



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company SRC Energy Inc  
Well Falken 34N-9C-L  
Field Wattenberg  
County Weld State Colorado

Location: API #: 05-123-45106  
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	08-MAR-2018	Four		
Run Number		19165 FT (GL)		
Depth Driller		6705 FT		
Depth Logger		6700 FT		
Bottom Logged Interval		Surface		
Top Log Interval		8.5"		
Open Hole Size		Water		
Type Fluid		8.34 lb/gal		
Density / Viscosity		210°F		
Max. Recorded Temp.		See Log		
Estimated Cement Top		ROA		
Time Well Ready		1600		
Time Logger on Bottom		HD-325		
Equipment Number		Fort Lupton, CO		
Location		C. Bryan		
Recorded By		Shane Hart		
Witnessed By				
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				

<<< Fold Here >>>

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

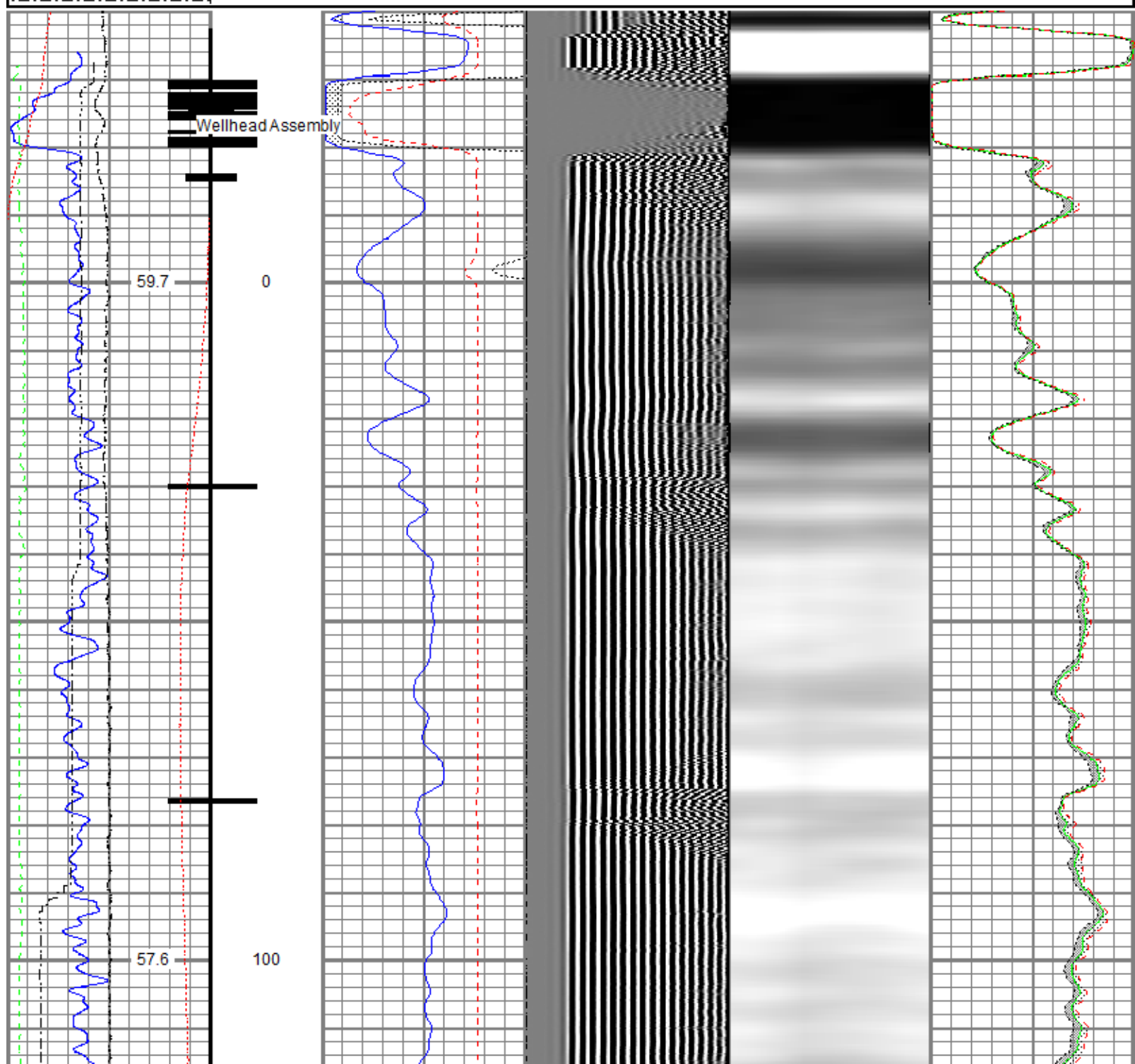
Log ran as per customer request  
Log measured from Ground Level at 0 FT  
Depth referenced to Casing Tally reported Marker Joint at 6564 FT  
Adjusted -19 FT to correlate with Marker Joint  
Log ran from deep as possible to Surface  
Log ran with 2500 PSI Surface Induced Pressure  
Logging tools were clean and free of debris upon completion of operations  
Thank you for choosing Reliance Oilfield Services, LLC!!

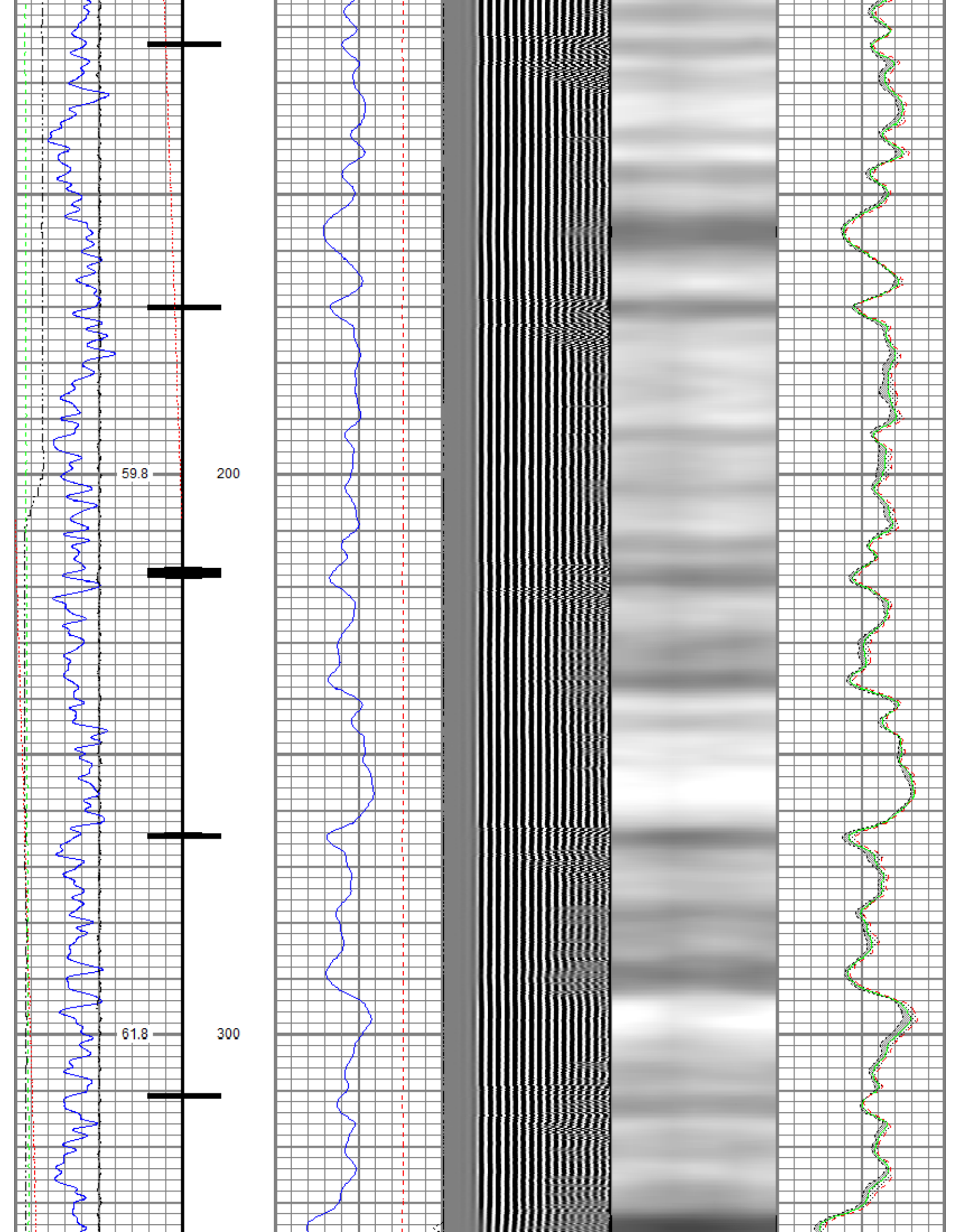
Main Pass



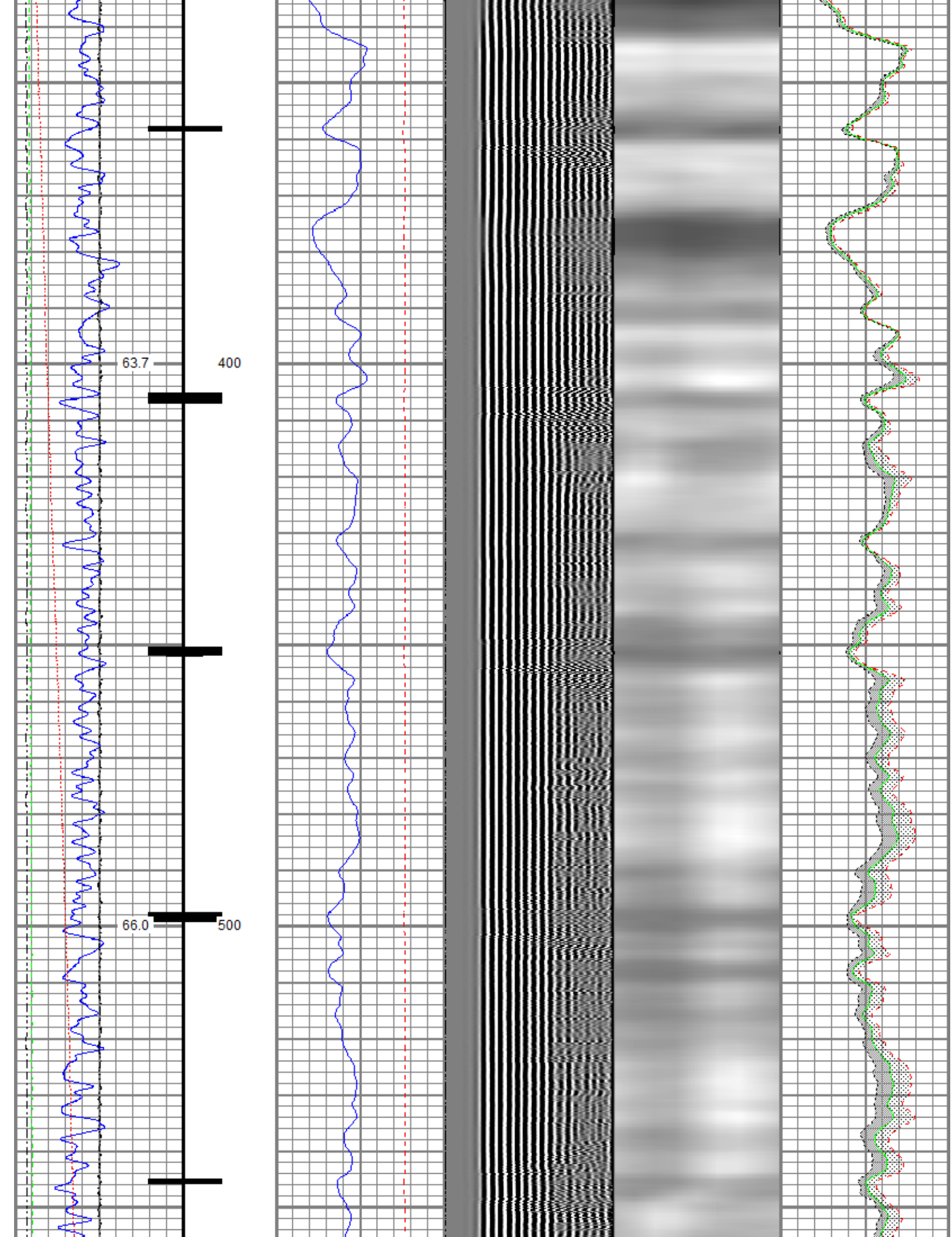
Database File src energy\_falken 34n-9c-l\_rbl\_03-08-18\processed\_src energy\_falken 34n-9c-l\_rbl\_03-08-18.db  
 Dataset Pathname main.1  
 Presentation Format ros\_radri  
 Dataset Creation Thu Mar 08 18:18:08 2018  
 Charted by Depth in Feet scaled 1:240

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						

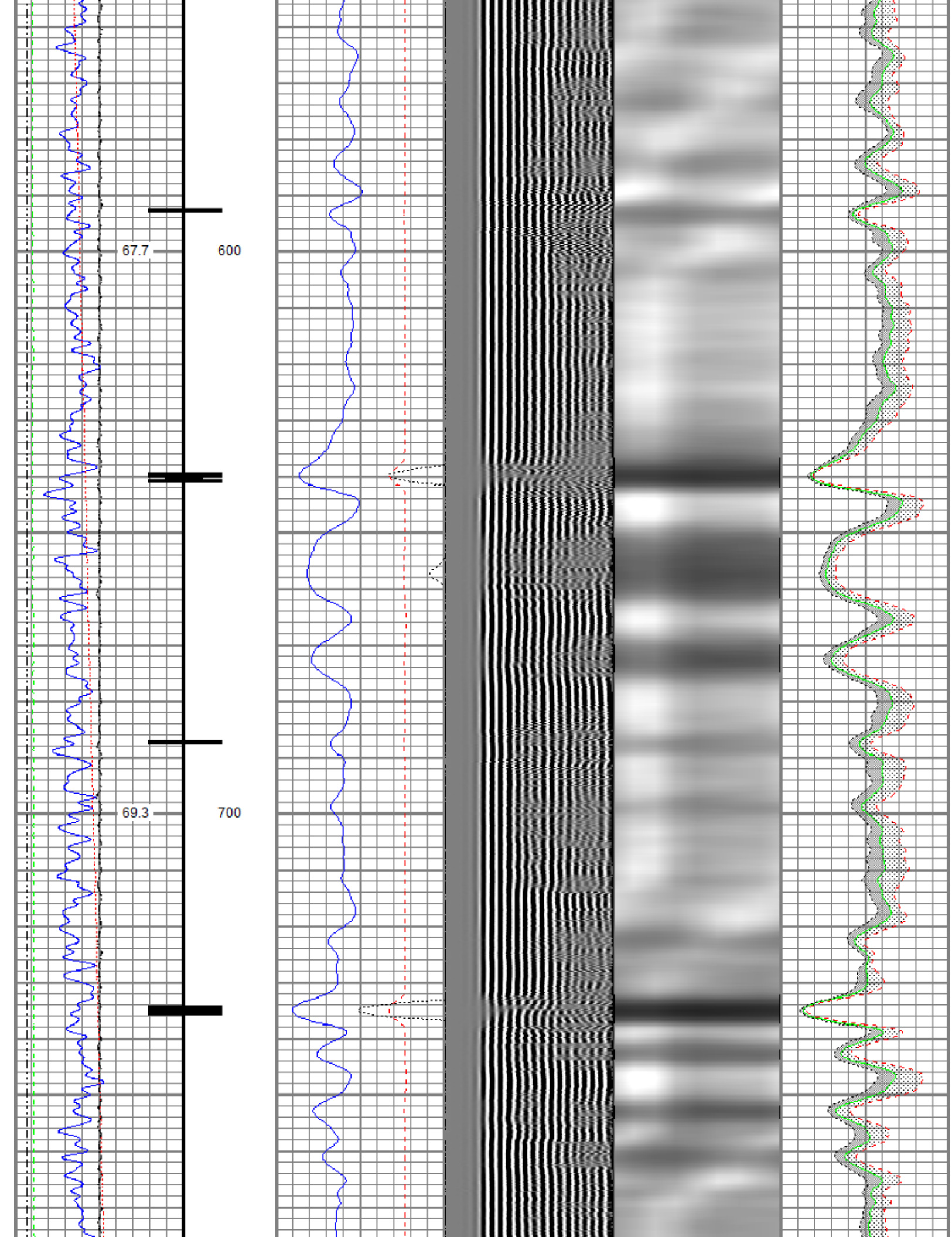


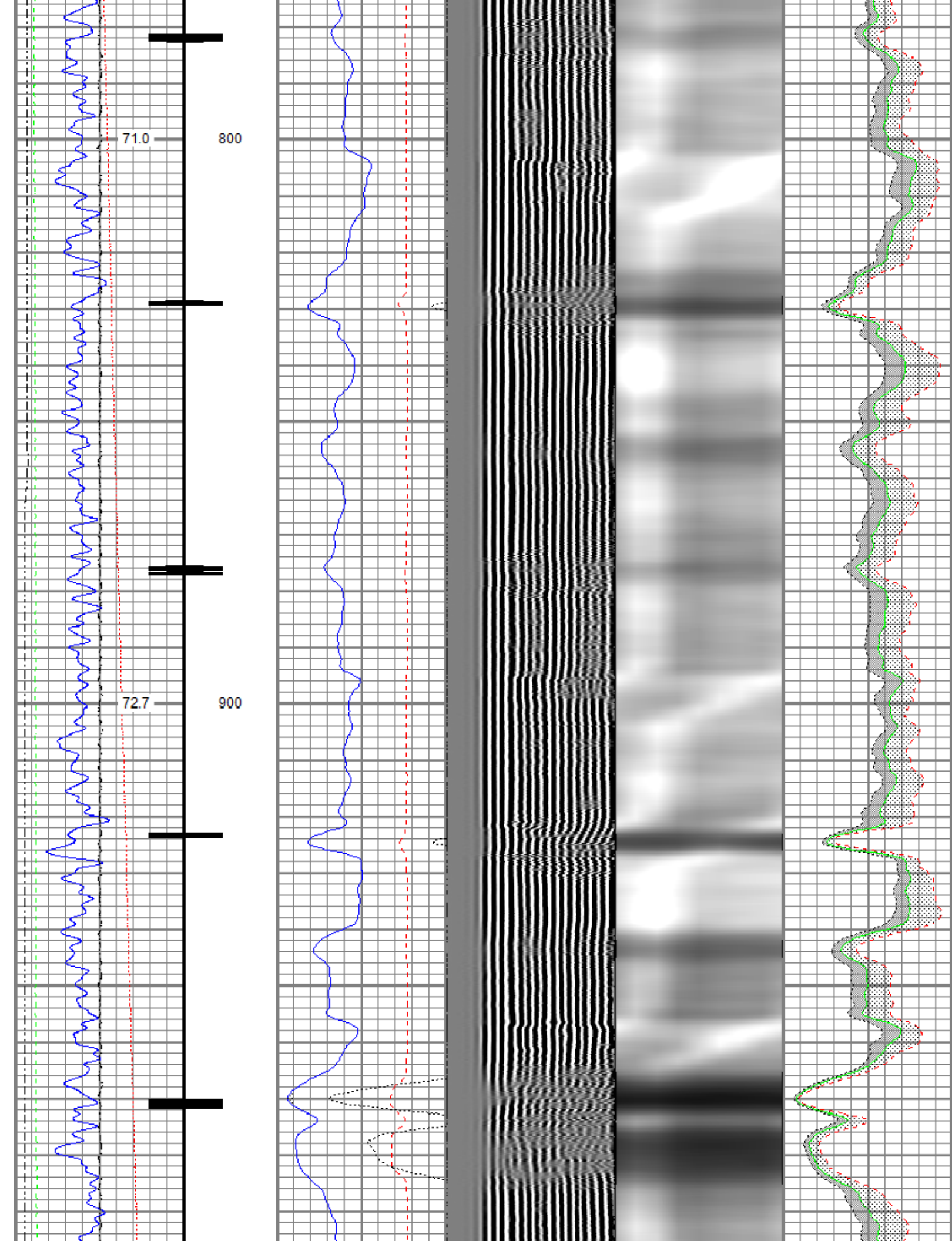


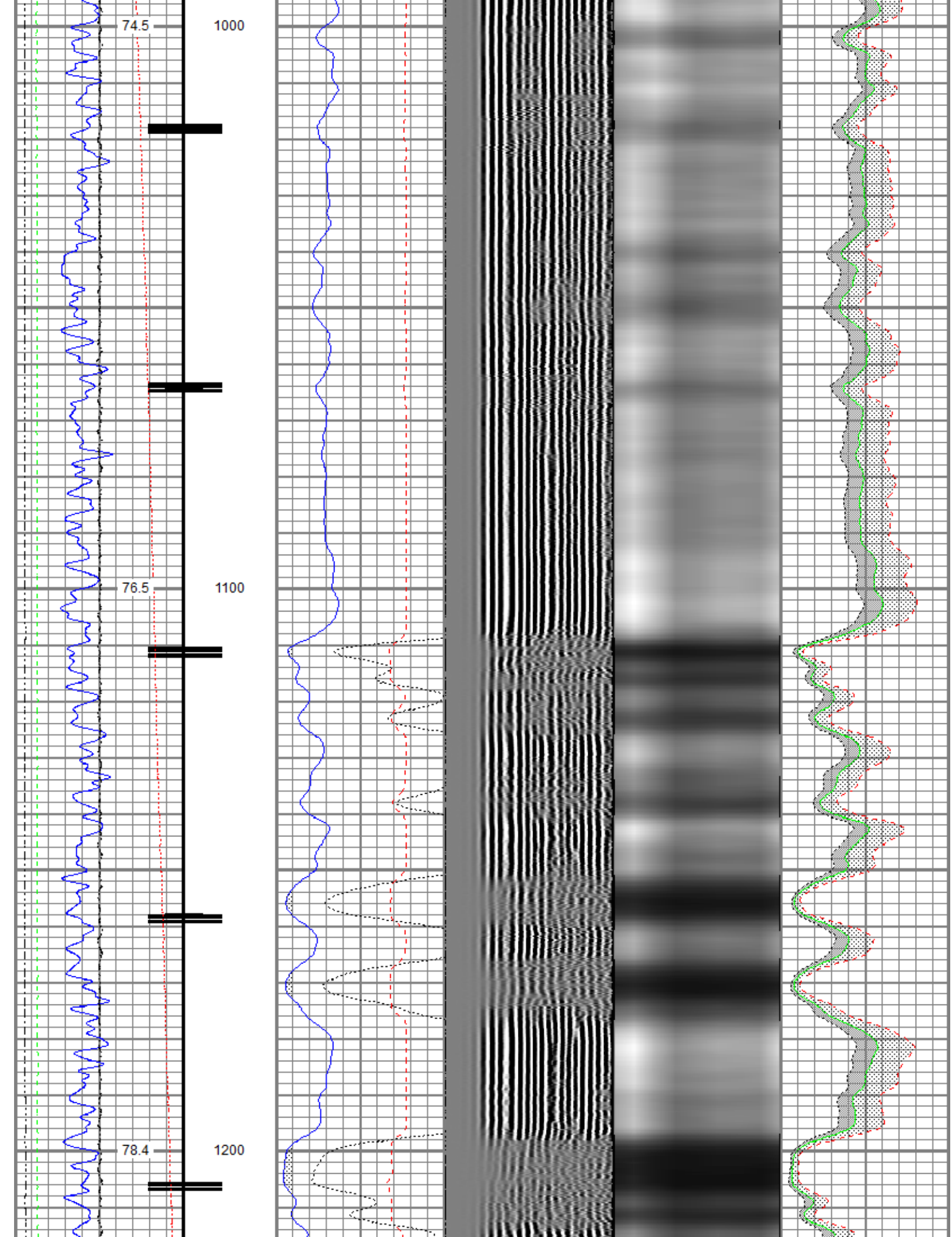




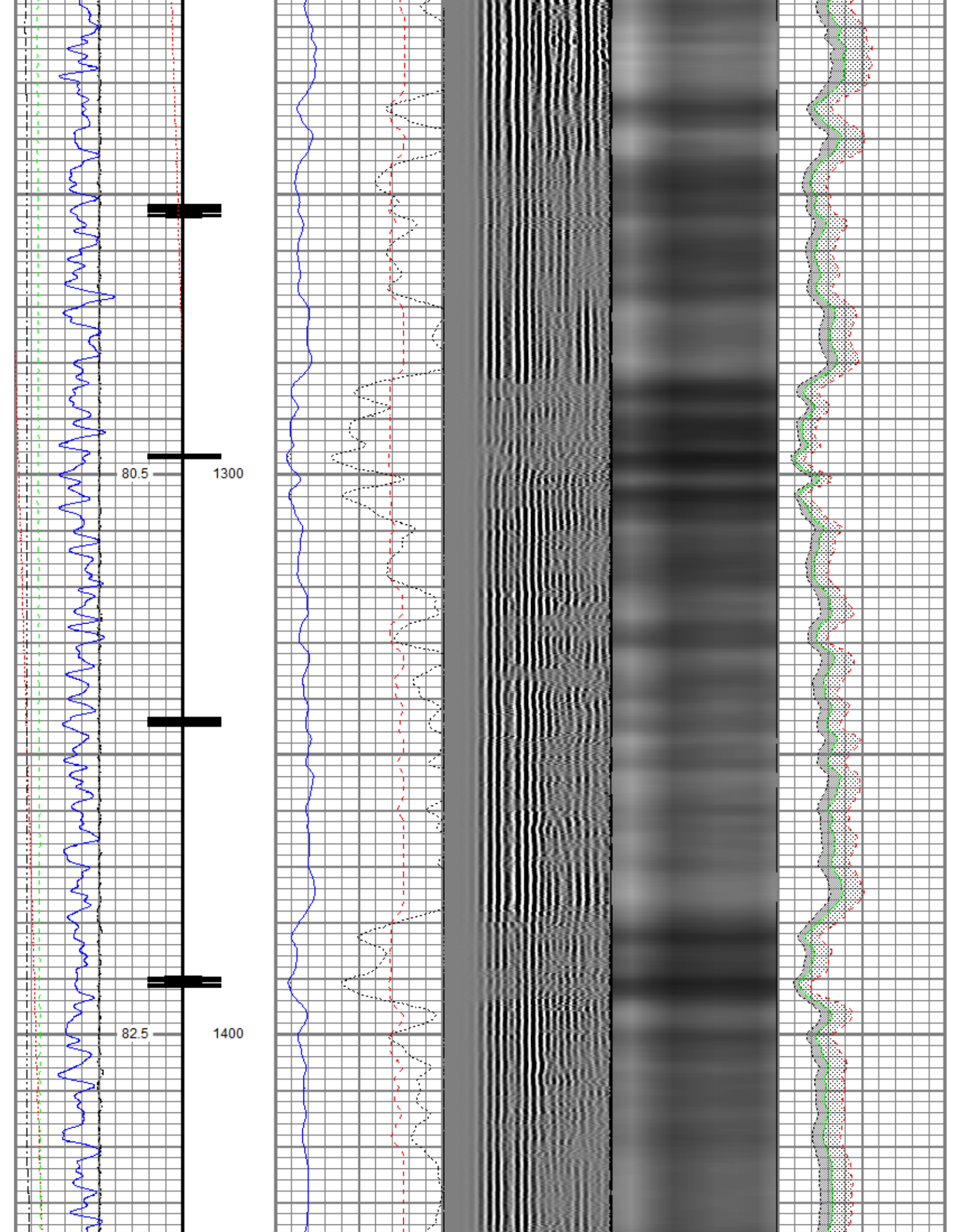


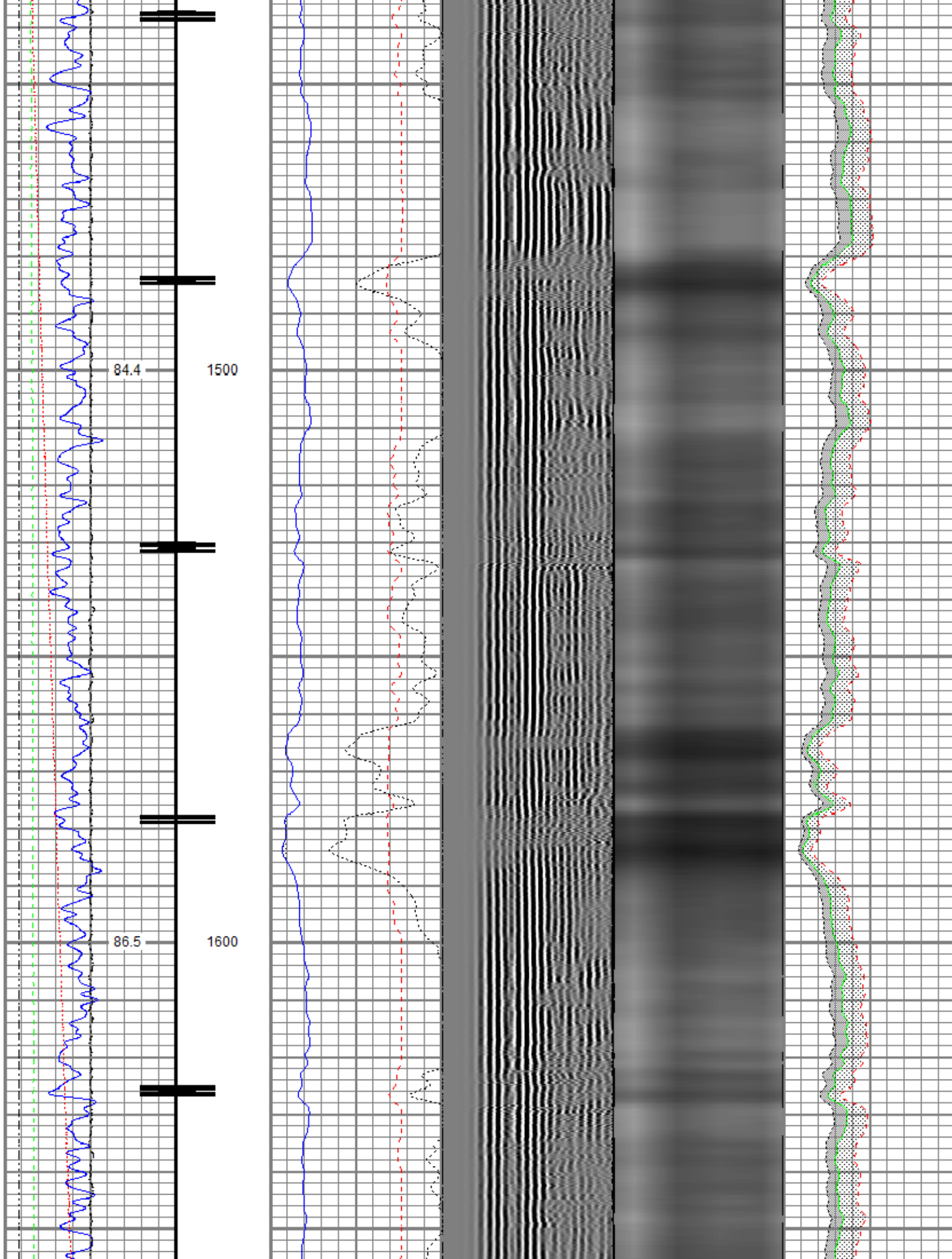


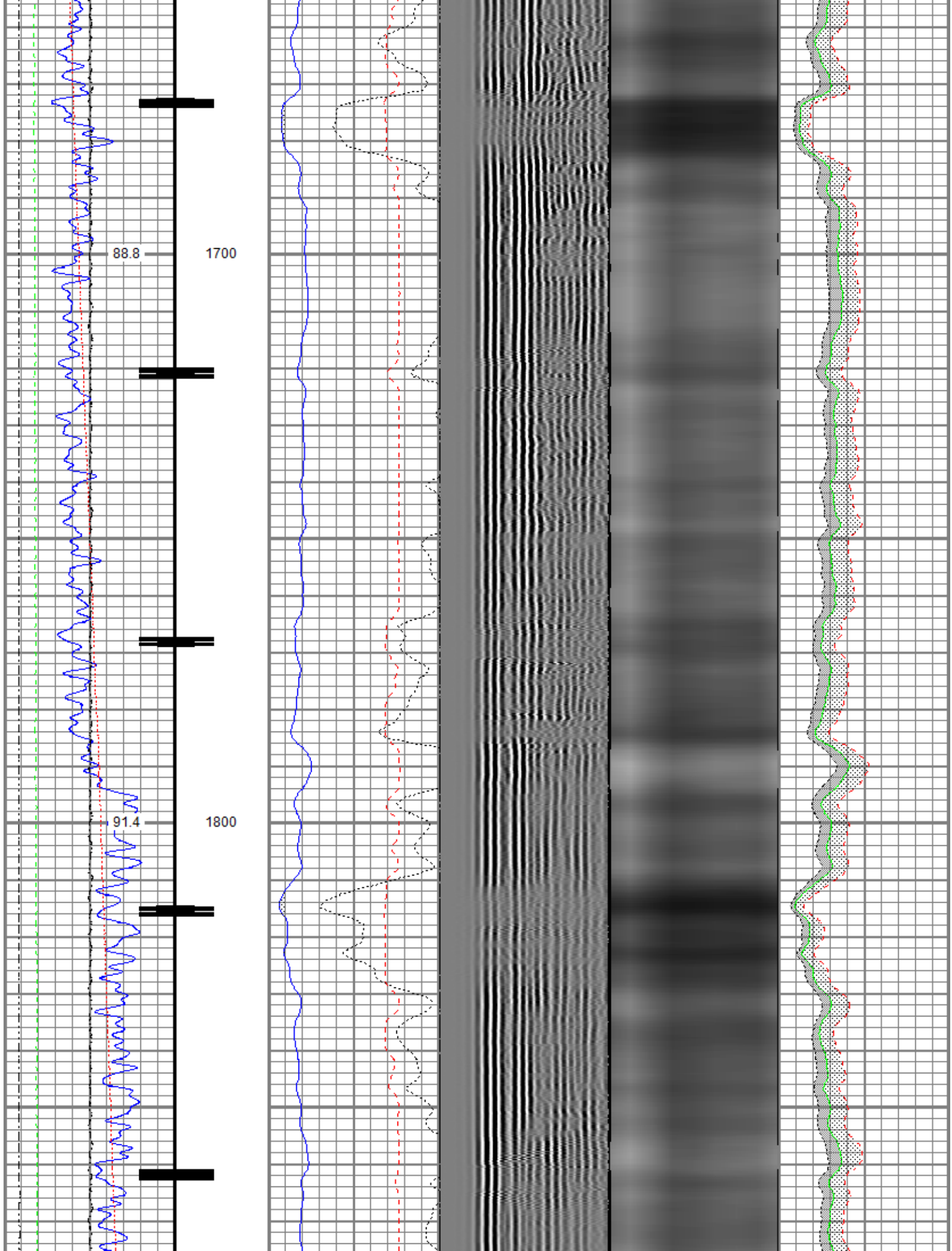




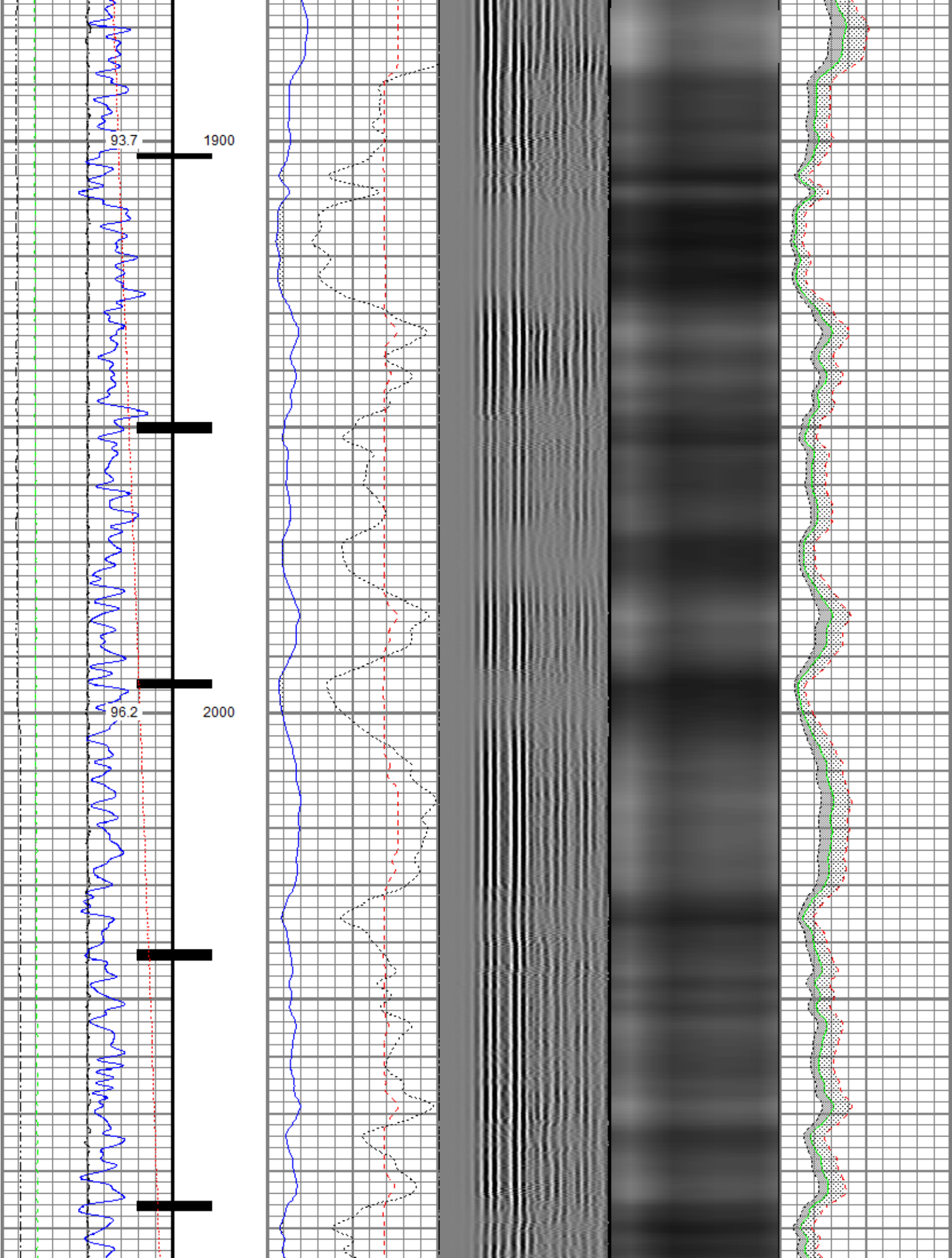


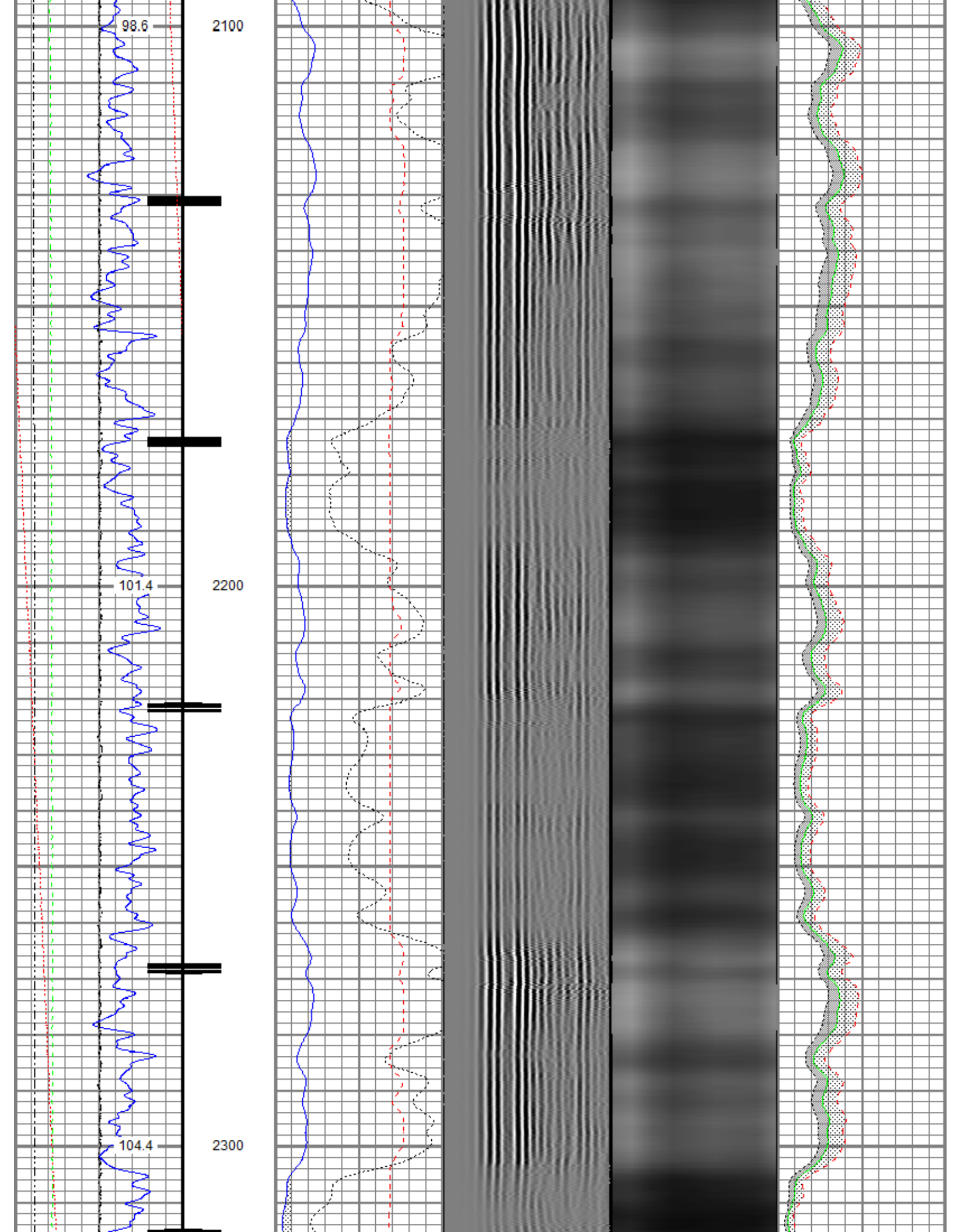


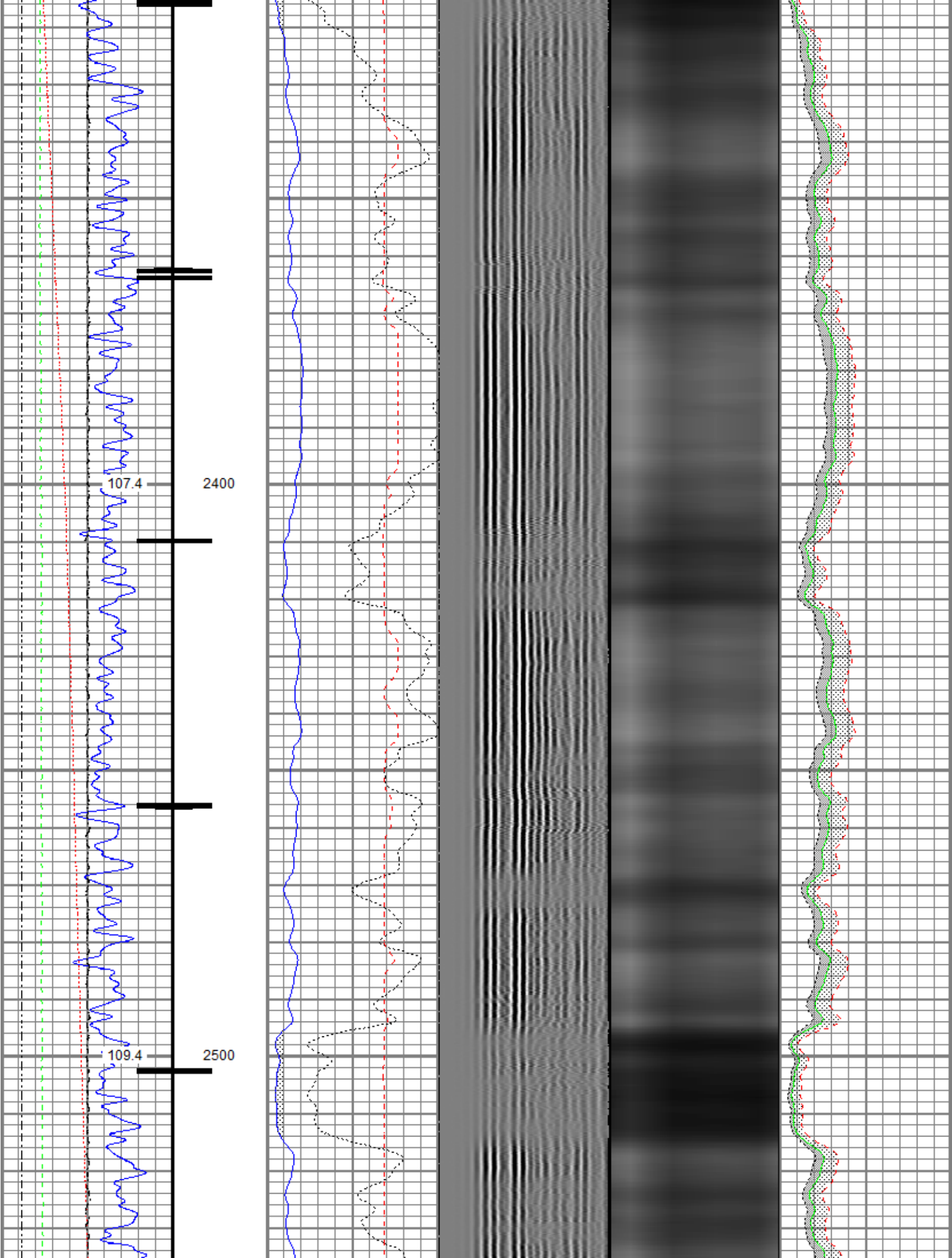




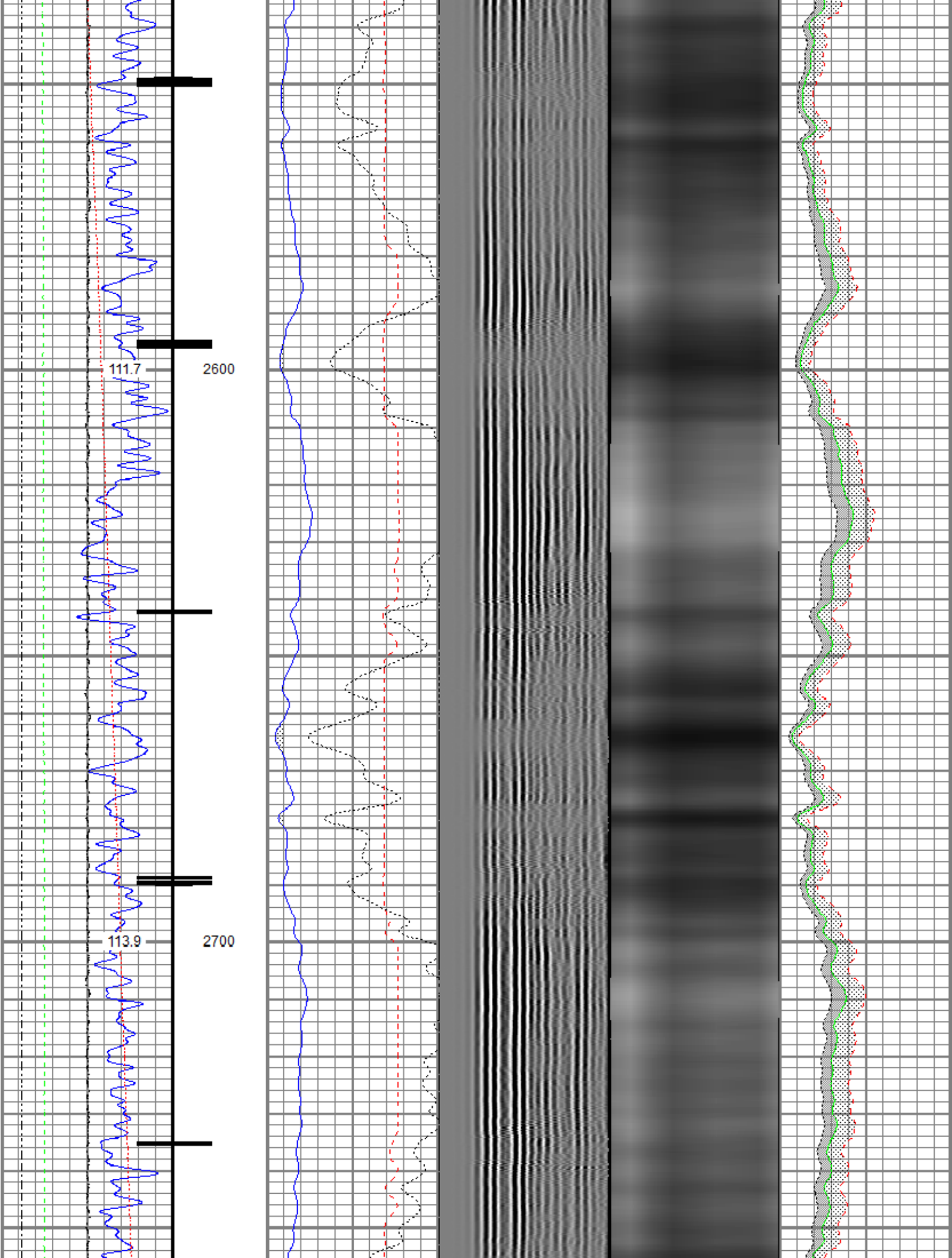


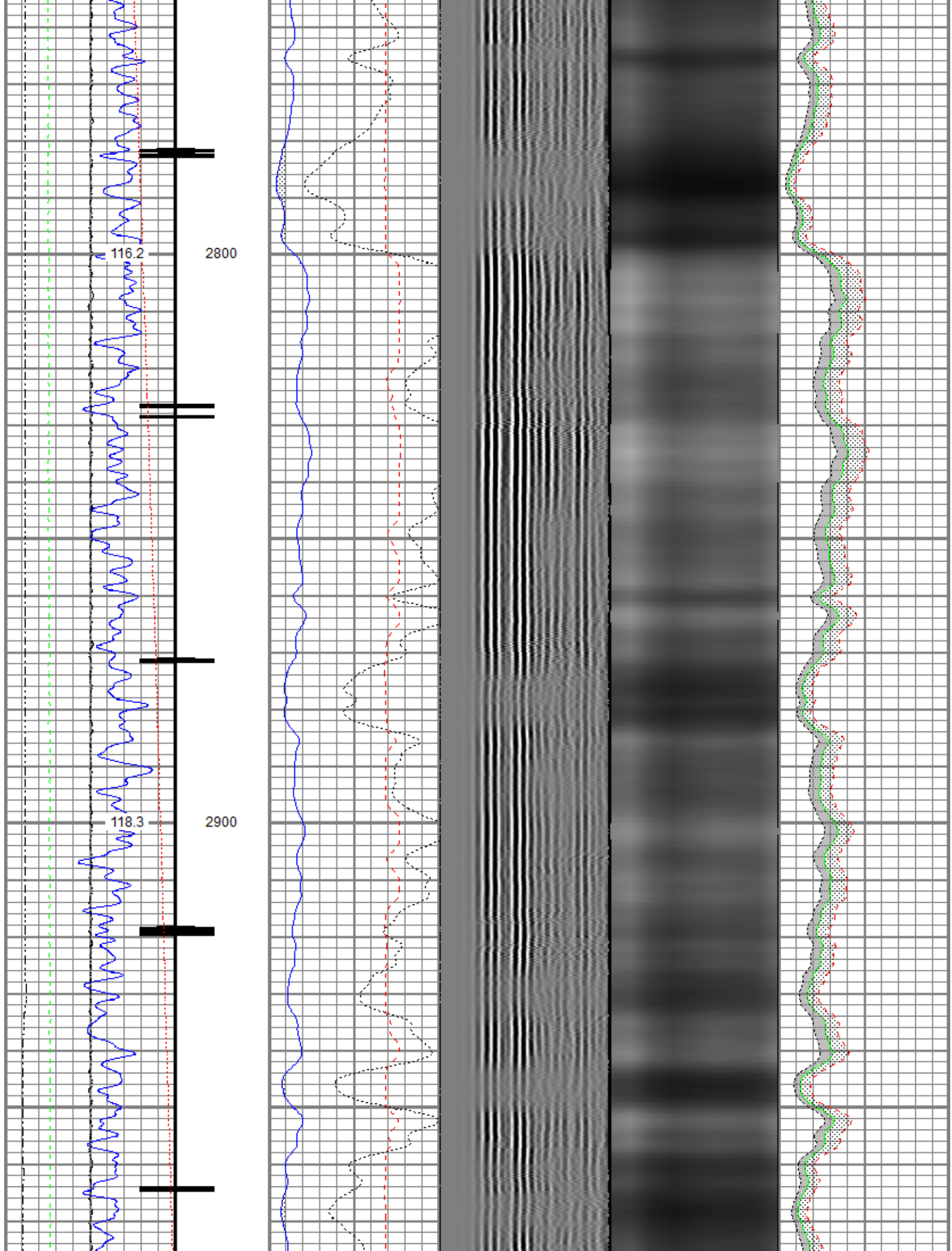


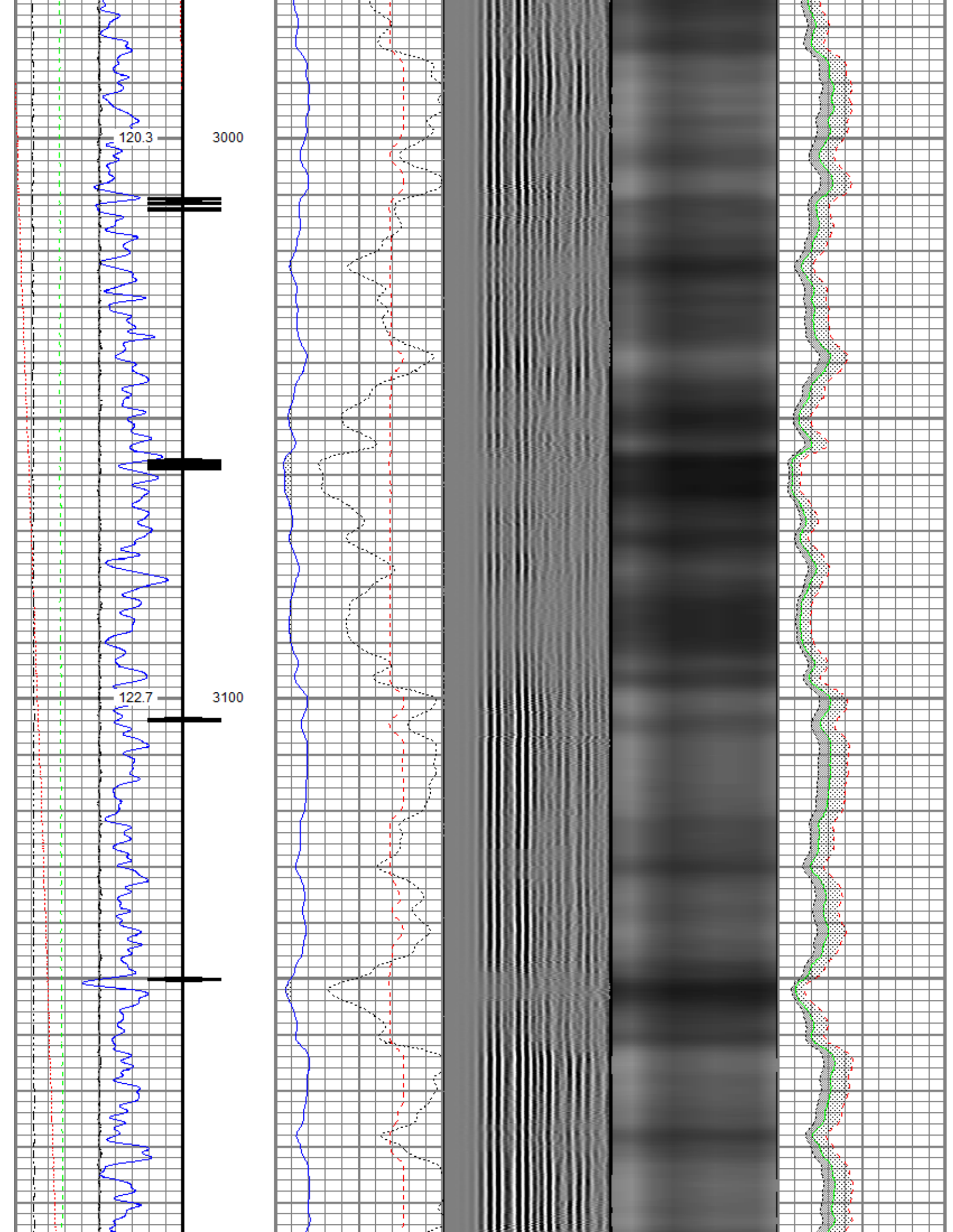




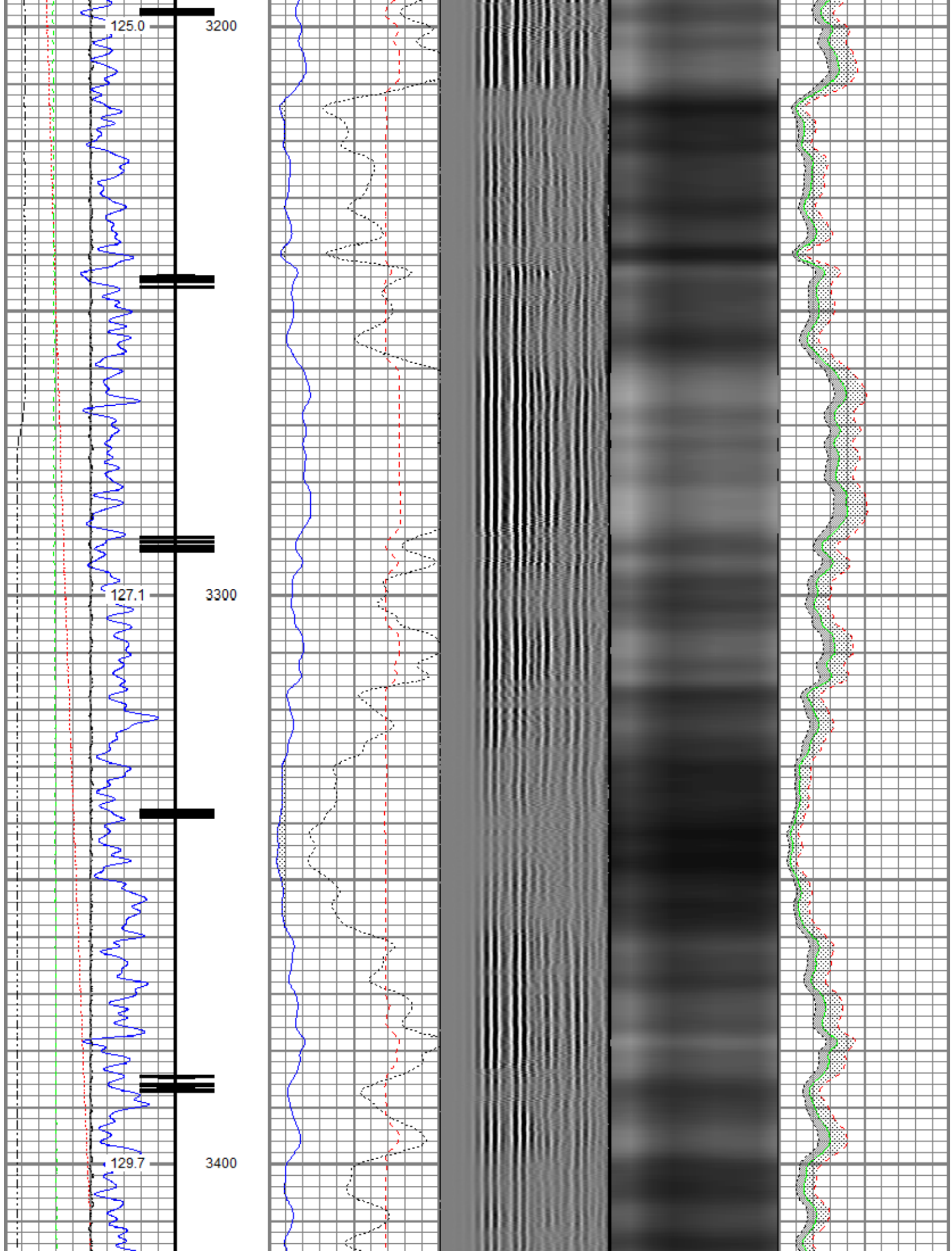


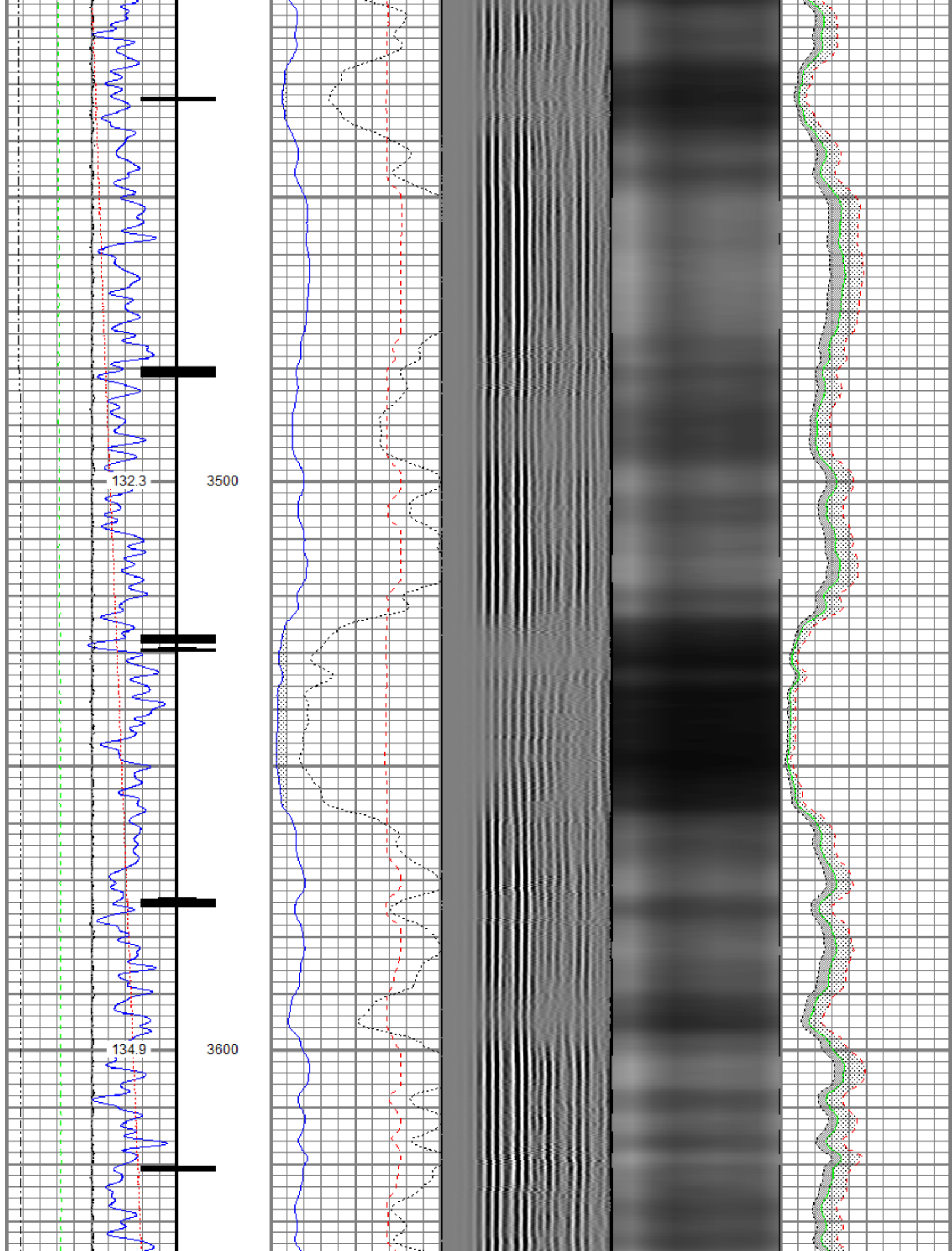


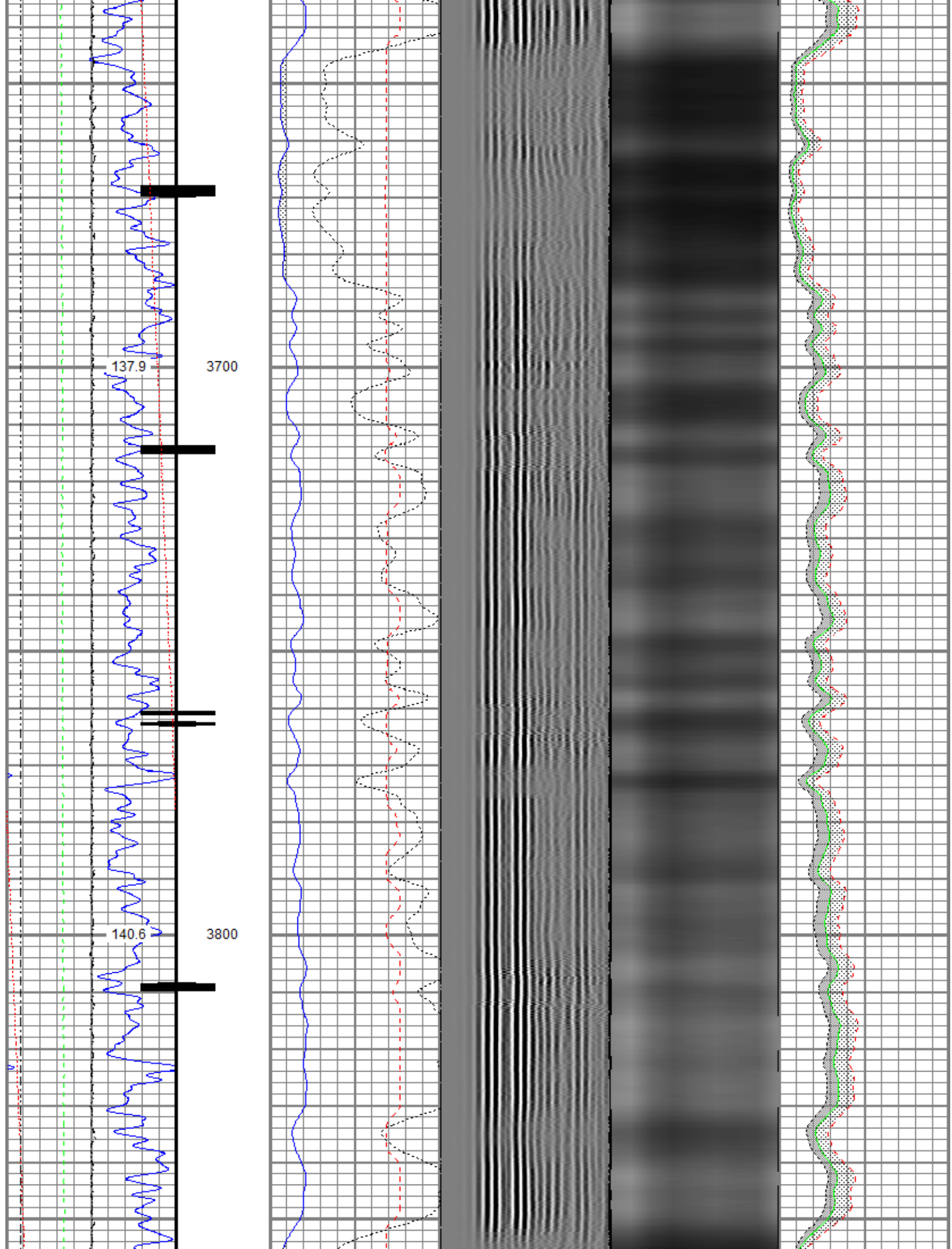




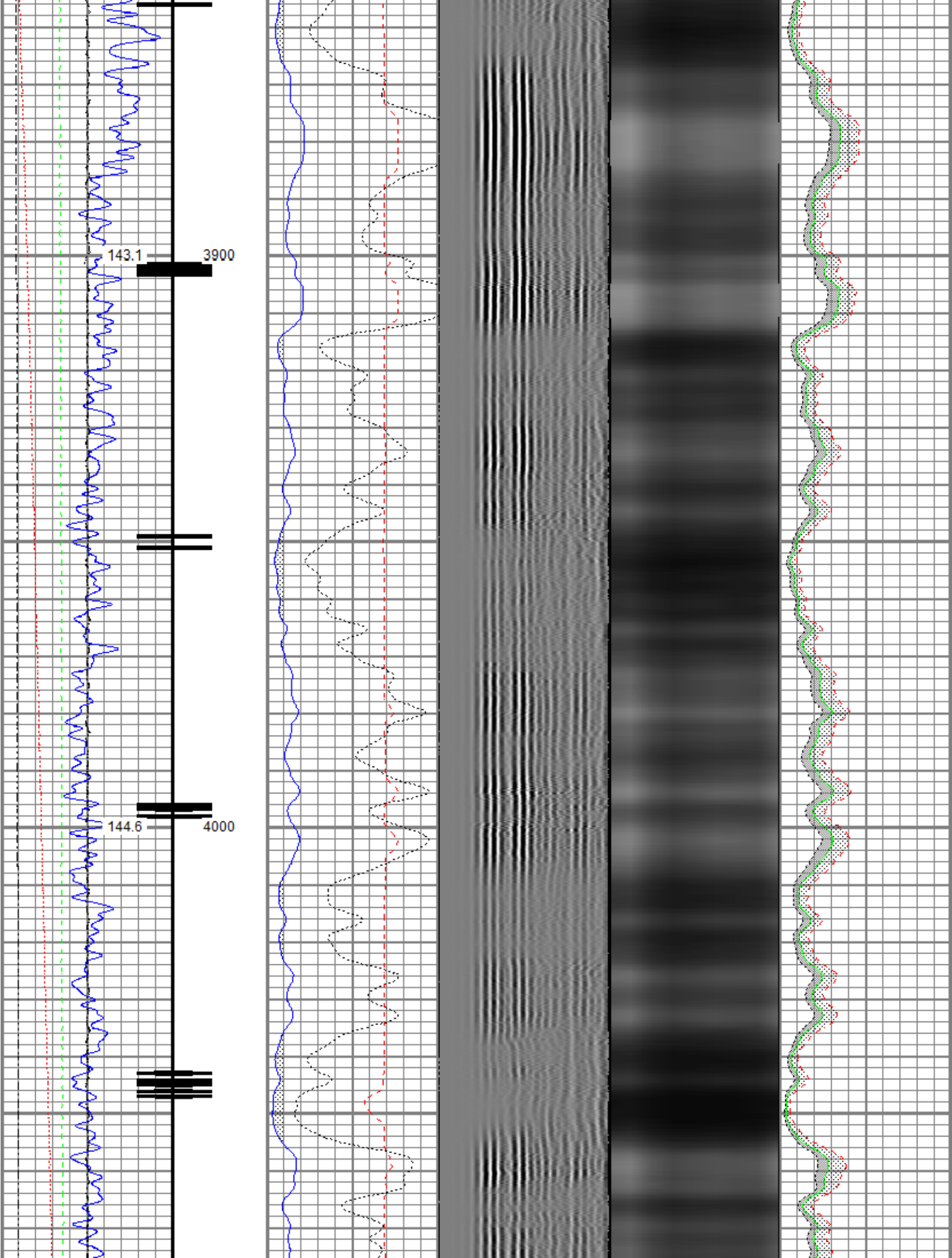


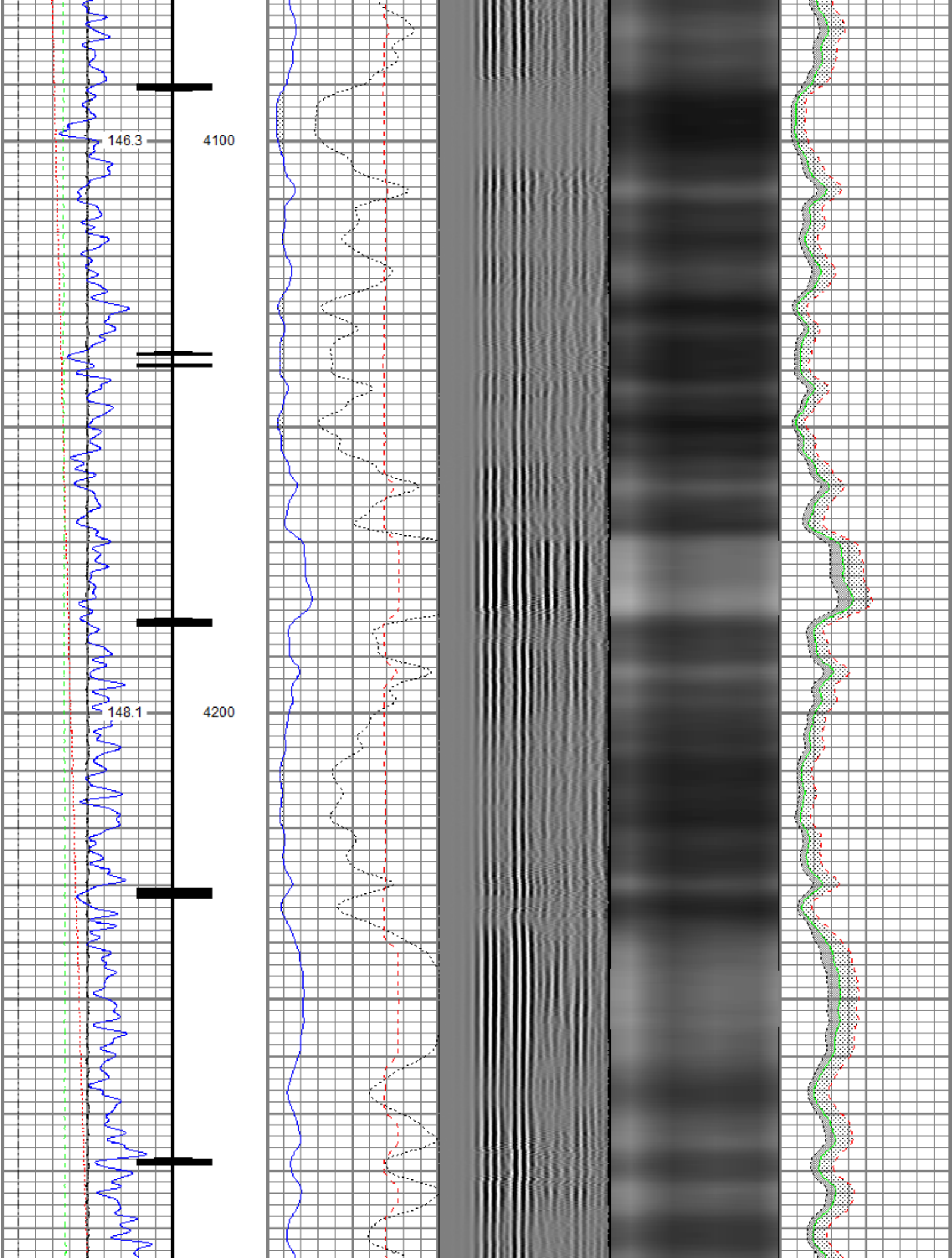


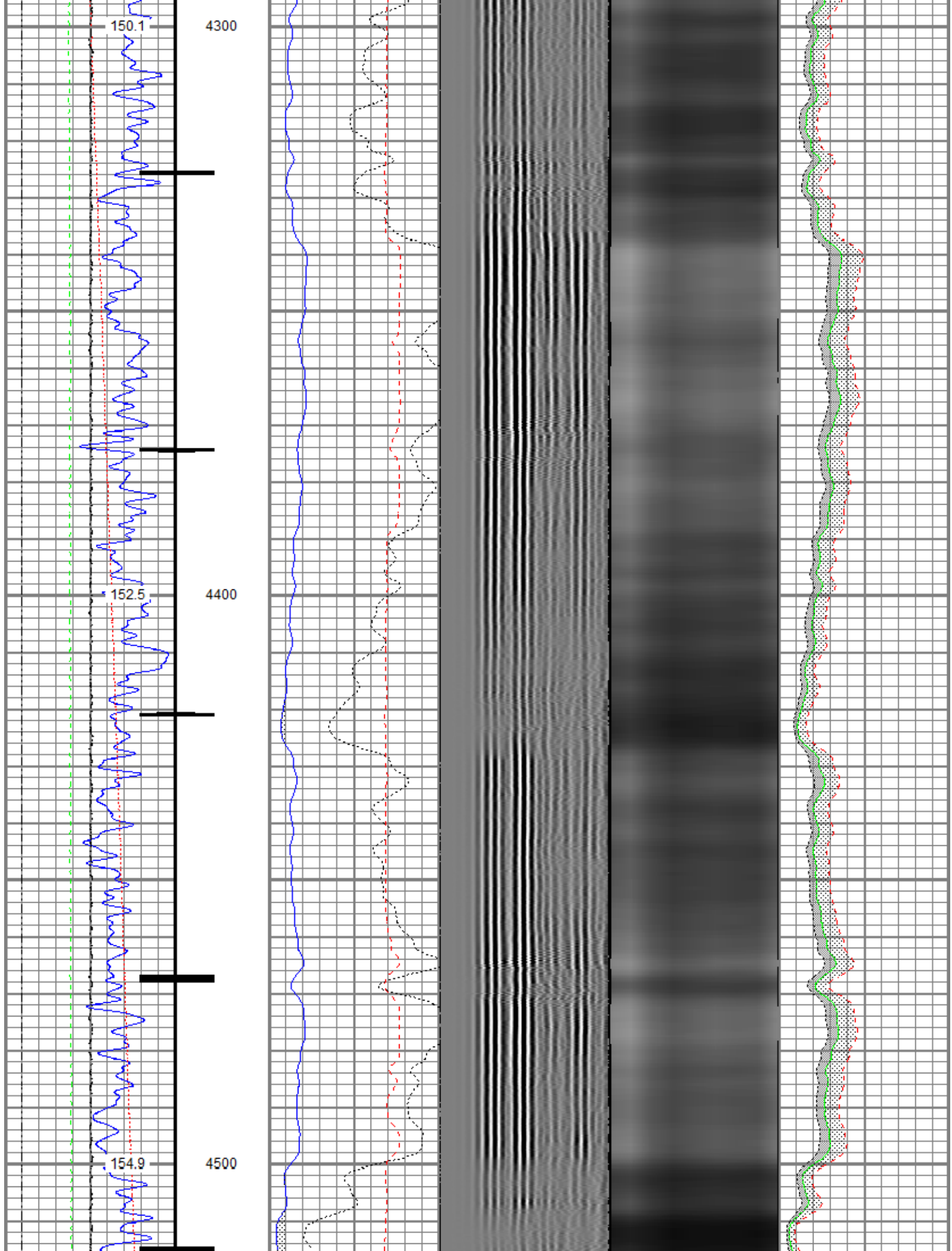






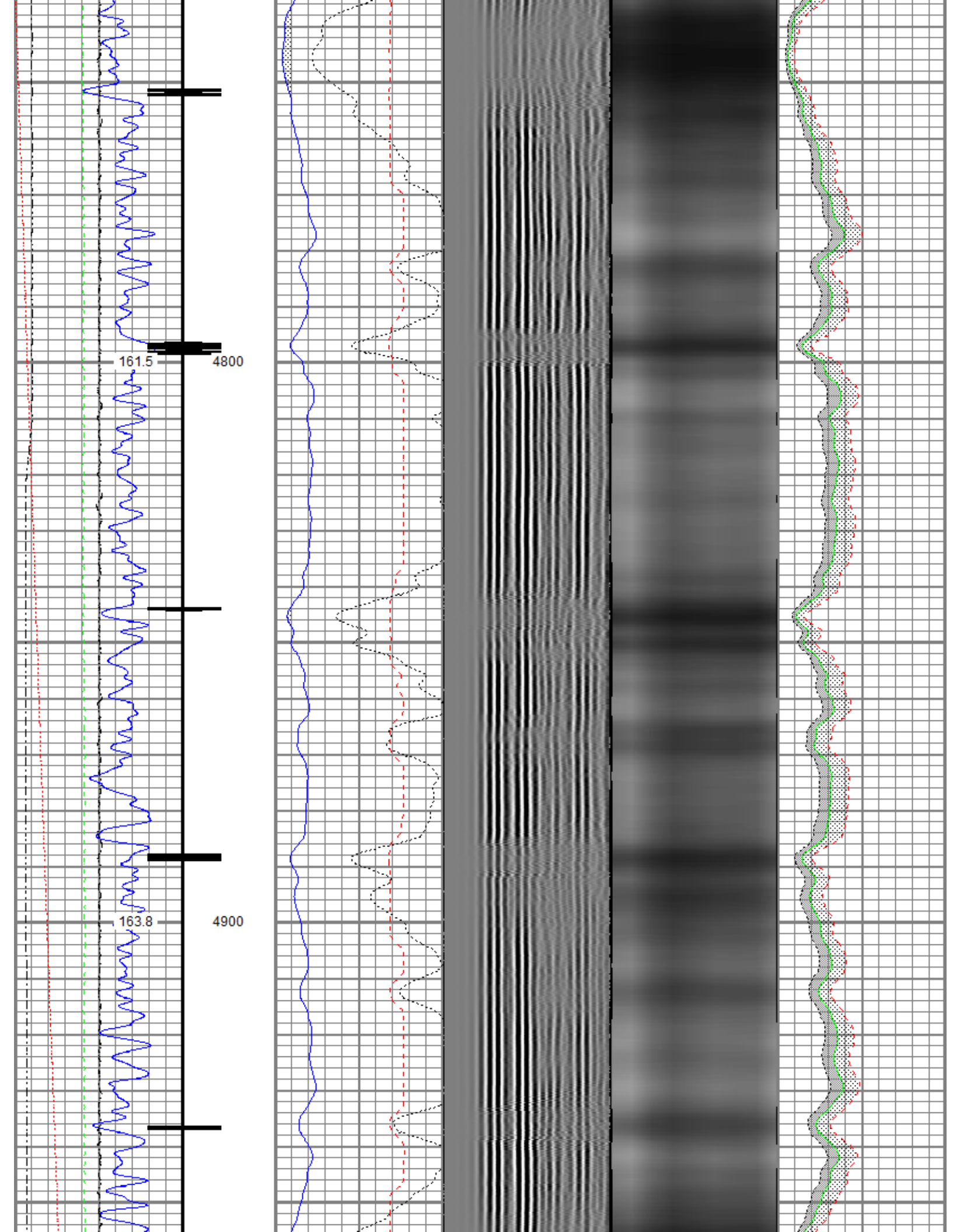


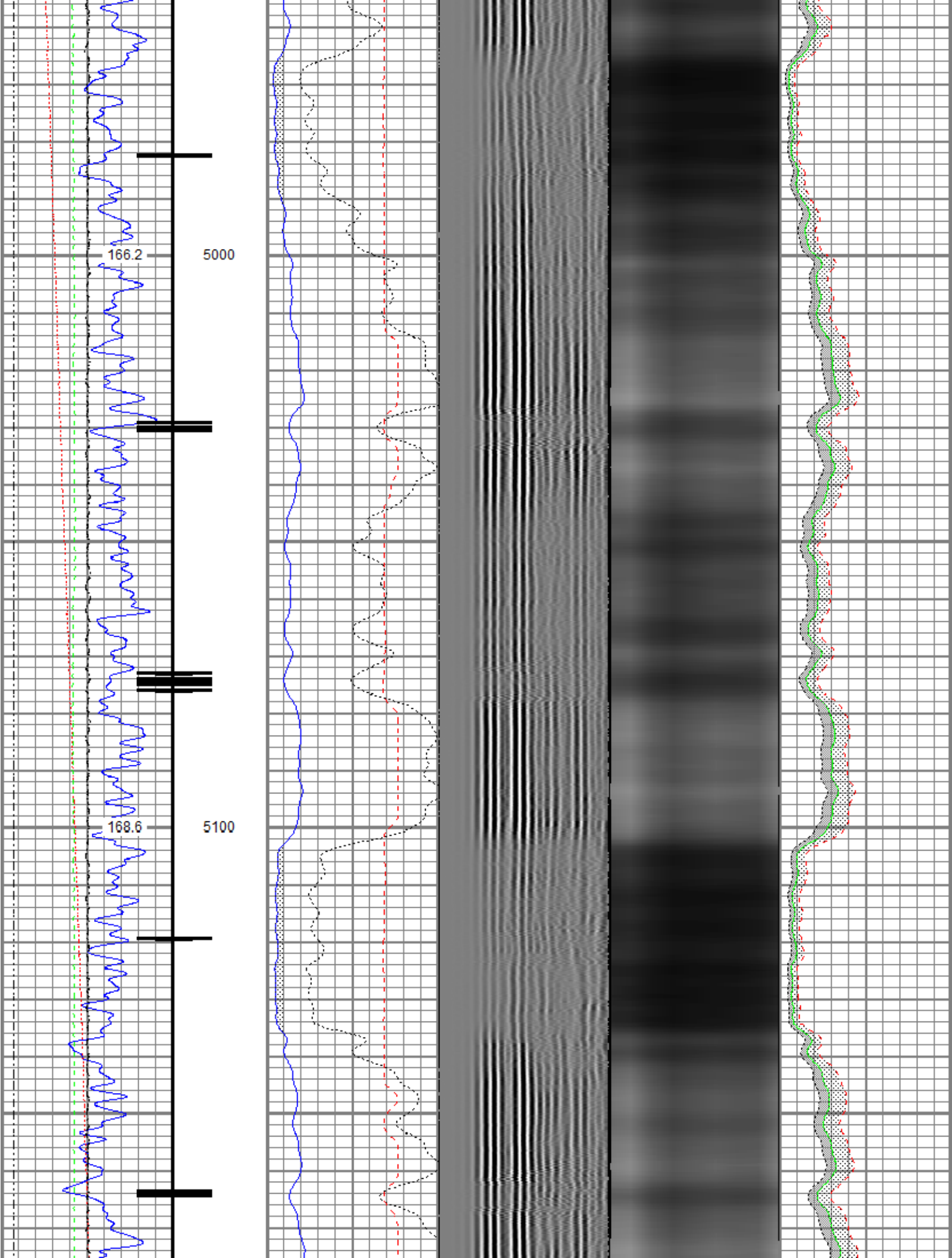




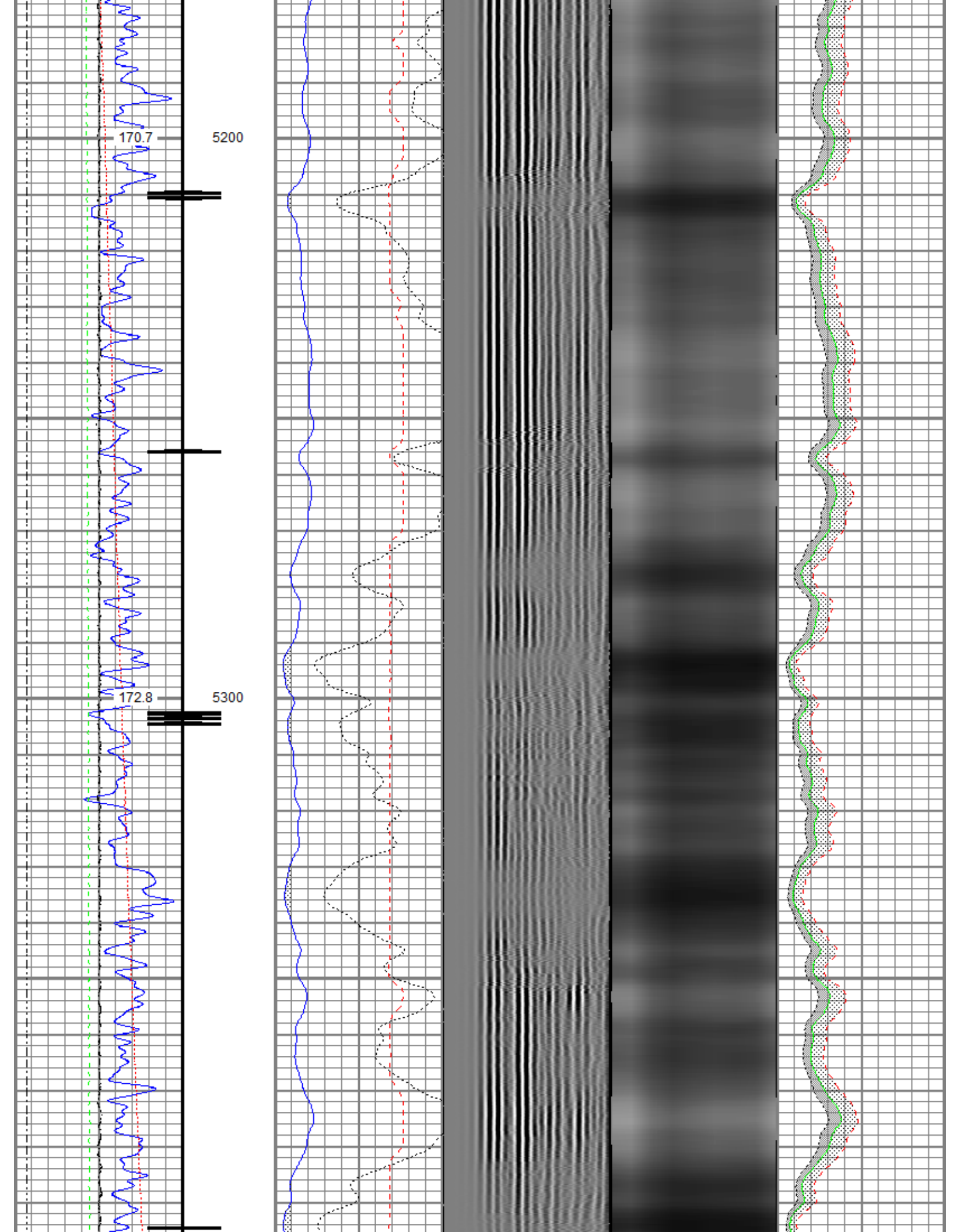


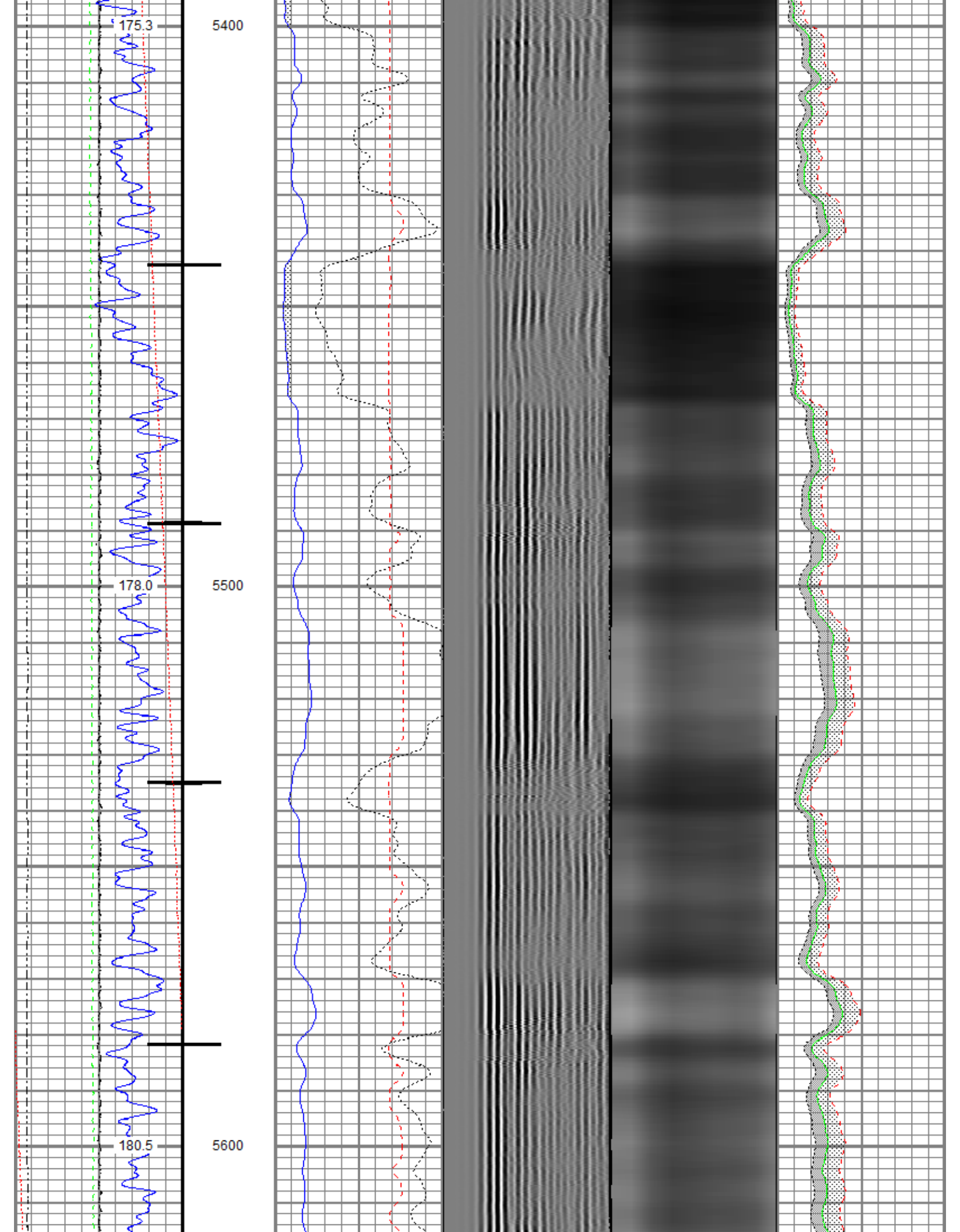


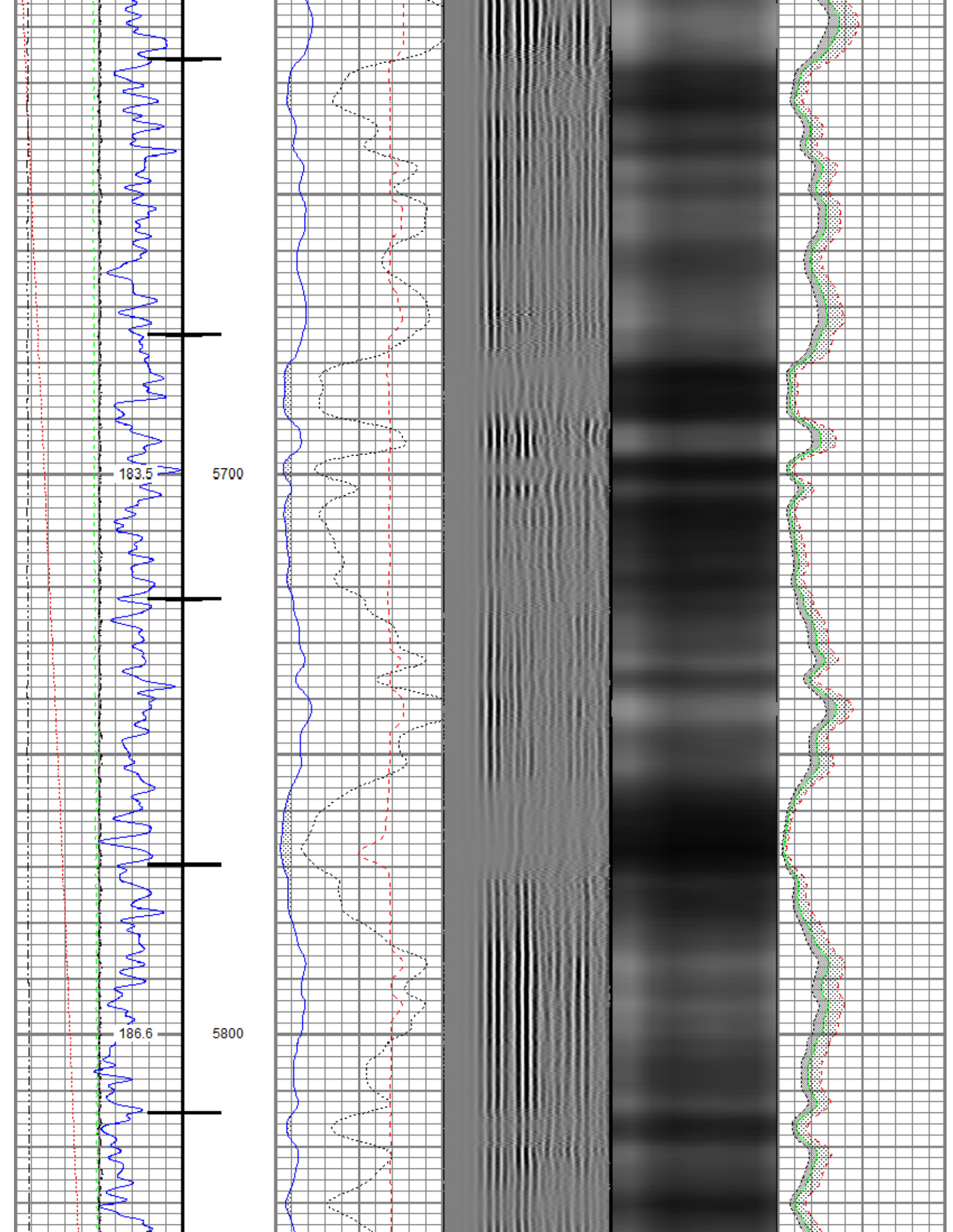




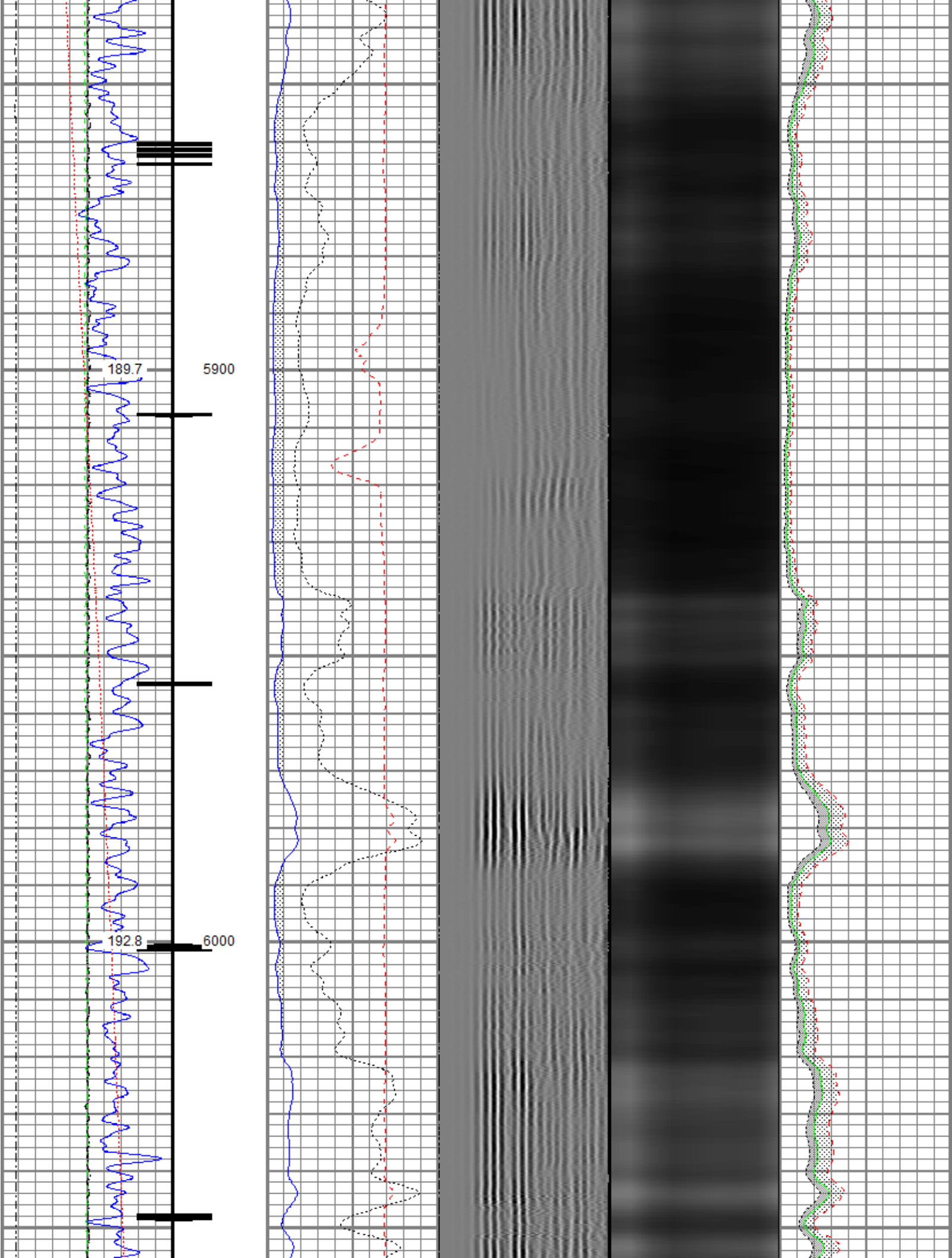


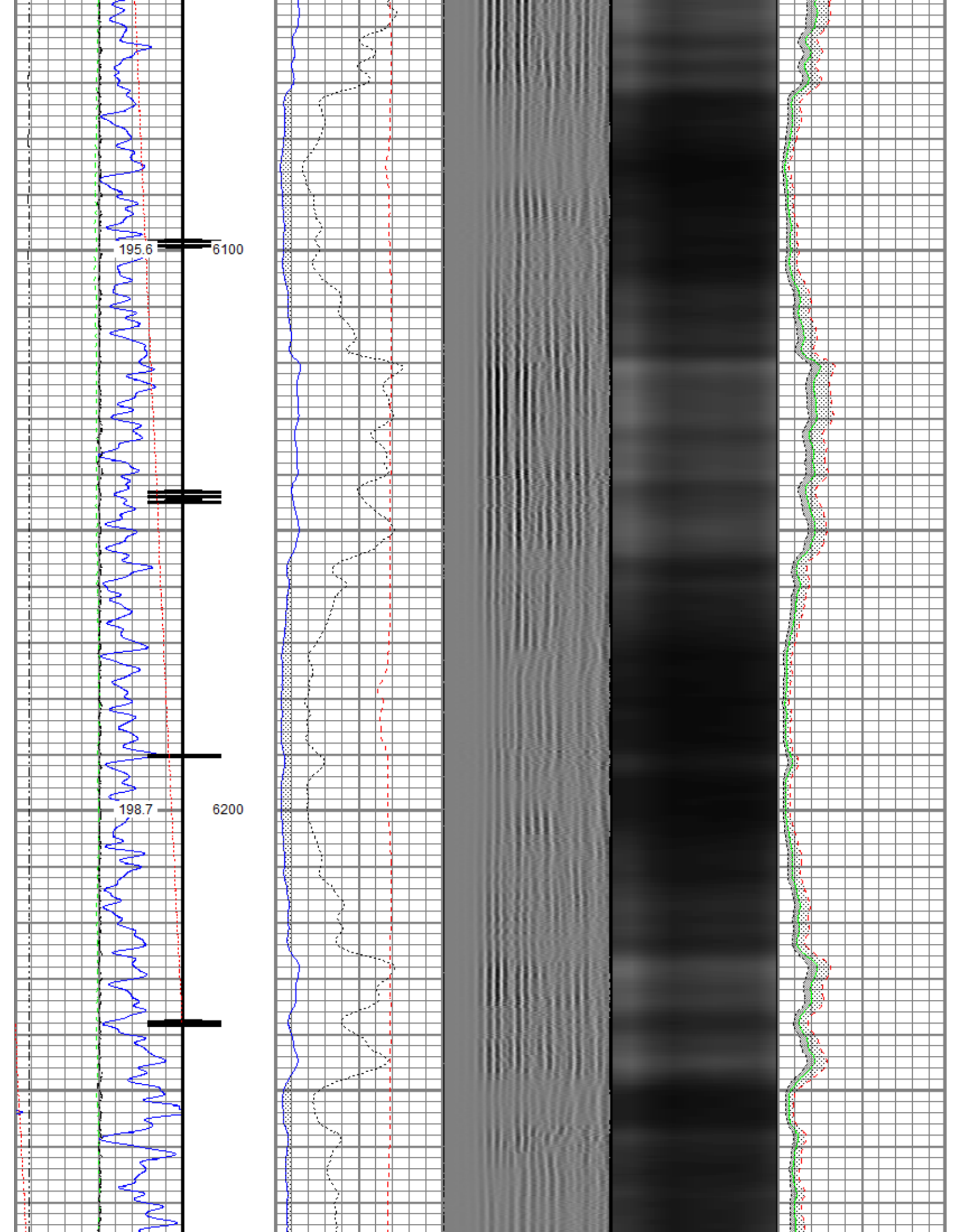


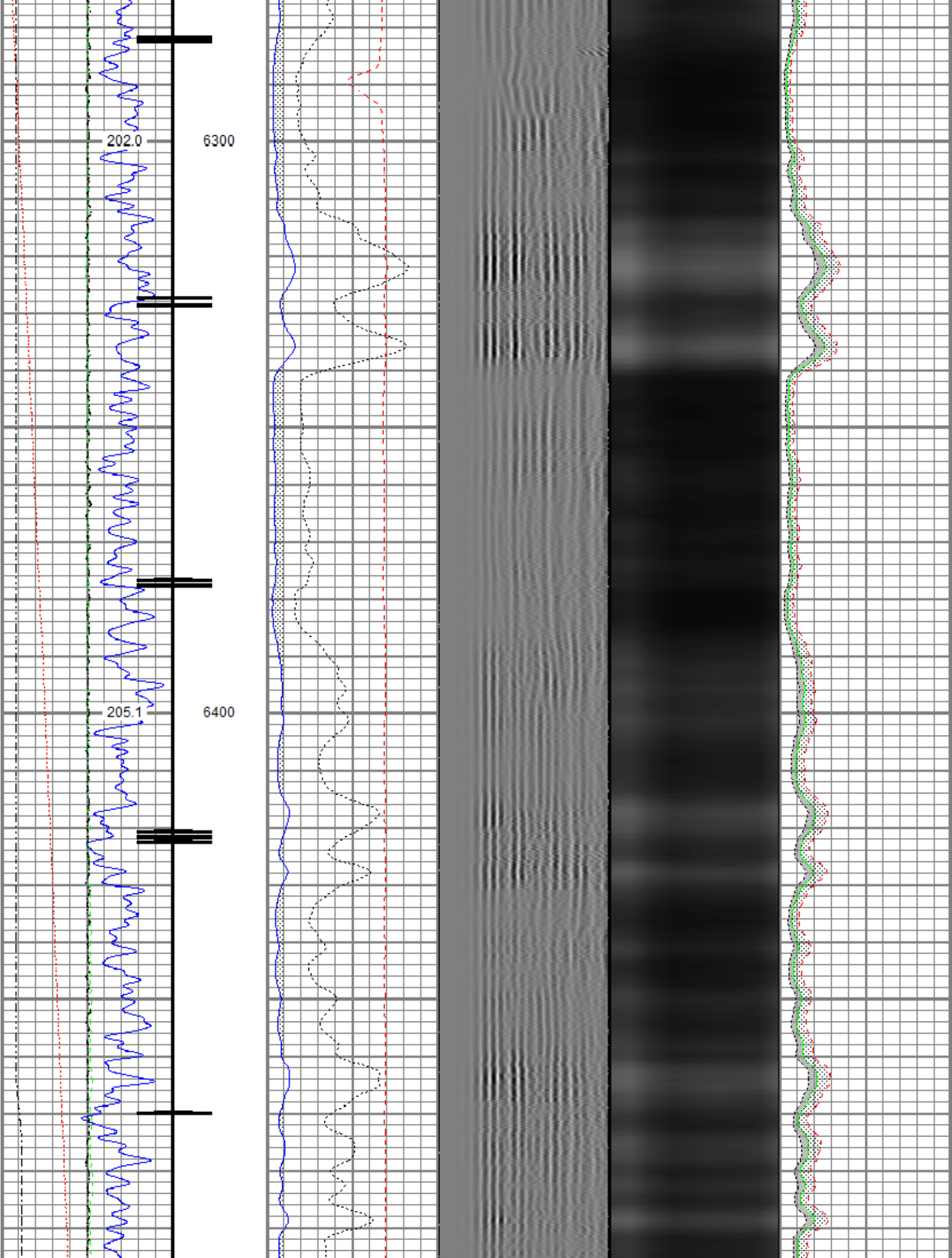




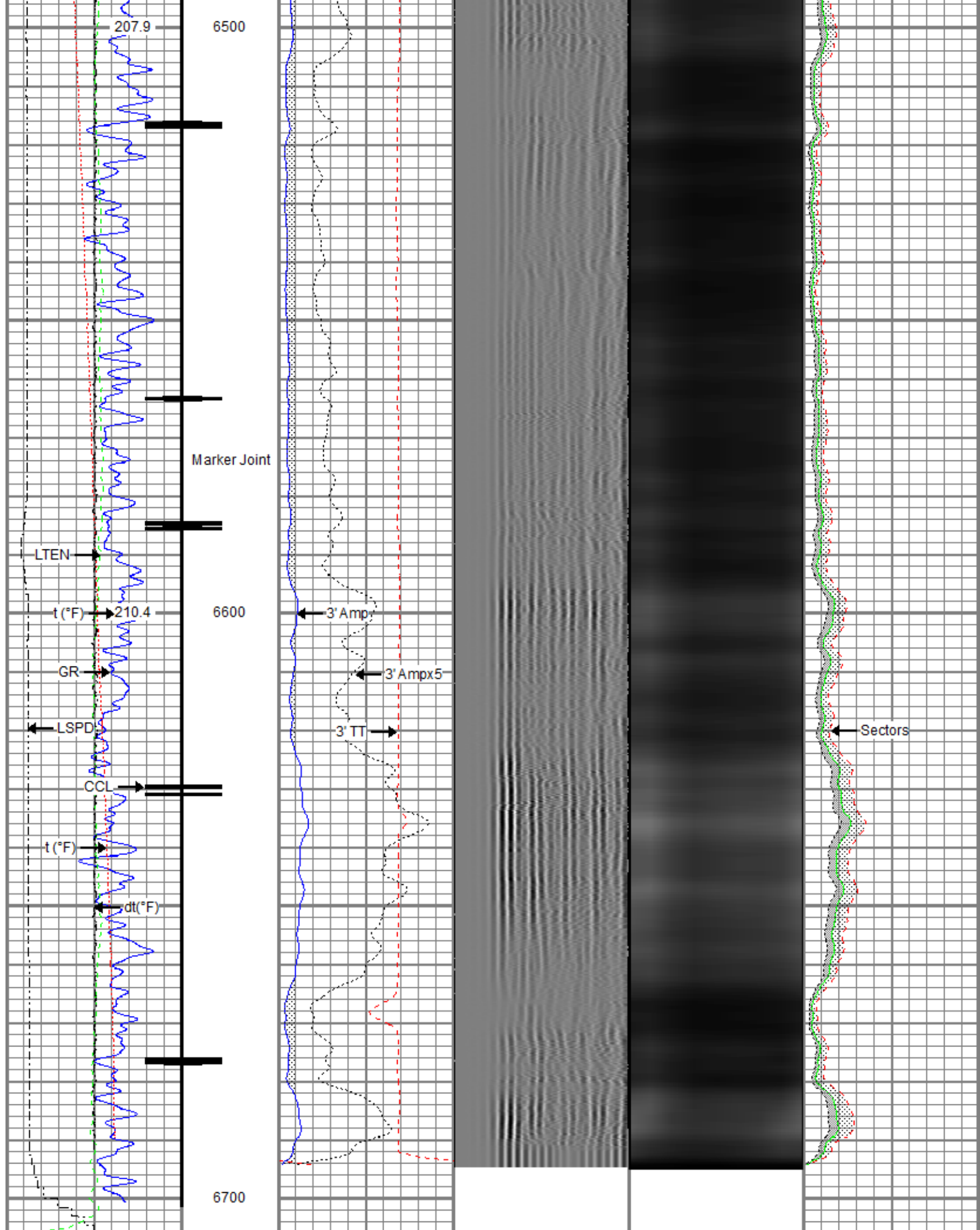












Gamma Ray (GAPI)	0 3' Amplitude (mV) 100 3' Amplitude x 5	5' Variable Density Log (usec)	Sector Map	0 Average Amplitude 100 Minimum Amplitude
0 120	200 1200			

Casing Collar Locator	0	(mV)	20	0	100
0 Temperature (degF) 20	3' Travel Time			Maximum Amplitude	
Line Speed	650	(usec)	150	0	100
-150 (ft/min) 150					
0 Line Tension (lb) 2000					
Differential Temperature					
-2 (degF) 2					

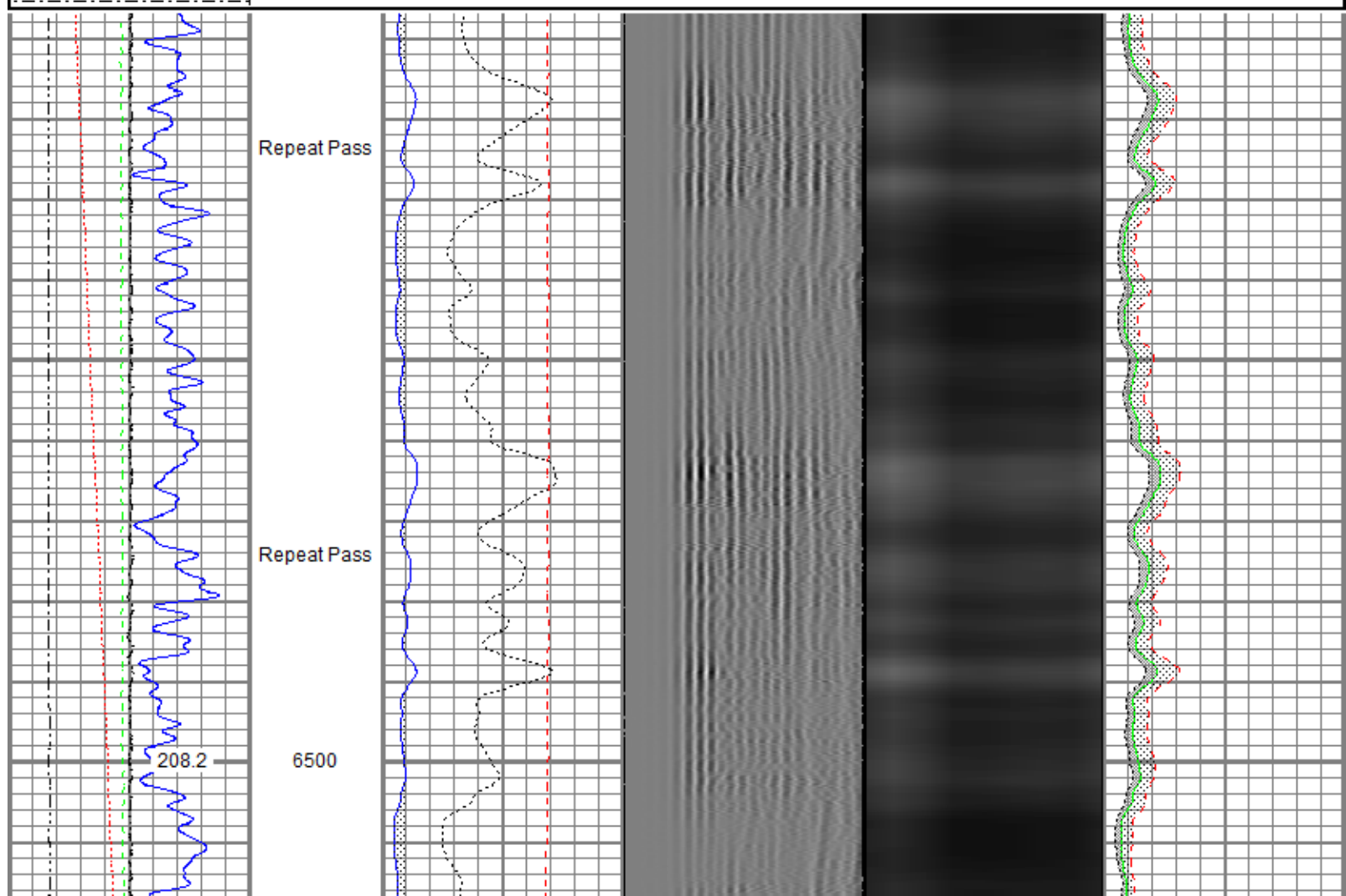


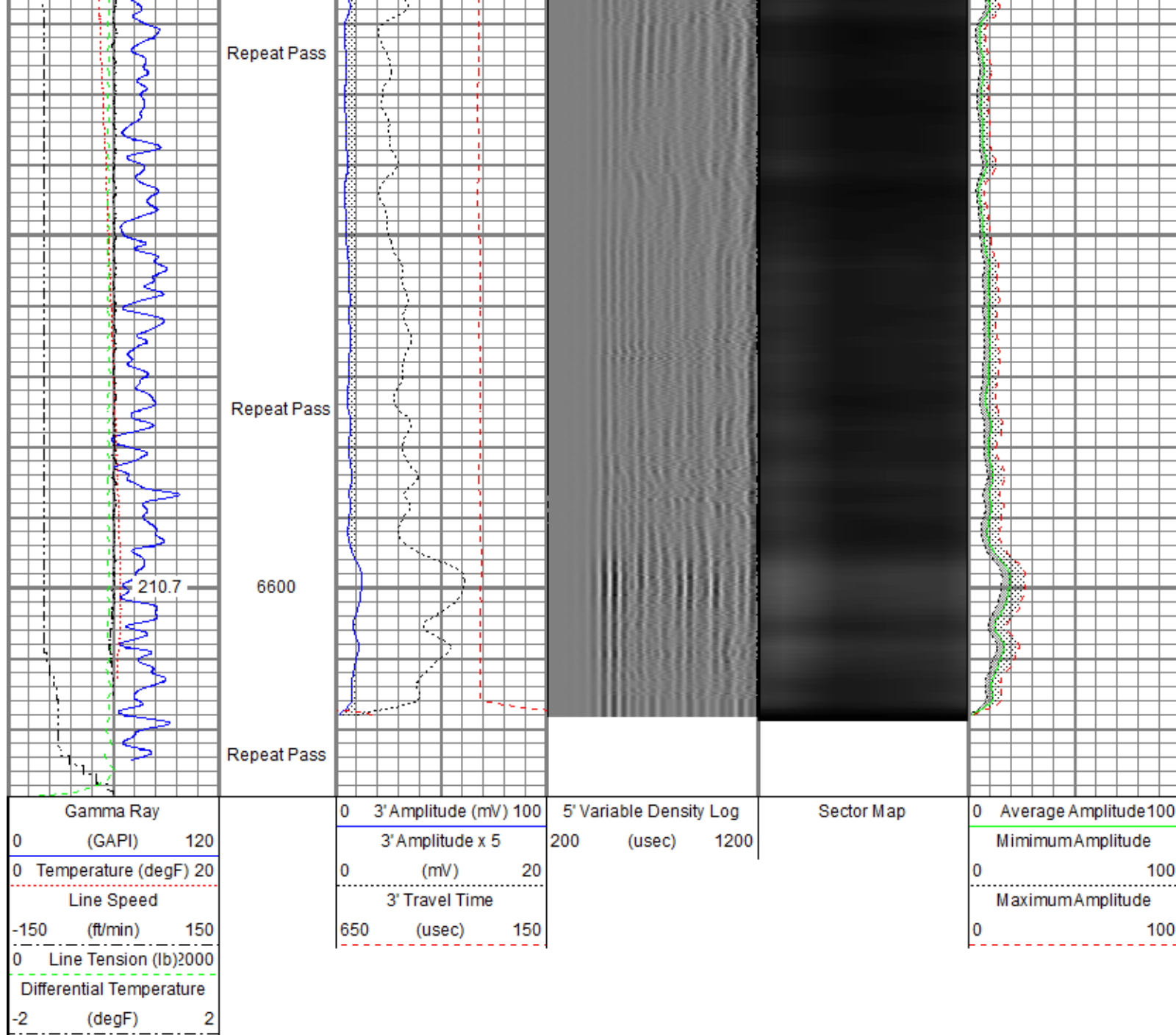
## Repeat Pass

Recorded with 2500 PSI Surface Induced Pressure

Database File src energy\_falken 34n-9c-l\_rbl\_03-08-18\processed\_src energy\_falken 34n-9c-l\_rbl\_03-08-18.db  
 Dataset Pathname repeat.2  
 Presentation Format ros\_radrii  
 Dataset Creation Mon Mar 12 09:44:50 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
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	100
0 Line Tension (lb) 2000						
Differential Temperature						
-2 (degF) 2						





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	14.45						
WVFS8	12.21			Probe Radii-2750 RBT (FW1302-002) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
WVFS7	12.21						
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						
				Probe CENT-2750 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
CCL\$2	4.20						
CCL\$1	4.20						
GR	2.87			Probe GR-CCL-2750 6PB (FW1304-132) 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 ADPT-6P-GO Probe 2-3/4" 6-Pin Top to GO Bottom Adaptor Sub	0.28	2.75	2.00
Dataset: PROCESSED_SRC Energy_Falken 34N-9C-L_RBL_03-08-18.db: field/well/run1/main.1 Total length: 21.27 ft Total weight: 205.60 lb O.D.: 2.75 in							

Calibration Report		
Database File	C:\ProgramData\Warrior\Data\SRC Energy_Falken 34N-9C-L_RBL_03-08-18\PROCESSED_SRC Energy_Falken 34N-9C-L_RBL_03-08-18	
Dataset Pathname	main.1	
Dataset Creation	Thu Mar 08 18:18:08 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: -5.516 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	0.535	0.800	71.921	133.317	0.616
CAL	0.669	0.668				
5'	0.001	0.487	0.800	71.921	146.583	0.604
SUM						
S1	0.002	0.505	0.000	100.000	198.599	-0.344
S2	0.001	0.523	0.000	100.000	191.667	-0.270
S3	0.001	0.552	0.000	100.000	181.501	-0.173
S4	0.000	0.579	0.000	100.000	172.745	-0.025
S5	0.001	0.572	0.000	100.000	174.959	-0.158
S6	0.002	0.548	0.000	100.000	183.107	-0.344
S7	0.002	0.526	0.000	100.000	190.974	-0.364
S8	0.002	0.517	0.000	100.000	194.264	-0.353

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.669	0.668	1.000	0.000

Air Zero Calibration, performed Tue Mar 06 13:10:46 2018:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.006		0.000		0.000	
5'	0.006		0.000		0.001	
SUM						
S1	0.005		0.000		0.000	
S2	0.007		0.000		0.000	
S3	0.006		0.000		-0.000	
S4	0.007		0.000		-0.001	
S5	0.008		0.000		-0.000	
S6	0.007		0.000		0.001	
S7	0.006		0.000		0.001	
S8	0.007		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



**RELIANCE**  
OILFIELD SERVICES

Well

Falken 34N-9C-L

Field

Wattenberg

County

Weld

State

Colorado