



Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	Kerr-McGee Oil and Gas Onshore LP				
Well	Tedford 28N-28HZ				
Field	Wattenberg				
County	Weld				
State	Colorado				
Company	Kerr-McGee Oil and Gas Onshore LP				
Well	Tedford 28N-28HZ				
Field	Wattenberg				
County	Weld				
State	Colorado				
Location:	API # : 05-123-41793				
SEC 28	TWP 2N	RGE 66W	Other Services		
			JB/GR		
Permanent Datum	Ground Level	Elevation	4965'		
Log Measured From	Kelly Bushing	25 FT			
Drilling Measured From	Kelly Bushing				
			K.B. 4990'		
			D.F. 4989'		
			G.L. 4965'		

Date	22-OCT-2015
Run Number	Two
Depth Driller	13234 FT
Depth Logger	7754 FT
Bottom Logged Interval	7750 FT
Top Log Interval	Surface
Open Hole Size	7.875"
Type Fluid	Water
Density / Viscosity	8.34 lbm/gal
Max. Recorded Temp.	240°F
Estimated Cement Top	Surface
Time Well Ready	ROA
Time Logger on Bottom	10:45 AM
Equipment Number	HD-0255
Location	Ft. Lupton, CO
Recorded By	B. Kalkwarf
Witnessed By	Levi McArthur

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	5 1/2	17	HCP-110 LT&C	Surface	13224 FT		
Intermediate #2							
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 Kelly Bushing at 25 FT
Adjusted log 4 FT to correlate with Marker Joint at 6964 FT
Gauge Ring/Junk Basket ran to 7835 FT with no debris found
Log ran from 7754 FT to surface
Log ran with 2800 PSI surface induced pressure
Logging tools were clean and free of any 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: c:\warrior\data\0512341793_anadarko_tedford 28n-28hz_10-22-15_rb\processed_0512341793_anadarko_tedford 28n-28hz_10-22-15_rb\pass5

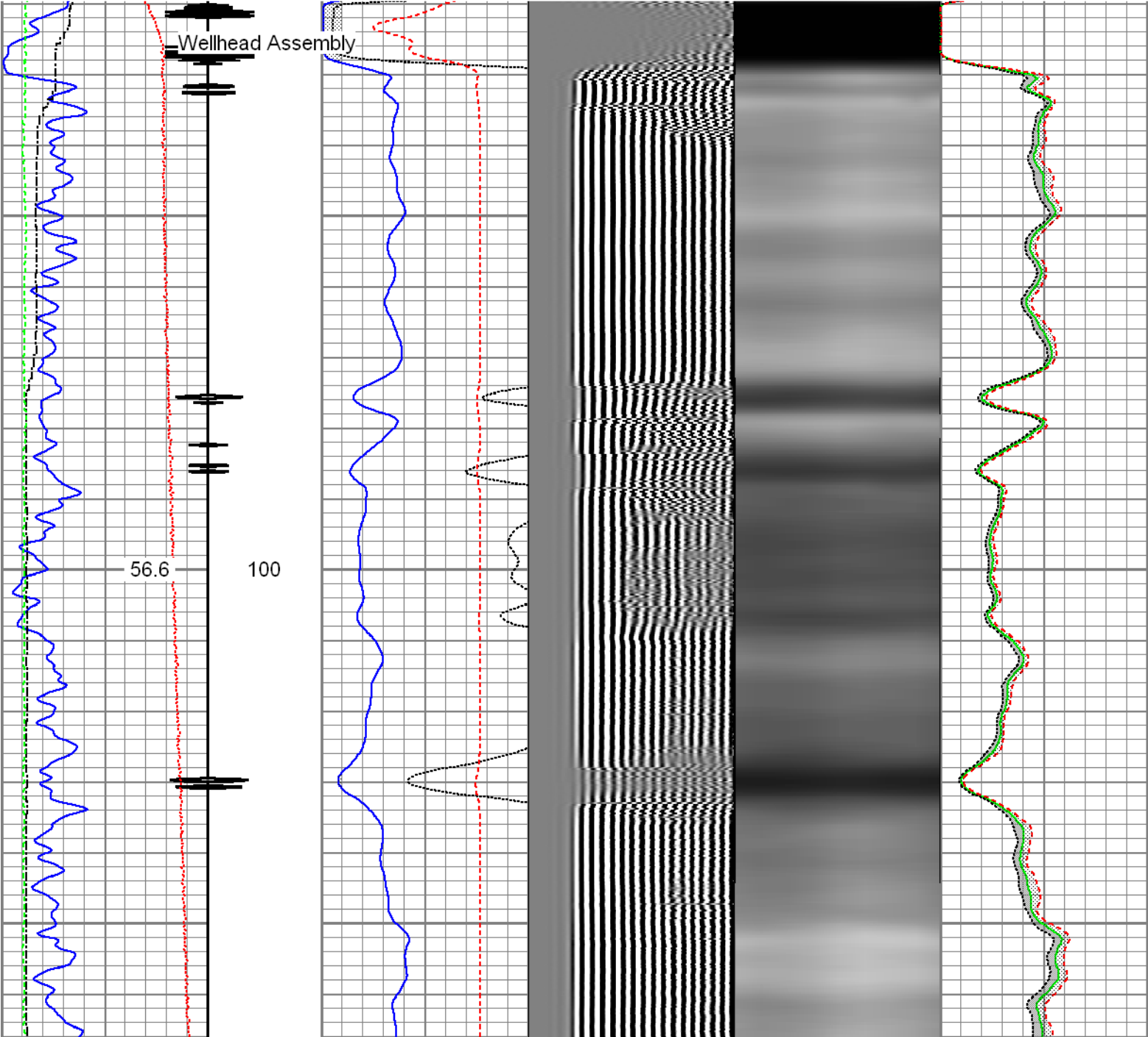
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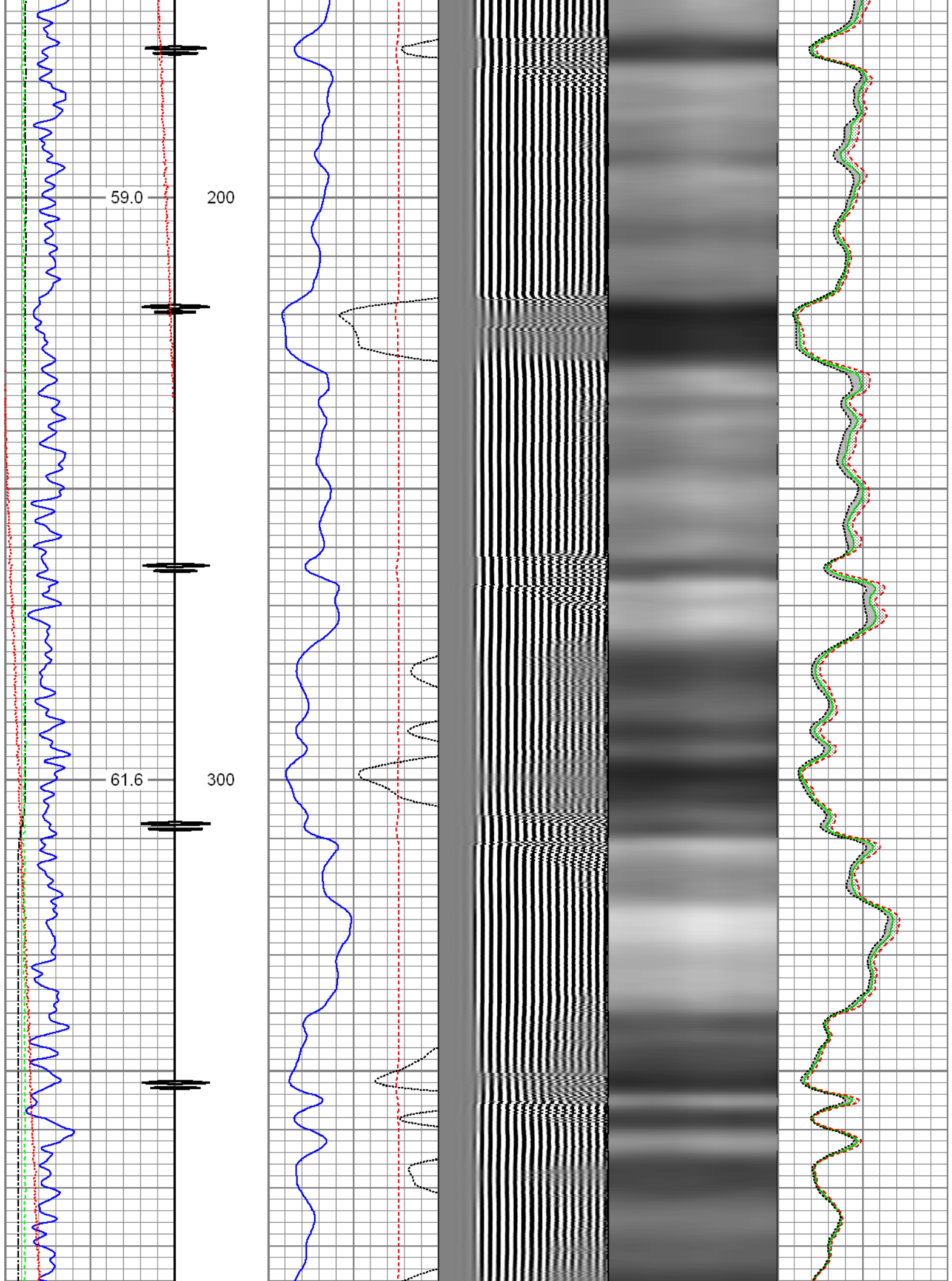
Presentation Format: radii

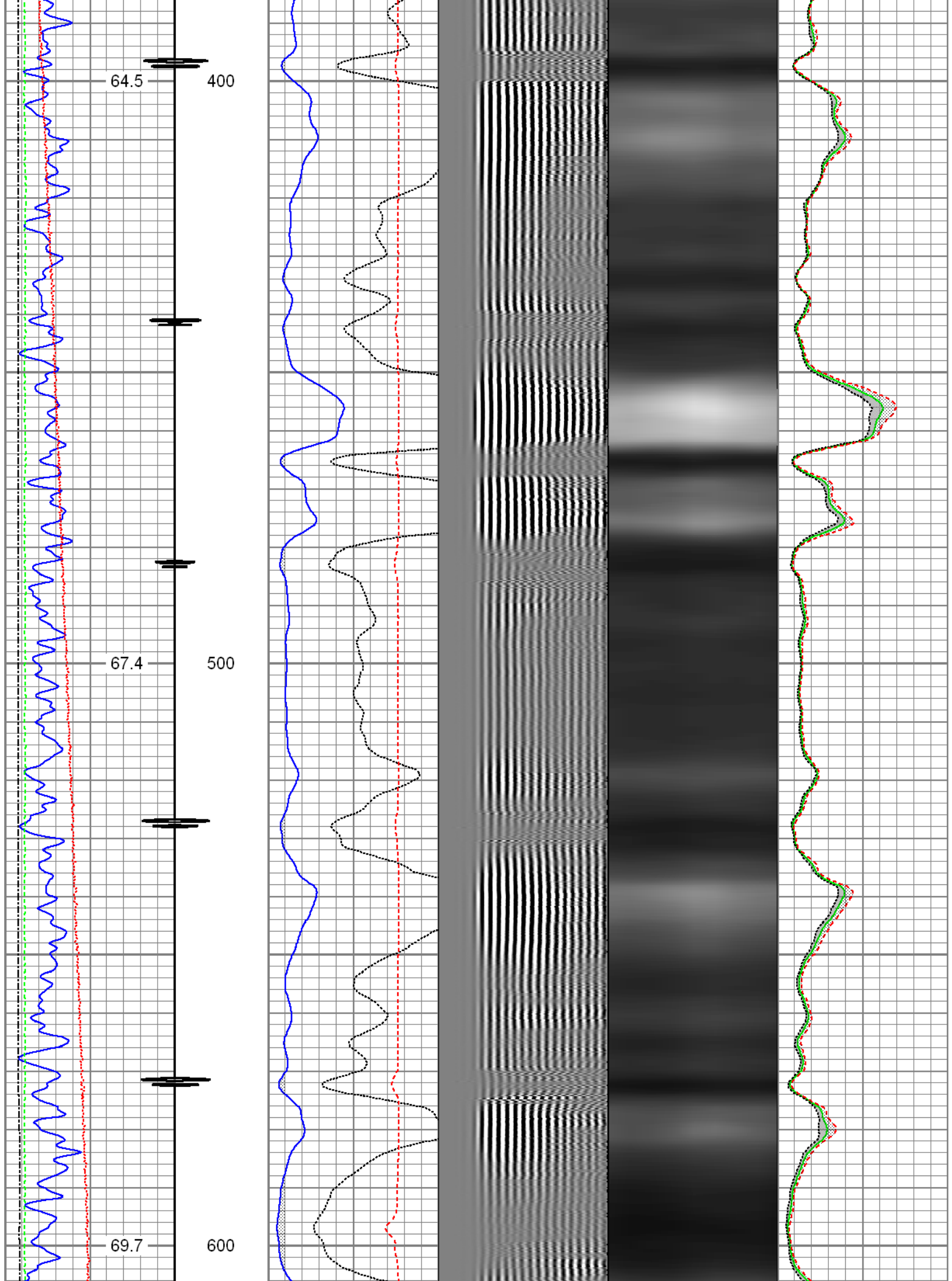
Dataset Creation: Thu Oct 22 10:31:47 2015 by Log 7.0 B1

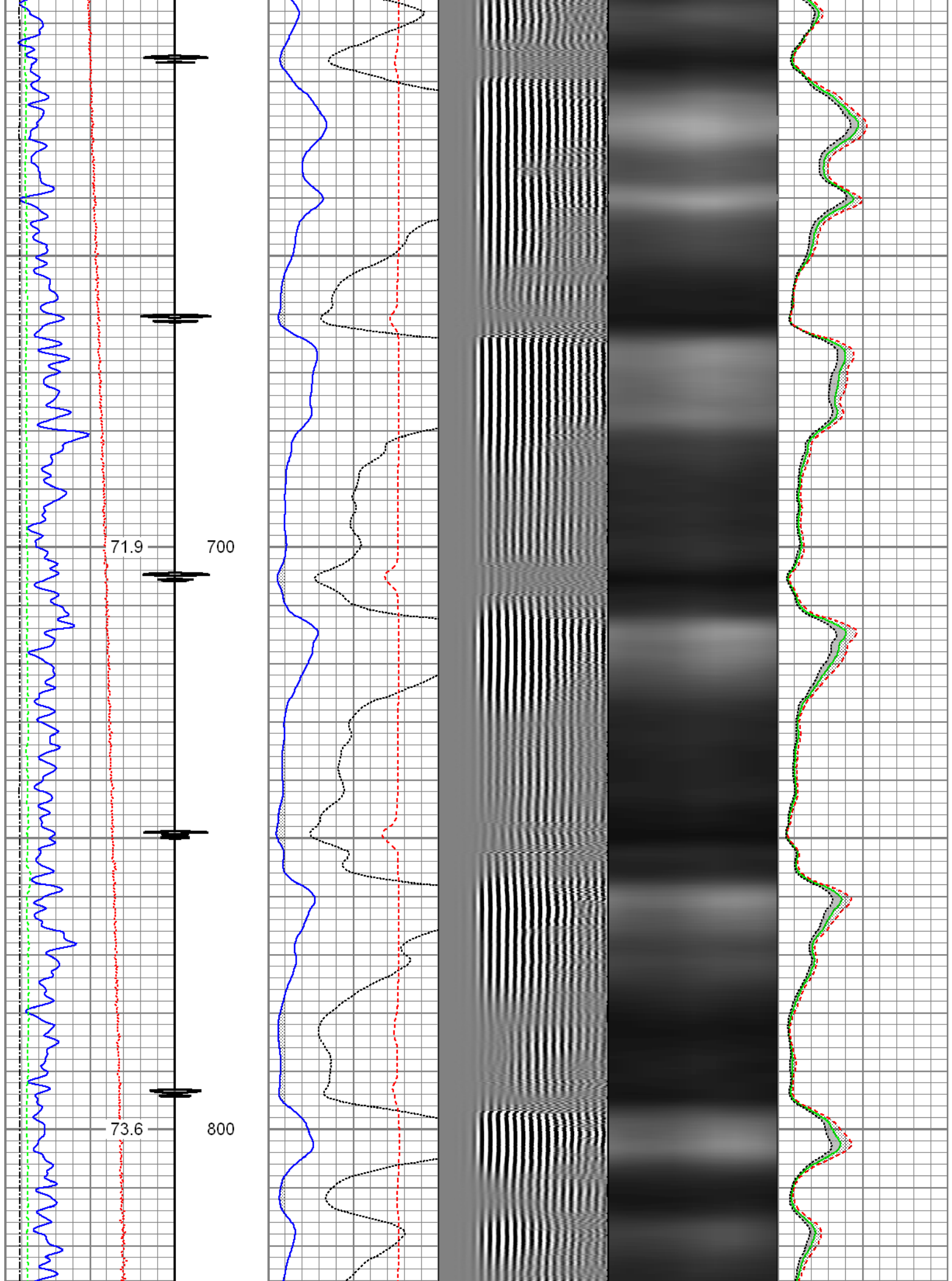
Charted by: Depth in Feet scaled 1:240

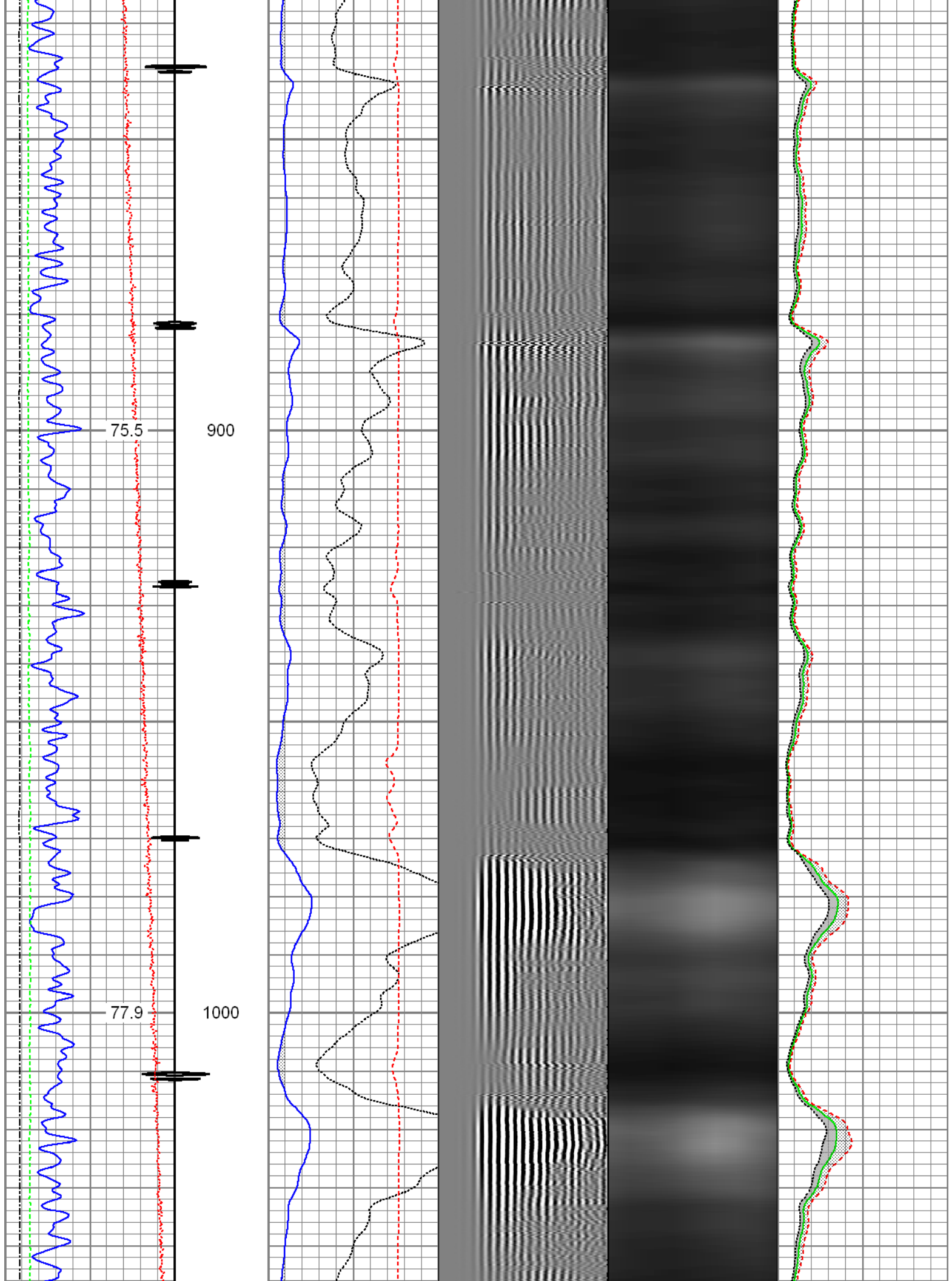
Gamma Ray 0 (GAPI) 150	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map	Average Amplitude 0 100
Casing Collar Locator	3' Amplitude x 5 0 (mV) 20			Minimum Amplitude 0 100
Temperature 0 (degF) 20	3' Travel Time 650 (usec) 150			Maximum Amplitude 0 100
Line Speed -150 (ft/min) 150		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

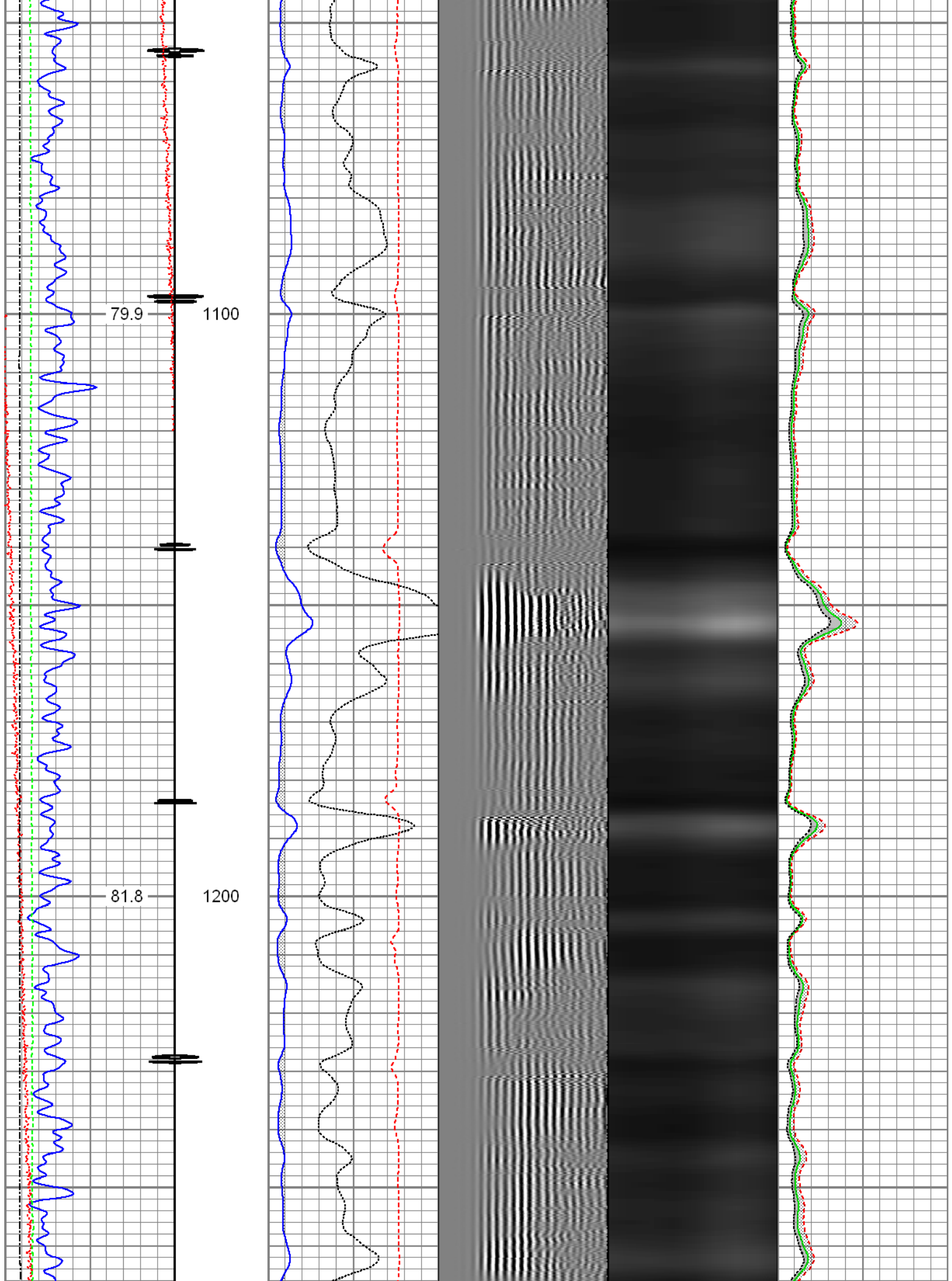


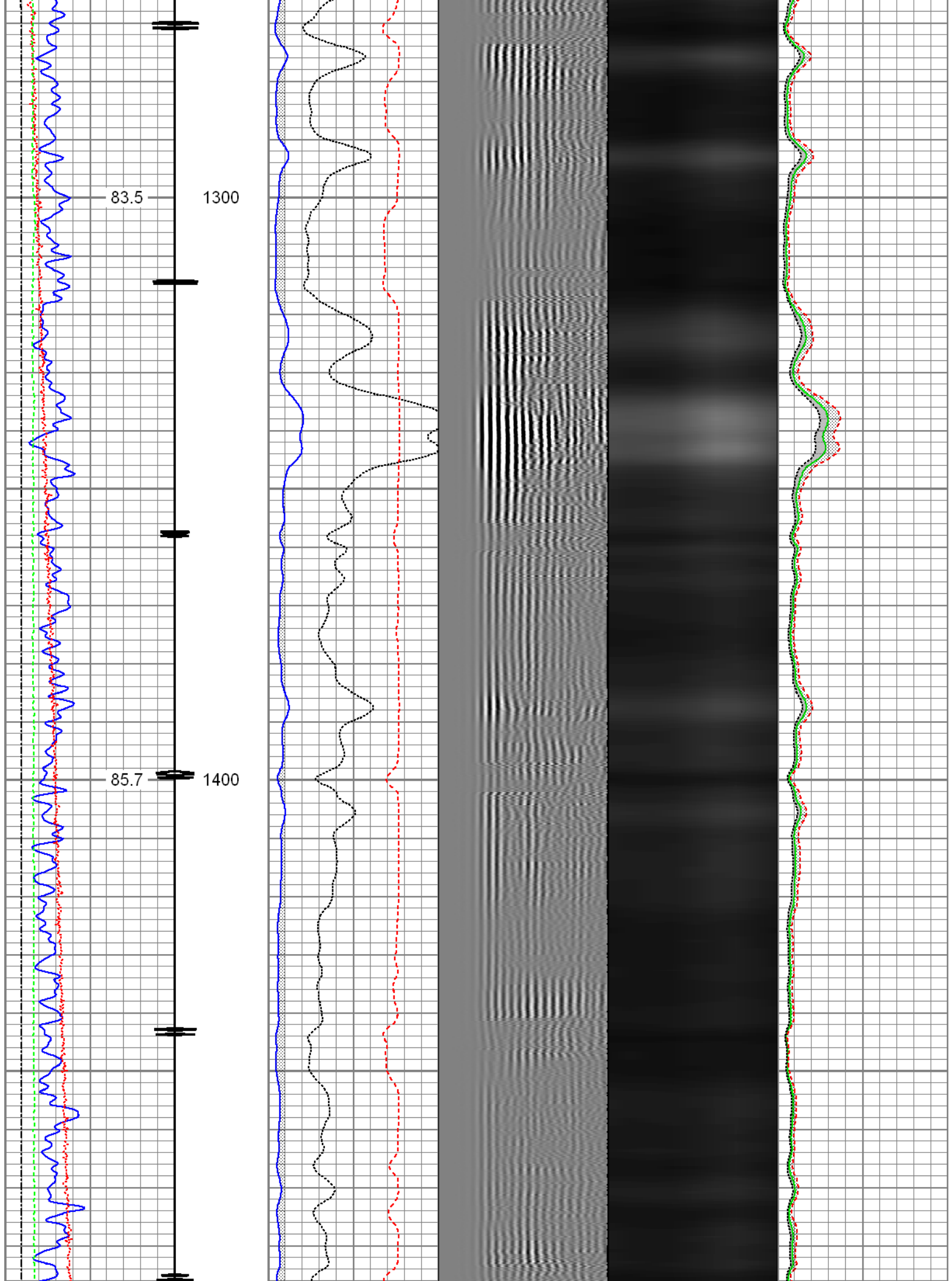


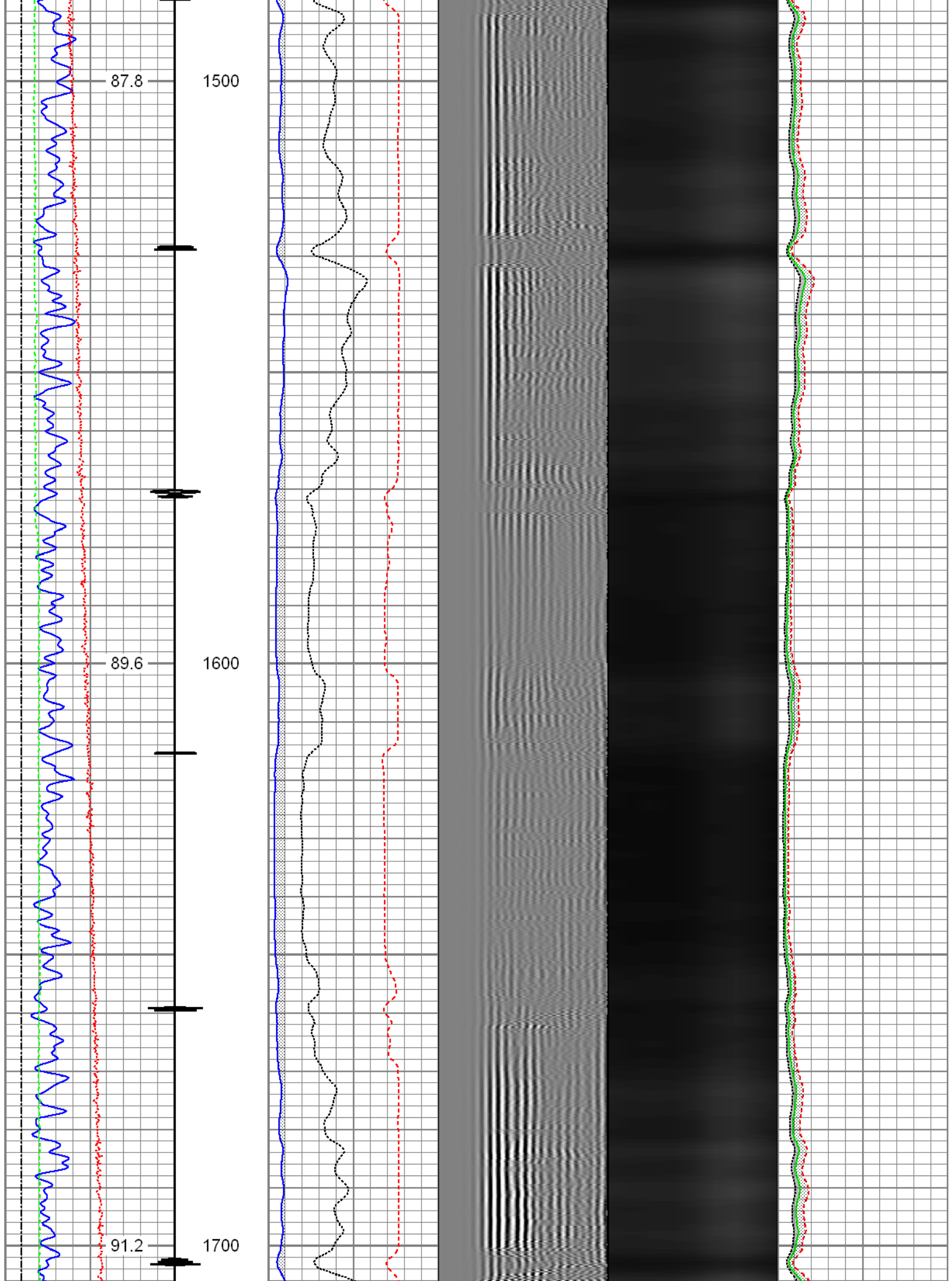


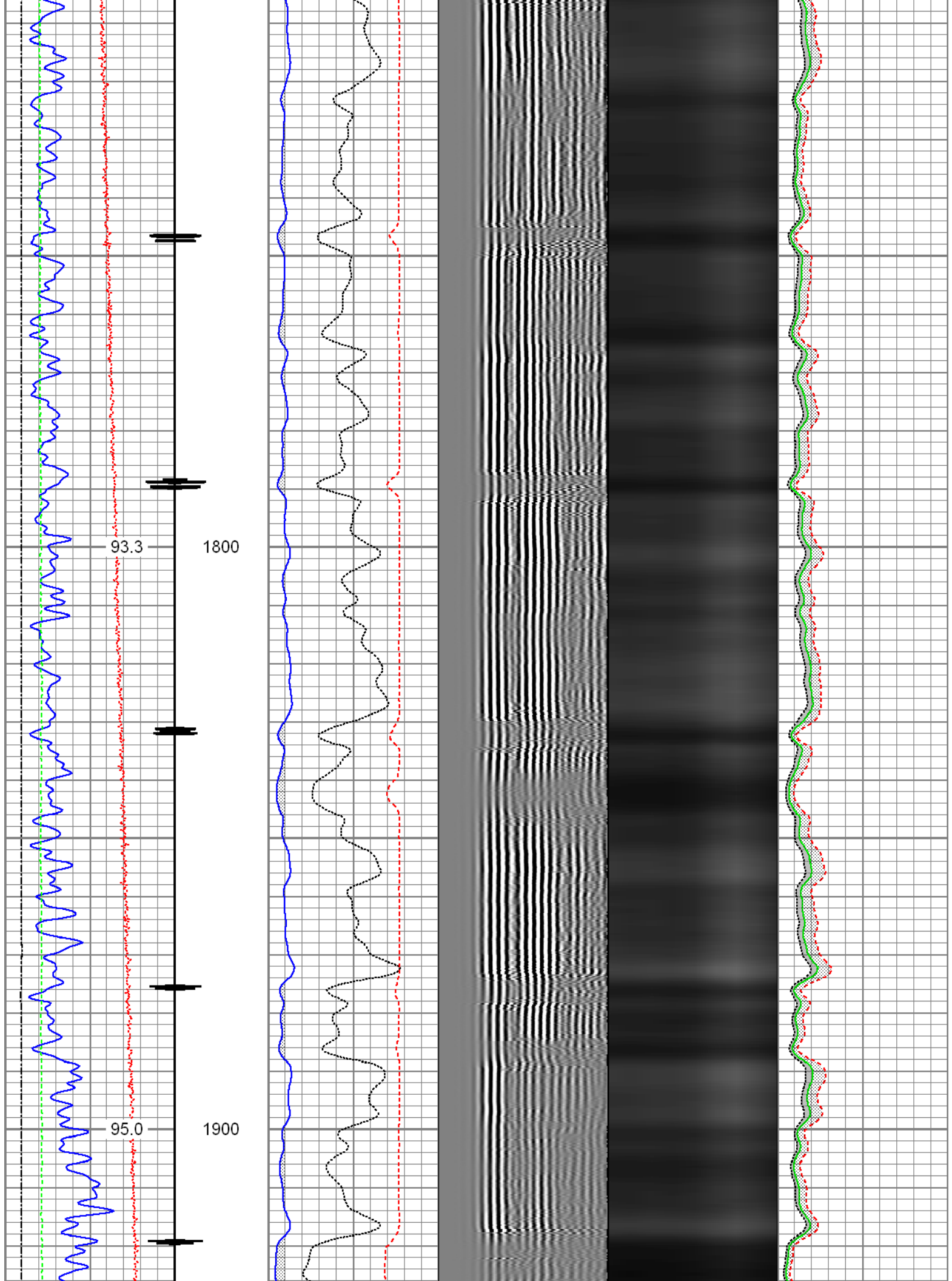


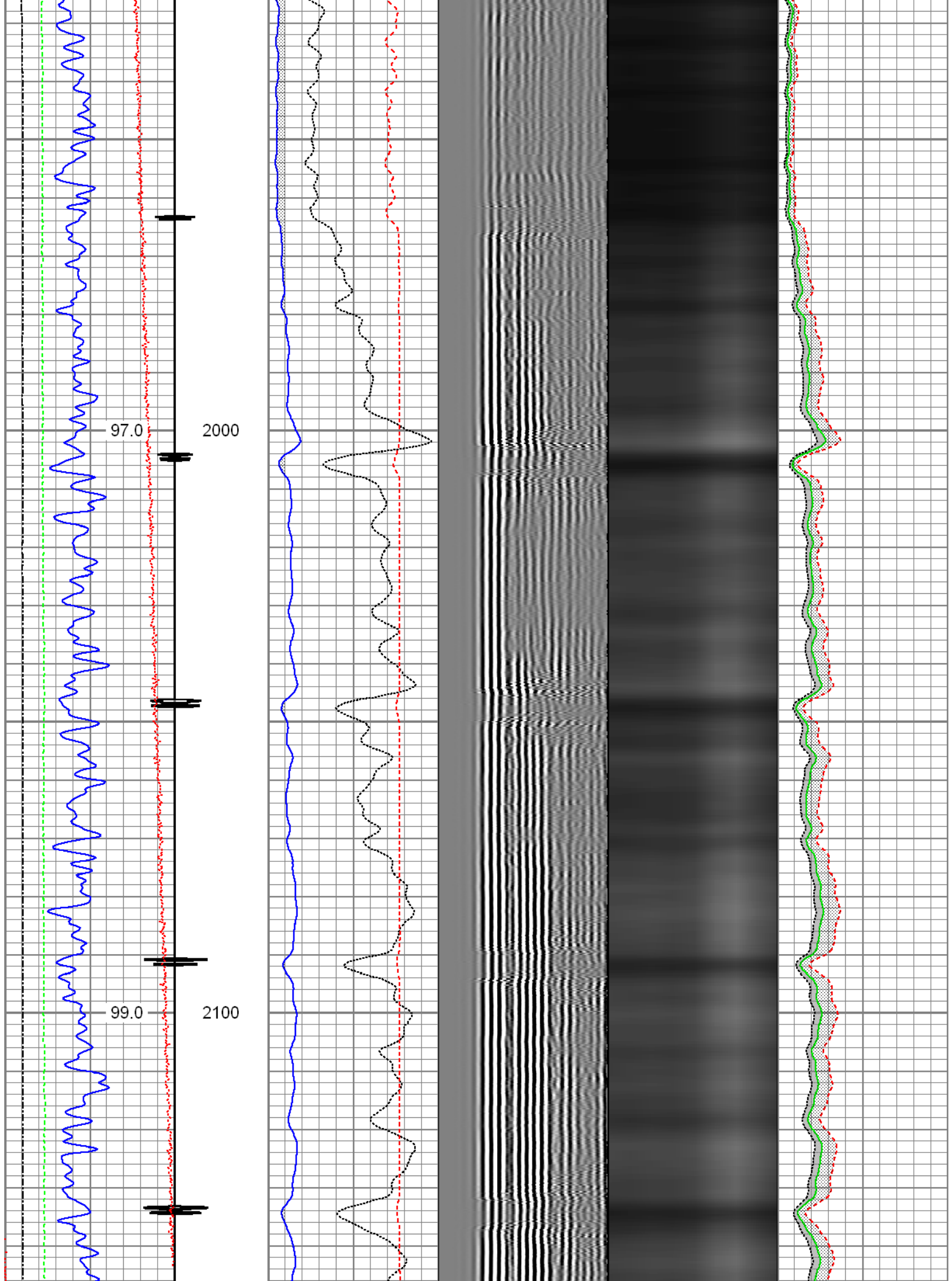


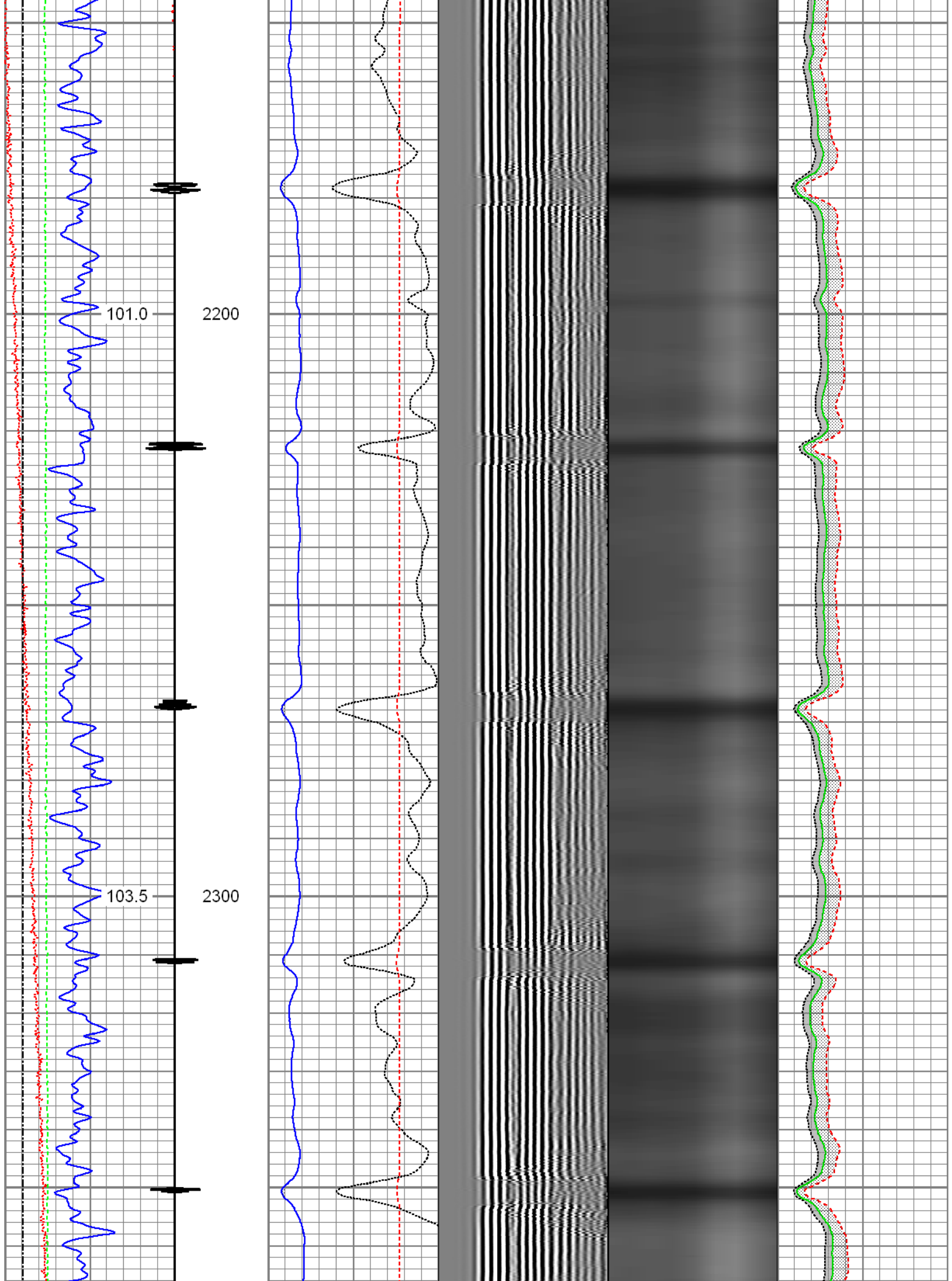


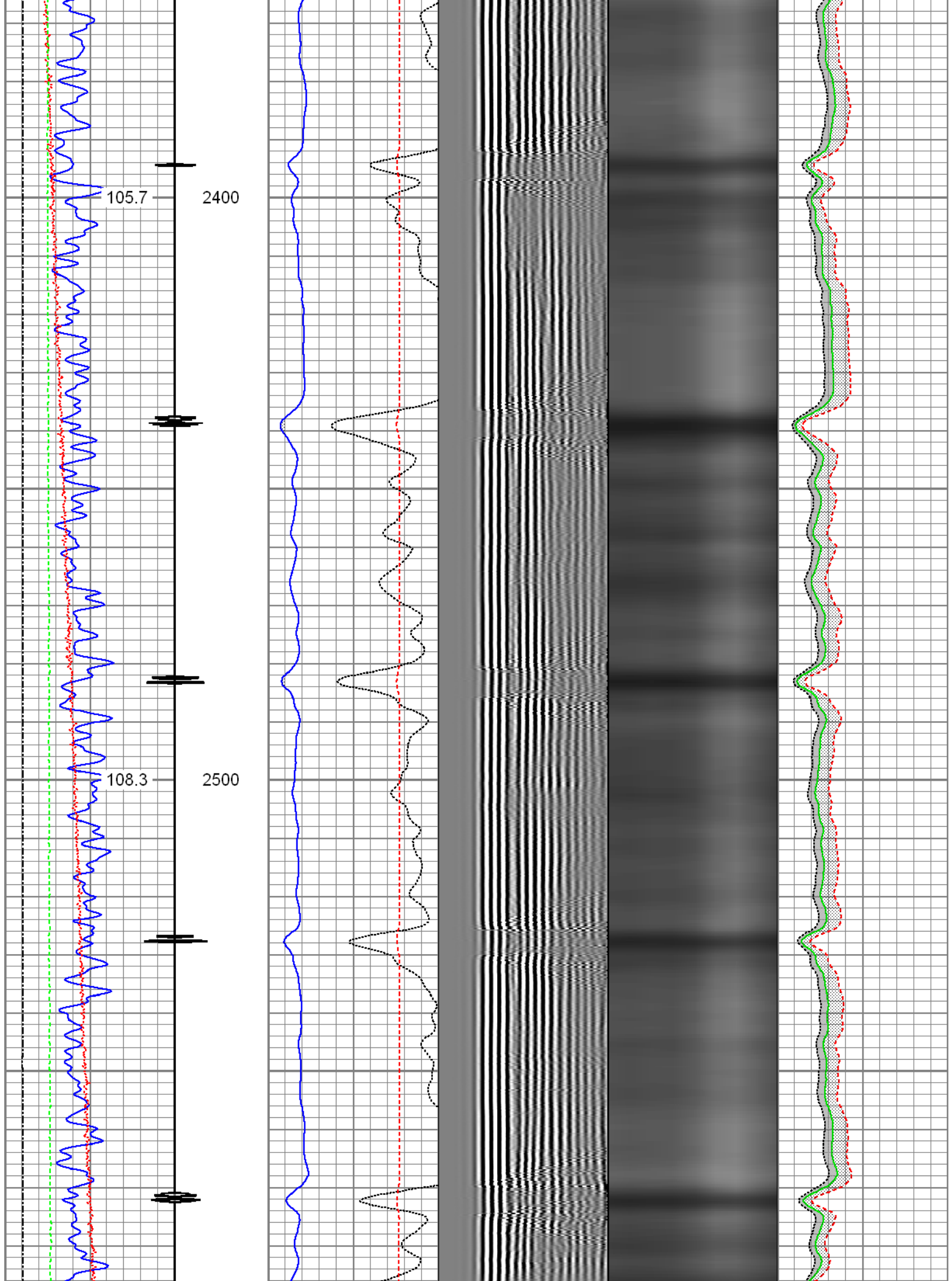


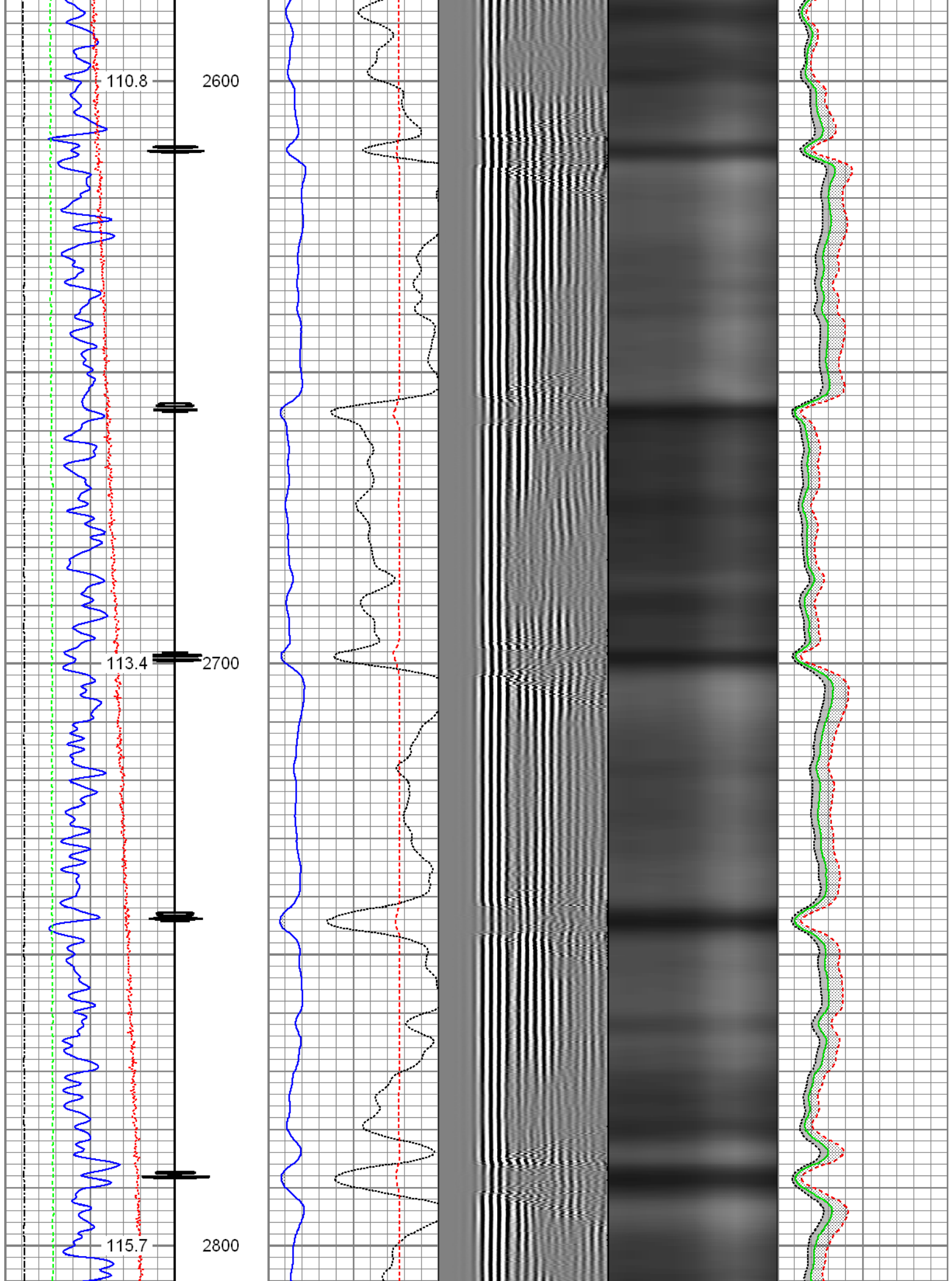


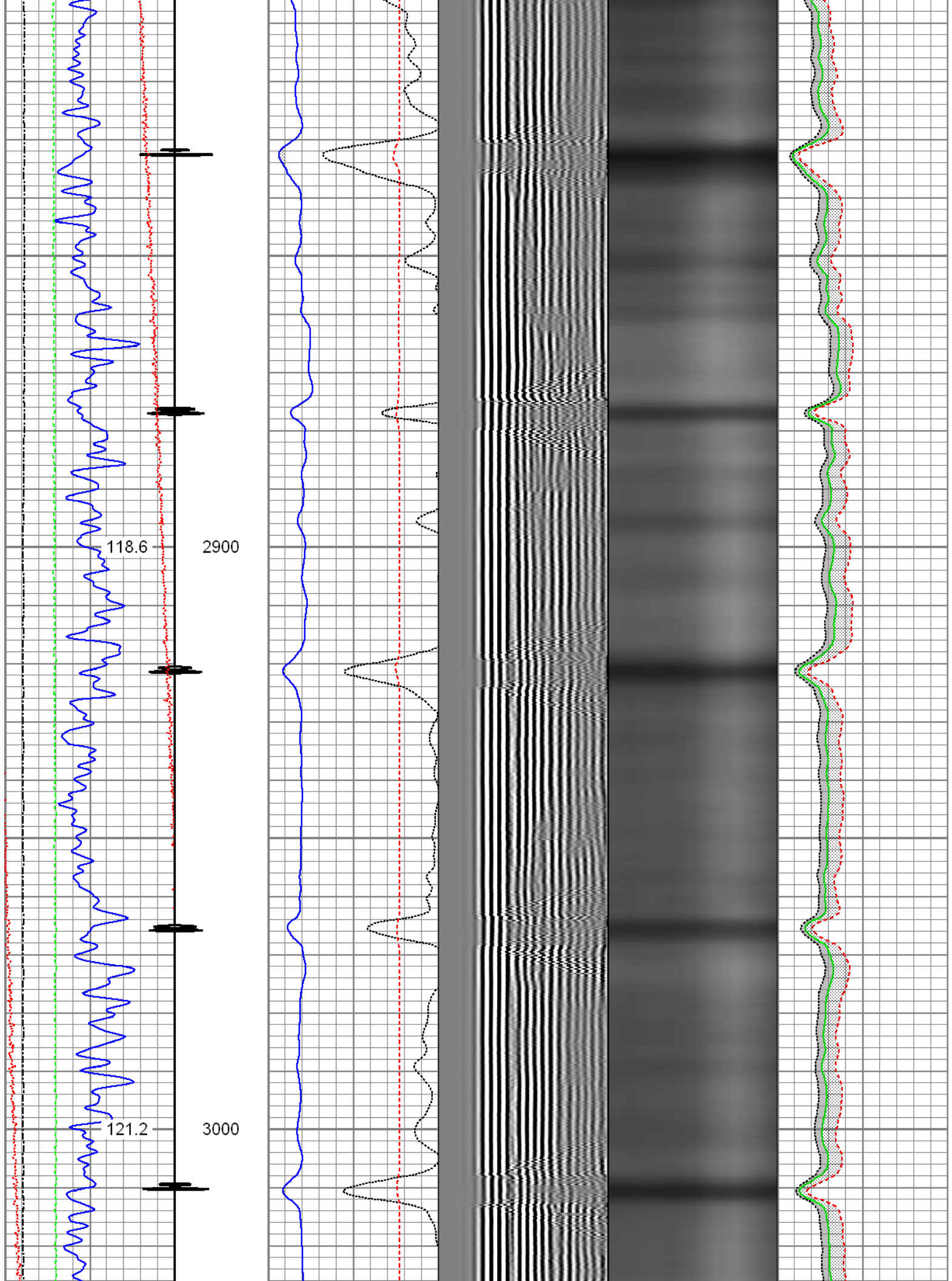


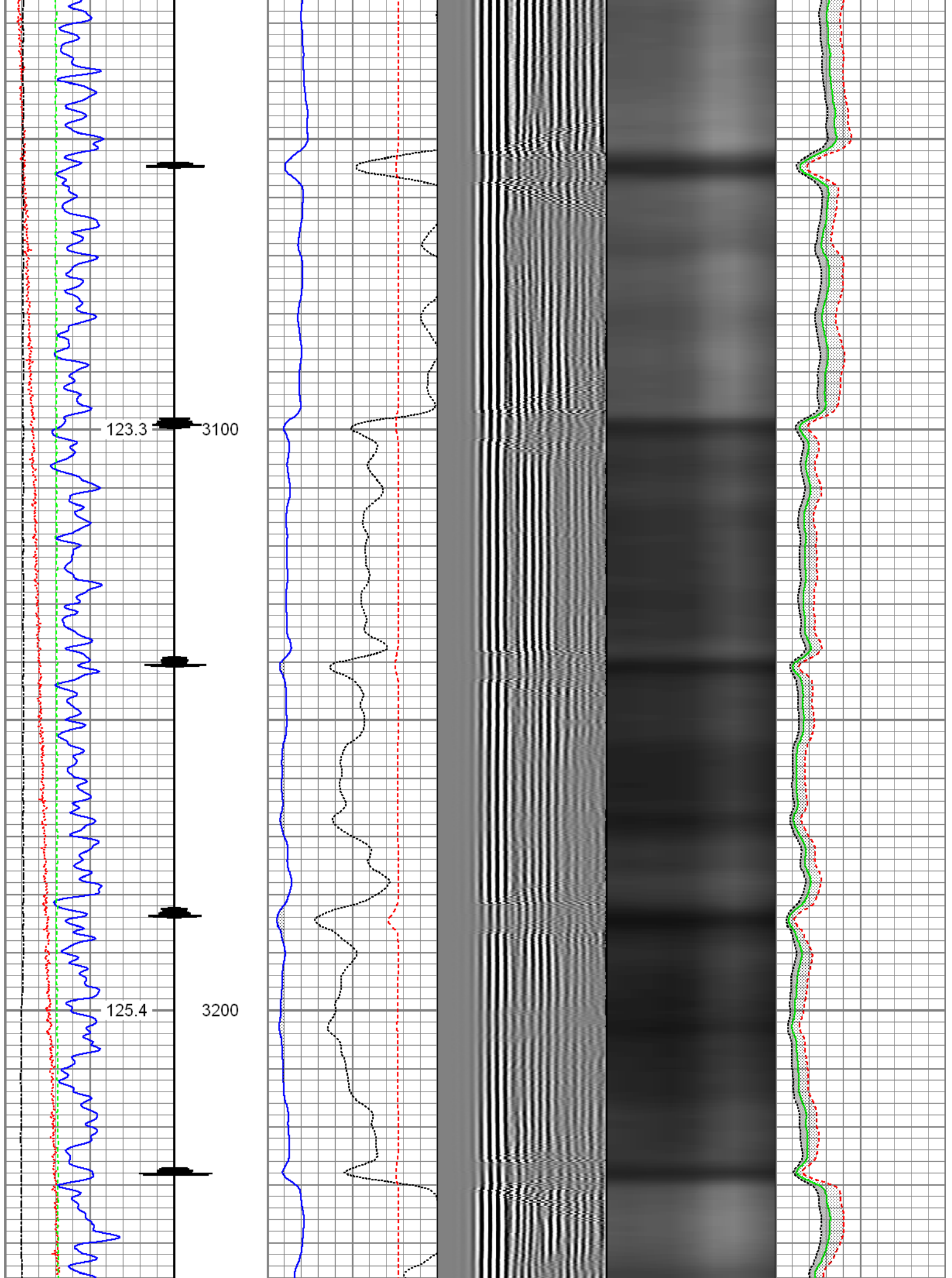


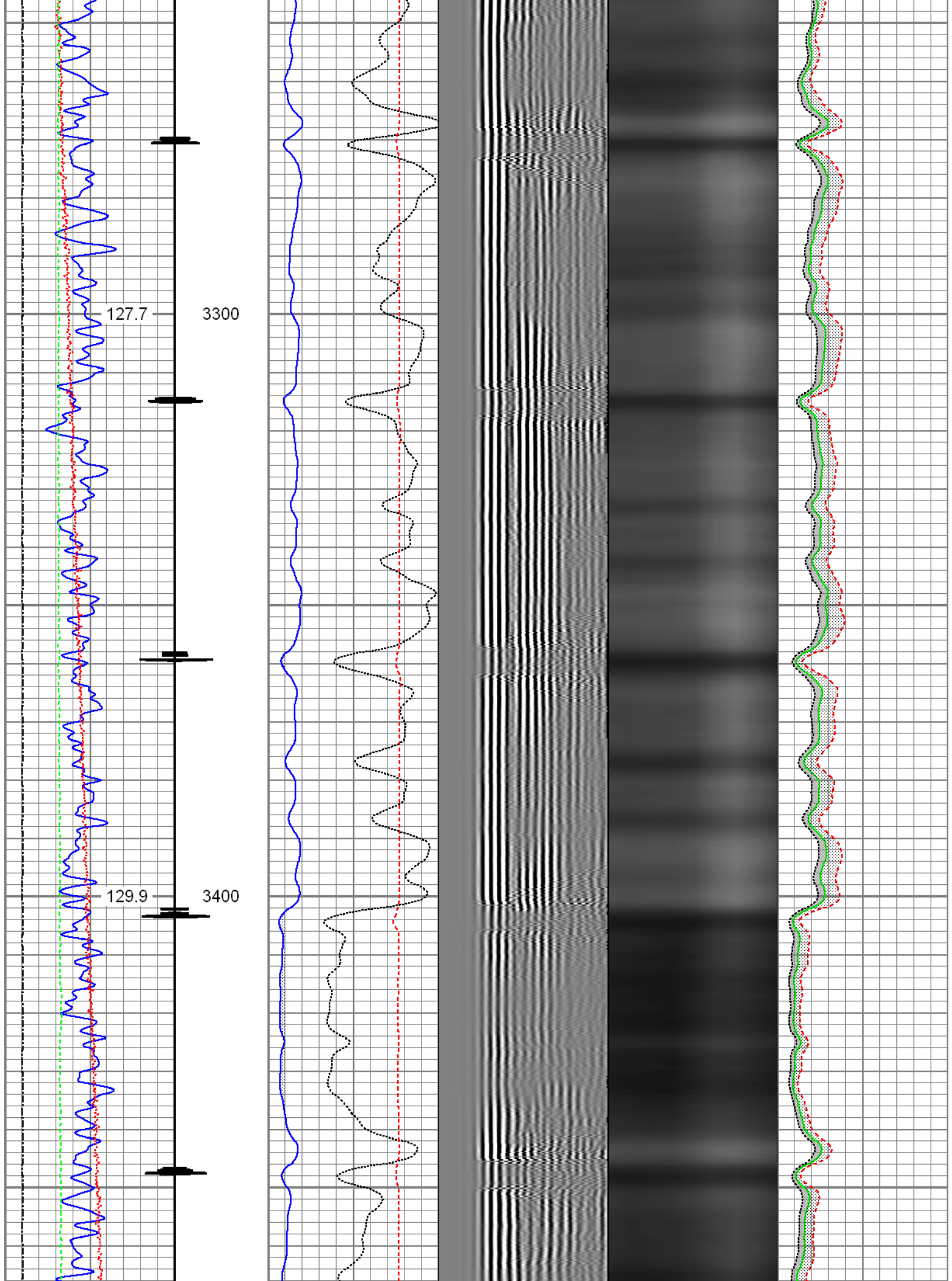


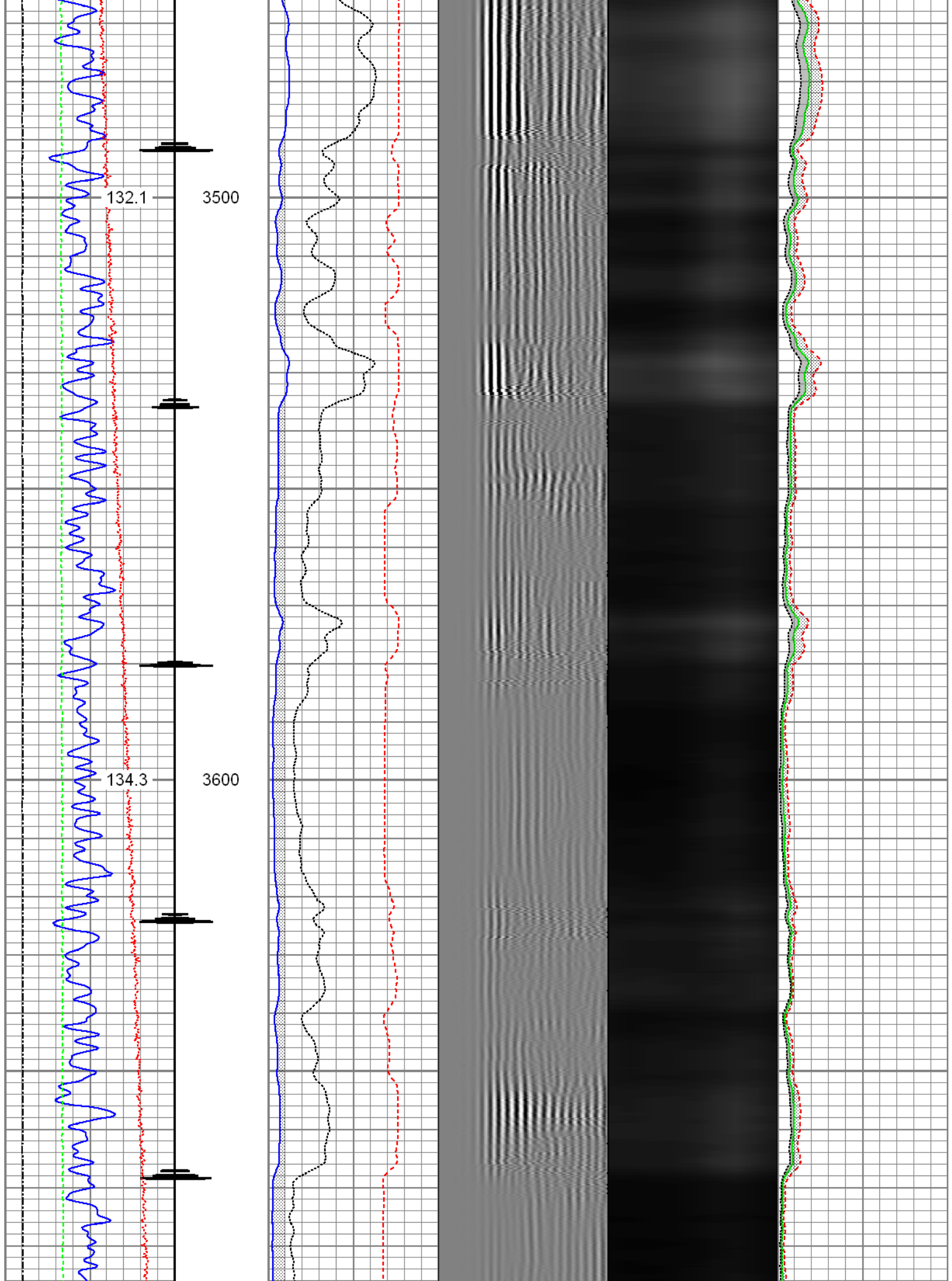


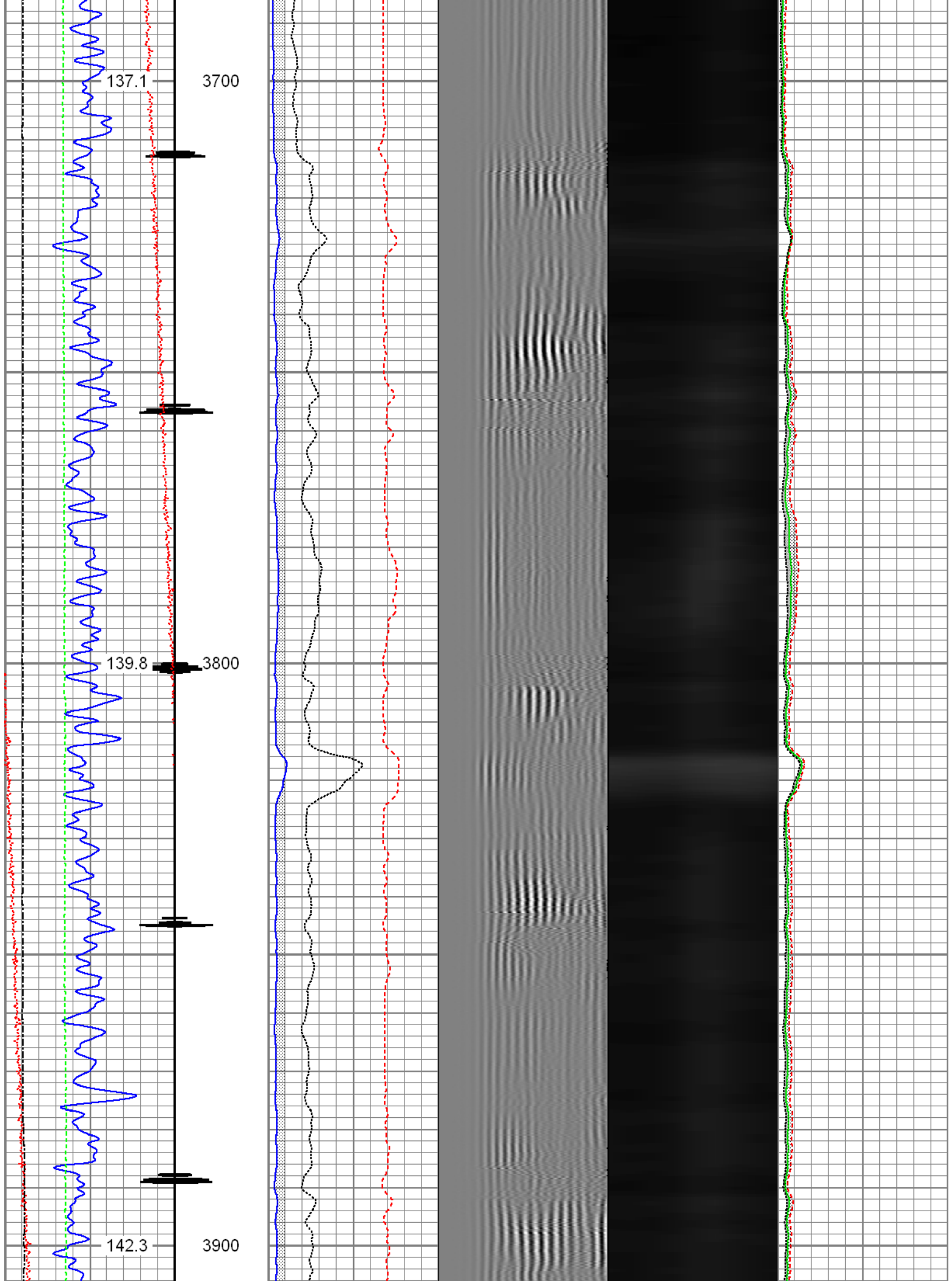


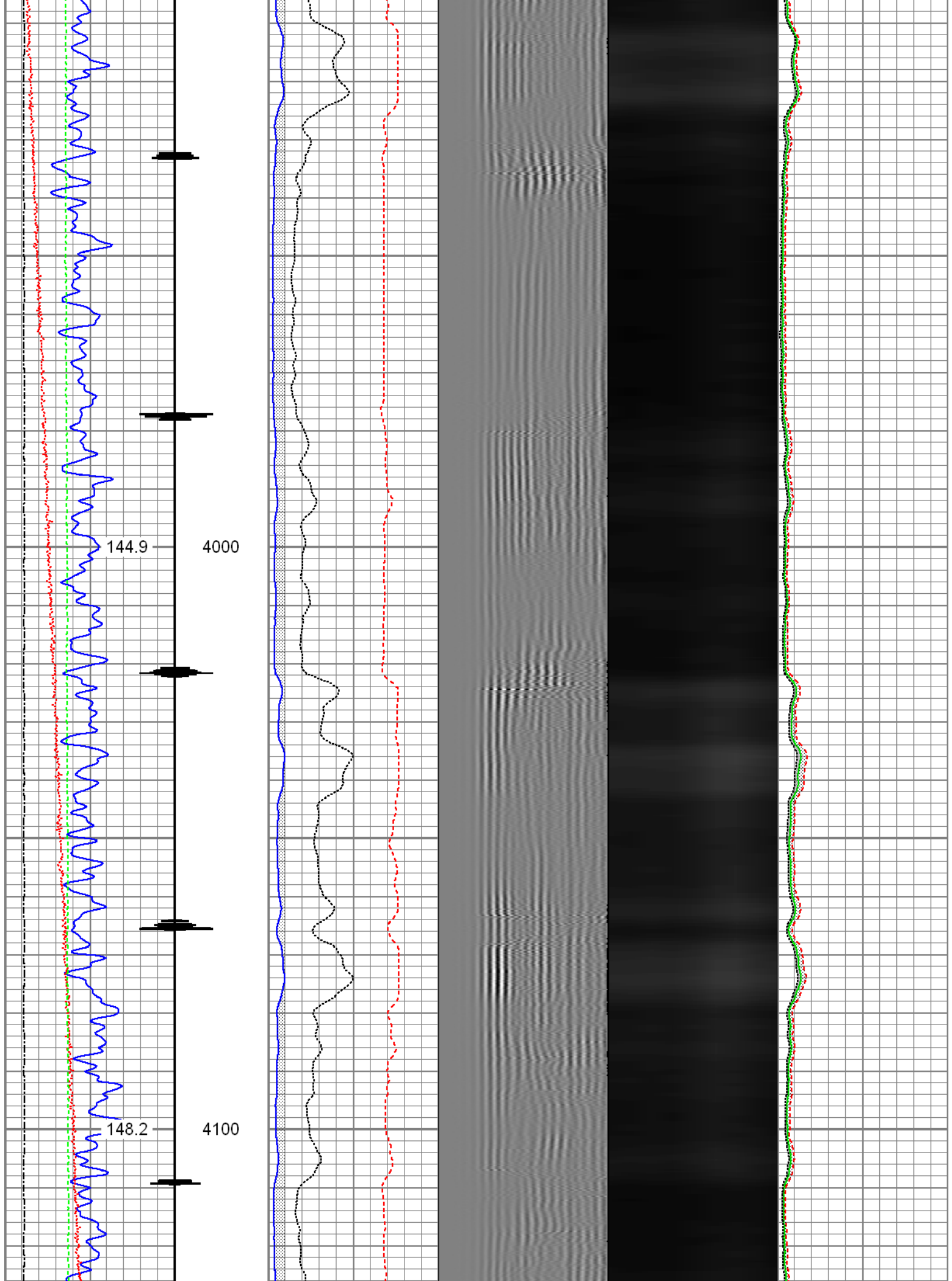


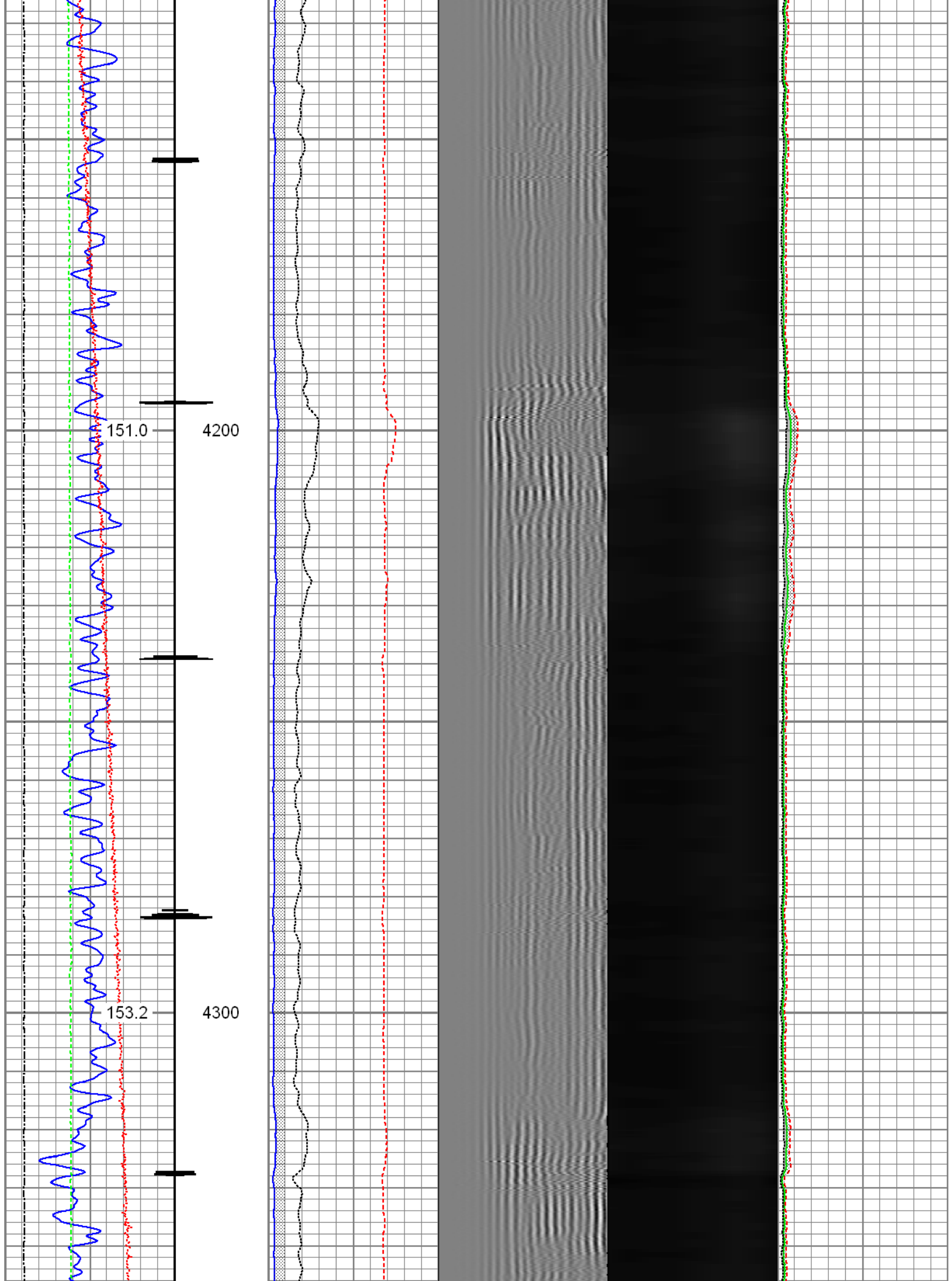


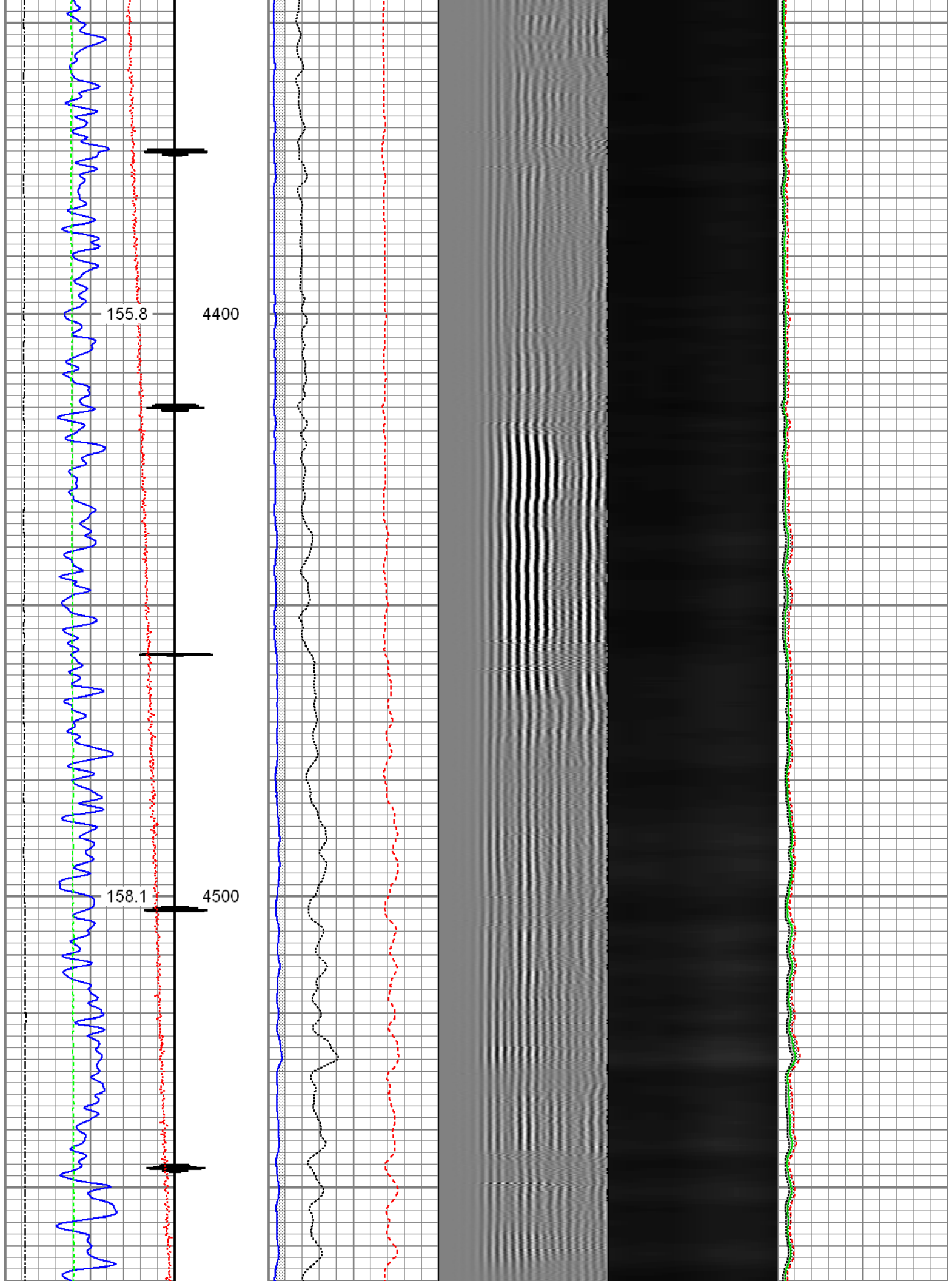


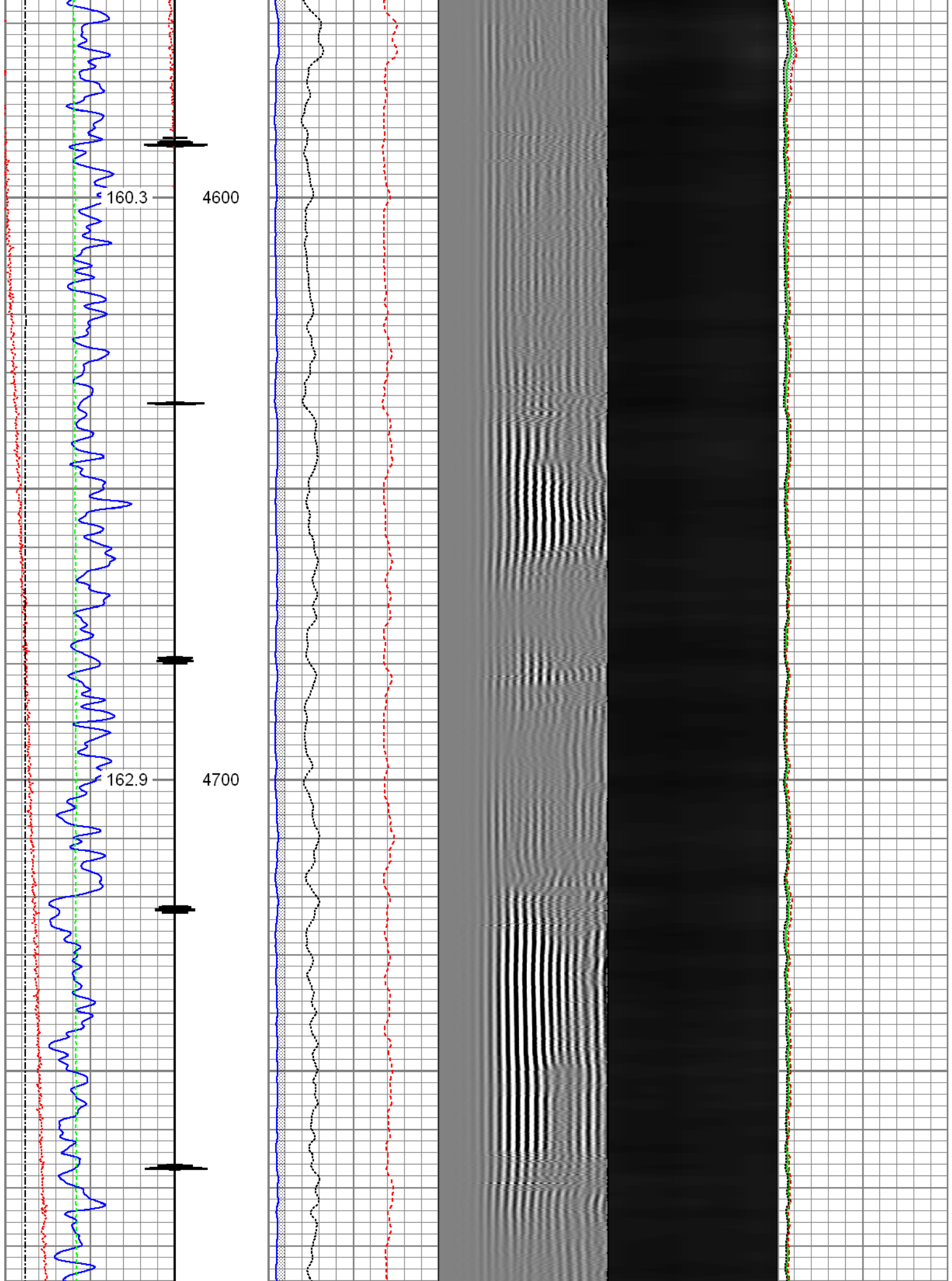


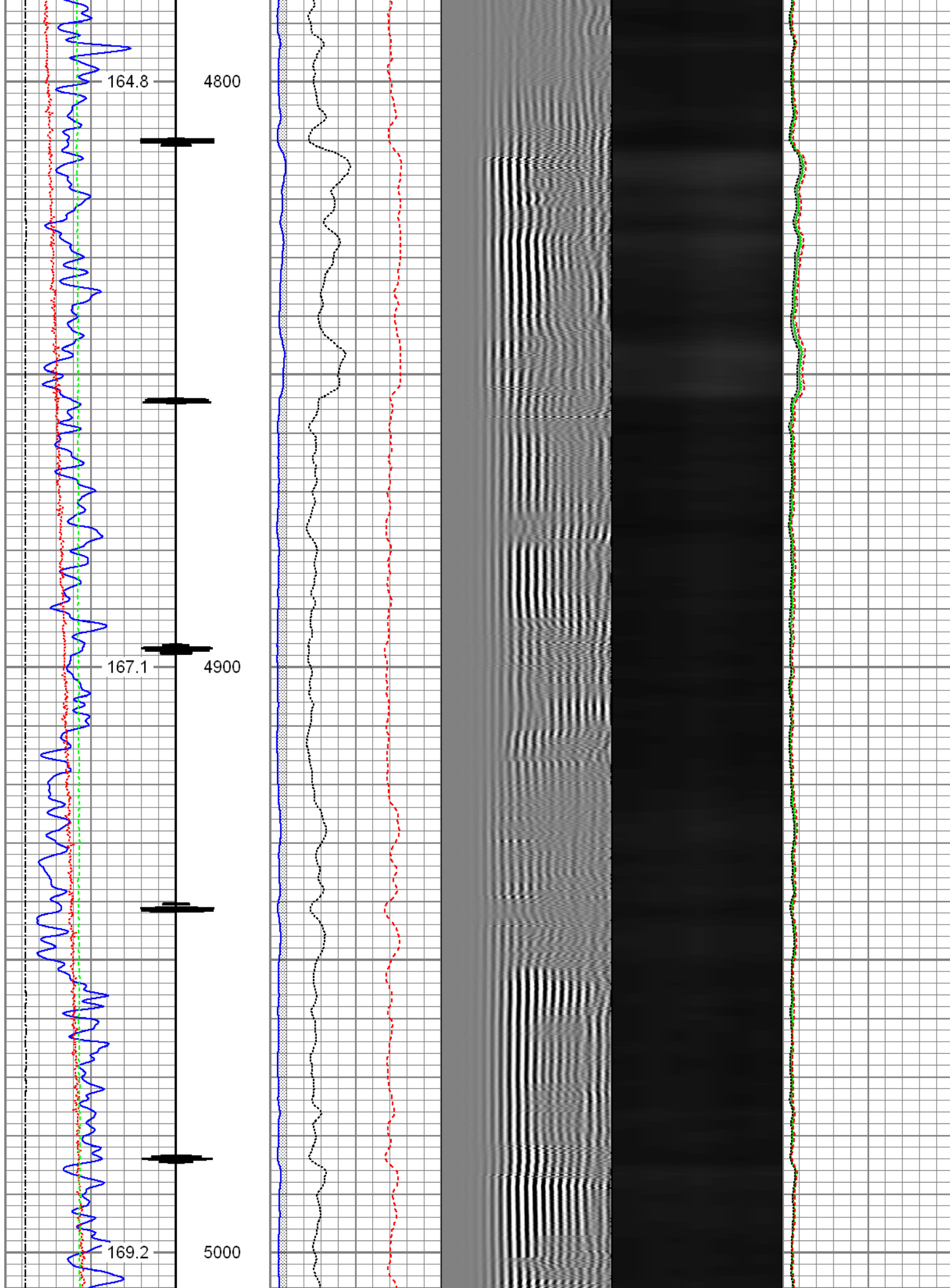


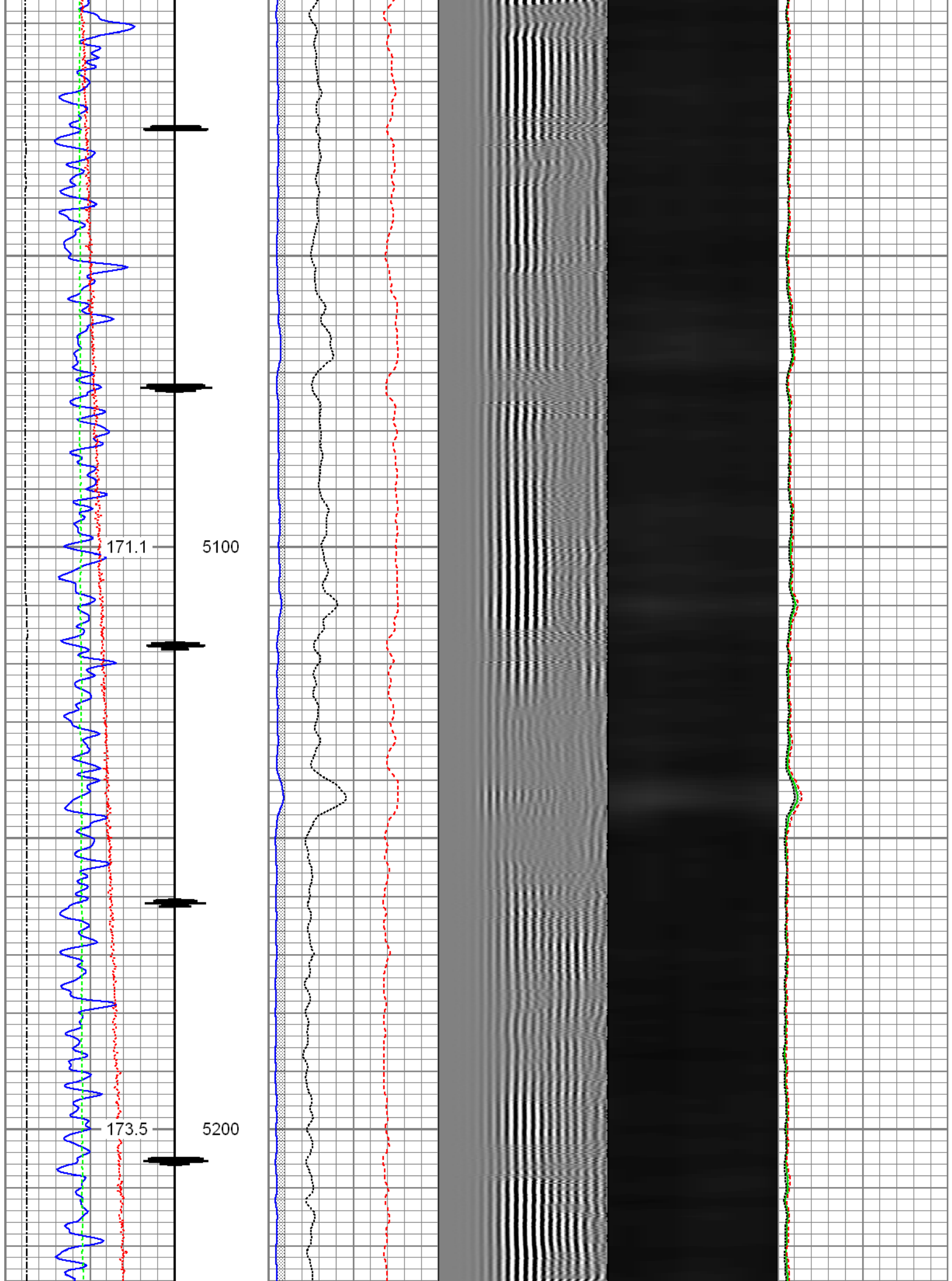


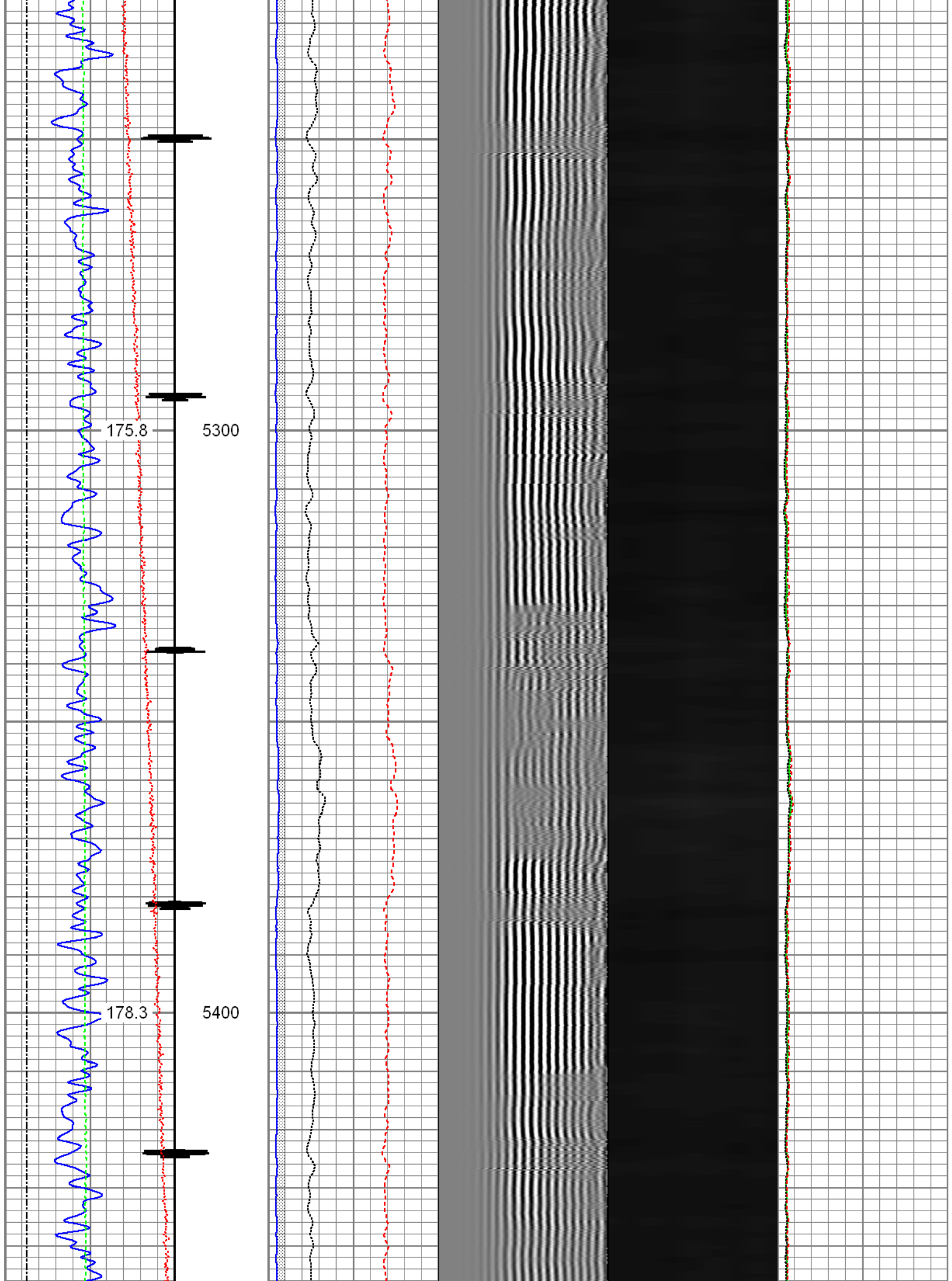


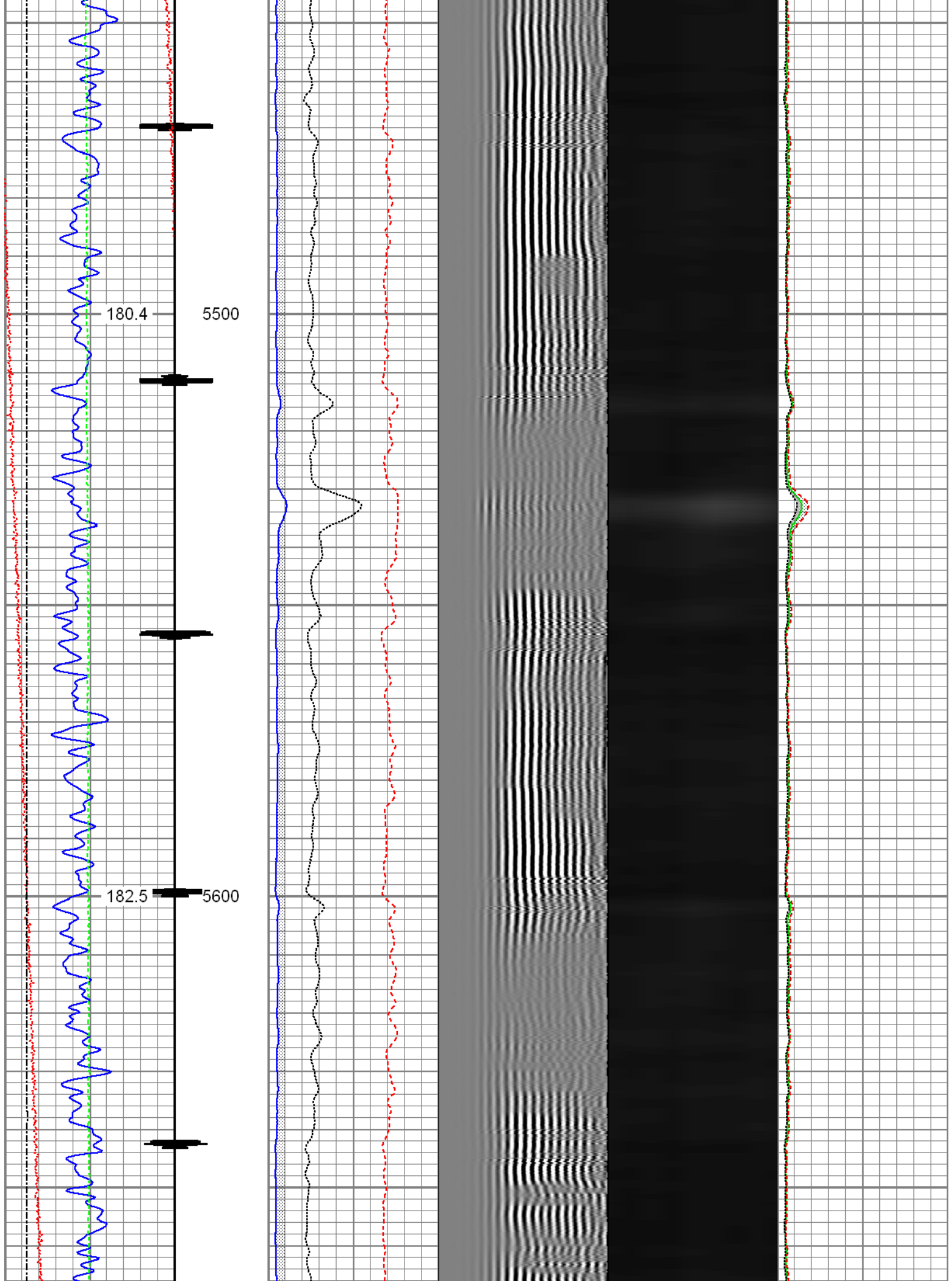


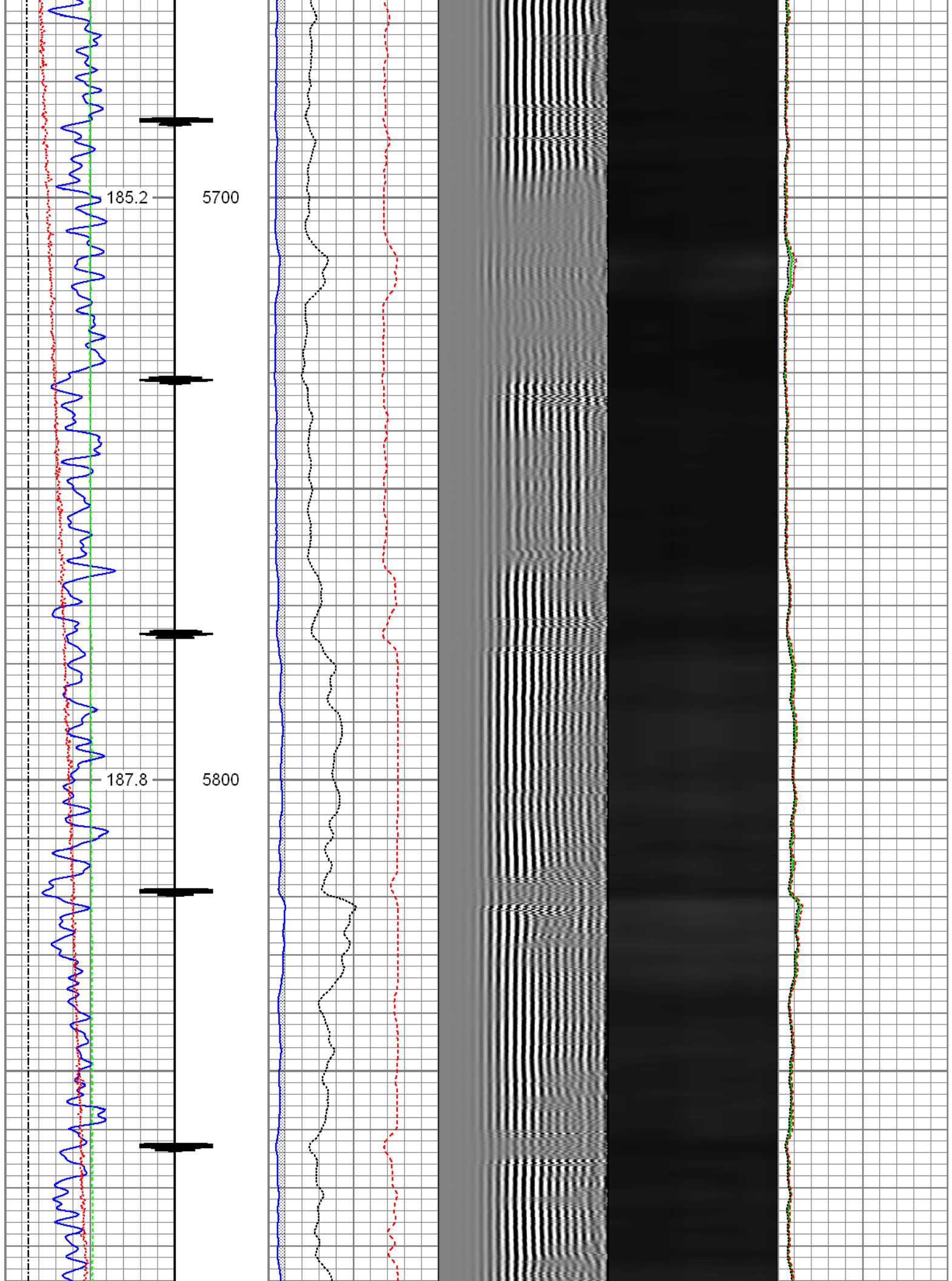


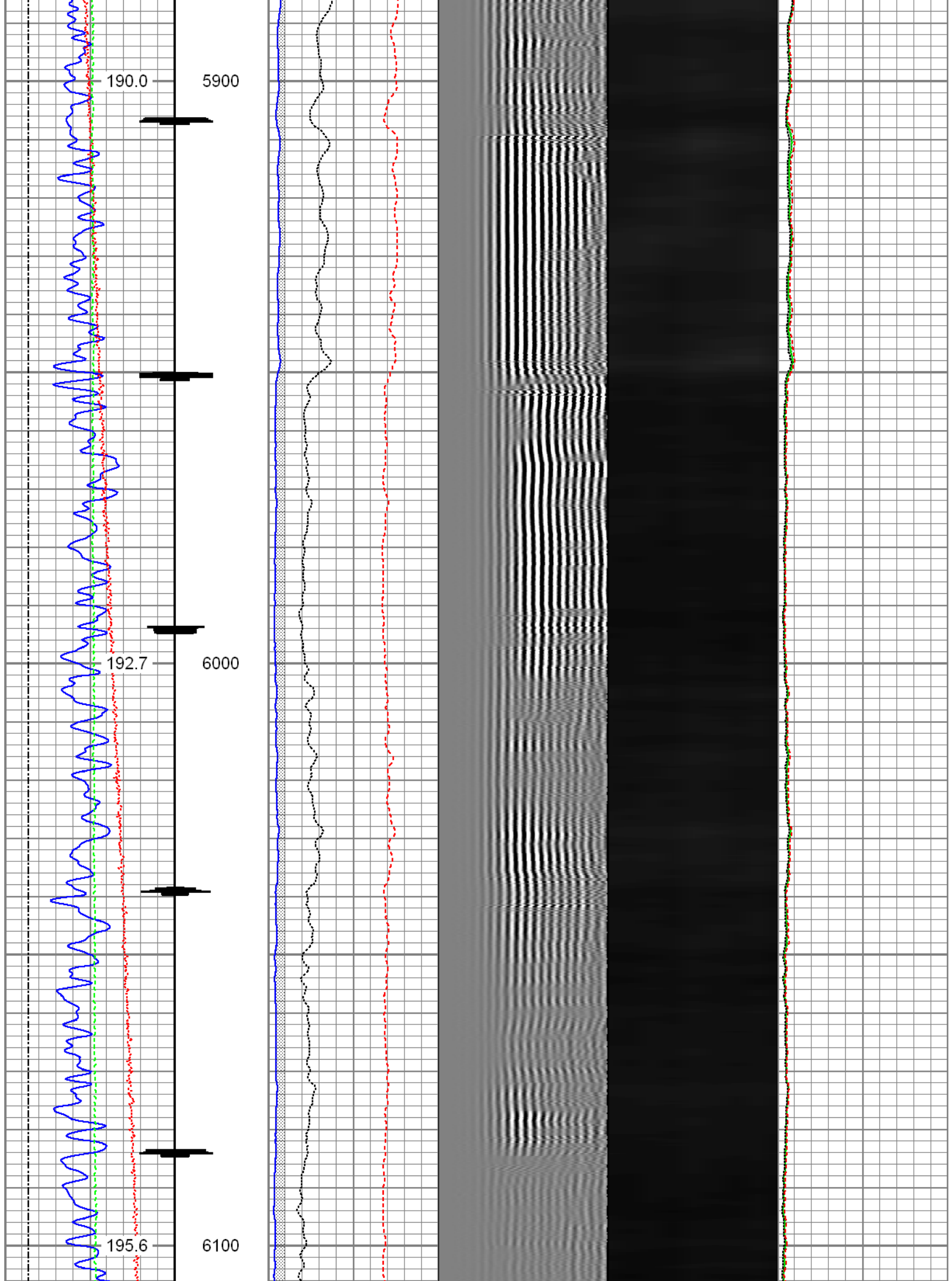


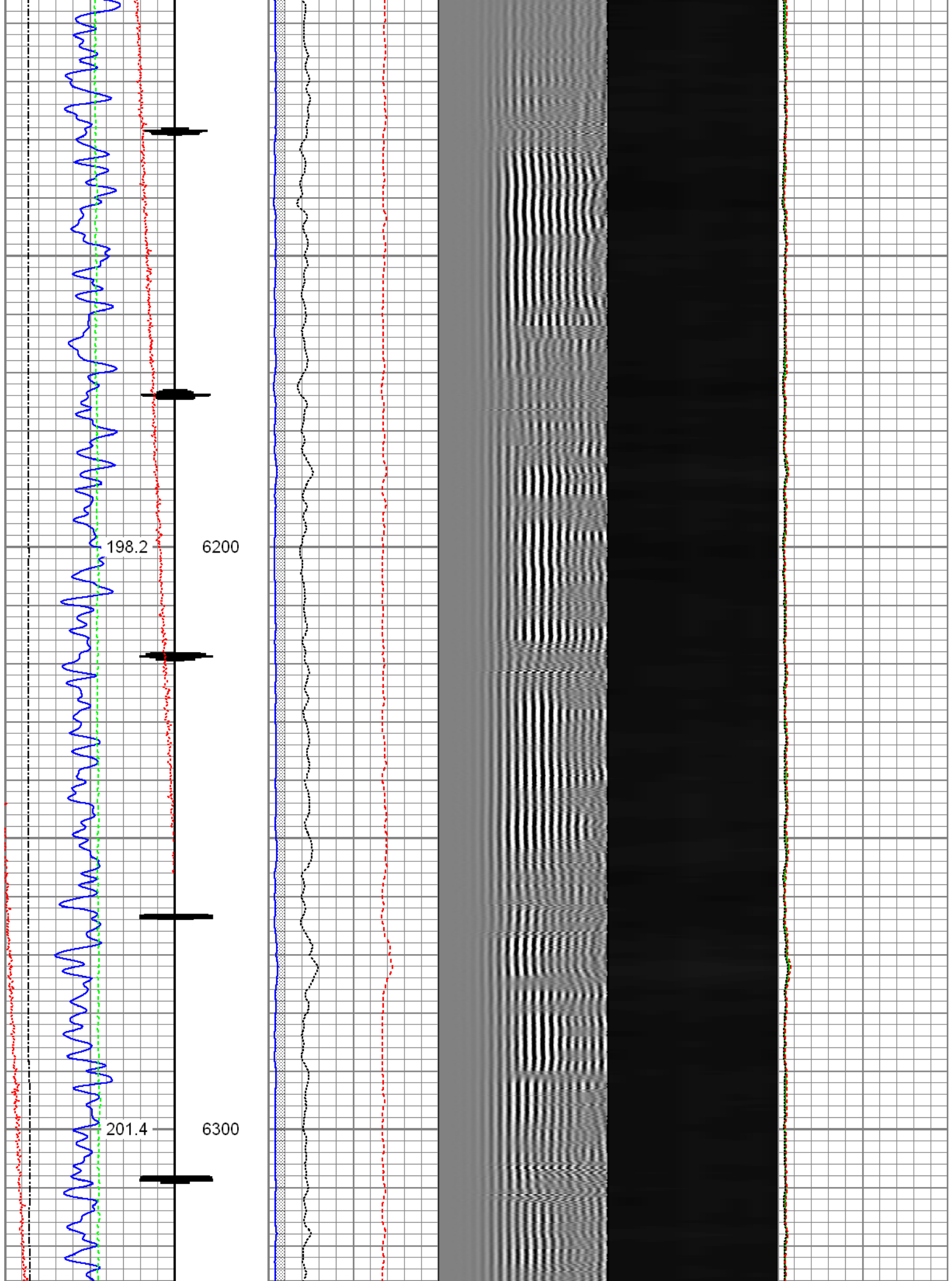


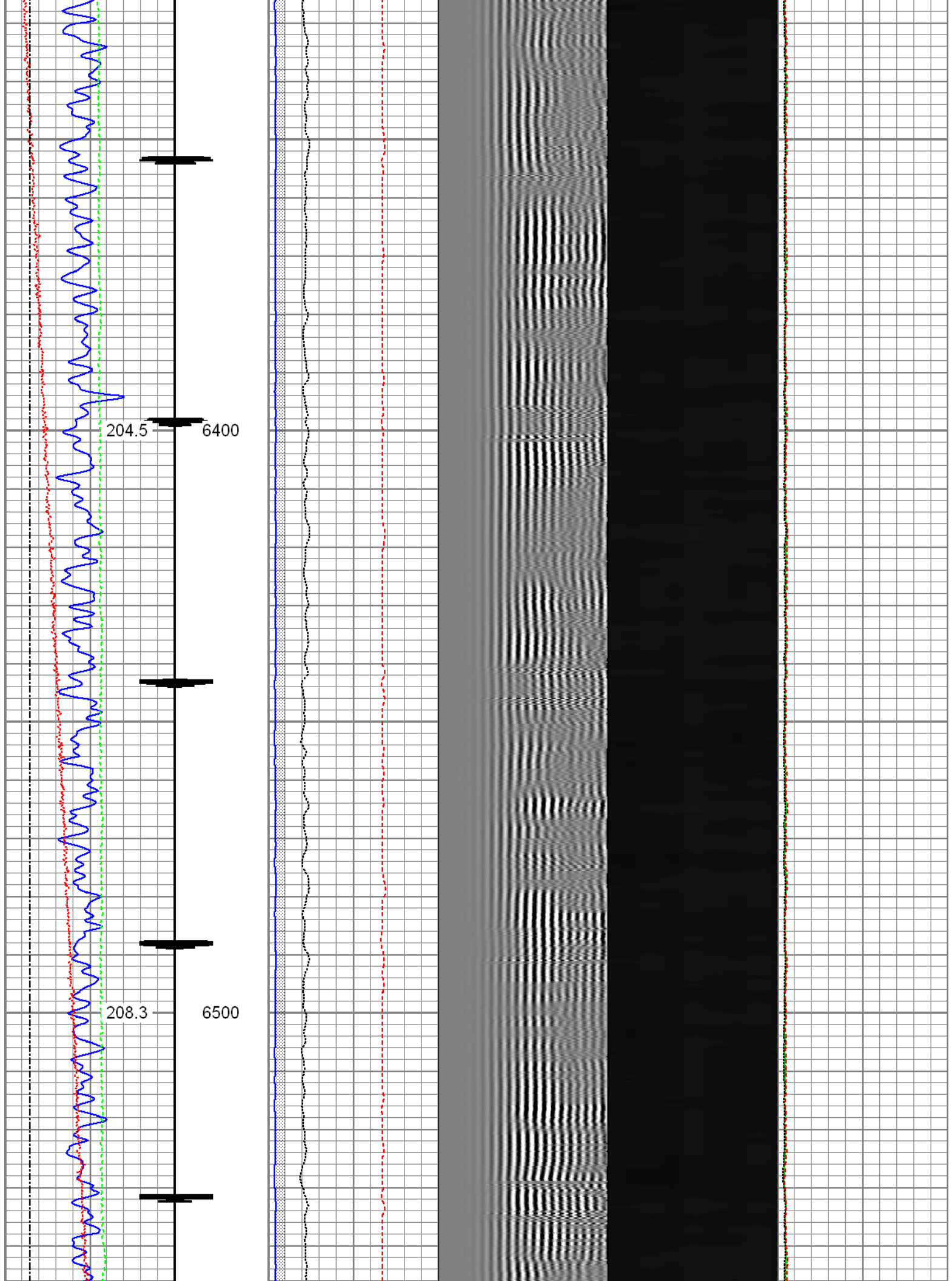


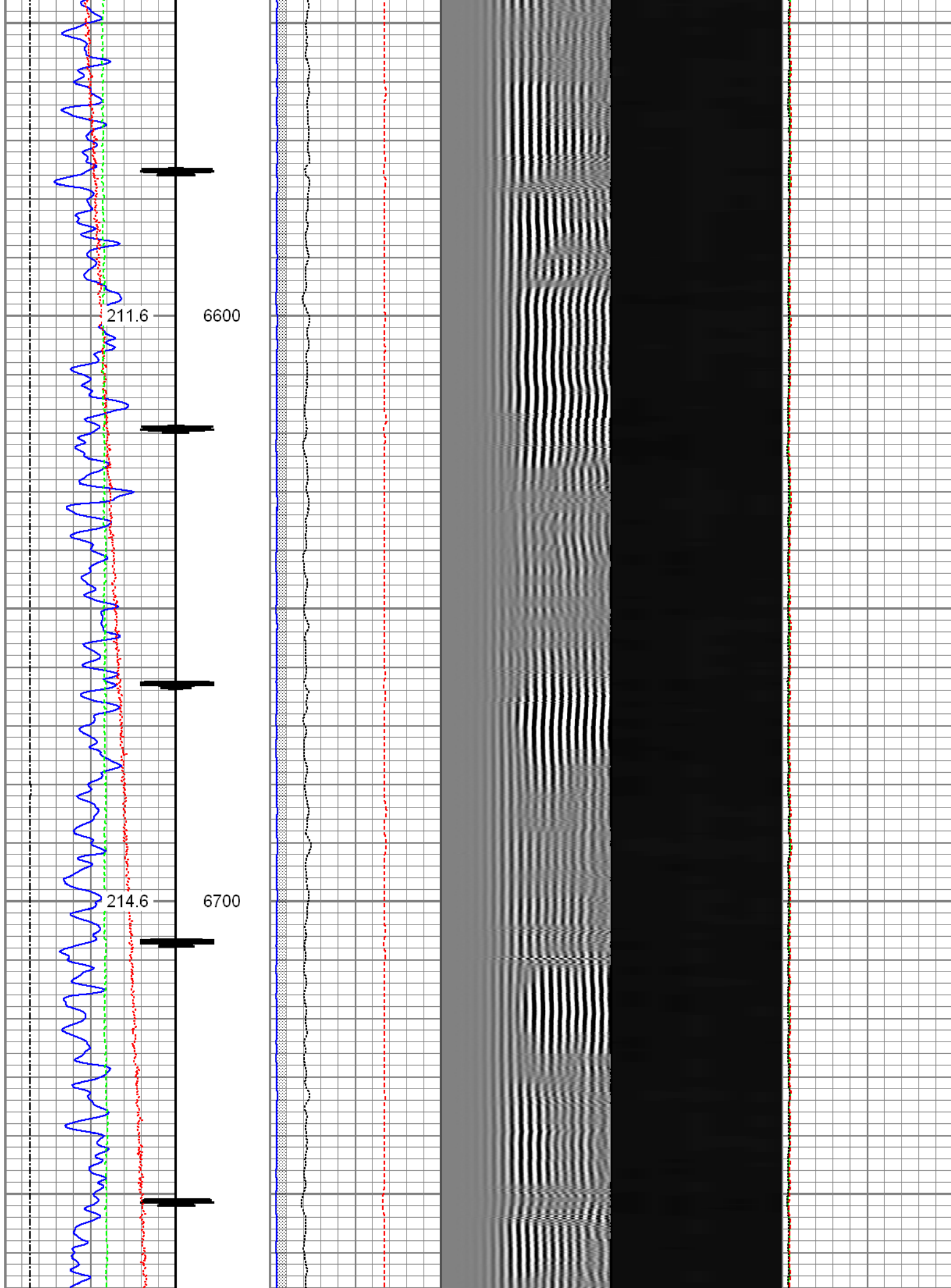


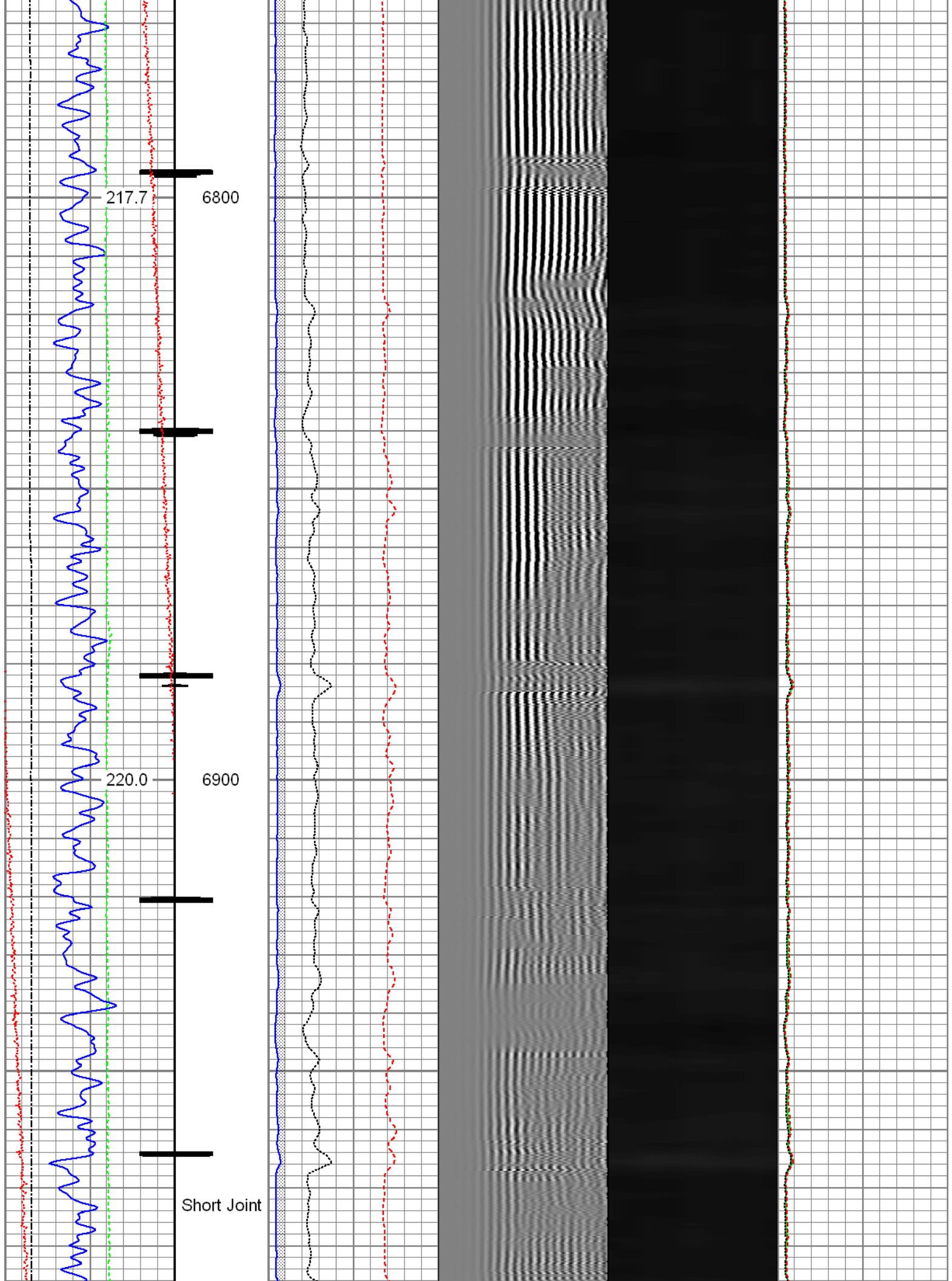


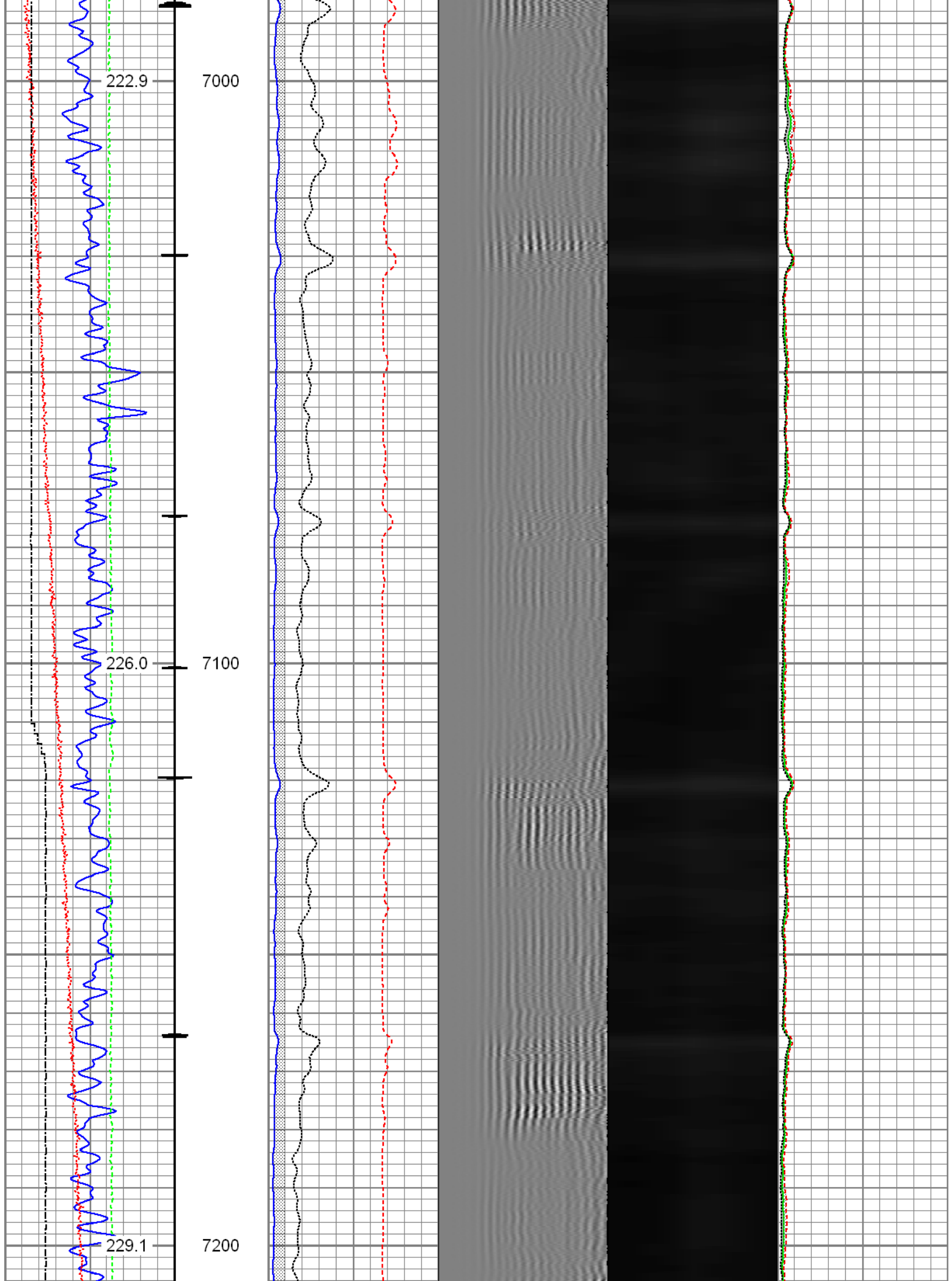


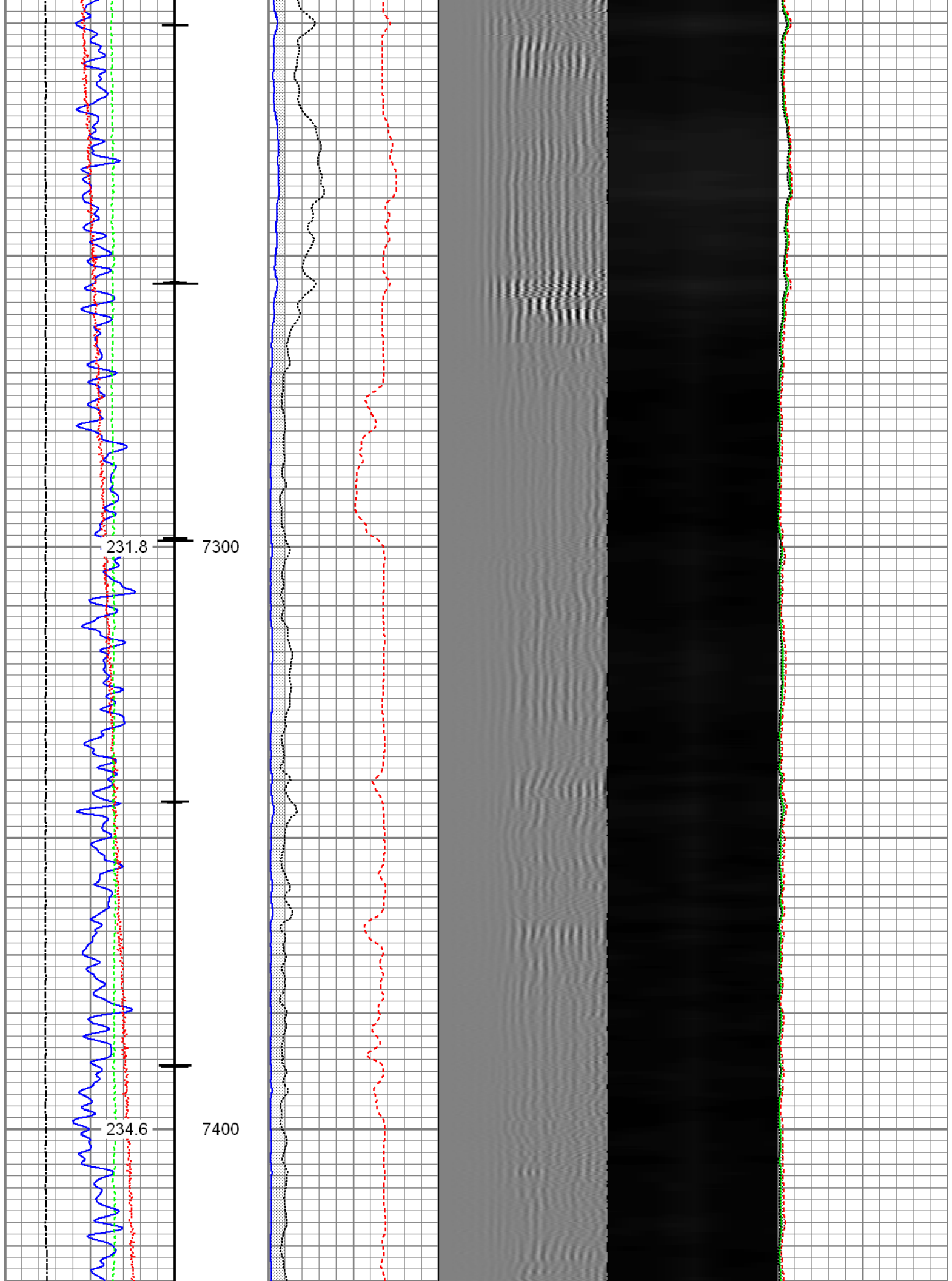


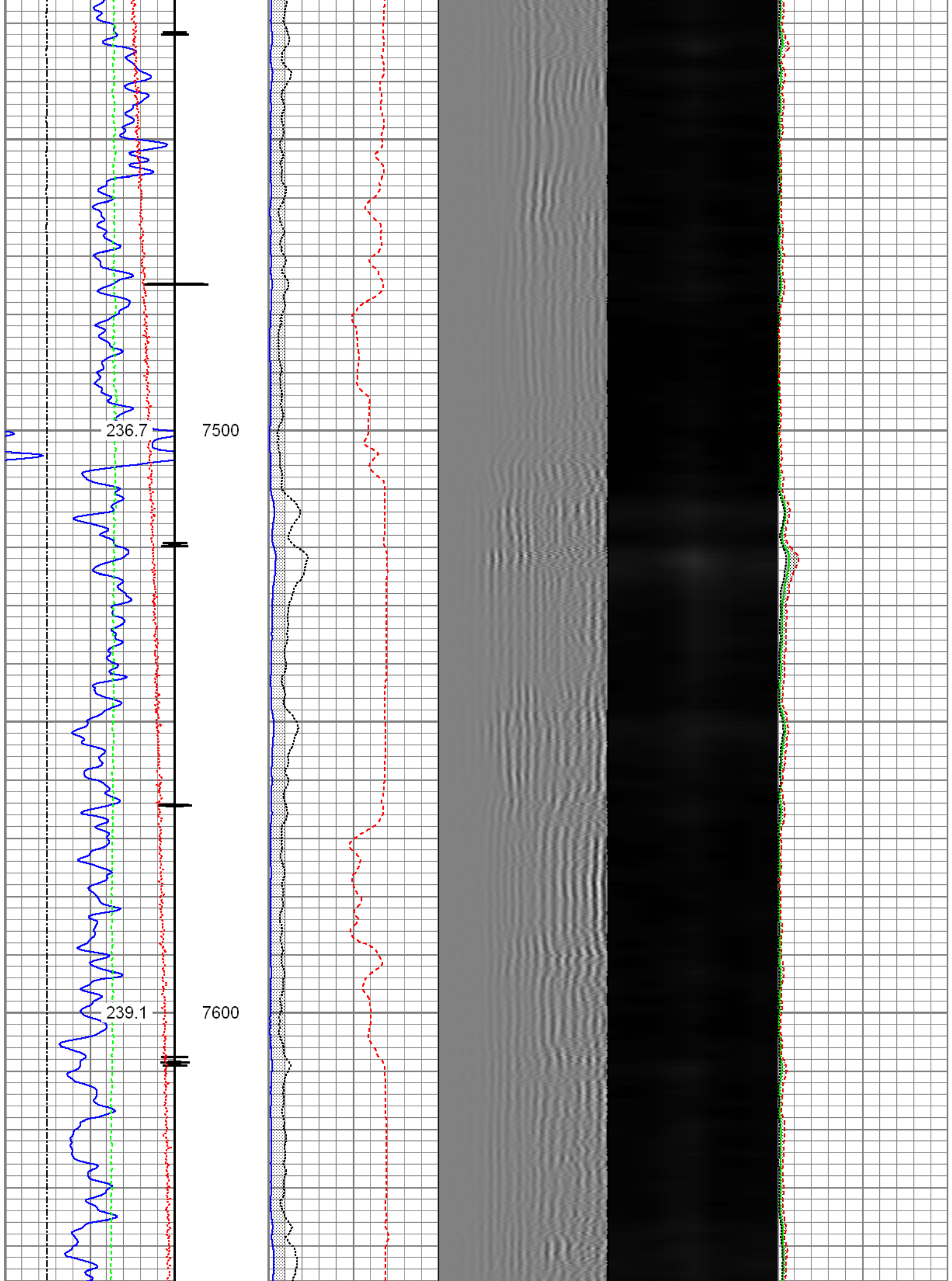




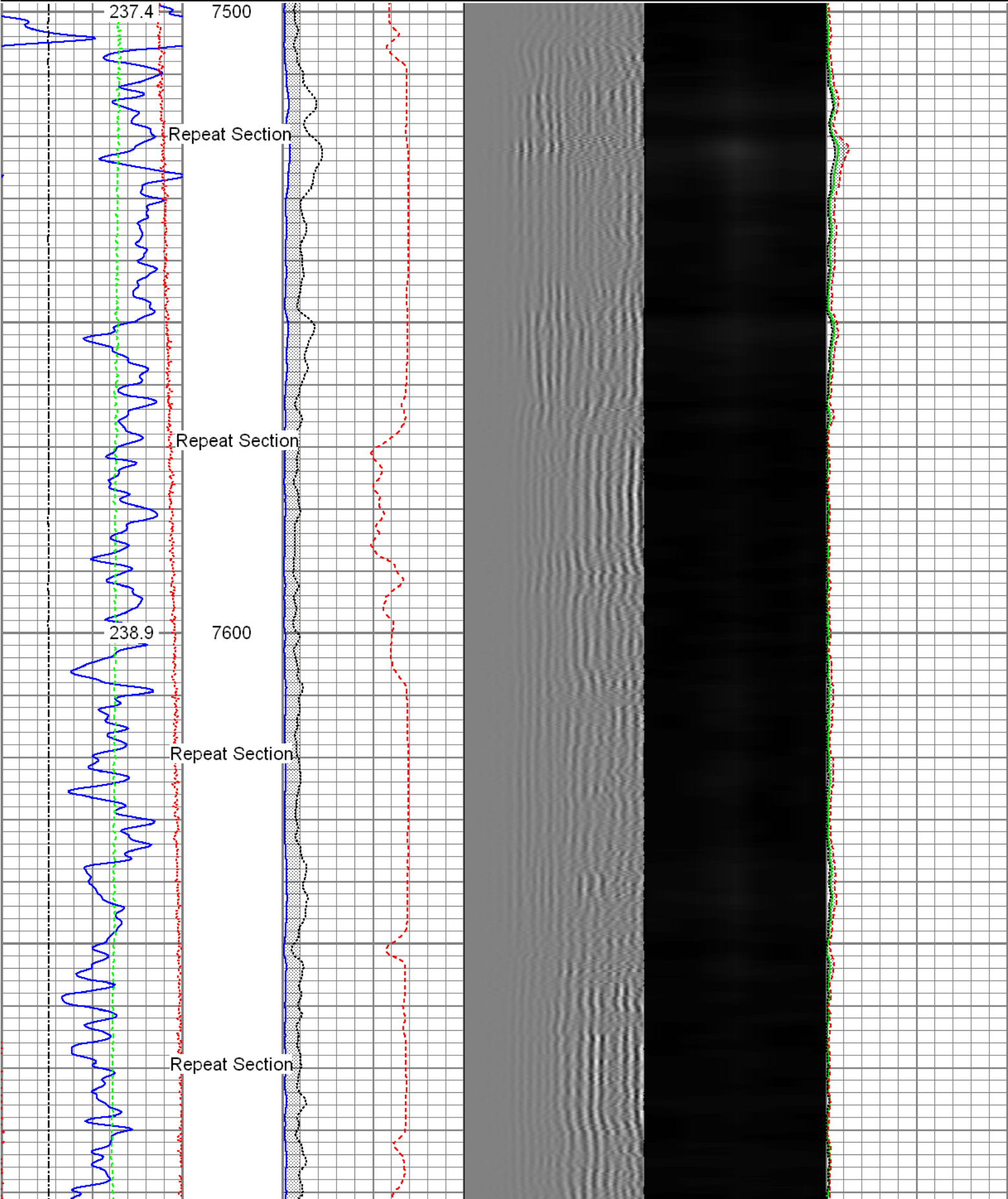


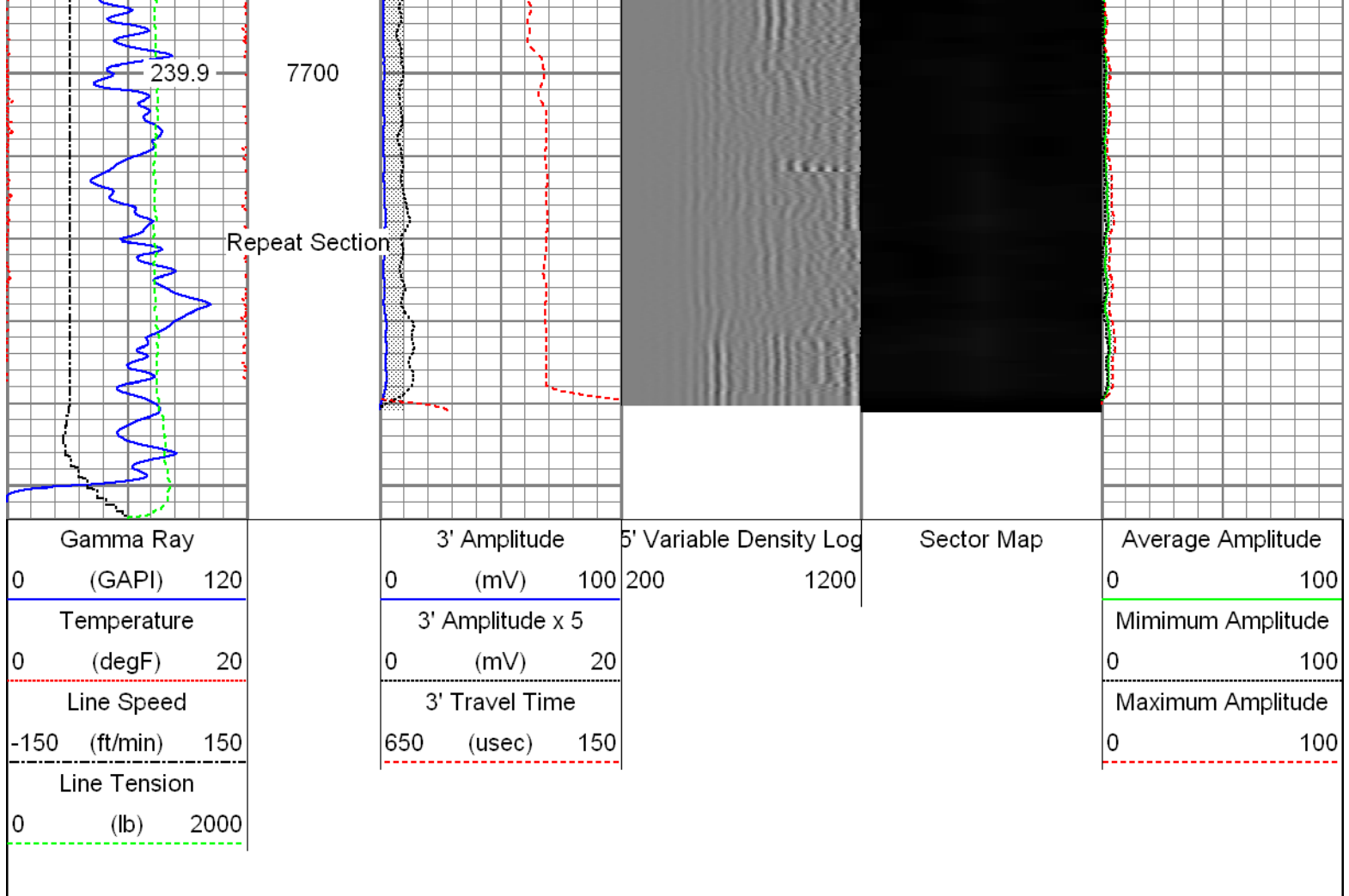




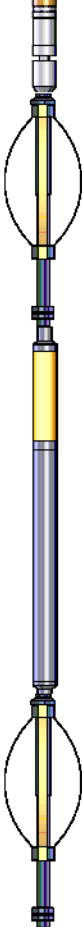


Line Speed			3' Travel Time			Maximum Amplitude		
-150	(ft/min)	150	650	(usec)	150	0		100
Line Tension								
0	(lb)	2000						





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					
WV3FT	14.55		Probe_RADII-C-2-3/4" (FW1311-014) 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					

WVFS6	14.55			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00	
WVFS7	14.55							
WVFS8	14.55							
WVF5FT	13.55							
CCL	6.51				Probe_CCL_GR-2.75" Digital (FW1211-081) Probe 2-3/4" Digital CCL / Gamma Ray Combined	4.54	2.75	55.00
DCCL	6.51							
GR	3.77				Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Dataset:		PROCESSED_0512341793_Anadarko_Tedford 28N-28HZ_10-22-15_RBL.db: field/well/run1/pass5						
Total Length:		23.40 ft						
Total Weight:		194.00 lb						
O.D.		2.75 in						

Master Calibration, performed Thu Oct 22 07:35:17 2015:

Calibrated (mv)

Results

	Raw (v)		Calibrated (mV)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.010	0.690	1.000	71.921	104.370	-0.070
CAL	0.620	0.782				
5'	0.011	0.702	1.000	71.921	102.697	-0.181
SUM						
S1	0.010	0.693	0.000	100.000	146.448	-1.436
S2	0.011	0.693	0.000	100.000	146.518	-1.549
S3	0.010	0.691	0.000	100.000	146.850	-1.522
S4	0.011	0.690	0.000	100.000	147.200	-1.563
S5	0.011	0.688	0.000	100.000	147.651	-1.606
S6	0.011	0.691	0.000	100.000	147.156	-1.613
S7	0.011	0.696	0.000	100.000	146.022	-1.635
S8	0.011	0.691	0.000	100.000	147.013	-1.588

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	0.620	0.782	1.000	0.000

Air Zero Calibration, performed Thu Oct 22 07:34:07 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 and Gas Onshore LP
Well Tedford 28N-28HZ
Field Wattenberg
County Weld
State Colorado