



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil & Gas Onshore, L.P.		
Well	Powers 1N-27HZ		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:	Company	Kerr-McGee Oil & Gas Onshore, L.P.	
	Well	Powers 1N-27HZ	
	Field	Wattenberg	
	County	Weld	
Other Services	State	Colorado	
	API # :	05-123-41951	
	SEC 22	TWP 2N	RGE 65W
	Permanent Datum	Ground Level	Elevation 4894'
Gauge Ring	Log Measured From	Kelly Bushing 25 FT	
	Drilling Measured From	Kelly Bushing	
Elevation		K.B. 4919' D.F. 4918' G.L. 4894'	

Date	09-Dec-2015
Run Number	Two
Depth Driller	13142 FT
Depth Logger	7326 FT
Bottom Logged Interval	7300 FT
Top Log Interval	140 FT
Open Hole Size	7.875"
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	239°F
Estimated Cement Top	150 FT
Time Well Ready	ROA
Time Logger on Bottom	9:38
Equipment Number	HD-0343
Location	Fort Lupton, CO
Recorded By	Robert Fogarty
Witnessed By	D.J. Anderson

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	J-55 LT&C	Surface	1861 FT		
Intermediate #1	5 1/2	17	HCP-110 LTC	Surface	13132 FT		
Intermediate #2							
Liner							

<<< 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
Depth referenced to Casing Tally Reported Marker Joint at 6473 FT
Log Adjusted -2.2 FT to Correlate to Marker Joint
Gauge Ring Ran to 7326 FT
Log ran from 7300 FT to surface
Recorded with 2800 PSI surface induced pressure
Logging tools were clean and free of debris upon completion of operation
Thank you for choosing FMC Technologies Surface Integrated Services.



Main Pass

Recorded with 2800 PSI Surface Induced Pressure

Database File: c:\warrior\data\0512341951_anadarko_powers 1n-27hz_12-09-15_rbl\processed_0512341951_anadarko

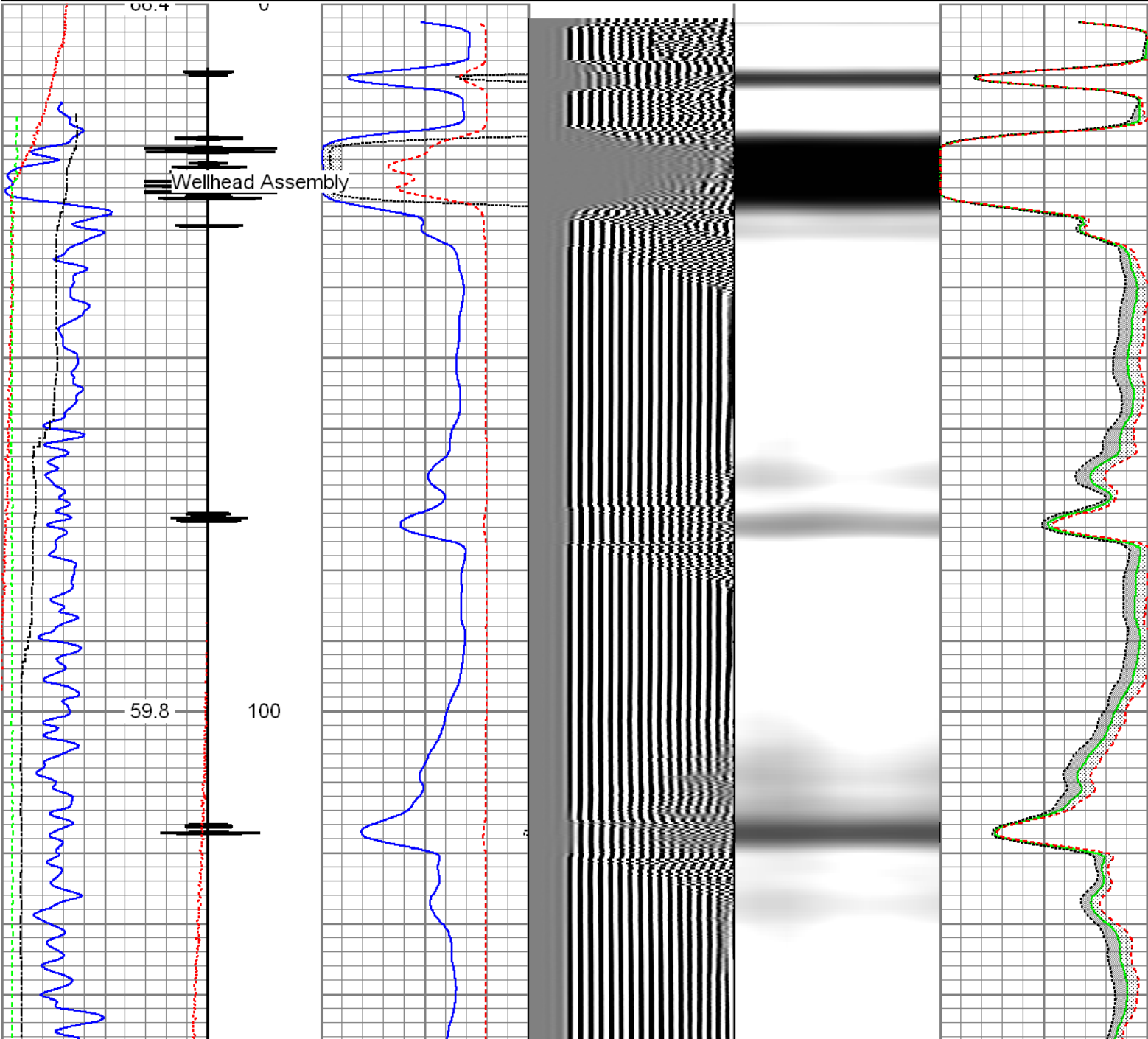
Dataset Pathname: pass20.1

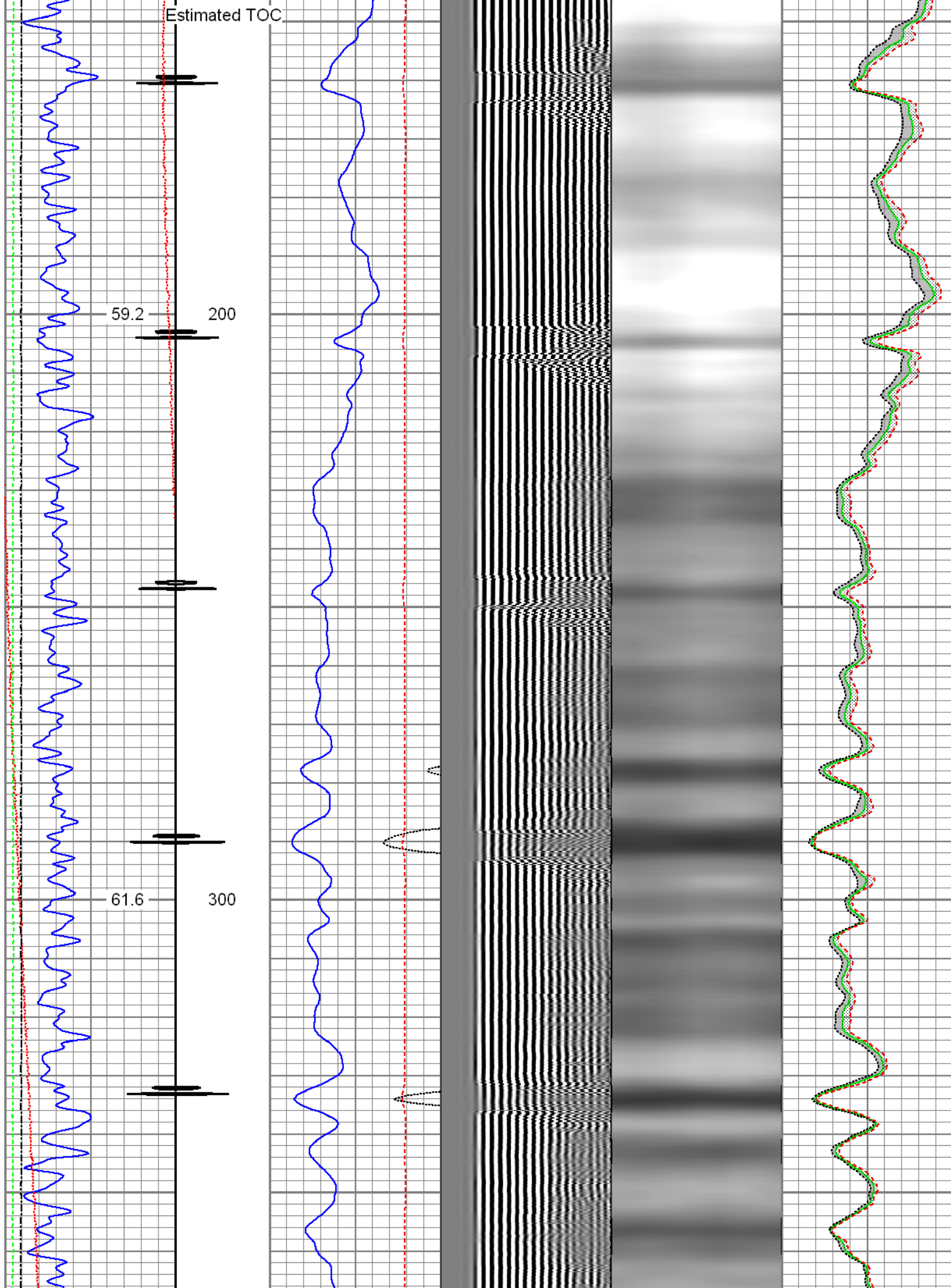
Presentation Format: radii

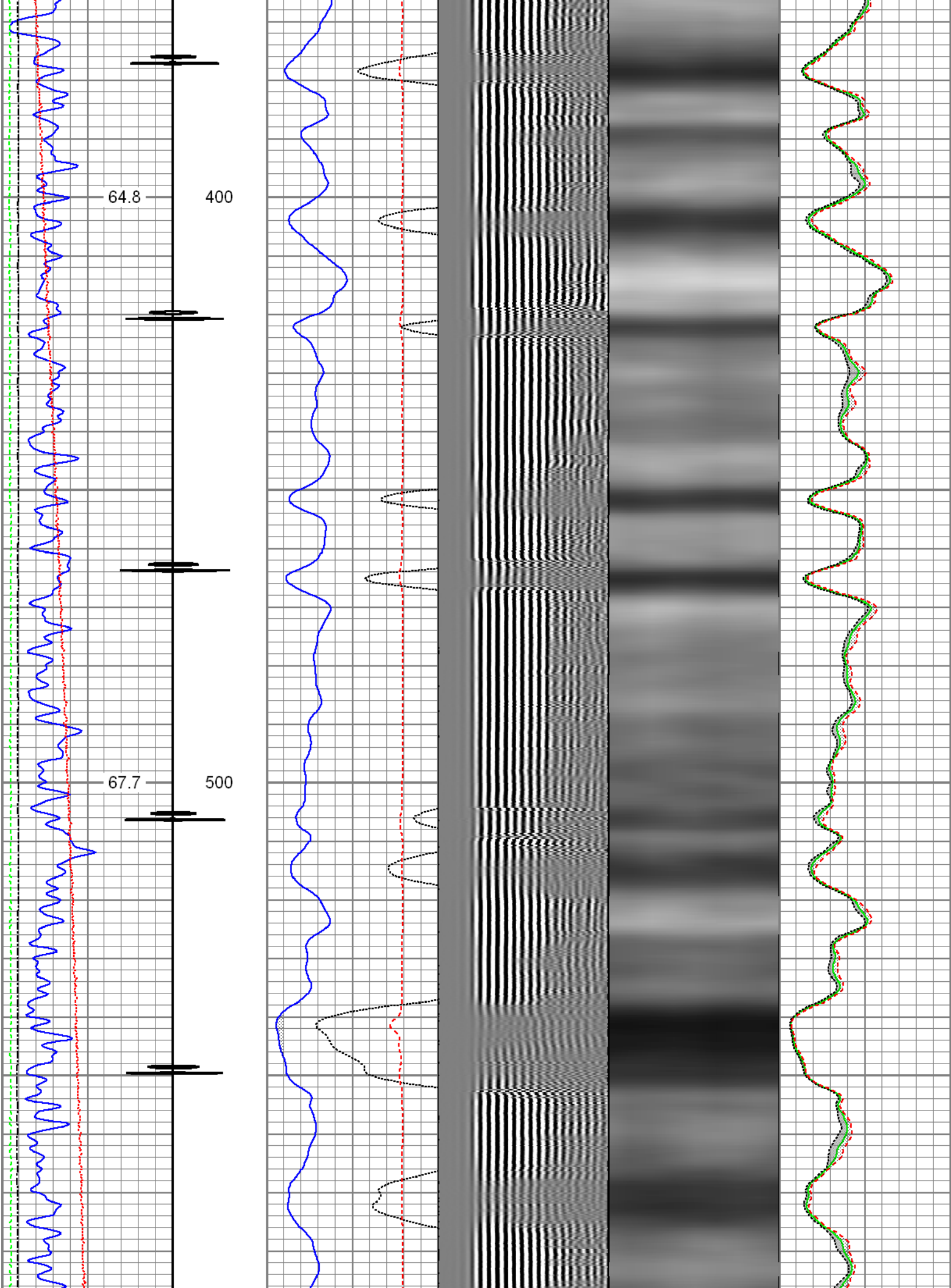
Dataset Creation: Thu Dec 10 13:25:45 2015 by Calc SCH 120430

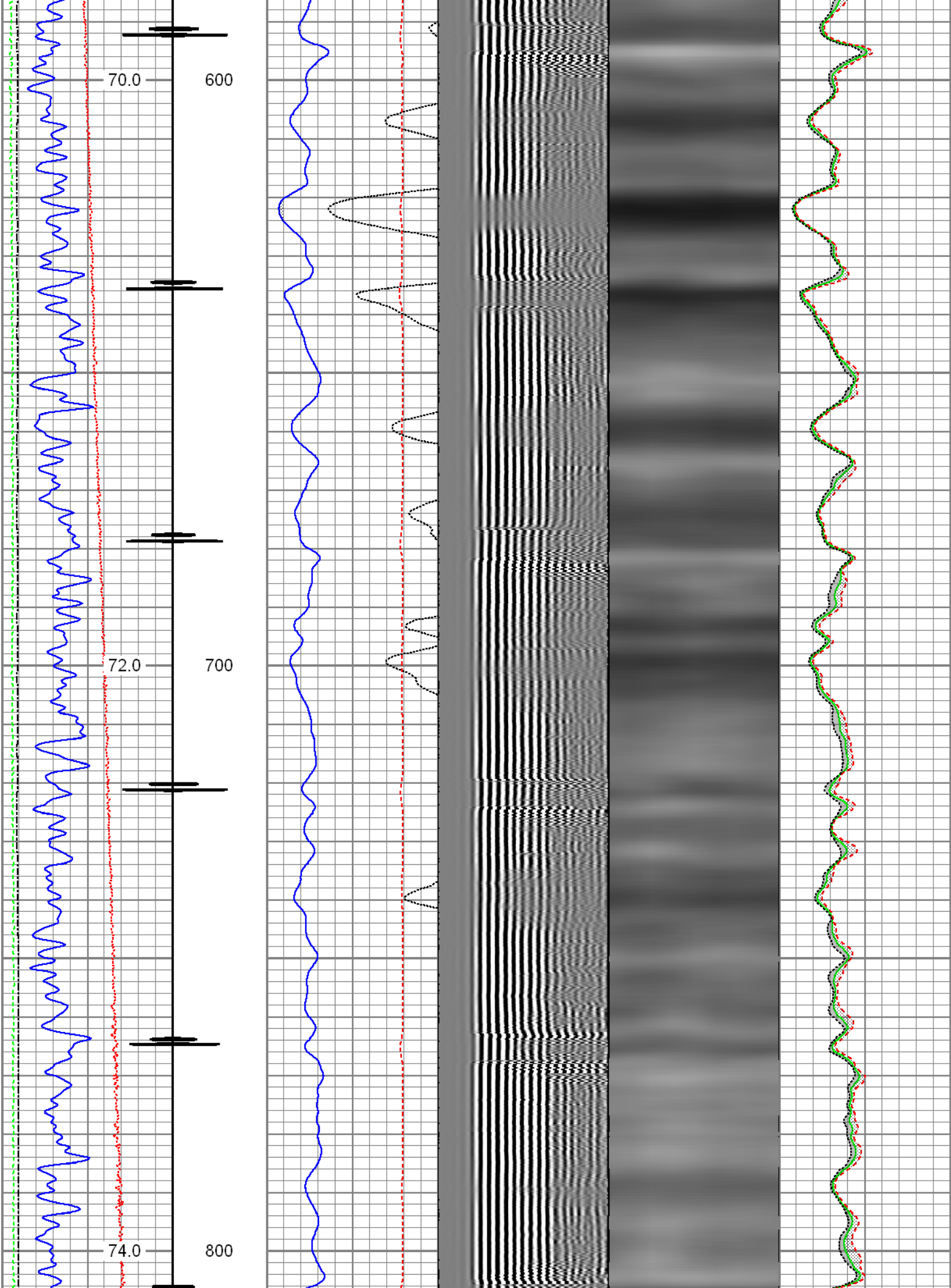
Charted by: Depth in Feet scaled 1:240

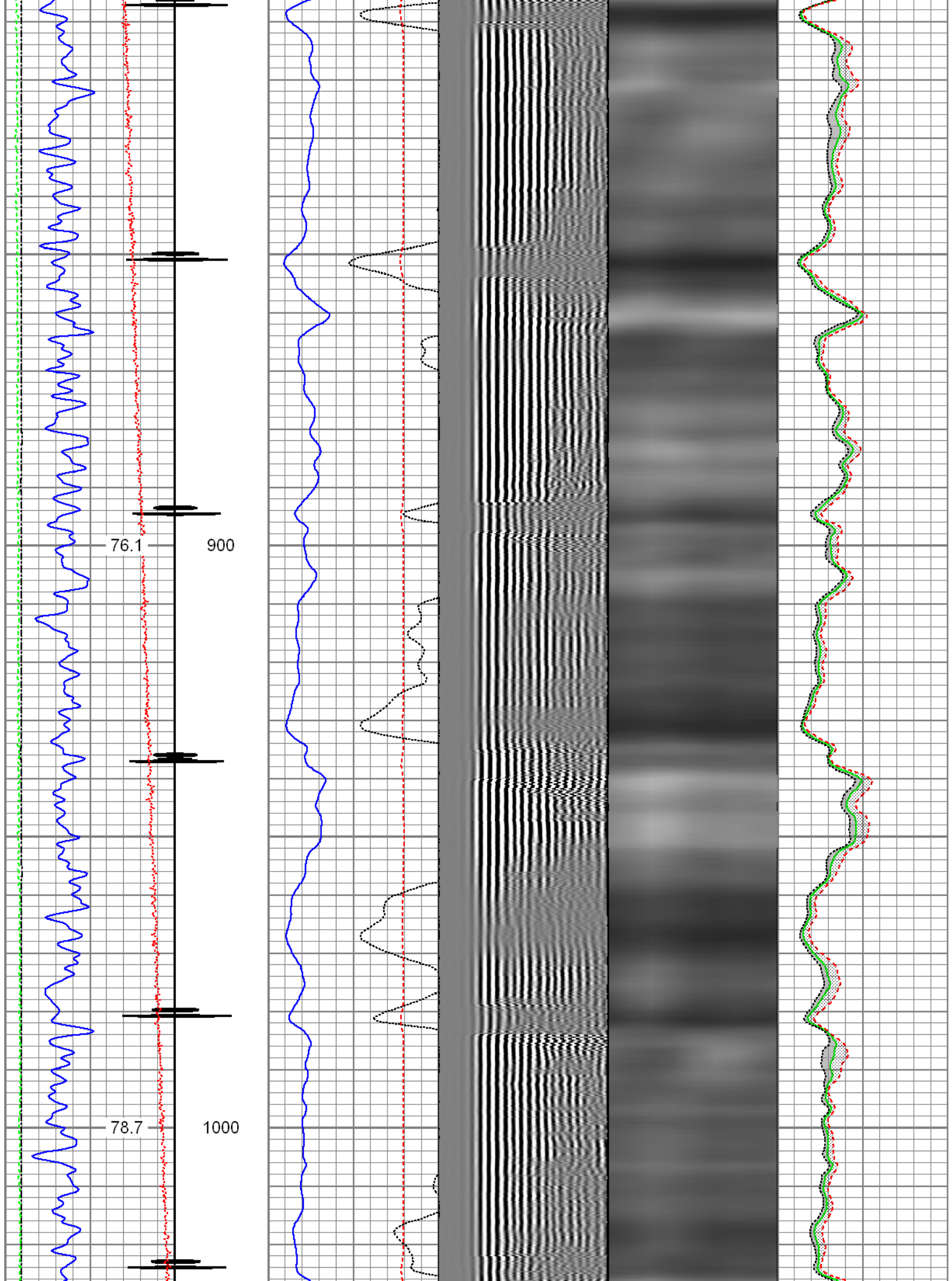
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150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

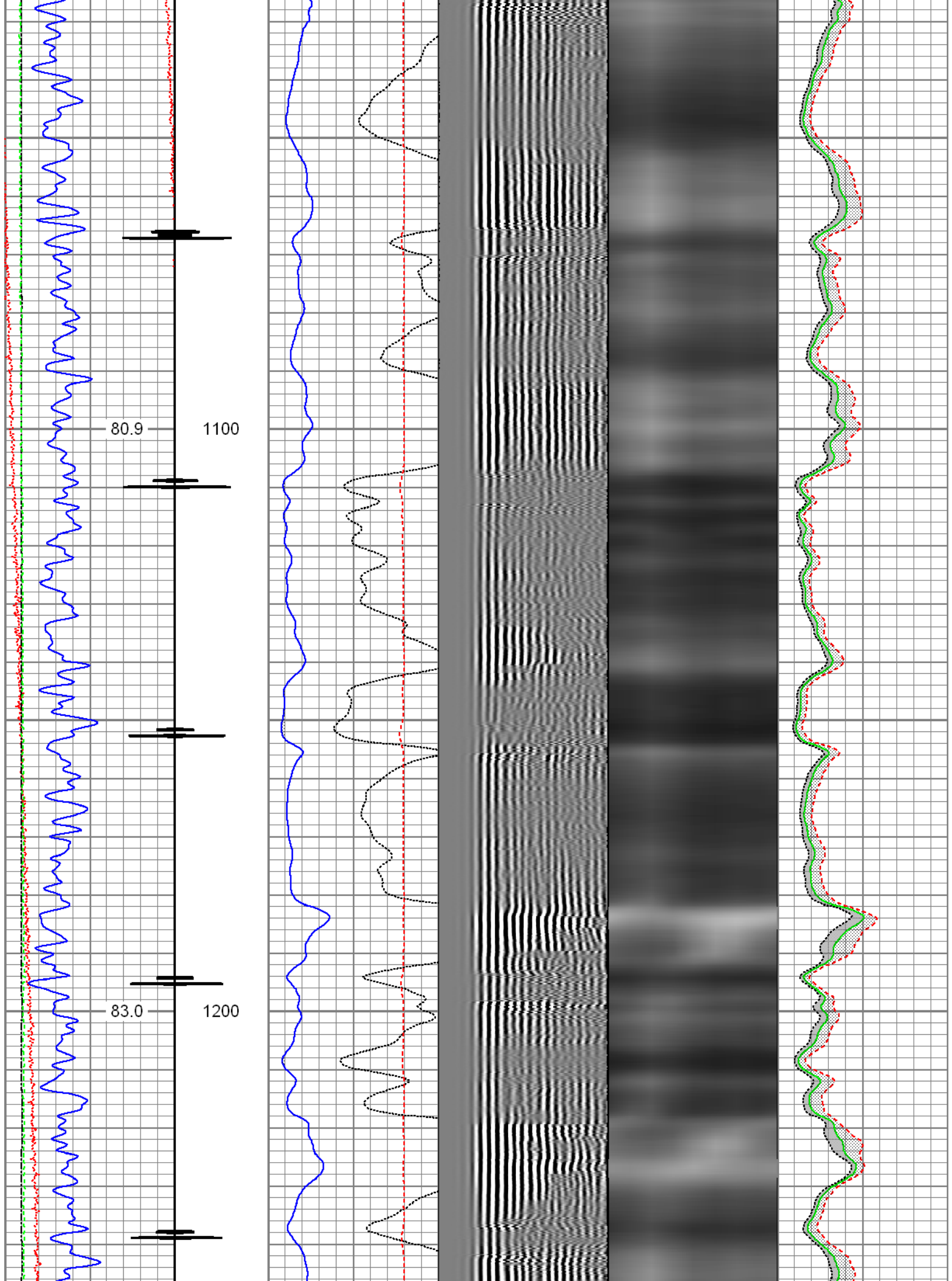


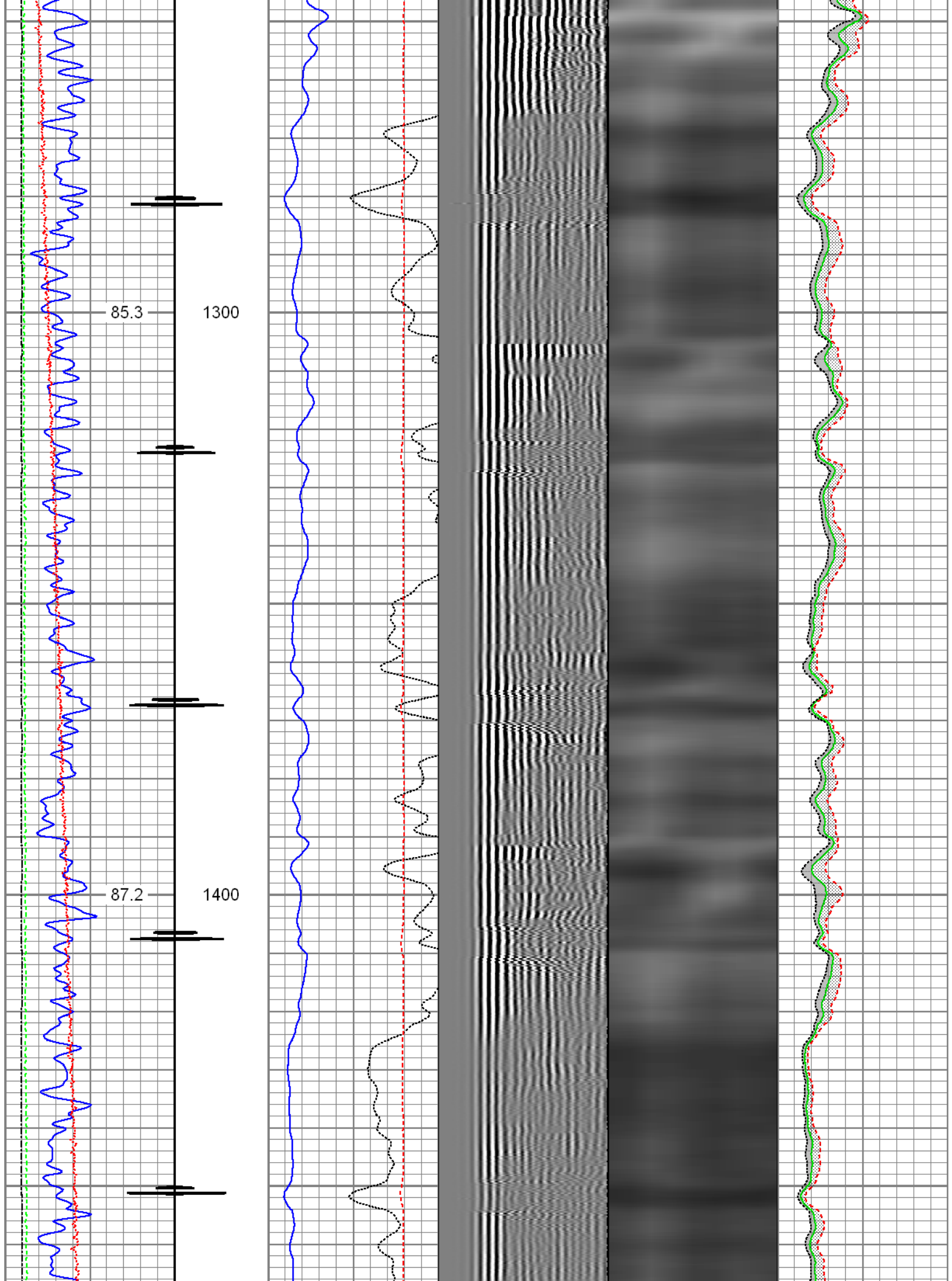


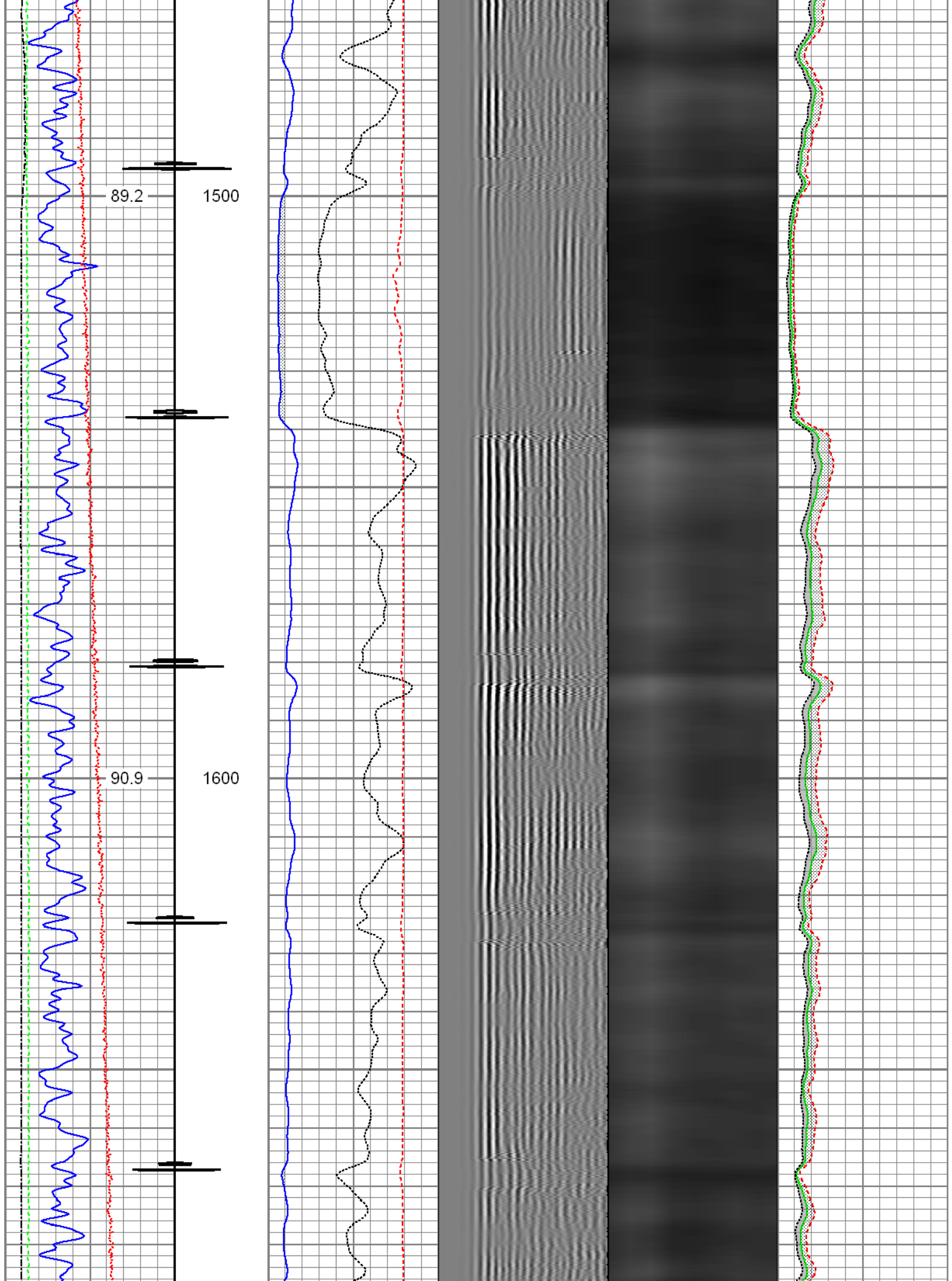


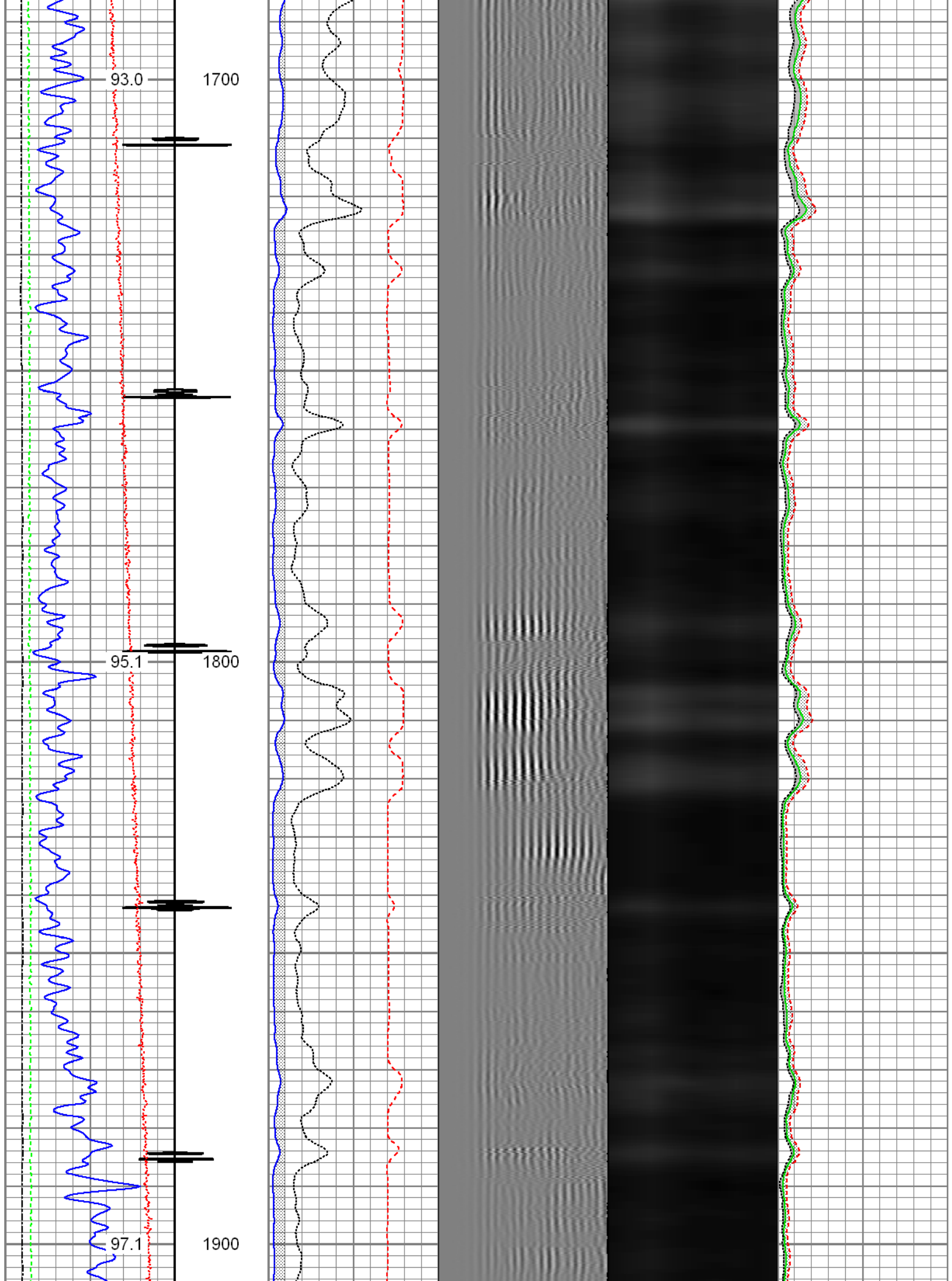


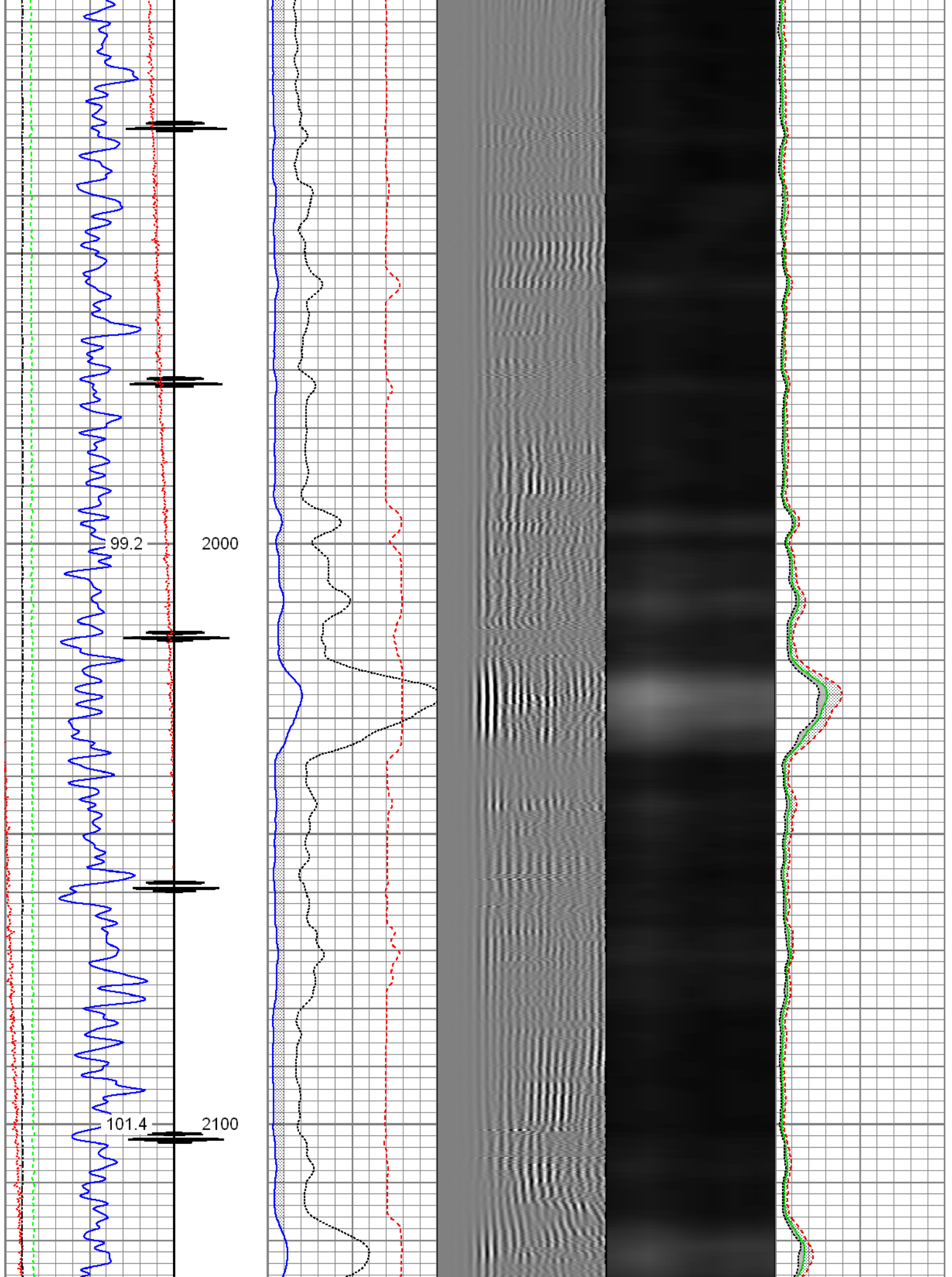


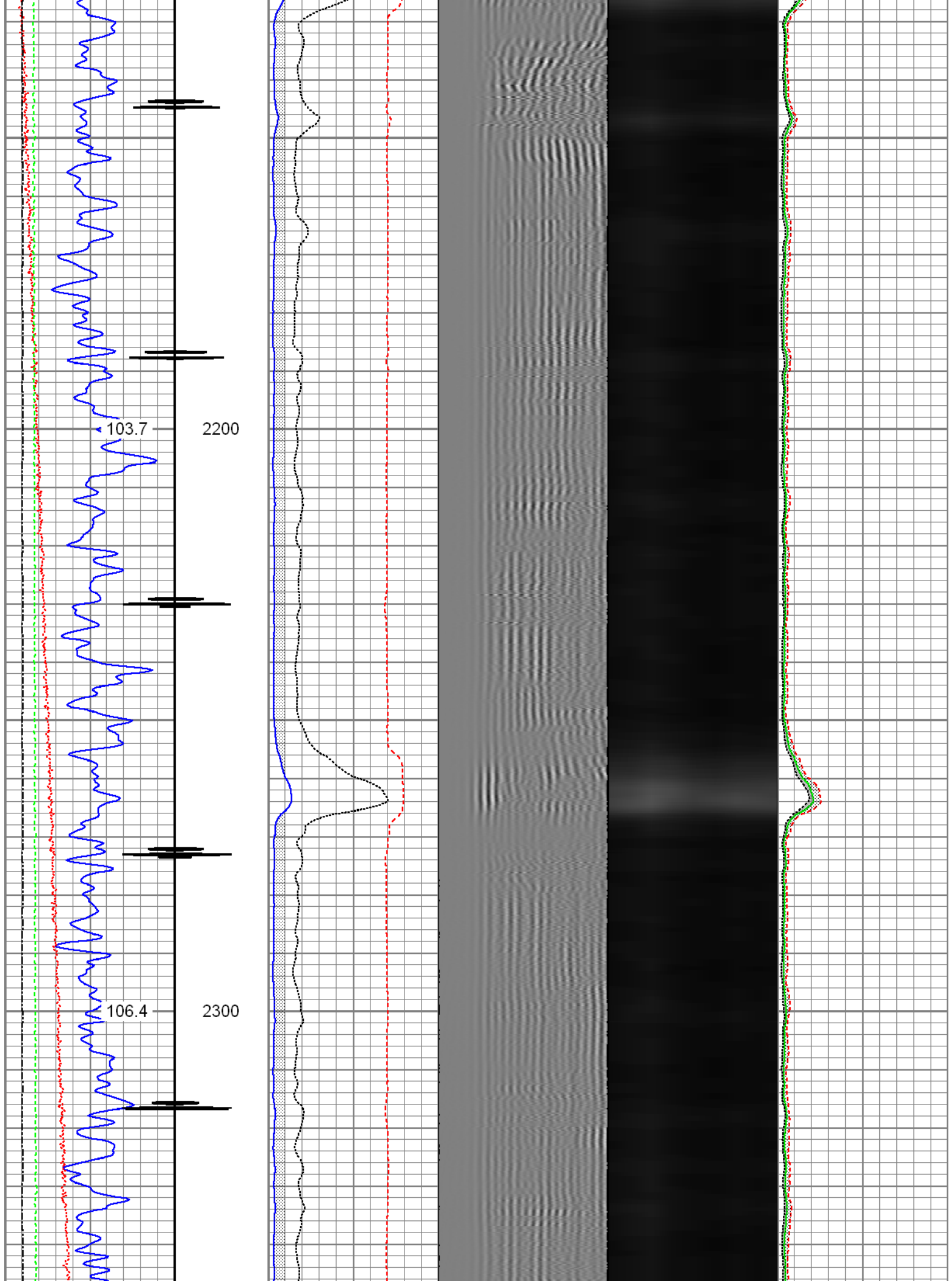


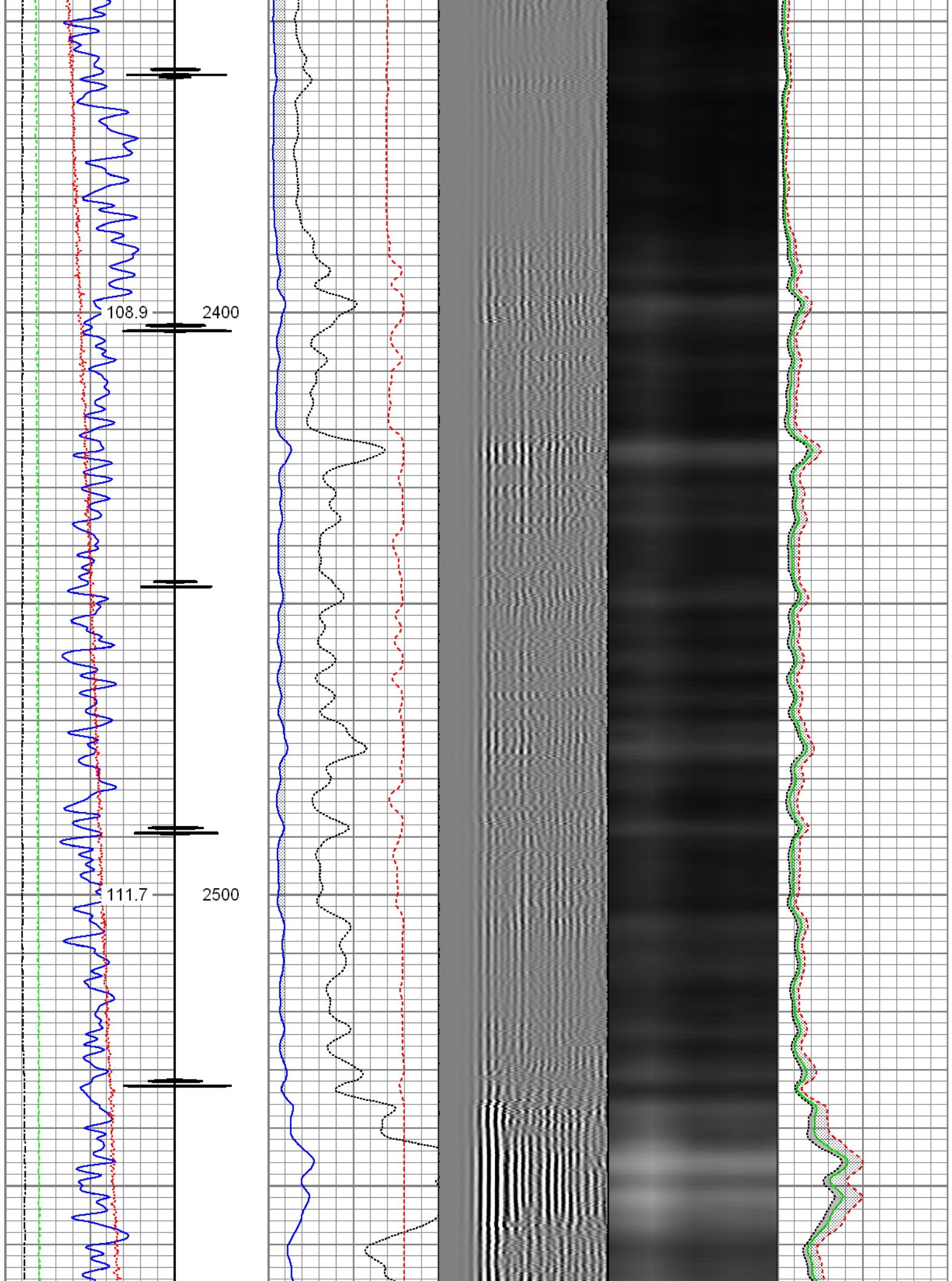


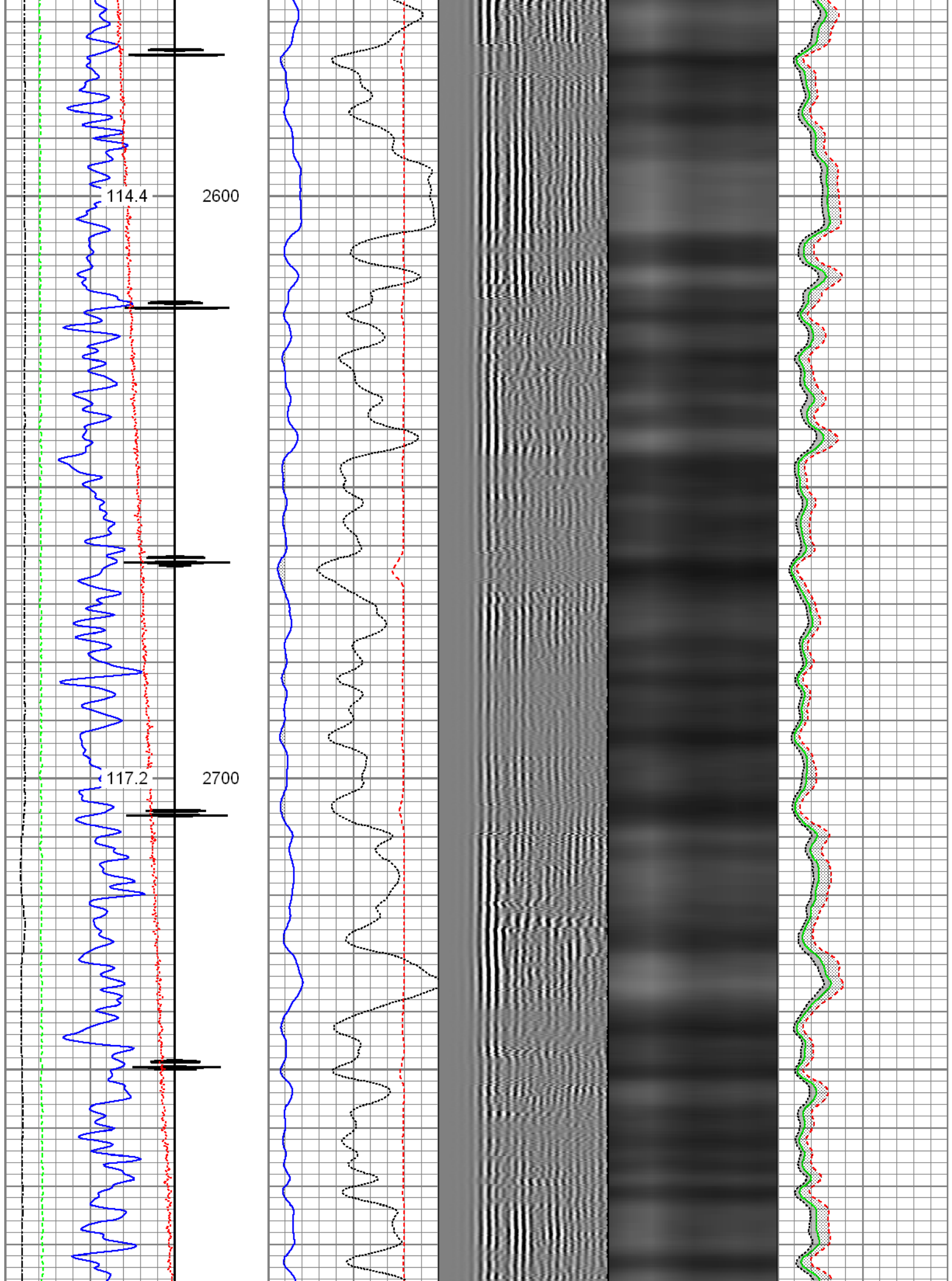


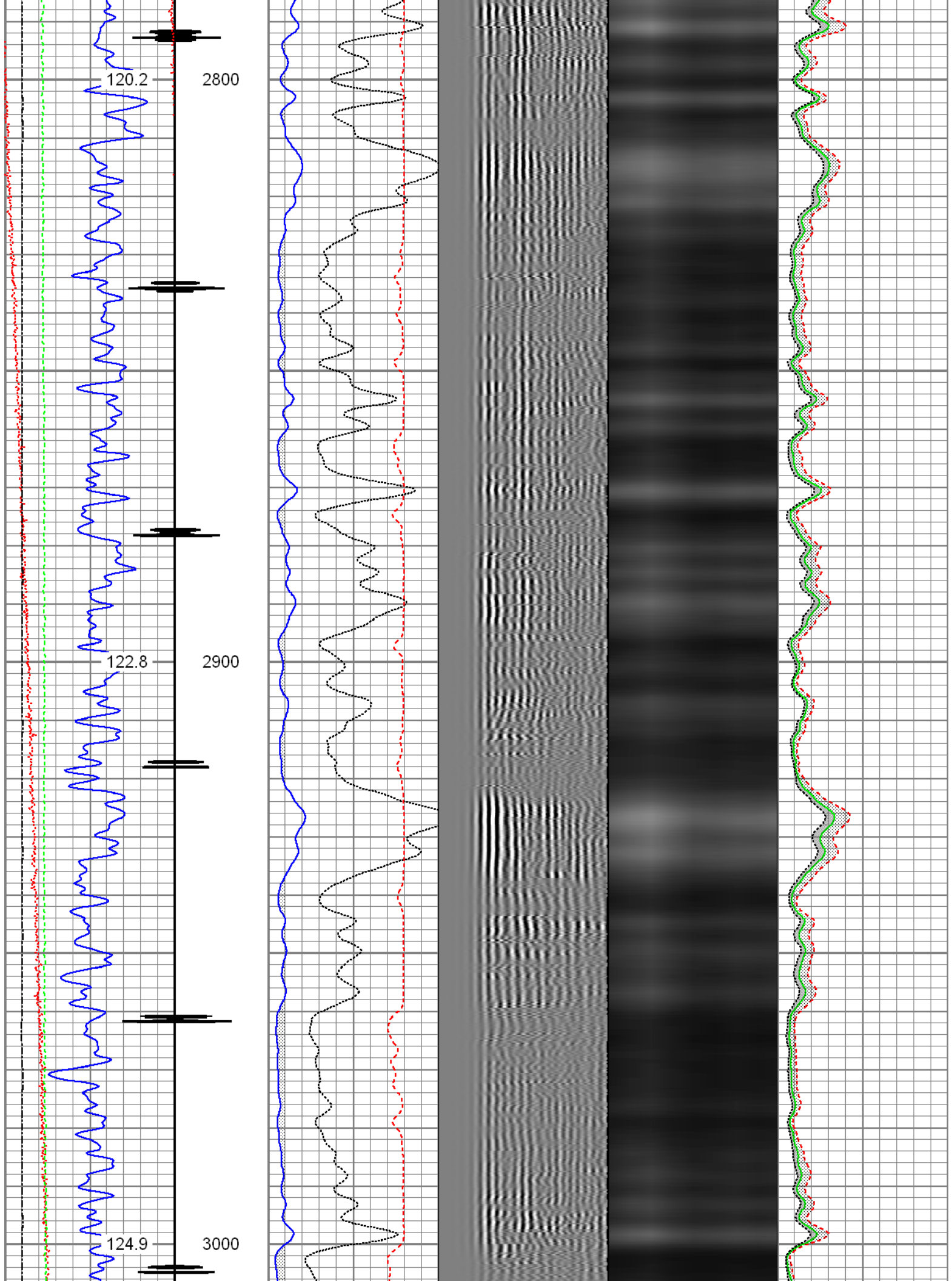


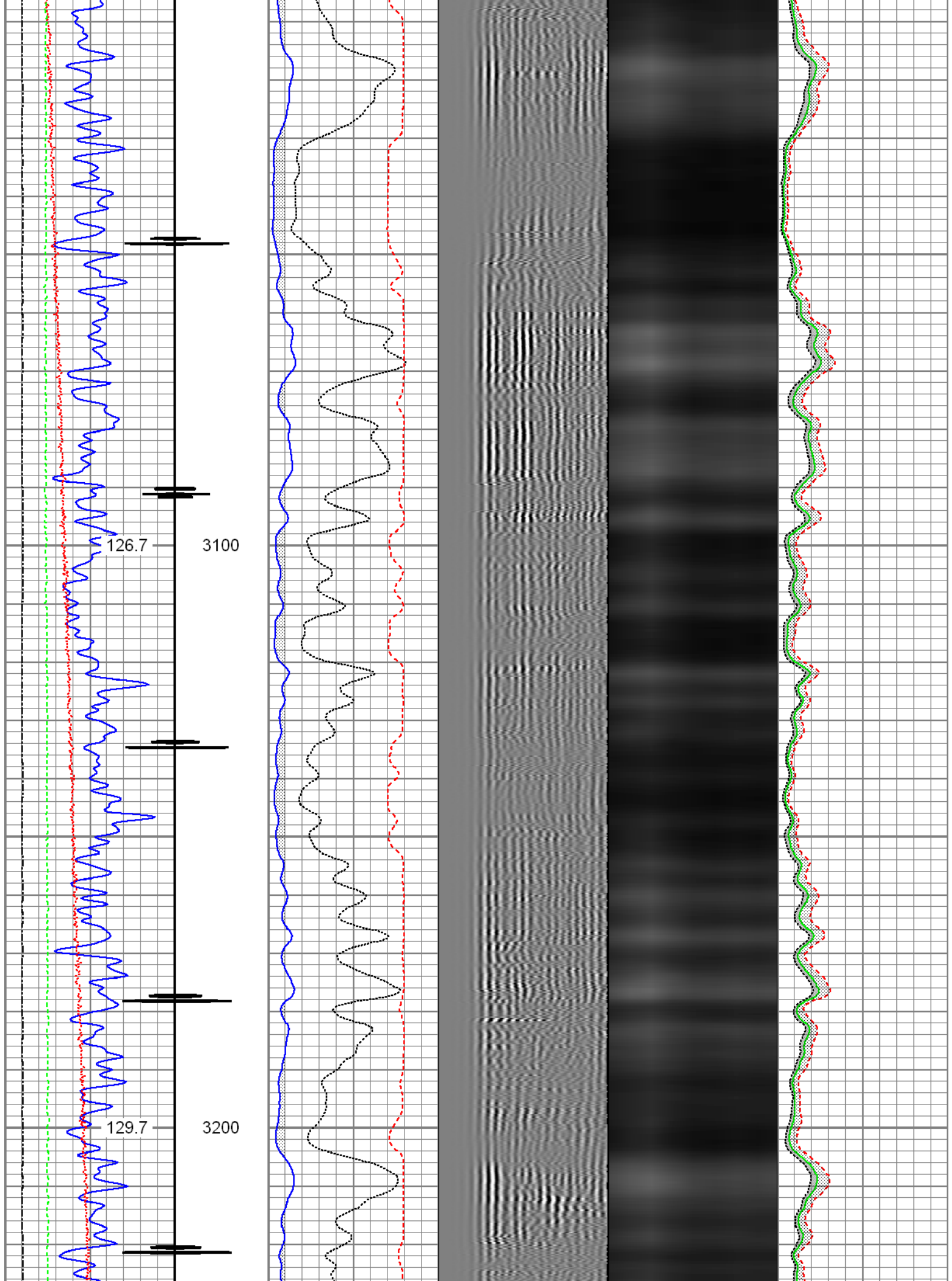


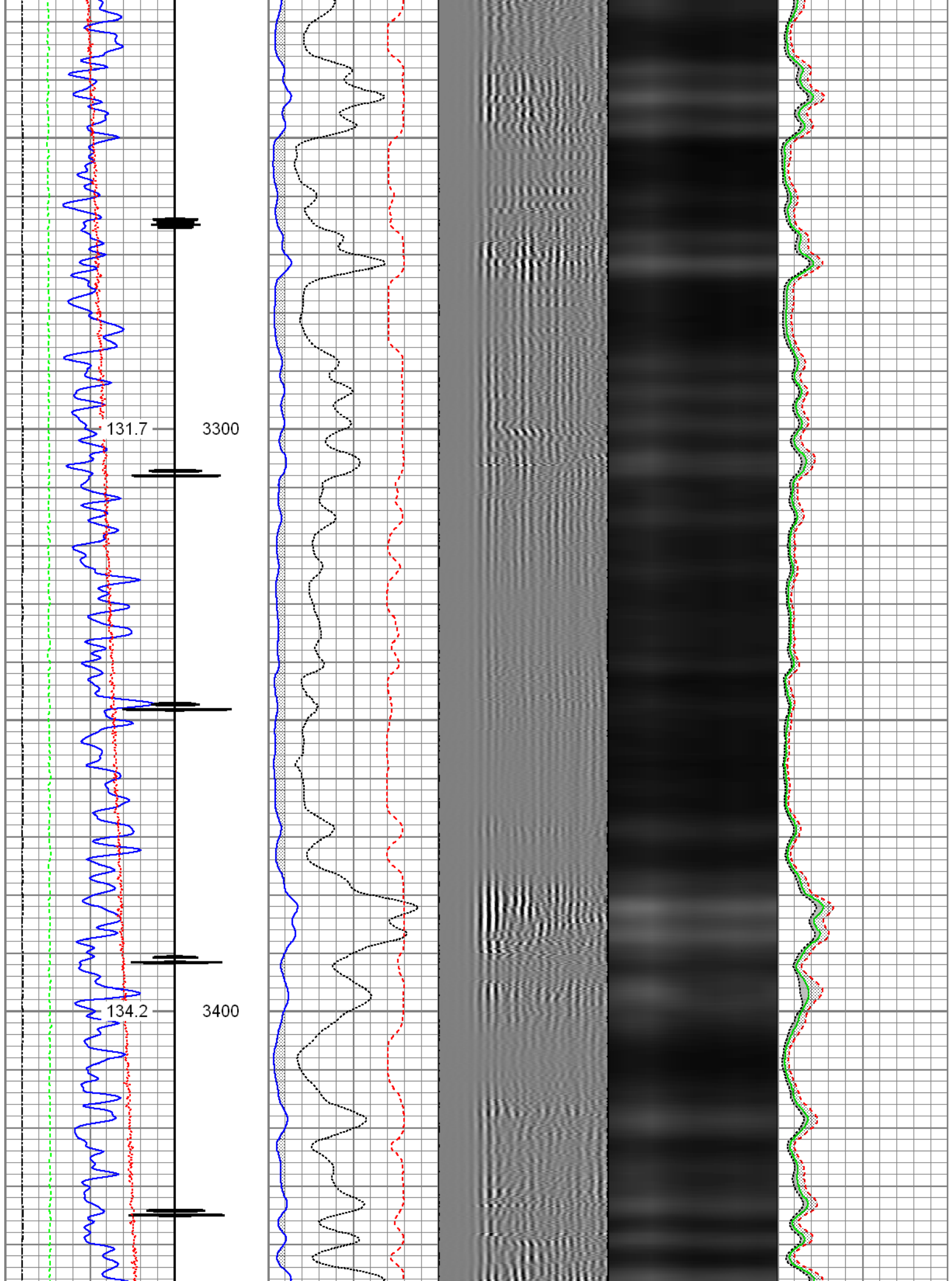


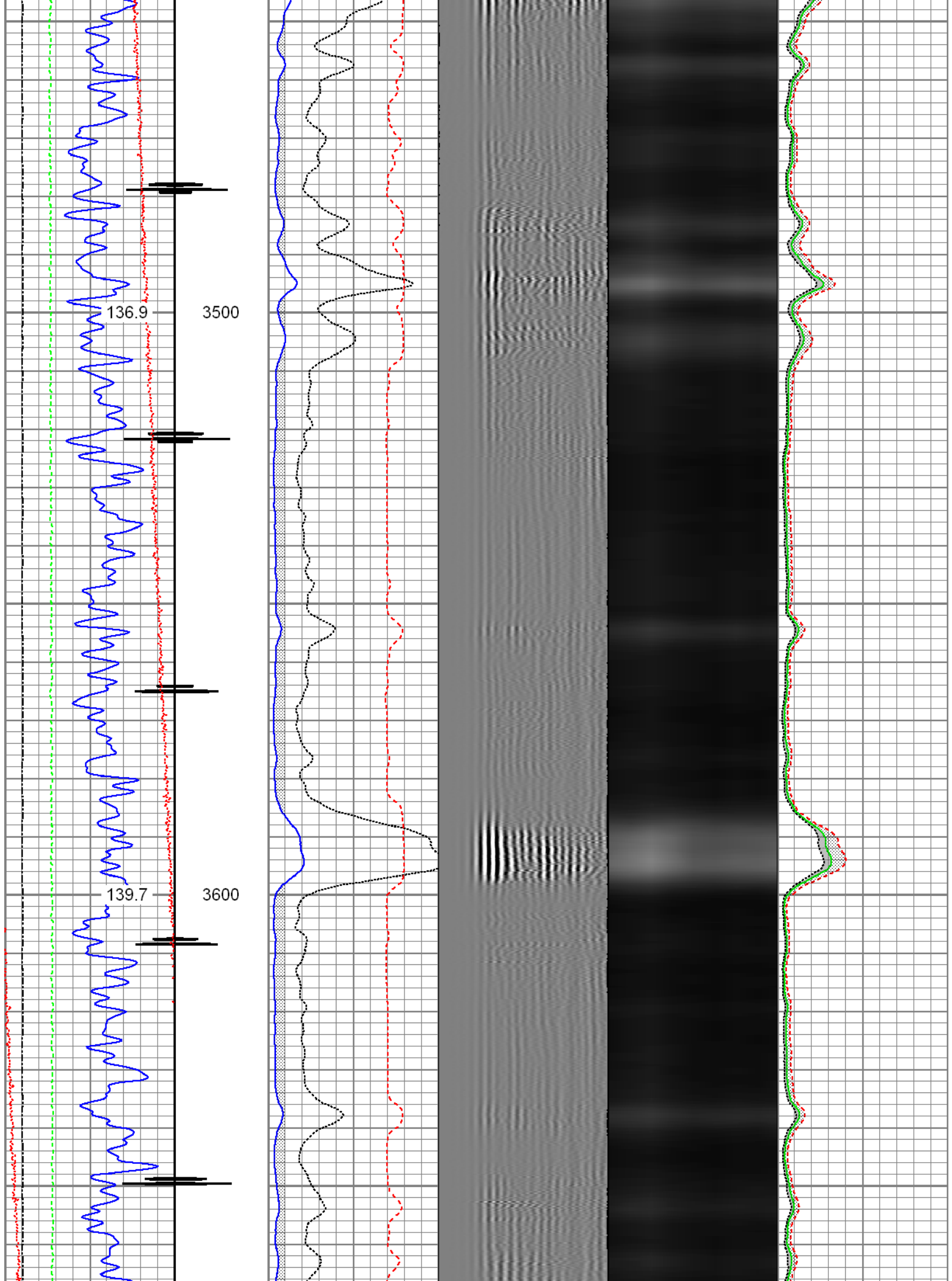


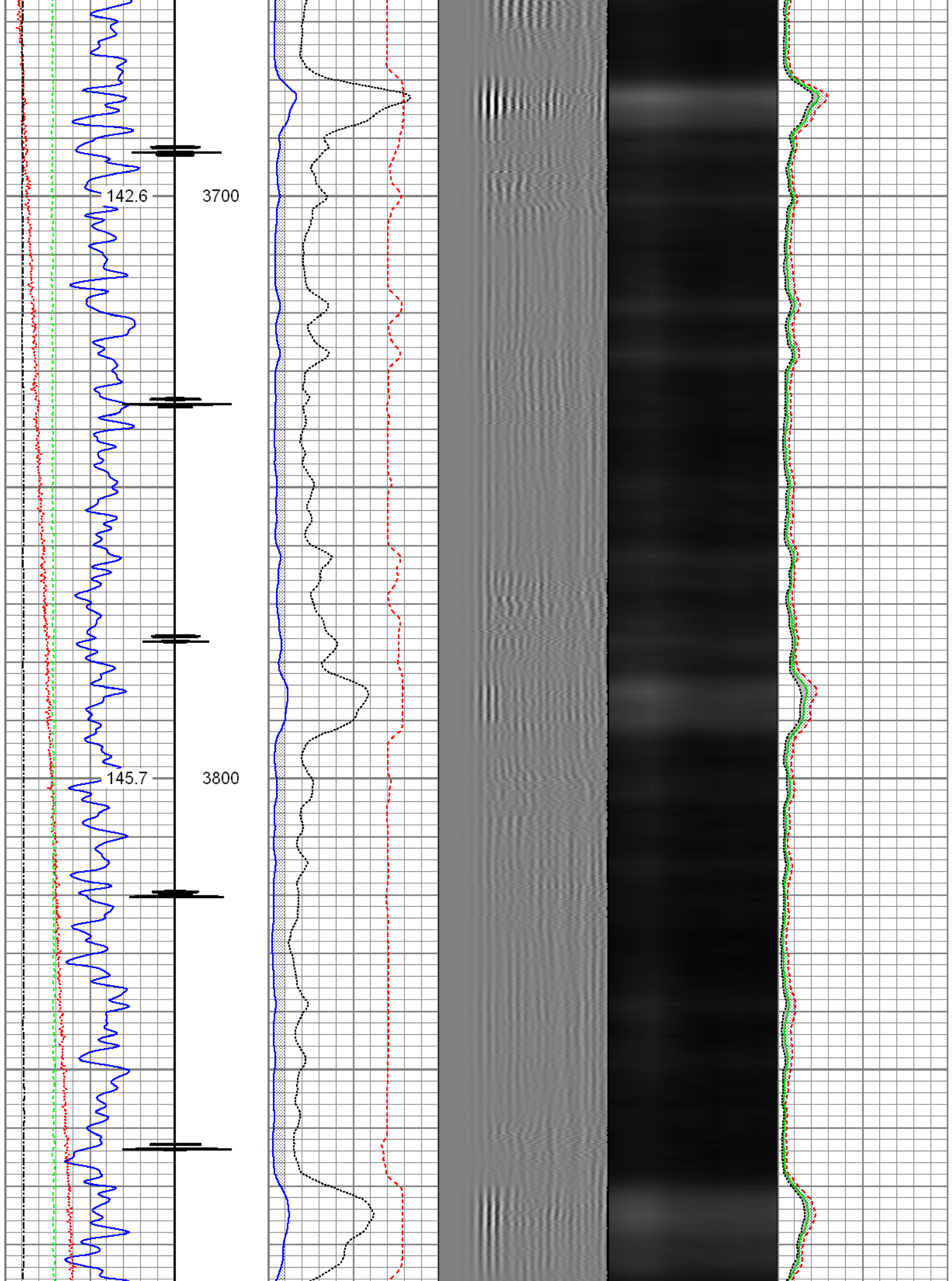


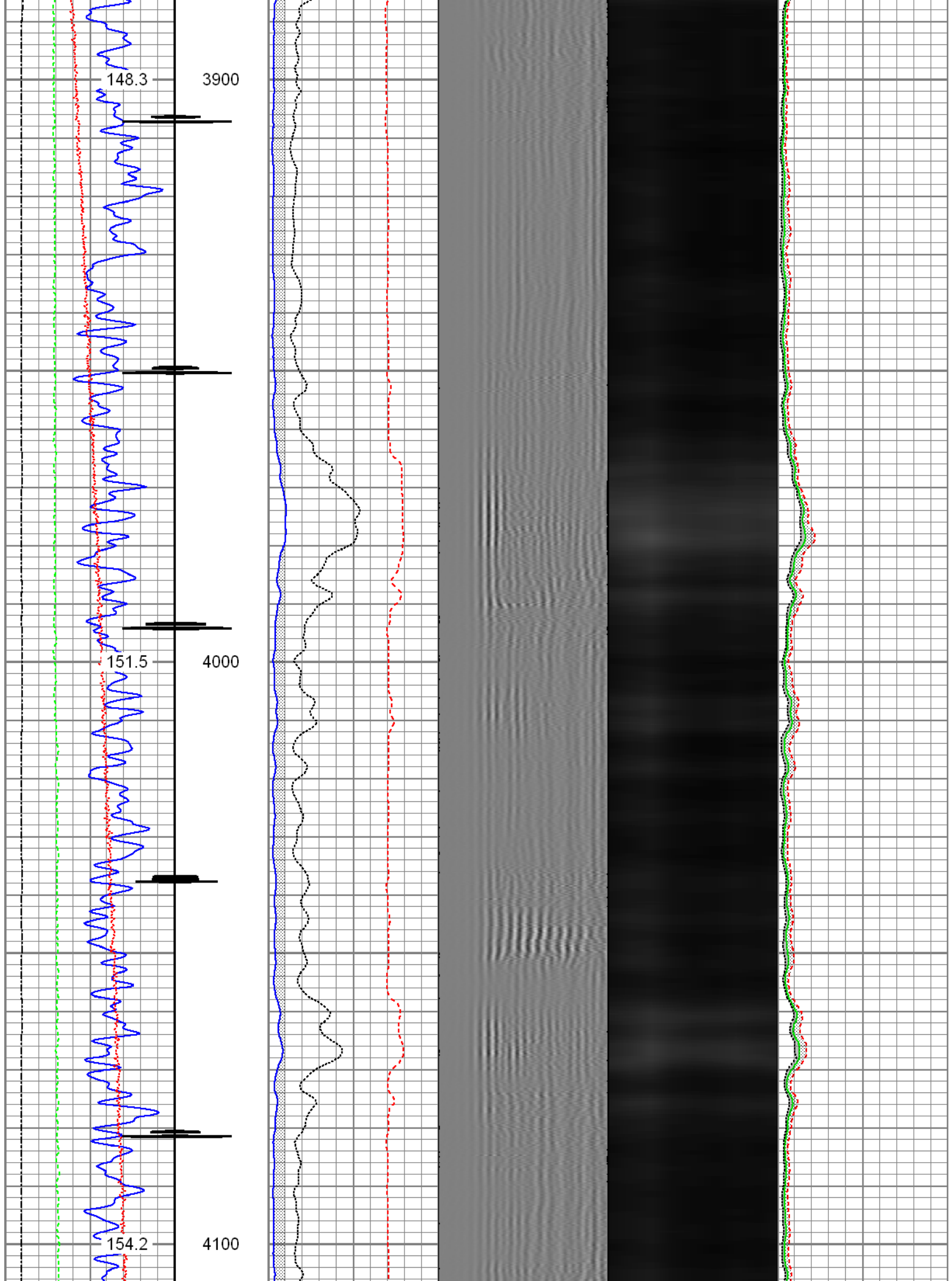


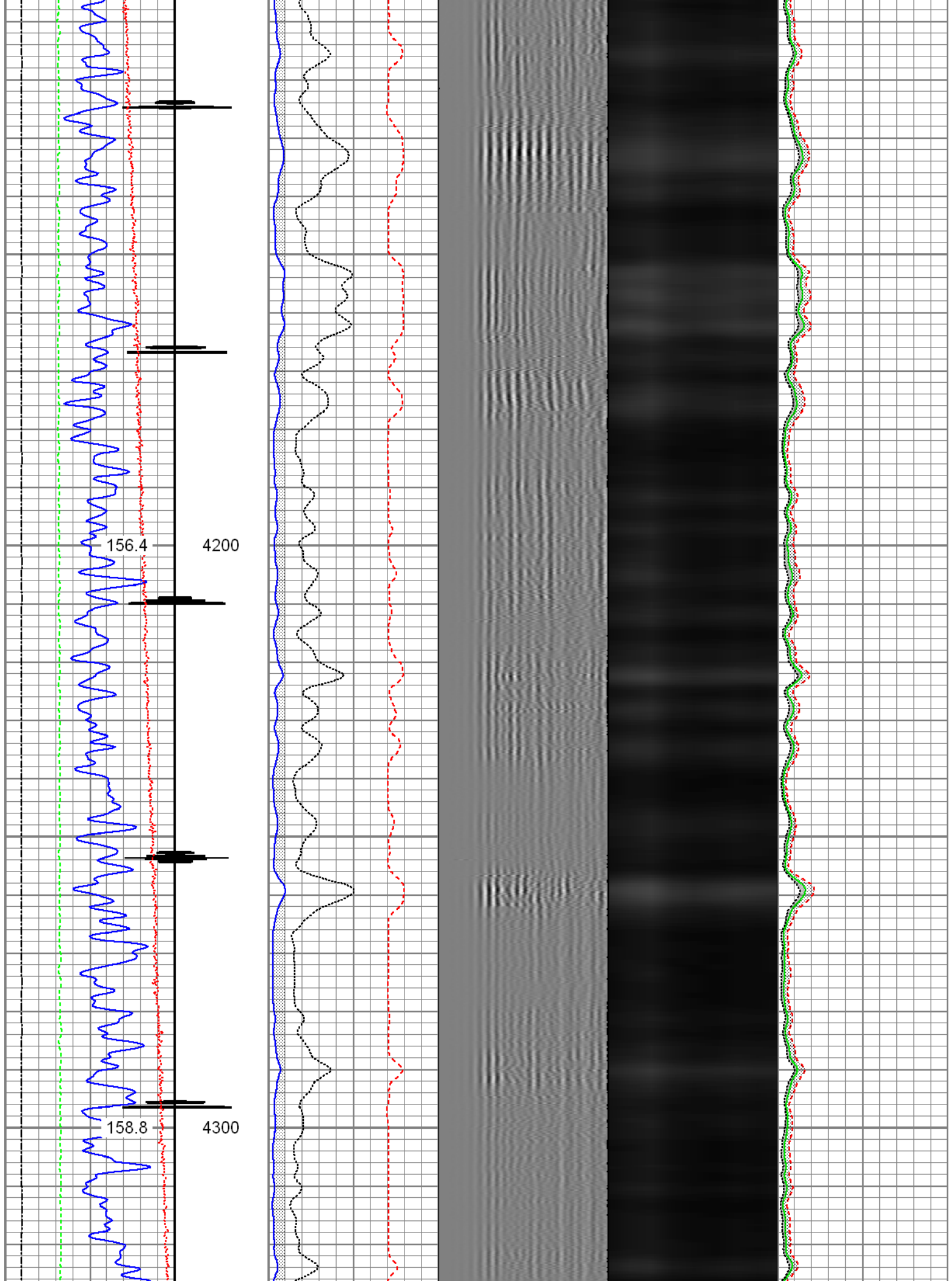


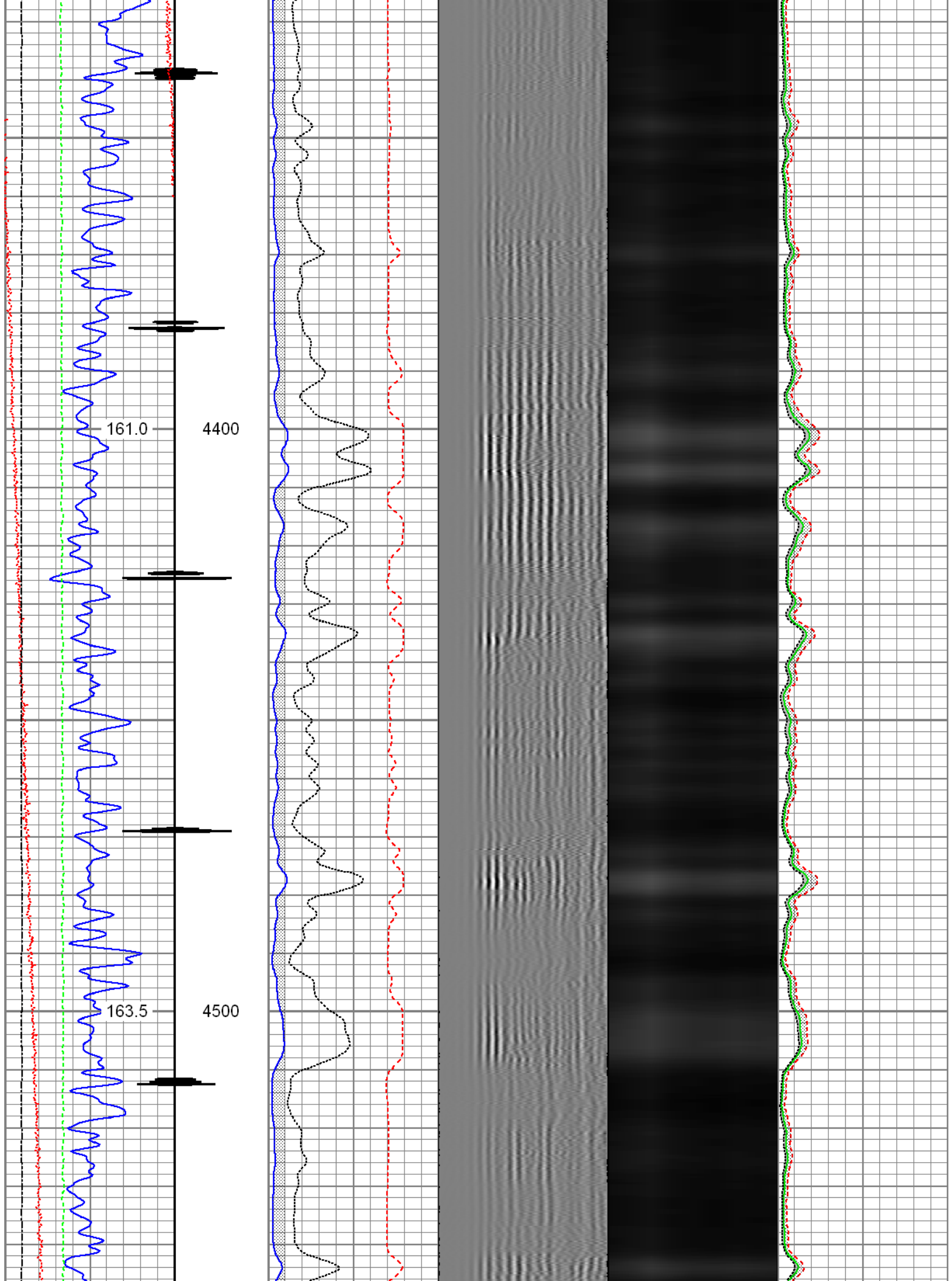


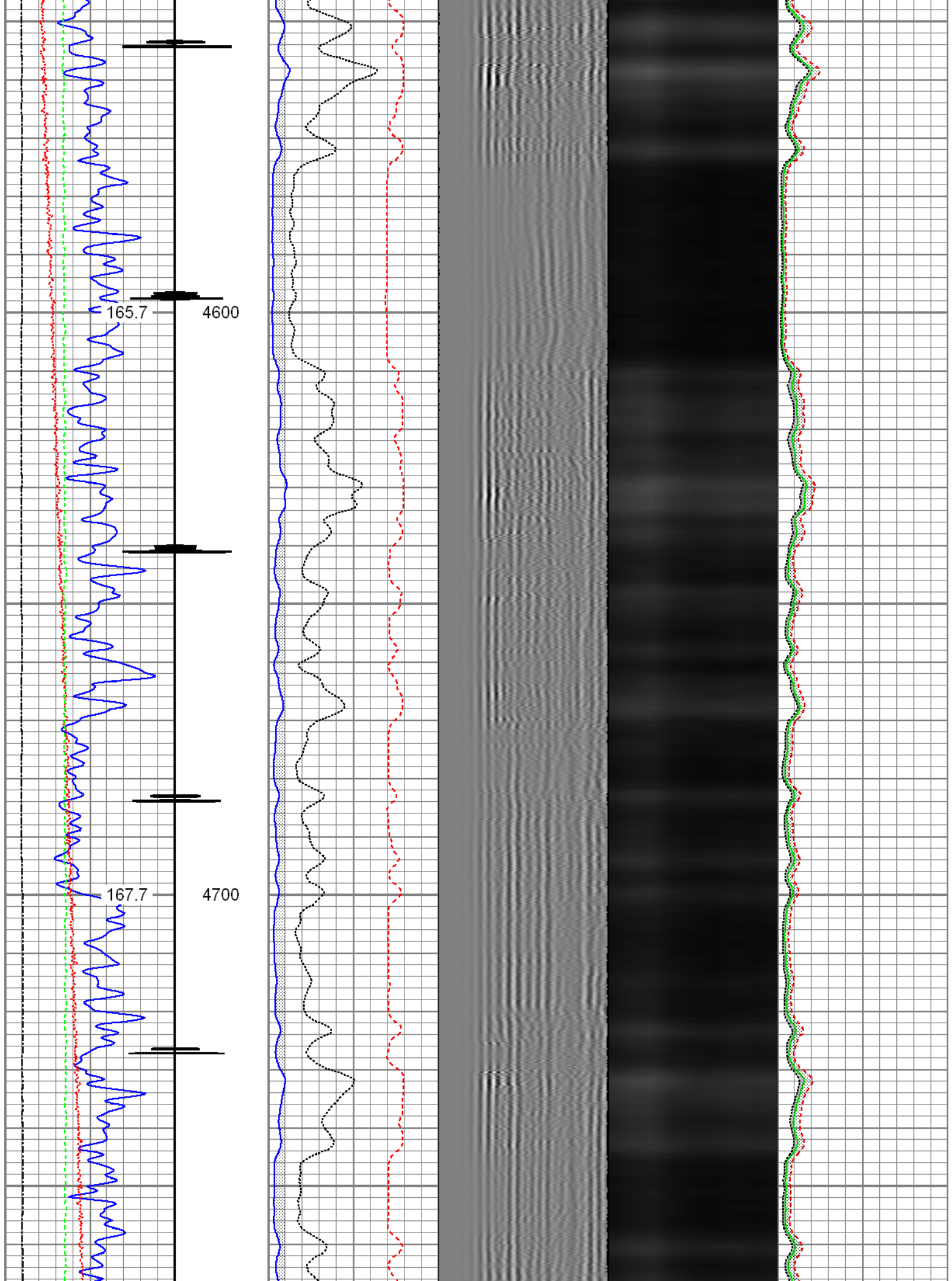


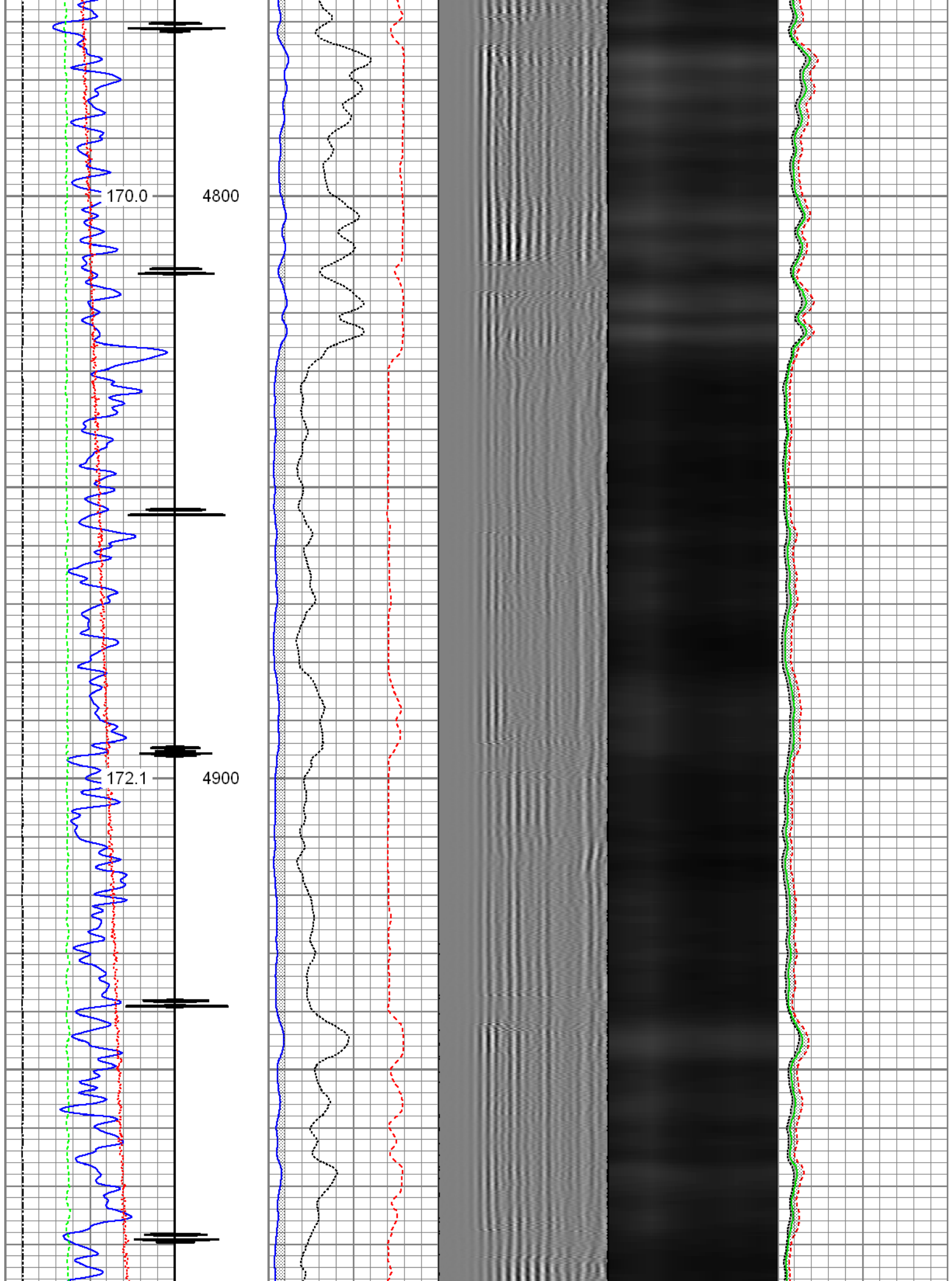


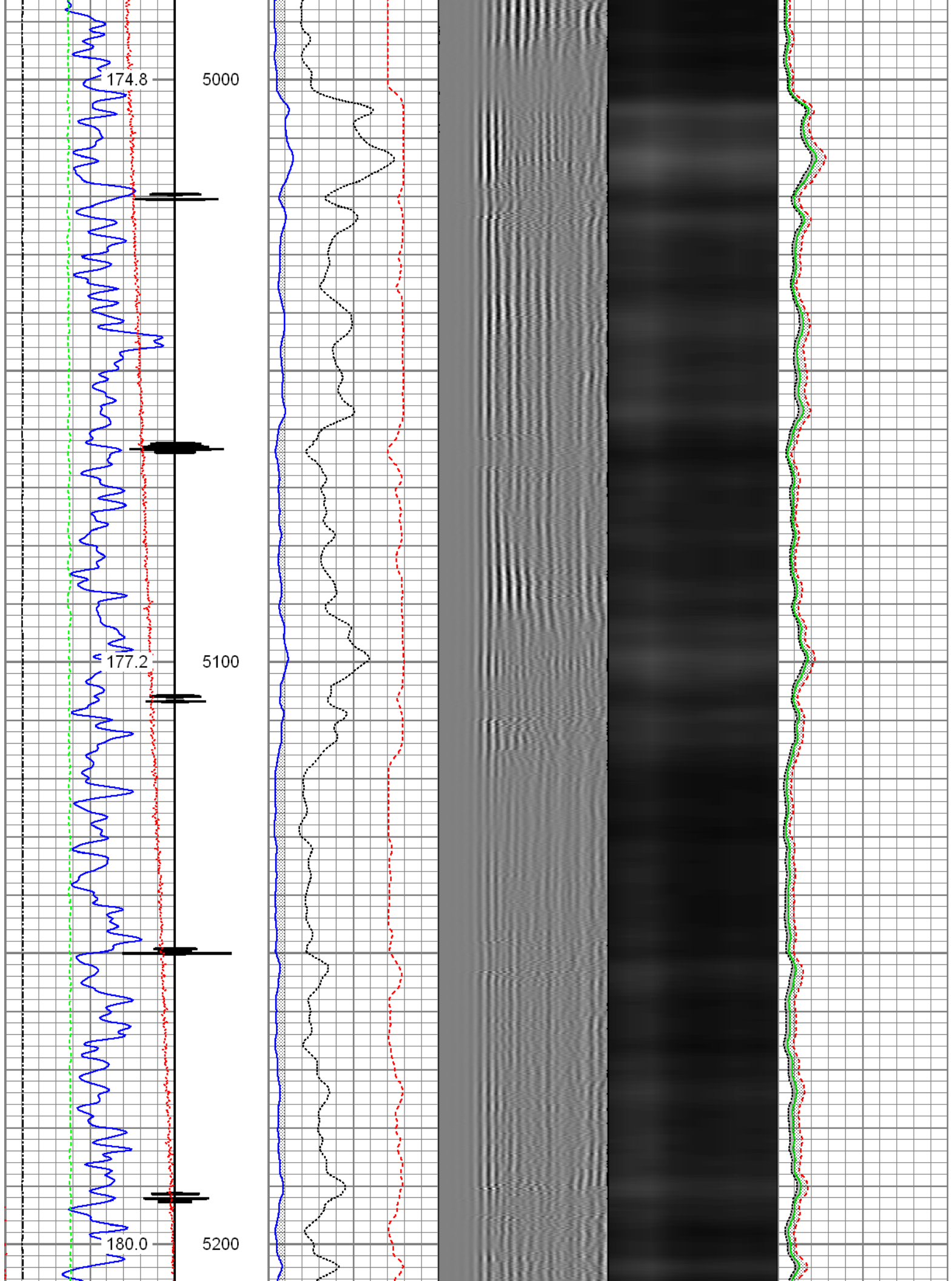


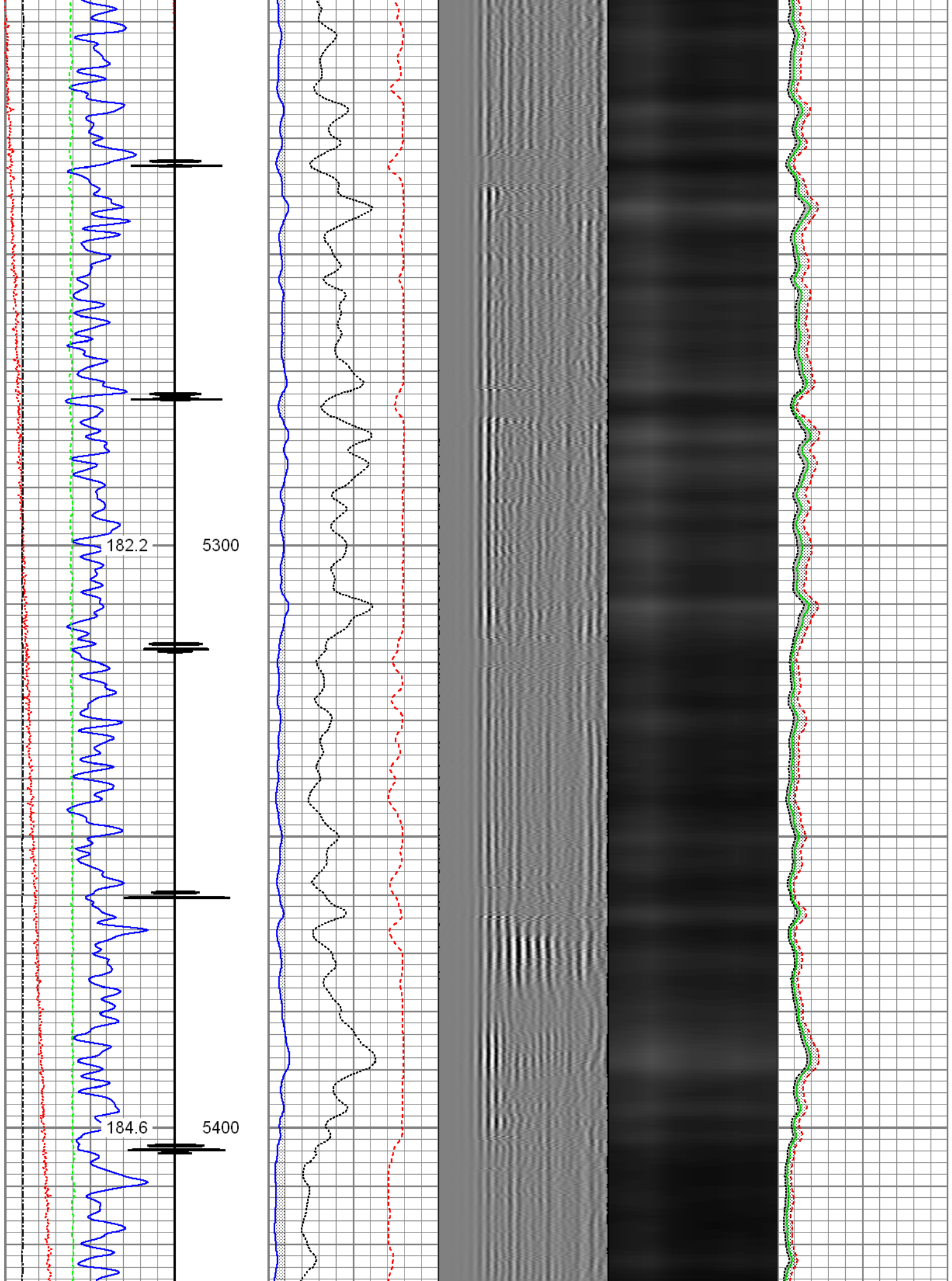


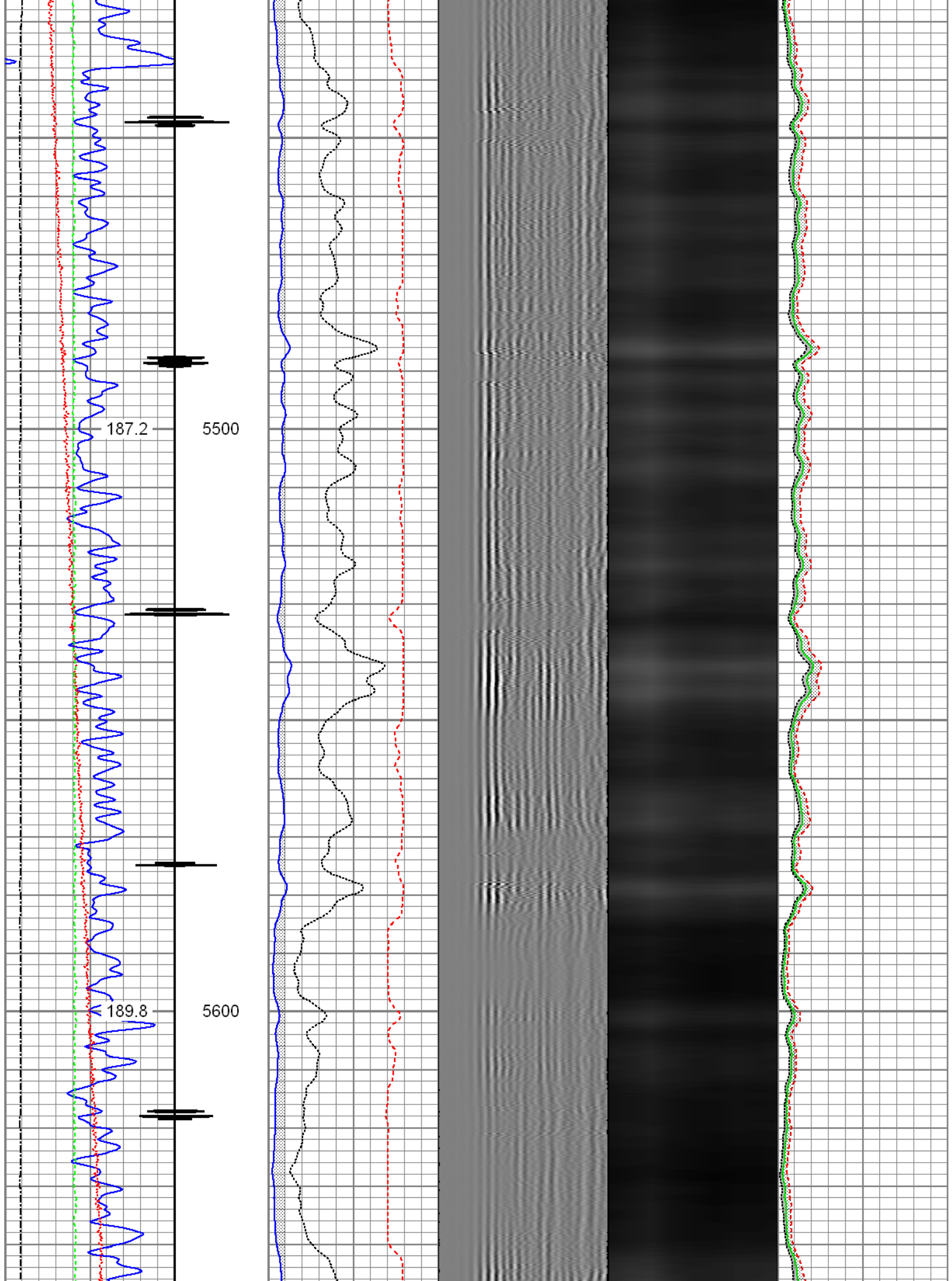


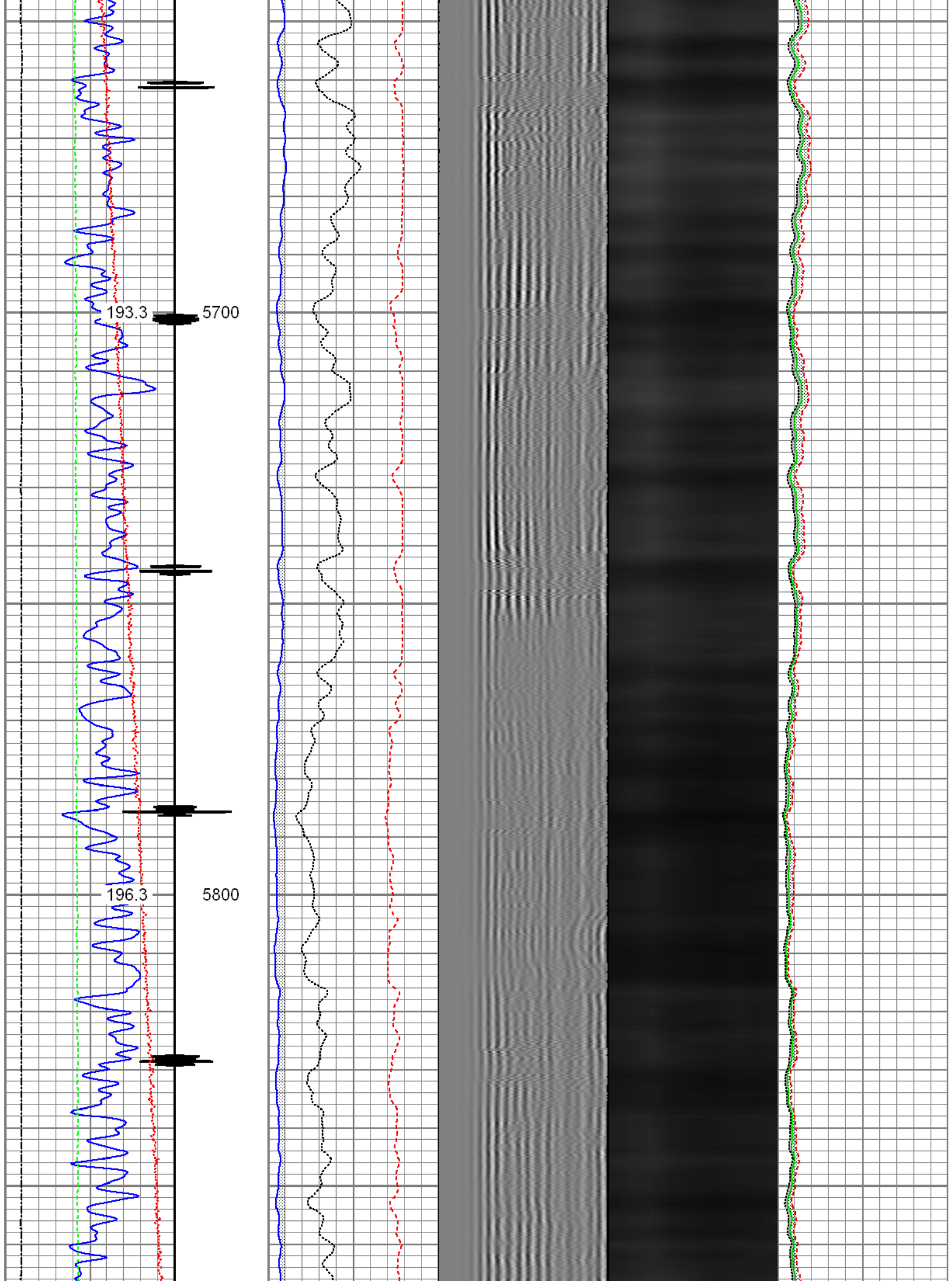


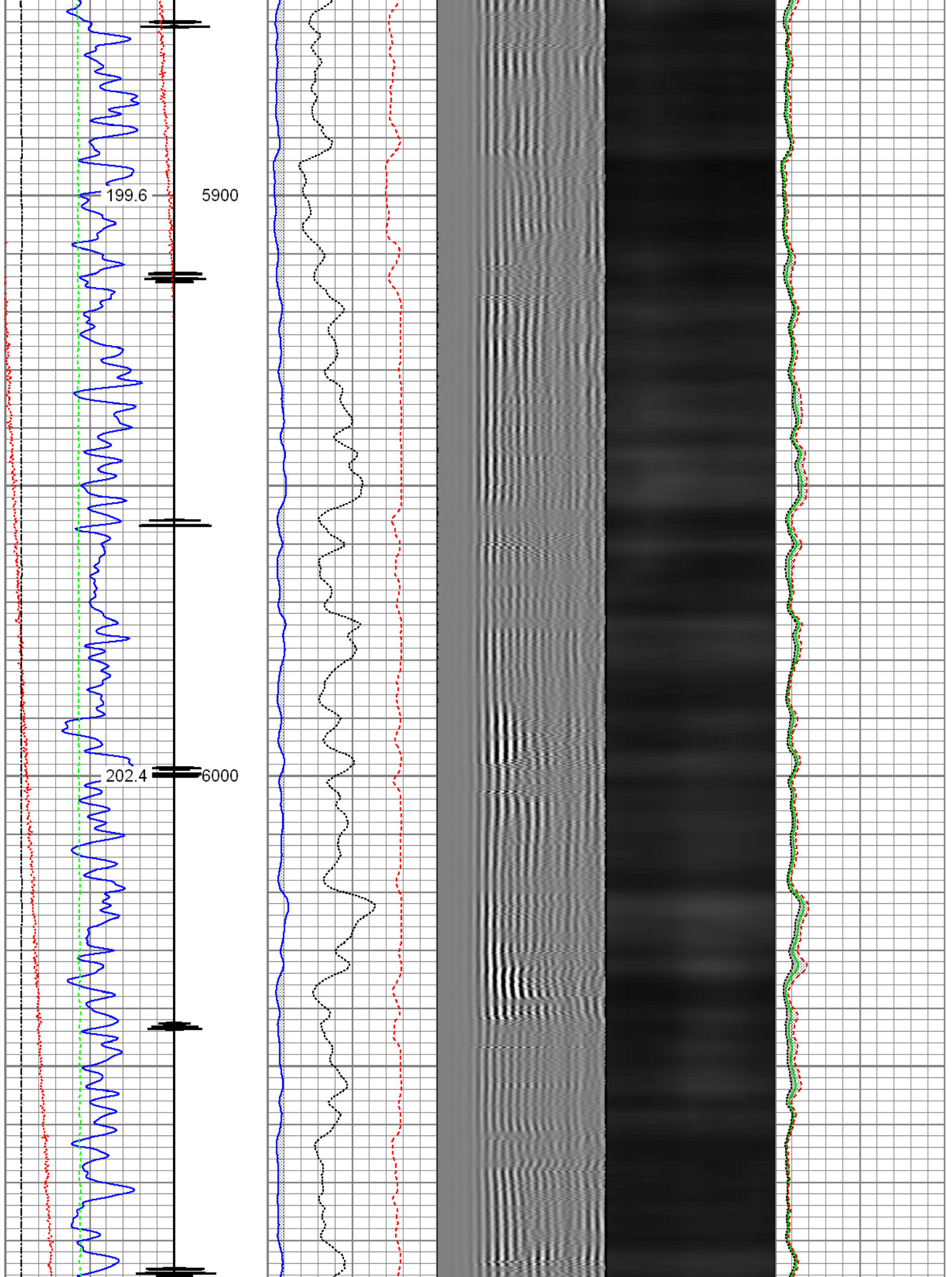


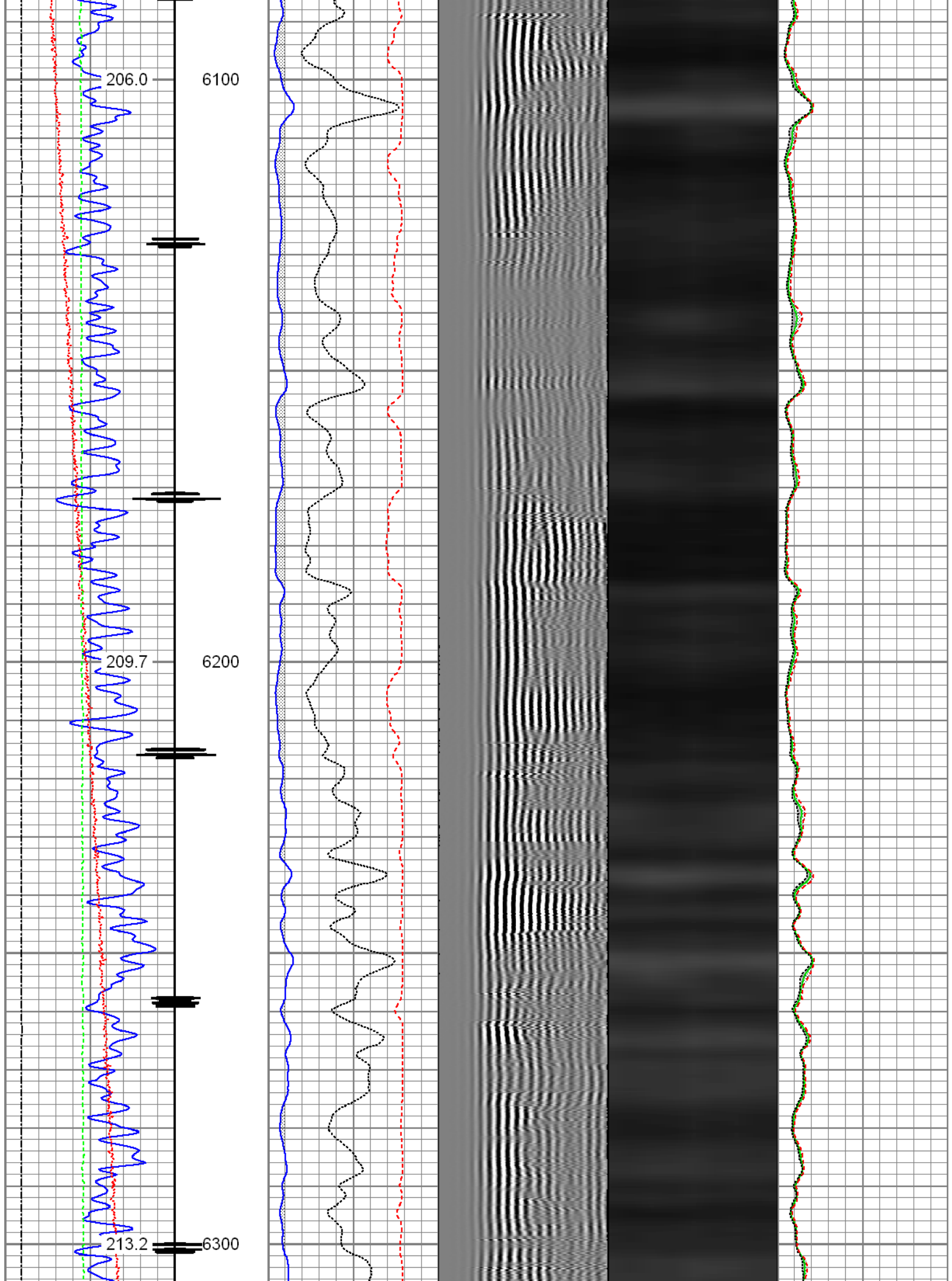


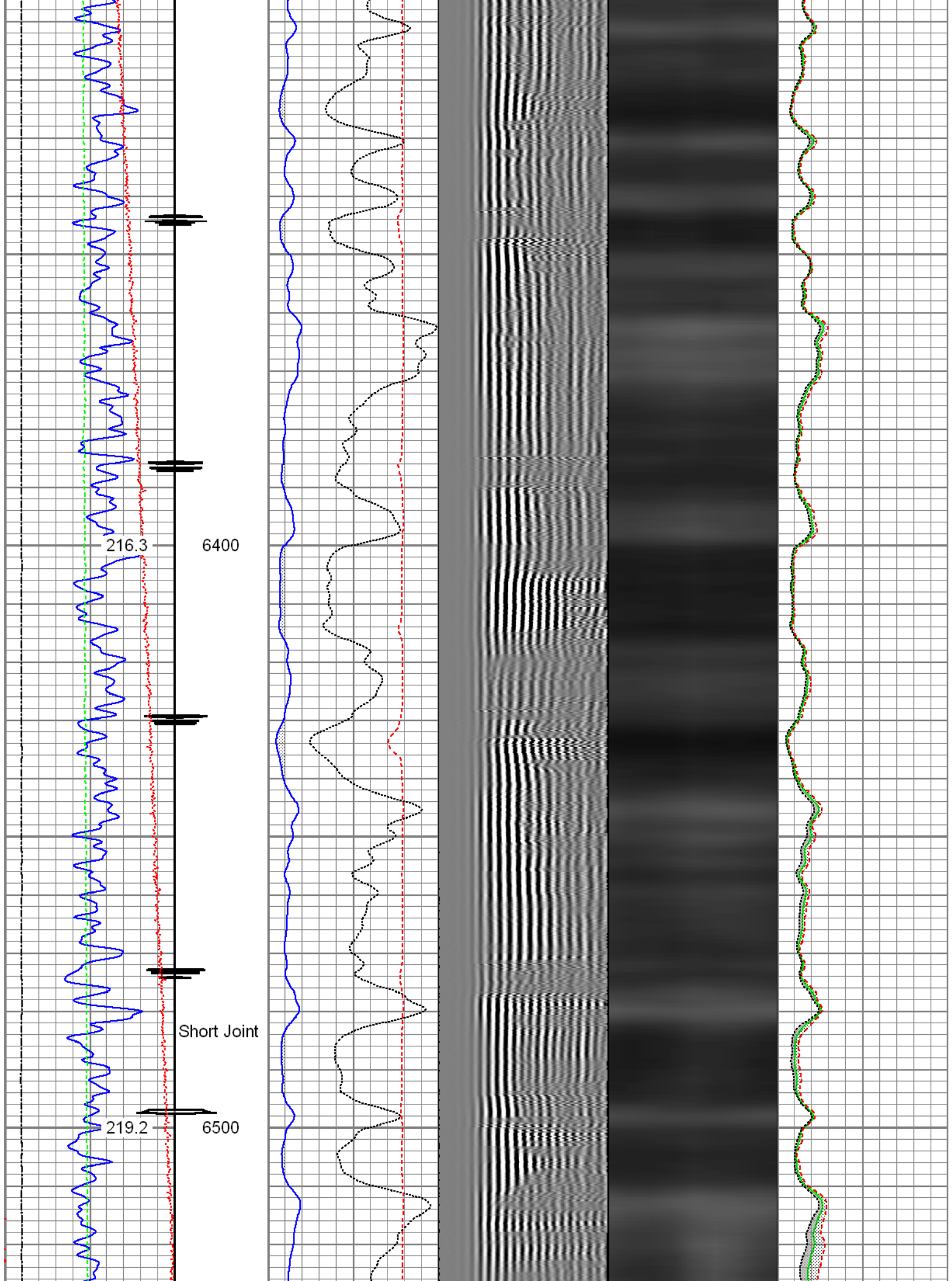


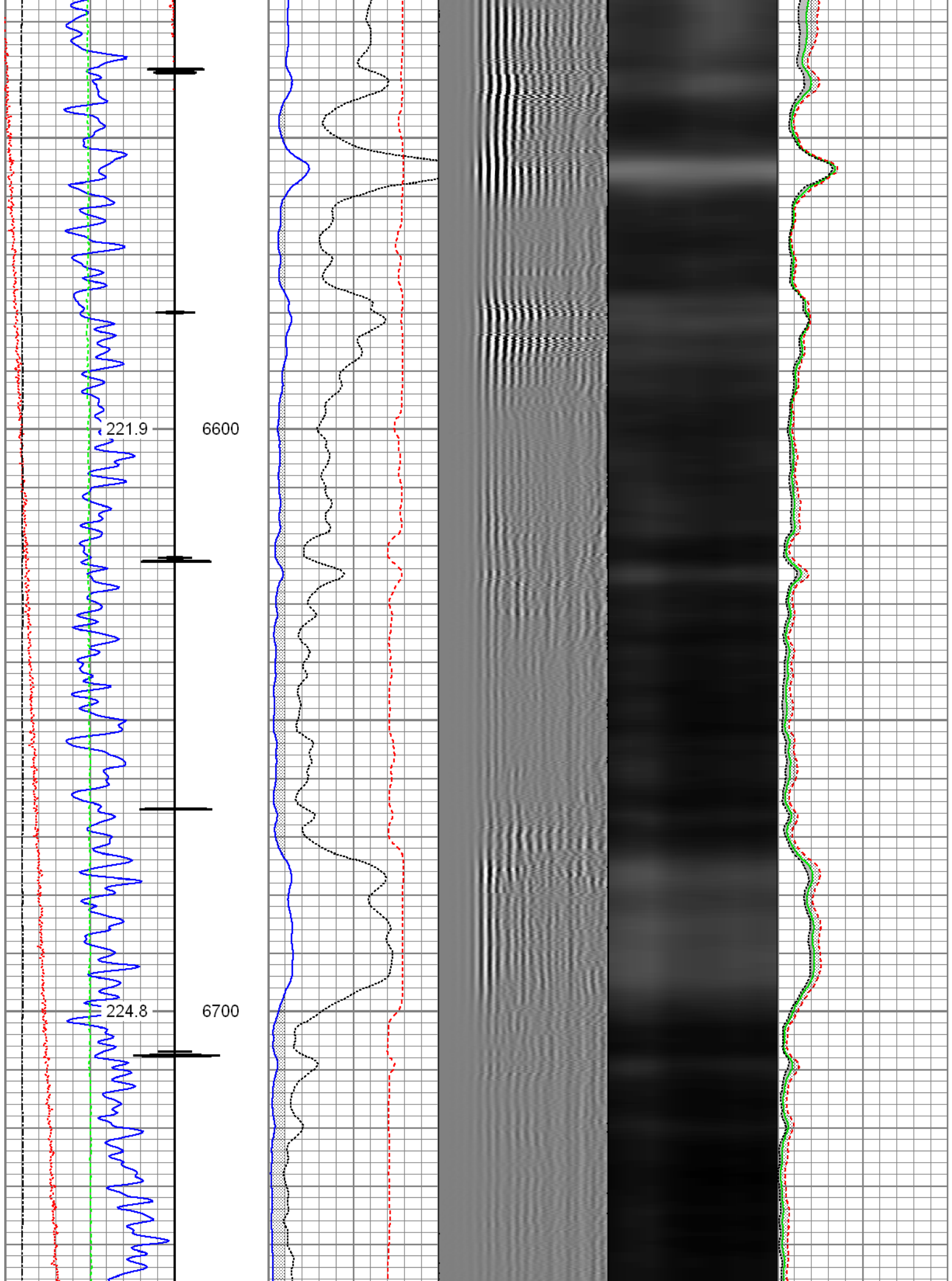


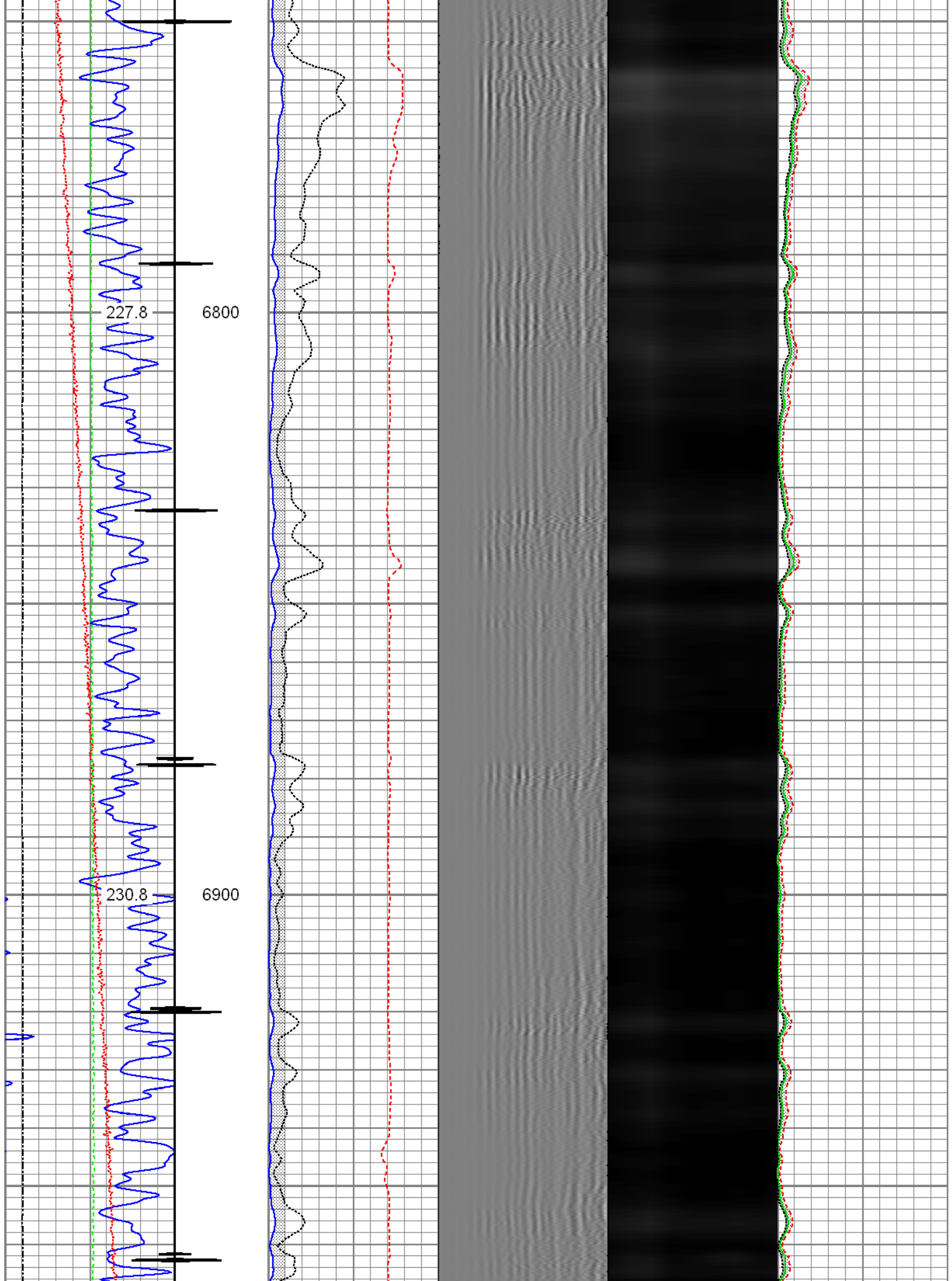


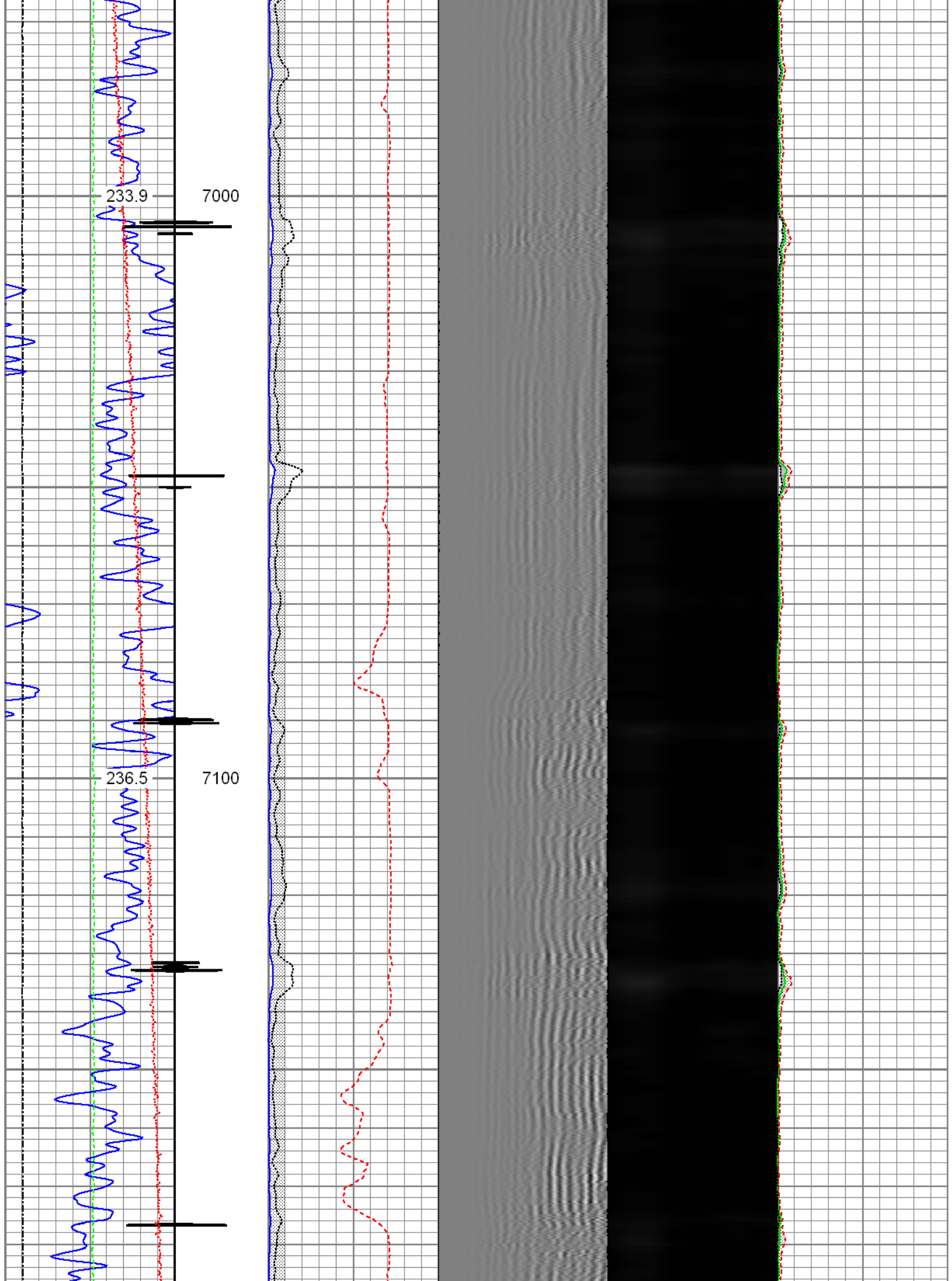


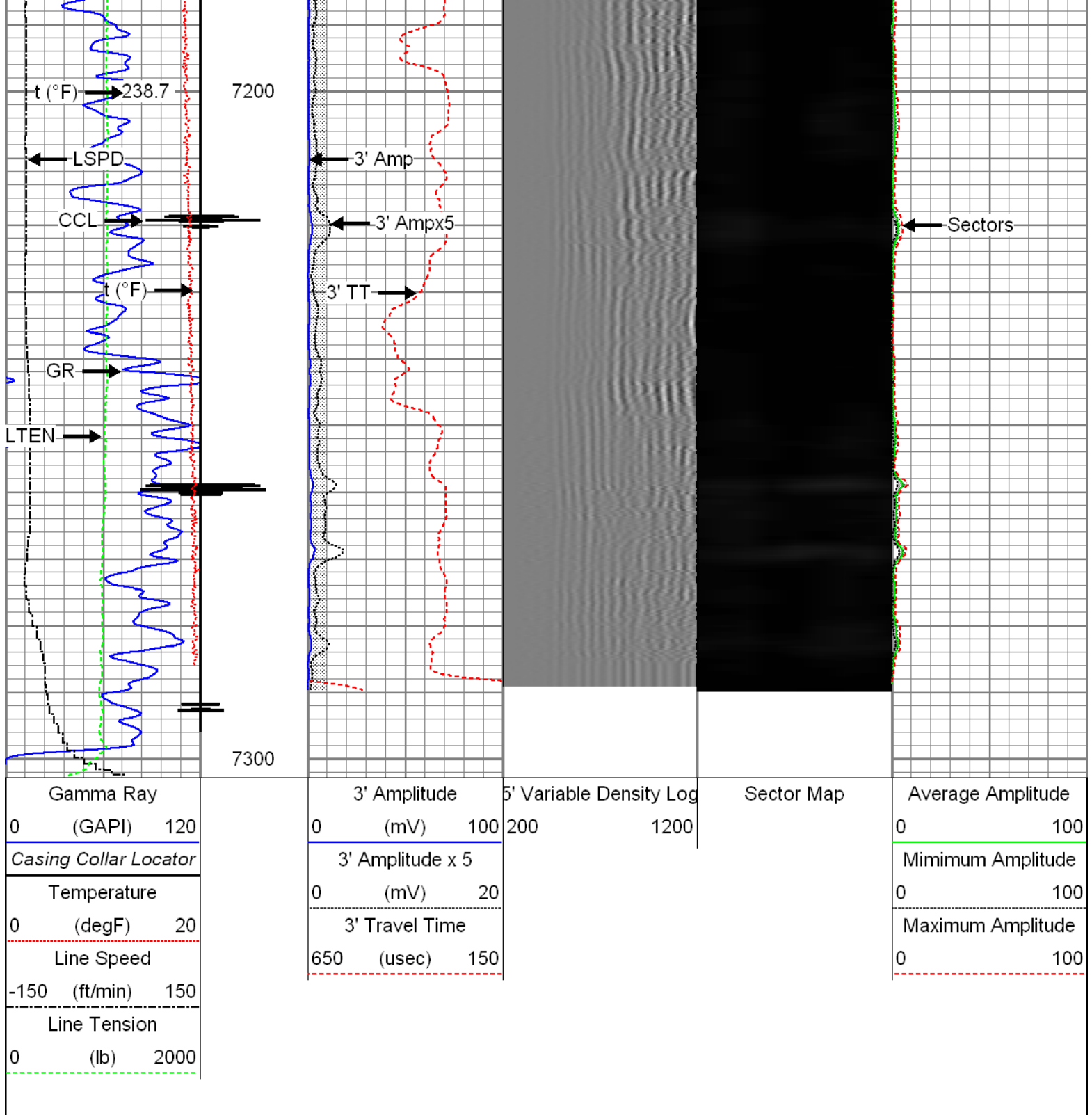








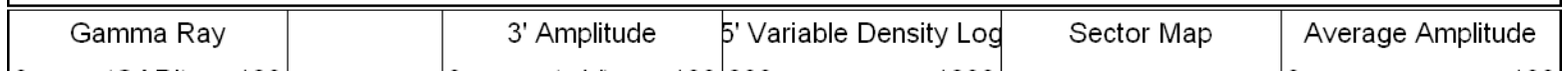




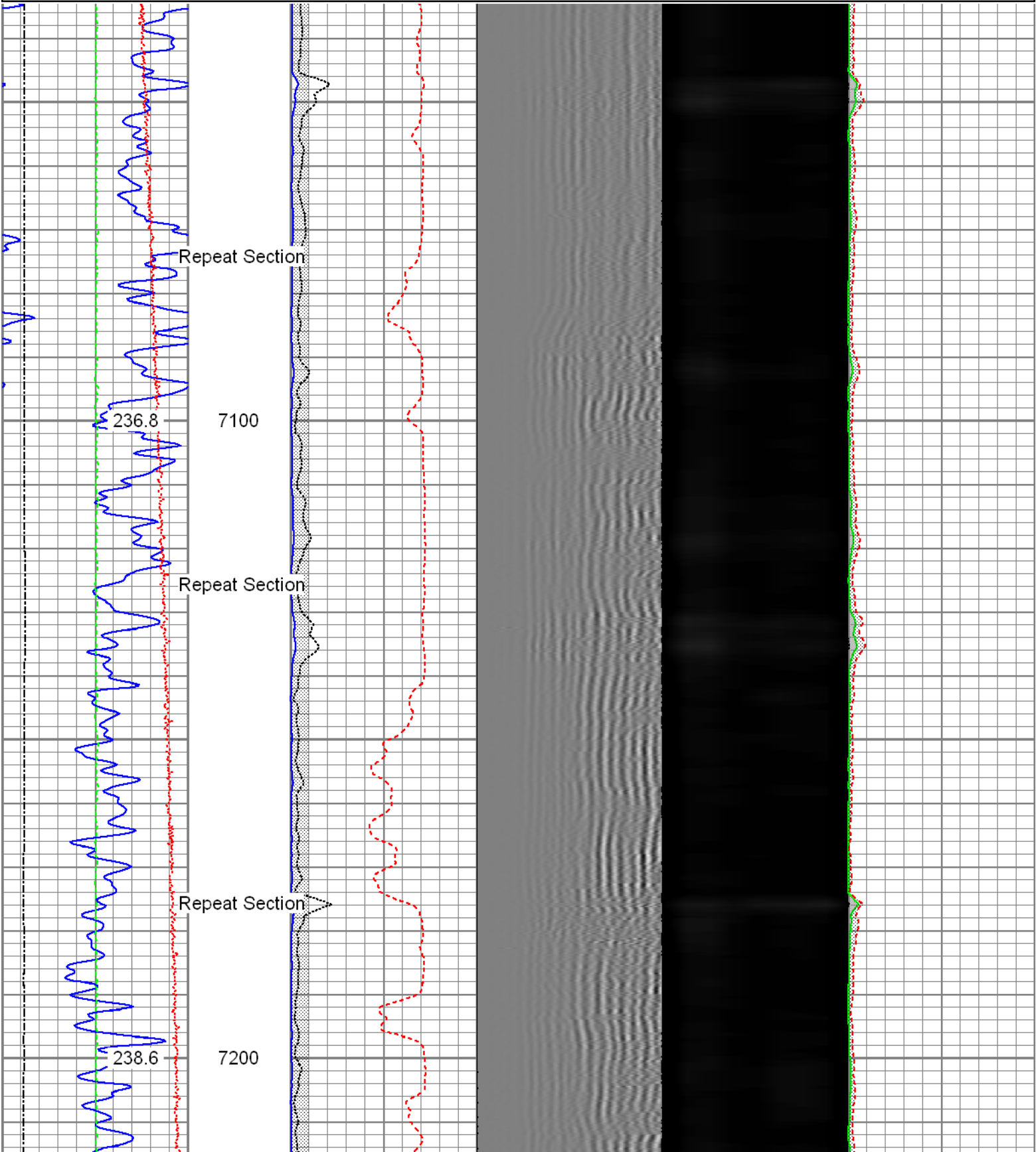
Repeat Pass

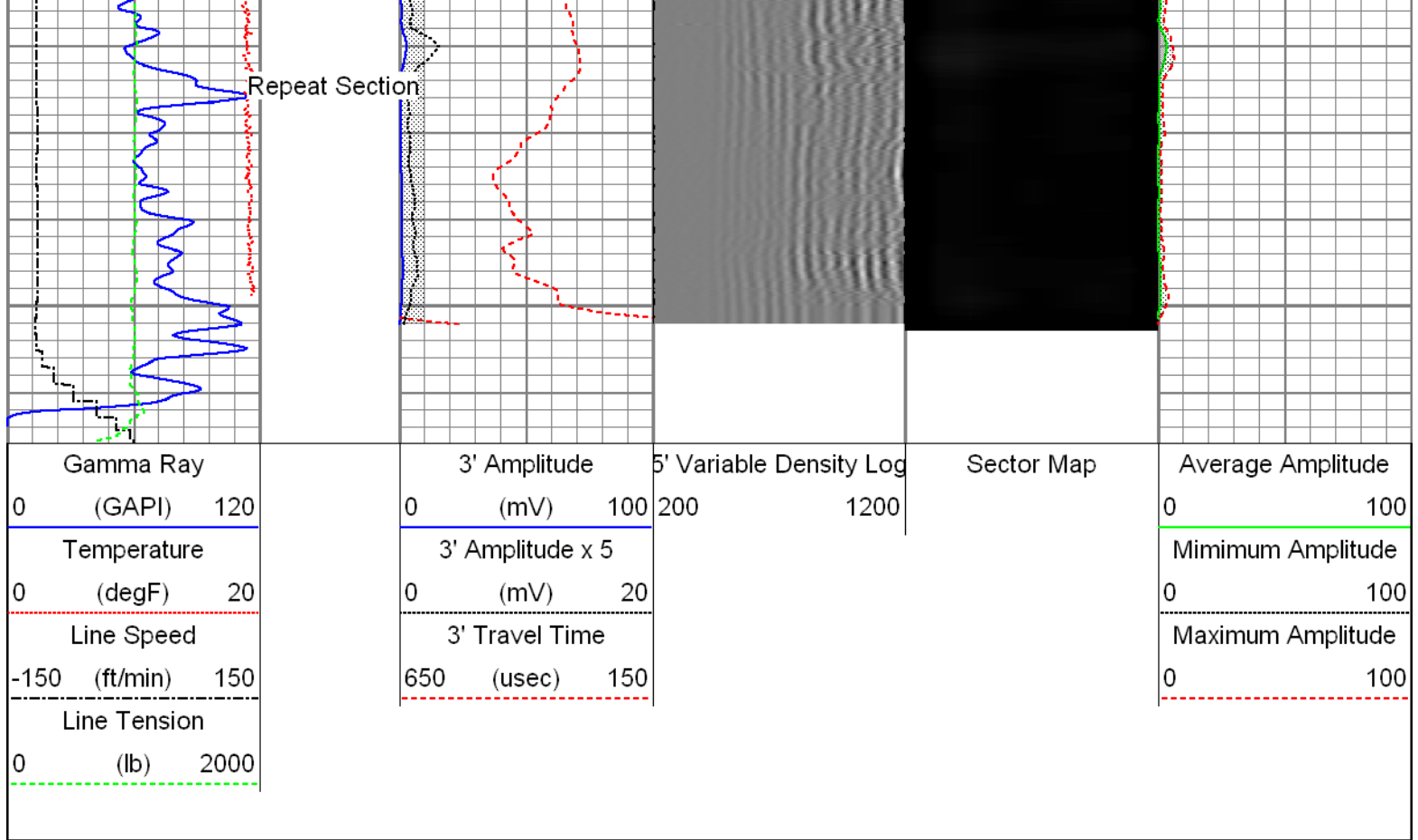
Recorded with 2800 PSI Surface Induced Pressure

Database File: c:\warrior\data\0512341951_anadarko_powers 1n-27hz_12-09-15_rbl\processed_0512341951_anadarko
Dataset Pathname: pass19
Presentation Format: radii
Dataset Creation: Wed Dec 09 11:24:03 2015 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240



0 (GAPI) 120	0 (mV) 100 200	0 100
Temperature	3' Amplitude x 5	Minimum Amplitude
0 (degF) 20	0 (mV) 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)
			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
HeadVolt	19.49					
Temp	16.72					
WVF3FT	14.55		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
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					

3'	0.005	0.696	0.800	71.921	102.819	0.334
CAL	0.767	0.804				
5'	0.006	0.580	0.800	71.921	123.881	0.069
SUM						
S1	0.005	0.666	0.000	100.000	151.332	-0.731
S2	0.005	0.705	0.000	100.000	142.890	-0.716
S3	0.005	0.741	0.000	100.000	135.905	-0.718
S4	0.006	0.746	0.000	100.000	135.154	-0.828
S5	0.006	0.725	0.000	100.000	139.112	-0.801
S6	0.008	0.697	0.000	100.000	145.201	-1.143
S7	0.005	0.664	0.000	100.000	151.779	-0.783
S8	0.006	0.665	0.000	100.000	151.698	-0.896

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	0.767	0.804	1.000	0.000

Air Zero Calibration, performed Wed Dec 09 11:23:01 2015:

	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 Powers 1N-27HZ
Field Wattenberg
County Weld
State Colorado