



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil & Gas Onshore, L.P.				
Well	English Farms 16N-8HZ				
Field	Wattenberg				
County	Weld				
State	Colorado				
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Well	English Farms 16N-8HZ				
Field	Wattenberg				
County	Weld	State	Colorado		
Location:	API # : 05-123-41502		Other Services		
SEC 8 TWP 1N RGE 65W			JB/GR		
Permanent Datum	Ground Level	Elevation	4948'	Elevation	
Log Measured From	Kelly Bushing	16 FT		K.B. 4968'	
Drilling Measured From	Kelly Bushing			D.F. 4967'	
				G.L. 4948'	

Date	21-AUG-2015
Run Number	One
Depth Driller	13.181 FT
Depth Logger	7644 FT
Bottom Logged Interval	7630 FT
Top Log Interval	Surface
Open Hole Size	7.875
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	234° F
Estimated Cement Top	Surface
Time Well Ready	ROA
Time Logger on Bottom	12:10 A.M.
Equipment Number	HD-0311
Location	Ft. Lupton, CO
Recorded By	J. Morrison
Witnessed By	Steve Vigil

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom		
Surface Casing	9 5/8	36	J55 LT&C	Surface	1859 FT		
Intermediate #1							
Intermediate #2	5 1/2	17	HCP-110 LTC	Surface	13.149 FT		
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
Casing Tally reported Marker Joint at 6661 FT
Recorded Marker Joint at 6670 FT-6693 FT
Log ran from as deep as possible in heel to Surface
Recorded with 2800 PSI Surface Induced Pressure
Logging tools were clean and free pf debris upon completion of operations

Thank you for choosing FMC Technologies Completion Services, Inc.!!



Main Pass

Recorded With 2800 PSI Surface Induced Pressure

Database File:0512341502_anadarko_english farms 16n-8hz_08-21-15_rbl.db

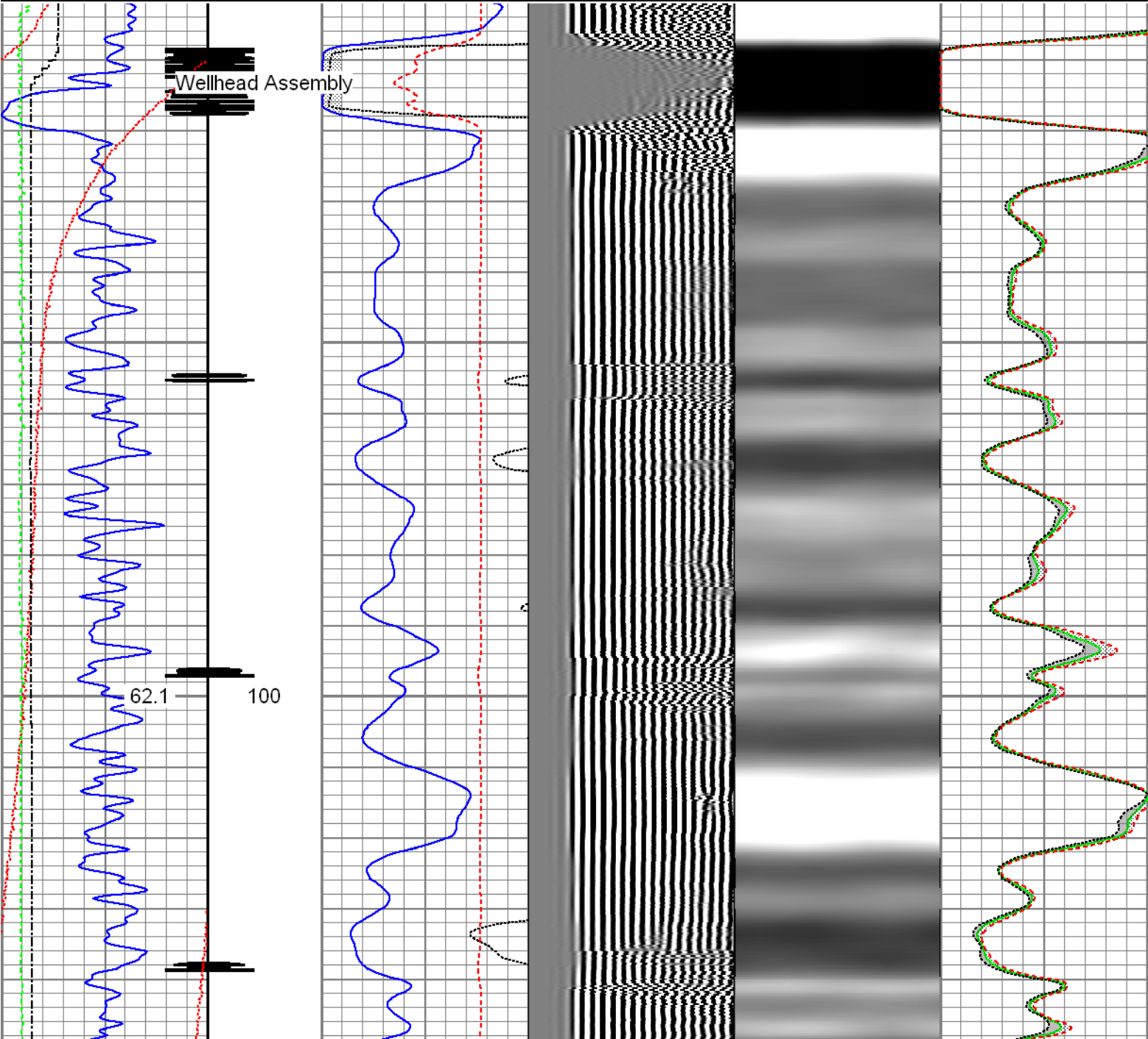
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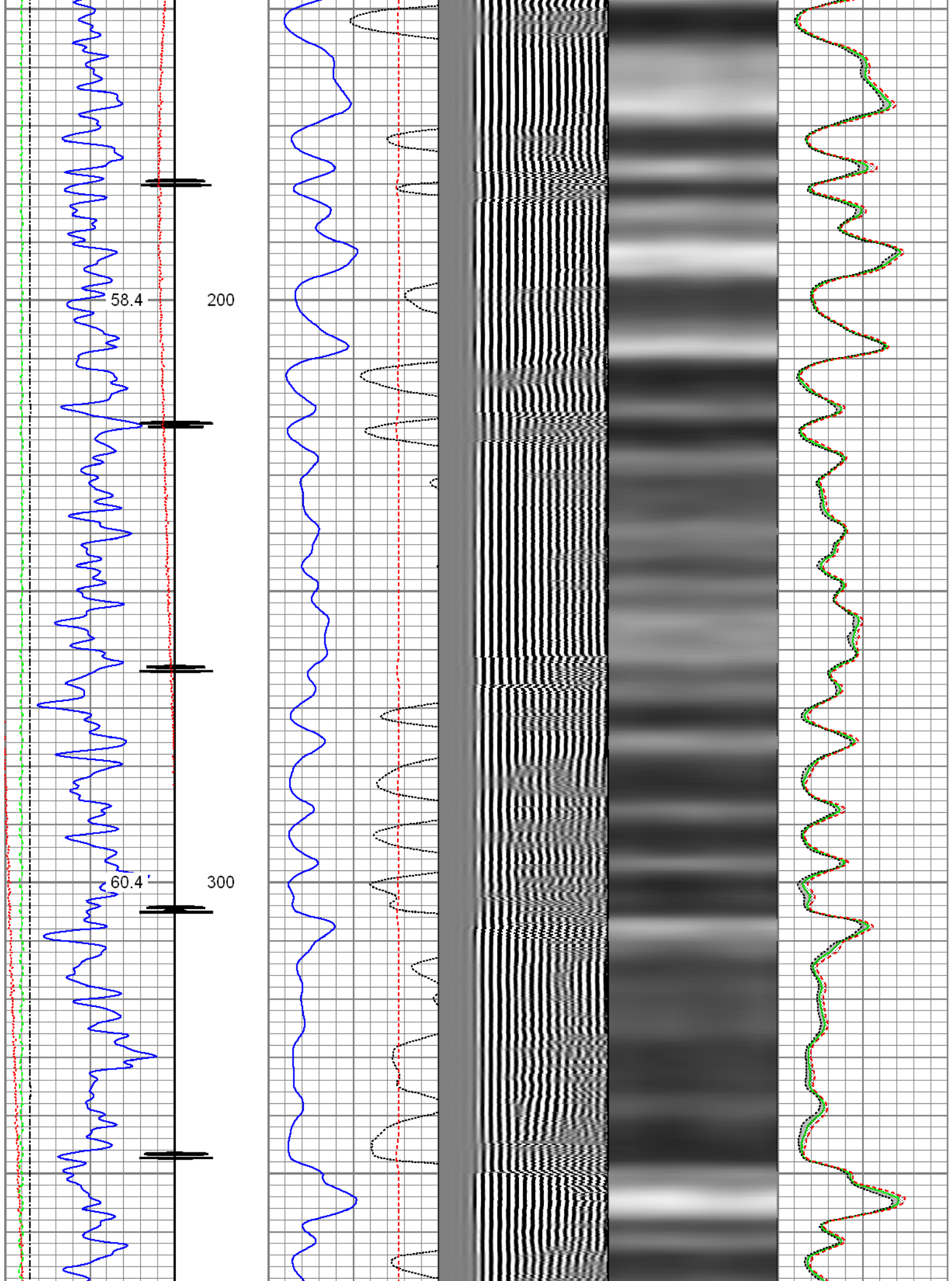
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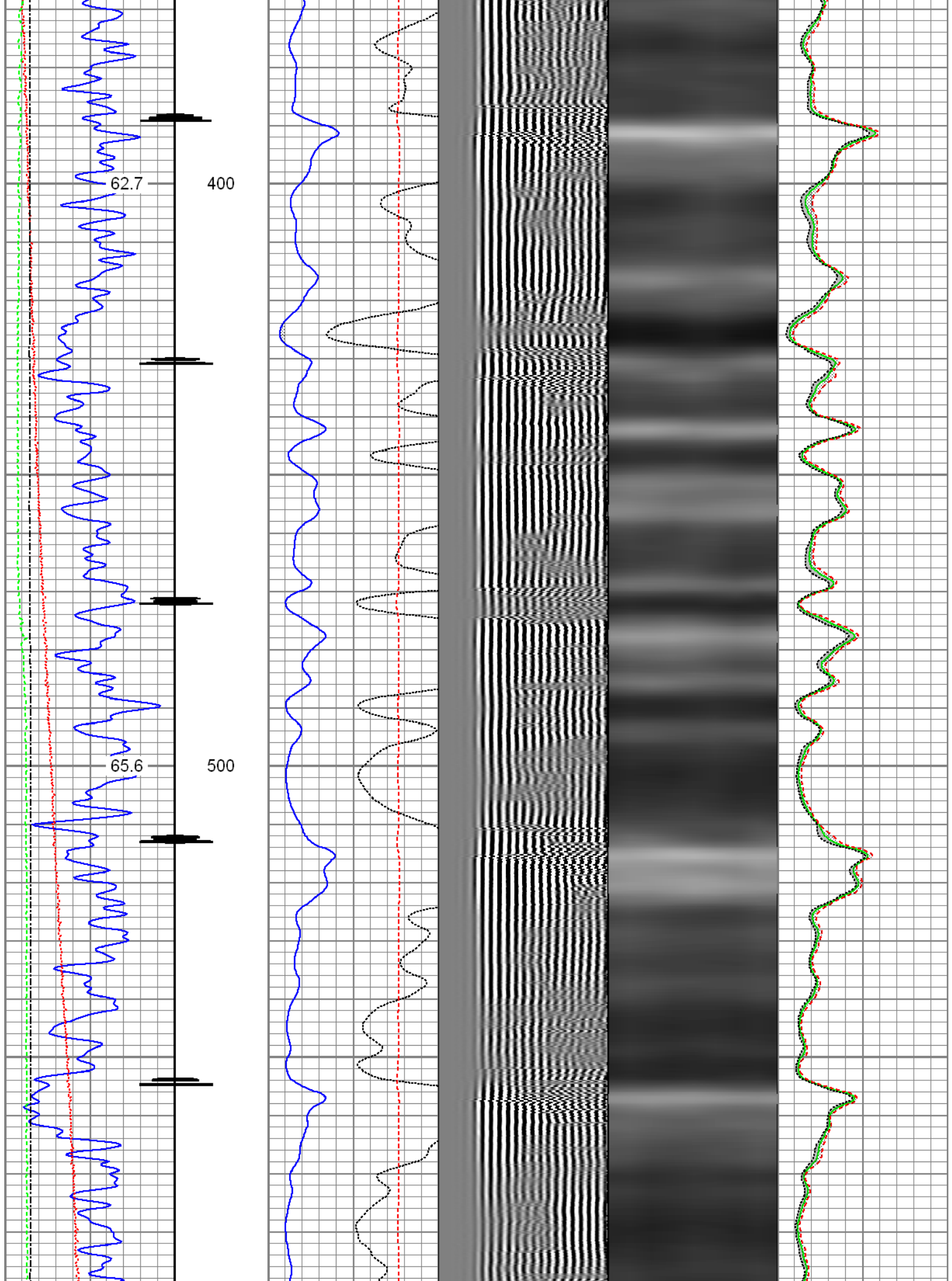
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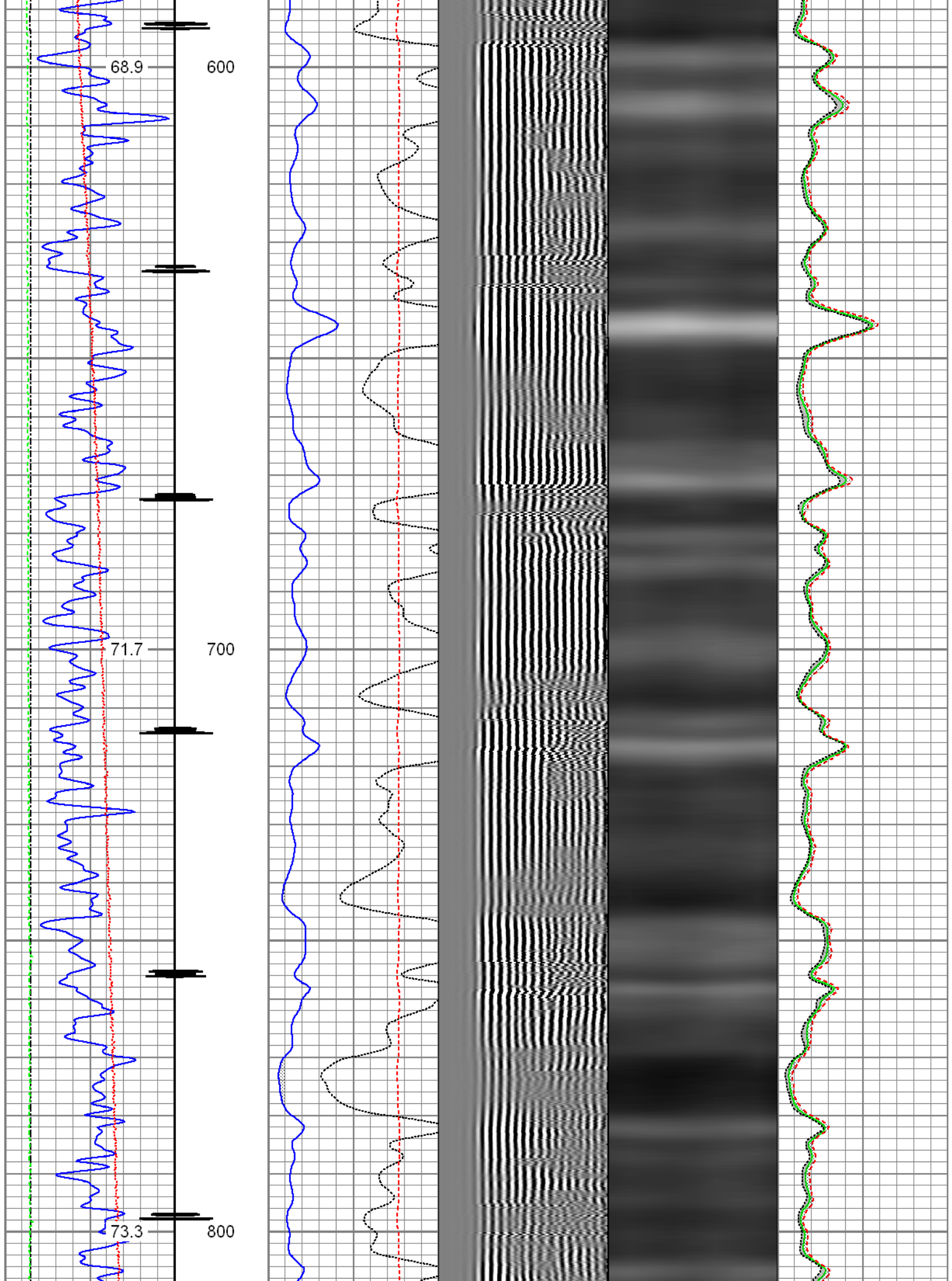
Charted by:Depth in Feet scaled 1:240

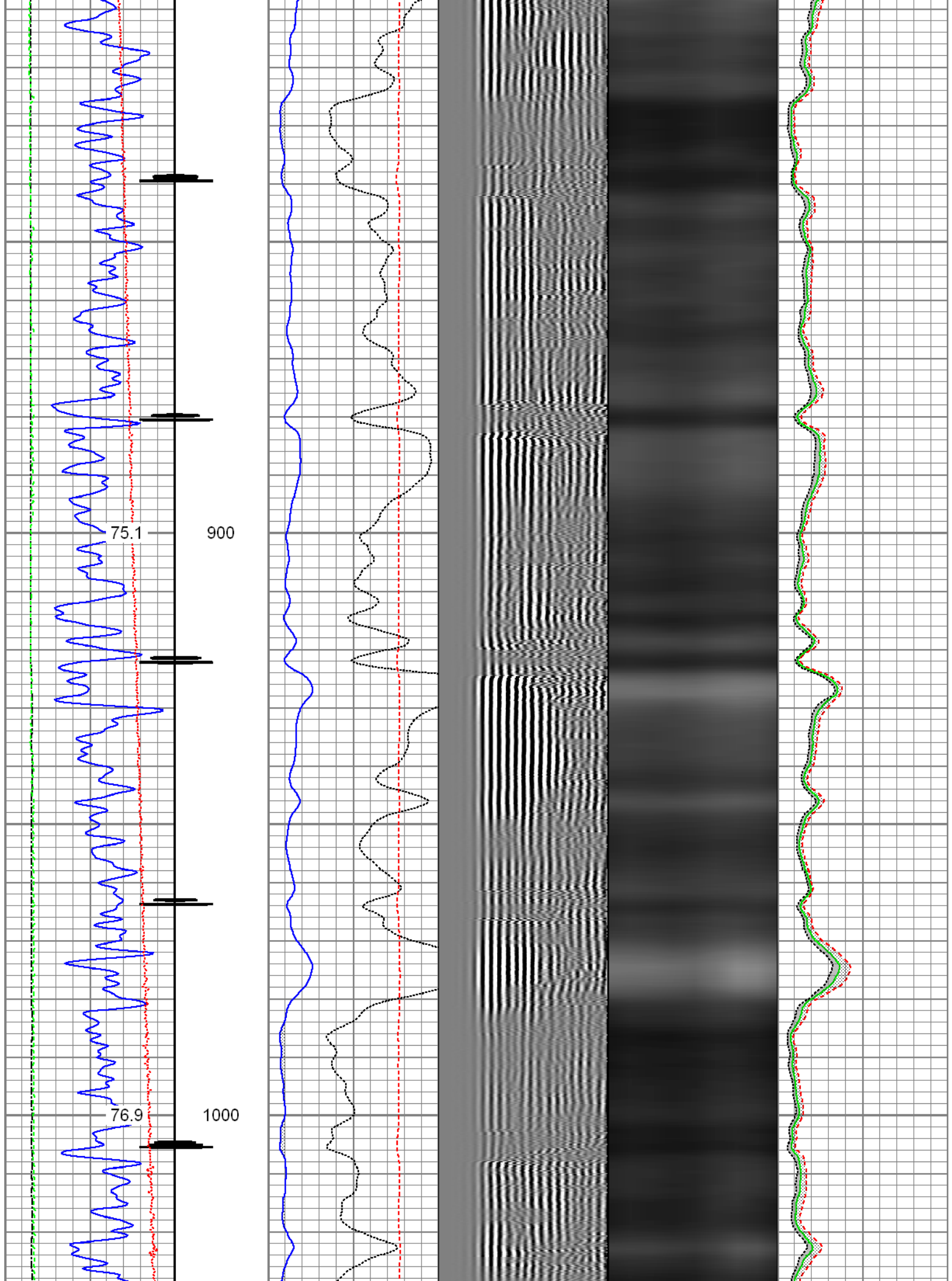
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150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

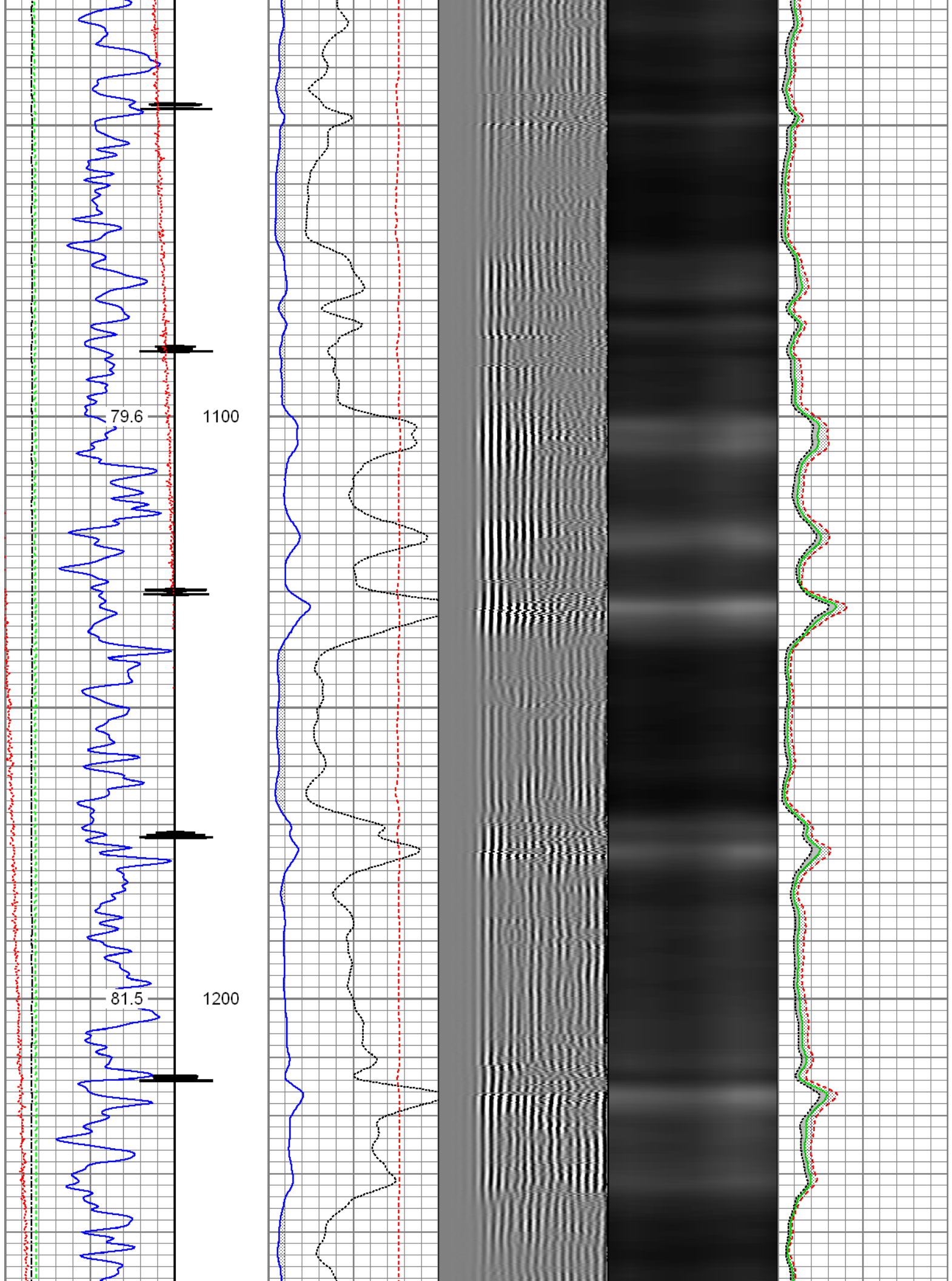


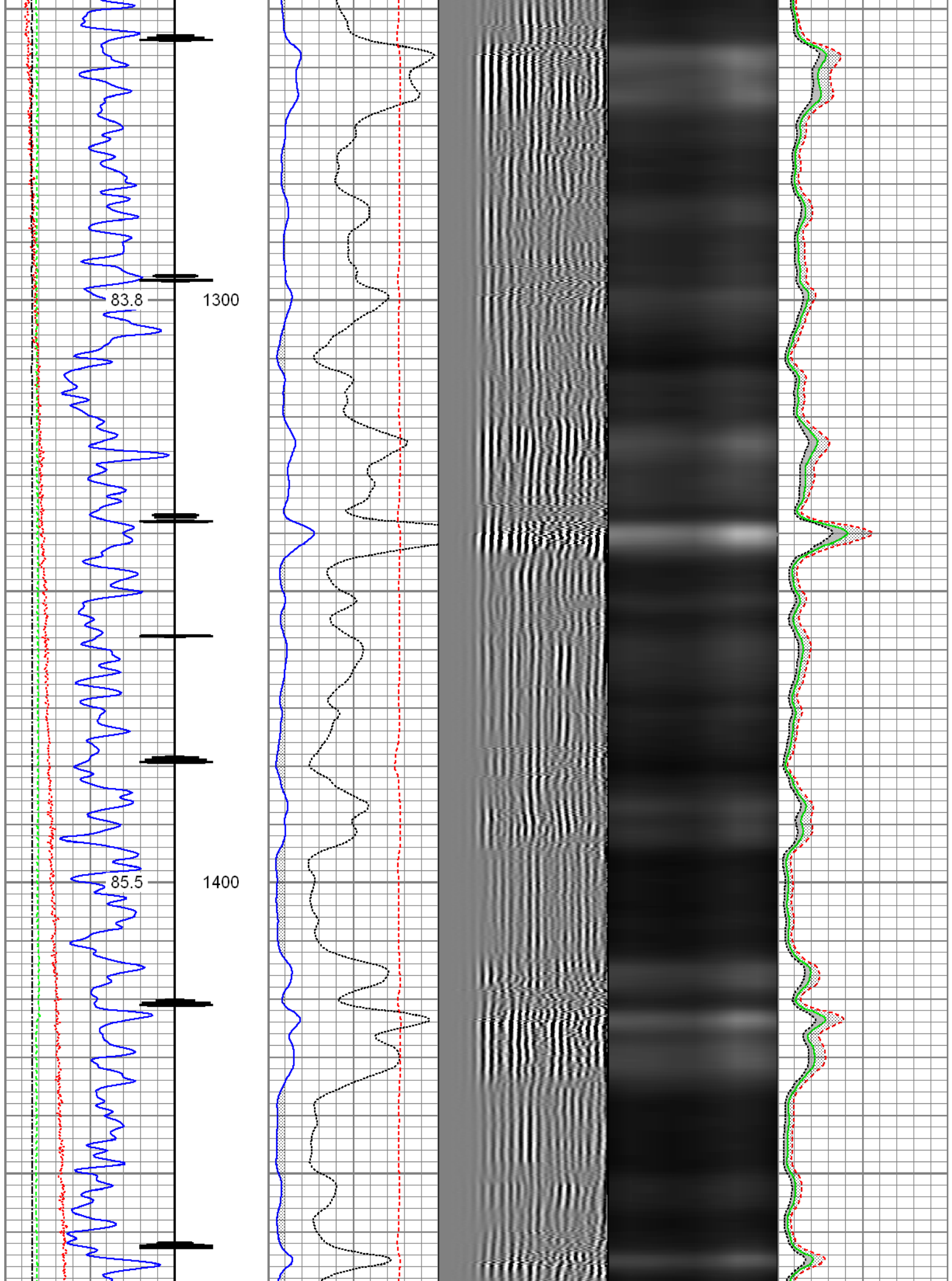


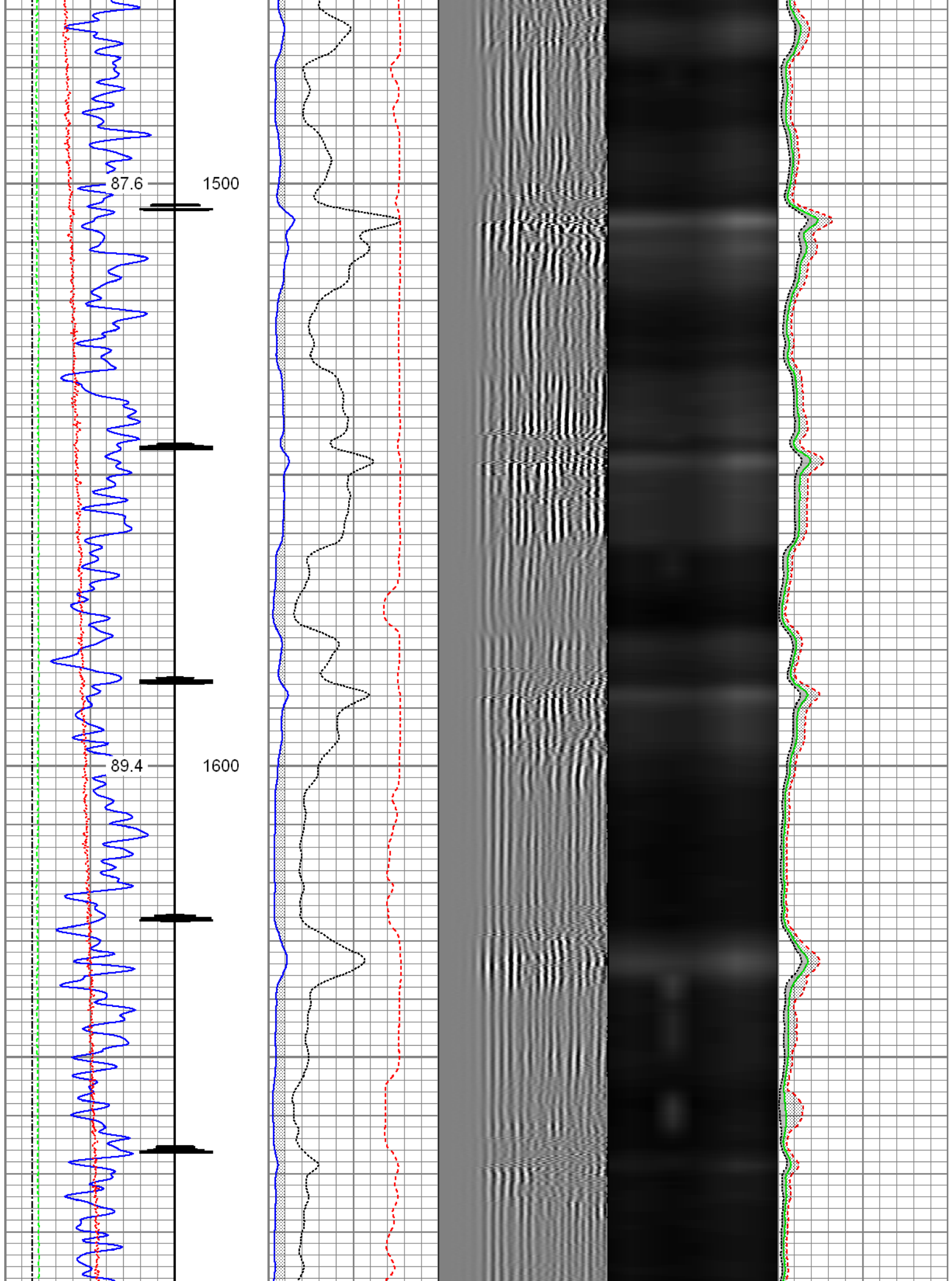


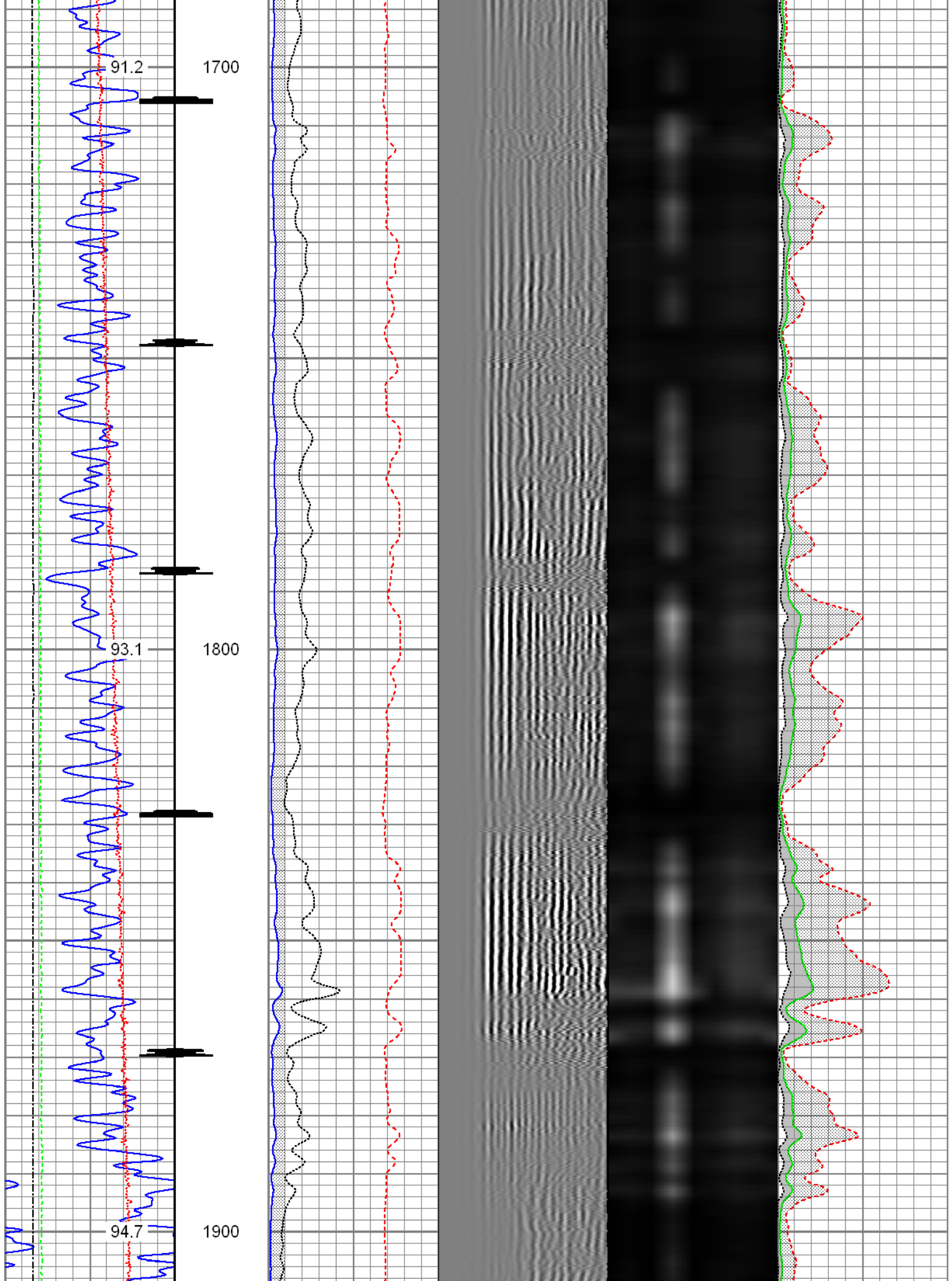


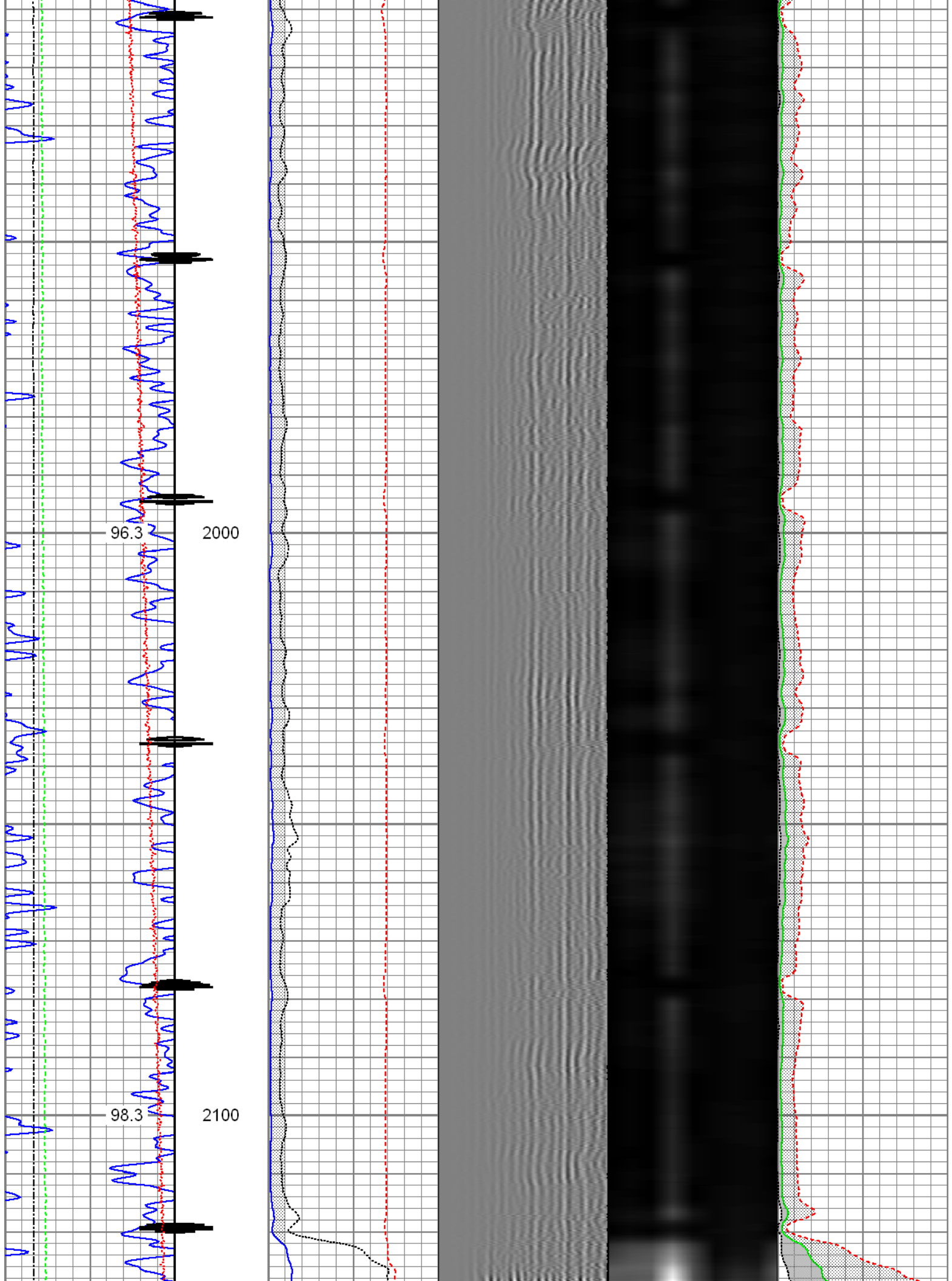


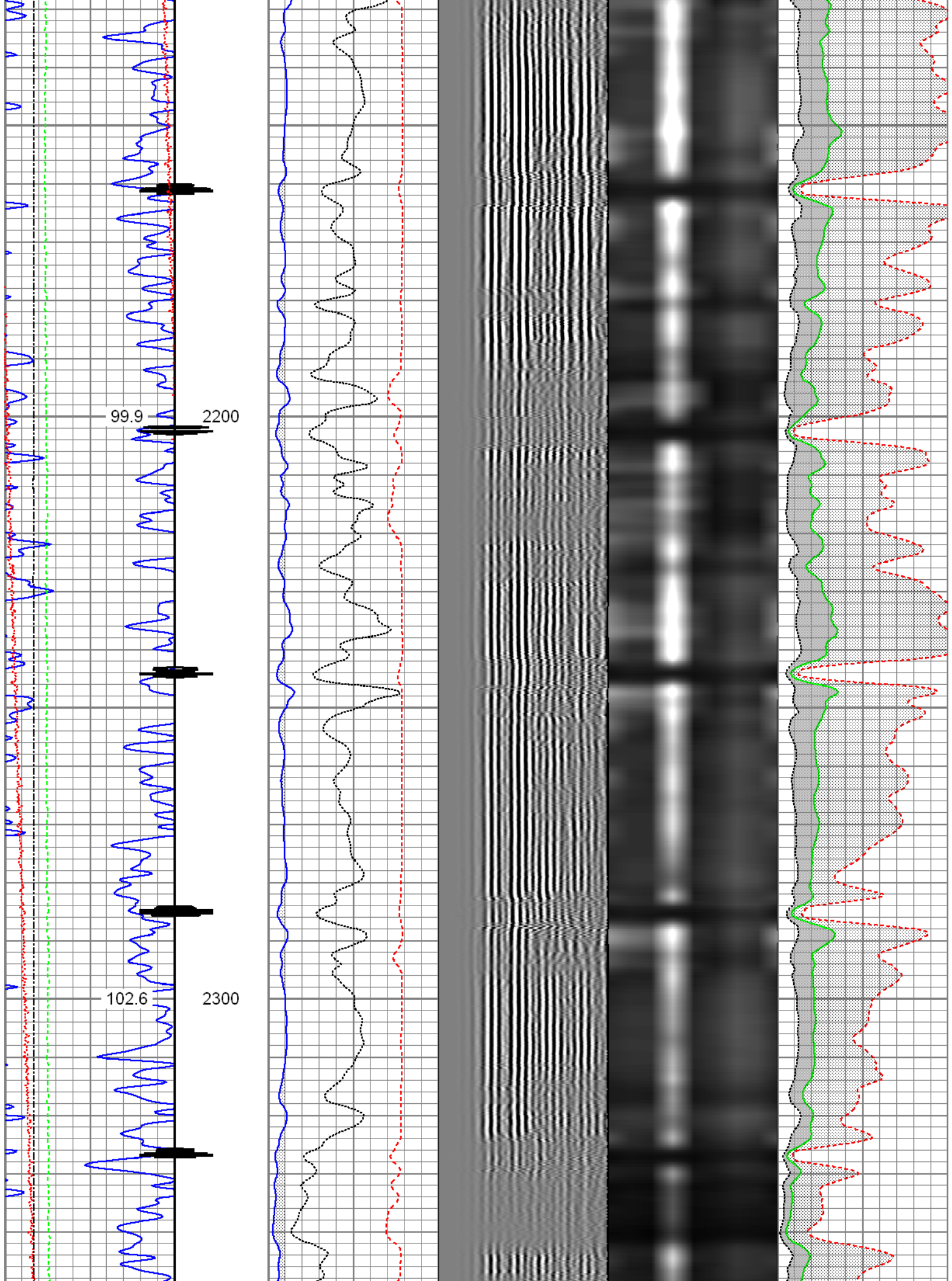


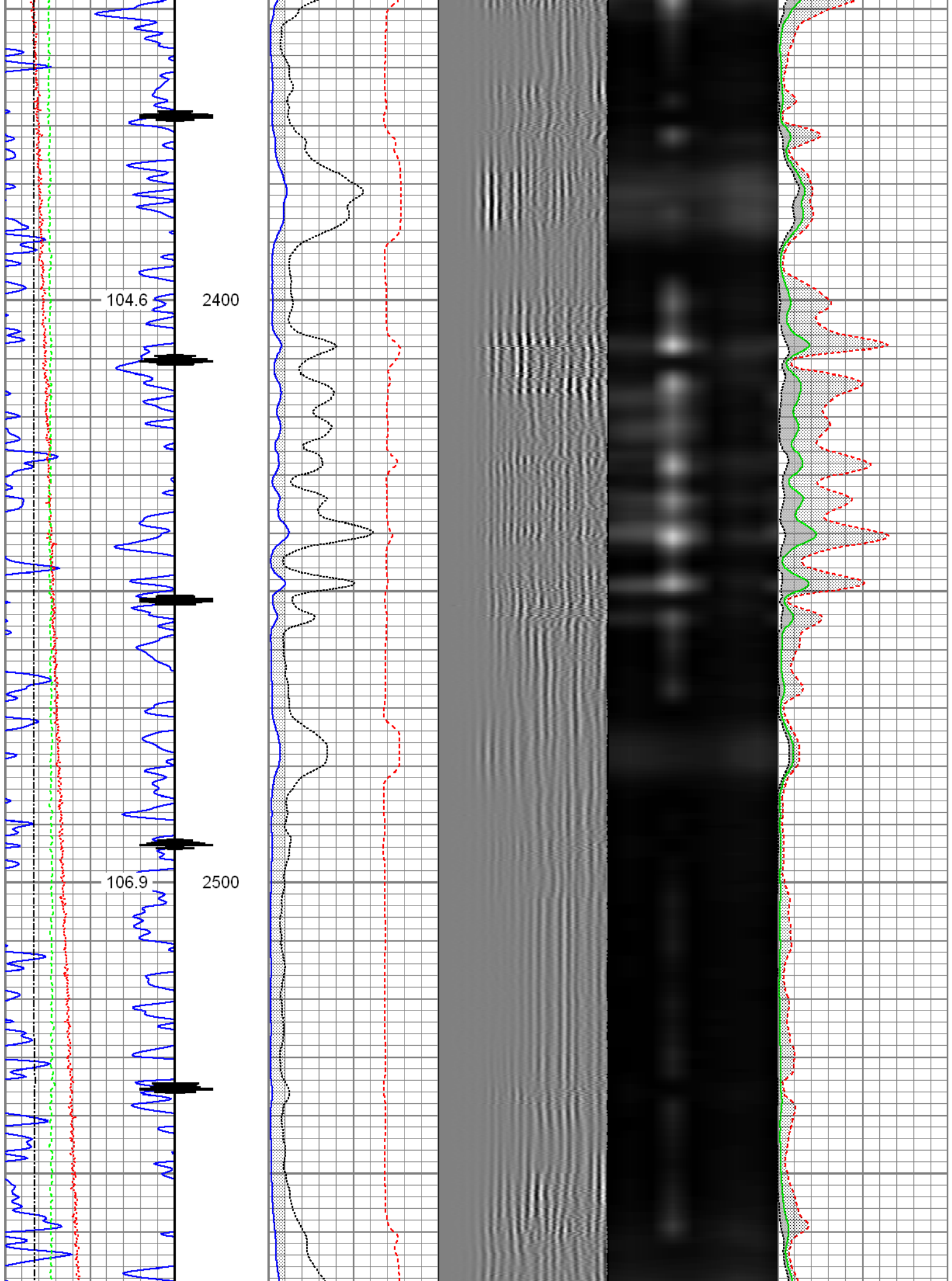


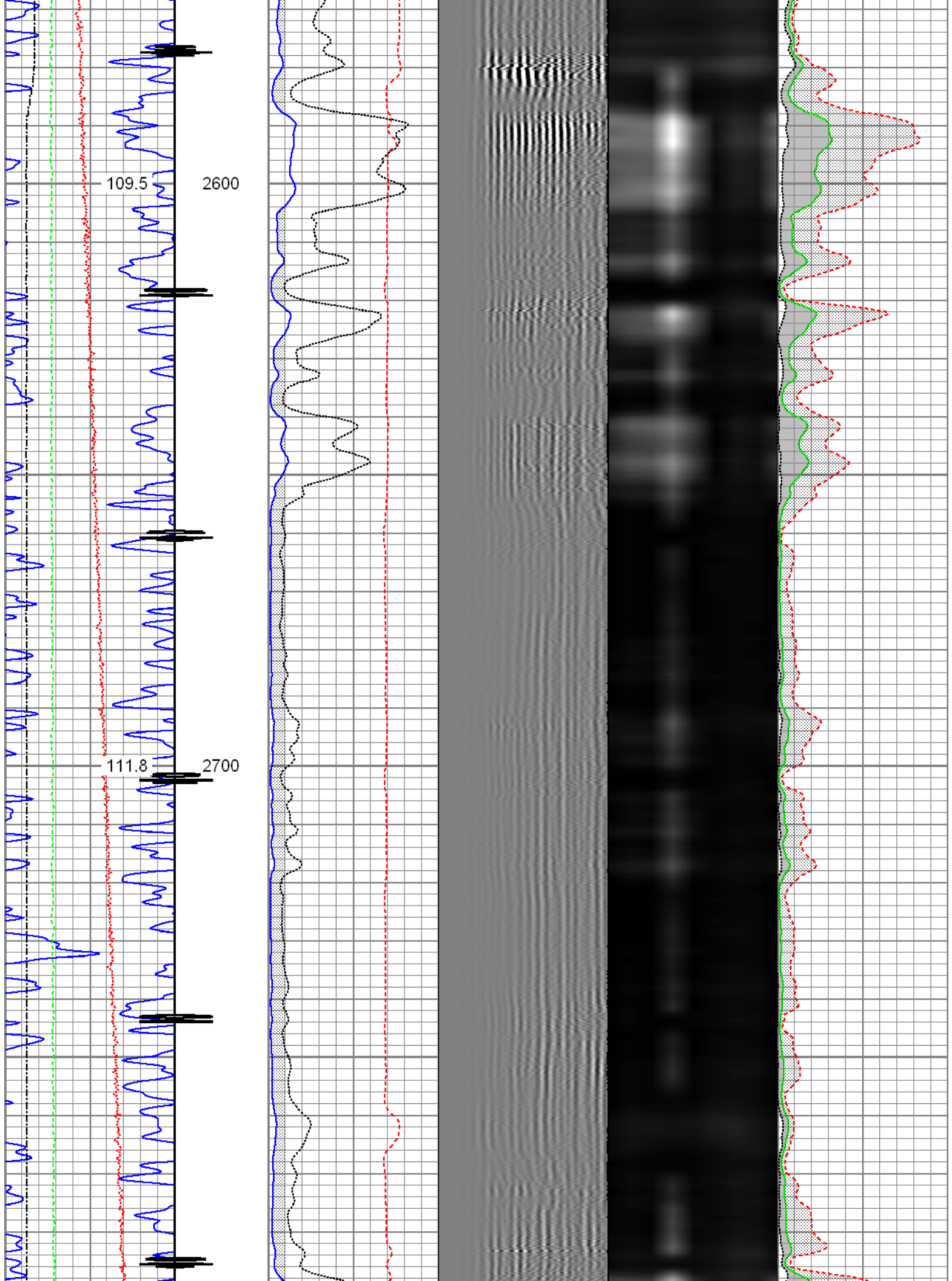


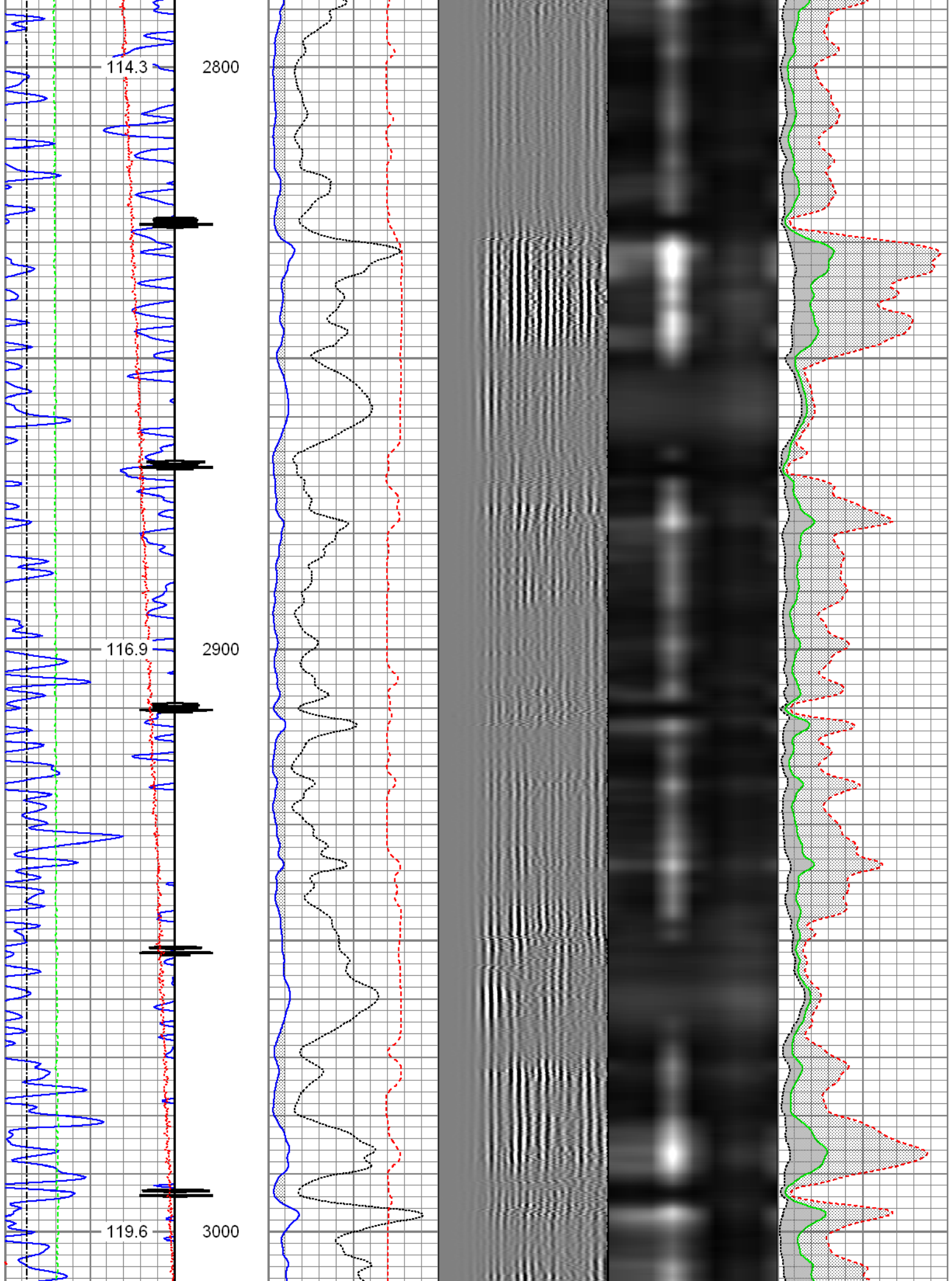


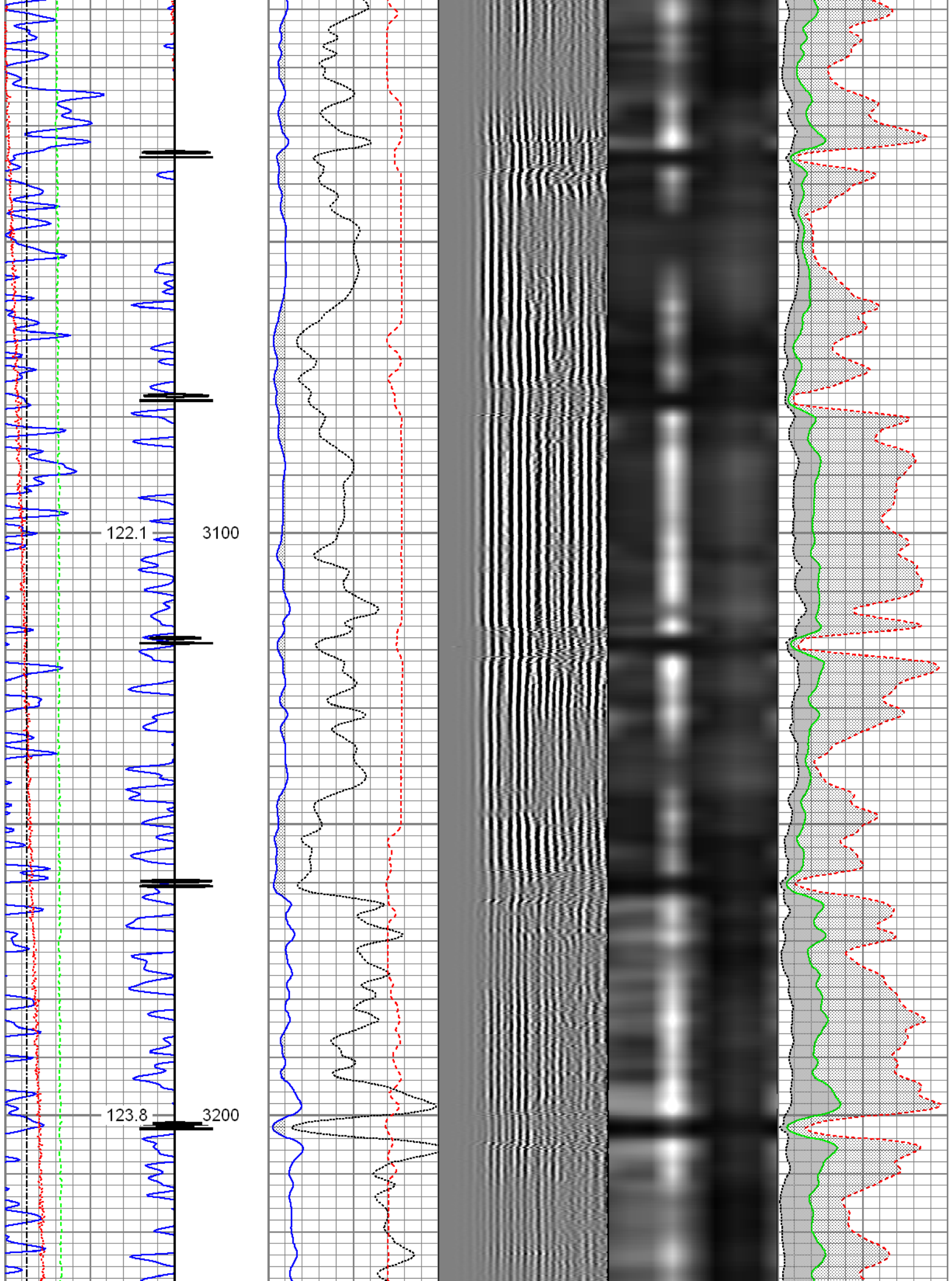


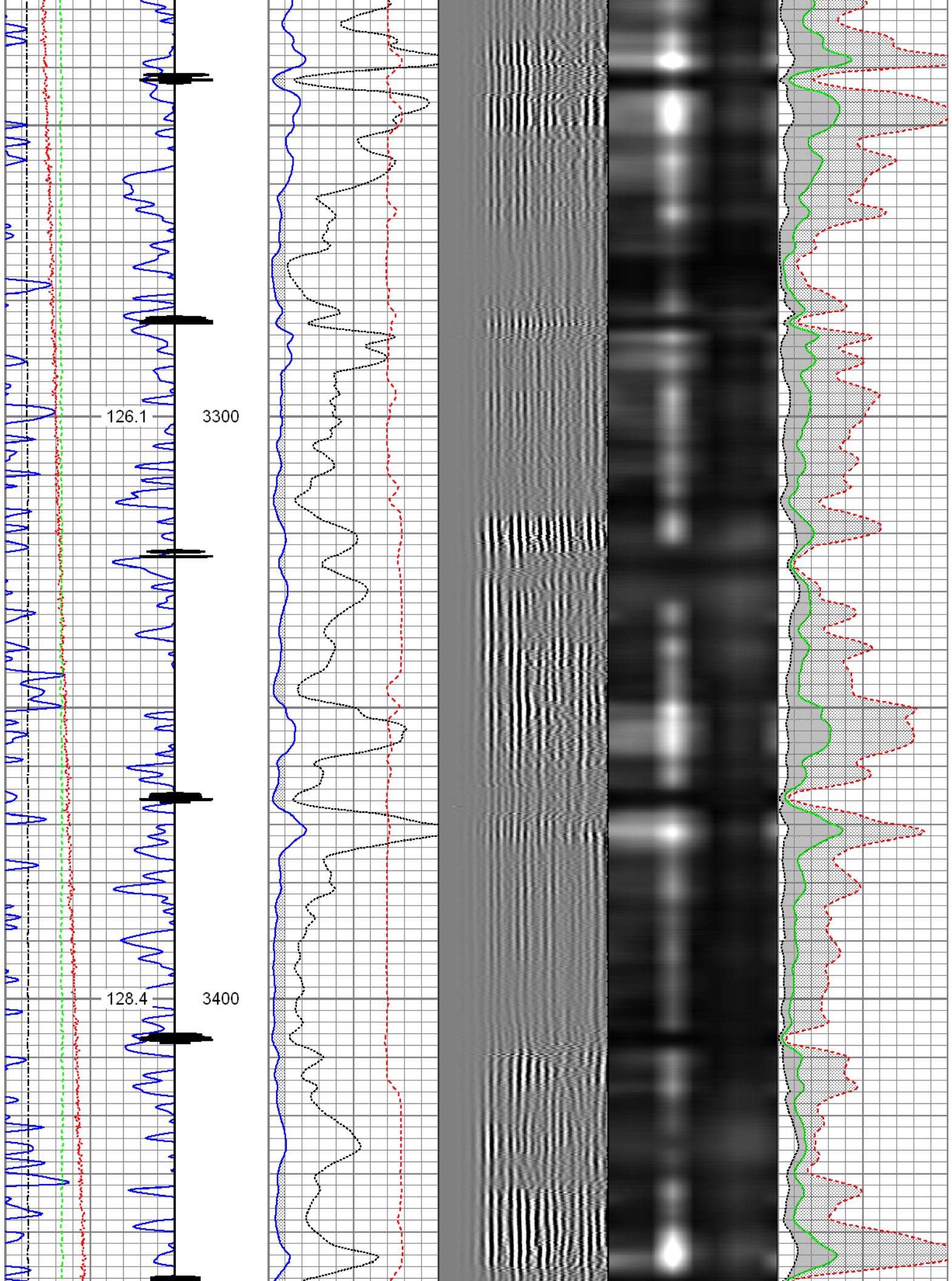


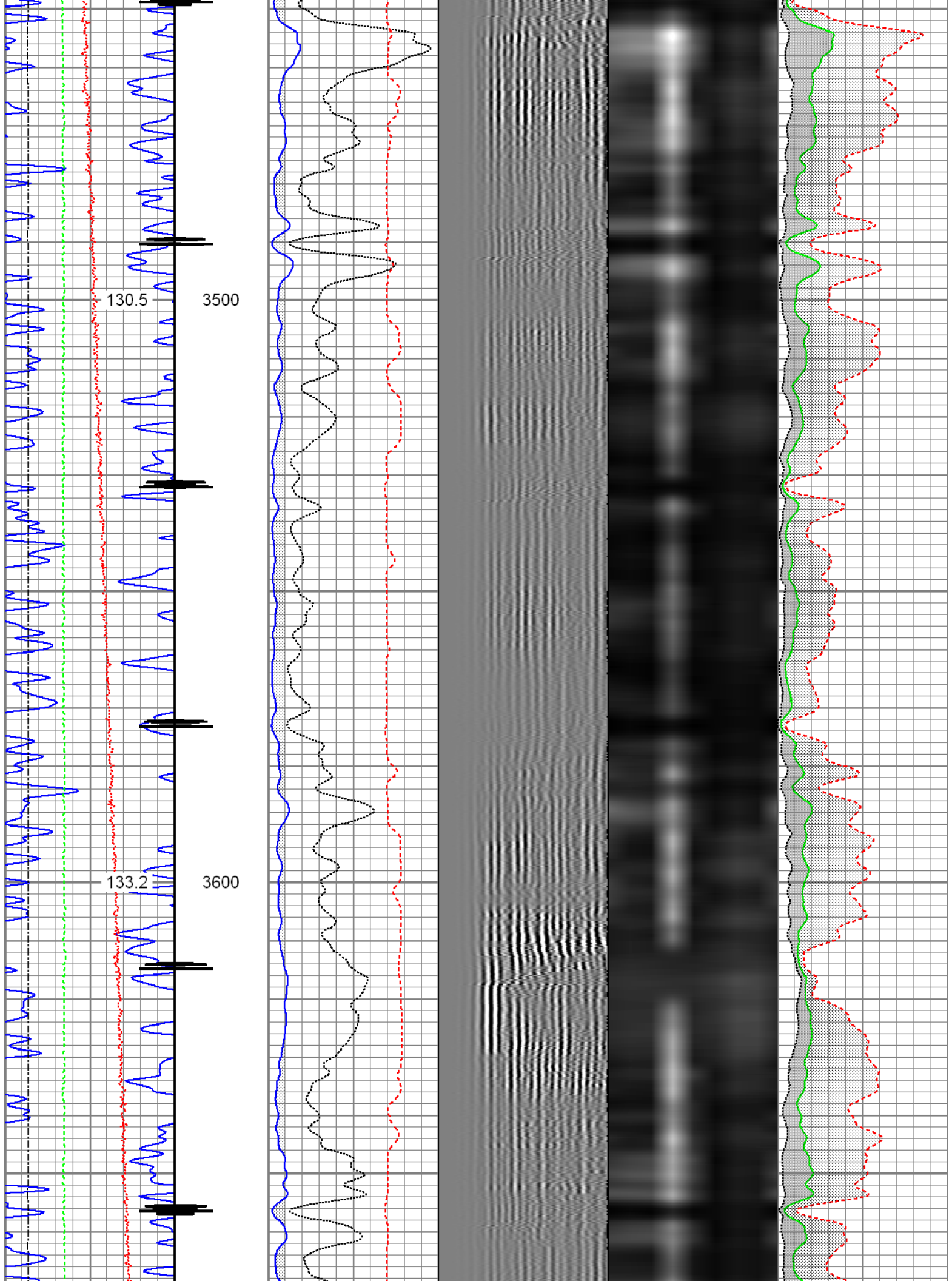


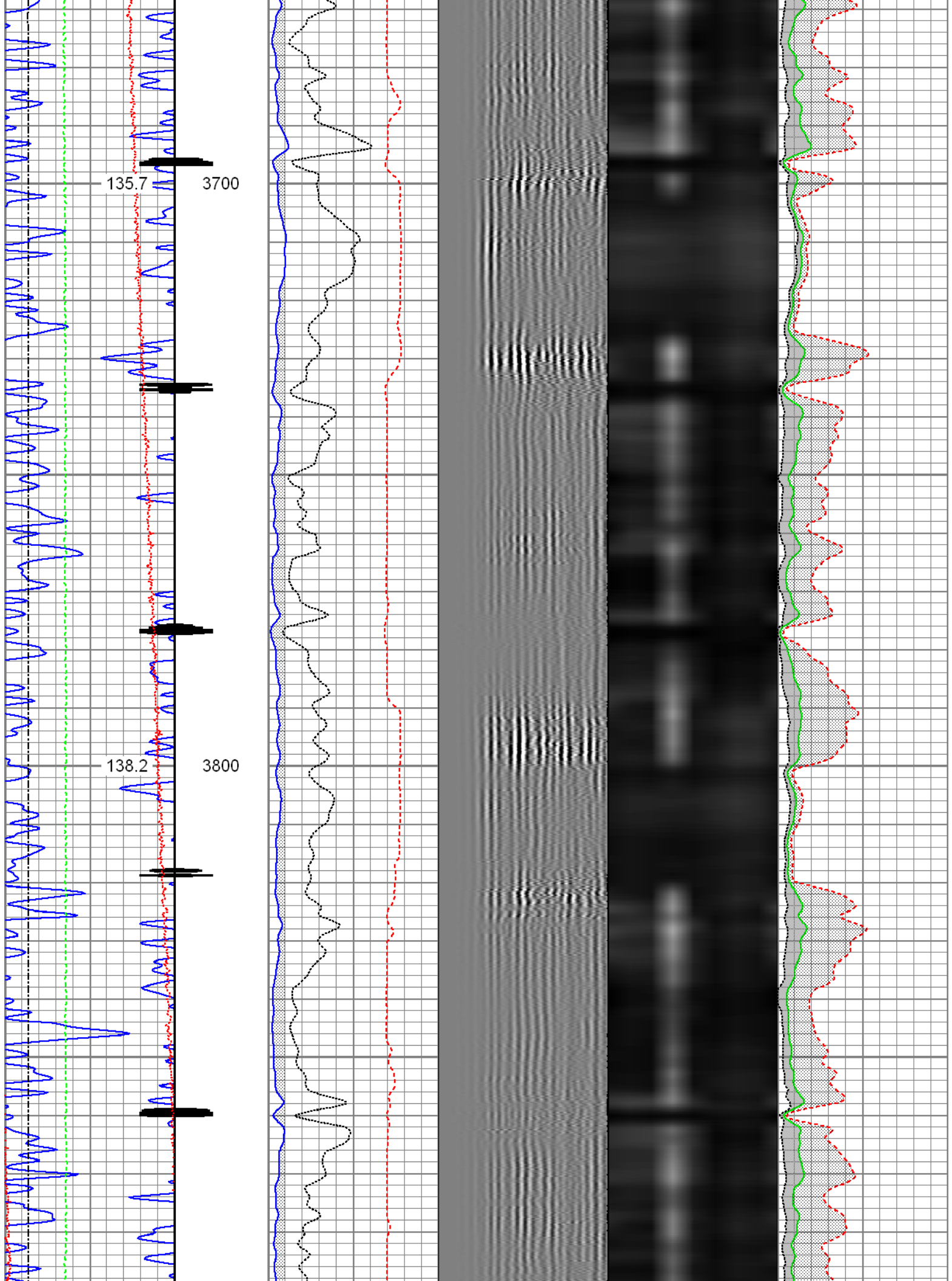


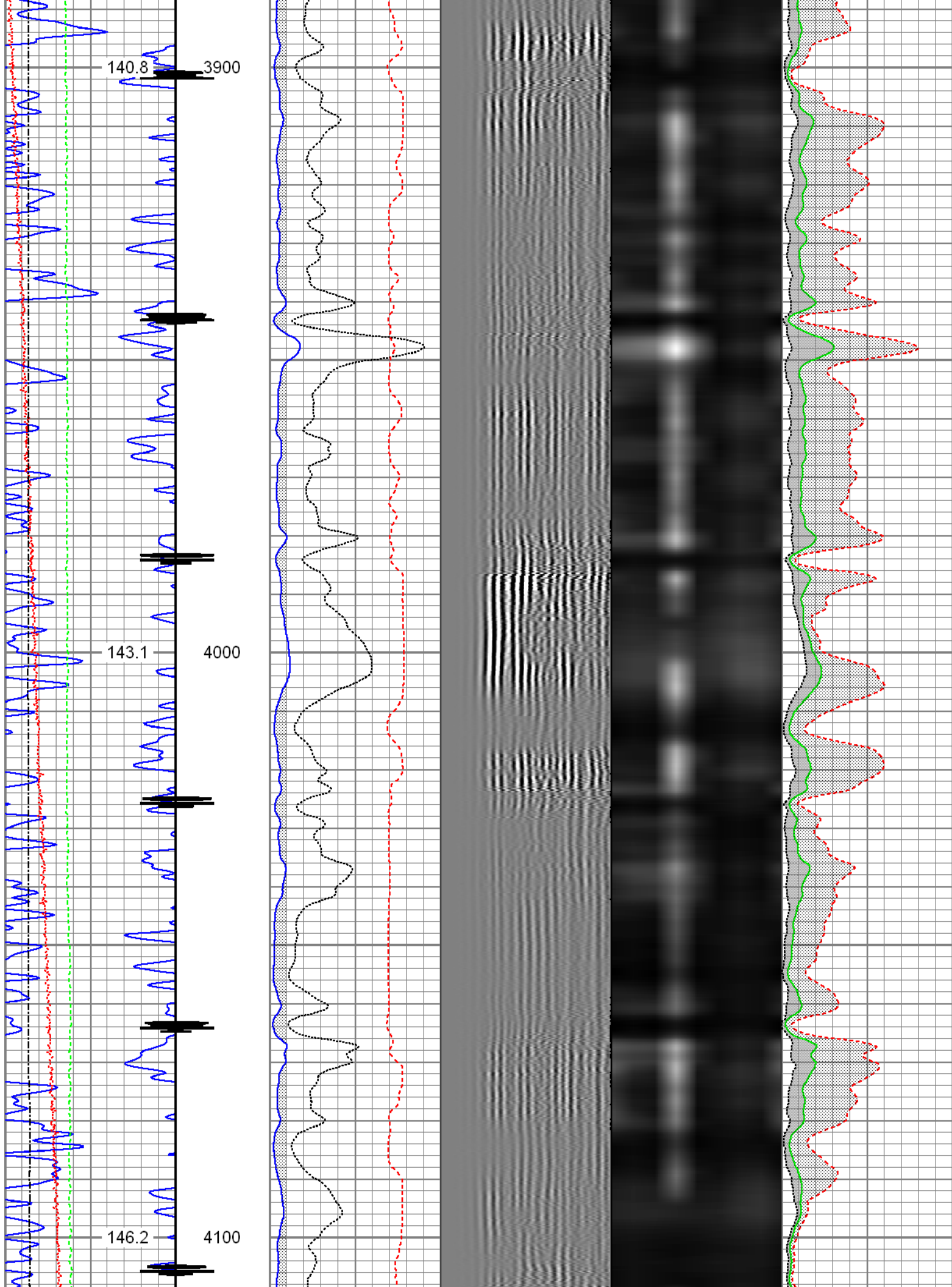


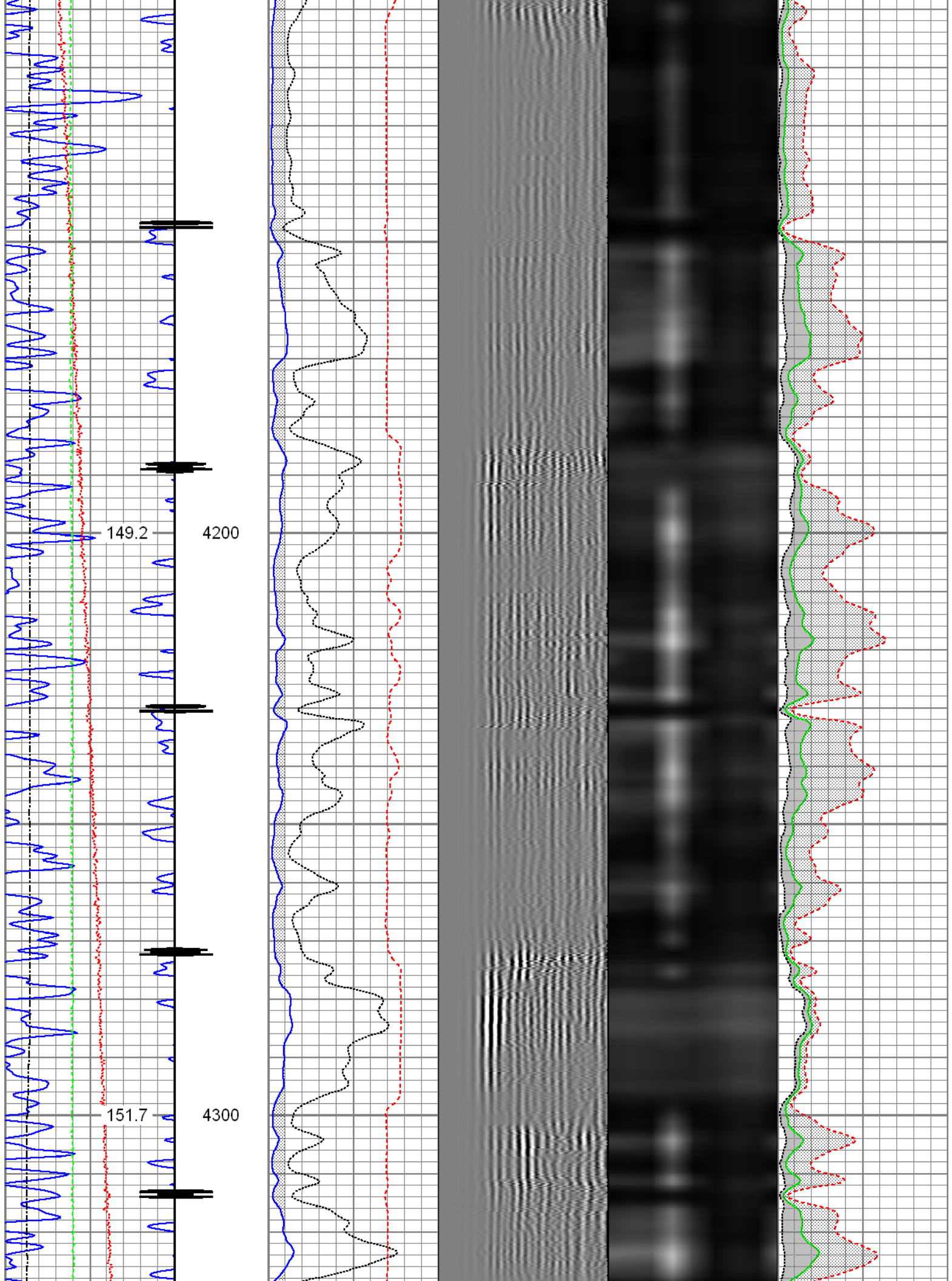


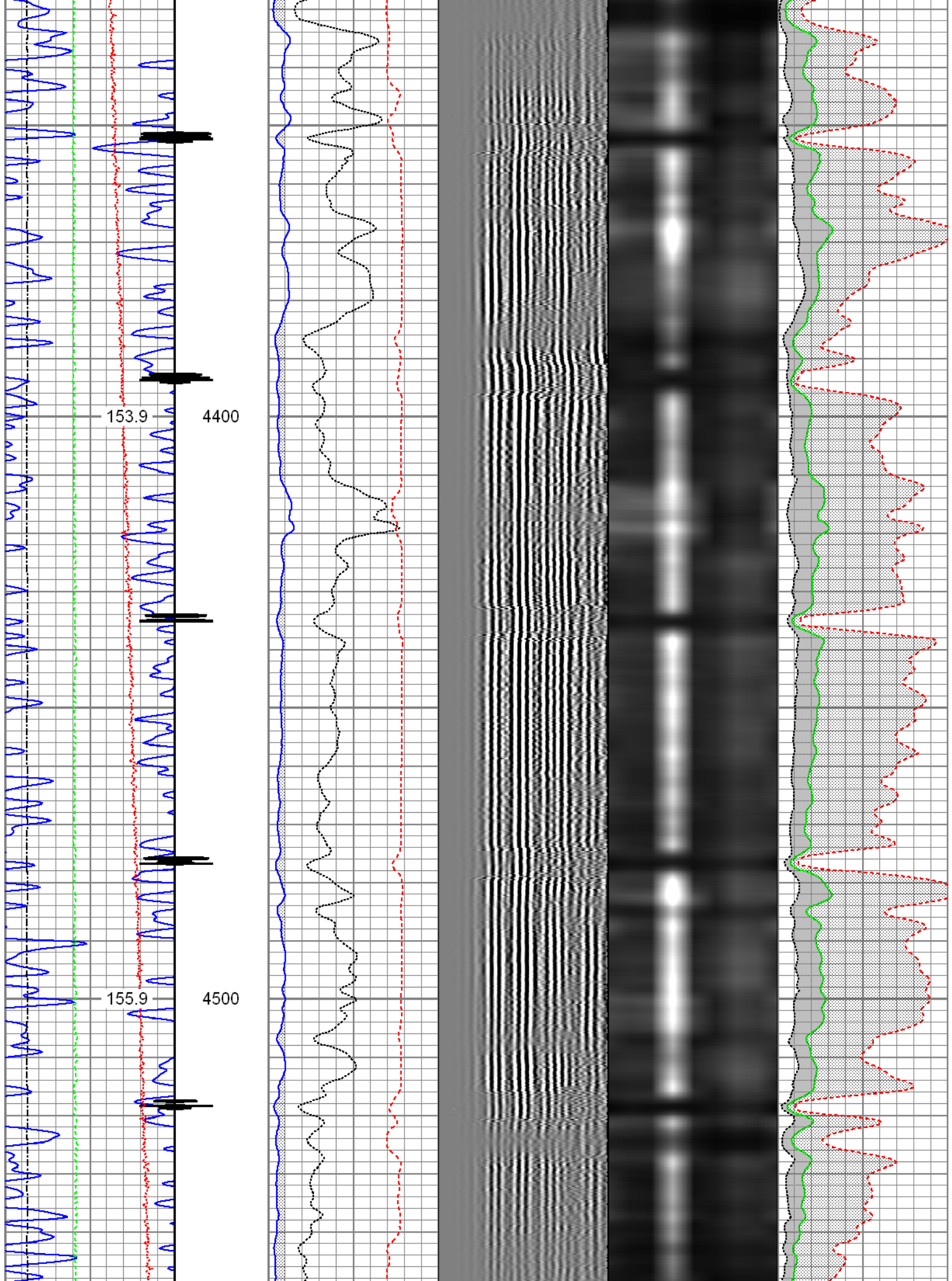


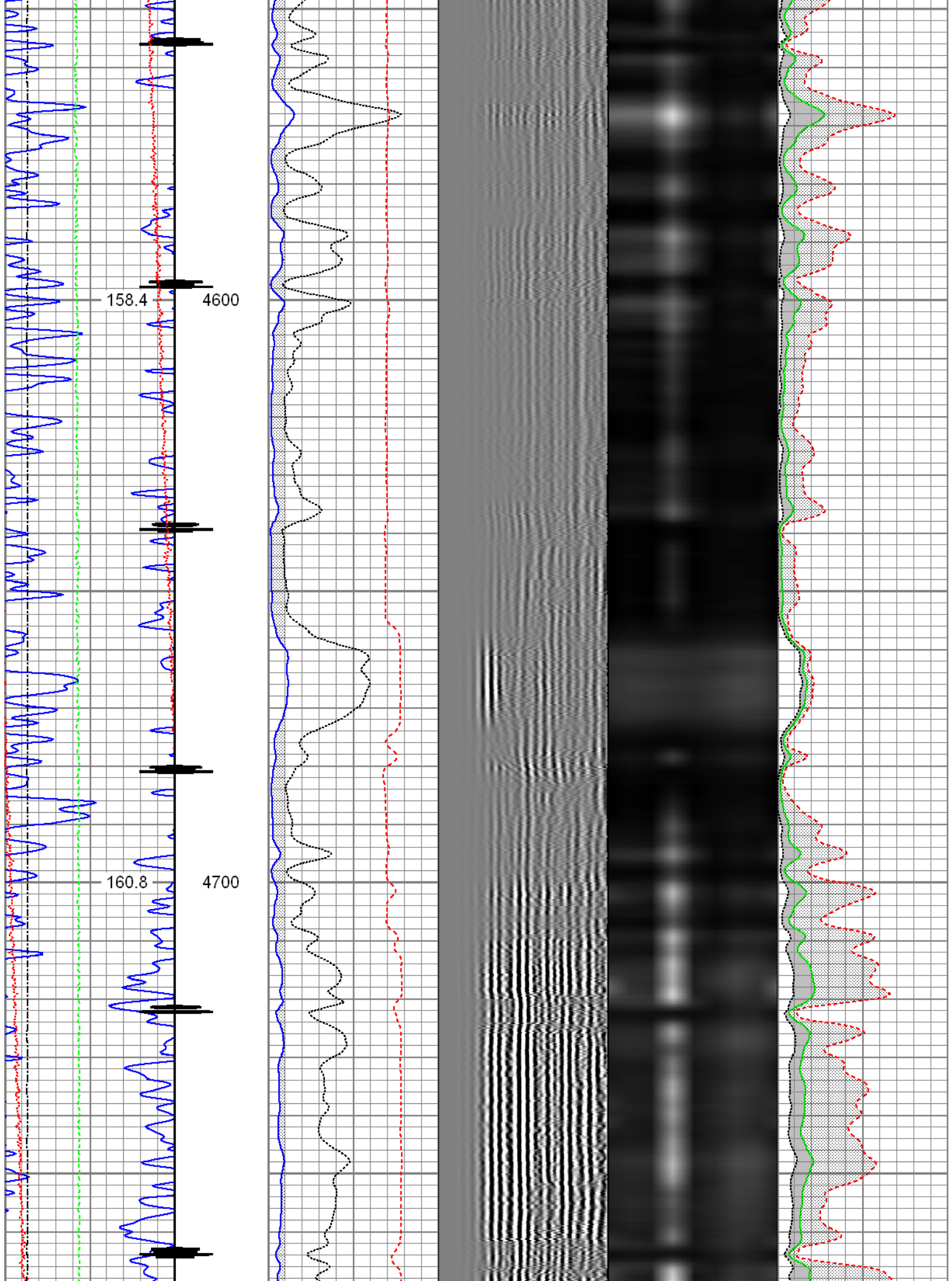


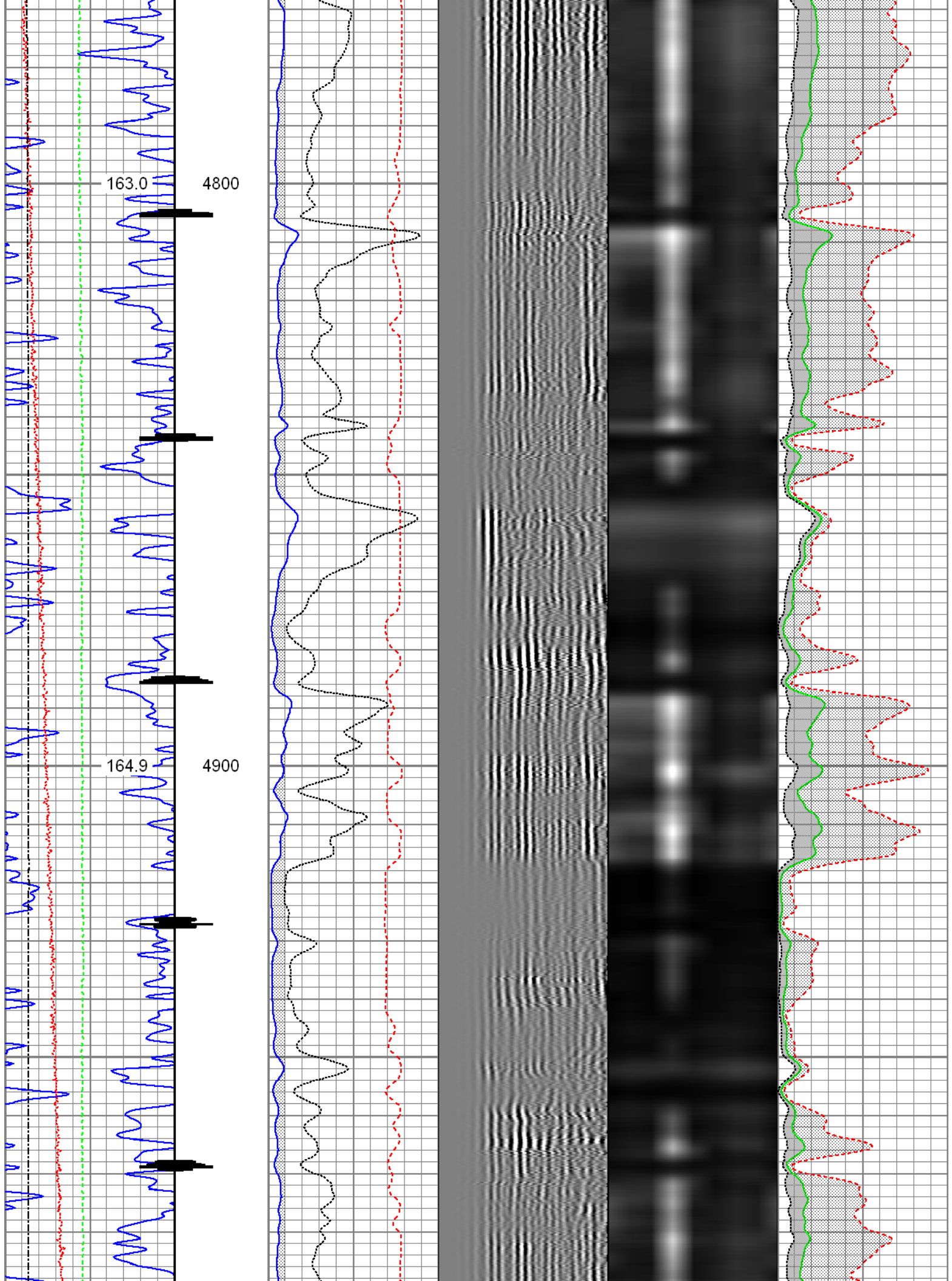


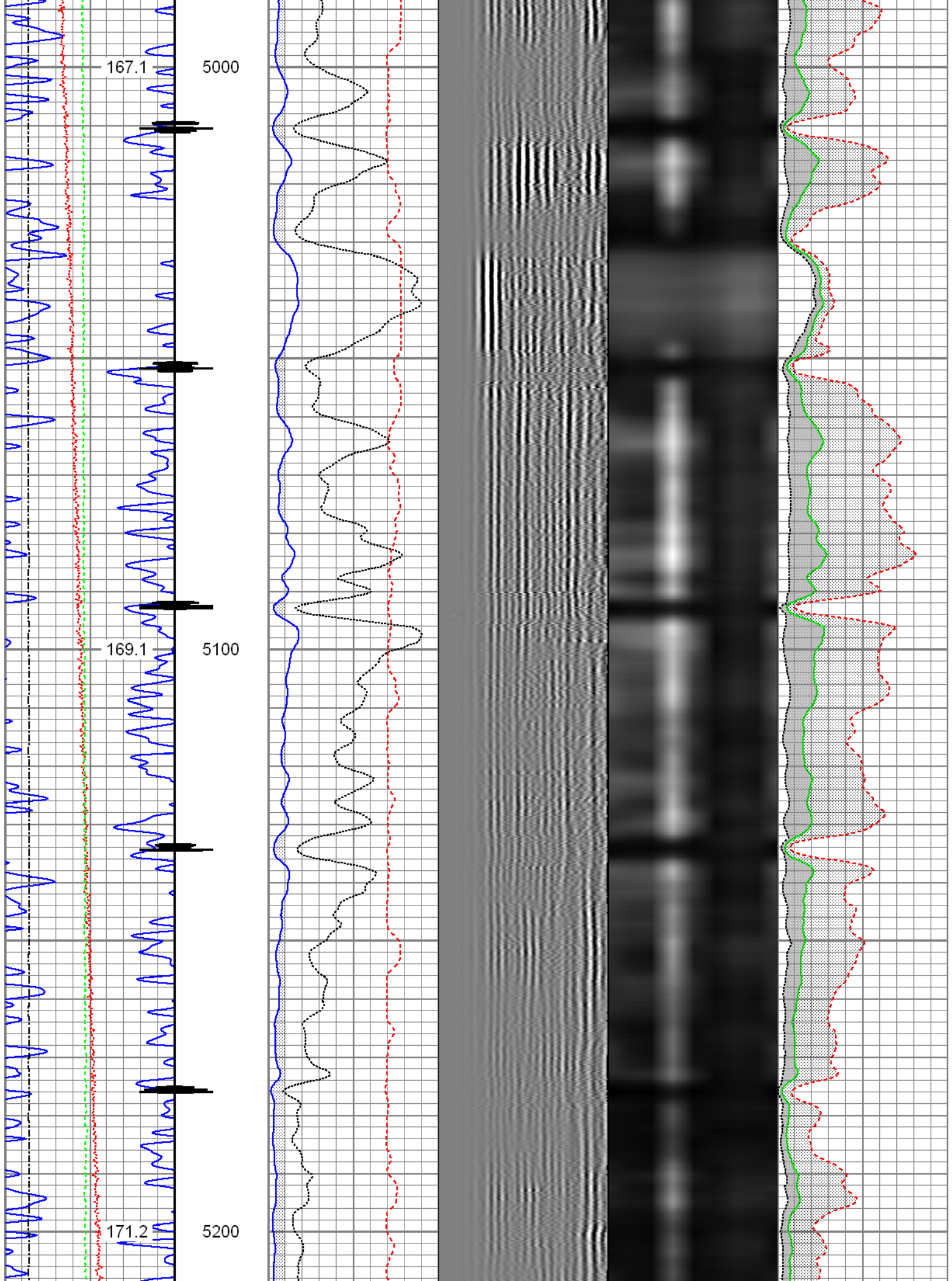


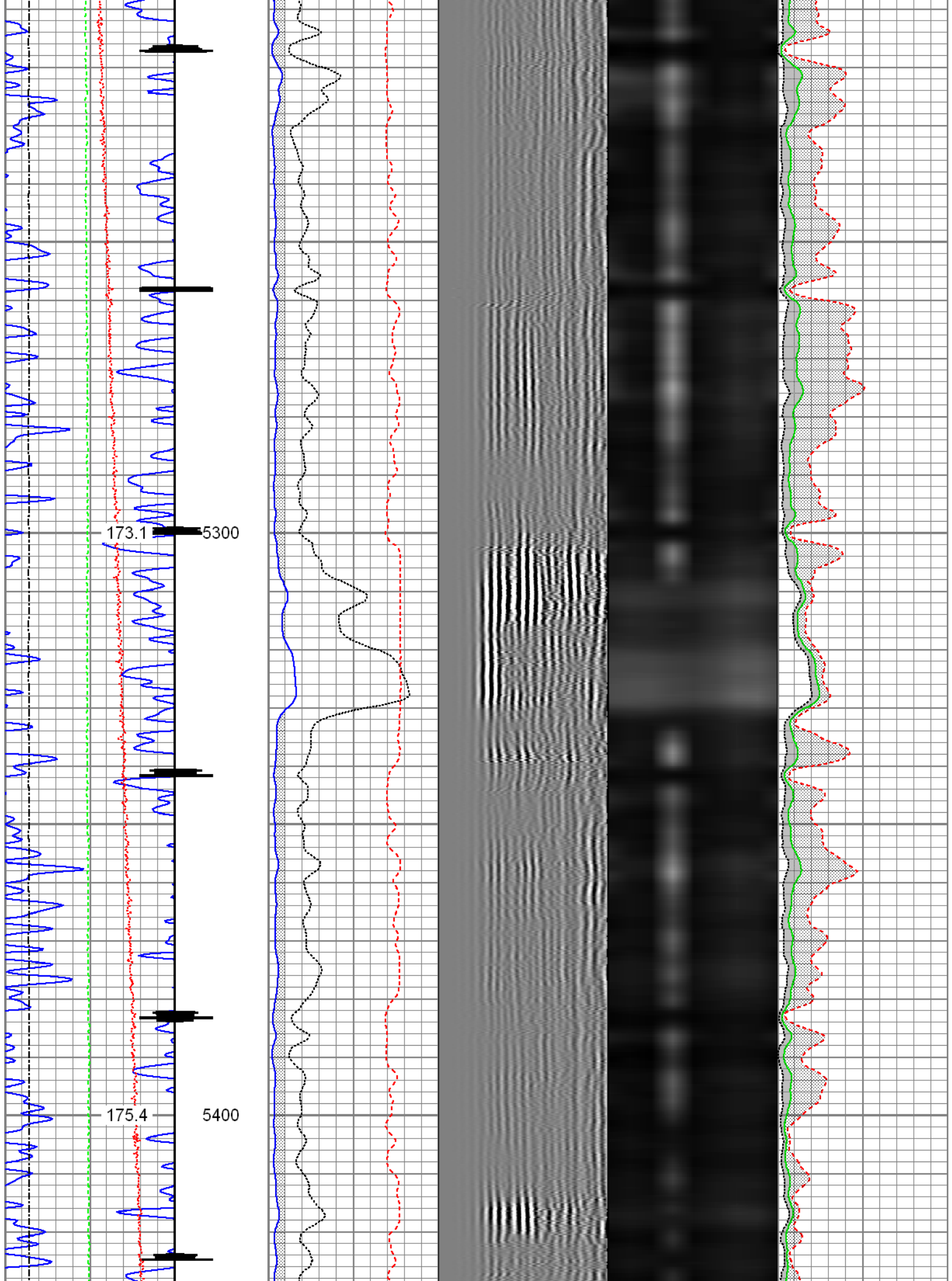


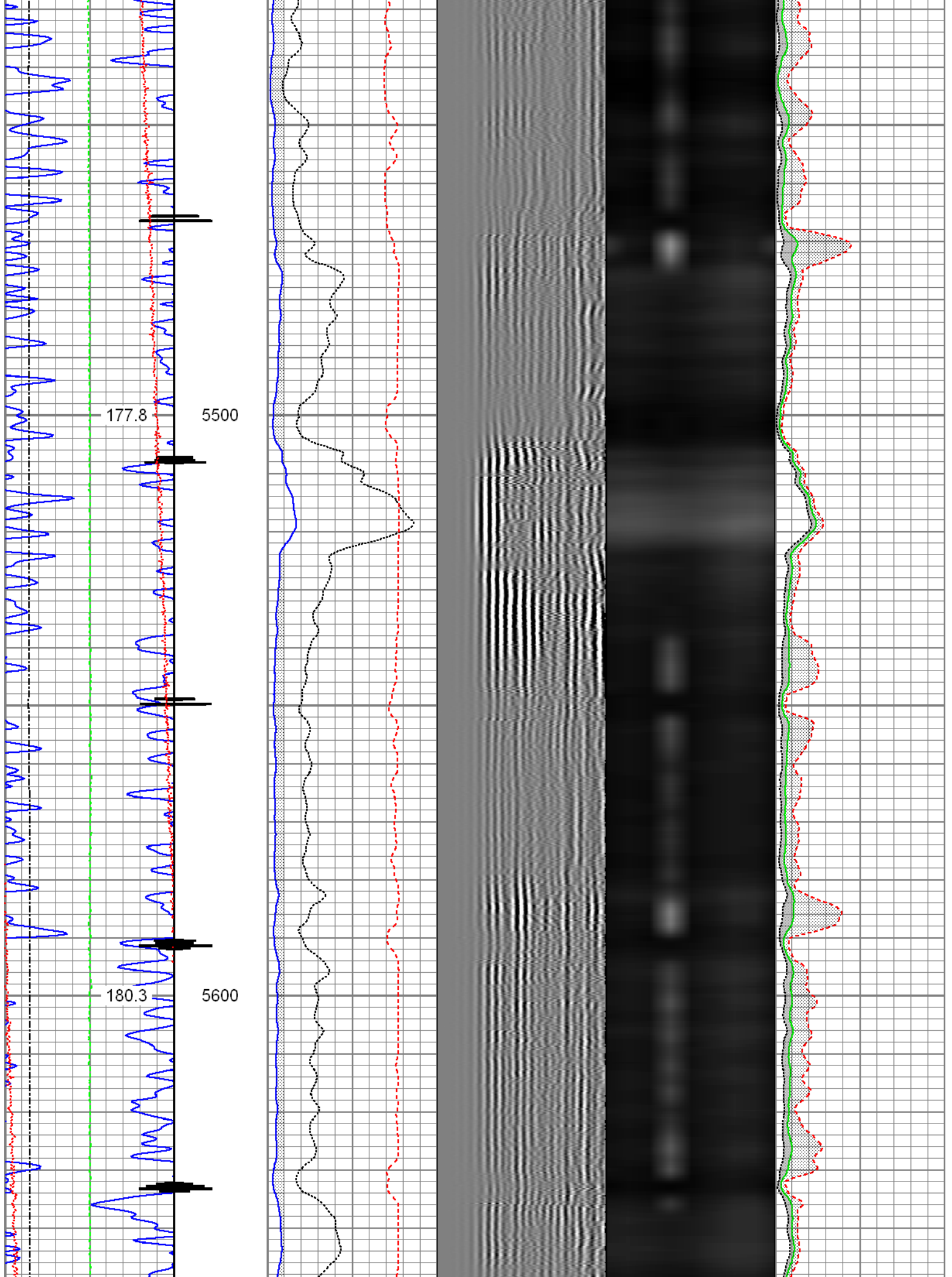


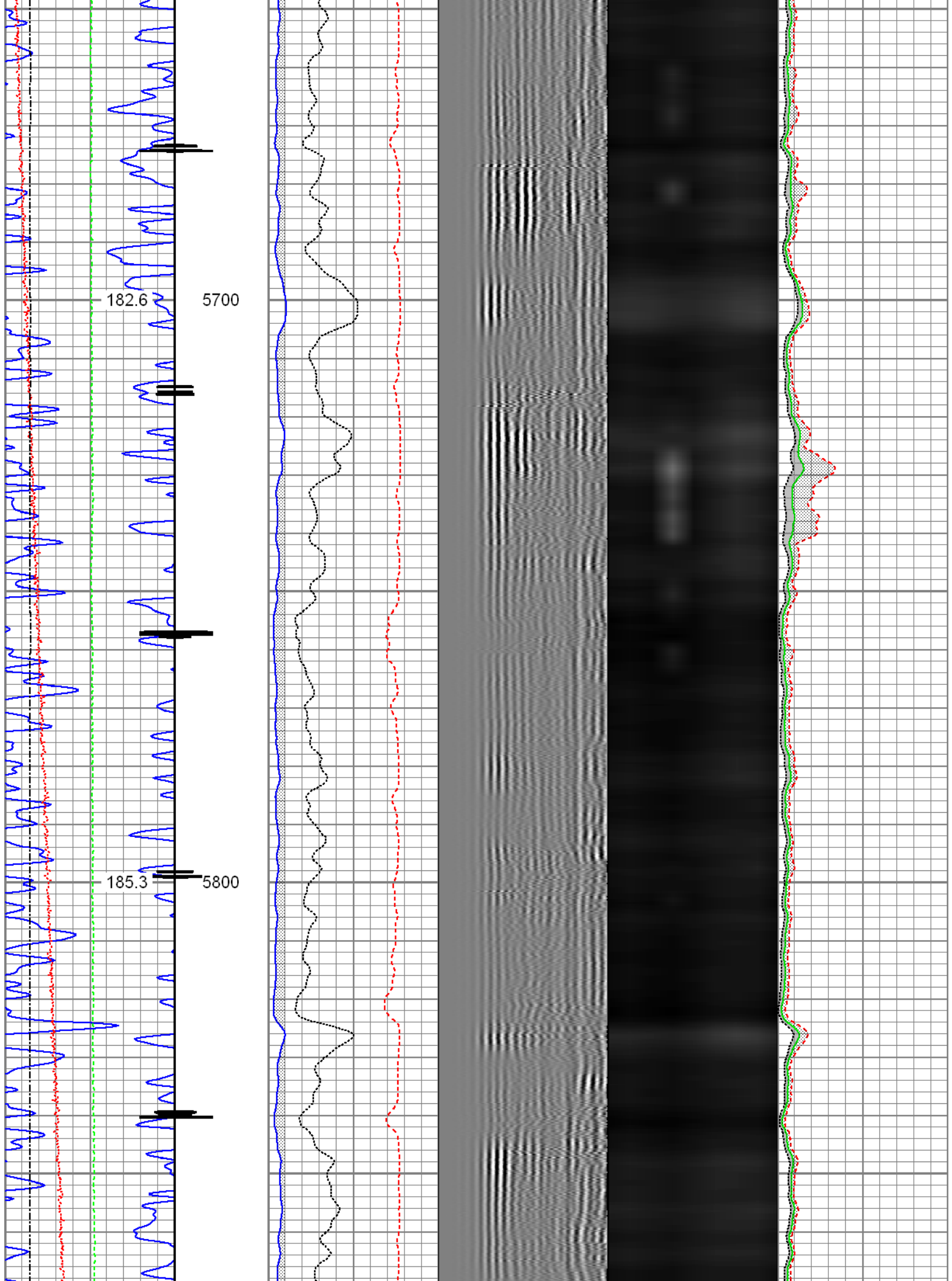


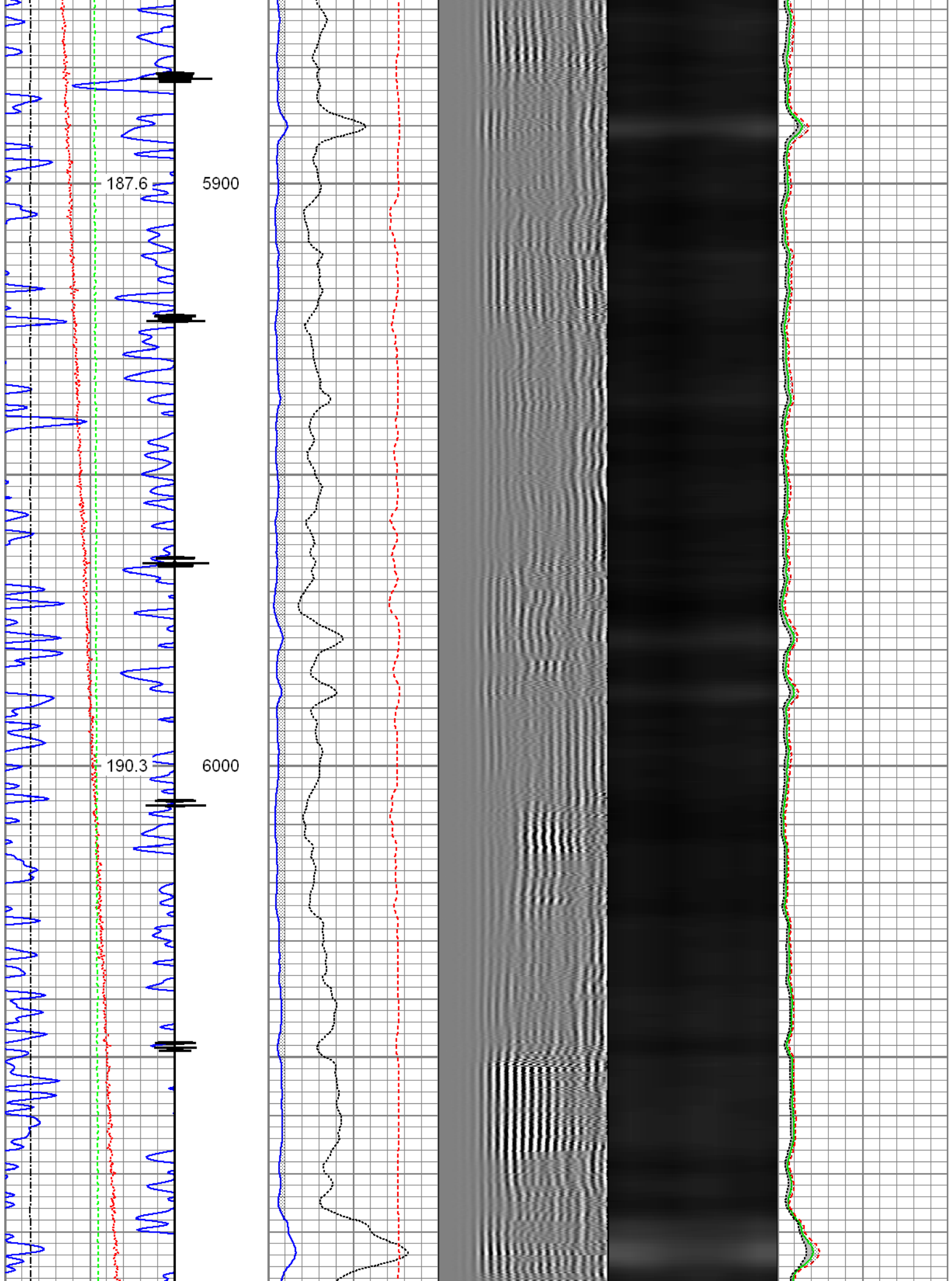


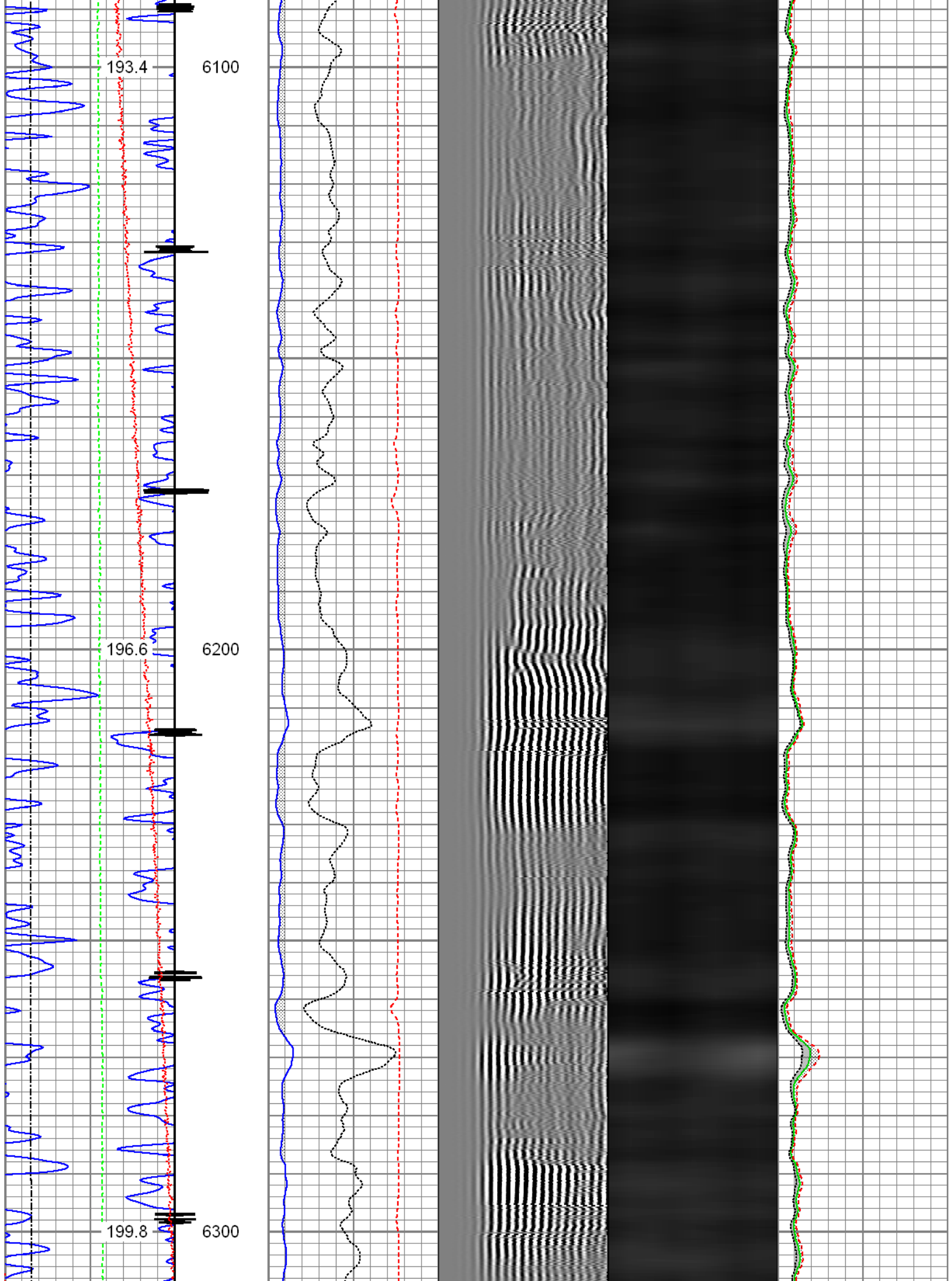


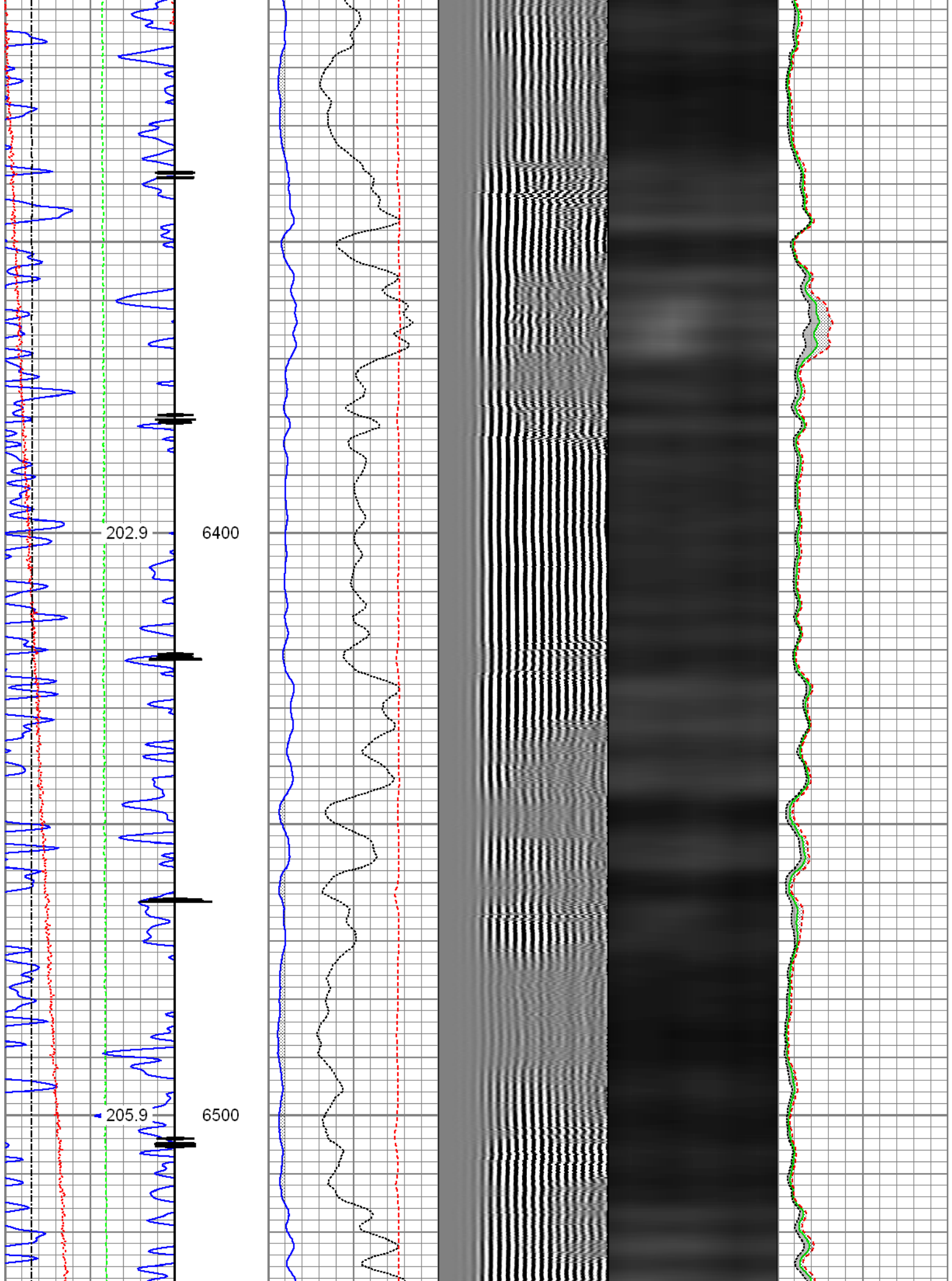


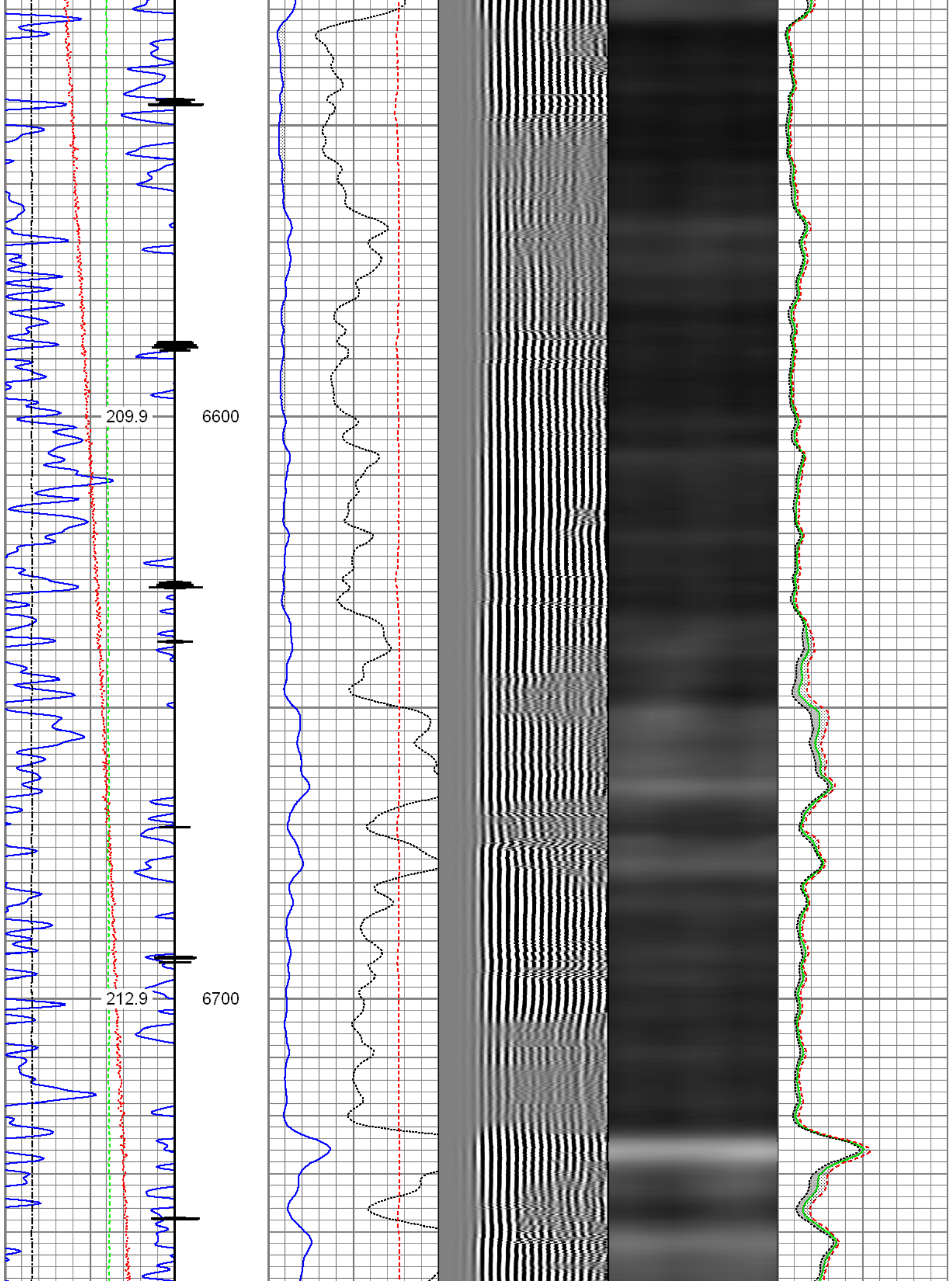


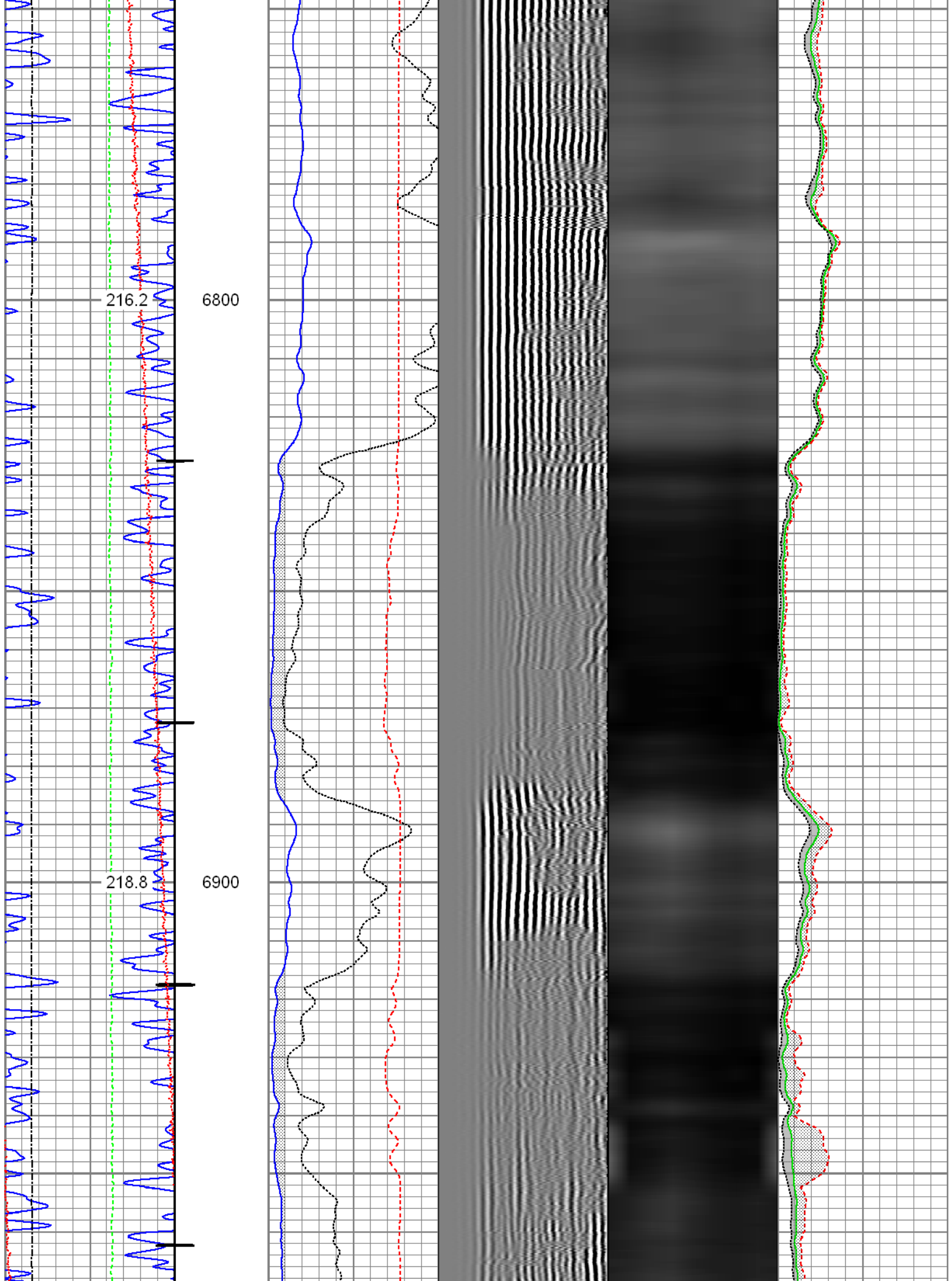


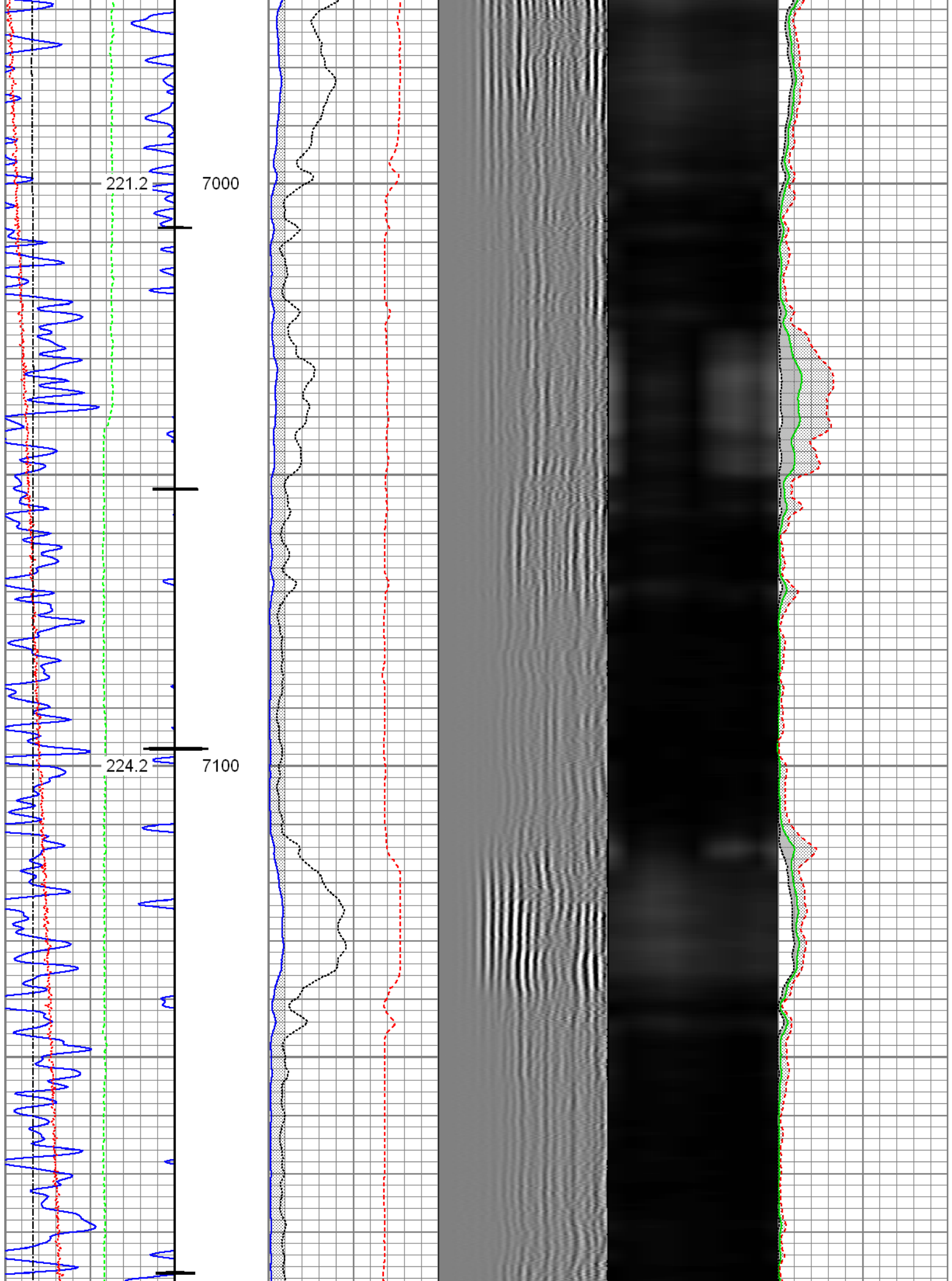


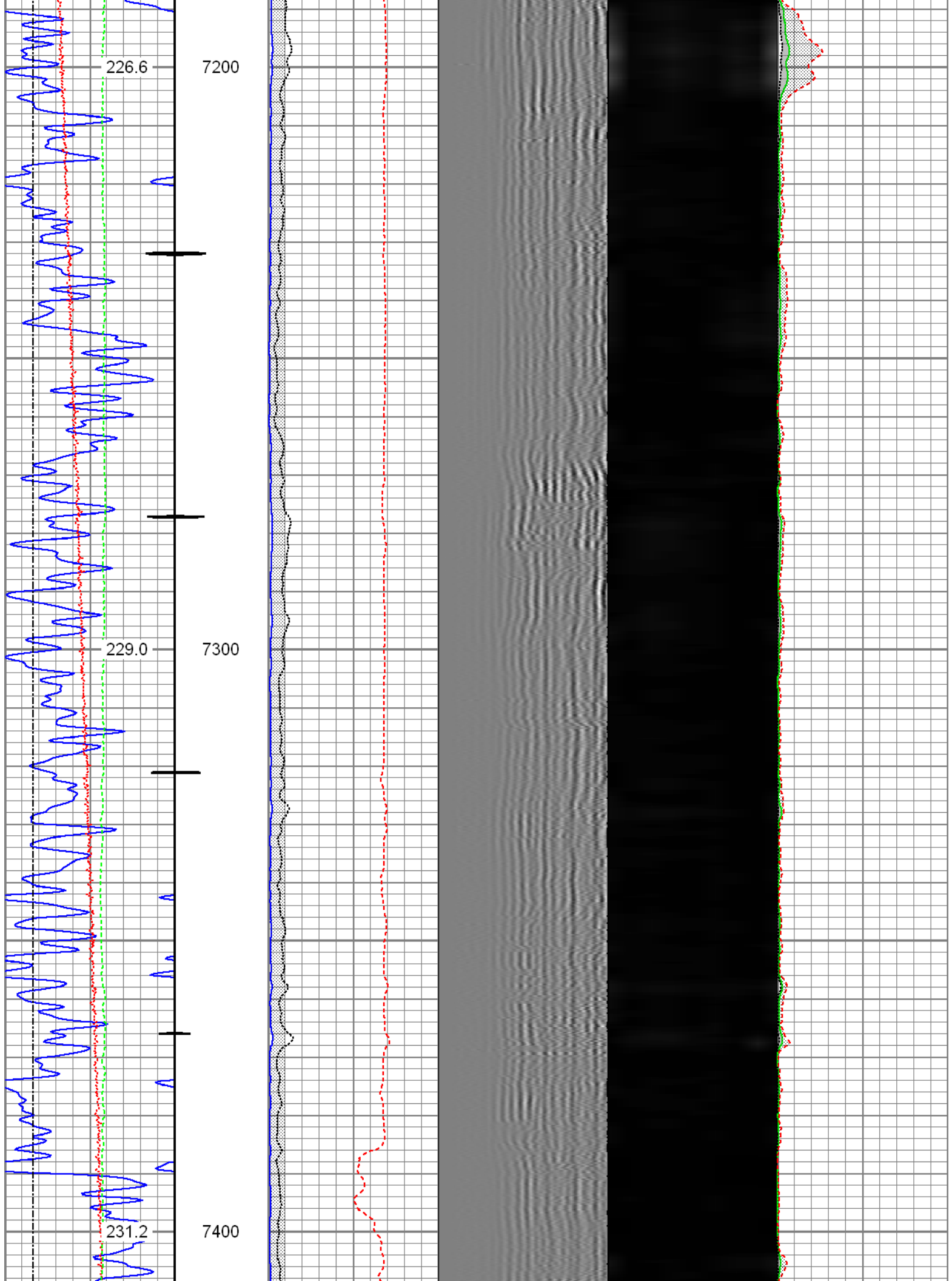


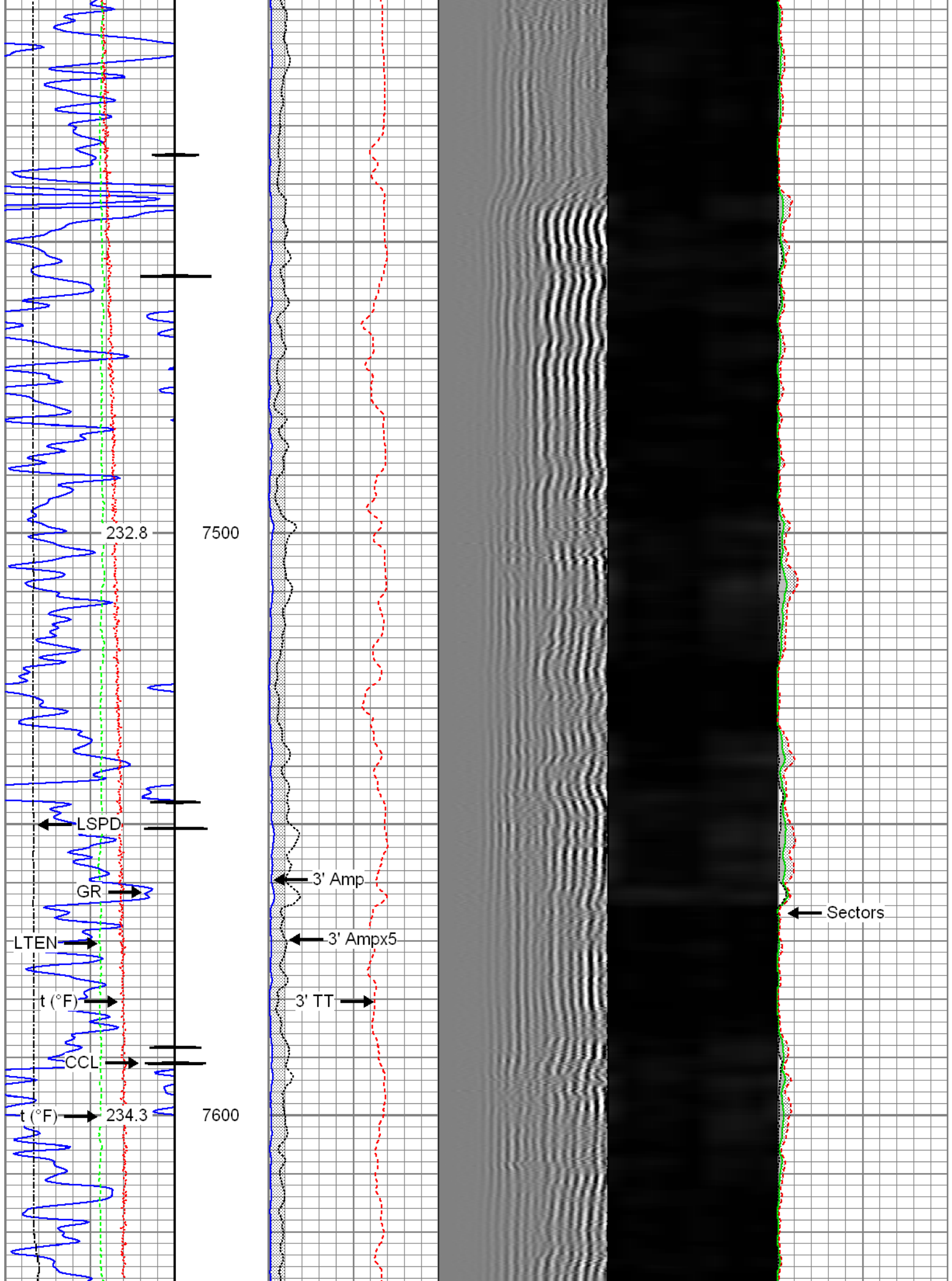


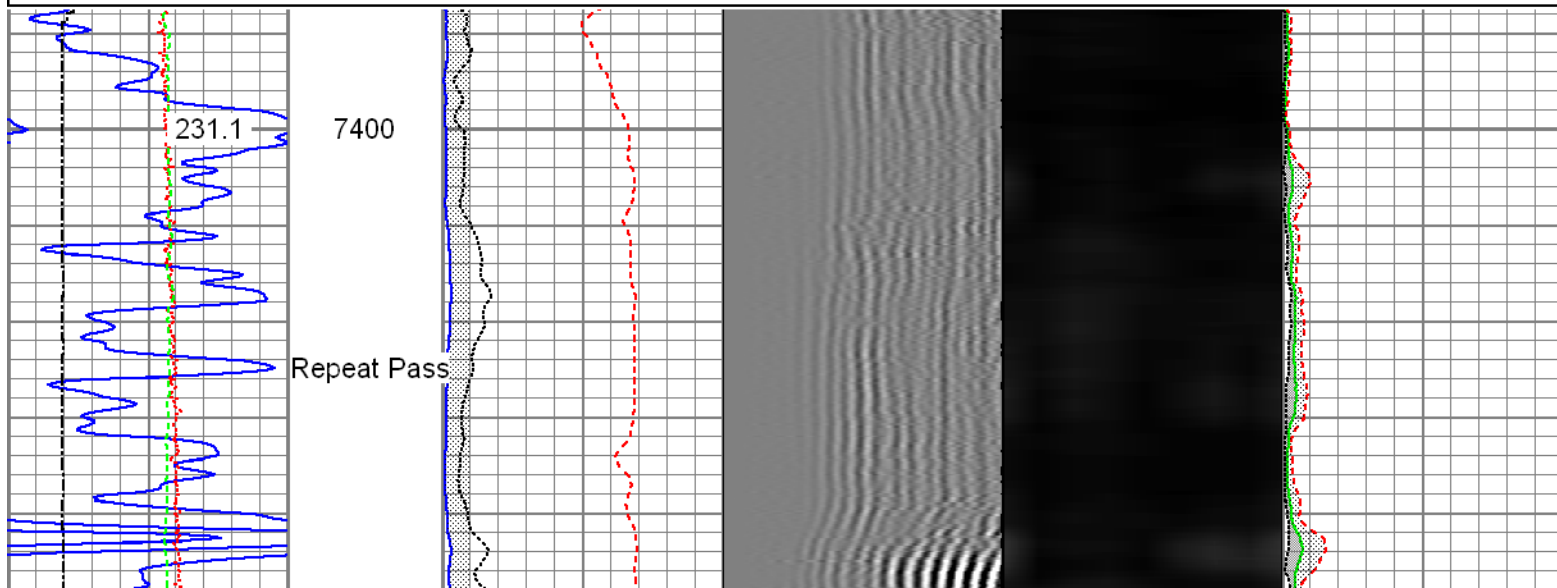
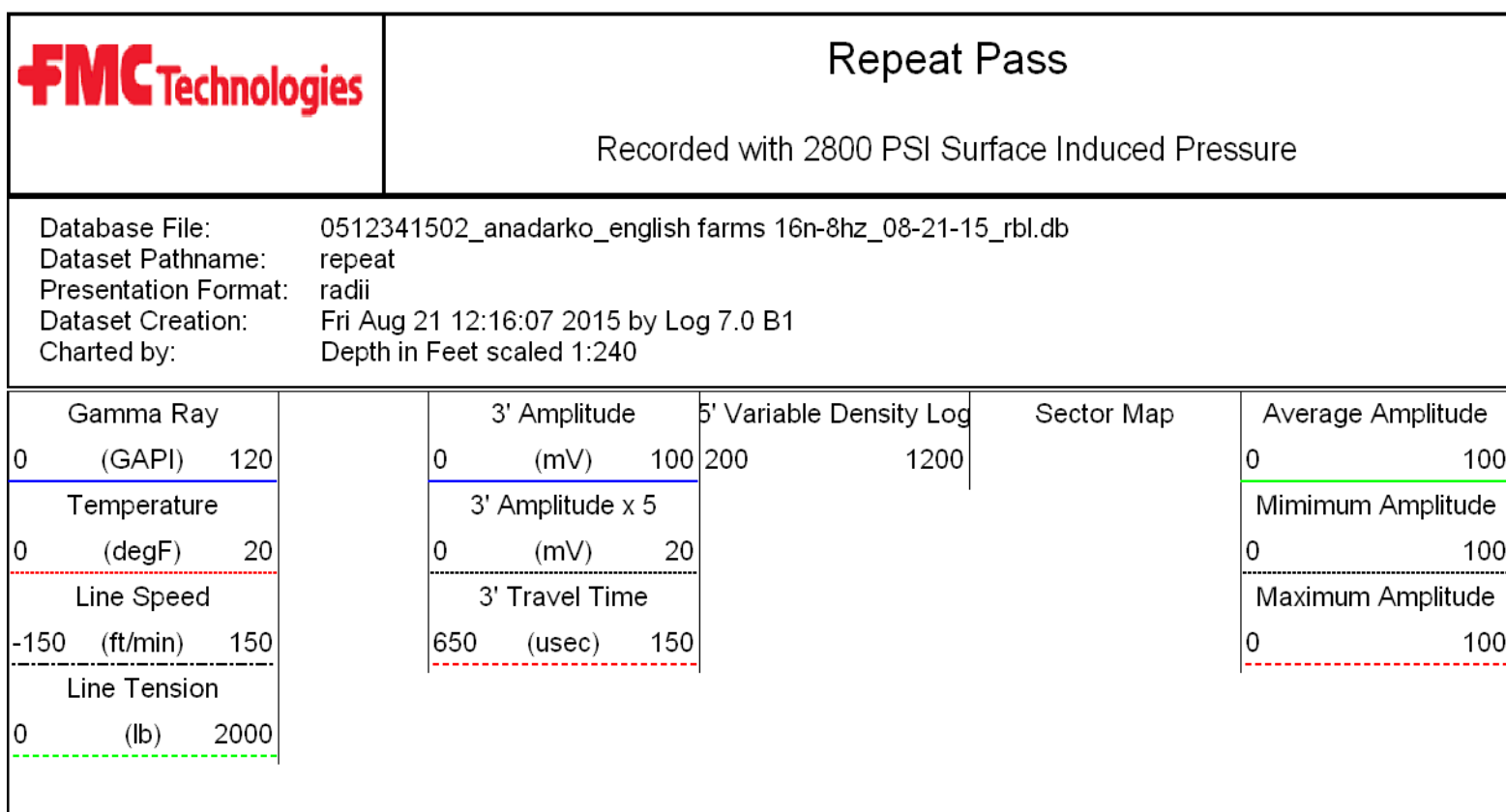
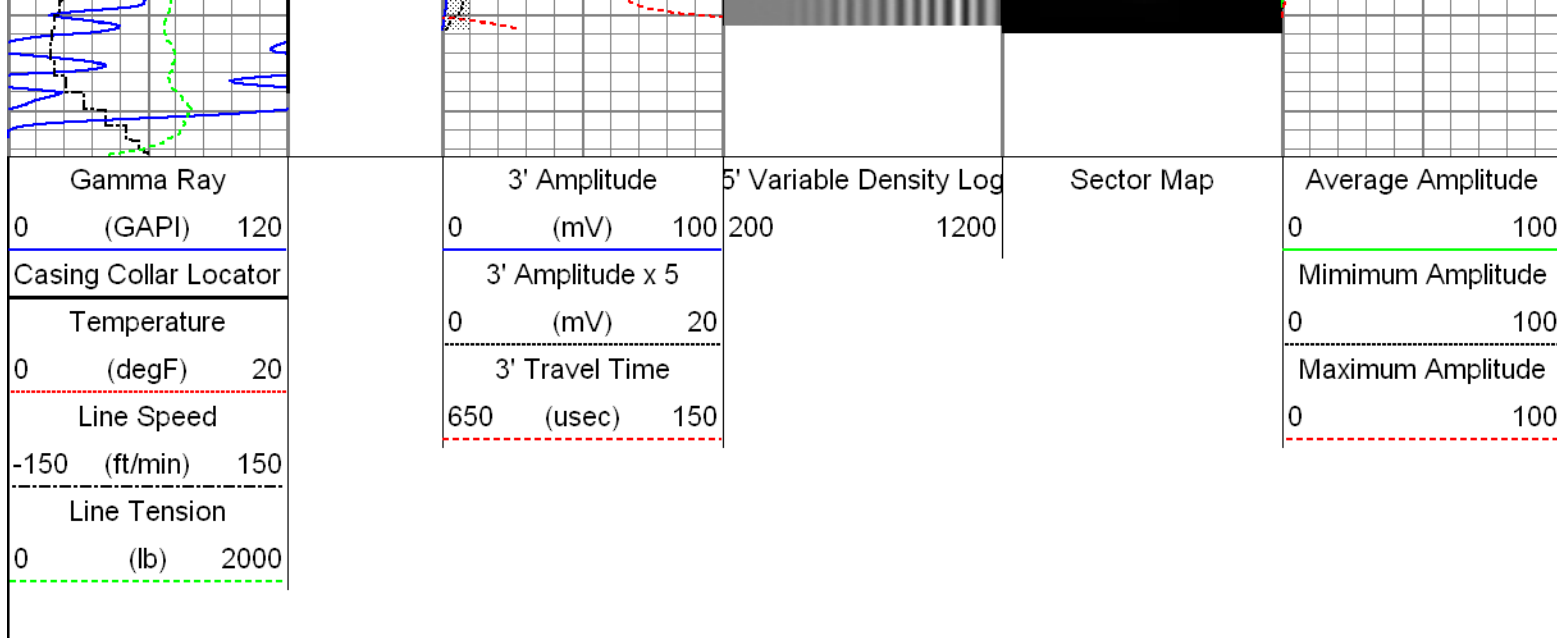


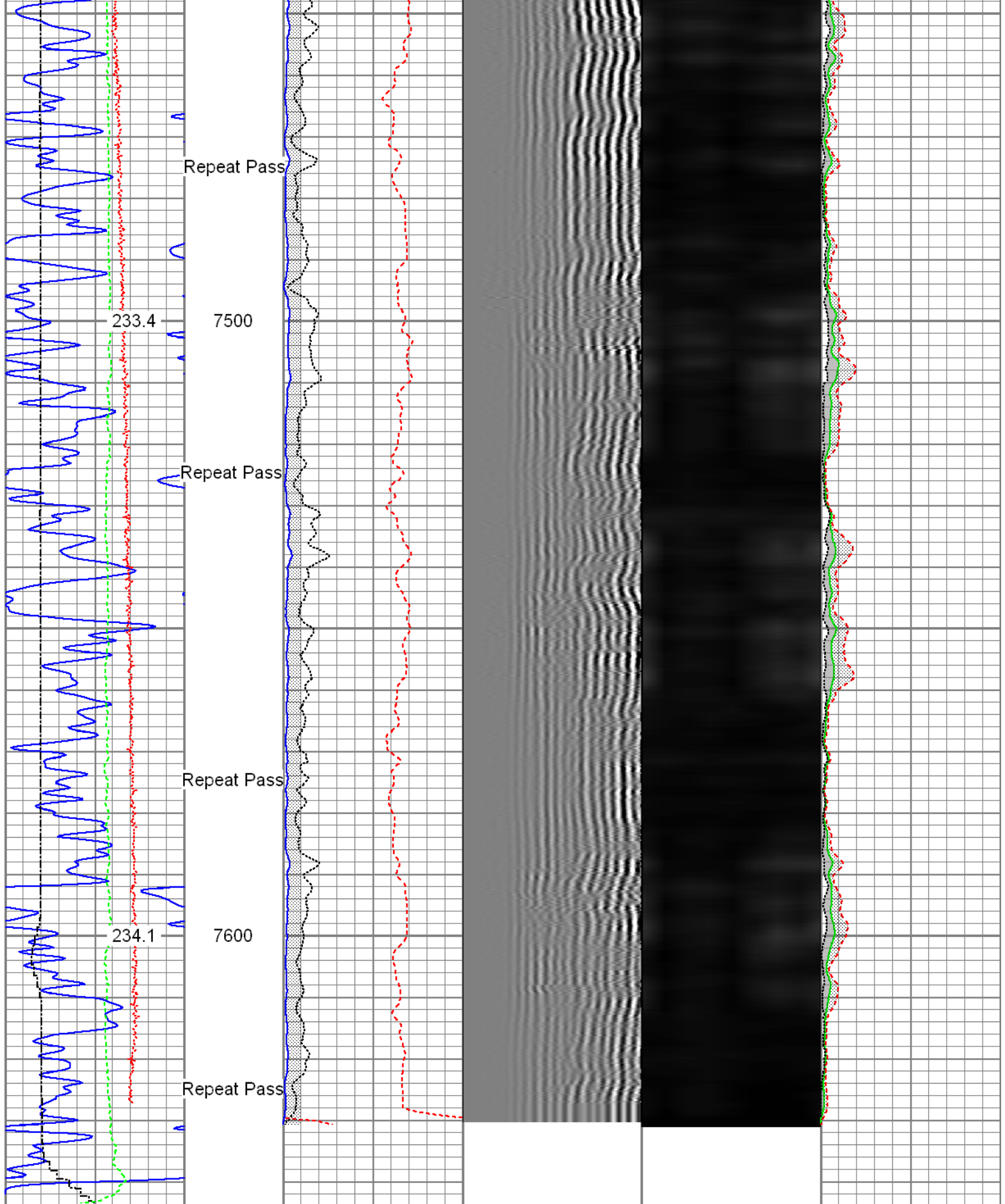






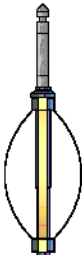
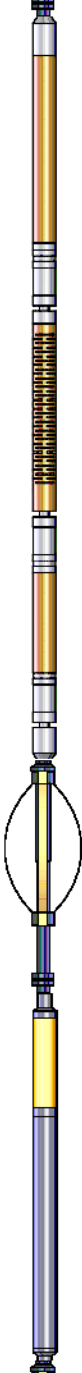







Gamma Ray (GAPI)	3' Amplitude (mV)	5' Variable Density Log	Sector Map	Average Amplitude
0 120	0 100	200 1200		0 100
Temperature (degF)	3' Amplitude x 5 (mV)			Minimum Amplitude
0 20	0 20			0 100
Line Speed	3' Travel Time			Maximum Amplitude

-150	(ft/min)	150	650	(usec)	150	0	100
Line Tension							
0	(lb)	2000					

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
Head/Volt	19.49		T_CH14375_1_GO Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Temp	16.72		Probe_RADII-C-2-3/4" (FW1302-002) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	9.19	2.75	105.00
WVF3FT	14.55					
WVFCAL	14.55					
WVFS1	14.55					
WVFS2	14.55					
WVFS3	14.55					
WVFS4	14.55					
WVFS5	14.55					
WVFS6	14.55					
WVFS7	14.55					
WVFS8	14.55					
WVF5FT	13.55					
CCL DCCL	6.51		Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
	6.51					
GR	3.77		Probe_CCL_GR-2.75" Digital (FW1307-038) Probe 2-3/4" Digital CCL / Gamma Ray Combined	4.54	2.75	55.00
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00

			Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer			
Dataset: 0512341502_anadarko_english farms 16n-8hz_08-21-15_rbl.db: field/well/run1/main.1 Total Length: 23.40 ft Total Weight: 194.00 lb O.D. 2.75 in						

Calibration Report	
Database File:	0512341502_anadarko_english farms 16n-8hz_08-21-15_rbl.db
Dataset Pathname:	main.1
Dataset Creation:	Tue Aug 25 08:51:59 2015 by Calc SCH 120430


Gamma Ray Calibration Report		
Serial Number:	FW1307-038	
Tool Model:	2.75"Digital	
Performed:	Thu Jan 29 11:02:34 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1302-002	
Tool Model:	2-3/4"	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	366.409	ft

Master Calibration, performed Tue Aug 25 08:51:56 2015:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.007	1.027	0.800	71.921	69.709	0.314
CAL	1.500	1.486				
5'	0.017	0.795	0.800	71.921	91.349	-0.725
SUM						
S1	0.025	0.961	0.000	100.000	106.894	-2.692
S2	0.012	0.943	0.000	100.000	107.397	-1.247
S3	0.023	0.950	0.000	100.000	107.851	-2.483
S4	0.027	1.017	0.000	100.000	101.037	-2.746
S5	0.017	1.143	0.000	100.000	88.815	-1.524
S6	0.010	1.212	0.000	100.000	83.184	-0.843
S7	0.027	1.146	0.000	100.000	89.350	-2.406
S8	0.022	1.049	0.000	100.000	97.290	-2.104

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:						
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	1.500	1.486	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

	Company	Kerr-McGee Oil & Gas Onshore, L.P.
	Well	English Farms 16N-8HZ
	Field	Wattenberg
	County	Weld
	State	Colorado