



Radial Cement Bond  
Gamma Ray  
Casing Collar Log

Company Kerr-McGee Oil & Gas Onshore, L.P.  
Well FL Greens 29C-5HZ  
Field Wattenberg  
County Weld  
State Colorado

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Location: API #: 05-123-42277  
SEC 8 TWP 1N RGE 66W  
Permanent Datum Ground Level Elevation 4925'  
Log Measured From Kelly Bushing 20 FT  
Drilling Measured From Kelly Bushing  
Other Services  
Gauge Ring  
Elevation  
K.B. 4945'  
D.F. 4944'  
G.L. 4925'

Date	17-SEP-2017									
Run Number	Two									
Depth Driller	12842 FT									
Depth Logger	7714 FT									
Bottom Logged Interval	7709 FT									
Top Log Interval	Surface									
Open Hole Size	7.875"									
Type Fluid	Water									
Density / Viscosity	8.34 lb/gal									
Max. Recorded Temp.	241°F									
Estimated Cement Top	See Log									
Time Well Ready	ROA									
Time Logger on Bottom	11:11									
Equipment Number	HD-0343									
Location	Fort Lupton, CO									
Recorded By	D Finn									
Witnessed By	Roger Pevler									
Borehole Record					Tubing Record					
Run Number	Bit	From	To	Size (in)	Weight (lb/ft)	From	To			
Casing Record	Size (in)	Wgt (lb/ft)	Grade	Top	Bottom					
Surface Casing	9 5/8	36	J-55	Surface	1843 FT					
Intermediate #1	5 1/2	17	HC P110	Surface	12832 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

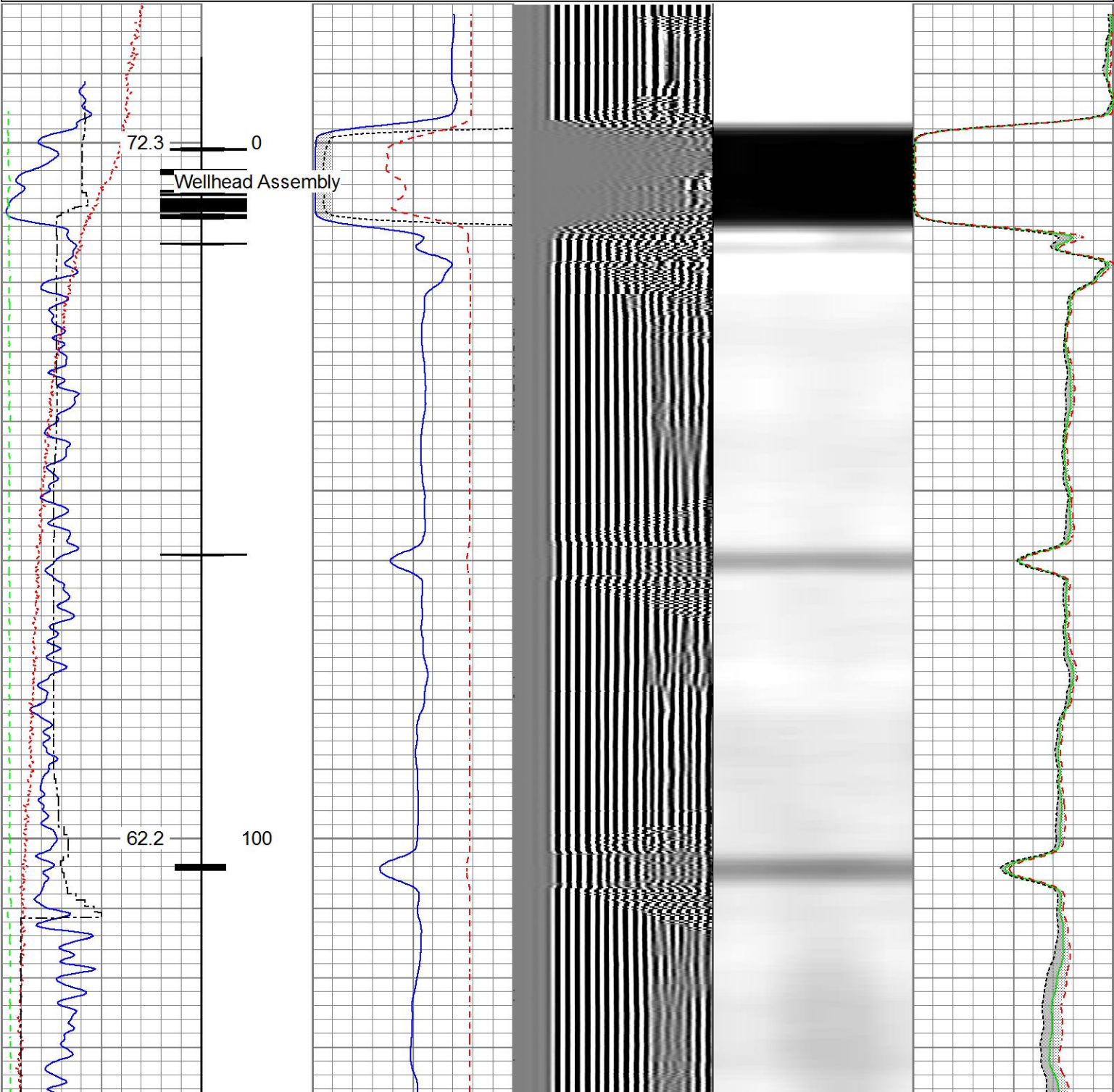
Log ran as per customer request  
Depth referenced to Casing Tally reported Marker Joint at 6821 FT  
Adjusted -8 FT to correlate with Marker Joint  
Gauge Ring/Junk Basket ran to 7714 FT with no debris found  
Log ran from as deep as possible in heel to surface  
Log ran with 2800 PSI Surface Induced Pressure  
Logging tools were clean and free of any debris upon completion of operations  
  
Thank you for choosing Reliance Oilfield Services, LLC!!



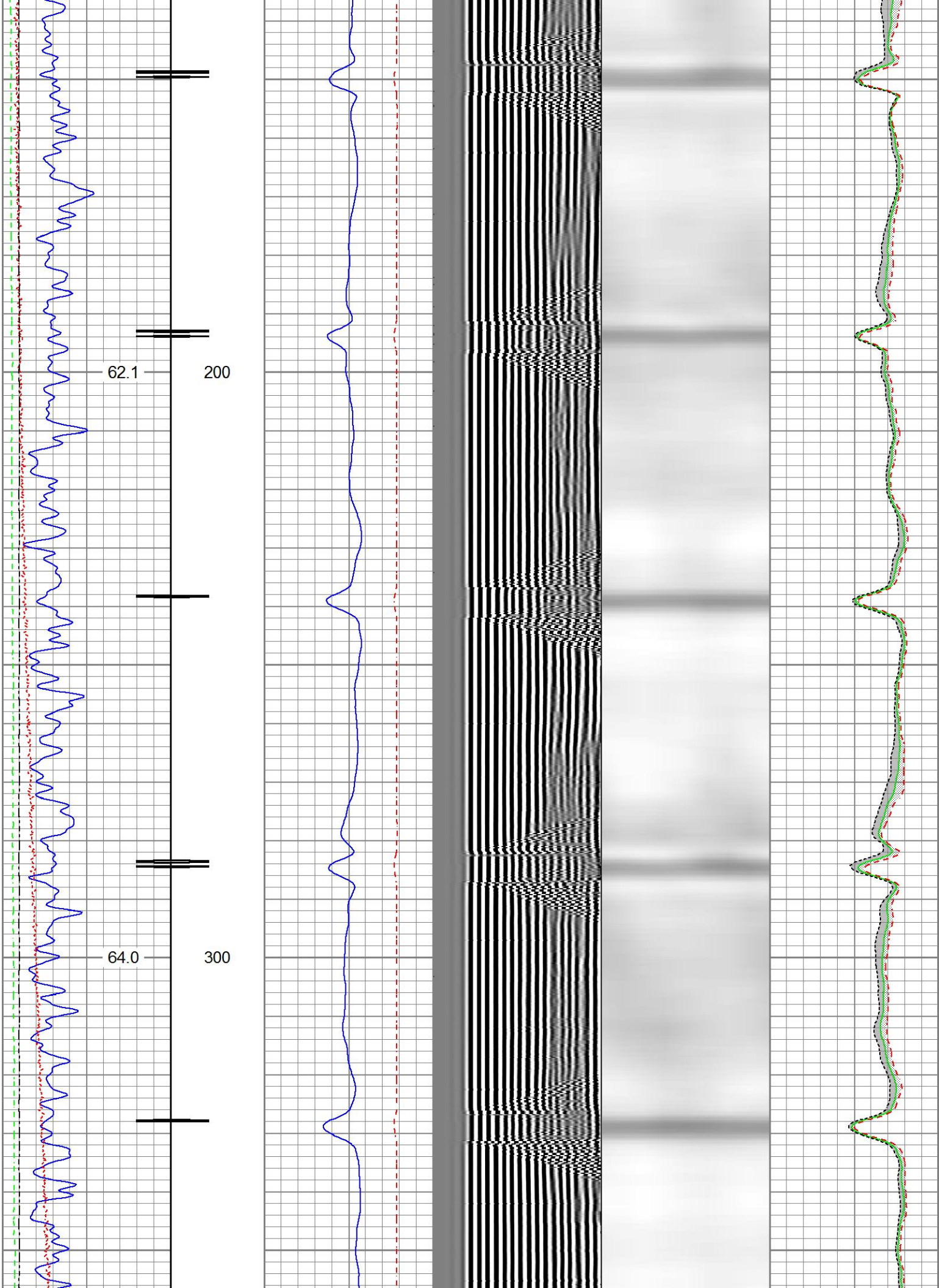
Main Pass

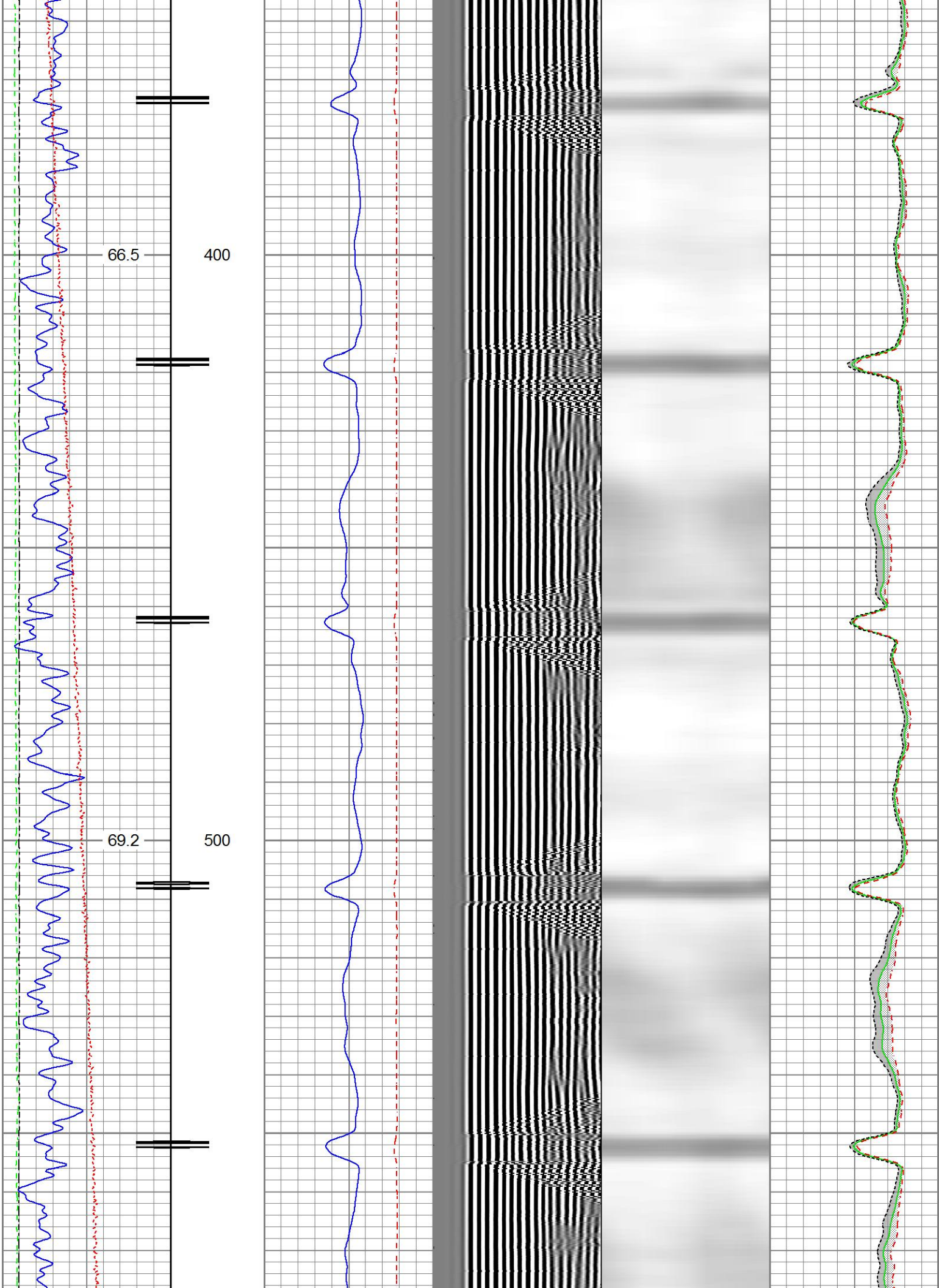
Recorded With 2800 PSI Surface Induced Pressure

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				

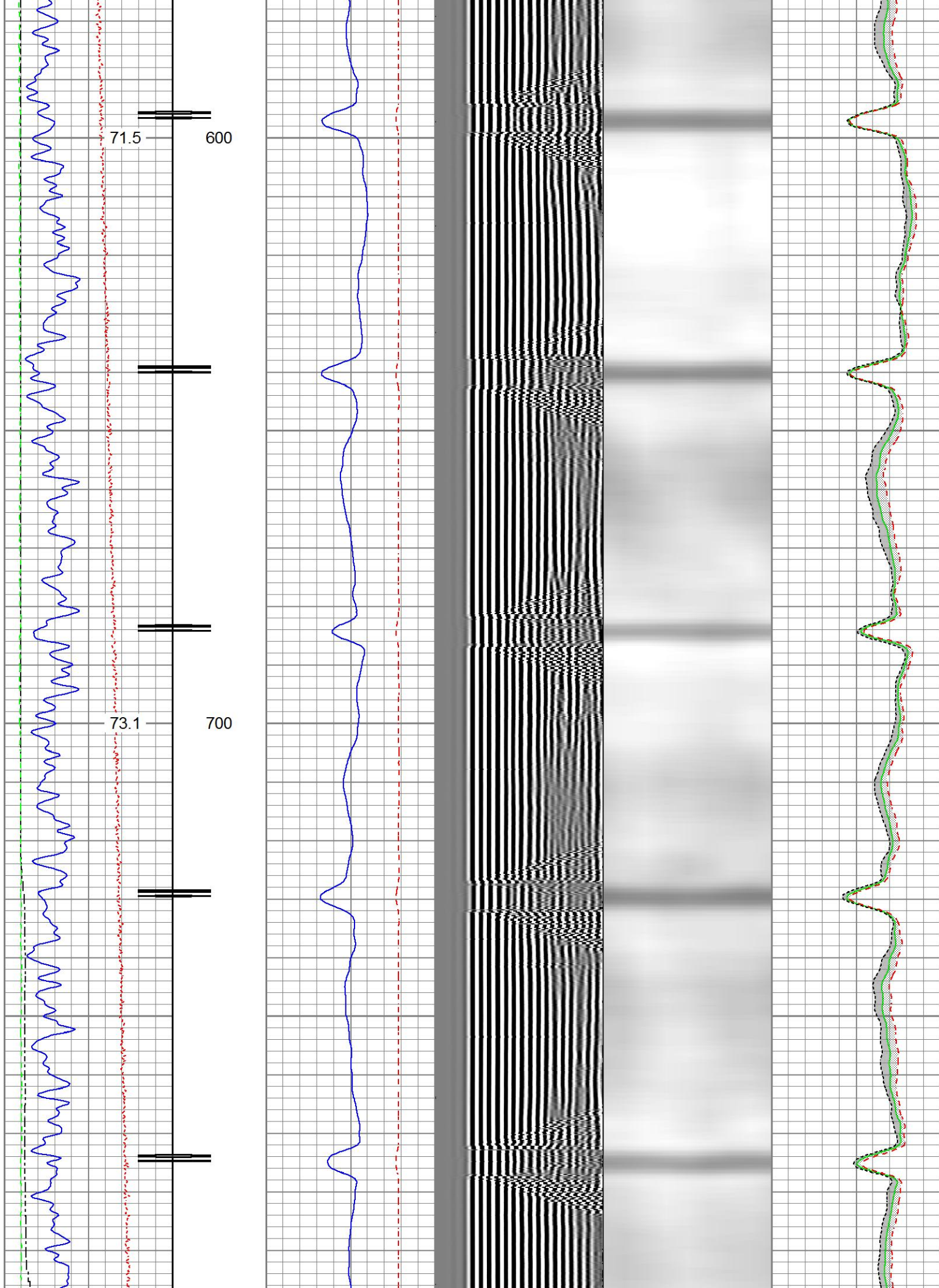


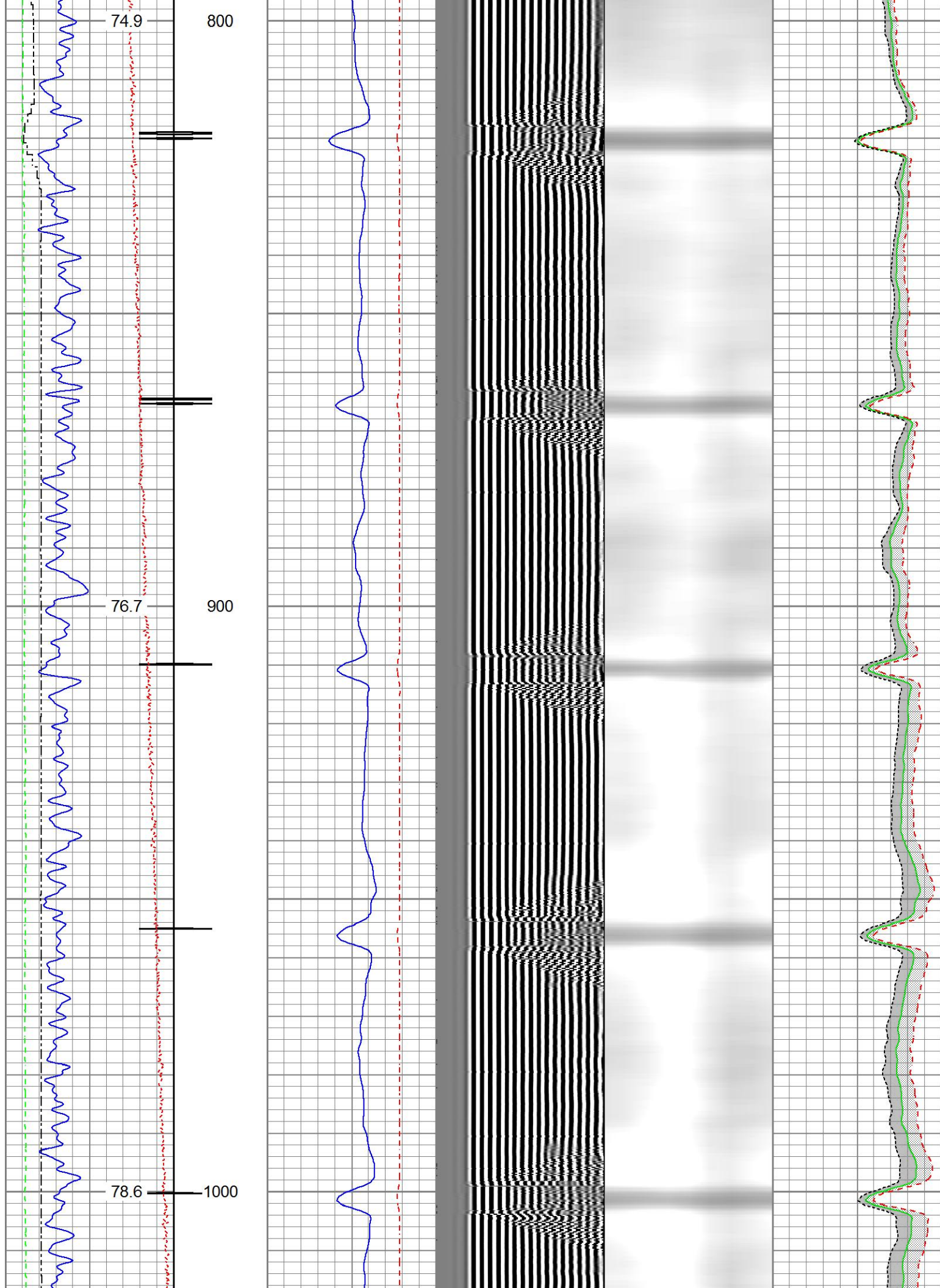




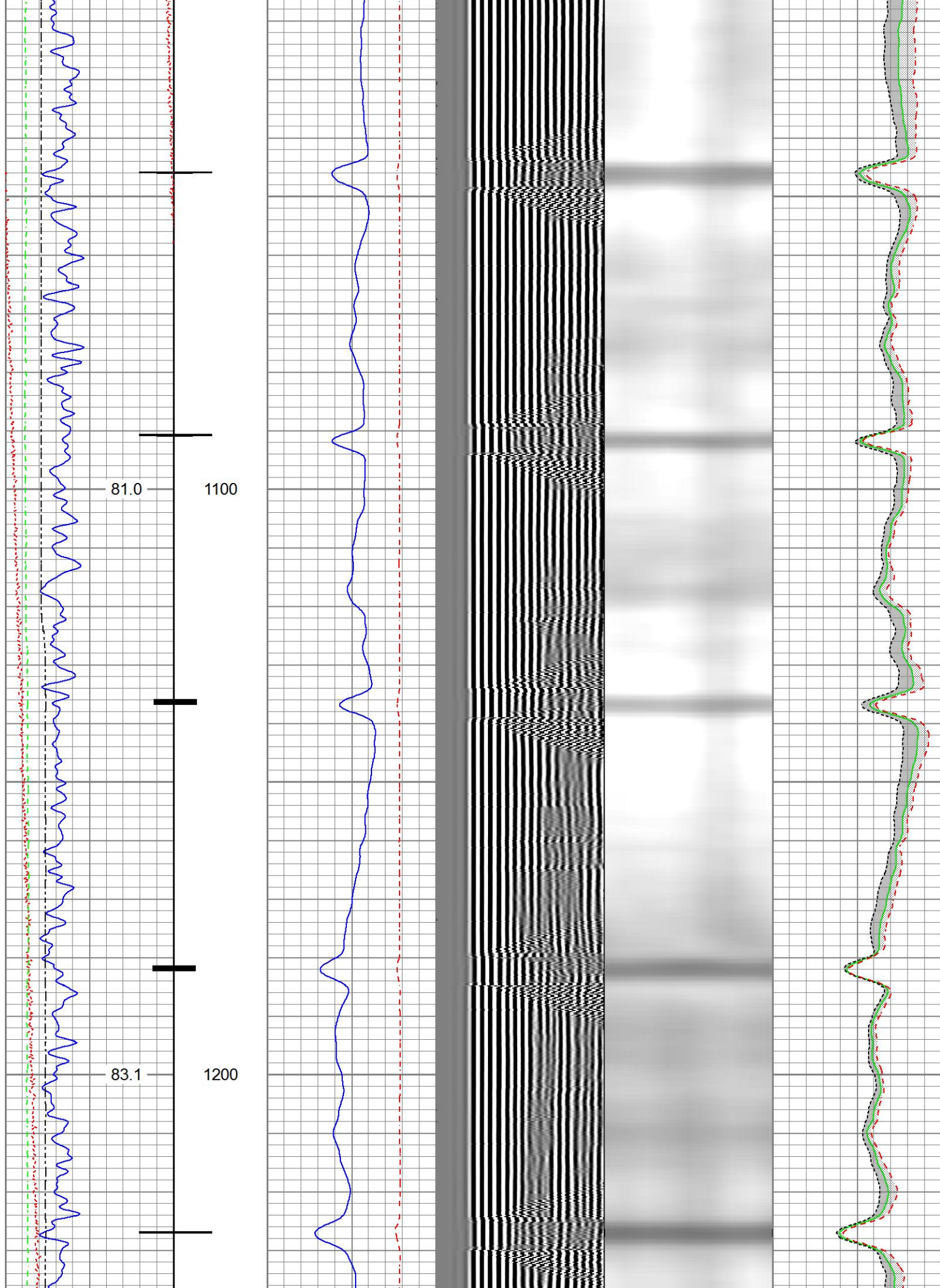


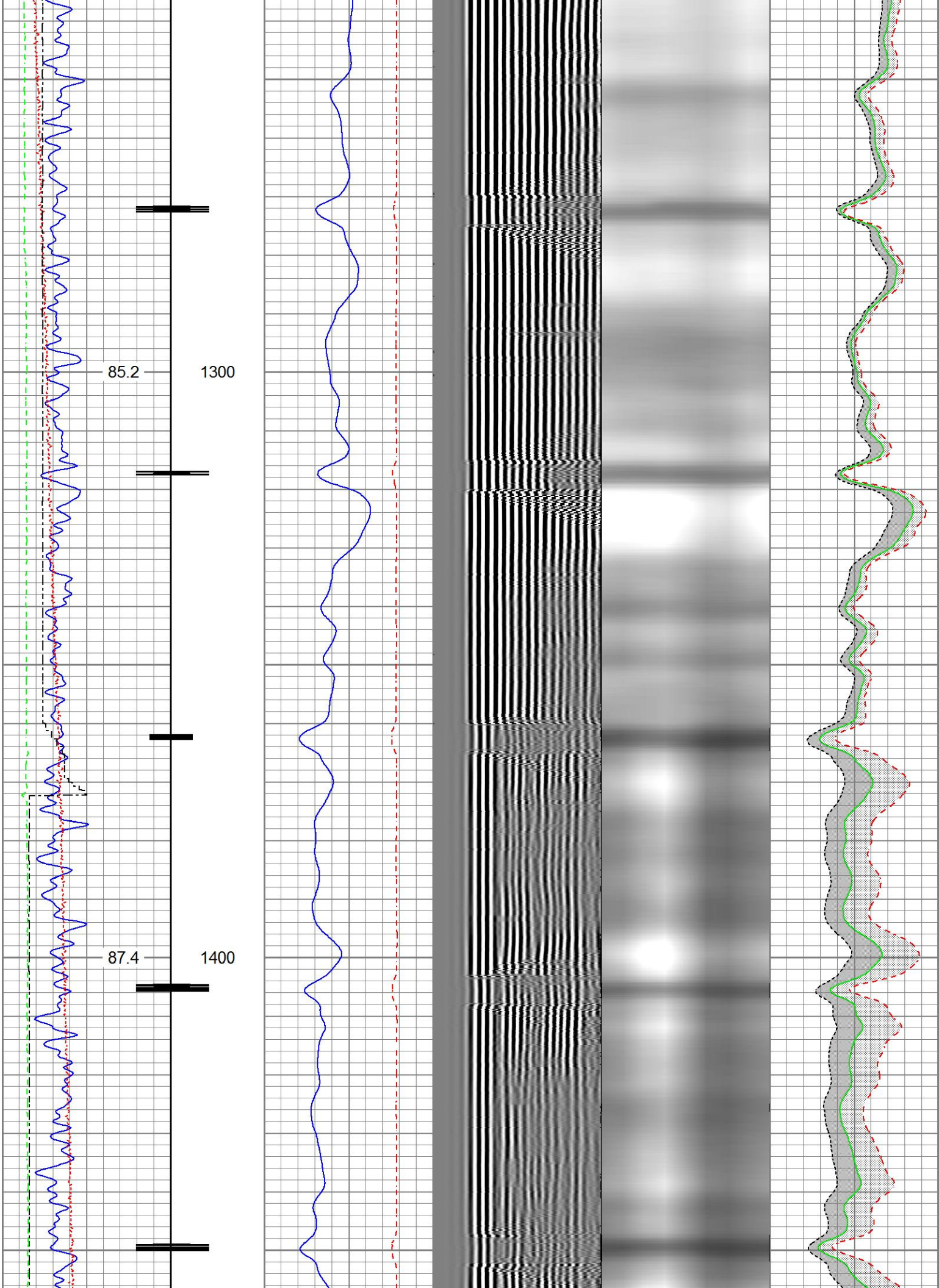




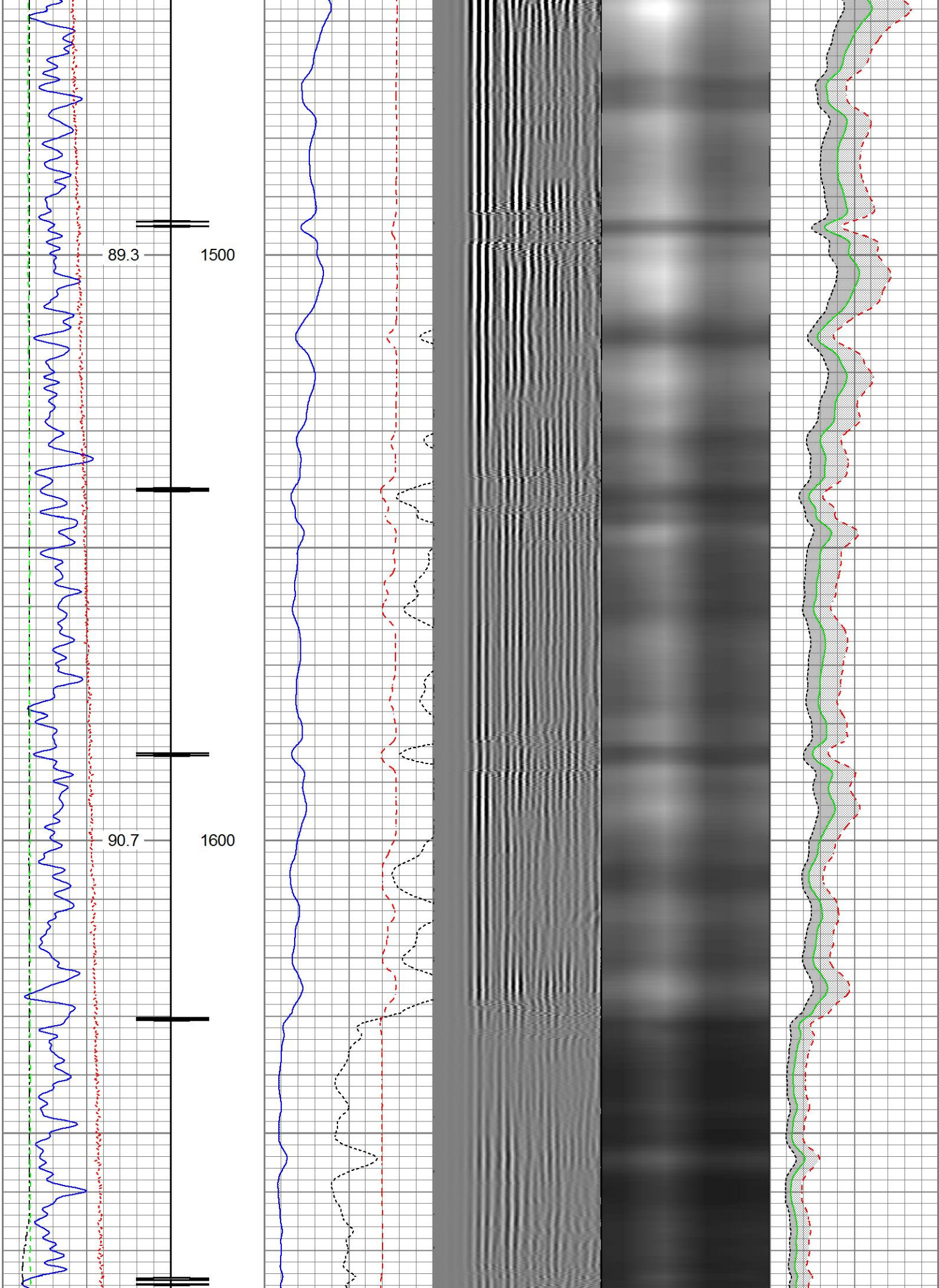


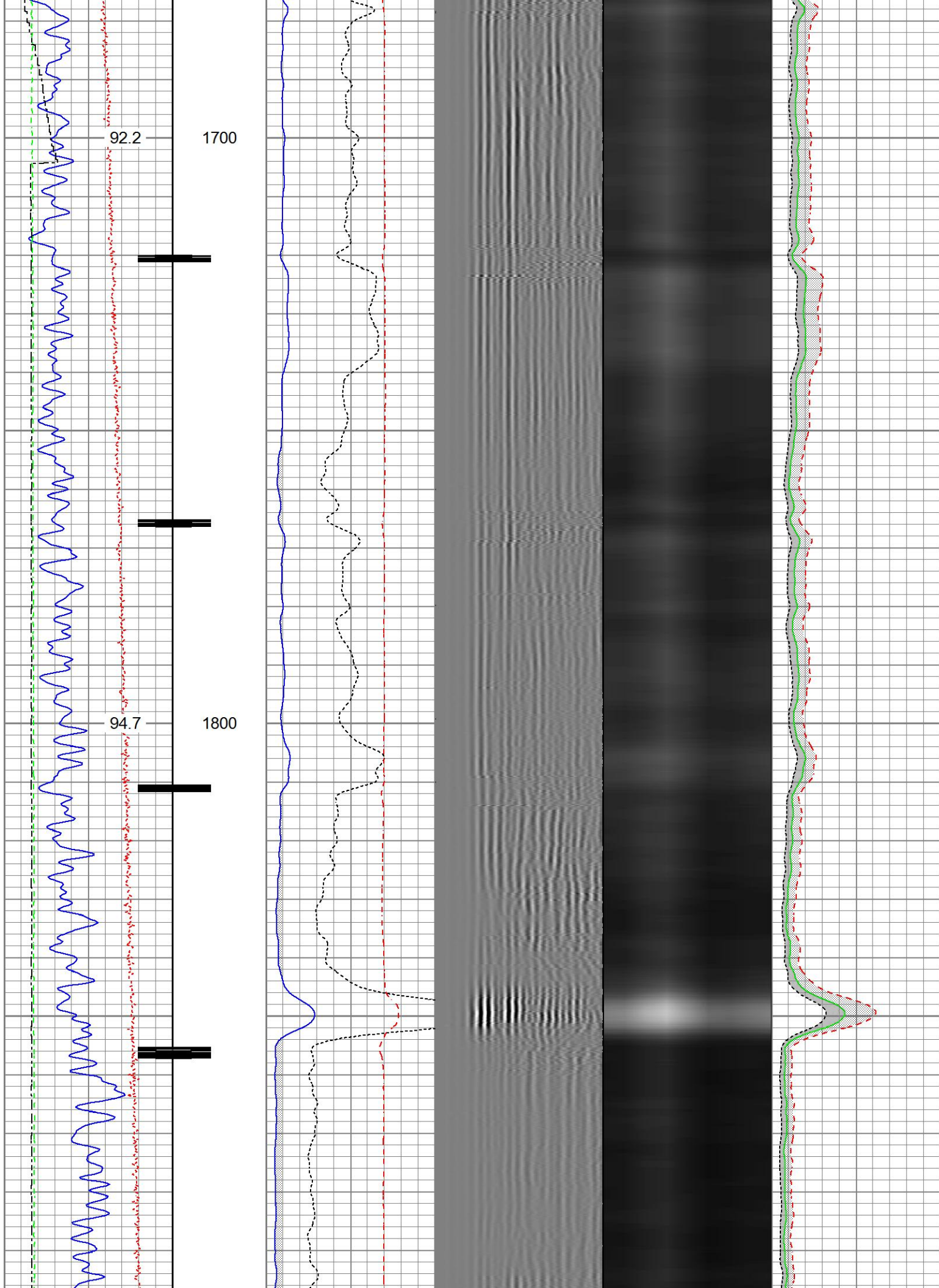




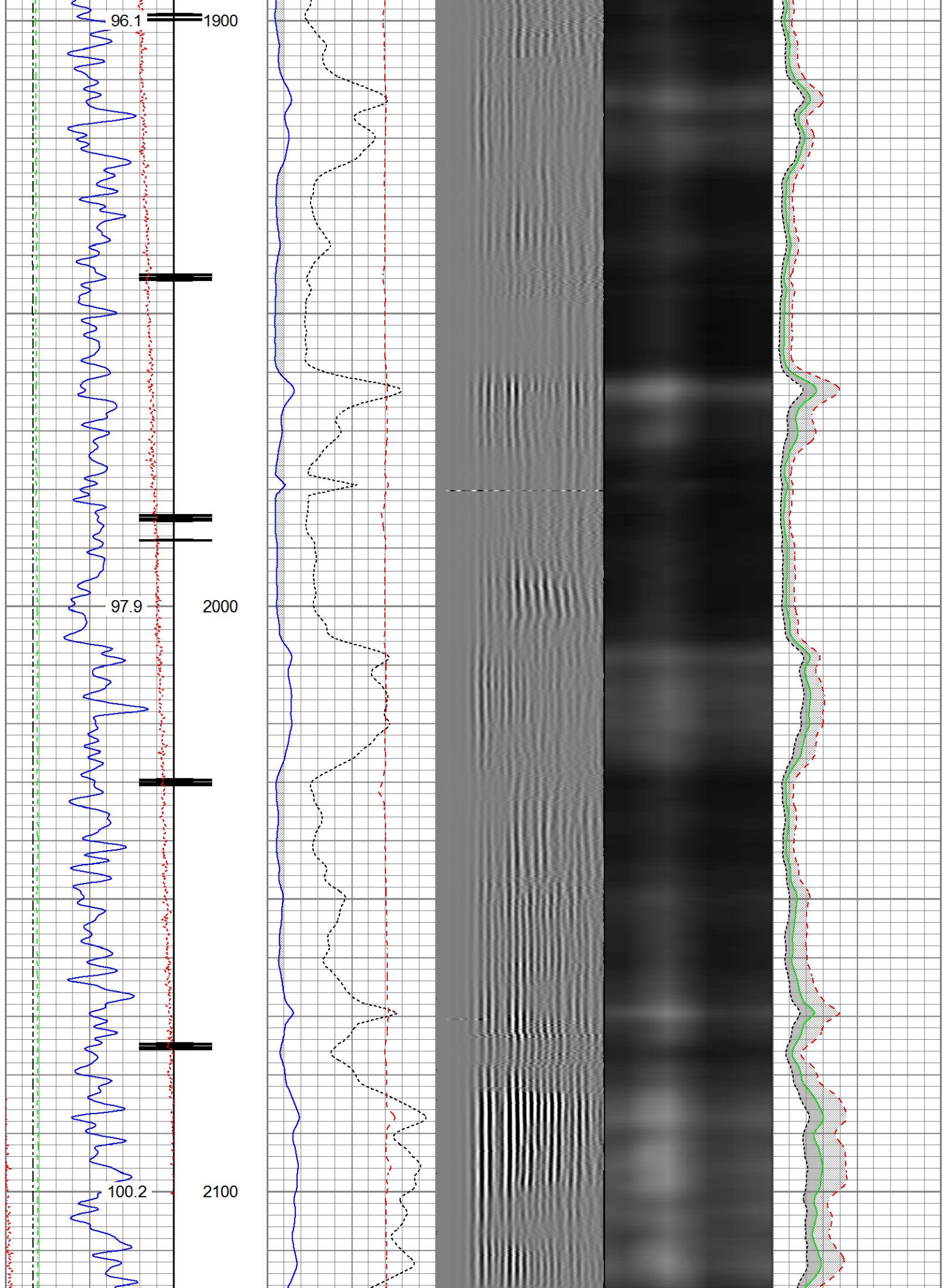


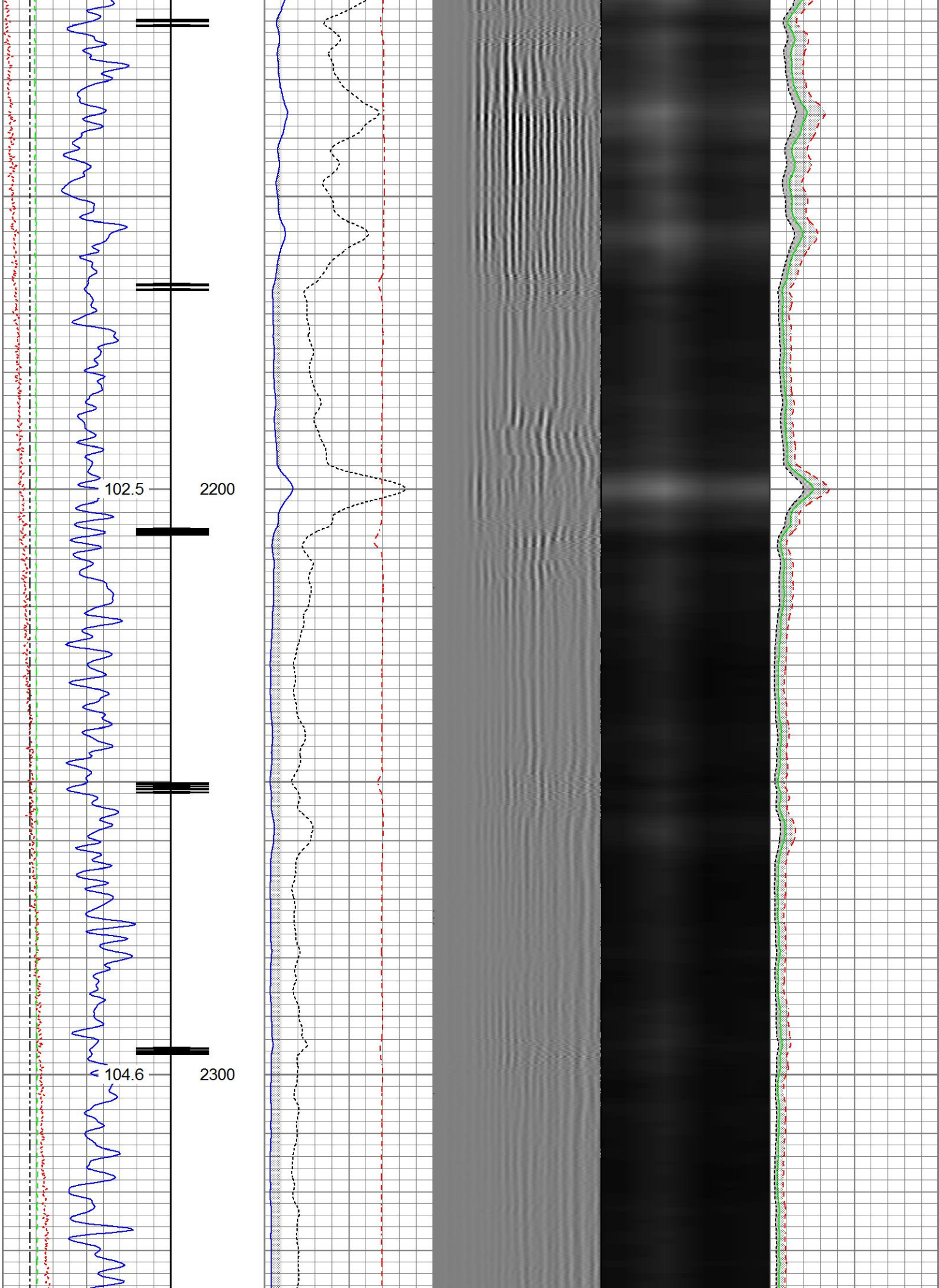




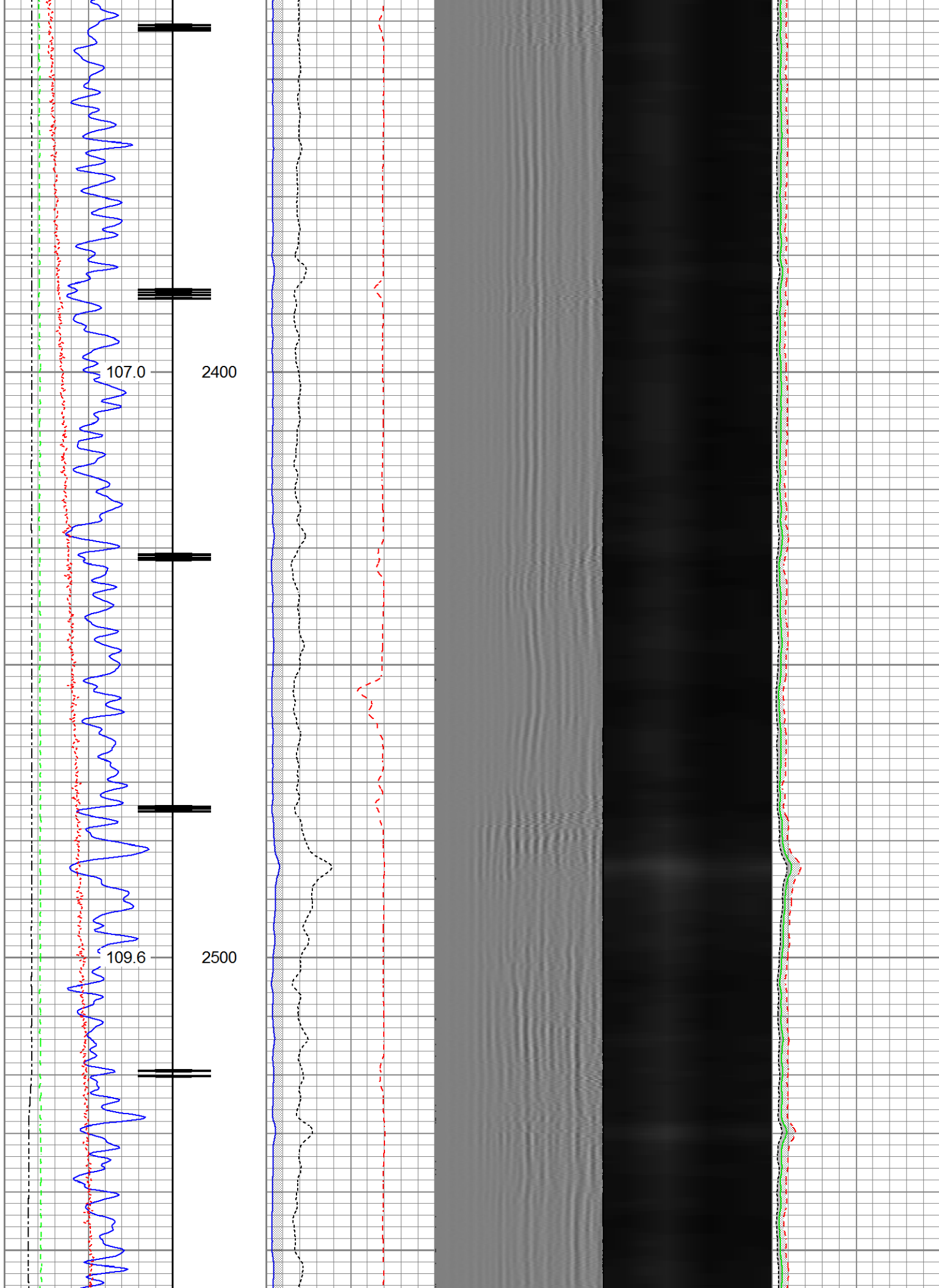


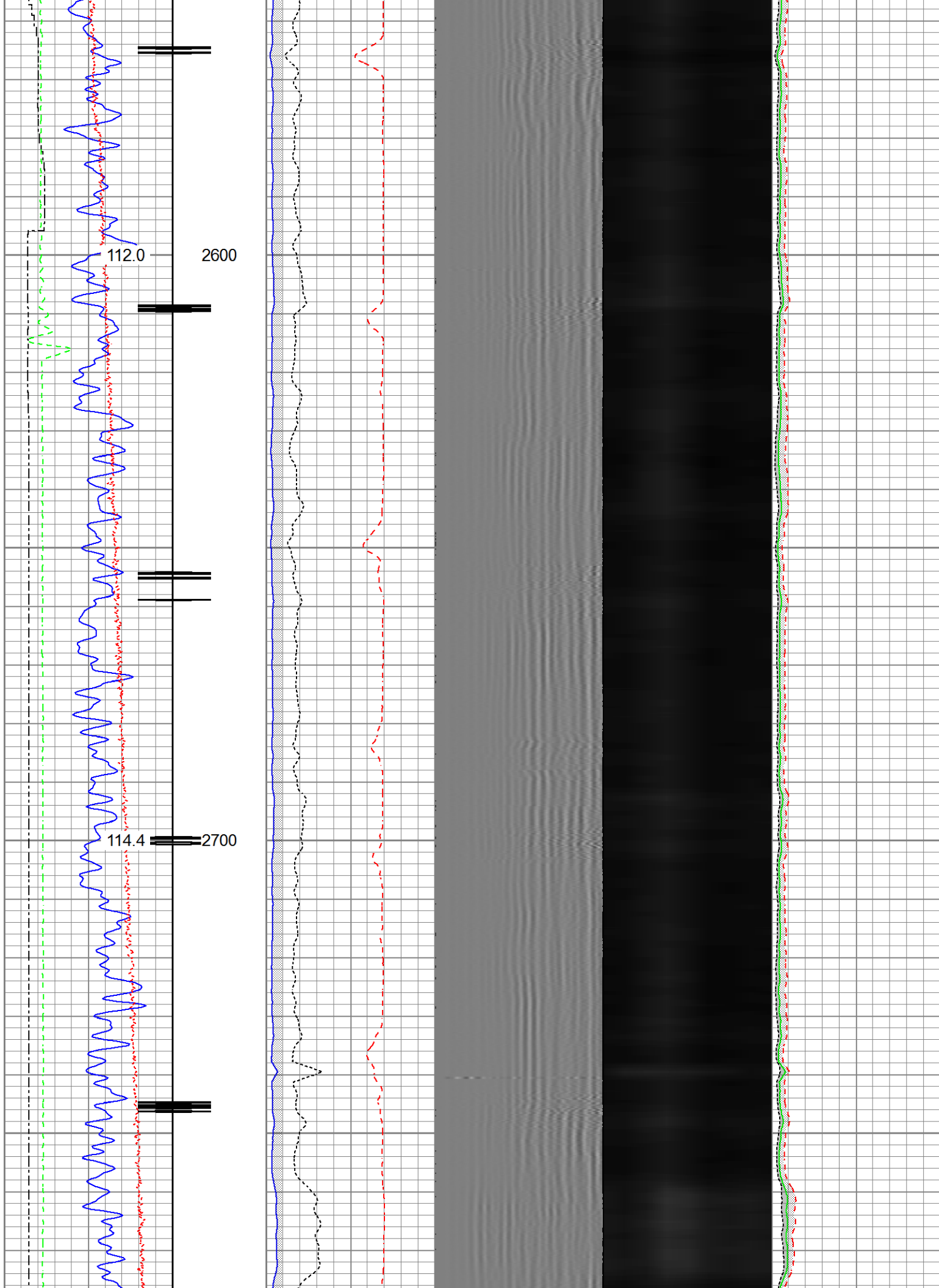




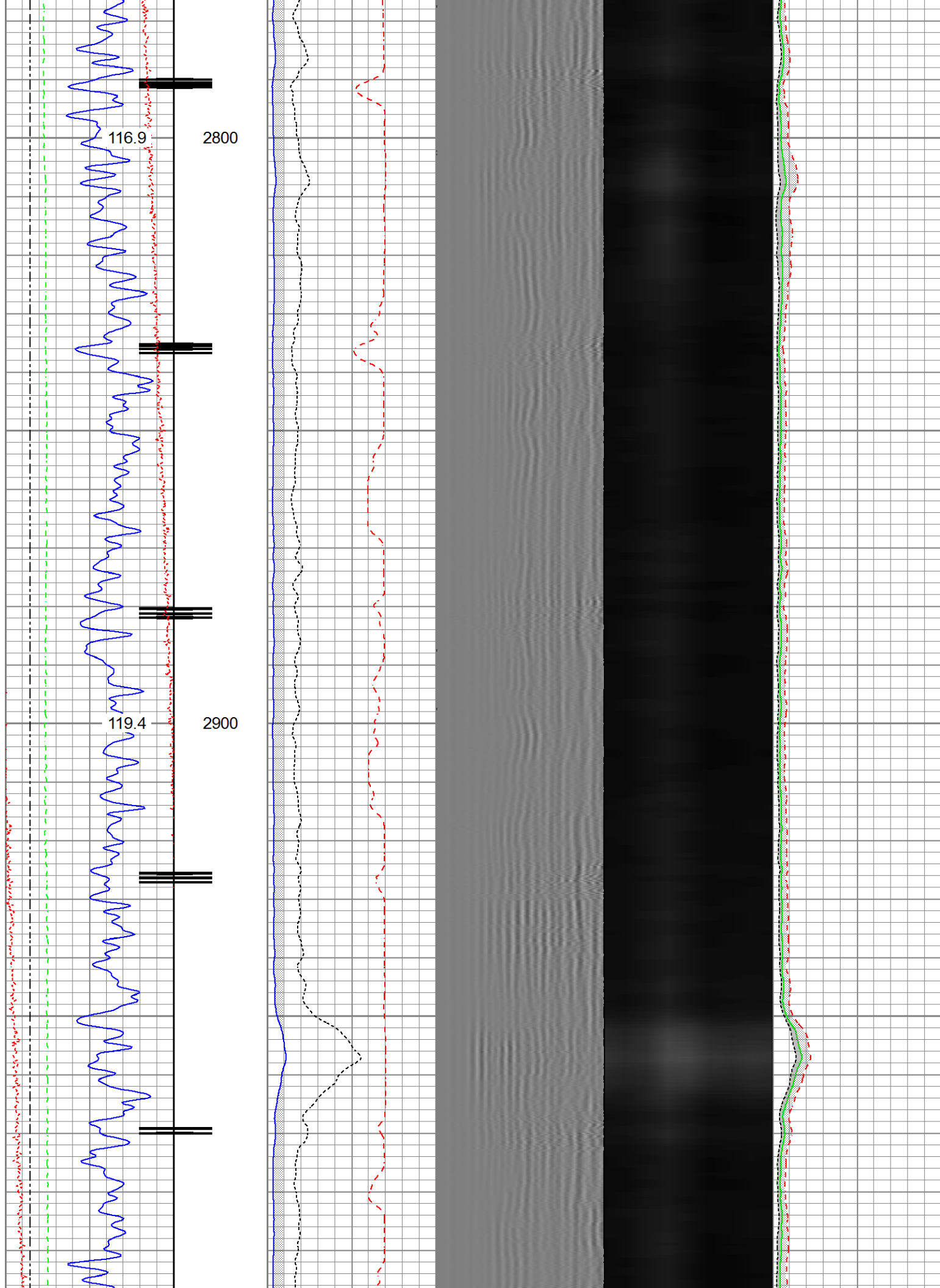


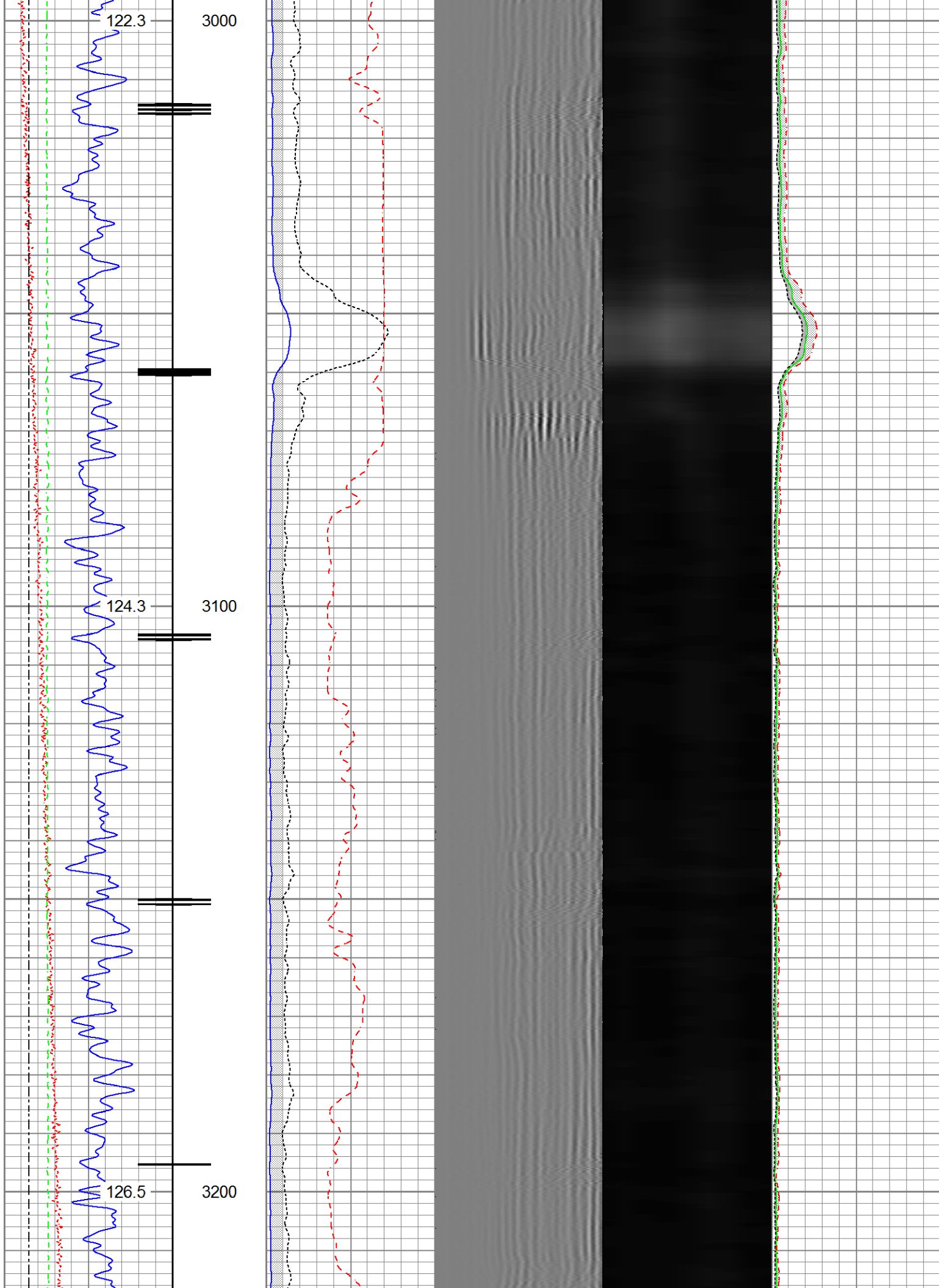




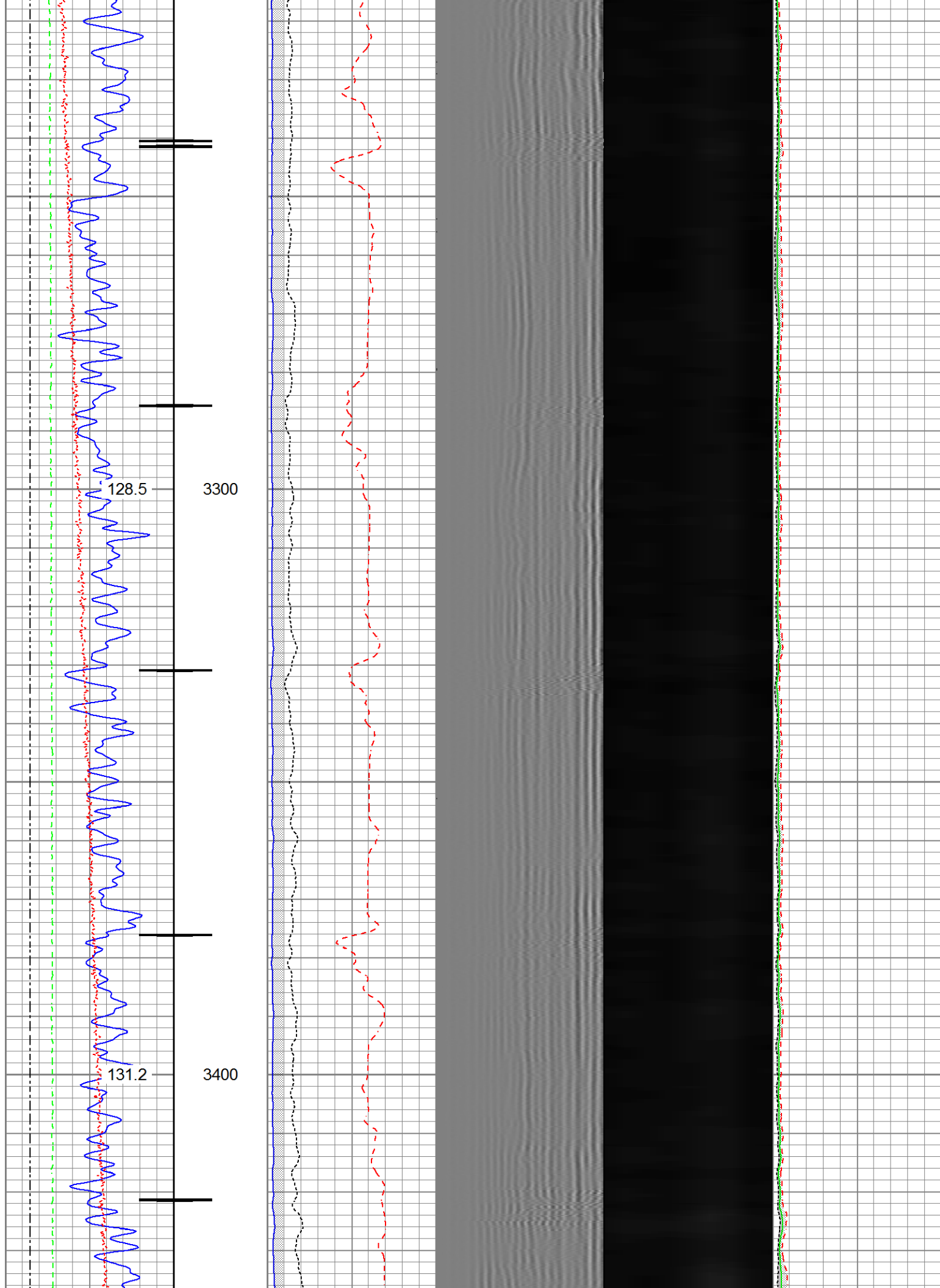


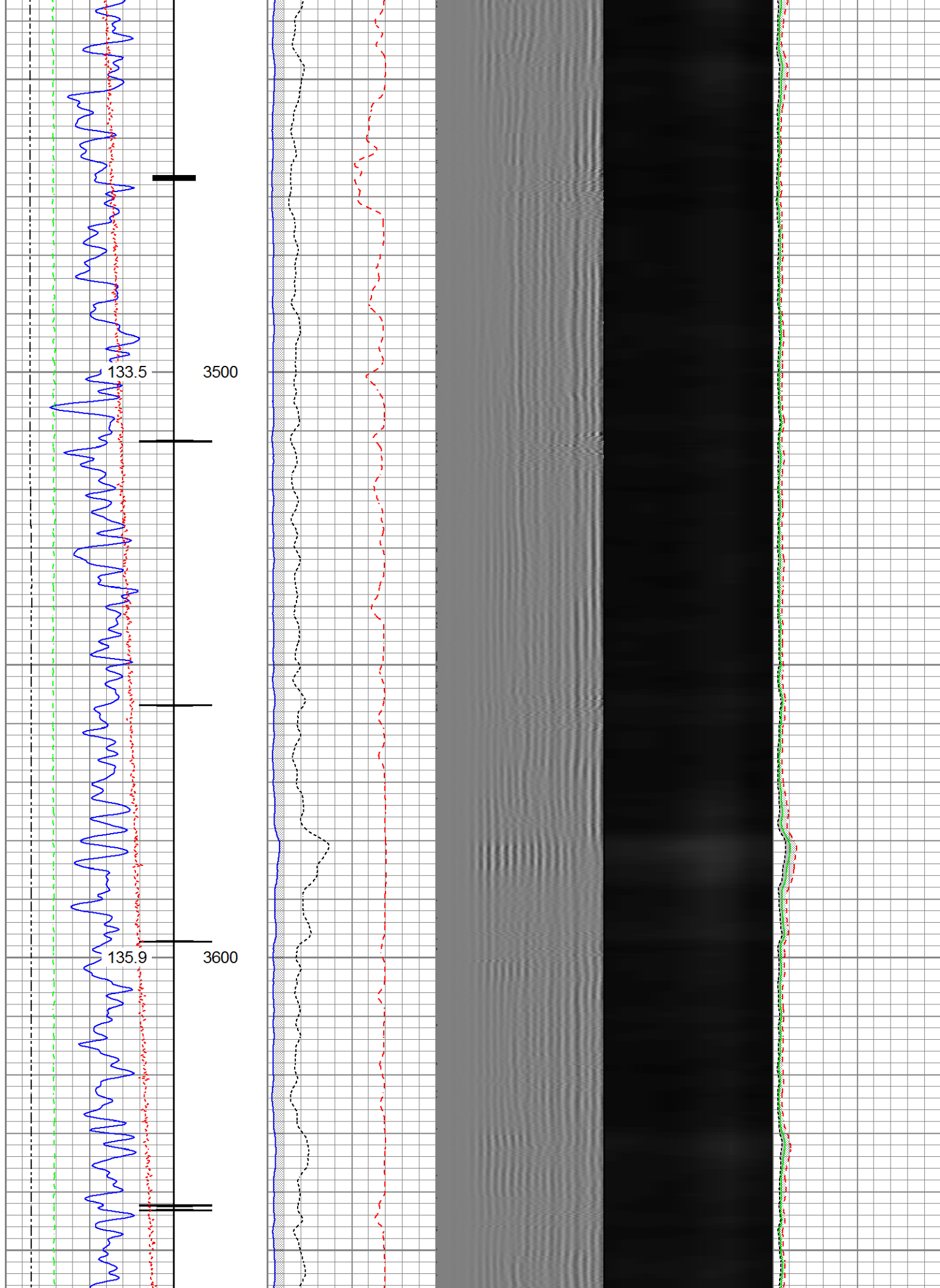




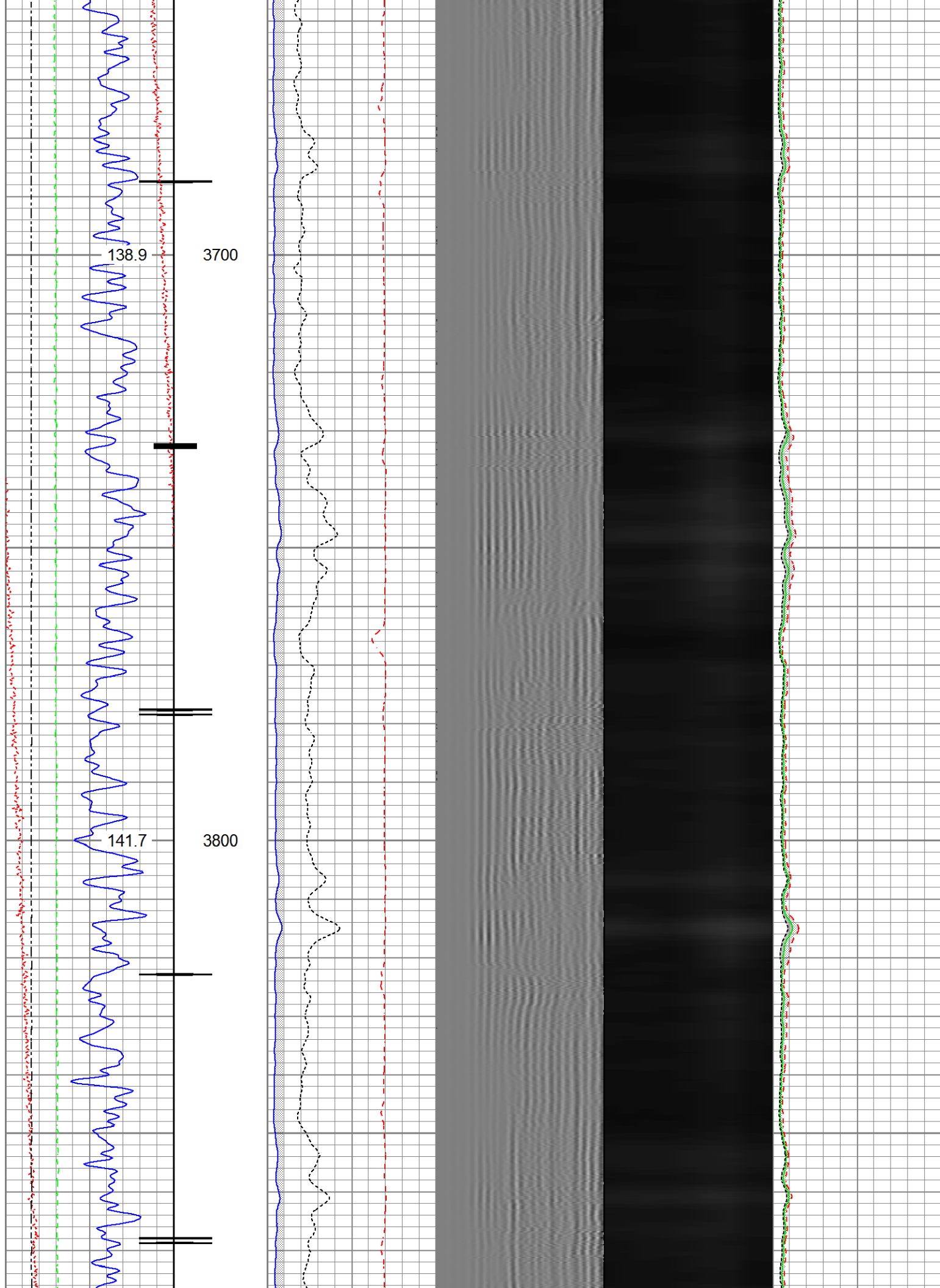


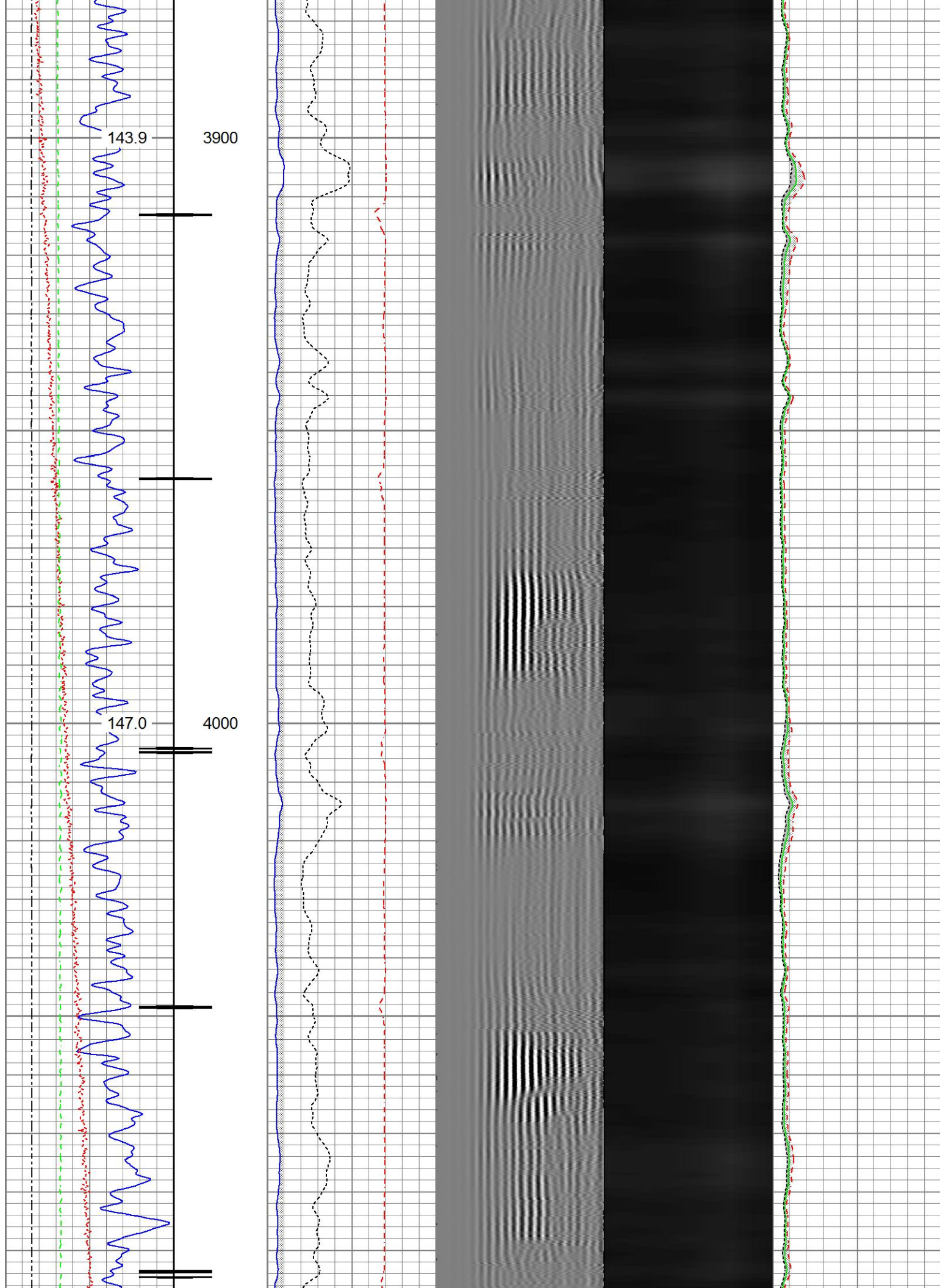




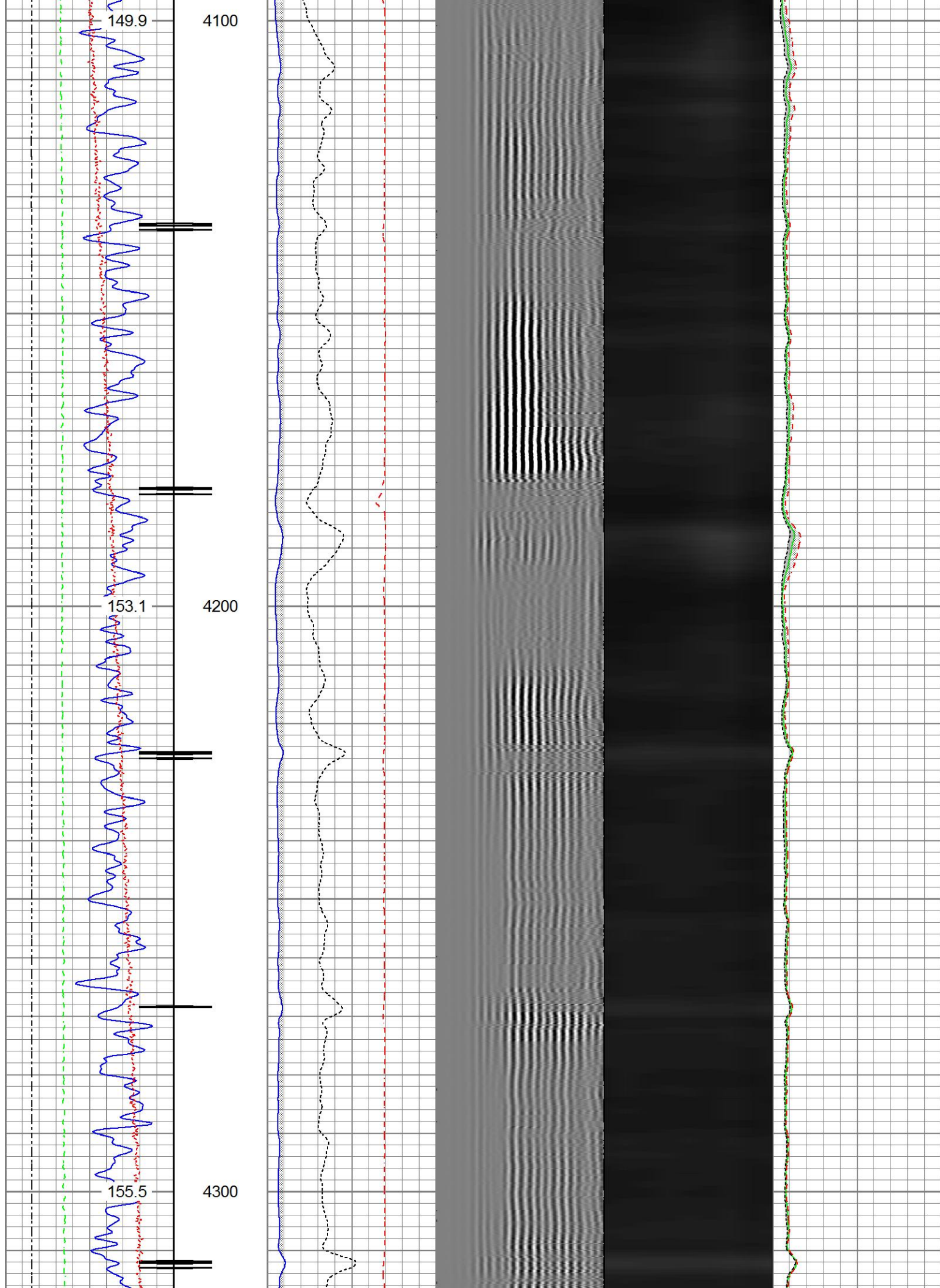


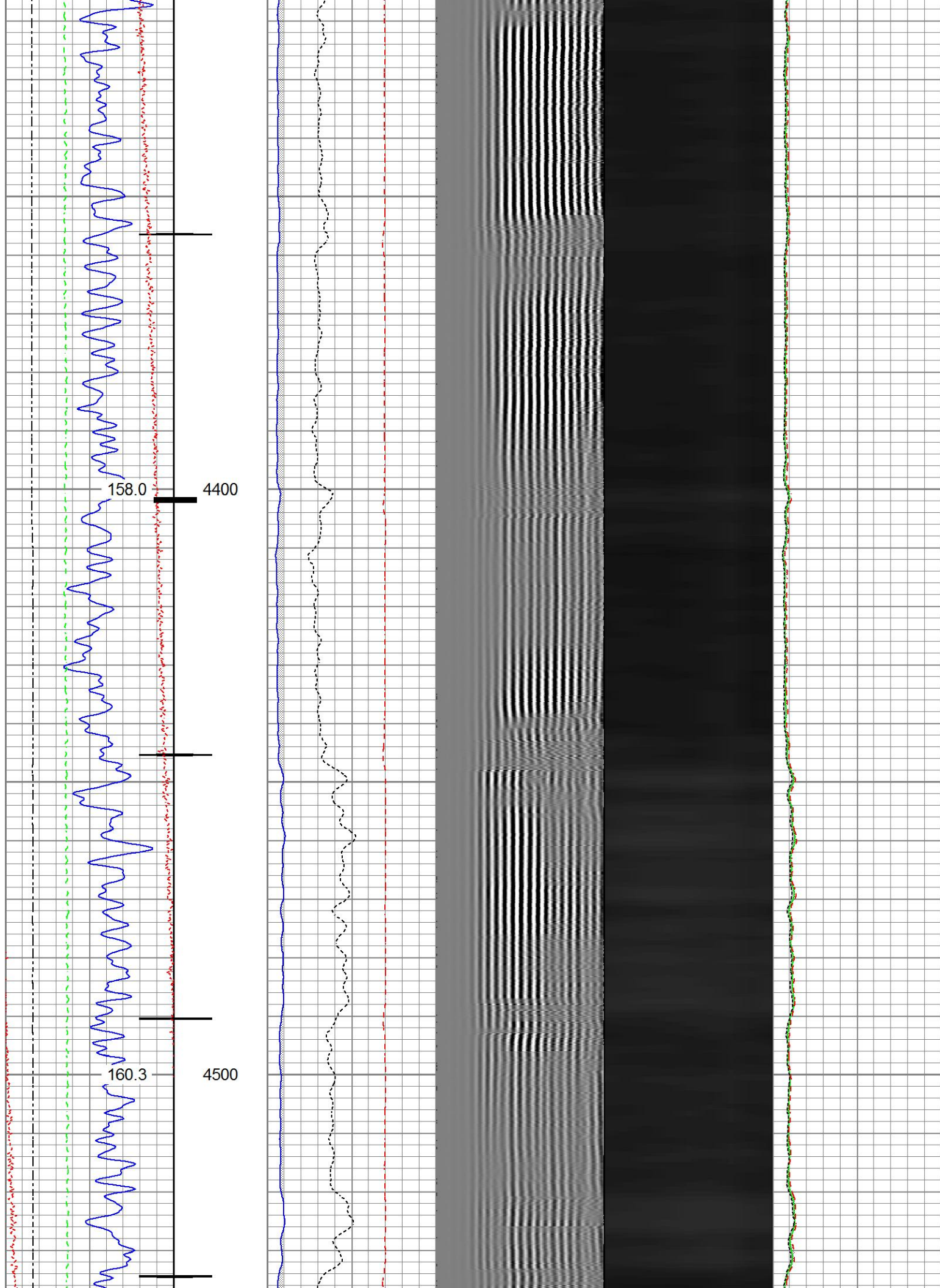




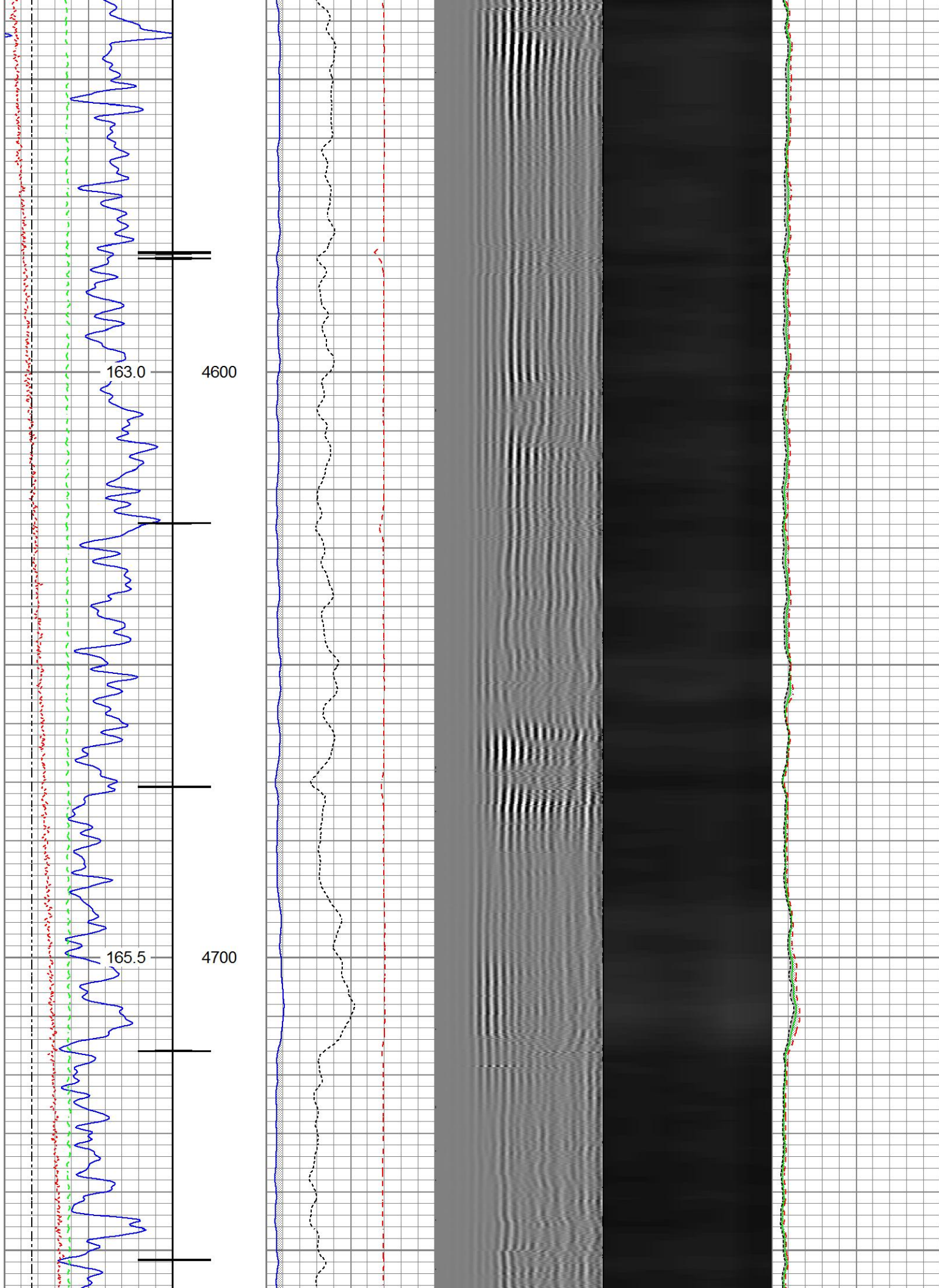


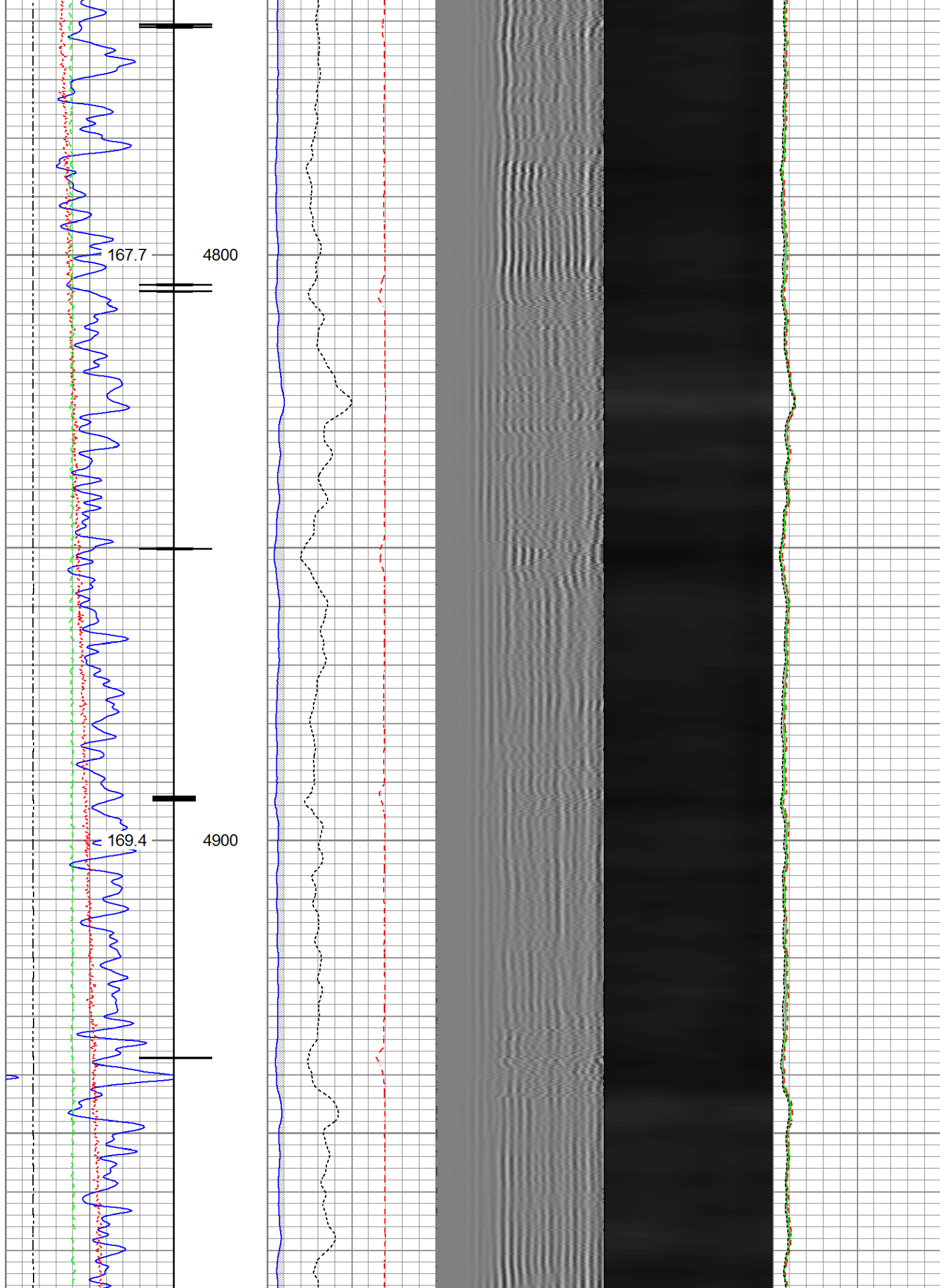




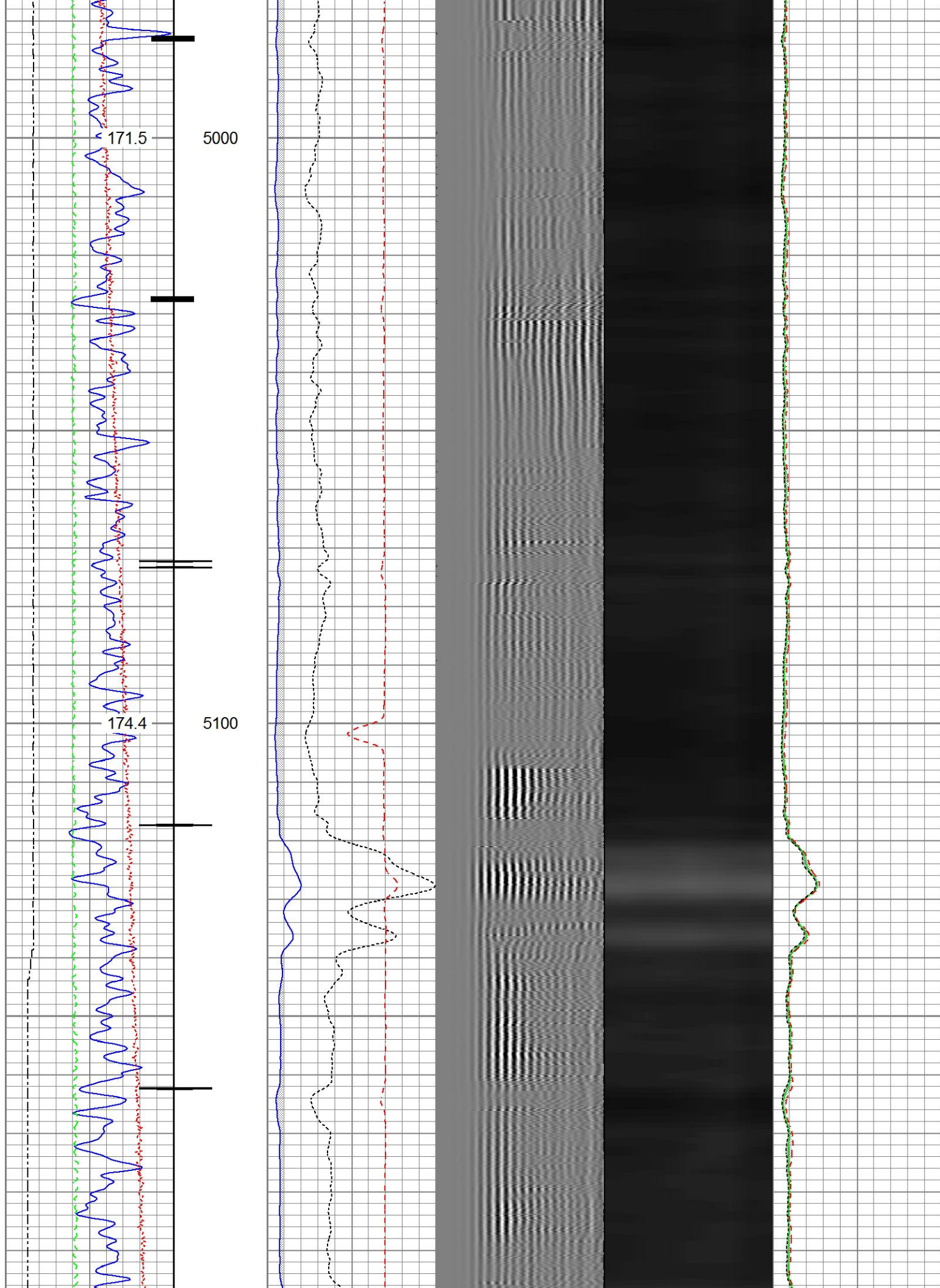


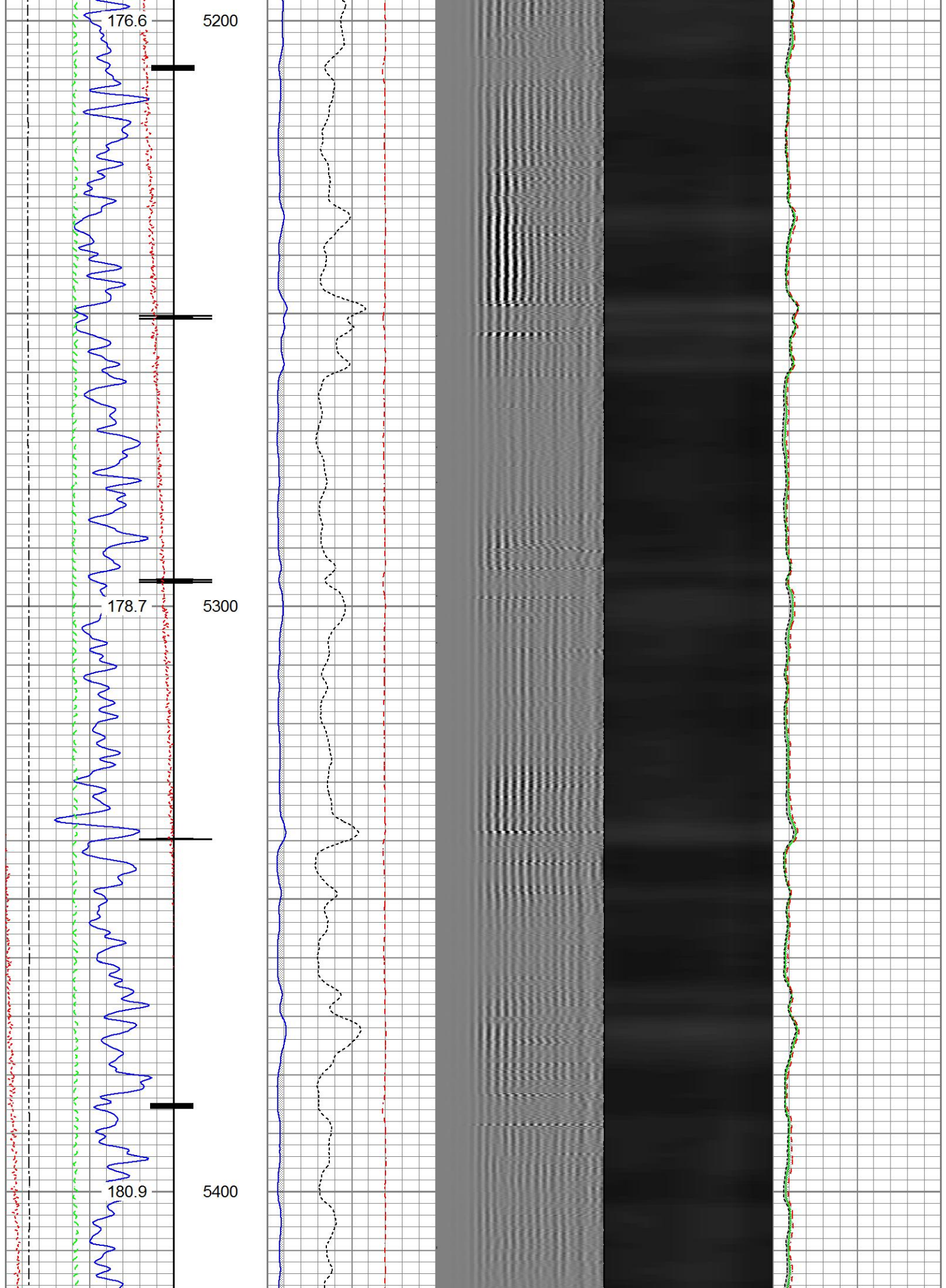




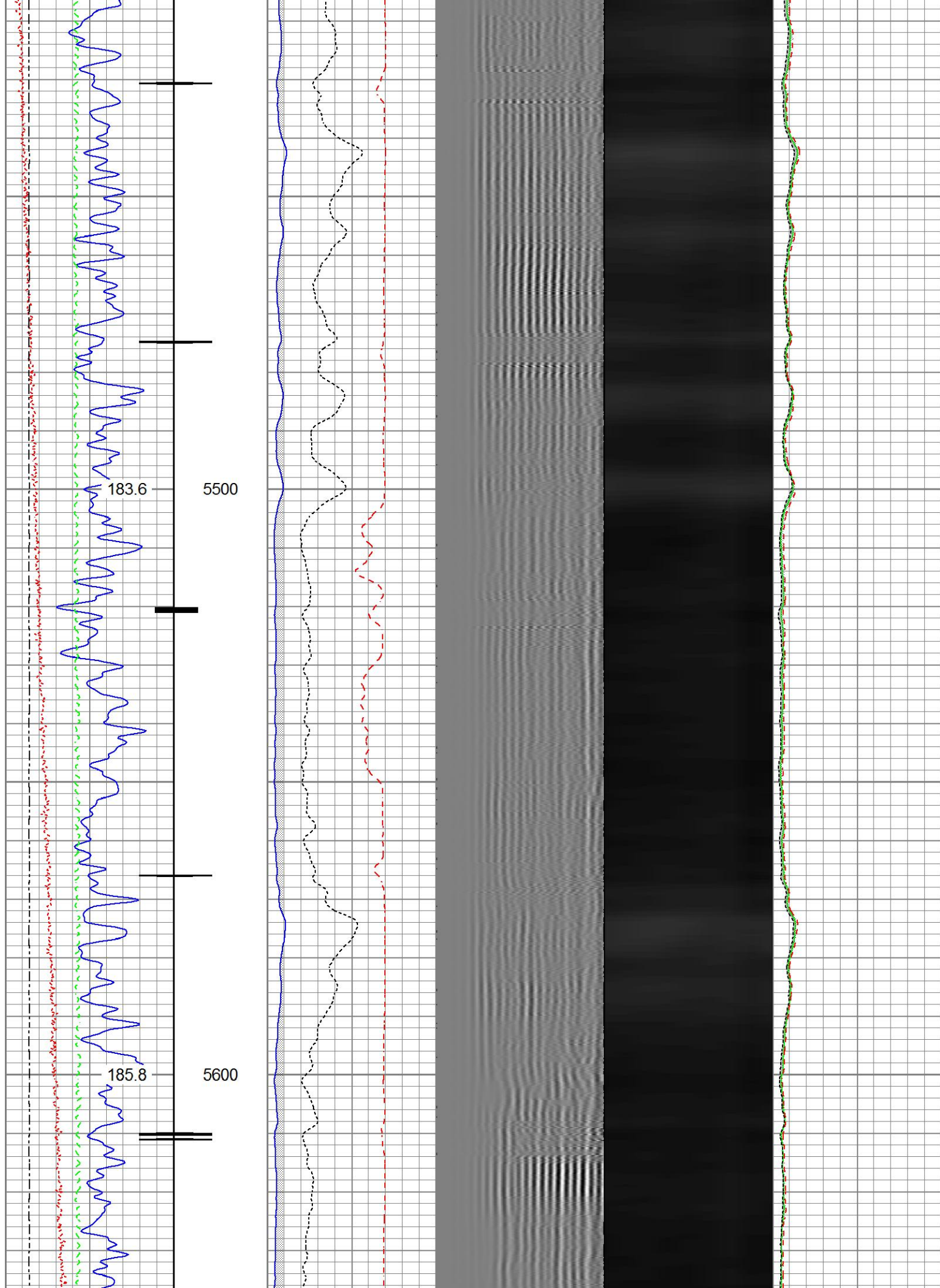


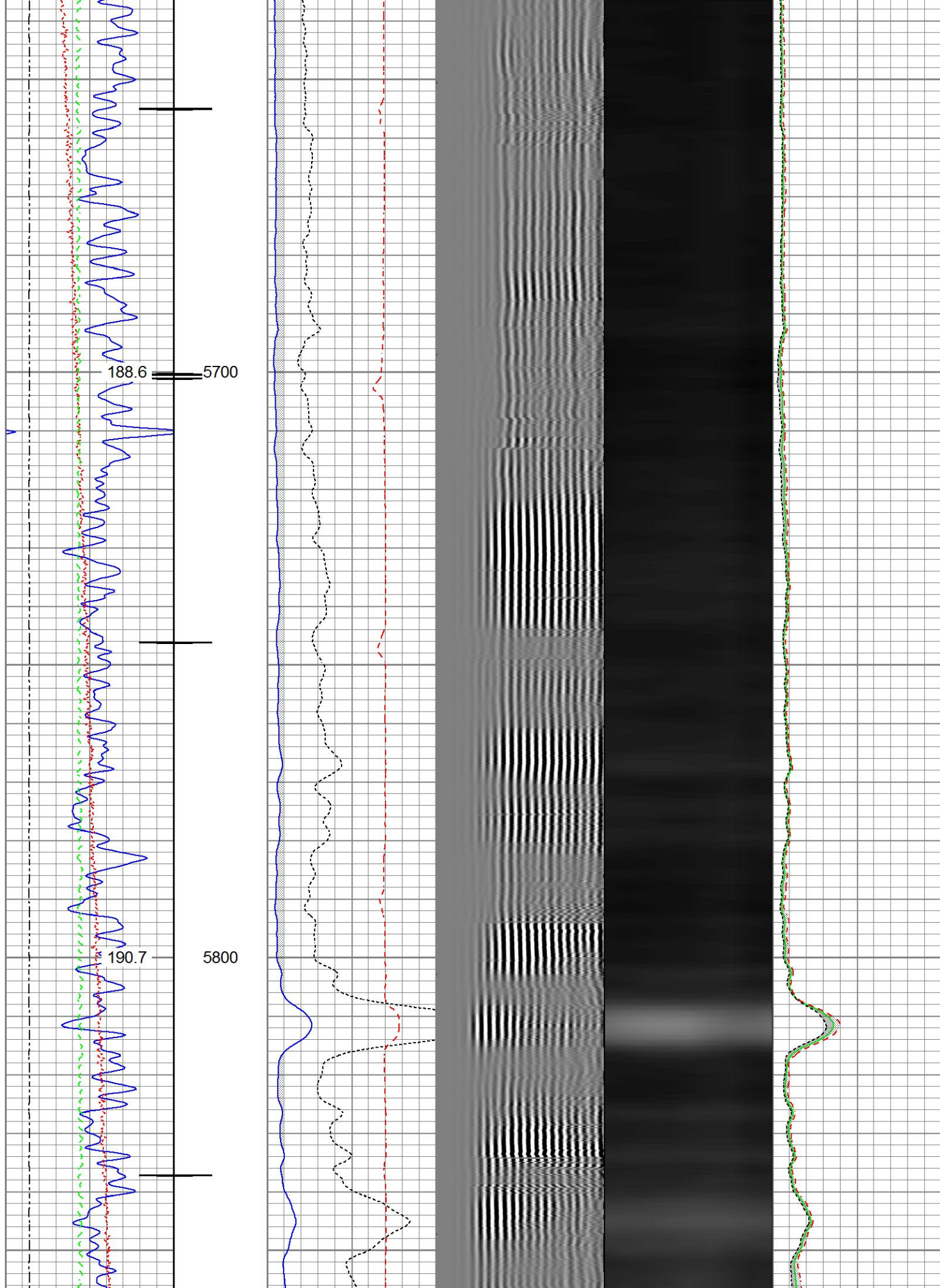




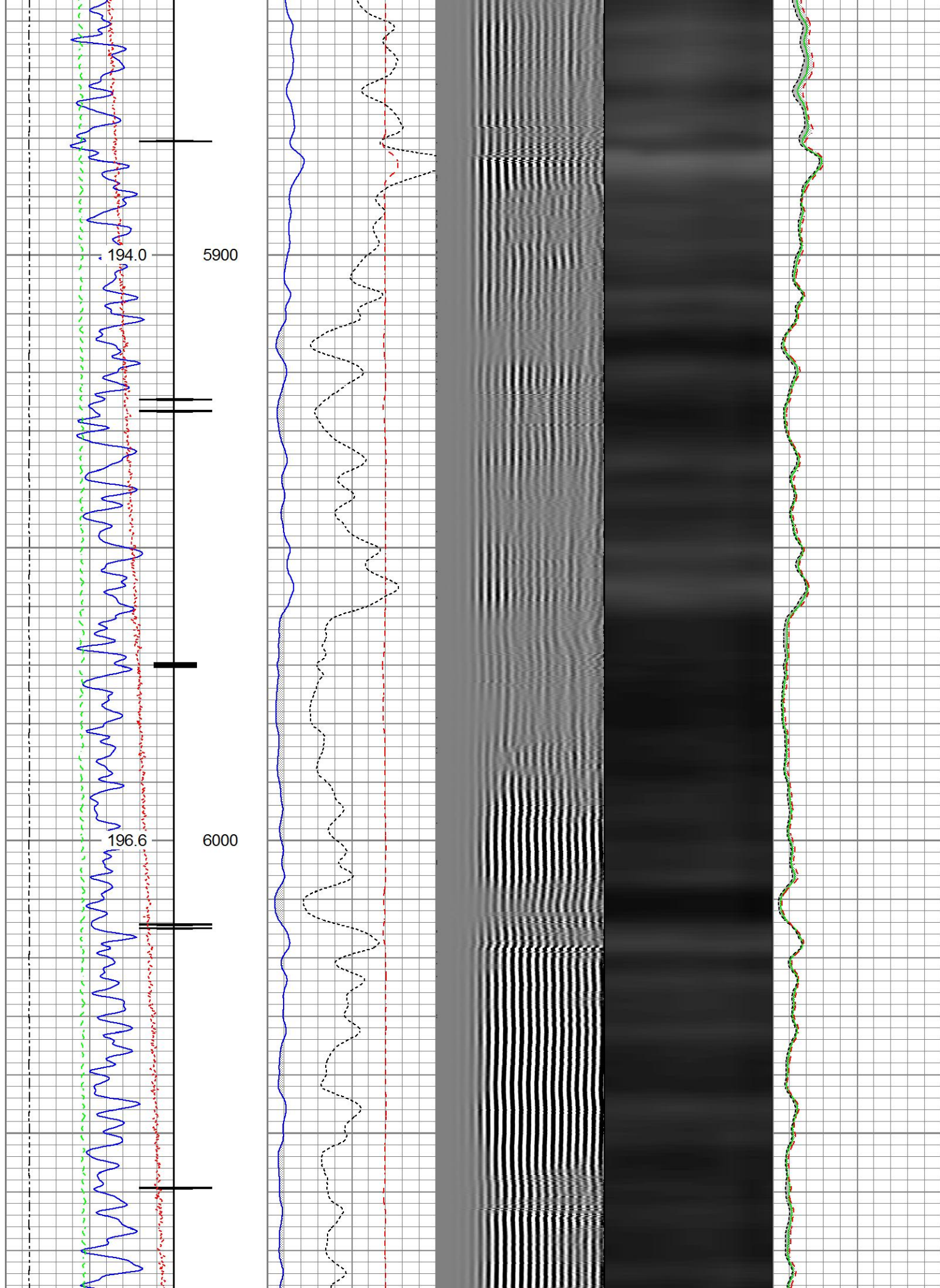


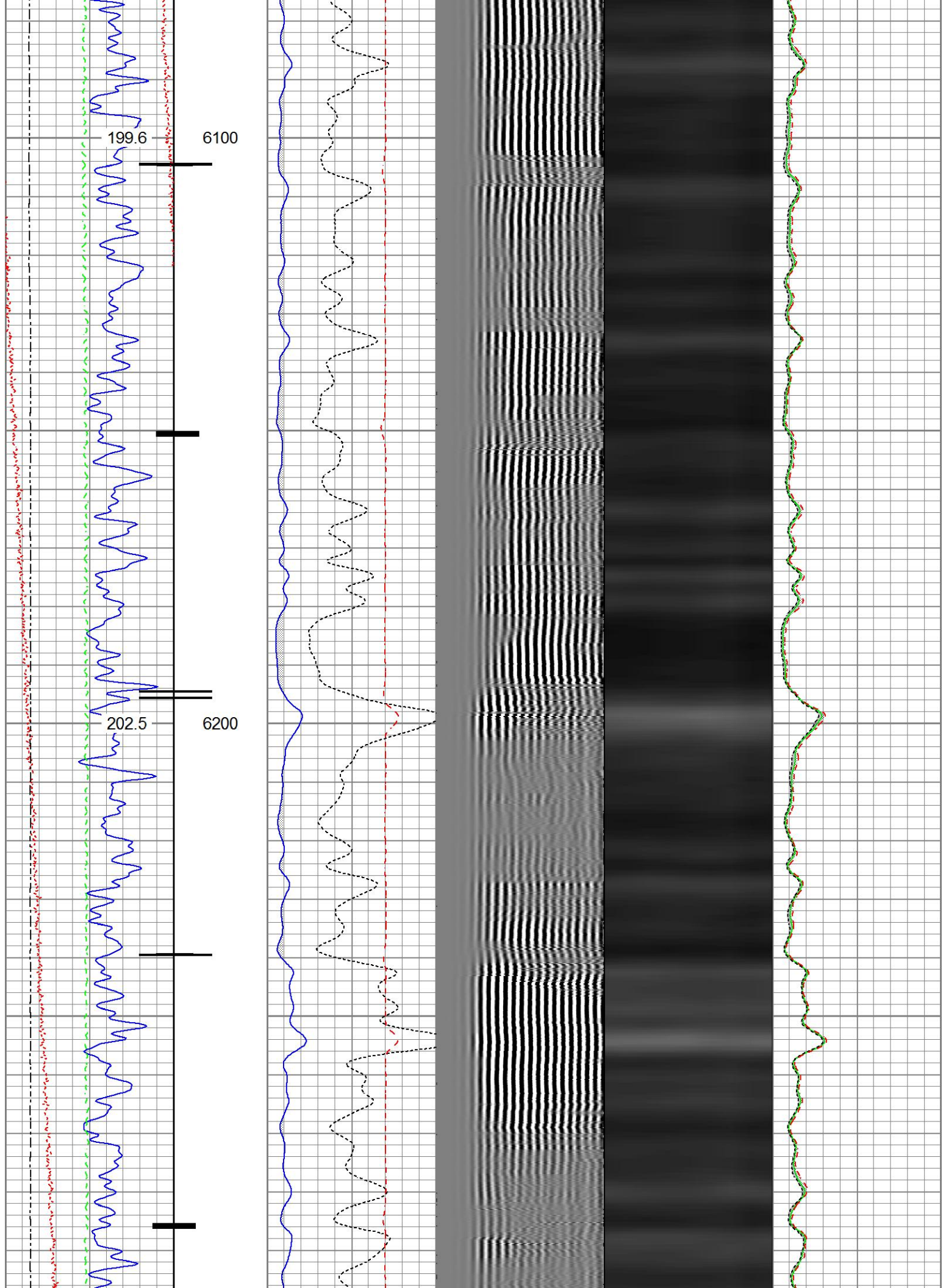




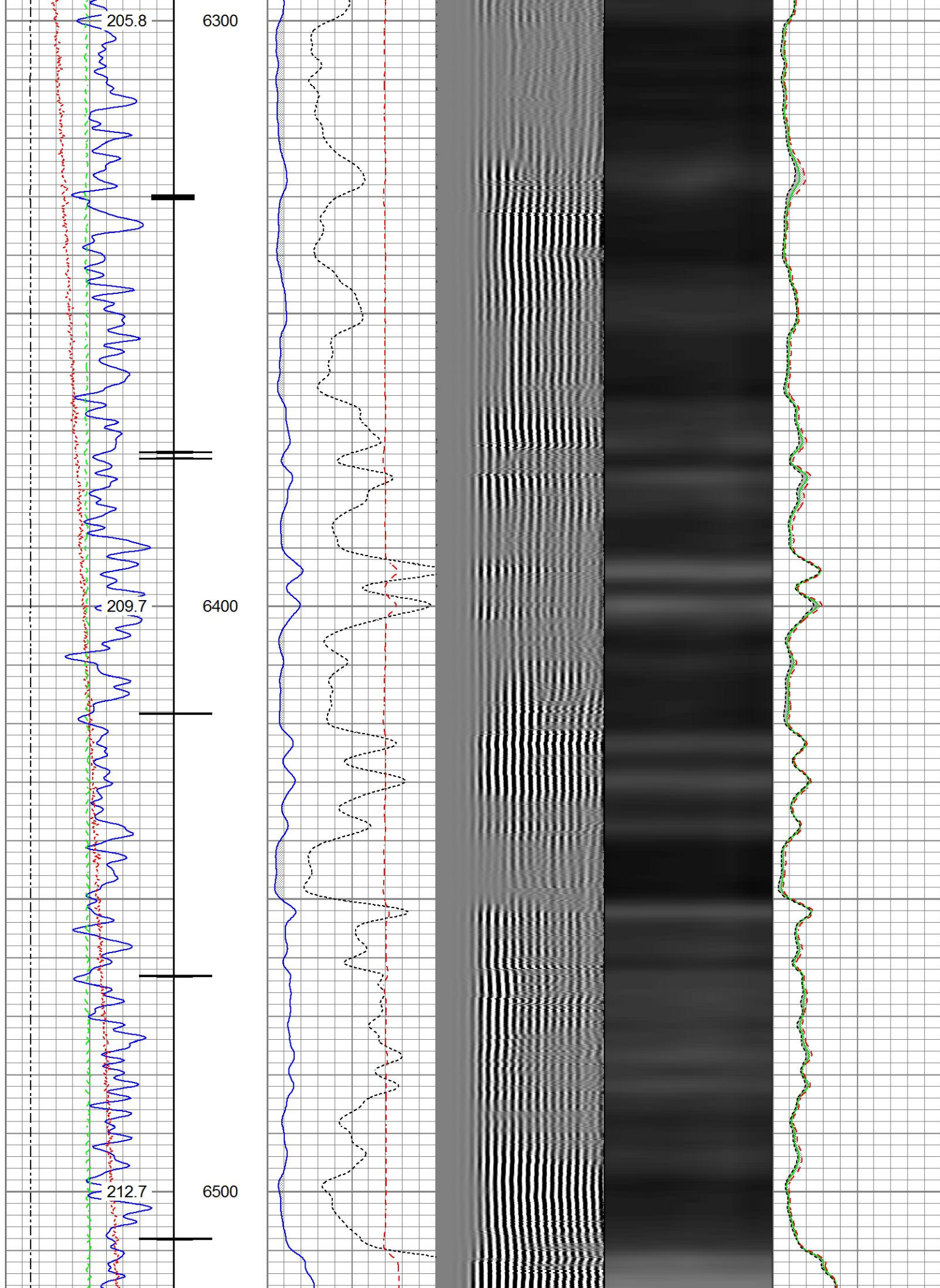


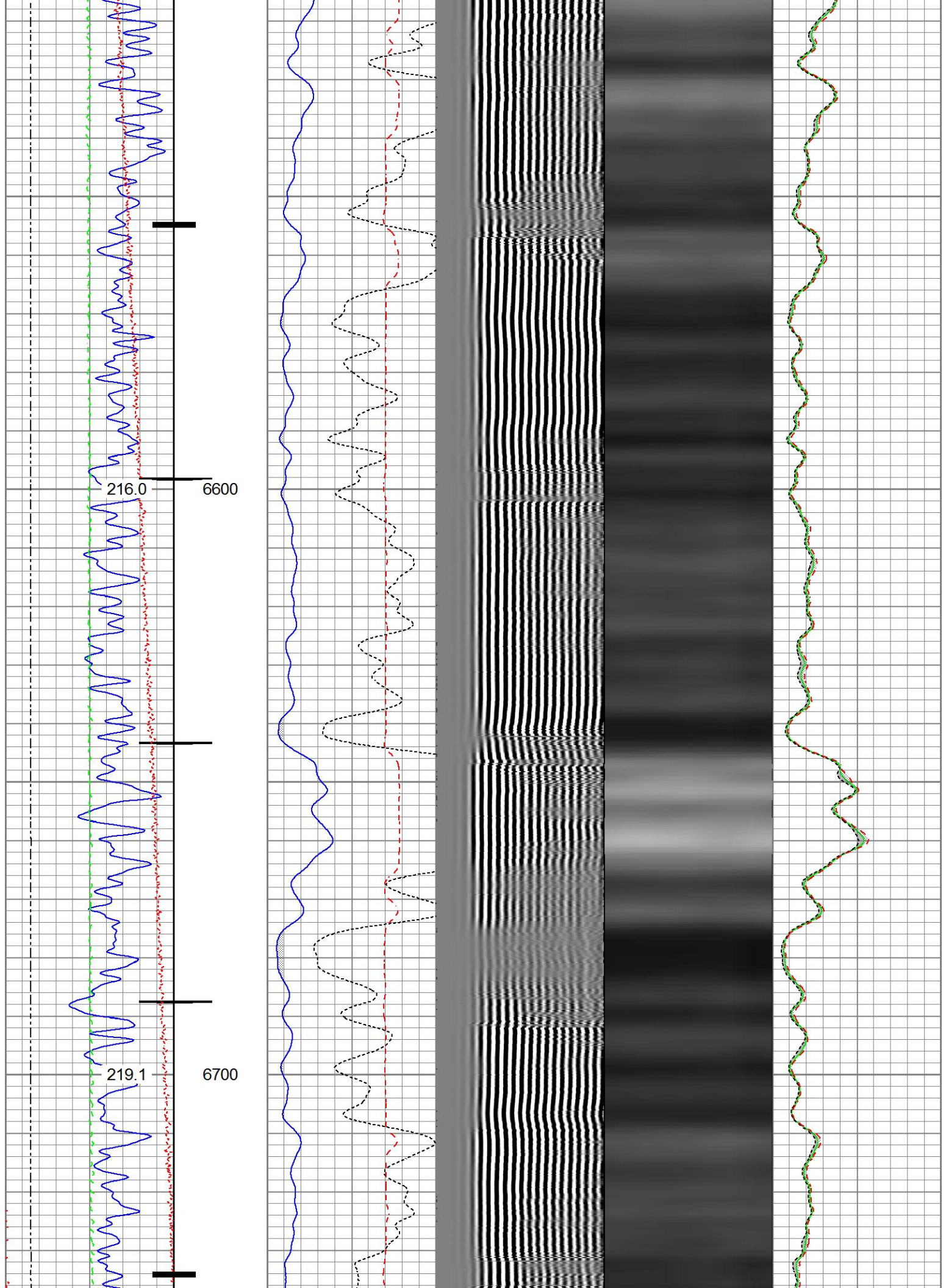




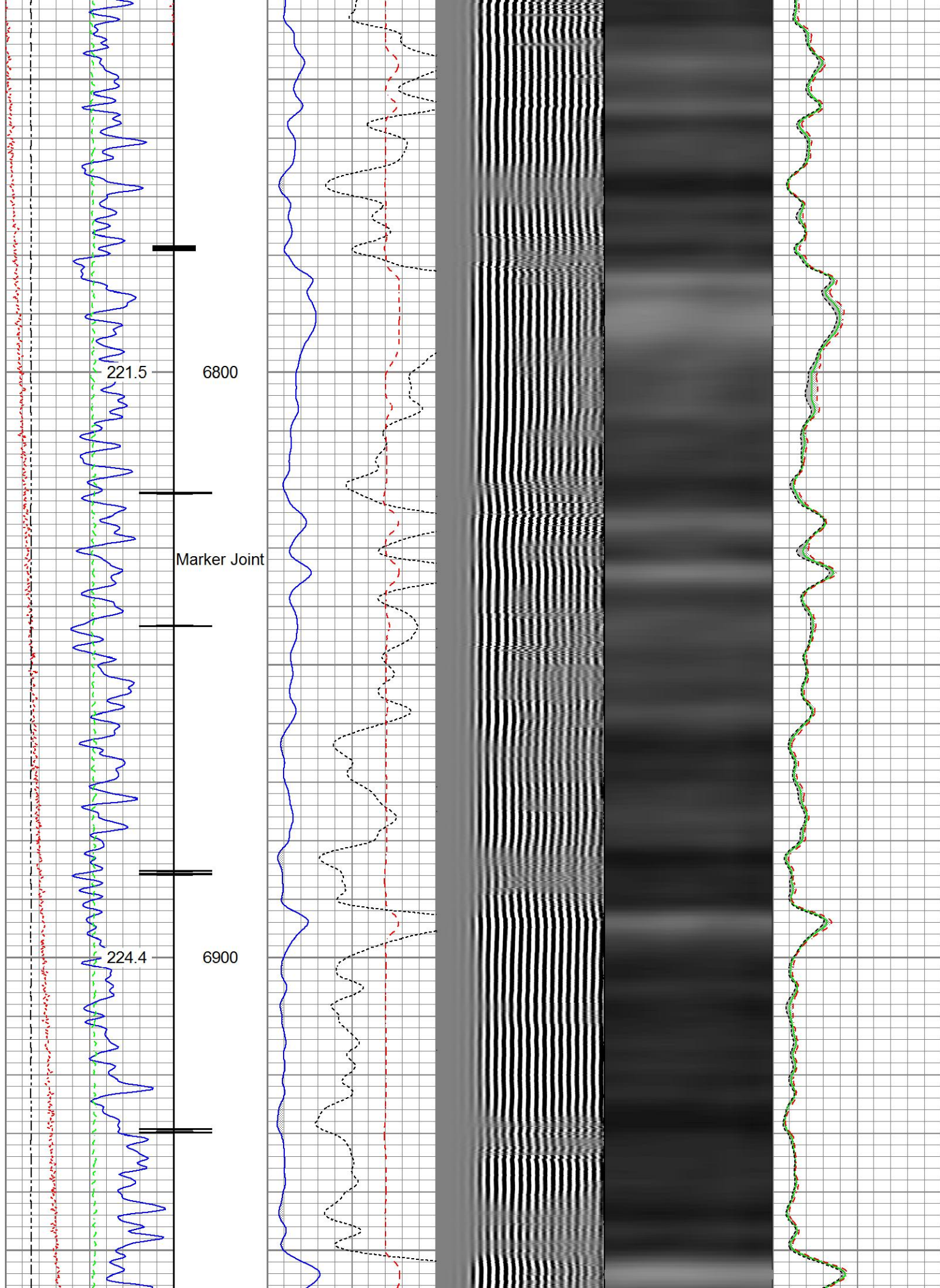


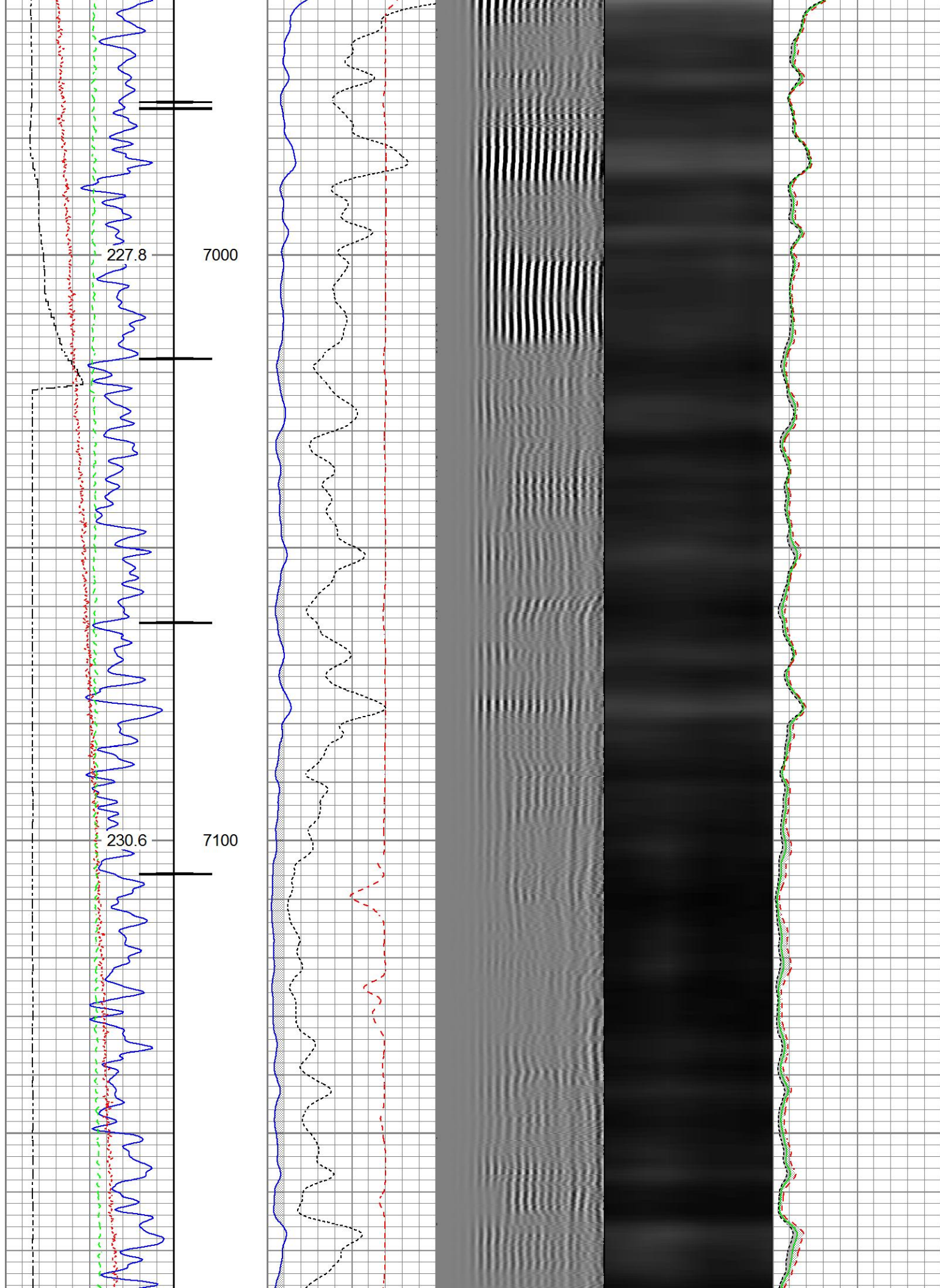




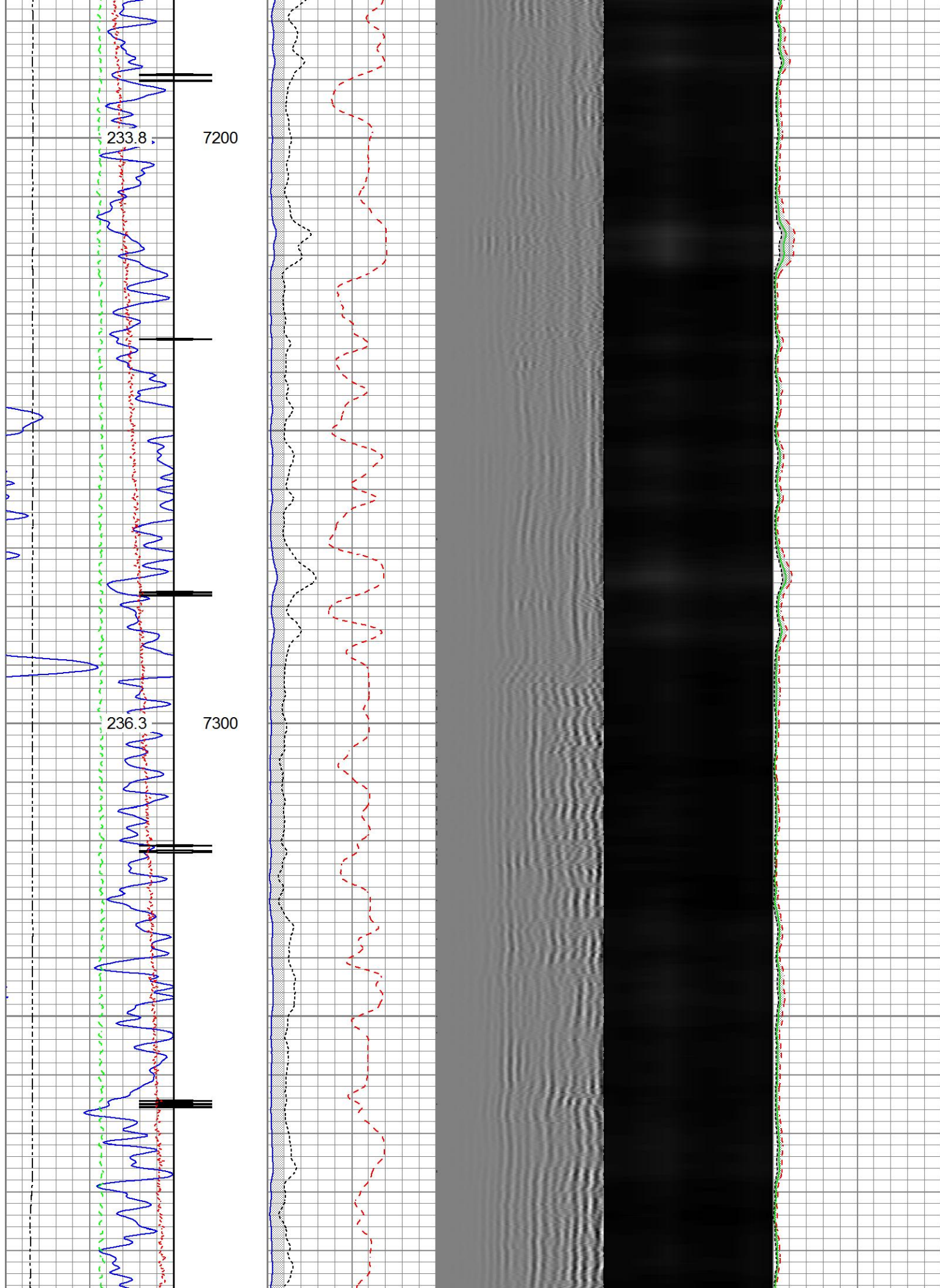


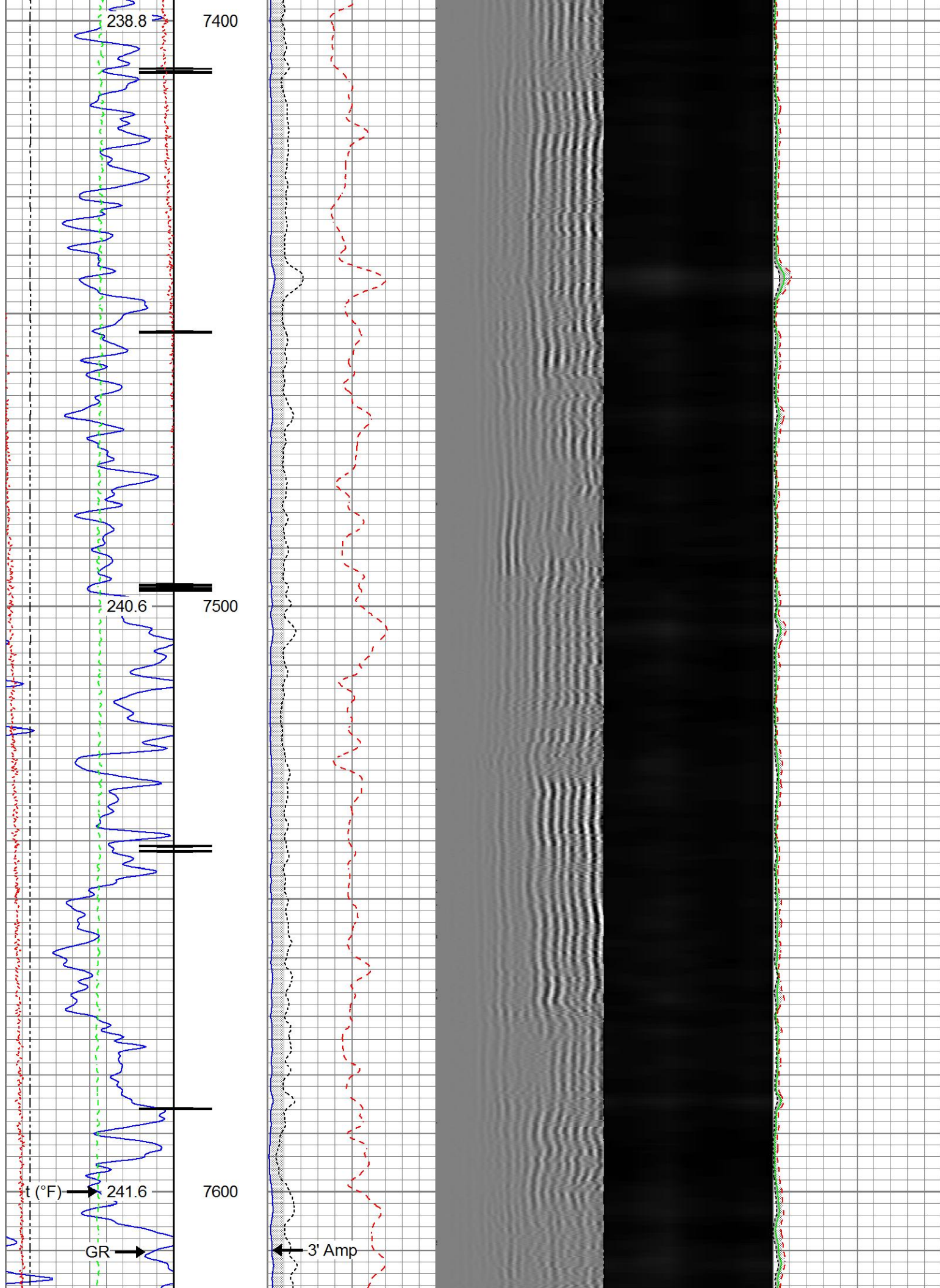




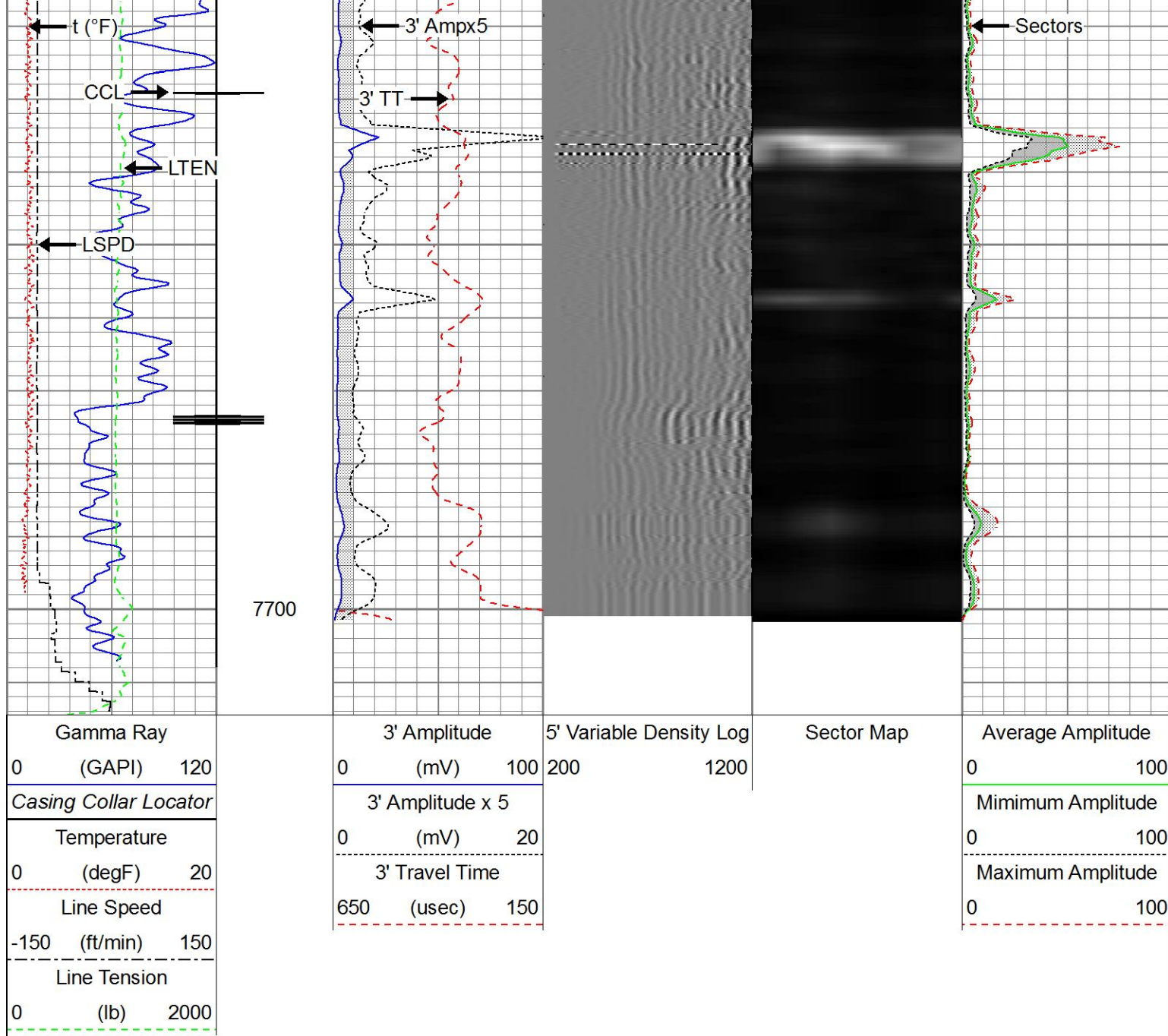








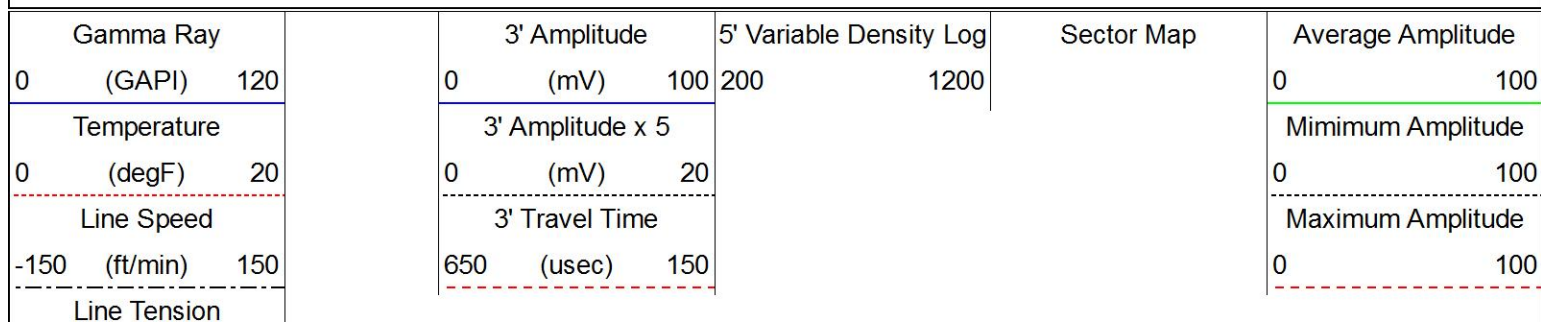


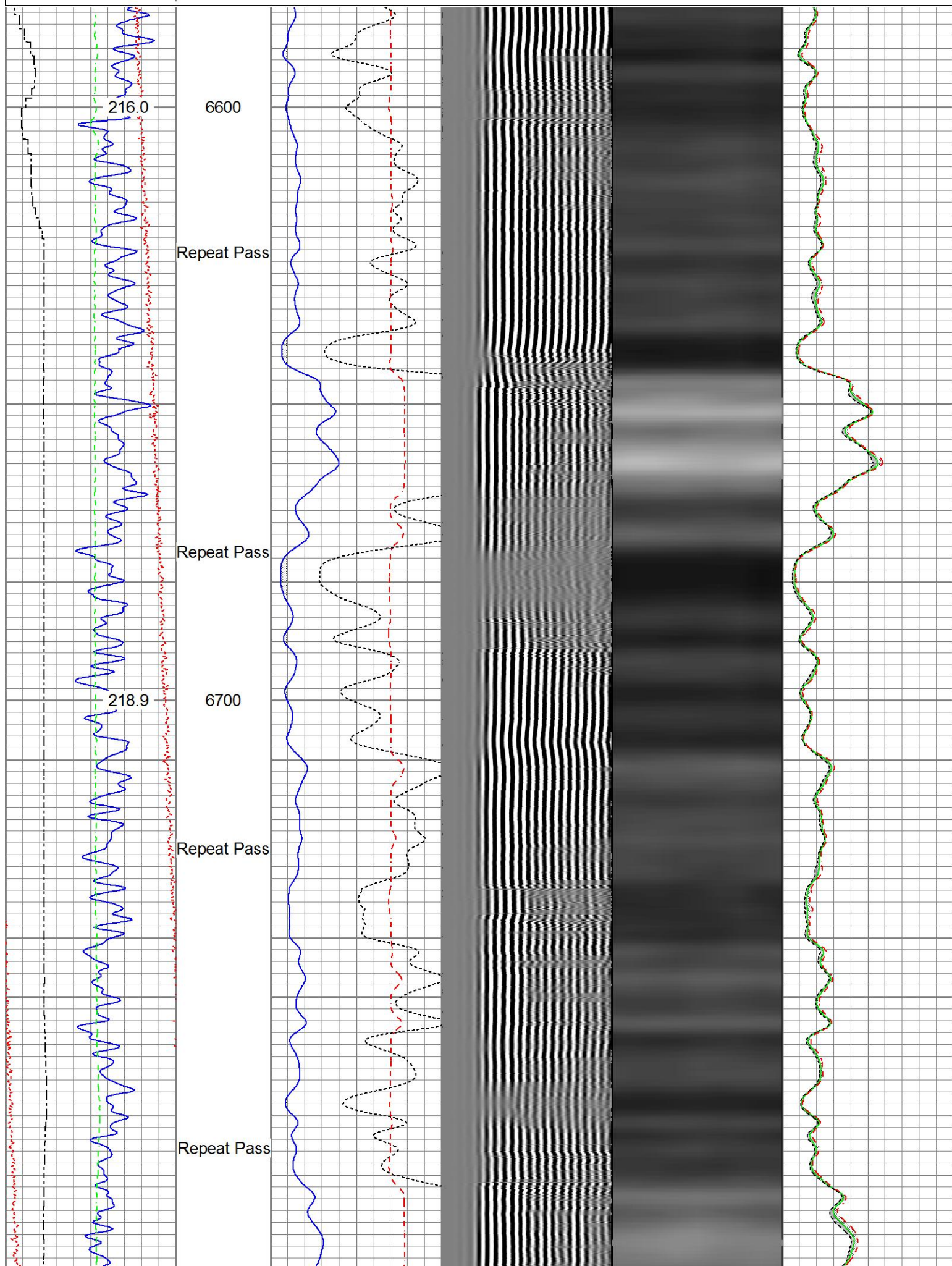


## Repeat Pass

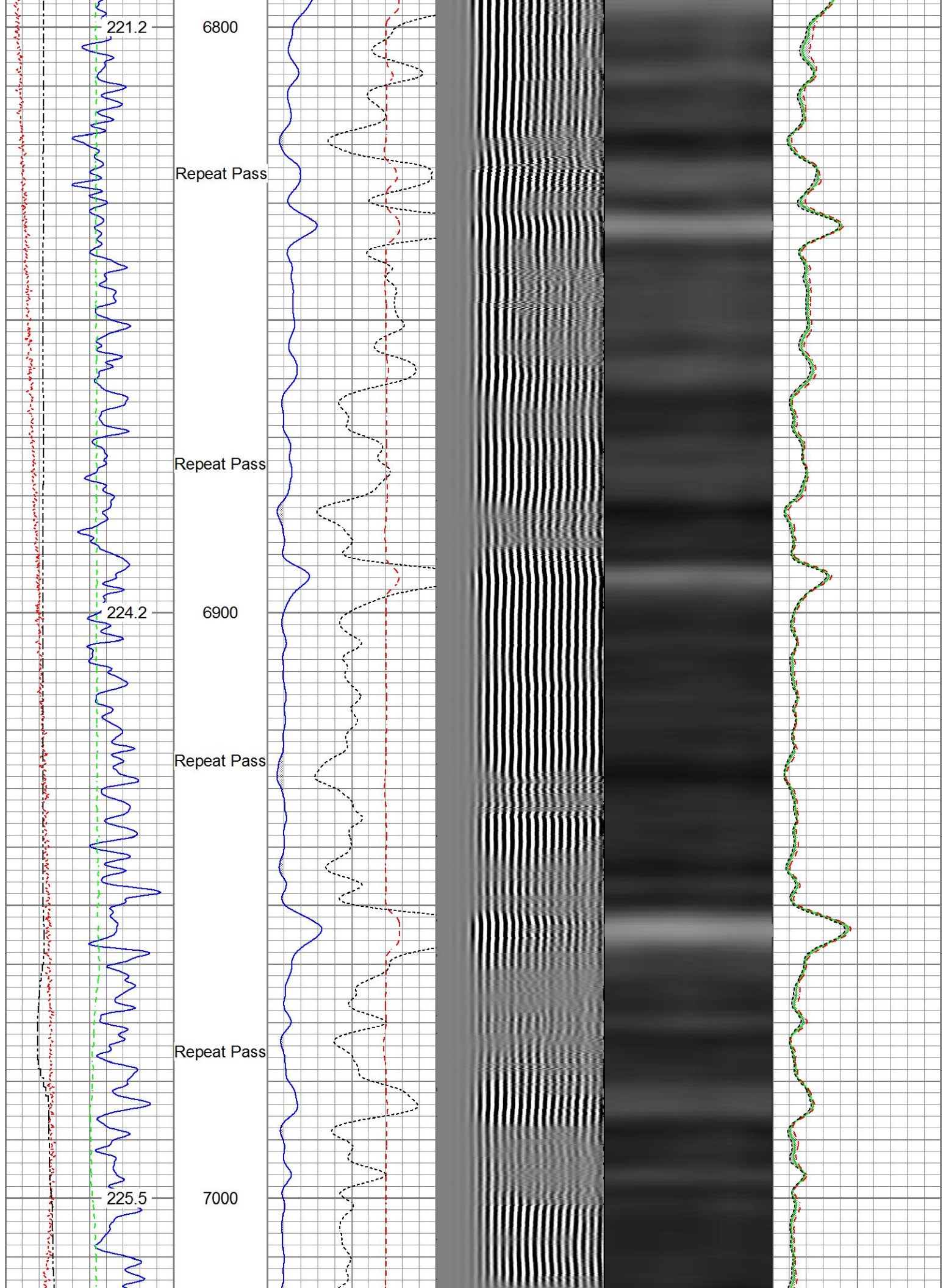
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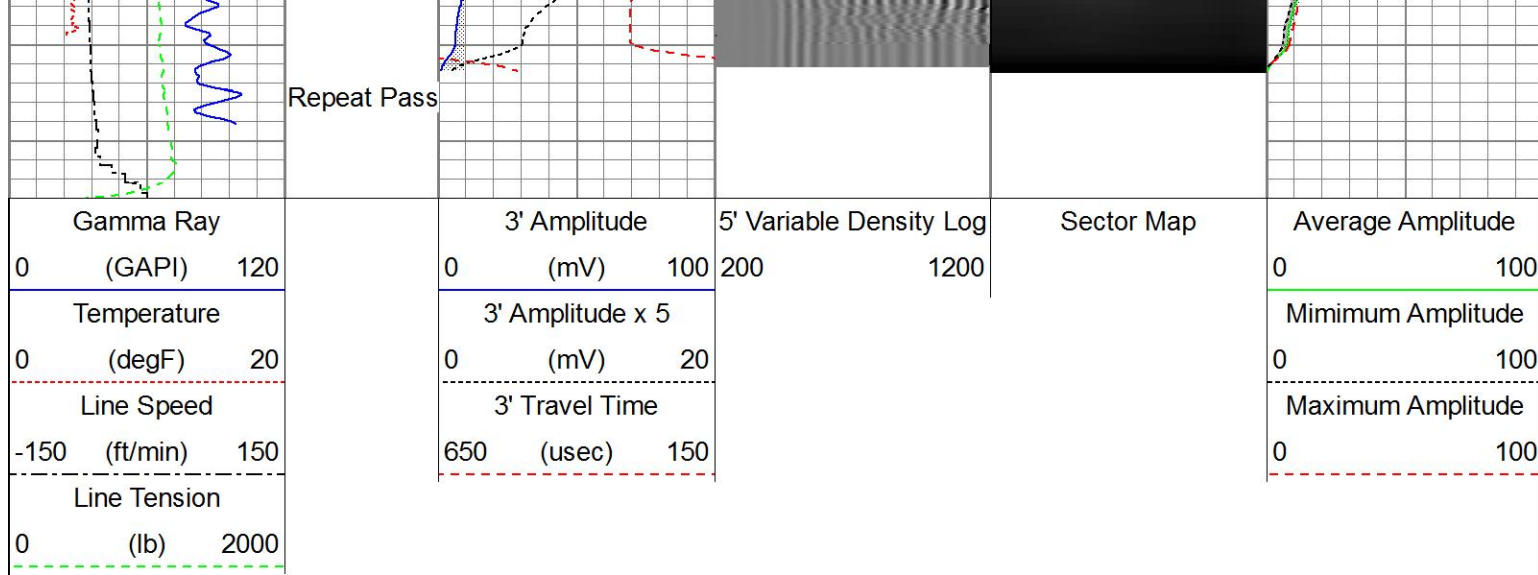
Database File: anadarko\_fl greens 29c-5hz\0512342277\_anadarko\_fl greens 29c-5hz\_rbl\_09-17-17.db  
 Dataset Pathname: repeat.1  
 Presentation Format: ros\_radrii  
 Dataset Creation: Mon Sep 18 11:01:04 2017  
 Charted by: Depth in Feet scaled 1:240

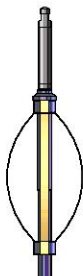












Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
HeadVolt	19.51		Titan_Electric_Cable_Heads-Titan_1-11/161.03 Electric Cable Head with 1" Fishing Neck	161.03	1.69	5.40
			Probe_ELine_BowSpring_Centralizer-P-EE2.88_275 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
Temp	16.72					
WVFS8	14.55		Probe_RADII-C-P_RBT_2750 (FW1302-009.19 Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	009.19	2.75	105.00
WVFS7	14.55					
WVFS6	14.55					
WVFS5	14.55					
WVFS4	14.55					
WVFS3	14.55					
WVFS2	14.55					
WVFS1	14.55					
WVFCAL	14.55					
WVF3FT	14.55					
WVF5FT	13.55					
HEADVOLT	10.30		Probe_ELine_BowSpring_Centralizer-P-EE2.88_275 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.88	2.75	20.00
DCCL	6.51					
CCL	6.51					



GR	5.30		Probe_GR_CCL-P_CGR_2750_S (FW1214.543) Probe 2-3/4" Digital CCL / Gamma Ray Combined	2.75	55.00
			Probe_ELine_BowSpring_Centralizer-P_EE2.88275 Probe 2-3/4" Electric Inline Bowspring Centralizer	2.75	20.00
Dataset: 0512342277_Anadarko_FL Greens 29C-5HZ_RBL_09-17-17.db: field/well/run1/main Total length: 23.40 ft Total weight: 225.40 lb O.D.: 2.75 in					

Calibration Report		
Database File	c:\programdata\warrior\data\anadarko_fl greens 29c-5hz\0512342277_anadarko_fl greens 29c-5hz_rbl_09-1	
Dataset Pathname	main.1	
Dataset Creation	Mon Sep 18 10:52:42 2017	
Gamma Ray Calibration Report		
Serial Number:	FW1212-026	
Tool Model:	P_CGR_2750_S	
Performed:	Sat Feb 06 11:32:54 2016	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.6	cps
Sensitivity:	0.6061	GAPI/cps
Segmented Cement Bond Log Calibration Report		
Serial Number:	FW1302-001	
Tool Model:	P_RBT_2750	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	3473.195	ft

Master Calibration, performed (Derived):						
	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.523	0.800	71.921	136.114	0.749
CAL	0.002	0.712				
5'	-0.000	0.494	0.800	71.921	143.988	0.854
SUM						
S1	-0.001	0.516	0.000	100.000	193.543	0.106
S2	0.001	0.500	0.000	100.000	200.233	-0.115
S3	0.001	0.485	0.000	100.000	206.443	-0.149
S4	0.001	0.498	0.000	100.000	201.278	-0.160
S5	0.001	0.561	0.000	100.000	178.578	-0.107
S6	0.001	0.643	0.000	100.000	155.645	-0.085
S7	-0.001	0.652	0.000	100.000	153.192	0.137
S8	0.001	0.584	0.000	100.000	171.527	-0.120

## Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.002	0.712	1.000	0.000

## Air Zero Calibration, performed Sun Sep 17 07:33:44 2017:

	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	



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