



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company SRC Energy Inc
Well Falken 33C-9-L
Field Wattenberg
County Weld State Colorado

Location: API #: 05-123-45112
SEC 11 TWP 6N RGE 66W
Permanent Datum Ground Level Elevation 4810'
Log Measured From Gound Level 0 FT
Drilling Measured From Kelly Bushing
Other Services
JB/GR
RBP
Pull RBP
Elevation
K.B. 4835'
D.F. ---
G.L. 4810'

Date	03-MAR-2018			
Run Number	Two			
Depth Driller	19023 FT (GL)			
Depth Logger	6820 FT			
Bottom Logged Interval	6804 FT			
Top Log Interval	Surface			
Open Hole Size	8.5"			
Type Fluid	Water			
Density / Viscosity	8.34 lb/gal			
Max. Recorded Temp.	218°F			
Estimated Cement Top	See Log			
Time Well Ready	ROA			
Time Logger on Bottom	9:50			
Equipment Number	HD-325			
Location	Fort Lupton, CO			
Recorded By	J Morrison			
Witnessed By	Shane Hart			
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	J-55	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
Log measured from Ground Level at 0 FT
Depth referenced to Casing Tally reported Marker Joint at 6385 FT
Adjusted -24 FT to correlate with Marker Joint
Log ran from as deep as possible to Surface
Log ran with 2500 PSI Surface Induced Pressure
Logging tools were clean and free of debris upon completion of operations

Thank you for choosing Reliance Oilfield Services, LLC!!

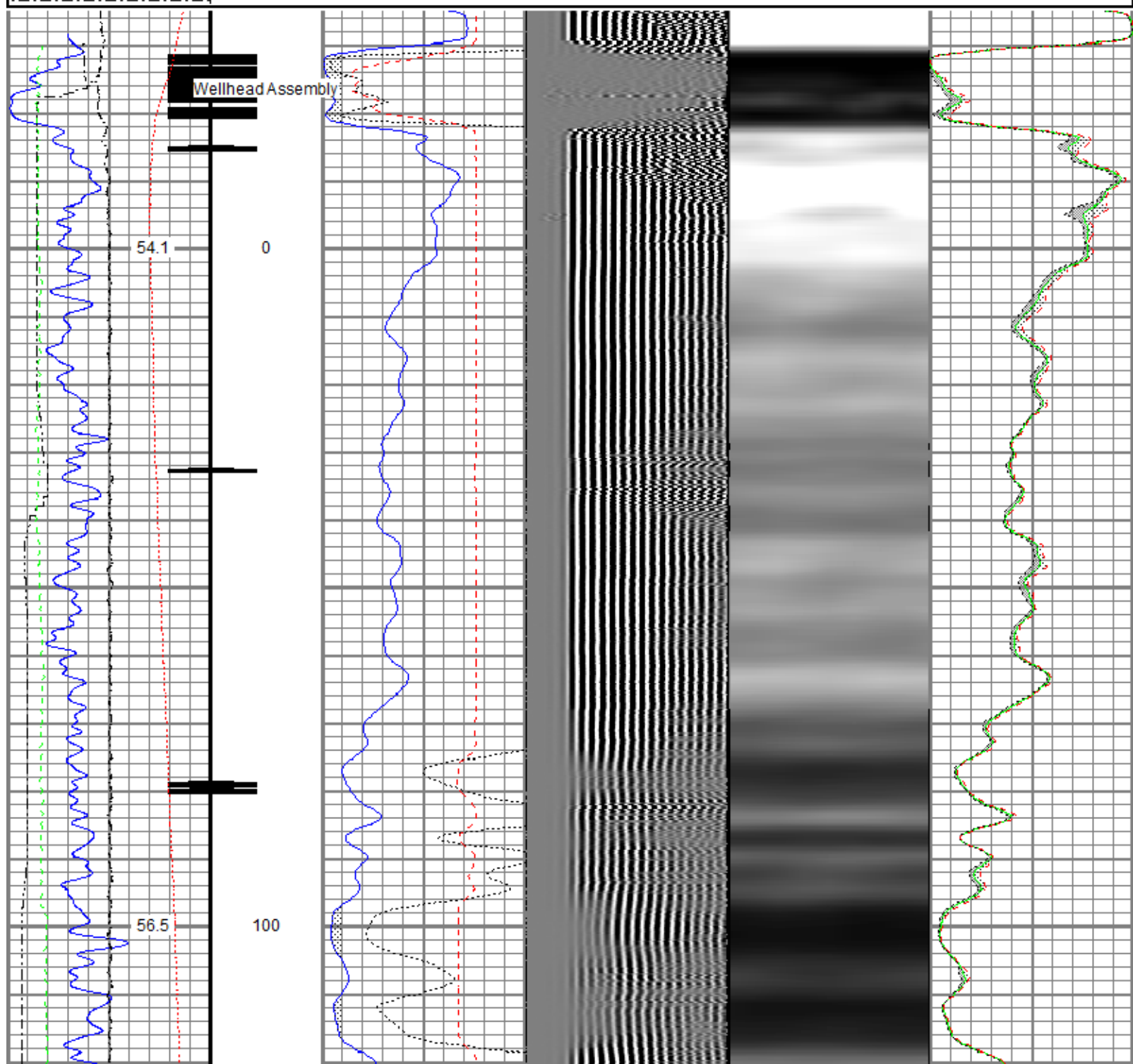
Main Pass

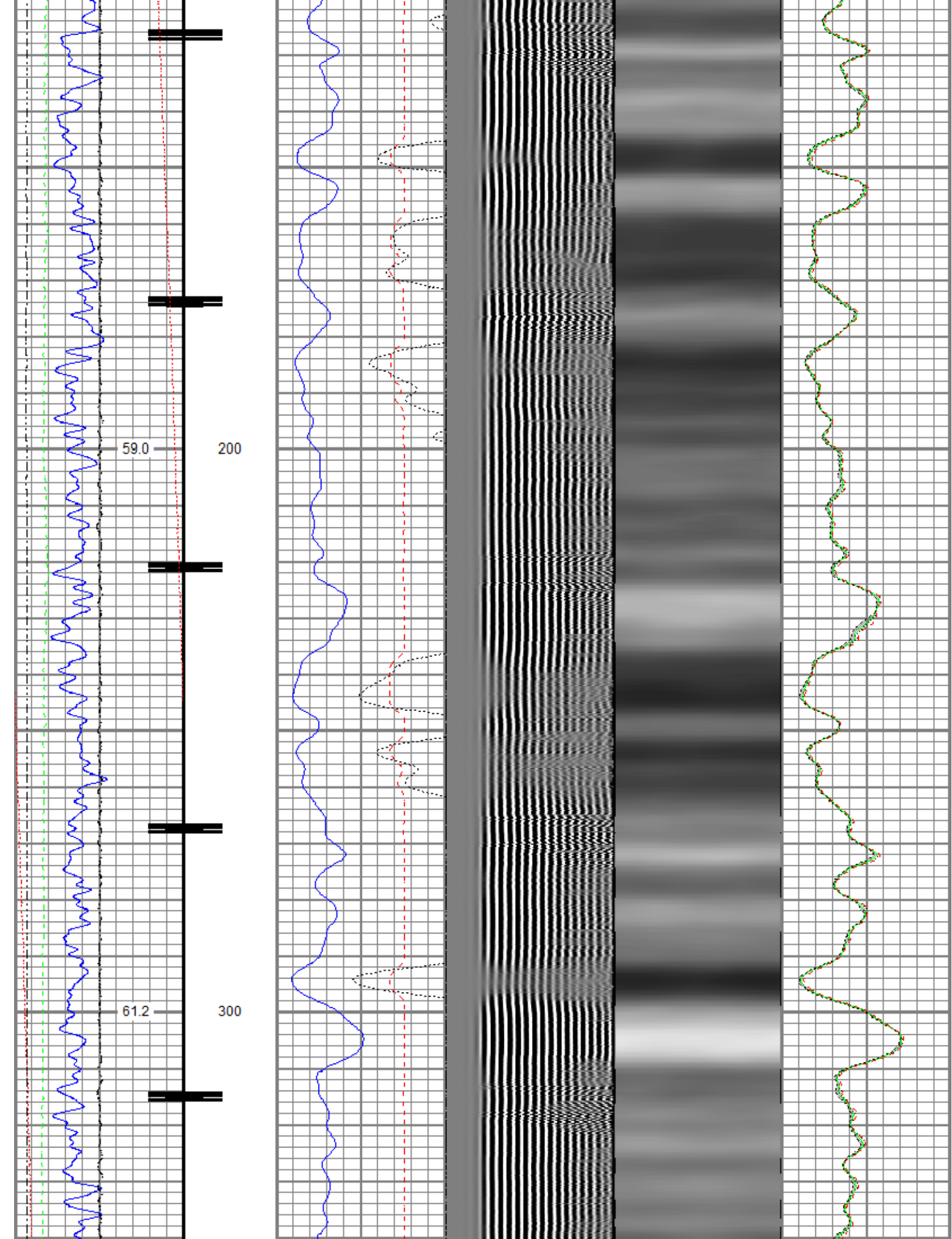


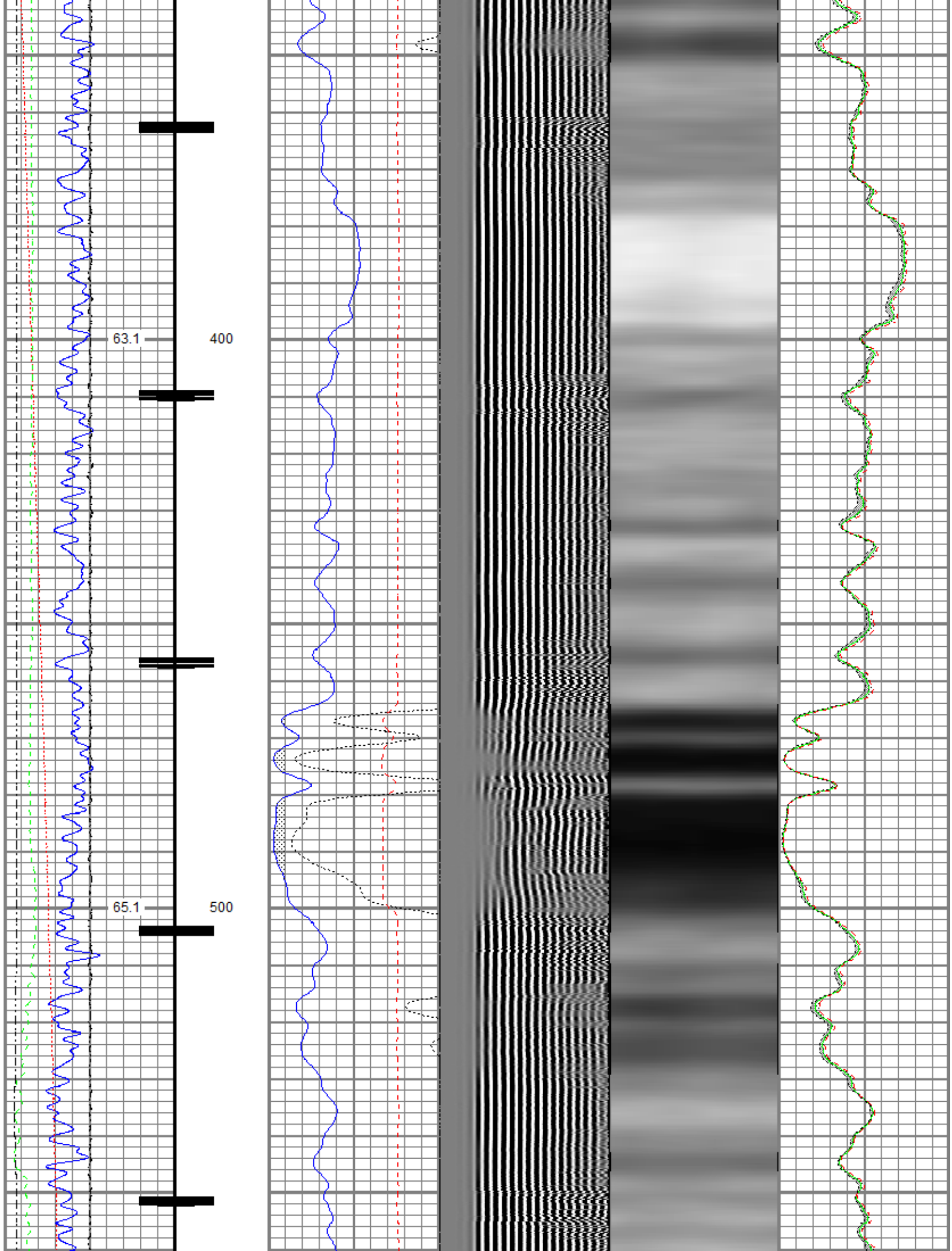
Recorded with 2500 PSI Surface Induced Pressure

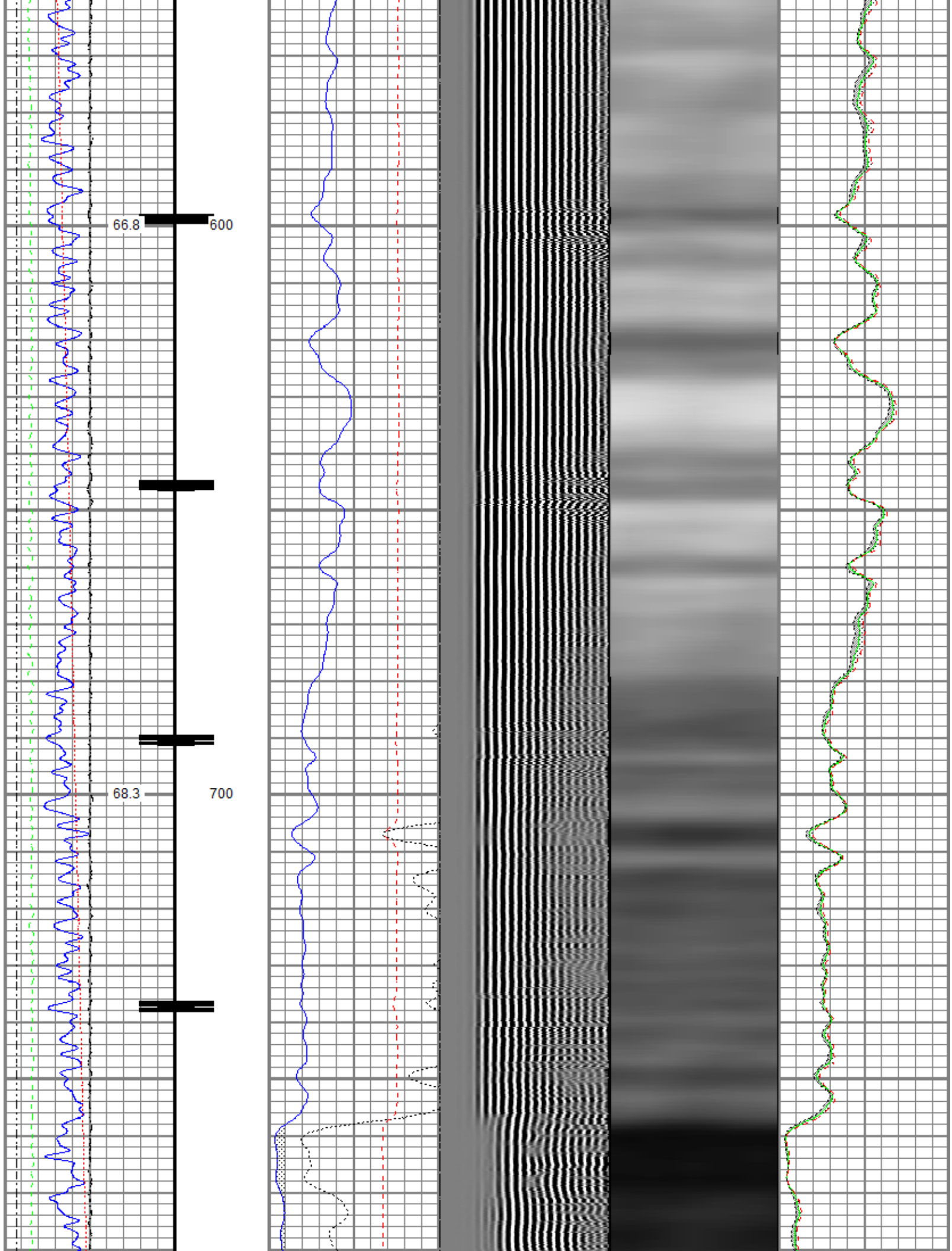
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 Dataset Pathname Main_Pass.2
 Presentation Format ros_radri
 Dataset Creation Mon Mar 05 11:42:50 2018
 Charted by Depth in Feet scaled 1:240

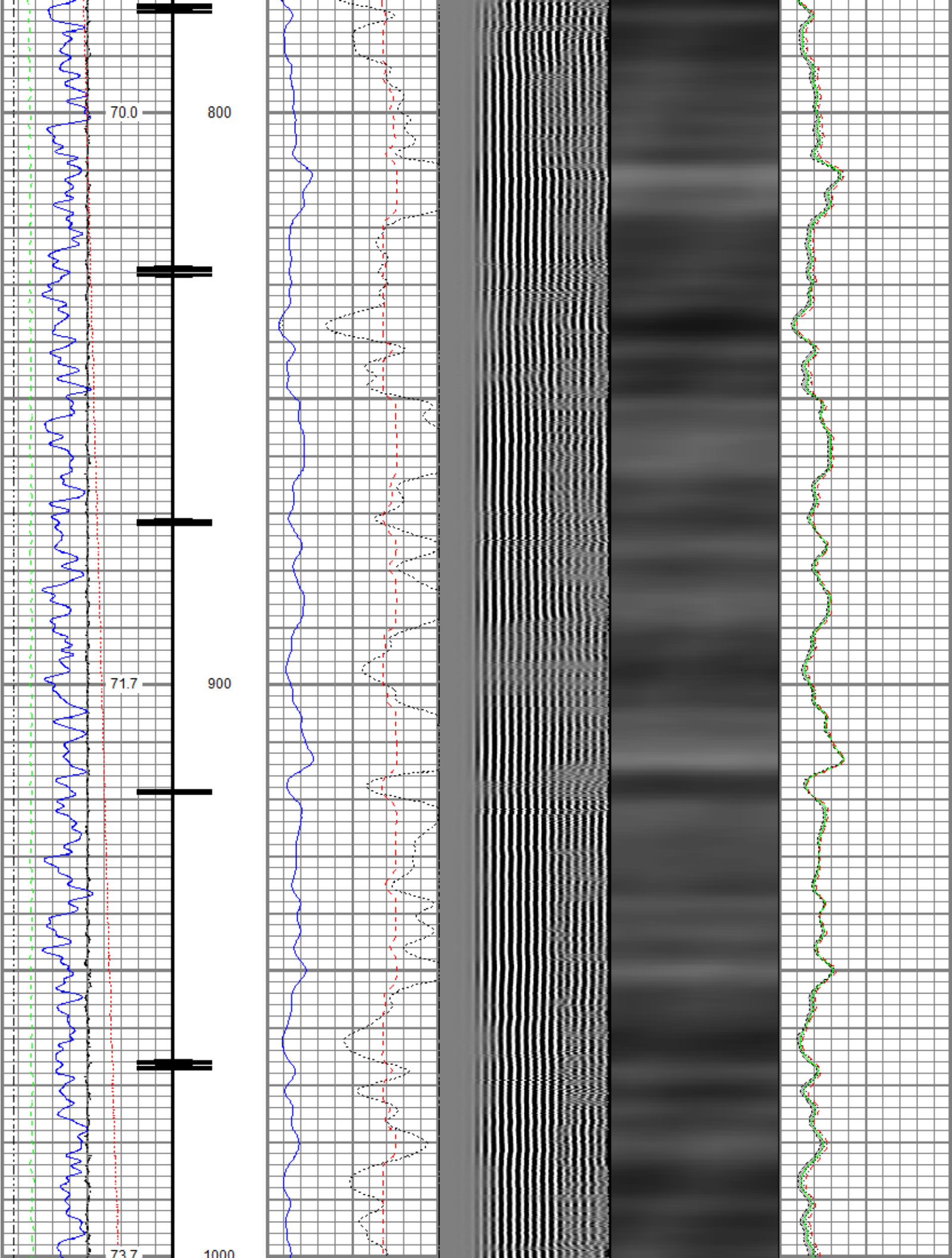
Gamma Ray	0	3' Amplitude (mV) 100	5' Variable Density Log	Sector Map	0	Average Amplitude 100
(GAPI) 120		3' Amplitude x 5	200 (usec) 1200			Minimum Amplitude
Casing Collar Locator	0	(mV) 20			0	100
Temperature (degF) 20		3' Travel Time				Maximum Amplitude
Line Speed	650	(usec) 150			0	100
-150 (ft/min)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

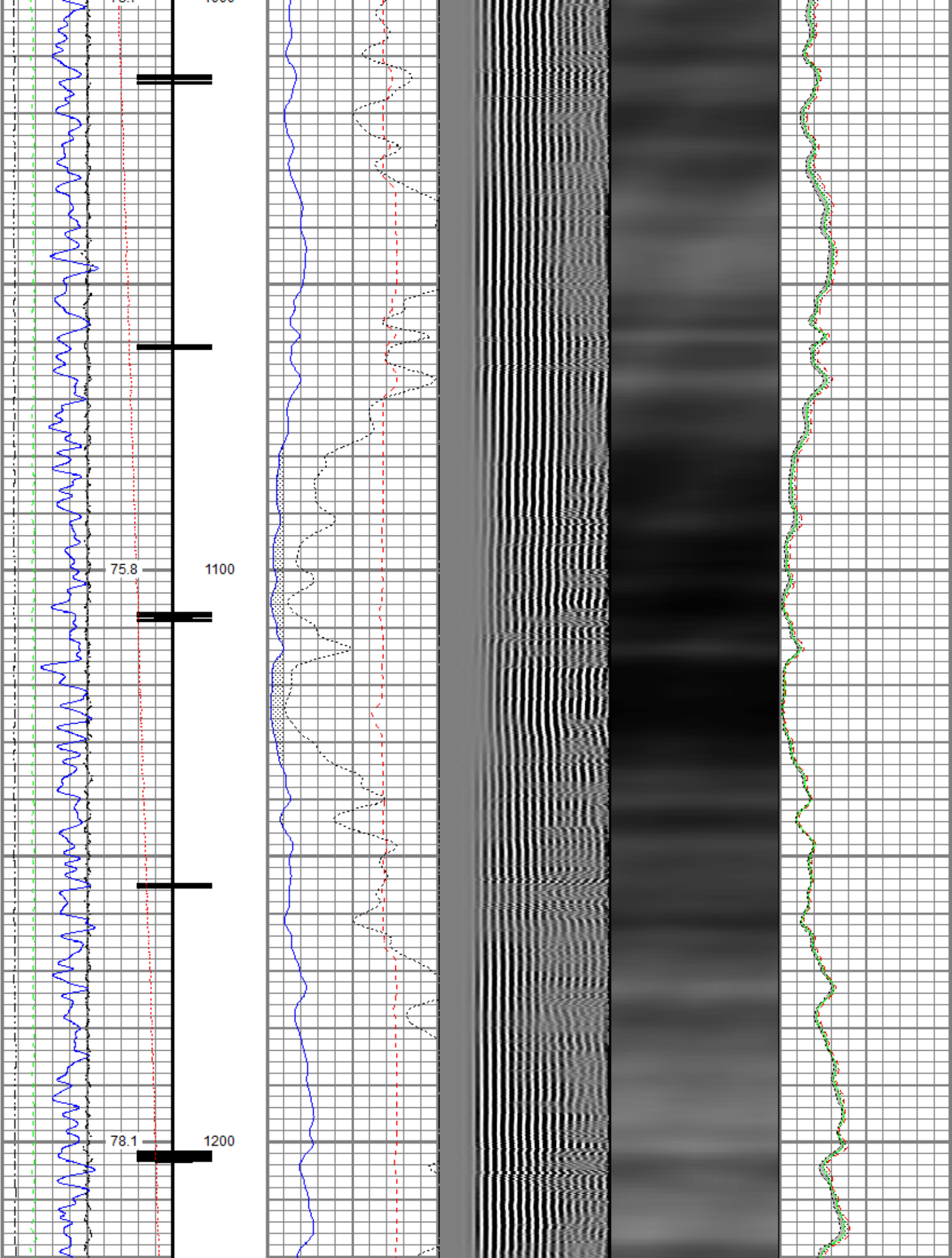


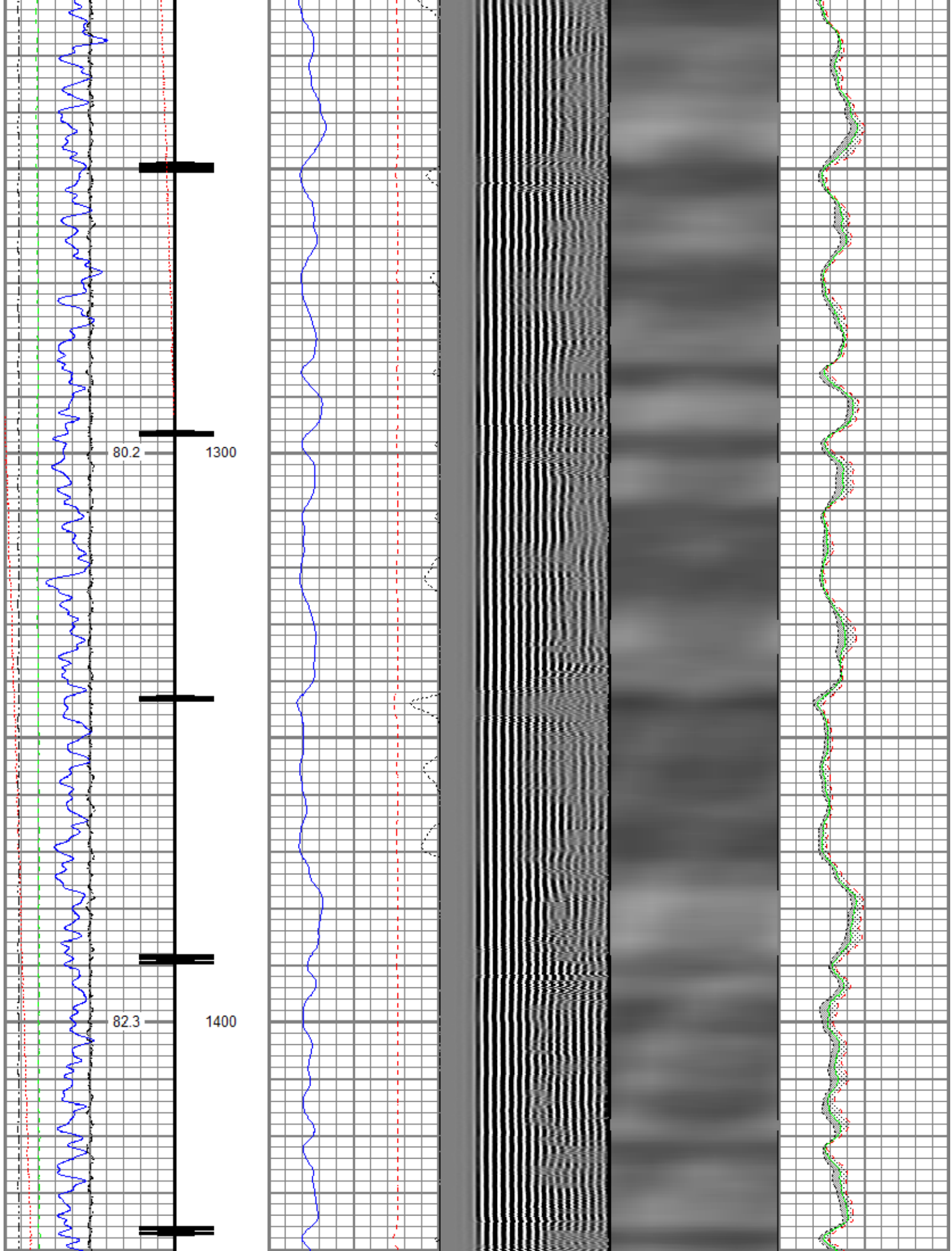


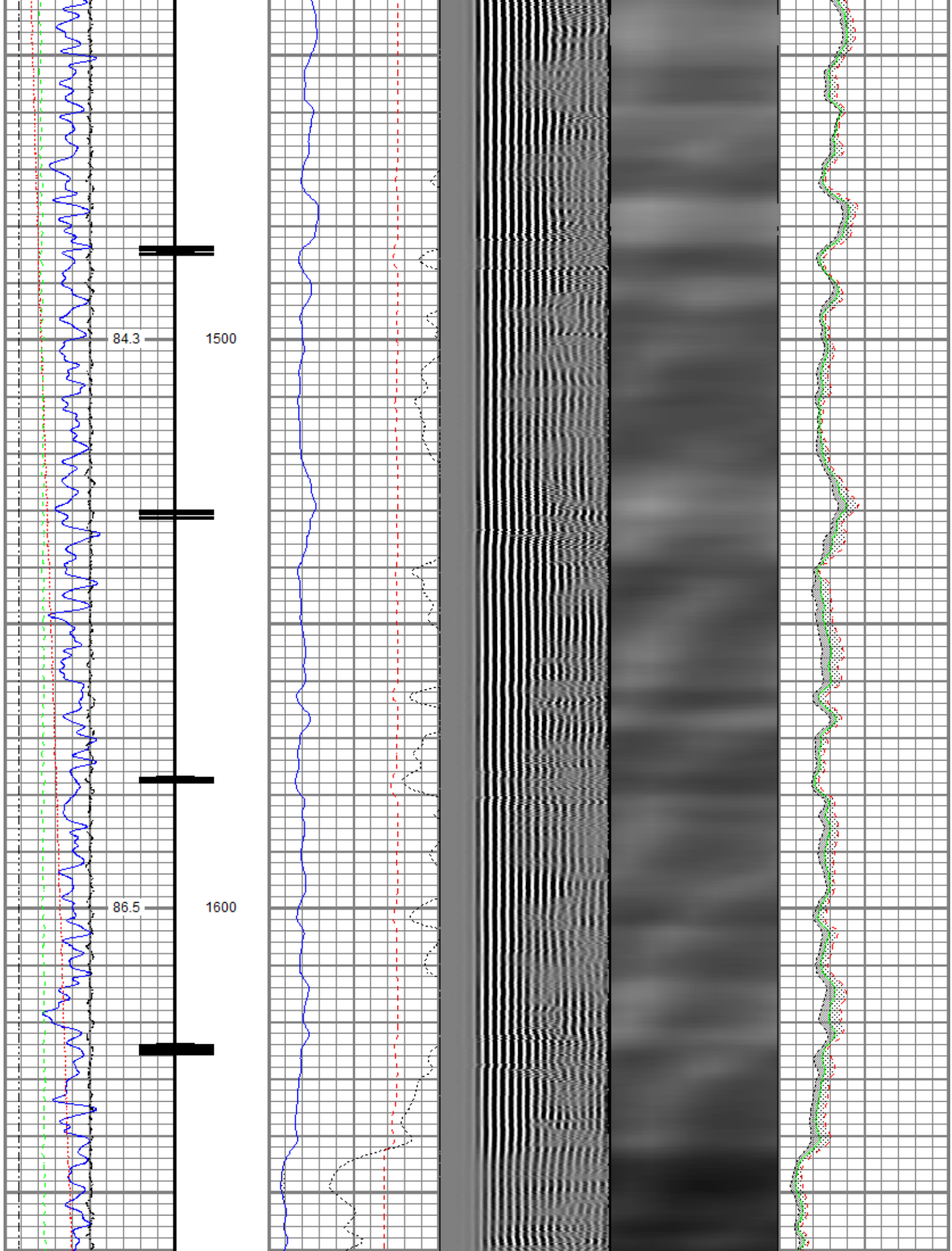


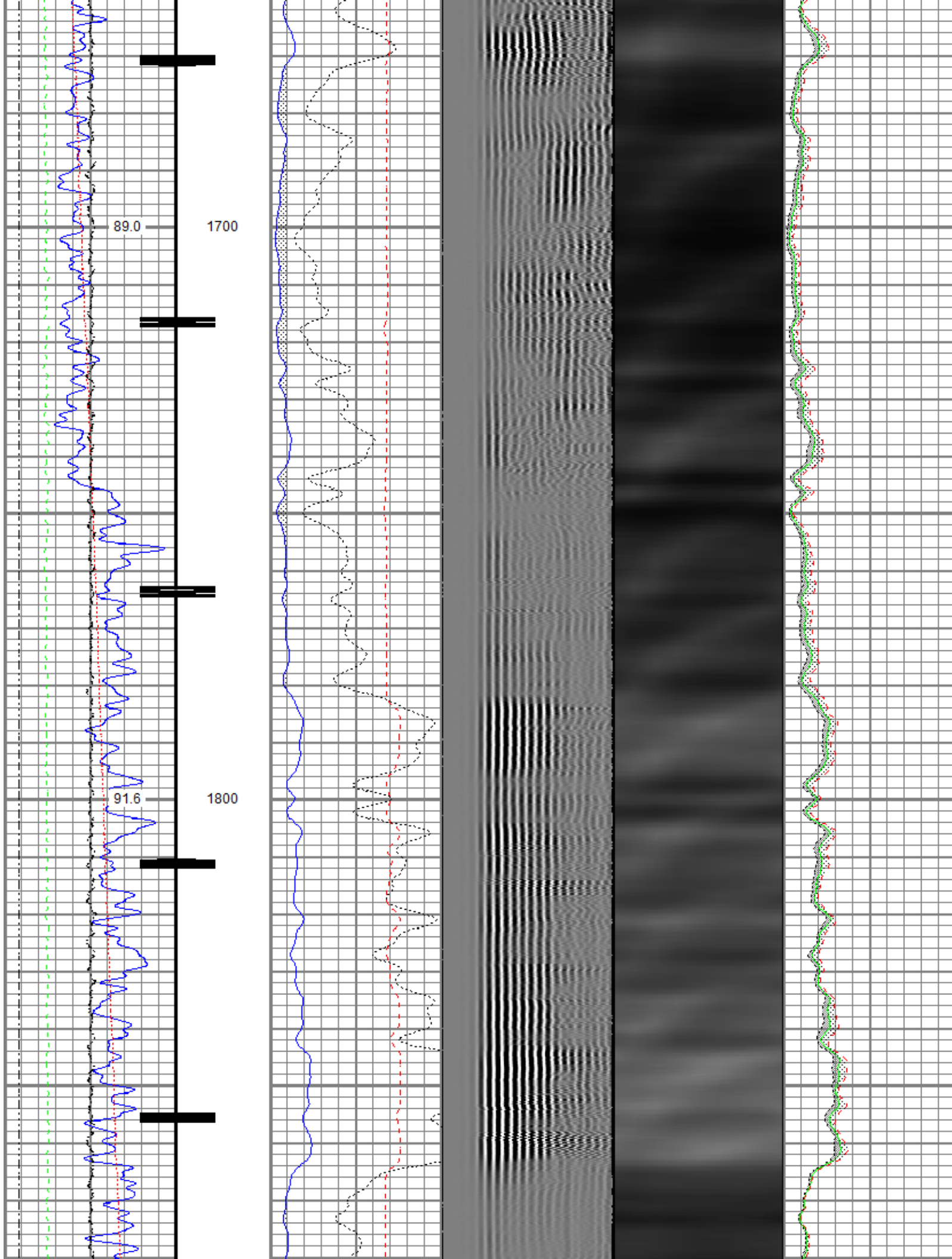


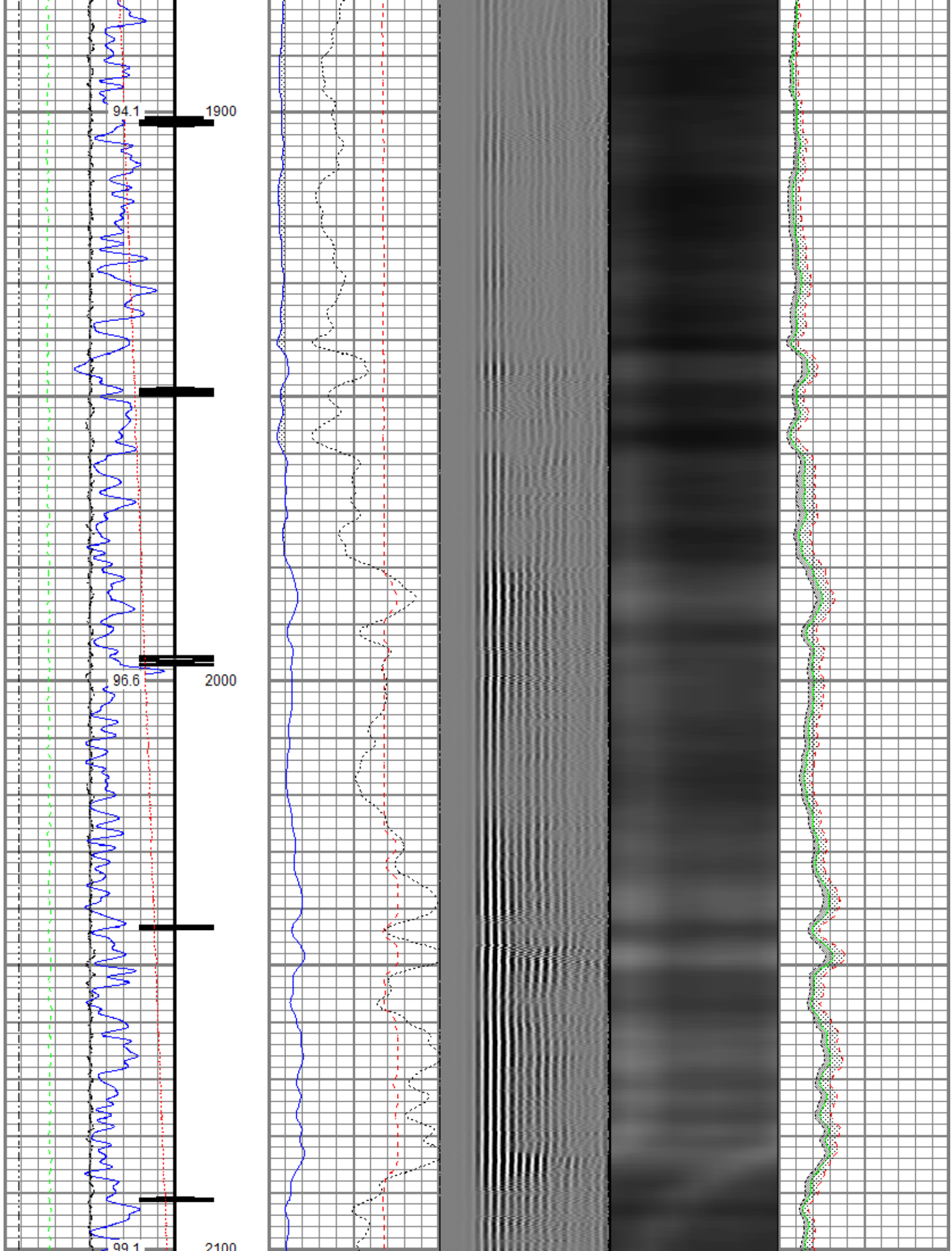


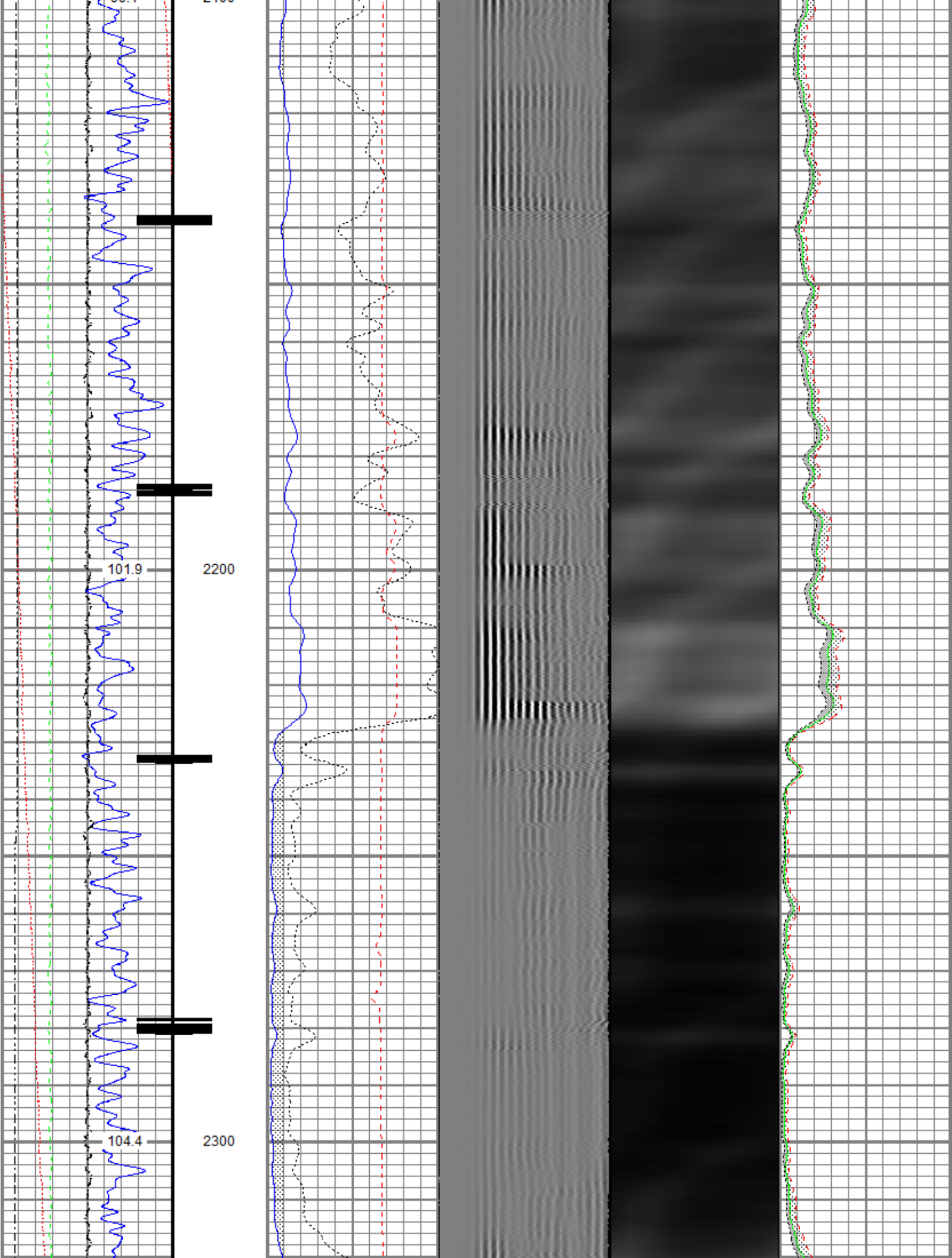


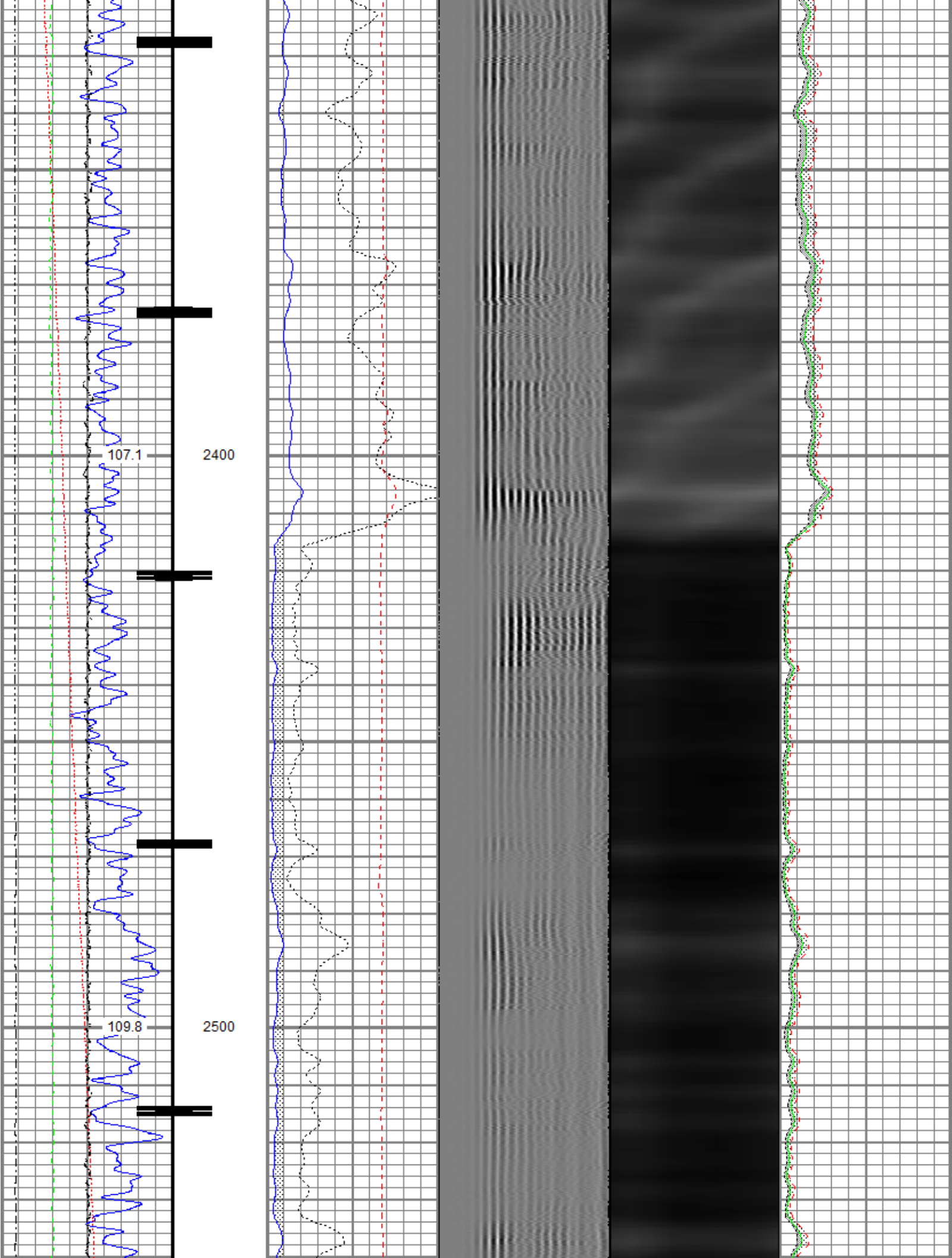


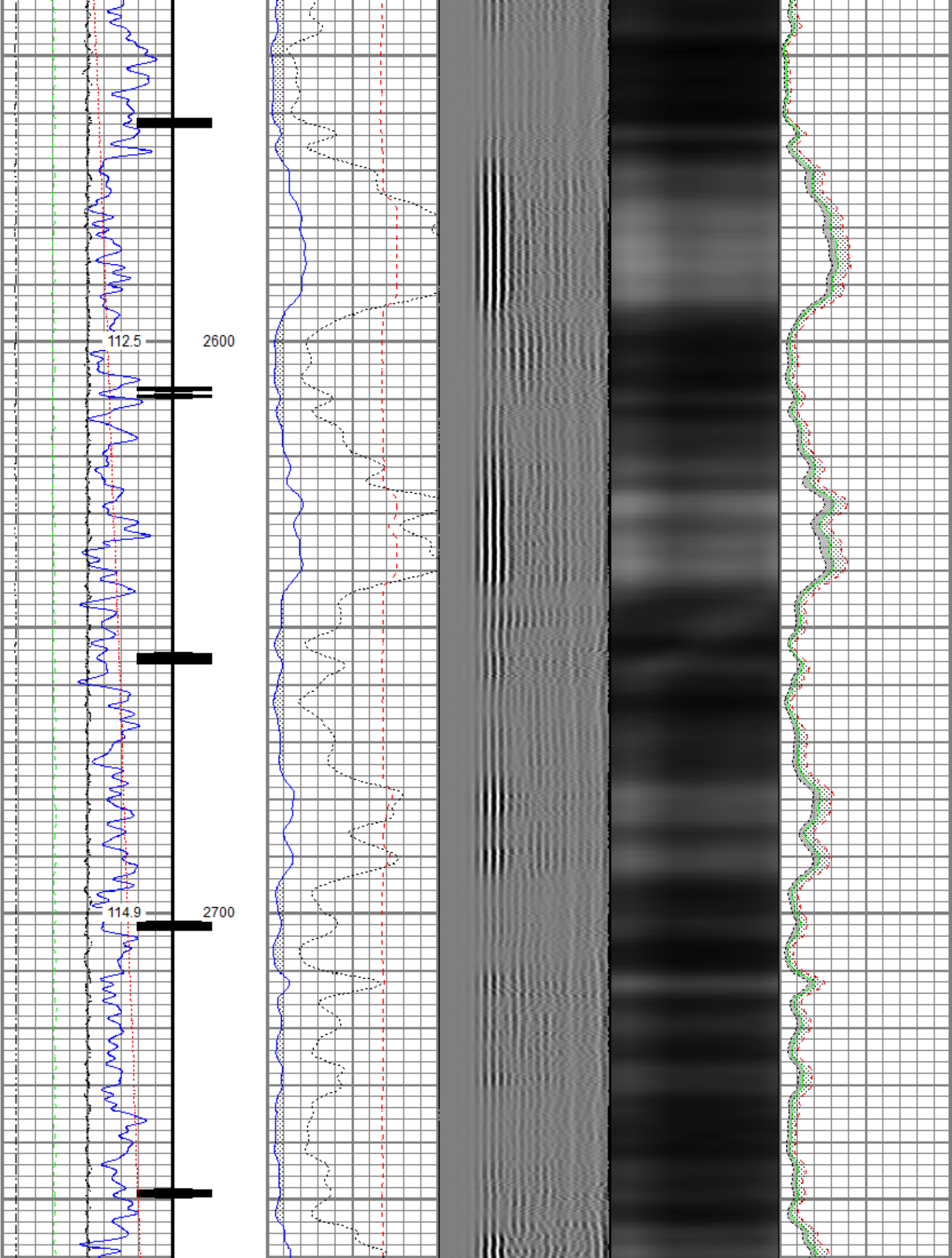


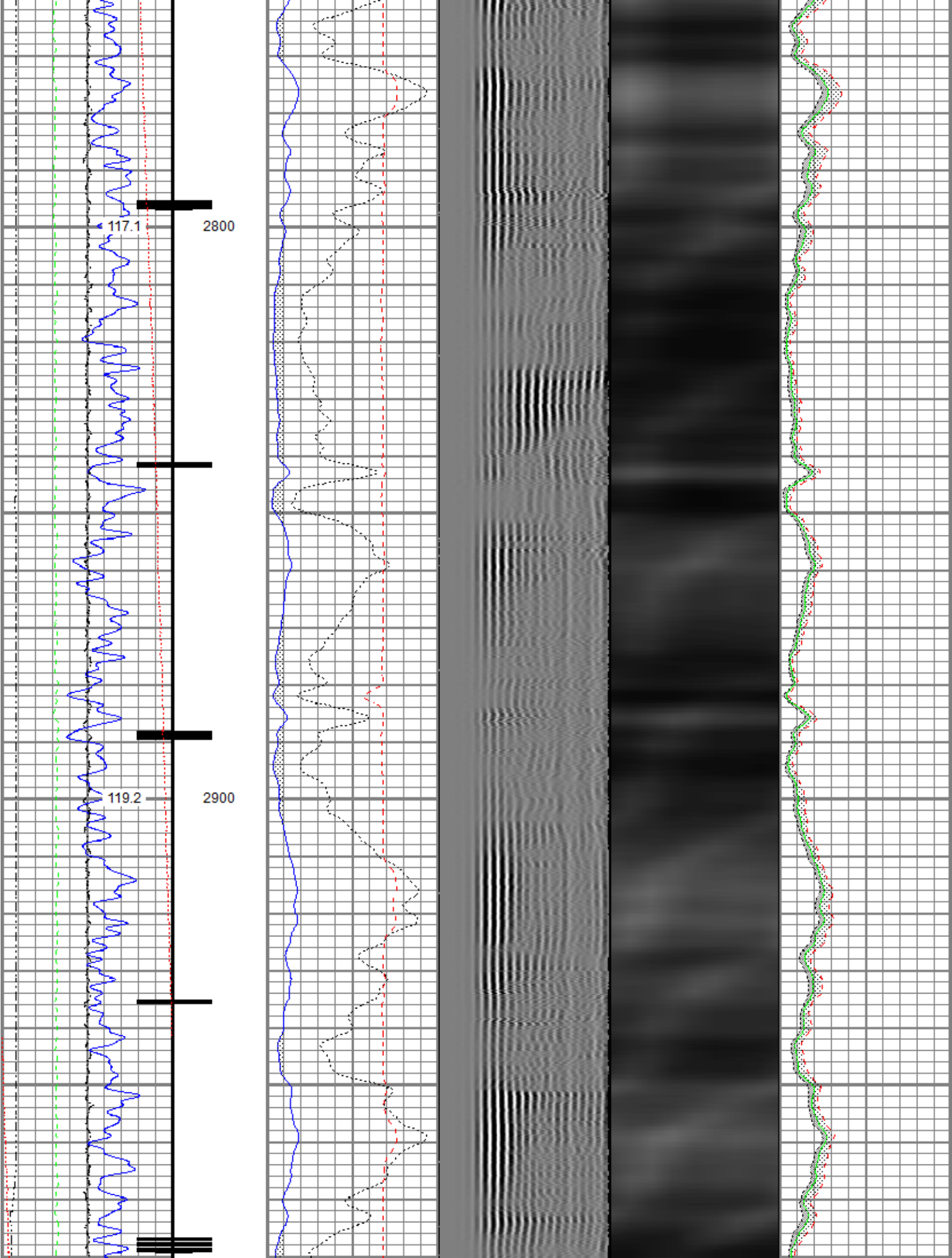


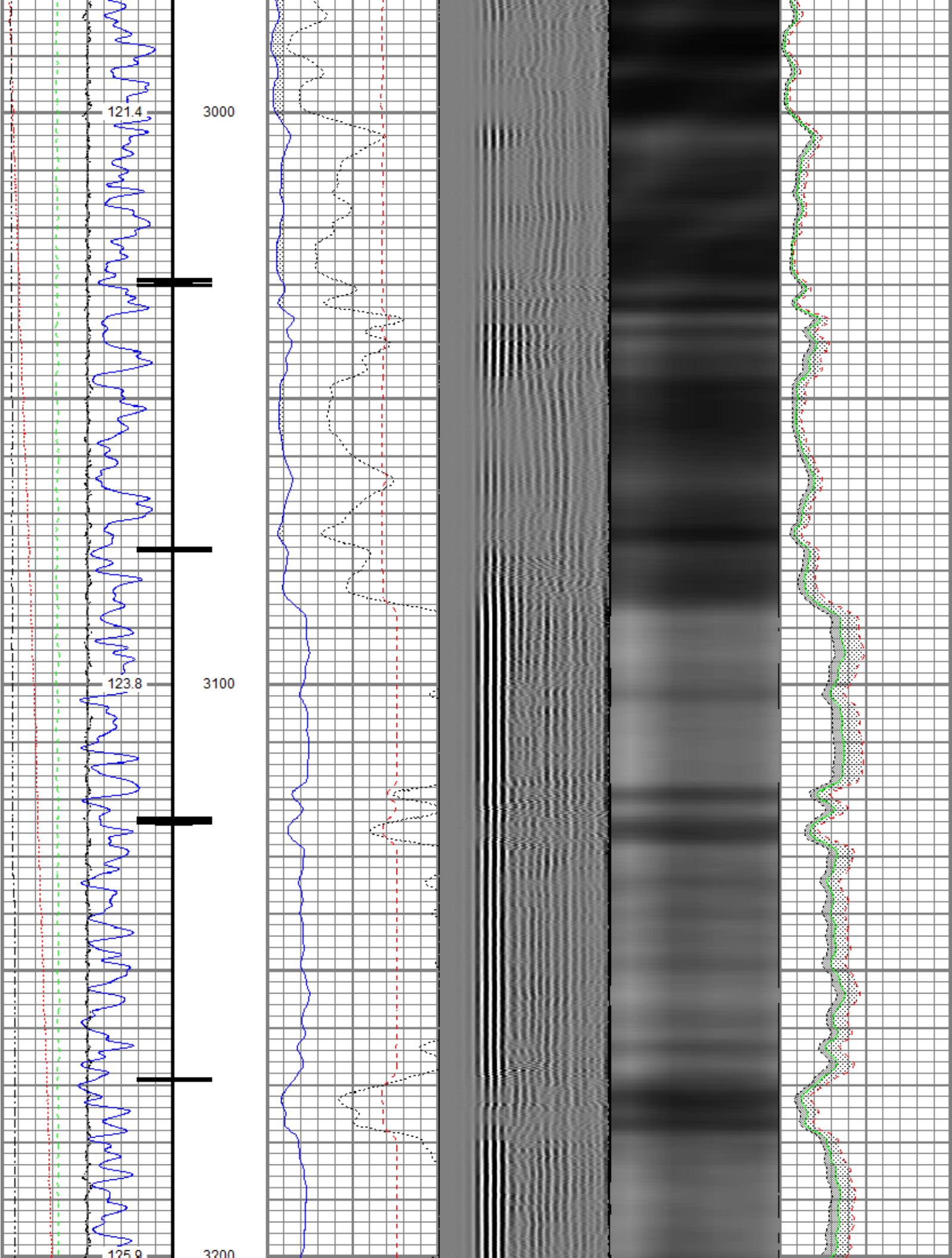


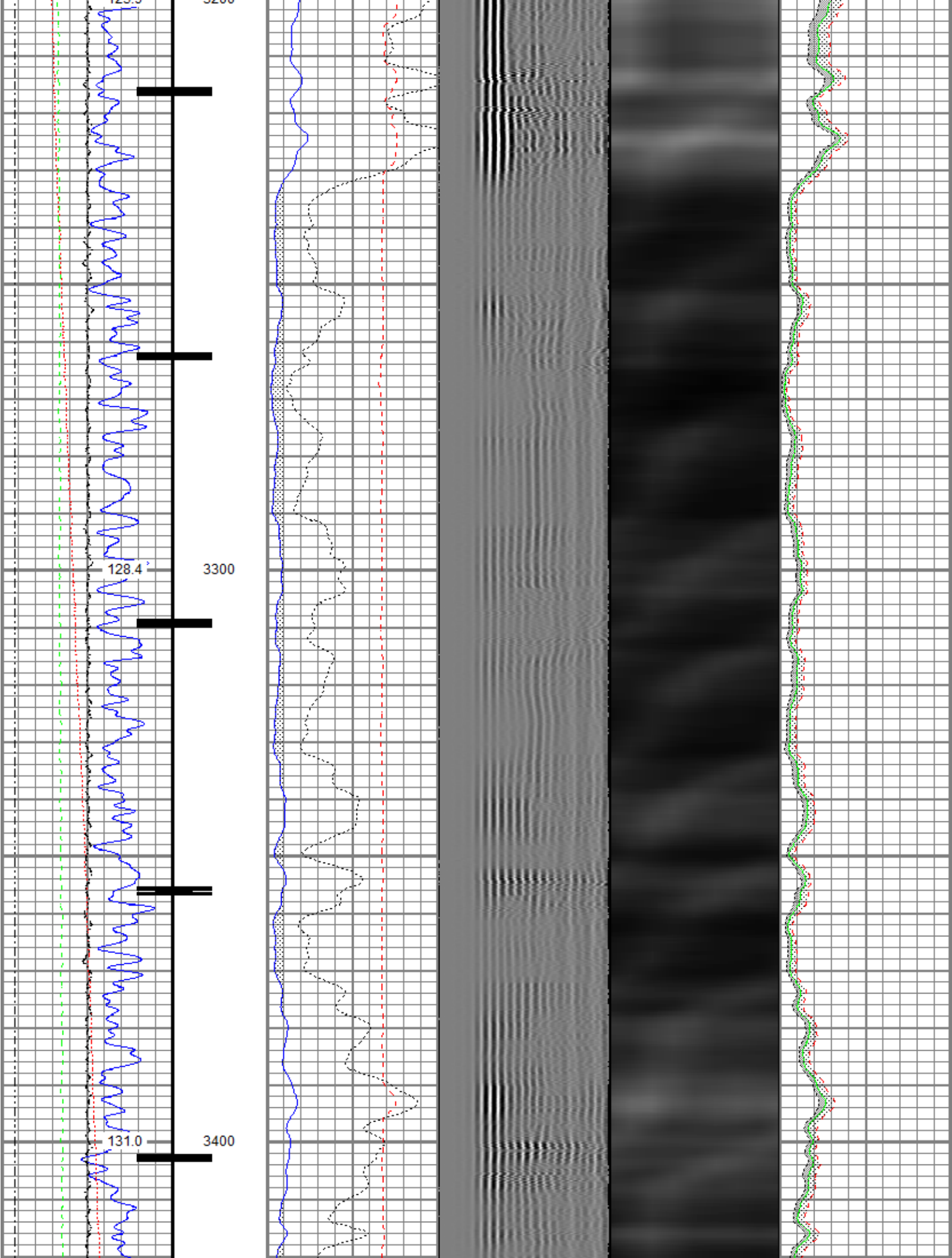


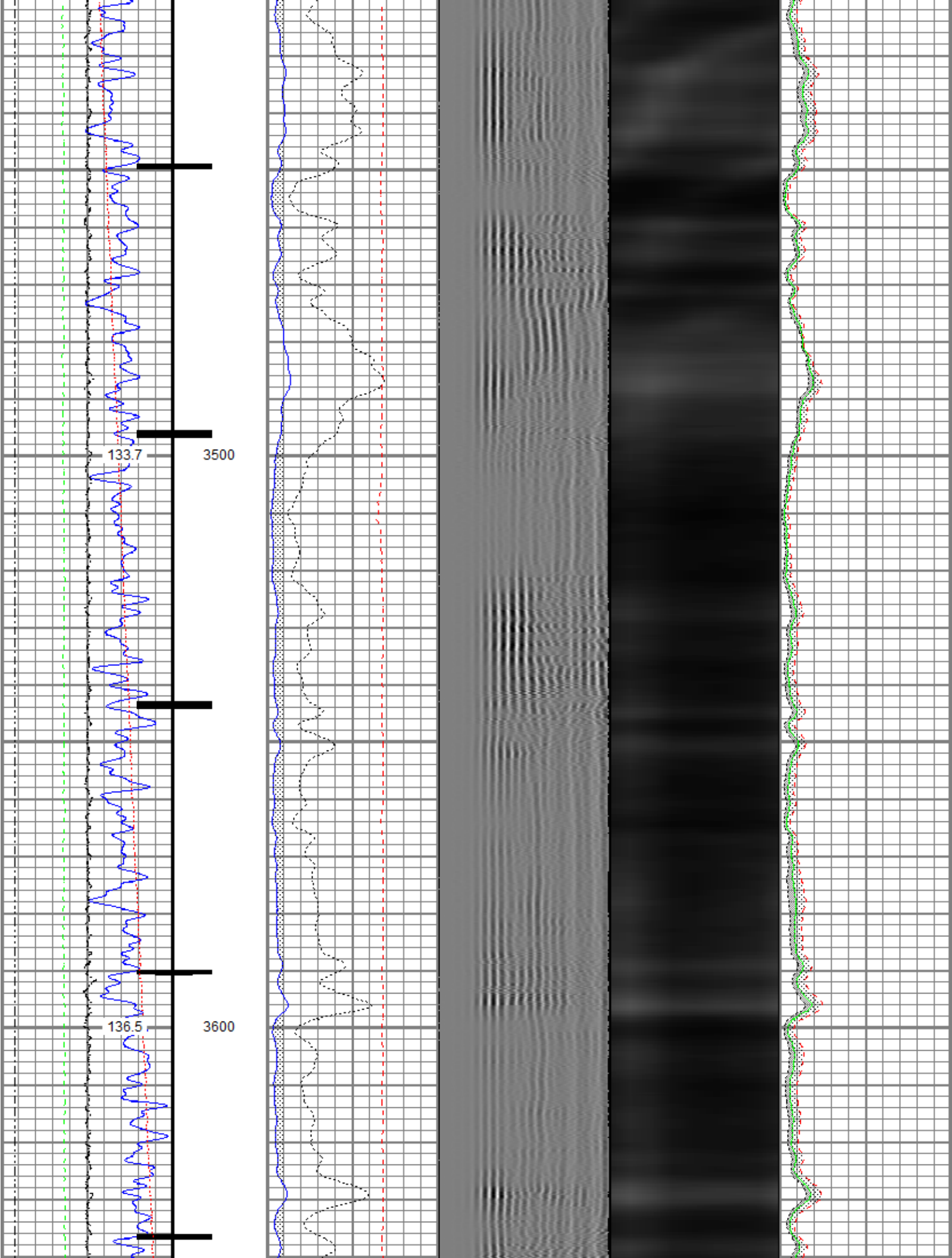


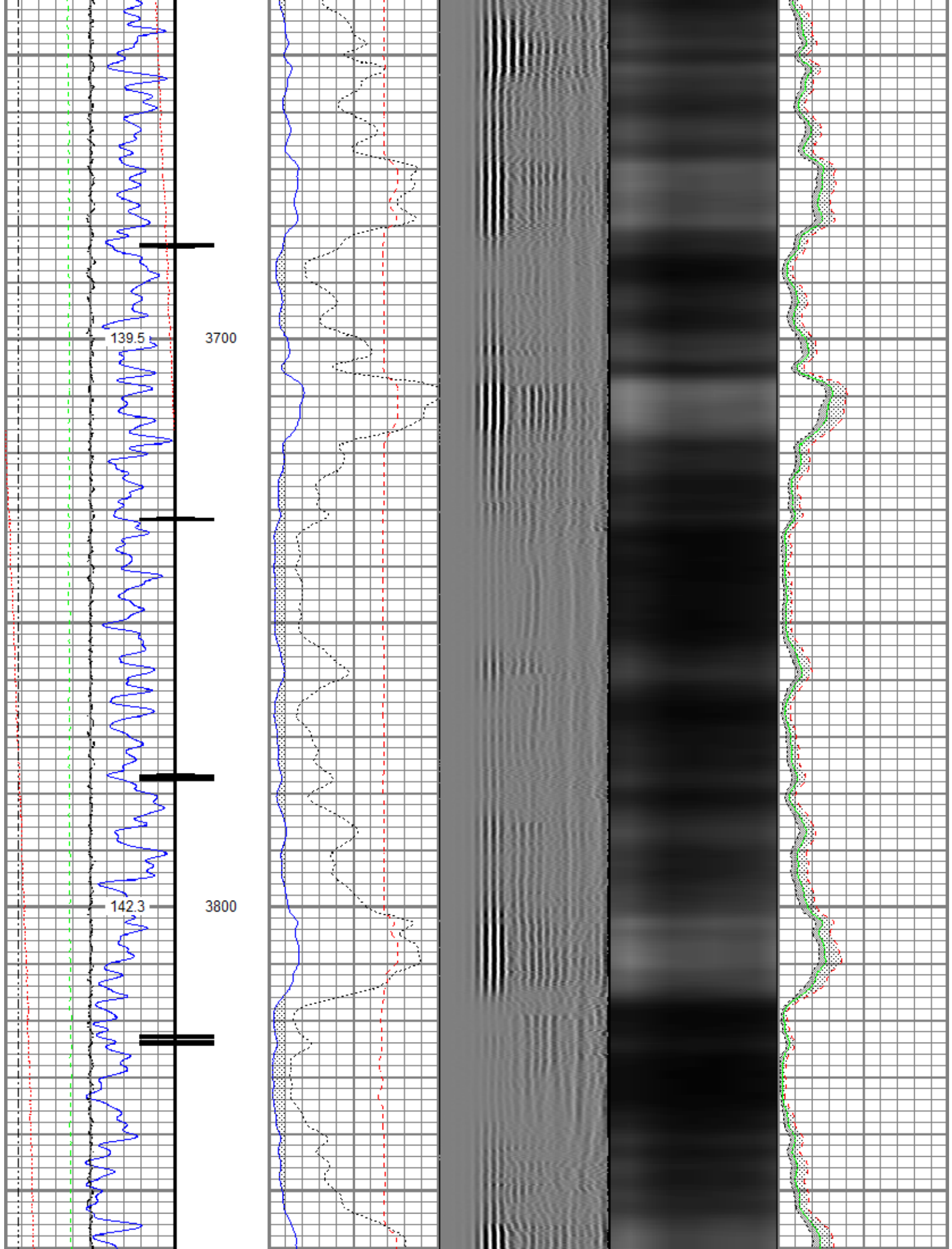


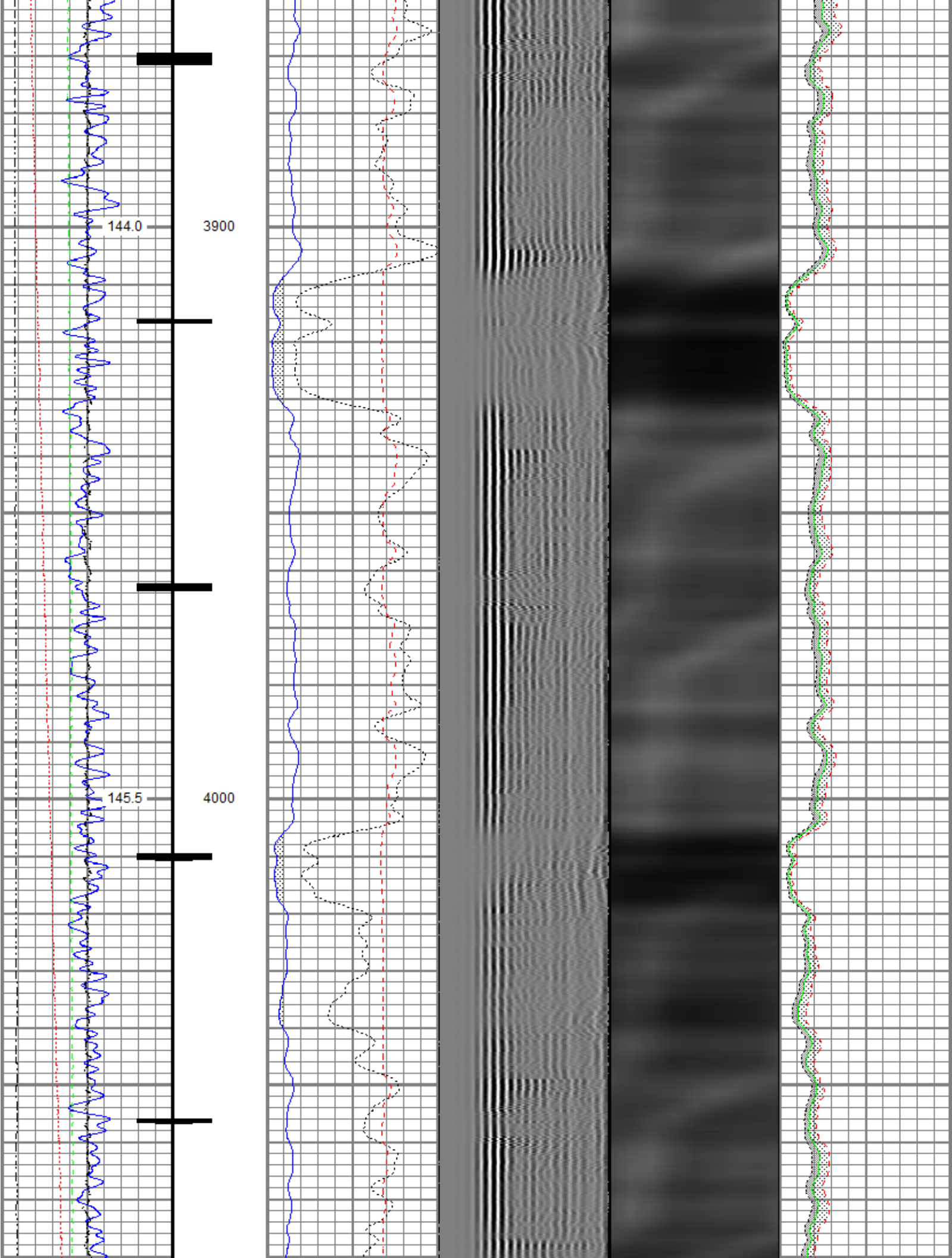


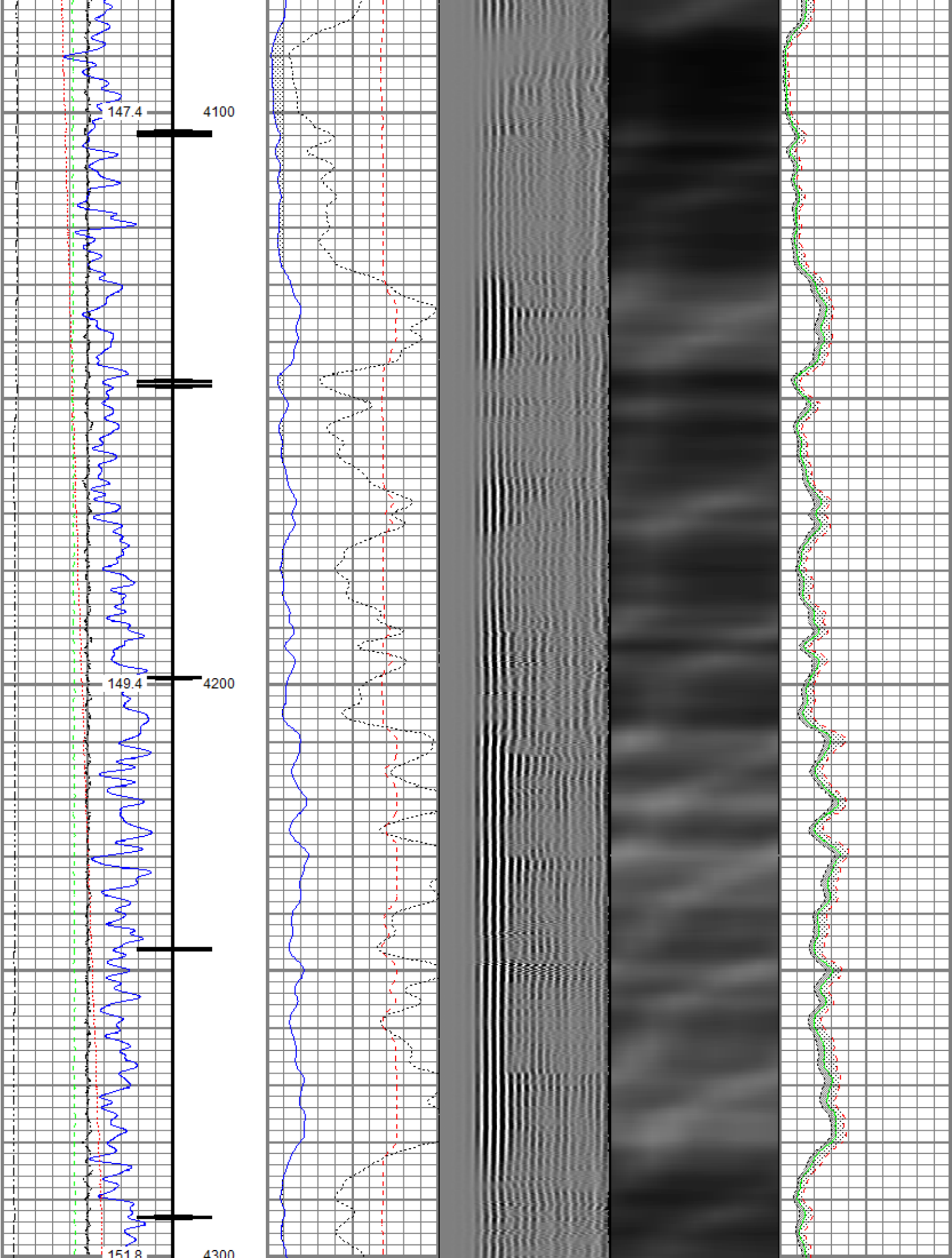


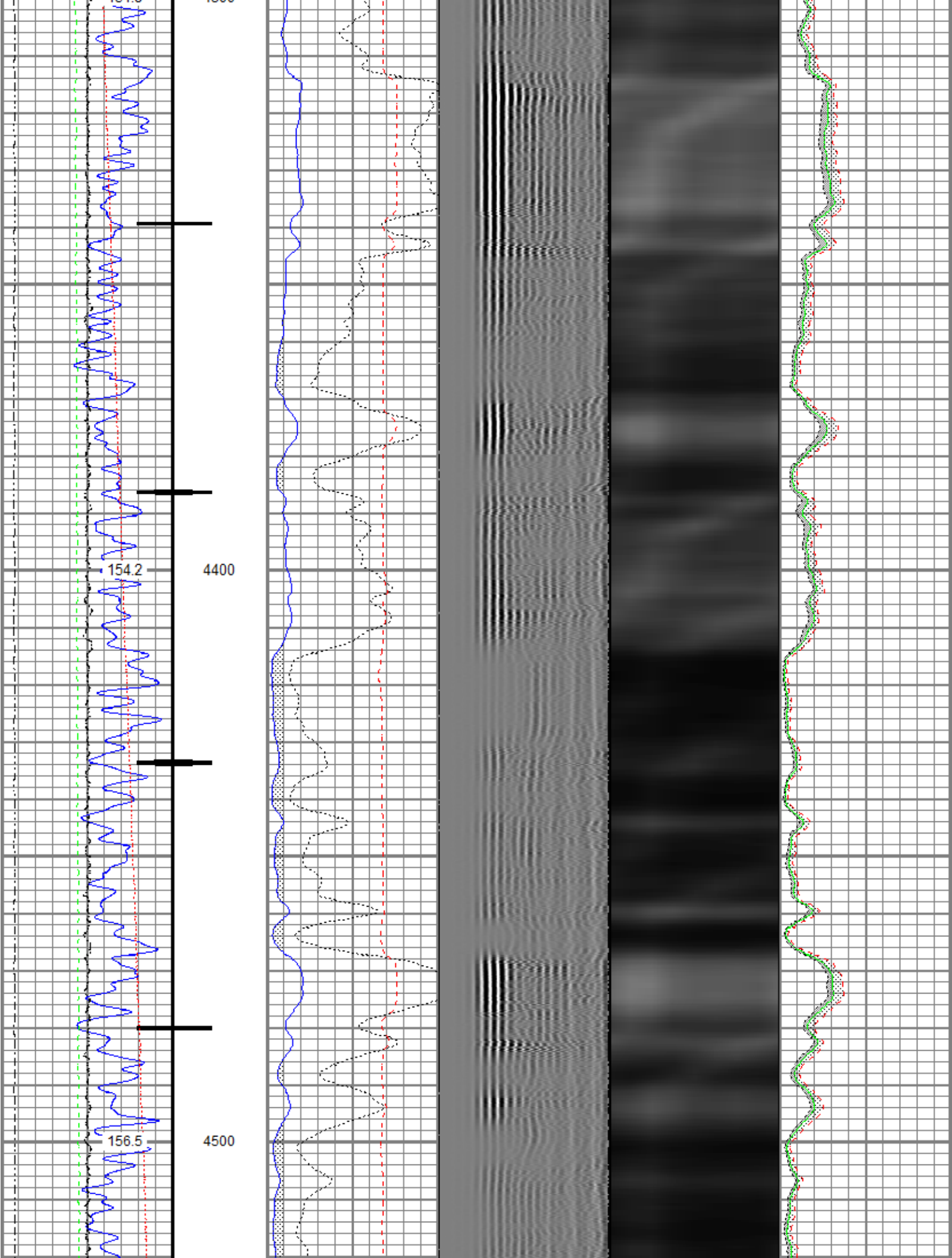


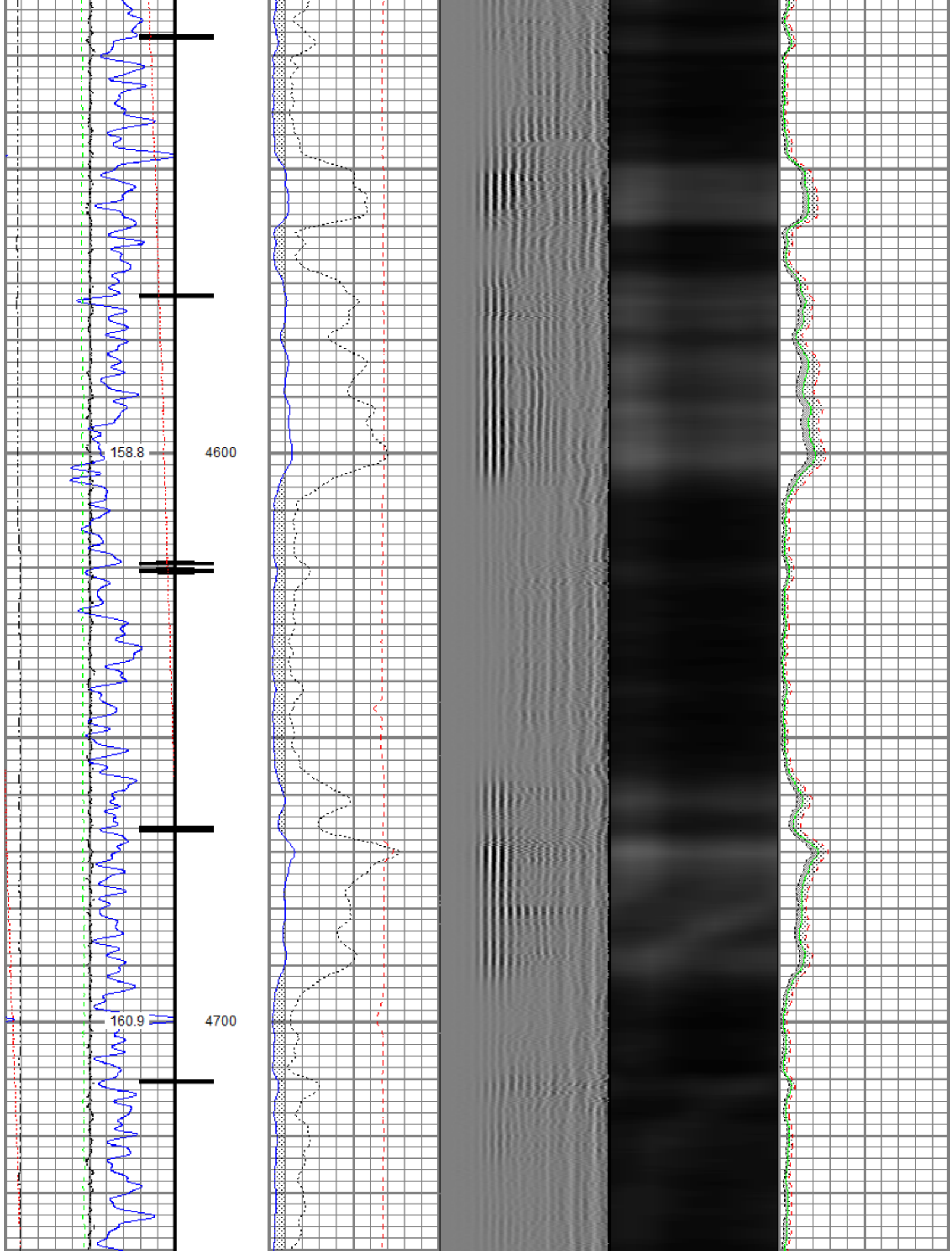


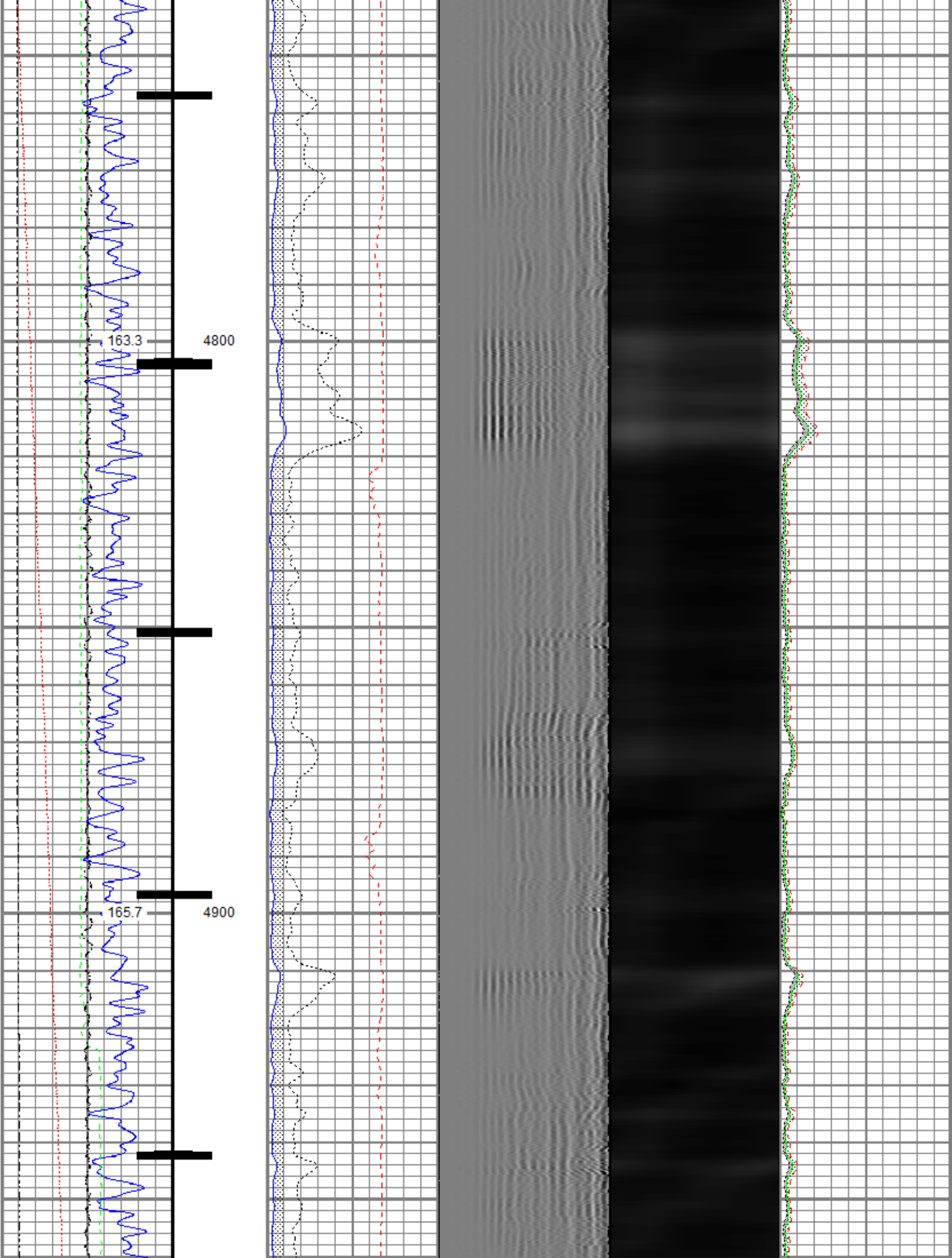


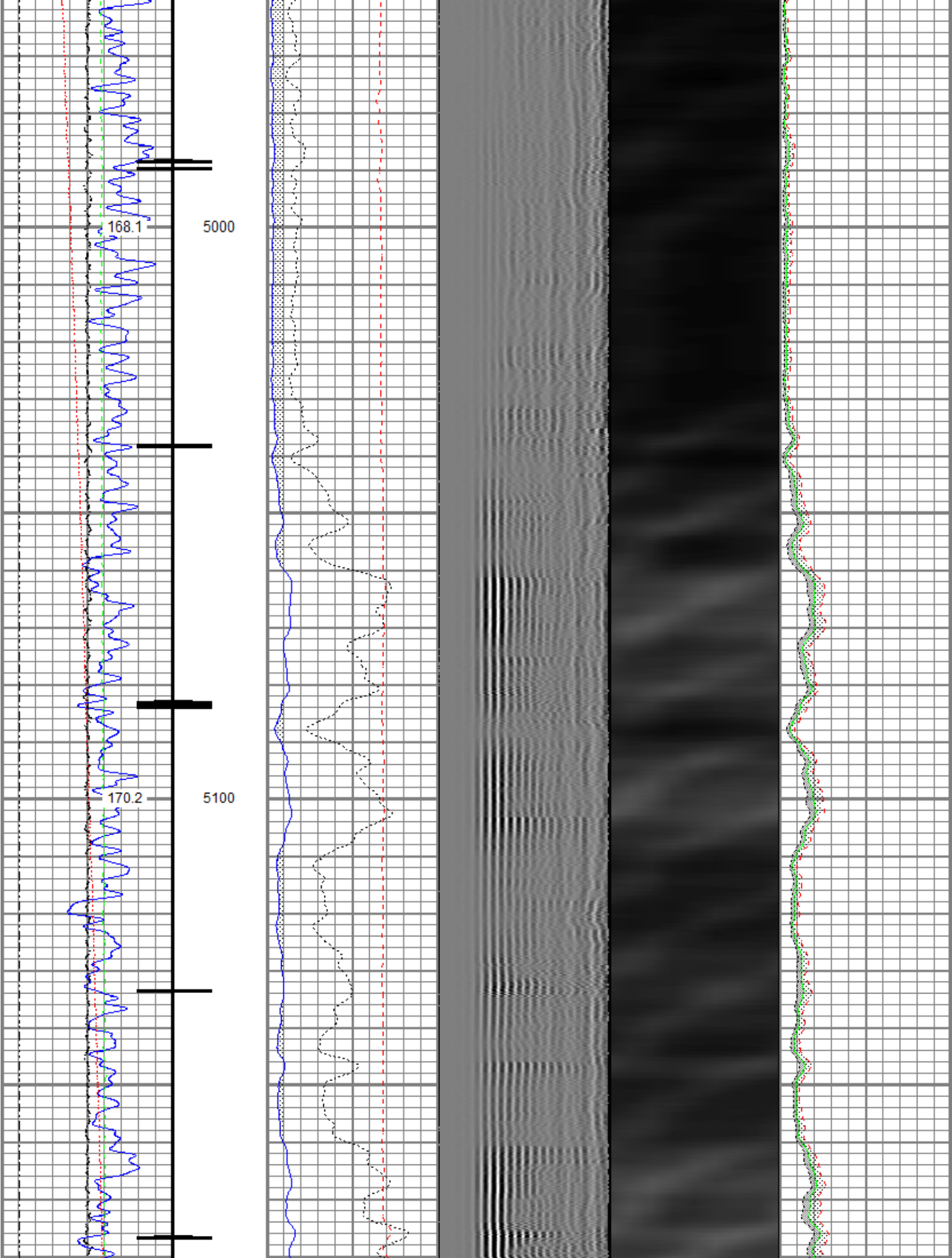


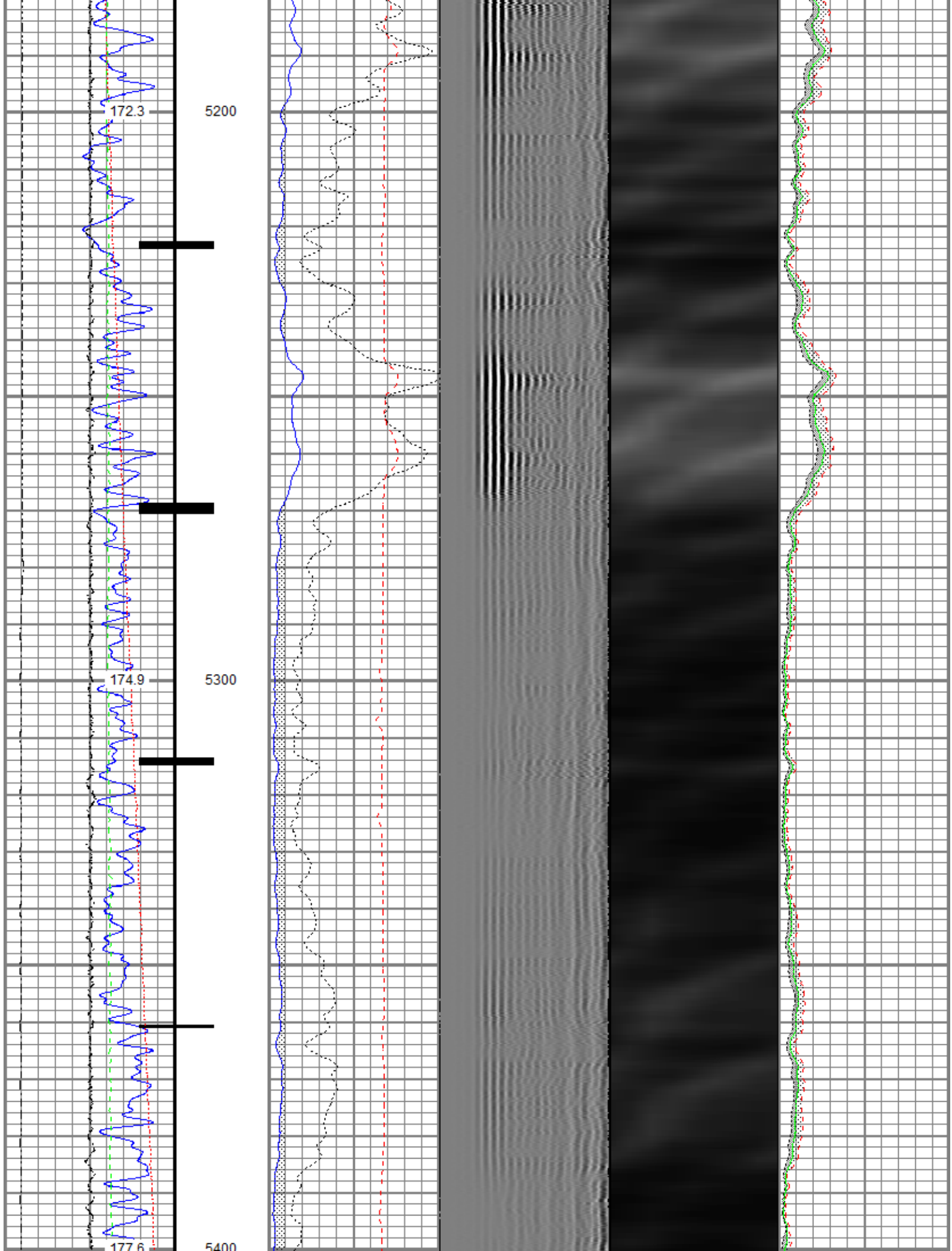


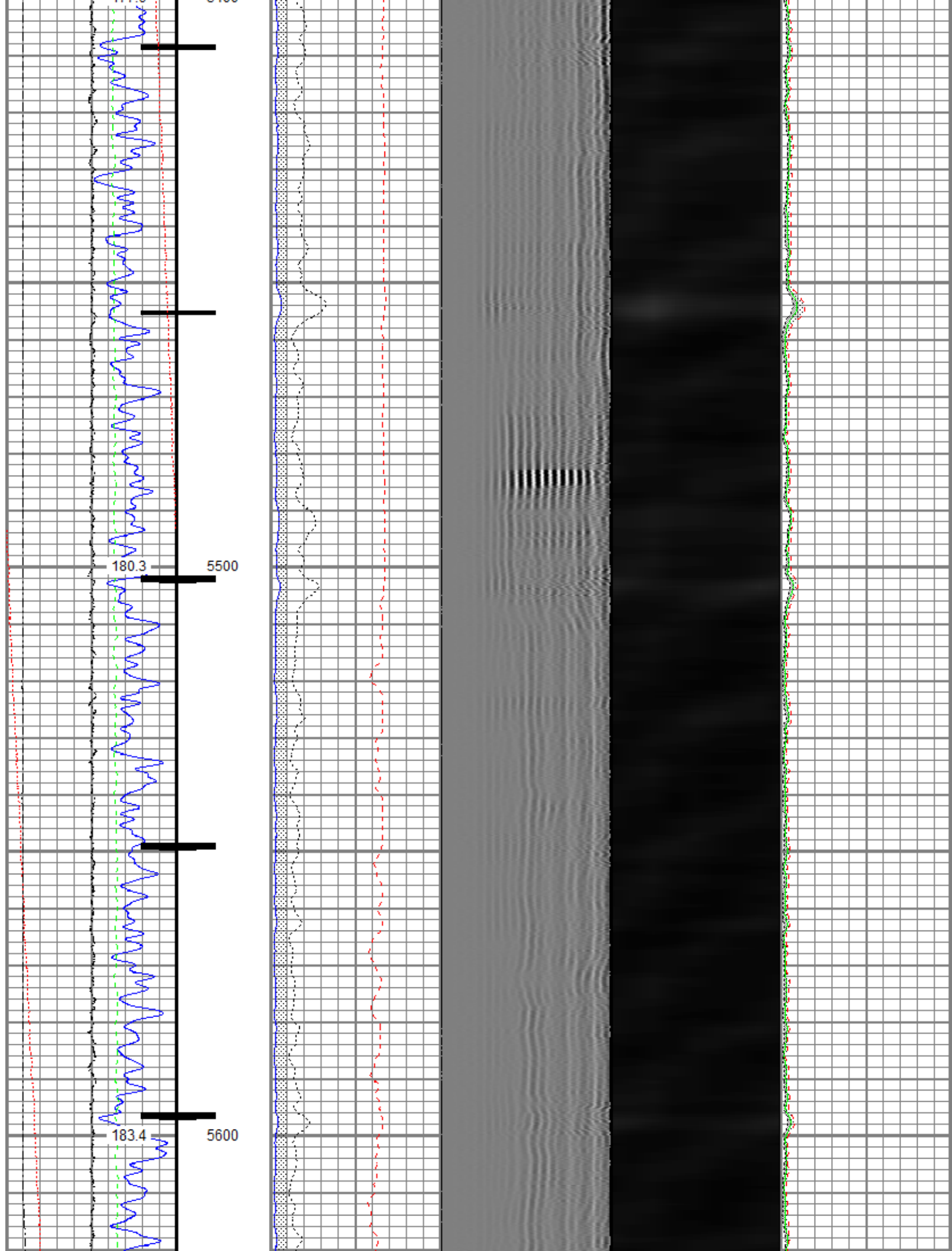


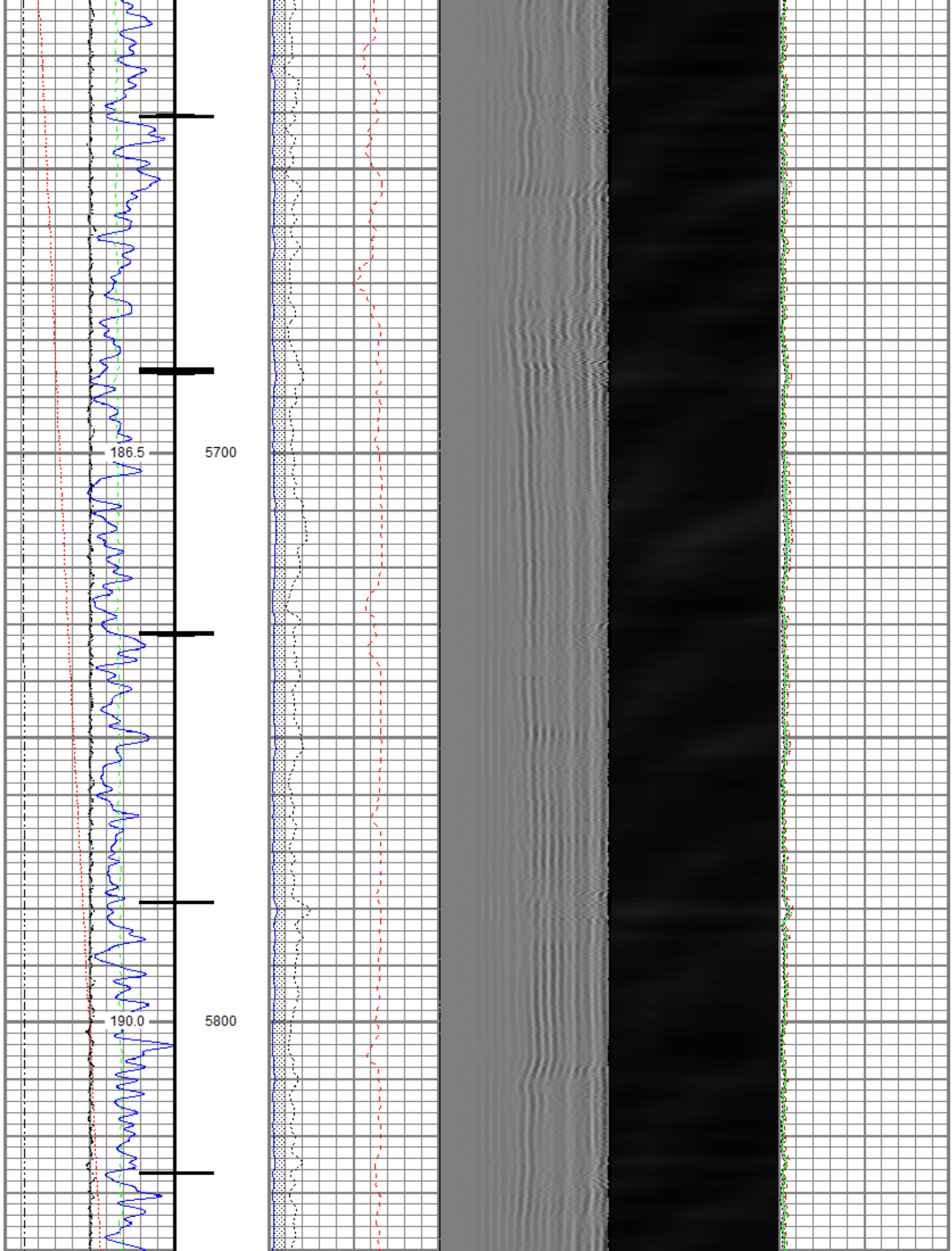


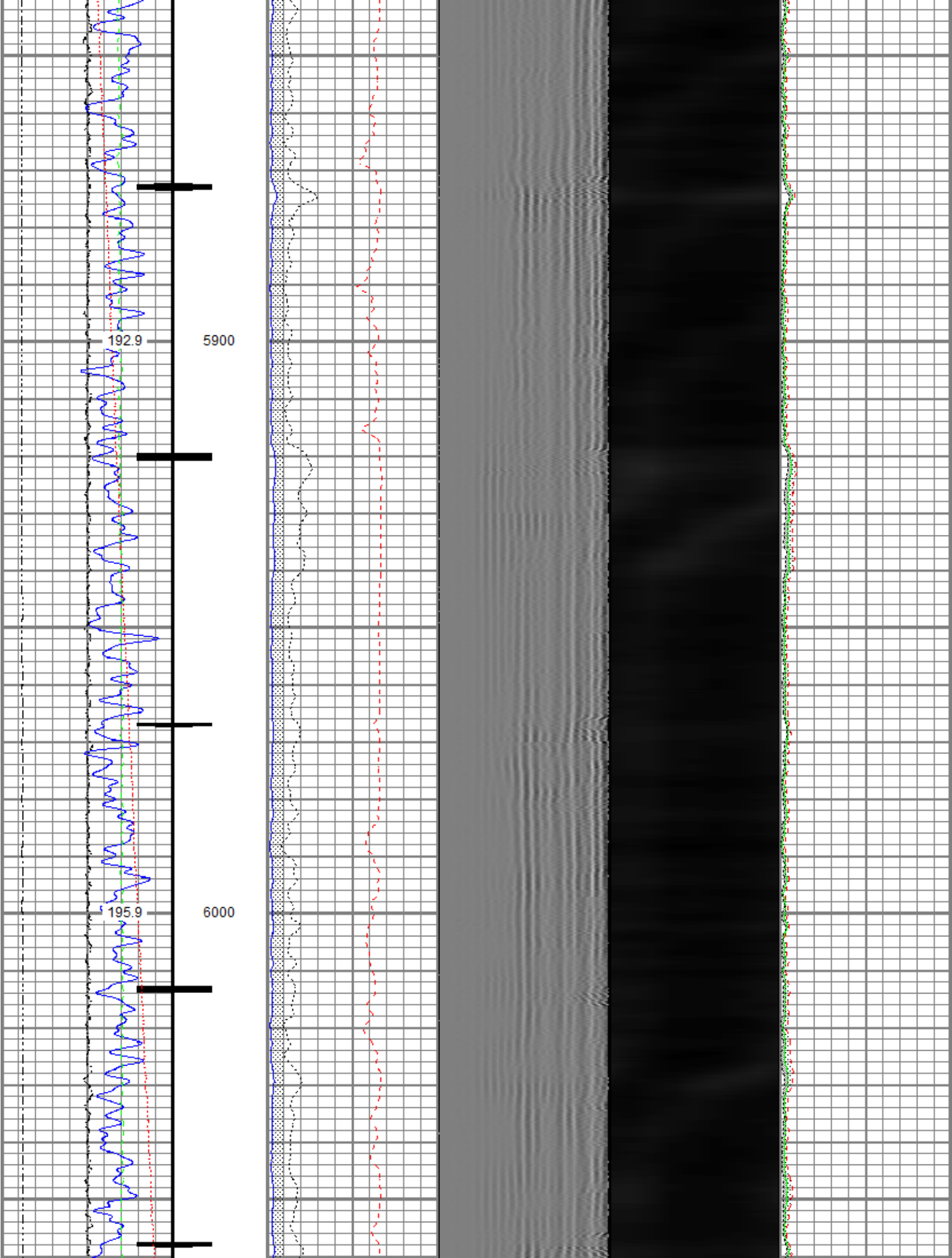


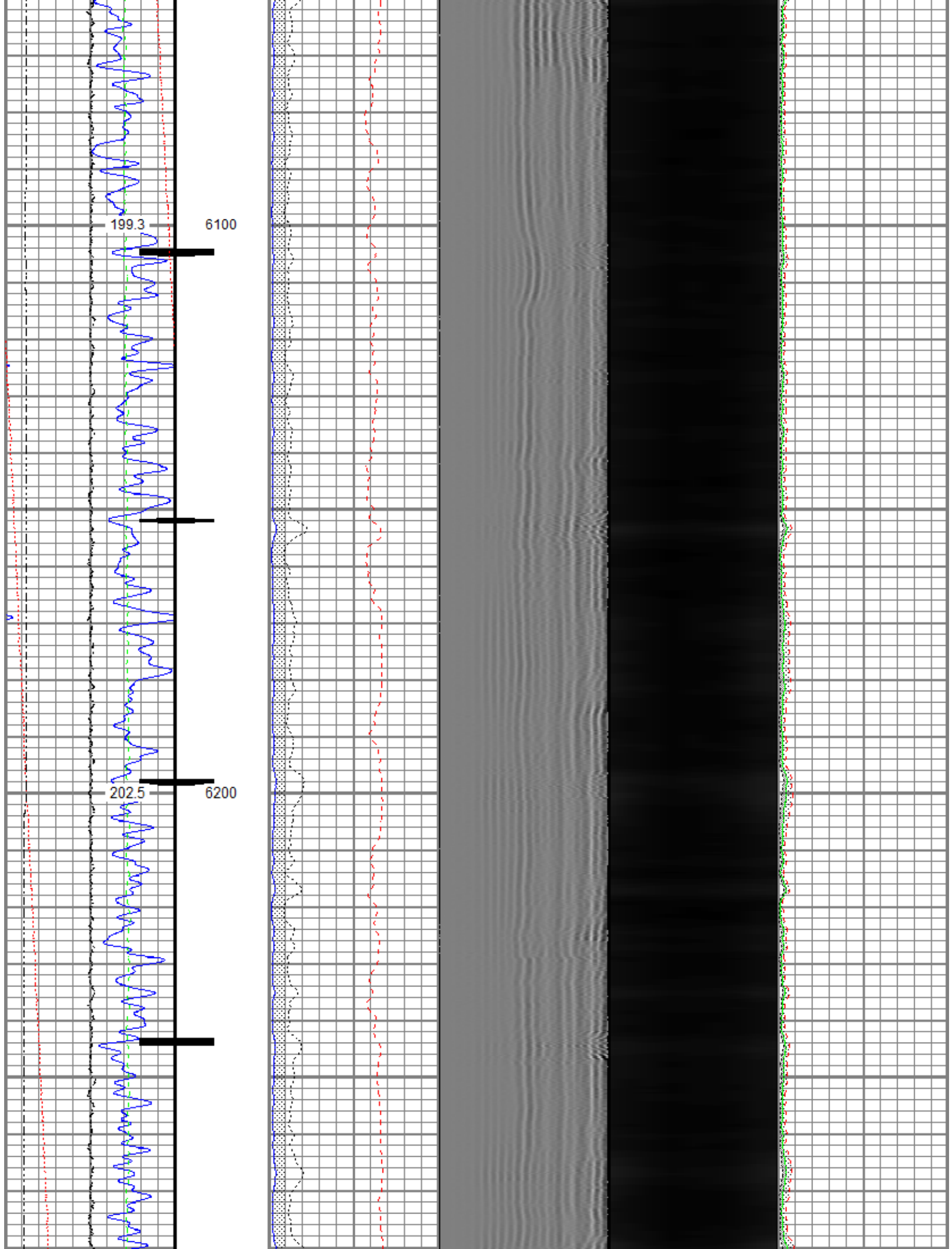


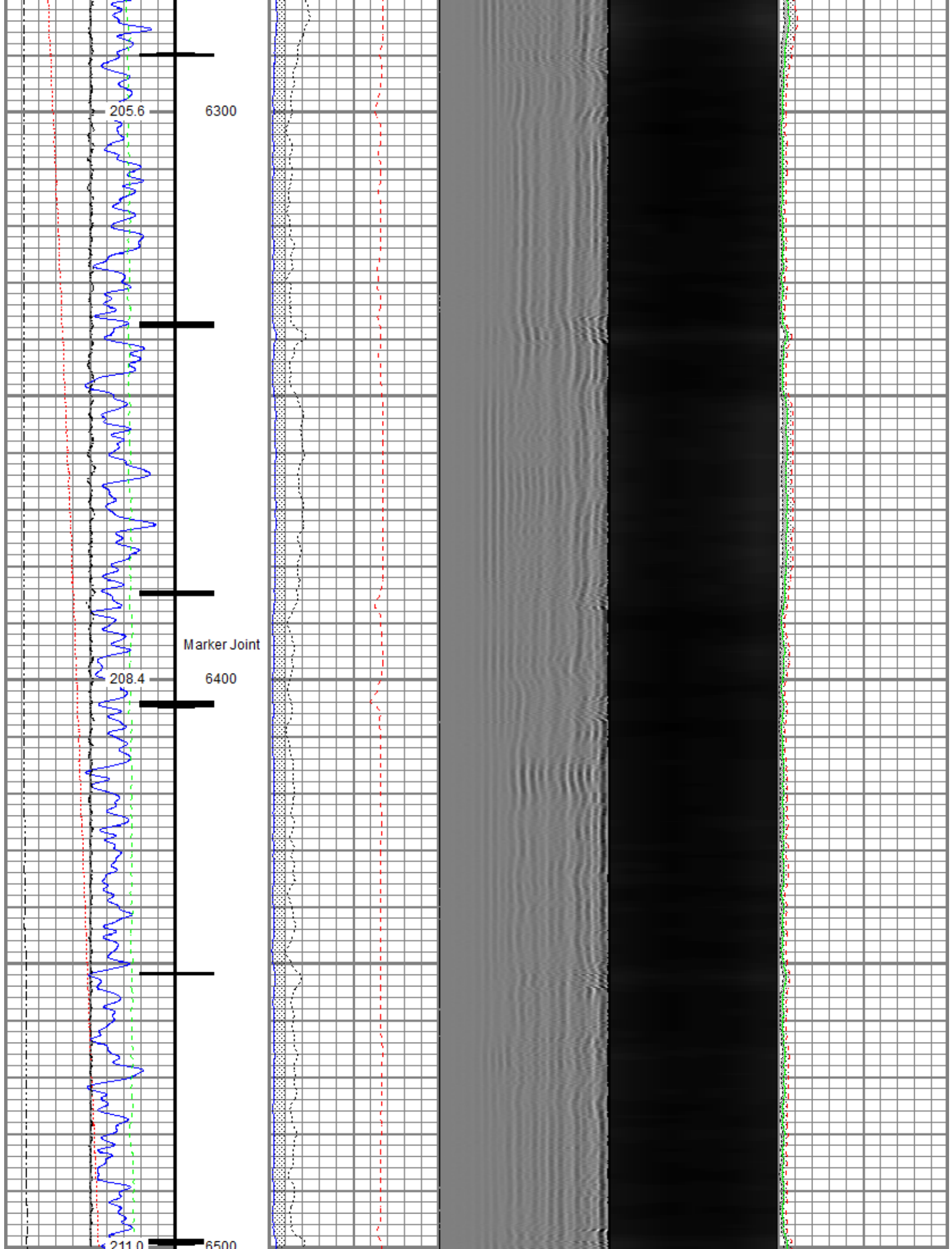


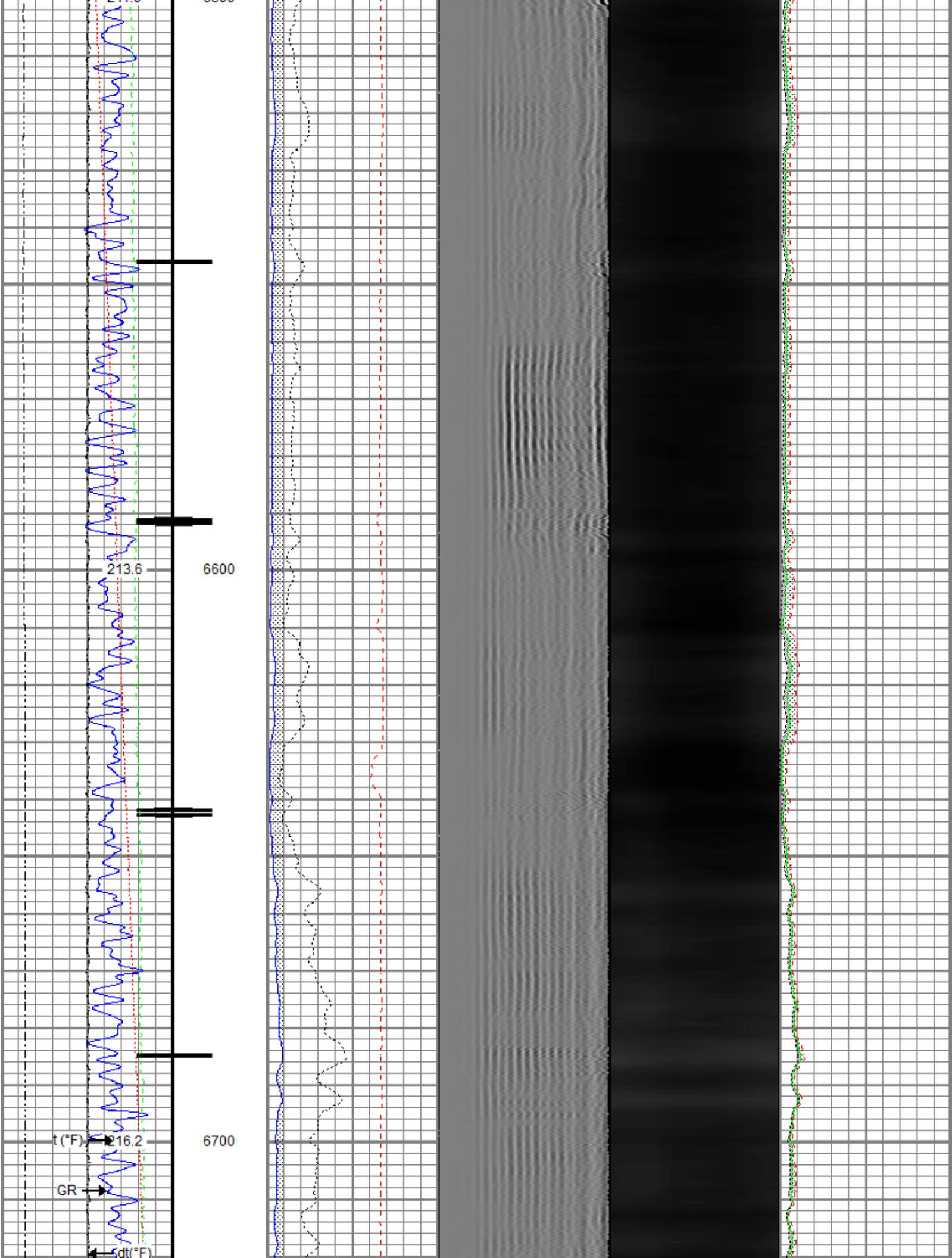


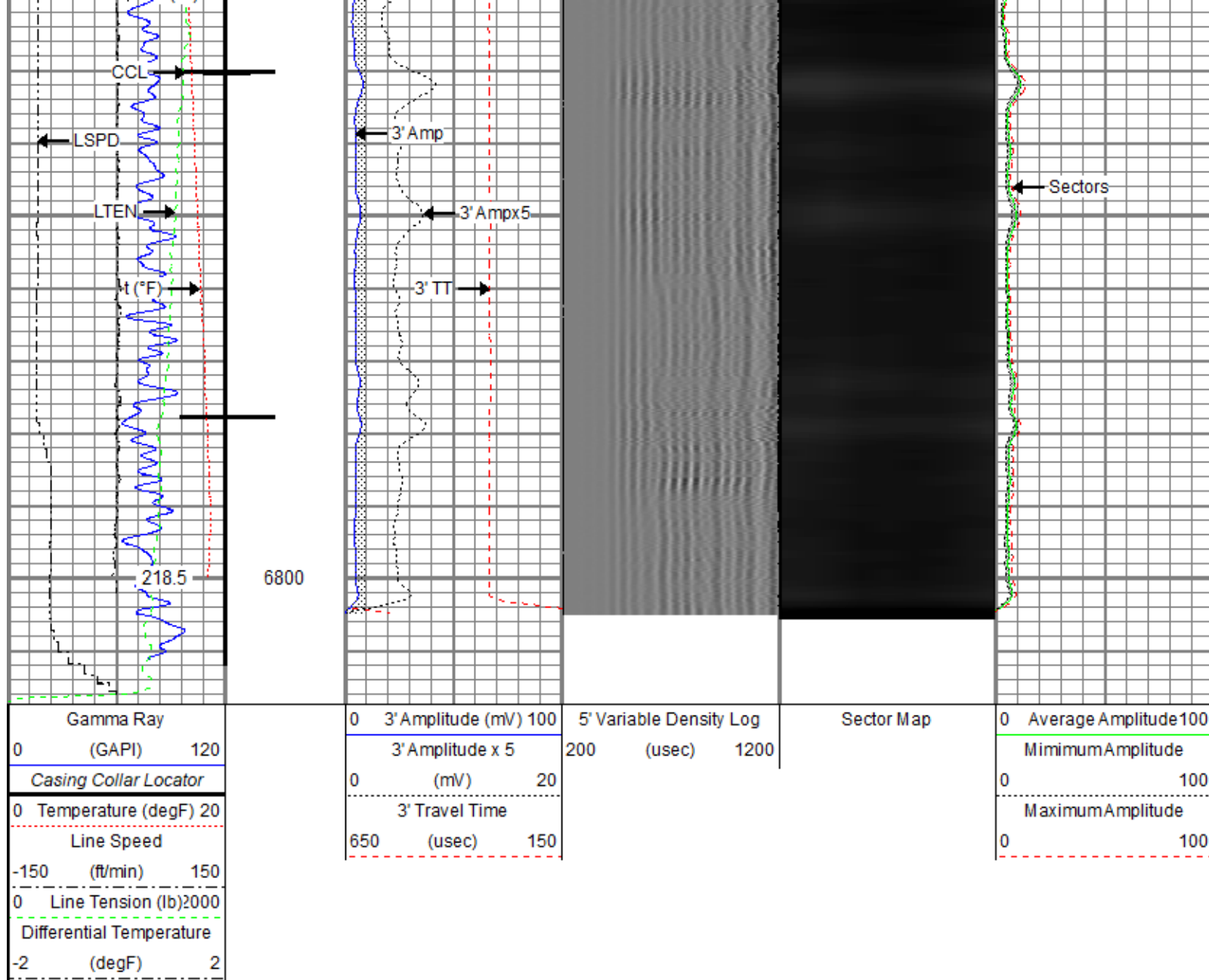








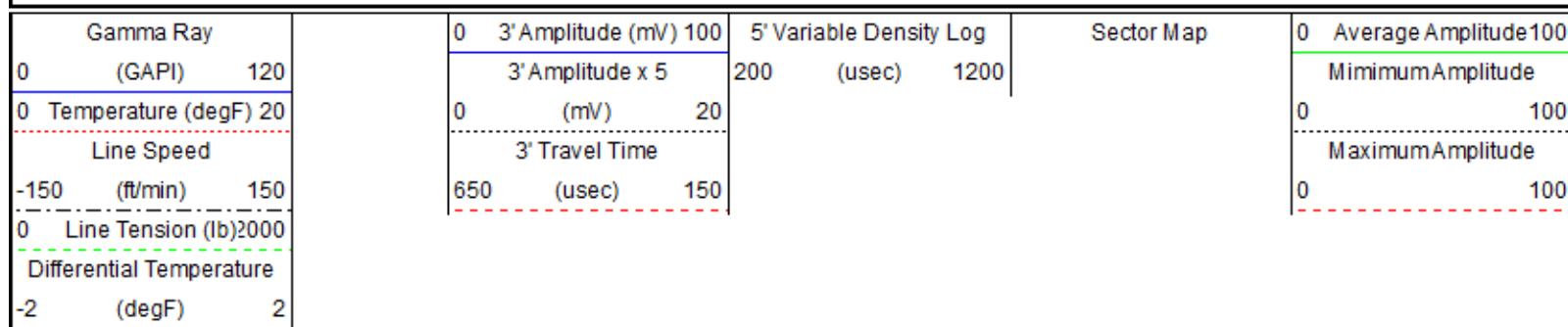


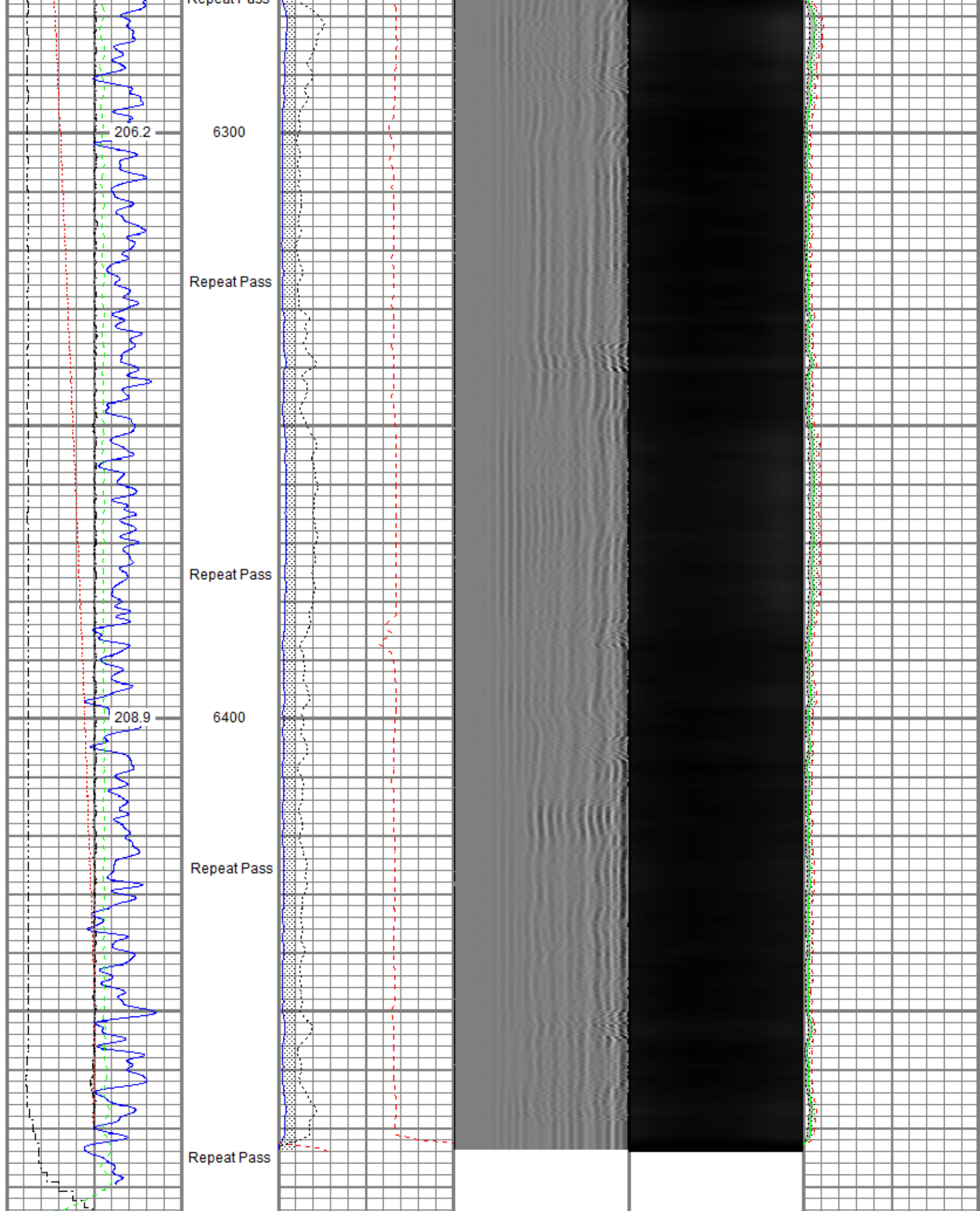


Repeat Pass

Recorded with 2500 PSI Surface Induced Pressure

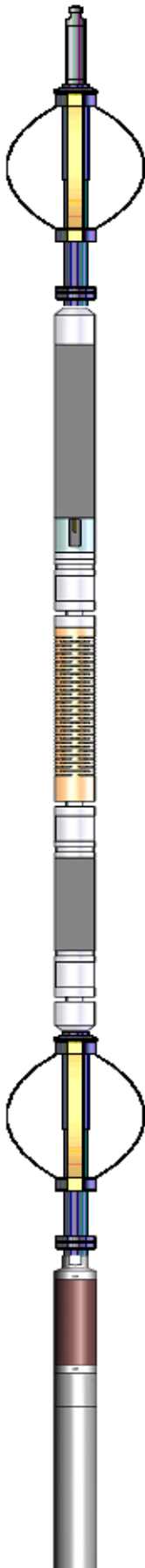
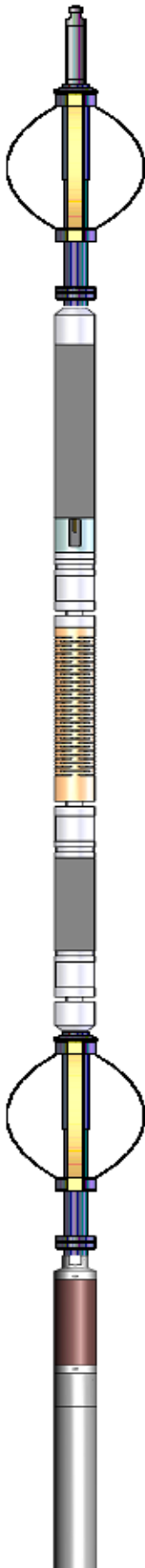
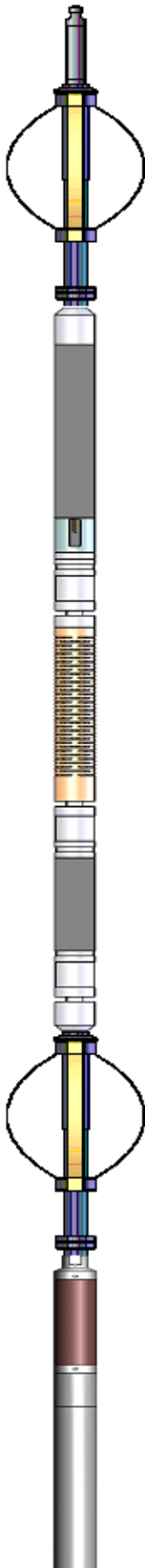
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 Dataset Pathname: Repeat.4
 Presentation Format: ros_radri
 Dataset Creation: Mon Mar 05 13:17:52 2018
 Charted by: Depth in Feet scaled 1:240






Gamma Ray		0 3' Amplitude (mV) 100		5' Variable Density Log		Sector Map		0 Average Amplitude 100	
0 (GAPI) 120		3' Amplitude x 5		200 (usec) 1200				Minimum Amplitude	
0 Temperature (degF) 20		0 (mV) 20						0 100	

Line Speed		3' Travel Time		Maximum Amplitude	
-150	(ft/min)	150	650	(usec)	150
0 Line Tension (lb)		2000	0		
Differential Temperature			100		
-2	(degF)	2			

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
TEMP	14.45		Titan CHD-14375 GO	1.03	1.44	3.60
			Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck			
			Probe CENT-2750	2.88	2.75	20.00
			Probe 2-3/4" Electric Inline Bowspring Centralizer			
WVFS8	12.21		Probe Radii-2750 RBT (FW1302-002)	9.39	2.75	105.00
WVFS7	12.21		Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub			
WVFS6	12.21					
WVFS5	12.21					
WVFS4	12.21					
WVFS3	12.21					
WVFS2	12.21					
WVFS1	12.21					
WVFCAL	12.21					
WVF3FT	12.21					
WVF5FT	11.21					
CCL\$2 CCL\$1	4.20		Probe CENT-2750	2.88	2.75	20.00
	4.20		Probe 2-3/4" Electric Inline Bowspring Centralizer			
GR	2.87		Probe GR-CCL-2750 6PB (FW1304-132)	4.80	2.75	55.00
			Probe 2-3/4" rev.1 Digital Scintillation Gamma Ray/CCL Combined with 6 Pin Bottom for CNT			

			Probe ADPT-6P-GO Probe 2-3/4" 6-Pin Top to GO Bottom Adaptor Sub	0.28	2.75	2.00
Dataset: src energy_falken 33c-9-l_rbl_03-03-18.db: field/well/run1/Main_Pass.2 Total length: 21.27 ft Total weight: 205.60 lb O.D.: 2.75 in						

Calibration Report	
Database File	c:\programdata\warrior\data\src\falken 33c-9-l\src energy_falken 33c-9-l_rbl_03-03-18.db
Dataset Pathname	Main_Pass.2
Dataset Creation	Mon Mar 05 11:42:50 2018

Gamma Ray Calibration Report		
Serial Number:	FW1304-132	
Tool Model:	2750 6PB	
Performed:	Tue Nov 28 11:17:11 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	109.1	cps
Calibrator Reading:	1009.7	cps
Sensitivity:	0.7072	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1302-002	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	-5.647	ft

Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.012	0.555	0.800	71.921	131.131	-0.792
CAL	0.660	0.658				
5'	0.020	0.484	0.800	71.921	153.544	-2.319
SUM						
S1	0.011	0.545	0.000	100.000	187.311	-2.126
S2	0.012	0.554	0.000	100.000	184.708	-2.285
S3	0.013	0.568	0.000	100.000	180.165	-2.333
S4	0.014	0.575	0.000	100.000	178.174	-2.479
S5	0.013	0.578	0.000	100.000	177.097	-2.319
S6	0.014	0.563	0.000	100.000	182.218	-2.516
S7	0.012	0.546	0.000	100.000	187.539	-2.309
S8	0.012	0.552	0.000	100.000	185.314	-2.245

Internal Reference Calibration, performed (Not Performed):						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.660	0.658	1.000	0.000

Air Zero Calibration, performed Sat Mar 03 09:10:47 2018:						
	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	

3'	0.007	0.000	-0.000
5'	0.006	0.000	0.000
SUM			
S1	0.005	0.000	0.000
S2	0.007	0.000	-0.000
S3	0.006	0.000	0.001
S4	0.006	0.000	0.000
S5	0.007	0.000	-0.000
S6	0.006	0.000	0.000
S7	0.007	0.000	-0.000
S8	0.006	0.000	0.000

Temperature Calibration Report

Serial Number: FW1302-002
 Tool Model: 2750 RBT
 Performed: Sun Nov 12 13:28:07 2017

	Reference	Reading
Low Reference:	100.00 degF	110.72 degF
High Reference:	350.00 degF	409.18 degF

Gain: 0.84
 Offset: 7.26
 Delta Spacing: 1



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