



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil & Gas Onshore, L.P.		
Well	Carter 36N-33HZ		
Field	Wattenberg		
County	Weld		
State	Colorado		
Location:	Company	Kerr-McGee Oil & Gas Onshore, L.P.	
	Well	Carter 36N-33HZ	
	Field	Wattenberg	
	County	Weld	
Other Services	State	Colorado	
	API # :	05-123-41555	
	JB/GR		
	Elevation		
Permanent Datum	Ground Level	Elevation 4960'	
Log Measured From	Kelly Bushing	16 FT	
Drilling Measured From	Kelly Bushing		

Date	03-NOV-2015
Run Number	Two
Depth Driller	12466 FT
Depth Logger	7660 FT
Bottom Logged Interval	7655 FT
Top Log Interval	Surface
Open Hole Size	7.875"
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	238°F
Estimated Cement Top	Surface
Time Well Ready	ROA
Time Logger on Bottom	16:00
Equipment Number	HD-0311
Location	Ft. Lupton, CO
Recorded By	Z. Fisher
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	1885 FT		
Intermediate #1							
Intermediate #2	5 1/2	17	HCP-110 LTC	Surface	12459 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
Depth referenced to Casing Tally reported Marker Joint at 6873 FT
Adjusted Log +27 FT to correlate with Marker Joint
Log ran from as deep as possible in heel to Surface
Log ran with 2800 PSI Surface Induced Pressure
Logging tools were clean and free of debris upon completion of operations

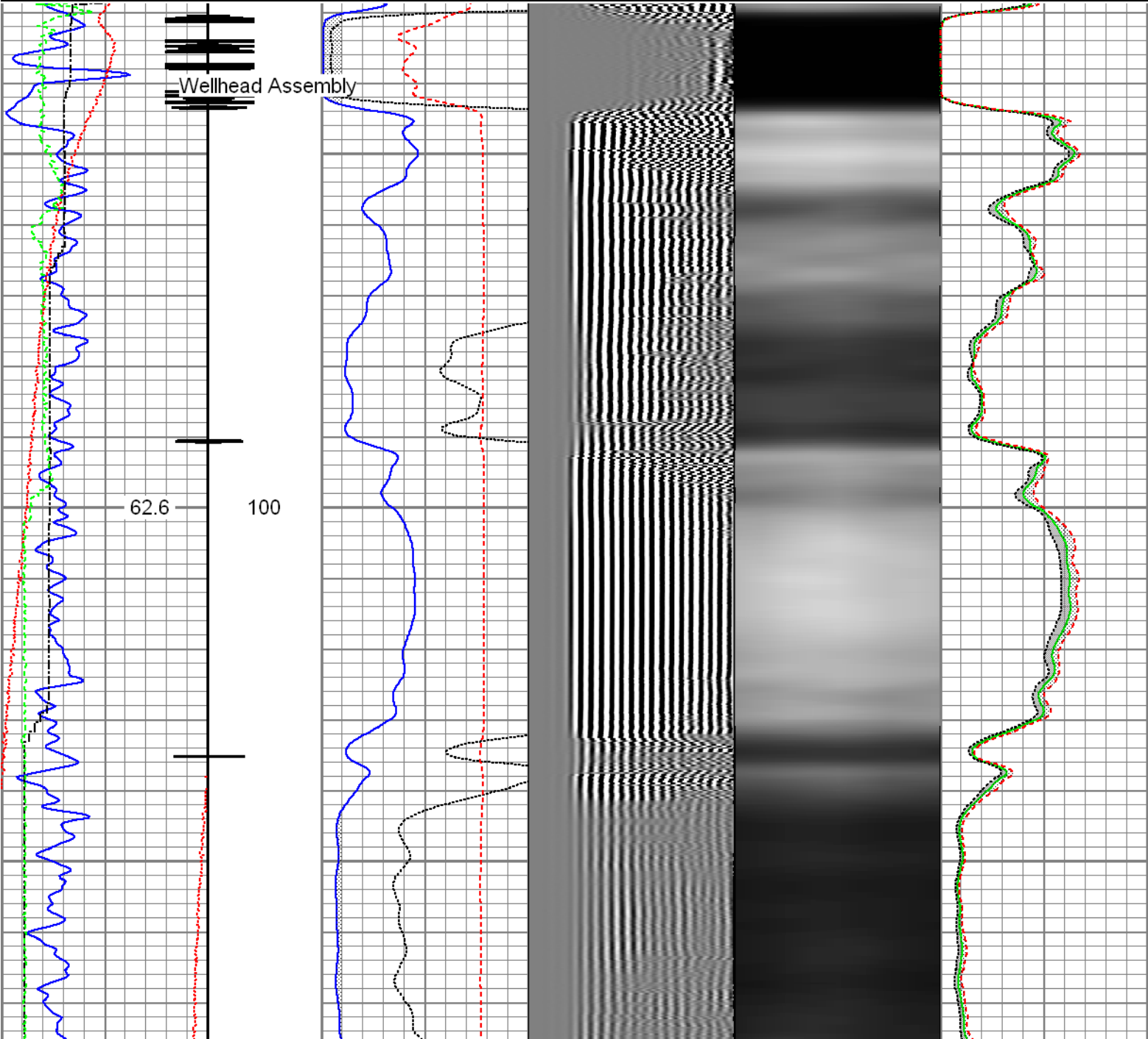
Thank you for choosing FMC Technologies Completion Services, Inc.!!

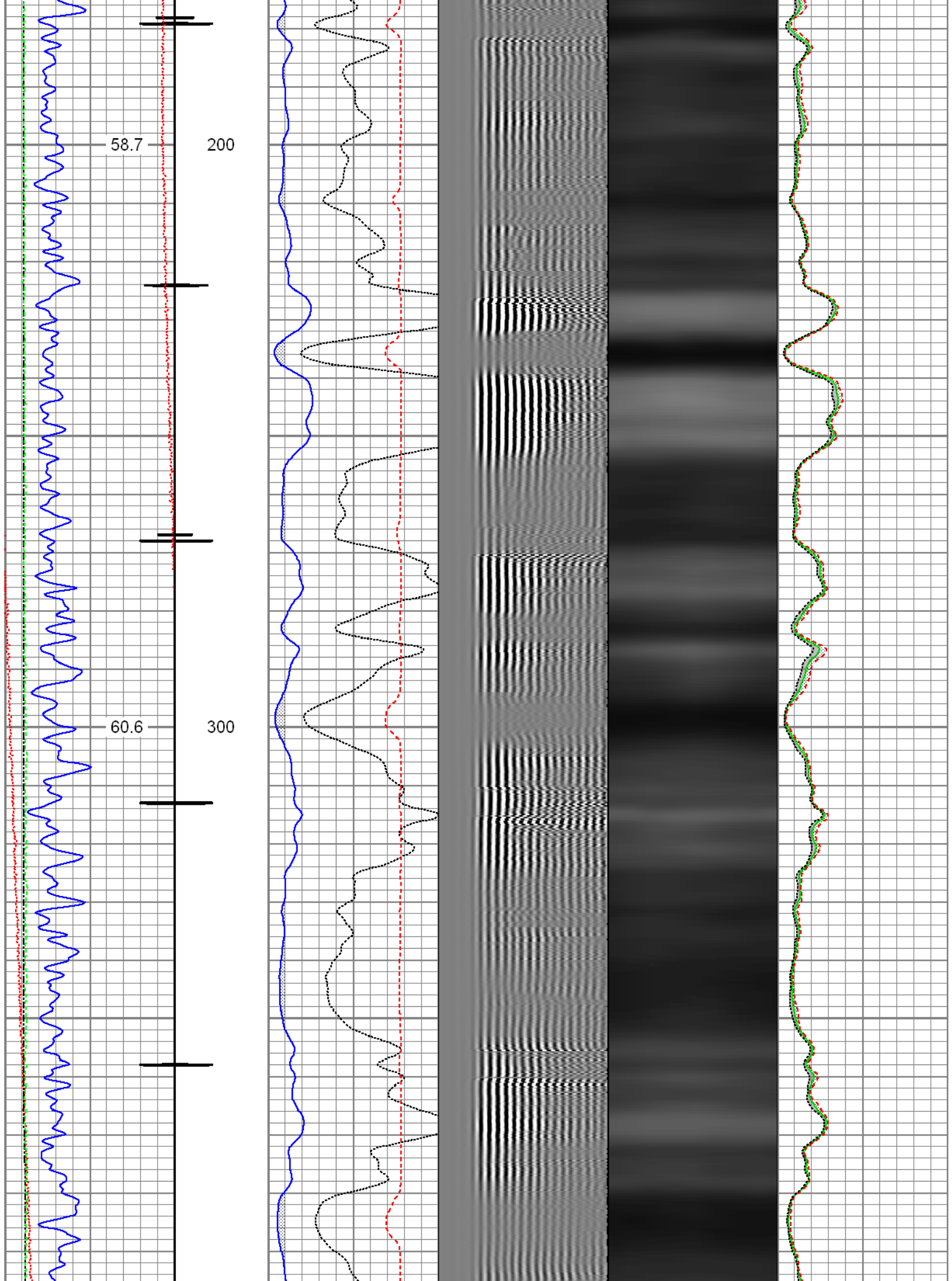


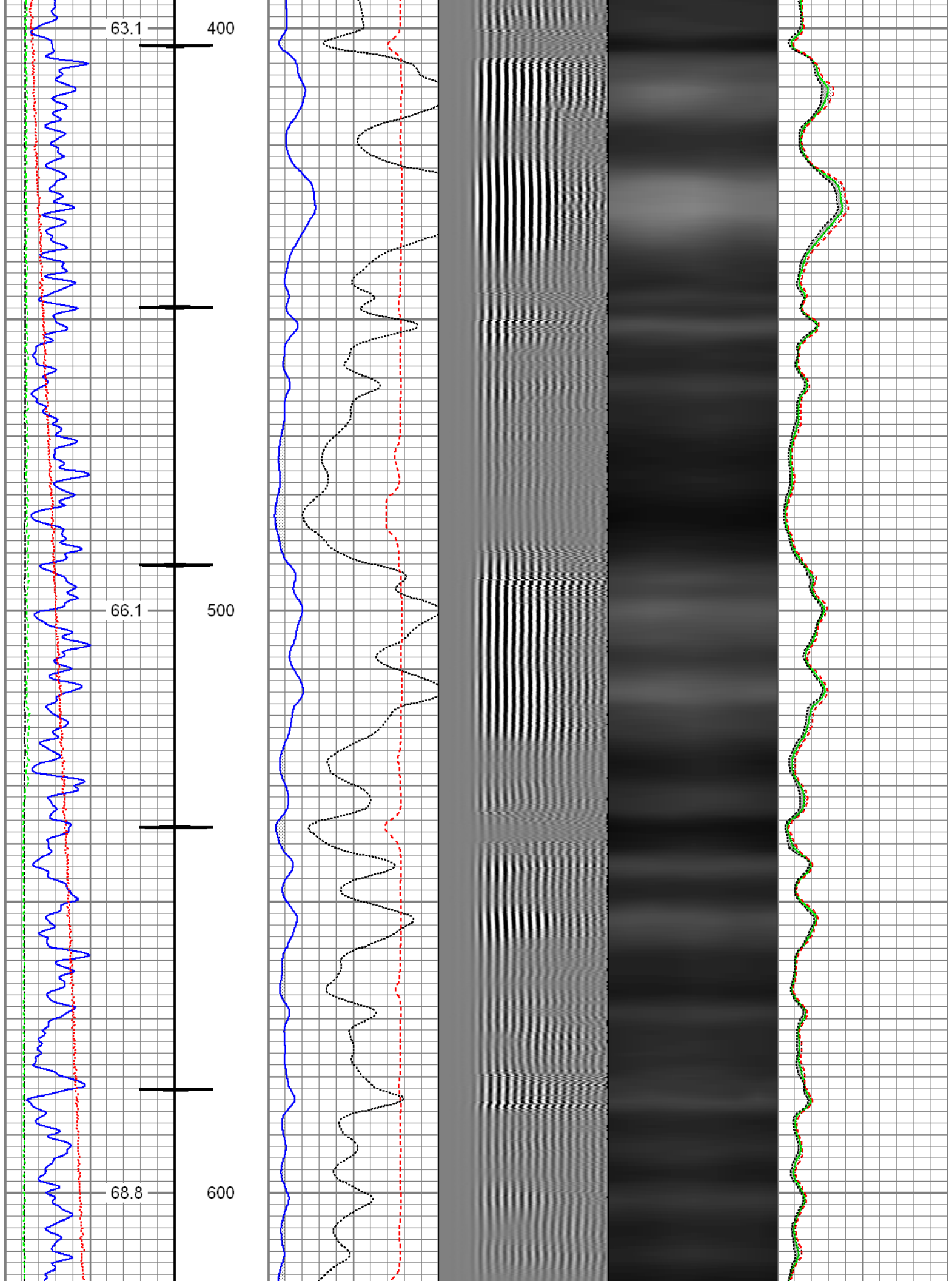
Main Pass

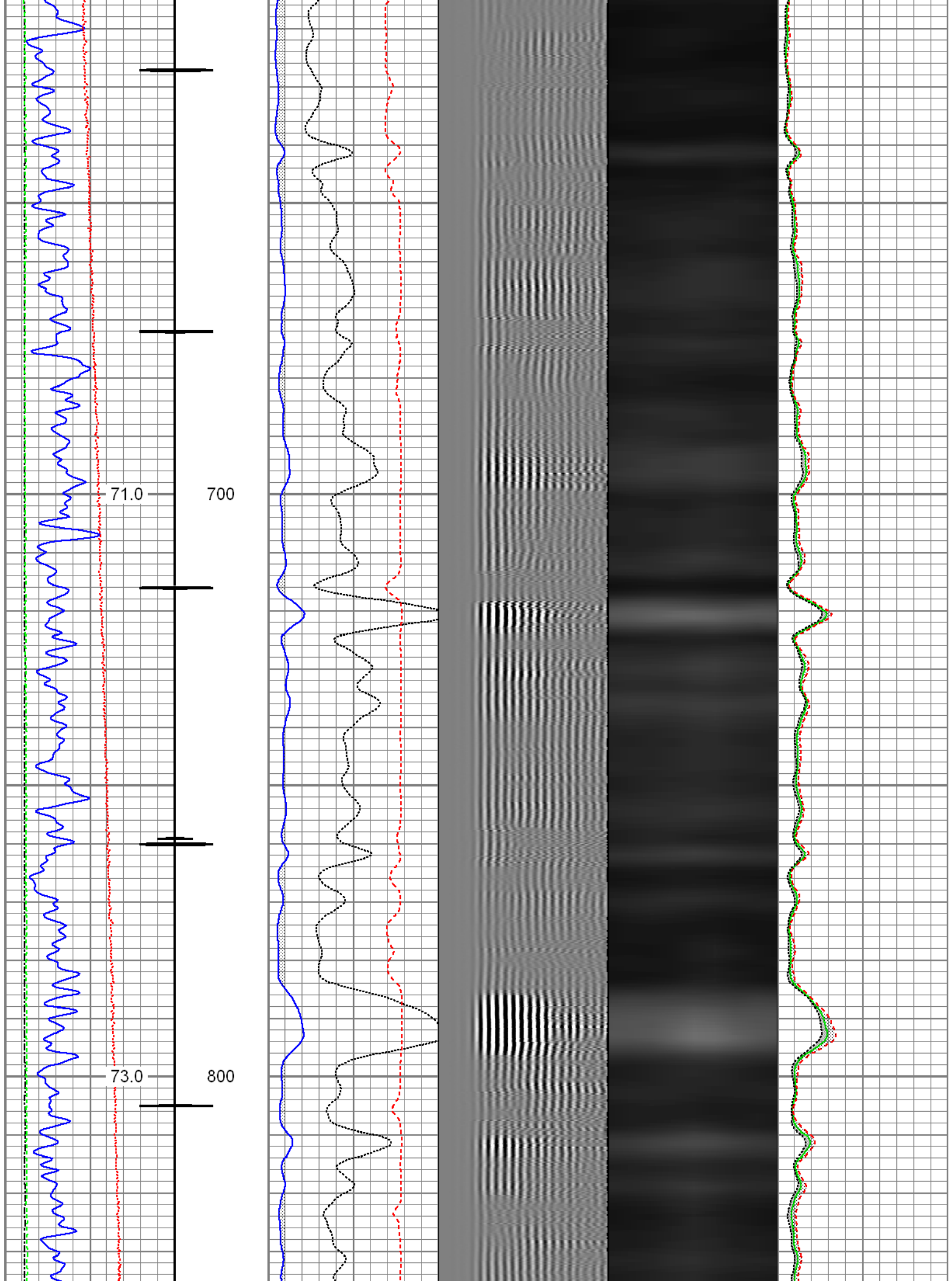
Recorded with 2800 PSI Surface Induced Pressure

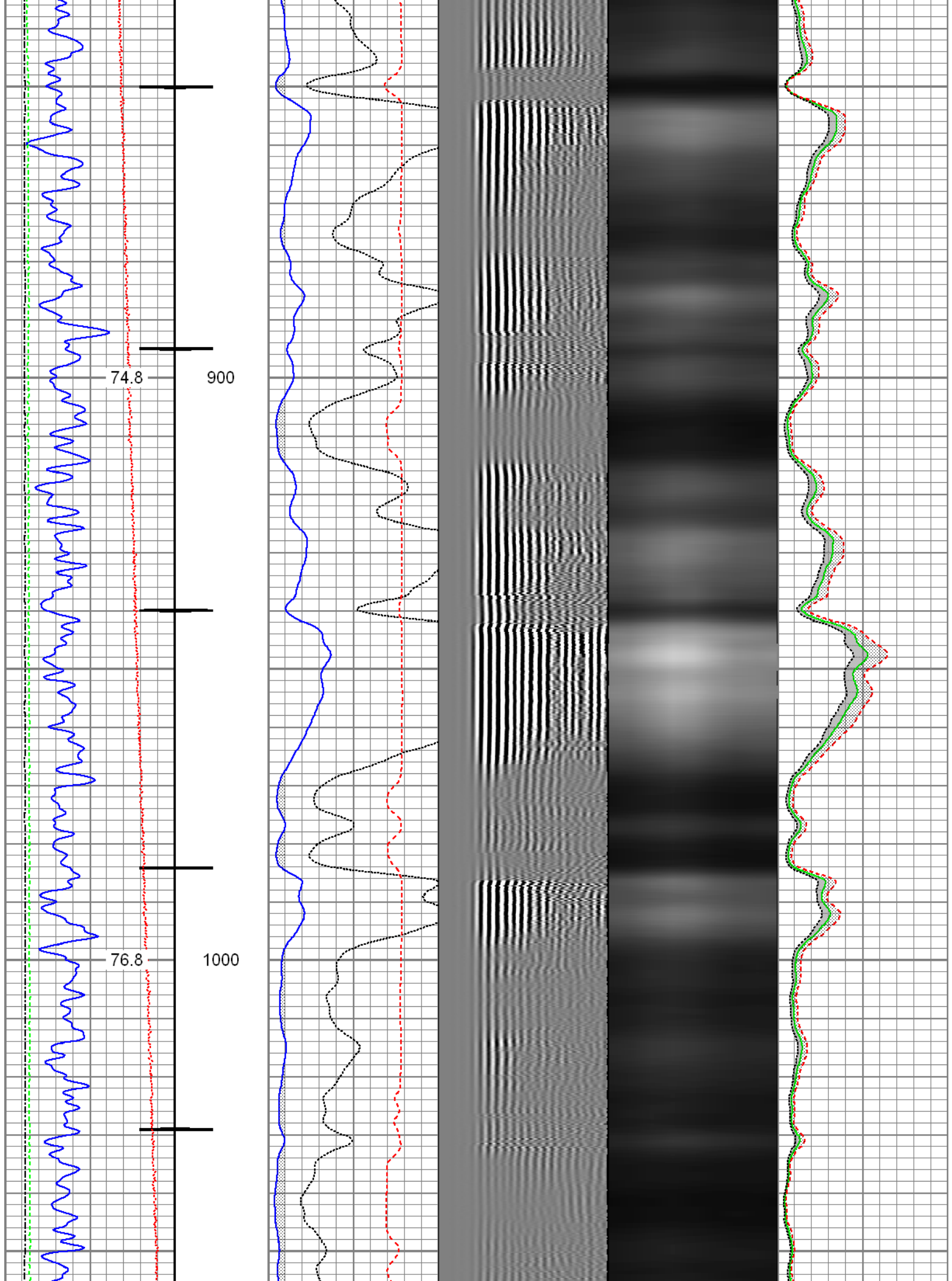
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Minimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150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

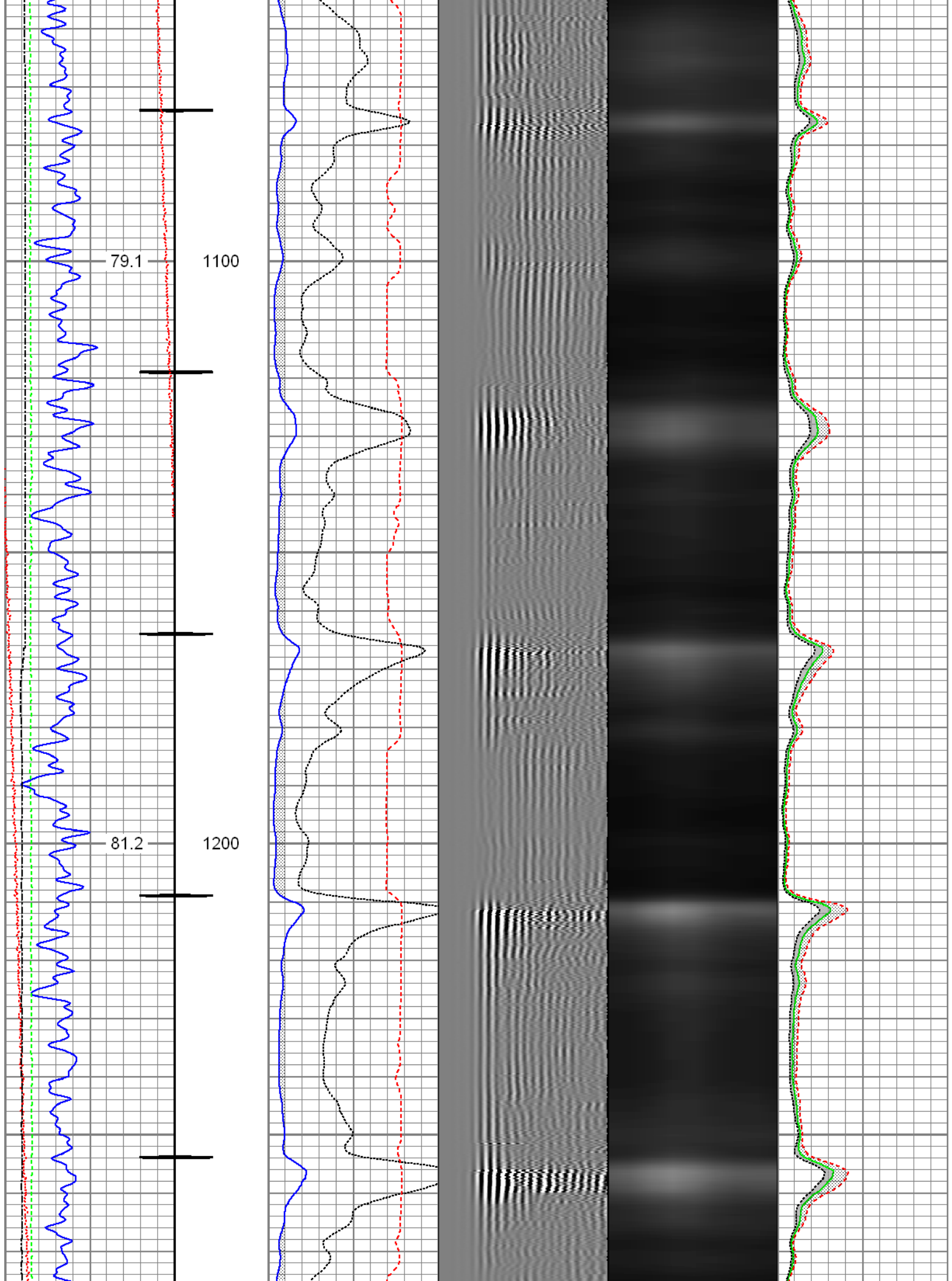


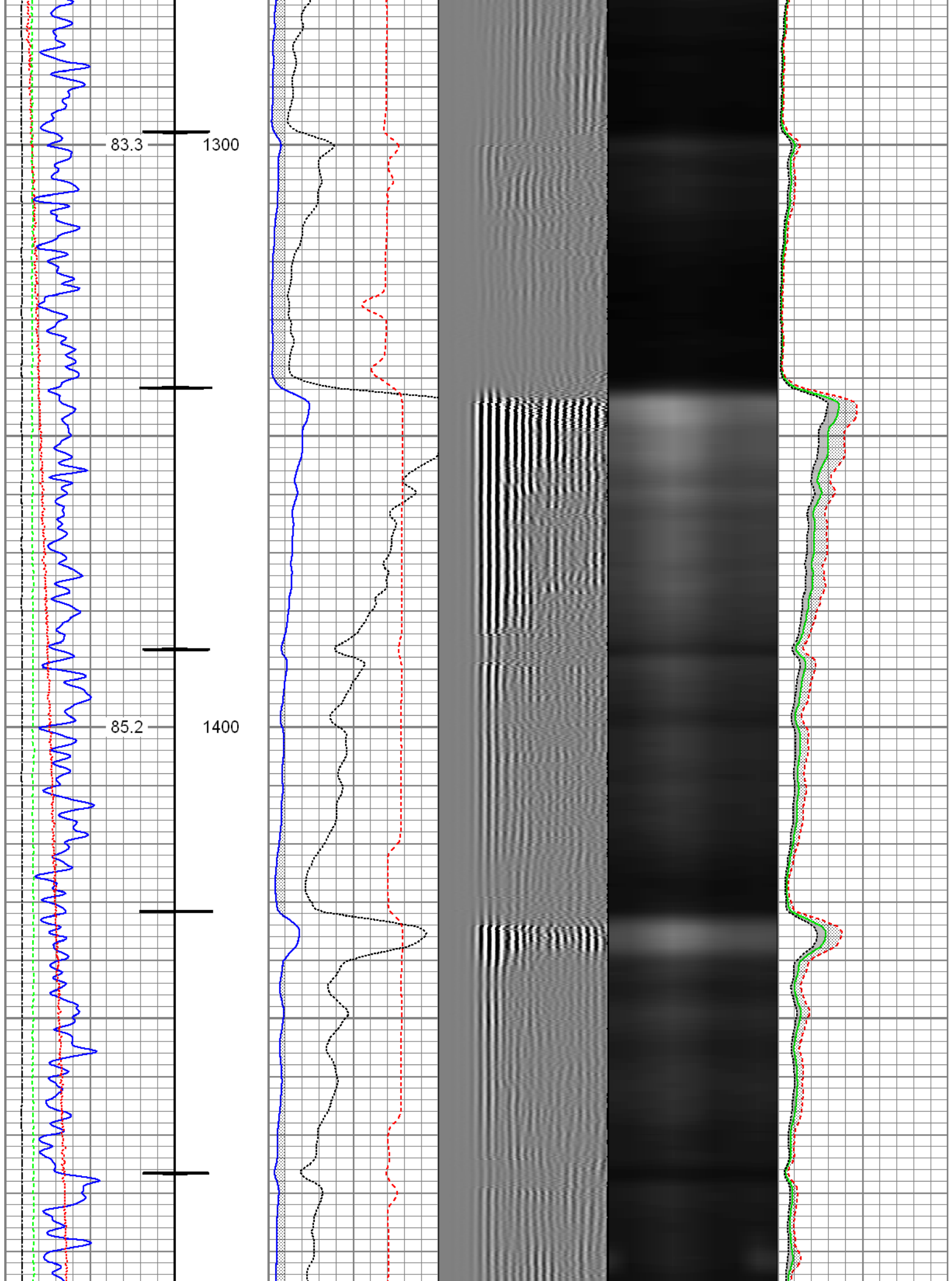


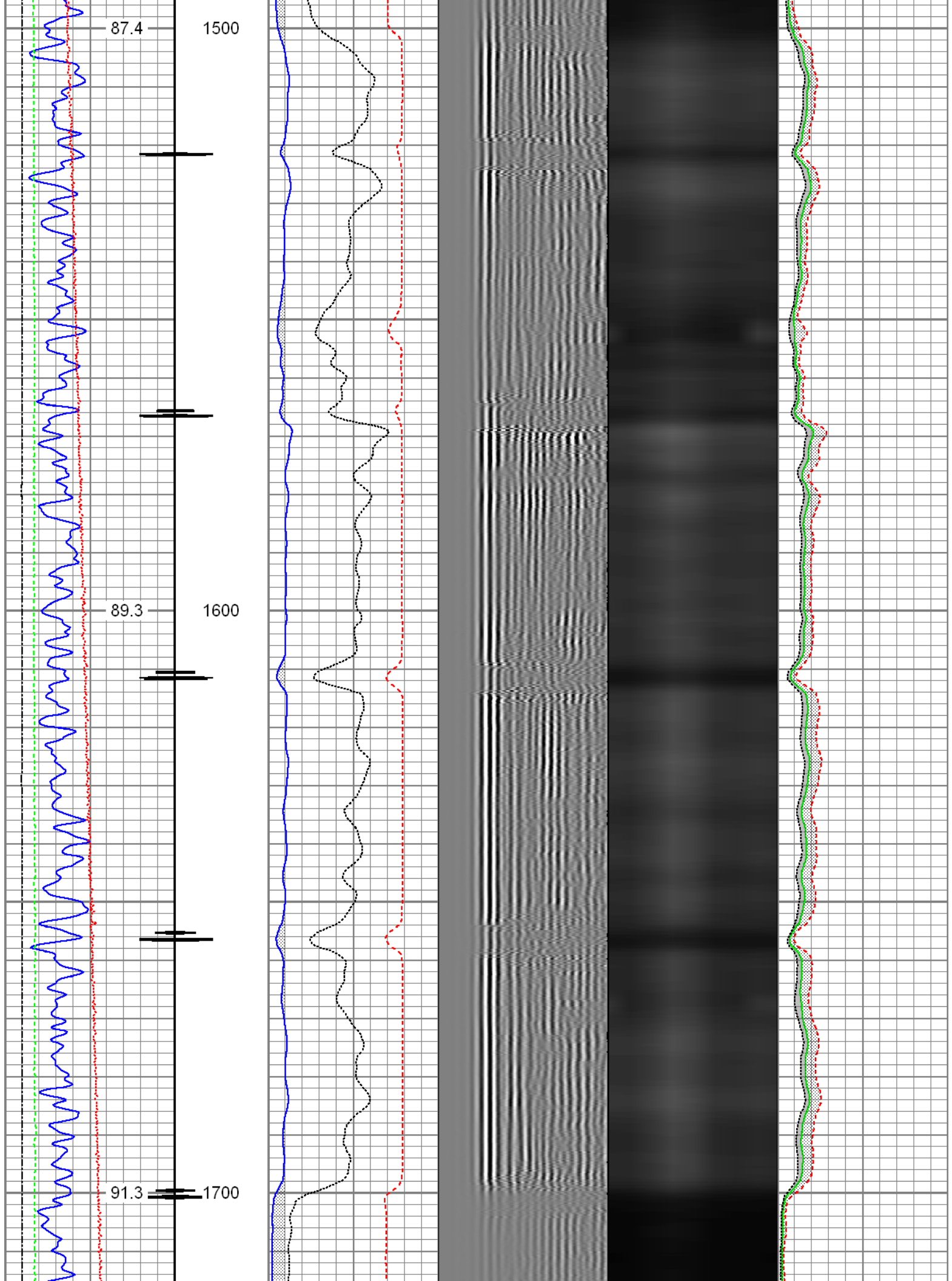


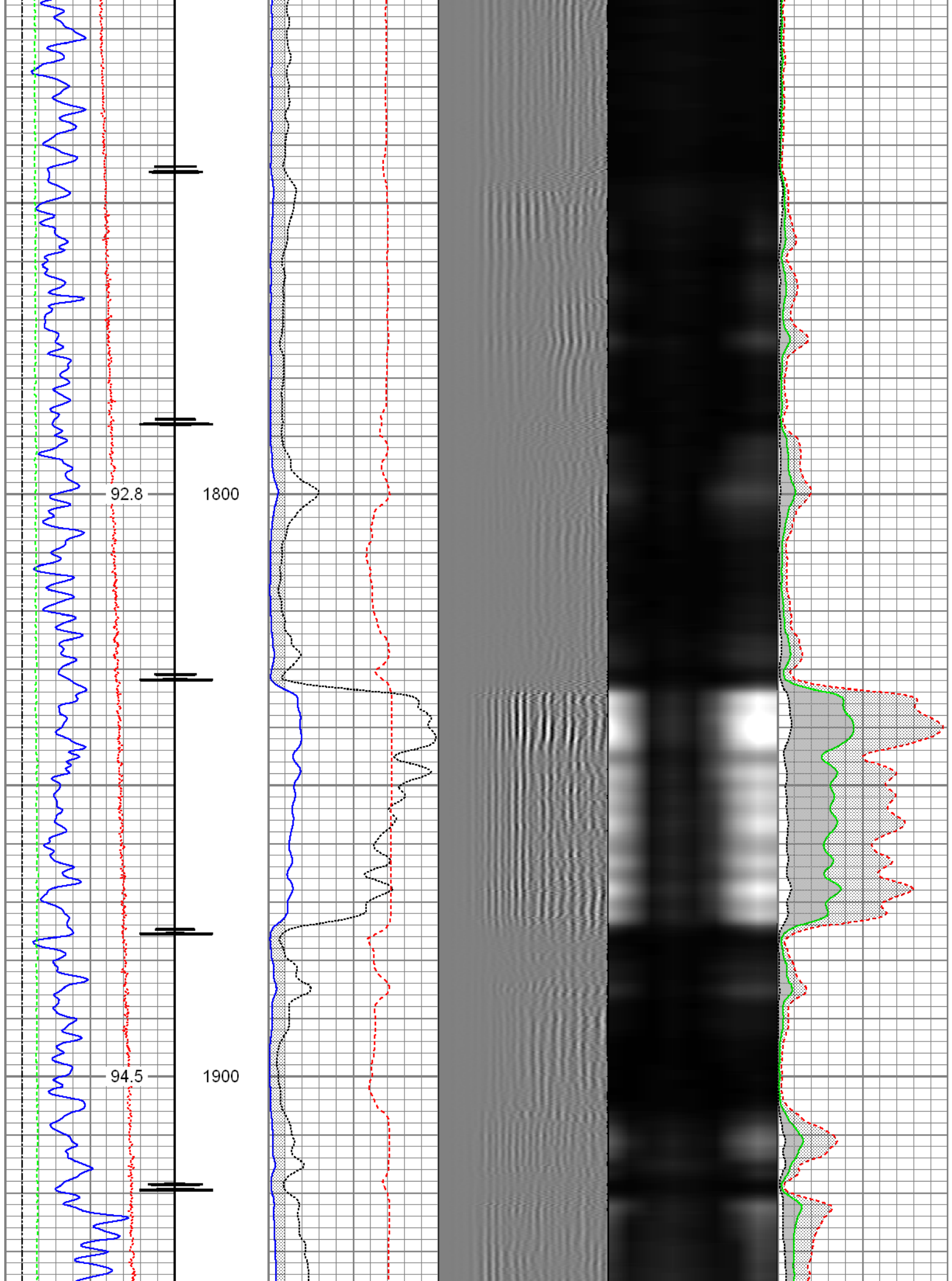


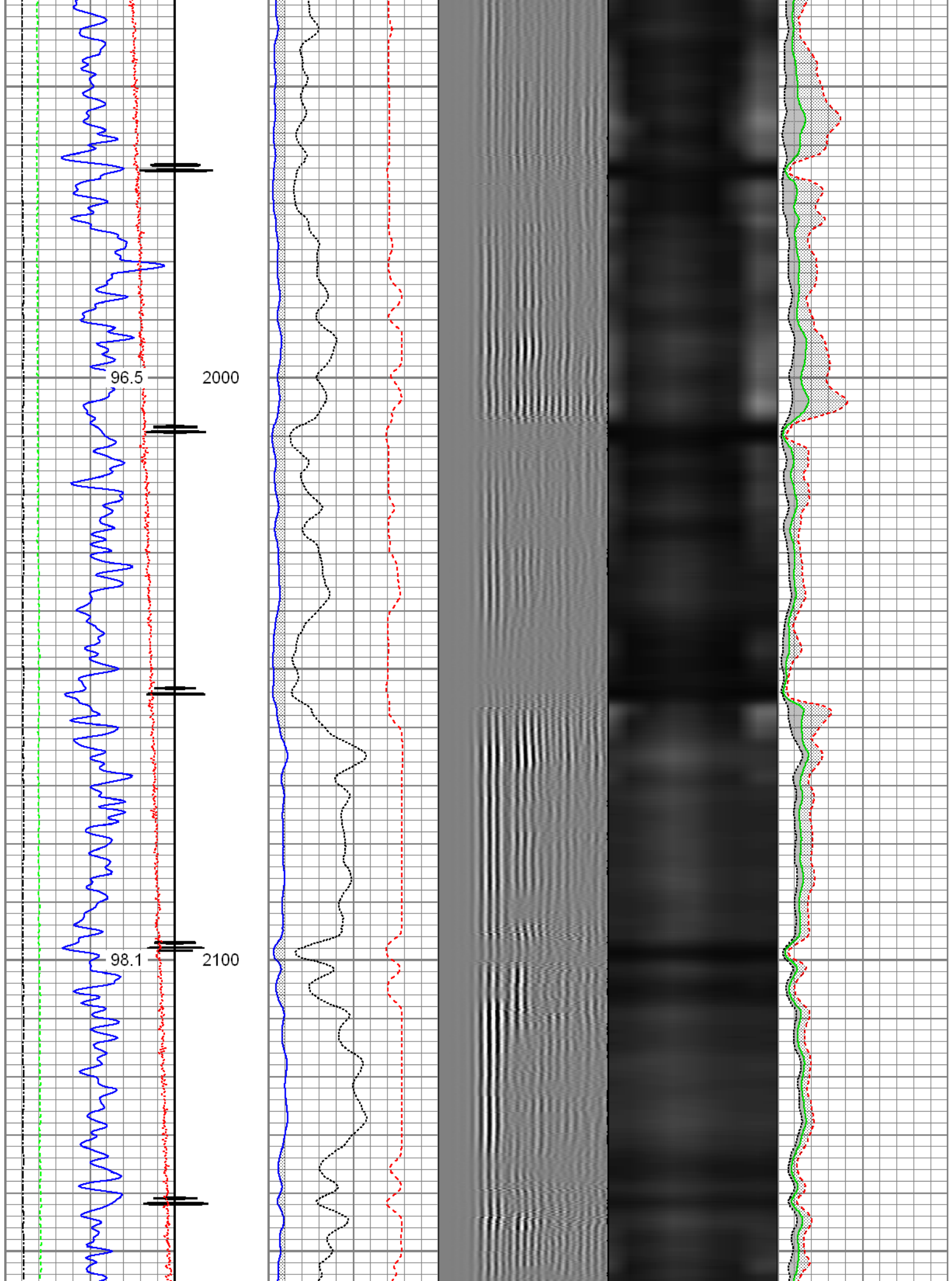


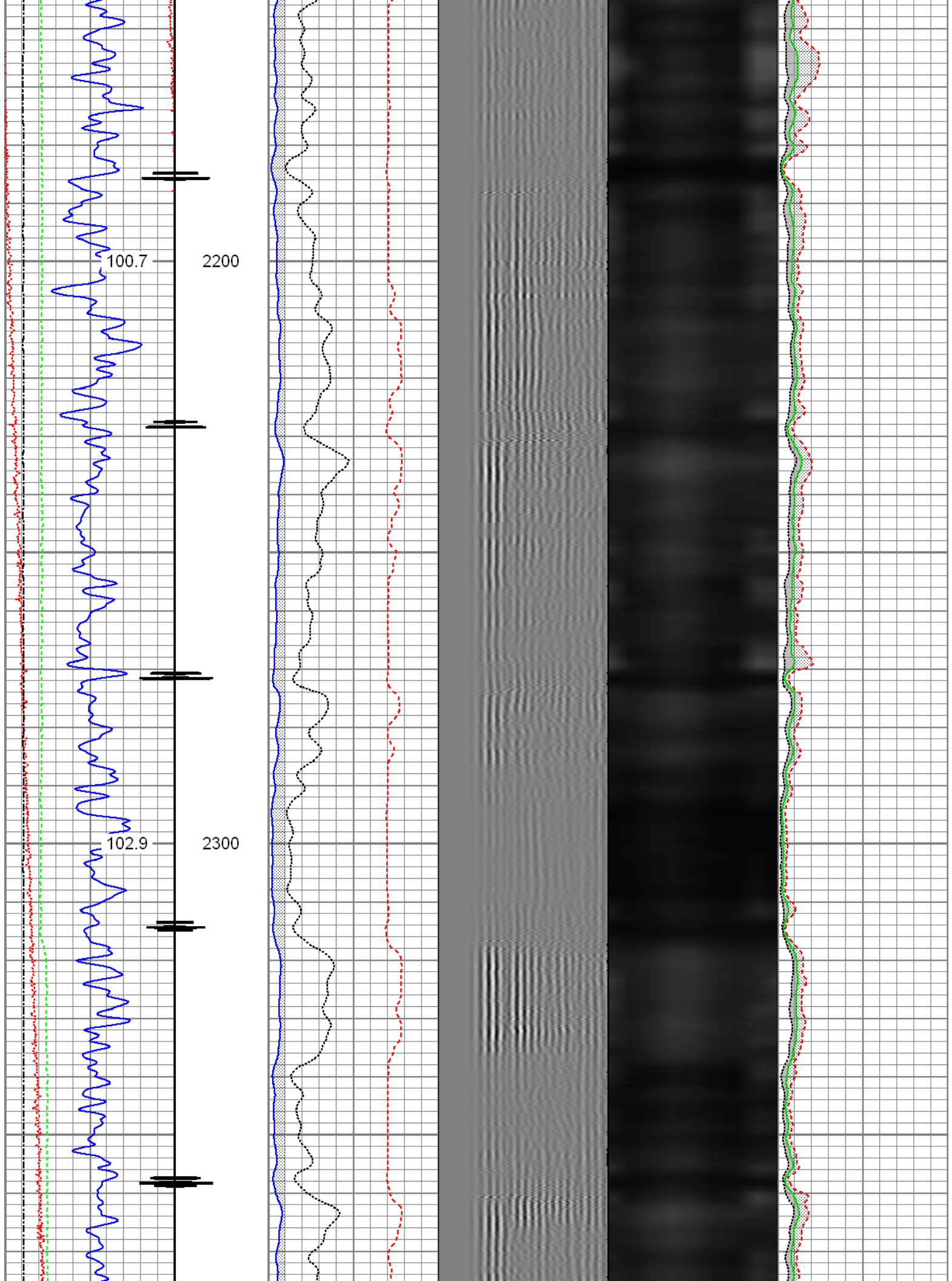


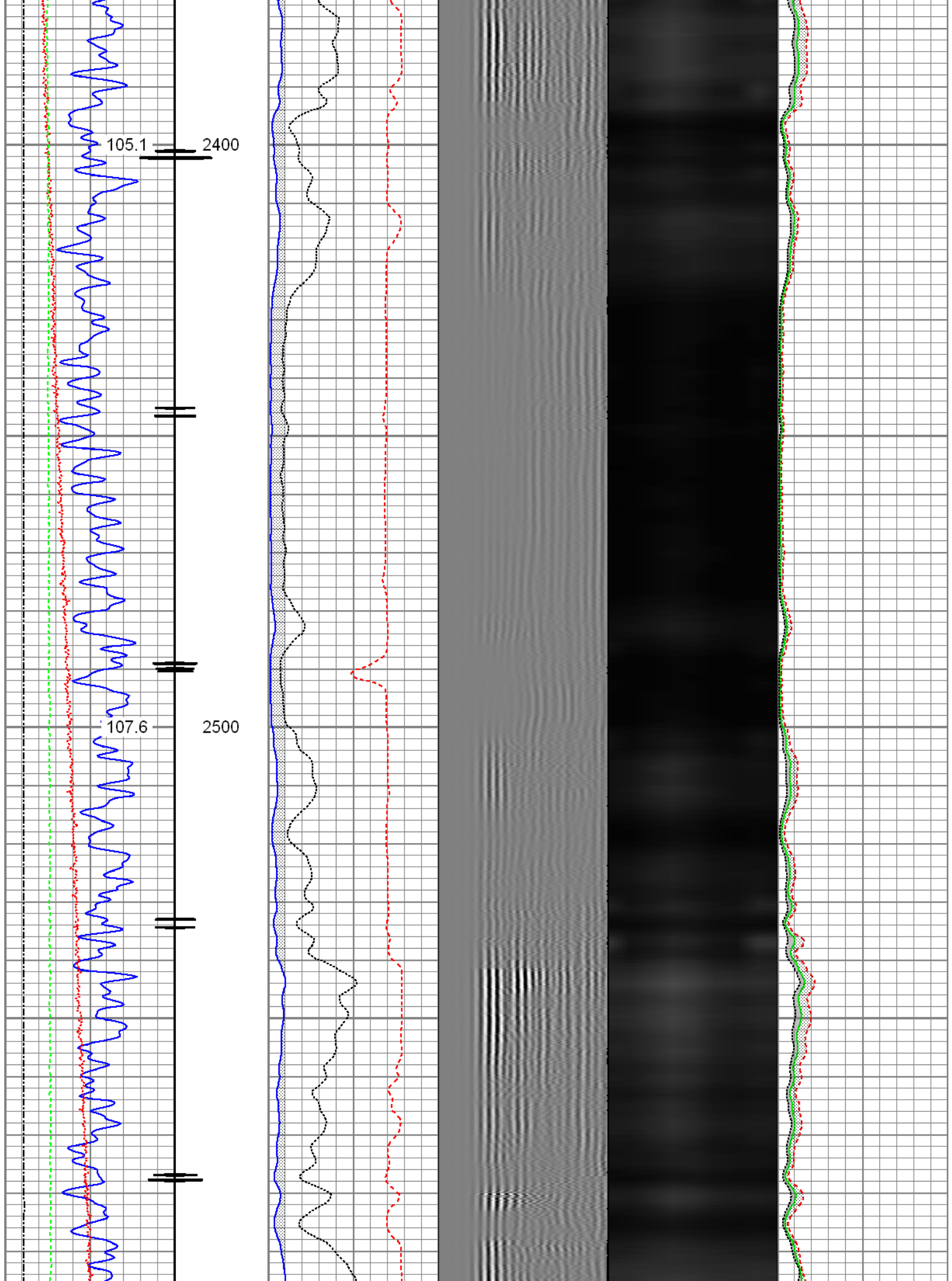


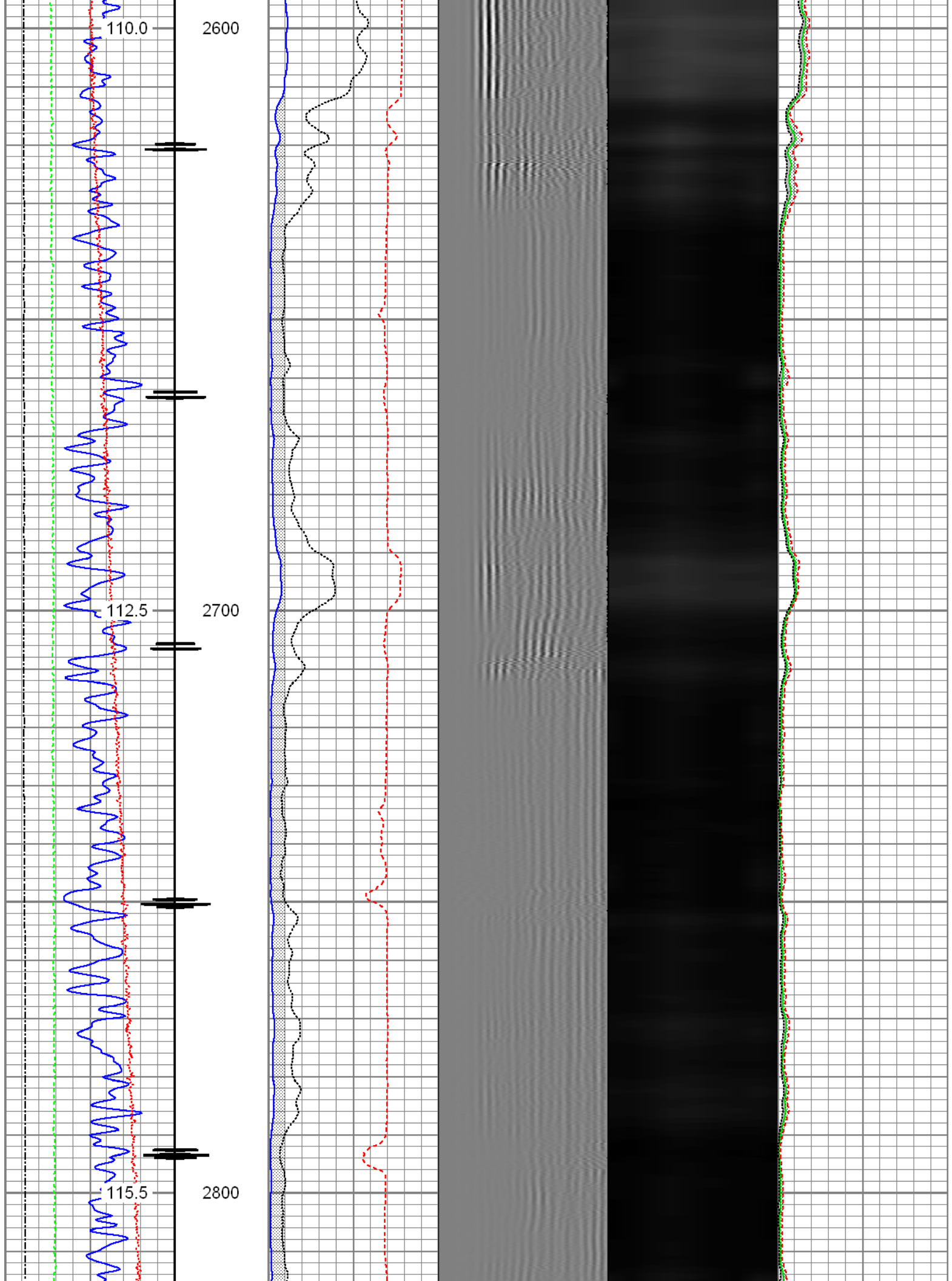


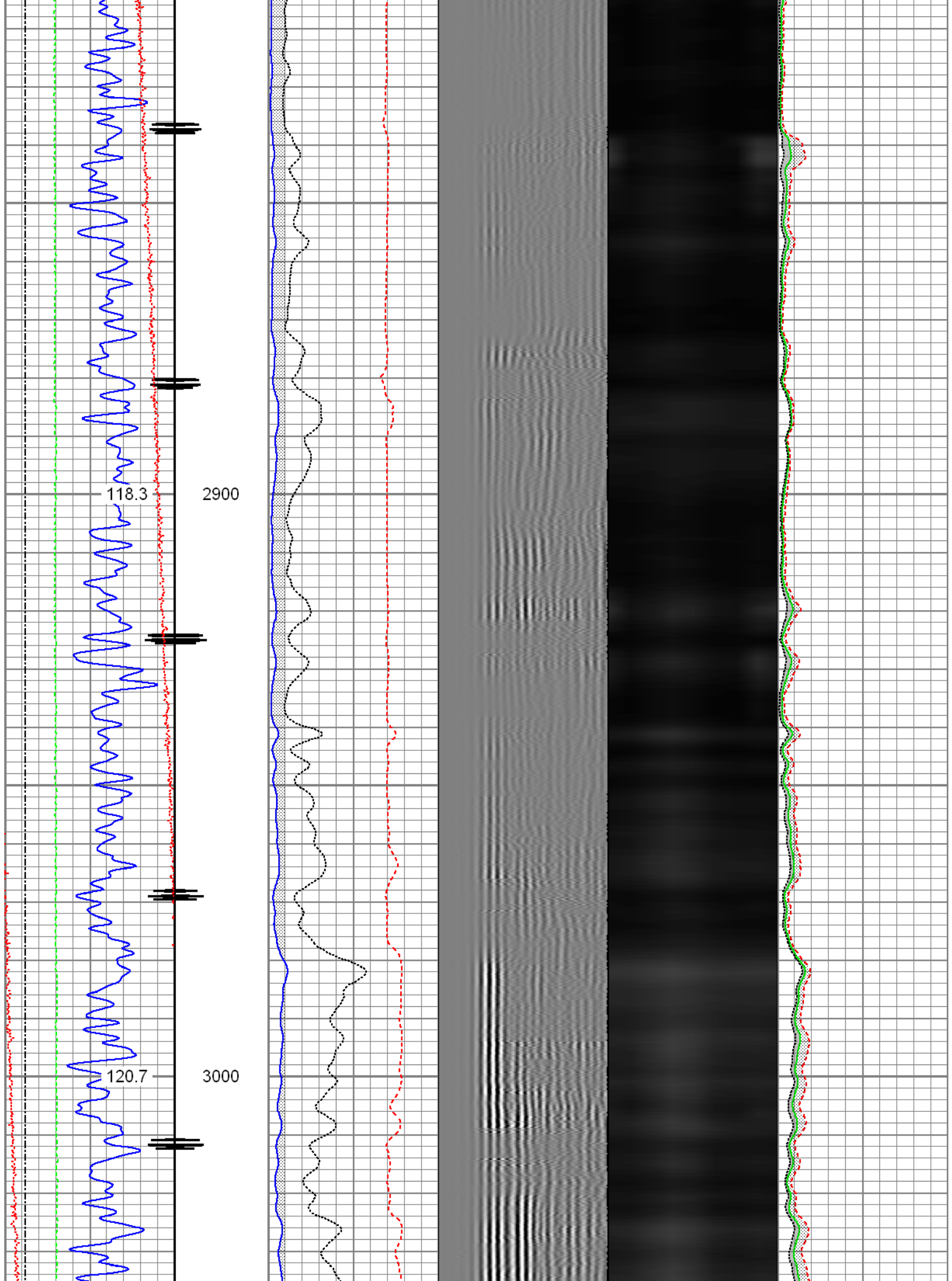


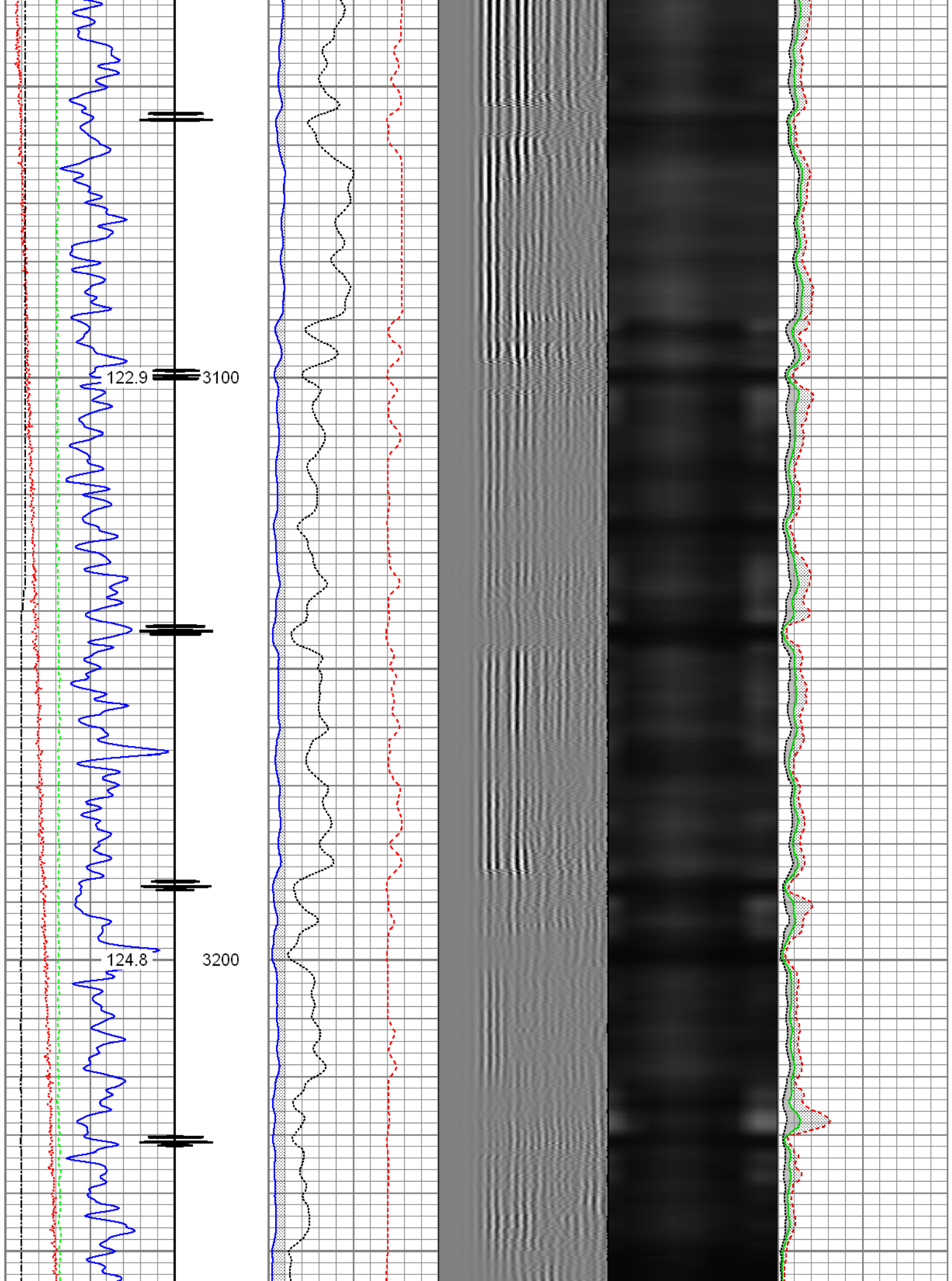


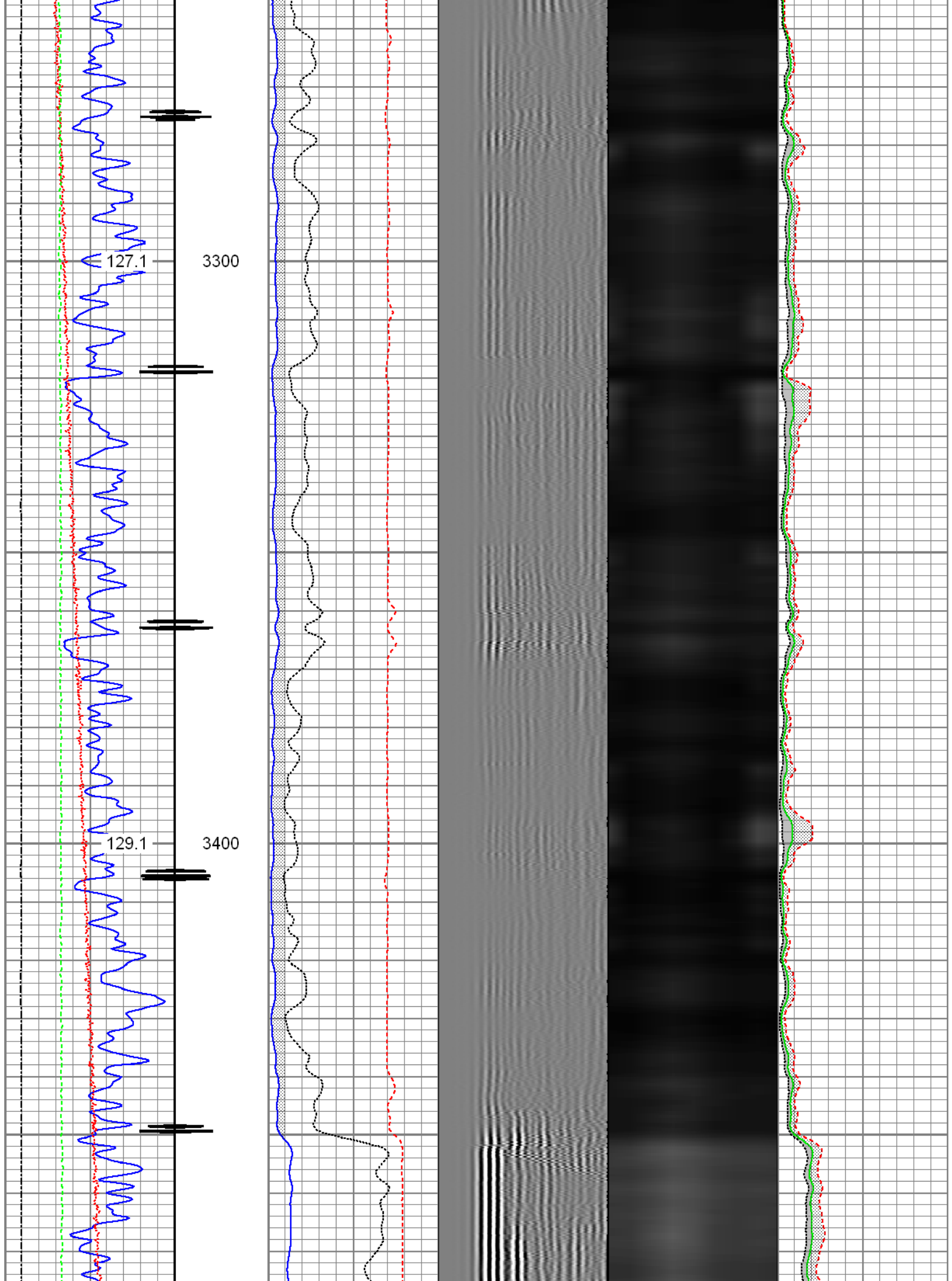


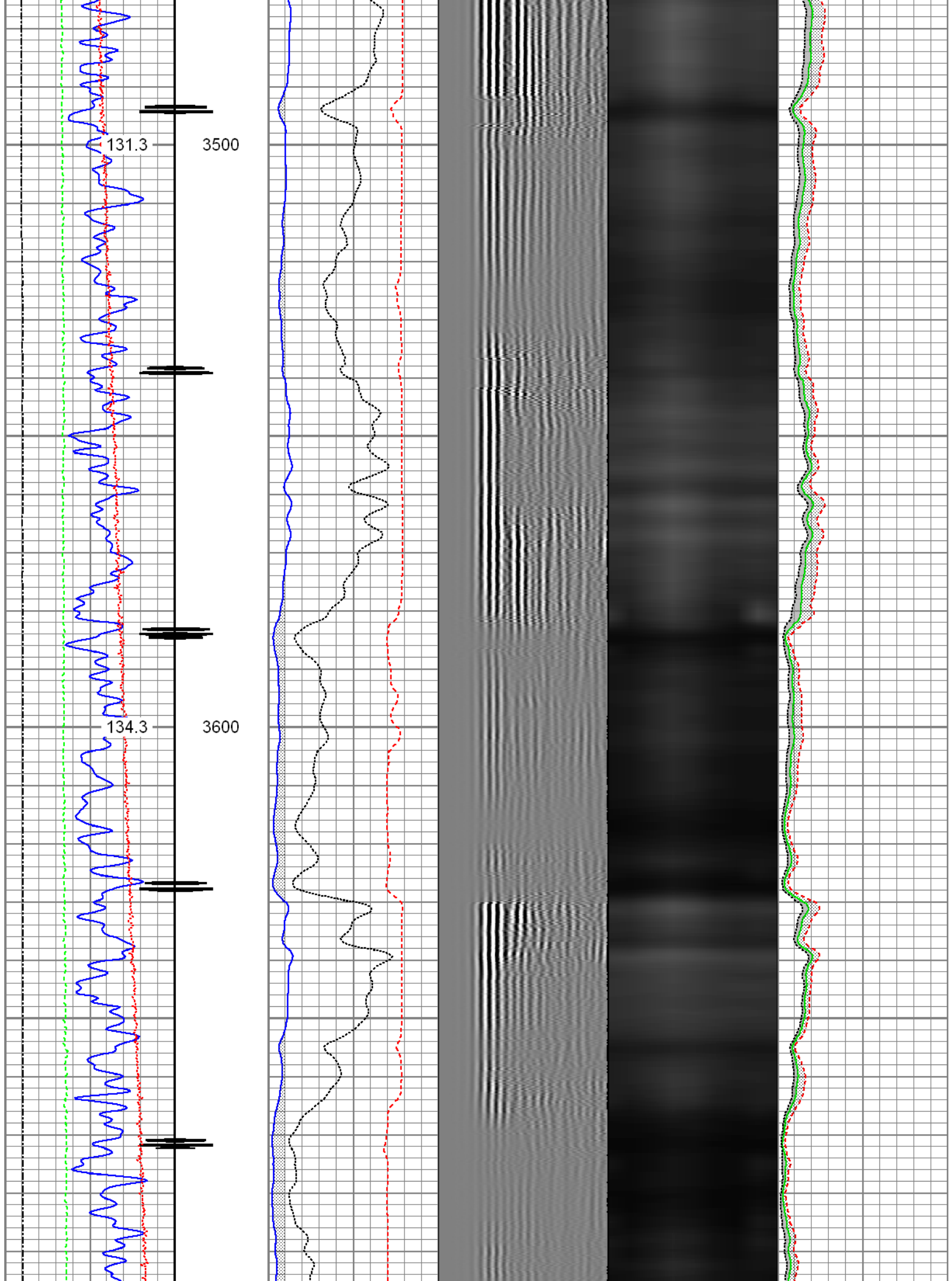


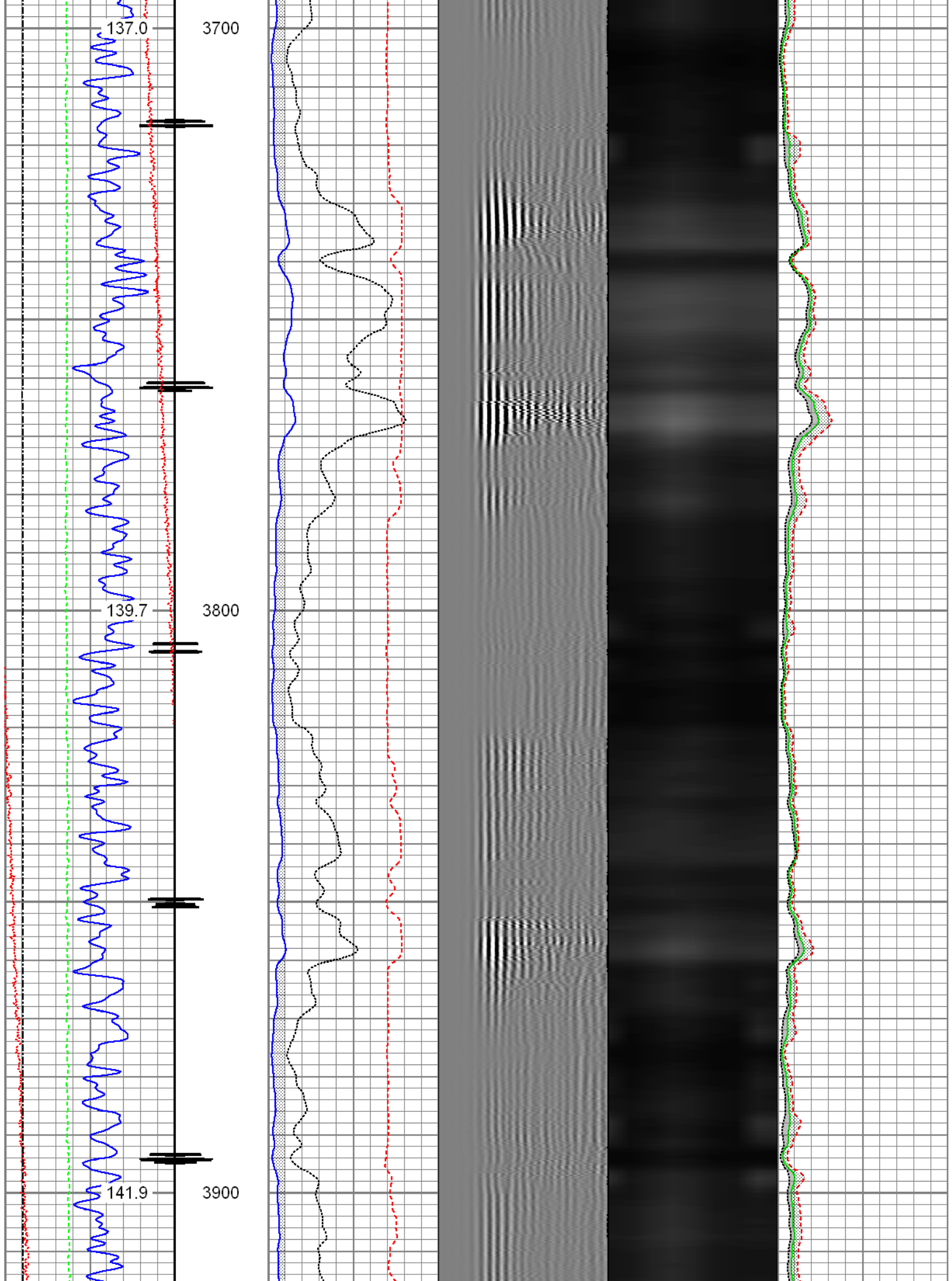


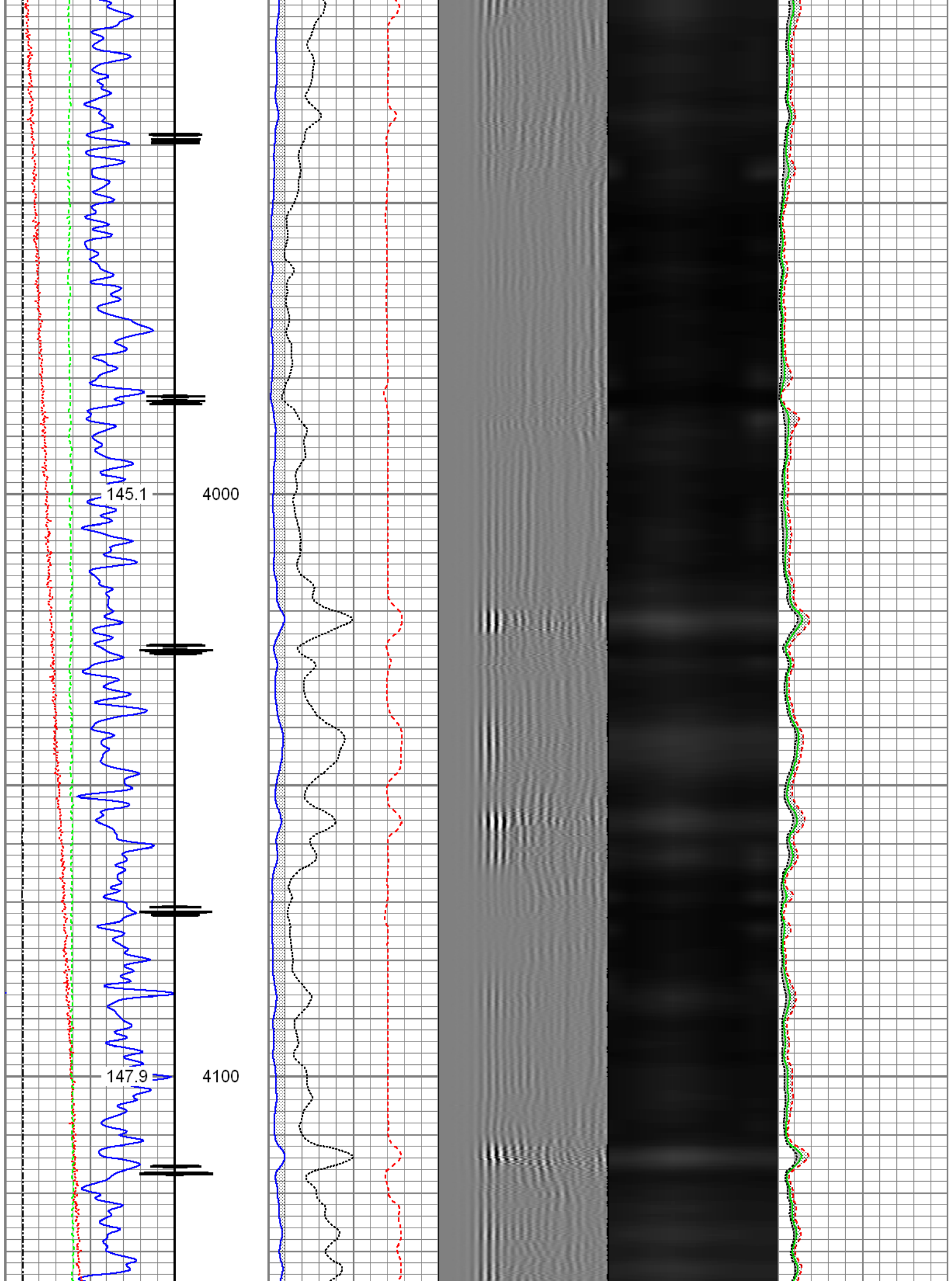


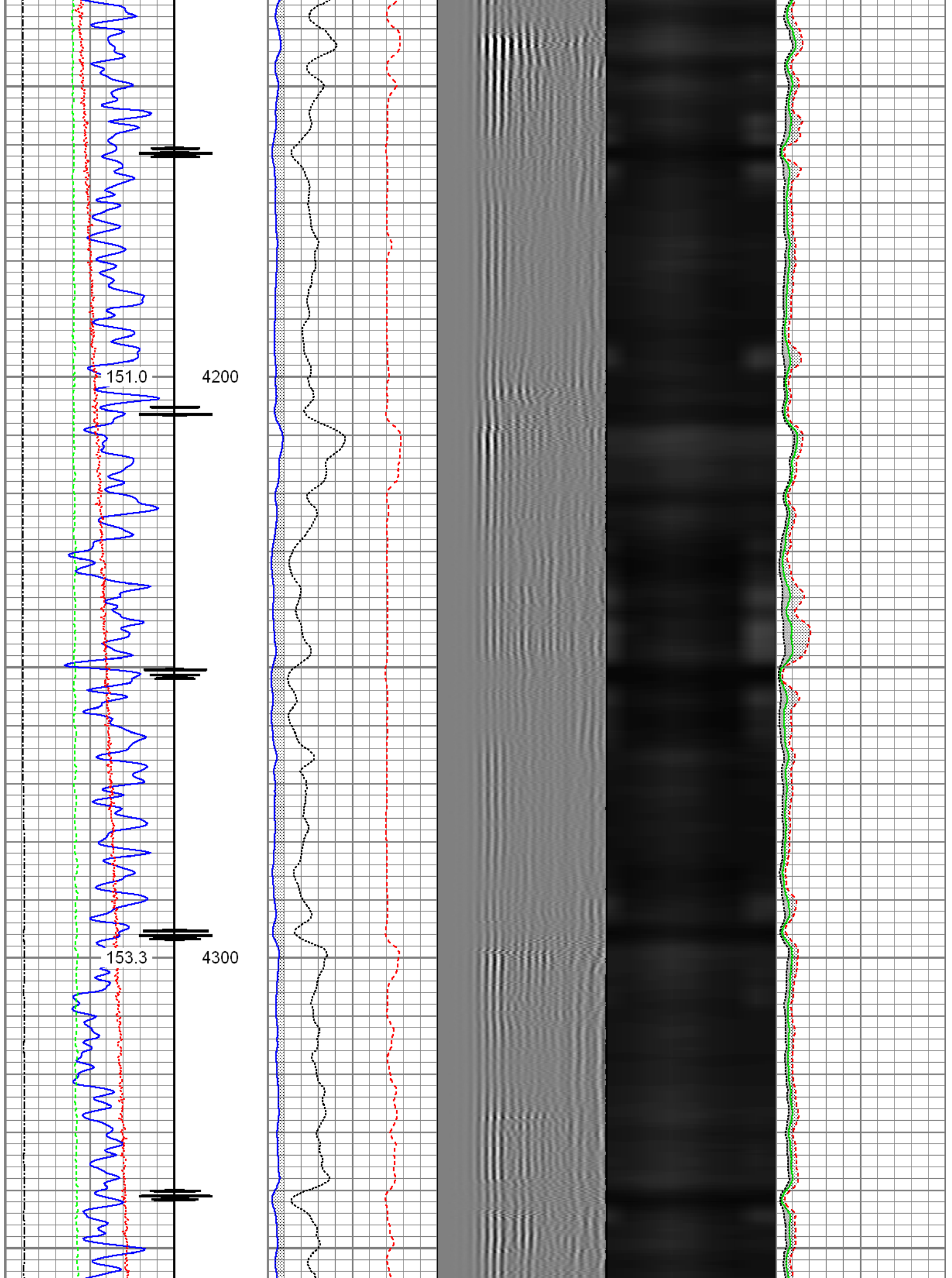


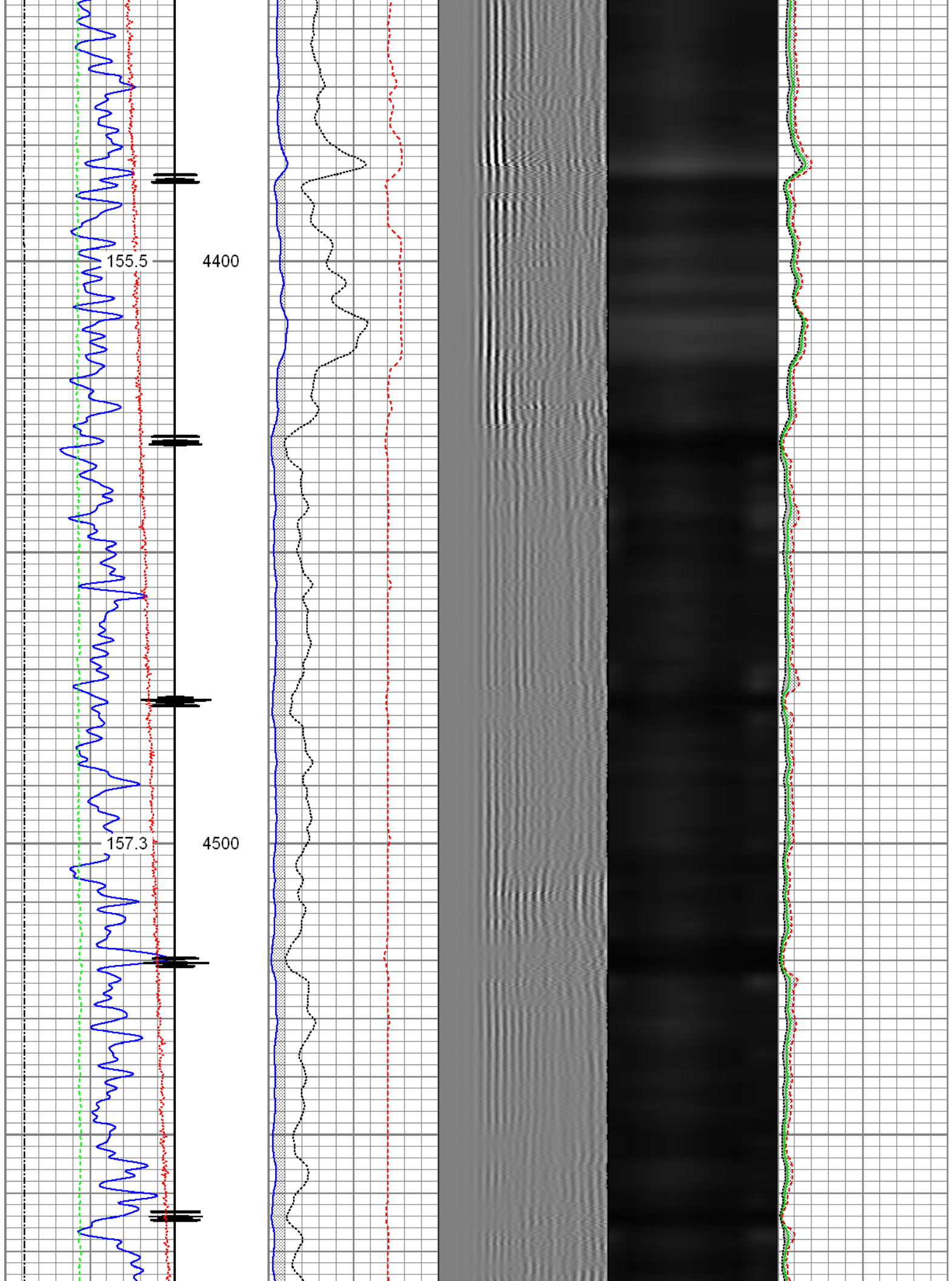


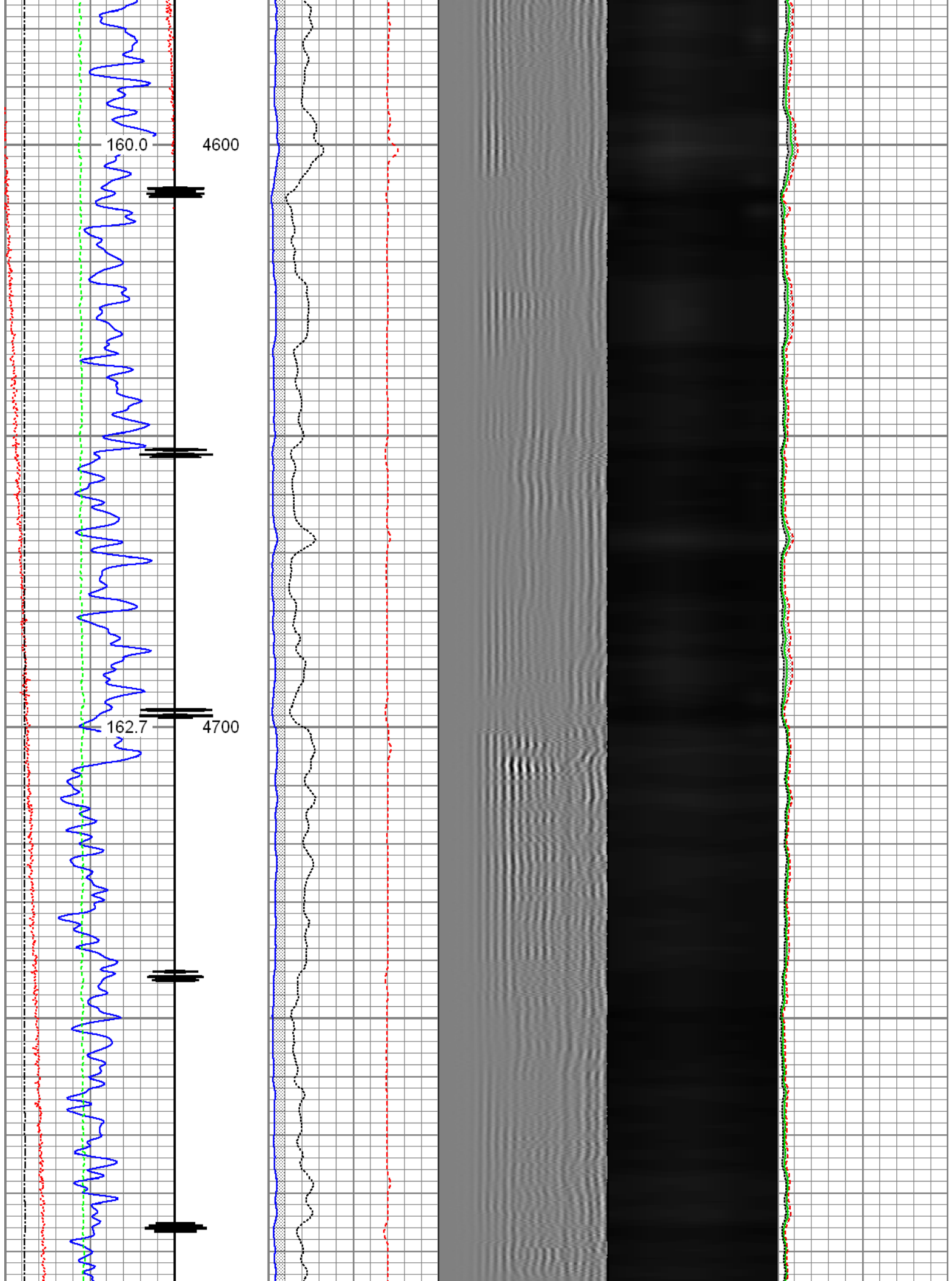


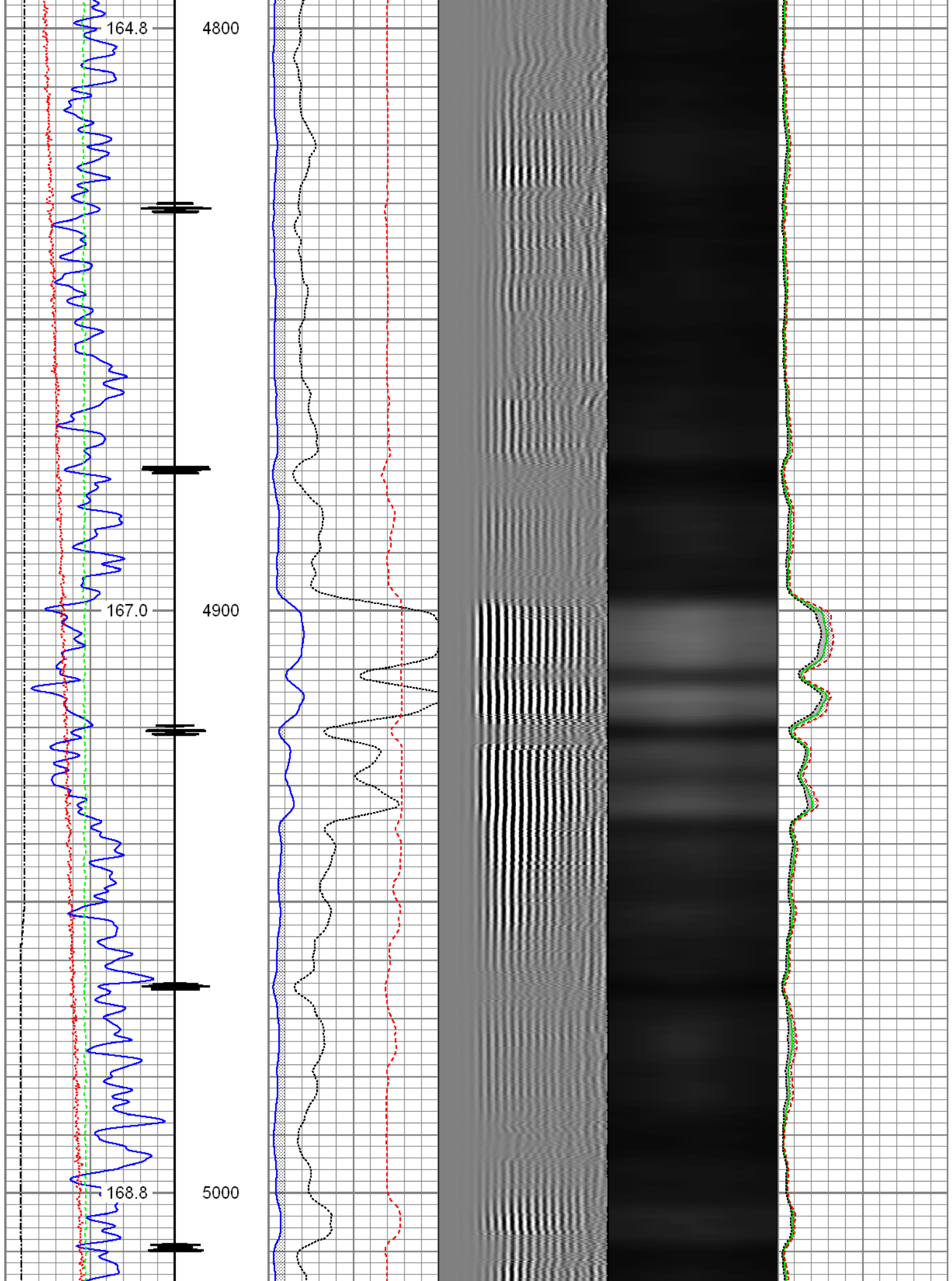


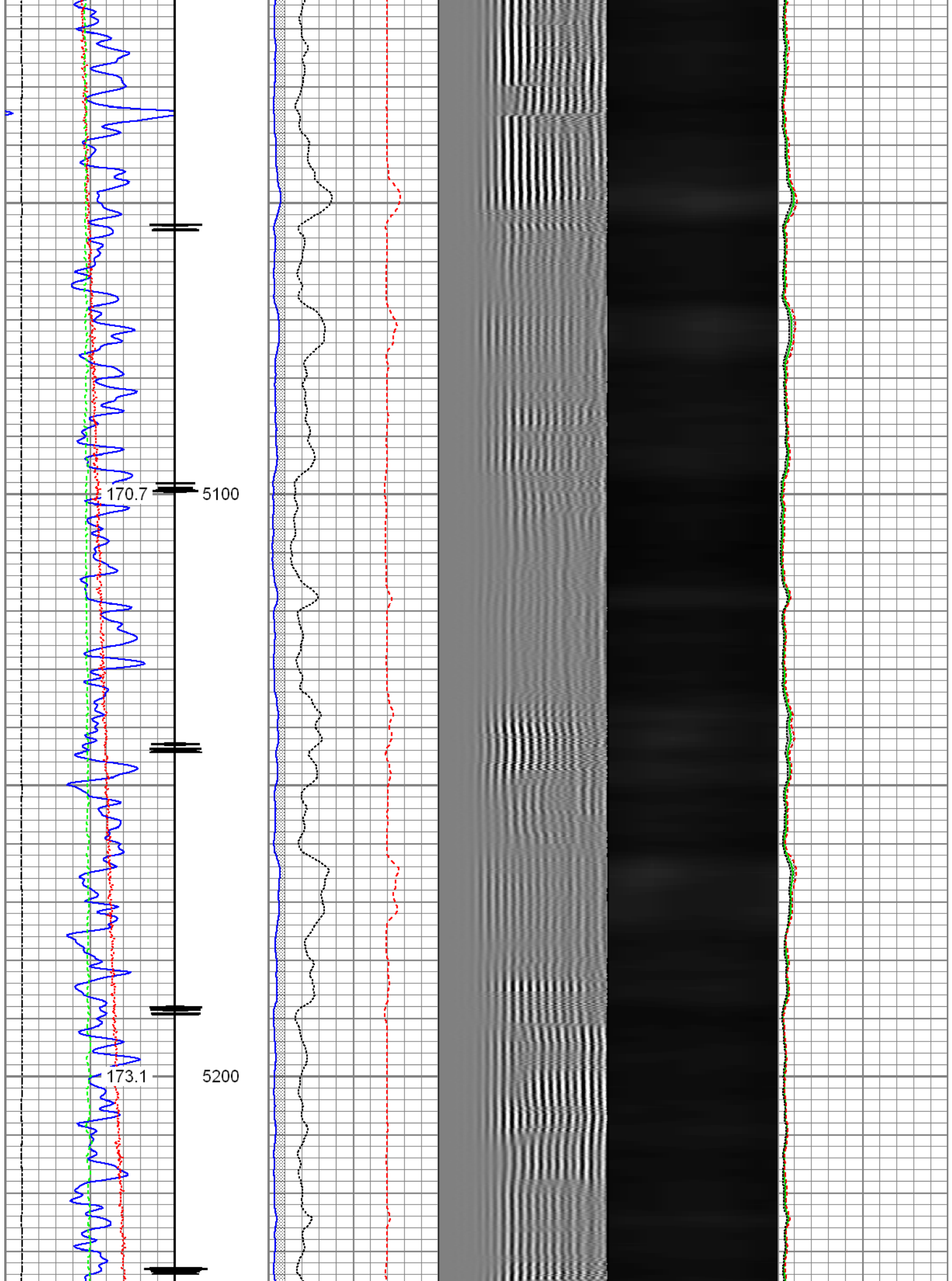


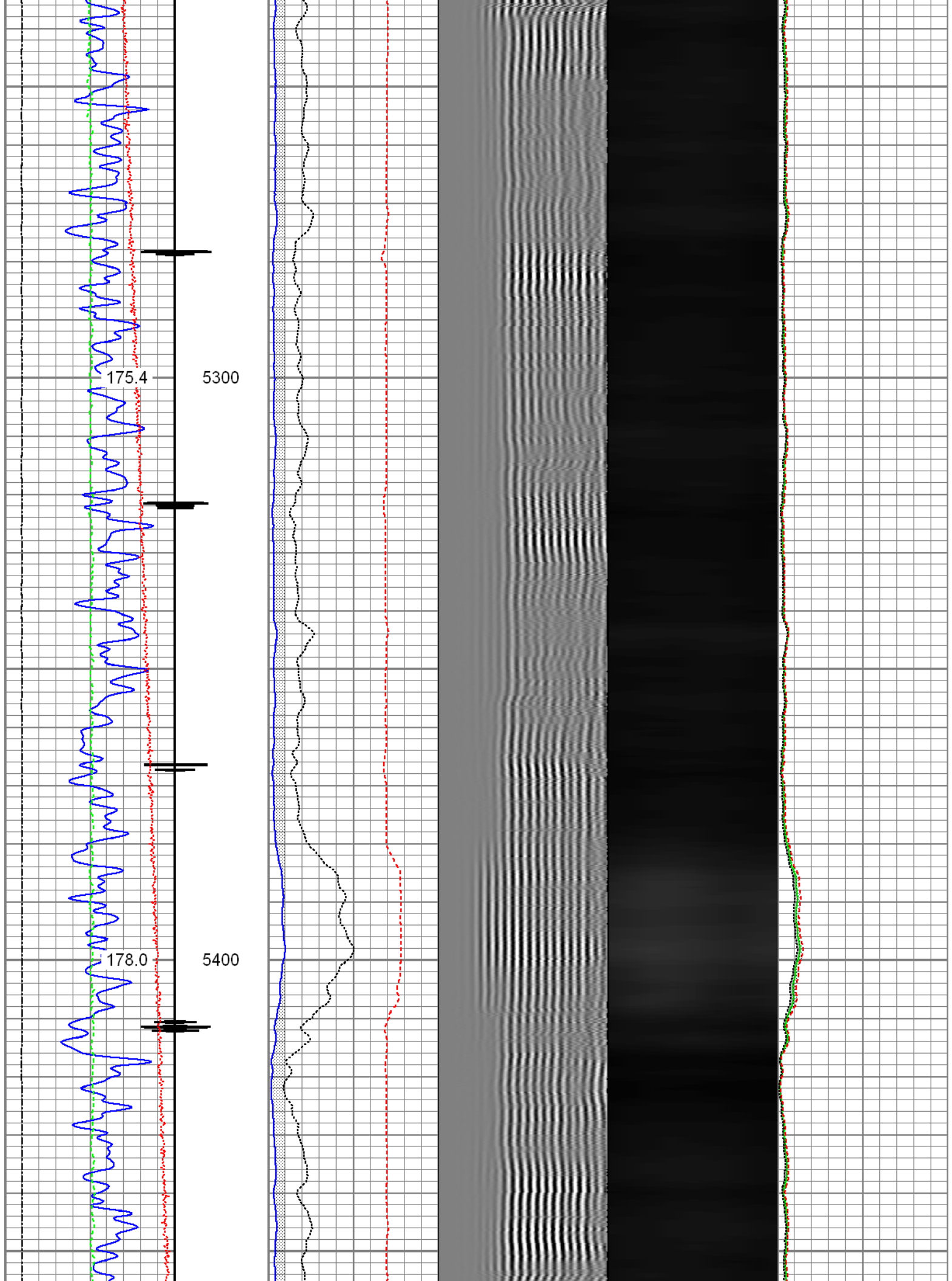


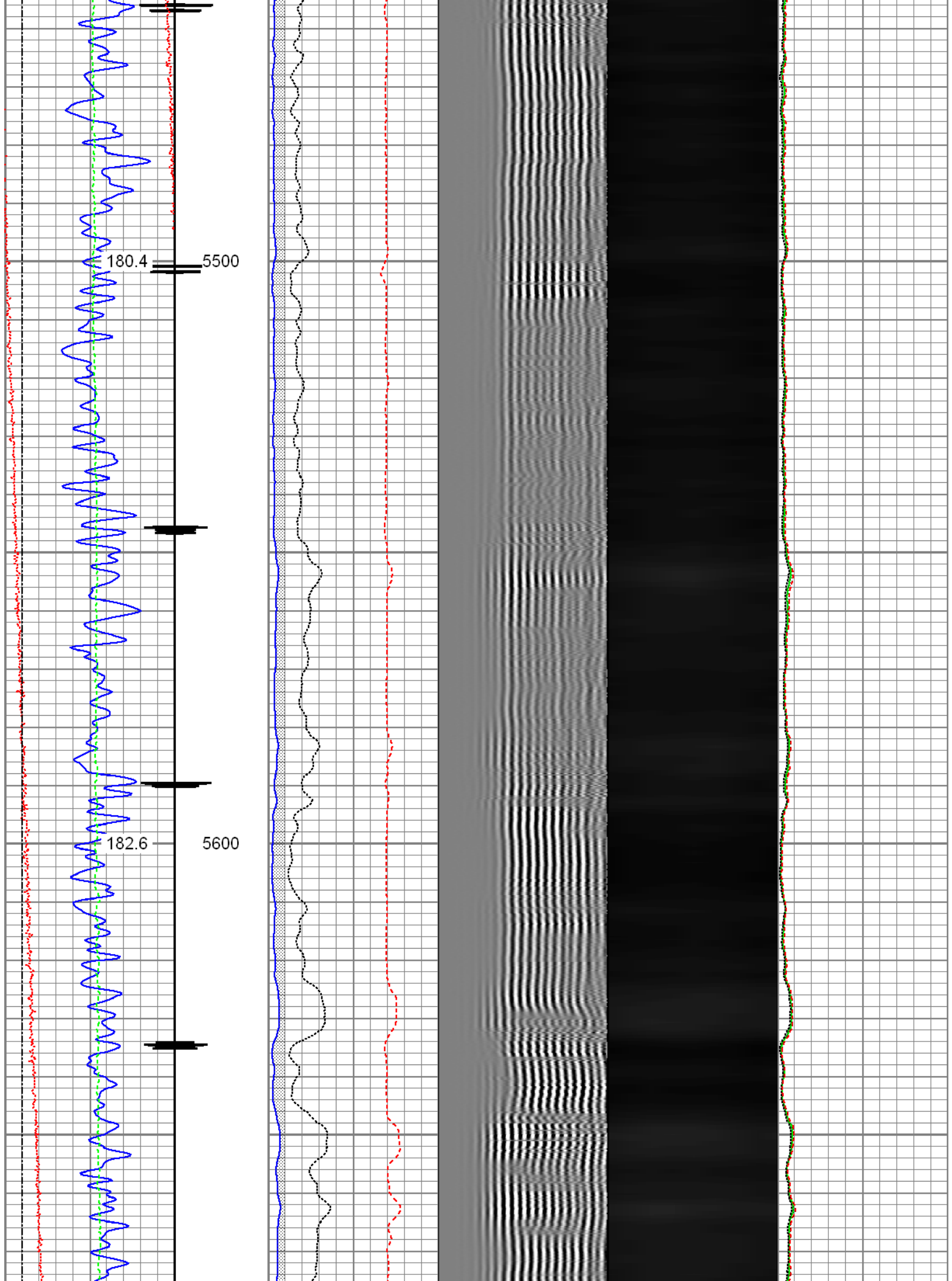


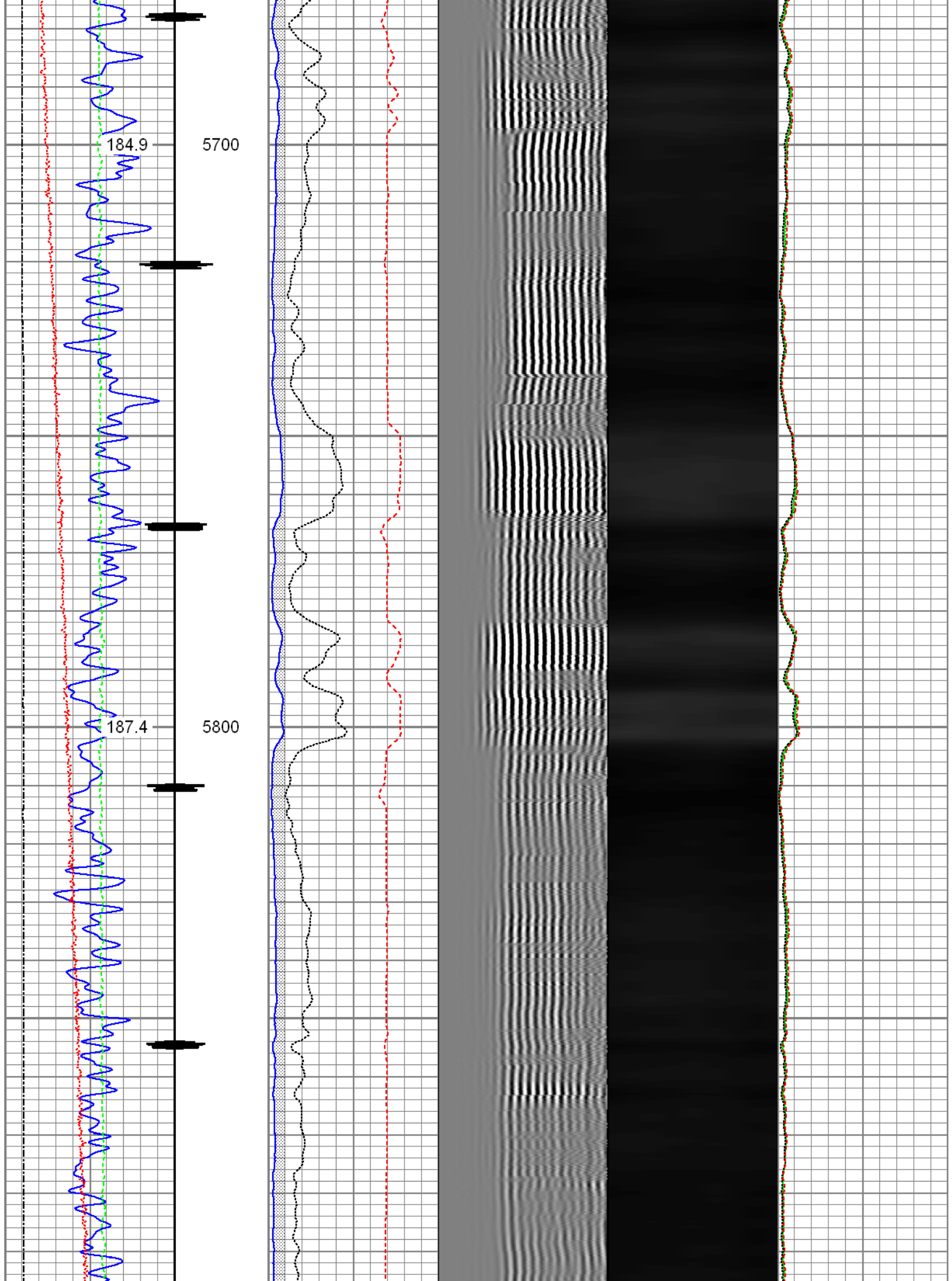


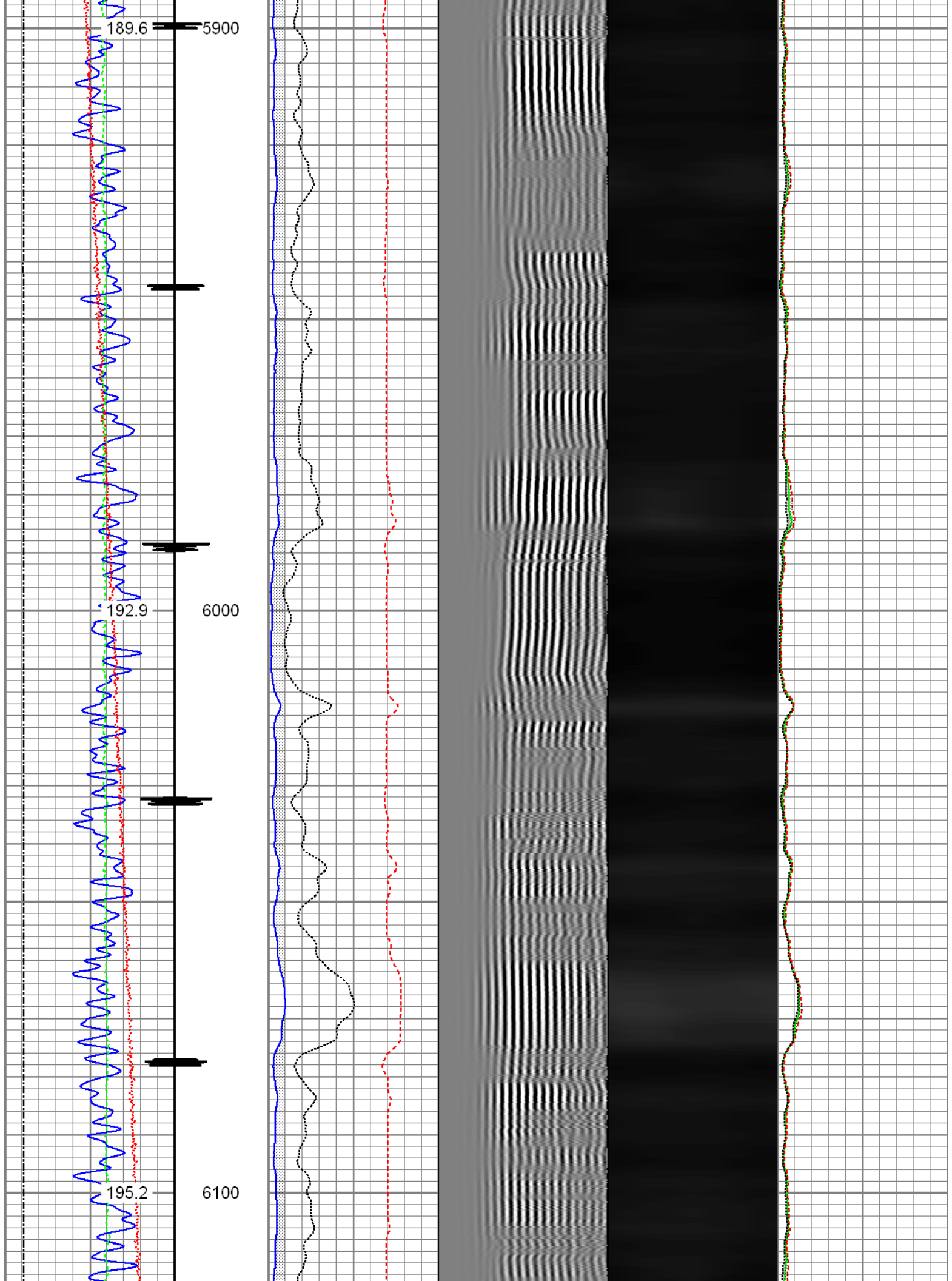


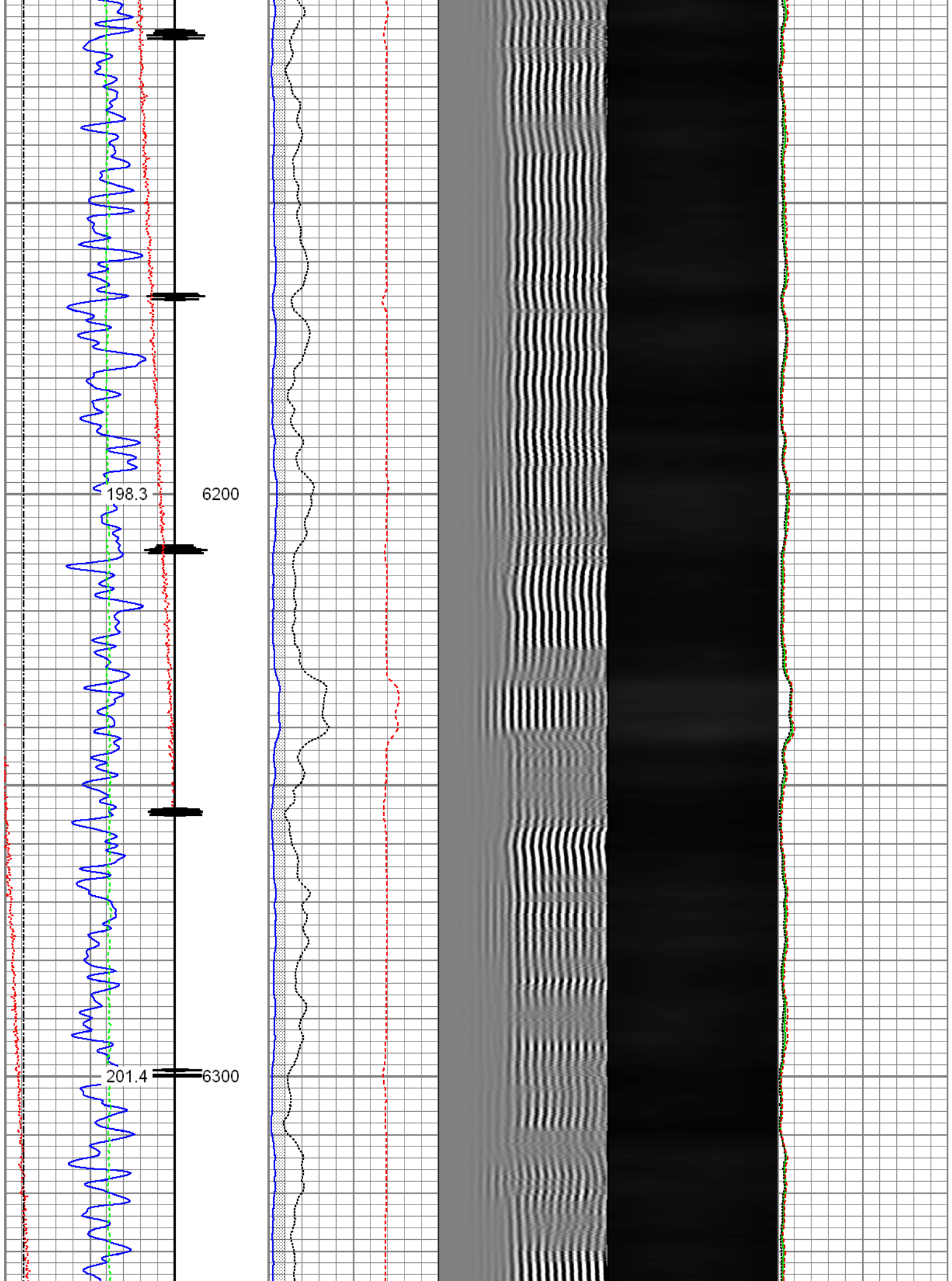


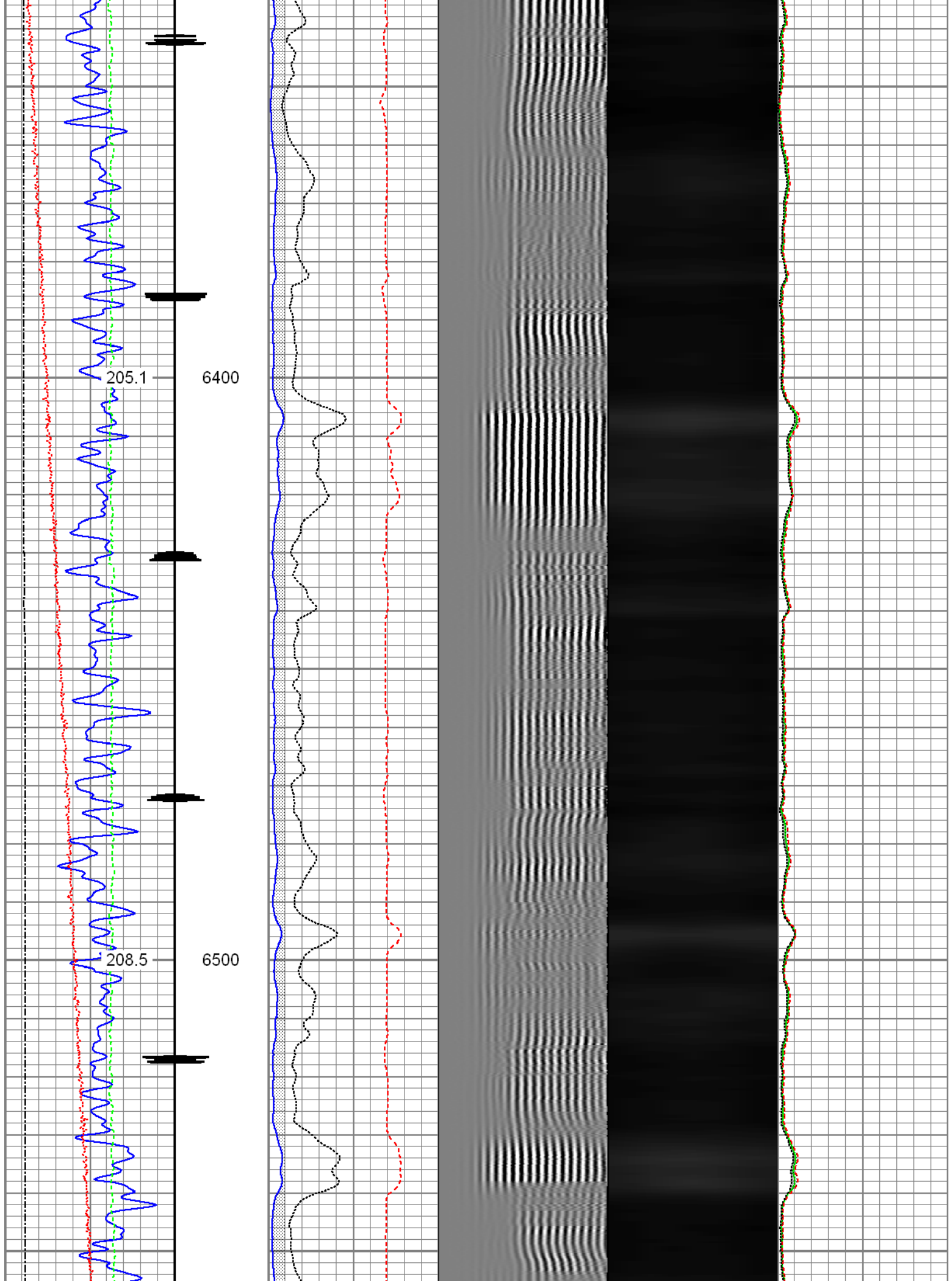


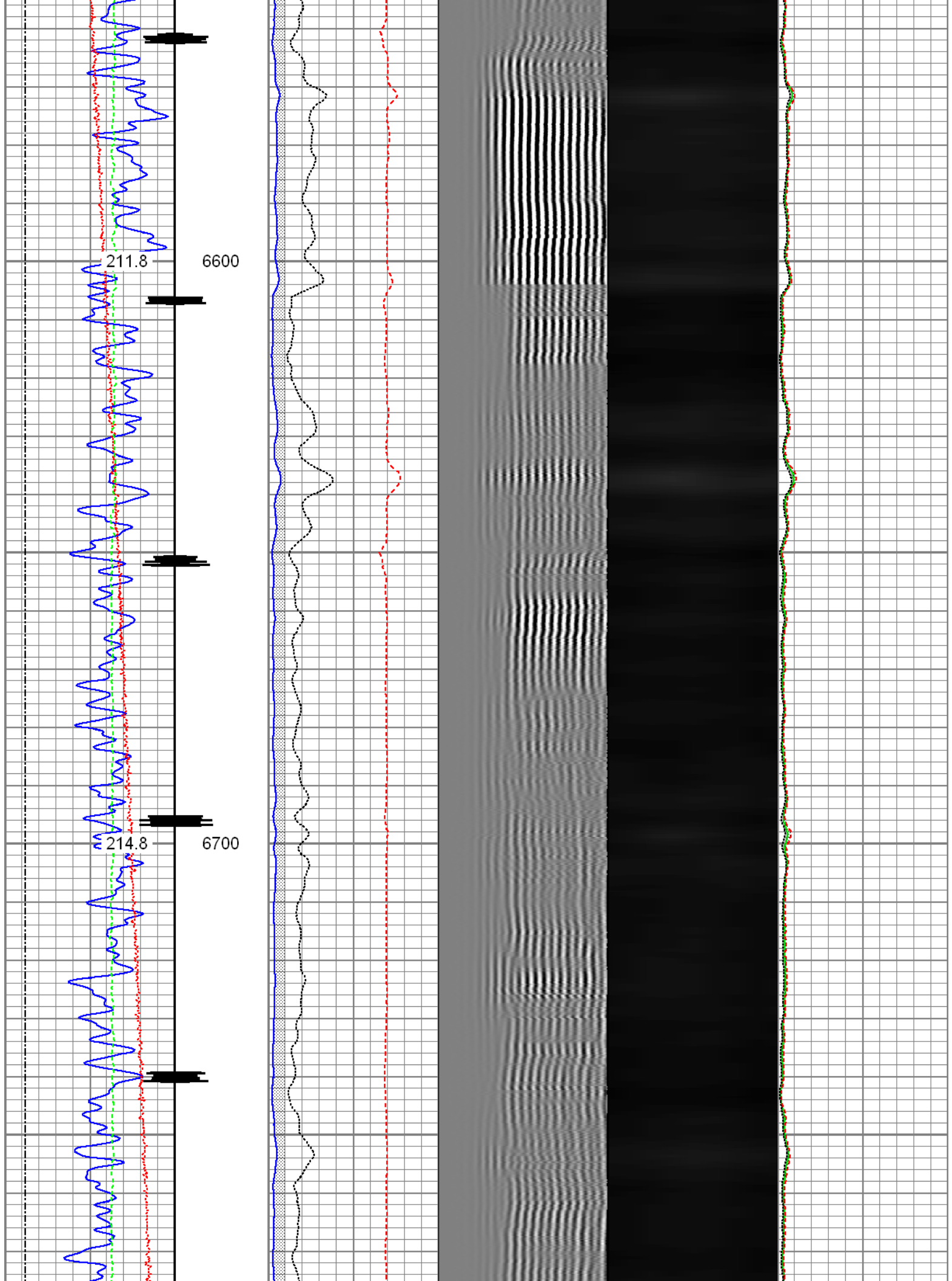


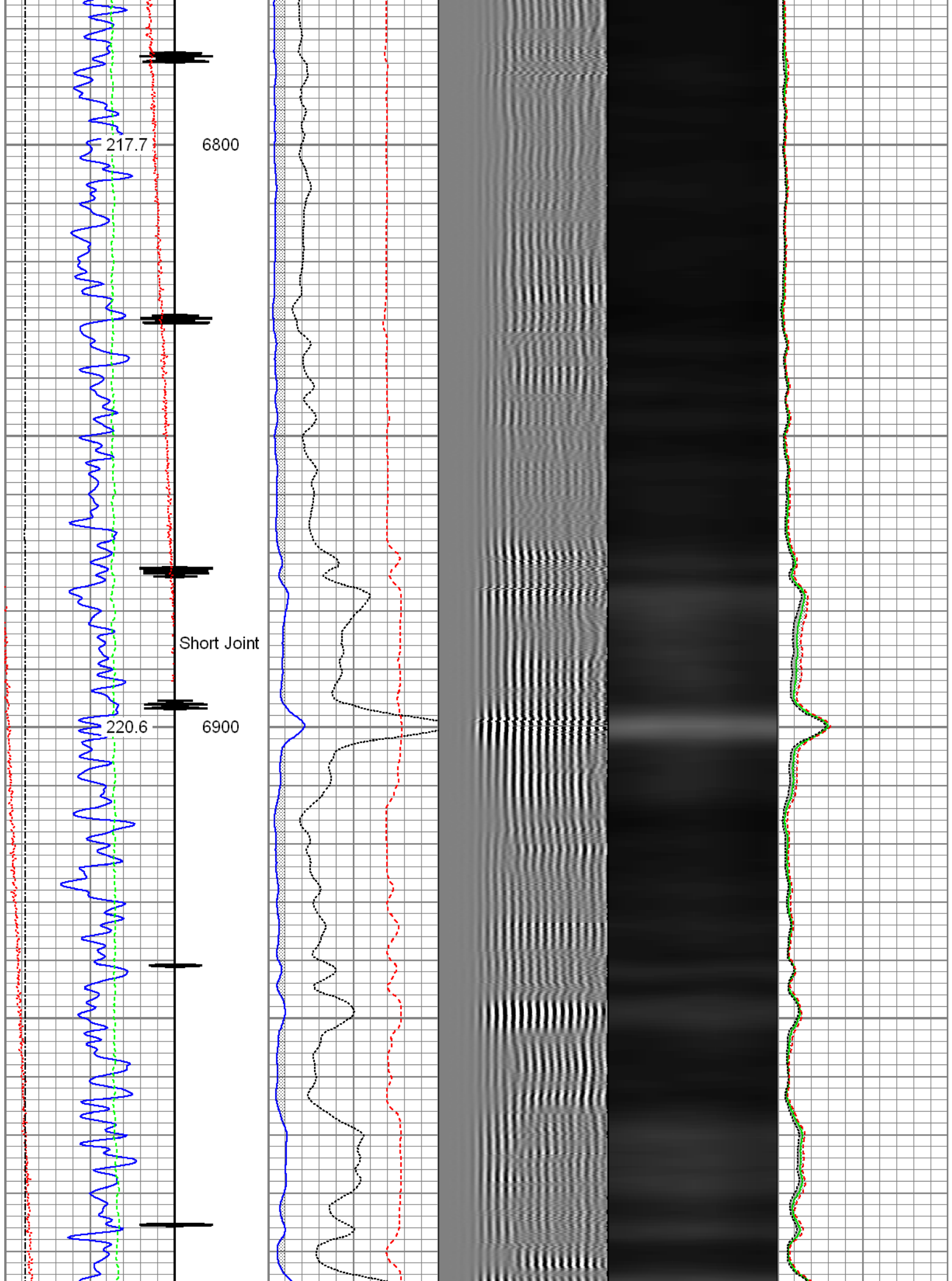


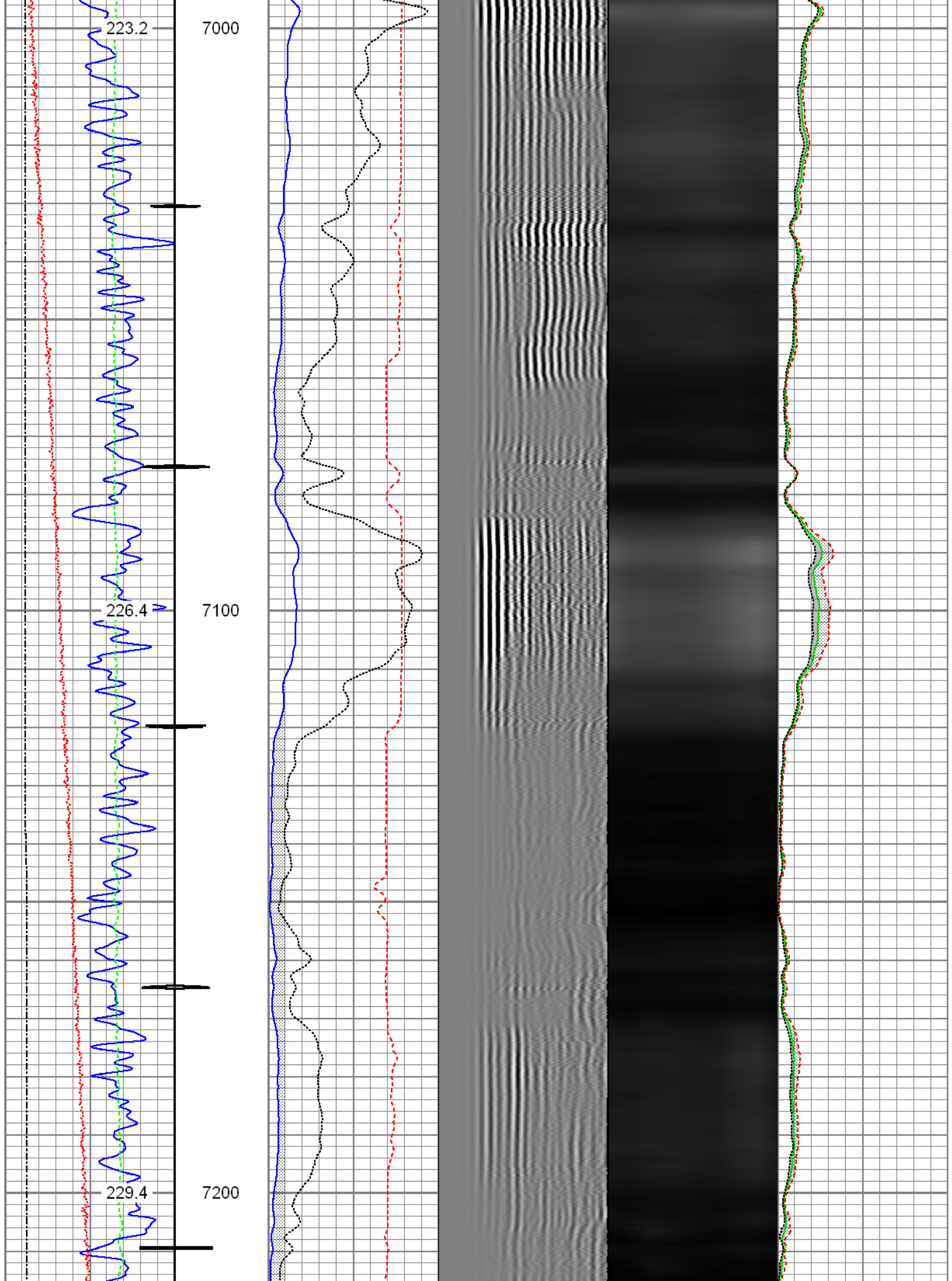


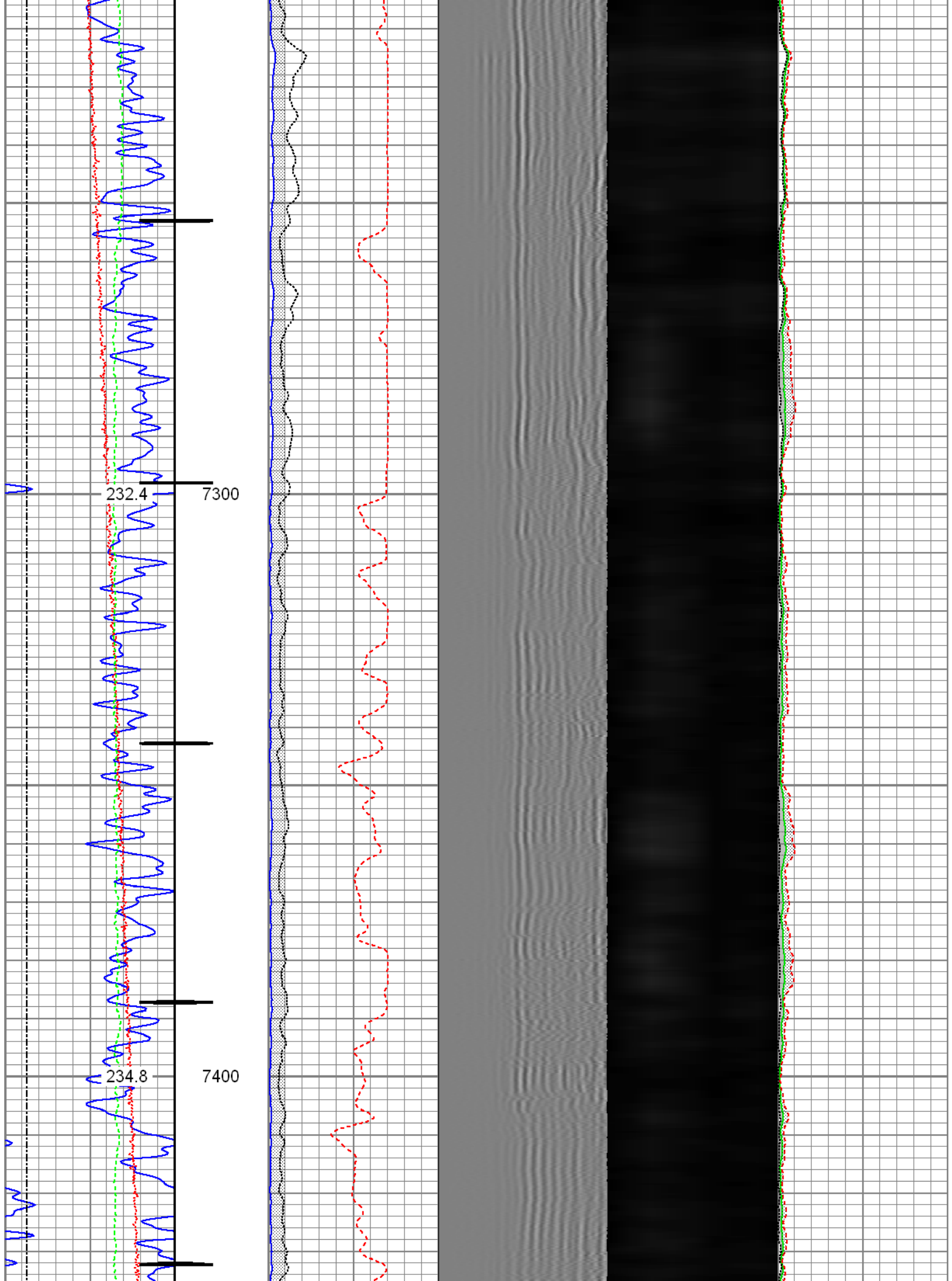


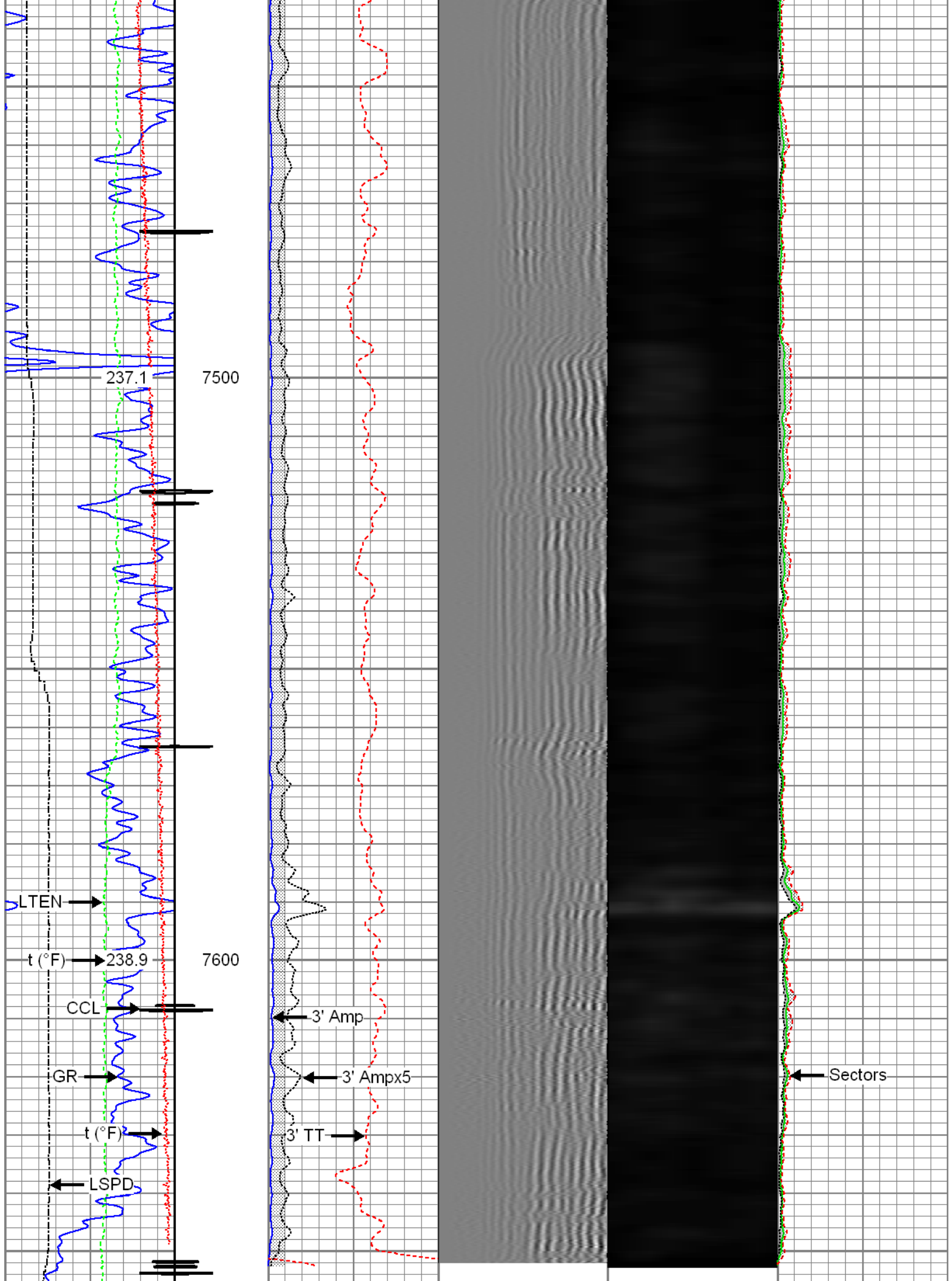


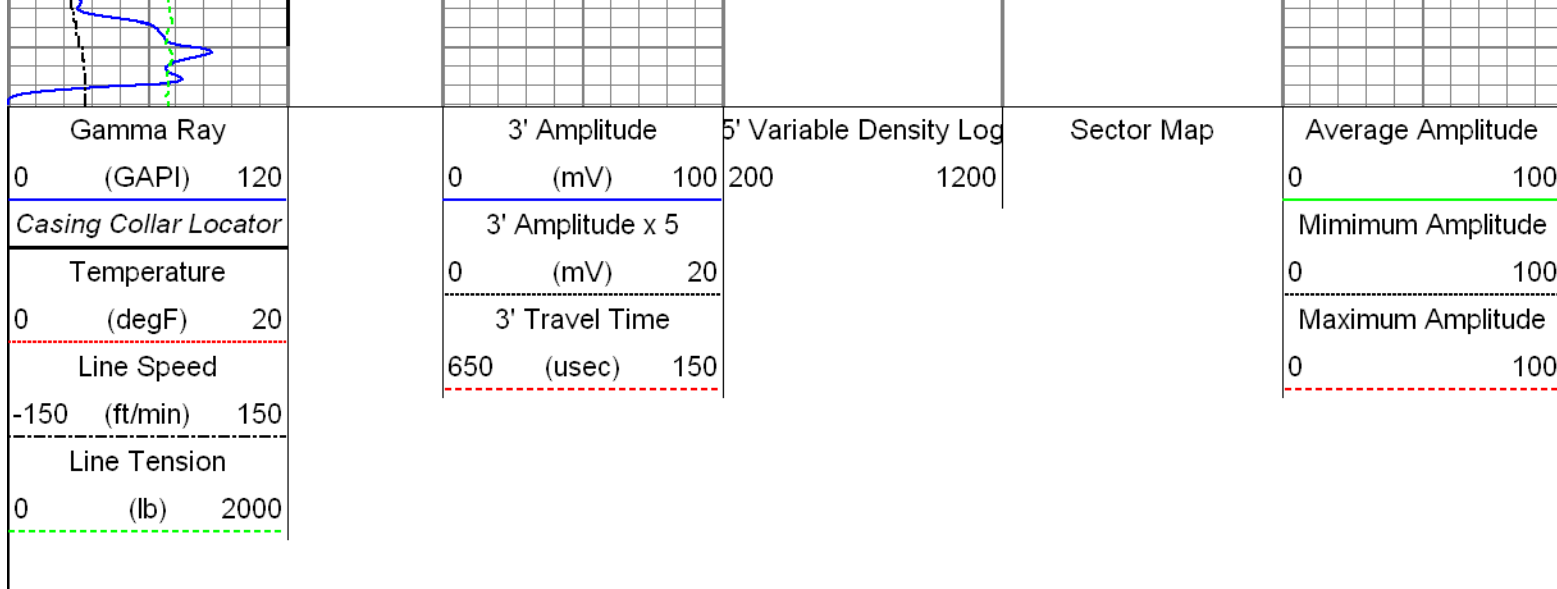












Repeat Pass

Recorded with 2800 PSI Surface Induced Pressure

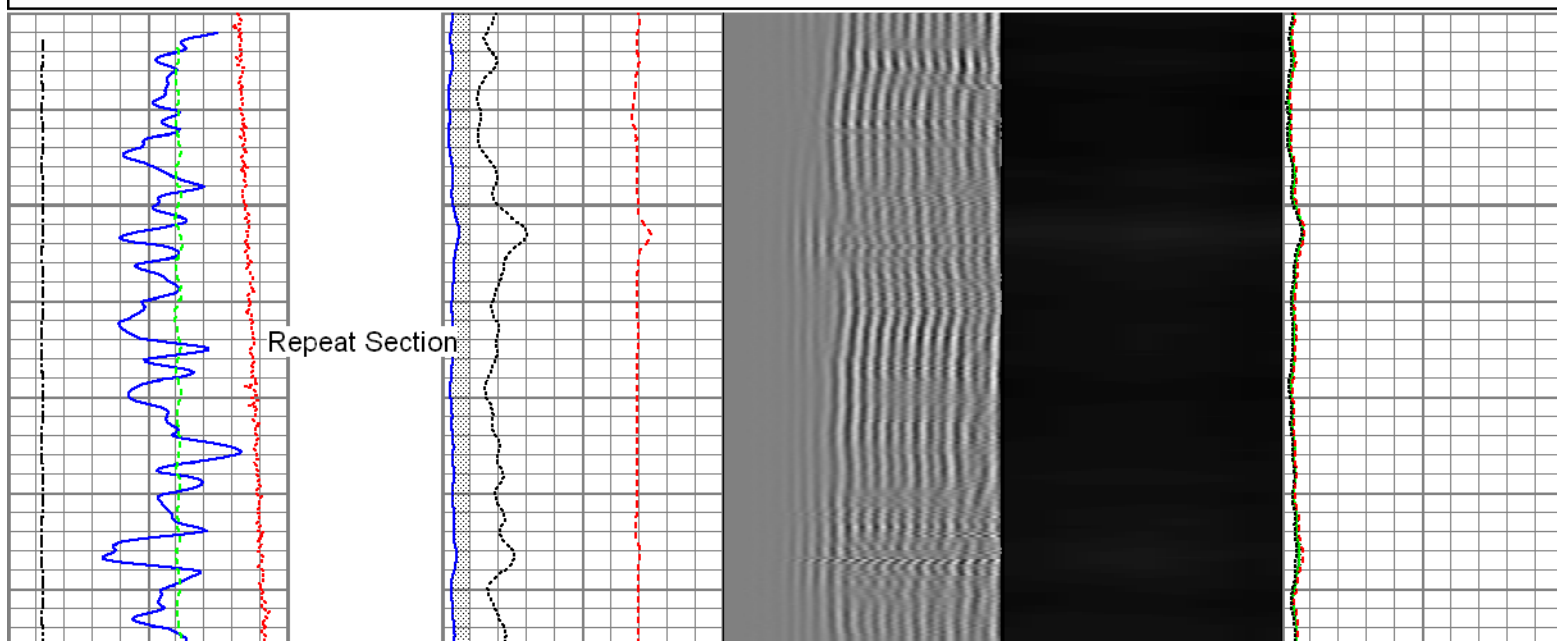
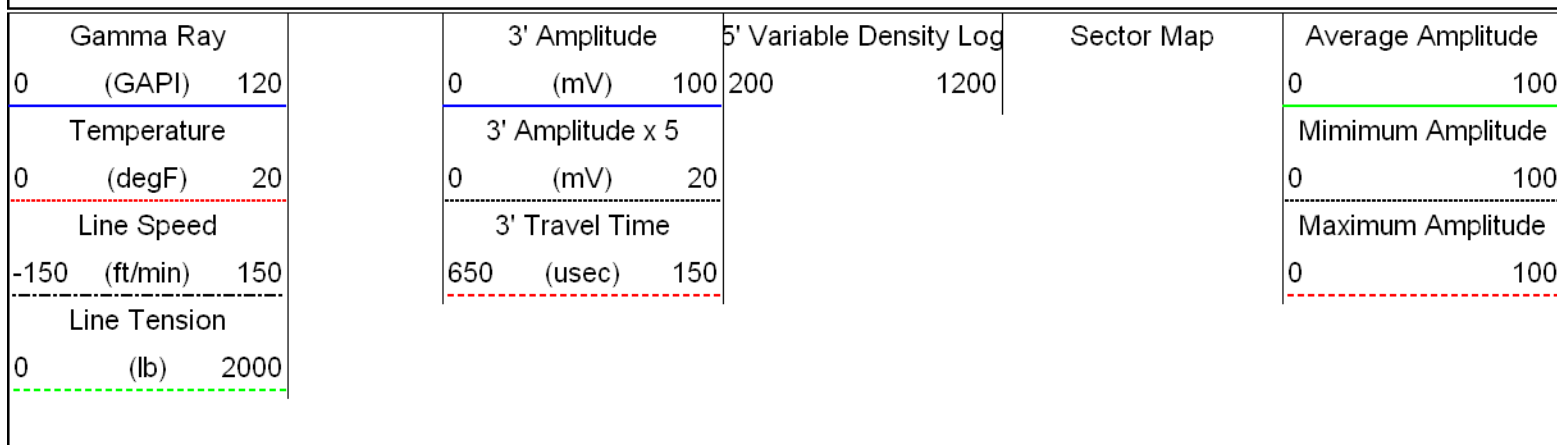
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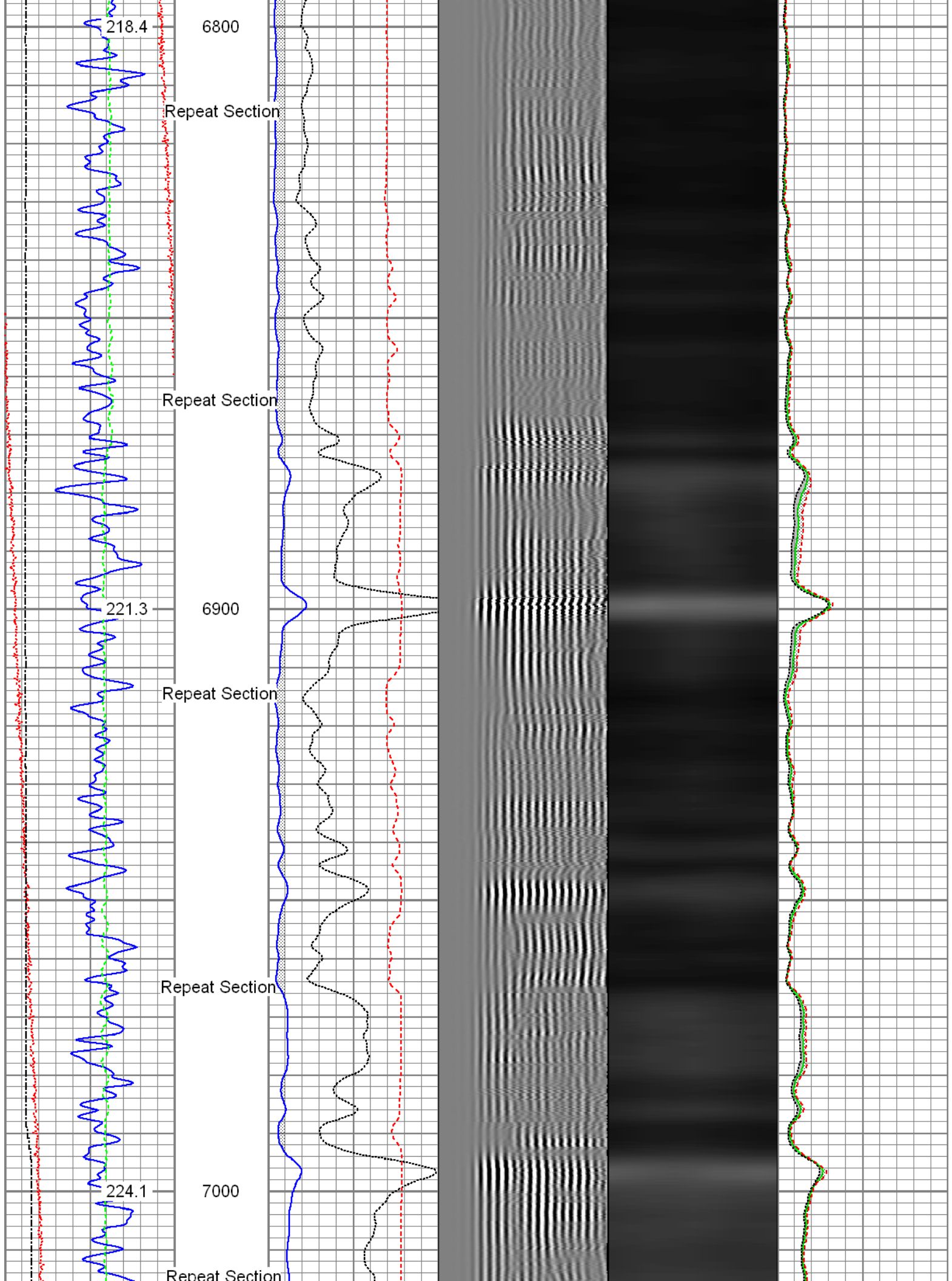
Dataset Pathname: repeat

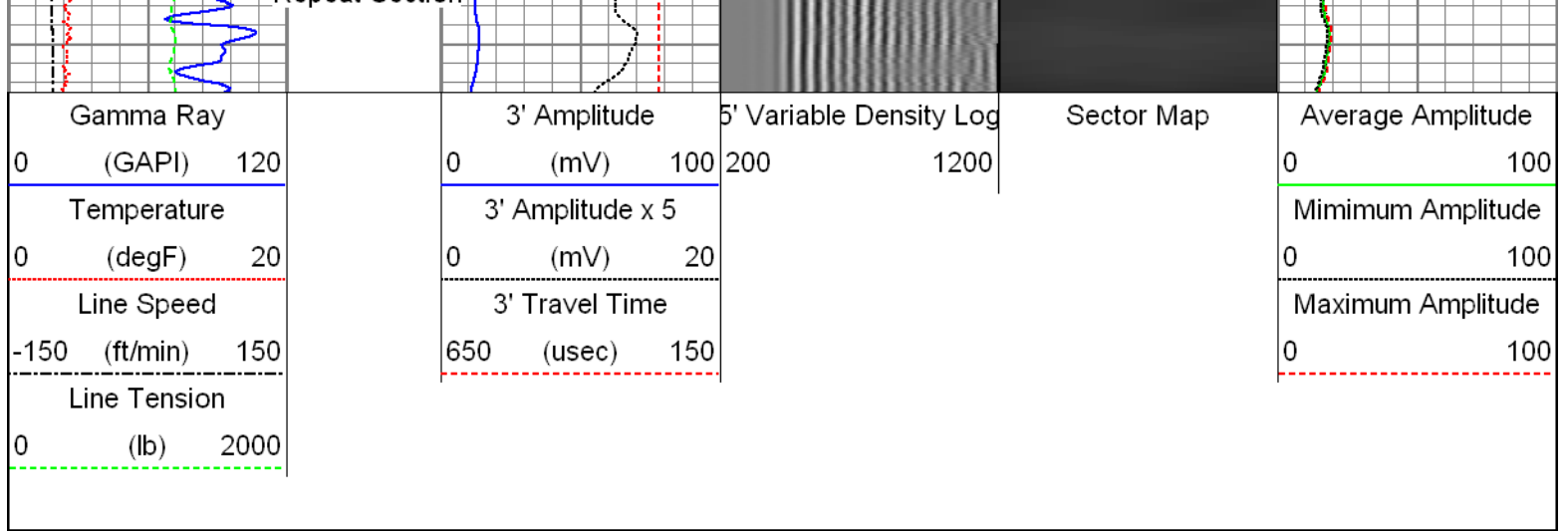
Presentation Format: radii

Dataset Creation: Tue Nov 03 15:41:30 2015 by Log 7.0 B1


Charted by: Depth in Feet scaled 1:240







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	20.94					
Temp	18.17					
WVF3FT	16.00		Probe_RADII-C-2-3/4" (FW1305-096) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	9.19	2.75	105.00
WVFCAL	16.00					
WVFS1	16.00					
WVFS2	16.00					
WVFS3	16.00					
WVFS4	16.00					
WVFS5	16.00					
WVFS6	16.00					
WVFS7	16.00					
WVFS8	16.00					
WVF5FT	15.00					
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
CCL	7.38		CCL_LOG-Probe_SA_CCL (FW1307-076) Probe 2-3/4" Digital Six Magnet Logging CCL	2.66	2.75	35.00
DCCL	7.38					

GR	2.88		GR-Probe_SA_GR (FW1307-078) Probe 2-3/4" Scintillating Gamma Ray	3.33	2.75	55.00
			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Dataset: 0512341555_Anadarko_Carter 36N-33HZ_11-03-15_RBL.db: field/well/run1/Main Total Length: 24.85 ft Total Weight: 229.00 lb O.D. 2.75 in						

Calibration Report	
Database File:	C:\Warrior\Data\0512341555_Anadarko_Carter 36N-33HZ_11-03-15_RBL\0512341555_Anadarko_Ca
Dataset Pathname:	Main
Dataset Creation:	Tue Nov 03 15:50:52 2015 by Log 7.0 B1

Gamma Ray Calibration Report		
Serial Number:	FW1307-078	
Tool Model:	Probe_SA_GR	
Performed:	Tue Nov 03 15:12:39 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps

Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1305-096	
Tool Model:	2-3/4"	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	7017.411	ft

Master Calibration, performed Tue Nov 03 15:40:50 2015:							
	Raw (v)		Calibrated (mv)		Results		
	Zero	Cal	Zero	Cal	Gain	Offset	
3'	0.004	0.690	0.800	71.921	103.590	0.417	
CAL	0.004	0.783					
5'	0.004	0.701	0.800	71.921	101.945	0.424	
SUM							
S1	0.004	0.692	0.000	100.000	145.248	-0.532	
S2	0.004	0.693	0.000	100.000	145.158	-0.532	
S3	0.004	0.691	0.000	100.000	145.429	-0.536	
S4	0.004	0.690	0.000	100.000	145.700	-0.541	
S5	0.004	0.688	0.000	100.000	146.171	-0.541	
S6	0.004	0.690	0.000	100.000	145.656	-0.539	
S7	0.004	0.695	0.000	100.000	144.730	-0.542	
S8	0.004	0.692	0.000	100.000	145.377	-0.541	

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	0.004	0.783	1.000	0.000

Air Zero Calibration, performed Tue Nov 03 15:41:07 2015:

	Raw (v)		Calibrated (v)		Results
	Zero		Zero		Offset
3'	0.004		0.000		0.000
5'	0.004		0.000		0.000
SUM					
S1	0.004		0.000		-0.000
S2	0.004		0.000		0.000
S3	0.004		0.000		0.000
S4	0.004		0.000		0.000
S5	0.004		0.000		-0.000
S6	0.004		0.000		0.000
S7	0.004		0.000		0.000
S8	0.004		0.000		0.000



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