



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company	Kerr-McGee Oil and Gas Onshore LP			Company	Kerr-McGee Oil and Gas Onshore LP		
Well	Viper Pyro State 16N2-10HZ			Well	Viper Pyro State 16N2-10HZ		
Field	Wattenberg			Field	Wattenberg		
County	Weld			County	Weld		
State	Colorado			State	Colorado		
Location:				API # : 05-123-41431			
SEC 15 TWP 3N RGE 67W				Other Services Gauge Ring Junk Basket			
Permanent Datum	Ground Level	Elevation	4794'	Elevation			
Log Measured From	Kelly Bushing	20 FT		K.B. 4814' D.F. 4813' G.L. 4794'			
Drilling Measured From	Kelly Bushing						

Date	13-OCT-2015		
Run Number	Two		
Depth Driller	12674 FT		
Depth Logger	7218 FT		
Bottom Logged Interval	7213 FT		
Top Log Interval	Surface		
Open Hole Size	7.875		
Type Fluid	Water		
Density / Viscosity	8.34 lbm/gal		
Max. Recorded Temp.	229°F		
Estimated Cement Top	Surface		
Time Well Ready	ROA		
Time Logger on Bottom	0745		
Equipment Number	HD-0255		
Location	Ft. Lupton, CO		
Recorded By	J. Amidei		
Witnessed By	J. Adams		

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	1907 FT		
Intermediate #1	5 1/2	17	HCP-110 LT&C	Surface	12824 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 20 FT  
Adjusted log -3 FT to correlate with Kelly Bushing  
Gauge Ring/Junk Basket ran to 7215 FT with no debris found  
Log ran from 7218 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.!!

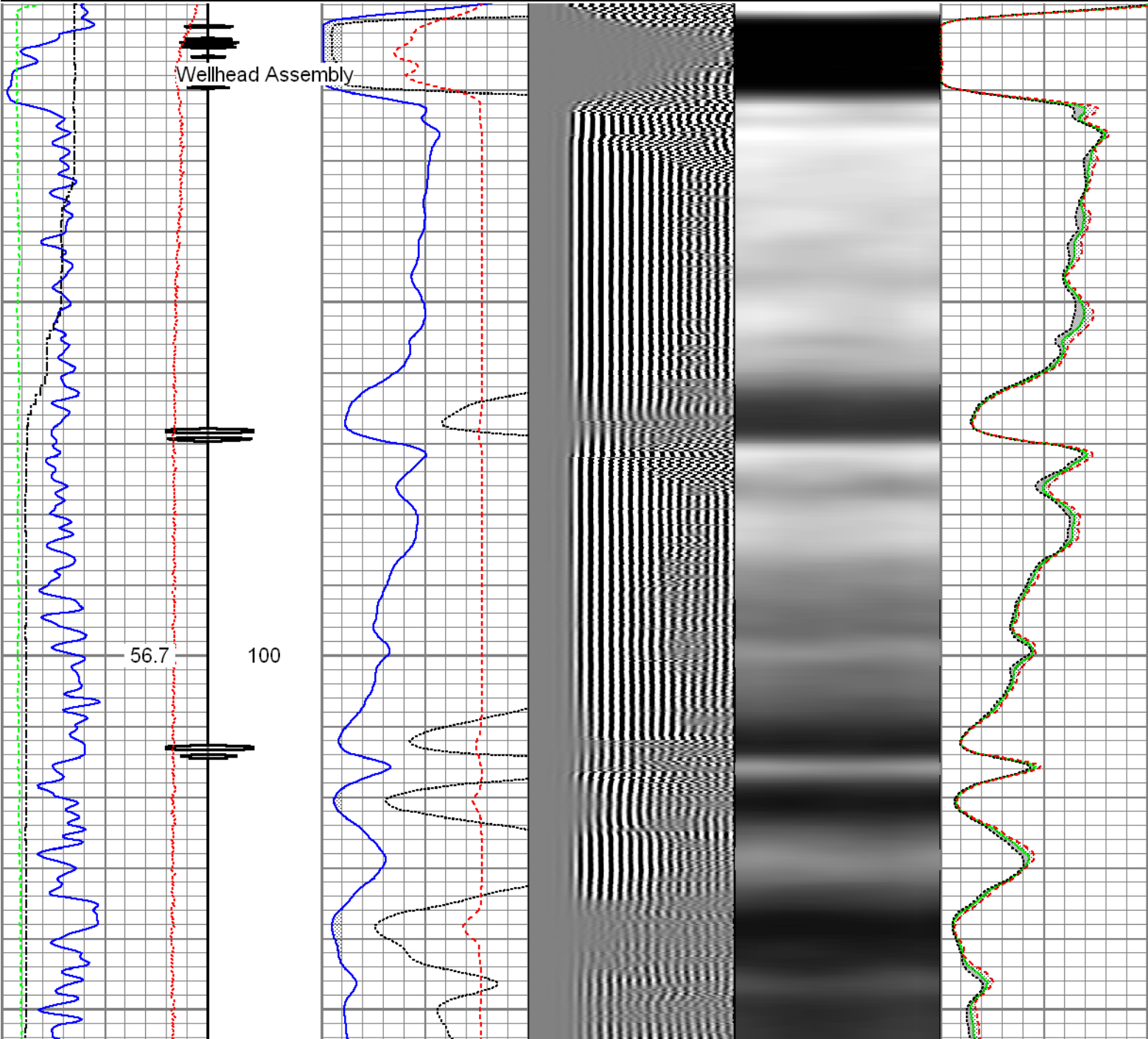


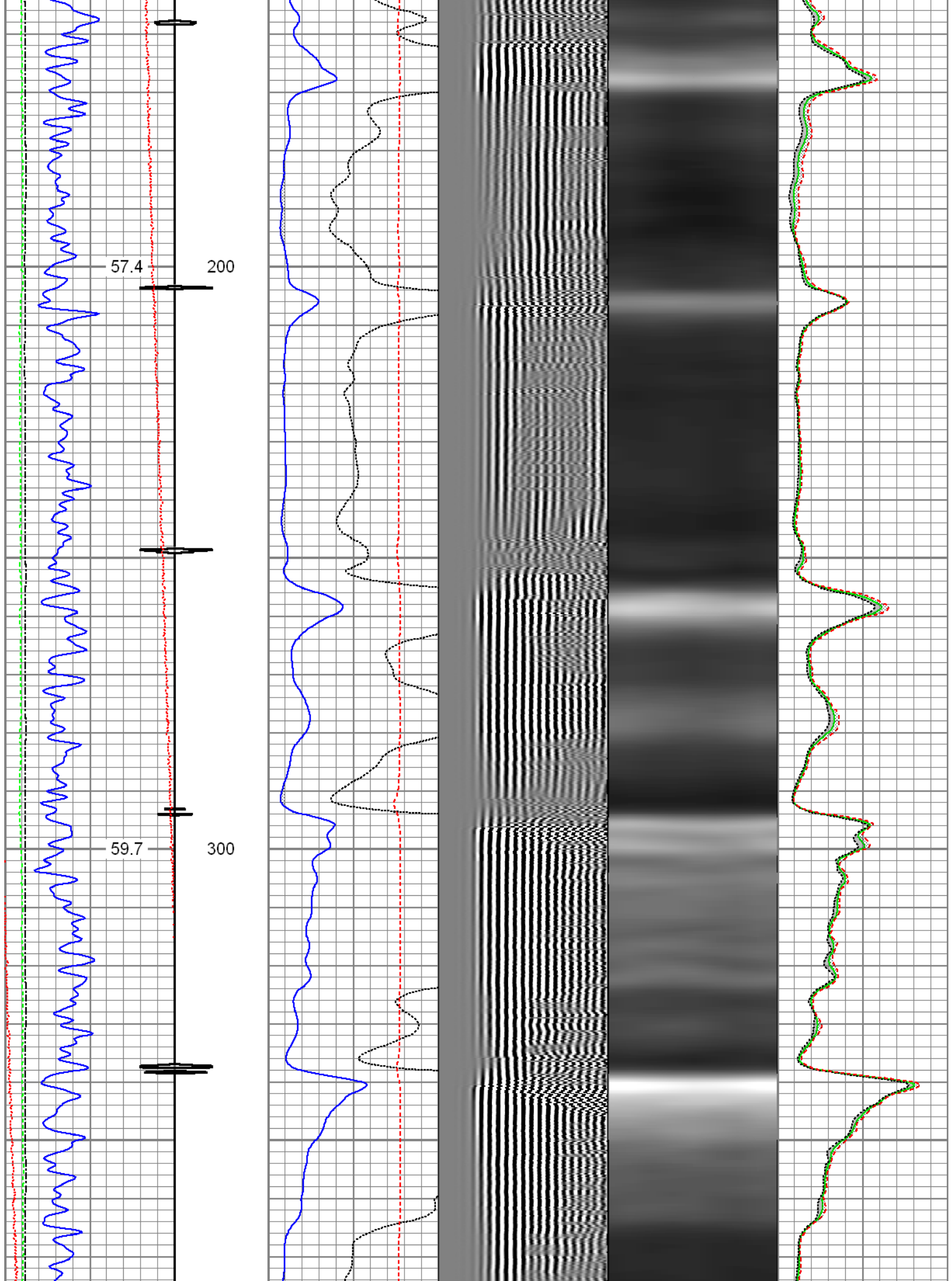
Main Pass

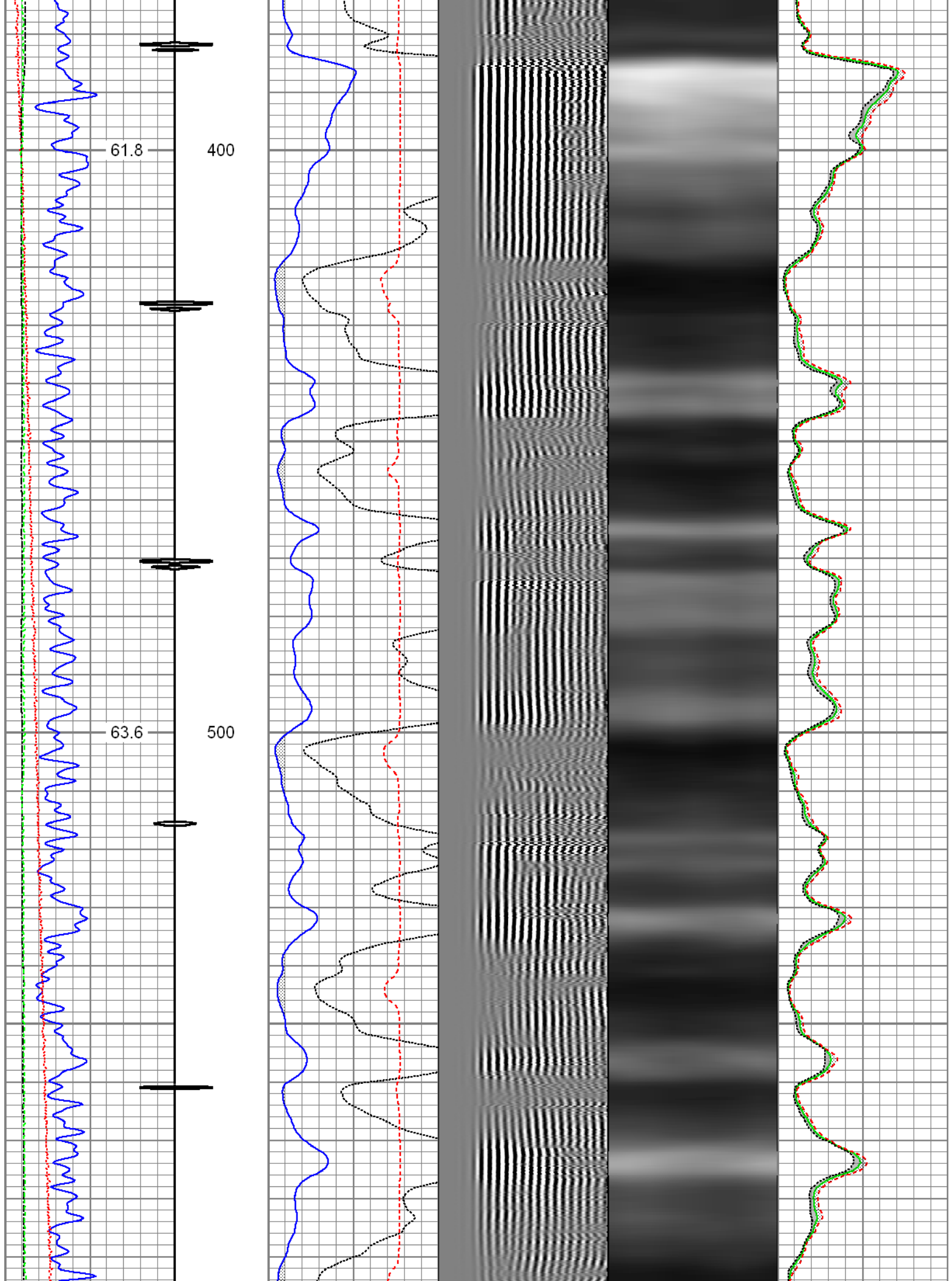
Recorded with 2800 PSI Surface Induced Pressure

Database File: 0512341431\_anadarko\_viper pyro state 16n2-10hz\_10-13-15\_rbl.db  
Dataset Pathname: pass5  
Presentation Format: radii  
Dataset Creation: Wed Oct 14 08:00:18 2015 by Log 7.0 B1  
Charted by: Depth in Feet scaled 1:240

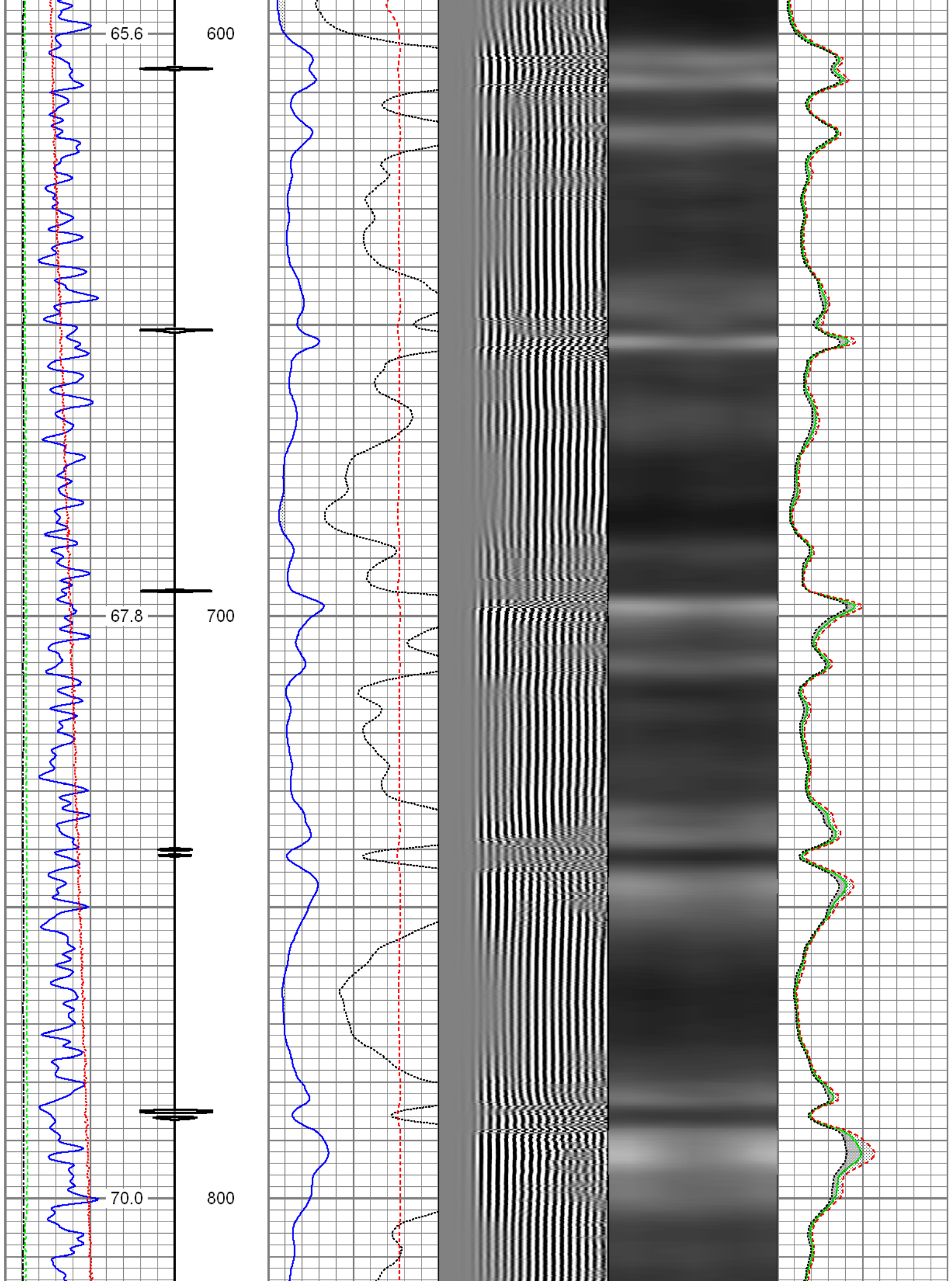
Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 120	0 (mV) 100	200 1200		0 100
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Temperature	0 (mV) 20			0 100
0 (degF) 20	3' Travel Time			Maximum Amplitude
Line Speed	650 (usec) 150			0 100
-150 (ft/min) 150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

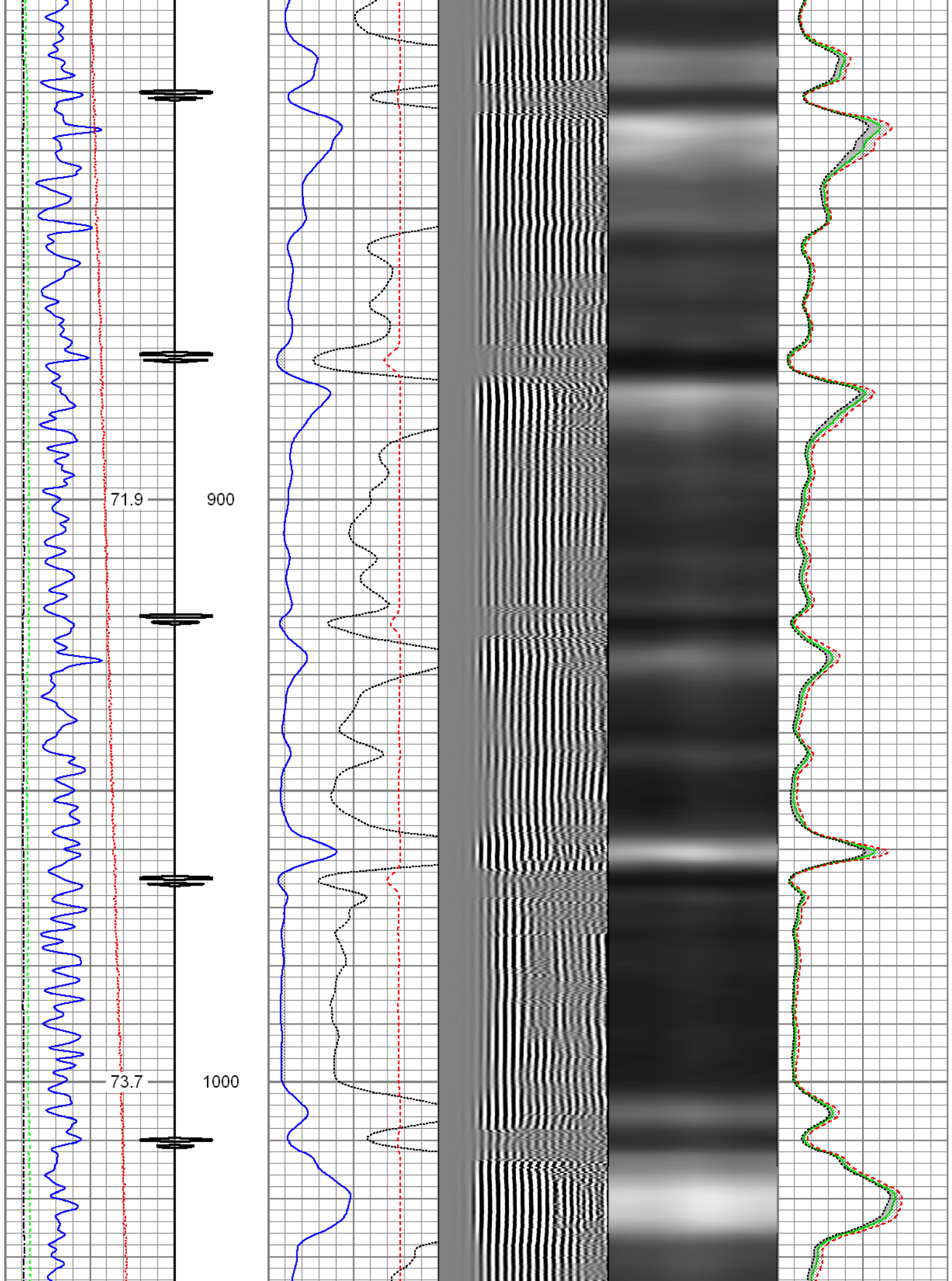


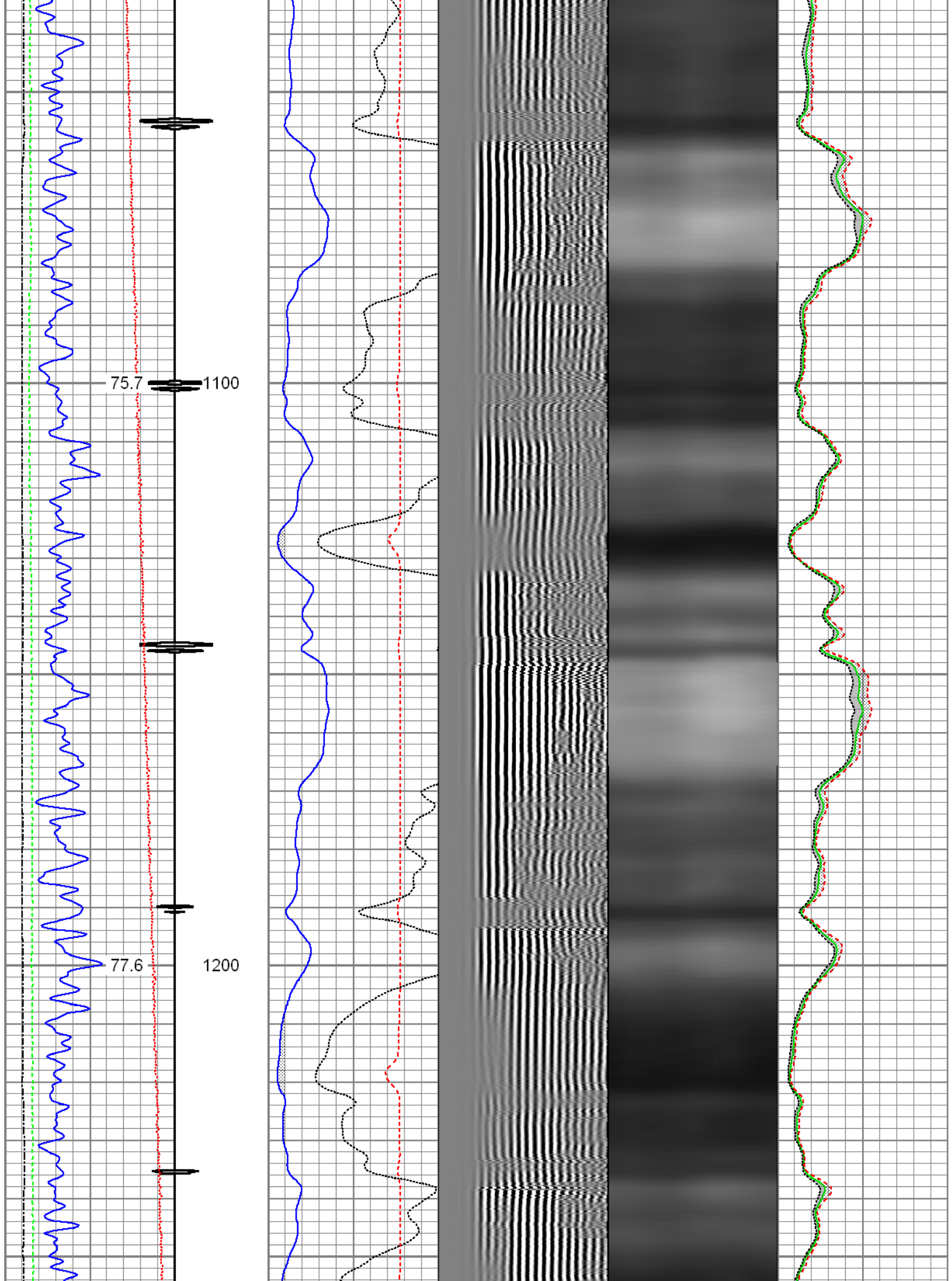




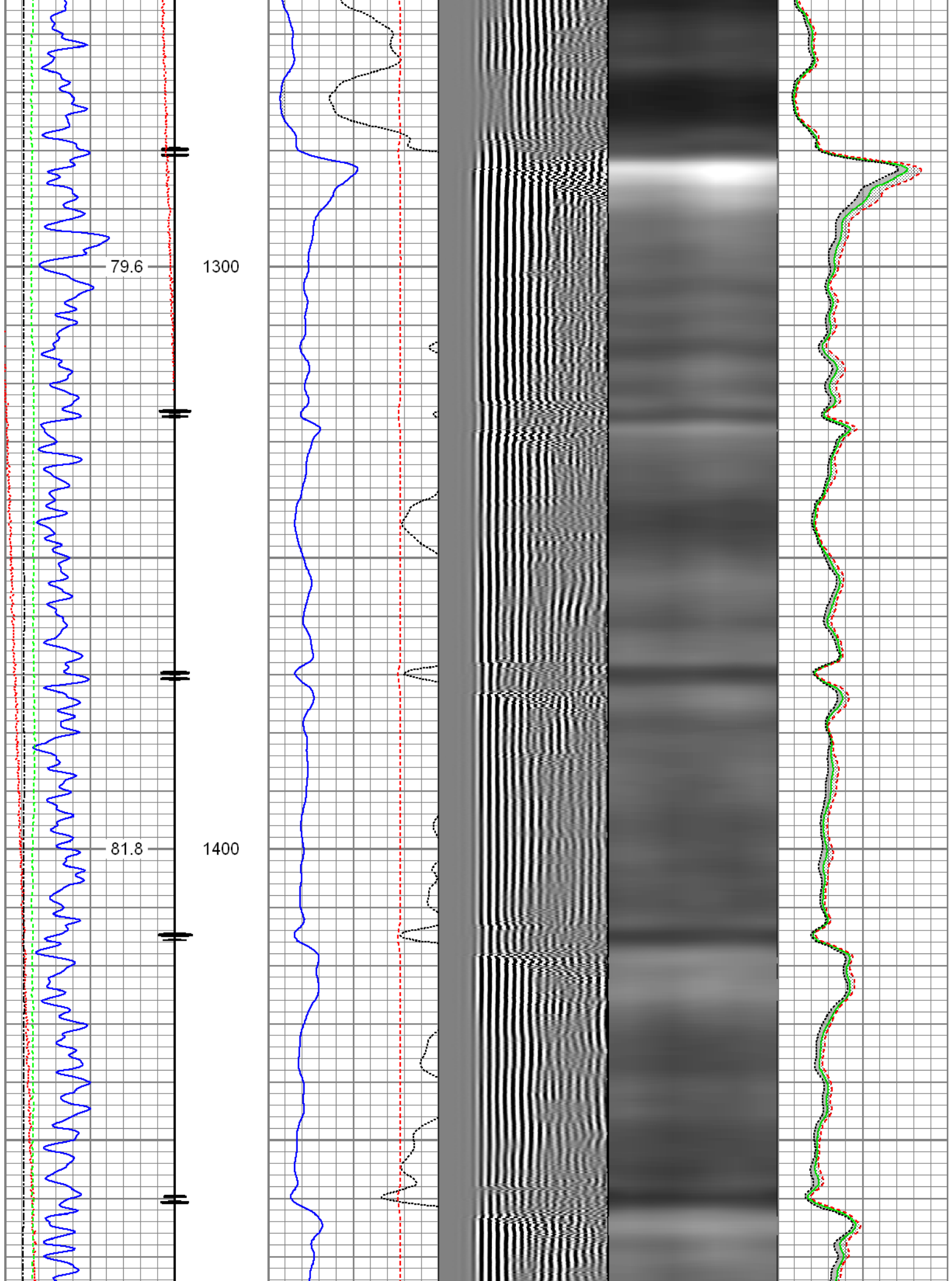




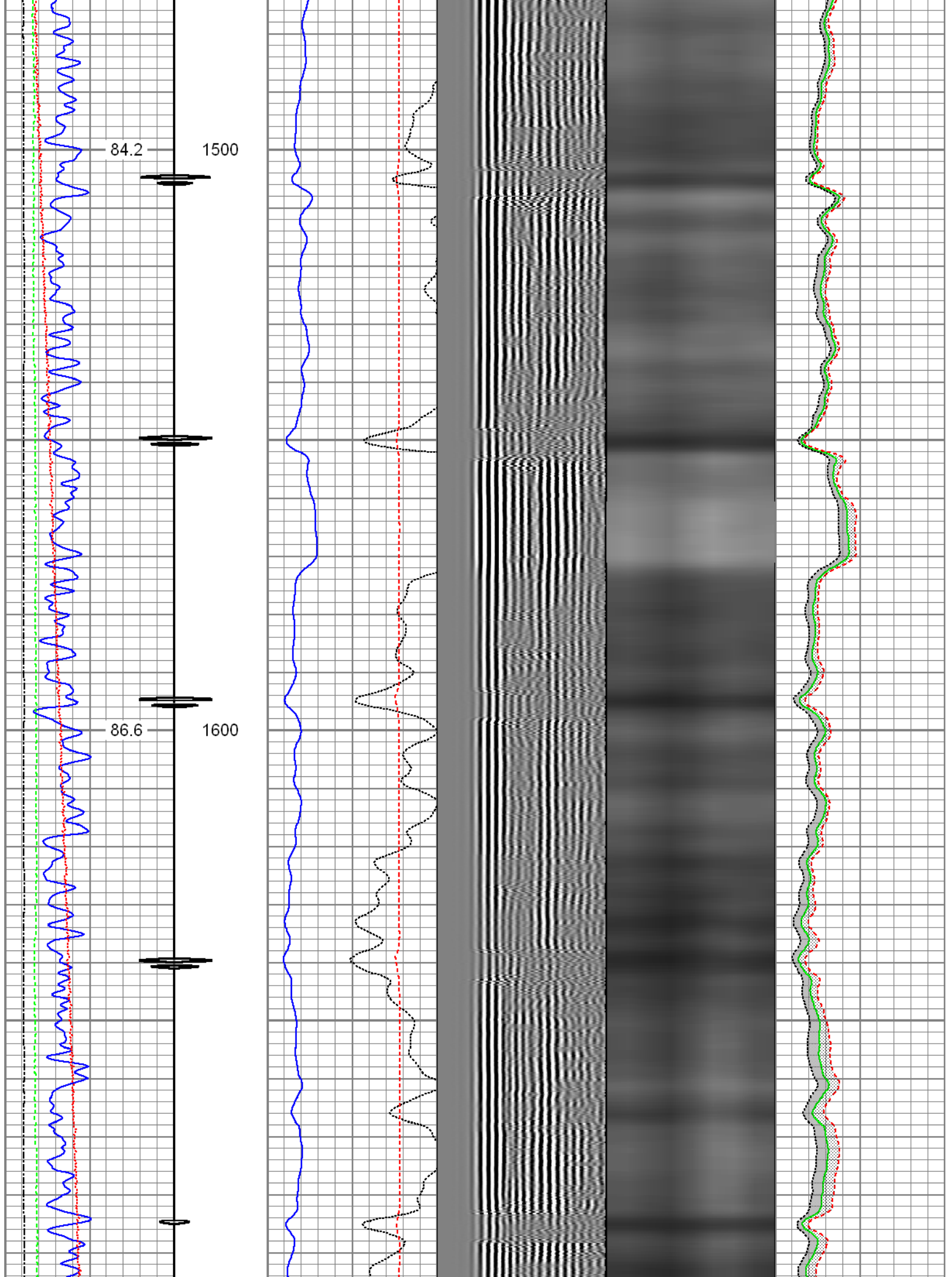


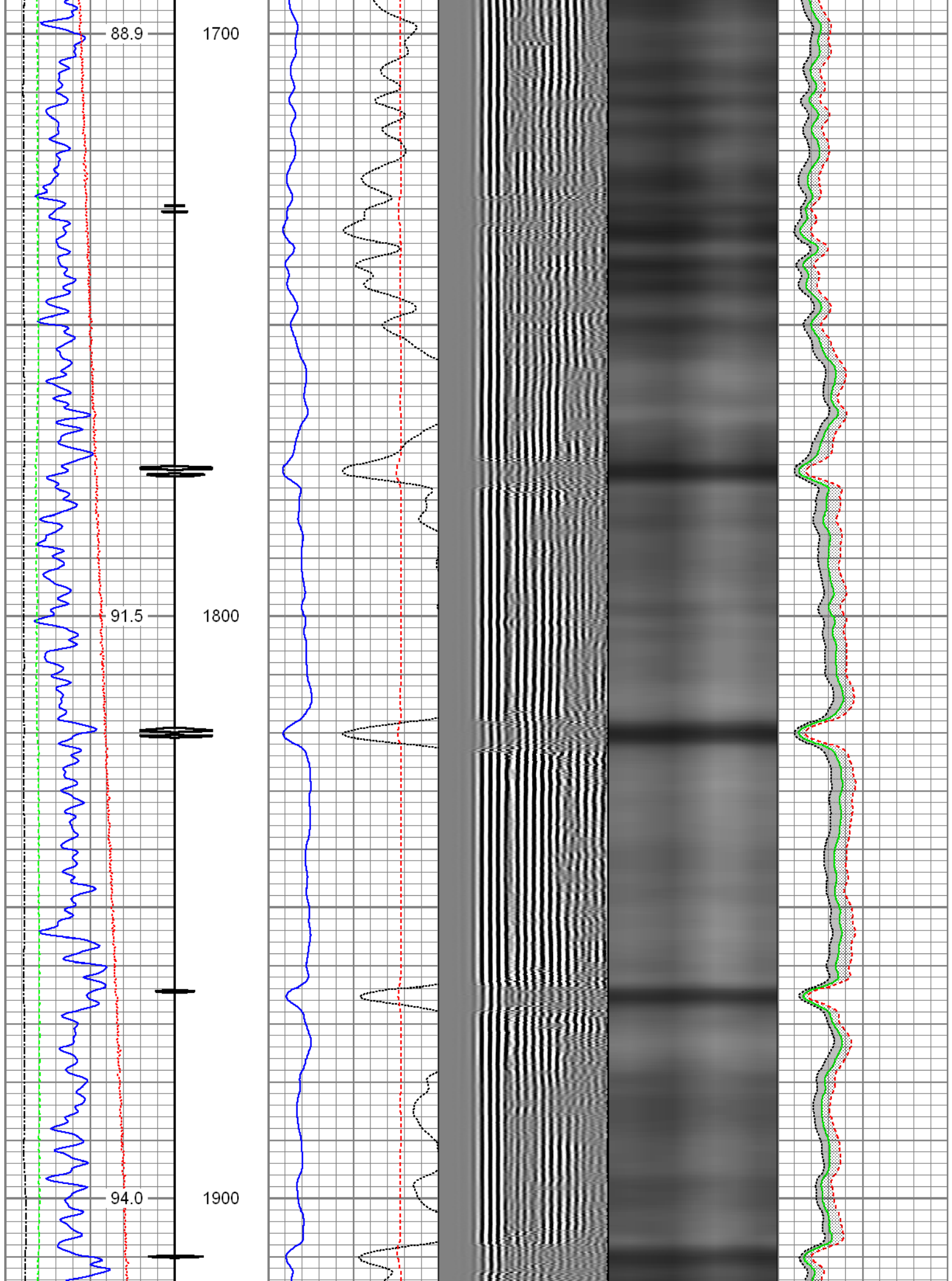


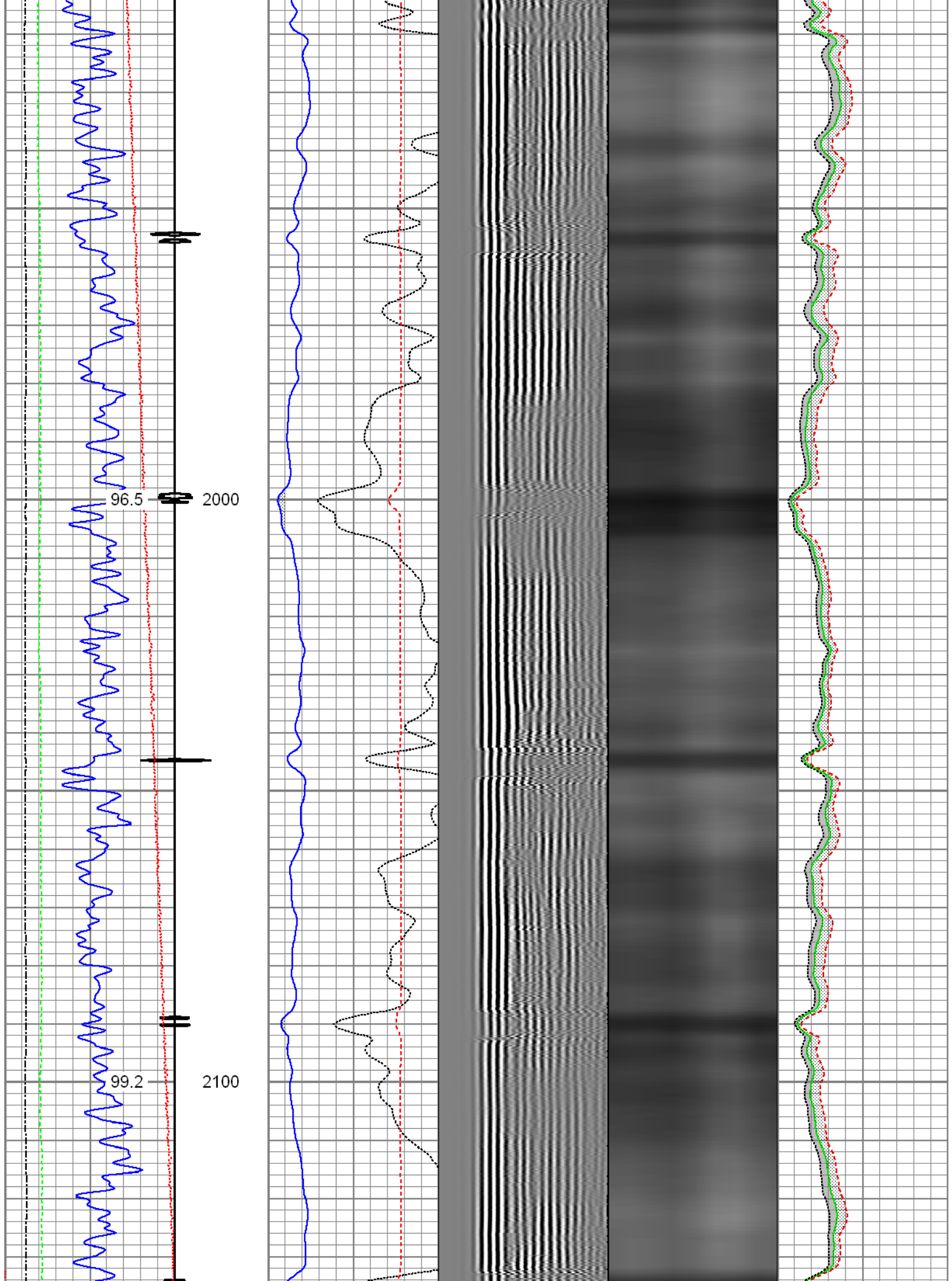




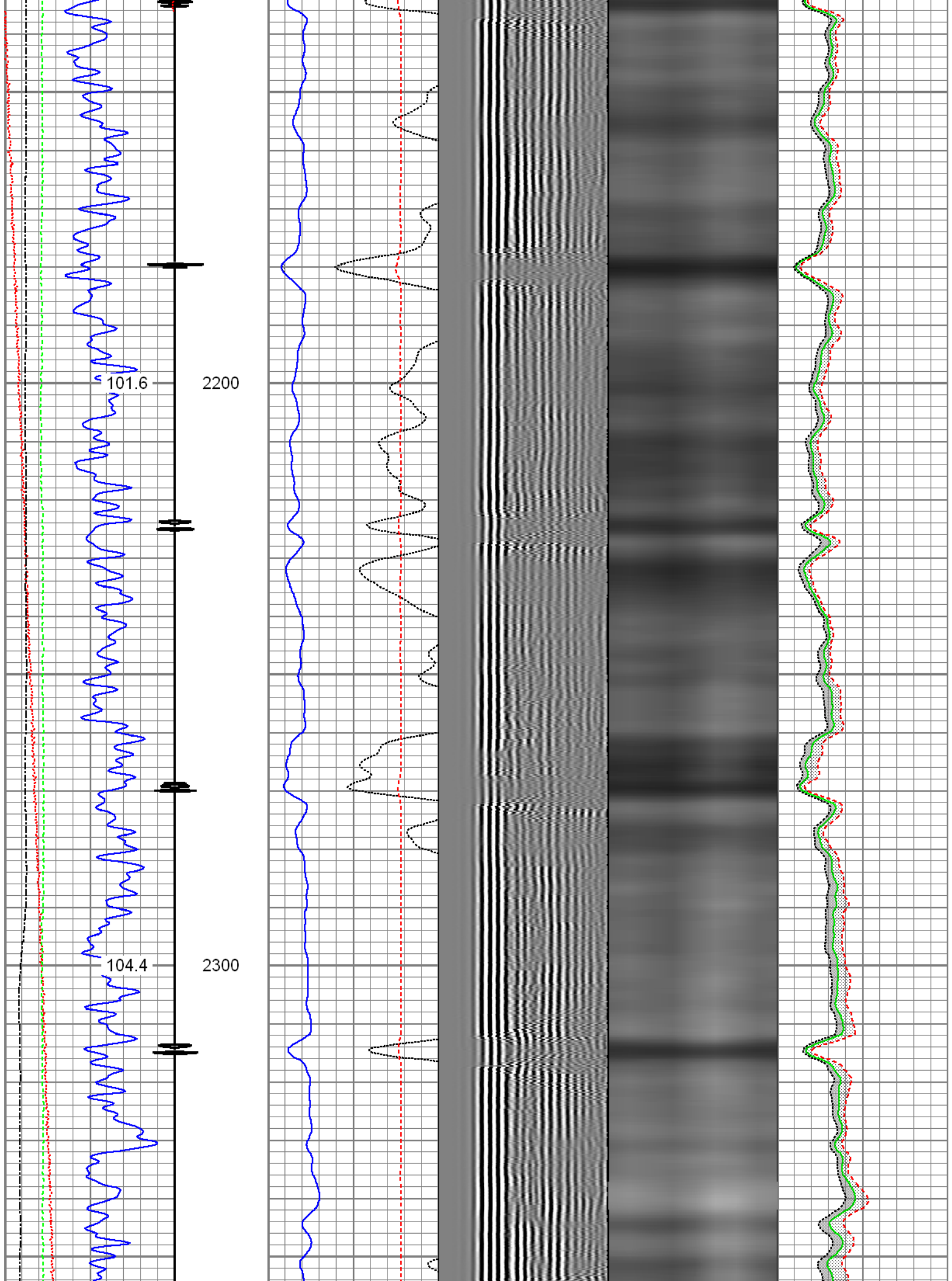




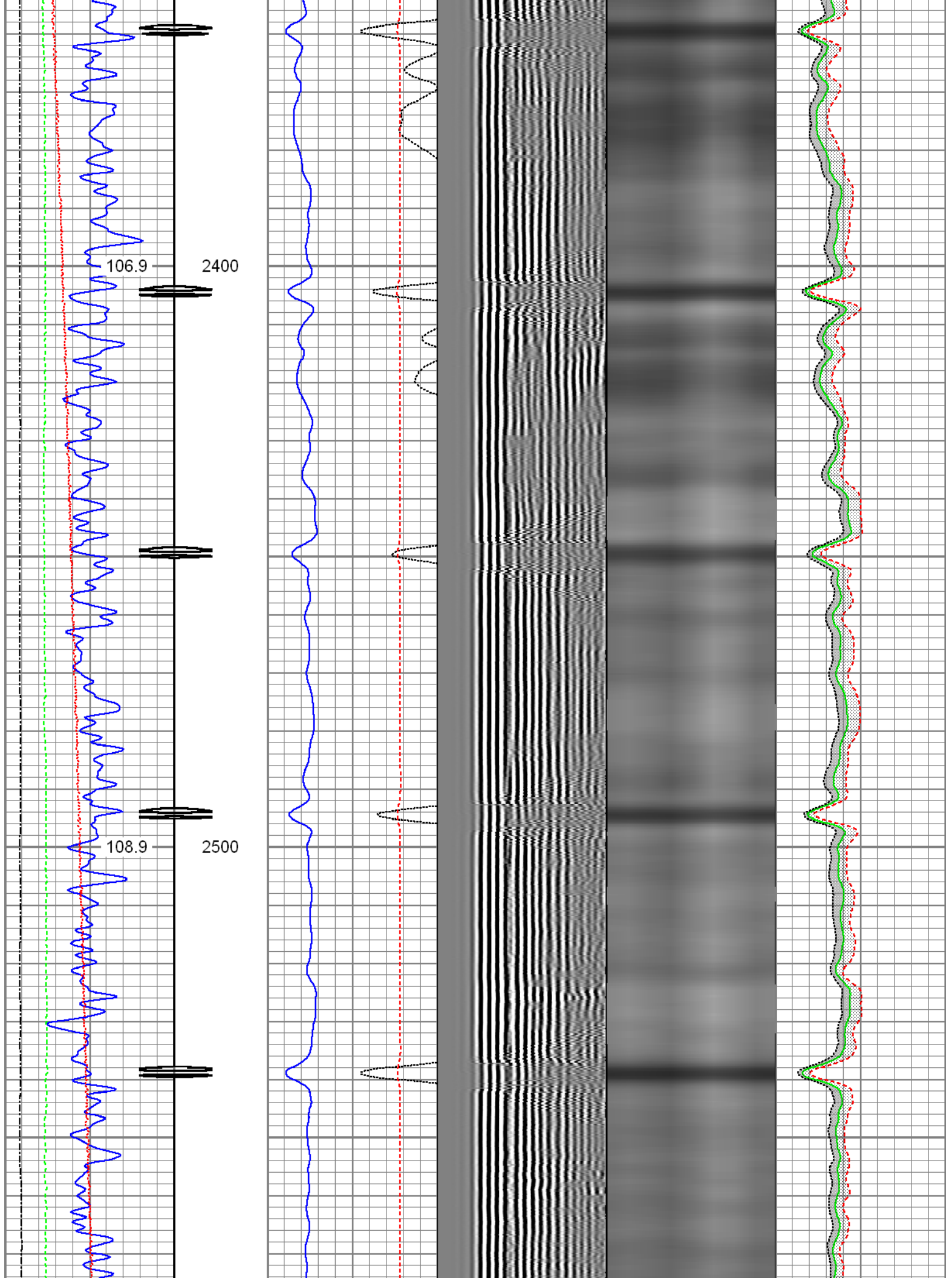


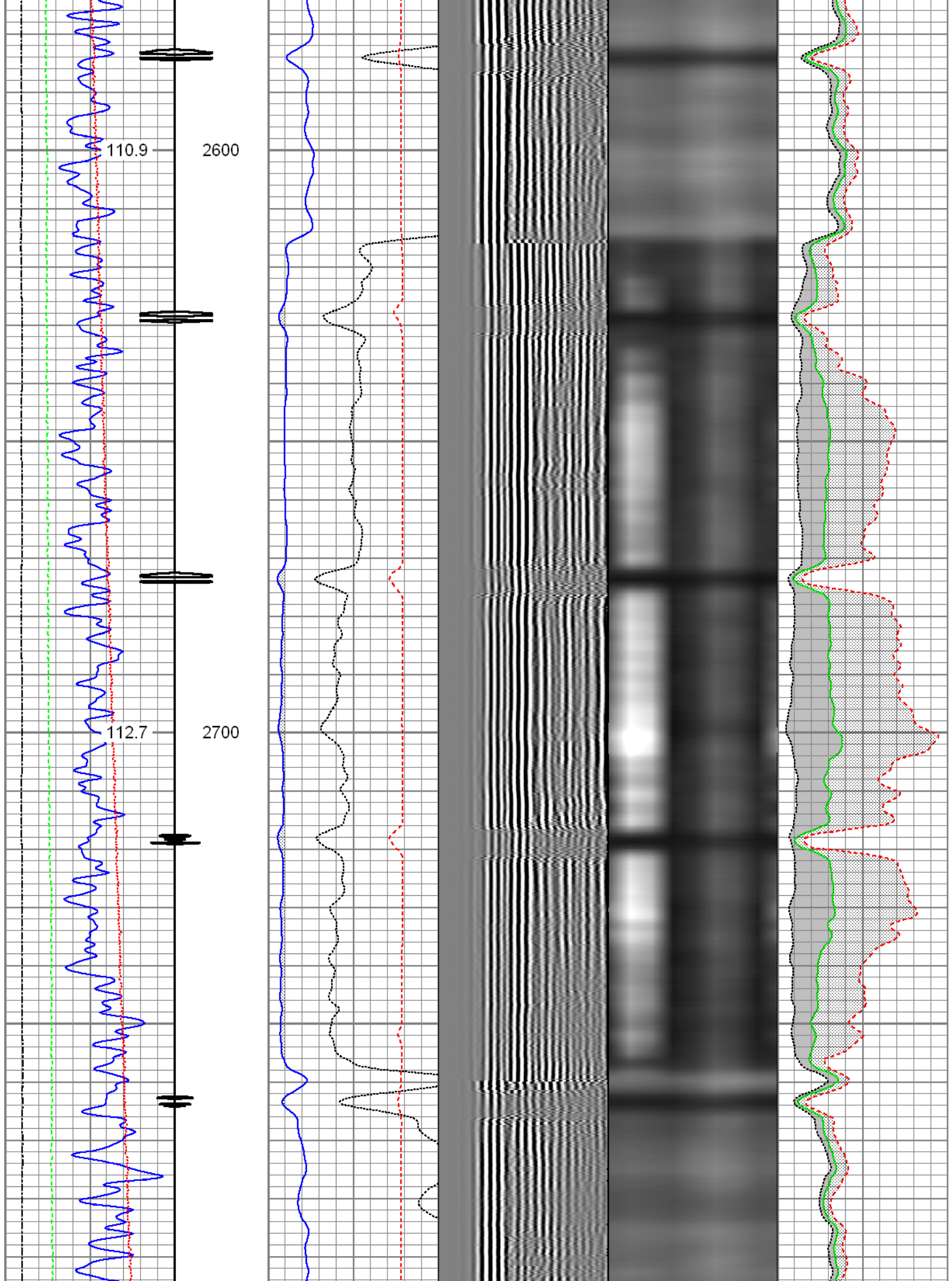


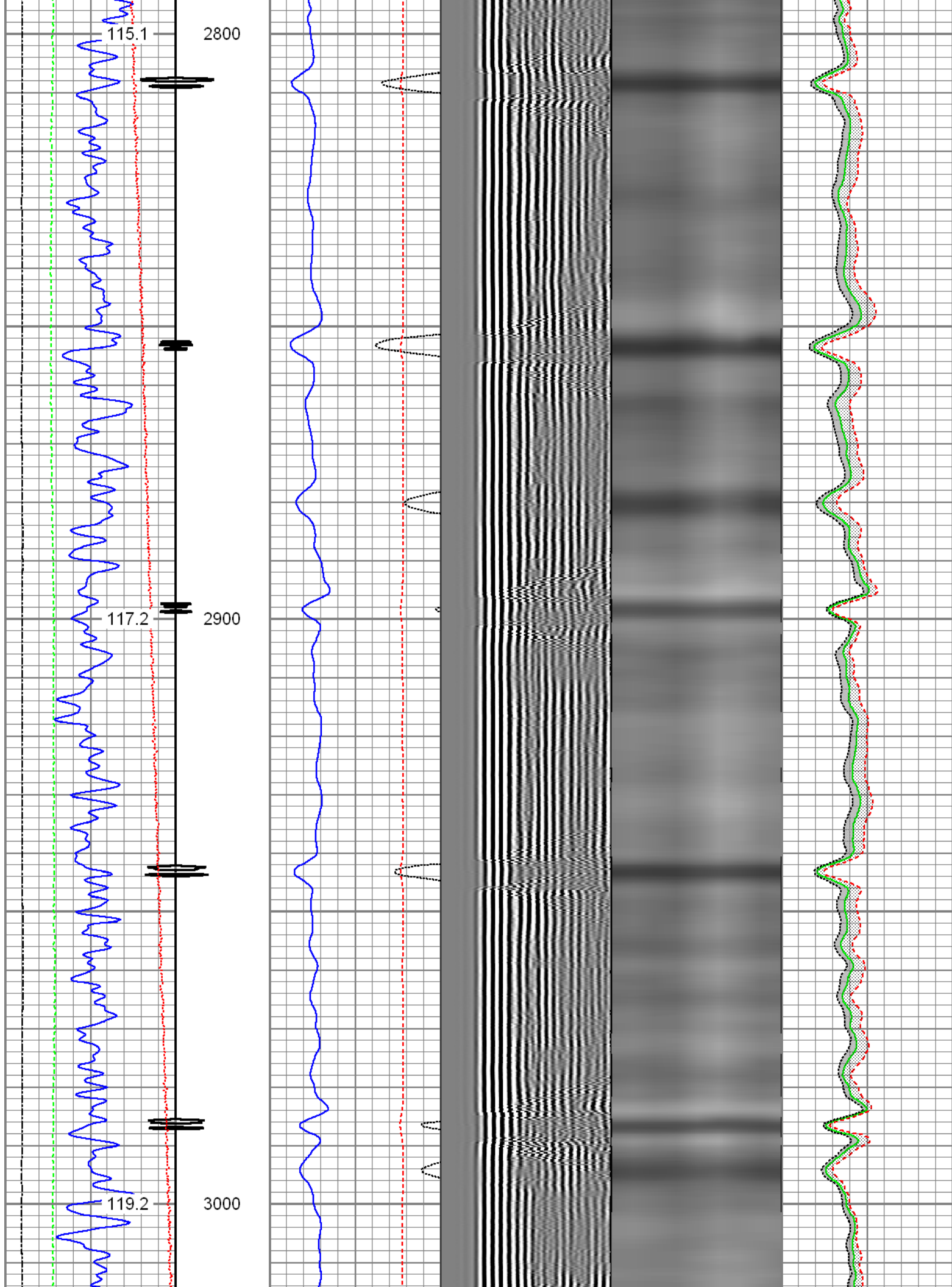




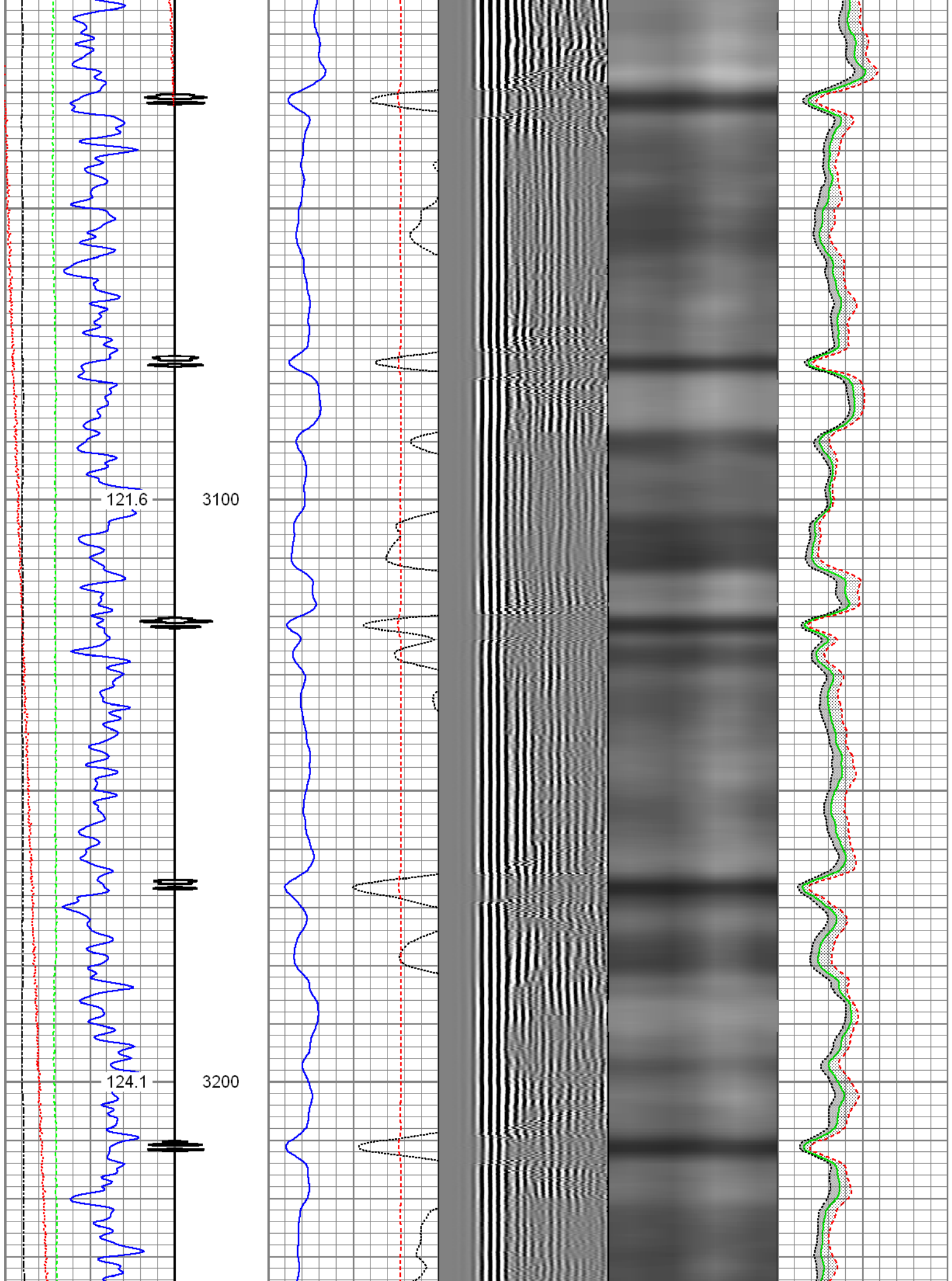




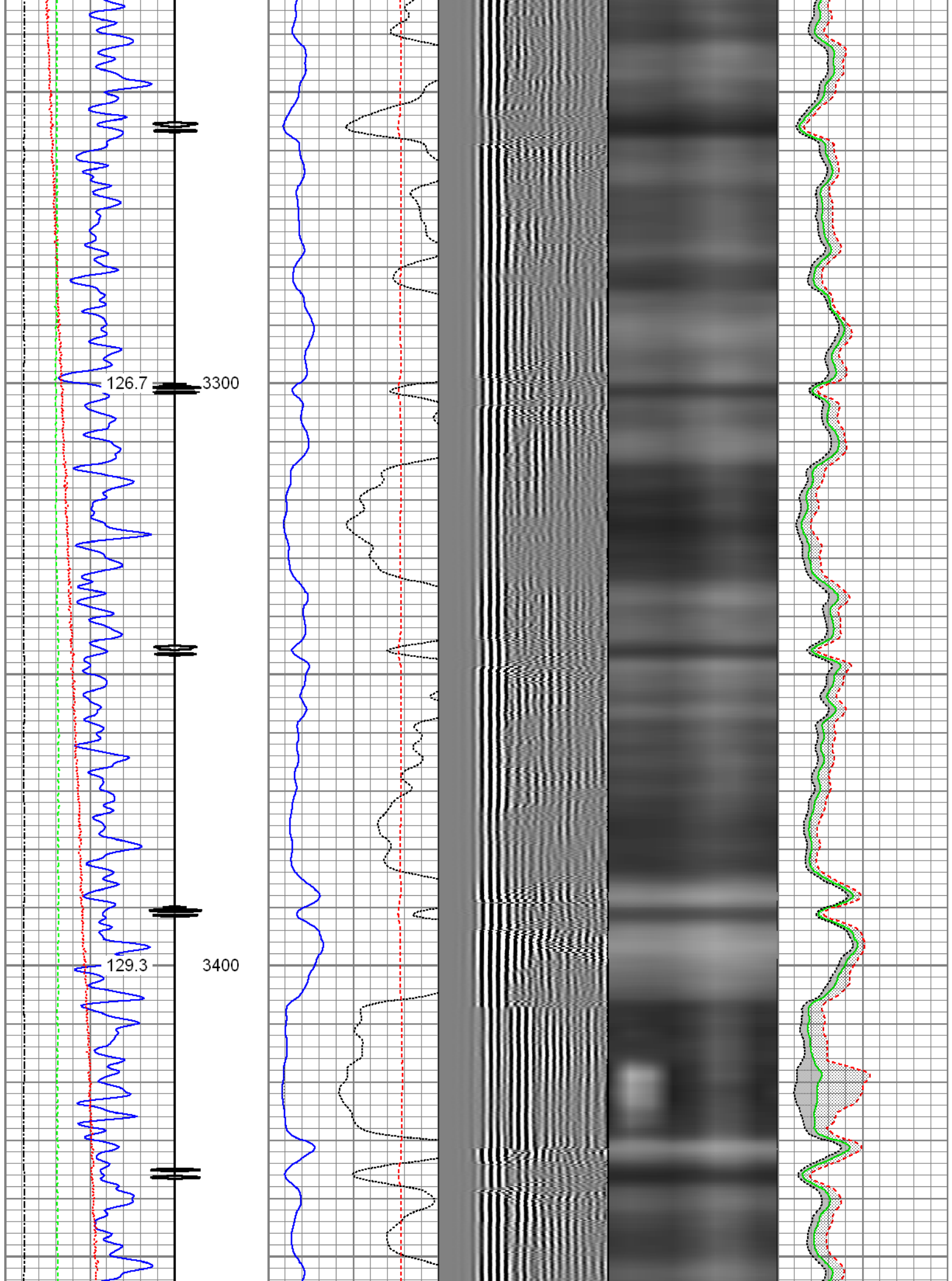


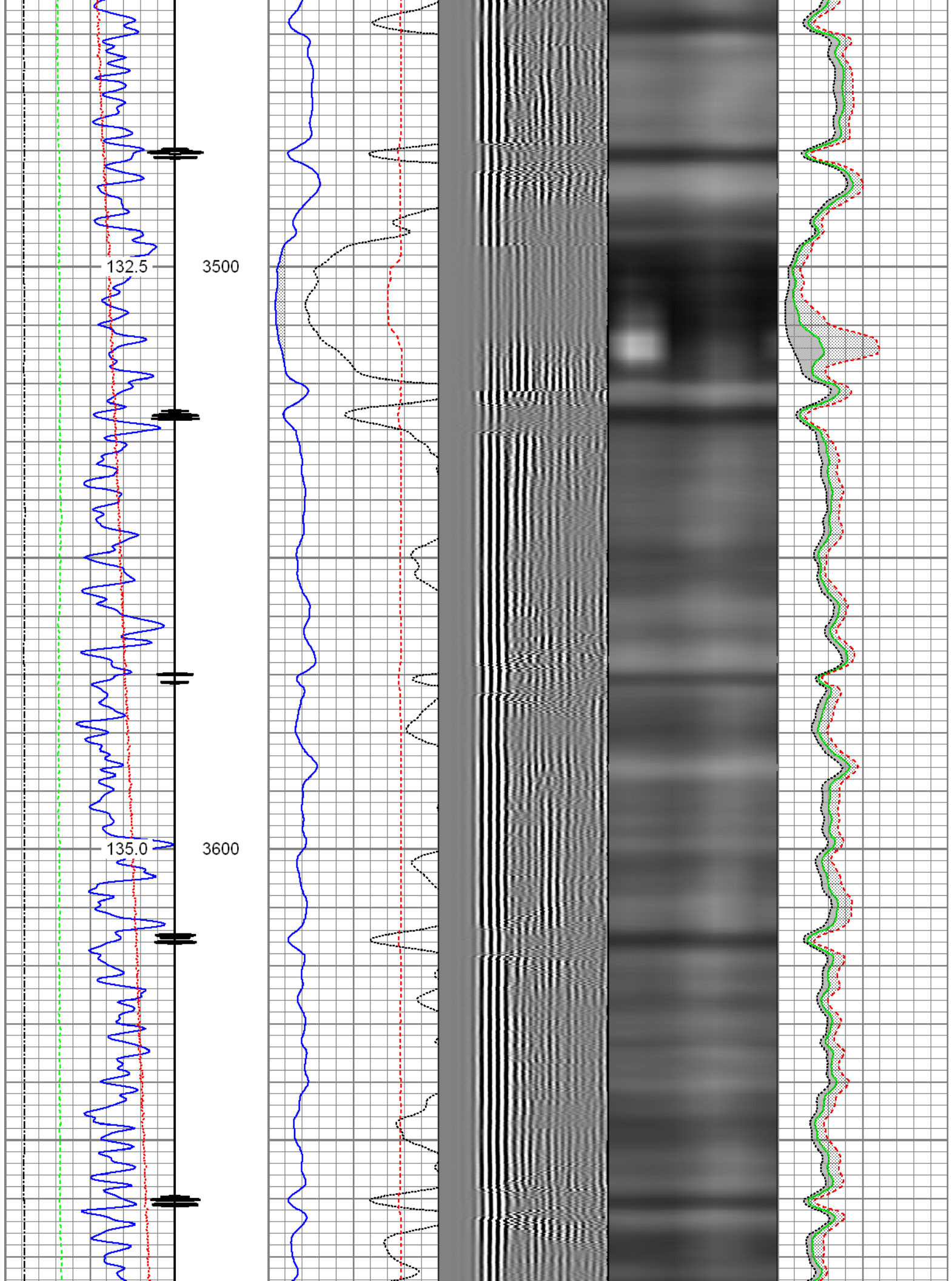


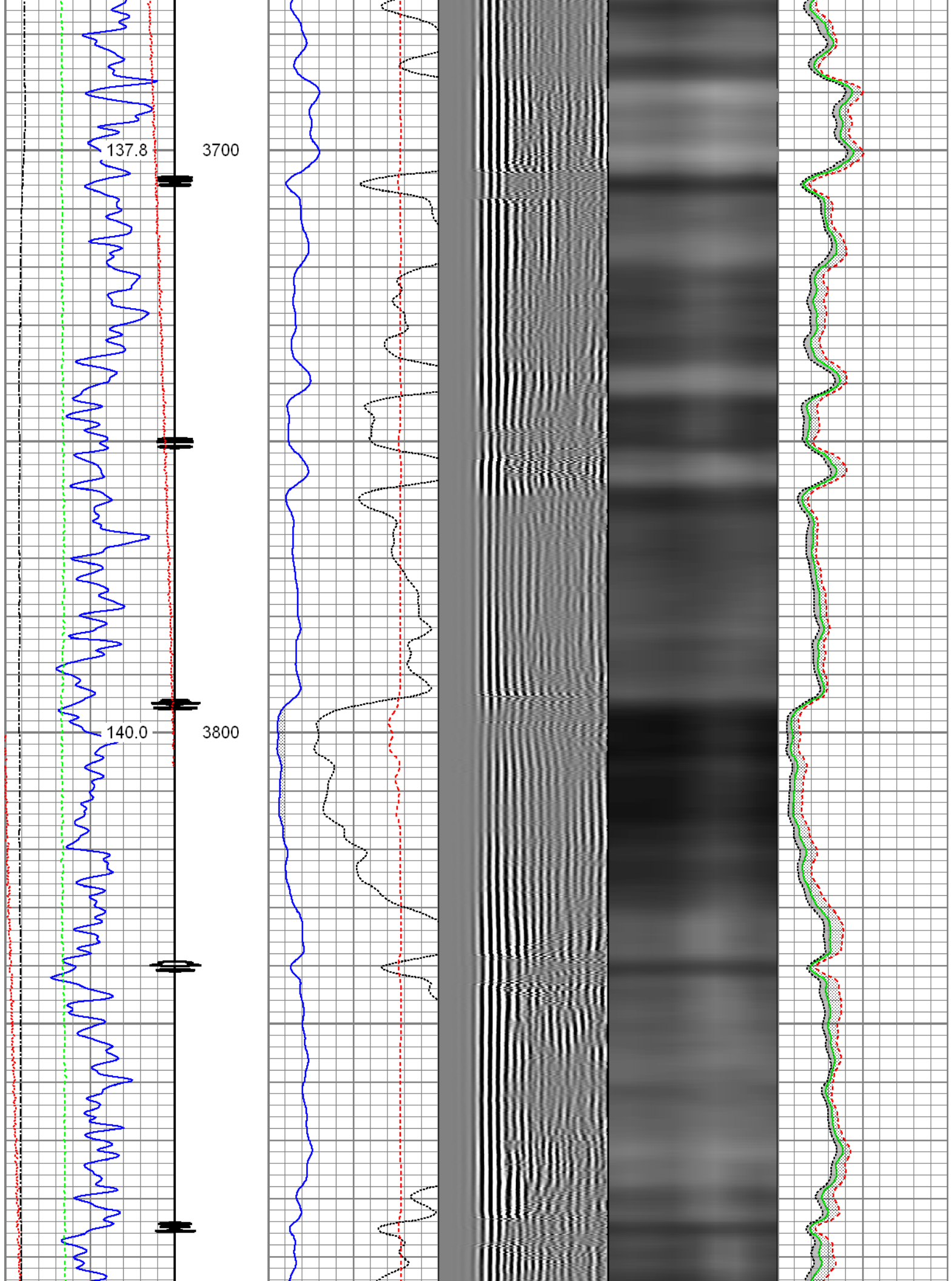




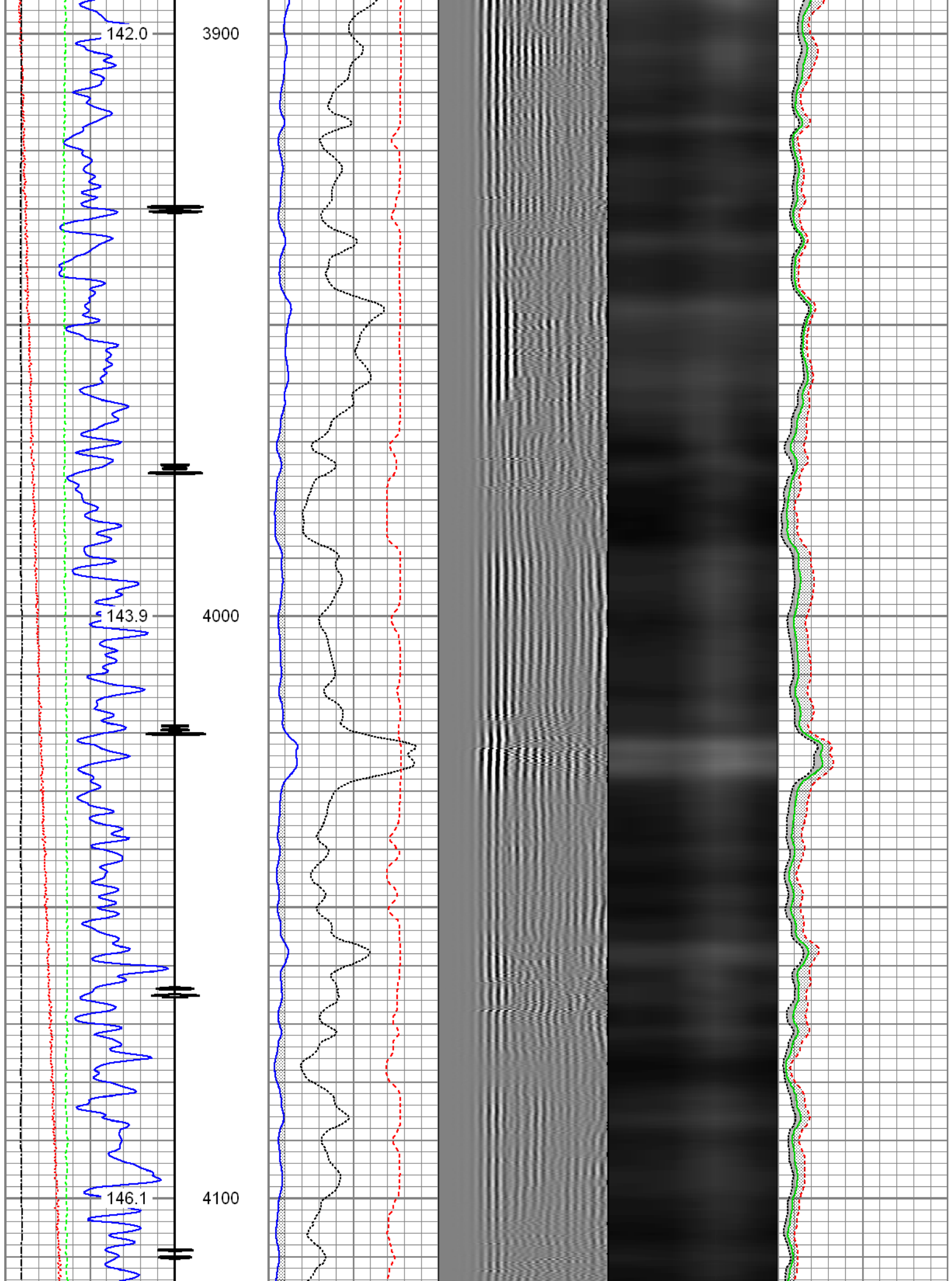




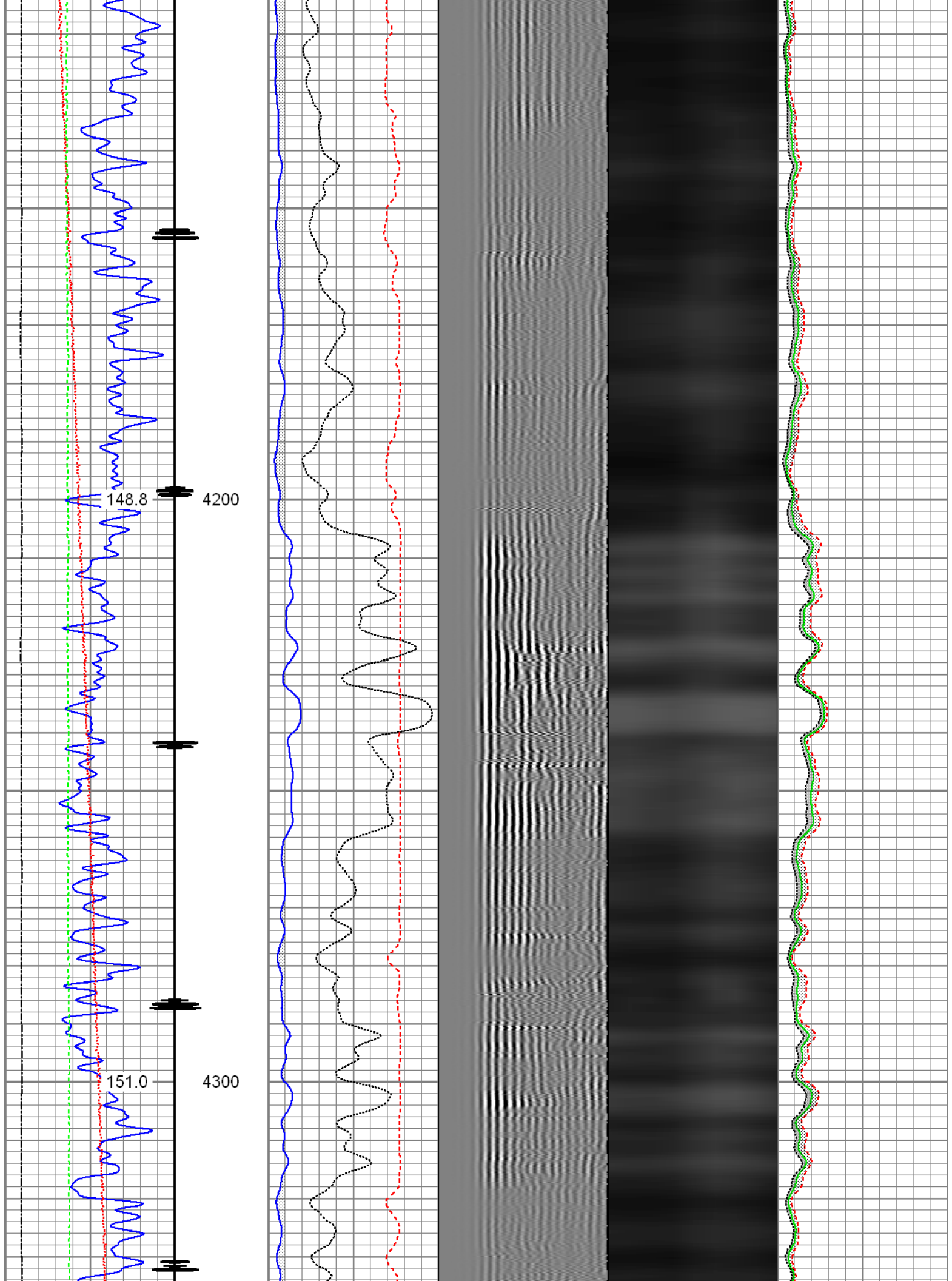


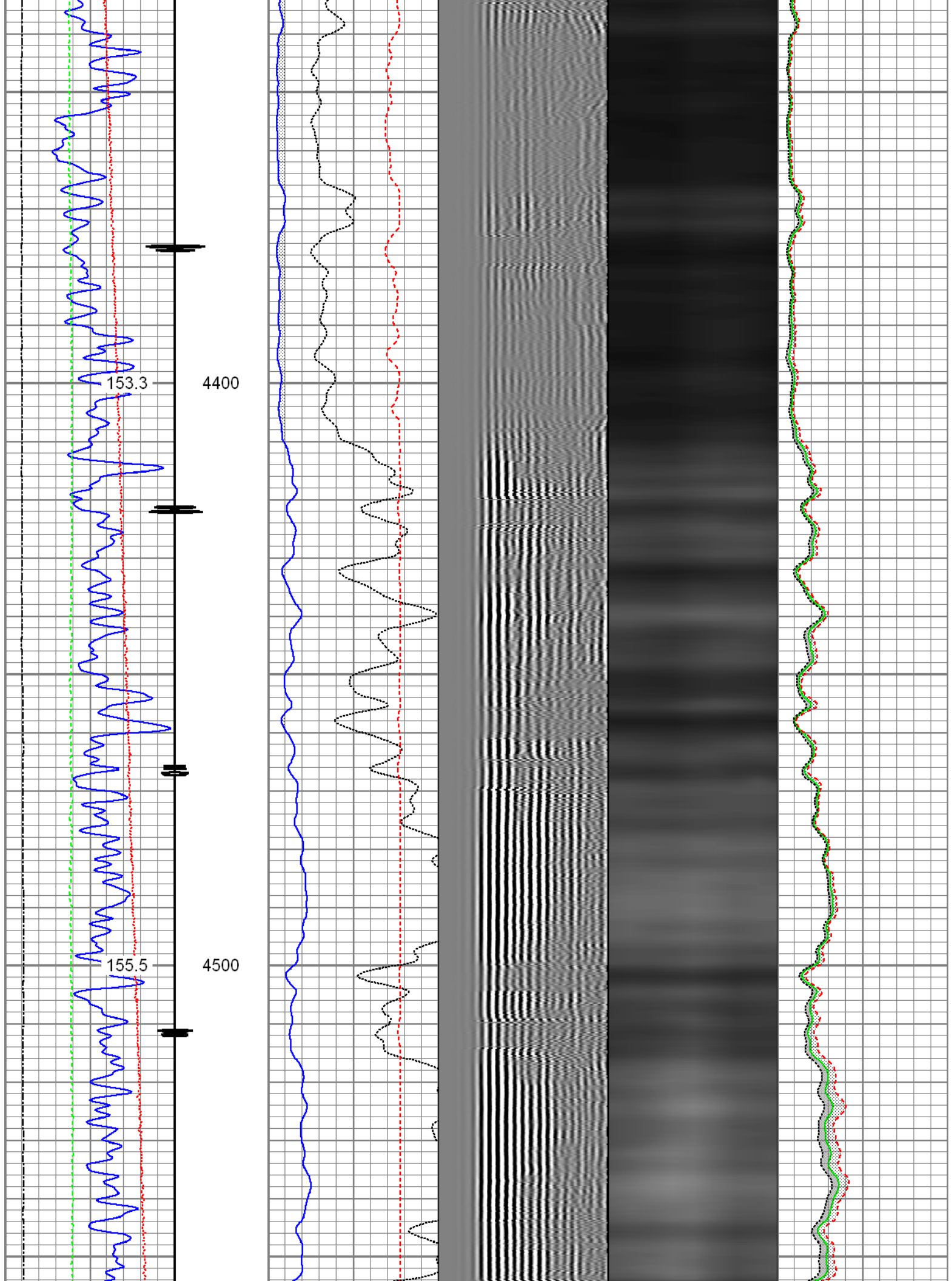


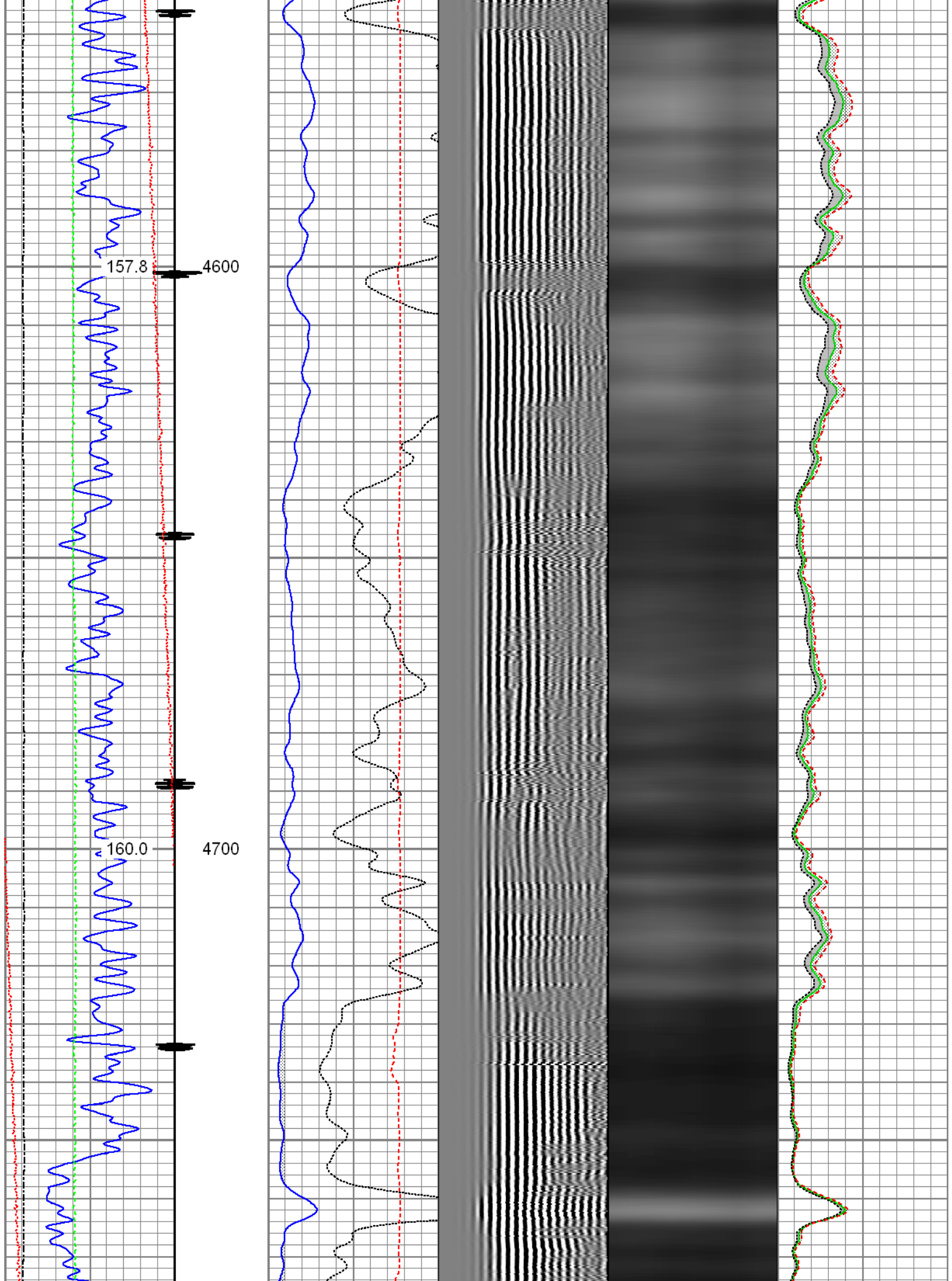




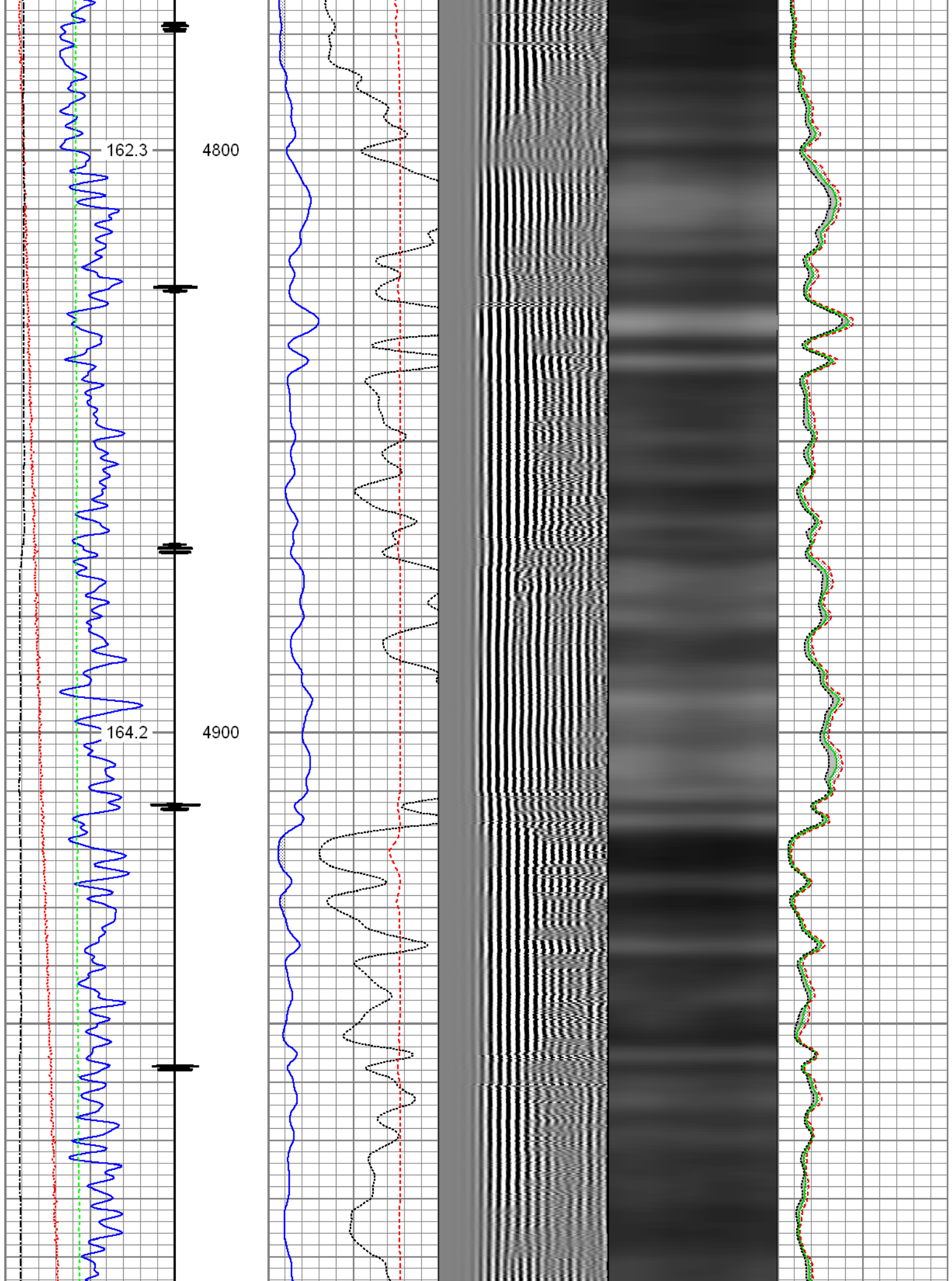


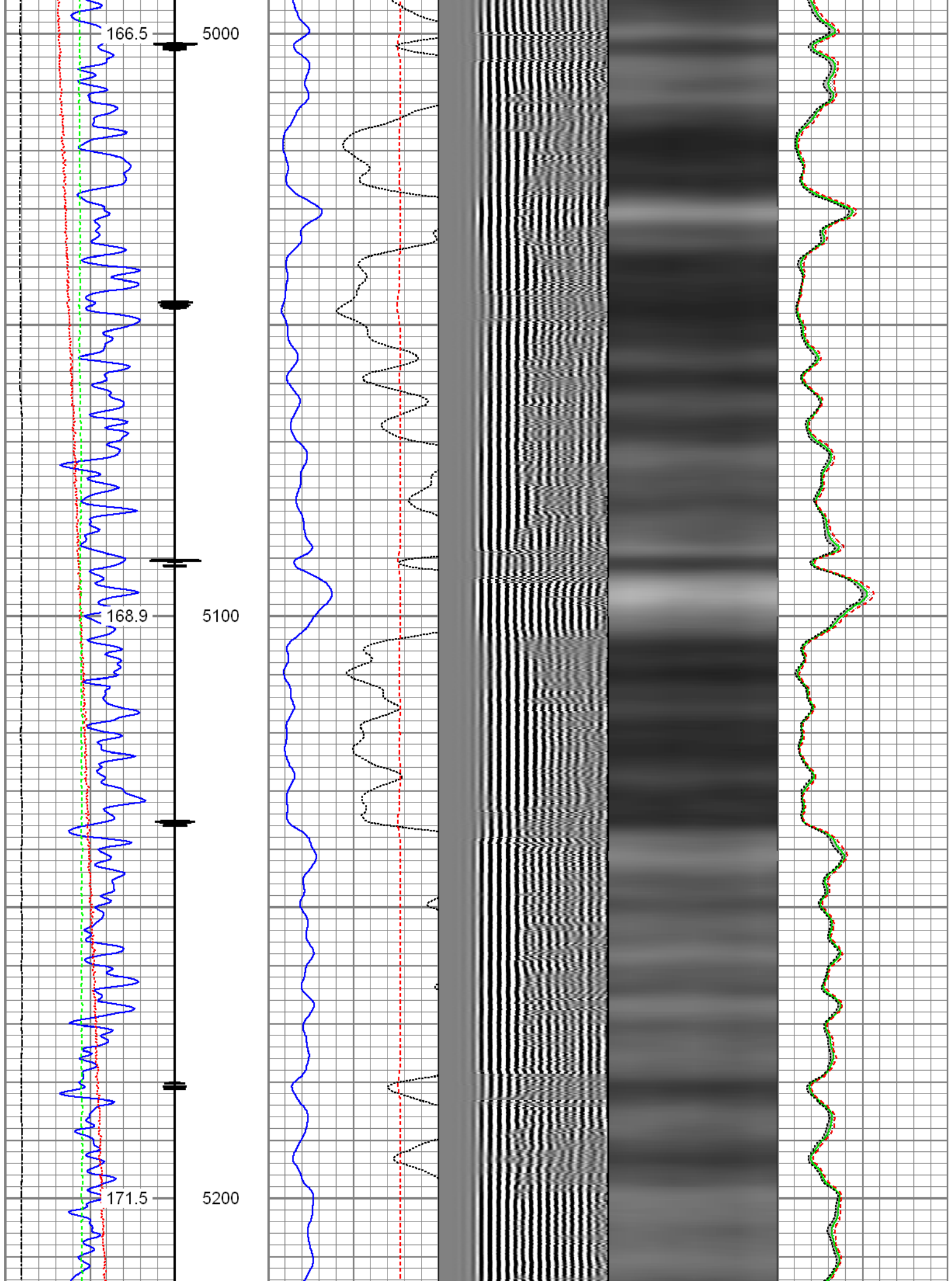


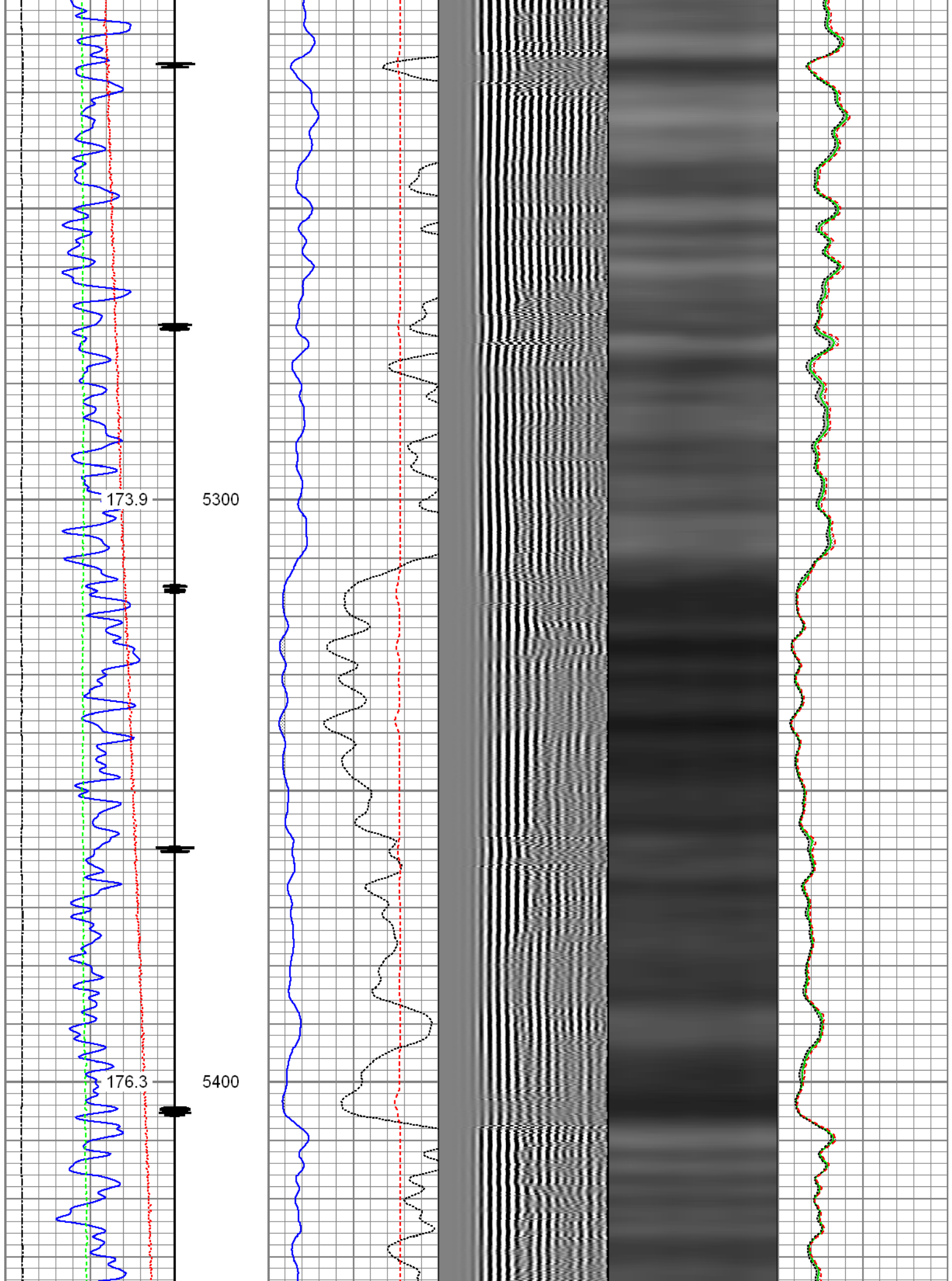




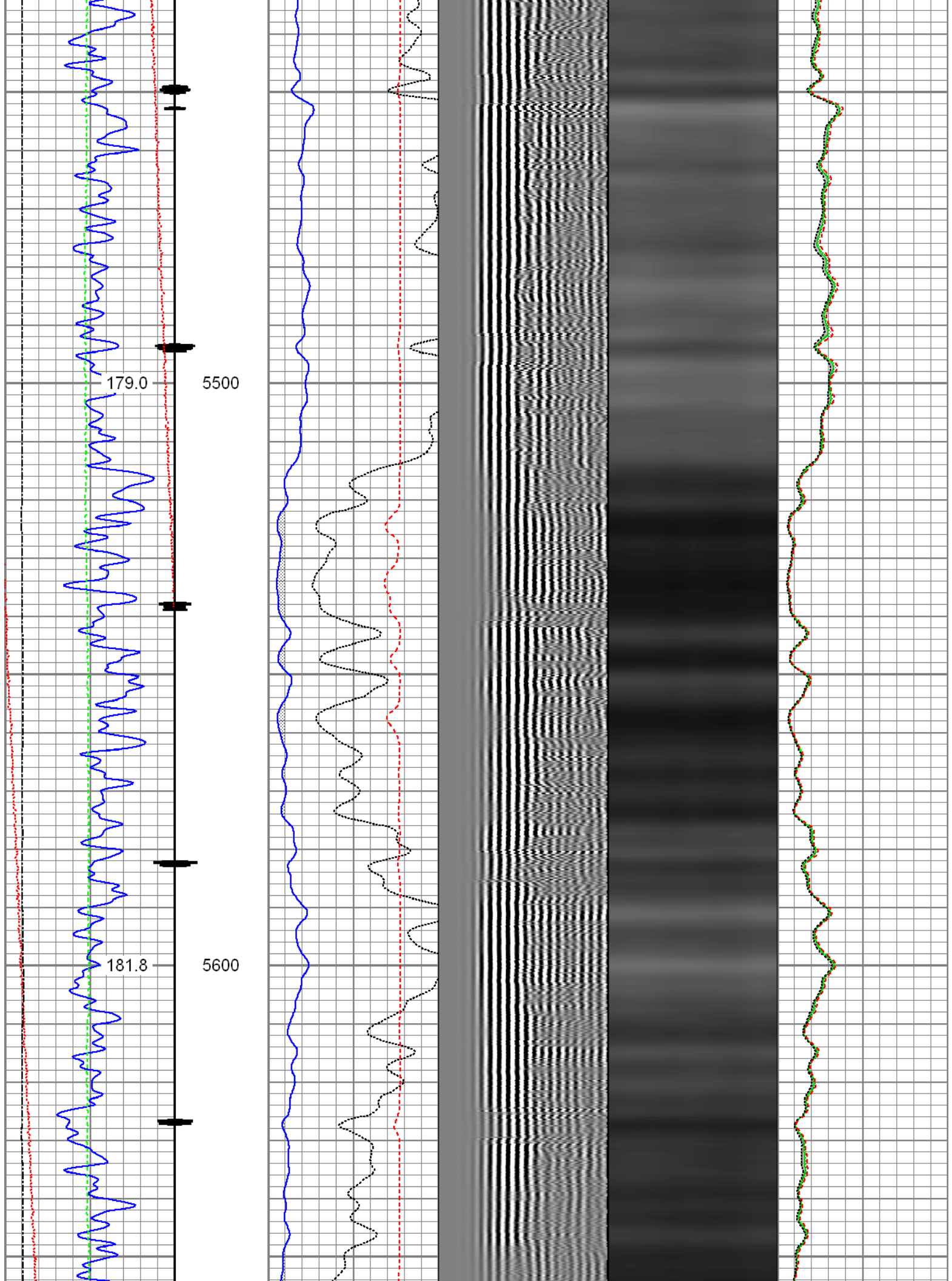


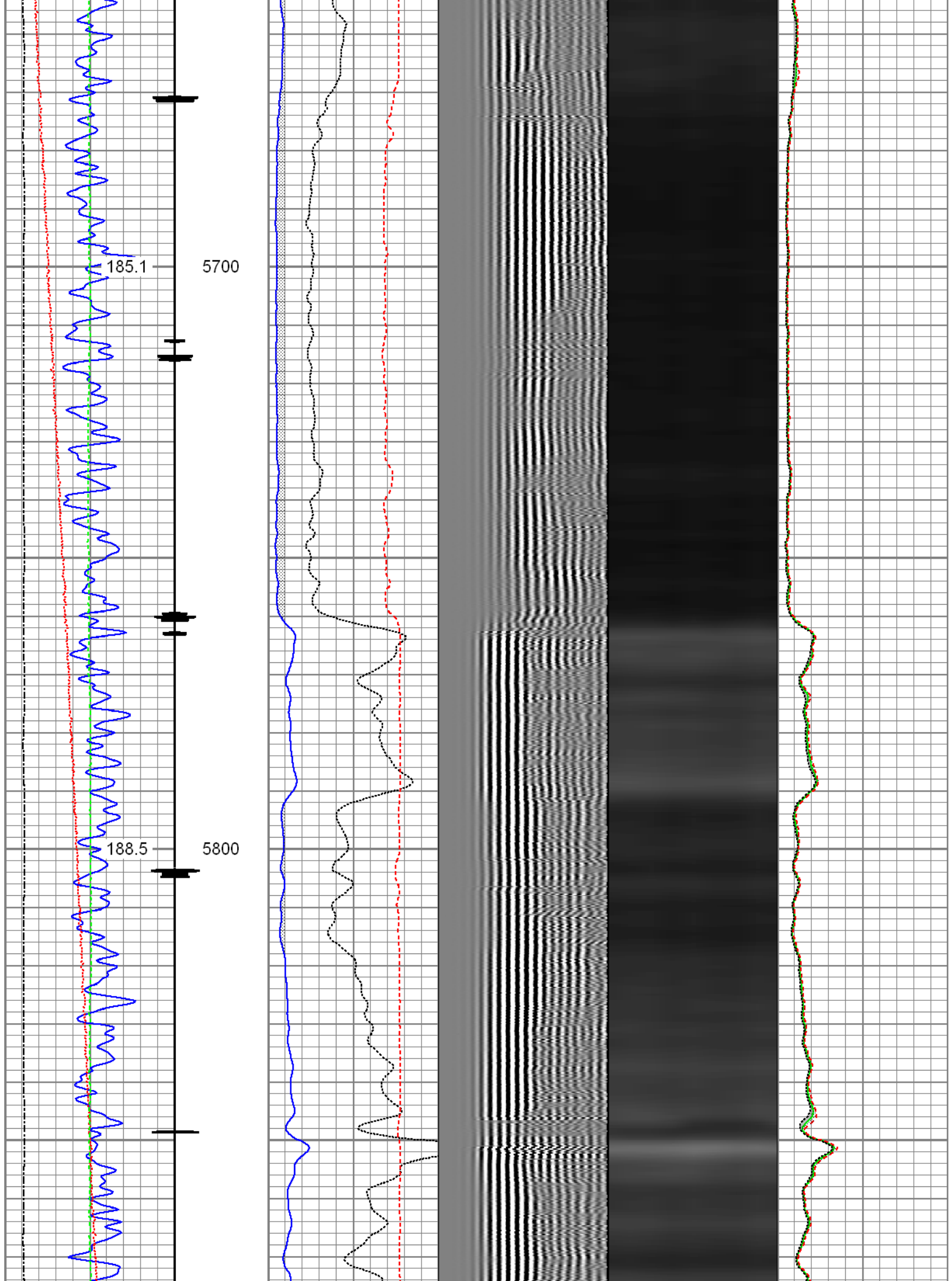


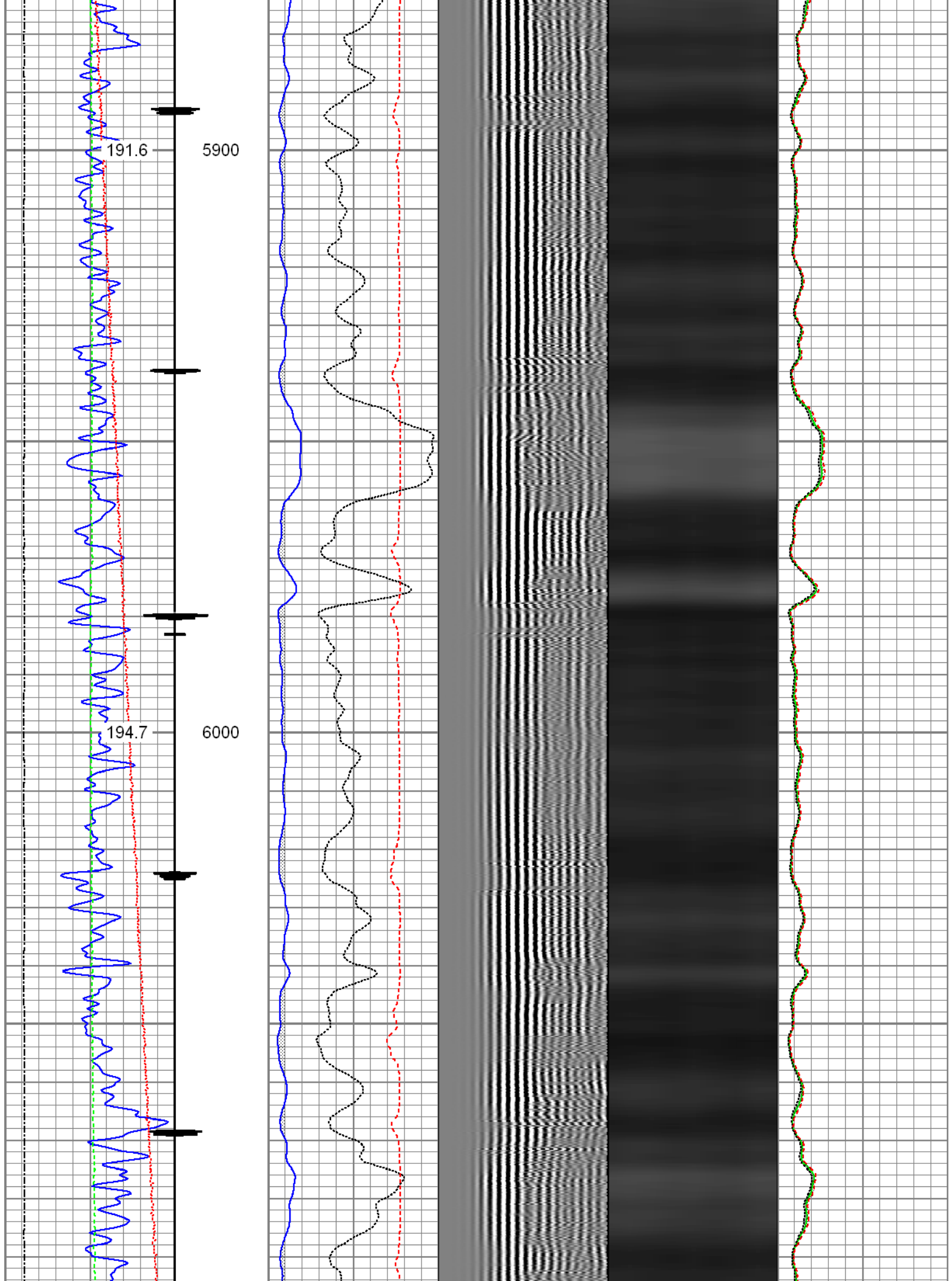




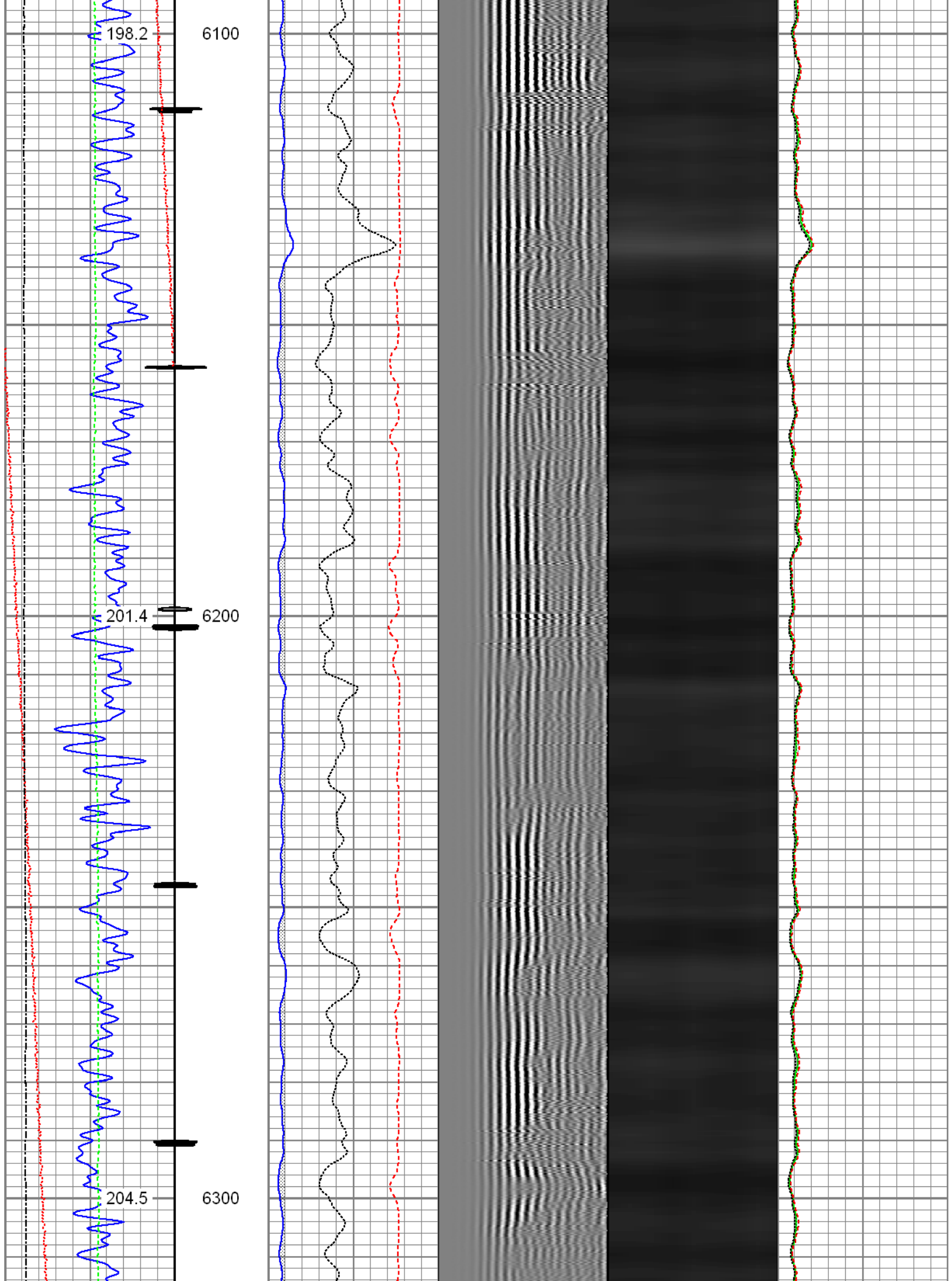


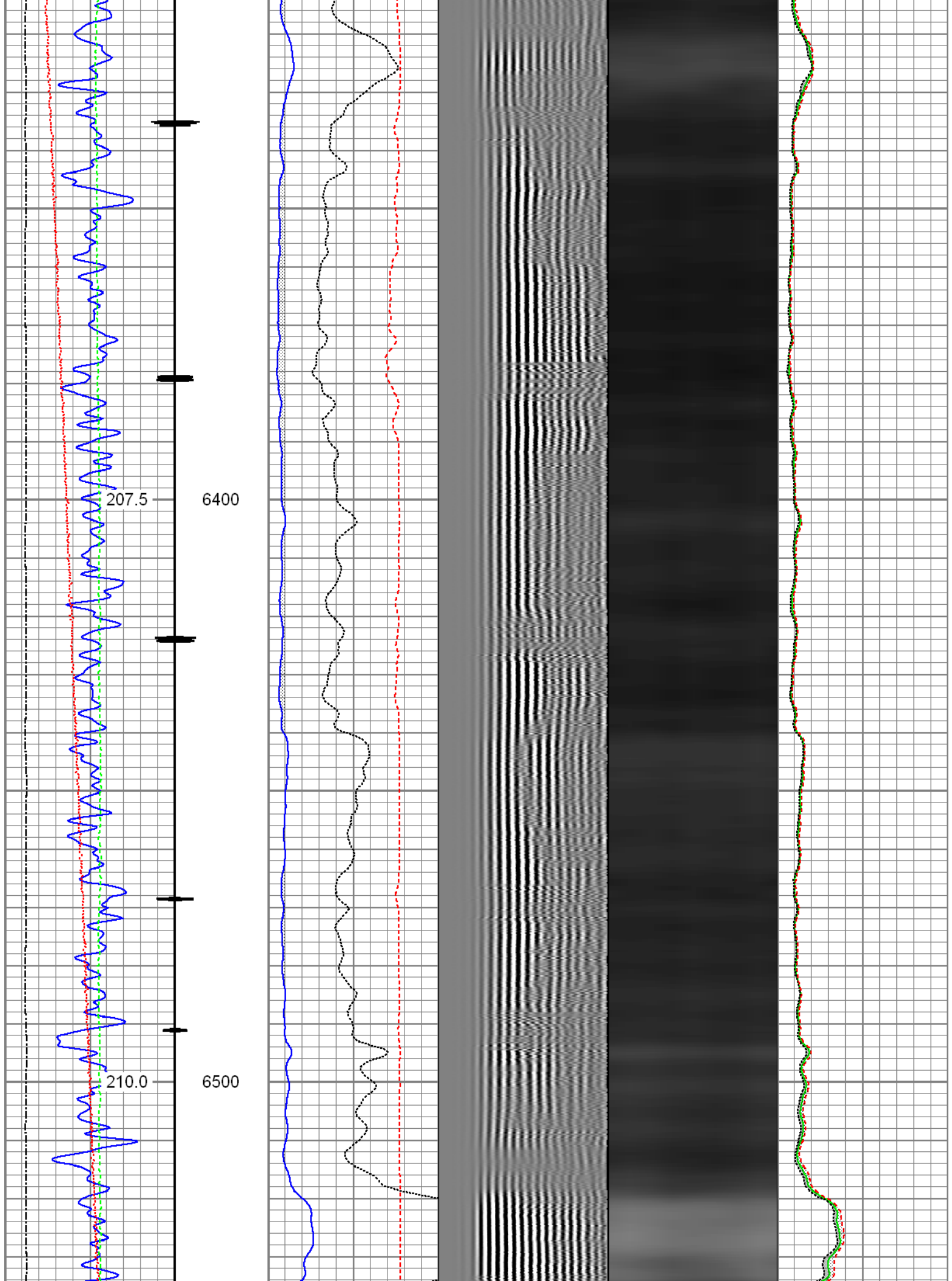


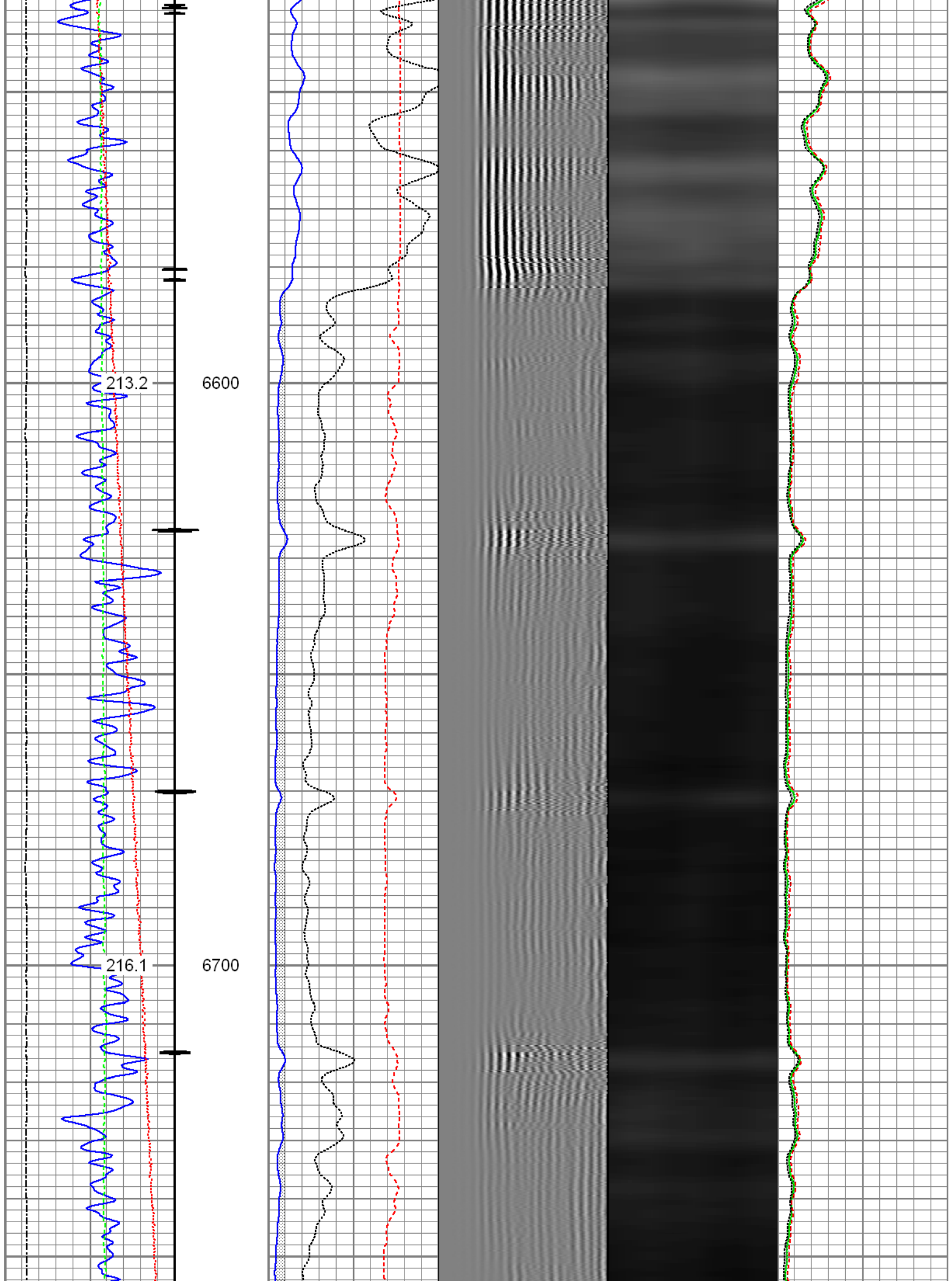




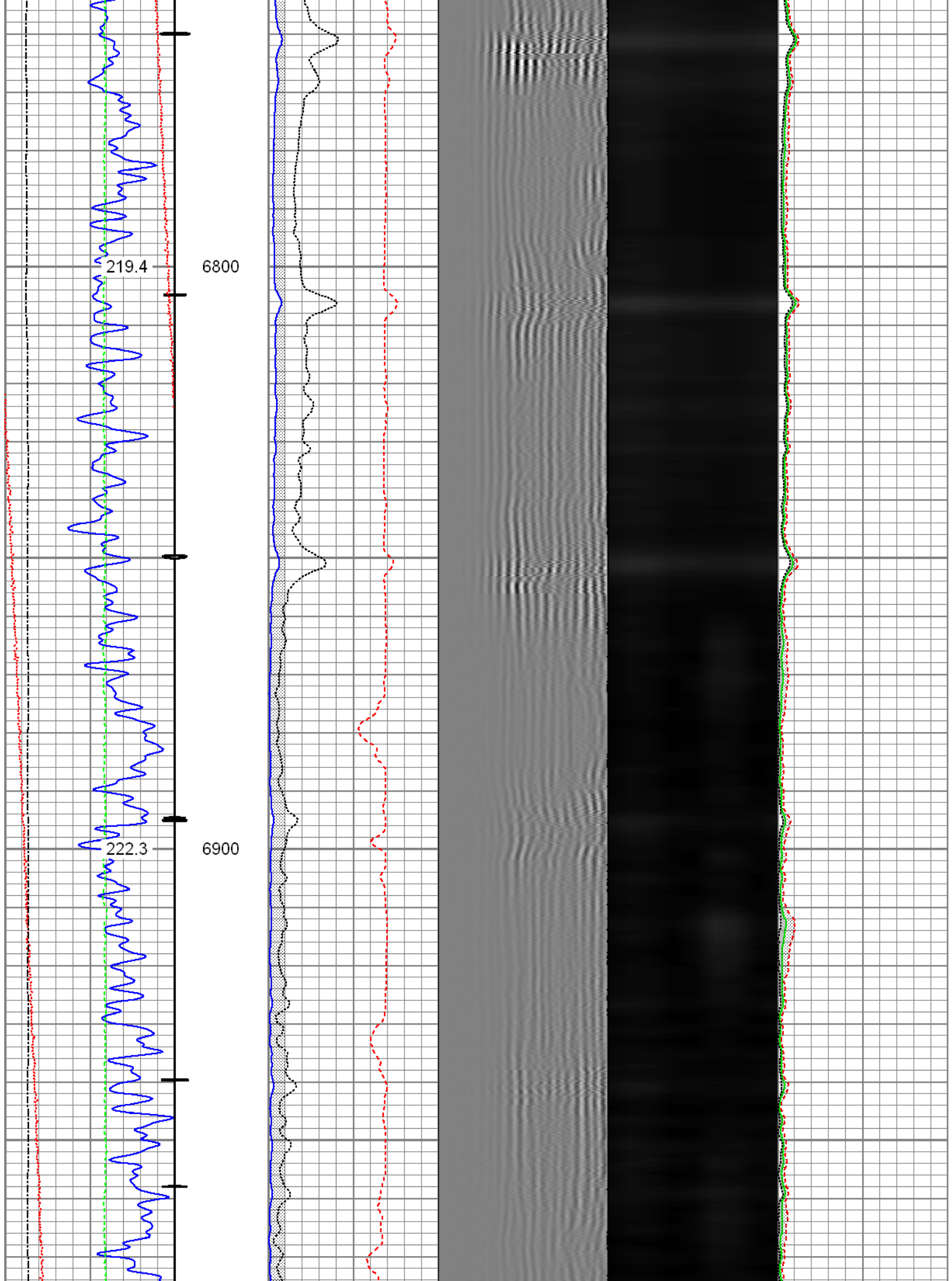


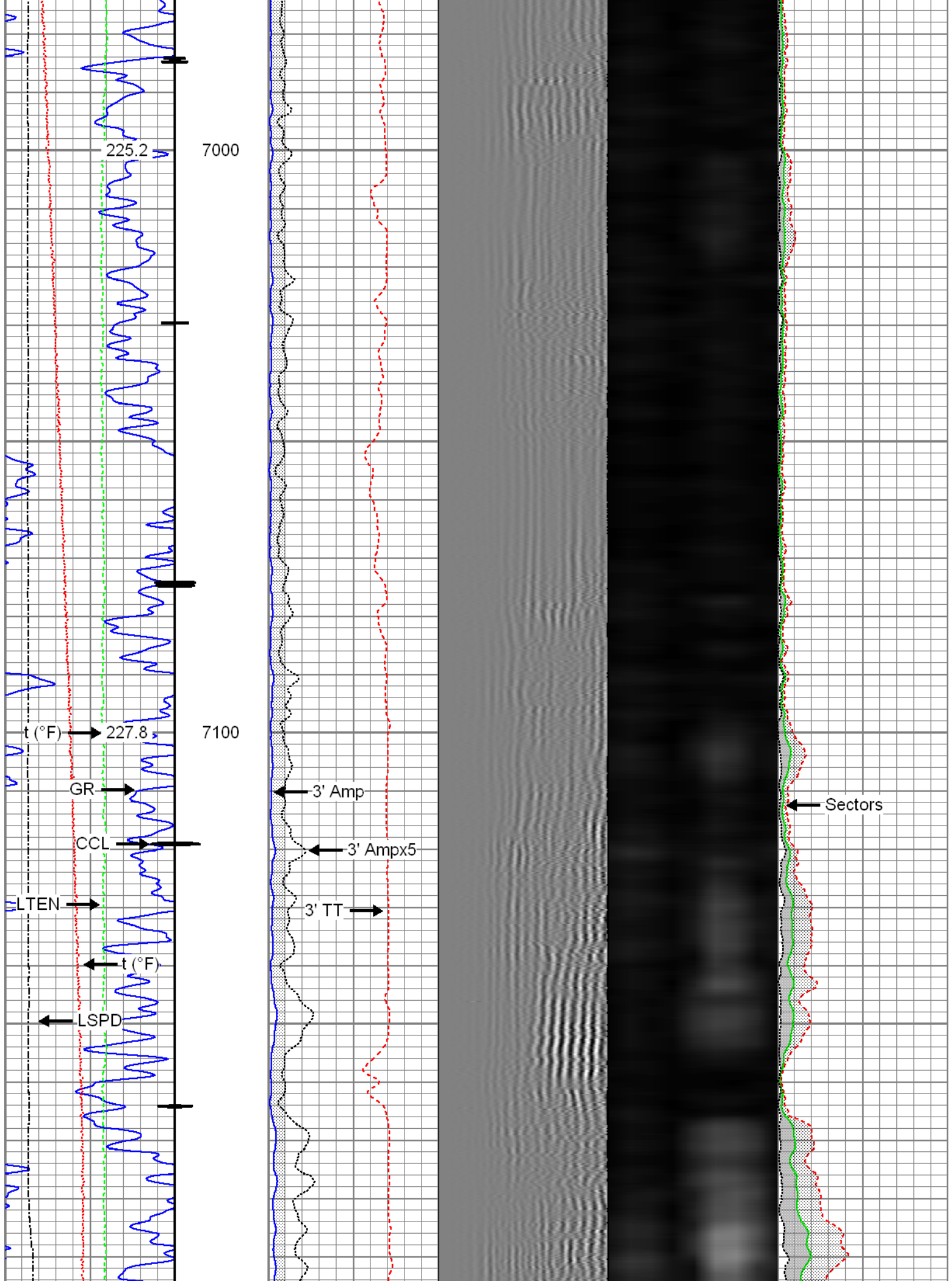






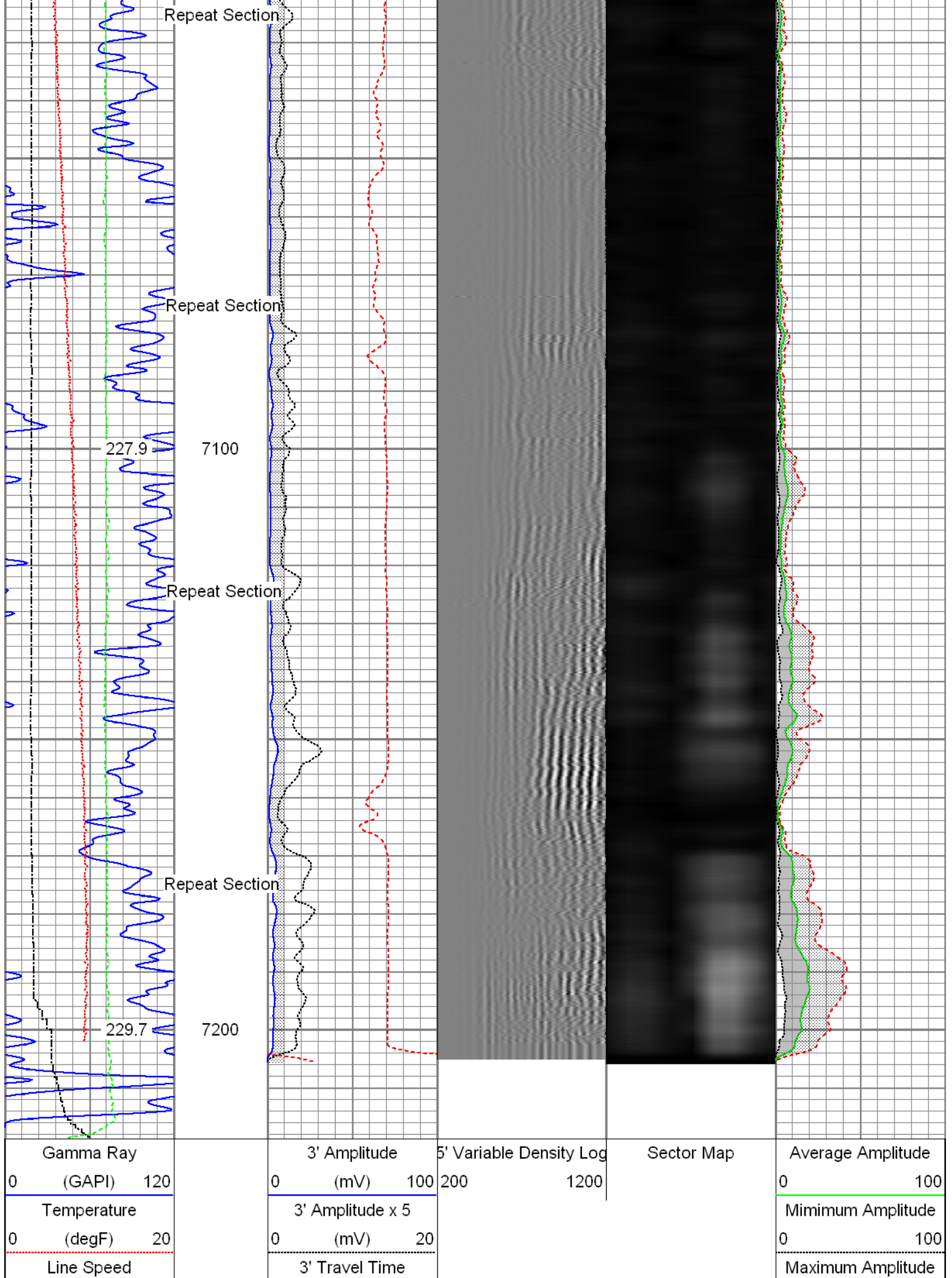




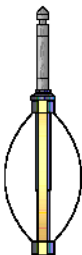










-150	(ft/min)	150	650	(usec)	150	0	100
Line Tension							
0	(lb)	2000					

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
HeadVolt	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					
WV3FT	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					
WV5FT	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		Probe_CCL_GR-2.75"Digital (FW1212-026) Probe 2-3/4" Digital CCL / Gamma Ray Combined	4.54	2.75	55.00
GR	3.77		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:	0512341431_Anadarko_Viper Pyro State 16N2-10HZ_10-13-15_RBL.db: field/well/run1/pass5					
Total Length:	23.40 ft					
Total Weight:	194.00 lb					
O.D.	2.75 in					

Calibration Report	
Database File:	0512341431_Anadarko_Viper Pyro State 16N2-10HZ_10-13-15_RBL.db
Dataset Pathname:	pass5
Dataset Creation:	Wed Oct 14 08:00:18 2015 by Log 7.0 B1

Gamma Ray Calibration Report		
Serial Number:	FW1212-026	
Tool Model:	2.75"Digital	
Performed:	Tue Oct 13 15:23:30 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:	7218.766	ft

Master Calibration, performed Wed Oct 14 07:54:11 2015:						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.010	0.602	0.800	71.921	120.032	-0.362
CAL	0.010	0.720				
5'	0.010	0.535	0.800	71.921	135.500	-0.520
SUM						
S1	0.010	0.554	0.000	100.000	183.706	-1.765
S2	0.010	0.540	0.000	100.000	188.413	-1.819
S3	0.010	0.566	0.000	100.000	179.799	-1.732
S4	0.009	0.606	0.000	100.000	167.536	-1.585
S5	0.010	0.662	0.000	100.000	153.322	-1.492
S6	0.010	0.674	0.000	100.000	150.624	-1.465
S7	0.010	0.643	0.000	100.000	157.924	-1.544
S8	0.010	0.596	0.000	100.000	170.482	-1.657

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	0.010	0.720	1.000	0.000



	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.010	0.000	-0.000
5'	0.010	0.000	0.000
SUM			
S1	0.010	0.000	-0.000
S2	0.010	0.000	-0.000
S3	0.010	0.000	-0.000
S4	0.010	0.000	-0.000
S5	0.010	0.000	0.000
S6	0.010	0.000	-0.000
S7	0.010	0.000	0.000
S8	0.010	0.000	-0.000



Company	Kerr-McGee Oil and Gas Onshore LP
Well	Viper Pyro State 16N2-10HZ
Field	Wattenberg
County	Weld
State	Colorado