



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company		Kerr-McGee Oil & Gas Onshore, L.P.	
Well		Bat 29C-9HZ	
Field		Wattenberg	
County		Weld	
State		Colorado	
Company		Kerr-McGee Oil & Gas Onshore, L.P.	
Well		Bat 29C-9HZ	
Field		Wattenberg	
County		Weld	
State		Colorado	
Location:		API #: 05-123-41285	
SEC 9		TWP 1N	
RGE 65W		Other Services	
Permanent Datum		Ground Level	
Log Measured From		Kelly Bushing	
Drilling Measured From		Kelly Bushing	
Elevation		4930'	
K.B. 4955'		D.F. 4954'	
G.L. 4930'			
Date		03-AUG-2015	
Run Number		One	
Depth Driller		---	
Depth Logger		7730 FT	
Bottom Logged Interval		7733 FT	
Top Log Interval		Surface	
Open Hole Size		7.875"	
Type Fluid		Water	
Density / Viscosity		8.34 lbm/gal	
Max. Recorded Temp.		237°F	
Estimated Cement Top		Surface	
Time Well Ready		ROA	
Time Logger on Bottom		10:00	
Equipment Number		HD-0343	
Location		Fort Lupton, CO	
Recorded By		Zach Fisher	
Witnessed By		Josh Gustafson	
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	
Intermediate #1		5 1/2	
Intermediate #2		17	
Liner		HC-P110	
		Surface	
		12187 FT	

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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 6814 FT  
Recorded Marker Joint at 6783 FT  
Log ran from 7730 FT to surface  
Log ran with 2800 PSI surface induced pressure

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

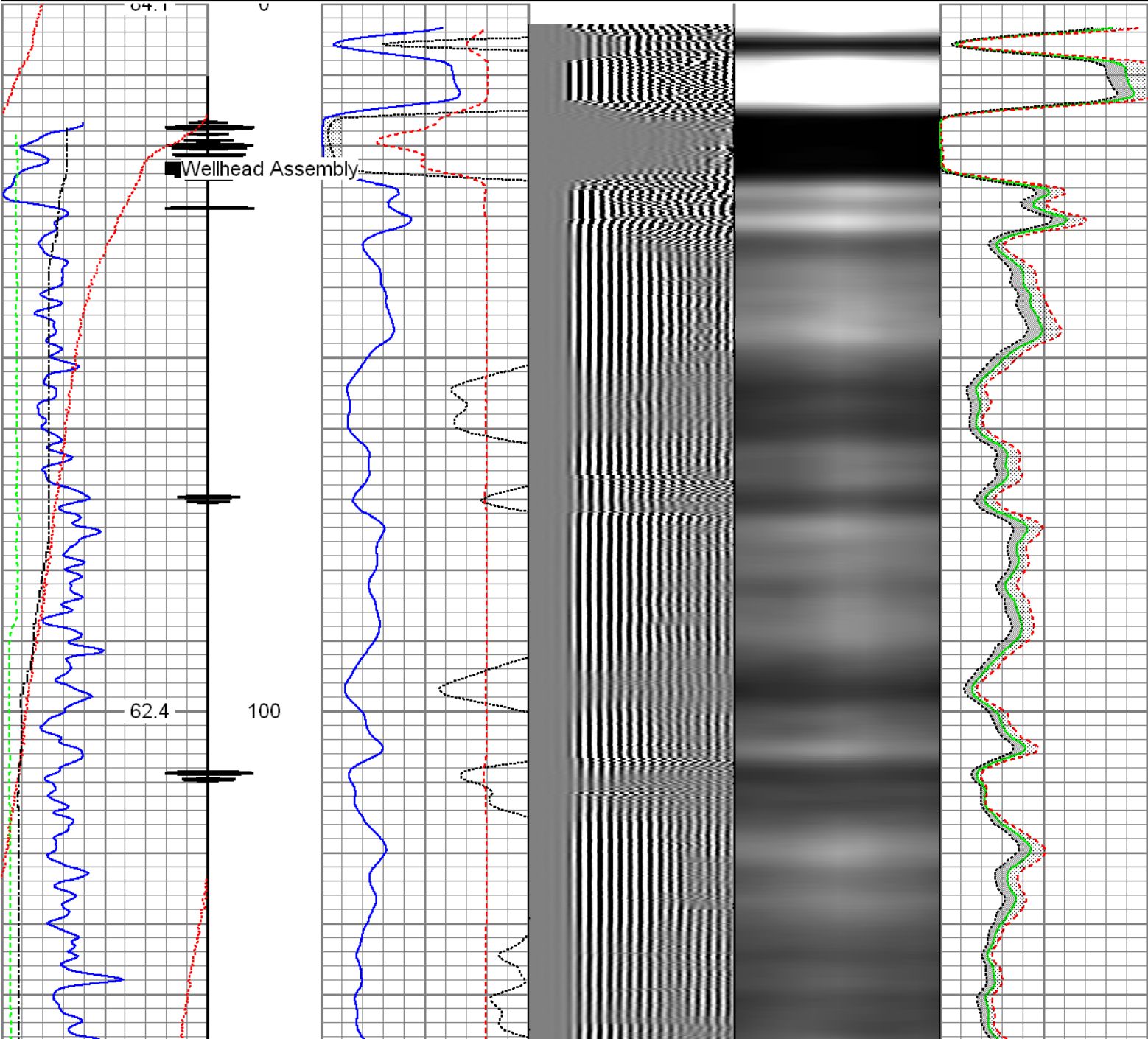


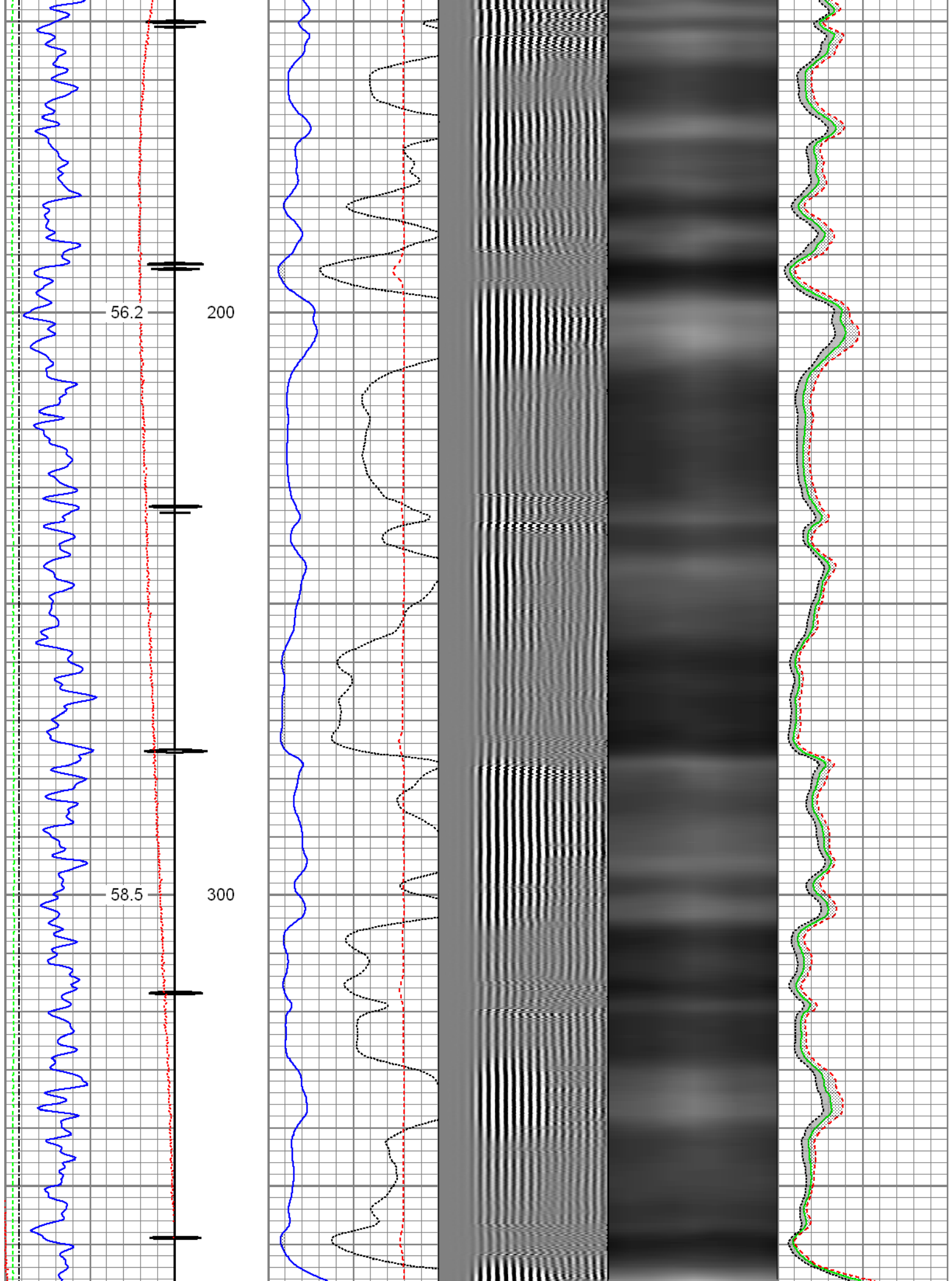
Main Pass

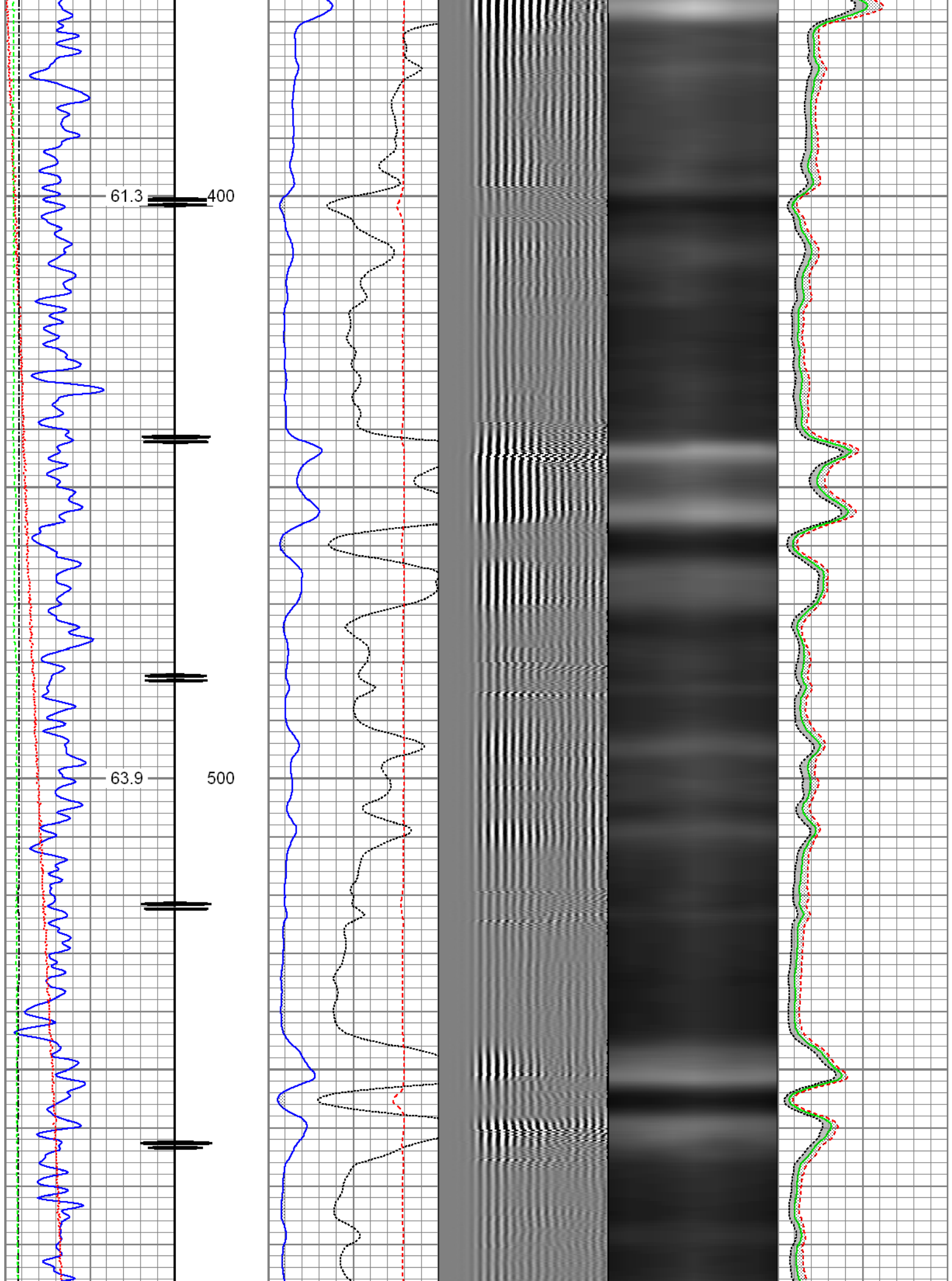
Recorded with 2800 PSI Surface Induced Pressure

Database File: 0512341285\_anadarko\_bat 29c-9hz\_08-03-15\_rbl.db  
Dataset Pathname: MainPass  
Presentation Format: radii  
Dataset Creation: Mon Aug 03 10:23:38 2015 by Log 7.0 B1  
Charted by: Depth in Feet scaled 1:240

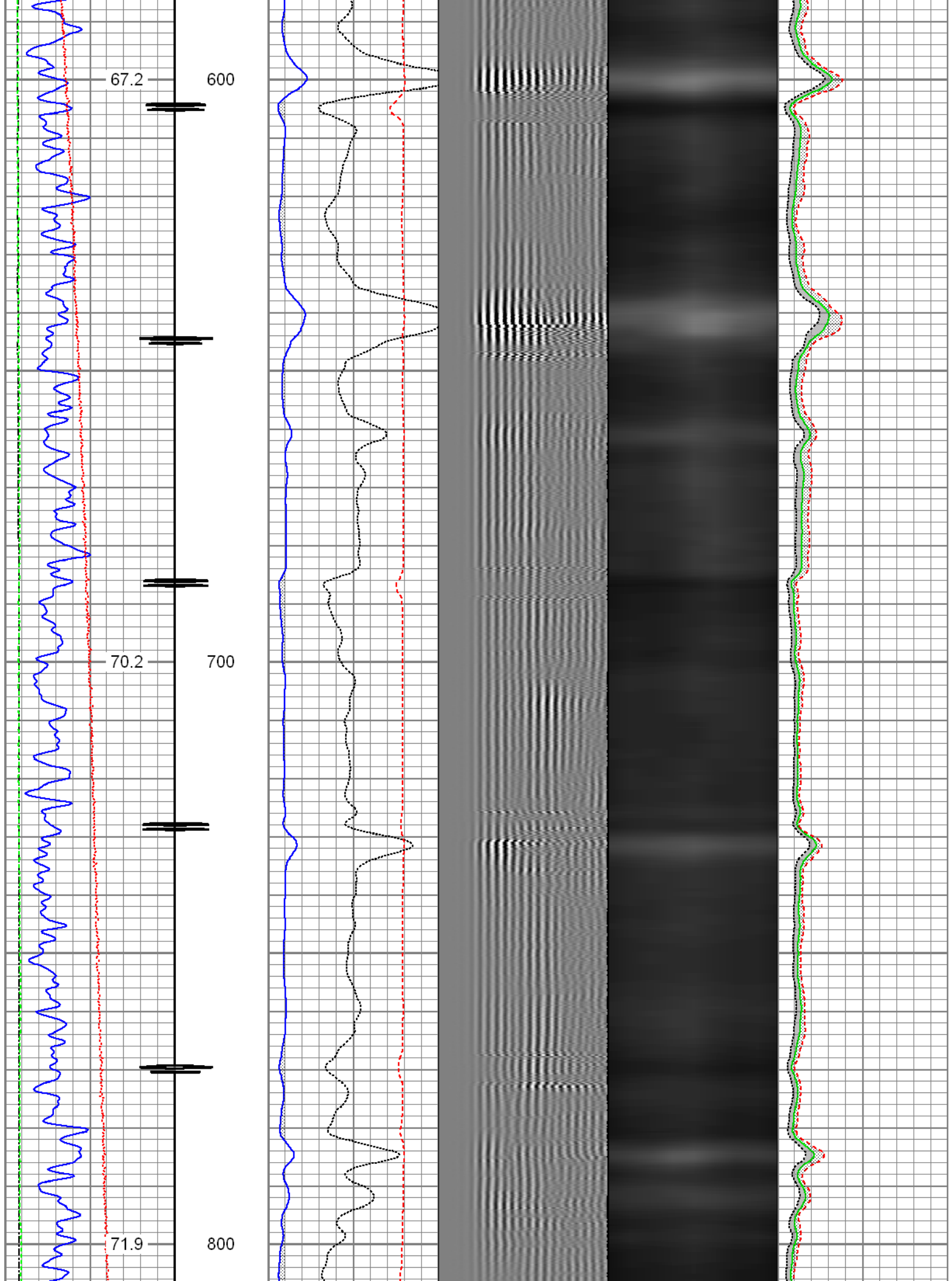
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150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

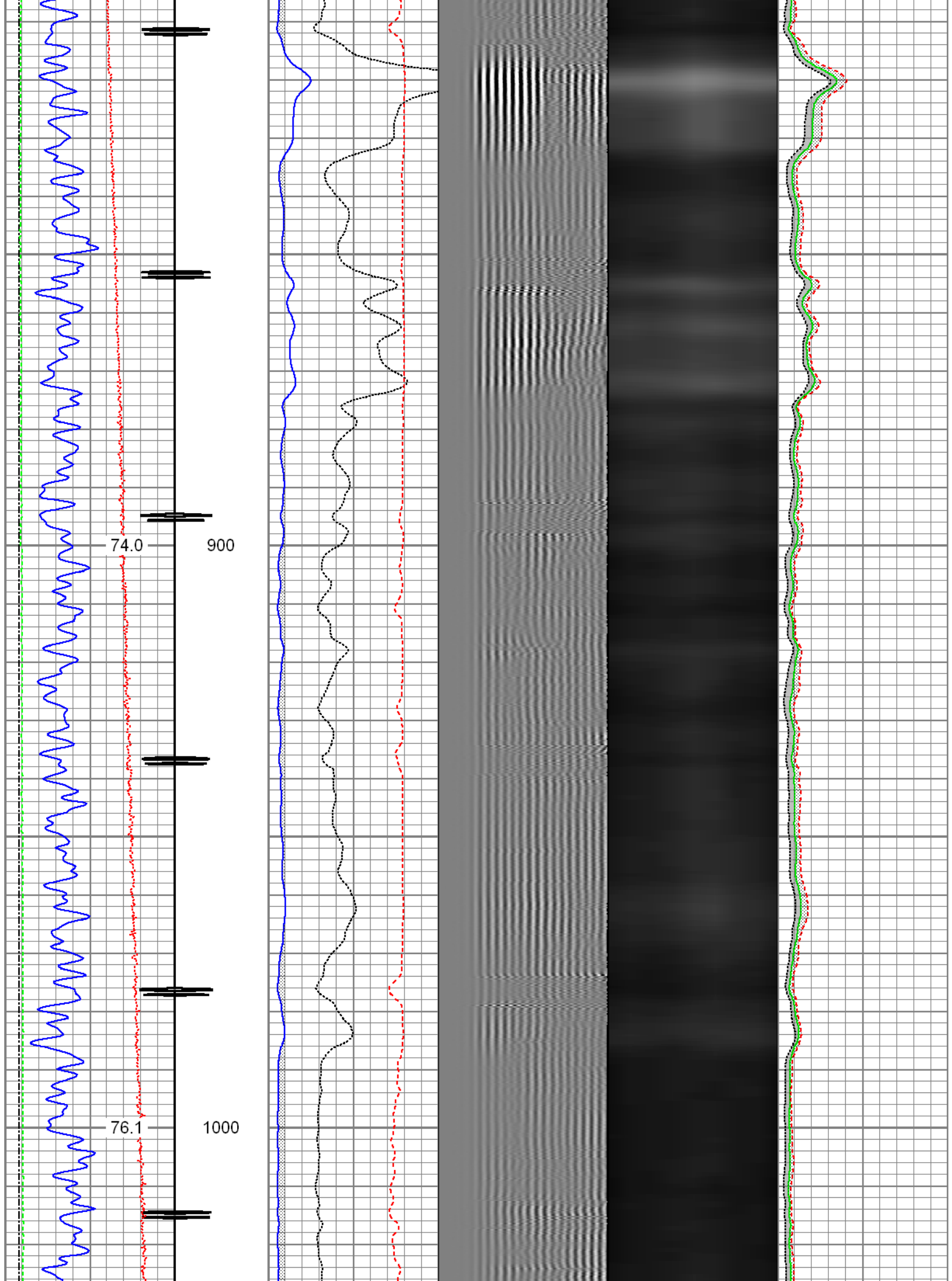


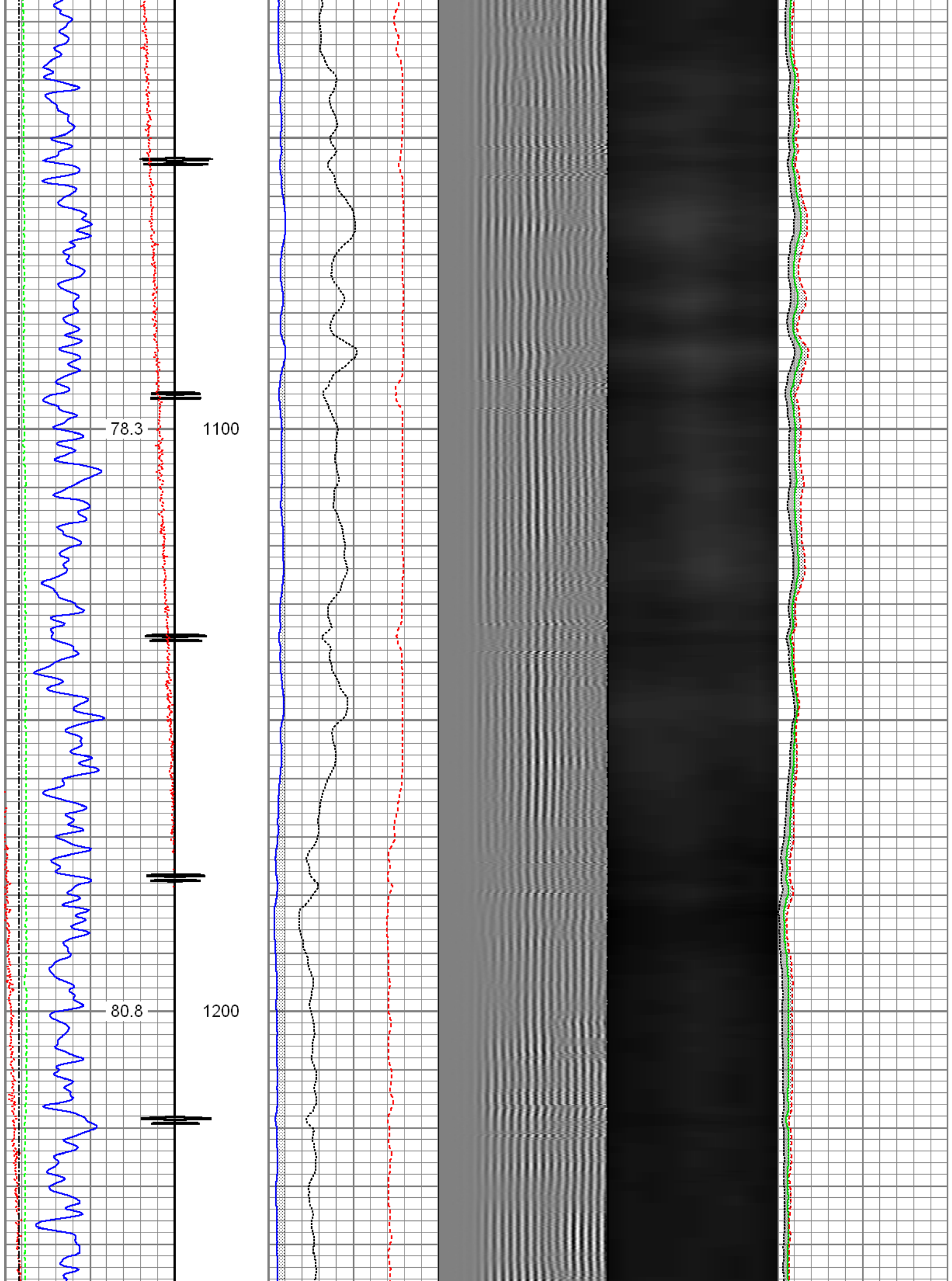


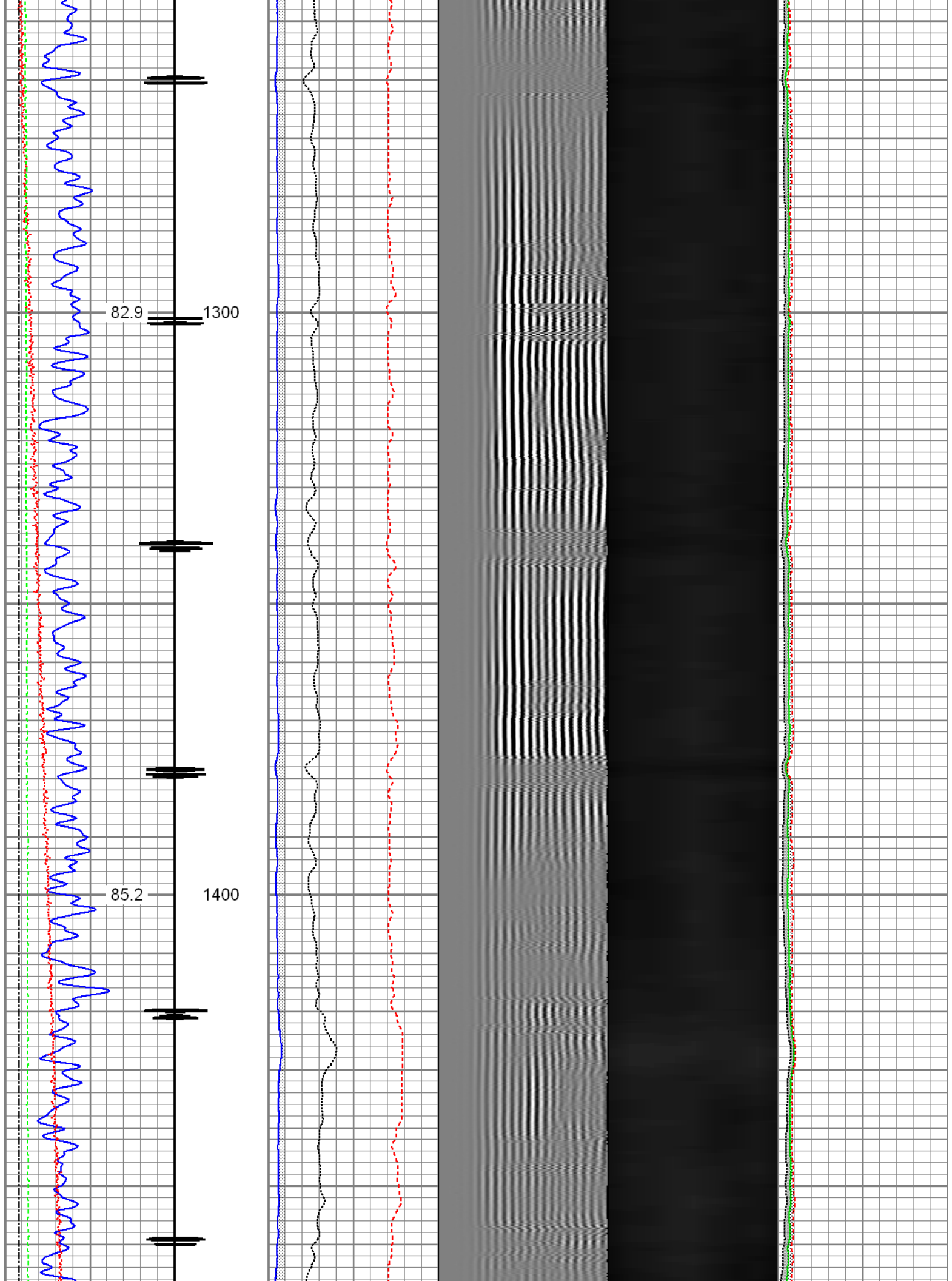




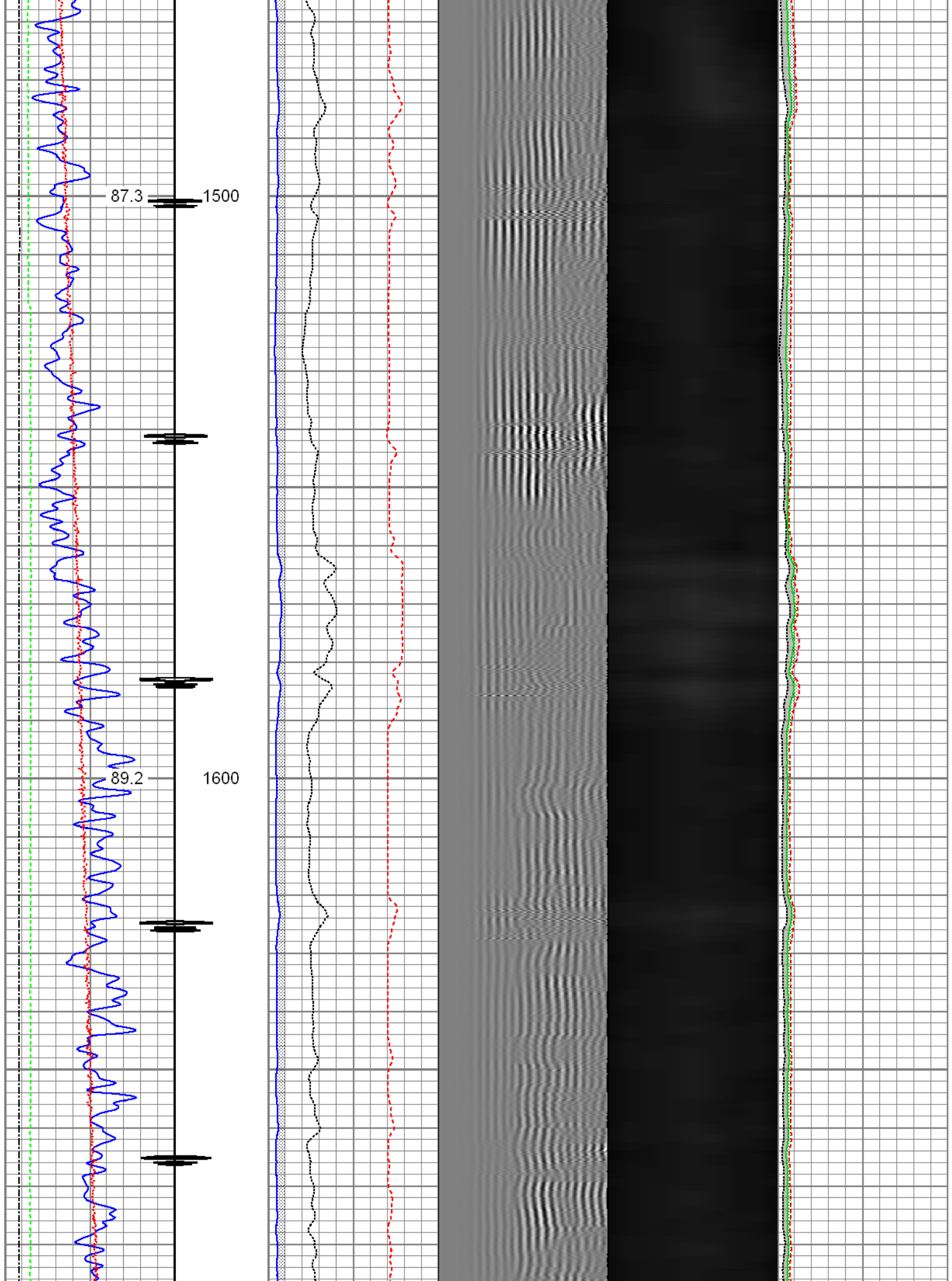


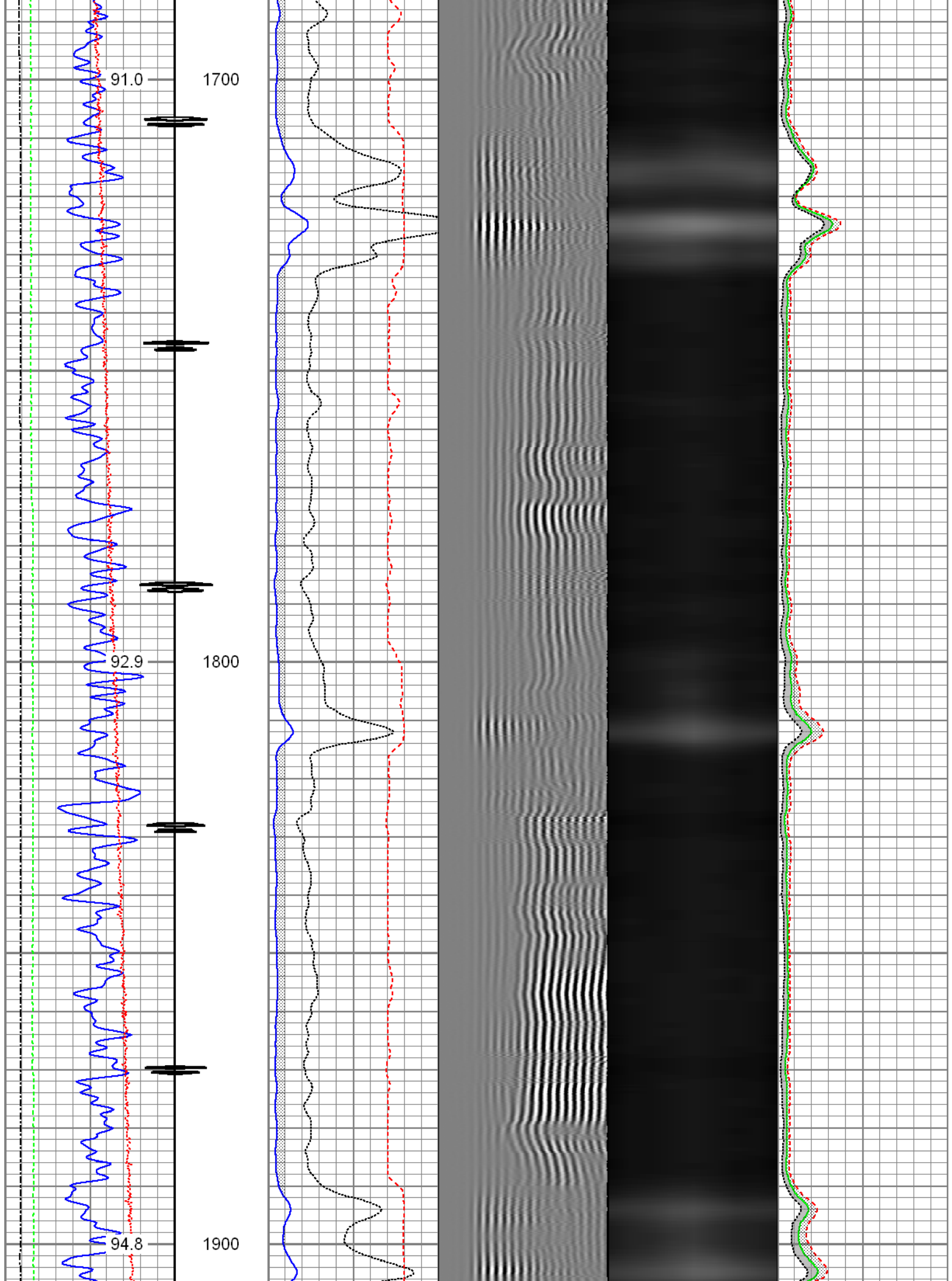


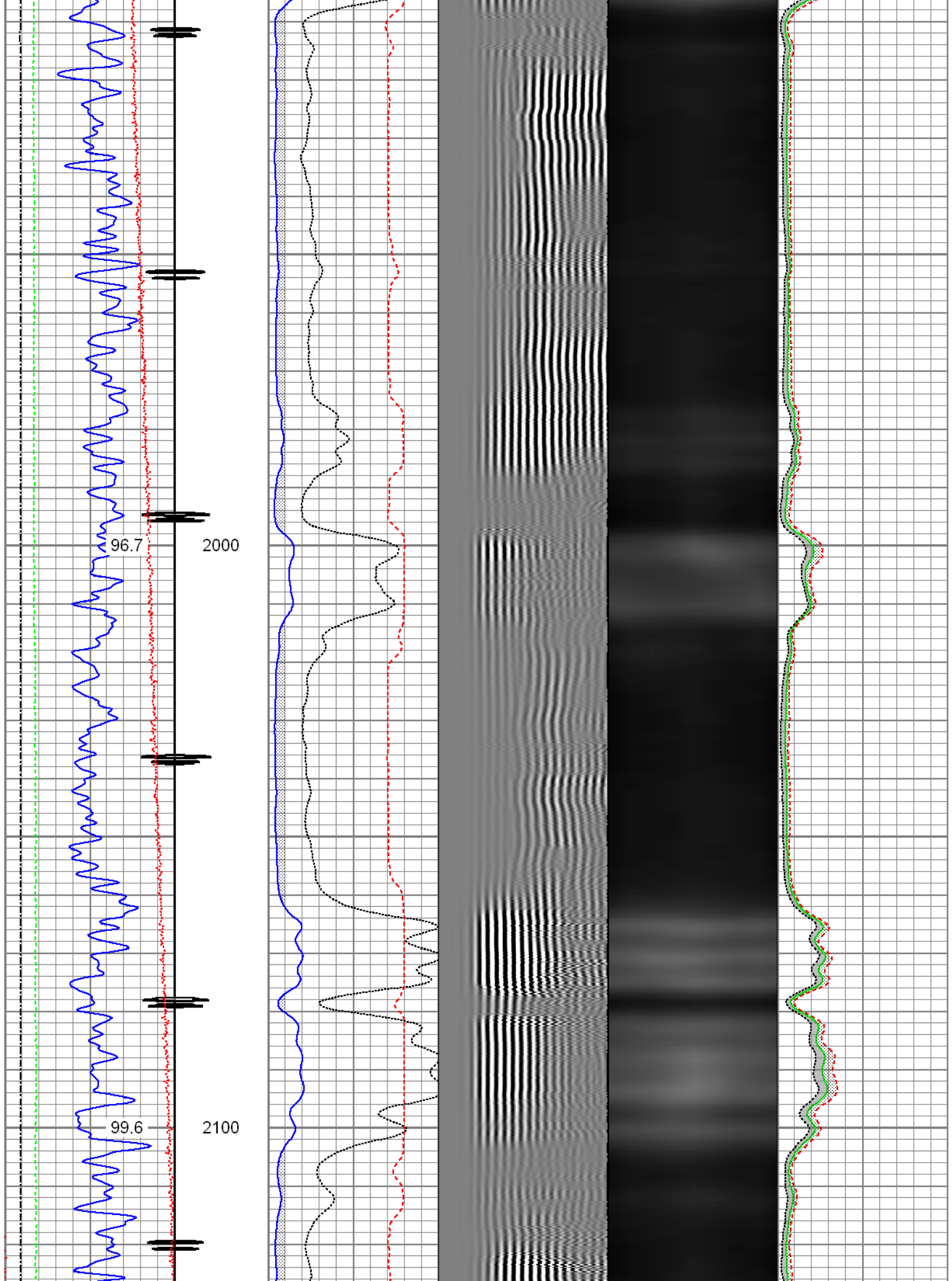


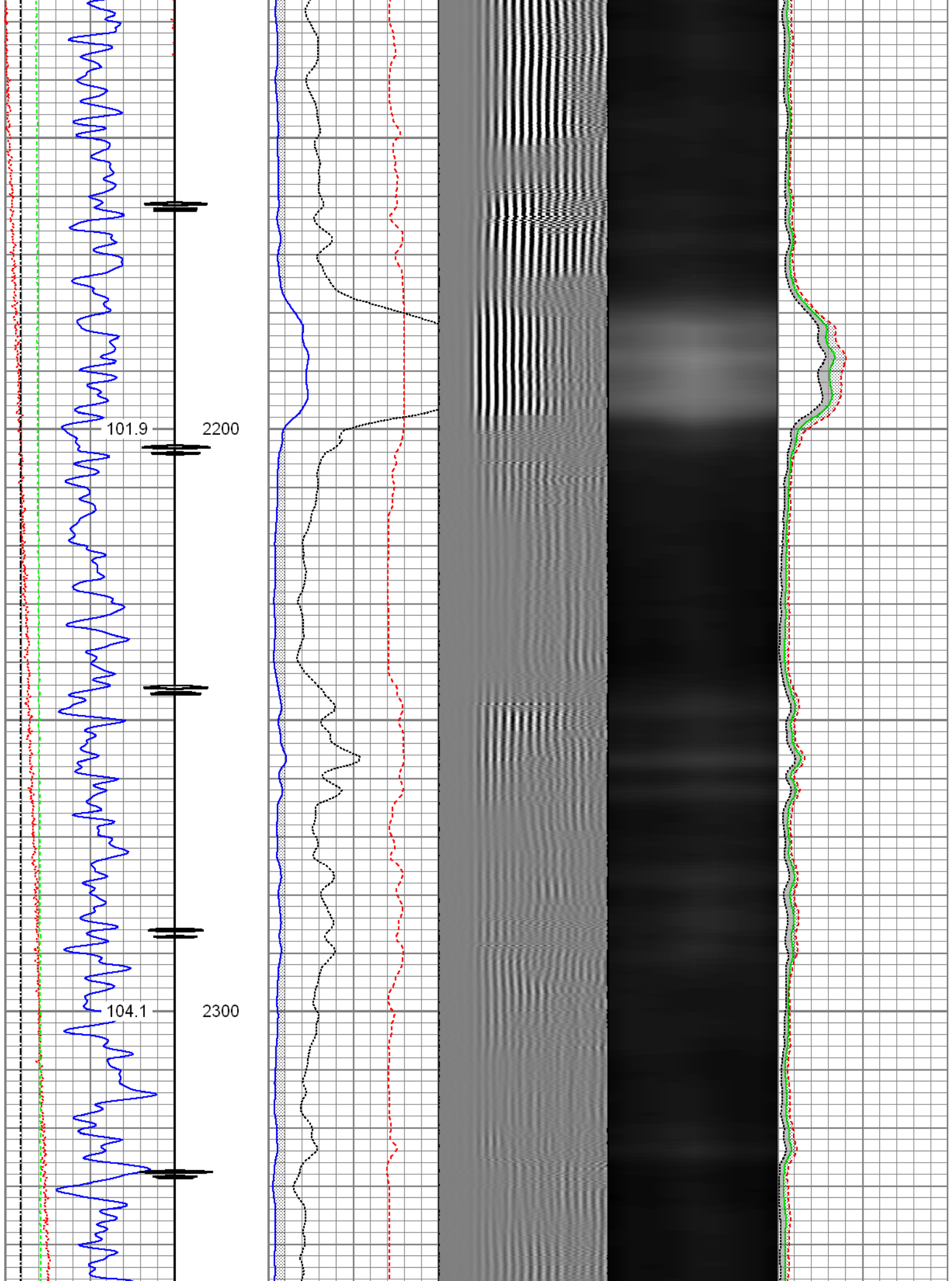




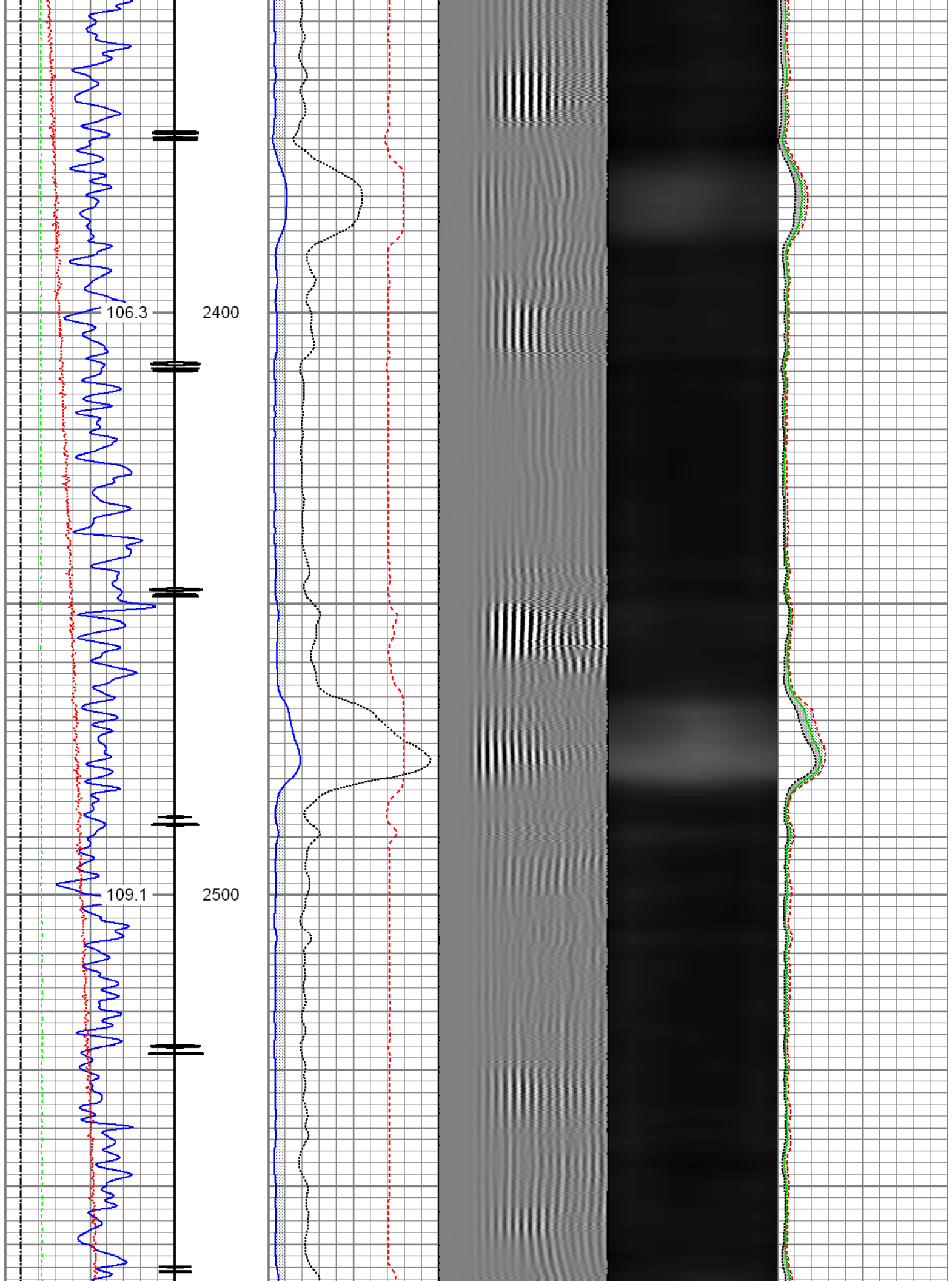


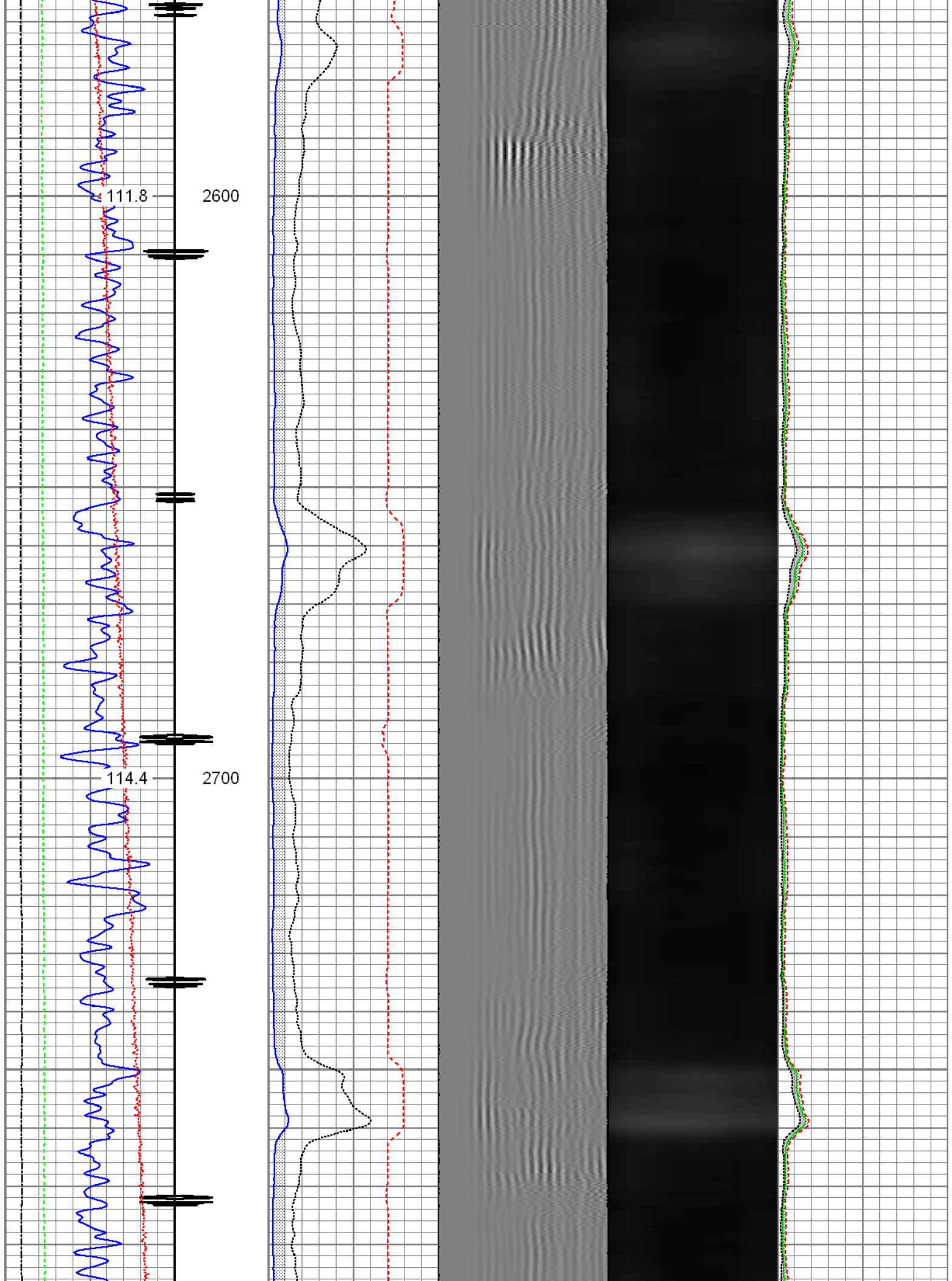


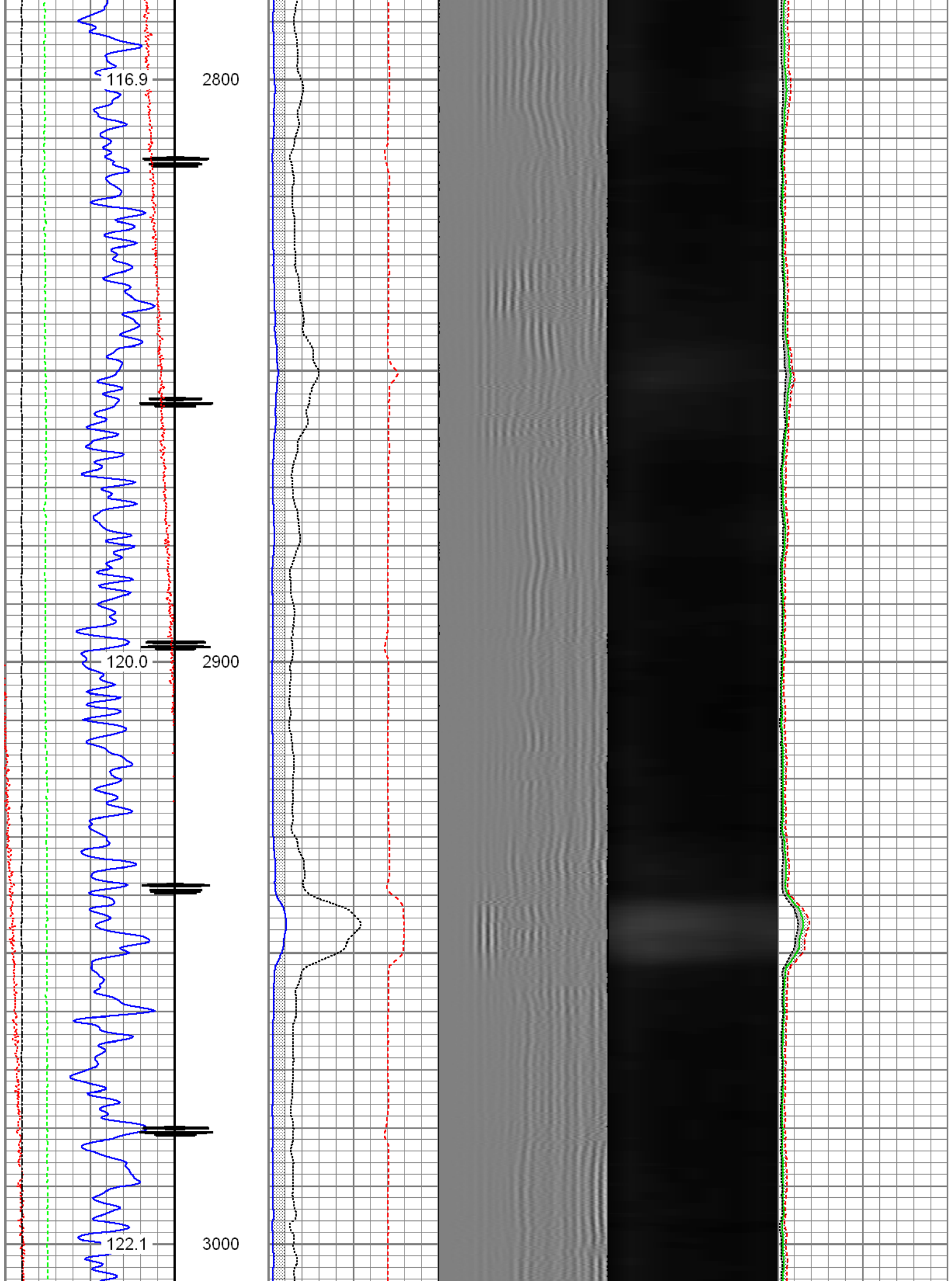


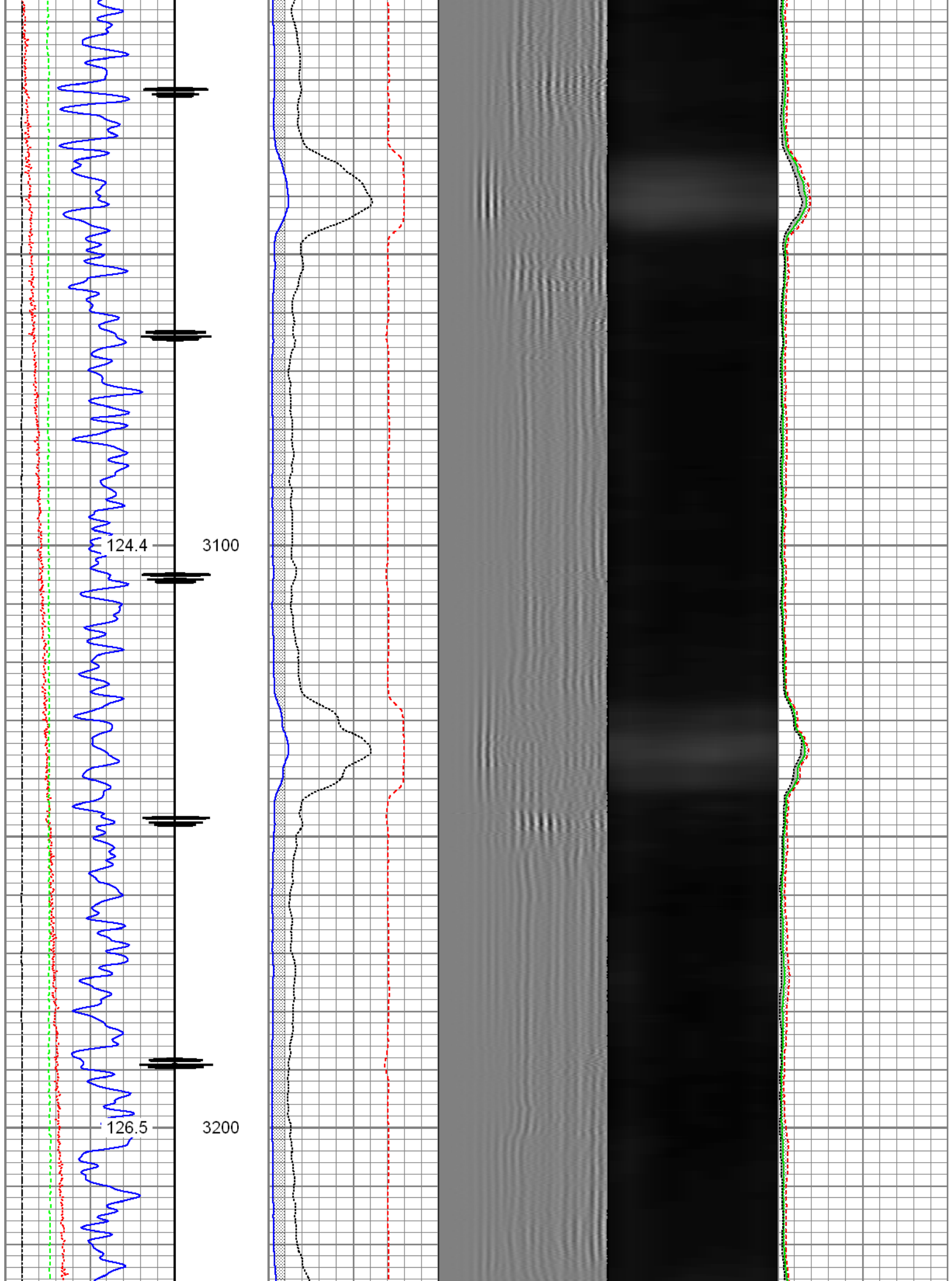




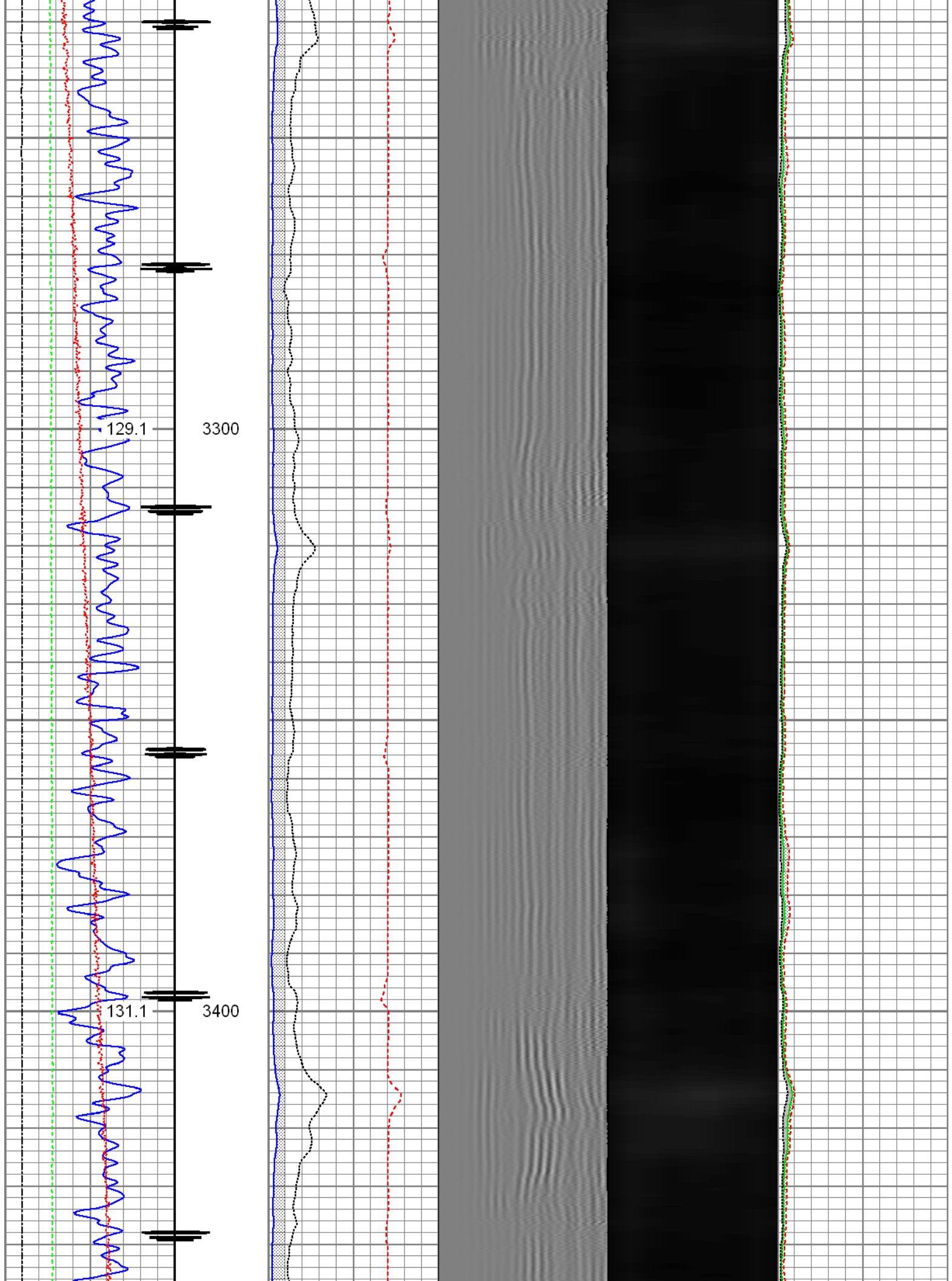


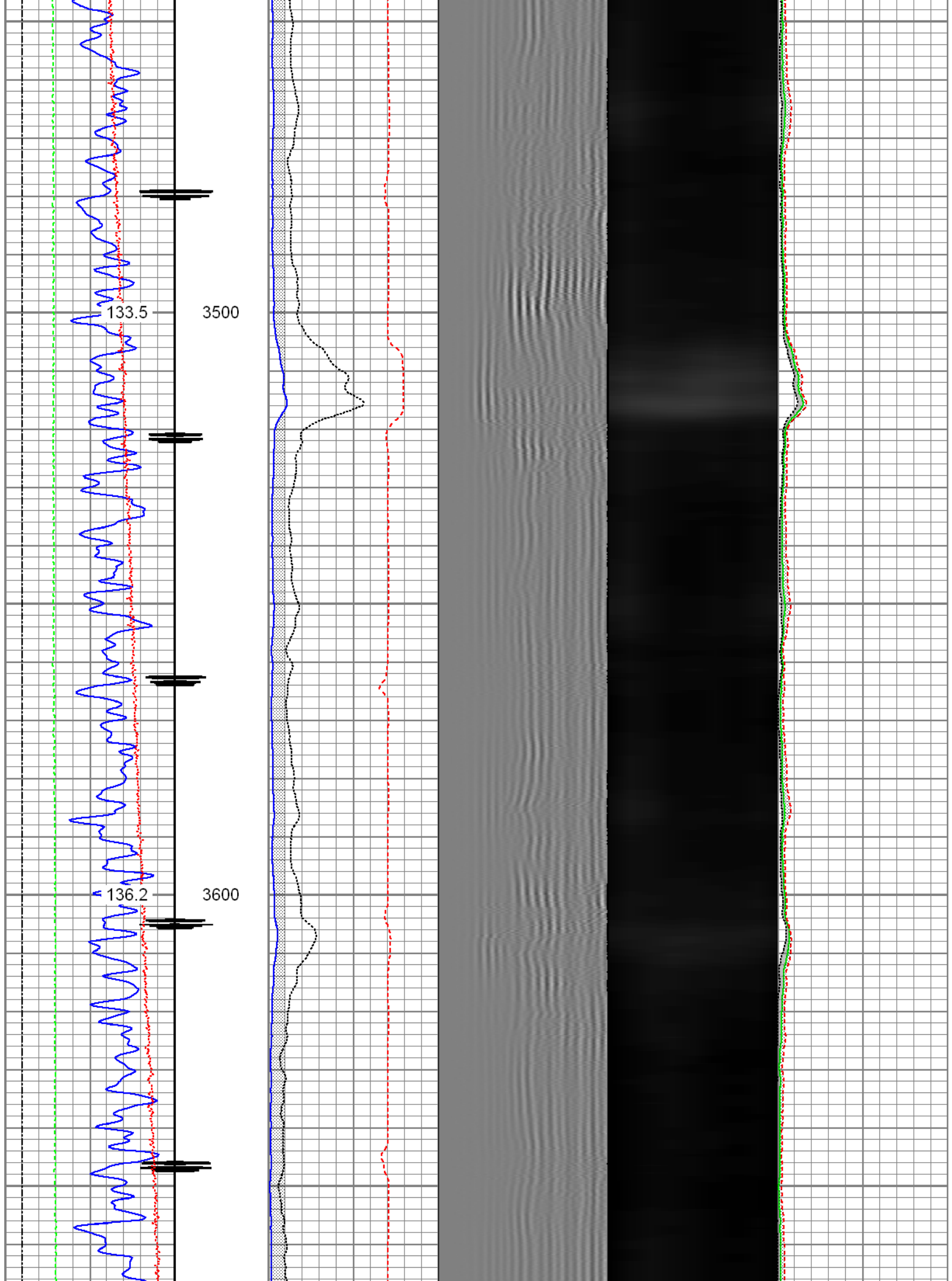


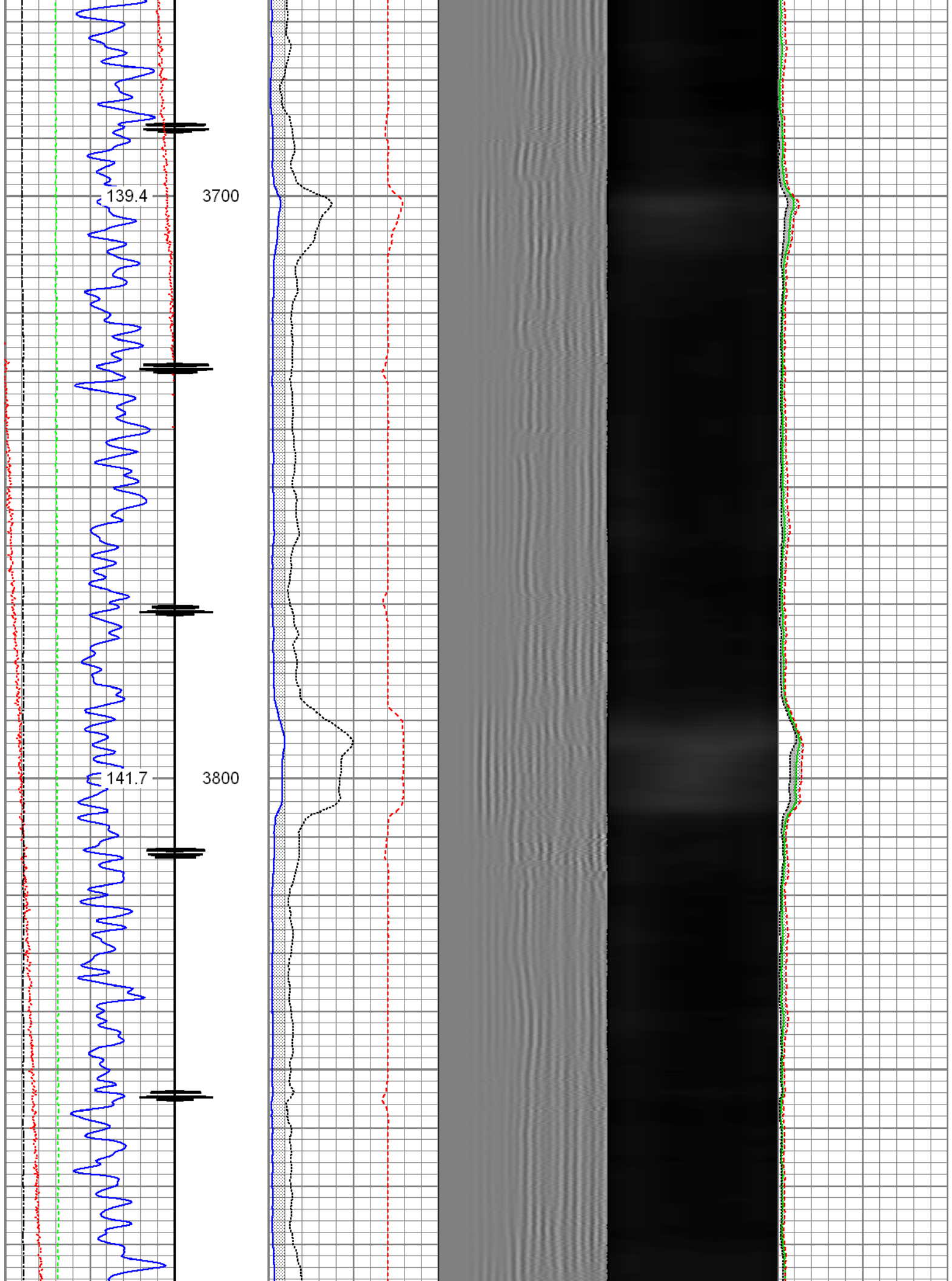


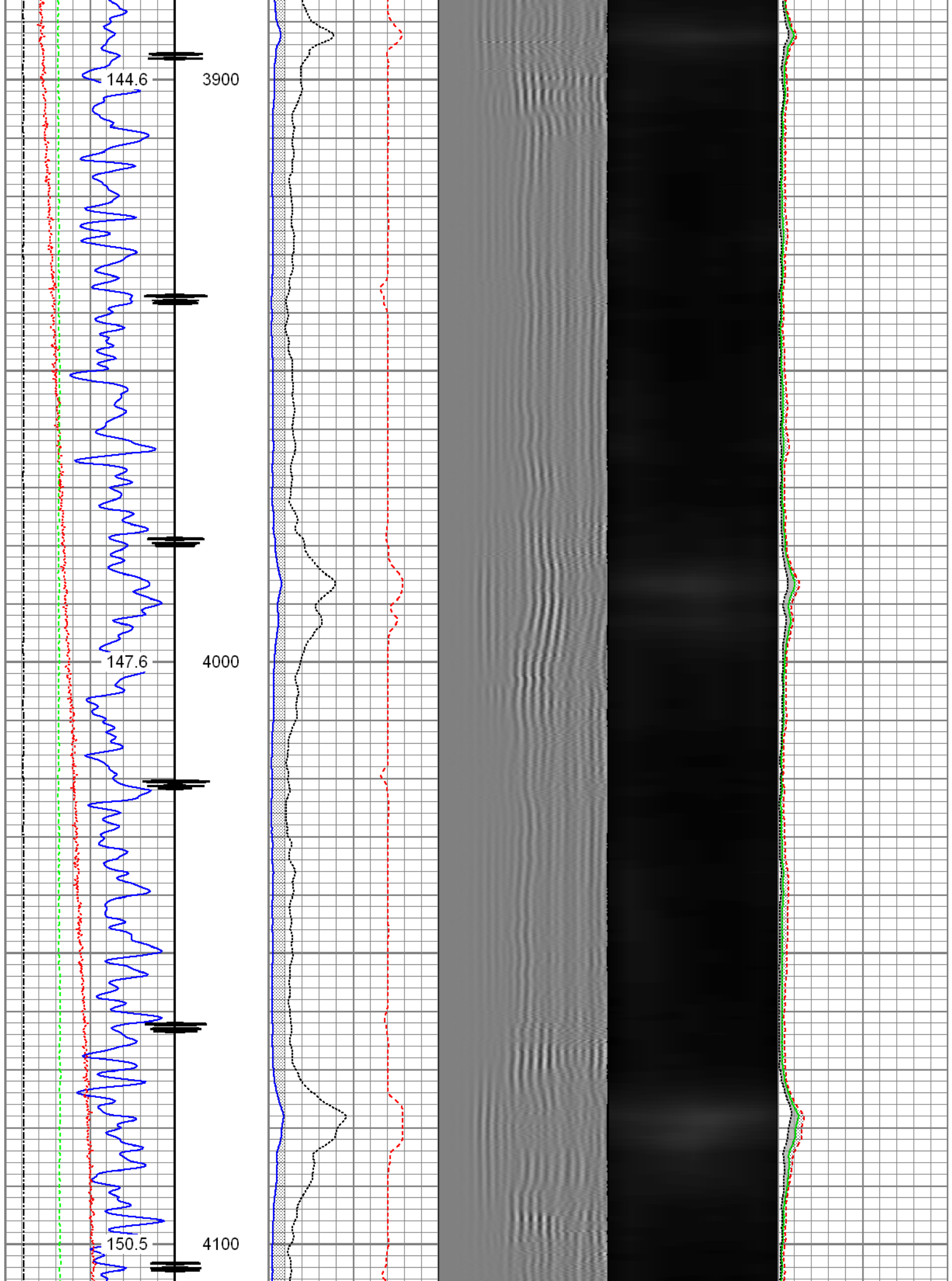




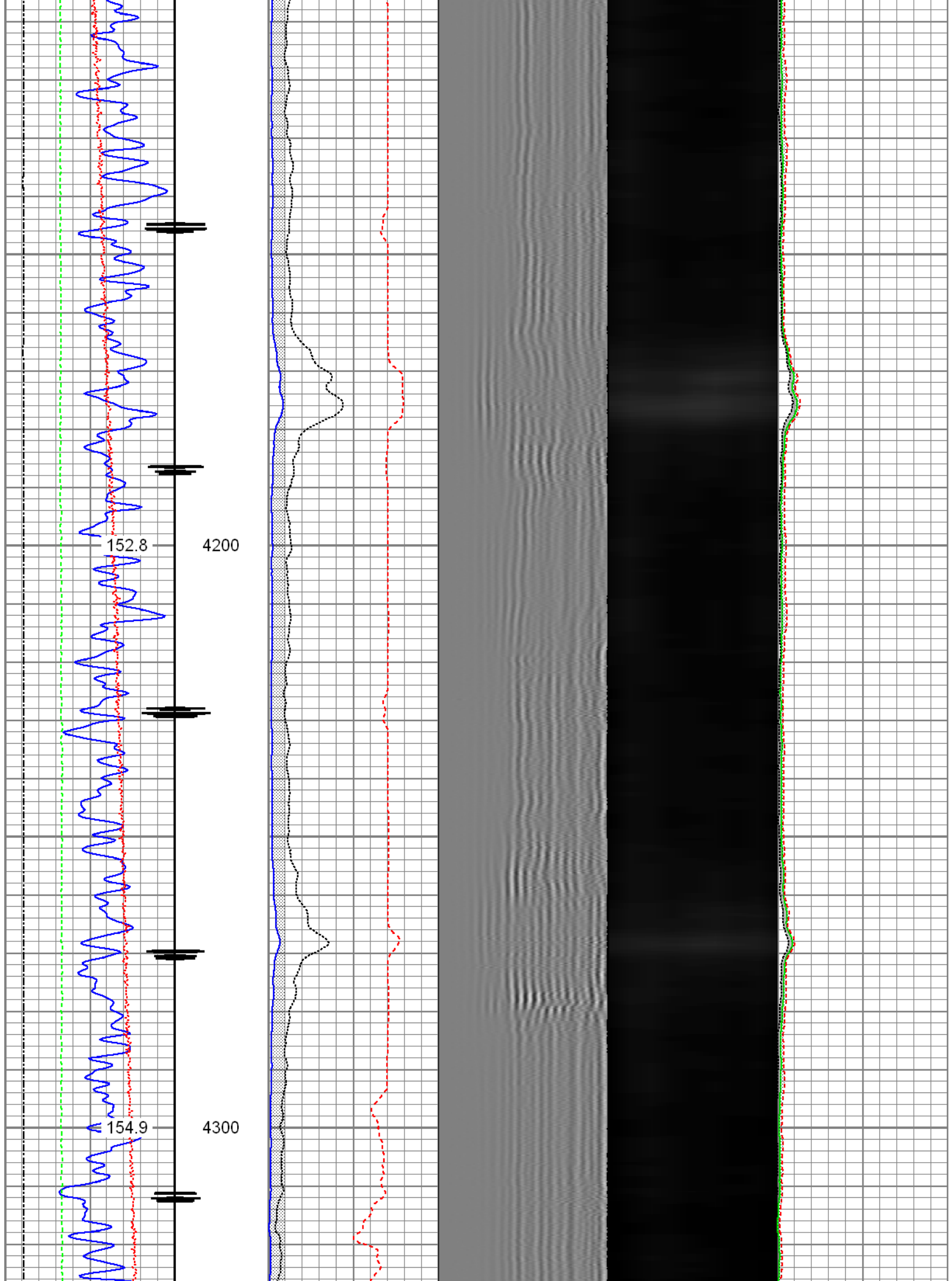


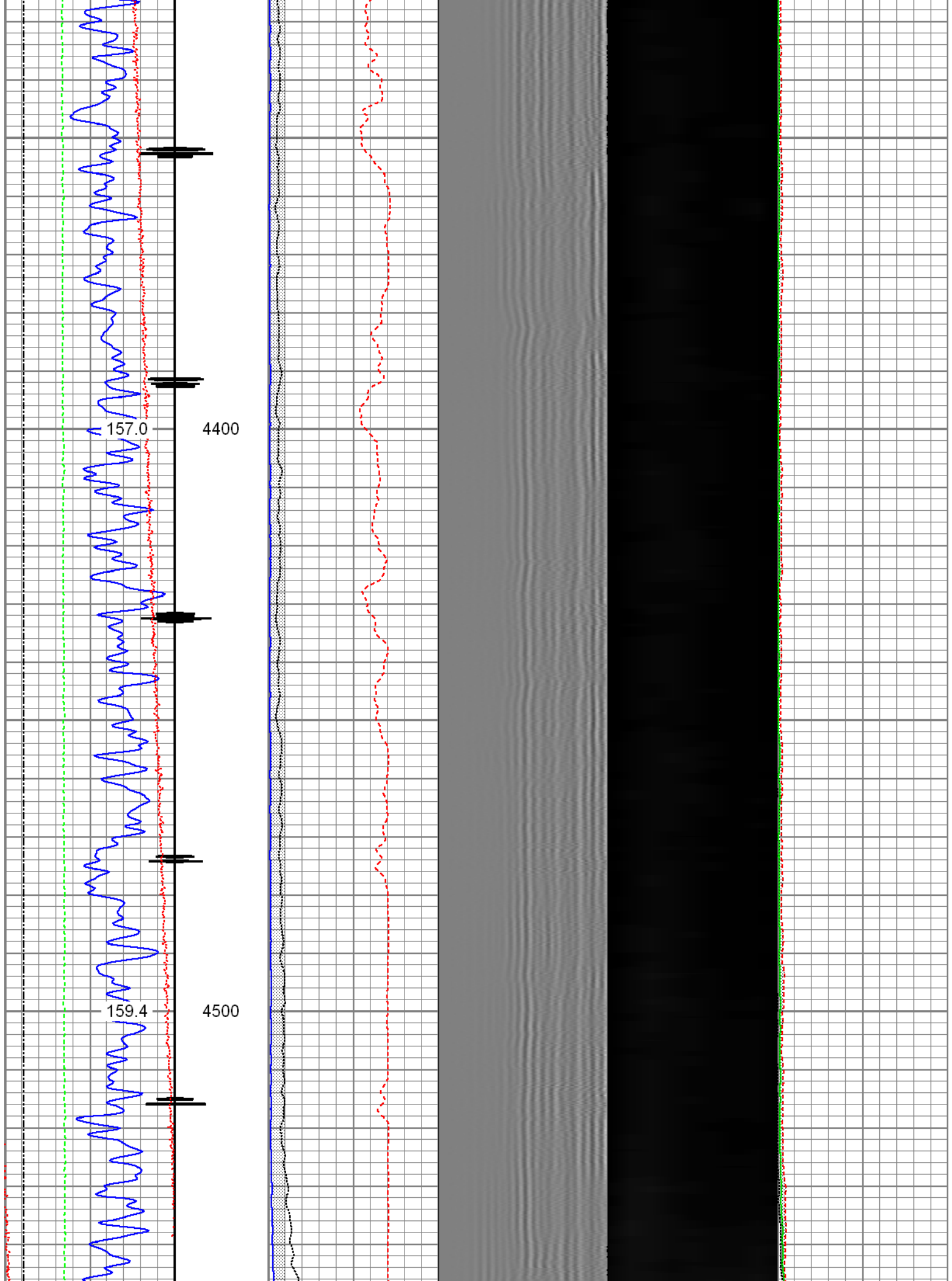


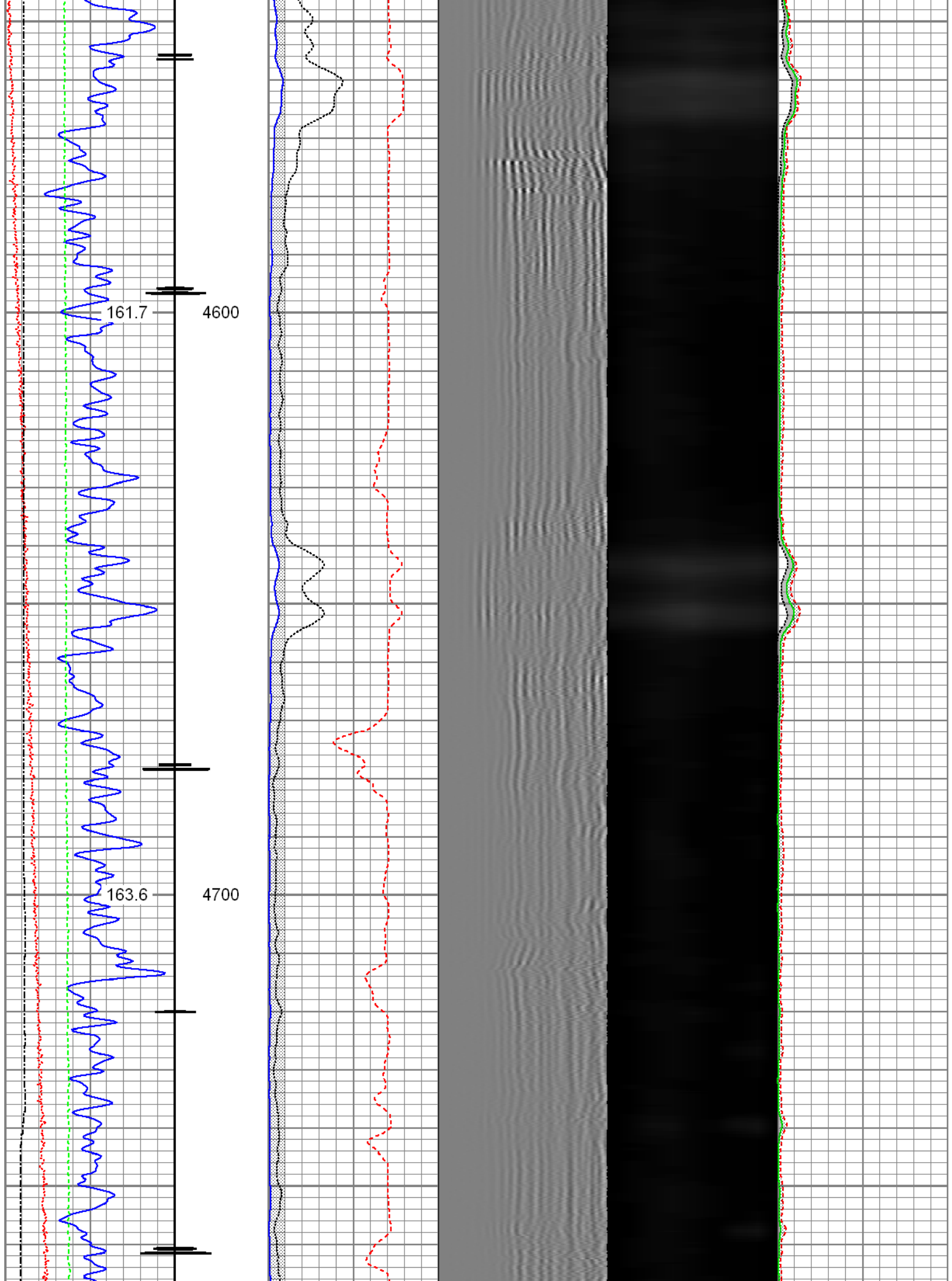


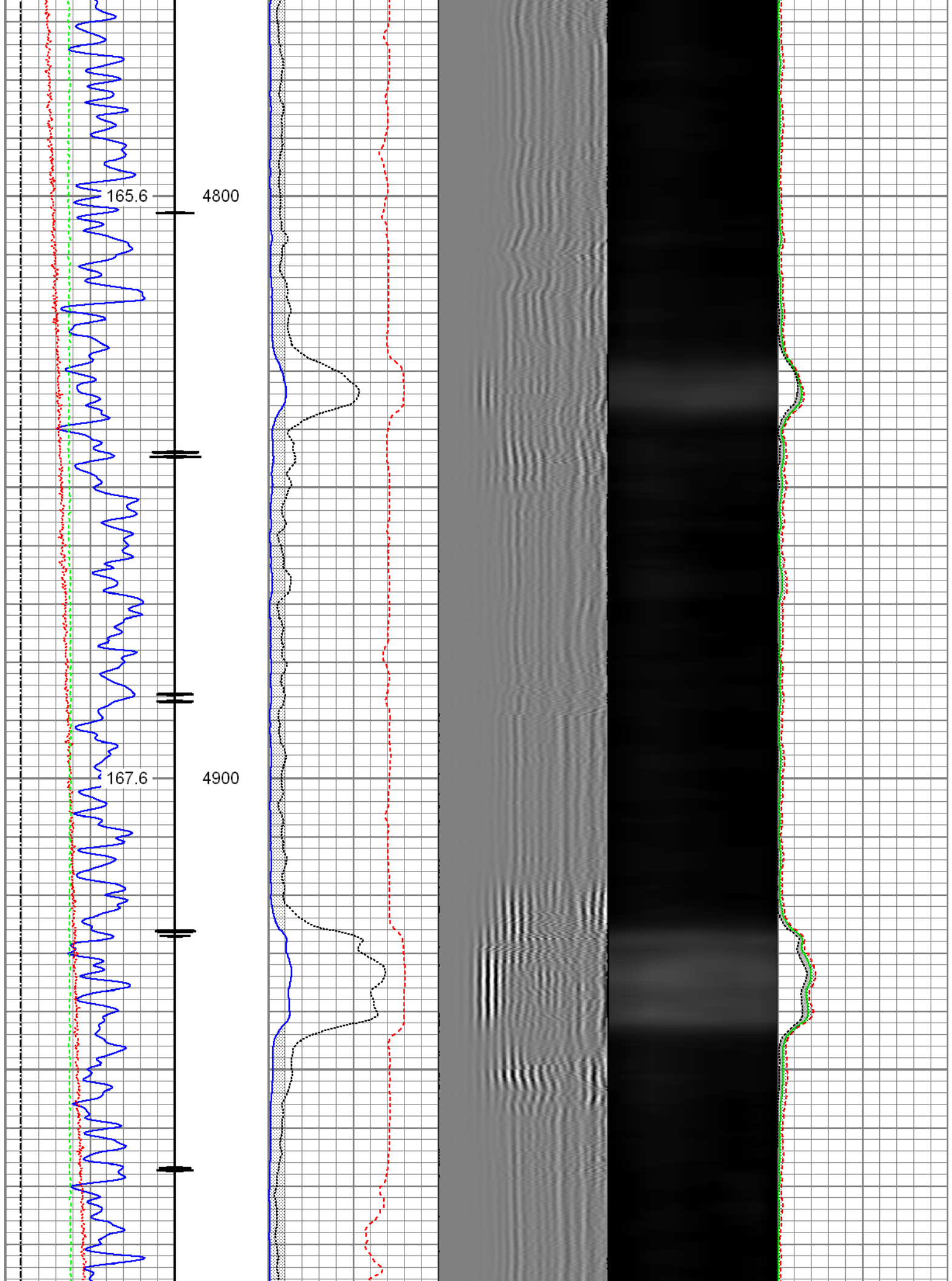




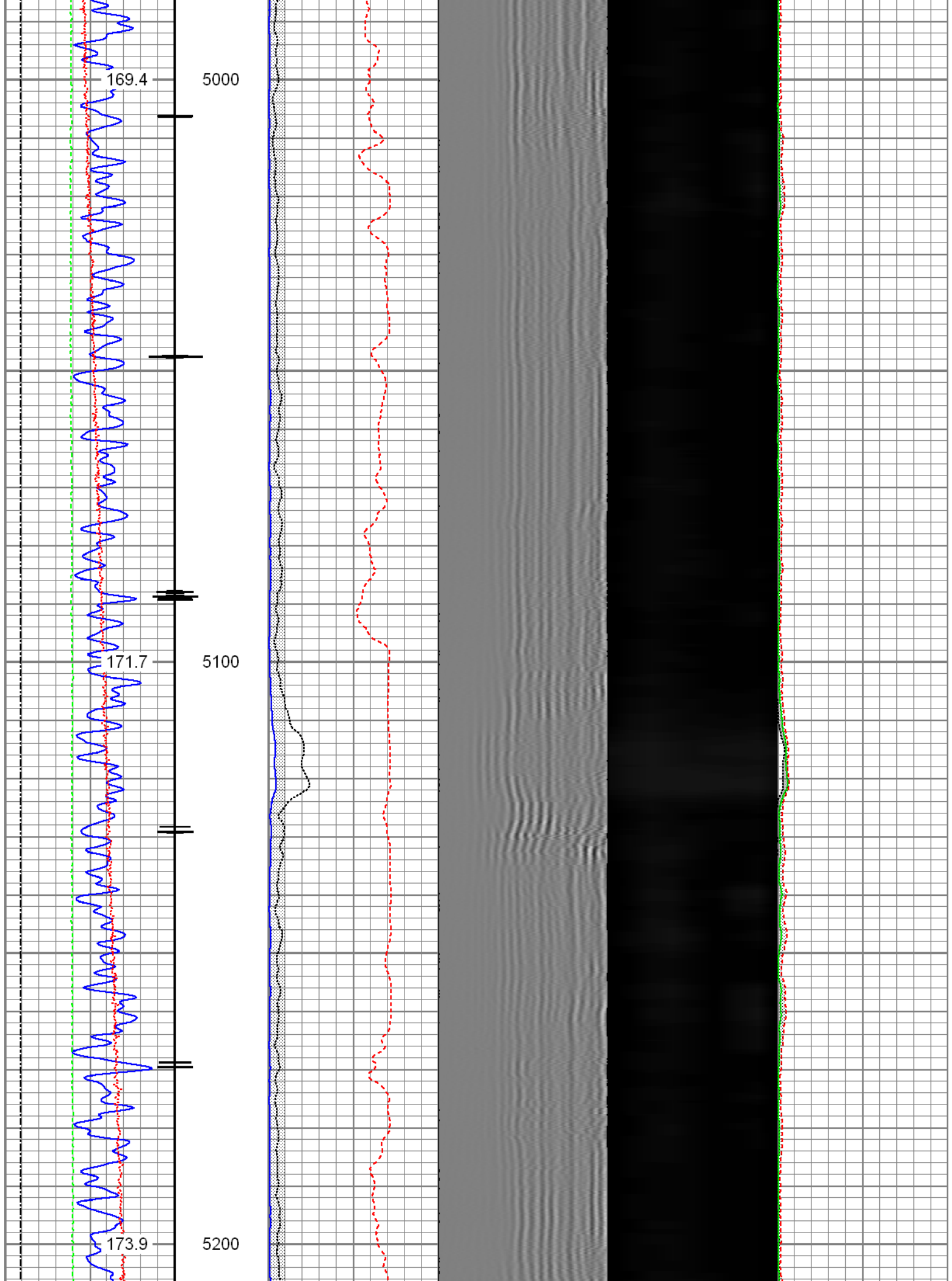


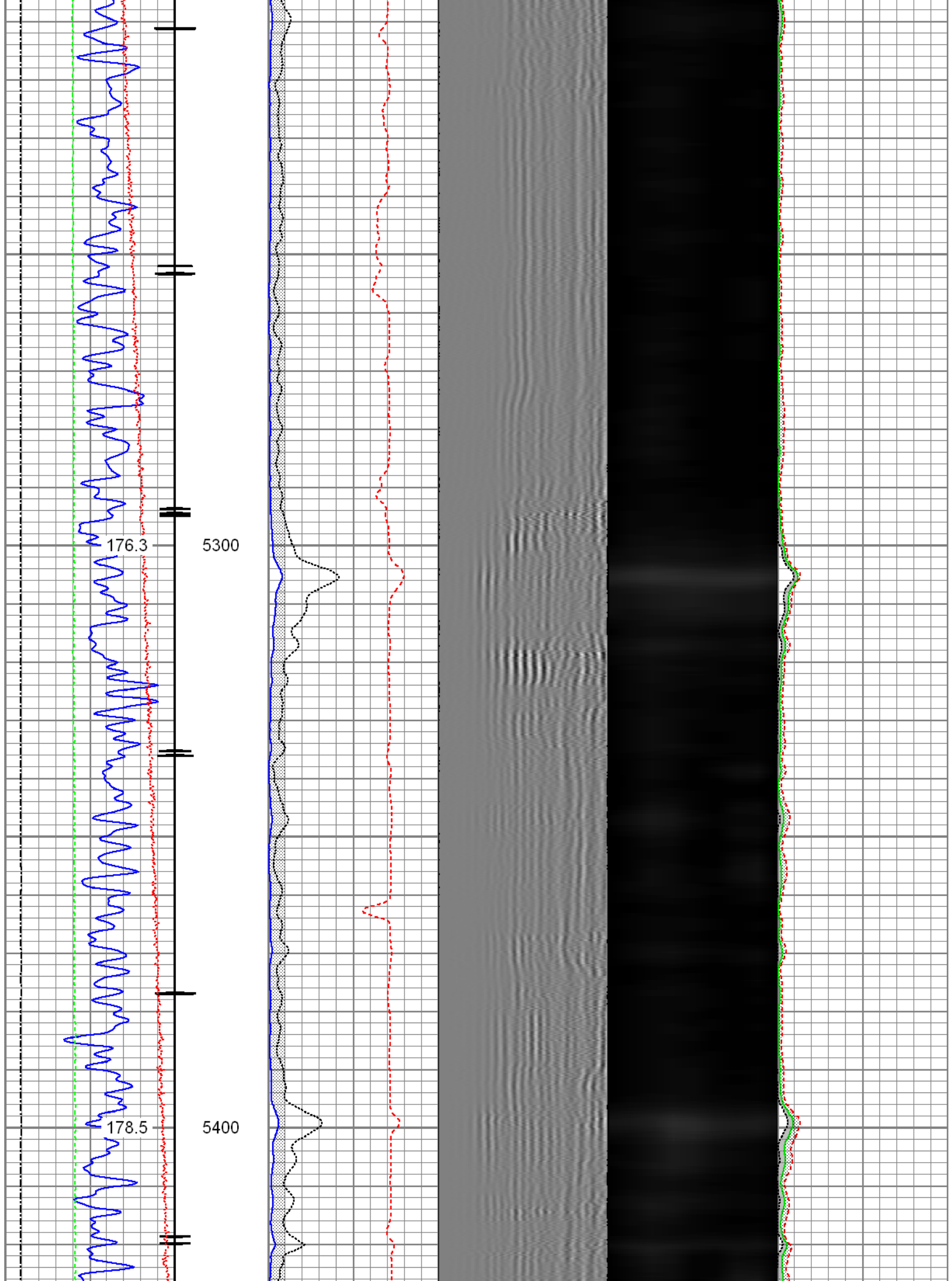


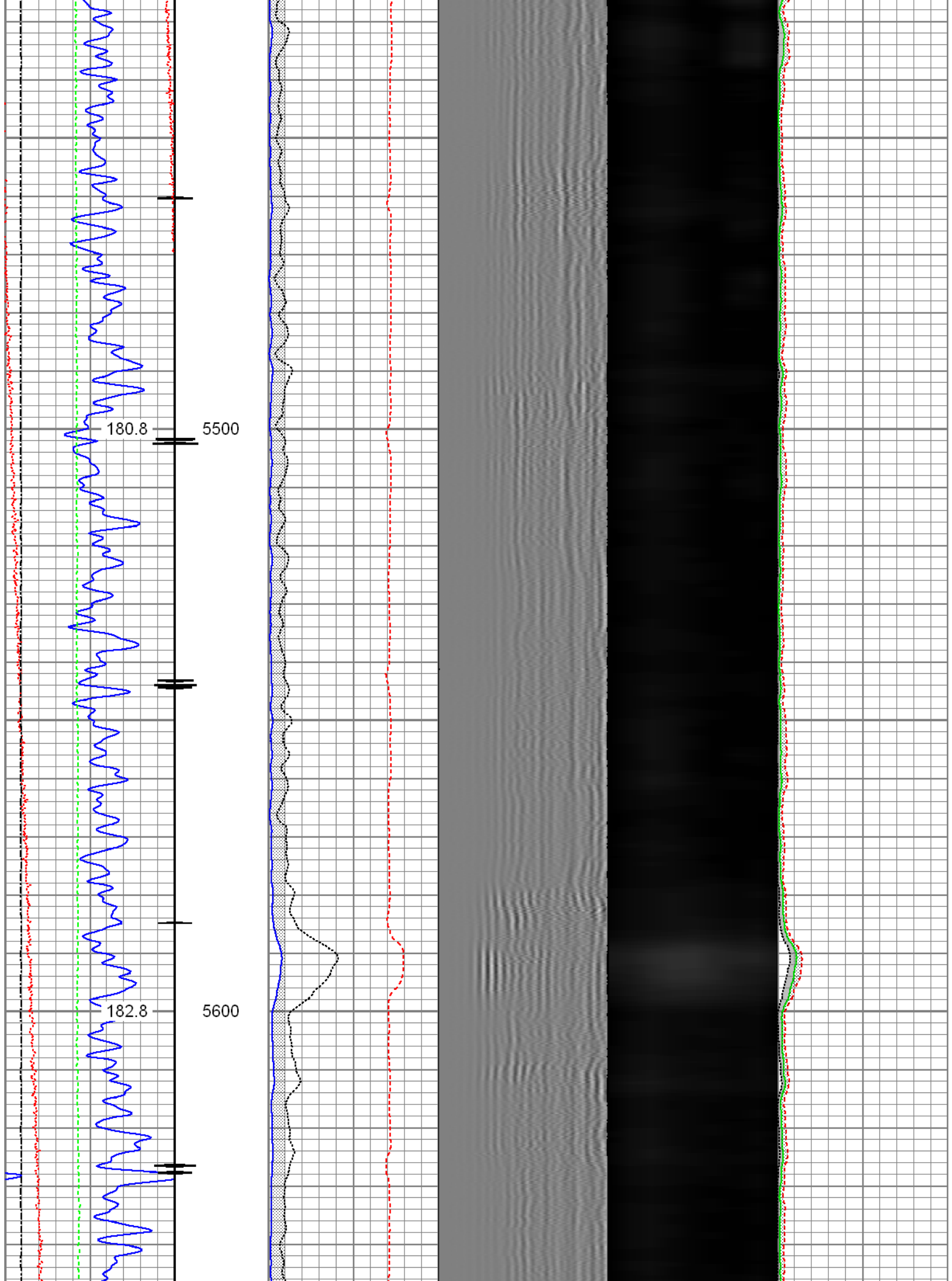


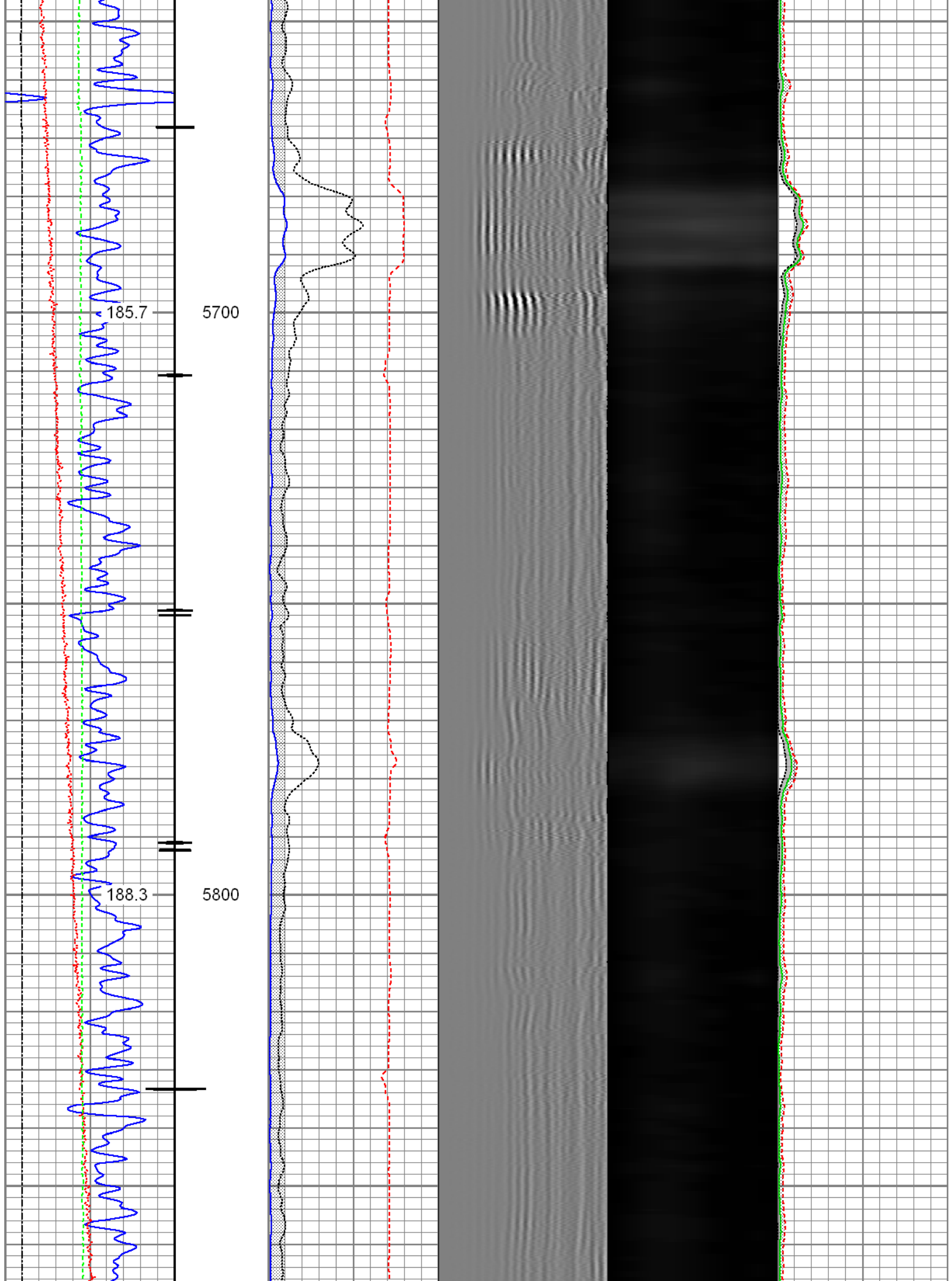




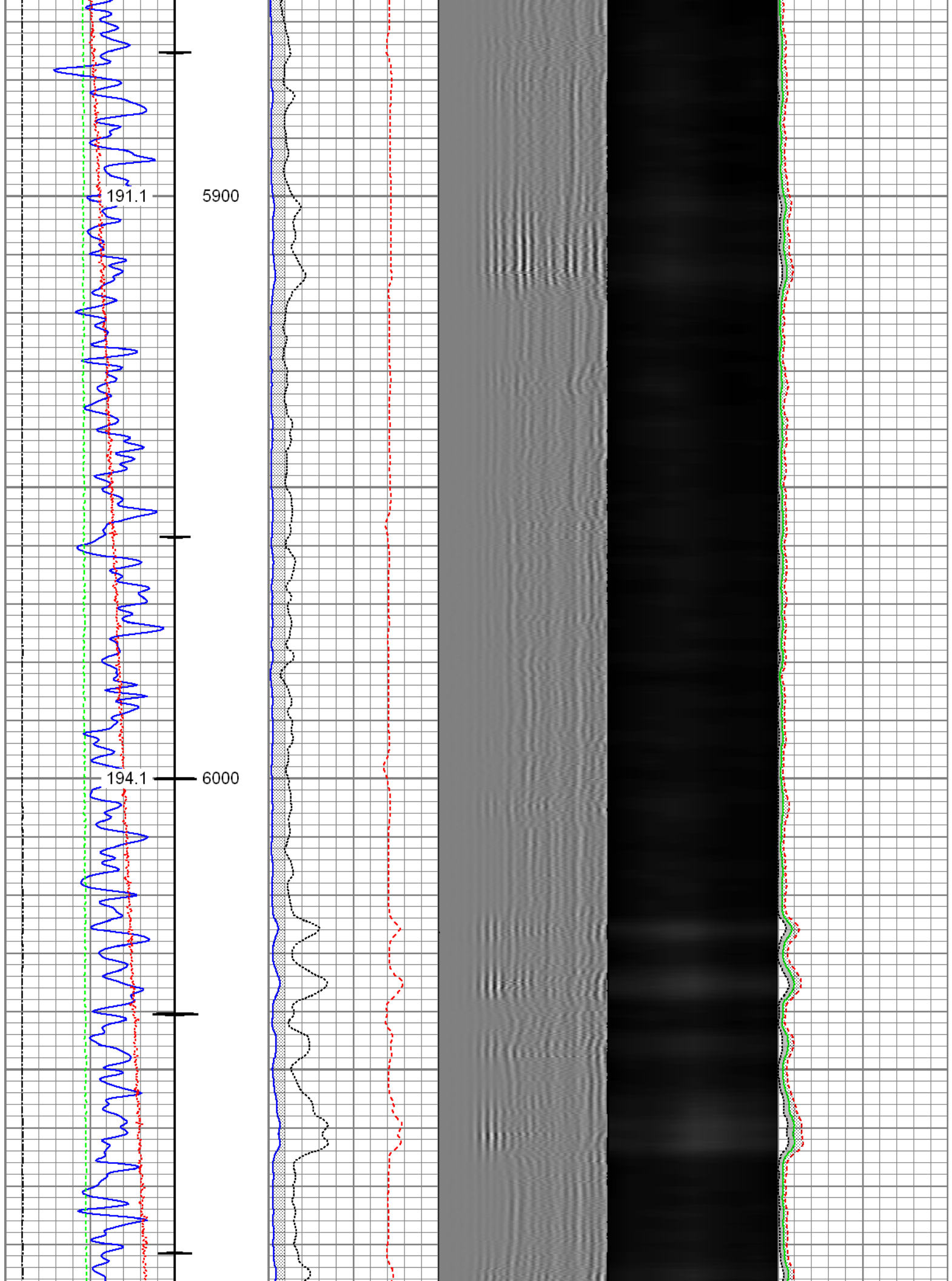


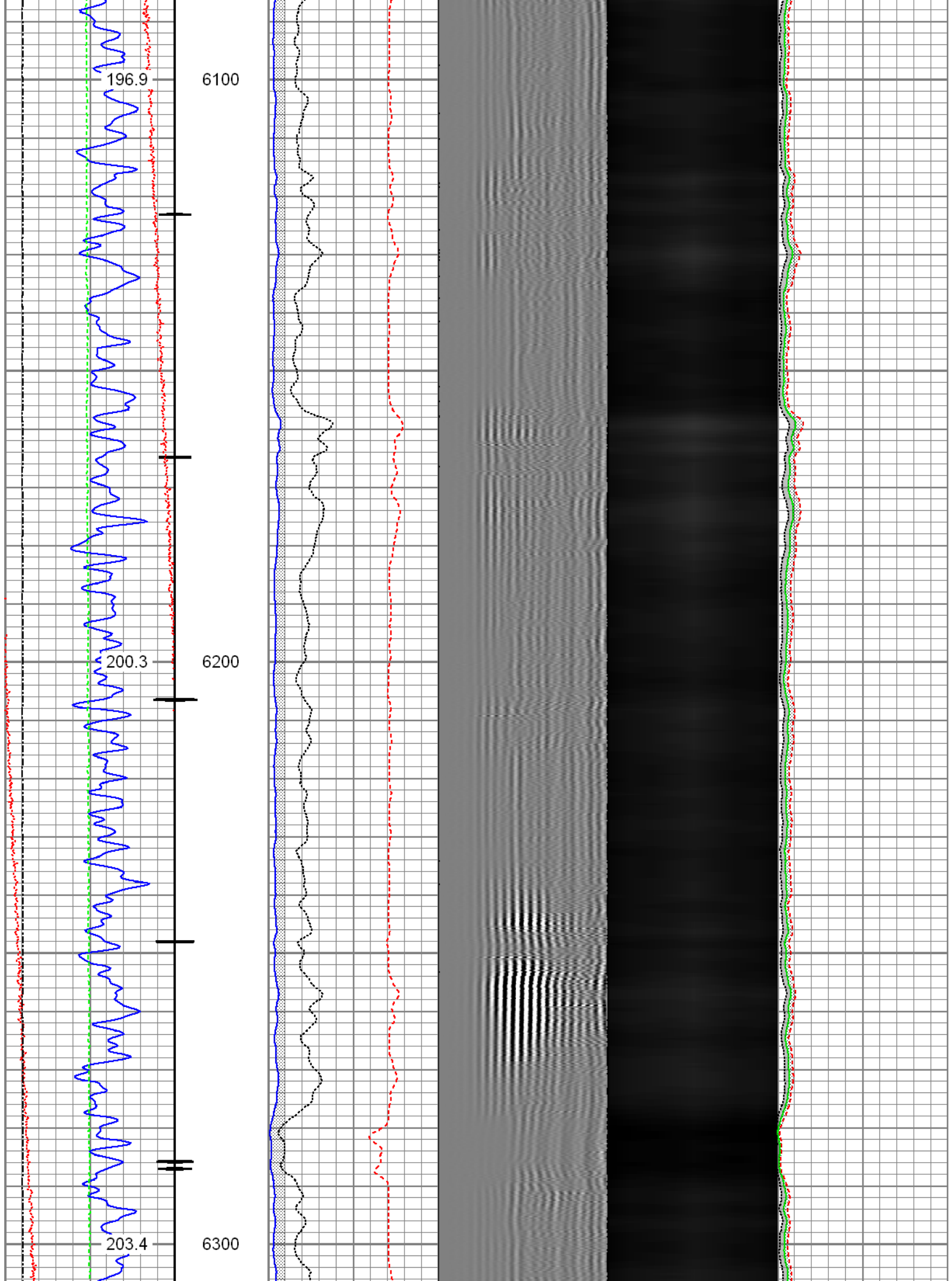


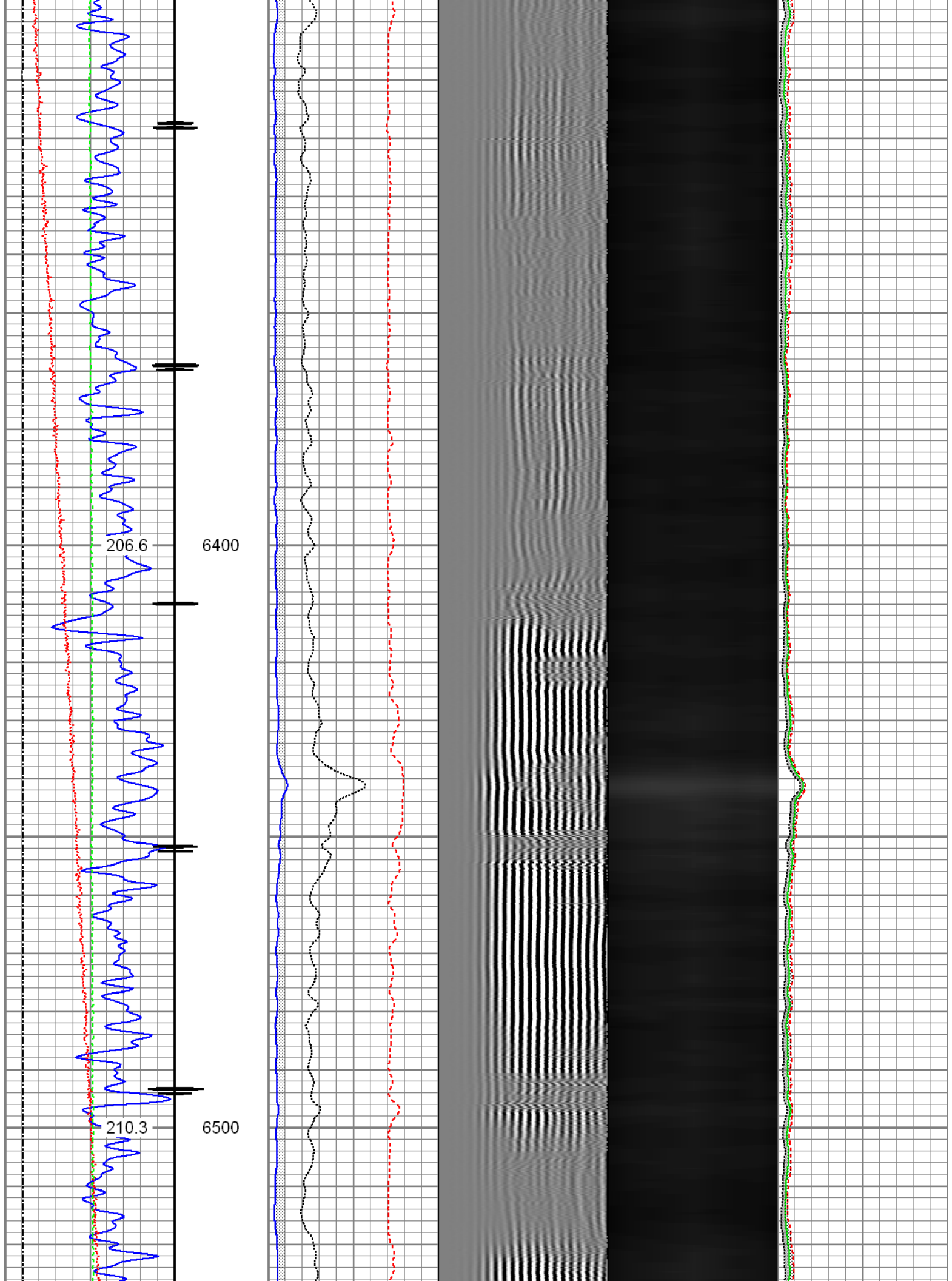


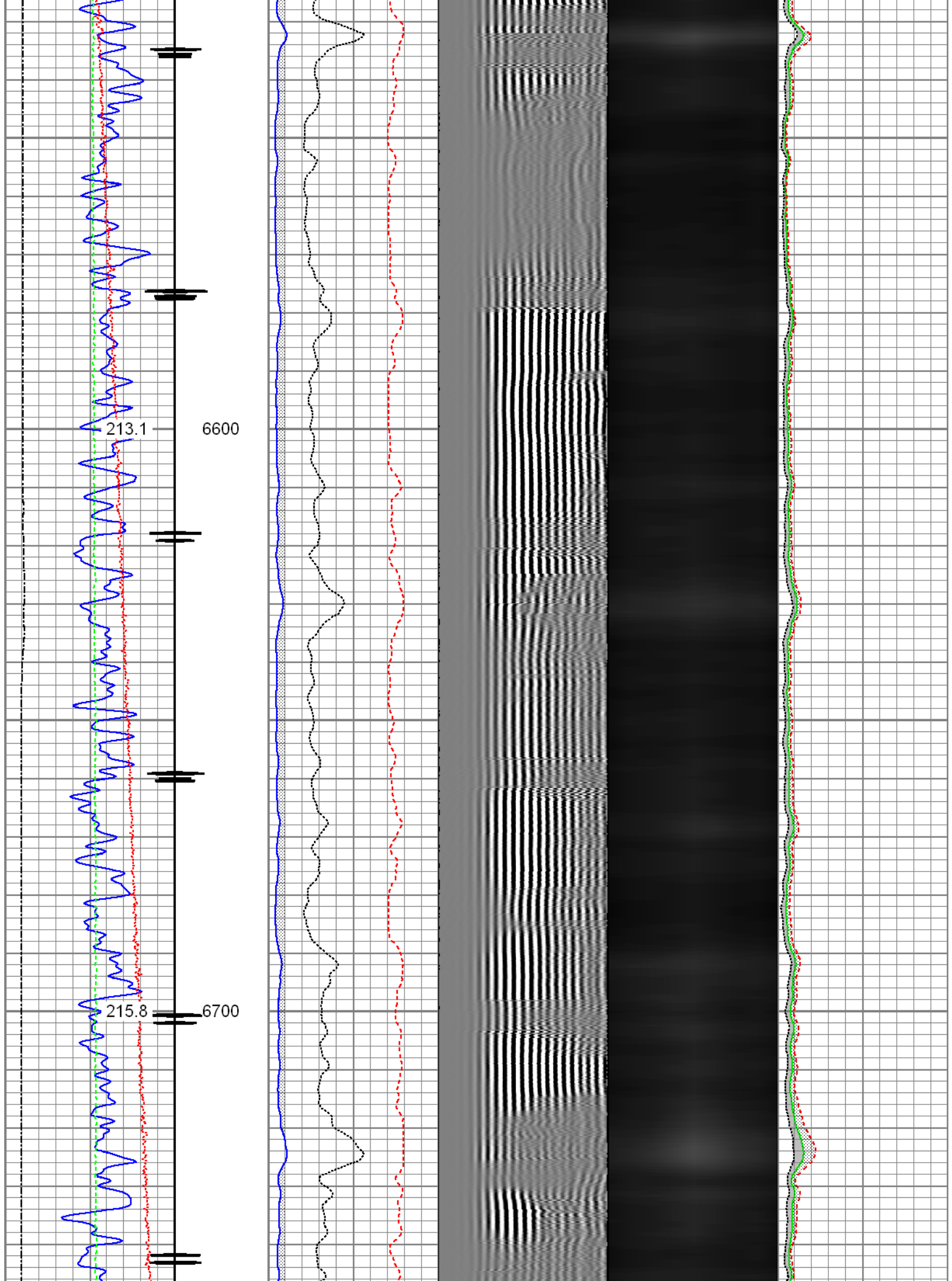




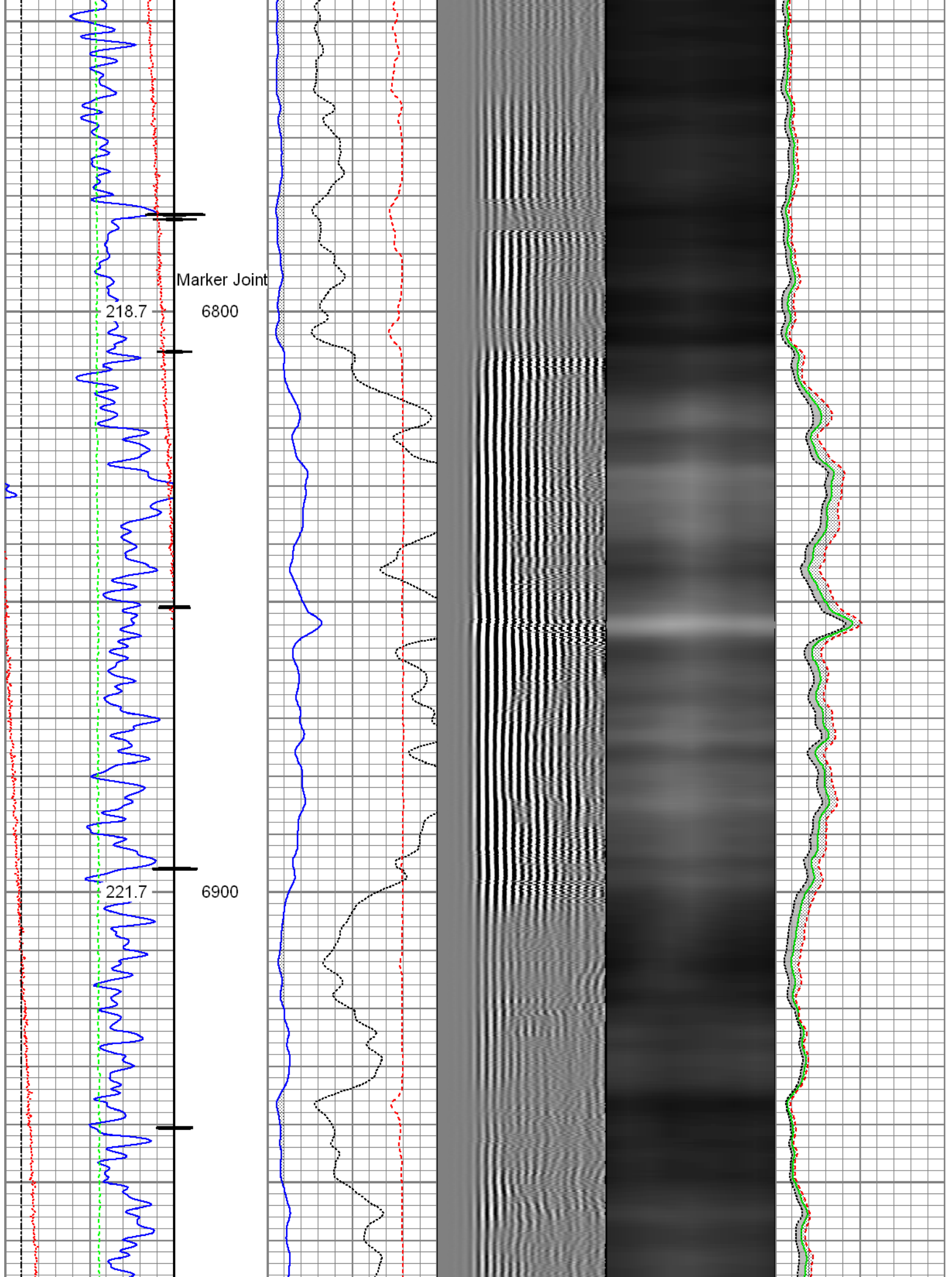


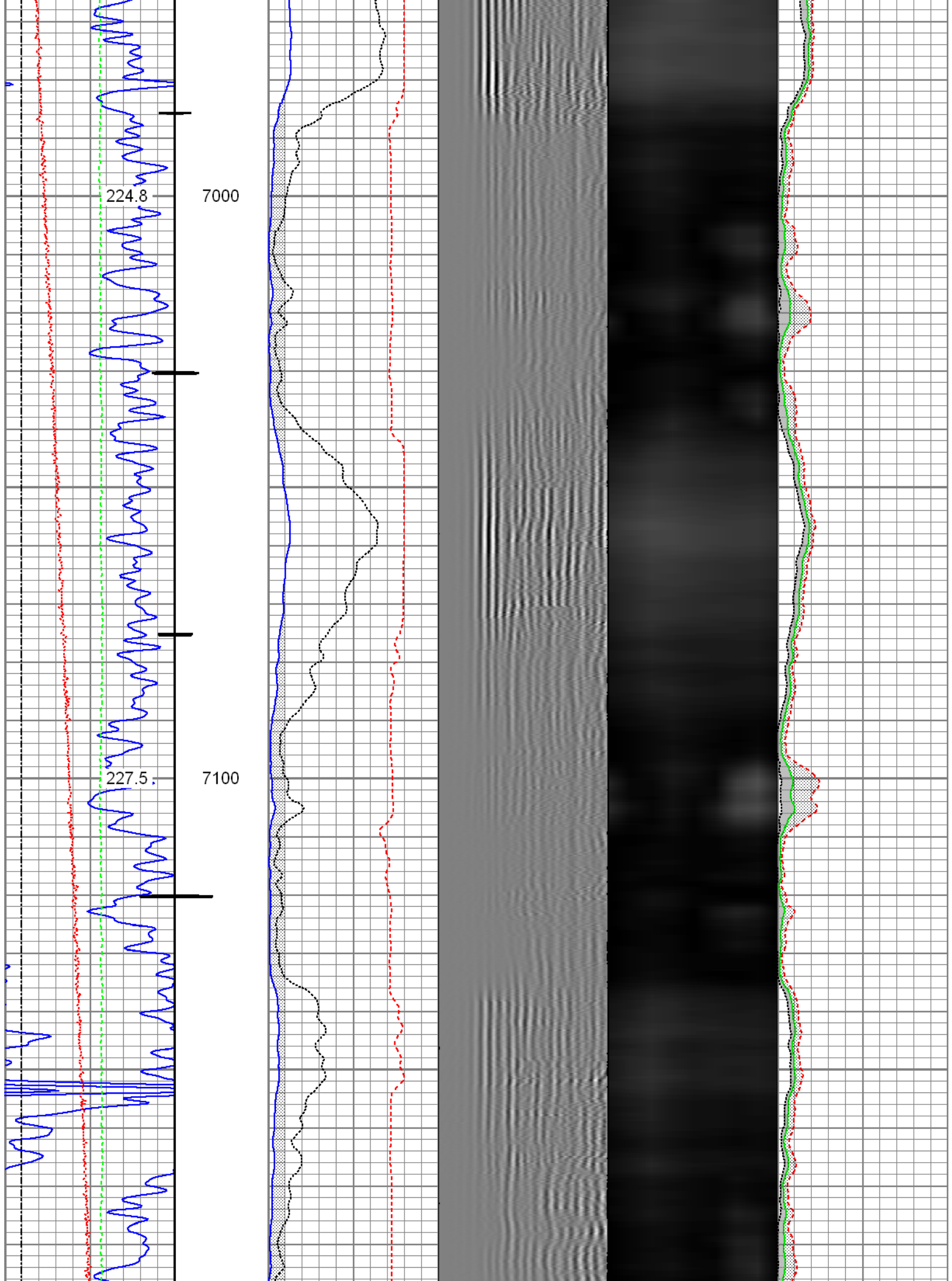


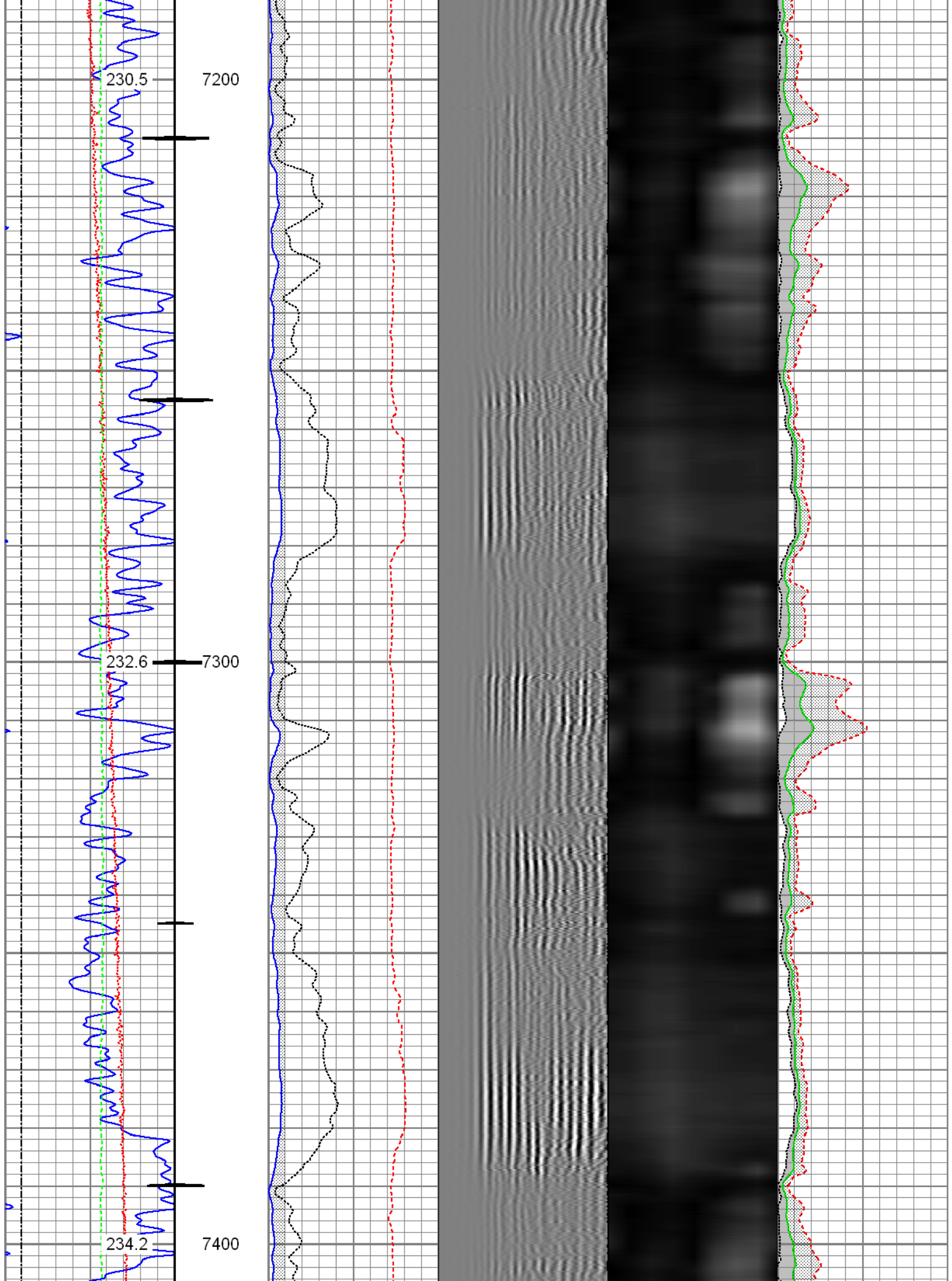


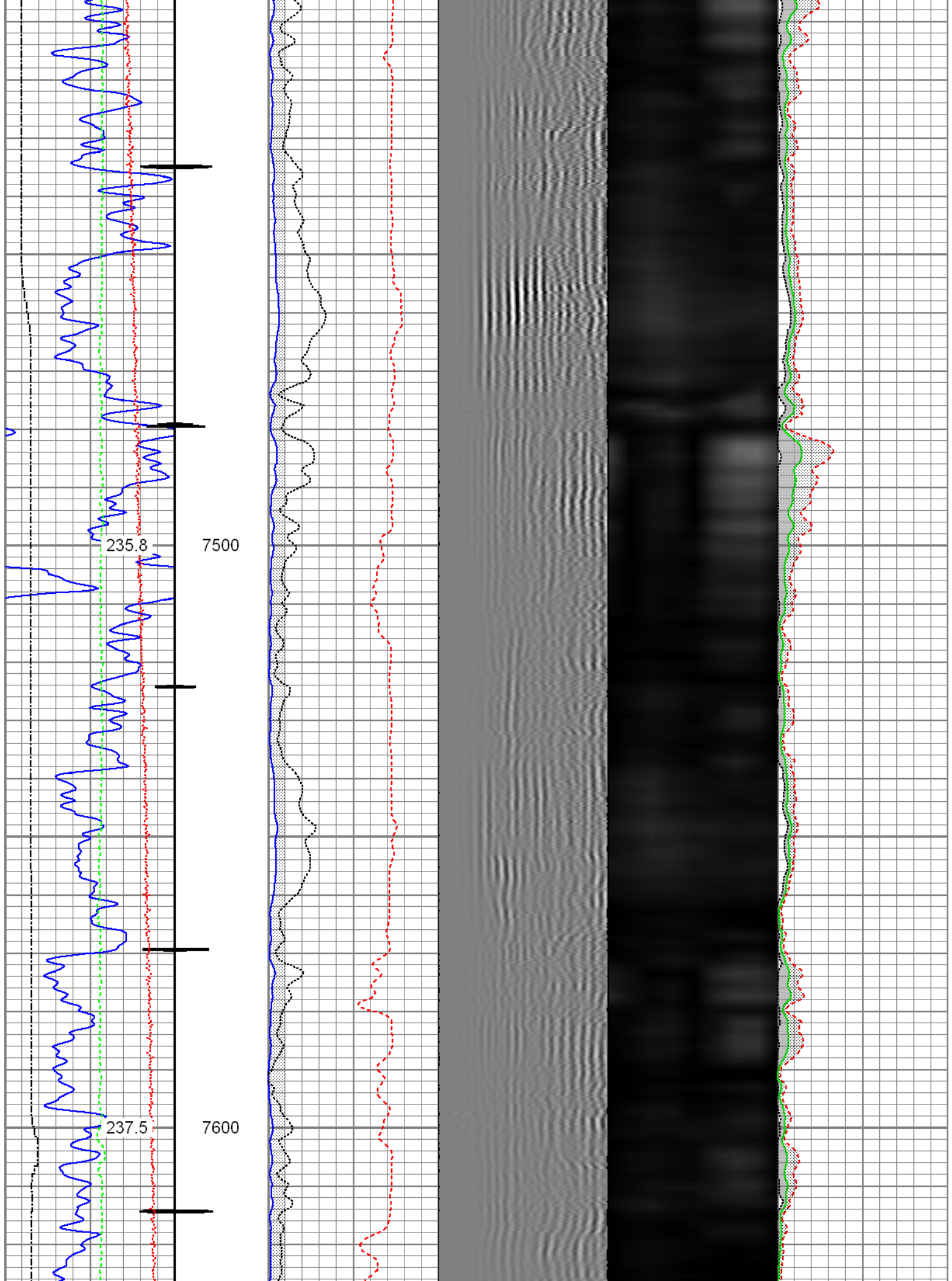




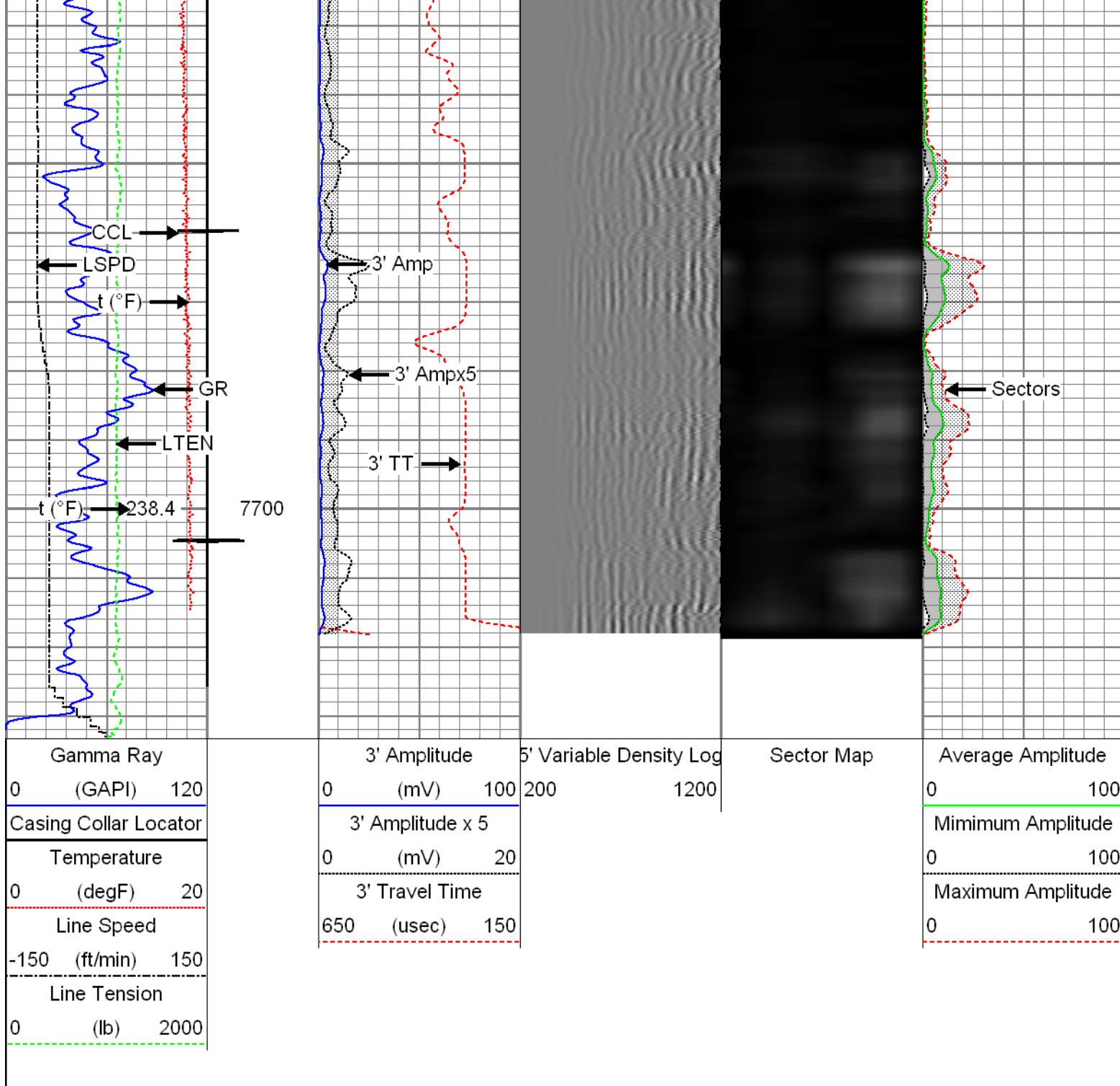













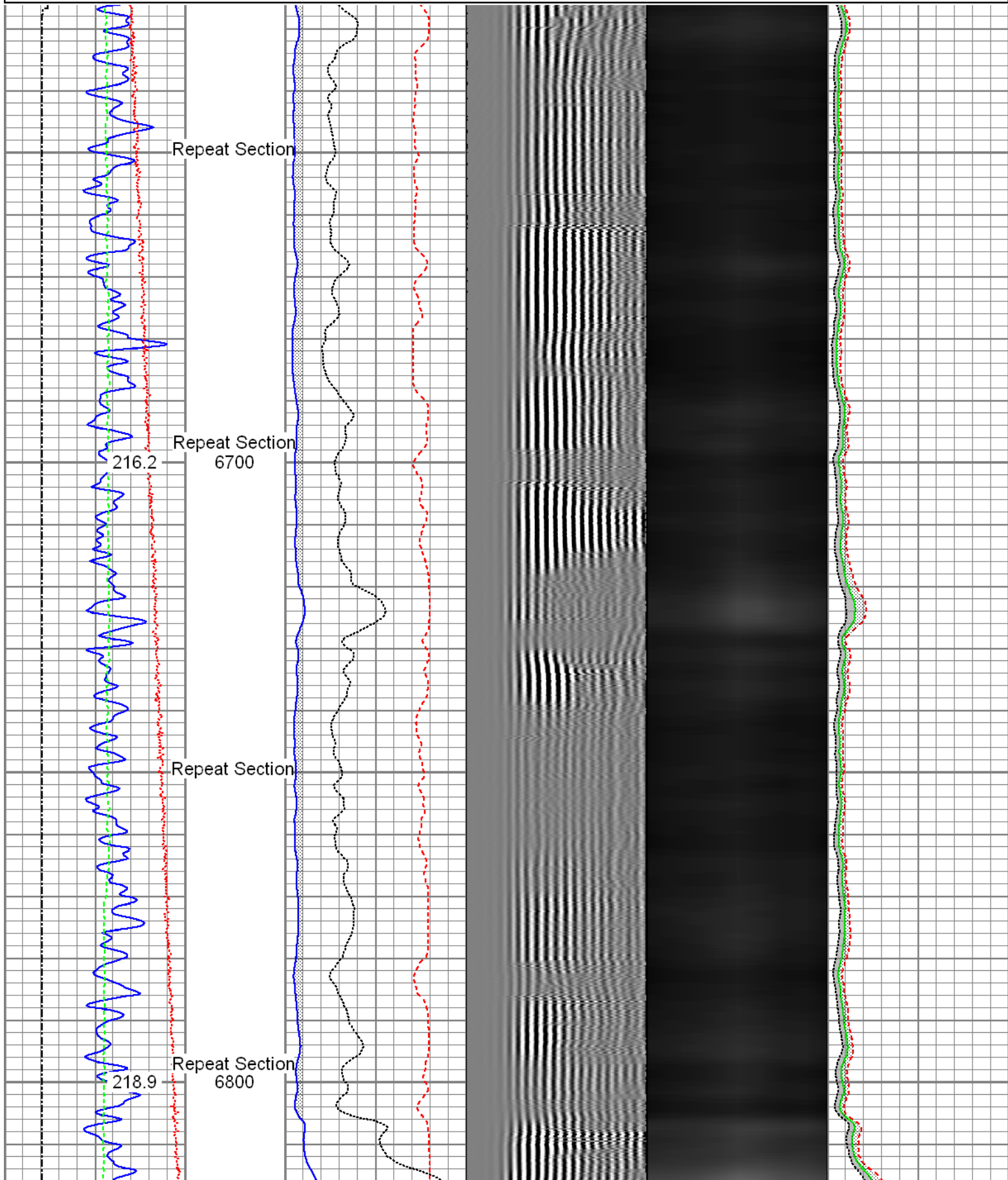
	<div>Repeat Pass</div> <div>Recorded with 2800 PSI Surface Induced Pressure</div>
Database File:	0512341285_anadarko_bat 29c-9hz_08-03-15_rbl.db
Dataset Pathname:	Repeat
Presentation Format:	radii
Dataset Creation:	Mon Aug 03 10:13:12 2015 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

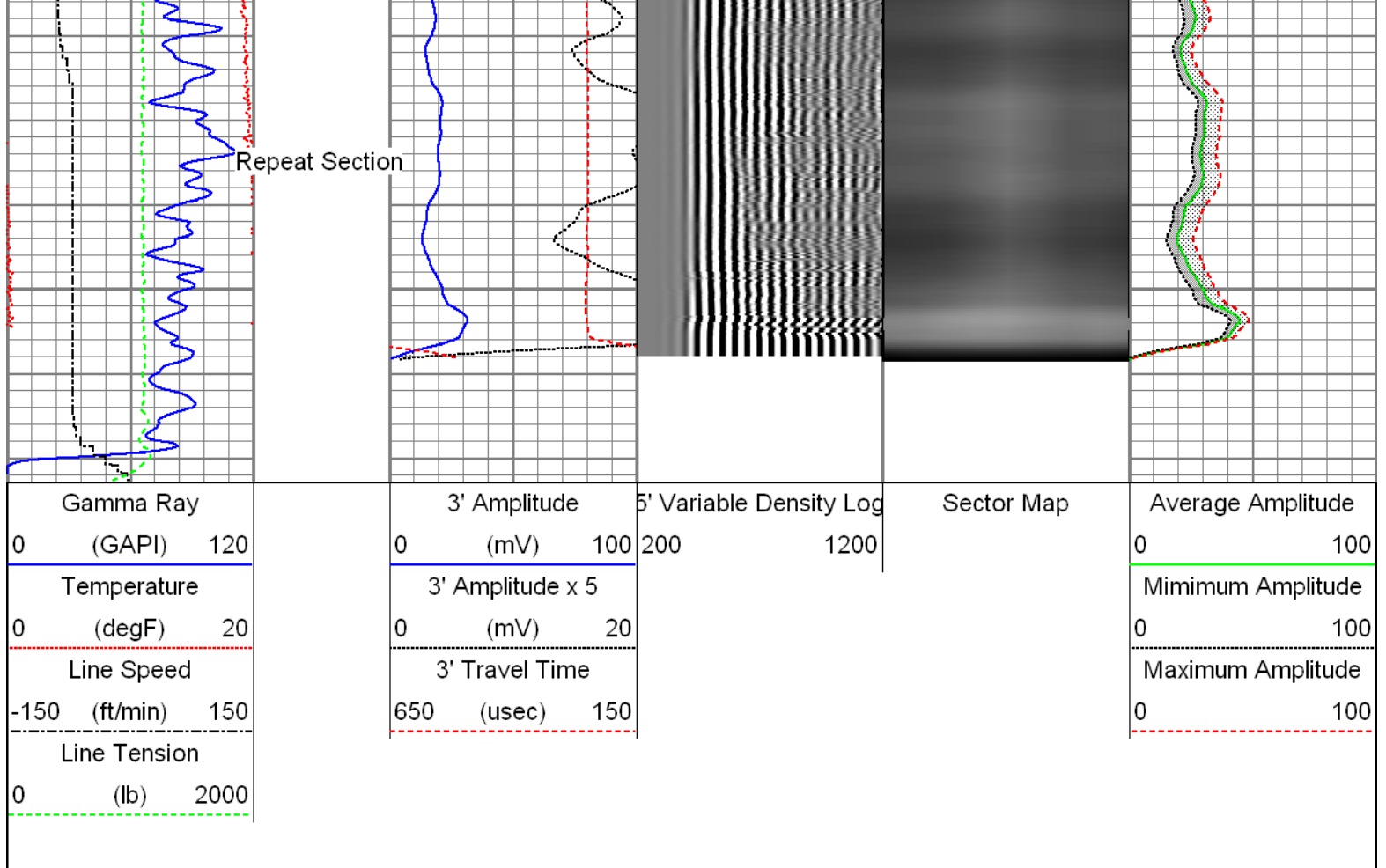
Gamma Ray 0 (GAPI) 120	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map	Average Amplitude 0 100
Temperature	3' Amplitude x 5			Minimum Amplitude

0	(degF)	20
Line Speed		
-150	(ft/min)	150
Line Tension		
0	(lb)	2000

0	(mV)	20
3' Travel Time		
650	(usec)	150

0	100
Maximum Amplitude	
0	100





Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			<b>T_CH14375_1_GO</b> Titan 1-7/16" Assembled Electric Cable Head with 1" Fishing Neck	1.03	1.44	4.00
			<b>Probe_IL_BS_Cent</b> Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
HeadVolt	20.94					
Temp	18.17					
WV3FT	16.00		<b>Probe_RADII-C-2-3/4" (FW1302-002)</b> 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 DCCL	7.38 7.38			CCL_LOG-Probe_SA_CCL (FW1307-076) Probe 2-3/4" Digital Six Magnet Logging CCL	2.66	2.75	35.00
				GR-Probe_SA_GR (FW1307-078) Probe 2-3/4" Scintillating Gamma Ray	3.33	2.75	55.00
GR	2.88			Probe_IL_BS_Cent Probe 2-3/4" Inline Electrical Inline Bowspring Centralizer	2.88	2.75	10.00
Dataset: 0512341285_Anadarko_Bat 29C-9HZ_08-03-15_RBL.db: field/well/run1/MainPass Total Length: 24.85 ft Total Weight: 229.00 lb O.D. 2.75 in							

Calibration Report			
Database File:	0512341285_Anadarko_Bat 29C-9HZ_08-03-15_RBL.db		
Dataset Pathname:	MainPass		
Dataset Creation:	Mon Aug 03 10:23:38 2015 by Log 7.0 B1		
Gamma Ray Calibration Report			
Serial Number:	FW1307-078		
Tool Model:	Probe_SA_GR		
Performed:	Mon Aug 03 07:39:05 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:	FW1302-002		
Tool Model:	2-3/4"		
Calibration Casing Diameter:	5.500	in	
Calibration Depth:	-17.610	ft	
Master Calibration, performed Mon Aug 03 07:43:56 2015:			
Raw (v)		Calibrated (mv)	Results
Zero	Cal	Zero	Cal
Gain	Offset	Gain	Offset



	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.005	0.691	0.800	71.921	103.705	0.309
CAL	0.002	0.784				
5'	0.003	0.703	0.800	71.921	101.580	0.523
SUM						
S1	0.018	0.694	0.000	100.000	148.124	-2.725
S2	0.003	0.694	0.000	100.000	144.691	-0.419
S3	0.002	0.692	0.000	100.000	144.919	-0.329
S4	0.002	0.691	0.000	100.000	145.145	-0.298
S5	0.002	0.689	0.000	100.000	145.594	-0.341
S6	0.002	0.692	0.000	100.000	145.091	-0.347
S7	0.005	0.696	0.000	100.000	144.671	-0.701
S8	0.004	0.692	0.000	100.000	145.259	-0.518

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	0.002	0.784	1.000	0.000

Air Zero Calibration, performed Mon Aug 03 07:44:16 2015:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	
3'	0.005		0.000		0.000	
5'	0.003		0.000		0.000	
SUM						
S1	0.018		0.000		0.000	
S2	0.003		0.000		0.000	
S3	0.002		0.000		0.000	
S4	0.002		0.000		0.000	
S5	0.002		0.000		-0.000	
S6	0.002		0.000		0.000	
S7	0.005		0.000		-0.000	
S8	0.004		0.000		-0.000	



Company Kerr-McGee Oil & Gas Onshore, L.P.  
Well Bat 29C-9HZ  
Field Wattenberg  
County Weld  
State Colorado