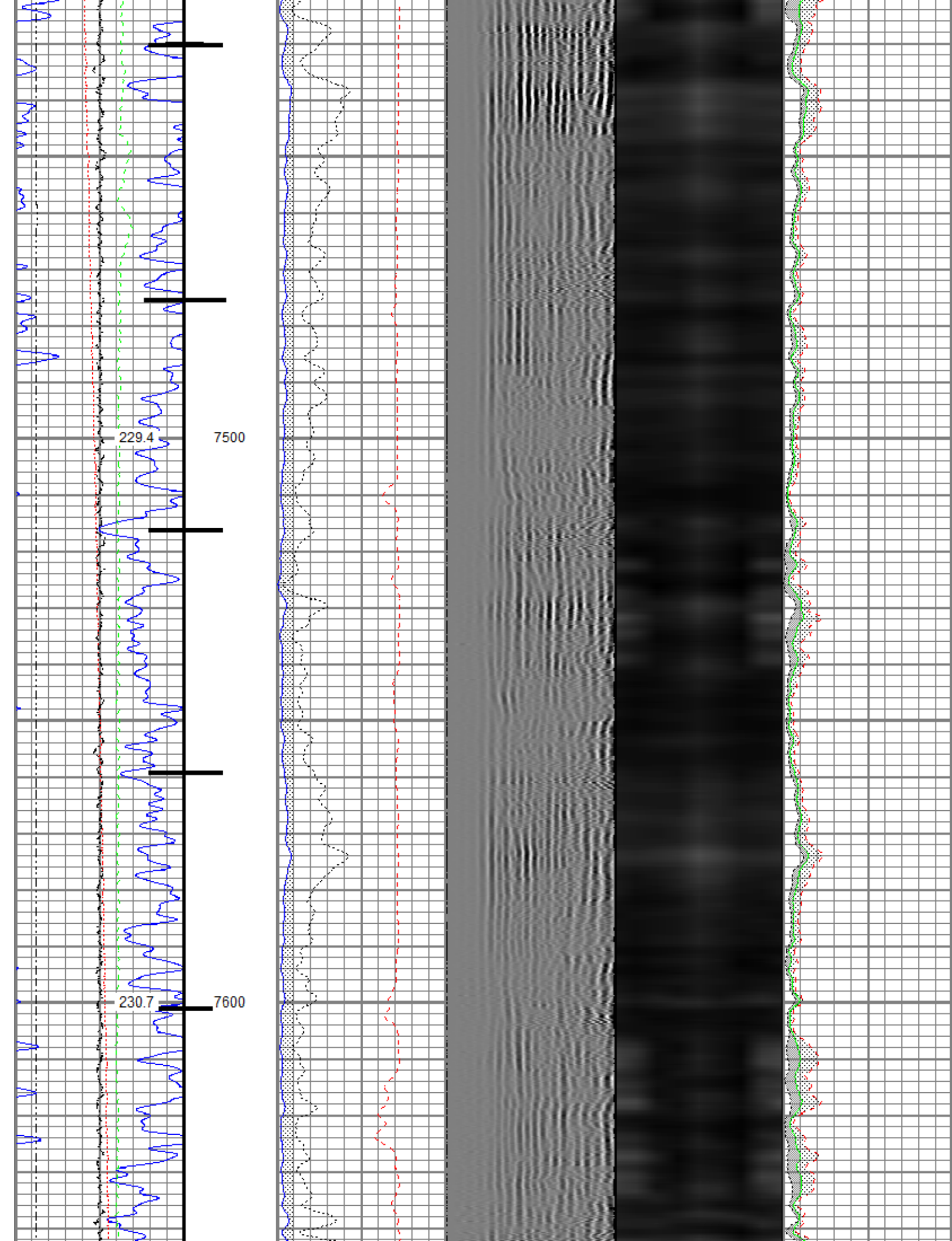


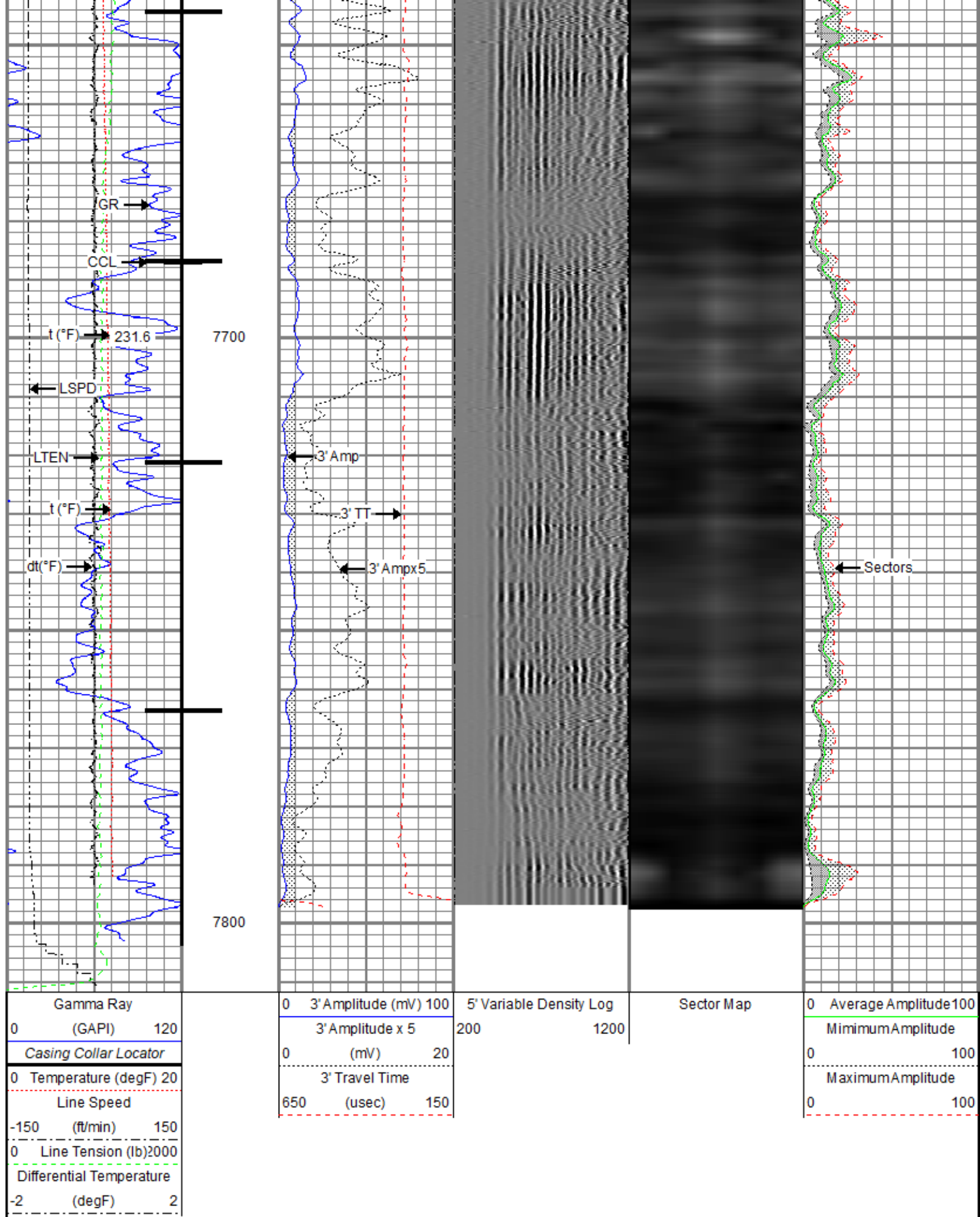








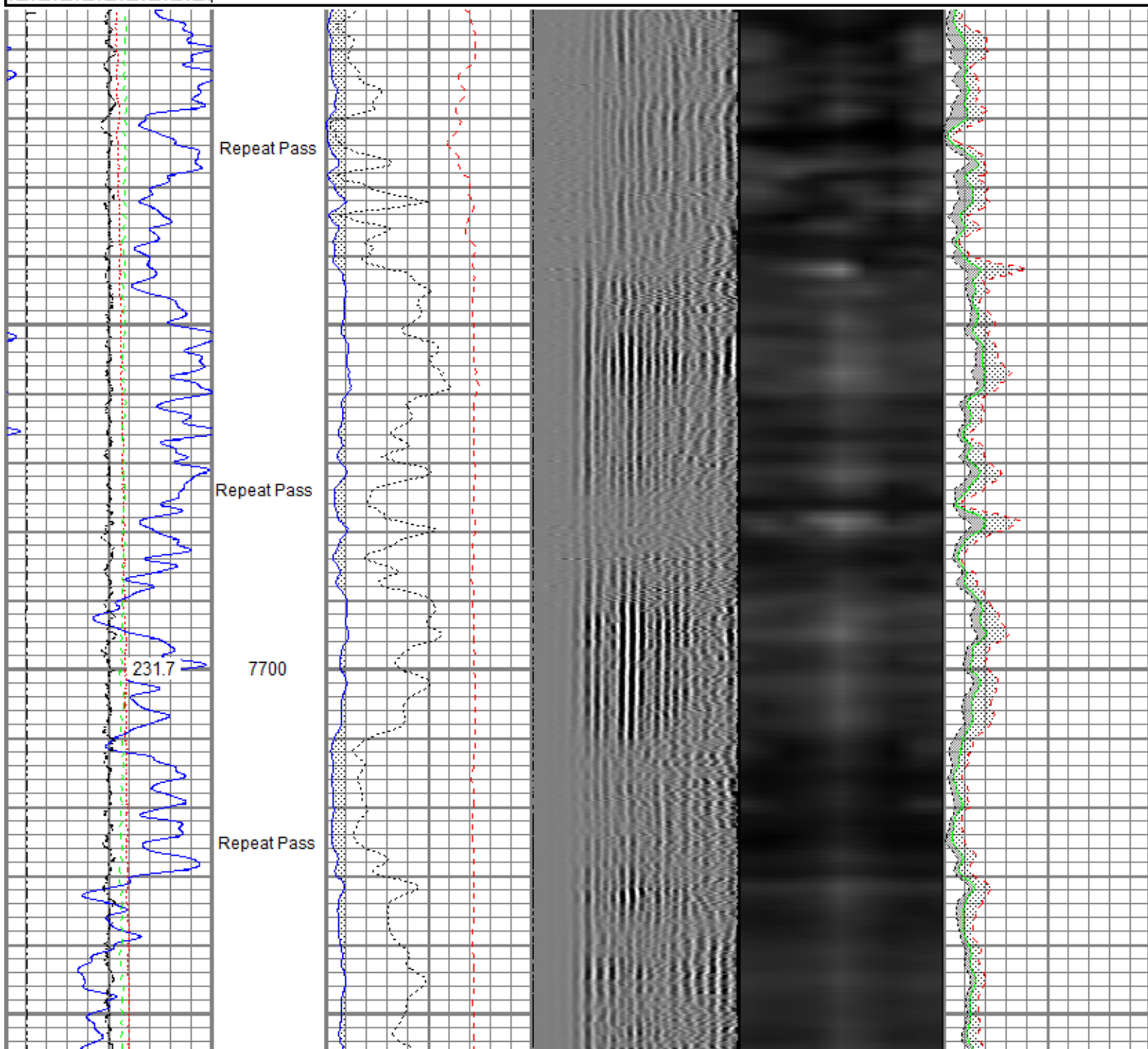


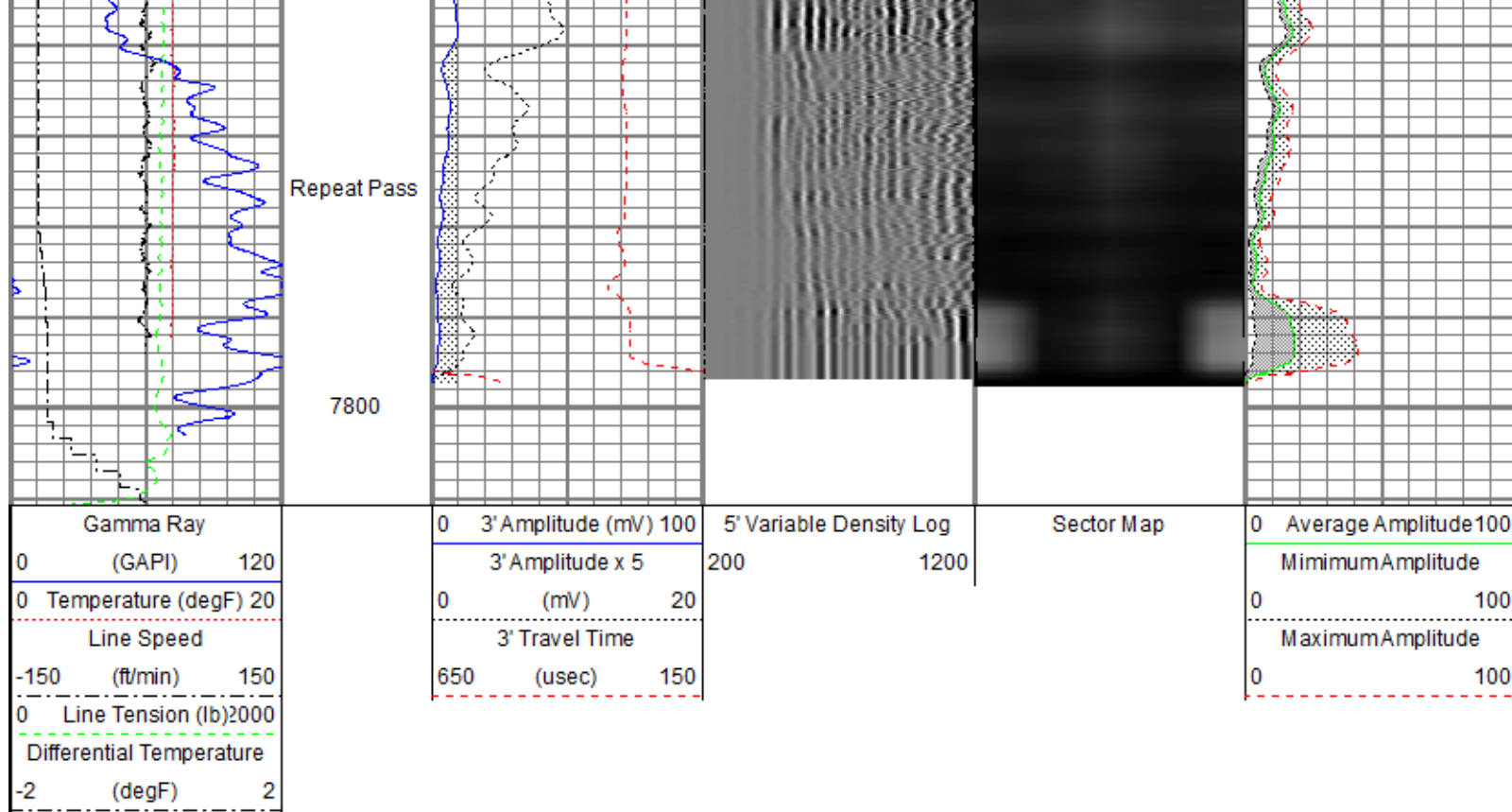


Repeat Pass


Database File	petro\petro_bef west 14_rbl_04-02-19\processed_petro_bef west 14_rbl_04-02-19.db
Dataset Pathname	Repeat.2
Presentation Format	ros_radri
Dataset Creation	Wed Apr 03 08:28:47 2019
Charted by	Depth in Feet scaled 1:240

Gamma Ray (GAPI) 120	0 3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0 Average Amplitude 100
0 Temperature (degF) 20	3' Amplitude x 5 (mV) 20	200 1200		Minimum Amplitude
Line Speed -150 (ft/min) 150	3' Travel Time 650 (usec) 150			Maximum Amplitude
0 Line Tension (lb) 2000				0 100
Differential Temperature -2 (degF) 2				0 100





Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			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
TEMP	17.04					
WVFS8	14.81		Probe Radii-2750 RBT (FW1308-091) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	14.81					
WVFS6	14.81					
WVFS5	14.81					
WVFS4	14.81					
WVFS3	14.81					
WVFS2	14.81					
WVFS1	14.81					
WVFCAL	14.81					
WVF3FT	14.81					
WVF5FT	13.81					

			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	6.80					
CCL\$1	6.80					
GR	5.46		Probe GR-CCL-2750 6PB (101001) Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT	4.80	2.75	55.00
			Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Dataset: processed_petro_bef west 14_rbl_04-02-19.db: field/well/run1/Main.1 Total length: 23.86 ft Total weight: 223.60 lb O.D.: 2.75 in						

Calibration Report						
Database File	c:\programdata\warrior\data\petro\petro_bef west 14_rbl_04-02-19\processed_petro_bef west 14_rbl_04-02-19.db					
Dataset Pathname	Main.1					
Dataset Creation	Wed Apr 03 08:07:55 2019					
Gamma Ray Calibration Report						
Serial Number:	101001					
Tool Model:	2750 6PB					
Performed:	Mon Oct 01 11:32:32 2018					
Calibrator Value:	637.0	GAPI				
Background Reading:	100.6	cps				
Calibrator Reading:	981.1	cps				
Sensitivity:	0.7235	GAPI/cps				
Segmented Cement Bond Log Calibration Report						
Serial Number:	FW1308-091					
Tool Model:	2750 RBT					
Calibration Casing Diameter:	5.500	in				
Calibration Depth:	-3.706	ft				
Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	0.521	0.800	71.921	138.539	-0.237
CAL	0.728	0.728				
5'	0.007	0.473	0.800	71.921	152.585	-0.301
SUM						
S1	0.006	0.507	0.000	100.000	199.675	-1.209
S2	0.007	0.542	0.000	100.000	186.658	-1.242

S3	0.006	0.551	0.000	100.000	183.551	-1.118
S4	0.005	0.546	0.000	100.000	184.819	-0.938
S5	0.005	0.548	0.000	100.000	184.318	-1.009
S6	0.008	0.533	0.000	100.000	190.629	-1.511
S7	0.007	0.503	0.000	100.000	201.521	-1.314
S8	0.007	0.503	0.000	100.000	201.682	-1.407

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.728	0.728	1.000	0.000

Air Zero Calibration, performed Tue Apr 02 09:26:42 2019:

	Raw (v)		Calibrated (v)		Results
	Zero		Zero		Offset
3'	0.007		0.000		0.000
5'	0.009		0.000		-0.001
SUM					
S1	0.006		0.000		0.000
S2	0.007		0.000		-0.000
S3	0.006		0.000		0.001
S4	0.007		0.000		-0.000
S5	0.006		0.000		0.000
S6	0.006		0.000		0.000
S7	0.007		0.000		-0.000
S8	0.006		0.000		0.001

Temperature Calibration Report

Serial Number: FW1308-091
Tool Model: 2750 RBT
Performed: Mon Oct 01 11:32:16 2018

	Reference	Reading
Low Reference:	100.00 degF	104.72 degF
High Reference:	350.00 degF	392.24 degF

Gain: 0.87
Offset: 8.94
Delta Spacing: 1



Company: Petro Operating Company LLC
Well: BEF West 14
Field: Wattenberg
County: Adams
State: Colorado